

AR TARGET SHEET

The following document was too large to scan as one unit, therefore it has been broken down into sections.

DOCUMENT # B07QK4-TMA-382

EDMC # 0045394

SECTION 1 OF 2

9613490-1725
TMA START
Thermo Analytical Inc.

B079K4-TMA-382

0045394
1 of 2

Skinner & Sherman Labs., Inc.
300 Second Avenue
Post Office Box 521
Waltham, MA 02254-0521
(617) 890-7200
FAX (617) 890-3883



January 19, 1993

TMA/NORCAL
2030 Wright Avenue
Richmond, CA 94804
Attention: Dan Stuermer

Quality Control Narrative

Scope

Twelve (12) water samples were submitted to TMA/Skinner & Sherman Laboratories, Inc. on December 10, 1992 from TMA/Norcal. The samples were analyzed for the USEPA CLP Target Analyte List metals. The analysis was performed under TMA/Skinner and Sherman work order S212147.

Methodology

The samples were prepared, analyzed and reported in accordance with the USEPA Contract Laboratory Program Statement of Work ILM02.

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



3-13-96
MC

WESTINGHOUSE/HANFORD

1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07QK5

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N2-12-040\$AS No.:

SDG No.: B07QK5

Matrix (soil/water): WATER

Lab Sample ID: 12147-01S

Level (low/med): LOW

Date Received: 12/10/92

% 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	27.0	U		P
7440-36-0	Antimony	18.4	U		P
7440-38-2	Arsenic	7.3	B	+	F
7440-39-3	Barium	22.8	B		P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.6	U		P
7440-70-2	Calcium	31400			P
7440-47-3	Chromium	5.8	B		P
7440-48-4	Cobalt	2.5	U		P
7440-50-8	Copper	5.9	B		P
7439-89-6	Iron	30.5	B		P
7439-92-1	Lead	3.6			F
7439-95-4	Magnesium	8680			P
7439-96-5	Manganese	1.0	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.4	B		P
7440-09-7	Potassium	4870	B		P
7782-49-2	Selenium	3.1	U	W	F
7440-22-4	Silver	3.9	U		P
7440-23-5	Sodium	28200			P
7440-28-0	Thallium	1.9	U	WN	F
7440-62-2	Vanadium	20.5	B		P
7440-66-6	Zinc	4.7	U		P
	Cyanide				NR

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

WESTINGHOUSE/HANFORD

1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07QL0

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N2-12-040\$AS No.:

SDG No.: B07QK5

Matrix (soil/water): WATER

Lab Sample ID: 12147-09S

Level (low/med): LOW

Date Received: 12/10/92

% 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	27.0	U		P
7440-36-0	Antimony	18.4	U		P
7440-38-2	Arsenic	3.9	U	W	F
7440-39-3	Barium	33.7	B		P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.6	U		P
7440-70-2	Calcium	60500			P
7440-47-3	Chromium	26.1			P
7440-48-4	Cobalt	2.5	U		P
7440-50-8	Copper	5.9	B		P
7439-89-6	Iron	16.0	B		P
7439-92-1	Lead	3.1			F
7439-95-4	Magnesium	9620			P
7439-96-5	Manganese	5.5	B		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	3.0	U		P
7440-09-7	Potassium	3660	B		P
7782-49-2	Selenium	3.1	U	W	F
7440-22-4	Silver	3.9	U		P
7440-23-5	Sodium	4360	B		P
7440-28-0	Thallium	1.9	U	WN	F
7440-62-2	Vanadium	9.1	B		P
7440-66-6	Zinc	4.7	U		P
	Cyanide				NR

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

WESTINGHOUSE/HANFORD

1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07QL5

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N2-12-040

SAS No.:

SDG No.: B07QK5

Matrix (soil/water): WATER

Lab Sample ID: 12147-105

Level (low/med): LOW

Date Received: 12/10/92

% 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	27.0	U		P
7440-36-0	Antimony	18.4	U		P
7440-38-2	Arsenic	3.9	U	W	F
7440-39-3	Barium	19.4	B		P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.6	U		P
7440-70-2	Calcium	42200			P
7440-47-3	Chromium	160			P
7440-48-4	Cobalt	2.5	U		P
7440-50-8	Copper	2.9	U		P
7439-89-6	Iron	14.6	B		P
7439-92-1	Lead	3.5			F
7439-95-4	Magnesium	7810			P
7439-96-5	Manganese	1.0	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	3.0	U		P
7440-09-7	Potassium	3080	B		P
7782-49-2	Selenium	15.5	U	W	F
7440-22-4	Silver	3.9	U		P
7440-23-5	Sodium	4430	B		P
7440-28-0	Thallium	1.9	U	WN	F
7440-62-2	Vanadium	7.8	B		P
7440-66-6	Zinc	4.7	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:

B07QM0

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N2-12-040

SAS No.:

SDG No.: B07QK5

Matrix (soil/water): WATER

Lab Sample ID: 12147-02S

Level (low/med): LOW

Date Received: 12/10/92

% 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	27.0	U		P
7440-36-0	Antimony	18.4	U		P
7440-38-2	Arsenic	3.9	U		F
7440-39-3	Barium	14.4	B		P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.6	U		P
7440-70-2	Calcium	39300			P
7440-47-3	Chromium	73.5			P
7440-48-4	Cobalt	2.5	U		P
7440-50-8	Copper	2.9	U		P
7439-89-6	Iron	10.1	B		P
7439-92-1	Lead	4.2			F
7439-95-4	Magnesium	7470			P
7439-96-5	Manganese	3.6	B		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	3.0	U		P
7440-09-7	Potassium	1590	B		P
7782-49-2	Selenium	3.1	U	W	F
7440-22-4	Silver	3.9	U		P
7440-23-5	Sodium	3340	B		P
7440-28-0	Thallium	1.9	U	WN	F
7440-62-2	Vanadium	2.5	U		P
7440-66-6	Zinc	5.2	B		P
	Cyanide				NR

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

9613490.1730

WESTINGHOUSE/HANFORD

1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07QM5

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N2-12-040\$AS No.:

SDG No.: B07QK5

Matrix (soil/water): WATER

Lab Sample ID: 12147-11S

Level (low/med): LOW

Date Received: 12/10/92

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	U	M
7429-90-5	Aluminum	27.0	U		P
7440-36-0	Antimony	18.4	U		P
7440-38-2	Arsenic	3.9	U	W	F
7440-39-3	Barium	21.1	B		P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.6	U		P
7440-70-2	Calcium	45100			P
7440-47-3	Chromium	172			P
7440-48-4	Cobalt	2.5	U		P
7440-50-8	Copper	2.9	U		P
7439-89-6	Iron	6.3	U		P
7439-92-1	Lead	2.3	B		F
7439-95-4	Magnesium	2600			P
7439-95-5	Manganese	1.0	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	3.0	U		P
7440-09-7	Potassium	2270	B		P
7782-49-2	Selenium	15.5	U	W	F
7440-22-4	Silver	3.9	U		P
7440-23-5	Sodium	5900			P
7440-28-0	Thallium	1.9	U	WN	F
7440-62-2	Vanadium	5.0	B		P
7440-66-6	Zinc	7.3	B		P
	Cyanide				NR

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

WESTINGHOUSE/HANFORD

1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07QN5

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N2-12-040\$AS No.:

SDG No.: B07QK5

Matrix (soil/water): WATER

Lab Sample ID: 12147-03S

Level (low/med): LOW

Date Received: 12/10/92

% 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	27.0	U		P
7440-36-0	Antimony	18.4	U		P
7440-38-2	Arsenic	3.9	U	W	F
7440-39-3	Barium	22.4	B		P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.6	U		P
7440-70-2	Calcium	43000			P
7440-47-3	Chromium	2.7	U		P
7440-48-4	Cobalt	2.5	U		P
7440-50-8	Copper	2.9	U		P
7439-89-6	Iron	31.1	B		P
7439-92-1	Lead	4.4			F
7439-95-4	Magnesium	9230			P
7439-96-5	Manganese	2.2	B		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	3.0	U		P
7440-09-7	Potassium	4350	B		P
7782-49-2	Selenium	15.5	U	W	F
7440-22-4	Silver	3.9	U		P
7440-23-5	Sodium	5900			P
7440-28-0	Thallium	1.9	U	WN	F
7440-62-2	Vanadium	5.7	B		P
7440-66-6	Zinc	4.7	U		P
	Cyanide				NR

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

WESTINGHOUSE/HANFORD

1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07QP5

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N2-12-040\$AS No.:

SDG No.: B07QK5

Matrix (soil/water): WATER

Lab Sample ID: 12147-04S

Level (low/med): LOW

Date Received: 12/10/92

% 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	27.0	U		P
7440-36-0	Antimony	18.4	U		P
7440-38-2	Arsenic	3.9	U	W	F
7440-39-3	Barium	23.5	B		P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.6	U		P
7440-70-2	Calcium	34000			P
7440-47-3	Chromium	10.9			P
7440-48-4	Cobalt	2.5	U		P
7440-50-8	Copper	2.9	U		P
7439-89-6	Iron	22.7	B		P
7439-92-1	Lead	4.2			F
7439-95-4	Magnesium	7680			P
7439-96-5	Manganese	1.0	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	3.0	U		P
7440-09-7	Potassium	4170	B		P
7782-49-2	Selenium	3.1	U	W	F
7440-22-4	Silver	3.9	U		P
7440-23-5	Sodium	12300			P
7440-28-0	Thallium	1.9	U	WN	F
7440-62-2	Vanadium	7.6	B		P
7440-66-6	Zinc	5.2	B		P
	Cyanide				NR

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

9613490.1733

WESTINGHOUSE/HANFORD

1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07QT5

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N2-12-040

SDG No.: B07QK5

Matrix (soil/water): WATER

Lab Sample ID: 12147-05S

Level (low/med): LOW

Date Received: 12/10/92

% 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	27.0	U		P
7440-36-0	Antimony	18.4	U		P
7440-38-2	Arsenic	3.9	U	W	F
7440-39-3	Barium	12.4	B		P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.6	U		P
7440-70-2	Calcium	31400			P
7440-47-3	Chromium	2.7	U		P
7440-48-4	Cobalt	2.5	U		P
7440-50-8	Copper	2.9	U		P
7439-89-6	Iron	20.0	B		P
7439-92-1	Lead	4.2			F
7439-95-4	Magnesium	8740			P
7439-96-5	Manganese	1.0	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	3.0	U		P
7440-09-7	Potassium	4690	B		P
7782-49-2	Selenium	15.5	U	W	F
7440-22-4	Silver	3.9	U		P
7440-23-5	Sodium	13100			P
7440-28-0	Thallium	1.9	U	WN	F
7440-62-2	Vanadium	12.2	B		P
7440-66-6	Zinc	4.7	U		P
	Cyanide				NR

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

009

9613490.1734

WESTINGHOUSE/HANFORD

1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07QV5

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N2-12-040\$AS No.:

SDG No.: B07QK5

Matrix (soil/water): WATER

Lab Sample ID: 12147-06S

Level (low/med): LOW

Date Received: 12/10/92

% 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	27.0	U		P
7440-36-0	Antimony	18.4	U		P
7440-38-2	Arsenic	3.9	U	W	F
7440-39-3	Barium	27.0	B		P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.6	U		P
7440-70-2	Calcium	35400			P
7440-47-3	Chromium	40.6			P
7440-48-4	Cobalt	2.5	U		P
7440-50-8	Copper	2.9	U		P
7439-89-6	Iron	8.6	B		P
7439-92-1	Lead	3.2		MW	F
7439-95-4	Magnesium	9980			P
7439-96-5	Manganese	1.0	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	3.0	U		P
7440-09-7	Potassium	4250	B		P
7782-49-2	Selenium	15.5	U	W	F
7440-22-4	Silver	3.9	U		P
7440-23-5	Sodium	15200			P
7440-28-0	Thallium	1.9	U	WN	F
7440-62-2	Vanadium	12.4	B		P
7440-66-6	Zinc	4.7	U		P
	Cyanide				NR

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

010

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER:

B07QW0

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N2-12-040\$AS No.:

SDG No.: B07QK5

Matrix (soil/water): WATER

Lab Sample ID: 12147-07S

Level (low/med): LOW

Date Received: 12/10/92

% 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	27.0	U		P
7440-36-0	Antimony	18.4	U		P
7440-38-2	Arsenic	3.9	U	W	F
7440-39-3	Barium	18.0	B		P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.6	U		P
7440-70-2	Calcium	36500			P
7440-47-3	Chromium	2.7	U		P
7440-48-4	Cobalt	2.5	U		P
7440-50-8	Copper	2.9	U		P
7439-89-6	Iron	17.8	B		P
7439-92-1	Lead	5.0			F
7439-95-4	Magnesium	8540			P
7439-96-5	Manganese	6.9	B		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	3.0	U		P
7440-09-7	Potassium	4280	B		P
7782-49-2	Selenium	15.5	U	W	F
7440-22-4	Silver	3.9	U		P
7440-23-5	Sodium	24300			P
7440-28-0	Thallium	1.9	U	WN	F
7440-62-2	Vanadium	2.5	U		P
7440-66-6	Zinc	4.9	B		P
	Cyanide				NR

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

9613490-1736

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER:

B07QX0

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N2-12-040\$AS No.:

SDG No.: B07QK5

Matrix (soil/water): WATER

Lab Sample ID: 12147-08S

Level (low/med): LOW

Date Received: 12/10/92

% 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	27.0	U		P
7440-36-0	Antimony	18.4	U		P
7440-38-2	Arsenic	3.9	U	W	F
7440-39-3	Barium	18.7	B		P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.6	U		P
7440-70-2	Calcium	36600			P
7440-47-3	Chromium	2.7	U		P
7440-48-4	Cobalt	2.5	U		P
7440-50-8	Copper	2.9	U		P
7439-89-6	Iron	18.7	B		P
7439-92-1	Lead	8.0			F
7439-95-4	Magnesium	8540			P
7439-96-5	Manganese	7.3	B		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	3.0	U		P
7440-09-7	Potassium	4240	B		P
7782-49-2	Selenium	15.5	U	W	F
7440-22-4	Silver	3.9	U		P
7440-23-5	Sodium	24500			P
7440-28-0	Thallium	1.9	U	WN	F
7440-62-2	Vanadium	3.2	B		P
7440-66-6	Zinc	28.9			P
	Cyanide				NR

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

9613490.1737

WESTINGHOUSE/HANFORD

1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07QX5

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N2-12-040\$AS No.:

SDG No.: B07QK5

Matrix (soil/water): WATER

Lab Sample ID: 12147-125

Level (low/med): LOW

Date Received: 12/10/92

% 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	27.0	U		P
7440-36-0	Antimony	18.4	U		P
7440-38-2	Arsenic	3.9	U	W	F
7440-39-3	Barium	21.1	B		P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.6	U		P
7440-70-2	Calcium	44900			P
7440-47-3	Chromium	169			P
7440-48-4	Cobalt	2.5	U		P
7440-50-8	Copper	2.9	U		P
7439-89-6	Iron	18.6	B		P
7439-92-1	Lead	3.4			F
7439-95-4	Magnesium	7580			P
7439-96-5	Manganese	1.0	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	3.0	U		P
7440-09-7	Potassium	2260	B		P
7782-49-2	Selenium	15.5	U	W	F
7440-22-4	Silver	3.9	U		P
7440-23-5	Sodium	5850			P
7440-28-0	Thallium	1.9	U	WN	F
7440-62-2	Vanadium	3.5	B		P
7440-66-6	Zinc	26.1			P
	Cyanide				NR

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

013

9613490.1738



QUESTIONS? CALL 800-238-5355 TOLL FREE.

AIRBILL
PACKAGE
TRACKING NUMBER

5188042112

2237M

5188042112

Date
12.8.92

RECIPIENT'S COPY

From (Your Name) Please Print SAMPLE CONTROL		Your Phone Number (Very Important) (510) 235-2033	To (Recipient's Name) Please Print SAMPLE CONTROL		Recipient's Phone Number (Very Important)
Company T. A. INCORP.		Department/Floor No.	Company SKINNER & SHERMAN		Department/Floor No.
Street Address 2030 WRIGHT AVE		City RICHMOND	State VA	ZIP Required 94804	
Street Address 300 Second Avenue		City WALTHAM	State MA	ZIP Required 02254	

YOUR INTERNAL BILLING REFERENCE INFORMATION (optional) (First 24 characters will appear on invoice.)

23206406

IF HOLD FOR PICK-UP, Print FEDEX Address Here

Street Address	City	State	ZIP Required
----------------	------	-------	--------------

PAYMENT-1 <input checked="" type="checkbox"/> Bill Sender	2 <input type="checkbox"/> Bill Recipient's FedEx Acct. No.	3 <input type="checkbox"/> Bill 3rd Party FedEx Acct. No.	4 <input type="checkbox"/> Bill Credit Card
5 <input type="checkbox"/> Cash/Check			

4 SERVICES (Check only one box)		5 DELIVERY AND SPECIAL HANDLING (Check services required)		6 PACKAGES		WEIGHT in Pounds Only		YOUR DECLARED VALUE		Emp. No.		Date		Federal Express Use			
Priority Overnight (Delivery by next business morning) 11 <input checked="" type="checkbox"/> YOUR PACKAGING 16 <input type="checkbox"/> FEDEX LETTER 12 <input type="checkbox"/> FEDEX PAK* 13 <input type="checkbox"/> FEDEX BOX 14 <input type="checkbox"/> FEDEX TUBE		Standard Overnight (Delivery by next business afternoon, No Saturday delivery) 51 <input type="checkbox"/> YOUR PACKAGING 56 <input type="checkbox"/> FEDEX LETTER 52 <input type="checkbox"/> FEDEX PAK* 53 <input type="checkbox"/> FEDEX BOX 54 <input type="checkbox"/> FEDEX TUBE		1 <input type="checkbox"/> HOLD FOR PICK-UP (Fill in Box H) 2 <input checked="" type="checkbox"/> DELIVER WEEKDAY 3 <input type="checkbox"/> DELIVER SATURDAY (Extra charge) (Not available to all locations) 4 <input type="checkbox"/> DANGEROUS GOODS (Extra charge) 5 <input type="checkbox"/> 6 <input type="checkbox"/> DRY ICE Lbs. 7 <input type="checkbox"/> OTHER SPECIAL SERVICE 8 <input type="checkbox"/> 9 <input type="checkbox"/> SATURDAY PICK-UP (E-1rs charge) 10 <input type="checkbox"/> 12 <input type="checkbox"/> HOLIDAY DELIVERY (if offered) (Extra charge)		Total Total Total 2118		DIM SHIPMENT (Chargeable Weight) <input type="checkbox"/> L x W x H		Received At: <input checked="" type="checkbox"/> Regular Stop <input type="checkbox"/> On-Call Stop <input type="checkbox"/> Drop Box <input type="checkbox"/> B.S.C. <input checked="" type="checkbox"/> Station		<input type="checkbox"/> Cash Received <input type="checkbox"/> Return Shipment <input type="checkbox"/> Third Party <input type="checkbox"/> Chg. To Del. <input type="checkbox"/> Chg. To Hold Street Address City State Zip Received By: X: [Signature] Date/Time Received: 12/9/92 10:00 FedEx Employee Number:		Base Charges Declared Value Charge Other 1 Other 2 Total Charges		REVISION DATE 2/92 PART #137204 FHEM 8/9 FORMAT #126 126 © 1991-92 FEDEX PRINTED IN U.S.A.	

TMA/Skinner & Sherman Labs **SAMPLE LOG-IN**
 WORKORDER 5212147 CLIENT Hanford NOR No. SAMPLES: 12
 PROTCL CLP TURNARND 33 Day
 COOLER TEMP: 5 OC, or NA (Soil) (Water) (Specify Other)
 CUSTODIAN B. PRODIK SDG/BATCH N/A
 CUSTODY SEAL: PRESENT/ABSENT/INTACT/NOT CLIENT CASE N212040, N21204
 SHIPER & # Fed Ex PO/CONTRACT# 1
 TAGS: PRESENT/ABSENT/NA/SEE COC CONTACT D. 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 72-10-92

LIST ANY DATE WITH PAPERWORK/SHIPMENT PROBLEMS & SPECIFY THE PROBLEM: _____

FILTERED

CLIENT ID	MATRIX	RECEIVED	PH*	TEST(S) & QC	HOLD TIME
1 <u>B07QK5</u>	<u>Water</u>	<u>12-10-92</u>	<u>2.25</u>	<u>TM</u>	
2 <u>B07QM0</u>	↓	↓	<u>2.24</u>	↓	
3 <u>B07QN5</u>	↓	↓	<u>2.20</u>	↓	
4 <u>B07QP5</u>	↓	↓	<u>2.06</u>	↓	
5 <u>B07QT5</u>	↓	↓	<u>2.15</u>	↓	
6 <u>B07QV5</u>	↓	↓	<u>2.10</u>	↓	
7 <u>B07QW0</u>	↓	↓	<u>2.13</u>	↓	
8 <u>B07QX0</u>	↓	↓	<u>2.15</u>	↓	
9 <u>B07QL0</u>	↓	↓	<u>2.14</u>	↓	
10 <u>B07QL5</u>	↓	↓	<u>2.17</u>	↓	
11 <u>B07QM5</u>	↓	↓	<u>2.23</u>	↓	
12 <u>B07QX5</u>	↓	↓	<u>2.20</u>	<u>D.S</u>	↓
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 NO
 Samples have detectable amounts of Radioactive Material: YES NO

SUBCONTRACT: YES NO TO: _____ DATE: Complete

REVIEWED _____ 12/11/92

9613490.1740

PAGE 1

TMA/Notcal

CHAIN OF CUSTODY

ORD # N2-12-040

RCVD: 12/08/92 DUE: 01/07/93

12/08/92 15:53:19

KEEP: 04/07/93 DISP: S

100-KR-4

DASH SAMPLE IDENTIFICATION STORED TESTS for FRACTIONS with work in DEPT: SU and CATEGORY

01B-W B07QK4	UNFILTERED	S&S	WH007	WH008	WH010	WH011	WH137
02B-W B07QL9	UNFILTERED	S&S	WH007	WH008	WH010	WH011	WH137
03B-W B07QNA	UNFILTERED	S&S	WH007	WH008	WH010	WH011	WH137
04B-W B07QP4	UNFILTERED	S&S	WH007	WH008	WH010	WH011	WH137
05B-W B07QT4	UNFILTERED	S&S	WH007	WH008	WH010	WH011	WH137
06B-W B07QV4	UNFILTERED	S&S	WH007	WH008	WH010	WH011	WH137
07B-W B07QV9	UNFILTERED	S&S	WH007	WH008	WH010	WH011	WH137
08B-W B07QW9	UNFILTERED	S&S	WH007	WH008	WH010	WH011	WH137
08F-W B07QW9	MS	UNFILTERED S&S	WH007	WH008	WH010	WH011	WH137
08G-W B07QW9	DUP	UNFILTERED S&S	WH007	WH008	WH010	WH011	WH137
08H-W L C S		S&S	WH007	WH008	WH010	WH011	WH137

09A-W B07QK5	FILTERED	S&S	WH007	WH008	WH010		

10A-W B07QM0	FILTERED	S&S	WH007	WH008	WH010		

11A-W B07QK3	FILTERED	S&S	WH007	WH008	WH010		

12A-W B07QP5	FILTERED	S&S	WH007	WH008	WH010		

13A-W B07QT3	FILTERED	S&S	WH007	WH008	WH010		

14A-W B07QV5	FILTERED	S&S	WH007	WH008	WH010		

15A-W B07QM0	FILTERED	S&S	WH007	WH008	WH010		

16A-W B07QK0	FILTERED	S&S	WH007	WH008	WH010		

16B-W B07QK0	MS	FILTERED S&S	WH007	WH008	WH010		

16C-W B07QK0	DUP	FILTERED S&S	WH007	WH008	WH010		

16D-W L C S		S&S	WH007	WH008	WH010		

RELEASED BY

DATE

TRANSFERRED TO

DATE

RECEIVED BY

DATE

Ryan Combs

12-8-92

SKINNER

12-8-92

M. B.

12/9/92

9613490.1741

PAGE 1

TMA/Norcal

CHAIN OF CUSTODY

ORD # N2-12-045

RCVD: 12/09/92 DUE: 01/23/93

12/09/92 16:11:41

KEEP: 04/23/93 DISP: S

DASH SAMPLE IDENTIFICATION STORED TESTS for FRACTIONS with work in DEPT: SU and CATEGORY

01B-W B07GK9 UNFILTERED	S&S	WH007	WH008	WH010	WH011	WH137
02B-W B07GL4 UNFILTERED	S&S	WH007	WH008	WH010	WH011	WH137
03B-W B07GM4 UNFILTERED	S&S	WH007	WH008	WH010	WH011	WH137
04B-W B07GX4 UNFILTERED	S&S	WH007	WH008	WH010	WH011	WH137
04F-W B07GX4 MS UNFILTERED	S&S	WH007	WH008	WH010	WH011	WH137
04G-W B07GX4 DUP UNFILTERED	S&S	WH007	WH008	WH010	WH011	WH137
04H-W LCS	S&S	WH007	WH008	WH010	WH137	

05A-W B07GL0 FILTERED	S&S	WH007	WH008	WH010		

06A-W B07GL5 FILTERED	S&S	WH007	WH008	WH010		

07A-W B07QM5 FILTERED	S&S	WH007	WH008	WH010		

08A-W B07QX5 FILTERED	S&S	WH007	WH008	WH010		

08B-W B07QX5 MS FILTERED	S&S	WH007	WH008	WH010		

08C-W B07QX5 DUP FILTERED	S&S	WH007	WH008	WH010		

08D LCS	S&S	WH007	WH008	WH010		

RELEASED BY	DATE	TRANSFERRED TO	DATE	RECEIVED BY	DATE
<i>Kermit Blum</i>	<i>12-9-92</i>	<i>S&S</i>		<i>ALB</i>	<i>12/10/92</i>

9613490.1742

DON'T SAY IT --- *Write It!*

DATE: September 8, 1994

TO: 9212L952-WES-934

FROM: Pat Reich

H4-19

Telephone: 372-2785

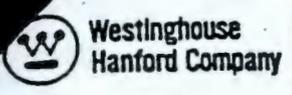
cc:

SUBJECT: SUMMARY VALIDATION REPORT

THE SUMMARY VALIDATION REPORT FOR THE FOLLOWING DATA PACKAGES IS FILED IN SDG# 9212L952-WES-934:

B07QQ3-DAT-210
9212L972-WES-035
B07QN9-TMA-389
B07QP9-TMA-390
9212L018-WES-030
B07QR4-TMA-391
B07R85-DAT-216
9212L953-WES-934 ✓
9212L972-WES-935
B07QK4-TMA-382
B07QP9-TMA-390
30013E-WES-1157
30012E-WES-1155
~~B07QY4-TMA-3A3~~

PAT REICH



NONCONFORMANCE REPORT

1. Page 1 of 1

2. Preprinted No. : **051705**

QA Log No. **EQA-93-003**

3. P. O., W. O., or Job Control No. N/A	4. System/End Use RI/FS	5. Item/Material B07Q L6	6. Dwg./Spec./Other No. N/A	7. Rev. N/A
8. Program/Project/Other 100-KR-4/92-398		9. Safety Class N/A	10. ASME Code Items <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes, notify authorized inspector)	
11. Supplier Name/Address FIELD SAMPLING SERVICES			12. Notification of Potential Occurrence Require <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	

13. Code: Lot/Heat/Serial N/A	14. Lot Size 1	15. Sample 1	16. Qty. Acc. 0	17. Inspection Criteria <input type="checkbox"/> Dwg. <input type="checkbox"/> Spec. <input type="checkbox"/> Insp. Plan <input checked="" type="checkbox"/> Other EII 5.3, APP. A, REV 3, SEC. 5, ITEM
---	--------------------------	------------------------	---------------------------	--

18. Item	19. Description of Nonconformance (list serial no. where applicable)	22. Disposition, Justification, and Instructions
	THREE SAMPLES FOR VOLATILE ORGANIC ANALYSIS WERE COLLECTED AND IDENTIFIED AS SAMPLE NUMBER B07Q L6. HOWEVER, CONTRARY TO THE SAMPLE COLLECTION CRITERIA REFERENCED IN BLOCK 17 ABOVE, TWO OF THE THREE SAMPLE BOTTLES WERE FOUND TO CONTAIN AIR BUBBLES.	The analysis shall be cancelled for the two sample vials containing air bubbles. These two sample vials shall be discarded.

20. Originator's Signature <i>A. Clayton Smith</i>		Date 1/20/93	23. Design Document Change Required? <input type="checkbox"/> Yes, Doc. No. _____ <input checked="" type="checkbox"/> No	
21. Cognizant QA Manager's Signature <i>B. Stanning</i>		Date 1-28-93	24. Corrective Action Required? <input type="checkbox"/> Yes, No. _____ <input checked="" type="checkbox"/> No	
Disp. App.	25. Cognizant Engineer SE VUKELICH	Date 2/2/93	26. Technical Rep. NA	Date NA
	QA Engineer GS CORRIGAN	Date 2-2-93	Signature/Org. NA	Date NA
Close	Accept <u>0</u> Reject <u>2</u> Follow on NCR <u>NA</u>	QA/C Personnel <i>Stanning</i>		Date 2-2-93

9613490.1744

B07QK4

OFFICE OF SAMPLE MANAGEMENT

RECORD OF DISPOSITION

ROD-93-00006

Record of Disposition No.

DATE: 2/3/93

LABORATORY: TMA

PROJECT TITLE/NO.: 100-KR-4/92-398

NCR NO.: 051704

SAMPLE IDENTIFICATION NUMBERS: B07QL6

DESCRIPTION OF EVENT: Two VOA vials were received at the laboratory with bubbles.

DISPOSITION OF SAMPLES: With concurrence from the customer, use the one remaining VOA vial containing no bubbles for analysis.

APPROVAL SIGNATURES:

W. E. Strohben / *W. E. Strohben*

2/3/93

OSM Project Coordinator (Print/Sign Name)

Date

ORIGINAL ROD LOST W. E. STROHBEN *W. E. Strohben* 3/9/93

J. W. Roberts / *J. W. Roberts*

3/9/93

Technical Representative (Print/Sign Name)

Date

N/A

Quality Assurance (Print/Sign Name)

Date

9613490.1745

B07QK4

OFFICE OF SAMPLE MANAGEMENT

RECORD OF DISPOSITION

ROD-93-00005
Record of Disposition No.

DATE: 2/3/93

LABORATORY: TMA

PROJECT TITLE/NO.: 100-KR-4/92-398

NCR NO.: N/A

SAMPLE IDENTIFICATION NUMBERS: B07QX6

DESCRIPTION OF EVENT: One VOA vial was received broken at the laboratory.

DISPOSITION OF SAMPLES: With concurrence from the customer, use the remaining unbroken VOA vials for sample analysis.

APPROVAL SIGNATURES:

W. E. Strohben / *W. E. Strohben* 2/3/93
OSM Project Coordinator (Print/Sign Name) Date

ORIGINAL ROD KOST W. E. STROHBEW W. E. Strohn 3/9/93

J. W. Roberts / *J. W. Roberts* 3/9/93
Technical Representative (Print/Sign Name) Date

N/A
Quality Assurance (Print/Sign Name) Date

9613490.1746

OFFICE OF SAMPLE MANAGEMENT

RECORD OF DISPOSITION

ROD-92-00237

Record of Disposition No.

DATE: 12/28/92

LABORATORY: TMA

PROJECT TITLE/NO.: 100-KR-4/92-398

NCR NO.: 051702

SAMPLE IDENTIFICATION NUMBERS:

B07QP4

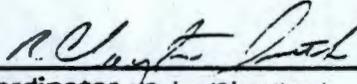
DESCRIPTION OF EVENT:

TWO VOA VIALS WERE LABELED CORRECTLY AS B07QP4 AND ONE VIAL WAS LABELED INCORRECTLY AS B07PQ4.

DISPOSITION OF SAMPLES:

CONTINUE ANALYSIS AND REPORT RESULTS AS B07QP4.

APPROVAL SIGNATURES:

CLAY SMITH/ 
OSM Project Coordinator (Print/Sign Name)

12/28/92
Date

J. W. ROBERTS/
Technical Representative (Print/Sign Name)

Date

N/A
Quality Assurance (Print/Sign Name)

Date

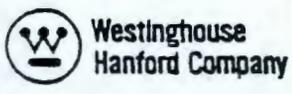
Westinghouse Hanford Company		<h2 style="margin: 0;">NONCONFORMANCE REPORT</h2>			1. Page <u>1</u> of <u>1</u>		2. Preprinted No. : 051729 QA Log No. : EQA-93-037													
					3. P. O., W. O., or Job Control No. : N/A		4. System/End Use : RET/FS		5. Item/Material : WATER SAMPLE		6. Dwg./Spec./Other No. : B07QXL6		7. Rev. : N/A							
8. Program/Project/Other : 100-KR-4/92-398					9. Safety Class : N/A		10. ASME Code Items <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes, notify authorized inspector)													
11. Supplier Name/Address : ENVIRONMENTAL RESTORATION ENGINEERING							12. Notification of Potential Occurrence Required <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No													
13. Code: Lot/Heat/Serial : N/A		14. Lot Size : 1		15. Sample : 1		16. Qty. Acc. : 0		17. Inspection Criteria <input type="checkbox"/> Dwg. <input type="checkbox"/> Spec. <input type="checkbox"/> Insp. Plan <input checked="" type="checkbox"/> Other NHC-CM-5.3, sect 10 Rev 1												
18. Item	19. Description of Nonconformance (list serial no. where applicable)										22. Disposition, Justification, and Instructions									
	ONE OF THREE VOLATILE ORGANIC ANALYSIS VIALS WAS RECEIVED BROKEN AT THE LAB.										The broken vial and its contents shall be discarded. The analysis shall be performed utilizing the remaining two vials.									

20. Originator's Signature : R.C. SMITH Date : 2/25/93				23. Design Document Change Required? <input type="checkbox"/> Yes, Doc. No. _____ <input checked="" type="checkbox"/> No			
21. Cognizant QA Manager's Signature : [Signature] Date : 3/5/93				24. Corrective Action Required? <input type="checkbox"/> Yes, No. _____ <input checked="" type="checkbox"/> No			
Disp. App.	25. Cognizant Engineer : [Signature] Date : 3/9/93		26. Technical Rep. : _____ Date : _____		Signature/Org. : _____ Date : _____		
	QA Engineer : [Signature] Date : 3-9-93		Signature/Org. : _____ Date : _____		Signature/Org. : _____ Date : _____		
Close	27. Accept _____ Reject X Follow on NCR NA				QA/C Personnel : [Signature] Date : 3-9-93		

QUALITY ASSURANCE

NONCONFORMANCE REPORT DISTRIBUTION

1. FROM: Environmental Quality Assurance		2. MSIN: H4-16	3. DATE: March 4, 1993		
4. NCR No.: 051729 / EQA-93-037		5. Initiation, Disposition, or Closure (I, D, C): I			
6. TO:		MSIN	I	D	C
Cognizant Engineer	J. W. Roberts	H6-02			
Cognizant Quality Engineer	G. S. Corrigan	H4-16			
Originator	R. C. Smith	H4-23			
Q. A. Manager	NA	NA			
Cognizant QE Manager	T. L. Bennington	H4-16			
Facility Manager	NA	NA			
Engineering Records	L. M. McDaniel	H6-08			
Safety	NA	NA			
QSDM	D. P. Trott	L4-86			
Other:					
JCS Package	NA	NA			
Q. C.	NA	NA			
Buyer (Procurement)	NA	NA			
P.O. File (Procurement)	NA	NA			
Vendor File (Procurement)	B. M. Colley	H4-23			
	EQA File	H4-16			
	P. H. Butcher	H6-06			
	J. H. Kessner	H4-23			
7. QST Codes					
Subject: AD-08	Cause: PN-002	Contr. Factor:	PPG: NA		
8. Responsible Action Party: J. W. Roberts			Org Code: 81310		



NONCONFORMANCE REPORT

1. Page 1 of 1
 2. Preprinted No. : **051702**
 QA Log No. EQA-93-000

3. P. O., W. O., or Job Control No. <u>N/A</u>	4. System/End Use <u>RI/FS</u>	5. Item/Material <u>WATER SAMPLES</u>	6. Dwg./Spec./Other No. <u>307QP4</u>	7. Rev. <u>N/A</u>
8. Program/Project/Other <u>CECLA</u> <u>2293</u>		9. Safety Class <u>N/A</u>	10. ASME Code Items <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes, notify authorized inspector)	
11. Supplier Name/Address <u>ENVIRONMENTAL FIELD SAMPLING SERVICES</u>			12. Notification of Potential Occurences Require <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
13. Code: Lot/Heat/Serial <u>N/A</u>	14. Lot Size <u>1</u>	15. Sample <u>1</u>	16. Qty. Acc. <u>0</u>	17. Inspection Criteria <input type="checkbox"/> Dwg. <input type="checkbox"/> Spec. <input type="checkbox"/> Insp. Plan <input checked="" type="checkbox"/> Other <u>EI 5.1, Rev 5, Sect 6.</u>

18. Item	19. Description of Nonconformance (list serial no. where applicable)	22. Disposition, Justification, and Instructions
	<u>TWO VOA VIALS WERE LABELED CORRECTLY AS 307QP4 AND ONE VIAL WAS LABELED INCORRECTLY AS 307PQ4. CHAIN OF CUSTODY FORM WAS NOT PROPERLY INITIATED - VIALS WERE NOT LABELED CORRECTLY.</u>	<u>SR 7-5-93</u> The VOA VOA analysis shall be performed using all three sample vials. The data shall be flagged due to breaking the chain of custody. <u>Use as is.</u> <u>These samples were not validated in a WHC Validation Report. Therefore, this NCR shall serve as the flag to identify potential problems with the data.</u> <u>R.L. Lippert 12/17/93</u>

20. Originator's Signature <u>R.C. Smith</u> <u>R. Clayton Smith</u>	Date <u>2/1/93</u>	23. Design Document Change Required? <input type="checkbox"/> Yes, Doc. No. _____ <input checked="" type="checkbox"/> No
21. Cognizant QA Manager's Signature <u>W.L. ...</u>	Date <u>2-2-93</u>	24. Corrective Action Required? <input type="checkbox"/> Yes, No. _____ <input checked="" type="checkbox"/> No
25. Cognizant Engineer <u>J.W. Roberts</u> Date <u>2/5/93</u>	26. Technical Rep. <u>W. Roberts</u> Date <u>2-5-93</u>	Signature/Org. _____ Date _____
QA Engineer <u>GS ...</u> Date <u>2-5-93</u>	Signature/Org. _____	Date _____
27. Close Accept <u>1</u> Reject <u>0</u> Follow on NCR <u>NA</u>	Signature <u>Harry ...</u> Date <u>12-17-93</u> QA/C Personnel _____	

9613490.1750

QUALITY ASSURANCE

NONCONFORMANCE REPORT DISTRIBUTION

1. FROM: Environmental Quality Assurance		2. MSIN: H4-16		33	
4. NCR No.: 051702 / <i>EQA-93-006</i>			5. Initiation or Closure <i>Board</i>		
6. TO:			MSIN		C
Cognizant Engineer	J. W. Roberts	H6-02			
Cognizant Quality Engineer	G. S. Corrigan	H4-16			
Originator	R. C. Smith	H4-23			
Q. A. Manager	NA	NA			
Cognizant QE Manager	T. L. Bennington	H4-16			
Facility Manager	NA	NA			
Engineering Records	L. M. McDaniel	H6-08			
Safety	NA	NA			
QSDM	D. P. Trott	L4-86			
Other:					
JCS Package	NA	NA			
Q. C.	NA	NA			
Buyer (Procurement)	NA	NA			
P.O. File (Procurement)	NA	NA			
Vendor File (Procurement)	NA	NA			
FOA File		H4-16			
P. H. Butcher		H6-06			
<i>JH Kissner</i>		<i>H4-23</i>			
7. QST Codes					
Subject:	Cause:	Contr. Factor:		PPG:	
AD-08	PN-002				
8. Responsible Action Party: J. W. Roberts				Org Code: 81310	

9613490.1751

TMA

Thermo Analytical Inc.

Skinner & Sherman Labs., Inc.

300 Second Avenue

Post Office Box 521

Waltham, MA 02254-0521

(617) 890-7200

FAX (617) 890-3883



January 14, 1993

TMA/NORCAL
2030 Wright Avenue
Richmond, CA 94804
Attention: Dan Stuermer

Quality Control Narrative

Scope

Twelve (12) water samples were submitted to TMA/Skinner & Sherman Laboratories, Inc. on December 10, 1992 from TMA/Norcal. The samples were analyzed for the USEPA CLP metals and cyanide as indicated on the chain of custody. The analysis was performed under TMA/Skinner and Sherman work order S212145.

Methodology

The samples were prepared, analyzed and reported in accordance with the USEPA Contract Laboratory Program Statement of Work ILM02.

Discussion

All quality control requirements were met for the samples with the following exceptions;

The selenium digestion spike recovery exceeded the control limit requirements.

The ICP serial dilution for sodium 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.

A handwritten signature in black ink, appearing to read "Dan Peterson".

David N. Peterson
Assistant Laboratory Manager



i 3-13-96
ME

WESTINGHOUSE/HANFORD

1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07QK4

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N2-12-040\$AS No.:

SDG No.: B07QK4

Matrix (soil/water): WATER

Lab Sample ID: 12145-01S

Level (low/med): LOW

Date Received: 12/10/92

% 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	39.3	B		P
7440-36-0	Antimony	16.9	U		P
7440-38-2	Arsenic	9.5	U	W	F
7440-39-3	Barium	28.4	B		P
7440-41-7	Beryllium	1.1	B		P
7440-43-9	Cadmium	2.2	B		P
7440-70-2	Calcium	34100			P
7440-47-3	Chromium	10.4			P
7440-48-4	Cobalt	2.7	U		P
7440-50-8	Copper	3.5	U		P
7439-89-6	Iron	55.4	B		P
7439-92-1	Lead	7.6			F
7439-95-4	Magnesium	9620			P
7439-96-5	Manganese	11.2	B		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	6.9	B		P
7440-09-7	Potassium	5570			P
7782-49-2	Selenium	14.5	U	WN	F
7440-22-4	Silver	7.1	B		P
7440-23-5	Sodium	30300		E	P
7440-28-0	Thallium	3.8	U	W	F
7440-62-2	Vanadium	23.8	B		P
7440-66-6	Zinc	13.5	B		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

9613490.1753

WESTINGHOUSE/HANFORD

1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07QK9

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N2-12-040\$AS No.:

SDG No.: B07QK4

Matrix (soil/water): WATER

Lab Sample ID: 12145-09S

Level (low/med): LOW

Date Received: 12/10/92

% 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	72.1	B		P
7440-36-0	Antimony	16.9	U		P
7440-38-2	Arsenic	1.9	U		F
7440-39-3	Barium	31.3	B		P
7440-41-7	Beryllium	2.7	B		P
7440-43-9	Cadmium	2.1	B		P
7440-70-2	Calcium	60700			P
7440-47-3	Chromium	32.4			P
7440-48-4	Cobalt	2.7	U		P
7440-50-8	Copper	3.5	U		P
7439-89-6	Iron	1130			P
7439-92-1	Lead	3.6		W	F
7439-95-4	Magnesium	9710			P
7439-96-5	Manganese	16.4			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.4	U		P
7440-09-7	Potassium	3870	B		P
7782-49-2	Selenium	2.9	U	WN	F
7440-22-4	Silver	2.8	B		P
7440-23-5	Sodium	4400	B	E	P
7440-28-0	Thallium	3.8	U	W	F
7440-62-2	Vanadium	9.0	B		P
7440-66-6	Zinc	2.2	U		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

003

FORM I - IN

ILM02.1

WESTINGHOUSE/HANFORD

1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07QL4

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N2-12-040\$AS No.:

SDG No.: B07QK4

Matrix (soil/water): WATER

Lab Sample ID: 12145-10S

Level (low/med): LOW

Date Received: 12/10/92

% 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	46.4	B		P
7440-36-0	Antimony	16.9	U		P
7440-38-2	Arsenic	1.9	U	W	F
7440-39-3	Barium	21.3	B		P
7440-41-7	Beryllium	1.6	B		P
7440-43-9	Cadmium	1.2	B		P
7440-70-2	Calcium	44500			P
7440-47-3	Chromium	172			P
7440-48-4	Cobalt	2.7	U		P
7440-50-8	Copper	3.5	U		P
7439-89-6	Iron	44.9	B		P
7439-92-1	Lead	3.7			F
7439-95-4	Magnesium	8320			P
7439-96-5	Manganese	4.7	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.4	U		P
7440-09-7	Potassium	3290	B		P
7782-49-2	Selenium	14.5	U	WN	F
7440-22-4	Silver	2.7	B		P
7440-23-5	Sodium	4750	B	E	P
7440-28-0	Thallium	3.8	U		F
7440-62-2	Vanadium	7.5	B		P
7440-66-6	Zinc	2.3	B		P
	Cyanide	10.0	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:

B07QL9

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N2-12-040\$AS No.:

SDG No.: B07QK4

Matrix (soil/water): WATER

Lab Sample ID: 12145-02S

Level (low/med): LOW

Date Received: 12/10/92

% 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	89.5	B		P
7440-36-0	Antimony	16.9	U		P
7440-38-2	Arsenic	1.9	U	W	F
7440-39-3	Barium	12.8	B		P
7440-41-7	Beryllium	1.1	B		P
7440-43-9	Cadmium	1.3	B		P
7440-70-2	Calcium	42700			P
7440-47-3	Chromium	82.1			P
7440-48-4	Cobalt	2.7	U		P
7440-50-8	Copper	3.5	U		P
7439-89-6	Iron	230			P
7439-92-1	Lead	5.7		W	F
7439-95-4	Magnesium	8260			P
7439-96-5	Manganese	13.6	B		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.4	U		P
7440-09-7	Potassium	1820	B		P
7782-49-2	Selenium	2.9	U	WN	F
7440-22-4	Silver	3.8	B		P
7440-23-5	Sodium	3850	B	E	P
7440-28-0	Thallium	3.8	U	W	F
7440-62-2	Vanadium	2.8	U		P
7440-66-6	Zinc	5.8	B		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

WESTINGHOUSE/HANFORD

1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07QM4

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N2-12-040\$AS No.:

SDG No.: B07QK4

Matrix (soil/water): WATER

Lab Sample ID: 12145-11S

Level (low/med): LOW

Date Received: 12/10/92

% 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	31.9	B		P
7440-36-0	Antimony	16.9	U		P
7440-38-2	Arsenic	1.9	U	W	F
7440-39-3	Barium	19.9	B		P
7440-41-7	Beryllium	3.2	B		P
7440-43-9	Cadmium	1.3	B		P
7440-70-2	Calcium	46000			P
7440-47-3	Chromium	177			P
7440-48-4	Cobalt	2.7	U		P
7440-50-8	Copper	3.5	U		P
7439-89-6	Iron	11.6	U		P
7439-92-1	Lead	3.3			F
7439-95-4	Magnesium	7900			P
7439-96-5	Manganese	4.7	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.4	U		P
7440-09-7	Potassium	2380	B		P
7782-49-2	Selenium	14.5	U	N	F
7440-22-4	Silver	2.5	U		P
7440-23-5	Sodium	6170		E	P
7440-28-0	Thallium	3.8	U		F
7440-62-2	Vanadium	2.9	B		P
7440-66-6	Zinc	224			P
	Cyanide	10.0	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:

B07QN4

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N2-12-040\$AS No.:

SDG No.: B07GK4

Matrix (soil/water): WATER

Lab Sample ID: 12145-03S

Level (low/med): LOW

Date Received: 12/10/92

% 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	960			P
7440-36-0	Antimony	16.9	U		P
7440-38-2	Arsenic	1.9	U	W	F
7440-39-3	Barium	41.2	B		P
7440-41-7	Beryllium	1.1	B		P
7440-43-9	Cadmium	1.8	B		P
7440-70-2	Calcium	59700			P
7440-47-3	Chromium	83.1			P
7440-48-4	Cobalt	2.7	U		P
7440-50-8	Copper	19.4	B		P
7439-89-6	Iron	2380			P
7439-92-1	Lead	6.2			F
7439-95-4	Magnesium	11200			P
7439-96-5	Manganese	101			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	77.6			P
7440-09-7	Potassium	4980	B		P
7782-49-2	Selenium	2.9	U	WN	F
7440-22-4	Silver	5.1	B		P
7440-23-5	Sodium	6910		E	P
7440-28-0	Thallium	3.8	U	W	F
7440-62-2	Vanadium	13.4	B		P
7440-66-6	Zinc	16.3	B		P
	Cyanide	10.0	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:

B07QP4

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N2-12-040\$AS No.:

SDG No.: B07QK4

Matrix (soil/water): WATER

Lab Sample ID: 12145-04S

Level (low/med): LOW

Date Received: 12/10/92

% 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	21.4	B		P
7440-36-0	Antimony	16.9	U		P
7440-38-2	Arsenic	1.9	U	W	F
7440-39-3	Barium	22.8	B		P
7440-41-7	Beryllium	1.1	B		P
7440-43-9	Cadmium	1.0	U		P
7440-70-2	Calcium	36700			P
7440-47-3	Chromium	14.0			P
7440-48-4	Cobalt	2.7	U		P
7440-50-8	Copper	3.5	U		P
7439-89-6	Iron	44.9	B		P
7439-92-1	Lead	3.8		W	F
7439-95-4	Magnesium	8330			P
7439-96-5	Manganese	4.7	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.4	U		P
7440-09-7	Potassium	4500	B		P
7782-49-2	Selenium	14.5	U	WN	F
7440-22-4	Silver	2.5	U		P
7440-23-5	Sodium	13100		E	P
7440-28-0	Thallium	3.8	U	W	F
7440-62-2	Vanadium	10.6	B		P
7440-66-6	Zinc	5.0	B		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

9613490.1759

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER:

B07QT4

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N2-12-040\$AS No.:

SDG No.: B07QK4

Matrix (soil/water): WATER

Lab Sample ID: 12145-05S

Level (low/med): LOW

Date Received: 12/10/92

% 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	39.4	B		P
7440-36-0	Antimony	16.9	U		P
7440-38-2	Arsenic	1.9	U	W	F
7440-39-3	Barium	11.4	B		P
7440-41-7	Beryllium	0.56	B		P
7440-43-9	Cadmium	1.5	B		P
7440-70-2	Calcium	34300			P
7440-47-3	Chromium	4.5	U		P
7440-48-4	Cobalt	2.7	U		P
7440-50-8	Copper	3.5	U		P
7439-89-6	Iron	104			P
7439-92-1	Lead	3.8			F
7439-95-4	Magnesium	9630			P
7439-96-5	Manganese	4.7	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.4	U		P
7440-09-7	Potassium	5170			P
7782-49-2	Selenium	14.5	U	WN	F
7440-22-4	Silver	2.5	U		P
7440-23-5	Sodium	14100		E	P
7440-28-0	Thallium	3.8	U		F
7440-62-2	Vanadium	15.2	B		P
7440-66-6	Zinc	8.5	B		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

000

FORM I - IN

ILM02.1

WESTINGHOUSE/HANFORD

1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07QV4

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N2-12-040\$AS No.:

SDG No.: B07QK4

Matrix (soil/water): WATER

Lab Sample ID: 12145-06S

Level (low/med): LOW

Date Received: 12/10/92

% 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	22.8	B		P
7440-36-0	Antimony	16.9	U		P
7440-38-2	Arsenic	1.9	U	W	F
7440-39-3	Barium	24.2	B		P
7440-41-7	Beryllium	1.1	B		P
7440-43-9	Cadmium	1.0	U		P
7440-70-2	Calcium	38200			P
7440-47-3	Chromium	48.9			P
7440-48-4	Cobalt	2.7	U		P
7440-50-8	Copper	3.5	U		P
7439-89-6	Iron	11.6	U		P
7439-92-1	Lead	7.5		W	F
7439-95-4	Magnesium	10900			P
7439-96-5	Manganese	4.7	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.4	U		P
7440-09-7	Potassium	4620	B		P
7782-49-2	Selenium	14.5	U	WN	F
7440-22-4	Silver	3.3	B		P
7440-23-5	Sodium	16200		E	P
7440-28-0	Thallium	3.8	U	W	F
7440-62-2	Vanadium	14.1	B		P
7440-66-6	Zinc	67.4			P
	Cyanide	10.0	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:

B07QV9

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N2-12-040\$AS No.:

SDG No.: B07QK4

Matrix (soil/water): WATER

Lab Sample ID: 12145-07S

Level (low/med): LOW

Date Received: 12/10/92

% 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	346			P
7440-36-0	Antimony	16.9	U		P
7440-38-2	Arsenic	1.9	U	W	F
7440-39-3	Barium	18.5	B		P
7440-41-7	Beryllium	2.1	B		P
7440-43-9	Cadmium	1.0	U		P
7440-70-2	Calcium	38900			P
7440-47-3	Chromium	13.2			P
7440-48-4	Cobalt	2.7	U		P
7440-50-8	Copper	3.5	U		P
7439-89-6	Iron	3290			P
7439-92-1	Lead	26.5			F
7439-95-4	Magnesium	9150			P
7439-96-5	Manganese	58.8			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.4	U		P
7440-09-7	Potassium	4460	B		P
7782-49-2	Selenium	14.5	U	WN	F
7440-22-4	Silver	2.5	U		P
7440-23-5	Sodium	25300		E	P
7440-28-0	Thallium	3.8	U		F
7440-62-2	Vanadium	4.0	B		P
7440-66-6	Zinc	425			P
	Cyanide	10.0	U		CA

Color Before: COLORLESS

Clarity Before: CLOUDY

Texture:

Color After: COLORLESS

Clarity After: CLOUDY

Artifacts:

Comments:

WESTINGHOUSE/HANFORD

1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07QW9

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N2-12-040

SAS No.:

SDG No.: B07QK4

Matrix (soil/water): WATER

Lab Sample ID: 12145-08S

Level (low/med): LOW

Date Received: 12/10/92

% 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	355			P
7440-36-0	Antimony	16.9	U		P
7440-38-2	Arsenic	1.9	U		F
7440-39-3	Barium	19.9	B		P
7440-41-7	Beryllium	1.6	B		P
7440-43-9	Cadmium	1.0	B		P
7440-70-2	Calcium	39500			P
7440-47-3	Chromium	11.4			P
7440-48-4	Cobalt	2.7	U		P
7440-50-8	Copper	4.2	B		P
7439-89-6	Iron	3180			P
7439-92-1	Lead	26.3			F
7439-95-4	Magnesium	9280			P
7439-96-5	Manganese	60.0			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.4	U		P
7440-09-7	Potassium	4540	B		P
7782-49-2	Selenium	2.9	U	WN	F
7440-22-4	Silver	2.9	B		P
7440-23-5	Sodium	25500		E	P
7440-28-0	Thallium	3.8	U	W	F
7440-62-2	Vanadium	6.0	B		P
7440-66-6	Zinc	424			P
	Cyanide	10.0	U		CA

Color Before: COLORLESS

Clarity Before: CLOUDY

Texture:

Color After: COLORLESS

Clarity After: CLOUDY

Artifacts:

Comments:

612

WESTINGHOUSE/HANFORD

1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07QX4

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N2-12-040\$AS No.:

SDG No.: B07QK4

Matrix (soil/water): WATER

Lab Sample ID: 12145-12S

Level (low/med): LOW

Date Received: 12/10/92

% 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	24.9	B		P
7440-36-0	Antimony	16.9	U		P
7440-38-2	Arsenic	1.9	U	W	F
7440-39-3	Barium	18.5	B		P
7440-41-7	Beryllium	3.2	B		P
7440-43-9	Cadmium	1.0	U		P
7440-70-2	Calcium	47200			P
7440-47-3	Chromium	183			P
7440-48-4	Cobalt	2.7	U		P
7440-50-8	Copper	3.5	U		P
7439-89-6	Iron	23.9	B		P
7439-92-1	Lead	2.7	B		F
7439-95-4	Magnesium	8070			P
7439-96-5	Manganese	4.7	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.4	U		P
7440-09-7	Potassium	2350	B		P
7782-49-2	Selenium	14.5	U	WN	F
7440-22-4	Silver	2.7	B		P
7440-23-5	Sodium	6260		E	P
7440-28-0	Thallium	3.8	U		F
7440-62-2	Vanadium	4.2	B		P
7440-66-6	Zinc	212			P
	Cyanide	10.0	U		CA

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

9613490 1764

TMA/Skinner & Sherman Labs **SAMPLE LOG-IN**
 WORKORDER 5212145 CLIENT HAWFORD NOR No. SAMPLES: 12
 PROTCL CLP TURNARND 33 Day
 COOLER TEMP: 5 OC, or NA (Soil) (Water) (Specify Other)
 CUSTODIAN B. Pineda SDG/BATCH _____
 CUSTODY SEAL: PRESENT/ABSENT/INTACT/NOT CLIENT CASE NZ12040, NZ12045
 SHIPER & # Fed Ex PO/CONTRACT# _____
 TAGS: PRESENT/ABSENT/NA/SEE COC CONTACT D. Sanchez
 CHAIN OF CUSTODY: PRESENT/ABSENT/NA, # N/A COMMENTS: none

SAMPLE CONTAINERS-INTACT/BROKEN COMMENTS _____

CLIENT COMMENT? YES/NO NO

SAMPLE LABELS AGREE WITH CHAIN OF CUSTODY INFO? YES/NO (COMMENT) _____

CLIENT PAPERWORK AGREES WITH SAMPLES & COC? YES/NO (COMMENT) _____

SHIPMENT DATES 12-10-92

LIST ANY DATE WITH PAPERWORK/SHIPMENT PROBLEMS & SPECIFY THE PROBLEM: _____

UNFILTERED

CLIENT ID	MATRIX	RECEIVED	PH*	TEST(S) & QC	HOLD TIME
1 B07QK4	water	12/10/92	1.88/10.36	T.M/CW	
2 B07QL9	↓	↓	1.83/10.34	↓	
3 B07QNY	↓	↓	1.86/10.36	↓	
4 B07QP4	↓	↓	1.85/10.30	↓	
5 B07QT4	↓	↓	1.88/10.34	↓	
6 B07QV4	↓	↓	1.90/11.02	↓	
7 B07QV9	↓	↓	1.87/10.56	↓	
8 B07QW9	↓	↓	1.84/10.54	↓	
9 B07QK9	↓	↓	1.80/10.50	↓	
10 B07QAL4	↓	↓	1.76/10.51	↓	
11 B07QMY	↓	↓	1.52/10.59	↓	
12 B07QX4	↓	↓	1.79/10.58 D.S	↓	
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 NO

Samples have detectable amounts of Radioactive Material: YES NO

SUBCONTRACT: YES/NO, TO: _____

DATE: _____

REVIEWED _____

192

W. Smith
12/11/92
BF

9613490.1765

PAGE 1
RCVD: 12/08/92 DUE: 01/07/93

TMA/Norcal

CHAIN-OF-CUSTODY

DRD # N2-12-040

12/08/92 15:53:19

KEEP: 04/07/93

DISP: 5

100-KR-4

DASH SAMPLE IDENTIFICATION STORED TESTS for FRACTIONS with work in DEPT: SU and CATEGORY

01B-W B07GK4	UNFILTERED	S&S	WH007	WH008	WH010	WH011	WH137
02B-W B07GL9	UNFILTERED	S&S	WH007	WH008	WH010	WH011	WH137
03B-W B07GN4	UNFILTERED	S&S	WH007	WH008	WH010	WH011	WH137
04B-W B07GP4	UNFILTERED	S&S	WH007	WH008	WH010	WH011	WH137
05B-W B07GT4	UNFILTERED	S&S	WH007	WH008	WH010	WH011	WH137
06B-W B07GV4	UNFILTERED	S&S	WH007	WH008	WH010	WH011	WH137
07B-W B07GV9	UNFILTERED	S&S	WH007	WH008	WH010	WH011	WH137
08B-W B07GW9	UNFILTERED	S&S	WH007	WH008	WH010	WH011	WH137
08F-W B07GW9 MS	UNFILTERED	S&S	WH007	WH008	WH010	WH011	WH137
08G-W B07GW9 DUP	UNFILTERED	S&S	WH007	WH008	WH010	WH011	WH137
08H-W L C S		S&S	WH007	WH008	WH010	WH011	WH137

09A-W B07GK5	FILTERED	S&S	WH007	WH008	WH010		

10A-W B07GM0	FILTERED	S&S	WH007	WH008	WH010		

11A-W B07GN5	FILTERED	S&S	WH007	WH008	WH010		

12A-W B07GP5	FILTERED	S&S	WH007	WH008	WH010		

13A-W B07GT5	FILTERED	S&S	WH007	WH008	WH010		

14A-W B07GV5	FILTERED	S&S	WH007	WH008	WH010		

15A-W B07GW0	FILTERED	S&S	WH007	WH008	WH010		

16A-W B07GX0	FILTERED	S&S	WH007	WH008	WH010		

16B-W B07GX0 MS	FILTERED	S&S	WH007	WH008	WH010		

16C-W B07GX0 DUP	FILTERED	S&S	WH007	WH008	WH010		

16D-W L C S		S&S	WH007	WH008	WH010		

RELEASED BY	DATE	TRANSFERRED TO	DATE	RECEIVED BY	DATE
<u>Eyan como so</u>	<u>12-8-92</u>	<u>SKINNER</u>	<u>12-8-92</u>	<u>MAS</u>	<u>12/9/92</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

9613490.1766

Page 1

Skinner&Sherman

REPORT

Work Order # S2-12-146

Received: 12/10/92

01/15/93 14:44:11

REPORT TMA/NORCAL
TO 2030 Wright Avenue
Richmond, CA 94804

PREPARED TMA / Skinner & Sherman Labs.
BY 300 Second Avenue
P.O. Box 521
Waltham, MA 02254


CERTIFIED BY

ATTEN Dan Steurmer

ATTEN Client Services

PHONE (617) 890-7200

CONTACT DP

CLIENT HANFORD NOR SAMPLES 13
COMPANY TMA/NORCAL
FACILITY Richmond, CA

WORK ID N2-12-040,N2-12-045
TAKEN BY CLIENT
TRANS FED EX
TYPE WATER
P.O. # N2-12-040,N2-12-045
INVOICE under separate cover

SAMPLE IDENTIFICATION

TEST CODES and NAMES used on this workorder

- 01 B07QK4
- 02 B07QL9
- 03 B07GN4
- 04 B07QP4
- 05 B07QT4
- 06 B07QV4
- 07 B07QV9
- 08 B07QW9
- 09 B07QK9
- 10 B07QL4
- 11 B07QW4
- 12 B07QX4
- 12 B07QX4 DUPL
- 12 B07QX4 SPIKE
- 13 LCSW

NO3NO2 Nitrate Plus Nitrite

TMA
Thermo Analytical Inc.

This report is rendered upon all of the following conditions: Skinner & Sherman Laboratories, Inc. retains ownership of this report until associated submitted invoice is satisfied. Expert witness services shall be available in conjunction with this report only if prior notification of this potential requirement was made and accepted, before the analysis. Client will be responsible for Skinner & Sherman costs and consulting fees if our services are required by subpoena or otherwise in legal proceedings. Total liability is limited to the invoice amount. The results listed refer only to tested samples and applicable parameters. Product endorsement is neither inferred nor implied. Skinner & Sherman Laboratories, Inc. exercises due diligence but will not be responsible for lost or destroyed samples or evidence unless client makes appropriate business coverage arrangements. Samples are held thirty days following issuance of report. Samples will be stored at client's expense, if authorized in writing.

Skinner & Sherman Laboratories Inc. 300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4LABTEST FAX (617) 890-3883

Page 2
Received: 12/10/92

Skinner&Sherman REPORT
Results by Sample

Work Order # S2-12-146

SAMPLE ID <u>B07QK4</u>	SAMPLE # <u>01</u> FRACTIONS: <u>A</u>
	Date & Time Collected <u>12/05/92</u> Category <u>WATER</u>
NO3NO2 <u>5.36</u> mg N/L	
SAMPLE ID <u>B07QL9</u>	SAMPLE # <u>02</u> FRACTIONS: <u>A</u>
	Date & Time Collected <u>12/06/92</u> Category <u>WATER</u>
NO3NO2 <u>3.31</u> mg N/L	
SAMPLE ID <u>B07QM4</u>	SAMPLE # <u>03</u> FRACTIONS: <u>A</u>
	Date & Time Collected <u>12/05/92</u> Category <u>WATER</u>
NO3NO2 <u>1.48</u> mg N/L	
SAMPLE ID <u>B07QP4</u>	SAMPLE # <u>04</u> FRACTIONS: <u>A</u>
	Date & Time Collected <u>12/06/92</u> Category <u>WATER</u>
NO3NO2 <u>1.85</u> mg N/L	
SAMPLE ID <u>B07QT4</u>	SAMPLE # <u>05</u> FRACTIONS: <u>A</u>
	Date & Time Collected <u>12/05/92</u> Category <u>WATER</u>
NO3NO2 <u>3.01</u> mg N/L	
SAMPLE ID <u>B07QV4</u>	SAMPLE # <u>06</u> FRACTIONS: <u>A</u>
	Date & Time Collected <u>12/06/92</u> Category <u>WATER</u>
NO3NO2 <u>2.00</u> mg N/L	
SAMPLE ID <u>B07QV9</u>	SAMPLE # <u>07</u> FRACTIONS: <u>A</u>
	Date & Time Collected <u>12/05/92</u> Category <u>WATER</u>
NO3NO2 <u>3.05</u> mg N/L	

TMA

Thermo Analytical Inc.

Skinner & Sherman Laboratories Inc.

This report is rendered upon all of the following conditions: Skinner & Sherman Laboratories, Inc. retains ownership of this report until associated submitted invoice is satisfied. Expert witness services shall be available in conjunction with this report only if prior notification of this potential requirement was made and accepted, before the analysis. Client will be responsible for Skinner & Sherman costs and consulting fees if our services are required by subpoena or otherwise in legal proceedings. Total liability is limited to the invoice amount. The results listed refer only to tested samples and applicable parameters. Product endorsement is neither inferred nor implied. Skinner & Sherman Laboratories, Inc. exercise due diligence but will not be responsible for lost or destroyed samples or evidence unless client makes appropriate insurance coverage arrangements. Samples are held thirty days following issuance of report. Samples will be stored at client's expense, if authorized in writing.

300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4LAB TEST FAX (617) 890-3883

Page 3
Received: 12/10/92

Skinner&Sherman REPORT
Results by Sample

Work Order # S2-12-146

SAMPLE ID <u>B07QV9</u>	SAMPLE # <u>08</u> FRACTIONS: <u>A</u>
	Date & Time Collected <u>12/05/92</u> Category <u>WATER</u>
NO3NO2 <u>3.05</u> mg N/L	
SAMPLE ID <u>B07QK9</u>	SAMPLE # <u>09</u> FRACTIONS: <u>A</u>
	Date & Time Collected <u>12/07/92</u> Category <u>WATER</u>
NO3NO2 <u>22.0</u> mg N/L	
SAMPLE ID <u>B07QL4</u>	SAMPLE # <u>10</u> FRACTIONS: <u>A</u>
	Date & Time Collected <u>12/07/92</u> Category <u>WATER</u>
NO3NO2 <u>2.95</u> mg N/L	
SAMPLE ID <u>B07QM4</u>	SAMPLE # <u>11</u> FRACTIONS: <u>A</u>
	Date & Time Collected <u>12/07/92</u> Category <u>WATER</u>
NO3NO2 <u>2.43</u> mg N/L	
SAMPLE ID <u>B07QX4</u>	SAMPLE # <u>12</u> FRACTIONS: <u>A</u>
	Date & Time Collected <u>12/07/92</u> Category <u>WATER</u>
NO3NO2 <u>2.49</u> mg N/L	
SAMPLE ID <u>B07QX4</u> DUPL	SAMPLE # <u>12</u> FRACTIONS: <u>B</u>
	Date & Time Collected <u>12/07/92</u> Category <u>WATER</u>
NO3NO2 <u>2.48</u> mg N/L	
SAMPLE ID <u>B07QX4</u> SPIKE	SAMPLE # <u>12</u> FRACTIONS: <u>C</u>
	Date & Time Collected <u>12/07/92</u> Category <u>WATER</u>
NO3NO2 <u>4.38</u> mg N/L	

This report is rendered upon all of the following conditions: Skinner & Sherman Laboratories, Inc. retains ownership of this report until associated submitted invoice is satisfied. Expert witness services shall be available in conjunction with this report only if prior notification of this potential requirement was made and accepted, before the analysis. Client will be responsible for Skinner & Sherman costs and consulting fees if our services are required by subpoena or otherwise in legal proceedings. Total liability is limited to the invoice amount. The results listed refer only to tested samples and applicable parameters. Product endorsement is neither inferred nor implied. Skinner & Sherman Laboratories, Inc. will exercise due diligence but will not be responsible for lost or destroyed samples or evidence unless client makes appropriate insurance coverage arrangements. Samples are held for thirty days following issuance of report. Samples will be stored at client's expense, if authorized in writing.

TMA

Thermo Analytical Inc.

Skinner & Sherman Laboratories Inc.

300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

9613490.1769

Page 4

Skinner&Sherman

REPORT

Work Order # S2-12-146

Received: 12/10/92

Results by Sample

SAMPLE ID <u>LCSW</u>	SAMPLE # <u>13</u> FRACTIONS: <u>A</u>
	Date & Time Collected <u>not specified</u> Category <u>WATER</u>
<u>NO3NO2</u> <u>2.02</u>	
mg N/L	

TMA

Thermo Analytical Inc.

Skinner & Sherman Laboratories Inc.

This report is rendered upon all of the following conditions: Skinner & Sherman Laboratories, Inc. retains ownership of this report until associated submitted invoice is satisfied. Expert witness services shall be available in conjunction with this report only if prior notification of this potential requirement was made and accepted, before the analysis. Client will be responsible for Skinner & Sherman costs and consulting fees if our services are required by subpoena or otherwise in legal proceedings. Total liability is limited to the invoice amount. The results listed refer only to tested samples and applicable parameters. Product endorsement is neither inferred nor implied. Skinner & Sherman Laboratories, Inc. will exercise due diligence but will not be responsible for lost or destroyed samples or evidence unless client makes appropriate insurance coverage arrangements. Samples are held thirty days following issuance of report. Samples will be stored at client's expense, if authorized in writing.

300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

9613490.1770

TMA/Skinner & Sherman Labs

SAMPLE LOG-IN

WORKORDER SZ12146 CLIENT Hanford Nur No. SAMPLES: 12

PROTCL CLP TURNARND 33 Days

COOLER TEMP: 5 OC, or NA (Soil) (Water) (Specify Other)

CUSTODIAN B. PROJIX SDG/BATCH N/A

CUSTODY SEAL: PRESENT/ABSENT/INTACT/NOT CLIENT CASE NZ12040, NZ1204

SHIPER & # Fed Ex PO/CONTRACT# ↓

TAGS: PRESENT/ABSENT/NA/SEE COC CONTACT D. 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 12-10-92

LIST ANY DATE WITH PAPERWORK/SHIPMENT PROBLEMS & SPECIFY THE PROBLEM:

UNFILTERED

CLIENT ID	MATRIX	RECEIVED	PH*	TEST(S) & QC	HOLD TIME UP
1	B07QK4	water	12-10-92	2.10	NO3 NO2
2	B07QL9	↓	↓	2.11	↓
3	B07QM4	↓	↓	2.06	↓
4	B07QP4	↓	↓	2.01	↓
5	B07QT4	↓	↓	1.99	↓
6	B07QV4	↓	↓	2.05	↓
7	B07QV9	↓	↓	2.01	↓
8	B07QW9	↓	↓	2.06	↓
9	B07QK9	↓	↓	2.03	↓
10	B07QL4	↓	↓	2.00	↓
11	B07QM4	↓	↓	2.07	↓
12	B07QX4	↓	↓	2.06	D.S ↓
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 NO
Samples have detectable amounts of Radioactive Material: YES NO

SUBCONTRACT: YES/NO, TO: _____ DATE: _____

REVIEWED _____

COMPLAC
12/14/92
B.P.

DASH SAMPLE IDENTIFICATION STORED TESTS for FRACTIONS with work in DEPT: SU and CATEGORY

01B-W B07QX9 UNFILTERED	S&S	!	WHO07	WHO08	WHO10	WHO11	WH137
02B-W B07QL4 UNFILTERED	S&S	!	WHO07	WHO08	WHO10	WHO11	WH137
03B-W B07QM4 UNFILTERED	S&S	!	WHO07	WHO08	WHO10	WHO11	WH137
04B-W B07QX4 UNFILTERED	S&S	!	WHO07	WHO08	WHO10	WHO11	WH137
04F-W B07QX4 MS UNFILTERED	S&S	!	WHO07	WHO08	WHO10	WHO11	WH137
04G-W B07QX4 DUP UNFILTERED	S&S	!	WHO07	WHO08	WHO10	WHO11	WH137
04H-W LCS	S&S	!	WHO07	WHO08	WHO10	WHO11	WH137

05A-W B07QL0 FILTERED	S&S	!	WHO07	WHO08	WHO10		

06A-W B07QL5 FILTERED	S&S	!	WHO07	WHO08	WHO10		

07A-W B07QM5 FILTERED	S&S	!	WHO07	WHO08	WHO10		

08A-W B07QX5 FILTERED	S&S	!	WHO07	WHO08	WHO10		

08B-W B07QX5 MS FILTERED	S&S	!	WHO07	WHO08	WHO10		

08C-W B07QX5 DUP FILTERED	S&S	!	WHO07	WHO08	WHO10		

08D LCS	S&S	!	WHO07	WHO08	WHO10		

RELEASED BY	DATE	TRANSFERRED TO	DATE	RECEIVED BY	DATE
<i>Kermit Blum</i>	<i>12-9-92</i>	<i>S&S</i>		<i>ALB</i>	<i>12/10/92</i>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

RCVD: 12/08/92 DUE: 01/07/93

12/08/92 15:53:19

KEEP: 04/07/93 DISP: S

DASH SAMPLE IDENTIFICATION STORED TESTS for FRACTIONS with work in DEPT: SU and CATEGORY

01B-W B07QK4	UNFILTERED	S&S	!	WH007	WH008	WH010	WH011	WH137
02B-W B07QL9	UNFILTERED	S&S	!	WH007	WH008	WH010	WH011	WH137
03B-W B07QN4	UNFILTERED	S&S	!	WH007	WH008	WH010	WH011	WH137
04B-W B07QP4	UNFILTERED	S&S	!	WH007	WH008	WH010	WH011	WH137
05B-W B07QT4	UNFILTERED	S&S	!	WH007	WH008	WH010	WH011	WH137
06B-W B07QV4	UNFILTERED	S&S	!	WH007	WH008	WH010	WH011	WH137
07B-W B07QV9	UNFILTERED	S&S	!	WH007	WH008	WH010	WH011	WH137
08B-W B07QW9	UNFILTERED	S&S	!	WH007	WH008	WH010	WH011	WH137
08F-W B07QW9 MS	UNFILTERED	S&S	!	WH007	WH008	WH010	WH011	WH137
08G-W B07QW9 DUP	UNFILTERED	S&S	!	WH007	WH008	WH010	WH011	WH137
08H-W L C S		S&S	!	WH007	WH008	WH010	WH011	WH137

09A-W B07QK5	FILTERED	S&S	!	WH007	WH008	WH010		

10A-W B07QM0	FILTERED	S&S	!	WH007	WH008	WH010		

11A-W B07QN5	FILTERED	S&S	!	WH007	WH008	WH010		

12A-W B07QP5	FILTERED	S&S	!	WH007	WH008	WH010		

13A-W B07QT5	FILTERED	S&S	!	WH007	WH008	WH010		

14A-W B07QV5	FILTERED	S&S	!	WH007	WH008	WH010		

15A-W B07QW0	FILTERED	S&S	!	WH007	WH008	WH010		

16A-W B07QX0	FILTERED	S&S	!	WH007	WH008	WH010		

16B-W B07QX0 MS	FILTERED	S&S	!	WH007	WH008	WH010		

16C-W B07QX0 DUP	FILTERED	S&S	!	WH007	WH008	WH010		

16D-W L C S		S&S	!	WH007	WH008	WH010		

RELEASED BY DATE TRANSFERRED TO DATE RECEIVED BY DATE

<u>Eyan como so</u>	<u>12-8-92</u>	<u>SKINNER</u>	<u>12-8-92</u>	<u>MAS</u>	<u>12/9/92</u>

WESTINGHOUSE HANFORD COMPANY

Results of Analyses For:

ORGANICS & GENERAL CHEMISTRY

Case No. 12-030

(TMA/ARLI Work Orders # A2-12-027 & A2-12-030)

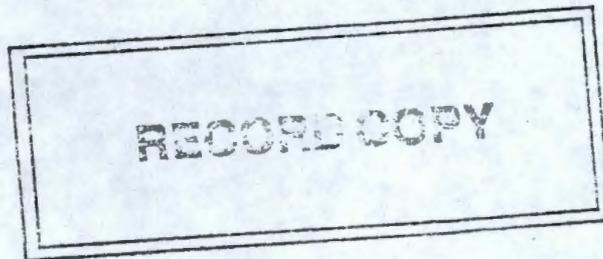
METALS & NITRATE/NITRITE

Case No. N2-12-040

(TMA/Skinner & Sherman W.O. # S2-12-145, S2-12-146, & S2-12-147)

February 5, 1993

TMA Master Work Order N2-12-040



i 3-13-96
MC

DASH SAMPLE IDENTIFICATION STORED TESTS for FRACTIONS with work in DEPT. SU and CATEGORY

01A-W B070K4 1* 2*	UNFILTERED	ARLI	WHO18	WHO19	WHO20	WHO43	WH114	WH121	WH122
			WH128	WH131	WH132	WH140			
02A-W B070L9	UNFILTERED	ARLI	WHO18	WHO19	WHO20	WHO43	WH114	WH121	WH122
			WH128	WH131	WH132	WH140			
03A-W B070N4	UNFILTERED	ARLI	WHO18	WHO19	WHO20	WHO43	WH114	WH121	WH122
			WH128	WH131	WH132	WH140			
04A-W B070P4	UNFILTERED	ARLI	WHO18	WHO19	WHO20	WHO43	WH114	WH121	WH122
			WH128	WH131	WH132	WH140			
05A-W B070T4	UNFILTERED	ARLI	WHO18	WHO19	WHO20	WHO43	WH114	WH121	WH122
			WH128	WH131	WH132	WH140			
06A-W B070V4	UNFILTERED	ARLI	WHO18	WHO19	WHO20	WHO43	WH114	WH121	WH122
			WH128	WH131	WH132	WH140			
07A-W B070W9 3*	UNFILTERED	ARLI	WHO18	WHO19	WHO20	WHO43	WH114	WH121	WH122
			WH128	WH131	WH132	WH140			
08A-W B070W9	UNFILTERED	ARLI	WHO18	WHO19	WHO20	WHO43	WH114	WH121	WH122
			WH128	WH131	WH132	WH140			
08C-W B070W9 PS	UNFILTERED	ARLI	WHO18	WHO19	WHO20	WHO43	WH114	WH121	WH122
08D-W B070W9 PSD	UNFILTERED	ARLI	WHO18	WHO19	WHO20	WHO43	WH114	WH121	WH122
08E-W B070W9 DUP	UNFILTERED	ARLI	WHO18	WHO19	WHO20	WHO43	WH114	WH121	WH122
			WH128	WH131	WH132	WH140			
17A-W B070K6		ARLI	WHO18						
18A-W B070M1		ARLI	WHO18						
19A-W B070N6		ARLI	WHO18						
20A-W B070P6		ARLI	WHO18						
21A-W B070T6		ARLI	WHO18						
22A-W B070V6		ARLI	WHO18						
23A-W B070W1		ARLI	WHO18						
24A-W B070Z7		ARLI	WHO18						
25A-W B070X1		ARLI	WHO18						

RELEASED BY	DATE	TRANSFERRED TO	DATE	RECEIVED BY	DATE
<u>Eljoramamoto</u>	<u>12-8-92</u>	<u>ARLI</u>	<u>12-8-92</u>	<u>Judy Stohel</u>	<u>12/9/92</u>

- 1 * Sulfide aliquot arrived at TMA ARLI with cracked cap/cap replaced T.G. 12/9/92
- 2 * One two-liter bottle arrived at TMA ARLI broken 12/9/92 T.G.
- 3 * Received metals aliquot erroneously; sent to Stinner & Sherman for analysis 12/9/92 T.G.

Westinghouse Hanford Company	CHAIN OF CUSTODY
Custody Form Initiator PH BUTCHER	Telephone (509)376-5045
Company Contact PH BUTCHER	Collection Date 12/5/92
Project Designation/Sampling Locations 100-KR-4	Field Logbook No. EFL-1048
Ice Chest No. BILLY	Offsite Property No. W93-0-00 59-49
Bill of Lading/Airbill No. 251900 7458	
Method of Shipment EMERY	
Shipped to TMA	
Possible Sample Hazards/Remarks N/A	

Sample Identification

B07QK4

- 3, 40ml, Gs*, WATER, CLP-VOA
- 3, 2L, aG, WATER, CLP-SEMI VOA & PCB's/PEST
- 1, 1L, P, WATER, ANIONS(IC) SO4, F, PO4, Cl/COND./pH
- 1, 500ml, P, WATER, ANIONS/NO3-NO2 (H2SO4)
- 1, 1L, G, WATER, ALK./TOT. DISSOLVED SOLIDS
- 1, 500ml, G, WATER, SULFIDE (add Zinc Acetate+NaOH pH>9)
- 1, 500ml, G, WATER, AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
- 1, 1L, P, WATER, CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
- 1, 1L, P, WATER, CLP-CN (NaOH)
- 2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90 (HNO3)
- 1, 1L, P, WATER, Tc-99 (HCl)
- 1, 250ml, Gs, WATER, TRITIUM/C-14

B07QK5

- 1, 1L, P, WATER, CLP-ICP/AA METALS (FILTERED)/CLP-Hg (HNO3)

B07QK6

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

<input type="checkbox"/> Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: <i>AJ SIMPSON</i> <i>AJ Simpson</i>	Received by: <i>Hermit Blum</i> <i>Hermit Blum</i>	Date/Time: <i>12-8-92 1130</i>
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:
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

Collector K. Lee, L. Walker

Date Sampled 12/5/92 Time 0900 hours

Company Contact P. H. Butcher

Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B07QK4	3; 40ml; Gs*	WATER ✓	CLP-VOA
	3; 2L; aG;	WATER - ✓	CLP-SEMI VOA & PCB's/PEST
	1; 1L; P;	WATER ✓	ANIONS (IC) SO4, F, PO4, Cl/COND/pH
-	1; 500ml; P;	WATER ✓	ANIONS/NO3-NO2 (H2SO4)
	1; 1L; G;	WATER ✓	ALK./TOT. DISSOLVED SOLIDS
	1; 500ml; G;	WATER	SULFIDE (add Zinc-Acetate + NaOH pH > 9)
	1; 500ml; G;	WATER ✓	AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH < 2)
	1; 1L; P;	WATER ✓	CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
	1; 1L; P;	WATER ✓	CLP-CN (NaOH)
	2; 4L; P;	WATER ✓	GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90, (HNO3)
	1; 1L; P;	WATER ✓	Tc-99 (HCl)
	1; 250ml; Gs;	WATER ✓	TRITIUM/C-14
B07QK5	1; 1L; P;	WATER ✓	CLP-ICP/AA METAL (FILTERED)/CLP-Hg (HNO3)
B07QK6	3; 40ml; Gs	WATER ✓	CLP-VOA
			OPC: # W93-0-0059-49
			BOL: # 2519007458
			TASK#: 92-398

Field Information**

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Hermit Blum Title Sample Control Supervisor Date 12-8-92

* Analysis Required

* Indicate whether sample is soil, sludge, water, etc.
** Use back of page for additional information relative to sample location.

Westinghouse
Hanford Company

CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-KR-4

Collection Date 12-6-92

Ice Chest No. SML-119

Field Logbook No. EFL 1049

Bill of Lading/Airbill No. ZS19007458

Offsite Property No. W93-0-0059-48

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

B07Q29

- 3, 40ml, Gs*, WATER, CLP-VOA
- 3, 2L, aG, WATER, CLP-SEMI VOA & PCB's/PEST
- 1, 1L, P, WATER, ANIONS(IC) SO4, F, PO4, Cl/COND./pH
- 1, 500ml, P, WATER, ANIONS/NO3-NO2 (H2SO4)
- 1, 1L, G, WATER, ALK./TOT. DISSOLVED SOLIDS
- 1, 500ml, G, WATER, SULFIDE (add Zinc Acetate+NaOH pH>9)
- 1, 500ml, G, WATER, AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
- 1, 1L, P, WATER, CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
- 1, 1L, P, WATER, CLP-CN (NaOH)
- 2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90 (HNO3)
- 1, 1L, P, WATER, Tc-99 (HCl)
- 1, 250ml, Gs, WATER, TRITIUM/C-14

B07QMO

- 1, 1L, P, WATER, CLP-ICP/AA METALS (FILTERED)/CLP-Hg, (HNO3)

B07QMI

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

[] Field Transfer of Custody		Chain of Possession	(Sign and Print Names)
Relinquished by: <i>G.G. Hamilton</i> G.G. HAMILTON	Received by: <i>A.J. Simpson</i> A.J. SIMPSON	Date/Time: 12/7/92 1009	
Relinquished by: <i>A.J. Simpson</i> A.J. SIMPSON	Received by: <i>Kermit Blum</i> KERMIT BLUM	Date/Time: 12-8-92 1130	
Relinquished by:	Received by:	Date/Time:	
Relinquished by:	Received by:	Date/Time:	
Final Sample Disposition			
Disposal Method:	Disposed by:	Date/Time:	
Comments:			

9613490.1778

0000020



Westinghouse
Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K. Lee, L. Walker Date Sampled 12-6-92 Time 0843 hours
 Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample *	Analysis Requested
BO 7 Q 49	3; 40ml; Gs*;	WATER	✓ CLP-VOA
	3; 2L; aG;	WATER	✓ CLP-SEMI VOA & PCB's/PEST
	1; 1L; P;	WATER	✓ ANIONS (IC) SO4, F, PO4, Cl/COND/pH
	1; 500ml; P;	WATER	✓ ANIONS/NO3-NO2 (H2SO4)
	1; 1L; G;	WATER	✓ ALK./TOT. DISSOLVED SOLIDS
	1; 500ml; G;	WATER	✓ SULFIDE (add Zinc Acetate + NaOH pH>9)
	1; 500ml; G;	WATER	✓ AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
	1; 1L; P;	WATER	✓ CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
	1; 1L; P;	WATER	✓ CLP-CN (NaOH)
	2; 4L; P;	WATER	✓ GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90, (HNO3)
	1; 1L; P;	WATER	✓ TC-99 (HCl)
	1; 250ml; Gs;	WATER	TRITIUM/C-14
BO 7 Q 110	1; 1L; P;	WATER	✓ CLP-ICP/AA METAL (FILTERED)/CLP-Hg (HNO3)
BO 7 Q 111	3; 40ml; Gs	WATER	✓ CLP-VOA
			OPC: # W93-0-0054-48
			BOL: # 2519007458
			TASK#: 92-398

Field Information ** _____

 Special Handling and/or Storage _____

 Possible Sample Hazards _____

PART II: LABORATORY SECTION

Received by Hermit Blum Title Sample Control Supervisor Date 12-8-92
 Analysis Required _____

* Indicate whether sample is soil, sludge, water, etc.
 ** Use back of page for additional information relative to sample location.

Westinghouse
Hanford Company

CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Project Designation/Sampling Locations 100-KR-4

Ice Chest No. NJ BOUND

Bill of Lading/Airbill No. 251 900 7458

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Telephone (509)376-5045

Collection Date 12/5/92

Field Logbook No. EPL-1048

Offsite Property No. W93-0-0059-48

Sample Identification

B07QV4

- 3, 40ml, Gs*, WATER, CLP-VOA
- 3, 2L, aG, WATER, CLP-SEMI VOA & PCB's/PEST
- 1, 1L, P, WATER, ANIONS(IC) SO4, F, PO4, Cl/COND./pH
- 1, 500ml, P, WATER, ANIONS/NO3-NO2 (H2SO4)
- 1, 1L, G, WATER, ALK./TOT. DISSOLVED SOLIDS
- 1, 500ml, G, WATER, SULFIDE (add Zinc Acetate+NaOH pH>9)
- 1, 500ml, G, WATER, AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
- 1, 1L, P, WATER, CLP-ICP/AA METALS~(UNFILTERED)/CLP-Hg~(HNO3)
- 1, 1L, P, WATER, CLP-CN (NaOH)
- 2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC(U-235/238, Pu-239/240, Am-241), Sr-90 (HNO3)
- 1, 1L, P, WATER, Tc-99 (HCl)
- 1, 250ml, Gs, WATER, TRITIUM/C-14

B07QV5

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

B07QV6

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

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: <i>Neddy 2 Lee K.D. Lee</i>	Received by: <i>AJ SIMPSON</i> <i>AJ Simpson</i>	Date/Time: 12-7-92 10 07
Relinquished by: <i>AJ SIMPSON</i> <i>AJ Simpson</i>	Received by: <i>Kermit Blum</i> <i>Kermit Blum</i>	Date/Time: 12-8-92 1130
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:
Final Sample Disposition		
Disposal Method:	Disposed by:	Date/Time:
Comments: <i>FRIG # 2</i>		

9613490.1780

000002F



Westinghouse
Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K. Lee, L. Walker

Date Sampled 12/5/92 Time 1101 hours

Company Contact P. H. Butcher

Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B07QV4	✓ 3; 40ml; Gs*;	WATER	CLP-VOA
	✓ 3; 2L; aG;	WATER	CLP-SEMI VOA & PCB's/PEST
	✓ 1; 1L; P;	WATER	ANIONS (IC) SO4, F, PO4, Cl/COND/pH
	✓ 1; 500ml; P;	WATER	ANIONS/NO3-NO2 (H2SO4)
	✓ 1; 1L; G;	WATER	ALK./TOT. DISSOLVED SOLIDS
	✓ 1; 500ml; G;	WATER	SULFIDE (add Zinc Acetate + NaOH pH > 9)
	✓ 1; 500ml; G;	WATER	AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH < 2)
	✓ 1; 1L; P;	WATER	CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
	✓ 1; 1L; P;	WATER	CLP-CN (NaOH)
	✓ 2; 4L; P;	WATER	GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC
			(U-235/238, Pu-239/240, Am-241), Sr-90, (HNO3)
	✓ 1; 1L; P;	WATER	Tc-99 (HCl)
	✓ 1; 250ml; Gs;	WATER	TRITIUM/C-14
B07QV5	✓ 1; 1L; P;	WATER	CLP-ICP/AA METAL (FILTERED)/CLP-Hg (HNO3)
B07QV6	✓ 3; 40ml; Gs	WATER	CLP-VOA
			OPC: # W93-0-005A-48
			BOL: # 2519007459
			TASK#: 92-398

Field Information**

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Kermit Blum

Title Sample Control Supervisor

Date 12-8-92

Analysis Required

* Indicate whether sample is soil, sludge, water, etc.
** Use back of page for additional information relative to sample location.

Westinghouse Hanford Company	<h2 style="margin: 0;">CHAIN OF CUSTODY</h2>
Custody Form Initiator PH BUTCHER Company Contact PH BUTCHER Project Designation/Sampling Locations 100-KR-4 Ice Chest No. SML-120 Bill of Lading/Airbill No. 251900745 Method of Shipment EMERY Shipped to TMA Possible Sample Hazards/Remarks N/A	Telephone (509)376-5045 Collection Date 12/6/92 Field Logbook No. EFL-1048 Offsite Property No. W93-0-COSA-50

Sample Identification

- BO7QP4**
- 3, 40ml, Gs*, WATER, CLP-VOA *
 - 3, 2L, aG, WATER, CLP-SEMI VOA & PCB's/PEST
 - 1, 1L, P, WATER, ANIONS(IC) SO4, F, PO4, Cl/COND./pH
 - 1, 500ml, P, WATER, ANIONS/NO3-NO2 (H2SO4)
 - 1, 1L, G, WATER, ALK./TOT. DISSOLVED SOLIDS
 - 1, 500ml, G, WATER, SULFIDE (add Zinc Acetate+NaOH pH>9)
 - 1, 500ml, G, WATER, AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
 - 1, 1L, P, WATER, CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg. (HNO3)
 - 1, 1L, P, WATER, CLP-CN (NaOH)
 - 2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90 (HNO3)
 - 1, 1L, P, WATER, Tc-99 (HCl)
 - 1, 250ml, Gs, WATER, TRITIUM/C-14

- BO7QP5**
- 1, 1L, P, WATER, CLP-ICP/AA METALS (FILTERED)/CLP-Hg (HNO3)

- BO7QP6**
- 3, 40ml, Gs, WATER, CLP-VOA

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: <i>Kathy Phelan K.D. Coe</i>	Received by: AJSIMPSON <i>AJ Simpson</i>	Date/Time: 12/7/92 1021
Relinquished by: AJSIMPSON <i>AJ Simpson</i>	Received by: KERMIT Blum <i>Kermit Blum</i>	Date/Time: 12-8-92 1130
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition		
Disposal Method:	Disposed by:	Date/Time:
Comments: FRIG #2		

* Received two VOA vials ID BO7QP4 @ TMA/NORCAL - KB
 Received one VOA vial ID BO7PQ4 -



Westinghouse
Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K. Lee, L. Walker Date Sampled 12/6/92 Time 1095 hours
 Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
BO 7QP4	✓3; 40ml; Gs*	WATER	CLP-VOA (ONE VOA I.D.# BO7PQ4)
	✓3; 2L; aG;	WATER	CLP-SEMI VOA & PCB's/PEST
	✓1; 1L; P;	WATER	ANIONS (IC) SO4, F, PO4, Cl/COND/pH
	✓1; 500ml; P;	WATER	ANIONS/NO3-NO2 (H2SO4)
	✓1; 1L; G;	WATER	ALK./TOT. DISSOLVED SOLIDS
	✓1; 500ml; G;	WATER	SULFIDE (add Zinc Acetate + NaOH pH > 9)
	✓1; 500ml; G;	WATER	AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH < 2)
	✓1; 1L; P;	WATER	CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
	✓1; 1L; P;	WATER	CLP-CN (NaOH)
	✓2; 4L; P;	WATER	GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90, (HNO3)
	✓1; 1L; P;	WATER	Tc-99 (HCl)
	✓1; 250ml; Gs;	WATER	TRITIUM/C-14
BO7QP5	✓1; 1L; P;	WATER	CLP-ICP/AA METAL (FILTERED)/CLP-Hg (HNO3)
BO7QP6	✓3; 40ml; Gs	WATER	CLP-VOA OPC: # W93-0-0059-50 BOL: # 2519007488 TASK#: 92-398

Field Information**

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Kermit Blum Title Sample Control Supervisor Date 12-8-92
 Analysis Required _____

* Indicate whether sample is soil, sludge, water, etc.
 ** Use back of page for additional information relative to sample location.

Westinghouse
Hanford Company

CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-KR-4

Collection Date 12-5-92

Ice Chest No. SML-110

Field Logbook No. EFL-1049

Bill of Lading/Airbill No. 251900 7454

Offsite Property No. W93-0-0059-47

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

B07Q74

- 3, 40ml, Gs*, WATER, CLP-VOA
- 3, 2L, aG, WATER, CLP-SEMI VOA & PCB's/PEST
- 1, 1L, P, WATER, ANIONS(IC) SO4, F, PO4, Cl/COND./pH
- 1, 500ml, P, WATER, ANIONS/NO3-NO2 (H2SO4)
- 1, 1L, G, WATER, ALK./TOT. DISSOLVED SOLIDS
- 1, 500ml, G, WATER, SULFIDE (add Zinc Acetate+NaOH pH>9)
- 1, 500ml, G, WATER, AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
- 1, 1L, P, WATER, CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
- 1, 1L, P, WATER, CLP-CN (NaOH)
- 2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90 (HNO3)
- 1, 1L, P, WATER, Tc-99 (HCl)
- 1, 250ml, Gs, WATER, TRITIUM/C-14

B07Q75

- 1, 1L, P, WATER, CLP-ICP/AA METALS (FILTERED)/CLP-Hg (HNO3)

B07Q76

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

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: <i>G G Hamilton</i> G G HAMILTON	Received by: <i>AJ Simpson</i> AJ Simpson	Date/Time: 12/7/92 0958
Relinquished by: <i>AJ Simpson</i> AJ Simpson	Received by: <i>Kermit Blum</i> Kermit Blum	Date/Time: 12-8-92 1130
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:
Final Sample Disposition		
Disposal Method:	Disposed by:	Date/Time:
Comments: <i>FLIG #1</i>		



Westinghouse
Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K. Lee, L. Walker

Date Sampled 12-5-92 0904 Time 0904 hours

Company Contact P. H. Butcher

Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B07QT4	✓ 3; 40ml; Gs*;	WATER	CLP-VOA
	✓ 3; 2L; aG;	WATER	CLP-SEMI VOA & PCB's/PEST
	✓ 1; 1L; P;	WATER	ANIONS (IC) SO4, F, PO4, Cl/COND/pH
	- ✓ 1; 500ml; P;	WATER	ANIONS/NO3-NO2 (H2SO4)
	✓ 1; 1L; G;	WATER	ALK./TOT. DISSOLVED SOLIDS
	✓ 1; 500ml; G;	WATER	SULFIDE (add Zinc-Acetate + NaOH pH > 9)
	✓ 1; 500ml; G;	WATER	AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH < 2)
	✓ 1; 1L; P;	WATER	CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
	✓ 1; 1L; P;	WATER	CLP-CN (NaOH)
	✓ 2; 4L; P;	WATER	GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90, (HNO3)
	✓ 1; 1L; P;	WATER	Tc-99 (HCl)
	✓ 1; 250ml; Gs;	WATER	TRITIUM/C-14
B07QT5	✓ 1; 1L; P;	WATER	CLP-ICP/AA METAL (FILTERED)/CLP-Hg (HNO3)
B07QT6	✓ 3; 40ml; Gs	WATER	CLP-VOA
			OPC: # W93-0-0069-47
			BOL: # 251900 7458
			TASK#: 92-398

Field Information **

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Hermit Blum Title Sample Control Supervisor Date 12-8-92

Analysis Required

* Indicate whether sample is soil, sludge, water, etc.
* Use back of page for additional information relative to sample location.

