PASSF 2.2.2-4

Phase I Remedial Investigation Report
Pasco Landfill
Pasco, Washington

Volume IV Appendix I
I2.5 - I5.1

March 1994

Prepared for:

PASCO LANDFILL PLP GROUP

Project 624419

BURLINGTON
ENVIRONMENTAL

TECHNICAL SERVICES DIVISION
P.O. Box 3552
Seattle, Washington 98124-3552
(206) 227-0311

USEPA SF
1426433

ABSTRACT

During 1992 and 1993, the Pasco Landfill PLP Group conducted a remedial investigation to evaluate the nature and extent of contamination at the Pasco Landfill site near Pasco, Washington. This report presents the findings of the Phase I Remedial Investigation. Volume I is the technical report. Volume II is Appendices A through J. Volumes III and IV are Appendix I.

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APPENDIX
I

SURFACE SOILS I2.5

SAMPLES PLF-SS-001 TO PLF-SS-021;
PLF-SS-025 TO PLF-SS-046

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1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FSS001

ab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO_____

ab Code: _____ Case No.: _____ SAS No.: 28850_ SDG No.: B.E.__

atrix (soil/water): SOIL_ Lab Sample ID: 28850-1___

evel (low/med): LOW__ Date Received: 12/07/92

Solids: _87.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_	1.4	U	*	P_
7440-38-2	Arsenic__	6.1		*	P_
7440-39-3	Barium___				NR
7440-41-7	Beryllium	0.12	U		P_
7440-43-9	Cadmium__	2.1		*	P_
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	6.6		*	P_
7440-48-4	Cobalt___				NR
7440-50-8	Copper___	12.3		*	P_
7439-89-6	Iron_____				NR
7439-92-1	Lead_____	7.0			P_
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__	0.10	U		AV
7440-02-0	Nickel___	10.1		*	P_
7440-09-7	Potassium				NR
7782-49-2	Selenium_	2.4	U		P_
7440-22-4	Silver___	0.91		*	P_
7440-23-5	Sodium___				NR
7440-28-0	Thallium_	3.6	U		P_
7440-62-2	Vanadium_				NR
7440-66-6	Zinc_____	35.4		E*	P_
5955-70-0	Cyanide__				NR

olor Before: _____ Clarity Before: _____ Texture: _____

olor After: _____ Clarity After: _____ Artifacts: _____

omments:

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EPA SAMPLE NO.

FSS002

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO_____

Lab Code: _____ Case No.: _____ SAS No.: 28850_ SDG No.: B.E.__

Matrix (soil/water): SOIL_ Lab Sample ID: 28850-2___

Level (low/med): LOW__ Date Received: 12/07/92

% Solids: _87.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_	3.1	_	*	P_
7440-38-2	Arsenic__	6.9	_	*	P_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium	0.11	U		P_
7440-43-9	Cadmium__	2.3	_	*	P_
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_	9.0	_	*	P_
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___	13.6	_	*	P_
7439-89-6	Iron____		_		NR
7439-92-1	Lead____	7.1	_		P_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__	0.08	U		AV
7440-02-0	Nickel___	11.2	_	*	P_
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_	2.2	U		P_
7440-22-4	Silver___	1.3	_	*	P_
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_	3.3	U		P_
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc____	46.0	_	E*	P_
5955-70-0	Cyanide__		_		NR
			_		

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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EPA SAMPLE NO.

FSS003

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO_____

Lab Code: _____ Case No.: _____ SAS No.: 28850_ SDG No.: B.E.__

Matrix (soil/water): SOIL_ Lab Sample ID: 28850-3___

Level (low/med): LOW__ Date Received: 12/07/92

% Solids: _89.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_	1.6	U	*	P_
7440-38-2	Arsenic__	6.3	_	*	P_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium	0.13	U		P_
7440-43-9	Cadmium__	2.5	_	*	P_
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_	21.9	_	*	P_
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___	12.5	_	*	P_
7439-89-6	Iron____		_		NR
7439-92-1	Lead____	6.8	_		P_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__	0.09	U		AV
7440-02-0	Nickel___	9.9	_	*	P_
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_	2.6	U		P_
7440-22-4	Silver___	1.6	_	*	P_
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_	3.9	U		P_
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc____	79.2	_	E*	P_
5955-70-0	Cyanide__		_		NR
			_		

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FSS004

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO_____

Lab Code: _____ Case No.: _____ SAS No.: 28850_ SDG No.: B.E.__

Matrix (soil/water): SOIL_ Lab Sample ID: 28850-4___

Level (low/med): LOW__ Date Received: 12/07/92

% Solids: _86.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_	1.3	U	*	P_
7440-38-2	Arsenic__	8.3		*	P_
7440-39-3	Barium___				NR
7440-41-7	Beryllium	0.11	U		P_
7440-43-9	Cadmium__	2.4		*	P_
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	6.4		*	P_
7440-48-4	Cobalt___				NR
7440-50-8	Copper___	12.4		*	P_
7439-89-6	Iron____				NR
7439-92-1	Lead____	6.9			P_
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__	0.09	U		AV
7440-02-0	Nickel___	9.8		*	P_
7440-09-7	Potassium				NR
7782-49-2	Selenium_	2.2	U		P_
7440-22-4	Silver___	1.4		*	P_
7440-23-5	Sodium___				NR
7440-28-0	Thallium_	3.3	U		P_
7440-62-2	Vanadium_				NR
7440-66-6	Zinc____	41.4		E*	P_
5955-70-0	Cyanide__				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FSS005

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO_____

Lab Code: _____ Case No.: _____ SAS No.: 28850_ SDG No.: B.E.__

Matrix (soil/water): SOIL_ Lab Sample ID: 28850-5___

Level (low/med): LOW__ Date Received: 12/07/92

% Solids: _90.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_	1.4	U	*	P_
7440-38-2	Arsenic__	7.3		*	P_
7440-39-3	Barium___				NR
7440-41-7	Beryllium	0.11	U		P_
7440-43-9	Cadmium__	2.3		*	P_
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	5.9		*	P_
7440-48-4	Cobalt___				NR
7440-50-8	Copper___	10.9		*	P_
7439-89-6	Iron_____				NR
7439-92-1	Lead_____	6.1			P_
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__	0.09	U		AV
7440-02-0	Nickel___	9.8		*	P_
7440-09-7	Potassium				NR
7782-49-2	Selenium_	2.3	U		P_
7440-22-4	Silver___	1.4		*	P_
7440-23-5	Sodium___				NR
7440-28-0	Thallium_	3.4	U		P_
7440-62-2	Vanadium_				NR
7440-66-6	Zinc_____	39.2		E*	P_
5955-70-0	Cyanide__				NR

olor Before: _____ Clarity Before: _____ Texture: _____

olor After: _____ Clarity After: _____ Artifacts: _____

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EPA SAMPLE NO.

FSS006

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO_____

Lab Code: _____ Case No.: _____ SAS No.: 28850_ SDG No.: B.E.__

Matrix (soil/water): SOIL_ Lab Sample ID: 28850-6___

Level (low/med): LOW__ Date Received: 12/07/92

% Solids: _88.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_	1.5	U	*	P_
7440-38-2	Arsenic__	10		*	P_
7440-39-3	Barium___				NR
7440-41-7	Beryllium	0.13	U		P_
7440-43-9	Cadmium__	2.5		*	P_
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	7.3		*	P_
7440-48-4	Cobalt___				NR
7440-50-8	Copper___	13.1		*	P_
7439-89-6	Iron____				NR
7439-92-1	Lead____	8.1			P_
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__	0.09	U		AV
7440-02-0	Nickel___	10.9		*	P_
7440-09-7	Potassium				NR
7782-49-2	Selenium_	2.5	U		P_
7440-22-4	Silver___	1.4		*	P_
7440-23-5	Sodium___				NR
7440-28-0	Thallium_	3.8	U		P_
7440-62-2	Vanadium_				NR
7440-66-6	Zinc____	46.2		E*	P_
5955-70-0	Cyanide__				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FSS007

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO_____

Lab Code: _____ Case No.: _____ SAS No.: 28850_ SDG No.: B.E.__

Matrix (soil/water): SOIL_ Lab Sample ID: 28850-7___

Level (low/med): LOW__ Date Received: 12/07/92

% Solids: _87.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_	1.4	U	*	P_
7440-38-2	Arsenic__	8.9	_	*	P_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium	0.11	U		P_
7440-43-9	Cadmium__	2.6	_	*	P_
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_	7.1	_	*	P_
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___	12.1	_	*	P_
7439-89-6	Iron____		_		NR
7439-92-1	Lead____	6.4	_		P_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__	0.09	U		AV
7440-02-0	Nickel___	10.3	_	*	P_
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_	2.3	U		P_
7440-22-4	Silver___	1.3	_	*	P_
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_	3.4	U		P_
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc____	43.4	_	E*	P_
5955-70-0	Cyanide__		_		NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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EPA SAMPLE NO.

FSS008

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO_____

Lab Code: _____ Case No.: _____ SAS No.: 28850_ SDG No.: B.E.__

Matrix (soil/water): SOIL_ Lab Sample ID: 28850-8___

Level (low/med): LOW__ Date Received: 12/07/92

% Solids: _89.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_	1.3	U	*	P_
7440-38-2	Arsenic__	9.0		*	P_
7440-39-3	Barium___				NR
7440-41-7	Beryllium	0.11	U		P_
7440-43-9	Cadmium__	2.0		*	P_
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	6.2		*	P_
7440-48-4	Cobalt___				NR
7440-50-8	Copper___	12.4		*	P_
7439-89-6	Iron_____				NR
7439-92-1	Lead_____	7.2			P_
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__	0.09	U		AV
7440-02-0	Nickel___	9.4		*	P_
7440-09-7	Potassium				NR
7782-49-2	Selenium_	2.2	U		P_
7440-22-4	Silver___	0.95		*	P_
7440-23-5	Sodium___				NR
7440-28-0	Thallium_	3.3	U		P_
7440-62-2	Vanadium_				NR
7440-66-6	Zinc_____	37.4		E*	P_
5955-70-0	Cyanide__				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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EPA SAMPLE NO.

FSS009

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO_____

Lab Code: _____ Case No.: _____ SAS No.: 28850_ SDG No.: B.E.__

Matrix (soil/water): SOIL_ Lab Sample ID: 28850-9___

Level (low/med): LOW__ Date Received: 12/07/92

% Solids: _93.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_	1.7		*	P_
7440-38-2	Arsenic__	8.9		*	P_
7440-39-3	Barium___				NR
7440-41-7	Beryllium	0.12	U		P_
7440-43-9	Cadmium__	1.9		*	P_
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	5.1		*	P_
7440-48-4	Cobalt___				NR
7440-50-8	Copper___	11.8		*	P_
7439-89-6	Iron____				NR
7439-92-1	Lead____	8.0			P_
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__	0.09	U		AV
7440-02-0	Nickel___	8.3		*	P_
7440-09-7	Potassium				NR
7782-49-2	Selenium_	2.4	U		P_
7440-22-4	Silver___	1.4		*	P_
7440-23-5	Sodium___				NR
7440-28-0	Thallium_	3.8			P_
7440-62-2	Vanadium_				NR
7440-66-6	Zinc____	34.7		E*	P_
5955-70-0	Cyanide__				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FSS010

ab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO_____

ab Code: _____ Case No.: _____ SAS No.: 28850_ SDG No.: B.E.__

atrix (soil/water): SOIL_ Lab Sample ID: 28850-10__

evel (low/med): LOW__ Date Received: 12/07/92

Solids: _92.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_	1.8	_	*	P_
7440-38-2	Arsenic__	10.7	_	*	P_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium	0.12	U		P_
7440-43-9	Cadmium__	1.6	_	*	P_
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_	5.1	_	*	P_
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___	11.4	_	*	P_
7439-89-6	Iron____		_		NR
7439-92-1	Lead____	8.0	_		P_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__	0.07	U		AV
7440-02-0	Nickel___	8.0	_	*	P_
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_	2.4	U		P_
7440-22-4	Silver___	1.4	_	*	P_
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_	3.6	U		P_
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc____	36.4	_	E*	P_
5955-70-0	Cyanide__		_		NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FSS011

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO_____

Lab Code: _____ Case No.: _____ SAS No.: 28850_ SDG No.: B.E.__

Matrix (soil/water): SOIL_ Lab Sample ID: 28850-11__

Level (low/med): LOW__ Date Received: 12/07/92

% Solids: _91.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_	2.5	_	*	P_
7440-38-2	Arsenic__	10.5	_	*	P_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium	0.11	U		P_
7440-43-9	Cadmium__	2.0	_	*	P_
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_	6.6	_	*	P_
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___	12.1	_	*	P_
7439-89-6	Iron_____		_		NR
7439-92-1	Lead_____	7.6	_		P_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__	0.09	U		AV
7440-02-0	Nickel___	10.3	_	*	P_
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_	2.3	U		P_
7440-22-4	Silver___	1.5	_	*	P_
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_	3.4	U		P_
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc_____	40.0	_	E*	P_
5955-70-0	Cyanide__		_		NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FSS012

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO_____

Lab Code: _____ Case No.: _____ SAS No.: 28850_ SDG No.: B.E.__

Matrix (soil/water): SOIL_ Lab Sample ID: 28850-12__

Level (low/med): LOW__ Date Received: 12/07/92

% Solids: _89.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_	1.5	U	*	P_
7440-38-2	Arsenic__	8.2		*	P_
7440-39-3	Barium___				NR
7440-41-7	Beryllium	0.13	U		P_
7440-43-9	Cadmium__	2.1		*	P_
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	6.4		*	P_
7440-48-4	Cobalt___				NR
7440-50-8	Copper___	12.6		*	P_
7439-89-6	Iron____				NR
7439-92-1	Lead____	8.4			P_
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__	0.09	U		AV
7440-02-0	Nickel___	9.7		*	P_
7440-09-7	Potassium				NR
7782-49-2	Selenium_	2.5	U		P_
7440-22-4	Silver___	1.0		*	P_
7440-23-5	Sodium___				NR
7440-28-0	Thallium_	3.8	U		P_
7440-62-2	Vanadium_				NR
7440-66-6	Zinc____	37.4		E*	P_
5955-70-0	Cyanide__				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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EPA SAMPLE NO.

FSS013

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO_____

Lab Code: _____ Case No.: _____ SAS No.: 28850_ SDG No.: B.E.__

Matrix (soil/water): SOIL_ Lab Sample ID: 28850-13__

Level (low/med): LOW__ Date Received: 12/07/92

% Solids: _92.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_	1.5	U	*	P_
7440-38-2	Arsenic__	11.4	_	*	P_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium	0.13	U		P_
7440-43-9	Cadmium__	1.9	_	*	P_
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_	6.1	_	*	P_
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___	12.7	_	*	P_
7439-89-6	Iron____		_		NR
7439-92-1	Lead____	7.6	_		P_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__	0.08	U		AV
7440-02-0	Nickel___	9.6	_	*	P_
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_	2.5	U		P_
7440-22-4	Silver___	1.1	_	*	P_
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_	3.8	U		P_
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc____	37.5	_	E*	P_
5955-70-0	Cyanide__		_		NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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EPA SAMPLE NO.

FSS014

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO_____

Lab Code: _____ Case No.: _____ SAS No.: 28850_ SDG No.: B.E.__

Matrix (soil/water): SOIL_ Lab Sample ID: 28850-14__

Level (low/med): LOW__ Date Received: 12/07/92

% Solids: _91.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_	1.4	U	*	P_
7440-38-2	Arsenic__	8.0	_	*	P_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium	0.11	U		P_
7440-43-9	Cadmium__	2.1	_	*	P_
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_	7.5	_	*	P_
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___	12.7	_	*	P_
7439-89-6	Iron____		_		NR
7439-92-1	Lead____	6.7	_		P_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__	0.10	U		AV
7440-02-0	Nickel___	11.7	_	*	P_
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_	2.3	U		P_
7440-22-4	Silver___	0.95	_	*	P_
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_	3.4	U		P_
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc____	37.5	_	E*	P_
5955-70-0	Cyanide__		_		NR
			_		

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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EPA SAMPLE NO.

FSS015

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO_____

Lab Code: _____ Case No.: _____ SAS No.: 28850_ SDG No.: B.E.__

Matrix (soil/water): SOIL_ Lab Sample ID: 28850-15__

Level (low/med): LOW__ Date Received: 12/07/92

% Solids: _96.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_	2.4		*	P_
7440-38-2	Arsenic__	8.7		*	P_
7440-39-3	Barium___				NR
7440-41-7	Beryllium	0.10	U		P_
7440-43-9	Cadmium__	1.9		*	P_
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	7.0		*	P_
7440-48-4	Cobalt___				NR
7440-50-8	Copper___	15.2		*	P_
7439-89-6	Iron____				NR
7439-92-1	Lead____	8.6			P_
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__	0.09	U		AV
7440-02-0	Nickel___	9.5		*	P_
7440-09-7	Potassium				NR
7782-49-2	Selenium_	2.0	U		P_
7440-22-4	Silver___	1.3		*	P_
7440-23-5	Sodium___				NR
7440-28-0	Thallium_	3.0	U		P_
7440-62-2	Vanadium_				NR
7440-66-6	Zinc____	43.2		E*	P_
5955-70-0	Cyanide__				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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EPA SAMPLE NO.

FSS016

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO_____

Lab Code: _____ Case No.: _____ SAS No.: 28850_ SDG No.: B.E.__

Matrix (soil/water): SOIL_ Lab Sample ID: 28850-16__

Level (low/med): LOW__ Date Received: 12/07/92

% Solids: _89.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_	1.4	U	*	P_
7440-38-2	Arsenic__	12.1		*	P_
7440-39-3	Barium___				NR
7440-41-7	Beryllium	0.12	U		P_
7440-43-9	Cadmium__	2.0		*	P_
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	7.1		*	P_
7440-48-4	Cobalt___				NR
7440-50-8	Copper___	16.3		*	P_
7439-89-6	Iron____				NR
7439-92-1	Lead____	9.2			P_
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__	0.31			AV
7440-02-0	Nickel___	9.8		*	P_
7440-09-7	Potassium				NR
7782-49-2	Selenium_	2.3	U		P_
7440-22-4	Silver___	1.4		*	P_
7440-23-5	Sodium___				NR
7440-28-0	Thallium_	3.5	U		P_
7440-62-2	Vanadium_				NR
7440-66-6	Zinc____	43.4		E*	P_
5955-70-0	Cyanide__				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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EPA SAMPLE NO.

FSS017

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO_____

Lab Code: _____ Case No.: _____ SAS No.: 28850_ SDG No.: B.E.__

Matrix (soil/water): SOIL_ Lab Sample ID: 28850-17__

Level (low/med): LOW__ Date Received: 12/07/92

% Solids: _91.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_	1.6	U	*	P_
7440-38-2	Arsenic__	10.0		*	P_
7440-39-3	Barium___				NR
7440-41-7	Beryllium	0.13	U		P_
7440-43-9	Cadmium__	2.0		*	P_
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	5.9		*	P_
7440-48-4	Cobalt___				NR
7440-50-8	Copper___	14.6		*	P_
7439-89-6	Iron____				NR
7439-92-1	Lead____	8.6			P_
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__	0.09	U		AV
7440-02-0	Nickel___	9.1		*	P_
7440-09-7	Potassium				NR
7782-49-2	Selenium_	2.7	U		P_
7440-22-4	Silver___	1.3		*	P_
7440-23-5	Sodium___				NR
7440-28-0	Thallium_	4.0	U		P_
7440-62-2	Vanadium_				NR
7440-66-6	Zinc____	37.4		E*	P_
5955-70-0	Cyanide__				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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EPA SAMPLE NO.

FSS018

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO_____

Lab Code: _____ Case No.: _____ SAS No.: 28850_ SDG No.: B.E.__

Matrix (soil/water): SOIL_ Lab Sample ID: 28850-18__

Level (low/med): LOW__ Date Received: 12/07/92

% Solids: _88.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_	2.2	_	*	P_
7440-38-2	Arsenic__	10.1	_	*	P_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium	0.12	U		P_
7440-43-9	Cadmium__	2.0	_	*	P_
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_	7.4	_	*	P_
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___	17.6	_	*	P_
7439-89-6	Iron____		_		NR
7439-92-1	Lead____	10.6	_		P_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__	0.08	U		AV
7440-02-0	Nickel___	10.7	_	*	P_
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_	2.3	U		P_
7440-22-4	Silver___	1.3	_	*	P_
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_	3.5	U		P_
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc____	43.9	_	E*	P_
5955-70-0	Cyanide__		_		NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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EPA SAMPLE NO.

FSS019

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO_____

Lab Code: _____ Case No.: _____ SAS No.: 28850_ SDG No.: B.E.__

Matrix (soil/water): SOIL_ Lab Sample ID: 28850-19__

Level (low/med): LOW__ Date Received: 12/07/92

% Solids: _92.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_	2.9	_	*	P_
7440-38-2	Arsenic__	10.8	_	*	P_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium	0.13	U		P_
7440-43-9	Cadmium__	2.3	_	*	P_
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_	8.5	_	*	P_
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___	13.8	_	*	P_
7439-89-6	Iron____		_		NR
7439-92-1	Lead____	8.0	_		P_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__	0.08	U		AV
7440-02-0	Nickel___	11.3	_	*	P_
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_	2.6	U		P_
7440-22-4	Silver___	1.8	_	*	P_
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_	3.8	U		P_
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc____	43.2	_	E*	P_
5955-70-0	Cyanide__		_		NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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EPA SAMPLE NO.

FSS020

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO_____

Lab Code: _____ Case No.: _____ SAS No.: 28850_ SDG No.: B.E.__

Matrix (soil/water): SOIL_ Lab Sample ID: 28850-20__

Level (low/med): LOW__ Date Received: 12/07/92

% Solids: _91.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_	1.9	_	*	P_
7440-38-2	Arsenic__	9.7	_	*	P_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium	0.12	U		P_
7440-43-9	Cadmium__	2.4	_	*	P_
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_	7.0	_	*	P_
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___	13.5	_	*	P_
7439-89-6	Iron____		_		NR
7439-92-1	Lead____	8.2	_		P_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__	0.09	U		AV
7440-02-0	Nickel___	10.1	_	*	P_
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_	2.5	U		P_
7440-22-4	Silver___	1.5	_	*	P_
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_	3.7	U		P_
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc____	39.7	_	E*	P_
5955-70-0	Cyanide__		_		NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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EPA SAMPLE NO.

FSS021

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO_____

Lab Code: _____ Case No.: _____ SAS No.: 28850_ SDG No.: B.E.__

Matrix (soil/water): SOIL_ Lab Sample ID: 28850-21__

Level (low/med): LOW__ Date Received: 12/07/92

% Solids: _92.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_	1.4	U	*	P_
7440-38-2	Arsenic__	11.8		*	P_
7440-39-3	Barium___				NR
7440-41-7	Beryllium	0.12	U		P_
7440-43-9	Cadmium__	2.3		*	P_
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	7.7		*	P_
7440-48-4	Cobalt___				NR
7440-50-8	Copper___	13.6		*	P_
7439-89-6	Iron____				NR
7439-92-1	Lead____	8.1			P_
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__	0.08	U		AV
7440-02-0	Nickel___	9.7		*	P_
7440-09-7	Potassium				NR
7782-49-2	Selenium_	2.3	U		P_
7440-22-4	Silver___	2.2		*	P_
7440-23-5	Sodium___				NR
7440-28-0	Thallium_	3.5	U		P_
7440-62-2	Vanadium_				NR
7440-66-6	Zinc____	45.1		E*	P_
5955-70-0	Cyanide__				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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EPA SAMPLE NO.

FSS025

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO_____

Lab Code: _____ Case No.: _____ SAS No.: 28850_ SDG No.: B.E.__

Matrix (soil/water): SOIL_ Lab Sample ID: 28850-22__

Level (low/med): LOW__ Date Received: 12/07/92

% Solids: _92.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_	1.5	U	*	P_
7440-38-2	Arsenic__	7.1	_	*	P_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium	0.12	U		P_
7440-43-9	Cadmium__	1.9	_	*	P_
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_	5.8	_	*	P_
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___	10.3	_	*	P_
7439-89-6	Iron____		_		NR
7439-92-1	Lead____	8.7	_		P_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__	0.09	U		AV
7440-02-0	Nickel___	9.1	_	*	P_
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_	2.5	U		P_
7440-22-4	Silver___	1.2	_	*	P_
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_	3.7	U		P_
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc____	33.4	_	E*	P_
5955-70-0	Cyanide__		_		NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FSS026

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO_____

Lab Code: _____ Case No.: _____ SAS No.: 28850_ SDG No.: B.E.__

Matrix (soil/water): SOIL_ Lab Sample ID: 28850-23__

Level (low/med): LOW__ Date Received: 12/07/92

% Solids: _91.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_	1.3	U	*	P_
7440-38-2	Arsenic__	8.3		*	P_
7440-39-3	Barium___				NR
7440-41-7	Beryllium	0.11	U		P_
7440-43-9	Cadmium__	2.0		*	P_
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	6.2		*	P_
7440-48-4	Cobalt___				NR
7440-50-8	Copper___	11.9		*	P_
7439-89-6	Iron____				NR
7439-92-1	Lead____	7.2			P_
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__	0.09	U		AV
7440-02-0	Nickel___	8.8		*	P_
7440-09-7	Potassium				NR
7782-49-2	Selenium_	2.2	U		P_
7440-22-4	Silver___	1.3		*	P_
7440-23-5	Sodium___				NR
7440-28-0	Thallium_	3.3	U		P_
7440-62-2	Vanadium_				NR
7440-66-6	Zinc____	34.3		E*	P_
5955-70-0	Cyanide__				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FSS027

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO_____

Lab Code: _____ Case No.: _____ SAS No.: 28850_ SDG No.: B.E.__

Matrix (soil/water): SOIL_ Lab Sample ID: 28850-24__

Level (low/med): LOW__ Date Received: 12/07/92

% Solids: _91.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_	1.6	U	*	P_
7440-38-2	Arsenic__	7.0		*	P_
7440-39-3	Barium___				NR
7440-41-7	Beryllium	0.13	U		P_
7440-43-9	Cadmium__	2.0		*	P_
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	6.4		*	P_
7440-48-4	Cobalt___				NR
7440-50-8	Copper___	11.6		*	P_
7439-89-6	Iron____				NR
7439-92-1	Lead____	7.3			P_
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__	0.10	U		AV
7440-02-0	Nickel___	9.7		*	P_
7440-09-7	Potassium				NR
7782-49-2	Selenium_	2.7	U		P_
7440-22-4	Silver___	1.3		*	P_
7440-23-5	Sodium___				NR
7440-28-0	Thallium_	4.0	U		P_
7440-62-2	Vanadium_				NR
7440-66-6	Zinc____	36.3		E*	P_
5955-70-0	Cyanide__				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FSS028

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO_____

Lab Code: _____ Case No.: _____ SAS No.: 28850_ SDG No.: B.E.__

Matrix (soil/water): SOIL_ Lab Sample ID: 28850-25__

Level (low/med): LOW__ Date Received: 12/07/92

% Solids: _92.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_	3.7		*	P_
7440-38-2	Arsenic__	4.4		*	P_
7440-39-3	Barium___				NR
7440-41-7	Beryllium	0.12	U		P_
7440-43-9	Cadmium__	1.8		*	P_
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	6.1		*	P_
7440-48-4	Cobalt___				NR
7440-50-8	Copper___	10.5		*	P_
7439-89-6	Iron____				NR
7439-92-1	Lead____	7.5			P_
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__	0.09	U		AV
7440-02-0	Nickel___	8.3		*	P_
7440-09-7	Potassium				NR
7782-49-2	Selenium_	2.5	U		P_
7440-22-4	Silver___	1.4		*	P_
7440-23-5	Sodium___				NR
7440-28-0	Thallium_	3.7	U		P_
7440-62-2	Vanadium_				NR
7440-66-6	Zinc____	32.9		E*	P_
5955-70-0	Cyanide__				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FSSO29

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO_____

Lab Code: _____ Case No.: _____ SAS No.: 28850_ SDG No.: B.E.__

Matrix (soil/water): SOIL_ Lab Sample ID: 28850-26__

Level (low/med): LOW__ Date Received: 12/07/92

% Solids: _92.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_	1.4	U	*	P_
7440-38-2	Arsenic__	5.7	_	*	P_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium	0.12	U		P_
7440-43-9	Cadmium__	1.9	_	*	P_
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_	6.6	_	*	P_
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___	10.3	_	*	P_
7439-89-6	Iron____		_		NR
7439-92-1	Lead____	9.1	_		P_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__	0.09	U		AV
7440-02-0	Nickel___	8.7	_	*	P_
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_	2.3	U		P_
7440-22-4	Silver___	1.3	_	*	P_
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_	3.5	U		P_
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc____	36.7	_	E*	P_
5955-70-0	Cyanide__		_		NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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EPA SAMPLE NO.

FSS030

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO_____

Lab Code: _____ Case No.: _____ SAS No.: 28850_ SDG No.: B.E.__

Matrix (soil/water): SOIL_ Lab Sample ID: 28850-27__

Level (low/med): LOW__ Date Received: 12/07/92

% Solids: _92.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_	1.5	U	*	P_
7440-38-2	Arsenic__	5.8	_	*	P_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium	0.12	U		P_
7440-43-9	Cadmium__	1.6	_	*	P_
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_	6.2	_	*	P_
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___	10.7	_	*	P_
7439-89-6	Iron____		_		NR
7439-92-1	Lead____	7.9	_		P_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__	0.53	_		AV
7440-02-0	Nickel___	8.4	_	*	P_
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_	2.4	U		P_
7440-22-4	Silver___	1.3	_	*	P_
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_	3.7	U		P_
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc____	34.5	_	E*	P_
5955-70-0	Cyanide__		_		NR
			_		

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FSS031

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO_____

Lab Code: _____ Case No.: _____ SAS No.: 28850_ SDG No.: B.E.__

Matrix (soil/water): SOIL_ Lab Sample ID: 28850-28__

Level (low/med): LOW__ Date Received: 12/07/92

% Solids: _92.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_	1.3	U	*	P_
7440-38-2	Arsenic__	6.7		*	P_
7440-39-3	Barium___				NR
7440-41-7	Beryllium	0.11	U		P_
7440-43-9	Cadmium__	1.5		*	P_
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	5.9		*	P_
7440-48-4	Cobalt___				NR
7440-50-8	Copper___	10.8		*	P_
7439-89-6	Iron____				NR
7439-92-1	Lead____	8.1			P_
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__	0.08	U		AV
7440-02-0	Nickel___	8.3		*	P_
7440-09-7	Potassium				NR
7782-49-2	Selenium_	2.2	U		P_
7440-22-4	Silver___	1.5		*	P_
7440-23-5	Sodium___				NR
7440-28-0	Thallium_	3.4	U		P_
7440-62-2	Vanadium_				NR
7440-66-6	Zinc____	34.8		E*	P_
5955-70-0	Cyanide__				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FSS032

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO_____

Lab Code: _____ Case No.: _____ SAS No.: 28850_ SDG No.: B.E.__

Matrix (soil/water): SOIL_ Lab Sample ID: 28850-29__

Level (low/med): LOW__ Date Received: 12/07/92

% Solids: _91.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_	1.3	U	*	P_
7440-38-2	Arsenic__	6.1		*	P_
7440-39-3	Barium___				NR
7440-41-7	Beryllium	0.11	U		P_
7440-43-9	Cadmium__	1.8		*	P_
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	6.1		*	P_
7440-48-4	Cobalt___				NR
7440-50-8	Copper___	10.1		*	P_
7439-89-6	Iron____				NR
7439-92-1	Lead____	7.1			P_
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__	0.09	U		AV
7440-02-0	Nickel___	8.5		*	P_
7440-09-7	Potassium				NR
7782-49-2	Selenium_	2.2	U		P_
7440-22-4	Silver___	1.3		*	P_
7440-23-5	Sodium___				NR
7440-28-0	Thallium_	3.3	U		P_
7440-62-2	Vanadium_				NR
7440-66-6	Zinc____	34.2		E*	P_
5955-70-0	Cyanide__				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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EPA SAMPLE NO.

FSS033

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO_____

Lab Code: _____ Case No.: _____ SAS No.: 28850_ SDG No.: B.E.__

Matrix (soil/water): SOIL_ Lab Sample ID: 28850-30__

Level (low/med): LOW__ Date Received: 12/07/92

% Solids: _98.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_	1.2	U	*	P_
7440-38-2	Arsenic__	7.7		*	P_
7440-39-3	Barium___				NR
7440-41-7	Beryllium	0.10	U		P_
7440-43-9	Cadmium__	1.9		*	P_
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	7.0		*	P_
7440-48-4	Cobalt___				NR
7440-50-8	Copper___	11.6		*	P_
7439-89-6	Iron____				NR
7439-92-1	Lead____	7.4			P_
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__	0.07	U		AV
7440-02-0	Nickel___	9.3		*	P_
7440-09-7	Potassium				NR
7782-49-2	Selenium_	2.0	U		P_
7440-22-4	Silver___	1.4		*	P_
7440-23-5	Sodium___				NR
7440-28-0	Thallium_	3.1	U		P_
7440-62-2	Vanadium_				NR
7440-66-6	Zinc____	36.2		E*	P_
5955-70-0	Cyanide__				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FSS034

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO_____

Lab Code: _____ Case No.: _____ SAS No.: 28850_ SDG No.: B.E.__

Matrix (soil/water): SOIL_ Lab Sample ID: 28850-31__

Level (low/med): LOW__ Date Received: 12/07/92

% Solids: _92.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_	1.3	U	*	P_
7440-38-2	Arsenic__	6.4		*	P_
7440-39-3	Barium___				NR
7440-41-7	Beryllium	0.11	U		P_
7440-43-9	Cadmium__	1.7		*	P_
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	5.5		*	P_
7440-48-4	Cobalt___				NR
7440-50-8	Copper___	10.2		*	P_
7439-89-6	Iron____				NR
7439-92-1	Lead____	6.6			P_
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__	0.08	U		AV
7440-02-0	Nickel___	8.3		*	P_
7440-09-7	Potassium				NR
7782-49-2	Selenium_	2.2	U		P_
7440-22-4	Silver___	1.5		*	P_
7440-23-5	Sodium___				NR
7440-28-0	Thallium_	3.4	U		P_
7440-62-2	Vanadium_				NR
7440-66-6	Zinc____	35.0		E*	P_
5955-70-0	Cyanide__				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FSS035

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO

Lab Code: _____ Case No.: _____ SAS No.: 28850_ SDG No.: B.E.__

Matrix (soil/water): SOIL_ Lab Sample ID: 28850-32__

Level (low/med): LOW__ Date Received: 12/07/92

% Solids: _92.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_	1.7	_	*	P_
7440-38-2	Arsenic__	5.8	_	*	P_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium	0.12	U		P_
7440-43-9	Cadmium__	1.5	_	*	P_
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_	5.0	_	*	P_
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___	8.7	_	*	P_
7439-89-6	Iron____		_		NR
7439-92-1	Lead____	6.3	_		P_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__	0.08	U		AV
7440-02-0	Nickel___	7.5	_	*	P_
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_	2.3	U		P_
7440-22-4	Silver___	0.83	_	*	P_
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_	3.5	U		P_
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc____	31.9	_	E*	P_
5955-70-0	Cyanide__		_		NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FSS036

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO_____

Lab Code: _____ Case No.: _____ SAS No.: 28850_ SDG No.: B.E.__

Matrix (soil/water): SOIL_ Lab Sample ID: 28850-33__

Level (low/med): LOW__ Date Received: 12/07/92

% Solids: _92.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_	2.4		*	P_
7440-38-2	Arsenic__	5.9		*	P_
7440-39-3	Barium___				NR
7440-41-7	Beryllium	0.11	U		P_
7440-43-9	Cadmium__	1.5		*	P_
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	5.1		*	P_
7440-48-4	Cobalt___				NR
7440-50-8	Copper___	8.4		*	P_
7439-89-6	Iron____				NR
7439-92-1	Lead____	6.5			P_
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__	0.08	U		AV
7440-02-0	Nickel___	7.8		*	P_
7440-09-7	Potassium				NR
7782-49-2	Selenium_	2.2	U		P_
7440-22-4	Silver___	0.86		*	P_
7440-23-5	Sodium___				NR
7440-28-0	Thallium_	3.3	U		P_
7440-62-2	Vanadium_				NR
7440-66-6	Zinc____	29.5		E*	P_
5955-70-0	Cyanide__				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FSS037

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO_____

Lab Code: _____ Case No.: _____ SAS No.: 28850_ SDG No.: B.E.__

Matrix (soil/water): SOIL_ Lab Sample ID: 28850-34__

Level (low/med): LOW__ Date Received: 12/07/92

% Solids: _91.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_	2.5	_	*	P_
7440-38-2	Arsenic__	5.1	_	*	P_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium	0.11	U		P_
7440-43-9	Cadmium__	1.5	_	*	P_
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_	5.5	_	*	P_
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___	8.7	_	*	P_
7439-89-6	Iron____		_		NR
7439-92-1	Lead____	6.2	_		P_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__	0.09	U		AV
7440-02-0	Nickel___	7.7	_	*	P_
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_	2.2	U		P_
7440-22-4	Silver___	0.86	_	*	P_
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_	3.3	U		P_
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc____	32.0	_	E*	P_
5955-70-0	Cyanide__		_		NR
			_		

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FSS038

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO_____

Lab Code: _____ Case No.: _____ SAS No.: 28850_ SDG No.: B.E.__

Matrix (soil/water): SOIL_ Lab Sample ID: 28850-35__

Level (low/med): LOW__ Date Received: 12/07/92

% Solids: _92.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_	2.1	_	*	P_
7440-38-2	Arsenic__	5.3	_	*	P_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium	0.12	U		P_
7440-43-9	Cadmium__	1.5	_	*	P_
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_	4.6	_	*	P_
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___	7.8	_	*	P_
7439-89-6	Iron____		_		NR
7439-92-1	Lead____	5.6	_		P_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__	0.08	U		AV
7440-02-0	Nickel___	7.0	_	*	P_
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_	2.3	U		P_
7440-22-4	Silver___	0.83	_	*	P_
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_	3.5	U		P_
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc____	27.7	_	E*	P_
5955-70-0	Cyanide__		_		NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

U.S. EPA - CLP

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EPA SAMPLE NO.

FSS039

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO_____

Lab Code: _____ Case No.: _____ SAS No.: 28850_ SDG No.: B.E.__

Matrix (soil/water): SOIL_ Lab Sample ID: 28850-36__

Level (low/med): LOW__ Date Received: 12/07/92

% Solids: _93.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_	2.7	_	*	P_
7440-38-2	Arsenic__	5.7	_	*	P_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium	0.11	U		P_
7440-43-9	Cadmium__	1.5	_	*	P_
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_	4.8	_	*	P_
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___	8.2	_	*	P_
7439-89-6	Iron____		_		NR
7439-92-1	Lead____	5.8	_		P_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__	0.08	U		AV
7440-02-0	Nickel___	7.4	_	*	P_
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_	2.2	U		P_
7440-22-4	Silver___	0.81	_	*	P_
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_	3.2	U		P_
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc____	29.5	_	E*	P_
5955-70-0	Cyanide__		_		NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FSS040

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO_____

Lab Code: _____ Case No.: _____ SAS No.: 28850_ SDG No.: B.E.__

Matrix (soil/water): SOIL_ Lab Sample ID: 28850-37__

Level (low/med): LOW__ Date Received: 12/07/92

% Solids: _92.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_	2.3		*	P_
7440-38-2	Arsenic__	5.7		*	P_
7440-39-3	Barium___				NR
7440-41-7	Beryllium	0.10	U		P_
7440-43-9	Cadmium__	1.5		*	P_
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	5.5		*	P_
7440-48-4	Cobalt___				NR
7440-50-8	Copper___	8.4		*	P_
7439-89-6	Iron_____				NR
7439-92-1	Lead_____	7.2			P_
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__	0.09	U		AV
7440-02-0	Nickel___	7.7		*	P_
7440-09-7	Potassium				NR
7782-49-2	Selenium_	2.0	U		P_
7440-22-4	Silver___	0.95		*	P_
7440-23-5	Sodium___				NR
7440-28-0	Thallium_	3.1	U		P_
7440-62-2	Vanadium_				NR
7440-66-6	Zinc_____	32.4		E*	P_
5955-70-0	Cyanide__				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FSS041

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO_____

Lab Code: _____ Case No.: _____ SAS No.: 28850_ SDG No.: B.E.__

Matrix (soil/water): SOIL_ Lab Sample ID: 28850-38__

Level (low/med): LOW__ Date Received: 12/07/92

% Solids: _91.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_	1.3	U	*	P_
7440-38-2	Arsenic__	7.3		*	P_
7440-39-3	Barium___				NR
7440-41-7	Beryllium	0.11	U		P_
7440-43-9	Cadmium__	1.5		*	P_
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	6.3		*	P_
7440-48-4	Cobalt___				NR
7440-50-8	Copper___	9.9		*	P_
7439-89-6	Iron____				NR
7439-92-1	Lead____	8.5			P_
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__	0.09	U		AV
7440-02-0	Nickel___	8.9		*	P_
7440-09-7	Potassium				NR
7782-49-2	Selenium_	2.1	U		P_
7440-22-4	Silver___	0.97		*	P_
7440-23-5	Sodium___				NR
7440-28-0	Thallium_	3.2	U		P_
7440-62-2	Vanadium_				NR
7440-66-6	Zinc____	34.7		E*	P_
5955-70-0	Cyanide__				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FSS042

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO_____

Lab Code: _____ Case No.: _____ SAS No.: 28850_ SDG No.: B.E.__

Matrix (soil/water): SOIL_ Lab Sample ID: 28850-39__

Level (low/med): LOW__ Date Received: 12/07/92

% Solids: _91.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_	3.2	_	*	P_
7440-38-2	Arsenic__	6.5	_	*	P_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium	0.12	U		P_
7440-43-9	Cadmium__	1.7	_	*	P_
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_	5.9	_	*	P_
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___	9.5	_	*	P_
7439-89-6	Iron____		_		NR
7439-92-1	Lead____	7.3	_		P_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__	0.08	U		AV
7440-02-0	Nickel___	8.3	_	*	P_
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_	2.5	U		P_
7440-22-4	Silver___	0.94	_	*	P_
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_	3.7	U		P_
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc____	35.4	_	E*	P_
5955-70-0	Cyanide__		_		NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FSS043

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO_____

Lab Code: _____ Case No.: _____ SAS No.: 28850_ SDG No.: B.E.__

Matrix (soil/water): SOIL_ Lab Sample ID: 28850-40__

Level (low/med): LOW__ Date Received: 12/07/92

% Solids: _91.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_	1.4	U	*	P_
7440-38-2	Arsenic__	8.7	_	*	P_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium	0.12	U		P_
7440-43-9	Cadmium__	2.0	_	*	P_
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_	7.1	_	*	P_
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___	12.2	_	*	P_
7439-89-6	Iron____		_		NR
7439-92-1	Lead____	7.4	_		P_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__	0.08	U		AV
7440-02-0	Nickel___	9.7	_	*	P_
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_	2.3	U		P_
7440-22-4	Silver___	1.3	_	*	P_
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_	3.5	U		P_
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc____	39.7	_	E*	P_
5955-70-0	Cyanide__		_		NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FSS044

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO_____

Lab Code: _____ Case No.: _____ SAS No.: 28850_ SDG No.: B.E.__

Matrix (soil/water): SOIL_ Lab Sample ID: 28850-41__

Level (low/med): LOW__ Date Received: 12/07/92

% Solids: _91.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_	3.3	_	*	P_
7440-38-2	Arsenic__	6.7	_	*	P_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium	0.12	U		P_
7440-43-9	Cadmium__	1.9	_	*	P_
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_	5.4	_	*	P_
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___	13.3	_	*	P_
7439-89-6	Iron____		_		NR
7439-92-1	Lead____	7.2	_		P_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__	0.08	U		AV
7440-02-0	Nickel___	9.4	_	*	P_
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_	2.4	U		P_
7440-22-4	Silver___	1.0	_	*	P_
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_	3.5	U		P_
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc____	36.7	_	E*	P_
5955-70-0	Cyanide__		_		NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

U.S. EPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FSS045

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO_____

Lab Code: _____ Case No.: _____ SAS No.: 28850_ SDG No.: B.E.__

Matrix (soil/water): SOIL_ Lab Sample ID: 28850-42__

Level (low/med): LOW__ Date Received: 12/07/92

% Solids: _93.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_	1.5	_	*	P_
7440-38-2	Arsenic__	6.2	_	*	P_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium	0.11	U		P_
7440-43-9	Cadmium__	1.8	_	*	P_
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_	5.9	_	*	P_
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___	10.6	_	*	P_
7439-89-6	Iron____		_		NR
7439-92-1	Lead____	6.4	_		P_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__	0.07	U		AV
7440-02-0	Nickel___	9.2	_	*	P_
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_	2.3	U		P_
7440-22-4	Silver___	1.0	_	*	P_
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_	3.4	U		P_
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc____	35.9	_	E*	P_
5955-70-0	Cyanide__		_		NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

U.S. EPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FSS046

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO_____

Lab Code: _____ Case No.: _____ SAS No.: 28850_ SDG No.: B.E.__

Matrix (soil/water): SOIL_ Lab Sample ID: 28850-43__

Level (low/med): LOW__ Date Received: 12/07/92

% Solids: _91.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_	2.7	_	*	P_
7440-38-2	Arsenic__	6.6	_	*	P_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium	0.11	U		P_
7440-43-9	Cadmium__	1.9	_	*	P_
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_	5.4	_	*	P_
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___	12.5	_	*	P_
7439-89-6	Iron____		_		NR
7439-92-1	Lead____	7.3	_		P_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__	0.09	U		AV
7440-02-0	Nickel___	9.0	_	*	P_
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_	2.3	U		P_
7440-22-4	Silver___	0.82	_	*	P_
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_	3.4	U		P_
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc____	36.3	_	E*	P_
5955-70-0	Cyanide__		_		NR
			_		

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

MEMORANDUM

DATE: March 5, 1993

TO: Ted Wall, Environmental Engineer JW

FROM: Nels Cone, Chemist BC

SUBJECT: DATA VALIDATION OF CHEMICAL ANALYSIS FROM PASCO LANDFILL PHASE I REMEDIAL INVESTIGATION, PROJECT 624419, DATA SET 2D

During the period of October 26 - 31, 1992, forty-three soil samples were collected by Burlington Environmental Inc. (Burlington). Their sample identification numbers are as follows:

PLF-SS-001	PLF-SS-007	PLF-SS-013	PLF-SS-019	PLF-SS-028	PLF-SS-034	PLF-SS-040
PLF-SS-002	PLF-SS-008	PLF-SS-014	PLF-SS-020	PLF-SS-029	PLF-SS-035	PLF-SS-041
PLF-SS-003	PLF-SS-009	PLF-SS-015	PLF-SS-021	PLF-SS-030	PLF-SS-036	PLF-SS-042
PLF-SS-004	PLF-SS-010	PLF-SS-016	PLF-SS-025	PLF-SS-031	PLF-SS-037	PLF-SS-043
PLF-SS-005	PLF-SS-011	PLF-SS-017	PLF-SS-026	PLF-SS-032	PLF-SS-038	PLF-SS-044
PLF-SS-006	PLF-SS-012	PLF-SS-018	PLF-SS-027	PLF-SS-033	PLF-SS-039	PLF-SS-045
						PLF-SS-046

These samples were then submitted to Sound Analytical Services (SAS), of Tacoma, Washington (work order 28850), for priority pollutant metals (PPM) analysis (USEPA SW-846, Method 6010). I performed a data quality review of the analytical results in accordance with the USEPA Contract Laboratory Program (CLP) Document Number ILM02.0.

FINDINGS

Properly completed chain-of-custody forms were included with documented signatures from field to laboratory receipt. All samples were shown as having been iced and received in good condition. Holding, extraction, and analysis times for all samples met the required guidelines. All metal analyses were performed by inductively coupled plasma (ICP) analysis with the exception of mercury, which received cold vapor atomic absorption (CVAA) analysis.

All sample spike recoveries met required quality control (QC) limits with the exception of mercury in one out of six sample spikes. All target analytes from serial dilutions were within CLPQC directives with the exception of zinc. For duplicate analyses, eight out of thirteen analytes (flagged *) had relative percent differences exceeding QC limits. This does not reflect overall analytical precision as much as it is an indication of soil sample heterogeneity. All target analytes from laboratory control samples were within required QC limits with the exception of antimony. As such, all reported antimony values should be considered as estimates.

Initial and continuing calibration verification, method blanks, interference checks, ICP correction factors, line calibration data, and calibration check standards all met within required QC limits. Supporting documentation was supplied in the form of raw sample data. Data consistent with reported summary information was demonstrated. Overall, the data quality objectives outlined by the CLP Statement of Work were followed. Accordingly, this data can be considered useful for its intended purpose, with inclusions of the qualifier listed under Recommendations.

RECOMMENDATIONS

All reported values of antimony should be considered as estimates appended with the CLP data qualifier flag "E". No further modifications to the data set are required.

B

NBC 5/18/93

NC/rlk/b44:2061b.mem

SURFACE SOILS I2.6

SAMPLES PLF-SS-047 TO PLF-SS-067

SOUND ANALYTICAL SERVICES, INC.

SPECIALIZING IN INDUSTRIAL & TOXIC WASTE ANALYSIS

4813 PACIFIC HIGHWAY EAST, TACOMA, WASHINGTON 98424 - TELEPHONE (206)922-2310 - FAX (206)922-5047

Report To: Burlington Environmental Date: January 13, 1993

Report On: Analysis of Soil Lab No.: 28878

IDENTIFICATION:

Samples received on 12-08-92
Project: 624419-7020-15 Pasco

ANALYSIS:

Lab No. 28878-1 Client ID: PLF-SS-047

Chlorinated Herbicides by GCMS Per EPA SW-846 Method 8150
Date Extracted: 12-10-92
Date Analyzed: 12-12-92

Compound	Concentration, ug/kg	PQL
2,4-D	ND	11.0
Dalapon	ND	110.0
2,4-DB	ND	11.0
Dicamba	ND	11.0
Dichlorprop	ND	11.0
Dinoseb	ND	11.0
MCPA	ND	11.0
MCPP	ND	11.0
2,4,5-T	ND	11.0
2,4-5-TP	ND	11.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	136

ND = Not Detected.
PQL - Practical Quantitation Limit

Continued . . . . .

This report is issued solely for the use of the person or company to whom it is addressed. This laboratory accepts responsibility only for the due performance of analysis in accordance with industry acceptable practice. In no event shall Sound Analytical Services, Inc. or its employees be responsible for consequential or special damages in any kind or in any amount.

SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental
Project: 624419-7020-15 Pasco

Lab No. 28878
January 13, 1993

Lab No. 28878-2 Client ID: PLF-SS-048

Chlorinated Herbicides by GCMS Per EPA SW-846 Method 8150
Date Extracted: 12-10-92
Date Analyzed: 12-12-92

Compound	Concentration, ug/kg	PQL
2,4-D	ND	11.0
Dalapon	ND	110.0
2,4-DB	ND	11.0
Dicamba	ND	11.0
Dichlorprop	ND	11.0
Dinoseb	ND	11.0
MCPA	ND	11.0
MCPP	ND	11.0
2,4,5-T	ND	11.0
2,4-5-TP	ND	11.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	120

ND = Not Detected.
PQL - Practical Quantitation Limit

Continued . . . . .

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SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental
Project: 624419-7020-15 Pasco

Lab No. 28878
January 13, 1993

Lab No. 28878-3 Client ID: PLF-SS-049

Chlorinated Herbicides by GCMS Per EPA SW-846 Method 8150
Date Extracted: 12-10-92
Date Analyzed: 12-12-92

Compound	Concentration, ug/kg	PQL
2,4-D	ND	11.0
Dalapon	ND	110.0
2,4-DB	ND	11.0
Dicamba	ND	11.0
Dichlorprop	ND	11.0
Dinoseb	ND	11.0
MCPA	ND	11.0
MCPP	ND	11.0
2,4,5-T	ND	11.0
2,4-5-TP	ND	11.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	111

ND = Not Detected.
PQL - Practical Quantitation Limit

Continued . . . . .

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SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental
Project: 624419-7020-15 Pasco

Lab No. 28878
January 13, 1993

Lab No. 28878-4 Client ID: PLF-SS-050

Chlorinated Herbicides by GCMS Per EPA SW-846 Method 8150
Date Extracted: 12-10-92
Date Analyzed: 12-12-92

Compound	Concentration, ug/kg	PQL
2,4-D	ND	11.0
Dalapon	ND	110.0
2,4-DB	ND	11.0
Dicamba	ND	11.0
Dichlorprop	ND	11.0
Dinoseb	ND	11.0
MCPA	ND	11.0
MCPP	ND	11.0
2,4,5-T	ND	11.0
2,4-5-TP	ND	11.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	86

ND = Not Detected.
PQL - Practical Quantitation Limit

Continued . . . . .

This report is issued solely for the use of the person or company to whom it is addressed. This laboratory accepts responsibility only for the due performance of analysis in accordance with industry acceptable practice. In no event shall Sound Analytical Services, Inc. or its employees be responsible for consequential or special damages in any kind or in any amount.

SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental
Project: 624419-7020-15 Pasco

Lab No. 28878
January 13, 1993

Lab No. 28878-5 Client ID: PLF-SS-051

Chlorinated Herbicides by GCMS Per EPA SW-846 Method 8150
Date Extracted: 12-10-92
Date Analyzed: 12-12-92

Compound	Concentration, ug/kg	PQL
2,4-D	ND	11.0
Dalapon	ND	110.0
2,4-DB	ND	11.0
Dicamba	ND	11.0
Dichlorprop	ND	11.0
Dinoseb	ND	11.0
MCPA	ND	11.0
MCPP	ND	11.0
2,4,5-T	ND	11.0
2,4-5-TP	ND	11.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	102

ND = Not Detected.
PQL - Practical Quantitation Limit

Continued . . . . .

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SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental
Project: 624419-7020-15 Pasco

Lab No. 28878
January 13, 1993

Lab No. 28878-6 Client ID: PLF-SS-052

Chlorinated Herbicides by GCMS Per EPA SW-846 Method 8150
Date Extracted: 12-10-92
Date Analyzed: 12-12-92

Compound	Concentration, ug/kg	PQL
2,4-D	ND	11.0
Dalapon	ND	110.0
2,4-DB	ND	11.0
Dicamba	ND	11.0
Dichlorprop	ND	11.0
Dinoseb	ND	11.0
MCPA	ND	11.0
MCPP	ND	11.0
2,4,5-T	ND	11.0
2,4-5-TP	ND	11.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	120

ND = Not Detected.
PQL - Practical Quantitation Limit

Continued . . . . .

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SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental
Project: 624419-7020-15 Pasco

Lab No. 28878
January 13, 1993

Lab No. 28878-7 Client ID: PLF-SS-053

Chlorinated Herbicides by GCMS Per EPA SW-846 Method 8150
Date Extracted: 12-10-92
Date Analyzed: 12-12-92

Compound	Concentration, ug/kg	PQL
2,4-D	ND	11.0
Dalapon	ND	110.0
2,4-DB	ND	11.0
Dicamba	ND	11.0
Dichlorprop	ND	11.0
Dinoseb	ND	11.0
MCPA	ND	11.0
MCPP	ND	11.0
2,4,5-T	ND	11.0
2,4-5-TP	ND	11.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	122

ND = Not Detected.
PQL - Practical Quantitation Limit

TOC Per Puget Sound Protocol
Date Analyzed: 12-14-92

Total Organic Carbon, mg/kg 870

9

Continued . . . . .

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SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental
Project: 624419-7020-15 Pasco

Lab No. 28878
January 13, 1993

Lab No. 28878-8 Client ID: PLF-SS-054

Chlorinated Herbicides by GCMS Per EPA SW-846 Method 8150
Date Extracted: 12-10-92
Date Analyzed: 12-12-92

Compound	Concentration, ug/kg	PQL
2,4-D	ND	11.0
Dalapon	ND	110.0
2,4-DB	ND	11.0
Dicamba	ND	11.0
Dichlorprop	ND	11.0
Dinoseb	ND	11.0
MCPA	ND	11.0
MCPP	ND	11.0
2,4,5-T	ND	11.0
2,4-5-TP	ND	11.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	109

ND = Not Detected.
PQL - Practical Quantitation Limit

Continued . . . . .

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SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental
Project: 624419-7020-15 Pasco

Lab No. 28878
January 13, 1993

Lab No. 28878-9 Client ID: PLF-SS-055

Chlorinated Herbicides by GCMS Per EPA SW-846 Method 8150
Date Extracted: 12-10-92
Date Analyzed: 12-12-92

Compound	Concentration, ug/kg	PQL
2,4-D	ND	11.0
Dalapon	ND	110.0
2,4-DB	ND	11.0
Dicamba	ND	11.0
Dichlorprop	ND	11.0
Dinoseb	ND	11.0
MCPA	ND	11.0
MCPP	ND	11.0
2,4,5-T	ND	11.0
2,4-5-TP	ND	11.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	130

ND = Not Detected.
PQL - Practical Quantitation Limit

Continued . . . . .

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SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental
Project: 624419-7020-15 Pasco

Lab No. 28878
January 13, 1993

Lab No. 28878-10 Client ID: PLF-SS-056

Chlorinated Herbicides by GCMS Per EPA SW-846 Method 8150
Date Extracted: 12-10-92
Date Analyzed: 12-12-92

Compound	Concentration, ug/kg	PQL
2,4-D	ND	11.0
Dalapon	ND	110.0
2,4-DB	ND	11.0
Dicamba	ND	11.0
Dichlorprop	ND	11.0
Dinoseb	ND	11.0
MCPA	ND	11.0
MCPP	ND	11.0
2,4,5-T	ND	11.0
2,4-5-TP	ND	11.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	110

ND = Not Detected.
PQL - Practical Quantitation Limit

Continued . . . . .

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SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental
Project: 624419-7020-15 Pasco

Lab No. 28878
January 13, 1993

Lab No. 28878-11 Client ID: PLF-SS-057

Chlorinated Herbicides by GCMS Per EPA SW-846 Method 8150
Date Extracted: 12-10-92
Date Analyzed: 12-12-92

Compound	Concentration, ug/kg	PQL
2,4-D	ND	11.0
Dalapon	ND	110.0
2,4-DB	ND	11.0
Dicamba	ND	11.0
Dichlorprop	ND	11.0
Dinoseb	ND	11.0
MCPA	ND	11.0
MCPP	ND	11.0
2,4,5-T	ND	11.0
2,4-5-TP	ND	11.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	138

ND = Not Detected.
PQL - Practical Quantitation Limit

Continued . . . . .

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SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental
Project: 624419-7020-15 Pasco

Lab No. 28878
January 13, 1993

Lab No. 28878-12 Client ID: PLF-SS-058

Chlorinated Herbicides by GCMS Per EPA SW-846 Method 8150
Date Extracted: 12-10-92
Date Analyzed: 12-12-92

Compound	Concentration, ug/kg	PQL
2,4-D	ND	11.0
Dalapon	ND	110.0
2,4-DB	ND	11.0
Dicamba	ND	11.0
Dichlorprop	ND	11.0
Dinoseb	ND	11.0
MCPA	ND	11.0
MCPP	ND	11.0
2,4,5-T	ND	11.0
2,4-5-TP	ND	11.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	114

ND = Not Detected.
PQL - Practical Quantitation Limit

Continued . . . . .

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SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental
Project: 624419-7020-15 Pasco

Lab No. 28878
January 13, 1993

Lab No. 28878-13 Client ID: PLF-SS-059

Chlorinated Herbicides by GCMS Per EPA SW-846 Method 8150
Date Extracted: 12-10-92
Date Analyzed: 12-12-92

Compound	Concentration, ug/kg	PQL
2,4-D	ND	11.0
Dalapon	ND	110.0
2,4-DB	ND	11.0
Dicamba	ND	11.0
Dichlorprop	ND	11.0
Dinoseb	ND	11.0
MCPA	ND	11.0
MCPP	ND	11.0
2,4,5-T	ND	11.0
2,4-5-TP	ND	11.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	119

ND = Not Detected.
PQL - Practical Quantitation Limit

Continued . . . . .

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SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental
Project: 624419-7020-15 Pasco

Lab No. 28878
January 13, 1993

Lab No. 28878-14 Client ID: PLF-SS-060

Chlorinated Herbicides by GCMS Per EPA SW-846 Method 8150
Date Extracted: 12-10-92
Date Analyzed: 12-12-92

Compound	Concentration, ug/kg	PQL
2,4-D	ND	11.0
Dalapon	ND	110.0
2,4-DB	ND	11.0
Dicamba	ND	11.0
Dichlorprop	ND	11.0
Dinoseb	ND	11.0
MCPA	ND	11.0
MCPP	ND	11.0
2,4,5-T	ND	11.0
2,4-5-TP	ND	11.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	118

ND = Not Detected.
PQL - Practical Quantitation Limit

Continued . . . . .

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SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental
Project: 624419-7020-15 Pasco

Lab No. 28878
January 13, 1993

Lab No. 28878-15 Client ID: PLF-SS-061

Chlorinated Herbicides by GCMS Per EPA SW-846 Method 8150
Date Extracted: 12-10-92
Date Analyzed: 12-12-92

Compound	Concentration, ug/kg	PQL
2,4-D	ND	11.0
Dalapon	ND	110.0
2,4-DB	ND	11.0
Dicamba	ND	11.0
Dichlorprop	ND	11.0
Dinoseb	ND	11.0
MCPA	ND	11.0
MCPP	ND	11.0
2,4,5-T	ND	11.0
2,4-5-TP	ND	11.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	126

ND = Not Detected.
PQL - Practical Quantitation Limit

Continued . . . . .

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SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental
Project: 624419-7020-15 Pasco

Lab No. 28878
January 13, 1993

Lab No. 28878-16 Client ID: PLF-SS-062

Chlorinated Herbicides by GCMS Per EPA SW-846 Method 8150
Date Extracted: 12-10-92
Date Analyzed: 12-12-92

Compound	Concentration, mg/kg	PQL
2,4-D	ND	11.0
Dalapon	ND	110.0
2,4-DB	ND	11.0
Dicamba	ND	11.0
Dichlorprop	ND	11.0
Dinoseb	ND	11.0
MCPA	ND	11.0
MCPP	ND	11.0
2,4,5-T	ND	11.0
2,4-5-TP	ND	11.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	94

ND = Not Detected.
PQL - Practical Quantitation Limit

Continued . . . . .

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SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental
Project: 624419-7020-15 Pasco

Lab No. 28878
January 13, 1993

Lab No. 28878-17 Client ID: PLF-SS-063

Chlorinated Herbicides by GCMS Per EPA SW-846 Method 8150
Date Extracted: 12-10-92
Date Analyzed: 12-12-92

Compound	Concentration, ug/kg	PQL
2,4-D	ND	11.0
Dalapon	ND	110.0
2,4-DB	ND	11.0
Dicamba	ND	11.0
Dichlorprop	ND	11.0
Dinoseb	ND	11.0
MCPA	ND	11.0
MCPP	ND	11.0
2,4,5-T	ND	11.0
2,4-5-TP	ND	11.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	129

ND = Not Detected.
PQL - Practical Quantitation Limit

TOC Per Puget Sound Protocol
Date Analyzed: 12-14-92

Total Organic Carbon, mg/kg 1,140

Continued . . . . .

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SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental
Project: 624419-7020-15 Pasco

Lab No. 28878
January 13, 1993

Lab No. 28878-18 Client ID: PLF-SS-064

Chlorinated Herbicides by GCMS Per EPA SW-846 Method 8150
Date Extracted: 12-10-92
Date Analyzed: 12-12-92

Compound	Concentration, ug/kg	PQL
2,4-D	ND	11.0
Dalapon	ND	110.0
2,4-DB	ND	11.0
Dicamba	ND	11.0
Dichlorprop	ND	11.0
Dinoseb	ND	11.0
MCPA	ND	11.0
MCPP	ND	11.0
2,4,5-T	ND	11.0
2,4-5-TP	ND	11.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	114

ND = Not Detected.
PQL - Practical Quantitation Limit

Continued . . . . .

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SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental
Project: 624419-7020-15 Pasco

Lab No. 28878
January 13, 1993

Lab No. 28878-19 Client ID: PLF-SS-065

Chlorinated Herbicides by GCMS Per EPA SW-846 Method 8150
Date Extracted: 12-10-92
Date Analyzed: 12-12-92

Compound	Concentration, ug/kg	PQL
2,4-D	ND	11.0
Dalapon	ND	110.0
2,4-DB	ND	11.0
Dicamba	ND	11.0
Dichlorprop	ND	11.0
Dinoseb	ND	11.0
MCPA	ND	11.0
MCPP	ND	11.0
2,4,5-T	ND	11.0
2,4-5-TP	ND	11.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	126

ND = Not Detected.
PQL - Practical Quantitation Limit

Continued . . . . .

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SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental
Project: 624419-7020-15 Pasco

Lab No. 28878
January 13, 1993

Lab No. 28878-20 Client ID: PLF-SS-066

Chlorinated Herbicides by GCMS Per EPA SW-846 Method 8150
Date Extracted: 12-10-92
Date Analyzed: 12-12-92

Compound	Concentration, ug/kg	PQL
2,4-D	ND	11.0
Dalapon	ND	110.0
2,4-DB	ND	11.0
Dicamba	ND	11.0
Dichlorprop	ND	11.0
Dinoseb	ND	11.0
MCPA	ND	11.0
MCPP	ND	11.0
2,4,5-T	ND	11.0
2,4-5-TP	ND	11.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	124

ND = Not Detected.
PQL - Practical Quantitation Limit

Continued . . . . .

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SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental
Project: 624419-7020-15 Pasco
Page 21 of 21
Lab No. 28878
January 13, 1993

Lab No. 28878-21 Client ID: PLF-SS-067

Chlorinated Herbicides by GCMS Per EPA SW-846 Method 8150
Date Extracted: 12-10-92
Date Analyzed: 12-12-92

Compound	Concentration, ug/kg	PQL
2,4-D	ND	11.0
Dalapon	ND	110.0
2,4-DB	ND	11.0
Dicamba	ND	11.0
Dichlorprop	ND	11.0
Dinoseb	ND	11.0
MCPA	ND	11.0
MCPP	ND	11.0
2,4,5-T	ND	11.0
2,4-5-TP	ND	11.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	117

ND = Not Detected.
PQL - Practical Quantitation Limit

SOUND ANALYTICAL SERVICES

BRENT HEPNER

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CHAIN OF CUSTODY

John Mathes & Associates, Inc.
210 West Sand Bank Road
Columbia, Illinois 62236

CHAIN-OF-CUSTODY RECORD

C.O.C. SERIAL NO. 5276

PROJECT NAME PH 1 RI Pasco Landfill
PROJECT NUMBER 624419 MAJOR TASK 7020-15
SAMPLERS Lou La Rosa Don Robbins
LAB DESTINATION Sound Analytical Services

SAMPLE NO.	DATE	TIME	COMP	GRAB	SAMPLE LOCATION	NO. OF CONTAINERS	SVOC 8270	PEST/PCB 8080	HERBICIDES 8150	PPM 6010	TOC PS Protocol	MS/MSD		ICED	CHEMICALS ADDED	REMARKS (CHEMICAL ANALYSIS REQUEST FORM NUMBER IF APPLICABLE)
PLFSS047	12-5-92	0919		✓		1	✓	✓	✓	✓				✓		
PLFSS048	12-5-92	0927		✓		1	✓	✓	✓	✓				✓		
PLFSS049	12-5-92	0934		✓		1	✓	✓	✓	✓				✓		
PLFSS050	12-5-92	0947		✓		1	✓	✓	✓	✓				✓		
PLFSS051	12-5-92	0955		✓		1	✓	✓	✓	✓				✓		
PLFSS052	12-5-92	1006		✓		1	✓	✓	✓	✓				✓		
PLFSS053	12-5-92	1020		✓		1	✓	✓	✓	✓	✓			✓		
PLFSS054	12-5-92	1029		✓		1	✓	✓	✓	✓				✓		
PLFSS055	12-5-92	1036		✓		1	✓	✓	✓	✓		✓		✓		
PLFSS056	12-5-92	1044		✓		1	✓	✓	✓	✓				✓		
PLFSS057	12-5-92	1051		✓		1	✓	✓	✓	✓				✓		
PLFSS058	12-5-92	1100		✓		1	✓	✓	✓	✓				✓		
PLFSS059	12-5-92	1113		✓		1	✓	✓	✓	✓				✓		
PLFSS060	12-5-92	11121		✓		1	✓	✓	✓	✓				✓		

RELINQUISHED BY SIGNATURE	DATE	TIME	RECEIVED BY SIGNATURE	DATE	TIME
Louis A La Rosa	12-7-92	1100	Sent via Fed Ex	12-7-92	1100
			SGiang SAS	12/8/92	9:00am

SHIPPING NOTES

LAB NOTES

JM-34 (8/89)

John Mathes & Associates, Inc.
210 West Sand Bank Road
Columbia, Illinois 62236

CHAIN-OF-CUSTODY RECORD

C.O.C. SERIAL NO. 5277

PROJECT NAME PH 1 RI Pasco Landfill
PROJECT NUMBER 624419 MAJOR TASK 7020.15
SAMPLERS Lou La Rosa Don Robbins
LAB DESTINATION Sound Analytical Services

SAMPLE NO.	DATE	TIME	COMP	GRAB	SAMPLE LOCATION	NO. OF CONTAINERS	SVOC 8270	PEST/PCB 8080	HERBICIDES 8150	PPM 6010	TOC PS Protocol	MS/MSD		ICED	CHEMICALS ADDED	REMARKS (CHEMICAL ANALYSIS REQUEST FORM NUMBER IF APPLICABLE)
PLFSS061	12-5-92	1129		✓		1	✓	✓	✓	✓				✓		
PLFSS062		1138		✓		1	✓	✓	✓	✓				✓		
PLFSS063		1147		✓		1	✓	✓	✓	✓	✓			✓		
PLFSS064		1157		✓		1	✓	✓	✓	✓				✓		
PLFSS065		1204		✓		1	✓	✓	✓	✓				✓		
PLFSS066		1215		✓		1	✓	✓	✓	✓				✓		
PLFSS67	12-5-92	0927		✓		1	✓	✓	✓	✓				✓		

RELINQUISHED BY SIGNATURE	DATE	TIME	RECEIVED BY SIGNATURE	DATE	TIME
Louis J. La Rosa	12-7-92	1100	Sent VIA Fed Ex	12-7-92	1100
			SGiang SAS	12/8/92	9:00am

SHIPPING NOTES

LAB NOTES

MEMORANDUM

DATE: March 5, 1993

TO: Ted Wall, Environmental Engineer TW

FROM: Nels Cone, Chemist NBC

SUBJECT: DATA VALIDATION OF CHEMICAL ANALYSIS FROM PASCO LANDFILL PHASE I REMEDIAL INVESTIGATION, PROJECT 624419, DATA SET 3A

On December 5, 1992, twenty-one soil samples were collected by Burlington field personnel. Their sample identification numbers are listed below.

PLF-SS-047	PLF-SS-051	PLF-SS-055	PLF-SS-059	PLF-SS-063
PLF-SS-048	PLF-SS-052	PLF-SS-056	PLF-SS-060	PLF-SS-064
PLF-SS-049	PLF-SS-053	PLF-SS-057	PLF-SS-061	PLF-SS-065
PLF-SS-050	PLF-SS-054	PLF-SS-058	PLF-SS-062	PLF-SS-066
				PLF-SS-067

These samples were then submitted to Sound Analytical Services (SAS), of Tacoma, Washington (work order 28878), for chlorinated herbicides (USEPA SW-846, Method 8150) and total organic carbon (TOC) per SAS laboratory protocol. I performed a data quality review of the analytical results in accordance with the USEPA Contract Laboratory Program (CLP) Document Number 0LM01.0. These guidelines are normally used for water and soil monitoring of specific target compounds. However, this document was also relied upon for proper guidance in the above analyses, because no CLP guidelines have been published for chlorinated herbicides and total organic carbon analysis.

FINDINGS

Properly completed chain-of-custody forms were included with documented signatures from field to laboratory receipt. All samples were shown as having been properly iced and received in good condition. The samples received the requested analyses, and all holding, extraction, and analysis times met the required guidelines. Duplicate analyses performed for TOC analysis, displayed acceptable precision between results. Matrix spike/matrix spike duplicate recoveries displayed accuracy within advisory quality control (QC) limits. While there are no surrogate compounds as part of TOC analysis, analytical check standards provided additional evidence of data precision. An elevated method blank value was found for TOC analysis. As agreed upon by SAS, the two reported TOC values (samples PLF-SS-053 and PLF-SS-063) should be adjusted 40 mg/kg downward to baseline.

Laboratory duplicates analysis were not run for detection of herbicides. However, field duplicate pair PLF-SS-048 and PLF-SS-067 indicate appropriate analytical precision. All matrix spike/matrix spike duplicate recoveries displayed accuracy within advisory QC limits, with the exception of dalapon, and dicamba. Per CLP protocol, since these compounds were not detected in the samples, no data qualifier flags are used.

Surrogate compound recoveries for all chlorinated herbicide analyses met within expected QC limits. Requisite instrument tuning check with decafluorotriphenylphosphine was reported to document performance of gas chromatograms/mass spectral (GC/MS) analyses. Initial and continuing calibration checks displayed area response, response factors, and retention times within advisory QC limits for all target compounds, as well as those for internal standards.

Additional QC was supplied in the form of the raw lab data, GC/MS data for the samples, method blanks, method spikes, and calibration standards. Data consistency was demonstrated throughout. Proper data qualifier flags accompanied the analytical results as needed. Overall, the data quality guidelines as advised in the CLP Statement of Work are met. Accordingly, this data can be considered valid for its intended use.

RECOMMENDATIONS

All reported TOC values should be adjusted 40 mg/kg less than stated.

SURFACE SOILS I2.7

SAMPLES PLF-SS-047 TO PLF-SS-067

SOUND ANALYTICAL SERVICES, INC.

SPECIALIZING IN INDUSTRIAL & TOXIC WASTE ANALYSIS

4813 PACIFIC HIGHWAY EAST, TACOMA, WASHINGTON 98424 - TELEPHONE (206) 922-2310 - FAX (206) 922-5047

RECEIVED
FEB - 4 1993
BURLINGTON ENVIRONMENTAL INC.

February 2, 1993

TO: Burlington Environmental Engineering

PROJECT NUMBER: 624419-7020-15

PROJECT NAME: Pasco Landfill

LABORATORY WORK ORDER NUMBER IDENTIFICATION: 28878

Samples were taken on 12/5/92 and recieved at Sound Analytical on 12/7/92. The samples were analyzed for chlorinated pesticides and PCB's in accordance with EPA SW-846 Method 8080, for semivolatile organics by GC/MS in accordance with EPA SW-846 Method 8270, for chlorinated herbicides in accordance with EPA SW-846 Method 8150, for metals by ICP in accordance with EPA SW-846 Method 6010, for mercury by cold vapor AA in accordance with SW-846 Method 7471, and for total organic carbon in accordance with Puget Sound Protocol.

PESTICIDES and PCBs

Samples 28878-1 through 28878-21 were extracted on 12/11/92 and analyzed on 12/22/92 and 12/23/92. Tetrachloro-m-xylene percent recoveries were slightly below QC limits for samples 28878-1 and 28878-11. All other QC parameters were within acceptance limits.

SEMIVOLATILE ORGANICS

Samples 28878-1 through 28878-21 were extracted on 12/9/92 and analyzed on 12/15/92 and 12/16/92. Di-n-butylphthalate was detected in the method blanks at levels above the PQL. Sample results for di-n-butylphthalate are flagged B to indicate this. Matrix spike percent recoveries for 1,4-dichlorobenzene, N-nitroso-di-n-propylamine, and 1,2,4-trichlorobenzene were outside QC limits. The matrix spike duplicate percent recovery for 1,4-dichlorobenzene was also outside QC limits. The MS/MSD relative percent difference values for several compounds exceeded QC limits. All other QC parameters were within acceptance limits.

HERBICIDES
Samples 28878-1 through 28878-21 were extracted on 12/10/92 and analyzed on 12/12/92. No target compounds were detected in the method blanks above the PQL. Percent recoveries for dalapon and dicamba were below advisory QC limits for the MS/MSD analyses. All other QC parameters were within acceptance limits.

METALS
Samples 28878-1 through 28878-21 were digested for ICP on 12/9/92 and analyzed on 12/11/92. Samples 28878-1 through 28878-21 were digested for cold vapor AA on 12/9/92 and analyzed on 12/9/92. The matrix spike percent recoveries for antimony and thallium were slightly below the QC limit. Relative percent difference values for the duplicate analysis of several metals exceeded QC limits. All other QC parameters were within acceptance limits.

TOTAL ORGANIC CARBON
Samples 28878-7 and 28878-17 were extracted on 12/9/92 and analyzed on 12/14/92. Total organic carbon was detected in the method blank above the PQL. All other QC parameters were within acceptance limits.

SEMIVOLATILE DATA PACKAGE

SAMPLE DATA

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS047

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:28878

Matrix: (soil/water) SOIL Lab Sample ID:28878-1

Sample wt/vol: 30.3 (g/ml) G Lab File ID: S7111

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

% Moisture: 9 decanted: (Y/N) N Date Extracted:12/09/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed:12/15/92

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	360.	U
111-44-4	Bis(2-chloroethyl)ether	360.	U
95-57-8	2-Chlorophenol	360.	U
541-73-1	1,3-Dichlorobenzene	360.	U
106-46-7	1,4-Dichlorobenzene	360.	U
100-51-6	Benzyl alcohol	730.	U
95-50-1	1,2-Dichlorobenzene	360.	U
95-48-7	2-Methylphenol	360.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	360.	U
106-44-5	4-Methylphenol	360.	U
621-64-7	N-Nitroso-di-n-propylamine	360.	U
67-72-1	Hexachloroethane	360.	U
98-95-3	Nitrobenzene	360.	U
78-59-1	Isophorone	360.	U
88-75-5	2-Nitrophenol	360.	U
105-67-9	2,4-Dimethylphenol	360.	U
65-85-0	Benzoic acid	1800.	U
111-91-1	bis(2-Chloroethoxy)methane	360.	U
120-83-2	2,4-Dichlorophenol	360.	U
120-82-1	1,2,4-Trichlorobenzene	360.	U
91-20-3	Naphthalene	360.	U
106-47-8	4-Chloroaniline	730.	U
87-68-3	Hexachlorobutadiene	360.	U
59-50-7	4-Chloro-3-methylphenol	730.	U
91-57-6	2-Methylnaphthalene	360.	U
77-47-4	Hexachlorocyclopentadiene	360.	U
88-06-2	2,4,6-Trichlorophenol	360.	U
95-95-4	2,4,5-Trichlorophenol	360.	U
91-58-7	2-Chloronaphthalene	360.	U
88-74-4	2-Nitroaniline	1800.	U
131-11-3	Dimethylphthalate	360.	U
208-96-8	Acenaphthylene	360.	U
606-20-2	2,6-Dinitrotoluene	360.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS047

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:28878

Matrix: (soil/water) SOIL Lab Sample ID:28878-1

Sample wt/vol: 30.3 (g/ml) G Lab File ID: S7111

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

% Moisture: 9 decanted: (Y/N) N Date Extracted:12/09/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed:12/15/92

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1800.	U
83-32-9	Acenaphthene	360.	U
51-28-5	2,4-Dinitrophenol	1800.	U
100-02-7	4-Nitrophenol	1800.	U
132-64-9	Dibenzofuran	360.	U
121-14-2	2,4-Dinitrotoluene	360.	U
84-66-2	Diethylphthalate	360.	U
7005-72-3	4-Chlorophenyl-phenylether	360.	U
86-73-7	Fluorene	360.	U
100-01-6	4-Nitroaniline	1800.	U
534-52-1	4,6-Dinitro-2-methylphenol	1800.	U
86-30-6	N-Nitrosodiphenylamine(1)	360.	U
101-55-3	4-Bromophenyl-phenylether	360.	U
118-74-1	Hexachlorobenzene	360.	U
87-86-5	Pentachlorophenol	1800.	U
85-01-8	Phenanthrene	360.	U
120-12-7	Anthracene	360.	U
84-74-2	Di-n-butylphthalate	1600.	B
206-44-0	Fluoranthene	360.	U
129-00-0	Pyrene	360.	U
85-68-7	Butylbenzylphthalate	360.	U
91-94-1	3,3'-Dichlorobenzidine	730.	U
56-55-3	Benzo(a)anthracene	360.	U
218-01-9	Chrysene	360.	U
117-81-7	bis(2-Ethylhexyl)phthalate	360.	U
117-84-0	Di-n-octylphthalate	360.	U
205-99-2	Benzo(b)fluoranthene	360.	U
207-08-9	Benzo(k)fluoranthene	360.	U
50-32-8	Benzo(a)pyrene	360.	U
193-39-5	Indeno(1,2,3-cd)pyrene	360.	U
53-70-3	Dibenz(a,h)anthracene	360.	U
191-24-2	Benzo(g,h,i)perylene	360.	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS048

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:28878

Matrix: (soil/water) SOIL Lab Sample ID:28878-2

Sample wt/vol: 30.0 (g/ml) G Lab File ID: S7112

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

% Moisture: 8 decanted: (Y/N) N Date Extracted:12/09/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed:12/15/92

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	360.	U
111-44-4	Bis(2-chloroethyl)ether	360.	U
95-57-8	2-Chlorophenol	360.	U
541-73-1	1,3-Dichlorobenzene	360.	U
106-46-7	1,4-Dichlorobenzene	360.	U
100-51-6	Benzyl alcohol	720.	U
95-50-1	1,2-Dichlorobenzene	360.	U
95-48-7	2-Methylphenol	360.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	360.	U
106-44-5	4-Methylphenol	360.	U
621-64-7	N-Nitroso-di-n-propylamine	360.	U
67-72-1	Hexachloroethane	360.	U
98-95-3	Nitrobenzene	360.	U
78-59-1	Isophorone	360.	U
88-75-5	2-Nitrophenol	360.	U
105-67-9	2,4-Dimethylphenol	360.	U
65-85-0	Benzoic acid	1800.	U
111-91-1	bis(2-Chloroethoxy)methane	360.	U
120-83-2	2,4-Dichlorophenol	360.	U
120-82-1	1,2,4-Trichlorobenzene	360.	U
91-20-3	Naphthalene	360.	U
106-47-8	4-Chloroaniline	720.	U
87-68-3	Hexachlorobutadiene	360.	U
59-50-7	4-Chloro-3-methylphenol	720.	U
91-57-6	2-Methylnaphthalene	360.	U
77-47-4	Hexachlorocyclopentadiene	360.	U
88-06-2	2,4,6-Trichlorophenol	360.	U
95-95-4	2,4,5-Trichlorophenol	360.	U
91-58-7	2-Chloronaphthalene	360.	U
88-74-4	2-Nitroaniline	1800.	U
131-11-3	Dimethylphthalate	360.	U
208-96-8	Acenaphthylene	360.	U
606-20-2	2,6-Dinitrotoluene	360.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS048

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:28878

Matrix: (soil/water) SOIL Lab Sample ID:28878-2

Sample wt/vol: 30.0 (g/ml) G Lab File ID: S7112

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

% Moisture: 8 decanted: (Y/N) N Date Extracted:12/09/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed:12/15/92

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1800.	U
83-32-9	Acenaphthene	360.	U
51-28-5	2,4-Dinitrophenol	1800.	U
100-02-7	4-Nitrophenol	1800.	U
132-64-9	Dibenzofuran	360.	U
121-14-2	2,4-Dinitrotoluene	360.	U
84-66-2	Diethylphthalate	360.	U
7005-72-3	4-Chlorophenyl-phenylether	360.	U
86-73-7	Fluorene	360.	U
100-01-6	4-Nitroaniline	1800.	U
534-52-1	4,6-Dinitro-2-methylphenol	1800.	U
86-30-6	N-Nitrosodiphenylamine(1)	360.	U
101-55-3	4-Bromophenyl-phenylether	360.	U
118-74-1	Hexachlorobenzene	360.	U
87-86-5	Pentachlorophenol	1800.	U
85-01-8	Phenanthrene	360.	U
120-12-7	Anthracene	360.	U
84-74-2	Di-n-butylphthalate	1600.	B
206-44-0	Fluoranthene	360.	U
129-00-0	Pyrene	360.	U
85-68-7	Butylbenzylphthalate	360.	U
91-94-1	3,3'-Dichlorobenzidine	720.	U
56-55-3	Benzo(a)anthracene	360.	U
218-01-9	Chrysene	360.	U
117-81-7	bis(2-Ethylhexyl)phthalate	360.	U
117-84-0	Di-n-octylphthalate	360.	U
205-99-2	Benzo(b)fluoranthene	360.	U
207-08-9	Benzo(k)fluoranthene	360.	U
50-32-8	Benzo(a)pyrene	360.	U
193-39-5	Indeno(1,2,3-cd)pyrene	360.	U
53-70-3	Dibenz(a,h)anthracene	360.	U
191-24-2	Benzo(g,h,i)perylene	360.	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS049

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:28878

Matrix: (soil/water) SOIL Lab Sample ID:28878-3

Sample wt/vol: 30.2 (g/ml) G Lab File ID: S7113

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

% Moisture: 9 decanted: (Y/N) N Date Extracted:12/09/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed:12/15/92

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	360.	U
111-44-4	Bis(2-chloroethyl)ether	360.	U
95-57-8	2-Chlorophenol	360.	U
541-73-1	1,3-Dichlorobenzene	360.	U
106-46-7	1,4-Dichlorobenzene	360.	U
100-51-6	Benzyl alcohol	730.	U
95-50-1	1,2-Dichlorobenzene	360.	U
95-48-7	2-Methylphenol	360.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	360.	U
106-44-5	4-Methylphenol	360.	U
621-64-7	N-Nitroso-di-n-propylamine	360.	U
67-72-1	Hexachloroethane	360.	U
98-95-3	Nitrobenzene	360.	U
78-59-1	Isophorone	360.	U
88-75-5	2-Nitrophenol	360.	U
105-67-9	2,4-Dimethylphenol	360.	U
65-85-0	Benzoic acid	1800.	U
111-91-1	bis(2-Chloroethoxy)methane	360.	U
120-83-2	2,4-Dichlorophenol	360.	U
120-82-1	1,2,4-Trichlorobenzene	360.	U
91-20-3	Naphthalene	360.	U
106-47-8	4-Chloroaniline	730.	U
87-68-3	Hexachlorobutadiene	360.	U
59-50-7	4-Chloro-3-methylphenol	730.	U
91-57-6	2-Methylnaphthalene	360.	U
77-47-4	Hexachlorocyclopentadiene	360.	U
88-06-2	2,4,6-Trichlorophenol	360.	U
95-95-4	2,4,5-Trichlorophenol	360.	U
91-58-7	2-Chloronaphthalene	360.	U
88-74-4	2-Nitroaniline	1800.	U
131-11-3	Dimethylphthalate	360.	U
208-96-8	Acenaphthylene	360.	U
606-20-2	2,6-Dinitrotoluene	360.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS049

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:28878

Matrix: (soil/water) SOIL Lab Sample ID:28878-3

Sample wt/vol: 30.2 (g/ml) G Lab File ID: S7113

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

% Moisture: 9 decanted: (Y/N) N Date Extracted:12/09/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed:12/15/92

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1800.	U
83-32-9	Acenaphthene	360.	U
51-28-5	2,4-Dinitrophenol	1800.	U
100-02-7	4-Nitrophenol	1800.	U
132-64-9	Dibenzofuran	360.	U
121-14-2	2,4-Dinitrotoluene	360.	U
84-66-2	Diethylphthalate	360.	U
7005-72-3	4-Chlorophenyl-phenylether	360.	U
86-73-7	Fluorene	360.	U
100-01-6	4-Nitroaniline	1800.	U
534-52-1	4,6-Dinitro-2-methylphenol	1800.	U
86-30-6	N-Nitrosodiphenylamine(1)	360.	U
101-55-3	4-Bromophenyl-phenylether	360.	U
118-74-1	Hexachlorobenzene	360.	U
87-86-5	Pentachlorophenol	1800.	U
85-01-8	Phenanthrene	360.	U
120-12-7	Anthracene	360.	U
84-74-2	Di-n-butylphthalate	1300.	B
206-44-0	Fluoranthene	360.	U
129-00-0	Pyrene	360.	U
85-68-7	Butylbenzylphthalate	360.	U
91-94-1	3,3'-Dichlorobenzidine	730.	U
56-55-3	Benzo(a)anthracene	360.	U
218-01-9	Chrysene	360.	U
117-81-7	bis(2-Ethylhexyl)phthalate	360.	U
117-84-0	Di-n-octylphthalate	360.	U
205-99-2	Benzo(b)fluoranthene	360.	U
207-08-9	Benzo(k)fluoranthene	360.	U
50-32-8	Benzo(a)pyrene	360.	U
193-39-5	Indeno(1,2,3-cd)pyrene	360.	U
53-70-3	Dibenz(a,h)anthracene	360.	U
191-24-2	Benzo(g,h,i)perylene	360.	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS050

Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:28878

Matrix: (soil/water) SOIL Lab Sample ID:28878-4

Sample wt/vol: 30.3 (g/ml) G Lab File ID: S7114

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

% Moisture: 10 decanted: (Y/N) N Date Extracted:12/09/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed:12/15/92

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	370.	U
111-44-4	Bis(2-chloroethyl)ether	370.	U
95-57-8	2-Chlorophenol	370.	U
541-73-1	1,3-Dichlorobenzene	370.	U
106-46-7	1,4-Dichlorobenzene	370.	U
100-51-6	Benzyl alcohol	730.	U
95-50-1	1,2-Dichlorobenzene	370.	U
95-48-7	2-Methylphenol	370.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	370.	U
106-44-5	4-Methylphenol	370.	U
621-64-7	N-Nitroso-di-n-propylamine	370.	U
67-72-1	Hexachloroethane	370.	U
98-95-3	Nitrobenzene	370.	U
78-59-1	Isophorone	370.	U
88-75-5	2-Nitrophenol	370.	U
105-67-9	2,4-Dimethylphenol	370.	U
65-85-0	Benzoic acid	1800.	U
111-91-1	bis(2-Chloroethoxy)methane	370.	U
120-83-2	2,4-Dichlorophenol	370.	U
120-82-1	1,2,4-Trichlorobenzene	370.	U
91-20-3	Naphthalene	370.	U
106-47-8	4-Chloroaniline	730.	U
87-68-3	Hexachlorobutadiene	370.	U
59-50-7	4-Chloro-3-methylphenol	730.	U
91-57-6	2-Methylnaphthalene	370.	U
77-47-4	Hexachlorocyclopentadiene	370.	U
88-06-2	2,4,6-Trichlorophenol	370.	U
95-95-4	2,4,5-Trichlorophenol	370.	U
91-58-7	2-Chloronaphthalene	370.	U
88-74-4	2-Nitroaniline	1800.	U
131-11-3	Dimethylphthalate	370.	U
208-96-8	Acenaphthylene	370.	U
606-20-2	2,6-Dinitrotoluene	370.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS050

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:28878

Matrix: (soil/water) SOIL Lab Sample ID:28878-4

Sample wt/vol: 30.3 (g/ml) G Lab File ID: S7114

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

% Moisture: 10 decanted: (Y/N) N Date Extracted:12/09/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed:12/15/92

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1800.	U
83-32-9	Acenaphthene	370.	U
51-28-5	2,4-Dinitrophenol	1800.	U
100-02-7	4-Nitrophenol	1800.	U
132-64-9	Dibenzofuran	370.	U
121-14-2	2,4-Dinitrotoluene	370.	U
84-66-2	Diethylphthalate	370.	U
7005-72-3	4-Chlorophenyl-phenylether	370.	U
86-73-7	Fluorene	370.	U
100-01-6	4-Nitroaniline	1800.	U
534-52-1	4,6-Dinitro-2-methylphenol	1800.	U
86-30-6	N-Nitrosodiphenylamine(1)	370.	U
101-55-3	4-Bromophenyl-phenylether	370.	U
118-74-1	Hexachlorobenzene	370.	U
87-86-5	Pentachlorophenol	1800.	U
85-01-8	Phenanthrene	370.	U
120-12-7	Anthracene	370.	U
84-74-2	Di-n-butylphthalate	1200.	B
206-44-0	Fluoranthene	370.	U
129-00-0	Pyrene	370.	U
85-68-7	Butylbenzylphthalate	370.	U
91-94-1	3,3'-Dichlorobenzidine	730.	U
56-55-3	Benzo(a)anthracene	370.	U
218-01-9	Chrysene	370.	U
117-81-7	bis(2-Ethylhexyl)phthalate	370.	U
117-84-0	Di-n-octylphthalate	370.	U
205-99-2	Benzo(b)fluoranthene	370.	U
207-08-9	Benzo(k)fluoranthene	370.	U
50-32-8	Benzo(a)pyrene	370.	U
193-39-5	Indeno(1,2,3-cd)pyrene	370.	U
53-70-3	Dibenz(a,h)anthracene	370.	U
191-24-2	Benzo(g,h,i)perylene	370.	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS051

Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:28878

Matrix: (soil/water) SOIL Lab Sample ID:28878-5

Sample wt/vol: 30.4 (g/ml) G Lab File ID: S7115

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

% Moisture: 7 decanted: (Y/N) N Date Extracted:12/09/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed:12/15/92

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	350.	U
111-44-4	Bis(2-chloroethyl)ether	350.	U
95-57-8	2-Chlorophenol	350.	U
541-73-1	1,3-Dichlorobenzene	350.	U
106-46-7	1,4-Dichlorobenzene	350.	U
100-51-6	Benzyl alcohol	710.	U
95-50-1	1,2-Dichlorobenzene	350.	U
95-48-7	2-Methylphenol	350.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	350.	U
106-44-5	4-Methylphenol	350.	U
621-64-7	N-Nitroso-di-n-propylamine	350.	U
67-72-1	Hexachloroethane	350.	U
98-95-3	Nitrobenzene	350.	U
78-59-1	Isophorone	350.	U
88-75-5	2-Nitrophenol	350.	U
105-67-9	2,4-Dimethylphenol	350.	U
65-85-0	Benzoic acid	1800.	U
111-91-1	bis(2-Chloroethoxy)methane	350.	U
120-83-2	2,4-Dichlorophenol	350.	U
120-82-1	1,2,4-Trichlorobenzene	350.	U
91-20-3	Naphthalene	350.	U
106-47-8	4-Chloroaniline	710.	U
87-68-3	Hexachlorobutadiene	350.	U
59-50-7	4-Chloro-3-methylphenol	710.	U
91-57-6	2-Methylnaphthalene	350.	U
77-47-4	Hexachlorocyclopentadiene	350.	U
88-06-2	2,4,6-Trichlorophenol	350.	U
95-95-4	2,4,5-Trichlorophenol	350.	U
91-58-7	2-Chloronaphthalene	350.	U
88-74-4	2-Nitroaniline	1800.	U
131-11-3	Dimethylphthalate	350.	U
208-96-8	Acenaphthylene	350.	U
606-20-2	2,6-Dinitrotoluene	350.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS051

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:28878

Matrix: (soil/water) SOIL Lab Sample ID:28878-5

Sample wt/vol: 30.4 (g/ml) G Lab File ID: S7115

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

% Moisture: 7 decanted: (Y/N) N Date Extracted:12/09/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed:12/15/92

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1800.	U
83-32-9	Acenaphthene	350.	U
51-28-5	2,4-Dinitrophenol	1800.	U
100-02-7	4-Nitrophenol	1800.	U
132-64-9	Dibenzofuran	350.	U
121-14-2	2,4-Dinitrotoluene	350.	U
84-66-2	Diethylphthalate	350.	U
7005-72-3	4-Chlorophenyl-phenylether	350.	U
86-73-7	Fluorene	350.	U
100-01-6	4-Nitroaniline	1800.	U
534-52-1	4,6-Dinitro-2-methylphenol	1800.	U
86-30-6	N-Nitrosodiphenylamine(1)	350.	U
101-55-3	4-Bromophenyl-phenylether	350.	U
118-74-1	Hexachlorobenzene	350.	U
87-86-5	Pentachlorophenol	1800.	U
85-01-8	Phenanthrene	350.	U
120-12-7	Anthracene	350.	U
84-74-2	Di-n-butylphthalate	1100.	B
206-44-0	Fluoranthene	350.	U
129-00-0	Pyrene	350.	U
85-68-7	Butylbenzylphthalate	350.	U
91-94-1	3,3'-Dichlorobenzidine	710.	U
56-55-3	Benzo(a)anthracene	350.	U
218-01-9	Chrysene	350.	U
117-81-7	bis(2-Ethylhexyl)phthalate	350.	U
117-84-0	Di-n-octylphthalate	350.	U
205-99-2	Benzo(b)fluoranthene	350.	U
207-08-9	Benzo(k)fluoranthene	350.	U
50-32-8	Benzo(a)pyrene	350.	U
193-39-5	Indeno(1,2,3-cd)pyrene	350.	U
53-70-3	Dibenz(a,h)anthracene	350.	U
191-24-2	Benzo(g,h,i)perylene	350.	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS052

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:28878

Matrix: (soil/water) SOIL Lab Sample ID:28878-6

Sample wt/vol: 30.2 (g/ml) G Lab File ID: S7116

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

% Moisture: 9 decanted: (Y/N) N Date Extracted:12/09/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed:12/15/92

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	360.	U
111-44-4	Bis(2-chloroethyl)ether	360.	U
95-57-8	2-Chlorophenol	360.	U
541-73-1	1,3-Dichlorobenzene	360.	U
106-46-7	1,4-Dichlorobenzene	360.	U
100-51-6	Benzyl alcohol	730.	U
95-50-1	1,2-Dichlorobenzene	360.	U
95-48-7	2-Methylphenol	360.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	360.	U
106-44-5	4-Methylphenol	360.	U
621-64-7	N-Nitroso-di-n-propylamine	360.	U
67-72-1	Hexachloroethane	360.	U
98-95-3	Nitrobenzene	360.	U
78-59-1	Isophorone	360.	U
88-75-5	2-Nitrophenol	360.	U
105-67-9	2,4-Dimethylphenol	360.	U
65-85-0	Benzoic acid	1800.	U
111-91-1	bis(2-Chloroethoxy)methane	360.	U
120-83-2	2,4-Dichlorophenol	360.	U
120-82-1	1,2,4-Trichlorobenzene	360.	U
91-20-3	Naphthalene	360.	U
106-47-8	4-Chloroaniline	730.	U
87-68-3	Hexachlorobutadiene	360.	U
59-50-7	4-Chloro-3-methylphenol	730.	U
91-57-6	2-Methylnaphthalene	360.	U
77-47-4	Hexachlorocyclopentadiene	360.	U
88-06-2	2,4,6-Trichlorophenol	360.	U
95-95-4	2,4,5-Trichlorophenol	360.	U
91-58-7	2-Chloronaphthalene	360.	U
88-74-4	2-Nitroaniline	1800.	U
131-11-3	Dimethylphthalate	360.	U
208-96-8	Acenaphthylene	360.	U
606-20-2	2,6-Dinitrotoluene	360.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS052

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:28878

Matrix: (soil/water) SOIL Lab Sample ID:28878-6

Sample wt/vol: 30.2 (g/ml) G Lab File ID: S7116

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

% Moisture: 9 decanted: (Y/N) N Date Extracted:12/09/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed:12/15/92

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1800.	U
83-32-9	Acenaphthene	360.	U
51-28-5	2,4-Dinitrophenol	1800.	U
100-02-7	4-Nitrophenol	1800.	U
132-64-9	Dibenzofuran	360.	U
121-14-2	2,4-Dinitrotoluene	360.	U
84-66-2	Diethylphthalate	360.	U
7005-72-3	4-Chlorophenyl-phenylether	360.	U
86-73-7	Fluorene	360.	U
100-01-6	4-Nitroaniline	1800.	U
534-52-1	4,6-Dinitro-2-methylphenol	1800.	U
86-30-6	N-Nitrosodiphenylamine(1)	360.	U
101-55-3	4-Bromophenyl-phenylether	360.	U
118-74-1	Hexachlorobenzene	360.	U
87-86-5	Pentachlorophenol	1800.	U
85-01-8	Phenanthrene	360.	U
120-12-7	Anthracene	360.	U
84-74-2	Di-n-butylphthalate	1200.	B
206-44-0	Fluoranthene	360.	U
129-00-0	Pyrene	360.	U
85-68-7	Butylbenzylphthalate	360.	U
91-94-1	3,3'-Dichlorobenzidine	730.	U
56-55-3	Benzo(a)anthracene	360.	U
218-01-9	Chrysene	360.	U
117-81-7	bis(2-Ethylhexyl)phthalate	360.	U
117-84-0	Di-n-octylphthalate	360.	U
205-99-2	Benzo(b)fluoranthene	360.	U
207-08-9	Benzo(k)fluoranthene	360.	U
50-32-8	Benzo(a)pyrene	360.	U
193-39-5	Indeno(1,2,3-cd)pyrene	360.	U
53-70-3	Dibenz(a,h)anthracene	360.	U
191-24-2	Benzo(g,h,i)perylene	360.	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS053

Lab Name: Sound Analytical Services Contract: 624419

Lab Code: - Case No.: - SAS No.: - SDG No.: 28878

Matrix: (soil/water) SOIL Lab Sample ID: 28878-7

Sample wt/vol: 30.1 (g/ml) G Lab File ID: S7117

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

% Moisture: 8 decanted: (Y/N) N Date Extracted: 12/09/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 12/15/92

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	360.	U
111-44-4	Bis(2-chloroethyl)ether	360.	U
95-57-8	2-Chlorophenol	360.	U
541-73-1	1,3-Dichlorobenzene	360.	U
106-46-7	1,4-Dichlorobenzene	360.	U
100-51-6	Benzyl alcohol	720.	U
95-50-1	1,2-Dichlorobenzene	360.	U
95-48-7	2-Methylphenol	360.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	360.	U
106-44-5	4-Methylphenol	360.	U
621-64-7	N-Nitroso-di-n-propylamine	360.	U
67-72-1	Hexachloroethane	360.	U
98-95-3	Nitrobenzene	360.	U
78-59-1	Isophorone	360.	U
88-75-5	2-Nitrophenol	360.	U
105-67-9	2,4-Dimethylphenol	360.	U
65-85-0	Benzoic acid	1800.	U
111-91-1	bis(2-Chloroethoxy)methane	360.	U
120-83-2	2,4-Dichlorophenol	360.	U
120-82-1	1,2,4-Trichlorobenzene	360.	U
91-20-3	Naphthalene	360.	U
106-47-8	4-Chloroaniline	720.	U
87-68-3	Hexachlorobutadiene	360.	U
59-50-7	4-Chloro-3-methylphenol	720.	U
91-57-6	2-Methylnaphthalene	360.	U
77-47-4	Hexachlorocyclopentadiene	360.	U
88-06-2	2,4,6-Trichlorophenol	360.	U
95-95-4	2,4,5-Trichlorophenol	360.	U
91-58-7	2-Chloronaphthalene	360.	U
88-74-4	2-Nitroaniline	1800.	U
131-11-3	Dimethylphthalate	360.	U
208-96-8	Acenaphthylene	360.	U
606-20-2	2,6-Dinitrotoluene	360.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS053

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:28878

Matrix: (soil/water) SOIL Lab Sample ID:28878-7

Sample wt/vol: 30.1 (g/ml) G Lab File ID: S7117

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

% Moisture: 8 decanted: (Y/N) N Date Extracted:12/09/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed:12/15/92

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1800.	U
83-32-9	Acenaphthene	360.	U
51-28-5	2,4-Dinitrophenol	1800.	U
100-02-7	4-Nitrophenol	1800.	U
132-64-9	Dibenzofuran	360.	U
121-14-2	2,4-Dinitrotoluene	360.	U
84-66-2	Diethylphthalate	360.	U
7005-72-3	4-Chlorophenyl-phenylether	360.	U
86-73-7	Fluorene	360.	U
100-01-6	4-Nitroaniline	1800.	U
534-52-1	4,6-Dinitro-2-methylphenol	1800.	U
86-30-6	N-Nitrosodiphenylamine(1)	360.	U
101-55-3	4-Bromophenyl-phenylether	360.	U
118-74-1	Hexachlorobenzene	360.	U
87-86-5	Pentachlorophenol	1800.	U
85-01-8	Phenanthrene	360.	U
120-12-7	Anthracene	360.	U
84-74-2	Di-n-butylphthalate	790.	B
206-44-0	Fluoranthene	360.	U
129-00-0	Pyrene	360.	U
85-68-7	Butylbenzylphthalate	360.	U
91-94-1	3,3'-Dichlorobenzidine	720.	U
56-55-3	Benzo(a)anthracene	360.	U
218-01-9	Chrysene	360.	U
117-81-7	bis(2-Ethylhexyl)phthalate	360.	U
117-84-0	Di-n-octylphthalate	360.	U
205-99-2	Benzo(b)fluoranthene	360.	U
207-08-9	Benzo(k)fluoranthene	360.	U
50-32-8	Benzo(a)pyrene	360.	U
193-39-5	Indeno(1,2,3-cd)pyrene	360.	U
53-70-3	Dibenz(a,h)anthracene	360.	U
191-24-2	Benzo(g,h,i)perylene	360.	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS054

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:28878

Matrix: (soil/water) SOIL Lab Sample ID:28878-8

Sample wt/vol: 30.3 (g/ml) G Lab File ID: S7118

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

% Moisture: 8 decanted: (Y/N) N Date Extracted:12/09/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed:12/15/92

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	360.	U
111-44-4	Bis(2-chloroethyl)ether	360.	U
95-57-8	2-Chlorophenol	360.	U
541-73-1	1,3-Dichlorobenzene	360.	U
106-46-7	1,4-Dichlorobenzene	360.	U
100-51-6	Benzyl alcohol	720.	U
95-50-1	1,2-Dichlorobenzene	360.	U
95-48-7	2-Methylphenol	360.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	360.	U
106-44-5	4-Methylphenol	360.	U
621-64-7	N-Nitroso-di-n-propylamine	360.	U
67-72-1	Hexachloroethane	360.	U
98-95-3	Nitrobenzene	360.	U
78-59-1	Isophorone	360.	U
88-75-5	2-Nitrophenol	360.	U
105-67-9	2,4-Dimethylphenol	360.	U
65-85-0	Benzoic acid	1800.	U
111-91-1	bis(2-Chloroethoxy)methane	360.	U
120-83-2	2,4-Dichlorophenol	360.	U
120-82-1	1,2,4-Trichlorobenzene	360.	U
91-20-3	Naphthalene	360.	U
106-47-8	4-Chloroaniline	720.	U
87-68-3	Hexachlorobutadiene	360.	U
59-50-7	4-Chloro-3-methylphenol	720.	U
91-57-6	2-Methylnaphthalene	360.	U
77-47-4	Hexachlorocyclopentadiene	360.	U
88-06-2	2,4,6-Trichlorophenol	360.	U
95-95-4	2,4,5-Trichlorophenol	360.	U
91-58-7	2-Chloronaphthalene	360.	U
88-74-4	2-Nitroaniline	1800.	U
131-11-3	Dimethylphthalate	360.	U
208-96-8	Acenaphthylene	360.	U
606-20-2	2,6-Dinitrotoluene	360.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS054

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:28878

Matrix: (soil/water) SOIL Lab Sample ID:28878-8

Sample wt/vol: 30.3 (g/ml) G Lab File ID: S7118

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

% Moisture: 8 decanted: (Y/N) N Date Extracted:12/09/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed:12/15/92

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1800.	U
83-32-9	Acenaphthene	360.	U
51-28-5	2,4-Dinitrophenol	1800.	U
100-02-7	4-Nitrophenol	1800.	U
132-64-9	Dibenzofuran	360.	U
121-14-2	2,4-Dinitrotoluene	360.	U
84-66-2	Diethylphthalate	360.	U
7005-72-3	4-Chlorophenyl-phenylether	360.	U
86-73-7	Fluorene	360.	U
100-01-6	4-Nitroaniline	1800.	U
534-52-1	4,6-Dinitro-2-methylphenol	1800.	U
86-30-6	N-Nitrosodiphenylamine(1)	360.	U
101-55-3	4-Bromophenyl-phenylether	360.	U
118-74-1	Hexachlorobenzene	360.	U
87-86-5	Pentachlorophenol	1800.	U
85-01-8	Phenanthrene	360.	U
120-12-7	Anthracene	360.	U
84-74-2	Di-n-butylphthalate	570.	B
206-44-0	Fluoranthene	360.	U
129-00-0	Pyrene	360.	U
85-68-7	Butylbenzylphthalate	360.	U
91-94-1	3,3'-Dichlorobenzidine	720.	U
56-55-3	Benzo(a)anthracene	360.	U
218-01-9	Chrysene	360.	U
117-81-7	bis(2-Ethylhexyl)phthalate	360.	U
117-84-0	Di-n-octylphthalate	360.	U
205-99-2	Benzo(b)fluoranthene	360.	U
207-08-9	Benzo(k)fluoranthene	360.	U
50-32-8	Benzo(a)pyrene	360.	U
193-39-5	Indeno(1,2,3-cd)pyrene	360.	U
53-70-3	Dibenz(a,h)anthracene	360.	U
191-24-2	Benzo(g,h,i)perylene	360.	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS055

Lab Name: Sound Analytical Services Contract: 624419

Lab Code:- Case No.:- SAS No.:- SDG No.: 28878

Matrix: (soil/water) SOIL Lab Sample ID: 28878-9

Sample wt/vol: 30.2 (g/ml) G Lab File ID: S7119

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

% Moisture: 8 decanted: (Y/N) N Date Extracted: 12/09/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 12/15/92

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	360.	U
111-44-4	Bis(2-chloroethyl)ether	360.	U
95-57-8	2-Chlorophenol	360.	U
541-73-1	1,3-Dichlorobenzene	360.	U
106-46-7	1,4-Dichlorobenzene	360.	U
100-51-6	Benzyl alcohol	720.	U
95-50-1	1,2-Dichlorobenzene	360.	U
95-48-7	2-Methylphenol	360.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	360.	U
106-44-5	4-Methylphenol	360.	U
621-64-7	N-Nitroso-di-n-propylamine	360.	U
67-72-1	Hexachloroethane	360.	U
98-95-3	Nitrobenzene	360.	U
78-59-1	Isophorone	360.	U
88-75-5	2-Nitrophenol	360.	U
105-67-9	2,4-Dimethylphenol	360.	U
65-85-0	Benzoic acid	1800.	U
111-91-1	bis(2-Chloroethoxy)methane	360.	U
120-83-2	2,4-Dichlorophenol	360.	U
120-82-1	1,2,4-Trichlorobenzene	360.	U
91-20-3	Naphthalene	360.	U
106-47-8	4-Chloroaniline	720.	U
87-68-3	Hexachlorobutadiene	360.	U
59-50-7	4-Chloro-3-methylphenol	720.	U
91-57-6	2-Methylnaphthalene	360.	U
77-47-4	Hexachlorocyclopentadiene	360.	U
88-06-2	2,4,6-Trichlorophenol	360.	U
95-95-4	2,4,5-Trichlorophenol	360.	U
91-58-7	2-Chloronaphthalene	360.	U
88-74-4	2-Nitroaniline	1800.	U
131-11-3	Dimethylphthalate	360.	U
208-96-8	Acenaphthylene	360.	U
606-20-2	2,6-Dinitrotoluene	360.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS055

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:28878

Matrix: (soil/water) SOIL Lab Sample ID:28878-9

Sample wt/vol: 30.2 (g/ml) G Lab File ID: S7119

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

% Moisture: 8 decanted: (Y/N) N Date Extracted:12/09/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed:12/15/92

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1800.	U
83-32-9	Acenaphthene	360.	U
51-28-5	2,4-Dinitrophenol	1800.	U
100-02-7	4-Nitrophenol	1800.	U
132-64-9	Dibenzofuran	360.	U
121-14-2	2,4-Dinitrotoluene	360.	U
84-66-2	Diethylphthalate	360.	U
7005-72-3	4-Chlorophenyl-phenylether	360.	U
86-73-7	Fluorene	360.	U
100-01-6	4-Nitroaniline	1800.	U
534-52-1	4,6-Dinitro-2-methylphenol	1800.	U
86-30-6	N-Nitrosodiphenylamine(1)	360.	U
101-55-3	4-Bromophenyl-phenylether	360.	U
118-74-1	Hexachlorobenzene	360.	U
87-86-5	Pentachlorophenol	1800.	U
85-01-8	Phenanthrene	360.	U
120-12-7	Anthracene	360.	U
84-74-2	Di-n-butylphthalate	400.	B
206-44-0	Fluoranthene	360.	U
129-00-0	Pyrene	360.	U
85-68-7	Butylbenzylphthalate	360.	U
91-94-1	3,3'-Dichlorobenzidine	720.	U
56-55-3	Benzo(a)anthracene	360.	U
218-01-9	Chrysene	360.	U
117-81-7	bis(2-Ethylhexyl)phthalate	360.	U
117-84-0	Di-n-octylphthalate	360.	U
205-99-2	Benzo(b)fluoranthene	360.	U
207-08-9	Benzo(k)fluoranthene	360.	U
50-32-8	Benzo(a)pyrene	360.	U
193-39-5	Indeno(1,2,3-cd)pyrene	360.	U
53-70-3	Dibenz(a,h)anthracene	360.	U
191-24-2	Benzo(g,h,i)perylene	360.	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS056

Lab Name: Sound Analytical Services Contract: 624419

Lab Code: - Case No.: - SAS No.: - SDG No.: 28878

Matrix: (soil/water) SOIL Lab Sample ID: 28878-10

Sample wt/vol: 30.1 (g/ml) G Lab File ID: S7122

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

% Moisture: 9 decanted: (Y/N) N Date Extracted: 12/09/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 12/16/92

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	370.	U
111-44-4	Bis(2-chloroethyl)ether	370.	U
95-57-8	2-Chlorophenol	370.	U
541-73-1	1,3-Dichlorobenzene	370.	U
106-46-7	1,4-Dichlorobenzene	370.	U
100-51-6	Benzyl alcohol	730.	U
95-50-1	1,2-Dichlorobenzene	370.	U
95-48-7	2-Methylphenol	370.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	370.	U
106-44-5	4-Methylphenol	370.	U
621-64-7	N-Nitroso-di-n-propylamine	370.	U
67-72-1	Hexachloroethane	370.	U
98-95-3	Nitrobenzene	370.	U
78-59-1	Isophorone	370.	U
88-75-5	2-Nitrophenol	370.	U
105-67-9	2,4-Dimethylphenol	370.	U
65-85-0	Benzoic acid	1800.	U
111-91-1	bis(2-Chloroethoxy)methane	370.	U
120-83-2	2,4-Dichlorophenol	370.	U
120-82-1	1,2,4-Trichlorobenzene	370.	U
91-20-3	Naphthalene	370.	U
106-47-8	4-Chloroaniline	730.	U
87-68-3	Hexachlorobutadiene	370.	U
59-50-7	4-Chloro-3-methylphenol	730.	U
91-57-6	2-Methylnaphthalene	370.	U
77-47-4	Hexachlorocyclopentadiene	370.	U
88-06-2	2,4,6-Trichlorophenol	370.	U
95-95-4	2,4,5-Trichlorophenol	370.	U
91-58-7	2-Chloronaphthalene	370.	U
88-74-4	2-Nitroaniline	1800.	U
131-11-3	Dimethylphthalate	370.	U
208-96-8	Acenaphthylene	370.	U
606-20-2	2,6-Dinitrotoluene	370.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS056

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:28878

Matrix: (soil/water) SOIL Lab Sample ID:28878-10

Sample wt/vol: 30.1 (g/ml) G Lab File ID: S7122

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

% Moisture: 9 decanted: (Y/N) N Date Extracted:12/09/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed:12/16/92

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1800.	U
83-32-9	Acenaphthene	370.	U
51-28-5	2,4-Dinitrophenol	1800.	U
100-02-7	4-Nitrophenol	1800.	U
132-64-9	Dibenzofuran	370.	U
121-14-2	2,4-Dinitrotoluene	370.	U
84-66-2	Diethylphthalate	370.	U
7005-72-3	4-Chlorophenyl-phenylether	370.	U
86-73-7	Fluorene	370.	U
100-01-6	4-Nitroaniline	1800.	U
534-52-1	4,6-Dinitro-2-methylphenol	1800.	U
86-30-6	N-Nitrosodiphenylamine(1)	370.	U
101-55-3	4-Bromophenyl-phenylether	370.	U
118-74-1	Hexachlorobenzene	370.	U
87-86-5	Pentachlorophenol	1800.	U
85-01-8	Phenanthrene	370.	U
120-12-7	Anthracene	370.	U
84-74-2	Di-n-butylphthalate	190.	JB
206-44-0	Fluoranthene	370.	U
129-00-0	Pyrene	370.	U
85-68-7	Butylbenzylphthalate	370.	U
91-94-1	3,3'-Dichlorobenzidine	730.	U
56-55-3	Benzo(a)anthracene	370.	U
218-01-9	Chrysene	370.	U
117-81-7	bis(2-Ethylhexyl)phthalate	370.	U
117-84-0	Di-n-octylphthalate	370.	U
205-99-2	Benzo(b)fluoranthene	370.	U
207-08-9	Benzo(k)fluoranthene	370.	U
50-32-8	Benzo(a)pyrene	370.	U
193-39-5	Indeno(1,2,3-cd)pyrene	370.	U
53-70-3	Dibenz(a,h)anthracene	370.	U
191-24-2	Benzo(g,h,i)perylene	370.	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS057

Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:28878

Matrix: (soil/water) SOIL Lab Sample ID:28878-11

Sample wt/vol: 30.2 (g/ml) G Lab File ID: S7123

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

% Moisture: 6 decanted: (Y/N) N Date Extracted:12/09/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed:12/16/92

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	350.	U
111-44-4	Bis(2-chloroethyl)ether	350.	U
95-57-8	2-Chlorophenol	350.	U
541-73-1	1,3-Dichlorobenzene	350.	U
106-46-7	1,4-Dichlorobenzene	350.	U
100-51-6	Benzyl alcohol	700.	U
95-50-1	1,2-Dichlorobenzene	350.	U
95-48-7	2-Methylphenol	350.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	350.	U
106-44-5	4-Methylphenol	350.	U
621-64-7	N-Nitroso-di-n-propylamine	350.	U
67-72-1	Hexachloroethane	350.	U
98-95-3	Nitrobenzene	350.	U
78-59-1	Isophorone	350.	U
88-75-5	2-Nitrophenol	350.	U
105-67-9	2,4-Dimethylphenol	350.	U
65-85-0	Benzoic acid	1800.	U
111-91-1	bis(2-Chloroethoxy)methane	350.	U
120-83-2	2,4-Dichlorophenol	350.	U
120-82-1	1,2,4-Trichlorobenzene	350.	U
91-20-3	Naphthalene	350.	U
106-47-8	4-Chloroaniline	700.	U
87-68-3	Hexachlorobutadiene	350.	U
59-50-7	4-Chloro-3-methylphenol	700.	U
91-57-6	2-Methylnaphthalene	350.	U
77-47-4	Hexachlorocyclopentadiene	350.	U
88-06-2	2,4,6-Trichlorophenol	350.	U
95-95-4	2,4,5-Trichlorophenol	350.	U
91-58-7	2-Chloronaphthalene	350.	U
88-74-4	2-Nitroaniline	1800.	U
131-11-3	Dimethylphthalate	350.	U
208-96-8	Acenaphthylene	350.	U
606-20-2	2,6-Dinitrotoluene	350.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS057

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:28878

Matrix: (soil/water) SOIL Lab Sample ID:28878-11

Sample wt/vol: 30.2 (g/ml) G Lab File ID: S7123

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

% Moisture: 6 decanted: (Y/N) N Date Extracted:12/09/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed:12/16/92

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1800.	U
83-32-9	Acenaphthene	350.	U
51-28-5	2,4-Dinitrophenol	1800.	U
100-02-7	4-Nitrophenol	1800.	U
132-64-9	Dibenzofuran	350.	U
121-14-2	2,4-Dinitrotoluene	350.	U
84-66-2	Diethylphthalate	350.	U
7005-72-3	4-Chlorophenyl-phenylether	350.	U
86-73-7	Fluorene	350.	U
100-01-6	4-Nitroaniline	1800.	U
534-52-1	4,6-Dinitro-2-methylphenol	1800.	U
86-30-6	N-Nitrosodiphenylamine(1)	350.	U
101-55-3	4-Bromophenyl-phenylether	350.	U
118-74-1	Hexachlorobenzene	350.	U
87-86-5	Pentachlorophenol	1800.	U
85-01-8	Phenanthrene	350.	U
120-12-7	Anthracene	350.	U
84-74-2	Di-n-butylphthalate	330.	JB
206-44-0	Fluoranthene	350.	U
129-00-0	Pyrene	350.	U
85-68-7	Butylbenzylphthalate	350.	U
91-94-1	3,3'-Dichlorobenzidine	700.	U
56-55-3	Benzo(a)anthracene	350.	U
218-01-9	Chrysene	350.	U
117-81-7	bis(2-Ethylhexyl)phthalate	350.	U
117-84-0	Di-n-octylphthalate	350.	U
205-99-2	Benzo(b)fluoranthene	350.	U
207-08-9	Benzo(k)fluoranthene	350.	U
50-32-8	Benzo(a)pyrene	350.	U
193-39-5	Indeno(1,2,3-cd)pyrene	350.	U
53-70-3	Dibenz(a,h)anthracene	350.	U
191-24-2	Benzo(g,h,i)perylene	350.	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS058

Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:28878

Matrix: (soil/water) SOIL Lab Sample ID:28878-12

Sample wt/vol: 30.6 (g/ml) G Lab File ID: S7124

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

% Moisture: 8 decanted: (Y/N) N Date Extracted:12/09/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed:12/16/92

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	350.	U
111-44-4	Bis(2-chloroethyl)ether	350.	U
95-57-8	2-Chlorophenol	350.	U
541-73-1	1,3-Dichlorobenzene	350.	U
106-46-7	1,4-Dichlorobenzene	350.	U
100-51-6	Benzyl alcohol	710.	U
95-50-1	1,2-Dichlorobenzene	350.	U
95-48-7	2-Methylphenol	350.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	350.	U
106-44-5	4-Methylphenol	350.	U
621-64-7	N-Nitroso-di-n-propylamine	350.	U
67-72-1	Hexachloroethane	350.	U
98-95-3	Nitrobenzene	350.	U
78-59-1	Isophorone	350.	U
88-75-5	2-Nitrophenol	350.	U
105-67-9	2,4-Dimethylphenol	350.	U
65-85-0	Benzoic acid	1800.	U
111-91-1	bis(2-Chloroethoxy)methane	350.	U
120-83-2	2,4-Dichlorophenol	350.	U
120-82-1	1,2,4-Trichlorobenzene	350.	U
91-20-3	Naphthalene	350.	U
106-47-8	4-Chloroaniline	710.	U
87-68-3	Hexachlorobutadiene	350.	U
59-50-7	4-Chloro-3-methylphenol	710.	U
91-57-6	2-Methylnaphthalene	350.	U
77-47-4	Hexachlorocyclopentadiene	350.	U
88-06-2	2,4,6-Trichlorophenol	350.	U
95-95-4	2,4,5-Trichlorophenol	350.	U
91-58-7	2-Chloronaphthalene	350.	U
88-74-4	2-Nitroaniline	1800.	U
131-11-3	Dimethylphthalate	350.	U
208-96-8	Acenaphthylene	350.	U
606-20-2	2,6-Dinitrotoluene	350.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS058

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:28878

Matrix: (soil/water) SOIL Lab Sample ID:28878-12

Sample wt/vol: 30.6 (g/ml) G Lab File ID: S7124

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

% Moisture: 8 decanted: (Y/N) N Date Extracted:12/09/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed:12/16/92

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1800.	U
83-32-9	Acenaphthene	350.	U
51-28-5	2,4-Dinitrophenol	1800.	U
100-02-7	4-Nitrophenol	1800.	U
132-64-9	Dibenzofuran	350.	U
121-14-2	2,4-Dinitrotoluene	350.	U
84-66-2	Diethylphthalate	350.	U
7005-72-3	4-Chlorophenyl-phenylether	350.	U
86-73-7	Fluorene	350.	U
100-01-6	4-Nitroaniline	1800.	U
534-52-1	4,6-Dinitro-2-methylphenol	1800.	U
86-30-6	N-Nitrosodiphenylamine(1)	350.	U
101-55-3	4-Bromophenyl-phenylether	350.	U
118-74-1	Hexachlorobenzene	350.	U
87-86-5	Pentachlorophenol	1800.	U
85-01-8	Phenanthrene	350.	U
120-12-7	Anthracene	350.	U
84-74-2	Di-n-butylphthalate	130.	JB
206-44-0	Fluoranthene	350.	U
129-00-0	Pyrene	350.	U
85-68-7	Butylbenzylphthalate	350.	U
91-94-1	3,3'-Dichlorobenzidine	710.	U
56-55-3	Benzo(a)anthracene	350.	U
218-01-9	Chrysene	350.	U
117-81-7	bis(2-Ethylhexyl)phthalate	350.	U
117-84-0	Di-n-octylphthalate	350.	U
205-99-2	Benzo(b)fluoranthene	350.	U
207-08-9	Benzo(k)fluoranthene	350.	U
50-32-8	Benzo(a)pyrene	350.	U
193-39-5	Indeno(1,2,3-cd)pyrene	350.	U
53-70-3	Dibenz(a,h)anthracene	350.	U
191-24-2	Benzo(g,h,i)perylene	350.	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS059

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:28878

Matrix: (soil/water) SOIL Lab Sample ID:28878-13

Sample wt/vol: 30.3 (g/ml) G Lab File ID: S7125

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

% Moisture: 9 decanted: (Y/N) N Date Extracted:12/09/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed:12/16/92

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	360.	U
111-44-4	Bis(2-chloroethyl)ether	360.	U
95-57-8	2-Chlorophenol	360.	U
541-73-1	1,3-Dichlorobenzene	360.	U
106-46-7	1,4-Dichlorobenzene	360.	U
100-51-6	Benzyl alcohol	720.	U
95-50-1	1,2-Dichlorobenzene	360.	U
95-48-7	2-Methylphenol	360.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	360.	U
106-44-5	4-Methylphenol	360.	U
621-64-7	N-Nitroso-di-n-propylamine	360.	U
67-72-1	Hexachloroethane	360.	U
98-95-3	Nitrobenzene	360.	U
78-59-1	Isophorone	360.	U
88-75-5	2-Nitrophenol	360.	U
105-67-9	2,4-Dimethylphenol	360.	U
65-85-0	Benzoic acid	1800.	U
111-91-1	bis(2-Chloroethoxy)methane	360.	U
120-83-2	2,4-Dichlorophenol	360.	U
120-82-1	1,2,4-Trichlorobenzene	360.	U
91-20-3	Naphthalene	360.	U
106-47-8	4-Chloroaniline	720.	U
87-68-3	Hexachlorobutadiene	360.	U
59-50-7	4-Chloro-3-methylphenol	720.	U
91-57-6	2-Methylnaphthalene	360.	U
77-47-4	Hexachlorocyclopentadiene	360.	U
88-06-2	2,4,6-Trichlorophenol	360.	U
95-95-4	2,4,5-Trichlorophenol	360.	U
91-58-7	2-Chloronaphthalene	360.	U
88-74-4	2-Nitroaniline	1800.	U
131-11-3	Dimethylphthalate	360.	U
208-96-8	Acenaphthylene	360.	U
606-20-2	2,6-Dinitrotoluene	360.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS059

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:28878

Matrix: (soil/water) SOIL Lab Sample ID:28878-13

Sample wt/vol: 30.3 (g/ml) G Lab File ID: S7125

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

% Moisture: 9 decanted: (Y/N) N Date Extracted:12/09/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed:12/16/92

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1800.	U
83-32-9	Acenaphthene	360.	U
51-28-5	2,4-Dinitrophenol	1800.	U
100-02-7	4-Nitrophenol	1800.	U
132-64-9	Dibenzofuran	360.	U
121-14-2	2,4-Dinitrotoluene	360.	U
84-66-2	Diethylphthalate	360.	U
7005-72-3	4-Chlorophenyl-phenylether	360.	U
86-73-7	Fluorene	360.	U
100-01-6	4-Nitroaniline	1800.	U
534-52-1	4,6-Dinitro-2-methylphenol	1800.	U
86-30-6	N-Nitrosodiphenylamine(1)	360.	U
101-55-3	4-Bromophenyl-phenylether	360.	U
118-74-1	Hexachlorobenzene	360.	U
87-86-5	Pentachlorophenol	1800.	U
85-01-8	Phenanthrene	360.	U
120-12-7	Anthracene	360.	U
84-74-2	Di-n-butylphthalate	150.	JB
206-44-0	Fluoranthene	360.	U
129-00-0	Pyrene	360.	U
85-68-7	Butylbenzylphthalate	360.	U
91-94-1	3,3'-Dichlorobenzidine	720.	U
56-55-3	Benzo(a)anthracene	360.	U
218-01-9	Chrysene	360.	U
117-81-7	bis(2-Ethylhexyl)phthalate	360.	U
117-84-0	Di-n-octylphthalate	360.	U
205-99-2	Benzo(b)fluoranthene	360.	U
207-08-9	Benzo(k)fluoranthene	360.	U
50-32-8	Benzo(a)pyrene	360.	U
193-39-5	Indeno(1,2,3-cd)pyrene	360.	U
53-70-3	Dibenz(a,h)anthracene	360.	U
191-24-2	Benzo(g,h,i)perylene	360.	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS060

Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:28878

Matrix: (soil/water) SOIL Lab Sample ID:28878-14

Sample wt/vol: 30.3 (g/ml) G Lab File ID: S7130

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

% Moisture: 9 decanted: (Y/N) N Date Extracted:12/09/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed:12/16/92

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	360.	U
111-44-4	Bis(2-chloroethyl)ether	360.	U
95-57-8	2-Chlorophenol	360.	U
541-73-1	1,3-Dichlorobenzene	360.	U
106-46-7	1,4-Dichlorobenzene	360.	U
100-51-6	Benzyl alcohol	720.	U
95-50-1	1,2-Dichlorobenzene	360.	U
95-48-7	2-Methylphenol	360.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	360.	U
106-44-5	4-Methylphenol	360.	U
621-64-7	N-Nitroso-di-n-propylamine	360.	U
67-72-1	Hexachloroethane	360.	U
98-95-3	Nitrobenzene	360.	U
78-59-1	Isophorone	360.	U
88-75-5	2-Nitrophenol	360.	U
105-67-9	2,4-Dimethylphenol	360.	U
65-85-0	Benzoic acid	1800.	U
111-91-1	bis(2-Chloroethoxy)methane	360.	U
120-83-2	2,4-Dichlorophenol	360.	U
120-82-1	1,2,4-Trichlorobenzene	360.	U
91-20-3	Naphthalene	360.	U
106-47-8	4-Chloroaniline	720.	U
87-68-3	Hexachlorobutadiene	360.	U
59-50-7	4-Chloro-3-methylphenol	720.	U
91-57-6	2-Methylnaphthalene	360.	U
77-47-4	Hexachlorocyclopentadiene	360.	U
88-06-2	2,4,6-Trichlorophenol	360.	U
95-95-4	2,4,5-Trichlorophenol	360.	U
91-58-7	2-Chloronaphthalene	360.	U
88-74-4	2-Nitroaniline	1800.	U
131-11-3	Dimethylphthalate	360.	U
208-96-8	Acenaphthylene	360.	U
606-20-2	2,6-Dinitrotoluene	360.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS060

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:28878

Matrix: (soil/water) SOIL Lab Sample ID:28878-14

Sample wt/vol: 30.3 (g/ml) G Lab File ID: S7130

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

% Moisture: 9 decanted: (Y/N) N Date Extracted:12/09/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed:12/16/92

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1800.	U
83-32-9	Acenaphthene	360.	U
51-28-5	2,4-Dinitrophenol	1800.	U
100-02-7	4-Nitrophenol	1800.	U
132-64-9	Dibenzofuran	360.	U
121-14-2	2,4-Dinitrotoluene	360.	U
84-66-2	Diethylphthalate	360.	U
7005-72-3	4-Chlorophenyl-phenylether	360.	U
86-73-7	Fluorene	360.	U
100-01-6	4-Nitroaniline	1800.	U
534-52-1	4,6-Dinitro-2-methylphenol	1800.	U
86-30-6	N-Nitrosodiphenylamine(1)	360.	U
101-55-3	4-Bromophenyl-phenylether	360.	U
118-74-1	Hexachlorobenzene	360.	U
87-86-5	Pentachlorophenol	1800.	U
85-01-8	Phenanthrene	360.	U
120-12-7	Anthracene	360.	U
84-74-2	Di-n-butylphthalate	190.	JB
206-44-0	Fluoranthene	360.	U
129-00-0	Pyrene	360.	U
85-68-7	Butylbenzylphthalate	360.	U
91-94-1	3,3'-Dichlorobenzidine	720.	U
56-55-3	Benzo(a)anthracene	360.	U
218-01-9	Chrysene	360.	U
117-81-7	bis(2-Ethylhexyl)phthalate	360.	U
117-84-0	Di-n-octylphthalate	360.	U
205-99-2	Benzo(b)fluoranthene	360.	U
207-08-9	Benzo(k)fluoranthene	360.	U
50-32-8	Benzo(a)pyrene	360.	U
193-39-5	Indeno(1,2,3-cd)pyrene	360.	U
53-70-3	Dibenz(a,h)anthracene	360.	U
191-24-2	Benzo(g,h,i)perylene	360.	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS061

Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:28878

Matrix: (soil/water) SOIL Lab Sample ID:28878-15

Sample wt/vol: 30.2 (g/ml) G Lab File ID: S7131

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

% Moisture: 8 decanted: (Y/N) N Date Extracted:12/09/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed:12/16/92

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	360.	U
111-44-4	Bis(2-chloroethyl)ether	360.	U
95-57-8	2-Chlorophenol	360.	U
541-73-1	1,3-Dichlorobenzene	360.	U
106-46-7	1,4-Dichlorobenzene	360.	U
100-51-6	Benzyl alcohol	720.	U
95-50-1	1,2-Dichlorobenzene	360.	U
95-48-7	2-Methylphenol	360.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	360.	U
106-44-5	4-Methylphenol	360.	U
621-64-7	N-Nitroso-di-n-propylamine	360.	U
67-72-1	Hexachloroethane	360.	U
98-95-3	Nitrobenzene	360.	U
78-59-1	Isophorone	360.	U
88-75-5	2-Nitrophenol	360.	U
105-67-9	2,4-Dimethylphenol	360.	U
65-85-0	Benzoic acid	1800.	U
111-91-1	bis(2-Chloroethoxy)methane	360.	U
120-83-2	2,4-Dichlorophenol	360.	U
120-82-1	1,2,4-Trichlorobenzene	360.	U
91-20-3	Naphthalene	360.	U
106-47-8	4-Chloroaniline	720.	U
87-68-3	Hexachlorobutadiene	360.	U
59-50-7	4-Chloro-3-methylphenol	720.	U
91-57-6	2-Methylnaphthalene	360.	U
77-47-4	Hexachlorocyclopentadiene	360.	U
88-06-2	2,4,6-Trichlorophenol	360.	U
95-95-4	2,4,5-Trichlorophenol	360.	U
91-58-7	2-Chloronaphthalene	360.	U
88-74-4	2-Nitroaniline	1800.	U
131-11-3	Dimethylphthalate	360.	U
208-96-8	Acenaphthylene	360.	U
606-20-2	2,6-Dinitrotoluene	360.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS061

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:28878

Matrix: (soil/water) SOIL Lab Sample ID:28878-15

Sample wt/vol: 30.2 (g/ml) G Lab File ID: S7131

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

% Moisture: 8 decanted: (Y/N) N Date Extracted:12/09/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed:12/16/92

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1800.	U
83-32-9	Acenaphthene	360.	U
51-28-5	2,4-Dinitrophenol	1800.	U
100-02-7	4-Nitrophenol	1800.	U
132-64-9	Dibenzofuran	360.	U
121-14-2	2,4-Dinitrotoluene	360.	U
84-66-2	Diethylphthalate	360.	U
7005-72-3	4-Chlorophenyl-phenylether	360.	U
86-73-7	Fluorene	360.	U
100-01-6	4-Nitroaniline	1800.	U
534-52-1	4,6-Dinitro-2-methylphenol	1800.	U
86-30-6	N-Nitrosodiphenylamine(1)	360.	U
101-55-3	4-Bromophenyl-phenylether	360.	U
118-74-1	Hexachlorobenzene	360.	U
87-86-5	Pentachlorophenol	1800.	U
85-01-8	Phenanthrene	360.	U
120-12-7	Anthracene	360.	U
84-74-2	Di-n-butylphthalate	200.	JB
206-44-0	Fluoranthene	360.	U
129-00-0	Pyrene	360.	U
85-68-7	Butylbenzylphthalate	360.	U
91-94-1	3,3'-Dichlorobenzidine	720.	U
56-55-3	Benzo(a)anthracene	360.	U
218-01-9	Chrysene	360.	U
117-81-7	bis(2-Ethylhexyl)phthalate	360.	U
117-84-0	Di-n-octylphthalate	360.	U
205-99-2	Benzo(b)fluoranthene	360.	U
207-08-9	Benzo(k)fluoranthene	360.	U
50-32-8	Benzo(a)pyrene	360.	U
193-39-5	Indeno(1,2,3-cd)pyrene	360.	U
53-70-3	Dibenz(a,h)anthracene	360.	U
191-24-2	Benzo(g,h,i)perylene	360.	U

(1) - Cannot be separated from Diphenylamine

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS062

Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:28878

Matrix: (soil/water) SOIL Lab Sample ID:28878-16

Sample wt/vol: 30.5 (g/ml) G Lab File ID: S7132

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

% Moisture: 9 decanted: (Y/N) N Date Extracted:12/09/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed:12/16/92

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	360.	U
111-44-4	Bis(2-chloroethyl)ether	360.	U
95-57-8	2-Chlorophenol	360.	U
541-73-1	1,3-Dichlorobenzene	360.	U
106-46-7	1,4-Dichlorobenzene	360.	U
100-51-6	Benzyl alcohol	720.	U
95-50-1	1,2-Dichlorobenzene	360.	U
95-48-7	2-Methylphenol	360.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	360.	U
106-44-5	4-Methylphenol	360.	U
621-64-7	N-Nitroso-di-n-propylamine	360.	U
67-72-1	Hexachloroethane	360.	U
98-95-3	Nitrobenzene	360.	U
78-59-1	Isophorone	360.	U
88-75-5	2-Nitrophenol	360.	U
105-67-9	2,4-Dimethylphenol	360.	U
65-85-0	Benzoic acid	1800.	U
111-91-1	bis(2-Chloroethoxy)methane	360.	U
120-83-2	2,4-Dichlorophenol	360.	U
120-82-1	1,2,4-Trichlorobenzene	360.	U
91-20-3	Naphthalene	360.	U
106-47-8	4-Chloroaniline	720.	U
87-68-3	Hexachlorobutadiene	360.	U
59-50-7	4-Chloro-3-methylphenol	720.	U
91-57-6	2-Methylnaphthalene	360.	U
77-47-4	Hexachlorocyclopentadiene	360.	U
88-06-2	2,4,6-Trichlorophenol	360.	U
95-95-4	2,4,5-Trichlorophenol	360.	U
91-58-7	2-Chloronaphthalene	360.	U
88-74-4	2-Nitroaniline	1800.	U
131-11-3	Dimethylphthalate	360.	U
208-96-8	Acenaphthylene	360.	U
606-20-2	2,6-Dinitrotoluene	360.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS062

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:28878

Matrix: (soil/water) SOIL Lab Sample ID:28878-16

Sample wt/vol: 30.5 (g/ml) G Lab File ID: S7132

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

% Moisture: 9 decanted: (Y/N) N Date Extracted:12/09/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed:12/16/92

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1800.	U
83-32-9	Acenaphthene	360.	U
51-28-5	2,4-Dinitrophenol	1800.	U
100-02-7	4-Nitrophenol	1800.	U
132-64-9	Dibenzofuran	360.	U
121-14-2	2,4-Dinitrotoluene	360.	U
84-66-2	Diethylphthalate	360.	U
7005-72-3	4-Chlorophenyl-phenylether	360.	U
86-73-7	Fluorene	360.	U
100-01-6	4-Nitroaniline	1800.	U
534-52-1	4,6-Dinitro-2-methylphenol	1800.	U
86-30-6	N-Nitrosodiphenylamine(1)	360.	U
101-55-3	4-Bromophenyl-phenylether	360.	U
118-74-1	Hexachlorobenzene	360.	U
87-86-5	Pentachlorophenol	1800.	U
85-01-8	Phenanthrene	360.	U
120-12-7	Anthracene	360.	U
84-74-2	Di-n-butylphthalate	300.	JB
206-44-0	Fluoranthene	360.	U
129-00-0	Pyrene	360.	U
85-68-7	Butylbenzylphthalate	360.	U
91-94-1	3,3'-Dichlorobenzidine	720.	U
56-55-3	Benzo(a)anthracene	360.	U
218-01-9	Chrysene	360.	U
117-81-7	bis(2-Ethylhexyl)phthalate	360.	U
117-84-0	Di-n-octylphthalate	360.	U
205-99-2	Benzo(b)fluoranthene	360.	U
207-08-9	Benzo(k)fluoranthene	360.	U
50-32-8	Benzo(a)pyrene	360.	U
193-39-5	Indeno(1,2,3-cd)pyrene	360.	U
53-70-3	Dibenz(a,h)anthracene	360.	U
191-24-2	Benzo(g,h,i)perylene	360.	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS063

Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:28878

Matrix: (soil/water) SOIL Lab Sample ID:28878-17

Sample wt/vol: 30.2 (g/ml) G Lab File ID: S7133

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

% Moisture: 10 decanted: (Y/N) N Date Extracted:12/09/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed:12/16/92

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	370.	U
111-44-4	Bis(2-chloroethyl)ether	370.	U
95-57-8	2-Chlorophenol	370.	U
541-73-1	1,3-Dichlorobenzene	370.	U
106-46-7	1,4-Dichlorobenzene	370.	U
100-51-6	Benzyl alcohol	740.	U
95-50-1	1,2-Dichlorobenzene	370.	U
95-48-7	2-Methylphenol	370.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	370.	U
106-44-5	4-Methylphenol	370.	U
621-64-7	N-Nitroso-di-n-propylamine	370.	U
67-72-1	Hexachloroethane	370.	U
98-95-3	Nitrobenzene	370.	U
78-59-1	Isophorone	370.	U
88-75-5	2-Nitrophenol	370.	U
105-67-9	2,4-Dimethylphenol	370.	U
65-85-0	Benzoic acid	1800.	U
111-91-1	bis(2-Chloroethoxy)methane	370.	U
120-83-2	2,4-Dichlorophenol	370.	U
120-82-1	1,2,4-Trichlorobenzene	370.	U
91-20-3	Naphthalene	370.	U
106-47-8	4-Chloroaniline	740.	U
87-68-3	Hexachlorobutadiene	370.	U
59-50-7	4-Chloro-3-methylphenol	740.	U
91-57-6	2-Methylnaphthalene	370.	U
77-47-4	Hexachlorocyclopentadiene	370.	U
88-06-2	2,4,6-Trichlorophenol	370.	U
95-95-4	2,4,5-Trichlorophenol	370.	U
91-58-7	2-Chloronaphthalene	370.	U
88-74-4	2-Nitroaniline	1800.	U
131-11-3	Dimethylphthalate	370.	U
208-96-8	Acenaphthylene	370.	U
606-20-2	2,6-Dinitrotoluene	370.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS063

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:28878

Matrix: (soil/water) SOIL Lab Sample ID:28878-17

Sample wt/vol: 30.2 (g/ml) G Lab File ID: S7133

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

% Moisture: 10 decanted: (Y/N) N Date Extracted:12/09/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed:12/16/92

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1800.	U
83-32-9	Acenaphthene	370.	U
51-28-5	2,4-Dinitrophenol	1800.	U
100-02-7	4-Nitrophenol	1800.	U
132-64-9	Dibenzofuran	370.	U
121-14-2	2,4-Dinitrotoluene	370.	U
84-66-2	Diethylphthalate	370.	U
7005-72-3	4-Chlorophenyl-phenylether	370.	U
86-73-7	Fluorene	370.	U
100-01-6	4-Nitroaniline	1800.	U
534-52-1	4,6-Dinitro-2-methylphenol	1800.	U
86-30-6	N-Nitrosodiphenylamine(1)	370.	U
101-55-3	4-Bromophenyl-phenylether	370.	U
118-74-1	Hexachlorobenzene	370.	U
87-86-5	Pentachlorophenol	1800.	U
85-01-8	Phenanthrene	370.	U
120-12-7	Anthracene	370.	U
84-74-2	Di-n-butylphthalate	140.	JB
206-44-0	Fluoranthene	370.	U
129-00-0	Pyrene	370.	U
85-68-7	Butylbenzylphthalate	370.	U
91-94-1	3,3'-Dichlorobenzidine	740.	U
56-55-3	Benzo(a)anthracene	370.	U
218-01-9	Chrysene	370.	U
117-81-7	bis(2-Ethylhexyl)phthalate	370.	U
117-84-0	Di-n-octylphthalate	370.	U
205-99-2	Benzo(b)fluoranthene	370.	U
207-08-9	Benzo(k)fluoranthene	370.	U
50-32-8	Benzo(a)pyrene	370.	U
193-39-5	Indeno(1,2,3-cd)pyrene	370.	U
53-70-3	Dibenz(a,h)anthracene	370.	U
191-24-2	Benzo(g,h,i)perylene	370.	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS064

Lab Name: Sound Analytical Services Contract: 624419

Lab Code: - Case No.: - SAS No.: - SDG No.: 28878

Matrix: (soil/water) SOIL Lab Sample ID: 28878-18

Sample wt/vol: 30.6 (g/ml) G Lab File ID: S7134

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

% Moisture: 10 decanted: (Y/N) N Date Extracted: 12/09/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 12/16/92

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	360.	U
111-44-4	Bis(2-chloroethyl)ether	360.	U
95-57-8	2-Chlorophenol	360.	U
541-73-1	1,3-Dichlorobenzene	360.	U
106-46-7	1,4-Dichlorobenzene	360.	U
100-51-6	Benzyl alcohol	730.	U
95-50-1	1,2-Dichlorobenzene	360.	U
95-48-7	2-Methylphenol	360.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	360.	U
106-44-5	4-Methylphenol	360.	U
621-64-7	N-Nitroso-di-n-propylamine	360.	U
67-72-1	Hexachloroethane	360.	U
98-95-3	Nitrobenzene	360.	U
78-59-1	Isophorone	360.	U
88-75-5	2-Nitrophenol	360.	U
105-67-9	2,4-Dimethylphenol	360.	U
65-85-0	Benzoic acid	1800.	U
111-91-1	bis(2-Chloroethoxy)methane	360.	U
120-83-2	2,4-Dichlorophenol	360.	U
120-82-1	1,2,4-Trichlorobenzene	360.	U
91-20-3	Naphthalene	360.	U
106-47-8	4-Chloroaniline	730.	U
87-68-3	Hexachlorobutadiene	360.	U
59-50-7	4-Chloro-3-methylphenol	730.	U
91-57-6	2-Methylnaphthalene	360.	U
77-47-4	Hexachlorocyclopentadiene	360.	U
88-06-2	2,4,6-Trichlorophenol	360.	U
95-95-4	2,4,5-Trichlorophenol	360.	U
91-58-7	2-Chloronaphthalene	360.	U
88-74-4	2-Nitroaniline	1800.	U
131-11-3	Dimethylphthalate	360.	U
208-96-8	Acenaphthylene	360.	U
606-20-2	2,6-Dinitrotoluene	360.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS064

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:28878

Matrix: (soil/water) SOIL Lab Sample ID:28878-18

Sample wt/vol: 30.6 (g/ml) G Lab File ID: S7134

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

% Moisture: 10 decanted: (Y/N) N Date Extracted:12/09/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed:12/16/92

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1800.	U
83-32-9	Acenaphthene	360.	U
51-28-5	2,4-Dinitrophenol	1800.	U
100-02-7	4-Nitrophenol	1800.	U
132-64-9	Dibenzofuran	360.	U
121-14-2	2,4-Dinitrotoluene	360.	U
84-66-2	Diethylphthalate	360.	U
7005-72-3	4-Chlorophenyl-phenylether	360.	U
86-73-7	Fluorene	360.	U
100-01-6	4-Nitroaniline	1800.	U
534-52-1	4,6-Dinitro-2-methylphenol	1800.	U
86-30-6	N-Nitrosodiphenylamine(1)	360.	U
101-55-3	4-Bromophenyl-phenylether	360.	U
118-74-1	Hexachlorobenzene	360.	U
87-86-5	Pentachlorophenol	1800.	U
85-01-8	Phenanthrene	360.	U
120-12-7	Anthracene	360.	U
84-74-2	Di-n-butylphthalate	160.	JB
206-44-0	Fluoranthene	360.	U
129-00-0	Pyrene	360.	U
85-68-7	Butylbenzylphthalate	360.	U
91-94-1	3,3'-Dichlorobenzidine	730.	U
56-55-3	Benzo(a)anthracene	360.	U
218-01-9	Chrysene	360.	U
117-81-7	bis(2-Ethylhexyl)phthalate	360.	U
117-84-0	Di-n-octylphthalate	360.	U
205-99-2	Benzo(b)fluoranthene	360.	U
207-08-9	Benzo(k)fluoranthene	360.	U
50-32-8	Benzo(a)pyrene	360.	U
193-39-5	Indeno(1,2,3-cd)pyrene	360.	U
53-70-3	Dibenz(a,h)anthracene	360.	U
191-24-2	Benzo(g,h,i)perylene	360.	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS065

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:28878

Matrix: (soil/water) SOIL Lab Sample ID:28878-19

Sample wt/vol: 30.0 (g/ml) G Lab File ID: S7135

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

% Moisture: 10 decanted: (Y/N) N Date Extracted:12/09/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed:12/16/92

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	370.	U
111-44-4	Bis(2-chloroethyl)ether	370.	U
95-57-8	2-Chlorophenol	370.	U
541-73-1	1,3-Dichlorobenzene	370.	U
106-46-7	1,4-Dichlorobenzene	370.	U
100-51-6	Benzyl alcohol	740.	U
95-50-1	1,2-Dichlorobenzene	370.	U
95-48-7	2-Methylphenol	370.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	370.	U
106-44-5	4-Methylphenol	370.	U
621-64-7	N-Nitroso-di-n-propylamine	370.	U
67-72-1	Hexachloroethane	370.	U
98-95-3	Nitrobenzene	370.	U
78-59-1	Isophorone	370.	U
88-75-5	2-Nitrophenol	370.	U
105-67-9	2,4-Dimethylphenol	370.	U
65-85-0	Benzoic acid	1800.	U
111-91-1	bis(2-Chloroethoxy)methane	370.	U
120-83-2	2,4-Dichlorophenol	370.	U
120-82-1	1,2,4-Trichlorobenzene	370.	U
91-20-3	Naphthalene	370.	U
106-47-8	4-Chloroaniline	740.	U
87-68-3	Hexachlorobutadiene	370.	U
59-50-7	4-Chloro-3-methylphenol	740.	U
91-57-6	2-Methylnaphthalene	370.	U
77-47-4	Hexachlorocyclopentadiene	370.	U
88-06-2	2,4,6-Trichlorophenol	370.	U
95-95-4	2,4,5-Trichlorophenol	370.	U
91-58-7	2-Chloronaphthalene	370.	U
88-74-4	2-Nitroaniline	1800.	U
131-11-3	Dimethylphthalate	370.	U
208-96-8	Acenaphthylene	370.	U
606-20-2	2,6-Dinitrotoluene	370.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS065

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:28878

Matrix: (soil/water) SOIL Lab Sample ID:28878-19

Sample wt/vol: 30.0 (g/ml) G Lab File ID: S7135

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

% Moisture: 10 decanted: (Y/N) N Date Extracted:12/09/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed:12/16/92

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1800.	U
83-32-9	Acenaphthene	370.	U
51-28-5	2,4-Dinitrophenol	1800.	U
100-02-7	4-Nitrophenol	1800.	U
132-64-9	Dibenzofuran	370.	U
121-14-2	2,4-Dinitrotoluene	370.	U
84-66-2	Diethylphthalate	370.	U
7005-72-3	4-Chlorophenyl-phenylether	370.	U
86-73-7	Fluorene	370.	U
100-01-6	4-Nitroaniline	1800.	U
534-52-1	4,6-Dinitro-2-methylphenol	1800.	U
86-30-6	N-Nitrosodiphenylamine(1)	370.	U
101-55-3	4-Bromophenyl-phenylether	370.	U
118-74-1	Hexachlorobenzene	370.	U
87-86-5	Pentachlorophenol	1800.	U
85-01-8	Phenanthrene	370.	U
120-12-7	Anthracene	370.	U
84-74-2	Di-n-butylphthalate	430.	B
206-44-0	Fluoranthene	370.	U
129-00-0	Pyrene	370.	U
85-68-7	Butylbenzylphthalate	370.	U
91-94-1	3,3'-Dichlorobenzidine	740.	U
56-55-3	Benzo(a)anthracene	370.	U
218-01-9	Chrysene	370.	U
117-81-7	bis(2-Ethylhexyl)phthalate	370.	U
117-84-0	Di-n-octylphthalate	370.	U
205-99-2	Benzo(b)fluoranthene	370.	U
207-08-9	Benzo(k)fluoranthene	370.	U
50-32-8	Benzo(a)pyrene	370.	U
193-39-5	Indeno(1,2,3-cd)pyrene	370.	U
53-70-3	Dibenz(a,h)anthracene	370.	U
191-24-2	Benzo(g,h,i)perylene	370.	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS066

Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:28878

Matrix: (soil/water) SOIL Lab Sample ID:28878-20

Sample wt/vol: 30.4 (g/ml) G Lab File ID: S7136

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

% Moisture: 10 decanted: (Y/N) N Date Extracted:12/09/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed:12/16/92

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	370.	U
111-44-4	Bis(2-chloroethyl)ether	370.	U
95-57-8	2-Chlorophenol	370.	U
541-73-1	1,3-Dichlorobenzene	370.	U
106-46-7	1,4-Dichlorobenzene	370.	U
100-51-6	Benzyl alcohol	730.	U
95-50-1	1,2-Dichlorobenzene	370.	U
95-48-7	2-Methylphenol	370.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	370.	U
106-44-5	4-Methylphenol	370.	U
621-64-7	N-Nitroso-di-n-propylamine	370.	U
67-72-1	Hexachloroethane	370.	U
98-95-3	Nitrobenzene	370.	U
78-59-1	Isophorone	370.	U
88-75-5	2-Nitrophenol	370.	U
105-67-9	2,4-Dimethylphenol	370.	U
65-85-0	Benzoic acid	1800.	U
111-91-1	bis(2-Chloroethoxy)methane	370.	U
120-83-2	2,4-Dichlorophenol	370.	U
120-82-1	1,2,4-Trichlorobenzene	370.	U
91-20-3	Naphthalene	370.	U
106-47-8	4-Chloroaniline	730.	U
87-68-3	Hexachlorobutadiene	370.	U
59-50-7	4-Chloro-3-methylphenol	730.	U
91-57-6	2-Methylnaphthalene	370.	U
77-47-4	Hexachlorocyclopentadiene	370.	U
88-06-2	2,4,6-Trichlorophenol	370.	U
95-95-4	2,4,5-Trichlorophenol	370.	U
91-58-7	2-Chloronaphthalene	370.	U
88-74-4	2-Nitroaniline	1800.	U
131-11-3	Dimethylphthalate	370.	U
208-96-8	Acenaphthylene	370.	U
606-20-2	2,6-Dinitrotoluene	370.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS066

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:28878

Matrix: (soil/water) SOIL Lab Sample ID:28878-20

Sample wt/vol: 30.4 (g/ml) G Lab File ID: S7136

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

% Moisture: 10 decanted: (Y/N) N Date Extracted:12/09/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed:12/16/92

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1800.	U
83-32-9	Acenaphthene	370.	U
51-28-5	2,4-Dinitrophenol	1800.	U
100-02-7	4-Nitrophenol	1800.	U
132-64-9	Dibenzofuran	370.	U
121-14-2	2,4-Dinitrotoluene	370.	U
84-66-2	Diethylphthalate	370.	U
7005-72-3	4-Chlorophenyl-phenylether	370.	U
86-73-7	Fluorene	370.	U
100-01-6	4-Nitroaniline	1800.	U
534-52-1	4,6-Dinitro-2-methylphenol	1800.	U
86-30-6	N-Nitrosodiphenylamine(1)	370.	U
101-55-3	4-Bromophenyl-phenylether	370.	U
118-74-1	Hexachlorobenzene	370.	U
87-86-5	Pentachlorophenol	1800.	U
85-01-8	Phenanthrene	370.	U
120-12-7	Anthracene	370.	U
84-74-2	Di-n-butylphthalate	610.	B
206-44-0	Fluoranthene	370.	U
129-00-0	Pyrene	370.	U
85-68-7	Butylbenzylphthalate	370.	U
91-94-1	3,3'-Dichlorobenzidine	730.	U
56-55-3	Benzo(a)anthracene	370.	U
218-01-9	Chrysene	370.	U
117-81-7	bis(2-Ethylhexyl)phthalate	370.	U
117-84-0	Di-n-octylphthalate	370.	U
205-99-2	Benzo(b)fluoranthene	370.	U
207-08-9	Benzo(k)fluoranthene	370.	U
50-32-8	Benzo(a)pyrene	370.	U
193-39-5	Indeno(1,2,3-cd)pyrene	370.	U
53-70-3	Dibenz(a,h)anthracene	370.	U
191-24-2	Benzo(g,h,i)perylene	370.	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS067

Lab Name: Sound Analytical Services Contract: 624419

Lab Code:- Case No.:- SAS No.:- SDG No.: 28878

Matrix: (soil/water) SOIL Lab Sample ID: 28878-21

Sample wt/vol: 30.1 (g/ml) G Lab File ID: S7137

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

% Moisture: 8 decanted: (Y/N) N Date Extracted: 12/09/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 12/16/92

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	360.	U
111-44-4	Bis(2-chloroethyl)ether	360.	U
95-57-8	2-Chlorophenol	360.	U
541-73-1	1,3-Dichlorobenzene	360.	U
106-46-7	1,4-Dichlorobenzene	360.	U
100-51-6	Benzyl alcohol	720.	U
95-50-1	1,2-Dichlorobenzene	360.	U
95-48-7	2-Methylphenol	360.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	360.	U
106-44-5	4-Methylphenol	360.	U
621-64-7	N-Nitroso-di-n-propylamine	360.	U
67-72-1	Hexachloroethane	360.	U
98-95-3	Nitrobenzene	360.	U
78-59-1	Isophorone	360.	U
88-75-5	2-Nitrophenol	360.	U
105-67-9	2,4-Dimethylphenol	360.	U
65-85-0	Benzoic acid	1800.	U
111-91-1	bis(2-Chloroethoxy)methane	360.	U
120-83-2	2,4-Dichlorophenol	360.	U
120-82-1	1,2,4-Trichlorobenzene	360.	U
91-20-3	Naphthalene	360.	U
106-47-8	4-Chloroaniline	720.	U
87-68-3	Hexachlorobutadiene	360.	U
59-50-7	4-Chloro-3-methylphenol	720.	U
91-57-6	2-Methylnaphthalene	360.	U
77-47-4	Hexachlorocyclopentadiene	360.	U
88-06-2	2,4,6-Trichlorophenol	360.	U
95-95-4	2,4,5-Trichlorophenol	360.	U
91-58-7	2-Chloronaphthalene	360.	U
88-74-4	2-Nitroaniline	1800.	U
131-11-3	Dimethylphthalate	360.	U
208-96-8	Acenaphthylene	360.	U
606-20-2	2,6-Dinitrotoluene	360.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS067

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:28878

Matrix: (soil/water) SOIL Lab Sample ID:28878-21

Sample wt/vol: 30.1 (g/ml) G Lab File ID: S7137

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

% Moisture: 8 decanted: (Y/N) N Date Extracted:12/09/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed:12/16/92

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1800.	U
83-32-9	Acenaphthene	360.	U
51-28-5	2,4-Dinitrophenol	1800.	U
100-02-7	4-Nitrophenol	1800.	U
132-64-9	Dibenzofuran	360.	U
121-14-2	2,4-Dinitrotoluene	360.	U
84-66-2	Diethylphthalate	360.	U
7005-72-3	4-Chlorophenyl-phenylether	360.	U
86-73-7	Fluorene	360.	U
100-01-6	4-Nitroaniline	1800.	U
534-52-1	4,6-Dinitro-2-methylphenol	1800.	U
86-30-6	N-Nitrosodiphenylamine(1)	360.	U
101-55-3	4-Bromophenyl-phenylether	360.	U
118-74-1	Hexachlorobenzene	360.	U
87-86-5	Pentachlorophenol	1800.	U
85-01-8	Phenanthrene	360.	U
120-12-7	Anthracene	360.	U
84-74-2	Di-n-butylphthalate	460.	B
206-44-0	Fluoranthene	360.	U
129-00-0	Pyrene	360.	U
85-68-7	Butylbenzylphthalate	360.	U
91-94-1	3,3'-Dichlorobenzidine	720.	U
56-55-3	Benzo(a)anthracene	360.	U
218-01-9	Chrysene	360.	U
117-81-7	bis(2-Ethylhexyl)phthalate	360.	U
117-84-0	Di-n-octylphthalate	360.	U
205-99-2	Benzo(b)fluoranthene	360.	U
207-08-9	Benzo(k)fluoranthene	360.	U
50-32-8	Benzo(a)pyrene	360.	U
193-39-5	Indeno(1,2,3-cd)pyrene	360.	U
53-70-3	Dibenz(a,h)anthracene	360.	U
191-24-2	Benzo(g,h,i)perylene	360.	U

(1) - Cannot be separated from Diphenylamine

MEMORANDUM

DATE: March 22, 1993

TO: Ted Wall, Environmental Engineer JW

FROM: Nels Cone, Chemist NBC

SUBJECT: DATA VALIDATION OF CHEMICAL ANALYSIS FROM PASCO LANDFILL PHASE I REMEDIAL INVESTIGATION, PROJECT 624419, DATA SET 3B

On December 5, 1992, twenty-one soil samples were collected by Burlington field personnel. Their sample identification numbers are as follows:

PLF-SS-047	PLF-SS-050	PLF-SS-053	PLF-SS-056	PLF-SS-059	PLF-SS-062	PLF-SS-065
PLF-SS-048	PLF-SS-051	PLF-SS-054	PLF-SS-057	PLF-SS-060	PLF-SS-063	PLF-SS-066
PLF-SS-049	PLF-SS-052	PLF-SS-055	PLF-SS-058	PLF-SS-061	PLF-SS-064	PLF-SS-067

These samples were then submitted to Sound Analytical Services of Tacoma, Washington (work order 28878), for semivolatile compound analysis (USEPA SW-846, Method 8270). I performed a data quality review of the analytical results in accordance with the USEPA Contract Laboratory Program (CLP) Document Number 0LM01.0.

FINDINGS

Properly completed chain-of-custody forms were included with documented signatures from field to laboratory receipt. All samples were shown as having been iced and received in good condition. Samples received the requested analyses, with extraction, holding, and analysis times for all samples meeting the required guidelines.

Surrogate compound recoveries met within acceptable quality control (QC) limits for all samples, method blanks, and matrix spikes. Method blank data indicates lab contaminant of di-n-butylphthalate and related sample data received the appropriate qualifier flag. For matrix spike/matrix spike duplicate recoveries, four out of eleven were outside required QC criteria (1,4-dichlorobenzene, nitroso-di-n-propylamine, 1,2,4-trichlorobenzene, acenaphthene). Per CLP protocol, since no samples contained these compounds, no data qualifier flags were needed. Furthermore, initial and continuous calibration checks for all target compounds (including the four above), met required minimum relative response factors.

Requisite instrument tuning check with decafluorotriphenylphosphine was reported to document performance of gas chromatograph/mass spectral analyses. Internal standards displayed area response and retention times all within required limits. A search for tentatively-identified compounds (TIC) was performed and several were found. Per CLP protocol, they received the appropriate "J" data qualifier flag.

Laboratory duplicates were not run for these analyses. However, field duplicate pair PLF-SS-048 and PLF-SS-067 indicate the appropriate analytical precision. Additional QC was supplied in the form of gas chromatographic/ion mass spectral data for the samples, method blanks, method spikes, and calibration standards. Data consistency was demonstrated throughout.

Proper data qualifier flags accompanied the analytical results as needed. Overall, the data quality guidelines as required in the CLP Statement of Work are met. Accordingly, this data can be considered valid for its intended use.

RECOMMENDATIONS

No modifications of the data are required.

SURFACE SOILS I2.8

SAMPLES PLF-SS-047 TO PLF-SS-067

METALS DATA PACKAGE

U.S. EPA - CLP

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO_____

Lab Code: _____ Case No.: _____ SAS No.: 28878_ SDG No.:B.E.__

SOW No.: 3/90_

EPA Sample No.	Lab Sample ID
_FSS047_____	__28878-1_____
_FSS048_____	__28878-2_____
_FSS049_____	__28878-3_____
_FSS050_____	__28878-4_____
_FSS051_____	__28878-5_____
_FSS052_____	__28878-6_____
_FSS053_____	__28878-7_____
_FSS054_____	__28878-8_____
_FSS055_____	__28878-9_____
_FSS055D_____	__28878-9D_____
_FSS055S_____	__28878-9SD____
_FSS055S_____	__28878-9S_____
_FSS056_____	__28878-10_____
_FSS057_____	__28878-11_____
_FSS058_____	__28878-12_____
_FSS059_____	__28878-13_____
_FSS060_____	__28878-14_____
_FSS061_____	__28878-15_____
_FSS062_____	__28878-16_____
_FSS063_____	__28878-17_____

Were ICP interelement corrections applied ? Yes/No YES

Were ICP background corrections applied ? Yes/No YES
If yes - were raw data generated before application of background corrections ? Yes/No NO_

Comments:

I 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 contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: _____ Name: _____

Date: _____ Title: _____

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Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO_____

Lab Code: _____ Case No.: _____ SAS No.: 28878_ SDG No.:B.E.__

SOW No.: 3/90_

EPA Sample No.	Lab Sample ID
_FSS064_____	__28878-18____
_FSS065_____	__28878-19____
_FSS066_____	__28878-20____
_FSS067_____	__28878-21____

Were ICP interelement corrections applied ? Yes/No YES

Were ICP background corrections applied ? Yes/No YES
If yes - were raw data generated before application of background corrections ? Yes/No NO_

Comments:

I 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 contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: _____ Name: _____

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FSS047

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO_____

Lab Code: _____ Case No.: _____ SAS No.: 28878_ SDG No.: B.E.__

Matrix (soil/water): SOIL_ Lab Sample ID: 28878-1___

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

% Solids: _91.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_	2.2		N*	P_
7440-38-2	Arsenic__	7.0			P_
7440-39-3	Barium___				NR
7440-41-7	Beryllium	0.13	U		P_
7440-43-9	Cadmium__	2.0		*	P_
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	4.7		*	P_
7440-48-4	Cobalt___				NR
7440-50-8	Copper___	12.8		*	P_
7439-89-6	Iron____				NR
7439-92-1	Lead____	6.8		*	P_
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__	0.10	U		AV
7440-02-0	Nickel___	7.6			P_
7440-09-7	Potassium				NR
7782-49-2	Selenium_	2.6	U		P_
7440-22-4	Silver___	0.75		*	P_
7440-23-5	Sodium___				NR
7440-28-0	Thallium_	3.9	U	N	P_
7440-62-2	Vanadium_				NR
7440-66-6	Zinc____	34.2		E*	P_
5955-70-0	Cyanide__				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FSS048

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO_____

Lab Code: _____ Case No.: _____ SAS No.: 28878_ SDG No.: B.E.__

Matrix (soil/water): SOIL_ Lab Sample ID: 28878-2___

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

% Solids: _92.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_	1.6	U	N*	P_
7440-38-2	Arsenic__	5.1	_		P_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium	0.14	U		P_
7440-43-9	Cadmium__	1.9	_	*	P_
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_	4.9	_	*	P_
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___	13.4	_	*	P_
7439-89-6	Iron_____		_		NR
7439-92-1	Lead_____	6.8	_	*	P_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__	0.11	U		AV
7440-02-0	Nickel___	7.6	_		P_
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_	2.7	U		P_
7440-22-4	Silver___	0.69	_	*	P_
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_	4.1	U	N	P_
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc_____	33.4	_	E*	P_
5955-70-0	Cyanide__		_		NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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EPA SAMPLE NO.

FSS049

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO_____

Lab Code: _____ Case No.: _____ SAS No.: 28878_ SDG No.: B.E.__

Matrix (soil/water): SOIL_ Lab Sample ID: 28878-3___

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

% Solids: _90.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_	1.5	U	N*	P_
7440-38-2	Arsenic__	6.7	_		P_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium	0.13	U		P_
7440-43-9	Cadmium__	2.2	_	*	P_
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_	6.0	_	*	P_
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___	31.0	_	*	P_
7439-89-6	Iron____		_		NR
7439-92-1	Lead____	11.3	_	*	P_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__	0.09	U		AV
7440-02-0	Nickel___	8.5	_		P_
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_	2.5	U		P_
7440-22-4	Silver___	1.1	_	*	P_
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_	3.8	U	N	P_
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc____	54.9	_	E*	P_
5955-70-0	Cyanide__		_		NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FSS050

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO_____

Lab Code: _____ Case No.: _____ SAS No.: 28878_ SDG No.: B.E.__

Matrix (soil/water): SOIL_ Lab Sample ID: 28878-4___

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

% Solids: _90.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_	1.7	_	N*	P_
7440-38-2	Arsenic__	5.9	_		P_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium	0.13	U		P_
7440-43-9	Cadmium__	2.0	_	*	P_
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_	5.6	_	*	P_
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___	13.7	_	*	P_
7439-89-6	Iron____		_		NR
7439-92-1	Lead____	7.5	_	*	P_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__	0.10	U		AV
7440-02-0	Nickel___	8.8	_		P_
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_	2.6	U		P_
7440-22-4	Silver___	0.72	_	*	P_
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_	3.9	U	N	P_
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc____	36.9	_	E*	P_
5955-70-0	Cyanide__		_		NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FSS051

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO

Lab Code: Case No.: SAS No.: 28878 SDG No.: B.E.

Matrix (soil/water): SOIL Lab Sample ID: 28878-5

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

% Solids: 92.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony	1.5	U	N*	P
7440-38-2	Arsenic	5.7			P
7440-39-3	Barium				NR
7440-41-7	Beryllium	0.13	U		P
7440-43-9	Cadmium	2.1		*	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	5.4		*	P
7440-48-4	Cobalt				NR
7440-50-8	Copper	12.9		*	P
7439-89-6	Iron				NR
7439-92-1	Lead	8.0		*	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.09	U		AV
7440-02-0	Nickel	7.9			P
7440-09-7	Potassium				NR
7782-49-2	Selenium	2.6	U		P
7440-22-4	Silver	0.94		*	P
7440-23-5	Sodium				NR
7440-28-0	Thallium	3.8	U	N	P
7440-62-2	Vanadium				NR
7440-66-6	Zinc	37.6		E*	P
5955-70-0	Cyanide				NR

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FSS052

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO_____

Lab Code: _____ Case No.: _____ SAS No.: 28878_ SDG No.: B.E.__

Matrix (soil/water): SOIL_ Lab Sample ID: 28878-6___

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

% Solids: _92.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_	1.5	U	N*	P_
7440-38-2	Arsenic__	7.8	_		P_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium	0.12	U		P_
7440-43-9	Cadmium__	2.0	_	*	P_
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_	5.2	_	*	P_
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___	13.6	_	*	P_
7439-89-6	Iron____		_		NR
7439-92-1	Lead____	6.6	_	*	P_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__	0.11	U		AV
7440-02-0	Nickel___	8.2	_		P_
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_	2.4	U		P_
7440-22-4	Silver___	0.75	_	*	P_
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_	3.6	U	N	P_
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc____	36.5	_	E*	P_
5955-70-0	Cyanide__		_		NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FSS053

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO_____

Lab Code: _____ Case No.: _____ SAS No.: 28878_ SDG No.: B.E.__

Matrix (soil/water): SOIL_ Lab Sample ID: 28878-7___

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

% Solids: _91.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_	1.6	U	N*	P_
7440-38-2	Arsenic__	7.5			P_
7440-39-3	Barium___				NR
7440-41-7	Beryllium	0.13	U		P_
7440-43-9	Cadmium__	1.8		*	P_
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	4.4		*	P_
7440-48-4	Cobalt___				NR
7440-50-8	Copper___	16.8		*	P_
7439-89-6	Iron____				NR
7439-92-1	Lead____	8.2		*	P_
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__	0.09	U		AV
7440-02-0	Nickel___	7.3			P_
7440-09-7	Potassium				NR
7782-49-2	Selenium_	2.6	U		P_
7440-22-4	Silver___	0.82		*	P_
7440-23-5	Sodium___				NR
7440-28-0	Thallium_	3.9	U	N	P_
7440-62-2	Vanadium_				NR
7440-66-6	Zinc____	38.7		E*	P_
5955-70-0	Cyanide__				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FSS054

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO

Lab Code: Case No.: SAS No.: 28878 SDG No.: B.E.

Matrix (soil/water): SOIL Lab Sample ID: 28878-8

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

% Solids: 91.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony	1.6		N*	P
7440-38-2	Arsenic	6.1			P
7440-39-3	Barium				NR
7440-41-7	Beryllium	0.14	U		P
7440-43-9	Cadmium	1.7		*	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	5.1		*	P
7440-48-4	Cobalt				NR
7440-50-8	Copper	13.0		*	P
7439-89-6	Iron				NR
7439-92-1	Lead	7.3		*	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.09	U		AV
7440-02-0	Nickel	7.9			P
7440-09-7	Potassium				NR
7782-49-2	Selenium	2.7	U		P
7440-22-4	Silver	0.81		*	P
7440-23-5	Sodium				NR
7440-28-0	Thallium	4.1	U	N	P
7440-62-2	Vanadium				NR
7440-66-6	Zinc	33.6		E*	P
5955-70-0	Cyanide				NR

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FSS055

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO_____

Lab Code: _____ Case No.: _____ SAS No.: 28878_ SDG No.: B.E.__

Matrix (soil/water): SOIL_ Lab Sample ID: 28878-9___

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

% Solids: _92.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_	2.3	_	N*	P_
7440-38-2	Arsenic__	7.7	_		P_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium	0.12	U		P_
7440-43-9	Cadmium__	1.7	_	*	P_
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_	4.8	_	*	P_
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___	15.1	_	*	P_
7439-89-6	Iron____		_		NR
7439-92-1	Lead____	7.4	_	*	P_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__	0.09	U		AV
7440-02-0	Nickel___	7.4	_		P_
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_	2.5	U		P_
7440-22-4	Silver___	0.76	_	*	P_
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_	3.7	U	N	P_
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc____	38.3	_	E*	P_
5955-70-0	Cyanide__		_		NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FSS056

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO

Lab Code: Case No.: SAS No.: 28878 SDG No.: B.E.

Matrix (soil/water): SOIL Lab Sample ID: 28878-10

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

% Solids: 91.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony	1.5	U	N*	P
7440-38-2	Arsenic	4.2			P
7440-39-3	Barium				NR
7440-41-7	Beryllium	0.13	U		P
7440-43-9	Cadmium	1.7		*	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	5.3		*	P
7440-48-4	Cobalt				NR
7440-50-8	Copper	16.8		*	P
7439-89-6	Iron				NR
7439-92-1	Lead	9.0		*	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.09	U		AV
7440-02-0	Nickel	7.8			P
7440-09-7	Potassium				NR
7782-49-2	Selenium	2.5	U		P
7440-22-4	Silver	0.99		*	P
7440-23-5	Sodium				NR
7440-28-0	Thallium	3.8	U	N	P
7440-62-2	Vanadium				NR
7440-66-6	Zinc	41.7		E*	P
5955-70-0	Cyanide				NR

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FSS057

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO_____

Lab Code: _____ Case No.: _____ SAS No.: 28878_ SDG No.: B.E.__

Matrix (soil/water): SOIL_ Lab Sample ID: 28878-11__

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

% Solids: _94.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_	1.3	U	N*	P_
7440-38-2	Arsenic__	5.0			P_
7440-39-3	Barium___				NR
7440-41-7	Beryllium	0.11	U		P_
7440-43-9	Cadmium__	1.7		*	P_
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	3.7		*	P_
7440-48-4	Cobalt___				NR
7440-50-8	Copper___	11.2		*	P_
7439-89-6	Iron____				NR
7439-92-1	Lead____	5.7		*	P_
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__	0.09	U		AV
7440-02-0	Nickel___	6.8			P_
7440-09-7	Potassium				NR
7782-49-2	Selenium_	2.2	U		P_
7440-22-4	Silver___	0.97		*	P_
7440-23-5	Sodium___				NR
7440-28-0	Thallium_	3.3	U	N	P_
7440-62-2	Vanadium_				NR
7440-66-6	Zinc____	30.5		E*	P_
5955-70-0	Cyanide__				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FSS058

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO_____

Lab Code: _____ Case No.: _____ SAS No.: 28878_ SDG No.: B.E.__

Matrix (soil/water): SOIL_ Lab Sample ID: 28878-12__

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

% Solids: _92.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_	1.6	U	N*	P_
7440-38-2	Arsenic__	8.5	_		P_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium	0.13	U		P_
7440-43-9	Cadmium__	1.7	_	*	P_
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_	5.3	_	*	P_
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___	11.5	_	*	P_
7439-89-6	Iron____		_		NR
7439-92-1	Lead____	6.9	_	*	P_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__	0.10	U		AV
7440-02-0	Nickel___	7.9	_		P_
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_	2.7	U		P_
7440-22-4	Silver___	0.62	_	*	P_
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_	4.0	U	N	P_
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc____	31.7	_	E*	P_
5955-70-0	Cyanide__		_		NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FSS059

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO

Lab Code: Case No.: SAS No.: 28878 SDG No.: B.E.

Matrix (soil/water): SOIL Lab Sample ID: 28878-13

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

% Solids: 90.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony	1.6	U	N*	P
7440-38-2	Arsenic	6.2			P
7440-39-3	Barium				NR
7440-41-7	Beryllium	0.13	U		P
7440-43-9	Cadmium	1.6		*	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	5.2		*	P
7440-48-4	Cobalt				NR
7440-50-8	Copper	11.7		*	P
7439-89-6	Iron				NR
7439-92-1	Lead	6.2		*	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.08	U		AV
7440-02-0	Nickel	8.2			P
7440-09-7	Potassium				NR
7782-49-2	Selenium	2.6	U		P
7440-22-4	Silver	0.59		*	P
7440-23-5	Sodium				NR
7440-28-0	Thallium	4.0	U	N	P
7440-62-2	Vanadium				NR
7440-66-6	Zinc	31.2		E*	P
5955-70-0	Cyanide				NR

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FSS060

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO_____

Lab Code: _____ Case No.: _____ SAS No.: 28878_ SDG No.: B.E.__

Matrix (soil/water): SOIL_ Lab Sample ID: 28878-14__

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

% Solids: _90.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_	1.2	U	N*	P_
7440-38-2	Arsenic__	5.2			P_
7440-39-3	Barium___				NR
7440-41-7	Beryllium	0.10	U		P_
7440-43-9	Cadmium__	1.6		*	P_
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	4.5		*	P_
7440-48-4	Cobalt___				NR
7440-50-8	Copper___	21.4		*	P_
7439-89-6	Iron____				NR
7439-92-1	Lead____	10.0		*	P_
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__	0.48			AV
7440-02-0	Nickel___	7.0			P_
7440-09-7	Potassium				NR
7782-49-2	Selenium_	1.9	U		P_
7440-22-4	Silver___	1.0		*	P_
7440-23-5	Sodium___				NR
7440-28-0	Thallium_	2.9	U	N	P_
7440-62-2	Vanadium_				NR
7440-66-6	Zinc____	44.5		E*	P_
5955-70-0	Cyanide__				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FSS061

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO_____

Lab Code: _____ Case No.: _____ SAS No.: 28878_ SDG No.: B.E.__

Matrix (soil/water): SOIL_ Lab Sample ID: 28878-15__

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

% Solids: _92.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_	1.5	U	N*	P_
7440-38-2	Arsenic__	6.2			P_
7440-39-3	Barium___				NR
7440-41-7	Beryllium	0.12	U		P_
7440-43-9	Cadmium__	1.7		*	P_
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	3.9		*	P_
7440-48-4	Cobalt___				NR
7440-50-8	Copper___	9.9		*	P_
7439-89-6	Iron____				NR
7439-92-1	Lead____	6.3		*	P_
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__	0.10	U		AV
7440-02-0	Nickel___	7.1			P_
7440-09-7	Potassium				NR
7782-49-2	Selenium_	2.4	U		P_
7440-22-4	Silver___	0.65		*	P_
7440-23-5	Sodium___				NR
7440-28-0	Thallium_	3.6	U	N	P_
7440-62-2	Vanadium_				NR
7440-66-6	Zinc____	28.2		E*	P_
5955-70-0	Cyanide__				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FSS062

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO_____

Lab Code: _____ Case No.: _____ SAS No.: 28878_ SDG No.: B.E.__

Matrix (soil/water): SOIL_ Lab Sample ID: 28878-16__

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

% Solids: _90.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_	1.1	U	N*	P_
7440-38-2	Arsenic__	6.3			P_
7440-39-3	Barium___				NR
7440-41-7	Beryllium	0.09	U		P_
7440-43-9	Cadmium__	1.8		*	P_
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	5.2		*	P_
7440-48-4	Cobalt___				NR
7440-50-8	Copper___	10.9		*	P_
7439-89-6	Iron____				NR
7439-92-1	Lead____	6.1		*	P_
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__	0.10	U		AV
7440-02-0	Nickel___	7.9			P_
7440-09-7	Potassium				NR
7782-49-2	Selenium_	1.9	U		P_
7440-22-4	Silver___	1.1		*	P_
7440-23-5	Sodium___				NR
7440-28-0	Thallium_	2.8	U	N	P_
7440-62-2	Vanadium_				NR
7440-66-6	Zinc____	33.5		E*	P_
5955-70-0	Cyanide__				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FSS063

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO_____

Lab Code: _____ Case No.: _____ SAS No.: 28878_ SDG No.: B.E.__

Matrix (soil/water): SOIL_ Lab Sample ID: 28878-17__

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

% Solids: _90.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_	1.5	U	N*	P_
7440-38-2	Arsenic__	6.7			P_
7440-39-3	Barium___				NR
7440-41-7	Beryllium	0.13	U		P_
7440-43-9	Cadmium__	1.8		*	P_
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	5.4		*	P_
7440-48-4	Cobalt___				NR
7440-50-8	Copper___	12.0		*	P_
7439-89-6	Iron____				NR
7439-92-1	Lead____	7.2		*	P_
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__	0.10	U		AV
7440-02-0	Nickel___	8.6			P_
7440-09-7	Potassium				NR
7782-49-2	Selenium_	2.5	U		P_
7440-22-4	Silver___	0.83		*	P_
7440-23-5	Sodium___				NR
7440-28-0	Thallium_	3.8	U	N	P_
7440-62-2	Vanadium_				NR
7440-66-6	Zinc____	34.2		E*	P_
5955-70-0	Cyanide__				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FSS064

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO_____

Lab Code: _____ Case No.: _____ SAS No.: 28878_ SDG No.: B.E.__

Matrix (soil/water): SOIL_ Lab Sample ID: 28878-18__

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

% Solids: _89.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_	1.3	U	N*	P_
7440-38-2	Arsenic__	8.2			P_
7440-39-3	Barium___				NR
7440-41-7	Beryllium	0.11	U		P_
7440-43-9	Cadmium__	1.8		*	P_
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	5.8		*	P_
7440-48-4	Cobalt___				NR
7440-50-8	Copper___	11.5		*	P_
7439-89-6	Iron____				NR
7439-92-1	Lead____	6.4		*	P_
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__	0.10	U		AV
7440-02-0	Nickel___	8.4			P_
7440-09-7	Potassium				NR
7782-49-2	Selenium_	2.2	U		P_
7440-22-4	Silver___	1.1		*	P_
7440-23-5	Sodium___				NR
7440-28-0	Thallium_	3.4	U	N	P_
7440-62-2	Vanadium_				NR
7440-66-6	Zinc____	34.6		E*	P_
5955-70-0	Cyanide__				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FSS065

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO_____

Lab Code: _____ Case No.: _____ SAS No.: 28878_ SDG No.: B.E.__

Matrix (soil/water): SOIL_ Lab Sample ID: 28878-19__

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

% Solids: _90.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_	1.2	U	N*	P_
7440-38-2	Arsenic__	7.4	_		P_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium	0.10	U		P_
7440-43-9	Cadmium__	2.1	_	*	P_
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_	6.2	_	*	P_
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___	12.6	_	*	P_
7439-89-6	Iron____		_		NR
7439-92-1	Lead____	6.5	_	*	P_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__	0.10	U		AV
7440-02-0	Nickel___	8.8	_		P_
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_	1.9	U		P_
7440-22-4	Silver___	1.1	_	*	P_
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_	2.9	U	N	P_
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc____	37.9	_	E*	P_
5955-70-0	Cyanide__		_		NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FSS066

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO_____

Lab Code: _____ Case No.: _____ SAS No.: 28878_ SDG No.: B.E.__

Matrix (soil/water): SOIL_ Lab Sample ID: 28878-20__

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

% Solids: _90.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_	1.5		N*	P_
7440-38-2	Arsenic__	5.9			P_
7440-39-3	Barium___				NR
7440-41-7	Beryllium	0.09	U		P_
7440-43-9	Cadmium__	2.0		*	P_
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	5.5		*	P_
7440-48-4	Cobalt___				NR
7440-50-8	Copper___	11.9		*	P_
7439-89-6	Iron____				NR
7439-92-1	Lead____	8.8		*	P_
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__	0.10	U		AV
7440-02-0	Nickel___	8.7			P_
7440-09-7	Potassium				NR
7782-49-2	Selenium_	1.9	U		P_
7440-22-4	Silver___	1.3		*	P_
7440-23-5	Sodium___				NR
7440-28-0	Thallium_	2.8	U	N	P_
7440-62-2	Vanadium_				NR
7440-66-6	Zinc____	36.1		E*	P_
5955-70-0	Cyanide__				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FSS067

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO_____

Lab Code: _____ Case No.: _____ SAS No.: 28878_ SDG No.: B.E.__

Matrix (soil/water): SOIL_ Lab Sample ID: 28878-21__

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

% Solids: _91.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_	1.3	U	N*	P_
7440-38-2	Arsenic__	6.5			P_
7440-39-3	Barium___				NR
7440-41-7	Beryllium	0.10	U		P_
7440-43-9	Cadmium__	2.0		*	P_
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	6.2		*	P_
7440-48-4	Cobalt___				NR
7440-50-8	Copper___	17.5		*	P_
7439-89-6	Iron____				NR
7439-92-1	Lead____	10.8		*	P_
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__	0.09	U		AV
7440-02-0	Nickel___	8.4			P_
7440-09-7	Potassium				NR
7782-49-2	Selenium_	2.1	U		P_
7440-22-4	Silver___	1.3		*	P_
7440-23-5	Sodium___				NR
7440-28-0	Thallium_	3.1	U	N	P_
7440-62-2	Vanadium_				NR
7440-66-6	Zinc____	41.4		E*	P_
5955-70-0	Cyanide__				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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MEMORANDUM

DATE: March 5, 1993

TO: Ted Wall, Environmental Engineer JW

FROM: Nels Cone, Chemist NBC

SUBJECT: DATA VALIDATION OF CHEMICAL ANALYSIS FROM PASCO LANDFILL PHASE I REMEDIAL INVESTIGATION, PROJECT 624419, DATA SET 3C

On December 5, 1992, twenty-one soil samples were collected by Burlington field personnel. Their sample identification numbers are as follows:

PLF-SS-047	PLF-SS-050	PLF-SS-053	PLF-SS-056	PLF-SS-059	PLF-SS-062	PLF-SS-065
PLF-SS-048	PLF-SS-051	PLF-SS-054	PLF-SS-057	PLF-SS-060	PLF-SS-063	PLF-SS-066
PLF-SS-049	PLF-SS-052	PLF-SS-055	PLF-SS-058	PLF-SS-061	PLF-SS-064	PLF-SS-067

These samples were then submitted to Sound Analytical Services (SAS), of Tacoma, Washington (work order 28878), for priority pollutant metals (PPM) analysis (USEPA SW-846, Method 6010). I performed a data quality review of the analytical results in accordance with the USEPA Contract Laboratory Program (CLP) Document Number ILM02.0.

FINDINGS

Properly completed chain-of-custody forms were included with documented signatures from field to laboratory receipt. All samples were shown as having been iced and received in good condition. Holding, extraction, and analysis times for all samples met the required guidelines. All metal analyses were performed by inductively coupled plasma (ICP) analysis with the exception of mercury, which received cold vapor atomic absorption (CVAA) analysis.

All sample spike recoveries met required quality control (QC) limits with the exception of antimony and thallium. All target analytes from serial dilutions were within CLP QC directives with the exception of zinc. For duplicate analyses, seven out of thirteen analytes (flagged *) had relative percent differences exceeding QC limits. This does not reflect overall

analytical precision as much as it is an indication of soil sample heterogeneity. All target analytes from laboratory control samples were within required QC limits with the exception of antimony. As such, all reported antimony values should be considered as estimates.

Initial and continuing calibration verification, method blanks, interference checks, ICP correction factors, line calibration data, and calibration check standards all met within required QC limits. Supporting documentation was supplied in the form of raw sample data. Data consistent with reported summary information was demonstrated. Overall, the data quality objectives outlined by the CLP Statement of Work were followed. Accordingly, these data can be considered useful for their intended purpose, with inclusions of qualifiers listed under Recommendations.

RECOMMENDATIONS

All reported values of antimony should be considered as estimates appended with the CLP data qualifier flag "~~E~~ B". 5/18/93

SURFACE SOILS I2.9

SAMPLES PLF-SS-047 TO PLF-SS-067

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SS-047

Lab Name: Sound Analytical Contract: Burlington Environmental

Lab Code: 28878 Case No.: SAS No.: SDG No.:

Matrix (soil/water) soil Lab Sample ID: 28878-1

Sample wt/vol: 10.4204 (g/mL) grams Lab File ID: P1294

% Moisture: 8.56 decanted: (Y/N) no Date Received: 12/08/92

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 12/11/92

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 12/22/92

Injection Volume: 3 (uL) Dilution Factor:

GPC Cleanup: (Y/N) no pH: n/a Sulfur Cleanup: (Y/N) no

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.78
319-85-7	beta-BHC	ND	1.78
319-86-8	delta-BHC	ND	1.78
58-89-9	gamma-BHC (Lindane)	ND	1.78
76-44-8	Heptachlor	ND	1.78
309-00-2	Aldrin	ND	1.78
1024-57-3	Heptachlor epoxide	ND	1.78
959-98-8	Endosulfan I	ND	1.78
60-57-1	Dieldrin	ND	3.46
72-55-9	4,4'-DDE	ND	3.46
72-20-8	Endrin	ND	3.46
33213-65-9	Endosulfan II	ND	3.46
72-54-8	4,4'-DDD	ND	3.46
1031-07-8	Endosulfan sulfate	ND	3.46
50-29-3	4,4'-DDT	ND	3.46
72-43-5	Methoxychlor	ND	17.84
53494-70-5	Endrin ketone	ND	3.46
7421-36-3	Endrin aldehyde	ND	3.46
5103-71-9	alpha-Chlordane	ND	1.78
5103-74-2	gamma-Chlordane	ND	1.78
8001-35-2	Toxaphene	ND	524.75
12674-11-2	Aroclor-1016	ND	34.63
11104-28-2	Aroclor-1221	ND	34.63
11141-16-5	Aroclor-1232	ND	70.32
53469-21-9	Aroclor-1242	ND	34.63
12672-29-6	Aroclor-1248	ND	34.63
11097-69-1	Aroclor-1254	ND	34.63
11096-82-5	Aroclor-1260	ND	34.63

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SS-048

Lab Name: Sound Analytical Contract: Burlington Environmental

Lab Code: 28878 Case No.: SAS No.: SDG No.:

Matrix: (soil/water) soil Lab Sample ID: 28878-2

Sample wt/vol: 10.2177 (g/mL) grams Lab File ID: P1295

% Moisture: 8.02 decanted: (Y/N) no Date Received: 12/08/92

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 12/11/92

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 12/22/92

Injection Volume: 3 (uL) Dilution Factor:

GPC Cleanup: (Y/N) no pH: n/a Sulfur Cleanup: (Y/N) no

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.81
319-85-7	beta-BHC	ND	1.81
319-86-8	delta-BHC	ND	1.81
58-89-9	gamma-BHC (Lindane)	ND	1.81
76-44-8	Heptachlor	ND	1.81
309-00-2	Aldrin	ND	1.81
1024-57-3	Heptachlor epoxide	ND	1.81
959-98-8	Endosulfan I	ND	1.81
60-57-1	Dieldrin	ND	3.51
72-55-9	4,4'-DDE	ND	3.51
72-20-8	Endrin	ND	3.51
33213-65-9	Endosulfan II	ND	3.51
72-54-8	4,4'-DDD	ND	3.51
1031-07-8	Endosulfan sulfate	ND	3.51
50-29-3	4,4'-DDT	ND	3.51
72-43-5	Methoxychlor	ND	18.09
53494-70-5	Endrin ketone	ND	3.51
7421-36-3	Endrin aldehyde	ND	3.51
5103-71-9	alpha-Chlordane	ND	1.81
5103-74-2	gamma-Chlordane	ND	1.81
8001-35-2	Toxaphene	ND	532.01
12674-11-2	Aroclor-1016	ND	35.11
11104-28-2	Aroclor-1221	ND	35.11
11141-16-5	Aroclor-1232	ND	71.29
53469-21-9	Aroclor-1242	ND	35.11
12672-29-6	Aroclor-1248	ND	35.11
11097-69-1	Aroclor-1254	ND	35.11
11096-82-5	Aroclor-1260	ND	35.11

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SS-049

Lab Name: Sound Analytical Contract: Burlington Environmental

Lab Code: 28878 Case No.: SAS No.: SDG No.:

Matrix (soil/water) soil Lab Sample ID: 28878-3

Sample wt/vol: 10.3967 (g/mL) grams Lab File ID: P1296

% Moisture: 9.08 decanted: (Y/N) no Date Received: 12/08/92

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 12/11/92

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 12/22/92

Injection Volume: 3 (uL) Dilution Factor:

GPC Cleanup: (Y/N) no pH: n/a Sulfur Cleanup: (Y/N) no

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.80
319-85-7	beta-BHC	ND	1.80
319-86-8	delta-BHC	ND	1.80
58-89-9	gamma-BHC (Lindane)	ND	1.80
76-44-8	Heptachlor	ND	1.80
309-00-2	Aldrin	ND	1.80
1024-57-3	Heptachlor epoxide	ND	1.80
959-98-8	Endosulfan I	ND	1.80
60-57-1	Dieldrin	ND	3.49
72-55-9	4,4'-DDE	ND	3.49
72-20-8	Endrin	ND	3.49
33213-65-9	Endosulfan II	ND	3.49
72-54-8	4,4'-DDD	ND	3.49
1031-07-8	Endosulfan sulfate	ND	3.49
50-29-3	4,4'-DDT	ND	3.49
72-43-5	Methoxychlor	ND	17.98
53494-70-5	Endrin ketone	ND	3.49
7421-36-3	Endrin aldehyde	ND	3.49
5103-71-9	alpha-Chlordane	ND	1.80
5103-74-2	gamma-Chlordane	ND	1.80
8001-35-2	Toxaphene	ND	528.95
12674-11-2	Aroclor-1016	ND	34.91
11104-28-2	Aroclor-1221	ND	34.91
11141-16-5	Aroclor-1232	ND	70.88
53469-21-9	Aroclor-1242	ND	34.91
12672-29-6	Aroclor-1248	ND	34.91
11097-69-1	Aroclor-1254	ND	34.91
11096-82-5	Aroclor-1260	ND	34.91

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SS-050

Lab Name: Sound Analytical Contract: Burlington Environmental

Lab Code: 28878 Case No.: SAS No.: SDG No.:

Matrix (soil/water) soil Lab Sample ID: 28878-4

Sample wt/vol: 10.2160 (g/mL) grams Lab File ID: P1297

% Moisture: 9.53 decanted: (Y/N) no Date Received: 12/08/92

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 12/11/92

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 12/23/92

Injection Volume: 3 (uL) Dilution Factor:

GPC Cleanup: (Y/N) no pH: n/a Sulfur Cleanup: (Y/N) no

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.84
319-85-7	beta-BHC	ND	1.84
319-86-8	delta-BHC	ND	1.84
58-89-9	gamma-BHC (Lindane)	ND	1.84
76-44-8	Heptachlor	ND	1.84
309-00-2	Aldrin	ND	1.84
1024-57-3	Heptachlor epoxide	ND	1.84
959-98-8	Endosulfan I	ND	1.84
60-57-1	Dieldrin	ND	3.57
72-55-9	4,4'-DDE	ND	3.57
72-20-8	Endrin	ND	3.57
33213-65-9	Endosulfan II	ND	3.57
72-54-8	4,4'-DDD	ND	3.57
1031-07-8	Endosulfan sulfate	ND	3.57
50-29-3	4,4'-DDT	ND	3.57
72-43-5	Methoxychlor	ND	18.39
53494-70-5	Endrin ketone	ND	3.57
7421-36-3	Endrin aldehyde	ND	3.57
5103-71-9	alpha-Chlordane	ND	1.84
5103-74-2	gamma-Chlordane	ND	1.84
8001-35-2	Toxaphene	ND	540.98
12674-11-2	Aroclor-1016	ND	35.70
11104-28-2	Aroclor-1221	ND	35.70
11141-16-5	Aroclor-1232	ND	72.49
53469-21-9	Aroclor-1242	ND	35.70
12672-29-6	Aroclor-1248	ND	35.70
11097-69-1	Aroclor-1254	ND	35.70
11096-82-5	Aroclor-1260	ND	35.70

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SS-051

Lab Name: Sound Analytical Contract: Burlington Environmental

Lab Code: 28878 Case No.: SAS No.: SDG No.:

Matrix: (soil/water) soil Lab Sample ID: 28878-5

Sample wt/vol: 10.4054 (g/mL) grams Lab File ID: P1298

% Moisture: 7.08 decanted: (Y/N) no Date Received: 12/08/92

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 12/11/92

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 12/23/92

Injection Volume: 3 (uL) Dilution Factor:

GPC Cleanup: (Y/N) no pH: n/a Sulfur Cleanup: (Y/N) no

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.76
319-85-7	beta-BHC	ND	1.76
319-86-8	delta-BHC	ND	1.76
58-89-9	gamma-BHC (Lindane)	ND	1.76
76-44-8	Heptachlor	ND	1.76
309-00-2	Aldrin	ND	1.76
1024-57-3	Heptachlor epoxide	ND	1.76
959-98-8	Endosulfan I	ND	1.76
60-57-1	Dieldrin	ND	3.41
72-55-9	4,4'-DDE	ND	3.41
72-20-8	Endrin	ND	3.41
33213-65-9	Endosulfan II	ND	3.41
72-54-8	4,4'-DDD	ND	3.41
1031-07-8	Endosulfan sulfate	ND	3.41
50-29-3	4,4'-DDT	ND	3.41
72-43-5	Methoxychlor	ND	17.58
53494-70-5	Endrin ketone	ND	3.41
7421-36-3	Endrin aldehyde	ND	3.41
5103-71-9	alpha-Chlordane	ND	1.76
5103-74-2	gamma-Chlordane	ND	1.76
8001-35-2	Toxaphene	ND	1.76
12674-11-2	Aroclor-1016	ND	517.13
11104-28-2	Aroclor-1221	ND	34.13
11141-16-5	Aroclor-1232	ND	69.30
53469-21-9	Aroclor-1242	ND	34.13
12672-29-6	Aroclor-1248	ND	34.13
11097-69-1	Aroclor-1254	ND	34.13
11096-82-5	Aroclor-1260	ND	34.13

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-55-052

Lab Name: Sound Analytical Contract: Burlington Environmental

Lab Code: 28878 Case No.: SAS No.: SDG No.:

Matrix: (soil/water) soil Lab Sample ID: 28878-6

Sample wt/vol: 10.2872 (g/mL) grams Lab File ID: P1299

% Moisture: 8.58 decanted: (Y/N) no Date Received: 12/08/92

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 12/11/92

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 12/23/92

Injection Volume: 3 (uL) Dilution Factor:

GPC Cleanup: (Y/N) no pH: n/a Sulfur Cleanup: (Y/N) no

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.81
319-85-7	beta-BHC	ND	1.81
319-86-8	delta-BHC	ND	1.81
58-89-9	gamma-BHC (Lindane)	ND	1.81
76-44-8	Heptachlor	ND	1.81
309-00-2	Aldrin	ND	1.81
1024-57-3	Heptachlor epoxide	ND	1.81
959-98-8	Endosulfan I	ND	1.81
60-57-1	Dieldrin	ND	3.51
72-55-9	4,4'-DDE	ND	3.51
72-20-8	Endrin	ND	3.51
33213-65-9	Endosulfan II	ND	3.51
72-54-8	4,4'-DDD	ND	3.51
1031-07-8	Endosulfan sulfate	ND	3.51
50-29-3	4,4'-DDT	ND	3.51
72-43-5	Methoxychlor	ND	18.08
53494-70-5	Endrin ketone	ND	3.51
7421-36-3	Endrin aldehyde	ND	3.51
5103-71-9	alpha-Chlordane	ND	1.81
5103-74-2	gamma-Chlordane	ND	1.81
8001-35-2	Toxaphene	ND	531.66
12674-11-2	Aroclor-1016	ND	35.09
11104-28-2	Aroclor-1221	ND	35.09
11141-16-5	Aroclor-1232	ND	71.24
53469-21-9	Aroclor-1242	ND	35.09
12672-29-6	Aroclor-1248	ND	35.09
11097-69-1	Aroclor-1254	ND	35.09
11096-82-5	Aroclor-1260	ND	35.09

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SS-053

Lab Name: Sound Analytical Contract: Burlington Environmental

Lab Code: 28878 Case No.: SAS No.: SDG No.:

Matrix: (soil/water) soil Lab Sample ID: 28878-7

Sample wt/vol: 10.1891 (g/mL) grams Lab File ID: P1300

% Moisture: 8.37 decanted: (Y/N) no Date Received: 12/08/92

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 12/11/92

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 12/23/92

Injection Volume: 3 (uL) Dilution Factor:

GPC Cleanup: (Y/N) no pH: n/a Sulfur Cleanup: (Y/N) no

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.82
319-85-7	beta-BHC	ND	1.82
319-86-8	delta-BHC	ND	1.82
58-89-9	gamma-BHC (Lindane)	ND	1.82
76-44-8	Heptachlor	ND	1.82
309-00-2	Aldrin	ND	1.82
1024-57-3	Heptachlor epoxide	ND	1.82
959-98-8	Endosulfan I	ND	1.82
60-57-1	Dieldrin	ND	3.53
72-55-9	4,4'-DDE	ND	3.53
72-20-8	Endrin	ND	3.53
33213-65-9	Endosulfan II	ND	3.53
72-54-8	4,4'-DDD	ND	3.53
1031-07-8	Endosulfan sulfate	ND	3.53
50-29-3	4,4'-DDT	ND	3.53
72-43-5	Methoxychlor	ND	18.21
53494-70-5	Endrin ketone	ND	3.53
7421-36-3	Endrin aldehyde	ND	3.53
5103-71-9	alpha-Chlordane	ND	1.82
5103-74-2	gamma-Chlordane	ND	1.82
8001-35-2	Toxaphene	ND	535.55
12674-11-2	Aroclor-1016	ND	35.35
11104-28-2	Aroclor-1221	ND	35.35
11141-16-5	Aroclor-1232	ND	71.76
53469-21-9	Aroclor-1242	ND	35.35
12672-29-6	Aroclor-1248	ND	35.35
11097-69-1	Aroclor-1254	ND	35.35
11096-82-5	Aroclor-1260	ND	35.35

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SS-054

Lab Name: Sound Analytical Contract: Burlington Environmental

Lab Code: 28878 Case No.: SAS No.: SDG No.:

Matrix: (soil/water) soil Lab Sample ID: 28878-8

Sample wt/vol: 10.0633 (g/mL) grams Lab File ID: P1301

% Moisture: 8.22 decanted: (Y/N) no Date Received: 12/08/92

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 12/11/92

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 12/23/92

Injection Volume: 3 (uL) Dilution Factor:

GPC Cleanup: (Y/N) no pH: n/a Sulfur Cleanup: (Y/N) no

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.84
319-85-7	beta-BHC	ND	1.84
319-86-8	delta-BHC	ND	1.84
58-89-9	gamma-BHC (Lindane)	ND	1.84
76-44-8	Heptachlor	ND	1.84
309-00-2	Aldrin	ND	1.84
1024-57-3	Heptachlor epoxide	ND	1.84
959-98-8	Endosulfan I	ND	1.84
60-57-1	Dieldrin	ND	3.57
72-55-9	4,4'-DDE	ND	3.57
72-20-8	Endrin	ND	3.57
33213-65-9	Endosulfan II	ND	3.57
72-54-8	4,4'-DDD	ND	3.57
1031-07-8	Endosulfan sulfate	ND	3.57
50-29-3	4,4'-DDT	ND	3.57
72-43-5	Methoxychlor	ND	18.41
53494-70-5	Endrin ketone	ND	3.57
7421-36-3	Endrin aldehyde	ND	3.57
5103-71-9	alpha-Chlordane	ND	1.84
5103-74-2	gamma-Chlordane	ND	1.84
8001-35-2	Toxaphene	ND	541.35
12674-11-2	Aroclor-1016	ND	35.73
11104-28-2	Aroclor-1221	ND	35.73
11141-16-5	Aroclor-1232	ND	72.54
53469-21-9	Aroclor-1242	ND	35.73
12672-29-6	Aroclor-1248	ND	35.73
11097-69-1	Aroclor-1254	ND	35.73
11096-82-5	Aroclor-1260	ND	35.73

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SS-055

Lab Name: Sound Analytical Contract: Burlington Environmental

Lab Code: 28878 Case No.: SAS No.: SDG No.:

Matrix (soil/water) soil Lab Sample ID: 28878-9

Sample wt/vol: 10.4303 (g/mL) grams Lab File ID: P1302

% Moisture: 7.85 decanted: (Y/N) no Date Received: 12/08/92

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 12/11/92

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 12/23/92

Injection Volume: 3 (uL) Dilution Factor:

GPC Cleanup: (Y/N) no pH: n/a Sulfur Cleanup: (Y/N) no

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.77
319-85-7	beta-BHC	ND	1.77
319-86-8	delta-BHC	ND	1.77
58-89-9	gamma-BHC (Lindane)	ND	1.77
76-44-8	Heptachlor	ND	1.77
309-00-2	Aldrin	ND	1.77
1024-57-3	Heptachlor epoxide	ND	1.77
959-98-8	Endosulfan I	ND	1.77
60-57-1	Dieldrin	ND	3.43
72-55-9	4,4'-DDE	ND	3.43
72-20-8	Endrin	ND	3.43
33213-65-9	Endosulfan II	ND	3.43
72-54-8	4,4'-DDD	ND	3.43
1031-07-8	Endosulfan sulfate	ND	3.43
50-29-3	4,4'-DDT	ND	3.43
72-43-5	Methoxychlor	ND	17.69
53494-70-5	Endrin ketone	ND	3.43
7421-36-3	Endrin aldehyde	ND	3.43
5103-71-9	alpha-Chlordane	ND	1.77
5103-74-2	gamma-Chlordane	ND	1.77
8001-35-2	Toxaphene	ND	520.21
12674-11-2	Aroclor-1016	ND	34.33
11104-28-2	Aroclor-1221	ND	34.33
11141-16-5	Aroclor-1232	ND	69.71
53469-21-9	Aroclor-1242	ND	34.33
12672-29-6	Aroclor-1248	ND	34.33
11097-69-1	Aroclor-1254	ND	34.33
11096-82-5	Aroclor-1260	ND	34.33

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SS-056

Lab Name: Sound Analytical Contract: Burlington Environmental

Lab Code: 28878 Case No.: SAS No.: SDG No.:

Matrix (soil/water) soil Lab Sample ID: 28878-10

Sample wt/vol: 10.3396 (g/mL) grams Lab File ID: P1303

% Moisture: 8.60 decanted: (Y/N) no Date Received: 12/08/92

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 12/11/92

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 12/23/92

Injection Volume: 3 (uL) Dilution Factor:

GPC Cleanup: (Y/N) no pH: n/a Sulfur Cleanup: (Y/N) no

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.80
319-85-7	beta-BHC	ND	1.80
319-86-8	delta-BHC	ND	1.80
58-89-9	gamma-BHC (Lindane)	ND	1.80
76-44-8	Heptachlor	ND	1.80
309-00-2	Aldrin	ND	1.80
1024-57-3	Heptachlor epoxide	ND	1.80
959-98-8	Endosulfan I	ND	1.80
60-57-1	Dieldrin	ND	3.49
72-55-9	4,4'-DDE	ND	3.49
72-20-8	Endrin	ND	3.49
33213-65-9	Endosulfan II	ND	3.49
72-54-8	4,4'-DDD	ND	3.49
1031-07-8	Endosulfan sulfate	ND	3.49
50-29-3	4,4'-DDT	ND	3.49
72-43-5	Methoxychlor	ND	17.99
53494-70-5	Endrin ketone	ND	3.49
7421-36-3	Endrin aldehyde	ND	3.49
5103-71-9	alpha-Chlordane	ND	1.80
5103-74-2	gamma-Chlordane	ND	1.80
8001-35-2	Toxaphene	ND	529.08
12674-11-2	Aroclor-1016	ND	34.92
11104-28-2	Aroclor-1221	ND	34.92
11141-16-5	Aroclor-1232	ND	70.90
53469-21-9	Aroclor-1242	ND	34.92
12672-29-6	Aroclor-1248	ND	34.92
11097-69-1	Aroclor-1254	ND	34.92
11096-82-5	Aroclor-1260	ND	34.92

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SS-057

Lab Name: Sound Analytical Contract: Burlington Environmental

Lab Code: 28878 Case No.: SAS No.: SDG No.:

Matrix (soil/water) soil Lab Sample ID: 28878-11

Sample wt/vol: 10.4831 (g/mL) grams Lab File ID: P1304

% Moisture: 5.64 decanted: (Y/N) no Date Received: 12/08/92

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 12/11/92

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 12/23/92

Injection Volume: 3 (uL) Dilution Factor:

GPC Cleanup: (Y/N) no pH: n/a Sulfur Cleanup: (Y/N) no

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.72
319-85-7	beta-BHC	ND	1.72
319-86-8	delta-BHC	ND	1.72
58-89-9	gamma-BHC (Lindane)	ND	1.72
76-44-8	Heptachlor	ND	1.72
309-00-2	Aldrin	ND	1.72
1024-57-3	Heptachlor epoxide	ND	1.72
959-98-8	Endosulfan I	ND	1.72
60-57-1	Dieldrin	ND	3.34
72-55-9	4,4'-DDE	ND	3.34
72-20-8	Endrin	ND	3.34
33213-65-9	Endosulfan II	ND	3.34
72-54-8	4,4'-DDD	ND	3.34
1031-07-8	Endosulfan sulfate	ND	3.34
50-29-3	4,4'-DDT	ND	3.34
72-43-5	Methoxychlor	ND	17.19
53494-70-5	Endrin ketone	ND	3.34
7421-36-3	Endrin aldehyde	ND	3.34
5103-71-9	alpha-Chlordane	ND	1.72
5103-74-2	gamma-Chlordane	ND	1.72
8001-35-2	Toxaphene	ND	505.47
12674-11-2	Aroclor-1016	ND	33.36
11104-28-2	Aroclor-1221	ND	33.36
11141-16-5	Aroclor-1232	ND	67.73
53469-21-9	Aroclor-1242	ND	33.36
12672-29-6	Aroclor-1248	ND	33.36
11097-69-1	Aroclor-1254	ND	33.36
11096-82-5	Aroclor-1260	ND	33.36

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SS-058

Lab Name: Sound Analytical Contract: Burlington Environmental

Lab Code: 28878 Case No.: SAS No.: SDG No.:

Matrix: (soil/water) soil Lab Sample ID: 28878-12

Sample wt/vol: 10.3680 (g/mL) grams Lab File ID: P1305

% Moisture: 7.53 decanted: (Y/N) no Date Received: 12/08/92

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 12/11/92

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 12/23/92

Injection Volume: 3 (uL) Dilution Factor:

GPC Cleanup: (Y/N) no pH: n/a Sulfur Cleanup: (Y/N) no

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.77
319-85-7	beta-BHC	ND	1.77
319-86-8	delta-BHC	ND	1.77
58-89-9	gamma-BHC (Lindane)	ND	1.77
76-44-8	Heptachlor	ND	1.77
309-00-2	Aldrin	ND	1.77
1024-57-3	Heptachlor epoxide	ND	1.77
959-98-8	Endosulfan I	ND	1.77
60-57-1	Dieldrin	ND	3.44
72-55-9	4,4'-DDE	ND	3.44
72-20-8	Endrin	ND	3.44
33213-65-9	Endosulfan II	ND	3.44
72-54-8	4,4'-DDD	ND	3.44
1031-07-8	Endosulfan sulfate	ND	3.44
50-29-3	4,4'-DDT	ND	3.44
72-43-5	Methoxychlor	ND	17.73
53494-70-5	Endrin ketone	ND	3.44
7421-36-3	Endrin aldehyde	ND	3.44
5103-71-9	alpha-Chlordane	ND	1.77
5103-74-2	gamma-Chlordane	ND	1.77
8001-35-2	Toxaphene	ND	521.52
12674-11-2	Aroclor-1016	ND	34.42
11104-28-2	Aroclor-1221	ND	34.42
11141-16-5	Aroclor-1232	ND	69.88
53469-21-9	Aroclor-1242	ND	34.42
12672-29-6	Aroclor-1248	ND	34.42
11097-69-1	Aroclor-1254	ND	34.42
11096-82-5	Aroclor-1260	ND	34.42

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SS-059

Lab Name: Sound Analytical Contract: Burlington Environmental

Lab Code: 28878 Case No.: SAS No.: SDG No.:

Matrix (soil/water) soil Lab Sample ID: 28878-13

Sample wt/vol: 10.4465 (g/mL) grams Lab File ID: P1306

% Moisture: 9.26 decanted: (Y/N) no Date Received: 12/08/92

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 12/11/92

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 12/23/92

Injection Volume: 3 (uL) Dilution Factor:

GPC Cleanup: (Y/N) no pH: n/a Sulfur Cleanup: (Y/N) no

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.79
319-85-7	beta-BHC	ND	1.79
319-86-8	delta-BHC	ND	1.79
58-89-9	gamma-BHC (Lindane)	ND	1.79
76-44-8	Heptachlor	ND	1.79
309-00-2	Aldrin	ND	1.79
1024-57-3	Heptachlor epoxide	ND	1.79
959-98-8	Endosulfan I	ND	1.79
60-57-1	Dieldrin	ND	3.48
72-55-9	4,4'-DDE	ND	3.48
72-20-8	Endrin	ND	3.48
33213-65-9	Endosulfan II	ND	3.48
72-54-8	4,4'-DDD	ND	3.48
1031-07-8	Endosulfan sulfate	ND	3.48
50-29-3	4,4'-DDT	ND	3.48
72-43-5	Methoxychlor	ND	17.93
53494-70-5	Endrin ketone	ND	3.48
7421-36-3	Endrin aldehyde	ND	3.48
5103-71-9	alpha-Chlordane	ND	1.79
5103-74-2	gamma-Chlordane	ND	1.79
8001-35-2	Toxaphene	ND	527.47
12674-11-2	Aroclor-1016	ND	34.81
11104-28-2	Aroclor-1221	ND	34.81
11141-16-5	Aroclor-1232	ND	70.68
53469-21-9	Aroclor-1242	ND	34.81
12672-29-6	Aroclor-1248	ND	34.81
11097-69-1	Aroclor-1254	ND	34.81
11096-82-5	Aroclor-1260	ND	34.81

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SS-060

Lab Name: Sound Analytical Contract: Burlington Environmental

Lab Code: 28878 Case No.: SAS No.: SDG No.:

Matrix: (soil/water) soil Lab Sample ID: 28878-14

Sample wt/vol: 10.0532 (g/mL) grams Lab File ID: P1307

% Moisture: 9.46 decanted: (Y/N) no Date Received: 12/08/92

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 12/11/92

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 12/23/92

Injection Volume: 3 (uL) Dilution Factor:

GPC Cleanup: (Y/N) no pH: n/a Sulfur Cleanup: (Y/N) no

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.87
319-85-7	beta-BHC	ND	1.87
319-86-8	delta-BHC	ND	1.87
58-89-9	gamma-BHC (Lindane)	ND	1.87
76-44-8	Heptachlor	ND	1.87
309-00-2	Aldrin	ND	1.87
1024-57-3	Heptachlor epoxide	ND	1.87
959-98-8	Endosulfan I	ND	1.87
60-57-1	Dieldrin	ND	3.63
72-55-9	4,4'-DDE	ND	3.63
72-20-8	Endrin	ND	3.63
33213-65-9	Endosulfan II	ND	3.63
72-54-8	4,4'-DDD	ND	3.63
1031-07-8	Endosulfan sulfate	ND	3.63
50-29-3	4,4'-DDT	ND	3.63
72-43-5	Methoxychlor	ND	18.68
53494-70-5	Endrin ketone	ND	3.63
7421-36-3	Endrin aldehyde	ND	3.63
5103-71-9	alpha-Chlordane	ND	1.87
5103-74-2	gamma-Chlordane	ND	1.87
8001-35-2	Toxaphene	ND	549.32
12674-11-2	Aroclor-1016	ND	36.26
11104-28-2	Aroclor-1221	ND	36.26
11141-16-5	Aroclor-1232	ND	73.61
53469-21-9	Aroclor-1242	ND	36.26
12672-29-6	Aroclor-1248	ND	36.26
11097-69-1	Aroclor-1254	ND	36.26
11096-82-5	Aroclor-1260	ND	36.26

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SS-061

Lab Name: Sound Analytical Contract: Burlington Environmental

Lab Code: 28878 Case No.: SAS No.: SDG No.:

Matrix (soil/water) soil Lab Sample ID: 28878-15

Sample wt/vol: 10.0971 (g/mL) grams Lab File ID: P1308

% Moisture: 7.68 decanted: (Y/N) no Date Received: 12/08/92

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 12/11/92

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 12/23/92

Injection Volume: 3 (uL) Dilution Factor:

GPC Cleanup: (Y/N) no pH: n/a Sulfur Cleanup: (Y/N) no

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.82
319-85-7	beta-BHC	ND	1.82
319-86-8	delta-BHC	ND	1.82
58-89-9	gamma-BHC (Lindane)	ND	1.82
76-44-8	Heptachlor	ND	1.82
309-00-2	Aldrin	ND	1.82
1024-57-3	Heptachlor epoxide	ND	1.82
959-98-8	Endosulfan I	ND	1.82
60-57-1	Dieldrin	ND	3.54
72-55-9	4,4'-DDE	ND	3.54
72-20-8	Endrin	ND	3.54
33213-65-9	Endosulfan II	ND	3.54
72-54-8	4,4'-DDD	ND	3.54
1031-07-8	Endosulfan sulfate	ND	3.54
50-29-3	4,4'-DDT	ND	3.54
72-43-5	Methoxychlor	ND	18.24
53494-70-5	Endrin ketone	ND	3.54
7421-36-3	Endrin aldehyde	ND	3.54
5103-71-9	alpha-Chlordane	ND	1.82
5103-74-2	gamma-Chlordane	ND	1.82
8001-35-2	Toxaphene	ND	536.39
12674-11-2	Aroclor-1016	ND	35.40
11104-28-2	Aroclor-1221	ND	35.40
11141-16-5	Aroclor-1232	ND	71.88
53469-21-9	Aroclor-1242	ND	35.40
12672-29-6	Aroclor-1248	ND	35.40
11097-69-1	Aroclor-1254	ND	35.40
11096-82-5	Aroclor-1260	ND	35.40

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SS-062

Lab Name: Sound Analytical Contract: Burlington Environmental

Lab Code: 28878 Case No.: SAS No.: SDG No.:

Matrix: (soil/water) soil Lab Sample ID: 28878-16

Sample wt/vol: 10.5305 (g/mL) grams Lab File ID: P1312

% Moisture: 9.16 decanted: (Y/N) no Date Received: 12/08/92

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 12/11/92

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 12/23/92

Injection Volume: 3 (uL) Dilution Factor:

GPC Cleanup: (Y/N) no pH: n/a Sulfur Cleanup: (Y/N) no

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.78
319-85-7	beta-BHC	ND	1.78
319-86-8	delta-BHC	ND	1.78
58-89-9	gamma-BHC (Lindane)	ND	1.78
76-44-8	Heptachlor	ND	1.78
309-00-2	Aldrin	ND	1.78
1024-57-3	Heptachlor epoxide	ND	1.78
959-98-8	Endosulfan I	ND	1.78
60-57-1	Dieldrin	ND	3.45
72-55-9	4,4'-DDE	ND	3.45
72-20-8	Endrin	ND	3.45
33213-65-9	Endosulfan II	ND	3.45
72-54-8	4,4'-DDD	ND	3.45
1031-07-8	Endosulfan sulfate	ND	3.45
50-29-3	4,4'-DDT	ND	3.45
72-43-5	Methoxychlor	ND	17.77
53494-70-5	Endrin ketone	ND	3.45
7421-36-3	Endrin aldehyde	ND	3.45
5103-71-9	alpha-Chlordane	ND	1.78
5103-74-2	gamma-Chlordane	ND	1.78
8001-35-2	Toxaphene	ND	522.59
12674-11-2	Aroclor-1016	ND	34.50
11104-28-2	Aroclor-1221	ND	34.50
11141-16-5	Aroclor-1232	ND	70.04
53469-21-9	Aroclor-1242	ND	34.50
12672-29-6	Aroclor-1248	ND	34.50
11097-69-1	Aroclor-1254	ND	34.50
11096-82-5	Aroclor-1260	ND	34.50

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SS-063

Lab Name: Sound Analytical Contract: Burlington Environmental

Lab Code: 28878 Case No.: SAS No.: SDG No.:

Matrix: (soil/water) soil Lab Sample ID: 28878-17

Sample wt/vol: 10.0019 (g/mL) grams Lab File ID: P1313

% Moisture: 9.67 decanted: (Y/N) no Date Received: 12/08/92

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 12/11/92

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 12/23/92

Injection Volume: 3 (uL) Dilution Factor:

GPC Cleanup: (Y/N) no pH: n/a Sulfur Cleanup: (Y/N) no

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.88
319-85-7	beta-BHC	ND	1.88
319-86-8	delta-BHC	ND	1.88
58-89-9	gamma-BHC (Lindane)	ND	1.88
76-44-8	Heptachlor	ND	1.88
309-00-2	Aldrin	ND	1.88
1024-57-3	Heptachlor epoxide	ND	1.88
959-98-8	Endosulfan I	ND	1.88
60-57-1	Dieldrin	ND	3.65
72-55-9	4,4'-DDE	ND	3.65
72-20-8	Endrin	ND	3.65
33213-65-9	Endosulfan II	ND	3.65
72-54-8	4,4'-DDD	ND	3.65
1031-07-8	Endosulfan sulfate	ND	3.65
50-29-3	4,4'-DDT	ND	3.65
72-43-5	Methoxychlor	ND	18.82
53494-70-5	Endrin ketone	ND	3.65
7421-36-3	Endrin aldehyde	ND	3.65
5103-71-9	alpha-Chlordane	ND	1.88
5103-74-2	gamma-Chlordane	ND	1.88
8001-35-2	Toxaphene	ND	553.42
12674-11-2	Aroclor-1016	ND	36.53
11104-28-2	Aroclor-1221	ND	36.53
11141-16-5	Aroclor-1232	ND	74.16
53469-21-9	Aroclor-1242	ND	36.53
12672-29-6	Aroclor-1248	ND	36.53
11097-69-1	Aroclor-1254	ND	36.53
11096-82-5	Aroclor-1260	ND	36.53

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SS-064

Lab Name: Sound Analytical Contract: Burlington Environmental

Lab Code: 28878 Case No.: SAS No.: SDG No.:

Matrix (soil/water) soil Lab Sample ID: 28878-18

Sample wt/vol: 10.5620 (g/mL) grams Lab File ID: P1314

% Moisture: 10.13 decanted: (Y/N) no Date Received: 12/08/92

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 12/11/92

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 12/23/92

Injection Volume: 3 (uL) Dilution Factor:

GPC Cleanup: (Y/N) no pH: n/a Sulfur Cleanup: (Y/N) no

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.79
319-85-7	beta-BHC	ND	1.79
319-86-8	delta-BHC	ND	1.79
58-89-9	gamma-BHC (Lindane)	ND	1.79
76-44-8	Heptachlor	ND	1.79
309-00-2	Aldrin	ND	1.79
1024-57-3	Heptachlor epoxide	ND	1.79
959-98-8	Endosulfan I	ND	1.79
60-57-1	Dieldrin	ND	3.48
72-55-9	4,4'-DDE	ND	3.48
72-20-8	Endrin	ND	3.48
33213-65-9	Endosulfan II	ND	3.48
72-54-8	4,4'-DDD	ND	3.48
1031-07-8	Endosulfan sulfate	ND	3.48
50-29-3	4,4'-DDT	ND	3.48
72-43-5	Methoxychlor	ND	17.91
53494-70-5	Endrin ketone	ND	3.48
7421-36-3	Endrin aldehyde	ND	3.48
5103-71-9	alpha-Chlordane	ND	1.79
5103-74-2	gamma-Chlordane	ND	1.79
8001-35-2	Toxaphene	ND	526.76
12674-11-2	Aroclor-1016	ND	34.77
11104-28-2	Aroclor-1221	ND	34.77
11141-16-5	Aroclor-1232	ND	70.59
53469-21-9	Aroclor-1242	ND	34.77
12672-29-6	Aroclor-1248	ND	34.77
11097-69-1	Aroclor-1254	ND	34.77
11096-82-5	Aroclor-1260	ND	34.77

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SS-065

Lab Name: Sound Analytical Contract: Burlington Environmental

Lab Code: 28878 Case No.: SAS No.: SDG No.:

Matrix (soil/water) soil Lab Sample ID: 28878-19

Sample wt/vol: 10.0440 (g/mL) grams Lab File ID: P1315

% Moisture: 9.77 decanted: (Y/N) no Date Received: 12/08/92

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 12/11/92

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 12/23/92

Injection Volume: 3 (uL) Dilution Factor:

GPC Cleanup: (Y/N) no pH: n/a Sulfur Cleanup: (Y/N) no

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.88
319-85-7	beta-BHC	ND	1.88
319-86-8	delta-BHC	ND	1.88
58-89-9	gamma-BHC (Lindane)	ND	1.88
76-44-8	Heptachlor	ND	1.88
309-00-2	Aldrin	ND	1.88
1024-57-3	Heptachlor epoxide	ND	1.88
959-98-8	Endosulfan I	ND	1.88
60-57-1	Dieldrin	ND	3.64
72-55-9	4,4'-DDE	ND	3.64
72-20-8	Endrin	ND	3.64
33213-65-9	Endosulfan II	ND	3.64
72-54-8	4,4'-DDD	ND	3.64
1031-07-8	Endosulfan sulfate	ND	3.64
50-29-3	4,4'-DDT	ND	3.64
72-43-5	Methoxychlor	ND	18.76
53494-70-5	Endrin ketone	ND	3.64
7421-36-3	Endrin aldehyde	ND	3.64
5103-71-9	alpha-Chlordane	ND	1.88
5103-74-2	gamma-Chlordane	ND	1.88
8001-35-2	Toxaphene	ND	551.71
12674-11-2	Aroclor-1016	ND	36.41
11104-28-2	Aroclor-1221	ND	36.41
11141-16-5	Aroclor-1232	ND	73.93
53469-21-9	Aroclor-1242	ND	36.41
12672-29-6	Aroclor-1248	ND	36.41
11097-69-1	Aroclor-1254	ND	36.41
11096-82-5	Aroclor-1260	ND	36.41

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SS-066

Lab Name: Sound Analytical Contract: Burlington Environmental

Lab Code: 28878 Case No.: SAS No.: SDG No.:

Matrix: (soil/water) soil Lab Sample ID: 28878-20

Sample wt/vol: 10.5595 (g/mL) grams Lab File ID: P1316

% Moisture: 9.55 decanted: (Y/N) no Date Received: 12/08/92

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 12/11/92

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 12/23/92

Injection Volume: 3 (uL) Dilution Factor:

GPC Cleanup: (Y/N) no pH: n/a Sulfur Cleanup: (Y/N) no

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.78
319-85-7	beta-BHC	ND	1.78
319-86-8	delta-BHC	ND	1.78
58-89-9	gamma-BHC (Lindane)	ND	1.78
76-44-8	Heptachlor	ND	1.78
309-00-2	Aldrin	ND	1.78
1024-57-3	Heptachlor epoxide	ND	1.78
959-98-8	Endosulfan I	ND	1.78
60-57-1	Dieldrin	ND	3.46
72-55-9	4,4'-DDE	ND	3.46
72-20-8	Endrin	ND	3.46
33213-65-9	Endosulfan II	ND	3.46
72-54-8	4,4'-DDD	ND	3.46
1031-07-8	Endosulfan sulfate	ND	3.46
50-29-3	4,4'-DDT	ND	3.46
72-43-5	Methoxychlor	ND	17.80
53494-70-5	Endrin ketone	ND	3.46
7421-36-3	Endrin aldehyde	ND	3.46
5103-71-9	alpha-Chlordane	ND	1.78
5103-74-2	gamma-Chlordane	ND	1.78
8001-35-2	Toxaphene	ND	523.50
12674-11-2	Aroclor-1016	ND	34.55
11104-28-2	Aroclor-1221	ND	34.55
11141-16-5	Aroclor-1232	ND	70.15
53469-21-9	Aroclor-1242	ND	34.55
12672-29-6	Aroclor-1248	ND	34.55
11097-69-1	Aroclor-1254	ND	34.55
11096-82-5	Aroclor-1260	ND	34.55

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SS-067

Lab Name: Sound Analytical Contract: Burlington Environmental

Lab Code: 28878 Case No.: SAS No.: SDG No.:

Matrix (soil/water) soil Lab Sample ID: 28878-21

Sample wt/vol: 10.1390 (g/mL) grams Lab File ID: P1321

% Moisture: 8.23 decanted: (Y/N) no Date Received: 12/08/92

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 12/11/92

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 12/23/92

Injection Volume: 3 (uL) Dilution Factor:

GPC Cleanup: (Y/N) no pH: n/a Sulfur Cleanup: (Y/N) no

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.83
319-85-7	beta-BHC	ND	1.83
319-86-8	delta-BHC	ND	1.83
58-89-9	gamma-BHC (Lindane)	ND	1.83
76-44-8	Heptachlor	ND	1.83
309-00-2	Aldrin	ND	1.83
1024-57-3	Heptachlor epoxide	ND	1.83
959-98-8	Endosulfan I	ND	1.83
60-57-1	Dieldrin	ND	3.55
72-55-9	4,4'-DDE	ND	3.55
72-20-8	Endrin	ND	3.55
33213-65-9	Endosulfan II	ND	3.55
72-54-8	4,4'-DDD	ND	3.55
1031-07-8	Endosulfan sulfate	ND	3.55
50-29-3	4,4'-DDT	ND	3.55
72-43-5	Methoxychlor	ND	18.27
53494-70-5	Endrin ketone	ND	3.55
7421-36-3	Endrin aldehyde	ND	3.55
5103-71-9	alpha-Chlordane	ND	1.83
5103-74-2	gamma-Chlordane	ND	1.83
8001-35-2	Toxaphene	ND	537.37
12674-11-2	Aroclor-1016	ND	35.47
11104-28-2	Aroclor-1221	ND	35.47
11141-16-5	Aroclor-1232	ND	72.01
53469-21-9	Aroclor-1242	ND	35.47
12672-29-6	Aroclor-1248	ND	35.47
11097-69-1	Aroclor-1254	ND	35.47
11096-82-5	Aroclor-1260	ND	35.47

MEMORANDUM

DATE: March 5, 1993

TO: Ted Wall, Environmental Engineer TW

FROM: Nels Cone, Chemist NC

SUBJECT: DATA VALIDATION OF CHEMICAL ANALYSIS FROM PASCO LANDFILL PHASE I REMEDIAL INVESTIGATION, PROJECT 624419, DATA SET 3D

On December 5, 1992, twenty-one soil samples were collected by Burlington field personnel. Their sample identification numbers are as follows:

PLF-SS-047	PLF-SS-050	PLF-SS-053	PLF-SS-056	PLF-SS-059	PLF-SS-062	PLF-SS-065
PLF-SS-048	PLF-SS-051	PLF-SS-054	PLF-SS-057	PLF-SS-060	PLF-SS-063	PLF-SS-066
PLF-SS-049	PLF-SS-052	PLF-SS-055	PLF-SS-058	PLF-SS-061	PLF-SS-064	PLF-SS-067

These samples were then submitted to Sound Analytical Services, of Tacoma, Washington (work order 28878). Data Set 3D represents results from pesticide/PCB analysis (USEPA SW-846, Method 8080). I have completed a data quality review of the analytical results in accordance with the USEPA Contract Laboratory Program (CLP) Document Number 0LM01.0. My findings and recommendations are summarized below.

FINDINGS

Properly completed chain-of-custody forms were included with documented signatures from field to laboratory receipt. All samples were shown as having been properly iced and received in good condition. Holding, extraction, and analysis times for all samples met the required guidelines. Dual column analysis/confirmation (columns DB-608 and DB-5), was performed for all samples as required according to CLP directives.

A transcription error was noted for performance evaluation of the above columns. Specifically, the combined percent breakdown of 4,4'-DDT and Endrin reported is lower than the correctly calculated breakdown value. Regardless, the higher corrected value remains within the CLP acceptance criteria. The correct calculations are in the project file (Section 19.14, Lab QA/QC Data).

Surrogate compound recoveries for all samples met advisory quality control (QC) limits with the exception of tetrachloro-m-xylene recovery for samples PLF-SS-047 and PLF-SS-057. Performance evaluation compound retention times met QC limits with the exception of 4,4'-DDD, 4,4'-DDT, Endosulfan II, α-chlordane, and γ-chlordane for column DB-5. However, no target analytes were detected in the samples. Per CLP protocol, no data qualifier flags were needed.

Matrix spike/matrix spike duplicate data met required QC limits for data set accuracy. Duplicate data met advisory QC limits for overall data set precision. Method blank analyses required no corrections and contained no laboratory contaminants. Initial and continuing calibration standards were performed and met most required QC limits with the exceptions noted above regarding compound retention times and recoveries.

Pesticide/PCB analyte resolution and calibration verification summaries were included for both columns and analytical sequence forms further described analytical performance. Additional QC was supplied in the form of the raw laboratory worksheets and dual column chromatograms for all samples, matrix spikes, duplicates, and calibration standards. Examination of this material reveals that analyte values for all matrix spikes, duplicates, and samples, were quantitated from the average response factors found during calibration. The chromatograms have been annotated to reflect this change, and data consistent with reported summary information was evident.

Overall, the data quality guidelines required by the CLP statement of work were followed. Accordingly, this data can be considered useful for its intended purpose.

RECOMMENDATION

No modification of the data are required.

SUBSURFACE SOILS I3.1

SAMPLES PLF-SBS-242 TO PLF-SBS-254

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Burlington Environmental Inc.
Technical Services

18-Feb-93

BURLINGTON ENVIRONMENTAL
7440 West Marginal Way South
Seattle, WA 98108

Attn:
Project: Pasco Landfill PO#

Received: 26-Jan-93

Job: 936161E

Status: Final

BARRINGER LABORATORIES
ANALYTICAL REPORT PACKAGE

CASE NARRATIVE.....i

ANALYTICAL RESULTS.....R-1

QUALITY CONTROL REPORT.....Q-1

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Page: i
Copy: 1 of 2

Attn:
Project: Pasco Landfill PO#

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Job: 936161E

Status: Final

CASE NARRATIVE

A total of 13 Soil samples were received on 26-Jan-93. All were properly preserved and in good condition. As stated in the chain of custody, the samples were run for the following analyses: Gamma Spec, Gross Alpha and Gross Beta. A table, to cross reference your sample ID to ours, is attached. Our procedures are summarized on the Quality Control Data Sheet. There were no deviations to these procedures. All samples were extracted and analyzed within the proper holding times.

Quality control standards were run using standard EPA guidelines. A summary of that data is provided. The acceptance criteria for spikes and duplicates in radiochemistry is sixteen percent. It is calculated as follows:

$$RPD = \frac{\text{(difference in results) - (sum of counting errors)}}{\text{(average sample value)}} * 100\ \%$$

All QC checks, including duplicates, spikes, and blanks, passed.

Signed: .....
Steven L. Sincoff, Ph.D.
Director of Operations

BARRINGER LABORATORIES INC.
15000 W. 6TH AVE., SUITE 300 GOLDEN, CO 80401 (303) 277-1687 FAX (303) 277-1689

18-Feb-93

BURLINGTON ENVIRONMENTAL
7440 West Marginal Way South
Seattle, WA 98108

Attn:
Project: Pasco Landfill PO#

Received: 26-Jan-93

Job: 936161E

Status: Final

CASE NARRATIVE

Laboratory ID	Client Sample ID	Matrix
936161-1	PLF-SBS-242	Soil
936161-2	PLF-SBS-243	Soil
936161-3	PLF-SBS-244	Soil
936161-4	PLF-SBS-245	Soil
936161-5	PLF-SBS-246	Soil
936161-6	PLF-SBS-247	Soil
936161-7	PLF-SBS-248 (MS/MSD)	Soil
936161-8	PLF-SBS-249	Soil
936161-9	PLF-SBS-250	Soil
936161-10	PLF-SBS-251	Soil
936161-11	PLF-SBS-252	Soil
936161-12	PLF-SBS-253	Soil
936161-13	PLF-SBS-254	Soil

Parameter/Method List

Gamma Spec Gross Alpha/Total Gross Beta/Total

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16-Feb-93

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7440 West Marginal Way South
Seattle, WA 98108

Page: R-1
Copy: 1 of 2

Attn:
Project: Pasco Landfill
PO #:

Received: 26-Jan-93 09:30

Job: 936161E

Status: Final

Sample Type: Soil

Sample Id	Gross Alpha ± 2σ Total pCi/g	Gross Beta ± 2σ Total pCi/g
PLF-SBS-242	26 ±10	22 ±4
PLF-SBS-243	17 ±7	21 ±4
PLF-SBS-244	18 ±8	21 ±4
PLF-SBS-245	14 ±6	17 ±4
PLF-SBS-246	19 ±8	20 ±4
PLF-SBS-247	10 ±7	18 ±4
PLF-SBS-248	13 ±7	19 ±4
PLF-SBS-249	16 ±7	14 ±4
PLF-SBS-250	22 ±7	17 ±4
PLF-SBS-251	13 ±7	18 ±4
PLF-SBS-252	21 ±9	21 ±4
PLF-SBS-253	18 ±8	17 ±4
PLF-SBS-254	6.2 ±7.0	12 ±4
PLF-SBS-248-MS	4430 ±91	1063 ±18
PLF-SBS-248-MSD	4255 ±82	1084 ±18

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7440 West Marginal Way South
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Attn:
Project: Pasco Landfill
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Received: 26-Jan-93 09:30

Job: 936161E
Status: Final

GAMMA SPECTROSCOPY

Sample Type: Soil

Sample Id	Pb-212 pCi/g*	± 2σ	K-40 pCi/g*	± 2σ	Bi-214 pCi/g*	± 2σ
PLF-SBS-242	<1.0	---	<15	---	<1.6	---
PLF-SBS-243	1.1	±0.3	<19	---	<1.2	---
PLF-SBS-244	<1.7	---	19	±3	<1.6	---
PLF-SBS-245	<0.3	---	<17	---	<0.6	---
PLF-SBS-246	0.8	±0.1	14	±1	<0.7	---
PLF-SBS-247	<1.0	---	13	±1	0.7	±0.1
PLF-SBS-248	<0.7	---	<23	---	<1.4	---
PLF-SBS-249	<0.2	---	<15	---	<0.9	---
PLF-SBS-250	1.1	±0.2	18	±2	<0.6	---
PLF-SBS-251	<1.4	---	<27	---	<2.4	---
PLF-SBS-252	<1.4	---	18	±2	<0.4	---
PLF-SBS-253	<0.6	---	<10	---	<0.7	---
PLF-SBS-254	0.5	±0.1	10	±1	<0.3	---

Sample Id	Tl-208 pCi/g*	± 2σ	Ac-228 pCi/g*	± 2σ	Pb-214 pCi/g*	± 2σ
PLF-SBS-242	<0.2	---	<1.0	---	<0.5	---
PLF-SBS-243	<0.3	---	<3.1	---	<1.7	---
PLF-SBS-244	<0.3	---	<1.0	---	<1.1	---
PLF-SBS-245	<0.7	---	<2.2	---	<1.7	---
PLF-SBS-246	<0.1	---	<0.6	---	<0.7	---
PLF-SBS-247	0.2	±0.1	<0.5	---	0.6	±0.1
PLF-SBS-248	<0.2	---	0.8	±0.2	<0.8	---
PLF-SBS-249	<0.1	---	<0.7	---	0.5	±0.1
PLF-SBS-250	<0.2	---	<1.7	---	<0.9	---
PLF-SBS-251	<0.6	---	<1.4	---	0.8	±0.2
PLF-SBS-252	<0.4	---	<2.0	---	1.1	±0.1

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16-Feb-93

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Status: Final

GAMMA SPECTROSCOPY

Sample Type: Soil

Sample Id	Tl-208 pCi/g*	± 2σ	Ac-228 pCi/g*	± 2σ	Pb-214 pCi/g*	± 2σ
PLF-SBS-253	0.2	±0.03	<1.0	---	0.3	±0.1
PLF-SBS-254	<0.3	---	<1.1	---	0.4	±0.1

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Job: 936161E

Status: Final

Abbreviations:

Parameters:

Pb-212	: Lead-212
K-40	: Potassium-40
Bi-214	: Bismuth-214
Tl-208	: Thallium-208
Ac-228	: Actinium-228
Pb-214	: Lead-214
Gamma Spec*	: Gamma Spectralanalysis-MDA'S Reported at 1.645 sigma

Units:

pCi/g	: picoCuries per gram
pCi/g*	: picoCuries per gram as received

Quality codes:

<	: Not Detected- below detection limit.

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PO #:

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Status: Final

QUALITY CONTROL REPORT

Sample Type: Soil

Sample Id	Gross Alpha ± 2σ Total pCi/g	Gross Beta ± 2σ Total pCi/g
Duplicate	10 ±7	18 ±4
Duplicate	19 ±8	20 ±4
Duplicate % diff.	0.0 ---	0.0 ---
Std (found value)	190 ±7	101 ±2
Std (true value)	200 ---	101 ---
Std % rec.	95 ---	100 ---
Blank	0.0 ±0.2	0.2 ±0.4
Spike % rec.	110 ---	90 ---
LCS (found value)	303 ±9	197 ±3
LCS (true value)	300 ---	202 ---
LCS % rec.	101 ---	97 ---
MS % REC.	106 ---	82 ---
MSD % REC.	101 ---	84 ---

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Status: Final

QUALITY CONTROL REPORT

Sample Type: Soil

Sample Id	Pb-212 pCi/g*	± 2σ	K-40 pCi/g*	± 2σ	Bi-214 pCi/g*	± 2σ
Duplicate	<1.0	---	<15	---	<1.6	---
Duplicate	1.3	±0.2	20	±3	1.0	±0.2
Duplicate % diff.	---	---	---	---	---	---

Sample Id	Tl-208 pCi/g*	± 2σ	Ac-228 pCi/g*	± 2σ	Pb-214 pCi/g*	± 2σ
Duplicate	<0.2	---	<1.0	---	<0.5	---
Duplicate	<0.3	---	<2.6	---	<0.6	---
Duplicate % diff.	---	---	---	---	---	---

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16-Feb-93

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Page: Q-3
Copy: 1 of 2

Attn:
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Job: 936161E

Status: Final

QUALITY CONTROL REPORT

Sample Type: Soil

Gamma Spec* ± 2σ

Sample Id	pCi/g*	
Std (found value)	18	±2
Std (true value)	19	---
Std % rec.	95	---

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16-Feb-93

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Attn:
Project: Pasco Landfill

PO #:

Received: 26-Jan-93 09:30

Job: 936161E

Status: Final

QUALITY CONTROL REPORT

Abbreviations:

Parameters:

Pb-212	: Lead-212
K-40	: Potassium-40
Bi-214	: Bismuth-214
Tl-208	: Thallium-208
Ac-228	: Actinium-228
Pb-214	: Lead-214
Gamma Spec*	: Gamma Spectralanalysis-MDA'S Reported at 1.645 sigma

Units:

pCi/g	: picoCuries per gram
pCi/g*	: picoCuries per gram as received

Quality codes:

<	: Not Detected- below detection limit.

BARRINGER LABORATORIES INC.
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16-Feb-93

BURLINGTON ENVIRONMENTAL
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Attn:
Project: Pasco Landfill PO #:

Received: 26-Jan-93 09:30

Job: 936161E Status: Final

QUALITY CONTROL REPORT

QUALITY CONTROL DATA SHEET

Received by: jdr Via: Fedex

Sample Container Type: 500ml w/m pl
Sample Type: Soil
Preservative When Received: none
Additional Lab Preparation: 100 mesh , none (Gamma Spec)

Parameter	Method	LLD	Preservative	Analyst	Date(s) of Analysis
Gross Alpha	900.0	2 pCi/g	none	Gerity	1/29- 2/ 5
Gross Beta	900.0	4 pCi/g	none	Gerity	1/29- 2/ 5
Gamma Spec	901.1	---	none	Kidwell	2/ 4- 2/ 8

BARRINGER LABORATORIES INC.
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16-Feb-93

BURLINGTON ENVIRONMENTAL
7440 West Marginal Way South
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Page: Q-6
Copy: 1 of 2

Attn:
Project: Pasco Landfill
PO #:

Received: 26-Jan-93 09:30

Job: 936161E

Status: Final

QUALITY CONTROL REPORT

Signed: .....
Radiochemical Laboratory Manager

Signed: .....
Quality Assurance Department

John Mathes & Associates, Inc.
210 West Sand Bank Road
Columbia, Illinois 62236

RECEIVED
JAN 2 1993
Ans'd ____ C.O.C. SERIAL NO. 5294

6161

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: PASCO LF
PROJECT NUMBER: 624419 MAJOR TASK: 7020.16
SAMPLERS: LOUIS LA ROSA
LAB DESTINATION: BARRINGER LABS INC.

SAMPLE NO.	DATE	TIME	COMP	GRAB	SAMPLE LOCATION	NO. OF CONTAINERS	TYPE OF ANALYSIS: GROSS ALPHA/BETA	GROSS GAMMA	MS/MSD					PRESERVATIVES: ICED	CHEMICALS ADDED	REMARKS (CHEMICAL ANALYSIS REQUEST FORM NUMBER IF APPLICABLE)
PLF-SBS-242	1-23-93	1030		✓	soil	1	✓	✓								
PLF-SBS-243	↓	1050		✓	↓	1	✓	✓								
PLF-SBS-244		1100		✓		1	✓	✓								
PLF-SBS-245		1130		✓		1	✓	✓								
PLF-SBS-246		1520		✓		1	✓	✓								
PLF-SBS-247		1550		✓		1	✓	✓								
PLF-SBS-248		1610		✓		1	✓	✓	✓							
PLF-SBS-249		1625		✓		1	✓	✓								
PLF-SBS-250	1-24-93	0920		✓		1	✓	✓								
PLF-SBS-251		0935		✓		1	✓	✓								
PLF-SBS-252		0955		✓		1	✓	✓								
PLF-SBS-253		1010		✓		1	✓	✓								
PLF-SBS-254	↓	1020		✓	↓	1	✓	✓								

RELINQUISHED BY: SIGNATURE	DATE	TIME	RECEIVED BY: SIGNATURE	DATE	TIME
BURLINGTON	1/25/93	1600	SENT FED EX	1/25/93	1600
			[illegible]	1-26-93	0930

SHIPPING NOTES: RETURN COOLER TO PASCO SITE

LAB NOTES:

MEMORANDUM

DATE: March 5, 1993

TO: Ted Wall, Environmental Engineer TW

FROM: Nels Cone, Chemist NBC

SUBJECT: DATA VALIDATION OF RADIOCHEMICAL ANALYSIS FORM PASCO LANDFILL PHASE I REMEDIAL INVESTIGATION, PROJECT 624419, DATA SET 5A

During the period of January 23-24, 1993, thirteen subsurface soil samples were collected by Burlington Environmental Inc. (Burlington). Their sample identification numbers are as follows:

PLF-SBS-242	PLF-SBS-246	PLF-SBS-249	PLF-SBS-252
PLF-SBS-243	PLF-SBS-247	PLF-SBS-250	PLF-SBS-253
PLF-SBS-244	PLF-SBS-248	PLF-SBS-251	PLF-SBS-254
PLF-SBS-245			

These samples were then submitted to Barringer Laboratories, Golden, Colorado (job number 936161E), for alpha, beta, and gamma radiation analysis (USEPA Methods 900 and 901.1). As there are no Contract Laboratory Program (CLP) guidelines for radiochemical analysis, I performed a data quality review of the analytical results in accordance with the USEPA Handbook for Analytical Quality Control in Radioanalytical Laboratories (EPA 600/7-77-088). This document was relied upon for proper guidance in the radiochemical data validation, as it is no less stringent in its data quality requirements than CLP criteria.

FINDINGS

Properly completed chain-of-custody forms were included with documented signatures from field to laboratory receipt. All samples were shown as having been properly preserved and received in good condition. The samples received the requested analyses, and all holding, extraction, and analysis times met the required guidelines. Method blanks displayed spike recoveries well within quality control (QC) criteria, and no blank corrections were required. All duplicate analyses displayed precision within acceptable QC limits. Matrix spike/matrix spike duplicates, and continuing calibration data displayed required analytical accuracy. A ninety-five percent confidence level is reported for all results, including appropriate standard deviations.

Alpha and beta analysis were supplied with additional data quality assurance in the form of USEPA sample intercomparison records, particle background records, laboratory worksheets, and sample run logs. Gamma analysis included supporting documentation of certified calibration standards (traceable to the National Institute of Standards and Technology), instrument

background checks, instrument efficiency and control checks, and laboratory sample logs. Data consistent with reported summary information was demonstrated.

Overall, the data quality objectives as required by USEPA directives are met. Accordingly, this data set can be considered valid for its intended use.

RECOMMENDATIONS

No modifications of the data are required.

SUBSURFACE SOILS I3.2

SAMPLES PLF-SBS-265 TO PLF-SBS-269
PLF-GW-002 TO PLF-GW-004, PLF-ER-006

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15000 W. 6TH AVE., SUITE 300 GOLDEN, CO 80401 (303) 277-1687 FAX (303) 277-1689

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MAR 8 1993
Burlington Environmental Inc.
Technical Services

2-Mar-93

BURLINGTON ENVIRONMENTAL
7440 West Marginal Way South
Seattle, WA 98108

Attn:
Project: Pasco Landfill
PO#

Received: 28-Jan-93

Job: 936180E

Status: Final

BARRINGER LABORATORIES
ANALYTICAL REPORT PACKAGE

CASE NARRATIVE.....i

ANALYTICAL RESULTS.....R-1

QUALITY CONTROL REPORT.....Q-1

BARRINGER LABORATORIES INC.
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2-Mar-93

BURLINGTON ENVIRONMENTAL
7440 West Marginal Way South
Seattle, WA 98108

Attn:
Project: Pasco Landfill PO#

Received: 28-Jan-93

Job: 936180E

Status: Final

CASE NARRATIVE

A total of 5 Soil samples were received on 28-Jan-93. All were properly preserved and in good condition. As stated in the chain of custody, the samples were run for the following analyses: Gamma Spec, Gross Alpha and Gross Beta. A table, to cross reference your sample ID to ours, is attached. Our procedures are summarized on the Quality Control Data Sheet. There were no deviations to these procedures. All samples were extracted and analyzed within the proper holding times.

Quality control standards were run using standard EPA guidelines. A summary of that data is provided. The acceptance criteria for spikes and duplicates in radiochemistry is sixteen percent. It is calculated as follows:

$$RPD = \frac{\text{(difference in results) - (sum of counting errors)}}{\text{(average sample value)}} * 100\ \%$$

All QC checks, including duplicates, spikes, and blanks, passed.

Signed: .....
Steven L. Sincoff, Ph.D.
Director of Operations

BARRINGER LABORATORIES INC.
15000 W. 6TH AVE., SUITE 300 GOLDEN, CO 80401 (303) 277-1687 FAX (303) 277-1689

2-Mar-93

BURLINGTON ENVIRONMENTAL
7440 West Marginal Way South
Seattle, WA 98108

Attn:
Project: Pasco Landfill PO#

Received: 28-Jan-93

Job: 936180E

Status: Final

CASE NARRATIVE

Laboratory ID	Client Sample ID	Matrix
936180-1	PLF-SBS-265	Soil
936180-2	PLF-SBS-266	Soil
936180-3	PLF-SBS-267	Soil
936180-4	PLF-SBS-268	Soil
936180-5	PLF-SBS-269	Soil

Parameter/Method List

Gamma Spec Gross Alpha/Total Gross Beta/Total

BARRINGER LABORATORIES INC.
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2-Mar-93

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Page: R-1
Copy: 1 of 2

Attn:
Project: Pasco Landfill
PO #:

Received: 28-Jan-93 09:30

Job: 936180E

Status: Final

Sample Type: Soil

Sample Id	Gross Alpha ± 2σ Total pCi/g	Gross Beta ± 2σ Total pCi/g
PLF-SBS-265	14 ±7	24 ±4
PLF-SBS-266	20 ±8	20 ±4
PLF-SBS-267	17 ±9	26 ±5
PLF-SBS-268	7.7 ±7.3	15 ±4
PLF-SBS-269	2.8 ±6.3	14 ±4

BARRINGER LABORATORIES INC.
15000 W. 6TH AVE., SUITE 300 GOLDEN, CO 80401 (303) 277-1687 FAX (303) 277-1689

2-Mar-93

BURLINGTON ENVIRONMENTAL
7440 West Marginal Way South
Seattle, WA 98108

Attn:
Project: Pasco Landfill
PO #:

Received: 28-Jan-93 09:30

Job: 936180E
Status: Final

GAMMA SPECTROSCOPY

Sample Type: Soil

Sample Id	Ac-228 pCi/g*	± 2σ	Bi-214 pCi/g*	± 2σ	K-40 pCi/g*	± 2σ
PLF-SBS-265	1.4	±0.3	0.8	±0.2	18	±2
PLF-SBS-266	<0.3	---	1.4	±0.2	17	±3
PLF-SBS-267	<0.3	---	<0.2	---	<1.7	---
PLF-SBS-268	<0.1	---	<0.1	---	8.9	±1.1
PLF-SBS-269	0.8	±0.2	0.7	±0.1	13	±2

Sample Id	Pb-212 pCi/g*	± 2σ	Pb-214 pCi/g*	± 2σ	Th-234 pCi/g*	± 2σ
PLF-SBS-265	1.1	±0.2	1.2	±0.2	<0.3	---
PLF-SBS-266	1.4	±0.2	1.3	±0.2	<0.4	---
PLF-SBS-267	1.4	±0.2	0.9	±0.3	3.0	±1.2
PLF-SBS-268	<0.03	---	0.36	±0.06	<0.1	---
PLF-SBS-269	0.7	±0.1	0.5	±0.1	<0.2	---

Sample Id	Tl-208 pCi/g*	± 2σ
PLF-SBS-265	0.6	±0.1
PLF-SBS-266	<0.1	---
PLF-SBS-267	0.40	±0.09
PLF-SBS-268	<0.03	---
PLF-SBS-269	0.24	±0.05

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Seattle, WA 98108

Attn:
Project: Pasco Landfill

PO #:

Received: 28-Jan-93 09:30

Job: 936180E

Status: Final

Abbreviations:

Parameters:

Ac-228	: Actinium-228
Bi-214	: Bismuth-214
K-40	: Potassium-40
Pb-212	: Lead-212
Pb-214	: Lead-214
Th-234	: Thorium-234
Tl-208	: Thallium-208
Gamma Spec*	: Gamma Spectralanalysis-MDA'S Reported at 1.645 sigma

Units:

pCi/g	: picoCuries per gram
pCi/g*	: picoCuries per gram as received

Quality codes:

<	: Not Detected- below detection limit.

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2-Mar-93

BURLINGTON ENVIRONMENTAL
7440 West Marginal Way South
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Attn:
Project: Pasco Landfill
PO #:

Received: 28-Jan-93 09:30

Job: 936180E
Status: Final

QUALITY CONTROL REPORT

Sample Type: Soil

Sample Id	Gross Alpha ± 2σ Total pCi/g	Gross Beta ± 2σ Total pCi/g
Duplicate	1940 ±40	590 ±10
Duplicate	2230 ±40	690 ±10
Duplicate % diff.	10 ---	13 ---
Std (found value)	210 ±6	105 ±2
Std (true value)	200 ---	101 ---
Std % rec.	105 ---	104 ---
Blank	0.1 ±0.2	0.3 ±0.3
Spike % rec.	--- ---	--- ---
LCS (found value)	314 ±8	210 ±3
LCS (true value)	300 ---	202 ---
LCS % rec.	105 ---	104 ---

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Attn:
Project: Pasco Landfill

PO #:

Received: 28-Jan-93 09:30

Job: 936180E

Status: Final

QUALITY CONTROL REPORT

Sample Type: Soil

Sample Id	Ac-228 pCi/g*	± 2σ	Bi-214 pCi/g*	± 2σ	K-40 pCi/g*	± 2σ
Duplicate	1.4	±0.3	0.8	±0.2	18	±2
Duplicate	<0.2	---	0.8	±0.2	17	±2
Duplicate % diff.	---	---	0.0	---	0.0	---

Sample Id	Pb-212 pCi/g*	± 2σ	Pb-214 pCi/g*	± 2σ	Th-234 pCi/g*	± 2σ
Duplicate	1.1	±0.2	1.2	±0.2	<0.3	---
Duplicate	1.2	±0.2	1.1	±0.2	<0.3	---
Duplicate % diff.	0.0	---	0.0	---	---	---

Sample Id	Tl-208 pCi/g*	± 2σ
Duplicate	0.6	±0.1
Duplicate	0.5	±0.1
Duplicate % diff.	0.0	---

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Attn:
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PO #:

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Job: 936180E

Status: Final

QUALITY CONTROL REPORT

Sample Type: Soil

Gamma Spec* ± 2σ

Sample Id	pCi/g*	
Std (found value)	19	±2
Std (true value)	19	---
Std % rec.	100	---

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Attn:
Project: Pasco Landfill
PO #:

Received: 28-Jan-93 09:30

Job: 936180E

Status: Final

QUALITY CONTROL REPORT

Abbreviations:

Parameters:

Ac-228	: Actinium-228
Bi-214	: Bismuth-214
K-40	: Potassium-40
Pb-212	: Lead-212
Pb-214	: Lead-214
Th-234	: Thorium-234
Tl-208	: Thallium-208
Gamma Spec*	: Gamma Spectralanalysis-MDA'S Reported at 1.645 sigm

Units:

pCi/g	: picoCuries per gram
pCi/g*	: picoCuries per gram as received

Quality codes:

<	: Not Detected- below detection limit.

BARRINGER LABORATORIES INC.
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2-Mar-93

BURLINGTON ENVIRONMENTAL
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Attn:
Project: Pasco Landfill PO #:

Received: 28-Jan-93 09:30

Job: 936180E Status: Final

QUALITY CONTROL REPORT

QUALITY CONTROL DATA SHEET

Received by: dlr Via: Fedex

Sample Container Type: 500ml pl. jar
Sample Type: Soil
Preservative When Received: none
Additional Lab Preparation: none

Parameter	Method	LLD	Preser-vative	Analyst	Date(s) of Analysis
Gross Alpha	900.0	5 pCi/g	none	Gerity	2/19- 2/24
Gross Beta	900.0	9 pCi/g	none	Gerity	2/19- 2/24
Gamma Spec*	901.1	--- pCi/g*	none	Kidwell	2/26- 2/27

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2-Mar-93

BURLINGTON ENVIRONMENTAL
7440 West Marginal Way South
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Page: Q-6
Copy: 1 of 2

Attn:
Project: Pasco Landfill PO #:

Received: 28-Jan-93 09:30

Job: 936180E Status: Final

QUALITY CONTROL REPORT

Signed: .....
Radiochemical Laboratory Manager

Signed: .....
Quality Assurance Department

10 c

John Mathes & Associates, Inc.
210 West Sand Bank Road
Columbia, Illinois 62236

RECEIVED
JAN 2 1993

CHAIN-OF-CUSTODY RECORD

C.O.C. SERIAL NO. 5302

PROJECT NAME PASCO LF
PROJECT NUMBER 624419 MAJOR TASK 7020.16
SAMPLERS LOUIS LA ROSA
LAB DESTINATION BARRINGER LABS, INC.

SAMPLE NO.	DATE	TIME	COMP	GRAB	SAMPLE LOCATION	NO. OF CONTAINERS	TYPE OF ANALYSIS: GROSS ALPHA, BETA	GROSS GAMMA						PRESERVATIVES: ICED	CHEMICALS ADDED	REMARKS (CHEMICAL ANALYSIS REQUEST FORM NUMBER IF APPLICABLE)
PLF-SBS-265	1-26-93	1415		✓	Soil	1	✓	✓								
PLF-SBS-266	↓	1430		✓	↓	1	✓	✓								
PLF-SBS-267	↓	1440		✓	↓	1	✓	✓								
PLF-SBS-268	↓	1515		✓	↓	1	✓	✓								
PLF-SBS-269	↓	1530		✓	↓	1	✓	✓								

RELINQUISHED BY SIGNATURE	DATE	TIME	RECEIVED BY SIGNATURE	DATE	TIME
Louis A La Rosa III	1-27-93	1330	SENT VIA FEDEX	1-27-93	1330
			Dana L Kendall	1-28-93	0930

SHIPPING NOTES

LAB NOTES

JM-34 (8/89)

BARRINGER LABORATORIES INC.
15000 W. 6TH AVE., SUITE 300 GOLDEN, CO 80401 (303) 277-1687 FAX (303) 277-1689

25-Feb-93

BURLINGTON ENVIRONMENTAL
7440 West Marginal Way South
Seattle, WA 98108

Attn:
Project: Pasco Landfill PO#

Received: 28-Jan-93

Job: 936182E

Status: Final

BARRINGER LABORATORIES
ANALYTICAL REPORT PACKAGE

CASE NARRATIVE.....i

ANALYTICAL RESULTS.....R-1

QUALITY CONTROL REPORT.....Q-1

BARRINGER LABORATORIES INC.
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25-Feb-93

BURLINGTON ENVIRONMENTAL
7440 West Marginal Way South
Seattle, WA 98108

Page: i
Copy: 1 of 2

Attn:
Project: Pasco Landfill PO#

Received: 28-Jan-93

Job: 936182E

Status: Final

CASE NARRATIVE

A total of 5 Water samples were received on 28-Jan-93. All were properly preserved and in good condition. As stated in the chain of custody, the samples were run for the following analyses: Gamma Spec, Gross Alpha and Gross Beta. Our procedures are summarized on the Quality Control Data Sheet. There were no deviations to these procedures. All samples were extracted and analyzed within the proper holding times.

Quality control standards were run using standard EPA guidelines. A summary of that data is provided. The acceptance criteria for spikes and duplicates in radiochemistry is sixteen percent. It is calculated as follows:

$$RPD = \frac{\text{(difference in results)} - \text{(sum of counting errors)}}{\text{(average sample value)}} * 100\ \%$$

All QC checks, including duplicates, spikes, and blanks, passed.

Signed: .....
Steven L. Sincoff, PH.D.
Director of Operations

BARRINGER LABORATORIES INC.
15000 W. 6TH AVE., SUITE 300 GOLDEN, CO 80401 (303) 277-1687 FAX (303) 277-1689

25-Feb-93

BURLINGTON ENVIRONMENTAL
7440 West Marginal Way South
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Page: R-1
Copy: 1 of 2

Attn:
Project: Pasco Landfill

PO #:

Received: 28-Jan-93 09:30

Job: 936182E

Status: Final

Sample Type: Water

Sample Id	Gamma Spec ± 2σ pCi/l		Gross Alpha ± 2σ Total pCi/l	Gross Beta ± 2σ Total pCi/l
PLF-GW-002	<3.4	---	7.9 ±4.0	14 ±2
PLF-GW-002MS	<2.8	---	4.2 ±3.3	12 ±2
PLF-GW-002MSD	<4.0	---	6.6 ±3.6	10 ±2
PLF-GW-003	<3.3	---	3.7 ±3.4	10 ±2
PLF-GW-004	<3.1	---	6.8 ±3.6	11 ±2

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25-Feb-93

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Page: R-2
Copy: 1 of 2

Attn:
Project: Pasco Landfill PO #:

Received: 28-Jan-93 09:30

Job: 936182E Status: Final

Abbreviations:

Parameters:

Gamma Spec : Gamma Spectralanalysis MDA=Cs-134 @ 604.6 KeV

Units:

pCi/l : picoCuries per liter

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25-Feb-93

BURLINGTON ENVIRONMENTAL
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Page: Q-1
Copy: 1 of 2

Attn:
Project: Pasco Landfill
PO #:

Received: 28-Jan-93 09:30

Job: 936182E
Status: Final

QUALITY CONTROL REPORT

Sample Type: Water

Sample Id	Gamma Spec ± 2σ pCi/l		Gross Alpha ± 2σ Total pCi/l		Gross Beta ± 2σ Total pCi/l	
Duplicate	<3.4	---	0.7	±1.0	1.8	±1.4
Duplicate	<2.8	---	1.8	±0.9	1.0	±1.4
Duplicate % diff.	---	---	0.0	---	0.0	---
Std (found value)	20	±1	193	±6	95	±2
Std (true value)	19	---	200	---	101	---
Std % rec.	105	---	97	---	94	---
Blank	---	---	0.1	±0.2	0.4	±0.4
Spike % rec.	---	---	88	---	103	---
LCS (found value)	---	---	344	±8	188	±3
LCS (true value)	---	---	300	---	202	---
LCS % rec.	---	---	115	---	93	---

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25-Feb-93

BURLINGTON ENVIRONMENTAL
7440 West Marginal Way South
Seattle, WA 98108

Attn:
Received: 28-Jan-93 09:30
Project: Pasco Landfill
PO #:

Job: 936182E
Status: Final

QUALITY CONTROL REPORT

Abbreviations:

Parameters:

Gamma Spec : Gamma Spectralanalysis MDA=Cs-134 @ 604.6 KeV

Units:

pCi/l : picoCuries per liter

BARRINGER LABORATORIES INC.
15000 W. 6TH AVE., SUITE 300 GOLDEN, CO 80401 (303) 277-1687 FAX (303) 277-1689

25-Feb-93

BURLINGTON ENVIRONMENTAL
7440 West Marginal Way South
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Page: Q-3
Copy: 1 of 2

Attn:
Received: 28-Jan-93 09:30
Project: Pasco Landfill PO #:

Job: 936182E Status: Final

QUALITY CONTROL REPORT

QUALITY CONTROL DATA SHEET

Received by: dlr Via: Fedex

Sample Container Type: Lg cu
Sample Type: Water
Preservative When Received: HNO3
Additional Lab Preparation: none

Parameter	Method	LLD	Preservative	Analyst	Date(s) of Analysis
Gamma Spec	901.1	--- pCi/l	HNO3	Kidwell	2/23- 2/24
Gross Alpha	900.0	2 pCi/l	HNO3	Gerity	2/17- 2/22
Gross Beta	900.0	4 pCi/l	HNO3	Gerity	2/17- 2/22

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25-Feb-93

BURLINGTON ENVIRONMENTAL
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Page: Q-4
Copy: 1 of 2

Attn:
Project: Pasco Landfill
PO #:

Received: 28-Jan-93 09:30

Job: 936182E

Status: Final

QUALITY CONTROL REPORT

Signed: .....
Radiochemical Laboratory Manager

Signed: .....
Quality Assurance Department

John Mathes & Associates, Inc.
210 West Sand Bank Road
Columbia, Illinois 62236

RECEIVED
JAN 28 1993

6182

CHAIN-OF-CUSTODY RECORD

C.O.C. SERIAL NO. 5300

PROJECT NAME: PASCO LF
PROJECT NUMBER: 624419 MAJOR TASK: 7020.19
SAMPLERS: MAXEINER / OOLAN
LAB DESTINATION: BARINGER LABORATORIES

SAMPLE NO.	DATE	TIME	COMP	GRAB	SAMPLE LOCATION	NO. OF CONTAINERS	TYPE OF ANALYSIS: GROSS ALPHA	GROSS BETA	GROSS GAMMA	[redacted]	[redacted]				PRESERVATIVES: ICED	CHEMICALS ADDED	REMARKS (CHEMICAL ANALYSIS REQUEST FORM NUMBER IF APPLICABLE)
PLF-GW-002	1/26/93	1135		X	WATER	1	✓	✓							N/A	HNO_3	
PLF-GW-002MS	↓	1135		X	↓	1	✓	✓							↓	↓	
PLF-GW-002MSD	↓	1135		X	↓	1	✓	✓							↓	↓	
PLF-GW-003	↓	1135		X	↓	1	✓	✓							↓	↓	
PLF-GW-004	↓	1230		X	↓	1	✓	✓							↓	↓	

RELINQUISHED BY: SIGNATURE	DATE	TIME	RECEIVED BY: SIGNATURE	DATE	TIME
[signature]	1/27/93	1330	SHIP VIA FED EX	1/27/93	1330
			Diane L. Kendall	1-28-93	0930

SHIPPING NOTES

LAB NOTES

JM-34 (8/89)

BARRINGER LABORATORIES INC.
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MAR 8 1993
Burlington Environmental Inc.
Technical Services

2-Mar-93

BURLINGTON ENVIRONMENTAL
7440 West Marginal Way South
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Attn:
Project: Pasco Landfill
PO#

Received: 28-Jan-93

Job: 936181E

Status: Final

BARRINGER LABORATORIES
ANALYTICAL REPORT PACKAGE

CASE NARRATIVE.....i

ANALYTICAL RESULTS.....R-1

QUALITY CONTROL REPORT.....Q-1

BARRINGER LABORATORIES INC.
15000 W. 6TH AVE., SUITE 300 GOLDEN, CO 80401 (303) 277-1687 FAX (303) 277-1689

2-Mar-93

BURLINGTON ENVIRONMENTAL
7440 West Marginal Way South
Seattle, WA 98108

Attn:
Project: Pasco Landfill PO#

Received: 28-Jan-93

Job: 936181E

Status: Final

CASE NARRATIVE

A total of 1 Water sample was received on 28-Jan-93. All were properly preserved and in good condition. As stated in the chain of custody, the sample was run for the following analyses: Gamma Spec, Gross Alpha and Gross Beta. A table, to cross reference your sample ID to ours, is attached. Our procedures are summarized on the Quality Control Data Sheet. There were no deviations to these procedures. Each sample was extracted and analyzed within the proper holding times.

Quality control standards were run using standard EPA guidelines. A summary of that data is provided. The acceptance criteria for spikes and duplicates in radiochemistry is sixteen percent. It is calculated as follows:

$$RPD = \frac{\text{(difference in results) - (sum of counting errors)}}{\text{(average sample value)}} * 100\ \%$$

All QC checks, including duplicates, spikes, and blanks, passed.

Signed: Steven L. Sincoff
Steven L. Sincoff, Ph.D.
Director of Operations

BARRINGER LABORATORIES INC.
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2-Mar-93

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Attn:
Project: Pasco Landfill PO#

Received: 28-Jan-93

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Status: Final

CASE NARRATIVE

Laboratory ID	Client Sample ID	Matrix
936181-1	PLF-ER-006	Water

Parameter/Method List

Gamma Spec Gross Alpha/Total Gross Beta/Total

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Copy: 1 of 2

Attn:
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PO #:
Received: 28-Jan-93 09:30

Job: 936181E
Status: Final

Sample Type: Water

Sample Id	Gross Alpha ± 2σ Total pCi/l	Gross Beta ± 2σ Total pCi/l
PLF-ER-006	1.9 ±1.7	1.7 ±1.6

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Attn:
Project: Pasco Landfill

PO #:

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Job: 936181E

Status: Final

GAMMA SPECTROSCOPY

Sample Type: Water

Sample Id	Cs-134 pCi/l
PLF-ER-006	<3.4

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Attn:
Project: Pasco Landfill PO #:

Received: 28-Jan-93 09:30

Job: 936181E Status: Final

Abbreviations:

Parameters:

Cs-134 : Cesium-134
Gamma Spec* : Gamma Spectralanalysis-MDA'S Reported at 1.645 sigma

Units:

pCi/l : picoCuries per liter

Quality codes:

< : Not Detected- below detection limit.