Westinghouse Hanford Company	CHAIN OF CUSTODY
Custody Form Initiator PH BUTCHER	Telephone (509)376-5045
Company Contact PH BUTCHER	Collection Date 12-6-92
Project Designation/Sampling Locations 100-KR-4	Field Logbook No. EFL 1049
Ice Chest No. 568	Offsite Property No. W93-0-0059-49
Bill of Lading/Airbill No. 2519007458	
Method of Shipment EMERY	
Shipped to TMA	
Possible Sample Hazards/Remarks N/A	

Sample Identification

BO7QU4

- 3, 40ml, Gs*, WATER, CLP-VOA
- 3, 2L, aG, WATER, CLP-SEMI VOA & PCB's/PEST
- 1, 1L, P, WATER, ANIONS(IC) SO4, F, PO4, Cl/COND./pH
- 1, 500ml, P, WATER, ANIONS/NO3-NO2 (H2SO4)
- 1, 1L, G, WATER, ALK./TOT. DISSOLVED SOLIDS
- 1, 500ml, G, WATER, SULFIDE (add Zinc Acetate+NaOH pH>9)
- 1, 500ml, G, WATER, AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
- 1, 1L, P, WATER, CLP-ICP/AA METALS~(UNFILTERED)/CLP-Hg~(HNO3)
- 1, 1L, P, WATER, CLP-CN (NaOH)
- 2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC(U-235/238, Pu-239/240, Am-241), Sr-90 (HNO3)
- 1, 1L, P, WATER, Tc-99 (HCl)
- 1, 250ml, Gs, WATER, TRITIUM/C-14

BO7QU5

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

BO7QU6

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

<input type="checkbox"/> Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: <i>AJ Simpson</i> <i>C.G. Hamilton</i>	Received by: AJ SIMPSON <i>AJ Simpson</i>	Date/Time: 12/7/92 1014
Relinquished by: AJ SIMPSON <i>AJ Simpson</i>	Received by: KERMIT Blum <i>Kermit Blum</i>	Date/Time: 12-8-92 1130
Relinquished by:	Received by:	Date/Time:
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

Collector K. Lee, L. Walker Date Sampled 12-6-92 Time 1100 hours
Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
BO 7QV4	3; 40ml; Gs*;	WATER	<input checked="" type="checkbox"/> CLP-VOA
	3; 2L; aG;	WATER	<input checked="" type="checkbox"/> CLP-SEMI VOA & PCB's/PEST
	1; 1L; P;	WATER	<input checked="" type="checkbox"/> ANIONS (IC) SO4, F, PO4, Cl/COND/pH
	1; 500ml; P;	WATER	<input checked="" type="checkbox"/> ANIONS/NO3-NO2 (H2SO4)
	1; 1L; G;	WATER	<input checked="" type="checkbox"/> ALK./TOT. DISSOLVED SOLIDS
	1; 500ml; G;	WATER	<input checked="" type="checkbox"/> SULFIDE (add Zinc Acetate + NaOH pH > 9)
	1; 500ml; G;	WATER	<input checked="" type="checkbox"/> AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH < 2)
	1; 1L; P;	WATER	<input checked="" type="checkbox"/> CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
	1; 1L; P;	WATER	<input checked="" type="checkbox"/> CLP-CN (NaOH)
	2; 4L; P;	WATER	<input checked="" type="checkbox"/> GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90, (HNO3)
	1; 1L; P;	WATER	<input checked="" type="checkbox"/> Tc-99 (HCl)
	1; 250ml; Gs;	WATER	<input checked="" type="checkbox"/> TRITIUM/C-14
BO 7QV5	1; 1L; P;	WATER	<input checked="" type="checkbox"/> CLP-ICP/AA METAL (FILTERED)/CLP-Hg (HNO3)
BO 7QV6	3; 40ml; Gs	WATER	<input checked="" type="checkbox"/> CLP-VOA
			OPC: # W93-7-0059-49
			BOL: # 2519007458
			TASK#: 92-398

Field Information**

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Hermit Blum Title Sample Control Supervisor Date 12-8-92
Analysis Required _____

* Indicate whether sample is soil, sludge, water, etc.
** Use back of page for additional information relative to sample location.

Westinghouse Hanford Company	CHAIN OF CUSTODY
Custody Form Initiator PH BUTCHER	Telephone (509)376-5045
Company Contact PH BUTCHER	Collection Date 12-5-92
Project Designation/Sampling Locations 100-KR-4	Field Logbook No. EFL 7049
Ice Chest No. SATAS 207	Offsite Property No. W93-0-0059-47
Bill of Lading/Airbill No. 2519007458	
Method of Shipment EMERY	
Shipped to TMA	
Possible Sample Hazards/Remarks N/A	

Sample Identification

BO7QV9

- 3, 40ml, Gs*, WATER, CLP-VOA
- 3, 2L, aG, WATER, CLP-SEMI VOA & PCB's/PEST
- 1, 1L, P, WATER, ANIONS(IC) SO4, F, PO4, Cl/COND./pH
- 1, 500ml, P, WATER, ANIONS/NO3-NO2 (H2SO4)
- 1, 1L, G, WATER, ALK./TOT. DISSOLVED SOLIDS
- 1, 500ml, G, WATER, SULFIDE (add Zinc Acetate+NaOH pH>9)
- 1, 500ml, G, WATER, AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
- 1, 1L, P, WATER, CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
- 1, 1L, P, WATER, CLP-CN (NaOH)
- 2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90 (HNO3)
- 1, 1L, P, WATER, Tc-99 (HCl)
- 1, 250ml, Gs, WATER, TRITIUM/C-14

BO7QW0

- 1, 1L, P, WATER, CLP-ICP/AA METALS (FILTERED)/CLP-Hg (HNO3)

BO7QW1

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

BO7QET 3 ; 40ml Gs water CLP-VOA

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: <i>G.C. Hamilton</i> G.C. HAMILTON	Received by: AJ SIMPSON <i>AJ Simpson</i>	Date/Time: 12/7/92 0959
Relinquished by: <i>AJ Simpson</i> AJ SIMPSON	Received by: KERMIT BLUM <i>Kermit Blum</i>	Date/Time: 12-8-92 1130
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:
Final Sample Disposition		
Disposal Method:	Disposed by:	Date/Time:
Comments: FRIG # 1		

9613490.1788

000021


 Westinghouse
Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K. Lee, L. WalkerDate Sampled 12-5-92 1143 Time 1143 hoursCompany Contact P. H. ButcherTelephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
BO 7QV9	3; 40ml; Gs*;	WATER	✓ CLP-VOA ✓
	3; 2L; aG;	WATER	✓ CLP-SEMI VOA & PCB's/PEST ✓
	1; 1L; P;	WATER	✓ ANIONS (IC) SO4, F, PO4, Cl/COND/pH ✓
-	1; 500ml; P;	WATER	✓ ANIONS/NO3-NO2 (H2SO4) ✓
	1; 1L; G;	WATER	✓ ALK./TOT. DISSOLVED SOLIDS ✓
	1; 500ml; G;	WATER	✓ SULFIDE (add Zinc Acetate + NaOH pH > 9) ✓
	1; 500ml; G;	WATER	✓ AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH < 2) ✓
	1; 1L; P;	WATER	✓ CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3) ✓
	1; 1L; P;	WATER	✓ CLP-CN (NaOH) ✓
	2; 4L; P;	WATER	✓ GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC ✓
			(U-235/238, Pu-239/240, Am-241), Sr-90, (HNO3) ✓
	1; 1L; P;	WATER	✓ Tc-99 (HCl) ✓
	1; 250ml; Gs;	WATER	✓ TRITIUM/C-14 ✓
BO 7QW0	1; 1L; P;	WATER	✓ CLP-ICP/AA METAL (FILTERED)/CLP-Hg (HNO3) ✓
BO 7QZ7	3; 40ml Gs	WATER	CLP-VOA ✓
BO 7QW1	3; 40ml; Gs	WATER	✓ CLP-VOA ✓
			OPC: # W93-0-0059-47 ✓
			BOL: # 2519007456 ✓
			TASK#: 92-398 ✓

Field Information**

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Hermit Blum Title Sample Control Supervisor Date 12-8-92

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

Project Designation/Sampling Locations 100-KR-4

Ice Chest No. *SML-50A*

Bill of Lading/Airbill No. 2519007458

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Telephone (509)376-5045

Collection Date 12-5-92

Field Logbook No. EFL 1049

Offsite Property No. W93-0-0059-50

Sample Identification

B07QW9

- 3, 40ml, Gs*, WATER, CLP-VOA
- 3, 2L, aG, WATER, CLP-SEMI VOA & PCB's/PEST
- 1, 1L, P, WATER, ANIONS(IC) SO4, F, PO4, Cl/COND./pH
- 1, 500ml, P, WATER, ANIONS/NO3-NO2 (H2SO4)
- 1, 1L, G, WATER, ALK./TOT. DISSOLVED SOLIDS
- 1, 500ml, G, WATER, SULFIDE (add Zinc Acetate+NaOH pH>9)
- 1, 500ml, G, WATER, AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
- 1, 1L, P, WATER, CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
- 1, 1L, P, WATER, CLP-CN (NaOH)
- 2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90 (HNO3)
- 1, 1L, P, WATER, Tc-99 (HCl)
- 1, 250ml, Gs, WATER, TRITIUM/C-14

B07QX0

- 1, 1L, P, WATER, CLP-ICP/AA METALS (FILTERED)/CLP-Hg (HNO3)

B07QX1

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

[] Field Transfer of Custody		Chain of Possession	(Sign and Print Names)
Relinquished by: <i>GG Hamilton</i> GG HAMILTON	Received by: AJ SIMPSON <i>AJ Simpson</i>	Date/Time: 12/7/92 1025	
Relinquished by: AJ SIMPSON <i>AJ Simpson</i>	Received by: Kermit Blum <i>Kermit Blum</i>	Date/Time: 12-8-92 1130	
Relinquished by:	Received by:	Date/Time:	
Relinquished by:	Received by:	Date/Time:	
Final Sample Disposition			
Disposal Method:	Disposed by:	Date/Time:	
Comments: <i>FRIG # 3</i>			



Westinghouse
Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K. Lee, L. Walker Date Sampled 12-5-92 Time 1142 hours
 Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B07QW9	✓ 3; 40ml; Gs*;	WATER	CLP-VOA
	✓ 3; 2L; aG;	WATER	CLP-SEMI VOA & PCB's/PEST
	✓ 1; 1L; P;	WATER	ANIONS (IC) SO4, F, PO4, CI/COND/pH
-	✓ 1; 500ml; P;	WATER	ANIONS/NO3-NO2 (H2SO4)
	✓ 1; 1L; G;	WATER	ALK./TOT. DISSOLVED SOLIDS
	✓ 1; 500ml; G;	WATER	SULFIDE (add Zinc-Acetate + NaOH pH>9)
	✓ 1; 500ml; G;	WATER	AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
	✓ 1; 1L; P;	WATER	CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
	✓ 1; 1L; P;	WATER	CLP-CN (NaOH)
	✓ 2; 4L; P;	WATER	GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90, (HNO3)
	✓ 1; 1L; P;	WATER	Tc-99 (HCl)
	✓ 1; 250ml; Gs;	WATER	TRITIUM/C-14
B07QX0	✓ 1; 1L; P;	WATER	CLP-ICP/AA METAL (FILTERED)/CLP-Hg (HNO3)
B07QX1	✓ 3; 40ml; Gs	WATER	CLP-VOA
			OPC: # W93-0-009A-50
			BOL: # 2519007458
			TASK#: 92-398

Field Information

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Hermit Blum Title Sample Control Supervisor Date 12-8-92
 Analysis Required _____

*Indicate whether sample is soil, sludge, water, etc.
 Use back of page for additional information relative to sample location.

9613490.1791

SAMPLE LOG-IN SHEET

LAB NAME : TMA/ARLI

PAGE : 1

OF 000003

RECEIVED BY (PRINT NAME): Judy Golub

LOG-IN-DATE : 12/9/92

RECEIVED BY (SIGNATURE): Judy Golub

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

CORRESPONDING

EPA
SAMPLE
#

SAMPLE
TAG
#

ASSIGNED
LAB
#

REMARKS:
CONDITION OF
SAMPLE SHIPMENT, ETC

REMARKS: IT-21

1. Custody Seal(s) Present/Absent*
Intact/Broken

307QT4
307QN4

2. Custody Seal Nos: _____

3. Chain of Custody Present/Absent*
Records

4. Traffic Reports Present/Absent*
or Packing List

5. Airbill Airbill/Sticker
Present/Absent*

6. Airbill No.: 5188042720

7. Sample Tags Present/Absent*

8. Sample Tags Listed/Not Listed on
Numbers Chain of Custody

9. Sample Condition: Intact/Broken*/
Leaking

10. Does information Yes/No*
on custody
records, traffic
reports, and
sample tags agree

11. Date Recieved at Lab: 12/9/92

12. Temp of ice chest 2 °

13. Time Recieved: 0930

SAMPLE TRANSFER

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

* Contact SMO and attach record of resolution

Reviewed By: _____ Logbook No.: _____
Date: _____ Logbook Page No.: _____

9613490.1792

SAMPLE LOG-IN SHEET

LAB NAME : TMA/ARLI

PAGE : 2 OF 000004

RECEIVED BY (PRINT NAME): Judy Golub

LOG-IN-DATE : 12/9/92

RECEIVED BY (SIGNATURE): Judy Golub

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

CORRESPONDING

EPA
SAMPLE
#

SAMPLE
TAG
#

ASSIGNED
LAB
#

REMARKS:
CONDITION OF
SAMPLE SHIPMENT, ET

REMARKS: JJ-13

B07QP4
B07SW9

- 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.: 5188042720
- 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 Received at Lab: 12/9/92
- 12. Temp of ice chest 3 °C
- 13. Time Received: 0930

SAMPLE TRANSFER

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

* Contact SHD and attach record of resolution

Reviewed By: _____ Logbook No.: _____
Date: _____ Logbook Page No.: _____

9613490.1793

SAMPLE LOG-IN SHEET

000005

LAB NAME : TWA/ARLI

PAGE :

3

OF

RECEIVED BY (PRINT NAME): Trudy Golub

LOG-IN-DATE : 12/9/92

RECEIVED BY (SIGNATURE): [Signature]

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

CORRESPONDING

EPA
SAMPLE
#

SAMPLE
TAG
#

ASSIGNED
LAB
#

REMARKS:
CONDITION OF
SAMPLE SHIPMENT, ETC

REMARKS: IS-IS-1

1. Custody Seal(s) Present/Absent*
Intact/Broken

B07QP6

B07QT6

B07QNG

B07QX1

B07QP4

B07QN4

B07QT4

B07QW9

2VQA's received
vs 3 on C.O.C

2. Custody Seal Nos: _____

3. Chain of Custody Present/Absent*
Records

4. Traffic Reports Present/Absent*
or Packing List

5. Airbill Airbill/Sticker
Present/Absent*

6. Airbill No.: 5188042720

7. Sample Tags Present/Absent*

8. Sample Tags Listed/Not Listed on
Numbers Chain of Custody

9. Sample Condition: Intact/Broken*
Leaking

10. Does information Yes/No*
on custody
records, traffic
reports, and
sample tags agree

11. Date Received at Lab: 12/9/92

12. Temp of ice chest 3 °F

13. Time Received: 0930

SAMPLE TRANSFER

Fraction: _____

Area #: _____

By: _____

On: _____

* Contact SMO and attach record of resolution

Reviewed By: _____ Logbook No.: _____

Date: _____ Logbook Page No.: _____

9613490.1794

SAMPLE LOG-IN SHEET

PAGE : 4 000006

LAB NAME : TMA/ARLI

RECEIVED BY (PRINT NAME): Trudy Golub

LOG-IN-DATE : 12/9/92

RECEIVED BY (SIGNATURE): *[Signature]*

CASE NUMBER: SAMPLE DELIVERY GROUP NO.: SAS NUMBER: <u>SML-118</u>	CORRESPONDING			REMARKS: CONDITION OF SAMPLE SHIPMENT, ETC
	EPA SAMPLE #	SAMPLE TAG #	ASSIGNED LAB #	
REMARKS:		B07QL9		
1. Custody Seal(s) <u>Present/Absent*</u> <u>Intact/Broken</u>		B07QV4		
2. Custody Seal Nos: _____		B07QV9		
		B072K4		
3. Chain of Custody Records <u>Present/Absent*</u>				
4. Traffic Reports or Packing List <u>Present/Absent*</u>				
5. Airbill <u>Airbill/Sticker</u> <u>Present/Absent*</u>				
6. Airbill No.: <u>5185042720</u>				
7. Sample Tags <u>Present/Absent*</u>				
8. Sample Tags Numbers <u>Listed/Not Listed on</u> <u>Chain of Custody</u>				
9. Sample Condition: <u>Intact/Broken*/</u> <u>Leaking</u>				
10. Does information <u>Yes/No*</u> on custody records, traffic reports, and sample tags agree				
11. Date Received at Lab: <u>12/9/92</u>				
12. Temp of ice chest <u>0</u> °C				
13. Time Received: <u>0930</u>				
SAMPLE TRANSFER				
Fraction: _____				
Area #: _____				
By: _____				
On: _____				

* Contact SMO and attach record of resolution

Reviewed By: _____ Logbook No.: _____
Date: _____ Logbook Page No.: _____

9613490-1795

SAMPLE LOG-IN SHEET

LAB NAME : TMA/ARLI

PAGE : 5 OF 000007

RECEIVED BY (PRINT NAME): Judy Golub

LOG-IN-DATE : 12/9/92

RECEIVED BY (SIGNATURE): Judy Golub

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

CORRESPONDING

EPA
SAMPLE
#

SAMPLE
TAG
#

ASSIGNED
LAB
#

REMARKS:
CONDITION OF
SAMPLE SHIPMENT, ETC

REMARKS: SML 504

1. Custody Seal(s) Present/Absent*
Intact/Broken

B07QL9
B07QK4
B07QV4

ONE SEMI VOLA.
ARRIVED 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.: 5188042720

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 Yes/No*

on custody records, traffic reports, and sample tags agree

12/9/92

11. Date Received at Lab:

12. Temp of ice chest 2 °C

13. Time Received: 0935

SAMPLE TRANSFER

Fraction: _____

Area #: _____

By: _____

On: _____

* Contact SPD and attach record of resolution

Reviewed By: _____ Logbook No.: _____
Date: _____ Logbook Page No.: _____

LAB NAME : TMA/ARLI

PAGE :

RECEIVED BY (PRINT NAME): Trudy

LOG-IN-DATE : 12/9/92

RECEIVED BY (SIGNATURE): [Signature]

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

CORRESPONDING

EPA
SAMPLE
#

SAMPLE
TAG
#

ASSIGNED
LAB
#

REMARKS:
CONDITION OF
SAMPLE SHIPMENT, ETC

REMARKS: WJ - Bound

1. Custody Seal(s) Present/Absent*
Intact/Broken

B07QZ7
B07QK10
B07QM1

2. Custody Seal Nos: _____

B07QV4
B07QL9

3. Chain of Custody
Records Present/Absent*

B07QV9

B07QK4 Aa-12-30/27-01 4 Swifide bottle
cracked cap

4. Traffic Reports
or Packing List Present/Absent*

5. Airbill Airbill/Sticker
Present/Absent*

6. Airbill No.: 518 8042720

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 Received at Lab: 12/9/92

12. Temp of ice chest 0 °C

13. Time Received: 09:35

SAMPLE TRANSFER

Fraction: _____

Area #: _____

By: _____

On: _____

* Contact SMO and attach record of resolution

Reviewed By: _____ Logbook No.: _____

Date: _____ Logbook Page No.: _____

9613490.1/97

SAMPLE LOG-IN SHEET

000009

LAB NAME : TMA/ARLI

PAGE : 7

OF

RECEIVED BY (PRINT NAME): Rudy Golub

LOG-IN-DATE : 12/9/92

RECEIVED BY (SIGNATURE): [Signature]

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

CORRESPONDING

EPA
SAMPLE
#

SAMPLE
TAG
#

ASSIGNED
LAB
#

REMARKS:
CONDITION OF
SAMPLE SHIPMENT, ETC

REMARKS: BIUY

1. Custody Seal(s) Present/Absent*
Intact/Broken

B07QV6

2. Custody Seal Nos: _____

B07QW1

B07QV9

3. Chain of Custody
Records Present/Absent*

B07QL9

B07QV4

B07254

4. Traffic Reports
or Packing List Present/Absent*

5. Airbill Airbill/Sticker
Present/Absent*

6. Airbill No.: 5185042120

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 Yes/No*
on custody
records, traffic
reports, and
sample tags agree

11. Date Received at Lab: 12/9/92

12. Temp of ice chest 2 °C

13. Time Received: 0930

SAMPLE TRANSFER

Fraction: _____

Area #: _____

By: _____

On: _____

* Contact SMO and attach record of resolution

Reviewed By: _____ Logbook No.: _____

Date: _____ Logbook Page No.: _____

TMA/ARLI
The radio Analytical Inc.

RADIATION DOSE RATE SURVEY FORM

Date 12/09/92 COMPANY WRC (WHC) OTHER ORD # 5188042720

Surveyor's Name MARK S. McCray

Model No. HP-310 / ESP-1 Model No. ACS-7 / ESP-1

Serial Nos. 710289 / 02619 Serial Nos. 407726 / 02628

Calibration Date 12/02/92 Calibration Date 8/01/92

Instrument Calibration Factor .280 Instrument Calibration Factor 0.188

Sample	Location	HP-310 CPM	HP-310 Factor	HP-310 DPM	ACS-7 CPM	ACS-7 Factor	ACS-7 DPM	Soilings or Interference?	Activity, dCi/mL or pCi/g
Background		36.0			1.0				
Consistency		7,230	0.2749		5,060	0.1860			
Smear: IS/S-1		25.0			4.0			NONE	
SM-118		46.0			3.0			NONE	
"BILLY"		59.0			1.0			NONE	
SM-504		46.0			1.0			NONE	
IT-21		47.0			3.0			NONE	
N.J. BOUNDS		46.0			4.0			NONE	
IT-13		25.0			1.0			NONE	
Reported (WHC) 45 samples each < 50 pCi									

Comments:

All OK

Approved MSM

Not OK

Date 12/09/92

000011



QUESTIONS? CALL 800-238-5355 TOLL FREE.

AIRBILL
PACKAGE
TRACKING NUMBER

5188042720

5188042720

Date
12.8.92

RECIPIENT'S COPY

From (Your Name) Please Print SAMPLE control		Your Phone Number (Very Important) (510) 9235-2635	To (Recipient's Name) Please Print SAMPLE control ()		Recipient's Phone Number (Very Important)
Company T A MOUNGAL		Department/Floor No	Company TMA/ARL		Department/Floor No
Street Address 2030 FOUNTAIN AVE		City SILVERDALE	Exact Street Address (We Cannot Deliver to P.O. Boxes or P.O. Zip Codes) 160 Taylor Street		City MUNDOVIA
State CA	ZIP Required 94804	State CA	ZIP Required 91016		

YOUR INTERNAL BILLING REFERENCE INFORMATION (optional) (First 24 characters will appear on invoice)
23206406

IF HOLD FOR PICK-UP, Print FEDEX Address Here
Street Address
City
State
ZIP Required

PAYMENT 1 Bill Sender 2 Bill Recipient's FedEx Acct No 3 Bill 3rd Party FedEx Acct No 4 Bill Credit Card
5 Cash Check

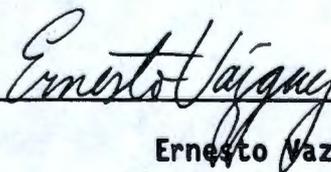
4 SERVICES (Check only one box) Priority Overnight (Delivery by next business morning) 11 <input checked="" type="checkbox"/> YOUR PACKAGING 16 <input type="checkbox"/> FEDEX LETTER* 12 <input type="checkbox"/> FEDEX PAK* 13 <input type="checkbox"/> FEDEX BOX 14 <input type="checkbox"/> FEDEX TUBE Economy Two-Day (Delivery by two business days) 30 <input type="checkbox"/> ECONOMY Standard Overnight (Delivery by next business afternoon by Saturday delivery) 51 <input type="checkbox"/> YOUR PACKAGING 56 <input type="checkbox"/> FEDEX LETTER* 52 <input type="checkbox"/> FEDEX PAK* 53 <input type="checkbox"/> FEDEX BOX 54 <input type="checkbox"/> FEDEX TUBE Government Overnight (Requires full authorized return only) 46 <input type="checkbox"/> GOVT LETTER 41 <input type="checkbox"/> GOVT PACKAGE Freight Service (For rates, go to www.fedex.com) 70 <input type="checkbox"/> OVERNIGHT FREIGHT** 80 <input type="checkbox"/> TWO-DAY FREIGHT**		5 DELIVERY AND SPECIAL HANDLING (Check services required) 1 <input type="checkbox"/> HOLD FOR PICK-UP (Fill in Box 1) 2 <input checked="" type="checkbox"/> DELIVER WEEKDAY 3 <input type="checkbox"/> DELIVER SATURDAY (Extra charge) (Not available to all locations) 4 <input type="checkbox"/> DANGEROUS GOODS (Extra charge) 5 <input type="checkbox"/> 6 <input type="checkbox"/> DRY ICE lbs. 7 <input type="checkbox"/> OTHER SPECIAL SERVICE 8 <input type="checkbox"/> 9 <input type="checkbox"/> SATURDAY PICK-UP (Extra charge) 10 <input type="checkbox"/> 12 <input type="checkbox"/> HOLIDAY DELIVERY (if allowed) (Extra charge)		6 PACKAGES WEIGHT YOUR DECLARED VALUE Total Total Total 7 439 DIM SHIPMENT (Chargeable Weight) <input type="checkbox"/> lbs. L x W x H Received At <input checked="" type="checkbox"/> Regular Stop <input type="checkbox"/> Drop Box <input type="checkbox"/> On-Call Stop <input type="checkbox"/> Station		7 Emp No Date Federal Express Use <input type="checkbox"/> Cash Received <input type="checkbox"/> Return Shipment <input type="checkbox"/> Third Party <input type="checkbox"/> Chg To Del <input type="checkbox"/> Chg To Hold Street Address City State Zip Received By X Date/Time Received FedEx Employee Number Total Charges REVISION DATE 2/92 PART #137204 FXSP FORMAT #126 126 © 1991 FE PRINTED IN U.S.A.	
--	--	--	--	---	--	---	--

9613490-1799

GENERAL CHEMISTRY RESULTS**CASE NO. 12-030****Water Sample #:****B07QK4
B07QP4
B07QV9****B07QL9
B07QT4
B07QW9****B07QN4
B07QV4****CASE NARRATIVE**

The holding times for the pH, Alkalinity, Sulfide, TDS and COD analyses was exceeded. Careful review of the QC analysis indicate that the data is reliable.

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



Ernesto Vazquez

9613490.1801

000015

TNA Inc.

REPORT

Work Order # A2-12-030

Received: 12/08/92

02/03/93 06:52:00

REPORT Westinghouse Hanford Company
TO 2355 Stevens Dr.
Richland, WA, 99352
MO-346/200 West/T6-08

PREPARED Thermo Analytical, Inc.
BY 160 Taylor Street
Monrovia, CA 91016

Ernesto Valquez
CERTIFIED BY

ATTEN Jeanette Duncan

ATTEN Ms. Carole Harris
PHONE 818-357-3247

CONTACT EVV CIH

CLIENT WHC SAMPLES 9
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 re-
tained a maximum of 30 days unless otherwise requested.

WORK ID 100-KR-4
TAKEN By Westinghouse Staff
TRANS By Federal Express
TYPE Liquid
P.O. # N2-12-040-SU-AR
INVOICE under separate cover

VOA Analysis for PO# N2-12-040 can be found on WO# A2-12-030

SAMPLE IDENTIFICATION

TEST CODES and NAMES used on this workorder

- 01 B07QK4
- 01 B07QK4 MS
- 01 B07QK4
- 01 B07QK4 Duplicate
- 01 B07QK4
- 01 B07QK4 MS
- 02 B07QL9
- 02 B07QL9 MS
- 02 B07QL9 MSD
- 02 B07QL9
- 02 B07QL9 Duplicate
- 02 B07QL9
- 02 B07QL9 MS
- 02 B07QL9
- 02 B07QL9 Duplicate
- 03 B07QN4
- 03 B07QN4 MS
- 03 B07QN4 MSD
- 03 B07QN4
- 03 B07QN4 Duplicate
- 03 B07QN4
- 04 B07QP4
- 05 B07QT4
- 06 B07QV4
- 07 B07QV9
- 08 B07QW9

- BNCLPW CLP Semivol. Water - WH020
- PECLPL CLP Pesticides Liq.-WH019
- WCCLPL Anions & Wet Chem. - WH043
- WCL L Chloride - WH120
- WCQCD Quality Control Summary
- WCQCS Quality Control Summary
- WF L Fluoride in Water
- WNH3 L Ammonia in Water - WH140
- WPH L pH of Liquid - WH121
- WPO4 L Phosphate in Liquids
- WSO4 L Sulfate (in Waters)
- WSULFI Sulfide - WH114
- W ALK Alkalinity - WH131
- W COD COD Water - WH132
- W COND Conductivity-Water WH135
- W TDS Dissolved Solids WH128

9613490.1802

000016

Received: 12/08/92

TNA Inc.

REPORT

Work Order # A2-12-030

02/03/93 06:52:00

SAMPLE IDENTIFICATION

08 B07QW9

09 Wet Chemistry Blank

9613490.1803

000017

Received: 12/08/92

TNA Inc.

REPORT

Work Order # A2-12-030

Results by Sample

SAMPLE ID B07QK4FRACTION 01BTEST CODE MCCLPLNAME Anions & Vet Chem. - WH043Date & Time Collected 12/05/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
<u>ANALYSIS</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>LIMIT</u>
Chloride	300.0	7.7	mg/L	0.2
Fluoride	300.0	0.4	mg/L	0.1
Phosphate	300.0	<0.4	mg/L	0.4
pH	150.1	7.9	pH	0.1
Sulfate	300.0	26	mg/L	1
Elect. Conductivity	120.1	358	umho/cm	6

FORM I

9613490.1804

000018

TNA Inc.

REPORT

Work Order # A2-12-030

Received: 12/08/92

Results by Sample

SAMPLE ID B079K6

FRACTION 010

TEST CODE WCCLPL

NAME Anions & Vet Chem. - VN043

Date & Time Collected 12/05/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
<u>ANALYSIS</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>LIMIT</u>
Alkalinity	310.1	132	mg/L	2
Tot. Dissolved Solids	160.1	216	mg/L	5

FORM 1

9613490.1805

000019

TNA Inc.

REPORT

Work Order # A2-12-030

Received: 12/08/92

Results by Sample

SAMPLE ID B070K4

FRACTION 01F

TEST CODE UCCLPL

NAME Anions & Wet Chem. - W043

Date & Time Collected 12/05/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Sulfide	376.1	<1	mg/L	1

FORM 1

9613490.1806

000020

TMA Inc.

REPORT

Work Order # A2-12-030

Received: 12/08/92

Results by Sample

SAMPLE ID B079K4

FRACTION 016

TEST CODE WCCLPL

NAME Anions & Vet Chem. - VR043

Date & Time Collected 12/05/92

Category _____

ANIONS AND VET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	<0.05	mg/L	0.05
COD	410.0	<5	mg/L	5

FORM 1

9613490.1807

000021

Received: 12/08/92

TNA Inc. REPORT
Results by Sample

Work Order # A2-12-030

SAMPLE ID B070L9

FRACTION 02D TEST CODE WCCLPL NAME Anions & Wet Chem. - VN043

Date & Time Collected 12/06/92 Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
<u>ANALYSIS</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>LIMIT</u>
Chloride	300.0	5.0	mg/L	0.2
Fluoride	300.0	<0.1	mg/L	0.1
Phosphate	300.0	<0.4	mg/L	0.4
pH	150.1	8.1	pH	0.1
Sulfate	300.0	52	mg/L	1
Elect. Conductivity	120.1	281	umho/cm	6

FORM I

9613490.1808

000022

TNA Inc.

REPORT

Work Order # A2-12-030

Received: 12/08/92

Results by Sample

SAMPLE ID B07Q19

FRACTION 02F

TEST CODE WCCLPL

NAME Anions & Wet Chem. - WR043

Date & Time Collected 12/06/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
<u>ANALYSIS</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>LIMIT</u>
Alkalinity	310.1	69	mg/L	2
Tot. Dissolved Solids	160.1	169	mg/L	5

FORM I

9613490.1809

000023

Received: 12/08/92 TNA Inc. REPORT Work Order # A2-12-030
Results by Sample

SAMPLE ID B07QL9 FRACTION 026 TEST CODE MCCLPL NAME Anions & Vet Chem. - UN043
Date & Time Collected 12/06/92 Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Sulfide	376.1	<1	mg/L	1

FORM I

9613490.1810

000024

Received: 12/08/92 TMA Inc. REPORT Work Order # A2-12-030
Results by Sample

SAMPLE ID B079L9 FRACTION 021 TEST CODE WCCLPL NAME Anions & Wet Chem. - V#043
Date & Time Collected 12/06/92 Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
<u>ANALYSIS</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>LIMIT</u>
Ammonia Nitrogen	350.3	<0.05	mg/L	0.05
COD	410.0	<5	mg/L	5

FORM I

9613490.1811

000025

TMA Inc.

REPORT

Work Order # A2-12-030

Received: 12/08/92

Results by Sample

SAMPLE ID B07QW4FRACTION 03D TEST CODE WCCLPL NAME Anions & Wet Chem. - VN043Date & Time Collected 12/05/92 Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	6.8	mg/L	0.2
Fluoride	300.0	0.3	mg/L	0.1
Phosphate	300.0	<0.4	mg/L	0.4
pH	150.1	7.8	pH	0.1
Sulfate	300.0	18	mg/L	1
Elect. Conductivity	120.1	319	umho/cm	6

FORM I

9613490.1812

000026

TMA Inc.

REPORT

Work Order # A2-12-030

Received: 12/08/92

Results by Sample

SAMPLE ID B070M4

FRACTION 03E

TEST CODE WCCLPL

NAME Anions & Wet Chem. - M043

Date & Time Collected 12/05/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
<u>ANALYSIS</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>LIMIT</u>
Alkalinity	310.1	134	mg/L	2
Tot. Dissolved Solids	160.1	207	mg/L	5

FORM I

9613490.1813

000027

Received: 12/08/92

TMA Inc.

REPORT

Work Order # A2-12-030

Results by Sample

SAMPLE ID B07Q04

FRACTION 03F

TEST CODE WCCLPL

NAME Anions & Vet Chem. - W043

Date & Time Collected 12/05/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
<u>ANALYSIS</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>LIMIT</u>
Sulfide	376.1	<1	mg/L	1

FORM 1

9613490.1814

000028

TMA Inc.

REPORT

Work Order # A2-12-030

Received: 12/08/92

Results by Sample

SAMPLE ID B07QW4

FRACTION 03H

TEST CODE WCCLPL

NAME Anions & Wet Chem. - W043

Date & Time Collected 12/05/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
<u>ANALYSIS</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>LIMIT</u>
Ammonia Nitrogen	350.3	<0.05	mg/L	0.05
COD	410.0	<5	mg/L	5

FORM 1

9613490.1815

000029

Received: 12/08/92

TMA Inc.

REPORT

Work Order # A2-12-030

Results by Sample

SAMPLE ID B07QP4FRACTION 04BTEST CODE WCCLPLNAME Anions & Wet Chem. - VN043Date & Time Collected 12/06/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	5.7	mg/L	0.2
Fluoride	300.0	0.4	mg/L	0.1
Phosphate	300.0	<0.4	mg/L	0.4
pH	150.1	7.9	pH	0.1
Sulfate	300.0	20	mg/L	1
Elect. Conductivity	120.1	290	umho/cm	6

FORM I

9613490.1816

000030

TMA Inc.

REPORT

Work Order # A2-12-030

Received: 12/08/92

Results by Sample

SAMPLE ID B07QP4

FRACTION 04C

TEST CODE WCCLPL

NAME Anions & Wet Chem. - W043

Date & Time Collected 12/06/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	120	mg/L	2
Tot. Dissolved Solids	160.1	206	mg/L	5

FORM 1

9613490.1817

000031

TNA Inc.

REPORT

Work Order # A2-12-030

Received: 12/08/92

Results by Sample

SAMPLE ID B07QP4

FRACTION 04D

TEST CODE WCCLPL

NAME Anions & Wet Chem. - VN043

Date & Time Collected 12/06/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
<u>ANALYSIS</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>LIMIT</u>
Sulfide	376.1	<1	mg/L	1

FORM I

9613490.1818

000032

TNA Inc.

REPORT

Work Order # A2-12-030

Received: 12/08/92

Results by Sample

SAMPLE ID B079P4

FRACTION 04E

TEST CODE MCCLPL

NAME Anions & Wet Chem. - VN043

Date & Time Collected 12/06/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
<u>ANALYSIS</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>LIMIT</u>
Ammonia Nitrogen	350.3	<0.05	mg/L	0.05
COD	410.0	<5	mg/L	5

FORM I

9613490.1819

TNA Inc.

REPORT

Work Order # A2-12-030 000033

Received: 12/08/92

Results by Sample

SAMPLE ID B07QT4

FRACTION 05B TEST CODE WCCLPL NAME Anions & Wet Chem. - W043

Date & Time Collected 12/05/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
<u>ANALYSIS</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>LIMIT</u>
Chloride	300.0	5.0	mg/L	0.2
Fluoride	300.0	0.4	mg/L	0.1
Phosphate	300.0	<0.4	mg/L	0.4
pH	150.1	8.0	pH	0.1
Sulfate	300.0	21	mg/L	1
Elect. Conductivity	120.1	292	umho/cm	6

FORM I

9613490.1820

000034

TNA Inc.

REPORT

Work Order # A2-12-030

Received: 12/08/92

Results by Sample

SAMPLE ID B079T4

FRACTION 05C

TEST CODE WCCLPL

NAME Anions & Wet Chem. - UN043

Date & Time Collected 12/05/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
<u>ANALYSIS</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>LIMIT</u>
Alkalinity	310.1	114	mg/L	2
Tot. Dissolved Solids	160.1	200	mg/L	5

FORM I

9613490.1821

000035

TMA Inc.

REPORT

Work Order # A2-12-030

Received: 12/08/92

Results by Sample

SAMPLE ID B07QT4

FRACTION 05D

TEST CODE MCCLPL

NAME Anions & Vet Chem. - UN043

Date & Time Collected 12/05/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
<u>ANALYSIS</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>LIMIT</u>
Sulfide	376.1	<1	mg/L	1

FORM 1

9613490.1822

000036

TMA Inc.

REPORT

Work Order # A2-12-030

Received: 12/08/92

Results by Sample

SAMPLE ID B070T4

FRACTION 05E

TEST CODE WCCLPL

NAME Anions & Wet Chem. - VN043

Date & Time Collected 12/05/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
<u>ANALYSIS</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>LIMIT</u>
Ammonia Nitrogen	350.3	<0.05	mg/L	0.05
COD	410.0	<5	mg/L	5

FORM I

9613490.1823

000037

Received: 12/08/92

TMA Inc.

REPORT

Work Order # A2-12-030

Results by Sample

SAMPLE ID B07QV4FRACTION 06BTEST CODE WCCLPLNAME Anions & Vet Chem. - VN043Date & Time Collected 12/06/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	6.2	mg/L	0.2
Fluoride	300.0	0.4	mg/L	0.1
Phosphate	300.0	<0.4	mg/L	0.4
pH	150.1	8.0	pH	0.1
Sulfate	300.0	47	mg/L	1
Elect. Conductivity	120.1	340	umho/cm	6

FORM I

9613490.1824

000038

TMA Inc.

REPORT

Work Order # A2-12-030

Received: 12/08/92

Results by Sample

SAMPLE ID B07QV4

FRACTION 06C

TEST CODE WCCLPL

NAME Anions & Wet Chem. - W043

Date & Time Collected 12/06/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
<u>ANALYSIS</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>LIMIT</u>
Alkalinity	310.1	114	mg/L	2
Tot. Dissolved Solids	160.1	230	mg/L	5

FORM 1

9613490.1825

000039

Received: 12/08/92
TMA Inc. REPORT Work Order # A2-12-030
Results by Sample
SAMPLE ID B07QV4 FRACTION 06D TEST CODE WCCLPL NAME Anions & Vet Chem. - UN043
Date & Time Collected 12/06/92 Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
<u>ANALYSIS</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>LIMIT</u>
Sulfide	376.1	<1	mg/L	1

FORM 1

9613490.1826

000040

Received: 12/08/92

TMA Inc. REPORT
Results by Sample

Work Order # A2-12-030

SAMPLE ID B07QV4 FRACTION 06E TEST CODE WCCLPL NAME Anions & Wet Chem. - VN043
Date & Time Collected 12/06/92 Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonie Nitrogen	350.3	<0.05	mg/L	0.05
COD	410.0	<5	mg/L	5

FORM I

9613490.1827

000041

TRA Inc.

REPORT

Work Order # A2-12-030

Received: 12/08/92

Results by Sample

SAMPLE ID B07QV9

FRACTION 07B

TEST CODE WCCLPL

NAME Anions & Wet Chem. - VN043

Date & Time Collected 12/05/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
<u>ANALYSIS</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>LIMIT</u>
Chloride	300.0	7.3	mg/L	0.2
Fluoride	300.0	0.4	mg/L	0.1
Phosphate	300.0	<0.4	mg/L	0.4
pH	150.1	8.1	pH	0.1
Sulfate	300.0	57	mg/L	1
Elect. Conductivity	120.1	364	umho/cm	6

FORM I

9613490.1828

000042

TMA Inc.

REPORT

Work Order # A2-12-030

Received: 12/08/92

Results by Sample

SAMPLE ID B07QV9

FRACTION 07C

TEST CODE WCCLPL

NAME Anions & Wet Chem. - UN043

Date & Time Collected 12/05/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
<u>ANALYSIS</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>LIMIT</u>
Alkalinity	310.1	114	mg/L	2
Tot. Dissolved Solids	160.1	254	mg/L	5

FORM 1

9613490.1829

000043

TNA Inc.

REPORT

Work Order # A2-12-030

Received: 12/08/92

Results by Sample

SAMPLE ID B07QV9

FRACTION Q7D

TEST CODE MCC&PL

NAME Anions & Wet Chem. - VN043

Date & Time Collected 12/05/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
<u>ANALYSIS</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>LIMIT</u>
Sulfide	376.1	<1	mg/L	1

FORM I

9613490.1830

000044

TMA Inc.

REPORT

Work Order # A2-12-030

Received: 12/08/92

Results by Sample

SAMPLE ID R07QV9

FRACTION 07E

TEST CODE WCCLPL

NAME Anions & Wet Chem. - VN043

Date & Time Collected 12/05/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	<0.05	mg/L	0.05
COD	410.0	<5	mg/L	30

FORM I

9613490.1831

000045

Received: 12/08/92

TNA Inc.

REPORT

Work Order # A2-12-030

Results by Sample

SAMPLE ID B07QW9FRACTION 008BTEST CODE UCCLPLNAME Anions & Wet Chem. - WR043Date & Time Collected 12/05/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	7.3	mg/L	0.2
Fluoride	300.0	0.4	mg/L	0.1
Phosphate	300.0	<0.4	mg/L	0.4
pH	150.1	8.2	pH	0.1
Sulfate	300.0	56	mg/L	1
Elect. Conductivity	120.1	375	umho/cm	6

FORM I

9613490.1832

000046

TNA Inc.

REPORT

Work Order # A2-12-030

Received: 12/08/92

Results by Sample

SAMPLE ID B07049

FRACTION 08C

TEST CODE WCCLPL

NAME Anions & Wet Chem. - VN043

Date & Time Collected 12/05/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
<u>ANALYSIS</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>LIMIT</u>
Alkalinity	310.1	114	mg/L	2
Tot. Dissolved Solids	160.1	254	mg/L	5

FORM I

9613490.1833

000047

TMA Inc.

REPORT

Work Order # A2-12-030

Received: 12/08/92

Results by Sample

SAMPLE ID B07QW9

FRACTION 080

TEST CODE WCCLPL

NAME Anions & Wet Chem. - W043

Date & Time Collected 12/05/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
<u>ANALYSIS</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>LIMIT</u>
sulfide	376.1	<1	mg/L	1

FORM 1

9613490.1834

000048

Received: 12/08/92

TMA Inc. REPORT
Results by Sample

Work Order # A2-12-030

SAMPLE ID B07QV9

FRACTION 08E TEST CODE WCCLPL NAME Anions & Wet Chem. - WR043

Date & Time Collected 12/05/92 Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
<u>ANALYSIS</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>LIMIT</u>
Ammonia Nitrogen	350.3	<0.05	mg/L	0.05
COD	410.0	<5	mg/L	30

FORM I

WESTINGHOUSE HANFORD COMPANY

Results of Analyses For:

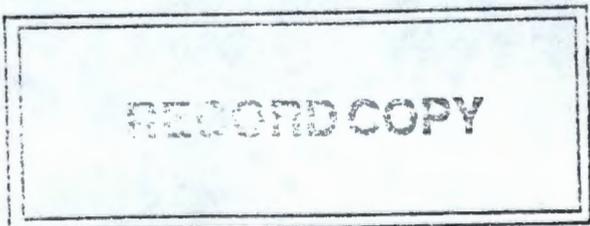
ORGANICS & GENERAL CHEMISTRY
Case No. 12-031
(TMA/ARLI Work Order # A2-12-031)



METALS & NITRATE/NITRITE
Case No. N2-12-045
(Batched w/ N2-12-040)
(TMA/Skinner & Sherman W.O. # S2-12-145, S2-12-146, & S2-12-147)

February 5, 1993

TMA Master Work Order N2-12-045



i 3-13-96
MC

9613490.1836

TMA/Norcal

CHAIN OF CUSTODY

ORD # N2-12-045

000002

12/09/92 DUE: 01/23/93

12/09/92 16:11:39

KEEP: 04/23/93

DISP: S

ASH SAMPLE IDENTIFICATION	STORED	TESTS for FRACTIONS with work in DEPT: SU and CATEGORY							
01A-W B07019 UNFILTERED	ARLI	WH018	WH019	WH020	WH043	WH114	WH121	WH122	
		WH128	WH131	WH132	WH140				
02A-W B07014 UNFILTERED	ARLI	WH018	WH019	WH020	WH043	WH114	WH121	WH122	
		WH128	WH131	WH132	WH140				
03A-W B07014 UNFILTERED	ARLI	WH018	WH019	WH020	WH043	WH114	WH121	WH122	
		WH128	WH131	WH132	WH140				
04A-W B07014 UNFILTERED	ARLI	WH018	WH019	WH020	WH043	WH114	WH121	WH122	
		WH128	WH131	WH132	WH140				
04C-W B07014 MS UNFILTERED	ARLI	WH018	WH019	WH020	WH043	WH114	WH140		
04D-W B07014 MSD UNFILTERED	ARLI	WH018	WH019	WH020					
04E-W B07014 DUP UNFILTERED	ARLI	WH043	WH114	WH121	WH122	WH128	WH131	WH132	
		WH140							
09A-W B07011 *	ARLI	WH018	one vial contains bubble TG . 12/10/92						
10A-W B07016 ↓	ARLI	WH018	two vial vials contain bubbles TG						
11A-W B07015	ARLI	WH018							
12A-W B07016 **	ARLI	WH018							

RELEASED BY	DATE	TRANSFERRED TO	DATE	RECEIVED BY	DATE
<u>Kermit Blum</u>	<u>12-9-92</u>	<u>ARLI</u>		<u>Judy Paul</u>	<u>12/10/92</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

** 2 vial vials received as one arrived broken at TMA NORCAL TG . 12/10/92

Westinghouse Hanford Company	CHAIN OF CUSTODY
Custody Form Initiator PH BUTCHER	Telephone (509)376-5045
Company Contact PH BUTCHER	Collection Date 12-7-92
Project Designation/Sampling Locations 100-KR-4	Field Logbook No. EFL-1049
Ice Chest No. ASS 12/8/92 SALT BAG SALT BAG	Offsite Property No. W93-0-0151-3
Bill of Lading/Airbill No. 251900747T	
Method of Shipment EMERY	
Shipped to TMA	
Possible Sample Hazards/Remarks N/A	

Sample Identification

B07QK9

- 3, 40ml, Gs*, WATER, CLP-VOA
- 3, 2L, aG, WATER, CLP-SEMI VOA & PCB's/PEST
- 1, 1L, P, WATER, ANIONS(IC) SO4, F, PO4, C1/COND./pH
- 1, 500ml, P, WATER, ANIONS/NO3-NO2 (H2SO4)
- 1, 1L, G, WATER, ALK./TOT. DISSOLVED SOLIDS
- 1, 500ml, G, WATER, SULFIDE (add Zinc Acetate+NaOH pH>9)
- 1, 500ml, G, WATER, AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
- 1, 1L, P, WATER, CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
- 1, 1L, P, WATER, CLP-CN (NaOH)
- 2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90 (HNO3)
- 1, 1L, P, WATER, Tc-99 (HCl)
- 1, 250ml, Gs, WATER, TRITIUM/C-14

B07QL0

- 1, 1L, P, WATER, CLP-ICP/AA METALS (FILTERED)/CLP-Hg (HNO3)

B07QL1

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

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: <i>L.D. Walker</i> <i>L.D. Walker</i>	Received by: <i>AJ SIMPSON</i> <i>AJ Simpson</i>	Date/Time: 12/8/92 0946
Relinquished by: <i>AJ SIMPSON</i> <i>AJ Simpson</i>	Received by: <i>ALG Simpson Goble</i>	Date/Time: 12/7/92 12:50
Relinquished by:	Received by:	Date/Time:
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

Collector K. Lee, L. Walker Date Sampled 12-7-92 Time 1130 hours
Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B07QK9	3; 40ml; Gs*;	WATER	✓ CLP-VOA
	3; 2L; aG;	WATER	✓ CLP-SEMI VOA & PCB's/PEST
	1; 1L; P;	WATER	✓ ANIONS (IC) SO4, F, PO4, Cl/COND/pH
	1; 500ml; P;	WATER	✓ ANIONS/NO3-NO2 (H2SO4)
	1; 1L; G;	WATER	✓ ALK./TOT. DISSOLVED SOLIDS
	1; 500ml; G;	WATER	✓ SULFIDE (add Zinc Acetate + NaOH pH > 9)
	1; 500ml; G;	WATER	✓ AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH < 2)
	1; 1L; P;	WATER	✓ CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
	1; 1L; P;	WATER	✓ CLP-CN (NaOH)
	2; 4L; P;	WATER	✓ GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90, (HNO3)
	1; 1L; P;	WATER	Tc-99 (HCl)
	1; 250ml; Gs;	WATER	✓ TRITIUM/C-14
B07QL0	1; 1L; P;	WATER	✓ CLP-ICP/AA METAL (FILTERED)/CLP-Hg (HNO3)
B07QL1	3; 40ml; Gs	WATER	✓ CLP-VOA
			OPC: # W93-0-0151-3
			BOL: # 251900747T
			TASK#: 92-398

Field Information** _____

Special Handling and/or Storage _____

Possible Sample Hazards _____

PART II: LABORATORY SECTION

Received by Alb Alfonso Hobaf Title SAMPLE CONTROL TECH Date 12/9/92

Analysis Required _____

* Indicate whether sample is soil, sludge, water, etc.
** Use back of page for additional information relative to sample location.

Westinghouse Hanford Company	CHAIN OF CUSTODY
Custody Form Initiator PH BUTCHER	Telephone (509)376-5045
Company Contact PH BUTCHER	Collection Date 12/17/92
Project Designation/Sampling Locations 100-KR-4	Field Logbook No. EPL-1048 <i>12/18/92</i>
Ice Chest No. SML-140	Offsite Property No. W93-0-00 W93-0-0151-2
Bill of Lading/Airbill No. ZSI 900747T	Method of Shipment EMERY
Shipped to TMA	Possible Sample Hazards/Remarks N/A

Sample Identification

- B07QL4**
- 3, 40ml, Gs*, WATER, CLP-VOA
 - 3, 2L, aG, WATER, CLP-SEMI VOA & PCB's/PEST
 - 1, 1L, P, WATER, ANIONS(IC) SO4, F, PO4, Cl/COND./pH
 - 1, 500ml, P, WATER, ANIONS/NO3-NO2 (H2SO4)
 - 1, 1L, G, WATER, ALK./TOT. DISSOLVED SOLIDS
 - 1, 500ml, G, WATER, SULFIDE (add Zinc Acetate+NaOH pH>9)
 - 1, 500ml, G, WATER, AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
 - 1, 1L, P, WATER, CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
 - 1, 1L, P, WATER, CLP-CN (NaOH)
 - 2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90 (HNO3)
 - 1, 1L, P, WATER, Tc-99 (HCl)
 - 1, 250ml, Gs, WATER, TRITIUM/C-14

- B07QL5**
- 1, 1L, P, WATER, CLP-ICP/AA METALS (FILTERED)/CLP-Hg (HNO3)

- * **B07QL6**
- 3, 40ml, Gs, WATER, CLP-VOA

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: <i>Walter Lee Kaler</i>	Received by: AJ SIMPSON <i>AJ Simpson</i>	Date/Time: 12/18/92 0943
Relinquished by: AJ SIMPSON <i>AJ Simpson</i>	Received by: <i>Alb Alfonso Hobbs</i>	Date/Time: 12/9/92 12:50
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition		
Disposal Method:	Disposed by:	Date/Time:
Comments:		

* Two vials B07QL6 received @ TMA/Norcal with bubbles. KB



Westinghouse
Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K. Lee, L. Walker Date Sampled 12/7/92 Time 1030 hours
 Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B07QL4	✓3; 40ml; Gs*;	WATER	CLP-VOA
	✓3; 2L; aG;	WATER	CLP-SEMI VOA & PCB's/PEST
	✓1; 1L; P;	WATER	ANIONS (IC) SO4, F, PO4, CI/COND/pH
	- ✓1; 500ml; P;	WATER	ANIONS/NO3-NO2 (H2SO4)
	✓1; 1L; G;	WATER	ALK./TOT. DISSOLVED SOLIDS
	✓1; 500ml; G;	WATER	SULFIDE (add Zinc Acetate + NaOH pH>9)
	✓1; 500ml; G;	WATER	AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
	✓1; 1L; P;	WATER	CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
	✓1; 1L; P;	WATER	CLP-CN (NaOH)
	✓2; 4L; P;	WATER	GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90, (HNO3)
	✓1; 1L; P;	WATER	Tc-99 (HCl)
	✓1; 250ml; Gs;	WATER	TRITIUM/C-14
B07QL5	✓1; 1L; P;	WATER	CLP-ICP/AA METAL (FILTERED)/CLP-Hg (HNO3)
B07QL6	✓3; 40ml; Gs	WATER	CLP-VOA <i>bubbles on two vials</i> OPC: # W93-0-0151-2 BOL: # 251900747T TASK#: 92-398

Field Information ** _____

Special Handling and/or Storage _____

Possible Sample Hazards _____

PART II: LABORATORY SECTION

Received by AIG Alfonso Poteh Title SAMPLE control teach Date 12/30

Analysis Required _____

* Indicate whether sample is soil, sludge, water, etc.
 ** Use back of page for additional information relative to sample location.

Westinghouse Hanford Company	CHAIN OF CUSTODY
Custody Form Initiator PH BUTCHER	Telephone (509)376-5045
Company Contact PH BUTCHER	Collection Date 12/7/92
Project Designation/Sampling Locations 100-KR-4	Field Logbook No. EFL-1049
Ice Chest No. SAL-245	Offsite Property No. W93-0-0151-3
Bill of Lading/Airbill No. 251900741T	
Method of Shipment EMERY	
Shipped to TMA	
Possible Sample Hazards/Remarks N/A	

Sample Identification

B07Q14

- 3, 40ml, Gs*, WATER, CLP-VOA
- 3, 2L, aG, WATER, CLP-SEMI VOA & PCB's/PEST
- 1, 1L, P, WATER, ANIONS(IC) SO4, F, PO4, Cl/COND./pH
- 1, 500ml, P, WATER, ANIONS/NO3-NO2 (H2SO4)
- 1, 1L, G, WATER, ALK./TOT. DISSOLVED SOLIDS
- 1, 500ml, G, WATER, SULFIDE (add Zinc Acetate+NaOH pH>9)
- 1, 500ml, G, WATER, AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
- 1, 1L, P, WATER, CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
- 1, 1L, P, WATER, CLP-CN (NaOH)
- 2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90 (HNO3)
- 1, 1L, P, WATER, Tc-99 (HCl)
- 1, 250ml, Gs, WATER, TRITIUM/C-14

B07Q15

- 1, 1L, P, WATER, CLP-ICP/AA METALS (FILTERED)/CLP-Hg (HNO3)

B07Q16

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

<input type="checkbox"/> Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: <i>Kathy Debe</i> K. D. Lee	Received by: <i>AJ SIMPSON</i> <i>AJ Simpson</i>	Date/Time: 12/8/92 0950
Relinquished by: <i>AJ SIMPSON</i> <i>AJ Simpson</i>	Received by: <i>ALG Alfonso H. de la...</i>	Date/Time: 12/9/92 12:50
Relinquished by:	Received by:	Date/Time:
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

Collector K. Lee, L. Walker

Date Sampled 12/7/92 Time 1300 hours

Company Contact P. H. Butcher

Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B07Qm4	✓ 3; 40ml; Gs*;	WATER	CLP-VOA
	✓ 3; 2L; aG;	WATER	CLP-SEMI VOA & PCB's/PEST
	✓ 1; 1L; P;	WATER	ANIONS (IC) SO4, F, PO4, Cl/COND/pH
	✓ 1; 500ml; P;	WATER	ANIONS/NO3-NO2 (H2SO4)
	✓ 1; 1L; G;	WATER	ALK./TOT. DISSOLVED SOLIDS
	✓ 1; 500ml; G;	WATER	SULFIDE (add Zinc Acetate + NaOH pH > 9)
	✓ 1; 500ml; G;	WATER	AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH < 2)
	✓ 1; 1L; P;	WATER	CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
	✓ 1; 1L; P;	WATER	CLP-CN (NaOH)
	✓ 2; 4L; P;	WATER	GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC
			(U-235/238, Pu-239/240, Am-241), Sr-90, (HNO3)
	✓ 1; 1L; P;	WATER	Tc-99 (HCl)
	✓ 1; 250ml; Gs;	WATER	TRITIUM/C-14
B07Qm5	✓ 1; 1L; P;	WATER	CLP-ICP/AA METAL (FILTERED)/CLP-Hg (HNO3)
B07Qm6	✓ 3; 40ml; Gs	WATER	CLP-VOA
			OPC: # W93-0-0151-3
			BOL: # 291900747T
			TASK#: 92-398

Field Information **

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by ALG Alfonso Puleo Title SAMPLE CONTROL TECH Date 12-9-92

Analysis Required

* Indicate whether sample is soil, sludge, water, etc.
** Use back of page for additional information relative to sample location.

Westinghouse Hanford Company	CHAIN OF CUSTODY
Custody Form Initiator PH BUTCHER	Telephone (509)376-5045
Company Contact PH BUTCHER	Collection Date 12/7/92
Project Designation/Sampling Locations 100-KR-4	Field Logbook No. EPL-1099
Ice Chest No. SML-242	Offsite Property No. W93-0-0151-2
Bill of Lading/Airbill No. ZSI900747T	
Method of Shipment EMERY	
Shipped to TMA	
Possible Sample Hazards/Remarks N/A	

Sample Identification

B07QX4

- 3, 40ml, Gs*, WATER, CLP-VOA
- 3, 2L, aG, WATER, CLP-SEMI VOA & PCB's/PEST
- 1, 1L, P, WATER, ANIONS(IC) SO4, F, PO4, Cl/COND./pH
- 1, 500ml, P, WATER, ANIONS/NO3-NO2 (H2SO4)
- 1, 1L, G, WATER, ALK./TOT. DISSOLVED SOLIDS
- 1, 500ml, G, WATER, SULFIDE (add Zinc Acetate+NaOH pH>9)
- 1, 500ml, G, WATER, AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
- 1, 1L, P, WATER, CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
- 1, 1L, P, WATER, CLP-CN (NaOH)
- 2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90 (HNO3)
- 1, 1L, P, WATER, Tc-99 (HCl)
- 1, 250ml, Gs, WATER, TRITIUM/C-14

B07QX5

- 1, 1L, P, WATER, CLP-ICP/AA METALS (FILTERED)/CLP-Hg (HNO3)

* **B07QX6**

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

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: <i>Kathy Sheer K.D. Lee</i>	Received by: AJ SIMPSON <i>AJ Simpson</i>	Date/Time: 12/8/92 0938
Relinquished by: AJ SIMPSON <i>AJ Simpson</i>	Received by: <i>ALG Alfonso Rodriguez</i>	Date/Time: 12/7/92
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:
Final Sample Disposition		
Disposal Method:	Disposed by:	Date/Time:
Comments:		

* One vial B07QX6 broken en route to TMA/Norcal - KB



Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K. Lee, L. Walker Date Sampled 12/7/92 Time 1300 hours
Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B07QX4	3; 40ml; Gs*	WATER	✓ CLP-VOA
	3; 2L; aG;	WATER	✓ CLP-SEMI VOA & PCB's/PEST
	1; 1L; P;	WATER	✓ ANIONS (IC) SO4, F, PO4, Cl/COND/pH
	1; 500ml; P;	WATER	✓ ANIONS/NO3-NO2 (H2SO4)
	1; 1L; G;	WATER	✓ ALK./TOT. DISSOLVED SOLIDS
	1; 500ml; G;	WATER	✓ SULFIDE (add Zinc-Acetate + NaOH pH>9)
	1; 500ml; G;	WATER	✓ AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
	1; 1L; P;	WATER	✓ CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
	1; 1L; P;	WATER	✓ CLP-CN (NaOH)
	2; 4L; P;	WATER	✓ GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90, (HNO3)
	1; 1L; P;	WATER	✓ Tc-99 (HCl)
	1; 250ml; Gs;	WATER	✓ TRITIUM/C-14
B07QX5	1; 1L; P;	WATER	CLP-ICP/AA METAL (FILTERED)/CLP-Hg (HNO3)
B07QX6	3; 40ml; Gs	WATER	✓ CLP-VOA {1 vial was en route to TMA/NorCal} OPC: # W93-0-051-2 BOL: # 251900747 T TASK#: 92-398

Field Information ** _____

Special Handling and/or Storage _____

Possible Sample Hazards _____

PART II: LABORATORY SECTION

Received by ALG Alfonso Rodriguez Title Sample Control Date 12.4.92
Analysis Required _____

* Indicate whether sample is soil, sludge, water, etc.
* Use back of page for additional information relative to sample location.

LAB NAME : TMA/ARLI

PAGE : 1

000003

RECEIVED BY (PRINT NAME): Judy Golub

LOG-IN-DATE : 12/10/92

RECEIVED BY (SIGNATURE): Judy Golub

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

CORRESPONDING

EPA
SAMPLE
#

SAMPLE
TAG
#

ASSIGNED
LAB
#

REMARKS:
CONDITION OF
SAMPLE SHIPMENT, ETC

REMARKS: SML-245

1. Custody Seal(s) Present/Absent*
Intact/Broken

B07QL4 A2-12-031-03

2. Custody Seal Nos: _____

B07Qm4 A2-12-031-05

B07Q92 A2-12-032-02

3. Chain of Custody Records Present/Absent*

B07Q90 A2-12-032-01

B07Qm6 A2-12-031-06

Two VOA
BADLE

4. Traffic Reports or Packing List Present/Absent*

B07QL6 A2-12-031-04

B07QK9 A2-12-031-01

5. Airbill Airbill/Sticker Present/Absent*

B07Q91 A2-12-032-02

6. Airbill No.: 5188042094

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 Yes/No*
on custody records, traffic reports, and sample tags agree

11. Date Received at Lab: 12/10/92

12. Temp of ice chest 4 °C

13. Time Received: 0935

SAMPLE TRANSFER

Fraction: _____

Area #: _____

By: _____

On: _____

* Contact SHD and attach record of resolution

Reviewed By: _____ Logbook No.: _____

Date: _____ Logbook Page No.: _____

9613490.1846

LAB NAME : TMA/ARLI

PAGE :

RECEIVED BY (PRINT NAME): Trudy Golun

LOG-IN-DATE : 12/10/92

RECEIVED BY (SIGNATURE): *Trudy Golun*

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

CORRESPONDING

EPA
SAMPLE
#

SAMPLE
TAG
#

ASSIGNED
LAB
#

REMARKS:
CONDITION OF
SAMPLE SHIPMENT, ETC

REMARKS: Smc 242

1. Custody Seal(s) Present/Absent*
 Intact/Broken

B07GX4 A2-12-031-07

2. Custody Seal Nos: _____

B07Q1G9 A2-12-031-01

B07GX6 A2-12-031-08

B07GL1 A2-12-031-02

Two VOA received
V3 & V2A
SNEVVA BUBBLE

3. Chain of Custody
Records Present/Absent*

4. Traffic Reports
or Packing List Present/Absent*

5. Airbill Airbill/Sticker
 Present/Absent*

6. Airbill No.: 5188042694

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 Yes/No*
on custody
records, traffic
reports, and
sample tags agree

11. Date Received at Lab: 12.10.92

12. Temp of ice chest 3 °F

13. Time Received: 0935

SAMPLE TRANSFER

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

* Contact SMO and attach record of resolution

Reviewed By: _____ Logbook No.: _____
Date: _____ Logbook Page No.: _____

LAB NAME : TMA/ARLI

PAGE :

3

RECEIVED BY (PRINT NAME): Trudy Golub

LOG-IN-DATE : 12/10/90

RECEIVED BY (SIGNATURE): [Signature]

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

CORRESPONDING

EPA
SAMPLE
0

SAMPLE
TAG
0

ASSIGNED
LAB
0

REMARKS:
CONDITION OF
SAMPLE SHIPMENT, ETC

REMARKS: 116

<u>B07GM4</u>	<u>A2-12-031-05</u>
<u>B07GL4</u>	<u>A2-12-031-03</u>
<u>B07GK9</u>	<u>A2-12-031-01</u>

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.: 5188042694

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 Yes/No*
on custody records, traffic reports, and sample tags agree

11. Date Received at Lab: 12/10/90

12. Temp of ice chest 2 °C

13. Time Received: 0935

SAMPLE TRANSFER

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

* Contact SHD and attach record of resolution

Reviewed By: _____ Logbook No.: _____
Date: _____ Logbook Page No.: _____

TMA/ALI
Thermo Analytical Inc.

RADIATION DOSE RATE SURVEY FORM

Date 12/10/92 COMPANY WERC (WHC) OTHER ORD # 518 8042 694

Surveyor's Name MARK S. McCray

Model No. HP-210 / ESP-1 Model No. AC-37 / ESP-1

Serial Nos. 710289 / 02619 Serial Nos. 02726 / 02628

Calibration Date 12/02/92 Calibration Date 8/01/92

Instrument Calibration Factor .280 Instrument Calibration Factor 0.188

Sample	Location	HP-210 CPM	HP-210 Factor	HP-210 DPM	AC-37 CPM	AC-37 Factor	AC-37 DPM	Spillage or Breakage?	Activity, pCi/ml or pCi/l
Background		42.0			0				
Consistency		7,420	0.2864		5,230 5,025	0.173 0.1847			
Smear SML 116		38.0			3.0				
SML 242		38.0			2.0				
SML 245		37.0			2.0				
Reported (WHC) 26 samples each < 50 pCi/gm									

Comments:

All OK

Approved M/SW

Not OK

Date 12/10/92



QUESTIONS? CALL 800-238-5355 TOLL FREE.

AIRBILL
PACKAGE
TRACKING NUMBER

5288042674

5288042674

RECIPIENT'S COPY

Date 12-9-92

From (Your Name) Please Print SAMPLE CONTROL		Your Phone Number (Very Important) (520) 9235-2033		To (Recipient's Name) Please Print SAMPLE CONTROL		Recipient's Phone Number (Very Important)	
Company 1000 MEDICAL		Department/Floor No		Company TIA / A1		Department/Floor No	
Street Address 2320 WILSON AVE		City IRVINE		Exact Street Address (We Cannot Deliver to P.O. Boxes or P.O. Zip Codes) 160 TAYLOR STREET		City HUNTINGTON	
State CA		ZIP Required 92614		State CA		ZIP Required 91106	

YOUR INTERNAL BILLING REFERENCE INFORMATION (optional) (First 24 characters will appear on invoice.) 2320 6406				IF HOLD FOR PICK-UP, Print FEDEX Address Here			
PAYMENT 1 <input checked="" type="checkbox"/> Bill Sender 2 <input type="checkbox"/> Bill Recipient's FedEx Acct No 3 <input type="checkbox"/> Bill 3rd Party FedEx Acct No 4 <input type="checkbox"/> Bill Credit Card				Street Address			
5 <input type="checkbox"/> Cash/Check				City State ZIP Required			

4 SERVICES (Check only one box)		5 DELIVERY AND SPECIAL HANDLING (Check services required)		6 PACKAGES WEIGHT in Pounds Oz YOUR DECLARED VALUE		Emp No Date <input type="checkbox"/> Cash Received <input type="checkbox"/> Return Shipment <input type="checkbox"/> Third Party <input type="checkbox"/> Chg To Del <input type="checkbox"/> Chg To Hold Street Address City State Zip Received By Date/Time Received FedEx Employee Number		Federal Express Use Base Charges Declared Value Charge Other 1 Other 2 Total Charges REVISION DATE 2/92 PART #137204 FXEM 8/92 FORMAT #128 126 © 1991 © FEDEX PRINTED IN U.S.A.			
Priority Overnight (Delivery by next business morning) 11 <input checked="" type="checkbox"/> YOUR PACKAGING 16 <input type="checkbox"/> FEDEX LETTER 12 <input type="checkbox"/> FEDEX PAK 13 <input type="checkbox"/> FEDEX BOX 14 <input type="checkbox"/> FEDEX TUBE		Standard Overnight (Delivery by next business afternoon for Saturday delivery) 51 <input type="checkbox"/> YOUR PACKAGING 56 <input type="checkbox"/> FEDEX LETTER 52 <input type="checkbox"/> FEDEX PAK 53 <input type="checkbox"/> FEDEX BOX 54 <input type="checkbox"/> FEDEX TUBE		1 <input type="checkbox"/> HOLD FOR PICK-UP (P# in Box 1) 2 <input checked="" type="checkbox"/> DELIVER WEEKDAY 3 <input type="checkbox"/> DELIVER SATURDAY (Extra charge) (Not available to all locations) 4 <input type="checkbox"/> DANGEROUS GOODS (Extra charge) 5 <input type="checkbox"/> 6 <input type="checkbox"/> DRY ICE 7 <input type="checkbox"/> OTHER SPECIAL SERVICE 8 <input type="checkbox"/> 9 <input type="checkbox"/> SATURDAY PICK-UP (Extra charge) 10 <input type="checkbox"/> 12 <input type="checkbox"/> HOLIDAY DELIVERY (Extra charge)		Total 3 Total 21 Total DIM SHIPMENT (Chargeable Weight) <input type="checkbox"/> L x W x H Received At 1 <input checked="" type="checkbox"/> Regular Stop 3 <input type="checkbox"/> Drop Box 4 <input type="checkbox"/> BSC 5 <input type="checkbox"/> Station 2 <input type="checkbox"/> On-Call Stop		Base Charges Declared Value Charge Other 1 Other 2 Total Charges		Total Charges	
Economy Two-Day (Delivery by second business day) 30 <input type="checkbox"/> ECONOMY		Government Overnight (Restricted for authorized users only) 46 <input type="checkbox"/> GOVT LETTER 41 <input type="checkbox"/> GOVT PACKAGE		Freight Service (for packages over 150 lbs) 70 <input type="checkbox"/> OVERNIGHT FREIGHT 80 <input type="checkbox"/> TWO-DAY FREIGHT		Release Signature		© 1991 © FEDEX PRINTED IN U.S.A.			

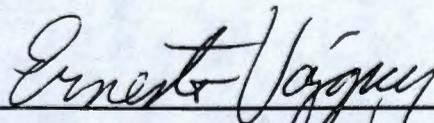
000007

GENERAL CHEMISTRY RESULTS**CASE NO. 12-031****Water Sample #:****B07QK9
B07QX4****B07QL4****B07QM4****CASE NARRATIVE**

Sample B07QK9 (A2-12-031-01) yielded a 51.0% recovery for the Phosphate analysis. The low Phosphate recovery compared to our laboratory control sample indicated the presence of a matrix interference.

The holding times for TDS, Sulfides, pH and Alkalinity analyses were exceeded. Careful review of the QC analysis indicate the data is reliable.

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



Ernesto Vazquez

9613490.1851

000010

Page 1
Received: 12/09/92

TNA Inc. REPORT
01/29/93 15:30:52

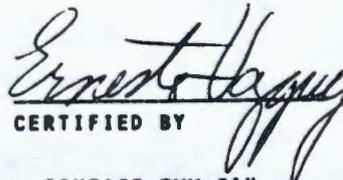
Work Order # A2-12-031

REPORT Westinghouse Hanford Company
TO 2355 Stevens Dr.
Richland, WA, 99352
MO-346/200 West/T6-08

PREPARED Thermo Analytical, Inc.
BY 160 Taylor Street
Monrovia, CA 91016

ATTEN Jeanette Duncan

ATTEN Ms. Carole Harris
PHONE 818-357-3247


CERTIFIED BY
CONTACT EVV CIH

CLIENT WHC SAMPLES 9
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-KR-4
TAKEN By Westinghouse Staff
TRANS By Federal Express
TYPE Liquid
P.O. # M2-12-045-SU-AR
INVOICE under separate cover

SAMPLE IDENTIFICATION

TEST CODES and NAMES used on this workorder

- 01 B07QK9
- 01 B07QK9 MS
- 01 B07QK9 MSD
- 01 B07QK9
- 01 B07QK9 MS
- 01 B07QK9
- 01 B07QK9 Duplicate
- 01 B07QK9
- 01 B07QK9 MS
- 01 B07QK9
- 01 B07QK9 MS
- 02 B07QL1
- 03 B07QL4
- 03 B07QL4 MS
- 03 B07QL4 MSD
- 03 B07QL4
- 03 B07QL4 Duplicate
- 03 B07QL4
- 03 B07QL4 Duplicate
- 03 B07QL4
- 03 B07QL4 Duplicate
- 04 B07QL6
- 05 B07QM4
- 06 B07QM6
- 06 B07QM6 MS
- 06 B07QM6 MSD

- BNCLPW CLP Semivol. Water - WH020
- PECLPL CLP Pesticides Liq.-WH019
- VOCLPL CLP Volatile Org.Liq.
- WCCLPL Anions & Wet Chem. - WH043
- WCL L Chloride - WH120
- WCQCD Quality Control Summary
- WCQCS Quality Control Summary
- WF L Fluoride in Water
- WNH3 L Ammonia in Water - WH140
- WPH L pH of Liquid - WH121
- WPO4 L Phosphate in Liquids
- WSO4 L Sulfate (in Waters)
- WSULFI Sulfide - WH114
- W ALK Alkalinity - WH131
- W COD COD Water - WH132
- W COND Conductivity-Water WH135
- W TDS Dissolved Solids WH128

9613490.1852

000011

Page 2

TNA Inc.

REPORT

Work Order # A2-12-031

Received: 12/09/92

01/29/93 15:30:52

SAMPLE IDENTIFICATION

07 B07GX4

08 B07GX6

09 Wet Chemistry Blank

9613490.1853

000012

Page 3
 Received: 12/09/92

TNA Inc. REPORT
 Results by Sample

Work Order # A2-12-031

SAMPLE ID B07QK9 FRACTION 01E TEST CODE MCCLPL NAME Anions & Wet Chem. - UN043
 Date & Time Collected 12/07/92 Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
<u>ANALYSIS</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>LIMIT</u>
Chloride	300.0	19.7	mg/L	0.2
Fluoride	300.0	<0.1	mg/L	0.1
Phosphate	300.0	<0.4	mg/L	0.4
pH	150.1	8.0	pH	0.1
Sulfate	300.0	55	mg/L	1
Elect. Conductivity	120.1	429	umho/cm	6

FORM I

9613490.1854

000013

Received: 12/09/92

TNA Inc.

REPORT

Work Order # A2-12-031

Results by Sample

SAMPLE ID B07QK9

FRACTION 01G

TEST CODE MCCLPL

NAME Anions & Wet Chem. - UN043

Date & Time Collected 12/07/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
<u>ANALYSIS</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>LIMIT</u>
Alkalinity	310.1	46	mg/L	2
Tot. Dissolved Solids	160.1	326	mg/L	5

FORM I

9613490.1855

000014

TNA Inc.

REPORT

Work Order # A2-12-031

Received: 12/09/92

Results by Sample

SAMPLE ID B07QK9

FRACTION 011

TEST CODE WCCLPL

NAME Anions & Wet Chem. - VK043

Date & Time Collected 12/07/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
<u>ANALYSIS</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>LIMIT</u>
Sulfide	376.1	<1	mg/L	1

FORM 1

9613490.1856

000015

Page 9
Received: 12/09/92

TMA Inc. REPORT
Results by Sample

Work Order # A2-12-031

SAMPLE ID B070K9 FRACTION 01K TEST CODE WCCLPL NAME Anions & Wet Chem. - WH043
Date & Time Collected 12/07/92 Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
<u>ANALYSIS</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>LIMIT</u>
Ammonia Nitrogen	350.3	<0.05	mg/L	0.05
COD	410.0	<5	mg/L	5

FORM 1

9613490.1857

TNA Inc.

REPORT

Work Order # **000016**

Received: 12/09/92

Results by Sample

SAMPLE ID B070L4

FRACTION 03E

TEST CODE WCCLPL

NAME Anions & Wet Chem. - UN043

Date & Time Collected 12/07/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
<u>ANALYSIS</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>LIMIT</u>
Chloride	300.0	4.3	mg/L	0.2
Fluoride	300.0	<0.1	mg/L	0.1
Phosphate	300.0	<0.4	mg/L	0.4
pH	150.1	8.1	pH	0.1
Sulfate	300.0	49	mg/L	1
Elect. Conductivity	120.1	300	umho/cm	6

FORM 1

9613490.1858

000017

TNA Inc.

REPORT

Work Order # A2-12-031

Received: 12/09/92

Results by Sample

SAMPLE ID B07QL4

FRACTION 036

TEST CODE UCCLPL

NAME Anions & Wet Chem. - UN043

Date & Time Collected 12/07/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
<u>ANALYSIS</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>LIMIT</u>
Alkalinity	310.1	86	mg/L	2
Tot. Dissolved Solids	160.1	211	mg/L	5

FORM I

9613490.1859

000018

TNA Inc.

REPORT

Work Order # A2-12-031

Received: 12/09/92

Results by Sample

SAMPLE ID B07QL4

FRACTION 03M

TEST CODE WCCLPL

NAME Anions & Wet Chem. - W043

Date & Time Collected 12/07/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
<u>ANALYSIS</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>LIMIT</u>
Sulfide	376.1	<1	mg/L	1

FORM 1

9613490.1860

000019

TMA Inc.

REPORT

Work Order # A2-12-031

Received: 12/09/92

Results by Sample

SAMPLE ID 807GL4

FRACTION 031

TEST CODE WCCLPL

NAME Anions & Vet Chem. - VN043

Date & Time Collected 12/07/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	<0.05	mg/L	0.05
COD	410.0	<5	mg/L	5

FORM I

9613490.1861

TMA Inc.

REPORT

Work Order # A000020

Received: 12/09/92

Results by Sample

SAMPLE ID B07QM4FRACTION 05CTEST CODE UCCLPLNAME Anions & Wet Chem. - VN043Date & Time Collected 12/07/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
<u>ANALYSIS</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>LIMIT</u>
Chloride	300.0	6.0	mg/L	0.2
Fluoride	300.0	<0.1	mg/L	0.1
Phosphate	300.0	<0.4	mg/L	0.4
pH	150.1	8.1	pH	0.1
Sulfate	300.0	54	mg/L	1
Elect. Conductivity	120.1	315	umho/cm	6

FORM I

9613490.1862

000021

TMA Inc.

REPORT

Work Order # A2-12-031

Received: 12/09/92

Results by Sample

SAMPLE ID B07QM4

FRACTION 05D

TEST CODE UCCLPL

NAME Anions & Wet Chem. - VN043

Date & Time Collected 12/07/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
<u>ANALYSIS</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>LIMIT</u>
Alkalinity	310.1	87	mg/L	2
Tot. Dissolved Solids	160.1	213	mg/L	5

FORM 1

9613490.1863

000022

TMA Inc.

REPORT

Work Order # A2-12-031

Received: 12/09/92

Results by Sample

SAMPLE ID B070M4

FRACTION 05E

TEST CODE WCCLPL

NAME Anions & Wet Chem. - W043

Date & Time Collected 12/07/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
<u>ANALYSIS</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>LIMIT</u>
Sulfide	376.1	<1	mg/L	1

FORM 1

9613490.1864

000023

Page 21
Received: 12/09/92

TMA Inc. REPORT
Results by Sample

I(s4BWork Order # A2-12-031

SAMPLE ID B079M4 FRACTION 05E TEST CODE UCCLPL NAME Anions & Wet Chem. - W043
Date & Time Collected 12/07/92 Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	<0.05	mg/L	0.05
COD	410.0	<5	mg/L	5

FORM I

9613490.1865

000024

TMA Inc.

REPORT

Work Order # A2-12-031

Received: 12/09/92

Results by Sample

SAMPLE ID B07QX4FRACTION 07CTEST CODE WCCLPLNAME Anions & Wet Chem. - W043Date & Time Collected 12/07/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
<u>ANALYSIS</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>LIMIT</u>
Chloride	300.0	6.1	mg/L	0.2
Fluoride	300.0	0.2	mg/L	0.1
Phosphate	300.0	<0.4	mg/L	0.4
pH	150.1	8.1	pH	0.1
Sulfate	300.0	55	mg/L	1
Elect. Conductivity	120.1	316	umho/cm	6

FORM 1

9613490.1866

000025

TMA Inc.

REPORT

Work Order # A2-12-031

Received: 12/09/92

Results by Sample

SAMPLE ID B07QX4

FRACTION 07D

TEST CODE WCCLPL

NAME Anions & Wet Chem. - VN043

Date & Time Collected 12/07/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
<u>ANALYSIS</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>LIMIT</u>
Alkalinity	310.1	87	mg/L	2
Tot. Dissolved Solids	160.1	214	mg/L	5

FORM 1

9613490.1867

000026

TMA Inc.

REPORT

Work Order # A2-12-031

Received: 12/09/92

Results by Sample

SAMPLE ID B070X4

FRACTION 07E

TEST CODE WCCLPL

NAME Anions & Wet Chem. - W043

Date & Time Collected 12/07/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
<u>ANALYSIS</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>LIMIT</u>
Sulfide	376.1	<1	mg/L	1

FORM 1

9613490.1868

000027

Page 25
Received: 12/09/92

TNA Inc. REPORT
Results by Sample

Work Order # A2-12-031

SAMPLE ID B07qx4 FRACTION 07F TEST CODE WCCLPL NAME Anions & Wet Chem. - VN043
Date & Time Collected 12/07/92 Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	<0.05	mg/L	0.05
COD	410.0	<5	mg/L	5

FORM I

CASE NARRATIVE

LABORATORY : TMA/ARLI

CASE : 12-031

CONTRACT ID : WESTINGHOUSE HANFORD COMPANY

SDG RECEIPT DATE : December 9, 1992

1.0 DESCRIPTION OF CASE :

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

2.0 SAMPLE LIST :

<u>WESTINGHOUSE ID</u>	<u>LAB ID</u>	<u>ANALYSIS REQUESTED</u>	<u>MATRIX</u>	<u>pH</u>
B07QK9	A2-12-031-01A	V	WATER	7
B07QK9	A2-12-031-01B	SV & P	WATER	
B07QK9 MS	A2-12-031-01C	SV	WATER	
B07QK9 MSD	A2-12-031-01D	SV	WATER	
B07QL1	A2-12-031-02A	V	WATER	7
B07QL4	A2-12-031-03A	V	WATER	7
B07QL4	A2-12-031-03B	SV & P	WATER	
B07QL4 MS	A2-12-031-03C	P	WATER	
B07QL4 MSD	A2-12-031-03D	P	WATER	
B07QL6	A2-12-031-04A	V	WATER	7
B07QM4	A2-12-031-05A	V	WATER	7
B07QM4	A2-12-031-05B	SV & P	WATER	
B07QM6	A2-12-031-06A	V	WATER	7
B07QM6 MS	A2-12-031-06B	V	WATER	7
B07QM6 MSD	A2-12-031-06C	V	WATER	7
B07QX4	A2-12-031-07A	V	WATER	7
B07QX4	A2-12-031-07B	SV & P	WATER	
B07QX6	A2-12-031-08A	V	WATER	7

3.0 COMMENTS :

3.1 SHIPPING AND DOCUMENTATION :

All of the samples were received and properly documented.

1 of the 3 VOA vials for sample B07QL1 contained air bubbles.
2 of the 3 VOA vials for sample B07QL6 contained air bubbles.

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.

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

3.2.3 PESTICIDE/PCB ANALYSIS COMMENTS :

SEQUENCE NOTES :

The sequence was started on 12/21/92 and analyzed in accordance with the EPA CLP SOW. The sequence was analyzed by single injection into a dual column system. After the injection on 12/22/92, at 04:31 AM, the autosampler malfunctioned. After maintenance the sequence was resumed with the injection of PIBLK03 on 12/22/92 at 07:53 AM and was followed by PEM03. The samples that were injected between PEM02 and PEM03 were re-injected later in the sequence. The sequence met all the QC criteria specified in the CLP SOW.

The Chromatograms are presented in the manner consistent with the capabilities of the Nelson 2700 Turbochrome Data System which normalizes the largest peak to scale.

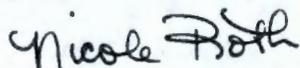
SAMPLE NOTES :

LOW LEVEL WATER :

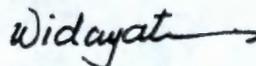
The samples were extracted and analyzed within the CLP SOW holding times. Sample B07QL4MS had a percent difference greater than 25% between the two GC columns for 4,4'-DDT. Therefore, the results have been "P" qualified.

All of the other 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

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

B07QK9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12031 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212031-01A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21211R07

Level: (low/med) LOW Date Received: 12/09/92

% Moisture: not dec. Date Analyzed: 12/11/92

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	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	6	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

9613490.1873

000006

EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QK9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12031 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212031-01A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21211R07

Level: (low/med) LOW Date Received: 12/09/92

% Moisture: not dec. Date Analyzed: 12/11/92

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

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

9613490.1874

000007
EPA SAMPLE NO.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

B07QL1

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12031 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212031-02A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21211R08

Level: (low/med) LOW Date Received: 12/09/92

% Moisture: not dec. Date Analyzed: 12/11/92

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) <u>UG/L</u>	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

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QL1

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12031 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212031-02A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21211R08

Level: (low/med) LOW Date Received: 12/09/92

% Moisture: not dec. Date Analyzed: 12/11/92

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

B07QL4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12031 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212031-03A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21211R10

Level: (low/med) LOW Date Received: 12/09/92

% Moisture: not dec. Date Analyzed: 12/11/92

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	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

9613490.1877

000010
EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QL4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12031 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212031-03A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21211R10

Level: (low/med) LOW Date Received: 12/09/92

% Moisture: not dec. Date Analyzed: 12/11/92

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

B07QL6

Lab Name: TMA/ARLI Contract: WHC
 Lab Code: TMALA Case No.: 12031 SAS No.: NA SDG No.: NA
 Matrix: (soil/water) WATER Lab Sample ID: A212031-04A
 Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21211R11
 Level: (low/med) LOW Date Received: 12/09/92
 % Moisture: not dec. Date Analyzed: 12/11/92
 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

9613490.1879

000012

EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QL6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12031 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212031-04A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21211R11

Level: (low/med) LOW Date Received: 12/09/92

‡ Moisture: not dec. Date Analyzed: 12/11/92

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

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

B07QM4

Lab Name: TMA/ARLI Contract: WHC
 Lab Code: TMALA Case No.: 12031 SAS No.: NA SDG No.: NA
 Matrix: (soil/water) WATER Lab Sample ID: A212031-05A
 Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21211R12
 Level: (low/med) LOW Date Received: 12/09/92
 % Moisture: not dec. Date Analyzed: 12/11/92
 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	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

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QM4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12031 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212031-05A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21211R12

Level: (low/med) LOW Date Received: 12/09/92

% Moisture: not dec. Date Analyzed: 12/11/92

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
-----	-----	-----	-----	-----

9613490.1882

000015
EPA SAMPLE NO.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

B07QM6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12031 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212031-06A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21211R13

Level: (low/med) LOW Date Received: 12/09/92

% Moisture: not dec. Date Analyzed: 12/11/92

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	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	<u>Q</u>
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

9613490.1883

000016
EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QM6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12031 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212031-06A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21211R13

Level: (low/med) LOW Date Received: 12/09/92

% Moisture: not dec. Date Analyzed: 12/11/92

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

B07QX4

Lab Name: TMA/ARLI Contract: WHC
 Lab Code: TMALA Case No.: 12031 SAS No.: NA SDG No.: NA
 Matrix: (soil/water) WATER Lab Sample ID: A212031-07A
 Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21211R16
 Level: (low/med) LOW Date Received: 12/09/92
 % Moisture: not dec. Date Analyzed: 12/11/92
 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	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

9613490-1885

000018
EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QX4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12031 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212031-07A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21211R16

Level: (low/med) LOW Date Received: 12/09/92

% Moisture: not dec. Date Analyzed: 12/11/92

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

B07QX6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12031 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212031-08A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21214R03

Level: (low/med) LOW Date Received: 12/09/92

% Moisture: not dec. Date Analyzed: 12/14/92

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 Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	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

9613490-1887

000020
EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QX6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12031 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212031-08A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21214R03

Level: (low/med) LOW Date Received: 12/09/92

% Moisture: not dec. Date Analyzed: 12/14/92

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

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07QK9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12031 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212031-01B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21218S06

Level: (low/med) LOW Date Received: 12/09/92

% Moisture: decanted: (Y/N) Date Extracted: 12/11/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/18/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

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

CAS NO.

COMPOUND

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

B07QK9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12031 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212031-01B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21218S06

Level: (low/med) LOW Date Received: 12/09/92

% Moisture: decanted: (Y/N) Date Extracted: 12/11/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/18/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	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	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

9613490.1890

000023
EPA SAMPLE NO.

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QK9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12031 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212031-01B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21218S06

Level: (low/med) LOW Date Received: 12/09/92

% Moisture: decanted: (Y/N) Date Extracted: 12/11/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/18/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	5.78	3	J

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07QL4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12031 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212031-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21218S09

Level: (low/med) LOW Date Received: 12/09/92

% Moisture: decanted: (Y/N) Date Extracted: 12/11/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/18/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

CAS NO. COMPOUND (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

B07QL4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12031 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212031-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21218S09

Level: (low/med) LOW Date Received: 12/09/92

% Moisture: _____ decanted: (Y/N) _____ Date Extracted: 12/11/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/18/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

CAS NO. COMPOUND (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	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

B07QL4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12031 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212031-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21218S09

Level: (low/med) LOW Date Received: 12/09/92

* Moisture: decanted: (Y/N) Date Extracted: 12/11/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/18/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
-----	-----	-----	-----	-----

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07QM4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12031 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212031-05B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21218S10

Level: (low/med) LOW Date Received: 12/09/92

‡ Moisture: _____ decanted: (Y/N) _____ Date Extracted: 12/11/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/18/92

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	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

9613490.1895

000028
EPA SAMPLE NO.1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07QM4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12031 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212031-05B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21218S10

Level: (low/med) LOW Date Received: 12/09/92

‡ Moisture: decanted: (Y/N) Date Extracted: 12/11/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/18/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	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	20	
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

9613490.1896

000029
EPA SAMPLE NO.

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QM4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12031 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212031-05B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21218S10

Level: (low/med) LOW Date Received: 12/09/92

% Moisture: decanted: (Y/N) Date Extracted: 12/11/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/18/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

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

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07QX4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12031 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212031-07B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21218S11

Level: (low/med) LOW Date Received: 12/09/92

% Moisture: decanted: (Y/N) Date Extracted: 12/11/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/18/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

CAS NO. COMPOUND (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

9613490.1898

000031

EPA SAMPLE NO.

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07QX4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12031 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212031-07B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21218S11

Level: (low/med) LOW Date Received: 12/09/92

% Moisture: decanted: (Y/N) Date Extracted: 12/11/92

Concentrated Extract Volume: 1000 ~ (uL) Date Analyzed: 12/18/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	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	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

9613490.1899

000032

EPA SAMPLE NO.

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QX4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12031 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212031-07B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21218S11

Level: (low/med) LOW Date Received: 12/09/92

% Moisture: decanted: (Y/N) Date Extracted: 12/11/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/18/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
-----	-----	-----	-----	-----

9613490.1900

000033

EPA SAMPLE NO.

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

B07QK9

Lab Name: TMA/ARLI Contract: WHC
 Lab Code: TMALA Case No.: 12031 SAS No.: NA SDG No.: NA
 Matrix: (soil/water) WATER Lab Sample ID: A212031-01B
 Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____
 % Moisture: _____ decanted: (Y/N) _____ Date Received: 12/09/92
 Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 12/11/92
 Concentrated Extract Volume: 10000 (uL) Date Analyzed: 12/23/92
 Injection Volume: 1.00 (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

9613490.1901

000034

1D

EPA SAMPLE NO.

PESTICIDE ORGANICS ANALYSIS DATA SHEET

B07QL4

Lab Name: TMA/ARLI Contract: WNC
 Lab Code: TMALA Case No.: 12031 SAS No.: NA SDG No.: NA
 Matrix: (soil/water) WATER Lab Sample ID: A212031-03B
 Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____
 % Moisture: _____ decanted: (Y/N) _____ Date Received: 12/09/92
 Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 12/11/92
 Concentrated Extract Volume: 10000 (uL) Date Analyzed: 12/23/92
 Injection Volume: 1.00 (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	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	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

B07QM4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12031 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212031-05B

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

% Moisture: _____ decanted: (Y/N) _____ Date Received: 12/09/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 12/11/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 12/23/92

Injection Volume: 1.00 (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

9613490.1903

000036
EPA SAMPLE NO.1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

B07QX4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12031 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212031-07B

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

% Moisture: _____ decanted: (Y/N) _____ Date Received: 12/09/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 12/11/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 12/23/92

Injection Volume: 1.00 (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

CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-KR-4

Collection Date 12-7-92

Ice Chest No. ~~SAL 215~~ ^{ASS 12/8/92} SAL#63

Field Logbook No. EFL-1049

Bill of Lading/Airbill No. 251900741T

Offsite Property No. W93-0-0151-3

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

B07QK9

- 3, 40ml, Gs*, WATER, CLP-VOA
- 3, 2L, aG, WATER, CLP-SEMI VOA & PCB's/PEST
- 1, 1L, P, WATER, ANIONS(IC) SO4, F, PO4, Cl/COND./pH
- 1, 500ml, P, WATER, ANIONS/NO3-NO2 (H2SO4)
- 1, 1L, G, WATER, ALK./TOT. DISSOLVED SOLIDS
- 1, 500ml, G, WATER, SULFIDE (add Zinc Acetate+NaOH pH>9)
- 1, 500ml, G, WATER, AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
- 1, 1L, P, WATER, CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
- 1, 1L, P, WATER, CLP-CN (NaOH)
- 2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90 (HNO3)
- 1, 1L, P, WATER, Tc-99 (HCl)
- 1, 250ml, Gs, WATER, TRITIUM/C-14

B07QL0

- 1, 1L, P, WATER, CLP-ICP/AA METALS (FILTERED)/CLP-Hg (HNO3)

B07QL1

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

[] Field Transfer of Custody		Chain of Possession	(Sign and Print Names)
Relinquished by: L.D. Walker <i>L.D. Walker</i>	Received by: A.J. SIMPSON <i>A.J. Simpson</i>	Date/Time: 12/8/92 0946	
Relinquished by: A.J. SIMPSON <i>A.J. Simpson</i>	Received by: A.G. Simpson <i>A.G. Simpson</i>	Date/Time: 12/7/92 12:50	
Relinquished by:	Received by:	Date/Time:	
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

Collector K. Lee, L. Walker Date Sampled 12-7-92 Time 1130 hours
 Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B07QK9	3; 40ml; Gs*;	WATER	✓ CLP-VOA
	3; 2L; aG;	WATER	✓ CLP-SEMI VOA & PCB's/PEST
	1; 1L; P;	WATER	✓ ANIONS (IC) SO4, F, PO4, Cl/COND/pH
	1; 500ml; P;	WATER	✓ ANIONS/NO3-NO2 (H2SO4)
	1; 1L; G;	WATER	✓ ALK./TOT. DISSOLVED SOLIDS
	1; 500ml; G;	WATER	✓ SULFIDE (add Zinc Acetate + NaOH pH > 9)
	1; 500ml; G;	WATER	✓ AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH < 2)
	1; 1L; P;	WATER	✓ CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
	1; 1L; P;	WATER	✓ CLP-CN (NaOH)
	2; 4L; P;	WATER	✓ GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90, (HNO3)
	1; 1L; P;	WATER	Tc-99 (HCl)
	1; 250ml; Gs;	WATER	✓ TRITIUM/C-14
B07QL0	1; 1L; P;	WATER	✓ CLP-ICP/AA METAL (FILTERED)/CLP-Hg (HNO3)
B07QL1	3; 40ml; Gs	WATER	✓ CLP-VOA
			OPC: # W93-0-0151-3
			BOL: # 25190074TT
			TASK#: 92-398

Field Information

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Alb Alfonso Hobaf Title SAMPLE CONTROL TECH Date 12/9/92

Analysis Required

* Indicate whether sample is soil, sludge, water, etc.
 ** Use back of page for additional information relative to sample location.

Westinghouse
Hanford Company

CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER
Company Contact PH BUTCHER
Project Designation/Sampling Locations 100-KR-4
Ice Chest No. SML-190
Bill of Lading/Airbill No. ZSI 900747T
Method of Shipment EMERY
Shipped to TMA
Possible Sample Hazards/Remarks N/A

Telephone (509)376-5045
Collection Date 12/7/92
Field Logbook No. EPA-10 48, 12/5/92
Offsite Property No. ~~W93-0-00~~
W93-0-0151-2

Sample Identification

BO7QL4

- 3, 40ml, Gs*, WATER, CLP-VOA
- 3, 2L, aG, WATER, CLP-SEMI VOA & PCB's/PEST
- 1, 1L, P, WATER, ANIONS(IC) SO4, F, PO4, Cl/COND./pH
- 1, 500ml, P, WATER, ANIONS/NO3-NO2 (H2SO4)
- 1, 1L, G, WATER, ALK./TOT. DISSOLVED SOLIDS
- 1, 500ml, G, WATER, SULFIDE (add Zinc Acetate+NaOH pH>9)
- 1, 500ml, G, WATER, AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
- 1, 1L, P, WATER, CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
- 1, 1L, P, WATER, CLP-CN (NaOH)
- 2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90 (HNO3)
- 1, 1L, P, WATER, Tc-99 (HCl)
- 1, 250ml, Gs, WATER, TRITIUM/C-14

BO7QL5

- 1, 1L, P, WATER, CLP-ICP/AA METALS (FILTERED)/CLP-Hg (HNO3)

* BO7QL6

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

[] Field Transfer of Custody		Chain of Possession	(Sign and Print Names)
Relinquished by: <i>Phyllis L. K. K. K.</i>	Received by: AS SIMPSON <i>AJ Simpson</i>	Date/Time: 12/8/92 0943	
Relinquished by: AS SIMPSON <i>AJ Simpson</i>	Received by: ALE Allon. Probaly	Date/Time: 12/9/92 12:50	
Relinquished by:	Received by:	Date/Time:	
Relinquished by:	Received by:	Date/Time:	
Final Sample Disposition			
Disposal Method:	Disposed by:	Date/Time:	
Comments:			

* Two vials BO7QL6 received @ TMA/Norcal with bubbles. KB

9613490.1907



Westinghouse
Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K. Lee, L. Walker Date Sampled 12/7/92 Time 1030 hours
Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B07QL4	✓3; 40ml; Gs*	WATER	CLP-VOA
	✓3; 2L; aG;	WATER	CLP-SEMI VOA & PCB's/PEST
	✓1; 1L; P;	WATER	ANIONS (IC) SO4, F, PO4, CI/COND/pH
	- ✓1; 500ml; P;	WATER	ANIONS/NO3-NO2 (H2SO4)
	✓1; 1L; G;	WATER	ALK./TOT. DISSOLVED SOLIDS
	✓1; 500ml; G;	WATER	SULFIDE (add Zinc Acetate + NaOH pH > 9)
	✓1; 500ml; G;	WATER	AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH < 2)
	✓1; 1L; P;	WATER	CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
	✓1; 1L; P;	WATER	CLP-CN (NaOH)
	✓2; 4L; P;	WATER	GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90, (HNO3)
	✓1; 1L; P;	WATER	Tc-99 (HCl)
	✓1; 250ml; Gs;	WATER	TRITIUM/C-14
B07QL5	✓1; 1L; P;	WATER	CLP-ICP/AA METAL (FILTERED)/CLP-Hg (HNO3)
B07QL6	✓3; 40ml; Gs	WATER	CLP-VOA <i>bubbled on two vials</i> OPC: # W93-0-0151-2 BOL: # 251900747T TASK#: 92-398

Field Information** _____

Special Handling and/or Storage _____

Possible Sample Hazards _____

PART II: LABORATORY SECTION

Received by AIG Alfonso Poteh Title SAMPLE control for HH Date 12/30

Analysis Required _____

* Indicate whether sample is soil, sludge, water, etc.
** Use back of page for additional information relative to sample location.