BARRINGER LABORATORIES INC.
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2-Mar-93

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PO #:

Received: 28-Jan-93 09:30

Job: 936181E

Status: Final

QUALITY CONTROL REPORT

Sample Type: Water

Sample Id	Gross Alpha ± 2σ Total pCi/l	Gross Beta ± 2σ Total pCi/l
Duplicate	0.9 ±1.8	2.1 ±1.6
Duplicate	0.7 ±1.4	1.3 ±1.6
Duplicate % diff.	0.0 ---	0.0 ---
Std (found value)	200 ±6	93 ±2
Std (true value)	200 ---	101 ---
Std % rec.	100 ---	92 ---
Blank	0.0 ±0.2	0.0 ±0.3
Spike % rec.	105 ---	114 ---
LCS (found value)	281 ±8	190 ±3
LCS (true value)	300 ---	202 ---
LCS % rec.	93.8 ---	93.9 ---

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2-Mar-93

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Page: Q-2
Copy: 1 of 2

Attn:
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PO #:

Received: 28-Jan-93 09:30

Job: 936181E
Status: Final

QUALITY CONTROL REPORT

Sample Type: Water

Sample Id	Cs-134 pCi/l
Duplicate	<3.4
Duplicate	<3.2
Duplicate % diff.	---

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2-Mar-93

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Attn:
Project: Pasco Landfill

PO #:

Received: 28-Jan-93 09:30

Job: 936181E

Status: Final

QUALITY CONTROL REPORT

Sample Type: Water

Gamma Spec* ± 2σ

Sample Id	pCi/l	
Std (found value)	10.2	±0.7
Std (true value)	9.3	---
Std % rec.	110	---

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2-Mar-93

BURLINGTON ENVIRONMENTAL
7440 West Marginal Way South
Seattle, WA 98108

Page: Q-4
Copy: 1 of 2

Attn:
Project: Pasco Landfill PO #:

Received: 28-Jan-93 09:30

Job: 936181E Status: Final

QUALITY CONTROL REPORT

Abbreviations:

Parameters:

Cs-134 : Cesium-134
Gamma Spec* : Gamma Spectralanalysis-MDA'S Reported at 1.645 sigma

Units:

pCi/l : picoCuries per liter

Quality codes:

< : Not Detected- below detection limit.

BARRINGER LABORATORIES INC.
15000 W. 6TH AVE., SUITE 300 GOLDEN, CO 80401 (303) 277-1687 FAX (303) 277-1689

2-Mar-93

BURLINGTON ENVIRONMENTAL
7440 West Marginal Way South
Seattle, WA 98108

Page: Q-5
Copy: 1 of 2

Attn:
Received: 28-Jan-93 09:30
Project: Pasco Landfill PO #:

Job: 936181E Status: Final

QUALITY CONTROL REPORT

QUALITY CONTROL DATA SHEET

Received by: dlr Via: Fedex

Sample Container Type: Lg cu
Sample Type: Water
Preservative When Received: HNO3
Additional Lab Preparation: none

Parameter	Method	LLD	Preser-vative	Analyst	Date(s) of Analysis
Gross Alpha	900.0	2 pCi/l	HNO3	Gerity	2/ 3- 2/10
Gross Beta	900.0	4 pCi/l	HNO3	Gerity	2/ 3- 2/10
Gamma Spec*	901.1	--- pCi/l	HNO3	Kidwell	2/26

BARRINGER LABORATORIES INC.
15000 W. 6TH AVE., SUITE 300 GOLDEN, CO 80401 (303) 277-1687 FAX (303) 277-1689

2-Mar-93

BURLINGTON ENVIRONMENTAL
7440 West Marginal Way South
Seattle, WA 98108

Page: Q-6
Copy: 1 of 2

Attn:
Project: Pasco Landfill PO #:

Received: 28-Jan-93 09:30

Job: 936181E Status: Final

QUALITY CONTROL REPORT

Signed: .....
Radiochemical Laboratory Manager

Signed: .....
Quality Assurance Department

John Mathes & Associates, Inc.
210 West Sand Bank Road
Columbia, Illinois 62236

G181 15 C

RECEIVED
JAN 2 3 1993

CHAIN-OF-CUSTODY RECORD

C.O.C. SERIAL NO. 5304

PROJECT NAME PASCO LF
PROJECT NUMBER CZ 4419 MAJOR TASK 7020.16
SAMPLERS Louis LaRosa
LAB DESTINATION Barringer Labs, INC

SAMPLE NO.	DATE	TIME	COMP	GRAB	SAMPLE LOCATION	NO. OF CONTAINERS	TYPE OF ANALYSIS: Gross Alpha, Beta	TYPE OF ANALYSIS: Gross Gamma						PRESERVATIVES: ICED	PRESERVATIVES: CHEMICALS ADDED	REMARKS (CHEMICAL ANALYSIS REQUEST FORM NUMBER IF APPLICABLE)
PLF-ER-006	1-27-93	1000		✓	H_2O	1	✓	✓								

RELINQUISHED BY

RECEIVED BY

MEMORANDUM

DATE: March 19, 1993

TO: Ted Wall, Environmental Engineer

FROM: Nels Cone, Chemist

SUBJECT: DATA VALIDATION OF RADIOCHEMICAL ANALYSIS FROM PASCO LANDFILL PHASE I REMEDIAL INVESTIGATION, PROJECT 624419, DATA SET 5A.2

During the period of January 26-27, 1993, a total of five soil samples and six water samples were collected by Burlington Environmental Inc. personnel. The sample identification numbers are as follows:

PLF-SBS-265	PLF-SBS-267	PLF-SBS-269	PLF-GW-002MS	PLF-GW-003	PLF-ER-006
PLF-SBS-266	PLF-SBS-268	PLF-GW-002	PLF-GW-002MSD	PLF-GW-004	

These samples were then submitted to Barringer Laboratories, Golden, Colorado (job numbers 936181E, and 936182E), for alpha, beta, and gamma radiation analysis (USEPA Methods 900.0 and 901.1). As there are no Contract Laboratory Program (CLP) guidelines for radiochemical analysis, I performed a data quality review of the analytical results in accordance with the USEPA Handbook for Analytical Quality Control in Radioanalytical Laboratories (EPA 600/7-77-088). This document was relied upon for proper guidance in the radiochemical data validation, as it is no less stringent in its data quality requirements than CLP criteria.

FINDINGS

Properly completed chain-of-custody forms were included with documented signatures from field to laboratory receipt. All samples were shown as having been properly preserved and received in good condition. The samples received the requested analyses, and all holding, extraction, and analysis times met the required guidelines. Method blanks displayed spike recoveries well within quality control (QC) criteria, and no blank corrections were required. All duplicate analyses displayed precision within acceptable QC limits. Matrix spike/matrix spike duplicates, and continuing calibration data displayed required analytical accuracy. A ninety-five percent confidence level is reported for all results, including appropriate standard deviations.

Alpha and beta analysis were supplied with additional data quality assurance in the form of USEPA sample intercomparison records, particle background records, laboratory worksheets, and sample run logs. Gamma analysis included supporting documentation of certified calibration standards (traceable to the National Institute of Standards and Technology), instrument background checks, instrument efficiency and control checks, and laboratory sample logs. Data consistent with reported summary information was demonstrated.

Overall, the data quality objectives as required by USEPA directives are met. Accordingly, this data set can be considered valid for its intended use.

RECOMMENDATIONS

No modifications of the data are required.

SUBSURFACE SOILS I3.3

SAMPLES PLF-SBS-169 AND PLF-SBS-215

SOUND ANALYTICAL SERVICES, INC.

SPECIALIZING IN INDUSTRIAL & TOXIC WASTE ANALYSIS

4813 PACIFIC HIGHWAY EAST, TACOMA, WASHINGTON 98424 - TELEPHONE (206)922-2310 - FAX (206)922-5047

February 26, 1993

Burlington Environmental Technical Services
2203 Airport Way South, Suite 400
Seattle, WA 98134

RE: 624419 Pasco Landfill
SAS Lab No: 29774

Dear Mr. Cone:

Enclosed you will find the total organic carbon and cation exchange capacity test results for the above referenced project. Samples for this analysis were received cold and in good condition on 01-26-93.

The cation exchange capacity samples were delivered to Twiss Analytical Laboratories, Inc., in Bainbridge Island, WA on 01-27-93. Copies of their test results and supporting raw data are included in these documents. Your samples may be cross-referenced as follows:

TAL Sample No.	SAS Sample No.	Client Sample ID
040024	29774-1	PLF-SBS-169
040025	29774-2	PLF-SBS-215

If you have any questions regarding this project please call me at (206) 922-2310.

Sincerely,

SOUND ANALYTICAL SERVICES

Lila Transue

Lila Transue
Project Manager

TWISS ANALYTICAL LABORATORIES, INC.
7865 NE Day Road West Bainbridge Island, WA 98110
Telephone (206) 780-5109 FAX(206) 842-9469

RECEIVED
MAR 15 1993
Burlington Environmental Inc.
Technical Services

March 11, 1993

Mr. Nels Cone
Burlington Environmental
Technical Services Division
P.O. Box 3552
Seattle, WA 98124

Dear Mr. Cone:

Enclosed are the QC results associated with the samples identified to us as PLF-SBS-169 and PLF-SBS-215, lab numbers 040024 and 040025 respectively. I have also included a copy of the report that we sent out originally.

You should find a report of the blank data, a report of the duplicate results and the calculated Relative Percent Difference, a report on the results of Laboratory Control Standard analysis and the calibration standards and their respective absorbances. We did not run spiked sample analysis with this sample set. If you need more information or further clarification we will be glad to help in any way we can.

Sincerely,

Steve Twiss, President
Twiss Analytical Laboratories, Inc.

TWISS ANALYTICAL LABORATORIES, INC.
7865 NE Day Road West Bainbridge Island, WA 98110
Telephone (206) 780-5109 FAX(206) 842-946

Report on Analysis

February 12, 1993

Client: Sound Analytical Services, Inc.
Project: 29774

Sample Identification	Lab Sample No.	Cation Exchange Capacity (meq/100 grams)
29774-1 (PLF-SBS-169)	040024	0.27
29774-2 (PLF-SBS-215)	040025	0.09

Method SW-846 9080 modified

The cation exchange capacity determination procedure was modified in the following ways:

1) The step using Ammonium Chloride was omitted.
2) The Ammonium was leached from the sample with 225 mL of 0.1N HCl and the leachate was taken to a final volume of 250 mL with distilled water prior to analysis.
3) The Ammonium in the leachate was determined by the manual phenate method

Steve Twiss

This report is issued solely for the use of the person or company to whom it is addressed. This laboratory accepts responsibility only for the due performance of analysis in accordance with industry acceptable practice. In no event shall Twiss Analytical Laboratories, Inc. or its employees be responsible for consequential or special damages in any kind or in any amount.

SOUND ANALYTICAL SERVICES, INC.

SPECIALIZING IN INDUSTRIAL & TOXIC WASTE ANALYSIS

4813 PACIFIC HIGHWAY EAST, TACOMA, WASHINGTON 98424 - TELEPHONE (206)922-2310 - FAX (206)922-5047

Report To: Burlington Environmental Date: February 18, 1993

Report On: Analysis of Soil Lab No.: 29774

IDENTIFICATION:
Samples received on 01-26-93
Project: 624419 Pasco Landfill

ANALYSIS:

Lab No. 29774-1 Client ID: PLF-SBS-169

TOC Per Puget Sound Protocol
Date Analyzed: 2-1-93

Total Organic Carbon, mg/kg 8,300

Lab No. 29774-2 Client ID: PLF-SBS-215

TOC Per Puget Sound Protocol
Date Analyzed: 2-1-93

Total Organic Carbon, mg/kg 420

SOUND ANALYTICAL SERVICES

STAN P. PALMQUIST

This report is issued solely for the use of the person or company to whom it is addressed. This laboratory accepts responsibility only for the due performance of analysis in accordance with industry acceptable practice. In no event shall Sound Analytical Services, Inc. or its employees be responsible for consequential or special damages in any kind or in any amount.

MEMORANDUM

DATE: March 19, 1993

TO: Ted Wall, Environmental Engineer JW

FROM: Nels Cone, Chemist NBC

SUBJECT: DATA VALIDATION OF CHEMICAL ANALYSIS FROM PASCO LANDFILL PHASE I REMEDIAL INVESTIGATION, PROJECT 624419, DATA SET 5B

During the period of October 26 - 31, 1992, two soil samples were collected by Burlington Environmental personnel. The sample identification numbers are PLF-SBS-169 and PLF-SBS-215.

These samples were then submitted to Sound Analytical Services (SAS), of Tacoma, Washington (work order 29774), for analysis of cation exchange capacity (CEC) per USEPA SW-846 Method 9080 and total organic carbon (TOC) per Puget Sound protocol. I performed a data quality review of the analytical results in accordance with the USEPA Contract Laboratory Program (CLP) Document Number 0LM01.0. These guidelines are normally used for water and soil monitoring of specific target compounds. However, this document was also relied upon for proper guidance in the above analyses, because there are no criteria currently available for cation exchange capacity and total organic carbon analysis.

FINDINGS

Properly completed chain-of-custody forms were included with documented signatures from field to laboratory receipt. All samples were shown as having been properly iced and received in good condition. The samples received the requested analyses, and all holding, extraction, and analysis times met the required guidelines. All duplicate analyses displayed acceptable precision between results. Matrix spike/matrix spike duplicate recoveries displayed accuracy within advisory quality control (QC) limits. While there are no surrogate compounds as part of these analyses, analytical check standards provided additional evidence of data precision. Calibration standards provided for CEC analysis displayed linearity within advisory criteria. An elevated method blank value was found for TOC analysis. However, raw data worksheet calculations indicate that the reported sample values have been corrected to reflect this elevated blank value.

Additional QC was supplied in the form of the raw lab data, and data consistency was demonstrated throughout. Overall, the data quality guidelines as advised in the CLP Statement of Work are met. Accordingly, this data can be considered valid for its intended use.

RECOMMENDATIONS

No modifications to the data set are required.

NC/rlk/b45:2121b.mem

SUBSURFACE SOILS I3.4

SAMPLES PLF-SBS-297 TO PLF-SBS-305

California Analytical
Laboratory

March 4, 1993
Lab ID: 068049

Enseco
A Corning Company

Ted Wall
Burlington Environmental
7440 West Marginal Way South
Seattle, WA 98101

Dear Mr. Wall:

Enclosed is the report for the Method 8290 analysis of your nine soil samples received at Enseco Cal Lab on 09 February 1993 under chain-of-custody.

Please note that results for the Matrix Spike and Matrix Spike Duplicate analyses are not included in this report. The MS and MSD are being reextracted and reanalyzed due to a spiking error during the extraction preparation. Results will be reported as soon as they are available.

Detection limits are reported on a sample specific basis and all results are recovery corrected per the isotope dilution technique for dioxin/furan analyses. The method blank is a laboratory-generated sample which assesses the degree to which laboratory operations and procedures cause false-positive analytical results for your samples.

All solid and waste samples are reported on an "as received" basis, i.e., no correction is made for moisture content, unless the method requires or the client requests that such correction be made.

Results are on the attached data sheets.

If you have any questions, please feel free to call.

Sincerely,

Eric W. Redman
Senior Scientist
Advanced Technology Group

Kathleen A. Gill
Program Administrator

ne

Enseco - CAL
2544 Industrial Blvd.
West Sacramento, CA 95691-3435
(916) 372-1393
FAX: (916) 372-7768

Enseco
A Corning Company

SAMPLE DESCRIPTION INFORMATION
for
Burlington Environmental

Lab ID	Client ID	Matrix	Sampled Date	Sampled Time	Received Date
068049-0001-SA	PLF-SBS-297	SOIL	04 FEB 93	11:45	09 FEB 93
068049-0001-MB	Method Blank	SOIL			09 FEB 93
068049-0002-SA	PLF-SBS-298	SOIL	04 FEB 93	12:05	09 FEB 93
068049-0003-SA	PLF-SBS-299	SOIL	04 FEB 93	13:50	09 FEB 93
068049-0003-MS	PLF-SBS-299	SOIL	04 FEB 93	13:50	09 FEB 93
068049-0003-SD	PLF-SBS-299	SOIL	04 FEB 93	13:50	09 FEB 93
068049-0003-MB	Method Blank	SOIL			09 FEB 93
068049-0004-SA	PLF-SBS-300	SOIL	04 FEB 93	14:20	09 FEB 93
068049-0005-SA	PLF-SBS-301	SOIL	04 FEB 93	14:30	09 FEB 93
068049-0006-SA	PLF-SBS-302	SOIL	04 FEB 93	16:10	09 FEB 93
068049-0007-SA	PLF-SBS-303	SOIL	04 FEB 93	16:20	09 FEB 93
068049-0008-SA	PLF-SBS-304	SOIL	04 FEB 93	16:30	09 FEB 93
068049-0009-SA	PLF-SBS-305	SOIL	04 FEB 93	16:45	09 FEB 93

Enseco
A Corning Company

Percent Water

Method CLP Method

Client Name: Burlington Environmental
Matrix: SOIL Received: 09 FEB 93
Units: % Authorized: 09 FEB 93

Lab ID	Client ID	Result	Reporting Limit	Date Prepared	Date Analyzed
068049-0001-SA	PLF-SBS-297	11.7	0.10	NA	26 FEB 93
068049-0002-SA	PLF-SBS-298	6.7	0.10	NA	26 FEB 93
068049-0003-MS	PLF-SBS-299	6.9	0.10	NA	03 MAR 93
068049-0003-SA	PLF-SBS-299	6.9	0.10	NA	26 FEB 93
068049-0003-SD	PLF-SBS-299	6.9	0.10	NA	03 MAR 93
068049-0004-SA	PLF-SBS-300	3.2	0.10	NA	26 FEB 93
068049-0005-SA	PLF-SBS-301	3.4	0.10	NA	26 FEB 93
068049-0006-SA	PLF-SBS-302	7.9	0.10	NA	26 FEB 93
068049-0007-SA	PLF-SBS-303	11.3	0.10	NA	26 FEB 93
068049-0008-SA	PLF-SBS-304	6.1	0.10	NA	26 FEB 93
068049-0009-SA	PLF-SBS-305	4.0	0.10	NA	26 FEB 93

ND = Not detected
NA = Not applicable

Reported By: Boyd Harling Approved By: Clark Pickell

The cover letter is an integral part of this report.
Rev 230787

Enseco
A Corning Company

POLYCHLORINATED DIOXINS/FURANS
ISOMER SPECIFIC ANALYSIS
Method 8290

Client Name: Burlington Environmental
Client ID: Method Blank
Lab ID: 068049-0001-MB
Matrix: SOIL Sampled: NA Received: NA
Authorized: 09 FEB 93 Prepared: 23 FEB 93 Analyzed: 27 FEB 93

Sample Amount 2.0 G
Column Type DB-5

Parameter	Result	Units	Detection Limit	Data Qualifiers
Furans				
TCDFs (total)	ND	pg/g	0.72	
2,3,7,8-TCDF	ND	pg/g	0.72	
PeCDFs (total)	ND	pg/g	1.3	
1,2,3,7,8-PeCDF	ND	pg/g	0.95	
2,3,4,7,8-PeCDF	ND	pg/g	1.3	
HxCDFs (total)	ND	pg/g	0.65	
1,2,3,4,7,8-HxCDF	ND	pg/g	0.58	
1,2,3,6,7,8-HxCDF	ND	pg/g	0.58	
2,3,4,6,7,8-HxCDF	ND	pg/g	0.59	
1,2,3,7,8,9-HxCDF	ND	pg/g	0.65	
HpCDFs (total)	ND	pg/g	0.99	
1,2,3,4,6,7,8-HpCDF	ND	pg/g	0.99	
1,2,3,4,7,8,9-HpCDF	ND	pg/g	0.78	
OCDF	ND	pg/g	7.6	
Dioxins				
TCDDs (total)	ND	pg/g	0.82	
2,3,7,8-TCDD	ND	pg/g	0.82	
PeCDDs (total)	ND	pg/g	7.0	
1,2,3,7,8-PeCDD	ND	pg/g	0.72	
HxCDDs (total)	ND	pg/g	0.91	
1,2,3,4,7,8-HxCDD	ND	pg/g	0.75	
1,2,3,6,7,8-HxCDD	ND	pg/g	0.91	
1,2,3,7,8,9-HxCDD	ND	pg/g	0.78	
HpCDDs (total)	ND	pg/g	0.67	
1,2,3,4,6,7,8-HpCDD	ND	pg/g	0.67	
OCDD	ND	pg/g	3.0	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Brett Bordelon Approved By: Mark Bechthold

The cover letter is an integral part of this report.
Rev 230787

Enseco
A Corning Company

POLYCHLORINATED DIOXINS/FURANS
ISOMER SPECIFIC ANALYSIS (CONT.)
Method 8290

Client Name: Burlington Environmental
Client ID: Method Blank
Lab ID: 068049-0001-MB
Matrix: SOIL
Authorized: 09 FEB 93

Sampled: NA
Prepared: 23 FEB 93

Received: NA
Analyzed: 27 FEB 93

Sample Amount 2.0 G
Column Type DB-5

	% Recovery
13C-2,3,7,8-TCDF	87
13C-2,3,7,8-TCDD	104
13C-1,2,3,7,8-PeCDF	99
13C-1,2,3,7,8-PeCDD	81
13C-1,2,3,4,7,8-HxCDF	96
13C-1,2,3,6,7,8-HxCDD	108
13C-1,2,3,4,6,7,8-HpCDF	93
13C-1,2,3,4,6,7,8-HpCDD	103
13C-OCDD	79

ND = Not detected
NA = Not applicable

Reported By: Brett Bordelon

Approved By: Mark Bechthold

The cover letter is an integral part of this report.
Rev 230787

Enseco
A Corning Company

POLYCHLORINATED DIOXINS/FURANS
ISOMER SPECIFIC ANALYSIS
Method 8290

Client Name: Burlington Environmental
Client ID: PLF-SBS-297
Lab ID: 068049-0001-SA
Matrix: SOIL Sampled: 04 FEB 93 Received: 09 FEB 93
Authorized: 09 FEB 93 Prepared: 23 FEB 93 Analyzed: 27 FEB 93

Sample Amount 2.0 G
Column Type DB-5

Parameter	Result	Dry Weight Units	Detection Limit	Data Qualifiers
Furans				
TCDFs (total)	ND	pg/g	0.84	
2,3,7,8-TCDF	ND	pg/g	0.84	
PeCDFs (total)	ND	pg/g	1.5	
1,2,3,7,8-PeCDF	ND	pg/g	1.2	
2,3,4,7,8-PeCDF	ND	pg/g	1.5	
HxCDFs (total)	ND	pg/g	1.0	
1,2,3,4,7,8-HxCDF	ND	pg/g	1.0	
1,2,3,6,7,8-HxCDF	ND	pg/g	0.60	
2,3,4,6,7,8-HxCDF	ND	pg/g	0.62	
1,2,3,7,8,9-HxCDF	ND	pg/g	0.67	
HpCDFs (total)	ND	pg/g	1.7	
1,2,3,4,6,7,8-HpCDF	ND	pg/g	1.7	
1,2,3,4,7,8,9-HpCDF	ND	pg/g	0.67	
OCDF	ND	pg/g	3.6	
Dioxins				
TCDDs (total)	ND	pg/g	2.1	
2,3,7,8-TCDD	ND	pg/g	0.96	
PeCDDs (total)	ND	pg/g	8.0	
1,2,3,7,8-PeCDD	ND	pg/g	1.4	
HxCDDs (total)	ND	pg/g	6.3	
1,2,3,4,7,8-HxCDD	ND	pg/g	2.0	
1,2,3,6,7,8-HxCDD	ND	pg/g	2.5	
1,2,3,7,8,9-HxCDD	ND	pg/g	2.2	
HpCDDs (total)	25	pg/g	--	
1,2,3,4,6,7,8-HpCDD	ND	pg/g	11	
OCDD	73	pg/g	--	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Brett Bordelon Approved By: Mark Bechthold

The cover letter is an integral part of this report.
Rev 230787

Enseco
A Corning Company

POLYCHLORINATED DIOXINS/FURANS
ISOMER SPECIFIC ANALYSIS (CONT.)
Method 8290

Client Name: Burlington Environmental
Client ID: PLF-SBS-297
Lab ID: 068049-0001-SA
Matrix: SOIL
Authorized: 09 FEB 93

Sampled: 04 FEB 93
Prepared: 23 FEB 93

Received: 09 FEB 93
Analyzed: 27 FEB 93

Sample Amount 2.0 G
Column Type DB-5

	% Recovery
13C-2,3,7,8-TCDF	87
13C-2,3,7,8-TCDD	87
13C-1,2,3,7,8-PeCDF	97
13C-1,2,3,7,8-PeCDD	78
13C-1,2,3,4,7,8-HxCDF	89
13C-1,2,3,6,7,8-HxCDD	89
13C-1,2,3,4,6,7,8-HpCDF	81
13C-1,2,3,4,6,7,8-HpCDD	91
13C-OCDD	78

Percent Moisture is 11.7%. All results and limits are reported on a dry weight basis.

ND = Not detected
NA = Not applicable

Reported By: Brett Bordelon

Approved By: Mark Bechthold

The cover letter is an integral part of this report.
Rev 230787

Enseco
A Corning Company

POLYCHLORINATED DIOXINS/FURANS
ISOMER SPECIFIC ANALYSIS
Method 8290

Client Name: Burlington Environmental
Client ID: PLF-SBS-298
Lab ID: 068049-0002-SA
Matrix: SOIL Sampled: 04 FEB 93 Received: 09 FEB 93
Authorized: 09 FEB 93 Prepared: 23 FEB 93 Analyzed: 27 FEB 93

Sample Amount 2.0 G
Column Type DB-5

Parameter	Result	Dry Weight Units	Detection Limit	Data Qualifiers
Furans				
TCDFs (total)	ND	pg/g	0.65	
2,3,7,8-TCDF	ND	pg/g	0.65	
PeCDFs (total)	ND	pg/g	1.8	
1,2,3,7,8-PeCDF	ND	pg/g	1.3	
2,3,4,7,8-PeCDF	ND	pg/g	1.8	
HxCDFs (total)	ND	pg/g	1.4	
1,2,3,4,7,8-HxCDF	ND	pg/g	1.3	
1,2,3,6,7,8-HxCDF	ND	pg/g	1.3	
2,3,4,6,7,8-HxCDF	ND	pg/g	1.3	
1,2,3,7,8,9-HxCDF	ND	pg/g	1.4	
HpCDFs (total)	ND	pg/g	0.99	
1,2,3,4,6,7,8-HpCDF	ND	pg/g	0.99	
1,2,3,4,7,8,9-HpCDF	ND	pg/g	0.72	
OCDF	ND	pg/g	3.7	
Dioxins				
TCDDs (total)	ND	pg/g	1.3	
2,3,7,8-TCDD	ND	pg/g	1.3	
PeCDDs (total)	ND	pg/g	6.5	
1,2,3,7,8-PeCDD	ND	pg/g	1.9	
HxCDDs (total)	ND	pg/g	1.4	
1,2,3,4,7,8-HxCDD	ND	pg/g	1.1	
1,2,3,6,7,8-HxCDD	ND	pg/g	1.4	
1,2,3,7,8,9-HxCDD	ND	pg/g	1.2	
HpCDDs (total)	ND	pg/g	2.6	
1,2,3,4,6,7,8-HpCDD	ND	pg/g	1.9	
OCDD	ND	pg/g	14	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Brett Bordelon Approved By: Mark Bechthold

The cover letter is an integral part of this report.
Rev 230787

Enseco
A Corning Company

POLYCHLORINATED DIOXINS/FURANS
ISOMER SPECIFIC ANALYSIS (CONT.)
Method 8290

Client Name: Burlington Environmental
Client ID: PLF-SBS-298
Lab ID: 068049-0002-SA
Matrix: SOIL Sampled: 04 FEB 93 Received: 09 FEB 93
Authorized: 09 FEB 93 Prepared: 23 FEB 93 Analyzed: 27 FEB 93

Sample Amount 2.0 G
Column Type DB-5

	% Recovery
13C-2,3,7,8-TCDF	88
13C-2,3,7,8-TCDD	90
13C-1,2,3,7,8-PeCDF	97
13C-1,2,3,7,8-PeCDD	80
13C-1,2,3,4,7,8-HxCDF	92
13C-1,2,3,6,7,8-HxCDD	94
13C-1,2,3,4,6,7,8-HpCDF	76
13C-1,2,3,4,6,7,8-HpCDD	81
13C-OCDD	64

Percent Moisture is 6.7%. All results and limits are reported on a dry weight basis.

ND = Not detected
NA = Not applicable

Reported By: Brett Bordelon Approved By: Mark Bechthold

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Rev 230787

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POLYCHLORINATED DIOXINS/FURANS
ISOMER SPECIFIC ANALYSIS
Method 8290

Client Name: Burlington Environmental
Client ID: Method Blank
Lab ID: 068049-0003-MB
Matrix: SOIL Sampled: NA Received: NA
Authorized: 09 FEB 93 Prepared: 26 FEB 93 Analyzed: 24 FEB 93

Sample Amount 2.0 G
Column Type DB-5

Parameter	Result	Units	Detection Limit	Data Qualifiers
Furans				
TCDFs (total)	ND	pg/g	1.1	
2,3,7,8-TCDF	ND	pg/g	0.31	
PeCDFs (total)	ND	pg/g	0.98	
1,2,3,7,8-PeCDF	ND	pg/g	0.73	
2,3,4,7,8-PeCDF	ND	pg/g	0.98	
HxCDFs (total)	ND	pg/g	3.1	
1,2,3,4,7,8-HxCDF	ND	pg/g	3.1	
1,2,3,6,7,8-HxCDF	ND	pg/g	0.63	
2,3,4,6,7,8-HxCDF	ND	pg/g	0.64	
1,2,3,7,8,9-HxCDF	ND	pg/g	0.70	
HpCDFs (total)	ND	pg/g	7.7	
1,2,3,4,6,7,8-HpCDF	ND	pg/g	7.7	
1,2,3,4,7,8,9-HpCDF	ND	pg/g	1.0	
OCDF	ND	pg/g	4.3	
Dioxins				
TCDDs (total)	ND	pg/g	1.1	
2,3,7,8-TCDD	ND	pg/g	1.1	
PeCDDs (total)	ND	pg/g	6.4	
1,2,3,7,8-PeCDD	ND	pg/g	0.79	
HxCDDs (total)	ND	pg/g	1.1	
1,2,3,4,7,8-HxCDD	ND	pg/g	0.90	
1,2,3,6,7,8-HxCDD	ND	pg/g	1.1	
1,2,3,7,8,9-HxCDD	ND	pg/g	0.94	
HpCDDs (total)	ND	pg/g	1.0	
1,2,3,4,6,7,8-HpCDD	ND	pg/g	1.0	
OCDD	ND	pg/g	4.6	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Andre Algazi Approved By: Mark Bechthold

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POLYCHLORINATED DIOXINS/FURANS
ISOMER SPECIFIC ANALYSIS
Method 8290

Client Name: Burlington Environmental
Client ID: PLF-SBS-299
Lab ID: 068049-0003-SA
Matrix: SOIL Sampled: 04 FEB 93 Received: 09 FEB 93
Authorized: 09 FEB 93 Prepared: 17 FEB 93 Analyzed: 24 FEB 93

Sample Amount 2.0 G
Column Type DB-5

Parameter	Result	Dry Weight Units	Detection Limit	Data Qualifiers
Furans				
TCDFs (total)	ND	pg/g	0.92	
2,3,7,8-TCDF	ND	pg/g	0.47	
PeCDFs (total)	ND	pg/g	1.2	
1,2,3,7,8-PeCDF	ND	pg/g	1.0	
2,3,4,7,8-PeCDF	ND	pg/g	1.2	
HxCDFs (total)	ND	pg/g	4.9	
1,2,3,4,7,8-HxCDF	ND	pg/g	4.9	
1,2,3,6,7,8-HxCDF	ND	pg/g	0.72	
2,3,4,6,7,8-HxCDF	ND	pg/g	0.69	
1,2,3,7,8,9-HxCDF	ND	pg/g	0.75	
HpCDFs (total)	ND	pg/g	11	
1,2,3,4,6,7,8-HpCDF	ND	pg/g	11	
1,2,3,4,7,8,9-HpCDF	ND	pg/g	0.98	
OCDF	ND	pg/g	5.1	
Dioxins				
TCDDs (total)	ND	pg/g	0.85	
2,3,7,8-TCDD	ND	pg/g	0.85	
PeCDDs (total)	ND	pg/g	6.8	
1,2,3,7,8-PeCDD	ND	pg/g	2.1	
HxCDDs (total)	ND	pg/g	1.7	
1,2,3,4,7,8-HxCDD	ND	pg/g	1.4	
1,2,3,6,7,8-HxCDD	ND	pg/g	1.7	
1,2,3,7,8,9-HxCDD	ND	pg/g	1.4	
HpCDDs (total)	ND	pg/g	2.9	
1,2,3,4,6,7,8-HpCDD	ND	pg/g	2.9	
OCDD	ND	pg/g	8.5	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Andre Algazi Approved By: Mark Bechthold

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POLYCHLORINATED DIOXINS/FURANS
ISOMER SPECIFIC ANALYSIS (CONT.)
Method 8290

Client Name: Burlington Environmental
Client ID: PLF-SBS-299
Lab ID: 068049-0003-SA
Matrix: SOIL Sampled: 04 FEB 93 Received: 09 FEB 93
Authorized: 09 FEB 93 Prepared: 17 FEB 93 Analyzed: 24 FEB 93

Sample Amount 2.0 G
Column Type DB-5

	% Recovery
13C-2,3,7,8-TCDF	113
13C-2,3,7,8-TCDD	99
13C-1,2,3,7,8-PeCDF	135
13C-1,2,3,7,8-PeCDD	84
13C-1,2,3,4,7,8-HxCDF	113
13C-1,2,3,6,7,8-HxCDD	109
13C-1,2,3,4,6,7,8-HpCDF	96
13C-1,2,3,4,6,7,8-HpCDD	87
13C-OCDD	74

Percent Moisture is 6.9%. All results and limits are reported on a dry weight basis.

ND = Not detected
NA = Not applicable

Reported By: Andre Algazi Approved By: Mark Bechthold

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POLYCHLORINATED DIOXINS/FURANS
ISOMER SPECIFIC ANALYSIS (CONT.)
Method 8290

Client Name: Burlington Environmental
Client ID: Method Blank
Lab ID: 068049-0003-MB
Matrix: SOIL
Authorized: 09 FEB 93

Sampled: NA
Prepared: 26 FEB 93

Received: NA
Analyzed: 24 FEB 93

Sample Amount 2.0 G
Column Type DB-5

	% Recovery
13C-2,3,7,8-TCDF	107
13C-2,3,7,8-TCDD	111
13C-1,2,3,7,8-PeCDF	123
13C-1,2,3,7,8-PeCDD	80
13C-1,2,3,4,7,8-HxCDF	127
13C-1,2,3,6,7,8-HxCDD	133
13C-1,2,3,4,6,7,8-HpCDF	112
13C-1,2,3,4,6,7,8-HpCDD	109
13C-OCDD	80

ND = Not detected
NA = Not applicable

Reported By: Andre Algazi

Approved By: Mark Bechthold

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POLYCHLORINATED DIOXINS/FURANS
ISOMER SPECIFIC ANALYSIS
Method 8290

Client Name: Burlington Environmental
Client ID: PLF-SBS-300
Lab ID: 068049-0004-SA
Matrix: SOIL Sampled: 04 FEB 93 Received: 09 FEB 93
Authorized: 09 FEB 93 Prepared: 17 FEB 93 Analyzed: 24 FEB 93

Sample Amount 2.0 G
Column Type DB-5

Parameter	Result	Dry Weight Units	Detection Limit	Data Qualifiers
Furans				
TCDFs (total)	ND	pg/g	1.1	
2,3,7,8-TCDF	ND	pg/g	0.41	
PeCDFs (total)	ND	pg/g	1.1	
1,2,3,7,8-PeCDF	ND	pg/g	0.77	
2,3,4,7,8-PeCDF	ND	pg/g	0.56	
HxCDFs (total)	ND	pg/g	4.1	
1,2,3,4,7,8-HxCDF	ND	pg/g	4.1	
1,2,3,6,7,8-HxCDF	ND	pg/g	0.48	
2,3,4,6,7,8-HxCDF	ND	pg/g	0.49	
1,2,3,7,8,9-HxCDF	ND	pg/g	0.53	
HpCDFs (total)	ND	pg/g	9.7	
1,2,3,4,6,7,8-HpCDF	ND	pg/g	9.7	
1,2,3,4,7,8,9-HpCDF	ND	pg/g	1.3	
OCDF	ND	pg/g	4.3	
Dioxins				
TCDDs (total)	ND	pg/g	0.77	
2,3,7,8-TCDD	ND	pg/g	0.77	
PeCDDs (total)	ND	pg/g	7.5	
1,2,3,7,8-PeCDD	ND	pg/g	1.3	
HxCDDs (total)	ND	pg/g	0.64	
1,2,3,4,7,8-HxCDD	ND	pg/g	0.52	
1,2,3,6,7,8-HxCDD	ND	pg/g	0.64	
1,2,3,7,8,9-HxCDD	ND	pg/g	0.55	
HpCDDs (total)	ND	pg/g	3.6	
1,2,3,4,6,7,8-HpCDD	ND	pg/g	1.4	
OCDD	ND	pg/g	3.8	

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ND = Not detected
NA = Not applicable

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POLYCHLORINATED DIOXINS/FURANS
ISOMER SPECIFIC ANALYSIS (CONT.)
Method 8290

Client Name: Burlington Environmental
Client ID: PLF-SBS-300
Lab ID: 068049-0004-SA
Matrix: SOIL
Authorized: 09 FEB 93

Sampled: 04 FEB 93
Prepared: 17 FEB 93

Received: 09 FEB 93
Analyzed: 24 FEB 93

Sample Amount 2.0 G
Column Type DB-5

	% Recovery
13C-2,3,7,8-TCDF	112
13C-2,3,7,8-TCDD	114
13C-1,2,3,7,8-PeCDF	133
13C-1,2,3,7,8-PeCDD	90
13C-1,2,3,4,7,8-HxCDF	109
13C-1,2,3,6,7,8-HxCDD	100
13C-1,2,3,4,6,7,8-HpCDF	91
13C-1,2,3,4,6,7,8-HpCDD	88
13C-OCDD	71

Percent Moisture is 3.2%. All results and limits are reported on a dry weight basis.

ND = Not detected
NA = Not applicable

Reported By: Mike Flournoy

Approved By: Mark Bechthold

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POLYCHLORINATED DIOXINS/FURANS
ISOMER SPECIFIC ANALYSIS
Method 8290

Client Name: Burlington Environmental
Client ID: PLF-SBS-301
Lab ID: 068049-0005-SA
Matrix: SOIL Sampled: 04 FEB 93 Received: 09 FEB 93
Authorized: 09 FEB 93 Prepared: 17 FEB 93 Analyzed: 24 FEB 93

Sample Amount 2.0 G
Column Type DB-5

Parameter	Result	Dry Weight Units	Detection Limit	Data Qualifiers
Furans				
TCDFs (total)	ND	pg/g	1.2	
2,3,7,8-TCDF	ND	pg/g	0.39	
PeCDFs (total)	ND	pg/g	1.1	
1,2,3,7,8-PeCDF	ND	pg/g	0.53	
2,3,4,7,8-PeCDF	ND	pg/g	0.45	
HxCDFs (total)	ND	pg/g	3.8	
1,2,3,4,7,8-HxCDF	ND	pg/g	3.8	
1,2,3,6,7,8-HxCDF	ND	pg/g	0.67	
2,3,4,6,7,8-HxCDF	ND	pg/g	0.41	
1,2,3,7,8,9-HxCDF	ND	pg/g	0.45	
HpCDFs (total)	ND	pg/g	9.9	
1,2,3,4,6,7,8-HpCDF	ND	pg/g	9.9	
1,2,3,4,7,8,9-HpCDF	ND	pg/g	1.4	
OCDF	ND	pg/g	4.7	
Dioxins				
TCDDs (total)	ND	pg/g	1.2	
2,3,7,8-TCDD	ND	pg/g	1.2	
PeCDDs (total)	ND	pg/g	8.8	
1,2,3,7,8-PeCDD	ND	pg/g	1.1	
HxCDDs (total)	ND	pg/g	0.97	
1,2,3,4,7,8-HxCDD	ND	pg/g	0.63	
1,2,3,6,7,8-HxCDD	ND	pg/g	0.78	
1,2,3,7,8,9-HxCDD	ND	pg/g	0.66	
HpCDDs (total)	ND	pg/g	2.9	
1,2,3,4,6,7,8-HpCDD	ND	pg/g	0.95	
OCDD	ND	pg/g	3.6	

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ND = Not detected
NA = Not applicable

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POLYCHLORINATED DIOXINS/FURANS
ISOMER SPECIFIC ANALYSIS (CONT.)
Method 8290

Client Name: Burlington Environmental
Client ID: PLF-SBS-301
Lab ID: 068049-0005-SA
Matrix: SOIL Sampled: 04 FEB 93 Received: 09 FEB 93
Authorized: 09 FEB 93 Prepared: 17 FEB 93 Analyzed: 24 FEB 93

Sample Amount 2.0 G
Column Type DB-5

	% Recovery
13C-2,3,7,8-TCDF	108
13C-2,3,7,8-TCDD	104
13C-1,2,3,7,8-PeCDF	134
13C-1,2,3,7,8-PeCDD	89
13C-1,2,3,4,7,8-HxCDF	112
13C-1,2,3,6,7,8-HxCDD	122
13C-1,2,3,4,6,7,8-HpCDF	103
13C-1,2,3,4,6,7,8-HpCDD	98
13C-OCDD	84

Percent Moisture is 3.4%. All results and limits are reported on a dry weight basis.

ND = Not detected
NA = Not applicable

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POLYCHLORINATED DIOXINS/FURANS
ISOMER SPECIFIC ANALYSIS
Method 8290

Client Name: Burlington Environmental
Client ID: PLF-SBS-302
Lab ID: 068049-0006-SA
Matrix: SOIL Sampled: 04 FEB 93 Received: 09 FEB 93
Authorized: 09 FEB 93 Prepared: 23 FEB 93 Analyzed: 27 FEB 93

Sample Amount 2.0 G
Column Type DB-5

Parameter	Result	Dry Weight Units	Detection Limit	Data Qualifiers
Furans				
TCDFs (total)	2.7	pg/g	--	
2,3,7,8-TCDF	ND	pg/g	0.84	
PeCDFs (total)	16	pg/g	--	
1,2,3,7,8-PeCDF	ND	pg/g	1.8	
2,3,4,7,8-PeCDF	ND	pg/g	2.3	
HxCDFs (total)	ND	pg/g	13	
1,2,3,4,7,8-HxCDF	ND	pg/g	13	
1,2,3,6,7,8-HxCDF	ND	pg/g	1.4	
2,3,4,6,7,8-HxCDF	ND	pg/g	2.5	
1,2,3,7,8,9-HxCDF	ND	pg/g	2.1	
HpCDFs (total)	110	pg/g	--	
1,2,3,4,6,7,8-HpCDF	47	pg/g	--	
1,2,3,4,7,8,9-HpCDF	ND	pg/g	10	
OCDF	2600	pg/g	--	
Dioxins				
TCDDs (total)	ND	pg/g	1.6	
2,3,7,8-TCDD	ND	pg/g	1.6	
PeCDDs (total)	ND	pg/g	7.9	
1,2,3,7,8-PeCDD	ND	pg/g	2.2	
HxCDDs (total)	ND	pg/g	1.9	
1,2,3,4,7,8-HxCDD	ND	pg/g	1.6	
1,2,3,6,7,8-HxCDD	ND	pg/g	1.9	
1,2,3,7,8,9-HxCDD	ND	pg/g	1.7	
HpCDDs (total)	ND	pg/g	8.5	
1,2,3,4,6,7,8-HpCDD	ND	pg/g	4.8	
OCDD	53	pg/g	--	

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ND = Not detected
NA = Not applicable

Reported By: Adrian Messecar Approved By: Mark Bechthold

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POLYCHLORINATED DIOXINS/FURANS
ISOMER SPECIFIC ANALYSIS (CONT.)
Method 8290

Client Name: Burlington Environmental
Client ID: PLF-SBS-302
Lab ID: 068049-0006-SA
Matrix: SOIL Sampled: 04 FEB 93 Received: 09 FEB 93
Authorized: 09 FEB 93 Prepared: 23 FEB 93 Analyzed: 27 FEB 93

Sample Amount 2.0 G
Column Type DB-5

	% Recovery
13C-2,3,7,8-TCDF	84
13C-2,3,7,8-TCDD	89
13C-1,2,3,7,8-PeCDF	93
13C-1,2,3,7,8-PeCDD	76
13C-1,2,3,4,7,8-HxCDF	98
13C-1,2,3,6,7,8-HxCDD	99
13C-1,2,3,4,6,7,8-HpCDF	80
13C-1,2,3,4,6,7,8-HpCDD	86
13C-OCDD	72

Percent Moisture is 7.9%. All results and limits are reported on a dry weight basis.

ND = Not detected
NA = Not applicable

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POLYCHLORINATED DIOXINS/FURANS
ISOMER SPECIFIC ANALYSIS
Method 8290

Client Name: Burlington Environmental
Client ID: PLF-SBS-303
Lab ID: 068049-0007-SA
Matrix: SOIL Sampled: 04 FEB 93 Received: 09 FEB 93
Authorized: 09 FEB 93 Prepared: 23 FEB 93 Analyzed: 27 FEB 93

Sample Amount 2.0 G
Column Type DB-5

Parameter	Result	Dry Weight Units	Detection Limit	Data Qualifiers
Furans				
TCDFs (total)	ND	pg/g	1.5	
2,3,7,8-TCDF	ND	pg/g	1.5	
PeCDFs (total)	ND	pg/g	1.4	
1,2,3,7,8-PeCDF	ND	pg/g	1.1	
2,3,4,7,8-PeCDF	ND	pg/g	1.4	
HxCDFs (total)	ND	pg/g	0.96	
1,2,3,4,7,8-HxCDF	ND	pg/g	0.87	
1,2,3,6,7,8-HxCDF	ND	pg/g	0.86	
2,3,4,6,7,8-HxCDF	ND	pg/g	0.88	
1,2,3,7,8,9-HxCDF	ND	pg/g	0.96	
HpCDFs (total)	ND	pg/g	1.2	
1,2,3,4,6,7,8-HpCDF	ND	pg/g	1.0	
1,2,3,4,7,8,9-HpCDF	ND	pg/g	1.1	
OCDF	ND	pg/g	3.4	
Dioxins				
TCDDs (total)	ND	pg/g	1.3	
2,3,7,8-TCDD	ND	pg/g	1.3	
PeCDDs (total)	ND	pg/g	8.1	
1,2,3,7,8-PeCDD	ND	pg/g	1.3	
HxCDDs (total)	ND	pg/g	1.4	
1,2,3,4,7,8-HxCDD	ND	pg/g	1.1	
1,2,3,6,7,8-HxCDD	ND	pg/g	1.4	
1,2,3,7,8,9-HxCDD	ND	pg/g	1.2	
HpCDDs (total)	ND	pg/g	8.6	
1,2,3,4,6,7,8-HpCDD	ND	pg/g	3.4	
OCDD	33	pg/g	--	@

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ND = Not detected
NA = Not applicable

Reported By: Saleh Arghestani Approved By: Mark Bechthold

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POLYCHLORINATED DIOXINS/FURANS
ISOMER SPECIFIC ANALYSIS (CONT.)
Method 8290

Client Name: Burlington Environmental
Client ID: PLF-SBS-303
Lab ID: 068049-0007-SA
Matrix: SOIL Sampled: 04 FEB 93 Received: 09 FEB 93
Authorized: 09 FEB 93 Prepared: 23 FEB 93 Analyzed: 27 FEB 93

Sample Amount 2.0 G
Column Type DB-5

	% Recovery
13C-2,3,7,8-TCDF	75
13C-2,3,7,8-TCDD	86
13C-1,2,3,7,8-PeCDF	93
13C-1,2,3,7,8-PeCDD	78
13C-1,2,3,4,7,8-HxCDF	90
13C-1,2,3,6,7,8-HxCDD	98
13C-1,2,3,4,6,7,8-HpCDF	85
13C-1,2,3,4,6,7,8-HpCDD	92
13C-OCDD	78

Percent Moisture is 11.3%. All results and limits are reported on a dry weight basis.

Note @ : Result is an estimated value that is below the lower calibration limit but above the target detection limit.

ND = Not detected
NA = Not applicable

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POLYCHLORINATED DIOXINS/FURANS
ISOMER SPECIFIC ANALYSIS
Method 8290

Client Name: Burlington Environmental
Client ID: PLF-SBS-304
Lab ID: 068049-0008-SA
Matrix: SOIL Sampled: 04 FEB 93 Received: 09 FEB 93
Authorized: 09 FEB 93 Prepared: 23 FEB 93 Analyzed: 27 FEB 93

Sample Amount 2.0 G
Column Type DB-5

Parameter	Result	Dry Weight Units	Detection Limit	Data Qualifiers
Furans				
TCDFs (total)	ND	pg/g	0.75	
2,3,7,8-TCDF	ND	pg/g	0.49	
PeCDFs (total)	ND	pg/g	1.0	
1,2,3,7,8-PeCDF	ND	pg/g	0.79	
2,3,4,7,8-PeCDF	ND	pg/g	1.0	
HxCDFs (total)	ND	pg/g	0.59	
1,2,3,4,7,8-HxCDF	ND	pg/g	0.52	
1,2,3,6,7,8-HxCDF	ND	pg/g	0.52	
2,3,4,6,7,8-HxCDF	ND	pg/g	0.53	
1,2,3,7,8,9-HxCDF	ND	pg/g	0.59	
HpCDFs (total)	ND	pg/g	1.9	
1,2,3,4,6,7,8-HpCDF	ND	pg/g	1.6	
1,2,3,4,7,8,9-HpCDF	ND	pg/g	1.9	
OCDF	59	pg/g	--	
Dioxins				
TCDDs (total)	ND	pg/g	0.72	
2,3,7,8-TCDD	ND	pg/g	0.72	
PeCDDs (total)	ND	pg/g	6.3	
1,2,3,7,8-PeCDD	ND	pg/g	0.96	
HxCDDs (total)	ND	pg/g	1.0	
1,2,3,4,7,8-HxCDD	ND	pg/g	0.85	
1,2,3,6,7,8-HxCDD	ND	pg/g	1.0	
1,2,3,7,8,9-HxCDD	ND	pg/g	0.89	
HpCDDs (total)	ND	pg/g	2.9	
1,2,3,4,6,7,8-HpCDD	ND	pg/g	2.2	
OCDD	ND	pg/g	13	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Brett Bordelon Approved By: Mark Bechthold

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Enseco
A Corning Company

POLYCHLORINATED DIOXINS/FURANS
ISOMER SPECIFIC ANALYSIS (CONT.)
Method 8290

Client Name: Burlington Environmental
Client ID: PLF-SBS-304
Lab ID: 068049-0008-SA
Matrix: SOIL Sampled: 04 FEB 93 Received: 09 FEB 93
Authorized: 09 FEB 93 Prepared: 23 FEB 93 Analyzed: 27 FEB 93

Sample Amount 2.0 G
Column Type DB-5

	% Recovery
13C-2,3,7,8-TCDF	87
13C-2,3,7,8-TCDD	98
13C-1,2,3,7,8-PeCDF	101
13C-1,2,3,7,8-PeCDD	83
13C-1,2,3,4,7,8-HxCDF	98
13C-1,2,3,6,7,8-HxCDD	109
13C-1,2,3,4,6,7,8-HpCDF	90
13C-1,2,3,4,6,7,8-HpCDD	100
13C-OCDD	83

Percent Moisture is 6.1%. All results and limits are reported on a dry weight basis.

ND = Not detected
NA = Not applicable

Reported By: Brett Bordelon Approved By: Mark Bechthold

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POLYCHLORINATED DIOXINS/FURANS
ISOMER SPECIFIC ANALYSIS
Method 8290

Client Name: Burlington Environmental
Client ID: PLF-SBS-305
Lab ID: 068049-0009-SA
Matrix: SOIL Sampled: 04 FEB 93 Received: 09 FEB 93
Authorized: 09 FEB 93 Prepared: 23 FEB 93 Analyzed: 27 FEB 93

Sample Amount 2.0 G
Column Type DB-5

Parameter	Result	Dry Weight Units	Detection Limit	Data Qualifiers
Furans				
TCDFs (total)	ND	pg/g	1.0	
2,3,7,8-TCDF	ND	pg/g	1.0	
PeCDFs (total)	ND	pg/g	1.7	
1,2,3,7,8-PeCDF	ND	pg/g	1.3	
2,3,4,7,8-PeCDF	ND	pg/g	1.7	
HxCDFs (total)	ND	pg/g	1.7	
1,2,3,4,7,8-HxCDF	ND	pg/g	1.6	
1,2,3,6,7,8-HxCDF	ND	pg/g	1.5	
2,3,4,6,7,8-HxCDF	ND	pg/g	1.6	
1,2,3,7,8,9-HxCDF	ND	pg/g	1.7	
HpCDFs (total)	ND	pg/g	0.78	
1,2,3,4,6,7,8-HpCDF	ND	pg/g	0.59	
1,2,3,4,7,8,9-HpCDF	ND	pg/g	0.78	
OCDF	ND	pg/g	3.1	
Dioxins				
TCDDs (total)	ND	pg/g	1.1	
2,3,7,8-TCDD	ND	pg/g	1.1	
PeCDDs (total)	ND	pg/g	7.6	
1,2,3,7,8-PeCDD	ND	pg/g	1.4	
HxCDDs (total)	ND	pg/g	1.7	
1,2,3,4,7,8-HxCDD	ND	pg/g	1.4	
1,2,3,6,7,8-HxCDD	ND	pg/g	1.7	
1,2,3,7,8,9-HxCDD	ND	pg/g	1.5	
HpCDDs (total)	ND	pg/g	1.6	
1,2,3,4,6,7,8-HpCDD	ND	pg/g	0.70	
OCDD	ND	pg/g	9.1	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Brett Bordelon Approved By: Mark Bechthold

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POLYCHLORINATED DIOXINS/FURANS
ISOMER SPECIFIC ANALYSIS (CONT.)
Method 8290

Client Name: Burlington Environmental
Client ID: PLF-SBS-305
Lab ID: 068049-0009-SA
Matrix: SOIL Sampled: 04 FEB 93 Received: 09 FEB 93
Authorized: 09 FEB 93 Prepared: 23 FEB 93 Analyzed: 27 FEB 93

Sample Amount 2.0 G
Column Type DB-5

	% Recovery
13C-2,3,7,8-TCDF	75
13C-2,3,7,8-TCDD	87
13C-1,2,3,7,8-PeCDF	90
13C-1,2,3,7,8-PeCDD	73
13C-1,2,3,4,7,8-HxCDF	88
13C-1,2,3,6,7,8-HxCDD	106
13C-1,2,3,4,6,7,8-HpCDF	86
13C-1,2,3,4,6,7,8-HpCDD	89
13C-OCDD	71

Percent Moisture is 4.0%. All results and limits are reported on a dry weight basis.

ND = Not detected
NA = Not applicable

Reported By: Brett Bordelon Approved By: Mark Bechthold

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BURLINGTON ENVIRONMENTAL

210 West Sand Bank Road
P.O. Box 330
Columbia, IL 62236-0330
618/281-7173
618/281-5120 FAX

CHAIN-OF-CUSTODY RECORD

C.O.C. SERIAL NO. 5330

PROJECT NAME: PASCO LF
PROJECT NUMBER: 624419 MAJOR TASK: 7020.16
SAMPLERS: LOU LAROSA
LAB DESTINATION: ENSECO-CALIFORNIA ANALYTICAL LABORATORIES

SAMPLE NO.	DATE	TIME	COMP	GRAB	SAMPLE LOCATION	NO. OF CONTAINERS	TYPE OF ANALYSIS: DIOXIN							PRESERVATIVES: ICED	PRESERVATIVES: CHEMICALS ADDED	REMARKS (CHEMICAL ANALYSIS REQUEST FORM NUMBER IF APPLICABLE)
PLF-SBS-297	2-4-93	1145		X	SOIL	1	✓							X	N/A	
PLF-SBS-298		1205				1	✓									
PLF-SBS-299		1350				1	✓									
PLF-SBS-300		1420				1	✓									
PLF-SBS-301		1430				1	✓									
PLF-SBS-302		1610				1	✓									
PLF-SBS-303		1620				1	✓									
PLF-SBS-304		1630				1	✓									
PLF-SBS-305		1645				1	✓									

RELINQUISHED BY: SIGNATURE	DATE	TIME	RECEIVED BY: SIGNATURE	DATE	TIME
[signature]	2/8/93	1600	SHIP VIA FEDEX	2/8/93	1600
~~Tom L D~~ (ENSECO) TLD 2/9/93	2/9/93	0855	Tom L D (ENSECO)	2/9/93	0855

SHIPPING NOTES

LAB NOTES

BE-34 (1/92)

California Analytical
Laboratory

RECEIVED

MAR 1 5 1993

Burlington Environmental Inc.
Technical Services

March 8, 1993
Lab ID: 068049

Enseco
A Corning Company

Ted Wall
Burlington Environmental
7440 West Marginal Way South
Seattle, WA 98101

Dear Mr. Wall

Enclosed are the re-extraction results for the Method 8290 matrix spike and matrix spike duplicate analysis of your soil sample, PLF-SBS-299, received at Enseco Cal Lab on 09 February 1993 under chain-of-custody.

Please note that your samples were re-extracted because they were spiked with inappropriate standards in the original extraction preparation.

Detection limits are reported on a sample specific basis and all results are recovery corrected per the isotope dilution technique for dioxin/furan analyses. The method blank is a laboratory-generated sample which assesses the degree to which laboratory operations and procedures cause false-positive analytical results for your samples.

All solid and waste samples are reported on an "as received" basis, i.e., no correction is made for moisture content, unless the method requires or the client requests that such correction be made.

Results are on the attached data sheets.

If you have any questions, please feel free to call.

Sincerely,

Eric W. Redman
Senior Scientist
Advanced Technology Group

Kathleen A. Gill
Program Administrator

ne

Enseco - CAL
2544 Industrial Blvd.
West Sacramento, CA 95691-3435
(916) 372-1393
FAX: (916) 372-7768

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A Corning Company

MATRIX SPECIFIC QC
ASSIGNMENT REPORT
Special Services - High Resolution Mass Spectrometry

QC SAMPLE TYPE	TEST	LABORATORY SAMPLE NUMBER	QC LOT
MATRIX SPIKE DUPLICATE	ISODXNFUR-HR-S	068049-0003-SD	13 JAN 93-A
MATRIX SPIKE	ISODXNFUR-HR-S	068049-0003-MS	13 JAN 93-A

Enseco
A Corning Company

MATRIX SPIKE / MATRIX SPIKE DUPLICATE REPORT
Special Services - High Resolution Mass Spectrometry

Analyte	Sample	Concentration Matrix Spike	Matrix Spike Dup	Spiked MS	MSD	%Recovery MS	MSD	% RPD
Test: ISODXNFUR-HR-S								
Matrix SOIL								
Sample: 068049-0003								
Units: pg/g								
2,3,7,8-TCDF	ND	230	230	210	210	106	108	2
1,2,3,7,8-PeCDF	ND	550	570	540	540	103	106	3
2,3,4,7,8-PeCDF	ND	580	570	540	540	109	106	2
1,2,3,4,7,8-HxCDF	ND	600	620	540	540	112	115	3
1,2,3,6,7,8-HxCDF	ND	580	590	540	540	108	110	2
2,3,4,6,7,8-HxCDF	ND	600	640	540	540	111	120	7
1,2,3,7,8,9-HxCDF	ND	630	690	540	540	118	129	9
1,2,3,4,6,7,8-HpCDF	ND	570	590	540	540	106	110	4
1,2,3,4,7,8,9-HpCDF	ND	600	660	540	540	112	123	9
OCDF	ND	1300	1400	1100	1100	123	132	7
2,3,7,8-TCDD	ND	200	210	210	210	92	96	4
1,2,3,7,8-PeCDD	ND	510	540	540	540	96	100	4
1,2,3,4,7,8-HxCDD	ND	490	500	540	540	91	94	3
1,2,3,6,7,8-HxCDD	ND	560	590	540	540	105	109	4
1,2,3,7,8,9-HxCDD	ND	460	540	540	540	86	100	15
1,2,3,4,6,7,8-HpCDD	ND	560	570	540	540	104	106	2
OCDD	ND	1100	1100	1100	1100	105	107	2

ND = Not detected.
NC = Not calculated, calculation not applicable.

All results and spike amounts are reported on a dry weight basis.

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

Enseco
A Corning Company

Percent Water

Method CLP Method

Client Name: Burlington Environmental
Matrix: SOIL Received: 09 FEB 93
Units: % Authorized: 09 FEB 93

Lab ID	Client ID	Result	Reporting Limit	Date Prepared	Date Analyzed
068049-0003-MS	PLF-SBS-299	6.9	0.10	NA	03 MAR 93
068049-0003-SA	PLF-SBS-299	6.9	0.10	NA	26 FEB 93
068049-0003-SD	PLF-SBS-299	6.9	0.10	NA	03 MAR 93

ND = Not detected
NA = Not applicable

Reported By: Clark Pickell Approved By: Maricon Estrada

The cover letter is an integral part of this report.
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Enseco
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POLYCHLORINATED DIOXINS/FURANS
ISOMER SPECIFIC ANALYSIS
Method 8290

Client Name: Burlington Environmental
Client ID: PLF-SBS-299
Lab ID: 068049-0003-SA
Matrix: SOIL Sampled: 04 FEB 93 Received: 09 FEB 93
Authorized: 09 FEB 93 Prepared: 17 FEB 93 Analyzed: 24 FEB 93

Sample Amount 2.0 G
Column Type DB-5

Parameter	Result	Dry Weight Units	Detection Limit	Data Qualifiers
Furans				
TCDFs (total)	ND	pg/g	0.92	
2,3,7,8-TCDF	ND	pg/g	0.47	
PeCDFs (total)	ND	pg/g	1.2	
1,2,3,7,8-PeCDF	ND	pg/g	1.0	
2,3,4,7,8-PeCDF	ND	pg/g	1.2	
HxCDFs (total)	ND	pg/g	4.9	
1,2,3,4,7,8-HxCDF	ND	pg/g	4.9	
1,2,3,6,7,8-HxCDF	ND	pg/g	0.72	
2,3,4,6,7,8-HxCDF	ND	pg/g	0.69	
1,2,3,7,8,9-HxCDF	ND	pg/g	0.75	
HpCDFs (total)	ND	pg/g	11	
1,2,3,4,6,7,8-HpCDF	ND	pg/g	11	
1,2,3,4,7,8,9-HpCDF	ND	pg/g	0.98	
OCDF	ND	pg/g	5.1	
Dioxins				
TCDDs (total)	ND	pg/g	0.85	
2,3,7,8-TCDD	ND	pg/g	0.85	
PeCDDs (total)	ND	pg/g	6.8	
1,2,3,7,8-PeCDD	ND	pg/g	2.1	
HxCDDs (total)	ND	pg/g	1.7	
1,2,3,4,7,8-HxCDD	ND	pg/g	1.4	
1,2,3,6,7,8-HxCDD	ND	pg/g	1.7	
1,2,3,7,8,9-HxCDD	ND	pg/g	1.4	
HpCDDs (total)	ND	pg/g	2.9	
1,2,3,4,6,7,8-HpCDD	ND	pg/g	2.9	
OCDD	ND	pg/g	8.5	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Andre Algazi Approved By: Mark Bechthold

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POLYCHLORINATED DIOXINS/FURANS
ISOMER SPECIFIC ANALYSIS (CONT.)
Method 8290

Client Name: Burlington Environmental
Client ID: PLF-SBS-299
Lab ID: 068049-0003-SA
Matrix: SOIL Sampled: 04 FEB 93 Received: 09 FEB 93
Authorized: 09 FEB 93 Prepared: 17 FEB 93 Analyzed: 24 FEB 93

Sample Amount 2.0 G
Column Type DB-5

	% Recovery
13C-2,3,7,8-TCDF	113
13C-2,3,7,8-TCDD	99
13C-1,2,3,7,8-PeCDF	135
13C-1,2,3,7,8-PeCDD	84
13C-1,2,3,4,7,8-HxCDF	113
13C-1,2,3,6,7,8-HxCDD	109
13C-1,2,3,4,6,7,8-HpCDF	96
13C-1,2,3,4,6,7,8-HpCDD	87
13C-OCDD	74

Percent Moisture is 6.9%. All results and limits are reported on a dry weight basis.

ND = Not detected
NA = Not applicable

Reported By: Andre Algazi Approved By: Mark Bechthold

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A Corning Company

POLYCHLORINATED DIOXINS/FURANS
ISOMER SPECIFIC ANALYSIS
Method 8290

Client Name: Burlington Environmental
Client ID: Method Blank
Lab ID: 068049-0003-MBRX
Matrix: SOIL Sampled: NA Received: NA
Authorized: 09 FEB 93 Prepared: 03 MAR 93 Analyzed: 05 MAR 93

Column Type: DB-5
Sample Amount: 10.0 g

Parameter	Result	Units	Detection Limit
Furans			
TCDFs (total)	ND	pg/g	0.16
2,3,7,8-TCDF	ND	pg/g	0.16
PeCDFs (total)	ND	pg/g	0.46
1,2,3,7,8-PeCDF	ND	pg/g	0.34
2,3,4,7,8-PeCDF	ND	pg/g	0.46
HxCDFs (total)	ND	pg/g	0.16
1,2,3,4,7,8-HxCDF	ND	pg/g	0.14
1,2,3,6,7,8-HxCDF	ND	pg/g	0.14
2,3,4,6,7,8-HxCDF	ND	pg/g	0.15
1,2,3,7,8,9-HxCDF	ND	pg/g	0.16
HpCDFs (total)	ND	pg/g	0.15
1,2,3,4,6,7,8-HpCDF	ND	pg/g	0.11
1,2,3,4,7,8,9-HpCDF	ND	pg/g	0.15
OCDF	ND	pg/g	0.56
Dioxins			
TCDDs (total)	ND	pg/g	0.28
2,3,7,8-TCDD	ND	pg/g	0.28
PeCDDs (total)	ND	pg/g	1.5
1,2,3,7,8-PeCDD	ND	pg/g	0.60
HxCDDs (total)	ND	pg/g	0.31
1,2,3,4,7,8-HxCDD	ND	pg/g	0.25
1,2,3,6,7,8-HxCDD	ND	pg/g	0.31
1,2,3,7,8,9-HxCDD	ND	pg/g	0.26
HpCDDs (total)	ND	pg/g	0.29
1,2,3,4,6,7,8-HpCDD	ND	pg/g	0.29
OCDD	ND	pg/g	0.47

(continued on following page)

ND = Not Detected
NA = Not Applicable

Reported by: Saleh Arghestani Approved by: Maricon Estrada

The cover letter is an integral part of this report.

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POLYCHLORINATED DIOXINS/FURANS
ISOMER SPECIFIC ANALYSIS (CONT.)
Method 8290

Client Name: Burlington Environmental
Client ID: Method Blank
Lab ID: 068049-0003-MBRX
Matrix: SOIL Sampled: NA Received: NA
Authorized: 09 FEB 93 Prepared: 03 MAR 93 Analyzed: 05 MAR 93

Percent Moisture: NA
Column Type: DB-5
Sample Amount: 10.0 g

	% Recovery
13C-2,3,7,8-TCDF	99
13C-2,3,7,8-TCDD	100
13C-1,2,3,7,8-PeCDF	97
13C-1,2,3,7,8-PeCDD	89
13C-1,2,3,4,7,8-HxCDF	102
13C-1,2,3,6,7,8-HxCDD	115
13C-1,2,3,4,6,7,8-HpCDF	108
13C-1,2,3,4,6,7,8-HpCDD	112
13C-OCDD	101

ND = Not Detected
NA = Not Applicable

Reported by: Saleh Arghestani Approved by: Maricon Estrada

The cover letter is an integral part of this report.

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A Corning Company

POLYCHLORINATED DIOXINS/FURANS
QUALITY CONTROL SUMMARY
Method 8290

Client Name: Burlington Environmental
Client ID: PLF-SBS-299 Matrix Spike
Lab ID: 068049-0003-MS
Matrix: SOIL Sampled: 04 FEB 93 Received: 09 FEB 93
Authorized: 09 FEB 93 Prepared: 03 MAR 93 Analyzed: 05 MAR 93

Sample Amount: 2.0 G
Column Type: DB-5

Parameters	pg/g Found in Sample	pg/g Spiked	pg/g Found in MS Sample	% Recovery (*)
Furans				
2,3,7,8-TCDF	ND	210	230	106
1,2,3,7,8-PeCDF	ND	540	550	103
2,3,4,7,8-PeCDF	ND	540	580	109
1,2,3,4,7,8-HxCDF	ND	540	600	112
1,2,3,6,7,8-HxCDF	ND	540	580	108
2,3,4,6,7,8-HxCDF	ND	540	600	111
1,2,3,7,8,9-HxCDF	ND	540	630	118
1,2,3,4,6,7,8-HpCDF	ND	540	570	106
1,2,3,4,7,8,9-HpCDF	ND	540	600	112
OCDF	ND	1100	1300	123
Dioxins				
2,3,7,8-TCDD	ND	215	200	92
1,2,3,7,8-PeCDD	ND	540	510	96
1,2,3,4,7,8-HxCDD	ND	540	490	91
1,2,3,6,7,8-HxCDD	ND	540	560	105
1,2,3,7,8,9-HxCDD	ND	540	460	86
1,2,3,4,6,7,8-HpCDD	ND	540	560	104
OCDD	ND	1100	1100	105

(continued on following page)

(*)= Recoveries calculated before rounding results.
ND = Not Detected
NA = Not Applicable

Reported by: Saleh Arghestani Approved by: Maricon Estrada

The cover letter is an integral part of this report.

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A Corning Company

~~POLYCHLORINATED DIOXINS/FURANS~~
ISOMER SPECIFIC ANALYSIS (CONT.)
Method 8290

Client Name: Burlington Environmental
Client ID: PLF-SBS-299
Lab ID: 068049-0003-MS
Matrix: SOIL
Authorized: 09 FEB 93

Sampled: 04 FEB 93
Prepared: 03 MAR 93

Received: 09 FEB 93
Analyzed: 05 MAR 93

	% Recovery
13C-2,3,7,8-TCDF	85
13C-2,3,7,8-TCDD	92
13C-1,2,3,7,8-PeCDF	86
13C-1,2,3,7,8-PeCDD	81
13C-1,2,3,4,7,8-HxCDF	101
13C-1,2,3,6,7,8-HxCDD	108
13C-1,2,3,4,6,7,8-HpCDF	111
13C-1,2,3,4,6,7,8-HpCDD	110
13C-OCDD	93

Percent Moisture is 6.9%. All results and limits are reported on a dry weight basis.

ND = Not detected
NA = Not applicable

Reported By: Saleh Arghestani

Approved By: Maricon Estrada

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A Corning Company

POLYCHLORINATED DIOXINS/FURANS
QUALITY CONTROL SUMMARY
Method 8290

Client Name: Burlington Environmental
Client ID: PLF-SBS-299 Matrix Spike Duplicate
Lab ID: 068049-0003-SD
Matrix: SOIL Sampled: 04 FEB 93 Received: 09 FEB 93
Authorized: 09 FEB 93 Prepared: 03 MAR 93 Analyzed: 05 MAR 93

Sample Amount: 2.0 G
Column Type: DB-5

Parameters	pg/g Found in Sample	pg/g Spiked	pg/g Found in MS Sample	% Recovery (*)
Furans				
2,3,7,8-TCDF	ND	210	230	108
1,2,3,7,8-PeCDF	ND	540	570	106
2,3,4,7,8-PeCDF	ND	540	570	106
1,2,3,4,7,8-HxCDF	ND	540	620	115
1,2,3,6,7,8-HxCDF	ND	540	590	110
1,2,3,7,8,9-HxCDF	ND	540	640	120
2,3,4,6,7,8-HxCDF	ND	540	690	129
1,2,3,4,6,7,8-HpCDF	ND	540	590	110
1,2,3,4,7,8,9-HpCDF	ND	540	660	123
OCDF	ND	1100	1400	132
Dioxins				
2,3,7,8-TCDD	ND	215	210	96
1,2,3,7,8-PeCDD	ND	540	540	100
1,2,3,4,7,8-HxCDD	ND	540	500	94
1,2,3,6,7,8-HxCDD	ND	540	590	109
1,2,3,7,8,9-HxCDD	ND	540	540	100
1,2,3,4,6,7,8-HpCDD	ND	540	570	106
OCDD	ND	1100	1100	107

(continued on following page)

(*)= Recoveries calculated before rounding results.
ND = Not Detected
NA = Not Applicable

Reported by: Saleh Arghestani Approved by: Maricon Estrada

The cover letter is an integral part of this report.

Enseco
A Corning Company

POLYCHLORINATED DIOXINS/FURANS
ISOMER SPECIFIC ANALYSIS (CONT.)
Method 8290

Client Name: Burlington Environmental
Client ID: PLF-SBS-299
Lab ID: 068049-0003-SD
Matrix: SOIL Sampled: 04 FEB 93 Received: 09 FEB 93
Authorized: 09 FEB 93 Prepared: 03 MAR 93 Analyzed: 05 MAR 93

	% Recovery
13C-2,3,7,8-TCDF	101
13C-2,3,7,8-TCDD	111
13C-1,2,3,7,8-PeCDF	107
13C-1,2,3,7,8-PeCDD	95
13C-1,2,3,4,7,8-HxCDF	110
13C-1,2,3,6,7,8-HxCDD	111
13C-1,2,3,4,6,7,8-HpCDF	118
13C-1,2,3,4,6,7,8-HpCDD	127
13C-OCDD	105

Percent Moisture is 6.9%. All results and limits are reported on a dry weight basis.

ND = Not detected
NA = Not applicable

Reported By: Saleh Arghestani Approved By: Maricon Estrada

The cover letter is an integral part of this report.
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MEMORANDUM

DATE: March 19, 1993

TO: Ted Wall, Environmental Engineer TW

FROM: Nels Cone, Chemist NC

SUBJECT: DATA VALIDATION OF CHEMICAL ANALYSIS FROM PASCO LANDFILL PHASE I REMEDIAL INVESTIGATION, PROJECT 624419, DATA SET 5C

On January 4, 1993, nine soil samples were collected by Burlington field personnel. Their sample identification numbers are as follows:

PLF-SBS-297	PLF-SBS-300	PLF-SBS-303
PLF-SBS-298	PLF-SBS-301	PLF-SBS-304
PLF-SBS-299	PLF-SBS-302	PLF-SBS-305

These samples were then submitted to Enseco of West Sacramento, California (lab order 068049). Data Set 5C represents results from dioxin analysis (USEPA SW-846, Method 8290). I have completed a data quality review of the analytical results in accordance with the USEPA Contract Laboratory Program (CLP) Document Number DFLM01.0 (1991). My findings and recommendations are summarized below.

FINDINGS

Properly completed chain-of-custody forms were included with documented signatures from field to laboratory receipt. All samples were shown as having been properly iced and received in good condition. Holding, extraction, and analysis times for all samples met the required guidelines. Although the laboratory report came with adequate raw data needed for validation, CLP reporting format was not used.

USEPA specific data qualifier flags were not used. In the case of sample PLF-SBS-303, a "@" flag is used in place of a standard "J" data qualifier flag. According to ancillary information supplied by the lab, the "@" flag has the same meaning as the "J" flag. Results are reported on a dry weight basis with percent moisture reported as a separate value. Detection limits are then reported on a sample-specific basis. Surrogate compound recoveries for all samples, matrix spikes, and method blank, met required quality control (QC) limits. Matrix spike/matrix spike duplicate data met required QC limits for data set accuracy. Laboratory duplicates were not run for these analytes. However, field duplicate pair PLF-SBS-300 and PLF-SBS-301 indicate required QC criteria for overall data set precision. Method blank analyses required no corrections and contained no laboratory contaminants. Initial and continuing

calibration data were supplied and met required relative response factor QC limits with the exception of surrogates 13C-1,2,3,7,8-PeCDD and 13C-1,2,3,6,7,8-HxCDD. Regardless, the overall accuracy of the data is not affected.

Supporting QC was provided in the form of the sample run logs, spectral performance profiles, and chromatograms for all samples, matrix spikes, and calibration standards. As a result of CLP reporting summaries not being supplied, the computerized data handling system of the gas chromatograph/mass spectroscopy instrument (I.D. #VG-4) was exclusively relied upon for compound match interpretation. Based upon the information provided, the reported summary information appears consistent with the data.

Other than non CLP-standard use of data qualification flags, the data quality guidelines required by the CLP statement of work appeared to have been followed. Accordingly, this data can be considered useful for its intended purpose.

RECOMMENDATION

OCDD results reported for sample PLF-SBS-303 should receive a "J" data qualifier flag instead of a "@" flag.

SUBSURFACE SOILS I3.5

SAMPLES PLF-SBS-099, PLF-SBS-107, PLF-SBS-110

SOUND ANALYTICAL SERVICES, INC.

SPECIALIZING IN INDUSTRIAL & TOXIC WASTE ANALYSIS

4813 PACIFIC HIGHWAY EAST, TACOMA, WASHINGTON 98424 - TELEPHONE (206) 922-2310 - FAX (206) 922-5047

March 10, 1993

TO: Burlington Environmental Engineering

PROJECT NUMBER: 624419-7020.17

PROJECT NAME: Pasco Landfill

LABORATORY WORK ORDER NUMBER IDENTIFICATION: 29195

The sample was taken on 12/20/92 and received at Sound Analytical on 12/22/92. The sample was analyzed for volatile organics by GC/MS in accordance with EPA SW-846 Method 8240, for chlorinated pesticides and PCB's in accordance with EPA SW-846 Method 8080, for semivolatile organics by GC/MS in accordance with EPA SW-846 Method 8270, for metals by ICP in accordance with EPA SW-846 Method 6010, and for mercury by cold vapor AA in accordance with SW-846 Method 7471.

VOLATILE ORGANICS

Sample 29195-1 was analyzed on 12/24/92. The sample required reanalysis at medium level due to a high concentration of acetone in the original low level analysis. Only results for the medium level analysis are included, as no additional target analytes or tentatively identified compounds were found in the low level analysis. Methylene chloride was detected in the method blank at a level above the IDL but below the CRDL. Sample results for methylene chloride were flagged B to indicate this. All QC parameters were within acceptance limits.

SEMIVOLATILE ORGANICS

Sample 29195-1 was extracted on 12/24/92 and analyzed on 12/29/92. No compounds were detected in the method blank above the CRDL. Matrix spike percent recoveries for 1,4-dichlorobenzene and 1,2,4-trichlorobenzene were below QC limits. All other QC parameters were within acceptance limits.

PESTICIDES and PCBs

Sample 29195-1 was extracted on 1/14/93 and analyzed on 1/23/93. The initial calibration percent relative standard deviation (%RSD) for 4,4'-DDT exceeded QC limits on the confirmation column. The quantitation column, however, had an acceptable %RSD for the initial calibration. 4,4'-DDT was detected in the method blank above the CRDL. However, the method blank was inadvertantly analyzed immediately following the analysis of a high calibration standard; carryover is possible. Sample results for 4,4'-DDT were flagged B to indicate its detection in the method blank analysis. All other QC parameters were within acceptance limits.

METALS

Sample 29195-1 was digested for ICP on 12/22/92, and analyzed on 12/28/92. Sample 29302-1 was digested for cold vapor AA on 12/22/92 and analyzed on 12/23/92. Matrix spike percent recoveries for selenium and thallium were slightly below QC limits. All other QC parameters were within acceptance limits.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS099

Name:Sound Analytical Services Contract:624419

Lab Code:SAS Case No.: SAS No.: SDG No.:29195

Matrix: (soil/water) SOIL Lab Sample ID:V7531

Sample wt/vol: 15.91 (g/ml) G Lab File ID: V7531

Level: (low/med) MED Date Received:12/23/92

% Moisture: not dec. 12 Date Analyzed:12/24/92

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:10000.00 (uL) Soil Aliquot Volume: 125.0 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
54-87-3	Chloromethane	290.	U
74-83-9	Bromomethane	290.	U
75-01-4	Vinyl Chloride	290.	U
75-00-3	Chloroethane	290.	U
75-09-2	Methylene Chloride	220.	B J
67-64-1	Acetone	2200.	
75-15-0	Carbon Disulfide	140.	U
75-35-4	1,1-Dichloroethene	140.	U
75-34-3	1,1-Dichloroethane	140.	U
540-59-0	1,2-Dichloroethene (total)	140.	U
67-66-3	Chloroform	140.	U
107-06-2	1,2-Dichloroethane	140.	U
78-93-3	2-Butanone	710.	U
71-55-6	1,1,1-Trichloroethane	140.	U
56-23-5	Carbon Tetrachloride	140.	U
108-05-4	Vinyl Acetate	710.	U
75-27-4	Bromodichloromethane	140.	U
78-87-5	1,2-Dichloropropane	140.	U
10061-01-5	cis-1,3-Dichloropropene	140.	U
79-01-6	Trichloroethene	140.	U
124-48-1	Dibromochloromethane	140.	U
79-00-5	1,1,2-Trichloroethane	140.	U
71-43-2	Benzene	140.	U
10061-02-6	trans-1,3-Dichloropropene	140.	U
75-25-2	Bromoform	140.	U
108-10-1	4-Methyl-2-Pentanone	140.	U
591-78-6	2-Hexanone	140.	U
127-18-4	Tetrachloroethene	140.	U
79-34-5	1,1,2,2-Tetrachloroethane	140.	U
108-88-3	Toluene	140.	U
108-90-7	Chlorobenzene	140.	U
100-41-4	Ethylbenzene	140.	U
100-42-5	Styrene	140.	U
1330-20-7	Xylene (total)	290.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS099

Lab Name:Sound Analytical Services Contract:624419

Lab Code:SAS Case No.: SAS No.: SDG No.:29195

Matrix: (soil/water) SOIL Lab Sample ID:V7531

Sample wt/vol: 15.91 (g/ml) G Lab File ID: V7531

Level: (low/med) MED Date Received:12/23/92

% Moisture: not dec. 12 Date Analyzed:12/24/92

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:10000.00 (uL) Soil Aliquot Volume: 125.0 (uL)

Number TICs Found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS099

Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29195

Matrix: (soil/water) SOIL Lab Sample ID:29195-1

Sample wt/vol: 30.7 (g/ml) G Lab File ID: S7248

Level: (low/med) LOW Date Received:12/22/92

% Moisture: 29 decanted: (Y/N) N Date Extracted:12/24/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed:12/29/92

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	460.	U
111-44-4	Bis(2-chloroethyl)ether	460.	U
95-57-8	2-Chlorophenol	460.	U
541-73-1	1,3-Dichlorobenzene	460.	U
106-46-7	1,4-Dichlorobenzene	460.	U
100-51-6	Benzyl alcohol	920.	U
95-50-1	1,2-Dichlorobenzene	460.	U
95-48-7	2-Methylphenol	460.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	460.	U
106-44-5	4-Methylphenol	460.	U
621-64-7	N-Nitroso-di-n-propylamine	460.	U
67-72-1	Hexachloroethane	460.	U
98-95-3	Nitrobenzene	460.	U
78-59-1	Isophorone	460.	U
88-75-5	2-Nitrophenol	460.	U
105-67-9	2,4-Dimethylphenol	460.	U
65-85-0	Benzoic acid	2300.	U
111-91-1	bis(2-Chloroethoxy)methane	460.	U
120-83-2	2,4-Dichlorophenol	460.	U
120-82-1	1,2,4-Trichlorobenzene	460.	U
91-20-3	Naphthalene	460.	U
106-47-8	4-Chloroaniline	920.	U
87-68-3	Hexachlorobutadiene	460.	U
59-50-7	4-Chloro-3-methylphenol	920.	U
91-57-6	2-Methylnaphthalene	460.	U
77-47-4	Hexachlorocyclopentadiene	460.	U
88-06-2	2,4,6-Trichlorophenol	460.	U
95-95-4	2,4,5-Trichlorophenol	460.	U
91-58-7	2-Chloronaphthalene	460.	U
88-74-4	2-Nitroaniline	2300.	U
131-11-3	Dimethylphthalate	460.	U
208-96-8	Acenaphthylene	460.	U
606-20-2	2,6-Dinitrotoluene	460.	U

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1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS099

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29195

Matrix: (soil/water) SOIL Lab Sample ID:29195-1

Sample wt/vol: 30.7 (g/ml) G Lab File ID: S7248

Level: (low/med) LOW Date Received:12/22/92

% Moisture: 29 decanted: (Y/N) N Date Extracted:12/24/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed:12/29/92

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	2300.	U
83-32-9	Acenaphthene	460.	U
51-28-5	2,4-Dinitrophenol	2300.	U
100-02-7	4-Nitrophenol	2300.	U
132-64-9	Dibenzofuran	460.	U
121-14-2	2,4-Dinitrotoluene	460.	U
84-66-2	Diethylphthalate	460.	U
7005-72-3	4-Chlorophenyl-phenylether	460.	U
86-73-7	Fluorene	460.	U
100-01-6	4-Nitroaniline	2300.	U
534-52-1	4,6-Dinitro-2-methylphenol	2300.	U
86-30-6	N-Nitrosodiphenylamine(1)	460.	U
101-55-3	4-Bromophenyl-phenylether	460.	U
118-74-1	Hexachlorobenzene	460.	U
87-86-5	Pentachlorophenol	2300.	U
85-01-8	Phenanthrene	460.	U
120-12-7	Anthracene	460.	U
84-74-2	Di-n-butylphthalate	460.	U
206-44-0	Fluoranthene	460.	U
129-00-0	Pyrene	460.	U
85-68-7	Butylbenzylphthalate	460.	U
91-94-1	3,3'-Dichlorobenzidine	920.	U
56-55-3	Benzo(a)anthracene	460.	U
218-01-9	Chrysene	460.	U
117-81-7	bis(2-Ethylhexyl)phthalate	460.	U
117-84-0	Di-n-octylphthalate	110.	J
205-99-2	Benzo(b)fluoranthene	460.	U
207-08-9	Benzo(k)fluoranthene	460.	U
50-32-8	Benzo(a)pyrene	460.	U
193-39-5	Indeno(1,2,3-cd)pyrene	460.	U
53-70-3	Dibenz(a,h)anthracene	460.	U
191-24-2	Benzo(g,h,i)perylene	460.	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS099

Lab Name: Sound Analytical Services Contract: 624419

Lab Code: - Case No.: - SAS No.: - SDG No.: 29195

Matrix: (soil/water) SOIL Lab Sample ID: 29195-1

Sample wt/vol: 30.7 (g/ml) G Lab File ID: S7248

Level: (low/med) LOW Date Received: 12/22/92

% Moisture: 29 decanted: (Y/N) N Date Extracted: 12/24/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 12/29/92

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

Number TICs Found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	27.90	0.	J
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7

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SBS-099

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO_____

Lab Code: _____ Case No.: _____ SAS No.: 29195_ SDG No.: 29195_

Matrix (soil/water): SOIL_ Lab Sample ID: 29195-1___

Level (low/med): LOW__ Date Received: 12/22/92

% Solids: _88.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_	1.6		*	P_
7440-38-2	Arsenic__	3.0		*	P_
7440-39-3	Barium___	53.5			P_
7440-41-7	Beryllium	0.12	U		P_
7440-43-9	Cadmium__	2.1			P_
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	2.5			P_
7440-48-4	Cobalt___				NR
7440-50-8	Copper___	11.7			P_
7439-89-6	Iron____				NR
7439-92-1	Lead____	5.1			P_
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__	0.08	U		AV
7440-02-0	Nickel___	4.9			P_
7440-09-7	Potassium				NR
7782-49-2	Selenium_	2.3	U	N	P_
7440-22-4	Silver___	0.93			P_
7440-23-5	Sodium___				NR
7440-28-0	Thallium_	3.5	U	N	P_
7440-62-2	Vanadium_				NR
7440-66-6	Zinc____	25.8		E	P_
5955-70-0	Cyanide__				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

FORM I - IN

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SBS-099

Lab Name: Sound Analytical Contract: Burlington Environmental

Lab Code: 29195 Case No.: SAS No.: SDG No.:

Matrix (soil/water) soil Lab Sample ID: 29195-1

Sample wt/vol: 10.3956 (g/mL) grams Lab File ID: P1677

% Moisture: 11.54 decanted: (Y/N) no Date Received: 12/22/92

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 01/14/93

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 01/23/93

Injection Volume: 3 (uL) Dilution Factor:

GPC Cleanup: (Y/N) no pH: n/a Sulfur Cleanup: (Y/N) no

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.85
319-85-7	beta-BHC	ND	1.85
319-86-8	delta-BHC	ND	1.85
58-89-9	gamma-BHC (Lindane)	ND	1.85
76-44-8	Heptachlor	ND	1.85
309-00-2	Aldrin	ND	1.85
1024-57-3	Heptachlor epoxide	ND	1.85
959-98-8	Endosulfan I	ND	1.85
60-57-1	Dieldrin	ND	3.59
72-55-9	4,4'-DDE	ND	3.59
72-20-8	Endrin	ND	3.59
33213-65-9	Endosulfan II	ND	3.59
72-54-8	4,4'-DDD	ND	3.59
1031-07-8	Endosulfan sulfate	ND	3.59
50-29-3	4,4'-DDT	8.9 B	3.59
72-43-5	Methoxychlor	ND	18.49
53494-70-5	Endrin ketone	ND	3.59
7421-36-3	Endrin aldehyde	ND	3.59
5103-71-9	alpha-Chlordane	ND	1.85
5103-74-2	gamma-Chlordane	ND	1.85
8001-35-2	Toxaphene	ND	54.37
12674-11-2	Aroclor-1016	ND	35.89
11104-28-2	Aroclor-1221	ND	35.89
11141-16-5	Aroclor-1232	ND	72.86
53469-21-9	Aroclor-1242	ND	35.89
12672-29-6	Aroclor-1248	ND	35.89
11097-69-1	Aroclor-1254	ND	35.89
11096-82-5	Aroclor-1260	ND	35.89

CHAIN OF CUSTODY

Mathes & Associates, Inc.
210 West Sand Bank Road
Columbia, Illinois 62236

CHAIN-OF-CUSTODY RECORD

C.O.C. SERIAL NO. 5284

PROJECT NAME PH 1 RI PASCO LANDFILL
PROJECT NUMBER 62 4419 MAJOR TASK 7020.17
SAMPLERS Louis La Rosa
LAB DESTINATION SOUND ANALYTICAL SERVICES

SAMPLE NO.	DATE	TIME	COMP	GRAB	SAMPLE LOCATION	NO. OF CONTAINERS	TYPE OF ANALYSIS: VOC 8240	SVOC 8270	Pest/PCB 8080	PPM 6010				ICED	PRESERVATIVES: CHEMICALS ADDED	REMARKS (CHEMICAL ANALYSIS REQUEST FORM NUMBER IF APPLICABLE)
PLP-SB5-SP1	12-20-92	1525		X	Soil	4	X	X	X	X				X		

RELINQUISHED BY SIGNATURE	DATE	TIME	RECEIVED BY SIGNATURE	DATE	TIME
[signature]	12-21-92	1600	SENT VIA FEDEX	12-21-92	1600
			S Giang	12/22/92	10:24 Am

SHIPPING NOTES

LAB NOTES

JM-34 (8/89)

RECEIVED
MAR 19 1993
Burlington Environmental Inc.

SOUND ANALYTICAL SERVICES, INC.
SPECIALIZING IN INDUSTRIAL & TOXIC WASTE ANALYSIS
3 PACIFIC HIGHWAY EAST, TACOMA, WASHINGTON 98424 - TELEPHONE (206) 922-2310 - FAX (206) 922-5047

March 15, 1993

TO: Burlington Environmental Engineering

PROJECT NUMBER: 624419-7020.17

PROJECT NAME: Pasco Landfill

LABORATORY WORK ORDER NUMBER IDENTIFICATION: 29304

The sample was taken on 12/29/92 and received at Sound Analytical on 12/30/92. The sample was analyzed for volatile organics by GC/MS in accordance with EPA SW-846 Method 8240, for chlorinated pesticides and PCB's in accordance with EPA SW-846 Method 8080, for semivolatile organics by GC/MS in accordance with EPA SW-846 Method 8270, for metals by ICP in accordance with EPA SW-846 Method 6010, and for mercury by cold vapor AA in accordance with SW-846 Method 7471.

VOLATILE ORGANICS

Sample 29304-1 was analyzed on 12/31/93. The sample required reanalysis at medium level due to a high concentration of acetone in the original low level analysis. Only results for the medium level analysis are included, as no additional target analytes or tentatively identified compounds were found in the low level analysis. Methylene chloride was detected in the method blank at a level above the IDL but below the CRDL. Sample results for methylene chloride were flagged B to indicate this. All QC parameters were within acceptance limits.

SEMIVOLATILE ORGANICS

Sample 29304-1 was extracted on 12/24/92 and analyzed on 12/29/93. No compounds were detected in the method blank above the CRDL. Matrix spike percent recoveries for 1,4-dichlorobenzene and 1,2,4-trichlorobenzene were below QC limits. All other QC parameters were within acceptance limits.

PESTICIDES and PCBs

Sample 29304-1 was extracted on 1/14/93 and analyzed on 1/23/93. The initial calibration percent relative standard deviation (%RSD) for 4,4'-DDT exceeded QC limits on the confirmation column. The quantitation column, however, had an acceptable %RSD for the initial calibration. 4,4'-DDT was detected in the method blank above the CRDL. However, the method blank was inadvertantly analyzed immediately following the analysis of a high calibration standard; carryover is possible. Sample results for 4,4'-DDT were flagged B to indicate its detection in the method blank analysis. All other QC parameters were within acceptance limits.

METALS

Sample 29304-1 was digested for ICP on 12/22/92, and analyzed on 12/28/92. Sample 29304-1 was digested for cold vapor AA on 12/22/92 and analyzed on 12/23/92. Matrix spike percent recoveries for selenium and thallium were slightly below QC limits. All other QC parameters were within acceptance limits.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS107

Lab Name:Sound Analytical Services Contract:624419

Lab Code:SAS Case No.: SAS No.: SDG No.:29304

Matrix: (soil/water) SOIL Lab Sample ID:V7658

Sample wt/vol: 9.88 (g/ml) G Lab File ID: V7658

Level: (low/med) MED Date Received:12/31/92

% Moisture: not dec. 11 Date Analyzed:12/31/92

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 40.0

Soil Extract Volume:10000.00 (uL) Soil Aliquot Volume: 5000.0 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
54-87-3	Chloromethane	450.	U
74-83-9	Bromomethane	450.	U
75-01-4	Vinyl Chloride	450.	U
75-00-3	Chloroethane	450.	U
75-09-2	Methylene Chloride	1800.	B
67-64-1	Acetone	1100.	U
75-15-0	Carbon Disulfide	230.	U
75-35-4	1,1-Dichloroethene	230.	U
75-34-3	1,1-Dichloroethane	230.	U
540-59-0	1,2-Dichloroethene (total)	230.	U
67-66-3	Chloroform	230.	U
107-06-2	1,2-Dichloroethane	230.	U
78-93-3	2-Butanone	1100.	U
71-55-6	1,1,1-Trichloroethane	230.	U
56-23-5	Carbon Tetrachloride	230.	U
108-05-4	Vinyl Acetate	1100.	U
75-27-4	Bromodichloromethane	230.	U
78-87-5	1,2-Dichloropropane	230.	U
10061-01-5	cis-1,3-Dichloropropene	230.	U
79-01-6	Trichloroethene	230.	U
124-48-1	Dibromochloromethane	230.	U
79-00-5	1,1,2-Trichloroethane	230.	U
71-43-2	Benzene	230.	U
10061-02-6	trans-1,3-Dichloropropene	230.	U
75-25-2	Bromoform	230.	U
108-10-1	4-Methyl-2-Pentanone	230.	U
591-78-6	2-Hexanone	230.	U
127-18-4	Tetrachloroethene	230.	U
79-34-5	1,1,2,2-Tetrachloroethane	230.	U
108-88-3	Toluene	230.	U
108-90-7	Chlorobenzene	230.	U
100-41-4	Ethylbenzene	230.	U
100-42-5	Styrene	230.	U
1330-20-7	Xylene (total)	450.	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS107

Lab Name:Sound Analytical Services Contract:624419

Lab Code:SAS Case No.: SAS No.: SDG No.:29304

Matrix: (soil/water) SOIL Lab Sample ID:V7658

Sample wt/vol: 9.88 (g/ml) G Lab File ID: V7658

Level: (low/med) MED Date Received:12/31/92

% Moisture: not dec. 11 Date Analyzed:12/31/92

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 40.0

Soil Extract Volume:10000.00 (uL) Soil Aliquot Volume: 5000.0 (uL)

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS107

Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29304

Matrix: (soil/water) SOIL Lab Sample ID:29304-1

Sample wt/vol: 30.3 (g/ml) G Lab File ID: S7324

Level: (low/med) LOW Date Received:12/30/92

% Moisture: 11 decanted: (Y/N) N Date Extracted:12/31/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 1/08/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	740.	U
111-44-4	Bis(2-chloroethyl)ether	740.	U
95-57-8	2-Chlorophenol	740.	U
541-73-1	1,3-Dichlorobenzene	740.	U
106-46-7	1,4-Dichlorobenzene	740.	U
100-51-6	Benzyl alcohol	1500.	U
95-50-1	1,2-Dichlorobenzene	740.	U
95-48-7	2-Methylphenol	740.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	740.	U
106-44-5	4-Methylphenol	740.	U
621-64-7	N-Nitroso-di-n-propylamine	740.	U
67-72-1	Hexachloroethane	740.	U
98-95-3	Nitrobenzene	740.	U
78-59-1	Isophorone	740.	U
88-75-5	2-Nitrophenol	740.	U
105-67-9	2,4-Dimethylphenol	740.	U
65-85-0	Benzoic acid	3700.	U
111-91-1	bis(2-Chloroethoxy)methane	740.	U
120-83-2	2,4-Dichlorophenol	740.	U
120-82-1	1,2,4-Trichlorobenzene	740.	U
91-20-3	Naphthalene	740.	U
106-47-8	4-Chloroaniline	1500.	U
87-68-3	Hexachlorobutadiene	740.	U
59-50-7	4-Chloro-3-methylphenol	1500.	U
91-57-6	2-Methylnaphthalene	740.	U
77-47-4	Hexachlorocyclopentadiene	740.	U
88-06-2	2,4,6-Trichlorophenol	740.	U
95-95-4	2,4,5-Trichlorophenol	740.	U
91-58-7	2-Chloronaphthalene	740.	U
88-74-4	2-Nitroaniline	3700.	U
131-11-3	Dimethylphthalate	740.	U
208-96-8	Acenaphthylene	740.	U
606-20-2	2,6-Dinitrotoluene	740.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS107

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29304

Matrix: (soil/water) SOIL Lab Sample ID:29304-1

Sample wt/vol: 30.3 (g/ml) G Lab File ID: S7324

Level: (low/med) LOW Date Received:12/30/92

% Moisture: 11 decanted: (Y/N) N Date Extracted:12/31/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 1/08/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	3700.	U
83-32-9	Acenaphthene	740.	U
51-28-5	2,4-Dinitrophenol	3700.	U
100-02-7	4-Nitrophenol	3700.	U
132-64-9	Dibenzofuran	740.	U
121-14-2	2,4-Dinitrotoluene	740.	U
84-66-2	Diethylphthalate	740.	U
7005-72-3	4-Chlorophenyl-phenylether	740.	U
86-73-7	Fluorene	740.	U
100-01-6	4-Nitroaniline	3700.	U
534-52-1	4,6-Dinitro-2-methylphenol	3700.	U
86-30-6	N-Nitrosodiphenylamine(1)	740.	U
101-55-3	4-Bromophenyl-phenylether	740.	U
118-74-1	Hexachlorobenzene	740.	U
87-86-5	Pentachlorophenol	3700.	U
85-01-8	Phenanthrene	740.	U
120-12-7	Anthracene	740.	U
84-74-2	Di-n-butylphthalate	2800.	B
206-44-0	Fluoranthene	740.	U
129-00-0	Pyrene	740.	U
85-68-7	Butylbenzylphthalate	740.	U
91-94-1	3,3'-Dichlorobenzidine	1500.	U
56-55-3	Benzo(a)anthracene	740.	U
218-01-9	Chrysene	740.	U
117-81-7	bis(2-Ethylhexyl)phthalate	200.	J
117-84-0	Di-n-octylphthalate	160.	J
205-99-2	Benzo(b)fluoranthene	740.	U
207-08-9	Benzo(k)fluoranthene	740.	U
50-32-8	Benzo(a)pyrene	740.	U
193-39-5	Indeno(1,2,3-cd)pyrene	740.	U
53-70-3	Dibenz(a,h)anthracene	740.	U
191-24-2	Benzo(g,h,i)perylene	740.	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS107

Lab Name: Sound Analytical Services Contract: 624419

Lab Code: - Case No.: - SAS No.: - SDG No.: 29304

Matrix: (soil/water) SOIL Lab Sample ID: 29304-1

Sample wt/vol: 30.3 (g/ml) G Lab File ID: S7324

Level: (low/med) LOW Date Received: 12/30/92

% Moisture: 11 decanted: (Y/N) N Date Extracted: 12/31/92

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 1/08/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 0.0

Number TICs Found: 2

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	27.85	3800.	J
2.	36237-66-8	6,10,14-Hexadecatrien-1-ol,3	28.00	400.	J
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U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SBS-107

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO____

Lab Code: _____ Case No.: _____ SAS No.: 29304_ SDG No.: 29304_

Matrix (soil/water): SOIL_ Lab Sample ID: 29304-1___

Level (low/med): LOW__ Date Received: 12/30/92

% Solids: _88.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_	5.9	U		P_
7440-38-2	Arsenic__	9.8	U		P_
7440-39-3	Barium___				NR
7440-41-7	Beryllium	0.49	U		P_
7440-43-9	Cadmium__	3.8			P_
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	4.4		*	P_
7440-48-4	Cobalt___				NR
7440-50-8	Copper___	17.6		*	P_
7439-89-6	Iron____				NR
7439-92-1	Lead____	8.2		*	P_
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__	0.08	U		AV
7440-02-0	Nickel___	7.9			P_
7440-09-7	Potassium				NR
7782-49-2	Selenium_	9.8	U		P_
7440-22-4	Silver___	2.5			P_
7440-23-5	Sodium___				NR
7440-28-0	Thallium_	14.6	U		P_
7440-62-2	Vanadium_				NR
7440-66-6	Zinc____	50.4			P_
5955-70-0	Cyanide__				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SBS-107

Lab Name: Sound Analytical Contract: Burlington Environmental

Lab Code: 29304 Case No.: SAS No.: SDG No.:

Matrix: (soil/water) soil Lab Sample ID: 29304-1

Sample wt/vol: 10.0983 (g/mL) grams Lab File ID: P1681

% Moisture: 11.20 decanted: (Y/N) no Date Received: 12/30/92

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 01/14/93

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 01/23/93

Injection Volume: 3 (uL) Dilution Factor:

GPC Cleanup: (Y/N) no pH: n/a Sulfur Cleanup: (Y/N) no

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.90
319-85-7	beta-BHC	ND	1.90
319-86-8	delta-BHC	ND	1.90
58-89-9	gamma-BHC (Lindane)	ND	1.90
76-44-8	Heptachlor	ND	1.90
309-00-2	Aldrin	ND	1.90
1024-57-3	Heptachlor epoxide	ND	1.90
959-98-8	Endosulfan I	ND	1.90
60-57-1	Dieldrin	ND	3.68
72-55-9	4,4'-DDE	ND	3.68
72-20-8	Endrin	41.8	3.68
33213-65-9	Endosulfan II	ND	3.68
72-54-8	4,4'-DDD	ND	3.68
1031-07-8	Endosulfan sulfate	ND	3.68
50-29-3	4,4'-DDT	30.3 B	3.68
72-43-5	Methoxychlor	ND	18.96
53494-70-5	Endrin ketone	3.79	3.68
7421-36-3	Endrin aldehyde	5.04	3.68
5103-71-9	alpha-Chlordane	ND	1.90
5103-74-2	gamma-Chlordane	ND	1.90
8001-35-2	Toxaphene	ND	55.76
12674-11-2	Aroclor-1016	ND	36.80
11104-28-2	Aroclor-1221	ND	36.80
11141-16-5	Aroclor-1232	ND	74.72
53469-21-9	Aroclor-1242	ND	36.80
12672-29-6	Aroclor-1248	ND	36.80
11097-69-1	Aroclor-1254	ND	36.80
11096-82-5	Aroclor-1260	ND	36.80

CHAIN OF CUSTODY

John Mathes & Associates, Inc.
210 West Sand Bank Road
Columbia, Illinois 62236

CHAIN-OF-CUSTODY RECORD

C.O.C. SERIAL NO. 5285

PROJECT NAME: PASCO LANDFILL
PROJECT NUMBER: 6241119 MAJOR TASK: 7020.17
SAMPLERS: LAROSA / MAXEINER
LAB DESTINATION: SOUND ANALYTICAL

SAMPLE NO.	DATE	TIME	COMP	GRAB	SAMPLE LOCATION	NO. OF CONTAINERS	TYPE OF ANALYSIS: VOC (METHOD 8240)	SVOC (8270)	PESTICIDE (8080)	PCB (8010)				ICED	PRESERVATIVES: CHEMICALS ADDED	REMARKS (CHEMICAL ANALYSIS REQUEST FORM NUMBER IF APPLICABLE)
DLF-SBS-107	12/29/92	1215		X	Soil	2	1	1						X		

RELINQUISHED BY SIGNATURE	DATE	TIME	RECEIVED BY SIGNATURE	DATE	TIME
[signature]	12/29/92	1630	SHIP VIA FED EX	12/29/92	1630
[signature]			SGiang SAS	12/30/92	9:45 am
3/8/93					
3/8/93					

SHIPPING NOTES: 11

LAB NOTES:

JM-34 (8/89)

RECEIVED
MAR 19 1993
Burlington Environmental Inc.
Technical Services

SOUND ANALYTICAL SERVICES, INC.
SPECIALIZING IN INDUSTRIAL & TOXIC WASTE ANALYSIS
4813 PACIFIC HIGHWAY EAST, TACOMA, WASHINGTON 98424 - TELEPHONE (206) 922-2310 - FAX (206) 922-5047

March 17, 1993

TO: Burlington Environmental Engineering

PROJECT NUMBER: 624419-7020.17

PROJECT NAME: Pasco Landfill

LABORATORY WORK ORDER NUMBER IDENTIFICATION: 29391

The sample was taken on 1/5/93 and received at Sound Analytical on 1/6/93. The sample was analyzed for volatile organics by GC/MS in accordance with EPA SW-846 Method 8240, for chlorinated pesticides and PCB's in accordance with EPA SW-846 Method 8080, for semivolatile organics by GC/MS in accordance with EPA SW-846 Method 8270, for metals by ICP in accordance with EPA SW-846 Method 6010, and for mercury by cold vapor AA in accordance with SW-846 Method 7471.

VOLATILE ORGANICS
Sample 29391-1 was analyzed on 1/8/93. Methylene chloride, acetone, and toluene were detected in the method blank. Sample results for these compounds were flagged B to indicate this. All QC parameters were within acceptance limits.

SEMIVOLATILE ORGANICS
Sample 29391-1 was extracted on 1/8/93 and analyzed on 1/12/93. di-n-Butylphthalate and four TICs were detected in the method blank. Matrix spike percent recoveries for 1,4-dichlorobenzene and 1,2,4-trichlorobenzene were below QC limits. All other QC parameters were within acceptance limits.

PESTICIDES and PCBs
Sample 29391-1 was extracted on 1/14/93 and analyzed on 1/23/93. The initial calibration percent relative standard deviation (%RSD) for 4,4'-DDT exceeded QC limits on the confirmation column. The quantitation column, however, had an acceptable %RSD for the initial calibration. 4,4'-DDT was detected in the method blank above the CRDL. However, the method blank was inadvertently analyzed immediately following the analysis of a high calibration standard; carryover is possible. 4,4'-DDT was not detected in the sample. The percent recovery for endrin on the confirmation column (DB-5) in the matrix spike/matrix spike duplicate analysis exceeded QC limits. The percent recovery for endrin on the quantitation column (DB-608) was within acceptable limits. All other QC parameters were within acceptance limits.

SOUND ANALYTICAL SERVICES, INC.

PROJECT NUMBER: 624419-7020.17

PROJECT NAME: Pasco Landfill

LABORATORY WORK ORDER NUMBER IDENTIFICATION: 29391

METALS

Sample 29391-1 was digested for ICP on 1/6/93, and analyzed on 1/19/93. Sample 29391-1 was digested for cold vapor AA on 1/6/93 and analyzed on 1/19/93. Duplicate relative percent difference values for cadmium, chromium, copper, selenium, silver, and zinc exceeded QC limits. However, all of the elements listed, except for zinc, were reported as present at levels of less than five times the CRDL. All other QC parameters were within acceptance limits.

SAMPLE DATA SUMMARY PACKAGE

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS110

Lab Name: Sound Analytical Services Contract: 624419

Lab Code: SAS Case No.: - SAS No.: - SDG No.: 29391

Matrix: (soil/water) SOIL Lab Sample ID: 29391-1

Sample wt/vol: 5.53 (g/ml) G Lab File ID: V7793

Level: (low/med) LOW Date Received: 1/05/93

% Moisture: not dec. 13 Date Analyzed: 1/09/93

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 0 (uL) Soil Aliquot Volume: 0 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
54-87-3	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	83.	B
67-64-1	Acetone	53.	B
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	5.	U
107-06-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	26.	U
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-5	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	26.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	5.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	5.	U
591-78-6	2-Hexanone	5.	U
127-18-4	Tetrachloroethene	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	2.	J B
108-90-7	Chlorobenzene	5.	U
100-41-4	Ethylbenzene	5.	U
100-42-5	Styrene	5.	U
1330-20-7	Xylene (total)	10.	U

4

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS110

Lab Name:Sound Analytical Services Contract:624419

Lab Code:SAS Case No.:- SAS No.:- SDG No.:29391

Matrix: (soil/water) SOIL Lab Sample ID:29391-1

Sample wt/vol: 5.53 (g/ml) G Lab File ID: V7793

Level: (low/med) LOW Date Received: 1/05/93

% Moisture: not dec. 13 Date Analyzed: 1/09/93

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 110-54-3	Hexane	3.68	91.	BJ
2. 96-37-7	Cylopentane, mmethyl-	4.55	8.	BJ
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS110

Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29391

Matrix: (soil/water) SOIL Lab Sample ID:29391-1

Sample wt/vol: 30.1 (g/ml) G Lab File ID: S7353

Level: (low/med) LOW Date Received: 1/06/93

% Moisture: 13 decanted: (Y/N) N Date Extracted: 1/08/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 1/12/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	380.	U
111-44-4	Bis(2-chloroethyl)ether	380.	U
95-57-8	2-Chlorophenol	380.	U
541-73-1	1,3-Dichlorobenzene	380.	U
106-46-7	1,4-Dichlorobenzene	380.	U
100-51-6	Benzyl alcohol	760.	U
95-50-1	1,2-Dichlorobenzene	380.	U
95-48-7	2-Methylphenol	380.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	380.	U
106-44-5	4-Methylphenol	380.	U
621-64-7	N-Nitroso-di-n-propylamine	380.	U
67-72-1	Hexachloroethane	380.	U
98-95-3	Nitrobenzene	380.	U
78-59-1	Isophorone	380.	U
88-75-5	2-Nitrophenol	380.	U
105-67-9	2,4-Dimethylphenol	380.	U
65-85-0	Benzoic acid	1900.	U
111-91-1	bis(2-Chloroethoxy)methane	380.	U
120-83-2	2,4-Dichlorophenol	380.	U
120-82-1	1,2,4-Trichlorobenzene	380.	U
91-20-3	Naphthalene	380.	U
106-47-8	4-Chloroaniline	760.	U
87-68-3	Hexachlorobutadiene	380.	U
59-50-7	4-Chloro-3-methylphenol	760.	U
91-57-6	2-Methylnaphthalene	380.	U
77-47-4	Hexachlorocyclopentadiene	380.	U
88-06-2	2,4,6-Trichlorophenol	380.	U
95-95-4	2,4,5-Trichlorophenol	380.	U
91-58-7	2-Chloronaphthalene	380.	U
88-74-4	2-Nitroaniline	1900.	U
131-11-3	Dimethylphthalate	380.	U
208-96-8	Acenaphthylene	380.	U
606-20-2	2,6-Dinitrotoluene	380.	U

6

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS110

Lab Name: Sound Analytical Services Contract: 624419

Lab Code: - Case No.: - SAS No.: - SDG No.: 29391

Matrix: (soil/water) SOIL Lab Sample ID: 29391-1

Sample wt/vol: 30.1 (g/ml) G Lab File ID: S7353

Level: (low/med) LOW Date Received: 1/06/93

% Moisture: 13 decanted: (Y/N) N Date Extracted: 1/08/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 1/12/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1900.	U
83-32-9	Acenaphthene	380.	U
51-28-5	2,4-Dinitrophenol	1900.	U
100-02-7	4-Nitrophenol	1900.	U
132-64-9	Dibenzofuran	380.	U
121-14-2	2,4-Dinitrotoluene	380.	U
84-66-2	Diethylphthalate	380.	U
7005-72-3	4-Chlorophenyl-phenylether	380.	U
86-73-7	Fluorene	380.	U
100-01-6	4-Nitroaniline	1900.	U
534-52-1	4,6-Dinitro-2-methylphenol	1900.	U
86-30-6	N-Nitrosodiphenylamine(1)	380.	U
101-55-3	4-Bromophenyl-phenylether	380.	U
118-74-1	Hexachlorobenzene	380.	U
87-86-5	Pentachlorophenol	1900.	U
85-01-8	Phenanthrene	380.	U
120-12-7	Anthracene	380.	U
84-74-2	Di-n-butylphthalate	70.	JB
206-44-0	Fluoranthene	380.	U
129-00-0	Pyrene	380.	U
85-68-7	Butylbenzylphthalate	380.	U
91-94-1	3,3'-Dichlorobenzidine	760.	U
56-55-3	Benzo(a)anthracene	380.	U
218-01-9	Chrysene	380.	U
117-81-7	bis(2-Ethylhexyl)phthalate	86.	J
117-84-0	Di-n-octylphthalate	380.	U
205-99-2	Benzo(b)fluoranthene	380.	U
207-08-9	Benzo(k)fluoranthene	380.	U
50-32-8	Benzo(a)pyrene	380.	U
193-39-5	Indeno(1,2,3-cd)pyrene	380.	U
53-70-3	Dibenz(a,h)anthracene	380.	U
191-24-2	Benzo(g,h,i)perylene	380.	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS110

Name: Sound Analytical Services Contract: 624419

Lab Code:- Case No.:- SAS No.:- SDG No.: 29391

Matrix: (soil/water) SOIL Lab Sample ID: 29391-1

Sample wt/vol: 30.1 (g/ml) G Lab File ID: S7353

Level: (low/med) LOW Date Received: 1/06/93

% Moisture: 13 decanted: (Y/N) N Date Extracted: 1/08/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 1/12/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

Number TICs Found: 2

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	719-22-2	2,5-Cyclohexadiene-1,4-dione	14.94	160.	J B
2.		Unknown	27.82	3200.	J
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
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15.					
16.					
17.					
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20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SBS-110

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: SBS-11

Matrix (soil/water): SOIL_ Lab Sample ID: 29391-1___

Level (low/med): LOW__ Date Received: 01/06/93

% Solids: _86.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_	5.7	U		P_
7440-38-2	Arsenic__	9.6	U		P_
7440-39-3	Barium___	50.7	_		P_
7440-41-7	Beryllium	0.48	U		P_
7440-43-9	Cadmium__	1.4	_	*	P_
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_	3.2	_	*	P_
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___	10.8	_	*	P_
7439-89-6	Iron____		_		NR
7439-92-1	Lead____	4.8	U		P_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__	0.08	U		AV
7440-02-0	Nickel___	5.0	_		P_
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_	12.9	_	*	P_
7440-22-4	Silver___	0.96	U	*	P_
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_	14.3	U		P_
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc____	24.8	_	*	P_
5955-70-0	Cyanide__		_		NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SBS-110

Lab Name: Sound Analytical Contract: Burlington Environmental

Lab Code: 29391 Case No.: SAS No.: SDG No.:

Matrix: (soil/water) soil Lab Sample ID: 29391-1

Sample wt/vol: 10.5551 (g/mL) grams Lab File ID: P1685

% Moisture: 13.13 decanted: (Y/N) no Date Received: 12/22/92

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 01/14/93

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 01/23/93

Injection Volume: 3 (uL) Dilution Factor:

GPC Cleanup: (Y/N) no pH: n/a Sulfur Cleanup: (Y/N) no

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.85
319-85-7	beta-BHC	ND	1.85
319-86-8	delta-BHC	ND	1.85
58-89-9	gamma-BHC (Lindane)	ND	1.85
76-44-8	Heptachlor	ND	1.85
309-00-2	Aldrin	ND	1.85
1024-57-3	Heptachlor epoxide	ND	1.85
959-98-8	Endosulfan I	ND	1.85
60-57-1	Dieldrin	ND	3.60
72-55-9	4,4'-DDE	ND	3.60
72-20-8	Endrin	ND	3.60
33213-65-9	Endosulfan II	ND	3.60
72-54-8	4,4'-DDD	ND	3.60
1031-07-8	Endosulfan sulfate	ND	3.60
50-29-3	4,4'-DDT	ND	3.60
72-43-5	Methoxychlor	ND	18.54
53494-70-5	Endrin ketone	ND	3.60
7421-36-3	Endrin aldehyde	ND	3.60
5103-71-9	alpha-Chlordane	ND	1.85
5103-74-2	gamma-Chlordane	ND	1.85
8001-35-2	Toxaphene	ND	54.53
12674-11-2	Aroclor-1016	ND	35.99
11104-28-2	Aroclor-1221	ND	35.99
11141-16-5	Aroclor-1232	ND	73.07
53469-21-9	Aroclor-1242	ND	35.99
12672-29-6	Aroclor-1248	ND	35.99
11097-69-1	Aroclor-1254	ND	35.99
11096-82-5	Aroclor-1260	ND	35.99

CHAIN OF CUSTODY

Mathes & Associates, Inc.
210 West Sand Bank Road
Columbia, Illinois 62236

CHAIN-OF-CUSTODY RECORD

C.O.C. SERIAL NO. 5287

PROJECT NAME: PASCO LF
PROJECT NUMBER: 624419 MAJOR TASK: 7020.17
SAMPLERS: LAROSA
LAB DESTINATION: SOUND ANALYTICAL

SAMPLE NO.	DATE	TIME	COMP	GRAB	SAMPLE LOCATION	NO. OF CONTAINERS	TYPE OF ANALYSIS: VOC (METHOD 8240)	SVOC (8270)	PEST/PCB (8080)	PPM (6010)	MS/MSD			ICED	PRESERVATIVES: CHEMICALS ADDED	REMARKS (CHEMICAL ANALYSIS REQUEST FORM NUMBER IF APPLICABLE)
PLF-SBS-110	1/5/93	0845		X	Soil	3	2	X	X	X	X			X		

RELINQUISHED BY

SIGNATURE	DATE	TIME
[signature]	1/5/93	1630

RECEIVED BY

SIGNATURE	DATE	TIME
SHIP VIA FED EX	1/5/93	1630
SGiang	1/6/93	9:15am

SHIPPING NOTES

LAB NOTES

JM-34 (8/89)

MEMORANDUM

DATE: April 2, 1993

TO: Ted Wall, Environmental Engineer TW

FROM: Nels Cone, Chemist NC

SUBJECT: DATA VALIDATION OF CHEMICAL ANALYSIS FROM PASCO LANDFILL PHASE I REMEDIAL INVESTIGATION, PROJECT 624419, DATA SET 7A - 7D

During the period of December 20, 1992, to January 5, 1993, three soil samples were collected by Burlington field personnel. The identification numbers of these samples are as follows:

PLF-SBS-099 PLF-SBS-107 PLF-SBS-110

These samples were then submitted to Sound Analytical Services, of Tacoma, Washington (Work orders 29195, 29304, and 29391). I performed a data quality review of the analytical results receiving priority pollutant metals (PPM) analysis (USEPA SW-846, Method 6010) in accordance with the USEPA Contract Laboratory Program (CLP) Document Number ILM02.0. I performed a data quality review of the analytical results from pesticide/PCB (USEPA SW-846, Method 8080), semivolatile compound (Method 8270), and volatile compound (Method 8240) analysis, in accordance with the USEPA CLP Document Number 0LM01.0. My findings and recommendations are summarized below.

FINDINGS

Properly completed chain-of-custody forms were included with documented signatures from field to laboratory receipt. All samples were shown as having been properly iced and received in good condition. Holding, extraction, and analysis times for all samples met the required guidelines, and all samples received the requested analyses.

7A:

For volatile compound analysis, methylene chloride and acetone and/or toluene were detected in the method blanks; results received the appropriate "B" data qualifier flag to indicate this. Surrogate compound recoveries, as well as system monitoring compound recoveries, met CLP-required quality control (QC) limits for the sample, the accompanying method blank and method spikes. A search for tentatively-identified compounds (TIC) was performed, and several were found. Per CLP protocol, they received the appropriate "J data qualifier flag. Requisite instrument tuning check with bromofluorobenzene documented gas chromatograph/mass spectra (GC/MS) performance. All internal standards' retention times

met required QC limits. Initial calibration and continuing calibration verification displayed several target compounds outside advisory QC limits. These compounds were not detected in the samples. Per CLP protocol, no data qualifier flags were needed. Additional QC was supplied in the form of the laboratory worksheets, and GC/MS printouts for the sample method blank, method spikes, and calibration standards. Data consistency was demonstrated throughout.

7B:

Semivolatile analysis displayed surrogate recoveries within required QC limits for all samples, method blank, and method spike. Matrix spike recoveries had two out of eleven compounds outside QC limits. However, these compounds were not detected in the samples, and no data qualifier flags were needed, per CLP protocol. Method blanks contained several species of phthalates; results received the appropriate "B" data qualifier flag. Requisite instrument tuning check with DFTPP documented GC/MS performance. Initial calibration checks met minimum relative response factors. Continuing calibration checks were outside advisory QC limits for several compounds. However, they were not detected in the samples and no data qualifier flag is needed. Internal calibration standards met all QC criteria for retention times and area response. A search for tentatively-identified compounds (TIC) was performed and several were found. Per CLP protocol, they received the appropriate "J" data qualifier flag. Supporting chromatograms demonstrated data consistency for all samples, method blank, and method spike.

7C:

All metal analyses were performed by inductively coupled plasma (ICP) analysis, except mercury, which received cold vapor atomic absorption (CVAA) analysis. Duplicate analyses did not meet QC limits required for several analytes; results received the appropriate CLP data qualifier flag. All target analytes from the laboratory control samples (LCS) met expected QC limits except antimony, chromium, and selenium, and the sample results for these analytes can only be considered estimated at best. All spiked sample recoveries met required QC limits with the exception of selenium (in addition to estimated LCS results) and thallium for sample PLF-SBS-099; results received the appropriate CLP data qualifier flag. Initial and continuing calibration verification, method blanks, ICP correction factors and line calibration data all met within required QC limits. Supporting documentation was supplied in the form of raw sample data consistent with reported summary information.

7D:

All pesticide/PCB analyses were performed using dual column confirmation (columns DB-608 and DB-5) as required by CLP protocol. Transcription errors are noted in supporting documentation for performance evaluation of these columns. Specifically, the combined percent breakdown of 4,4'-DDT and Endrin reported is lower than the correctly calculated breakdown values. The reporting forms have been corrected to the true values and they remain within the CLP acceptance criteria. Surrogate compound recoveries for all analyses met required QC limits with the exception of tetrachloro-m-xylene in sample PLF-SBS-107. Regardless, the overall data accuracy remains unaffected. Method blank analyses contained 4,4'-DDT and results received appropriate "B" flags to indicate this. Method spike analyses met required QC limits for analytical accuracy. Initial calibration of columns DB-608 displayed appropriate analytical performance. Initial calibration of column DB-5 displays several compounds out of QC limits: α-BHC, δ-BHC, lindane, heptaclor, dieldrin, 4,4'-DDE, endrin, endosulfan II, 4,4'-DDD, endosulfan sulfate, 4,4'-DDT, methoxychlor, and endrin aldehyde. These compounds were not detected in the samples using either column, and no data qualifier flags are used. Dual column chromatograms were included for all samples, the method blank, method spike, and calibration standards. The chromatograms have been annotated with quantitation values calculated from the average response factors as needed by the laboratory. The reported summary information appears consistent with this data.

RECOMMENDATIONS

Antimony results for samples PLF-SBS-107 and PLF-SBS-110 should be appended with a "B" data qualifier flag. Chromium and selenium results for sample PLF-SBS-099 should also be appended with a "B" data qualifier flag, as results for these analytes can be considered as concentration estimates only.

NC/rlk/b47:2160b.mem

SUBSURFACE SOILS I3.6

SAMPLES PLF-SBS-274 TO PLF-SBS-296

SUBSURFACE SOILS I3.6

SAMPLES PLF-SBS-274 TO PLF-SBS-296

BARRINGER LABORATORIES INC.
15000 W. 6TH AVE., SUITE 300 GOLDEN, CO 80401 (303) 277-1687 FAX (303) 277-1689

12-Mar-93

BURLINGTON ENVIRONMENTAL
P.O. Box 3552
Seattle, WA 98124

Attn:
Project: Pasco Landfill
PO#

Received: 9-Feb-93

Job: 936258E

Status: Final

BARRINGER LABORATORIES
ANALYTICAL REPORT PACKAGE

CASE NARRATIVE.....i

ANALYTICAL RESULTS.....R-1

QUALITY CONTROL REPORT.....Q-1

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CASE NARRATIVE

A total of 25 Soil samples were received on 9-Feb-93. All were properly preserved and in good condition. As stated in the chain of custody, the samples were run for the following analyses: Gamma Spec, Gross Alpha and Gross Beta. Our procedures are summarized on the Quality Control Data Sheet. There were no deviations to these procedures. All samples were extracted and analyzed within the proper holding times.

Quality control standards were run using standard EPA guidelines. A summary of that data is provided. The acceptance criteria for spikes and duplicates in radiochemistry is sixteen percent. It is calculated as follows:

$$RPD = \frac{\text{(difference in results)} - \text{(sum of counting errors)}}{\text{(average sample value)}} * 100\ \%$$

All QC checks, including duplicates, spikes, and blanks, passed.

Signed: .....
Steven L. Sincoff, Ph.D.
Director of Operations

BARRINGER LABORATORIES INC.
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12-Mar-93

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Seattle, WA 98124

Attn:
Project: Pasco Landfill
PO #:
Received: 9-Feb-93 09:30

Job: 936258E
Status: Final

Sample Type: Soil

Sample Id	Gross Alpha Total pCi/g	± 2σ	Gross Beta Total pCi/g	± 2σ
PLF-SBS-274	18	±10	25	±5
PLF-SBS-275	8.1	±8.0	16	±4
PLF-SBS-276	16	±8	14	±4
PLF-SBS-277	11	±7	19	±4
PLF-SBS-278	11	±7	17	±4
PLF-SBS-279	8.4	±7.0	12	±4
PLF-SBS-280	12	±9	18	±4
PLF-SBS-281	14	±9	15	±4
PLF-SBS-282	6.6	±8.0	9.9	±3.9
PLF-SBS-283	9.3	±6.7	11	±4
PLF-SBS-284	6.7	±6.7	8.7	±4.0
PLF-SBS-285	10	±8	19	±4
PLF-SBS-286	19	±10	26	±4
PLF-SBS-287	18	±9	23	±4
PLF-SBS-288	13	±7	22	±4
PLF-SBS-289	19	±8	21	±4
PLF-SBS-290	17	±7	19	±4
PLF-SBS-291	23	±8	21	±4
PLF-SBS-292	17	±9	21	±4
PLF-SBS-293	3.0	±6.8	15	±4
PLF-SBS-294	8.8	±7.9	13	±4
PLF-SBS-295	2.5	±6.9	13	±4
PLF-SBS-296	7.4	±6.5	13	±4
PLF-SBS-281-MS	2145	±46	898	±15
PLF-SBS-281-MSD	2245	±45	897	±15

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12-Mar-93

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PO #:
Received: 9-Feb-93 09:30

Job: 936258E
Status: Final

GAMMA SPECTROSCOPY

Sample Type: Soil

	K-40		Pb-214		Ac-228	
Sample Id	pCi/g*	± 2σ	pCi/g*	± 2σ	pCi/g*	± 2σ
PLF-SBS-274	25	±3	1.7	±0.3	<0.3	---
PLF-SBS-275	<1.4	---	<0.1	---	1.1	±0.3
PLF-SBS-276	14	±2	0.57	±0.09	0.68	±0.17
PLF-SBS-277	<1.9	---	1.1	±0.2	<0.3	---
PLF-SBS-278	<1.5	---	0.82	±0.14	<0.2	---
PLF-SBS-279	12	±2	0.70	±0.15	0.88	±0.19
PLF-SBS-280	10	±1	0.54	±0.09	0.53	±0.13
PLF-SBS-281	16	±2	0.77	±0.11	<0.2	---
PLF-SBS-282	<1.1	---	0.52	±0.10	<0.2	---
PLF-SBS-283	<0.8	---	0.42	±0.07	0.51	±0.12
PLF-SBS-284	<0.9	---	0.46	±0.08	0.55	±0.14
PLF-SBS-285	<1.7	---	1.3	±0.2	<0.2	---
PLF-SBS-286	<1.2	---	0.85	±0.14	1.1	±0.2
PLF-SBS-287	<1.4	---	<0.1	---	<0.2	---
PLF-SBS-288	<1.2	---	1.0	±0.1	1.1	±0.2
PLF-SBS-289	14	±2	0.68	±0.10	0.82	±0.14
PLF-SBS-290	18	±2	1.1	±0.2	1.3	±0.3
PLF-SBS-291	13	±2	0.79	±0.13	0.96	±0.25
PLF-SBS-292	14	±2	0.84	±0.14	0.97	±0.22
PLF-SBS-293	10	±1	0.49	±0.08	0.66	±0.13
PLF-SBS-294	9.0	±1.2	0.45	±0.07	0.66	±0.14
PLF-SBS-295	<1.0	---	0.64	±0.10	<0.2	---
PLF-SBS-296	7.8	±1.1	0.41	±0.08	0.46	±0.12

	Bi-214		Tl-208		Pb-212	
Sample Id	pCi/g*	± 2σ	pCi/g*	± 2σ	pCi/g*	± 2σ
PLF-SBS-274	<0.2	---	<0.1	---	<0.2	---

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12-Mar-93

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Attn:
Project: Pasco Landfill
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Received: 9-Feb-93 09:30

Job: 936258E

Status: Final

GAMMA SPECTROSCOPY

Sample Type: Soil

	Bi-214		Tl-208		Pb-212	
Sample Id	pCi/g*	± 2σ	pCi/g*	± 2σ	pCi/g*	± 2σ
PLF-SBS-275	0.76	±0.15	0.28	±0.06	<0.1	---
PLF-SBS-276	<0.1	---	<0.05	---	<0.1	---
PLF-SBS-277	1.0	±0.2	0.40	±0.08	<0.1	---
PLF-SBS-278	0.57	±0.13	<0.1	---	<1.0	---
PLF-SBS-279	0.48	±0.10	<0.05	---	<0.1	---
PLF-SBS-280	<0.1	---	0.22	±0.04	0.68	±0.39
PLF-SBS-281	<0.1	---	<0.1	---	0.82	±0.12
PLF-SBS-282	<0.1	---	<0.05	---	0.70	±0.12
PLF-SBS-283	<0.1	---	0.21	±0.04	0.53	±0.08
PLF-SBS-284	0.29	±0.12	<0.04	---	0.69	±0.10
PLF-SBS-285	1.4	±0.3	0.44	±0.08	<0.1	---
PLF-SBS-286	<0.1	---	0.43	±0.07	1.3	±0.2
PLF-SBS-287	<0.1	---	0.41	±0.07	1.4	±0.2
PLF-SBS-288	<0.1	---	0.41	±0.06	<0.1	---
PLF-SBS-289	0.64	±0.09	0.27	±0.04	0.88	±0.19
PLF-SBS-290	<0.1	---	<0.1	---	<0.1	---
PLF-SBS-291	<0.1	---	<0.05	---	<0.1	---
PLF-SBS-292	0.84	±0.12	0.28	±0.05	0.93	±0.18
PLF-SBS-293	<0.1	---	0.21	±0.03	0.60	±0.08
PLF-SBS-294	<0.1	---	0.23	±0.04	0.49	±0.08
PLF-SBS-295	0.66	±0.11	0.22	±0.05	0.59	±0.10
PLF-SBS-296	0.32	±0.07	0.15	±0.03	0.47	±0.07

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15-Mar-93

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Seattle, WA 98124

Page: Q-1
Copy: 1 of 2

Attn:
Project: Pasco Landfill
PO #:

Received: 9-Feb-93 09:30

Job: 936258E
Status: Final

QUALITY CONTROL REPORT

Sample Type: Soil

Sample Id	Gross Alpha Total pCi/g	± 2σ	Gross Beta Total pCi/g	± 2σ
Duplicate	6.6	±8.0	9.9	±3.9
Duplicate	3.4	±7.7	11	±4
Duplicate % diff.	0.0	---	0.0	---
Std (found value)	184	±7	96	±2
Std (true value)	200	---	101	---
Std % rec.	92	---	95	---
Blank	0.0	±0.2	0.3	±0.4
Spike % rec.	112	---	90	---
LCS (found value)	309	±9	191	±3
LCS (true value)	300	---	202	---
LCS % rec.	103	---	95	---

BARRINGER LABORATORIES INC.
15000 W. 6TH AVE., SUITE 300 GOLDEN, CO 80401 (303) 277-1687 FAX (303) 277-1689

15-Mar-93

BURLINGTON ENVIRONMENTAL
P.O. Box 3552
Seattle, WA 98124

Attn:
Project: Pasco Landfill PO #:

Received: 9-Feb-93 09:30

Job: 936258E Status: Final

QUALITY CONTROL REPORT

Sample Type: Soil

Sample Id	Gamma Spec* 3/4/93 pCi/g*	± 2σ	Gamma Spec* 3/5/93 pCi/l	± 2σ
Std (found value)	18	±3	18	±3
Std (true value)	19	---	19	---
Std % rec.	95	---	95	---

Sample Id	Gamma Spec* 3/9/93 pCi/l	± 2σ	Gamma Spec* 3/10/93 pCi/l	± 2σ
Std (found value)	18	±3	19	±2
Std (true value)	19	---	19	---
Std % rec.	95	---	100	---

Sample Id	Gamma Spec* 3/11/93 pCi/l	± 2σ
Std (found value)	0.217	±0.011
Std (true value)	0.227	---
Std % rec.	96	---

BARRINGER LABORATORIES INC.
15000 W. 6TH AVE., SUITE 300 GOLDEN, CO 80401 (303) 277-1687 FAX (303) 277-1689

15-Mar-93

BURLINGTON ENVIRONMENTAL
P.O. Box 3552
Seattle, WA 98124

Attn:
Project: Pasco Landfill

Received: 9-Feb-93 09:30

PO #:

Job: 936258E

Status: Final

Abbreviations:

Parameters:

K-40	: Potassium-40
Pb-214	: Lead-214
Ac-228	: Actinium-228
Bi-214	: Bismuth-214
Tl-208	: Thallium-208
Pb-212	: Lead-212
Gamma Spec*	: Gamma Spectralanalysis-MDA'S Reported at 1.645 sigma

Units:

pCi/g	: picoCuries per gram
pCi/g*	: picoCuries per gram as received
pCi/l	: picoCuries per liter

Quality codes:

<	: Not Detected- below detection limit.

BARRINGER LABORATORIES INC.
15000 W. 6TH AVE., SUITE 300 GOLDEN, CO 80401 (303) 277-1687 FAX (303) 277-1689

15-Mar-93

BURLINGTON ENVIRONMENTAL
P.O. Box 3552
Seattle, WA 98124

Page: Q-4
Copy: 1 of 2

Attn:
Project: Pasco Landfill
PO #:

Received: 9-Feb-93 09:30

Job: 936258E

Status: Final

QUALITY CONTROL REPORT

QUALITY CONTROL DATA SHEET

Received by: jdr Via: Fedex

Sample Container Type: 500ml w/m pl
Sample Type: Soil
Preservative When Received: none
Additional Lab Preparation: none

Parameter	Method	LLD	Preser-vative	Analyst	Date(s) of Analysis
Gross Alpha	900.0	5 pCi/g	none	Gerity	2/24- 3/ 1
Gross Beta	900.0	9 pCi/g	none	Gerity	2/24- 3/ 1
Gamma Spec*	901.1	--- pCi/g*	none	Kidwell	3/ 4- 3/11

BARRINGER LABORATORIES INC.
15000 W. 6TH AVE., SUITE 300 GOLDEN, CO 80401 (303) 277-1687 FAX (303) 277-1689

15-Mar-93

BURLINGTON ENVIRONMENTAL
P.O. Box 3552
Seattle, WA 98124

Page: Q-5
Copy: 1 of 2

Attn:
Project: Pasco Landfill
PO #:

Received: 9-Feb-93 09:30

Job: 936258E

Status: Final

QUALITY CONTROL REPORT

Signed: .....
Radiochemical Laboratory Manager

Signed: .....
Quality Assurance Department

John Mathes & Associates, Inc.
210 West Sand Bank Road
Columbia, Illinois 62236

RECEIVED
FEB 09 1993
DK

6258

CHAIN-OF-CUSTODY RECORD

C.O.C. SERIAL NO. 5309

PROJECT NAME: PASCO LF
PROJECT NUMBER: 624419 MAJOR TASK: 7010.16
SAMPLERS: LOU LAROSA
LAB DESTINATION: BARRINGER LABORATORIES

SAMPLE NO.	DATE	TIME	COMP	GRAB	SAMPLE LOCATION	NO. OF CONTAINERS	TYPE OF ANALYSIS: Gross Alpha & Beta	Gross Gamma	MS/MSD					PRESERVATIVES: ICED	CHEMICALS ADDED	REMARKS (CHEMICAL ANALYSIS REQUEST FORM NUMBER IF APPLICABLE)
PLF-SBS-274	2/3/93	0835		X	SOIL	1	✓	✓						N/A	N/A	
PLF-SBS-275		0840				1	✓	✓								
PLF-SBS-276		1005				1	✓	✓								
PLF-SBS-277		1010				1	✓	✓								
PLF-SBS-278		1025				1	✓	✓								
PLF-SBS-279		1100				1	✓	✓								
PLF-SBS-280		1105				1	✓	✓								
PLF-SBS-281		1115				1	✓	✓	X							
PLF-SBS-282		1130				1	✓	✓								
PLF-SBS-283		1330				1	✓	✓								
PLF-SBS-284		1340				1	✓	✓								
PLF-SBS-285		1510				1	✓	✓								
PLF-SBS-286		1520				1	✓	✓								
PLF-SBS-287		1525				1	✓	✓								

RELINQUISHED BY: SIGNATURE	DATE	TIME	RECEIVED BY: SIGNATURE	DATE	TIME
[signature]	2/8/93	1600	SHIP VIA FED EX	2/8/93	1600
[signature]			[signature]	2/9/93	0930

SHIPPING NOTES

LAB NOTES: CALL CHIP GOODHUE / BURLINGTON E. FOR METHOD #.

J -34 (8/89)

John Mathes & Associates, Inc.
210 West Sand Bank Road
Columbia, Illinois 62236

6258

CHAIN-OF-CUSTODY RECORD

C.O.C. SERIAL NO. 5311

PROJECT NAME: PASCO LF
PROJECT NUMBER: 624419 MAJOR TASK: 7020.16
SAMPLERS: LOU LAROSA
LAB DESTINATION: KCMS BAYLINGER LABORATORIES

	SAMPLE NO.	DATE	TIME	COMP	GRAB	SAMPLE LOCATION	NO. OF CONTAINERS	GROSS ALPHA & BETA	GROSS GAMMA						ICED	CHEMICALS ADDED	REMARKS (CHEMICAL ANALYSIS REQUEST FORM NUMBER IF APPLICABLE)
PLF-	SBS-288	2/3/93	1530		X	Soil	1	✓	✓						N/A	N/A	
PLF-	SBS-289	↓	1625		↓	↓	1	✓	✓						↓	↓	
PLF-	SBS-290		1640				1	✓	✓								
PLF-	SBS-291		1650				1	✓	✓								
PLF-	SBS-292		1705				1	✓	✓								
PLF-	SBS-293		1720				1	✓	✓								
PLF-	SBS-294		1730				1	✓	✓								
PLF-	SBS-295		1740				1	✓	✓								
PLF-	SBS-296	↓	1315		↓	↓	1	✓	✓						↓	↓	

RELINQUISHED BY SIGNATURE	DATE	TIME	RECEIVED BY SIGNATURE	DATE	TIME
[signature]	2/8/93	1600	SHIP VIA FED EX	2/8/93	1600
[signature]			[signature]	2/9/93	0930

SHIPPING NOTES

LAB NOTES: CALL CHIP GOODHUE/BURLINGTON E. FOR METHOD #.

JM-34 (8/89)

MEMORANDUM

DATE: April 2, 1993

TO: Ted Wall, Environmental Engineer

FROM: Nels Cone, Chemist

SUBJECT: DATA VALIDATION OF RADIOCHEMICAL ANALYSIS FROM PASCO LANDFILL PHASE I REMEDIAL INVESTIGATION, PROJECT 624419, DATA SET 7E

On February 3, 1993, a total of twenty-three soil samples were collected by Burlington Environmental Inc. personnel. The sample identification numbers are as follows:

PLF-SBS-274	PLF-SBS-279	PLF-SBS-284	PLF-SBS-289	PLF-SBS-294
PLF-SBS-275	PLF-SBS-280	PLF-SBS-285	PLF-SBS-290	PLF-SBS-295
PLF-SBS-276	PLF-SBS-281	PLF-SBS-286	PLF-SBS-291	PLF-SBS-296
PLF-SBS-277	PLF-SBS-282	PLF-SBS-287	PLF-SBS-292	
PLF-SBS-278	PLF-SBS-283	PLF-SBS-288	PLF-SBS-293	

These samples were then submitted to Barringer Laboratories, Golden, Colorado (job numbers 936258E), for alpha, beta, and gamma radiation analysis (USEPA Methods 900.0 and 901.1). As there are no Contract Laboratory Program (CLP) guidelines for radiochemical analysis, I performed a data quality review of the analytical results in accordance with the USEPA Handbook for Analytical Quality Control in Radioanalytical Laboratories (EPA 600/7-77-088). This document was relied upon for proper guidance in the radiochemical data validation, as it is no less stringent in its data quality requirements than CLP criteria.

FINDINGS

Properly completed chain-of-custody forms were included with documented signatures from field to laboratory receipt. All samples were shown as having been properly preserved and received in good condition. The samples received the requested analyses, and all holding, extraction, and analysis times met the required guidelines. Method blanks displayed spike recoveries well within quality control (QC) criteria, and no blank corrections were required. All duplicate analyses displayed precision within acceptable QC limits. Matrix spike/matrix spike duplicates, and continuing calibration data displayed required analytical accuracy. A ninety-five percent confidence level is reported for all results, including appropriate standard deviations.

Alpha and beta analysis were supplied with additional data quality assurance in the form of USEPA sample intercomparison records, particle background records, laboratory worksheets, and sample run logs. Gamma analysis included supporting documentation of certified calibration standards (traceable to the National Institute of Standards and Technology), instrument background checks, instrument efficiency and control checks, and laboratory sample logs. Data consistent with reported summary information was demonstrated.

Overall, the data quality objectives as required by USEPA directives are met. Accordingly, this data set can be considered valid for its intended use.

RECOMMENDATIONS

No modifications of the data are required.

SUBSURFACE SOILS I3.7

SAMPLES PLF-SBS-242 TO PLF-SBS-245;
PLF-SBS-250 TO PLF-SBS-254

SOUND ANALYTICAL SERVICES, INC.

SPECIALIZING IN INDUSTRIAL & TOXIC WASTE ANALYSIS

4813 PACIFIC HIGHWAY EAST, TACOMA, WASHINGTON 98424 - TELEPHONE (206) 922-2310 - FAX (206) 922-5047

March 18, 1993

TO: Burlington Environmental Engineering

PROJECT NUMBER: 624419-7020.16

PROJECT NAME: Pasco Landfill

LABORATORY WORK ORDER NUMBER IDENTIFICATION: 29777

The samples were taken on 1/22/93, 1/23/93, and 1/24/93 and received at Sound Analytical on 1/26/93. The samples were analyzed for volatile organics by GC/MS in accordance with EPA SW-846 Method 8240, for chlorinated pesticides and PCB's in accordance with EPA SW-846 Method 8080, for semivolatile organics by GC/MS in accordance with EPA SW-846 Method 8270, for chlorinated herbicides in accordance with EPA SW-846 Method 8150, for metals by ICP in accordance with EPA SW-846 Method 6010, and for mercury by cold vapor AA in accordance with SW-846 Method 7471.

VOLATILE ORGANICS

Samples 29777-9 and 29777-10 were analyzed at low level on 1/28/93. Samples 29777-11, 29777-12, and 29777-17 through 29777-21 were analyzed at low level on 1/29/93. Samples 29777-9 through 29777-12, 29777-17, and 29777-18 were analyzed at medium level on 2/01/93. Methylene chloride, acetone, toluene, and one TIC were detected in the low level method blank. Low level sample results for these compounds were flagged B to indicate this. Methylene chloride and acetone were detected in the medium level method blank. Medium level sample results were flagged B to indicate this. The percent recovery for 1,1-dichloroethene in the medium level matrix spike/matrix spike duplicate analysis was below QC limits. All other QC parameters were within acceptance limits.

SEMIVOLATILE ORGANICS

Samples 29777-1 through 29777-21 were extracted on 1/30/93. Samples 29777-2 through 29777-11 were analyzed on 2/07/93. Samples 29777-12 through 29777-18, and 29777-20 were analyzed on 2/08/93. Samples 29777-1 and 29777-19 were analyzed on 2/09/93. Di-n-butylphthalate and one TIC were detected in both method blanks. Matrix spike duplicate percent recoveries for 1,4-dichlorobenzene and 1,2,4-trichlorobenzene were below QC limits for one of the two MSD's. The relative percent difference for the matrix spike/matrix spike duplicate analysis of 1,4-dichlorobenzene and 1,2,4-trichlorobenzene exceeded QC limits. All other QC parameters were within acceptance limits.

SOUND ANALYTICAL SERVICES, INC.

PROJECT NUMBER: 624419-7020.16

PROJECT NAME: Pasco Landfill

LABORATORY WORK ORDER NUMBER IDENTIFICATION: 29777

HERBICIDES
Samples 29777-9 through 29777-21 were extracted on 1/29/93 and analyzed on 2/02/93. No compounds were detected in the method blank above the PQL's. The percent recoveries for several compounds in the matrix spike/matrix spike duplicate analysis were below advisory QC limits due to acidic properties. All other QC parameters were within acceptance limits.

PESTICIDES and PCBs
Samples 29777-9 through 29777-21 were extracted on 1/28/93 and analyzed on 2/09/93. The percent recovery for tetrachloro-m-xylene in sample 29777-13 was below QC limits. All other QC parameters were within acceptance limits.

METALS
Samples 29777-1 through 29777-21 were digested for ICP on 1/28/93, and analyzed on 2/03/93. Samples 29777-1 through 29777-21 were digested for cold vapor AA on 1/28/93 and analyzed on 1/29/93. Copper, nickel, and zinc were detected in the method blank at levels above the IDL but below the CRDL. Duplicate relative percent difference values for lead and mercury exceeded QC limits. Matrix spike percent recovery for antimony was below QC limits. All other QC parameters were within acceptance limits.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS242

Lab Name:Sound Analytical Services Contract:624419

Code:SAS Case No.:- SAS No.:- SDG No.:29777

Matrix: (soil/water) SOIL Lab Sample ID:29777-9

Sample wt/vol: 5.01 (g/ml) G Lab File ID: V8157

Level: (low/med) LOW Date Received: 1/28/93

% Moisture: not dec. 7 Date Analyzed: 1/28/93

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
54-87-3	Chloromethane	11.	U
74-83-9	Bromomethane	11.	U
75-01-4	Vinyl Chloride	11.	U
75-00-3	Chloroethane	11.	U
75-09-2	Methylene Chloride	94.	B
67-64-1	Acetone	690.	B
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	5.	U
107-06-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	27.	U
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-5	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	27.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	5.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	5.	U
591-78-6	2-Hexanone	5.	U
127-18-4	Tetrachloroethene	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	3.	J
108-90-7	Chlorobenzene	5.	U
100-41-4	Ethylbenzene	5.	U
100-42-5	Styrene	5.	U
1330-20-7	Xylene (total)	11.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS242

Lab Name:Sound Analytical Services Contract:624419

Lab Code:SAS Case No.:- SAS No.:- SDG No.:29777

Matrix: (soil/water) SOIL Lab Sample ID:29777-9

Sample wt/vol: 5.01 (g/ml) G Lab File ID: V8157

Level: (low/med) LOW Date Received: 1/28/93

% Moisture: not dec. 7 Date Analyzed: 1/28/93

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	110-54-3	Hexane	3.78	30.	J
2.	556-67-2	Cyclotetrasiloxane, Octameth	17.13	18.	J
3.					
4.					
5.					
6.					
7.					
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27.					
28.					
29.					
30.					

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS242M

Lab Name:Sound Analytical Services Contract:624419

Lab Code:SAS Case No.:- SAS No.:- SDG No.:29777

Matrix: (soil/water) SOIL Lab Sample ID:29777-9

Sample wt/vol: 10.13 (g/ml) G Lab File ID: V8242

Level: (low/med) MED Date Received: 1/28/93

% Moisture: not dec. 7 Date Analyzed: 2/01/93

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 40.0

Soil Extract Volume:10000.00 (uL) Soil Aliquot Volume: 5000.0 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
54-87-3	Chloromethane	420.	U
74-83-9	Bromomethane	420.	U
75-01-4	Vinyl Chloride	420.	U
75-00-3	Chloroethane	420.	U
75-09-2	Methylene Chloride	270.	J
67-64-1	Acetone	920.	J
75-15-0	Carbon Disulfide	210.	U
75-35-4	1,1-Dichloroethene	210.	U
75-34-3	1,1-Dichloroethane	210.	U
540-59-0	1,2-Dichloroethene (total)	210.	U
67-66-3	Chloroform	210.	U
107-06-2	1,2-Dichloroethane	210.	U
78-93-3	2-Butanone	1100.	U
71-55-6	1,1,1-Trichloroethane	210.	U
56-23-5	Carbon Tetrachloride	210.	U
108-05-4	Vinyl Acetate	1100.	U
75-27-4	Bromodichloromethane	210.	U
78-87-5	1,2-Dichloropropane	210.	U
10061-01-5	cis-1,3-Dichloropropene	210.	U
79-01-6	Trichloroethene	210.	U
124-48-1	Dibromochloromethane	210.	U
79-00-5	1,1,2-Trichloroethane	210.	U
71-43-2	Benzene	210.	U
10061-02-6	trans-1,3-Dichloropropene	210.	U
75-25-2	Bromoform	210.	U
108-10-1	4-Methyl-2-Pentanone	210.	U
591-78-6	2-Hexanone	210.	U
127-18-4	Tetrachloroethene	210.	U
79-34-5	1,1,2,2-Tetrachloroethane	210.	U
108-88-3	Toluene	210.	U
108-90-7	Chlorobenzene	210.	U
100-41-4	Ethylbenzene	210.	U
100-42-5	Styrene	210.	U
1330-20-7	Xylene (total)	420.	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS242M

Lab Name: Sound Analytical Services Contract: 624419

Lab Code: SAS Case No.: - SAS No.: - SDG No.: 29777

Matrix: (soil/water) SOIL Lab Sample ID: 29777-9

Sample wt/vol: 10.13 (g/ml) G Lab File ID: V8242

Level: (low/med) MED Date Received: 1/28/93

% Moisture: not dec. 7 Date Analyzed: 2/01/93

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 40.0

Soil Extract Volume: 10000.00 (uL) Soil Aliquot Volume: 5000.0 (uL)

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
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30.					

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS243

Lab Name: Sound Analytical Services Contract: 624419

Lab Code: SAS Case No.: - SAS No.: - SDG No.: 29777

Matrix: (soil/water) SOIL Lab Sample ID: 29777-10

Sample wt/vol: 5.05 (g/ml) G Lab File ID: V8158

Level: (low/med) LOW Date Received: 1/28/93

% Moisture: not dec. 5 Date Analyzed: 1/28/93

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 0 (uL) Soil Aliquot Volume: 0 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
54-87-3	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	80.	B
67-64-1	Acetone	1500.	B
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	5.	U
107-06-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	26.	U
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-5	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	26.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	5.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	5.	U
591-78-6	2-Hexanone	5.	U
127-18-4	Tetrachloroethene	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	3.	J
108-90-7	Chlorobenzene	5.	U
100-41-4	Ethylbenzene	5.	U
100-42-5	Styrene	5.	U
1330-20-7	Xylene (total)	10.	U

28

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS243

Lab Name:Sound Analytical Services Contract:624419

Lab Code:SAS Case No.:- SAS No.:- SDG No.:29777

Matrix: (soil/water) SOIL Lab Sample ID:29777-10

Sample wt/vol: 5.05 (g/ml) G Lab File ID: V8158

Level: (low/med) LOW Date Received: 1/28/93

% Moisture: not dec. 5 Date Analyzed: 1/28/93

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	110-54-3	Hexane	3.79	27.	J
2.	556-67-2	Cyclotetrasiloxane, octameth	17.16	26.	J
3.					
4.					
5.					
6.					
7.					
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9.					
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS243M

Lab Name:Sound Analytical Services Contract:624419

Lab Code:SAS Case No.:- SAS No.:- SDG No.:29777

Matrix: (soil/water) SOIL Lab Sample ID:29777-10

Sample wt/vol: 10.00 (g/ml) G Lab File ID: V8243

Level: (low/med) MED Date Received: 1/28/93

% Moisture: not dec. 5 Date Analyzed: 2/01/93

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 40.0

Soil Extract Volume:10000.00 (uL) Soil Aliquot Volume: 5000.0 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
54-87-3	Chloromethane	420.	U
74-83-9	Bromomethane	420.	U
75-01-4	Vinyl Chloride	420.	U
75-00-3	Chloroethane	420.	U
75-09-2	Methylene Chloride	280.	J
67-64-1	Acetone	1300.	
75-15-0	Carbon Disulfide	210.	U
75-35-4	1,1-Dichloroethene	210.	U
75-34-3	1,1-Dichloroethane	210.	U
540-59-0	1,2-Dichloroethene (total)	210.	U
67-66-3	Chloroform	210.	U
107-06-2	1,2-Dichloroethane	210.	U
78-93-3	2-Butanone	1100.	U
71-55-6	1,1,1-Trichloroethane	210.	U
56-23-5	Carbon Tetrachloride	210.	U
108-05-4	Vinyl Acetate	1100.	U
75-27-4	Bromodichloromethane	210.	U
78-87-5	1,2-Dichloropropane	210.	U
10061-01-5	cis-1,3-Dichloropropene	210.	U
79-01-6	Trichloroethene	210.	U
124-48-1	Dibromochloromethane	210.	U
79-00-5	1,1,2-Trichloroethane	210.	U
71-43-2	Benzene	210.	U
10061-02-6	trans-1,3-Dichloropropene	210.	U
75-25-2	Bromoform	210.	U
108-10-1	4-Methyl-2-Pentanone	210.	U
591-78-6	2-Hexanone	210.	U
127-18-4	Tetrachloroethene	210.	U
79-34-5	1,1,2,2-Tetrachloroethane	210.	U
108-88-3	Toluene	210.	U
108-90-7	Chlorobenzene	210.	U
100-41-4	Ethylbenzene	210.	U
100-42-5	Styrene	210.	U
1330-20-7	Xylene (total)	420.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS243M

Lab Name: Sound Analytical Services Contract: 624419

Lab Code: SAS Case No.: - SAS No.: - SDG No.: 29777

Matrix: (soil/water) SOIL Lab Sample ID: 29777-10

Sample wt/vol: 10.00 (g/ml) G Lab File ID: V8243

Level: (low/med) MED Date Received: 1/28/93

% Moisture: not dec. 5 Date Analyzed: 2/01/93

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 40.0

Soil Extract Volume: 10000.00 (uL) Soil Aliquot Volume: 5000.0 (uL)

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS244

Lab Name: Sound Analytical Services Contract: 624419

Lab Code: SAS Case No.: - SAS No.: - SDG No.: 29777

Matrix: (soil/water) SOIL Lab Sample ID: 29777-11

Sample wt/vol: 5.16 (g/ml) G Lab File ID: V8159

Level: (low/med) LOW Date Received: 1/28/93

% Moisture: not dec. 11 Date Analyzed: 1/29/93

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 0 (uL) Soil Aliquot Volume: 0 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
54-87-3	Chloromethane	11.	U
74-83-9	Bromomethane	11.	U
75-01-4	Vinyl Chloride	11.	U
75-00-3	Chloroethane	11.	U
75-09-2	Methylene Chloride	100.	B
67-64-1	Acetone	630.	B
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	5.	U
107-06-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	27.	U
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-5	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	27.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	5.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	5.	U
591-78-6	2-Hexanone	5.	U
127-18-4	Tetrachloroethene	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	3.	J
108-90-7	Chlorobenzene	5.	U
100-41-4	Ethylbenzene	5.	U
100-42-5	Styrene	5.	U
1330-20-7	Xylene (total)	11.	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS244

Lab Name:Sound Analytical Services Contract:624419

Lab Code:SAS Case No.:- SAS No.:- SDG No.:29777

Matrix: (soil/water) SOIL Lab Sample ID:29777-11

Sample wt/vol: 5.16 (g/ml) G Lab File ID: V8159

Level: (low/med) LOW Date Received: 1/28/93

% Moisture: not dec. 11 Date Analyzed: 1/29/93

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 110-54-3	Hexane	3.78	34.	J
2. 556-67-2	Cyclotetrasiloxane, Octameth	17.15	9.	J
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS244M

Lab Name:Sound Analytical Services Contract:624419

Lab Code:SAS Case No.:- SAS No.:- SDG No.:29777

Matrix: (soil/water) SOIL Lab Sample ID:29777-11

Sample wt/vol: 10.03 (g/ml) G Lab File ID: V8244

Level: (low/med) MED Date Received: 1/28/93

% Moisture: not dec. 11 Date Analyzed: 2/01/93

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 40.0

Soil Extract Volume:10000.00 (uL) Soil Aliquot Volume: 5000.0 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
54-87-3	Chloromethane	450.	U
74-83-9	Bromomethane	450.	U
75-01-4	Vinyl Chloride	450.	U
75-00-3	Chloroethane	450.	U
75-09-2	Methylene Chloride	300.	J
67-64-1	Acetone	550.	J
75-15-0	Carbon Disulfide	220.	U
75-35-4	1,1-Dichloroethene	220.	U
75-34-3	1,1-Dichloroethane	220.	U
540-59-0	1,2-Dichloroethene (total)	220.	U
67-66-3	Chloroform	220.	U
107-06-2	1,2-Dichloroethane	220.	U
78-93-3	2-Butanone	1100.	U
71-55-6	1,1,1-Trichloroethane	220.	U
56-23-5	Carbon Tetrachloride	220.	U
108-05-4	Vinyl Acetate	1100.	U
75-27-4	Bromodichloromethane	220.	U
78-87-5	1,2-Dichloropropane	220.	U
10061-01-5	cis-1,3-Dichloropropene	220.	U
79-01-6	Trichloroethene	220.	U
124-48-1	Dibromochloromethane	220.	U
79-00-5	1,1,2-Trichloroethane	220.	U
71-43-2	Benzene	220.	U
10061-02-6	trans-1,3-Dichloropropene	220.	U
75-25-2	Bromoform	220.	U
108-10-1	4-Methyl-2-Pentanone	220.	U
591-78-6	2-Hexanone	220.	U
127-18-4	Tetrachloroethene	220.	U
79-34-5	1,1,2,2-Tetrachloroethane	220.	U
108-88-3	Toluene	220.	U
108-90-7	Chlorobenzene	220.	U
100-41-4	Ethylbenzene	220.	U
100-42-5	Styrene	220.	U
1330-20-7	Xylene (total)	450.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS244M

Lab Name:Sound Analytical Services Contract:624419

Lab Code:SAS Case No.:- SAS No.:- SDG No.:29777

Matrix: (soil/water) SOIL Lab Sample ID:29777-11

Sample wt/vol: 10.03 (g/ml) G Lab File ID: V8244

Level: (low/med) MED Date Received: 1/28/93

% Moisture: not dec. 11 Date Analyzed: 2/01/93

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 40.0

Soil Extract Volume:10000.00 (uL) Soil Aliquot Volume: 5000.0 (uL)

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS245

Lab Name:Sound Analytical Services Contract:624419

Lab Code:SAS Case No.:- SAS No.:- SDG No.:29777

Matrix: (soil/water) SOIL Lab Sample ID:29777-12

Sample wt/vol: 5.24 (g/ml) G Lab File ID: V8162

Level: (low/med) LOW Date Received: 1/28/93

% Moisture: not dec. 6 Date Analyzed: 1/29/93

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
54-87-3	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	76.	B
67-64-1	Acetone	730.	B
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	5.	U
107-06-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	25.	U
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-5	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	25.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	5.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	5.	U
591-78-6	2-Hexanone	5.	U
127-18-4	Tetrachloroethene	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	3.	J
108-90-7	Chlorobenzene	5.	U
100-41-4	Ethylbenzene	5.	U
100-42-5	Styrene	5.	U
1330-20-7	Xylene (total)	10.	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS245

Lab Name:Sound Analytical Services Contract:624419

Lab Code:SAS Case No.:- SAS No.:- SDG No.:29777

Matrix: (soil/water) SOIL Lab Sample ID:29777-12

Sample wt/vol: 5.24 (g/ml) G Lab File ID: V8162

Level: (low/med) LOW Date Received: 1/28/93

% Moisture: not dec. 6 Date Analyzed: 1/29/93

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	110-54-3	Hexane	3.79	26.	J
2.	556-67-2	Cyclotetrasiloxane, Octameth	17.15	7.	J
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS245M

Lab Name:Sound Analytical Services Contract:624419

Lab Code:SAS Case No.:- SAS No.:- SDG No.:29777

Matrix: (soil/water) SOIL Lab Sample ID:29777-12

Sample wt/vol: 10.04 (g/ml) G Lab File ID: V8247

Level: (low/med) MED Date Received: 1/28/93

% Moisture: not dec. 6 Date Analyzed: 2/01/93

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 40.0

Soil Extract Volume:10000.00 (uL) Soil Aliquot Volume: 5000.0 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
54-87-3	Chloromethane	420.	U
74-83-9	Bromomethane	420.	U
75-01-4	Vinyl Chloride	420.	U
75-00-3	Chloroethane	420.	U
75-09-2	Methylene Chloride	270.	J
67-64-1	Acetone	360.	J
75-15-0	Carbon Disulfide	210.	U
75-35-4	1,1-Dichloroethene	210.	U
75-34-3	1,1-Dichloroethane	210.	U
540-59-0	1,2-Dichloroethene (total)	210.	U
67-66-3	Chloroform	210.	U
107-06-2	1,2-Dichloroethane	210.	U
78-93-3	2-Butanone	1100.	U
71-55-6	1,1,1-Trichloroethane	210.	U
56-23-5	Carbon Tetrachloride	210.	U
108-05-4	Vinyl Acetate	1100.	U
75-27-4	Bromodichloromethane	210.	U
78-87-5	1,2-Dichloropropane	210.	U
10061-01-5	cis-1,3-Dichloropropene	210.	U
79-01-6	Trichloroethene	210.	U
124-48-1	Dibromochloromethane	210.	U
79-00-5	1,1,2-Trichloroethane	210.	U
71-43-2	Benzene	210.	U
10061-02-6	trans-1,3-Dichloropropene	210.	U
75-25-2	Bromoform	210.	U
108-10-1	4-Methyl-2-Pentanone	210.	U
591-78-6	2-Hexanone	210.	U
127-18-4	Tetrachloroethene	210.	U
79-34-5	1,1,2,2-Tetrachloroethane	210.	U
108-88-3	Toluene	210.	U
108-90-7	Chlorobenzene	210.	U
100-41-4	Ethylbenzene	210.	U
100-42-5	Styrene	210.	U
1330-20-7	Xylene (total)	420.	U

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1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS245M

Lab Name:Sound Analytical Services Contract:624419

Lab Code:SAS Case No.:- SAS No.:- SDG No.:29777

Matrix: (soil/water) SOIL Lab Sample ID:29777-12

Sample wt/vol: 10.04 (g/ml) G Lab File ID: V8247

Level: (low/med) MED Date Received: 1/28/93

% Moisture: not dec. 6 Date Analyzed: 2/01/93

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 40.0

Soil Extract Volume:10000.00 (uL) Soil Aliquot Volume: 5000.0 (uL)

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS250

Lab Name:Sound Analytical Services Contract:624419

Lab Code:SAS Case No.:- SAS No.:- SDG No.:29777

Matrix: (soil/water) SOIL Lab Sample ID:29777-17

Sample wt/vol: 5.35 (g/ml) G Lab File ID: V8163

Level: (low/med) LOW Date Received: 1/28/93

% Moisture: not dec. 9 Date Analyzed: 1/29/93

GC Column:DB-624 ID: 0.55 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
54-87-3	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	86.	B
67-64-1	Acetone	710.	B
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	5.	U
107-06-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	26.	U
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-5	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	26.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	5.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	5.	U
591-78-6	2-Hexanone	5.	U
127-18-4	Tetrachloroethene	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	3.	J
108-90-7	Chlorobenzene	5.	U
100-41-4	Ethylbenzene	5.	U
100-42-5	Styrene	5.	U
1330-20-7	Xylene (total)	10.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS250

Lab Name:Sound Analytical Services Contract:624419

Lab Code:SAS Case No.:- SAS No.:- SDG No.:29777

Matrix: (soil/water) SOIL Lab Sample ID:29777-17

Sample wt/vol: 5.35 (g/ml) G Lab File ID: V8163

Level: (low/med) LOW Date Received: 1/28/93

% Moisture: not dec. 9 Date Analyzed: 1/29/93

GC Column:DB-624 ID: 0.55 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	110-54-3	Hexane	3.78	30.	J
2.	556-67-2	Cyclotetrasiloxane, octameth	17.15	25.	J
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS250M

Lab Name: Sound Analytical Services Contract: 624419

Lab Code: SAS Case No.:- SAS No.:- SDG No.: 29777

Matrix: (soil/water) SOIL Lab Sample ID: 29777-17

Sample wt/vol: 10.25 (g/ml) G Lab File ID: V8248

Level: (low/med) MED Date Received: 1/28/93

% Moisture: not dec. 9 Date Analyzed: 2/01/93

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 40.0

Soil Extract Volume: 10000.00 (uL) Soil Aliquot Volume: 5000.0 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
54-87-3	Chloromethane	430.	U
74-83-9	Bromomethane	430.	U
75-01-4	Vinyl Chloride	430.	U
75-00-3	Chloroethane	430.	U
75-09-2	Methylene Chloride	260.	J
67-64-1	Acetone	590.	J
75-15-0	Carbon Disulfide	210.	U
75-35-4	1,1-Dichloroethene	210.	U
75-34-3	1,1-Dichloroethane	210.	U
540-59-0	1,2-Dichloroethene (total)	210.	U
67-66-3	Chloroform	210.	U
107-06-2	1,2-Dichloroethane	210.	U
78-93-3	2-Butanone	1100.	U
71-55-6	1,1,1-Trichloroethane	210.	U
56-23-5	Carbon Tetrachloride	210.	U
108-05-4	Vinyl Acetate	1100.	U
75-27-4	Bromodichloromethane	210.	U
78-87-5	1,2-Dichloropropane	210.	U
10061-01-5	cis-1,3-Dichloropropene	210.	U
79-01-6	Trichloroethene	210.	U
124-48-1	Dibromochloromethane	210.	U
79-00-5	1,1,2-Trichloroethane	210.	U
71-43-2	Benzene	210.	U
10061-02-6	trans-1,3-Dichloropropene	210.	U
75-25-2	Bromoform	210.	U
108-10-1	4-Methyl-2-Pentanone	210.	U
591-78-6	2-Hexanone	210.	U
127-18-4	Tetrachloroethene	210.	U
79-34-5	1,1,2,2-Tetrachloroethane	210.	U
108-88-3	Toluene	210.	U
108-90-7	Chlorobenzene	210.	U
100-41-4	Ethylbenzene	210.	U
100-42-5	Styrene	210.	U
1330-20-7	Xylene (total)	430.	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS250M

Lab Name:Sound Analytical Services Contract:624419

Lab Code:SAS Case No.:- SAS No.:- SDG No.:29777

Matrix: (soil/water) SOIL Lab Sample ID:29777-17

Sample wt/vol: 10.25 (g/ml) G Lab File ID: V8248

Level: (low/med) MED Date Received: 1/28/93

% Moisture: not dec. 9 Date Analyzed: 2/01/93

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 40.0

Soil Extract Volume:10000.00 (uL) Soil Aliquot Volume: 5000.0 (uL)

Number TICs Found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS251

Lab Name:Sound Analytical Services Contract:624419

Lab Code:SAS Case No.:- SAS No.:- SDG No.:29777

Matrix: (soil/water) SOIL Lab Sample ID:29777-18

Sample wt/vol: 5.09 (g/ml) G Lab File ID: V8164

Level: (low/med) LOW Date Received: 1/28/93

% Moisture: not dec. 10 Date Analyzed: 1/29/93

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
54-87-3	Chloromethane	11.	U
74-83-9	Bromomethane	11.	U
75-01-4	Vinyl Chloride	11.	U
75-00-3	Chloroethane	11.	U
75-09-2	Methylene Chloride	95.	B
67-64-1	Acetone	320.	B
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	5.	U
107-06-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	27.	U
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-5	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	27.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	5.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	5.	U
591-78-6	2-Hexanone	5.	U
127-18-4	Tetrachloroethene	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	5.	
108-90-7	Chlorobenzene	5.	U
100-41-4	Ethylbenzene	5.	U
100-42-5	Styrene	5.	U
1330-20-7	Xylene (total)	11.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS251

Lab Name:Sound Analytical Services Contract:624419

Lab Code:SAS Case No.:- SAS No.:- SDG No.:29777

Matrix: (soil/water) SOIL Lab Sample ID:29777-18

Sample wt/vol: 5.09 (g/ml) G Lab File ID: V8164

Level: (low/med) LOW Date Received: 1/28/93

% Moisture: not dec. 10 Date Analyzed: 1/29/93

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	110-54-3	Hexane	3.78	36.	J
2.					
3.					
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS251M

Lab Name:Sound Analytical Services Contract:624419

Lab Code:SAS Case No.:- SAS No.:- SDG No.:29777

Matrix: (soil/water) SOIL Lab Sample ID:29777-18

Sample wt/vol: 10.09 (g/ml) G Lab File ID: V8249

Level: (low/med) MED Date Received: 1/28/93

% Moisture: not dec. 10 Date Analyzed: 2/01/93

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 40.0

Soil Extract Volume:10000.00 (uL) Soil Aliquot Volume: 5000.0 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
54-87-3	Chloromethane	440.	U
74-83-9	Bromomethane	440.	U
75-01-4	Vinyl Chloride	440.	U
75-00-3	Chloroethane	440.	U
75-09-2	Methylene Chloride	290.	J
67-64-1	Acetone	340.	J
75-15-0	Carbon Disulfide	220.	U
75-35-4	1,1-Dichloroethene	220.	U
75-34-3	1,1-Dichloroethane	220.	U
540-59-0	1,2-Dichloroethene (total)	220.	U
67-66-3	Chloroform	220.	U
107-06-2	1,2-Dichloroethane	220.	U
78-93-3	2-Butanone	1100.	U
71-55-6	1,1,1-Trichloroethane	220.	U
56-23-5	Carbon Tetrachloride	220.	U
108-05-4	Vinyl Acetate	1100.	U
75-27-4	Bromodichloromethane	220.	U
78-87-5	1,2-Dichloropropane	220.	U
10061-01-5	cis-1,3-Dichloropropene	220.	U
79-01-6	Trichloroethene	220.	U
124-48-1	Dibromochloromethane	220.	U
79-00-5	1,1,2-Trichloroethane	220.	U
71-43-2	Benzene	220.	U
10061-02-6	trans-1,3-Dichloropropene	220.	U
75-25-2	Bromoform	220.	U
108-10-1	4-Methyl-2-Pentanone	220.	U
591-78-6	2-Hexanone	220.	U
127-18-4	Tetrachloroethene	220.	U
79-34-5	1,1,2,2-Tetrachloroethane	220.	U
108-88-3	Toluene	220.	U
108-90-7	Chlorobenzene	220.	U
100-41-4	Ethylbenzene	220.	U
100-42-5	Styrene	220.	U
1330-20-7	Xylene (total)	440.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS251M

Lab Name:Sound Analytical Services Contract:624419

Lab Code:SAS Case No.:- SAS No.:- SDG No.:29777

Matrix: (soil/water) SOIL Lab Sample ID:29777-18

Sample wt/vol: 10.09 (g/ml) G Lab File ID: V8249

Level: (low/med) MED Date Received: 1/28/93

% Moisture: not dec. 10 Date Analyzed: 2/01/93

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 40.0

Soil Extract Volume:10000.00 (uL) Soil Aliquot Volume: 5000.0 (uL)

Number TICs Found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS252

Lab Name:Sound Analytical Services Contract:624419

Lab Code:SAS Case No.:- SAS No.:- SDG No.:29777

Matrix: (soil/water) SOIL Lab Sample ID:29777-19

Sample wt/vol: 5.21 (g/ml) G Lab File ID: V8165

Level: (low/med) LOW Date Received: 1/28/93

% Moisture: not dec. 6 Date Analyzed: 1/29/93

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
54-87-3	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	81.	B
67-64-1	Acetone	190.	B
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	5.	U
107-06-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	26.	U
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-5	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	26.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	5.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	5.	U
591-78-6	2-Hexanone	5.	U
127-18-4	Tetrachloroethene	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	4.	J
108-90-7	Chlorobenzene	5.	U
100-41-4	Ethylbenzene	5.	U
100-42-5	Styrene	5.	U
1330-20-7	Xylene (total)	10.	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS252

Lab Name: Sound Analytical Services Contract: 624419

Lab Code: SAS Case No.: - SAS No.: - SDG No.: 29777

Matrix: (soil/water) SOIL Lab Sample ID: 29777-19

Sample wt/vol: 5.21 (g/ml) G Lab File ID: V8165

Level: (low/med) LOW Date Received: 1/28/93

% Moisture: not dec. 6 Date Analyzed: 1/29/93

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 0 (uL) Soil Aliquot Volume: 0 (uL)

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	110-54-3	Hexane	3.79	31.	J
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3.					
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS253

Lab Name:Sound Analytical Services Contract:624419

Lab Code:SAS Case No.:- SAS No.:- SDG No.:29777

Matrix: (soil/water) SOIL Lab Sample ID:29777-20

Sample wt/vol: 5.00 (g/ml) G Lab File ID: V8166

Level: (low/med) LOW Date Received: 1/28/93

% Moisture: not dec. 5 Date Analyzed: 1/29/93

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
54-87-3	Chloromethane	11.	U
74-83-9	Bromomethane	11.	U
75-01-4	Vinyl Chloride	11.	U
75-00-3	Chloroethane	11.	U
75-09-2	Methylene Chloride	91.	B
67-64-1	Acetone	37.	B
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	5.	U
107-06-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	26.	U
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-5	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	26.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	5.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	5.	U
591-78-6	2-Hexanone	5.	U
127-18-4	Tetrachloroethene	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	3.	J
108-90-7	Chlorobenzene	5.	U
100-41-4	Ethylbenzene	5.	U
100-42-5	Styrene	5.	U
1330-20-7	Xylene (total)	11.	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS253

Lab Name:Sound Analytical Services Contract:624419

Lab Code:SAS Case No.:- SAS No.:- SDG No.:29777

Matrix: (soil/water) SOIL Lab Sample ID:29777-20

Sample wt/vol: 5.00 (g/ml) G Lab File ID: V8166

Level: (low/med) LOW Date Received: 1/28/93

% Moisture: not dec. 5 Date Analyzed: 1/29/93

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	110-54-3	Hexane	3.79	29.	J
2.					
3.					
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS254

Lab Name:Sound Analytical Services Contract:624419

Lab Code:SAS Case No.:- SAS No.:- SDG No.:29777

Matrix: (soil/water) SOIL Lab Sample ID:29777-21

Sample wt/vol: 5.06 (g/ml) G Lab File ID: V8153

Level: (low/med) LOW Date Received: 1/28/93

% Moisture: not dec. 5 Date Analyzed: 1/28/93

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
54-87-3	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	68.	B
67-64-1	Acetone	47.	B
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	5.	U
107-06-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	26.	U
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-5	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	26.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	5.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	5.	U
591-78-6	2-Hexanone	5.	U
127-18-4	Tetrachloroethene	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	2.	J
108-90-7	Chlorobenzene	5.	U
100-41-4	Ethylbenzene	5.	U
100-42-5	Styrene	5.	U
1330-20-7	Xylene (total)	10.	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS254

Lab Name:Sound Analytical Services Contract:624419

Lab Code:SAS Case No.:- SAS No.:- SDG No.:29777

Matrix: (soil/water) SOIL Lab Sample ID:29777-21

Sample wt/vol: 5.06 (g/ml) G Lab File ID: V8153

Level: (low/med) LOW Date Received: 1/28/93

% Moisture: not dec. 5 Date Analyzed: 1/28/93

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	110-54-3	Hexane	3.79	25.	J
2.					
3.					
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CHAIN OF CUSTODY

John Mathes & Associates, Inc.
210 West Sand Bank Road
Columbia, Illinois 62236

CHAIN-OF-CUSTODY RECORD

C.O.C. SERIAL NO. 5295

PROJECT NAME PASCO LF
PROJECT NUMBER 624419 MAJOR TASK 7020.16
SAMPLERS LOUIS LA ROSA
LAB DESTINATION SOUND ANALYTICAL SERVICES

SAMPLE NO.	DATE	TIME	COMP	GRAB	SAMPLE LOCATION	NO. OF CONTAINERS	VOC (8240)	SVOC (8270)	Pest/PCB (8080)	HERBICIDES (8150)	PPM (6010)	MS/MSD	ICED	CHEMICALS ADDED	REMARKS (CHEMICAL ANALYSIS REQUEST FORM NUMBER IF APPLICABLE)
PLF-SBS-232	1-22-93	1045		✓	SOIL	1	HOLD FOR ANALYSIS						✓		
PLF-SBS-233	↓	1100		✓	↓	1		✓			✓			✓	
PLF-SBS-234		1120		✓		1		✓			✓			✓	
PLF-SBS-235		1140		✓		1		✓			✓			✓	
PLF-SBS-237		1045		✓		1		✓			✓			✓	
PLF-SBS-238		1540		✓		1		✓			✓			✓	
PLF-SBS-239		1545		✓		1		✓			✓			✓	
PLF-SBS-240		1600		✓		1		✓			✓			✓	
PLF-SBS-241		1620		✓		1		✓			✓			✓	
PLF-SBS-242	1-23-93	1030		✓		3	✓	✓	✓	✓	✓			✓	
PLF-SBS-243		1050		✓		3	✓	✓	✓	✓	✓			✓	
PLF-SBS-244		1100		✓		3	✓	✓	✓	✓	✓	✓		✓	
PLF-SBS-245		1130		✓		3	✓	✓	✓	✓	✓			✓	
PLF-SBS-246	↓	1520		✓	↓	1		✓	✓	✓	✓			✓	

RELINQUISHED BY SIGNATURE	DATE	TIME	RECEIVED BY SIGNATURE	DATE	TIME
[signature] BURLINGTON	1/25/93	1600	SENT VIA FED EX	1/25/93	1600
			SGiang SAS	1/26/93	[illegible]

SHIPPING NOTES
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C.

LAB NOTES

JM-34 (8/89)

John Mathes & Associates, Inc.
210 West Sand Bank Road
Columbia, Illinois 62236

CHAIN-OF-CUSTODY RECORD

C.O.C. SERIAL NO. 5296

PROJECT NAME PASCO LF
PROJECT NUMBER 624419 MAJOR TASK 7020.16
SAMPLERS LOUIS LA ROSA
LAB DESTINATION SOUND ANALYTICAL SERVICES

SAMPLE NO.	DATE	TIME	COMP	GRAB	SAMPLE LOCATION	NO. OF CONTAINERS	VOC (8240)	SVOC (8270)	Pest/PCB (8080)	HERBICIDES (8150)	PPM (6010)	MS/MSD	ICED	CHEMICALS ADDED	REMARKS (CHEMICAL ANALYSIS REQUEST FORM NUMBER IF APPLICABLE)
PLF-SBS-247	1-23-93	1550		✓	SOIL	1		✓	✓	✓	✓		✓		
PLF-SBS-248	↓	1610		✓	↓	1		✓	✓	✓	✓		✓		
PLF-SBS-249	↓	1625		✓	↓	1		✓	✓	✓	✓		✓		
PLF-SBS-250	1-24-93	0920		✓	↓	3	✓	✓	✓	✓	✓	✓	✓		
PLF-SBS-251	↓	0935		✓	↓	3	✓	✓	✓	✓	✓		✓		
PLF-SBS-252	↓	0955		✓	↓	3	✓	✓	✓	✓	✓		✓		
PLF-SBS-253	↓	1010		✓	↓	3	✓	✓	✓	✓	✓		✓		
PLF-SBS-254	↓	1020		✓	↓	3	✓	✓	✓	✓	✓		✓		

RELINQUISHED BY SIGNATURE	DATE	TIME	RECEIVED BY SIGNATURE	DATE	TIME
[signature]	1/25/93	1600	SENT VIA FED EX	1/25/93	1600
			SGiang SMS	1/26/93	[illegible]

SHIPPING NOTES
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[illegible]

LAB NOTES

JM-34 (8/89)

MEMORANDUM

DATE: June 7, 1993

TO: Ted Wall, Environmental Engineer JW

FROM: Nels Cone, Chemist NBC

SUBJECT: DATA VALIDATION OF CHEMICAL ANALYSIS FROM PASCO LANDFILL PHASE I REMEDIAL INVESTIGATION, PROJECT 624419, DATA SET 8A

During the period of January 22 - 24, 1993, nine soil samples were collected by Burlington field personnel. The sample identification numbers are listed below.

PLF-SBS-242	PLF-SBS-250	PLF-SBS-254
PLF-SBS-243	PLF-SBS-251	
PLF-SBS-244	PLF-SBS-252	
PLF-SBS-245	PLF-SBS-253	

These samples were then submitted to Sound Analytical Services of Tacoma, Washington (work order 29777). Data Set 8A represents results from volatile compound analysis (USEPA SW-846, Method 8240). I performed a data quality review of the analytical results in accordance with the USEPA Contract Laboratory Program (CLP) Document Number ILM01.0. My findings and recommendations are summarized below.

FINDINGS

Properly completed chain-of-custody forms were included with documented signatures from field to laboratory receipt. All samples were shown as having been properly iced and received in good condition. Holding, extraction, and analysis times for all samples met the required guidelines, and all samples received the requested analyses.

In this analysis, acetone and methylene chloride and toluene were detected in the method blanks. Even though not all results received the appropriate annotations, any reported values of these three analytes must be accompanied by the "B" data qualifier flag. Surrogate compound recoveries, as well as system monitoring compound recoveries, met CLP-required quality control (QC) limits for the samples, and accompanying method blanks. A search for tentatively-identified compounds (TIC) was performed and several were found. Per CLP protocol, they received the appropriate "J" data qualifier flags. Requisite instrument tuning check with bromofluorobenzene documented gas chromatograph/mass spectra (GC/MS) performance.

All internal standards' area and retention times met QC limits. Initial and continuing calibration data met required QC guidelines. All matrix spike/matrix spike duplicate recoveries met required QC limits with exception of 1,1-dichloroethene. However, this compound was not detected in

the samples and, per CLP protocol, no data qualifier flags are needed. Additional QC was supplied in the form of the laboratory worksheets, and GC/MS printouts for the sample method blank, matrix spikes, and calibration standards. The chromatograms have been annotated with quantitation values calculated as needed, by the laboratory. Data consistency was demonstrated throughout.

RECOMMENDATIONS

Overall, the data quality guidelines as described in the CLP Statement of Work are met when values reported as acetone, methylene chloride, and toluene receive "B" data qualifier flags. No further modifications to this data set would be required.

SUBSURFACE SOILS I3.8

SAMPLES PLF-SBS-233 TO PLF-SBS-235;
PLF-SBS-237 TO PLF-SBS-254

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS233

Lab Name: Sound Analytical Services Contract: 624419

Lab Code: - Case No.: - SAS No.: - SDG No.: 29777

Matrix: (soil/water) SOIL Lab Sample ID: 29777-1

Sample wt/vol: 30.5 (g/ml) G Lab File ID: S7797

Level: (low/med) LOW Date Received: 1/26/93

% Moisture: 12 decanted: (Y/N) N Date Extracted: 1/30/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/09/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	370.	U
111-44-4	Bis(2-chloroethyl)ether	370.	U
95-57-8	2-Chlorophenol	370.	U
541-73-1	1,3-Dichlorobenzene	370.	U
106-46-7	1,4-Dichlorobenzene	370.	U
100-51-6	Benzyl alcohol	740.	U
95-50-1	1,2-Dichlorobenzene	370.	U
95-48-7	2-Methylphenol	370.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	370.	U
106-44-5	4-Methylphenol	370.	U
621-64-7	N-Nitroso-di-n-propylamine	370.	U
67-72-1	Hexachloroethane	370.	U
98-95-3	Nitrobenzene	370.	U
78-59-1	Isophorone	370.	U
88-75-5	2-Nitrophenol	370.	U
105-67-9	2,4-Dimethylphenol	370.	U
65-85-0	Benzoic acid	1900.	U
111-91-1	bis(2-Chloroethoxy)methane	370.	U
120-83-2	2,4-Dichlorophenol	370.	U
120-82-1	1,2,4-Trichlorobenzene	370.	U
91-20-3	Naphthalene	370.	U
106-47-8	4-Chloroaniline	740.	U
87-68-3	Hexachlorobutadiene	370.	U
59-50-7	4-Chloro-3-methylphenol	740.	U
91-57-6	2-Methylnaphthalene	370.	U
77-47-4	Hexachlorocyclopentadiene	370.	U
88-06-2	2,4,6-Trichlorophenol	370.	U
95-95-4	2,4,5-Trichlorophenol	370.	U
91-58-7	2-Chloronaphthalene	370.	U
88-74-4	2-Nitroaniline	1900.	U
131-11-3	Dimethylphthalate	370.	U
208-96-8	Acenaphthylene	370.	U
606-20-2	2,6-Dinitrotoluene	370.	U

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1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS233

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29777

Matrix: (soil/water) SOIL Lab Sample ID:29777-1

Sample wt/vol: 30.5 (g/ml) G Lab File ID: S7797

Level: (low/med) LOW Date Received: 1/26/93

% Moisture: 12 decanted: (Y/N) N Date Extracted: 1/30/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/09/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1900.	U
83-32-9	Acenaphthene	370.	U
51-28-5	2,4-Dinitrophenol	1900.	U
100-02-7	4-Nitrophenol	1900.	U
132-64-9	Dibenzofuran	370.	U
121-14-2	2,4-Dinitrotoluene	370.	U
84-66-2	Diethylphthalate	370.	U
7005-72-3	4-Chlorophenyl-phenylether	370.	U
86-73-7	Fluorene	370.	U
100-01-6	4-Nitroaniline	1900.	U
534-52-1	4,6-Dinitro-2-methylphenol	1900.	U
86-30-6	N-Nitrosodiphenylamine(1)	370.	U
101-55-3	4-Bromophenyl-phenylether	370.	U
118-74-1	Hexachlorobenzene	370.	U
87-86-5	Pentachlorophenol	1900.	U
85-01-8	Phenanthrene	370.	U
120-12-7	Anthracene	370.	U
84-74-2	Di-n-butylphthalate	550.	B
206-44-0	Fluoranthene	370.	U
129-00-0	Pyrene	370.	U
85-68-7	Butylbenzylphthalate	370.	U
91-94-1	3,3'-Dichlorobenzidine	740.	U
56-55-3	Benzo(a)anthracene	370.	U
218-01-9	Chrysene	370.	U
117-81-7	bis(2-Ethylhexyl)phthalate	370.	U
117-84-0	Di-n-octylphthalate	370.	U
205-99-2	Benzo(b)fluoranthene	370.	U
207-08-9	Benzo(k)fluoranthene	370.	U
50-32-8	Benzo(a)pyrene	370.	U
193-39-5	Indeno(1,2,3-cd)pyrene	370.	U
53-70-3	Dibenz(a,h)anthracene	370.	U
191-24-2	Benzo(g,h,i)perylene	370.	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS233

Lab Name: Sound Analytical Services Contract: 624419

Lab Code: - Case No.: - SAS No.: - SDG No.: 29777

Matrix: (soil/water) SOIL Lab Sample ID: 29777-1

Sample wt/vol: 30.5 (g/ml) G Lab File ID: S7797

Level: (low/med) LOW Date Received: 1/26/93

% Moisture: 12 decanted: (Y/N) N Date Extracted: 1/30/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/09/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

Number TICs Found: 4

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	20324-32-7	2-Propanol, 1-(2-Methoxy-1-M	8.03	180.	J
2.		Unknown	28.45	1800.	J
3.		Unknown	28.72	410.	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS234

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29777

Matrix: (soil/water) SOIL Lab Sample ID:29777-2

Sample wt/vol: 30.0 (g/ml) G Lab File ID: S7561

Level: (low/med) LOW Date Received: 1/26/93

% Moisture: 14 decanted: (Y/N) N Date Extracted: 1/30/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/07/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	390.	U
111-44-4	Bis(2-chloroethyl)ether	390.	U
95-57-8	2-Chlorophenol	390.	U
541-73-1	1,3-Dichlorobenzene	390.	U
106-46-7	1,4-Dichlorobenzene	390.	U
100-51-6	Benzyl alcohol	780.	U
95-50-1	1,2-Dichlorobenzene	390.	U
95-48-7	2-Methylphenol	390.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	390.	U
106-44-5	4-Methylphenol	390.	U
621-64-7	N-Nitroso-di-n-propylamine	390.	U
67-72-1	Hexachloroethane	390.	U
98-95-3	Nitrobenzene	390.	U
78-59-1	Isophorone	390.	U
88-75-5	2-Nitrophenol	390.	U
105-67-9	2,4-Dimethylphenol	390.	U
65-85-0	Benzoic acid	1900.	U
111-91-1	bis(2-Chloroethoxy)methane	390.	U
120-83-2	2,4-Dichlorophenol	390.	U
120-82-1	1,2,4-Trichlorobenzene	390.	U
91-20-3	Naphthalene	390.	U
106-47-8	4-Chloroaniline	780.	U
87-68-3	Hexachlorobutadiene	390.	U
59-50-7	4-Chloro-3-methylphenol	780.	U
91-57-6	2-Methylnaphthalene	390.	U
77-47-4	Hexachlorocyclopentadiene	390.	U
88-06-2	2,4,6-Trichlorophenol	390.	U
95-95-4	2,4,5-Trichlorophenol	390.	U
91-58-7	2-Chloronaphthalene	390.	U
88-74-4	2-Nitroaniline	1900.	U
131-11-3	Dimethylphthalate	390.	U
208-96-8	Acenaphthylene	390.	U
606-20-2	2,6-Dinitrotoluene	390.	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS234

Lab Name: Sound Analytical Services Contract: 624419

Lab Code: - Case No.: - SAS No.: - SDG No.: 29777

Matrix: (soil/water) SOIL Lab Sample ID: 29777-2

Sample wt/vol: 30.0 (g/ml) G Lab File ID: S7561

Level: (low/med) LOW Date Received: 1/26/93

% Moisture: 14 decanted: (Y/N) N Date Extracted: 1/30/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/07/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1900.	U
83-32-9	Acenaphthene	390.	U
51-28-5	2,4-Dinitrophenol	1900.	U
100-02-7	4-Nitrophenol	1900.	U
132-64-9	Dibenzofuran	390.	U
121-14-2	2,4-Dinitrotoluene	390.	U
84-66-2	Diethylphthalate	390.	U
7005-72-3	4-Chlorophenyl-phenylether	390.	U
86-73-7	Fluorene	390.	U
100-01-6	4-Nitroaniline	1900.	U
534-52-1	4,6-Dinitro-2-methylphenol	1900.	U
86-30-6	N-Nitrosodiphenylamine(1)	390.	U
101-55-3	4-Bromophenyl-phenylether	390.	U
118-74-1	Hexachlorobenzene	390.	U
87-86-5	Pentachlorophenol	1900.	U
85-01-8	Phenanthrene	390.	U
120-12-7	Anthracene	390.	U
84-74-2	Di-n-butylphthalate	630.	B
206-44-0	Fluoranthene	390.	U
129-00-0	Pyrene	390.	U
85-68-7	Butylbenzylphthalate	390.	U
91-94-1	3,3'-Dichlorobenzidine	780.	U
56-55-3	Benzo(a)anthracene	390.	U
218-01-9	Chrysene	390.	U
117-81-7	bis(2-Ethylhexyl)phthalate	13.	J
117-84-0	Di-n-octylphthalate	390.	U
205-99-2	Benzo(b)fluoranthene	390.	U
207-08-9	Benzo(k)fluoranthene	390.	U
50-32-8	Benzo(a)pyrene	390.	U
193-39-5	Indeno(1,2,3-cd)pyrene	390.	U
53-70-3	Dibenz(a,h)anthracene	390.	U
191-24-2	Benzo(g,h,i)perylene	390.	U

(1) - Cannot be separated from Diphenylamine

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS234

Lab Name: Sound Analytical Services Contract: 624419

Lab Code: - Case No.: - SAS No.: - SDG No.: 29777

Matrix: (soil/water) SOIL Lab Sample ID: 29777-2

Sample wt/vol: 30.0 (g/ml) G Lab File ID: S7561

Level: (low/med) LOW Date Received: 1/26/93

% Moisture: 14 decanted: (Y/N) N Date Extracted: 1/30/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/07/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

Number TICs Found: 7

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	20324-32-7	2-Propanol, 1-(2-Methoxy-1-M	7.92	220.	J
2.	20324-32-7	2-Propanol, 1-(2-Methoxy-1-M	8.00	270.	J
3.	74367-34-3	Propanoic Acid, 2-Methyl-, 3	14.13	190.	J
4.		Unknown	28.30	2400.	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS235

Lab Name: Sound Analytical Services Contract: 624419

Lab Code: - Case No.: - SAS No.: - SDG No.: 29777

Matrix: (soil/water) SOIL Lab Sample ID: 29777-3

Sample wt/vol: 30.7 (g/ml) G Lab File ID: S7562

Level: (low/med) LOW Date Received: 1/26/93

% Moisture: 3 decanted: (Y/N) N Date Extracted: 1/30/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/07/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	340.	U
111-44-4	Bis(2-chloroethyl)ether	340.	U
95-57-8	2-Chlorophenol	340.	U
541-73-1	1,3-Dichlorobenzene	340.	U
106-46-7	1,4-Dichlorobenzene	340.	U
100-51-6	Benzyl alcohol	670.	U
95-50-1	1,2-Dichlorobenzene	340.	U
95-48-7	2-Methylphenol	340.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	340.	U
106-44-5	4-Methylphenol	340.	U
621-64-7	N-Nitroso-di-n-propylamine	340.	U
67-72-1	Hexachloroethane	340.	U
98-95-3	Nitrobenzene	340.	U
78-59-1	Isophorone	340.	U
88-75-5	2-Nitrophenol	340.	U
105-67-9	2,4-Dimethylphenol	340.	U
65-85-0	Benzoic acid	1700.	U
111-91-1	bis(2-Chloroethoxy)methane	340.	U
120-83-2	2,4-Dichlorophenol	340.	U
120-82-1	1,2,4-Trichlorobenzene	340.	U
91-20-3	Naphthalene	340.	U
106-47-8	4-Chloroaniline	670.	U
87-68-3	Hexachlorobutadiene	340.	U
59-50-7	4-Chloro-3-methylphenol	670.	U
91-57-6	2-Methylnaphthalene	340.	U
77-47-4	Hexachlorocyclopentadiene	340.	U
88-06-2	2,4,6-Trichlorophenol	340.	U
95-95-4	2,4,5-Trichlorophenol	340.	U
91-58-7	2-Chloronaphthalene	340.	U
88-74-4	2-Nitroaniline	1700.	U
131-11-3	Dimethylphthalate	340.	U
208-96-8	Acenaphthylene	340.	U
606-20-2	2,6-Dinitrotoluene	340.	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS235

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29777

Matrix: (soil/water) SOIL Lab Sample ID:29777-3

Sample wt/vol: 30.7 (g/ml) G Lab File ID: S7562

Level: (low/med) LOW Date Received: 1/26/93

% Moisture: 3 decanted: (Y/N) N Date Extracted: 1/30/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/07/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1700.	U
83-32-9	Acenaphthene	340.	U
51-28-5	2,4-Dinitrophenol	1700.	U
100-02-7	4-Nitrophenol	1700.	U
132-64-9	Dibenzofuran	340.	U
121-14-2	2,4-Dinitrotoluene	340.	U
84-66-2	Diethylphthalate	340.	U
7005-72-3	4-Chlorophenyl-phenylether	340.	U
86-73-7	Fluorene	340.	U
100-01-6	4-Nitroaniline	1700.	U
534-52-1	4,6-Dinitro-2-methylphenol	1700.	U
86-30-6	N-Nitrosodiphenylamine(1)	340.	U
101-55-3	4-Bromophenyl-phenylether	340.	U
118-74-1	Hexachlorobenzene	340.	U
87-86-5	Pentachlorophenol	1700.	U
85-01-8	Phenanthrene	340.	U
120-12-7	Anthracene	340.	U
84-74-2	Di-n-butylphthalate	410.	B
206-44-0	Fluoranthene	340.	U
129-00-0	Pyrene	340.	U
85-68-7	Butylbenzylphthalate	340.	U
91-94-1	3,3'-Dichlorobenzidine	670.	U
56-55-3	Benzo(a)anthracene	340.	U
218-01-9	Chrysene	340.	U
117-81-7	bis(2-Ethylhexyl)phthalate	340.	U
117-84-0	Di-n-octylphthalate	340.	U
205-99-2	Benzo(b)fluoranthene	340.	U
207-08-9	Benzo(k)fluoranthene	340.	U
50-32-8	Benzo(a)pyrene	340.	U
193-39-5	Indeno(1,2,3-cd)pyrene	340.	U
53-70-3	Dibenz(a,h)anthracene	340.	U
191-24-2	Benzo(g,h,i)perylene	340.	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS235

Lab Name: Sound Analytical Services Contract: 624419

Lab Code:- Case No.:- SAS No.:- SDG No.: 29777

Matrix: (soil/water) SOIL Lab Sample ID: 29777-3

Sample wt/vol: 30.7 (g/ml) G Lab File ID: S7562

Level: (low/med) LOW Date Received: 1/26/93

% Moisture: 3 decanted: (Y/N) N Date Extracted: 1/30/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/07/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

Number TICs Found: 7

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 20324-32-7	2-Propanol, 1-(2-Methoxy-1-M	7.97	180.	J
2. 20324-32-7	2-Propanol, 1-(2-Methoxy-1-M	8.07	230.	J
3.	Unknown	28.48	2500.	J
4.	Unknown	28.75	190.	J
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS237

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29777

Matrix: (soil/water) SOIL Lab Sample ID:29777-4

Sample wt/vol: 30.1 (g/ml) G Lab File ID: S7563

Level: (low/med) LOW Date Received: 1/26/93

% Moisture: 18 decanted: (Y/N) N Date Extracted: 1/30/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/07/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	410.	U
111-44-4	Bis(2-chloroethyl)ether	410.	U
95-57-8	2-Chlorophenol	410.	U
541-73-1	1,3-Dichlorobenzene	410.	U
106-46-7	1,4-Dichlorobenzene	410.	U
100-51-6	Benzyl alcohol	810.	U
95-50-1	1,2-Dichlorobenzene	410.	U
95-48-7	2-Methylphenol	410.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	410.	U
106-44-5	4-Methylphenol	410.	U
621-64-7	N-Nitroso-di-n-propylamine	410.	U
67-72-1	Hexachloroethane	66.	J
98-95-3	Nitrobenzene	410.	U
78-59-1	Isophorone	410.	U
88-75-5	2-Nitrophenol	410.	U
105-67-9	2,4-Dimethylphenol	410.	U
65-85-0	Benzoic acid	2000.	U
111-91-1	bis(2-Chloroethoxy)methane	410.	U
120-83-2	2,4-Dichlorophenol	410.	U
120-82-1	1,2,4-Trichlorobenzene	410.	U
91-20-3	Naphthalene	410.	U
106-47-8	4-Chloroaniline	810.	U
87-68-3	Hexachlorobutadiene	410.	U
59-50-7	4-Chloro-3-methylphenol	810.	U
91-57-6	2-Methylnaphthalene	410.	U
77-47-4	Hexachlorocyclopentadiene	410.	U
88-06-2	2,4,6-Trichlorophenol	410.	U
95-95-4	2,4,5-Trichlorophenol	410.	U
91-58-7	2-Chloronaphthalene	410.	U
88-74-4	2-Nitroaniline	2000.	U
131-11-3	Dimethylphthalate	410.	U
208-96-8	Acenaphthylene	410.	U
606-20-2	2,6-Dinitrotoluene	410.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS237

Lab Name: Sound Analytical Services Contract: 624419

Lab Code:- Case No.:- SAS No.:- SDG No.: 29777

Matrix: (soil/water) SOIL Lab Sample ID: 29777-4

Sample wt/vol: 30.1 (g/ml) G Lab File ID: S7563

Level: (low/med) LOW Date Received: 1/26/93

% Moisture: 18 decanted: (Y/N) N Date Extracted: 1/30/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/07/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	2000.	U
83-32-9	Acenaphthene	410.	U
51-28-5	2,4-Dinitrophenol	2000.	U
100-02-7	4-Nitrophenol	2000.	U
132-64-9	Dibenzofuran	410.	U
121-14-2	2,4-Dinitrotoluene	410.	U
84-66-2	Diethylphthalate	410.	U
7005-72-3	4-Chlorophenyl-phenylether	410.	U
86-73-7	Fluorene	410.	U
100-01-6	4-Nitroaniline	2000.	U
534-52-1	4,6-Dinitro-2-methylphenol	2000.	U
86-30-6	N-Nitrosodiphenylamine(1)	410.	U
101-55-3	4-Bromophenyl-phenylether	410.	U
118-74-1	Hexachlorobenzene	160.	J
87-86-5	Pentachlorophenol	2000.	U
85-01-8	Phenanthrene	410.	U
120-12-7	Anthracene	410.	U
84-74-2	Di-n-butylphthalate	120.	JB
206-44-0	Fluoranthene	410.	U
129-00-0	Pyrene	410.	U
85-68-7	Butylbenzylphthalate	410.	U
91-94-1	3,3'-Dichlorobenzidine	810.	U
56-55-3	Benzo(a)anthracene	410.	U
218-01-9	Chrysene	410.	U
117-81-7	bis(2-Ethylhexyl)phthalate	90.	J
117-84-0	Di-n-octylphthalate	410.	U
205-99-2	Benzo(b)fluoranthene	410.	U
207-08-9	Benzo(k)fluoranthene	410.	U
50-32-8	Benzo(a)pyrene	410.	U
193-39-5	Indeno(1,2,3-cd)pyrene	410.	U
53-70-3	Dibenz(a,h)anthracene	410.	U
191-24-2	Benzo(g,h,i)perylene	410.	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS237

Lab Name: Sound Analytical Services Contract: 624419

Lab Code: - Case No.: - SAS No.: - SDG No.: 29777

Matrix: (soil/water) SOIL Lab Sample ID: 29777-4

Sample wt/vol: 30.1 (g/ml) G Lab File ID: S7563

Level: (low/med) LOW Date Received: 1/26/93

% Moisture: 18 decanted: (Y/N) N Date Extracted: 1/30/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/07/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

Number TICs Found: 23

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	20324-32-7	2-Propanol, 1-(2-Methoxy-1-M	8.02	220.	J
2.		Unknown	16.08	490.	J
3.		Unknown	19.57	170.	J
4.		Unknown	19.62	160.	J
5.	10544-50-0	Sulfur Mol.	22.50	5600.	J
6.		Unknown	23.80	2500.	J
7.		Unknown	26.28	720.	J
8.		Unknown	26.82	550.	J
9.		Unknown	27.03	210.	J
10.		Unknown	27.94	730.	J
11.		Unknown	28.48	2000.	J
12.		Unknown	32.84	200.	J
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS238

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29777

Matrix: (soil/water) SOIL Lab Sample ID:29777-5

Sample wt/vol: 30.7 (g/ml) G Lab File ID: S7564

Level: (low/med) LOW Date Received: 1/26/93

% Moisture: 8 decanted: (Y/N) N Date Extracted: 1/30/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/07/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	350.	U
111-44-4	Bis(2-chloroethyl)ether	350.	U
95-57-8	2-Chlorophenol	350.	U
541-73-1	1,3-Dichlorobenzene	350.	U
106-46-7	1,4-Dichlorobenzene	350.	U
100-51-6	Benzyl alcohol	710.	U
95-50-1	1,2-Dichlorobenzene	350.	U
95-48-7	2-Methylphenol	350.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	350.	U
106-44-5	4-Methylphenol	350.	U
621-64-7	N-Nitroso-di-n-propylamine	350.	U
67-72-1	Hexachloroethane	85.	J
98-95-3	Nitrobenzene	350.	U
78-59-1	Isophorone	350.	U
88-75-5	2-Nitrophenol	350.	U
105-67-9	2,4-Dimethylphenol	350.	U
65-85-0	Benzoic acid	1800.	U
111-91-1	bis(2-Chloroethoxy)methane	350.	U
120-83-2	2,4-Dichlorophenol	350.	U
120-82-1	1,2,4-Trichlorobenzene	350.	U
91-20-3	Naphthalene	350.	U
106-47-8	4-Chloroaniline	710.	U
87-68-3	Hexachlorobutadiene	350.	U
59-50-7	4-Chloro-3-methylphenol	710.	U
91-57-6	2-Methylnaphthalene	350.	U
77-47-4	Hexachlorocyclopentadiene	350.	U
88-06-2	2,4,6-Trichlorophenol	350.	U
95-95-4	2,4,5-Trichlorophenol	350.	U
91-58-7	2-Chloronaphthalene	350.	U
88-74-4	2-Nitroaniline	1800.	U
131-11-3	Dimethylphthalate	350.	U
208-96-8	Acenaphthylene	350.	U
606-20-2	2,6-Dinitrotoluene	350.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS238

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29777

Matrix: (soil/water) SOIL Lab Sample ID:29777-5

Sample wt/vol: 30.7 (g/ml) G Lab File ID: S7564

Level: (low/med) LOW Date Received: 1/26/93

% Moisture: 8 decanted: (Y/N) N Date Extracted: 1/30/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/07/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1800.	U
83-32-9	Acenaphthene	350.	U
51-28-5	2,4-Dinitrophenol	1800.	U
100-02-7	4-Nitrophenol	1800.	U
132-64-9	Dibenzofuran	350.	U
121-14-2	2,4-Dinitrotoluene	350.	U
84-66-2	Diethylphthalate	350.	U
7005-72-3	4-Chlorophenyl-phenylether	350.	U
86-73-7	Fluorene	350.	U
100-01-6	4-Nitroaniline	1800.	U
534-52-1	4,6-Dinitro-2-methylphenol	1800.	U
86-30-6	N-Nitrosodiphenylamine(1)	350.	U
101-55-3	4-Bromophenyl-phenylether	350.	U
118-74-1	Hexachlorobenzene	350.	U
87-86-5	Pentachlorophenol	1800.	U
85-01-8	Phenanthrene	350.	U
120-12-7	Anthracene	350.	U
84-74-2	Di-n-butylphthalate	370.	B
206-44-0	Fluoranthene	350.	U
129-00-0	Pyrene	350.	U
85-68-7	Butylbenzylphthalate	350.	U
91-94-1	3,3'-Dichlorobenzidine	710.	U
56-55-3	Benzo(a)anthracene	350.	U
218-01-9	Chrysene	350.	U
117-81-7	bis(2-Ethylhexyl)phthalate	350.	U
117-84-0	Di-n-octylphthalate	350.	U
205-99-2	Benzo(b)fluoranthene	350.	U
207-08-9	Benzo(k)fluoranthene	350.	U
50-32-8	Benzo(a)pyrene	350.	U
193-39-5	Indeno(1,2,3-cd)pyrene	350.	U
53-70-3	Dibenz(a,h)anthracene	350.	U
191-24-2	Benzo(g,h,i)perylene	350.	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS238

Lab Name: Sound Analytical Services Contract: 624419

Lab Code: - Case No.: - SAS No.: - SDG No.: 29777

Matrix: (soil/water) SOIL Lab Sample ID: 29777-5

Sample wt/vol: 30.7 (g/ml) G Lab File ID: S7564

Level: (low/med) LOW Date Received: 1/26/93

% Moisture: 8 decanted: (Y/N) N Date Extracted: 1/30/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/07/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

Number TICs Found: 9

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	20324-32-7	2-Propanol, 1-(2-Methoxy-1-M	7.97	190.	J
2.		Unknown	21.10	160.	J
3.		Unknown	23.07	150.	J
4.		Unknown	28.27	1900.	J
5.		Unknown	30.98	230.	J
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS239

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29777

Matrix: (soil/water) SOIL Lab Sample ID:29777-6

Sample wt/vol: 30.4 (g/ml) G Lab File ID: S7565

Level: (low/med) LOW Date Received: 1/26/93

% Moisture: 7 decanted: (Y/N) N Date Extracted: 1/30/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/07/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	350.	U
111-44-4	Bis(2-chloroethyl)ether	350.	U
95-57-8	2-Chlorophenol	350.	U
541-73-1	1,3-Dichlorobenzene	350.	U
106-46-7	1,4-Dichlorobenzene	350.	U
100-51-6	Benzyl alcohol	710.	U
95-50-1	1,2-Dichlorobenzene	350.	U
95-48-7	2-Methylphenol	350.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	350.	U
106-44-5	4-Methylphenol	350.	U
621-64-7	N-Nitroso-di-n-propylamine	350.	U
67-72-1	Hexachloroethane	350.	U
98-95-3	Nitrobenzene	350.	U
78-59-1	Isophorone	350.	U
88-75-5	2-Nitrophenol	350.	U
105-67-9	2,4-Dimethylphenol	350.	U
65-85-0	Benzoic acid	1800.	U
111-91-1	bis(2-Chloroethoxy)methane	350.	U
120-83-2	2,4-Dichlorophenol	350.	U
120-82-1	1,2,4-Trichlorobenzene	350.	U
91-20-3	Naphthalene	350.	U
106-47-8	4-Chloroaniline	710.	U
87-68-3	Hexachlorobutadiene	350.	U
59-50-7	4-Chloro-3-methylphenol	710.	U
91-57-6	2-Methylnaphthalene	350.	U
77-47-4	Hexachlorocyclopentadiene	350.	U
88-06-2	2,4,6-Trichlorophenol	350.	U
95-95-4	2,4,5-Trichlorophenol	350.	U
91-58-7	2-Chloronaphthalene	350.	U
88-74-4	2-Nitroaniline	1800.	U
131-11-3	Dimethylphthalate	350.	U
208-96-8	Acenaphthylene	350.	U
606-20-2	2,6-Dinitrotoluene	350.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS239

Lab Name: Sound Analytical Services Contract: 624419

Lab Code:- Case No.:- SAS No.:- SDG No.: 29777

Matrix: (soil/water) SOIL Lab Sample ID: 29777-6

Sample wt/vol: 30.4 (g/ml) G Lab File ID: S7565

Level: (low/med) LOW Date Received: 1/26/93

% Moisture: 7 decanted: (Y/N) N Date Extracted: 1/30/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/07/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1800.	U
83-32-9	Acenaphthene	350.	U
51-28-5	2,4-Dinitrophenol	1800.	U
100-02-7	4-Nitrophenol	1800.	U
132-64-9	Dibenzofuran	350.	U
121-14-2	2,4-Dinitrotoluene	350.	U
84-66-2	Diethylphthalate	350.	U
7005-72-3	4-Chlorophenyl-phenylether	350.	U
86-73-7	Fluorene	350.	U
100-01-6	4-Nitroaniline	1800.	U
534-52-1	4,6-Dinitro-2-methylphenol	1800.	U
86-30-6	N-Nitrosodiphenylamine(1)	350.	U
101-55-3	4-Bromophenyl-phenylether	350.	U
118-74-1	Hexachlorobenzene	350.	U
87-86-5	Pentachlorophenol	1800.	U
85-01-8	Phenanthrene	350.	U
120-12-7	Anthracene	350.	U
84-74-2	Di-n-butylphthalate	210.	JB
206-44-0	Fluoranthene	350.	U
129-00-0	Pyrene	350.	U
85-68-7	Butylbenzylphthalate	350.	U
91-94-1	3,3'-Dichlorobenzidine	710.	U
56-55-3	Benzo(a)anthracene	350.	U
218-01-9	Chrysene	350.	U
117-81-7	bis(2-Ethylhexyl)phthalate	350.	U
117-84-0	Di-n-octylphthalate	350.	U
205-99-2	Benzo(b)fluoranthene	350.	U
207-08-9	Benzo(k)fluoranthene	350.	U
50-32-8	Benzo(a)pyrene	350.	U
193-39-5	Indeno(1,2,3-cd)pyrene	350.	U
53-70-3	Dibenz(a,h)anthracene	350.	U
191-24-2	Benzo(g,h,i)perylene	350.	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS239

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29777

Matrix: (soil/water) SOIL Lab Sample ID:29777-6

Sample wt/vol: 30.4 (g/ml) G Lab File ID: S7565

Level: (low/med) LOW Date Received: 1/26/93

% Moisture: 7 decanted: (Y/N) N Date Extracted: 1/30/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/07/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

Number TICs Found: 11 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	20324-32-7	2-Propanol, 1-(2-Methoxy-1-M	8.03	170.	J
2.		Unknown	27.90	180.	J
3.		Unknown	28.48	1500.	J
4.		Unknown	28.65	190.	J
5.		Unknown	28.75	230.	J
6.		Unknown	29.40	180.	J
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS240

Lab Name: Sound Analytical Services Contract: 624419

Lab Code: - Case No.: - SAS No.: - SDG No.: 29777

Matrix: (soil/water) SOIL Lab Sample ID: 29777-7

Sample wt/vol: 30.5 (g/ml) G Lab File ID: S7566

Level: (low/med) LOW Date Received: 1/26/93

% Moisture: 11 decanted: (Y/N) N Date Extracted: 1/30/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/07/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	370.	U
111-44-4	Bis(2-chloroethyl)ether	370.	U
95-57-8	2-Chlorophenol	370.	U
541-73-1	1,3-Dichlorobenzene	370.	U
106-46-7	1,4-Dichlorobenzene	370.	U
100-51-6	Benzyl alcohol	740.	U
95-50-1	1,2-Dichlorobenzene	370.	U
95-48-7	2-Methylphenol	370.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	370.	U
106-44-5	4-Methylphenol	370.	U
621-64-7	N-Nitroso-di-n-propylamine	370.	U
67-72-1	Hexachloroethane	370.	U
98-95-3	Nitrobenzene	370.	U
78-59-1	Isophorone	370.	U
88-75-5	2-Nitrophenol	370.	U
105-67-9	2,4-Dimethylphenol	370.	U
65-85-0	Benzoic acid	1800.	U
111-91-1	bis(2-Chloroethoxy)methane	370.	U
120-83-2	2,4-Dichlorophenol	370.	U
120-82-1	1,2,4-Trichlorobenzene	370.	U
91-20-3	Naphthalene	370.	U
106-47-8	4-Chloroaniline	740.	U
87-68-3	Hexachlorobutadiene	370.	U
59-50-7	4-Chloro-3-methylphenol	740.	U
91-57-6	2-Methylnaphthalene	370.	U
77-47-4	Hexachlorocyclopentadiene	370.	U
88-06-2	2,4,6-Trichlorophenol	370.	U
95-95-4	2,4,5-Trichlorophenol	370.	U
91-58-7	2-Chloronaphthalene	370.	U
88-74-4	2-Nitroaniline	1800.	U
131-11-3	Dimethylphthalate	370.	U
208-96-8	Acenaphthylene	370.	U
606-20-2	2,6-Dinitrotoluene	370.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS240

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29777

Matrix: (soil/water) SOIL Lab Sample ID:29777-7

Sample wt/vol: 30.5 (g/ml) G Lab File ID: S7566

Level: (low/med) LOW Date Received: 1/26/93

% Moisture: 11 decanted: (Y/N) N Date Extracted: 1/30/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/07/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1800.	U
83-32-9	Acenaphthene	370.	U
51-28-5	2,4-Dinitrophenol	1800.	U
100-02-7	4-Nitrophenol	1800.	U
132-64-9	Dibenzofuran	370.	U
121-14-2	2,4-Dinitrotoluene	370.	U
84-66-2	Diethylphthalate	370.	U
7005-72-3	4-Chlorophenyl-phenylether	370.	U
86-73-7	Fluorene	370.	U
100-01-6	4-Nitroaniline	1800.	U
534-52-1	4,6-Dinitro-2-methylphenol	1800.	U
86-30-6	N-Nitrosodiphenylamine(1)	370.	U
101-55-3	4-Bromophenyl-phenylether	370.	U
118-74-1	Hexachlorobenzene	370.	U
87-86-5	Pentachlorophenol	1800.	U
85-01-8	Phenanthrene	370.	U
120-12-7	Anthracene	370.	U
84-74-2	Di-n-butylphthalate	200.	JB
206-44-0	Fluoranthene	370.	U
129-00-0	Pyrene	370.	U
85-68-7	Butylbenzylphthalate	370.	U
91-94-1	3,3'-Dichlorobenzidine	740.	U
56-55-3	Benzo(a)anthracene	370.	U
218-01-9	Chrysene	370.	U
117-81-7	bis(2-Ethylhexyl)phthalate	370.	U
117-84-0	Di-n-octylphthalate	370.	U
205-99-2	Benzo(b)fluoranthene	370.	U
207-08-9	Benzo(k)fluoranthene	370.	U
50-32-8	Benzo(a)pyrene	370.	U
193-39-5	Indeno(1,2,3-cd)pyrene	370.	U
53-70-3	Dibenz(a,h)anthracene	370.	U
191-24-2	Benzo(g,h,i)perylene	370.	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS240

Lab Name: Sound Analytical Services Contract: 624419

Lab Code: - Case No.: - SAS No.: - SDG No.: 29777

Matrix: (soil/water) SOIL Lab Sample ID: 29777-7

Sample wt/vol: 30.5 (g/ml) G Lab File ID: S7566

Level: (low/med) LOW Date Received: 1/26/93

% Moisture: 11 decanted: (Y/N) N Date Extracted: 1/30/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/07/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

Number TICs Found: 3

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	28.48	1600.	J
2.		Unknown	28.75	340.	J
3.					
4.					
5.					
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS241

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29777

Matrix: (soil/water) SOIL Lab Sample ID:29777-8

Sample wt/vol: 30.5 (g/ml) G Lab File ID: S7567

Level: (low/med) LOW Date Received: 1/26/93

% Moisture: 9 decanted: (Y/N) N Date Extracted: 1/30/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/07/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	360.	U
111-44-4	Bis(2-chloroethyl)ether	360.	U
95-57-8	2-Chlorophenol	360.	U
541-73-1	1,3-Dichlorobenzene	360.	U
106-46-7	1,4-Dichlorobenzene	360.	U
100-51-6	Benzyl alcohol	720.	U
95-50-1	1,2-Dichlorobenzene	360.	U
95-48-7	2-Methylphenol	360.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	360.	U
106-44-5	4-Methylphenol	360.	U
621-64-7	N-Nitroso-di-n-propylamine	360.	U
67-72-1	Hexachloroethane	360.	U
98-95-3	Nitrobenzene	360.	U
78-59-1	Isophorone	360.	U
88-75-5	2-Nitrophenol	360.	U
105-67-9	2,4-Dimethylphenol	360.	U
65-85-0	Benzoic acid	1800.	U
111-91-1	bis(2-Chloroethoxy)methane	360.	U
120-83-2	2,4-Dichlorophenol	360.	U
120-82-1	1,2,4-Trichlorobenzene	360.	U
91-20-3	Naphthalene	360.	U
106-47-8	4-Chloroaniline	720.	U
87-68-3	Hexachlorobutadiene	360.	U
59-50-7	4-Chloro-3-methylphenol	720.	U
91-57-6	2-Methylnaphthalene	360.	U
77-47-4	Hexachlorocyclopentadiene	360.	U
88-06-2	2,4,6-Trichlorophenol	360.	U
95-95-4	2,4,5-Trichlorophenol	360.	U
91-58-7	2-Chloronaphthalene	360.	U
88-74-4	2-Nitroaniline	1800.	U
131-11-3	Dimethylphthalate	360.	U
208-96-8	Acenaphthylene	360.	U
606-20-2	2,6-Dinitrotoluene	360.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS241

Lab Name: Sound Analytical Services Contract: 624419

Lab Code:- Case No.:- SAS No.:- SDG No.: 29777

Matrix: (soil/water) SOIL Lab Sample ID: 29777-8

Sample wt/vol: 30.5 (g/ml) G Lab File ID: S7567

Level: (low/med) LOW Date Received: 1/26/93

% Moisture: 9 decanted: (Y/N) N Date Extracted: 1/30/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/07/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1800.	U
83-32-9	Acenaphthene	360.	U
51-28-5	2,4-Dinitrophenol	1800.	U
100-02-7	4-Nitrophenol	1800.	U
132-64-9	Dibenzofuran	360.	U
121-14-2	2,4-Dinitrotoluene	360.	U
84-66-2	Diethylphthalate	360.	U
7005-72-3	4-Chlorophenyl-phenylether	360.	U
86-73-7	Fluorene	360.	U
100-01-6	4-Nitroaniline	1800.	U
534-52-1	4,6-Dinitro-2-methylphenol	1800.	U
86-30-6	N-Nitrosodiphenylamine(1)	360.	U
101-55-3	4-Bromophenyl-phenylether	360.	U
118-74-1	Hexachlorobenzene	360.	U
87-86-5	Pentachlorophenol	1800.	U
85-01-8	Phenanthrene	360.	U
120-12-7	Anthracene	360.	U
84-74-2	Di-n-butylphthalate	160.	JB
206-44-0	Fluoranthene	360.	U
129-00-0	Pyrene	360.	U
85-68-7	Butylbenzylphthalate	360.	U
91-94-1	3,3'-Dichlorobenzidine	720.	U
56-55-3	Benzo(a)anthracene	360.	U
218-01-9	Chrysene	360.	U
117-81-7	bis(2-Ethylhexyl)phthalate	360.	U
117-84-0	Di-n-octylphthalate	360.	U
205-99-2	Benzo(b)fluoranthene	360.	U
207-08-9	Benzo(k)fluoranthene	360.	U
50-32-8	Benzo(a)pyrene	360.	U
193-39-5	Indeno(1,2,3-cd)pyrene	360.	U
53-70-3	Dibenz(a,h)anthracene	360.	U
191-24-2	Benzo(g,h,i)perylene	360.	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS241

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29777

Matrix: (soil/water) SOIL Lab Sample ID:29777-8

Sample wt/vol: 30.5 (g/ml) G Lab File ID: S7567

Level: (low/med) LOW Date Received: 1/26/93

% Moisture: 9 decanted: (Y/N) N Date Extracted: 1/30/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/07/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

Number TICs Found: 3

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	22.32	160.	J
2.		Unknown	28.55	2100.	J
3.					
4.					
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS242

Lab Name: Sound Analytical Services Contract: 624419

Lab Code:- Case No.:- SAS No.:- SDG No.: 29777

Matrix: (soil/water) SOIL Lab Sample ID: 29777-9

Sample wt/vol: 30.1 (g/ml) G Lab File ID: S7568

Level: (low/med) LOW Date Received: 1/26/93

% Moisture: 7 decanted: (Y/N) N Date Extracted: 1/30/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/07/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	360.	U
111-44-4	Bis(2-chloroethyl)ether	360.	U
95-57-8	2-Chlorophenol	360.	U
541-73-1	1,3-Dichlorobenzene	360.	U
106-46-7	1,4-Dichlorobenzene	360.	U
100-51-6	Benzyl alcohol	710.	U
95-50-1	1,2-Dichlorobenzene	360.	U
95-48-7	2-Methylphenol	360.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	360.	U
106-44-5	4-Methylphenol	360.	U
621-64-7	N-Nitroso-di-n-propylamine	360.	U
67-72-1	Hexachloroethane	360.	U
98-95-3	Nitrobenzene	360.	U
78-59-1	Isophorone	360.	U
88-75-5	2-Nitrophenol	360.	U
105-67-9	2,4-Dimethylphenol	360.	U
65-85-0	Benzoic acid	1800.	U
111-91-1	bis(2-Chloroethoxy)methane	360.	U
120-83-2	2,4-Dichlorophenol	360.	U
120-82-1	1,2,4-Trichlorobenzene	360.	U
91-20-3	Naphthalene	360.	U
106-47-8	4-Chloroaniline	710.	U
87-68-3	Hexachlorobutadiene	360.	U
59-50-7	4-Chloro-3-methylphenol	710.	U
91-57-6	2-Methylnaphthalene	360.	U
77-47-4	Hexachlorocyclopentadiene	360.	U
88-06-2	2,4,6-Trichlorophenol	360.	U
95-95-4	2,4,5-Trichlorophenol	360.	U
91-58-7	2-Chloronaphthalene	360.	U
88-74-4	2-Nitroaniline	1800.	U
131-11-3	Dimethylphthalate	360.	U
208-96-8	Acenaphthylene	360.	U
606-20-2	2,6-Dinitrotoluene	360.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS242

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29777

Matrix: (soil/water) SOIL Lab Sample ID:29777-9

Sample wt/vol: 30.1 (g/ml) G Lab File ID: S7568

Level: (low/med) LOW Date Received: 1/26/93

% Moisture: 7 decanted: (Y/N) N Date Extracted: 1/30/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/07/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1800.	U
83-32-9	Acenaphthene	360.	U
51-28-5	2,4-Dinitrophenol	1800.	U
100-02-7	4-Nitrophenol	1800.	U
132-64-9	Dibenzofuran	360.	U
121-14-2	2,4-Dinitrotoluene	360.	U
84-66-2	Diethylphthalate	360.	U
7005-72-3	4-Chlorophenyl-phenylether	360.	U
86-73-7	Fluorene	360.	U
100-01-6	4-Nitroaniline	1800.	U
534-52-1	4,6-Dinitro-2-methylphenol	1800.	U
86-30-6	N-Nitrosodiphenylamine(1)	360.	U
101-55-3	4-Bromophenyl-phenylether	360.	U
118-74-1	Hexachlorobenzene	360.	U
87-86-5	Pentachlorophenol	1800.	U
85-01-8	Phenanthrene	360.	U
120-12-7	Anthracene	360.	U
84-74-2	Di-n-butylphthalate	240.	JB
206-44-0	Fluoranthene	360.	U
129-00-0	Pyrene	360.	U
85-68-7	Butylbenzylphthalate	360.	U
91-94-1	3,3'-Dichlorobenzidine	710.	U
56-55-3	Benzo(a)anthracene	360.	U
218-01-9	Chrysene	360.	U
117-81-7	bis(2-Ethylhexyl)phthalate	360.	U
117-84-0	Di-n-octylphthalate	360.	U
205-99-2	Benzo(b)fluoranthene	360.	U
207-08-9	Benzo(k)fluoranthene	360.	U
50-32-8	Benzo(a)pyrene	360.	U
193-39-5	Indeno(1,2,3-cd)pyrene	360.	U
53-70-3	Dibenz(a,h)anthracene	360.	U
191-24-2	Benzo(g,h,i)perylene	360.	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS242

Lab Name: Sound Analytical Services Contract: 624419

Lab Code: - Case No.: - SAS No.: - SDG No.: 29777

Matrix: (soil/water) SOIL Lab Sample ID: 29777-9

Sample wt/vol: 30.1 (g/ml) G Lab File ID: S7568

Level: (low/med) LOW Date Received: 1/26/93

% Moisture: 7 decanted: (Y/N) N Date Extracted: 1/30/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/07/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

Number TICs Found: 3

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	28.45	1600.	J
2.		Unknown	29.37	170.	J
3.					
4.					
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS243

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29777

Matrix: (soil/water) SOIL Lab Sample ID:29777-10

Sample wt/vol: 30.6 (g/ml) G Lab File ID: S7569

Level: (low/med) LOW Date Received: 1/26/93

% Moisture: 5 decanted: (Y/N) N Date Extracted: 1/30/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/07/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	340.	U
111-44-4	Bis(2-chloroethyl)ether	340.	U
95-57-8	2-Chlorophenol	340.	U
541-73-1	1,3-Dichlorobenzene	340.	U
106-46-7	1,4-Dichlorobenzene	340.	U
100-51-6	Benzyl alcohol	690.	U
95-50-1	1,2-Dichlorobenzene	340.	U
95-48-7	2-Methylphenol	340.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	340.	U
106-44-5	4-Methylphenol	340.	U
621-64-7	N-Nitroso-di-n-propylamine	340.	U
67-72-1	Hexachloroethane	340.	U
98-95-3	Nitrobenzene	340.	U
78-59-1	Isophorone	340.	U
88-75-5	2-Nitrophenol	340.	U
105-67-9	2,4-Dimethylphenol	340.	U
65-85-0	Benzoic acid	1700.	U
111-91-1	bis(2-Chloroethoxy)methane	340.	U
120-83-2	2,4-Dichlorophenol	340.	U
120-82-1	1,2,4-Trichlorobenzene	340.	U
91-20-3	Naphthalene	340.	U
106-47-8	4-Chloroaniline	690.	U
87-68-3	Hexachlorobutadiene	340.	U
59-50-7	4-Chloro-3-methylphenol	690.	U
91-57-6	2-Methylnaphthalene	340.	U
77-47-4	Hexachlorocyclopentadiene	340.	U
88-06-2	2,4,6-Trichlorophenol	340.	U
95-95-4	2,4,5-Trichlorophenol	340.	U
91-58-7	2-Chloronaphthalene	340.	U
88-74-4	2-Nitroaniline	1700.	U
131-11-3	Dimethylphthalate	340.	U
208-96-8	Acenaphthylene	340.	U
606-20-2	2,6-Dinitrotoluene	340.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS243

Lab Name: Sound Analytical Services Contract: 624419

Lab Code:- Case No.:- SAS No.:- SDG No.: 29777

Matrix: (soil/water) SOIL Lab Sample ID: 29777-10

Sample wt/vol: 30.6 (g/ml) G Lab File ID: S7569

Level: (low/med) LOW Date Received: 1/26/93

% Moisture: 5 decanted: (Y/N) N Date Extracted: 1/30/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/07/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1700.	U
83-32-9	Acenaphthene	340.	U
51-28-5	2,4-Dinitrophenol	1700.	U
100-02-7	4-Nitrophenol	1700.	U
132-64-9	Dibenzofuran	340.	U
121-14-2	2,4-Dinitrotoluene	340.	U
84-66-2	Diethylphthalate	340.	U
7005-72-3	4-Chlorophenyl-phenylether	340.	U
86-73-7	Fluorene	340.	U
100-01-6	4-Nitroaniline	1700.	U
534-52-1	4,6-Dinitro-2-methylphenol	1700.	U
86-30-6	N-Nitrosodiphenylamine(1)	340.	U
101-55-3	4-Bromophenyl-phenylether	340.	U
118-74-1	Hexachlorobenzene	340.	U
87-86-5	Pentachlorophenol	1700.	U
85-01-8	Phenanthrene	340.	U
120-12-7	Anthracene	340.	U
84-74-2	Di-n-butylphthalate	210.	JB
206-44-0	Fluoranthene	340.	U
129-00-0	Pyrene	340.	U
85-68-7	Butylbenzylphthalate	340.	U
91-94-1	3,3'-Dichlorobenzidine	690.	U
56-55-3	Benzo(a)anthracene	340.	U
218-01-9	Chrysene	340.	U
117-81-7	bis(2-Ethylhexyl)phthalate	340.	U
117-84-0	Di-n-octylphthalate	340.	U
205-99-2	Benzo(b)fluoranthene	340.	U
207-08-9	Benzo(k)fluoranthene	340.	U
50-32-8	Benzo(a)pyrene	340.	U
193-39-5	Indeno(1,2,3-cd)pyrene	340.	U
53-70-3	Dibenz(a,h)anthracene	340.	U
191-24-2	Benzo(g,h,i)perylene	340.	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS243

Lab Name: Sound Analytical Services Contract: 624419

Lab Code: - Case No.: - SAS No.: - SDG No.: 29777

Matrix: (soil/water) SOIL Lab Sample ID: 29777-10

Sample wt/vol: 30.6 (g/ml) G Lab File ID: S7569

Level: (low/med) LOW Date Received: 1/26/93

% Moisture: 5 decanted: (Y/N) N Date Extracted: 1/30/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/07/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

Number TICs Found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	28.48	1400.	J
2.					
3.					
4.					
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS244

Lab Name: Sound Analytical Services Contract: 624419

Lab Code:- Case No.:- SAS No.:- SDG No.: 29777

Matrix: (soil/water) SOIL Lab Sample ID: 29777-11

Sample wt/vol: 30.1 (g/ml) G Lab File ID: S7570

Level: (low/med) LOW Date Received: 1/26/93

% Moisture: 11 decanted: (Y/N) N Date Extracted: 1/30/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/07/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	370.	U
111-44-4	Bis(2-chloroethyl)ether	370.	U
95-57-8	2-Chlorophenol	370.	U
541-73-1	1,3-Dichlorobenzene	370.	U
106-46-7	1,4-Dichlorobenzene	370.	U
100-51-6	Benzyl alcohol	750.	U
95-50-1	1,2-Dichlorobenzene	370.	U
95-48-7	2-Methylphenol	370.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	370.	U
106-44-5	4-Methylphenol	370.	U
621-64-7	N-Nitroso-di-n-propylamine	370.	U
67-72-1	Hexachloroethane	370.	U
98-95-3	Nitrobenzene	370.	U
78-59-1	Isophorone	370.	U
88-75-5	2-Nitrophenol	370.	U
105-67-9	2,4-Dimethylphenol	370.	U
65-85-0	Benzoic acid	1900.	U
111-91-1	bis(2-Chloroethoxy)methane	370.	U
120-83-2	2,4-Dichlorophenol	370.	U
120-82-1	1,2,4-Trichlorobenzene	370.	U
91-20-3	Naphthalene	370.	U
106-47-8	4-Chloroaniline	750.	U
87-68-3	Hexachlorobutadiene	370.	U
59-50-7	4-Chloro-3-methylphenol	750.	U
91-57-6	2-Methylnaphthalene	370.	U
77-47-4	Hexachlorocyclopentadiene	370.	U
88-06-2	2,4,6-Trichlorophenol	370.	U
95-95-4	2,4,5-Trichlorophenol	370.	U
91-58-7	2-Chloronaphthalene	370.	U
88-74-4	2-Nitroaniline	1900.	U
131-11-3	Dimethylphthalate	370.	U
208-96-8	Acenaphthylene	370.	U
606-20-2	2,6-Dinitrotoluene	370.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS244

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29777

Matrix: (soil/water) SOIL Lab Sample ID:29777-11

Sample wt/vol: 30.1 (g/ml) G Lab File ID: S7570

Level: (low/med) LOW Date Received: 1/26/93

% Moisture: 11 decanted: (Y/N) N Date Extracted: 1/30/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/07/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1900.	U
83-32-9	Acenaphthene	370.	U
51-28-5	2,4-Dinitrophenol	1900.	U
100-02-7	4-Nitrophenol	1900.	U
132-64-9	Dibenzofuran	370.	U
121-14-2	2,4-Dinitrotoluene	370.	U
84-66-2	Diethylphthalate	370.	U
7005-72-3	4-Chlorophenyl-phenylether	370.	U
86-73-7	Fluorene	370.	U
100-01-6	4-Nitroaniline	1900.	U
534-52-1	4,6-Dinitro-2-methylphenol	1900.	U
86-30-6	N-Nitrosodiphenylamine(1)	370.	U
101-55-3	4-Bromophenyl-phenylether	370.	U
118-74-1	Hexachlorobenzene	370.	U
87-86-5	Pentachlorophenol	1900.	U
85-01-8	Phenanthrene	370.	U
120-12-7	Anthracene	370.	U
84-74-2	Di-n-butylphthalate	110.	JB
206-44-0	Fluoranthene	370.	U
129-00-0	Pyrene	370.	U
85-68-7	Butylbenzylphthalate	370.	U
91-94-1	3,3'-Dichlorobenzidine	750.	U
56-55-3	Benzo(a)anthracene	370.	U
218-01-9	Chrysene	370.	U
117-81-7	bis(2-Ethylhexyl)phthalate	370.	U
117-84-0	Di-n-octylphthalate	370.	U
205-99-2	Benzo(b)fluoranthene	370.	U
207-08-9	Benzo(k)fluoranthene	370.	U
50-32-8	Benzo(a)pyrene	370.	U
193-39-5	Indeno(1,2,3-cd)pyrene	370.	U
53-70-3	Dibenz(a,h)anthracene	370.	U
191-24-2	Benzo(g,h,i)perylene	370.	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS244

Lab Name: Sound Analytical Services Contract: 624419

Lab Code: - Case No.: - SAS No.: - SDG No.: 29777

Matrix: (soil/water) SOIL Lab Sample ID: 29777-11

Sample wt/vol: 30.1 (g/ml) G Lab File ID: S7570

Level: (low/med) LOW Date Received: 1/26/93

% Moisture: 11 decanted: (Y/N) N Date Extracted: 1/30/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/07/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

Number TICs Found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	28.30	1600.	J
2.					
3.					
4.					
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS245

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29777

Matrix: (soil/water) SOIL Lab Sample ID:29777-12

Sample wt/vol: 30.1 (g/ml) G Lab File ID: S7573

Level: (low/med) LOW Date Received: 1/26/93

% Moisture: 6 decanted: (Y/N) N Date Extracted: 1/30/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/08/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	350.	U
111-44-4	Bis(2-chloroethyl)ether	350.	U
95-57-8	2-Chlorophenol	350.	U
541-73-1	1,3-Dichlorobenzene	350.	U
106-46-7	1,4-Dichlorobenzene	350.	U
100-51-6	Benzyl alcohol	710.	U
95-50-1	1,2-Dichlorobenzene	350.	U
95-48-7	2-Methylphenol	350.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	350.	U
106-44-5	4-Methylphenol	350.	U
621-64-7	N-Nitroso-di-n-propylamine	350.	U
67-72-1	Hexachloroethane	350.	U
98-95-3	Nitrobenzene	350.	U
78-59-1	Isophorone	350.	U
88-75-5	2-Nitrophenol	350.	U
105-67-9	2,4-Dimethylphenol	350.	U
65-85-0	Benzoic acid	1800.	U
111-91-1	bis(2-Chloroethoxy)methane	350.	U
120-83-2	2,4-Dichlorophenol	350.	U
120-82-1	1,2,4-Trichlorobenzene	350.	U
91-20-3	Naphthalene	350.	U
106-47-8	4-Chloroaniline	710.	U
87-68-3	Hexachlorobutadiene	350.	U
59-50-7	4-Chloro-3-methylphenol	710.	U
91-57-6	2-Methylnaphthalene	350.	U
77-47-4	Hexachlorocyclopentadiene	350.	U
88-06-2	2,4,6-Trichlorophenol	350.	U
95-95-4	2,4,5-Trichlorophenol	350.	U
91-58-7	2-Chloronaphthalene	350.	U
88-74-4	2-Nitroaniline	1800.	U
131-11-3	Dimethylphthalate	350.	U
208-96-8	Acenaphthylene	350.	U
606-20-2	2,6-Dinitrotoluene	350.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS245

Lab Name: Sound Analytical Services Contract: 624419

Lab Code: - Case No.: - SAS No.: - SDG No.: 29777

Matrix: (soil/water) SOIL Lab Sample ID: 29777-12

Sample wt/vol: 30.1 (g/ml) G Lab File ID: S7573

Level: (low/med) LOW Date Received: 1/26/93

% Moisture: 6 decanted: (Y/N) N Date Extracted: 1/30/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/08/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1800.	U
83-32-9	Acenaphthene	350.	U
51-28-5	2,4-Dinitrophenol	1800.	U
100-02-7	4-Nitrophenol	1800.	U
132-64-9	Dibenzofuran	350.	U
121-14-2	2,4-Dinitrotoluene	350.	U
84-66-2	Diethylphthalate	350.	U
7005-72-3	4-Chlorophenyl-phenylether	350.	U
86-73-7	Fluorene	350.	U
100-01-6	4-Nitroaniline	1800.	U
534-52-1	4,6-Dinitro-2-methylphenol	1800.	U
86-30-6	N-Nitrosodiphenylamine(1)	350.	U
101-55-3	4-Bromophenyl-phenylether	350.	U
118-74-1	Hexachlorobenzene	350.	U
87-86-5	Pentachlorophenol	1800.	U
85-01-8	Phenanthrene	350.	U
120-12-7	Anthracene	350.	U
84-74-2	Di-n-butylphthalate	350.	U
206-44-0	Fluoranthene	350.	U
129-00-0	Pyrene	350.	U
85-68-7	Butylbenzylphthalate	350.	U
91-94-1	3,3'-Dichlorobenzidine	710.	U
56-55-3	Benzo(a)anthracene	350.	U
218-01-9	Chrysene	350.	U
117-81-7	bis(2-Ethylhexyl)phthalate	350.	U
117-84-0	Di-n-octylphthalate	350.	U
205-99-2	Benzo(b)fluoranthene	350.	U
207-08-9	Benzo(k)fluoranthene	350.	U
50-32-8	Benzo(a)pyrene	350.	U
193-39-5	Indeno(1,2,3-cd)pyrene	350.	U
53-70-3	Dibenz(a,h)anthracene	350.	U
191-24-2	Benzo(g,h,i)perylene	350.	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS245

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29777

Matrix: (soil/water) SOIL Lab Sample ID:29777-12

Sample wt/vol: 30.1 (g/ml) G Lab File ID: S7573

Level: (low/med) LOW Date Received: 1/26/93

% Moisture: 6 decanted: (Y/N) N Date Extracted: 1/30/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/08/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

Number TICs Found: 3

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	28.48	1200.	J
2.		Unknown	28.73	260.	J
3.					
4.					
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS246

Lab Name: Sound Analytical Services Contract: 624419

Lab Code: - Case No.: - SAS No.: - SDG No.: 29777

Matrix: (soil/water) SOIL Lab Sample ID: 29777-13

Sample wt/vol: 30.2 (g/ml) G Lab File ID: S7761

Level: (low/med) LOW Date Received: 1/26/93

% Moisture: 7 decanted: (Y/N) N Date Extracted: 1/30/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/08/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	360.	U
111-44-4	Bis(2-chloroethyl)ether	360.	U
95-57-8	2-Chlorophenol	360.	U
541-73-1	1,3-Dichlorobenzene	360.	U
106-46-7	1,4-Dichlorobenzene	360.	U
100-51-6	Benzyl alcohol	710.	U
95-50-1	1,2-Dichlorobenzene	360.	U
95-48-7	2-Methylphenol	360.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	360.	U
106-44-5	4-Methylphenol	360.	U
621-64-7	N-Nitroso-di-n-propylamine	360.	U
67-72-1	Hexachloroethane	360.	U
98-95-3	Nitrobenzene	360.	U
78-59-1	Isophorone	360.	U
88-75-5	2-Nitrophenol	360.	U
105-67-9	2,4-Dimethylphenol	360.	U
65-85-0	Benzoic acid	1800.	U
111-91-1	bis(2-Chloroethoxy)methane	360.	U
120-83-2	2,4-Dichlorophenol	360.	U
120-82-1	1,2,4-Trichlorobenzene	360.	U
91-20-3	Naphthalene	360.	U
106-47-8	4-Chloroaniline	710.	U
87-68-3	Hexachlorobutadiene	360.	U
59-50-7	4-Chloro-3-methylphenol	710.	U
91-57-6	2-Methylnaphthalene	360.	U
77-47-4	Hexachlorocyclopentadiene	360.	U
88-06-2	2,4,6-Trichlorophenol	360.	U
95-95-4	2,4,5-Trichlorophenol	360.	U
91-58-7	2-Chloronaphthalene	360.	U
88-74-4	2-Nitroaniline	1800.	U
131-11-3	Dimethylphthalate	360.	U
208-96-8	Acenaphthylene	360.	U
606-20-2	2,6-Dinitrotoluene	360.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS246

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29777

Matrix: (soil/water) SOIL Lab Sample ID:29777-13

Sample wt/vol: 30.2 (g/ml) G Lab File ID: S7761

Level: (low/med) LOW Date Received: 1/26/93

% Moisture: 7 decanted: (Y/N) N Date Extracted: 1/30/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/08/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1800.	U
83-32-9	Acenaphthene	360.	U
51-28-5	2,4-Dinitrophenol	1800.	U
100-02-7	4-Nitrophenol	1800.	U
132-64-9	Dibenzofuran	360.	U
121-14-2	2,4-Dinitrotoluene	360.	U
84-66-2	Diethylphthalate	360.	U
7005-72-3	4-Chlorophenyl-phenylether	360.	U
86-73-7	Fluorene	360.	U
100-01-6	4-Nitroaniline	1800.	U
534-52-1	4,6-Dinitro-2-methylphenol	1800.	U
86-30-6	N-Nitrosodiphenylamine(1)	360.	U
101-55-3	4-Bromophenyl-phenylether	360.	U
118-74-1	Hexachlorobenzene	360.	U
87-86-5	Pentachlorophenol	1800.	U
85-01-8	Phenanthrene	360.	U
120-12-7	Anthracene	360.	U
84-74-2	Di-n-butylphthalate	94.	JB
206-44-0	Fluoranthene	360.	U
129-00-0	Pyrene	360.	U
85-68-7	Butylbenzylphthalate	360.	U
91-94-1	3,3'-Dichlorobenzidine	710.	U
56-55-3	Benzo(a)anthracene	360.	U
218-01-9	Chrysene	360.	U
117-81-7	bis(2-Ethylhexyl)phthalate	360.	U
117-84-0	Di-n-octylphthalate	360.	U
205-99-2	Benzo(b)fluoranthene	360.	U
207-08-9	Benzo(k)fluoranthene	360.	U
50-32-8	Benzo(a)pyrene	360.	U
193-39-5	Indeno(1,2,3-cd)pyrene	360.	U
53-70-3	Dibenz(a,h)anthracene	360.	U
191-24-2	Benzo(g,h,i)perylene	360.	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS246

Lab Name: Sound Analytical Services Contract: 624419

Lab Code: - Case No.: - SAS No.: - SDG No.: 29777

Matrix: (soil/water) SOIL Lab Sample ID: 29777-13

Sample wt/vol: 30.2 (g/ml) G Lab File ID: S7761

Level: (low/med) LOW Date Received: 1/26/93

% Moisture: 7 decanted: (Y/N) N Date Extracted: 1/30/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/08/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

Number TICs Found: 3

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	28.48	1600.	J
2.		Unknown	28.75	330.	J
3.					
4.					
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6.					
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS247

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29777

Matrix: (soil/water) SOIL Lab Sample ID:29777-14

Sample wt/vol: 30.1 (g/ml) G Lab File ID: S7762

Level: (low/med) LOW Date Received: 1/26/93

% Moisture: 8 decanted: (Y/N) N Date Extracted: 1/30/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/08/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	360.	U
111-44-4	Bis(2-chloroethyl)ether	360.	U
95-57-8	2-Chlorophenol	360.	U
541-73-1	1,3-Dichlorobenzene	360.	U
106-46-7	1,4-Dichlorobenzene	360.	U
100-51-6	Benzyl alcohol	720.	U
95-50-1	1,2-Dichlorobenzene	360.	U
95-48-7	2-Methylphenol	360.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	360.	U
106-44-5	4-Methylphenol	360.	U
621-64-7	N-Nitroso-di-n-propylamine	360.	U
67-72-1	Hexachloroethane	360.	U
98-95-3	Nitrobenzene	360.	U
78-59-1	Isophorone	360.	U
88-75-5	2-Nitrophenol	360.	U
105-67-9	2,4-Dimethylphenol	360.	U
65-85-0	Benzoic acid	1800.	U
111-91-1	bis(2-Chloroethoxy)methane	360.	U
120-83-2	2,4-Dichlorophenol	360.	U
120-82-1	1,2,4-Trichlorobenzene	360.	U
91-20-3	Naphthalene	360.	U
106-47-8	4-Chloroaniline	720.	U
87-68-3	Hexachlorobutadiene	360.	U
59-50-7	4-Chloro-3-methylphenol	720.	U
91-57-6	2-Methylnaphthalene	360.	U
77-47-4	Hexachlorocyclopentadiene	360.	U
88-06-2	2,4,6-Trichlorophenol	360.	U
95-95-4	2,4,5-Trichlorophenol	360.	U
91-58-7	2-Chloronaphthalene	360.	U
88-74-4	2-Nitroaniline	1800.	U
131-11-3	Dimethylphthalate	360.	U
208-96-8	Acenaphthylene	360.	U
606-20-2	2,6-Dinitrotoluene	360.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS247

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29777

Matrix: (soil/water) SOIL Lab Sample ID:29777-14

Sample wt/vol: 30.1 (g/ml) G Lab File ID: S7762

Level: (low/med) LOW Date Received: 1/26/93

% Moisture: 8 decanted: (Y/N) N Date Extracted: 1/30/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/08/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1800.	U
83-32-9	Acenaphthene	360.	U
51-28-5	2,4-Dinitrophenol	1800.	U
100-02-7	4-Nitrophenol	1800.	U
132-64-9	Dibenzofuran	360.	U
121-14-2	2,4-Dinitrotoluene	360.	U
84-66-2	Diethylphthalate	360.	U
7005-72-3	4-Chlorophenyl-phenylether	360.	U
86-73-7	Fluorene	360.	U
100-01-6	4-Nitroaniline	1800.	U
534-52-1	4,6-Dinitro-2-methylphenol	1800.	U
86-30-6	N-Nitrosodiphenylamine(1)	360.	U
101-55-3	4-Bromophenyl-phenylether	360.	U
118-74-1	Hexachlorobenzene	360.	U
87-86-5	Pentachlorophenol	1800.	U
85-01-8	Phenanthrene	360.	U
120-12-7	Anthracene	360.	U
84-74-2	Di-n-butylphthalate	120.	JB
206-44-0	Fluoranthene	360.	U
129-00-0	Pyrene	360.	U
85-68-7	Butylbenzylphthalate	360.	U
91-94-1	3,3'-Dichlorobenzidine	720.	U
56-55-3	Benzo(a)anthracene	360.	U
218-01-9	Chrysene	360.	U
117-81-7	bis(2-Ethylhexyl)phthalate	360.	U
117-84-0	Di-n-octylphthalate	360.	U
205-99-2	Benzo(b)fluoranthene	360.	U
207-08-9	Benzo(k)fluoranthene	360.	U
50-32-8	Benzo(a)pyrene	360.	U
193-39-5	Indeno(1,2,3-cd)pyrene	360.	U
53-70-3	Dibenz(a,h)anthracene	360.	U
191-24-2	Benzo(g,h,i)perylene	360.	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS247

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29777

Matrix: (soil/water) SOIL Lab Sample ID:29777-14

Sample wt/vol: 30.1 (g/ml) G Lab File ID: S7762

Level: (low/med) LOW Date Received: 1/26/93

% Moisture: 8 decanted: (Y/N) N Date Extracted: 1/30/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/08/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

Number TICs Found: 3

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	28.63	1600.	J
2.		Unknown	28.88	360.	J
3.					
4.					
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS248

Lab Name: Sound Analytical Services Contract: 624419

Lab Code:- Case No.:- SAS No.:- SDG No.: 29777

Matrix: (soil/water) SOIL Lab Sample ID: 29777-15

Sample wt/vol: 30.1 (g/ml) G Lab File ID: S7763

Level: (low/med) LOW Date Received: 1/26/93

% Moisture: 10 decanted: (Y/N) N Date Extracted: 1/30/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/08/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	370.	U
111-44-4	Bis(2-chloroethyl)ether	370.	U
95-57-8	2-Chlorophenol	370.	U
541-73-1	1,3-Dichlorobenzene	370.	U
106-46-7	1,4-Dichlorobenzene	370.	U
100-51-6	Benzyl alcohol	740.	U
95-50-1	1,2-Dichlorobenzene	370.	U
95-48-7	2-Methylphenol	370.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	370.	U
106-44-5	4-Methylphenol	370.	U
621-64-7	N-Nitroso-di-n-propylamine	370.	U
67-72-1	Hexachloroethane	370.	U
98-95-3	Nitrobenzene	370.	U
78-59-1	Isophorone	370.	U
88-75-5	2-Nitrophenol	370.	U
105-67-9	2,4-Dimethylphenol	370.	U
65-85-0	Benzoic acid	1800.	U
111-91-1	bis(2-Chloroethoxy)methane	370.	U
120-83-2	2,4-Dichlorophenol	370.	U
120-82-1	1,2,4-Trichlorobenzene	370.	U
91-20-3	Naphthalene	370.	U
106-47-8	4-Chloroaniline	740.	U
87-68-3	Hexachlorobutadiene	370.	U
59-50-7	4-Chloro-3-methylphenol	740.	U
91-57-6	2-Methylnaphthalene	370.	U
77-47-4	Hexachlorocyclopentadiene	370.	U
88-06-2	2,4,6-Trichlorophenol	370.	U
95-95-4	2,4,5-Trichlorophenol	370.	U
91-58-7	2-Chloronaphthalene	370.	U
88-74-4	2-Nitroaniline	1800.	U
131-11-3	Dimethylphthalate	370.	U
208-96-8	Acenaphthylene	370.	U
606-20-2	2,6-Dinitrotoluene	370.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS248

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29777

Matrix: (soil/water) SOIL Lab Sample ID:29777-15

Sample wt/vol: 30.1 (g/ml) G Lab File ID: S7763

Level: (low/med) LOW Date Received: 1/26/93

% Moisture: 10 decanted: (Y/N) N Date Extracted: 1/30/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/08/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1800.	U
83-32-9	Acenaphthene	370.	U
51-28-5	2,4-Dinitrophenol	1800.	U
100-02-7	4-Nitrophenol	1800.	U
132-64-9	Dibenzofuran	370.	U
121-14-2	2,4-Dinitrotoluene	370.	U
84-66-2	Diethylphthalate	370.	U
7005-72-3	4-Chlorophenyl-phenylether	370.	U
86-73-7	Fluorene	370.	U
100-01-6	4-Nitroaniline	1800.	U
534-52-1	4,6-Dinitro-2-methylphenol	1800.	U
86-30-6	N-Nitrosodiphenylamine(1)	370.	U
101-55-3	4-Bromophenyl-phenylether	370.	U
118-74-1	Hexachlorobenzene	370.	U
87-86-5	Pentachlorophenol	1800.	U
85-01-8	Phenanthrene	370.	U
120-12-7	Anthracene	370.	U
84-74-2	Di-n-butylphthalate	77.	JB
206-44-0	Fluoranthene	370.	U
129-00-0	Pyrene	370.	U
85-68-7	Butylbenzylphthalate	370.	U
91-94-1	3,3'-Dichlorobenzidine	740.	U
56-55-3	Benzo(a)anthracene	370.	U
218-01-9	Chrysene	370.	U
117-81-7	bis(2-Ethylhexyl)phthalate	370.	U
117-84-0	Di-n-octylphthalate	370.	U
205-99-2	Benzo(b)fluoranthene	370.	U
207-08-9	Benzo(k)fluoranthene	370.	U
50-32-8	Benzo(a)pyrene	370.	U
193-39-5	Indeno(1,2,3-cd)pyrene	370.	U
53-70-3	Dibenz(a,h)anthracene	370.	U
191-24-2	Benzo(g,h,i)perylene	370.	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS248

Lab Name: Sound Analytical Services Contract: 624419

Lab Code: - Case No.: - SAS No.: - SDG No.: 29777

Matrix: (soil/water) SOIL Lab Sample ID: 29777-15

Sample wt/vol: 30.1 (g/ml) G Lab File ID: S7763

Level: (low/med) LOW Date Received: 1/26/93

% Moisture: 10 decanted: (Y/N) N Date Extracted: 1/30/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/08/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

Number TICs Found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	28.48	1600.	J
2.					
3.					
4.					
5.					
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS249

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29777

Matrix: (soil/water) SOIL Lab Sample ID:29777-16

Sample wt/vol: 30.2 (g/ml) G Lab File ID: S7764

Level: (low/med) LOW Date Received: 1/26/93

% Moisture: 5 decanted: (Y/N) N Date Extracted: 1/30/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/08/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	350.	U
111-44-4	Bis(2-chloroethyl)ether	350.	U
95-57-8	2-Chlorophenol	350.	U
541-73-1	1,3-Dichlorobenzene	350.	U
106-46-7	1,4-Dichlorobenzene	350.	U
100-51-6	Benzyl alcohol	700.	U
95-50-1	1,2-Dichlorobenzene	350.	U
95-48-7	2-Methylphenol	350.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	350.	U
106-44-5	4-Methylphenol	350.	U
621-64-7	N-Nitroso-di-n-propylamine	350.	U
67-72-1	Hexachloroethane	350.	U
98-95-3	Nitrobenzene	350.	U
78-59-1	Isophorone	350.	U
88-75-5	2-Nitrophenol	350.	U
105-67-9	2,4-Dimethylphenol	350.	U
65-85-0	Benzoic acid	1700.	U
111-91-1	bis(2-Chloroethoxy)methane	350.	U
120-83-2	2,4-Dichlorophenol	350.	U
120-82-1	1,2,4-Trichlorobenzene	350.	U
91-20-3	Naphthalene	350.	U
106-47-8	4-Chloroaniline	700.	U
87-68-3	Hexachlorobutadiene	350.	U
59-50-7	4-Chloro-3-methylphenol	700.	U
91-57-6	2-Methylnaphthalene	350.	U
77-47-4	Hexachlorocyclopentadiene	350.	U
88-06-2	2,4,6-Trichlorophenol	350.	U
95-95-4	2,4,5-Trichlorophenol	350.	U
91-58-7	2-Chloronaphthalene	350.	U
88-74-4	2-Nitroaniline	1700.	U
131-11-3	Dimethylphthalate	350.	U
208-96-8	Acenaphthylene	350.	U
606-20-2	2,6-Dinitrotoluene	350.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS249

Lab Name: Sound Analytical Services Contract: 624419

Lab Code:- Case No.:- SAS No.:- SDG No.: 29777

Matrix: (soil/water) SOIL Lab Sample ID: 29777-16

Sample wt/vol: 30.2 (g/ml) G Lab File ID: S7764

Level: (low/med) LOW Date Received: 1/26/93

% Moisture: 5 decanted: (Y/N) N Date Extracted: 1/30/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/08/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1700.	U
83-32-9	Acenaphthene	350.	U
51-28-5	2,4-Dinitrophenol	1700.	U
100-02-7	4-Nitrophenol	1700.	U
132-64-9	Dibenzofuran	350.	U
121-14-2	2,4-Dinitrotoluene	350.	U
84-66-2	Diethylphthalate	350.	U
7005-72-3	4-Chlorophenyl-phenylether	350.	U
86-73-7	Fluorene	350.	U
100-01-6	4-Nitroaniline	1700.	U
534-52-1	4,6-Dinitro-2-methylphenol	1700.	U
86-30-6	N-Nitrosodiphenylamine(1)	350.	U
101-55-3	4-Bromophenyl-phenylether	350.	U
118-74-1	Hexachlorobenzene	350.	U
87-86-5	Pentachlorophenol	1700.	U
85-01-8	Phenanthrene	350.	U
120-12-7	Anthracene	350.	U
84-74-2	Di-n-butylphthalate	76.	JB
206-44-0	Fluoranthene	350.	U
129-00-0	Pyrene	350.	U
85-68-7	Butylbenzylphthalate	350.	U
91-94-1	3,3'-Dichlorobenzidine	700.	U
56-55-3	Benzo(a)anthracene	350.	U
218-01-9	Chrysene	350.	U
117-81-7	bis(2-Ethylhexyl)phthalate	350.	U
117-84-0	Di-n-octylphthalate	350.	U
205-99-2	Benzo(b)fluoranthene	350.	U
207-08-9	Benzo(k)fluoranthene	350.	U
50-32-8	Benzo(a)pyrene	350.	U
193-39-5	Indeno(1,2,3-cd)pyrene	350.	U
53-70-3	Dibenz(a,h)anthracene	350.	U
191-24-2	Benzo(g,h,i)perylene	350.	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS249

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29777

Matrix: (soil/water) SOIL Lab Sample ID:29777-16

Sample wt/vol: 30.2 (g/ml) G Lab File ID: S7764

Level: (low/med) LOW Date Received: 1/26/93

% Moisture: 5 decanted: (Y/N) N Date Extracted: 1/30/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/08/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

Number TICs Found: 3

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	28.50	1800.	J
2.		Unknown	28.77	250.	J
3.					
4.					
5.					
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS250

Lab Name: Sound Analytical Services Contract: 624419

Lab Code:- Case No.:- SAS No.:- SDG No.: 29777

Matrix: (soil/water) SOIL Lab Sample ID: 29777-17

Sample wt/vol: 30.3 (g/ml) G Lab File ID: S7765

Level: (low/med) LOW Date Received: 1/26/93

% Moisture: 9 decanted: (Y/N) N Date Extracted: 1/30/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/08/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	360.	U
111-44-4	Bis(2-chloroethyl)ether	360.	U
95-57-8	2-Chlorophenol	360.	U
541-73-1	1,3-Dichlorobenzene	360.	U
106-46-7	1,4-Dichlorobenzene	360.	U
100-51-6	Benzyl alcohol	720.	U
95-50-1	1,2-Dichlorobenzene	360.	U
95-48-7	2-Methylphenol	360.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	360.	U
106-44-5	4-Methylphenol	360.	U
621-64-7	N-Nitroso-di-n-propylamine	360.	U
67-72-1	Hexachloroethane	360.	U
98-95-3	Nitrobenzene	360.	U
78-59-1	Isophorone	360.	U
88-75-5	2-Nitrophenol	360.	U
105-67-9	2,4-Dimethylphenol	360.	U
65-85-0	Benzoic acid	1800.	U
111-91-1	bis(2-Chloroethoxy)methane	360.	U
120-83-2	2,4-Dichlorophenol	360.	U
120-82-1	1,2,4-Trichlorobenzene	360.	U
91-20-3	Naphthalene	360.	U
106-47-8	4-Chloroaniline	720.	U
87-68-3	Hexachlorobutadiene	360.	U
59-50-7	4-Chloro-3-methylphenol	720.	U
91-57-6	2-Methylnaphthalene	360.	U
77-47-4	Hexachlorocyclopentadiene	360.	U
88-06-2	2,4,6-Trichlorophenol	360.	U
95-95-4	2,4,5-Trichlorophenol	360.	U
91-58-7	2-Chloronaphthalene	360.	U
88-74-4	2-Nitroaniline	1800.	U
131-11-3	Dimethylphthalate	360.	U
208-96-8	Acenaphthylene	360.	U
606-20-2	2,6-Dinitrotoluene	360.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS250

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29777

Matrix: (soil/water) SOIL Lab Sample ID:29777-17

Sample wt/vol: 30.3 (g/ml) G Lab File ID: S7765

Level: (low/med) LOW Date Received: 1/26/93

% Moisture: 9 decanted: (Y/N) N Date Extracted: 1/30/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/08/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1800.	U
83-32-9	Acenaphthene	360.	U
51-28-5	2,4-Dinitrophenol	1800.	U
100-02-7	4-Nitrophenol	1800.	U
132-64-9	Dibenzofuran	360.	U
121-14-2	2,4-Dinitrotoluene	360.	U
84-66-2	Diethylphthalate	360.	U
7005-72-3	4-Chlorophenyl-phenylether	360.	U
86-73-7	Fluorene	360.	U
100-01-6	4-Nitroaniline	1800.	U
534-52-1	4,6-Dinitro-2-methylphenol	1800.	U
86-30-6	N-Nitrosodiphenylamine(1)	360.	U
101-55-3	4-Bromophenyl-phenylether	360.	U
118-74-1	Hexachlorobenzene	360.	U
87-86-5	Pentachlorophenol	1800.	U
85-01-8	Phenanthrene	360.	U
120-12-7	Anthracene	360.	U
84-74-2	Di-n-butylphthalate	360.	U
206-44-0	Fluoranthene	360.	U
129-00-0	Pyrene	360.	U
85-68-7	Butylbenzylphthalate	360.	U
91-94-1	3,3'-Dichlorobenzidine	720.	U
56-55-3	Benzo(a)anthracene	360.	U
218-01-9	Chrysene	360.	U
117-81-7	bis(2-Ethylhexyl)phthalate	360.	U
117-84-0	Di-n-octylphthalate	360.	U
205-99-2	Benzo(b)fluoranthene	360.	U
207-08-9	Benzo(k)fluoranthene	360.	U
50-32-8	Benzo(a)pyrene	360.	U
193-39-5	Indeno(1,2,3-cd)pyrene	360.	U
53-70-3	Dibenz(a,h)anthracene	360.	U
191-24-2	Benzo(g,h,i)perylene	360.	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS250

Lab Name: Sound Analytical Services Contract: 624419

Lab Code: - Case No.: - SAS No.: - SDG No.: 29777

Matrix: (soil/water) SOIL Lab Sample ID: 29777-17

Sample wt/vol: 30.3 (g/ml) G Lab File ID: S7765

Level: (low/med) LOW Date Received: 1/26/93

% Moisture: 9 decanted: (Y/N) N Date Extracted: 1/30/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/08/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

Number TICs Found: 3

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	28.28	1700.	J
2.		Unknown	28.53	300.	J
3.					
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104

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS251

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29777

Matrix: (soil/water) SOIL Lab Sample ID:29777-18

Sample wt/vol: 30.1 (g/ml) G Lab File ID: S7768

Level: (low/med) LOW Date Received: 1/26/93

% Moisture: 10 decanted: (Y/N) N Date Extracted: 1/30/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/08/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	370.	U
111-44-4	Bis(2-chloroethyl)ether	370.	U
95-57-8	2-Chlorophenol	370.	U
541-73-1	1,3-Dichlorobenzene	370.	U
106-46-7	1,4-Dichlorobenzene	370.	U
100-51-6	Benzyl alcohol	740.	U
95-50-1	1,2-Dichlorobenzene	370.	U
95-48-7	2-Methylphenol	370.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	370.	U
106-44-5	4-Methylphenol	370.	U
621-64-7	N-Nitroso-di-n-propylamine	370.	U
67-72-1	Hexachloroethane	370.	U
98-95-3	Nitrobenzene	370.	U
78-59-1	Isophorone	370.	U
88-75-5	2-Nitrophenol	370.	U
105-67-9	2,4-Dimethylphenol	370.	U
65-85-0	Benzoic acid	1800.	U
111-91-1	bis(2-Chloroethoxy)methane	370.	U
120-83-2	2,4-Dichlorophenol	370.	U
120-82-1	1,2,4-Trichlorobenzene	370.	U
91-20-3	Naphthalene	370.	U
106-47-8	4-Chloroaniline	740.	U
87-68-3	Hexachlorobutadiene	370.	U
59-50-7	4-Chloro-3-methylphenol	740.	U
91-57-6	2-Methylnaphthalene	370.	U
77-47-4	Hexachlorocyclopentadiene	370.	U
88-06-2	2,4,6-Trichlorophenol	370.	U
95-95-4	2,4,5-Trichlorophenol	370.	U
91-58-7	2-Chloronaphthalene	370.	U
88-74-4	2-Nitroaniline	1800.	U
131-11-3	Dimethylphthalate	370.	U
208-96-8	Acenaphthylene	370.	U
606-20-2	2,6-Dinitrotoluene	370.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS251

L Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29777

Matrix: (soil/water) SOIL Lab Sample ID:29777-18

Sample wt/vol: 30.1 (g/ml) G Lab File ID: S7768

Level: (low/med) LOW Date Received: 1/26/93

% Moisture: 10 decanted: (Y/N) N Date Extracted: 1/30/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/08/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1800.	U
83-32-9	Acenaphthene	370.	U
51-28-5	2,4-Dinitrophenol	1800.	U
100-02-7	4-Nitrophenol	1800.	U
132-64-9	Dibenzofuran	370.	U
121-14-2	2,4-Dinitrotoluene	370.	U
84-66-2	Diethylphthalate	370.	U
7005-72-3	4-Chlorophenyl-phenylether	370.	U
86-73-7	Fluorene	370.	U
100-01-6	4-Nitroaniline	1800.	U
534-52-1	4,6-Dinitro-2-methylphenol	1800.	U
86-30-6	N-Nitrosodiphenylamine(1)	370.	U
101-55-3	4-Bromophenyl-phenylether	370.	U
118-74-1	Hexachlorobenzene	370.	U
87-86-5	Pentachlorophenol	1800.	U
85-01-8	Phenanthrene	370.	U
120-12-7	Anthracene	370.	U
84-74-2	Di-n-butylphthalate	110.	JB
206-44-0	Fluoranthene	370.	U
129-00-0	Pyrene	370.	U
85-68-7	Butylbenzylphthalate	370.	U
91-94-1	3,3'-Dichlorobenzidine	740.	U
56-55-3	Benzo(a)anthracene	370.	U
218-01-9	Chrysene	370.	U
117-81-7	bis(2-Ethylhexyl)phthalate	370.	U
117-84-0	Di-n-octylphthalate	370.	U
205-99-2	Benzo(b)fluoranthene	370.	U
207-08-9	Benzo(k)fluoranthene	370.	U
50-32-8	Benzo(a)pyrene	370.	U
193-39-5	Indeno(1,2,3-cd)pyrene	370.	U
53-70-3	Dibenz(a,h)anthracene	370.	U
191-24-2	Benzo(g,h,i)perylene	370.	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS251

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29777

Matrix: (soil/water) SOIL Lab Sample ID:29777-18

Sample wt/vol: 30.1 (g/ml) G Lab File ID: S7768

Level: (low/med) LOW Date Received: 1/26/93

% Moisture: 10 decanted: (Y/N) N Date Extracted: 1/30/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/08/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

Number TICs Found: 3

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	28.72	1900.	J
2.		Unknown	28.72	190.	J
3.					
4.					
5.					
6.					
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS252

Lab Name: Sound Analytical Services Contract: 624419

Lab Code: - Case No.: - SAS No.: - SDG No.: 29777

Matrix: (soil/water) SOIL Lab Sample ID: 29777-19

Sample wt/vol: 30.5 (g/ml) G Lab File ID: S7798

Level: (low/med) LOW Date Received: 1/26/93

% Moisture: 6 decanted: (Y/N) N Date Extracted: 1/30/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/09/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	350.	U
111-44-4	Bis(2-chloroethyl)ether	350.	U
95-57-8	2-Chlorophenol	350.	U
541-73-1	1,3-Dichlorobenzene	350.	U
106-46-7	1,4-Dichlorobenzene	350.	U
100-51-6	Benzyl alcohol	700.	U
95-50-1	1,2-Dichlorobenzene	350.	U
95-48-7	2-Methylphenol	350.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	350.	U
106-44-5	4-Methylphenol	350.	U
621-64-7	N-Nitroso-di-n-propylamine	350.	U
67-72-1	Hexachloroethane	350.	U
98-95-3	Nitrobenzene	350.	U
78-59-1	Isophorone	350.	U
88-75-5	2-Nitrophenol	350.	U
105-67-9	2,4-Dimethylphenol	350.	U
65-85-0	Benzoic acid	1700.	U
111-91-1	bis(2-Chloroethoxy)methane	350.	U
120-83-2	2,4-Dichlorophenol	350.	U
120-82-1	1,2,4-Trichlorobenzene	350.	U
91-20-3	Naphthalene	350.	U
106-47-8	4-Chloroaniline	700.	U
87-68-3	Hexachlorobutadiene	350.	U
59-50-7	4-Chloro-3-methylphenol	700.	U
91-57-6	2-Methylnaphthalene	350.	U
77-47-4	Hexachlorocyclopentadiene	350.	U
88-06-2	2,4,6-Trichlorophenol	350.	U
95-95-4	2,4,5-Trichlorophenol	350.	U
91-58-7	2-Chloronaphthalene	350.	U
88-74-4	2-Nitroaniline	1700.	U
131-11-3	Dimethylphthalate	350.	U
208-96-8	Acenaphthylene	350.	U
606-20-2	2,6-Dinitrotoluene	350.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS252

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29777

Matrix: (soil/water) SOIL Lab Sample ID:29777-19

Sample wt/vol: 30.5 (g/ml) G Lab File ID: S7798

Level: (low/med) LOW Date Received: 1/26/93

% Moisture: 6 decanted: (Y/N) N Date Extracted: 1/30/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/09/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1700.	U
83-32-9	Acenaphthene	350.	U
51-28-5	2,4-Dinitrophenol	1700.	U
100-02-7	4-Nitrophenol	1700.	U
132-64-9	Dibenzofuran	350.	U
121-14-2	2,4-Dinitrotoluene	350.	U
84-66-2	Diethylphthalate	350.	U
7005-72-3	4-Chlorophenyl-phenylether	350.	U
86-73-7	Fluorene	350.	U
100-01-6	4-Nitroaniline	1700.	U
534-52-1	4,6-Dinitro-2-methylphenol	1700.	U
86-30-6	N-Nitrosodiphenylamine(1)	350.	U
101-55-3	4-Bromophenyl-phenylether	350.	U
118-74-1	Hexachlorobenzene	350.	U
87-86-5	Pentachlorophenol	1700.	U
85-01-8	Phenanthrene	350.	U
120-12-7	Anthracene	350.	U
84-74-2	Di-n-butylphthalate	120.	JB
206-44-0	Fluoranthene	350.	U
129-00-0	Pyrene	350.	U
85-68-7	Butylbenzylphthalate	350.	U
91-94-1	3,3'-Dichlorobenzidine	700.	U
56-55-3	Benzo(a)anthracene	350.	U
218-01-9	Chrysene	350.	U
117-81-7	bis(2-Ethylhexyl)phthalate	350.	U
117-84-0	Di-n-octylphthalate	350.	U
205-99-2	Benzo(b)fluoranthene	350.	U
207-08-9	Benzo(k)fluoranthene	350.	U
50-32-8	Benzo(a)pyrene	350.	U
193-39-5	Indeno(1,2,3-cd)pyrene	350.	U
53-70-3	Dibenz(a,h)anthracene	350.	U
191-24-2	Benzo(g,h,i)perylene	350.	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS252

Lab Name: Sound Analytical Services Contract: 624419

Lab Code: - Case No.: - SAS No.: - SDG No.: 29777

Matrix: (soil/water) SOIL Lab Sample ID: 29777-19

Sample wt/vol: 30.5 (g/ml) G Lab File ID: S7798

Level: (low/med) LOW Date Received: 1/26/93

% Moisture: 6 decanted: (Y/N) N Date Extracted: 1/30/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/09/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

Number TICs Found: 3

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	28.27	190.	J
2.		Unknown	28.68	2700.	J
3.					
4.					
5.					
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS253

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29777

Matrix: (soil/water) SOIL Lab Sample ID:29777-20

Sample wt/vol: 30.7 (g/ml) G Lab File ID: S7770

Level: (low/med) LOW Date Received: 1/26/93

% Moisture: 6 decanted: (Y/N) N Date Extracted: 1/30/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/08/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	350.	U
111-44-4	Bis(2-chloroethyl)ether	350.	U
95-57-8	2-Chlorophenol	350.	U
541-73-1	1,3-Dichlorobenzene	350.	U
106-46-7	1,4-Dichlorobenzene	350.	U
100-51-6	Benzyl alcohol	690.	U
95-50-1	1,2-Dichlorobenzene	350.	U
95-48-7	2-Methylphenol	350.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	350.	U
106-44-5	4-Methylphenol	350.	U
621-64-7	N-Nitroso-di-n-propylamine	350.	U
67-72-1	Hexachloroethane	350.	U
98-95-3	Nitrobenzene	350.	U
78-59-1	Isophorone	350.	U
88-75-5	2-Nitrophenol	350.	U
105-67-9	2,4-Dimethylphenol	350.	U
65-85-0	Benzoic acid	1700.	U
111-91-1	bis(2-Chloroethoxy)methane	350.	U
120-83-2	2,4-Dichlorophenol	350.	U
120-82-1	1,2,4-Trichlorobenzene	350.	U
91-20-3	Naphthalene	350.	U
106-47-8	4-Chloroaniline	690.	U
87-68-3	Hexachlorobutadiene	350.	U
59-50-7	4-Chloro-3-methylphenol	690.	U
91-57-6	2-Methylnaphthalene	350.	U
77-47-4	Hexachlorocyclopentadiene	350.	U
88-06-2	2,4,6-Trichlorophenol	350.	U
95-95-4	2,4,5-Trichlorophenol	350.	U
91-58-7	2-Chloronaphthalene	350.	U
88-74-4	2-Nitroaniline	1700.	U
131-11-3	Dimethylphthalate	350.	U
208-96-8	Acenaphthylene	350.	U
606-20-2	2,6-Dinitrotoluene	350.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS253

Lab Name: Sound Analytical Services Contract: 624419

Lab Code: - Case No.: - SAS No.: - SDG No.: 29777

Matrix: (soil/water) SOIL Lab Sample ID: 29777-20

Sample wt/vol: 30.7 (g/ml) G Lab File ID: S7770

Level: (low/med) LOW Date Received: 1/26/93

% Moisture: 6 decanted: (Y/N) N Date Extracted: 1/30/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/08/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1700.	U
83-32-9	Acenaphthene	350.	U
51-28-5	2,4-Dinitrophenol	1700.	U
100-02-7	4-Nitrophenol	1700.	U
132-64-9	Dibenzofuran	350.	U
121-14-2	2,4-Dinitrotoluene	350.	U
84-66-2	Diethylphthalate	350.	U
7005-72-3	4-Chlorophenyl-phenylether	350.	U
86-73-7	Fluorene	350.	U
100-01-6	4-Nitroaniline	1700.	U
534-52-1	4,6-Dinitro-2-methylphenol	1700.	U
86-30-6	N-Nitrosodiphenylamine(1)	350.	U
101-55-3	4-Bromophenyl-phenylether	350.	U
118-74-1	Hexachlorobenzene	350.	U
87-86-5	Pentachlorophenol	1700.	U
85-01-8	Phenanthrene	350.	U
120-12-7	Anthracene	350.	U
84-74-2	Di-n-butylphthalate	350.	U
206-44-0	Fluoranthene	350.	U
129-00-0	Pyrene	350.	U
85-68-7	Butylbenzylphthalate	350.	U
91-94-1	3,3'-Dichlorobenzidine	690.	U
56-55-3	Benzo(a)anthracene	350.	U
218-01-9	Chrysene	350.	U
117-81-7	bis(2-Ethylhexyl)phthalate	350.	U
117-84-0	Di-n-octylphthalate	350.	U
205-99-2	Benzo(b)fluoranthene	350.	U
207-08-9	Benzo(k)fluoranthene	350.	U
50-32-8	Benzo(a)pyrene	350.	U
193-39-5	Indeno(1,2,3-cd)pyrene	350.	U
53-70-3	Dibenz(a,h)anthracene	350.	U
191-24-2	Benzo(g,h,i)perylene	350.	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS253

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29777

Matrix: (soil/water) SOIL Lab Sample ID:29777-20

Sample wt/vol: 30.7 (g/ml) G Lab File ID: S7770

Level: (low/med) LOW Date Received: 1/26/93

% Moisture: 6 decanted: (Y/N) N Date Extracted: 1/30/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/08/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

Number TICs Found: 7

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	28.53	2100.	J
2.	6006-01-5	3,7,11-Tridecatrienenitrile,	28.78	120.	J
3.	541-01-5	Heptasiloxane, Hexadecamethy	28.89	430.	J
4.		Unknown	31.94	560.	J
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS254

Lab Name: Sound Analytical Services Contract: 624419

Lab Code:- Case No.:- SAS No.:- SDG No.: 29777

Matrix: (soil/water) SOIL Lab Sample ID: 29777-21

Sample wt/vol: 30.2 (g/ml) G Lab File ID: S7771

Level: (low/med) LOW Date Received: 1/26/93

% Moisture: 5 decanted: (Y/N) N Date Extracted: 1/30/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/08/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	350.	U
111-44-4	Bis(2-chloroethyl)ether	350.	U
95-57-8	2-Chlorophenol	350.	U
541-73-1	1,3-Dichlorobenzene	350.	U
106-46-7	1,4-Dichlorobenzene	350.	U
100-51-6	Benzyl alcohol	700.	U
95-50-1	1,2-Dichlorobenzene	350.	U
95-48-7	2-Methylphenol	350.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	350.	U
106-44-5	4-Methylphenol	350.	U
621-64-7	N-Nitroso-di-n-propylamine	350.	U
67-72-1	Hexachloroethane	350.	U
98-95-3	Nitrobenzene	350.	U
78-59-1	Isophorone	350.	U
88-75-5	2-Nitrophenol	350.	U
105-67-9	2,4-Dimethylphenol	350.	U
65-85-0	Benzoic acid	1700.	U
111-91-1	bis(2-Chloroethoxy)methane	350.	U
120-83-2	2,4-Dichlorophenol	350.	U
120-82-1	1,2,4-Trichlorobenzene	350.	U
91-20-3	Naphthalene	350.	U
106-47-8	4-Chloroaniline	700.	U
87-68-3	Hexachlorobutadiene	350.	U
59-50-7	4-Chloro-3-methylphenol	700.	U
91-57-6	2-Methylnaphthalene	350.	U
77-47-4	Hexachlorocyclopentadiene	350.	U
88-06-2	2,4,6-Trichlorophenol	350.	U
95-95-4	2,4,5-Trichlorophenol	350.	U
91-58-7	2-Chloronaphthalene	350.	U
88-74-4	2-Nitroaniline	1700.	U
131-11-3	Dimethylphthalate	350.	U
208-96-8	Acenaphthylene	350.	U
606-20-2	2,6-Dinitrotoluene	350.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS254

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29777

Matrix: (soil/water) SOIL Lab Sample ID:29777-21

Sample wt/vol: 30.2 (g/ml) G Lab File ID: S7771

Level: (low/med) LOW Date Received: 1/26/93

% Moisture: 5 decanted: (Y/N) N Date Extracted: 1/30/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/08/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1700.	U
83-32-9	Acenaphthene	350.	U
51-28-5	2,4-Dinitrophenol	1700.	U
100-02-7	4-Nitrophenol	1700.	U
132-64-9	Dibenzofuran	350.	U
121-14-2	2,4-Dinitrotoluene	350.	U
84-66-2	Diethylphthalate	350.	U
7005-72-3	4-Chlorophenyl-phenylether	350.	U
86-73-7	Fluorene	350.	U
100-01-6	4-Nitroaniline	1700.	U
534-52-1	4,6-Dinitro-2-methylphenol	1700.	U
86-30-6	N-Nitrosodiphenylamine(1)	350.	U
101-55-3	4-Bromophenyl-phenylether	350.	U
118-74-1	Hexachlorobenzene	350.	U
87-86-5	Pentachlorophenol	1700.	U
85-01-8	Phenanthrene	350.	U
120-12-7	Anthracene	350.	U
84-74-2	Di-n-butylphthalate	140.	JB
206-44-0	Fluoranthene	350.	U
129-00-0	Pyrene	350.	U
85-68-7	Butylbenzylphthalate	350.	U
91-94-1	3,3'-Dichlorobenzidine	700.	U
56-55-3	Benzo(a)anthracene	350.	U
218-01-9	Chrysene	350.	U
117-81-7	bis(2-Ethylhexyl)phthalate	350.	U
117-84-0	Di-n-octylphthalate	350.	U
205-99-2	Benzo(b)fluoranthene	350.	U
207-08-9	Benzo(k)fluoranthene	350.	U
50-32-8	Benzo(a)pyrene	350.	U
193-39-5	Indeno(1,2,3-cd)pyrene	350.	U
53-70-3	Dibenz(a,h)anthracene	350.	U
191-24-2	Benzo(g,h,i)perylene	350.	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS254

Lab Name: Sound Analytical Services Contract: 624419

Lab Code:- Case No.:- SAS No.:- SDG No.: 29777

Matrix: (soil/water) SOIL Lab Sample ID: 29777-21

Sample wt/vol: 30.2 (g/ml) G Lab File ID: S7771

Level: (low/med) LOW Date Received: 1/26/93

% Moisture: 5 decanted: (Y/N) N Date Extracted: 1/30/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/08/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

Number TICs Found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	28.62	2000.	J
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
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25.					
26.					
27.					
28.					
29.					
30.					