Westinghouse
Hanford Company

CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER
Company Contact PH BUTCHER
Project Designation/Sampling Locations 100-KR-4
Ice Chest No. *SAL-245*
Bill of Lading/Airbill No. *251900747T*
Method of Shipment EMERY
Shipped to TMA
Possible Sample Hazards/Remarks N/A

Telephone (509)376-5045
Collection Date *12/7/92*
Field Logbook No. *EFL-1049*
Offsite Property No. *W93-0-0151-3*

Sample Identification

BO7QM4

- 3, 40ml, Gs*, WATER, CLP-VOA
- 3, 2L, aG, WATER, CLP-SEMI VOA & PCB's/PEST
- 1, 1L, P, WATER, ANIONS(IC) SO4, F, PO4, Cl/COND./pH
- 1, 500ml, P, WATER, ANIONS/NO3-NO2 (H2SO4)
- 1, 1L, G, WATER, ALK./TOT. DISSOLVED SOLIDS
- 1, 500ml, G, WATER, SULFIDE (add Zinc Acetate+NaOH pH>9)
- 1, 500ml, G, WATER, AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
- 1, 1L, P, WATER, CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
- 1, 1L, P, WATER, CLP-CN (NaOH)
- 2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90 (HNO3)
- 1, 1L, P, WATER, Tc-99 (HCl)
- 1, 250ml, Gs, WATER, TRITIUM/C-14

BO7QM5

- 1, 1L, P, WATER, CLP-ICP/AA METALS (FILTERED)/CLP-Hg (HNO3)

BO7QM6

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

[] Field Transfer of Custody		Chain of Possession	(Sign and Print Names)
Relinquished by: <i>Kathy Decker E.O. Lee</i>	Received by: <i>AJ SIMPSON</i> <i>AJ Simpson</i>	Date/Time: <i>12/8/92 0950</i>	
Relinquished by: <i>AJ SIMPSON</i> <i>AJ Simpson</i>	Received by: <i>ALG Alfonso M. Obach</i>	Date/Time: <i>12/9/92 12:50</i>	
Relinquished by:	Received by:	Date/Time:	
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

Collector K. Lee, L. Walker

Date Sampled 12/7/92 Time 1300 hours

Company Contact P. H. Butcher

Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B07Qm4	✓3; 40ml; Gs*;	WATER	CLP-VOA
	✓3; 2L; aG;	WATER	CLP-SEMI VOA & PCB's/PEST
	✓1; 1L; P;	WATER	ANIONS (IC) SO4, F, PO4, Cl/COND/pH
	✓1; 500ml; P;	WATER	ANIONS/NO3-NO2 (H2SO4)
	✓1; 1L; G;	WATER	ALK./TOT. DISSOLVED SOLIDS
	✓1; 500ml; G;	WATER	SULFIDE (add Zinc Acetate + NaOH pH>9)
	✓1; 500ml; G;	WATER	AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
	✓1; 1L; P;	WATER	CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
	✓1; 1L; P;	WATER	CLP-CN (NaOH)
	✓2; 4L; P;	WATER	GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC
			(U-235/238, Pu-239/240, Am-241), Sr-90, (HNO3)
	✓1; 1L; P;	WATER	Tc-99 (HCl)
	✓1; 250ml; Gs;	WATER	TRITIUM/C-14
B07Qm5	✓1; 1L; P;	WATER	CLP-ICP/AA METAL (FILTERED)/CLP-Hg (HNO3)
B07Qm6	✓3; 40ml; Gs	WATER	CLP-VOA
			OPC: # W93-0-0151-3
			BOL: # 291900747T
			TASK#: 92-398

Field Information**

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Al G Alfonso Habel Title SAMPLE CONTROL TECH Date 12-9-92

Analysis Required

* Indicate whether sample is soil, sludge, water, etc.
** Use back of page for additional information relative to sample location.

Westinghouse
Hanford Company

CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Project Designation/Sampling Locations 100-KR-4

Ice Chest No. SML-242

Bill of Lading/Airbill No. ZSI900747T

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Telephone (509)376-5045

Collection Date 12/7/92

Field Logbook No. EPL-1099

Offsite Property No. W93-D-0151-2

Sample Identification

B07QX4

- 3, 40ml, Gs*, WATER, CLP-VOA
- 3, 2L, aG, WATER, CLP-SEMI VOA & PCB's/PEST
- 1, 1L, P, WATER, ANIONS(IC) SO4, F, PO4, Cl/COND./pH
- 1, 500ml, P, WATER, ANIONS/NO3-NO2 (H2SO4)
- 1, 1L, G, WATER, ALK./TOT. DISSOLVED SOLIDS
- 1, 500ml, G, WATER, SULFIDE (add Zinc Acetate+NaOH pH>9)
- 1, 500ml, G, WATER, AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
- 1, 1L, P, WATER, CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
- 1, 1L, P, WATER, CLP-CN (NaOH)
- 2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90 (HNO3)
- 1, 1L, P, WATER, Tc-99 (HCl)
- 1, 250ml, Gs, WATER, TRITIUM/C-14

B07QX5

- 1, 1L, P, WATER, CLP-ICP/AA METALS (FILTERED)/CLP-Hg (HNO3)

* B07QX6

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

[] Field Transfer of Custody		Chain of Possession	(Sign and Print Names)
Relinquished by: <i>Kathy Sheer K.D. Lee</i>	Received by: AJ SIMPSON <i>AJ Simpson</i>	Date/Time: 12/8/92 0938	
Relinquished by: AJ SIMPSON <i>AJ Simpson</i>	Received by: <i>ALG Anderson Medbury</i>	Date/Time: 12/7/92	
Relinquished by:	Received by:	Date/Time:	
Relinquished by:	Received by:	Date/Time:	
Final Sample Disposition			
Disposal Method:	Disposed by:	Date/Time:	
Comments:			

* One vial B07QX6 broken en route to TMA/Norcal - KB



Westinghouse
Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K. Lee, L. Walker

Date Sampled 12/7/92 Time 1300 hours

Company Contact P. H. Butcher

Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B07QX4	3; 40ml; Gs*;	WATER	✓ CLP-VOA
	3; 2L; aG;	WATER	✓ CLP-SEMI VOA & PCB's/PEST
	1; 1L; P;	WATER	✓ ANIONS (IC) SO4, F, PO4, Cl/COND/pH
-	1; 500ml; P;	WATER	✓ ANIONS/NO3-NO2 (H2SO4)
	1; 1L; G;	WATER	✓ ALK./TOT. DISSOLVED SOLIDS
	1; 500ml; G;	WATER	✓ SULFIDE (add Zinc-Acetate + NaOH pH > 9)
	1; 500ml; G;	WATER	✓ AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH < 2)
	1; 1L; P;	WATER	✓ CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
	1; 1L; P;	WATER	✓ CLP-CN (NaOH)
	2; 4L; P;	WATER	✓ GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90, (HNO3)
	1; 1L; P;	WATER	✓ Tc-99 (HCl)
	1; 250ml; Gs;	WATER	✓ TRITIUM/C-14
B07QX5	1; 1L; P;	WATER	CLP-ICP/AA METAL (FILTERED)/CLP-Hg (HNO3)
B07QX6	3; 40ml; Gs	WATER	✓ CLP-VOA {I what was en route to TMA/NorCal?}
			OPC: # W93-0-051-2
			BOL: # 251900747 T
			TASK#: 92-398

Field Information**

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Al G. Brown Title Sample control Date 12.4.92

Analysis Required

* Indicate whether sample is soil, sludge, water, etc.
** Use back of page for additional information relative to sample location.

3.0 COMMENTS :

3.1 SHIPPING AND DOCUMENTATION :

All of the samples were received and properly documented. 1 of the 2 liter bottles for sample B07QK4 arrived at TMA/ARLI broken.

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. Samples B07QL9, B07QP4 and B07QN4MS had surrogate recoveries for 2-Fluorophenol above the QC limits. In accordance with protocol, no re-analysis was required.

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

3.2.3 PESTICIDE/PCB ANALYSIS COMMENTS :

SEQUENCE NOTES :

The sequence was started on 12/21/92 and analyzed in accordance with the EPA CLP SOW. The sequence was analyzed by single injection into a dual column system. After the injection on 12/22/92, at 04:31 AM, the autosampler malfunctioned. After maintenance the sequence was resumed with the injection of PIBLK03 on 12/22/92 at 07:53 AM and was followed by PEM03. The samples that were injected between PEM02 and PEM03 were re-injected later in the sequence. The sequence met all the QC criteria specified in the CLP SOW.

The Chromatograms are presented in the manner consistent with the capabilities of the Nelson 2700 Turbochrome Data System which normalizes the largest peak to scale.

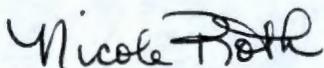
SAMPLE NOTES :

LOW LEVEL WATER :

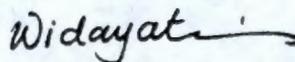
The samples were extracted and analyzed within the CLP SOW holding times. The surrogate recoveries of DCB in sample PBLK1209C were below the advisory limits for both GC columns. In accordance with protocol, no further action was required.

All of the other 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

9613490.1914

000003

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07QK4

Lab Name: TMA/ARLI Contract: WHC
 Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA
 Matrix: (soil/water) WATER Lab Sample ID: A212027-01A
 Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21214R04
 Level: (low/med) LOW Date Received: 12/08/92
 % Moisture: not dec. _____ Date Analyzed: 12/14/92
 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 Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	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	6	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	2	J
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	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

9613490.1915

000000
EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QK4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212027-01A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21214R04

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: not dec. Date Analyzed: 12/14/92

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.

B07QK6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212027-02A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21214R05

Level: (low/med) LOW Date Received: 12/08/92

‡ Moisture: not dec. _____ Date Analyzed: 12/14/92

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 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

9613490.1917

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QK6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212027-02A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21214R05

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: not dec. Date Analyzed: 12/14/92

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

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

B07QL9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212027-03A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21214R08

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: not dec. Date Analyzed: 12/14/92

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 Q

CAS NO. COMPOUND

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

9613490.1919

000010
EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QL9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212027-03A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21214R08

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: not dec. Date Analyzed: 12/14/92

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

9613490.1920

000011

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07QM1

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212027-04A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21214R09

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: not dec. Date Analyzed: 12/14/92

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 Q

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

9613490.1921

000012

EPA SAMPLE NO.

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QM1

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212027-04A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21214R09

Level: (low/med) LOW Date Received: 12/08/92

* Moisture: not dec. Date Analyzed: 12/14/92

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

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

9613490-1922
1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

B07QN4

Lab Name: TMA/ARLI

Contract: WHC

Lab Code: TMALA

Case No.: 12030

SAS No.: NA

SDG No.: NA

Matrix: (soil/water) WATER

Lab Sample ID: A212027-05A

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: 21214R10

Level: (low/med) LOW

Date Received: 12/08/92

% Moisture: not dec.

Date Analyzed: 12/14/92

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	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

9613990.1923

000014

EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QN4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212027-05A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21214R10

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: not dec. Date Analyzed: 12/14/92

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

9613490.1924

000015
EPA SAMPLE NO.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

B07QN6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212027-06A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21214R11

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: not dec. Date Analyzed: 12/14/92

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) <u>UG/L</u>	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

9613490.1925

000016

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QN6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212027-06A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21214R11

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: not dec. Date Analyzed: 12/14/92

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

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
-----	-----	-----	-----	-----

VOLATILE ORGANICS ANALYSIS DATA SHEET

B07QP4

Lab Name: TMA/ARLI Contract: WHC
 Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA
 Matrix: (soil/water) WATER Lab Sample ID: A212027-07A
 Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21214R14
 Level: (low/med) LOW Date Received: 12/08/92
 % Moisture: not dec. _____ Date Analyzed: 12/14/92
 GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (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	5	J
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

9613490.1927

1E

000013
EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QP4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212027-07A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21214R14

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: not dec. Date Analyzed: 12/14/92

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

B07QP6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212027-08A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21214R12

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: not dec. Date Analyzed: 12/14/92

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	6	J
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

9613490.1929

000010

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QP6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212027-08A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21214R12

Level: (low/med) LOW Date Received: 12/08/92

* Moisture: not dec. Date Analyzed: 12/14/92

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

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
-----	-----	-----	-----	-----

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

B07QT4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212027-09A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21214R15

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: not dec. Date Analyzed: 12/14/92

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) <u>UG/L</u>	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	1	J
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

9613490.1931

000022
EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QT4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212027-09A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21214R15

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: not dec. Date Analyzed: 12/14/92

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

9613490.1932

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

B07QT6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212027-10A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21214R13

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: not dec. Date Analyzed: 12/14/92

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) <u>UG/L</u>	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

9613990.1933

000024

EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QT6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212027-10A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21214R13

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: not dec. Date Analyzed: 12/14/92

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

9613490.1934

1A

000025
EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

B07QV4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212027-11A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21214R16

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: not dec. Date Analyzed: 12/14/92

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) <u>UG/L</u>	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

9613490.1935

1E

000026
EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QV4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212027-11A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21214R16

Level: (low/med) LOW Date Received: 12/08/92

* Moisture: not dec. Date Analyzed: 12/14/92

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

9613490, 1936

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

B07QV6

Lab Name: TMA/ARLI Contract: WHC
 Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA
 Matrix: (soil/water) WATER Lab Sample ID: A212027-12A
 Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21214R17
 Level: (low/med) LOW Date Received: 12/08/92
 ‡ Moisture: not dec. Date Analyzed: 12/14/92
 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

9613490.1937

1E

000023

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QV6

Lab Name: TMA/ARLI

Contract: WHC

Lab Code: TMALA Case No.: 12030

SAS No.: NA

SDG No.: NA

Matrix: (soil/water) WATER

Lab Sample ID: A212027-12A

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: 21214R17

Level: (low/med) LOW

Date Received: 12/08/92

% Moisture: not dec.

Date Analyzed: 12/14/92

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
-----	-----	-----	-----	-----

VOLATILE ORGANICS ANALYSIS DATA SHEET

B07QV9

Lab Name: TMA/ARLI Contract: WHC
 Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA
 Matrix: (soil/water) WATER Lab Sample ID: A212027-13A
 Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21215R03
 Level: (low/med) LOW Date Received: 12/08/92
 % Moisture: not dec. Date Analyzed: 12/15/92
 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	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	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

9613490.1939

000030

EPA SAMPLE NO.

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QV9

Lab Name: TMA/ARLI

Contract: WHC

Lab Code: TMALA

Case No.: 12030

SAS No.: NA

SDG No.: NA

Matrix: (soil/water) WATER

Lab Sample ID: A212027-13A

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: 21215R03

Level: (low/med) LOW

Date Received: 12/08/92

% Moisture: not dec.

Date Analyzed: 12/15/92

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

9613490.1940

000031

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

B07QW1

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212027-14A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21215R04

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: not dec. Date Analyzed: 12/15/92

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

Q

CAS NO.

COMPOUND

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	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	2	J
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

9613490.1941

000032
EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QW1

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212027-14A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21215R04

Level: (low/med) LOW Date Received: 12/08/92

* Moisture: not dec. Date Analyzed: 12/15/92

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

9613490.1942

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

B07QW9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212027-16A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21215R06

Level: (low/med) LOW Date Received: 12/08/92

* Moisture: not dec. _____ Date Analyzed: 12/15/92

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

9613490.1943

000034
EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QW9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212027-16A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21215R06

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: not dec. Date Analyzed: 12/15/92

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
-----	-----	-----	-----	-----

9613490.1944

000035
EPA SAMPLE NO.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

B07QX1

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212027-17A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21215R07

Level: (low/med) LOW Date Received: 12/08/92

* Moisture: not dec. _____ Date Analyzed: 12/15/92

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

9613490.1945

000036

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B07QX1

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212027-17A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21215R07

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: not dec. Date Analyzed: 12/15/92

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

B07QZ7

Lab Name: TMA/ARLI Contract: WHC
 Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA
 Matrix: (soil/water) WATER Lab Sample ID: A212027-15A
 Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21215R05
 Level: (low/med) LOW Date Received: 12/08/92
 ‡ Moisture: not dec. Date Analyzed: 12/15/92
 GC Column: PACK ID: 2.00 (mm) Dilution Factor: 1.0
 Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (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

9613490.1947

000038

EPA SAMPLE NO.

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QZ7

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212027-15A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21215R05

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: not dec. Date Analyzed: 12/15/92

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

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
-----	-----	-----	-----	-----

9613490.1948

1B

000039
EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07QK4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212030-01A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21215S03

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: _____ decanted: (Y/N) _____ Date Extracted: 12/09/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/15/92

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

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

9613490.1949

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

000040
EPA SAMPLE NO.

B07QK4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212030-01A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21215S03

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: decanted: (Y/N) Date Extracted: 12/09/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/15/92

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

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	J
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

9613490.1950

000041

EPA SAMPLE NO.

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QK4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212030-01A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21215S03

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: decanted: (Y/N) Date Extracted: 12/09/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/15/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 0 CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07QL9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212030-02A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21215S04

Level: (low/med) LOW Date Received: 12/08/92

‡ Moisture: decanted: (Y/N) Date Extracted: 12/09/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/15/92

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

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

9613490.1952

000043
EPA SAMPLE NO.

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07QL9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212030-02A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21215S04

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: decanted: (Y/N) Date Extracted: 12/09/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/15/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	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	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

9613490.1953

000044
EPA SAMPLE NO.

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QL9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212030-02A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21215S04

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: decanted: (Y/N) Date Extracted: 12/09/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/15/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
-----	-----	-----	-----	-----

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07QN4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212030-03A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21215S05

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: decanted: (Y/N) Date Extracted: 12/09/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/15/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

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

CAS NO.	COMPOUND		
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

9613490.1955

000046

EPA SAMPLE NO.

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07QN4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212030-03A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21215S05

Level: (low/med) LOW Date Received: 12/08/92

‡ Moisture: decanted: (Y/N) Date Extracted: 12/09/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/15/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

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

CAS NO.	COMPOUND	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	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

9613490.1956

000047

EPA SAMPLE NO.

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QN4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212030-03A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21215S05

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: decanted: (Y/N) Date Extracted: 12/09/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/15/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
-----	-----	-----	-----	-----

9613490.1957

1B

000048
EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07QP4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212030-04A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21215S08

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: _____ decanted: (Y/N) _____ Date Extracted: 12/09/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/15/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	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

B07QP4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212030-04A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21215S08

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: decanted: (Y/N) Date Extracted: 12/09/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/15/92

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	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	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	19	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

9613490.1959

000050
EPA SAMPLE NO.

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QP4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212030-04A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21215S08

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: decanted: (Y/N) Date Extracted: 12/09/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/15/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
-----	-----	-----	-----	-----

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07QT4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212030-05A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21215S09

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: decanted: (Y/N) Date Extracted: 12/09/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/15/92

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

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

9613490.1961

000052

EPA SAMPLE NO.

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07QT4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMA1A Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212030-05A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21215S09

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: decanted: (Y/N) Date Extracted: 12/09/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/15/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

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

CAS NO.

COMPOUND

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	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	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

B07QT4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212030-05A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21215S09

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: decanted: (Y/N) Date Extracted: 12/09/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/15/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
-----	-----	-----	-----	-----

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07QV4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212030-06A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21215S10

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: decanted: (Y/N) Date Extracted: 12/09/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/15/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	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

9613490.1964

000055
EPA SAMPLE NO.1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07QV4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212030-06A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21215S10

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: decanted: (Y/N) Date Extracted: 12/09/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/15/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	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	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

9613490.1965

00005C
EPA SAMPLE NO.

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QV4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212030-06A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21215S10

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: decanted: (Y/N) Date Extracted: 12/09/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/15/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
-----	-----	-----	-----	-----

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07QV9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212030-07A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21215S11

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: decanted: (Y/N) Date Extracted: 12/09/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/15/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(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.

B07QV9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212030-07A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21215S11

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: _____ decanted: (Y/N) _____ Date Extracted: 12/09/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/15/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	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	J
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

9613490.1968

000059

EPA SAMPLE NO.

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QV9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212030-07A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21215S11

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: decanted: (Y/N) Date Extracted: 12/09/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/15/92

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 ACID	10.80	3	J
2.	UNKNOWN HYDROCARBON	13.40	7	J
3.	UNKNOWN HYDROCARBON	13.65	15	J
4.	UNKNOWN HYDROCARBON	14.03	3	J
5.	UNKNOWN HYDROCARBON	14.32	3	J

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07QW9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212030-08A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21215S12

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: decanted: (Y/N) Date Extracted: 12/09/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/15/92

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

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

B07QW9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212030-08A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21215S12

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: decanted: (Y/N) Date Extracted: 12/09/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/15/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

CAS NO. COMPOUND (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	4	J
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

9613490.1971

000062

IF
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B07QW9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212030-08A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21215S12

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: decanted: (Y/N) Date Extracted: 12/09/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/15/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	13.40	7	J
2.	UNKNOWN HYDROCARBON	14.03	3	J

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07QK4

Lab Name: TMA/ARLI Contract: WHC
 Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA
 Matrix: (soil/water) WATER Lab Sample ID: A212030-01A
 Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____
 % Moisture: _____ decanted: (Y/N) _____ Date Received: 12/08/92
 Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 12/09/92
 Concentrated Extract Volume: 10000 (uL) Date Analyzed: 12/23/92
 Injection Volume: 1.00 (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

B07QL9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212030-02A

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

% Moisture: _____ decanted: (Y/N) _____ Date Received: 12/08/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 12/09/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 12/23/92

Injection Volume: 1.00 (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	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	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

9613490.1974

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EP 000015 NO.

B07QN4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212030-03A

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

% Moisture: _____ decanted: (Y/N) _____ Date Received: 12/08/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 12/09/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 12/23/92

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

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

CONCENTRATION UNITS:

CAS NO. COMPOUND (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

9613490.1975

000060

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07QP4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212030-04A

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

% Moisture: _____ decanted: (Y/N) _____ Date Received: 12/08/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 12/09/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 12/23/92

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

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

CONCENTRATION UNITS:

CAS NO. COMPOUND (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

9613490.1976

000067

EPA SAMPLE NO.

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

B07QT4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212030-05A

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

% Moisture: _____ decanted: (Y/N) _____ Date Received: 12/08/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 12/09/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 12/23/92

Injection Volume: 1.00 (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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	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

9613490.1977

000068

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07QV4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212030-06A

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

% Moisture: _____ decanted: (Y/N) _____ Date Received: 12/08/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 12/09/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 12/23/92

Injection Volume: 1.00 (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 (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

9613490.1978

000069
EPA SAMPLE NO.1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

B07QV9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212030-07A

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

% Moisture: _____ decanted: (Y/N) _____ Date Received: 12/08/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 12/09/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 12/23/92

Injection Volume: 1.00 (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

Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	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

B07QW9

Lab Name: TMA/ARLI Contract: WHC
 Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA
 Matrix: (soil/water) WATER Lab Sample ID: A212030-08A
 Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____
 % Moisture: _____ decanted: (Y/N) _____ Date Received: 12/08/92
 Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 12/09/92
 Concentrated Extract Volume: 10000 (uL) Date Analyzed: 12/23/92
 Injection Volume: 1.00 (uL) Dilution Factor: 1.00
 GPC Cleanup: (Y/N) N pH: _____ Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:

CAS NO. COMPOUND (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

CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER
 Company Contact PH BUTCHER
 Project Designation/Sampling Locations 100-KR-4
 Ice Chest No. BILLY
 Bill of Lading/Airbill No. 251900 7458
 Method of Shipment EMERY
 Shipped to TMA
 Possible Sample Hazards/Remarks N/A

Telephone (509)376-5045
 Collection Date 12/5/92
 Field Logbook No. EEL-1048
 Offsite Property No. W93-0-00 59-49

Sample Identification

B07QK4

- 3, 40ml, Gs*, WATER, CLP-VOA
- 3, 2L, aG, WATER, CLP-SEMI VOA & PCB's/PEST
- 1, 1L, P, WATER, ANIONS(IC) SO4, F, PO4, Cl/COND./pH
- 1, 500ml, P, WATER, ANIONS/NO3-NO2 (H2SO4)
- 1, 1L, G, WATER, ALK./TOT. DISSOLVED SOLIDS
- 1, 500ml, G, WATER, SULFIDE (add Zinc Acetate+NaOH pH>9)
- 1, 500ml, G, WATER, AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
- 1, 1L, P, WATER, CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
- 1, 1L, P, WATER, CLP-CN (NaOH)
- 2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90 (HNO3)
- 1, 1L, P, WATER, Tc-99 (HCl)
- 1, 250ml, Gs, WATER, TRITIUM/C-14

B07QK5

- 1, 1L, P, WATER, CLP-ICP/AA METALS (FILTERED)/CLP-Hg (HNO3)

B07QK6

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

[] Field Transfer of Custody		Chain of Possession	(Sign and Print Names)
Relinquished by: <i>AJ SIMPSON</i> <i>AJ Simpson</i>	Received by: <i>Kermit Blum</i> <i>Kermit Blum</i>	Date/Time: 12-8-92	1130
Relinquished by:	Received by:	Date/Time:	
Relinquished by:	Received by:	Date/Time:	
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

Collector K. Lee, L. Walker Date Sampled 12/5/92 Time 0900 hours
 Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
BO7QK4	3; 40ml; Gs*	WATER	✓ CLP-VOA
	3; 2L; aG;	WATER	✓ CLP-SEMI VOA & PCB's/PEST
	1; 1L; P;	WATER	✓ ANIONS (IC) SO4, F, PO4, Cl/COND/pH
-	1; 500ml; P;	WATER	✓ ANIONS/NO3-NO2 (H2SO4)
	1; 1L; G;	WATER	✓ ALK./TOT. DISSOLVED SOLIDS
	1; 500ml; G;	WATER	SULFIDE (add Zinc-Acetate + NaOH pH > 9)
	1; 500ml; G;	WATER	✓ AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH < 2)
	1; 1L; P;	WATER	✓ CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
	1; 1L; P;	WATER	✓ CLP-CN (NaOH)
	2; 4L; P;	WATER	✓ GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90, (HNO3)
	1; 1L; P;	WATER	✓ Tc-99 (HCl)
	1; 250ml; Gs;	WATER	✓ TRITIUM/C-14
BO7QK5	1; 1L; P;	WATER	✓ CLP-ICP/AA METAL (FILTERED)/CLP-Hg (HNO3)
BO7QK6	3; 40ml; Gs	WATER	✓ CLP-VOA
			OPC: # W93-0-0059-49
			BOL: # 2519007458
			TASK#: 92-398

Field Information**

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Hermit Blum Title Sample Control Supervisor Date 12-8-92
 Analysis Required _____

* Indicate whether sample is soil, sludge, water, etc.
 ** Use back of page for additional information relative to sample location.

Westinghouse Hanford Company	CHAIN OF CUSTODY
Custody Form Initiator PH BUTCHER	
Company Contact PH BUTCHER	Telephone (509)376-5045
Project Designation/Sampling Locations 100-KR-4	Collection Date 12-6-92
Ice Chest No. SML-118	Field Logbook No. EFL 1049
Bill of Lading/Airbill No. ZS19007458	Offsite Property No. W93-0-0059-48
Method of Shipment EMERY	
Shipped to TMA	
Possible Sample Hazards/Remarks N/A	

Sample Identification

BO7Q29

- 3, 40ml, Gs*, WATER, CLP-VOA
- 3, 2L, aG, WATER, CLP-SEMI VOA & PCB's/PEST
- 1, 1L, P, WATER, ANIONS(IC) SO4, F, PO4, Cl/COND./pH
- 1, 500ml, P, WATER, ANIONS/NO3-NO2 (H2SO4)
- 1, 1L, G, WATER, ALK./TOT. DISSOLVED SOLIDS
- 1, 500ml, G, WATER, SULFIDE (add Zinc Acetate+NaOH pH>9)
- 1, 500ml, G, WATER, AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
- 1, 1L, P, WATER, CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
- 1, 1L, P, WATER, CLP-CN (NaOH)
- 2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90 (HNO3)
- 1, 1L, P, WATER, Tc-99 (HCl)
- 1, 250ml, Gs, WATER, TRITIUM/C-14

BO7Q10

- 1, 1L, P, WATER, CLP-ICP/AA METALS (FILTERED)/CLP-Hg, (HNO3)

BO7Q11

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

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: <i>G G Hamilton</i> G G HAMILTON	Received by: <i>A J SIMPSON</i> A J SIMPSON	Date/Time: <i>12/7/92 1009</i>
Relinquished by: <i>A J SIMPSON</i> A J SIMPSON	Received by: <i>Kermit Blum</i> Kermit Blum	Date/Time: <i>12-8-92 1130</i>
Relinquished by:	Received by:	Date/Time:
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

Collector K. Lee, L. Walker

Date Sampled 12-6-92 Time 0843 hours

Company Contact P. H. Butcher

Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
BO 7Q L9	3; 40ml; Gs*;	WATER	✓ CLP-VOA
	3; 2L; aG;	WATER	✓ CLP-SEMI VOA & PCB's/PEST
	1; 1L; P;	WATER	✓ ANIONS (IC) SO4, F, PO4, Cl/COND/pH
	1; 500ml; P;	WATER	✓ ANIONS/NO3-NO2 (H2SO4)
	1; 1L; G;	WATER	✓ ALK./TOT. DISSOLVED SOLIDS
	1; 500ml; G;	WATER	✓ SULFIDE (add Zinc Acetate + NaOH pH > 9)
	1; 500ml; G;	WATER	✓ AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH < 2)
	1; 1L; P;	WATER	✓ CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
	1; 1L; P;	WATER	✓ CLP-CN (NaOH)
	2; 4L; P;	WATER	✓ GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90, (HNO3)
	1; 1L; P;	WATER	✓ T6-99 (HCl)
	1; 250ml; Gs;	WATER	TRITIUM/C-14
BO 7Q #10	1; 1L; P;	WATER	✓ CLP-ICP/AA METAL (FILTERED)/CLP-Hg (HNO3)
BO 7Q #11	3; 40ml; Gs	WATER	✓ CLP-VOA
			OPC: # W93-0-0054-48
			BOL: # 2519007458
			TASK#: 92-398

Field Information

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by

Hermit Blum

Title

Sample Control Supervisor

Date

12-8-92

Analysis Required

* Indicate whether sample is soil, sludge, water, etc.
* Use back of page for additional information relative to sample location.

Westinghouse
Hanford Company

CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Project Designation/Sampling Locations 100-KR-4

Ice Chest No. NJ BOUND

Bill of Lading/Airbill No. 251 900 7459

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Telephone (509)376-5045

Collection Date 12/5/92

Field Logbook No. EPL-1048

Offsite Property No. W93-0-0059-48

Sample Identification

B07QV4

- 3, 40ml, Gs*, WATER, CLP-VOA
- 3, 2L, aG, WATER, CLP-SEMI VOA & PCB's/PEST
- 1, 1L, P, WATER, ANIONS(IC) SO4, F, PO4, Cl/COND./pH
- 1, 500ml, P, WATER, ANIONS/NO3-NO2 (H2SO4)
- 1, 1L, G, WATER, ALK./TOT. DISSOLVED SOLIDS
- 1, 500ml, G, WATER, SULFIDE (add Zinc Acetate+NaOH pH>9)
- 1, 500ml, G, WATER, AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
- 1, 1L, P, WATER, CLP-ICP/AA METALS~(UNFILTERED)/CLP-Hg~(HNO3)
- 1, 1L, P, WATER, CLP-CN~(NaOH)
- 2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC(U-235/238, Pu-239/240, Am-241), Sr-90 (HNO3)
- 1, 1L, P, WATER, Tc-99 (HCl)
- 1, 250ml, Gs, WATER, TRITIUM/C-14

B07QV5

- 1, 1L, P, WATER, CLP-ICP/AA METALS (FILTERED)/CLP-Hg (HNO3)

B07QV6

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

[] Field Transfer of Custody		Chain of Possession	(Sign and Print Names)
Relinquished by: <i>Kathy J. Lee K.D. Lee</i>	Received by: <i>AJ SIMPSON</i> <i>AJ Simpson</i>	Date/Time: 12-7-92 10 07	
Relinquished by: <i>AJ SIMPSON</i> <i>AJ Simpson</i>	Received by: <i>Kermit Blum</i> <i>Kermit Blum</i>	Date/Time: 12-8-92 1130	
Relinquished by:	Received by:	Date/Time:	
Relinquished by:	Received by:	Date/Time:	
Final Sample Disposition			
Disposal Method:	Disposed by:	Date/Time:	
Comments: <i>FRIG #2</i>			



Westinghouse
Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K. Lee, L. Walker Date Sampled 12/5/92 Time 1101 hours
 Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B07QNY	✓ 3; 40ml; Gs*;	WATER	CLP-VOA
	✓ 3; 2L; aG;	WATER	CLP-SEMI VOA & PCB's/PEST
	✓ 1; 1L; P;	WATER	ANIONS (IC) SO4, F, PO4, Cl/COND/pH
	- ✓ 1; 500ml; P;	WATER	ANIONS/NO3-NO2 (H2SO4)
	✓ 1; 1L; G;	WATER	ALK./TOT. DISSOLVED SOLIDS
	✓ 1; 500ml; G;	WATER	SULFIDE (add Zinc Acetate + NaOH pH > 9)
	✓ 1; 500ml; G;	WATER	AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH < 2)
	✓ 1; 1L; P;	WATER	CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
	✓ 1; 1L; P;	WATER	CLP-CN (NaOH)
	✓ 2; 4L; P;	WATER	GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90, (HNO3)
	✓ 1; 1L; P;	WATER	Tc-99 (HCl)
	✓ 1; 250ml; Gs;	WATER	TRITIUM/C-14
B07QNY5	✓ 1; 1L; P;	WATER	CLP-ICP/AA METAL (FILTERED)/CLP-Hg (HNO3)
B07QNY6	✓ 3; 40ml; Gs	WATER	CLP-VOA
			OPC: # W93-0-005A-48
			BOL: # 2519007459
			TASK#: 92-398

Field Information

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Kermit Blum Title Sample Control Supervisor Date 12-8-92
 * Analysis Required _____

* Indicate whether sample is soil, sludge, water, etc.
 ** Use back of page for additional information relative to sample location.

Westinghouse Hanford Company	<h2 style="margin: 0;">CHAIN OF CUSTODY</h2>
Custody Form Initiator PH BUTCHER	
Company Contact PH BUTCHER	Telephone (509)376-5045
Project Designation/Sampling Locations 100-KR-4	Collection Date 12/6/92
Ice Chest No. SML-120	Field Logbook No. EFL-1048
Bill of Lading/Airbill No. ZSL900745	Offsite Property No. W93-0-005A-50
Method of Shipment EMERY	
Shipped to TMA	
Possible Sample Hazards/Remarks N/A	

Sample Identification

BO7QP4

- 3, 40ml, Gs*, WATER, CLP-VOA *
- 3, 2L, aG, WATER, CLP-SEMI VOA & PCB's/PEST
- 1, 1L, P, WATER, ANIONS(IC) SO4, F, PO4, Cl/COND./pH
- 1, 500ml, P, WATER, ANIONS/NO3-NO2 (H2SO4)
- 1, 1L, G, WATER, ALK./TOT. DISSOLVED SOLIDS
- 1, 500ml, G, WATER, SULFIDE (add Zinc Acetate+NaOH pH>9)
- 1, 500ml, G, WATER, AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
- 1, 1L, P, WATER, CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
- 1, 1L, P, WATER, CLP-CN (NaOH)
- 2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC(U-235/238, Pu-239/240, Am-241), Sr-90 (HNO3)
- 1, 1L, P, WATER, Tc-99 (HCl)
- 1, 250ml, Gs, WATER, TRITIUM/C-14

BO7QP5

- 1, 1L, P, WATER, CLP-ICP/AA METALS (FILTERED)/CLP-Hg (HNO3)

BO7QP6

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

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: <i>Walter P. Lee, K&D Co</i>	Received by: <i>AJ SIMPSON</i> <i>AJ Simpson</i>	Date/Time: <i>12/7/92 1021</i>
Relinquished by: <i>AJ SIMPSON</i> <i>AJ Simpson</i>	Received by: <i>Kermit Blum</i> <i>Kermit Blum</i>	Date/Time: <i>12-8-92 1130</i>
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition		
Disposal Method:	Disposed by:	Date/Time:
Comments: <i>FRIG #2</i>		

* Received two VOA vials ID BO7QP4 @ TMA/NORCAL - KB
 Received one VOA vial ID BO7PQ4 -

9613490.1987

0000027



Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K. Lee, L. Walker

Date Sampled 12/6/92 Time 1075 hours

Company Contact P. H. Butcher

Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
BO 7QP4	✓3; 40ml; Gs*;	WATER	CLP-VOA (one VOA I.D.# 807PQ4)
	✓3; 2L; aG;	WATER	CLP-SEMI VOA & PCB's/PEST
	✓1; 1L; P;	WATER	ANIONS (IC) SO4, F, PO4, Cl/COND/pH
	✓1; 500ml; P;	WATER	ANIONS/NO3-NO2 (H2SO4)
	✓1; 1L; G;	WATER	ALK./TOT. DISSOLVED SOLIDS
	✓1; 500ml; G;	WATER	SULFIDE (add Zinc Acetate + NaOH pH > 9)
	✓1; 500ml; G;	WATER	AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH < 2)
	✓1; 1L; P;	WATER	CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
	✓1; 1L; P;	WATER	CLP-CN (NaOH)
	✓2; 4L; P;	WATER	GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90, (HNO3)
	✓1; 1L; P;	WATER	Tc-99 (HCl)
	✓1; 250ml; Gs;	WATER	TRITIUM/C-14
BO 7QP5	✓1; 1L; P;	WATER	CLP-ICP/AA METAL (FILTERED)/CLP-Hg (HNO3)
BO 7QP6	✓3; 40ml; Gs	WATER	CLP-VOA OPC: # W93-0-0059-50 BOL: # 2517007488 TASK#: 92-398

Field Information **

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Hermit Blum

Title Sample Control Supervisor Date 12-8-92

Analysis Required

* Indicate whether sample is soil, sludge, water, etc.

** Use back of page for additional information relative to sample location.

Westinghouse
Hanford Company

CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Project Designation/Sampling Locations 100-KR-4

Ice Chest No. SML-110

Bill of Lading/Airbill No. 251900 7451

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Telephone (509)376-5045

Collection Date 12-5-92

Field Logbook No. EFL-1049

Offsite Property No. W93-0-0059-47

Sample Identification

807QT4

- 3, 40ml, Gs*, WATER, CLP-VOA
- 3, 2L, aG, WATER, CLP-SEMI VOA & PCB's/PEST
- 1, 1L, P, WATER, ANIONS(IC) SO4, F, PO4, Cl/COND./pH
- 1, 500ml, P, WATER, ANIONS/NO3-NO2 (H2SO4)
- 1, 1L, G, WATER, ALK./TOT. DISSOLVED SOLIDS
- 1, 500ml, G, WATER, SULFIDE (add Zinc Acetate+NaOH pH>9)
- 1, 500ml, G, WATER, AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
- 1, 1L, P, WATER, CLP-ICP/AA METALS-(UNFILTERED)/CLP-Hg (HNO3)
- 1, 1L, P, WATER, CLP-CN (NaOH)
- 2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90 (HNO3)
- 1, 1L, P, WATER, Tc-99 (HCl)
- 1, 250ml, Gs, WATER, TRITIUM/C-14

807QT5

- 1, 1L, P, WATER, CLP-ICP/AA METALS-(FILTERED)/CLP-Hg (HNO3)

807QT6

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

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: <i>GG Hamilton</i> GG HAMILTON	Received by: AJ SIMPSON <i>AJ Simpson</i>	Date/Time: 12/7/92 0958
Relinquished by: AJ SIMPSON <i>AJ Simpson</i>	Received by: Kermit Blum <i>Kermit Blum</i>	Date/Time: 12-8-92 1130
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:
Comments: FLIG #1		



Westinghouse
Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K. Lee, L. Walker

Date Sampled 12-5-92 Time 0904 hours

Company Contact P. H. Butcher

Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B07QT4	✓ 3; 40ml; Gs*	WATER	CLP-VOA
	✓ 3; 2L; aG;	WATER	CLP-SEMI VOA & PCB's/PEST
	✓ 1; 1L; P;	WATER	ANIONS (IC) SO4, F, PO4, Cl/COND/pH
	- ✓ 1; 500ml; P;	WATER	ANIONS/NO3-NO2 (H2SO4)
	✓ 1; 1L; G;	WATER	ALK./TOT. DISSOLVED SOLIDS
	✓ 1; 500ml; G;	WATER	SULFIDE (add Zinc-Acetate + NaOH pH>9)
	✓ 1; 500ml; G;	WATER	AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
	✓ 1; 1L; P;	WATER	CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
	✓ 1; 1L; P;	WATER	CLP-CN (NaOH)
	✓ 2; 4L; P;	WATER	GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90, (HNO3)
	✓ 1; 1L; P;	WATER	Tc-99 (HCl)
	✓ 1; 250ml; Gs;	WATER	TRITIUM/C-14
B07QT5	✓ 1; 1L; P;	WATER	CLP-ICP/AA METAL (FILTERED)/CLP-Hg (HNO3)
B07QT6	✓ 3; 40ml; Gs	WATER	CLP-VOA OPC: # W93-0-0059-47 BOL: # 251900 7458 TASK#: 92-398

Field Information**

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Hermit Blum Title Sample Control Supervisor Date 12-8-92

Analysis Required

* Indicate whether sample is soil, sludge, water, etc.

** Use back of page for additional information relative to sample location.

Westinghouse
Hanford Company

CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Project Designation/Sampling Locations 100-KR-4

Ice Chest No. 568

Bill of Lading/Airbill No. 2519007458

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Telephone (509)376-5045

Collection Date 12-6-92

Field Logbook No. EFL 1049

Offsite Property No. W93-0-0059-49

Sample Identification

BO7QV4

- 3, 40ml, Gs*, WATER, CLP-VOA
- 3, 2L, aG, WATER, CLP-SEMI VOA & PCB's/PEST
- 1, 1L, P, WATER, ANIONS(IC) SO4, F, PO4, Cl/COND./pH
- 1, 500ml, P, WATER, ANIONS/NO3-NO2 (H2SO4)
- 1, 1L, G, WATER, ALK./TOT. DISSOLVED SOLIDS
- 1, 500ml, G, WATER, SULFIDE (add Zinc Acetate+NaOH pH>9)
- 1, 500ml, G, WATER, AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
- 1, 1L, P, WATER, CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
- 1, 1L, P, WATER, CLP-CN (NaOH)
- 2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90 (HNO3)
- 1, 1L, P, WATER, Tc-99 (HCl)
- 1, 250ml, Gs, WATER, TRITIUM/C-14

BO7QV5

- 1, 1L, P, WATER, CLP-ICP/AA METALS (FILTERED)/CLP-Hg (HNO3)

BO7QV6

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

[] Field Transfer of Custody		Chain of Possession	(Sign and Print Names)
Relinquished by: <i>G.C. Hamilton</i> G.C. Hamilton	Received by: <i>AJ Simpson</i> AJ Simpson	Date/Time: 12/7/92 1014	
Relinquished by: <i>AJ Simpson</i> AJ Simpson	Received by: <i>Kermit Blum</i> Kermit Blum	Date/Time: 12-8-92 1130	
Relinquished by:	Received by:	Date/Time:	
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

Collector K. Lee, L. Walker

Date Sampled 12-6-92 Time 1100 hours

Company Contact P. H. Butcher

Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
BO 7QV4	3; 40ml; Gs*	WATER	✓ CLP-VOA
	3; 2L; aG;	WATER	✓ CLP-SEMI VOA & PCB's/PEST
	1; 1L; P;	WATER	✓ ANIONS (IC) SO4, F, PO4, Cl/COND/pH
	1; 500ml; P;	WATER	✓ ANIONS/NO3-NO2 (H2SO4)
	1; 1L; G;	WATER	✓ ALK./TOT. DISSOLVED SOLIDS
	1; 500ml; G;	WATER	✓ SULFIDE (add Zinc Acetate + NaOH pH > 9)
	1; 500ml; G;	WATER	✓ AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH < 2)
	1; 1L; P;	WATER	✓ CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
	1; 1L; P;	WATER	✓ CLP-CN (NaOH)
	2; 4L; P;	WATER	✓ GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90, (HNO3)
	1; 1L; P;	WATER	✓ Tc-99 (HCl)
	1; 250ml; Gs;	WATER	✓ TRITIUM/C-14
BO 7QV5	1; 1L; P;	WATER	✓ CLP-ICP/AA METAL (FILTERED)/CLP-Hg (HNO3)
BO 7QV6	3; 40ml; Gs	WATER	✓ CLP-VOA
			OPC: # W93-0-0059-49
			BOL: # 2519007458
			TASK#: 92-398

Field Information **

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Hermit Blum Title Sample Control Supervisor Date 12-8-92

Analysis Required

*Indicate whether sample is soil, sludge, water, etc.

**Use back of page for additional information relative to sample location.

Westinghouse
Hanford Company

CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-KR-4

Collection Date 12-5-92

Ice Chest No. ~~SAT Ass at the~~ 207

Field Logbook No. EFL 7049

Bill of Lading/Airbill No. 2519007458

Offsite Property No. W93-0-0059-47

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

BO 7QV9

- 3, 40ml, Gs*, WATER, CLP-VOA
- 3, 2L, aG, WATER, CLP-SEMI VOA & PCB's/PEST
- 1, 1L, P, WATER, ANIONS(IC) SO4, F, PO4, Cl/COND./pH
- 1, 500ml, P, WATER, ANIONS/NO3-NO2 (H2SO4)
- 1, 1L, G, WATER, ALK./TOT. DISSOLVED SOLIDS
- 1, 500ml, G, WATER, SULFIDE (add Zinc Acetate+NaOH pH>9)
- 1, 500ml, G, WATER, AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
- 1, 1L, P, WATER, CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
- 1, 1L, P, WATER, CLP-CN (NaOH)
- 2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90 (HNO3)
- 1, 1L, P, WATER, Tc-99 (HCl)
- 1, 250ml, Gs, WATER, TRITIUM/C-14

BO 7QW0

- 1, 1L, P, WATER, CLP-ICP/AA METALS (FILTERED)/CLP-Hg, (HNO3)

BO 7QW1

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

BO 7QW7 3; 40ml Gs Water CLP-VOA

Field Transfer of Custody		Chain of Possession	(Sign and Print Names)
Relinquished by: <i>G.C. Hamilton</i> G.C. HAMILTON	Received by: <i>AJ Simpson</i> AJ Simpson	Date/Time: 12/7/92 0959	
Relinquished by: <i>AJ Simpson</i> AJ SIMPSON	Received by: <i>Kermit Blum</i> Kermit Blum	Date/Time: 12-8-92 1130	
Relinquished by:	Received by:	Date/Time:	
Relinquished by:	Received by:	Date/Time:	
Final Sample Disposition			
Disposal Method:	Disposed by:	Date/Time:	
Comments: FRIG # 1			

9613490.1993



Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K. Lee, L. Walker

Date Sampled 12-7-92
1143

Time 1143 hours

Company Contact P. H. Butcher

Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
BO7QV9	3; 40ml; Gs*	WATER	✓ CLP-VOA
	3; 2L; aG;	WATER	✓ CLP-SEMI VOA & PCB's/PEST
	1; 1L; P;	WATER	✓ ANIONS (IC) SO4, F, PO4, CI/COND/pH
-	1; 500ml; P;	WATER	✓ ANIONS/NO3-NO2 (H2SO4)
	1; 1L; G;	WATER	✓ ALK./TOT. DISSOLVED SOLIDS
	1; 500ml; G;	WATER	✓ SULFIDE (add Zinc Acetate + NaOH pH>9)
	1; 500ml; G;	WATER	✓ AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
	1; 1L; P;	WATER	✓ CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
	1; 1L; P;	WATER	✓ CLP-CN (NaOH)
	2; 4L; P;	WATER	✓ GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90, (HNO3)
	1; 1L; P;	WATER	✓ Tc-99 (HCl)
	1; 250ml; Gs;	WATER	✓ TRITIUM/C-14
BO7QW0	1; 1L; P;	WATER	✓ CLP-ICP/AA METAL (FILTERED)/CLP-Hg (HNO3)
BO7QZ7	3; 40ml Gs	WATER	CLP-VOA
BO7QW1	3; 40ml; Gs	WATER	✓ CLP-VOA
			OPC: # W93-0-0059-47
			BOL: # 2519007458
			TASK#: 92-398

Field Information**

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Hermit Blum

Title Sample Control Supervisor

Date 12-8-92

* Analysis Required

* Indicate whether sample is soil, sludge, water, etc.

* Use back of page for additional information relative to sample location.

Westinghouse
Hanford Company

CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Project Designation/Sampling Locations 100-KR-4

Ice Chest No. *SML-504*

Bill of Lading/Airbill No. 2519007458

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Telephone (509)376-5045

Collection Date 12-5-92

Field Logbook No. EFL 1049

Offsite Property No. W93-0-0059-50

Sample Identification

B07QW9

- 3, 40ml, Gs*, WATER, CLP-VOA
- 3, 2L, aG, WATER, CLP-SEMI VOA & PCB's/PEST
- 1, 1L, P, WATER, ANIONS(IC) SO4, F, PO4, Cl/COND./pH
- 1, 500ml, P, WATER, ANIONS/NO3-NO2 (H2SO4)
- 1, 1L, G, WATER, ALK./TOT. DISSOLVED SOLIDS
- 1, 500ml, G, WATER, SULFIDE (add Zinc Acetate+NaOH pH>9)
- 1, 500ml, G, WATER, AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
- 1, 1L, P, WATER, CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
- 1, 1L, P, WATER, CLP-CN (NaOH)
- 2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC(U-235/238, Pu-239/240, Am-241), Sr-90 (HNO3)
- 1, 1L, P, WATER, Tc-99 (HCl)
- 1, 250ml, Gs, WATER, TRITIUM/C-14

B07QX0

- 1, 1L, P, WATER, CLP-ICP/AA METALS (FILTERED)/CLP-Hg (HNO3)

B07QX1

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

[] Field Transfer of Custody		Chain of Possession	(Sign and Print Names)
Relinquished by: <i>G E Hamilton</i> G E HAMILTON	Received by: <i>A J Simpson</i> A J SIMPSON	Date/Time: 12/7/92	1025
Relinquished by: <i>A J Simpson</i> A J SIMPSON	Received by: <i>Kermit Blum</i> KERMIT BLUM	Date/Time:	12-8-92 1130
Relinquished by:	Received by:	Date/Time:	
Relinquished by:	Received by:	Date/Time:	
Final Sample Disposition			
Disposal Method:	Disposed by:	Date/Time:	
Comments: <i>FL 16 # 3</i>			



Westinghouse
Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K. Lee, L. Walker Date Sampled 12-5-92 Time 1142 hours
 Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
BO7QW9	✓ 3; 40ml; Gs*	WATER	CLP-VOA
	✓ 3; 2L; aG;	WATER	CLP-SEMI VOA & PCB's/PEST
	✓ 1; 1L; P;	WATER	ANIONS (IC) SO4, F, PO4, Cl/COND/pH
-	✓ 1; 500ml; P;	WATER	ANIONS/NO3-NO2 (H2SO4)
	✓ 1; 1L; G;	WATER	ALK./TOT. DISSOLVED SOLIDS
	✓ 1; 500ml; G;	WATER	SULFIDE (add Zinc-Acetate + NaOH pH > 9)
	✓ 1; 500ml; G;	WATER	AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH < 2)
	✓ 1; 1L; P;	WATER	CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
	✓ 1; 1L; P;	WATER	CLP-CN (NaOH)
	✓ 2; 4L; P;	WATER	GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90, (HNO3)
	✓ 1; 1L; P;	WATER	Tc-99 (HCl)
	✓ 1; 250ml; Gs;	WATER	TRITIUM/C-14
BO7QX0	✓ 1; 1L; P;	WATER	CLP-ICP/AA METAL (FILTERED)/CLP-Hg (HNO3)
BO7QX1	✓ 3; 40ml; Gs	WATER	CLP-VOA
			OPC: # W93-0-009A-50
			BOL: # 2519007458
			TASK#: 92-398

Field Information

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Kermit Blum Title Sample Control Supervisor Date 12-8-92
 Analysis Required _____

* Indicate whether sample is soil, sludge, water, etc.
 ** Use back of page for additional information relative to sample location.

9613490.1996

TMA

Thermo Analytical Inc.

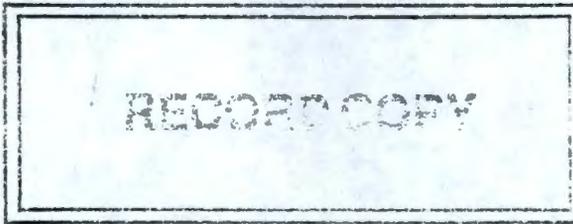
TMA/Norcal

2030 Wright Avenue

P. O. Box 4040

Richmond, CA 94804-0040

(510) 235-2633 Fax No. (510) 235-0438



March 22, 1993

SENT BY FEDERAL EXPRESS

Ref. TMA/Norcal N2-12-057-7134

Ms. Briana Colley
Westinghouse Hanford Company
2355 Stevens Drive
MSIN H4-23
345 Hills Street/3000 Area
Richland, WA 99352

Dear Ms. Colley:

Enclosed in the Summary Data Section, are the gross alpha, gross beta, ^3H , ^{14}C , ^{90}Sr , ^{99}Tc , isotopic uranium, isotopic plutonium, ^{241}Am , and gamma scan results for the water samples from 100-KR-4 Location we received 8 December 1992. The QA/QC results are also given in the Summary Data Section. The Summary Data Section is numbered pages 1 to 73, and the appendices are numbered pages 74 to 941.

Please call if you have any questions concerning this data.

Sincerely,

Dinkar P. Kharkar, Ph.D.
Manager, Nuclear Programs

DPK/ss

Enclosures: Section 1 and 2
Appendices

i 3-13-96
MC

SDG	<u>7134</u>
Contact	<u>Dinkar P. Kharkar</u>

Client	<u>Westinghouse Hanford</u>
Contract	<u>MBH-SVV-069262</u>

CASE NARRATIVE

1.0 GENERAL

Water sample results from 100-KR-4 location (TMA/Norcal Group 7134) are reported herein. TMA/Norcal Group 7134 is comprised of twenty samples listed on the Chain-of-Custody documents and is identified as sample 1 through 20.

1.1 CHAINS-OF-CUSTODY

This report includes data from samples delivered under Chain-of-Custody documents Field Logbook No. EFL-1048 and EFL-1049.

1.2 SAMPLE VOLUME

Four L and 1 L plastic bottles, and 250 mL glass bottles containing the samples were received for the analysis.

1.3 MISSING SAMPLES

All samples were accounted for in an undamaged condition.

1.4 HOLDING TIMES

Samples were collected between 12/05/92 and 12/10/92 and 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 7134-21 through 25.

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 LCS recoveries for all the nuclides were good. The ^{59}Fe was higher than RDL due to slightly higher background in the region. The ^{238}Pu and $^{239,240}\text{Pu}$ MDA's were higher due to low chemical efficiency.

SDG	<u>7134</u>
Contact	<u>Dinkar P. Kharkar</u>

Client	<u>Westinghouse Hanford</u>
Contract	<u>MBH-SVV-069262</u>

CASE NARRATIVE

2.2 BLANKS

MDA's for all the analyses meet the RDL requirements except for ^{14}C , and Pu isotopes. The higher MDA's were due to low counting efficiency and low chemical yield, respectively. The ^{14}C result was underlined because the result plus the error were lower than MDA.

2.3 REPLICATES

The results of ^{14}C , and ^{59}Fe MDA's were higher than the RDL's because of low chemical recoveries and due to the short half-life of ^{59}Fe . The ^{90}Sr result was underlined because the result plus the error were lower than the MDA.

3.0 ANALYTICAL NOTES

- 3.1 Gross Alpha Analyses: The average MDA for gross alpha was (2 ± 0.9) pCi/L. Positive gross alpha concentration above RDL was found in sample number 7134-15. The results of the remaining samples were less than RDL. The residue on planchets 7134-7, 9, and 15 were higher than the nominal residue weight limit of 5-150 mg.
- 3.2 Gross Beta Analyses: The average MDA for gross beta was (2 ± 0.7) pCi/L. Positive gross beta concentration above RDL was found in all the samples except in sample number 7134-17. Again the residue on planchets 7134-7, 9, and 15 were higher than the nominal residue weight limit of 5-150 mg.
- 3.3 Tritium Analyses: The average MDA for fifteen analyses was (200 ± 40) pCi/L. Positive ^3H concentrations above RDL was found in all the samples except in sample numbers 7134-6, 7, 8, and 19. Very high level of ^3H concentration was found in sample number 7134-19.
- 3.4 Carbon-14 Analyses: The average MDA was (50 ± 30) pCi/L. Positive ^{14}C concentration was not found in any of the samples except in sample numbers 7134-1, 3, 13, 15, and 19. The MDA's of sample numbers 7134-10, 12, 14, 16, 18, and 20 were higher than RDL due to low counting efficiencies. Sample numbers 7134-13 and 19 were counted for less than the nominal count time of 150 minutes.
- 3.5 Strontium-90 Analyses: The average yield for twenty-three analyses was $(76 \pm 10)\%$. The lowest yield was 65% and the highest was 83%. The average MDA was (0.8 ± 0.3) pCi/L. Positive ^{90}Sr concentration above the RDL was found only in sample numbers 7134-2, 10, 11, 12, 13, and 20. The results of the remaining samples were less than RDL.

SDG	7134
Contact	Dinkar P. Kharkar

Client	Westinghouse Hanford
Contract	MBH-SVV-069262

CASE NARRATIVE

- 3.6 Technicium-99 Analyses: The average yield for twenty-three analyses was $(60 \pm 23)\%$. The lowest yield was 26% and the highest was 75%. The average MDA was (3 ± 2) pCi/L. Positive concentration above RDL was found only in sample numbers 7134-3, 5, 16, and 18. The results of the remaining samples were below RDL.
- 3.7 Uranium-233, 234, 238 Analyses: The average yield for twenty-three analyses was $(79 \pm 33)\%$. The lowest yield was 54% and the highest was 134%. The average MDA was (0.1 ± 0.1) pCi/L. Positive concentration of ^{234}U and ^{238}U were found in all the samples except in sample number 7134-17. The chemical yield of sample number 7134-20 was higher than the nominal chemical yield of 30-105%.
- 3.8 Plutonium-238, 239/240 Analyses: The average yield for twenty-three analyses was $(48 \pm 42)\%$. The lowest yield was 21% and the highest was 95%. The average MDA was (0.06 ± 0.06) pCi/L. Positive plutonium concentrations above the RDL was not found in any of the samples. All samples were below RDL. Sample numbers 7134-4, 5, 8, 11, and 17 have higher MDA's due to low chemical recoveries.
- 3.9 Americium-241 Analyses: The average yield for twenty-three analyses was $(63 \pm 36)\%$. The lowest yield was 20% and the highest yield was 91%. The average MDA was (0.04 ± 0.03) pCi/L. Positive americium concentration above the RDL was not found in any of the samples. All sample results were below RDL. The MDA of sample number 7134-2 was higher than RDL due to low chemical recovery.
- 3.10 Gamma Scan Analyses: Gamma scan analysis did not find positive concentration of gamma nuclides in any of the samples except in sample number 7134-3 where ^{125}Sb was found.

9613490.2000

TMA NORCAL
REPORTING GROUP 7134

N212057-01

DATA SHEET

B070K4

SDG 7134
Contact Dinkar KharkarClient Westinghouse Hanford
Contract MBH-SVV-069262Lab sample id N212057-01
Dept sample id 7134-001
Received 12/08/92Client sample id B070K4
Matrix WATER
Collected 12/05/92
Chain of custody id EFL-1048

PARAMETER	CAS NO	RESULT pCi/L	2 σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI- FIERS	TEST
Gross Alpha	Alpha	1.3	1.9	3	3	U	80A
Gross Beta	Beta	6.2	1.4	2	4		80B
Uranium 233/234		1.5	0.28	0.07	0.2	B	U
Uranium 235	15117-96-1	0.15	0.094	0.09	0.2	J	U
Uranium 238	7440-61-1	0.97	0.21	0.09	0.2		U
Plutonium 238	13981-16-3	-0.004	0.012	0.03	0.05	U	PU
Plutonium 239/240		0.012	0.012	0.02	0.05	U	PU
Americium 241	14596-10-2	-0.005	0.021	0.04	0.05	U	AM
Strontium 90	10098-97-2	0	1.1	0.8	2	U	Y
Technetium 99	14133-76-7	0.63	0.46	0.9	5	U	TC
Tritium	10028-17-8	1600	170	200	400		H
Carbon 14	14762-75-5	280	28	40	50		C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		100		U	GAM
Iron 59		U		40	30	U	GAM
Chromium 51	14392-02-0	U		300		U	GAM
Cobalt 60	10198-40-0	U		10	30	U	GAM
Zinc 65	17982-39-3	U		30		U	GAM
Ruthenium 106	13967-48-1	U		90		U	GAM
Cesium 134	17967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		9	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		10	40	U	GAM
Radium 226	13982-67-7	U		20		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		40		U	GAM

DATA SHEETS

Page 1

SUMMARY DATA SECTION

Page 20

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.23
Report date 03/22/93

TMA NORCAL
REPORTING GROUP 7134

N212057-09

DATA SHEET

B07QK9

SDG 7134
Contact Dinkar KharkarClient Westinghouse Hanford
Contract MBH-SVV-069262Lab sample id N212057-09
Dept sample id 7134-009
Received 12/09/92Client sample id B07QK9
Matrix WATER
Collected 12/07/92
Chain of custody id EFL-1049

PARAMETER	CAS NO	RESULT pCi/L	2 σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI- FIERS	TEST
Gross Alpha	Alpha	0.42	1.1	2	3	U	80A
Gross Beta	Beta	4.1	0.93	1	4		80B
Uranium 233/234		0.20	0.11	0.1	0.2	B	U
Uranium 235	15117-96-1	0	0.032	0.1	0.2	U	U
Uranium 238	7440-61-1	0.079	0.053	0.1	0.2	U	U
Plutonium 238	13981-16-3	0.005	0.014	0.03	0.05	U	PU
Plutonium 239/240		-0.005	0.007	0.02	0.05	U	PU
Americium 241	14596-10-2	0.005	0.020	0.04	0.05	U	AM
Strontium 90	10098-97-2	-0.47	1.9	0.9	2	U	Y
Technetium 99	14133-76-7	2.2	1.4	3	5	U	TC
Tritium	10028-17-8	13000	430	200	400		H
Carbon 14	14762-75-5	-37	26	40	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		200		U	GAM
Iron 59		U		60	30	U	GAM
Chromium 51	14392-02-0	U		400		U	GAM
Cobalt 60	10198-40-0	U		20	30	U	GAM
Zinc 65	17982-39-3	U		30		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		10	40	U	GAM
Radium 226	13982-67-7	U		20		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		40		U	GAM

DATA SHEETS

Page 2

SUMMARY DATA SECTION

Page 21

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.23
Report date 03/22/93

TMA NORCAL
REPORTING GROUP 7134

N212057-10

DATA SHEET

B07QL4

SDG 7134
Contact Dinkar KharkarClient Westinghouse Hanford
Contract MBH-SVV-069262Lab sample id N212057-10
Dept sample id 7134-010
Received 12/09/92Client sample id B07QL4
Matrix WATER
Collected 12/07/92
Chain of custody id EFL-1048

PARAMETER	CAS NO	RESULT pCi/L	2 σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI- FIERS	TEST
Gross Alpha	Alpha	1.0	1.7	2	3	U	80A
Gross Beta	Beta	27	2.2	2	4		80B
Uranium 233/234		0.72	0.24	0.1	0.2	B	U
Uranium 235	15117-96-1	0.038	0.039	0.1	0.2	U	U
Uranium 238	7440-61-1	0.75	0.24	0.1	0.2		U
Plutonium 238	13981-16-3	0.006	0.020	0.04	0.05	U	PU
Plutonium 239/240		-0.004	0.004	0.02	0.05	U	PU
Americium 241	14596-10-2	0.014	0.018	0.03	0.05	U	AM
Strontium 90	10098-97-2	12	0.86	0.9	2		Y
Technetium 99	14133-76-7	0.61	0.99	3	5	U	TC
Tritium	10028-17-8	630	150	200	400		H
Carbon 14	14762-75-5	27	39	60	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		100		U	GAM
Iron 59		U		70	30	U	GAM
Chromium 51	14392-02-0	U		400		U	GAM
Cobalt 60	10198-40-0	U		20	30	U	GAM
Zinc 65	17982-39-3	U		30		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		20	40	U	GAM
Radium 226	13982-67-7	U		20		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		50		U	GAM

DATA SHEETS

Page 3

SUMMARY DATA SECTION

Page 22

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.23
Report date 03/22/93

TMA NORCAL
REPORTING GROUP 7134

N212057-02

B07QL9

DATA SHEET

SDG 7134
Contact Dinkar KharkarClient Westinghouse Hanford
Contract MBH-SVV-069262Lab sample id N212057-02
Dept sample id 7134-002
Received 12/08/92Client sample id B07QL9
Matrix WATER
Collected 12/06/92
Chain of custody id EFL-1049

PARAMETER	CAS NO	RESULT pCi/L	2 σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALIFIERS	TEST
Gross Alpha	Alpha	-1.6	0.98	2	3	U	80A
Gross Beta	Beta	54	3.1	2	4		80B
Uranium 233/234		0.41	0.17	0.1	0.2	B	U
Uranium 235	15117-96-1	0.017	0.033	0.1	0.2	U	U
Uranium 238	7440-61-1	0.40	0.14	0.1	0.2		U
Plutonium 238	13981-16-3	-0.010	0.042	0.09	0.05	U	PU
Plutonium 239/240		0.026	0.031	0.06	0.05	U	PU
Americium 241	14596-10-2	0.032	0.048	0.09	0.05	U	AM
Strontium 90	10098-97-2	33	1.7	0.8	2		Y
Technetium 99	14133-76-7	1.0	0.42	0.8	5	J	TC
Tritium	10028-17-8	930	160	200	400		H
Carbon 14	14762-75-5	-44	30	50	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		200		U	GAM
Iron 59		U		50	30	U	GAM
Chromium 51	14392-02-0	U		300		U	GAM
Cobalt 60	10198-40-0	U		10	30	U	GAM
Zinc 65	17982-39-3	U		30		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		10	40	U	GAM
Radium 226	13982-67-7	U		20		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		50		U	GAM

DATA SHEETS

Page 4

SUMMARY DATA SECTION

Page 23

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.23
Report date 03/22/93

TMA NORCAL
REPORTING GROUP 7134

N212057-11

B07QM4

DATA SHEET

SDG 7134
 Contact Dinkar Kharkar

Client Westinghouse Hanford
 Contract MBH-SVV-069262

Lab sample id N212057-11
 Dept sample id 7134-011
 Received 12/09/92

Client sample id B07QM4
 Matrix WATER
 Collected 12/07/92
 Chain of custody id EFL-1049

PARAMETER	CAS NO	RESULT pCi/L	2 σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI- FIERS	TEST
Gross Alpha	Alpha	-0.028	1.7	3	3	U	80A
Gross Beta	Beta	17	1.9	2	4		80B
Uranium 233/234		0.71	0.25	0.2	0.2		U
Uranium 235	15117-96-1	0.095	0.096	0.2	0.2	U	U
Uranium 238	7440-61-1	0.43	0.21	0.2	0.2		U
Plutonium 238	13981-16-3	0.027	0.045	0.07	0.05	U	PU
Plutonium 239/240		-0.004	0.018	0.04	0.05	U	PU
Americium 241	14596-10-2	-0.012	0.009	0.03	0.05	U	AM
Strontium 90	10098-97-2	6.4	1.2	0.8	2		Y
Technetium 99	14133-76-7	2.1	1.3	3	5	U	TC
Tritium	10028-17-8	660	150	200	400		H
Carbon 14	14762-75-5	-46	26	40	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		200		U	GAM
Iron 59		U		60	30	U	GAM
Chromium 51	14392-02-0	U		400		U	GAM
Cobalt 60	10198-40-0	U		10	30	U	GAM
Zinc 65	17982-39-3	U		30		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		20	40	U	GAM
Radium 226	13982-67-7	U		30		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		50		U	GAM

DATA SHEETS

Page 5

SUMMARY DATA SECTION

Page 24

Lab id TMAN
 Protocol WHC-HEIS
 Version Ver 1.0
 Form DVD-DS
 Version 2.23
 Report date 03/22/93

TMA NORCAL
REPORTING GROUP 7134

N212057-03

DATA SHEET

B07QN4

SDG 7134
Contact Dinkar KharkarClient Westinghouse Hanford
Contract MBH-SVV-069262Lab sample id N212057-03
Dept sample id 7134-003
Received 12/08/92Client sample id B07QN4
Matrix WATER
Collected 12/05/92
Chain of custody id EFL-1048

PARAMETER	CAS NO	RESULT pCi/L	2 σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI- FIERS	TEST
Gross Alpha	Alpha	3.0	2.5	3	3		80A
Gross Beta	Beta	35	2.5	2	4		80B
Uranium 233/234		2.0	0.42	0.2	0.2		U
Uranium 235	15117-96-1	0.25	0.14	0.1	0.2		U
Uranium 238	7440-61-1	1.7	0.35	0.1	0.2		U
Plutonium 238	13981-16-3	-0.005	0.021	0.06	0.05	U	PU
Plutonium 239/240		0.021	0.021	0.04	0.05	U	PU
Americium 241	14596-10-2	0.002	0.018	0.03	0.05	U	AM
Strontium 90	10098-97-2	0	1.1	0.8	2	U	Y
Technetium 99	14133-76-7	25	1.1	1	5		TC
Tritium	10028-17-8	55000	800	200	400		H
Carbon 14	14762-75-5	340	35	50	50		C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		100		U	GAM
Iron 59		U		40	30	U	GAM
Chromium 51	14392-02-0	U		300		U	GAM
Cobalt 60	10198-40-0	U		10	30	U	GAM
Zinc 65	17982-39-3	U		20		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		10	40	U	GAM
Radium 226	13982-67-7	U		40		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		40		U	GAM
Antimony 125		63	30				GAM

TMA NORCAL
REPORTING GROUP 7134

N212057-19

B07QN9

DATA SHEET

SDG 7134
Contact Dinkar KharkarClient Westinghouse Hanford
Contract MBH-SVV-069262Lab sample id N212057-19
Dept sample id 7134-019
Received 12/14/92Client sample id B07QN9
Matrix WATER
Collected 12/10/92
Chain of custody id EFL-1049

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI- FIERS	TEST
Gross Alpha	Alpha	0.63	1.7	2	3	U	80A
Gross Beta	Beta	9.4	1.6	2	4		80B
Uranium 233/234		1.5	0.32	0.2	0.2		U
Uranium 235	15117-96-1	0.15	0.092	0.1	0.2	J	U
Uranium 238	7440-61-1	1.2	0.28	0.1	0.2		U
Plutonium 238	13981-16-3	-0.010	0.015	0.04	0.05	U	PU
Plutonium 239/240		-0.003	0.010	0.02	0.05	U	PU
Americium 241	14596-10-2	0	0.023	0.04	0.05	U	AM
Strontium 90	10098-97-2	-0.10	<u>0.81</u>	0.5	2	U	Y
Technetium 99	14133-76-7	0.67	1.2	4	5	U	TC
Tritium	10028-17-8	1500000	30000	100	400		H
Carbon 14	14762-75-5	12000	140	40	50		C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		300		U	GAM
Iron 59		U		<u>60</u>	30	U	GAM
Chromium 51	14392-02-0	U		400		U	GAM
Cobalt 60	10198-40-0	U		20	30	U	GAM
Zinc 65	17982-39-3	U		40		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		20		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		30	40	U	GAM
Europium 154	15585-10-1	U		20	40	U	GAM
Radium 226	13982-67-7	U		30		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		70		U	GAM

DATA SHEETS

Page 7

SUMMARY DATA SECTION

Page 26

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.23
Report date 03/22/93

TMA NORCAL
REPORTING GROUP 7134

N212057-04

B07QP4

DATA SHEET

SDG 7134
Contact Dinkar KharkarClient Westinghouse Hanford
Contract MBH-SVV-069262Lab sample id N212057-04
Dept sample id 7134-004
Received 12/08/92Client sample id B07QP4
Matrix WATER
Collected 12/06/92
Chain of custody id EFL-1048

PARAMETER	CAS NO	RESULT pCi/L	2 σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI- FIERS	TEST
Gross Alpha	Alpha	0.92	1.5	2	3	U	80A
Gross Beta	Beta	4.8	1.3	2	4		80B
Uranium 233/234		0.70	0.27	0.2	0.2		U
Uranium 235	15117-96-1	0	0.051	0.2	0.2	U	U
Uranium 238	7440-61-1	0.46	0.22	0.2	0.2		U
Plutonium 238	13981-16-3	0.021	0.043	0.09	0.05	U	PU
Plutonium 239/240		0.005	0.011	0.04	0.05	U	PU
Americium 241	14596-10-2	-0.006	0.011	0.03	0.05	U	AM
Strontium 90	10098-97-2	-0.17	0.30	0.9	2	U	Y
Technetium 99	14133-76-7	4.7	1.4	3	5	J	TC
Tritium	10028-17-8	1900	180	200	400		H
Carbon 14	14762-75-5	-7.3	29	50	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		90		U	GAM
Iron 59		U		40	30	U	GAM
Chromium 51	14392-02-0	U		200		U	GAM
Cobalt 60	10198-40-0	U		10	30	U	GAM
Zinc 65	17982-39-3	U		20		U	GAM
Ruthenium 106	13967-48-1	U		70		U	GAM
Cesium 134	17967-70-9	U		8		U	GAM
Cesium 137	10045-97-3	U		8	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		9	40	U	GAM
Radium 226	13982-67-7	U		10		U	GAM
Thorium 228	14274-82-9	U		10		U	GAM
Thorium 232	7440-29-1	U		30		U	GAM

TMA NORCAL
REPORTING GROUP 7134

N212057-13

DATA SHEET

B07QR4

SDG 7134
Contact Dinkar KharkarClient Westinghouse Hanford
Contract MBH-SVV-069262Lab sample id N212057-13
Dept sample id 7134-013
Received 12/11/92Client sample id B07QR4
Matrix WATER
Collected 12/09/92
Chain of custody id EFL-1049

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI- FIERS	TEST
Gross Alpha	Alpha	1.6	2.5	3	3	U	80A
Gross Beta	Beta	74	3.5	2	4		80B
Uranium 233/234		1.7	0.39	0.1	0.2	B	U
Uranium 235	15117-96-1	0.11	0.075	0.1	0.2	J	U
Uranium 238	7440-61-1	1.4	0.35	0.1	0.2		U
Plutonium 238	13981-16-3	0.004	0.008	0.02	0.05	U	PU
Plutonium 239/240		-0.004	0.004	0.02	0.05	U	PU
Americium 241	14596-10-2	-0.005	0.009	0.02	0.05	U	AM
Strontium 90	10098-97-2	36	1.3	0.9	2		Y
Technetium 99	14133-76-7	1.5	1.3	5	5	U	TC
Tritium	10028-17-8	8700	290	200	400		H
Carbon 14	14762-75-5	10000	120	40	50		C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		300		U	GAM
Iron 59		U		80	30	U	GAM
Chromium 51	14392-02-0	U		400		U	GAM
Cobalt 60	10198-40-0	U		10	30	U	GAM
Zinc 65	17982-39-3	U		30		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		20		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		30	40	U	GAM
Europium 154	15585-10-1	U		20	40	U	GAM
Radium 226	13982-67-7	U		30		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		60		U	GAM

TMA NORCAL
REPORTING GROUP 7134

N212057-14

B07QR9

DATA SHEET

SDG 7134
Contact Dinkar KharkarClient Westinghouse Hanford
Contract MBH-SVV-069262Lab sample id N212057-14
Dept sample id 7134-014
Received 12/11/92Client sample id B07QR9
Matrix WATER
Collected 12/09/92
Chain of custody id EFL-1049

PARAMETER	CAS NO	RESULT pCi/L	2 σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI- FIERS	TEST
Gross Alpha	Alpha	-0.72	1.2	2	3	U	80A
Gross Beta	Beta	6.2	1.6	2	4		80B
Uranium 233/234		0.90	0.23	0.1	0.2	B	U
Uranium 235	15117-96-1	0.11	0.096	0.1	0.2	J	U
Uranium 238	7440-61-1	0.75	0.23	0.1	0.2		U
Plutonium 238	13981-16-3	0.009	0.014	0.02	0.05	U	PU
Plutonium 239/240		0	0.009	0.02	0.05	U	PU
Americium 241	14596-10-2	0.010	0.019	0.04	0.05	U	AM
Strontium 90	10098-97-2	0.042	0.90	0.5	2	U	Y
Technetium 99	14133-76-7	1.9	1.1	3	5	U	TC
Tritium	10028-17-8	2400	190	200	400		H
Carbon 14	14762-75-5	-25	33	60	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		200		U	GAM
Iron 59		U		50	30	U	GAM
Chromium 51	14392-02-0	U		400		U	GAM
Cobalt 60	10198-40-0	U		10	30	U	GAM
Zinc 65	17982-39-3	U		30		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		20	40	U	GAM
Radium 226	13982-67-7	U		20		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		50		U	GAM

TMA NORCAL
REPORTING GROUP 7134

N212057-15

DATA SHEET

B07QS4

SDG 7134
Contact Dinkar KharkarClient Westinghouse Hanford
Contract MBH-SVV-069262Lab sample id N212057-15
Dept sample id 7134-015
Received 12/11/92Client sample id B07QS4
Matrix WATER
Collected 12/09/92
Chain of custody id EFL-1049

PARAMETER	CAS NO	RESULT pCi/L	2 σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI- FIERS	TEST
Gross Alpha	Alpha	3.4	1.8	2	3		80A
Gross Beta	Beta	7.1	1.1	1	4		80B
Uranium 233/234		1.8	0.41	0.1	0.2	B	U
Uranium 235	15117-96-1	0.062	0.083	0.2	0.2	U	U
Uranium 238	7440-61-1	1.7	0.40	0.1	0.2		U
Plutonium 238	13981-16-3	-0.004	0.008	0.03	0.05	U	PU
Plutonium 239/240		-0.002	0.004	0.02	0.05	U	PU
Americium 241	14596-10-2	-0.008	0.012	0.03	0.05	U	AM
Strontium 90	10098-97-2	-0.11	0.87	0.5	2	U	Y
Technetium 99	14133-76-7	1.2	1.1	3	5	U	TC
Tritium	10028-17-8	2400	190	200	400		H
Carbon 14	14762-75-5	310	37	50	50		C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		100		U	GAM
Iron 59		U		60	30	U	GAM
Chromium 51	14392-02-0	U		300		U	GAM
Cobalt 60	10198-40-0	U		20	30	U	GAM
Zinc 65	17982-39-3	U		30		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		10	40	U	GAM
Radium 226	13982-67-7	U		20		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		40		U	GAM

DATA SHEETS

Page 11

SUMMARY DATA SECTION

Page 30

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.23
Report date 03/22/93

TMA NORCAL
REPORTING GROUP 7134

N212057-20

B07QS9

DATA SHEET

SDG 7134
Contact Dinkar KharkarClient Westinghouse Hanford
Contract MBH-SVV-069262Lab sample id N212057-20
Dept sample id 7134-020
Received 12/14/92Client sample id B07QS9
Matrix WATER
Collected 12/10/92
Chain of custody id EFL-1049

PARAMETER	CAS NO	RESULT pCi/L	2 σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI- FIERS	TEST
Gross Alpha	Alpha	0.74	1.4	2	3	U	80A
Gross Beta	Beta	17	2.0	2	4		80B
Uranium 233/234		0.39	0.11	0.06	0.2	B	U
Uranium 235	15117-96-1	0.019	0.019	0.07	0.2	U	U
Uranium 238	7440-61-1	0.32	0.098	0.06	0.2		U
Plutonium 238	13981-16-3	-0.010	0.020	0.05	0.05	U	PU
Plutonium 239/240		-0.003	0.013	0.03	0.05	U	PU
Americium 241	14596-10-2	0.019	0.026	0.04	0.05	U	AM
Strontium 90	10098-97-2	5.6	1.2	0.7	2		Y
Technetium 99	14133-76-7	0.66	1.4	4	5	U	TC
Tritium	10028-17-8	360	130	200	400	J	H
Carbon 14	14762-75-5	-73	39	70	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		200		U	GAM
Iron 59		U		60	30	U	GAM
Chromium 51	14392-02-0	U		400		U	GAM
Cobalt 60	10198-40-0	U		10	30	U	GAM
Zinc 65	17982-39-3	U		30		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		20	40	U	GAM
Radium 226	13982-67-7	U		30		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		40		U	GAM

DATA SHEETS

Page 12

SUMMARY DATA SECTION

Page 31

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.23
Report date 03/22/93

TMA NORCAL
REPORTING GROUP 7134

N212057-05

DATA SHEET

B07QT4

SDG 7134
Contact Dinkar KharkarClient Westinghouse Hanford
Contract MBH-SVV-069262Lab sample id N212057-05
Dept sample id 7134-005
Received 12/08/92Client sample id B07QT4
Matrix WATER
Collected 12/05/92
Chain of custody id EFL-1049

PARAMETER	CAS NO	RESULT pCi/L	2 σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI- FIERS	TEST
Gross Alpha	Alpha	0.81	1.6	2	3	U	80A
Gross Beta	Beta	42	2.7	2	4		80B
Uranium 233/234		0.67	0.19	0.1	0.2	B	U
Uranium 235	15117-96-1	0	0.031	0.1	0.2	U	U
Uranium 238	7440-61-1	0.43	0.16	0.1	0.2		U
Plutonium 238	13981-16-3	-0.013	0.066	0.1	0.05	U	PU
Plutonium 239/240		0.013	0.040	0.09	0.05	U	PU
Americium 241	14596-10-2	-0.008	0.020	0.05	0.05	U	AM
Strontium 90	10098-97-2	0.021	0.20	0.9	2	U	Y
Technetium 99	14133-76-7	86	3.2	3	5		TC
Tritium	10028-17-8	2600	290	200	400		H
Carbon 14	14762-75-5	-18	22	40	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		200		U	GAM
Iron 59		U		40	30	U	GAM
Chromium 51	14392-02-0	U		300		U	GAM
Cobalt 60	10198-40-0	U		10	30	U	GAM
Zinc 65	17982-39-3	U		20		U	GAM
Ruthenium 106	13967-48-1	U		90		U	GAM
Cesium 134	17967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		9	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		10	40	U	GAM
Radium 226	13982-67-7	U		20		U	GAM
Thorium 228	14274-82-9	U		10		U	GAM
Thorium 232	7440-29-1	U		40		U	GAM

DATA SHEETS

Page 13

SUMMARY DATA SECTION

Page 32

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.23
Report date 03/22/93

9613490.2013

**TMA NORCAL
REPORTING GROUP 7134**

N212057-06

DATA SHEET

B07QV4

SDG 7134
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N212057-06
Dept sample id 7134-006
Received 12/08/92

Client sample id B07QV4
Matrix WATER
Collected 12/06/92
Chain of custody id EFL-1049

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI- FIERS	TEST
Gross Alpha	Alpha	1.9	2.0	2	3	U	80A
Gross Beta	Beta	5.3	1.5	2	4		80B
Uranium 233/234		1.1	0.28	0.1	0.2	B	U
Uranium 235	15117-96-1	0.10	0.068	0.1	0.2	J	U
Uranium 238	7440-61-1	1.0	0.27	0.1	0.2		U
Plutonium 238	13981-16-3	0.033	0.040	0.06	0.05	U	PU
Plutonium 239/240		0.026	0.027	0.05	0.05	U	PU
Americium 241	14596-10-2	-0.009	0.017	0.04	0.05	U	AM
Strontium 90	10098-97-2	-0.065	0.35	0.7	2	U	Y
Technetium 99	14133-76-7	1.3	0.56	1	5	J	TC
Tritium	10028-17-8	1.5	130	200	400	U	H
Carbon 14	14762-75-5	-47	25	40	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		200		U	GAM
Iron 59		U		40	30	U	GAM
Chromium 51	14392-02-0	U		200		U	GAM
Cobalt 60	10198-40-0	U		8	30	U	GAM
Zinc 65	17982-39-3	U		20		U	GAM
Ruthenium 106	13967-48-1	U		70		U	GAM
Cesium 134	17967-70-9	U		8		U	GAM
Cesium 137	10045-97-3	U		8	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		10	40	U	GAM
Radium 226	13982-67-7	U		20		U	GAM
Thorium 228	14274-82-9	U		10		U	GAM
Thorium 232	7440-29-1	U		30		U	GAM

9613490.2014

TMA NORCAL
REPORTING GROUP 7134

N212057-07

B07QV9

DATA SHEET

SDG 7134
Contact Dinkar KharkarClient Westinghouse Hanford
Contract MBH-SVV-069262Lab sample id N212057-07
Dept sample id 7134-007
Received 12/08/92Client sample id B07QV9
Matrix WATER
Collected 12/05/92
Chain of custody id EFL-1049

PARAMETER	CAS NO	RESULT pCi/L	2 σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI- FIERS	TEST
Gross Alpha	Alpha	1.6	1.4	2	3	U	80A
Gross Beta	Beta	6.5	1.0	1	4	U	80B
Uranium 233/234		0.54	0.18	0.09	0.2	B	U
Uranium 235	15117-96-1	0.030	0.030	0.1	0.2	U	U
Uranium 238	7440-61-1	0.45	0.15	0.09	0.2	U	U
Plutonium 238	13981-16-3	0	0.037	<u>0.09</u>	0.05	U	PU
Plutonium 239/240		0.012	0.025	<u>0.06</u>	0.05	U	PU
Americium 241	14596-10-2	0.021	0.024	0.04	0.05	U	AM
Strontium 90	10098-97-2	-0.64	<u>1.4</u>	0.9	2	U	Y
Technetium 99	14133-76-7	2.7	0.98	1	5	J	TC
Tritium	10028-17-8	180	140	200	400	U	H
Carbon 14	14762-75-5	<u>-51</u>	28	50	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		100		U	GAM
Iron 59		U		<u>60</u>	30	U	GAM
Chromium 51	14392-02-0	U		400		U	GAM
Cobalt 60	10198-40-0	U		20	30	U	GAM
Zinc 65	17982-39-3	U		30		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		10	40	U	GAM
Radium 226	13982-67-7	U		20		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		50		U	GAM

DATA SHEETS

Page 15

SUMMARY DATA SECTION

Page 34

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.23
Report date 03/22/93

TMA NORCAL
REPORTING GROUP 7134
DATA SHEET

N212057-16

B07QW4

SDG 7134
 Contact Dinkar Kharkar

Client Westinghouse Hanford
 Contract MBH-SVV-069262

Lab sample id N212057-16
 Dept sample id 7134-016
 Received 12/11/92

Client sample id B07QW4
 Matrix WATER
 Collected 12/08/92
 Chain of custody id EFL-1049

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI- FIERS	TEST
Gross Alpha	Alpha	1.2	2.3	2	3	U	80A
Gross Beta	Beta	110	4.3	2	4		80B
Uranium 233/234		1.1	0.31	0.1	0.2	B	U
Uranium 235	15117-96-1	0.043	0.043	0.2	0.2	U	U
Uranium 238	7440-61-1	0.67	0.23	0.1	0.2		U
Plutonium 238	13981-16-3	0	0.020	0.05	0.05	U	PU
Plutonium 239/240		0.013	0.013	0.03	0.05	U	PU
Americium 241	14596-10-2	-0.004	0.008	0.02	0.05	U	AM
Strontium 90	10098-97-2	0.13	1.0	0.6	2	U	Y
Technetium 99	14133-76-7	220	7.3	3	5		TC
Tritium	10028-17-8	5900	250	200	400		H
Carbon 14	14762-75-5	-130	55	100	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		200		U	GAM
Iron 59		U		70	30	U	GAM
Chromium 51	14392-02-0	U		400		U	GAM
Cobalt 60	10198-40-0	U		20	30	U	GAM
Zinc 65	17982-39-3	U		30		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		30	40	U	GAM
Europium 154	15585-10-1	U		20	40	U	GAM
Radium 226	13982-67-7	U		20		U	GAM
Thorium 228	14274-82-9	U		40		U	GAM
Thorium 232	7440-29-1	U		60		U	GAM

DATA SHEETS

Page 16

SUMMARY DATA SECTION

Page 35

Lab id TMAN
 Protocol WHC-HEIS
 Version Ver 1.0
 Form DVD-DS
 Version 2.23
 Report date 03/22/93

TMA NORCAL
REPORTING GROUP 7134

N212057-08

B07QW9

DATA SHEET

SDG 7134
Contact Dinkar KharkarClient Westinghouse Hanford
Contract MBH-SVV-069262Lab sample id N212057-08
Dept sample id 7134-008
Received 12/08/92Client sample id B07QW9
Matrix WATER
Collected 12/05/92
Chain of custody id EFL-1049

PARAMETER	CAS NO	RESULT pCi/L	2 σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALIFIERS	TEST
Gross Alpha	Alpha	1.8	1.9	2	3	U	80A
Gross Beta	Beta	6.2	1.5	2	4		80B
Uranium 233/234		0.42	0.17	0.1	0.2	B	U
Uranium 235	15117-96-1	0.017	0.034	0.1	0.2	U	U
Uranium 238	7440-61-1	0.41	0.17	0.1	0.2		U
Plutonium 238	13981-16-3	-0.026	0.053	0.1	0.05	U	PU
Plutonium 239/240		-0.005	0.021	0.05	0.05	U	PU
Americium 241	14596-10-2	-0.010	0.020	0.04	0.05	U	AM
Strontium 90	10098-97-2	0.061	0.20	0.8	2	U	Y
Technetium 99	14133-76-7	1.8	1.1	3	5	U	TC
Tritium	10028-17-8	150	140	200	400	U	H
Carbon 14	14762-75-5	-62	30	50	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		200		U	GAM
Iron 59		U		70	30	U	GAM
Chromium 51	14392-02-0	U		500		U	GAM
Cobalt 60	10198-40-0	U		20	30	U	GAM
Zinc 65	17982-39-3	U		40		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		30	40	U	GAM
Europium 154	15585-10-1	U		20	40	U	GAM
Radium 226	13982-67-7	U		30		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		70		U	GAM

DATA SHEETS

Page 17

SUMMARY DATA SECTION

Page 36

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.23
Report date 03/22/93

TMA NORCAL
REPORTING GROUP 7134

N212057-12

B07QX4

DATA SHEET

SDG 7134
Contact Dinkar KharkarClient Westinghouse Hanford
Contract MBH-SVV-069262Lab sample id N212057-12
Dept sample id 7134-012
Received 12/09/92Client sample id B07QX4
Matrix WATER
Collected 12/07/92
Chain of custody id EFL-1049

PARAMETER	CAS NO	RESULT pCi/L	2 σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI- FIERS	TEST
Gross Alpha	Alpha	0.81	1.4	2	3	U	80A
Gross Beta	Beta	15	1.8	2	4		80B
Uranium 233/234		1.0	0.27	0.1	0.2	B	U
Uranium 235	15117-96-1	0.037	0.073	0.1	0.2	U	U
Uranium 238	7440-61-1	0.77	0.23	0.1	0.2		U
Plutonium 238	13981-16-3	-0.004	0.015	0.03	0.05	U	PU
Plutonium 239/240		0.002	0.004	0.01	0.05	U	PU
Americium 241	14596-10-2	-0.005	0.014	0.03	0.05	U	AM
Strontium 90	10098-97-2	5.9	0.47	0.6	2		Y
Technetium 99	14133-76-7	1.6	1.1	3	5	U	TC
Tritium	10028-17-8	540	140	200	400		H
Carbon 14	14762-75-5	-74	37	60	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		100		U	GAM
Iron 59		U		50	30	U	GAM
Chromium 51	14392-02-0	U		400		U	GAM
Cobalt 60	10198-40-0	U		20	30	U	GAM
Zinc 65	17982-39-3	U		30		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		10	40	U	GAM
Radium 226	13982-67-7	U		20		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		50		U	GAM

DATA SHEETS

Page 18

SUMMARY DATA SECTION

Page 37

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.23
Report date 03/22/93

TMA NORCAL
REPORTING GROUP 7134

N212057-17

DATA SHEET

B07QX9

SDG 7134
Contact Dinkar KharkarClient Westinghouse Hanford
Contract MBH-SVV-069262Lab sample id N212057-17
Dept sample id 7134-017
Received 12/11/92Client sample id B07QX9
Matrix WATER
Collected 12/09/92
Chain of custody id EFL-1049

PARAMETER	CAS NO	RESULT pCi/L	2 σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI- FIERS	TEST
Gross Alpha	Alpha	-0.18	1.5	3	3	U	80A
Gross Beta	Beta	-0.29	1.0	2	4	U	80B
Uranium 233/234		-0.017	0.034	0.1	0.2	U	U
Uranium 235	15117-96-1	0.062	0.083	0.2	0.2	U	U
Uranium 238	7440-61-1	0	0.034	0.1	0.2	U	U
Plutonium 238	13981-16-3	0.010	0.031	0.06	0.05	U	PU
Plutonium 239/240		0.010	0.021	0.04	0.05	U	PU
Americium 241	14596-10-2	-0.004	0.012	0.03	0.05	U	AM
Strontium 90	10098-97-2	-0.71	1.0	0.6	2	U	Y
Technetium 99	14133-76-7	2.1	1.3	3	5	U	TC
Tritium	10028-17-8	64	130	200	400	U	H
Carbon 14	14762-75-5	-47	25	40	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		100		U	GAM
Iron 59		U		60	30	U	GAM
Chromium 51	14392-02-0	U		400		U	GAM
Cobalt 60	10198-40-0	U		10	30	U	GAM
Zinc 65	17982-39-3	U		30		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		10	40	U	GAM
Radium 226	13982-67-7	U		30		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		50		U	GAM

TMA NORCAL
REPORTING GROUP 7134

N212057-18

DATA SHEET

B07QZ9

SDG 7134
Contact Dinkar KharkarClient Westinghouse Hanford
Contract MBH-SVV-069262Lab sample id N212057-18
Dept sample id 7134-018
Received 12/11/92Client sample id B07QZ9
Matrix WATER
Collected 12/08/92
Chain of custody id EFL-1049

PARAMETER	CAS NO	RESULT pCi/L	2 σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI- FIERS	TEST
Gross Alpha	Alpha	0.080	1.4	2	3	U	80A
Gross Beta	Beta	19	1.9	2	4		80B
Uranium 233/234		1.2	0.28	0.1	0.2	B	U
Uranium 235	15117-96-1	0.016	0.033	0.1	0.2	U	U
Uranium 238	7440-61-1	0.72	0.21	0.1	0.2		U
Plutonium 238	13981-16-3	0.016	0.024	0.04	0.05	U	PU
Plutonium 239/240		0	0.008	0.03	0.05	U	PU
Americium 241	14596-10-2	-0.015	0.015	0.05	0.05	U	AM
Strontium 90	10098-97-2	0	0.65	0.6	2	U	Y
Technetium 99	14133-76-7	27	2.4	3	5		TC
Tritium	10028-17-8	28000	490	200	400		H
Carbon 14	14762-75-5	-65	33	60	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		100		U	GAM
Iron 59		U		60	30	U	GAM
Chromium 51	14392-02-0	U		400		U	GAM
Cobalt 60	10198-40-0	U		20	30	U	GAM
Zinc 65	17982-39-3	U		30		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		20	40	U	GAM
Radium 226	13982-67-7	U		20		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		50		U	GAM

DATA SHEETS

Page 20

SUMMARY DATA SECTION

Page 39

Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.23
Report date 03/22/93

Westinghouse
Hanford Company

CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER
 Company Contact PH BUTCHER
 Project Designation/Sampling Locations 100-KR-4
 Ice Chest No. BILLY
 Bill of Lading/Airbill No. 2519007458
 Method of Shipment EMERY
 Shipped to TMA
 Possible Sample Hazards/Remarks N/A

Telephone (509)376-5045
 Collection Date 12/5/92
 Field Logbook No. EEL-1048
 Offsite Property No. W93-0-00 59-49

Sample Identification

B07QK4

- 3, 40ml, Gs*, WATER, CLP-VOA
- 3, 2L, aG, WATER, CLP-SEMI VOA & PCB's/PEST
- 1, 1L, P, WATER, ANIONS(IC) SO4, F, PO4, Cl/COND./pH
- 1, 500ml, P, WATER, ANIONS/NO3-NO2 (H2SO4)
- 1, 1L, G, WATER, ALK./TOT. DISSOLVED SOLIDS
- 1, 500ml, G, WATER, SULFIDE (add Zinc Acetate+NaOH pH>9)
- 1, 500ml, G, WATER, AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
- 1, 1L, P, WATER, CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
- 1, 1L, P, WATER, CLP-CN (NaOH)
- 2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90 (HNO3)
- 1, 1L, P, WATER, Tc-99 (HCl)
- 1, 250ml, Gs, WATER, TRITIUM/C-14

B07QK5

- 1, 1L, P, WATER, CLP-ICP/AA METALS (FILTERED)/CLP-Hg (HNO3)

B07QK6

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

Field Transfer of Custody		Chain of Possession		(Sign and Print Names)	
Relinquished by: AJ SIMPSON <i>AJ Simpson</i>	Received by: <i>Kermit Blum</i>	Date/Time: 12-8-92		1130	
Relinquished by:	Received by:	Date/Time:			
Relinquished by:	Received by:	Date/Time:			
Relinquished by:	Received by:	Date/Time:			
Final Sample Disposition					
Disposal Method:	Disposed by:	Date/Time:			
Comments:					

Westinghouse
Hanford Company

CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER
 Company Contact PH BUTCHER
 Project Designation/Sampling Locations 100-KR-4
 Ice Chest No. SML-118
 Bill of Lading/Airbill No. 2519007458
 Method of Shipment EMERY
 Shipped to TMA
 Possible Sample Hazards/Remarks N/A

Telephone (509)376-5045
 Collection Date 12-6-92
 Field Logbook No. EFL 1049
 Offsite Property No. W93-0-0059-48

Sample Identification

B07QL9

- 3, 40ml, Gs*, WATER, CLP-VOA
- 3, 2L, aG, WATER, CLP-SEMI VOA & PCB's/PEST
- 1, 1L, P, WATER, ANIONS(IC) SO4, F, PO4, Cl/COND./pH
- 1, 500ml, P, WATER, ANIONS/NO3-NO2 (H2SO4)
- 1, 1L, G, WATER, ALK./TOT. DISSOLVED SOLIDS
- 1, 500ml, G, WATER, SULFIDE (add Zinc Acetate+NaOH pH>9)
- 1, 500ml, G, WATER, AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
- 1, 1L, P, WATER, CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
- 1, 1L, P, WATER, CLP-CN (NaOH)
- 2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90 (HNO3)
- 1, 1L, P, WATER, Tc-99 (HCl)
- 1, 250ml, Gs, WATER, TRITIUM/C-14

B07QMO

- 1, 1L, P, WATER, CLP-ICP/AA METALS (FILTERED)/CLP-Hg (HNO3)

B07QMI

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

[] Field Transfer of Custody		Chain of Possession	(Sign and Print Names)
Relinquished by: <i>G.C. Hamilton</i> G.C. Hamilton	Received by: <i>AJ SIMPSON</i> <i>AJ Simpson</i>	Date/Time: 12/7/92 1009	
Relinquished by: <i>AJ SIMPSON</i> <i>AJ Simpson</i>	Received by: <i>Kermit Blum</i> <i>Kermit Blum</i>	Date/Time: 12-8-92 1130	
Relinquished by:	Received by:	Date/Time:	
Relinquished by:	Received by:	Date/Time:	
Final Sample Disposition			
Disposal Method:	Disposed by:	Date/Time:	
Comments:			

077

Westinghouse Hanford Company	<h2 style="margin: 0;">CHAIN OF CUSTODY</h2>
Custody Form Initiator PH BUTCHER	
Company Contact PH BUTCHER	Telephone (509)376-5045
Project Designation/Sampling Locations 100-KR-4	Collection Date 12/5/92
Ice Chest No. NJ BOUND	Field Logbook No. EPL-1048
Bill of Lading/Airbill No. 251 900 7458	Offsite Property No. W93-0-0059-48
Method of Shipment EMERY	
Shipped to TMA	
Possible Sample Hazards/Remarks N/A	

Sample Identification

B07Q24

- 3, 40ml, Gs*, WATER, CLP-VOA
- 3, 2L, aG, WATER, CLP-SEMI VOA & PCB's/PEST
- 1, 1L, P, WATER, ANIONS(IC) SO4, F, PO4, C1/COND./pH
- 1, 500ml, P, WATER, ANIONS/NO3-NO2 (H2SO4)
- 1, 1L, G, WATER, ALK./TOT. DISSOLVED SOLIDS
- 1, 500ml, G, WATER, SULFIDE (add Zinc Acetate+NaOH pH>9)
- 1, 500ml, G, WATER, AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
- 1, 1L, P, WATER, CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
- 1, 1L, P, WATER, CLP-CN (NaOH)
- 2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90 (HNO3)
- 1, 1L, P, WATER, Tc-99 (HCl)
- 1, 250ml, Gs, WATER, TRITIUM/C-14

B07Q25

- 1, 1L, P, WATER, CLP-ICP/AA METALS (FILTERED)/CLP-Hg (HNO3)

B07Q26

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

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: <i>Kathy D. Lee K.D. Lee</i>	Received by: AJ SIMPSON <i>AJ Simpson</i>	Date/Time: 12-7-92 10 07
Relinquished by: AJ SIMPSON <i>AJ Simpson</i>	Received by: Kermit Blum <i>Kermit Blum</i>	Date/Time: 12-8-92 1130
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition		
Disposal Method:	Disposed by:	Date/Time:
Comments: FRIG # 2		

Westinghouse
Hanford Company

CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER
Company Contact PH BUTCHER
Project Designation/Sampling Locations 100-KR-4
Ice Chest No. SML-120
Bill of Lading/Airbill No. 251906745
Method of Shipment EMERY
Shipped to TMA
Possible Sample Hazards/Remarks N/A

Telephone (509)376-5045
Collection Date 12/6/92
Field Logbook No. EFL-1048
Offsite Property No. W93-0-0059-50

Sample Identification

BO7QP4

- 3, 40ml, Gs*, WATER, CLP-VOA *
- 3, 2L, aG, WATER, CLP-SEMI VOA & PCB's/PEST
- 1, 1L, P, WATER, ANIONS(IC) SO4, F, PO4, Cl/COND./pH
- 1, 500ml, P, WATER, ANIONS/NO3-NO2 (H2SO4)
- 1, 1L, G, WATER, ALK./TOT. DISSOLVED SOLIDS
- 1, 500ml, G, WATER, SULFIDE (add Zinc Acetate+NaOH pH>9)
- 1, 500ml, G, WATER, AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
- 1, 1L, P, WATER, CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
- 1, 1L, P, WATER, CLP-CN (NaOH)
- 2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC(U-235/238, Pu-239/240, Am-241), Sr-90 (HNO3)
- 1, 1L, P, WATER, Tc-99 (HCl)
- 1, 250ml, Gs, WATER, TRITIUM/C-14

BO7QP5

- 1, 1L, P, WATER, CLP-ICP/AA METALS (FILTERED)/CLP-Hg (HNO3)

BO7QP6

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

[] Field Transfer of Custody		Chain of Possession	(Sign and Print Names)
Relinquished by: <i>Victor P. Lee K.D. Coe</i>	Received by: <i>AJ SIMPSON</i> <i>AJ Simpson</i>	Date/Time: <i>12/7/92 1021</i>	
Relinquished by: <i>AJ SIMPSON</i> <i>AJ Simpson</i>	Received by: <i>KERMIT Blum</i> <i>Kermit Blum</i>	Date/Time: <i>12-8-92 1130</i>	
Relinquished by:	Received by:	Date/Time:	
Relinquished by:	Received by:	Date/Time:	
Final Sample Disposition			
Disposal Method:	Disposed by:	Date/Time:	
Comments: <i>FRIG #2</i>			

* Received two VOA vials ID BO7QP4 @ TMA/NORCAL - KB
Received one VOA vial ID BO7PQ4

Westinghouse
Hanford Company

CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER
 Company Contact PH BUTCHER
 Project Designation/Sampling Locations 100-KR-4
 Ice Chest No. *SML-110*
 Bill of Lading/Airbill No. 251900 7456
 Method of Shipment EMERY
 Shipped to TMA
 Possible Sample Hazards/Remarks N/A

Telephone (509)376-5045
 Collection Date 12-5-92
 Field Logbook No. EFL-1049
 Offsite Property No. W93-0-0059-47

Sample Identification

B07Q74

- 3, 40ml, Gs*, WATER, CLP-VOA
- 3, 2L, aG, WATER, CLP-SEMI VOA & PCB's/PEST
- 1, 1L, P, WATER, ANIONS(IC) SO4, F, PO4, Cl/COND./pH
- 1, 500ml, P, WATER, ANIONS/NO3-NO2 (H2SO4)
- 1, 1L, G, WATER, ALK./TOT. DISSOLVED SOLIDS
- 1, 500ml, G, WATER, SULFIDE (add Zinc Acetate+NaOH pH>9)
- 1, 500ml, G, WATER, AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
- 1, 1L, P, WATER, CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
- 1, 1L, P, WATER, CLP-CN (NaOH)
- 2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC(U-235/238, Pu-239/240, Am-241), Sr-90 (HNO3)
- 1, 1L, P, WATER, Tc-99 (HCl)
- 1, 250ml, Gs, WATER, TRITIUM/C-14

B07Q75

- 1, 1L, P, WATER, CLP-ICP/AA METALS (FILTERED)/CLP-Hg (HNO3)

B07Q76

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

[] Field Transfer of Custody		Chain of Possession	(Sign and Print Names)
Relinquished by: <i>GG Hamilton</i> GG HAMILTON	Received by: <i>AJ Simpson</i> AJ Simpson	Date/Time: 12/7/92 0958	
Relinquished by: <i>AJ Simpson</i> AJ Simpson	Received by: <i>Kermit Blum</i> Kermit Blum	Date/Time: 12-8-92 1130	
Relinquished by:	Received by:	Date/Time:	
Relinquished by:	Received by:	Date/Time:	
Final Sample Disposition			
Disposal Method:	Disposed by:	Date/Time:	
Comments: <i>FKIG #1</i>			

Westinghouse
Hanford Company

CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Project Designation/Sampling Locations 100-KR-4

Ice Chest No. 568

Bill of Lading/Airbill No. 2519007458

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Telephone (509)376-5045

Collection Date 12-6-92

Field Logbook No. EFL 1049

Offsite Property No. W93-0-0059-49

Sample Identification

BO7QU4

- 3, 40ml, Gs*, WATER, CLP-VOA
- 3, 2L, aG, WATER, CLP-SEMI VOA & PCB's/PEST
- 1, 1L, P, WATER, ANIONS(IC) SO4, F, PO4, Cl/COND./pH
- 1, 500ml, P, WATER, ANIONS/NO3-NO2 (H2SO4)
- 1, 1L, G, WATER, ALK./TOT. DISSOLVED SOLIDS
- 1, 500ml, G, WATER, SULFIDE (add Zinc Acetate+NaOH pH>9)
- 1, 500ml, G, WATER, AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
- 1, 1L, P, WATER, CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
- 1, 1L, P, WATER, CLP-CN (NaOH)
- 2, 4L, P, WATER, GROSS ALPHA/BETA,GAMMA SPEC,ALPHA SPEC(U-235/238, Pu-239/240,Am-241), Sr-90 (HNO3)
- 1, 1L, P, WATER, Tc-99 (HCl)
- 1, 250ml, Gs, WATER, TRITIUM/C-14

BO7QU5

- 1, 1L, P, WATER, CLP-ICP/AA METALS (FILTERED)/CLP-Hg (HNO3)

BO7QU6

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

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: <i>G. Hamilton</i> G.C. HAMILTON	Received by: AJ SIMPSON <i>AJ Simpson</i>	Date/Time: 12/7/92 1014
Relinquished by: AJ SIMPSON <i>AJ Simpson</i>	Received by: Kermit Blum <i>Kermit Blum</i>	Date/Time: 12-8-92 1130
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:
Final Sample Disposition		
Disposal Method:	Disposed by:	Date/Time:
Comments:		

Westinghouse
Hanford Company

CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-KR-4

Collection Date 12-5-92

Ice Chest No. ~~SAT~~ Ass 207

Field Logbook No. EFL 7049

Bill of Lading/Airbill No. 2519007458

Offsite Property No. W93-0-0099-47

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

BO7QV9

- 3, 40ml, Gs*, WATER, CLP-VOA
- 3, 2L, aG, WATER, CLP-SEMI VOA & PCB's/PEST
- 1, 1L, P, WATER, ANIONS(IC) SO4, F, PO4, Cl/COND./pH
- 1, 500ml, P, WATER, ANIONS/NO3-NO2 (H2SO4)
- 1, 1L, G, WATER, ALK./TOT. DISSOLVED SOLIDS
- 1, 500ml, G, WATER, SULFIDE (add Zinc Acetate+NaOH pH>9)
- 1, 500ml, G, WATER, AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
- 1, 1L, P, WATER, CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
- 1, 1L, P, WATER, CLP-CN (NaOH)
- 2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90 (HNO3)
- 1, 1L, P, WATER, Tc-99 (HCl)
- 1, 250ml, Gs, WATER, TRITIUM/C-14

BO7QW0

- 1, 1L, P, WATER, CLP-ICP/AA METALS (FILTERED)/CLP-Hg (HNO3)

BO7QW1

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

BO7QW1 3; 40ml Gs Water CLP-VOA

[] Field Transfer of Custody		Chain of Possession	(Sign and Print Names)
Relinquished by: <i>G.C. Hamilton</i> G.C. HAMILTON	Received by: <i>AJ Simpson</i> AJ SIMPSON	Date/Time: 12/7/92 0959	
Relinquished by: <i>AJ Simpson</i> AJ SIMPSON	Received by: <i>Kermit Blum</i> KERMIT BLUM	Date/Time: 12-8-92 1130	
Relinquished by:	Received by:	Date/Time:	
Relinquished by:	Received by:	Date/Time:	
Final Sample Disposition			
Disposal Method:	Disposed by:	Date/Time:	
Comments: FRIG # 1			

Westinghouse
Hanford Company

CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Project Designation/Sampling Locations 100-KR-4

Ice Chest No. *SML-50A*

Bill of Lading/Airbill No. 2519007458

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Telephone (509)376-5045

Collection Date 12-5-92

Field Logbook No. *EFL 1049*

Offsite Property No. W93-0-0059-50

Sample Identification

BO7QW9

- 3, 40ml, Gs*, WATER, CLP-VOA
- 3, 2L, aG, WATER, CLP-SEMI VOA & PCB's/PEST
- 1, 1L, P, WATER, ANIONS(IC) SO4, F, PO4, Cl/COND./pH
- 1, 500ml, P, WATER, ANIONS/NO3-NO2 (H2SO4)
- 1, 1L, G, WATER, ALK./TOT. DISSOLVED SOLIDS
- 1, 500ml, G, WATER, SULFIDE (add Zinc Acetate+NaOH pH>9)
- 1, 500ml, G, WATER, AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
- 1, 1L, P, WATER, CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
- 1, 1L, P, WATER, CLP-CN (NaOH)
- 2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90 (HNO3)
- 1, 1L, P, WATER, Tc-99 (HCl)
- 1, 250ml, Gs, WATER, TRITIUM/C-14

BO7QX0

- 1, 1L, P, WATER, CLP-ICP/AA METALS (FILTERED)/CLP-Hg (HNO3)

BO7QX1

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

[] Field Transfer of Custody		Chain of Possession	(Sign and Print Names)
Relinquished by: <i>G.G. Hamilton</i> G.G. HAMILTON	Received by: <i>AJ Simpson</i> AJ Simpson	Date/Time: 12/7/92 1025	
Relinquished by: <i>AJ Simpson</i> AJ SIMPSON	Received by: <i>Kermit Blum</i> Kermit Blum	Date/Time: 12-8-92 1130	
Relinquished by:	Received by:	Date/Time:	
Relinquished by:	Received by:	Date/Time:	
Final Sample Disposition			
Disposal Method:	Disposed by:	Date/Time:	
Comments: <i>FL 16 # 3</i>			



Westinghouse
Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K. Lee, L. Walker Date Sampled 12/5/92 Time 0900 hours
 Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample *	Analysis Requested
B07QK4	3; 40ml; Gs*;	WATER ✓	CLP-VOA
	3; 2L; aG;	WATER ✓	CLP-SEMI VOA & PCB's/PEST
	1; 1L; P;	WATER ✓	ANIONS (IC) SO4, F, PO4, Cl/COND/pH
	1; 500ml; P;	WATER ✓	ANIONS/NO3-NO2 (H2SO4)
	1; 1L; G;	WATER ✓	ALK./TOT. DISSOLVED SOLIDS
	1; 500ml; G;	WATER ✓	SULFIDE (add Zinc Acetate + NaOH pH > 9)
	1; 500ml; G;	WATER ✓	AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH < 2)
	1; 1L; P;	WATER ✓	CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
	1; 1L; P;	WATER ✓	CLP-CN (NaOH)
	2; 4L; P;	WATER ✓	GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90, (HNO3)
	1; 1L; P;	WATER ✓	Tc-99 (HCl)
	1; 250ml; Gs;	WATER ✓	TRITIUM/C-14
B07QK5	1; 1L; P;	WATER ✓	CLP-ICP/AA METAL (FILTERED)/CLP-Hg (HNO3)
B07QK6	3; 40ml; Gs	WATER ✓	CLP-VOA OPC: # W93-0-0059-49 BOL: # 2519007458 TASK#: 92-398

Field Information **

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Kermit Blum Title Sample Control Supervisor Date 12-8-92
 Analysis Required 076

* Indicate whether sample is soil, sludge, water, etc.
 ** Use back of page for additional information relative to sample location.



Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K. Lee, L. Walker Date Sampled 12-6-92 Time 0843 hours
Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample *	Analysis Requested
BO 7Q L9	3; 40ml; Gs*;	WATER	✓ CLP-VOA
	3; 2L; aG;	WATER	✓ CLP-SEMI VOA & PCB's/PEST
	1; 1L; P;	WATER	✓ ANIONS (IC) SO4, F, PO4, CI/COND/pH
	1; 500ml; P;	WATER	✓ ANIONS/NO3-NO2 (H2SO4)
	1; 1L; G;	WATER	✓ ALK./TOT. DISSOLVED SOLIDS
	1; 500ml; G;	WATER	✓ SULFIDE (add Zinc Acetate + NaOH pH > 9)
	1; 500ml; G;	WATER	✓ AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH < 2)
	1; 1L; P;	WATER	✓ CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
	1; 1L; P;	WATER	✓ CLP-CN (NaOH)
	2; 4L; P;	WATER	✓ GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90, (HNO3)
	1; 1L; P;	WATER	✓ Tc-99 (HCl)
	1; 250ml; Gs;	WATER	TRITIUM/C-14
BO 7Q M0	1; 1L; P;	WATER	✓ CLP-ICP/AA METAL (FILTERED)/CLP-Hg (HNO3)
BO 7Q M1	3; 40ml; Gs	WATER	✓ CLP-VOA
			OPC: # W93-0-0054-48
			BOL: # 2519007458
			TASK#: 92-398

Field Information ** _____

Special Handling and/or Storage _____

Possible Sample Hazards _____

PART II: LABORATORY SECTION

Received by Hermit Blum Title Sample Control Supervisor Date 12-8-92
Analysis Required _____ 078

* Indicate whether sample is soil, sludge, water, etc.
** Use back of page for additional information relative to sample location.



Westinghouse
Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K. Lee, L. Walker Date Sampled 12/5/92 Time 1101 hours
Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B07QNY	✓ 3; 40ml; Gs*;	WATER	CLP-VOA
	✓ 3; 2L; aG;	WATER	CLP-SEMI VOA & PCB's/PEST
	✓ 1; 1L; P;	WATER	ANIONS (IC) SO4, F, PO4, Cl/COND/pH
	✓ 1; 500ml; P;	WATER	ANIONS/NO3-NO2 (H2SO4)
	✓ 1; 1L; G;	WATER	ALK./TOT. DISSOLVED SOLIDS
	✓ 1; 500ml; G;	WATER	SULFIDE (add Zinc Acetate + NaOH pH > 9)
	✓ 1; 500ml; G;	WATER	AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH < 2)
	✓ 1; 1L; P;	WATER	CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
	✓ 1; 1L; P;	WATER	CLP-CN (NaOH)
	✓ 2; 4L; P;	WATER	GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90, (HNO3)
	✓ 1; 1L; P;	WATER	Tc-99 (HCl)
	✓ 1; 250ml; Gs;	WATER	TRITIUM/C-14
B07QNY5	✓ 1; 1L; P;	WATER	CLP-ICP/AA METAL (FILTERED)/CLP-Hg (HNO3)
B07QNY6	✓ 3; 40ml; Gs	WATER	CLP-VOA OPC: # W93-0-0059-48 BOL: # 2519007458 TASK#: 92-398

Field Information **

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Hermit Blum Title Sample Control Supervisor Date 12-8-92
Analysis Required _____

080

* Indicate whether sample is soil, sludge, water, etc.
** Use back of page for additional information relative to sample location.



Westinghouse
Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K. Lee, L. Walker Date Sampled 12/6/92 Time 1095 hours
 Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B07QP4	✓3; 40ml; Gs*;	WATER	CLP-VOA (one VOA J.D.# B07PQ4)
	✓3; 2L; aG;	WATER	CLP-SEMI VOA & PCB's/PEST
	✓1; 1L; P;	WATER	ANIONS (IC) SO4, F, PO4, Cl/COND/pH
	✓1; 500ml; P;	WATER	ANIONS/NO3-NO2 (H2SO4)
	✓1; 1L; G;	WATER	ALK./TOT. DISSOLVED SOLIDS
	✓1; 500ml; G;	WATER	SULFIDE (add Zinc Acetate + NaOH pH>9)
	✓1; 500ml; G;	WATER	AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
	✓1; 1L; P;	WATER	CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
	✓1; 1L; P;	WATER	CLP-CN (NaOH)
	✓2; 4L; P;	WATER	GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90, (HNO3)
	✓1; 1L; P;	WATER	Tc-99 (HCl)
	✓1; 250ml; Gs;	WATER	TRITIUM/C-14
B07QP5	✓1; 1L; P;	WATER	CLP-ICP/AA METAL (FILTERED)/CLP-Hg (HNO3)
B07QP6	✓3; 40ml; Gs	WATER	CLP-VOA OPC: # W93-0-0059-50 BOL: # 2519007458 TASK#: 92-398

Field Information**

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Kermit Blum Title Sample Control Supervisor Date 12-8-92

Analysis Required

182

* Indicate whether sample is soil, sludge, water, etc.

** Use back of page for additional information relative to sample location.



Westinghouse
Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K. Lee, L. Walker

Date Sampled 12-5-92

0904

Time 0904 hours

Company Contact P. H. Butcher

Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample *	Analysis Requested
B07QT4	✓3; 40ml; Gs*;	WATER	CLP-VOA
	✓3; 2L; aG;	WATER	CLP-SEMI VOA & PCB's/PEST
	✓1; 1L; P;	WATER	ANIONS (IC) SO4, F, PO4, Cl/COND/pH
	✓1; 500ml; P;	WATER	ANIONS/NO3-NO2 (H2SO4)
	✓1; 1L; G;	WATER	ALK./TOT. DISSOLVED SOLIDS
	✓1; 500ml; G;	WATER	SULFIDE (add Zinc Acetate + NaOH pH>9)
	✓1; 500ml; G;	WATER	AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
	✓1; 1L; P;	WATER	CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
	✓1; 1L; P;	WATER	CLP-CN (NaOH)
	✓2; 4L; P;	WATER	GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90, (HNO3)
	✓1; 1L; P;	WATER	Tc-99 (HCl)
	✓1; 250ml; Gs;	WATER	TRITIUM/C-14
B07QT5	✓1; 1L; P;	WATER	CLP-ICP/AA METAL (FILTERED)/CLP-Hg (HNO3)
B07QT6	✓3; 40ml; Gs	WATER	CLP-VOA
			OPC: # W93-D-00691-47
			BOL: # 251900 7458
			TASK#: 92-398

Field Information **

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Hermit Blum

Title Sample Control Supervisor

Date 12-8-92

Analysis Required

084

* Indicate whether sample is soil, sludge, water, etc.

** Use back of page for additional information relative to sample location.



Westinghouse
Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K. Lee, L. Walker Date Sampled 12-6-92 Time 1100 hours
Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample *	Analysis Requested
BO 7QV4	3; 40ml; Gs*;	WATER	<input checked="" type="checkbox"/> CLP-VOA
	3; 2L; aG;	WATER	<input checked="" type="checkbox"/> CLP-SEMI VOA & PCB's/PEST
	1; 1L; P;	WATER	<input checked="" type="checkbox"/> ANIONS (IC) SO4, F, PO4, Cl/COND/pH
	1; 500ml; P;	WATER	<input checked="" type="checkbox"/> ANIONS/NO3-NO2 (H2SO4)
	1; 1L; G;	WATER	<input checked="" type="checkbox"/> ALK./TOT. DISSOLVED SOLIDS
	1; 500ml; G;	WATER	<input checked="" type="checkbox"/> SULFIDE (add Zinc Acetate + NaOH pH > 9)
	1; 500ml; G;	WATER	<input checked="" type="checkbox"/> AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH < 2)
	1; 1L; P;	WATER	<input checked="" type="checkbox"/> CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
	1; 1L; P;	WATER	<input checked="" type="checkbox"/> CLP-CN (NaOH)
	2; 4L; P;	WATER	<input checked="" type="checkbox"/> GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90, (HNO3)
	1; 1L; P;	WATER	<input checked="" type="checkbox"/> Tc-99 (HCl)
	1; 250ml; Gs;	WATER	<input checked="" type="checkbox"/> TRITIUM/C-14
BO 7QV5	1; 1L; P;	WATER	<input checked="" type="checkbox"/> CLP-ICP/AA METAL (FILTERED)/CLP-Hg (HNO3)
BO 7QV6	3; 40ml; Gs	WATER	<input checked="" type="checkbox"/> CLP-VOA
			OPC: # W93-0-0059-49
			BOL: # 2519007458
			TASK#: 92-398

Field Information ** _____

Special Handling and/or Storage _____

Possible Sample Hazards _____

PART II: LABORATORY SECTION

Received by Hermit Blum Title Sample Control Supervisor Date 12-8-92
Analysis Required _____ 086

* Indicate whether sample is soil, sludge, water, etc.
** Use back of page for additional information relative to sample location.



Westinghouse
Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K. Lee, L. Walker Date Sampled 12-5-92 Time 1143 hours
 Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample *	Analysis Requested
BO 7QV9	3; 40ml; Gs*;	WATER	<input checked="" type="checkbox"/> CLP-VOA
	3; 2L; aG;	WATER	<input checked="" type="checkbox"/> CLP-SEMI VOA & PCB's/PEST
	1; 1L; P;	WATER	<input checked="" type="checkbox"/> ANIONS (IC) SO4, F, PO4, CI/COND/pH
	1; 500ml; P;	WATER	<input checked="" type="checkbox"/> ANIONS/NO3-NO2 (H2SO4)
	1; 1L; G;	WATER	<input checked="" type="checkbox"/> ALK./TOT. DISSOLVED SOLIDS
	1; 500ml; G;	WATER	<input checked="" type="checkbox"/> SULFIDE (add Zinc Acetate + NaOH pH>9)
	1; 500ml; G;	WATER	<input checked="" type="checkbox"/> AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
	1; 1L; P;	WATER	<input checked="" type="checkbox"/> CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
	1; 1L; P;	WATER	<input checked="" type="checkbox"/> CLP-CN (NaOH)
	2; 4L; P;	WATER	<input checked="" type="checkbox"/> GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90, (HNO3)
	1; 1L; P;	WATER	<input checked="" type="checkbox"/> Tc-99 (HCl)
	1; 250ml; Gs;	WATER	<input checked="" type="checkbox"/> TRITIUM/C-14
BO 7QW0	1; 1L; P;	WATER	<input checked="" type="checkbox"/> CLP-ICP/AA METAL (FILTERED)/CLP-Hg (HNO3)
BO 7QZ7	3; 40ml Gs	WATER	CLP-VOA
BO 7QW1	3; 40ml; Gs	WATER	<input checked="" type="checkbox"/> CLP-VOA
			OPC: # W93-0-0059-47
			BOL: # 2519007458
			TASK#: 92-398

Field Information **

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Hermit Blum Title Sample Control Supervisor Date 12-8-92
 Analysis Required 088

* Indicate whether sample is soil, sludge, water, etc.
 ** Use back of page for additional information relative to sample location.



Westinghouse
Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K. Lee, L. Walker Date Sampled 12-5-92 Time 1142 hours
 Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample *	Analysis Requested
B07QW9	✓ 3; 40ml; Gs*;	WATER	CLP-VOA
	✓ 3; 2L; aG;	WATER	CLP-SEMI VOA & PCB's/PEST
	✓ 1; 1L; P;	WATER	ANIONS (IC) SO4, F, PO4, CI/COND/pH
	✓ 1; 500ml; P;	WATER	ANIONS/NO3-NO2 (H2SO4)
	✓ 1; 1L; G;	WATER	ALK./TOT. DISSOLVED SOLIDS
	✓ 1; 500ml; G;	WATER	SULFIDE (add Zinc Acetate + NaOH pH > 9)
	✓ 1; 500ml; G;	WATER	AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH < 2)
	✓ 1; 1L; P;	WATER	CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
	✓ 1; 1L; P;	WATER	CLP-CN (NaOH)
	✓ 2; 4L; P;	WATER	GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90, (HNO3)
	✓ 1; 1L; P;	WATER	Tc-99 (HCl)
	✓ 1; 250ml; Gs;	WATER	TRITIUM/C-14
B07QX0	✓ 1; 1L; P;	WATER	CLP-ICP/AA METAL (FILTERED)/CLP-Hg (HNO3)
B07QX1	✓ 3; 40ml; Gs	WATER	CLP-VOA OPC: # W93-0-009A-50 BOL: # 2519007458 TASK#: 92-398

Field Information **

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Kermit Blum Title Sample Control Supervisor Date 12-8-92
 Analysis Required _____

* Indicate whether sample is soil, sludge, water, etc.
 ** Use back of page for additional information relative to sample location.

FORM OF PAYMENT

check GBL

Bill to Consignee Third Party Billing

Shipper's Account Number
850281585

B III



SERVICES ** INTERNATIONAL
Express
Standard Plus
Preferred
Standard
Business Documents
Customs Clearance
Delivery

UNITED STATES / CANADA
Same Day (Extra Charges)
AM PM
Second Day Saturday Delivery
Date: 12-7-92 Origin: PBC Shipment Number: 251900745

From: WESTINGHOUSE SHIPPING DEPT(509)376-6665
U.S. DEPARTMENT OF ENERGY C/O
WESTINGHOUSE HANFORD
BLDG 1163
355 STEVENS DRIVE

To: DELORES SANCHEZ
TMA/NORCAL
2030 WRIGHT AVENUE
RICHMOND CA

ICHLAND WA Canada

Canada

Customer's Reference Numbers
81232 PC41A W93-59-47-50 99352

Consignee's Account Number
E 94804

Description	Pcs	Dimensions (L x W x H)				Total Pieces	Total Weight (in Lbs.)
8 COOLERS WATER SAMPLES W93-0059-47 thru 50	8	27	16	17	737		

FOR INFORMATION OR RATES
CALL 1-800-44 EMERY
(1-800-443-6379)

Remarks
OVERNIGHT DELIVERY
SECURITY SIGNATURE SERVICE
Shipper's Signature: *x Mark W Bryant*

Zip Ship
Mark if Emery Packaging is used
Urgent Letter 9X12
Urgent Pack 12X15

Declared Value \$
2519007458

International Shipments
Free Domicile

Commodity Code
Third Party Account Number mandatory for Third Party Billing: E

International Customs Value
International Insurance

Other Charges/Advance at Origin
Total Transportation Charges
OCAO \$

1-OAK-A
Terms and conditions on back

9613490.2037
SMC-TEC

OVERNIGHT DELIVERY

Signature Security

Contractor WHC	OFF-SITE PROPERTY CONTROL	CONTROL NUMBER (To be obtained from PROPERTY MANAGEMENT) W93 - 0 - 0059 - 50
--------------------------	--------------------------------------	---

PART I - TO BE COMPLETED BY ORIGINATOR

Department Env. Eng. & Tech	Section Geosciences	Unit Geochem. & Hydrochem
The following items are to be shipped from <input checked="" type="checkbox"/> Contractor <input type="checkbox"/> Vendor		
Routing EMERY		<input checked="" type="checkbox"/> Contractor <input type="checkbox"/> Vendor
Shipped to TMA/NOLCAL 2030 WRIGHT AVE RICHMOND, CA 94804	Off-site Custodian Delores Sanchez	
	Full Title	

Quantity	Description, (Include Serial and any Government Tag Numbers)	Original Cost
1 lbs.	Sample # B07QPU B07QPS B07QP6 Cooler # SML-120 Polycooler w/ ground water samples packed in wet ice and Vermiculite	
1 lbs.	Sample # B07QW9 B07QX0 B07QX1 Cooler # SML-504 Polycooler w/ groundwater samples packed in wet ice and Vermiculite	

Classified Unclassified Shipped Under DOE Contract Shipped Under Contractor's Use Permit Contract

Necessity for the Off-Site Use of this Property
Samplings support RI/FS work in the 100 areas.

Bill of lading # 251 7458

CERTIFICATION OF THE RADIATION MONITORING RELEASE MUST BE SECURED THE SAME DAY THAT MATERIAL IS DELIVERED TO SHIPPING.

RM Clearance for Public Release <i>[Signature]</i>	RM Survey No. 369	Date 12-7-92
Location of Property (Area & Bldg.) 100KR4	Contact P.H. Butcher	Phone (509) 376 5045
Date Ready for Shipment 12/7/92	Cost Code to be Charged WS1232/PL41A	Approximate Date This Property will be Returned
Originated By P.H. Butcher	Date 12/7/92	Authorized By A.J. SIMPSON A.J. Simpson
Signature and Name of Property Control	Custodian Date	Property Management Approval <i>[Signature]</i>
		Date 12/7/92

PART II - TO BE COMPLETED BY SHIPPING

Signature of Recipient <i>[Signature]</i>	Return Order No.	Date Issued	Purchase Order No.	Date Issued
Date 12/7/92				

DISTRIBUTION

By Originator White, Green, Yellow, Pink - Property Management Goldenrod - Retain	Shipping Operation - Sign all Copies and Forward to: White - Property Management Green - Property Control Custodian (Issuing Office) Yellow - Retain Pink - Originator
---	--

092

OVERNIGHT DELIVERY

9613490.2038

Signature Security Service

Contractor WHC	OFF-SITE PROPERTY CONTROL	CONTROL NUMBER (To be obtained from PROPERTY MANAGEMENT) W93-0-0059-49
-------------------	------------------------------	--

PART I - TO BE COMPLETED BY ORIGINATOR

Department Env. Eng. & Tech.	Section Geosciences	Unit Geochem. & Hydrochem.
The following items are to be shipped from <input checked="" type="checkbox"/> Contractor <input type="checkbox"/> Vendor		
Routing <u>Emery</u> <input checked="" type="checkbox"/> Contractor <input type="checkbox"/> Vendor		
Shipped to TMA/NORCAL 2030 Wright Ave. Richmond, CA 94804		Off-site Custodian Delores Sanchez
		Full Title

Quantity	Description (Include Serial and any Government Tag Numbers)	Original Cost
1 lbs.	Sample #: B07QV4 B07QV5 B07QV6 Cooler ID: 568 Polycooler with groundwater samples packed in wet ice and vermiculite	N/A
1 lbs.	Sample #: B07QK4 B07QK5 B07QK6 Cooler ID: BILLY Polycooler with groundwater samples packed in wet ice and vermiculite	N/A

Classified Unclassified Shipped Under DOE Contract Shipped Under Contractor's Use Permit Contract

Necessity for the Off-Site Use of this Property
 Sampling supports RI/FS work in the 100 ACUS

Bill of lading # 74 251900 7458

CERTIFICATION OF THE RADIATION MONITORING RELEASE MUST BE SECURED THE SAME DAY THAT MATERIAL IS DELIVERED TO SHIPPING.

RM Clearance for Public Release <u>30 At. Adv.</u>	RM Survey No. 369	Date 12-7-92
Location of Property (Area & Bldg.) 100 K4	Contact PH Butcher	Phone (509) 376-5045
Date Ready for Shipment 12/7/92	Cost Code to be Charged WB1232/PL41A	Approximate Date This Property will be Returned
Originated By P.H. Butcher	Date 12-7-92	Authorized By A. Simpson
Signature and Name of Property Control	Custodian Date	Property Management Approval Date 12/7/92

PART II - TO BE COMPLETED BY SHIPPING

Signature of Recipient <u>[Signature]</u>	Return Order No.	Date Issued	Purchase Order No.	Date Issued
Date 12 7 92				

DISTRIBUTION

By Originator White, Green, Yellow, Pink - Property Management Goldenrod - Retain	Shipping Operation - Sign all Copies and Forward to: White - Property Management Green - Property Control Custodian (Issuing Office) Yellow - Retain Pink - Originator
---	--

9613490-21089

OVERNIGHT DELIVERY

Contractor WHC	OFF-SITE PROPERTY CONTROL	CONTROL NUMBER (To be obtained from PROPERTY MANAGEMENT) W93-0-0059-48
-------------------	--------------------------------------	--

PART I - TO BE COMPLETED BY ORIGINATOR

Department Envr Eng & Tech	Section Geosciences	Unit Geochem. & Hydrochem.
The following items are to be shipped from <input checked="" type="checkbox"/> Contractor <input type="checkbox"/> Vendor		
Routing <input checked="" type="checkbox"/> Contractor <input type="checkbox"/> Vendor		
Shipped to TMA/NORCAL 2030 Wright Ave. Richmond, CA 94804	Off-site Custodian Full Title	

Quantity	Description (Include Serial and any Government Tag Numbers)	Original Cost
1 7 lbs.	Sample #: B07QN4 B07QNS B07QNB Cooler ID: NJ BOUND Polycooler with groundwater samples packed in wet ice and vermiculite	N/A
1 5 lbs.	Sample #: B07QL9 B07QMO B07QM1 Cooler ID: SML-113 Polycooler with groundwater samples packed in wet ice and vermiculite	N/A

Classified Unclassified Shipped Under DOE Contract Shipped Under Contractor's Use Permit Contract

Necessity for the Off-Site Use of this Property

Sampling supports RI/FS work in the 100 areas.

Bill of lading # 2517007458

CERTIFICATION OF THE RADIATION MONITORING RELEASE MUST BE SECURED THE SAME DAY THAT MATERIAL IS DELIVERED TO SHIPPING.

RM Clearance for Public Release <i>[Signature]</i>	RM Survey No. 369	Date 12-7-92
Location of Property (Area & Bldg.) 100 KR-4	Contact PH Butcher	Phone (509) 376-5045
Date Ready for Shipment 12/7/92	Cost Code to be Charged WB1232/PC91A	Approximate Date This Property will be Returned
Originated By PH. Butcher	Date 12/7/92	Authorized By AJ SIMPSON <i>[Signature]</i>
Signature and Name of Property Control	Custodian Date	Property Management Approval <i>[Signature]</i>
		Date 12/7/92

PART II - TO BE COMPLETED BY SHIPPING

Signature of Recipient <i>[Signature]</i>	Return Order No.	Date Issued	Purchase Order No.	Date Issued
Date 12-1-92				

DISTRIBUTION

By Originator White, Green, Yellow, Pink - Property Management Goldenrod - Retain	Shipping Operation - Sign all Copies and Forward to <i>901</i> White - Property Management Green - Property Control Custodian (Issuing Office) Yellow - Retain Pink - Originator
---	--

9613498-2190

Signature Security Service

OVERNIGHT DELIVERY

Contractor WHC	OFF-SITE PROPERTY CONTROL	CONTROL NUMBER (To be obtained from PROPERTY MANAGEMENT) W93-0-0059-47
-------------------	------------------------------	--

PART I - TO BE COMPLETED BY ORIGINATOR

Department Env. Eng. & Tech.	Section Geosciences	Unit Geochem. & Hydrochem.
The following items are to be shipped from <input checked="" type="checkbox"/> Contractor <input type="checkbox"/> Vendor		
Routing <u>Emery</u> <input checked="" type="checkbox"/> Contractor <input type="checkbox"/> Vendor		
Shipped to TMA/NORCAL 2030 Wright Ave. Richmond, CA 94804		Off-site Custodian
		Full Title

Quantity	Description, (Include Serial and any Government Tag Numbers)	Original Cost
1 9.1 lbs.	Sample #: B07QT4 B07QT5 B07QT6 Cooler ID: 5ML-110 Polycooler with groundwater samples packed in wet ice and vermiculite	N/A
1 1.7 lbs.	Sample #: B07QV9 B07QW0 B07QW1 B07QZ1 Cooler ID: 207 Polycooler with groundwater samples packed in wet ice and vermiculite	N/A

Classified Unclassified Shipped Under DOE Contract Shipped Under Contractor's Use Permit Contract

Necessity for the Off-Site Use of this Property

Sampling supports RI/FS work in the

Bill of lading # 2519007458

CERTIFICATION OF THE RADIATION MONITORING RELEASE MUST BE SECURED THE SAME DAY THAT MATERIAL IS DELIVERED TO SHIPPING.

RM Clearance for Public Release <i>DC. H. King</i>	RM Survey No. 369	Date 12-7-92
Location of Property (Area & Bldg.) 100KR-4	Contact PH Butcher	Phone (509) 376-5045
Date Ready for Shipment 12/7/92	Cost Code to be Charged WB1232/PC91A	Approximate Date This Property will be Returned
Originated By P.H. Butcher	Date 12/7/92	Authorized By A.J. Johnson Date 12/7/92
Signature and Name of Property Control	Custodian Date	Property Management Approval <i>[Signature]</i> Date 12/7/92

PART II - TO BE COMPLETED BY SHIPPING

Signature of Recipient	Return Order No.	Date Issued	Purchase Order No.	Date Issued
Date 12/1/92				

DISTRIBUTION

By Originator White, Green, Yellow, Pink - Property Management Goldenrod - Retain	Shipping Operation - Sign all Copies and Forward to: White - Property Management Green - Property Control Custodian (Issuing Office) Yellow - Retain Pink - Originator
---	--

095

9613490.2041

OVERNIGHT DELIVER 1/31/92

Signature Security Service

Contractor WHC	OFF-SITE PROPERTY CONTROL	CONTROL NUMBER (To be obtained from PROPERTY MANAGEMENT) W93-0-0059-49
--------------------------	--------------------------------------	---

PART I - TO BE COMPLETED BY ORIGINATOR

Department Env. Eng. & Tech.	Section Geosciences	Unit Geochem. & Hydrochem.
---	----------------------------	---------------------------------------

The following items are to be shipped from Contractor Vendor

Routing **Emery** Contractor Vendor

Shipped to TMA/NORCAL 2030 Wright Ave. Richmond, CA 94804	Off-site Custodian DeLores Sanchez
	Full Title

Quantity	Description (Include Serial and any Government Tag Numbers)	Original Cost
1 lbs.	Sample #: B07QV4 B07QV5 B07QV6 Cooler ID: 568 Polycooler with groundwater samples packed in wet ice and vermiculite	N/A
1 lbs.	Sample #: B07QK4 B07QK5 B07QK6 Cooler ID: BILLY Polycooler with groundwater samples packed in wet ice and vermiculite	N/A

Classified Unclassified Shipped Under DOE Contract Shipped Under Contractor's Use Permit Contract

Necessity for the Off-Site Use of this Property
Sampling supports RI/FS work in the 100A area

Bill of lading # **74 251920-7458**

CERTIFICATION OF THE RADIATION MONITORING RELEASE MUST BE SECURED THE SAME DAY THAT MATERIAL IS DELIVERED TO SHIPPING.

RM Clearance for Public Release W.H. G...	RM Survey No. 369	Date 12-7-92
Location of Property (Area & Bldg.) 100A	Contact PH Butcher	Phone (509) 376-6046
Date Ready for Shipment 2/7/92	Cost Code to be Charged W912/2/PLAIA	Approximate Date This Property will be Returned
Originated By P.H. Butcher	Date 12	Authorized By AT Simpson
Signature and Name of Property Control	Custodian Date	Property Management Approval [Signature]
		Date 12/7/92

PART II - TO BE COMPLETED BY SHIPPING

Signature of Recipient	Return Order No.	Date Issued	Purchase Order No.	Date Issued
Date				

DISTRIBUTION

By Originator White, Green, Yellow, Pink - Property Management Goldenrod - Retain	Shipping Operation - Sign all Copies and Forward to: 096 White - Property Management Green - Property Control Custodian (Issuing Office) Yellow - Retain Pink - Originator
---	---

9613490 2042
SMI-504

OVERNIGHT DELIVERY

Signature Security

Contractor WHC	OFF-SITE PROPERTY CONTROL	CONTROL NUMBER (To be obtained from PROPERTY MANAGEMENT) W93 - 0 - 005A - 50
--------------------------	--------------------------------------	---

PART I - TO BE COMPLETED BY ORIGINATOR

Department Env. Eng. & Tech	Section Geosciences	Unit Geochem. & Hydrochem
The following items are to be shipped from		<input checked="" type="checkbox"/> Contractor <input type="checkbox"/> Vendor
Routing Emergency		<input checked="" type="checkbox"/> Contractor <input type="checkbox"/> Vendor
Shipped to TMA/NUCAL 2030 WRIGHT AVE RICHMOND, CA 94804	Off-site Custodian Delores Sanchez	Full Title

Quantity	Description (Include Serial and any Government Tag Numbers)	Original Cost
1 lbs.	Sample # B07QPL B07QPS B07QP6 Cooler # SML-120 Polycooler w/ ground water samples packed in wet ice and vermiculite	
1 lbs.	Sample # B07QW9 B07QX0 B07QX1 Cooler # SML-504 polycooler w/ ground water samples packed in wet ice and vermiculite	

- Classified Unclassified Shipped Under DOE Contract Shipped Under Contractor's Use Permit Contract

Necessity for the Off-Site Use of this Property

Samples support RI/FS work in the 100 areas.

CERTIFICATION OF THE RADIATION MONITORING RELEASE MUST BE SECURED THE SAME DAY THAT MATERIAL IS DELIVERED TO SHIPPING.

Bill of lading # 251 7458

RM Clearance for Public Release	RM Survey No. 369	Date 12-7-92
Location of Property (Area & Bldg.) 100R4	Contact P.H. Buttrick	Phone (509) 376 5045
Date Ready for Shipment 12/1/92	Cost Code to be Charged W21232/PL41A	Approximate Date This Property will be Returned
Originated By P.H. Buttrick	Date 12/1/92	Authorized By J.T. SIMMONS
Signature and Name of Property Control	Custodian Date	Property Management Approval [Signature]
		Date 12/1/92

PART II - TO BE COMPLETED BY SHIPPING

Signature of Recipient	Return Order No.	Date Issued	Purchase Order No.	Date Issued
Date				

DISTRIBUTION

By Originator	Shipping Operation - Sign all Copies and Forward to: 097
White, Green, Yellow, Pink - Property Management Goldenrod - Retain	White - Property Management Green - Property Control Custodian (Issuing Office) Yellow - Retain Pink - Originator

9613490-2048
SML 2118

Signature Security Service

OVERNIGHT DELIVERY

Contractor WHC	OFF-SITE PROPERTY CONTROL	CONTROL NUMBER (To be obtained from PROPERTY MANAGEMENT) W93-0-0059-48
--------------------------	--------------------------------------	---

PART I - TO BE COMPLETED BY ORIGINATOR

Department Env Eng & Tech	Section Geosciences	Unit Geochem. & Hydrochem.
---	-------------------------------	--

The following items are to be shipped from Contractor Vendor

Routing **Emergency** Contractor Vendor

Shipped to TMA/NORCAL 2030 Wright Ave. Richmond, CA 94804	Off-site Custodian
	Full Title

Quantity	Description. (Include Serial and any Government Tag Numbers)	Original Cost
1 lbs.	Sample #: 807QNG4 807QNG5 807QNG6 Cooler ID: NJ 3UND Polycooler with groundwater samples packed in wet ice and vermiculite	N/A
1 lbs.	Sample #: 807QL7 807QMD 807QMI Cooler ID: SML-117 Polycooler with groundwater samples packed in wet ice and vermiculite	N/A

Classified Unclassified Shipped Under DOE Contract Shipped Under Contractor's Use Permit Contract

Necessity for the Off-Site Use of this Property

Sampling supports RI/FS work in the 100 areas.

Bill of lading # 2517007458

CERTIFICATION OF THE RADIATION MONITORING RELEASE MUST BE SECURED THE SAME DAY THAT MATERIAL IS DELIVERED TO SHIPPING.

RM Clearance for Public Release <i>See attached</i>	RM Survey No. 3609	Date 12-7-92
Location of Property (Area & Bldg.) WKR-4	Contact PH Butcher	Phone (509) 376-5045
Date Ready for Shipment 12/7/92	Cost Code to be Charged WB1232/PC 41A	Approximate Date This Property will be Returned
Originated By PH Butcher	Date 12/7/92	Authorized By AJ Simpson
Signature and Name of Property Control	Custodian Date	Property Management Approval [Signature]
		Date 12/7/92

PART II - TO BE COMPLETED BY SHIPPING

Signature of Recipient	Return Order No.	Date Issued	Purchase Order No.	Date Issued
Date				

DISTRIBUTION

By Originator White, Green, Yellow, Pink - Property Management Goldenrod - Retain	Shipping Operation - Sign all Copies and Forward to: 098 White - Property Management Green - Property Control Custodian (Issuing Office) Yellow - Retain Pink - Originator
---	---

9615490-2044

207

Signature Security Service

OVERNIGHT DELIVERY

Contractor WHC	OFF-SITE PROPERTY CONTROL	CONTROL NUMBER (To be obtained from PROPERTY MANAGEMENT) W93-0-0059-47
-------------------	------------------------------	--

PART I - TO BE COMPLETED BY ORIGINATOR

Department Env. Eng. & Tech.	Section Geosciences	Unit Geochem. & Hydrochem.
The following items are to be shipped from		<input checked="" type="checkbox"/> Contractor <input type="checkbox"/> Vendor
Routing Emergency		<input checked="" type="checkbox"/> Contractor <input type="checkbox"/> Vendor
Shipped to TMA/NORCAL 2030 Wright Ave. Richmond, CA 94804		Off-site Custodian
		Full Title

Quantity	Description (Include Serial and any Government Tag Numbers)	Original Cost
1 lbs.	Sample #: B079T4 B079T5 B079T6 Cooler ID: SALT 110 Polycooler with groundwater samples packed in wet ice and vermiculite	N/A
1 lbs.	Sample # B079V9 B079W0 B079W1 B079E7 Cooler ID: 207 Polycooler with groundwater samples packed in wet ice and vermiculite	N/A

Classified Unclassified Shipped Under DOE Contract Shipped Under Contractor's Use Permit Contract

Necessity for the Off-Site Use of this Property

Sampling supports FI/FS work in the

Bill of lading # 2519007458

CERTIFICATION OF THE RADIATION MONITORING RELEASE MUST BE SECURED THE SAME DAY THAT MATERIAL IS DELIVERED TO SHIPPING.

RM Clearance for Public Release <i>OK H. G. King</i>	RM Survey No. 369	Date 12-7-92
Location of Property (Area & Bldg.) S-100-6	Contact PH Butcher	Phone (509) 276-5045
Date Ready for Shipment 12/7/92	Cost Code to be Charged W01202/PC91A	Approximate Date This Property will be Returned
Originated By P. H. King	Date 12/7/92	Authorized By <i>[Signature]</i>
Signature and Name of Property Control	Custodian Date	Property Management Approval <i>[Signature]</i>
		Date 12/7/92

PART II - TO BE COMPLETED BY SHIPPING

Signature of Recipient	Return Order No.	Date Issued	Purchase Order No.	Date Issued
Date				099

DISTRIBUTION

By Originator White, Green, Yellow, Pink - Property Management Goldenrod - Retain	Shipping Operation - Sign all Copies and Forward to: White - Property Management Green - Property Control Custodian (Issuing Office) Yellow - Retain Pink - Originator
---	--

Westinghouse
Hanford Company

CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-KR-4

Collection Date 12-7-92

Ice Chest No. ~~SAL 215~~ ^{ASS 12/8/92} SML#63

Field Logbook No. EFL-1049

Bill of Lading/Airbill No. 251900741T

Offsite Property No. W93-0-0151-3

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

BO7QK9

- 3, 40ml, Gs*, WATER, CLP-VOA
- 3, 2L, aG, WATER, CLP-SEMI VOA & PCB's/PEST
- 1, 1L, P, WATER, ANIONS(IC) SO4, F, PO4, Cl/COND./pH
- 1, 500ml, P, WATER, ANIONS/NO3-NO2 (H2SO4)
- 1, 1L, G, WATER, ALK./TOT. DISSOLVED SOLIDS
- 1, 500ml, G, WATER, SULFIDE (add Zinc Acetate+NaOH pH>9)
- 1, 500ml, G, WATER, AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
- 1, 1L, P, WATER, CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
- 1, 1L, P, WATER, CLP-CN (NaOH)
- 2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90 (HNO3)
- 1, 1L, P, WATER, Tc-99 (HCl)
- 1, 250ml, Gs, WATER, TRITIUM/C-14

BO7QL0

- 1, 1L, P, WATER, CLP-ICP/AA METALS (FILTERED)/CLP-Hg (HNO3)

BO7QL1

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

[] Field Transfer of Custody		Chain of Possession	(Sign and Print Names)
Relinquished by: <i>L.D. Walker</i> <i>L.D. Walker</i>	Received by: <i>AJ SIMPSON</i> <i>AJ Simpson</i>	Date/Time: 12/8/92 0946	
Relinquished by: <i>AJ SIMPSON</i> <i>AJ Simpson</i>	Received by: <i>AIG</i>	Date/Time: 12/9/92 12:50	
Relinquished by:	Received by:	Date/Time:	
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

Collector K. Lee, L. Walker Date Sampled 12-7-92 Time 1130 hours
Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample *	Analysis Requested
BO 7QK9	3; 40ml; Gs*;	WATER	✓ CLP-VOA
	3; 2L; aG;	WATER	✓ CLP-SEMI VOA & PCB's/PEST
	1; 1L; P;	WATER	✓ ANIONS (IC) SO4, F, PO4, Cl/COND/pH
	1; 500ml; P;	WATER	✓ ANIONS/NO3-NO2 (H2SO4)
	1; 1L; G;	WATER	✓ ALK./TOT. DISSOLVED SOLIDS
	1; 500ml; G;	WATER	✓ SULFIDE (add Zinc Acetate + NaOH pH > 9)
	1; 500ml; G;	WATER	✓ AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH < 2)
	1; 1L; P;	WATER	✓ CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
	1; 1L; P;	WATER	✓ CLP-CN (NaOH)
	2; 4L; P;	WATER	✓ GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90, (HNO3)
	1; 1L; P;	WATER	Tc-99 (HCl)
	1; 250ml; Gs;	WATER	✓ TRITIUM/C-14
BO 7QL0	1; 1L; P;	WATER	✓ CLP-ICP/AA METAL (FILTERED)/CLP-Hg (HNO3)
BO 7QL1	3; 40ml; Gs	WATER	✓ CLP-VOA
			OPC: # W93-0-0151-3
			BOL: # 251900747T
			TASK#: 92-398

Field Information ** _____

Special Handling and/or Storage _____

Possible Sample Hazards _____

PART II: LABORATORY SECTION

Received by ALG Title SAMPLE CONTROL TECH Date 12/9/92
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	Telephone (509)376-5045
Company Contact PH BUTCHER	Collection Date 12/7/92
Project Designation/Sampling Locations 100-KR-4	Field Logbook No. EPL-10 P8, 12/5/92
Ice Chest No. SML-140	Offsite Property No. W93-0-00 W93-0-0151-2
Bill of Lading/Airbill No. 251900747T	
Method of Shipment EMERY	
Shipped to TMA	
Possible Sample Hazards/Remarks N/A	

Sample Identification

B07QL4

- 3, 40ml, Gs*, WATER, CLP-VOA
- 3, 2L, aG, WATER, CLP-SEMI VOA & PCB's/PEST
- 1, 1L, P, WATER, ANIONS(IC) SO4, F, PO4, Cl/COND./pH
- 1, 500ml, P, WATER, ANIONS/NO3-NO2 (H2SO4)
- 1, 1L, G, WATER, ALK./TOT. DISSOLVED SOLIDS
- 1, 500ml, G, WATER, SULFIDE (add Zinc Acetate+NaOH pH>9)
- 1, 500ml, G, WATER, AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
- 1, 1L, P, WATER, CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
- 1, 1L, P, WATER, CLP-CN (NaOH)
- 2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90 (HNO3)
- 1, 1L, P, WATER, Tc-99 (HCl)
- 1, 250ml, Gs, WATER, TRITIUM/C-14

B07QL5

- 1, 1L, P, WATER, CLP-ICP/AA METALS (FILTERED)/CLP-Hg (HNO3)

*** B07QL6**

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

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: <i>Wally Lee Kain</i>	Received by: AJ SIMPSON <i>AJ Simpson</i>	Date/Time: 12/8/92 0943
Relinquished by: AJ SIMPSON <i>AJ Simpson</i>	Received by: <i>AIG</i>	Date/Time: 12/9/92 12:50
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition		
Disposal Method:	Disposed by:	Date/Time:
Comments:		

*** Two vials B07QL6 received @ TMA/Norcal with bubbles. KB**



Westinghouse
Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K. Lee, L. Walker Date Sampled 12/7/92 Time 1030 hours
 Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample *	Analysis Requested
B07QL4	✓ 3; 40ml; Gs*;	WATER	CLP-VOA
	✓ 3; 2L; aG;	WATER	CLP-SEMI VOA & PCB's/PEST
	✓ 1; 1L; P;	WATER	ANIONS (IC) SO4, F, PO4, Cl/COND/pH
	✓ 1; 500ml; P;	WATER	ANIONS/NO3-NO2 (H2SO4)
	✓ 1; 1L; G;	WATER	ALK./TOT. DISSOLVED SOLIDS
	✓ 1; 500ml; G;	WATER	SULFIDE (add Zinc Acetate + NaOH pH > 9)
	✓ 1; 500ml; G;	WATER	AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH < 2)
	✓ 1; 1L; P;	WATER	CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
	✓ 1; 1L; P;	WATER	CLP-CN (NaOH)
	✓ 2; 4L; P;	WATER	GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90, (HNO3)
	✓ 1; 1L; P;	WATER	Tc-99 (HCl)
	✓ 1; 250ml; Gs;	WATER	TRITIUM/C-14
B07QL5	✓ 1; 1L; P;	WATER	CLP-ICP/AA METAL (FILTERED)/CLP-Hg (HNO3)
B07QL6	✓ 3; 40ml; Gs	WATER	CLP-VOA <i>bubbled on two vials</i> OPC: # W93-0-0151-2 BOL: # 251900747T TASK#: 92-398

Field Information ** _____

Special Handling and/or Storage _____

Possible Sample Hazards _____

PART II: LABORATORY SECTION

Received by AIG Title SAMPLE control track Date 12/30

Analysis Required _____

* Indicate whether sample is soil, sludge, water, etc.
 ** Use back of page for additional information relative to sample location.

Westinghouse
Hanford Company

CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Project Designation/Sampling Locations 100-KR-4

Ice Chest No. *SML-245*

Bill of Lading/Airbill No. *251900747T*

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Telephone (509)376-5045

Collection Date *12/7/92*

Field Logbook No. *EFL-1049*

Offsite Property No. *W93-0-0151-3*

Sample Identification

B07Q14

- 3, 40ml, Gs*, WATER, CLP-VOA
- 3, 2L, aG, WATER, CLP-SEMI VOA & PCB's/PEST
- 1, 1L, P, WATER, ANIONS(IC) SO4, F, PO4, C1/COND./pH
- 1, 500ml, P, WATER, ANIONS/NO3-NO2 (H2SO4)
- 1, 1L, G, WATER, ALK./TOT. DISSOLVED SOLIDS
- 1, 500ml, G, WATER, SULFIDE (add Zinc Acetate+NaOH pH>9)
- 1, 500ml, G, WATER, AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
- 1, 1L, P, WATER, CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
- 1, 1L, P, WATER, CLP-CN (NaOH)
- 2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90 (HNO3)
- 1, 1L, P, WATER, Tc-99 (HCl)
- 1, 250ml, Gs, WATER, TRITIUM/C-14

B07Q15

- 1, 1L, P, WATER, CLP-ICP/AA METALS (FILTERED)/CLP-Hg (HNO3)

B07Q16

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

[] Field Transfer of Custody		Chain of Possession	(Sign and Print Names)
Relinquished by: <i>Kathy Decker K.D. Lee</i>	Received by: <i>AJ SIMPSON</i> <i>AJ Simpson</i>	Date/Time: <i>12/8/92 0950</i>	
Relinquished by: <i>AJ SIMPSON</i> <i>AJ Simpson</i>	Received by: <i>ALG</i>	Date/Time: <i>12/9/92 12:50</i>	
Relinquished by:	Received by:	Date/Time:	
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

Collector K. Lee, L. Walker Date Sampled 12/7/92 Time 1300 hours
 Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B07Qm4	✓3; 40ml; Gs*;	WATER	CLP-VOA
	✓3; 2L; aG;	WATER	CLP-SEMI VOA & PCB's/PEST
	✓1; 1L; P;	WATER	ANIONS (IC) SO4, F, PO4, Cl/COND/pH
	✓1; 500ml; P;	WATER	ANIONS/NO3-NO2 (H2SO4)
	✓1; 1L; G;	WATER	ALK./TOT. DISSOLVED SOLIDS
	✓1; 500ml; G;	WATER	SULFIDE (add Zinc Acetate + NaOH pH > 9)
	✓1; 500ml; G;	WATER	AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH < 2)
	✓1; 1L; P;	WATER	CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
	✓1; 1L; P;	WATER	CLP-CN (NaOH)
	✓2; 4L; P;	WATER	GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90, (HNO3)
	✓1; 1L; P;	WATER	Tc-99 (HCl)
	✓1; 250ml; Gs;	WATER	TRITIUM/C-14
B07Qm5	✓1; 1L; P;	WATER	CLP-ICP/AA METAL (FILTERED)/CLP-Hg (HNO3)
B07Qm6	✓3; 40ml; Gs	WATER	CLP-VOA
			OPC: # W93-0-0151-3
			BOL: # 291900747T
			TASK#: 92-398

Field Information** _____

Special Handling and/or Storage _____

Possible Sample Hazards _____

PART II: LABORATORY SECTION

Received by ALG Title SAMPLE control tech Date 12-9-92
 Analysis Required _____

* Indicate whether sample is soil, sludge, water, etc.
 ** Use back of page for additional information relative to sample location.

Westinghouse
Hanford Company

CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER
 Company Contact PH BUTCHER
 Project Designation/Sampling Locations 100-KR-4
 Ice Chest No. *SML-242*
 Bill of Lading/Airbill No. *251906747T*
 Method of Shipment EMERY
 Shipped to TMA
 Possible Sample Hazards/Remarks N/A

Telephone (509)376-5045
 Collection Date *12/7/92*
 Field Logbook No. *EFL-1049*
 Offsite Property No. *W93-0-0151-2*

Sample Identification

B07QX4

- 3, 40ml, Gs*, WATER, CLP-VOA
- 3, 2L, aG, WATER, CLP-SEMI VOA & PCB's/PEST
- 1, 1L, P, WATER, ANIONS(IC) SO4, F, PO4, Cl/COND./pH
- 1, 500ml, P, WATER, ANIONS/NO3-NO2 (H2SO4)
- 1, 1L, G, WATER, ALK./TOT. DISSOLVED SOLIDS
- 1, 500ml, G, WATER, SULFIDE (add Zinc Acetate+NaOH pH>9)
- 1, 500ml, G, WATER, AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
- 1, 1L, P, WATER, CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
- 1, 1L, P, WATER, CLP-CN (NaOH)
- 2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90 (HNO3)
- 1, 1L, P, WATER, Tc-99 (HCl)
- 1, 250ml, Gs, WATER, TRITIUM/C-14

B07QX5

- 1, 1L, P, WATER, CLP-ICP/AA METALS (FILTERED)/CLP-Hg (HNO3)

* **B07QX6**

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

[] Field Transfer of Custody		Chain of Possession	(Sign and Print Names)
Relinquished by: <i>Kathy Sheer K.D. Lee</i>	Received by: <i>AJ SIMPSON</i> <i>AJ Simpson</i>	Date/Time: <i>12/8/92</i> <i>0938</i>	
Relinquished by: <i>AJ SIMPSON</i> <i>AJ Simpson</i>	Received by: <i>ALG</i>	Date/Time: <i>12/9/92</i>	
Relinquished by:	Received by:	Date/Time:	
Relinquished by:	Received by:	Date/Time:	
Final Sample Disposition			
Disposal Method:	Disposed by:	Date/Time:	
Comments:			

* ONE vial B07QX6 broken en route to TMA/NORCAL - KB

9613490.2052



Westinghouse
Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K. Lee, L. Walker

Date Sampled 12/7/92 Time 1300 hours

Company Contact P. H. Butcher

Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B07QX4	3; 40ml; Gs*;	WATER	✓ CLP-VOA
	3; 2L; aG;	WATER	✓ CLP-SEMI VOA & PCB's/PEST
	1; 1L; P;	WATER	✓ ANIONS (IC) SO4, F, PO4, Cl/COND/pH
	1; 500ml; P;	WATER	✓ ANIONS/NO3-NO2 (H2SO4)
	1; 1L; G;	WATER	✓ ALK./TOT. DISSOLVED SOLIDS
	1; 500ml; G;	WATER	✓ SULFIDE (add Zinc Acetate + NaOH pH > 9)
	1; 500ml; G;	WATER	✓ AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH < 2)
	1; 1L; P;	WATER	✓ CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
	1; 1L; P;	WATER	✓ CLP-CN (NaOH)
	2; 4L; P;	WATER	✓ GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90, (HNO3)
	1; 1L; P;	WATER	✓ Tc-99 (HCl)
	1; 250ml; Gs;	WATER	✓ TRITIUM/C-14
BO 7QX5	1; 1L; P;	WATER	CLP-ICP/AA METAL (FILTERED)/CLP-Hg (HNO3)
B07QX6	3; 40ml; Gs	WATER	✓ CLP-VOA {I think was en route to TMA/Norcal?} OPC: # W93-0-0151-2 BOL: # 251900747 T TASK#: 92-398

Field Information**

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by AIG

Title Sample contact

Date 12.4.92

Analysis Required

107

* Indicate whether sample is soil, sludge, water, etc.

** Use back of page for additional information relative to sample location.

FORM OF PAYMENT

SERVICES*

INTERNATIONAL

check C&L RCOOD

UNITED STATES: Same Day (Extra Charges) AM Second Day Express Standard-Plus Preferred Standard Saturday Delivery



Shipper's Account Number
050281585

Date: 12/1/02 Origin: PSC
Shipment Number: 251900747

WESTINGHOUSE SHIPPING DEPT (509) 376-6665
U.S. DEPARTMENT OF ENERGY C/O

To: DELORES SANCHEZ

WESTINGHOUSE HANDED
BLDG 1143
2355 STEVENS DRIVE

TMA/NORCAL
130 WRIGHT AVENUE

RICHLAND WA

CHMOND CA

Customer's Reference Numbers
W81232 PC41A W93-0-0151#2/3 99352

Consignee's Account Number
9480A

Description	Qty	Unit	Net Weight	Total Weight
2 POLYCOOLERS WATER SAMPLES SML-63	2		17	34
246-245				

FOR INFORMATION OR RATE CALL 1-800 44 EMERY (1-800-443-6379)



OVERNIGHT DELIVERY SECURITY SIGNATURE SERVICE

Zip-Ship Mark if Emery Packaging is used
For shipments within the 50 United States, Shipper has the option to check this box and, by checking, agrees that the Zip Ship conditions described in the area to the right, apply.
Urgent Letter 9X12 Urgent Pack 12X15

Shipper's Signature X [Signature]

International Shipments Third Party Account Number [E]

Free Domicile Commodity Code [E]

International Customs Value [] International Insurance []

Base Charge [] Total Transportation Charges [] Other Charges/Advance at Origin (CCAO) \$ []

1-OAK-A
Terms and Conditions on Back

9613190-2054

Signature Security Service

OVERNIGHT

SML-64

Contractor WHC	OFF-SITE PROPERTY CONTROL	CONTROL NUMBER (To be obtained from PROPERTY MANAGEMENT) W93-0-0151-3
-------------------	--------------------------------------	--

PART I - TO BE COMPLETED BY ORIGINATOR

Department Env. Eng. & Tech.	Section Geosciences	Unit Geochem. & Hydrochem.
---	----------------------------	---------------------------------------

The following items are to be shipped from	<input checked="" type="checkbox"/> Contractor	<input type="checkbox"/> Vendor
Routing Emery	<input checked="" type="checkbox"/> Contractor	<input type="checkbox"/> Vendor

Shipped to TMA/NORCAL 2030 Wright Ave. Richmond, CA 94804	Off-site Custodian
	Full Title

Quantity	Description (Include Serial and any Government Tag Numbers)	Original Cost
1 88 lbs.	Sample #: 807QK9 807QL0 807QL1 Cooler ID: SML #63 Polycooler with groundwater samples packed in wet ice and vermiculite	N/A
1 46 lbs.	Sample #: 807QM4 807QM5 807QM6 Cooler ID: SML-745 Polycooler with groundwater samples packed in wet ice and vermiculite	N/A

Classified Unclassified Shipped Under DOE Contract Shipped Under Contractor's Use Permit Contract

Necessity for the Off-Site Use of this Property

Sampling supports RI/FS work in the 100 area

Bill of lading # **251900747T**

CERTIFICATION OF THE RADIATION MONITORING RELEASE MUST BE SURED THE SAME DAY THAT MATERIAL IS DELIVERED TO SHIPPING.

RM Clearance for Public Release	Survey No. # 369	Date 12-8-92
Location of Property (Area & Bldg.) 100KR 4	Contact PH Itcher	Phone (509) 376-5041
Date Ready for Shipment 12/8/92	Cost Code to be Charged H01-01 PC01A	Approximate Date This Property will be Returned N/A
Originated By P.H. Butler	Date	Authorized By I.J. SIMPSON
Signature and Name of Property Control	Custodian Date Property Management Approval	Date 12/8/92

PART II - TO BE COLETED BY SHIPPING

Signature of Recipient <i>[Signature]</i>	Return Order No.	Date Issued	Purchase Order No.	Date Issued
Date 12-8-92				109

DISTRITION

By Originator	Shipping Operation - Sign all Copies and Forward to:
White, Green, Yellow, Pink - Property Management	Property Management Green - Property Control Custodian (Issuing Office)
Goldendred	Pink - Originator

OVERNIGHT DELIVERY

SML-242

Signature Security Service

Contractor WHC	OFF-SITE PROPERTY CONTROL	CONTROL NUMBER (To be obtained from PROPERTY MANAGEMENT) W93-0-0151-2
-------------------	------------------------------	---

PART I - TO BE COMPLETED BY ORIGINATOR

Department Env. Eng. & Tech.	Section Geosciences	Unit Geochem. & Hydrochem.
------------------------------	---------------------	----------------------------

The following items are to be shipped from Contractor Vendor

Routing Emery Contractor Vendor

Shipped to TMA/NORCAL 2030 Wright Ave. Richmond, CA 94804	Off-site Custodian
	Full Title

Quantity	Description (Include Serial and any Government Tag Numbers)	Original Cost
1 85 lbs.	Sample #: B07QXA B07QX5 B07QX6 Cooler ID: SML-242 Polycooler with groundwater samples packed in wet ice and vermiculite	N/A
1 84 lbs.	Sample #: B07QL4 B07QL5 B07QL6 Cooler ID: SML-140 Polycooler with groundwater samples packed in wet ice and vermiculite	N/A

Classified Unclassified Shipped Under DOE Contract Shipped Under Contractor's Use Permit Contract

Necessity for the Off-Site Use of this Property
Sampling supports RI/FS work in the 100 acres.

Bill of lading # 251900747T

CERTIFICATION OF THE RADIATION MONITORING RELEASE MUST BE SECURED THE SAME DAY THAT MATERIAL IS DELIVERED TO SHIPPING.

RM Clearance for Public Release <i>Robert King</i>	RM Survey No. # 369	Date 12-8-92
Location of Property (Area & Bldg.) 100KR 2	Contact PH Bulcher	Phone (509) 376-5040
Date Ready for Shipment 12/8/92	Cost Code to be Charged WB1200/PCA1A	Approximate Date This Property will be Returned N/A
Originated By <i>P.H. Bulcher</i>	Date	Authorized By <i>J. Simpson</i>
Signature and Name of Property Control	Custodian Date	Property Management Approval <i>[Signature]</i>
		Date 12/8/92

PART II - TO BE COMPLETED BY SHIPPING

Signature of Recipient <i>[Signature]</i>	Return Order No.	Date Issued	Purchase Order No.	Date Issued
Date 12 8 92				

DISTRIBUTION

By Originator White, Green, Yellow, Pink - Property Management Goldenrod - Retain	Shipping Operation - Sign all Copies and Forward to: White - Property Management Green - Property Control Custodian (Issuing Office) Yellow - Retain Pink - Originator
---	--

110

OVERNIGHT DELIVERY

9613490 2058
SML-142

Signature Security Service

Contractor NHC	OFF-SITE PROPERTY CONTROL	CONTROL NUMBER (To be obtained from PROPERTY MANAGEMENT) W93-0-0151-2
-------------------	--------------------------------------	--

PART I - TO BE COMPLETED BY ORIGINATOR

Department Env. Eng. & Tech.	Section Geosciences	Unit Geochem. & Hydrochem.
---	----------------------------	---------------------------------------

The following items are to be shipped from Contractor Vendor

Routing **Emergency** Contractor Vendor

Shipped to TMA/NORCAL 2030 Wright Ave. Richmond, CA 94804	Off-site Custodian
	Full Title

Quantity	Description, (Include Serial and any Government Tag Numbers)	Original Cost
1 5 lbs.	Sample #: B07QXA B07QX5 B07QX6 Cooler ID: SML-242 Polycooler with groundwater samples packed in wet ice and vermiculite	N/A
1 9 lbs.	Sample #: B07QL4 B07QL5 B07QL6 Cooler ID: SML-140 Polycooler with groundwater samples packed in wet ice and vermiculite	N/A

Classified Unclassified Shipped Under DOE Contract Shipped Under Contractor's Use Permit Contract

Necessity for the Off-Site Use of this Property

Sampling supports RI/FS work in the 100 acres.

BILL of lading # 251900747T

CERTIFICATION OF THE RADIATION MONITORING RELEASE MUST BE SECURED THE SAME DAY THAT MATERIAL IS DELIVERED TO SHIPPING.

RM Clearance for Public Release	RM Survey No. # <u>69</u>	Date <u>12-8-92</u>
Location of Property (Area & Bldg.) <u>100KR 2</u>	Contact <u>MI Batcher</u>	Phone <u>(500) 376 4431</u>
Date Ready for Shipment <u>12/8/92</u>	Cost Code to be Charged <u>WB12 PCAIA</u>	Approximate Date This Property will be Returned <u>N/A</u>
Originated By <u>Phil Miller</u>	Date	Authorized By <u>AS SIMPSON</u>
Signature and Name of Property Control	Custodian Date	Property Management Approval <u>[Signature]</u>
		Date <u>12/8/92</u>

PART II - TO BE COMPLETED BY SHIPPING

Signature of Recipient <u>[Signature]</u>	Return Order No.	Date Issued	Purchase Order No.	Date Issued
Date <u>12/8/92</u>				

DISTRIBUTION

111

By Originator White, Green, Yellow, Pink - Property Management Goldenrod - Retain	Shipping Operation - Sign all Copies and Forward to: White - Property Management Yellow - Retain	Green - Property Control Custodian (Issuing Office) Pink - Originator
---	--	--

OVERNIGHT

SMC 2433490.2057 SMC

Contractor WHC	OFF-SITE PROPERTY CONTROL	CONTROL NUMBER (To be obtained from PROPERTY MANAGEMENT) W93-0-0151-3
-------------------	--------------------------------------	---

PART I - TO BE COMPLETED BY ORIGINATOR

Department Env. Eng. & Tech.	Section Geosciences	Unit Geochem. & Hydrochem.
------------------------------	---------------------	----------------------------

The following items are to be shipped from Contractor Vendor

Routing Emery Contractor Vendor

Shipped to TMA/NORCAL 2030 Wright Ave. Richmond, CA 94804	Off-site Custodian
	Full Title

Quantity	Description (Include Serial and any Government Tag Numbers)	Original Cost
1 38 lbs.	Sample #: 8079K9 B079L0 B079L1 Cooler ID: SMC # 63 Polycooler with groundwater samples packed in wet ice and vermiculite	N/A
1 16 lbs.	Sample #: 8079M4 B079M5 B079M6 Cooler ID: SMC 749 Polycooler with groundwater samples packed in wet ice and vermiculite	N/A

Classified Unclassified Shipped Under DOE Contract Shipped Under Contractor's Use Permit Contract

Necessity for the Off-Site Use of this Property

Sampling supports RI/FS work in the 100 areas

Bill of Lading # 251906747T

CERTIFICATION OF THE RADIATION MONITORING RELEASE MUST BE SECURED THE SAME DAY THAT MATERIAL IS DELIVERED TO SHIPPING.

RM Clearance for Public Release <i>AC, H. King</i>	RM Survey No. # 369	Date 12-8-92
Location of Property (Area & Bldg.) 100 K 2	Contact EM Batcher	Phone (800) 370-5041
Date Ready for Shipment 12/1/92	Cost Code to be Charged W93-0-DC01A	Approximate Date This Property will be Returned 2/93
Originated By <i>M.H. King</i>	Date	Authorized By <i>MS GURON</i>
Signature and Name of Property Control	Custodian Date	Property Management Approval
		Date 12/1/92

PART II - TO BE COMPLETED BY SHIPPING

Signature of Recipient	Return Order No.	Date Issued	Purchase Order No.	Date Issued
Date				

DISTRIBUTION

112

By Originator White, Green, Yellow, Pink - Property Management Goldenrod - Retain	Shipping Operation - Sign all Copies and Forward to: White - Property Management Yellow - Retain	Green - Property Control Custodian (Issuing Office) Pink - Originator
---	--	--

9613490-2050

OVERNIGHT DELIVERY

Contractor MHC	OFF-SITE PROPERTY CONTROL	CONTROL NUMBER (To be obtained from PROPERTY MANAGEMENT) W93-0-0151-54
-------------------	------------------------------	--

PART I - TO BE COMPLETED BY ORIGINATOR

Department Env. Eng. & Tech.	Section Geoscience	Unit Geochem. & Hydrochem.
------------------------------	--------------------	----------------------------

The following items are to be shipped from Contractor Vendor

Routing Emery Contractor Vendor

Shipped to TMA/NORCAL 2030 Wright Ave. Richmond, CA 94804	Off-site Custodian
--	--------------------

Quantity	Description (Include Serial and any Government Tag Numbers)	Original Cost
1 84 lbs.	Sample #: B07929, B07R00, B07R01 Cooler ID: C-2 Polycooler with groundwater samples packed in wet ice and vermiculite	N/A
1 82 lbs.	Sample #: B07QW4, B07QW5, B07QW6 Cooler ID: SML 193 Polycooler with groundwater samples packed in wet ice and vermiculite	N/A

Classified Unclassified Shipped Under DOE Contract Shipped Under Contractor's Use Permit Contract

Necessity for the Off-Site Use of this Property:
Sampling supports RI/FS work in the

Bill of lading # 251-900-7370

CERTIFICATION OF THE RADIATION MONITORING RELEASE MUST BE SECURED THE SAME DAY THAT MATERIAL IS DELIVERED TO SHIPPING.

RM Clearance for Public Release <i>[Signature]</i>	RM Survey No. 369	Date 12/9/92
Location of Property (Area & Bldg.) 300AREN 11L 370	Contact PH Butcher	Phone (503) 376-5045
Date Ready for Shipment 12-9-92	Cost Code to be Charged WB12327 PC 11A	Approximate Date This Property will be Returned N/A
Originated By <i>[Signature]</i>	Date 12-9-92	Authorized By <i>[Signature]</i>
Signature and Name of Property Control	Custodian Date	Property Management Approval <i>[Signature]</i>
		Date 9 Dec 92

PART II - TO BE COMPLETED BY SHIPPING

Signature of Recipient <i>[Signature]</i>	Return Order No.	Date Issued	Purchase Order No.	Date Issued
Date 12-9-92				

DISTRIBUTION

By Originator White, Green, Yellow, Pink - Property Management Goldenrod - Retain	Shipping Operation - Sign all Copies and Forward to: White - Property Management Green - Property Control Custodian (Issuing Office) Yellow - Retain Pink - Originator
---	--

113

8613490-2059

Overnight delivery 1/20/92

Contractor WHC	OFF-SITE PROPERTY CONTROL	CONTROL NUMBER (To be obtained from PROPERTY MANAGEMENT) W93-0-0151-7
-------------------	------------------------------	---

PART I - TO BE COMPLETED BY ORIGINATOR

Department Env. Eng. & Tech.	Section Geosciences	Unit Geochem. & Hydrochem.
------------------------------	---------------------	----------------------------

The following items are to be shipped from Contractor Vendor

Routing **Emergency** Contractor Vendor

Shipped to TMA/NORCAL 2030 Wright Ave. Richmond, CA 94804	Off-site Custodian
	Full Title

Quantity	Description (Include Serial and any Government Tag Numbers)	Original Cost
1 2 lbs.	Sample #: B07Q24, B07Q25, B07Q41 Cooler ID: SML-17 Polycooler with groundwater samples packed in wet ice and vermiculite	N/A
1 45 lbs.	Sample #: B07Q24, B07Q25, B07Q29 Cooler ID: SML-263 Polycooler with groundwater samples packed in wet ice and vermiculite	N/A

Classified Unclassified Shipped Under DOE Contract Shipped Under Contractor's Use Permit Contract

Necessity for the Off-Site Use of this Property

Sampling supports RI/FS work in the

11/22/92
12 0-11

Bill of lading # 251900760-1

CERTIFICATION OF THE RADIATION MONITORING RELEASE MUST BE SECURED THE SAME DAY THAT MATERIAL IS DELIVERED TO SHIPPING.

RM Clearance for Public Release	RM Survey No.	Date
Location of Property (Area & Bldg.) 100-KR-4	Contact PH Butcher	Phone (909) 376-5045
Date Ready for Shipment 12/10/92	Cost Code to be Charged WB1250 FC41A	Approximate Date This Property will be Returned N/A
Originated By K. J. ...	Date 12/10/92	Authorized By PH Butcher
Signature and Name of Property Control	Custodian Date	Property Management Approval Date 12/14/92

PART II - TO BE COMPLETED BY SHIPPING

Signature of Recipient K. J. ...	Return Order No.	Date Issued	Purchase Order No.	Date Issued
Date 12/13/92				

DISTRIBUTION

114

By Originator White, Green, Yellow, Pink - Property Management Goldenrod - Retain	Shipping Operation - Sign all Copies and Forward to: White - Property Management Green - Property Control Custodian (Issuing Office) Yellow - Retain Pink - Originator
---	--

Westinghouse
Hanford Company

CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Project Designation/Sampling Locations 100-KR-4

Ice Chest No. SHL-203

Bill of Lading/Airbill No. 251960760-1

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Telephone (509)376-5045

Collection Date 12-9-92

Field Logbook No. EFL-1049

Offsite Property No. W93-0-0151-6

Sample Identification

B07QR4

- 3, 40ml, Gs*, WATER, CLP-VOA
- 3, 2L, aG, WATER, CLP-SEMI VOA & PCB's/PEST
- 1, 1L, P, WATER, ANIONS(IC) SO4, F, PO4, Cl/COND./pH
- 1, 500ml, P, WATER, ANIONS/NO3-NO2 (H2SO4)
- 1, 1L, G, WATER, ALK./TOT. DISSOLVED SOLIDS
- 1, 500ml, G, WATER, SULFIDE (add Zinc Acetate+NaOH pH>9)
- 1, 500ml, G, WATER, AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
- 1, 1L, P, WATER, CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
- 1, 1L, P, WATER, CLP-CN (NaOH)
- 2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90 (HNO3)
- 1, 1L, P, WATER, Tc-99 (HCl)
- 1, 250ml, Gs, WATER, TRITIUM/C-14

B07QR5

- 1, 1L, P, WATER, CLP-ICP/AA METALS (FILTERED)/CLP-Hg (HNO3)

B07QR6

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

[] Field Transfer of Custody		Chain of Possession	(Sign and Print Names)
Relinquished by: L.D. Walker <i>L.D. Walker</i>	Received by: Rcfriq. # 1	Date/Time: 12-9-92 / 1615	
Relinquished by:	Received by: K. Trapp / K. Trapp	Date/Time: 12/10/92 0900	
Relinquished by: K. Trapp / K. Trapp	Received by: Alfonso Hobas	Date/Time: 12/11/92 3:50	
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

Collector K. Lee, L. Walker Date Sampled 12-9-92 Time 1300 hours
Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
BO 7QR4	✓ 3; 40ml; Gs*;	WATER	CLP-VOA
	✓ 3; 2L; aG;	WATER	CLP-SEMI VOA & PCB's/PEST
	✓ 1; 1L; P;	WATER	ANIONS (IC) SO4, F, PO4, Cl/COND/pH
	✓ 1; 500ml; P;	WATER	ANIONS/NO3-NO2 (H2SO4)
	✓ 1; 1L; G;	WATER	ALK./TOT. DISSOLVED SOLIDS
	✓ 1; 500ml; G;	WATER	SULFIDE (add Zinc Acetate + NaOH pH > 9)
	✓ 1; 500ml; G;	WATER	AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH < 2)
	✓ 1; 1L; P;	WATER	CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
	✓ 1; 1L; P;	WATER	CLP-CN (NaOH)
	✓ 2; 4L; P;	WATER	GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90, (HNO3)
	✓ 1; 1L; P;	WATER	Tc-99 (HCl)
	✓ 1; 250ml; Gs;	WATER	TRITIUM/C-14
BO 7QR5	✓ 1; 1L; P;	WATER	CLP-ICP/AA METAL (FILTERED)/CLP-Hg (HNO3)
BO 7QR6	✓ 3; 40ml; Gs	WATER	CLP-VOA
			OPC: # W93-0-0151-6
			BOL: # 251900760-1
			TASK#: 92-398

Field Information **

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Alfonso Robles Title Sample Control Technician Date 12/11/92
Analysis Required _____ 116

* Indicate whether sample is soil, sludge, water, etc.

** Use back of page for additional information relative to sample location.

Westinghouse Hanford Company	CHAIN OF CUSTODY
Custody Form Initiator PH BUTCHER	Telephone (509)376-5045
Company Contact PH BUTCHER	Collection Date 12-9-92
Project Designation/Sampling Locations 100-KR-4	Field Logbook No. EFL-1049
Ice Chest No. SML-263	Offsite Property No. W93-0-0151-7
Bill of Lading/Airbill No. 251900760-1	
Method of Shipment EMERY	
Shipped to TMA	
Possible Sample Hazards/Remarks N/A	

Sample Identification

BO7QR9

- 3, 40ml, Gs*, WATER, CLP-VOA
- 3, 2L, aG, WATER, CLP-SEMI VOA & PCB's/PEST
- 1, 1L, P, WATER, ANIONS(IC) SO4, F, PO4, C1/COND./pH
- 1, 500ml, P, WATER, ANIONS/NO3-NO2 (H2SO4)
- 1, 1L, G, WATER, ALK./TOT. DISSOLVED SOLIDS
- 1, 500ml, G, WATER, SULFIDE (add Zinc Acetate+NaOH pH>9)
- 1, 500ml, G, WATER, AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
- 1, 1L, P, WATER, CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
- 1, 1L, P, WATER, CLP-CN (NaOH)
- 2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90 (HNO3)
- 1, 1L, P, WATER, Tc-99 (HCl)
- 1, 250ml, Gs, WATER, TRITIUM/C-14

BO7Q50

- 1, 1L, P, WATER, CLP-ICP/AA METALS (FILTERED)/CLP-Hg (HNO3)

BO7Q51

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

<input type="checkbox"/> Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: <i>L.D. Walker</i> <i>L.D. Walker</i>	Received by: <i>ReFrig. #2</i>	Date/Time: <i>12-9-92 / 1620</i>
Relinquished by:	Received by: <i>K. Trapp / K. Trapp</i>	Date/Time: <i>12/10/92 0900</i>
Relinquished by: <i>K. Trapp / K. Trapp</i>	Received by: <i>Alfon G. G. G.</i>	Date/Time: <i>12-11-92 3:50 PM</i>
Relinquished by:	Received by:	Date/Time:
Final Sample Disposition		
Disposal Method:	Disposed by:	Date/Time:
Comments:		

9613490.2063



Westinghouse
Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K. Lee, L. Walker Date Sampled 12-9-92 Time 1130 hours
Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample *	Analysis Requested
B07QR9	✓ 3; 40ml; Gs*;	WATER	CLP-VOA
	✓ 3; 2L; aG;	WATER	CLP-SEMI VOA & PCB's/PEST
	✓ 1; 1L; P;	WATER	ANIONS (IC) SO4, F, PO4, Cl/COND/pH
	✓ 1; 500ml; P;	WATER	ANIONS/NO3-NO2 (H2SO4)
	✓ 1; 1L; G;	WATER	ALK./TOT. DISSOLVED SOLIDS
	✓ 1; 500ml; G;	WATER	SULFIDE (add Zinc Acetate + NaOH pH > 9)
	✓ 1; 500ml; G;	WATER	AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH < 2)
	✓ 1; 1L; P;	WATER	CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
	✓ 1; 1L; P;	WATER	CLP-CN (NaOH)
	✓ 2; 4L; P;	WATER	GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90, (HNO3)
	✓ 1; 1L; P;	WATER	Tc-99 (HCl)
	✓ 1; 250ml; Gs;	WATER	TRITIUM/C-14
B07QSD	✓ 1; 1L; P;	WATER	CLP-ICP/AA METAL (FILTERED)/CLP-Hg (HNO3)
B07QSI	✓ 3; 40ml; Gs	WATER	CLP-VOA
			OPC: # W93-0-0151-7
			BOL: # 251900760-1
			TASK#: 92-398

Field Information ** _____

Special Handling and/or Storage _____

Possible Sample Hazards _____

PART II: LABORATORY SECTION

Received by [Signature] Title TECHNICIAN Date 12/11/92

Analysis Required _____

118

* Indicate whether sample is soil, sludge, water, etc.
** Use back of page for additional information relative to sample location.

Westinghouse Hanford Company	<h2 style="margin: 0;">CHAIN OF CUSTODY</h2>
Custody Form Initiator PH BUTCHER Company Contact PH BUTCHER Project Designation/Sampling Locations 100-KR-4 Ice Chest No. SMASH Bill of Lading/Airbill No. 251900760-1 Method of Shipment EMERY Shipped to TMA Possible Sample Hazards/Remarks N/A	Telephone (509)376-5045 Collection Date 12-8-92 ^{2w} 12-9-92 Field Logbook No. EFL-1049 Offsite Property No. W93-0-0151-6

Sample Identification

BO7Q54

- 3, 40ml, Gs*, WATER, CLP-VOA
- 3, 2L, aG, WATER, CLP-SEMI VOA & PCB's/PEST
- 1, 1L, P, WATER, ANIONS(IC) SO4, F, PO4, Cl/COND./pH
- 1, 500ml, P, WATER, ANIONS/NO3-NO2 (H2SO4)
- 1, 1L, G, WATER, ALK./TOT. DISSOLVED SOLIDS
- 1, 500ml, G, WATER, SULFIDE (add Zinc Acetate+NaOH pH>9)
- 1, 500ml, G, WATER, AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
- 1, 1L, P, WATER, CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
- 1, 1L, P, WATER, CLP-CN (NaOH)
- 2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC(U-235/238, Pu-239/240, Am-241), Sr-90 (HNO3)
- 1, 1L, P, WATER, Tc-99 (HCl)
- 1, 250ml, Gs, WATER, TRITIUM/C-14

BO7Q55

- 1, 1L, P, WATER, CLP-ICP/AA METALS (FILTERED)/CLP-Hg (HNO3)

BO7Q56

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

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: <i>L.D. Walker</i> <i>LD Walker</i>	Received by: <i>Refrig. #1</i>	Date/Time: <i>12/9/92 - 1615</i>
Relinquished by:	Received by: <i>K. Trapp / K. Trapp</i>	Date/Time: <i>12/10/92 0900</i>
Relinquished by: <i>K. Trapp / K. Trapp</i>	Received by: <i>Alyson Probst</i>	Date/Time: <i>12-11-92 3:50</i>
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

Collector K. Lee, L. Walker Date Sampled 12-9-92 Time 1000 hours
 Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B07Q54 ✓	3; 40ml; Gs*	WATER	CLP-VOA
✓	3; 2L; aG;	WATER	CLP-SEMI VOA & PCB's/PEST
✓	1; 1L; P;	WATER	ANIONS (IC) SO4, F, PO4, Cl/COND/pH
✓	1; 500ml; P;	WATER	ANIONS/NO3-NO2 (H2SO4)
✓	1; 1L; G;	WATER	ALK./TOT. DISSOLVED SOLIDS
✓	1; 500ml; G;	WATER	SULFIDE (add Zinc Acetate + NaOH pH > 9)
✓	1; 500ml; G;	WATER	AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH < 2)
✓	1; 1L; P;	WATER	CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
✓	1; 1L; P;	WATER	CLP-CN (NaOH)
✓	2; 4L; P;	WATER	GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90, (HNO3)
✓	1; 1L; P;	WATER	Tc-99 (HCl)
✓	1; 250ml; Gs;	WATER	TRITIUM/C-14
B07Q55 ✓	1; 1L; P;	WATER	CLP-ICP/AA METAL (FILTERED)/CLP-Hg (HNO3)
B07Q56 ✓	3; 40ml; Gs	WATER	CLP-VOA OPC: # W93-0-0151-6 BOL: # 251900760-1 TASK#: 92-398

Field Information** _____

Special Handling and/or Storage _____

Possible Sample Hazards _____

PART II: LABORATORY SECTION

Received by Alyona Kobayashi Title TECHNICIAN Date 12-11-92
 Analysis Required _____

120

* Indicate whether sample is soil, sludge, water, etc.
 ** Use back of page for additional information relative to sample location.

Westinghouse Hanford Company	CHAIN OF CUSTODY
Custody Form Initiator PH BUTCHER	Telephone (509)376-5045
Company Contact PH BUTCHER	Collection Date 12-8-92
Project Designation/Sampling Locations 100-KR-4	Field Logbook No. EFL-1049
Ice Chest No. SML 193	Offsite Property No. W93-0-0151-4 4
Bill of Lading/Airbill No. 251 900 7370	
Method of Shipment EMERY	
Shipped to TMA	
Possible Sample Hazards/Remarks N/A	

Sample Identification

BO 7QW4

- 3, 40ml, Gs*, WATER, CLP-VOA
- 3, 2L, aG, WATER, CLP-SEMI VOA & PCB's/PEST
- 1, 1L, P, WATER, ANIONS(IC) SO4, F, PO4, Cl/COND./pH
- 1, 500ml, P, WATER, ANIONS/NO3-NO2 (H2SO4)
- 1, 1L, G, WATER, ALK./TOT. DISSOLVED SOLIDS
- 1, 500ml, G, WATER, SULFIDE (add Zinc Acetate+NaOH pH>9)
- 1, 500ml, G, WATER, AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
- 1, 1L, P, WATER, CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
- 1, 1L, P, WATER, CLP-CN (NaOH)
- 2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90 (HNO3)
- 1, 1L, P, WATER, Tc-99 (HCl)
- 1, 250ml, Gs, WATER, TRITIUM/C-14

BO 7QW5

- 1, 1L, P, WATER, CLP-ICP/AA METALS (FILTERED)/CLP-Hg (HNO3)

BO 7QW6

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

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: <i>L.D. Walker</i> <i>L.D. Walker</i>	Received by: <i>Refrig #2</i>	Date/Time: <i>12-8-92 / 1500</i>
Relinquished by: <i>Refrig #2</i>	Received by: <i>GG HAMILTON</i>	Date/Time: <i>12-9-92 / 0830</i>
Relinquished by: <i>GG Hamilton</i>	Received by: <i>Alonso</i>	Date/Time: <i>12-11-92 3:50</i>
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

Collector K. Lee, L. Walker Date Sampled 12-8-92 Time 1300 hours
 Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample *	Analysis Requested
BO 7QW4 ✓	3; 40ml; Gs*;	WATER	CLP-VOA
✓	3; 2L; aG;	WATER	CLP-SEMI VOA & PCB's/PEST
✓	1; 1L; P;	WATER	ANIONS (IC) SO4, F, PO4, Cl/COND/pH
✓	1; 500ml; P;	WATER	ANIONS/NO3-NO2 (H2SO4)
✓	1; 1L; G;	WATER	ALK./TOT. DISSOLVED SOLIDS
✓	1; 500ml; G;	WATER	SULFIDE (add Zinc Acetate + NaOH pH > 9)
✓	1; 500ml; G;	WATER	AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH < 2)
✓	1; 1L; P;	WATER	CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
✓	1; 1L; P;	WATER	CLP-CN (NaOH)
✓	2; 4L; P;	WATER	GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90, (HNO3)
✓	1; 1L; P;	WATER	Tc-99 (HCl)
✓	1; 250ml; Gs;	WATER	TRITIUM/C-14
BO 7QW5 ✓	1; 1L; P;	WATER	CLP-ICP/AA METAL (FILTERED)/CLP-Hg (HNO3)
BO 7QW6 ✓	3; 40ml; Gs	WATER	CLP-VOA
			OPC: # W93-0-051-54 12/12-9-92
			BOL: # 251 900 7370
			TASK#: 92-398

Field Information **

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Alonna Hobbs Title Sample Control Technician Date 12-11-92

Analysis Required

* Indicate whether sample is soil, sludge, water, etc.
 ** Use back of page for additional information relative to sample location.

Westinghouse Hanford Company	CHAIN OF CUSTODY
Custody Form Initiator PH BUTCHER	Telephone (509)376-5045
Company Contact PH BUTCHER	Collection Date 12-9-92
Project Designation/Sampling Locations 100-KR-4	Field Logbook No. EFL-1049
Ice Chest No. SAL-17	Offsite Property No. W93-0-0151-7
Bill of Lading/Airbill No. 251900760-1	
Method of Shipment EMERY	
Shipped to TMA	
Possible Sample Hazards/Remarks N/A	

Sample Identification

BO7QX9

- 3, 40ml, Gs*, WATER, CLP-VOA
- 3, 2L, aG, WATER, CLP-SEMI VOA & PCB's/PEST
- 1, 1L, P, WATER, ANIONS(IC) SO4, F, PO4, Cl/COND./pH
- 1, 500ml, P, WATER, ANIONS/NO3-NO2 (H2SO4)
- 1, 1L, G, WATER, ALK./TOT. DISSOLVED SOLIDS
- 1, 500ml, G, WATER, SULFIDE (add Zinc Acetate+NaOH pH>9)
- 1, 500ml, G, WATER, AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
- 1, 1L, P, WATER, CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
- 1, 1L, P, WATER, CLP-CN (NaOH)
- 2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC(U-235/238, Pu-239/240, Am-241), Sr-90 (HNO3)
- 1, 1L, P, WATER, Tc-99 (HCl)
- 1, 250ml, Gs, WATER, TRITIUM/C-14

BO7QY0

- 1, 1L, P, WATER, CLP-ICP/AA METALS (FILTERED)/CLP-Hg (HNO3)

BO7QY1

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

<input type="checkbox"/> Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: <i>L.D. Walker</i> <i>L.D. Walker</i>	Received by: <i>Refrig. # 4</i>	Date/Time: <i>12-9-92 / 1620</i>
Relinquished by:	Received by: <i>K. Trapp / K. Trapp</i>	Date/Time: <i>12/10/92 0900</i>
Relinquished by: <i>K. Trapp / K. Trapp</i>	Received by: <i>Elmer Hobbs</i>	Date/Time: <i>12/11/92 4:00</i>
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

Collector K. Lee, L. Walker Date Sampled 12-9-92 Time 1400 hours
 Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
BO7QX9	✓ 3; 40ml; Gs*	WATER	CLP-VOA
	✓ 3; 2L; aG;	WATER	CLP-SEMI VOA & PCB's/PEST
	✓ 1; 1L; P;	WATER	ANIONS (IC) SO4, F, PO4, Cl/COND/pH
	✓ 1; 500ml; P;	WATER	ANIONS/NO3-NO2 (H2SO4)
	✓ 1; 1L; G;	WATER	ALK./TOT. DISSOLVED SOLIDS
	✓ 1; 500ml; G;	WATER	SULFIDE (add Zinc Acetate + NaOH pH > 9)
	✓ 1; 500ml; G;	WATER	AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH < 2)
	✓ 1; 1L; P;	WATER	CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
	✓ 1; 1L; P;	WATER	CLP-CN (NaOH)
	✓ 2; 4L; P;	WATER	GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90, (HNO3)
	✓ 1; 1L; P;	WATER	Tc-99 (HCl)
	✓ 1; 250ml; Gs;	WATER	TRITIUM/C-14
BO7QY0	✓ 1; 1L; P;	WATER	CLP-ICP/AA METAL (FILTERED)/CLP-Hg (HNO3)
BO7QY1	✓ 3; 40ml; Gs	WATER	CLP-VOA OPC: # W93-0-0151-7 BOL: # 251900760-1 TASK#: 92-398

Field Information ** _____

Special Handling and/or Storage _____

Possible Sample Hazards _____

PART II: LABORATORY SECTION

Received by Alonso Nolasco Title sample control Technician Date 12-11-92
 Analysis Required _____

124

* Indicate whether sample is soil, sludge, water, etc.
 ** Use back of page for additional information relative to sample location.

Westinghouse
Hanford Company

CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER
 Company Contact PH BUTCHER
 Project Designation/Sampling Locations 100-KR-4
 Ice Chest No. C-2
 Bill of Lading/Airbill No. 251-900-7370
 Method of Shipment EMERY
 Shipped to TMA
 Possible Sample Hazards/Remarks N/A

Telephone (509)376-5045
 Collection Date 12-8-92
 Field Logbook No. EFL-1049
 Offsite Property No. W93-0-0151-4

Sample Identification

BO 7029

- 3, 40ml, Gs*, WATER, CLP-VOA
- 3, 2L, aG, WATER, CLP-SEMI VOA & PCB's/PEST
- 1, 1L, P, WATER, ANIONS(IC) SO4, F, PO4, Cl/COND./pH
- 1, 500ml, P, WATER, ANIONS/NO3-NO2 (H2SO4)
- 1, 1L, G, WATER, ALK./TOT. DISSOLVED SOLIDS
- 1, 500ml, G, WATER, SULFIDE (add Zinc Acetate+NaOH pH>9)
- 1, 500ml, G, WATER, AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
- 1, 1L, P, WATER, CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
- 1, 1L, P, WATER, CLP-CN (NaOH)
- 2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90 (HNO3)
- 1, 1L, P, WATER, Tc-99 (HCl)
- 1, 250ml, Gs, WATER, TRITIUM/C-14

BO 7R00

- 1, 1L, P, WATER, CLP-ICP/AA METALS (FILTERED)/CLP-Hg (HNO3)

BO 7R01

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

[] Field Transfer of Custody		Chain of Possession	(Sign and Print Names)
Relinquished by: L.D. Walker <i>L.D. Walker</i>	Received by: ReFrig. #1	Date/Time: 12-8-92 / 1500	
Relinquished by: Refrig #1	Received by: <i>GG Hamilton</i>	Date/Time: 12-9-92 / 0830	
Relinquished by: <i>GG Hamilton</i>	Received by: <i>Hanna Goba</i>	Date/Time: 12/11/92 4:17	
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

Collector K. Lee, L. Walker Date Sampled 12-8-92 Time 1130 hours
 Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B07RZ9	✓ 3; 40ml; Gs*;	WATER	CLP-VOA
	✓ 3; 2L; aG;	WATER	CLP-SEMI VOA & PCB's/PEST
	✓ 1; 1L; P;	WATER	ANIONS (IC) SO4, F, PO4, Cl/COND/pH
	✓ 1; 500ml; P;	WATER	ANIONS/NO3-NO2 (H2SO4)
	✓ 1; 1L; G;	WATER	ALK./TOT. DISSOLVED SOLIDS
	✓ 1; 500ml; G;	WATER	SULFIDE (add Zinc Acetate + NaOH pH > 9)
	✓ 1; 500ml; G;	WATER	AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH < 2)
	✓ 1; 1L; P;	WATER	CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
	✓ 1; 1L; P;	WATER	CLP-CN (NaOH)
	✓ 2; 4L; P;	WATER	GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90, (HNO3)
	✓ 1; 1L; P;	WATER	Tc-99 (HCl)
	✓ 1; 250ml; Gs;	WATER	TRITIUM/C-14
B07R00	✓ 1; 1L; P;	WATER	CLP-ICP/AA METAL (FILTERED)/CLP-Hg (HNO3)
B07R01 B07R00 PAB 12/21/92	✓ 3; 40ml; Gs	WATER	CLP-VOA OPC: # W93-0-0151-4 BOL: # 251-900-7320 TASK#: 92-398

Field Information**

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Alfonsa Galuf Title sample control Technician Date 12-11-92
 Analysis Required

* Indicate whether sample is soil, sludge, water, etc.
 ** Use back of page for additional information relative to sample location.

FORM OF PAYMENT

Check GBL FCCOD

Shipper's Account Number: **850281585**

EMERY WORLDWIDE **A CF Company**

SERVICES **

INTERNATIONAL

UNITED STATES / CANADA

Express

Standard Plus

Preferred

Standard

AM PM

Second Day Saturday Delivery

Date: 12-9-92 Origin: PSC Shipment Number: 251900737

To: **DELORES SANCHEZ**

WESTINGHOUSE SHIPPING DEPT(509)376-6665

U.S. DEPARTMENT OF ENERGY C/O

WESTINGHOUSE HANFORD

BLDG 1163

355 STEVENS DRIVE

RICHLAND WA

Canada

2030 WRIGHT AVENUE

RICHMOND, CA

Canada

Customer's Reference Numbers: **81232 pc41A W93-0-0151 #54 99352**

Consignee's Account Number: **E 94804**

Check to Shipper: \$

EMERY WORLDWIDE will accept Consig check with all ris being assumed t Shipper, includi but not limited to non-payment, fr and misrepresent:

FOR INFORMATION OR RATES
CALL 1-800 44 EMERY
(1-800-443-6379)

Declared Value: \$

2519007370

Description	Pcs	Dimensions (L x W x H)	Total Pieces	Total Weight (In Lbs.)
2 polycoolers c-2 WATER SAMPLES SML193	2	27 16 17	2	166

Remarks: **OVERNIGHT DELIVERY SECURITY SIGNATURE SERVICE**

Zip Ship

Mark if Emery Packaging is used

Urgent Letter 9X12

Urgent Pack 12X15

Free Domicile

Commodity Code: **E**

Third Party Account Number: **E**

FORM OF PAYMENT

Check GBL FCCOD

Shipper's Account Number: **850281585**

EMERY WORLDWIDE **A CF Company**

SERVICES **

INTERNATIONAL

UNITED STATES / CANADA

Express

Standard Plus

Preferred

Standard

AM PM

Second Day Saturday Delivery

Date: 12-10-92 Origin: PSC Shipment Number: 251900762

To: **DELORES SANCHEZ**

WESTINGHOUSE SHIPPING DEPT(509)376-6665

US DEPARTMENT OF ENERGY C/O

WESTINGHOUSE HANFORD

BLDG 1163

355 STEVENS DRIVE

RICHLAND WA

Canada

2030 WRIGHT AVENUE

RICHMOND CA

Canada

Customer's Reference Numbers: **34300 PG3BF W93-122 #30 99352**

Consignee's Account Number: **E 94804**

Check to Shipper: \$

EMERY WORLDWIDE will accept Consig check with all ris being assumed t Shipper, includi but not limited to non-payment, fr and misrepresent:

FOR INFORMATION OR RATES
CALL 1-800 44 EMERY
(1-800-443-6379)

Declared Value: \$

2519007623

Description	Pcs	Dimensions (L x W x H)	Total Pieces	Total Weight (In Lbs.)
3 MIL SAMPLES SML-178/SML171 #L233 POLY COOLER-3	3	27 16 17	3	180

Remarks: **OVERNIGHT DELIVERY**

Zip Ship

Mark if Emery Packaging is used

Urgent Letter 9X12

Urgent Pack 12X15

Free Domicile

Commodity Code: **E**

Third Party Account Number: **E**

International Customs Value

International Insurance

Total Transportation Charges: \$

Other Charges: \$

1-OAK-127-A

Terms and Conditions on Back

FORM OF PAYMENT

Check Cash F.C.O.D.

Bill to Shipper Bill to Consignee Third Party Billing



SERVICES**

UNITED STATES / CANADA
Same Day (Extra Charges)
AM PM
Second Day Saturday Delivery
Express
Standard Plus
Preferred
Standard

Date 12-10-92 Origin PSC Shipment No. 2519007

Shipper's Account Number
E 550281585

From: WESTINGHOUSE SHIPPING DEPT(509)376-6665
U.S. DEPARTMENT OF ENERGY C/B
WESTINGHOUSE HANFORD
BLDG 1163
2955 STEVENS DRIVE

To: DELORES SANCHEZ
TMA/NORCAL
2030 WRIGHT AVENUE
RICHMOND CA

RICHLAND WA
Customer's Reference Numbers
W81232 PC41A W93-151 #6/#7
Zip 99352

Consignee's Account Number
E 94804

Description	Pcs.	Dimensions			Total Pieces	Total Weight (In Lbs.)
		L	W	H		
4 POLYCOOLER WATER SAMPLES SML-203/SMASH SML-17/SML-263	4	2.7	16	17	4	369

FOR INFORMATION OR RATES
CALL 1-800 44 EMERY
(1-800-443-6379)

OVERNIGHT DELIVERY
Shipper's Signature X
Zip Ship
Mark if Emery Packaging is used
Urgent Letter 9X12
Urgent Pack 12X15



International Shipments
Free Domicile
Commodity Code
Third Party Account Number mandatory for Third Party Billing. E
International Customs Value
International Insurance
Base Charge
Total Transportation Charges
Other Charges/Advance at Origin
OC/AC \$

1-OAK
Terms and Conditions on Back

9613490.2074

TT



DATE: 12-9-92 SHIPMENT NO.: 2519007370
SHIPPER WESTINGHOUSE SHIPPING DEPT(509)370
REFERENCE NO.: W93-0-0151 #54

SIGNATURE AND TALLY RECORD

60029-46 (8/89) Litho USA

SHIPPER NAME AND ADDRESS
WESTINGHOUSE SHIPPING DEPT(509)376-6665
U.S. DEPARTMENT OF ENERGY C/O
WESTINGHOUSE HANFORD COMPANY
2355 STEVENS DRIVE 1163 BUILDING
PO BOX 1970
RICHLAND, WA 99352

CONSIGNEE NAME AND ADDRESS
DELORES SANCHEZ
TMA/NORCAL
2030 WRIGHT AVENUE
RICHMOND, GA 94804

Pieces 2	Weight 166#	Description/Marks WATER SAMPLES C-2 SN.193 W93-0-0151 #54	Emery Authorization No.
-------------	----------------	---	-------------------------

EACH PERSON HANDLING OR TAKING CUSTODY OF THIS SHIPMENT MUST SIGN AND COMPLETE THE INFORMATION BELOW

Name of Person/Company	Transship Point/Destination	Signature of Person Accepting Custody	Time/Date
1.			
2.			
3.			
4.			
5.			
6.	OAK	C. Schlegel	11:00
7.	#1	At [unclear]	3:12
8.			

SPECIAL HANDLING INSTRUCTIONS

CONSIGNEE COPY

Westinghouse Hanford Company	CHAIN OF CUSTODY
Custody Form Initiator PH BUTCHER	
Company Contact PH BUTCHER	Telephone (509)376-5045
Project Designation/Sampling Locations 100-KR-4	Collection Date 12-10-92
Ice Chest No. 544	Field Logbook No. EFL-1049
Bill of Lading/Airbill No. NA	Offsite Property No. W93-NA
Method of Shipment EMERY	
Shipped to TMA	
Possible Sample Hazards/Remarks N/A	

Sample Identification

B07QV9

- 3, 40ml, Gs*, WATER, CLP-VOA
- 3, 2L, aG, WATER, CLP-SEMI VOA & PCB's/PEST
- 1, 1L, P, WATER, ANIONS(IC) SO4, F, PO4, Cl/COND./pH
- 1, 500ml, P, WATER, ANIONS/NO3-NO2 (H2SO4)
- 1, 1L, G, WATER, ALK./TOT. DISSOLVED SOLIDS
- 1, 500ml, G, WATER, SULFIDE (add Zinc Acetate+NaOH pH>9)
- 1, 500ml, G, WATER, AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
- 1, 1L, P, WATER, CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
- 1, 1L, P, WATER, CLP-CN (NaOH)
- 2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90 (HNO3)
- 1, 1L, P, WATER, Tc-99 (HCl)
- 1, 250ml, Gs, WATER, TRITIUM/C-14

B07&PD

- 1, 1L, P, WATER, CLP-ICP/AA METALS (FILTERED)/CLP-Hg (HNO3)

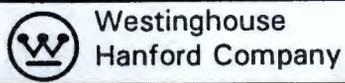
B07QPI

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

<input type="checkbox"/> Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: <i>L.D. Walker</i> <i>L.D. Walker</i>	Received by: <i>Retrig. #1</i>	Date/Time: <i>12-10-92 / 1445</i>
Relinquished by:	Received by: <i>K. Trapp / K. Trapp</i>	Date/Time: <i>12/10/92 1626</i>
Relinquished by: <i>K. Trapp / K. Trapp</i>	Received by: <i>Alfonso Gotzky</i>	Date/Time: <i>12-14-92 0800 *</i>
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:
Comments: <i>* Received 12-12-92 @ TMA/NORCAL; opened 12-14-92 -KB</i>		



SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K. Lee, L. Walker Date Sampled 12-10-92 Time 1100 hours
Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample *	Analysis Requested
B07QNG	✓ 3; 40ml; Gs*;	WATER	CLP-VOA
	✓ 3; 2L; aG;	WATER	CLP-SEMI VOA & PCB's/PEST
	✓ 1; 1L; P;	WATER	ANIONS (IC) SO4, F, PO4, Cl/COND/pH
	✓ 1; 500ml; P;	WATER	ANIONS/NO3-NO2 (H2SO4)
	✓ 1; 1L; G;	WATER	ALK./TOT. DISSOLVED SOLIDS
	✓ 1; 500ml; G;	WATER	SULFIDE (add Zinc Acetate + NaOH pH > 9)
	✓ 1; 500ml; G;	WATER	AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH < 2)
	✓ 1; 1L; P;	WATER	CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
	✓ 1; 1L; P;	WATER	CLP-CN (NaOH)
	✓ 2; 4L; P;	WATER	GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90, (HNO3)
	✓ 1; 1L; P;	WATER	Tc-99 (HCl)
	✓ 1; 250ml; Gs;	WATER	TRITIUM/C-14
B07QPO	✓ 1; 1L; P;	WATER	CLP-ICP/AA METAL (FILTERED)/CLP-Hg (HNO3)
B07QPI	✓ 3; 40ml; Gs	WATER	CLP-VOA
			OPC: # W93- NA
			BOL: # NA
			TASK#: 92-398

Field Information **

Special Handling and/or Storage _____

Possible Sample Hazards _____

PART II: LABORATORY SECTION

Received by Hermit Blum Title Sample Control Supervisor Date 12-14-92
Analysis Required _____

* Indicate whether sample is soil, sludge, water, etc.
** Use back of page for additional information relative to sample location.

Westinghouse
Hanford Company

CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Project Designation/Sampling Locations 100-KR-4

Ice Chest No. Alpha 6

Bill of Lading/Airbill No.

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Telephone (509)376-5045

Collection Date 12-10-92

Field Logbook No. EFL-1049

Offsite Property No. W93-0-0151-10

Sample Identification

BO7Q59

- 3, 40ml, Gs*, WATER, CLP-VOA
- 3, 2L, aG, WATER, CLP-SEMI VOA & PCB's/PEST
- 1, 1L, P, WATER, ANIONS(IC) SO4, F, PO4, Cl/COND./pH
- 1, 500ml, P, WATER, ANIONS/NO3-NO2 (H2SO4)
- 1, 1L, G, WATER, ALK./TOT. DISSOLVED SOLIDS
- 1, 500ml, G, WATER, SULFIDE (add Zinc Acetate+NaOH pH>9)
- 1, 500ml, G, WATER, AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
- 1, 1L, P, WATER, CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
- 1, 1L, P, WATER, CLP-CN (NaOH)
- 2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90 (HNO3)
- 1, 1L, P, WATER, Tc-99 (HCl)
- 1, 250ml, Gs, WATER, TRITIUM/C-14

BO7Q70

- 1, 1L, P, WATER, CLP-ICP/AA METALS (FILTERED)/CLP-Hg (HNO3)

BO7Q71

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

[] Field Transfer of Custody		Chain of Possession	(Sign and Print Names)
Relinquished by: L.D. Walker <i>L.D. Walker</i>	Received by: Refrig # 2	Date/Time: 12-10-92 / 1445	
Relinquished by:	Received by: <i>GG Hamilton</i>	Date/Time: 12-11-92 / 1104	
Relinquished by: <i>GG Hamilton</i>	Received by: Kermit Blum	Date/Time: 12-14-92 0800 *	
Relinquished by:	Received by:	Date/Time:	
Final Sample Disposition			
Disposal Method:	Disposed by:	Date/Time:	
Comments: * Received @ TMA/NORCAL 12-12-92 ; opened 12-14-92 . KB			



Westinghouse
Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K. Lee, L. Walker

Date Sampled 12-10-92 Time 1230 hours

Company Contact P. H. Butcher

Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B07Q59	3; 40ml; Gs*;	WATER	CLP-VOA
	3; 2L; aG;	WATER	✓ CLP-SEMI VOA & PCB's/PEST
	1; 1L; P;	WATER	ANIONS (IC) SO4, F, PO4, Cl/COND/pH
	1; 500ml; P;	WATER	ANIONS/NO3-NO2 (H2SO4)
	1; 1L; G;	WATER	ALK./TOT. DISSOLVED SOLIDS
	1; 500ml; G;	WATER	SULFIDE (add Zinc Acetate + NaOH pH>9)
	1; 500ml; G;	WATER	✓ AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
	1; 1L; P;	WATER	CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
	1; 1L; P;	WATER	CLP-CN (NaOH)
	2; 4L; P;	WATER	✓ GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90, (HNO3)
	1; 1L; P;	WATER	✓ Tc-99 (HCl)
	1; 250ml; Gs;	WATER	✓ TRITIUM/C-14
B07Q70	1; 1L; P;	WATER	✓ CLP-ICP/AA METAL (FILTERED)/CLP-Hg (HNO3)
B07Q71	3; 40ml; Gs	WATER	✓ CLP-VOA
			OPC: # W93- 0-0151-10
			BOL: # 251-900-766-7
			TASK#: 92-398

Field Information **

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Kermit Blum Title Sample Control Supervisor Date 12-14-92

Analysis Required

* Indicate whether sample is soil, sludge, water, etc.
** Use back of page for additional information relative to sample location.

SHIPPING INST.	SHIP TO: Company <u>TMA / NORCAL</u> Address <u>2030 WRIGHT AVE</u> City, State, Zip <u>RICHMOND, CA 94804</u> Attention: <u>DELORES SANCHEZ</u>	OFFSITE RADIOACTIVE SHIPMENT RECORD EXTERIOR INSPECTION PERMITTED -	15538	
	Contractor: <input type="checkbox"/> PNL <input type="checkbox"/> KEH <input checked="" type="checkbox"/> WHC	Ship: <input checked="" type="checkbox"/> Prepaid <input type="checkbox"/> Collect Via: <input type="checkbox"/> Motor-Rail <input checked="" type="checkbox"/> Air Psgr <input type="checkbox"/> Excl. Use <input type="checkbox"/> Air Cargo <input type="checkbox"/> DOE Veh. <input type="checkbox"/> Mail <input type="checkbox"/> UPS Sur. <input checked="" type="checkbox"/> <u>Set DEL</u>		
	Site Carrier <u>K. TRAPP</u>	PR No. <u>406-15-1517</u> Veh. No. <u>40-1D-2598</u>		

Proper Shipping Name Radioactive Material: 1. Empty Packages <input type="checkbox"/> UN 2908 2. Low Specific Activity, n.o.s. <input type="checkbox"/> UN 2912 3. Limited quantity, n.o.s. <input checked="" type="checkbox"/> UN 2910 4. N.O.S. <input type="checkbox"/> UN 2982 5. Fissile n.o.s. <input type="checkbox"/> UN 2918 6. Special Form, n.o.s. <input type="checkbox"/> UN 2974 7. Instruments & Articles <input type="checkbox"/> UN 2911 8. <input type="checkbox"/>	UN Number 	Material Form: <input type="checkbox"/> Special (A1) <input checked="" type="checkbox"/> Normal (A2) Labels Applied <input type="checkbox"/> Empty <input type="checkbox"/> Radioactive LSA <input type="checkbox"/> White I <input type="checkbox"/> Yellow II <input type="checkbox"/> Yellow III <input checked="" type="checkbox"/> None <input type="checkbox"/> Danger (Air Cargo) <input type="checkbox"/> Secondary	Material Category <input type="checkbox"/> Empty <input type="checkbox"/> Low Specific Act. (LSA) <input checked="" type="checkbox"/> Limited Quantity <input type="checkbox"/> Type A Quantity <input type="checkbox"/> Type B Quantity <input type="checkbox"/> Highway Route <input type="checkbox"/> Controlled Quantity	For Normal Form Identify: Physical Form <input type="checkbox"/> Solid <input checked="" type="checkbox"/> Liquid <input type="checkbox"/> Gas Chemical Form <input type="checkbox"/> Metal <input type="checkbox"/> Oxide <input checked="" type="checkbox"/> Elemental <input type="checkbox"/> Nitrate Other _____
---	----------------------	--	--	--

TYPE PACKAGE <input checked="" type="checkbox"/> Strong Tight <input type="checkbox"/> Type A <input type="checkbox"/> Type B <input type="checkbox"/> Type B (U) <input type="checkbox"/> Type B (M)	CONSTRUCTION <input type="checkbox"/> Box, FB <input type="checkbox"/> Wood <input type="checkbox"/> Steel <input type="checkbox"/> Drum <input type="checkbox"/> Cask <input checked="" type="checkbox"/> Other <u>POLY COOLER</u>	FISSILE CLASS <input checked="" type="checkbox"/> Non Fissile <input type="checkbox"/> Fissile Exempt <input type="checkbox"/> Fissile I <input type="checkbox"/> Fissile II <input type="checkbox"/> Fissile III Grams Fissile _____	SNM <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> <1 gr <input type="checkbox"/> Category I <input type="checkbox"/> Category II <input type="checkbox"/> Category III	ACCOUNTABILITY/SECURITY CONTROL <input type="checkbox"/> Classified <input checked="" type="checkbox"/> Unclassified Consignee authorized to receive this qty <input checked="" type="checkbox"/> Sig. Security Svc. Reg. <input type="checkbox"/> NA <input checked="" type="checkbox"/> Pub. EU > 1g <input type="checkbox"/> NA NU, DU > 1kg <input type="checkbox"/> Security Escorts Req. <input type="checkbox"/> Not. Req. <input checked="" type="checkbox"/> External Cask Temperature N/A <input checked="" type="checkbox"/> (Max. 122° F LTL, 180° F Ex. Use) _____ °F
---	--	--	---	---

Packaging conforms to appropriate packaging procedure N/A Yes
 Complies with D. O. T. packaging marking and labeling requirements N/A Yes
 Container acceptability documented (incl. 7A cert.) N/A Yes

Container examined: No evidence of deterioration or damage Yes
 QA Inspection Current Yes N/A Seals required No Yes
 Shipping Doc. 49 CFR 173.401 Authorization No. NA

No. Pkgs.	Model Package	COC/Spec. No.	Serial No.	Seal No.	Isotopes	Curies/Pkg	T. I.	Gr. Wt.
1	STRONG TIGHT	NA	544 NA	NA	T (TRITIATED) WATER	12.8 uCi	NA	98 lbs
(WATER SAMPLES PACKED IN WET ICE IN PLASTIC BAGS IN COOLERS)								
TOTAL						12.8 uCi	NA	98 lbs

(Shipper may describe package in detail on one of unused lines above)

This is to certify that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation, according to the applicable federal, state, local and international regulations for the transportation of hazardous materials.

Certifier's Signature: Kenneth Trapp Date: 12/11/92 Organization: GEO SCIENCES Complete Cost Code (inc. end function): 51232 / PC 41A

AREA MONITOR Surface Dose Rate of Package <input checked="" type="checkbox"/> ≤ 0.5 or _____ mrem/hr (N + BY)	Dose Rate at 1 Meter from Surface of Package <input checked="" type="checkbox"/> ≤ 0.5 or _____ mrem/hr (N + BY)	Smears of Outer Container <input type="checkbox"/> ≤ 22 dpm β/cm ² <input type="checkbox"/> ≤ 2.2 dpm α/cm ²	TRUCK LOAD OR EXCLUSIVE USE Surface: <input type="checkbox"/> ≤ 200 mrem/hr (N + BY) @ 6 feet: <input type="checkbox"/> ≤ 10 mrem/hr (N + BY) @ Cab <input type="checkbox"/> ≤ 2.0 mrem/hr (N + BY) or Sleeper
Additional Data and Instructions (inc. Readings on Internal Packaging) <u>NA</u>			
Signature - Radiation Monitoring <u>ERT</u>	Bldg. <u>MC-294</u>	Survey No. <u>D-13115</u>	Date <u>12-11-92</u>

AUTHORIZATION FOR SHIPMENT

AIR TRANSPORT CERTIFICATION	Cargo Only: <input type="checkbox"/> Danger Labels Applied	Passenger: <input checked="" type="checkbox"/> 1. Ltd. Qty. <input checked="" type="checkbox"/> 3. Research or Medical Diagnosis <input type="checkbox"/> 2. ≤ 3 T. <input type="checkbox"/> 4. Human Medical Research	Pkg. Dimensions
------------------------------------	--	---	-----------------

Traffic has inspected and verified preshipment compliance to DOT regulations.

Authorized Signature: Eli R. Smith Printed Name: Eli R. Smith Date: 12-11-92

APPROVED FOR OFFSITE SHIPMENT

B. L. No. <u>RMW-7952</u>	Date Shipped <u>12/11/92</u>	E. T. A. <u>12/12/92</u>	Routing <u>FED X</u> <input type="checkbox"/> N/A	Placards <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <u>13.1</u> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Surveyed By <u>[Signature]</u>	Date <u>12/11/92</u>	Approved for Shipment <u>Gregg Bonex</u> Westinghouse Hanford Company	Date <u>12/11/92</u>	

9613494-21917

Contractor WMC	OFF-SITE PROPERTY CONTROL	CONTROL NUMBER (To be obtained from PROPERTY MANAGEMENT) W97-03-151-7
--------------------------	--------------------------------------	--

PART I - TO BE COMPLETED BY ORIGINATOR

Department Env. Eng. & Tech.	Section Geosciences	Unit Geochem. & Hydrochem.
---	----------------------------	---------------------------------------

The following items are to be shipped from Contractor Vendor

Routing **Reery** Contractor Vendor

Shipped to TMA/NOECAL 2030 Wright Ave. Richmond, CA 94804	Off-site Custodian
	Full Title

Quantity	Description, (Include Serial and any Government Tag Numbers)	Original Cost
1 -lbs.	Sample #: 80722 80723 80724 Cooler ID: 5ML-17 Polycooler with groundwater samples packed in wet ice and vermiculite	N/A
1 lbs.	Sample #: 80724 80725 Cooler ID: 5ML-263 Polycooler with groundwater samples packed in wet ice and vermiculite	N/A

Classified Unclassified Shipped Under DOE Contract Shipped Under Contractor's Use Permit Contract

Necessity for the Off-Site Use of this Property

Sampling supports RI/FS work in the

BILL of Lading # 7510-780-1

CERTIFICATION OF THE RADIATION MONITORING RELEASE MUST BE SECURED THE SAME DAY THAT MATERIAL IS DELIVERED TO SHIPPING.

RM Clearance for Public Release	RM Survey No.	Date
Location of Property (Area & Bldg.)	Contact EH Butcher	Phone 415-376-1041
Date Ready for Shipment	Cost Code to be Charged W9703-12-114	Approximate Date This Property will be Returned
Originated By	Date	Authorized By PK Butcher Date 12/10/92
Signature and Name of Property Control	Custodian Date	Property Management Approval [Signature] Date 12/14/92

PART II - TO BE COMPLETED BY SHIPPING

Signature of Recipient	Return Order No.	Date Issued	Purchase Order No.	Date Issued
Date				

DISTRIBUTION

By Originator White, Green, Yellow, Pink - Property Management Goldenrod - Retain	Shipping Operation - Sign all Copies and Forward to: 135 White - Property Management Green - Property Control Custodian (Issuing Office) Yellow - Retain Pink - Originator
---	---

Contractor WHC	OFF-SITE PROPERTY CONTROL	CONTROL NUMBER (To be obtained from PROPERTY MANAGEMENT) W93-0-0151-54
-------------------	--------------------------------------	--

PART I - TO BE COMPLETED BY ORIGINATOR

Department Env. Eng. & Tech.	Section Geosciences	Unit Geochem. & Hydrochem.
------------------------------	---------------------	----------------------------

The following items are to be shipped from Contractor Vendor

Routing Emery Contractor Vendor

Shipped to TMA/NORCAL 2030 Wright Ave Richmond, CA 94804	Off-site Custodian
	Full Title

Quantity	Description (Include Serial and any Government Tag Numbers)	Original Cost
1 84 lbs.	Sample #: B07429 B07R00, B07R01 Cooler ID: C-2 Polycooler with groundwater samples packed in wet ice and vermiculite	N/A
1 82 lbs.	Sample #: B07R04 B07R05 B07R06 Cooler ID: EML 113 Polycooler with groundwater samples packed in wet ice and vermiculite	N/A

Classified Unclassified Shipped Under DOE Contract Shipped Under Contractor's Use Permit Contract

Necessity for the Off-Site Use of this Property

Sampling supports RI/FS work in the

(WAC)

Bill of lading # 251-120-170

CERTIFICATION OF THE RADIATION MONITORING RELEASE MUST BE SECURED THE SAME DAY THAT MATERIAL IS DELIVERED TO SHIPPING.

RM Clearance for Public Release	RM Survey No. 369	Date 12/1/92
Location of Property (Area & Bldg.) 2030 Wright Ave 200	Contact PH Butcher	Phone 510 778 1045
Date Ready for Shipment 12-1-92	Cost Code to be Charged	Approximate Date This Property will be Returned 7
Originated By [Signature]	Date	Authorized By [Signature]
Signature and Name of Property Control	Custodian Date	Property Management Approval [Signature]
		Date 7 Dec 92

PART II - TO BE COMPLETED BY SHIPPING

Signature of Recipient [Signature]	Return Order No.	Date Issued	Purchase Order No.	Date Issued
Date 12/1/92				

DISTRIBUTION

By Originator White, Green, Yellow, Pink - Property Management Goldenrod - Retain	Shipping Operation - Sign all Copies and Forward to: White - Property Management Yellow - Retain	Green - Property Control Custodian (Issuing Office) Pink - Originator
--	---	--

RECORD COPY



WESTINGHOUSE HANFORD COMPANY

Results of Analyses For:

ORGANICS & GENERAL CHEMISTRY
Case No. 12-039
(TMA/ARLI Work Order # A2-12-039)

METALS & NITRATE/NITRITE
Case No. N2-12-067
(Batched w/ N2-12-087)
(TMA/Skinner & Sherman W.O. # S2-12-213, S2-12-214 & S2-12-215)

February 12, 1993

TMA Master Work Order N2-12-067

i 3-13-96
MC

DASH SAMPLE IDENTIFICATION STORED TESTS for FRACTIONS with work in DEPT: SU and CATEGORY

01A-W B070R4	UNFILTERED ARLI	WHO18	WHO19	WHO20	WHO43	WH114	WH121	WH122
		WH128	WH131	WH132	WH140			
02A-W B070R9	UNFILTERED ARLI	WHO18	WHO19	WHO20	WHO43	WH114	WH121	WH122
		WH128	WH131	WH132	WH140			
03A-W B070S4	UNFILTERED ARLI	WHO18	WHO19	WHO20	WHO43	WH114	WH121	WH122
		WH128	WH131	WH132	WH140			
04A-W B070L4	UNFILTERED ARLI	WHO18	WHO19	WHO20	WHO43	WH114	WH121	WH122
		WH128	WH131	WH132	WH140			
05A-W B070X9	UNFILTERED ARLI	WHO18	WHO19	WHO20	WHO43	WH114	WH121	WH122
		WH128	WH131	WH132	WH140			
06A-W B070Z9	UNFILTERED ARLI	WHO18	WHO19	WHO20	WHO43	WH114	WH121	WH122
		WH128	WH131	WH132	WH140			
06C-W B070Z9	MS UNFILTERED ARLI	WHO18	WHO19	WHO20	WHO43	WH114	WH121	WH122
06D-W B070Z9	MSD UNFILTERED ARLI	WHO18	WHO19	WHO20				
06E-W B070Z9	DCF UNFILTERED ARLI	WHO43	WH114	WH121	WH122	WH128	WH131	WH132
		WH140						
13A-W B070F9	ARLI	WHO18	Two vial contain bubbles TC. 12/14/92					
14A-W B070E1	ARLI	WHO18	Two vial contain bubbles TC. 12/14/92					
15A-W B070E9	ARLI	WHO18	ONE vial contains bubble TC. 12/14/92					
16A-W B070W9	ARLI	WHO18	Three vial contain bubbles TC. 12/14/92					
17A-W B070Y1	ARLI	WHO18	Two vial contain bubbles TC. 12/14/92					
18A-W B070C1	ARLI	WHO18	ONE vial contains bubble TC. 12/14/92					

RELEASED BY	DATE	TRANSFERRED TO	DATE	RECEIVED BY	DATE
<u>Yamamoto</u>	<u>12-11-92</u>	<u>ARLI</u>	<u>12-11-92</u>	<u>Judy [Signature]</u>	<u>12/14/92 *</u>

* Received on 12/12/92; OPENED ON 12/14/92 TC. 12/14/92

Westinghouse Hanford Company	<h2 style="margin: 0;">CHAIN OF CUSTODY</h2>
Custody Form Initiator PH BUTCHER	
Company Contact PH BUTCHER	Telephone (509)376-5045
Project Designation/Sampling Locations 100-KR-4	Collection Date 12-9-92
Ice Chest No. 54L-203	Field Logbook No. EFL-1049
Bill of Lading/Airbill No. 251900760-1	Offsite Property No. W93-0-0151-6
Method of Shipment EMERY	
Shipped to TMA	
Possible Sample Hazards/Remarks N/A	

Sample Identification

B07QR4

- 3, 40ml, Gs*, WATER, CLP-VOA
- 3, 2L, aG, WATER, CLP-SEMI VOA & PCB's/PEST
- 1, 1L, P, WATER, ANIONS(IC) SO4; F; PO4; ClYCOND./pH
- 1, 500ml, P, WATER, ANIONS/NO3-NO2 (H2SO4)
- 1, 1L, G, WATER, ALK.YTOT. DISSOLVED SOLIDS
- 1, 500ml, G, WATER, SULFIDE (add Zinc Acetate+NaOH pH>9)
- 1, 500ml, G, WATER, AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
- 1, 1L, P, WATER, CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
- 1, 1L, P, WATER, CLP-CN (NaOH)
- 2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90 (HNO3)
- 1, 1L, P, WATER, Tc-99 (HCl)
- 1, 250ml, Gs, WATER, TRITIUM/C-14

B07QR5

- 1, 1L, P, WATER, CLP-ICP/AA METALS (FILTERED)/CLP-Hg (HNO3)

B07QR6

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

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: <i>L.D. Walker</i> <i>[Signature]</i>	Received by: <i>ReFrig. # 1</i>	Date/Time: <i>12-9-92 / 1615</i>
Relinquished by:	Received by: <i>K. Trapp / K. Trapp</i>	Date/Time: <i>12/10/92 0900</i>
Relinquished by: <i>K. Trapp / K. Trapp</i>	Received by: <i>[Signature]</i>	Date/Time: <i>12/11/92 3:50</i>
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

Collector K. Lee, L. Walker Date Sampled 12-9-92 Time 1400 hours
 Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B07QX9	✓ 3; 40ml; Gs*;	WATER	CLP-VOA
	✓ 3; 2L; aG;	WATER	CLP-SEMI VOA & PCB's/PEST
	✓ 1; 1L; P;	WATER	ANIONS (IC) SO4, F, PO4, Cl/COND/pH
-	✓ 1; 500ml; P;	WATER	ANIONS/NO3-NO2 (H2SO4)
	✓ 1; 1L; G;	WATER	ALK./TOT. DISSOLVED SOLIDS
	✓ 1; 500ml; G;	WATER	SULFIDE (add Zinc-Acetate + NaOH pH > 9)
	✓ 1; 500ml; G;	WATER	AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH < 2)
	✓ 1; 1L; P;	WATER	CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
	✓ 1; 1L; P;	WATER	CLP-CN (NaOH)
	✓ 2; 4L; P;	WATER	GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90, (HNO3)
	✓ 1; 1L; P;	WATER	Tc-99 (HCl)
	✓ 1; 250ml; Gs;	WATER	TRITIUM/C-14
B07QY0	✓ 1; 1L; P;	WATER	CLP-ICP/AA METAL (FILTERED)/CLP-Hg (HNO3)
B07QY1	✓ 3; 40ml; Gs	WATER	CLP-VOA
			OPC: # W93-0-0151-7
			BOL: # 251900760-1
			TASK#: 92-398

Field Information** _____

Special Handling and/or Storage _____

Possible Sample Hazards _____

PART II: LABORATORY SECTION

Received by Hona Hobbs Title sample control Technician Date 12-11-92
 Analysis Required _____

* Indicate whether sample is soil, sludge, water, etc.
 ** Use back of page for additional information relative to sample location.

9613490-2086

00002L



Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K. Lee, L. Walker Date Sampled 12-8-92 Time 1130 hours
Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
<u>BO 7000</u>	<input checked="" type="checkbox"/> 3; 40ml; Gs*;	WATER	CLP-VOA
	<input checked="" type="checkbox"/> 3; 2L; aG;	WATER	CLP-SEMI VOA & PCB's/PEST
	<input checked="" type="checkbox"/> 1; 1L; P;	WATER	ANIONS (IC) SO4, F, PO4, Cl/COND/pH
	<input checked="" type="checkbox"/> 1; 500ml; P;	WATER	ANIONS/NO3-NO2 (H2SO4)
	<input checked="" type="checkbox"/> 1; 1L; G;	WATER	ALK./TOT. DISSOLVED SOLIDS
	<input checked="" type="checkbox"/> 1; 500ml; G;	WATER	SULFIDE (add Zinc, Acetate + NaOH pH > 9)
	<input checked="" type="checkbox"/> 1; 500ml; G;	WATER	AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH < 2)
	<input checked="" type="checkbox"/> 1; 1L; P;	WATER	CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
	<input checked="" type="checkbox"/> 1; 1L; P;	WATER	CLP-CN (NaOH)
	<input checked="" type="checkbox"/> 2; 4L; P;	WATER	GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90, (HNO3)
	<input checked="" type="checkbox"/> 1; 1L; P;	WATER	Tc-99 (HCl)
	<input checked="" type="checkbox"/> 1; 250ml; Gs;	WATER	TRITIUM/C-14
<u>BO 7000</u>	<input checked="" type="checkbox"/> 1; 1L; P;	WATER	CLP-ICP/AA METAL (FILTERED)/CLP-Hg (HNO3)
<u>BO 7001</u> <u>BO 7000</u> <u>PAB 12/2/92</u>	<input checked="" type="checkbox"/> 3; 40ml; Gs	WATER	CLP-VOA
			OPC: # <u>W93-0-0151-4</u>
			BOL: # <u>251-900-7320</u>
			TASK#: 92-398

Field Information ** _____

Special Handling and/or Storage _____

Possible Sample Hazards _____

PART II: LABORATORY SECTION

Received by Alfonso Mabuf Title sample control Technician Date 12-11-92
Analysis Required _____

* Indicate whether sample is soil, sludge, water, etc.
** Use back of page for additional information relative to sample location.



Westinghouse
Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K. Lee, L. Walker Date Sampled 12-9-92 Time 1300 hours
Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample *	Analysis Requested
B07QR4	✓ 3; 40ml; Gs*;	WATER	CLP-VOA
	✓ 3; 2L; aG;	WATER	CLP-SEMI VOA & PCB's/PEST
	✓ 1; 1L; P;	WATER	ANIONS (IC) SO4, F, PO4, Cl/COND/pH
	- ✓ 1; 500ml; P;	WATER	ANIONS/NO3-NO2 (H2SO4)
	✓ 1; 1L; G;	WATER	ALK./TOT. DISSOLVED SOLIDS
	✓ 1; 500ml; G;	WATER	SULFIDE (add Zinc-Acetate + NaOH pH>9)
	✓ 1; 500ml; G;	WATER	AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
	✓ 1; 1L; P;	WATER	CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
	✓ 1; 1L; P;	WATER	CLP-CN (NaOH)
	✓ 2; 4L; P;	WATER	GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90, (HNO3)
	✓ 1; 1L; P;	WATER	Tc-99 (HCl)
	✓ 1; 250ml; Gs;	WATER	TRITIUM/C-14
B07QR5	✓ 1; 1L; P;	WATER	CLP-ICP/AA METAL (FILTERED)/CLP-Hg (HNO3)
B07QR6	✓ 3; 40ml; Gs	WATER	CLP-VOA
			OPC: # W93-0-0151-6
			BOL: # 251900760-1
			TASK#: 92-398

Field Information ** _____

Special Handling and/or Storage _____

Possible Sample Hazards _____

PART II: LABORATORY SECTION

Received by Alfonso Gohagan Title Sample Control Technician Date 12/11/92

Analysis Required _____

* Indicate whether sample is soil, sludge, water, etc.



Westinghouse
Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K. Lee, L. Walker Date Sampled 12-9-92 Time 1000 hours
Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B07Q54 ✓	3; 40ml; Gs*;	WATER	CLP-VOA
✓	3; 2L; aG;	WATER	CLP-SEMI VOA & PCB's/PEST
✓	1; 1L; P;	WATER	ANIONS (IC) SO4, F, PO4, Cl/COND/pH
- ✓	1; 500ml; P;	WATER	ANIONS/NO3-NO2 (H2SO4)
✓	1; 1L; G;	WATER	ALK./TOT. DISSOLVED SOLIDS
✓	1; 500ml; G;	WATER	SULFIDE (add Zinc Acetate + NaOH pH > 9)
✓	1; 500ml; G;	WATER	AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH < 2)
✓	1; 1L; P;	WATER	CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
✓	1; 1L; P;	WATER	CLP-CN (NaOH)
✓	2; 4L; P;	WATER	GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90, (HNO3)
✓	1; 1L; P;	WATER	Tc-99 (HCl)
✓	1; 250ml; Gs;	WATER	TRITIUM/C-14
B07Q55 ✓	1; 1L; P;	WATER	CLP-ICP/AA METAL (FILTERED)/CLP-Hg (HNO3)
B07Q56 ✓	3; 40ml; Gs	WATER	CLP-VOA
			OPC: # W93-0-0151-6
			BOL: # 251900760-1
			TASK#: 92-398

Field Information**

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Alfonso Robles Title TECHNICIAN Date 12-11-92

Analysis Required

*Indicate whether sample is soil, sludge, water, etc.



Westinghouse
Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K. Lee, L. Walker Date Sampled 12-9-92 Time 1130 hours
 Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B07QR9	✓ 3; 40ml; Gs*;	WATER	CLP-VOA
	✓ 3; 2L; aG;	WATER	CLP-SEMI VOA & PCB's/PEST
	✓ 1; 1L; P;	WATER	ANIONS (IC) SO4, F, PO4, Cl/COND/pH
	- ✓ 1; 500ml; P;	WATER	ANIONS/NO3-NO2 (H2SO4)
	✓ 1; 1L; G;	WATER	ALK./TOT. DISSOLVED SOLIDS
	✓ 1; 500ml; G;	WATER	SULFIDE (add Zinc Acetate + NaOH pH>9)
	✓ 1; 500ml; G;	WATER	AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
	✓ 1; 1L; P;	WATER	CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
	✓ 1; 1L; P;	WATER	CLP-CN (NaOH)
	✓ 2; 4L; P;	WATER	GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90, (HNO3)
	✓ 1; 1L; P;	WATER	Tc-99 (HCl)
	✓ 1; 250ml; Gs;	WATER	TRITIUM/C-14
B07QSD	✓ 1; 1L; P;	WATER	CLP-ICP/AA METAL (FILTERED)/CLP-Hg (HNO3)
B07QSI	✓ 3; 40ml; Gs	WATER	CLP-VOA
			OPC: # W93-0-0151-7
			BOL: # 251900760-1
			TASK#: 92-398

Field Information** _____

Special Handling and/or Storage _____

Possible Sample Hazards _____

PART II: LABORATORY SECTION

Received by [Signature] Title TECHNICIAN Date 12/11/92

Analysis Required _____

* Indicate whether sample is soil, sludge, water, etc.
 ** Use back of page for additional information relative to sample location.



Westinghouse
Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K. Lee, L. Walker

Date Sampled 12-8-92 Time 1300 hours

Company Contact P. H. Butcher

Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B07QW4 ✓	3; 40ml; Gs*;	WATER	CLP-VOA
✓	3; 2L; aG;	WATER	CLP-SEMI VOA & PCB's/PEST
✓	1; 1L; P;	WATER	ANIONS (IC) SO4, F, PO4, CI/COND/pH
- ✓	1; 500ml; P;	WATER	ANIONS/NO3-NO2 (H2SO4)
✓	1; 1L; G;	WATER	ALK./TOT. DISSOLVED SOLIDS
✓	1; 500ml; G;	WATER	SULFIDE (add Zinc Acetate + NaOH pH>9)
✓	1; 500ml; G;	WATER	AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
✓	1; 1L; P;	WATER	CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
✓	1; 1L; P;	WATER	CLP-CN (NaOH)
✓	2; 4L; P;	WATER	GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90, (HNO3)
✓	1; 1L; P;	WATER	Tc-99 (HCl)
✓	1; 250ml; Gs;	WATER	TRITIUM/C-14
B07QW5 ✓	1; 1L; P;	WATER	CLP-ICP/AA METAL (FILTERED)/CLP-Hg (HNO3)
B07QW6 ✓	3; 40ml; Gs	WATER	CLP-VOA
			OPC: # W93-0-051-54 12-9-92
			BOL: # 251 900 7370
			TASK#: 92-398

Field Information**

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Alfonso H. H. H. Title Sample Control Technician Date 12-11-92

Analysis Required

* Indicate whether sample is soil, sludge, water, etc.

Use only the appropriate label and amount of sample to identify location.

Westinghouse
Hanford Company

CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER
Company Contact PH BUTCHER
Project Designation/Sampling Locations 100-KR-4
Ice Chest No. SML-263
Bill of Lading/Airbill No. 251900760-1
Method of Shipment EMERY
Shipped to TMA
Possible Sample Hazards/Remarks N/A

Telephone (509)376-5045
Collection Date 12-9-92
Field Logbook No. EFL-1049
Offsite Property No. W93-0-0151-7

Sample Identification

B07QR9

- 3, 40ml, Gs*, WATER, CLP-VOA
- 3, 2L, aG, WATER, CLP-SEMI VOA & PCB's/PEST
- 1, 1L, P, WATER, ANIONS(IC) SO4, F, PO4, Cl/COND./pH
- 1, 500ml, P, WATER, ANIONS/NO3-NO2 (H2SO4)
- 1, 1L, G, WATER, ALK./TOT. DISSOLVED SOLIDS
- 1, 500ml, G, WATER, SULFIDE (add Zinc Acetate+NaOH pH>9)
- 1, 500ml, G, WATER, AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
- 1, 1L, P, WATER, CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg, (HNO3)
- 1, 1L, P, WATER, CLP-CN (NaOH)
- 2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90 (HNO3)
- 1, 1L, P, WATER, Tc-99 (HCl)
- 1, 250ml, Gs, WATER, TRITIUM/C-14

B07Q50

- 1, 1L, P, WATER, CLP-ICP/AA METALS (FILTERED)/CLP-Hg (HNO3)

B07Q51

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

[] Field Transfer of Custody		Chain of Possession	(Sign and Print Names)
Relinquished by: <i>L.D. Walker</i> <i>L.D. Walker</i>	Received by: <i>Refrig. #2</i>	Date/Time: <i>12-9-92 / 1620</i>	
Relinquished by:	Received by: <i>K. Trapp / K. Trapp</i>	Date/Time: <i>12/10/92 0900</i>	
Relinquished by: <i>K. Trapp / K. Trapp</i>	Received by: <i>K. Trapp</i>	Date/Time: <i>12-11-92 3:50 PM</i>	
Relinquished by:	Received by:	Date/Time:	
Final Sample Disposition			
Disposal Method:	Disposed by:	Date/Time:	
Comments:			

Westinghouse
Hanford Company

CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER
Company Contact PH BUTCHER
Project Designation/Sampling Locations 100-KR-4
Ice Chest No. SMASH
Bill of Lading/Airbill No. 251900760-1
Method of Shipment EMERY
Shipped to TMA
Possible Sample Hazards/Remarks N/A

Telephone (509)376-5045
Collection Date ~~12-8-92~~ 12-9-92 ^{lw}
Field Logbook No. EFL-1049
Offsite Property No. W93-0-0151-6

Sample Identification

B07Q54

- 3, 40ml, Gs*, WATER, CLP-VOA
- 3, 2L, aG, WATER, CLP-SEMI VOA & PCB's/PEST
- 1, 1L, P, WATER, ANIONS(IC) SO4, F, PO4, C1/COND./pH
- 1, 500ml, P, WATER, ANIONS/NO3-NO2 (H2SO4)
- 1, 1L, G, WATER, ALK./TOT. DISSOLVED SOLIDS
- 1, 500ml, G, WATER, SULFIDE (add Zinc Acetate+NaOH pH>9)
- 1, 500ml, G, WATER, AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
- 1, 1L, P, WATER, CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
- 1, 1L, P, WATER, CLP-CN (NaOH)
- 2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90 (HNO3)
- 1, 1L, P, WATER, Tc-99 (HCl)
- 1, 250ml, Gs, WATER, TRITIUM/C-14

B07Q55

- 1, 1L, P, WATER, CLP-ICP/AA METALS (FILTERED)/CLP-Hg (HNO3)

B07Q56

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

[] Field Transfer of Custody		Chain of Possession	(Sign and Print Names)
Relinquished by: L.D. Walker <i>L.D. Walker</i>	Received by: Refrig. #1	Date/Time: 12/9/92 - 1615	
Relinquished by:	Received by: K. Trapp / K. Trapp	Date/Time: 12/10/92 0900	
Relinquished by: K. Trapp / K. Trapp	Received by: <i>K. Trapp</i>	Date/Time: 12-11-92 3:50	
Relinquished by:	Received by:	Date/Time:	
Final Sample Disposition			
Disposal Method:	Disposed by:	Date/Time:	
Comments:			

Westinghouse
Hanford Company

CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER
Company Contact PH BUTCHER
Project Designation/Sampling Locations 100-KR-4
Ice Chest No. SML 193
Bill of Lading/Airbill No. 251 900 7370
Method of Shipment EMERY
Shipped to TMA
Possible Sample Hazards/Remarks N/A

Telephone (509)376-5045
Collection Date 12-8-92
Field Logbook No. EFL-1049
Offsite Property No. W93-0-0151-~~4~~ 4
12-9

Sample Identification

BO7QW4

- 3, 40ml, Gs*, WATER, CLP-VOA~
- 3, 2L, aG, WATER, CLP-SEMI VOA & PCB's/PEST~
- 1, 1L, P, WATER, ANIONS(IC) SO4; F; PO4; Cl/COND./pH~
- 1, 500ml, P, WATER, ANIONS/NO3-NO2 (H2SO4)
- 1, 1L, G, WATER, ALK. TOT. DISSOLVED SOLIDS~
- 1, 500ml, G, WATER, SULFIDE~(add Zinc Acetate+NaOH pH>9)
- 1, 500ml, G, WATER, AMMONIA/CHEMICAL OXYGEN DEMAND~ (H2SO4 pH<2)
- 1, 1L, P, WATER, CLP-ICP/AA METALS~(UNFILTERED)/CLP-Hg~(HNO3)
- 1, 1L, P, WATER, CLP-CN~(NaOH)
- 2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC(U-235/238, Pu-239/240, Am-241), Sr-90 (HNO3)
- 1, 1L, P, WATER, Tc-99 (HCl)
- 1, 250ml, Gs, WATER, TRITIUM/C-14

BO7QW5

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

BO7QW6

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

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: L.D. Walker <i>L.D. Walker</i>	Received by: Refrig #2	Date/Time: 12-8-92 / 1500
Relinquished by: Refrig #2	Received by: <i>G.G. Hamilton</i>	Date/Time: 12-9-92 / 0830
Relinquished by: <i>G.G. Hamilton</i>	Received by: <i>Honno Hobbs</i>	Date/Time: 12-11-92 3:50
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:
Comments:		

Westinghouse
Hanford Company

CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER
Company Contact PH BUTCHER
Project Designation/Sampling Locations 100-KR-4
Ice Chest No. SAL-17
Bill of Lading/Airbill No. 251900760-1
Method of Shipment EMERY
Shipped to TMA
Possible Sample Hazards/Remarks N/A

Telephone (509)376-5045
Collection Date 12-9-92
Field Logbook No. EFL-1049
Offsite Property No. W93-0-0151-7

Sample Identification

BO7QX9

- 3, 40ml, Gs*, WATER, CLP-VOA~
- 3, 2L, aG, WATER, CLP-SEMI VOA~ & PCB's/PEST~
- 1, 1L, P, WATER, ANIONS(IC) SO4, F, PO4, Cl-/COND~/pH~
- 1, 500ml, P, WATER, ANIONS/NO3-NO2 (H2SO4)
- 1, 1L, G, WATER, ALK~/TOT. DISSOLVED SOLIDS~
- 1, 500ml, G, WATER, SULFIDE~ (add Zinc Acetate+NaOH pH>9)
- 1, 500ml, G, WATER, AMMONIA/CHEMICAL OXYGEN DEMAND~ (H2SO4 pH<2)
- 1, 1L, P, WATER, CLP-ICP/AA METALS~ (UNFILTERED)/CLP-Hg~ (HNO3)
- 1, 1L, P, WATER, CLP-CN~ (NaOH)
- 2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90 (HNO3)
- 1, 1L, P, WATER, Tc-99 (HCl)
- 1, 250ml, Gs, WATER, TRITIUM/C-14

BO7QY0

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

BO7QY1

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

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: <u>L.D. Walker</u> <u>L.D. Walker</u>	Received by: <u>Refrig. # 4</u>	Date/Time: <u>12-9-92 / 1620</u>
Relinquished by:	Received by: <u>K. Trapp / K. Trapp</u>	Date/Time: <u>12/10/92 0900</u>
Relinquished by: <u>K. Trapp / K. Trapp</u>	Received by: <u>Alonso Sobal</u>	Date/Time: <u>12/11/92 4:00</u>
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:
Comments:		

Westinghouse
Hanford Company

CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER
Company Contact PH BUTCHER
Project Designation/Sampling Locations 100-KR-4
Ice Chest No. C-2
Bill of Lading/Airbill No. 251-900-7370
Method of Shipment EMERY
Shipped to TMA
Possible Sample Hazards/Remarks N/A

Telephone (509)376-5045
Collection Date 12-8-92
Field Logbook No. EFL-1049
Offsite Property No. W93-0-0151-4

Sample Identification

BO7029

- 3, 40ml, Gs*, WATER, CLP-VOA
- 3, 2L, aG, WATER, CLP-SEMI VOA & PCB's/PEST
- 1, 1L, P, WATER, ANIONS(IC) SO4, F, PO4, CT/COND./pH
- 1, 500ml, P, WATER, ANIONS/NO3-NO2 (H2SO4)
- 1, 1L, G, WATER, ALK/TOT. DISSOLVED SOLIDS
- 1, 500ml, G, WATER, SULFIDE (add Zinc Acetate+NaOH pH>9)
- 1, 500ml, G, WATER, AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
- 1, 1L, P, WATER, CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
- 1, 1L, P, WATER, CLP-CN (NaOH)
- 2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90 (HNO3)
- 1, 1L, P, WATER, Tc-99 (HCl)
- 1, 250ml, Gs, WATER, TRITIUM/C-14

BO7R00

- 1, 1L, P, WATER, CLP-ICP/AA METALS (FILTERED)/CLP-Hg (HNO3)

BO7R01

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

<input type="checkbox"/> Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: L.D. Walker <i>L.D. Walker</i>	Received by: ReFrig. #1	Date/Time: 12-8-92 / 1500
Relinquished by: ReFrig #1 <i>ReFrig #1</i>	Received by: <i>GG Hamilton</i>	Date/Time: 12-9-92 / 0830
Relinquished by: <i>GG Hamilton</i>	Received by: <i>GG Hamilton</i>	Date/Time: 12/11/92 4:17
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:
Comments:		

9613490-2097

SAMPLE LOG-IN SHEET

LAB NAME : TMA/ARLI

PAGE :

2

OF

000004

RECEIVED BY (PRINT NAME): Trudy Golub

LOG-IN-DATE : 12/14/92

RECEIVED BY (SIGNATURE): Trudy Golub

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

CORRESPONDING

EPA
SAMPLE
#

SAMPLE
TAG
#

ASSIGNED
LAB
#

REMARKS:
CONDITION OF
SAMPLE SHIPMENT, ETC

REMARKS: SML 302

1. Custody Seal(s) Present/Absent*
Intact/Broken

B07Q29

A2-12-039-11

2. Custody Seal Nos: _____

B07QX9

A2-12-039-09

2 VOA bubbles

B07QY1

A2-12-039-10

1-VOA BUBBLE

B07R01

A2-12-039-12

3. Chain of Custody
Records Present/Absent*

4. Traffic Reports
or Packing List Present/Absent*

5. Airbill Airbill/Sticker
Present/Absent*

6. Airbill No.: 2521033583

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 Yes/No*
on custody
records, traffic
reports, and
sample tags agree

11. Date Received at Lab: 12/14/92

12. Temp of ice chest 2 °F

13. Time Received: 1000

SAMPLE TRANSFER

Fraction: _____

Area #: _____

By: _____

On: _____

* Contact SPO and attach record of resolution

Reviewed By: _____ Logbook No.: _____

Date: _____ Logbook Page No.: _____

LAB NAME : TNA/ARLI

PAGE : 4

OF 4

RECEIVED BY (PRINT NAME): Trudy Golub

LOG-IN-DATE : 12/14/92

RECEIVED BY (SIGNATURE): *Trudy Golub*

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

CORRESPONDING

EPA SAMPLE #

SAMPLE TAG #

ASSIGNED LAB #

REMARKS: CONDITION OF SAMPLE SHIPMENT, ETC

REMARKS: SMASH

1. Custody Seal(s) Present/Absent*
 Intact/Broken

B07GR4

A2-12-089-01

B07GRU

A2-12-089-02

2 VOA bubble

B07GX9

A2-12-089-05

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.: 2521033583

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 Yes/No*

on custody records, traffic reports, and sample tags agree

11. Date Received at Lab: 12/14/92

12. Temp of ice chest 4 °C

13. Time Received: 1006

SAMPLE TRANSFER

Fraction: _____

Area #: _____

By: _____

On: _____

* Contact SMO and attach record of resolution

Reviewed By: _____ Logbook No.: _____

Date: _____ Logbook Page No.: _____

TMA/ARLI
The radio Analytical Inc.

RADIATION DOSE RATE SURVEY FORM

Date 12/14/92 COMPANY TMA/ARLI (WHC) OTHER ORD # 2521033583

Surveyor's Name MARK S. McNamee

Model No. HP-210 1 ESP-1 Model No. AC-37 1 ESP-1

Serial Nos. 710289 1 02619 Serial Nos. 407726 1 02628

Calibration Date 12/02/92 Calibration Date 8/01/92

Instrument Calibration Factor .280 Instrument Calibration Factor 0.188

Sample	Location	HP-210 CPM	HP-210 Factor	HP-210 DPM	AC-37 CPM	AC-37 Factor	AC-37 DPM	Spillage or Breakage?	Activity Bq/gm or pCi/g
Background		27.0			0				
Consistency		7,250	0.2799		5,070	0.1863			
Smear: <u>green books</u>		39.0			0				
SML 302		29.0			1.0				
SML 255		38.0			4.0				
SML 184		30.0			1.0				
Reported (WHC) 30 samples each < 50 pCi/gm									

Comments:

All OK

Approved MSM

Not OK

Date 12/14/92

000009

FEDERAL EXPRESS

QUESTIONS? CALL 800-238-5355 TOLL FREE.

AIRBILL PACKAGE TRACKING NUMBER

2521033583

21254 2521033583

RECIPIENT'S COPY

From (Your Name) Please Print Sample Control Company Street Address City State ZIP Required		Your Phone Number (Very Important) (410) 238-2400 Department/Floor No.	To (Recipient's Name) Please Print SAMPLE CONTROL Company Street Address (We Cannot Deliver to P.O. Boxes or P.O. Zip Codes.) How Taylor City State ZIP Required		Recipient's Phone Number (Very Important) (818) 357-3247 Department/Floor No.
YOUR INTERNAL BILLING REFERENCE INFORMATION (optional) (First 24 characters will appear on invoice) 2320 6406			IF HOLD FOR PICK-UP, Print FEDEX Address Here Street Address 4701 Commerce Dr City State ZIP Required		
PAYMENT <input type="checkbox"/> Be Sender <input type="checkbox"/> Be Recipient's FedEx Acct No <input type="checkbox"/> Be 3rd Party FedEx Acct No <input type="checkbox"/> Be Credit Card <input type="checkbox"/> Cash <input type="checkbox"/> Check			Emp No Date <input type="checkbox"/> Cash Received <input type="checkbox"/> Return Shipment <input type="checkbox"/> Third Party <input type="checkbox"/> Chg To Del <input type="checkbox"/> Chg To Hold Street Address City State Zip Received By Date/Time Received FedEx Employee Number		
SERVICES (Check only one box) Priority Overnight (Delivery by next business day) <input checked="" type="checkbox"/> YOUR PACKAGING <input type="checkbox"/> FEDEX LETTER <input type="checkbox"/> FEDEX PAK <input type="checkbox"/> FEDEX BOX <input type="checkbox"/> FEDEX TUBE Economy Two-Day (Delivery by second business day) <input type="checkbox"/> ECONOMY Standard Overnight (Delivery by next business day) <input type="checkbox"/> YOUR PACKAGING <input type="checkbox"/> FEDEX LETTER <input type="checkbox"/> FEDEX PAK <input type="checkbox"/> FEDEX BOX <input type="checkbox"/> FEDEX TUBE Government Overnight (Delivery by next business day) <input type="checkbox"/> GOVT LETTER <input type="checkbox"/> GOVT PACKAGE Freight Service (No 1 and 2 day) <input type="checkbox"/> OVERNIGHT FREIGHT <input type="checkbox"/> TWO-DAY FREIGHT		DELIVERY AND SPECIAL HANDLING (Check services required) <input checked="" type="checkbox"/> HOLD FOR PICK-UP (if 0 on Box #) <input type="checkbox"/> DELIVER WEEKDAY <input type="checkbox"/> DELIVER SATURDAY (if 0 on charge) <input type="checkbox"/> DANGEROUS GOODS (if 0 on charge) <input type="checkbox"/> DRY ICE <input type="checkbox"/> OTHER SPECIAL SERVICE <input type="checkbox"/> SATURDAY PICK-UP (if 0 on charge) <input type="checkbox"/> HOLIDAY DELIVERY (if 0 on charge)		DIM SHIPMENT (Chargeable Weight) L x W x H = <input type="checkbox"/> Regular Stop <input type="checkbox"/> Drop Box <input type="checkbox"/> BSC <input type="checkbox"/> Call Stop <input type="checkbox"/> Station	
FEDERAL EXPRESS USE Base Charges Declared Value Charge Other 1 Other 2 Total Charges			REVISION DATE 8/91 PART #137204 FIRM 4/92 FORMAT #099 099 © 1990-91 FEDEX PRINTED IN U.S.A.		

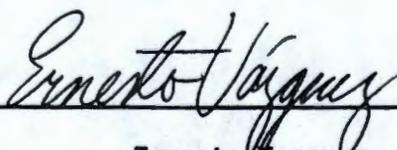
2017-06-19 06:51:19

GENERAL CHEMISTRY RESULTS**CASE NO. 12-039****Water Sample #:****B07QR4
B07QM4****B07QR9
B07QX9****B07QS4
B07QZ9****CASE NARRATIVE**

The holding times for the Anions, pH, Ammonia, TDS, COD, Alkalinity and Sulfide analyses was exceeded. Careful review of the QC analysis indicate that the data is reliable.

Sample B07QR4 (A2-12-039-01) yielded a 61.5% recovery for the Phosphate analysis. The Phosphate recovery compared to our laboratory control sample indicated the presence of a matrix interference.

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



Ernesto Wazquez

9613490.2104

000013

TNA Inc.

REPORT

Work Order # A2-12-039

Received: 12/11/92

02/04/93 15:00:13

REPORT Westinghouse Manford Company
TO 2355 Stevens Dr.
Richland, WA, 99352
HQ-346/200 West/T6-08
ATTN Jeanette Duncan

PREPARED Thermo Analytical, Inc.
BY 160 Taylor Street
Monrovia, CA 91016
ATTN Ms. Carole Harris
PHONE 818-357-3247


CERTIFIED BY
CONTACT EVV C1H

CLIENT WNC SAMPLES 13
COMPANY Westinghouse Manford 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-KR-4
TAKEN By Westinghouse Staff
TRANS By Federal Express
TYPE Liquid
P.O. # H2-12-067-SU-AR
INVOICE under separate cover

SAMPLE IDENTIFICATION

TEST CODES and NAMES used on this workorder

- 01 B07QR4
- 01 B07QR4 MS
- 01 B07QR4 MSD
- 01 B07QR4
- 01 B07QR4 MS
- 01 B07QR4
- 01 B07QR4 Duplicate
- 01 B07QR4
- 01 B07QR4 MS
- 01 B07QR4
- 01 B07QR4 MS
- 02 B07QR6
- 03 B07QR9
- 03 B07QR9 MS
- 03 B07QR9 MSD
- 03 B07QR9
- 03 B07QR9 Duplicate
- 03 B07QR9
- 03 B07QR9 Duplicate
- 03 B07QR9
- 03 B07QR9 Duplicate
- 04 B07QS1
- 05 B07QS4
- 05 B07QS4 MS
- 05 B07QS4 MSD
- 05 B07QS4

- BNCLPW CLP Semivol. Water - WH020
- PECLPL CLP Pesticides Liq.-WH019
- VOCLPL CLP Volatile Org.Liq.
- WCCLPL Anions & Wet Chem. - WH043
- WCL L Chloride - WH120
- WCQCD Quality Control Summary
- WCQCS Quality Control Summary
- WF L Fluoride in Water
- WNH3 L Ammonia in Water - WH140
- WPH L pH of Liquid - WH121
- WPO4 L Phosphate in Liquids
- WSO4 L Sulfate (in Waters)
- WSULFI Sulfide - WH114
- W ALK Alkalinity - WH131
- W COD COD Water - WH132
- W COND Conductivity-Water WH135
- W TDS Dissolved Solids WH128

9613490.2105

TMA Inc.

REPORT

Work Order # A200014

Received: 12/11/92

02/04/93 15:00:13

SAMPLE IDENTIFICATION

- 05 R070S4 _____
- 06 R070S6 _____
- 07 R070W4 _____
- 08 R070W6 _____
- 09 R070X9 _____
- 10 R070Y1 _____
- 11 R070Z9 _____
- 12 R07R01 _____
- 13 Wet Chemistry Blank _____

9613490.2106

000015

Received: 12/11/92

TMA Inc. REPORT
Results by Sample

Work Order # A2-12-039

SAMPLE ID 807084 FRACTION 01E TEST CODE UCCLPL NAME Anions & Wet Chem. - VN043
Date & Time Collected 12/09/92 Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
<u>ANALYSIS</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>LIMIT</u>
Chloride	300.0	13.2	mg/L	0.2
Fluoride	300.0	0.3	mg/L	0.1
Phosphate	300.0	<0.4	mg/L	0.4
pH	150.1	7.8	pH	0.1
Sulfate	300.0	32	mg/L	1
Elect. Conductivity	120.1	423	umho/cm	6

FORM 1

9613490.2107

000016

TNA Inc.

REPORT

Work Order # A2-12-039

Received: 12/11/92

Results by Sample

SAMPLE ID 0079R4

FRACTION 01G

TEST CODE WCCLPL

NAME Anions & Wet Chem. - W043

Date & Time Collected 12/09/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	161	mg/L	2
Tot. Dissolved Solids	160.1	277	mg/L	5

FORM I

9613490.2108

000017

Received: 12/11/92

TRA Inc. REPORT
Results by Sample

Work Order # A2-12-839

SAMPLE ID 807084 FRACTION 011 TEST CODE WCCLPL NAME Anions & Vet Chem. - VN043
Date & Time Collected 12/09/92 Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
<u>ANALYSIS</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>LIMIT</u>
sulfide	376.1	<1	mg/L	1

FORM 1

9613490.2109

000018

TNA Inc.

REPORT

Work Order # A2-12-039

Received: 12/11/92

Results by Sample

SAMPLE ID B079R4

FRACTION 01K

TEST CODE WCCLPL

NAME Anions & Vet Chem. - VN043

Date & Time Collected 12/09/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	<0.05	mg/L	0.05
COD	410.0	<5	mg/L	5

FORM 1

9613490.2110

000019

TNA Inc.

REPORT

Work Order # A2-12-039

Received: 12/11/92

Results by Sample

SAMPLE ID 807989

FRACTION Q3E

TEST CODE WCCLPL

NAME Anions & Wet Chem. - V043

Date & Time Collected 12/09/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	6.3	mg/L	0.2
Fluoride	300.0	0.4	mg/L	0.1
Phosphate	300.0	<0.4	mg/L	0.4
pH	150.1	8.3	pH	0.1
Sulfate	300.0	21	mg/L	1
Elect. Conductivity	120.1	290	umho/cm	6

FORM I

9613490.2111

00002

TMA Inc.

REPORT

Work Order # A2-12-039

Received: 12/11/92

Results by Sample

SAMPLE ID B07989

FRACTION 036

TEST CODE WCCLPL

NAME Anions & Wet Chem. - VN043

Date & Time Collected 12/09/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	117	mg/L	2
Tot. Dissolved Solids	160.1	201	mg/L	5

FORM 1

9613490.2112

000021

Received: 12/11/92

TRA Inc. REPORT
Results by Sample

Work Order # A2-12-039

SAMPLE ID 807029 FRACTION 03H TEST CODE UCCLPL NAME Anions & Wet Chem. - VH043
Date & Time Collected 12/09/92 Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Sulfide	376.1	<1	mg/L	1

FORM I

9613490.2113

000022

TRA Inc.

REPORT

Work Order # A2-12-039

Received: 12/11/92

Results by Sample

SAMPLE ID 807989

FRACTION 03J

TEST CODE WCCLPL

NAME Anions & Wet Chem. - V8043

Date & Time Collected 12/09/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	<0.05	mg/L	0.05
COD	410.0	<5	mg/L	5

FORM 1

9613490.2114

000023

TMA Inc.

REPORT

Work Order # A2-12-039

Received: 12/11/92

Results by Sample

SAMPLE ID B07054FRACTION 05ETEST CODE WCCLPLNAME Anions & Wet Chem. - V043Date & Time Collected 12/09/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	7.3	mg/L	0.2
Fluoride	300.0	0.4	mg/L	0.1
Phosphate	300.0	<0.4	mg/L	0.4
pH	150.1	8.0	pH	0.1
sulfate	300.0	109	mg/L	1
Elect. Conductivity	120.1	468	umho/cm	6

FORM 1

9613490.2115

000024

TMA Inc.

REPORT

Work Order # A2-12-039

Received: 12/11/92

Results by Sample

SAMPLE ID 807054

FRACTION 05F

TEST CODE WCCLPL

NAME Anions & Wet Chem. - W043

Date & Time Collected 12/09/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
<u>ANALYSIS</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>LIMIT</u>
Alkalinity	310.1	124	mg/L	2
Tot. Dissolved Solids	160.1	330	mg/L	5

FORM I

9613490.2116

000025

TNA Inc.

REPORT

Work Order # A2-12-039

Received: 12/11/92

Results by Sample

SAMPLE ID 807054

FRACTION 056

TEST CODE WCCLPL

NAME Anions & Wet Chem. - VH043

Date & Time Collected 12/09/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Sulfide	376.1	<1	mg/L	1

FORM 1

9613490.2117

000026

TMA Inc.

REPORT

Work Order # A2-12-039

Received: 12/11/92

Results by Sample

SAMPLE ID 007054

FRACTION 05H

TEST CODE WCCLPL

NAME Anions & Wet Chem. - VH043

Date & Time Collected 12/09/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	0.07	mg/L	0.05
COD	410.0	<5	mg/L	5

FORM 1

9613490.2118

000027

Received: 12/11/92

TNA Inc.

REPORT

Work Order # A2-12-039

Results by Sample

SAMPLE ID B079W4FRACTION 07CTEST CODE WCCLPLNAME Anions & Wet Chem. - VR043Date & Time Collected 12/08/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
<u>ANALYSIS</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>LIMIT</u>
Chloride	300.0	6.4	mg/L	0.2
Fluoride	300.0	0.6	mg/L	0.1
Phosphate	300.0	<0.4	mg/L	0.4
pH	150.1	8.0	pH	0.1
Sulfate	300.0	36	mg/L	1
Elect. Conductivity	120.1	349	umho/cm	6

FORM 1

9613490.2119

G00028

TNA Inc.

REPORT

Work Order # A2-12-039

Received: 12/11/92

Results by Sample

SAMPLE ID 80704

FRACTION 070

TEST CODE WCCLPL

NAME Anions & Wet Chem. - W043

Date & Time Collected 12/08/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
<u>ANALYSIS</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>LIMIT</u>
Alkalinity	310.1	111	mg/L	2
Tot. Dissolved Solids	160.1	241	mg/L	5

FORM 1

9613490.2120

TNA Inc.

REPORT

Work Order # AZ-000029

Received: 12/11/92

Results by Sample

SAMPLE ID B079V4

FRACTION Q7E

TEST CODE VCCLPL

NAME Anions & Wet Chem. - VR043

Date & Time Collected 12/08/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
<u>ANALYSIS</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>LIMIT</u>
Sulfide	376.1	<1	mg/L	1

FORM 1

9613490.2121

000030

TMA Inc.

REPORT

Work Order # A2-12-039

Received: 12/11/92

Results by Sample

SAMPLE ID 807004

FRACTION 07F

TEST CODE WCCLPL

NAME Anions & Wet Chem. - V043

Date & Time Collected 12/08/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	<0.05	mg/L	0.05
COD	410.0	<5	mg/L	5

FORM 1

9613490.2122

000031

Received: 12/11/92

TNA Inc. REPORT
Results by Sample

Work Order # A2-12-039

SAMPLE ID B079X9 FRACTION 09C TEST CODE WCCLPL NAME Anions & Vet Chem. - VN043
Date & Time Collected 12/09/92 Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	<0.2	mg/L	0.2
Fluoride	300.0	<0.1	mg/L	0.1
Phosphate	300.0	<0.4	mg/L	0.4
pH	150.1	5.8	pH	0.1
Sulfate	300.0	<1.0	mg/L	1
Elect. Conductivity	120.1	<6	umho/cm	6

FORM 1

9613490.2123

000032

TNA Inc.

REPORT

Work Order # A2-12-039

Received: 12/11/92

Results by Sample

SAMPLE ID B079X9

FRACTION 090 TEST CODE WCCLPL NAME Anions & Wet Chem. - WH043

Date & Time Collected 12/09/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	<2	mg/L	2
Tot. Dissolved Solids	160.1	<5	mg/L	5

FORM 1

9613490.2124

000033

Received: 12/11/92

TNA Inc.

REPORT

Work Order # A2-12-839

Results by Sample

SAMPLE ID B070X9

FRACTION 09E

TEST CODE WCCLPL

NAME Anions & Vet Chem. - V043

Date & Time Collected 12/09/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Sulfide	376.1	<1	mg/L	1

FORM 1

9613490.2125

000034

TMA Inc.

REPORT

Work Order # A2-12-039

Received: 12/11/92

Results by Sample

SAMPLE ID B079X9

FRACTION 09E

TEST CODE WCCLPL

NAME Anions & Met Chem. - W043

Date & Time Collected 12/09/92

Category _____

ANIONS AND MET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	0.05	mg/L	0.05
COD	410.0	<5	mg/L	5

FORM I

9613490.2126

000035

TNA Inc.

REPORT

Work Order # A2-12-039

Received: 12/11/92

Results by Sample

SAMPLE ID 897929

FRACTION 11C

TEST CODE WCCLPL

NAME Anions & Vet Chem. - V043

Date & Time Collected 12/08/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
<u>ANALYSIS</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>LIMIT</u>
Chloride	300.0	8.5	mg/L	0.2
Fluoride	300.0	0.6	mg/L	0.1
Phosphate	300.0	<0.4	mg/L	0.4
pH	150.1	7.9	pH	0.1
Sulfate	300.0	34	mg/L	1
Elect. Conductivity	120.1	327	umho/cm	6

FORM I

9613490.2127

000036

Received: 12/11/92

TNA Inc.

REPORT

Work Order # A2-12-839

Results by Sample

SAMPLE ID B07029

FRACTION 11D

TEST CODE WCCLPL

NAME Anions & Wet Chem. - V043

Date & Time Collected 12/08/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	116	mg/L	2
Tot. Dissolved Solids	160.1	236	mg/L	5

FORM I

9613490.2128

TNA Inc.

REPORT

Work Order # AZ-12-037 **000037**

Received: 12/11/92

Results by Sample

SAMPLE ID B97029

FRACTION 11E TEST CODE MCCLPL NAME Anions & Wet Chem. - W043

Date & Time Collected 12/08/92 Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
sulfide	376.1	<1	mg/L	1

FORM 1

9613490.2129

000038

Received: 12/11/92

TNA Inc.

REPORT

Work Order # A2-12-039

Results by Sample

SAMPLE ID 807029

FRACTION 11F

TEST CODE WCCLPL

NAME Anions & Wet Chem. - V043

Date & Time Collected 12/08/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	<0.05	mg/L	0.05
COD	410.0	<5	mg/L	5

FORM 1

CASE NARRATIVE

LABORATORY : TMA/ARLI

CASE : 12-039

CONTRACT ID : WESTINGHOUSE HANFORD COMPANY

SDG RECEIPT DATE : December 11, 1992

1.0 DESCRIPTION OF CASE :

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

2.0 SAMPLE LIST :

<u>WESTINGHOUSE ID</u>	<u>LAB ID</u>	<u>ANALYSIS REQUESTED</u>	<u>MATRIX</u>	<u>pH</u>
B07QR4	A2-12-039-01A	V	WATER	7
B07QR4	A2-12-039-01B	SV & P	WATER	
B07QR4 MS	A2-12-039-01C	SV	WATER	
B07QR4 MSD	A2-12-039-01D	SV	WATER	
B07QR6	A2-12-039-02A	V	WATER	7
B07QR9	A2-12-039-03A	V	WATER	7
B07QR9	A2-12-039-03B	SV & P	WATER	
B07QR9 MS	A2-12-039-03C	P	WATER	
B07QR9 MSD	A2-12-039-03D	P	WATER	
B07QS1	A2-12-039-04A	V	WATER	7
B07QS4	A2-12-039-05A	V	WATER	7
B07QS4 MS	A2-12-039-05B	V	WATER	7
B07QS4 MSD	A2-12-039-05C	V	WATER	7
B07QS4	A2-12-039-05D	SV & P	WATER	
B07QS6	A2-12-039-06A	V	WATER	7
B07QW4	A2-12-039-07A	V	WATER	7
B07QW4	A2-12-039-07B	SV & P	WATER	
B07QW6	A2-12-039-08A	V	WATER	7
B07QX9	A2-12-039-09A	V	WATER	7
B07QX9	A2-12-039-09B	SV & P	WATER	
B07QY1	A2-12-039-10A	V	WATER	7
B07QZ9	A2-12-039-11A	V	WATER	7
B07QZ9	A2-12-039-11B	SV & P	WATER	
B07R01	A2-12-039-12A	V	WATER	7

3.0 COMMENTS :

3.1 SHIPPING AND DOCUMENTATION :

All of the samples were received and properly documented.

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. Samples B07QW4 and B07QX9 had surrogate recoveries for 2-Fluorophenol slightly above the QC limits. Samples B07QR4MS and B07QR4MSD had spike recoveries for 4-Nitrophenol above the QC limits. In accordance with protocol, no re-analysis was required.

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

3.2.3 PESTICIDE/PCB ANALYSIS COMMENTS :

SEQUENCE NOTES :

The sequence was started on 12/21/92 and analyzed in accordance with the EPA CLP SOW. The sequence was analyzed by single injection into a dual column system. After the injection on 12/22/92, at 04:31 AM, the autosampler malfunctioned. After maintenance the sequence was resumed with the injection of PIBLK03 on 12/22/92 at 07:53 AM and was followed by PEM03. The samples that were injected between PEM02 and PEM03 were re-injected later in the sequence. The sequence met all the QC criteria specified in the CLP SOW.

The Chromatograms are presented in the manner consistent with the capabilities of the Nelson 2700 Turbochrome Data System which normalizes the largest peak to scale.

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

9613490.2133

000005

EPA SAMPLE NO.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

B07QR4

Lab Name: TMA/ARLI Contract: WHC
 Lab Code: TMALA Case No.: 12039 SAS No.: NA SDG No.: NA
 Matrix: (soil/water) WATER Lab Sample ID: A212039-01A
 Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21217B04
 Level: (low/med) LOW Date Received: 12/11/92
 % Moisture: not dec. _____ Date Analyzed: 12/17/92
 GC Column: CAP ID: 0.530 (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	3	J
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	3	J
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	J
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

9613490.2134

000006
EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QR4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12039 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212039-01A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21217B04

Level: (low/med) LOW Date Received: 12/11/92

% Moisture: not dec. Date Analyzed: 12/17/92

GC Column: CAP ID: 0.530 (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

B07QR6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12039 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212039-02A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21217B05

Level: (low/med) LOW Date Received: 12/11/92

% Moisture: not dec. Date Analyzed: 12/17/92

GC Column: CAP ID: 0.530 (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	J
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	J
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

9613490.2136

000008

EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QR6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12039 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212039-02A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21217B05

Level: (low/med) LOW Date Received: 12/11/92

% Moisture: not dec. Date Analyzed: 12/17/92

GC Column: CAP ID: 0.530 (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

9613490.2137

000009

EPA SAMPLE NO.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

B07QR9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12039 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212039-03A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21217B06

Level: (low/med) LOW Date Received: 12/11/92

% Moisture: not dec. Date Analyzed: 12/17/92

GC Column: CAP ID: 0.530 (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	J
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	1	J
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	11	
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	2	J
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

9613490.2138

000010

EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QR9

Lab Name: TMA/ARLI

Contract: WHC

Lab Code: THALA Case No.: 12039

SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER

Lab Sample ID: A212039-03A

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: 21217B06

Level: (low/med) LOW

Date Received: 12/11/92

% Moisture: not dec.

Date Analyzed: 12/17/92

GC Column: CAP ID: 0.530 (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
-----	-----	-----	-----	-----

9613490.2139

000011

EPA SAMPLE NO.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

B07QS1

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12039 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212039-04A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21217B07

Level: (low/med) LOW Date Received: 12/11/92

% Moisture: not dec. Date Analyzed: 12/17/92

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

CAS NO. COMPOUND (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	J
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

9613490.2140

000012

EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QS1

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12039 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212039-04A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21217B07

Level: (low/med) LOW Date Received: 12/11/92

% Moisture: not dec. Date Analyzed: 12/17/92

GC Column: CAP ID: 0.530 (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

9613490.2141

000013
EPA SAMPLE NO.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

B07QS4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12039 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212039-05A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21217B08

Level: (low/med) LOW Date Received: 12/11/92

* Moisture: not dec. Date Analyzed: 12/17/92

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

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

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	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	J
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	6	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

9613490.2142

000014
EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QS4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12039 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212039-05A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21217B08

Level: (low/med) LOW Date Received: 12/11/92

% Moisture: not dec. Date Analyzed: 12/17/92

GC Column: CAP ID: 0.530 (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
-----	-----	-----	-----	-----

9613490.2143

000015

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07QS6

Lab Name: TMA/ARLI

Contract: WHC

Lab Code: TMALA

Case No.: 12039

SAS No.: NA

SDG No.: NA

Matrix: (soil/water) WATER

Lab Sample ID: A212039-06A

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: 21217B11

Level: (low/med) LOW

Date Received: 12/11/92

% Moisture: not dec.

Date Analyzed: 12/17/92

GC Column: CAP ID: 0.530 (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	4	J
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	1	J
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

9613490.2144

000016

EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QS6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12039 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212039-06A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21217B11

Level: (low/med) LOW Date Received: 12/11/92

% Moisture: not dec. Date Analyzed: 12/17/92

GC Column: CAP ID: 0.530 (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

B07QW4

Lab Name: TMA/ARLI Contract: WHC
 Lab Code: TMALA Case No.: 12039 SAS No.: NA SDG No.: NA
 Matrix: (soil/water) WATER Lab Sample ID: A212039-07A
 Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21217B12
 Level: (low/med) LOW Date Received: 12/11/92
 % Moisture: not dec. _____ Date Analyzed: 12/17/92
 GC Column: CAP ID: 0.530 (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

9613490.2146

000018
EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QW4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12039 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212039-07A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21217B12

Level: (low/med) LOW Date Received: 12/11/92

% Moisture: not dec. Date Analyzed: 12/17/92

GC Column: CAP ID: 0.530 (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

B07QW6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12039 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212039-08A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21217B13

Level: (low/med) LOW Date Received: 12/11/92

% Moisture: not dec. Date Analyzed: 12/17/92

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	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	J
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

9613490.2148

EPA SAMPLE NO. 000030

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QW6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12039 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212039-08A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21217B13

Level: (low/med) LOW Date Received: 12/11/92

% Moisture: not dec. Date Analyzed: 12/17/92

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

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

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

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
-----	-----	-----	-----	-----

9613490.2149

000021
EPA SAMPLE NO.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

B07QX9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12039 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212039-09A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21217B14

Level: (low/med) LOW Date Received: 12/11/92

% Moisture: not dec. Date Analyzed: 12/17/92

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

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

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	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

9613490.2150

EPA SAMPLE NO. 000032

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QX9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12039 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212039-09A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21217B14

Level: (low/med) LOW Date Received: 12/11/92

% Moisture: not dec. Date Analyzed: 12/17/92

GC Column: CAP ID: 0.530 (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

B07QY1

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12039 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212039-10A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21217B15

Level: (low/med) LOW Date Received: 12/11/92

% Moisture: not dec. Date Analyzed: 12/17/92

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	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

9613490.2152

000024
EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QY1

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TNALA Case No.: 12039 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212039-10A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21217B15

Level: (low/med) LOW Date Received: 12/11/92

% Moisture: not dec. Date Analyzed: 12/17/92

GC Column: CAP ID: 0.530 (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

9613490.2153

000025

EPA SAMPLE NO.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

B07QZ9

Lab Name: TMA/ARLI

Contract: WHC

Lab Code: TMALA Case No.: 12039

SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER

Lab Sample ID: A212039-11A

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: 21217B16

Level: (low/med) LOW

Date Received: 12/11/92

% Moisture: not dec.

Date Analyzed: 12/17/92

GC Column: CAP ID: 0.530 (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	2	J
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

9613490.2154

000026

EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QZ9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12039 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212039-11A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21217B16

Level: (low/med) LOW Date Received: 12/11/92

% Moisture: not dec. Date Analyzed: 12/17/92

GC Column: CAP ID: 0.530 (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

B07R01

Lab Name: TMA/ARLI Contract: WHC
 Lab Code: TMALA Case No.: 12039 SAS No.: NA SDG No.: NA
 Matrix: (soil/water) WATER Lab Sample ID: A212039-12A
 Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21217B17
 Level: (low/med) LOW Date Received: 12/11/92
 % Moisture: not dec. Date Analyzed: 12/17/92
 GC Column: CAP ID: 0.530 (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

9613490.2156

000028
EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07R01

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12039 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212039-12A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21217B17

Level: (low/med) LOW Date Received: 12/11/92

% Moisture: not dec. Date Analyzed: 12/17/92

GC Column: CAP ID: 0.530 (mm) Dilution Factor: 1.0

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

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

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07QR4

Lab Name: TMA/ARLI Contract: WHC
 Lab Code: TMAA Case No.: 12039 SAS No.: NA SDG No.: NA
 Matrix: (soil/water) WATER Lab Sample ID: A212039-01B
 Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21223S03
 Level: (low/med) LOW Date Received: 12/11/92
 % Moisture: decanted: (Y/N) Date Extracted: 12/15/92
 Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/23/92
 Injection Volume: 2.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH:

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	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

B07QR4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12039 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212039-01B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21223S03

Level: (low/med) LOW Date Received: 12/11/92

% Moisture: decanted: (Y/N) Date Extracted: 12/15/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/23/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	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	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

EPA SAMPLE NO.

B07QR4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12039 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212039-01B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21223S03

Level: (low/med) LOW Date Received: 12/11/92

% Moisture: decanted: (Y/N) Date Extracted: 12/15/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/23/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 0 CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07QR9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12039 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212039-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21223S02

Level: (low/med) LOW Date Received: 12/11/92

% Moisture: decanted: (Y/N) Date Extracted: 12/15/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/23/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

CAS NO. COMPOUND (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

B07QR9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12039 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212039-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21223S02

Level: (low/med) LOW Date Received: 12/11/92

% Moisture: decanted: (Y/N) Date Extracted: 12/15/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/23/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND	(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	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

9613490.2162

000034

EPA SAMPLE NO.

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07089

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12039 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212039-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21223S02

Level: (low/med) LOW Date Received: 12/11/92

‡ Moisture: decanted: (Y/N) Date Extracted: 12/15/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/23/92

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 ALKANE	25.97	2	J
2.	UNKNOWN ALKANE	26.47	3	J
3.	UNKNOWN HYDROCARBON	26.73	2	J
4.	UNKNOWN ALKANE	27.32	3	J
5.	UNKNOWN HYDROCARBON	27.57	3	J
6.	UNKNOWN HYDROCARBON	27.80	3	J

9613490.2163

000035

EPA SAMPLE NO.

1B SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07QS4

Lab Name: TMA/ARLI Contract: WHC
Lab Code: TMALA Case No.: 12039 SAS No.: NA SDG No.: NA
Matrix: (soil/water) WATER Lab Sample ID: A212039-05D
Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21223S06
Level: (low/med) LOW Date Received: 12/11/92
% Moisture: decanted: (Y/N) Date Extracted: 12/15/92
Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/23/92
Injection Volume: 2.0(uL) Dilution Factor: 1.0
GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q

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

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07QS4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12039 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212039-05D

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21223S06

Level: (low/med) LOW Date Received: 12/11/92

% Moisture: decanted: (Y/N) Date Extracted: 12/15/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/23/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

CAS NO. COMPOUND (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	J
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

9613490.2165

000037

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B07QS4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12039 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212039-05D

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21223S06

Level: (low/med) LOW Date Received: 12/11/92

% Moisture: decanted: (Y/N) Date Extracted: 12/15/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/23/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 0 CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=====	=====	=====	=====	=====

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07QW4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12039 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212039-07B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21223S07

Level: (low/med) LOW Date Received: 12/11/92

% Moisture: decanted: (Y/N) Date Extracted: 12/15/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/23/92

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

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

B07QW4

Lab Name: TMA/ARLI Contract: WHC
 Lab Code: TMALA Case No.: 12039 SAS No.: NA SDG No.: NA
 Matrix: (soil/water) WATER Lab Sample ID: A212039-07B
 Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21223S07
 Level: (low/med) LOW Date Received: 12/11/92
 % Moisture: decanted: (Y/N) Date Extracted: 12/15/92
 Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/23/92
 Injection Volume: 2.0 (uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH:

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

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	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

9613490.2168

000040

EPA SAMPLE NO.

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QW4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12039 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212039-07B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21223S07

Level: (low/med) LOW Date Received: 12/11/92

% Moisture: decanted: (Y/N) Date Extracted: 12/15/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/23/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
-----	-----	-----	-----	-----

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07QX9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12039 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212039-09B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21223S08

Level: (low/med) LOW Date Received: 12/11/92

% Moisture: decanted: (Y/N) Date Extracted: 12/15/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/23/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

Q

CAS NO.

COMPOUND

CAS NO.	COMPOUND	(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.

B07QX9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12039 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212039-09B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21223S08

Level: (low/med) LOW Date Received: 12/11/92

% Moisture: decanted: (Y/N) Date Extracted: 12/15/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/23/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

CAS NO. COMPOUND (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	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

9613490.2171

000043

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B07QX9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12039 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212039-09B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21223S08

Level: (low/med) LOW Date Received: 12/11/92

% Moisture: decanted: (Y/N) Date Extracted: 12/15/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/23/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 0 CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=====	=====	=====	=====	=====

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

000044
EPA SAMPLE NO.

B07QZ9

Lab Name: TNA/ARLI Contract: WHC

Lab Code: TNALA Case No.: 12039 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212039-11B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21223S09

Level: (low/med) LOW Date Received: 12/11/92

% Moisture: decanted: (Y/N) Date Extracted: 12/15/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/23/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

CAS NO. COMPOUND (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

B07QZ9

Lab Name: TMA/ARLI Contract: WHC
Lab Code: TMALA Case No.: 12039 SAS No.: NA SDG No.: NA
Matrix: (soil/water) WATER Lab Sample ID: A212039-11B
Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21223S09
Level: (low/med) LOW Date Received: 12/11/92
% Moisture: decanted: (Y/N) Date Extracted: 12/15/92
Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/23/92
Injection Volume: 2.0(uL) Dilution Factor: 1.0
GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q

Table with 4 columns: CAS NO., COMPOUND, (ug/L or ug/Kg) UG/L, Q. Rows include 100-02-7-4-Nitrophenol, 132-64-9-Dibenzofuran, 121-14-2-2,4-Dinitrotoluene, etc.

(1) - Cannot be separated from Diphenylamine

9613490.2179

000016
EPA SAMPLE NO.

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QZ9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12039 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212039-11B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21223S09

Level: (low/med) LOW Date Received: 12/11/92

% Moisture: decanted: (Y/N) Date Extracted: 12/15/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/23/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 0 CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
-----	-----	-----	-----	-----

9613490.2175

000047

EPA SAMPLE NO.

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

B07QR4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12039 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212039-01B

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

% Moisture: _____ decanted: (Y/N) _____ Date Received: 12/11/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 12/15/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 12/24/92

Injection Volume: 1.00 (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

B07QR9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12039 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212039-03B

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

% Moisture: _____ decanted: (Y/N) _____ Date Received: 12/11/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 12/15/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 12/24/92

Injection Volume: 1.00 (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

9613490.2177

000049

EPA SAMPLE NO.

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

B07QS4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12039 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212039-05D

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

% Moisture: _____ decanted: (Y/N) _____ Date Received: 12/11/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 12/15/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 12/24/92

Injection Volume: 1.00 (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

B07QW4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12039 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212039-07B

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

% Moisture: _____ decanted: (Y/N) _____ Date Received: 12/11/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 12/15/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 12/24/92

Injection Volume: 1.00 (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

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07QX9

Lab Name: TMA/ARLI Contract: WHC
 Lab Code: TMALA Case No.: 12039 SAS No.: NA SDG No.: NA
 Matrix: (soil/water) WATER Lab Sample ID: A212039-09B
 Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____
 % Moisture: _____ decanted: (Y/N) _____ Date Received: 12/11/92
 Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 12/15/92
 Concentrated Extract Volume: 10000 (uL) Date Analyzed: 12/24/92
 Injection Volume: 1.00 (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.

B07QZ9

Lab Name: TMA/ARLI Contract: WHC
 Lab Code: TMALA Case No.: 12039 SAS No.: NA SDG No.: NA
 Matrix: (soil/water) WATER Lab Sample ID: A212039-11B
 Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____
 % Moisture: _____ decanted: (Y/N) _____ Date Received: 12/11/92
 Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 12/15/92
 Concentrated Extract Volume: 10000 (uL) Date Analyzed: 12/24/92
 Injection Volume: 1.00 (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

000002

CASE NARRATIVE

LABORATORY : TMA/ARLI

CASE : 12-066

CONTRACT ID : WESTINGHOUSE HANFORD COMPANY

SDG RECEIPT DATE : December 18, 1992

1.0 DESCRIPTION OF CASE :

Two 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 :

<u>WESTINGHOUSE ID</u>	<u>LAB ID</u>	<u>ANALYSIS REQUESTED</u>	<u>MATRIX</u>	<u>pH</u>
B07QY4	A2-12-066-01A	V	WATER	7
B07QY4 MS	A2-12-066-01B	V	WATER	7
B07QY4 MSD	A2-12-066-01C	V	WATER	7
B07QY4	A2-12-066-01D	SV & P	WATER	
B07QY4 MS	A2-12-066-01E	SV & P	WATER	
B07QY4 MSD	A2-12-066-01F	SV & P	WATER	
B07QY6	A2-12-066-02A	V	WATER	7

3.0 COMMENTS :

3.1 SHIPPING AND DOCUMENTATION :

All of the samples were received and properly documented by Westinghouse Hanford Company. The TMA/NORCAL Chain of Custody was revised to reflect that samples B07QY4 and B07QY6 were transferred to TMA/ARLI, not samples B07RY4 and B07RY6, respectively.

1 of the 3 VOA vials for sample B07QY6 contained air bubbles.

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 SOIL :

The samples were extracted and analyzed within the CLP SOW holding times. Sample B07QY4MS had 2-Fluorophenol and 2,4,6-Tribromophenol surrogate recoveries above the QC limits. Sample B07QY4MS also had 4-Chloro-3-methylphenol and Pentachlorophenol spike recoveries above the QC limits. Samples B07QY4MS and B07QY4MSD had spike recoveries for 4-Nitrophenol above the QC limits also. In accordance with protocol, no further action was required.

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

3.2.3 PESTICIDE/PCB ANALYSIS COMMENTS :

SEQUENCE NOTES :

The sequence was started on 01/05/93 and analyzed in accordance with the EPA CLP SOW. The sequence was analyzed by single injection into a dual column system. The sequence met all the QC criteria specified in the CLP SOW.

The Chromatograms are presented in the manner consistent with the capabilities of the Nelson 2700 Turbochrome Data System which normalizes the largest peak to scale.

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

9613490.2184

000005
EPA SAMPLE NO.1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

B07QY4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12066 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212066-01A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21222R04

Level: (low/med) LOW Date Received: 12/18/92

% Moisture: not dec. Date Analyzed: 12/22/92

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	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

9613490.2185

000006

EPA SAMPLE NO.

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QY4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12066 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212066-01A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21222R04

Level: (low/med) LOW Date Received: 12/18/92

% Moisture: not dec. Date Analyzed: 12/22/92

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.

B07QY6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12066 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212066-02A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21222R07

Level: (low/med) LOW Date Received: 12/18/92

% Moisture: not dec. Date Analyzed: 12/22/92

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	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

9613490.2187

000008

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QY6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12066 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212066-02A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21222R07

Level: (low/med) LOW Date Received: 12/18/92

% Moisture: not dec. Date Analyzed: 12/22/92

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
-----	-----	-----	-----	-----

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07QY4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12066 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212066-01D

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 30121N05

Level: (low/med) LOW Date Received: 12/18/92

% Moisture: decanted: (Y/N) Date Extracted: 12/21/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 01/21/93

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

9613490.2189

000010

EPA SAMPLE NO.

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07QY4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12066 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212066-01D

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 30121N05

Level: (low/med) LOW Date Received: 12/18/92

% Moisture: decanted: (Y/N) Date Extracted: 12/21/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 01/21/93

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 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	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

9613490.2190

000011
EPA SAMPLE NO.

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QY4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12066 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212066-01D

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 30121N05

Level: (low/med) LOW Date Received: 12/18/92

% Moisture: decanted: (Y/N) Date Extracted: 12/21/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 01/21/93

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 1 CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	3.65	11	BJ

9613490.2191

000012

EPA SAMPLE NO.

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

B07QY4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12066 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212066-01D

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

% Moisture: _____ decanted: (Y/N) _____ Date Received: 12/18/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 12/21/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 01/07/93

Injection Volume: 1.00 (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	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	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

9613490.2192



Thermo Analytical Inc.

Skinner & Sherman Labs., Inc.
300 Second Avenue
Post Office Box 521
Waltham, MA 02254-0521
(617) 890-7200
FAX (617) 890-3883

January 25, 1993

TMA/NORCAL
2030 Wright Avenue
Richmond, CA 94804
Attention: Dan Stuermer



Quality Control Narrative

Scope

One (1) water sample was submitted to TMA/Skinner & Sherman Laboratories, Inc. on November 19, 1992 from TMA/Norcal. The samples were analyzed for the USEPA CLP metals. The analysis was performed under TMA/Skinner and Sherman work order S212332.

Methodology

The samples were prepared, analyzed and reported in accordance with the USEPA Contract Laboratory Program Statement of Work ILM02.

Discussion

All quality control requirements were met for the samples with no exceptions.

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



00110
21

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER:

B07QY5

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N2-12-118SAS No.:

SDG No.: B07QY5

Matrix (soil/water): WATER

Lab Sample ID: 12332-01S

Level (low/med): LOW

Date Received: 12/19/92

* 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	27.0	U		P
7440-36-0	Antimony	18.4	U		P
7440-38-2	Arsenic	3.7	U		F
7440-39-3	Barium	1.0	U		P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.6	U		P
7440-70-2	Calcium	117	B		P
7440-47-3	Chromium	2.7	U		P
7440-48-4	Cobalt	2.5	U		P
7440-50-8	Copper	2.9	U		P
7439-89-6	Iron	56.0	B		P
7439-92-1	Lead	1.9	B		F
7439-95-4	Magnesium	26.1	B		P
7439-96-5	Manganese	2.7	B		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	3.0	U		P
7440-09-7	Potassium	116	U		P
7782-49-2	Selenium	3.3	U	W	F
7440-22-4	Silver	3.9	U		P
7440-23-5	Sodium	123	B		P
7440-28-0	Thallium	2.6	U	W	F
7440-62-2	Vanadium	2.5	U		P
7440-66-6	Zinc	16.9	B		P
	Cyanide				NR

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

9613490.2194

TMA

Thermo Analytical Inc.

Skinner & Sherman Labs., Inc.
300 Second Avenue
Post Office Box 521
Waltham, MA 02254-0521
(617) 890-7200
FAX (617) 890-3883

January 25, 1993

TMA/NORCAL
2030 Wright Avenue
Richmond, CA 94804
Attention: Dan Stuermer



Quality Control Narrative

Scope

One (1) water sample was submitted to TMA/Skinner & Sherman Laboratories, Inc. on November 19, 1992 from TMA/Norcal. The samples were analyzed for the USEPA CLP metals. The analysis was performed under TMA/Skinner and Sherman work order S212332.

Methodology

The samples were prepared, analyzed and reported in accordance with the USEPA Contract Laboratory Program Statement of Work ILM02.

Discussion

All quality control requirements were met for the samples with no exceptions.