John Mathes & Associates, Inc.
210 West Sand Bank Road
Columbia, Illinois 62236

CHAIN-OF-CUSTODY RECORD

C.O.C. SERIAL NO. 5295

PROJECT NAME PASCO LF
PROJECT NUMBER 624419 MAJOR TASK 7020.16
SAMPLERS Louis La Rosa
LAB DESTINATION SOUND ANALYTICAL SERVICES

SAMPLE NO.	DATE	TIME	COMP	GRAB	SAMPLE LOCATION	NO. OF CONTAINERS	VOC (8240)	SVOC (8270)	Pest/PCB (8080)	Herbicides (8150)	PPM (6010)	MS/MSD	ICED	CHEMICALS ADDED	REMARKS (CHEMICAL ANALYSIS REQUEST FORM NUMBER IF APPLICABLE)
PLF-SBS-232	1-22-93	1045		✓	SOIL	1	HOLD	FOR	ANALY	SIS			✓		
PLF-SBS-233		1100		✓		1		✓			✓		✓		
PLF-SBS-234		1120		✓		1		✓			✓		✓		
PLF-SBS-235		1140		✓		1		✓			✓		✓		
PLF-SBS-237		1045		✓		1		✓			✓		✓		
PLF-SBS-238		1540		✓		1		✓			✓		✓		
PLF-SBS-239		1545		✓		1		✓			✓		✓		
PLF-SBS-240		1600		✓		1		✓			✓		✓		
PLF-SBS-241		1620		✓		1		✓			✓		✓		
PLF-SBS-242	1-23-93	1030		✓		3	✓	✓	✓	✓	✓		✓		
PLF-SBS-243		1050		✓		3	✓	✓	✓	✓	✓		✓		
PLF-SBS-244		1100		✓		3	✓	✓	✓	✓	✓	✓	✓		
PLF-SBS-245		1130		✓		3	✓	✓	✓	✓	✓		✓		
PLF-SBS-246		1520		✓		1		✓	✓	✓	✓		✓		

RELINQUISHED BY SIGNATURE	DATE	TIME	RECEIVED BY SIGNATURE	DATE	TIME
[signature] BURLINGTON	1/25/93	1600	SENT VIA FED EX	1/25/93	1600
			SGiang SAS	1/26/93	0000

SHIPPING NOTES

LAB NOTES

JM-34 (8/89)

John Mathes & Associates, Inc.
210 West Sand Bank Road
Columbia, Illinois 62236

CHAIN-OF-CUSTODY RECORD

C.O.C. SERIAL NO. 5296

PROJECT NAME PASCO LF
PROJECT NUMBER 624419 MAJOR TASK 7020.16
SAMPLERS LOUIS LA ROSA
LAB DESTINATION SOUND ANALYTICAL SERVICES

SAMPLE NO.	DATE	TIME	COMP	GRAB	SAMPLE LOCATION	NO. OF CONTAINERS	TYPE OF ANALYSIS: VOC (8240)	SVOC (8270)	PEST/PCB (8080)	HERBICIDES (8150)	PPM (6010)	MS/MSD	PRESERVATIVES: ICED	CHEMICALS ADDED	REMARKS (CHEMICAL ANALYSIS REQUEST FORM NUMBER IF APPLICABLE)
PLF-SBS-247	1-23-93	1550		✓	SOIL	1		✓	✓	✓	✓		✓		
PLF-SBS-248	↓	1610		✓	↓	1		✓	✓	✓	✓		✓		
PLF-SBS-249	↓	1625		✓	↓	1		✓	✓	✓	✓		✓		
PLF-SBS-250	1-24-93	0920		✓	↓	3	✓	✓	✓	✓	✓	✓	✓		
PLF-SBS-251	↓	0935		✓	↓	3	✓	✓	✓	✓	✓		✓		
PLF-SBS-252	↓	0955		✓	↓	3	✓	✓	✓	✓	✓		✓		
PLF-SBS-253	↓	1010		✓	↓	3	✓	✓	✓	✓	✓		✓		
PLF-SBS-254	↓	1020		✓	↓	3	✓	✓	✓	✓	✓		✓		

RELINQUISHED BY SIGNATURE	DATE	TIME	RECEIVED BY SIGNATURE	DATE	TIME
[signature] BUCHANAN	1/25/93	1600	SENT VIA FED EX	1/25/93	1600
			SGiang SMS	1/26/93	[illegible]

SHIPPING NOTES
C1
C2

LAB NOTES

JM-34 (8/89)

MEMORANDUM

DATE: March 30, 1993

TO: Ted Wall, Environmental Engineer JW

FROM: Nels Cone, Chemist NBC

SUBJECT: DATA VALIDATION OF CHEMICAL ANALYSIS FROM PASCO LANDFILL PHASE I REMEDIAL INVESTIGATION, PROJECT 624419, DATA SET 8B

During the period of January 22 - 24, 1993, twenty-two soil samples were collected by Burlington field personnel. The sample identification numbers are listed below.

PLF-SBS-232	PLF-SBS-237	PLF-SBS-241	PLF-SBS-245	PLF-SBS-249	PLF-SBS-253
PLF-SBS-233	PLF-SBS-238	PLF-SBS-242	PLF-SBS-246	PLF-SBS-250	PLF-SBS-254
PLF-SBS-234	PLF-SBS-239	PLF-SBS-243	PLF-SBS-247	PLF-SBS-251	
PLF-SBS-235	PLF-SBS-240	PLF-SBS-244	PLF-SBS-248	PLF-SBS-252	

These samples were then submitted to Sound Analytical Services of Tacoma, Washington (work order 29777). Data Set 8B represents results from semivolatile compound analysis (USEPA SW-846, Method 8270). I performed a data quality review of the analytical results in accordance with the USEPA Contract Laboratory Program (CLP) Document Number ILM01.0. My findings and recommendations are summarized below.

FINDINGS

Properly completed chain-of-custody forms were included with documented signatures from field to laboratory receipt. All samples were shown as having been properly iced and received in good condition. Holding, extraction, and analysis times for all samples met the required guidelines, and all samples received the requested analyses.

Semivolatile analysis displayed surrogate recoveries within required QC limits for all samples, and method blanks. All matrix spike/matrix spike duplicate recoveries met required QC limits with the exception of 1,4-dichlorobenzene and 1,2,4-trichlorobenzene. However, initial and continuing calibration checks shows these compounds responding within required QC limits. These analytes were not detected in the sample and, per CLP protocol, no data qualifier flag is needed. Requisite instrument tuning check with DFTPP documented GC/MS performance. A search for tentatively-identified compounds (TIC) was performed, and several compounds were found. Per CLP protocol, they received the appropriate "J" data qualifier flags.

Di-n-butylphthalate was detected in several of the method blanks; results received the appropriate "B" qualifier flag. Internal calibration standards met QC criteria for retention times and area response. Supporting chromatograms have been annotated with quantitation values

calculated as needed, by the laboratory. These chromatograms appear to demonstrate data consistency for all samples, method blanks, and matrix spikes.

RECOMMENDATIONS

Overall, the data quality guidelines as described in the CLP Statement of Work are met. This data can be considered valid for its intended use, and no modifications are required.

SUBSURFACE SOILS I3.9

SAMPLES PLF-SBS-242 TO PLF-SBS-254

SOUND ANALYTICAL SERVICES, INC.

SPECIALIZING IN INDUSTRIAL & TOXIC WASTE ANALYSIS

4813 PACIFIC HIGHWAY EAST, TACOMA, WASHINGTON 98424 - TELEPHONE (206)922-2310 - FAX (206)922-5047

Report To: Burlington Environmental Date: March 18, 1993

Report On: Analysis of Soil Lab No.: 29777

IDENTIFICATION:
Samples received on 01-26-93
Project: Pasco 624419-7020.16

ANALYSIS:

Lab Sample No. 29777-9 Client ID: PLF-SBS-242

Chlorinated Herbicides by GC/MS Per EPA SW-846 Method 8150
Date Extracted: 1-29-93
Date Analyzed: 2-2-93

Compound	Concentration, ug/kg	PQL
2,4-D	ND	10.0
Dalapon	ND	100.0
2,4-DB	ND	10.0
Dicamba	ND	10.0
Dichlorprop	ND	10.0
Dinoseb	ND	10.0
MCPA	ND	10.0
MCPP	ND	10.0
2,4,5-T	ND	10.0
2,4,5-TP	ND	10.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	99

ND - Not Detected.
PQL - Practical Quantitation Limit

Continued . . .

3

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SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental
Project: Pasco 624419-7020.16
Page 2 of 13
Lab No. 29777
March 18, 1993

Lab Sample No. 29777-10 Client ID: PLF-SBS-243

Chlorinated Herbicides by GC/MS Per EPA SW-846 Method 8150
Date Extracted:
Date Analyzed:

Compound	Concentration, ug/kg	PQL
2,4-D	ND	10.0
Dalapon	ND	100.0
2,4-DB	ND	10.0
Dicamba	ND	10.0
Dichlorprop	ND	10.0
Dinoseb	ND	10.0
MCPA	ND	10.0
MCPP	ND	10.0
2,4,5-T	ND	10.0
2,4,5-TP	ND	10.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	101

ND - Not Detected.
PQL - Practical Quantitation Limit

Continued . . .

4

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SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental
Project: Pasco 624419-7020.16

Lab No. 29777
March 18, 1993

Lab Sample No. 29777-11 Client ID: PLF-SBS-244

Chlorinated Herbicides by GC/MS Per EPA SW-846 Method 8150
Date Extracted: 1-29-93
Date Analyzed: 2-2-93

Compound	Concentration, ug/kg	PQL
2,4-D	ND	11.0
Dalapon	ND	110.0
2,4-DB	ND	11.0
Dicamba	ND	11.0
Dichlorprop	ND	11.0
Dinoseb	ND	11.0
MCPA	ND	11.0
MCPP	ND	11.0
2,4,5-T	ND	11.0
2,4,5-TP	ND	11.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	107

ND - Not Detected.
PQL - Practical Quantitation Limit

Continued . . .

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SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental
Project: Pasco 624419-7020.16

Lab No. 29777
March 18, 1993

Lab Sample No. 29777-12 Client ID: PLF-SBS-245

Chlorinated Herbicides by GC/MS Per EPA SW-846 Method 8150
Date Extracted: 1-29-93
Date Analyzed: 2-2-93

Compound	Concentration, ug/kg	PQL
2,4-D	ND	10.0
Dalapon	ND	100.0
2,4-DB	ND	10.0
Dicamba	ND	10.0
Dichlorprop	ND	10.0
Dinoseb	ND	10.0
MCPA	ND	10.0
MCPP	ND	10.0
2,4,5-T	ND	10.0
2,4,5-TP	ND	10.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	133

ND - Not Detected.
PQL - Practical Quantitation Limit

Continued . . .

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SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental
Project: Pasco 624419-7020.16

Lab No. 29777
March 18, 1993

Lab Sample No. 29777-13 Client ID: PLF-SBS-246

Chlorinated Herbicides by GC/MS Per EPA SW-846 Method 8150
Date Extracted: 1-29-93
Date Analyzed: 2-2-93

Compound	Concentration, ug/kg	PQL
2,4-D	ND	11.0
Dalapon	ND	110.0
2,4-DB	ND	11.0
Dicamba	ND	11.0
Dichlorprop	ND	11.0
Dinoseb	ND	11.0
MCPA	ND	11.0
MCPP	ND	11.0
2,4,5-T	ND	11.0
2,4,5-TP	ND	11.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	101

ND - Not Detected.
PQL - Practical Quantitation Limit

Continued . . .

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SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental
Project: Pasco 624419-7020.16

Lab No. 29777
March 18, 1993

Lab Sample No. 29777-14 Client ID: PLF-SBS-247

Chlorinated Herbicides by GC/MS Per EPA SW-846 Method 8150
Date Extracted: 1-29-93
Date Analyzed: 2-2-93

Compound	Concentration, ug/kg	PQL
2,4-D	ND	11.0
Dalapon	ND	110.0
2,4-DB	ND	11.0
Dicamba	ND	11.0
Dichlorprop	ND	11.0
Dinoseb	ND	11.0
MCPA	ND	11.0
MCPP	ND	11.0
2,4,5-T	ND	11.0
2,4,5-TP	ND	11.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	116

ND - Not Detected.
PQL - Practical Quantitation Limit

Continued . . .

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SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental
Project: Pasco 624419-7020.16

Lab No. 29777
March 18, 1993

Lab Sample No. 29777-15 Client ID: PLF-SBS-248

Chlorinated Herbicides by GC/MS Per EPA SW-846 Method 8150
Date Extracted: 1-29-93
Date Analyzed: 2-2-93

Compound	Concentration, ug/kg	PQL
2,4-D	ND	11.0
Dalapon	ND	110.0
2,4-DB	ND	11.0
Dicamba	ND	11.0
Dichlorprop	ND	11.0
Dinoseb	ND	11.0
MCPA	ND	11.0
MCPP	ND	11.0
2,4,5-T	ND	11.0
2,4,5-TP	ND	11.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	127

ND - Not Detected.
PQL - Practical Quantitation Limit

Continued . . .

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SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental
Project: Pasco 624419-7020.16

Lab No. 29777
March 18, 1993

Lab Sample No. 29777-16 Client ID: PLF-SBS-249

Chlorinated Herbicides by GC/MS Per EPA SW-846 Method 8150
Date Extracted: 1-29-93
Date Analyzed: 2-2-93

Compound	Concentration, ug/kg	PQL
2,4-D	ND	10.0
Dalapon	ND	100.0
2,4-DB	ND	10.0
Dicamba	ND	10.0
Dichlorprop	ND	10.0
Dinoseb	ND	10.0
MCPA	ND	10.0
MCPP	ND	10.0
2,4,5-T	ND	10.0
2,4,5-TP	ND	10.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	119

ND - Not Detected.
PQL - Practical Quantitation Limit

Continued . . .

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SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental
Project: Pasco 624419-7020.16

Lab No. 29777
March 18, 1993

Lab Sample No. 29777-17 Client ID: PLF-SBS-250

Chlorinated Herbicides by GC/MS Per EPA SW-846 Method 8150
Date Extracted: 1-29-93
Date Analyzed: 2-2-93

Compound	Concentration, ug/kg	PQL
2,4-D	ND	11.0
Dalapon	ND	110.0
2,4-DB	ND	11.0
Dicamba	ND	11.0
Dichlorprop	ND	11.0
Dinoseb	ND	11.0
MCPA	ND	11.0
MCPP	ND	11.0
2,4,5-T	ND	11.0
2,4,5-TP	ND	11.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	116

ND - Not Detected.
PQL - Practical Quantitation Limit

Continued . . .

11

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SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental
Project: Pasco 624419-7020.16

Lab No. 29777
March 18, 1993

Lab Sample No. 29777-18 Client ID: PLF-SBS-251

Chlorinated Herbicides by GC/MS Per EPA SW-846 Method 8150
Date Extracted: 1-29-93
Date Analyzed: 2-2-93

Compound	Concentration, ug/kg	PQL
2,4-D	ND	11.0
Dalapon	ND	110.0
2,4-DB	ND	11.0
Dicamba	ND	11.0
Dichlorprop	ND	11.0
Dinoseb	ND	11.0
MCPA	ND	11.0
MCPP	ND	11.0
2,4,5-T	ND	11.0
2,4,5-TP	ND	11.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	108

ND - Not Detected.
PQL - Practical Quantitation Limit

Continued . . .

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SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental
Project: Pasco 624419-7020.16

Lab No. 29777
March 18, 1993

Lab Sample No. 29777-19 Client ID: PLF-SBS-252

Chlorinated Herbicides by GC/MS Per EPA SW-846 Method 8150
Date Extracted: 1-29-93
Date Analyzed: 2-2-93

Compound	Concentration, ug/kg	PQL
2,4-D	ND	11.0
Dalapon	ND	110.0
2,4-DB	ND	11.0
Dicamba	ND	11.0
Dichlorprop	ND	11.0
Dinoseb	ND	11.0
MCPA	ND	11.0
MCPP	ND	11.0
2,4,5-T	ND	11.0
2,4,5-TP	ND	11.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	129

ND - Not Detected.
PQL - Practical Quantitation Limit

Continued . . .

This report is issued solely for the use of the person or company to whom it is addressed. This laboratory accepts responsibility only for the due performance of analysis in accordance with industry acceptable practice. In no event shall Sound Analytical Services, Inc. or its employees be responsible for consequential or special damages in any kind or in any amount.

SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental
Project: Pasco 624419-7020.16

Lab No. 29777
March 18, 1993

Lab Sample No. 29777-20 Client ID: PLF-SBS-253

Chlorinated Herbicides by GC/MS Per EPA SW-846 Method 8150
Date Extracted: 1-29-93
Date Analyzed: 2-2-93

Compound	Concentration, ug/kg	PQL
2,4-D	ND	10.0
Dalapon	ND	100.0
2,4-DB	ND	10.0
Dicamba	ND	10.0
Dichlorprop	ND	10.0
Dinoseb	ND	10.0
MCPA	ND	10.0
MCPP	ND	10.0
2,4,5-T	ND	10.0
2,4,5-TP	ND	10.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	126

ND - Not Detected.
PQL - Practical Quantitation Limit

Continued . . .

his report is issued solely for the use of the person or company to whom it is addressed. This laboratory accepts responsibility only for the due performance of analysis in accordance with dustry acceptable practice. In no event shall Sound Analytical Services, Inc. or its employees be responsible for consequential or special damages in any kind or in any amount.

SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental
Project: Pasco 624419-7020.16
Page 13 of 13
Lab No. 29777
March 18, 1993

Lab Sample No. 29777-21 Client ID: PLF-SBS-254

Chlorinated Herbicides by GC/MS Per EPA SW-846 Method 8150
Date Extracted: 1-29-93
Date Analyzed: 2-2-93

Compound	Concentration, ug/kg	PQL
2,4-D	ND	10.0
Dalapon	ND	100.0
2,4-DB	ND	10.0
Dicamba	ND	10.0
Dichlorprop	ND	10.0
Dinoseb	ND	10.0
MCPA	ND	10.0
MCPP	ND	10.0
2,4,5-T	ND	10.0
2,4,5-TP	ND	10.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	129

ND - Not Detected.
PQL - Practical Quantitation Limit

SOUND ANALYTICAL SERVICES

Brent Hepner
BRENT HEPNER

This report is issued solely for the use of the person or company to whom it is addressed. This laboratory accepts responsibility only for the due performance of analysis in accordance with industry acceptable practice. In no event shall Sound Analytical Services, Inc. or its employees be responsible for consequential or special damages in any kind or in any amount.

John Mathes & Associates, Inc.
210 West Sand Bank Road
Columbia, Illinois 62236

CHAIN-OF-CUSTODY RECORD

C.O.C. SERIAL NO. 5295

PROJECT NAME PASCO LF
PROJECT NUMBER 624419 MAJOR TASK 7020, 16
SAMPLERS LOUIS LA ROSA
LAB DESTINATION SOUND ANALYTICAL SERVICES

SAMPLE NO.	DATE	TIME	COMP	GRAB	SAMPLE LOCATION	NO. OF CONTAINERS	TYPE OF ANALYSIS: VOC (8240)	SVOC (8270)	Pest/PCB (8080)	Herbicides (8150)	PPM (6010)	MS/MSD	ICED	PRESERVATIVES: CHEMICALS ADDED	REMARKS (CHEMICAL ANALYSIS REQUEST FORM NUMBER IF APPLICABLE)
PLF-SBS-232	1-22-93	1045		✓	SOIL	1	HOLD FOR ANALYSIS						✓		
PLF-SBS-233	↓	1100		✓	↓	1		✓			✓		✓		
PLF-SBS-234		1120		✓		1		✓			✓		✓		
PLF-SBS-235		1140		✓		1		✓			✓		✓		
PLF-SBS-237		1045		✓		1		✓			✓		✓		
PLF-SBS-238		1540		✓		1		✓			✓		✓		
PLF-SBS-239		1545		✓		1		✓			✓		✓		
PLF-SBS-240		1600		✓		1		✓			✓		✓		
PLF-SBS-241	↓	1620		✓		1		✓			✓		✓		
PLF-SBS-242	1-23-93	1030		✓		3	✓	✓	✓	✓	✓		✓		
PLF-SBS-243	↓	1050		✓		3	✓	✓	✓	✓	✓		✓		
PLF-SBS-244		1100		✓		3	✓	✓	✓	✓	✓	✓	✓		
PLF-SBS-245		1130		✓		3	✓	✓	✓	✓	✓		✓		
PLF-SBS-246	↓	1520		✓	↓	1		✓	✓	✓	✓		✓		

RELINQUISHED BY SIGNATURE	DATE	TIME	RECEIVED BY SIGNATURE	DATE	TIME
[signature] BURLINGTON	1/25/93	1600	SENT VIA FED EX	1/25/93	1600
			SGiang SAS	1/26/93	0700

SHIPPING NOTES
C1
C.

LAB NOTES

JM-34 (8/89)

John Mathes & Associates, Inc.
210 West Sand Bank Road
Columbia, Illinois 62236

CHAIN-OF-CUSTODY RECORD

C.O.C. SERIAL NO. 5296

PROJECT NAME PASCO LF
PROJECT NUMBER 624419 MAJOR TASK 7020.16
SAMPLERS LOUIS LA ROSA
LAB DESTINATION SOUND ANALYTICAL SERVICES

SAMPLE NO.	DATE	TIME	COMP	GRAB	SAMPLE LOCATION	NO. OF CONTAINERS	VOC (8240)	SVOC (8270)	PCB/PESTICIDES (8080)	HERBICIDES (8150)	PCM (6010)	MS/MSD	ICED	CHEMICALS ADDED	REMARKS (CHEMICAL ANALYSIS REQUEST FORM NUMBER IF APPLICABLE)
PLF-SBS-247	1-23-93	1550		✓	SOIL	1		✓	✓	✓	✓		✓		
PLF-SBS-248	↓	1610		✓	↓	1		✓	✓	✓	✓		✓		
PLF-SBS-249	↓	1625		✓	↓	1		✓	✓	✓	✓		✓		
PLF-SBS-250	1-24-93	0920		✓	↓	3	✓	✓	✓	✓	✓	✓	✓		
PLF-SBS-251	↓	0935		✓	↓	3	✓	✓	✓	✓	✓		✓		
PLF-SBS-252	↓	0955		✓	↓	3	✓	✓	✓	✓	✓		✓		
PLF-SBS-253	↓	1010		✓	↓	3	✓	✓	✓	✓	✓		✓		
PLF-SBS-254	↓	1020		✓	↓	3	✓	✓	✓	✓	✓		✓		

RELINQUISHED BY SIGNATURE	DATE	TIME	RECEIVED BY SIGNATURE	DATE	TIME
[illegible]	1/25/93	1600	SENT VIA FEDEX	1/25/93	1600
			SGiang SMS	1/26/93	[illegible]

SHIPPING NOTES
CT
[illegible]

LAB NOTES

JM-34 (8/89)

MEMORANDUM

DATE: April 2, 1993

TO: Ted Wall, Environmental Engineer TW

FROM: Nels Cone, Chemist NC

SUBJECT: DATA VALIDATION OF CHEMICAL ANALYSIS FROM PASCO LANDFILL PHASE I REMEDIAL INVESTIGATION, PROJECT 624419, DATA SET 8C

During the period of January 22 - 24, 1993, twenty-two soil samples were collected by Burlington field personnel. The sample identification numbers are listed below.

PLF-SBS-232	PLF-SBS-237	PLF-SBS-241	PLF-SBS-245	PLF-SBS-249	PLF-SBS-253
PLF-SBS-233	PLF-SBS-238	PLF-SBS-242	PLF-SBS-246	PLF-SBS-250	PLF-SBS-254
PLF-SBS-234	PLF-SBS-239	PLF-SBS-243	PLF-SBS-247	PLF-SBS-251	
PLF-SBS-235	PLF-SBS-240	PLF-SBS-244	PLF-SBS-248	PLF-SBS-252	

These samples were then submitted to Sound Analytical Services of Tacoma, Washington (work order 29777). Data set 8C represents results of analysis for chlorinated herbicides (USEPA SW-846, Method 8150). I performed a data quality review of the analytical results in accordance with the USEPA Contract Laboratory Program (CLP) Document Number ILM01.0. These guidelines are normally used for water and soil monitoring of specific compounds. However, this document was also relied upon for proper guidance in the above herbicide analyses, because no CLP guidelines have been published specific to them.

FINDINGS

Properly completed chain-of-custody forms were included with documented signatures from field to laboratory receipt. All samples were shown as having been properly iced and received in good condition. The samples received the requested analyses, and all holding, extraction, and analysis times met the required guidelines.

Laboratory duplicates analysis were not run for detection of herbicides. However, field duplicate pair PLF-SBS-253 and PLF-SBS-254 indicate appropriate analytical precision. Eight out of ten matrix spike/matrix spike duplicate recoveries did not display accuracy within advisory QC limits. However, these compounds were not detected in the samples, and no data qualifier flags are used. Furthermore, surrogate compound recoveries for all chlorinated herbicide analyses met expected QC limits.

Additional QC was supplied in the form of the GC/MS data for the samples, initial and continuing calibration checks, DFTPP tuning check, matrix spikes, and calibration standards. Data consistency was demonstrated throughout. Proper data qualifier flags accompanied the analytical results as needed.

RECOMMENDATIONS

Overall, the data quality guidelines as advised in the CLP Statement of Work are met. Accordingly, this data can be considered valid for its intended use, with no modifications required.

SUBSURFACE SOILS I3.10

SAMPLES PLF-SBS-242 TO PLF-SBS-254

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SBS-242

Lab Name: Sound Analytiacl Contract: Burlington Environmental

Lab Code: 29777 Case No.: SAS No.: SDG No.:

Matrix: (soil/water) soil Lab Sample ID: 29777-9

Sample wt/vol: 10.4480 (g/mL) grams Lab File ID: P1774

% Moisture: 7.18 decanted: (Y/N) no Date Received: 01/26/93

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 01/28/93

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 02/09/93

Injection Volume: 3 (uL) Dilution Factor:

GPC Cleanup: (Y/N) No pH: n/a Sulfur Cleanup: (Y/N) No

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.75
319-85-7	beta-BHC	ND	1.75
319-86-8	delta-BHC	ND	1.75
58-89-9	gamma-BHC (Lindane)	ND	1.75
76-44-8	Heptachlor	ND	1.75
309-00-2	Aldrin	ND	1.75
1024-57-3	Heptachlor epoxide	ND	1.75
959-98-8	Endosulfan I	ND	1.75
60-57-1	Dieldrin	ND	3.40
72-55-9	4,4'-DDE	ND	3.40
72-20-8	Endrin	ND	3.40
33213-65-9	Endosulfan II	ND	3.40
72-54-8	4,4'-DDD	ND	3.40
1031-07-8	Endosulfan sulfate	ND	3.40
50-29-3	4,4'-DDT	ND	3.40
72-43-5	Methoxychlor	ND	17.53
53494-70-5	Endrin ketone	ND	3.40
7421-36-3	Endrin aldehyde	ND	3.40
5103-71-9	alpha-Chlordane	ND	1.75
5103-74-2	gamma-Chlordane	ND	1.75
8001-35-2	Toxaphene	ND	51.56
12674-11-2	Aroclor-1016	ND	34.03
11104-28-2	Aroclor-1221	ND	34.03
11141-16-5	Aroclor-1232	ND	69.09
53469-21-9	Aroclor-1242	ND	34.03
12672-29-6	Aroclor-1248	ND	34.03
11097-69-1	Aroclor-1254	ND	34.03
11096-82-5	Aroclor-1260	ND	34.03

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
PLF-SBS-243

Lab Name: Sound Analytiacl Contract: Burlington Environmental

Lab Code: 29777 Case No.: SAS No.: SDG No.:

Matrix: (soil/water) soil Lab Sample ID: 29777-10

Sample wt/vol: 10.2684 (g/mL) grams Lab File ID: P1775

% Moisture: 5.12 decanted: (Y/N) no Date Received: 01/26/93

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 01/28/93

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 02/09/93

Injection Volume: 3 (uL) Dilution Factor:

GPC Cleanup: (Y/N) No pH: n/a Sulfur Cleanup: (Y/N) No

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.74
319-85-7	beta-BHC	ND	1.74
319-86-8	delta-BHC	ND	1.74
58-89-9	gamma-BHC (Lindane)	ND	1.74
76-44-8	Heptachlor	ND	1.74
309-00-2	Aldrin	ND	1.74
1024-57-3	Heptachlor epoxide	ND	1.74
959-98-8	Endosulfan I	ND	1.74
60-57-1	Dieldrin	ND	3.39
72-55-9	4,4'-DDE	ND	3.39
72-20-8	Endrin	ND	3.39
33213-65-9	Endosulfan II	ND	3.39
72-54-8	4,4'-DDD	ND	3.39
1031-07-8	Endosulfan sulfate	ND	3.39
50-29-3	4,4'-DDT	ND	3.39
72-43-5	Methoxychlor	ND	17.45
53494-70-5	Endrin ketone	ND	3.39
7421-36-3	Endrin aldehyde	ND	3.39
5103-71-9	alpha-Chlordane	ND	1.74
5103-74-2	gamma-Chlordane	ND	1.74
8001-35-2	Toxaphene	ND	51.32
12674-11-2	Aroclor-1016	ND	33.87
11104-28-2	Aroclor-1221	ND	33.87
11141-16-5	Aroclor-1232	ND	68.77
53469-21-9	Aroclor-1242	ND	33.87
12672-29-6	Aroclor-1248	ND	33.87
11097-69-1	Aroclor-1254	ND	33.87
11096-82-5	Aroclor-1260	ND	33.87

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SBS-244

Lab Name: Sound Analytiacl Contract: Burlington Environmental

Lab Code: 29777 Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) soil Lab Sample ID: 29777-11

Sample wt/vol: 10.0390 (g/mL) grams Lab File ID: P1776

% Moisture: 10.87 decanted: (Y/N) no Date Received: 01/26/93

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 01/28/93

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 02/09/93

Injection Volume: 3 (uL) Dilution Factor: _____

GPC Cleanup: (Y/N) No pH: n/a Sulfur Cleanup: (Y/N) No

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.90
319-85-7	beta-BHC	ND	1.90
319-86-8	delta-BHC	ND	1.90
58-89-9	gamma-BHC (Lindane)	ND	1.90
76-44-8	Heptachlor	ND	1.90
309-00-2	Aldrin	ND	1.90
1024-57-3	Heptachlor epoxide	ND	1.90
959-98-8	Endosulfan I	ND	1.90
60-57-1	Dieldrin	ND	3.69
72-55-9	4,4'-DDE	ND	3.69
72-20-8	Endrin	ND	3.69
33213-65-9	Endosulfan II	ND	3.69
72-54-8	4,4'-DDD	ND	3.69
1031-07-8	Endosulfan sulfate	ND	3.69
50-29-3	4,4'-DDT	ND	3.69
72-43-5	Methoxychlor	ND	19.00
53494-70-5	Endrin ketone	ND	3.69
7421-36-3	Endrin aldehyde	ND	3.69
5103-71-9	alpha-Chlordane	ND	1.90
5103-74-2	gamma-Chlordane	ND	1.90
8001-35-2	Toxaphene	ND	55.88
12674-11-2	Aroclor-1016	ND	36.88
11104-28-2	Aroclor-1221	ND	36.88
11141-16-5	Aroclor-1232	ND	74.88
53469-21-9	Aroclor-1242	ND	36.88
12672-29-6	Aroclor-1248	ND	36.88
11097-69-1	Aroclor-1254	ND	36.88
11096-82-5	Aroclor-1260	ND	36.88

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
PLF-SBS-245

Lab Name: Sound Analytiacl Contract: Burlington Environmental

Lab Code: 29777 Case No.: SAS No.: SDG No.:

Matrix: (soil/water) soil Lab Sample ID: 29777-12

Sample wt/vol: 10.7530 (g/mL) grams Lab File ID: P1779

% Moisture: 6.39 decanted: (Y/N) no Date Received: 01/26/93

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 01/28/93

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 02/09/93

Injection Volume: 3 (uL) Dilution Factor:

GPC Cleanup: (Y/N) No pH: n/a Sulfur Cleanup: (Y/N) No

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.69
319-85-7	beta-BHC	ND	1.69
319-86-8	delta-BHC	ND	1.69
58-89-9	gamma-BHC (Lindane)	ND	1.69
76-44-8	Heptachlor	ND	1.69
309-00-2	Aldrin	ND	1.69
1024-57-3	Heptachlor epoxide	ND	1.69
959-98-8	Endosulfan I	ND	1.69
60-57-1	Dieldrin	ND	3.28
72-55-9	4,4'-DDE	ND	3.28
72-20-8	Endrin	ND	3.28
33213-65-9	Endosulfan II	ND	3.28
72-54-8	4,4'-DDD	ND	3.28
1031-07-8	Endosulfan sulfate	ND	3.28
50-29-3	4,4'-DDT	ND	3.28
72-43-5	Methoxychlor	ND	16.89
53494-70-5	Endrin ketone	ND	3.28
7421-36-3	Endrin aldehyde	ND	3.28
5103-71-9	alpha-Chlordane	ND	1.69
5103-74-2	gamma-Chlordane	ND	1.69
8001-35-2	Toxaphene	ND	49.67
12674-11-2	Aroclor-1016	ND	32.78
11104-28-2	Aroclor-1221	ND	32.78
11141-16-5	Aroclor-1232	ND	66.56
53469-21-9	Aroclor-1242	ND	32.78
12672-29-6	Aroclor-1248	ND	32.78
11097-69-1	Aroclor-1254	ND	32.78
11096-82-5	Aroclor-1260	ND	32.78

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SBS-246

Lab Name: Sound Analytiacl Contract: Burlington Environmental

Lab Code: 29777 Case No.: SAS No.: SDG No.:

Matrix: (soil/water) soil Lab Sample ID: 29777-13

Sample wt/vol: 10.1965 (g/mL) grams Lab File ID: P1780

% Moisture: 6.97 decanted: (Y/N) no Date Received: 01/26/93

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 01/28/93

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 02/09/93

Injection Volume: 3 (uL) Dilution Factor:

GPC Cleanup: (Y/N) No pH: n/a Sulfur Cleanup: (Y/N) No

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.79
319-85-7	beta-BHC	ND	1.79
319-86-8	delta-BHC	ND	1.79
58-89-9	gamma-BHC (Lindane)	ND	1.79
76-44-8	Heptachlor	ND	1.79
309-00-2	Aldrin	ND	1.79
1024-57-3	Heptachlor epoxide	ND	1.79
959-98-8	Endosulfan I	ND	1.79
60-57-1	Dieldrin	ND	3.48
72-55-9	4,4'-DDE	ND	3.48
72-20-8	Endrin	ND	3.48
33213-65-9	Endosulfan II	ND	3.48
72-54-8	4,4'-DDD	ND	3.48
1031-07-8	Endosulfan sulfate	ND	3.48
50-29-3	4,4'-DDT	ND	3.48
72-43-5	Methoxychlor	ND	17.92
53494-70-5	Endrin ketone	ND	3.48
7421-36-3	Endrin aldehyde	ND	3.48
5103-71-9	alpha-Chlordane	ND	1.79
5103-74-2	gamma-Chlordane	ND	1.79
8001-35-2	Toxaphene	ND	52.71
12674-11-2	Aroclor-1016	ND	34.79
11104-28-2	Aroclor-1221	ND	34.79
11141-16-5	Aroclor-1232	ND	70.63
53469-21-9	Aroclor-1242	ND	34.79
12672-29-6	Aroclor-1248	ND	34.79
11097-69-1	Aroclor-1254	ND	34.79
11096-82-5	Aroclor-1260	ND	34.79

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
PLF-SBS-247

Lab Name: Sound Analytiacl Contract: Burlington Environmental

Lab Code: 29777 Case No.: SAS No.: SDG No.:

Matrix: (soil/water) soil Lab Sample ID: 29777-14

Sample wt/vol: 10.6238 (g/mL) grams Lab File ID: P1781

% Moisture: 8.24 decanted: (Y/N) no Date Received: 01/26/93

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 01/28/93

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 02/09/93

Injection Volume: 3 (uL) Dilution Factor:

GPC Cleanup: (Y/N) No pH: n/a Sulfur Cleanup: (Y/N) No

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.74
319-85-7	beta-BHC	ND	1.74
319-86-8	delta-BHC	ND	1.74
58-89-9	gamma-BHC (Lindane)	ND	1.74
76-44-8	Heptachlor	ND	1.74
309-00-2	Aldrin	ND	1.74
1024-57-3	Heptachlor epoxide	ND	1.74
959-98-8	Endosulfan I	ND	1.74
60-57-1	Dieldrin	ND	3.39
72-55-9	4,4'-DDE	ND	3.39
72-20-8	Endrin	ND	3.39
33213-65-9	Endosulfan II	ND	3.39
72-54-8	4,4'-DDD	ND	3.39
1031-07-8	Endosulfan sulfate	ND	3.39
50-29-3	4,4'-DDT	ND	3.39
72-43-5	Methoxychlor	ND	17.44
53494-70-5	Endrin ketone	ND	3.39
7421-36-3	Endrin aldehyde	ND	3.39
5103-71-9	alpha-Chlordane	ND	1.74
5103-74-2	gamma-Chlordane	ND	1.74
8001-35-2	Toxaphene	ND	51.29
12674-11-2	Aroclor-1016	ND	33.85
11104-28-2	Aroclor-1221	ND	33.85
11141-16-5	Aroclor-1232	ND	68.73
53469-21-9	Aroclor-1242	ND	33.85
12672-29-6	Aroclor-1248	ND	33.85
11097-69-1	Aroclor-1254	ND	33.85
11096-82-5	Aroclor-1260	ND	33.85

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SBS-248

Lab Name: Sound Analytiacl Contract: Burlington Environmental

Lab Code: 29777 Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) soil Lab Sample ID: 29777-15

Sample wt/vol: 10.1656 (g/mL) grams Lab File ID: P1782

% Moisture: 9.54 decanted: (Y/N) no Date Received: 01/26/93

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 01/28/93

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 02/09/93

Injection Volume: 3 (uL) Dilution Factor: _____

GPC Cleanup: (Y/N) No pH: n/a Sulfur Cleanup: (Y/N) No

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.85
319-85-7	beta-BHC	ND	1.85
319-86-8	delta-BHC	ND	1.85
58-89-9	gamma-BHC (Lindane)	ND	1.85
76-44-8	Heptachlor	ND	1.85
309-00-2	Aldrin	ND	1.85
1024-57-3	Heptachlor epoxide	ND	1.85
959-98-8	Endosulfan I	ND	1.85
60-57-1	Dieldrin	ND	3.59
72-55-9	4,4'-DDE	ND	3.59
72-20-8	Endrin	ND	3.59
33213-65-9	Endosulfan II	ND	3.59
72-54-8	4,4'-DDD	ND	3.59
1031-07-8	Endosulfan sulfate	ND	3.59
50-29-3	4,4'-DDT	ND	3.59
72-43-5	Methoxychlor	ND	18.49
53494-70-5	Endrin ketone	ND	3.59
7421-36-3	Endrin aldehyde	ND	3.59
5103-71-9	alpha-Chlordane	ND	1.85
5103-74-2	gamma-Chlordane	ND	1.85
8001-35-2	Toxaphene	ND	54.37
12674-11-2	Aroclor-1016	ND	35.89
11104-28-2	Aroclor-1221	ND	35.89
11141-16-5	Aroclor-1232	ND	72.86
53469-21-9	Aroclor-1242	ND	35.89
12672-29-6	Aroclor-1248	ND	35.89
11097-69-1	Aroclor-1254	ND	35.89
11096-82-5	Aroclor-1260	ND	35.89

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
PLF-SBS-249

Lab Name: Sound Analytiacl Contract: Burlington Environmental

Lab Code: 29777 Case No.: SAS No.: SDG No.:

Matrix: (soil/water) soil Lab Sample ID: 29777-16

Sample wt/vol: 10.5213 (g/mL) grams Lab File ID: P1783

% Moisture: 5.14 decanted: (Y/N) no Date Received: 01/26/93

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 01/28/93

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 02/09/93

Injection Volume: 3 (uL) Dilution Factor:

GPC Cleanup: (Y/N) No pH: n/a Sulfur Cleanup: (Y/N) No

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.70
319-85-7	beta-BHC	ND	1.70
319-86-8	delta-BHC	ND	1.70
58-89-9	gamma-BHC (Lindane)	ND	1.70
76-44-8	Heptachlor	ND	1.70
309-00-2	Aldrin	ND	1.70
1024-57-3	Heptachlor epoxide	ND	1.70
959-98-8	Endosulfan I	ND	1.70
60-57-1	Dieldrin	ND	3.31
72-55-9	4,4'-DDE	ND	3.31
72-20-8	Endrin	ND	3.31
33213-65-9	Endosulfan II	ND	3.31
72-54-8	4,4'-DDD	ND	3.31
1031-07-8	Endosulfan sulfate	ND	3.31
50-29-3	4,4'-DDT	ND	3.31
72-43-5	Methoxychlor	ND	17.03
53494-70-5	Endrin ketone	ND	3.31
7421-36-3	Endrin aldehyde	ND	3.31
5103-71-9	alpha-Chlordane	ND	1.70
5103-74-2	gamma-Chlordane	ND	1.70
8001-35-2	Toxaphene	ND	50.10
12674-11-2	Aroclor-1016	ND	33.06
11104-28-2	Aroclor-1221	ND	33.06
11141-16-5	Aroclor-1232	ND	67.13
53469-21-9	Aroclor-1242	ND	33.06
12672-29-6	Aroclor-1248	ND	33.06
11097-69-1	Aroclor-1254	ND	33.06
11096-82-5	Aroclor-1260	ND	33.06

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SBS-250

Lab Name: Sound Analytiacl Contract: Burlington Environmental

Lab Code: 29777 Case No.: SAS No.: SDG No.:

Matrix: (soil/water) soil Lab Sample ID: 29777-17

Sample wt/vol: 10.1539 (g/mL) grams Lab File ID: P1784

% Moisture: 8.74 decanted: (Y/N) no Date Received: 01/26/93

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 01/28/93

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 02/09/93

Injection Volume: 3 (uL) Dilution Factor:

GPC Cleanup: (Y/N) No pH: n/a Sulfur Cleanup: (Y/N) No

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.83
319-85-7	beta-BHC	ND	1.83
319-86-8	delta-BHC	ND	1.83
58-89-9	gamma-BHC (Lindane)	ND	1.83
76-44-8	Heptachlor	ND	1.83
309-00-2	Aldrin	ND	1.83
1024-57-3	Heptachlor epoxide	ND	1.83
959-98-8	Endosulfan I	ND	1.83
60-57-1	Dieldrin	ND	3.56
72-55-9	4,4'-DDE	ND	3.56
72-20-8	Endrin	ND	3.56
33213-65-9	Endosulfan II	ND	3.56
72-54-8	4,4'-DDD	ND	3.56
1031-07-8	Endosulfan sulfate	ND	3.56
50-29-3	4,4'-DDT	ND	3.56
72-43-5	Methoxychlor	ND	18.35
53494-70-5	Endrin ketone	ND	3.56
7421-36-3	Endrin aldehyde	ND	3.56
5103-71-9	alpha-Chlordane	ND	1.83
5103-74-2	gamma-Chlordane	ND	1.83
8001-35-2	Toxaphene	ND	53.96
12674-11-2	Aroclor-1016	ND	35.61
11104-28-2	Aroclor-1221	ND	35.61
11141-16-5	Aroclor-1232	ND	72.30
53469-21-9	Aroclor-1242	ND	35.61
12672-29-6	Aroclor-1248	ND	35.61
11097-69-1	Aroclor-1254	ND	35.61
11096-82-5	Aroclor-1260	ND	35.61

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SBS-251

Lab Name: Sound Analytiacl Contract: Burlington Environmental

Lab Code: 29777 Case No.: SAS No.: SDG No.:

Matrix: (soil/water) soil Lab Sample ID: 29777-18

Sample wt/vol: 10.3630 (g/mL) grams Lab File ID: P1785

% Moisture: 9.56 decanted: (Y/N) no Date Received: 01/26/93

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 01/28/93

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 02/09/93

Injection Volume: 3 (uL) Dilution Factor:

GPC Cleanup: (Y/N) No pH: n/a Sulfur Cleanup: (Y/N) No

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.81
319-85-7	beta-BHC	ND	1.81
319-86-8	delta-BHC	ND	1.81
58-89-9	gamma-BHC (Lindane)	ND	1.81
76-44-8	Heptachlor	ND	1.81
309-00-2	Aldrin	ND	1.81
1024-57-3	Heptachlor epoxide	ND	1.81
959-98-8	Endosulfan I	ND	1.81
60-57-1	Dieldrin	ND	3.52
72-55-9	4,4'-DDE	ND	3.52
72-20-8	Endrin	ND	3.52
33213-65-9	Endosulfan II	ND	3.52
72-54-8	4,4'-DDD	ND	3.52
1031-07-8	Endosulfan sulfate	ND	3.52
50-29-3	4,4'-DDT	ND	3.52
72-43-5	Methoxychlor	ND	18.14
53494-70-5	Endrin ketone	ND	3.52
7421-36-3	Endrin aldehyde	ND	3.52
5103-71-9	alpha-Chlordane	ND	1.81
5103-74-2	gamma-Chlordane	ND	1.81
8001-35-2	Toxaphene	ND	53.35
12674-11-2	Aroclor-1016	ND	35.21
11104-28-2	Aroclor-1221	ND	35.21
11141-16-5	Aroclor-1232	ND	71.49
53469-21-9	Aroclor-1242	ND	35.21
12672-29-6	Aroclor-1248	ND	35.21
11097-69-1	Aroclor-1254	ND	35.21
11096-82-5	Aroclor-1260	ND	35.21

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
PLF-SBS-252

Lab Name: Sound Analytiacl Contract: Burlington Environmental

Lab Code: 29777 Case No.: SAS No.: SDG No.:

Matrix: (soil/water) soil Lab Sample ID: 29777-19

Sample wt/vol: 10.7559 (g/mL) grams Lab File ID: P1786

% Moisture: 6.35 decanted: (Y/N) no Date Received: 01/26/93

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 01/28/93

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 02/09/93

Injection Volume: 3 (uL) Dilution Factor:

GPC Cleanup: (Y/N) No pH: n/a Sulfur Cleanup: (Y/N) No

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.69
319-85-7	beta-BHC	ND	1.69
319-86-8	delta-BHC	ND	1.69
58-89-9	gamma-BHC (Lindane)	ND	1.69
76-44-8	Heptachlor	ND	1.69
309-00-2	Aldrin	ND	1.69
1024-57-3	Heptachlor epoxide	ND	1.69
959-98-8	Endosulfan I	ND	1.69
60-57-1	Dieldrin	ND	3.28
72-55-9	4,4'-DDE	ND	3.28
72-20-8	Endrin	ND	3.28
33213-65-9	Endosulfan II	ND	3.28
72-54-8	4,4'-DDD	ND	3.28
1031-07-8	Endosulfan sulfate	ND	3.28
50-29-3	4,4'-DDT	ND	3.28
72-43-5	Methoxychlor	ND	16.88
53494-70-5	Endrin ketone	ND	3.28
7421-36-3	Endrin aldehyde	ND	3.28
5103-71-9	alpha-Chlordane	ND	1.69
5103-74-2	gamma-Chlordane	ND	1.69
8001-35-2	Toxaphene	ND	49.64
12674-11-2	Aroclor-1016	ND	32.76
11104-28-2	Aroclor-1221	ND	32.76
11141-16-5	Aroclor-1232	ND	66.52
53469-21-9	Aroclor-1242	ND	32.76
12672-29-6	Aroclor-1248	ND	32.76
11097-69-1	Aroclor-1254	ND	32.76
11096-82-5	Aroclor-1260	ND	32.76

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SBS-253

Lab Name: Sound Analytiacl Contract: Burlington Environmental

Lab Code: 29777 Case No.: SAS No.: SDG No.:

Matrix: (soil/water) soil Lab Sample ID: 29777-20

Sample wt/vol: 10.6318 (g/mL) grams Lab File ID: P1787

% Moisture: 4.89 decanted: (Y/N) no Date Received: 01/26/93

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 01/28/93

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 02/09/93

Injection Volume: 3 (uL) Dilution Factor:

GPC Cleanup: (Y/N) No pH: n/a Sulfur Cleanup: (Y/N) No

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.68
319-85-7	beta-BHC	ND	1.68
319-86-8	delta-BHC	ND	1.68
58-89-9	gamma-BHC (Lindane)	ND	1.68
76-44-8	Heptachlor	ND	1.68
309-00-2	Aldrin	ND	1.68
1024-57-3	Heptachlor epoxide	ND	1.68
959-98-8	Endosulfan I	ND	1.68
60-57-1	Dieldrin	ND	3.26
72-55-9	4,4'-DDE	ND	3.26
72-20-8	Endrin	ND	3.26
33213-65-9	Endosulfan II	ND	3.26
72-54-8	4,4'-DDD	ND	3.26
1031-07-8	Endosulfan sulfate	ND	3.26
50-29-3	4,4'-DDT	ND	3.26
72-43-5	Methoxychlor	ND	16.81
53494-70-5	Endrin ketone	ND	3.26
7421-36-3	Endrin aldehyde	ND	3.26
5103-71-9	alpha-Chlordane	ND	1.68
5103-74-2	gamma-Chlordane	ND	1.68
8001-35-2	Toxaphene	ND	49.45
12674-11-2	Aroclor-1016	ND	32.63
11104-28-2	Aroclor-1221	ND	32.63
11141-16-5	Aroclor-1232	ND	66.26
53469-21-9	Aroclor-1242	ND	32.63
12672-29-6	Aroclor-1248	ND	32.63
11097-69-1	Aroclor-1254	ND	32.63
11096-82-5	Aroclor-1260	ND	32.63

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
PLF-SBS-254

Lab Name: Sound Analytical Contract: Burlington Environmental

Lab Code: 29777 Case No.: SAS No.: SDG No.:

Matrix: (soil/water) soil Lab Sample ID: 29777-21

Sample wt/vol: 10.3321 (g/mL) grams Lab File ID: P1788

% Moisture: 5.40 decanted: (Y/N) no Date Received: 01/26/93

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 01/28/93

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 02/09/93

Injection Volume: 3 (uL) Dilution Factor:

GPC Cleanup: (Y/N) No pH: n/a Sulfur Cleanup: (Y/N) No

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.74
319-85-7	beta-BHC	ND	1.74
319-86-8	delta-BHC	ND	1.74
58-89-9	gamma-BHC (Lindane)	ND	1.74
76-44-8	Heptachlor	ND	1.74
309-00-2	Aldrin	ND	1.74
1024-57-3	Heptachlor epoxide	ND	1.74
959-98-8	Endosulfan I	ND	1.74
60-57-1	Dieldrin	ND	3.38
72-55-9	4,4'-DDE	ND	3.38
72-20-8	Endrin	ND	3.38
33213-65-9	Endosulfan II	ND	3.38
72-54-8	4,4'-DDD	ND	3.38
1031-07-8	Endosulfan sulfate	ND	3.38
50-29-3	4,4'-DDT	ND	3.38
72-43-5	Methoxychlor	ND	17.39
53494-70-5	Endrin ketone	ND	3.38
7421-36-3	Endrin aldehyde	ND	3.38
5103-71-9	alpha-Chlordane	ND	1.74
5103-74-2	gamma-Chlordane	ND	1.74
8001-35-2	Toxaphene	ND	51.16
12674-11-2	Aroclor-1016	ND	33.76
11104-28-2	Aroclor-1221	ND	33.76
11141-16-5	Aroclor-1232	ND	68.55
53469-21-9	Aroclor-1242	ND	33.76
12672-29-6	Aroclor-1248	ND	33.76
11097-69-1	Aroclor-1254	ND	33.76
11096-82-5	Aroclor-1260	ND	33.76

John Mathes & Associates, Inc.
210 West Sand Bank Road
Columbia, Illinois 62236

CHAIN-OF-CUSTODY RECORD

C.O.C. SERIAL NO. 5295

PROJECT NAME PASCO LF
PROJECT NUMBER 624419 MAJOR TASK 7020.16
SAMPLERS Louis La Rosa
LAB DESTINATION SOUND ANALYTICAL SERVICES

SAMPLE NO.	DATE	TIME	COMP	GRAB	SAMPLE LOCATION	NO. OF CONTAINERS	VOC (8240)	SVOC (8270)	Pest/PCB (8080)	Herbicides (8150)	PPM (6010)	Hg/MSD	ICED	PRESERVATIVES: CHEMICALS ADDED	REMARKS (CHEMICAL ANALYSIS REQUEST FORM NUMBER IF APPLICABLE)
PLF-SBS-232	1-22-93	1045		✓	SOIL	1	HOLD FOR ANALYSIS						✓		
PLF-SBS-233	↓	1100		✓	↓	1		✓			✓		✓		
PLF-SBS-234		1120		✓		1		✓			✓		✓		
PLF-SBS-235		1140		✓		1		✓			✓		✓		
PLF-SBS-237		1045		✓		1		✓			✓		✓		
PLF-SBS-238		1540		✓		1		✓			✓		✓		
PLF-SBS-239		1545		✓		1		✓			✓		✓		
PLF-SBS-240		1600		✓		1		✓			✓		✓		
PLF-SBS-241	↓	1620		✓		1		✓			✓		✓		
PLF-SBS-242	1-23-93	1030		✓		3	✓	✓	✓	✓	✓		✓		
PLF-SBS-243		1050		✓		3	✓	✓	✓	✓	✓		✓		
PLF-SBS-244		1100		✓		3	✓	✓	✓	✓	✓	✓	✓		
PLF-SBS-245		1130		✓		3	✓	✓	✓	✓	✓		✓		
PLF-SBS-246	↓	1520		✓	↓	1		✓	✓	✓	✓		✓		

RELINQUISHED BY SIGNATURE	DATE	TIME	RECEIVED BY SIGNATURE	DATE	TIME
[signature] BURLINGTON	1/25/93	1600	SENT VIA FED EX	1/25/93	1600
			SGiang [signature]	1/26/93	[illegible]

SHIPPING NOTES
C1
C2

LAB NOTES

JM-34 (8/89)

John Mathes & Associates, Inc.
210 West Sand Bank Road
Columbia, Illinois 62236

CHAIN-OF-CUSTODY RECORD

C.O.C. SERIAL NO. 5296

PROJECT NAME PASCO LF
PROJECT NUMBER 624419 MAJOR TASK 7020.16
SAMPLERS LOUIS LA ROSA
LAB DESTINATION SOUND ANALYTICAL SERVICES

SAMPLE NO.	DATE	TIME	COMP	GRAB	SAMPLE LOCATION	NO. OF CONTAINERS	VOC (8240)	SVOC (8270)	Pest/PCB (8080)	HERBICIDES (8150)	PPM (6010)	MS/MSD	ICED	CHEMICALS ADDED	REMARKS (CHEMICAL ANALYSIS REQUEST FORM NUMBER IF APPLICABLE)
PLF-SBS-247	1-23-93	1550		✓	SOIL	1		✓	✓	✓	✓		✓		
PLF-SBS-248	↓	1610		✓	↓	1		✓	✓	✓	✓		✓		
PLF-SBS-249	↓	1625		✓	↓	1		✓	✓	✓	✓		✓		
PLF-SBS-250	1-24-93	0920		✓	↓	3	✓	✓	✓	✓	✓	✓	✓		
PLF-SBS-251	↓	0935		✓	↓	3	✓	✓	✓	✓	✓		✓		
PLF-SBS-252	↓	0955		✓	↓	3	✓	✓	✓	✓	✓		✓		
PLF-SBS-253	↓	1010		✓	↓	3	✓	✓	✓	✓	✓		✓		
PLF-SBS-254	↓	1020		✓	↓	3	✓	✓	✓	✓	✓		✓		

RELINQUISHED BY SIGNATURE	DATE	TIME	RECEIVED BY SIGNATURE	DATE	TIME
[illegible] BURLINGTON	1/25/93	1600	SENT VIA FED EX	1/25/93	1600
			SGiang SMS	1/26/93	[illegible]

SHIPPING NOTES
CT
IL

LAB NOTES

JM-34 (8/89)

MEMORANDUM

DATE: March 30, 1993

TO: Ted Wall, Environmental Engineer

FROM: Nels Cone, Chemist

SUBJECT: DATA VALIDATION OF CHEMICAL ANALYSIS FROM PASCO LANDFILL PHASE I REMEDIAL INVESTIGATION, PROJECT 624419, DATA SET 8D

During the period of January 22 - 24, 1993, twenty-two soil samples were collected by Burlington field personnel. The sample identification numbers are listed below.

PLF-SBS-232	PLF-SBS-237	PLF-SBS-241	PLF-SBS-245	PLF-SBS-249	PLF-SBS-253
PLF-SBS-233	PLF-SBS-238	PLF-SBS-242	PLF-SBS-246	PLF-SBS-250	PLF-SBS-254
PLF-SBS-234	PLF-SBS-239	PLF-SBS-243	PLF-SBS-247	PLF-SBS-251	
PLF-SBS-235	PLF-SBS-240	PLF-SBS-244	PLF-SBS-248	PLF-SBS-252	

These samples were then submitted to Sound Analytical Services of Tacoma, Washington (work order 29777). Data set 8D represents results from pesticide/PCB analysis (USEPA SW-846, Method 8080). I performed a data quality review of the analytical results in accordance with the USEPA Contract Laboratory Program (CLP) Document Number ILM01.0. My findings and recommendations are summarized below.

FINDINGS

Properly completed chain-of-custody forms were included with documented signatures from field to laboratory receipt. All samples were shown as having been properly iced and received in good condition. Holding, extraction, and analysis times for all samples met the required guidelines, and all samples received the requested analyses.

All pesticide/PCB analyses were performed using dual column confirmation (columns db-608 and db-5) as required by CLP protocol. Surrogate compound recoveries for the samples, method blanks, and matrix spikes, met required QC limits. Method blank analyses required no corrections and contained no laboratory contaminants. Method spike analyses met required QC limits for analytical accuracy. Initial calibration standards displayed analytical performance within CLP criteria except for endosulfan II, endrin ketone, and α-chlordane calibration criteria (column db-608). However, all the retention times and peak resolution for these analytes on column db-608 met required QC limits and these analytes were not found in any samples. Hence, no CLP qualifications are necessary. Dual column chromatograms were included for all samples, the method blank, method spike, and calibration standards. The chromatograms have been annotated with quantitation values calculated from the average response factors as needed, by the laboratory. The reported summary information appears consistent with this data.

RECOMMENDATIONS

Overall, the data guidelines as described in the CLP Statement of Work are met. This data can be considered valid for its intended use, and no modifications to it are required.

NC/rlk/b46:2175b.mem

SUBSURFACE SOILS I3.11

SAMPLES PLF-SBS-233 TO PLF-SBS-235;
PLF-SBS-237 TO PLF-SBS-254

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

PLF-SBS-233
~~SBS-232~~
NSC

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BUR._PASCO

Lab Code: SAS___ Case No.: _____ SAS No.: 29777_ SDG No.: 29777_

Matrix (soil/water): SOIL_ Lab Sample ID: 29777-1___

Level (low/med): LOW__ Date Received: 01/26/93

% Solids: _88.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_	5.2	U	N	P_
7440-38-2	Arsenic__	9.4		*	P_
7440-39-3	Barium___				NR
7440-41-7	Beryllium	0.04	B		P_
7440-43-9	Cadmium__	2.5			P_
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	7.7			P_
7440-48-4	Cobalt___				NR
7440-50-8	Copper___	20.6		E	P_
7439-89-6	Iron____				NR
7439-92-1	Lead____	9.6		*	P_
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__	2.6		*	AV
7440-02-0	Nickel___	13.1			P_
7440-09-7	Potassium				NR
7782-49-2	Selenium_	12.4	U		P_
7440-22-4	Silver___	1.6			P_
7440-23-5	Sodium___				NR
7440-28-0	Thallium_	14.3	U		P_
7440-62-2	Vanadium_				NR
7440-66-6	Zinc____	45.1			P_
5955-70-0	Cyanide__				NR

Color Before: _____ Clarity Before: _____ Texture:

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SBS-234

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BUR._PASCO

Lab Code: SAS___ Case No.: _____ SAS No.: 29777_ SDG No.: 29777_

Matrix (soil/water): SOIL_ Lab Sample ID: 29777-2___

Level (low/med): LOW__ Date Received: 01/26/93

% Solids: _83.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_	4.7	U	N	P_
7440-38-2	Arsenic__	11.5		*	P_
7440-39-3	Barium___				NR
7440-41-7	Beryllium	0.01	U		P_
7440-43-9	Cadmium__	2.4			P_
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	8.4			P_
7440-48-4	Cobalt___				NR
7440-50-8	Copper___	24.5		E	P_
7439-89-6	Iron____				NR
7439-92-1	Lead____	14.5		*	P_
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__	0.04	U	*	AV
7440-02-0	Nickel___	12.5			P_
7440-09-7	Potassium				NR
7782-49-2	Selenium_	11.3	U		P_
7440-22-4	Silver___	1.7			P_
7440-23-5	Sodium___				NR
7440-28-0	Thallium_	13.0	U		P_
7440-62-2	Vanadium_				NR
7440-66-6	Zinc____	53.4			P_
5955-70-0	Cyanide__				NR

Color Before: _____ Clarity Before: _____ Texture:

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SBS-235

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BUR._PASCO

Lab Code: SAS___ Case No.: _____ SAS No.: 29777_ SDG No.: 29777_

Matrix (soil/water): SOIL_ Lab Sample ID: 29777-3___

Level (low/med): LOW__ Date Received: 01/26/93

% Solids: _96.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_	4.0	U	N	P_
7440-38-2	Arsenic__	3.1	U	*	P_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium	0.01	U		P_
7440-43-9	Cadmium__	2.6	_		P_
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_	3.4	_		P_
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___	15.4	_	E	P_
7439-89-6	Iron____		_		NR
7439-92-1	Lead____	5.5	_	*	P_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__	0.13	_	*	AV
7440-02-0	Nickel___	9.0	_		P_
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_	9.7	U		P_
7440-22-4	Silver___	1.9	_		P_
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_	11.2	U		P_
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc____	39.4	_		P_
5955-70-0	Cyanide__		_		NR
			_		

Color Before: _____ Clarity Before: _____ Texture:

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SBS-237

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BUR._PASCO

Lab Code: SAS___ Case No.: _____ SAS No.: 29777_ SDG No.: 29777_

Matrix (soil/water): SOIL_ Lab Sample ID: 29777-4___

Level (low/med): LOW__ Date Received: 01/26/93

% Solids: _81.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_	5.2	U	N	P_
7440-38-2	Arsenic__	3.9	U	*	P_
7440-39-3	Barium___				NR
7440-41-7	Beryllium	0.01	U		P_
7440-43-9	Cadmium__	2.0			P_
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	8.4			P_
7440-48-4	Cobalt___				NR
7440-50-8	Copper___	33.3		E	P_
7439-89-6	Iron____				NR
7439-92-1	Lead____	26.8		*	P_
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__	180 ~~13.0~~		*	AV
7440-02-0	Nickel___	12.2			P_
7440-09-7	Potassium				NR
7782-49-2	Selenium_	12.5	U		P_
7440-22-4	Silver___	1.2			P_
7440-23-5	Sodium___				NR
7440-28-0	Thallium_	14.3	U		P_
7440-62-2	Vanadium_				NR
7440-66-6	Zinc____	66.8			P_
5955-70-0	Cyanide__				NR

Color Before: _____ Clarity Before: _____ Texture:

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SBS-238

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BUR._PASCO

Lab Code: SAS___ Case No.: _____ SAS No.: 29777_ SDG No.: 29777_

Matrix (soil/water): SOIL_ Lab Sample ID: 29777-5___

Level (low/med): LOW__ Date Received: 01/26/93

% Solids: _92.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_	5.0	U	N	P_
7440-38-2	Arsenic__	7.7		*	P_
7440-39-3	Barium___				NR
7440-41-7	Beryllium	0.46	B		P_
7440-43-9	Cadmium__	3.0			P_
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	9.4			P_
7440-48-4	Cobalt___				NR
7440-50-8	Copper___	17.2		E	P_
7439-89-6	Iron____				NR
7439-92-1	Lead____	11.2		*	P_
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__	15.6		*	AV
7440-02-0	Nickel___	13.3			P_
7440-09-7	Potassium				NR
7782-49-2	Selenium_	12.0	U		P_
7440-22-4	Silver___	2.0			P_
7440-23-5	Sodium___				NR
7440-28-0	Thallium_	13.8	U		P_
7440-62-2	Vanadium_				NR
7440-66-6	Zinc____	48.5			P_
5955-70-0	Cyanide__				NR

Color Before: _____ Clarity Before: _____ Texture:

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SBS-239

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BUR._PASCO

Lab Code: SAS___ Case No.: _____ SAS No.: 29777_ SDG No.: 29777_

Matrix (soil/water): SOIL_ Lab Sample ID: 29777-6___

Level (low/med): LOW__ Date Received: 01/26/93

% Solids: _93.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_	4.9	U	N	P_
7440-38-2	Arsenic__	6.5	_	*	P_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium	0.01	U		P_
7440-43-9	Cadmium__	2.7	_		P_
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_	8.3	_		P_
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___	19.0	_	E	P_
7439-89-6	Iron_____		_		NR
7439-92-1	Lead_____	10.7	_	*	P_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__	2.4 ~~1.2~~	_	*	AV
7440-02-0	Nickel___	12.4	_		P_
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_	11.9	U		P_
7440-22-4	Silver___	1.5	_		P_
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_	13.7	U		P_
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc_____	48.4	_		P_
5955-70-0	Cyanide__		_		NR

Color Before: _____ Clarity Before: _____ Texture:

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SBS-240

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BUR._PASCO

Lab Code: SAS___ Case No.: _____ SAS No.: 29777_ SDG No.: 29777_

Matrix (soil/water): SOIL_ Lab Sample ID: 29777-7___

Level (low/med): LOW__ Date Received: 01/26/93

% Solids: _89.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_	5.3	U	N	P_
7440-38-2	Arsenic__	7.5	_	*	P_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium	0.01	U		P_
7440-43-9	Cadmium__	2.5	_		P_
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_	7.9	_		P_
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___	18.1	_	E	P_
7439-89-6	Iron____		_		NR
7439-92-1	Lead____	7.9	_	*	P_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__	0.04	U	*	AV
7440-02-0	Nickel___	12.6	_		P_
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_	12.8	U		P_
7440-22-4	Silver___	1.7	_		P_
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_	14.7	U		P_
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc____	49.4	_		P_
5955-70-0	Cyanide__		_		NR

Color Before: _____ Clarity Before: _____ Texture:

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SBS-241

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BUR._PASCO

Lab Code: SAS___ Case No.: _____ SAS No.: 29777_ SDG No.: 29777_

Matrix (soil/water): SOIL_ Lab Sample ID: 29777-8___

Level (low/med): LOW__ Date Received: 01/26/93

% Solids: _91.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_	4.7	U	N	P_
7440-38-2	Arsenic__	3.5	U	*	P_
7440-39-3	Barium___				NR
7440-41-7	Beryllium	0.01	U		P_
7440-43-9	Cadmium__	2.4			P_
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	4.6			P_
7440-48-4	Cobalt___				NR
7440-50-8	Copper___	14.9		E	P_
7439-89-6	Iron____				NR
7439-92-1	Lead____	6.5		*	P_
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__	0.04	U	*	AV
7440-02-0	Nickel___	9.1			P_
7440-09-7	Potassium				NR
7782-49-2	Selenium_	11.3	U		P_
7440-22-4	Silver___	1.8			P_
7440-23-5	Sodium___				NR
7440-28-0	Thallium_	12.9	U		P_
7440-62-2	Vanadium_				NR
7440-66-6	Zinc____	39.9			P_
5955-70-0	Cyanide__				NR

Color Before: _____ Clarity Before: _____ Texture:

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SBS-242

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BUR._PASCO

Lab Code: SAS___ Case No.: _____ SAS No.: 29777_ SDG No.: 29777_

Matrix (soil/water): SOIL_ Lab Sample ID: 29777-9___

Level (low/med): LOW__ Date Received: 01/26/93

% Solids: _92.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_	4.6	U	N	P_
7440-38-2	Arsenic__	3.5	_	*	P_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium	0.01	U		P_
7440-43-9	Cadmium__	2.4	_		P_
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_	8.7	_		P_
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___	14.2	_	E	P_
7439-89-6	Iron____		_		NR
7439-92-1	Lead____	15.0	_	*	P_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__	0.96	_	*	AV
7440-02-0	Nickel___	12.1	_		P_
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_	11.0	U		P_
7440-22-4	Silver___	1.5	_		P_
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_	12.6	U		P_
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc____	44.3	_		P_
5955-70-0	Cyanide__		_		NR

Color Before: _____ Clarity Before: _____ Texture:

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SBS-243

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BUR._PASCO

Lab Code: SAS___ Case No.: _____ SAS No.: 29777_ SDG No.: 29777_

Matrix (soil/water): SOIL_ Lab Sample ID: 29777-10__

Level (low/med): LOW__ Date Received: 01/26/93

% Solids: _94.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_	5.0	U	N	P_
7440-38-2	Arsenic__	8.0		*	P_
7440-39-3	Barium___				NR
7440-41-7	Beryllium	0.01	U		P_
7440-43-9	Cadmium__	2.1			P_
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	7.3			P_
7440-48-4	Cobalt___				NR
7440-50-8	Copper___	13.4		E	P_
7439-89-6	Iron____				NR
7439-92-1	Lead____	9.6		*	P_
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__	0.04	U	*	AV
7440-02-0	Nickel___	11.8			P_
7440-09-7	Potassium				NR
7782-49-2	Selenium_	12.1	U		P_
7440-22-4	Silver___	1.9			P_
7440-23-5	Sodium___				NR
7440-28-0	Thallium_	14.0	U		P_
7440-62-2	Vanadium_				NR
7440-66-6	Zinc____	40.8			P_
5955-70-0	Cyanide__				NR

Color Before: _____ Clarity Before: _____ Texture:

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SBS-244

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BUR._PASCO

Lab Code: SAS___ Case No.: _____ SAS No.: 29777_ SDG No.: 29777_

Matrix (soil/water): SOIL_ Lab Sample ID: 29777-11__

Level (low/med): LOW__ Date Received: 01/26/93

% Solids: _89.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_	4.7	U	N	P_
7440-38-2	Arsenic__	6.8		*	P_
7440-39-3	Barium___				NR
7440-41-7	Beryllium	0.01	U		P_
7440-43-9	Cadmium__	2.4			P_
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	9.7			P_
7440-48-4	Cobalt___				NR
7440-50-8	Copper___	16.3		E	P_
7439-89-6	Iron____				NR
7439-92-1	Lead____	10.6		*	P_
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__	0.05	U	*	AV
7440-02-0	Nickel___	15.1			P_
7440-09-7	Potassium				NR
7782-49-2	Selenium_	11.4	U		P_
7440-22-4	Silver___	1.3			P_
7440-23-5	Sodium___				NR
7440-28-0	Thallium_	13.1	U		P_
7440-62-2	Vanadium_				NR
7440-66-6	Zinc____	47.9			P_
5955-70-0	Cyanide__				NR

Color Before: _____ Clarity Before: _____ Texture:

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SBS-245

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BUR._PASCO

Lab Code: SAS___ Case No.: _____ SAS No.: 29777_ SDG No.: 29777_

Matrix (soil/water): SOIL_ Lab Sample ID: 29777-12__

Level (low/med): LOW__ Date Received: 01/26/93

% Solids: _93.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_	4.8	U	N	P_
7440-38-2	Arsenic__	3.7	U	*	P_
7440-39-3	Barium___				NR
7440-41-7	Beryllium	0.01	U		P_
7440-43-9	Cadmium__	2.3			P_
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	4.9			P_
7440-48-4	Cobalt___				NR
7440-50-8	Copper___	11.6		E	P_
7439-89-6	Iron____				NR
7439-92-1	Lead____	8.1		*	P_
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__	0.04	U	*	AV
7440-02-0	Nickel___	9.7			P_
7440-09-7	Potassium				NR
7782-49-2	Selenium_	11.6	U		P_
7440-22-4	Silver___	2.3			P_
7440-23-5	Sodium___				NR
7440-28-0	Thallium_	13.4	U		P_
7440-62-2	Vanadium_				NR
7440-66-6	Zinc____	38.7			P_
5955-70-0	Cyanide__				NR

Color Before: _____ Clarity Before: _____ Texture:

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SBS-246

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BUR._PASCO

Lab Code: SAS___ Case No.: _____ SAS No.: 29777_ SDG No.: 29777_

Matrix (soil/water): SOIL_ Lab Sample ID: 29777-13__

Level (low/med): LOW__ Date Received: 01/26/93

% Solids: _93.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_	5.1	U	N	P_
7440-38-2	Arsenic__	3.9	U	*	P_
7440-39-3	Barium___				NR
7440-41-7	Beryllium	0.01	U		P_
7440-43-9	Cadmium__	2.3			P_
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	8.2			P_
7440-48-4	Cobalt___				NR
7440-50-8	Copper___	12.6		E	P_
7439-89-6	Iron____				NR
7439-92-1	Lead____	7.4		*	P_
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__	0.04	U	*	AV
7440-02-0	Nickel___	11.5			P_
7440-09-7	Potassium				NR
7782-49-2	Selenium_	12.4	U		P_
7440-22-4	Silver___	1.5			P_
7440-23-5	Sodium___				NR
7440-28-0	Thallium_	14.2	U		P_
7440-62-2	Vanadium_				NR
7440-66-6	Zinc____	40.6			P_
5955-70-0	Cyanide__				NR

Color Before: _____ Clarity Before: _____ Texture:

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SBS-247

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BUR._PASCO

Lab Code: SAS___ Case No.: _____ SAS No.: 29777_ SDG No.: 29777_

Matrix (soil/water): SOIL_ Lab Sample ID: 29777-14__

Level (low/med): LOW__ Date Received: 01/26/93

% Solids: _91.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_	5.0	U	N	P_
7440-38-2	Arsenic__	8.8	_	*	P_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium	0.01	U		P_
7440-43-9	Cadmium__	2.9	_		P_
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_	8.7	_		P_
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___	14.7	_	E	P_
7439-89-6	Iron____		_		NR
7439-92-1	Lead____	9.6	_	*	P_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__	0.04	U	*	AV
7440-02-0	Nickel___	12.9	_		P_
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_	11.9	U		P_
7440-22-4	Silver___	1.3	_		P_
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_	13.7	U		P_
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc____	45.1	_		P_
5955-70-0	Cyanide__		_		NR

Color Before: _____ Clarity Before: _____ Texture:

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SBS-248

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BUR._PASCO

Lab Code: SAS___ Case No.: _____ SAS No.: 29777_ SDG No.: 29777_

Matrix (soil/water): SOIL_ Lab Sample ID: 29777-15__

Level (low/med): LOW__ Date Received: 01/26/93

% Solids: _90.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_	4.8	U	N	P_
7440-38-2	Arsenic__	4.4		*	P_
7440-39-3	Barium___				NR
7440-41-7	Beryllium	0.01	U		P_
7440-43-9	Cadmium__	2.0			P_
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	8.3			P_
7440-48-4	Cobalt___				NR
7440-50-8	Copper___	13.8		E	P_
7439-89-6	Iron____				NR
7439-92-1	Lead____	8.6		*	P_
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__	0.10		*	AV
7440-02-0	Nickel___	12.6			P_
7440-09-7	Potassium				NR
7782-49-2	Selenium_	11.5	U		P_
7440-22-4	Silver___	1.7			P_
7440-23-5	Sodium___				NR
7440-28-0	Thallium_	13.2	U		P_
7440-62-2	Vanadium_				NR
7440-66-6	Zinc____	42.4			P_
5955-70-0	Cyanide__				NR

Color Before: _____ Clarity Before: _____ Texture:

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SBS-249

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BUR._PASCO

Lab Code: SAS___ Case No.: _____ SAS No.: 29777_ SDG No.: 29777_

Matrix (soil/water): SOIL_ Lab Sample ID: 29777-16__

Level (low/med): LOW__ Date Received: 01/26/93

% Solids: _94.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_	3.9	U	N	P_
7440-38-2	Arsenic__	3.1	_	*	P_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium	0.01	U		P_
7440-43-9	Cadmium__	2.3	_		P_
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_	4.2	_		P_
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___	11.4	_	E	P_
7439-89-6	Iron_____		_		NR
7439-92-1	Lead_____	7.8	_	*	P_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__	0.04	U	*	AV
7440-02-0	Nickel___	8.3	_		P_
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_	9.5	U		P_
7440-22-4	Silver___	2.1	_		P_
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_	10.9	U		P_
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc_____	39.1	_		P_
5955-70-0	Cyanide__		_		NR

Color Before: _____ Clarity Before: _____ Texture:

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SBS-250

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BUR._PASCO

Lab Code: SAS___ Case No.: _____ SAS No.: 29777_ SDG No.: 29777_

Matrix (soil/water): SOIL_ Lab Sample ID: 29777-17__

Level (low/med): LOW__ Date Received: 01/26/93

% Solids: _91.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_	4.7	U	N	P_
7440-38-2	Arsenic__	3.6	U	*	P_
7440-39-3	Barium___				NR
7440-41-7	Beryllium	0.01	U		P_
7440-43-9	Cadmium__	2.4			P_
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	8.2			P_
7440-48-4	Cobalt___				NR
7440-50-8	Copper___	12.9		E	P_
7439-89-6	Iron____				NR
7439-92-1	Lead____	8.2		*	P_
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__	0.04	U	*	AV
7440-02-0	Nickel___	11.9			P_
7440-09-7	Potassium				NR
7782-49-2	Selenium_	11.3	U		P_
7440-22-4	Silver___	1.6			P_
7440-23-5	Sodium___				NR
7440-28-0	Thallium_	13.0	U		P_
7440-62-2	Vanadium_				NR
7440-66-6	Zinc____	42.1			P_
5955-70-0	Cyanide__				NR

Color Before: _____ Clarity Before: _____ Texture:

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SBS-251

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BUR._PASCO

Lab Code: SAS___ Case No.: _____ SAS No.: 29777_ SDG No.: 29777_

Matrix (soil/water): SOIL_ Lab Sample ID: 29777-18__

Level (low/med): LOW__ Date Received: 01/26/93

% Solids: _90.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_	4.6	U	N	P_
7440-38-2	Arsenic__	12.6		*	P_
7440-39-3	Barium___				NR
7440-41-7	Beryllium	0.21	B		P_
7440-43-9	Cadmium__	2.4			P_
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	9.7			P_
7440-48-4	Cobalt___				NR
7440-50-8	Copper___	19.1		E	P_
7439-89-6	Iron____				NR
7439-92-1	Lead____	14.8		*	P_
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__	0.05	U	*	AV
7440-02-0	Nickel___	13.4			P_
7440-09-7	Potassium				NR
7782-49-2	Selenium_	11.2	U		P_
7440-22-4	Silver___	1.8			P_
7440-23-5	Sodium___				NR
7440-28-0	Thallium_	12.9	U		P_
7440-62-2	Vanadium_				NR
7440-66-6	Zinc____	50.7			P_
5955-70-0	Cyanide__				NR

Color Before: _____ Clarity Before: _____ Texture:

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SBS-252

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BUR._PASCO

Lab Code: SAS___ Case No.: _____ SAS No.: 29777_ SDG No.: 29777_

Matrix (soil/water): SOIL_ Lab Sample ID: 29777-19__

Level (low/med): LOW__ Date Received: 01/26/93

% Solids: _93.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_	5.2	U	N	P_
7440-38-2	Arsenic__	10.2	_	*	P_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium	0.06	B		P_
7440-43-9	Cadmium__	2.4	_		P_
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_	8.5	_		P_
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___	16.1	_	E	P_
7439-89-6	Iron____		_		NR
7439-92-1	Lead____	12.6	_	*	P_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__	0.04	U	*	AV
7440-02-0	Nickel___	12.2	_		P_
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_	12.6	U		P_
7440-22-4	Silver___	1.5	_		P_
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_	14.5	U		P_
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc____	44.4	_		P_
5955-70-0	Cyanide__		_		NR

Color Before: _____ Clarity Before: _____ Texture:

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SBS-253

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BUR._PASCO

Lab Code: SAS___ Case No.: _____ SAS No.: 29777_ SDG No.: 29777_

Matrix (soil/water): SOIL_ Lab Sample ID: 29777-20__

Level (low/med): LOW__ Date Received: 01/26/93

% Solids: _95.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_	4.4	U	N	P_
7440-38-2	Arsenic__	4.9	_	*	P_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium	0.01	U		P_
7440-43-9	Cadmium__	2.6	_		P_
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_	4.5	_		P_
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___	12.1	_	E	P_
7439-89-6	Iron_____		_		NR
7439-92-1	Lead_____	6.9	_	*	P_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__	0.04	U	*	AV
7440-02-0	Nickel___	9.4	_		P_
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_	10.6	U		P_
7440-22-4	Silver___	1.9	_		P_
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_	12.2	U		P_
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc_____	37.6	_		P_
5955-70-0	Cyanide__		_		NR

Color Before: _____ Clarity Before: _____ Texture:

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SBS-254

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BUR._PASCO

Lab Code: SAS___ Case No.: _____ SAS No.: 29777_ SDG No.: 29777_

Matrix (soil/water): SOIL_ Lab Sample ID: 29777-21__

Level (low/med): LOW__ Date Received: 01/26/93

% Solids: _94.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_	4.3	U	N	P_
7440-38-2	Arsenic__	3.3	U	*	P_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium	0.01	U		P_
7440-43-9	Cadmium__	2.0	_		P_
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_	4.4	_		P_
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___	12.6	_	E	P_
7439-89-6	Iron____		_		NR
7439-92-1	Lead____	7.1	_	*	P_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__	0.05	B	*	AV
7440-02-0	Nickel___	9.5	_		P_
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_	10.5	U		P_
7440-22-4	Silver___	2.3	_		P_
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_	12.0	U		P_
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc____	38.3	_		P_
5955-70-0	Cyanide__		_		NR
			_		

Color Before: _____ Clarity Before: _____ Texture:

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

FORM I - IN

ILMO2

John Mathes & Associates, Inc.
210 West Sand Bank Road
Columbia, Illinois 62236

CHAIN-OF-CUSTODY RECORD

C.O.C. SERIAL NO. 5295

PROJECT NAME PASCO LF
PROJECT NUMBER 624419 MAJOR TASK 7020.16
SAMPLERS LOUIS LA ROSA
LAB DESTINATION SOUND ANALYTICAL SERVICES

SAMPLE NO.	DATE	TIME	COMP	GRAB	SAMPLE LOCATION	NO. OF CONTAINERS	VOC (8240)	SVOC (8270)	Pest/PCB (8080)	Herbicides (8150)	PPM (6010)	MS/MSD	ICED	PRESERVATIVES / CHEMICALS ADDED	REMARKS (CHEMICAL ANALYSIS REQUEST FORM NUMBER IF APPLICABLE)
PLF-SBS-232	1-22-93	1045		✓	SOIL	1	HOLD	FOR	ANALY	SIS			✓		
PLF-SBS-233	↓	1100		✓	↓	1		✓			✓		✓		
PLF-SBS-234		1120		✓		1		✓			✓		✓		
PLF-SBS-235		1140		✓		1		✓			✓		✓		
PLF-SBS-237		1045		✓		1		✓			✓		✓		
PLF-SBS-238		1540		✓		1		✓			✓		✓		
PLF-SBS-239		1545		✓		1		✓			✓		✓		
PLF-SBS-240		1600		✓		1		✓			✓		✓		
PLF-SBS-241	↓	1620		✓		1		✓			✓		✓		
PLF-SBS-242	1-23-93	1030		✓		3	✓	✓	✓	✓	✓		✓		
PLF-SBS-243		1050		✓		3	✓	✓	✓	✓	✓		✓		
PLF-SBS-244		1100		✓		3	✓	✓	✓	✓	✓	✓	✓		
PLF-SBS-245		1130		✓		3	✓	✓	✓	✓	✓		✓		
PLF-SBS-246	↓	1520		✓	↓	1		✓	✓	✓	✓			✓	

RELINQUISHED BY SIGNATURE	DATE	TIME	RECEIVED BY SIGNATURE	DATE	TIME
[signature] BURLINGTON	1/25/93	1600	SENT VIA FED EX	1/25/93	1600
			SGiang [signature]	1/26/93	[illegible]

SHIPPING NOTES

LAB NOTES

JM-34 (8/89)

John Mathes & Associates, Inc.
210 West Sand Bank Road
Columbia, Illinois 62236

CHAIN-OF-CUSTODY RECORD

C.O.C. SERIAL NO. 5296

PROJECT NAME PASCO LF
PROJECT NUMBER 624419 MAJOR TASK 7020.16
SAMPLERS LOUIS LA ROSA
LAB DESTINATION SOUND ANALYTICAL SERVICES

SAMPLE NO.	DATE	TIME	COMP	GRAB	SAMPLE LOCATION	NO. OF CONTAINERS	VOC (8240)	SVOC (8270)	Pest/PCB (8080)	HERBICIDES (8150)	PAH (6010)	MS/MSD		ICED	CHEMICALS ADDED	REMARKS (CHEMICAL ANALYSIS REQUEST FORM NUMBER IF APPLICABLE)
PLF-SBS-247	1-23-93	1550		✓	SOIL	1		✓	✓	✓	✓			✓		
PLF-SBS-248	↓	1610		✓	↓	1		✓	✓	✓	✓			✓		
PLF-SBS-249	↓	1625		✓	↓	1		✓	✓	✓	✓			✓		
PLF-SBS-250	1-24-93	0920		✓	↓	3	✓	✓	✓	✓	✓	✓		✓		
PLF-SBS-251	↓	0935		✓	↓	3	✓	✓	✓	✓	✓			✓		
PLF-SBS-252	↓	0955		✓	↓	3	✓	✓	✓	✓	✓			✓		
PLF-SBS-253	↓	1010		✓	↓	3	✓	✓	✓	✓	✓			✓		
PLF-SBS-254	↓	1020		✓	↓	3	✓	✓	✓	✓	✓			✓		

RELINQUISHED BY SIGNATURE	DATE	TIME	RECEIVED BY SIGNATURE	DATE	TIME
[illegible]	1/25/93	1600	SENT VIA FED EX	1/25/93	1600
			SGiang SAS	1/26/93	[illegible]

SHIPPING NOTES
CT
[illegible]

LAB NOTES

JM-34 (8/89)

MEMORANDUM

DATE: April 23, 1993

TO: Ted Wall, Environmental Engineer TW

FROM: Nels Cone, Chemist NC

SUBJECT: DATA VALIDATION OF CHEMICAL ANALYSIS FROM PASCO LANDFILL PHASE I REMEDIAL INVESTIGATION, PROJECT 624419, DATA SET 8E

During the period of January 22 - 24, 1993, twenty-two soil samples were collected by Burlington field personnel. The identification numbers of these samples are as follows:

PLF-SBS-232	PLF-SBS-237	PLF-SBS-241	PLF-SBS-245	PLF-SBS-249	PLF-SBS-253
PLF-SBS-233	PLF-SBS-238	PLF-SBS-242	PLF-SBS-246	PLF-SBS-250	PLF-SBS-254
PLF-SBS-234	PLF-SBS-239	PLF-SBS-243	PLF-SBS-247	PLF-SBS-251	
PLF-SBS-235	PLF-SBS-240	PLF-SBS-244	PLF-SBS-248	PLF-SBS-252	

These samples were then submitted to Sound Analytical Services, of Tacoma, Washington (Work order 29777). Data set 8E represents results from Priority Pollutant Metals (PPM) analysis (USEPA SW-846, Method 6010). I performed a data quality review of the analytical results in accordance with the USEPA Contract Laboratory Program (CLP) Document Number ILM02.0. My findings and recommendations are summarized below.

FINDINGS

Properly completed chain-of-custody forms were included with documented signatures from field to laboratory receipt. All samples were shown as having been properly iced and received in good condition. Holding, extraction, and analysis times for all samples met the required guidelines, and all samples received the requested analyses.

All metal analyses were performed by inductively coupled plasma (ICP) analysis, except mercury, which received cold vapor atomic absorption (CVAA) analysis. Duplicate analyses met QC limits required for precision evaluation, with the exception of arsenic, lead, and mercury analysis; results received the appropriate CLP "*" data qualifier flag. Several analytes were found in the method blank at levels below USEPA contract-required detection limits. As per CLP protocol, no correction or qualification of the sample results is performed. All spiked sample recoveries, including post-digestion spikes, met required QC limits with the exception of antimony; results received the appropriate CLP "N" data qualifier flag. Initial and continuing calibration verification, laboratory control of samples, ICP correction factors and line calibration data all met within required QC limits. Supporting documentation was

supplied in the form of raw sample data. Consistency with reported summary information appears to be evident.

RECOMMENDATIONS

This data can be considered valid for its intended use, with no modifications required.

SUBSURFACE SOILS I3.12

SAMPLES PLF-SBS-128, PLF-SBS-150, PLF-SBS-167,
PLF-SBS-180, PLF-SBS-213

SOUND ANALYTICAL SERVICES, INC.

SPECIALIZING IN INDUSTRIAL & TOXIC WASTE ANALYSIS

4813 PACIFIC HIGHWAY EAST, TACOMA, WASHINGTON 98424 - TELEPHONE (206) 922-2310 - FAX (206) 922-5047

March 23, 1993

TO: Burlington Environmental Engineering

PROJECT NUMBER: 624419-7020.17

PROJECT NAME: Pasco Landfill

LABORATORY WORK ORDER NUMBER: 29551

Samples were taken on 1/10/93 and 1/12/93 and were received at Sound on 1/13/93. Samples were analyzed for Volatile Organics in accordance with EPA SW-846 Method 8240, Semivolatile Organics in accordance with EPA SW-846 Method 8270, Chlorinated Pesticides and PCB's in accordance with EPA SW-846 Method 8080, Metals by ICP in accordance with EPA SW-846 Method 6010 and Mercury by cold vapor AA in accordance with SW-846 Method 7471.

VOLATILE ORGANICS

Samples 29551-1 and 29551-2 were analyzed at low level on 1/14/93. Sample 29551-2 was reanalyzed at medium level on 1/15/93 due to concentrations of acetone and methylene chloride that exceeded the instrument calibration range during the low level analysis. The medium level analysis for sample 29551-2 was reported with this sample delivery group. Methylene chloride, toluene, and one TIC were detected in the low level method blank, while methylene chloride and one TIC were detected in the medium level method blank. Results for these compounds were flagged B in the associated samples to indicate this. All QC parameters were within acceptance limits.

SEMIVOLATILE ORGANICS

Samples 29551-1 and 29551-2 were extracted on 1/14/93 and analyzed on 1/19/93. Sample 29551-2 was reextracted and reanalyzed on 1/25/93, which was three days past the required holding time. The reanalysis of sample 29551-2 was reported with this sample delivery group. One TIC was detected in the method blank associated with sample 29551-1. Di-n-butylphthalate, bis(2-ethylhexyl)phthalate and several TICs were detected in the method blank associated with sample 29551-2. The retention time for perylene-d12 was slightly outside the retention time window in the analysis of the method blank associated with sample 29551-2. All other QC parameters were within acceptance limits.

This report is issued solely for the use of the person or company to whom it is addressed. This laboratory accepts responsibility only for the due performance of analysis in accordance with ndustry acceptable practice. In no event shall Sound Analytical Services, Inc. or its employees be responsible for consequential or special damages in any kind or in any amount.

SOUND ANALYTICAL SERVICES, INC.

TO: Burlington Environmental Engineering

PROJECT NUMBER: 624419-7020.17

PROJECT NAME: Pasco Landfill

LABORATORY WORK ORDER NUMBER: 29551

CHLORINATED PESTICIDES AND PCB's

Samples 29551-1 and 29551-2 were initially extracted on 1/14/93 and analyzed on 1/16/93. Due to internal QC failure during the initial analysis, the samples were reextracted on 1/28/93 and reanalyzed on 2/9/93. The samples were reextracted 8 and 6 days past the required holding time, respectively. The reanalyses were reported with this sample delivery group. All other QC parameters were within acceptance limits.

METALS

Samples 29551-1 and 29551-2 were digested on 1/14/93, and analyzed for ICP metals on 1/18/93 and analyzed for mercury on 1/19/93. The percent recoveries for antimony, selenium, and thallium in the matrix spike analysis for sample 29551-1 were slightly below acceptable limits. The post digestion spike recoveries for these analytes were within acceptable limits. All other QC parameters were within acceptance limits.

This report is issued solely for the use of the person or company to whom it is addressed. This laboratory accepts responsibility only for the due performance of analysis in accordance with industry acceptable practice. In no event shall Sound Analytical Services, Inc. or its employees be responsible for consequential or special damages in any kind or in any amount.

CHAIN OF CUSTODY

John Mathes & Associates, Inc.
210 West Sand Bank Road
Columbia, Illinois 62236

CHAIN-OF-CUSTODY RECORD

C.O.C. SERIAL NO. 5288

PROJECT NAME Pasco LF
PROJECT NUMBER 624419 MAJOR TASK 7020.17
SAMPLERS L. La Rosa
LAB DESTINATION Sound Analytical Services

	SAMPLE NO.	DATE	TIME	COMP	GRAB	SAMPLE LOCATION	NO. OF CONTAINERS	VOC (8240)	SVOC (8270)	Pest/PCB (8080)	PPM (6010)	MS/MSD (only one)			ICED	CHEMICALS ADDED	REMARKS (CHEMICAL ANALYSIS REQUEST FORM NUMBER IF APPLICABLE)
PLF	SBS-128	1-10-93	1230		X	Soil	3	X	X	X	X	X			X		
PLF	SBS-150	1-12-93	1115		X	Soil	3	X	X	X	X	X			X		
																	ms/msd performed on PLF-SBS-128.

PRESERVATIVES

RELINQUISHED BY SIGNATURE	DATE	TIME	RECEIVED BY SIGNATURE	DATE	TIME
Louis J. La Rosa	1-12-93	1630	SHIP VIA FEDEX	1-12-93	1630
			S Giang SAS	1/13/93	10:00am

SHIPPING NOTES

LAB NOTES

JM-34 (8/89)

SAMPLE DATA SUMMARY PACKAGE

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS128

Lab Name:SOUND ANALYTICAL SERVICES Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29551

Matrix: (soil/water) SOIL Lab Sample ID:29551-1

Sample wt/vol: 5.20 (g/ml) G Lab File ID: V7905

Level: (low/med) LOW Date Received: 1/10/93

% Moisture: not dec. 10 Date Analyzed: 1/15/93

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
54-87-3	Chloromethane	11.	U
74-83-9	Bromomethane	11.	U
75-01-4	Vinyl Chloride	11.	U
75-00-3	Chloroethane	11.	U
75-09-2	Methylene Chloride	230.	B
67-64-1	Acetone	67.	B
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	1.	J
107-06-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	27.	U
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-5	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	27.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	5.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	5.	U
591-78-6	2-Hexanone	5.	U
127-18-4	Tetrachloroethene	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	2.	J
108-90-7	Chlorobenzene	5.	U
100-41-4	Ethylbenzene	5.	U
100-42-5	Styrene	5.	U
1330-20-7	Xylene (total)	11.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS128

Lab Name:SOUND ANALYTICAL SERVICES Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29551

Matrix: (soil/water) SOIL Lab Sample ID:29551-1

Sample wt/vol: 5.20 (g/ml) G Lab File ID: V7905

Level: (low/med) LOW Date Received: 1/10/93

% Moisture: not dec. 10 Date Analyzed: 1/15/93

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 75-28-5	Propane, 2-methyl-	2.18	7.	J
2. 110-54-3	Hexane(DOT)	3.40	24.	J
3. 556-67-2	Cyclotetrasiloxane,octamethy	17.11	7.	J
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS150

Name:SOUND ANALYTICAL SERVICES Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29551

Matrix: (soil/water) SOIL Lab Sample ID:29551-2

Sample wt/vol: 10.13 (g/ml) G Lab File ID: V7928

Level: (low/med) MED Date Received: 1/10/93

% Moisture: not dec. 8 Date Analyzed: 1/15/93

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 40.0

Soil Extract Volume:10000.00 (uL) Soil Aliquot Volume: 5000.0 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
48-87-3	Chloromethane	430.	U
74-83-9	Bromomethane	430.	U
75-01-4	Vinyl Chloride	430.	U
75-00-3	Chloroethane	430.	U
75-09-2	Methylene Chloride	2300.	B
67-64-1	Acetone	2300.	B
75-15-0	Carbon Disulfide	210.	U
75-35-4	1,1-Dichloroethene	210.	U
75-34-3	1,1-Dichloroethane	210.	U
540-59-0	1,2-Dichloroethene (total)	210.	U
67-66-3	Chloroform	210.	U
107-06-2	1,2-Dichloroethane	210.	U
78-93-3	2-Butanone	1100.	U
71-55-6	1,1,1-Trichloroethane	210.	U
56-23-5	Carbon Tetrachloride	210.	U
108-05-4	Vinyl Acetate	1100.	U
75-27-4	Bromodichloromethane	210.	U
78-87-5	1,2-Dichloropropane	210.	U
10061-01-5	cis-1,3-Dichloropropene	210.	U
79-01-6	Trichloroethene	210.	U
124-48-1	Dibromochloromethane	210.	U
79-00-5	1,1,2-Trichloroethane	210.	U
71-43-2	Benzene	210.	U
10061-02-6	trans-1,3-Dichloropropene	210.	U
75-25-2	Bromoform	210.	U
108-10-1	4-Methyl-2-Pentanone	210.	U
591-78-6	2-Hexanone	210.	U
127-18-4	Tetrachloroethene	210.	U
79-34-5	1,1,2,2-Tetrachloroethane	210.	U
108-88-3	Toluene	210.	U
108-90-7	Chlorobenzene	210.	U
100-41-4	Ethylbenzene	210.	U
100-42-5	Styrene	210.	U
1330-20-7	Xylene (total)	430.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS150

Lab Name:SOUND ANALYTICAL SERVICES Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29551

Matrix: (soil/water) SOIL Lab Sample ID:29551-2

Sample wt/vol: 10.13 (g/ml) G Lab File ID: V7928

Level: (low/med) MED Date Received: 1/10/93

% Moisture: not dec. 8 Date Analyzed: 1/15/93

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 40.0

Soil Extract Volume:10000.00 (uL) Soil Aliquot Volume: 5000.0 (uL)

Number TICs Found: 3

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	76-13-1	Ethane,1,1,2-trichloro-1,2,2	2.55	250.	J
2.	110-54-3	Hexane(DOT)	3.67	1500.	J
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1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS128

Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29551

Matrix: (soil/water) SOIL Lab Sample ID:29551-1

Sample wt/vol: 30.8 (g/ml) G Lab File ID: S7409

Level: (low/med) LOW Date Received: 1/13/93

% Moisture: 10 decanted: (Y/N) N Date Extracted: 1/14/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 1/19/92

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	3600.	U
83-32-9	Acenaphthene	720.	U
51-28-5	2,4-Dinitrophenol	3600.	U
100-02-7	4-Nitrophenol	3600.	U
132-64-9	Dibenzofuran	720.	U
121-14-2	2,4-Dinitrotoluene	720.	U
84-66-2	Diethylphthalate	720.	U
7005-72-3	4-Chlorophenyl-phenylether	720.	U
86-73-7	Fluorene	720.	U
100-01-6	4-Nitroaniline	3600.	U
534-52-1	4,6-Dinitro-2-methylphenol	3600.	U
86-30-6	N-Nitrosodiphenylamine(1)	720.	U
101-55-3	4-Bromophenyl-phenylether	720.	U
118-74-1	Hexachlorobenzene	720.	U
87-86-5	Pentachlorophenol	3600.	U
85-01-8	Phenanthrene	720.	U
120-12-7	Anthracene	720.	U
84-74-2	Di-n-butylphthalate	230.	J
206-44-0	Fluoranthene	720.	U
129-00-0	Pyrene	720.	U
85-68-7	Butylbenzylphthalate	720.	U
91-94-1	3,3'-Dichlorobenzidine	1400.	U
56-55-3	Benzo(a)anthracene	720.	U
218-01-9	Chrysene	720.	U
117-81-7	bis(2-Ethylhexyl)phthalate	180.	J
117-84-0	Di-n-octylphthalate	720.	U
205-99-2	Benzo(b)fluoranthene	720.	U
207-08-9	Benzo(k)fluoranthene	720.	U
50-32-8	Benzo(a)pyrene	720.	U
193-39-5	Indeno(1,2,3-cd)pyrene	720.	U
53-70-3	Dibenz(a,h)anthracene	720.	U
191-24-2	Benzo(g,h,i)perylene	720.	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS128

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29551

Matrix: (soil/water) SOIL Lab Sample ID:29551-1

Sample wt/vol: 30.8 (g/ml) G Lab File ID: S7409

Level: (low/med) LOW Date Received: 1/13/93

% Moisture: 10 decanted: (Y/N) N Date Extracted: 1/14/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 1/19/92

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	720.	U
111-44-4	Bis(2-chloroethyl)ether	720.	U
95-57-8	2-Chlorophenol	720.	U
541-73-1	1,3-Dichlorobenzene	720.	U
106-46-7	1,4-Dichlorobenzene	720.	U
100-51-6	Benzyl alcohol	1400.	U
95-50-1	1,2-Dichlorobenzene	720.	U
95-48-7	2-Methylphenol	720.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	720.	U
106-44-5	4-Methylphenol	720.	U
621-64-7	N-Nitroso-di-n-propylamine	720.	U
67-72-1	Hexachloroethane	720.	U
98-95-3	Nitrobenzene	720.	U
78-59-1	Isophorone	720.	U
88-75-5	2-Nitrophenol	720.	U
105-67-9	2,4-Dimethylphenol	720.	U
65-85-0	Benzoic acid	3600.	U
111-91-1	bis(2-Chloroethoxy)methane	720.	U
120-83-2	2,4-Dichlorophenol	720.	U
120-82-1	1,2,4-Trichlorobenzene	720.	U
91-20-3	Naphthalene	720.	U
106-47-8	4-Chloroaniline	1400.	U
87-68-3	Hexachlorobutadiene	720.	U
59-50-7	4-Chloro-3-methylphenol	1400.	U
91-57-6	2-Methylnaphthalene	720.	U
77-47-4	Hexachlorocyclopentadiene	720.	U
88-06-2	2,4,6-Trichlorophenol	720.	U
95-95-4	2,4,5-Trichlorophenol	720.	U
91-58-7	2-Chloronaphthalene	720.	U
88-74-4	2-Nitroaniline	3600.	U
131-11-3	Dimethylphthalate	720.	U
208-96-8	Acenaphthylene	720.	U
606-20-2	2,6-Dinitrotoluene	720.	U

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS128

Name: Sound Analytical Services Contract: 624419

Lab Code:- Case No.:- SAS No.:- SDG No.: 29551

Matrix: (soil/water) SOIL Lab Sample ID: 29551-1

Sample wt/vol: 30.8 (g/ml) G Lab File ID: S7409

Level: (low/med) LOW Date Received: 1/13/93

% Moisture: 10 decanted: (Y/N) N Date Extracted: 1/14/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 1/19/92

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 0.0

Number TICs Found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	27.90	1200.	J
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS150

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29551

Matrix: (soil/water) SOIL Lab Sample ID:29551-2

Sample wt/vol: 30.3 (g/ml) G Lab File ID: S7441

Level: (low/med) LOW Date Received: 1/13/93

% Moisture: 18 decanted: (Y/N) N Date Extracted: 1/25/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 1/25/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	810.	U
111-44-4	Bis(2-chloroethyl)ether	810.	U
95-57-8	2-Chlorophenol	810.	U
541-73-1	1,3-Dichlorobenzene	810.	U
106-46-7	1,4-Dichlorobenzene	810.	U
100-51-6	Benzyl alcohol	1600.	U
95-50-1	1,2-Dichlorobenzene	810.	U
95-48-7	2-Methylphenol	810.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	810.	U
106-44-5	4-Methylphenol	810.	U
621-64-7	N-Nitroso-di-n-propylamine	810.	U
67-72-1	Hexachloroethane	810.	U
98-95-3	Nitrobenzene	810.	U
78-59-1	Isophorone	810.	U
88-75-5	2-Nitrophenol	810.	U
105-67-9	2,4-Dimethylphenol	810.	U
65-85-0	Benzoic acid	4000.	U
111-91-1	bis(2-Chloroethoxy)methane	810.	U
120-83-2	2,4-Dichlorophenol	810.	U
120-82-1	1,2,4-Trichlorobenzene	810.	U
91-20-3	Naphthalene	810.	U
106-47-8	4-Chloroaniline	1600.	U
87-68-3	Hexachlorobutadiene	810.	U
59-50-7	4-Chloro-3-methylphenol	1600.	U
91-57-6	2-Methylnaphthalene	810.	U
77-47-4	Hexachlorocyclopentadiene	810.	U
88-06-2	2,4,6-Trichlorophenol	810.	U
95-95-4	2,4,5-Trichlorophenol	810.	U
91-58-7	2-Chloronaphthalene	810.	U
88-74-4	2-Nitroaniline	4000.	U
131-11-3	Dimethylphthalate	810.	U
208-96-8	Acenaphthylene	810.	U
606-20-2	2,6-Dinitrotoluene	810.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS150

Lab Name: Sound Analytical Services Contract: 624419

Lab Code:- Case No.:- SAS No.:- SDG No.: 29551

Matrix: (soil/water) SOIL Lab Sample ID: 29551-2

Sample wt/vol: 30.3 (g/ml) G Lab File ID: S7441

Level: (low/med) LOW Date Received: 1/13/93

% Moisture: 18 decanted: (Y/N) N Date Extracted: 1/25/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 1/25/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	4000.	U
83-32-9	Acenaphthene	810.	U
51-28-5	2,4-Dinitrophenol	4000.	U
100-02-7	4-Nitrophenol	4000.	U
132-64-9	Dibenzofuran	810.	U
121-14-2	2,4-Dinitrotoluene	810.	U
84-66-2	Diethylphthalate	810.	U
7005-72-3	4-Chlorophenyl-phenylether	810.	U
86-73-7	Fluorene	810.	U
100-01-6	4-Nitroaniline	4000.	U
534-52-1	4,6-Dinitro-2-methylphenol	4000.	U
86-30-6	N-Nitrosodiphenylamine(1)	810.	U
101-55-3	4-Bromophenyl-phenylether	810.	U
118-74-1	Hexachlorobenzene	810.	U
87-86-5	Pentachlorophenol	4000.	U
85-01-8	Phenanthrene	810.	U
120-12-7	Anthracene	810.	U
84-74-2	Di-n-butylphthalate	3000.	B
206-44-0	Fluoranthene	810.	U
129-00-0	Pyrene	810.	U
85-68-7	Butylbenzylphthalate	810.	U
91-94-1	3,3'-Dichlorobenzidine	1600.	U
56-55-3	Benzo(a)anthracene	810.	U
218-01-9	Chrysene	810.	U
117-81-7	bis(2-Ethylhexyl)phthalate	520.	JB
117-84-0	Di-n-octylphthalate	810.	U
205-99-2	Benzo(b)fluoranthene	810.	U
207-08-9	Benzo(k)fluoranthene	810.	U
50-32-8	Benzo(a)pyrene	810.	U
193-39-5	Indeno(1,2,3-cd)pyrene	810.	U
53-70-3	Dibenz(a,h)anthracene	810.	U
191-24-2	Benzo(g,h,i)perylene	810.	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS150

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29551

Matrix: (soil/water) SOIL Lab Sample ID:29551-2

Sample wt/vol: 30.3 (g/ml) G Lab File ID: S7441

Level: (low/med) LOW Date Received: 1/13/93

% Moisture: 18 decanted: (Y/N) N Date Extracted: 1/25/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 1/25/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 0.0

Number TICs Found: 13

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	7.63	1420.	J
2.	20324-32-7	2-Propanol, 1-(2-methoxy-1-m	7.63	980.	J
3.	13429-07-7	2-Propanol, 1-(2-methoxyprop	7.97	1020.	J
4.	74367-33-2	Propanoic acid, 2-methyl-, 2	13.58	580.	J
5.		Unknown	13.88	1140.	J
6.		Unknown	28.15	10600.	J
7.		Unknown	28.33	320.	J
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9.					
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U.S. EPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SBS-128

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO_____

Lab Code: _____ Case No.: _____ SAS No.: 29551_ SDG No.: 29551_

Matrix (soil/water): SOIL_ Lab Sample ID: 29551-1___

Level (low/med): LOW__ Date Received: 01/13/93

% Solids: _89.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_	5.4	U	N	P_
7440-38-2	Arsenic__	9.1	U		P_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium	0.45	U		P_
7440-43-9	Cadmium__	3.6	_		P_
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_	9.8	_		P_
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___	14.4	_		P_
7439-89-6	Iron_____		_		NR
7439-92-1	Lead_____	11.1	_		P_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__	0.09	U		AV
7440-02-0	Nickel___	12.0	_		P_
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_	9.1	U	N	P_
7440-22-4	Silver___	1.9	_		P_
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_	13.6	U	N	P_
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc_____	50.2	_		P_
5955-70-0	Cyanide__		_		NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

FORM I - IN

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SBS-150

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: PASCO_____

Lab Code: _____ Case No.: _____ SAS No.: 29551_ SDG No.: 29551_

Matrix (soil/water): SOIL_ Lab Sample ID: 29551-2___

Level (low/med): LOW__ Date Received: 01/13/93

% Solids: _81.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_	5.9	U	N	P_
7440-38-2	Arsenic__	9.9	U		P_
7440-39-3	Barium___				NR
7440-41-7	Beryllium	0.49	U		P_
7440-43-9	Cadmium__	3.6			P_
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	4.1			P_
7440-48-4	Cobalt___				NR
7440-50-8	Copper___	15.0			P_
7439-89-6	Iron_____				NR
7439-92-1	Lead_____	7.8			P_
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__	0.10	U		AV
7440-02-0	Nickel___	8.4			P_
7440-09-7	Potassium				NR
7782-49-2	Selenium_	9.9	U	N	P_
7440-22-4	Silver___	2.5			P_
7440-23-5	Sodium___				NR
7440-28-0	Thallium_	14.8	U	N	P_
7440-62-2	Vanadium_				NR
7440-66-6	Zinc_____	54.8			P_
5955-70-0	Cyanide__				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

FORM I - IN

SOUND ANALYTICAL SERVICES, INC.

SPECIALIZING IN INDUSTRIAL & TOXIC WASTE ANALYSIS

4813 PACIFIC HIGHWAY EAST, TACOMA, WASHINGTON 98424 - TELEPHONE (206) 922-2310 - FAX (206) 922-5047

March 24, 1993

TO: Burlington Environmental Engineering

PROJECT NUMBER: 624419-7020.17

PROJECT NAME: Pasco Landfill

LABORATORY WORK ORDER NUMBER: 29728

Samples were taken on 1/18/93, 1/20/93, and 1/21/93 and were received at Sound on 1/22/93. Samples were analyzed for Volatile Organics in accordance with EPA SW-846 Method 8240, Semivolatile Organics in accordance with EPA SW-846 Method 8270, Chlorinated Pesticides and PCB's in accordance with EPA SW-846 Method 8080, Metals by ICP in accordance with EPA SW-846 Method 6010, and Mercury by cold vapor AA in accordance with SW-846 Method 7471.

VOLATILE ORGANICS

Samples 29728-1 through 29728-3 were analyzed at low level on 1/26/93 and 1/28/93. Sample 29728-1 was analyzed at medium level on 2/02/93. Methylene chloride, acetone, and toluene were detected in the low level method blanks at concentrations above the IDL. Methylene chloride was detected in the medium level method blank at a concentration above the IDL. Results for these compounds were flagged B in the associated samples to indicate the presence of these compounds in the method blanks. All QC parameters were within acceptance limits.

SEMIVOLATILE ORGANICS

Samples 29728-1 through 29728-3 were extracted on 1/28/93 and analyzed on 2/02/93. Di-n-butylphthalate and three TIC's were detected in the method blank above the IDL. Results for these compounds were flagged B in the associated samples to indicate this. The retention time for perylene-d12 in sample 29728-2 was outside QC limits. The percent recoveries for 1,4-dichlorobenzene and 1,2,4-trichlorobenzene in the matrix spike/matrix spike duplicate analyses were below QC limits. The relative percent difference values for these compounds in the matrix spike/matrix spike duplicate analyses also exceeded QC limits. All other QC parameters were within acceptance limits.

CHLORINATED PESTICIDES AND PCB's

Samples 29728-1 through 29728-3 were extracted on 1/25/93 and analyzed on 2/09/93. No compounds were detected in the method blank above the IDL. All QC parameters were within acceptance limits.

SOUND ANALYTICAL SERVICES, INC.

TO: Burlington Environmental Engineering

PROJECT NUMBER: 624419-7020.17

PROJECT NAME: Pasco Landfill

LABORATORY WORK ORDER NUMBER: 29728

METALS

Samples 29728-1 through 29728-3 were digested on 1/25/93, and analyzed for ICP metals on 2/03/93, and mercury on 1/26/93. Cadmium and zinc were detected in the method blank above the IDL. The percent recoveries for antimony and thallium in the matrix spike analysis were slightly below QC limits. The relative percent difference value for cadmium in the duplicate analysis for sample 29728-1 exceeded QC limits. The percent difference value for zinc and copper in the serial dilution analysis for sample 29728-1 exceeded QC limits. All other QC parameters were within acceptance limits.

SAMPLE DATA SUMMARY PACKAGE

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS167

Lab Name:Sound Analytical Services Contract:624419

Lab Code:SAS Case No.:- SAS No.:- SDG No.:29728

Matrix: (soil/water) SOIL Lab Sample ID:29728-1

Sample wt/vol: 5.14 (g/ml) G Lab File ID: V8100

Level: (low/med) LOW Date Received: 1/22/93

% Moisture: not dec. 11 Date Analyzed: 1/26/93

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
54-87-3	Chloromethane	11.	U
74-83-9	Bromomethane	11.	U
75-01-4	Vinyl Chloride	11.	U
75-00-3	Chloroethane	11.	U
75-09-2	Methylene Chloride	110.	B
67-64-1	Acetone	2200.	B
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	5.	U
107-06-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	27.	U
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-5	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	27.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	5.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	5.	U
591-78-6	2-Hexanone	15.	
127-18-4	Tetrachloroethene	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	8.	B
108-90-7	Chlorobenzene	5.	U
100-41-4	Ethylbenzene	5.	U
100-42-5	Styrene	5.	U
1330-20-7	Xylene (total)	11.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS167

Lab Name:Sound Analytical Services Contract:624419

Lab Code:SAS Case No.:- SAS No.:- SDG No.:29728

Matrix: (soil/water) SOIL Lab Sample ID:29728-1

Sample wt/vol: 5.14 (g/ml) G Lab File ID: V8100

Level: (low/med) LOW Date Received: 1/22/93

% Moisture: not dec. 11 Date Analyzed: 1/26/93

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	110-54-3	Hexane	3.72	30.	J
2.					
3.					
4.					
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS167M

Lab Name:Sound Analytical Services Contract:624419

Lab Code:SAS Case No.:- SAS No.:- SDG No.:29728

Matrix: (soil/water) SOIL Lab Sample ID:29728-1

Sample wt/vol: 10.38 (g/ml) G Lab File ID: V8263

Level: (low/med) MED Date Received: 1/22/93

% Moisture: not dec. 11 Date Analyzed: 2/02/93

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 2.0

Soil Extract Volume:10000.00 (uL) Soil Aliquot Volume: 125.0 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
54-87-3	Chloromethane	870.	U
74-83-9	Bromomethane	870.	U
75-01-4	Vinyl Chloride	870.	U
75-00-3	Chloroethane	870.	U
75-09-2	Methylene Chloride	420.	J
67-64-1	Acetone	17000.	
75-15-0	Carbon Disulfide	430.	U
75-35-4	1,1-Dichloroethene	430.	U
75-34-3	1,1-Dichloroethane	430.	U
540-59-0	1,2-Dichloroethene (total)	430.	U
67-66-3	Chloroform	430.	U
107-06-2	1,2-Dichloroethane	430.	U
78-93-3	2-Butanone	2200.	U
71-55-6	1,1,1-Trichloroethane	430.	U
56-23-5	Carbon Tetrachloride	430.	U
108-05-4	Vinyl Acetate	2200.	U
75-27-4	Bromodichloromethane	430.	U
78-87-5	1,2-Dichloropropane	430.	U
10061-01-5	cis-1,3-Dichloropropene	430.	U
79-01-6	Trichloroethene	430.	U
124-48-1	Dibromochloromethane	430.	U
79-00-5	1,1,2-Trichloroethane	430.	U
71-43-2	Benzene	430.	U
10061-02-6	trans-1,3-Dichloropropene	430.	U
75-25-2	Bromoform	430.	U
108-10-1	4-Methyl-2-Pentanone	430.	U
591-78-6	2-Hexanone	430.	U
127-18-4	Tetrachloroethene	430.	U
79-34-5	1,1,2,2-Tetrachloroethane	430.	U
108-88-3	Toluene	430.	U
108-90-7	Chlorobenzene	430.	U
100-41-4	Ethylbenzene	430.	U
100-42-5	Styrene	430.	U
1330-20-7	Xylene (total)	870.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS167M

Lab Name:Sound Analytical Services Contract:624419

Lab Code:SAS Case No.:- SAS No.:- SDG No.:29728

Matrix: (soil/water) SOIL Lab Sample ID:29728-1

Sample wt/vol: 10.38 (g/ml) G Lab File ID: V8263

Level: (low/med) MED Date Received: 1/22/93

% Moisture: not dec. 11 Date Analyzed: 2/02/93

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 2.0

Soil Extract Volume:10000.00 (uL) Soil Aliquot Volume: 125.0 (uL)

Number TICs Found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	5208-49-1	4-Carene, (1s,3r,6r)-(-)-	17.97	920.	J
2.	1743-61-9	Cyclohexene, 4-ethenyl-1,4-d	18.35	240.	J
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS180

Lab Name:Sound Analytical Services Contract:624419

Lab Code:SAS Case No.:- SAS No.:- SDG No.:29728

Matrix: (soil/water) SOIL Lab Sample ID:29728-2

Sample wt/vol: 5.05 (g/ml) G Lab File ID: V8155

Level: (low/med) LOW Date Received: 1/22/93

% Moisture: not dec. 4 Date Analyzed: 1/28/93

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
54-87-3	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	73.	B
67-64-1	Acetone	59.	B
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	5.	U
107-06-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	26.	U
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-5	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	26.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	5.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	5.	U
591-78-6	2-Hexanone	5.	U
127-18-4	Tetrachloroethene	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	3.	J
108-90-7	Chlorobenzene	5.	U
100-41-4	Ethylbenzene	5.	U
100-42-5	Styrene	5.	U
1330-20-7	Xylene (total)	10.	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS180

Lab Name:Sound Analytical Services Contract:624419

Lab Code:SAS Case No.:- SAS No.:- SDG No.:29728

Matrix: (soil/water) SOIL Lab Sample ID:29728-2

Sample wt/vol: 5.05 (g/ml) G Lab File ID: V8155

Level: (low/med) LOW Date Received: 1/22/93

% Moisture: not dec. 4 Date Analyzed: 1/28/93

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 2

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	110-54-3	Hexane	3.78	26.	J
2.	556-67-2	Cyclotetrasiloxane, octameth	17.16	8.	J
3.					
4.					
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS213

Lab Name:Sound Analytical Services Contract:624419

Lab Code:SAS Case No.:- SAS No.:- SDG No.:29728

Matrix: (soil/water) SOIL Lab Sample ID:29728-3

Sample wt/vol: 5.12 (g/ml) G Lab File ID: V8156

Level: (low/med) LOW Date Received: 1/22/93

% Moisture: not dec. 13 Date Analyzed: 1/28/93

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
54-87-3	Chloromethane	11.	U
74-83-9	Bromomethane	11.	U
75-01-4	Vinyl Chloride	11.	U
75-00-3	Chloroethane	11.	U
75-09-2	Methylene Chloride	94.	B
67-64-1	Acetone	87.	B
75-15-0	Carbon Disulfide	6.	U
75-35-4	1,1-Dichloroethene	6.	U
75-34-3	1,1-Dichloroethane	6.	U
540-59-0	1,2-Dichloroethene (total)	6.	U
67-66-3	Chloroform	6.	U
107-06-2	1,2-Dichloroethane	6.	U
78-93-3	2-Butanone	28.	U
71-55-6	1,1,1-Trichloroethane	6.	U
56-23-5	Carbon Tetrachloride	6.	U
108-05-4	Vinyl Acetate	28.	U
75-27-4	Bromodichloromethane	6.	U
78-87-5	1,2-Dichloropropane	6.	U
10061-01-5	cis-1,3-Dichloropropene	6.	U
79-01-6	Trichloroethene	6.	U
124-48-1	Dibromochloromethane	6.	U
79-00-5	1,1,2-Trichloroethane	6.	U
71-43-2	Benzene	6.	U
10061-02-6	trans-1,3-Dichloropropene	6.	U
75-25-2	Bromoform	6.	U
108-10-1	4-Methyl-2-Pentanone	6.	U
591-78-6	2-Hexanone	6.	U
127-18-4	Tetrachloroethene	6.	U
79-34-5	1,1,2,2-Tetrachloroethane	6.	U
108-88-3	Toluene	3.	J
108-90-7	Chlorobenzene	6.	U
100-41-4	Ethylbenzene	6.	U
100-42-5	Styrene	6.	U
1330-20-7	Xylene (total)	11.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS213

Lab Name:Sound Analytical Services Contract:624419

Lab Code:SAS Case No.:- SAS No.:- SDG No.:29728

Matrix: (soil/water) SOIL Lab Sample ID:29728-3

Sample wt/vol: 5.12 (g/ml) G Lab File ID: V8156

Level: (low/med) LOW Date Received: 1/22/93

% Moisture: not dec. 13 Date Analyzed: 1/28/93

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	110-54-3	Hexane	3.78	25.	J
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS167

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29728

Matrix: (soil/water) SOIL Lab Sample ID:29728-1

Sample wt/vol: 30.2 (g/ml) G Lab File ID: S7521

Level: (low/med) LOW Date Received: 1/22/93

% Moisture: 11 decanted: (Y/N) N Date Extracted: 1/28/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/02/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	370.	U
111-44-4	Bis(2-chloroethyl)ether	370.	U
95-57-8	2-Chlorophenol	370.	U
541-73-1	1,3-Dichlorobenzene	370.	U
106-46-7	1,4-Dichlorobenzene	370.	U
100-51-6	Benzyl alcohol	740.	U
95-50-1	1,2-Dichlorobenzene	370.	U
95-48-7	2-Methylphenol	370.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	370.	U
106-44-5	4-Methylphenol	370.	U
621-64-7	N-Nitroso-di-n-propylamine	370.	U
67-72-1	Hexachloroethane	370.	U
98-95-3	Nitrobenzene	370.	U
78-59-1	Isophorone	370.	U
88-75-5	2-Nitrophenol	370.	U
105-67-9	2,4-Dimethylphenol	370.	U
65-85-0	Benzoic acid	1900.	U
111-91-1	bis(2-Chloroethoxy)methane	370.	U
120-83-2	2,4-Dichlorophenol	370.	U
120-82-1	1,2,4-Trichlorobenzene	370.	U
91-20-3	Naphthalene	370.	U
106-47-8	4-Chloroaniline	740.	U
87-68-3	Hexachlorobutadiene	370.	U
59-50-7	4-Chloro-3-methylphenol	740.	U
91-57-6	2-Methylnaphthalene	370.	U
77-47-4	Hexachlorocyclopentadiene	370.	U
88-06-2	2,4,6-Trichlorophenol	370.	U
95-95-4	2,4,5-Trichlorophenol	370.	U
91-58-7	2-Chloronaphthalene	370.	U
88-74-4	2-Nitroaniline	1900.	U
131-11-3	Dimethylphthalate	370.	U
208-96-8	Acenaphthylene	370.	U
606-20-2	2,6-Dinitrotoluene	370.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS167

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29728

Matrix: (soil/water) SOIL Lab Sample ID:29728-1

Sample wt/vol: 30.2 (g/ml) G Lab File ID: S7521

Level: (low/med) LOW Date Received: 1/22/93

% Moisture: 11 decanted: (Y/N) N Date Extracted: 1/28/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/02/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1900.	U
83-32-9	Acenaphthene	370.	U
51-28-5	2,4-Dinitrophenol	1900.	U
100-02-7	4-Nitrophenol	1900.	U
132-64-9	Dibenzofuran	370.	U
121-14-2	2,4-Dinitrotoluene	370.	U
84-66-2	Diethylphthalate	370.	U
7005-72-3	4-Chlorophenyl-phenylether	370.	U
86-73-7	Fluorene	370.	U
100-01-6	4-Nitroaniline	1900.	U
534-52-1	4,6-Dinitro-2-methylphenol	1900.	U
86-30-6	N-Nitrosodiphenylamine(1)	370.	U
101-55-3	4-Bromophenyl-phenylether	370.	U
118-74-1	Hexachlorobenzene	370.	U
87-86-5	Pentachlorophenol	1900.	U
85-01-8	Phenanthrene	370.	U
120-12-7	Anthracene	370.	U
84-74-2	Di-n-butylphthalate	210.	JB
206-44-0	Fluoranthene	370.	U
129-00-0	Pyrene	370.	U
85-68-7	Butylbenzylphthalate	370.	U
91-94-1	3,3'-Dichlorobenzidine	740.	U
56-55-3	Benzo(a)anthracene	370.	U
218-01-9	Chrysene	370.	U
117-81-7	bis(2-Ethylhexyl)phthalate	370.	U
117-84-0	Di-n-octylphthalate	370.	U
205-99-2	Benzo(b)fluoranthene	370.	U
207-08-9	Benzo(k)fluoranthene	370.	U
50-32-8	Benzo(a)pyrene	370.	U
193-39-5	Indeno(1,2,3-cd)pyrene	370.	U
53-70-3	Dibenz(a,h)anthracene	370.	U
191-24-2	Benzo(g,h,i)perylene	370.	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS167

Lab Name: Sound Analytical Services Contract: 624419

Lab Code: - Case No.: - SAS No.: - SDG No.: 29728

Matrix: (soil/water) SOIL Lab Sample ID: 29728-1

Sample wt/vol: 30.2 (g/ml) G Lab File ID: S7521

Level: (low/med) LOW Date Received: 1/22/93

% Moisture: 11 decanted: (Y/N) N Date Extracted: 1/28/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/02/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

Number TICs Found: 11

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	20324-32-7	2-Propanol, 1-(2-methoxy-1-m	7.38	210.	J
2.	13429-07-7	2-Propanol, 1-(2-methoxyprop	7.72	2900.	J
3.	128-37-0	Phenol, 2,6-bis(1,1-dimethyl	15.35	190.	J
4.		Unknown	15.92	140.	J
5.		Unknown	19.84	350.	J
6.		Unknown	27.82	1800.	J
7.		Unknown	28.05	230.	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS180

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29728

Matrix: (soil/water) SOIL Lab Sample ID:29728-2

Sample wt/vol: 30.2 (g/ml) G Lab File ID: S7524

Level: (low/med) LOW Date Received: 1/22/93

% Moisture: 4 decanted: (Y/N) N Date Extracted: 1/28/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/02/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	350.	U
111-44-4	Bis(2-chloroethyl)ether	350.	U
95-57-8	2-Chlorophenol	350.	U
541-73-1	1,3-Dichlorobenzene	350.	U
106-46-7	1,4-Dichlorobenzene	350.	U
100-51-6	Benzyl alcohol	690.	U
95-50-1	1,2-Dichlorobenzene	350.	U
95-48-7	2-Methylphenol	350.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	350.	U
106-44-5	4-Methylphenol	350.	U
621-64-7	N-Nitroso-di-n-propylamine	350.	U
67-72-1	Hexachloroethane	350.	U
98-95-3	Nitrobenzene	350.	U
78-59-1	Isophorone	350.	U
88-75-5	2-Nitrophenol	350.	U
105-67-9	2,4-Dimethylphenol	350.	U
65-85-0	Benzoic acid	1700.	U
111-91-1	bis(2-Chloroethoxy)methane	350.	U
120-83-2	2,4-Dichlorophenol	350.	U
120-82-1	1,2,4-Trichlorobenzene	350.	U
91-20-3	Naphthalene	350.	U
106-47-8	4-Chloroaniline	690.	U
87-68-3	Hexachlorobutadiene	350.	U
59-50-7	4-Chloro-3-methylphenol	690.	U
91-57-6	2-Methylnaphthalene	350.	U
77-47-4	Hexachlorocyclopentadiene	350.	U
88-06-2	2,4,6-Trichlorophenol	350.	U
95-95-4	2,4,5-Trichlorophenol	350.	U
91-58-7	2-Chloronaphthalene	350.	U
88-74-4	2-Nitroaniline	1700.	U
131-11-3	Dimethylphthalate	350.	U
208-96-8	Acenaphthylene	350.	U
606-20-2	2,6-Dinitrotoluene	350.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS180

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29728

Matrix: (soil/water) SOIL Lab Sample ID:29728-2

Sample wt/vol: 30.2 (g/ml) G Lab File ID: S7524

Level: (low/med) LOW Date Received: 1/22/93

% Moisture: 4 decanted: (Y/N) N Date Extracted: 1/28/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/02/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1700.	U
83-32-9	Acenaphthene	350.	U
51-28-5	2,4-Dinitrophenol	1700.	U
100-02-7	4-Nitrophenol	1700.	U
132-64-9	Dibenzofuran	350.	U
121-14-2	2,4-Dinitrotoluene	350.	U
84-66-2	Diethylphthalate	350.	U
7005-72-3	4-Chlorophenyl-phenylether	350.	U
86-73-7	Fluorene	350.	U
100-01-6	4-Nitroaniline	1700.	U
534-52-1	4,6-Dinitro-2-methylphenol	1700.	U
86-30-6	N-Nitrosodiphenylamine(1)	350.	U
101-55-3	4-Bromophenyl-phenylether	350.	U
118-74-1	Hexachlorobenzene	350.	U
87-86-5	Pentachlorophenol	1700.	U
85-01-8	Phenanthrene	350.	U
120-12-7	Anthracene	350.	U
84-74-2	Di-n-butylphthalate	190.	JB
206-44-0	Fluoranthene	350.	U
129-00-0	Pyrene	350.	U
85-68-7	Butylbenzylphthalate	350.	U
91-94-1	3,3'-Dichlorobenzidine	690.	U
56-55-3	Benzo(a)anthracene	350.	U
218-01-9	Chrysene	350.	U
117-81-7	bis(2-Ethylhexyl)phthalate	350.	U
117-84-0	Di-n-octylphthalate	350.	U
205-99-2	Benzo(b)fluoranthene	350.	U
207-08-9	Benzo(k)fluoranthene	350.	U
50-32-8	Benzo(a)pyrene	350.	U
193-39-5	Indeno(1,2,3-cd)pyrene	350.	U
53-70-3	Dibenz(a,h)anthracene	350.	U
191-24-2	Benzo(g,h,i)perylene	350.	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS180

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29728

Matrix: (soil/water) SOIL Lab Sample ID:29728-2

Sample wt/vol: 30.2 (g/ml) G Lab File ID: S7524

Level: (low/med) LOW Date Received: 1/22/93

% Moisture: 4 decanted: (Y/N) N Date Extracted: 1/28/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/02/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

Number TICs Found: 10

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	20324-32-7	2-Propanol, 1-(2-methoxy-1-m	7.47	130.	J
2.	128-37-0	Phenol, 2,6-bis(1,1-dimethyl	15.63	230.	J
3.		Unknown	17.85	170.	J
4.		Unknown	20.22	510.	J
5.		Unknown	28.35	2200.	J
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS213

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29728

Matrix: (soil/water) SOIL Lab Sample ID:29728-3

Sample wt/vol: 30.2 (g/ml) G Lab File ID: S7525

Level: (low/med) LOW Date Received: 1/22/93

% Moisture: 13 decanted: (Y/N) N Date Extracted: 1/28/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/02/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	380.	U
111-44-4	Bis(2-chloroethyl)ether	380.	U
95-57-8	2-Chlorophenol	380.	U
541-73-1	1,3-Dichlorobenzene	380.	U
106-46-7	1,4-Dichlorobenzene	380.	U
100-51-6	Benzyl alcohol	760.	U
95-50-1	1,2-Dichlorobenzene	380.	U
95-48-7	2-Methylphenol	380.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	380.	U
106-44-5	4-Methylphenol	380.	U
621-64-7	N-Nitroso-di-n-propylamine	380.	U
67-72-1	Hexachloroethane	380.	U
98-95-3	Nitrobenzene	380.	U
78-59-1	Isophorone	380.	U
88-75-5	2-Nitrophenol	380.	U
105-67-9	2,4-Dimethylphenol	380.	U
65-85-0	Benzoic acid	1900.	U
111-91-1	bis(2-Chloroethoxy)methane	380.	U
120-83-2	2,4-Dichlorophenol	380.	U
120-82-1	1,2,4-Trichlorobenzene	380.	U
91-20-3	Naphthalene	380.	U
106-47-8	4-Chloroaniline	760.	U
87-68-3	Hexachlorobutadiene	380.	U
59-50-7	4-Chloro-3-methylphenol	760.	U
91-57-6	2-Methylnaphthalene	380.	U
77-47-4	Hexachlorocyclopentadiene	380.	U
88-06-2	2,4,6-Trichlorophenol	380.	U
95-95-4	2,4,5-Trichlorophenol	380.	U
91-58-7	2-Chloronaphthalene	380.	U
88-74-4	2-Nitroaniline	1900.	U
131-11-3	Dimethylphthalate	380.	U
208-96-8	Acenaphthylene	380.	U
606-20-2	2,6-Dinitrotoluene	380.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS213

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29728

Matrix: (soil/water) SOIL Lab Sample ID:29728-3

Sample wt/vol: 30.2 (g/ml) G Lab File ID: S7525

Level: (low/med) LOW Date Received: 1/22/93

% Moisture: 13 decanted: (Y/N) N Date Extracted: 1/28/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/02/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1900.	U
83-32-9	Acenaphthene	380.	U
51-28-5	2,4-Dinitrophenol	1900.	U
100-02-7	4-Nitrophenol	1900.	U
132-64-9	Dibenzofuran	380.	U
121-14-2	2,4-Dinitrotoluene	380.	U
84-66-2	Diethylphthalate	380.	U
7005-72-3	4-Chlorophenyl-phenylether	380.	U
86-73-7	Fluorene	380.	U
100-01-6	4-Nitroaniline	1900.	U
534-52-1	4,6-Dinitro-2-methylphenol	1900.	U
86-30-6	N-Nitrosodiphenylamine(1)	380.	U
101-55-3	4-Bromophenyl-phenylether	380.	U
118-74-1	Hexachlorobenzene	380.	U
87-86-5	Pentachlorophenol	1900.	U
85-01-8	Phenanthrene	380.	U
120-12-7	Anthracene	380.	U
84-74-2	Di-n-butylphthalate	200.	JB
206-44-0	Fluoranthene	380.	U
129-00-0	Pyrene	380.	U
85-68-7	Butylbenzylphthalate	380.	U
91-94-1	3,3'-Dichlorobenzidine	760.	U
56-55-3	Benzo(a)anthracene	380.	U
218-01-9	Chrysene	380.	U
117-81-7	bis(2-Ethylhexyl)phthalate	380.	U
117-84-0	Di-n-octylphthalate	380.	U
205-99-2	Benzo(b)fluoranthene	380.	U
207-08-9	Benzo(k)fluoranthene	380.	U
50-32-8	Benzo(a)pyrene	380.	U
193-39-5	Indeno(1,2,3-cd)pyrene	380.	U
53-70-3	Dibenz(a,h)anthracene	380.	U
191-24-2	Benzo(g,h,i)perylene	380.	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS213

Lab Name: Sound Analytical Services Contract: 624419

Lab Code: - Case No.: - SAS No.: - SDG No.: 29728

Matrix: (soil/water) SOIL Lab Sample ID: 29728-3

Sample wt/vol: 30.2 (g/ml) G Lab File ID: S7525

Level: (low/med) LOW Date Received: 1/22/93

% Moisture: 13 decanted: (Y/N) N Date Extracted: 1/28/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/02/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

Number TICs Found: 11

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	20324-32-7	2-Propanol, 1-(2-methoxy-1-m	7.40	170.	J
2.	128-37-0	Phenol, 2,6-bis(1,1-dimethyl	15.37	370.	J
3.		Unknown	17.52	250.	J
4.		Unknown	19.85	690.	J
5.		Unknown	27.82	2200.	J
6.		Unknown	28.05	200.	J
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U.S. EPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SBS-167

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BUR._PASCO

Lab Code: SAS___ Case No.: _____ SAS No.: 29728_ SDG No.: 29728_

Matrix (soil/water): SOIL_ Lab Sample ID: 29728-1___

Level (low/med): LOW__ Date Received: 01/22/93

% Solids: _88.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_	6.0	_	N	P_
7440-38-2	Arsenic__	10	U		P_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium	0.01	U		P_
7440-43-9	Cadmium__	1.5	_	*	P_
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_	3.3	_		P_
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___	11.7	_	E	P_
7439-89-6	Iron_____		_		NR
7439-92-1	Lead_____	5.0	U	*	P_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__	0.04	U		AV
7440-02-0	Nickel___	7.3	_		P_
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_	15.0	U		P_
7440-22-4	Silver___	2.5	_		P_
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_	15.0	U	N	P_
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc_____	33.8	_	E	P_
5955-70-0	Cyanide__		_		NR

Color Before: " Clarity Before: _____ Texture: p

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

FORM I - IN

ILMO2.1

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SBS-180

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BUR._PASCO

Lab Code: SAS___ Case No.: _____ SAS No.: 29728_ SDG No.: 29728_

Matrix (soil/water): SOIL_ Lab Sample ID: 29728-2___

Level (low/med): LOW__ Date Received: 01/22/93

% Solids: _96.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_	4.9	U	N	P_
7440-38-2	Arsenic__	8.2	U		P_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium	0.01	U		P_
7440-43-9	Cadmium__	1.8	_	*	P_
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_	2.4	_		P_
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___	12.2	_	E	P_
7439-89-6	Iron____		_		NR
7439-92-1	Lead____	4.5	_	*	P_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__	0.04	U		AV
7440-02-0	Nickel___	6.1	_		P_
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_	12.2	U		P_
7440-22-4	Silver___	1.8	_		P_
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_	12.2	U	N	P_
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc____	30.2	_	E	P_
5955-70-0	Cyanide__		_		NR

Color Before: " Clarity Before: _____ Texture: p

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

FORM I - IN

ILMO2.1

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SBS-213

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BUR._PASCO

Lab Code: SAS___ Case No.: _____ SAS No.: 29728_ SDG No.: 29728_

Matrix (soil/water): SOIL_ Lab Sample ID: 29728-3___

Level (low/med): LOW__ Date Received: 01/22/93

% Solids: _87.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_	5.9	U	N	P_
7440-38-2	Arsenic__	9.8	U		P_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium	0.01	U		P_
7440-43-9	Cadmium__	2.3	_	*	P_
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_	5.0	_		P_
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___	12.3	_	E	P_
7439-89-6	Iron____		_		NR
7439-92-1	Lead____	5.7	_	*	P_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__	0.04	U		AV
7440-02-0	Nickel___	7.5	_		P_
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_	14.7	U		P_
7440-22-4	Silver___	1.7	_		P_
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_	14.7	U	N	P_
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc____	33.8	_	E	P_
5955-70-0	Cyanide__		_		NR

Color Before: " Clarity Before: _____ Texture: p

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

FORM I - IN

ILMO2.1

CHAIN OF CUSTODY

John Mathes & Associates, Inc.
210 West Sand Bank Road
Columbia, Illinois 62236

CHAIN-OF-CUSTODY RECORD

C.O.C. SERIAL NO. 5289

PROJECT NAME PASCO LANDFILL
PROJECT NUMBER 624419 MAJOR TASK 7020.17
SAMPLERS Louis La Rosa
LAB DESTINATION SOUND ANALYTICAL SERVICES

	SAMPLE NO.	DATE	TIME	COMP	GRAB	SAMPLE LOCATION	NO. OF CONTAINERS	VOC (8240)	SVOC (8270)	Pest/PCB (8080)	PAH (8010)	HS/MSD			ICED	CHEMICALS ADDED	REMARKS (CHEMICAL ANALYSIS REQUEST FORM NUMBER IF APPLICABLE)
PLF-	SBS-167	1-18-93	1145		✓	Soil	3	✓	✓	✓	✓	✓			✓		
PLF-	SBS-180	1-20-93	0820		✓	Soil	3	✓	✓	✓	✓				✓		
PLF-	SBS-213	1-21-93	0745		✓	Soil	3	✓	✓	✓	✓				✓		

PRESERVATIVES

1/2

RELINQUISHED BY SIGNATURE	DATE	TIME	RECEIVED BY SIGNATURE	DATE	TIME
Louis A La Rosa III	1-21-93	1630	SENT VIA FED EX	1-21-93	1630
			D Giang SAS	1/22/93	1008am

SHIPPING NOTES

LAB NOTES

JM-34 (8/89)

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLS-SBS-167

Lab Name: Sound Analytiacl Contract: Burlington Environmental

Lab Code: 29728 Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) soil Lab Sample ID: 29728-1

Sample wt/vol: 10.8022 (g/mL) grams Lab File ID: P1765

% Moisture: 11.34 decanted: (Y/N) no Date Received: 01/22/93

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 01/25/93

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 02/09/93

Injection Volume: 3 (uL) Dilution Factor: _____

GPC Cleanup: (Y/N) No pH: n/a Sulfur Cleanup: (Y/N) No

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.78
319-85-7	beta-BHC	ND	1.78
319-86-8	delta-BHC	ND	1.78
58-89-9	gamma-BHC (Lindane)	ND	1.78
76-44-8	Heptachlor	ND	1.78
309-00-2	Aldrin	ND	1.78
1024-57-3	Heptachlor epoxide	ND	1.78
959-98-8	Endosulfan I	ND	1.78
60-57-1	Dieldrin	ND	3.45
72-55-9	4,4'-DDE	ND	3.45
72-20-8	Endrin	ND	3.45
33213-65-9	Endosulfan II	ND	3.45
72-54-8	4,4'-DDD	ND	3.45
1031-07-8	Endosulfan sulfate	ND	3.45
50-29-3	4,4'-DDT	ND	3.45
72-43-5	Methoxychlor	ND	17.75
53494-70-5	Endrin ketone	ND	3.45
7421-36-3	Endrin aldehyde	ND	3.45
5103-71-9	alpha-Chlordane	ND	1.78
5103-74-2	gamma-Chlordane	ND	1.78
8001-35-2	Toxaphene	ND	52.21
12674-11-2	Aroclor-1016	ND	34.46
11104-28-2	Aroclor-1221	ND	34.46
11141-16-5	Aroclor-1232	ND	69.96
53469-21-9	Aroclor-1242	ND	34.46
12672-29-6	Aroclor-1248	ND	34.46
11097-69-1	Aroclor-1254	ND	34.46
11096-82-5	Aroclor-1260	ND	34.46

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SBS-180

Lab Name: Sound Analytical Contract: Burlington Environmental

Lab Code: 29728 Case No.: SAS No.: SDG No.:

Matrix: (soil/water) soil Lab Sample ID: 29728-2

Sample wt/vol: 10.0939 (g/mL) grams Lab File ID: P1768

% Moisture: 3.72 decanted: (Y/N) no Date Received: 01/22/93

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 01/25/93

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 02/09/93

Injection Volume: 3 (uL) Dilution Factor:

GPC Cleanup: (Y/N) No pH: n/a Sulfur Cleanup: (Y/N) No

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.75
319-85-7	beta-BHC	ND	1.75
319-86-8	delta-BHC	ND	1.75
58-89-9	gamma-BHC (Lindane)	ND	1.75
76-44-8	Heptachlor	ND	1.75
309-00-2	Aldrin	ND	1.75
1024-57-3	Heptachlor epoxide	ND	1.75
959-98-8	Endosulfan I	ND	1.75
60-57-1	Dieldrin	ND	3.40
72-55-9	4,4'-DDE	ND	3.40
72-20-8	Endrin	ND	3.40
33213-65-9	Endosulfan II	ND	3.40
72-54-8	4,4'-DDD	ND	3.40
1031-07-8	Endosulfan sulfate	ND	3.40
50-29-3	4,4'-DDT	ND	3.40
72-43-5	Methoxychlor	ND	17.49
53494-70-5	Endrin ketone	ND	3.40
7421-36-3	Endrin aldehyde	ND	3.40
5103-71-9	alpha-Chlordane	ND	1.75
5103-74-2	gamma-Chlordane	ND	1.75
8001-35-2	Toxaphene	ND	51.45
12674-11-2	Aroclor-1016	ND	33.96
11104-28-2	Aroclor-1221	ND	33.96
11141-16-5	Aroclor-1232	ND	68.94
53469-21-9	Aroclor-1242	ND	33.96
12672-29-6	Aroclor-1248	ND	33.96
11097-69-1	Aroclor-1254	ND	33.96
11096-82-5	Aroclor-1260	ND	33.96

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SBS-213

Lab Name: Sound Analytical Contract: Burlington Environmental

Lab Code: 29728 Case No.: SAS No.: SDG No.:

Matrix: (soil/water) soil Lab Sample ID: 29728-3

Sample wt/vol: 10.5776 (g/mL) grams Lab File ID: P1769

% Moisture: 12.72 decanted: (Y/N) no Date Received: 01/22/93

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 01/25/93

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 02/09/93

Injection Volume: 3 (uL) Dilution Factor:

GPC Cleanup: (Y/N) No pH: n/a Sulfur Cleanup: (Y/N) No

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.84
319-85-7	beta-BHC	ND	1.84
319-86-8	delta-BHC	ND	1.84
58-89-9	gamma-BHC (Lindane)	ND	1.84
76-44-8	Heptachlor	ND	1.84
309-00-2	Aldrin	ND	1.84
1024-57-3	Heptachlor epoxide	ND	1.84
959-98-8	Endosulfan I	ND	1.84
60-57-1	Dieldrin	ND	3.57
72-55-9	4,4'-DDE	ND	3.57
72-20-8	Endrin	ND	3.57
33213-65-9	Endosulfan II	ND	3.57
72-54-8	4,4'-DDD	ND	3.57
1031-07-8	Endosulfan sulfate	ND	3.57
50-29-3	4,4'-DDT	ND	3.57
72-43-5	Methoxychlor	ND	18.41
53494-70-5	Endrin ketone	ND	3.57
7421-36-3	Endrin aldehyde	ND	3.57
5103-71-9	alpha-Chlordane	ND	1.84
5103-74-2	gamma-Chlordane	ND	1.84
8001-35-2	Toxaphene	ND	54.16
12674-11-2	Aroclor-1016	ND	35.74
11104-28-2	Aroclor-1221	ND	35.74
11141-16-5	Aroclor-1232	ND	72.57
53469-21-9	Aroclor-1242	ND	35.74
12672-29-6	Aroclor-1248	ND	35.74
11097-69-1	Aroclor-1254	ND	35.74
11096-82-5	Aroclor-1260	ND	35.74

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SBS-128

Lab Name: Sound Analytical Contract: Burlington Environmental

Lab Code: 29551 Case No.: SAS No.: SDG No.:

Matrix: (soil/water) soil Lab Sample ID: 29551-1

Sample wt/vol: 10.2358 (g/mL) grams Lab File ID: P1760

% Moisture: 10.34 decanted: (Y/N) no Date Received: 01/13/93

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 01/28/93

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 02/09/93

Injection Volume: 3 (uL) Dilution Factor:

GPC Cleanup: (Y/N) No pH: n/a Sulfur Cleanup: (Y/N) No

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.85
319-85-7	beta-BHC	ND	1.85
319-86-8	delta-BHC	ND	1.85
58-89-9	gamma-BHC (Lindane)	ND	1.85
76-44-8	Heptachlor	ND	1.85
309-00-2	Aldrin	ND	1.85
1024-57-3	Heptachlor epoxide	ND	1.85
959-98-8	Endosulfan I	ND	1.85
60-57-1	Dieldrin	ND	3.60
72-55-9	4,4'-DDE	ND	3.60
72-20-8	Endrin	ND	3.60
33213-65-9	Endosulfan II	ND	3.60
72-54-8	4,4'-DDD	ND	3.60
1031-07-8	Endosulfan sulfate	ND	3.60
50-29-3	4,4'-DDT	ND	3.60
72-43-5	Methoxychlor	ND	18.52
53494-70-5	Endrin ketone	ND	3.60
7421-36-3	Endrin aldehyde	ND	3.60
5103-71-9	alpha-Chlordane	ND	1.85
5103-74-2	gamma-Chlordane	ND	1.85
8001-35-2	Toxaphene	ND	54.48
12674-11-2	Aroclor-1016	ND	35.96
11104-28-2	Aroclor-1221	ND	35.96
11141-16-5	Aroclor-1232	ND	73.01
53469-21-9	Aroclor-1242	ND	35.96
12672-29-6	Aroclor-1248	ND	35.96
11097-69-1	Aroclor-1254	ND	35.96
11096-82-5	Aroclor-1260	ND	35.96

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SBS-150

Lab Name: Sound Analytical Contract: Burlington Environmental

Lab Code: 29551 Case No.: SAS No.: SDG No.:

Matrix: (soil/water) soil Lab Sample ID: 29551-2

Sample wt/vol: 10.3167 (g/mL) grams Lab File ID: P1763

% Moisture: 18.19 decanted: (Y/N) no Date Received: 01/13/93

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 01/28/93

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 02/09/93

Injection Volume: 3 (uL) Dilution Factor:

GPC Cleanup: (Y/N) No pH: n/a Sulfur Cleanup: (Y/N) No

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	2.01
319-85-7	beta-BHC	ND	2.01
319-86-8	delta-BHC	ND	2.01
58-89-9	gamma-BHC (Lindane)	ND	2.01
76-44-8	Heptachlor	ND	2.01
309-00-2	Aldrin	ND	2.01
1024-57-3	Heptachlor epoxide	ND	2.01
959-98-8	Endosulfan I	ND	2.01
60-57-1	Dieldrin	ND	3.91
72-55-9	4,4'-DDE	ND	3.91
72-20-8	Endrin	ND	3.91
33213-65-9	Endosulfan II	ND	3.91
72-54-8	4,4'-DDD	ND	3.91
1031-07-8	Endosulfan sulfate	ND	3.91
50-29-3	4,4'-DDT	ND	3.91
72-43-5	Methoxychlor	ND	3.91
53494-70-5	Endrin ketone	ND	3.91
7421-36-3	Endrin aldehyde	ND	3.91
5103-71-9	alpha-Chlordane	ND	2.01
5103-74-2	gamma-Chlordane	ND	2.01
8001-35-2	Toxaphene	ND	59.24
12674-11-2	Aroclor-1016	ND	39.10
11104-28-2	Aroclor-1221	ND	39.10
11141-16-5	Aroclor-1232	ND	79.38
53469-21-9	Aroclor-1242	ND	39.10
12672-29-6	Aroclor-1248	ND	39.10
11097-69-1	Aroclor-1254	ND	39.10
11096-82-5	Aroclor-1260	ND	39.10

MEMORANDUM

DATE: April 21, 1993

TO: Ted Wall, Environmental Engineer JW

FROM: Nels Cone, Chemist NBC

SUBJECT: DATA VALIDATION OF CHEMICAL ANALYSIS FROM PASCO LANDFILL PHASE I REMEDIAL INVESTIGATION, PROJECT 624419, DATA SET 9A - 9D

During the period of January 10 - 21, 1993, five soil samples were collected by Burlington field personnel. The identification numbers of these samples are as follows:

PLF-SBS-128 PLF-SBS-150 PLF-SBS-167 PLF-SBS-180 PLF-SBS-213

These samples were then submitted to Sound Analytical Services, of Tacoma, Washington (Work orders 29551 and 29728). I performed a data quality review of the analytical results receiving priority pollutant metals (PPM) analysis (USEPA SW-846, Method 6010) in accordance with the USEPA Contract Laboratory Program (CLP) Document Number ILM02.0. I performed a data quality review of the analytical results from pesticide/PCB (USEPA SW-846, Method 8080), semivolatile compound (Method 8270), and volatile compound (Method 8240) analysis, in accordance with the USEPA CLP Document Number 0LM01.0. My findings and recommendations are summarized below.

FINDINGS

Properly completed chain-of-custody forms were included with documented signatures from field to laboratory receipt. All samples were shown as having been properly iced and received in good condition, with the exceptions described for samples by specific analysis. Holding, extraction, and analysis times for the samples met the required guidelines, with exceptions described for samples by specific analysis. All samples received the requested analyses.

9A:

For volatile compound analysis, methylene chloride and acetone and toluene were detected in the method blanks; results did not always receive the appropriate "B" data qualifier flag to indicate this. Surrogate compound recoveries, as well as system monitoring compound recoveries, met CLP-required quality control (QC) limits for the sample, the accompanying method blank and method spikes. A search for tentatively-identified compounds (TIC) was performed, and several were found. Per CLP protocol, they received the appropriate "J data qualifier flag. Requisite instrument tuning check with bromofluorobenzene documented gas chromatograph/mass spectra (GC/MS) performance. All internal standards' retention times

met required QC limits. Initial calibration data displayed all analytes within advisory QC limits, with the exception of xylenes. Continuing calibration verification displayed bromomethane, 1,1,2-trichloroethylene, vinyl chloride, 1,1,2,2-tetrachloroethylene, and xylenes outside advisory QC limits. These compounds were not detected in the samples. Per CLP protocol, no data qualifier flags were needed. Additional QC was supplied in the form of the laboratory worksheets, and GC/MS printouts for the sample method blank, method spikes, and calibration standards. Data consistency was demonstrated throughout.

9B:

Semivolatile analysis displayed surrogate recoveries within required QC limits for all samples, method blank, and method spike. Matrix spike recoveries had four out of twenty-two compounds outside QC limits. However, these compounds were not detected in the samples, and no data qualifier flags were needed, per CLP protocol. Method blanks contained several species of phthalates; results did not always receive the appropriate "B" data qualifier flag. Requisite instrument tuning check with DFTPP documented GC/MS performance. Initial calibration checks met minimum relative response factors. Continuing calibration checks were outside advisory QC limits for several compounds. However, they were not detected in the samples and no data qualifier flag is needed. Internal calibration standards met all QC criteria for retention times and area response with the exception of perylene-d12 in sample PLF-SBS-180. Additionally, the holding time for this sample is three days past the CLP requirement. However, no related analytes were detected in the sample, and no further action is required. A search for tentatively-identified compounds (TIC) was performed and several were found. Per CLP protocol, they received the appropriate "J" data qualifier flag. Supporting chromatograms demonstrated data consistency for all samples, method blank, and method spike.

9C:

All metal analyses were performed by inductively coupled plasma (ICP) analysis, except mercury, which received cold vapor atomic absorption (CVAA) analysis. Duplicate analyses did not meet QC limits required for cadmium and lead; results received the appropriate CLP "*" data qualifier flag. All target analytes from the laboratory control samples (LCS) met expected QC limits. Selenium, thallium and antimony do not meet the spike recovery QC criteria; results received the appropriate CLP "N" data qualifier flag. All post-digestion spiked sample recoveries met required QC limits. Serial dilution QC criteria for zinc and

copper were not met and results received the appropriate CLP data qualifier flag. Initial and continuing verification, method blanks, check standards, and line calibration data all met within required QC limits. Supporting documentation was supplied in the form of raw sample data consistent with reported summary information.

9D:

All pesticide/PCB analyses were performed using dual column confirmation (columns DB-608 and DB-5) as required by CLP protocol. Analyte resolution for both columns displayed performance within acceptable QC limits. Surrogate compound recoveries for all analyses met required QC limits. Method blank analyses contained no contaminants and required no corrections. Method spike analyses met required QC limits for analytical accuracy. The holding times for samples PLF-SBS-128 and PLF-SBS-150 were six days past the CLP requirements making the reported results unacceptable. Initial calibration of columns DB-5 displayed appropriate analytical performance. Initial calibration data of column DB-608 displays several compounds out of QC limits: endosulfan II, α-chlordane, and endrin ketone. However, these compounds were not detected in any of the samples using either column; hence no data qualifier flags are required. Dual column chromatograms were included for all samples, the method blank, method spike, and calibration standards. The chromatograms have been annotated with quantitation values calculated from the average response factors as needed by the laboratory. The reported summary information appears consistent with this data.

RECOMMENDATIONS

All detections of acetone, methylene chloride, toluene, and various species of phthalates in the samples should be appended with "B" data qualifier flags. Pesticide/PCB analyses for PLF-SBS-128 and PLF-SBS-150 must be rejected due to holding time exceedance.

NC/rlk/b46:2212b.mem

SUBSURFACE SOILS I3.13

SAMPLES PLF-SBS-256 TO PLF-SBS-259;
PLF-SBS-261 TO PLF-SBS-269;
PLF-SBS-273 TO PLF-SBS-305

SOUND ANALYTICAL SERVICES, INC.

SPECIALIZING IN INDUSTRIAL & TOXIC WASTE ANALYSIS

4813 PACIFIC HIGHWAY EAST, TACOMA, WASHINGTON 98424 - TELEPHONE (206) 922-2310 - FAX (206) 922-5047

March 25, 1993

TO: Burlington Environmental Engineering

PROJECT NUMBER: 624419-7020.16

PROJECT NAME: Pasco Landfill

LABORATORY WORK ORDER NUMBER: 29845

Samples were taken on 1/25/93 and 1/26/93, and were received at Sound on 1/28/93. Samples were analyzed for Volatile Organics in accordance with EPA SW-846 Method 8240, Semivolatile Organics in accordance with EPA SW-846 Method 8270, Chlorinated Pesticides and PCB's in accordance with EPA SW-846 Method 8080, Chlorinated Herbicides by GC/MS per EPA SW-846 Method 8150, Metals by ICP in accordance with EPA SW-846 Method 6010, and Mercury by cold vapor AA in accordance with SW-846 Method 7471.

VOLATILE ORGANICS

Samples 29845-5 through 29845-8, 29845-12, and 29845-13 were analyzed at low level on 2/02/93. Samples 29845-9 through 29845-11 were analyzed at medium level on 2/03/93. Methylene chloride, acetone, and toluene were detected in the low level method blank at levels above the IDL. Methylene chloride was detected in the medium level method blank at a level above the IDL. Results for these compounds were flagged B in the associated samples to indicate this. The percent recoveries for 1,1-dichloroethene in the matrix spike/matrix spike duplicate analysis were below QC limits. All other QC parameters were within acceptance limits.

SEMIVOLATILE ORGANICS

Samples 29845-1 through 29845-13 were extracted on 2/02/93 and analyzed on 2/08/93 and 2/09/93. No compounds were detected in the method blank above the IDL. The relative percent difference value for 1,4-dichlorobenzene in the matrix spike/matrix spike duplicate analysis exceeded QC limits. All other QC parameters were within acceptance limits.

CHLORINATED PESTICIDES AND PCB's

Samples 29845-9 through 29845-13 were extracted on 2/01/93 and analyzed on 2/09/93. No compounds were detected in the method blank above the IDL. All QC parameters were within acceptance limits.

SOUND ANALYTICAL SERVICES, INC.

TO: Burlington Environmental Engineering

PROJECT NUMBER: 624419-7020.19

PROJECT NAME: Pasco Landfill

LABORATORY WORK ORDER NUMBER: 29845

CHLORINATED HERBICIDES

Samples 29845-9 through 29845-13 were extracted on 2/03/93 and analyzed on 2/04/93. No compounds were detected in the method blank above the IDL. The percent recoveries for several compounds were below advisory QC limits in the matrix spike/matrix spike duplicate analysis for sample 29845-9 due to acidic properties. The actual percent recovery limits for this method are being developed per SW-846 Method 8000. All other QC parameters were within acceptance limits.

METALS

Samples 29845-1 through 29845-13 were digested on 1/29/93, and analyzed for ICP metals on 2/03/93 and mercury on 2/01/93. Zinc was detected in the method blank above the IDL. The percent recovery for antimony in the matrix spike analysis was below the QC limit. All other QC parameters were within acceptance limits.

SAMPLE DATA SUMMARY PACKAGE

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS261

Lab Name: SOUND ANALYTICAL SERVICES Contract: 624419

Lab Code: - Case No.: - SAS No.: - SDG No.: 29845

Matrix: (soil/water) SOIL Lab Sample ID: 29845-5

Sample wt/vol: 5.40 (g/ml) G Lab File ID: V8273

Level: (low/med) LOW Date Received: 1/25/93

% Moisture: not dec. 7 Date Analyzed: 2/02/93

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 0 (uL) Soil Aliquot Volume: 0 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
54-87-3	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	74.	B
67-64-1	Acetone	75.	B
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	5.	U
107-06-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	25.	U
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-5	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	25.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	5.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	5.	U
591-78-6	2-Hexanone	5.	U
127-18-4	Tetrachloroethene	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	4.	J
108-90-7	Chlorobenzene	5.	U
100-41-4	Ethylbenzene	5.	U
100-42-5	Styrene	5.	U
1330-20-7	Xylene (total)	10.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS261

Lab Name: SOUND ANALYTICAL SERVICES Contract: 624419

Lab Code: - Case No.: - SAS No.: - SDG No.: 29845

Matrix: (soil/water) SOIL Lab Sample ID: 29845-5

Sample wt/vol: 5.40 (g/ml) G Lab File ID: V8273

Level: (low/med) LOW Date Received: 1/25/93

% Moisture: not dec. 7 Date Analyzed: 2/02/93

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 0 (uL) Soil Aliquot Volume: 0 (uL)

Number TICs Found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	75-28-5	Propane, 2-methyl	2.25	6.	J
2.	110-54-3	Hexane(DOT)	3.75	50.	J
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS262

Lab Name: SOUND ANALYTICAL SERVICES Contract: 624419

Lab Code:- Case No.:- SAS No.:- SDG No.: 29845

Matrix: (soil/water) SOIL Lab Sample ID: 29845-6

Sample wt/vol: 5.22 (g/ml) G Lab File ID: V8274

Level: (low/med) LOW Date Received: 1/25/93

% Moisture: not dec. 10 Date Analyzed: 2/02/93

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 0 (uL) Soil Aliquot Volume: 0 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
54-87-3	Chloromethane	11.	U
74-83-9	Bromomethane	11.	U
75-01-4	Vinyl Chloride	11.	U
75-00-3	Chloroethane	11.	U
75-09-2	Methylene Chloride	57.	B
67-64-1	Acetone	73.	B
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	5.	U
107-06-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	27.	U
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-5	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	27.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	5.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	5.	U
591-78-6	2-Hexanone	5.	U
127-18-4	Tetrachloroethene	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	3.	J
108-90-7	Chlorobenzene	5.	U
100-41-4	Ethylbenzene	5.	U
100-42-5	Styrene	5.	U
1330-20-7	Xylene (total)	11.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS262

Lab Name: SOUND ANALYTICAL SERVICES Contract: 624419

Lab Code: - Case No.: - SAS No.: - SDG No.: 29845

Matrix: (soil/water) SOIL Lab Sample ID: 29845-6

Sample wt/vol: 5.22 (g/ml) G Lab File ID: V8274

Level: (low/med) LOW Date Received: 1/25/93

% Moisture: not dec. 10 Date Analyzed: 2/02/93

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 0 (uL) Soil Aliquot Volume: 0 (uL)

Number TICs Found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	110-54-3	Hexane(DOT)	3.75	48.	J
2.					
3.					
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS263

Lab Name: SOUND ANALYTICAL SERVICES Contract: 624419

Lab Code: - Case No.: - SAS No.: - SDG No.: 29845

Matrix: (soil/water) SOIL Lab Sample ID: 29845-7

Sample wt/vol: 5.26 (g/ml) G Lab File ID: V8275

Level: (low/med) LOW Date Received: 1/25/93

% Moisture: not dec. 13 Date Analyzed: 2/02/93

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 0 (uL) Soil Aliquot Volume: 0 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
54-87-3	Chloromethane	11.	U
74-83-9	Bromomethane	11.	U
75-01-4	Vinyl Chloride	11.	U
75-00-3	Chloroethane	11.	U
75-09-2	Methylene Chloride	62.	B
67-64-1	Acetone	88.	B
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	5.	U
107-06-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	27.	U
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-5	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	27.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	5.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	5.	U
591-78-6	2-Hexanone	5.	U
127-18-4	Tetrachloroethene	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	3.	J
108-90-7	Chlorobenzene	5.	U
100-41-4	Ethylbenzene	5.	U
100-42-5	Styrene	5.	U
1330-20-7	Xylene (total)	11.	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS263

Lab Name:SOUND ANALYTICAL SERVICES Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29845

Matrix: (soil/water) SOIL Lab Sample ID:29845-7

Sample wt/vol: 5.26 (g/ml) G Lab File ID: V8275

Level: (low/med) LOW Date Received: 1/25/93

% Moisture: not dec. 13 Date Analyzed: 2/02/93

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 2

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	76-13-1	Ethane,1,1,2-trichloro-1,2,2	2.60	350.	J
2.	110-54-3	Hexane(DOT)	3.75	47.	J
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS264

Lab Name:SOUND ANALYTICAL SERVICES Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29845

Matrix: (soil/water) SOIL Lab Sample ID:29845-8

Sample wt/vol: 5.02 (g/ml) G Lab File ID: V8276

Level: (low/med) LOW Date Received: 1/25/93

% Moisture: not dec. 5 Date Analyzed: 2/02/93

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
54-87-3	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	56.	B
67-64-1	Acetone	63.	B
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	5.	U
107-06-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	26.	U
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-5	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	26.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	5.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	5.	U
591-78-6	2-Hexanone	5.	U
127-18-4	Tetrachloroethene	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	3.	J
108-90-7	Chlorobenzene	5.	U
100-41-4	Ethylbenzene	5.	U
100-42-5	Styrene	5.	U
1330-20-7	Xylene (total)	10.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS264

Lab Name:SOUND ANALYTICAL SERVICES Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29845

Matrix: (soil/water) SOIL Lab Sample ID:29845-8

Sample wt/vol: 5.02 (g/ml) G Lab File ID: V8276

Level: (low/med) LOW Date Received: 1/25/93

% Moisture: not dec. 5 Date Analyzed: 2/02/93

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	110-54-3	Hexane(DOT)	3.75	44.	J
2.					
3.					
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS265

I[redacted] Name: SOUND ANALYTICAL SERVICES Contract: 624419

Lab Code:- Case No.:- SAS No.:- SDG No.: 29845

Matrix: (soil/water) SOIL Lab Sample ID: 29845-9

Sample wt/vol: 10.15 (g/ml) G Lab File ID: V8301

Level: (low/med) MED Date Received: 1/25/93

% Moisture: not dec. 12 Date Analyzed: 2/03/93

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 40.0

Soil Extract Volume: 10000.00 (uL) Soil Aliquot Volume: 5000.0 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
54-87-3	Chloromethane	450.	U
74-83-9	Bromomethane	450.	U
75-01-4	Vinyl Chloride	450.	U
75-00-3	Chloroethane	450.	U
75-09-2	Methylene Chloride	340.	JB
67-64-1	Acetone	400.	JB
75-15-0	Carbon Disulfide	220.	U
75-35-4	1,1-Dichloroethene	220.	U
75-34-3	1,1-Dichloroethane	220.	U
540-59-0	1,2-Dichloroethene (total)	220.	U
67-66-3	Chloroform	220.	U
107-06-2	1,2-Dichloroethane	220.	U
78-93-3	2-Butanone	1100.	U
71-55-6	1,1,1-Trichloroethane	220.	U
56-23-5	Carbon Tetrachloride	220.	U
108-05-4	Vinyl Acetate	1100.	U
75-27-4	Bromodichloromethane	220.	U
78-87-5	1,2-Dichloropropane	220.	U
10061-01-5	cis-1,3-Dichloropropene	220.	U
79-01-6	Trichloroethene	220.	U
124-48-1	Dibromochloromethane	220.	U
79-00-5	1,1,2-Trichloroethane	220.	U
71-43-2	Benzene	220.	U
10061-02-6	trans-1,3-Dichloropropene	220.	U
75-25-2	Bromoform	220.	U
108-10-1	4-Methyl-2-Pentanone	220.	U
591-78-6	2-Hexanone	220.	U
127-18-4	Tetrachloroethene	220.	U
79-34-5	1,1,2,2-Tetrachloroethane	220.	U
108-88-3	Toluene	220.	U
108-90-7	Chlorobenzene	220.	U
100-41-4	Ethylbenzene	220.	U
100-42-5	Styrene	220.	U
1330-20-7	Xylene (total)	450.	U

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1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS265

Lab Name:SOUND ANALYTICAL SERVICES Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29845

Matrix: (soil/water) SOIL Lab Sample ID:29845-9

Sample wt/vol: 10.15 (g/ml) G Lab File ID: V8301

Level: (low/med) MED Date Received: 1/25/93

% Moisture: not dec. 12 Date Analyzed: 2/03/93

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 40.0

Soil Extract Volume:10000.00 (uL) Soil Aliquot Volume: 5000.0 (uL)

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	110-54-3	Hexane(DOT)	3.75	41.	J
2.					
3.					
4.					
5.					
6.					
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS266

Name:SOUND ANALYTICAL SERVICES Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29845

Matrix: (soil/water) SOIL Lab Sample ID:29845-10

Sample wt/vol: 10.33 (g/ml) G Lab File ID: V8304

Level: (low/med) MED Date Received: 1/25/93

% Moisture: not dec. 5 Date Analyzed: 2/03/93

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 40.0

Soil Extract Volume:10000.00 (uL) Soil Aliquot Volume: 5000.0 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
54-87-3	Chloromethane	410.	U
74-83-9	Bromomethane	410.	U
75-01-4	Vinyl Chloride	410.	U
75-00-3	Chloroethane	410.	U
75-09-2	Methylene Chloride	290.	JB
67-64-1	Acetone	170.	JB
75-15-0	Carbon Disulfide	200.	U
75-35-4	1,1-Dichloroethene	200.	U
75-34-3	1,1-Dichloroethane	200.	U
540-59-0	1,2-Dichloroethene (total)	200.	U
67-66-3	Chloroform	200.	U
107-06-2	1,2-Dichloroethane	200.	U
78-93-3	2-Butanone	1000.	U
71-55-6	1,1,1-Trichloroethane	200.	U
56-23-5	Carbon Tetrachloride	200.	U
108-05-4	Vinyl Acetate	1000.	U
75-27-4	Bromodichloromethane	200.	U
78-87-5	1,2-Dichloropropane	200.	U
10061-01-5	cis-1,3-Dichloropropene	200.	U
79-01-6	Trichloroethene	200.	U
124-48-1	Dibromochloromethane	200.	U
79-00-5	1,1,2-Trichloroethane	200.	U
71-43-2	Benzene	200.	U
10061-02-6	trans-1,3-Dichloropropene	200.	U
75-25-2	Bromoform	200.	U
108-10-1	4-Methyl-2-Pentanone	200.	U
591-78-6	2-Hexanone	200.	U
127-18-4	Tetrachloroethene	200.	U
79-34-5	1,1,2,2-Tetrachloroethane	200.	U
108-88-3	Toluene	200.	U
108-90-7	Chlorobenzene	200.	U
100-41-4	Ethylbenzene	200.	U
100-42-5	Styrene	200.	U
1330-20-7	Xylene (total)	410.	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS266

Lab Name: SOUND ANALYTICAL SERVICES Contract: 624419

Lab Code: - Case No.: - SAS No.: - SDG No.: 29845

Matrix: (soil/water) SOIL Lab Sample ID: 29845-10

Sample wt/vol: 10.33 (g/ml) G Lab File ID: V8304

Level: (low/med) MED Date Received: 1/25/93

% Moisture: not dec. 5 Date Analyzed: 2/03/93

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 40.0

Soil Extract Volume: 10000.00 (uL) Soil Aliquot Volume: 5000.0 (uL)

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	110-54-3	Hexane(DOT)	3.75	36.	J
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS267

Lab Name: SOUND ANALYTICAL SERVICES Contract: 624419

Lab Code:- Case No.:- SAS No.:- SDG No.: 29845

Matrix: (soil/water) SOIL Lab Sample ID: 29845-11

Sample wt/vol: 10.17 (g/ml) G Lab File ID: V8305

Level: (low/med) MED Date Received: 1/25/93

% Moisture: not dec. 10 Date Analyzed: 2/03/93

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 40.0

Soil Extract Volume: 10000.00 (uL) Soil Aliquot Volume: 5000.0 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
54-87-3	Chloromethane	440.	U
74-83-9	Bromomethane	440.	U
75-01-4	Vinyl Chloride	440.	U
75-00-3	Chloroethane	440.	U
75-09-2	Methylene Chloride	290.	JB
67-64-1	Acetone	200.	JB
75-15-0	Carbon Disulfide	220.	U
75-35-4	1,1-Dichloroethene	220.	U
75-34-3	1,1-Dichloroethane	220.	U
540-59-0	1,2-Dichloroethene (total)	220.	U
67-66-3	Chloroform	220.	U
107-06-2	1,2-Dichloroethane	220.	U
78-93-3	2-Butanone	1100.	U
71-55-6	1,1,1-Trichloroethane	220.	U
56-23-5	Carbon Tetrachloride	220.	U
108-05-4	Vinyl Acetate	1100.	U
75-27-4	Bromodichloromethane	220.	U
78-87-5	1,2-Dichloropropane	220.	U
10061-01-5	cis-1,3-Dichloropropene	220.	U
79-01-6	Trichloroethene	220.	U
124-48-1	Dibromochloromethane	220.	U
79-00-5	1,1,2-Trichloroethane	220.	U
71-43-2	Benzene	220.	U
10061-02-6	trans-1,3-Dichloropropene	220.	U
75-25-2	Bromoform	220.	U
108-10-1	4-Methyl-2-Pentanone	220.	U
591-78-6	2-Hexanone	220.	U
127-18-4	Tetrachloroethene	220.	U
79-34-5	1,1,2,2-Tetrachloroethane	220.	U
108-88-3	Toluene	220.	U
108-90-7	Chlorobenzene	220.	U
100-41-4	Ethylbenzene	220.	U
100-42-5	Styrene	220.	U
1330-20-7	Xylene (total)	440.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS267

Lab Name:SOUND ANALYTICAL SERVICES Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29845

Matrix: (soil/water) SOIL Lab Sample ID:29845-11

Sample wt/vol: 10.17 (g/ml) G Lab File ID: V8305

Level: (low/med) MED Date Received: 1/25/93

% Moisture: not dec. 10 Date Analyzed: 2/03/93

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 40.0

Soil Extract Volume:10000.00 (uL) Soil Aliquot Volume: 5000.0 (uL)

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	110-54-3	Hexane(DOT)	3.75	46.	J
2.					
3.					
4.					
5.					
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS268

Lab Name:SOUND ANALYTICAL SERVICES Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29845

Matrix: (soil/water) SOIL Lab Sample ID:29845-12

Sample wt/vol: 5.31 (g/ml) G Lab File ID: V8282

Level: (low/med) LOW Date Received: 1/25/93

% Moisture: not dec. 4 Date Analyzed: 2/03/93

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
54-87-3	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	49.	B
67-64-1	Acetone	43.	B
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	5.	U
107-06-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	25.	U
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-5	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	25.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	5.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	5.	U
591-78-6	2-Hexanone	5.	U
127-18-4	Tetrachloroethene	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	3.	J
108-90-7	Chlorobenzene	5.	U
100-41-4	Ethylbenzene	5.	U
100-42-5	Styrene	5.	U
1330-20-7	Xylene (total)	10.	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS268

Lab Name:SOUND ANALYTICAL SERVICES Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29845

Matrix: (soil/water) SOIL Lab Sample ID:29845-12

Sample wt/vol: 5.31 (g/ml) G Lab File ID: V8282

Level: (low/med) LOW Date Received: 1/25/93

% Moisture: not dec. 4 Date Analyzed: 2/03/93

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 76-13-1	Ethane,1,1,2-trichloro-1,2,2	2.60	280.	J
2. 110-54-3	Hexane(DOT)	3.75	40.	J
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS269

Lab Name:SOUND ANALYTICAL SERVICES Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29845

Matrix: (soil/water) SOIL Lab Sample ID:29845-13

Sample wt/vol: 5.30 (g/ml) G Lab File ID: V8283

Level: (low/med) LOW Date Received: 1/25/93

% Moisture: not dec. 4 Date Analyzed: 2/03/93

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
54-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl Chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene Chloride	48.	B
67-64-1	Acetone	56.	B
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	5.	U
107-06-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	25.	U
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-5	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	25.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	5.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	5.	U
591-78-6	2-Hexanone	5.	U
127-18-4	Tetrachloroethene	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	3.	J
108-90-7	Chlorobenzene	5.	U
100-41-4	Ethylbenzene	5.	U
100-42-5	Styrene	5.	U
1330-20-7	Xylene (total)	10.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS269

Lab Name:SOUND ANALYTICAL SERVICES Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29845

Matrix: (soil/water) SOIL Lab Sample ID:29845-13

Sample wt/vol: 5.30 (g/ml) G Lab File ID: V8283

Level: (low/med) LOW Date Received: 1/25/93

% Moisture: not dec. 4 Date Analyzed: 2/03/93

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	75-28-5	Propane,1-methyl-	2.25	4.	J
2.	110-54-3	Hexane(DOT)	3.75	39.	J
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS256

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29845

Matrix: (soil/water) SOIL Lab Sample ID:29845-1

Sample wt/vol: 30.2 (g/ml) G Lab File ID: S7776

Level: (low/med) LOW Date Received: 1/28/93

% Moisture: 8 decanted: (Y/N) N Date Extracted: 2/02/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/08/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	360.	U
111-44-4	Bis(2-chloroethyl)ether	360.	U
95-57-8	2-Chlorophenol	360.	U
541-73-1	1,3-Dichlorobenzene	360.	U
106-46-7	1,4-Dichlorobenzene	360.	U
100-51-6	Benzyl alcohol	720.	U
95-50-1	1,2-Dichlorobenzene	360.	U
95-48-7	2-Methylphenol	360.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	360.	U
106-44-5	4-Methylphenol	360.	U
621-64-7	N-Nitroso-di-n-propylamine	360.	U
67-72-1	Hexachloroethane	360.	U
98-95-3	Nitrobenzene	360.	U
78-59-1	Isophorone	360.	U
88-75-5	2-Nitrophenol	360.	U
105-67-9	2,4-Dimethylphenol	360.	U
65-85-0	Benzoic acid	1800.	U
111-91-1	bis(2-Chloroethoxy)methane	360.	U
120-83-2	2,4-Dichlorophenol	360.	U
120-82-1	1,2,4-Trichlorobenzene	360.	U
91-20-3	Naphthalene	360.	U
106-47-8	4-Chloroaniline	720.	U
87-68-3	Hexachlorobutadiene	360.	U
59-50-7	4-Chloro-3-methylphenol	720.	U
91-57-6	2-Methylnaphthalene	360.	U
77-47-4	Hexachlorocyclopentadiene	360.	U
88-06-2	2,4,6-Trichlorophenol	360.	U
95-95-4	2,4,5-Trichlorophenol	360.	U
91-58-7	2-Chloronaphthalene	360.	U
88-74-4	2-Nitroaniline	1800.	U
131-11-3	Dimethylphthalate	360.	U
208-96-8	Acenaphthylene	360.	U
606-20-2	2,6-Dinitrotoluene	360.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS256

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29845

Matrix: (soil/water) SOIL Lab Sample ID:29845-1

Sample wt/vol: 30.2 (g/ml) G Lab File ID: S7776

Level: (low/med) LOW Date Received: 1/28/93

% Moisture: 8 decanted: (Y/N) N Date Extracted: 2/02/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/08/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1800.	U
83-32-9	Acenaphthene	360.	U
51-28-5	2,4-Dinitrophenol	1800.	U
100-02-7	4-Nitrophenol	1800.	U
132-64-9	Dibenzofuran	360.	U
121-14-2	2,4-Dinitrotoluene	360.	U
84-66-2	Diethylphthalate	360.	U
7005-72-3	4-Chlorophenyl-phenylether	360.	U
86-73-7	Fluorene	360.	U
100-01-6	4-Nitroaniline	1800.	U
534-52-1	4,6-Dinitro-2-methylphenol	1800.	U
86-30-6	N-Nitrosodiphenylamine(1)	360.	U
101-55-3	4-Bromophenyl-phenylether	360.	U
118-74-1	Hexachlorobenzene	360.	U
87-86-5	Pentachlorophenol	1800.	U
85-01-8	Phenanthrene	360.	U
120-12-7	Anthracene	360.	U
84-74-2	Di-n-butylphthalate	360.	U
206-44-0	Fluoranthene	360.	U
129-00-0	Pyrene	360.	U
85-68-7	Butylbenzylphthalate	360.	U
91-94-1	3,3'-Dichlorobenzidine	720.	U
56-55-3	Benzo(a)anthracene	360.	U
218-01-9	Chrysene	360.	U
117-81-7	bis(2-Ethylhexyl)phthalate	360.	U
117-84-0	Di-n-octylphthalate	360.	U
205-99-2	Benzo(b)fluoranthene	360.	U
207-08-9	Benzo(k)fluoranthene	360.	U
50-32-8	Benzo(a)pyrene	360.	U
193-39-5	Indeno(1,2,3-cd)pyrene	360.	U
53-70-3	Dibenz(a,h)anthracene	360.	U
191-24-2	Benzo(g,h,i)perylene	360.	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS256

Lab Name: Sound Analytical Services Contract: 624419

Lab Code: - Case No.: - SAS No.: - SDG No.: 29845

Matrix: (soil/water) SOIL Lab Sample ID: 29845-1

Sample wt/vol: 30.2 (g/ml) G Lab File ID: S7776

Level: (low/med) LOW Date Received: 1/28/93

% Moisture: 8 decanted: (Y/N) N Date Extracted: 2/02/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/08/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

Number TICs Found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	28.63	0.	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS257

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29845

Matrix: (soil/water) SOIL Lab Sample ID:29845-2

Sample wt/vol: 30.5 (g/ml) G Lab File ID: S7777

Level: (low/med) LOW Date Received: 1/28/90

% Moisture: 26 decanted: (Y/N) N Date Extracted: 2/02/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/08/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	440.	U
111-44-4	Bis(2-chloroethyl)ether	440.	U
95-57-8	2-Chlorophenol	440.	U
541-73-1	1,3-Dichlorobenzene	440.	U
106-46-7	1,4-Dichlorobenzene	440.	U
100-51-6	Benzyl alcohol	890.	U
95-50-1	1,2-Dichlorobenzene	440.	U
95-48-7	2-Methylphenol	440.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	440.	U
106-44-5	4-Methylphenol	440.	U
621-64-7	N-Nitroso-di-n-propylamine	440.	U
67-72-1	Hexachloroethane	440.	U
98-95-3	Nitrobenzene	440.	U
78-59-1	Isophorone	440.	U
88-75-5	2-Nitrophenol	440.	U
105-67-9	2,4-Dimethylphenol	440.	U
65-85-0	Benzoic acid	2200.	U
111-91-1	bis(2-Chloroethoxy)methane	440.	U
120-83-2	2,4-Dichlorophenol	440.	U
120-82-1	1,2,4-Trichlorobenzene	440.	U
91-20-3	Naphthalene	440.	U
106-47-8	4-Chloroaniline	890.	U
87-68-3	Hexachlorobutadiene	440.	U
59-50-7	4-Chloro-3-methylphenol	890.	U
91-57-6	2-Methylnaphthalene	440.	U
77-47-4	Hexachlorocyclopentadiene	440.	U
88-06-2	2,4,6-Trichlorophenol	440.	U
95-95-4	2,4,5-Trichlorophenol	440.	U
91-58-7	2-Chloronaphthalene	440.	U
88-74-4	2-Nitroaniline	2200.	U
131-11-3	Dimethylphthalate	440.	U
208-96-8	Acenaphthylene	440.	U
606-20-2	2,6-Dinitrotoluene	440.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS257

Lab Name: Sound Analytical Services Contract: 624419

Lab Code: - Case No.: - SAS No.: - SDG No.: 29845

Matrix: (soil/water) SOIL Lab Sample ID: 29845-2

Sample wt/vol: 30.5 (g/ml) G Lab File ID: S7777

Level: (low/med) LOW Date Received: 1/28/90

% Moisture: 26 decanted: (Y/N) N Date Extracted: 2/02/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/08/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	2200.	U
83-32-9	Acenaphthene	440.	U
51-28-5	2,4-Dinitrophenol	2200.	U
100-02-7	4-Nitrophenol	2200.	U
132-64-9	Dibenzofuran	440.	U
121-14-2	2,4-Dinitrotoluene	440.	U
84-66-2	Diethylphthalate	440.	U
7005-72-3	4-Chlorophenyl-phenylether	440.	U
86-73-7	Fluorene	440.	U
100-01-6	4-Nitroaniline	2200.	U
534-52-1	4,6-Dinitro-2-methylphenol	2200.	U
86-30-6	N-Nitrosodiphenylamine(1)	440.	U
101-55-3	4-Bromophenyl-phenylether	440.	U
118-74-1	Hexachlorobenzene	440.	U
87-86-5	Pentachlorophenol	2200.	U
85-01-8	Phenanthrene	440.	U
120-12-7	Anthracene	440.	U
84-74-2	Di-n-butylphthalate	220.	J
206-44-0	Fluoranthene	440.	U
129-00-0	Pyrene	440.	U
85-68-7	Butylbenzylphthalate	440.	U
91-94-1	3,3'-Dichlorobenzidine	890.	U
56-55-3	Benzo(a)anthracene	440.	U
218-01-9	Chrysene	440.	U
117-81-7	bis(2-Ethylhexyl)phthalate	440.	U
117-84-0	Di-n-octylphthalate	440.	U
205-99-2	Benzo(b)fluoranthene	440.	U
207-08-9	Benzo(k)fluoranthene	440.	U
50-32-8	Benzo(a)pyrene	440.	U
193-39-5	Indeno(1,2,3-cd)pyrene	440.	U
53-70-3	Dibenz(a,h)anthracene	440.	U
191-24-2	Benzo(g,h,i)perylene	440.	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS257

Lab Name: Sound Analytical Services Contract: 624419

Lab Code: - Case No.: - SAS No.: - SDG No.: 29845

Matrix: (soil/water) SOIL Lab Sample ID: 29845-2

Sample wt/vol: 30.5 (g/ml) G Lab File ID: S7777

Level: (low/med) LOW Date Received: 1/28/90

% Moisture: 26 decanted: (Y/N) N Date Extracted: 2/02/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/08/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

Number TICs Found: 2

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	28.50	0.	J
2.					
3.					
4.					
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS258

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29845

Matrix: (soil/water) SOIL Lab Sample ID:29845-3

Sample wt/vol: 30.1 (g/ml) G Lab File ID: S7778

Level: (low/med) LOW Date Received: 1/28/90

% Moisture: 26 decanted: (Y/N) N Date Extracted: 2/02/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/08/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	450.	U
111-44-4	Bis(2-chloroethyl)ether	450.	U
95-57-8	2-Chlorophenol	450.	U
541-73-1	1,3-Dichlorobenzene	450.	U
106-46-7	1,4-Dichlorobenzene	450.	U
100-51-6	Benzyl alcohol	900.	U
95-50-1	1,2-Dichlorobenzene	450.	U
95-48-7	2-Methylphenol	450.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	450.	U
106-44-5	4-Methylphenol	450.	U
621-64-7	N-Nitroso-di-n-propylamine	450.	U
67-72-1	Hexachloroethane	450.	U
98-95-3	Nitrobenzene	450.	U
78-59-1	Isophorone	450.	U
88-75-5	2-Nitrophenol	450.	U
105-67-9	2,4-Dimethylphenol	450.	U
65-85-0	Benzoic acid	2200.	U
111-91-1	bis(2-Chloroethoxy)methane	450.	U
120-83-2	2,4-Dichlorophenol	450.	U
120-82-1	1,2,4-Trichlorobenzene	450.	U
91-20-3	Naphthalene	450.	U
106-47-8	4-Chloroaniline	900.	U
87-68-3	Hexachlorobutadiene	450.	U
59-50-7	4-Chloro-3-methylphenol	900.	U
91-57-6	2-Methylnaphthalene	450.	U
77-47-4	Hexachlorocyclopentadiene	450.	U
88-06-2	2,4,6-Trichlorophenol	450.	U
95-95-4	2,4,5-Trichlorophenol	450.	U
91-58-7	2-Chloronaphthalene	450.	U
88-74-4	2-Nitroaniline	2200.	U
131-11-3	Dimethylphthalate	450.	U
208-96-8	Acenaphthylene	450.	U
606-20-2	2,6-Dinitrotoluene	450.	U

37

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS258

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29845

Matrix: (soil/water) SOIL Lab Sample ID:29845-3

Sample wt/vol: 30.1 (g/ml) G Lab File ID: S7778

Level: (low/med) LOW Date Received: 1/28/90

% Moisture: 26 decanted: (Y/N) N Date Extracted: 2/02/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/08/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	2200.	U
83-32-9	Acenaphthene	450.	U
51-28-5	2,4-Dinitrophenol	2200.	U
100-02-7	4-Nitrophenol	2200.	U
132-64-9	Dibenzofuran	450.	U
121-14-2	2,4-Dinitrotoluene	450.	U
84-66-2	Diethylphthalate	450.	U
7005-72-3	4-Chlorophenyl-phenylether	450.	U
86-73-7	Fluorene	450.	U
100-01-6	4-Nitroaniline	2200.	U
534-52-1	4,6-Dinitro-2-methylphenol	2200.	U
86-30-6	N-Nitrosodiphenylamine(1)	450.	U
101-55-3	4-Bromophenyl-phenylether	450.	U
118-74-1	Hexachlorobenzene	450.	U
87-86-5	Pentachlorophenol	2200.	U
85-01-8	Phenanthrene	450.	U
120-12-7	Anthracene	450.	U
84-74-2	Di-n-butylphthalate	200.	J
206-44-0	Fluoranthene	450.	U
129-00-0	Pyrene	450.	U
85-68-7	Butylbenzylphthalate	450.	U
91-94-1	3,3'-Dichlorobenzidine	900.	U
56-55-3	Benzo(a)anthracene	450.	U
218-01-9	Chrysene	450.	U
117-81-7	bis(2-Ethylhexyl)phthalate	450.	U
117-84-0	Di-n-octylphthalate	450.	U
205-99-2	Benzo(b)fluoranthene	450.	U
207-08-9	Benzo(k)fluoranthene	450.	U
50-32-8	Benzo(a)pyrene	450.	U
193-39-5	Indeno(1,2,3-cd)pyrene	450.	U
53-70-3	Dibenz(a,h)anthracene	450.	U
191-24-2	Benzo(g,h,i)perylene	450.	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS258

Lab Name: Sound Analytical Services Contract: 624419

Lab Code: - Case No.: - SAS No.: - SDG No.: 29845

Matrix: (soil/water) SOIL Lab Sample ID: 29845-3

Sample wt/vol: 30.1 (g/ml) G Lab File ID: S7778

Level: (low/med) LOW Date Received: 1/28/90

% Moisture: 26 decanted: (Y/N) N Date Extracted: 2/02/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/08/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

Number TICs Found: 2

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	74367-33-2	Propanoic Acid, 2-Methyl-,2	13.78	0.	J
2.	74367-34-3	Propanoic Acid, 2-Methyl,3-H	14.10	0.	J
3.		Unknown	28.27	0.	J
4.		Unknown	28.50	0.	J
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS259

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29845

Matrix: (soil/water) SOIL Lab Sample ID:29845-4

Sample wt/vol: 30.3 (g/ml) G Lab File ID: S7799

Level: (low/med) LOW Date Received: 1/28/90

% Moisture: 4 decanted: (Y/N) N Date Extracted: 2/02/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/09/93

Injection Volume: 1.0 (uL) Dilution Factor: 5.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	1700.	U
111-44-4	Bis(2-chloroethyl)ether	1700.	U
95-57-8	2-Chlorophenol	1700.	U
541-73-1	1,3-Dichlorobenzene	1700.	U
106-46-7	1,4-Dichlorobenzene	1700.	U
100-51-6	Benzyl alcohol	3400.	U
95-50-1	1,2-Dichlorobenzene	1700.	U
95-48-7	2-Methylphenol	1700.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	1700.	U
106-44-5	4-Methylphenol	1700.	U
621-64-7	N-Nitroso-di-n-propylamine	1700.	U
67-72-1	Hexachloroethane	1700.	U
98-95-3	Nitrobenzene	1700.	U
78-59-1	Isophorone	1700.	U
88-75-5	2-Nitrophenol	1700.	U
105-67-9	2,4-Dimethylphenol	1700.	U
65-85-0	Benzoic acid	8600.	U
111-91-1	bis(2-Chloroethoxy)methane	1700.	U
120-83-2	2,4-Dichlorophenol	1700.	U
120-82-1	1,2,4-Trichlorobenzene	1700.	U
91-20-3	Naphthalene	1700.	U
106-47-8	4-Chloroaniline	3400.	U
87-68-3	Hexachlorobutadiene	1700.	U
59-50-7	4-Chloro-3-methylphenol	3400.	U
91-57-6	2-Methylnaphthalene	1700.	U
77-47-4	Hexachlorocyclopentadiene	1700.	U
88-06-2	2,4,6-Trichlorophenol	1700.	U
95-95-4	2,4,5-Trichlorophenol	1700.	U
91-58-7	2-Chloronaphthalene	1700.	U
88-74-4	2-Nitroaniline	8600.	U
131-11-3	Dimethylphthalate	1700.	U
208-96-8	Acenaphthylene	1700.	U
606-20-2	2,6-Dinitrotoluene	1700.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS259

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29845

Matrix: (soil/water) SOIL Lab Sample ID:29845-4

Sample wt/vol: 30.3 (g/ml) G Lab File ID: S7799

Level: (low/med) LOW Date Received: 1/28/90

% Moisture: 4 decanted: (Y/N) N Date Extracted: 2/02/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/09/93

Injection Volume: 1.0 (uL) Dilution Factor: 5.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	8600.	U
83-32-9	Acenaphthene	1700.	U
51-28-5	2,4-Dinitrophenol	8600.	U
100-02-7	4-Nitrophenol	8600.	U
132-64-9	Dibenzofuran	1700.	U
121-14-2	2,4-Dinitrotoluene	1700.	U
84-66-2	Diethylphthalate	1700.	U
7005-72-3	4-Chlorophenyl-phenylether	1700.	U
86-73-7	Fluorene	1700.	U
100-01-6	4-Nitroaniline	8600.	U
534-52-1	4,6-Dinitro-2-methylphenol	8600.	U
86-30-6	N-Nitrosodiphenylamine(1)	1700.	U
101-55-3	4-Bromophenyl-phenylether	1700.	U
118-74-1	Hexachlorobenzene	1700.	U
87-86-5	Pentachlorophenol	8600.	U
85-01-8	Phenanthrene	1700.	U
120-12-7	Anthracene	1700.	U
84-74-2	Di-n-butylphthalate	840.	J
206-44-0	Fluoranthene	1700.	U
129-00-0	Pyrene	1700.	U
85-68-7	Butylbenzylphthalate	1700.	U
91-94-1	3,3'-Dichlorobenzidine	3400.	U
56-55-3	Benzo(a)anthracene	1700.	U
218-01-9	Chrysene	1700.	U
117-81-7	bis(2-Ethylhexyl)phthalate	1700.	U
117-84-0	Di-n-octylphthalate	1700.	U
205-99-2	Benzo(b)fluoranthene	1700.	U
207-08-9	Benzo(k)fluoranthene	1700.	U
50-32-8	Benzo(a)pyrene	1700.	U
193-39-5	Indeno(1,2,3-cd)pyrene	1700.	U
53-70-3	Dibenz(a,h)anthracene	1700.	U
191-24-2	Benzo(g,h,i)perylene	1700.	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS259

Lab Name: Sound Analytical Services Contract: 624419

Lab Code: - Case No.: - SAS No.: - SDG No.: 29845

Matrix: (soil/water) SOIL Lab Sample ID: 29845-4

Sample wt/vol: 30.3 (g/ml) G Lab File ID: S7799

Level: (low/med) LOW Date Received: 1/28/90

% Moisture: 4 decanted: (Y/N) N Date Extracted: 2/02/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/09/93

Injection Volume: 1.0 (uL) Dilution Factor: 5.0

GPC Cleanup: (Y/N) N pH: 0.0

Number TICs Found: 2

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	22.65	0.	J
2.		Unknown Amide	28.45	0.	J
3.					
4.					
5.					
6.					
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS261

Lab Name: Sound Analytical Services Contract: 624419

Lab Code: - Case No.: - SAS No.: - SDG No.: 29845

Matrix: (soil/water) SOIL Lab Sample ID: 29845-5

Sample wt/vol: 30.8 (g/ml) G Lab File ID: S7779

Level: (low/med) LOW Date Received: 1/28/90

% Moisture: 7 decanted: (Y/N) N Date Extracted: 2/02/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/08/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	350.	U
111-44-4	Bis(2-chloroethyl)ether	350.	U
95-57-8	2-Chlorophenol	350.	U
541-73-1	1,3-Dichlorobenzene	350.	U
106-46-7	1,4-Dichlorobenzene	350.	U
100-51-6	Benzyl alcohol	700.	U
95-50-1	1,2-Dichlorobenzene	350.	U
95-48-7	2-Methylphenol	350.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	350.	U
106-44-5	4-Methylphenol	350.	U
621-64-7	N-Nitroso-di-n-propylamine	350.	U
67-72-1	Hexachloroethane	55.	J
98-95-3	Nitrobenzene	350.	U
78-59-1	Isophorone	350.	U
88-75-5	2-Nitrophenol	350.	U
105-67-9	2,4-Dimethylphenol	350.	U
65-85-0	Benzoic acid	1700.	U
111-91-1	bis(2-Chloroethoxy)methane	350.	U
120-83-2	2,4-Dichlorophenol	350.	U
120-82-1	1,2,4-Trichlorobenzene	350.	U
91-20-3	Naphthalene	350.	U
106-47-8	4-Chloroaniline	700.	U
87-68-3	Hexachlorobutadiene	350.	U
59-50-7	4-Chloro-3-methylphenol	700.	U
91-57-6	2-Methylnaphthalene	350.	U
77-47-4	Hexachlorocyclopentadiene	350.	U
88-06-2	2,4,6-Trichlorophenol	350.	U
95-95-4	2,4,5-Trichlorophenol	350.	U
91-58-7	2-Chloronaphthalene	350.	U
88-74-4	2-Nitroaniline	1700.	U
131-11-3	Dimethylphthalate	350.	U
208-96-8	Acenaphthylene	350.	U
606-20-2	2,6-Dinitrotoluene	350.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS261

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29845

Matrix: (soil/water) SOIL Lab Sample ID:29845-5

Sample wt/vol: 30.8 (g/ml) G Lab File ID: S7779

Level: (low/med) LOW Date Received: 1/28/90

% Moisture: 7 decanted: (Y/N) N Date Extracted: 2/02/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/08/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1700.	U
83-32-9	Acenaphthene	350.	U
51-28-5	2,4-Dinitrophenol	1700.	U
100-02-7	4-Nitrophenol	1700.	U
132-64-9	Dibenzofuran	350.	U
121-14-2	2,4-Dinitrotoluene	350.	U
84-66-2	Diethylphthalate	350.	U
7005-72-3	4-Chlorophenyl-phenylether	350.	U
86-73-7	Fluorene	350.	U
100-01-6	4-Nitroaniline	1700.	U
534-52-1	4,6-Dinitro-2-methylphenol	1700.	U
86-30-6	N-Nitrosodiphenylamine(1)	350.	U
101-55-3	4-Bromophenyl-phenylether	350.	U
118-74-1	Hexachlorobenzene	45.	J
87-86-5	Pentachlorophenol	1700.	U
85-01-8	Phenanthrene	350.	U
120-12-7	Anthracene	350.	U
84-74-2	Di-n-butylphthalate	180.	J
206-44-0	Fluoranthene	350.	U
129-00-0	Pyrene	350.	U
85-68-7	Butylbenzylphthalate	350.	U
91-94-1	3,3'-Dichlorobenzidine	700.	U
56-55-3	Benzo(a)anthracene	350.	U
218-01-9	Chrysene	350.	U
117-81-7	bis(2-Ethylhexyl)phthalate	350.	U
117-84-0	Di-n-octylphthalate	350.	U
205-99-2	Benzo(b)fluoranthene	350.	U
207-08-9	Benzo(k)fluoranthene	350.	U
50-32-8	Benzo(a)pyrene	350.	U
193-39-5	Indeno(1,2,3-cd)pyrene	350.	U
53-70-3	Dibenz(a,h)anthracene	350.	U
191-24-2	Benzo(g,h,i)perylene	350.	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS261

Lab Name: Sound Analytical Services Contract: 624419

Lab Code: - Case No.: - SAS No.: - SDG No.: 29845

Matrix: (soil/water) SOIL Lab Sample ID: 29845-5

Sample wt/vol: 30.8 (g/ml) G Lab File ID: S7779

Level: (low/med) LOW Date Received: 1/28/90

% Moisture: 7 decanted: (Y/N) N Date Extracted: 2/02/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/08/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

Number TICs Found: 2

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	U	Unknown	10.20	0.	J
2.		Unknown	28.50	0.	J
3.	U	Unknown	30.58	0.	J
4.	U	Unknown	31.23	0.	J
5.					
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS262

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29845

Matrix: (soil/water) SOIL Lab Sample ID:29845-6

Sample wt/vol: 30.1 (g/ml) G Lab File ID: S7780

Level: (low/med) LOW Date Received: 1/28/90

% Moisture: 10 decanted: (Y/N) N Date Extracted: 2/02/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/08/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	370.	U
111-44-4	Bis(2-chloroethyl)ether	370.	U
95-57-8	2-Chlorophenol	370.	U
541-73-1	1,3-Dichlorobenzene	370.	U
106-46-7	1,4-Dichlorobenzene	370.	U
100-51-6	Benzyl alcohol	740.	U
95-50-1	1,2-Dichlorobenzene	370.	U
95-48-7	2-Methylphenol	370.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	370.	U
106-44-5	4-Methylphenol	370.	U
621-64-7	N-Nitroso-di-n-propylamine	370.	U
67-72-1	Hexachloroethane	370.	U
98-95-3	Nitrobenzene	370.	U
78-59-1	Isophorone	370.	U
88-75-5	2-Nitrophenol	370.	U
105-67-9	2,4-Dimethylphenol	370.	U
65-85-0	Benzoic acid	1800.	U
111-91-1	bis(2-Chloroethoxy)methane	370.	U
120-83-2	2,4-Dichlorophenol	370.	U
120-82-1	1,2,4-Trichlorobenzene	370.	U
91-20-3	Naphthalene	370.	U
106-47-8	4-Chloroaniline	740.	U
87-68-3	Hexachlorobutadiene	370.	U
59-50-7	4-Chloro-3-methylphenol	740.	U
91-57-6	2-Methylnaphthalene	370.	U
77-47-4	Hexachlorocyclopentadiene	370.	U
88-06-2	2,4,6-Trichlorophenol	370.	U
95-95-4	2,4,5-Trichlorophenol	370.	U
91-58-7	2-Chloronaphthalene	370.	U
88-74-4	2-Nitroaniline	1800.	U
131-11-3	Dimethylphthalate	370.	U
208-96-8	Acenaphthylene	370.	U
606-20-2	2,6-Dinitrotoluene	370.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS262

Lab Name: Sound Analytical Services Contract: 624419

Lab Code: - Case No.: - SAS No.: - SDG No.: 29845

Matrix: (soil/water) SOIL Lab Sample ID: 29845-6

Sample wt/vol: 30.1 (g/ml) G Lab File ID: S7780

Level: (low/med) LOW Date Received: 1/28/90

% Moisture: 10 decanted: (Y/N) N Date Extracted: 2/02/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/08/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1800.	U
83-32-9	Acenaphthene	370.	U
51-28-5	2,4-Dinitrophenol	1800.	U
100-02-7	4-Nitrophenol	1800.	U
132-64-9	Dibenzofuran	370.	U
121-14-2	2,4-Dinitrotoluene	370.	U
84-66-2	Diethylphthalate	370.	U
7005-72-3	4-Chlorophenyl-phenylether	370.	U
86-73-7	Fluorene	370.	U
100-01-6	4-Nitroaniline	1800.	U
534-52-1	4,6-Dinitro-2-methylphenol	1800.	U
86-30-6	N-Nitrosodiphenylamine(1)	370.	U
101-55-3	4-Bromophenyl-phenylether	370.	U
118-74-1	Hexachlorobenzene	370.	U
87-86-5	Pentachlorophenol	1800.	U
85-01-8	Phenanthrene	370.	U
120-12-7	Anthracene	370.	U
84-74-2	Di-n-butylphthalate	37.	J
206-44-0	Fluoranthene	370.	U
129-00-0	Pyrene	370.	U
85-68-7	Butylbenzylphthalate	370.	U
91-94-1	3,3'-Dichlorobenzidine	740.	U
56-55-3	Benzo(a)anthracene	370.	U
218-01-9	Chrysene	370.	U
117-81-7	bis(2-Ethylhexyl)phthalate	370.	U
117-84-0	Di-n-octylphthalate	370.	U
205-99-2	Benzo(b)fluoranthene	370.	U
207-08-9	Benzo(k)fluoranthene	370.	U
50-32-8	Benzo(a)pyrene	370.	U
193-39-5	Indeno(1,2,3-cd)pyrene	370.	U
53-70-3	Dibenz(a,h)anthracene	370.	U
191-24-2	Benzo(g,h,i)perylene	370.	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS262

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29845

Matrix: (soil/water) SOIL Lab Sample ID:29845-6

Sample wt/vol: 30.1 (g/ml) G Lab File ID: S7780

Level: (low/med) LOW Date Received: 1/28/90

% Moisture: 10 decanted: (Y/N) N Date Extracted: 2/02/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/08/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

Number TICs Found: 2

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	287.50	0.	J
2.		Unknown Decatrien-1-ol	28.75	0.	J
3.					
4.					
5.					
6.					
7.					
8.					
9.					
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS263

Lab Name: Sound Analytical Services Contract: 624419

Lab Code: - Case No.: - SAS No.: - SDG No.: 29845

Matrix: (soil/water) SOIL Lab Sample ID: 29845-7

Sample wt/vol: 30.1 (g/ml) G Lab File ID: S7781

Level: (low/med) LOW Date Received: 1/28/90

% Moisture: 13 decanted: (Y/N) N Date Extracted: 2/02/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/08/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	380.	U
111-44-4	Bis(2-chloroethyl)ether	380.	U
95-57-8	2-Chlorophenol	380.	U
541-73-1	1,3-Dichlorobenzene	380.	U
106-46-7	1,4-Dichlorobenzene	380.	U
100-51-6	Benzyl alcohol	770.	U
95-50-1	1,2-Dichlorobenzene	380.	U
95-48-7	2-Methylphenol	380.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	380.	U
106-44-5	4-Methylphenol	380.	U
621-64-7	N-Nitroso-di-n-propylamine	380.	U
67-72-1	Hexachloroethane	380.	U
98-95-3	Nitrobenzene	380.	U
78-59-1	Isophorone	380.	U
88-75-5	2-Nitrophenol	380.	U
105-67-9	2,4-Dimethylphenol	380.	U
65-85-0	Benzoic acid	1900.	U
111-91-1	bis(2-Chloroethoxy)methane	380.	U
120-83-2	2,4-Dichlorophenol	380.	U
120-82-1	1,2,4-Trichlorobenzene	380.	U
91-20-3	Naphthalene	380.	U
106-47-8	4-Chloroaniline	770.	U
87-68-3	Hexachlorobutadiene	380.	U
59-50-7	4-Chloro-3-methylphenol	770.	U
91-57-6	2-Methylnaphthalene	380.	U
77-47-4	Hexachlorocyclopentadiene	380.	U
88-06-2	2,4,6-Trichlorophenol	380.	U
95-95-4	2,4,5-Trichlorophenol	380.	U
91-58-7	2-Chloronaphthalene	380.	U
88-74-4	2-Nitroaniline	1900.	U
131-11-3	Dimethylphthalate	380.	U
208-96-8	Acenaphthylene	380.	U
606-20-2	2,6-Dinitrotoluene	380.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS263

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29845

Matrix: (soil/water) SOIL Lab Sample ID:29845-7

Sample wt/vol: 30.1 (g/ml) G Lab File ID: S7781

Level: (low/med) LOW Date Received: 1/28/90

% Moisture: 13 decanted: (Y/N) N Date Extracted: 2/02/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/08/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1900.	U
83-32-9	Acenaphthene	380.	U
51-28-5	2,4-Dinitrophenol	1900.	U
100-02-7	4-Nitrophenol	1900.	U
132-64-9	Dibenzofuran	380.	U
121-14-2	2,4-Dinitrotoluene	380.	U
84-66-2	Diethylphthalate	380.	U
7005-72-3	4-Chlorophenyl-phenylether	380.	U
86-73-7	Fluorene	380.	U
100-01-6	4-Nitroaniline	1900.	U
534-52-1	4,6-Dinitro-2-methylphenol	1900.	U
86-30-6	N-Nitrosodiphenylamine(1)	380.	U
101-55-3	4-Bromophenyl-phenylether	380.	U
118-74-1	Hexachlorobenzene	380.	U
87-86-5	Pentachlorophenol	1900.	U
85-01-8	Phenanthrene	380.	U
120-12-7	Anthracene	380.	U
84-74-2	Di-n-butylphthalate	87.	J
206-44-0	Fluoranthene	380.	U
129-00-0	Pyrene	380.	U
85-68-7	Butylbenzylphthalate	380.	U
91-94-1	3,3'-Dichlorobenzidine	770.	U
56-55-3	Benzo(a)anthracene	380.	U
218-01-9	Chrysene	380.	U
117-81-7	bis(2-Ethylhexyl)phthalate	380.	U
117-84-0	Di-n-octylphthalate	380.	U
205-99-2	Benzo(b)fluoranthene	380.	U
207-08-9	Benzo(k)fluoranthene	380.	U
50-32-8	Benzo(a)pyrene	380.	U
193-39-5	Indeno(1,2,3-cd)pyrene	380.	U
53-70-3	Dibenz(a,h)anthracene	380.	U
191-24-2	Benzo(g,h,i)perylene	380.	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS263

Lab Name: Sound Analytical Services Contract: 624419

Lab Code: - Case No.: - SAS No.: - SDG No.: 29845

Matrix: (soil/water) SOIL Lab Sample ID: 29845-7

Sample wt/vol: 30.1 (g/ml) G Lab File ID: S7781

Level: (low/med) LOW Date Received: 1/28/90

% Moisture: 13 decanted: (Y/N) N Date Extracted: 2/02/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/08/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

Number TICs Found: 2

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	28.85	0.	J
2.					
3.					
4.					
5.					
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS264

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29845

Matrix: (soil/water) SOIL Lab Sample ID:29845-8

Sample wt/vol: 30.5 (g/ml) G Lab File ID: S7782

Level: (low/med) LOW Date Received: 1/28/90

% Moisture: 5 decanted: (Y/N) N Date Extracted: 2/02/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/08/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	350.	U
111-44-4	Bis(2-chloroethyl)ether	350.	U
95-57-8	2-Chlorophenol	350.	U
541-73-1	1,3-Dichlorobenzene	350.	U
106-46-7	1,4-Dichlorobenzene	350.	U
100-51-6	Benzyl alcohol	690.	U
95-50-1	1,2-Dichlorobenzene	350.	U
95-48-7	2-Methylphenol	350.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	350.	U
106-44-5	4-Methylphenol	350.	U
621-64-7	N-Nitroso-di-n-propylamine	350.	U
67-72-1	Hexachloroethane	350.	U
98-95-3	Nitrobenzene	350.	U
78-59-1	Isophorone	350.	U
88-75-5	2-Nitrophenol	350.	U
105-67-9	2,4-Dimethylphenol	350.	U
65-85-0	Benzoic acid	1700.	U
111-91-1	bis(2-Chloroethoxy)methane	350.	U
120-83-2	2,4-Dichlorophenol	350.	U
120-82-1	1,2,4-Trichlorobenzene	350.	U
91-20-3	Naphthalene	350.	U
106-47-8	4-Chloroaniline	690.	U
87-68-3	Hexachlorobutadiene	350.	U
59-50-7	4-Chloro-3-methylphenol	690.	U
91-57-6	2-Methylnaphthalene	350.	U
77-47-4	Hexachlorocyclopentadiene	350.	U
88-06-2	2,4,6-Trichlorophenol	350.	U
95-95-4	2,4,5-Trichlorophenol	350.	U
91-58-7	2-Chloronaphthalene	350.	U
88-74-4	2-Nitroaniline	1700.	U
131-11-3	Dimethylphthalate	350.	U
208-96-8	Acenaphthylene	350.	U
606-20-2	2,6-Dinitrotoluene	350.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS264

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29845

Matrix: (soil/water) SOIL Lab Sample ID:29845-8

Sample wt/vol: 30.5 (g/ml) G Lab File ID: S7782

Level: (low/med) LOW Date Received: 1/28/90

% Moisture: 5 decanted: (Y/N) N Date Extracted: 2/02/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/08/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1700.	U
83-32-9	Acenaphthene	350.	U
51-28-5	2,4-Dinitrophenol	1700.	U
100-02-7	4-Nitrophenol	1700.	U
132-64-9	Dibenzofuran	350.	U
121-14-2	2,4-Dinitrotoluene	350.	U
84-66-2	Diethylphthalate	350.	U
7005-72-3	4-Chlorophenyl-phenylether	350.	U
86-73-7	Fluorene	350.	U
100-01-6	4-Nitroaniline	1700.	U
534-52-1	4,6-Dinitro-2-methylphenol	1700.	U
86-30-6	N-Nitrosodiphenylamine(1)	350.	U
101-55-3	4-Bromophenyl-phenylether	350.	U
118-74-1	Hexachlorobenzene	350.	U
87-86-5	Pentachlorophenol	1700.	U
85-01-8	Phenanthrene	350.	U
120-12-7	Anthracene	350.	U
84-74-2	Di-n-butylphthalate	260.	J
206-44-0	Fluoranthene	350.	U
129-00-0	Pyrene	350.	U
85-68-7	Butylbenzylphthalate	350.	U
91-94-1	3,3'-Dichlorobenzidine	690.	U
56-55-3	Benzo(a)anthracene	350.	U
218-01-9	Chrysene	350.	U
117-81-7	bis(2-Ethylhexyl)phthalate	350.	U
117-84-0	Di-n-octylphthalate	350.	U
205-99-2	Benzo(b)fluoranthene	350.	U
207-08-9	Benzo(k)fluoranthene	350.	U
50-32-8	Benzo(a)pyrene	350.	U
193-39-5	Indeno(1,2,3-cd)pyrene	350.	U
53-70-3	Dibenz(a,h)anthracene	350.	U
191-24-2	Benzo(g,h,i)perylene	350.	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS264

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29845

Matrix: (soil/water) SOIL Lab Sample ID:29845-8

Sample wt/vol: 30.5 (g/ml) G Lab File ID: S7782

Level: (low/med) LOW Date Received: 1/28/90

% Moisture: 5 decanted: (Y/N) N Date Extracted: 2/02/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/08/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

Number TICs Found: 2

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	10544-50-0	Sulphur	22.32	0.	J
2.		Unknown	28.50	0.	J
3.					
4.					
5.					
6.					
7.					
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS265

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29845

Matrix: (soil/water) SOIL Lab Sample ID:29845-9

Sample wt/vol: 30.2 (g/ml) G Lab File ID: S7783

Level: (low/med) LOW Date Received: 1/28/90

% Moisture: 12 decanted: (Y/N) N Date Extracted: 2/02/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/08/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	380.	U
111-44-4	Bis(2-chloroethyl)ether	380.	U
95-57-8	2-Chlorophenol	380.	U
541-73-1	1,3-Dichlorobenzene	380.	U
106-46-7	1,4-Dichlorobenzene	380.	U
100-51-6	Benzyl alcohol	750.	U
95-50-1	1,2-Dichlorobenzene	380.	U
95-48-7	2-Methylphenol	380.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	380.	U
106-44-5	4-Methylphenol	380.	U
621-64-7	N-Nitroso-di-n-propylamine	380.	U
67-72-1	Hexachloroethane	380.	U
98-95-3	Nitrobenzene	380.	U
78-59-1	Isophorone	380.	U
88-75-5	2-Nitrophenol	380.	U
105-67-9	2,4-Dimethylphenol	380.	U
65-85-0	Benzoic acid	1900.	U
111-91-1	bis(2-Chloroethoxy)methane	380.	U
120-83-2	2,4-Dichlorophenol	380.	U
120-82-1	1,2,4-Trichlorobenzene	380.	U
91-20-3	Naphthalene	380.	U
106-47-8	4-Chloroaniline	750.	U
87-68-3	Hexachlorobutadiene	380.	U
59-50-7	4-Chloro-3-methylphenol	750.	U
91-57-6	2-Methylnaphthalene	380.	U
77-47-4	Hexachlorocyclopentadiene	380.	U
88-06-2	2,4,6-Trichlorophenol	380.	U
95-95-4	2,4,5-Trichlorophenol	380.	U
91-58-7	2-Chloronaphthalene	380.	U
88-74-4	2-Nitroaniline	1900.	U
131-11-3	Dimethylphthalate	380.	U
208-96-8	Acenaphthylene	380.	U
606-20-2	2,6-Dinitrotoluene	380.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS265

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29845

Matrix: (soil/water) SOIL Lab Sample ID:29845-9

Sample wt/vol: 30.2 (g/ml) G Lab File ID: S7783

Level: (low/med) LOW Date Received: 1/28/90

% Moisture: 12 decanted: (Y/N) N Date Extracted: 2/02/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/08/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1900.	U
83-32-9	Acenaphthene	380.	U
51-28-5	2,4-Dinitrophenol	1900.	U
100-02-7	4-Nitrophenol	1900.	U
132-64-9	Dibenzofuran	380.	U
121-14-2	2,4-Dinitrotoluene	380.	U
84-66-2	Diethylphthalate	380.	U
7005-72-3	4-Chlorophenyl-phenylether	380.	U
86-73-7	Fluorene	380.	U
100-01-6	4-Nitroaniline	1900.	U
534-52-1	4,6-Dinitro-2-methylphenol	1900.	U
86-30-6	N-Nitrosodiphenylamine(1)	380.	U
101-55-3	4-Bromophenyl-phenylether	380.	U
118-74-1	Hexachlorobenzene	380.	U
87-86-5	Pentachlorophenol	1900.	U
85-01-8	Phenanthrene	380.	U
120-12-7	Anthracene	380.	U
84-74-2	Di-n-butylphthalate	310.	J
206-44-0	Fluoranthene	380.	U
129-00-0	Pyrene	380.	U
85-68-7	Butylbenzylphthalate	380.	U
91-94-1	3,3'-Dichlorobenzidine	750.	U
56-55-3	Benzo(a)anthracene	380.	U
218-01-9	Chrysene	380.	U
117-81-7	bis(2-Ethylhexyl)phthalate	380.	U
117-84-0	Di-n-octylphthalate	380.	U
205-99-2	Benzo(b)fluoranthene	380.	U
207-08-9	Benzo(k)fluoranthene	380.	U
50-32-8	Benzo(a)pyrene	380.	U
193-39-5	Indeno(1,2,3-cd)pyrene	380.	U
53-70-3	Dibenz(a,h)anthracene	380.	U
191-24-2	Benzo(g,h,i)perylene	380.	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS265

Lab Name: Sound Analytical Services Contract: 624419

Lab Code: - Case No.: - SAS No.: - SDG No.: 29845

Matrix: (soil/water) SOIL Lab Sample ID: 29845-9

Sample wt/vol: 30.2 (g/ml) G Lab File ID: S7783

Level: (low/med) LOW Date Received: 1/28/90

% Moisture: 12 decanted: (Y/N) N Date Extracted: 2/02/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/08/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

Number TICs Found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	28.65	0.	J
2.					
3.					
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS266

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29845

Matrix: (soil/water) SOIL Lab Sample ID:29845-10

Sample wt/vol: 30.1 (g/ml) G Lab File ID: S7786

Level: (low/med) LOW Date Received: 1/28/93

% Moisture: 5 decanted: (Y/N) N Date Extracted: 2/02/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/09/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	350.	U
111-44-4	Bis(2-chloroethyl)ether	350.	U
95-57-8	2-Chlorophenol	350.	U
541-73-1	1,3-Dichlorobenzene	350.	U
106-46-7	1,4-Dichlorobenzene	350.	U
100-51-6	Benzyl alcohol	700.	U
95-50-1	1,2-Dichlorobenzene	350.	U
95-48-7	2-Methylphenol	350.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	350.	U
106-44-5	4-Methylphenol	350.	U
621-64-7	N-Nitroso-di-n-propylamine	350.	U
67-72-1	Hexachloroethane	350.	U
98-95-3	Nitrobenzene	350.	U
78-59-1	Isophorone	350.	U
88-75-5	2-Nitrophenol	350.	U
105-67-9	2,4-Dimethylphenol	350.	U
65-85-0	Benzoic acid	1700.	U
111-91-1	bis(2-Chloroethoxy)methane	350.	U
120-83-2	2,4-Dichlorophenol	350.	U
120-82-1	1,2,4-Trichlorobenzene	350.	U
91-20-3	Naphthalene	350.	U
106-47-8	4-Chloroaniline	700.	U
87-68-3	Hexachlorobutadiene	350.	U
59-50-7	4-Chloro-3-methylphenol	700.	U
91-57-6	2-Methylnaphthalene	350.	U
77-47-4	Hexachlorocyclopentadiene	350.	U
88-06-2	2,4,6-Trichlorophenol	350.	U
95-95-4	2,4,5-Trichlorophenol	350.	U
91-58-7	2-Chloronaphthalene	350.	U
88-74-4	2-Nitroaniline	1700.	U
131-11-3	Dimethylphthalate	350.	U
208-96-8	Acenaphthylene	350.	U
606-20-2	2,6-Dinitrotoluene	350.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS266

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29845

Matrix: (soil/water) SOIL Lab Sample ID:29845-10

Sample wt/vol: 30.1 (g/ml) G Lab File ID: S7786

Level: (low/med) LOW Date Received: 1/28/93

% Moisture: 5 decanted: (Y/N) N Date Extracted: 2/02/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/09/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1700.	U
83-32-9	Acenaphthene	350.	U
51-28-5	2,4-Dinitrophenol	1700.	U
100-02-7	4-Nitrophenol	1700.	U
132-64-9	Dibenzofuran	350.	U
121-14-2	2,4-Dinitrotoluene	350.	U
84-66-2	Diethylphthalate	350.	U
7005-72-3	4-Chlorophenyl-phenylether	350.	U
86-73-7	Fluorene	350.	U
100-01-6	4-Nitroaniline	1700.	U
534-52-1	4,6-Dinitro-2-methylphenol	1700.	U
86-30-6	N-Nitrosodiphenylamine(1)	350.	U
101-55-3	4-Bromophenyl-phenylether	350.	U
118-74-1	Hexachlorobenzene	350.	U
87-86-5	Pentachlorophenol	1700.	U
85-01-8	Phenanthrene	350.	U
120-12-7	Anthracene	350.	U
84-74-2	Di-n-butylphthalate	410.	
206-44-0	Fluoranthene	350.	U
129-00-0	Pyrene	350.	U
85-68-7	Butylbenzylphthalate	350.	U
91-94-1	3,3'-Dichlorobenzidine	700.	U
56-55-3	Benzo(a)anthracene	350.	U
218-01-9	Chrysene	350.	U
117-81-7	bis(2-Ethylhexyl)phthalate	350.	U
117-84-0	Di-n-octylphthalate	350.	U
205-99-2	Benzo(b)fluoranthene	350.	U
207-08-9	Benzo(k)fluoranthene	350.	U
50-32-8	Benzo(a)pyrene	350.	U
193-39-5	Indeno(1,2,3-cd)pyrene	350.	U
53-70-3	Dibenz(a,h)anthracene	350.	U
191-24-2	Benzo(g,h,i)perylene	350.	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS266

Lab Name: Sound Analytical Services Contract: 624419

Lab Code: - Case No.: - SAS No.: - SDG No.: 29845

Matrix: (soil/water) SOIL Lab Sample ID: 29845-10

Sample wt/vol: 30.1 (g/ml) G Lab File ID: S7786

Level: (low/med) LOW Date Received: 1/28/93

% Moisture: 5 decanted: (Y/N) N Date Extracted: 2/02/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/09/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

Number TICs Found: 2

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown Amide	29.07	0.	J
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS267

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29845

Matrix: (soil/water) SOIL Lab Sample ID:29845-11

Sample wt/vol: 30.4 (g/ml) G Lab File ID: S7787

Level: (low/med) LOW Date Received: 1/28/93

% Moisture: 10 decanted: (Y/N) N Date Extracted: 2/02/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/09/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	370.	U
111-44-4	Bis(2-chloroethyl)ether	370.	U
95-57-8	2-Chlorophenol	370.	U
541-73-1	1,3-Dichlorobenzene	370.	U
106-46-7	1,4-Dichlorobenzene	370.	U
100-51-6	Benzyl alcohol	730.	U
95-50-1	1,2-Dichlorobenzene	370.	U
95-48-7	2-Methylphenol	370.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	370.	U
106-44-5	4-Methylphenol	370.	U
621-64-7	N-Nitroso-di-n-propylamine	370.	U
67-72-1	Hexachloroethane	370.	U
98-95-3	Nitrobenzene	370.	U
78-59-1	Isophorone	370.	U
88-75-5	2-Nitrophenol	370.	U
105-67-9	2,4-Dimethylphenol	370.	U
65-85-0	Benzoic acid	1800.	U
111-91-1	bis(2-Chloroethoxy)methane	370.	U
120-83-2	2,4-Dichlorophenol	370.	U
120-82-1	1,2,4-Trichlorobenzene	370.	U
91-20-3	Naphthalene	370.	U
106-47-8	4-Chloroaniline	730.	U
87-68-3	Hexachlorobutadiene	370.	U
59-50-7	4-Chloro-3-methylphenol	730.	U
91-57-6	2-Methylnaphthalene	370.	U
77-47-4	Hexachlorocyclopentadiene	370.	U
88-06-2	2,4,6-Trichlorophenol	370.	U
95-95-4	2,4,5-Trichlorophenol	370.	U
91-58-7	2-Chloronaphthalene	370.	U
88-74-4	2-Nitroaniline	1800.	U
131-11-3	Dimethylphthalate	370.	U
208-96-8	Acenaphthylene	370.	U
606-20-2	2,6-Dinitrotoluene	370.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS267

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29845

Matrix: (soil/water) SOIL Lab Sample ID:29845-11

Sample wt/vol: 30.4 (g/ml) G Lab File ID: S7787

Level: (low/med) LOW Date Received: 1/28/93

% Moisture: 10 decanted: (Y/N) N Date Extracted: 2/02/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/09/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1800.	U
83-32-9	Acenaphthene	370.	U
51-28-5	2,4-Dinitrophenol	1800.	U
100-02-7	4-Nitrophenol	1800.	U
132-64-9	Dibenzofuran	370.	U
121-14-2	2,4-Dinitrotoluene	370.	U
84-66-2	Diethylphthalate	370.	U
7005-72-3	4-Chlorophenyl-phenylether	370.	U
86-73-7	Fluorene	370.	U
100-01-6	4-Nitroaniline	1800.	U
534-52-1	4,6-Dinitro-2-methylphenol	1800.	U
86-30-6	N-Nitrosodiphenylamine(1)	370.	U
101-55-3	4-Bromophenyl-phenylether	370.	U
118-74-1	Hexachlorobenzene	370.	U
87-86-5	Pentachlorophenol	1800.	U
85-01-8	Phenanthrene	370.	U
120-12-7	Anthracene	370.	U
84-74-2	Di-n-butylphthalate	360.	J
206-44-0	Fluoranthene	370.	U
129-00-0	Pyrene	370.	U
85-68-7	Butylbenzylphthalate	370.	U
91-94-1	3,3'-Dichlorobenzidine	730.	U
56-55-3	Benzo(a)anthracene	370.	U
218-01-9	Chrysene	370.	U
117-81-7	bis(2-Ethylhexyl)phthalate	370.	U
117-84-0	Di-n-octylphthalate	370.	U
205-99-2	Benzo(b)fluoranthene	370.	U
207-08-9	Benzo(k)fluoranthene	370.	U
50-32-8	Benzo(a)pyrene	370.	U
193-39-5	Indeno(1,2,3-cd)pyrene	370.	U
53-70-3	Dibenz(a,h)anthracene	370.	U
191-24-2	Benzo(g,h,i)perylene	370.	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS267

Lab Name: Sound Analytical Services Contract: 624419

Lab Code: - Case No.: - SAS No.: - SDG No.: 29845

Matrix: (soil/water) SOIL Lab Sample ID: 29845-11

Sample wt/vol: 30.4 (g/ml) G Lab File ID: S7787

Level: (low/med) LOW Date Received: 1/28/93

% Moisture: 10 decanted: (Y/N) N Date Extracted: 2/02/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/09/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

Number TICs Found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	28.62	0.	J
2.					
3.					
4.					
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS268

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29845

Matrix: (soil/water) SOIL Lab Sample ID:29845-12

Sample wt/vol: 30.6 (g/ml) G Lab File ID: S7788

Level: (low/med) LOW Date Received: 1/28/93

% Moisture: 4 decanted: (Y/N) N Date Extracted: 2/02/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/09/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	340.	U
111-44-4	Bis(2-chloroethyl)ether	340.	U
95-57-8	2-Chlorophenol	340.	U
541-73-1	1,3-Dichlorobenzene	340.	U
106-46-7	1,4-Dichlorobenzene	340.	U
100-51-6	Benzyl alcohol	680.	U
95-50-1	1,2-Dichlorobenzene	340.	U
95-48-7	2-Methylphenol	340.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	340.	U
106-44-5	4-Methylphenol	340.	U
621-64-7	N-Nitroso-di-n-propylamine	340.	U
67-72-1	Hexachloroethane	340.	U
98-95-3	Nitrobenzene	340.	U
78-59-1	Isophorone	340.	U
88-75-5	2-Nitrophenol	340.	U
105-67-9	2,4-Dimethylphenol	340.	U
65-85-0	Benzoic acid	1700.	U
111-91-1	bis(2-Chloroethoxy)methane	340.	U
120-83-2	2,4-Dichlorophenol	340.	U
120-82-1	1,2,4-Trichlorobenzene	340.	U
91-20-3	Naphthalene	340.	U
106-47-8	4-Chloroaniline	680.	U
87-68-3	Hexachlorobutadiene	340.	U
59-50-7	4-Chloro-3-methylphenol	680.	U
91-57-6	2-Methylnaphthalene	340.	U
77-47-4	Hexachlorocyclopentadiene	340.	U
88-06-2	2,4,6-Trichlorophenol	340.	U
95-95-4	2,4,5-Trichlorophenol	340.	U
91-58-7	2-Chloronaphthalene	340.	U
88-74-4	2-Nitroaniline	1700.	U
131-11-3	Dimethylphthalate	340.	U
208-96-8	Acenaphthylene	340.	U
606-20-2	2,6-Dinitrotoluene	340.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS268

Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29845

Matrix: (soil/water) SOIL Lab Sample ID:29845-12

Sample wt/vol: 30.6 (g/ml) G Lab File ID: S7788

Level: (low/med) LOW Date Received: 1/28/93

% Moisture: 4 decanted: (Y/N) N Date Extracted: 2/02/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/09/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1700.	U
83-32-9	Acenaphthene	340.	U
51-28-5	2,4-Dinitrophenol	1700.	U
100-02-7	4-Nitrophenol	1700.	U
132-64-9	Dibenzofuran	340.	U
121-14-2	2,4-Dinitrotoluene	340.	U
84-66-2	Diethylphthalate	340.	U
7005-72-3	4-Chlorophenyl-phenylether	340.	U
86-73-7	Fluorene	340.	U
100-01-6	4-Nitroaniline	1700.	U
534-52-1	4,6-Dinitro-2-methylphenol	1700.	U
86-30-6	N-Nitrosodiphenylamine(1)	340.	U
101-55-3	4-Bromophenyl-phenylether	340.	U
118-74-1	Hexachlorobenzene	340.	U
87-86-5	Pentachlorophenol	1700.	U
85-01-8	Phenanthrene	340.	U
120-12-7	Anthracene	340.	U
84-74-2	Di-n-butylphthalate	320.	J
206-44-0	Fluoranthene	340.	U
129-00-0	Pyrene	340.	U
85-68-7	Butylbenzylphthalate	340.	U
91-94-1	3,3'-Dichlorobenzidine	680.	U
56-55-3	Benzo(a)anthracene	340.	U
218-01-9	Chrysene	340.	U
117-81-7	bis(2-Ethylhexyl)phthalate	340.	U
117-84-0	Di-n-octylphthalate	340.	U
205-99-2	Benzo(b)fluoranthene	340.	U
207-08-9	Benzo(k)fluoranthene	340.	U
50-32-8	Benzo(a)pyrene	340.	U
193-39-5	Indeno(1,2,3-cd)pyrene	340.	U
53-70-3	Dibenz(a,h)anthracene	340.	U
191-24-2	Benzo(g,h,i)perylene	340.	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS268

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29845

Matrix: (soil/water) SOIL Lab Sample ID:29845-12

Sample wt/vol: 30.6 (g/ml) G Lab File ID: S7788

Level: (low/med) LOW Date Received: 1/28/93

% Moisture: 4 decanted: (Y/N) N Date Extracted: 2/02/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/09/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

Number TICs Found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	28.48	0.	J
2.					
3.					
4.					
5.					
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS269

Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29845

Matrix: (soil/water) SOIL Lab Sample ID:29845-13

Sample wt/vol: 30.3 (g/ml) G Lab File ID: S7789

Level: (low/med) LOW Date Received: 1/28/93

% Moisture: 4 decanted: (Y/N) N Date Extracted: 2/02/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/09/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	340.	U
111-44-4	Bis(2-chloroethyl)ether	340.	U
95-57-8	2-Chlorophenol	340.	U
541-73-1	1,3-Dichlorobenzene	340.	U
106-46-7	1,4-Dichlorobenzene	340.	U
100-51-6	Benzyl alcohol	690.	U
95-50-1	1,2-Dichlorobenzene	340.	U
95-48-7	2-Methylphenol	340.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	340.	U
106-44-5	4-Methylphenol	340.	U
621-64-7	N-Nitroso-di-n-propylamine	340.	U
67-72-1	Hexachloroethane	340.	U
98-95-3	Nitrobenzene	340.	U
78-59-1	Isophorone	340.	U
88-75-5	2-Nitrophenol	340.	U
105-67-9	2,4-Dimethylphenol	340.	U
65-85-0	Benzoic acid	1700.	U
111-91-1	bis(2-Chloroethoxy)methane	340.	U
120-83-2	2,4-Dichlorophenol	340.	U
120-82-1	1,2,4-Trichlorobenzene	340.	U
91-20-3	Naphthalene	340.	U
106-47-8	4-Chloroaniline	690.	U
87-68-3	Hexachlorobutadiene	340.	U
59-50-7	4-Chloro-3-methylphenol	690.	U
91-57-6	2-Methylnaphthalene	340.	U
77-47-4	Hexachlorocyclopentadiene	340.	U
88-06-2	2,4,6-Trichlorophenol	340.	U
95-95-4	2,4,5-Trichlorophenol	340.	U
91-58-7	2-Chloronaphthalene	340.	U
88-74-4	2-Nitroaniline	1700.	U
131-11-3	Dimethylphthalate	340.	U
208-96-8	Acenaphthylene	340.	U
606-20-2	2,6-Dinitrotoluene	340.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS269

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29845

Matrix: (soil/water) SOIL Lab Sample ID:29845-13

Sample wt/vol: 30.3 (g/ml) G Lab File ID: S7789

Level: (low/med) LOW Date Received: 1/28/93

% Moisture: 4 decanted: (Y/N) N Date Extracted: 2/02/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/09/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1700.	U
83-32-9	Acenaphthene	340.	U
51-28-5	2,4-Dinitrophenol	1700.	U
100-02-7	4-Nitrophenol	1700.	U
132-64-9	Dibenzofuran	340.	U
121-14-2	2,4-Dinitrotoluene	340.	U
84-66-2	Diethylphthalate	340.	U
7005-72-3	4-Chlorophenyl-phenylether	340.	U
86-73-7	Fluorene	340.	U
100-01-6	4-Nitroaniline	1700.	U
534-52-1	4,6-Dinitro-2-methylphenol	1700.	U
86-30-6	N-Nitrosodiphenylamine(1)	340.	U
101-55-3	4-Bromophenyl-phenylether	340.	U
118-74-1	Hexachlorobenzene	340.	U
87-86-5	Pentachlorophenol	1700.	U
85-01-8	Phenanthrene	340.	U
120-12-7	Anthracene	340.	U
84-74-2	Di-n-butylphthalate	340.	
206-44-0	Fluoranthene	340.	U
129-00-0	Pyrene	340.	U
85-68-7	Butylbenzylphthalate	340.	U
91-94-1	3,3'-Dichlorobenzidine	690.	U
56-55-3	Benzo(a)anthracene	340.	U
218-01-9	Chrysene	340.	U
117-81-7	bis(2-Ethylhexyl)phthalate	340.	U
117-84-0	Di-n-octylphthalate	340.	U
205-99-2	Benzo(b)fluoranthene	340.	U
207-08-9	Benzo(k)fluoranthene	340.	U
50-32-8	Benzo(a)pyrene	340.	U
193-39-5	Indeno(1,2,3-cd)pyrene	340.	U
53-70-3	Dibenz(a,h)anthracene	340.	U
191-24-2	Benzo(g,h,i)perylene	340.	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS269

Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:29845

Matrix: (soil/water) SOIL Lab Sample ID:29845-13

Sample wt/vol: 30.3 (g/ml) G Lab File ID: S7789

Level: (low/med) LOW Date Received: 1/28/93

% Moisture: 4 decanted: (Y/N) N Date Extracted: 2/02/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/09/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

Number TICs Found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	28.48	0.	J
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SBS-256

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BUR._PASCO

Lab Code: SAS___ Case No.: _____ SAS No.: 29845_ SDG No.: 29845_

Matrix (soil/water): SOIL_ Lab Sample ID: 29845-1___

Level (low/med): LOW__ Date Received: 01/28/93

% Solids: _91.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_	5.1	U	N	P_
7440-38-2	Arsenic__	6.2	_	*	P_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium	0.08	B		P_
7440-43-9	Cadmium__	2.2	_	*	P_
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_	9.9	_		P_
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___	15.9	_		P_
7439-89-6	Iron____		_		NR
7439-92-1	Lead____	9.8	_		P_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__	0.12	_		AV
7440-02-0	Nickel___	13.8	_		P_
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_	12.2	U		P_
7440-22-4	Silver___	1.7	_		P_
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_	14.1	U		P_
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc____	46.2	_		P_
5955-70-0	Cyanide__		_		NR
			_		

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SBS-257

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BUR._PASCO

Lab Code: SAS___ Case No.: _____ SAS No.: 29845_ SDG No.: 29845_

Matrix (soil/water): SOIL_ Lab Sample ID: 29845-2___

Level (low/med): LOW__ Date Received: 01/28/93

% Solids: _74.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_	5.3	U	N	P_
7440-38-2	Arsenic__	6.1	_	*	P_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium	0.04	B		P_
7440-43-9	Cadmium__	2.0	_	*	P_
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_	10	_		P_
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___	16.4	_		P_
7439-89-6	Iron____		_		NR
7439-92-1	Lead____	12.6	_		P_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__	0.12	_		AV
7440-02-0	Nickel___	13.4	_		P_
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_	12.7	U		P_
7440-22-4	Silver___	1.3	_		P_
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_	14.6	U		P_
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc____	49.5	_		P_
5955-70-0	Cyanide__		_		NR
			_		

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SBS-258

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BUR._PASCO

Lab Code: SAS___ Case No.: _____ SAS No.: 29845_ SDG No.: 29845_

Matrix (soil/water): SOIL_ Lab Sample ID: 29845-3___

Level (low/med): LOW__ Date Received: 01/28/93

% Solids: _86.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_	5.3	U	N	P_
7440-38-2	Arsenic__	4.0	U	*	P_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium	0.01	U		P_
7440-43-9	Cadmium__	2.4	_	*	P_
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_	8.5	_		P_
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___	14.2	_		P_
7439-89-6	Iron____		_		NR
7439-92-1	Lead____	8.8	_		P_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__	0.11	_		AV
7440-02-0	Nickel___	13.3	_		P_
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_	12.7	U		P_
7440-22-4	Silver___	1.8	_		P_
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_	14.6	U		P_
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc____	45.9	_		P_
5955-70-0	Cyanide__		_		NR
			_		

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SBS-259

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BUR._PASCO

Lab Code: SAS___ Case No.: _____ SAS No.: 29845_ SDG No.: 29845_

Matrix (soil/water): SOIL_ Lab Sample ID: 29845-4___

Level (low/med): LOW__ Date Received: 01/28/93

% Solids: _96.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_	3.7	U	N	P_
7440-38-2	Arsenic__	2.8	U	*	P_
7440-39-3	Barium___				NR
7440-41-7	Beryllium	0.01	U		P_
7440-43-9	Cadmium__	2.4		*	P_
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	4.2			P_
7440-48-4	Cobalt___				NR
7440-50-8	Copper___	13.9			P_
7439-89-6	Iron____				NR
7439-92-1	Lead____	7.0			P_
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__	0.09			AV
7440-02-0	Nickel___	9.7			P_
7440-09-7	Potassium				NR
7782-49-2	Selenium_	8.9	U		P_
7440-22-4	Silver___	2.5			P_
7440-23-5	Sodium___				NR
7440-28-0	Thallium_	10.3	U		P_
7440-62-2	Vanadium_				NR
7440-66-6	Zinc____	49.0			P_
5955-70-0	Cyanide__				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SBS-261

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BUR._PASCO

Lab Code: SAS___ Case No.: _____ SAS No.: 29845_ SDG No.: 29845_

Matrix (soil/water): SOIL_ Lab Sample ID: 29845-5___

Level (low/med): LOW__ Date Received: 01/28/93

% Solids: _92.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_	4.7	U	N	P_
7440-38-2	Arsenic__	4.6		*	P_
7440-39-3	Barium___				NR
7440-41-7	Beryllium	0.07	B		P_
7440-43-9	Cadmium__	2.1		*	P_
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	11.7			P_
7440-48-4	Cobalt___				NR
7440-50-8	Copper___	15.4			P_
7439-89-6	Iron____				NR
7439-92-1	Lead____	10.6			P_
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__	0.12			AV
7440-02-0	Nickel___	15.6			P_
7440-09-7	Potassium				NR
7782-49-2	Selenium_	11.3	U		P_
7440-22-4	Silver___	1.3			P_
7440-23-5	Sodium___				NR
7440-28-0	Thallium_	13.0	U		P_
7440-62-2	Vanadium_				NR
7440-66-6	Zinc____	47.7			P_
5955-70-0	Cyanide__				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SBS-262

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BUR._PASCO

Lab Code: SAS___ Case No.: _____ SAS No.: 29845_ SDG No.: 29845_

Matrix (soil/water): SOIL_ Lab Sample ID: 29845-6___

Level (low/med): LOW__ Date Received: 01/28/93

% Solids: _90.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_	5.0	U	N	P_
7440-38-2	Arsenic__	5.5		*	P_
7440-39-3	Barium___				NR
7440-41-7	Beryllium	0.01	U		P_
7440-43-9	Cadmium__	2.5		*	P_
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	12.1			P_
7440-48-4	Cobalt___				NR
7440-50-8	Copper___	17.3			P_
7439-89-6	Iron____				NR
7439-92-1	Lead____	17.3			P_
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__	0.12			AV
7440-02-0	Nickel___	15.7			P_
7440-09-7	Potassium				NR
7782-49-2	Selenium_	12.1	U		P_
7440-22-4	Silver___	1.4			P_
7440-23-5	Sodium___				NR
7440-28-0	Thallium_	13.9	U		P_
7440-62-2	Vanadium_				NR
7440-66-6	Zinc____	53.3			P_
5955-70-0	Cyanide__				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SBS-263

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BUR._PASCO

Lab Code: SAS___ Case No.: _____ SAS No.: 29845_ SDG No.: 29845_

Matrix (soil/water): SOIL_ Lab Sample ID: 29845-7___

Level (low/med): LOW__ Date Received: 01/28/93

% Solids: _86.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_	4.9	U	N	P_
7440-38-2	Arsenic__	4.3		*	P_
7440-39-3	Barium___				NR
7440-41-7	Beryllium	0.01	U		P_
7440-43-9	Cadmium__	2.4		*	P_
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	8.3			P_
7440-48-4	Cobalt___				NR
7440-50-8	Copper___	13.7			P_
7439-89-6	Iron____				NR
7439-92-1	Lead____	8.3			P_
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__	0.10			AV
7440-02-0	Nickel___	13.7			P_
7440-09-7	Potassium				NR
7782-49-2	Selenium_	11.8	U		P_
7440-22-4	Silver___	1.2			P_
7440-23-5	Sodium___				NR
7440-28-0	Thallium_	13.6	U		P_
7440-62-2	Vanadium_				NR
7440-66-6	Zinc____	43.4			P_
5955-70-0	Cyanide__				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SBS-264

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BUR._PASCO

Lab Code: SAS___ Case No.: _____ SAS No.: 29845_ SDG No.: 29845_

Matrix (soil/water): SOIL_ Lab Sample ID: 29845-8___

Level (low/med): LOW__ Date Received: 01/28/93

% Solids: _95.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_	4.7	U	N	P_
7440-38-2	Arsenic__	3.6	U	*	P_
7440-39-3	Barium___				NR
7440-41-7	Beryllium	0.01	U		P_
7440-43-9	Cadmium__	2.4		*	P_
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	5.5			P_
7440-48-4	Cobalt___				NR
7440-50-8	Copper___	11.5			P_
7439-89-6	Iron____				NR
7439-92-1	Lead____	8.7			P_
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__	0.10			AV
7440-02-0	Nickel___	9.7			P_
7440-09-7	Potassium				NR
7782-49-2	Selenium_	11.4	U		P_
7440-22-4	Silver___	2.1			P_
7440-23-5	Sodium___				NR
7440-28-0	Thallium_	13.1	U		P_
7440-62-2	Vanadium_				NR
7440-66-6	Zinc____	40.8			P_
5955-70-0	Cyanide__				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SBS-265

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BUR._PASCO

Lab Code: SAS___ Case No.: _____ SAS No.: 29845_ SDG No.: 29845_

Matrix (soil/water): SOIL_ Lab Sample ID: 29845-9___

Level (low/med): LOW__ Date Received: 01/28/93

% Solids: _87.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_	4.8	U	N	P_
7440-38-2	Arsenic__	11.8	_	*	P_
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium	0.05	B		P_
7440-43-9	Cadmium__	2.5	_	*	P_
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_	10.7	_		P_
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___	19.5	_		P_
7439-89-6	Iron____		_		NR
7439-92-1	Lead____	13.2	_		P_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__	0.12	_		AV
7440-02-0	Nickel___	14.9	_		P_
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_	11.5	U		P_
7440-22-4	Silver___	1.6	_		P_
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_	13.2	U		P_
7440-62-2	Vanadium_		_		NR
7440-66-6	Zinc____	53.1	_		P_
5955-70-0	Cyanide__		_		NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SBS-266

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BUR._PASCO

Lab Code: SAS___ Case No.: _____ SAS No.: 29845_ SDG No.: 29845_

Matrix (soil/water): SOIL_ Lab Sample ID: 29845-10__

Level (low/med): LOW__ Date Received: 01/28/93

% Solids: _94.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_	4.8	U	N	P_
7440-38-2	Arsenic__	7.9		*	P_
7440-39-3	Barium___				NR
7440-41-7	Beryllium	0.01	U		P_
7440-43-9	Cadmium__	1.5		*	P_
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	7.9			P_
7440-48-4	Cobalt___				NR
7440-50-8	Copper___	14.2			P_
7439-89-6	Iron____				NR
7439-92-1	Lead____	9.6			P_
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__	0.10			AV
7440-02-0	Nickel___	11.7			P_
7440-09-7	Potassium				NR
7782-49-2	Selenium_	11.6	U		P_
7440-22-4	Silver___	1.7			P_
7440-23-5	Sodium___				NR
7440-28-0	Thallium_	13.4	U		P_
7440-62-2	Vanadium_				NR
7440-66-6	Zinc____	41.3			P_
5955-70-0	Cyanide__				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SBS-267

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BUR._PASCO

Lab Code: SAS___ Case No.: _____ SAS No.: 29845_ SDG No.: 29845_

Matrix (soil/water): SOIL_ Lab Sample ID: 29845-11__

Level (low/med): LOW__ Date Received: 01/28/93

% Solids: _89.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_	5.0	U	N	P_
7440-38-2	Arsenic__	5.0		*	P_
7440-39-3	Barium___				NR
7440-41-7	Beryllium	0.10	B		P_
7440-43-9	Cadmium__	2.2		*	P_
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	12.1			P_
7440-48-4	Cobalt___				NR
7440-50-8	Copper___	17.2			P_
7439-89-6	Iron____				NR
7439-92-1	Lead____	11.3			P_
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__	0.11			AV
7440-02-0	Nickel___	15.5			P_
7440-09-7	Potassium				NR
7782-49-2	Selenium_	12.0	U		P_
7440-22-4	Silver___	1.2			P_
7440-23-5	Sodium___				NR
7440-28-0	Thallium_	13.9	U		P_
7440-62-2	Vanadium_				NR
7440-66-6	Zinc____	52.0			P_
5955-70-0	Cyanide__				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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U.S. EPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SBS-268

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BUR._PASCO

Lab Code: SAS___ Case No.: _____ SAS No.: 29845_ SDG No.: 29845_

Matrix (soil/water): SOIL_ Lab Sample ID: 29845-12__

Level (low/med): LOW__ Date Received: 01/28/93

% Solids: _95.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_	4.5	U	N	P_
7440-38-2	Arsenic__	3.4	U	*	P_
7440-39-3	Barium___				NR
7440-41-7	Beryllium	0.01	U		P_
7440-43-9	Cadmium__	3.0		*	P_
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	6.0			P_
7440-48-4	Cobalt___				NR
7440-50-8	Copper___	14.4			P_
7439-89-6	Iron____				NR
7439-92-1	Lead____	6.7			P_
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__	0.12			AV
7440-02-0	Nickel___	10.8			P_
7440-09-7	Potassium				NR
7782-49-2	Selenium_	10.9	U		P_
7440-22-4	Silver___	2.5			P_
7440-23-5	Sodium___				NR
7440-28-0	Thallium_	12.5	U		P_
7440-62-2	Vanadium_				NR
7440-66-6	Zinc____	48.7			P_
5955-70-0	Cyanide__				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

U.S. EPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SBS-269

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BUR._PASCO

Lab Code: SAS___ Case No.: _____ SAS No.: 29845_ SDG No.: 29845_

Matrix (soil/water): SOIL_ Lab Sample ID: 29845-13__

Level (low/med): LOW__ Date Received: 01/28/93

% Solids: _95.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_	4.6	U	N	P_
7440-38-2	Arsenic__	5.5		*	P_
7440-39-3	Barium___				NR
7440-41-7	Beryllium	0.01	U		P_
7440-43-9	Cadmium__	5.7		*	P_
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	11.1			P_
7440-48-4	Cobalt___				NR
7440-50-8	Copper___	24.4			P_
7439-89-6	Iron____				NR
7439-92-1	Lead____	14.3			P_
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__	0.13			AV
7440-02-0	Nickel___	20.7			P_
7440-09-7	Potassium				NR
7782-49-2	Selenium_	11.2	U		P_
7440-22-4	Silver___	4.7			P_
7440-23-5	Sodium___				NR
7440-28-0	Thallium_	12.8	U		P_
7440-62-2	Vanadium_				NR
7440-66-6	Zinc____	89.5			P_
5955-70-0	Cyanide__				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SBS-265

Lab Name: Sound Analytiacl Contract: Burlington Environmental

Lab Code: 29845 Case No.: SAS No.: SDG No.:

Matrix: (soil/water) soil Lab Sample ID: 29845-9

Sample wt/vol: 10.5083 (g/mL) grams Lab File ID: P1792

% Moisture: 12.06 decanted: (Y/N) no Date Received: 01/28/93

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 02/01/93

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 02/09/93

Injection Volume: 3 (uL) Dilution Factor:

GPC Cleanup: (Y/N) No pH: n/a Sulfur Cleanup: (Y/N) No

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.84
319-85-7	beta-BHC	ND	1.84
319-86-8	delta-BHC	ND	1.84
58-89-9	gamma-BHC (Lindane)	ND	1.84
76-44-8	Heptachlor	ND	1.84
309-00-2	Aldrin	ND	1.84
1024-57-3	Heptachlor epoxide	ND	1.84
959-98-8	Endosulfan I	ND	1.84
60-57-1	Dieldrin	ND	3.57
72-55-9	4,4'-DDE	ND	3.57
72-20-8	Endrin	ND	3.57
33213-65-9	Endosulfan II	ND	3.57
72-54-8	4,4'-DDD	ND	3.57
1031-07-8	Endosulfan sulfate	ND	3.57
50-29-3	4,4'-DDT	ND	3.57
72-43-5	Methoxychlor	ND	18.40
53494-70-5	Endrin ketone	ND	3.57
7421-36-3	Endrin aldehyde	ND	3.57
5103-71-9	alpha-Chlordane	ND	1.84
5103-74-2	gamma-Chlordane	ND	1.84
8001-35-2	Toxaphene	ND	54.11
12674-11-2	Aroclor-1016	ND	35.71
11104-28-2	Aroclor-1221	ND	35.71
11141-16-5	Aroclor-1232	ND	72.50
53469-21-9	Aroclor-1242	ND	35.71
12672-29-6	Aroclor-1248	ND	35.71
11097-69-1	Aroclor-1254	ND	35.71
11096-82-5	Aroclor-1260	ND	35.71

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SBS-266

Lab Name: Sound Analytiacl Contract: Burlington Environmental

Lab Code: 29845 Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) soil Lab Sample ID: 29845-10

Sample wt/vol: 10.2487 (g/mL) grams Lab File ID: P1795

% Moisture: 5.20 decanted: (Y/N) no Date Received: 01/28/93

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 02/01/93

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 02/09/93

Injection Volume: 3 (uL) Dilution Factor: _____

GPC Cleanup: (Y/N) No pH: n/a Sulfur Cleanup: (Y/N) No

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.75
319-85-7	beta-BHC	ND	1.75
319-86-8	delta-BHC	ND	1.75
58-89-9	gamma-BHC (Lindane)	ND	1.75
76-44-8	Heptachlor	ND	1.75
309-00-2	Aldrin	ND	1.75
1024-57-3	Heptachlor epoxide	ND	1.75
959-98-8	Endosulfan I	ND	1.75
60-57-1	Dieldrin	ND	3.40
72-55-9	4,4'-DDE	ND	3.40
72-20-8	Endrin	ND	3.40
33213-65-9	Endosulfan II	ND	3.40
72-54-8	4,4'-DDD	ND	3.40
1031-07-8	Endosulfan sulfate	ND	3.40
50-29-3	4,4'-DDT	ND	3.40
72-43-5	Methoxychlor	ND	17.50
53494-70-5	Endrin ketone	ND	3.40
7421-36-3	Endrin aldehyde	ND	3.40
5103-71-9	alpha-Chlordane	ND	1.75
5103-74-2	gamma-Chlordane	ND	1.75
8001-35-2	Toxaphene	ND	51.46
12674-11-2	Aroclor-1016	ND	33.97
11104-28-2	Aroclor-1221	ND	33.97
11141-16-5	Aroclor-1232	ND	68.96
53469-21-9	Aroclor-1242	ND	33.97
12672-29-6	Aroclor-1248	ND	33.97
11097-69-1	Aroclor-1254	ND	33.97
11096-82-5	Aroclor-1260	ND	33.97

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SBS-267

Lab Name: Sound Analytiacl Contract: Burlington Environmental

Lab Code: 29845 Case No.: SAS No.: SDG No.:

Matrix: (soil/water) soil Lab Sample ID: 29845-11

Sample wt/vol: 10.0913 (g/mL) grams Lab File ID: P1796

% Moisture: 10.14 decanted: (Y/N) no Date Received: 01/28/93

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 02/01/93

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 02/09/93

Injection Volume: 3 (uL) Dilution Factor:

GPC Cleanup: (Y/N) No pH: n/a Sulfur Cleanup: (Y/N) No

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.87
319-85-7	beta-BHC	ND	1.87
319-86-8	delta-BHC	ND	1.87
58-89-9	gamma-BHC (Lindane)	ND	1.87
76-44-8	Heptachlor	ND	1.87
309-00-2	Aldrin	ND	1.87
1024-57-3	Heptachlor epoxide	ND	1.87
959-98-8	Endosulfan I	ND	1.87
60-57-1	Dieldrin	ND	3.64
72-55-9	4,4'-DDE	ND	3.64
72-20-8	Endrin	ND	3.64
33213-65-9	Endosulfan II	ND	3.64
72-54-8	4,4'-DDD	ND	3.64
1031-07-8	Endosulfan sulfate	ND	3.64
50-29-3	4,4'-DDT	ND	3.64
72-43-5	Methoxychlor	ND	18.75
53494-70-5	Endrin ketone	ND	3.64
7421-36-3	Endrin aldehyde	ND	3.64
5103-71-9	alpha-Chlordane	ND	1.87
5103-74-2	gamma-Chlordane	ND	1.87
8001-35-2	Toxaphene	ND	55.14
12674-11-2	Aroclor-1016	ND	36.39
11104-28-2	Aroclor-1221	ND	36.39
11141-16-5	Aroclor-1232	ND	73.89
53469-21-9	Aroclor-1242	ND	36.39
12672-29-6	Aroclor-1248	ND	36.39
11097-69-1	Aroclor-1254	ND	36.39
11096-82-5	Aroclor-1260	ND	36.39

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
PLF-SBS-268

Lab Name: Sound Analytiacl Contract: Burlington Environmental

Lab Code: 29845 Case No.: SAS No.: SDG No.:

Matrix: (soil/water) soil Lab Sample ID: 29845-12

Sample wt/vol: 10.4833 (g/mL) grams Lab File ID: P1797

% Moisture: 4.16 decanted: (Y/N) no Date Received: 01/28/93

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 02/01/93

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 02/09/93

Injection Volume: 3 (uL) Dilution Factor:

GPC Cleanup: (Y/N) No pH: n/a Sulfur Cleanup: (Y/N) No

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.69
319-85-7	beta-BHC	ND	1.69
319-86-8	delta-BHC	ND	1.69
58-89-9	gamma-BHC (Lindane)	ND	1.69
76-44-8	Heptachlor	ND	1.69
309-00-2	Aldrin	ND	1.69
1024-57-3	Heptachlor epoxide	ND	1.69
959-98-8	Endosulfan I	ND	1.69
60-57-1	Dieldrin	ND	3.28
72-55-9	4,4'-DDE	ND	3.28
72-20-8	Endrin	ND	3.28
33213-65-9	Endosulfan II	ND	3.28
72-54-8	4,4'-DDD	ND	3.28
1031-07-8	Endosulfan sulfate	ND	3.28
50-29-3	4,4'-DDT	ND	3.28
72-43-5	Methoxychlor	ND	16.92
53494-70-5	Endrin ketone	ND	3.28
7421-36-3	Endrin aldehyde	ND	3.28
5103-71-9	alpha-Chlordane	ND	1.69
5103-74-2	gamma-Chlordane	ND	1.69
8001-35-2	Toxaphene	ND	49.77
12674-11-2	Aroclor-1016	ND	32.84
11104-28-2	Aroclor-1221	ND	32.84
11141-16-5	Aroclor-1232	ND	66.69
53469-21-9	Aroclor-1242	ND	32.84
12672-29-6	Aroclor-1248	ND	32.84
11097-69-1	Aroclor-1254	ND	32.84
11096-82-5	Aroclor-1260	ND	32.84

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SBS-269

Lab Name: Sound Analytiacl Contract: Burlington Environmental

Lab Code: 29845 Case No.: SAS No.: SDG No.:

Matrix: (soil/water) soil Lab Sample ID: 29845-13

Sample wt/vol: 10.6673 (g/mL) grams Lab File ID: P1798

% Moisture: 4.37 decanted: (Y/N) no Date Received: 01/28/93

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 02/01/93

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 02/09/93

Injection Volume: 3 (uL) Dilution Factor:

GPC Cleanup: (Y/N) No pH: n/a Sulfur Cleanup: (Y/N) No

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.67
319-85-7	beta-BHC	ND	1.67
319-86-8	delta-BHC	ND	1.67
58-89-9	gamma-BHC (Lindane)	ND	1.67
76-44-8	Heptachlor	ND	1.67
309-00-2	Aldrin	ND	1.67
1024-57-3	Heptachlor epoxide	ND	1.67
959-98-8	Endosulfan I	ND	1.67
60-57-1	Dieldrin	ND	3.23
72-55-9	4,4'-DDE	ND	3.23
72-20-8	Endrin	ND	3.23
33213-65-9	Endosulfan II	ND	3.23
72-54-8	4,4'-DDD	ND	3.23
1031-07-8	Endosulfan sulfate	ND	3.23
50-29-3	4,4'-DDT	ND	3.23
72-43-5	Methoxychlor	ND	16.66
53494-70-5	Endrin ketone	ND	3.23
7421-36-3	Endrin aldehyde	ND	3.23
5103-71-9	alpha-Chlordane	ND	1.67
5103-74-2	gamma-Chlordane	ND	1.67
8001-35-2	Toxaphene	ND	49.01
12674-11-2	Aroclor-1016	ND	32.35
11104-28-2	Aroclor-1221	ND	32.35
11141-16-5	Aroclor-1232	ND	65.68
53469-21-9	Aroclor-1242	ND	32.35
12672-29-6	Aroclor-1248	ND	32.35
11097-69-1	Aroclor-1254	ND	32.35
11096-82-5	Aroclor-1260	ND	32.35

SOUND ANALYTICAL SERVICES, INC.

SPECIALIZING IN INDUSTRIAL & TOXIC WASTE ANALYSIS

4813 PACIFIC HIGHWAY EAST, TACOMA, WASHINGTON 98424 - TELEPHONE (206)922-2310 - FAX (206)922-5047

Report To: Burlington Environmental

Date: February 10, 1993

Report On: Analysis of Soil

Lab No.: 29845

IDENTIFICATION:

Samples received on 01-28-93
Project: 624419 Pasco LF

ANALYSIS:

Lab No. 29845-9

Client ID: PLF-SBS-265

Chlorinated Herbicides by GCMS Per EPA SW-846 Method 8150
Date Extracted: 2-3-93
Date Analyzed: 2-4-93

Compound	Concentration, ug/kg	PQL
2,4-D	ND	11.0
Dalapon	ND	110.0
2,4-DB	ND	11.0
Dicamba	ND	11.0
Dichlorprop	ND	11.0
Dinoseb	ND	11.0
MCPA	ND	11.0
MCPP	ND	11.0
2,4,5-T	ND	11.0
2,4-5-TP	ND	11.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	65

ND = Not Detected.
PQL - Practical Quantitation Limit

Continued . . . . .