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



00110
sk

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER:

B07QY5

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N2-12-118SAS No.:

SDG No.: B07QY5

Matrix (soil/water): WATER

Lab Sample ID: 12332-01S

Level (low/med): LOW

Date Received: 12/19/92

* 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	27.0	U		P
7440-36-0	Antimony	18.4	U		P
7440-38-2	Arsenic	3.7	U		F
7440-39-3	Barium	1.0	U		P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.6	U		P
7440-70-2	Calcium	117	B		P
7440-47-3	Chromium	2.7	U		P
7440-48-4	Cobalt	2.5	U		P
7440-50-8	Copper	2.9	U		P
7439-89-6	Iron	56.0	B		P
7439-92-1	Lead	1.9	B		F
7439-95-4	Magnesium	26.1	B		P
7439-96-5	Manganese	2.7	B		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	3.0	U		P
7440-09-7	Potassium	116	U		P
7782-49-2	Selenium	3.3	U	W	F
7440-22-4	Silver	3.9	U		P
7440-23-5	Sodium	123	B		P
7440-28-0	Thallium	2.6	U	W	F
7440-62-2	Vanadium	2.5	U		P
7440-66-6	Zinc	16.9	B		P
	Cyanide				NR

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

9613490.2196

9/17/93
000001

Page 1

Skinner&Sherman

REPORT

Work Order # S2-12-333

Received: 12/19/92

01/29/93 15:51:12

REPORT TMA/NORCAL
TO 2030 Wright Avenue
Richmond, CA 94804

PREPARED TMA / Skinner & Sherman Labs.
BY 300 Second Avenue
P.O. Box 521
Waltham, MA 02254

Handwritten signature
CERTIFIED BY

ATTEN Dan Steurmer

ATTEN Client Services

PHONE (617) 890-7200

CONTACT DP

CLIENT HANFORD NOR SAMPLES 2

COMPANY TMA/NORCAL Hanford

FACILITY Richmond, CA

WORK ID N2-12-118

TAKEN BY CLIENT

TRANS FED EX

TYPE WATER

P.O. # N2-12-118

INVOICE under separate cover

SAMPLE IDENTIFICATION

TEST CODES and NAMES used on this workorder

01 B07QY4

NO3NO2 Nitrate Plus Nitrite

01 B07QY4 DUPL

01 B07QY4 SPIKE

02 LCSW

This report is rendered upon all of the following conditions: Skinner & Sherman Laboratories, Inc. retains ownership of this report until associated submitted invoice is satisfied. Expert witness services shall be available in conjunction with this report only if prior notification of this potential requirement was made and accepted, before the analysis. Client will be responsible for Skinner & Sherman costs and consulting fees if our services are required by subpoena or otherwise in legal proceedings. Total liability is limited to the invoice amount. The results listed refer only to tested samples and applicable parameters. Product endorsement is neither inferred nor implied. Skinner & Sherman Laboratories, Inc. will exercise due diligence but will not be responsible for lost or destroyed samples or evidence unless client makes appropriate insurance coverage arrangements. Samples are held for thirty days following issuance of report. Samples will be stored at client's expense, if authorized in writing.



Thermo Analytical Inc.

Skinner & Sherman Laboratories Inc.

300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4LABTEST FAX (617) 890-3883

Page 2

Skinner&Sherman

REPORT

Work Order # S2-12-333

Received: 12/19/92

Results by Sample

SAMPLE ID <u>B07QY4</u>	SAMPLE # <u>01</u> FRACTIONS: <u>A</u>
	Date & Time Collected <u>12/15/92</u> Category <u>WATER</u>
NO3NO2 <u><0.25</u> mg N/L	
SAMPLE ID <u>B07QY4 DUPL</u>	SAMPLE # <u>01</u> FRACTIONS: <u>B</u>
	Date & Time Collected <u>12/15/92</u> Category <u>WATER</u>
NO3NO2 <u><0.25</u> mg N/L	
SAMPLE ID <u>B07QY4 SPIKE</u>	SAMPLE # <u>01</u> FRACTIONS: <u>C</u>
	Date & Time Collected <u>12/15/92</u> Category <u>WATER</u>
NO3NO2 <u>0.17</u> mg N/L	
SAMPLE ID <u>LCSW</u>	SAMPLE # <u>02</u> FRACTIONS: <u>A</u>
	Date & Time Collected <u>not specified</u> Category <u>WATER</u>
NO3NO2 <u>2.01</u> mg N/L	

PAGE 1

TRANSMIT

CLASS OF LETTER

NO. 12-12-116

RCVD: 12/21/92 09:00/92

12/21/92 16:02:33

REF: 04/20/93 DISP: 6

MSG	CLASSIFICATION	TYPE	WH018	WH019	WH020	WH043	WH114	WH121	WH122
01A-W B07RB1	UNFILTEREDARLI		WH128	WH131	WH132	WH140			
01B-W B07RB1	UNFILTEREDS&S		WH007	WH008	WH010	WH011	WH137		
02A-W B07RB1	UNFILTEREDARLI		WH018	WH019	WH020	WH043	WH114	WH121	WH122
02B-W B07RB1	UNFILTEREDS&S		WH007	WH008	WH010	WH011	WH137		
02C-W B07RB1	MS UNFILTEREDARLI		WH018	WH019	WH020	WH043	WH114	WH140	
02D-W B07RB1	MSD UNFILTEREDARLI		WH018	WH019	WH020				
02E-W B07RB1	DUP UNFILTEREDARLI		WH043	WH114	WH121	WH122	WH128	WH131	WH132
02F-W B07RB1	MS UNFILTEREDS&S		WH007	WH008	WH010	WH011	WH137		
02G-W B07RB1	DUP UNFILTEREDS&S		WH007	WH008	WH010	WH011	WH137		
02H-W L C S	S&S		WH007	WH008	WH010	WH137			
03A-W B07RB2	FILTERED S&S		WH007	WH008	WH010				
04A-W B07RB2	FILTERED S&S		WH007	WH008	WH010				
04B-W B07RB2	MS FILTERED S&S		WH007	WH008	WH010				
04C-W B07RB2	DUP FILTERED S&S		WH007	WH008	WH010				
04D-W L C S	S&S		WH007	WH008	WH010				
05A-W B07RB3	ARLI		WH018						
06A-W B07RB3	ARLI		WH018						

RELEASED BY	DATE	TRANSFERRED TO	DATE	RECEIVED BY	DATE
<i>Yugamamoto</i>	12-21-92	<i>Skinner</i>	12-21-92	<i>ALB</i>	12/22/92
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

PAGE 1

TMA/Notcal

CHAIN OF CUSTODY

ORD # M2-12-118

RCVD: 12/18/92 DUE: 01/17/93

12/21/92 14:02:30

KEEP: 04/17/93 DISP: S

DASH SAMPLE IDENTIFICATION STORED TESTS for FRACTIONS with work in DEPT: SU and CATEGORY

01A-W B070Y4	UNFILTERED	ARLI	WH018 WH128	WH019 WH131	WH020 WH132	WH043 WH140	WH114	WH121	WH122
01C-W B070Y4	MS	UNFILTERED	ARLI	WH018	WH019	WH020	WH043	WH114	WH140
01D-W B070Y4	MS	UNFILTERED	ARLI	WH018	WH019	WH020			
01E-W B070Y4	DUF	UNFILTERED	ARLI	WH043 WH140	WH114	WH121	WH122	WH128	WH131 WH132
03A-W B070Yb		ARLI		WH018					

RELEASED BY	DATE	TRANSFERRED TO	DATE	RECEIVED BY	DATE
<i>lyanemote</i>	12-18-92	ARLI	12-18-92	<i>[Signature]</i>	12/21/92

Revised

Revision # 1
 Date 12-21-92
 Initial ly

Westinghouse
Hanford Company

CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER
 Company Contact PH BUTCHER
 Project Designation/Sampling Locations 100-KR-4
 Ice Chest No. SML-241
 Bill of Lading/Airbill No. 2519007799
 Method of Shipment EMERY
 Shipped to TMA
 Possible Sample Hazards/Remarks N/A

Telephone (509)376-5045
 Collection Date 12/15/92
 Field Logbook No. EFL-1055
 Offsite Property No. W93-D 0451-20

Sample Identification

BO 7Q Y4

- 3, 40ml, Gs*, WATER, CLP-VOA
- 3, 2L, aG, WATER, CLP-SEMI VOA & PCB's/PEST
- 1, 1L, P, WATER, ANIONS(IC) SO4, F, PO4, Cl/COND./pH
- 1, 500ml, P, WATER, ANIONS/NO3-NO2 (H2SO4)
- 1, 1L, G, WATER, ALK./TOT. DISSOLVED SOLIDS
- 1, 500ml, G, WATER, SULFIDE (add Zinc Acetate+NaOH pH>9)
- 1, 500ml, G, WATER, AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
- 1, 1L, P, WATER, CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
- 1, 1L, P, WATER, CLP-CN (NaOH)
- 2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC(U-235/238, Pu-239/240, Am-241), Sr-90 (HNO3)
- 1, 1L, P, WATER, Tc-99 (HCl)
- 1, 250ml, Gs, WATER, TRITIUM/C-14

BO 7Q Y5

- 1, 1L, P, WATER, CLP-ICP/AA METALS (FILTERED)/CLP-Hg (HNO3)

BO 7Q Y6

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

[] Field Transfer of Custody		Chain of Possession	(Sign and Print Names)
Relinquished by: <i>HJ Simpson</i> <i>HJ Simpson</i>	Received by: <i>K. Blum</i> <i>Kermit Blum</i>	Date/Time: 12-18-92 1200	
Relinquished by:	Received by:	Date/Time:	
Relinquished by:	Received by:	Date/Time:	
Relinquished by:	Received by:	Date/Time:	
Final Sample Disposition			
Disposal Method:	Disposed by:	Date/Time:	
Comments: <i>FRIG. #1</i>			

9613490.2202

000003B



Westinghouse
Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K. Lee, L. Walker Date Sampled 12/15/92 Time 10:05 hours
 Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample *	Analysis Requested
<u>B07QY4</u>	<u>3; 40ml; Gs*;</u>	<u>WATER</u>	<input checked="" type="checkbox"/> <u>CLP-VOA</u>
	<u>3; 2L; aG;</u>	<u>WATER</u>	<input checked="" type="checkbox"/> <u>CLP-SEMI VOA & PCB's/PEST</u>
	<u>1; 1L; P;</u>	<u>WATER</u>	<input checked="" type="checkbox"/> <u>ANIONS (IC) SO4, F, PO4, Cl/COND/pH</u>
	<u>1; 500ml; P;</u>	<u>WATER</u>	<input checked="" type="checkbox"/> <u>ANIONS/NO3-NO2 (H2SO4)</u>
	<u>1; 1L; G;</u>	<u>WATER</u>	<input checked="" type="checkbox"/> <u>ALK./TOT. DISSOLVED SOLIDS</u>
	<u>1; 500ml; G;</u>	<u>WATER</u>	<input checked="" type="checkbox"/> <u>SULFIDE (add Zinc Acetate + NaOH pH > 9)</u>
	<u>1; 500ml; G;</u>	<u>WATER</u>	<input checked="" type="checkbox"/> <u>AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH < 2)</u>
	<u>1; 1L; P;</u>	<u>WATER</u>	<input checked="" type="checkbox"/> <u>CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)</u>
	<u>1; 1L; P;</u>	<u>WATER</u>	<input checked="" type="checkbox"/> <u>CLP-CN (NaOH)</u>
	<u>2; 4L; P;</u>	<u>WATER</u>	<input checked="" type="checkbox"/> <u>GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC</u> <u>(U-235/238, Pu-239/240, Am-241), Sr-90, (HNO3)</u>
	<u>1; 1L; P;</u>	<u>WATER</u>	<input checked="" type="checkbox"/> <u>Tc-99 (HCl)</u>
	<u>1; 250ml; Gs;</u>	<u>WATER</u>	<input checked="" type="checkbox"/> <u>TRITIUM/C-14</u>
<u>B07QY5</u>	<u>1; 1L; P;</u>	<u>WATER</u>	<input checked="" type="checkbox"/> <u>CLP-ICP/AA METAL (FILTERED)/CLP-Hg (HNO3)</u>
<u>B07QY6</u>	<input checked="" type="checkbox"/> <u>3; 40ml; Gs</u>	<u>WATER</u>	<input checked="" type="checkbox"/> <u>CLP-VOA</u> <u>OPC: # W93-0-0151-20</u> <u>BOL: # 251900799</u> <u>TASK#: 92-398</u>

Field Information ** _____

Special Handling and/or Storage _____

Possible Sample Hazards _____

PART II: LABORATORY SECTION

Received by Hermit Blum Title Sample Control Supervisor Date 12-18-92

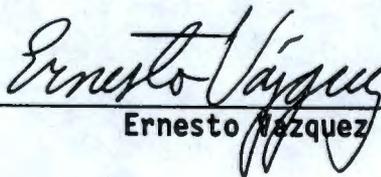
Analysis Required _____

* Indicate whether sample is soil, sludge, water, etc.

GENERAL CHEMISTRY RESULTS**CASE NO. 12-066****Water Sample #:****B07QY4****CASE NARRATIVE**

The holding times for the Ammonia, Alkalinity, pH, COD, TDS and Sulfide analyses was exceeded. Careful review of the QC analysis indicate the data is reliable.

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



Ernesto Vazquez

9613490.2204

000011

TMA Inc.

REPORT

Work Order # A2-12-066

Received: 12/18/92

02/19/93 13:35:06

REPORT Westinghouse Hanford Company
TO 2355 Stevens Dr.
Richland, WA. 99352
MO-346/200 West/T6-08
ATTEN Jeanette Duncan

PREPARED Thermo Analytical, Inc.
BY 160 Taylor Street
Monrovia, CA 91016
ATTEN Ms. Carole Harris
PHONE 818-357-3247

Ernesto Lopez
CERTIFIED BY
CONTACT EVV CIN

CLIENT WHC SAMPLES 3
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-KR-4
TAKEN By Westinghouse Staff
TRANS By Federal Express
TYPE Liquid
P.O. # M2-12-118-SU-AR
INVOICE under separate cover

SAMPLE IDENTIFICATION

TEST CODES and NAMES used on this workorder

- 01 B07QY4
- 01 B07QY4 MS
- 01 B07QY4 MSD
- 01 B07QY4
- 01 B07QY4 MS
- 01 B07QY4 MSD
- 01 B07QY4
- 01 B07QY4 MS
- 01 B07QY4 Duplicate
- 01 B07QY4
- 01 B07QY4 Duplicate
- 01 B07QY4
- 01 B07QY4 MS
- 01 B07QY4 Duplicate
- 01 B07QY4
- 01 B07QY4 MS
- 01 B07QY4 Duplicate
- 02 B07QY6
- 03 Wet Chemistry Blank

- BNCLPW CLP Semivol. Water - WH020
- PECLPL CLP Pesticides Liq.-WH019
- VOCLPL CLP Volatile Org.Liq.
- WCCLPL Anions & Wet Chem. - WH043
- WCL L Chloride - WH120
- WCQCD Quality Control Summary
- WCQCS Quality Control Summary
- WF L Fluoride in Water
- WNH3 L Ammonia in Water - WH140
- WPH L pH of Liquid - WH121
- WPO4 L Phosphate in Liquids
- WSO4 L Sulfate (in Waters)
- WSULFI sulfide - WH114
- W ALK Alkalinity - WH131
- W COD COD Water - WH132
- W COND Conductivity-Water WH135
- W TDS Dissolved Solids WH128

9613490.2205

000013

TMA Inc.

REPORT

Work Order # A2-12-066

Received: 12/18/92

Results by Sample

SAMPLE ID B070Y4FRACTION 016TEST CODE WCCLPLNAME Anions & Vet Chem. - W043Date & Time Collected 12/15/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
<u>ANALYSIS</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>LIMIT</u>
Chloride	300.0	<0.2	mg/L	0.2
Fluoride	300.0	<0.1	mg/L	0.1
Phosphate	300.0	<0.4	mg/L	0.4
pH	150.1	6.3	pH	0.1
Sulfate	300.0	<1.0	mg/L	1
Elect. Conductivity	120.1	<6	umho/cm	6

FORM I

9613490.2206

000014

TMA Inc.

REPORT

Work Order # A2-12-066

Received: 12/18/92

Results by Sample

SAMPLE ID B070Y4

FRACTION 01J

TEST CODE WCCLPL

NAME Anions & Wet Chem. - VN043

Date & Time Collected 12/15/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
<u>ANALYSIS</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>LIMIT</u>
Alkalinity	310.1	<2	mg/L	2
Tot. Dissolved Solids	160.1	<5	mg/L	5

FORM I

9613490.2207

000015

TMA Inc.

REPORT

Work Order # A2-12-066

Received: 12/18/92

Results by Sample

SAMPLE ID B070Y4

FRACTION 01L

TEST CODE WCCLPL

NAME Anions & Wet Chem. - WH043

Date & Time Collected 12/15/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
<u>ANALYSIS</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>LIMIT</u>
Sulfide	376.1	<1	mg/L	1

FORM I

9613490.2208

000016

TMA Inc.

REPORT

Work Order # A2-12-066

Received: 12/18/92

Results by Sample

SAMPLE ID 807QY4

FRACTION 010

TEST CODE WCCLPL

NAME Anions & Wet Chem. - W043

Date & Time Collected 12/15/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
<u>ANALYSIS</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>LIMIT</u>
Ammonia Nitrogen	350.3	<0.05	mg/L	0.05
COD	410.0	<5	mg/L	5

FORM I

CASE NARRATIVE

LABORATORY : TMA/ARLI

CASE : 12-045

CONTRACT ID : WESTINGHOUSE HANFORD COMPANY

SDG RECEIPT DATE : December 14, 1992

1.0 DESCRIPTION OF CASE :

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

2.0 SAMPLE LIST :

<u>WESTINGHOUSE ID</u>	<u>LAB ID</u>	<u>ANALYSIS REQUESTED</u>	<u>MATRIX</u>	<u>pH</u>
B07QN9	A2-12-045-01A	V	WATER	7
B07QN9	A2-12-045-01B	SV & P	WATER	
B07QN9 MS	A2-12-045-01C	SV	WATER	
B07QN9 MSD	A2-12-045-01D	SV	WATER	
B07QP1	A2-12-045-02A	V	WATER	7
B07QP1 MS	A2-12-045-02B	V	WATER	7
B07QP1 MSD	A2-12-045-02C	V	WATER	7
B07QS9	A2-12-045-03A	V	WATER	7
B07QS9	A2-12-045-03B	SV & P	WATER	
B07QS9 MS	A2-12-045-03C	P	WATER	
B07QS9 MSD	A2-12-045-03D	P	WATER	
B07QT1	A2-12-045-04A	V	WATER	7

3.0 COMMENTS :

3.1 SHIPPING AND DOCUMENTATION :

All of the samples were received and properly documented. 3 of the 3 VOA vials for sample B07QT1 contained air bubbles.

3.2 ANALYSIS

3.2.1 VOLATILE ANALYSIS COMMENTS :

LOW LEVEL WATER :

The samples were analyzed within the CLP SOW holding times. Samples B07QP1, B07QP1MS and B07QP1MSD had surrogate recoveries for Toluene-d8 slightly above the QC limit. The high Toluene-d8 recoveries appear to be due to matrix interference. In accordance with protocol, no further action was required.

All of the other GC 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.

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

3.2.3 PESTICIDE/PCB ANALYSIS COMMENTS :

SEQUENCE NOTES :

The sequence was started on 12/21/92 and analyzed in accordance with the EPA CLP SOW. The sequence was analyzed by single injection into a dual column system. After the injection on 12/22/92, at 04:31 AM, the autosampler malfunctioned. After maintenance the sequence was resumed with the injection of PIBLK03 on 12/22/92 at 07:53 AM and was followed by PEM03. The samples that were injected between PEM02 and PEM03 were re-injected later in the sequence. The sequence met all the QC criteria specified in the CLP SOW.

The Chromatograms are presented in the manner consistent with the capabilities of the Nelson 2700 Turbochrome Data System which normalizes the largest peak to scale.

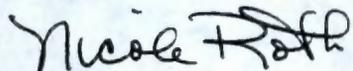
SAMPLE NOTES :

LOW LEVEL WATER :

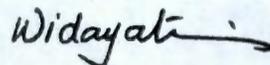
The samples were extracted and analyzed within the CLP SOW holding times. Sample B07QS9MS had a spike recovery for gamma-BHC on the DB-608 column above the advisory QC limit. The percent difference between the two GC columns for gamma-BHC exceeded the 25% limit. Therefore, the results for gamma-BHC has been "P" qualified.

All of the other GC 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

VOLATILE ORGANICS ANALYSIS DATA SHEET

B07QN9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12045 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212045-01A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21217R03

Level: (low/med) LOW Date Received: 12/14/92

‡ Moisture: not dec. _____ Date Analyzed: 12/17/92

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

Q

CAS NO.	COMPOUND	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

9613490.2213

000006

EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07Q09

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12045 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212045-01A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21217R03

Level: (low/med) LOW Date Received: 12/14/92

% Moisture: not dec. Date Analyzed: 12/17/92

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.

B07QP1

Lab Name: TMA/ARLI Contract: WHC
 Lab Code: TMALA Case No.: 12045 SAS No.: NA SDG No.: NA
 Matrix: (soil/water) WATER Lab Sample ID: A212045-02A
 Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21216R04
 Level: (low/med) LOW Date Received: 12/14/92
 % Moisture: not dec. _____ Date Analyzed: 12/16/92
 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

9613490.2215

000008

EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QP1

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12045 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212045-02A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21216R04

Level: (low/med) LOW Date Received: 12/14/92

% Moisture: not dec. Date Analyzed: 12/16/92

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

B07Q89

Lab Name: TMA/ARLI Contract: WHC
 Lab Code: TMALA Case No.: 12045 SAS No.: NA SDG No.: NA
 Matrix: (soil/water) WATER Lab Sample ID: A212045-03A
 Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21216R13
 Level: (low/med) LOW Date Received: 12/14/92
 % Moisture: not dec. _____ Date Analyzed: 12/16/92
 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

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QS9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12045 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212045-03A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21216R13

Level: (low/med) LOW Date Received: 12/14/92

% Moisture: not dec. Date Analyzed: 12/16/92

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

B07QT1

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12045 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212045-04A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21217R08

Level: (low/med) LOW Date Received: 12/14/92

% Moisture: not dec. Date Analyzed: 12/17/92

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

Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	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

9613490.2219

000012

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B07QT1

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12045 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212045-04A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21217R08

Level: (low/med) LOW Date Received: 12/14/92

% Moisture: not dec. Date Analyzed: 12/17/92

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

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
-----	-----	-----	-----	-----

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07QN9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12045 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212045-01B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21221S06

Level: (low/med) LOW Date Received: 12/14/92

% Moisture: decanted: (Y/N) Date Extracted: 12/15/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/21/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	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

9613490.2221

000014

EPA SAMPLE NO.

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07QN9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12045 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212045-01B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21221S06

Level: (low/med) LOW Date Received: 12/14/92

% Moisture: decanted: (Y/N) Date Extracted: 12/15/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/21/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

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

CAS NO.	COMPOUND	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	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

EPA SAMPLE NO.

B07QN9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12045 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212045-01B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21221S06

Level: (low/med) LOW Date Received: 12/14/92

% Moisture: decanted: (Y/N) Date Extracted: 12/15/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/21/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

9613490.2223

EPA SAMPLE NO. 000016

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07QS9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12045 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212045-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21221S09

Level: (low/med) LOW Date Received: 12/14/92

% Moisture: decanted: (Y/N) Date Extracted: 12/15/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/21/92

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	(ug/L or ug/Kg) <u>UG/L</u>	<u>Q</u>
---------	----------	-----------------------------	----------

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

9613490.2224

000017

EPA SAMPLE NO.

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07QS9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12045 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212045-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21221S09

Level: (low/med) LOW Date Received: 12/14/92

% Moisture: decanted: (Y/N) Date Extracted: 12/15/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/21/92

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	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	<u>Q</u>
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	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

B07QS9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12045 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212045-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21221S09

Level: (low/med) LOW Date Received: 12/14/92

% Moisture: decanted: (Y/N) Date Extracted: 12/15/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/21/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 0 CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
-----	-----	-----	-----	-----

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07QN9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12045 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212045-01B

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

% Moisture: _____ decanted: (Y/N) _____ Date Received: 12/14/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 12/15/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 12/24/92

Injection Volume: 1.00 (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

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07QS9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12045 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212045-03B

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

% Moisture: _____ decanted: (Y/N) _____ Date Received: 12/14/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 12/15/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 12/24/92

Injection Volume: 1.00 (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 Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	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

21
ACVD: 12/14/92 DUE: 01/13/93

TMA/Norcal

CHAIN OF CUSTODY

ORD # N2-12-076

12/14/92 14:31:52

KEEP: 04/13/93 DISP: S

DASH SAMPLE IDENTIFICATION STORED TESTS for FRACTIONS with work in DEPT: SU and CATEGORY

DASH SAMPLE IDENTIFICATION	STORED	TESTS
01A-W B07Q9	UNFILTEREDARLI	WHO18 WHO19 WHO20 WHO43 WH114 WH121 WH122 WH128 WH131 WH132 WH140
02A-W B07Q9	UNFILTEREDARLI	WHO18 WHO19 WHO20 WHO43 WH114 WH121 WH122 WH128 WH131 WH132 WH140
02C-W B07Q9 MS	UNFILTEREDARLI	WHO18 WHO19 WHO20 WHO43 WH114 WH140
02D-W B07Q9 MSD	UNFILTEREDARLI	WHO18 WHO19 WHO20
02E-W B07Q9 SUP	UNFILTEREDARLI	WHO43 WH114 WH121 WH122 WH128 WH131 WH132 WH140
05A-W B07QF1	ARLI	WHO18
06A-W B07QT1	ARLI	WHO18

RELEASED BY	DATE	TRANSFERRED TO	DATE	RECEIVED BY	DATE
<i>guy-namato</i>	<i>12-14-92</i>	<i>ARLI</i>	<i>12-14-92</i>	<i>[Signature]</i>	<i>12/15/92</i>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

B07QT1 all three UoA veals had air bubbles *(cd)*

Westinghouse
Hanford Company

CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Project Designation/Sampling Locations 100-KR-4

Ice Chest No. 544

Bill of Lading/Airbill No. NA

Method of Shipment EMERY

shipped to TMA

Possible Sample Hazards/Remarks N/A

Telephone (509)376-5045

Collection Date 12-10-92

Field Logbook No. EFL-1049

Offsite Property No. W93-MA

Sample Identification

B07QV9

- 3, 40ml, Gs*, WATER, CLP-VOA ✓
- 3, 2L, aG, WATER, CLP-SEMI VOA & PCB's/PEST ✓
- 1, 1L, P, WATER, ANIONS(IC) SO4, F, PO4, Cl/COND:/pH ✓
- 1, 500ml, P, WATER, ANIONS/NO3-NO2 (H2SO4)
- 1, 1L, G, WATER, ALK./TOT. DISSOLVED SOLIDS ✓
- 1, 500ml, G, WATER, SULFIDE (add Zinc Acetate+NaOH pH>9)
- 1, 500ml, G, WATER, AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
- 1, 1L, P, WATER, CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
- 1, 1L, P, WATER, CLP-CN (NaOH)
- 2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90 (HNO3)
- 1, 1L, P, WATER, Tc-99 (HCl)
- 1, 250ml, Gs, WATER, TRITIUM/C-14

B07QPD

- 1, 1L, P, WATER, CLP-ICP/AA METALS (FILTERED)/CLP-Hg (HNO3)

B07QPI

- 3, 40ml, Gs, WATER, CLP-VOA ✓

[] Field Transfer of Custody		Chain of Possession	(Sign and Print Names)
Relinquished by: L.D. Walker <i>L.D. Walker</i>	Received by: Refrig. #1	Date/Time: 12-10-92	1445
Relinquished by:	Received by: K. Trapp / K. Trapp	Date/Time: 12/11/92	1626
Relinquished by: K. Trapp / K. Trapp	Received by: Alfonso Rodriguez	Date/Time: 12-14-92	0800 *
Relinquished by:	Received by:	Date/Time:	

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:
Comments: * Received 12-12-92 @ TMA/NORCAL; opened 12-14-92 KB		

9613490.2230

000002B



Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K. Lee, L. Walker

Date Sampled 12-10-92 Time 1100 hours

Company Contact P. H. Butcher

Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B07QNG	✓ 3; 40ml; Gs*;	WATER	CLP-VOA
	✓ 3; 2L; aG;	WATER	CLP-SEMI VOA & PCB's/PEST
	✓ 1; 1L; P;	WATER	ANIONS (IC) SO4, F, PO4, Cl/COND/pH
	✓ 1; 500ml; P;	WATER	ANIONS/NO3-NO2 (H2SO4)
	✓ 1; 1L; G;	WATER	ALK./TOT. DISSOLVED SOLIDS
	✓ 1; 500ml; G;	WATER	SULFIDE (add Zinc-Acetate + NaOH pH > 9)
	✓ 1; 500ml; G;	WATER	AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH < 2)
	✓ 1; 1L; P;	WATER	CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
	✓ 1; 1L; P;	WATER	CLP-CN (NaOH)
	✓ 2; 4L; P;	WATER	GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90, (HNO3)
	✓ 1; 1L; P;	WATER	Tc-99 (HCl)
	✓ 1; 250ml; Gs;	WATER	TRITIUM/C-14
B07QPD	✓ 1; 1L; P;	WATER	CLP-ICP/AA METAL (FILTERED)/CLP-Hg (HNO3)
B07QPI	✓ 3; 40ml; Gs	WATER	CLP-VOA
			OPC: # W93- NA
			BOL: # NA
			TASK#: 92-398

Field Information **

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Hermit Blum

Title Sample Control Supervisor Date 12-14-92

Analysis Required

* Indicate whether sample is soil, sludge, water, etc.

Westinghouse
Hanford Company

CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER
Company Contact PH BUTCHER
Project Designation/Sampling Locations 100-KR-4
Ice Chest No. Alpha 6
Bill of Lading/Airbill No.
Method of Shipment EMERY
Shipped to TMA
Possible Sample Hazards/Remarks N/A

Telephone (509)376-5045
Collection Date 12-10-92
Field Logbook No. EFL-1049
Offsite Property No. W93-0-0151-10

Sample Identification

B07Q59

- 3, 40ml, Gs*, WATER, CLP-VOA
- 3, 2L, aG, WATER, CLP-SEMI VOA & PCB's/PEST
- 1, 1L, P, WATER, ANIONS(IC) SO4, F, PO4, Cl/COND:/pH
- 1, 500ml, P, WATER, ANIONS/NO3-NO2 (H2SO4)
- 1, 1L, G, WATER, ALK-/TOT. DISSOLVED SOLIDS
- 1, 500ml, G, WATER, SULFIDE (add Zinc Acetate+NaOH pH>9)
- 1, 500ml, G, WATER, AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
- 1, 1L, P, WATER, CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
- 1, 1L, P, WATER, CLP-CN (NaOH)
- 2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90 (HNO3)
- 1, 1L, P, WATER, Tc-99 (HCl)
- 1, 250ml, Gs, WATER, TRITIUM/C-14

B07Q70

- 1, 1L, P, WATER, CLP-ICP/AA METALS (FILTERED)/CLP-Hg (HNO3)

B07Q71

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

[] Field Transfer of Custody		Chain of Possession	(Sign and Print Names)
Relinquished by: L.D. Walker <i>L.D. Walker</i>	Received by: Refrig # 2	Date/Time: 12-10-92 / 1445	
Relinquished by:	Received by: <i>GG Hamilton</i>	Date/Time: 12-11-92 / 1104	
Relinquished by: <i>GG Hamilton</i>	Received by: <i>Kermit Blum</i>	Date/Time: 12-14-92 0800 *	
Relinquished by:	Received by:	Date/Time:	
Final Sample Disposition			
Disposal Method:	Disposed by:	Date/Time:	
Comments: * Received @ TMA/NORCAL 12-12-92 ; opened 12-14-92 - KB			



Westinghouse
Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K. Lee, L. Walker Date Sampled 12-10-92 Time 1230 hours
 Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample *	Analysis Requested
BO 7Q S9	3; 40ml; Gs*;	WATER	CLP-VOA
	3; 2L; aG;	WATER	✓ CLP-SEMI VOA & PCB's/PEST
	1; 1L; P;	WATER	ANIONS (IC) SO4, F, PO4, Cl/COND/pH
	1; 500ml; P;	WATER	ANIONS/NO3-NO2 (H2SO4)
	1; 1L; G;	WATER	ALK./TOT. DISSOLVED SOLIDS
	1; 500ml; G;	WATER	SULFIDE (add Zinc Acetate + NaOH pH > 9)
	1; 500ml; G;	WATER	✓ AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH < 2)
	1; 1L; P;	WATER	CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
	1; 1L; P;	WATER	CLP-CN (NaOH)
	2; 4L; P;	WATER	✓ GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90, (HNO3)
	1; 1L; P;	WATER	✓ Tc-99 (HCl)
	1; 250ml; Gs;	WATER	✓ TRITIUM/C-14
BO 7Q T0	1; 1L; P;	WATER	✓ CLP-ICP/AA METAL (FILTERED)/CLP-Hg (HNO3)
BO 7Q T1	3; 40ml; Gs	WATER	✓ CLP-VOA
			OPC: # W93- 0-0151-10
			BOL: # 251-900-766-7
			TASK#: 92-398

Field Information ** _____

 Special Handling and/or Storage _____

 Possible Sample Hazards _____

PART II: LABORATORY SECTION

Received by Kermit Blum Title Sample Control Supervisor Date 12-14-92
 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)

9613490.2233

000006



QUESTIONS? CALL 800-238-5355 TOLL FREE.

AIRBILL PACKAGE TRACKING NUMBER: 5188042672

5188042672

RECIPIENT'S COPY

Date: 12-14-92

From (Your Name) Please Print: **SAM'S**

Your Phone Number (Very Important): (510) 423-2633

To (Recipient's Name) Please Print: **SAM'S CENTRAL**

Company: **COMMERCIAL**

Department/Floor No: **TMA/ARI**

Street Address: **2320 WASHINGTON AVE**

Exact Street Address (We Cannot Deliver to P.O. Boxes or P.O. Zip Codes): **160 TAYLOR STREET**

City: **NICHOLS** State: **CA** ZIP Required: **94004**

City: **MONROVIA** State: **CA** ZIP Required: **91016**

OUR INTERNAL BILLING REFERENCE INFORMATION (optional) (First 24 characters will appear on invoice): **2320 C40G**

IF HOLD FOR PICK-UP, Print FEDEX Address Here

Street Address: _____

City: _____ State: _____ ZIP Required: _____

Payment: Bill Sender Bill Recipient's FedEx Acct No Bill 3rd Party FedEx Acct No Bill Credit Card

SERVICES (Check only one box)		DELIVERY AND SPECIAL HANDLING (Check services required)		PACKAGES WEIGHT & YOUR DECLARED VALUE		EMPLOYEE INFO		FEDERAL EXPRESS USE	
Priority Overnight (next business day) <input checked="" type="checkbox"/> YOUR PACKAGING <input type="checkbox"/> FEDEX LETTER <input type="checkbox"/> FEDEX PAK <input type="checkbox"/> FEDEX BOX <input type="checkbox"/> FEDEX TUBE Economy Two-Day (next business day) <input type="checkbox"/> ECONOMY	Standard Overnight (Monday-Friday) <input type="checkbox"/> YOUR PACKAGING <input type="checkbox"/> FEDEX LETTER <input type="checkbox"/> FEDEX PAK <input type="checkbox"/> FEDEX BOX <input type="checkbox"/> FEDEX TUBE Government Overnight (next business day) <input type="checkbox"/> GOVT LETTER <input type="checkbox"/> GOVT PACKAGE	1 <input type="checkbox"/> HOLD FOR PICKUP (P.O. Box #) 2 <input checked="" type="checkbox"/> DELIVER WEEKDAY 3 DELIVER SATURDAY (Extra charge) 4 DANGEROUS GOODS (Extra charge) 5 _____ 6 DRY ICE 7 OTHER SPECIAL SERVICE 8 _____ 9 SATURDAY PICK-UP (Extra charge) 10 _____ 12 HOLIDAY DELIVERY (if allowed) (Extra charge)	Total Total Total 6 375 DIM SHIPMENT (Chargeable Weight) L W x H	<input checked="" type="checkbox"/> Cash Received <input type="checkbox"/> Return Shipment <input type="checkbox"/> Third Party <input type="checkbox"/> Chg To Del <input type="checkbox"/> Chg To Hold Street Address: _____ City: _____ State: _____ Zip: _____ Received By: X Date/Time Received: _____ FedEx Employee Number: _____	Basic Charge: _____ Declared Value Charge: _____ Other 1: _____ Other 2: _____ Total Charges: _____ REVISION DATE 2/92 PART 0137204 FXEM 0/02 FORMAT #126 126 © 1991-92 FEDEX PRINTED IN U.S.A.				

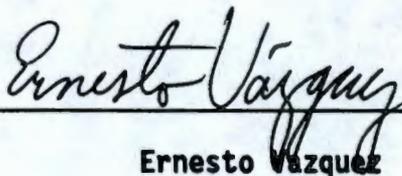
GENERAL CHEMISTRY RESULTS**CASE NO. 12-045****Water Sample #:****B07QN9****B07QS9****CASE NARRATIVE**

Sample B07QN9 (A2-12-045-01) yielded a 35.0% recovery for the Phosphate analysis. The low Phosphate recovery compared to our laboratory control sample indicated the presence of a matrix interference.

The % RPD for the Ammonia analysis reported for water sample B07QSR (A2-12-045-03) was 43.5%. The results for the sample and duplicate were near the instrument detection limit. These results are acceptable based on the level of the Ammonia concentration.

The holding times for the Anions, Ammonia, pH, COD, TDS, Alkalinity and Sulfide analyses was exceeded. Careful review of the QC analysis indicate the data is reliable.

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



Ernesto Vazquez

TNA Inc.

REPORT

Work Order # A2-12-045

Received: 12/14/92

02/05/93 14:09:51

REPORT Westinghouse Hanford Company
TO 2355 Stevens Dr.
Richland, WA, 99352
HQ-346/200 West/T6-08
ATTEN Jeanette Duncan

PREPARED Thermo Analytical, Inc.
BY 160 Taylor Street
Monrovia, CA 91016
ATTEN Ms. Carole Harris
PHONE 818-357-3247


CERTIFIED BY
CONTACT EVV CIH

CLIENT WHC SAMPLES 5
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-KR-4
TAKEN By Westinghouse Staff
TRANS By Federal Express
TYPE Liquid
P.O. # W2-12-076-SU-AR
INVOICE under separate cover

SAMPLE IDENTIFICATION

TEST CODES and NAMES used on this workorder

- 01 B07QW9
- 01 B07QW9 MS
- 01 B07QW9 MSD
- 01 B07QW9
- 01 B07QW9 MS
- 01 B07QW9
- 01 B07QW9 MS
- 01 B07QW9
- 01 B07QW9 MS
- 02 B07QP1
- 02 B07QP1 MS
- 02 B07QP1 MSD
- 03 B07QS9
- 03 B07QS9 MS
- 03 B07QS9 MSD
- 03 B07QS9
- 03 B07QS9 Duplicate
- 04 B07QT1
- 05 Wet Chemistry Blank

- BHCLPW CLP Semivol. Water - WH020
- PECLPL CLP Pesticides Liq.-WH019
- VOCLPL CLP Volatile Org.Liq.
- WCCLPL Anions & Wet Chem. - WH043
- WCL L Chloride - WH120
- WCQCD Quality Control Summary
- WCQCS Quality Control Summary
- WF L Fluoride in Water
- WNH3 L Ammonia in Water - WH140
- WPH L pH of Liquid - WH121
- WPO4 L Phosphate in Liquids
- WSO4 L Sulfate (in Waters)
- WSULFI Sulfide - WH114
- W ALK Alkalinity - WH131
- W COD COD Water - WH132
- W COND Conductivity-Water WH135
- W TDS Dissolved Solids WH128

9613490.2236

000010

Page 2
Received: 12/14/92

TNA Inc. REPORT
Results by Sample

Work Order # A2-12-045

SAMPLE ID B07Q09 FRACTION 01E TEST CODE WCCLPL NAME Anions & Vet Chem. - W043
Date & Time Collected 12/10/92 Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	4.2	mg/L	0.2
Fluoride	300.0	0.3	mg/L	0.1
Phosphate	300.0	<0.4	mg/L	0.4
pH	150.1	8.0	pH	0.1
Sulfate	300.0	32	mg/L	1
Elect. Conductivity	120.1	467	umho/cm	6

FORM I

9613490.2237

000011

Page 4
Received: 12/14/92

TNA Inc. REPORT
Results by Sample

Work Order # A2-12-045

SAMPLE ID B07089 FRACTION 01G TEST CODE WCCLPL NAME Anions & Wet Chem. - VN043
Date & Time Collected 12/10/92 Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	106	mg/L	2
Tot. Dissolved Solids	160.1	335	mg/L	5

FORM 1

9613490.2238

000012

Page 5
Received: 12/14/92

TMA Inc. REPORT
Results by Sample

Work Order # AZ-12-045

SAMPLE ID 070M9 FRACTION 01M TEST CODE WCCLPL NAME Anions & Wet Chem. - WH043
Date & Time Collected 12/10/92 Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
<u>ANALYSIS</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>LIMIT</u>
sulfide	376.1	<1	mg/L	1

FORM I

9613490.2239

000013

TNA Inc.

REPORT

Work Order # A2-12-045

Received: 12/14/92

Results by Sample

SAMPLE ID 807989

FRACTION Q14

TEST CODE WCCLPL

NAME Anions & Wet Chem. - VH043

Date & Time Collected 12/10/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
<u>ANALYSIS</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>LIMIT</u>
Ammonia Nitrogen	350.3	<0.05	mg/L	0.05
COD	410.0	<5	mg/L	5

FORM I

9613490.2240

000014

Page 9
Received: 12/14/92

TNA Inc. REPORT
Results by Sample

Work Order # A2-12-045

SAMPLE ID B07059 FRACTION 03E TEST CODE WCCLPL NAME Anions & Wet Chem. - VN043
Date & Time Collected 12/10/92 Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
<u>ANALYSIS</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>LIMIT</u>
Chloride	300.0	3.7	mg/L	0.2
Fluoride	300.0	0.3	mg/L	0.1
Phosphate	300.0	<0.4	mg/L	0.4
pH	150.1	8.1	pH	0.1
Sulfate	300.0	32	mg/L	1
Elect. Conductivity	120.1	290	umho/cm	6

FORM I

9613490.2241

000015

Page 11
Received: 12/14/92

TMA Inc. REPORT
Results by Sample

Work Order # A2-12-045

SAMPLE ID B07089 FRACTION 036 TEST CODE WCCLPL NAME Anions & Wet Chem. - V043
Date & Time Collected 12/10/92 Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	95	mg/L	2
Tot. Dissolved Solids	160.1	183	mg/L	5

FORM 1

9613490.2242

000016

Page 13
Received: 12/14/92

TNA Inc. REPORT
Results by Sample

Work Order # A2-12-045

SAMPLE ID 807059 FRACTION 031 TEST CODE WCCLPL NAME Anions & Wet Chem. - VN043
Date & Time Collected 12/10/92 Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Sulfide	376.1	<1	mg/L	1

FORM 1

3615490.2213

000017

TMA Inc.

REPORT

Work Order # A2-12-045

Received: 12/14/92

Results by Sample

SAMPLE ID B079S9

FRACTION 03K

TEST CODE WCCLPL

NAME Anions & Wet Chem. - VN043

Date & Time Collected 12/10/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
<u>ANALYSIS</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>LIMIT</u>
Ammonia Nitrogen	350.3	0.09	mg/L	0.05
COD	410.0	<5	mg/L	5

FORM 1

9613490.2244

TMA

Thermo Analytical Inc.

Skinner & Sherman Labs., Inc.

300 Second Avenue

Post Office Box 521

Waltham, MA 02254-0521

(617) 890-7200

FAX (617) 890-3883

RECORD COPY



January 18, 1993

TMA/NORCAL
2030 Wright Avenue
Richmond, CA 94804
Attention: Dan Stuermer

Quality Control Narrative

Scope

Eleven (11) water samples were submitted to TMA/Skinner & Sherman Laboratories, Inc. on December 15 - 16, 1992 from TMA/Norcal. The samples were analyzed for the USEPA CLP metals and cyanide as indicated on the chain of custody. The analysis was performed under TMA/Skinner and Sherman work order S212213.

Methodology

The samples were prepared, analyzed and reported in accordance with the USEPA Contract Laboratory Program Statement of Work ILM02.

Discussion

All quality control requirements were met for the samples with the following exceptions;

The arsenic, selenium and cyanide digestion spike recovery exceeded the control limit requirements.

The ICP serial dilution for iron 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

9613490.2245

X02084

WESTINGHOUSE/HANFORD
1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER:

B07QN9

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N212087, N8AS No.:

SDG No.: B07QN9

Matrix (soil/water): WATER

Lab Sample ID: 12213-01S

Level (low/med): LOW

Date Received: 12/15/92

% 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	37.3	B	U	P
7440-36-0	Antimony	19.0	U		P
7440-38-2	Arsenic	5.3	B	WN J	F R
7440-39-3	Barium	27.1	B		P
7440-41-7	Beryllium	0.90	U		P
7440-43-9	Cadmium	1.4	U		P
7440-70-2	Calcium	59900			P
7440-47-3	Chromium	4.2	U		P
7440-48-4	Cobalt	3.2	U		P
7440-50-8	Copper	6.6	B		P
7439-89-6	Iron	39.1	B	F J	P
7439-92-1	Lead	2.9	B		F
7439-95-4	Magnesium	13300			P
7439-96-5	Manganese	3.8	B	U	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	11.4	B		P
7440-09-7	Potassium	5300			P
7782-49-2	Selenium	3.3	U	WN J	F R
7440-22-4	Silver	4.6	U		P
7440-23-5	Sodium	10100			P
7440-28-0	Thallium	1.5	U		F
7440-62-2	Vanadium	10.5	B		P
7440-66-6	Zinc	13.1	B	U	P
	Cyanide	10.0	U	WN J	CA

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

6/16/93 SC
002

9613490.2246

X02084

WESTINGHOUSE/HANFORD

1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07QP9

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N212087, N&AS No.:

SDG No.: B07QN9

Matrix (soil/water): WATER

Lab Sample ID: 12213-09S

Level (low/med): LOW

Date Received: 12/16/92

% 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	79.8	B	U	P
7440-36-0	Antimony	19.0	U		P
7440-38-2	Arsenic	3.7	U	W	F R
7440-39-3	Barium	36.1	B		P
7440-41-7	Beryllium	0.90	U		P
7440-43-9	Cadmium	1.4	U		P
7440-70-2	Calcium	39600			P
7440-47-3	Chromium	4.2	U		P
7440-48-4	Cobalt	3.2	U		P
7440-50-8	Copper	4.9	U		P
7439-89-6	Iron	95.2	B	F	P
7439-92-1	Lead	1.9	B		F
7439-95-4	Magnesium	4650	B		P
7439-96-5	Manganese	6.3	U	U	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	7.4	B		P
7440-09-7	Potassium	2870	B		P
7782-49-2	Selenium	16.5	U	W	F R
7440-22-4	Silver	4.6	U		P
7440-23-5	Sodium	5870			P
7440-28-0	Thallium	1.5	U		F
7440-62-2	Vanadium	4.0	U		P
7440-66-6	Zinc	28.3			P
	Cyanide	10.0	U	W	CA

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

01/16/93 SC

003

9613490.2247

X02084

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER:

B07004

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N212087, NSAS No.:

SDG No.: B070N9

Matrix (soil/water): WATER

Lab Sample ID: 12213-10S

Level (low/med): LOW

Date Received: 12/16/92

% 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	59.6	B	U	P
7440-36-0	Antimony	19.0	U		P
7440-38-2	Arsenic	3.7	U	W J	F R
7440-39-3	Barium	72.2	B		P
7440-41-7	Beryllium	0.90	U		P
7440-43-9	Cadmium	1.4	U		P
7440-70-2	Calcium	28500			P
7440-47-3	Chromium	4.2	U		P
7440-48-4	Cobalt	3.2	U		P
7440-50-8	Copper	4.9	U		P
7439-89-6	Iron	98.6	B	E J	P
7439-92-1	Lead	6.7			F
7439-95-4	Magnesium	16400			P
7439-96-5	Manganese	20.2	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	12.7	B		P
7440-09-7	Potassium	4710	B		P
7782-49-2	Selenium	16.5	U	W J	F R
7440-22-4	Silver	4.6	U		P
7440-23-5	Sodium	29400			P
7440-28-0	Thallium	1.5	U		F
7440-62-2	Vanadium	4.0	U		P
7440-66-6	Zinc	23.0			P
	Cyanide	10.0	U	M J	CA

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

6/16/93

004

WESTINGHOUSE/HANFORD

1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07QR4

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N212087, N&AS No.:

SDG No.: B07QN9

Matrix (soil/water): WATER

Lab Sample ID: 12213-03S

Level (low/med): LOW

Date Received: 12/15/92

% 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	33.3	U		P
7440-36-0	Antimony	19.0	U		P
7440-38-2	Arsenic	18.5	U	NJ	F R
7440-39-3	Barium	52.7	B		P
7440-41-7	Beryllium	0.90	U		P
7440-43-9	Cadmium	1.4	U		P
7440-70-2	Calcium	58500			P
7440-47-3	Chromium	136			P
7440-48-4	Cobalt	3.2	U		P
7440-50-8	Copper	4.9	U		P
7439-89-6	Iron	40.5	B	NJ	P
7439-92-1	Lead	2.3	B		F
7439-95-4	Magnesium	11100			P
7439-96-5	Manganese	22.7	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.4	U		P
7440-09-7	Potassium	4220	B		P
7782-49-2	Selenium	16.5	U	NJ	F R
7440-22-4	Silver	4.6	U		P
7440-23-5	Sodium	18600			P
7440-28-0	Thallium	1.5	U		F
7440-62-2	Vanadium	4.0	U		P
7440-66-6	Zinc	27.6	U		P
	Cyanide	10.0	U	NJ	CA

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

6/11/93

Comments:

005

9613490.2249

X02084

WESTINGHOUSE/HANFORD

1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07QR9

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N212087, NSAS No.:

SDG No.: B07QN9

Matrix (soil/water): WATER

Lab Sample ID: 12213-04S

Level (low/med): LOW

Date Received: 12/15/92

% 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	39.3	BU		P
7440-36-0	Antimony	19.0	U		P
7440-38-2	Arsenic	18.5	U		F R
7440-39-3	Barium	28.6	B		P
7440-41-7	Beryllium	0.90	U		P
7440-43-9	Cadmium	1.4	U		P
7440-70-2	Calcium	36000			P
7440-47-3	Chromium	4.2	U		P
7440-48-4	Cobalt	3.2	U		P
7440-50-8	Copper	4.9	U		P
7439-89-6	Iron	35.8	B		P
7439-92-1	Lead	1.4	B		F
7439-95-4	Magnesium	9840			P
7439-96-5	Manganese	3.8	BU		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.4	U		P
7440-09-7	Potassium	4940	B		P
7782-49-2	Selenium	16.5	U		F R
7440-22-4	Silver	4.6	U		P
7440-23-5	Sodium	13200			P
7440-28-0	Thallium	1.5	U		F
7440-62-2	Vanadium	14.5	B		P
7440-66-6	Zinc	5.9	BU		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

006

WESTINGHOUSE/HANFORD

1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07QS4

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N212087, NSAS No.:

SDG No.: B07QN9

Matrix (soil/water): WATER

Lab Sample ID: 12213-05S

Level (low/med): LOW

Date Received: 12/15/92

% 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	42.2	U		P
7440-36-0	Antimony	28.1	B		P
7440-38-2	Arsenic	3.7	U	WN	F R
7440-39-3	Barium	54.2	B		P
7440-41-7	Beryllium	0.90	U		P
7440-43-9	Cadmium	1.4	U		P
7440-70-2	Calcium	65100			P
7440-47-3	Chromium	1950			P
7440-48-4	Cobalt	3.2	U		P
7440-50-8	Copper	4.9	U		P
7439-89-6	Iron	39.9	B	E J	P
7439-92-1	Lead	2.0	B		F
7439-95-4	Magnesium	16200			P
7439-96-5	Manganese	59.7			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.4	U		P
7440-09-7	Potassium	6090			P
7782-49-2	Selenium	16.5	U	WN	F R
7440-22-4	Silver	4.6	U		P
7440-23-5	Sodium	14400			P
7440-28-0	Thallium	1.5	U	E J	F
7440-62-2	Vanadium	12.4	B		P
7440-66-6	Zinc	25.7			P
	Cyanide	10.0	U	NJ	CA

Color Before: YELLOW

Clarity Before: CLEAR

Texture:

Color After: YELLOW

Clarity After: CLEAR

Artifacts:

6/16/92

Comments:

007

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER:

B07QS9

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N212087, N8AS No.:

SDG No.: B07QN9

Matrix (soil/water): WATER

Lab Sample ID: 12213-02S

Level (low/med): LOW

Date Received: 12/15/92

% 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	25.1	B	U	P
7440-36-0	Antimony	19.0	U		P
7440-38-2	Arsenic	3.7	U	NJ	F R
7440-39-3	Barium	22.6	B		P
7440-41-7	Beryllium	0.90	U		P
7440-43-9	Cadmium	1.4	U		P
7440-70-2	Calcium	35700			P
7440-47-3	Chromium	111			P
7440-48-4	Cobalt	3.2	U		P
7440-50-8	Copper	4.9	U		P
7439-89-6	Iron	3.7	U	EJ	P
7439-92-1	Lead	3.1	U	MWJ	F
7439-95-4	Magnesium	7570			P
7439-96-5	Manganese	3.8	B	U	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.4	U		P
7440-09-7	Potassium	3500	B		P
7782-49-2	Selenium	16.5	U	NJ	F R
7440-22-4	Silver	4.6	U		P
7440-23-5	Sodium	8450			P
7440-28-0	Thallium	1.5	U		F
7440-62-2	Vanadium	12.8	B		P
7440-66-6	Zinc	13.1	B	U	P
	Cyanide	10.0	U	NJ	CA

Color Before: COLORLESS

Clarity Before: CLEAR

Texture: 6/11/92

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

008

WESTINGHOUSE/HANFORD

1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07QT9

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N212087, N2AS No.:

SDG No.: B07QN9

Matrix (soil/water): WATER

Lab Sample ID: 12213-11S

Level (low/med): LOW

Date Received: 12/16/92

% 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	21.2	U		P
7440-36-0	Antimony	19.0	U		P
7440-38-2	Arsenic	4.0	B	WJ	F R
7440-39-3	Barium	22.6	B		P
7440-41-7	Beryllium	0.90	U		P
7440-43-9	Cadmium	1.4	U		P
7440-70-2	Calcium	43000			P
7440-47-3	Chromium	63.1			P
7440-48-4	Cobalt	3.2	U		P
7440-50-8	Copper	5.6	B		P
7439-89-6	Iron	334		EJ	P
7439-92-1	Lead	3.7			F
7439-95-4	Magnesium	11100			P
7439-96-5	Manganese	9.2	B	U	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.4	U		P
7440-09-7	Potassium	5190			P
7782-49-2	Selenium	16.5	U	WJ	F R
7440-22-4	Silver	4.6	U		P
7440-23-5	Sodium	14900			P
7440-28-0	Thallium	1.5	U	WJ	F
7440-62-2	Vanadium	19.1	B		P
7440-66-6	Zinc	3.9	B	U	P
	Cyanide	10.0	U	NJ	CA

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

Handwritten notes: 4/10/92

009

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER:

B07QW4

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N212087, N&S No.:

SDG No.: B07QN9

Matrix (soil/water): WATER

Lab Sample ID: 12213-06S

Level (low/med): LOW

Date Received: 12/15/92

% 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	30.1	B	U	P
7440-36-0	Antimony	20.2	B		P
7440-38-2	Arsenic	3.8	B	WJ	F R
7440-39-3	Barium	13.5	B		P
7440-41-7	Beryllium	0.90	U		P
7440-43-9	Cadmium	1.4	U		P
7440-70-2	Calcium	37600			P
7440-47-3	Chromium	4.2	U		P
7440-48-4	Cobalt	3.2	U		P
7440-50-8	Copper	4.9	U		P
7439-89-6	Iron	3.7	U	EJ	P
7439-92-1	Lead	2.3	B		F
7439-95-4	Magnesium	11100			P
7439-96-5	Manganese	3.4	B	U	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.4	U		P
7440-09-7	Potassium	5800			P
7782-49-2	Selenium	16.5	U	WJ	F R
7440-22-4	Silver	4.6	U		P
7440-23-5	Sodium	21300			P
7440-28-0	Thallium	1.5	U	WJ	F
7440-62-2	Vanadium	16.9	B		P
7440-66-6	Zinc	48.1			P
	Cyanide	10.0	U	WJ	CA

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

6/19/93

Comments:

010

WESTINGHOUSE/HANFORD

1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07QX9

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N212087,N8AS No.:

SDG No.: B07QN9

Matrix (soil/water): WATER

Lab Sample ID: 12213-07S

Level (low/med): LOW

Date Received: 12/15/92

% 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	21.2	U		P
7440-36-0	Antimony	19.0	U		P
7440-38-2	Arsenic	3.7	U	N7	F R
7440-39-3	Barium	2.4	U		P
7440-41-7	Beryllium	0.90	U		P
7440-43-9	Cadmium	1.4	U		P
7440-70-2	Calcium	29.0	B		P
7440-47-3	Chromium	4.2	U		P
7440-48-4	Cobalt	3.2	U		P
7440-50-8	Copper	4.9	U		P
7439-89-6	Iron	3.7	U	EJ	P
7439-92-1	Lead	2.9	B		F
7439-95-4	Magnesium	65.6	U		P
7439-96-5	Manganese	4.2	Bu		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.4	U		P
7440-09-7	Potassium	124	U		P
7782-49-2	Selenium	3.3	U	N7	F R
7440-22-4	Silver	4.6	U		P
7440-23-5	Sodium	72.1	Bu		P
7440-28-0	Thallium	1.5	U		F
7440-62-2	Vanadium	4.0	U		P
7440-66-6	Zinc	3.3	Bu		P
	Cyanide	10.0	U	N5	CA

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

6/14/93

011

X02084

WESTINGHOUSE/HANFORD

1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07QZ9

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N212087, N2AS No.:

SDG No.: B07QN9

Matrix (soil/water): WATER

Lab Sample ID: 12213-08S

Level (low/med): LOW

Date Received: 12/15/92

% 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	479			P
7440-36-0	Antimony	19.0	U		P
7440-38-2	Arsenic	3.7	U	WJ	F R
7440-39-3	Barium	16.6	B		P
7440-41-7	Beryllium	0.90	U		P
7440-43-9	Cadmium	1.5	B		P
7440-70-2	Calcium	35200			P
7440-47-3	Chromium	4.2	U		P
7440-48-4	Cobalt	3.2	U		P
7440-50-8	Copper	4.9	U		P
7439-89-6	Iron	293		EJ	P
7439-92-1	Lead	2.4	B		F
7439-95-4	Magnesium	10600			P
7439-96-5	Manganese	26.5	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.4	U		P
7440-09-7	Potassium	6240			P
7782-49-2	Selenium	16.5	U	WJ	F R
7440-22-4	Silver	4.6	U		P
7440-23-5	Sodium	21700			P
7440-28-0	Thallium	1.5	U	WJ	F
7440-62-2	Vanadium	21.1	B		P
7440-66-6	Zinc	19.1	B	WJ	P
	Cyanide	10.0	U	WJ	CA

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

6/16/93

012

TMA**Thermo Analytical Inc.**

Skinner & Sherman Labs., Inc.

300 Second Avenue

Post Office Box 521

Waltham, MA 02254-0521

(617) 890-7200

FAX (617) 890-3883

January 19, 1993

TMA/NORCAL
 2030 Wright Avenue
 Richmond, CA 94804
 Attention: Dan Stuermer



Quality Control Narrative

Scope

Eleven (11) water samples were submitted to TMA/Skinner & Sherman Laboratories, Inc. on December 15 - 16, 1992 from TMA/Norcal. The samples were analyzed for the USEPA CLP Target Analyte List metals. The analysis was performed under TMA/Skinner and Sherman work order S212214.

Methodology

The samples were prepared, analyzed and reported in accordance with the USEPA Contract Laboratory Program Statement of Work ILM02.

Discussion

All quality control requirements were met for the samples with the following exceptions;

The selenium 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:

B07QP0

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N212087, NSAS No.:

SDG No.: B07QP0

Matrix (soil/water): WATER

Lab Sample ID: 12214-01S

Level (low/med): LOW

Date Received: 12/15/92

% 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	21.2	U		P
7440-36-0	Antimony	19.0	U		P
7440-38-2	Arsenic	4.3	B		F
7440-39-3	Barium	28.7	B		P
7440-41-7	Beryllium	1.1	B		P
7440-43-9	Cadmium	1.4	U		P
7440-70-2	Calcium	57800			P
7440-47-3	Chromium	4.2	U		P
7440-48-4	Cobalt	3.2	U		P
7440-50-8	Copper	5.4	B		P
7439-89-6	Iron	3.7	U		P
7439-92-1	Lead	1.8	B		F
7439-95-4	Magnesium	12800			P
7439-96-5	Manganese	1.7	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.4	U		P
7440-09-7	Potassium	5340			P
7782-49-2	Selenium	3.8	U	MAN J	F
7440-22-4	Silver	4.6	U		P
7440-23-5	Sodium	10100			P
7440-28-0	Thallium	1.5	U		F
7440-62-2	Vanadium	12.6	B		P
7440-66-6	Zinc	8.6	B	U	P
	Cyanide				NR

6/16/93 SC

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

002

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER:

B07000

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N212087, N&S No.:

SDG No.: B070P0

Matrix (soil/water): WATER

Lab Sample ID: 12214-095

Level (low/med): LOW

Date Received: 12/15/92

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	21.2	U		P
7440-36-0	Antimony	19.0	U		P
7440-38-2	Arsenic	2.0	U		F
7440-39-3	Barium	38.3	B		P
7440-41-7	Beryllium	1.1	B		P
7440-43-9	Cadmium	1.4	U		P
7440-70-2	Calcium	38300			P
7440-47-3	Chromium	15.9			P
7440-48-4	Cobalt	3.2	U		P
7440-50-8	Copper	4.9	U		F
7439-89-6	Iron	3.7	U		P
7439-92-1	Lead	3.4			F
7439-95-4	Magnesium	4550	B		P
7439-96-5	Manganese	2.2	B		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	9.1	B		P
7440-09-7	Potassium	2520	B		P
7782-49-2	Selenium	3.8	U		F
7440-22-4	Silver	4.6	U		P
7440-23-5	Sodium	5900			P
7440-28-0	Thallium	1.5	U		F
7440-62-2	Vanadium	4.0	U		P
7440-66-6	Zinc	12.7	B		P
	Cyanide				NR

Handwritten initials "AJ" next to Selenium row.

Handwritten date "6/16/93" in the bottom right corner.

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

003

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER:

B07005

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N212087, N8AS No.:

SDG No.: B07QP0

Matrix (soil/water): WATER

Lab Sample ID: 12214-10S

Level (low/med): LOW

Date Received: 12/15/92

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	21.2	U		P
7440-36-0	Antimony	19.0	U		P
7440-38-2	Arsenic	2.2	B		F
7440-39-3	Barium	76.6	B		P
7440-41-7	Beryllium	0.90	U		P
7440-43-9	Cadmium	1.4	U		P
7440-70-2	Calcium	28000			P
7440-47-3	Chromium	6.9	B		P
7440-48-4	Cobalt	3.2	U		P
7440-50-8	Copper	4.9	U		P
7439-89-6	Iron	3.7	U		P
7439-92-1	Lead	3.4			F
7439-95-4	Magnesium	16500			P
7439-96-5	Manganese	3.6	B		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.9	B		P
7440-09-7	Potassium	4470	B		P
7782-49-2	Selenium	3.8	U		F
7440-22-4	Silver	4.6	U		P
7440-23-5	Sodium	30500			P
7440-28-0	Thallium	1.5	U		F
7440-62-2	Vanadium	5.2	B		P
7440-66-6	Zinc	8.1	B		P
	Cyanide				NR

HNJ

U

6/16/93 S

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

004

WESTINGHOUSE/HANFORD

1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07QR5

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N212087, NSAS No.:

SDG No.: B07QP0

Matrix (soil/water): WATER

Lab Sample ID: 12214-03S

Level (low/med): LOW

Date Received: 12/15/92

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	21.2	U		P
7440-36-0	Antimony	19.0	U		P
7440-38-2	Arsenic	2.2	B		F
7440-39-3	Barium	54.3	B		P
7440-41-7	Beryllium	0.90	U		P
7440-43-9	Cadmium	1.4	U		P
7440-70-2	Calcium	59200			P
7440-47-3	Chromium	143			P
7440-48-4	Cobalt	3.2	U		P
7440-50-8	Copper	4.9	U		P
7439-89-6	Iron	3.7	U		P
7439-92-1	Lead	1.7	B		F
7439-95-4	Magnesium	11600			P
7439-96-5	Manganese	19.2			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.4	U		P
7440-09-7	Potassium	4270	B		P
7782-49-2	Selenium	5.2		±N J	F
7440-22-4	Silver	4.6	U		P
7440-23-5	Sodium	19800			P
7440-28-0	Thallium	1.5	U		F
7440-62-2	Vanadium	4.4	B		P
7440-66-6	Zinc	5.6	B	U	P
	Cyanide				NR

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

6/14/93

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

005

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER:

B07Q50

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N212087, NSAS No.:

SDG No.: B07QP0

Matrix (soil/water): WATER

Lab Sample ID: 12214-04S

Level (low/med): LOW

Date Received: 12/15/92

% 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	21.2	U		P
7440-36-0	Antimony	19.0	U		P
7440-38-2	Arsenic	4.8	B		F
7440-39-3	Barium	33.5	B		P
7440-41-7	Beryllium	0.90	U		P
7440-43-9	Cadmium	1.4	U		P
7440-70-2	Calcium	35600			P
7440-47-3	Chromium	12.9			P
7440-48-4	Cobalt	3.2	U		P
7440-50-8	Copper	4.9	U		P
7439-89-6	Iron	3.7	U		P
7439-92-1	Lead	3.0		W	F
7439-95-4	Magnesium	9960			P
7439-96-5	Manganese	9.8	B		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.4	U		P
7440-09-7	Potassium	5160			P
7782-49-2	Selenium	3.8	U	WJ	F
7440-22-4	Silver	4.6	U		P
7440-23-5	Sodium	13700			P
7440-28-0	Thallium	1.5	U	WJ	F
7440-62-2	Vanadium	13.4	B		P
7440-66-6	Zinc	2.5	B	U	P
	Cyanide				NR

Color Before: COLORLESS

Clarity Before: CLEAR

Texture: 6/16/92 =

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

006

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER:

B07QS5

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N212087, NSAS No.:

SDG No.: B07QP0

Matrix (soil/water): WATER

Lab Sample ID: 12214-05S

Level (low/med): LOW

Date Received: 12/15/92

% 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	21.2	U		P
7440-36-0	Antimony	19.0	U		P
7440-38-2	Arsenic	5.2	B		F
7440-39-3	Barium	59.1	B		P
7440-41-7	Beryllium	0.90	U		P
7440-43-9	Cadmium	1.4	U		P
7440-70-2	Calcium	66000			P
7440-47-3	Chromium	2010			P
7440-48-4	Cobalt	3.2	U		P
7440-50-8	Copper	4.9	U		P
7439-89-6	Iron	16.0	B		P
7439-92-1	Lead	2.2	B		F
7439-95-4	Magnesium	17100			P
7439-96-5	Manganese	54.5			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.4	U		P
7440-09-7	Potassium	6180			P
7782-49-2	Selenium	3.8	U		F
7440-22-4	Silver	4.6	U		P
7440-23-5	Sodium	15300			P
7440-28-0	Thallium	1.5	U		F
7440-62-2	Vanadium	11.0	B		P
7440-66-6	Zinc	14.2	B		P
	Cyanide				NR

Color Before: YELLOW

Clarity Before: CLEAR

Texture: 6/16/92

Color After: YELLOW

Clarity After: CLEAR

Artifacts:

Comments:

WESTINGHOUSE/HANFORD
1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER:

B07QT0

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N212087, N2AS No.:

SDG No.: B07QP0

Matrix (soil/water): WATER

Lab Sample ID: 12214-02S

Level (low/med): LOW

Date Received: 12/15/92

% 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	21.2	U		P
7440-36-0	Antimony	19.0	U		P
7440-38-2	Arsenic	3.1	B		F
7440-39-3	Barium	28.7	B		P
7440-41-7	Beryllium	1.1	B		P
7440-43-9	Cadmium	1.4	U		P
7440-70-2	Calcium	36300			P
7440-47-3	Chromium	117			P
7440-48-4	Cobalt	3.2	U		P
7440-50-8	Copper	4.9	U		P
7439-89-6	Iron	3.7	U		P
7439-92-1	Lead	1.9	B		F
7439-95-4	Magnesium	7790			P
7439-96-5	Manganese	1.8	B		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.4	U		P
7440-09-7	Potassium	3690	B		P
7782-49-2	Selenium	3.8	U	WN	F
7440-22-4	Silver	4.6	U		P
7440-23-5	Sodium	8820			P
7440-28-0	Thallium	1.5	U		F
7440-62-2	Vanadium	12.4	B		P
7440-66-6	Zinc	17.3	B		P
	Cyanide				NR

Color Before: COLORLESS

Clarity Before: CLEAR

Texture: 6/16/93

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

008

WESTINGHOUSE/HANFORD

1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

807QV0

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N212087, NSAS No.:

SDG No.: B07QP0

Matrix (soil/water): WATER

Lab Sample ID: 12214-11S

Level (low/med): LOW

Date Received: 12/15/92

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	21.2	U		P
7440-36-0	Antimony	19.0	U		P
7440-38-2	Arsenic	6.1	B		F
7440-39-3	Barium	27.1	B		F
7440-41-7	Beryllium	0.90	U		P
7440-43-9	Cadmium	1.4	U		P
7440-70-2	Calcium	42600			P
7440-47-3	Chromium	53.5			P
7440-48-4	Cobalt	3.2	U		P
7440-50-8	Copper	4.9	U		P
7439-89-6	Iron	3.7	U		P
7439-92-1	Lead	2.4	B		F
7439-95-4	Magnesium	11700			P
7439-96-5	Manganese	1.8	B		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.4	U		P
7440-09-7	Potassium	5060			P
7782-49-2	Selenium	3.8	U	WJ	F
7440-22-4	Silver	4.6	U		P
7440-23-5	Sodium	15400			P
7440-28-0	Thallium	1.5	U		F
7440-62-2	Vanadium	18.0	B		P
7440-66-6	Zinc	11.2	B	V	P
	Cyanide				NR

6/10/93

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER:

B07QW5

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N212087, N&S No.:

SDG No.: B07QP0

Matrix (soil/water): WATER

Lab Sample ID: 12214-06S

Level (low/med): LOW

Date Received: 12/15/92

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	21.2	U		P
7440-36-0	Antimony	19.0	U		P
7440-38-2	Arsenic	5.5	B		F
7440-39-3	Barium	14.4	B		P
7440-41-7	Beryllium	0.90	U		P
7440-43-9	Cadmium	1.4	U		P
7440-70-2	Calcium	36700			P
7440-47-3	Chromium	4.2	U		P
7440-48-4	Cobalt	3.2	U		P
7440-50-8	Copper	4.9	U		P
7439-89-6	Iron	3.7	U		P
7439-92-1	Lead	1.9	B		F
7439-95-4	Magnesium	11200			P
7439-96-5	Manganese	1.7	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.4	U		P
7440-09-7	Potassium	5800			P
7782-49-2	Selenium	3.8	U	W J	F
7440-22-4	Silver	4.6	U		P
7440-23-5	Sodium	21600			P
7440-28-0	Thallium	1.5	U		F
7440-62-2	Vanadium	17.8	B		P
7440-66-6	Zinc	3.6	B	V	P
	Cyanide				NR

6/16/93

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

010

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER:

B07QY0

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N212087, N2AS No.:

SDG No.: B07QP0

Matrix (soil/water): WATER

Lab Sample ID: 12214-07S

Level (low/med): LOW

Date Received: 12/15/92

% 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	21.2	U		P
7440-36-0	Antimony	19.0	U		P
7440-38-2	Arsenic	2.0	U		F
7440-39-3	Barium	2.4	U		P
7440-41-7	Beryllium	0.90	U		P
7440-43-9	Cadmium	1.4	U		P
7440-70-2	Calcium	81.3	B		P
7440-47-3	Chromium	4.2	U		P
7440-48-4	Cobalt	3.2	U		P
7440-50-8	Copper	4.9	U		P
7439-89-6	Iron	3.7	U		P
7439-92-1	Lead	2.7	B		F
7439-95-4	Magnesium	65.6	U		P
7439-96-5	Manganese	1.8	B		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.4	U		P
7440-09-7	Potassium	124	U		P
7782-49-2	Selenium	3.8	U	NJ	F
7440-22-4	Silver	4.6	U		P
7440-23-5	Sodium	122	B		P
7440-28-0	Thallium	1.5	U		F
7440-62-2	Vanadium	4.0	U		P
7440-66-6	Zinc	6.1	B	U	P
	Cyanide				NR

1/16/93

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

011

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER:

B07R00
75.

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N212087, N8AS No.:

SDG No.: B07QP0

Matrix (soil/water): WATER

Lab Sample ID: 12214-08S

Level (low/med): LOW

Date Received: 12/15/92

% 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	21.2	U		P
7440-36-0	Antimony	19.0	U		P
7440-38-2	Arsenic	5.8	B		F
7440-39-3	Barium	19.2	B		P
7440-41-7	Beryllium	1.1	B		P
7440-43-9	Cadmium	1.4	U		P
7440-70-2	Calcium	33600			P
7440-47-3	Chromium	5.9	B		P
7440-48-4	Cobalt	3.2	U		P
7440-50-8	Copper	4.9	U		P
7439-89-6	Iron	3.7	U		P
7439-92-1	Lead	8.3			F
7439-95-4	Magnesium	10600			P
7439-96-5	Manganese	1.7	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.4	U		P
7440-09-7	Potassium	6130			P
7782-49-2	Selenium	3.8	U	WNJ	F
7440-22-4	Silver	4.6	U		P
7440-23-5	Sodium	22000			P
7440-28-0	Thallium	1.5	U		F
7440-62-2	Vanadium	19.2	B		P
7440-66-6	Zinc	5.1	B	U	P
	Cyanide				NR

6/16/93

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

9613490.2268

000001 ²⁰ 3/10/93

Page 1

Skinner&Sherman

REPORT

Work Order # S2-12-215

Received: 12/15/92

01/15/93 14:29:35

REPORT TMA/NORCAL
TO 2030 Wright Avenue
Richmond, CA 94804

PREPARED TMA / Skinner & Sherman Labs.
BY 300 Second Avenue
P.O. Box 521
Waltham, MA 02254



ATTEN Dan Steurmer

ATTEN Client Services
PHONE (617) 890-7200

CERTIFIED BY

CONTACT DP

CLIENT HANFORD NOR SAMPLES 12
COMPANY TMA/NORCAL Hanford
FACILITY Richmond, CA

WORK ID N212087,N212076,N212067
TAKEN BY CLIENT
TRANS FED EX
TYPE WATER
P.O. # N212087,N212076,N212067
INVOICE under separate cover

SAMPLE IDENTIFICATION

TEST CODES and NAMES used on this workorder

- 01 B07QN9
- 02 B07QS9
- 03 B07QR4
- 04 B07QR9
- 05 B07QS4
- 06 B07QW4
- 07 B07QX9
- 08 B07QZ9
- 09 B07QP9
- 10 B07QQ4
- 11 B07QT9
- 11 B07QT9 DUPL
- 11 B07QT9 SPIKE
- 12 LCSW

NO3NO2 Nitrate Plus Nitrite

TMA
Thermo Analytical Inc.

This report is rendered upon All of the following conditions: Skinner & Sherman Laboratories, Inc. retains ownership of this report until associated submitted invoice is satisfied. Expert witness services shall be available in conjunction with this report only if prior notification of this potential requirement was made and accepted, before the analysis. Client will be responsible for Skinner & Sherman costs and consulting fees if our services are required by subpoena or otherwise in legal proceedings. Total liability is limited to the invoice amount. The results listed refer only to tested samples and applicable parameters. Product endorsement is neither inferred nor implied. Skinner & Sherman Laboratories, Inc. will exercise due diligence but will not be responsible for lost or destroyed samples or evidence unless client makes appropriate insurance coverage arrangements. Samples are held thirty days following issuance of report. Samples will be stored at client's expense, if authorized in writing.

Skinner & Sherman Laboratories Inc.

300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-4 LAB TEST FAX (617) 890-3883

Received: 12/15/92

Results by Sample

✓ SAMPLE ID B070M9 SAMPLE # 01 FRACTIONS: A
 Date & Time Collected 12/10/92 Category WATER
 NO3NO2 22.6
 mg N/L

✓ SAMPLE ID B070S9 SAMPLE # 02 FRACTIONS: A
 Date & Time Collected 12/10/92 Category WATER
 NO3NO2 1.21
 mg N/L

✓ SAMPLE ID B070R4 SAMPLE # 03 FRACTIONS: A
 Date & Time Collected 12/09/92 Category WATER
 NO3NO2 5.30
 mg N/L

✓ SAMPLE ID B070R9 SAMPLE # 04 FRACTIONS: A
 Date & Time Collected 12/09/92 Category WATER
 NO3NO2 1.85
 mg N/L

✓ SAMPLE ID B070S4 SAMPLE # 05 FRACTIONS: A
 Date & Time Collected 12/09/92 Category WATER
 NO3NO2 3.62
 mg N/L

6/1/93

✓ SAMPLE ID B070M4 SAMPLE # 06 FRACTIONS: A
 Date & Time Collected 12/06/92 Category WATER
 NO3NO2 7.45
 mg N/L

✓ SAMPLE ID B070X9 SAMPLE # 07 FRACTIONS: A
 Date & Time Collected 12/09/92 Category WATER
 NO3NO2 <0.25
 mg N/L



THIS report is rendered upon all of the following conditions: Skinner & Sherman Laboratories, Inc. retains ownership of this report until associated submitted invoice is so
 signed and payment received. It is available in conjunction with this report only if prior notification of this potential requirement was made and accepted, before the analysis.
 All the responsibility for Skinner & Sherman work and consulting fees if our services are required by subpoena or otherwise in legal proceedings. Total liability is limited to the
 amount. Through-out listed only as listed samples and applicable parameters. Product endorsement is neither inferred nor implied. Skinner & Sherman Laboratories, Inc.
 warrants due diligence but will not be responsible for lost or destroyed samples or evidence unless client makes appropriate insurance coverage arrangements. Samples are to
 be held for 30 days following issuance of report. Samples will be stored in client's expense, if authorized in writing.

Received: 12/15/92

Results by Sample

SAMPLE ID <u>B07Q29</u>	SAMPLE # <u>08</u> FRACTIONS: <u>A</u>
	Date & Time Collected <u>12/08/92</u> Category <u>WATER</u>
NO3NO2 <u>3.57</u> mg N/L	

SAMPLE ID <u>B07Q99</u>	SAMPLE # <u>09</u> FRACTIONS: <u>A</u>
	Date & Time Collected <u>12/12/92</u> Category <u>WATER</u>
NO3NO2 <u>1.91</u> mg N/L	

SAMPLE ID <u>B07Q04</u>	SAMPLE # <u>10</u> FRACTIONS: <u>A</u>
	Date & Time Collected <u>12/12/92</u> Category <u>WATER</u>
NO3NO2 <u>2.27</u> mg N/L	

SAMPLE ID <u>B07Q19</u>	SAMPLE # <u>11</u> FRACTIONS: <u>A</u>
	Date & Time Collected <u>12/12/92</u> Category <u>WATER</u>
NO3NO2 <u>2.67</u> mg N/L	

6/16/92

SAMPLE ID <u>B07Q19</u> DUPL	SAMPLE # <u>11</u> FRACTIONS: <u>B</u>
	Date & Time Collected <u>12/12/92</u> Category <u>WATER</u>
NO3NO2 <u>2.70</u> mg N/L	

SAMPLE ID <u>B07Q19</u> SPIKE	SAMPLE # <u>11</u> FRACTIONS: <u>C</u>
	Date & Time Collected <u>12/12/92</u> Category <u>WATER</u>
NO3NO2 <u>4.64</u> mg N/L	

SAMPLE ID <u>LCSV</u>	SAMPLE # <u>12</u> FRACTIONS: <u>A</u>
	Date & Time Collected <u>not specified</u> Category <u>WATER</u>
NO3NO2 <u>2.02</u> mg N/L	

9613490.2271



QUESTIONS? CALL 800-238-5355 TOLL FREE.

AIRBILL
PACKAGE
TRACKING NUMBER

5188042731

2237M

5188042731

RECIPIENT'S COPY

Date

12-15-92

From (Your Name) Please Print

SAMPLE CONTROL

Your Phone Number (Very Important)

(510) 235-2633

To (Recipient's Name) Please Print

SAMPLE CONTROL

Recipient's Phone Number (Very Important)

Company

T M A / NORCAL

Department/Floor No.

Company

SKINNER & SHERMAN

Department/Floor No.

Street Address

2030 WRIGHT AVE

Exact Street Address (We Cannot Deliver to P.O. Boxes or P.O. Zip Codes.)

300 SECOND AVENUE

City

RICHMOND

State

CA

ZIP Required

94804

City

WALTHAM

State

MA

ZIP Required

02154

YOUR INTERNAL BILLING REFERENCE INFORMATION (optional) (First 24 characters will appear on invoice.)

2320.6406

IF HOLD FOR PICK-UP, Print FEDEX Address Here

Street Address

City

State

ZIP Required

PAYMENT

1 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 YOUR PACKAGING

16 FEDEX LETTER

12 FEDEX PAK*

13 FEDEX BOX

14 FEDEX TUBE

30 ECONOMY

Standard Overnight (Delivery by next business afternoon. No Saturday delivery)

51 YOUR PACKAGING

56 FEDEX LETTER*

52 FEDEX PAK*

53 FEDEX BOX

54 FEDEX TUBE

46 GOVT LETTER

41 GOVT PACKAGE

5 DELIVERY AND SPECIAL HANDLING (Check services required)

1 HOLD FOR PICK-UP (Fill in Box 14)

2 DELIVER WEEKDAY

3 DELIVER SATURDAY (Extra charge) (Not available to all locations)

4 DANGEROUS GOODS (Extra charge)

5

6 DRY ICE (Limit 5 lbs.)

7 OTHER SPECIAL SERVICE

8

9 SATURDAY PICK-UP (Extra charge)

10

12 HOLIDAY DELIVERY (If observed) (Extra charge)

6 PACKAGES

WEIGHT in Pounds Only

YOUR DECLARED VALUE

Total	Total	Total
1	52	

DIM SHIPMENT (Chargeable Weight):

lbs.

L x W x H

Received At:

1 Regular Stop 3 Drop Box

2 On-Call Stop 4 B.S.C. 5 Station

Emp. No.

Date

Federal Express U.S. Base Charges

Declared Value Charge

Other 1

Other 2

Total Charges

REVISION DATE 2/92

PART #137204 FXEN

FORMAT #126

126

© 1991-92 FEDEX PRINTED IN U.S.A.

Received By: X [Signature]

Date/Time Received: 12/14/92 10:00

FedEx Employee Number: 10200

Release Signature:

9613490.2272

TMA/Norcal

CHAIN OF CUSTODY

ORD # N2-12-076

12/14/92 DUE: 01/13/93

12/14/92 14:31:53

KEEP: 04/13/93 DISP: 5

DASH SAMPLE IDENTIFICATION STORED TESTS for FRACTIONS with work in DEPT: SU and CATEGORY

01B-W B07GN9	UNFILTEREDS&S	WHO07	WHO08	WHO10	WHO11	WH137
02B-W B07QS9	UNFILTEREDS&S	WHO07	WHO08	WHO10	WHO11	WH137
02F-W B07QS9 MS	UNFILTEREDS&S	WHO07	WHO08	WHO10	WHO11	WH137
02G-W B07QS9 DUP	UNFILTEREDS&S	WHO07	WHO08	WHO10	WHO11	WH137
02H-W L C S	S&S	WHO07	WHO08	WHO10	WH137	

03A-W B07QP0	FILTERED S&S	WHO07	WHO08	WHO10		

04A-W B07QT0	FILTERED S&S	WHO07	WHO08	WHO10		
04B-W B07QT0 MS	FILTERED S&S	WHO07	WHO08	WHO10		
04C-W B07QT0 DUP	FILTERED S&S	WHO07	WHO08	WHO10		
04D-W L C S	S&S	WHO07	WHO08	WHO10		

RELEASED BY	DATE	TRANSFERRED TO	DATE	RECEIVED BY	DATE
<u>yamamoto</u>	<u>12-14-92</u>	<u>Spinner</u>	<u>12-14-92</u>	<u>ALB</u>	<u>12/15/92</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

9613490.2273

TMA/Norcal

CHAIN OF CUSTODY

ORD # N2-12-067

RCVd: 12/11/92 DUE: 01/10/93

12/11/92 16:50:21

KEEP: 04/10/93 DISP: S

DASH SAMPLE IDENTIFICATION STORED TESTS for FRACTIONS with work in DEPT: SU and CATEGORY

01B-W B07GR4	UNFILTERED S&S	!	WH007	WH008	WH010	WH011	WH137
02B-W B07GR9	UNFILTERED S&S	!	WH007	WH008	WH010	WH011	WH137
03B-W B07GS4	UNFILTERED S&S	!	WH007	WH008	WH010	WH011	WH137
04B-W B07GW4	UNFILTERED S&S	!	WH007	WH008	WH010	WH011	WH137
05B-W B07GX9	UNFILTERED S&S	!	WH007	WH008	WH010	WH011	WH137
06B-W B07QZ9	UNFILTERED S&S	!	WH007	WH008	WH010	WH011	WH137
06F-W B07QZ9 MS	UNFILTERED S&S	!	WH007	WH008	WH010	WH011	WH137
06G-W B07QZ9 DUP	UNFILTERED S&S	!	WH007	WH008	WH010	WH011	WH137
06H-W L C S	S&S	!	WH007	WH008	WH010	WH137	

07A-W B07GR5	FILTERED S&S	!	WH007	WH008	WH010		

08A-W B07GS0	FILTERED S&S	!	WH007	WH008	WH010		

09A-W B07GS5	FILTERED S&S	!	WH007	WH008	WH010		

10A-W B07QNS	FILTERED S&S	!	WH007	WH008	WH010		

11A-W B07QYC	FILTERED S&S	!	WH007	WH008	WH010		

12A-W B07R00	FILTERED S&S	!	WH007	WH008	WH010		

12B-W B07R00 MS	FILTERED S&S	!	WH007	WH008	WH010		

12C-W B07R00 DUP	FILTERED S&S	!	WH007	WH008	WH010		

12D-W L C S	S&S	!	WH007	WH008	WH010		

RELEASED BY

DATE

TRANSFERRED TO

DATE

RECEIVED BY

DATE

tyamaoto

12-14-92

Skinner

12-14-92

MJB

12/15/92

9613490.2274

TMA/Netcal

CHAIN OF CUSTODY

ORD # N2-12-087

DUE: 01/14/93

12/15/92 14:37:12

KEEP: 04/14/93

DISP: S

MSH SAMPLE IDENTIFICATION STORED TESTS for FRACTIONS with work in DEPT: SU and CATEGORY

01B-W B07QP9	UNFILTERED	S&S	WH007	WH008	WH010	WH011	WH137
02B-W B07QG4	UNFILTERED	S&S	WH007	WH008	WH010	WH011	WH137
03B-W B07QT9	UNFILTERED	S&S	WH007	WH008	WH010	WH011	WH137
03F-W B07QT9 MS	UNFILTERED	S&S	WH007	WH008	WH010	WH011	WH137
03G-W B07QT9 DUP	UNFILTERED	S&S	WH007	WH008	WH010	WH011	WH137
03H-W LCS		S&S	WH007	WH008	WH010	WH137	
04A-W B07Q90	FILTERED	S&S	WH007	WH008	WH010		
05A-W B07Q95	FILTERED	S&S	WH007	WH008	WH010		
06A-W B07QV0	FILTERED	S&S	WH007	WH008	WH010		
06B-W B07QV0 MS	FILTERED	S&S	WH007	WH008	WH010		
06C-W B07QV0 DUP	FILTERED	S&S	WH007	WH008	WH010		
06D-W LCS		S&S	WH007	WH008	WH010		

RELEASED BY	DATE	TRANSFERRED TO	DATE	RECEIVED BY	DATE
<i>Eyamamoto</i>	12-15-92	<i>SKANTAR</i>	12-15-92	<i>Alib</i>	12/16/92

9613490.2275

X02084

000011

TMA Inc.

REPORT

Work Order # A2-12-852

Received: 12/15/92

Results by Sample

SAMPLE ID B079P9

FRACTION 016

TEST CODE WCCLPL

NAME Anions & Wet Chem. - VN043

Date & Time Collected 12/11/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	3.0	mg/L	0.2
Fluoride	300.0	0.3	mg/L	0.1
Phosphate	300.0	<0.4	mg/L	0.4
pH	150.1	8.0	pH	0.1
Sulfate	300.0	25	mg/L	1
Elect. Conductivity	120.1	247	umho/cm	6

(J)
(J)
(J) (R)
(J)
(J)

FORM I

6/16/93 SC

9613490.2276

X02084

TMA Inc.

REPORT

Work Order # A2-12-052

Received: 12/15/92

Results by Sample

000012

SAMPLE ID B07QP9

FRACTION 011

TEST CODE WCCLPL

NAME Anions & Wet Chem. - VR043

Date & Time Collected 12/11/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	89	mg/L	2
Tot. Dissolved Solids	160.1	132	mg/L	5

R
R

FORM I

6/16/93 SC

9613490.2277

X02081

TNA Inc.

REPORT

Work Order 000013

Received: 12/15/92

Results by Sample

SAMPLE ID B07099 FRACTION 01K TEST CODE WCCLPL NAME Anions & Wet Chem. - W043
Date & Time Collected 12/11/92 Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
sulfide	376.1	<1	mg/L	1

R

FORM 1

6/16/93 SC

9613490.2278

X02084
000014

TMA Inc.

REPORT

Work Order # A2-12-052

Received: 12/15/92

Results by Sample

SAMPLE ID 8070P9

FRACTION Q1M

TEST CODE WCCLPL

NAME Anions & Wet Chem. - V#043

Date & Time Collected 12/11/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	<0.05	mg/L	0.05
COD	410.0	<5	mg/L	5

VJ
VJ

FORM I

6/16/93 SL

9613490.2279

X02084

000015

TNA Inc.

REPORT

Work Order # A2-12-852

Received: 12/15/92

Results by Sample

SAMPLE ID 807004

FRACTION 03E

TEST CODE VCCLPL

NAME Anions & Wet Chem. - V#043

Date & Time Collected 12/11/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	4.3	mg/L	0.2
Fluoride	300.0	0.5	mg/L	0.1
Phosphate	300.0	<0.4	mg/L	0.4
pH	150.1	8.0	pH	0.1
Sulfate	300.0	33	mg/L	1
Elect. Conductivity	120.1	366	umho/cm	6

JJJ
(J)(R)
JJ

FORM I

6/16/93 SC

9613490.2280

X02084

000016

TMA Inc.

REPORT

Work Order # A2-12-052

Received: 12/15/92

Results by Sample

SAMPLE ID 897994

FRACTION 036

TEST CODE 1st-1XVCCPL

NAME Anions & Wet Chem. - W

Date & Time Collected 12/11/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	147	mg/L	2
Tot. Dissolved Solids	160.1	200	mg/L	5

R
R

FORM 1

6/16/93 SC

9613490.2281

X02084 000017

TNA Inc. REPORT
Results by Sample

Work Order # AZ-12-052

Received: 12/15/92

SAMPLE ID 807994 FRACTION 03H TEST CODE WCCLPL NAME Anions & Wet Chem. - VN943
Date & Time Collected 12/11/92 Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Sulfide	376.1	<1	mg/L	1

R

FORM 1

6/10/93 SC

9613490.2282

X02084 000018

TMA Inc.

REPORT

Work Order # A2-12-052

Received: 12/15/92

Results by Sample

SAMPLE ID 107004

FRACTION 031

TEST CODE WCCLPL

NAME Anions & Wet Chem. - VU043

Date & Time Collected 12/11/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	<0.05	mg/L	0.05
COD	410.0	<5	mg/L	5

VJ
VJ

FORM I

6/16/93 *SL*

9613490.2283

X02084 000019

TMA Inc.

REPORT

Work Order # A2-12-052

Received: 12/15/92

Results by Sample

SAMPLE ID 807919

FRACTION 05C

TEST CODE WCCLPL

NAME Anions & Wet Chem. - VH043

Date & Time Collected 12/12/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	7.5	mg/L	0.2
Fluoride	300.0	0.4	mg/L	0.1
Phosphate	300.0	<0.4	mg/L	0.4
pH	150.1	8.0	pH	0.1
Sulfate	300.0	43	mg/L	1
Elect. Conductivity	120.1	363	umho/cm	6

J
J
J (R)
J
J

FORM I

6/16/93 SC

9613490.2284

X02084 000020

TNA Inc.

REPORT

Work Order # A2-12-852

Received: 12/15/92

Results by Sample

SAMPLE ID 007019

FRACTION 050

TEST CODE MCCLPL

NAME Anions & Wet Chem. - VR043

Date & Time Collected 12/12/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	118	mg/L	2
Tot. Dissolved Solids	160.1	219	mg/L	5

R
R

FORM I

4/16/93 SL

9613490.2285

X02084
00002:

Received: 12/15/92

TNA Inc. REPORT
Results by Sample

Work Order # A2-12-052

SAMPLE ID 8079T9 FRACTION 05E TEST CODE MCCLPL NAME Anions & Wet Chem. - VR043
Date & Time Collected 12/12/92 Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Sulfide	376.1	<1	mg/L	1

R

FORM 1

6/16/93 SC

9613490.2286

X02084

000022

TMA Inc.

REPORT

Work Order # A2-12-852

Received: 12/15/92

Results by Sample

SAMPLE ID 8079T9

FRACTION 05F

TEST CODE MCCLPL

NAME Anions & Wet Chem. - W043

Date & Time Collected 12/12/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	<0.05	mg/L	0.05
COD	410.0	<5	mg/L	5

VJ
VJ

FORM 1

6/16/93 SL

RCVD: 12/15/92 D.E. 01/14/93

9613490.2287 CASE: OF STUDY

12/15/92 14:37:10

ORD # N2-12-067

KEEP: 04/14/93

DISP: S

000002

DASH SAMPLE IDENTIFICATION STORED TESTS for FRACTIONS with work in DEPT: SU and CATEGORY

01A-W B07099	UNFILTERED	APL1	: WH018	WH019	WH020	WH043	WH114	WH121	WH122
			: WH128	WH131	WH132	WH140			

02A-W B07094	UNFILTERED	APL1	: WH018	WH019	WH020	WH043	WH114	WH121	WH122
			: WH128	WH131	WH132	WH140			

03A-W B07097	UNFILTERED	APL1	: WH018	WH019	WH020	WH043	WH114	WH121	WH122
			: WH128	WH131	WH132	WH140			

03C-W B07097	MS	UNFILTERED	APL1	: WH018	WH019	WH020	WH043	WH114	WH140
03D-W B07097	MSD	UNFILTERED	APL1	: WH018	WH019	WH020			

03E-W B07099	SLP	UNFILTERED	APL1	: WH043	WH114	WH121	WH122	WH128	WH131
				: WH140					

07A-W B07093		APL1	: WH018	ONE VOA VIAL HAS BUBBLE TC 12/16/92					

08A-W B07096		APL1	: WH018	THREE VOA VIALS HAVE BUBBLES TC 12/16/92					

09A-W B07091		APL1	: WH018						

RELEASED BY	DATE	TRANSFERRED TO	DATE	RECEIVED BY	DATE
<i>Eganmont</i>	12-15-92	APL1	12-15-92	<i>Judy Klein</i>	12/16/92

Westinghouse
Hanford Company

CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER
 Company Contact PH BUTCHER
 Project Designation/Sampling Locations 100-KR-4
 Ice Chest No. *SML-107*
 Bill of Lading/Airbill No. *251900771-1*
 Method of Shipment EMERY
 Shipped to TMA
 Possible Sample Hazards/Remarks N/A

Telephone (509)376-5045
 Collection Date 12-11-92
 Field Logbook No. EFL-1049
 Offsite Property No. W93-0-0151-12

Sample Identification

~~B07Q0~~ B07QP9

- DWB*
12/4/92
- 3, 40ml, Gs*, WATER, CLP-VOA
 - 3, 2L, aG, WATER, CLP-SEMI VOA & PCB's/PEST
 - 1, 1L, P, WATER, ANIONS(IC) SO4, F, PO4, Cl/COND./pH
 - 1, 500ml, P, WATER, ANIONS/NO3-NO2 (H2SO4)
 - 1, 1L, G, WATER, ALK./TOT. DISSOLVED SOLIDS
 - 1, 500ml, G, WATER, SULFIDE (add Zinc Acetate+NaOH pH>9)
 - 1, 500ml, G, WATER, AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
 - 1, 1L, P, WATER, CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
 - 1, 1L, P, WATER, CLP-CN (NaOH)
 - 2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90 (HNO3)
 - 1, 1L, P, WATER, Tc-99 (HCl)
 - 1, 250ml, Gs, WATER, TRITIUM/C-14

B07Q00

- 1, 1L, P, WATER, CLP-ICP/AA METALS (FILTERED)/CLP-Hg (HNO3)

B07Q01

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

[] Field Transfer of Custody		Chain of Possession	(Sign and Print Names)
Relinquished by: <i>L.D. Walker</i> <i>L.D. Walker</i>	Received by: <i>Refrig. #1</i>	Date/Time: <i>12-11-92 / 1430</i>	
Relinquished by:	Received by: <i>[Signature]</i> B. WHITEN	Date/Time: <i>12-14-92 10:00</i>	
Relinquished by: <i>[Signature]</i> B. WHITEN	Received by: <i>Kermit Blum</i>	Date/Time: <i>12-15-92 1230</i>	
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

Collector K. Lee, L. Walker Date Sampled 12-11-92 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
B07Q09	3; 40ml; Gs*;	WATER	CLP-VOA
	3; 2L; aG;	WATER	✓ CLP-SEMI VOA & PCB's/PEST
	1; 1L; P;	WATER	✓ ANIONS (IC) SO4, F, PO4, Cl/COND/pH
	1; 500ml; P;	WATER	✓ ANIONS/NO3-NO2 (H2SO4)
	1; 1L; G;	WATER	✓ ALK./TOT. DISSOLVED SOLIDS
	1; 500ml; G;	WATER	✓ SULFIDE (add Zinc Acetate + NaOH pH > 9)
	1; 500ml; G;	WATER	AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH < 2)
	1; 1L; P;	WATER	✓ CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
	1; 1L; P;	WATER	✓ CLP-CN (NaOH)
	2; 4L; P;	WATER	GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90, (HNO3)
	1; 1L; P;	WATER	✓ Tc-99 (HCl)
	1; 250ml; Gs;	WATER	TRITIUM/C-14
B07Q00	1; 1L; P;	WATER	✓ CLP-ICP/AA METAL (FILTERED)/CLP-Hg (HNO3)
B07Q01	3; 40ml; Gs	WATER	✓ CLP-VOA OPC: # W93-0-0151-12 BOL: # 251900771-1 TASK#: 92-398

Field Information **

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by Hermit Blum Title Sample Control Supervisor Date 12-15-92
Analysis Required

* Indicate whether sample is soil, sludge, water, etc.
** Use back of page for additional information relative to sample location.