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SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental
Project: 624419 Pasco LF

Lab No. 29845
February 10, 1993

Lab No. 29845-10 Client ID: PLF-SBS-266

Chlorinated Herbicides by GCMS Per EPA SW-846 Method 8150
Date Extracted: 2-3-93
Date Analyzed: 2-4-93

Compound	Concentration, ug/kg	PQL
2,4-D	ND	10.0
Dalapon	ND	100.0
2,4-DB	ND	10.0
Dicamba	ND	10.0
Dichlorprop	ND	10.0
Dinoseb	ND	10.0
MCPA	ND	10.0
MCPP	ND	10.0
2,4,5-T	ND	10.0
2,4-5-TP	ND	10.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	65

ND = Not Detected.
PQL - Practical Quantitation Limit

Continued . . . . .

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SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental
Project: 624419 Pasco LF

Lab No. 29845
February 10, 1993

Lab No. 29845-11 Client ID: PLF-SBS-267

Chlorinated Herbicides by GCMS Per EPA SW-846 Method 8150
Date Extracted: 2-3-93
Date Analyzed: 2-4-93

Compound	Concentration, ug/kg	PQL
2,4-D	ND	11.0
Dalapon	ND	110.0
2,4-DB	ND	11.0
Dicamba	ND	11.0
Dichlorprop	ND	11.0
Dinoseb	ND	11.0
MCPA	ND	11.0
MCPP	ND	11.0
2,4,5-T	ND	11.0
2,4-5-TP	ND	11.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	72

ND = Not Detected.
PQL - Practical Quantitation Limit

Continued . . . . .

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SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental
Project: 624419 Pasco LF

Lab No. 29845
February 10, 1993

Lab No. 29845-12 Client ID: PLF-SBS-268

Chlorinated Herbicides by GCMS Per EPA SW-846 Method 8150
Date Extracted: 2-3-93
Date Analyzed: 2-4-93

Compound	Concentration, ug/kg	PQL
2,4-D	ND	10.0
Dalapon	ND	100.0
2,4-DB	ND	10.0
Dicamba	ND	10.0
Dichlorprop	ND	10.0
Dinoseb	ND	10.0
MCPA	ND	10.0
MCPP	ND	10.0
2,4,5-T	ND	10.0
2,4-5-TP	ND	10.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	68

ND = Not Detected.
PQL - Practical Quantitation Limit

Continued . . . . .

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SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental
Project: 624419 Pasco LF

Lab No. 29845
February 10, 1993

Lab No. 29845-13 Client ID: PLF-SBS-269

Chlorinated Herbicides by GCMS Per EPA SW-846 Method 8150
Date Extracted: 2-3-93
Date Analyzed: 2-4-93

Compound	Concentration, ug/kg	PQL
2,4-D	ND	10.0
Dalapon	ND	100.0
2,4-DB	ND	10.0
Dicamba	ND	10.0
Dichlorprop	ND	10.0
Dinoseb	ND	10.0
MCPA	ND	10.0
MCPP	ND	10.0
2,4,5-T	ND	10.0
2,4-5-TP	ND	10.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	69

ND = Not Detected.
PQL - Practical Quantitation Limit

SOUND ANALYTICAL SERVICES

Brent Hepner
BRENT HEPNER

This report is issued solely for the use of the person or company to whom it is addressed. This laboratory accepts responsibility only for the due performance of analysis in accordance with industry acceptable practice. In no event shall Sound Analytical Services, Inc. or its employees be responsible for consequential or special damages in any kind or in any amount.

John Mathes & Associates, Inc.
210 West Sand Bank Road
Columbia, Illinois 62236

CHAIN-OF-CUSTODY RECORD

C.O.C. SERIAL NO. 5301

PROJECT NAME PASCO LF
PROJECT NUMBER 624419 MAJOR TASK 7020.16
SAMPLERS Louis LaRosa
LAB DESTINATION Sound Analytical

	SAMPLE NO.	DATE	TIME	COMP	GRAB	SAMPLE LOCATION	NO. OF CONTAINERS	VOC (8240)	SVOC (8270)	Pest/PCB (8080)	Herbicides (8150)	PPH (6010)	MS/MSD	ICED	CHEMICALS ADDED	REMARKS (CHEMICAL ANALYSIS REQUEST FORM NUMBER IF APPLICABLE)
PLP-	SBS-256	1-25-93	0815		✓	5011	1		✓			✓		✓		
PLP-	SBS-257	↓	0825		✓	↓	1		✓			✓		✓		
PLP-	SBS-258		0840		✓		1		✓			✓		✓		
PLF-	SBS-259		0900		✓		1		✓			✓		✓		
PLF-	SBS-261	1-26-93	0845		✓		3	✓	✓			✓		✓		
PLF-	SBS-262		0900		✓		3	✓	✓			✓		✓		
PLF-	SBS-263		0910		✓		3	✓	✓			✓		✓		
PLF-	SBS-264		0950		✓		3	✓	✓			✓		✓		
PLF-	SBS-265		1415		✓		3	✓	✓	✓	✓	✓	✓	✓		
PLF-	SBS-266		1430		✓		3	✓	✓	✓	✓	✓		✓		
PLF-	SBS-267		1440		✓		3	✓	✓	✓	✓	✓		✓		
PLF-	SBS-268		1515		✓		3	✓	✓	✓	✓	✓		✓		
PLF-	SBS-269	↓	1530		✓	↓	3	✓	✓	✓	✓	✓		✓		

RELINQUISHED BY SIGNATURE	DATE	TIME	RECEIVED BY SIGNATURE	DATE	TIME
Louis A. LaRosa IV	1/27/93	1730	Ship VIA FED EX	1/27/93	1330
			SGiang SAS	1/28/93	915am

SHIPPING NOTES

LAB NOTES

JM-34 (8/89)

MEMORANDUM

DATE: April 19, 1993

TO: Ted Wall, Environmental Engineer JW

FROM: Nels Cone, Chemist

SUBJECT: DATA VALIDATION OF CHEMICAL ANALYSIS FROM PASCO LANDFILL PHASE I REMEDIAL INVESTIGATION, PROJECT 624419, DATA SET 12A-12E NBC

On January 25 and 26, 1993, thirteen water samples were collected by Burlington field personnel. The identification numbers of these samples are listed below:

PLF-SBS-256	PLF-SBS-259	PLF-SBS-263	PLF-SBS-266	PLF-SBS-269
PLF-SBS-257	PLF-SBS-261	PLF-SBS-264	PLF-SBS-267	
PLF-SBS-258	PLF-SBS-262	PLF-SBS-265	PLF-SBS-268	

These samples were then submitted to Sound Analytical Services, of Tacoma, Washington (Work order 29845). I performed a data quality review of the analytical results receiving priority pollutant metals (PPM) analysis (USEPA SW-846, Method 6010) in accordance with the USEPA Contract Laboratory Program (CLP) Document Number ILM02.0. I performed a data quality review of the analytical results from pesticide/PCB (USEPA SW-846, Method 8080), semivolatile compound (Method 8270), and volatile compound (Method 8240) analysis, in accordance with the USEPA CLP Document Number 0LM01.0. There are no CLP documents specific for evaluation of chlorinated herbicides (Method 8150). However, CLP documents were also relied upon for advisory guidance for these analyses. My findings and recommendations are summarized below.

FINDINGS

Properly completed chain-of-custody forms were included with documented signatures from field to laboratory receipt. All samples were shown as having been properly iced and received in good condition. Holding, extraction, and analysis times for all samples met the required guidelines, and all samples received the requested analyses. The numbering system for this data set was out of order. However, a thorough examination of the paperwork reveals that the needed pages are present.

12A:

For volatile compound analysis, methylene chloride, acetone, and toluene were detected in the method blanks; results did not always receive the appropriate "B" data qualifier flag to indicate this. Surrogate compound recoveries, as well as system monitoring compound recoveries, met CLP-required quality control (QC) limits for the sample, the accompanying method blank and matrix spikes. Matrix spike/matrix spike duplicate analyses met required QC limits with the exception of 1,1-dichloroethane. However, overall data set accuracy remains unaffected. A search for tentatively-identified compounds (TIC) was performed, and several were found. Per CLP protocol, they received the appropriate "J data qualifier flag. Requisite instrument tuning check with bromofluorobenzene (BFB) documented gas chromatograph/mass spectra (GC/MS) performance. All internal standards' retention times met required QC limits. Initial calibration data displays all analytes within required QC limits. Continuing calibration verification displays all compounds within advisory QC limits, with the exception of bromoform, bromomethane, bromofluorobenzene, and xylene. These compounds were not detected in the samples. Per CLP protocol, no data qualifier flags are needed. Additional QC was supplied in the form of the laboratory worksheets, and GC/MS printouts for the samples, method blank, matrix spikes, and calibration standards. Data consistency was demonstrated throughout.

12B:

Semivolatile analyses displayed surrogate recoveries within required QC limits for all samples, method blank, and matrix spikes. Matrix spike/matrix spike duplicate recoveries met required QC limits, with the exception of 1,4-dichlorobenzene. This does not affect overall analytical accuracy. Method blanks contained di-n-butylphthalate, and results did not receive the appropriate "B" data qualifier flag. Di-n-butylphthalate presence was only confirmed by close examination of the appropriate chromatographic peaks of the samples and method blanks. Requisite instrument tuning check with DFTPP documented GC/MS performance. Initial calibration checks met minimum relative response factors. Continuing calibration checks met advisory QC limits for all compounds, with the exception of benzo(k)fluoranthene. Overall data precision remains unaffected. Internal calibration standards met all QC criteria for retention times and area response. A search for tentatively-identified compounds (TIC) was performed and several were found. Per CLP protocol, they received the appropriate "J" data qualifier flag. Supporting chromatograms demonstrated data consistency for all samples, method blank, and matrix spikes.

12C:

All pesticide/PCB analyses were performed using dual column confirmation (columns DB-608 and DB-5) as required by CLP protocol. Surrogate compound recoveries for the analyses met required QC limits. Method blank analyses contained no contaminants and no corrections were required. Matrix spike/matrix spike duplicate analyses met required QC limits for analytical accuracy. Initial calibration of columns DB-5 displayed appropriate analytical performance. Initial calibration data of column DB-608 displays endosulfan II, endrin, ketone, and α-chlordane are out of QC limits. These compounds were not detected in the samples using either column, and no data qualifier flags are used. Analyte resolution and continuing calibration verification met expected QC limits for both columns. Dual column chromatograms were included for all samples, the method blank, matrix spikes, and calibration standards. The chromatograms have been annotated with quantitation values calculated from the average response factors as needed by the laboratory. The reported summary information appears consistent with this data.

12D

The chlorinated herbicide method blank contained no contaminants and no corrections were used. Surrogate compound recoveries met advisory QC limits for all analyses. Matrix spike/matrix spike duplicate recovery results indicate that all spike compounds did not meet required QC limits were not met and cannot be relied upon to indicate data accuracy. However, these analytes (dalapon, dicamba, MCPP, MCPA, dichloroprop, 2,4-D, 2,4-DB, 2,4,5-T, dinoseb, and silvex) were not detected in the samples and overall this sample data is still useful. Additional QC was supplied in the form of GC/MS data for the samples, matrix spike, initial and continuing calibration data, and DFTPP tuning check. Consistent dilution factors and proper data qualifier flags accompanied the analytical results as needed.

12E:

All metal analyses were performed by inductively coupled plasma (ICP) analysis, except mercury, which received cold vapor atomic absorption (CVAA) analysis. Duplicate analyses did not meet QC limits required for arsenic and cadmium; results received the appropriate CLP "*" data qualifier flag. All target analytes from the laboratory control samples (LCS) met expected QC limits. Zinc was found in the method blank; per CLP protocol, no further qualifications are made. Serial dilution data met required QC parameters. Matrix spike sample recoveries met required QC limits with the exception of antimony; results received the appropriate CLP "N" data qualifier flag. Post-digest spike recoveries met expected QC

criteria. Initial and continuing calibration verification, check standards, ICP correction factors and line calibration data all met within required QC limits. Supporting documentation was supplied in the form of raw sample data consistent with reported summary information.

RECOMMENDATIONS

All reported detections of acetone, methylene chloride, toluene, and di-n-butylphthalate in these samples must be appended with a "B" data qualifier flag.

NC/rlk/b46:2229b.mem

SOUND ANALYTICAL SERVICES, INC.

SPECIALIZING IN INDUSTRIAL & TOXIC WASTE ANALYSIS

4813 PACIFIC HIGHWAY EAST, TACOMA, WASHINGTON 98424 - TELEPHONE (206) 922-2310 - FAX (206) 922-5047

March 31, 1993

TO: Burlington Environmental Engineering

PROJECT NUMBER: 624419-7020.16

PROJECT NAME: Pasco Landfill

LABORATORY WORK ORDER NUMBER: 30100

Samples were taken on 2/02/93 through 2/04/93 and were received at Sound on 2/09/93. Samples were analyzed for Volatile Organics in accordance with EPA SW-846 Method 8240, Semivolatile Organics in accordance with EPA SW-846 Method 8270, Chlorinated Pesticides and PCB's in accordance with EPA SW-846 Method 8080, Chlorinated Herbicides by GC/MS per EPA SW-846 Method 8150, Metals by ICP in accordance with EPA SW-846 Method 6010, and Mercury by cold vapor AA in accordance with SW-846 Method 7471.

VOLATILE ORGANICS

Samples 30100-1 and 30100-2, 30100-4 and 30100-5, 30100-8, and 30100-33 through 30100-40 were analyzed on 2/16/93, 2/25/93, and 2/26/93. Methylene chloride, acetone, and toluene were detected in the soil method blank at levels above the IDL. Methylene chloride was detected in the water method blank at a level above the IDL. Results for these compounds were flagged B in the associated samples to indicate the method blank contamination. The percent recoveries for trichloroethene and toluene in the water matrix spike exceeded QC limits. The percent recovery for toluene in the water matrix spike duplicate also exceeded the QC limit. All other QC parameters were within acceptance limits.

SEMIVOLATILE ORGANICS

Samples 30100-24 through 30100-33 were extracted on 2/12/93 and analyzed on 2/20/93 and 2/22/93. Di-n-butylphthalate and one TIC were detected in the method blank above the IDL. All QC parameters were within acceptance limits.

CHLORINATED PESTICIDES AND PCB's

Samples 30100-1 through 30100-23, and 30100-33 were extracted on 2/12/93 and analyzed on 2/21/93. No compounds were detected in the method blanks above the IDL. All QC parameters were within acceptance limits.

SOUND ANALYTICAL SERVICES, INC.

TO: Burlington Environmental Engineering

PROJECT NUMBER: 624419-7020.16

PROJECT NAME: Pasco Landfill

LABORATORY WORK ORDER NUMBER: 30100

CHLORINATED HERBICIDES

Samples 30100-1 through 30100-32 were extracted on 2/12/93 and analyzed on 2/19/93 and 2/20/93. No compounds were detected in the method blank above the IDL. The percent recoveries for dalapon were below advisory QC limits in the matrix spike/matrix spike duplicate analysis for samples 30100-8 and 30100-24 due to the acidic properties of this compound. The actual percent recovery limits for this method are being developed per SW-846 Method 8000. All other QC parameters were within acceptance limits.

METALS

Samples 30100-1 through 30100-33 were digested on 2/12/93, and analyzed on 2/17/93. Chromium, copper, and zinc were detected in the method blanks above the CRDL. The percent recovery for thallium in the matrix spike analysis for sample 30100-8 was outside the QC limits. The percent recovery for antimony, mercury, silver, and thallium were outside QC limits. The relative percent difference values for cadmium, chromium, copper, lead, nickel, and zinc in the duplicate analysis for sample 30100-8 exceeded QC limits. The relative percent difference value for cadmium in the duplicate analysis for sample 30100-24 exceeded QC limits. The percent difference values for copper and zinc in the serial dilution analysis for samples 30100-8 and 30100-24 exceeded QC limits. All other QC parameters were within acceptance limits.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS273

Lab Name:SOUND ANALYTICAL SERVICES Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:30100

Matrix: (soil/water) SOIL Lab Sample ID:30100-33

Sample wt/vol: 5.28 (g/ml) G Lab File ID: V8743

Level: (low/med) LOW Date Received: 2/09/93

% Moisture: not dec. 14 Date Analyzed: 2/26/93

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
54-87-3	Chloromethane	11.	U
74-83-9	Bromomethane	11.	U
75-01-4	Vinyl Chloride	11.	U
75-00-3	Chloroethane	11.	U
75-09-2	Methylene Chloride	130.	B
67-64-1	Acetone	36.	B
75-15-0	Carbon Disulfide	6.	U
75-35-4	1,1-Dichloroethene	6.	U
75-34-3	1,1-Dichloroethane	6.	U
540-59-0	1,2-Dichloroethene (total)	6.	U
67-66-3	Chloroform	6.	U
107-06-2	1,2-Dichloroethane	6.	U
78-93-3	2-Butanone	6.	J
71-55-6	1,1,1-Trichloroethane	6.	U
56-23-5	Carbon Tetrachloride	6.	U
108-05-4	Vinyl Acetate	28.	U
75-27-4	Bromodichloromethane	6.	U
78-87-5	1,2-Dichloropropane	6.	U
10061-01-5	cis-1,3-Dichloropropene	6.	U
79-01-6	Trichloroethene	6.	U
124-48-1	Dibromochloromethane	6.	U
79-00-5	1,1,2-Trichloroethane	6.	U
71-43-2	Benzene	6.	U
10061-02-6	trans-1,3-Dichloropropene	6.	U
75-25-2	Bromoform	6.	U
108-10-1	4-Methyl-2-Pentanone	6.	U
591-78-6	2-Hexanone	6.	U
127-18-4	Tetrachloroethene	6.	U
79-34-5	1,1,2,2-Tetrachloroethane	6.	U
108-88-3	Toluene	5.	J
108-90-7	Chlorobenzene	6.	U
100-41-4	Ethylbenzene	0.5	J
100-42-5	Styrene	6.	U
1330-20-7	Xylene (total)	1.	J

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS273

Lab Name:SOUND ANALYTICAL SERVICES Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:30100

Matrix: (soil/water) SOIL Lab Sample ID:30100-33

Sample wt/vol: 5.28 (g/ml) G Lab File ID: V8743

Level: (low/med) LOW Date Received: 2/09/93

% Moisture: not dec. 14 Date Analyzed: 2/26/93

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 2

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	110-54-3	Hexane	3.75	30.	J
2.					
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS274

Lab Name:SOUND ANALYTICAL SERVICES Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:30100

Matrix: (soil/water) SOIL Lab Sample ID:30100-1

Sample wt/vol: 5.07 (g/ml) G Lab File ID: V8736

Level: (low/med) LOW Date Received: 2/09/93

% Moisture: not dec. 5 Date Analyzed: 2/25/93

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
48-87-3	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	110.	B
67-64-1	Acetone	36.	B
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	1.	J
107-06-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	6.	J
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-5	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	26.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	5.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	5.	U
591-78-6	2-Hexanone	5.	U
127-18-4	Tetrachloroethene	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	4.	J
108-90-7	Chlorobenzene	5.	U
100-41-4	Ethylbenzene	5.	U
100-42-5	Styrene	5.	U
1330-20-7	Xylene (total)	10.	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS274

Lab Name:SOUND ANALYTICAL SERVICES Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:30100

Matrix: (soil/water) SOIL Lab Sample ID:30100-1

Sample wt/vol: 5.07 (g/ml) G Lab File ID: V8736

Level: (low/med) LOW Date Received: 2/09/93

% Moisture: not dec. 5 Date Analyzed: 2/25/93

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 110-54-3	Hexane(DOT)	3.75	31.	J
2. 556-67-2	Cyclotetrasiloxane,octamethy	17.11	28.	J
3.				
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS275

Lab Name: SOUND ANALYTICAL SERVICES Contract: 624419

Lab Code:- Case No.:- SAS No.:- SDG No.: 30100

Matrix: (soil/water) SOIL Lab Sample ID: 30100-2

Sample wt/vol: 5.55 (g/ml) G Lab File ID: V8737

Level: (low/med) LOW Date Received: 2/09/93

% Moisture: not dec. 4 Date Analyzed: 2/25/93

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 0 (uL) Soil Aliquot Volume: 0 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
48-87-3	Chloromethane	9.	U
74-83-9	Bromomethane	9.	U
75-01-4	Vinyl Chloride	9.	U
75-00-3	Chloroethane	9.	U
75-09-2	Methylene Chloride	87.	B
67-64-1	Acetone	58.	B
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	1.	J
107-06-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	7.	J
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-5	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	23.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	5.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	5.	U
591-78-6	2-Hexanone	5.	U
127-18-4	Tetrachloroethene	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	3.	J
108-90-7	Chlorobenzene	5.	U
100-41-4	Ethylbenzene	0.4	J
100-42-5	Styrene	5.	U
1330-20-7	Xylene (total)	0.7	J

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS275

Lab Name:SOUND ANALYTICAL SERVICES Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:30100

Matrix: (soil/water) SOIL Lab Sample ID:30100-2

Sample wt/vol: 5.55 (g/ml) G Lab File ID: V8737

Level: (low/med) LOW Date Received: 2/09/93

% Moisture: not dec. 4 Date Analyzed: 2/25/93

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	110-54-3	Hexane(DOT)	3.75	24.	J
2.					
3.					
4.					
5.					
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9.					
10.					
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS277

Lab Name:SOUND ANALYTICAL SERVICES Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:30100

Matrix: (soil/water) SOIL Lab Sample ID:30100-4

Sample wt/vol: 5.16 (g/ml) G Lab File ID: V8738

Level: (low/med) LOW Date Received: 2/09/93

% Moisture: not dec. 6 Date Analyzed: 2/25/93

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
48-87-3	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	100.	B
67-64-1	Acetone	250.	B
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	2.	J
107-06-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	7.	J
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-5	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	26.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	5.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	5.	U
591-78-6	2-Hexanone	5.	U
127-18-4	Tetrachloroethene	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	4.	J
108-90-7	Chlorobenzene	5.	U
100-41-4	Ethylbenzene	0.5	J
100-42-5	Styrene	5.	U
1330-20-7	Xylene (total)	0.8	J

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS277

Lab Name:SOUND ANALYTICAL SERVICES Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:30100

Matrix: (soil/water) SOIL Lab Sample ID:30100-4

Sample wt/vol: 5.16 (g/ml) G Lab File ID: V8738

Level: (low/med) LOW Date Received: 2/09/93

% Moisture: not dec. 6 Date Analyzed: 2/25/93

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 110-54-3	Hexane(DOT)	3.75	28.	J
2. 556-67-2	Cyclotetrasiloxane,octamethy	17.10	8.	J
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS278

Lab Name:SOUND ANALYTICAL SERVICES Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:30100

Matrix: (soil/water) SOIL Lab Sample ID:30100-5

Sample wt/vol: 4.82 (g/ml) G Lab File ID: V8739

Level: (low/med) LOW Date Received: 2/09/93

% Moisture: not dec. 6 Date Analyzed: 2/25/93

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
48-87-3	Chloromethane	11.	U
74-83-9	Bromomethane	11.	U
75-01-4	Vinyl Chloride	11.	U
75-00-3	Chloroethane	11.	U
75-09-2	Methylene Chloride	110.	B
67-64-1	Acetone	54.	B
75-15-0	Carbon Disulfide	6.	U
75-35-4	1,1-Dichloroethene	6.	U
75-34-3	1,1-Dichloroethane	6.	U
540-59-0	1,2-Dichloroethene (total)	6.	U
67-66-3	Chloroform	1.	J
107-06-2	1,2-Dichloroethane	6.	U
78-93-3	2-Butanone	7.	J
71-55-6	1,1,1-Trichloroethane	6.	U
56-23-5	Carbon Tetrachloride	6.	U
108-05-4	Vinyl Acetate	28.	U
75-27-4	Bromodichloromethane	6.	U
78-87-5	1,2-Dichloropropane	6.	U
10061-01-5	cis-1,3-Dichloropropene	6.	U
79-01-6	Trichloroethene	6.	U
124-48-1	Dibromochloromethane	6.	U
79-00-5	1,1,2-Trichloroethane	6.	U
71-43-2	Benzene	6.	U
10061-02-6	trans-1,3-Dichloropropene	6.	U
75-25-2	Bromoform	6.	U
108-10-1	4-Methyl-2-Pentanone	6.	U
591-78-6	2-Hexanone	6.	U
127-18-4	Tetrachloroethene	6.	U
79-34-5	1,1,2,2-Tetrachloroethane	6.	U
108-88-3	Toluene	4.	J
108-90-7	Chlorobenzene	6.	U
100-41-4	Ethylbenzene	0.5	J
100-42-5	Styrene	6.	U
1330-20-7	Xylene (total)	0.9	J

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS278

Lab Name:SOUND ANALYTICAL SERVICES Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:30100

Matrix: (soil/water) SOIL Lab Sample ID:30100-5

Sample wt/vol: 4.82 (g/ml) G Lab File ID: V8739

Level: (low/med) LOW Date Received: 2/09/93

% Moisture: not dec. 6 Date Analyzed: 2/25/93

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	110-54-3	Hexane(DOT)	3.75	32.	J
2.					
3.					
4.					
5.					
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS281

Lab Name:SOUND ANALYTICAL SERVICES Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:30100

Matrix: (soil/water) SOIL Lab Sample ID:30100-8

Sample wt/vol: 5.17 (g/ml) G Lab File ID: V8740

Level: (low/med) LOW Date Received: 2/09/93

% Moisture: not dec. 6 Date Analyzed: 2/25/93

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
48-87-3	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	120.	B
67-64-1	Acetone	86.	B
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	1.	J
107-06-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	9.	J
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-5	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	26.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	5.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	5.	U
591-78-6	2-Hexanone	5.	U
127-18-4	Tetrachloroethene	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	4.	J
108-90-7	Chlorobenzene	5.	U
100-41-4	Ethylbenzene	0.5	J
100-42-5	Styrene	5.	U
1330-20-7	Xylene (total)	1.	J

446

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS281

Lab Name: SOUND ANALYTICAL SERVICES Contract: 624419

Lab Code: - Case No.: - SAS No.: - SDG No.: 30100

Matrix: (soil/water) SOIL Lab Sample ID: 30100-8

Sample wt/vol: 5.17 (g/ml) G Lab File ID: V8740

Level: (low/med) LOW Date Received: 2/09/93

% Moisture: not dec. 6 Date Analyzed: 2/25/93

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 0 (uL) Soil Aliquot Volume: 0 (uL)

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	110-54-3	Hexane(DOT)	3.75	31.	J
2.					
3.					
4.					
5.					
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS273

Lab Name: Sound Analytical Services Contract: 624419

Lab Code: - Case No.: - SAS No.: - SDG No.: 30100

Matrix: (soil/water) SOIL Lab Sample ID: 30100-33

Sample wt/vol: 30.4 (g/ml) G Lab File ID: S7921

Level: (low/med) LOW Date Received: 2/09/93

% Moisture: 14 decanted: (Y/N) N Date Extracted: 2/12/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/22/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	380.	U
111-44-4	Bis(2-chloroethyl)ether	380.	U
95-57-8	2-Chlorophenol	380.	U
541-73-1	1,3-Dichlorobenzene	380.	U
106-46-7	1,4-Dichlorobenzene	380.	U
100-51-6	Benzyl alcohol	760.	U
95-50-1	1,2-Dichlorobenzene	380.	U
95-48-7	2-Methylphenol	380.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	380.	U
106-44-5	4-Methylphenol	380.	U
621-64-7	N-Nitroso-di-n-propylamine	380.	U
67-72-1	Hexachloroethane	380.	U
98-95-3	Nitrobenzene	380.	U
78-59-1	Isophorone	380.	U
88-75-5	2-Nitrophenol	380.	U
105-67-9	2,4-Dimethylphenol	380.	U
65-85-0	Benzoic acid	1900.	U
111-91-1	bis(2-Chloroethoxy)methane	380.	U
120-83-2	2,4-Dichlorophenol	380.	U
120-82-1	1,2,4-Trichlorobenzene	380.	U
91-20-3	Naphthalene	380.	U
106-47-8	4-Chloroaniline	760.	U
87-68-3	Hexachlorobutadiene	380.	U
59-50-7	4-Chloro-3-methylphenol	760.	U
91-57-6	2-Methylnaphthalene	380.	U
77-47-4	Hexachlorocyclopentadiene	380.	U
88-06-2	2,4,6-Trichlorophenol	380.	U
95-95-4	2,4,5-Trichlorophenol	380.	U
91-58-7	2-Chloronaphthalene	380.	U
88-74-4	2-Nitroaniline	1900.	U
131-11-3	Dimethylphthalate	380.	U
208-96-8	Acenaphthylene	380.	U
606-20-2	2,6-Dinitrotoluene	380.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS273

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:30100

Matrix: (soil/water) SOIL Lab Sample ID:30100-33

Sample wt/vol: 30.4 (g/ml) G Lab File ID: S7921

Level: (low/med) LOW Date Received: 2/09/93

% Moisture: 14 decanted: (Y/N) N Date Extracted: 2/12/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/22/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1900.	U
83-32-9	Acenaphthene	380.	U
51-28-5	2,4-Dinitrophenol	1900.	U
100-02-7	4-Nitrophenol	1900.	U
132-64-9	Dibenzofuran	380.	U
121-14-2	2,4-Dinitrotoluene	380.	U
84-66-2	Diethylphthalate	380.	U
7005-72-3	4-Chlorophenyl-phenylether	380.	U
86-73-7	Fluorene	380.	U
100-01-6	4-Nitroaniline	1900.	U
534-52-1	4,6-Dinitro-2-methylphenol	1900.	U
86-30-6	N-Nitrosodiphenylamine(1)	380.	U
101-55-3	4-Bromophenyl-phenylether	380.	U
118-74-1	Hexachlorobenzene	380.	U
87-86-5	Pentachlorophenol	1900.	U
85-01-8	Phenanthrene	380.	U
120-12-7	Anthracene	380.	U
84-74-2	Di-n-butylphthalate	130.	JB
206-44-0	Fluoranthene	380.	U
129-00-0	Pyrene	380.	U
85-68-7	Butylbenzylphthalate	380.	U
91-94-1	3,3'-Dichlorobenzidine	760.	U
56-55-3	Benzo(a)anthracene	380.	U
218-01-9	Chrysene	380.	U
117-81-7	bis(2-Ethylhexyl)phthalate	380.	U
117-84-0	Di-n-octylphthalate	380.	U
205-99-2	Benzo(b)fluoranthene	380.	U
207-08-9	Benzo(k)fluoranthene	380.	U
50-32-8	Benzo(a)pyrene	380.	U
193-39-5	Indeno(1,2,3-cd)pyrene	380.	U
53-70-3	Dibenz(a,h)anthracene	380.	U
191-24-2	Benzo(g,h,i)perylene	380.	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS273

Lab Name: Sound Analytical Services Contract: 624419

Lab Code: - Case No.: - SAS No.: - SDG No.: 30100

Matrix: (soil/water) SOIL Lab Sample ID: 30100-33

Sample wt/vol: 30.4 (g/ml) G Lab File ID: S7921

Level: (low/med) LOW Date Received: 2/09/93

% Moisture: 14 decanted: (Y/N) N Date Extracted: 2/12/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/22/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

Number TICs Found: 7

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	16.23	150.	J
2.		Unknown Hexadecanoic Acid	21.58	650.	J
3.		Unknown	28.12	3200.	J
4.		Unknown	30.58	1300.	J
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS297

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:30100

Matrix: (soil/water) SOIL Lab Sample ID:30100-24

Sample wt/vol: 30.3 (g/ml) G Lab File ID: S7916

Level: (low/med) LOW Date Received: 2/09/93

% Moisture: 8 decanted: (Y/N) N Date Extracted: 2/12/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/22/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	360.	U
111-44-4	Bis(2-chloroethyl)ether	360.	U
95-57-8	2-Chlorophenol	360.	U
541-73-1	1,3-Dichlorobenzene	360.	U
106-46-7	1,4-Dichlorobenzene	360.	U
100-51-6	Benzyl alcohol	720.	U
95-50-1	1,2-Dichlorobenzene	360.	U
95-48-7	2-Methylphenol	360.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	360.	U
106-44-5	4-Methylphenol	360.	U
621-64-7	N-Nitroso-di-n-propylamine	360.	U
67-72-1	Hexachloroethane	360.	U
98-95-3	Nitrobenzene	360.	U
78-59-1	Isophorone	360.	U
88-75-5	2-Nitrophenol	360.	U
105-67-9	2,4-Dimethylphenol	360.	U
65-85-0	Benzoic acid	1800.	U
111-91-1	bis(2-Chloroethoxy)methane	360.	U
120-83-2	2,4-Dichlorophenol	360.	U
120-82-1	1,2,4-Trichlorobenzene	360.	U
91-20-3	Naphthalene	360.	U
106-47-8	4-Chloroaniline	720.	U
87-68-3	Hexachlorobutadiene	360.	U
59-50-7	4-Chloro-3-methylphenol	720.	U
91-57-6	2-Methylnaphthalene	360.	U
77-47-4	Hexachlorocyclopentadiene	360.	U
88-06-2	2,4,6-Trichlorophenol	360.	U
95-95-4	2,4,5-Trichlorophenol	360.	U
91-58-7	2-Chloronaphthalene	360.	U
88-74-4	2-Nitroaniline	1800.	U
131-11-3	Dimethylphthalate	360.	U
208-96-8	Acenaphthylene	360.	U
606-20-2	2,6-Dinitrotoluene	360.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS297

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:30100

Matrix: (soil/water) SOIL Lab Sample ID:30100-24

Sample wt/vol: 30.3 (g/ml) G Lab File ID: S7916

Level: (low/med) LOW Date Received: 2/09/93

% Moisture: 8 decanted: (Y/N) N Date Extracted: 2/12/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/22/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1800.	U
83-32-9	Acenaphthene	360.	U
51-28-5	2,4-Dinitrophenol	1800.	U
100-02-7	4-Nitrophenol	1800.	U
132-64-9	Dibenzofuran	360.	U
121-14-2	2,4-Dinitrotoluene	360.	U
84-66-2	Diethylphthalate	360.	U
7005-72-3	4-Chlorophenyl-phenylether	360.	U
86-73-7	Fluorene	360.	U
100-01-6	4-Nitroaniline	1800.	U
534-52-1	4,6-Dinitro-2-methylphenol	1800.	U
86-30-6	N-Nitrosodiphenylamine(1)	360.	U
101-55-3	4-Bromophenyl-phenylether	360.	U
118-74-1	Hexachlorobenzene	360.	U
87-86-5	Pentachlorophenol	1800.	U
85-01-8	Phenanthrene	360.	U
120-12-7	Anthracene	360.	U
84-74-2	Di-n-butylphthalate	1800.	B
206-44-0	Fluoranthene	360.	U
129-00-0	Pyrene	360.	U
85-68-7	Butylbenzylphthalate	360.	U
91-94-1	3,3'-Dichlorobenzidine	720.	U
56-55-3	Benzo(a)anthracene	360.	U
218-01-9	Chrysene	360.	U
117-81-7	bis(2-Ethylhexyl)phthalate	360.	U
117-84-0	Di-n-octylphthalate	360.	U
205-99-2	Benzo(b)fluoranthene	360.	U
207-08-9	Benzo(k)fluoranthene	360.	U
50-32-8	Benzo(a)pyrene	360.	U
193-39-5	Indeno(1,2,3-cd)pyrene	360.	U
53-70-3	Dibenz(a,h)anthracene	360.	U
191-24-2	Benzo(g,h,i)perylene	360.	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS297

Lab Name: Sound Analytical Services Contract: 624419

Lab Code: - Case No.: - SAS No.: - SDG No.: 30100

Matrix: (soil/water) SOIL Lab Sample ID: 30100-24

Sample wt/vol: 30.3 (g/ml) G Lab File ID: S7916

Level: (low/med) LOW Date Received: 2/09/93

% Moisture: 8 decanted: (Y/N) N Date Extracted: 2/12/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/22/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

Number TICs Found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown Amide	28.05	1300.	J
2.					
3.					
4.					
5.					
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7.					
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS298

Lab Name: Sound Analytical Services Contract: 624419

Lab Code:- Case No.:- SAS No.:- SDG No.: 30100

Matrix: (soil/water) SOIL Lab Sample ID: 30100-25

Sample wt/vol: 30.1 (g/ml) G Lab File ID: S7913

Level: (low/med) LOW Date Received: 2/09/93

% Moisture: 8 decanted: (Y/N) N Date Extracted: 2/12/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/22/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	360.	U
111-44-4	Bis(2-chloroethyl)ether	360.	U
95-57-8	2-Chlorophenol	360.	U
541-73-1	1,3-Dichlorobenzene	360.	U
106-46-7	1,4-Dichlorobenzene	360.	U
100-51-6	Benzyl alcohol	720.	U
95-50-1	1,2-Dichlorobenzene	360.	U
95-48-7	2-Methylphenol	360.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	360.	U
106-44-5	4-Methylphenol	360.	U
621-64-7	N-Nitroso-di-n-propylamine	360.	U
67-72-1	Hexachloroethane	360.	U
98-95-3	Nitrobenzene	360.	U
78-59-1	Isophorone	360.	U
88-75-5	2-Nitrophenol	360.	U
105-67-9	2,4-Dimethylphenol	360.	U
65-85-0	Benzoic acid	1800.	U
111-91-1	bis(2-Chloroethoxy)methane	360.	U
120-83-2	2,4-Dichlorophenol	360.	U
120-82-1	1,2,4-Trichlorobenzene	360.	U
91-20-3	Naphthalene	360.	U
106-47-8	4-Chloroaniline	720.	U
87-68-3	Hexachlorobutadiene	360.	U
59-50-7	4-Chloro-3-methylphenol	720.	U
91-57-6	2-Methylnaphthalene	360.	U
77-47-4	Hexachlorocyclopentadiene	360.	U
88-06-2	2,4,6-Trichlorophenol	360.	U
95-95-4	2,4,5-Trichlorophenol	360.	U
91-58-7	2-Chloronaphthalene	360.	U
88-74-4	2-Nitroaniline	1800.	U
131-11-3	Dimethylphthalate	360.	U
208-96-8	Acenaphthylene	360.	U
606-20-2	2,6-Dinitrotoluene	360.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS298

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:30100

Matrix: (soil/water) SOIL Lab Sample ID:30100-25

Sample wt/vol: 30.1 (g/ml) G Lab File ID: S7913

Level: (low/med) LOW Date Received: 2/09/93

% Moisture: 8 decanted: (Y/N) N Date Extracted: 2/12/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/22/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1800.	U
83-32-9	Acenaphthene	360.	U
51-28-5	2,4-Dinitrophenol	1800.	U
100-02-7	4-Nitrophenol	1800.	U
132-64-9	Dibenzofuran	360.	U
121-14-2	2,4-Dinitrotoluene	360.	U
84-66-2	Diethylphthalate	360.	U
7005-72-3	4-Chlorophenyl-phenylether	360.	U
86-73-7	Fluorene	360.	U
100-01-6	4-Nitroaniline	1800.	U
534-52-1	4,6-Dinitro-2-methylphenol	1800.	U
86-30-6	N-Nitrosodiphenylamine(1)	360.	U
101-55-3	4-Bromophenyl-phenylether	360.	U
118-74-1	Hexachlorobenzene	360.	U
87-86-5	Pentachlorophenol	1800.	U
85-01-8	Phenanthrene	360.	U
120-12-7	Anthracene	360.	U
84-74-2	Di-n-butylphthalate	2000.	B
206-44-0	Fluoranthene	360.	U
129-00-0	Pyrene	360.	U
85-68-7	Butylbenzylphthalate	360.	U
91-94-1	3,3'-Dichlorobenzidine	720.	U
56-55-3	Benzo(a)anthracene	360.	U
218-01-9	Chrysene	360.	U
117-81-7	bis(2-Ethylhexyl)phthalate	360.	U
117-84-0	Di-n-octylphthalate	360.	U
205-99-2	Benzo(b)fluoranthene	360.	U
207-08-9	Benzo(k)fluoranthene	360.	U
50-32-8	Benzo(a)pyrene	360.	U
193-39-5	Indeno(1,2,3-cd)pyrene	360.	U
53-70-3	Dibenz(a,h)anthracene	360.	U
191-24-2	Benzo(g,h,i)perylene	360.	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS298

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:30100

Matrix: (soil/water) SOIL Lab Sample ID:30100-25

Sample wt/vol: 30.1 (g/ml) G Lab File ID: S7913

Level: (low/med) LOW Date Received: 2/09/93

% Moisture: 8 decanted: (Y/N) N Date Extracted: 2/12/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/22/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	28.10	3400.	J
2.					
3.					
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS299

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:30100

Matrix: (soil/water) SOIL Lab Sample ID:30100-26

Sample wt/vol: 30.2 (g/ml) G Lab File ID: S7914

Level: (low/med) LOW Date Received: 2/09/93

% Moisture: 6 decanted: (Y/N) N Date Extracted: 2/12/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/22/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	350.	U
111-44-4	Bis(2-chloroethyl)ether	350.	U
95-57-8	2-Chlorophenol	350.	U
541-73-1	1,3-Dichlorobenzene	350.	U
106-46-7	1,4-Dichlorobenzene	350.	U
100-51-6	Benzyl alcohol	700.	U
95-50-1	1,2-Dichlorobenzene	350.	U
95-48-7	2-Methylphenol	350.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	350.	U
106-44-5	4-Methylphenol	350.	U
621-64-7	N-Nitroso-di-n-propylamine	350.	U
67-72-1	Hexachloroethane	350.	U
98-95-3	Nitrobenzene	350.	U
78-59-1	Isophorone	350.	U
88-75-5	2-Nitrophenol	350.	U
105-67-9	2,4-Dimethylphenol	350.	U
65-85-0	Benzoic acid	1800.	U
111-91-1	bis(2-Chloroethoxy)methane	350.	U
120-83-2	2,4-Dichlorophenol	350.	U
120-82-1	1,2,4-Trichlorobenzene	350.	U
91-20-3	Naphthalene	350.	U
106-47-8	4-Chloroaniline	700.	U
87-68-3	Hexachlorobutadiene	350.	U
59-50-7	4-Chloro-3-methylphenol	700.	U
91-57-6	2-Methylnaphthalene	350.	U
77-47-4	Hexachlorocyclopentadiene	350.	U
88-06-2	2,4,6-Trichlorophenol	350.	U
95-95-4	2,4,5-Trichlorophenol	350.	U
91-58-7	2-Chloronaphthalene	350.	U
88-74-4	2-Nitroaniline	1800.	U
131-11-3	Dimethylphthalate	350.	U
208-96-8	Acenaphthylene	350.	U
606-20-2	2,6-Dinitrotoluene	350.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS299

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:30100

Matrix: (soil/water) SOIL Lab Sample ID:30100-26

Sample wt/vol: 30.2 (g/ml) G Lab File ID: S7914

Level: (low/med) LOW Date Received: 2/09/93

% Moisture: 6 decanted: (Y/N) N Date Extracted: 2/12/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/22/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1800.	U
83-32-9	Acenaphthene	350.	U
51-28-5	2,4-Dinitrophenol	1800.	U
100-02-7	4-Nitrophenol	1800.	U
132-64-9	Dibenzofuran	350.	U
121-14-2	2,4-Dinitrotoluene	350.	U
84-66-2	Diethylphthalate	350.	U
7005-72-3	4-Chlorophenyl-phenylether	350.	U
86-73-7	Fluorene	350.	U
100-01-6	4-Nitroaniline	1800.	U
534-52-1	4,6-Dinitro-2-methylphenol	1800.	U
86-30-6	N-Nitrosodiphenylamine(1)	350.	U
101-55-3	4-Bromophenyl-phenylether	350.	U
118-74-1	Hexachlorobenzene	350.	U
87-86-5	Pentachlorophenol	1800.	U
85-01-8	Phenanthrene	350.	U
120-12-7	Anthracene	350.	U
84-74-2	Di-n-butylphthalate	2300.	B
206-44-0	Fluoranthene	350.	U
129-00-0	Pyrene	350.	U
85-68-7	Butylbenzylphthalate	350.	U
91-94-1	3,3'-Dichlorobenzidine	700.	U
56-55-3	Benzo(a)anthracene	350.	U
218-01-9	Chrysene	350.	U
117-81-7	bis(2-Ethylhexyl)phthalate	350.	U
117-84-0	Di-n-octylphthalate	350.	U
205-99-2	Benzo(b)fluoranthene	350.	U
207-08-9	Benzo(k)fluoranthene	350.	U
50-32-8	Benzo(a)pyrene	350.	U
193-39-5	Indeno(1,2,3-cd)pyrene	350.	U
53-70-3	Dibenz(a,h)anthracene	350.	U
191-24-2	Benzo(g,h,i)perylene	350.	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS299

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:30100

Matrix: (soil/water) SOIL Lab Sample ID:30100-26

Sample wt/vol: 30.2 (g/ml) G Lab File ID: S7914

Level: (low/med) LOW Date Received: 2/09/93

% Moisture: 6 decanted: (Y/N) N Date Extracted: 2/12/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/22/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

Number TICs Found: 3

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	20.13	160.	J
2.		Unknown	28.05	1600.	J
3.					
4.					
5.					
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS300

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:30100

Matrix: (soil/water) SOIL Lab Sample ID:30100-27

Sample wt/vol: 30.1 (g/ml) G Lab File ID: S7911

Level: (low/med) LOW Date Received: 2/09/93

% Moisture: 4 decanted: (Y/N) N Date Extracted: 2/12/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/22/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	350.	U
111-44-4	Bis(2-chloroethyl)ether	350.	U
95-57-8	2-Chlorophenol	350.	U
541-73-1	1,3-Dichlorobenzene	350.	U
106-46-7	1,4-Dichlorobenzene	350.	U
100-51-6	Benzyl alcohol	690.	U
95-50-1	1,2-Dichlorobenzene	350.	U
95-48-7	2-Methylphenol	350.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	350.	U
106-44-5	4-Methylphenol	350.	U
621-64-7	N-Nitroso-di-n-propylamine	350.	U
67-72-1	Hexachloroethane	350.	U
98-95-3	Nitrobenzene	350.	U
78-59-1	Isophorone	350.	U
88-75-5	2-Nitrophenol	350.	U
105-67-9	2,4-Dimethylphenol	350.	U
65-85-0	Benzoic acid	1700.	U
111-91-1	bis(2-Chloroethoxy)methane	350.	U
120-83-2	2,4-Dichlorophenol	350.	U
120-82-1	1,2,4-Trichlorobenzene	350.	U
91-20-3	Naphthalene	350.	U
106-47-8	4-Chloroaniline	690.	U
87-68-3	Hexachlorobutadiene	350.	U
59-50-7	4-Chloro-3-methylphenol	690.	U
91-57-6	2-Methylnaphthalene	350.	U
77-47-4	Hexachlorocyclopentadiene	350.	U
88-06-2	2,4,6-Trichlorophenol	350.	U
95-95-4	2,4,5-Trichlorophenol	350.	U
91-58-7	2-Chloronaphthalene	350.	U
88-74-4	2-Nitroaniline	1700.	U
131-11-3	Dimethylphthalate	350.	U
208-96-8	Acenaphthylene	350.	U
606-20-2	2,6-Dinitrotoluene	350.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS300

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:30100

Matrix: (soil/water) SOIL Lab Sample ID:30100-27

Sample wt/vol: 30.1 (g/ml) G Lab File ID: S7911

Level: (low/med) LOW Date Received: 2/09/93

% Moisture: 4 decanted: (Y/N) N Date Extracted: 2/12/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/22/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1700.	U
83-32-9	Acenaphthene	350.	U
51-28-5	2,4-Dinitrophenol	1700.	U
100-02-7	4-Nitrophenol	1700.	U
132-64-9	Dibenzofuran	350.	U
121-14-2	2,4-Dinitrotoluene	350.	U
84-66-2	Diethylphthalate	350.	U
7005-72-3	4-Chlorophenyl-phenylether	350.	U
86-73-7	Fluorene	350.	U
100-01-6	4-Nitroaniline	1700.	U
534-52-1	4,6-Dinitro-2-methylphenol	1700.	U
86-30-6	N-Nitrosodiphenylamine(1)	350.	U
101-55-3	4-Bromophenyl-phenylether	350.	U
118-74-1	Hexachlorobenzene	350.	U
87-86-5	Pentachlorophenol	1700.	U
85-01-8	Phenanthrene	350.	U
120-12-7	Anthracene	350.	U
84-74-2	Di-n-butylphthalate	2300.	B
206-44-0	Fluoranthene	350.	U
129-00-0	Pyrene	350.	U
85-68-7	Butylbenzylphthalate	350.	U
91-94-1	3,3'-Dichlorobenzidine	690.	U
56-55-3	Benzo(a)anthracene	350.	U
218-01-9	Chrysene	350.	U
117-81-7	bis(2-Ethylhexyl)phthalate	350.	U
117-84-0	Di-n-octylphthalate	350.	U
205-99-2	Benzo(b)fluoranthene	350.	U
207-08-9	Benzo(k)fluoranthene	350.	U
50-32-8	Benzo(a)pyrene	350.	U
193-39-5	Indeno(1,2,3-cd)pyrene	350.	U
53-70-3	Dibenz(a,h)anthracene	350.	U
191-24-2	Benzo(g,h,i)perylene	350.	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS300

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:30100

Matrix: (soil/water) SOIL Lab Sample ID:30100-27

Sample wt/vol: 30.1 (g/ml) G Lab File ID: S7911

Level: (low/med) LOW Date Received: 2/09/93

% Moisture: 4 decanted: (Y/N) N Date Extracted: 2/12/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/22/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

Number TICs Found: 9

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	28.10	2400.	J
2.		Unknown	20.17	520.	J
3.		Unknown Amide	17.85	180.	J
4.		Unknown	16.23	170.	J
5.	74367-34-3	Propanoic Acid, 2-Methyl-, 3	13.97	330.	J
6.					
7.					
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS301

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:30100

Matrix: (soil/water) SOIL Lab Sample ID:30100-28

Sample wt/vol: 30.0 (g/ml) G Lab File ID: S7912

Level: (low/med) LOW Date Received: 2/09/93

% Moisture: 4 decanted: (Y/N) N Date Extracted: 2/12/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/22/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	350.	U
111-44-4	Bis(2-chloroethyl)ether	350.	U
95-57-8	2-Chlorophenol	350.	U
541-73-1	1,3-Dichlorobenzene	350.	U
106-46-7	1,4-Dichlorobenzene	350.	U
100-51-6	Benzyl alcohol	690.	U
95-50-1	1,2-Dichlorobenzene	350.	U
95-48-7	2-Methylphenol	350.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	350.	U
106-44-5	4-Methylphenol	350.	U
621-64-7	N-Nitroso-di-n-propylamine	350.	U
67-72-1	Hexachloroethane	350.	U
98-95-3	Nitrobenzene	350.	U
78-59-1	Isophorone	350.	U
88-75-5	2-Nitrophenol	350.	U
105-67-9	2,4-Dimethylphenol	350.	U
65-85-0	Benzoic acid	1700.	U
111-91-1	bis(2-Chloroethoxy)methane	350.	U
120-83-2	2,4-Dichlorophenol	350.	U
120-82-1	1,2,4-Trichlorobenzene	350.	U
91-20-3	Naphthalene	350.	U
106-47-8	4-Chloroaniline	690.	U
87-68-3	Hexachlorobutadiene	350.	U
59-50-7	4-Chloro-3-methylphenol	690.	U
91-57-6	2-Methylnaphthalene	350.	U
77-47-4	Hexachlorocyclopentadiene	350.	U
88-06-2	2,4,6-Trichlorophenol	350.	U
95-95-4	2,4,5-Trichlorophenol	350.	U
91-58-7	2-Chloronaphthalene	350.	U
88-74-4	2-Nitroaniline	1700.	U
131-11-3	Dimethylphthalate	350.	U
208-96-8	Acenaphthylene	350.	U
606-20-2	2,6-Dinitrotoluene	350.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS301

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:30100

Matrix: (soil/water) SOIL Lab Sample ID:30100-28

Sample wt/vol: 30.0 (g/ml) G Lab File ID: S7912

Level: (low/med) LOW Date Received: 2/09/93

% Moisture: 4 decanted: (Y/N) N Date Extracted: 2/12/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/22/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1700.	U
83-32-9	Acenaphthene	350.	U
51-28-5	2,4-Dinitrophenol	1700.	U
100-02-7	4-Nitrophenol	1700.	U
132-64-9	Dibenzofuran	350.	U
121-14-2	2,4-Dinitrotoluene	350.	U
84-66-2	Diethylphthalate	350.	U
7005-72-3	4-Chlorophenyl-phenylether	350.	U
86-73-7	Fluorene	350.	U
100-01-6	4-Nitroaniline	1700.	U
534-52-1	4,6-Dinitro-2-methylphenol	1700.	U
86-30-6	N-Nitrosodiphenylamine(1)	350.	U
101-55-3	4-Bromophenyl-phenylether	350.	U
118-74-1	Hexachlorobenzene	350.	U
87-86-5	Pentachlorophenol	1700.	U
85-01-8	Phenanthrene	350.	U
120-12-7	Anthracene	350.	U
84-74-2	Di-n-butylphthalate	1800.	B
206-44-0	Fluoranthene	350.	U
129-00-0	Pyrene	350.	U
85-68-7	Butylbenzylphthalate	350.	U
91-94-1	3,3'-Dichlorobenzidine	690.	U
56-55-3	Benzo(a)anthracene	350.	U
218-01-9	Chrysene	350.	U
117-81-7	bis(2-Ethylhexyl)phthalate	350.	U
117-84-0	Di-n-octylphthalate	350.	U
205-99-2	Benzo(b)fluoranthene	350.	U
207-08-9	Benzo(k)fluoranthene	350.	U
50-32-8	Benzo(a)pyrene	350.	U
193-39-5	Indeno(1,2,3-cd)pyrene	350.	U
53-70-3	Dibenz(a,h)anthracene	350.	U
191-24-2	Benzo(g,h,i)perylene	350.	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS301

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:30100

Matrix: (soil/water) SOIL Lab Sample ID:30100-28

Sample wt/vol: 30.0 (g/ml) G Lab File ID: S7912

Level: (low/med) LOW Date Received: 2/09/93

% Moisture: 4 decanted: (Y/N) N Date Extracted: 2/12/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/22/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

Number TICs Found: 3

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	16.20	140.	J
2.		Unknown	28.08	3100.	J
3.					
4.					
5.					
6.					
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS302

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:30100

Matrix: (soil/water) SOIL Lab Sample ID:30100-29

Sample wt/vol: 30.4 (g/ml) G Lab File ID: S7906

Level: (low/med) LOW Date Received: 2/09/93

% Moisture: 8 decanted: (Y/N) N Date Extracted: 2/12/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/20/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	360.	U
111-44-4	Bis(2-chloroethyl)ether	360.	U
95-57-8	2-Chlorophenol	360.	U
541-73-1	1,3-Dichlorobenzene	360.	U
106-46-7	1,4-Dichlorobenzene	360.	U
100-51-6	Benzyl alcohol	710.	U
95-50-1	1,2-Dichlorobenzene	360.	U
95-48-7	2-Methylphenol	360.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	360.	U
106-44-5	4-Methylphenol	360.	U
621-64-7	N-Nitroso-di-n-propylamine	360.	U
67-72-1	Hexachloroethane	360.	U
98-95-3	Nitrobenzene	360.	U
78-59-1	Isophorone	360.	U
88-75-5	2-Nitrophenol	360.	U
105-67-9	2,4-Dimethylphenol	360.	U
65-85-0	Benzoic acid	1800.	U
111-91-1	bis(2-Chloroethoxy)methane	360.	U
120-83-2	2,4-Dichlorophenol	360.	U
120-82-1	1,2,4-Trichlorobenzene	360.	U
91-20-3	Naphthalene	360.	U
106-47-8	4-Chloroaniline	710.	U
87-68-3	Hexachlorobutadiene	360.	U
59-50-7	4-Chloro-3-methylphenol	710.	U
91-57-6	2-Methylnaphthalene	360.	U
77-47-4	Hexachlorocyclopentadiene	360.	U
88-06-2	2,4,6-Trichlorophenol	360.	U
95-95-4	2,4,5-Trichlorophenol	360.	U
91-58-7	2-Chloronaphthalene	360.	U
88-74-4	2-Nitroaniline	1800.	U
131-11-3	Dimethylphthalate	360.	U
208-96-8	Acenaphthylene	360.	U
606-20-2	2,6-Dinitrotoluene	360.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS302

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:30100

Matrix: (soil/water) SOIL Lab Sample ID:30100-29

Sample wt/vol: 30.4 (g/ml) G Lab File ID: S7906

Level: (low/med) LOW Date Received: 2/09/93

% Moisture: 8 decanted: (Y/N) N Date Extracted: 2/12/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/20/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1800.	U
83-32-9	Acenaphthene	360.	U
51-28-5	2,4-Dinitrophenol	1800.	U
100-02-7	4-Nitrophenol	1800.	U
132-64-9	Dibenzofuran	360.	U
121-14-2	2,4-Dinitrotoluene	360.	U
84-66-2	Diethylphthalate	360.	U
7005-72-3	4-Chlorophenyl-phenylether	360.	U
86-73-7	Fluorene	360.	U
100-01-6	4-Nitroaniline	1800.	U
534-52-1	4,6-Dinitro-2-methylphenol	1800.	U
86-30-6	N-Nitrosodiphenylamine(1)	360.	U
101-55-3	4-Bromophenyl-phenylether	360.	U
118-74-1	Hexachlorobenzene	360.	U
87-86-5	Pentachlorophenol	1800.	U
85-01-8	Phenanthrene	360.	U
120-12-7	Anthracene	360.	U
84-74-2	Di-n-butylphthalate	220.	JB
206-44-0	Fluoranthene	360.	U
129-00-0	Pyrene	360.	U
85-68-7	Butylbenzylphthalate	360.	U
91-94-1	3,3'-Dichlorobenzidine	710.	U
56-55-3	Benzo(a)anthracene	360.	U
218-01-9	Chrysene	360.	U
117-81-7	bis(2-Ethylhexyl)phthalate	88.	J
117-84-0	Di-n-octylphthalate	360.	U
205-99-2	Benzo(b)fluoranthene	360.	U
207-08-9	Benzo(k)fluoranthene	360.	U
50-32-8	Benzo(a)pyrene	360.	U
193-39-5	Indeno(1,2,3-cd)pyrene	360.	U
53-70-3	Dibenz(a,h)anthracene	360.	U
191-24-2	Benzo(g,h,i)perylene	360.	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS302

Lab Name: Sound Analytical Services Contract: 624419

Lab Code: - Case No.: - SAS No.: - SDG No.: 30100

Matrix: (soil/water) SOIL Lab Sample ID: 30100-29

Sample wt/vol: 30.4 (g/ml) G Lab File ID: S7906

Level: (low/med) LOW Date Received: 2/09/93

% Moisture: 8 decanted: (Y/N) N Date Extracted: 2/12/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/20/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

Number TICs Found: 11

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	28.12	290.	J
2.		Unknown Octadecanoic Acid	23.52	580.	J
3.		Unknown	22.43	350.	J
4.		Unknown Hexadecanoic Acid	21.63	3200.	J
5.	1454-85-9	1 Heptadecanol	20.18	1800.	J
6.		Unknown	16.25	150.	J
7.					
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS303

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:30100

Matrix: (soil/water) SOIL Lab Sample ID:30100-30

Sample wt/vol: 30.2 (g/ml) G Lab File ID: S7907

Level: (low/med) LOW Date Received: 2/09/93

% Moisture: 8 decanted: (Y/N) N Date Extracted: 2/12/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/20/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	360.	U
111-44-4	Bis(2-chloroethyl)ether	360.	U
95-57-8	2-Chlorophenol	360.	U
541-73-1	1,3-Dichlorobenzene	360.	U
106-46-7	1,4-Dichlorobenzene	360.	U
100-51-6	Benzyl alcohol	720.	U
95-50-1	1,2-Dichlorobenzene	360.	U
95-48-7	2-Methylphenol	360.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	360.	U
106-44-5	4-Methylphenol	360.	U
621-64-7	N-Nitroso-di-n-propylamine	360.	U
67-72-1	Hexachloroethane	360.	U
98-95-3	Nitrobenzene	360.	U
78-59-1	Isophorone	360.	U
88-75-5	2-Nitrophenol	360.	U
105-67-9	2,4-Dimethylphenol	360.	U
65-85-0	Benzoic acid	1800.	U
111-91-1	bis(2-Chloroethoxy)methane	360.	U
120-83-2	2,4-Dichlorophenol	360.	U
120-82-1	1,2,4-Trichlorobenzene	360.	U
91-20-3	Naphthalene	360.	U
106-47-8	4-Chloroaniline	720.	U
87-68-3	Hexachlorobutadiene	360.	U
59-50-7	4-Chloro-3-methylphenol	720.	U
91-57-6	2-Methylnaphthalene	360.	U
77-47-4	Hexachlorocyclopentadiene	360.	U
88-06-2	2,4,6-Trichlorophenol	360.	U
95-95-4	2,4,5-Trichlorophenol	360.	U
91-58-7	2-Chloronaphthalene	360.	U
88-74-4	2-Nitroaniline	1800.	U
131-11-3	Dimethylphthalate	360.	U
208-96-8	Acenaphthylene	360.	U
606-20-2	2,6-Dinitrotoluene	360.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS303

Lab Name: Sound Analytical Services Contract: 624419

Lab Code: - Case No.: - SAS No.: - SDG No.: 30100

Matrix: (soil/water) SOIL Lab Sample ID: 30100-30

Sample wt/vol: 30.2 (g/ml) G Lab File ID: S7907

Level: (low/med) LOW Date Received: 2/09/93

% Moisture: 8 decanted: (Y/N) N Date Extracted: 2/12/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/20/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1800.	U
83-32-9	Acenaphthene	360.	U
51-28-5	2,4-Dinitrophenol	1800.	U
100-02-7	4-Nitrophenol	1800.	U
132-64-9	Dibenzofuran	360.	U
121-14-2	2,4-Dinitrotoluene	360.	U
84-66-2	Diethylphthalate	360.	U
7005-72-3	4-Chlorophenyl-phenylether	360.	U
86-73-7	Fluorene	360.	U
100-01-6	4-Nitroaniline	1800.	U
534-52-1	4,6-Dinitro-2-methylphenol	1800.	U
86-30-6	N-Nitrosodiphenylamine(1)	360.	U
101-55-3	4-Bromophenyl-phenylether	360.	U
118-74-1	Hexachlorobenzene	360.	U
87-86-5	Pentachlorophenol	1800.	U
85-01-8	Phenanthrene	360.	U
120-12-7	Anthracene	360.	U
84-74-2	Di-n-butylphthalate	240.	JB
206-44-0	Fluoranthene	360.	U
129-00-0	Pyrene	360.	U
85-68-7	Butylbenzylphthalate	360.	U
91-94-1	3,3'-Dichlorobenzidine	720.	U
56-55-3	Benzo(a)anthracene	360.	U
218-01-9	Chrysene	360.	U
117-81-7	bis(2-Ethylhexyl)phthalate	150.	J
117-84-0	Di-n-octylphthalate	110.	J
205-99-2	Benzo(b)fluoranthene	360.	U
207-08-9	Benzo(k)fluoranthene	360.	U
50-32-8	Benzo(a)pyrene	360.	U
193-39-5	Indeno(1,2,3-cd)pyrene	360.	U
53-70-3	Dibenz(a,h)anthracene	360.	U
191-24-2	Benzo(g,h,i)perylene	360.	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS303

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:30100

Matrix: (soil/water) SOIL Lab Sample ID:30100-30

Sample wt/vol: 30.2 (g/ml) G Lab File ID: S7907

Level: (low/med) LOW Date Received: 2/09/93

% Moisture: 8 decanted: (Y/N) N Date Extracted: 2/12/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/20/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

Number TICs Found: 13

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	16.25	160.	J
2.		Unknown Alkene	20.18	1400.	J
3.		Unknown Carboxylic Acid	21.65	3200.	J
4.		Unknown	22.45	350.	J
5.		Unknown Carboxylic Acid	23.52	490.	J
6.		Unknown Amide	28.15	3700.	J
7.		Unknown	28.38	140.	J
8.		Unknown	30.57	330.	J
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS304

Lab Name: Sound Analytical Services Contract: 624419

Lab Code:- Case No.:- SAS No.:- SDG No.: 30100

Matrix: (soil/water) SOIL Lab Sample ID: 30100-31

Sample wt/vol: 30.1 (g/ml) G Lab File ID: S7919

Level: (low/med) LOW Date Received: 2/09/93

% Moisture: 3 decanted: (Y/N) N Date Extracted: 2/12/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/22/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	340.	U
111-44-4	Bis(2-chloroethyl)ether	340.	U
95-57-8	2-Chlorophenol	340.	U
541-73-1	1,3-Dichlorobenzene	340.	U
106-46-7	1,4-Dichlorobenzene	340.	U
100-51-6	Benzyl alcohol	680.	U
95-50-1	1,2-Dichlorobenzene	340.	U
95-48-7	2-Methylphenol	340.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	340.	U
106-44-5	4-Methylphenol	340.	U
621-64-7	N-Nitroso-di-n-propylamine	340.	U
67-72-1	Hexachloroethane	340.	U
98-95-3	Nitrobenzene	340.	U
78-59-1	Isophorone	340.	U
88-75-5	2-Nitrophenol	340.	U
105-67-9	2,4-Dimethylphenol	340.	U
65-85-0	Benzoic acid	1700.	U
111-91-1	bis(2-Chloroethoxy)methane	340.	U
120-83-2	2,4-Dichlorophenol	340.	U
120-82-1	1,2,4-Trichlorobenzene	340.	U
91-20-3	Naphthalene	340.	U
106-47-8	4-Chloroaniline	680.	U
87-68-3	Hexachlorobutadiene	340.	U
59-50-7	4-Chloro-3-methylphenol	680.	U
91-57-6	2-Methylnaphthalene	340.	U
77-47-4	Hexachlorocyclopentadiene	340.	U
88-06-2	2,4,6-Trichlorophenol	340.	U
95-95-4	2,4,5-Trichlorophenol	340.	U
91-58-7	2-Chloronaphthalene	340.	U
88-74-4	2-Nitroaniline	1700.	U
131-11-3	Dimethylphthalate	340.	U
208-96-8	Acenaphthylene	340.	U
606-20-2	2,6-Dinitrotoluene	340.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS304

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:30100

Matrix: (soil/water) SOIL Lab Sample ID:30100-31

Sample wt/vol: 30.1 (g/ml) G Lab File ID: S7919

Level: (low/med) LOW Date Received: 2/09/93

% Moisture: 3 decanted: (Y/N) N Date Extracted: 2/12/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/22/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1700.	U
83-32-9	Acenaphthene	340.	U
51-28-5	2,4-Dinitrophenol	1700.	U
100-02-7	4-Nitrophenol	1700.	U
132-64-9	Dibenzofuran	340.	U
121-14-2	2,4-Dinitrotoluene	340.	U
84-66-2	Diethylphthalate	340.	U
7005-72-3	4-Chlorophenyl-phenylether	340.	U
86-73-7	Fluorene	340.	U
100-01-6	4-Nitroaniline	1700.	U
534-52-1	4,6-Dinitro-2-methylphenol	1700.	U
86-30-6	N-Nitrosodiphenylamine(1)	340.	U
101-55-3	4-Bromophenyl-phenylether	340.	U
118-74-1	Hexachlorobenzene	340.	U
87-86-5	Pentachlorophenol	1700.	U
85-01-8	Phenanthrene	340.	U
120-12-7	Anthracene	340.	U
84-74-2	Di-n-butylphthalate	120.	JB
206-44-0	Fluoranthene	340.	U
129-00-0	Pyrene	340.	U
85-68-7	Butylbenzylphthalate	340.	U
91-94-1	3,3'-Dichlorobenzidine	680.	U
56-55-3	Benzo(a)anthracene	340.	U
218-01-9	Chrysene	340.	U
117-81-7	bis(2-Ethylhexyl)phthalate	81.	J
117-84-0	Di-n-octylphthalate	340.	U
205-99-2	Benzo(b)fluoranthene	340.	U
207-08-9	Benzo(k)fluoranthene	340.	U
50-32-8	Benzo(a)pyrene	340.	U
193-39-5	Indeno(1,2,3-cd)pyrene	340.	U
53-70-3	Dibenz(a,h)anthracene	340.	U
191-24-2	Benzo(g,h,i)perylene	340.	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS304

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:30100

Matrix: (soil/water) SOIL Lab Sample ID:30100-31

Sample wt/vol: 30.1 (g/ml) G Lab File ID: S7919

Level: (low/med) LOW Date Received: 2/09/93

% Moisture: 3 decanted: (Y/N) N Date Extracted: 2/12/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/22/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

Number TICs Found: 16

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown Decene	20.18	630.	J
2.		Unknown Siloxane	21.33	160.	J
3.		Unknown Hexadecanoic Acid	21.60	4100.	J
4.		Unknown	22.22	260.	J
5.		Unknown	22.40	500.	J
6.		Unknown Siloxane	22.73	180.	J
7.		Unknown Octadecanoic Acid	23.48	750.	J
8.		Unknown	28.08	3100.	J
9.		Unknown Alkene	28.33	140.	J
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS305

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:30100

Matrix: (soil/water) SOIL Lab Sample ID:30100-32

Sample wt/vol: 30.1 (g/ml) G Lab File ID: S7920

Level: (low/med) LOW Date Received: 2/09/93

% Moisture: 4 decanted: (Y/N) N Date Extracted: 2/12/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/22/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	350.	U
111-44-4	Bis(2-chloroethyl)ether	350.	U
95-57-8	2-Chlorophenol	350.	U
541-73-1	1,3-Dichlorobenzene	350.	U
106-46-7	1,4-Dichlorobenzene	350.	U
100-51-6	Benzyl alcohol	690.	U
95-50-1	1,2-Dichlorobenzene	350.	U
95-48-7	2-Methylphenol	350.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	350.	U
106-44-5	4-Methylphenol	350.	U
621-64-7	N-Nitroso-di-n-propylamine	350.	U
67-72-1	Hexachloroethane	350.	U
98-95-3	Nitrobenzene	350.	U
78-59-1	Isophorone	350.	U
88-75-5	2-Nitrophenol	350.	U
105-67-9	2,4-Dimethylphenol	350.	U
65-85-0	Benzoic acid	1700.	U
111-91-1	bis(2-Chloroethoxy)methane	350.	U
120-83-2	2,4-Dichlorophenol	350.	U
120-82-1	1,2,4-Trichlorobenzene	350.	U
91-20-3	Naphthalene	350.	U
106-47-8	4-Chloroaniline	690.	U
87-68-3	Hexachlorobutadiene	350.	U
59-50-7	4-Chloro-3-methylphenol	690.	U
91-57-6	2-Methylnaphthalene	350.	U
77-47-4	Hexachlorocyclopentadiene	350.	U
88-06-2	2,4,6-Trichlorophenol	350.	U
95-95-4	2,4,5-Trichlorophenol	350.	U
91-58-7	2-Chloronaphthalene	350.	U
88-74-4	2-Nitroaniline	1700.	U
131-11-3	Dimethylphthalate	350.	U
208-96-8	Acenaphthylene	350.	U
606-20-2	2,6-Dinitrotoluene	350.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BS305

Lab Name: Sound Analytical Services Contract: 624419

Lab Code: - Case No.: - SAS No.: - SDG No.: 30100

Matrix: (soil/water) SOIL Lab Sample ID: 30100-32

Sample wt/vol: 30.1 (g/ml) G Lab File ID: S7920

Level: (low/med) LOW Date Received: 2/09/93

% Moisture: 4 decanted: (Y/N) N Date Extracted: 2/12/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/22/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1700.	U
83-32-9	Acenaphthene	350.	U
51-28-5	2,4-Dinitrophenol	1700.	U
100-02-7	4-Nitrophenol	1700.	U
132-64-9	Dibenzofuran	350.	U
121-14-2	2,4-Dinitrotoluene	350.	U
84-66-2	Diethylphthalate	350.	U
7005-72-3	4-Chlorophenyl-phenylether	350.	U
86-73-7	Fluorene	350.	U
100-01-6	4-Nitroaniline	1700.	U
534-52-1	4,6-Dinitro-2-methylphenol	1700.	U
86-30-6	N-Nitrosodiphenylamine(1)	350.	U
101-55-3	4-Bromophenyl-phenylether	350.	U
118-74-1	Hexachlorobenzene	350.	U
87-86-5	Pentachlorophenol	1700.	U
85-01-8	Phenanthrene	350.	U
120-12-7	Anthracene	350.	U
84-74-2	Di-n-butylphthalate	350.	U
206-44-0	Fluoranthene	350.	U
129-00-0	Pyrene	350.	U
85-68-7	Butylbenzylphthalate	350.	U
91-94-1	3,3'-Dichlorobenzidine	690.	U
56-55-3	Benzo(a)anthracene	350.	U
218-01-9	Chrysene	350.	U
117-81-7	bis(2-Ethylhexyl)phthalate	80.	J
117-84-0	Di-n-octylphthalate	350.	U
205-99-2	Benzo(b)fluoranthene	350.	U
207-08-9	Benzo(k)fluoranthene	350.	U
50-32-8	Benzo(a)pyrene	350.	U
193-39-5	Indeno(1,2,3-cd)pyrene	350.	U
53-70-3	Dibenz(a,h)anthracene	350.	U
191-24-2	Benzo(g,h,i)perylene	350.	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BS305

Lab Name:Sound Analytical Services Contract:624419

Lab Code:- Case No.:- SAS No.:- SDG No.:30100

Matrix: (soil/water) SOIL Lab Sample ID:30100-32

Sample wt/vol: 30.1 (g/ml) G Lab File ID: S7920

Level: (low/med) LOW Date Received: 2/09/93

% Moisture: 4 decanted: (Y/N) N Date Extracted: 2/12/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 2/22/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0

Number TICs Found: 17

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	56-81-5	1,2,3-Propanetriol	10.22	120.	J
2.		Unknown	20.20	5200.	J
3.		Unknown Hexadecanoic Acid	21.65	6900.	J
4.		Unknown	22.23	800.	J
5.		Unknown	22.43	1800.	J
6.		Unknown Octadecanoic Acid	23.50	1700.	J
7.		Unknown	28.12	3000.	J
8.		Unknown Decatrien	28.35	330.	J
9.		Unknown	30.45	520.	J
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SOUND ANALYTICAL SERVICES, INC.

SPECIALIZING IN INDUSTRIAL & TOXIC WASTE ANALYSIS

4813 PACIFIC HIGHWAY EAST, TACOMA, WASHINGTON 98424 - TELEPHONE (206)922-2310 - FAX (206)922-5047

Report To: Burlington Environmental Date: March 17, 1993

Report On: Analysis of Soil Lab No.: 30100

IDENTIFICATION:
Samples received on 02-09-93
Project: 624419-7020.16 Pasco

ANALYSIS:

Lab No. 30100-1 Client ID: PLF-SBS-274

Chlorinated Herbicides by GC/MS Per EPA SW-846 Method 8150
Date Extracted: 2-12-93
Date Analyzed: 2-19-93

Compound	Concentration, ug/kg	PQL
2,4-D	ND	11.0
Dalapon	ND	110.0
2,4-DB	ND	11.0
Dicamba	ND	11.0
Dichlorprop	ND	11.0
Dinoseb	ND	11.0
MCPA	ND	11.0
MCPP	ND	11.0
2,4,5-T	ND	11.0
2,4-5-TP	ND	11.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	51

ND - Not Detected
PQL - Practical Quantitation Limit

Continued . . . . .

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SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental
Project: 624419-7020.16

Lab No. 30100
March 17, 1993

Lab No. 30100-2 Client ID: PLF-SBS-275

Chlorinated Herbicides by GC/MS Per EPA SW-846 Method 8150
Date Extracted: 2-12-93
Date Analyzed: 2-19-93

Compound	Concentration, ug/kg	PQL
2,4-D	ND	11.0
Dalapon	ND	110.0
2,4-DB	ND	11.0
Dicamba	ND	11.0
Dichlorprop	ND	11.0
Dinoseb	ND	11.0
MCPA	ND	11.0
MCPP	ND	11.0
2,4,5-T	ND	11.0
2,4-5-TP	ND	11.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	57

ND - Not Detected
PQL - Practical Quantitation Limit

Continued . . . . .

4

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SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental
Project: 624419-7020.16

Lab No. 30100
March 17, 1993

Lab No. 30100-3 Client ID: PLF-SBS-276

Chlorinated Herbicides by GC/MS Per EPA SW-846 Method 8150
Date Extracted: 2-12-93
Date Analyzed: 2-19-93

Compound	Concentration, ug/kg	PQL
2,4-D	ND	10.0
Dalapon	ND	100.0
2,4-DB	ND	10.0
Dicamba	ND	10.0
Dichlorprop	ND	10.0
Dinoseb	ND	10.0
MCPA	ND	10.0
MCPP	ND	10.0
2,4,5-T	ND	10.0
2,4-5-TP	ND	10.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	57

ND - Not Detected
PQL - Practical Quantitation Limit

Continued . . . . . .

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SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental
Project: 624419-7020.16

Lab No. 30100
March 17, 1993

Lab No. 30100-4 Client ID: PLF-SBS-277

Chlorinated Herbicides by GC/MS Per EPA SW-846 Method 8150
Date Extracted: 2-12-93
Date Analyzed: 2-19-93

Compound	Concentration, ug/kg	PQL
2,4-D	ND	10.0
Dalapon	ND	100.0
2,4-DB	ND	10.0
Dicamba	ND	10.0
Dichlorprop	ND	10.0
Dinoseb	ND	10.0
MCPA	ND	10.0
MCPP	ND	10.0
2,4,5-T	ND	10.0
2,4-5-TP	ND	10.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	55

ND - Not Detected
PQL - Practical Quantitation Limit

Continued . . . . . -

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SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental
Project: 624419-7020.16

Lab No. 30100
March 17, 1993

Lab No. 30100-5 Client ID: PLF-SBS-278

Chlorinated Herbicides by GC/MS Per EPA SW-846 Method 8150
Date Extracted: 2-12-93
Date Analyzed: 2-19-93

Compound	Concentration, ug/kg	PQL
2,4-D	ND	11.0
Dalapon	ND	110.0
2,4-DB	ND	11.0
Dicamba	ND	11.0
Dichlorprop	ND	11.0
Dinoseb	ND	11.0
MCPA	ND	11.0
MCPP	ND	11.0
2,4,5-T	ND	11.0
2,4-5-TP	ND	11.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	35

ND - Not Detected
PQL - Practical Quantitation Limit

Continued . . . . .

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SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental
Project: 624419-7020.16

Lab No. 30100
March 17, 1993

Lab No. 30100-6 Client ID: PLF-SBS-279

Chlorinated Herbicides by GC/MS Per EPA SW-846 Method 8150
Date Extracted: 2-12-93
Date Analyzed: 2-19-93

Compound	Concentration, ug/kg	PQL
2,4-D	ND	10.0
Dalapon	ND	100.0
2,4-DB	ND	10.0
Dicamba	ND	10.0
Dichlorprop	ND	10.0
Dinoseb	ND	10.0
MCPA	ND	10.0
MCPP	ND	10.0
2,4,5-T	ND	10.0
2,4-5-TP	ND	10.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	61

ND - Not Detected
PQL - Practical Quantitation Limit

Continued . . . . .

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SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental
Project: 624419-7020.16

Lab No. 30100
March 17, 1993

Lab No. 30100-7 Client ID: PLF-SBS-280

Chlorinated Herbicides by GC/MS Per EPA SW-846 Method 8150
Date Extracted: 2-12-93
Date Analyzed: 2-19-93

Compound	Concentration, ug/kg	PQL
2,4-D	ND	10.0
Dalapon	ND	100.0
2,4-DB	ND	10.0
Dicamba	ND	10.0
Dichlorprop	ND	10.0
Dinoseb	ND	10.0
MCPA	ND	10.0
MCPP	ND	10.0
2,4,5-T	ND	10.0
2,4-5-TP	ND	10.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	72

ND - Not Detected
PQL - Practical Quantitation Limit

Continued . . . . . .

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SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental
Project: 624419-7020.16

Lab No. 30100
March 17, 1993

Lab No. 30100-8 Client ID: PLF-SBS-281

Chlorinated Herbicides by GC/MS Per EPA SW-846 Method 8150
Date Extracted: 2-12-93
Date Analyzed: 2-19-93

Compound	Concentration, ug/kg	PQL
2,4-D	ND	10.0
Dalapon	ND	100.0
2,4-DB	ND	10.0
Dicamba	ND	10.0
Dichlorprop	ND	10.0
Dinoseb	ND	10.0
MCPA	ND	10.0
MCPP	ND	10.0
2,4,5-T	ND	10.0
2,4-5-TP	ND	10.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	49

ND - Not Detected
PQL - Practical Quantitation Limit

Continued . . . . .

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SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental
Project: 624419-7020.16

Lab No. 30100
March 17, 1993

Lab No. 30100-9 Client ID: PLF-SBS-282

Chlorinated Herbicides by GC/MS Per EPA SW-846 Method 8150
Date Extracted: 2-12-93
Date Analyzed: 2-20-93

Compound	Concentration, ug/kg	PQL
2,4-D	ND	10.0
Dalapon	ND	100.0
2,4-DB	ND	10.0
Dicamba	ND	10.0
Dichlorprop	ND	10.0
Dinoseb	ND	10.0
MCPA	ND	10.0
MCPP	ND	10.0
2,4,5-T	ND	10.0
2,4-5-TP	ND	10.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	37

ND - Not Detected
PQL - Practical Quantitation Limit

Continued . . . . .

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SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental
Project: 624419-7020.16

Lab No. 30100
March 17, 1993

Lab No. 30100-10 Client ID: PLF-SBS-283

Chlorinated Herbicides by GC/MS Per EPA SW-846 Method 8150
Date Extracted: 2-12-93
Date Analyzed: 2-20-93

Compound	Concentration, ug/kg	PQL
2,4-D	ND	10.0
Dalapon	ND	100.0
2,4-DB	ND	10.0
Dicamba	ND	10.0
Dichlorprop	ND	10.0
Dinoseb	ND	10.0
MCPA	ND	10.0
MCPP	ND	10.0
2,4,5-T	ND	10.0
2,4-5-TP	ND	10.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	64

ND - Not Detected
PQL - Practical Quantitation Limit

Continued . . . . .

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SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental
Project: 624419-7020.16

Lab No. 30100
March 17, 1993

Lab No. 30100-11 Client ID: PLF-SBS-284

Chlorinated Herbicides by GC/MS Per EPA SW-846 Method 8150
Date Extracted: 2-12-93
Date Analyzed: 2-20-93

Compound	Concentration, ug/kg	PQL
2,4-D	ND	10.0
Dalapon	ND	100.0
2,4-DB	ND	10.0
Dicamba	ND	10.0
Dichlorprop	ND	10.0
Dinoseb	ND	10.0
MCPA	ND	10.0
MCPP	ND	10.0
2,4,5-T	ND	10.0
2,4-5-TP	ND	10.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	56

ND - Not Detected
PQL - Practical Quantitation Limit

Continued . . . . .

his report is issued solely for the use of the person or company to whom it is addressed. This laboratory accepts responsibility only for the due performance of analysis in accordance with idustry acceptable practice. In no event shall Sound Analytical Services, Inc. or its employees be responsible for consequential or special damages in any kind or in any amount.

SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental
Project: 624419-7020.16

Lab No. 30100
March 17, 1993

Lab No. 30100-12 Client ID: PLF-SBS-285

Chlorinated Herbicides by GC/MS Per EPA SW-846 Method 8150
Date Extracted: 2-12-93
Date Analyzed: 2-20-93

Compound	Concentration, ug/kg	PQL
2,4-D	ND	10.0
Dalapon	ND	100.0
2,4-DB	ND	10.0
Dicamba	ND	10.0
Dichlorprop	ND	10.0
Dinoseb	ND	10.0
MCPA	ND	10.0
MCPP	ND	10.0
2,4,5-T	ND	10.0
2,4-5-TP	ND	10.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	52

ND - Not Detected
PQL - Practical Quantitation Limit

Continued . . . . .

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SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental
Project: 624419-7020.16

Lab No. 30100
March 17, 1993

Lab No. 30100-13 Client ID: PLF-SBS-286

Chlorinated Herbicides by GC/MS Per EPA SW-846 Method 8150
Date Extracted: 2-12-93
Date Analyzed: 2-20-93

Compound	Concentration, ug/kg	PQL
2,4-D	ND	11.0
Dalapon	ND	110.0
2,4-DB	ND	11.0
Dicamba	ND	11.0
Dichlorprop	ND	11.0
Dinoseb	ND	11.0
MCPA	ND	11.0
MCPP	ND	11.0
2,4,5-T	ND	11.0
2,4-5-TP	ND	11.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	43

ND - Not Detected
PQL - Practical Quantitation Limit

Continued . . . . .

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SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental
Project: 624419-7020.16

Lab No. 30100
March 17, 1993

Lab No. 30100-14 Client ID: PLF-SBS-287

Chlorinated Herbicides by GC/MS Per EPA SW-846 Method 8150
Date Extracted: 2-12-93
Date Analyzed: 2-20-93

Compound	Concentration, ug/kg	PQL
2,4-D	ND	10.0
Dalapon	ND	100.0
2,4-DB	ND	10.0
Dicamba	ND	10.0
Dichlorprop	ND	10.0
Dinoseb	ND	10.0
MCPA	ND	10.0
MCPP	ND	10.0
2,4,5-T	ND	10.0
2,4-5-TP	ND	10.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	52

ND - Not Detected
PQL - Practical Quantitation Limit

Continued . . . . .

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SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental
Project: 624419-7020.16

Lab No. 30100
March 17, 1993

Lab No. 30100-15 Client ID: PLF-SBS-288

Chlorinated Herbicides by GC/MS Per EPA SW-846 Method 8150
Date Extracted: 2-12-93
Date Analyzed: 2-20-93

Compound	Concentration, ug/kg	PQL
2,4-D	ND	10.0
Dalapon	ND	100.0
2,4-DB	ND	10.0
Dicamba	ND	10.0
Dichlorprop	ND	10.0
Dinoseb	ND	10.0
MCPA	ND	10.0
MCPP	ND	10.0
2,4,5-T	ND	10.0
2,4-5-TP	ND	10.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	68

ND - Not Detected
PQL - Practical Quantitation Limit

Continued . . . . .

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SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental
Project: 624419-7020.16

Lab No. 30100
March 17, 1993

Lab No. 30100-16 Client ID: PLF-SBS-289

Chlorinated Herbicides by GC/MS Per EPA SW-846 Method 8150
Date Extracted: 2-12-93
Date Analyzed: 2-20-93

Compound	Concentration, ug/kg	PQL
2,4-D	ND	10.0
Dalapon	ND	100.0
2,4-DB	ND	10.0
Dicamba	ND	10.0
Dichlorprop	ND	10.0
Dinoseb	ND	10.0
MCPA	ND	10.0
MCPP	ND	10.0
2,4,5-T	ND	10.0
2,4-5-TP	ND	10.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	82

ND - Not Detected
PQL - Practical Quantitation Limit

Continued . . . . .

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SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental
Project: 624419-7020.16

Lab No. 30100
March 17, 1993

Lab No. 30100-17 Client ID: PLF-SBS-290

Chlorinated Herbicides by GC/MS Per EPA SW-846 Method 8150
Date Extracted: 2-12-93
Date Analyzed: 2-20-93

Compound	Concentration, ug/kg	PQL
2,4-D	ND	10.0
Dalapon	ND	100.0
2,4-DB	ND	10.0
Dicamba	ND	10.0
Dichlorprop	ND	10.0
Dinoseb	ND	10.0
MCPA	ND	10.0
MCPP	ND	10.0
2,4,5-T	ND	10.0
2,4-5-TP	ND	10.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	79

ND - Not Detected
PQL - Practical Quantitation Limit

Continued . . . . .

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SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental
Project: 624419-7020.16

Lab No. 30100
March 17, 1993

Lab No. 30100-18 Client ID: PLF-SBS-291

Chlorinated Herbicides by GC/MS Per EPA SW-846 Method 8150
Date Extracted: 2-12-93
Date Analyzed: 2-20-93

Compound	Concentration, ug/kg	PQL
2,4-D	ND	10.0
Dalapon	ND	100.0
2,4-DB	ND	10.0
Dicamba	ND	10.0
Dichlorprop	ND	10.0
Dinoseb	ND	10.0
MCPA	ND	10.0
MCPP	ND	10.0
2,4,5-T	ND	10.0
2,4-5-TP	ND	10.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	76

ND - Not Detected
PQL - Practical Quantitation Limit

Continued . . . . .

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SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental
Project: 624419-7020.16

Lab No. 30100
March 17, 1993

Lab No. 30100-19 Client ID: PLF-SBS-292

Chlorinated Herbicides by GC/MS Per EPA SW-846 Method 8150
Date Extracted: 2-12-93
Date Analyzed: 2-20-93

Compound	Concentration, ug/kg	PQL
2,4-D	ND	10.0
Dalapon	ND	100.0
2,4-DB	ND	10.0
Dicamba	ND	10.0
Dichlorprop	ND	10.0
Dinoseb	ND	10.0
MCPA	ND	10.0
MCPP	ND	10.0
2,4,5-T	ND	10.0
2,4-5-TP	ND	10.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	65

ND - Not Detected
PQL - Practical Quantitation Limit

Continued . . . . .

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SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental
Project: 624419-7020.16

Lab No. 30100
March 17, 1993

Lab No. 30100-20 Client ID: PLF-SBS-293

Chlorinated Herbicides by GC/MS Per EPA SW-846 Method 8150
Date Extracted: 2-12-93
Date Analyzed: 2-20-93

Compound	Concentration, ug/kg	PQL
2,4-D	ND	10.0
Dalapon	ND	100.0
2,4-DB	ND	10.0
Dicamba	ND	10.0
Dichlorprop	ND	10.0
Dinoseb	ND	10.0
MCPA	ND	10.0
MCPP	ND	10.0
2,4,5-T	ND	10.0
2,4-5-TP	ND	10.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	73

ND - Not Detected
PQL - Practical Quantitation Limit

Continued . . . . .

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SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental
Project: 624419-7020.16

Lab No. 30100
March 17, 1993

Lab No. 30100-21 Client ID: PLF-SBS-294

Chlorinated Herbicides by GC/MS Per EPA SW-846 Method 8150
Date Extracted: 2-12-93
Date Analyzed: 2-20-93

Compound	Concentration, ug/kg	PQL
2,4-D	ND	10.0
Dalapon	ND	100.0
2,4-DB	ND	10.0
Dicamba	ND	10.0
Dichlorprop	ND	10.0
Dinoseb	ND	10.0
MCPA	ND	10.0
MCPP	ND	10.0
2,4,5-T	ND	10.0
2,4-5-TP	ND	10.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	79

ND - Not Detected
PQL - Practical Quantitation Limit

Continued . . . . . .

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SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental
Project: 624419-7020.16

Lab No. 30100
March 17, 1993

Lab No. 30100-22 Client ID: PLF-SBS-295

Chlorinated Herbicides by GC/MS Per EPA SW-846 Method 8150
Date Extracted: 2-12-93
Date Analyzed: 2-20-93

Compound	Concentration, ug/kg	PQL
2,4-D	ND	10.0
Dalapon	ND	100.0
2,4-DB	ND	10.0
Dicamba	ND	10.0
Dichlorprop	ND	10.0
Dinoseb	ND	10.0
MCPA	ND	10.0
MCPP	ND	10.0
2,4,5-T	ND	10.0
2,4-5-TP	ND	10.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	43

ND - Not Detected
PQL - Practical Quantitation Limit

Continued . . . . .

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SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental
Project: 624419-7020.16

Lab No. 30100
March 17, 1993

Lab No. 30100-23 Client ID: PLF-SBS-296

Chlorinated Herbicides by GC/MS Per EPA SW-846 Method 8150
Date Extracted: 2-12-93
Date Analyzed: 2-20-93

Compound	Concentration, ug/kg	PQL
2,4-D	ND	10.0
Dalapon	ND	100.0
2,4-DB	ND	10.0
Dicamba	ND	10.0
Dichlorprop	ND	10.0
Dinoseb	ND	10.0
MCPA	ND	10.0
MCPP	ND	10.0
2,4,5-T	ND	10.0
2,4-5-TP	ND	10.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	64

ND - Not Detected
PQL - Practical Quantitation Limit

Continued . . . . .

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SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental
Project: 624419-7020.16

Lab No. 30100
March 17, 1993

Lab No. 30100-24 Client ID: PLF-SBS-297

Chlorinated Herbicides by GC/MS Per EPA SW-846 Method 8150
Date Extracted: 2-12-93
Date Analyzed: 2-20-93

Compound	Concentration, ug/kg	PQL
2,4-D	ND	11.0
Dalapon	ND	110.0
2,4-DB	ND	11.0
Dicamba	ND	11.0
Dichlorprop	ND	11.0
Dinoseb	ND	11.0
MCPA	ND	11.0
MCPP	ND	11.0
2,4,5-T	ND	11.0
2,4-5-TP	ND	11.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	54

ND - Not Detected
PQL - Practical Quantitation Limit

Continued . . . . .

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SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental
Project: 624419-7020.16

Lab No. 30100
March 17, 1993

Lab No. 30100-25 Client ID: PLF-SBS-298

Chlorinated Herbicides by GC/MS Per EPA SW-846 Method 8150
Date Extracted: 2-12-93
Date Analyzed: 2-20-93

Compound	Concentration, ug/kg	PQL
2,4-D	ND	11.0
Dalapon	ND	110.0
2,4-DB	ND	11.0
Dicamba	ND	11.0
Dichlorprop	ND	11.0
Dinoseb	ND	11.0
MCPA	ND	11.0
MCPP	ND	11.0
2,4,5-T	ND	11.0
2,4-5-TP	ND	11.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	71

ND - Not Detected
PQL - Practical Quantitation Limit

Continued . . . . .

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SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental
Project: 624419-7020.16

Lab No. 30100
March 17, 1993

Lab No. 30100-26 Client ID: PLF-SBS-299

Chlorinated Herbicides by GC/MS Per EPA SW-846 Method 8150
Date Extracted: 2-12-93
Date Analyzed: 2-20-93

Compound	Concentration, ug/kg	PQL
2,4-D	ND	10.0
Dalapon	ND	100.0
2,4-DB	ND	10.0
Dicamba	ND	10.0
Dichlorprop	ND	10.0
Dinoseb	ND	10.0
MCPA	ND	10.0
MCPP	ND	10.0
2,4,5-T	ND	10.0
2,4-5-TP	ND	10.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	75

ND - Not Detected
PQL - Practical Quantitation Limit

Continued . . . . .

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SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental
Project: 624419-7020.16

Lab No. 30100
March 17, 1993

Lab No. 30100-27 Client ID: PLF-SBS-300

Chlorinated Herbicides by GC/MS Per EPA SW-846 Method 8150
Date Extracted: 2-12-93
Date Analyzed: 2-20-93

Compound	Concentration, ug/kg	PQL
2,4-D	ND	10.0
Dalapon	ND	100.0
2,4-DB	ND	10.0
Dicamba	ND	10.0
Dichlorprop	ND	10.0
Dinoseb	ND	10.0
MCPA	ND	10.0
MCPP	ND	10.0
2,4,5-T	ND	10.0
2,4-5-TP	ND	10.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	76

ND - Not Detected
PQL - Practical Quantitation Limit

Continued . . . . .

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SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental
Project: 624419-7020.16

Lab No. 30100
March 17, 1993

Lab No. 30100-28 Client ID: PLF-SBS-301

Chlorinated Herbicides by GC/MS Per EPA SW-846 Method 8150
Date Extracted: 2-12-93
Date Analyzed: 2-20-93

Compound	Concentration, ug/kg	PQL
2,4-D	ND	10.0
Dalapon	ND	100.0
2,4-DB	ND	10.0
Dicamba	ND	10.0
Dichlorprop	ND	10.0
Dinoseb	ND	10.0
MCPA	ND	10.0
MCPP	ND	10.0
2,4,5-T	ND	10.0
2,4-5-TP	ND	10.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	77

ND - Not Detected
PQL - Practical Quantitation Limit

Continued . . . . .

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SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental
Project: 624419-7020.16

Lab No. 30100
March 17, 1993

Lab No. 30100-29 Client ID: PLF-SBS-302

Chlorinated Herbicides by GC/MS Per EPA SW-846 Method 8150
Date Extracted: 2-12-93
Date Analyzed: 2-20-93

Compound	Concentration, ug/kg	PQL
2,4-D	ND	11.0
Dalapon	ND	110.0
2,4-DB	ND	11.0
Dicamba	ND	11.0
Dichlorprop	ND	11.0
Dinoseb	ND	11.0
MCPA	ND	11.0
MCPP	ND	11.0
2,4,5-T	ND	11.0
2,4-5-TP	ND	11.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	74

ND - Not Detected
PQL - Practical Quantitation Limit

Continued . . . . .

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SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental
Project: 624419-7020.16

Lab No. 30100
March 17, 1993

Lab No. 30100-30 Client ID: PLF-SBS-303

Chlorinated Herbicides by GC/MS Per EPA SW-846 Method 8150
Date Extracted: 2-12-93
Date Analyzed: 2-20-93

Compound	Concentration, ug/kg	PQL
2,4-D	ND	11.0
Dalapon	ND	110.0
2,4-DB	ND	11.0
Dicamba	ND	11.0
Dichlorprop	ND	11.0
Dinoseb	ND	11.0
MCPA	ND	11.0
MCPP	ND	11.0
2,4,5-T	ND	11.0
2,4-5-TP	ND	11.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	82

ND - Not Detected
PQL - Practical Quantitation Limit

Continued . . . . .

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SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental
Project: 624419-7020.16

Lab No. 30100
March 17, 1993

Lab No. 30100-31 Client ID: PLF-SBS-304

Chlorinated Herbicides by GC/MS Per EPA SW-846 Method 8150
Date Extracted: 2-12-93
Date Analyzed: 2-20-93

Compound	Concentration, ug/kg	PQL
2,4-D	ND	10.0
Dalapon	ND	100.0
2,4-DB	ND	10.0
Dicamba	ND	10.0
Dichlorprop	ND	10.0
Dinoseb	ND	10.0
MCPA	ND	10.0
MCPP	ND	10.0
2,4,5-T	ND	10.0
2,4-5-TP	ND	10.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	78

ND - Not Detected
PQL - Practical Quantitation Limit

Continued . . . . .

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SOUND ANALYTICAL SERVICES, INC.

Burlington Environmental
Project: 624419-7020.16

Lab No. 30100
March 17, 1993

Lab No. 30100-32 Client ID: PLF-SBS-305

Chlorinated Herbicides by GC/MS Per EPA SW-846 Method 8150
Date Extracted: 2-12-93
Date Analyzed: 2-20-93

Compound	Concentration, ug/kg	PQL
2,4-D	ND	10.0
Dalapon	ND	100.0
2,4-DB	ND	10.0
Dicamba	ND	10.0
Dichlorprop	ND	10.0
Dinoseb	ND	10.0
MCPA	ND	10.0
MCPP	ND	10.0
2,4,5-T	ND	10.0
2,4-5-TP	ND	10.0

SURROGATE RECOVERY, %

2,4,6 Tribromophenol	63

ND - Not Detected
PQL - Practical Quantitation Limit

SOUND ANALYTICAL SERVICES

Brent Hepner
BRENT HEPNER

34

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SBS-273

Lab Name: SOUND ANALYTICAL Contract:

Lab Code: 30100 Case No.: SAS No.: SDG No.:

Matrix: (soil/water) soil Lab Sample ID: 30100-33

Sample wt/vol: 10.3072 (g/mL) g Lab File ID: P1941

% Moisture: 13.89 decanted: (Y/N) no Date Received: 02/09/93

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 02/12/93

Concentrated Extract Volume: 3000 (uL) Date Analyzed: 02/21/93

Injection Volume: 3 (uL) Dilution Factor:

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) no

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.92
319-85-7	beta-BHC	ND	1.92
319-86-8	delta-BHC	ND	1.92
58-89-9	gamma-BHC (Lindane)	ND	1.92
76-44-8	Heptachlor	ND	1.92
309-00-2	Aldrin	ND	1.92
1024-57-3	Heptachlor epoxide	ND	1.92
959-98-8	Endosulfan I	ND	1.92
60-57-1	Dieldrin	ND	3.72
72-55-9	4,4'-DDE	ND	3.72
72-20-8	Endrin	ND	3.72
33213-65-9	Endosulfan II	ND	3.72
72-54-8	4,4'-DDD	ND	3.72
1031-07-8	Endosulfan sulfate	ND	3.72
50-29-3	4,4'-DDT	ND	3.72
72-43-5	Methoxychlor	ND	19.15
53494-70-5	Endrin ketone	ND	3.72
7421-36-3	Endrin aldehyde	ND	3.72
5103-71-9	alpha-Chlordane	ND	1.92
5103-74-2	gamma-Chlordane	ND	1.92
8001-35-2	Toxaphene	ND	56.33
12674-11-2	Aroclor-1016	ND	37.18
11104-28-2	Aroclor-1221	ND	37.18
11141-16-5	Aroclor-1232	ND	75.49
53469-21-9	Aroclor-1242	ND	37.18
12672-29-6	Aroclor-1248	ND	37.18
11097-69-1	Aroclor-1254	ND	37.18
11096-82-5	Aroclor-1260	ND	37.18

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SBS-274

Lab Name: SOUND ANALYTICAL Contract:

Lab Code: 30100 Case No.: SAS No.: SDG No.:

Matrix: (soil/water) soil Lab Sample ID: 30100-1

Sample wt/vol: 10.8649 (g/mL) g Lab File ID: P1912

% Moisture: 5.21 decanted: (Y/N) Date Received: 02/09/93

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 02/12/93

Concentrated Extract Volume: 3000 (uL) Date Analyzed: 02/21/93

Injection Volume: 3 (uL) Dilution Factor:

GPC Cleanup: (Y/N) no pH: Sulfur Cleanup: (Y/N) no

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.65
319-85-7	beta-BHC	ND	1.65
319-86-8	delta-BHC	ND	1.65
58-89-9	gamma-BHC (Lindane)	ND	1.65
76-44-8	Heptachlor	ND	1.65
309-00-2	Aldrin	ND	1.65
1024-57-3	Heptachlor epoxide	ND	1.65
959-98-8	Endosulfan I	ND	1.65
60-57-1	Dieldrin	ND	3.21
72-55-9	4,4'-DDE	ND	3.21
72-20-8	Endrin	ND	3.21
33213-65-9	Endosulfan II	ND	3.21
72-54-8	4,4'-DDD	ND	3.21
1031-07-8	Endosulfan sulfate	ND	3.21
50-29-3	4,4'-DDT	ND	3.21
72-43-5	Methoxychlor	ND	16.51
53494-70-5	Endrin ketone	ND	3.21
7421-36-3	Endrin aldehyde	ND	3.21
5103-71-9	alpha-Chlordane	ND	1.65
5103-74-2	gamma-Chlordane	ND	1.65
8001-35-2	Toxaphene	ND	48.55
12674-11-2	Aroclor-1016	ND	32.04
11104-28-2	Aroclor-1221	ND	32.04
11141-16-5	Aroclor-1232	ND	65.06
53469-21-9	Aroclor-1242	ND	32.04
12672-29-6	Aroclor-1248	ND	32.04
11097-69-1	Aroclor-1254	ND	32.04
11096-82-5	Aroclor-1260	ND	32.04

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SBS-275

Lab Name: SOUND ANALYTICAL Contract:

Lab Code: 30100 Case No.: SAS No.: SDG No.:

Matrix: (soil/water) soil Lab Sample ID: 30100-2

Sample wt/vol: 10.5264 (g/mL) g Lab File ID: P1913

% Moisture: 4.01 decanted: (Y/N) Date Received: 02/09/93

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 02/12/93

Concentrated Extract Volume: 3000 (uL) Date Analyzed: 02/21/93

Injection Volume: 3 (uL) Dilution Factor:

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) no

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.68
319-85-7	beta-BHC	ND	1.68
319-86-8	delta-BHC	ND	1.68
58-89-9	gamma-BHC (Lindane)	ND	1.68
76-44-8	Heptachlor	ND	1.68
309-00-2	Aldrin	ND	1.68
1024-57-3	Heptachlor epoxide	ND	1.68
959-98-8	Endosulfan I	ND	1.68
60-57-1	Dieldrin	ND	3.27
72-55-9	4,4'-DDE	ND	3.27
72-20-8	Endrin	ND	3.27
33213-65-9	Endosulfan II	ND	3.27
72-54-8	4,4'-DDD	ND	3.27
1031-07-8	Endosulfan sulfate	ND	3.27
50-29-3	4,4'-DDT	ND	3.27
72-43-5	Methoxychlor	ND	16.82
53494-70-5	Endrin ketone	ND	3.27
7421-36-3	Endrin aldehyde	ND	3.27
5103-71-9	alpha-Chlordane	ND	1.68
5103-74-2	gamma-Chlordane	ND	1.68
8001-35-2	Toxaphene	ND	49.48
12674-11-2	Aroclor-1016	ND	32.66
11104-28-2	Aroclor-1221	ND	32.66
11141-16-5	Aroclor-1232	ND	66.31
53469-21-9	Aroclor-1242	ND	32.66
12672-29-6	Aroclor-1248	ND	32.66
11097-69-1	Aroclor-1254	ND	32.66
11096-82-5	Aroclor-1260	ND	32.66

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SBS-276

Lab Name: SOUND ANALYTICAL Contract:

Lab Code: 30100 Case No.: SAS No.: SDG No.:

Matrix: (soil/water) soil Lab Sample ID: 30100-3

Sample wt/vol: 10.8720 (g/mL) g Lab File ID: P1914

% Moisture: 3.29 decanted: (Y/N) no Date Received: 02/09/93

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 02/12/93

Concentrated Extract Volume: 3000 (uL) Date Analyzed: 02/21/93

Injection Volume: 3 (uL) Dilution Factor:

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) no

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.62
319-85-7	beta-BHC	ND	1.62
319-86-8	delta-BHC	ND	1.62
58-89-9	gamma-BHC (Lindane)	ND	1.62
76-44-8	Heptachlor	ND	1.62
309-00-2	Aldrin	ND	1.62
1024-57-3	Heptachlor epoxide	ND	1.62
959-98-8	Endosulfan I	ND	1.62
60-57-1	Dieldrin	ND	3.14
72-55-9	4,4'-DDE	ND	3.14
72-20-8	Endrin	ND	3.14
33213-65-9	Endosulfan II	ND	3.14
72-54-8	4,4'-DDD	ND	3.14
1031-07-8	Endosulfan sulfate	ND	3.14
50-29-3	4,4'-DDT	ND	3.14
72-43-5	Methoxychlor	ND	16.17
53494-70-5	Endrin ketone	ND	3.14
7421-36-3	Endrin aldehyde	ND	3.14
5103-71-9	alpha-Chlordane	ND	1.62
5103-74-2	gamma-Chlordane	ND	1.62
8001-35-2	Toxaphene	ND	47.55
12674-11-2	Aroclor-1016	ND	31.39
11104-28-2	Aroclor-1221	ND	31.39
11141-16-5	Aroclor-1232	ND	63.72
53469-21-9	Aroclor-1242	ND	31.39
12672-29-6	Aroclor-1248	ND	31.39
11097-69-1	Aroclor-1254	ND	31.39
11096-82-5	Aroclor-1260	ND	31.39

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SBS-277

Lab Name: SOUND ANALYTICAL Contract:

Lab Code: 30100 Case No.: SAS No.: SDG No.:

Matrix: (soil/water) soil Lab Sample ID: 30100-4

Sample wt/vol: 10.3355 (g/mL) g Lab File ID: P1915

% Moisture: 5.65 decanted: (Y/N) no Date Received: 02/09/93

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 02/12/93

Concentrated Extract Volume: 3000 (uL) Date Analyzed: 02/21/93

Injection Volume: 3 (uL) Dilution Factor:

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) no

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.74
319-85-7	beta-BHC	ND	1.74
319-86-8	delta-BHC	ND	1.74
58-89-9	gamma-BHC (Lindane)	ND	1.74
76-44-8	Heptachlor	ND	1.74
309-00-2	Aldrin	ND	1.74
1024-57-3	Heptachlor epoxide	ND	1.74
959-98-8	Endosulfan I	ND	1.74
60-57-1	Dieldrin	ND	3.38
72-55-9	4,4'-DDE	ND	3.38
72-20-8	Endrin	ND	3.38
33213-65-9	Endosulfan II	ND	3.38
72-54-8	4,4'-DDD	ND	3.38
1031-07-8	Endosulfan sulfate	ND	3.38
50-29-3	4,4'-DDT	ND	3.38
72-43-5	Methoxychlor	ND	17.43
53494-70-5	Endrin ketone	ND	3.38
7421-36-3	Endrin aldehyde	ND	3.38
5103-71-9	alpha-Chlordane	ND	1.74
5103-74-2	gamma-Chlordane	ND	1.74
8001-35-2	Toxaphene	ND	51.27
12674-11-2	Aroclor-1016	ND	33.84
11104-28-2	Aroclor-1221	ND	33.84
11141-16-5	Aroclor-1232	ND	68.71
53469-21-9	Aroclor-1242	ND	33.84
12672-29-6	Aroclor-1248	ND	33.84
11097-69-1	Aroclor-1254	ND	33.84
11096-82-5	Aroclor-1260	ND	33.84

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SBS-278

Lab Name: SOUND ANALYTICAL Contract:

Lab Code: 30100 Case No.: SAS No.: SDG No.:

Matrix: (soil/water) soil Lab Sample ID: 30100-5

Sample wt/vol: 10.5855 (g/mL) g Lab File ID: P1916

% Moisture: 5.61 decanted: (Y/N) no Date Received: 02/09/93

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 02/12/93

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 02/21/93

Injection Volume: 3 (uL) Dilution Factor:

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) no

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.71
319-85-7	beta-BHC	ND	1.71
319-86-8	delta-BHC	ND	1.71
58-89-9	gamma-BHC (Lindane)	ND	1.71
76-44-8	Heptachlor	ND	1.71
309-00-2	Aldrin	ND	1.71
1024-57-3	Heptachlor epoxide	ND	1.71
959-98-8	Endosulfan I	ND	1.71
60-57-1	Dieldrin	ND	3.31
72-55-9	4,4'-DDE	ND	3.31
72-20-8	Endrin	ND	3.31
33213-65-9	Endosulfan II	ND	3.31
72-54-8	4,4'-DDD	ND	3.31
1031-07-8	Endosulfan sulfate	ND	3.31
50-29-3	4,4'-DDT	ND	3.31
72-43-5	Methoxychlor	ND	17.01
53494-70-5	Endrin ketone	ND	3.31
7421-36-3	Endrin aldehyde	ND	3.31
5103-71-9	alpha-Chlordane	ND	1.71
5103-74-2	gamma-Chlordane	ND	1.71
8001-35-2	Toxaphene	ND	50.04
12674-11-2	Aroclor-1016	ND	33.03
11104-28-2	Aroclor-1221	ND	33.03
11141-16-5	Aroclor-1232	ND	17.06
53469-21-9	Aroclor-1242	ND	33.03
12672-29-6	Aroclor-1248	ND	33.03
11097-69-1	Aroclor-1254	ND	33.03
11096-82-5	Aroclor-1260	ND	33.03

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SBS-279

Lab Name: SOUND ANALYTICAL Contract:

Lab Code: 30100 Case No.: SAS No.: SDG No.:

Matrix: (soil/water) soil Lab Sample ID: 30100-6

Sample wt/vol: 10.7136 (g/mL) g Lab File ID: P1917

% Moisture: 3.18 decanted: (Y/N) no Date Received: 02/09/93

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 02/12/93

Concentrated Extract Volume: 3000 (uL) Date Analyzed: 02/21/93

Injection Volume: 3 (uL) Dilution Factor:

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) no

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.64
319-85-7	beta-BHC	ND	1.64
319-86-8	delta-BHC	ND	1.64
58-89-9	gamma-BHC (Lindane)	ND	1.64
76-44-8	Heptachlor	ND	1.64
309-00-2	Aldrin	ND	1.64
1024-57-3	Heptachlor epoxide	ND	1.64
959-98-8	Endosulfan I	ND	1.64
60-57-1	Dieldrin	ND	3.18
72-55-9	4,4'-DDE	ND	3.18
72-20-8	Endrin	ND	3.18
33213-65-9	Endosulfan II	ND	3.18
72-54-8	4,4'-DDD	ND	3.18
1031-07-8	Endosulfan sulfate	ND	3.18
50-29-3	4,4'-DDT	ND	3.18
72-43-5	Methoxychlor	ND	16.39
53494-70-5	Endrin ketone	ND	3.18
7421-36-3	Endrin aldehyde	ND	3.18
5103-71-9	alpha-Chlordane	ND	1.64
5103-74-2	gamma-Chlordane	ND	1.64
8001-35-2	Toxaphene	ND	48.21
12674-11-2	Aroclor-1016	ND	31.81
11104-28-2	Aroclor-1221	ND	31.81
11141-16-5	Aroclor-1232	ND	64.59
53469-21-9	Aroclor-1242	ND	31.81
12672-29-6	Aroclor-1248	ND	31.81
11097-69-1	Aroclor-1254	ND	31.81
11096-82-5	Aroclor-1260	ND	31.81

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SBS-280

Lab Name: SOUND ANALYTICAL Contract:

Lab Code: 30100 Case No.: SAS No.: SDG No.:

Matrix: (soil/water) soil Lab Sample ID: 30100-7

Sample wt/vol: 10.1109 (g/mL) g Lab File ID: P1918

% Moisture: 3.59 decanted: (Y/N) no Date Received: 02/09/93

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 02/12/93

Concentrated Extract Volume: 3000 (uL) Date Analyzed: 02/21/93

Injection Volume: 3 (uL) Dilution Factor:

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) no

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.74
319-85-7	beta-BHC	ND	1.74
319-86-8	delta-BHC	ND	1.74
58-89-9	gamma-BHC (Lindane)	ND	1.74
76-44-8	Heptachlor	ND	1.74
309-00-2	Aldrin	ND	1.74
1024-57-3	Heptachlor epoxide	ND	1.74
959-98-8	Endosulfan I	ND	1.74
60-57-1	Dieldrin	ND	3.39
72-55-9	4,4'-DDE	ND	3.39
72-20-8	Endrin	ND	3.39
33213-65-9	Endosulfan II	ND	3.39
72-54-8	4,4'-DDD	ND	3.39
1031-07-8	Endosulfan sulfate	ND	3.39
50-29-3	4,4'-DDT	ND	3.39
72-43-5	Methoxychlor	ND	17.44
53494-70-5	Endrin ketone	ND	3.39
7421-36-3	Endrin aldehyde	ND	3.39
5103-71-9	alpha-Chlordane	ND	1.74
5103-74-2	gamma-Chlordane	ND	1.74
8001-35-2	Toxaphene	ND	51.29
12674-11-2	Aroclor-1016	ND	33.85
11104-28-2	Aroclor-1221	ND	33.85
11141-16-5	Aroclor-1232	ND	68.73
53469-21-9	Aroclor-1242	ND	33.85
12672-29-6	Aroclor-1248	ND	33.85
11097-69-1	Aroclor-1254	ND	33.85
11096-82-5	Aroclor-1260	ND	33.85

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SBS-281

Lab Name: SOUND ANALYTICAL Contract:

Lab Code: 30100 Case No.: SAS No.: SDG No.:

Matrix: (soil/water) soil Lab Sample ID: 30100-8

Sample wt/vol: 10.0438 (g/mL) g Lab File ID: P1919

% Moisture: 5.76 decanted: (Y/N) no Date Received: 02/09/93

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 02/12/93

Concentrated Extract Volume: 3000 (uL) Date Analyzed: 02/21/93

Injection Volume: 3 (uL) Dilution Factor:

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) no

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.79
319-85-7	beta-BHC	ND	1.79
319-86-8	delta-BHC	ND	1.79
58-89-9	gamma-BHC (Lindane)	ND	1.79
76-44-8	Heptachlor	ND	1.79
309-00-2	Aldrin	ND	1.79
1024-57-3	Heptachlor epoxide	ND	1.79
959-98-8	Endosulfan I	ND	1.79
60-57-1	Dieldrin	ND	3.49
72-55-9	4,4'-DDE	ND	3.49
72-20-8	Endrin	ND	3.49
33213-65-9	Endosulfan II	ND	3.49
72-54-8	4,4'-DDD	ND	3.49
1031-07-8	Endosulfan sulfate	ND	3.49
50-29-3	4,4'-DDT	ND	3.49
72-43-5	Methoxychlor	ND	17.96
53494-70-5	Endrin ketone	ND	3.49
7421-36-3	Endrin aldehyde	ND	3.49
5103-71-9	alpha-Chlordane	ND	1.79
5103-74-2	gamma-Chlordane	ND	1.79
8001-35-2	Toxaphene	ND	52.82
12674-11-2	Aroclor-1016	ND	34.86
11104-28-2	Aroclor-1221	ND	34.86
11141-16-5	Aroclor-1232	ND	70.79
53469-21-9	Aroclor-1242	ND	34.86
12672-29-6	Aroclor-1248	ND	34.86
11097-69-1	Aroclor-1254	ND	34.86
11096-82-5	Aroclor-1260	ND	34.86

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SBS-282

Lab Name: SOUND ANALYTICAL Contract:

Lab Code: 30100 Case No.: SAS No.: SDG No.:

Matrix: (soil/water) soil Lab Sample ID: 30100-9

Sample wt/vol: 10.6965 (g/mL) g Lab File ID: P1922

% Moisture: 2.89 decanted: (Y/N) no Date Received: 02/09/93

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 02/12/93

Concentrated Extract Volume: 3000 (uL) Date Analyzed: 02/21/93

Injection Volume: 3 (uL) Dilution Factor:

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) no

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.64
319-85-7	beta-BHC	ND	1.64
319-86-8	delta-BHC	ND	1.64
58-89-9	gamma-BHC (Lindane)	ND	1.64
76-44-8	Heptachlor	ND	1.64
309-00-2	Aldrin	ND	1.64
1024-57-3	Heptachlor epoxide	ND	1.64
959-98-8	Endosulfan I	ND	1.64
60-57-1	Dieldrin	ND	3.18
72-55-9	4,4'-DDE	ND	3.18
72-20-8	Endrin	ND	3.18
33213-65-9	Endosulfan II	ND	3.18
72-54-8	4,4'-DDD	ND	3.18
1031-07-8	Endosulfan sulfate	ND	3.18
50-29-3	4,4'-DDT	ND	3.18
72-43-5	Methoxychlor	ND	16.37
53494-70-5	Endrin ketone	ND	3.18
7421-36-3	Endrin aldehyde	ND	3.18
5103-71-9	alpha-Chlordane	ND	1.64
5103-74-2	gamma-Chlordane	ND	1.64
8001-35-2	Toxaphene	ND	48.14
12674-11-2	Aroclor-1016	ND	31.77
11104-28-2	Aroclor-1221	ND	31.77
11141-16-5	Aroclor-1232	ND	34.51
53469-21-9	Aroclor-1242	ND	31.77
12672-29-6	Aroclor-1248	ND	31.77
11097-69-1	Aroclor-1254	ND	31.77
11096-82-5	Aroclor-1260	ND	31.77

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SBS-283

Lab Name: SOUND ANALYTICAL Contract:

Lab Code: 30100 Case No.: SAS No.: SDG No.:

Matrix: (soil/water) soil Lab Sample ID: 30100-10

Sample wt/vol: 10.7673 (g/mL) g Lab File ID: P1923

% Moisture: 3.76 decanted: (Y/N) no Date Received: 02/09/93

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 02/12/93

Concentrated Extract Volume: 3000 (uL) Date Analyzed: 02/21/93

Injection Volume: 3 (uL) Dilution Factor:

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) no

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.64
319-85-7	beta-BHC	ND	1.64
319-86-8	delta-BHC	ND	1.64
58-89-9	gamma-BHC (Lindane)	ND	1.64
76-44-8	Heptachlor	ND	1.64
309-00-2	Aldrin	ND	1.64
1024-57-3	Heptachlor epoxide	ND	1.64
959-98-8	Endosulfan I	ND	1.64
60-57-1	Dieldrin	ND	3.18
72-55-9	4,4'-DDE	ND	3.18
72-20-8	Endrin	ND	3.18
33213-65-9	Endosulfan II	ND	3.18
72-54-8	4,4'-DDD	ND	3.18
1031-07-8	Endosulfan sulfate	ND	3.18
50-29-3	4,4'-DDT	ND	3.18
72-43-5	Methoxychlor	ND	16.41
53494-70-5	Endrin ketone	ND	3.18
7421-36-3	Endrin aldehyde	ND	3.18
5103-71-9	alpha-Chlordane	ND	1.64
5103-74-2	gamma-Chlordane	ND	1.64
8001-35-2	Toxaphene	ND	48.25
12674-11-2	Aroclor-1016	ND	31.85
11104-28-2	Aroclor-1221	ND	31.85
11141-16-5	Aroclor-1232	ND	64.66
53469-21-9	Aroclor-1242	ND	31.85
12672-29-6	Aroclor-1248	ND	31.85
11097-69-1	Aroclor-1254	ND	31.85
11096-82-5	Aroclor-1260	ND	31.85

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SBS-284

Lab Name: SOUND ANALYTICAL Contract:

Lab Code: 30100 Case No.: SAS No.: SDG No.:

Matrix: (soil/water) soil Lab Sample ID: 30100-11

Sample wt/vol: 10.8905 (g/mL) g Lab File ID: P1924

% Moisture: 3.72 decanted: (Y/N) no Date Received: 02/09/93

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 02/12/93

Concentrated Extract Volume: 3000 (uL) Date Analyzed: 02/21/93

Injection Volume: 3 (uL) Dilution Factor:

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) no

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.62
319-85-7	beta-BHC	ND	1.62
319-86-8	delta-BHC	ND	1.62
58-89-9	gamma-BHC (Lindane)	ND	1.62
76-44-8	Heptachlor	ND	1.62
309-00-2	Aldrin	ND	1.62
1024-57-3	Heptachlor epoxide	ND	1.62
959-98-8	Endosulfan I	ND	1.62
60-57-1	Dieldrin	ND	3.15
72-55-9	4,4'-DDE	ND	3.15
72-20-8	Endrin	ND	3.15
33213-65-9	Endosulfan II	ND	3.15
72-54-8	4,4'-DDD	ND	3.15
1031-07-8	Endosulfan sulfate	ND	3.15
50-29-3	4,4'-DDT	ND	3.15
72-43-5	Methoxychlor	ND	16.21
53494-70-5	Endrin ketone	ND	3.15
7421-36-3	Endrin aldehyde	ND	3.15
5103-71-9	alpha-Chlordane	ND	1.62
5103-74-2	gamma-Chlordane	ND	1.62
8001-35-2	Toxaphene	ND	47.69
12674-11-2	Aroclor-1016	ND	31.47
11104-28-2	Aroclor-1221	ND	31.47
11141-16-5	Aroclor-1232	ND	63.89
53469-21-9	Aroclor-1242	ND	31.47
12672-29-6	Aroclor-1248	ND	31.47
11097-69-1	Aroclor-1254	ND	31.47
11096-82-5	Aroclor-1260	ND	31.47

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SBS-285

Lab Name: SOUND ANALYTICAL Contract:

Lab Code: 30100 Case No.: SAS No.: SDG No.:

Matrix: (soil/water) soil Lab Sample ID: 30100-12

Sample wt/vol: 10.2977 (g/mL) g Lab File ID: P1925

% Moisture: 2.78 decanted: (Y/N) no Date Received: 02/09/93

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 02/12/93

Concentrated Extract Volume: 3000 (uL) Date Analyzed: 02/21/93

Injection Volume: 3 (uL) Dilution Factor:

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) no

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.69
319-85-7	beta-BHC	ND	1.69
319-86-8	delta-BHC	ND	1.69
58-89-9	gamma-BHC (Lindane)	ND	1.69
76-44-8	Heptachlor	ND	1.69
309-00-2	Aldrin	ND	1.69
1024-57-3	Heptachlor epoxide	ND	1.69
959-98-8	Endosulfan I	ND	1.69
60-57-1	Dieldrin	ND	3.29
72-55-9	4,4'-DDE	ND	3.29
72-20-8	Endrin	ND	3.29
33213-65-9	Endosulfan II	ND	3.29
72-54-8	4,4'-DDD	ND	3.29
1031-07-8	Endosulfan sulfate	ND	3.29
50-29-3	4,4'-DDT	ND	3.29
72-43-5	Methoxychlor	ND	16.98
53494-70-5	Endrin ketone	ND	3.29
7421-36-3	Endrin aldehyde	ND	3.29
5103-71-9	alpha-Chlordane	ND	1.69
5103-74-2	gamma-Chlordane	ND	1.69
8001-35-2	Toxaphene	ND	49.94
12674-11-2	Aroclor-1016	ND	32.96
11104-28-2	Aroclor-1221	ND	32.96
11141-16-5	Aroclor-1232	ND	66.92
53469-21-9	Aroclor-1242	ND	32.96
12672-29-6	Aroclor-1248	ND	32.96
11097-69-1	Aroclor-1254	ND	32.96
11096-82-5	Aroclor-1260	ND	32.96

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SBS-286

Lab Name: SOUND ANALYTICAL Contract:

Lab Code: 30100 Case No.: SAS No.: SDG No.:

Matrix: (soil/water) soil Lab Sample ID: 30100-13

Sample wt/vol: 10.4342 (g/mL) g Lab File ID: P1926

% Moisture: 6.70 decanted: (Y/N) no Date Received: 02/09/93

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 02/12/93

Concentrated Extract Volume: 3000 (uL) Date Analyzed: 02/21/93

Injection Volume: 3 (uL) Dilution Factor:

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) no

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.75
319-85-7	beta-BHC	ND	1.75
319-86-8	delta-BHC	ND	1.75
58-89-9	gamma-BHC (Lindane)	ND	1.75
76-44-8	Heptachlor	ND	1.75
309-00-2	Aldrin	ND	1.75
1024-57-3	Heptachlor epoxide	ND	1.75
959-98-8	Endosulfan I	ND	1.75
60-57-1	Dieldrin	ND	3.39
72-55-9	4,4'-DDE	ND	3.39
72-20-8	Endrin	ND	3.39
33213-65-9	Endosulfan II	ND	3.39
72-54-8	4,4'-DDD	ND	3.39
1031-07-8	Endosulfan sulfate	ND	3.39
50-29-3	4,4'-DDT	ND	3.39
72-43-5	Methoxychlor	ND	17.46
53494-70-5	Endrin ketone	ND	3.39
7421-36-3	Endrin aldehyde	ND	3.39
5103-71-9	alpha-Chlordane	ND	1.75
5103-74-2	gamma-Chlordane	ND	1.75
8001-35-2	Toxaphene	ND	51.36
12674-11-2	Aroclor-1016	ND	33.89
11104-28-2	Aroclor-1221	ND	33.89
11141-16-5	Aroclor-1232	ND	68.82
53469-21-9	Aroclor-1242	ND	33.89
12672-29-6	Aroclor-1248	ND	33.89
11097-69-1	Aroclor-1254	ND	33.89
11096-82-5	Aroclor-1260	ND	33.89

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SBS-287

Lab Name: SOUND ANALYTICAL Contract:

Lab Code: 30100 Case No.: SAS No.: SDG No.:

Matrix: (soil/water) soil Lab Sample ID: 30100-14

Sample wt/vol: 10.7293 (g/mL) g Lab File ID: P1927

% Moisture: 6.88 decanted: (Y/N) no Date Received: 02/09/93

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 02/12/93

Concentrated Extract Volume: 3000 (uL) Date Analyzed: 02/21/93

Injection Volume: 3 (uL) Dilution Factor:

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) no

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.71
319-85-7	beta-BHC	ND	1.71
319-86-8	delta-BHC	ND	1.71
58-89-9	gamma-BHC (Lindane)	ND	1.71
76-44-8	Heptachlor	ND	1.71
309-00-2	Aldrin	ND	1.71
1024-57-3	Heptachlor epoxide	ND	1.71
959-98-8	Endosulfan I	ND	1.71
60-57-1	Dieldrin	ND	3.31
72-55-9	4,4'-DDE	ND	3.31
72-20-8	Endrin	ND	3.31
33213-65-9	Endosulfan II	ND	3.31
72-54-8	4,4'-DDD	ND	3.31
1031-07-8	Endosulfan sulfate	ND	3.31
50-29-3	4,4'-DDT	ND	3.31
72-43-5	Methoxychlor	ND	17.01
53494-70-5	Endrin ketone	ND	3.31
7421-36-3	Endrin aldehyde	ND	3.31
5103-71-9	alpha-Chlordane	ND	1.71
5103-74-2	gamma-Chlordane	ND	1.71
8001-35-2	Toxaphene	ND	50.04
12674-11-2	Aroclor-1016	ND	33.03
11104-28-2	Aroclor-1221	ND	33.03
11141-16-5	Aroclor-1232	ND	67.06
53469-21-9	Aroclor-1242	ND	33.03
12672-29-6	Aroclor-1248	ND	33.03
11097-69-1	Aroclor-1254	ND	33.03
11096-82-5	Aroclor-1260	ND	33.03

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SBS-288

Lab Name: SOUND ANALYTICAL Contract:

Lab Code: 30100 Case No.: SAS No.: SDG No.:

Matrix: (soil/water) soil Lab Sample ID: 30100-15

Sample wt/vol: 10.4523 (g/mL) g Lab File ID: P1928

% Moisture: 3.03 decanted: (Y/N) no Date Received: 02/09/93

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 02/12/93

Concentrated Extract Volume: 3000 (uL) Date Analyzed: 02/21/93

Injection Volume: 3 (uL) Dilution Factor:

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) no

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.68
319-85-7	beta-BHC	ND	1.68
319-86-8	delta-BHC	ND	1.68
58-89-9	gamma-BHC (Lindane)	ND	1.68
76-44-8	Heptachlor	ND	1.68
309-00-2	Aldrin	ND	1.68
1024-57-3	Heptachlor epoxide	ND	1.68
959-98-8	Endosulfan I	ND	1.68
60-57-1	Dieldrin	ND	3.26
72-55-9	4,4'-DDE	ND	3.26
72-20-8	Endrin	ND	3.26
33213-65-9	Endosulfan II	ND	3.26
72-54-8	4,4'-DDD	ND	3.26
1031-07-8	Endosulfan sulfate	ND	3.26
50-29-3	4,4'-DDT	ND	3.26
72-43-5	Methoxychlor	ND	16.77
53494-70-5	Endrin ketone	ND	3.26
7421-36-3	Endrin aldehyde	ND	3.26
5103-71-9	alpha-Chlordane	ND	1.68
5103-74-2	gamma-Chlordane	ND	1.68
8001-35-2	Toxaphene	ND	49.33
12674-11-2	Aroclor-1016	ND	32.56
11104-28-2	Aroclor-1221	ND	32.56
11141-16-5	Aroclor-1232	ND	66.11
53469-21-9	Aroclor-1242	ND	32.56
12672-29-6	Aroclor-1248	ND	32.56
11097-69-1	Aroclor-1254	ND	32.56
11096-82-5	Aroclor-1260	ND	32.56

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SBS-289

Lab Name: SOUND ANALYTICAL Contract:

Lab Code: 30100 Case No.: SAS No.: SDG No.:

Matrix: (soil/water) soil Lab Sample ID: 30100-16

Sample wt/vol: 10.7784 (g/mL) g Lab File ID: P1929

% Moisture: 3.44 decanted: (Y/N) no Date Received: 02/09/93

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 02/12/93

Concentrated Extract Volume: 3000 (uL) Date Analyzed: 02/21/93

Injection Volume: 3 (uL) Dilution Factor:

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) no

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.63
319-85-7	beta-BHC	ND	1.63
319-86-8	delta-BHC	ND	1.63
58-89-9	gamma-BHC (Lindane)	ND	1.63
76-44-8	Heptachlor	ND	1.63
309-00-2	Aldrin	ND	1.63
1024-57-3	Heptachlor epoxide	ND	1.63
959-98-8	Endosulfan I	ND	1.63
60-57-1	Dieldrin	ND	3.17
72-55-9	4,4'-DDE	ND	3.17
72-20-8	Endrin	ND	3.17
33213-65-9	Endosulfan II	ND	3.17
72-54-8	4,4'-DDD	ND	3.17
1031-07-8	Endosulfan sulfate	ND	3.17
50-29-3	4,4'-DDT	ND	3.17
72-43-5	Methoxychlor	ND	16.33
53494-70-5	Endrin ketone	ND	3.17
7421-36-3	Endrin aldehyde	ND	3.17
5103-71-9	alpha-Chlordane	ND	1.63
5103-74-2	gamma-Chlordane	ND	1.63
8001-35-2	Toxaphene	ND	48.04
12674-11-2	Aroclor-1016	ND	31.71
11104-28-2	Aroclor-1221	ND	31.71
11141-16-5	Aroclor-1232	ND	64.38
53469-21-9	Aroclor-1242	ND	31.71
12672-29-6	Aroclor-1248	ND	31.71
11097-69-1	Aroclor-1254	ND	31.71
11096-82-5	Aroclor-1260	ND	31.71

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SBS-290

Lab Name: SOUND ANALYTICAL Contract:

Lab Code: 30100 Case No.: SAS No.: SDG No.:

Matrix: (soil/water) soil Lab Sample ID: 30100-17

Sample wt/vol: 10.8851 (g/mL) g Lab File ID: P1930

% Moisture: 4.79 decanted: (Y/N) no Date Received: 02/09/93

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 02/12/93

Concentrated Extract Volume: 3000 (uL) Date Analyzed: 02/21/93

Injection Volume: 3 (uL) Dilution Factor:

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) no

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.64
319-85-7	beta-BHC	ND	1.64
319-86-8	delta-BHC	ND	1.64
58-89-9	gamma-BHC (Lindane)	ND	1.64
76-44-8	Heptachlor	ND	1.64
309-00-2	Aldrin	ND	1.64
1024-57-3	Heptachlor epoxide	ND	1.64
959-98-8	Endosulfan I	ND	1.64
60-57-1	Dieldrin	ND	3.18
72-55-9	4,4'-DDE	ND	3.18
72-20-8	Endrin	ND	3.18
33213-65-9	Endosulfan II	ND	3.18
72-54-8	4,4'-DDD	ND	3.18
1031-07-8	Endosulfan sulfate	ND	3.18
50-29-3	4,4'-DDT	ND	3.18
72-43-5	Methoxychlor	ND	16.41
53494-70-5	Endrin ketone	ND	3.18
7421-36-3	Endrin aldehyde	ND	3.18
5103-71-9	alpha-Chlordane	ND	1.64
5103-74-2	gamma-Chlordane	ND	1.64
8001-35-2	Toxaphene	ND	48.25
12674-11-2	Aroclor-1016	ND	31.84
11104-28-2	Aroclor-1221	ND	31.84
11141-16-5	Aroclor-1232	ND	64.65
53469-21-9	Aroclor-1242	ND	31.84
12672-29-6	Aroclor-1248	ND	31.84
11097-69-1	Aroclor-1254	ND	31.84
11096-82-5	Aroclor-1260	ND	31.84

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SBS-291

Lab Name: SOUND ANALYTICAL Contract:

Lab Code: 30100 Case No.: SAS No.: SDG No.:

Matrix: (soil/water) soil Lab Sample ID: 30100-18

Sample wt/vol: 10.2379 (g/mL) g Lab File ID: P1934

% Moisture: 6.14 decanted: (Y/N) no Date Received: 02/09/93

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 02/12/93

Concentrated Extract Volume: 3000 (uL) Date Analyzed: 02/21/93

Injection Volume: 3 (uL) Dilution Factor:

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) no

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.77
319-85-7	beta-BHC	ND	1.77
319-86-8	delta-BHC	ND	1.77
58-89-9	gamma-BHC (Lindane)	ND	1.77
76-44-8	Heptachlor	ND	1.77
309-00-2	Aldrin	ND	1.77
1024-57-3	Heptachlor epoxide	ND	1.77
959-98-8	Endosulfan I	ND	1.77
60-57-1	Dieldrin	ND	3.43
72-55-9	4,4'-DDE	ND	3.43
72-20-8	Endrin	ND	3.43
33213-65-9	Endosulfan II	ND	3.43
72-54-8	4,4'-DDD	ND	3.43
1031-07-8	Endosulfan sulfate	ND	3.43
50-29-3	4,4'-DDT	ND	3.43
72-43-5	Methoxychlor	ND	17.69
53494-70-5	Endrin ketone	ND	3.43
7421-36-3	Endrin aldehyde	ND	3.43
5103-71-9	alpha-Chlordane	ND	1.77
5103-74-2	gamma-Chlordane	ND	1.77
8001-35-2	Toxaphene	ND	52.03
12674-11-2	Aroclor-1016	ND	34.34
11104-28-2	Aroclor-1221	ND	34.34
11141-16-5	Aroclor-1232	ND	69.72
53469-21-9	Aroclor-1242	ND	34.34
12672-29-6	Aroclor-1248	ND	34.34
11097-69-1	Aroclor-1254	ND	34.34
11096-82-5	Aroclor-1260	ND	34.34

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SBS-292

Lab Name: SOUND ANALYTICAL Contract:

Lab Code: 30100 Case No.: SAS No.: SDG No.:

Matrix: (soil/water) soil Lab Sample ID: 30100-19

Sample wt/vol: 10.1904 (g/mL) g Lab File ID: P1935

% Moisture: 4.51 decanted: (Y/N) no Date Received: 02/09/93

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 02/12/93

Concentrated Extract Volume: 3000 (uL) Date Analyzed: 02/21/93

Injection Volume: 3 (uL) Dilution Factor:

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) no

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.75
319-85-7	beta-BHC	ND	1.75
319-86-8	delta-BHC	ND	1.75
58-89-9	gamma-BHC (Lindane)	ND	1.75
76-44-8	Heptachlor	ND	1.75
309-00-2	Aldrin	ND	1.75
1024-57-3	Heptachlor epoxide	ND	1.75
959-98-8	Endosulfan I	ND	1.75
60-57-1	Dieldrin	ND	3.39
72-55-9	4,4'-DDE	ND	3.39
72-20-8	Endrin	ND	3.39
33213-65-9	Endosulfan II	ND	3.39
72-54-8	4,4'-DDD	ND	3.39
1031-07-8	Endosulfan sulfate	ND	3.39
50-29-3	4,4'-DDT	ND	3.39
72-43-5	Methoxychlor	ND	17.47
53494-70-5	Endrin ketone	ND	3.39
7421-36-3	Endrin aldehyde	ND	3.39
5103-71-9	alpha-Chlordane	ND	1.75
5103-74-2	gamma-Chlordane	ND	1.75
8001-35-2	Toxaphene	ND	51.38
12674-11-2	Aroclor-1016	ND	33.91
11104-28-2	Aroclor-1221	ND	33.91
11141-16-5	Aroclor-1232	ND	68.85
53469-21-9	Aroclor-1242	ND	33.91
12672-29-6	Aroclor-1248	ND	33.91
11097-69-1	Aroclor-1254	ND	33.91
11096-82-5	Aroclor-1260	ND	33.91

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SBS-293

Lab Name: SOUND ANALYTICAL Contract:

Lab Code: 30100 Case No.: SAS No.: SDG No.:

Matrix: (soil/water) soil Lab Sample ID: 30100-20

Sample wt/vol: 10.4942 (g/mL) g Lab File ID: P1936

% Moisture: 3.38 decanted: (Y/N) no Date Received: 02/09/93

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 02/12/93

Concentrated Extract Volume: 3000 (uL) Date Analyzed: 02/21/93

Injection Volume: 3 (uL) Dilution Factor:

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) no

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.68
319-85-7	beta-BHC	ND	1.68
319-86-8	delta-BHC	ND	1.68
58-89-9	gamma-BHC (Lindane)	ND	1.68
76-44-8	Heptachlor	ND	1.68
309-00-2	Aldrin	ND	1.68
1024-57-3	Heptachlor epoxide	ND	1.68
959-98-8	Endosulfan I	ND	1.68
60-57-1	Dieldrin	ND	3.25
72-55-9	4,4'-DDE	ND	3.25
72-20-8	Endrin	ND	3.25
33213-65-9	Endosulfan II	ND	3.25
72-54-8	4,4'-DDD	ND	3.25
1031-07-8	Endosulfan sulfate	ND	3.25
50-29-3	4,4'-DDT	ND	3.25
72-43-5	Methoxychlor	ND	16.77
53494-70-5	Endrin ketone	ND	3.25
7421-36-3	Endrin aldehyde	ND	3.25
5103-71-9	alpha-Chlordane	ND	1.68
5103-74-2	gamma-Chlordane	ND	1.68
8001-35-2	Toxaphene	ND	49.31
12674-11-2	Aroclor-1016	ND	32.55
11104-28-2	Aroclor-1221	ND	32.55
11141-16-5	Aroclor-1232	ND	66.08
53469-21-9	Aroclor-1242	ND	32.55
12672-29-6	Aroclor-1248	ND	32.55
11097-69-1	Aroclor-1254	ND	32.55
11096-82-5	Aroclor-1260	ND	32.55

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SBS-294

Lab Name: SOUND ANALYTICAL Contract:

Lab Code: 30100 Case No.: SAS No.: SDG No.:

Matrix: (soil/water) soil Lab Sample ID: 30100-21

Sample wt/vol: 10.6008 (g/mL) g Lab File ID: P1938

% Moisture: 3.87 decanted: (Y/N) no Date Received: 02/09/93

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 02/12/93

Concentrated Extract Volume: 3000 (uL) Date Analyzed: 02/21/93

Injection Volume: 3 (uL) Dilution Factor:

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) no

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.67
319-85-7	beta-BHC	ND	1.67
319-86-8	delta-BHC	ND	1.67
58-89-9	gamma-BHC (Lindane)	ND	1.67
76-44-8	Heptachlor	ND	1.67
309-00-2	Aldrin	ND	1.67
1024-57-3	Heptachlor epoxide	ND	1.67
959-98-8	Endosulfan I	ND	1.67
60-57-1	Dieldrin	ND	3.24
72-55-9	4,4'-DDE	ND	3.24
72-20-8	Endrin	ND	3.24
33213-65-9	Endosulfan II	ND	3.24
72-54-8	4,4'-DDD	ND	3.24
1031-07-8	Endosulfan sulfate	ND	3.24
50-29-3	4,4'-DDT	ND	3.24
72-43-5	Methoxychlor	ND	16.68
53494-70-5	Endrin ketone	ND	3.24
7421-36-3	Endrin aldehyde	ND	3.24
5103-71-9	alpha-Chlordane	ND	1.67
5103-74-2	gamma-Chlordane	ND	1.67
8001-35-2	Toxaphene	ND	49.07
12674-11-2	Aroclor-1016	ND	32.38
11104-28-2	Aroclor-1221	ND	32.38
11141-16-5	Aroclor-1232	ND	65.75
53469-21-9	Aroclor-1242	ND	32.38
12672-29-6	Aroclor-1248	ND	32.38
11097-69-1	Aroclor-1254	ND	32.38
11096-82-5	Aroclor-1260	ND	32.38

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SBS-295

Lab Name: SOUND ANALYTICAL Contract:

Lab Code: 30100 Case No.: SAS No.: SDG No.:

Matrix: (soil/water) soil Lab Sample ID: 30100-22

Sample wt/vol: 10.6298 (g/mL) g Lab File ID: P1939

% Moisture: 3.76 decanted: (Y/N) no Date Received: 02/09/93

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 02/12/93

Concentrated Extract Volume: 3000 (uL) Date Analyzed: 02/21/93

Injection Volume: 3 (uL) Dilution Factor:

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) no

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.66
319-85-7	beta-BHC	ND	1.66
319-86-8	delta-BHC	ND	1.66
58-89-9	gamma-BHC (Lindane)	ND	1.66
76-44-8	Heptachlor	ND	1.66
309-00-2	Aldrin	ND	1.66
1024-57-3	Heptachlor epoxide	ND	1.66
959-98-8	Endosulfan I	ND	1.66
60-57-1	Dieldrin	ND	3.23
72-55-9	4,4'-DDE	ND	3.23
72-20-8	Endrin	ND	3.23
33213-65-9	Endosulfan II	ND	3.23
72-54-8	4,4'-DDD	ND	3.23
1031-07-8	Endosulfan sulfate	ND	3.23
50-29-3	4,4'-DDT	ND	3.23
72-43-5	Methoxychlor	ND	16.62
53494-70-5	Endrin ketone	ND	3.23
7421-36-3	Endrin aldehyde	ND	3.23
5103-71-9	alpha-Chlordane	ND	1.66
5103-74-2	gamma-Chlordane	ND	1.66
8001-35-2	Toxaphene	ND	48.88
12674-11-2	Aroclor-1016	ND	32.26
11104-28-2	Aroclor-1221	ND	32.26
11141-16-5	Aroclor-1232	ND	65.49
53469-21-9	Aroclor-1242	ND	32.26
12672-29-6	Aroclor-1248	ND	32.26
11097-69-1	Aroclor-1254	ND	32.26
11096-82-5	Aroclor-1260	ND	32.26

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SBS-296

Lab Name: SOUND ANALYTICAL Contract:

Lab Code: 30100 Case No.: SAS No.: SDG No.:

Matrix: (soil/water) soil Lab Sample ID: 30100-23

Sample wt/vol: 10.0751 (g/mL) g Lab File ID: P1940

% Moisture: 3.47 decanted: (Y/N) no Date Received: 02/09/93

Extraction: (SepF/Cont/Sonc) 3550 Date Extracted: 02/12/93

Concentrated Extract Volume: 3000 (uL) Date Analyzed: 02/21/93

Injection Volume: 3 (uL) Dilution Factor:

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) no

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	ND	1.75
319-85-7	beta-BHC	ND	1.75
319-86-8	delta-BHC	ND	1.75
58-89-9	gamma-BHC (Lindane)	ND	1.75
76-44-8	Heptachlor	ND	1.75
309-00-2	Aldrin	ND	1.75
1024-57-3	Heptachlor epoxide	ND	1.75
959-98-8	Endosulfan I	ND	1.75
60-57-1	Dieldrin	ND	3.39
72-55-9	4,4'-DDE	ND	3.39
72-20-8	Endrin	ND	3.39
33213-65-9	Endosulfan II	ND	3.39
72-54-8	4,4'-DDD	ND	3.39
1031-07-8	Endosulfan sulfate	ND	3.39
50-29-3	4,4'-DDT	ND	3.39
72-43-5	Methoxychlor	ND	17.48
53494-70-5	Endrin ketone	ND	3.39
7421-36-3	Endrin aldehyde	ND	3.39
5103-71-9	alpha-Chlordane	ND	1.75
5103-74-2	gamma-Chlordane	ND	1.75
8001-35-2	Toxaphene	ND	51.41
12674-11-2	Aroclor-1016	ND	33.93
11104-28-2	Aroclor-1221	ND	33.93
11141-16-5	Aroclor-1232	ND	68.89
53469-21-9	Aroclor-1242	ND	33.93
12672-29-6	Aroclor-1248	ND	33.93
11097-69-1	Aroclor-1254	ND	33.93
11096-82-5	Aroclor-1260	ND	33.93

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SBS-273

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BURL.ENVIR

Lab Code: SAS___ Case No.: 624419 SAS No.: 30100_ SDG No.: 30100_

Matrix (soil/water): SOIL_ Lab Sample ID: 30100-33__

Level (low/med): LOW__ Date Received: 02/09/93

% Solids: _86.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony	5.7	U	N	P
7440-38-2	Arsenic	9.5	U		P
7440-39-3	Barium				NR
7440-41-7	Beryllium	0.01	U		P
7440-43-9	Cadmium	2.9		*	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	2.7		*	P
7440-48-4	Cobalt				NR
7440-50-8	Copper	11.1		E*	P
7439-89-6	Iron				NR
7439-92-1	Lead	4.7	U	*	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.04	U	N	AV
7440-02-0	Nickel	6.7		*	P
7440-09-7	Potassium				NR
7782-49-2	Selenium	14.2	U		P
7440-22-4	Silver	0.76	B	N	P
7440-23-5	Sodium				NR
7440-28-0	Thallium	14.2	U	N	P
7440-62-2	Vanadium				NR
7440-66-6	Zinc	28.3		E*	P
5955-70-0	Cyanide				NR

Color Before: 7440-31-5 Clarity Before: _____ Texture:

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SBS-274

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BURL.ENVIR

Lab Code: SAS___ Case No.: 624419 SAS No.: 30100_ SDG No.: 30100_

Matrix (soil/water): SOIL_ Lab Sample ID: 30100-1___

Level (low/med): LOW__ Date Received: 02/09/93

% Solids: _94.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony	5.2	U	N	P
7440-38-2	Arsenic	18.9			P
7440-39-3	Barium				NR
7440-41-7	Beryllium	0.01	U		P
7440-43-9	Cadmium	2.3		*	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	10.0		*	P
7440-48-4	Cobalt				NR
7440-50-8	Copper	17.2		E*	P
7439-89-6	Iron				NR
7439-92-1	Lead	14.7		*	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.04	U	N	AV
7440-02-0	Nickel	13.0		*	P
7440-09-7	Potassium				NR
7782-49-2	Selenium	12.9	U		P
7440-22-4	Silver	1.5		N	P
7440-23-5	Sodium				NR
7440-28-0	Thallium	12.9	U	N	P
7440-62-2	Vanadium				NR
7440-66-6	Zinc	47.5		E*	P
5955-70-0	Cyanide				NR

Color Before: 7440-31-5 Clarity Before: _____ Texture:

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SBS-275

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BURL.ENVIR

Lab Code: SAS___ Case No.: 624419 SAS No.: 30100_ SDG No.: 30100_

Matrix (soil/water): SOIL_ Lab Sample ID: 30100-2___

Level (low/med): LOW__ Date Received: 02/09/93

% Solids: _96.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony	6.0	U	N	P
7440-38-2	Arsenic	10.0	U		P
7440-39-3	Barium				NR
7440-41-7	Beryllium	0.01	U		P
7440-43-9	Cadmium	2.4		*	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	3.9		*	P
7440-48-4	Cobalt				NR
7440-50-8	Copper	16.2		E*	P
7439-89-6	Iron				NR
7439-92-1	Lead	8.9		*	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.04	U	N	AV
7440-02-0	Nickel	8.6		*	P
7440-09-7	Potassium				NR
7782-49-2	Selenium	15.1	U		P
7440-22-4	Silver	0.75	B	N	P
7440-23-5	Sodium				NR
7440-28-0	Thallium	15.1	U	N	P
7440-62-2	Vanadium				NR
7440-66-6	Zinc	36.4		E*	P
5955-70-0	Cyanide				NR

Color Before: 7440-31-5 Clarity Before: _____ Texture:

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SBS-276

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BURL.ENVIR

Lab Code: SAS___ Case No.: 624419 SAS No.: 30100_ SDG No.: 30100_

Matrix (soil/water): SOIL_ Lab Sample ID: 30100-3___

Level (low/med): LOW__ Date Received: 02/09/93

% Solids: _96.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony	6.0	U	N	P
7440-38-2	Arsenic	9.9	U		P
7440-39-3	Barium				NR
7440-41-7	Beryllium	0.01	U		P
7440-43-9	Cadmium	3.0		*	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	4.2		*	P
7440-48-4	Cobalt				NR
7440-50-8	Copper	16.2		E*	P
7439-89-6	Iron				NR
7439-92-1	Lead	9.9		*	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.04	U	N	AV
7440-02-0	Nickel	8.6		*	P
7440-09-7	Potassium				NR
7782-49-2	Selenium	14.9	U		P
7440-22-4	Silver	0.98	B	N	P
7440-23-5	Sodium				NR
7440-28-0	Thallium	14.9	U	N	P
7440-62-2	Vanadium				NR
7440-66-6	Zinc	37.9		E*	P
5955-70-0	Cyanide				NR

Color Before: 7440-31-5 Clarity Before: _____ Texture:

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SBS-277

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BURL.ENVIR

Lab Code: SAS___ Case No.: 624419 SAS No.: 30100_ SDG No.: 30100_

Matrix (soil/water): SOIL_ Lab Sample ID: 30100-4___

Level (low/med): LOW__ Date Received: 02/09/93

% Solids: _94.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony	5.3	U	N	P
7440-38-2	Arsenic	8.8	U		P
7440-39-3	Barium				NR
7440-41-7	Beryllium	0.01	U		P
7440-43-9	Cadmium	3.0		*	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	9.5		*	P
7440-48-4	Cobalt				NR
7440-50-8	Copper	12.8		E*	P
7439-89-6	Iron				NR
7439-92-1	Lead	10.3		*	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.04	U	N	AV
7440-02-0	Nickel	14.8		*	P
7440-09-7	Potassium				NR
7782-49-2	Selenium	13.2	U		P
7440-22-4	Silver	0.95		N	P
7440-23-5	Sodium				NR
7440-28-0	Thallium	13.2	U	N	P
7440-62-2	Vanadium				NR
7440-66-6	Zinc	42.0		E*	P
5955-70-0	Cyanide				NR

Color Before: 7440-31-5 Clarity Before: _____ Texture:

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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EPA SAMPLE NO.