Westinghouse
Hanford Company

CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER
 Company Contact PH BUTCHER
 Project Designation/Sampling Locations 100-KR-4
 Ice Chest No. SML 72
 Bill of Lading/Airbill No. ~~251900770-0~~ ^{AW} 12-14-92
 Method of Shipment EMERY 771-1
 Shipped to TMA
 Possible Sample Hazards/Remarks N/A

Telephone (509)376-5045
 Collection Date 12-11-92
 Field Logbook No. EFL-1049
 Offsite Property No. W93-0-0151-11

Sample Identification

B07QQ4

- 3, 40ml, Gs*, WATER, CLP-VOA
- 3, 2L, aG, WATER, CLP-SEMI VOA & PCB's/PEST
- 1, 1L, P, WATER, ANIONS(IC) SO4, F, PO4, C1/COND./pH
- 1, 500ml, P, WATER, ANIONS/NO3-NO2 (H2SO4)
- 1, 1L, G, WATER, ALK./TOT. DISSOLVED SOLIDS
- 1, 500ml, G, WATER, SULFIDE (add Zinc Acetate+NaOH pH>9)
- 1, 500ml, G, WATER, AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
- 1, 1L, P, WATER, CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
- 1, 1L, P, WATER, CLP-CN (NaOH)
- 2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90 (HNO3)
- 1, 1L, P, WATER, Tc-99 (HCl)
- 1, 250ml, Gs, WATER, TRITIUM/C-14

B07QQ5

- 1, 1L, P, WATER, CLP-ICP/AA METALS (FILTERED)/CLP-Hg (HNO3)

B07QQ6

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

[] Field Transfer of Custody		Chain of Possession	(Sign and Print Names)
Relinquished by: <i>L.D. Walker</i> <i>L.D. Walker</i>	Received by: <i>R. King #2</i>	Date/Time: <i>12/11/92 1415</i>	
Relinquished by:	Received by: <i>[Signature]</i> B. WATTEN	Date/Time: <i>12-14-92 10100</i>	
Relinquished by: <i>[Signature]</i> B. WATTEN	Received by: <i>[Signature]</i>	Date/Time: <i>12/15/92 1230</i>	
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

Collector K. Lee, L. Walker Date Sampled 12-11-92 Time 1100 hours
Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample *	Analysis Requested
B07004	✓ 3; 40ml; Gs*;	WATER	CLP-VOA
	✓ 3; 2L; aG;	WATER	CLP-SEMI VOA & PCB's/PEST
	✓ 1; 1L; P;	WATER	ANIONS (IC) SO4, F, PO4, Cl/COND/pH
	✓ 1; 500ml; P;	WATER	ANIONS/NO3-NO2 (H2SO4)
	✓ 1; 1L; G;	WATER	ALK./TOT. DISSOLVED SOLIDS
	✓ 1; 500ml; G;	WATER	SULFIDE (add Zinc Acetate + NaOH pH > 9)
	✓ 1; 500ml; G;	WATER	AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH < 2)
	✓ 1; 1L; P;	WATER	CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
	✓ 1; 1L; P;	WATER	CLP-CN (NaOH)
	✓ 2; 4L; P;	WATER	GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90, (HNO3)
	✓ 1; 1L; P;	WATER	Tc-99 (HCl)
	✓ 1; 250ml; Gs;	WATER	TRITIUM/C-14
B07005	✓ 1; 1L; P;	WATER	CLP-ICP/AA METAL (FILTERED)/CLP-Hg (HNO3)
B07006	✓ 3; 40ml; Gs	WATER	CLP-VOA
			OPC: # W93-0-0151-11
			BOL: # 251900770-0 ⁸⁰ 12-14-92
			TASK#: 92-398 771-1

Field Information **

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by A. Gobaleza Title Sample Control Technician Date 12-15-92
Analysis Required

* Indicate whether sample is soil, sludge, water, etc.
** Use back of page for additional information relative to sample location.

Westinghouse
Hanford Company

CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER
 Company Contact PH BUTCHER
 Project Designation/Sampling Locations 100-KR-4
 Ice Chest No. *Am 110*
 Bill of Lading/Airbill No. ~~251900770-0~~ ^{RW} *771-1* ₁₂₋₁₄₋₉₂
 Method of Shipment EMERY
 Shipped to TMA
 Possible Sample Hazards/Remarks N/A

Telephone (509)376-5045
 Collection Date *12-12-92*
 Field Logbook No. *EFL-1049*
 Offsite Property No. *W93-0-0151-11*

Sample Identification

B07QT9

- 3, 40ml, Gs*, WATER, CLP-VOA
- 3, 2L, aG, WATER, CLP-SEMI VOA & PCB's/PEST
- 1, 1L, P, WATER, ANIONS(IC) SO4, F, PO4, Cl/COND./pH
- 1, 500ml, P, WATER, ANIONS/NO3-NO2 (H2SO4)
- 1, 1L, G, WATER, ALK./TOT. DISSOLVED SOLIDS
- 1, 500ml, G, WATER, SULFIDE (add Zinc Acetate+NaOH pH>9)
- 1, 500ml, G, WATER, AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
- 1, 1L, P, WATER, CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
- 1, 1L, P, WATER, CLP-CN (NaOH)
- 2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90 (HNO3)
- 1, 1L, P, WATER, Tc-99 (HCl)
- 1, 250ml, Gs, WATER, TRITIUM/C-14

B07QV0

- 1, 1L, P, WATER, CLP-ICP/AA METALS (FILTERED)/CLP-Hg (HNO3)

B07QV1

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

Field Transfer of Custody

Chain of Possession

(Sign and Print Names)

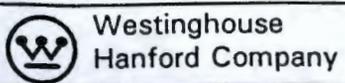
Relinquished by: <i>GG HAMILTON</i>	Received by: <i>B. WHITON</i>	Date/Time: <i>12-14-92 10:00</i>
Relinquished by: <i>B. WHITON</i>	Received by: <i>Alfonso G. G. G.</i>	Date/Time: <i>12/15/92 12:30</i>
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:
Comments:		

9613490.2293

000002F



SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K. Lee, L. Walker Date Sampled 12/21/92 Time 1030 hours
Company Contact P. H. Butcher Telephone (509) 376-5045

Table with 4 columns: Sample Number, Number and Type of Sample Containers, Type of Sample, Analysis Requested. Contains multiple rows for samples BO7QT9, BO7QV0, and BO7QV1 with various container types and analysis requests.

Field Information
Special Handling and/or Storage
Possible Sample Hazards

PART II: LABORATORY SECTION

Received by A. Gobaleza Title Sample Control Technician Date 12-15-92
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)

9613490.2294

000006



QUESTIONS? CALL 800-238-5355 TOLL FREE.

AIRBILL
PACKAGE
TRACKING NUMBER

252103356

252103356

RECIPIENT'S COPY

Date: 10-15-90

From (Your Name) Please Print: **SAMMIE CANTAL**
 Your Phone Number (Very Important): **(818) 238-2677**
 Company: **SAMMIE CANTAL**
 Street Address: **1500 N. TAYLOR AVE**
 City: **MENARD** State: **CA** ZIP Required: **91016**

To (Recipient's Name) Please Print: **SAMMIE CANTAL**
 Recipient's Phone Number (Ver):
 Company: **TRM / ACI**
 Exact Street Address (No Carrier Deliver to P.O. Boxes or P.O. Zip Codes.): **1500 Taylor Ave**
 City: **MENARD** State: **CA** ZIP Required: **91016**

YOUR INTERNAL BILLING REFERENCE INFORMATION (optional) (First 24 characters will appear on invoice): **2-20-0476**

PAYMENT 1 Bill Sender 2 Bill Recipient's FedEx Acct No 3 Bill 3rd Party FedEx Acct No 4 Bill Credit Card
 Cash Check

IF HOLD FOR PICK-UP, Print FEDEX Address Here
 Street Address: _____
 City: _____ State: _____ ZIP Required: _____

SERVICES (Check only one box)		DELIVERY AND SPECIAL HANDLING (Check services required)		DIMENSIONS		WEIGHT		YOUR DECLARED VALUE		Emp No	Date	Federal Expre
Priority Overnight (Delivery by next business morning) 11 <input checked="" type="checkbox"/> YOUR PACKAGING 16 <input type="checkbox"/> FEDEX LETTER 12 <input type="checkbox"/> FEDEX PAK * 13 <input type="checkbox"/> FEDEX BOX 14 <input type="checkbox"/> FEDEX TUBE Economy Two-Day (Delivery by second business day) 30 <input type="checkbox"/> ECONOMY Standard Overnight (Delivery by next business afternoon) 51 <input type="checkbox"/> YOUR PACKAGING 56 <input type="checkbox"/> FEDEX LETTER * 52 <input type="checkbox"/> FEDEX PAK * 53 <input type="checkbox"/> FEDEX BOX 54 <input type="checkbox"/> FEDEX TUBE Government Overnight (Reserved to authorized users only) 46 <input type="checkbox"/> GOVT LETTER 41 <input type="checkbox"/> GOVT PACKAGE Freight Services (To 1 and 2 day only. 3 day package only 150 lbs) 70 <input type="checkbox"/> OVERNIGHT FREIGHT ** 80 <input type="checkbox"/> TWO-DAY FREIGHT **	1 <input type="checkbox"/> HOLD FOR PICK-UP (Add in Box #1) 2 <input checked="" type="checkbox"/> DELIVER WEEKDAY 3 <input type="checkbox"/> DELIVER SATURDAY (Add charge; Not available to all locations) 4 <input type="checkbox"/> DANGEROUS GOODS (Add charge) 5 <input type="checkbox"/> 6 <input type="checkbox"/> DRY ICE 7 <input type="checkbox"/> OTHER SPECIAL SERVICE 8 <input type="checkbox"/> 9 <input type="checkbox"/> SATURDAY PICK-UP (Add charge) 10 <input type="checkbox"/> 11 <input type="checkbox"/> 12 <input type="checkbox"/> HOLIDAY DELIVERY (Add charge)	Total 2 Total 148 Total .. DIM SHIPMENT (Chargeable Weight) <input type="checkbox"/> _____ lbs L x W x H = _____ x _____ x _____ Received At: <input checked="" type="checkbox"/> Regular Stop 3 <input type="checkbox"/> Drop Box <input type="checkbox"/> On-Call Stop 4 <input type="checkbox"/> BSC 5 <input type="checkbox"/> Station	<input type="checkbox"/> Cash Received <input type="checkbox"/> Return Shipment <input type="checkbox"/> Third Party <input type="checkbox"/> Chg To Del <input type="checkbox"/> Chg To Hold Street Address City State Zip Received By X Date/Time Received FedEx Employee Number Release Signature FedEx Emp No Date/Time	Base Charges Declared Value Other 1 Other 2 Total Charges REVISION DATE 6/9 PART #137204 FXE FORMAT 4099 099 © 1989 BY FEDEX PRINTED IN U.S.A.								

Westinghouse
Hanford Company

CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-KR-4

Collection Date 12-10-92

Ice Chest No. 544

Field Logbook No. EFL-1049

Bill of Lading/Airbill No. NA

Offsite Property No. W93-NA

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

B07QV9

- 3, 40ml, Gs*, WATER, CLP-VOA ✓
- 3, 2L, aG, WATER, CLP-SEMI VOA & PCB's/PEST ✓
- 1, 1L, P, WATER, ANIONS(IC) SO4, F, PO4, Cl/COND:/pH ✓
- 1, 500ml, P, WATER, ANIONS/NO3-NO2 (H2SO4)
- 1, 1L, G, WATER, ALK./TOT. DISSOLVED SOLIDS ✓
- 1, 500ml, G, WATER, SULFIDE ✓ (add Zinc Acetate+NaOH pH>9)
- 1, 500ml, G, WATER, AMMONIA/CHEMICAL OXYGEN DEMAND ✓ (H2SO4 pH<2)
- 1, 1L, P, WATER, CLP-ICP/AA METALS ✓ (UNFILTERED)/CLP-Hg ✓ (HNO3)
- 1, 1L, P, WATER, CLP-CN ✓ (NaOH)
- 2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90 (HNO3)
- 1, 1L, P, WATER, Tc-99 (HCl)
- 1, 250ml, Gs, WATER, TRITIUM/C-14

B07&PD

- 1, 1L, P, WATER, CLP-ICP/AA METALS ✓ (FILTERED)/CLP-Hg ✓ (HNO3)

B07QPI

- 3, 40ml, Gs, WATER, CLP-VOA ✓

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: <i>L.D. Walker</i> <i>L.D. Walker</i>	Received by: <i>Refrig. #1</i>	Date/Time: <i>12-10-92 / 1445</i>
Relinquished by:	Received by: <i>K. Trapp / K. Trapp</i>	Date/Time: <i>12/11/92 1626</i>
Relinquished by: <i>K. Trapp / K. Trapp</i>	Received by: <i>Alfonso Kobayashi</i>	Date/Time: <i>12-14-92 0800 *</i>
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:

Disposed by:

Date/Time:

Comments: * Received 12-12-92 @ TMA/NORCAL; opened 12-14-92 · KB

Westinghouse
Hanford Company

CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER
Company Contact PH BUTCHER
Project Designation/Sampling Locations 100-KR-4
Ice Chest No. 54L-203
Bill of Lading/Airbill No. 251900760-1
Method of Shipment EMERY
Shipped to TMA
Possible Sample Hazards/Remarks N/A

Telephone (509)376-5045
Collection Date 12-9-92
Field Logbook No. EFL-1049
Offsite Property No. W93-0-0151-6

Sample Identification

B07QR4

- 3, 40ml, Gs*, WATER, CLP-VOA
- 3, 2L, aG, WATER, CLP-SEMI VOA & PCB's/PEST
- 1, 1L, P, WATER, ANIONS(IC) SO4, F, PO4, CYCOND./pH
- 1, 500ml, P, WATER, ANIONS/NO3-NO2 (H2SO4)
- 1, 1L, G, WATER, ALK.YTOT. DISSOLVED SOLIDS
- 1, 500ml, G, WATER, SULFIDE (add Zinc Acetate+NaOH pH>9)
- 1, 500ml, G, WATER, AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
- 1, 1L, P, WATER, CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
- 1, 1L, P, WATER, CLP-CN (NaOH)
- 2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90 (HNO3)
- 1, 1L, P, WATER, Tc-99 (HCl)
- 1, 250ml, Gs, WATER, TRITIUM/C-14

B07QR5

- 1, 1L, P, WATER, CLP-ICP/AA METALS (FILTERED)/CLP-Hg (HNO3)

B07QR6

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

[] Field Transfer of Custody		Chain of Possession	(Sign and Print Names)
Relinquished by: L.D. Walker <i>L.D. Walker</i>	Received by: ReFrig. # 1	Date/Time: 12-9-92 / 1615	
Relinquished by:	Received by: K. Trapp / K. Trapp	Date/Time: 12/10/92 0900	
Relinquished by: K. Trapp / K. Trapp	Received by: Alfonso Hobas	Date/Time: 12/11/92 3:50	
Relinquished by:	Received by:	Date/Time:	
Final Sample Disposition			
Disposal Method:	Disposed by:	Date/Time:	
Comments:			

Westinghouse Hanford Company	CHAIN OF CUSTODY
Custody Form Initiator PH BUTCHER	Telephone (509)376-5045
Company Contact PH BUTCHER	Collection Date 12-9-92
Project Designation/Sampling Locations 100-KR-4	Field Logbook No. EFL-1049
Ice Chest No. SML-263	Offsite Property No. W93-0-0151-7
Bill of Lading/Airbill No. 251900760-1	
Method of Shipment EMERY	
Shipped to TMA	
Possible Sample Hazards/Remarks N/A	

Sample Identification

B07QR9

- 3, 40ml, Gs*, WATER, CLP-VOA
- 3, 2L, aG, WATER, CLP-SEMI VOA & PCB's/PEST
- 1, 1L, P, WATER, ANIONS(IC) SO4, F, PO4, Cl/COND./pH
- 1, 500ml, P, WATER, ANIONS/NO3-NO2 (H2SO4)
- 1, 1L, G, WATER, ALK./TOT. DISSOLVED SOLIDS
- 1, 500ml, G, WATER, SULFIDE (add Zinc Acetate+NaOH pH>9)
- 1, 500ml, G, WATER, AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
- 1, 1L, P, WATER, CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg, (HNO3)
- 1, 1L, P, WATER, CLP-CN (NaOH)
- 2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90 (HNO3)
- 1, 1L, P, WATER, Tc-99 (HCl)
- 1, 250ml, Gs, WATER, TRITIUM/C-14

B07Q50

- 1, 1L, P, WATER, CLP-ICP/AA METALS (FILTERED)/CLP-Hg (HNO3)

B07Q51

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

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: <i>L.D. Walker</i> <i>L.D. Walker</i>	Received by: <i>Refrig. #2</i>	Date/Time: <i>12-9-92 / 1620</i>
Relinquished by:	Received by: <i>K. Trapp / K. Trapp</i>	Date/Time: <i>12/10/92 0900</i>
Relinquished by: <i>K. Trapp / K. Trapp</i>	Received by: <i>John Johnson</i>	Date/Time: <i>12-11-92 3:50 PM</i>
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:
Comments:		

Westinghouse
Hanford Company

CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER
Company Contact PH BUTCHER
Project Designation/Sampling Locations 100-KR-4
Ice Chest No. SMASH
Bill of Lading/Airbill No. 251900760-1
Method of Shipment EMERY
Shipped to TMA
Possible Sample Hazards/Remarks N/A

Telephone (509)376-5045
Collection Date ~~12-8-92~~ 12-9-92 ^{LW}
Field Logbook No. EFL-1049
Offsite Property No. W93-0-0151-6

Sample Identification

B07Q54

- 3, 40ml, Gs*, WATER, CLP-VOA
- 3, 2L, aG, WATER, CLP-SEMI VOA & PCB's/PEST
- 1, 1L, P, WATER, ANIONS(IC) SO4, F, PO4, CLYCOND./pH
- 1, 500ml, P, WATER, ANIONS/NO3-NO2 (H2SO4)
- 1, 1L, G, WATER, ALK./TOT. DISSOLVED SOLIDS
- 1, 500ml, G, WATER, SULFIDE (add Zinc Acetate+NaOH pH>9)
- 1, 500ml, G, WATER, AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
- 1, 1L, P, WATER, CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
- 1, 1L, P, WATER, CLP-CN (NaOH)
- 2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90 (HNO3)
- 1, 1L, P, WATER, Tc-99 (HCl)
- 1, 250ml, Gs, WATER, TRITIUM/C-14

B07Q55

- 1, 1L, P, WATER, CLP-ICP/AA METALS (FILTERED)/CLP-Hg (HNO3)

B07Q56

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

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: <i>L.D. Walker</i> <i>L.D. Walker</i>	Received by: <i>Refrig. #1</i>	Date/Time: <i>12/9/92 - 1615</i>
Relinquished by:	Received by: <i>K. Trapp / K. Trapp</i>	Date/Time: <i>12/10/92 0900</i>
Relinquished by: <i>K. Trapp / K. Trapp</i>	Received by: <i>Alonso Robles</i>	Date/Time: <i>12-11-92 3:50</i>
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:
Comments:		

Westinghouse Hanford Company	CHAIN OF CUSTODY
Custody Form Initiator PH BUTCHER	Telephone (509)376-5045
Company Contact PH BUTCHER	Collection Date 12-10-92
Project Designation/Sampling Locations 100-KR-4	Field Logbook No. EFL-1049
Ice Chest No. Alpha 6	Offsite Property No. W93-0-0151-10
Bill of Lading/Airbill No.	
Method of Shipment EMERY	
Shipped to TMA	
Possible Sample Hazards/Remarks N/A	

Sample Identification

B07Q59

- 3, 40ml, Gs*, WATER, CLP-VOA~
- 3, 2L, aG, WATER, CLP-SEMI VOA~ & PCB's/PEST~
- 1, 1L, P, WATER, ANIONS(IC) SO4; F; PO4; Cl/COND:/pH
- 1, 500ml, P, WATER, ANIONS/NO3-NO2 (H2SO4)
- 1, 1L, G, WATER, ALK~/TOT. DISSOLVED SOLIDS~
- 1, 500ml, G, WATER, SULFIDE~ (add Zinc Acetate+NaOH pH>9)
- 1, 500ml, G, WATER, AMMONIA~/CHEMICAL OXYGEN DEMAND~ (H2SO4 pH<2)
- 1, 1L, P, WATER, CLP-ICP/AA METALS~ (UNFILTERED)/CLP-Hg~ (HNO3)
- 1, 1L, P, WATER, CLP-CN~ (NaOH)
- 2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90 (HNO3)
- 1, 1L, P, WATER, Tc-99 (HCl)
- 1, 250ml, Gs, WATER, TRITIUM/C-14

B07Q70

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

B07Q71

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

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: <i>L.D. Walker</i> <i>L.D. Walker</i>	Received by: <i>Refrig # 2</i>	Date/Time: <i>12-10-92 / 1445</i>
Relinquished by:	Received by: <i>CG Hamilton</i>	Date/Time: <i>12-11-92 / 1104</i>
Relinquished by: <i>CG Hamilton</i>	Received by: <i>Kermit Blum</i>	Date/Time: <i>12-14-92 0800 *</i>
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:
Comments: * <i>Received @ TMA/NORCAL 12-12-92 ; opened 12-14-92 - KB</i>		

Westinghouse
Hanford Company

CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER
Company Contact PH BUTCHER
Project Designation/Sampling Locations 100-KR-4
Ice Chest No. *SML 193*
Bill of Lading/Airbill No. *251 900 7370*
Method of Shipment EMERY
Shipped to TMA
Possible Sample Hazards/Remarks N/A

Telephone (509)376-5045
Collection Date 12-8-92
Field Logbook No. *EFL-1049*
Offsite Property No. *W93-0-0151-4*

Sample Identification

BO7QW4

- 3, 40ml, Gs*, WATER, CLP-VOA~
- 3, 2L, aG, WATER, CLP-SEMI VOA & PCB's/PEST~
- 1, 1L, P, WATER, ANIONS(IC) SO4; F; PO4; Cl/COND./pH~
- 1, 500ml, P, WATER, ANIONS/NO3-NO2 (H2SO4)
- 1, 1L, G, WATER, ALK.YTOT. DISSOLVED SOLIDS~
- 1, 500ml, G, WATER, SULFIDE~(add Zinc Acetate+NaOH pH>9)
- 1, 500ml, G, WATER, AMMONIA/CHEMICAL OXYGEN DEMAND~ (H2SO4 pH<2)
- 1, 1L, P, WATER, CLP-ICP/AA METALS~(UNFILTERED)/CLP-Hg~(HNO3)
- 1, 1L, P, WATER, CLP-CN~(NaOH)
- 2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC(U-235/238, Pu-239/240, Am-241), Sr-90 (HNO3)
- 1, 1L, P, WATER, Tc-99 (HCl)
- 1, 250ml, Gs, WATER, TRITIUM/C-14

BO7QW5

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

BO7QW6

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

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: <i>L.D. Walker</i> <i>L.D. Walker</i>	Received by: <i>Refrig #2</i>	Date/Time: <i>12-8-92 / 1500</i>
Relinquished by: <i>Refrig #2</i>	Received by: <i>GG HAMILTON</i>	Date/Time: <i>12-9-92 / 0830</i>
Relinquished by: <i>GG Hamilton</i>	Received by: <i>Monica [unclear]</i>	Date/Time: <i>12-11-92 3:50</i>
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:
Comments:		

Westinghouse Hanford Company	<h2 style="margin: 0;">CHAIN OF CUSTODY</h2>
Custody Form Initiator PH BUTCHER	
Company Contact PH BUTCHER	Telephone (509)376-5045
Project Designation/Sampling Locations 100-KR-4	Collection Date 12-9-92
Ice Chest No. SML-17	Field Logbook No. EFL-1049
Bill of Lading/Airbill No. 251900760-1	Offsite Property No. W93-0-0151-7
Method of Shipment EMERY	
Shipped to TMA	
Possible Sample Hazards/Remarks N/A	

Sample Identification

BO7QX9

- 3, 40ml, Gs*, WATER, CLP-VOA~
- 3, 2L, aG, WATER, CLP-SEMI VOA~ & PCB's/PEST~
- 1, 1L, P, WATER, ANIONS(IC) SO4, F, PO4; CT/COND./pH~
- 1, 500ml, P, WATER, ANIONS/NO3-NO2 (H2SO4)
- 1, 1L, G, WATER, ALK~/TOT. DISSOLVED SOLIDS~
- 1, 500ml, G, WATER, SULFIDE~ (add Zinc Acetate+NaOH pH>9)
- 1, 500ml, G, WATER, AMMONIA/CHEMICAL OXYGEN DEMAND~ (H2SO4 pH<2)
- 1, 1L, P, WATER, CLP-ICP/AA METALS~ (UNFILTERED)/CLP-Hg~ (HNO3)
- 1, 1L, P, WATER, CLP-CN~ (NaOH)
- 2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90 (HNO3)
- 1, 1L, P, WATER, Tc-99 (HCl)
- 1, 250ml, Gs, WATER, TRITIUM/C-14

BO7QY0

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

BO7QY1

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

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: <i>L.D. Walker</i> <i>L.D. Walker</i>	Received by: <i>Refrig. # 4</i>	Date/Time: <i>12-9-92 / 1620</i>
Relinquished by:	Received by: <i>K. Trapp / K. Trapp</i>	Date/Time: <i>12/10/92 0900</i>
Relinquished by: <i>K. Trapp / K. Trapp</i>	Received by: <i>Alonso Robles</i>	Date/Time: <i>12/11/92 4.00</i>
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:
Comments:		

Westinghouse Hanford Company	<h2 style="margin: 0;">CHAIN OF CUSTODY</h2>
Custody Form Initiator PH BUTCHER Company Contact PH BUTCHER Project Designation/Sampling Locations 100-KR-4 Ice Chest No. C-2 Bill of Lading/Airbill No. 251-900-7370 Method of Shipment EMERY Shipped to TMA Possible Sample Hazards/Remarks N/A	Telephone (509)376-5045 Collection Date 12-8-92 Field Logbook No. EFL-1049 Offsite Property No. W93-0-0151-4

Sample Identification

B07029

- 3, 40ml, Gs*, WATER, CLP-VOA ✓
- 3, 2L, aG, WATER, CLP-SEMI VOA & PCB's/PEST ✓
- 1, 1L, P, WATER, ANIONS(IC) SO₄; F; PO₄; CT/COND./pH ✓
- 1, 500ml, P, WATER, ANIONS/NO₃-NO₂ (H₂SO₄) ✓
- 1, 1L, G, WATER, ALK/TOT. DISSOLVED SOLIDS ✓
- 1, 500ml, G, WATER, SULFIDE (add Zinc Acetate+NaOH pH>9) ✓
- 1, 500ml, G, WATER, AMMONIA/CHEMICAL OXYGEN DEMAND (H₂SO₄ pH<2) ✓
- 1, 1L, P, WATER, CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO₃) ✓
- 1, 1L, P, WATER, CLP-CN (NaOH) ✓
- 2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90 (HNO₃) ✓
- 1, 1L, P, WATER, Tc-99 (HCl) ✓
- 1, 250ml, Gs, WATER, TRITIUM/C-14 ✓

B07R00

- 1, 1L, P, WATER, CLP-ICP/AA METALS (FILTERED)/CLP-Hg (HNO₃) ✓

B07R01

- 3, 40ml, Gs, WATER, CLP-VOA ✓

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: <i>L.D. Walker</i> <i>L.D. Walker</i>	Received by: <i>ReFrig. #1</i>	Date/Time: <i>12-8-92 / 1500</i>
Relinquished by: <i>ReFrig #1</i>	Received by: <i>GG Hamilton</i>	Date/Time: <i>12-9-92 / 0830</i>
Relinquished by: <i>GG Hamilton</i>	Received by: <i>Gobals</i>	Date/Time: <i>12/11/92 4:17</i>
Relinquished by:	Received by:	Date/Time:
Final Sample Disposition		
Disposal Method:	Disposed by:	Date/Time:
Comments:		

CASE NARRATIVE

LABORATORY : TMA/ARLI

CASE : 12-052

CONTRACT ID : WESTINGHOUSE HANFORD COMPANY

SDG RECEIPT DATE : December 15, 1992

1.0 DESCRIPTION OF CASE :

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

2.0 SAMPLE LIST :

<u>WESTINGHOUSE ID</u>	<u>LAB ID</u>	<u>ANALYSIS REQUESTED</u>	<u>MATRIX</u>	<u>pH</u>
B07QP9	A2-12-052-01A	V	WATER	7
B07QP9 MS	A2-12-052-01B	V	WATER	7
B07QP9 MSD	A2-12-052-01C	V	WATER	7
B07QP9	A2-12-052-01D	SV & P	WATER	
B07QP9 MS	A2-12-052-01E	SV	WATER	
B07QP9 MSD	A2-12-052-01F	SV	WATER	
B07QQ1	A2-12-052-02A	V	WATER	7
B07QQ4	A2-12-052-03A	V	WATER	7
B07QQ4	A2-12-052-03B	SV & P	WATER	
B07QQ4 MS	A2-12-052-03C	P	WATER	
B07QQ4 MSD	A2-12-052-03D	P	WATER	
B07QQ6	A2-12-052-04A	V	WATER	7
B07QT9	A2-12-052-05A	V	WATER	7
B07QT9	A2-12-052-05B	SV & P	WATER	
B07QV1	A2-12-052-06A	V	WATER	7

3.0 COMMENTS :

3.1 SHIPPING AND DOCUMENTATION :

All of the samples were received and properly documented. Upon receipt of samples at TMA/ARLI:

1 of the 3 VOA vials for sample B07QQ1 contained air bubbles.
3 of the 3 VOA vials for sample B07QQ6 contained air bubbles.

3.2 ANALYSIS

3.2.1 VOLATILE ANALYSIS COMMENTS :

LOW LEVEL WATER :

The samples were analyzed within the CLP SOW holding times. Samples B07QP9MS and B07QP9MSD had Toluene spike recoveries slightly above the QC limit. In accordance with protocol, no further action was required.

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. Sample B07QP9MSD had a spike recovery for 4-Nitrophenol slightly above the QC limit. In accordance with protocol, no further action was required.

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

3.2.3 PESTICIDE/PCB ANALYSIS COMMENTS :

SEQUENCE NOTES :

The sequence was started on 12/21/92 and analyzed in accordance with the EPA CLP SOW. The sequence was analyzed by single injection into a dual column system. After the injection on 12/22/92, at 04:31 AM, the autosampler malfunctioned. After maintenance the sequence was resumed with the injection of PIBLK03 on 12/22/92 at 07:53 AM and was followed by PEM03. The samples that were injected between PEM02 and PEM03 were re-injected later in the sequence. The sequence met all the QC criteria specified in the CLP SOW.

The Chromatograms are presented in the manner consistent with the capabilities of the Nelson 2700 Turbochrome Data System which normalizes the largest peak to scale.

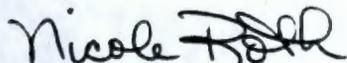
SAMPLE NOTES :

LOW LEVEL WATER :

The samples were extracted and analyzed within the CLP SOW holding times. The surrogate and matrix spike recoveries for sample B07QQ4MSD were higher on the DB-608 than those on the DB-1701 column. This may be a result of unequal division of the extract at the time of injection. However, only the results for 4,4'-DDT between the two GC columns exceeded the 25% difference. Therefore, only the 4,4'-DDT was "P" qualified.

All of the other 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

9613490.2306

X02084

1A

EPA SAMPLE No. 000005

VOLATILE ORGANICS ANALYSIS DATA SHEET

B07QP9

Lab Name: TMA/ARLI

Contract: WHC

Lab Code: TMALA

Case No.: 12052

SAS No.: NA

SDG No.: NA

Matrix: (soil/water) WATER

Lab Sample ID: A212052-01A

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: 21218B04

Level: (low/med) LOW

Date Received: 12/15/92

% Moisture: not dec.

Date Analyzed: 12/18/92

GC Column: CAP ID: 0.530 (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	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	10/2	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	15	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

9613490.2307

X02084

000006

EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QP9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12052 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212052-01A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21218B04

Level: (low/med) LOW Date Received: 12/15/92

% Moisture: not dec. Date Analyzed: 12/18/92

GC Column: CAP ID: 0.530 (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
-----	-----	-----	-----	-----

9613490.2308

000007
X02084
EPA SAMPLE NO.1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

B07QQ1

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12052 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212052-02A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21218B07

Level: (low/med) LOW Date Received: 12/15/92

% Moisture: not dec. Date Analyzed: 12/18/92

GC Column: CAP ID: 0.530 (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	2	J
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

RST
7/15/9

9613490.2309

000008
X02084
EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QQ1

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12052 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212052-02A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21218B07

Level: (low/med) LOW Date Received: 12/15/92

Moisture: not dec. Date Analyzed: 12/18/92

GC Column: CAP ID: 0.530 (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 FREON	4.30	11	J

6/16/93 SC

9613490.2310

000009

EPA SAMPLE NO.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

B07QQ4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12052 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212052-03A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21218B08

Level: (low/med) LOW Date Received: 12/15/92

% Moisture: not dec. Date Analyzed: 12/18/92

GC Column: CAP ID: 0.530 (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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	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

FORM I VOA

3/90

6/16/93 SC

9613490.2311

AD-087
000010

EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QQ4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12052 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212052-03A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21218B08

Level: (low/med) LOW Date Received: 12/15/92

% Moisture: not dec. Date Analyzed: 12/18/92

GC Column: CAP ID: 0.530 (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 FREON	4.35	12	J

6/16/93 SC

9613490.2312

X02084

000011

EPA SAMPLE NO.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

B07QQ6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12052 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212052-04A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21218B09

Level: (low/med) LOW Date Received: 12/15/92

% Moisture: not dec. Date Analyzed: 12/18/92

GC Column: CAP ID: 0.530 (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	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	<u>Q</u>
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

6/16/93 56/90

9613490.2313

X02084

EPA FORM 1600-1 No.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07006

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12052 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212052-04A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21218B09

Level: (low/med) LOW Date Received: 12/15/92

% Moisture: not dec. Date Analyzed: 12/18/92

GC Column: CAP ID: 0.530 (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 FREON	4.32	10	J

6/16/93

9613490.2314

X02084
000013
EPA SAMPLE NO.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

B07QT9

Lab Name: TNA/ARLI Contract: WHC

Lab Code: TNALA Case No.: 12052 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212052-05A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21218B10

Level: (low/med) LOW Date Received: 12/15/92

% Moisture: not dec. Date Analyzed: 12/18/92

GC Column: CAP ID: 0.530 (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	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	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

6/16/93 SC 3/90

9613490.2315

X02084
000014

EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QT9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12052 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212052-05A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21218B10

Level: (low/med) LOW Date Received: 12/15/92

% Moisture: not dec. Date Analyzed: 12/18/92

GC Column: CAP ID: 0.530 (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 FREON	4.32	12	J

6/14/93 SC

9613490.2316

000015

EPA SAMPLE NO. ^{X0208}1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

B07QV1

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12052 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212052-06A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21218B11

Level: (low/med) LOW Date Received: 12/15/92

% Moisture: not dec. Date Analyzed: 12/18/92

GC Column: CAP ID: 0.530 (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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	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	9	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	2	J
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

1.116/935C

9613490.2317

X02084
000016

EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QV1

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12052 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212052-06A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21218B11

Level: (low/med) LOW Date Received: 12/15/92

% Moisture: not dec. Date Analyzed: 12/18/92

GC Column: CAP ID: 0.530 (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 FREON	4.33	11	J

6/16/93 SC

9613490.2318

X02084
000017
EPA SAMPLE NO.

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07QP9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TWALA Case No.: 12052 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212052-01D

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21222806

Level: (low/med) LOW Date Received: 12/15/92

% Moisture: decanted: (Y/N) Date Extracted: 12/17/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/22/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

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

CAS NO.	COMPOUND		
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

9613490.2319

X02024
000018
EPA SAMPLE NO.

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07QP9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12052 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212052-01D

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21222S06

Level: (low/med) LOW Date Received: 12/15/92

% Moisture: decanted: (Y/N) Date Extracted: 12/17/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/22/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	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	14	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

6/16/93 SC 3/90

9613490.2520

X02084

000019

EPA SAMPLE NO.

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QP9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12052 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212052-01D

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21222806

Level: (low/med) LOW Date Received: 12/15/92

% Moisture: decanted: (Y/N) Date Extracted: 12/17/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/22/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

6/16/93 SC

9613490.2321

000020

X02084

EPA SAMPLE NO.

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07Q04

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12052 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212052-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21222809

Level: (low/med) LOW Date Received: 12/15/92

% Moisture: _____ decanted: (Y/N) _____ Date Extracted: 12/17/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/22/92

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

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

6/16/93 SC 3/90

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07QQ4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12052 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212052-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21222809

Level: (low/med) LOW Date Received: 12/15/92

% Moisture: decanted: (Y/N) Date Extracted: 12/17/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/22/92

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) <u>UG/L</u>	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	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

9613490.2323

X02084 000022

1P
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B07Q04

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12052 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212052-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21222S09

Level: (low/med) LOW Date Received: 12/15/92

% Moisture: decanted: (Y/N) Date Extracted: 12/17/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/22/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 0 CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

6/16/93 SL

9613490.2324

X02087
0000231B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07QT9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12052 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212052-05B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21222810

Level: (low/med) LOW Date Received: 12/15/92

% Moisture: _____ decanted: (Y/N) _____ Date Extracted: 12/17/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/22/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

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

CAS NO.	COMPOUND		
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

9613490.2325

X02084 000024

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07QT9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12052 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212052-05B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21222S10

Level: (low/med) LOW Date Received: 12/15/92

% Moisture: decanted: (Y/N) Date Extracted: 12/17/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/22/92

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) <u>UG/L</u>	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	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

10/9 B3U

(1) - Cannot be separated from Diphenylamine

6/16/93 SC 3/90

9613490.2326

X02084 000025

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B07QT9

Lab Name: THA/ARLI Contract: WHC

Lab Code: THALA Case No.: 12052 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212052-05B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21222S10

Level: (low/med) LOW Date Received: 12/15/92

% Moisture: decanted: (Y/N) Date Extracted: 12/17/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/22/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

6/16/93 SL

9613490.2327

X02084

000026

EPA SAMPLE NO.

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

B07QP9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12052 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212052-01D

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

% Moisture: _____ decanted: (Y/N) _____ Date Received: 12/15/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 12/17/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 12/24/92

Injection Volume: 1.00 (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

9613490.2328

X02084

EPA SAMPLE NO. 000027

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

B07QQ4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12052 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212052-03B

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

% Moisture: _____ decanted: (Y/N) _____ Date Received: 12/15/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 12/17/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 12/24/92

Injection Volume: 1.00 (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 Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	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

6/16/93 SC

9613490.2329

X02084000028

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07QT9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12052 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212052-05B

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

% Moisture: _____ decanted: (Y/N) _____ Date Received: 12/15/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 12/17/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 12/24/92

Injection Volume: 1.00 (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 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

6/16/93

9613490.2330

TMA

Thermo Analytical Inc.

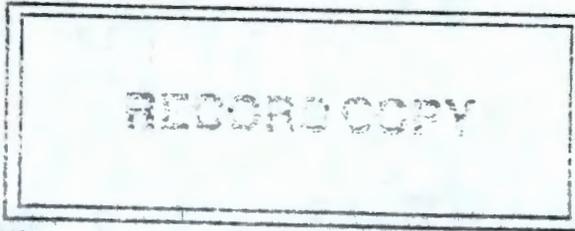
TMA/Norcal

2030 Wright Avenue

P. O. Box 4040

Richmond, CA 94804-0040

(510) 235-2633 Fax No. (510) 235-0438



March 24, 1993

SENT BY FEDERAL EXPRESS

Ref. TMA/Norcal N2-12-081-7139

Ms. Briana Colley
Westinghouse Hanford Company
2355 Stevens Drive
MSIN H4-23
345 Hills Street/3000 Area
Richland, WA 99352

Dear Ms. Colley:

Enclosed in the Summary Data Section, are the gross alpha, gross beta, ^3H , ^{14}C , ^{90}Sr , ^{99}Tc , isotopic uranium, isotopic plutonium, ^{241}Am , and gamma scan results for the water samples from 100-KR-4 Location we received 15 December 1992. The QA/QC results are also given in the Summary Data Section. The Summary Data Section is numbered pages 1 to 49, and the appendices are numbered pages 50 to 411.

Please call if you have any questions concerning this data.

Sincerely,

Dinkar P. Kharkar, Ph.D.
Manager, Nuclear Programs

DPK/ss

Enclosures: Section 1 and 2
Appendices

i 3/24/93 SW

SDG	<u>7139</u>
Contact	<u>Dinkar P. Kharkar</u>

Client	<u>Westinghouse Hanford</u>
Contract	<u>MBH-SVV-069262</u>

CASE NARRATIVE

1.0 GENERAL

Water sample results from 100-KR-4 location (TMA/Norcal Group 7139) are provided in this report. TMA/Norcal Group 7139 is comprised of the four samples listed on the Chain-of-Custody documents below which are identified as samples 1 through 4.

1.1 CHAINS-OF-CUSTODY

This report includes data from samples delivered under Chain-of-Custody documents Field Logbook No. EFL-1049 and EFL-1055.

1.2 SAMPLE VOLUME

Four L and 1 L plastic bottles, and 250 mL glass bottles containing the samples were received for the analyses.

1.3 MISSING SAMPLES

All samples were accounted for in an undamaged condition.

1.4 HOLDING TIMES

Samples were collected between 12/11/92 and 12/15/92 and 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 7139-5 through 7139-7.

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 LCS recovery for ^{90}Sr was high (127%) and did not pass at the 3σ protocol limits. The reason for the higher recovery is not known. We have checked the decay, the long lived component in the decay of ^{90}Y , the chemical yield, the precipitation thickness and the zero time, and did not find any obvious mistakes in the calculations. We are investigating the discrepancy. LCS recoveries for all other nuclides were satisfactory.

SDG	<u>7139</u>
Contact	<u>Dinkar P. Kharkar</u>

Client	<u>Westinghouse Hanford</u>
Contract	<u>MBH-SVV-069262</u>

CASE NARRATIVE

2.1 LABORATORY CONTROL SAMPLES (Cont'd)

The MDA's of the results for ^{14}C and isotopic plutonium were higher than the RDL. This was due to relatively low chemical yields on the planchets. The MDA of the result for ^{59}Fe was higher than the RDL due to higher background on the counter.

2.2 BLANKS

The MDA's of the results for all analyses except ^{14}C and ^{238}Pu met RDL requirements. The higher MDA for ^{238}Pu was due to a low chemical yield. The higher MDA for ^{14}C was due to a low counting efficiency. The ^{14}C result is underlined because the negative result is less than the negative of its 2σ counting error.

2.3 REPLICATES

Results were satisfactory for all replicate analyses. The MDA's of the results for ^{14}C , ^{238}Pu and ^{59}Fe were higher than the RDL's. The MDA for ^{14}C was within 1σ of the RDL. The higher MDA for ^{238}Pu was due to a low chemical yield. The ^{59}Fe MDA was higher than the RDL due to the short half-life of ^{59}Fe .

3.0 ANALYTICAL NOTES

- 3.1 Gross Alpha Analyses: The average MDA for gross alpha was (3 ± 1) pCi/L. Gross alpha activity above the RDL was not found in any of the samples analyzed. The residue on planchet B07QY4 exceeded the nominal residue limits of 5-150 mg. The MDA met the RDL despite the higher residue.
- 3.2 Gross Beta Analyses: The average MDA for gross beta was (2 ± 0) pCi/L. Gross beta activity above the RDL was found in samples B07QP9, B07QQ4 and B07QT9. Again the residue on planchet B07QY4 exceeded the nominal residue limits of 5-150 mg. The MDA met the RDL despite the higher residue.
- 3.3 Tritium Analyses: The average MDA for seven analyses was (300 ± 0) pCi/L. ^3H activity above the RDL was found in samples B07QP9 and B07QT9.
- 3.4 Carbon-14 Analyses: The average MDA for seven analyses was (60 ± 20) pCi/L. ^{14}C activity above the RDL was found in samples B07QP9 and B07QT9. Several sample MDA's were above RDL due to low counting efficiency.

SDG	7139
Contact	Dinkar P. Kharkar

Client	Westinghouse Hanford
Contract	MBH-SVV-069262

CASE NARRATIVE

- 3.5 Strontium-90 Analyses: The average yield for seven analyses was $(81 \pm 12)\%$. The lowest yield was 72% and the highest was 89%. The average MDA was (0.7 ± 0.4) pCi/L. ^{90}Sr activity above the RDL was not found in any of the samples analyzed.
- 3.6 Technetium-99 Analyses: The average yield for seven analyses was $(49 \pm 31)\%$. The lowest yield was 15% and the highest was 62%. The average MDA was (4 ± 6) pCi/L. ^{99}Tc activity above the RDL was found in sample B07QP9. The MDA of the result for sample B07QQ4 was higher than the RDL due to a low chemical recovery.
- 3.7 Uranium-233, 234, 238 Analyses: The average yield for seven analyses was $(71 \pm 20)\%$. The lowest yield was 61% and the highest was 84%. The average MDA was (0.1 ± 0.1) pCi/L. $^{233/234}\text{U}$ and ^{238}U activity above the RDL was found in samples B07QP9, B07QQ4 and B07QY4.
- 3.8 Plutonium-238, 239/240 Analyses: The average yield for seven analyses was $(36 \pm 19)\%$. The lowest yield was 20% and the highest was 50%. The average MDA was (0.07 ± 0.05) pCi/L. Plutonium activity above the RDL was not found in any of the samples. The MDA's of the results for samples B07QQ4 and B07QY4 were higher than the RDL due to low chemical recoveries.
- 3.9 Americium-241 Analyses: The average yield for seven analyses was $(68 \pm 16)\%$. The lowest yield was 54% and the highest yield was 76%. The average MDA was (0.03 ± 0.02) pCi/L. Americium activity above the RDL was not found in any of the samples analyzed.
- 3.10 Gamma Scan Analyses: Gamma scan analysis did not find positive concentration of gamma nuclides in any of the samples.

9613490.2334

TMA NORCAL
REPORTING GROUP 7139

N212081-01

B07QP9

DATA SHEET

SDG <u>7139</u>	Client <u>Westinghouse Hanford</u>
Contact <u>Dinkar Kharkar</u>	Contract <u>MBH-SVV-069262</u>
Lab sample id <u>N212081-01</u>	Client sample id <u>B07QP9</u>
Dept sample id <u>7139-001</u>	Matrix <u>WATER</u>
Received <u>12/15/92</u>	Collected <u>12/11/92</u>
	Chain of custody id <u>EFL-1049</u>

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALIFIERS	TEST
Gross Alpha	Alpha	0.45	1.4	2	3	U	80A
Gross Beta	Beta	10	1.7	2	4		80B
Uranium 233/234		0.52	0.15	0.08	0.2		U
Uranium 235	15117-96-1	0	0.025	0.1	0.2	NR	U
Uranium 238	7440-61-1	0.39	0.13	0.08	0.2		U
Plutonium 238	13981-16-3	-0.004	0.022	0.05	0.05	U	PU
Plutonium 239/240		-0.007	0.007	0.04	0.05	U	PU
Americium 241	14596-10-2	0.017	0.019	0.03	0.05	U	AM
Strontium 90	10098-97-2	1.6	0.34	0.8	2	NR	Y
Technetium 99	14133-76-7	8.8	1.9	4	5		TC
Tritium	10028-17-8	2300	260	300	400		H
Carbon 14	14762-75-5	440	38	50	50		C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		100		U	GAM
Iron 59	14596-12-4	U		60	30	U	GAM
Chromium 51	14392-02-0	U		400		U	GAM
Cobalt 60	10198-40-0	U		10	30	U	GAM
Zinc 65	13982-39-3	U		30		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	13967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		10	40	U	GAM
Radium 226	13982-63-3	U		20		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		50		U	GAM

RA 6/16/93

Lab id <u>TMAN</u>
Protocol <u>WHC-HEIS</u>
Version <u>Ver 1.0</u>
Form <u>DVD-DS</u>
Version <u>2.23</u>
Report date <u>03/24/93</u>

9613490.2335

TMA NORCAL
REPORTING GROUP 7139

N212081-02

B07004

DATA SHEET

SDG 7139
Contact Dinkar KharkarClient Westinghouse Hanford
Contract MBH-SVV-069262Lab sample id N212081-02
Dept sample id 7139-002
Received 12/15/92Client sample id B07004
Matrix WATER
Collected 12/11/92
Chain of custody id EFL-1049

PARAMETER	CAS NO	RESULT pCi/L	2 σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI- FIERS	TEST
Gross Alpha	Alpha	1.5	1.9	3	3	U	80A
Gross Beta	Beta	7.4	1.6	2	4		80B
Uranium 233/234		1.8	0.40	0.1	0.2		U
Uranium 235	15117-96-1	0.074	0.075	0.1	0.2	UR	U
Uranium 238	7440-61-1	0.87	0.27	0.1	0.2		U
Plutonium 238	13981-16-3	-0.020	0.023	0.06	0.05	U	PU
Plutonium 239/240		-0.008	0.008	0.04	0.05	U	PU
Americium 241	14596-10-2	0.004	0.019	0.03	0.05	U	AM
Strontium 90	10098-97-2	-0.28	0.29	0.8	2	UR	Y
Technetium 99	14133-76-7	1.9	3.9	10	5	UR	TC
Tritium	10028-17-8	-95	170	300	400	U	H
Carbon 14	14762-75-5	-69	45	80	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		200		U	GAM
Iron 59	14596-12-4	U		50	30	U	GAM
Chromium 51	14392-02-0	U		500		U	GAM
Cobalt 60	10198-40-0	U		10	30	U	GAM
Zinc 65	13982-39-3	U		30		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	13967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		10	40	U	GAM
Radium 226	13982-63-3	U		20		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		40		U	GAM

RB 6/16/93

9613490.2336

TMA NORCAL
REPORTING GROUP 7139

N212081-03

DATA SHEET

B07QT9

SDG 7139
Contact Dinkar KharkarClient Westinghouse Hanford
Contract MBH-SVV-069262Lab sample id N212081-03
Dept sample id 7139-003
Received 12/15/92Client sample id B07QT9
Matrix WATER
Collected 12/12/92
Chain of custody id EFL-1049

PARAMETER	CAS NO	RESULT pCi/L	2 σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI- FIERS	TEST
Gross Alpha	Alpha	1.3	1.9	3	3	U	80A
Gross Beta	Beta	5.6	1.5	2	4		80B
Uranium 233/234		0.93	0.21	0.08	0.2		U
Uranium 235	15117-96-1	0.013	0.051	0.1	0.2	IR	U
Uranium 238	7440-61-1	0.82	0.21	0.08	0.2		U
Plutonium 238	13981-16-3	0.003	0.015	0.03	0.05	U	PU
Plutonium 239/240		0	0.005	0.02	0.05	U	PU
Americium 241	14596-10-2	-0.004	0.015	0.03	0.05	U	AM
Strontium 90	10098-97-2	-0.13	2.0	0.9	2	IR	Y
Technetium 99	14133-76-7	2.0	1.4	3	5	U	TC
Tritium	10028-17-8	3600	290	300	400		H
Carbon 14	14762-75-5	690	49	60	50		C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		200		U	GAM
Iron 59	14596-12-4	U		70	30	U	GAM
Chromium 51	14392-02-0	U		500		U	GAM
Cobalt 60	10198-40-0	U		20	30	U	GAM
Zinc 65	13982-39-3	U		30		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	13967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		20	40	U	GAM
Radium 226	13982-63-3	U		30		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		50		U	GAM

AB 6/16/93

9613490.2337

TMA NORCAL
REPORTING GROUP 7139

N212081-04

DATA SHEET

B07QY4

SDG 7139
Contact Dinkar KharkarClient Westinghouse Hanford
Contract MBH-SVV-069262Lab sample id N212081-04
Dept sample id 7139-004
Received 12/18/92Client sample id B07QY4
Matrix WATER
Collected 12/15/92
Chain of custody id EFL-1055

PARAMETER	CAS NO	RESULT pCi/L	2 σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI- FIERS	TEST
Gross Alpha	Alpha	0.65	1.8	3	3	U	80A
Gross Beta	Beta	-0.87	1.1	2	4	U	80B
Uranium 233/234		0.016	0.098	0.2	0.2	U	U
Uranium 235	15117-96-1	0.079	0.080	0.2	0.2	U	U
Uranium 238	7440-61-1	0	0.033	0.1	0.2	U	U
Plutonium 238	13981-16-3	0.031	0.039	0.06	0.05	U	PU
Plutonium 239/240		0.004	0.008	0.03	0.05	U	PU
Americium 241	14596-10-2	0.010	0.016	0.03	0.05	U	AM
Strontium 90	10098-97-2	-0.32	1.7	0.8	2	U	Y
Technetium 99	14133-76-7	2.2	1.7	3	5	U	TC
Tritium	10028-17-8	-72	170	300	400	U	H
Carbon 14	14762-75-5	-63	37	60	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		200		U	GAM
Iron 59	14596-12-4	U		70	30	U	GAM
Chromium 51	14392-02-0	U		500		U	GAM
Cobalt 60	10198-40-0	U		10	30	U	GAM
Zinc 65	13982-39-3	U		30		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	13967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		10	40	U	GAM
Radium 226	13982-63-3	U		20		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		60		U	GAM

AB 6/16/93

Contractor URS	OFF-SITE PROPERTY CONTROL	CONTROL NUMBER (To be obtained from PROPERTY MANAGEMENT) W93-0-0151-20
-------------------	--------------------------------------	---

PART I - TO BE COMPLETED BY ORIGINATOR

Department: <i>Nav. Eng. & Tech.</i>	Section: <i>Nav. Eng. & Tech.</i>	Unit: <i>Geochem. & Hydrochem.</i>
--	---------------------------------------	--

The following items are to be shipped from Contractor Vendor

Routing: Contractor Vendor

Shipped to <i>THA/WRCAL, 2000 Wright Ave., Richmond, CA 94804</i>	Off-site Custodian
	Full Title

Quantity	Description (Include Serial and any Government Tag Numbers)	Original Cost
<i>1</i> <i>85 lbs</i>	<i>Sample # 100-100-100-100 Cooler ID: 864-241 Polycosol with ground-up samples packed in wet ice and vermiculite</i>	<i>N/A</i>
<i>1</i> <i>3 lbs</i>	<i>Sample # 100-100-100-100 Cooler ID: 864-241 Polycosol with ground-up samples packed in wet ice and vermiculite</i>	<i>N/A</i>

Classified Unclassified Shipped Under DOE Contract Shipped Under Contractor's Use Permit Contract

Necessity for the Off-Site Use of this Property

*Sampling supports RTR work in the *TRIS**

Bill of Lading # 7519207779

CERTIFICATION OF THE RADIATION MONITORING RELEASE MUST BE SECURED THE SAME DAY THAT MATERIAL IS DELIVERED TO SHIPPING.

RM Clearance for Public Release	RM Survey No.	Date	
Location of Property (Area & Bldg.)	Contact	Phone	
Date Ready for Shipment	Cost Code to be Charged	Approximate Date This Property will be Returned	
Originated By	Date	Authorized By	Date
Signature and Name of Property Control	Custodian Date	Property Management Approval	Date

PART II - TO BE COMPLETED BY SHIPPING

Signature of Recipient	Return Order No.	Date Issued	Purchase Order No.	Date Issued
Date				

DISTRIBUTION

By Originator
Property Management

Shipping Operation - Sign all Copies and Forward to:

White - Property Management Green - Property Control Custodian (Issuing Office)
Yellow - Retain Pink - Originator

053

154

FORM OF PAYMENT

Check GBL FCCOD

Bill to Shipper Bill to Consignee Third Party Billing



SERVICES **

UNITED STATES / CANADA

Express Business Documents

Same Day (Extra Charges) Standard Plus Customs Clearance

AM PM Preferred Delivery

Second Day Saturday Delivery Standard

Shipper's Account Number
850281585

Date **12-14-92** Origin **PSC** Shipment Number **251900771 1**

From: WESTINGHOUSE SHIPPING DEPT(509)375-6665
U.S. DEPARTMENT OF ENERGY C/O
WESTINGHOUSE HANFORD
BLDG 1163
2355 STEVENS DRIVE

To: DELORES SANCHEZ
TMA/NORCAL
2030 WRIGHT AVENUE
RICHMOND
~~XXXXXXXX~~ CA CA

Tariff Dest. Gateway

Check to Shipper \$

EMERY WORLDWIDE will accept Consignee's check with all risks being assumed by Shipper, including but not limited to non-receipt and misrepresentation

RICHLAND WA

RICHMOND CA

Customer's Reference Numbers
W81232 PC41A W93-0-0151/11

Consignee's Account Number
94804

Description
**WATER SAMPLES
32 POLYCOOLERS
RM-110/AML-72**

Dimensions
Pcs **3** L **27** W **16** H **17**

Total Pieces **3** Total Weight (In Lbs) **266#**

FOR INFORMATION OR RATES
CALL 1-800 44 EMERY
(1-800-443-6379)

Declared Value \$

Remarks
**OVERNIGHT DELIVERY
93-151-#11 & 12**

Shipper's Signature *X Mark W. Belmont*

Zip Ship

Mark 'If Emery Packaging is used

Urgent Letter 9X12

Urgent Pack 12X15



International Shipments
Free Domicile

Third Party Account Number mandatory for Third Party Billing. **E**

International Customs Value

International Insurance

Base Charge

Total Transportation Charges Other Charges/Advance at Origin OCAO \$

1-DAK-A
Terms and Conditions on Back

7613490.2340

OVERNIGHT DELIVERY

Contractor PAC	OFF-SITE PROPERTY CONTROL	CONTROL NUMBER (To be obtained from PROPERTY MANAGEMENT) W93-0-0151-12
-------------------	--------------------------------------	--

PART I - TO BE COMPLETED BY ORIGINATOR

Department Env. Eng. & Tech.	Section Geochem.	Unit Geochem. & Hydrochem.
The following items are to be shipped from		<input checked="" type="checkbox"/> Contractor <input type="checkbox"/> Vendor
Routing Emergency		<input checked="" type="checkbox"/> Contractor <input type="checkbox"/> Vendor
Shipped to TMA/NORCAL 2030 Wright Ave. Richmond, CA 94804		Off-site Custodian Full Title

Quantity	Description (Include Serial and any Government Tag Numbers)	Original Cost
1 88 lbs.	Sample #: B076P9 B076Q0 B076Q1 Cooler ID: SAIL-107 Polycooler with groundwater samples packed in wet ice and vermiculite	N/A
1 lbs.	Sample #: Cooler ID: Polycooler with groundwater samples packed in wet ice and vermiculite VOID	N/A

- Classified
 Unclassified
 Shipped Under DOE Contract
 Shipped Under Contractor's Use Permit Contract

Necessity for the Off-Site Use of this Property

Sampling supports RI/FS work in the ICC AREA

Bill of Lading # 251900771-1

CERTIFICATION OF THE RADIATION MONITORING RELEASE MUST BE SECURED THE SAME DAY THAT MATERIAL IS DELIVERED TO SHIPPING.

RM Clearance for Public Release	RM Survey No.	Date
Location of Property (Area & Bldg.) ICC AREA-1	Contact PH [unclear]	Phone
Date Ready for Shipment 12-11-92	Cost Code to be Charged PC41A	Approximate Date This Property will be Returned
Originated By [unclear]	Date 12-11-92	Authorized By [unclear]
Signature and Name of Property Control	Custodian Date	Property Management Approval [unclear]

PART II - TO BE COMPLETED BY SHIPPING

Signature of Recipient	Return Order No.	Date Issued	Purchase Order No.	Date Issued
Date				

DISTRIBUTION

053

By Originator White, Green, Yellow, Pink - Property Management Goldenrod - Retain	Shipping Operation - Sign all Copies and Forward to: White - Property Management Green - Property Control Custodian (Issuing Office) Yellow - Retain Pink - Originator
--	---

9613490.2341

Signature Security Service

OVERNIGHT DELIVERY

Contractor MHC	OFF-SITE PROPERTY CONTROL	CONTROL NUMBER (To be obtained from PROPERTY MANAGEMENT) W93-0-0151-11
-------------------	--------------------------------------	--

PART I - TO BE COMPLETED BY ORIGINATOR

Department Env. Eng. & Tech.	Section Geochem. & Hydrochem.	Unit Geochem. & Hydrochem.
---------------------------------	----------------------------------	-------------------------------

The following items are to be shipped from Contractor Vendor

Routing Contractor Vendor

Shipped to MHA/NORCAL 2030 Wright Ave. Richmond, CA 94804	Off-site Custodian
	Full Title

Quantity	Description, (Include Serial and any Government Tag Numbers)	Original Cost
1 91 lbs.	Sample #: B07QT7 B07QVC B07QVI Cooler ID: RM 110 Polycooler with groundwater samples packed in wet ice and vermiculite	N/A
1 87 lbs.	Sample #: B07QQ4 B07QQ5 B07QQ6 Cooler ID: SML-72 Polycooler with groundwater samples packed in wet ice and vermiculite	N/A

Classified Unclassified Shipped Under DOE Contract Shipped Under Contractor's Use Permit Contract

Necessity for the Off-Site Use of this Property

Sampling supports RI/FS work in the 100 AREA

Bill of Lading # 251700 ⁷⁷¹⁻¹ ~~770~~ C ^{12/11/92}

CERTIFICATION OF THE RADIATION MONITORING RELEASE MUST BE SECURED THE SAME DAY THAT MATERIAL IS DELIVERED TO SHIPPING.

RM Clearance for Public Release	RM Survey No.	Date
Location of Property (Area & Bldg.) 100-K-1	Contact MHC	Phone (916) 337-1000
Date Ready for Shipment 12/11/92	Cost Code to be Charged 38120 PC41E	Approximate Date This Property will be Returned
Originated By E.H. WINTER	Date 12/11/92	Authorized By E.H. WINTER
Signature and Name of Property Control	Custodian Date	Property Management Approval E.H. WINTER
		Date 12/11/92

PART II - TO BE COMPLETED BY SHIPPING

Signature of Recipient	Return Order No.	Date Issued	Purchase Order No.	Date Issued
Date				

DISTRIBUTION

By Originator	Shipping Operation - Sign all Copies and Forward to:
White, Green, Yellow, Pink - Property Management Goldenrod - Retain	White - Property Management Green - Property Control Custodian (Issuing Office) Yellow - Retain Pink - Originator

056

9613490.2342

Signature Security Service

OVERNIGHT DELIVERY

Contractor WHC	OFF-SITE PROPERTY CONTROL	CONTROL NUMBER (To be obtained from PROPERTY MANAGEMENT) W93-0-0151-11
-------------------	------------------------------	--

PART I - TO BE COMPLETED BY ORIGINATOR

Department Env. Eng. & Tech.	Section Geosciences	Unit Geochem. & Hydrochem.
The following items are to be shipped from		<input type="checkbox"/> Contractor <input type="checkbox"/> Vendor
Routing Emergency		<input type="checkbox"/> Contractor <input type="checkbox"/> Vendor
Shipped to TMA/NORCAL 2030 Wright Ave. Richmond, CA 94804	Off-site Custodian	Full Title

Quantity	Description: (Include Serial and any Government Tag Numbers)	Original Cost
1 91 lbs.	Sample #: B07QT9 B07QVC B07QVI Cooler ID: RM 110 Polycooler with groundwater samples packed in wet ice and vermiculite	N/A
1 87 lbs.	Sample #: B07QQ4 B07QQ5 B07QQ6 Cooler ID: SML-72 Polycooler with groundwater samples packed in wet ice and vermiculite	N/A

- Classified Unclassified Shipped Under DOE Contract Shipped Under Contractor's Use Permit Contract

Necessity for the Off-Site Use of this Property

Sampling supports RI/RS work in the 100 AREA

Bill of lading # 251700 ⁷⁷¹⁻¹ ~~770-0~~ ^{LOW} ₁₇₋₁₋₉₂

CERTIFICATION OF THE RADIATION MONITORING RELEASE MUST BE SECURED THE SAME DAY THAT MATERIAL IS DELIVERED TO SHIPPING.

RM Clearance for Public Release	RM Survey No.	Date 12-14-92
Location of Property (Area & Bldg.) 100-KR-1	Contact PH B...	Phone (509) 376 1045
Date Ready for Shipment 12-11-92	Cost Code to be Charged W11202 PC41A	Approximate Date This Property will be Returned
Originated By Bill WHITTEN	Date 12-11-92	Authorized By Bill WHITTEN
Signature and Name of Property Control	Custodian Date	Property Management Approval Date 12/11/92

PART II - TO BE COMPLETED BY SHIPPING

Signature of Recipient	Return Order No.	Date Issued	Purchase Order No.	Date Issued
Date 92				

DISTRIBUTION

By Originator White, Green, Yellow, Pink - Property Management Goldenrod - Retain	Shipping Operation - Sign all Copies and Forward to: White - Property Management Green - Property Control Custodian (Issuing Office) Yellow - Retain Pink - Originator
---	--

057

Westinghouse
Hanford Company

CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Project Designation/Sampling Locations 100-KR-4

Ice Chest No. SML-107

Bill of Lading/Airbill No. 251900771-1

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Telephone (509)376-5045

Collection Date 12-11-92

Field Logbook No. EFL-1049

Offsite Property No. W93-0-0151-12

Sample Identification

~~B07QQ~~ B07QP9

- 3, 40ml, Gs*, WATER, CLP-VOA
- 12/4/92 3, 2L, aG, WATER, CLP-SEMI VOA & PCB's/PEST
- 1, 1L, P, WATER, ANIONS(IC) SO4, F, PO4, Cl/COND./pH
- 1, 500ml, P, WATER, ANIONS/NO3-NO2 (H2SO4)
- 1, 1L, G, WATER, ALK./TOT. DISSOLVED SOLIDS
- 1, 500ml, G, WATER, SULFIDE (add Zinc Acetate+NaOH pH>9)
- 1, 500ml, G, WATER, AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
- 1, 1L, P, WATER, CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
- 1, 1L, P, WATER, CLP-CN (NaOH)
- 2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC(U-235/238, Pu-239/240, Am-241), Sr-90 (HNO3)
- 1, 1L, P, WATER, Tc-99 (HCl)
- 1, 250ml, Gs, WATER, TRITIUM/C-14

B07QQ0

- 1, 1L, P, WATER, CLP-ICP/AA METALS (FILTERED)/CLP-Hg (HNO3)

B07QQ1

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

[] Field Transfer of Custody	Chain of Possession	(Sign and Print Names)
Relinquished by: <i>L.D. Walker</i> <i>L.D. Walker</i>	Received by: <i>Refrig. #1</i>	Date/Time: 12-11-92 / 1430
Relinquished by:	Received by: <i>[Signature]</i> B. WHITER	Date/Time: 12-14-92 10:00
Relinquished by: <i>[Signature]</i> B. WHITER	Received by: <i>Kermit Blum</i>	Date/Time: 12-15-92 1230
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:
Comments:		

9613490.2344



Westinghouse
Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K. Lee, L. Walker Date Sampled 12-11-92 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
B07009	3; 40ml; Gs*	WATER	CLP-VOA
	3; 2L; aG;	WATER	✓ CLP-SEMI VOA & PCB's/PEST
	1; 1L; P;	WATER	✓ ANIONS (IC) SO4, F, PO4, Cl/COND/pH
	1; 500ml; P;	WATER	✓ ANIONS/NO3-NO2 (H2SO4)
	1; 1L; G;	WATER	✓ ALK./TOT. DISSOLVED SOLIDS
	1; 500ml; G;	WATER	✓ SULFIDE (add Zinc Acetate + NaOH pH > 9)
	1; 500ml; G;	WATER	AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH < 2)
	1; 1L; P;	WATER	✓ CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
	1; 1L; P;	WATER	✓ CLP-CN (NaOH)
	2; 4L; P;	WATER	GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90, (HNO3)
	1; 1L; P;	WATER	✓ Tc-99 (HCl)
	1; 250ml; Gs;	WATER	TRITIUM/C-14
B07000	1; 1L; P;	WATER	✓ CLP-ICP/AA METAL (FILTERED)/CLP-Hg (HNO3)
B07001	3; 40ml; Gs	WATER	✓ CLP-VOA OPC: # W93-0-0151-12 BOL: # 251900771-1 TASK#: 92-398

Field Information ** _____

Special Handling and/or Storage _____

Possible Sample Hazards _____

PART II: LABORATORY SECTION

Received by Kermit Blum Title Sample Control Supervisor Date 12-15-92
Analysis Required _____

059

* Indicate whether sample is soil, sludge, water, etc.
** Use back of page for additional information relative to sample location.

Westinghouse
Hanford Company

CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER

Company Contact PH BUTCHER

Telephone (509)376-5045

Project Designation/Sampling Locations 100-KR-4

Collection Date 12-11-92

Ice Chest No. SML 72

Field Logbook No. EFL-1049

Bill of Lading/Airbill No. ~~251900770-0~~ ^{AW} 12-14-92
771-1

Offsite Property No. W93-0-0151-11

Method of Shipment EMERY

Shipped to TMA

Possible Sample Hazards/Remarks N/A

Sample Identification

BO7QQ4

- 3, 40ml, Gs*, WATER, CLP-VOA
- 3, 2L, aG, WATER, CLP-SEMI VOA & PCB's/PEST
- 1, 1L, P, WATER, ANIONS(IC) SO4, F, PO4, Cl/COND./pH
- 1, 500ml, P, WATER, ANIONS/NO3-NO2 (H2SO4)
- 1, 1L, G, WATER, ALK./TOT. DISSOLVED SOLIDS
- 1, 500ml, G, WATER, SULFIDE (add Zinc Acetate+NaOH pH>9)
- 1, 500ml, G, WATER, AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
- 1, 1L, P, WATER, CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
- 1, 1L, P, WATER, CLP-CN (NaOH)
- 2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90 (HNO3)
- 1, 1L, P, WATER, Tc-99 (HCl)
- 1, 250ml, Gs, WATER, TRITIUM/C-14

BO7QQ5

- 1, 1L, P, WATER, CLP-ICP/AA METALS (FILTERED)/CLP-Hg (HNO3)

BO7QQ6

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

[] Field Transfer of Custody		Chain of Possession	(Sign and Print Names)
Relinquished by: <i>L.D. Walker</i> <i>L. Walker</i>	Received by: <i>R. Kelly #2</i>	Date/Time: <i>12/11/92 1415</i>	
Relinquished by:	Received by: <i>Bill Whitten</i> B. WHITTEN	Date/Time: <i>12-14-92 10100</i>	
Relinquished by: <i>Bill Whitten</i> B. WHITTEN	Received by: <i>Alanna Goble</i>	Date/Time: <i>12/15/92 1230</i>	
Relinquished by:	Received by:	Date/Time:	
Final Sample Disposition			
Disposal Method:	Disposed by:	Date/Time:	
Comments:			

9613490.2346



Westinghouse Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K. Lee, L. Walker Date Sampled 12-11-92 Time 1100 hours
Company Contact P. H. Butcher Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample *	Analysis Requested
BO 7224	✓ 3; 40ml; Gs*;	WATER	CLP-VOA
	✓ 3; 2L; aG;	WATER	CLP-SEMI VOA & PCB's/PEST
	✓ 1; 1L; P;	WATER	ANIONS (IC) SO4, F, PO4, Cl/COND/pH
	✓ 1; 500ml; P;	WATER	ANIONS/NO3-NO2 (H2SO4)
	✓ 1; 1L; G;	WATER	ALK./TOT. DISSOLVED SOLIDS
	✓ 1; 500ml; G;	WATER	SULFIDE (add Zinc Acetate + NaOH pH > 9)
	✓ 1; 500ml; G;	WATER	AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH < 2)
	✓ 1; 1L; P;	WATER	CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
	✓ 1; 1L; P;	WATER	CLP-CN (NaOH)
	✓ 2; 4L; P;	WATER	GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90, (HNO3)
	✓ 1; 1L; P;	WATER	Tc-99 (HCl)
	✓ 1; 250ml; Gs;	WATER	TRITIUM/C-14
BO 7225	✓ 1; 1L; P;	WATER	CLP-ICP/AA METAL (FILTERED)/CLP-Hg (HNO3)
BO 7226	✓ 3; 40ml; Gs	WATER	CLP-VOA
			OPC: # W93-0-0151-11
			BOL: # 251900770-0 ^{BW} 12-4-92
			TASK#: 92-398 771-1

Field Information **

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by A. Gobaleza Title Sample Control Technician Date 12-15-92
Analysis Required _____

061

* Indicate whether sample is soil, sludge, water, etc.

** Use back of page for additional information relative to sample location.

Westinghouse
Hanford Company

CHAIN OF CUSTODY

Custody Form Initiator PH BUTCHER
 Company Contact PH BUTCHER
 Project Designation/Sampling Locations 100-KR-4
 Ice Chest No. *Am 110*
 Bill of Lading/Airbill No. *251900770-0* ^{BW} ~~12-14-92~~
 Method of Shipment EMERY *771-1*
 Shipped to TMA
 Possible Sample Hazards/Remarks N/A

Telephone (509)376-5045
 Collection Date *12-12-92*
 Field Logbook No. *EFL-1049*
 Offsite Property No. *W93-0-0151-11*

Sample Identification

BO 7QT9

- 3, 40ml, Gs*, WATER, CLP-VOA
- 3, 2L, aG, WATER, CLP-SEMI VOA & PCB's/PEST
- 1, 1L, P, WATER, ANIONS(IC) SO4, F, PO4, Cl/COND./pH
- 1, 500ml, P, WATER, ANIONS/NO3-NO2 (H2SO4)
- 1, 1L, G, WATER, ALK./TOT. DISSOLVED SOLIDS
- 1, 500ml, G, WATER, SULFIDE (add Zinc Acetate+NaOH pH>9)
- 1, 500ml, G, WATER, AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH<2)
- 1, 1L, P, WATER, CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
- 1, 1L, P, WATER, CLP-CN (NaOH)
- 2, 4L, P, WATER, GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC (U-235/238, Pu-239/240, Am-241), Sr-90 (HNO3)
- 1, 1L, P, WATER, Tc-99 (HCl)
- 1, 250ml, Gs, WATER, TRITIUM/C-14

BO 7QV0

- 1, 1L, P, WATER, CLP-ICP/AA METALS (FILTERED)/CLP-Hg (HNO3)

BO 7QV1

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

[] Field Transfer of Custody		Chain of Possession	(Sign and Print Names)
Relinquished by: <i>GG HAMILTON</i>	Received by: <i>Bill Whitton B. WHITTON</i>	Date/Time: <i>12-14-92 10:00</i>	
Relinquished by: <i>Bill Whitton B. WHITTON</i>	Received by: <i>Alfonso J. ...</i>	Date/Time: <i>12/15/92 12:30</i>	
Relinquished by:	Received by:	Date/Time:	
Relinquished by:	Received by:	Date/Time:	
Final Sample Disposition			
Disposal Method:	Disposed by:	Date/Time:	
Comments:			

9613490.2348



Westinghouse
Hanford Company

SAMPLE ANALYSIS REQUEST

PART I: FIELD SECTION

Collector K. Lee, L. Walker

Date Sampled 12/2/92 Time 1030 hours

Company Contact P. H. Butcher

Telephone (509) 376-5045

Sample Number	Number and Type of Sample Containers	Type of Sample*	Analysis Requested
B07QT9	3; 40ml; Gs*	WATER	CLP-VOA
	✓3; 2L; aG;	WATER	CLP-SEMI VOA & PCB's/PEST
	✓1; 1L; P;	WATER	ANIONS (IC) SO4, F, PO4, Cl/COND/pH
	✓1; 500ml; P;	WATER	ANIONS/NO3-NO2 (H2SO4)
	✓1; 1L; G;	WATER	ALK./TOT. DISSOLVED SOLIDS
	✓1; 500ml; G;	WATER	SULFIDE (add Zinc Acetate + NaOH pH > 9)
	✓1; 500ml; G;	WATER	AMMONIA/CHEMICAL OXYGEN DEMAND (H2SO4 pH < 2)
	✓1; 1L; P;	WATER	CLP-ICP/AA METALS (UNFILTERED)/CLP-Hg (HNO3)
	✓1; 1L; P;	WATER	CLP-CN (NaOH)
	✓2; 4L; P;	WATER	GROSS ALPHA/BETA, GAMMA SPEC, ALPHA SPEC
			(U-235/238, Pu-239/240, Am-241), Sr-90, (HNO3)
	✓1; 1L; P;	WATER	Tc-99 (HCl)
	✓1; 250ml; Gs;	WATER	TRITIUM/C-14
B07QV0	✓1; 1L; P;	WATER	CLP-ICP/AA METAL (FILTERED)/CLP-Hg (HNO3)
B07QVI	✓3; 40ml; Gs	WATER	CLP-VOA
			OPC: # W93-0-0151-11
			BOL: # 251900770-0 ^{AN} 12-14-92
			TASK#: 92-398 771-D

Field Information **

Special Handling and/or Storage

Possible Sample Hazards

PART II: LABORATORY SECTION

Received by A. Gobalega Title Sample Control Technician Date 12-15-92

Analysis Required

068

* Indicate whether sample is soil, sludge, water, etc.

** Use back of page for additional information relative to sample location.

9613490.2349

000003

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07QK4

Lab Name: TMA/ARLI

Contract: WHC

Lab Code: TMALA Case No.: 12030

SAS No.: NA

SDG No.: NA

Matrix: (soil/water) WATER

Lab Sample ID: A212027-01A

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: 21214R04

Level: (low/med) LOW

Date Received: 12/08/92

Moisture: not dec. _____

Date Analyzed: 12/14/92

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

Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	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	6	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	2	J
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

NV 7/15/93 JK

9613490.2350
iE

000006
EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QK4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212027-01A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21214R04

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: not dec. Date Analyzed: 12/14/92

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
-----	-----	-----	-----	-----

NV 7/15/93 JK

9613490-2351

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

B07QK6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212027-02A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21214R05

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: not dec. Date Analyzed: 12/14/92

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	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

NV 7/15/93 JK

FORM I VOA

3/90

9613490.2352

IE

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QK6

Lab Name: TMA/ARLI

Contract: WHC

Lab Code: TMALA

Case No.: 12030

SAS No.: NA

SDG No.: NA

Matrix: (soil/water) WATER

Lab Sample ID: A212027-02A

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: 21214R05

Level: (low/med) LOW

Date Received: 12/08/92

% Moisture: not dec.

Date Analyzed: 12/14/92

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

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

NV 7/15/93 JK

9613490-2354

000006

EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QK9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12031 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212031-01A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21211R07

Level: (low/med) LOW Date Received: 12/09/92

% Moisture: not dec. Date Analyzed: 12/11/92

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

NV 7/15/93 JK

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

B07QL1

Lab Name: TMA/ARLI Contract: WHC
 Lab Code: TMALA Case No.: 12031 SAS No.: NA SDG No.: NA
 Matrix: (soil/water) WATER Lab Sample ID: A212031-02A
 Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21211R08
 Level: (low/med) LOW Date Received: 12/09/92
 % Moisture: not dec. Date Analyzed: 12/11/92
 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

NV 7/15/93 JK

9613490.2356

000008
EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QL1

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12031 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212031-02A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21211R08

Level: (low/med) LOW Date Received: 12/09/92

% Moisture: not dec. Date Analyzed: 12/11/92

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
-----	-----	-----	-----	-----

NY 7/15/93 JK

9613490.2357

000009
EPA SAMPLE NO.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

B07QL4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12031 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212031-03A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21211R10

Level: (low/med) LOW Date Received: 12/09/92

% Moisture: not dec. Date Analyzed: 12/11/92

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	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

NV 1/15/93 JK

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QL4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12031 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212031-03A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21211R10

Level: (low/med) LOW Date Received: 12/09/92

% Moisture: not dec. Date Analyzed: 12/11/92

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
-----	-----	-----	-----	-----

NV 1/15/93 JK

96134901 2359

000011
EPA SAMPLE NO.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

B07QL6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12031 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212031-04A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21211R11

Level: (low/med) LOW Date Received: 12/09/92

% Moisture: not dec. Date Analyzed: 12/11/92

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

NV 7/15/93 JK

9613490.2360

000012

EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QL6

Lab Name: TMA/ARLI

Contract: WHC

Lab Code: TMALA

Case No.: 12031

SAS No.: NA

SDG No.: NA

Matrix: (soil/water) WATER

Lab Sample ID: A212031-04A

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: 21211R11

Level: (low/med) LOW

Date Received: 12/09/92

‡ Moisture: not dec.

Date Analyzed: 12/11/92

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

NV 7/15/93 JK

9613990.2361

000003
EPA SAMPLE NO.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

B07QL9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212027-03A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21214R08

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: not dec. Date Analyzed: 12/14/92

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

NV 7/15/93 JTK

9613490.2362
1E

000010
EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QL9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212027-03A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21214R08

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: not dec. Date Analyzed: 12/14/92

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

NV 7/15/93 JLC

9615490.2363

000011
EPA SAMPLE NO.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

B07QM1

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212027-04A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21214R09

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: not dec. Date Analyzed: 12/14/92

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

NV 7/15/93 JK

9613490.2364

000012
EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QM1

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212027-04A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21214R09

Level: (low/med) LOW Date Received: 12/08/92

* Moisture: not dec. Date Analyzed: 12/14/92

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

NV 7/15/93 JK

9613490.2365

000013
EPA SAMPLE NO.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

B07QM4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12031 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212031-05A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21211R12

Level: (low/med) LOW Date Received: 12/09/92

% Moisture: not dec. Date Analyzed: 12/11/92

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 Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	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

NV 7/15/93 JK

9613490.2366

000014
EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QM4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12031 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212031-05A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21211R12

Level: (low/med) LOW Date Received: 12/09/92

% Moisture: not dec. Date Analyzed: 12/11/92

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

NV 7/15/93 JK

9613490-2367

000015
EPA SAMPLE NO.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

B07QM6

Lab Name: TMA/ARLI

Contract: WHC

Lab Code: TMALA

Case No.: 12031

SAS No.: NA

SDG No.: NA

Matrix: (soil/water) WATER

Lab Sample ID: A212031-06A

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: 21211R13

Level: (low/med) LOW

Date Received: 12/09/92

% Moisture: not dec.

Date Analyzed: 12/11/92

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

NV 7/15/93 JK

9613498.2368

000016

EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QM6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12031 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212031-06A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21211R13

Level: (low/med) LOW Date Received: 12/09/92

* Moisture: not dec. Date Analyzed: 12/11/92

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

NV 7/15/93 JK

9613490.2369

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

B07QN4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212027-05A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21214R10

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: not dec. Date Analyzed: 12/14/92

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	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

NV 7/15/93 JK

9613490.2370
1E

000014
EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QN4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212027-05A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21214R10

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: not dec. Date Analyzed: 12/14/92

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

NV 7/15/93 JK

9613490.2371
1A

000015
EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

B07QN6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212027-06A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21214R11

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: not dec. Date Analyzed: 12/14/92

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	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	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

NV 7/19/93 TR

9613490.2372

000010

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QN6

Lab Name: TMA/ARLI

Contract: WHC

Lab Code: TMALA Case No.: 12030

SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER

Lab Sample ID: A212027-06A

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: 21214R11

Level: (low/med) LOW

Date Received: 12/08/92

% Moisture: not dec.

Date Analyzed: 12/14/92

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

NV 7/15/93 JK

9613490.2373

1A

000017
EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

B07QP4

Lab Name: TMA/ARLI Contract: WHC
 Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA
 Matrix: (soil/water) WATER Lab Sample ID: A212027-07A
 Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21214R14
 Level: (low/med) LOW Date Received: 12/08/92
 % Moisture: not dec. Date Analyzed: 12/14/92
 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	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	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	5	J
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

NV
7/15/92 K

9613490.2374

000013
EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QP4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212027-07A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21214R14

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: not dec. Date Analyzed: 12/14/92

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

NV 7/15/93 JTK

9613490.2375

000019

EPA SAMPLE NO.

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

B07QP6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212027-08A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21214R12

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: not dec. Date Analyzed: 12/14/92

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

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

CONCENTRATION UNITS:

CAS NO. COMPOUND (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	J
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

NV 7/15/93 JK

9613490.2376

000010

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B07QP6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212027-08A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21214R12

Level: (low/med) LOW Date Received: 12/08/92

‡ Moisture: not dec. Date Analyzed: 12/14/92

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
-----	-----	-----	-----	-----

NV 7/15/93 JK

9613490.2377
1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

B07QT4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212027-09A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21214R15

Level: (low/med) LOW Date Received: 12/08/92

‡ Moisture: not dec. Date Analyzed: 12/14/92

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	1	J
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

NV 7/15/93 JK

9615490.2578

000022
EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QT4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212027-09A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21214R15

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: not dec. Date Analyzed: 12/14/92

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

NV 7/15/93 JK

9613490.2379
1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

B07QT6

Lab Name: TMA/ARLI

Contract: WHC

Lab Code: TMALA Case No.: 12030

SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER

Lab Sample ID: A212027-10A

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: 21214R13

Level: (low/med) LOW

Date Received: 12/08/92

% Moisture: not dec.

Date Analyzed: 12/14/92

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

NV 7/15/93 JK

9613490.2380

000024

EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QT6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212027-10A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21214R13

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: not dec. Date Analyzed: 12/14/92

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

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

NV 7/15/93 JK

9613490.2381

000025
EPA SAMPLE NO.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

B07QV4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: THALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212027-11A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21214R16

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: not dec. Date Analyzed: 12/14/92

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 Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	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

NU 7/15/93 JK

9613490.2382

000026
EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QV4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212027-11A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21214R16

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: not dec. Date Analyzed: 12/14/92

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

NU 7/15/93 JTK

9613490.2383

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

B07QV6

Lab Name: TMA/ARLI

Contract: WHC

Lab Code: TMALA Case No.: 12030

SAS No.: NA

SDG No.: NA

Matrix: (soil/water) WATER

Lab Sample ID: A212027-12A

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: 21214R17

Level: (low/med) LOW

Date Received: 12/08/92

% Moisture: not dec.

Date Analyzed: 12/14/92

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

Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	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

NV 7/15/93 JK

9613490.2384

1E

000023
EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QV6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212027-12A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21214R17

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: not dec. Date Analyzed: 12/14/92

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

NV 7/15/93 JL

9613490-2385

000023

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07QV9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212027-13A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21215R03

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: not dec. _____ Date Analyzed: 12/15/92

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

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

CONCENTRATION UNITS:

CAS NO. COMPOUND (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

NV 7/15/93 JK

9613490.2386

000030

EPA SAMPLE NO.

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QV9

Lab Name: TMA/ARLI

Contract: WHC

Lab Code: TMALA

Case No.: 12030

SAS No.: NA

SDG No.: NA

Matrix: (soil/water) WATER

Lab Sample ID: A212027-13A

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: 21215R03

Level: (low/med) LOW

Date Received: 12/08/92

% Moisture: not dec.

Date Analyzed: 12/15/92

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

NV 7/15/93 JK

9613990.2387

000031

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07QW1

Lab Name: TMA/ARLI

Contract: WHC

Lab Code: TMALA

Case No.: 12030

SAS No.: NA

SDG No.: NA

Matrix: (soil/water) WATER

Lab Sample ID: A212027-14A

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: 21215R04

Level: (low/med) LOW

Date Received: 12/08/92

% Moisture: not dec.

Date Analyzed: 12/15/92

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	2	J
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

NV 7/15/93 JTL

9615490.2388

000032

EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QW1

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212027-14A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21215R04

Level: (low/med) LOW Date Received: 12/08/92

* Moisture: not dec. Date Analyzed: 12/15/92

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

NV 7/15/93 JK

9613490.2389

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

B07QW9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212027-16A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21215R06

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: not dec. Date Analyzed: 12/15/92

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

FORM I VOA

3/90

N.V. 7/15/93 JK

9613490.2390

000034
EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QW9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212027-16A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21215R06

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: not dec. Date Analyzed: 12/15/92

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

NU 7/15/93 JK

9613490.2391

000035
EPA SAMPLE NO.

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

B07QX1

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212027-17A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21215R07

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: not dec. Date Analyzed: 12/15/92

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	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

FORM I VOA

3/90

NV 7/15/93 JK

9613490.2392

000030

EPA SAMPLE NO.

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QX1

Lab Name: TMA/ARLI

Contract: WHC

Lab Code: TMALA

Case No.: 12030

SAS No.: NA

SDG No.: NA

Matrix: (soil/water) WATER

Lab Sample ID: A212027-17A

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: 21215R07

Level: (low/med) LOW

Date Received: 12/08/92

% Moisture: not dec.

Date Analyzed: 12/15/92

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

NV 7/15/93 JK

9613490.2393

000017
EPA SAMPLE NO.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

B07QX4

Lab Name: TMA/ARLI

Contract: WHC

Lab Code: TMALA

Case No.: 12031

SAS No.: NA

SDG No.: NA

Matrix: (soil/water) WATER

Lab Sample ID: A212031-07A

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: 21211R16

Level: (low/med) LOW

Date Received: 12/09/92

% Moisture: not dec.

Date Analyzed: 12/11/92

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	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

NV 7/15/93 JK

9613490.2394

000018
EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QX4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12031 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212031-07A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21211R16

Level: (low/med) LOW Date Received: 12/09/92

% Moisture: not dec. Date Analyzed: 12/11/92

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
-----	-----	-----	-----	-----

NU 7/15/93 TK

9613490.2395

000019
EPA SAMPLE NO.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

B07QX6

Lab Name: TMA/ARLI

Contract: WHC

Lab Code: TMALA

Case No.: 12031

SAS No.: NA

SDG No.: NA

Matrix: (soil/water) WATER

Lab Sample ID: A212031-08A

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: 21214R03

Level: (low/med) LOW

Date Received: 12/09/92

% Moisture: not dec.

Date Analyzed: 12/14/92

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

NV 7/15/93 JK

9613490.2396

000020
EPA SAMPLE NO.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QX6

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12031 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212031-08A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21214R03

Level: (low/med) LOW Date Received: 12/09/92

% Moisture: not dec. Date Analyzed: 12/14/92

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
-----	-----	-----	-----	-----

NV 7/15/93 JK

9613490.2397

000037

EPA SAMPLE NO.

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

B07QZ7

Lab Name: TMA/ARLI

Contract: WHC

Lab Code: TMALA Case No.: 12030

SAS No.: NA

SDG No.: NA

Matrix: (soil/water) WATER

Lab Sample ID: A212027-15A

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: 21215R05

Level: (low/med) LOW

Date Received: 12/08/92

% Moisture: not dec.

Date Analyzed: 12/15/92

GC Column: PACK ID: 2.00 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(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

NU 7/15/93 TX

9613490.2398

000038

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QZ7

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212027-15A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 21215R05

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: not dec. Date Analyzed: 12/15/92

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
-----	-----	-----	-----	-----

NV 7/15/93 JTC

9613490.2399

1B

000039
EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07QK4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212030-01A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21215S03

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: decanted: (Y/N) Date Extracted: 12/09/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/15/92

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

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

FORM I SV-1

3/90

NV 7/13/93 JK

9613490.2400

000040
EPA SAMPLE NO.

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07QK4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212030-01A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21215S03

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: decanted: (Y/N) Date Extracted: 12/09/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/15/92

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) <u>UG/L</u>	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	J
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

NV 7/15/93 JK

FORM I SV-2

3/90

9613490.2401

000041

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B07QK4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212030-01A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21215S03

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: decanted: (Y/N) Date Extracted: 12/09/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/15/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

NV 7/15/93JK

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07QK9

Lab Name: TMA/ARLI Contract: WHC
 Lab Code: TMALA Case No.: 12031 SAS No.: NA SDG No.: NA
 Matrix: (soil/water) WATER Lab Sample ID: A212031-01B
 Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21218S06
 Level: (low/med) LOW Date Received: 12/09/92
 % Moisture: decanted: (Y/N) Date Extracted: 12/11/92
 Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/18/92
 Injection Volume: 2.0(uL) Dilution Factor: 1.0
 GPC Cleanup: (Y/N) N pH:

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	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

NV 7/15/93 JK

9613490.2403

000022
EPA SAMPLE NO.1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07QK9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12031 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212031-01B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21218S06

Level: (low/med) LOW Date Received: 12/09/92

‡ Moisture: decanted: (Y/N) Date Extracted: 12/11/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/18/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

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

CAS NO.	COMPOUND	(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	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

NV 7/15/93 JK

9613490.2404

000023
EPA SAMPLE NO.

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QK9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12031 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212031-01B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21218S06

Level: (low/med) LOW Date Received: 12/09/92

% Moisture: decanted: (Y/N) Date Extracted: 12/11/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/18/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	5.78	3	J

NV 7/15/93 JK

9613490.2405

000024
EPA SAMPLE NO.

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07QL4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12031 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212031-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21218S09

Level: (low/med) LOW Date Received: 12/09/92

% Moisture: decanted: (Y/N) Date Extracted: 12/11/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/18/92

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

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

NV 7/15/93 JK

9613490.2406

000025

EPA SAMPLE NO.

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07QL4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12031 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212031-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21218S09

Level: (low/med) LOW Date Received: 12/09/92

% Moisture: _____ decanted: (Y/N) _____ Date Extracted: 12/11/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/18/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	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	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

NV 7/15/93 JK

9613490.2407

000026

EPA SAMPLE NO.

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QL4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12031 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212031-03B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21218S09

Level: (low/med) LOW Date Received: 12/09/92

% Moisture: decanted: (Y/N) Date Extracted: 12/11/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/18/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

NV 7/15/93 JK

9613490.2408

000042

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07QL9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212030-02A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21215S04

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: decanted: (Y/N) Date Extracted: 12/09/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/15/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	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

FORM I SV-1

3/90

NV 7/15/93 JK

9613490.2409

1C

000043
EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07QL9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212030-02A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21215S04

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: decanted: (Y/N) Date Extracted: 12/09/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/15/92

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	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

NU 7/15/93 JK

FORM I SV-2

3/90

9613490.2410

000044

EPA SAMPLE NO.

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QL9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212030-02A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21215S04

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: decanted: (Y/N) Date Extracted: 12/09/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/15/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

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

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

NV 7/15/93 JK

9613490.2411

000027

EPA SAMPLE NO.

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07QM4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12031 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212031-05B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21218S10

Level: (low/med) LOW Date Received: 12/09/92

% Moisture: decanted: (Y/N) Date Extracted: 12/11/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/18/92

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

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

FORM I SV-1

3/90

NU 7/15/93 JK

9613490.2412

000028
EPA SAMPLE NO.1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07QM4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12031 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212031-05B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21218510

Level: (low/med) LOW Date Received: 12/09/92

% Moisture: decanted: (Y/N) Date Extracted: 12/11/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/18/92

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	20	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

NU 7/15/93 JK

9613490.2413

000029
EPA SAMPLE NO.

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QM4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12031 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212031-05B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21218S10

Level: (low/med) LOW Date Received: 12/09/92

% Moisture: decanted: (Y/N) Date Extracted: 12/11/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/18/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

ND 7/15/93 JK

9613490.2414

000045

EPA SAMPLE NO.

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07QN4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212030-03A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21215S05

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: decanted: (Y/N) Date Extracted: 12/09/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/15/92

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

FORM I SV-1

3/90

NV 7/15/93 JK

9613490.2415

000046

EPA SAMPLE NO.

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07QN4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212030-03A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21215S05

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: decanted: (Y/N) Date Extracted: 12/09/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/15/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	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	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

NV 2/15/93 JK

9613490.2416

000047

EPA SAMPLE NO.

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QN4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212030-03A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21215S05

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: decanted: (Y/N) Date Extracted: 12/09/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/15/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

NV 7/15/93 OK

9613490.2917

000048

EPA SAMPLE NO.

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07QP4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212030-04A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21215S08

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: decanted: (Y/N) Date Extracted: 12/09/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/15/92

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 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

NV 7/15/93 JK

9613490.2418

1C

000049
EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07QP4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212030-04A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21215S08

Level: (low/med) LOW Date Received: 12/08/92

‡ Moisture: decanted: (Y/N) Date Extracted: 12/09/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/15/92

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	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	19	
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

NV 7/15/93 JK

FORM I SV-2

3/90

9613490.2419

000050
EPA SAMPLE NO.

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QP4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212030-04A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21215S08

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: decanted: (Y/N) Date Extracted: 12/09/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/15/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
-----	-----	-----	-----	-----

NV 7/15/93 JK

9613490.2420

000051

EPA SAMPLE NO.

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07QT4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212030-05A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21215S09

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: decanted: (Y/N) Date Extracted: 12/09/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/15/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

CAS NO. COMPOUND (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

NV 7/15/93 JK

9613490.2421

000052

EPA SAMPLE NO.

1C SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07QT4

Lab Name: TMA/ARLI Contract: WHC
Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA
Matrix: (soil/water) WATER Lab Sample ID: A212030-05A
Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21215S09
Level: (low/med) LOW Date Received: 12/08/92
% Moisture: decanted: (Y/N) Date Extracted: 12/09/92
Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/15/92
Injection Volume: 2.0(uL) Dilution Factor: 1.0
GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q

Table with 4 columns: CAS NO., COMPOUND, UG/L, Q. Lists various organic compounds and their detection status.

(1) - Cannot be separated from Diphenylamine

NV 7/15/93 JK

9613490.2422

000053

EPA SAMPLE NO.

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QT4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212030-05A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21215S09

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: decanted: (Y/N) Date Extracted: 12/09/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/15/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

NV 7/15/93 JK

9613990.2423

000054
EPA SAMPLE NO.

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07QV4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212030-06A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21215S10

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: decanted: (Y/N) Date Extracted: 12/09/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/15/92

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	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	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

NV 7/15/93 JK

9613490.2424

000055
EPA SAMPLE NO.1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07QV4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212030-06A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21215810

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: decanted: (Y/N) Date Extracted: 12/09/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/15/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

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

CAS NO.

COMPOUND

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	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	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

NV 7/15/93 *TK*

FORM I SV-2

3/90

9613490.2425

000050
EPA SAMPLE NO.

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QV4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212030-06A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21215S10

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: decanted: (Y/N) Date Extracted: 12/09/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/15/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

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

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
-----	-----	-----	-----	-----

NV 7/15/93 JK

9613490.2426

000058

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07QV9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMAA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212030-07A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21215S11

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: decanted: (Y/N) Date Extracted: 12/09/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/15/92

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	<u>Q</u>
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	J
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

NV 7/15/93 JK

9613490.2427

000057

EPA SAMPLE NO.

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07QV9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212030-07A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21215S11

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: decanted: (Y/N) Date Extracted: 12/09/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/15/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	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

NV 7/15/93 JK

9613490.2428

000059

EPA SAMPLE NO.

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QV9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212030-07A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21215S11

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: decanted: (Y/N) Date Extracted: 12/09/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/15/92

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 ACID	10.80	3	J
2.	UNKNOWN HYDROCARBON	13.40	7	J
3.	UNKNOWN HYDROCARBON	13.65	15	J
4.	UNKNOWN HYDROCARBON	14.03	3	J
5.	UNKNOWN HYDROCARBON	14.32	3	J

NV 7/15/93 JK FORM I SV-TIC

3/90

9613490.2429

000060

EPA SAMPLE NO.

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07QW9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212030-08A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21215S12

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: decanted: (Y/N) Date Extracted: 12/09/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/15/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

CAS NO. COMPOUND (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

FORM I SV-1

3/90

NV 7/15/93 JTK

9613490.2430

000061

EPA SAMPLE NO.

1C SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07QW9

Lab Name: TMA/ARLI Contract: WHC
Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA
Matrix: (soil/water) WATER Lab Sample ID: A212030-08A
Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21215S12
Level: (low/med) LOW Date Received: 12/08/92
% Moisture: decanted: (Y/N) Date Extracted: 12/09/92
Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/15/92
Injection Volume: 2.0(uL) Dilution Factor: 1.0
GPC Cleanup: (Y/N) N pH:

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

Table with 4 columns: CAS NO., COMPOUND, UG/L, Q. Lists various chemical compounds and their concentrations, such as 4-Nitrophenol, Dibenzofuran, etc.

(1) - Cannot be separated from Diphenylamine

Handwritten signature: NU 7/15/93 JK

9613490.2431

000062

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B07QW9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212030-08A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21215S12

Level: (low/med) LOW Date Received: 12/08/92

% Moisture: decanted: (Y/N) Date Extracted: 12/09/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/15/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	13.40	7	J
2.	UNKNOWN HYDROCARBON	14.03	3	J

NV 2/15/93 JTC

9613490.2432

000030

EPA SAMPLE NO.

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07QX4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12031 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212031-07B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21218S11

Level: (low/med) LOW Date Received: 12/09/92

% Moisture: decanted: (Y/N) Date Extracted: 12/11/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/18/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

CAS NO. COMPOUND (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

FORM I SV-1

3/90

NV 7/15/93 JK

9613490.2433

000031

EPA SAMPLE NO.

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

B07QX4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12031 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212031-07B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21218S11

Level: (low/med) LOW Date Received: 12/09/92

% Moisture: decanted: (Y/N) Date Extracted: 12/11/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/18/92

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	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	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

NV 7/15/93 JK

9613490.2434

000032

EPA SAMPLE NO.

IF
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

B07QX4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12031 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212031-07B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 21218S11

Level: (low/med) LOW Date Received: 12/09/92

% Moisture: decanted: (Y/N) Date Extracted: 12/11/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/18/92

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

NV 7/15/93 JK

9613490.2435

000063

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07QK4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212030-01A

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

Moisture: _____ decanted: (Y/N) _____ Date Received: 12/08/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 12/09/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 12/23/92

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

SPC 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

NV 7/15/93 JK

9613490.2436

000033

EPA SAMPLE NO.

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

B07QK9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12031 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212031-01B

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

% Moisture: _____ decanted: (Y/N) _____ Date Received: 12/09/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 12/11/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 12/23/92

Injection Volume: 1.00 (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

Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	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

NV 7/15/93 JK

9613490 2437
ID

000034

EPA SAMPLE NO.

PESTICIDE ORGANICS ANALYSIS DATA SHEET

B07QL4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12031 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212031-03B

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

% Moisture: _____ decanted: (Y/N) _____ Date Received: 12/09/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 12/11/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 12/23/92

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

SPC Cleanup: (Y/N) N pH: _____ Sulfur Cleanup: (Y/N) N

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

Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	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

NV 7/15/93 JK

9613490.2438

000064
EPA SAMPLE NO.

ID
PESTICIDE ORGANICS ANALYSIS DATA SHEET

B07QL9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212030-02A

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

% Moisture: _____ decanted: (Y/N) _____ Date Received: 12/08/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 12/09/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 12/23/92

Injection Volume: 1.00 (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 Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	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

NV 7/15/93 JK

9613490.2439

000035
EPA SAMPLE NO.

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

B07QM4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12031 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212031-05B

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

% Moisture: _____ decanted: (Y/N) _____ Date Received: 12/09/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 12/11/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 12/23/92

Injection Volume: 1.00 (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	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	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

NV 7/5/93 JK

9613490.2440

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA 821-R-93-005 NO.

B07QN4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212030-03A

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

% Moisture: _____ decanted: (Y/N) _____ Date Received: 12/08/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 12/09/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 12/23/92

Injection Volume: 1.00 (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 Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	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

NV 7/15/93 JK

9613490.2491

000060

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07QP4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212030-04A

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

% Moisture: _____ decanted: (Y/N) _____ Date Received: 12/08/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 12/09/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 12/23/92

Injection Volume: 1.00 (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

NV 7/15/93 JK

9613490.2492

000067
EPA SAMPLE NO.

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

B07QT4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212030-05A

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

% Moisture: _____ decanted: (Y/N) _____ Date Received: 12/08/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 12/09/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 12/23/92

Injection Volume: 1.00 (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 Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	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

NV 7/15/93 JK

9613490.2443

000068

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07QV4

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212030-06A

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

% Moisture: _____ decanted: (Y/N) _____ Date Received: 12/08/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 12/09/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 12/23/92

Injection Volume: 1.00 (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

NV 7/15/93 TK

9613490.2444

000069
EPA SAMPLE NO.

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

B07QV9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212030-07A

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

% Moisture: _____ decanted: (Y/N) _____ Date Received: 12/08/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 12/09/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 12/23/92

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

SPC 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

NV 7/15/93 JK

9613490.2445

000070

EPA SAMPLE NO.

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

B07QW9

Lab Name: TMA/ARLI Contract: WHC

Lab Code: TMALA Case No.: 12030 SAS No.: NA SDG No.: NA

Matrix: (soil/water) WATER Lab Sample ID: A212030-08A

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

% Moisture: _____ decanted: (Y/N) _____ Date Received: 12/08/92

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 12/09/92

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 12/23/92

Injection Volume: 1.00 (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

Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	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

NV 7/15/93 JK

9613490.2446

000036
EPA SAMPLE NO.

ID
PESTICIDE ORGANICS ANALYSIS DATA SHEET

B07QX4

Lab Name: TMA/ARLI Contract: WHC
 Lab Code: TMALA Case No.: 12031 SAS No.: NA SDG No.: NA
 Matrix: (soil/water) WATER Lab Sample ID: A212031-07B
 Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____
 % Moisture: _____ decanted: (Y/N) _____ Date Received: 12/09/92
 Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 12/11/92
 Concentrated Extract Volume: 10000 (uL) Date Analyzed: 12/23/92
 Injection Volume: 1.00 (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

NV 7/15/93 JK

9613490.2447

WESTINGHOUSE/HANFORD

1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07QK4

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N2-12-040\$AS No.:

SDG No.: B07QK4

Matrix (soil/water): WATER

Lab Sample ID: 12145-01S

Level (low/med): LOW

Date Received: 12/10/92

% 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	39.3	B		P
7440-36-0	Antimony	16.9	U		P
7440-38-2	Arsenic	9.5	U	W	F
7440-39-3	Barium	28.4	B		P
7440-41-7	Beryllium	1.1	B		P
7440-43-9	Cadmium	2.2	B		P
7440-70-2	Calcium	34100			P
7440-47-3	Chromium	10.4			P
7440-48-4	Cobalt	2.7	U		P
7440-50-8	Copper	3.5	U		P
7439-89-6	Iron	55.4	B		P
7439-92-1	Lead	7.6			F
7439-95-4	Magnesium	9620			P
7439-96-5	Manganese	11.2	B		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	6.9	B		P
7440-09-7	Potassium	5570			P
7782-49-2	Selenium	14.5	U	WN	F
7440-22-4	Silver	7.1	B		P
7440-23-5	Sodium	30300		E	P
7440-28-0	Thallium	3.8	U	W	F
7440-62-2	Vanadium	23.8	B		P
7440-66-6	Zinc	13.5	B		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

NV 7/15/93 JK

9613490.2448

WESTINGHOUSE/HANFORD

1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07QK9

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N2-12-040

SAS No.: SDG No.: B07QK4

Matrix (soil/water): WATER

Lab Sample ID: 12145-09S

Level (low/med): LOW

Date Received: 12/10/92

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	72.1	B		P
7440-36-0	Antimony	16.9	U		P
7440-38-2	Arsenic	1.9	U		F
7440-39-3	Barium	31.3	B		P
7440-41-7	Beryllium	2.7	B		P
7440-43-9	Cadmium	2.1	B		P
7440-70-2	Calcium	60700			P
7440-47-3	Chromium	32.4			P
7440-48-4	Cobalt	2.7	U		P
7440-50-8	Copper	3.5	U		P
7439-89-6	Iron	1130			P
7439-92-1	Lead	3.6		W	F
7439-95-4	Magnesium	9710			P
7439-96-5	Manganese	16.4			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.4	U		P
7440-09-7	Potassium	3870	B		P
7782-49-2	Selenium	2.9	U	WN	F
7440-22-4	Silver	2.8	B		P
7440-23-5	Sodium	4400	B	E	P
7440-28-0	Thallium	3.8	U	W	F
7440-62-2	Vanadium	9.0	B		P
7440-66-6	Zinc	2.2	U		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

NV 7/15/93 TK

WESTINGHOUSE/HANFORD

1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07QL4

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N2-12-040

SDG No.: B07QK4

Matrix (soil/water): WATER

Lab Sample ID: 12145-10S

Level (low/med): LOW

Date Received: 12/10/92

% 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	46.4	B		P
7440-36-0	Antimony	16.9	U		P
7440-38-2	Arsenic	1.9	U	W	F
7440-39-3	Barium	21.3	B		P
7440-41-7	Beryllium	1.6	B		P
7440-43-9	Cadmium	1.2	B		P
7440-70-2	Calcium	44500			P
7440-47-3	Chromium	172			P
7440-48-4	Cobalt	2.7	U		P
7440-50-8	Copper	3.5	U		P
7439-89-6	Iron	44.9	B		P
7439-92-1	Lead	3.7			F
7439-95-4	Magnesium	8320			P
7439-96-5	Manganese	4.7	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.4	U		P
7440-09-7	Potassium	3290	B		P
7782-49-2	Selenium	14.5	U	WN	F
7440-22-4	Silver	2.7	B		P
7440-23-5	Sodium	4750	B	E	P
7440-28-0	Thallium	3.8	U		F
7440-62-2	Vanadium	7.5	B		P
7440-66-6	Zinc	2.3	B		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

NV 7/15/93 TK

WESTINGHOUSE/HANFORD

1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07QL9

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N2-12-040\$AS No.:

SDG No.: B07QK4

Matrix (soil/water): WATER

Lab Sample ID: 12145-02S

Level (low/med): LOW

Date Received: 12/10/92

% 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	89.5	B		P
7440-36-0	Antimony	16.9	U		P
7440-38-2	Arsenic	1.9	U	W	F
7440-39-3	Barium	12.8	B		P
7440-41-7	Beryllium	1.1	B		P
7440-43-9	Cadmium	1.3	B		P
7440-70-2	Calcium	42700			P
7440-47-3	Chromium	82.1			P
7440-48-4	Cobalt	2.7	U		P
7440-50-8	Copper	3.5	U		P
7439-89-6	Iron	230			P
7439-92-1	Lead	5.7		W	F
7439-95-4	Magnesium	8260			P
7439-96-5	Manganese	13.6	B		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.4	U		P
7440-09-7	Potassium	1820	B		P
7782-49-2	Selenium	2.9	U	WN	F
7440-22-4	Silver	3.8	B		P
7440-23-5	Sodium	3850	B	E	P
7440-28-0	Thallium	3.8	U	W	F
7440-62-2	Vanadium	2.8	U		P
7440-66-6	Zinc	5.8	B		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

NV 7/15/93 TK

9613490.2451

WESTINGHOUSE/HANFORD

1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07QM4

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N2-12-040\$AS No.:

SDG No.: B07QK4

Matrix (soil/water): WATER

Lab Sample ID: 12145-11S

Level (low/med): LOW

Date Received: 12/10/92

% 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	31.9	B		P
7440-36-0	Antimony	16.9	U		P
7440-38-2	Arsenic	1.9	U	W	F
7440-39-3	Barium	19.9	B		P
7440-41-7	Beryllium	3.2	B		P
7440-43-9	Cadmium	1.3	B		P
7440-70-2	Calcium	46000			P
7440-47-3	Chromium	177			P
7440-48-4	Cobalt	2.7	U		P
7440-50-8	Copper	3.5	U		P
7439-89-6	Iron	11.6	U		P
7439-92-1	Lead	3.3			F
7439-95-4	Magnesium	7900			P
7439-96-5	Manganese	4.7	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.4	U		P
7440-09-7	Potassium	2380	B		P
7782-49-2	Selenium	14.5	U	N	F
7440-22-4	Silver	2.5	U		P
7440-23-5	Sodium	6170		E	P
7440-28-0	Thallium	3.8	U		F
7440-62-2	Vanadium	2.9	B		P
7440-66-6	Zinc	224			P
	Cyanide	10.0	U		CA

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

NV 7/15/93 JIC

006

9613490.2452

WESTINGHOUSE/HANFORD

1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07QN4

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N2-12-040\$AS No.:

SDG No.: B07QK4

Matrix (soil/water): WATER

Lab Sample ID: 12145-03S

Level (low/med): LOW

Date Received: 12/10/92

% 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	960			P
7440-36-0	Antimony	16.9	U		P
7440-38-2	Arsenic	1.9	U	W	F
7440-39-3	Barium	41.2	B		P
7440-41-7	Beryllium	1.1	B		P
7440-43-9	Cadmium	1.8	B		P
7440-70-2	Calcium	59700			P
7440-47-3	Chromium	83.1			P
7440-48-4	Cobalt	2.7	U		P
7440-50-8	Copper	19.4	B		P
7439-89-6	Iron	2380			P
7439-92-1	Lead	6.2			F
7439-95-4	Magnesium	11200			P
7439-96-5	Manganese	101			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	77.6			P
7440-09-7	Potassium	4980	B		P
7782-49-2	Selenium	2.9	U	WN	F
7440-22-4	Silver	5.1	B		P
7440-23-5	Sodium	6910		E	P
7440-28-0	Thallium	3.8	U	W	F
7440-62-2	Vanadium	13.4	B		P
7440-66-6	Zinc	16.3	B		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

NV 7/15/93 JK

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER:

B07QP4

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N2-12-040\$AS No.:

SDG No.: B07QK4

Matrix (soil/water): WATER

Lab Sample ID: 12145-04S

Level (low/med): LOW

Date Received: 12/10/92

% 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	21.4	B		P
7440-36-0	Antimony	16.9	U		P
7440-38-2	Arsenic	1.9	U	W	F
7440-39-3	Barium	22.8	B		P
7440-41-7	Beryllium	1.1	B		P
7440-43-9	Cadmium	1.0	U		P
7440-70-2	Calcium	36700			P
7440-47-3	Chromium	14.0			P
7440-48-4	Cobalt	2.7	U		P
7440-50-8	Copper	3.5	U		P
7439-89-6	Iron	44.9	B		P
7439-92-1	Lead	3.8		W	F
7439-95-4	Magnesium	8330			P
7439-96-5	Manganese	4.7	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.4	U		P
7440-09-7	Potassium	4500	B		P
7782-49-2	Selenium	14.5	U	WN	F
7440-22-4	Silver	2.5	U		P
7440-23-5	Sodium	13100		E	P
7440-28-0	Thallium	3.8	U	W	F
7440-62-2	Vanadium	10.6	B		P
7440-66-6	Zinc	5.0	B		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

NV 7/15/93 TK

9613490.2454

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER:

B07QT4

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N2-12-040

SDG No.: B07QK4

Matrix (soil/water): WATER

Lab Sample ID: 12145-05S

Level (low/med): LOW

Date Received: 12/10/92

% 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	39.4	B		P
7440-36-0	Antimony	16.9	U		P
7440-38-2	Arsenic	1.9	U	W	F
7440-39-3	Barium	11.4	B		P
7440-41-7	Beryllium	0.56	B		P
7440-43-9	Cadmium	1.5	B		P
7440-70-2	Calcium	34300			P
7440-47-3	Chromium	4.5	U		P
7440-48-4	Cobalt	2.7	U		P
7440-50-8	Copper	3.5	U		P
7439-89-6	Iron	104			P
7439-92-1	Lead	3.8			F
7439-95-4	Magnesium	9630			P
7439-96-5	Manganese	4.7	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.4	U		P
7440-09-7	Potassium	5170			P
7782-49-2	Selenium	14.5	U	WN	F
7440-22-4	Silver	2.5	U		P
7440-23-5	Sodium	14100		E	P
7440-28-0	Thallium	3.8	U		F
7440-62-2	Vanadium	15.2	B		P
7440-66-6	Zinc	8.5	B		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

NV 7/15/93 JK

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER:

B07QV4

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N2-12-040\$AS No.:

SDG No.: B07QK4

Matrix (soil/water): WATER

Lab Sample ID: 12145-06S

Level (low/med): LOW

Date Received: 12/10/92

% 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	22.8	B		P
7440-36-0	Antimony	16.9	U		P
7440-38-2	Arsenic	1.9	U	W	F
7440-39-3	Barium	24.2	B		P
7440-41-7	Beryllium	1.1	B		P
7440-43-9	Cadmium	1.0	U		P
7440-70-2	Calcium	38200			P
7440-47-3	Chromium	48.9			P
7440-48-4	Cobalt	2.7	U		P
7440-50-8	Copper	3.5	U		P
7439-89-6	Iron	11.6	U		P
7439-92-1	Lead	7.5		W	F
7439-95-4	Magnesium	10900			P
7439-96-5	Manganese	4.7	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.4	U		P
7440-09-7	Potassium	4620	B		P
7782-49-2	Selenium	14.5	U	WN	F
7440-22-4	Silver	3.3	B		P
7440-23-5	Sodium	16200		E	P
7440-28-0	Thallium	3.8	U	W	F
7440-62-2	Vanadium	14.1	B		P
7440-66-6	Zinc	67.4			P
	Cyanide	10.0	U		CA

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

NV 7/15/93 JTK

9613490.2456

WESTINGHOUSE/HANFORD

1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07QV9

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N2-12-040\$AS No.:

SDG No.: B07QK4

Matrix (soil/water): WATER

Lab Sample ID: 12145-075

Level (low/med): LOW

Date Received: 12/10/92

% 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	346			P
7440-36-0	Antimony	16.9	U		P
7440-38-2	Arsenic	1.9	U	W	F
7440-39-3	Barium	18.5	B		P
7440-41-7	Beryllium	2.1	B		P
7440-43-9	Cadmium	1.0	U		P
7440-70-2	Calcium	38900			P
7440-47-3	Chromium	13.2			P
7440-48-4	Cobalt	2.7	U		P
7440-50-8	Copper	3.5	U		P
7439-89-6	Iron	3290			P
7439-92-1	Lead	26.5			F
7439-95-4	Magnesium	9150			P
7439-96-5	Manganese	58.8			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.4	U		P
7440-09-7	Potassium	4460	B		P
7782-49-2	Selenium	14.5	U	WN	F
7440-22-4	Silver	2.5	U		P
7440-23-5	Sodium	25300		E	P
7440-28-0	Thallium	3.8	U		F
7440-62-2	Vanadium	4.0	B		P
7440-66-6	Zinc	425			P
	Cyanide	10.0	U		CA

Color Before: COLORLESS

Clarity Before: CLOUDY

Texture:

Color After: COLORLESS

Clarity After: CLOUDY

Artifacts:

Comments:

NU 7/15/93 JTC

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER:

B07QW9

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N2-12-040\$AS No.:

SDG No.: B07QK4

Matrix (soil/water): WATER

Lab Sample ID: 12145-08S

Level (low/med): LOW

Date Received: 12/10/92

% 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	355			P
7440-36-0	Antimony	16.9	U		P
7440-38-2	Arsenic	1.9	U		F
7440-39-3	Barium	19.9	B		P
7440-41-7	Beryllium	1.6	B		P
7440-43-9	Cadmium	1.0	B		P
7440-70-2	Calcium	39500			P
7440-47-3	Chromium	11.4			P
7440-48-4	Cobalt	2.7	U		P
7440-50-8	Copper	4.2	B		P
7439-89-6	Iron	3180			P
7439-92-1	Lead	26.3			F
7439-95-4	Magnesium	9280			P
7439-96-5	Manganese	60.0			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.4	U		P
7440-09-7	Potassium	4540	B		P
7782-49-2	Selenium	2.9	U	WN	F
7440-22-4	Silver	2.9	B		P
7440-23-5	Sodium	25500		E	P
7440-28-0	Thallium	3.8	U	W	F
7440-62-2	Vanadium	6.0	B		P
7440-66-6	Zinc	424			P
	Cyanide	10.0	U		CA

Color Before: COLORLESS

Clarity Before: CLOUDY

Texture:

Color After: COLORLESS

Clarity After: CLOUDY

Artifacts:

Comments:

NU 7/15/93 JLC

WESTINGHOUSE/HANFORD

1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07QX4

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N2-12-040\$AS No.:

SDG No.: B07GK4

Matrix (soil/water): WATER

Lab Sample ID: 12145-12S

Level (low/med): LOW

Date Received: 12/10/92

% 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	24.9	B		P
7440-36-0	Antimony	16.9	U		P
7440-38-2	Arsenic	1.9	U	W	F
7440-39-3	Barium	18.5	B		P
7440-41-7	Beryllium	3.2	B		P
7440-43-9	Cadmium	1.0	U		P
7440-70-2	Calcium	47200			P
7440-47-3	Chromium	183			P
7440-48-4	Cobalt	2.7	U		P
7440-50-8	Copper	3.5	U		P
7439-89-6	Iron	23.9	B		P
7439-92-1	Lead	2.7	B		F
7439-95-4	Magnesium	8070			P
7439-96-5	Manganese	4.7	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.4	U		P
7440-09-7	Potassium	2350	B		P
7782-49-2	Selenium	14.5	U	WN	F
7440-22-4	Silver	2.7	B		P
7440-23-5	Sodium	6260		E	P
7440-28-0	Thallium	3.8	U		F
7440-62-2	Vanadium	4.2	B		P
7440-66-6	Zinc	212			P
	Cyanide	10.0	U		CA

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

NU 7/15/93 JTK

WESTINGHOUSE/HANFORD

1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07QK5

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N2-12-040\$AS No.:

SDG No.: B07QK5

Matrix (soil/water): WATER

Lab Sample ID: 12147-01S

Level (low/med): LOW

Date Received: 12/10/92

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	U	M
7429-90-5	Aluminum	27.0	U		P
7440-36-0	Antimony	18.4	U		P
7440-38-2	Arsenic	7.3	B	+	F
7440-39-3	Barium	22.8	B		P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.6	U		P
7440-70-2	Calcium	31400			P
7440-47-3	Chromium	5.8	B		P
7440-48-4	Cobalt	2.5	U		P
7440-50-8	Copper	5.9	B		P
7439-89-6	Iron	30.5	B		P
7439-92-1	Lead	3.6			F
7439-95-4	Magnesium	8680			P
7439-96-5	Manganese	1.0	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.4	B		P
7440-09-7	Potassium	4870	B		P
7782-49-2	Selenium	3.1	U	W	F
7440-22-4	Silver	3.9	U		P
7440-23-5	Sodium	28200			P
7440-28-0	Thallium	1.9	U	WN	F
7440-62-2	Vanadium	20.5	B		P
7440-66-6	Zinc	4.7	U		P
	Cyanide				NR

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

NV 7/15/93 JK

WESTINGHOUSE/HANFORD
1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07QL0

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0108
Lab Code: SKINER Case No.: N2-12-040\$AS No.: SDG No.: B07QK5
Matrix (soil/water): WATER Lab Sample ID: 12147-09S
Level (low/med): LOW Date Received: 12/10/92
% 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	27.0	U		P
7440-36-0	Antimony	18.4	U		P
7440-38-2	Arsenic	3.9	U	W	F
7440-39-3	Barium	33.7	B		P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.6	U		P
7440-70-2	Calcium	60500			P
7440-47-3	Chromium	26.1			P
7440-48-4	Cobalt	2.5	U		P
7440-50-8	Copper	5.9	B		P
7439-89-6	Iron	16.0	B		P
7439-92-1	Lead	3.1			F
7439-95-4	Magnesium	9620			P
7439-96-5	Manganese	5.5	B		F
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	3.0	U		P
7440-09-7	Potassium	3660	B		P
7782-49-2	Selenium	3.1	U	W	F
7440-22-4	Silver	3.9	U		P
7440-23-5	Sodium	4360	B		P
7440-28-0	Thallium	1.9	U	WN	F
7440-62-2	Vanadium	9.1	B		P
7440-66-6	Zinc	4.7	U		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:
Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments: NV 7/15/93 JK

9613490.2461

WESTINGHOUSE/HANFORD

1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07QL5

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N2-12-040\$AS No.:

SDG No.: B07QK5

Matrix (soil/water): WATER

Lab Sample ID: 12147-10S

Level (low/med): LOW

Date Received: 12/10/92

% 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	27.0	U		P
7440-36-0	Antimony	18.4	U		P
7440-38-2	Arsenic	3.9	U	W	F
7440-39-3	Barium	19.4	B		P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.6	U		P
7440-70-2	Calcium	42200			P
7440-47-3	Chromium	160			P
7440-48-4	Cobalt	2.5	U		P
7440-50-8	Copper	2.9	U		P
7439-89-6	Iron	14.6	B		P
7439-92-1	Lead	3.5			F
7439-95-4	Magnesium	7810			F
7439-96-5	Manganese	1.0	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	3.0	U		P
7440-09-7	Potassium	3080	B		P
7782-49-2	Selenium	15.5	U	W	F
7440-22-4	Silver	3.9	U		P
7440-23-5	Sodium	4430	B		P
7440-28-0	Thallium	1.9	U	WN	F
7440-62-2	Vanadium	7.8	B		P
7440-66-6	Zinc	4.7	U		P
	Cyanide				NR

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

NU 7/15/93 JK

9613490.2462

WESTINGHOUSE/HANFORD

1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07QM0

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N2-12-040\$AS No.:

SDG No.: B07QK5

Matrix (soil/water): WATER

Lab Sample ID: 12147-02S

Level (low/med): LOW

Date Received: 12/10/92

% 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	27.0	U		P
7440-36-0	Antimony	18.4	U		P
7440-38-2	Arsenic	3.9	U		F
7440-39-3	Barium	14.4	B		P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.6	U		P
7440-70-2	Calcium	39300			P
7440-47-3	Chromium	73.5			P
7440-48-4	Cobalt	2.5	U		P
7440-50-8	Copper	2.9	U		P
7439-89-6	Iron	10.1	B		P
7439-92-1	Lead	4.2			F
7439-95-4	Magnesium	7470			P
7439-96-5	Manganese	3.6	B		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	3.0	U		P
7440-09-7	Potassium	1590	B		P
7782-49-2	Selenium	3.1	U	W	F
7440-22-4	Silver	3.9	U		P
7440-23-5	Sodium	3340	B		P
7440-28-0	Thallium	1.9	U	WN	F
7440-62-2	Vanadium	2.5	U		P
7440-66-6	Zinc	5.2	B		P
	Cyanide				NR

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments: NU 7/15/93 JK

003

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER:

B07QM5

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N2-12-040\$AS No.:

SDG No.: B07QK5

Matrix (soil/water): WATER

Lab Sample ID: 12147-11S

Level (low/med): LOW

Date Received: 12/10/92

% 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	27.0	U		P
7440-36-0	Antimony	18.4	U		P
7440-38-2	Arsenic	3.9	U	W	F
7440-39-3	Barium	21.1	B		P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.6	U		P
7440-70-2	Calcium	45100			P
7440-47-3	Chromium	172			P
7440-48-4	Cobalt	2.5	U		P
7440-50-8	Copper	2.9	U		P
7439-89-6	Iron	6.5	U		P
7439-92-1	Lead	2.3	B		F
7439-95-4	Magnesium	7630			P
7439-96-5	Manganese	1.0	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	3.0	U		P
7440-09-7	Potassium	2270	B		P
7782-49-2	Selenium	15.5	U	W	F
7440-22-4	Silver	3.9	U		P
7440-23-5	Sodium	5900			P
7440-28-0	Thallium	1.9	U	WN	F
7440-62-2	Vanadium	5.0	B		P
7440-66-6	Zinc	7.3	B		P
	Cyanide				NR

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

NU 7/15/93 JTK

9613490.2464

WESTINGHOUSE/HANFORD

1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07QN5

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N2-12-040\$AS No.:

SDG No.: B07QK5

Matrix (soil/water): WATER

Lab Sample ID: 12147-03S

Level (low/med): LOW

Date Received: 12/10/92

% 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	27.0	U		P
7440-36-0	Antimony	18.4	U		P
7440-38-2	Arsenic	3.9	U	W	F
7440-39-3	Barium	22.4	B		P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.6	U		P
7440-70-2	Calcium	43000			P
7440-47-3	Chromium	2.7	U		P
7440-48-4	Cobalt	2.5	U		P
7440-50-8	Copper	2.9	U		P
7439-89-6	Iron	31.1	B		P
7439-92-1	Lead	4.4			F
7439-95-4	Magnesium	9230			P
7439-96-5	Manganese	2.2	B		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	3.0	U		P
7440-09-7	Potassium	4350	B		P
7782-49-2	Selenium	15.5	U	W	F
7440-22-4	Silver	3.9	U		P
7440-23-5	Sodium	5900			P
7440-28-0	Thallium	1.9	U	WN	F
7440-62-2	Vanadium	5.7	B		P
7440-66-6	Zinc	4.7	U		P
	Cyanide				NR

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

NU 7/15/93 JK

9613490.2465

WESTINGHOUSE/HANFORD

1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07QP5

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N2-12-040

SDG No.: B07QK5

Matrix (soil/water): WATER

Lab Sample ID: 12147-045

Level (low/med): LOW

Date Received: 12/10/92

% 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	27.0	U		P
7440-36-0	Antimony	18.4	U		P
7440-38-2	Arsenic	3.9	U	W	F
7440-39-3	Barium	23.5	B		P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.6	U		P
7440-70-2	Calcium	34000			P
7440-47-3	Chromium	10.9			P
7440-48-4	Cobalt	2.5	U		P
7440-50-8	Copper	2.9	U		P
7439-89-6	Iron	22.7	B		P
7439-92-1	Lead	4.2			F
7439-95-4	Magnesium	7680			P
7439-96-5	Manganese	1.0	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	3.0	U		P
7440-09-7	Potassium	4170	B		P
7782-49-2	Selenium	3.1	U	W	F
7440-22-4	Silver	3.9	U		P
7440-23-5	Sodium	12300			P
7440-28-0	Thallium	1.9	U	WN	F
7440-62-2	Vanadium	7.6	B		P
7440-66-6	Zinc	5.2	B		P
	Cyanide				NR

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

NU 7/15/93 JLC

9613490.2466

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER:

B07QT5

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N2-12-040\$AS No.:

SDG No.: B07QK5

Matrix (soil/water): WATER

Lab Sample ID: 12147-055

Level (low/med): LOW

Date Received: 12/10/92

% 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	27.0	U		P
7440-36-0	Antimony	18.4	U		P
7440-38-2	Arsenic	3.9	U	W	F
7440-39-3	Barium	12.4	B		P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.6	U		P
7440-70-2	Calcium	31400			P
7440-47-3	Chromium	2.7	U		P
7440-48-4	Cobalt	2.5	U		P
7440-50-8	Copper	2.9	U		P
7439-89-6	Iron	20.0	B		P
7439-92-1	Lead	4.2			F
7439-95-4	Magnesium	8740			P
7439-96-5	Manganese	1.0	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	3.0	U		P
7440-09-7	Potassium	4690	B		P
7782-49-2	Selenium	15.5	U	W	F
7440-22-4	Silver	3.9	U		P
7440-23-5	Sodium	13100			P
7440-28-0	Thallium	1.9	U	WN	F
7440-62-2	Vanadium	12.2	B		P
7440-66-6	Zinc	4.7	U		P
	Cyanide				NR

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

NV 7/15/93 JTK

008

9613490.2467

WESTINGHOUSE/HANFORD

1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07QV5

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N2-12-040\$AS No.:

SDG No.: B07QK5

Matrix (soil/water): WATER

Lab Sample ID: 12147-06S

Level (low/med): LOW

Date Received: 12/10/92

% 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	27.0	U		P
7440-36-0	Antimony	18.4	U		P
7440-38-2	Arsenic	3.9	U	W	F
7440-39-3	Barium	27.0	B		P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.6	U		P
7440-70-2	Calcium	35400			P
7440-47-3	Chromium	40.6			P
7440-48-4	Cobalt	2.5	U		P
7440-50-8	Copper	2.9	U		P
7439-89-6	Iron	8.6	B		P
7439-92-1	Lead	3.2		MW	F
7439-95-4	Magnesium	9980			P
7439-96-5	Manganese	1.0	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	3.0	U		P
7440-09-7	Potassium	4250	B		P
7782-49-2	Selenium	15.5	U	W	F
7440-22-4	Silver	3.9	U		P
7440-23-5	Sodium	15200			P
7440-28-0	Thallium	1.9	U	WN	F
7440-62-2	Vanadium	12.4	B		P
7440-66-6	Zinc	4.7	U		P
	Cyanide				NR

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

NV 7/15/93 JK

4010

9613490.2468

WESTINGHOUSE/HANFORD
1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER:

B07QW0

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N2-12-040

SAS No.:
SDG No.: B07QK5

Matrix (soil/water): WATER

Lab Sample ID: 12147-07S

Level (low/med): LOW

Date Received: 12/10/92

% 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	27.0	U		P
7440-36-0	Antimony	18.4	U		P
7440-38-2	Arsenic	3.9	U	W	F
7440-39-3	Barium	18.0	B		P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.6	U		P
7440-70-2	Calcium	36500			P
7440-47-3	Chromium	2.7	U		P
7440-48-4	Cobalt	2.5	U		P
7440-50-8	Copper	2.9	U		P
7439-89-6	Iron	17.8	B		P
7439-92-1	Lead	5.0			F
7439-95-4	Magnesium	8540			P
7439-96-5	Manganese	6.9	B		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	3.0	U		P
7440-09-7	Potassium	4280	B		P
7782-49-2	Selenium	15.5	U	W	F
7440-22-4	Silver	3.9	U		P
7440-23-5	Sodium	24300			P
7440-28-0	Thallium	1.9	U	WN	F
7440-62-2	Vanadium	2.5	U		P
7440-66-6	Zinc	4.9	B		P
	Cyanide				NR

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

NU 7/15/93 JTC

9613490-2469

WESTINGHOUSE/HANFORD

1

SAMPLE NUMBER:

INORGANIC ANALYSIS DATA SHEET

B07QX0

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N2-12-040SAS No.:

SDG No.: B07QK5

Matrix (soil/water): WATER

Lab Sample ID: 12147-08S

Level (low/med): LOW

Date Received: 12/10/92

% 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	27.0	U		P
7440-36-0	Antimony	18.4	U		P
7440-38-2	Arsenic	3.9	U	W	F
7440-39-3	Barium	18.7	B		P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.6	U		P
7440-70-2	Calcium	36600			P
7440-47-3	Chromium	2.7	U		P
7440-48-4	Cobalt	2.5	U		P
7440-50-8	Copper	2.9	U		P
7439-89-6	Iron	18.7	B		P
7439-92-1	Lead	8.0			F
7439-95-4	Magnesium	8540			P
7439-96-5	Manganese	7.3	B		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	3.0	U		P
7440-09-7	Potassium	4240	B		P
7782-49-2	Selenium	15.5	U	W	F
7440-22-4	Silver	3.9	U		P
7440-23-5	Sodium	24500			P
7440-28-0	Thallium	1.9	U	WN	F
7440-62-2	Vanadium	3.2	B		P
7440-66-6	Zinc	28.9			P
	Cyanide				NR

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

NU 7/15/93 JK

9613490.2470

WESTINGHOUSE/HANFORD

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NUMBER:

B07QX5

Lab Name: SKINNER & SHERMAN LABS.

Contract: 68-D0-0108

Lab Code: SKINER

Case No.: N2-12-040\$AS No.:

SDG No.: B07QK5

Matrix (soil/water): WATER

Lab Sample ID: 12147-12S

Level (low/med): LOW

Date Received: 12/10/92

% 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	27.0	U		P
7440-36-0	Antimony	18.4	U		P
7440-38-2	Arsenic	3.9	U	W	F
7440-39-3	Barium	21.1	B		P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.6	U		P
7440-70-2	Calcium	44900			P
7440-47-3	Chromium	169			P
7440-48-4	Cobalt	2.5	U		P
7440-50-8	Copper	2.9	U		P
7439-89-6	Iron	18.6	B		P
7439-92-1	Lead	3.4			F
7439-95-4	Magnesium	7520			P
7439-96-5	Manganese	1.0	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	3.0	U		P
7440-09-7	Potassium	2260	B		P
7782-49-2	Selenium	15.5	U	W	F
7440-22-4	Silver	3.9	U		P
7440-23-5	Sodium	5850			P
7440-28-0	Thallium	1.9	U	WN	F
7440-62-2	Vanadium	3.5	B		P
7440-66-6	Zinc	26.1			P
	Cyanide				NR

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

NV 7/15/93 JK

013

9613490.2471

000017

TMA Inc.

REPORT

Work Order # A2-12-030

Received: 12/08/92

Results by Sample

SAMPLE ID B07QK4

FRACTION Q1B

TEST CODE WCCLPL

NAME Anions & Wet Chem. - W043

Date & Time Collected 12/05/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	7.7	mg/L	0.2
Fluoride	300.0	0.4	mg/L	0.1
Phosphate	300.0	<0.4	mg/L	0.4
pH	150.1	7.9	pH	0.1
Sulfate	300.0	26	mg/L	1
Elect. Conductivity	120.1	358	umho/cm	6

FORM 1

NV 7/15/93 JK

9613490.2472

000018

TMA Inc.

REPORT

Work Order # A2-12-030

Received: 12/08/92

Results by Sample

SAMPLE ID B070K4

FRACTION Q1D

TEST CODE WCCLPL

NAME Anions & Wet Chem. - VN043

Date & Time Collected 12/05/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
<u>ANALYSIS</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>LIMIT</u>
Alkalinity	310.1	132	mg/L	2
Tot. Dissolved Solids	160.1	216	mg/L	5

FORM 1

NV 7/15/93 JK

9613490.2473

000019

TNA Inc.

REPORT

Work Order # A2-12-030

Received: 12/08/92

Results by Sample

SAMPLE ID 9079K4

FRACTION 01F

TEST CODE WGCLPL

NAME Anions & Vet Chem. - VN043

Date & Time Collected 12/05/92

Category _____

ANIONS AND MET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
sulfide	376.1	<1	mg/L	1

FORM I

NV 7/15/93 JK

9613490.2479

000020

TNA Inc.

REPORT

Work Order # A2-12-030

Received: 12/08/92

Results by Sample

SAMPLE ID R079K6

FRACTION 016

TEST CODE WCCLPL

NAME Anions & Wet Chem. - V043

Date & Time Collected 12/05/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	<0.05	mg/L	0.05
COD	410.0	<5	mg/L	5

FORM 1

NV 7/15/93 JK

9613490.2475

000021

TMA Inc.

REPORT

Work Order # A2-12-030

Received: 12/08/92

Results by Sample

SAMPLE ID 807819

FRACTION 02D

TEST CODE WCCLPL

NAME Anions & Wet Chem. - W043

Date & Time Collected 12/06/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	5.0	mg/L	0.2
Fluoride	300.0	<0.1	mg/L	0.1
Phosphate	300.0	<0.4	mg/L	0.4
pH	150.1	8.1	pH	0.1
Sulfate	300.0	52	mg/L	1
Elect. Conductivity	120.1	281	umho/cm	6

FORM 1

NV 7/15/93 TIC

9613490.2476

000022

TMA Inc.

REPORT

Work Order # A2-12-030

Received: 12/08/92

Results by Sample

SAMPLE ID B07QL9

FRACTION 02F

TEST CODE WCCLPL

NAME Anions & Wet Chem. - VN043

Date & Time Collected 12/06/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	69	mg/L	2
Tot. Dissolved Solids	160.1	169	mg/L	5

FORM I

NV 7/15/93 JK

9613490.2477

000023

TMA Inc.

REPORT

Work Order # A2-12-030

Received: 12/08/92

Results by Sample

SAMPLE ID B079L9

FRACTION 026

TEST CODE WCCLPL

NAME Anions & Vet Chem. - UN043

Date & Time Collected 12/06/92

Category _____

ANIONS AND MET CHEMISTRY - LIQUIDS				
<u>ANALYSIS</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>LIMIT</u>
Sulfide	376.1	<1	mg/L	1

FORM I

NV 7/15/93 CK

9613490.2478

000024

TNA Inc.

REPORT

Work Order # A2-12-030

Received: 12/08/92

Results by Sample

SAMPLE ID B079L9

FRACTION 021

TEST CODE WCCLPL

NAME Anions & Vet Chem. - V1043

Date & Time Collected 12/06/92

Category _____

ANIONS AND VET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	<0.05	mg/L	0.05
COD	410.0	<5	mg/L	5

FORM I

NV 7/15/93 SK

9613490.2479

000025

TNA Inc.

REPORT

Work Order # A2-12-030

Received: 12/08/92

Results by Sample

SAMPLE ID B07QW4

FRACTION 03D

TEST CODE WCCLPL

NAME Anions & Wet Chem. - VM043

Date & Time Collected 12/05/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
<u>ANALYSIS</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>LIMIT</u>
Chloride	300.0	6.8	mg/L	0.2
Fluoride	300.0	0.3	mg/L	0.1
Phosphate	300.0	<0.4	mg/L	0.4
pH	150.1	7.8	pH	0.1
Sulfate	300.0	18	mg/L	1
Elect. Conductivity	120.1	319	umho/cm	6

FORM I

NV 7/15/93 JK

9613490.2480

000026

Received: 12/08/92

TNA Inc. REPORT
Results by Sample

Work Order # A2-12-030

SAMPLE ID B070W4

FRACTION 03E TEST CODE WCCLPL NAME Anions & Wet Chem. - UN043

Date & Time Collected 12/05/92 Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	134	mg/L	2
Tot. Dissolved Solids	160.1	207	mg/L	5

FORM I

NV 7/15/93 JK

9613490.2481

000027

Received: 12/08/92

TMA Inc.

REPORT

Work Order # A2-12-030

Results by Sample

SAMPLE ID B07QW4

FRACTION 03F

TEST CODE UCCLPL

NAME Anions & Wet Chem. - WND43

Date & Time Collected 12/05/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
<u>ANALYSIS</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>LIMIT</u>
Sulfide	376.1	<1	mg/L	1

FORM 1

NV 7/15/93 TK

9613490.2482

000028

TNA Inc.

REPORT

Work Order # A2-12-030

Received: 12/08/92

Results by Sample

SAMPLE ID B07Q4

FRACTION Q3H

TEST CODE WCCLPL

NAME Anions & Vet Chem. - W043

Date & Time Collected 12/05/92

Category _____

ANIONS AND VET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	<0.05	mg/L	0.05
COD	410.0	<5	mg/L	5

FORM 1

NV 7/15/93 JK

9613490.2483

000029

TMA Inc.

REPORT

Work Order # A2-12-030

Received: 12/08/92

Results by Sample

SAMPLE ID 8079P4

FRACTION 04B

TEST CODE VCCLPL

NAME Anions & Wet Chem. - W043

Date & Time Collected 12/06/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	5.7	mg/L	0.2
Fluoride	300.0	0.4	mg/L	0.1
Phosphate	300.0	<0.4	mg/L	0.4
pH	150.1	7.9	pH	0.1
Sulfate	300.0	20	mg/L	1
Elect. Conductivity	120.1	290	umho/cm	6

FORM 1

NV 7/15/93 J/K

9613490.2484

000030

TMA Inc.

REPORT

Work Order # A2-12-030

Received: 12/08/92

Results by Sample

SAMPLE ID B07QP4

FRACTION 04C

TEST CODE VCCLPL

NAME Anions & Wet Chem. - V1043

Date & Time Collected 12/06/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	120	mg/L	2
Tot. Dissolved Solids	160.1	206	mg/L	5

FORM 1

NU 7/15/93 JK

9613490.2485

000031

TRA Inc.

REPORT

Work Order # A2-12-030

Received: 12/08/92

Results by Sample

SAMPLE ID B079P4

FRACTION 04D

TEST CODE WCCLPL

NAME Anions & Wet Chem. - VN043

Date & Time Collected 12/06/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
<u>ANALYSIS</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>LIMIT</u>
Sulfide	376.1	<1	mg/L	1

FORM 1

NV 7/15/93 JIC

9613490.2486

000032

TNA Inc.

REPORT

Work Order # A2-12-030

Received: 12/08/92

Results by Sample

SAMPLE ID B97QP4

FRACTION 04E

TEST CODE VCCLPL

NAME Anions & Vet Chem. - VN043

Date & Time Collected 12/06/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	<0.05	mg/L	0.05
COD	410.0	<5	mg/L	5

FORM 1

NV 7/15/93 JK

9613490.2487

TNA Inc.

REPORT

Work Order # A2-12-030 **000033**

Received: 12/08/92

Results by Sample

SAMPLE ID B079T4

FRACTION 05B

TEST CODE MCCLPL

NAME Anions & Wet Chem. - W043

Date & Time Collected 12/05/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	5.0	mg/L	0.2
Fluoride	300.0	0.4	mg/L	0.1
Phosphate	300.0	<0.4	mg/L	0.4
pH	150.1	8.0	pH	0.1
Sulfate	300.0	21	mg/L	1
Elect. Conductivity	120.1	292	umho/cm	6

FORM I

NV 7/15/93 DJC

9613490.2488

000034

TMA Inc.

REPORT

Work Order # A2-12-030

Received: 12/08/92

Results by Sample

SAMPLE ID B079T4

FRACTION 05C

TEST CODE WCCLPL

NAME Anions & Wet Chem. - UN043

Date & Time Collected 12/05/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	114	mg/L	2
Tot. Dissolved Solids	160.1	200	mg/L	5

FORM 1

NV 7/15/93 JK

9613490.2489

000035

TMA Inc.

REPORT

Work Order # A2-12-030

Received: 12/08/92

Results by Sample

SAMPLE ID W079T4

FRACTION 05D

TEST CODE WCLPL

NAME Anions & Vet Chem. - VN043

Date & Time Collected 12/05/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
<u>ANALYSIS</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>LIMIT</u>
Sulfide	376.1	<1	mg/L	1

FORM I

NV 2/15/93 JTC

9613490.2490

000036

TNA Inc.

REPORT

Work Order # A2-12-030

Received: 12/08/92

Results by Sample

SAMPLE ID B07QT4

FRACTION 05E

TEST CODE WCCLPL

NAME Anions & Wet Chem. - VM043

Date & Time Collected 12/05/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	<0.05	mg/L	0.05
COD	410.0	<5	mg/L	5

FORM I

NV 7/15/93 JC

9613490.2491

000037

TMA Inc.

REPORT

Work Order # A2-12-030

Received: 12/08/92

Results by Sample

SAMPLE ID B07QV4

FRACTION 06B

TEST CODE WCCLPL

NAME Anions & Wet Chem. - VN043

Date & Time Collected 12/06/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	6.2	mg/L	0.2
Fluoride	300.0	0.4	mg/L	0.1
Phosphate	300.0	<0.4	mg/L	0.4
pH	150.1	8.0	pH	0.1
Sulfate	300.0	47	mg/L	1
Elect. Conductivity	120.1	340	umho/cm	6

FORM 1

NV 7/15/93 JK

9613490.2492

000038

Received: 12/08/92 TMA Inc. REPORT Work Order # A2-12-030
 Results by Sample

SAMPLE ID W07QV4 FRACTION 06C TEST CODE WCCLPL NAME Anions & Wet Chem. - VN043
 Date & Time Collected 12/06/92 Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	114	mg/L	2
Tot. Dissolved Solids	160.1	230	mg/L	5

FORM 1

NV 7/15/93 JTK

9613490.2493

000039

TNA Inc.

REPORT

Work Order # A2-12-030

Received: 12/08/92

Results by Sample

SAMPLE ID 070V4

FRACTION 060

TEST CODE WCCLPL

NAME Anions & Wet Chem. - V8043

Date & Time Collected 12/06/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Sulfide	376.1	<1	mg/L	1

FORM 1

NV 7/15/93 DK

9613490.2494

000040

TNA Inc.

REPORT

Work Order # A2-12-030

Received: 12/08/92

Results by Sample

SAMPLE ID 9979V4

FRACTION Q6E

TEST CODE WCCLPL

NAME Anions & Wet Chem. - VN043

Date & Time Collected 12/06/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	<0.05	mg/L	0.05
COD	410.0	<5	mg/L	5

FORM 1

NV 7/15/93 JIC

9613490.2495

000041

TNA Inc.

REPORT

Work Order # A2-12-030

Received: 12/08/92

Results by Sample

SAMPLE ID B07QV9

FRACTION 07B TEST CODE WCCLPL NAME Anions & Wet Chem. - VN043

Date & Time Collected 12/05/92 Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	7.3	mg/L	0.2
Fluoride	300.0	0.4	mg/L	0.1
Phosphate	300.0	<0.4	mg/L	0.4
pH	150.1	8.1	pH	0.1
Sulfate	300.0	57	mg/L	1
Elect. Conductivity	120.1	364	umho/cm	6

FORM 1

NV 7/15/93 JK

9613490.2496

000042

TMA Inc.

REPORT

Work Order # A2-12-030

Received: 12/08/92

Results by Sample

SAMPLE ID B07QV9

FRACTION 07C

TEST CODE UCCLPL

NAME Anions & Vet Chem. - W043

Date & Time Collected 12/05/92

Category _____

ANIONS AND VET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	114	mg/L	2
Tot. Dissolved Solids	160.1	254	mg/L	5

FORM I

NV 7/15/93 JK

9613490.2497

000043

TMA Inc.

REPORT

Work Order # A2-12-030

Received: 12/08/92

Results by Sample

SAMPLE ID B07QV9

FRACTION 07D

TEST CODE UCCBPL

NAME Anions & Vet Chem. - VM043

Date & Time Collected 12/05/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
<u>ANALYSIS</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>LIMIT</u>
Sulfide	376.1	<1	mg/L	1

FORM I

NV 7/15/93 JTK

9613490.2498

000044

TNA Inc.

REPORT

Work Order # A2-12-030

Received: 12/08/92

Results by Sample

SAMPLE ID B07QV9

FRACTION 07E

TEST CODE WCCLPL

NAME Anions & Vet Chem. - UN043

Date & Time Collected 12/05/92

Category _____

ANIONS AND VET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	<0.05	mg/L	0.05
COD	410.0	<5	mg/L	30

FORM 1

NV 7/13/93 JK

9613490.2499

000045

Received: 12/08/92

TMA Inc.

REPORT

Work Order # A2-12-030

Results by Sample

SAMPLE ID B070V9

FRACTION 008B

TEST CODE VCCLPL

NAME Anions & Wet Chem. - VN043

Date & Time Collected 12/05/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	7.3	mg/L	0.2
Fluoride	300.0	0.4	mg/L	0.1
Phosphate	300.0	<0.4	mg/L	0.4
pH	150.1	8.2	pH	0.1
Sulfate	300.0	56	mg/L	1
Elect. Conductivity	120.1	375	umho/cm	6

FORM 1

NU 7/15/93 JK

9613490.2500

045394 2072
000046

TNA Inc.

REPORT

Work Order # A2-12-030

Received: 12/08/92

Results by Sample

SAMPLE ID 8070V9

FRACTION 08C

TEST CODE WCCLPL

NAME Anions & Wet Chem. - VN043

Date & Time Collected 12/05/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	114	mg/L	2
Tot. Dissolved Solids	160.1	254	mg/L	5

FORM 1

NV 7/15/93 JK

9613490.2501

000047

Received: 12/08/92

TNA Inc.

REPORT

Work Order # A2-12-030

Results by Sample

SAMPLE ID B07QW9

FRACTION 080

TEST CODE WCCLPL

NAME Anions & Wet Chem. - W043

Date & Time Collected 12/05/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Sulfide	376.1	<1	mg/L	1

FORM 1

NU 7/15/93 JK

9613490.2502

000048

TMA Inc.

REPORT

Work Order # A2-12-030

Received: 12/08/92

Results by Sample

SAMPLE ID B07QW9

FRACTION 08E

TEST CODE WCCLPL

NAME Anions & Wet Chem. - UN043

Date & Time Collected 12/05/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
<u>ANALYSIS</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>LIMIT</u>
Ammonia Nitrogen	350.3	<0.05	mg/L	0.05
COD	410.0	<5	mg/L	30

FORM 1

NV 7/15/93 JK

9613490.2503

000012

Page 3
Received: 12/09/92

TNA Inc. REPORT
Results by Sample

Work Order # A2-12-031

SAMPLE ID B079K9 FRACTION 01E TEST CODE VCCLPL NAME Anions & Vet Chem. - VN043
Date & Time Collected 12/07/92 Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	19.7	mg/L	0.2
Fluoride	300.0	<0.1	mg/L	0.1
Phosphate	300.0	<0.4	mg/L	0.4
pH	150.1	8.0	pH	0.1
Sulfate	300.0	55	mg/L	1
Elect. Conductivity	120.1	429	umho/cm	6

FORM I

NV 7/15/93 JK

9613490.2504

000013

Received: 12/09/92

TNA Inc.

REPORT

Work Order # A2-12-031

Results by Sample

SAMPLE ID B079K9

FRACTION 01G

TEST CODE WCCLPL

NAME Anions & Wet Chem. - VN043

Date & Time Collected 12/07/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	46	mg/L	2
Tot. Dissolved Solids	160.1	326	mg/L	5

FORM 1

NU 7/15/93 JK

9613490.2505

000014

TMA Inc.

REPORT

Work Order # A2-12-031

Received: 12/09/92

Results by Sample

SAMPLE ID B07QK9

FRACTION 011

TEST CODE WCCLPL

NAME Anions & Vet Chem. - UN043

Date & Time Collected 12/07/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
<u>ANALYSIS</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>LIMIT</u>
Sulfide	376.1	<1	mg/L	1

FORM 1

NV 7/15/93 JK

9613490.2506

000015

Page 9
Received: 12/09/92

TNA Inc. REPORT
Results by Sample

Work Order # A2-12-031

SAMPLE ID B079K9 FRACTION 01K TEST CODE VCCLPL NAME Anions & Wet Chem. - W043
Date & Time Collected 12/07/92 Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	<0.05	mg/L	0.05
COD	410.0	<5	mg/L	5

FORM 1

NV 7/15/93 JTC

9613490.2507

TMA Inc.

REPORT

Work Order # **000016**

Received: 12/09/92

Results by Sample

SAMPLE ID 8070L4

FRACTION 03E

TEST CODE VCCLPL

NAME Anions & Wet Chem. - W043

Date & Time Collected 12/07/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
<u>ANALYSIS</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>LIMIT</u>
Chloride	300.0	4.3	mg/L	0.2
Fluoride	300.0	<0.1	mg/L	0.1
Phosphate	300.0	<0.4	mg/L	0.4
pH	150.1	8.1	pH	0.1
Sulfate	300.0	49	mg/L	1
Elect. Conductivity	120.1	300	umho/cm	6

FORM 1

NV 7/15/93 JK

9613490.2508

000017

TMA Inc.

REPORT

Work Order # A2-12-031

Received: 12/09/92

Results by Sample

SAMPLE ID B07QL4

FRACTION 036

TEST CODE WCCLPL

NAME Anions & Vet Chem. - VN043

Date & Time Collected 12/07/92

Category _____

ANIONS AND VET CHEMISTRY - LIQUIDS				
<u>ANALYSIS</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>LIMIT</u>
Alkalinity	310.1	86	mg/L	2
Tot. Dissolved Solids	160.1	211	mg/L	5

FORM 1

NV 7/15/93 JK

9613490.2509

TNA Inc.

REPORT

Work Order # A2-12-031 **000018**

Received: 12/09/92

Results by Sample

SAMPLE ID B07QL4

FRACTION Q3H

TEST CODE WCCLPL

NAME Anions & Met Chem. - W043

Date & Time Collected 12/07/92

Category _____

ANIONS AND MET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Sulfide	376.1	<1	mg/L	1

FORM 1

NU 7/15/93 JK

9613490.2510

000019

Received: 12/09/92

TNA Inc.

REPORT

Work Order # A2-12-031

Results by Sample

SAMPLE ID B079L4

FRACTION 031

TEST CODE WCCLPL

NAME Anions & Vet Chem. - VN043

Date & Time Collected 12/07/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	<0.05	mg/L	0.05
COD	410.0	<5	mg/L	5

FORM 1

NV 7/13/93 DK

9613490.2511

TMA Inc.

REPORT

Work Order # A2000020

Received: 12/09/92

Results by Sample

SAMPLE ID B07QM4

FRACTION 05C

TEST CODE MCCLPL

NAME Anions & Vet Chem. - VN043

Date & Time Collected 12/07/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
<u>ANALYSIS</u>	<u>METHOD</u>	<u>RESULT</u>	<u>UNITS</u>	<u>LIMIT</u>
Chloride	300.0	6.0	mg/L	0.2
Fluoride	300.0	<0.1	mg/L	0.1
Phosphate	300.0	<0.4	mg/L	0.4
pH	150.1	8.1	pH	0.1
Sulfate	300.0	54	mg/L	1
Elect. Conductivity	120.1	315	umho/cm	6

FORM 1

NV 7/15/93 JTK

9613490.2512

000021

TNA Inc.

REPORT

Work Order # A2-12-031

Received: 12/09/92

Results by Sample

SAMPLE ID B079M4

FRACTION Q5D

TEST CODE WCCLPL

NAME Anions & Wet Chem. - VN043

Date & Time Collected 12/07/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	87	mg/L	2
Tot. Dissolved Solids	160.1	213	mg/L	5

FORM I

NV 7/15/93 JIK

9613490.2513

000022

TNA Inc.

REPORT

Work Order # A2-12-031

Received: 12/09/92

Results by Sample

SAMPLE ID B07QW4

FRACTION 05E

TEST CODE WCCLPL

NAME Anions & Met Chem. - W043

Date & Time Collected 12/07/92

Category _____

ANIONS AND MET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Sulfide	376.1	<1	mg/L	1

FORM 1

NV 7/15/93 JK

9613490.2514

000023

Page 21
Received: 12/09/92

TMA Inc. REPORT
Results by Sample

Work Order # A2-12-031

SAMPLE ID B07QK6 FRACTION 05F TEST CODE VCCLPL NAME Anions & Vet Chem. - V043
Date & Time Collected 12/07/92 Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	<0.05	mg/L	0.05
COD	410.0	<5	mg/L	5

FORM 1

NV 7/15/93 JLC

9613490.2515

000024

TNA Inc.

REPORT

Work Order # A2-12-031

Received: 12/09/92

Results by Sample

SAMPLE ID 9079X4

FRACTION 07C

TEST CODE WCCLPL

NAME Anions & Wet Chem. - W043

Date & Time Collected 12/07/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Chloride	300.0	6.1	mg/L	0.2
Fluoride	300.0	0.2	mg/L	0.1
Phosphate	300.0	<0.4	mg/L	0.4
pH	150.1	8.1	pH	0.1
Sulfate	300.0	55	mg/L	1
Elect. Conductivity	120.1	316	umho/cm	6

FORM I

NV 7/15/93 JK

9613490.2516

000025

TMA Inc.

REPORT

Work Order # A2-12-031

Received: 12/09/92

Results by Sample

SAMPLE ID B07QX4

FRACTION 07D

TEST CODE VCCLPL

NAME Anions & Wet Chem. - UN043

Date & Time Collected 12/07/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Alkalinity	310.1	87	mg/L	2
Tot. Dissolved Solids	160.1	214	mg/L	5

FORM I

NU 7/15/93 JK

9613490.2517

000026

Received: 12/09/92

TNA Inc.

REPORT

Work Order # A2-12-031

Results by Sample

SAMPLE ID 8079X4

FRACTION 07E

TEST CODE WCCLPL

NAME Anions & Wet Chem. - W043

Date & Time Collected 12/07/92

Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Sulfide	376.1	<1	mg/L	1

FORM I

NV 7/15/93 JK

9613490.2518

000027

Page 25
Received: 12/09/92

TMA Inc. REPORT
Results by Sample

Work Order # A2-12-031

SAMPLE ID B079X4 FRACTION 07F TEST CODE WCCLPL NAME Anions & Wet Chem. - VH043
Date & Time Collected 12/07/92 Category _____

ANIONS AND WET CHEMISTRY - LIQUIDS				
ANALYSIS	METHOD	RESULT	UNITS	LIMIT
Ammonia Nitrogen	350.3	<0.05	mg/L	0.05
COD	410.0	<5	mg/L	5

FORM 1

NV 7/15/93 OK

Received: 12/10/92

Results by Sample

SAMPLE ID <u>B070K4</u>	SAMPLE # <u>01</u> FRACTIONS: <u>A</u>
	Date & Time Collected <u>12/05/92</u> Category <u>WATER</u>
NO3NO2 <u>5.36</u>	
mg N/L	

SAMPLE ID <u>B070L9</u>	SAMPLE # <u>02</u> FRACTIONS: <u>A</u>
	Date & Time Collected <u>12/06/92</u> Category <u>WATER</u>
NO3NO2 <u>3.31</u>	
mg N/L	

SAMPLE ID <u>B070M4</u>	SAMPLE # <u>03</u> FRACTIONS: <u>A</u>
	Date & Time Collected <u>12/05/92</u> Category <u>WATER</u>
NO3NO2 <u>1.48</u>	
mg N/L	

SAMPLE ID <u>B070P4</u>	SAMPLE # <u>04</u> FRACTIONS: <u>A</u>
	Date & Time Collected <u>12/06/92</u> Category <u>WATER</u>
NO3NO2 <u>1.85</u>	
mg N/L	

SAMPLE ID <u>B070T4</u>	SAMPLE # <u>05</u> FRACTIONS: <u>A</u>
	Date & Time Collected <u>12/05/92</u> Category <u>WATER</u>
NO3NO2 <u>3.01</u>	
mg N/L	

SAMPLE ID <u>B070V4</u>	SAMPLE # <u>06</u> FRACTIONS: <u>A</u>
	Date & Time Collected <u>12/06/92</u> Category <u>WATER</u>
NO3NO2 <u>2.00</u>	
mg N/L	

SAMPLE ID <u>B070V9</u>	SAMPLE # <u>07</u> FRACTIONS: <u>A</u>
	Date & Time Collected <u>12/05/92</u> Category <u>WATER</u>
NO3NO2 <u>3.05</u>	
mg N/L	

NV 7/15/93
JK

Received: 12/10/92

Results by Sample

SAMPLE ID <u>B07QW9</u>	SAMPLE # <u>08</u> FRACTIONS: <u>A</u>
	Date & Time Collected <u>12/05/92</u> Category <u>WATER</u>
NO3NO2 <u>3.05</u>	
mg N/L	

SAMPLE ID <u>B07QK9</u>	SAMPLE # <u>09</u> FRACTIONS: <u>A</u>
	Date & Time Collected <u>12/07/92</u> Category <u>WATER</u>
NO3NO2 <u>22.0</u>	
mg N/L	

SAMPLE ID <u>B07QL4</u>	SAMPLE # <u>10</u> FRACTIONS: <u>A</u>
	Date & Time Collected <u>12/07/92</u> Category <u>WATER</u>
NO3NO2 <u>2.95</u>	
mg N/L	

SAMPLE ID <u>B07QM4</u>	SAMPLE # <u>11</u> FRACTIONS: <u>A</u>
	Date & Time Collected <u>12/07/92</u> Category <u>WATER</u>
NO3NO2 <u>2.43</u>	
mg N/L	

SAMPLE ID <u>B07QX4</u>	SAMPLE # <u>12</u> FRACTIONS: <u>A</u>
	Date & Time Collected <u>12/07/92</u> Category <u>WATER</u>
NO3NO2 <u>2.49</u>	
mg N/L	

SAMPLE ID <u>B07QX4</u> DUPL	SAMPLE # <u>12</u> FRACTIONS: <u>B</u>
	Date & Time Collected <u>12/07/92</u> Category <u>WATER</u>
NO3NO2 <u>2.48</u>	
mg N/L	

SAMPLE ID <u>B07QX4</u> SPIKE	SAMPLE # <u>12</u> FRACTIONS: <u>C</u>
	Date & Time Collected <u>12/07/92</u> Category <u>WATER</u>
NO3NO2 <u>4.38</u>	
mg N/L	

NOV 7/15/93
DK



Thermo Analytical Inc.

Skinner & Sherman Laboratories Inc.

This report is rendered upon all of the following conditions: Skinner & Sherman Laboratories, Inc. retains ownership of this report until associated submitted invoice is in full. Expert witness services shall be available in conjunction with this report only if prior notification of this potential requirement was made and accepted, before the analysis. Skinner & Sherman will be responsible for Skinner & Sherman costs and consulting fees if our services are required by subpoena or otherwise in legal proceedings. Total liability is limited to the amount of the fee. The results listed refer only to tested samples and applicable parameters. Product endorsement is neither inferred nor implied. Skinner & Sherman Laboratories, Inc. exercises due diligence but will not be responsible for lost or destroyed samples or evidence unless client makes appropriate insurance coverage arrangements. Samples are to be returned within thirty days following issuance of report. Samples will be stored at client's expense, if authorized in writing.

300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200

Received: 12/10/92

Results by Sample

SAMPLE ID <u>LCSM</u>	SAMPLE # <u>13</u> FRACTIONS: <u>A</u>
	Date & Time Collected <u>not specified</u> Category <u>WATER</u>
NO3NO2 <u>2.02</u>	
mg N/L	

NV 7/15/93
OK

TMA
Thermo Analytical Inc.

This report is rendered upon all of the following conditions: Skinner & Sherman Laboratories, Inc. retains ownership of this report until associated submitted invoice is paid. Expert witness services shall be available in conjunction with this report only if prior notification of this potential requirement was made and accepted, before the analysis. Skinner & Sherman will be responsible for Skinner & Sherman costs and consulting fees if our services are required by subpoena or otherwise in legal proceedings. Total liability is limited to the amount. The results listed refer only to tested samples and applicable parameters. Product endorsement is neither inferred nor implied. Skinner & Sherman Laboratories, Inc. exercise due diligence but will not be responsible for lost or destroyed samples or evidence unless client makes appropriate insurance coverage arrangements. Samples are to be stored for thirty days following issuance of report. Samples will be stored at client's expense, if authorized in writing.

Skinner & Sherman Laboratories Inc.

300 Second Avenue, P.O. Box 521, Waltham, Massachusetts 02254-0521 (617) 890-7200
1-800-41-AR-TEST FAX (617) 890-3883

9613490.2522

TMA NORCAL
REPORTING GROUP 7134

N212057-01

B07QK4

DATA SHEET

SDG 7134
Contact Dinkar KharkarClient Westinghouse Hanford
Contract MBH-SVV-069262Lab sample id N212057-01
Dept sample id 7134-001
Received 12/08/92Client sample id B07QK4
Matrix WATER
Collected 12/05/92
Chain of custody id EFL-1048

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI- FIERS	TEST
Gross Alpha	Alpha	1.3	1.9	3	3	U	80A
Gross Beta	Beta	6.2	1.4	2	4	U	80B
Uranium 233/234		1.5	0.28	0.07	0.2	U	U
Uranium 235	15117-96-1	0.15	0.094	0.09	0.2	J	U
Uranium 238	7440-61-1	0.97	0.21	0.09	0.2	U	U
Plutonium 238	13981-16-3	-0.004	0.012	0.03	0.05	U	PU
Plutonium 239/240		0.012	0.012	0.02	0.05	U	PU
Americium 241	14596-10-2	-0.005	0.021	0.04	0.05	U	AM
Strontium 90	10098-97-2	0	1.1	0.8	2	U	Y
Technetium 99	14133-76-7	0.63	0.46	0.9	5	U	TC
Tritium	10028-17-8	1600	170	200	400		H
Carbon 14	14762-75-5	280	28	40	50		C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		100		U	GAM
Iron 59		U		40	30	U	GAM
Chromium 51	14392-02-0	U		300		U	GAM
Cobalt 60	10198-40-0	U		10	30	U	GAM
Zinc 65	17982-39-3	U		30		U	GAM
Ruthenium 106	13967-48-1	U		90		U	GAM
Cesium 134	17967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		9	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		10	40	U	GAM
Radium 226	13982-67-7	U		20		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		40		U	GAM

RB 6/15/93

9613490.2523

TMA NORCAL
REPORTING GROUP 7134

N212057-09

DATA SHEET

B07QK9

SDG 7134
Contact Dinkar KharkarClient Westinghouse Hanford
Contract MBH-SVV-069262Lab sample id N212057-09
Dept sample id 7134-009
Received 12/09/92Client sample id B07QK9
Matrix WATER
Collected 12/07/92
Chain of custody id EFL-1049

PARAMETER	CAS NO	RESULT pCi/L	2 σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI- FIERS	TEST
Gross Alpha	Alpha	0.42	1.1	2	3	U	80A
Gross Beta	Beta	4.1	0.93	1	4	U	80B
Uranium 233/234		0.20	0.11	0.1	0.2	U	U
Uranium 235	15117-96-1	0	0.032	0.1	0.2	U	U
Uranium 238	7440-61-1	0.079	0.053	0.1	0.2	U	U
Plutonium 238	13981-16-3	0.005	0.014	0.03	0.05	U	PU
Plutonium 239/240		-0.005	0.007	0.02	0.05	U	PU
Americium 241	14596-10-2	0.005	0.020	0.04	0.05	U	AM
Strontium 90	10098-97-2	-0.47	1.9	0.9	2	U	Y
Technetium 99	14133-76-7	2.2	1.4	3	5	U	TC
Tritium	10028-17-8	13000	430	200	400	U	H
Carbon 14	14762-75-5	-37	26	40	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		200		U	GAM
Iron 59		U		60	30	U	GAM
Chromium 51	14392-02-0	U		400		U	GAM
Cobalt 60	10198-40-0	U		20	30	U	GAM
Zinc 65	17982-39-3	U		30		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		10	40	U	GAM
Radium 226	13982-67-7	U		20		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		40		U	GAM

RB 6/15/93

9613490.2524

TMA NORCAL
REPORTING GROUP 7134

N212057-10

B07QL4

DATA SHEET

SDG 7134
Contact Dinkar KharkarClient Westinghouse Hanford
Contract MBH-SVV-069262Lab sample id N212057-10
Dept sample id 7134-010
Received 12/09/92Client sample id B07QL4
Matrix WATER
Collected 12/07/92
Chain of custody id EFL-1048

PARAMETER	CAS NO	RESULT pCi/L	2 σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI- FIERS	TEST
Gross Alpha	Alpha	1.0	1.7	2	3	U	80A
Gross Beta	Beta	27	2.2	2	4	U	80B
Uranium 233/234		0.72	0.24	0.1	0.2	U	U
Uranium 235	15117-96-1	0.038	0.039	0.1	0.2	U	U
Uranium 238	7440-61-1	0.75	0.24	0.1	0.2	U	U
Plutonium 238	13981-16-3	0.006	0.020	0.04	0.05	U	PU
Plutonium 239/240		-0.004	0.004	0.02	0.05	U	PU
Americium 241	14596-10-2	0.014	0.018	0.03	0.05	U	AM
Strontium 90	10098-97-2	12	0.86	0.9	2	U	Y
Technetium 99	14133-76-7	0.61	0.99	3	5	U	TC
Tritium	10028-17-8	630	150	200	400	U	H
Carbon 14	14762-75-5	27	39	60	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		100		U	GAM
Iron 59		U		70	30	U	GAM
Chromium 51	14392-02-0	U		400		U	GAM
Cobalt 60	10198-40-0	U		20	30	U	GAM
Zinc 65	17982-39-3	U		30		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		20	40	U	GAM
Radium 226	13982-67-7	U		20		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		50		U	GAM

RB 6/15/93

9613490.2525

TMA NORCAL
REPORTING GROUP 7134

N212057-02

B07QL9

DATA SHEET

SDG 7134
Contact Dinkar KharkarClient Westinghouse Hanford
Contract MBH-SVV-069262Lab sample id N212057-02
Dept sample id 7134-002
Received 12/08/92Client sample id B07QL9
Matrix WATER
Collected 12/06/92
Chain of custody id EFL-1049

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI- FIERS	TEST
Gross Alpha	Alpha	<u>-1.6</u>	0.98	2	3	U	80A
Gross Beta	Beta	54	3.1	2	4		80B
Uranium 233/234		0.41	0.17	0.1	0.2	<i>KJ</i>	U
Uranium 235	15117-96-1	0.017	0.033	0.1	0.2	U	U
Uranium 238	7440-61-1	0.40	0.14	0.1	0.2		U
Plutonium 238	13981-16-3	-0.010	0.042	<u>0.09</u>	0.05	U	PU
Plutonium 239/240		0.026	0.031	<u>0.06</u>	0.05	U	PU
Americium 241	14596-10-2	0.032	0.048	<u>0.09</u>	0.05	<i>FR</i>	AM
Strontium 90	10098-97-2	33	1.7	0.8	2		Y
Technetium 99	14133-76-7	1.0	0.42	0.8	5	J	TC
Tritium	10028-17-8	930	160	200	400		H
Carbon 14	14762-75-5	<u>-44</u>	30	50	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		200		U	GAM
Iron 59		U		<u>50</u>	30	U	GAM
Chromium 51	14392-02-0	U		300		U	GAM
Cobalt 60	10198-40-0	U		10	30	U	GAM
Zinc 65	17982-39-3	U		30		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		10	40	U	GAM
Radium 226	13982-67-7	U		20		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		50		U	GAM

RB 6/15/93

9613490.2526

TMA NORCAL
REPORTING GROUP 7134

N212057-11

B07QM4

DATA SHEET

SDG 7134
Contact Dinkar KharkarClient Westinghouse Hanford
Contract MBH-SVV-069262Lab sample id N212057-11
Dept sample id 7134-011
Received 12/09/92Client sample id B07QM4
Matrix WATER
Collected 12/07/92
Chain of custody id EFL-1049

PARAMETER	CAS NO	RESULT pCi/L	2 σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI- FIERS	TEST
Gross Alpha	Alpha	-0.028	1.7	3	3	U	80A
Gross Beta	Beta	17	1.9	2	4		80B
Uranium 233/234		0.71	0.25	0.2	0.2	J	U
Uranium 235	15117-96-1	0.095	0.096	0.2	0.2	U	U
Uranium 238	7440-61-1	0.43	0.21	0.2	0.2		U
Plutonium 238	13981-16-3	0.027	0.045	0.07	0.05	U	PU
Plutonium 239/240		-0.004	0.018	0.04	0.05	U	PU
Americium 241	14596-10-2	-0.012	0.009	0.03	0.05	U	AM
Strontium 90	10098-97-2	6.4	1.2	0.8	2		Y
Technetium 99	14133-76-7	2.1	1.3	3	5	U	TC
Tritium	10028-17-8	660	150	200	400		H
Carbon 14	14762-75-5	-46	26	40	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		200		U	GAM
Iron 59		U		60	30	U	GAM
Chromium 51	14392-02-0	U		400		U	GAM
Cobalt 60	10198-40-0	U		10	30	U	GAM
Zinc 65	17982-39-3	U		30		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		20	40	U	GAM
Radium 226	13982-67-7	U		30		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		50		U	GAM

RB 6/15/93

9613490.2527

TMA NORCAL
REPORTING GROUP 7134
DATA SHEET

N212057-03

B07QN4

SDG 7134 Client Westinghouse Hanford
 Contact Dinkar Kharkar Contract MBH-SVV-069262
 Lab sample id N212057-03 Client sample id B07QN4
 Dept sample id 7134-003 Matrix WATER
 Received 12/08/92 Collected 12/05/92
 Chain of custody id EFL-1048

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI- FIERS	TEST
Gross Alpha	Alpha	3.0	2.5	3	3		80A
Gross Beta	Beta	35	2.5	2	4		80B
Uranium 233/234		2.0	0.42	0.2	0.2		U
Uranium 235	15117-96-1	0.25	0.14	0.1	0.2		U
Uranium 238	7440-61-1	1.7	0.35	0.1	0.2		U
Plutonium 238	13981-16-3	-0.005	0.021	0.06	0.05	U	PU
Plutonium 239/240		0.021	0.021	0.04	0.05	U	PU
Americium 241	14596-10-2	0.002	0.018	0.03	0.05	U	AM
Strontium 90	10098-97-2	0	1.1	0.8	2	U	Y
Technetium 99	14133-76-7	25	1.1	1	5		TC
Tritium	10028-17-8	55000	800	200	400		H
Carbon 14	14762-75-5	340	35	50	50		C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		100		U	GAM
Iron 59		U		40	30	U	GAM
Chromium 51	14392-02-0	U		300		U	GAM
Cobalt 60	10198-40-0	U		10	30	U	GAM
Zinc 65	17982-39-3	U		20		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		10	40	U	GAM
Radium 226	13982-67-7	U		40		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		40		U	GAM
Antimony 125		63	30				GAM

RB 6/15/93

Lab id TMAN
 Protocol WHC-HEIS
 Version Ver 1.0
 Form DVD-DS
 Version 2.23
 Report date 03/22/93

9613490.2528

TMA NORCAL
REPORTING GROUP 7134

N212057-19

DATA SHEET

B07QN9

SDG 7134
Contact Dinkar KharkarClient Westinghouse Hanford
Contract MBH-SVV-069262Lab sample id N212057-19
Dept sample id 7134-019
Received 12/14/92Client sample id B07QN9
Matrix WATER
Collected 12/10/92
Chain of custody id EFL-1049

PARAMETER	CAS NO	RESULT pCi/L	2 σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI- FIERS	TEST
Gross Alpha	Alpha	0.63	1.7	2	3	U	80A
Gross Beta	Beta	9.4	1.6	2	4		80B
Uranium 233/234		1.5	0.32	0.2	0.2		U
Uranium 235	15117-96-1	0.15	0.092	0.1	0.2	J	U
Uranium 238	7440-61-1	1.2	0.28	0.1	0.2		U
Plutonium 238	13981-16-3	-0.010	0.015	0.04	0.05	U	PU
Plutonium 239/240		-0.003	0.010	0.02	0.05	U	PU
Americium 241	14596-10-2	0	0.023	0.04	0.05	U	AM
Strontium 90	10098-97-2	-0.10	0.81	0.5	2	U	Y
Technetium 99	14133-76-7	0.67	1.2	4	5	U	TC
Tritium	10028-17-8	1500000	30000	100	400		H
Carbon 14	14762-75-5	12000	140	40	50		C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		300		U	GAM
Iron 59		U		60	30	U	GAM
Chromium 51	14392-02-0	U		400		U	GAM
Cobalt 60	10198-40-0	U		20	30	U	GAM
Zinc 65	17982-39-3	U		40		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		20		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		30	40	U	GAM
Europium 154	15585-10-1	U		20	40	U	GAM
Radium 226	13982-67-7	U		30		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		70		U	GAM

RB 6/15/93

9613490.2529

TMA NORCAL
REPORTING GROUP 7134

N212057-04

B07QP4

DATA SHEET

SDG 7134
Contact Dinkar KharkarClient Westinghouse Hanford
Contract MBH-SVV-069262Lab sample id N212057-04
Dept sample id 7134-004
Received 12/08/92Client sample id B07QP4
Matrix WATER
Collected 12/06/92
Chain of custody id EFL-1048

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI- FIERS	TEST
Gross Alpha	Alpha	0.92	1.5	2	3	U	80A
Gross Beta	Beta	4.8	1.3	2	4	U	80B
Uranium 233/234		0.70	0.27	0.2	0.2	U	U
Uranium 235	15117-96-1	0	0.051	0.2	0.2	U	U
Uranium 238	7440-61-1	0.46	0.22	0.2	0.2	U	U
Plutonium 238	13981-16-3	0.021	0.043	0.09	0.05	RR	PU
Plutonium 239/240		0.005	0.011	0.04	0.05	RR	PU
Americium 241	14596-10-2	-0.006	0.011	0.03	0.05	U	AM
Strontium 90	10098-97-2	-0.17	0.30	0.9	2	U	Y
Technetium 99	14133-76-7	4.7	1.4	3	5	J	TC
Tritium	10028-17-8	1900	180	200	400	U	H
Carbon 14	14762-75-5	-7.3	29	50	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		90		U	GAM
Iron 59		U		40	30	U	GAM
Chromium 51	14392-02-0	U		200		U	GAM
Cobalt 60	10198-40-0	U		10	30	U	GAM
Zinc 65	17982-39-3	U		20		U	GAM
Ruthenium 106	13967-48-1	U		70		U	GAM
Cesium 134	17967-70-9	U		8		U	GAM
Cesium 137	10045-97-3	U		8	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		9	40	U	GAM
Radium 226	13982-67-7	U		10		U	GAM
Thorium 228	14274-82-9	U		10		U	GAM
Thorium 232	7440-29-1	U		30		U	GAM

RB 6/15/93

9613490.2530

TMA NORCAL
REPORTING GROUP 7134

N212057-13

B07QR4

DATA SHEET

SDG 7134
Contact Dinkar KharkarClient Westinghouse Hanford
Contract MBH-SVV-069262Lab sample id N212057-13
Dept sample id 7134-013
Received 12/11/92Client sample id B07QR4
Matrix WATER
Collected 12/09/92
Chain of custody id EFL-1049

PARAMETER	CAS NO	RESULT pCi/L	2 σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI- FIERS	TEST
Gross Alpha	Alpha	1.6	2.5	3	3	U	80A
Gross Beta	Beta	74	3.5	2	4		80B
Uranium 233/234		1.7	0.39	0.1	0.2	J	U
Uranium 235	15117-96-1	0.11	0.075	0.1	0.2	J	U
Uranium 238	7440-61-1	1.4	0.35	0.1	0.2		U
Plutonium 238	13981-16-3	0.004	0.008	0.02	0.05	U	PU
Plutonium 239/240		-0.004	0.004	0.02	0.05	U	PU
Americium 241	14596-10-2	-0.005	0.009	0.02	0.05	U	AM
Strontium 90	10098-97-2	36	1.3	0.9	2		Y
Technetium 99	14133-76-7	1.5	1.3	5	5	U	TC
Tritium	10028-17-8	8700	290	200	400		H
Carbon 14	14762-75-5	10000	120	40	50		C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		300		U	GAM
Iron 59		U		80	30	U	GAM
Chromium 51	14392-02-0	U		400		U	GAM
Cobalt 60	10198-40-0	U		10	30	U	GAM
Zinc 65	17982-39-3	U		30		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		20		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		30	40	U	GAM
Europium 154	15585-10-1	U		20	40	U	GAM
Radium 226	13982-67-7	U		30		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		60		U	GAM

RB

6/15/93

9613490.2531

TMA NORCAL
REPORTING GROUP 7134

N212057-14

DATA SHEET

B07QR9

SDG 7134
Contact Dinkar KharkarClient Westinghouse Hanford
Contract MBH-SVV-069262Lab sample id N212057-14
Dept sample id 7134-014
Received 12/11/92Client sample id B07QR9
Matrix WATER
Collected 12/09/92
Chain of custody id EFL-1049

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI- FIERS	TEST
Gross Alpha	Alpha	-0.72	1.2	2	3	U	80A
Gross Beta	Beta	6.2	1.6	2	4	U	80B
Uranium 233/234		0.90	0.23	0.1	0.2	J	U
Uranium 235	15117-96-1	0.11	0.096	0.1	0.2	U	U
Uranium 238	7440-61-1	0.75	0.23	0.1	0.2	U	U
Plutonium 238	13981-16-3	0.009	0.014	0.02	0.05	U	PU
Plutonium 239/240		0	0.009	0.02	0.05	U	PU
Americium 241	14596-10-2	0.010	0.019	0.04	0.05	U	AM
Strontium 90	10098-97-2	0.042	0.90	0.5	2	U	Y
Technetium 99	14133-76-7	1.9	1.1	3	5	U	TC
Tritium	10028-17-8	2400	190	200	400	U	H
Carbon 14	14762-75-5	-25	33	60	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		200		U	GAM
Iron 59		U		50	30	U	GAM
Chromium 51	14392-02-0	U		400		U	GAM
Cobalt 60	10198-40-0	U		10	30	U	GAM
Zinc 65	17982-39-3	U		30		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		20	40	U	GAM
Radium 226	13982-67-7	U		20		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		50		U	GAM

RB 6/15/93

9613490.2532

TMA NORCAL
REPORTING GROUP 7134

DATA SHEET

N212057-15

B07Q54

SDG 7134
Contact Dinkar Kharkar

Client Westinghouse Hanford
Contract MBH-SVV-069262

Lab sample id N212057-15
Dept sample id 7134-015
Received 12/11/92

Client sample id B07Q54
Matrix WATER
Collected 12/09/92
Chain of custody id EFL-1049

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI- FIERS	TEST
Gross Alpha	Alpha	3.4	1.8	2	3		80A
Gross Beta	Beta	7.1	1.1	1	4		80B
Uranium 233/234		1.8	0.41	0.1	0.2	U	U
Uranium 235	15117-96-1	0.062	0.083	0.2	0.2	U	U
Uranium 238	7440-61-1	1.7	0.40	0.1	0.2	U	U
Plutonium 238	13981-16-3	-0.004	0.008	0.03	0.05	U	PU
Plutonium 239/240		-0.002	0.004	0.02	0.05	U	PU
Americium 241	14596-10-2	-0.008	0.012	0.03	0.05	U	AM
Strontium 90	10098-97-2	-0.11	0.87	0.5	2	U	Y
Technetium 99	14133-76-7	1.2	1.1	3	5	U	TC
Tritium	10028-17-8	2400	190	200	400		H
Carbon 14	14762-75-5	310	37	50	50		C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		100		U	GAM
Iron 59		U		60	30	U	GAM
Chromium 51	14392-02-0	U		300		U	GAM
Cobalt 60	10198-40-0	U		20	30	U	GAM
Zinc 65	17982-39-3	U		30		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		10	40	U	GAM
Radium 226	13982-67-7	U		20		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		40		U	GAM

RB 6/15/93

9613490.2533

TMA NORCAL
REPORTING GROUP 7134

N212057-20

B070S9

DATA SHEET

SDG <u>7134</u>	Client <u>Westinghouse Hanford</u>
Contact <u>Dinkar Kharkar</u>	Contract <u>MBH-SVV-069262</u>
Lab sample id <u>N212057-20</u>	Client sample id <u>B070S9</u>
Dept sample id <u>7134-020</u>	Matrix <u>WATER</u>
Received <u>12/14/92</u>	Collected <u>12/10/92</u>
	Chain of custody id <u>EFL-1049</u>

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALIFIERS	TEST
Gross Alpha	Alpha	0.74	1.4	2	3	U	80A
Gross Beta	Beta	17	2.0	2	4		80B
Uranium 233/234		0.39	0.11	0.06	0.2	<i>RRR</i>	U
Uranium 235	15117-96-1	0.019	0.019	0.07	0.2		U
Uranium 238	7440-61-1	0.32	0.098	0.06	0.2		U
Plutonium 238	13981-16-3	-0.010	0.020	0.05	0.05	U	PU
Plutonium 239/240		-0.003	0.013	0.03	0.05	U	PU
Americium 241	14596-10-2	0.019	0.026	0.04	0.05	U	AM
Strontium 90	10098-97-2	5.6	1.2	0.7	2		Y
Technetium 99	14133-76-7	0.66	1.4	4	5	U	TC
Tritium	10028-17-8	360	130	200	400	J	H
Carbon 14	14762-75-5	-73	39	70	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		200		U	GAM
Iron 59		U		60	30	U	GAM
Chromium 51	14392-02-0	U		400		U	GAM
Cobalt 60	10198-40-0	U		10	30	U	GAM
Zinc 65	17982-39-3	U		30		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		20	40	U	GAM
Radium 226	13982-67-7	U		30		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		40		U	GAM

RB 6/15/93

Lab id <u>TMAN</u>
Protocol <u>WHC-HEIS</u>
Version <u>Ver 1.0</u>
Form <u>DVD-DS</u>
Version <u>2.23</u>
Report date <u>03/22/93</u>

9613490.2534

TMA NORCAL
REPORTING GROUP 7134

N212057-05

B07QT4

DATA SHEET

SDG 7134
Contact Dinkar KharkarClient Westinghouse Hanford
Contract MBH-SVV-069262Lab sample id N212057-05
Dept sample id 7134-005
Received 12/08/92Client sample id B07QT4
Matrix WATER
Collected 12/05/92
Chain of custody id EFL-1049

PARAMETER	CAS NO	RESULT pCi/L	2 σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI- FIERS	TEST
Gross Alpha	Alpha	0.81	1.6	2	3	U	80A
Gross Beta	Beta	42	2.7	2	4		80B
Uranium 233/234		0.67	0.19	0.1	0.2	U	U
Uranium 235	15117-96-1	0	0.031	0.1	0.2	U	U
Uranium 238	7440-61-1	0.43	0.16	0.1	0.2	U	U
Plutonium 238	13981-16-3	-0.013	0.066	0.1	0.05	U	PU
Plutonium 239/240		0.013	0.040	0.09	0.05	U	PU
Americium 241	14596-10-2	-0.008	0.020	0.05	0.05	U	AM
Strontium 90	10098-97-2	0.021	0.20	0.9	2	U	Y
Technetium 99	14133-76-7	86	3.2	3	5	U	TC
Tritium	10028-17-8	2600	290	200	400	U	H
Carbon 14	14762-75-5	-18	22	40	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		200		U	GAM
Iron 59		U		40	30	U	GAM
Chromium 51	14392-02-0	U		300		U	GAM
Cobalt 60	10198-40-0	U		10	30	U	GAM
Zinc 65	17982-39-3	U		20		U	GAM
Ruthenium 106	13967-48-1	U		90		U	GAM
Cesium 134	17967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		9	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		10	40	U	GAM
Radium 226	13982-67-7	U		20		U	GAM
Thorium 228	14274-82-9	U		10		U	GAM
Thorium 232	7440-29-1	U		40		U	GAM

DATA SHEETS

Page 13

SUMMARY DATA SECTION

Page 32

RB
6/15/93Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.23
Report date 03/22/93

9613490.2535

TMA NORCAL
REPORTING GROUP 7134

N212057-06

B07QV4

DATA SHEET

SDG 7134
Contact Dinkar KharkarClient Westinghouse Hanford
Contract MBH-SVV-069262Lab sample id N212057-06
Dept sample id 7134-006
Received 12/08/92Client sample id B07QV4
Matrix WATER
Collected 12/06/92
Chain of custody id EFL-1049

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI- FIERS	TEST
Gross Alpha	Alpha	1.9	2.0	2	3	U	80A
Gross Beta	Beta	5.3	1.5	2	4		80B
Uranium 233/234		1.1	0.28	0.1	0.2	U	U
Uranium 235	15117-96-1	0.10	0.068	0.1	0.2	J	U
Uranium 238	7440-61-1	1.0	0.27	0.1	0.2		U
Plutonium 238	13981-16-3	0.033	0.040	0.06	0.05	U	PU
Plutonium 239/240		0.026	0.027	0.05	0.05	U	PU
Americium 241	14596-10-2	-0.009	0.017	0.04	0.05	U	AM
Strontium 90	10098-97-2	-0.065	0.35	0.7	2	U	Y
Technetium 99	14133-76-7	1.3	0.56	1	5	J	TC
Tritium	10028-17-8	1.5	130	200	400	U	H
Carbon 14	14762-75-5	-47	25	40	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		200		U	GAM
Iron 59		U		40	30	U	GAM
Chromium 51	14392-02-0	U		200		U	GAM
Cobalt 60	10198-40-0	U		8	30	U	GAM
Zinc 65	17982-39-3	U		20		U	GAM
Ruthenium 106	13967-48-1	U		70		U	GAM
Cesium 134	17967-70-9	U		8		U	GAM
Cesium 137	10045-97-3	U		8	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		10	40	U	GAM
Radium 226	13982-67-7	U		20		U	GAM
Thorium 228	14274-82-9	U		10		U	GAM
Thorium 232	7440-29-1	U		30		U	GAM

RB 6/15/93

9613490.2536

TMA NORCAL
REPORTING GROUP 7134

N212057-07

DATA SHEET

B07QV9

SDG 7134
Contact Dinkar KharkarClient Westinghouse Hanford
Contract MBH-SVV-069262Lab sample id N212057-07
Dept sample id 7134-007
Received 12/08/92Client sample id B07QV9
Matrix WATER
Collected 12/05/92
Chain of custody id EFL-1049

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI- FIERS	TEST
Gross Alpha	Alpha	1.6	1.4	2	3	U	80A
Gross Beta	Beta	6.5	1.0	1	4	U	80B
Uranium 233/234		0.54	0.18	0.09	0.2	U	U
Uranium 235	15117-96-1	0.030	0.030	0.1	0.2	U	U
Uranium 238	7440-61-1	0.45	0.15	0.09	0.2	U	U
Plutonium 238	13981-16-3	0	0.037	0.09	0.05	U	PU
Plutonium 239/240		0.012	0.025	0.06	0.05	U	PU
Americium 241	14596-10-2	0.021	0.024	0.04	0.05	U	AM
Strontium 90	10098-97-2	-0.64	1.4	0.9	2	U	Y
Technetium 99	14133-76-7	2.7	0.98	1	5	J	TC
Tritium	10028-17-8	180	140	200	400	U	H
Carbon 14	14762-75-5	-51	28	50	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		100		U	GAM
Iron 59		U		60	30	U	GAM
Chromium 51	14392-02-0	U		400		U	GAM
Cobalt 60	10198-40-0	U		20	30	U	GAM
Zinc 65	17982-39-3	U		30		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		10	40	U	GAM
Radium 226	13982-67-7	U		20		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		50		U	GAM

RB
01/15/93

9613490.2537

TMA NORCAL
REPORTING GROUP 7134

N212057-16

DATA SHEET

B07QW4

SDG 7134
Contact Dinkar KharkarClient Westinghouse Hanford
Contract MBH-SVV-069262Lab sample id N212057-16
Dept sample id 7134-016
Received 12/11/92Client sample id B07QW4
Matrix WATER
Collected 12/08/92
Chain of custody id EFL-1049

PARAMETER	CAS NO	RESULT pCi/L	2 σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI- FIERS	TEST
Gross Alpha	Alpha	1.2	2.3	2	3	U	80A
Gross Beta	Beta	110	4.3	2	4		80B
Uranium 233/234		1.1	0.31	0.1	0.2	U	U
Uranium 235	15117-96-1	0.043	0.043	0.2	0.2	U	U
Uranium 238	7440-61-1	0.67	0.23	0.1	0.2		U
Plutonium 238	13981-16-3	0	0.020	0.05	0.05	U	PU
Plutonium 239/240		0.013	0.013	0.03	0.05	U	PU
Americium 241	14596-10-2	-0.004	0.008	0.02	0.05	U	AM
Strontium 90	10098-97-2	0.13	1.0	0.6	2	U	Y
Technetium 99	14133-76-7	220	7.3	3	5		TC
Tritium	10028-17-8	5900	250	200	400		H
Carbon 14	14762-75-5	-130	55	100	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		200		U	GAM
Iron 59		U		70	30	U	GAM
Chromium 51	14392-02-0	U		400		U	GAM
Cobalt 60	10198-40-0	U		20	30	U	GAM
Zinc 65	17982-39-3	U		30		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		30	40	U	GAM
Europium 154	15585-10-1	U		20	40	U	GAM
Radium 226	13982-67-7	U		20		U	GAM
Thorium 228	14274-82-9	U		40		U	GAM
Thorium 232	7440-29-1	U		60		U	GAM

RB
6/15/93DATA SHEETS
Page 16
SUMMARY DATA SECTION
Page 35Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.23
Report date 03/22/93

9613490.2538

N212057-08

TMA NORCAL
REPORTING GROUP 7134

B07QW9

DATA SHEET

SDG 7134
Contact Dinkar KharkarClient Westinghouse Hanford
Contract MBH-SVV-069262Lab sample id N212057-08
Dept sample id 7134-008
Received 12/08/92Client sample id B07QW9
Matrix WATER
Collected 12/05/92
Chain of custody id EFL-1049

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALIFIERS	TEST
Gross Alpha	Alpha	1.8	1.9	2	3	U	80A
Gross Beta	Beta	6.2	1.5	2	4		80B
Uranium 233/234		0.42	0.17	0.1	0.2	<i>UJ</i>	U
Uranium 235	15117-96-1	0.017	0.034	0.1	0.2	U	U
Uranium 238	7440-61-1	0.41	0.17	0.1	0.2		U
Plutonium 238	13981-16-3	-0.026	0.053	0.1	0.05	<i>UR</i>	PU
Plutonium 239/240		-0.005	0.021	0.05	0.05	<i>UR</i>	PU
Americium 241	14596-10-2	-0.010	0.020	0.04	0.05	U	AM
Strontium 90	10098-97-2	0.061	0.20	0.8	2	U	Y
Technetium 99	14133-76-7	1.8	1.1	3	5	U	TC
Tritium	10028-17-8	150	140	200	400	U	H
Carbon 14	14762-75-5	-62	30	50	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		200		U	GAM
Iron 59		U		70	30	U	GAM
Chromium 51	14392-02-0	U		500		U	GAM
Cobalt 60	10198-40-0	U		20	30	U	GAM
Zinc 65	17982-39-3	U		40		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		30	40	U	GAM
Europium 154	15585-10-1	U		20	40	U	GAM
Radium 226	13982-67-7	U		30		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		70		U	GAM

RB

6/15/93

9613490.2539

TMA NORCAL
REPORTING GROUP 7134

N212057-12

B07QX4

DATA SHEET

SDG 7134
Contact Dinkar KharkarClient Westinghouse Hanford
Contract MBH-SVV-069262Lab sample id N212057-12
Dept sample id 7134-012
Received 12/09/92Client sample id B07QX4
Matrix WATER
Collected 12/07/92
Chain of custody id EFL-1049

PARAMETER	CAS NO	RESULT pCi/L	2 σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI- FIERS	TEST
Gross Alpha	Alpha	0.81	1.4	2	3	U	80A
Gross Beta	Beta	15	1.8	2	4		80B
Uranium 233/234		1.0	0.27	0.1	0.2	U	U
Uranium 235	15117-96-1	0.037	0.073	0.1	0.2	U	U
Uranium 238	7440-61-1	0.77	0.23	0.1	0.2	U	U
Plutonium 238	13981-16-3	-0.004	0.015	0.03	0.05	U	PU
Plutonium 239/240		0.002	0.004	0.01	0.05	U	PU
Americium 241	14596-10-2	-0.005	0.014	0.03	0.05	U	AM
Strontium 90	10098-97-2	5.9	0.47	0.6	2		Y
Technetium 99	14133-76-7	1.6	1.1	3	5	U	TC
Tritium	10028-17-8	540	140	200	400		H
Carbon 14	14762-75-5	-74	37	60	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		100		U	GAM
Iron 59		U		50	30	U	GAM
Chromium 51	14392-02-0	U		400		U	GAM
Cobalt 60	10198-40-0	U		20	30	U	GAM
Zinc 65	17982-39-3	U		30		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		10	40	U	GAM
Radium 226	13982-67-7	U		20		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		50		U	GAM

RB 6/15/93

DATA SHEETS
Page 18
SUMMARY DATA SECTION
Page 37Lab id TMAN
Protocol WHC-HEIS
Version Ver 1.0
Form DVD-DS
Version 2.23
Report date 03/22/93

9613490.2540

TMA NORCAL
REPORTING GROUP 7134

N212057-17

B07QX9

DATA SHEET

SDG 7134
Contact Dinkar KharkarClient Westinghouse Hanford
Contract MBH-SVV-069262Lab sample id N212057-17
Dept sample id 7134-017
Received 12/11/92Client sample id B07QX9
Matrix WATER
Collected 12/09/92
Chain of custody id EFL-1049

PARAMETER	CAS NO	RESULT pCi/L	2 σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI- FIERS	TEST
Gross Alpha	Alpha	-0.18	1.5	3	3	U	80A
Gross Beta	Beta	-0.29	1.0	2	4	U	80B
Uranium 233/234		-0.017	0.034	0.1	0.2	U	U
Uranium 235	15117-96-1	0.062	0.083	0.2	0.2	U	U
Uranium 238	7440-61-1	0	0.034	0.1	0.2	U	U
Plutonium 238	13981-16-3	0.010	0.031	0.06	0.05	U	PU
Plutonium 239/240		0.010	0.021	0.04	0.05	U	PU
Americium 241	14596-10-2	-0.004	0.012	0.03	0.05	U	AM
Strontium 90	10098-97-2	-0.71	1.0	0.6	2	U	Y
Technetium 99	14133-76-7	2.1	1.3	3	5	U	TC
Tritium	10028-17-8	64	130	200	400	U	H
Carbon 14	14762-75-5	-47	25	40	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		100		U	GAM
Iron 59		U		60	30	U	GAM
Chromium 51	14392-02-0	U		400		U	GAM
Cobalt 60	10198-40-0	U		10	30	U	GAM
Zinc 65	17982-39-3	U		30		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		10	40	U	GAM
Radium 226	13982-67-7	U		30		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		50		U	GAM

RB 6/15/93

9613490.2541

TMA NORCAL
REPORTING GROUP 7134

N212057-18

B07029

DATA SHEET

SDG 7134 Client Westinghouse Hanford
 Contact Dinkar Kharkar Contract MBH-SVV-069262

Lab sample id N212057-18 Client sample id B07029
 Dept sample id 7134-018 Matrix WATER
 Received 12/11/92 Collected 12/08/92
 Chain of custody id EFL-1049

PARAMETER	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI- FIERS	TEST
Gross Alpha	Alpha	0.080	1.4	2	3	U	80A
Gross Beta	Beta	19	1.9	2	4	U	80B
Uranium 233/234		1.2	0.28	0.1	0.2	U	U
Uranium 235	15117-96-1	0.016	0.033	0.1	0.2	U	U
Uranium 238	7440-61-1	0.72	0.21	0.1	0.2	U	U
Plutonium 238	13981-16-3	0.016	0.024	0.04	0.05	U	PU
Plutonium 239/240		0	0.008	0.03	0.05	U	PU
Americium 241	14596-10-2	-0.015	0.015	0.05	0.05	U	AM
Strontium 90	10098-97-2	0	0.65	0.6	2	U	Y
Technetium 99	14133-76-7	27	2.4	3	5	U	TC
Tritium	10028-17-8	28000	490	200	400	U	H
Carbon 14	14762-75-5	-65	33	60	50	U	C
GAMMA SCAN ANALYTES							
Potassium 40	13966-00-2	U		100		U	GAM
Iron 59		U		60	30	U	GAM
Chromium 51	14392-02-0	U		400		U	GAM
Cobalt 60	10198-40-0	U		20	30	U	GAM
Zinc 65	17982-39-3	U		30		U	GAM
Ruthenium 106	13967-48-1	U		100		U	GAM
Cesium 134	17967-70-9	U		10		U	GAM
Cesium 137	10045-97-3	U		10	20	U	GAM
Europium 152	14683-23-9	U		20	40	U	GAM
Europium 154	15585-10-1	U		20	40	U	GAM
Radium 226	13982-67-7	U		20		U	GAM
Thorium 228	14274-82-9	U		20		U	GAM
Thorium 232	7440-29-1	U		50		U	GAM

RB
6/15/93

Lab id TMAN
 Protocol WHC-HEIS
 Version Ver 1.0
 Form DVD-DS
 Version 2.23
 Report date 03/22/93