SBS-278

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BURL.ENVIR

Lab Code: SAS___ Case No.: 624419 SAS No.: 30100_ SDG No.: 30100_

Matrix (soil/water): SOIL_ Lab Sample ID: 30100-5___

Level (low/med): LOW__ Date Received: 02/09/93

% Solids: _94.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_	5.5	U	N	P_
7440-38-2	Arsenic__	9.1	U		P
7440-39-3	Barium___				NR
7440-41-7	Beryllium	0.01	U		P_
7440-43-9	Cadmium__	3.2		*	P_
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	9.2		*	P
7440-48-4	Cobalt___				NR
7440-50-8	Copper___	12.8		E*	P
7439-89-6	Iron____				NR
7439-92-1	Lead____	9.8		*	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__	0.04	U	N	AV
7440-02-0	Nickel___	12.4		*	P
7440-09-7	Potassium				NR
7782-49-2	Selenium_	13.7	U		P_
7440-22-4	Silver___	1.2		N	P
7440-23-5	Sodium___				NR
7440-28-0	Thallium_	13.7	U	N	P
7440-62-2	Vanadium_				NR
7440-66-6	Zinc____	43.7		E*	P
5955-70-0	Cyanide__				NR

Color Before: 7440-31-5 Clarity Before: _____ Texture:

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SBS-279

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BURL.ENVIR

Lab Code: SAS___ Case No.: 624419 SAS No.: 30100_ SDG No.: 30100_

Matrix (soil/water): SOIL_ Lab Sample ID: 30100-6___

Level (low/med): LOW__ Date Received: 02/09/93

% Solids: _96.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_	5.6	U	N	P
7440-38-2	Arsenic__	9.4	U		P
7440-39-3	Barium__				NR
7440-41-7	Beryllium	0.01	U		P
7440-43-9	Cadmium__	3.2		*	P
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	4.0		*	P
7440-48-4	Cobalt___				NR
7440-50-8	Copper___	16.5		E*	P
7439-89-6	Iron____				NR
7439-92-1	Lead____	9.4		*	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__	0.04	U	N	AV
7440-02-0	Nickel___	9.6		*	P
7440-09-7	Potassium				NR
7782-49-2	Selenium_	14.1	U		P
7440-22-4	Silver___	1.3		N	P
7440-23-5	Sodium___				NR
7440-28-0	Thallium_	14.1	U	N	P
7440-62-2	Vanadium_				NR
7440-66-6	Zinc____	42.0		E*	P
5955-70-0	Cyanide__				NR

Color Before: 7440-31-5 Clarity Before: _____ Texture:

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SBS-280

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BURL.ENVIR

Lab Code: SAS___ Case No.: 624419 SAS No.: 30100_ SDG No.: 30100_

Matrix (soil/water): SOIL_ Lab Sample ID: 30100-7___

Level (low/med): LOW__ Date Received: 02/09/93

% Solids: _96.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony	5.2	U	N	P
7440-38-2	Arsenic	8.6	U		P
7440-39-3	Barium				NR
7440-41-7	Beryllium	0.01	U		P
7440-43-9	Cadmium	4.0		*	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	6.2		*	P
7440-48-4	Cobalt				NR
7440-50-8	Copper	16.7		E*	P
7439-89-6	Iron				NR
7439-92-1	Lead	9.3		*	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.04	U	N	AV
7440-02-0	Nickel	11.7		*	P
7440-09-7	Potassium				NR
7782-49-2	Selenium	12.9	U		P
7440-22-4	Silver	1.2		N	P
7440-23-5	Sodium				NR
7440-28-0	Thallium	12.9	U	N	P
7440-62-2	Vanadium				NR
7440-66-6	Zinc	49.4		E*	P
5955-70-0	Cyanide				NR

Color Before: 7440-31-5 Clarity Before: _____ Texture:

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SBS-281

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BURL.ENVIR

Lab Code: SAS___ Case No.: 624419 SAS No.: 30100_ SDG No.: 30100_

Matrix (soil/water): SOIL_ Lab Sample ID: 30100-8___

Level (low/med): LOW__ Date Received: 02/09/93

% Solids: _94.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony	5.7	U	N	P
7440-38-2	Arsenic	9.5	U		P
7440-39-3	Barium				NR
7440-41-7	Beryllium	0.01	U		P
7440-43-9	Cadmium	2.0		*	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	7.7		*	P
7440-48-4	Cobalt				NR
7440-50-8	Copper	9.9		E*	P
7439-89-6	Iron				NR
7439-92-1	Lead	8.7		*	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.04	U	N	AV
7440-02-0	Nickel	9.5		*	P
7440-09-7	Potassium				NR
7782-49-2	Selenium	14.3	U		P
7440-22-4	Silver	1.00		N	P
7440-23-5	Sodium				NR
7440-28-0	Thallium	14.3	U	N	P
7440-62-2	Vanadium				NR
7440-66-6	Zinc	31.8		E*	P
5955-70-0	Cyanide				NR

Color Before: 7440-31-5 Clarity Before: _____ Texture:

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SBS-282

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BURL.ENVIR

Lab Code: SAS___ Case No.: 624419 SAS No.: 30100_ SDG No.: 30100_

Matrix (soil/water): SOIL_ Lab Sample ID: 30100-9___

Level (low/med): LOW__ Date Received: 02/09/93

% Solids: _97.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony	5.8	U	N	P
7440-38-2	Arsenic	9.7	U		P
7440-39-3	Barium				NR
7440-41-7	Beryllium	0.01	U		P
7440-43-9	Cadmium	2.6		*	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	3.3		*	P
7440-48-4	Cobalt				NR
7440-50-8	Copper	18.9		E*	P
7439-89-6	Iron				NR
7439-92-1	Lead	8.3		*	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.04	U	N	AV
7440-02-0	Nickel	8.0		*	P
7440-09-7	Potassium				NR
7782-49-2	Selenium	14.6	U		P
7440-22-4	Silver	1.1		N	P
7440-23-5	Sodium				NR
7440-28-0	Thallium	14.6	U	N	P
7440-62-2	Vanadium				NR
7440-66-6	Zinc	32.0		E*	P
5955-70-0	Cyanide				NR

Color Before: 7440-31-5 Clarity Before: _____ Texture:

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SBS-283

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BURL.ENVIR

Lab Code: SAS___ Case No.: 624419 SAS No.: 30100_ SDG No.: 30100_

Matrix (soil/water): SOIL_ Lab Sample ID: 30100-10__

Level (low/med): LOW__ Date Received: 02/09/93

% Solids: _96.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony	5.7	U	N	P
7440-38-2	Arsenic	9.5	U		P
7440-39-3	Barium				NR
7440-41-7	Beryllium	0.01	U		P
7440-43-9	Cadmium	3.0		*	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	4.4		*	P
7440-48-4	Cobalt				NR
7440-50-8	Copper	16.0		E*	P
7439-89-6	Iron				NR
7439-92-1	Lead	9.5		*	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.04	U	N	AV
7440-02-0	Nickel	9.4		*	P
7440-09-7	Potassium				NR
7782-49-2	Selenium	14.2	U		P
7440-22-4	Silver	1.2		N	P
7440-23-5	Sodium				NR
7440-28-0	Thallium	14.2	U	N	P
7440-62-2	Vanadium				NR
7440-66-6	Zinc	38.4		E*	P
5955-70-0	Cyanide				NR

Color Before: 7440-31-5 Clarity Before: _____ Texture:

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SBS-284

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BURL.ENVIR

Lab Code: SAS___ Case No.: 624419 SAS No.: 30100_ SDG No.: 30100_

Matrix (soil/water): SOIL_ Lab Sample ID: 30100-11__

Level (low/med): LOW__ Date Received: 02/09/93

% Solids: _96.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony	4.8	U	N	P
7440-38-2	Arsenic	7.9	U		P
7440-39-3	Barium				NR
7440-41-7	Beryllium	0.01	U		P
7440-43-9	Cadmium	3.4		*	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	4.4		*	P
7440-48-4	Cobalt				NR
7440-50-8	Copper	17.2		E*	P
7439-89-6	Iron				NR
7439-92-1	Lead	7.9		*	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.04	U	N	AV
7440-02-0	Nickel	8.7		*	P
7440-09-7	Potassium				NR
7782-49-2	Selenium	11.9	U		P
7440-22-4	Silver	1.7		N	P
7440-23-5	Sodium				NR
7440-28-0	Thallium	11.9	U	N	P
7440-62-2	Vanadium				NR
7440-66-6	Zinc	41.8		E*	P
5955-70-0	Cyanide				NR

Color Before: 7440-31-5 Clarity Before: _____ Texture:

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SBS-285

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BURL.ENVIR

Lab Code: SAS___ Case No.: 624419 SAS No.: 30100_ SDG No.: 30100_

Matrix (soil/water): SOIL_ Lab Sample ID: 30100-12__

Level (low/med): LOW__ Date Received: 02/09/93

% Solids: _97.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony	5.6	U	N	P
7440-38-2	Arsenic	12.7			P
7440-39-3	Barium				NR
7440-41-7	Beryllium	0.01	U		P
7440-43-9	Cadmium	2.3		*	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	8.0		*	P
7440-48-4	Cobalt				NR
7440-50-8	Copper	15.7		E*	P
7439-89-6	Iron				NR
7439-92-1	Lead	10.7		*	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.04	U	N	AV
7440-02-0	Nickel	11.6		*	P
7440-09-7	Potassium				NR
7782-49-2	Selenium	14.1	U		P
7440-22-4	Silver	0.91	B	N	P
7440-23-5	Sodium				NR
7440-28-0	Thallium	14.1	U	N	P
7440-62-2	Vanadium				NR
7440-66-6	Zinc	44.3		E*	P
5955-70-0	Cyanide				NR

Color Before: 7440-31-5 Clarity Before: _____ Texture:

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SBS-286

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BURL.ENVIR

Lab Code: SAS___ Case No.: 624419 SAS No.: 30100_ SDG No.: 30100_

Matrix (soil/water): SOIL_ Lab Sample ID: 30100-13__

Level (low/med): LOW__ Date Received: 02/09/93

% Solids: _93.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony	5.7	U	N	P
7440-38-2	Arsenic	12.1			P
7440-39-3	Barium				NR
7440-41-7	Beryllium	0.01	U		P
7440-43-9	Cadmium	2.5		*	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	7.8		*	P
7440-48-4	Cobalt				NR
7440-50-8	Copper	13.8		E*	P
7439-89-6	Iron				NR
7439-92-1	Lead	11.2		*	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.04	U	N	AV
7440-02-0	Nickel	11.9		*	P
7440-09-7	Potassium				NR
7782-49-2	Selenium	14.2	U		P
7440-22-4	Silver	0.95		N	P
7440-23-5	Sodium				NR
7440-28-0	Thallium	14.2	U	N	P
7440-62-2	Vanadium				NR
7440-66-6	Zinc	38.9		E*	P
5955-70-0	Cyanide				NR

Color Before: 7440-31-5 Clarity Before: _____ Texture:

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SBS-287

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BURL.ENVIR

Lab Code: SAS___ Case No.: 624419 SAS No.: 30100_ SDG No.: 30100_

Matrix (soil/water): SOIL_ Lab Sample ID: 30100-14__

Level (low/med): LOW__ Date Received: 02/09/93

% Solids: _93.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony	5.4	U	N	P
7440-38-2	Arsenic	14.9			P
7440-39-3	Barium				NR
7440-41-7	Beryllium	0.01	U		P
7440-43-9	Cadmium	3.4		*	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	10.7		*	P
7440-48-4	Cobalt				NR
7440-50-8	Copper	20.5		E*	P
7439-89-6	Iron				NR
7439-92-1	Lead	15.3		*	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.04	U	N	AV
7440-02-0	Nickel	14.1		*	P
7440-09-7	Potassium				NR
7782-49-2	Selenium	13.5	U		P
7440-22-4	Silver	1.3		N	P
7440-23-5	Sodium				NR
7440-28-0	Thallium	13.5	U	N	P
7440-62-2	Vanadium				NR
7440-66-6	Zinc	55.2		E*	P
5955-70-0	Cyanide				NR

Color Before: 7440-31-5 Clarity Before: _____ Texture:

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SBS-288

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BURL.ENVIR

Lab Code: SAS___ Case No.: 624419 SAS No.: 30100_ SDG No.: 30100_

Matrix (soil/water): SOIL_ Lab Sample ID: 30100-15__

Level (low/med): LOW__ Date Received: 02/09/93

% Solids: _97.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_	5.0	U	N	P_
7440-38-2	Arsenic__	8.3	U		P_
7440-39-3	Barium__				NR
7440-41-7	Beryllium	0.01	U		P_
7440-43-9	Cadmium__	2.2		*	P_
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	9.6		*	P
7440-48-4	Cobalt___				NR
7440-50-8	Copper___	14.3		E*	P
7439-89-6	Iron____				NR
7439-92-1	Lead____	11.6		*	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__	0.04	U	N	AV
7440-02-0	Nickel___	12.1		*	P
7440-09-7	Potassium				NR
7782-49-2	Selenium_	12.4	U		P_
7440-22-4	Silver___	1.0		N	P_
7440-23-5	Sodium___				NR
7440-28-0	Thallium_	12.4	U	N	P
7440-62-2	Vanadium_				NR
7440-66-6	Zinc____	44.7		E*	P
5955-70-0	Cyanide__				NR

Color Before: 7440-31-5 Clarity Before: _____ Texture:

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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EPA SAMPLE NO.

SBS-289

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BURL.ENVIR

Lab Code: SAS___ Case No.: 624419 SAS No.: 30100_ SDG No.: 30100_

Matrix (soil/water): SOIL_ Lab Sample ID: 30100-16__

Level (low/med): LOW__ Date Received: 02/09/93

% Solids: _96.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_	4.8	U	N	P_
7440-38-2	Arsenic__	8.8			P_
7440-39-3	Barium__				NR
7440-41-7	Beryllium	0.01	U		P_
7440-43-9	Cadmium__	2.2		*	P_
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	7.6		*	P_
7440-48-4	Cobalt___				NR
7440-50-8	Copper___	13.9		E*	P_
7439-89-6	Iron____				NR
7439-92-1	Lead____	10.8		*	P_
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__	0.05	U	N	AV
7440-02-0	Nickel___	11.2		*	P_
7440-09-7	Potassium				NR
7782-49-2	Selenium_	12.1	U		P_
7440-22-4	Silver___	0.83		N	P_
7440-23-5	Sodium___				NR
7440-28-0	Thallium_	12.1	U	N	P_
7440-62-2	Vanadium_				NR
7440-66-6	Zinc____	42.1		E*	P_
5955-70-0	Cyanide__				NR

Color Before: 7440-31-5 Clarity Before: _____ Texture:

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SBS-290

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BURL.ENVIR

Lab Code: SAS___ Case No.: 624419 SAS No.: 30100_ SDG No.: 30100_

Matrix (soil/water): SOIL_ Lab Sample ID: 30100-17__

Level (low/med): LOW__ Date Received: 02/09/93

% Solids: _95.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_	5.8	U	N	P_
7440-38-2	Arsenic__	9.6	U		P_
7440-39-3	Barium___				NR
7440-41-7	Beryllium	0.01	U		P_
7440-43-9	Cadmium__	3.1		*	P_
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	9.9		*	P_
7440-48-4	Cobalt___				NR
7440-50-8	Copper___	15.4		E*	P_
7439-89-6	Iron____				NR
7439-92-1	Lead____	10.1		*	P_
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__	0.04	U	N	AV
7440-02-0	Nickel___	16.1		*	P_
7440-09-7	Potassium				NR
7782-49-2	Selenium_	14.5	U		P_
7440-22-4	Silver___	1.2		N	P_
7440-23-5	Sodium___				NR
7440-28-0	Thallium_	14.5	U	N	P_
7440-62-2	Vanadium_				NR
7440-66-6	Zinc____	45.4		E*	P_
5955-70-0	Cyanide__				NR

Color Before: 7440-31-5 Clarity Before: _____ Texture:

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SBS-291

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BURL.ENVIR

Lab Code: SAS___ Case No.: 624419 SAS No.: 30100_ SDG No.: 30100_

Matrix (soil/water): SOIL_ Lab Sample ID: 30100-18__

Level (low/med): LOW__ Date Received: 02/09/93

% Solids: _93.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony	5.5	U	N	P
7440-38-2	Arsenic	10.8			P
7440-39-3	Barium				NR
7440-41-7	Beryllium	0.01	U		P
7440-43-9	Cadmium	3.3		*	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	8.1		*	P
7440-48-4	Cobalt				NR
7440-50-8	Copper	17.9		E*	P
7439-89-6	Iron				NR
7439-92-1	Lead	14.4		*	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.05	U	N	AV
7440-02-0	Nickel	13.6		*	P
7440-09-7	Potassium				NR
7782-49-2	Selenium	13.8	U		P
7440-22-4	Silver	1.4		N	P
7440-23-5	Sodium				NR
7440-28-0	Thallium	13.8	U	N	P
7440-62-2	Vanadium				NR
7440-66-6	Zinc	49.8		E*	P
5955-70-0	Cyanide				NR

Color Before: 7440-31-5 Clarity Before: _____ Texture:

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SBS-292

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BURL.ENVIR

Lab Code: SAS___ Case No.: 624419 SAS No.: 30100_ SDG No.: 30100_

Matrix (soil/water): SOIL_ Lab Sample ID: 30100-19__

Level (low/med): LOW__ Date Received: 02/09/93

% Solids: _95.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_	5.5	U	N	P
7440-38-2	Arsenic__	9.1	U		P
7440-39-3	Barium___				NR
7440-41-7	Beryllium	0.01	U		P
7440-43-9	Cadmium__	3.3		*	P
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	6.7		*	P
7440-48-4	Cobalt___				NR
7440-50-8	Copper___	15.4		E*	P
7439-89-6	Iron____				NR
7439-92-1	Lead____	11.5		*	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__	0.04	U	N	AV
7440-02-0	Nickel___	12.1		*	P
7440-09-7	Potassium				NR
7782-49-2	Selenium_	13.7	U		P
7440-22-4	Silver___	2.0		N	P
7440-23-5	Sodium___				NR
7440-28-0	Thallium_	13.7	U	N	P
7440-62-2	Vanadium_				NR
7440-66-6	Zinc____	44.1		E*	P
5955-70-0	Cyanide__				NR

Color Before: 7440-31-5 Clarity Before: _____ Texture:

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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EPA SAMPLE NO.

SBS-293

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BURL.ENVIR

Lab Code: SAS___ Case No.: 624419 SAS No.: 30100_ SDG No.: 30100_

Matrix (soil/water): SOIL_ Lab Sample ID: 30100-20__

Level (low/med): LOW__ Date Received: 02/09/93

% Solids: _96.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony	5.2	U	N	P
7440-38-2	Arsenic	8.7	U		P
7440-39-3	Barium				NR
7440-41-7	Beryllium	0.01	U		P
7440-43-9	Cadmium	3.1		*	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	5.0		*	P
7440-48-4	Cobalt				NR
7440-50-8	Copper	18.1		E*	P
7439-89-6	Iron				NR
7439-92-1	Lead	10.3		*	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.04	U	N	AV
7440-02-0	Nickel	10.2		*	P
7440-09-7	Potassium				NR
7782-49-2	Selenium	13.0	U		P
7440-22-4	Silver	2.3		N	P
7440-23-5	Sodium				NR
7440-28-0	Thallium	13.0	U	N	P
7440-62-2	Vanadium				NR
7440-66-6	Zinc	46.4		E*	P
5955-70-0	Cyanide				NR

Color Before: 7440-31-5 Clarity Before: _____ Texture:

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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EPA SAMPLE NO.

SBS-294

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BURL.ENVIR

Lab Code: SAS___ Case No.: 624419 SAS No.: 30100_ SDG No.: 30100_

Matrix (soil/water): SOIL_ Lab Sample ID: 30100-21__

Level (low/med): LOW__ Date Received: 02/09/93

% Solids: _96.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony	6.0	U	N	P
7440-38-2	Arsenic	10.0	U		P
7440-39-3	Barium				NR
7440-41-7	Beryllium	0.01	U		P
7440-43-9	Cadmium	4.2		*	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	5.8		*	P
7440-48-4	Cobalt				NR
7440-50-8	Copper	16.4		E*	P
7439-89-6	Iron				NR
7439-92-1	Lead	10.2		*	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.04	U	N	AV
7440-02-0	Nickel	10.0		*	P
7440-09-7	Potassium				NR
7782-49-2	Selenium	15.1	U		P
7440-22-4	Silver	1.8		N	P
7440-23-5	Sodium				NR
7440-28-0	Thallium	15.1	U	N	P
7440-62-2	Vanadium				NR
7440-66-6	Zinc	48.2		E*	P
5955-70-0	Cyanide				NR

Color Before: 7440-31-5 Clarity Before: _____ Texture:

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SBS-295

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BURL.ENVIR

Lab Code: SAS___ Case No.: 624419 SAS No.: 30100_ SDG No.: 30100_

Matrix (soil/water): SOIL_ Lab Sample ID: 30100-22__

Level (low/med): LOW__ Date Received: 02/09/93

% Solids: _96.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_	5.6	U	N	P_
7440-38-2	Arsenic__	9.4	U		P_
7440-39-3	Barium__				NR
7440-41-7	Beryllium	0.01	U		P_
7440-43-9	Cadmium__	2.7		*	P_
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	5.7		*	P
7440-48-4	Cobalt___				NR
7440-50-8	Copper___	16.4		E*	P_
7439-89-6	Iron____				NR
7439-92-1	Lead____	9.2		*	P_
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__	0.04	U	N	AV
7440-02-0	Nickel___	9.7		*	P_
7440-09-7	Potassium				NR
7782-49-2	Selenium_	14.1	U		P_
7440-22-4	Silver___	1.5		N	P_
7440-23-5	Sodium___				NR
7440-28-0	Thallium_	14.1	U	N	P_
7440-62-2	Vanadium_				NR
7440-66-6	Zinc____	44.6		E*	P_
5955-70-0	Cyanide__				NR

Color Before: 7440-31-5 Clarity Before: _____ Texture:

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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EPA SAMPLE NO.

SBS-296

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BURL.ENVIR

Lab Code: SAS___ Case No.: 624419 SAS No.: 30100_ SDG No.: 30100_

Matrix (soil/water): SOIL_ Lab Sample ID: 30100-23__

Level (low/med): LOW__ Date Received: 02/09/93

% Solids: _96.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony	5.6	U	N	P
7440-38-2	Arsenic	9.3	U		P
7440-39-3	Barium				NR
7440-41-7	Beryllium	0.01	U		P
7440-43-9	Cadmium	3.4		*	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	2.7		*	P
7440-48-4	Cobalt				NR
7440-50-8	Copper	17.2		E*	P
7439-89-6	Iron				NR
7439-92-1	Lead	7.1		*	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.04	U	N	AV
7440-02-0	Nickel	9.0		*	P
7440-09-7	Potassium				NR
7782-49-2	Selenium	13.9	U		P
7440-22-4	Silver	1.1		N	P
7440-23-5	Sodium				NR
7440-28-0	Thallium	13.9	U	N	P
7440-62-2	Vanadium				NR
7440-66-6	Zinc	32.7		E*	P
5955-70-0	Cyanide				NR

Color Before: 7440-31-5 Clarity Before: _____ Texture:

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SBS-297

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BURL.ENVIR

Lab Code: SAS___ Case No.: 624419 SAS No.: 30100_ SDG No.: 30100_

Matrix (soil/water): SOIL_ Lab Sample ID: 30100-24__

Level (low/med): LOW__ Date Received: 02/09/93

% Solids: _91.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony	6.4	U	N	P
7440-38-2	Arsenic	10.7	U		P
7440-39-3	Barium				NR
7440-41-7	Beryllium	0.01	U		P
7440-43-9	Cadmium	2.3		*	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	7.0		*	P
7440-48-4	Cobalt				NR
7440-50-8	Copper	16.5		E*	P
7439-89-6	Iron				NR
7439-92-1	Lead	13.0		*	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.05	U	N	AV
7440-02-0	Nickel	12.1		*	P
7440-09-7	Potassium				NR
7782-49-2	Selenium	16.0	U		P
7440-22-4	Silver	1.5		N	P
7440-23-5	Sodium				NR
7440-28-0	Thallium	16.0	U	N	P
7440-62-2	Vanadium				NR
7440-66-6	Zinc	47.3		E*	P
5955-70-0	Cyanide				NR

Color Before: 7440-31-5 Clarity Before: _____ Texture:

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SBS-298

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BURL.ENVIR

Lab Code: SAS___ Case No.: 624419 SAS No.: 30100_ SDG No.: 30100_

Matrix (soil/water): SOIL_ Lab Sample ID: 30100-25__

Level (low/med): LOW__ Date Received: 02/09/93

% Solids: _91.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_	4.9	U	N	P_
7440-38-2	Arsenic__	8.2	U		P_
7440-39-3	Barium___				NR
7440-41-7	Beryllium	0.01	U		P_
7440-43-9	Cadmium__	3.0		*	P_
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	7.3		*	P_
7440-48-4	Cobalt___				NR
7440-50-8	Copper___	12.5		E*	P_
7439-89-6	Iron____				NR
7439-92-1	Lead____	9.3		*	P_
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__	0.04	U	N	AV
7440-02-0	Nickel___	12.7		*	P_
7440-09-7	Potassium				NR
7782-49-2	Selenium_	12.4	U		P_
7440-22-4	Silver___	0.77	B	N	P_
7440-23-5	Sodium___				NR
7440-28-0	Thallium_	12.4	U	N	P_
7440-62-2	Vanadium_				NR
7440-66-6	Zinc____	42.1		E*	P_
5955-70-0	Cyanide__				NR

Color Before: 7440-31-5 Clarity Before: _____ Texture:

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SBS-299

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BURL.ENVIR

Lab Code: SAS___ Case No.: 624419 SAS No.: 30100_ SDG No.: 30100_

Matrix (soil/water): SOIL_ Lab Sample ID: 30100-26__

Level (low/med): LOW__ Date Received: 02/09/93

% Solids: _94.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_	5.6	U	N	P_
7440-38-2	Arsenic__	9.3	U		P
7440-39-3	Barium___				NR
7440-41-7	Beryllium	0.01	U		P_
7440-43-9	Cadmium__	3.1		*	P
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	3.6		*	P
7440-48-4	Cobalt___				NR
7440-50-8	Copper___	12.3		E*	P
7439-89-6	Iron____				NR
7439-92-1	Lead____	8.4		*	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__	0.04	U	N	AV
7440-02-0	Nickel___	8.8		*	P
7440-09-7	Potassium				NR
7782-49-2	Selenium_	14.0	U		P_
7440-22-4	Silver___	1.4		N	P
7440-23-5	Sodium___				NR
7440-28-0	Thallium_	14.0	U	N	P
7440-62-2	Vanadium_				NR
7440-66-6	Zinc____	34.1		E*	P
5955-70-0	Cyanide__				NR

Color Before: 7440-31-5 Clarity Before: _____ Texture:

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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EPA SAMPLE NO.

SBS-300

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BURL.ENVIR

Lab Code: SAS___ Case No.: 624419 SAS No.: 30100_ SDG No.: 30100_

Matrix (soil/water): SOIL_ Lab Sample ID: 30100-27__

Level (low/med): LOW__ Date Received: 02/09/93

% Solids: _94.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony	5.9	U	N	P
7440-38-2	Arsenic	9.8	U		P
7440-39-3	Barium				NR
7440-41-7	Beryllium	0.01	U		P
7440-43-9	Cadmium	2.3		*	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	1.8		*	P
7440-48-4	Cobalt				NR
7440-50-8	Copper	11.1		E*	P
7439-89-6	Iron				NR
7439-92-1	Lead	4.9	U	*	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.04	U	N	AV
7440-02-0	Nickel	7.5		*	P
7440-09-7	Potassium				NR
7782-49-2	Selenium	14.7	U		P
7440-22-4	Silver	1.7		N	P
7440-23-5	Sodium				NR
7440-28-0	Thallium	14.7	U	N	P
7440-62-2	Vanadium				NR
7440-66-6	Zinc	25.1		E*	P
5955-70-0	Cyanide				NR

Color Before: 7440-31-5 Clarity Before: _____ Texture:

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SBS-301

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BURL.ENVIR

Lab Code: SAS___ Case No.: 624419 SAS No.: 30100_ SDG No.: 30100_

Matrix (soil/water): SOIL_ Lab Sample ID: 30100-28__

Level (low/med): LOW__ Date Received: 02/09/93

% Solids: _96.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony	4.8	U	N	P
7440-38-2	Arsenic	8.0	U		P
7440-39-3	Barium				NR
7440-41-7	Beryllium	0.01	U		P
7440-43-9	Cadmium	1.7		*	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	1.9		*	P
7440-48-4	Cobalt				NR
7440-50-8	Copper	11.7		E*	P
7439-89-6	Iron				NR
7439-92-1	Lead	7.5		*	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.04	U	N	AV
7440-02-0	Nickel	7.3		*	P
7440-09-7	Potassium				NR
7782-49-2	Selenium	12.1	U		P
7440-22-4	Silver	1.1		N	P
7440-23-5	Sodium				NR
7440-28-0	Thallium	12.1	U	N	P
7440-62-2	Vanadium				NR
7440-66-6	Zinc	27.1		E*	P
5955-70-0	Cyanide				NR

Color Before: 7440-31-5 Clarity Before: _____ Texture:

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SBS-302

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BURL.ENVIR

Lab Code: SAS___ Case No.: 624419 SAS No.: 30100_ SDG No.: 30100_

Matrix (soil/water): SOIL_ Lab Sample ID: 30100-29__

Level (low/med): LOW__ Date Received: 02/09/93

% Solids: _91.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony	6.0	U	N	P
7440-38-2	Arsenic	10	U		P
7440-39-3	Barium				NR
7440-41-7	Beryllium	0.01	U		P
7440-43-9	Cadmium	2.9		*	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	9.5		*	P
7440-48-4	Cobalt				NR
7440-50-8	Copper	16.5		E*	P
7439-89-6	Iron				NR
7439-92-1	Lead	10.5		*	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.04	U	N	AV
7440-02-0	Nickel	15.1		*	P
7440-09-7	Potassium				NR
7782-49-2	Selenium	15.0	U		P
7440-22-4	Silver	0.99	B	N	P
7440-23-5	Sodium				NR
7440-28-0	Thallium	15.0	U	N	P
7440-62-2	Vanadium				NR
7440-66-6	Zinc	48.2		E*	P
5955-70-0	Cyanide				NR

Color Before: 7440-31-5 Clarity Before: _____ Texture:

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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EPA SAMPLE NO.

SBS-303

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BURL.ENVIR

Lab Code: SAS___ Case No.: 624419 SAS No.: 30100_ SDG No.: 30100_

Matrix (soil/water): SOIL_ Lab Sample ID: 30100-30__

Level (low/med): LOW__ Date Received: 02/09/93

% Solids: _90.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony	5.6	U	N	P
7440-38-2	Arsenic	10.1			P
7440-39-3	Barium				NR
7440-41-7	Beryllium	0.01	U		P
7440-43-9	Cadmium	3.1		*	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	8.0		*	P
7440-48-4	Cobalt				NR
7440-50-8	Copper	17.1		E*	P
7439-89-6	Iron				NR
7439-92-1	Lead	13.2		*	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.04	U	N	AV
7440-02-0	Nickel	14.0		*	P
7440-09-7	Potassium				NR
7782-49-2	Selenium	14.0	U		P
7440-22-4	Silver	1.00		N	P
7440-23-5	Sodium				NR
7440-28-0	Thallium	14.0	U	N	P
7440-62-2	Vanadium				NR
7440-66-6	Zinc	48.6		E*	P
5955-70-0	Cyanide				NR

Color Before: 7440-31-5 Clarity Before: _____ Texture:

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SBS-304

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BURL.ENVIR

Lab Code: SAS___ Case No.: 624419 SAS No.: 30100_ SDG No.: 30100_

Matrix (soil/water): SOIL_ Lab Sample ID: 30100-31__

Level (low/med): LOW__ Date Received: 02/09/93

% Solids: _96.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_	5.6	U	N	P_
7440-38-2	Arsenic__	9.4	U		P_
7440-39-3	Barium__				NR
7440-41-7	Beryllium	0.01	U		P_
7440-43-9	Cadmium__	2.5		*	P_
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	2.4		*	P_
7440-48-4	Cobalt___				NR
7440-50-8	Copper___	11.3		E*	P_
7439-89-6	Iron____				NR
7439-92-1	Lead____	6.0		*	P_
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__	0.04	U	N	AV
7440-02-0	Nickel___	8.0		*	P_
7440-09-7	Potassium				NR
7782-49-2	Selenium_	14.1	U		P_
7440-22-4	Silver___	1.0		N	P_
7440-23-5	Sodium___				NR
7440-28-0	Thallium_	14.1	U	N	P_
7440-62-2	Vanadium_				NR
7440-66-6	Zinc____	33.2		E*	P_
5955-70-0	Cyanide__				NR

Color Before: 7440-31-5 Clarity Before: _____ Texture:

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SBS-305

Lab Name: SOUND_ANALYTICAL_SERVICES Contract: BURL.ENVIR

Lab Code: SAS___ Case No.: 624419 SAS No.: 30100_ SDG No.: 30100_

Matrix (soil/water): SOIL_ Lab Sample ID: 30100-32__

Level (low/med): LOW__ Date Received: 02/09/93

% Solids: _95.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony	4.7	U	N	P
7440-38-2	Arsenic	7.9	U		P
7440-39-3	Barium				NR
7440-41-7	Beryllium	0.01	U		P
7440-43-9	Cadmium	2.2		*	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	3.6		*	P
7440-48-4	Cobalt				NR
7440-50-8	Copper	10.4		E*	P
7439-89-6	Iron				NR
7439-92-1	Lead	7.2		*	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.04	U	N	AV
7440-02-0	Nickel	8.3		*	P
7440-09-7	Potassium				NR
7782-49-2	Selenium	11.8	U		P
7440-22-4	Silver	0.97		N	P
7440-23-5	Sodium				NR
7440-28-0	Thallium	11.8	U	N	P
7440-62-2	Vanadium				NR
7440-66-6	Zinc	33.2		E*	P
5955-70-0	Cyanide				NR

Color Before: 7440-31-5 Clarity Before: _____ Texture:

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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John Mathes & Associates, Inc.
210 West Sand Bank Road
Columbia, Illinois 62236

CHAIN-OF-CUSTODY RECORD

C.O.C. SERIAL NO. 5308

PROJECT NAME: PASCO LF
PROJECT NUMBER: 624419 MAJOR TASK: 7020.16
SAMPLERS: L. LARDSA
LAB DESTINATION: SOUND ANALYTICAL

SAMPLE NO.	DATE	TIME	COMP	GRAB	SAMPLE LOCATION	NO. OF CONTAINERS	VOC (8240)	HERB (8150)	PEST/PCB (8080)	PAM (6010)	MS/MSD			ICED	CHEMICALS ADDED	REMARKS (CHEMICAL ANALYSIS REQUEST FORM NUMBER IF APPLICABLE)
PLF-SBS-274	2/3/93	0835		X	Soil	2	✓	✓	✓	✓				X	N/A	
PLF-SBS-275		0840				2	✓	✓	✓	✓						
PLF-SBS-276		1005				1		✓	✓	✓						
PLF-SBS-277		1010				2	✓	✓	✓	✓						
PLF-SBS-278		1025				2	✓	✓	✓	✓						
PLF-SBS-279		1100				1		✓	✓	✓						
PLF-SBS-280		1105				1	~~✓~~	✓	✓	✓						PLF-SBS-280 No VOC
PLF-SBS-281		1115				2	✓	✓	✓	✓	✓					
PLF-SBS-282		1130				1		✓	✓	✓						
PLF-SBS-283		1330				1		✓	✓	✓						
PLF-SBS-284		1340				1		✓	✓	✓						
PLF-SBS-285		1510				1		✓	✓	✓						
PLF-SBS-286		1520				1		✓	✓	✓						
PLF-SBS-287		1525				1		✓	✓	✓						

RELINQUISHED BY SIGNATURE	DATE	TIME	RECEIVED BY SIGNATURE	DATE	TIME
[signature]	2/8/93	1600	Ship VIA FED EX	2/8/93	1600
			SGiang SAS	2/9/93	9:30 AM

SHIPPING NOTES

LAB NOTES

JM-34 (8/89)

John Mathes & Associates, Inc.
210 West Sand Bank Road
Columbia, Illinois 62236

CHAIN-OF-CUSTODY RECORD

C.O.C. SERIAL NO. 5310

PROJECT NAME: PASCO LF
PROJECT NUMBER: 624419 MAJOR TASK: 7020.16
SAMPLERS: LOU LAROSA
LAB DESTINATION: SOUND ANALYTICAL

SAMPLE NO.	DATE	TIME	COMP	GRAB	SAMPLE LOCATION	NO. OF CONTAINERS	TYPE OF ANALYSIS: VOC (8240)	HERB (8150)	PESTICIDES (8080)	PPM (6010)			ICED	PRESERVATIVES: CHEMICALS ADDED	REMARKS (CHEMICAL ANALYSIS REQUEST FORM NUMBER IF APPLICABLE)
PLF-GW-010	2-3-93	1345		X	WATER	2	2						X	N/A	
PLF-GW-011	↓	1700		↓	↓	2	2						↓	HCL	
PLF-GW-012	↓	1720		↓	↓	2	2						↓	N/A	
PLF-GW-013	2-4-93	1440		X	WATER	2	2						↓	↓	
PLF-GW-014	↓	1640		↓	↓	2	2						↓	↓	
PLF-SBS-288	2-3-93	1530		X	SOIL	1		✓	✓	✓			X	N/A	
PLF-SBS-289	↓	1625		↓	↓	1		✓	✓	✓			↓	↓	
PLF-SBS-290	↓	1640		↓	↓	1		✓	✓	✓			↓	↓	
PLF-SBS-291	↓	1650		↓	↓	1		✓	✓	✓			↓	↓	
PLF-SBS-292	↓	1705		↓	↓	1		✓	✓	✓			↓	↓	
PLF-SBS-293	↓	1720		↓	↓	1		✓	✓	✓			↓	↓	
PLF-SBS-294	↓	1730		↓	↓	1		✓	✓	✓			↓	↓	
PLF-SBS-295	↓	1740		↓	↓	1		✓	✓	✓			↓	↓	
PLF-SBS-296	↓	1315		↓	↓	1		✓	✓	✓			↓	↓	

RELINQUISHED BY: SIGNATURE	DATE	TIME	RECEIVED BY: SIGNATURE	DATE	TIME
[signature]	2/8/93	1600	Ship VIA FED EX	2/8/93	1600
			SGiang SYS	2/9/93	9:30 AM

SHIPPING NOTES

LAB NOTES

JM-34 (8/89)

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John Mathes & Associates, Inc.
210 West Sand Bank Road
Columbia, Illinois 62236

CHAIN-OF-CUSTODY RECORD

C.O.C. SERIAL NO. 5312

PROJECT NAME: PASCO LF
PROJECT NUMBER: 624419 MAJOR TASK: 7020.16
SAMPLERS: LOU LAROSA
LAB DESTINATION: SOUND ANALYTICAL

SAMPLE NO.	DATE	TIME	COMP	GRAB	SAMPLE LOCATION	NO. OF CONTAINERS	SVOC	HERB	PPM	MS/MSD				ICED	CHEMICALS ADDED	REMARKS (CHEMICAL ANALYSIS REQUEST FORM NUMBER IF APPLICABLE)
PLF-SBS-297	2-4-93	1145		X	SOIL	1	✓	✓	✓	X				X	N/A	
PLF-SBS-298	↓	1205		↓	↓	1	✓	✓	✓					↓	↓	
PLF-SBS-299		1350				1	✓	✓	✓							
PLF-SBS-300		1420				1	✓	✓	✓							
PLF-SBS-301		1430				1	✓	✓	✓							
PLF-SBS-302		1610				1	✓	✓	✓							
PLF-SBS-303		1620				1	✓	✓	✓							
PLF-SBS-304		1630				1	✓	✓	✓							
PLF-SBS-305	↓	1645		↓	↓	1	✓	✓	✓					↓	↓	

RELINQUISHED BY SIGNATURE	DATE	TIME	RECEIVED BY SIGNATURE	DATE	TIME
[illegible]	2/8/93	1600	Ship VIA FED EX	2/8/93	1600
			SGiang SAS	2/9/93	9:37 a.m.

SHIPPING NOTES

LAB NOTES

JM-34 (8/89)

John Mathes & Associates, Inc.
210 West Sand Bank Road
Columbia, Illinois 62236

CHAIN-OF-CUSTODY RECORD

C.O.C. SERIAL NO. 5307

PROJECT NAME: PASCO LF
PROJECT NUMBER: 624419 MAJOR TASK: 7022.35
SAMPLERS: LOU LAROSA
LAB DESTINATION: Source Analytical

SAMPLE NO.	DATE	TIME	COMP	GRAB	SAMPLE LOCATION	NO. OF CONTAINERS	VOC (8240)	SVOC (8270)	PEST/PCB (8080)	PPM (6010)	MS/MSD CN (6080)			ICED	CHEMICALS ADDED (PRESERVATIVES)	REMARKS (CHEMICAL ANALYSIS REQUEST FORM NUMBER IF APPLICABLE)
PLF-SBS-273	2-2-93	1040		X	Soil	3	2	✓	✓	✓	✓			X	N/A	
PLF-GW-008	↓	1100		X	WATER	2	2							X	↓	
PLF-GW-009	↓	1200		X	WATER	2	2							X	↓	

RELINQUISHED BY SIGNATURE	DATE	TIME	RECEIVED BY SIGNATURE	DATE	TIME
[illegible]	2/8/93	1600	SHIP VIA FED EX	2/8/93	1600
			Siang Sito	2/9/93	9:20 AM

SHIPPING NOTES

LAB NOTES

JM-34 (8/89)

MEMORANDUM

DATE: May 19, 1993

TO: Ted Wall, Environmental Engineer TW

FROM: Nels Cone, Chemist NC

SUBJECT: DATA VALIDATION OF CHEMICAL ANALYSIS FROM PASCO LANDFILL PHASE I REMEDIAL INVESTIGATION, PROJECT 624419, DATA SET 16A-16E

From February 2 to 4, 1993, forty samples were collected by Burlington field personnel. The identification numbers of these samples are listed below:

PLF-GW-008	PLF-SBS-274	PLF-SBS-282	PLF-SBS-290	PLF-SBS-298
PLF-GW-009	PLF-SBS-275	PLF-SBS-283	PLF-SBS-291	PLF-SBS-299
PLF-GW-010	PLF-SBS-276	PLF-SBS-284	PLF-SBS-292	PLF-SBS-300
PLF-GW-011	PLF-SBS-277	PLF-SBS-285	PLF-SBS-293	PLF-SBS-301
PLF-GW-012	PLF-SBS-278	PLF-SBS-286	PLF-SBS-294	PLF-SBS-302
PLF-GW-013	PLF-SBS-279	PLF-SBS-287	PLF-SBS-295	PLF-SBS-303
PLF-GW-014	PLF-SBS-280	PLF-SBS-288	PLF-SBS-296	PLF-SBS-304
PLF-SBS-273	PLF-SBS-281	PLF-SBS-289	PLF-SBS-297	PLF-SBS-305

These samples were then submitted to Sound Analytical Services, of Tacoma, Washington (Work order 30100). I performed a data quality review of the analytical results receiving priority pollutant metals (PPM) analysis (USEPA SW-846, Method 6010) in accordance with the USEPA Contract Laboratory Program (CLP) Document Number ILM02.0. I performed a data quality review of the analytical results from pesticide/PCB (USEPA SW-846, Method 8080), semivolatile compound (Method 8270), and volatile compound (Method 8240) analysis, in accordance with the USEPA CLP Document Number 0LM01.0. There are no CLP documents specific for evaluation of chlorinated herbicides (Method 8150). However, CLP documents were also relied upon for advisory guidance for these analyses. My findings and recommendations are summarized below.

FINDINGS

Properly completed chain-of-custody forms were included with documented signatures from field to laboratory receipt. All samples were shown as having been properly iced and received in good condition. Holding, extraction, and analysis times for all samples met the required guidelines, with the exception of semivolatile analysis for sample PLF-SBS-273 (this sample had no detections of semivolatile target compounds). All samples received the requested analyses.

16A:

For volatile compound analysis, methylene chloride, toluene, and acetone were detected in the method blanks; results did not always receive the appropriate "B" data qualifier flag to indicate this. Surrogate compound recoveries, as well as system monitoring compound recoveries, met CLP-required quality control (QC) limits for the samples, the accompanying method blank and matrix spikes. Matrix spike/matrix spike duplicate analyses met required QC criteria with the exception of toluene and trichloroethene recoveries for water matrix only. However, these two compounds were not found in the samples, and overall analytical accuracy remains intact. A search for tentatively-identified compounds (TIC) was performed, and several were found. Per CLP protocol, they received the appropriate "J data qualifier flag. Requisite instrument tuning check with bromofluorobenzene (BFB) documented gas chromatograph/mass spectra (GC/MS) performance. All internal standards' retention times met required QC limits. Initial calibration data displayed all analytes within required QC limits with the exception of xylenes. Continuing calibration verification displayed all compounds within advisory QC limits, with the exception of tetrachloroethene and 1,1,2-trichloroethane. These compounds were not detected in the samples. Per CLP protocol, no data qualifier flags are needed. Additional QC was supplied in the form of the laboratory worksheets, and GC/MS printouts for the samples method blank, matrix spikes, and calibration standards. Data consistency was demonstrated throughout.

16B:

Semivolatile analysis displayed surrogate recoveries within required QC limits for all samples, method blank, and matrix spikes. Matrix spike/matrix spike duplicate analyses displayed required analytical accuracy. Sample results report that di-n-butylphthalate and bis(2-ethylhexyl)phthalate were found. A chromatograph comparison with the associated method blank did not reveal comparable peaks. However, these analytes have been demonstrated as significant laboratory contaminants by our subcontractor (SAS). Based upon this experience, it is my professional decision that these reported analytes be accompanied by a "B" data qualifier flag. Requisite instrument tuning check with DFTPP documented GC/MS performance. Initial calibration checks met minimum relative response factors. Continuing calibration checks met advisory QC limits for all compounds. Internal calibration standards met all QC criteria for retention times and area response. A search for tentatively-identified compounds (TIC) was performed and several were found. Per CLP protocol, they received the appropriate "J" data qualifier flag. Supporting chromatograms demonstrated data consistency for all samples, method blank, and matrix spikes.

16C:

All pesticide/PCB analyses were performed using dual column confirmation (columns DB-608 and DB-5) as required by CLP protocol. Surrogate compound recoveries for the analyses met required QC limits for all analyses. Method blank analyses contained no contaminants and no corrections were required. Matrix spike/matrix spike duplicate analyses met required QC guidelines. Initial calibration of columns DB-5 displayed appropriate analytical performance. Initial calibration data of column DB-608 displays 4,4'-DDT, 4,4'-DDD, endrin, and methoxychlor out of QC limits. These compounds were not detected in the samples using either column, and no data qualifier flags are used. Analyte resolution and continuing calibration verification met expected QC limits for both columns. Dual column chromatograms were included for all samples, the method blank, method spike, and calibration standards. The chromatograms have been annotated with quantitation values calculated from the average response factors as needed by the laboratory. The reported summary information appears consistent with this data.

16D

The chlorinated herbicide method blank contained no contaminants and no corrections were used. Surrogate compound (2,4,6-Tribromophenol) recoveries met advisory QC limits for most analyses with the exception of samples PLF-SBS-278, PLF-SBS-281, PLF-SBS-282, PLF-SBS-286, and PLF-SBS-295. However, no target compounds were detected in the samples, and no data qualifier flags are used. Matrix spike/matrix spike duplicate results indicate all required QC limits were met with exception of the compound dalapon and dinoseb. However, these analytes were not detected in any of the samples and no data qualifier flags were are used. Additional QC was supplied in the form of GC/MS data for the samples, matrix spike, and continuing calibration data. Consistent dilution factors and proper data qualifier flags accompanied the analytical results as needed.

16E:

All metal analyses were performed by inductively coupled plasma (ICP) analysis, except mercury, which received cold vapor atomic absorption (CVAA) analysis. Duplicate analyses did not meet QC limits required for zinc, cadmium, chromium, copper, lead, and nickel; results received the appropriate CLP "*" data qualifier flag. All target analytes from the laboratory control samples (LCS) met expected QC limits except arsenic. Cadmium, chromium, copper, and zinc were found in the method blank; per CLP protocol, no further

qualifications are made. Thallium, mercury, silver, and antimony results do not meet required spike recovery QC criteria; results received the appropriate CLP "N" data qualifier flag. Zinc and copper did not meet required QC limits for serial dilution; results received the appropriate CLP "E" data qualifier flag. Post-digestion spike samples recoveries met required QC limits with the exception of silver; results did not receive the appropriate CLP "W" data qualifier flag. Due to the additive nature of QC issues regarding cadmium, chromium, silver, zinc and copper analyses, all results from these analytes can be considered as estimates only per CLP protocol. Initial and continuing calibration verification, check standards, ICP correction factors and line calibration data all met within required QC limits. Supporting documentation was supplied in the form of raw sample data consistent with reported summary information.

RECOMMENDATIONS

All reported detections of methylene chloride, toluene, acetone, di-n-butylphthalate, and bis(2-ethylhexyl)phthalate in these samples must be appended with a "B" data qualifier flag. All sample results from cadmium, chromium, silver, zinc and copper analysis must be appended with the CLP-metal "B" data qualifier flag to be considered estimated concentrations only. Semivolatile results from sample PLF-SBS-273 are unusable and must be rejected.

SOIL-GAS I4.1

SAMPLES PLF-SG-005, PLF-SG-008, PLF-SG-010,
PLF-SG-015, PLF-SG-017, PLF-SG-018,
PLF-SG-020, PLF-SG-027, PLF-SG-031,
PLF-SG-042, PLF-SG-043, PLF-SG-047,
PLF-SG-060, PLF-SG-061

SOUND ANALYTICAL SERVICES, INC.

SPECIALIZING IN INDUSTRIAL & TOXIC WASTE ANALYSIS

4813 PACIFIC HIGHWAY EAST, TACOMA, WASHINGTON 98424 - TELEPHONE (206) 922-2310 - FAX (206) 922-5047

To: Burlington Environmental

Date: January 28, 1993

PROJECT NUMBER: 624419

PROJECT NAME: Pasco Landfill

LABORATORY WORK ORDER NUMBER: 28072

RECEIVED

JAN 29 1993

Burlington Environmental Inc.
Technical Services

Three soil gas samples were collected on 10-26-92, and were received at the laboratory on 10-28-92. The samples were analyzed for volatile organic compounds in accordance with EPA SW-846 Method 8240, modified for soil gas analysis.

The enclosed package contains results and supporting raw data for the complete 8240 target analyte list. The previously submitted package included data for selected volatile compounds only. Note that all compounds for this data package were quantitated using the 0.5 ug/l standard relative response factor. The previously submitted package contained results that were quantitated based on the response factors of the two bracketing standards. As a result, the reported values for the previously reported compounds may differ slightly from the reported values in the revised package. The original package results should be disregarded.

Sample 28072-3 was analyzed on 10-29-92. Samples 28072-1 and 28072-2 were analyzed on 10-30-92, and required 1:20 and 1:100 dilutions respectively, due to high target analyte levels. Toluene, methylene chloride, and acetone were detected in the method blank associated with sample 28072-3. Acetone was detected in the method blank associated with samples 28072-1, 28072-2, and 28072-2D. Therefore, the reported concentrations of these compounds in the associated samples were flagged "B". The percent recoveries for 1,2-dichloroethene (surrogate) in samples 28072-1, 28072-2, and 27082-2D were slightly above acceptable QC limits, while the percent recovery for this surrogate was below acceptable limits in sample 28072-3. All other quality control parameters were within acceptable limits.

CHAIN OF CUSTODY

John Mathes & Associates, Inc.
210 West Sand Bank Road
Columbia, Illinois 62236

CHAIN-OF-CUSTODY RECORD

C.O.C. SERIAL NO. 5263

PROJECT NAME Pasco
PROJECT NUMBER 624419 MAJOR TASK 7020-14
SAMPLERS Dolan / Wood
LAB DESTINATION Sound Analytical

SAMPLE NO.	DATE	TIME	COMP	GRAB	SAMPLE LOCATION	NO. OF CONTAINERS	TYPE OF ANALYSIS: VOC								PRESERVATIVES: ICED	PRESERVATIVES: CHEMICALS ADDED	REMARKS (CHEMICAL ANALYSIS REQUEST FORM NUMBER IF APPLICABLE)
PLF-SG-005	10-26	1400		✓	PH-02	1	1								✓	NO	<1ppm TVOC
PLF-SG-008		1615		✓	PH-04	1	1								✓	NO	<1ppm TVOC
PLF-SG-010		1700		✓	PH-04	1	1								✓	NO	<1ppm TVOC

RELINQUISHED BY SIGNATURE	DATE	TIME	RECEIVED BY SIGNATURE	DATE	TIME
Gary Wood	10-27-92	1500	S Giang SAS	10/28/92	9:00 am

SHIPPING NOTES
Fedex Overnight

LAB NOTES
Method = SW-846 8240

JM-34 (8/89)

SAMPLE DATA SUMMARY PACKAGE

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SG-005

Lab Name: Sound Analytical Services Contract: -

Lab Code: SAS Case No.: - SAS No.: - SDG No.: -

Matrix: (soil/water) AIR Lab Sample ID: 28072-1

Sample wt/vol: 100 (g/mL) ML Lab File ID: D1373

Level: (low/med) Date Received: 10/26/92

% Moisture: not dec. Date Analyzed: 10/30/92

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 20

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	1	U
74-83-9-	Bromomethane	1	U
75-01-4-	Vinyl Chloride	1	U
75-00-3-	Chloroethane	1	U
75-09-2-	Methylene Chloride	6.3	
67-64-1-	Acetone	3.5	B
75-15-0-	Carbon Disulfide	1	U
75-35-4-	1,1-Dichloroethene	1	U
75-34-3-	1,1-Dichloroethane	7.2	
540-59-0-	1,2-Dichloroethene (total)	1	U
67-66-3-	Chloroform	1	U
107-06-2-	1,2-Dichloroethane	1	U
78-93-3-	2-Butanone	1	U
71-55-6-	1,1,1-Trichloroethane	12	
56-23-5-	Carbon Tetrachloride	1	U
75-27-4-	Bromodichloromethane	1	U
78-87-5-	1,2-Dichloropropane	1	U
10061-01-5-	cis-1,3-Dichloropropene	1	U
79-01-6-	Trichloroethene	4.2	
124-48-1-	Dibromochloromethane	1	U
79-00-5-	1,1,2-Trichloroethane	1	U
71-43-2-	Benzene	1	U
10061-02-6-	trans-1,3-Dichloropropene	1	U
75-25-2-	Bromoform	1	U
108-10-1-	4-Methyl-2-Pentanone	1	U
591-78-6	2-Hexanone	1	U
127-18-4-	Tetrachloroethene	2	
79-34-5-	1,1,2,2-Tetrachloroethane	1	U
108-88-3-	Toluene	3.8	
108-90-7-	Chlorobenzene	1	U
100-41-4-	Ethylbenzene	1	U
100-42-5-	Styrene	1	U
1330-20-7-	Xylene (total)	1	U

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SG-008

Lab Name: Sound Analytical Services Contract: -

Lab Code: SAS Case No.: - SAS No.: - SDG No.: -

Matrix: (soil/water) AIR Lab Sample ID: 28072-2

Sample wt/vol: 100 (g/mL) ML Lab File ID: D1374

Level: (low/med) Date Received: 10/26/92

% Moisture: not dec. Date Analyzed: 10/30/92

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 100

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	5	U
74-83-9	Bromomethane	5	U
75-01-4	Vinyl Chloride	5	U
75-00-3	Chloroethane	5	U
75-09-2	Methylene Chloride	14	
67-64-1	Acetone	16	B
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	60	
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	13	
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	5	U
71-55-6	1,1,1-Trichloroethane	27	
56-23-5	Carbon Tetrachloride	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	36	
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SG-008 D

Lab Name: Sound Analytical Services Contract: -

Lab Code: SAS Case No.: - SAS No.: - SDG No.: -

Matrix: (soil/water) AIR Lab Sample ID: 28072-2D

Sample wt/vol: 100 (g/mL) ML Lab File ID: D1375

Level: (low/med) Date Received: 10/26/92

% Moisture: not dec. Date Analyzed: 10/30/92

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 100

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	0.05	U
74-83-9-	Bromomethane	0.05	U
75-01-4-	Vinyl Chloride	0.05	U
75-00-3-	Chloroethane	0.05	U
75-09-2-	Methylene Chloride	17	
67-64-1-	Acetone	20	B
75-15-0-	Carbon Disulfide	0.05	U
75-35-4-	1,1-Dichloroethene	0.05	U
75-34-3-	1,1-Dichloroethane	61	
540-59-0-	1,2-Dichloroethene (total)	0.05	U
67-66-3-	Chloroform	14	U
107-06-2-	1,2-Dichloroethane	0.05	U
78-93-3-	2-Butanone	0.05	U
71-55-6-	1,1,1-Trichloroethane	27	
56-23-5-	Carbon Tetrachloride	0.05	U
75-27-4-	Bromodichloromethane	0.05	U
78-87-5-	1,2-Dichloropropane	0.05	U
10061-01-5-	cis-1,3-Dichloropropene	0.05	U
79-01-6-	Trichloroethene	35	
124-48-1-	Dibromochloromethane	0.05	U
79-00-5-	1,1,2-Trichloroethane	0.05	U
71-43-2-	Benzene	0.05	U
10061-02-6-	trans-1,3-Dichloropropene	0.05	U
75-25-2-	Bromoform	0.05	U
108-10-1-	4-Methyl-2-Pentanone	0.05	U
591-78-6	2-Hexanone	0.05	U
127-18-4-	Tetrachloroethene	0.05	U
79-34-5-	1,1,2,2-Tetrachloroethane	0.05	U
108-88-3-	Toluene	9.6	
108-90-7-	Chlorobenzene	0.05	U
100-41-4-	Ethylbenzene	0.05	U
100-42-5-	Styrene	0.05	U
1330-20-7-	Xylene (total)	0.05	U

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SG-010

Lab Name: Sound Analytical Services Contract: -

Lab Code: SAS Case No.: - SAS No.: - SDG No.: -

Matrix: (soil/water) AIR Lab Sample ID: 28072-3

Sample wt/vol: 100 (g/mL) ML Lab File ID: D1362

Level: (low/med) Date Received: 10/26/92

% Moisture: not dec. Date Analyzed: 10/29/92

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1

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		U
74-83-9	Bromomethane		U
75-01-4	Vinyl Chloride		U
75-00-3	Chloroethane		U
75-09-2	Methylene Chloride	1.4	B
67-64-1	Acetone		U
75-15-0	Carbon Disulfide		U
75-35-4	1,1-Dichloroethene		U
75-34-3	1,1-Dichloroethane	0.23	
540-59-0	1,2-Dichloroethene (total)		U
67-66-3	Chloroform		U
107-06-2	1,2-Dichloroethane		U
78-93-3	2-Butanone		U
71-55-6	1,1,1-Trichloroethane	0.21	
56-23-5	Carbon Tetrachloride		U
75-27-4	Bromodichloromethane		U
78-87-5	1,2-Dichloropropane		U
10061-01-5	cis-1,3-Dichloropropene		U
79-01-6	Trichloroethene	0.27	
124-48-1	Dibromochloromethane		U
79-00-5	1,1,2-Trichloroethane		U
71-43-2	Benzene		U
10061-02-6	trans-1,3-Dichloropropene		U
75-25-2	Bromoform		U
108-10-1	4-Methyl-2-Pentanone		U
591-78-6	2-Hexanone		U
127-18-4	Tetrachloroethene		U
79-34-5	1,1,2,2-Tetrachloroethane		U
108-88-3	Toluene	0.23	B
108-90-7	Chlorobenzene		U
100-41-4	Ethylbenzene		U
100-42-5	Styrene		U
1330-20-7	Xylene (total)		U

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK03

Lab Name: Sound Analytical Services Contract: -

Lab Code: SAS Case No.: - SAS No.: - SDG No.: -

Matrix: (soil/water) AIR Lab Sample ID: VBLK03

Sample wt/vol: 100 (g/mL) ML Lab File ID: D1358

Level: (low/med) Date Received: -

% Moisture: not dec. Date Analyzed: 10/29/92

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: -

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	0.05	U
74-83-9	Bromomethane	0.05	U
75-01-4	Vinyl Chloride	0.05	U
75-00-3	Chloroethane	0.05	U
75-09-2	Methylene Chloride	0.37	
67-64-1	Acetone	0.18	
75-15-0	Carbon Disulfide	0.05	U
75-35-4	1,1-Dichloroethene	0.05	U
75-34-3	1,1-Dichloroethane	0.05	U
540-59-0	1,2-Dichloroethene (total)	0.05	U
67-66-3	Chloroform	0.05	U
107-06-2	1,2-Dichloroethane	0.05	U
78-93-3	2-Butanone	0.05	U
71-55-6	1,1,1-Trichloroethane	0.05	U
56-23-5	Carbon Tetrachloride	0.05	U
75-27-4	Bromodichloromethane	0.05	U
78-87-5	1,2-Dichloropropane	0.05	U
10061-01-5	cis-1,3-Dichloropropene	0.05	U
79-01-6	Trichloroethene	0.05	U
124-48-1	Dibromochloromethane	0.05	U
79-00-5	1,1,2-Trichloroethane	0.05	U
71-43-2	Benzene	0.05	U
10061-02-6	trans-1,3-Dichloropropene	0.05	U
75-25-2	Bromoform	0.05	U
108-10-1	4-Methyl-2-Pentanone	0.05	U
591-78-6	2-Hexanone	0.05	U
127-18-4	Tetrachloroethene	0.05	U
79-34-5	1,1,2,2-Tetrachloroethane	0.05	U
108-88-3	Toluene	0.3	
108-90-7	Chlorobenzene	0.05	U
100-41-4	Ethylbenzene	0.05	U
100-42-5	Styrene	0.05	U
1330-20-7	Xylene (total)	0.05	U

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK04

Lab Name: Sound Analytical Services Contract: -

Lab Code: SAS Case No.: - SAS No.: - SDG No.: -

Matrix: (soil/water) AIR Lab Sample ID: VBLK04

Sample wt/vol: 100 (g/mL) ML Lab File ID: D1372

Level: (low/med) Date Received: -

% Moisture: not dec. Date Analyzed: 10/30/92

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: -

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	0.05	U
74-83-9	Bromomethane	0.05	U
75-01-4	Vinyl Chloride	0.05	U
75-00-3	Chloroethane	0.05	U
75-09-2	Methylene Chloride	0.05	U
67-64-1	Acetone	0.12	
75-15-0	Carbon Disulfide	0.05	U
75-35-4	1,1-Dichloroethene	0.05	U
75-34-3	1,1-Dichloroethane	0.05	U
540-59-0	1,2-Dichloroethene (total)	0.05	U
67-66-3	Chloroform	0.05	U
107-06-2	1,2-Dichloroethane	0.05	U
78-93-3	2-Butanone	0.05	U
71-55-6	1,1,1-Trichloroethane	0.05	U
56-23-5	Carbon Tetrachloride	0.05	U
75-27-4	Bromodichloromethane	0.05	U
78-87-5	1,2-Dichloropropane	0.05	U
10061-01-5	cis-1,3-Dichloropropene	0.05	U
79-01-6	Trichloroethene	0.05	U
124-48-1	Dibromochloromethane	0.05	U
79-00-5	1,1,2-Trichloroethane	0.05	U
71-43-2	Benzene	0.05	U
10061-02-6	trans-1,3-Dichloropropene	0.05	U
75-25-2	Bromoform	0.05	U
108-10-1	4-Methyl-2-Pentanone	0.05	U
591-78-6	2-Hexanone	0.05	U
127-18-4	Tetrachloroethene	0.05	U
79-34-5	1,1,2,2-Tetrachloroethane	0.05	U
108-88-3	Toluene	0.05	U
108-90-7	Chlorobenzene	0.05	U
100-41-4	Ethylbenzene	0.05	U
100-42-5	Styrene	0.05	U
1330-20-7	Xylene (total)	0.05	U

DATA QUALIFIER DEFINITIONS

SOUND ANALYTICAL SERVICES, INC.

SPECIALIZING IN INDUSTRIAL & TOXIC WASTE ANALYSIS

4813 PACIFIC HIGHWAY EAST, TACOMA, WASHINGTON 98424 - TELEPHONE (206) 922-2310 - FAX (206) 922-5047

DATA QUALIFIER FLAGS

ND: Indicates that the analyte was analyzed for but was not detected. The associated numerical value is the practical quantitation limit, corrected for sample dilution.

J: The analyte was analyzed for and positively identified, but the associated numerical value is an estimated quantity.

C: The identification of this analyte was confirmed by GC/MS.

B: This analyte was also detected in the associated method blank. There is a possibility of blank contamination.

E: The concentration of this analyte exceeded the instrument calibration range.

D: The reported result for this analyte is calculated based on a secondary dilution factor.

A: This TIC is a suspected aldol-condensation product.

M: Quantitation Limits are elevated due to matrix interferences.

S: The calibration quality control criteria for this compound were not met. The reported concentration should be considered an estimated quantity.

X1: Contaminant does not appear to be "typical" product. Elution pattern suggests it may be _____.

X2: Contaminant does not appear to be "typical" product. Further testing is suggested for identification.

X3: Identification and quantification of peaks was complicated by matrix interference; GC/MS confirmation is recommended.

X4: RPD for duplicates outside QC limits. Sample was re-analyzed with similar results. Sample matrix is nonhomogeneous.

X4a: RPD for duplicates outside QC limits due to analyte concentration near the method practical quantitation limit/detection limit.

X5: Matrix spike was diluted out during analysis.

X6: Recovery of matrix spike outside QC limits. Sample was re-analyzed with similar results.

X7: Recovery of matrix spike outside QC limits. Matrix interference is indicated by blank spike recovery data.

X8: Surrogate was diluted out during analysis.

X9: Surrogate recovery outside QC limits due to matrix composition.

X10: Surrogate recovery outside QC limits due to high contaminant levels.

SOUND ANALYTICAL SERVICES, INC.

SPECIALIZING IN INDUSTRIAL & TOXIC WASTE ANALYSIS

4813 PACIFIC HIGHWAY EAST, TACOMA, WASHINGTON 98424 - TELEPHONE (206) 922-2310 - FAX (206) 922-5047

RECEIVED

JAN 29 1993

Burlington Environmental Inc.
Technical Services

To: Burlington Environmental

Date: January 28, 1993

PROJECT NUMBER: 624419

PROJECT NAME: Pasco Landfill

LABORATORY WORK ORDER NUMBER: 28178

Six soil gas samples were collected on 10-28-92 and 10-29-92, and were received at the laboratory on 10-30-92. The samples were analyzed for volatile organic compounds in accordance with EPA SW-846 Method 8240, modified for soil gas analysis.

The enclosed package contains results and supporting raw data for the complete 8240 target analyte list. The previously submitted package included data for selected volatile compounds only. Note that all compounds for this data package were quantitated using the 0.5 ug/l standard relative response factor. The previously submitted package contained results that were quantitated based on the response factors of the two bracketing standards. As a result, the reported values for the previously reported compounds may differ slightly from the reported values in the revised package. The original package results should be disregarded.

Samples 28178-2 through 28178-4 were analyzed on 11-02-92. Samples 28178-1, 28178-5, and 28178-6 were analyzed on 11-03-92. Sample 28178-1 required a 1:2 dilution due to high target analyte levels present in the sample. A duplicate analysis was performed for sample 28178-5.

Methylene chloride and acetone were detected in the method blank associated with samples 28178-2, 28178-3, and 28178-4. Acetone was detected in the method blank associated with samples 28178-1, 28178-5, 28178-5D, and 28178-6. Therefore, the reported concentrations of these compounds in the associated samples were flagged "B". All quality control parameters were within acceptable limits.

CHAIN OF CUSTODY

John Mathes & Associates, Inc.
210 West Sand Bank Road
Columbia, Illinois 62236

CHAIN-OF-CUSTODY RECORD

C.O.C. SERIAL NO. 5264

PROJECT NAME Pasco
PROJECT NUMBER 624419 MAJOR TASK 7020-14
SAMPLERS Wood / Dolan
LAB DESTINATION Sound

SAMPLE NO.	DATE	TIME	COMP	GRAB	SAMPLE LOCATION	NO. OF CONTAINERS	TYPE OF ANALYSIS: VOC							ICED	PRESERVATIVES: CHEMICALS ADDED	REMARKS (CHEMICAL ANALYSIS REQUEST FORM NUMBER IF APPLICABLE)
PLF-SG-015	10-28	1315		✓		1	1							✓	NO	<1 ppm TVOC
PLF-SG-017		1430		✓		1	1							✓	NO	<1 ppm TVOC
PLF-SG-018		1500		✓		1	1							✓	NO	<1 ppm TVOC
PLF-SG-020		1600		✓		1	1							✓	NO	<1 ppm TVOC
PLF-SG-027	10-29	0845		✓		1	1							✓	NO	<1 ppm TVOC
PLF-SG-031		1200		✓		1	1							✓	NO	<1 ppm TVOC

RELINQUISHED BY SIGNATURE	DATE	TIME	RECEIVED BY SIGNATURE	DATE	TIME
Gary Wood	10-29-92	1300	SGiang	10/29/92	5:15 pm

SHIPPING NOTES
Fedex Overnight

LAB NOTES
SW-846 Method 8240

JM-34 (8/89)

SAMPLE DATA SUMMARY PACKAGE

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SG-015

Lab Name: Sound Analytical Services Contract: -

Lab Code: SAS Case No.: - SAS No.: - SDG No.: -

Matrix: (soil/water) AIR Lab Sample ID: 28178-1

Sample wt/vol: 100 (g/mL) ML Lab File ID: D1390

Level: (low/med) Date Received: 10/28/92

% Moisture: not dec. Date Analyzed: 11/03/92

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 2

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	0.1	U
74-83-9	Bromomethane	0.1	U
75-01-4	Vinyl Chloride	0.1	U
75-00-3	Chloroethane	0.1	U
75-09-2	Methylene Chloride	0.19	B
67-64-1	Acetone	0.1	U
75-15-0	Carbon Disulfide	0.1	U
75-35-4	1,1-Dichloroethene	0.48	
75-34-3	1,1-Dichloroethane	0.71	
540-59-0	1,2-Dichloroethene (total)	0.1	U
67-66-3	Chloroform	0.58	
107-06-2	1,2-Dichloroethane	0.1	U
78-93-3	2-Butanone	0.1	U
71-55-6	1,1,1-Trichloroethane	3.8	
56-23-5	Carbon Tetrachloride	0.1	U
75-27-4	Bromodichloromethane	0.1	U
78-87-5	1,2-Dichloropropane	0.1	U
10061-01-5	cis-1,3-Dichloropropene	0.1	U
79-01-6	Trichloroethene	1.5	
124-48-1	Dibromochloromethane	0.1	U
79-00-5	1,1,2-Trichloroethane	0.1	U
71-43-2	Benzene	0.1	U
10061-02-6	trans-1,3-Dichloropropene	0.1	U
75-25-2	Bromoform	0.1	U
108-10-1	4-Methyl-2-Pentanone	0.1	U
591-78-6	2-Hexanone	0.1	U
127-18-4	Tetrachloroethene	0.1	U
79-34-5	1,1,2,2-Tetrachloroethane	0.1	U
108-88-3	Toluene	0.18	U
108-90-7	Chlorobenzene	0.1	U
100-41-4	Ethylbenzene	0.1	U
100-42-5	Styrene	0.1	U
1330-20-7	Xylene (total)	0.1	U

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SG-017

Lab Name: Sound Analytical Services Contract: -

Lab Code: SAS Case No.: - SAS No.: - SDG No.: -

Matrix: (soil/water) AIR Lab Sample ID: 28178-2

Sample wt/vol: 100 (g/mL) ML Lab File ID: D1382

Level: (low/med) Date Received: 10/28/92

% Moisture: not dec. Date Analyzed: 11/02/02

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1

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	0.05	U
74-83-9	Bromomethane	0.05	U
75-01-4	Vinyl Chloride	0.05	U
75-00-3	Chloroethane	0.05	U
75-09-2	Methylene Chloride	0.22	B
67-64-1	Acetone	0.14	B
75-15-0	Carbon Disulfide	0.05	U
75-35-4	1,1-Dichloroethene	0.05	U
75-34-3	1,1-Dichloroethane	0.05	U
540-59-0	1,2-Dichloroethene (total)	0.05	U
67-66-3	Chloroform	0.05	U
107-06-2	1,2-Dichloroethane	0.05	U
78-93-3	2-Butanone	0.05	U
71-55-6	1,1,1-Trichloroethane	0.2	
56-23-5	Carbon Tetrachloride	0.05	U
75-27-4	Bromodichloromethane	0.05	U
78-87-5	1,2-Dichloropropane	0.05	U
10061-01-5	cis-1,3-Dichloropropene	0.05	U
79-01-6	Trichloroethene	0.1	
124-48-1	Dibromochloromethane	0.05	U
79-00-5	1,1,2-Trichloroethane	0.05	U
71-43-2	Benzene	0.05	U
10061-02-6	trans-1,3-Dichloropropene	0.05	U
75-25-2	Bromoform	0.05	U
108-10-1	4-Methyl-2-Pentanone	0.05	U
591-78-6	2-Hexanone	0.05	U
127-18-4	Tetrachloroethene	0.05	U
79-34-5	1,1,2,2-Tetrachloroethane	0.05	U
108-88-3	Toluene	0.15	
108-90-7	Chlorobenzene	0.05	U
100-41-4	Ethylbenzene	0.05	U
100-42-5	Styrene	0.05	U
1330-20-7	Xylene (total)	0.05	U

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SG-018

Lab Name: Sound Analytical Services Contract: -

Lab Code: SAS Case No.: - SAS No.: - SDG No.: -

Matrix: (soil/water) AIR Lab Sample ID: 28178-3

Sample wt/vol: 100 (g/mL) ML Lab File ID: D1383

Level: (low/med) Date Received: 10/28/92

% Moisture: not dec. Date Analyzed: 11/02/92

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1

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	0.05	U
74-83-9	Bromomethane	0.05	U
75-01-4	Vinyl Chloride	0.05	U
75-00-3	Chloroethane	0.05	U
75-09-2	Methylene Chloride	0.12	B
67-64-1	Acetone	0.32	B
75-15-0	Carbon Disulfide	0.05	U
75-35-4	1,1-Dichloroethene	0.05	U
75-34-3	1,1-Dichloroethane	0.05	U
540-59-0	1,2-Dichloroethene (total)	0.05	U
67-66-3	Chloroform	0.05	U
107-06-2	1,2-Dichloroethane	0.05	U
78-93-3	2-Butanone	0.05	U
71-55-6	1,1,1-Trichloroethane	0.18	
56-23-5	Carbon Tetrachloride	0.05	U
75-27-4	Bromodichloromethane	0.05	U
78-87-5	1,2-Dichloropropane	0.05	U
10061-01-5	cis-1,3-Dichloropropene	0.05	U
79-01-6	Trichloroethene	0.11	
124-48-1	Dibromochloromethane	0.05	U
79-00-5	1,1,2-Trichloroethane	0.05	U
71-43-2	Benzene	0.05	U
10061-02-6	trans-1,3-Dichloropropene	0.05	U
75-25-2	Bromoform	0.05	U
108-10-1	4-Methyl-2-Pentanone	0.05	U
591-78-6	2-Hexanone	0.05	U
127-18-4	Tetrachloroethene	0.05	U
79-34-5	1,1,2,2-Tetrachloroethane	0.05	U
108-88-3	Toluene	0.17	
108-90-7	Chlorobenzene	0.05	U
100-41-4	Ethylbenzene	0.05	U
100-42-5	Styrene	0.05	U
1330-20-7	Xylene (total)	0.05	U

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SG-020

Lab Name: Sound Analytical Services Contract: -

Lab Code: SAS Case No.: - SAS No.: - SDG No.: -

Matrix: (soil/water) AIR Lab Sample ID: 28178-4

Sample wt/vol: 100 (g/mL) ML Lab File ID: D1384

Level: (low/med) Date Received: 10/28/92

% Moisture: not dec. Date Analyzed: 11/02/92

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1

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	0.05	U
74-83-9	Bromomethane	0.05	U
75-01-4	Vinyl Chloride	0.05	U
75-00-3	Chloroethane	0.05	U
75-09-2	Methylene Chloride	0.52	B
67-64-1	Acetone	0.18	B
75-15-0	Carbon Disulfide	0.05	U
75-35-4	1,1-Dichloroethene	0.05	U
75-34-3	1,1-Dichloroethane	0.05	U
540-59-0	1,2-Dichloroethene (total)	0.05	U
67-66-3	Chloroform	0.05	U
107-06-2	1,2-Dichloroethane	0.05	U
78-93-3	2-Butanone	0.05	U
71-55-6	1,1,1-Trichloroethane	0.3	
56-23-5	Carbon Tetrachloride	0.05	U
75-27-4	Bromodichloromethane	0.05	U
78-87-5	1,2-Dichloropropane	0.05	U
10061-01-5	cis-1,3-Dichloropropene	0.05	U
79-01-6	Trichloroethene	0.05	U
124-48-1	Dibromochloromethane	0.05	U
79-00-5	1,1,2-Trichloroethane	0.05	U
71-43-2	Benzene	0.05	U
10061-02-6	trans-1,3-Dichloropropene	0.05	U
75-25-2	Bromoform	0.05	U
108-10-1	4-Methyl-2-Pentanone	0.05	U
591-78-6	2-Hexanone	0.05	U
127-18-4	Tetrachloroethene	0.05	U
79-34-5	1,1,2,2-Tetrachloroethane	0.05	U
108-88-3	Toluene	0.33	
108-90-7	Chlorobenzene	0.05	U
100-41-4	Ethylbenzene	0.05	U
100-42-5	Styrene	0.05	U
1330-20-7	Xylene (total)	0.05	U

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SG-027

Lab Name: Sound Analytical Services Contract: -

Lab Code: SAS Case No.: - SAS No.: - SDG No.: -

Matrix: (soil/water) AIR Lab Sample ID: 28178-5

Sample wt/vol: 100 (g/mL) ML Lab File ID: D1388

Level: (low/med) Date Received: 10/28/92

% Moisture: not dec. Date Analyzed: 11/03/92

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1

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	0.05	U
74-83-9	Bromomethane	0.05	U
75-01-4	Vinyl Chloride	0.05	U
75-00-3	Chloroethane	0.05	U
75-09-2	Methylene Chloride	0.1	B
67-64-1	Acetone	0.13	
75-15-0	Carbon Disulfide	0.05	U
75-35-4	1,1-Dichloroethene	0.05	U
75-34-3	1,1-Dichloroethane	0.05	U
540-59-0	1,2-Dichloroethene (total)	0.05	U
67-66-3	Chloroform	0.18	
107-06-2	1,2-Dichloroethane	0.05	U
78-93-3	2-Butanone	0.05	U
71-55-6	1,1,1-Trichloroethane	0.05	U
56-23-5	Carbon Tetrachloride	0.05	U
75-27-4	Bromodichloromethane	0.05	U
78-87-5	1,2-Dichloropropane	0.05	U
10061-01-5	cis-1,3-Dichloropropene	0.05	U
79-01-6	Trichloroethene	0.05	U
124-48-1	Dibromochloromethane	0.05	U
79-00-5	1,1,2-Trichloroethane	0.05	U
71-43-2	Benzene	0.05	U
10061-02-6	trans-1,3-Dichloropropene	0.05	U
75-25-2	Bromoform	0.05	U
108-10-1	4-Methyl-2-Pentanone	0.05	U
591-78-6	2-Hexanone	0.05	U
127-18-4	Tetrachloroethene	0.1	
79-34-5	1,1,2,2-Tetrachloroethane	0.05	U
108-88-3	Toluene	0.11	
108-90-7	Chlorobenzene	0.05	U
100-41-4	Ethylbenzene	0.05	U
100-42-5	Styrene	0.05	U
1330-20-7	Xylene (total)	0.05	U

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SG-027D

Lab Name: Sound Analytical Services Contract: -

Lab Code: SAS Case No.: - SAS No.: - SDG No.: -

Matrix: (soil/water) AIR Lab Sample ID: 28178-5D

Sample wt/vol: 100 (g/mL) ML Lab File ID: D1391

Level: (low/med) Date Received: 10/28/92

% Moisture: not dec. Date Analyzed: 11/03/92

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1

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	0.05	U
74-83-9	Bromomethane	0.05	U
75-01-4	Vinyl Chloride	0.05	U
75-00-3	Chloroethane	0.05	U
75-09-2	Methylene Chloride	0.17	B
67-64-1	Acetone	0.17	B
75-15-0	Carbon Disulfide	0.05	U
75-35-4	1,1-Dichloroethene	0.05	U
75-34-3	1,1-Dichloroethane	0.05	U
540-59-0	1,2-Dichloroethene (total)	0.05	U
67-66-3	Chloroform	0.05	U
107-06-2	1,2-Dichloroethane	0.05	U
78-93-3	2-Butanone	0.05	U
71-55-6	1,1,1-Trichloroethane	0.18	
56-23-5	Carbon Tetrachloride	0.05	U
75-27-4	Bromodichloromethane	0.05	U
78-87-5	1,2-Dichloropropane	0.05	U
10061-01-5	cis-1,3-Dichloropropene	0.05	U
79-01-6	Trichloroethene	0.05	U
124-48-1	Dibromochloromethane	0.05	U
79-00-5	1,1,2-Trichloroethane	0.05	U
71-43-2	Benzene	0.05	U
10061-02-6	trans-1,3-Dichloropropene	0.05	U
75-25-2	Bromoform	0.05	U
108-10-1	4-Methyl-2-Pentanone	0.05	U
591-78-6	2-Hexanone	0.05	U
127-18-4	Tetrachloroethene	0.1	
79-34-5	1,1,2,2-Tetrachloroethane	0.05	U
108-88-3	Toluene	0.16	
108-90-7	Chlorobenzene	0.05	U
100-41-4	Ethylbenzene	0.05	U
100-42-5	Styrene	0.05	U
1330-20-7	Xylene (total)	0.05	U

FOJ 1-28-

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SG-031

Lab Name: Sound Analytical Services Contract: -

Lab Code: SAS Case No.: - SAS No.: - SDG No.: -

Matrix: (soil/water) AIR Lab Sample ID: 28178-6

Sample wt/vol: 100 (g/mL) ML Lab File ID: D1389

Level: (low/med) Date Received: 10/28/92

% Moisture: not dec. Date Analyzed: 11/03/92

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1

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	0.05	U
74-83-9-	Bromomethane	0.05	U
75-01-4-	Vinyl Chloride	0.05	U
75-00-3-	Chloroethane	0.05	U
75-09-2-	Methylene Chloride	0.05	U
67-64-1-	Acetone	0.1	B
75-15-0-	Carbon Disulfide	0.05	U
75-35-4-	1,1-Dichloroethene	0.05	U
75-34-3-	1,1-Dichloroethane	0.05	U
540-59-0-	1,2-Dichloroethene (total)	0.05	U
67-66-3-	Chloroform	0.05	U
107-06-2-	1,2-Dichloroethane	0.05	U
78-93-3-	2-Butanone	0.05	U
71-55-6-	1,1,1-Trichloroethane	0.05	U
56-23-5-	Carbon Tetrachloride	0.05	U
75-27-4-	Bromodichloromethane	0.05	U
78-87-5-	1,2-Dichloropropane	0.05	U
10061-01-5-	cis-1,3-Dichloropropene	0.05	U
79-01-6-	Trichloroethene	0.05	U
124-48-1-	Dibromochloromethane	0.05	U
79-00-5-	1,1,2-Trichloroethane	0.05	U
71-43-2-	Benzene	0.05	U
10061-02-6-	trans-1,3-Dichloropropene	0.05	U
75-25-2-	Bromoform	0.05	U
108-10-1-	4-Methyl-2-Pentanone	0.05	U
591-78-6	2-Hexanone	0.05	U
127-18-4-	Tetrachloroethene	0.05	U
79-34-5-	1,1,2,2-Tetrachloroethane	0.05	U
108-88-3-	Toluene	0.05	U
108-90-7-	Chlorobenzene	0.05	U
100-41-4-	Ethylbenzene	0.05	U
100-42-5-	Styrene	0.05	U
1330-20-7-	Xylene (total)	0.05	U

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1A
VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK01

Lab Name: Sound Analytical Services Contract: -

Lab Code: SAS Case No.: - SAS No.: - SDG No.: -

Matrix: (soil/water) AIR Lab Sample ID: VBLK01

Sample wt/vol: 100 (g/mL) ML Lab File ID: D1380A

Level: (low/med) Date Received: -

% Moisture: not dec. Date Analyzed: 11/02/92

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: -

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	0.05	U
74-83-9	Bromomethane	0.05	U
75-01-4	Vinyl Chloride	0.05	U
75-00-3	Chloroethane	0.05	U
75-09-2	Methylene Chloride	0.34	
67-64-1	Acetone	0.097	
75-15-0	Carbon Disulfide	0.05	U
75-35-4	1,1-Dichloroethene	0.05	U
75-34-3	1,1-Dichloroethane	0.05	U
540-59-0	1,2-Dichloroethene (total)	0.05	U
67-66-3	Chloroform	0.05	U
107-06-2	1,2-Dichloroethane	0.05	U
78-93-3	2-Butanone	0.05	U
71-55-6	1,1,1-Trichloroethane	0.05	U
56-23-5	Carbon Tetrachloride	0.05	U
75-27-4	Bromodichloromethane	0.05	U
78-87-5	1,2-Dichloropropane	0.05	U
10061-01-5	cis-1,3-Dichloropropene	0.05	U
79-01-6	Trichloroethene	0.05	U
124-48-1	Dibromochloromethane	0.05	U
79-00-5	1,1,2-Trichloroethane	0.05	U
71-43-2	Benzene	0.05	U
10061-02-6	trans-1,3-Dichloropropene	0.05	U
75-25-2	Bromoform	0.05	U
108-10-1	4-Methyl-2-Pentanone	0.05	U
591-78-6	2-Hexanone	0.05	U
127-18-4	Tetrachloroethene	0.05	U
79-34-5	1,1,2,2-Tetrachloroethane	0.05	U
108-88-3	Toluene	0.05	U
108-90-7	Chlorobenzene	0.05	U
100-41-4	Ethylbenzene	0.05	U
100-42-5	Styrene	0.05	U
1330-20-7	Xylene (total)	0.05	U

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK02

Lab Name: Sound Analytical Services Contract: -

Lab Code: SAS Case No.: - SAS No.: - SDG No.: -

Matrix: (soil/water) AIR Lab Sample ID: VBLK02

Sample wt/vol: 100 (g/mL) ML Lab File ID: D1387

Level: (low/med) Date Received: -

% Moisture: not dec. Date Analyzed: 11/03/92

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: -

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	0.05	U
74-83-9	Bromomethane	0.05	U
75-01-4	Vinyl Chloride	0.05	U
75-00-3	Chloroethane	0.05	U
75-09-2	Methylene Chloride	0.26	
67-64-1	Acetone	0.05	U
75-15-0	Carbon Disulfide	0.05	U
75-35-4	1,1-Dichloroethene	0.05	U
75-34-3	1,1-Dichloroethane	0.05	U
540-59-0	1,2-Dichloroethene (total)	0.05	U
67-66-3	Chloroform	0.05	U
107-06-2	1,2-Dichloroethane	0.05	U
78-93-3	2-Butanone	0.05	U
71-55-6	1,1,1-Trichloroethane	0.05	U
56-23-5	Carbon Tetrachloride	0.05	U
75-27-4	Bromodichloromethane	0.05	U
78-87-5	1,2-Dichloropropane	0.05	U
10061-01-5	cis-1,3-Dichloropropene	0.05	U
79-01-6	Trichloroethene	0.05	U
124-48-1	Dibromochloromethane	0.05	U
79-00-5	1,1,2-Trichloroethane	0.05	U
71-43-2	Benzene	0.05	U
10061-02-6	trans-1,3-Dichloropropene	0.05	U
75-25-2	Bromoform	0.05	U
108-10-1	4-Methyl-2-Pentanone	0.05	U
591-78-6	2-Hexanone	0.05	U
127-18-4	Tetrachloroethene	0.05	U
79-34-5	1,1,2,2-Tetrachloroethane	0.05	U
108-88-3	Toluene	0.05	U
108-90-7	Chlorobenzene	0.05	U
100-41-4	Ethylbenzene	0.05	U
100-42-5	Styrene	0.05	U
1330-20-7	Xylene (total)	0.05	U

SOUND ANALYTICAL SERVICES, INC.

SPECIALIZING IN INDUSTRIAL & TOXIC WASTE ANALYSIS

4813 PACIFIC HIGHWAY EAST, TACOMA, WASHINGTON 98424 - TELEPHONE (206) 922-2310 - FAX (206) 922-5047

To: Burlington Environmental

Date: January 28, 1993

RECEIVED

JAN 2 9 1993

Burlington Environmental Inc.
Technical Services

PROJECT NUMBER: 624419

PROJECT NAME: Pasco Landfill

LABORATORY WORK ORDER NUMBER: 28186

Five soil gas samples were collected on 10-30-92 and 10-31-92, and were received at the laboratory on 11-02-92. The samples were analyzed for volatile organic compounds in accordance with EPA SW-846 Method 8240, modified for soil gas analysis.

The enclosed package contains results and supporting raw data for the complete 8240 target analyte list. The previously submitted package included data for selected volatile compounds only. Note that all compounds for this data package were quantitated using the 0.5 ug/l standard relative response factor. The previously submitted package contained results that were quantitated based on the response factors of the two bracketing standards. As a result, the reported values for the previously reported compounds may differ slightly from the reported values in the revised package. The original package results should be disregarded.

The samples were analyzed on 11-03-92. Samples 28186-2 and 28186-4 required 1:20 dilutions due to high target analyte levels present in the samples. A duplicate analysis was performed for sample 28186-1.

Methylene chloride was detected in the method blank associated with these samples. Therefore, the reported concentrations of this compound in the associated samples were flagged "B". All quality control parameters were within acceptable limits.

CHAIN OF CUSTODY

John Mathes & Associates, Inc.
210 West Sand Bank Road
Columbia, Illinois 62236

CHAIN-OF-CUSTODY RECORD

C.O.C. SERIAL NO. 5265

PROJECT NAME: Pasco
PROJECT NUMBER: 624419-7020 MAJOR TASK: 14
SAMPLERS: G. Wood / J. Dolan
LAB DESTINATION: Sound Analytical

SAMPLE NO.	DATE	TIME	COMP	GRAB	SAMPLE LOCATION	NO. OF CONTAINERS	TYPE OF ANALYSIS: VOC							ICED	PRESERVATIVES: CHEMICALS ADDED	REMARKS (CHEMICAL ANALYSIS REQUEST FORM NUMBER IF APPLICABLE)
PLF-SG-042	10-30	0815		✓		1	1							✓	NO	<500 ppb TVOC
PLF-SG-043		0845		✓		1	1							✓	NO	<500 ppb TVOC
PLF-SG-047		1200		✓		1	1							✓	NO	≈1 ppm TVOC
PLF-SG-060	10-31	1000		✓		1	1							✓	NO	<500 ppb TVOC
PLF-SG-061		1030		✓		1	1							✓	NO	<500 ppb TVOC

RELINQUISHED BY SIGNATURE	DATE	TIME	RECEIVED BY SIGNATURE	DATE	TIME
Gary Wood	11-2	1000	J Palmer	11-2	10:15A
J Palmer	11-2	10:30P	S Giang SAS	11/2/92	1230pm

SHIPPING NOTES
to be picked up at Burlington Seattle office by Sound courier.

LAB NOTES
SW-846 Method 8240

JM-34 (8/89)

SAMPLE DATA SUMMARY PACKAGE

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SG-042

Lab Name: Sound Analytical Services Contract: -

Lab Code: SAS Case No.: - SAS No.: - SDG No.: -

Matrix: (soil/water) AIR Lab Sample ID: 28186-1

Sample wt/vol: 100 (g/mL) ML Lab File ID: D1392

Level: (low/med) Date Received: 10/30/92

% Moisture: not dec. Date Analyzed: 11/03/92

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1

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	0.05	U
74-83-9-	Bromomethane	0.05	U
75-01-4-	Vinyl Chloride	0.05	U
75-00-3-	Chloroethane	0.05	U
75-09-2-	Methylene Chloride	0.05	U
67-64-1-	Acetone	0.12	B
75-15-0-	Carbon Disulfide	0.05	U
75-35-4-	1,1-Dichloroethene	0.05	U
75-34-3-	1,1-Dichloroethane	0.05	U
540-59-0-	1,2-Dichloroethene (total)	0.05	U
67-66-3-	Chloroform	0.05	U
107-06-2-	1,2-Dichloroethane	0.05	U
78-93-3-	2-Butanone	0.05	U
71-55-6-	1,1,1-Trichloroethane	0.17	
56-23-5-	Carbon Tetrachloride	0.05	U
75-27-4-	Bromodichloromethane	0.05	U
78-87-5-	1,2-Dichloropropane	0.05	U
10061-01-5-	cis-1,3-Dichloropropene	0.05	U
79-01-6-	Trichloroethene	0.05	U
124-48-1-	Dibromochloromethane	0.05	U
79-00-5-	1,1,2-Trichloroethane	0.05	U
71-43-2-	Benzene	0.05	U
10061-02-6-	trans-1,3-Dichloropropene	0.05	U
75-25-2-	Bromoform	0.05	U
108-10-1-	4-Methyl-2-Pentanone	0.05	U
591-78-6	2-Hexanone	0.05	U
127-18-4-	Tetrachloroethene	0.05	U
79-34-5-	1,1,2,2-Tetrachloroethane	0.05	U
108-88-3-	Toluene	0.16	
108-90-7-	Chlorobenzene	0.05	U
100-41-4-	Ethylbenzene	0.05	U
100-42-5-	Styrene	0.05	U
1330-20-7-	Xylene (total)	0.05	U

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SG-042 D

Lab Name: Sound Analytical Services Contract: -

Lab Code: SAS Case No.: - SAS No.: - SDG No.: -

Matrix: (soil/water) AIR Lab Sample ID: 28186-1D

Sample wt/vol: 100 (g/mL) ML Lab File ID: D1393

Level: (low/med) Date Received: 10/30/92

% Moisture: not dec. Date Analyzed: 11/03/92

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1

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	0.05	U
74-83-9	Bromomethane	0.05	U
75-01-4	Vinyl Chloride	0.05	U
75-00-3	Chloroethane	0.05	U
75-09-2	Methylene Chloride	0.05	U
67-64-1	Acetone	0.11	B
75-15-0	Carbon Disulfide	0.05	U
75-35-4	1,1-Dichloroethene	0.05	U
75-34-3	1,1-Dichloroethane	0.05	U
540-59-0	1,2-Dichloroethene (total)	0.05	U
67-66-3	Chloroform	0.05	U
107-06-2	1,2-Dichloroethane	0.05	U
78-93-3	2-Butanone	0.05	U
71-55-6	1,1,1-Trichloroethane	0.17	
56-23-5	Carbon Tetrachloride	0.05	U
75-27-4	Bromodichloromethane	0.05	U
78-87-5	1,2-Dichloropropane	0.05	U
10061-01-5	cis-1,3-Dichloropropene	0.05	U
79-01-6	Trichloroethene	0.05	U
124-48-1	Dibromochloromethane	0.05	U
79-00-5	1,1,2-Trichloroethane	0.05	U
71-43-2	Benzene	0.05	U
10061-02-6	trans-1,3-Dichloropropene	0.05	U
75-25-2	Bromoform	0.05	U
108-10-1	4-Methyl-2-Pentanone	0.05	U
591-78-6	2-Hexanone	0.05	U
127-18-4	Tetrachloroethene	0.05	U
79-34-5	1,1,2,2-Tetrachloroethane	0.05	U
108-88-3	Toluene	0.19	
108-90-7	Chlorobenzene	0.05	U
100-41-4	Ethylbenzene	0.05	U
100-42-5	Styrene	0.05	U
1330-20-7	Xylene (total)	0.05	U

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SG-043

Lab Name: Sound Analytical Services Contract: -

Lab Code: SAS Case No.: - SAS No.: - SDG No.: -

Matrix: (soil/water) AIR Lab Sample ID: 28186-2

Sample wt/vol: 100 (g/mL) ML Lab File ID: D1398

Level: (low/med) Date Received: 10/30/92

% Moisture: not dec. Date Analyzed: 11/03/92

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 20

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	1	U
74-83-9-	Bromomethane	1	U
75-01-4-	Vinyl Chloride	1	U
75-00-3-	Chloroethane	1	U
75-09-2-	Methylene Chloride	1	U
67-64-1-	Acetone	1	U
75-15-0-	Carbon Disulfide	1	U
75-35-4-	1,1-Dichloroethene	1	U
75-34-3-	1,1-Dichloroethane	3	
540-59-0-	1,2-Dichloroethene (total)	1	U
67-66-3-	Chloroform	1	U
107-06-2-	1,2-Dichloroethane	1	U
78-93-3-	2-Butanone	1	U
71-55-6-	1,1,1-Trichloroethane	33	
56-23-5-	Carbon Tetrachloride	1	U
75-27-4-	Bromodichloromethane	1	U
78-87-5-	1,2-Dichloropropane	1	U
10061-01-5-	cis-1,3-Dichloropropene	1	U
79-01-6-	Trichloroethene	6.5	
124-48-1-	Dibromochloromethane	1	U
79-00-5-	1,1,2-Trichloroethane	1	U
71-43-2-	Benzene	1	U
10061-02-6-	trans-1,3-Dichloropropene	1	U
75-25-2-	Bromoform	1	U
108-10-1-	4-Methyl-2-Pentanone	1	U
591-78-6	2-Hexanone	1	U
127-18-4-	Tetrachloroethene	1	U
79-34-5-	1,1,2,2-Tetrachloroethane	1	U
108-88-3-	Toluene	1	U
108-90-7-	Chlorobenzene	1	U
100-41-4-	Ethylbenzene	1	U
100-42-5-	Styrene	1	U
1330-20-7-	Xylene (total)	1	U

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SG-047

Lab Name: Sound Analytical Services Contract: -

Lab Code: SAS Case No.: - SAS No.: - SDG No.: -

Matrix: (soil/water) AIR Lab Sample ID: 28186-3

Sample wt/vol: 100 (g/mL) ML Lab File ID: D1395

Level: (low/med) Date Received: 10/30/92

% Moisture: not dec. Date Analyzed: 11/03/92

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1

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	0.05	U
74-83-9	Bromomethane	0.05	U
75-01-4	Vinyl Chloride	0.05	U
75-00-3	Chloroethane	0.05	U
75-09-2	Methylene Chloride	0.05	U
67-64-1	Acetone	0.12	B
75-15-0	Carbon Disulfide	0.05	U
75-35-4	1,1-Dichloroethene	0.05	U
75-34-3	1,1-Dichloroethane	0.11	
540-59-0	1,2-Dichloroethene (total)	0.05	U
67-66-3	Chloroform	0.05	U
107-06-2	1,2-Dichloroethane	0.05	U
78-93-3	2-Butanone	0.12	
71-55-6	1,1,1-Trichloroethane	0.37	
56-23-5	Carbon Tetrachloride	0.05	U
75-27-4	Bromodichloromethane	0.05	U
78-87-5	1,2-Dichloropropane	0.05	U
10061-01-5	cis-1,3-Dichloropropene	0.05	U
79-01-6	Trichloroethene	0.34	
124-48-1	Dibromochloromethane	0.05	U
79-00-5	1,1,2-Trichloroethane	0.05	U
71-43-2	Benzene	0.05	U
10061-02-6	trans-1,3-Dichloropropene	0.05	U
75-25-2	Bromoform	0.05	U
108-10-1	4-Methyl-2-Pentanone	0.05	U
591-78-6	2-Hexanone	0.05	U
127-18-4	Tetrachloroethene	2	
79-34-5	1,1,2,2-Tetrachloroethane	0.05	U
108-88-3	Toluene	0.21	
108-90-7	Chlorobenzene	0.05	U
100-41-4	Ethylbenzene	0.05	U
100-42-5	Styrene	0.05	U
1330-20-7	Xylene (total)	0.05	U

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SG-060

Lab Name: Sound Analytical Services Contract: -

Lab Code: SAS Case No.: - SAS No.: - SDG No.: -

Matrix: (soil/water) AIR Lab Sample ID: 28186-4

Sample wt/vol: 100 (g/mL) ML Lab File ID: D1399

Level: (low/med) Date Received: 10/30/92

% Moisture: not dec. Date Analyzed: 11/03/92

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 20

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	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl Chloride	30	
75-00-3	Chloroethane	1	U
75-09-2	Methylene Chloride	1	U
67-64-1	Acetone	1	U
75-15-0	Carbon Disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	4.8	
540-59-0	1,2-Dichloroethene (total)	4.3	
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	2	
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-Pentanone	1	U
591-78-6	2-Hexanone	1	U
127-18-4	Tetrachloroethene	4	
79-34-5	1,1,2,2-Tetrachloroethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylene (total)	1	U

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLF-SG-061

Lab Name: Sound Analytical Services Contract: -

Lab Code: SAS Case No.: - SAS No.: - SDG No.: -

Matrix: (soil/water) AIR Lab Sample ID: 28186-5

Sample wt/vol: 100 (g/mL) ML Lab File ID: D1397

Level: (low/med) Date Received: 10/30/92

% Moisture: not dec. Date Analyzed: 11/03/92

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1

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	0.05	U
74-83-9-	Bromomethane	0.05	U
75-01-4-	Vinyl Chloride	0.15	
75-00-3-	Chloroethane	0.05	U
75-09-2-	Methylene Chloride	0.05	U
67-64-1-	Acetone	0.11	B
75-15-0-	Carbon Disulfide	0.05	U
75-35-4-	1,1-Dichloroethene	0.05	U
75-34-3-	1,1-Dichloroethane	0.05	U
540-59-0-	1,2-Dichloroethene (total)	0.05	U
67-66-3-	Chloroform	0.05	U
107-06-2-	1,2-Dichloroethane	0.05	U
78-93-3-	2-Butanone	0.05	U
71-55-6-	1,1,1-Trichloroethane	0.05	U
56-23-5-	Carbon Tetrachloride	0.05	U
75-27-4-	Bromodichloromethane	0.05	U
78-87-5-	1,2-Dichloropropane	0.05	U
10061-01-5-	cis-1,3-Dichloropropene	0.05	U
79-01-6-	Trichloroethene	0.05	U
124-48-1-	Dibromochloromethane	0.05	U
79-00-5-	1,1,2-Trichloroethane	0.05	U
71-43-2-	Benzene	0.05	U
10061-02-6-	trans-1,3-Dichloropropene	0.05	U
75-25-2-	Bromoform	0.05	U
108-10-1-	4-Methyl-2-Pentanone	0.05	U
591-78-6	2-Hexanone	0.05	U
127-18-4-	Tetrachloroethene	0.05	U
79-34-5-	1,1,2,2-Tetrachloroethane	0.05	U
108-88-3-	Toluene	0.18	
108-90-7-	Chlorobenzene	0.05	U
100-41-4-	Ethylbenzene	0.05	U
100-42-5-	Styrene	0.05	U
1330-20-7-	Xylene (total)	0.05	U

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK02

Lab Name: Sound Analytical Services Contract: -

Lab Code: SAS Case No.: - SAS No.: - SDG No.: -

Matrix: (soil/water) AIR Lab Sample ID: VBLK02

Sample wt/vol: 100 (g/mL) ML Lab File ID: D1387

Level: (low/med) Date Received: -

% Moisture: not dec. Date Analyzed: 11/03/92

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: -

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	0.05	U
74-83-9	Bromomethane	0.05	U
75-01-4	Vinyl Chloride	0.05	U
75-00-3	Chloroethane	0.05	U
75-09-2	Methylene Chloride	0.26	
67-64-1	Acetone	0.05	U
75-15-0	Carbon Disulfide	0.05	U
75-35-4	1,1-Dichloroethene	0.05	U
75-34-3	1,1-Dichloroethane	0.05	U
540-59-0	1,2-Dichloroethene (total)	0.05	U
67-66-3	Chloroform	0.05	U
107-06-2	1,2-Dichloroethane	0.05	U
78-93-3	2-Butanone	0.05	U
71-55-6	1,1,1-Trichloroethane	0.05	U
56-23-5	Carbon Tetrachloride	0.05	U
75-27-4	Bromodichloromethane	0.05	U
78-87-5	1,2-Dichloropropane	0.05	U
10061-01-5	cis-1,3-Dichloropropene	0.05	U
79-01-6	Trichloroethene	0.05	U
124-48-1	Dibromochloromethane	0.05	U
79-00-5	1,1,2-Trichloroethane	0.05	U
71-43-2	Benzene	0.05	U
10061-02-6	trans-1,3-Dichloropropene	0.05	U
75-25-2	Bromoform	0.05	U
108-10-1	4-Methyl-2-Pentanone	0.05	U
591-78-6	2-Hexanone	0.05	U
127-18-4	Tetrachloroethene	0.05	U
79-34-5	1,1,2,2-Tetrachloroethane	0.05	U
108-88-3	Toluene	0.05	U
108-90-7	Chlorobenzene	0.05	U
100-41-4	Ethylbenzene	0.05	U
100-42-5	Styrene	0.05	U
1330-20-7	Xylene (total)	0.05	U

MEMORANDUM

DATE: March 5, 1993

TO: Ted Wall, Environmental Engineer TW

FROM: Nels Cone, Chemist NBC

SUBJECT: DATA VALIDATION OF CHEMICAL ANALYSIS FROM PASCO LANDFILL PHASE I REMEDIAL INVESTIGATION, PROJECT 624419, DATA SET 1B

During the period of October 26 - 31, 1992, fourteen soil-gas samples were collected by Burlington Environmental Inc. (Burlington). Their sample identification numbers are as follows:

PLF-SG-005	PLF-SG-018	PLF-SG-043
PLF-SG-008	PLF-SG-020	PLF-SG-047
PLF-SG-010	PLF-SG-027	PLF-SG-060
PLF-SG-~~1~~15 (0)	PLF-SG-031	PLF-SG-061
PLF-SG-017	PLF-SG-042	

These samples were then submitted to Sound Analytical of Tacoma, Washington (work orders 28072, 28178, and 28186), for volatile organic compound analysis (USEPA SW-846, Method 8240). I performed a data quality review of the analytical results in accordance with the USEPA Contract Laboratory Program (CLP) Document Number 0LM01.0. These guidelines are normally used for water and soil monitoring. However, this document was relied upon for proper guidance in the soil-gas data validation, since no CLP guidance documents for soil-gas analysis are published.

FINDINGS

Properly completed chain-of-custody forms were included with documented signatures from field to laboratory receipt. All samples were shown as having been properly iced and received in good condition. The samples received the requested analyses, and all holding, extraction, and analysis times met the required guidelines. All duplicate analyses displayed precision within acceptable quality control (QC) limits.

Surrogate compound recoveries met within expected QC limits with the exception of the third surrogate compound (1,2-dichloromethane-d4) for samples PLF-SG-005, PLF-SG-008, and PLF-SG-010. As such, data from these samples should be considered as estimated values.

Requisite instrument tuning check with bromofluorobenzene documented performance of gas chromatograph/mass spectral analyses. Initial and continuing calibration checks met the required minimum relative response factors for all detected compounds. Internal standards displayed area response and retention times all within required limits. Additional QC was supplied in the form of the raw lab data, gas chromatograms, and mass spectral data for the samples, method blanks, method spikes, and calibration standards. Data consistency was demonstrated throughout.

Proper data qualifier flags accompanied the analytical results as needed with advisement of the previously-noted exception. Overall, the data quality guidelines as advised in the CLP Statement of Work are met. Accordingly, this data can be considered valid for its intended use.

RECOMMENDATIONS

Data reported for samples PLF-SG-005, PLF-SG-008, and PLF-SG-010, should be considered estimates appended with "J" data qualifier flags.

NC/rlk/b43:2046b.mem

SOIL-GAS I4.2

SAMPLES PLF-SG-001 to PLF-SG-004, PLF-SG-006, PLF-SG-007, PLF-SG-009, PLF-SG-011 to PLF-SG-014, PLF-SG-016, PLF-SG-019, PLF-SG-021 to PLF-SG-026, PLF-SG-028 to PLF-SG-030, PLF-SG-032 to PLF-SG-041, PLF-SG-044 to PLF-SG-046, PLF-SG-048 to PLF-SG-059

BURLINGTON ENVIRONMENTAL

RECON® SAMPLE ANALYSIS

SERIAL NO. RCND 01

Data Summary Table

Date 10-26-92

Project No. 624419 Phase ~~6020~~ 7020 Task 14

Sample I.D.	Probe Hole Number	Depth (Feet)	1,1-DCE (µg/L)	1,1-DCA (µg/L)	trans-1,2-DCE (µg/L)	chloroform (µg/L)	1,1,1-TCA (µg/L)	Comments
PLF-SG-001	—	—	ND(1)	ND(1)	ND(1)	ND(2)	ND(1)	
PLF-SG-002	—	—	ND(1)	ND(1)	ND(1)	ND(2)	ND(1)	
PLF-SG-003	PH-01	30	~~ND(1)~~ 400 µg/L	~~ND(1)~~ 96 µg/L	ND(1)	ND(2)	411	
PLF-SG-006	PH-03	12	~~ND(1)~~ 77 µg/L	~~ND(1)~~ 118 µg/L	ND(1)	ND(2)	37	
PLF-SG-007	PH-04	30	~~ND(1)~~ 345 µg/L	~~ND(1)~~ 143 µg/L	~~ND(1)~~ 2 µg/L	44	108	
PLF-SG-007-D	PH-04	30	~~ND(1)~~ 351 µg/L	~~ND(1)~~ 148 µg/L	~~ND(1)~~ 2 µg/L	45	113	
PLF-SG-008	PH-04	5	~~ND(1)~~ 138 µg/L	~~ND(1)~~ 68 µg/L	~~ND(1)~~ <1 µg/L	~~16~~ 21 µg/L	~~45~~ 47 µg/L	
PLF-SG-009	—	—	ND(1)	ND(1)	ND(1)	ND(2)	ND(1)	

D duplicate analysis
QC quality control
µg/L micrograms of compound detected per liter of headspace vapor analyzed

Data QA: [signature]

Date: 11/5/92

BURLINGTON ENVIRONMENTAL

RECON® SAMPLE ANALYSIS

SERIAL NO. RCND 02

Data Summary Table

Date 10-26-92

Project No. 624419 Phase ~~6020~~ 7020 Task 14

Sample I.D.	Probe Hole Number	Depth (Feet)	TCE (µg/L)	PCE (µg/L)	toluene (µg/L)	(µg/L)	(µg/L)	Comments
PLF-SG-001	—	—	ND(1)	ND(1)	ND(1)			QC-System Blank
PLF-SG-002	—	—	ND(1)	ND(1)	ND(1)			QC-System Blank
PLF-SG-003	PH-01	30	212	46	~~ND(1)~~ <1			soil-gas GRID LOC (0N, 0E)
PLF-SG-006	PH-03	12	33	24	~~ND(1)~~ 61			soil-gas GRID LOC (10'N, 3'E)
PLF-SG-007	PH-04	30	~~151~~ 162	21	ND(1)			soil-gas GRID LOC (30'N, -8'E)
PLF-SG-007-D	PH-04	30	~~176~~ 178	23	ND(1)			QC-Duplicate "
PLF-SG-008	PH-04	5	~~83~~ 84	8	~~ND(1)~~ 61			soil-gas "
PLF-SG-009	—	—	ND(1)	ND(1)	ND(1)			QC-System Blank

D duplicate analysis
QC quality control
µg/L micrograms of compound detected per liter of headspace vapor analyzed

Data QA: [signature]

Date: 11/5/92

BURLINGTON ENVIRONMENTAL

RECON® SAMPLE ANALYSIS

05

SERIAL NO. RCND

Data Summary Table

Date 10-28-92

Project No. 624419 Phase ~~6020~~ 7020 Task 14

Sample I.D.	Probe Hole Number	Depth (Feet)	1,1-DCE (µg/L)	1,1-DCA (µg/L)	trans-1,2-DCE (µg/L)	chloroform (µg/L)	1,1,1-TCA (µg/L)	Comments
PLF-SG-011	—	—	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	
PLF-SG-012	—	—	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	
PLF-SG-013	—	—	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	
PLF-SG-014	PH-05	30	203	10	ND(1)	8	70	
PLF-SG-016	PH-06	33	137	3	ND(1)	ND(1)	50	
PLF-SG-019	PH-07	27	53	ND(1)	ND(1)	ND(1)	15	
PLF-SG-021	PH-08	45	23	8	ND(1)	ND(1)	47	
PLF-SG-021-D	PH-08	45	23	8	ND(1)	ND(1)	47	
PLF-SG-022	—	—	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	

D duplicate analysis
QC quality control
µg/L micrograms of compound detected per liter of headspace vapor analyzed

Data QA: [signature]

Date: 11/5/92

BURLINGTON ENVIRONMENTAL

RECON® SAMPLE ANALYSIS

SERIAL NO. RCND 06

Data Summary Table

Date 10-28-92

Project No. 624419 Phase ~~6020~~ 7020 Task 14

Sample I.D.	Probe Hole Number	Depth (Feet)	TCE (µg/L)	PCE (µg/L)	toluene (µg/L)	(µg/L)	(µg/L)	Comments
PLF-SG-011	—	—	ND(1)	ND(1)	ND(1)			QC-System Blank
PLF-SG-012	—	—	ND(1)	ND(1)	ND(1)			QC-System Blank
PLF-SG-013	—	—	ND(1)	ND(1)	ND(1)			QC-Red Blank
PLF-SG-014	PH-05	30	48	6	ND(1)			soil-gas (GRID LOCATION 472N, 58W) ZN A
PLF-SG-016	PH-06	33	27	11	ND(1)			soil-gas (GRID LOCATION 200S, 40E) ZN A
PLF-SG-019	PH-07	27	4	4	ND(1)			soil-gas (GRID LOCATION 200S, 170E) ZN A
PLF-SG-021	PH-08	45	45	<1	ND(1)			soil-gas (GRID LOCATION 283S, 283W) ZN A
PLF-SG-021-D	PH-08	45	46	1	ND(1)			QC-Duplicate
PLF-SG-022	—	—	ND(1)	ND(1)	ND(1)			QC-System Blank

D duplicate analysis
QC quality control
µg/L micrograms of compound detected per liter of headspace vapor analyzed

Data QA: [signature]

Date: 11/5/92

BURLINGTON ENVIRONMENTAL

RECON® SAMPLE ANALYSIS

SERIAL NO. RCND 07

Data Summary Table

Date 10-29-92

Project No. 624419 Phase ~~6020~~ 7020 Task 14

Sample I.D.	Probe Hole Number	Depth (Feet)	1,1-DCE (µg/L)	1,1-DCA (µg/L)	trans-1,2-DCE (µg/L)	chloroform (µg/L)	1,1,1-TCA (µg/L)	Comments
PLF-SG-023	—	—	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	
PLF-SG-024	—	—	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	
PLF-SG-025	—	—	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	
PLF-SG-026	PH-09	30	200	2	ND(1)	ND(1)	21	
PLF-SG-028	PH-10	30	20	6	ND(1)	2	29	
PLF-SG-029	PH-11	40	4	<1	ND(1)	ND(1)	6	
PLF-SG-030	PH-12	27	ND(1)	ND(1)	ND(1)	2	ND(1)	
PLF-SG-032	PH-13	40	ND(1)	ND(1)	ND(1)	41	ND(1)	
PLF-SG-034	PH-14	30	ND(1)	ND(1)	ND(1)	3	ND(1)	
PLF-SG-035	PH-15	40	6	<1	ND(1)	ND(1)	10	
PLF-SG-036	PH-16	30	26	1	ND(1)	ND(1)	13	
PLF-SG-036-D	PH-16	30	26	1	ND(1)	ND(1)	14	
PLF-SG-037	—	—	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	

D duplicate analysis
QC quality control
µg/L micrograms of compound detected per liter of headspace vapor analyzed

Data QA: David Grubell

Date: 11/5/92

BURLINGTON ENVIRONMENTAL

RECON® SAMPLE ANALYSIS

SERIAL NO. RCND 08

Data Summary Table

Date 10-29-92

Project No. 624419 Phase 6020 Task 14

Sample I.D.	Probe Hole Number	Depth (Feet)	TCE (µg/L)	PCE (µg/L)	toluene (µg/L)	(µg/L)	(µg/L)	Comments
PLF-SG-023	—	—	ND(1)	ND(1)	ND(1)			QC-System Blank
PLF-SG-024	—	—	ND(1)	ND(1)	ND(1)			QC-System Blank
PLF-SG-025	—	—	ND(1)	ND(1)	ND(1)			QC-Rod Blank
PLF-SG-026	PH-09	30	7	19	ND(1)			soil-gas (85S, 250E)
PLF-SG-028	PH-10	30	22	14	ND(1)			soil-gas (0S, 283W)
PLF-SG-029	PH-11	40	3	10	ND(1)			soil-gas (424S, 424W)
PLF-SG-030	PH-12	27	<1	3	ND(1)			soil-gas (509S, 509W)
PLF-SG-032	PH-13	40	11	3	ND(1)			soil-gas (424S, 141W)
PLF-SG-034	PH-14	30	ND(1)	5	ND(1)			soil-gas (500S, 70E)
PLF-SG-035	PH-15	40	7	3	ND(1)			soil-gas (141S, 424W)
PLF-SG-036	PH-16	30	7	4	ND(1)			soil-gas (300N, 283W)
PLF-SG-036-D	PH-16	30	7	4	ND(1)			QC-Duplicate
PLF-SG-037	—	—	ND(1)	ND(1)	ND(1)			QC-System Blank

D duplicate analysis
QC quality control
µg/L micrograms of compound detected per liter of headspace vapor analyzed

Data QA: [signature]

Date: 11/5/92

BURLINGTON ENVIRONMENTAL

RECON® SAMPLE ANALYSIS

SERIAL NO. RCND 09

Data Summary Table

Date 10-30-92

Project No. 624419 Phase ~~6020~~ 7020 Task 14

Sample I.D.	Probe Hole Number	Depth (Feet)	1,1-DCE (µg/L)	1,1-DCA (µg/L)	trans-1,2-DCE (µg/L)	chloroform (µg/L)	1,1,1-TCA (µg/L)	Comments
PLF-SG-038	—	—	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	
PLF-SG-039	—	—	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	
PLF-SG-040	—	—	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	
PLF-SG-041	PH-17	40	5	ND(1)	ND(1)	ND(1)	5	
PLF-SG-044	PH-19	40	~~245~~ 247	ND(1)	4	ND(1)	27	
PLF-SG-045	PH-20	40	6	ND(1)	ND(1)	ND(1)	2	
PLF-SG-046	PH-21	30	ND(1)	ND(1)	ND(1)	ND(1)	229	
PLF-SG-048	PH-22	40	ND(1)	ND(1)	ND(1)	3	ND(1)	
PLF-SG-049	PH-23	42	<1	ND(1)	ND(1)	ND(1)	~~ND(1)~~ 1 Hw	
PLF-SG-050	PH-24	40	ND(1)	ND(1)	ND(1)	9	ND(1)	
PLF-SG-051	PH-08	30	3	ND(1)	ND(1)	ND(1)	~~ND(1)~~ 3 Hw	
PLF-SG-052	PH-08	15	<1	ND(1)	ND(1)	ND(1)	~~ND(1)~~ 3 Hw	
PLF-SG-052-D	PH-08	15	2	ND(1)	ND(1)	ND(1)	~~ND(1)~~ 2 Hw	
PLF-SG-053	—	—	ND(1)	ND(1)	ND(1)	ND(1)	2	

D duplicate analysis
QC quality control
µg/L micrograms of compound detected per liter of headspace vapor analyzed

Data QA: [signature]

Date: 11/5/92

BURLINGTON ENVIRONMENTAL

RECON® SAMPLE ANALYSIS

SERIAL NO. RCND 10

Data Summary Table

Date 10-30-92

Project No. 624419 Phase ~~6020~~ 7020 Task 14

Sample I.D.	Probe Hole Number	Depth (Feet)	TCE (µg/L)	PCE (µg/L)	toluene (µg/L)	(µg/L)	(µg/L)	Comments
PLF-SG-038	—	—	ND(1)	ND(1)	ND(1)			QC-System Blank
PLF-SG-039	—	—	ND(1)	ND(1)	ND(1)			QC-System Blank
PLF-SG-040	—	—	ND(1)	ND(1)	ND(1)			QC-Rod Blank
PLF-SG-041	PH-17	40	ND(1)	ND(1)	ND(1)			soil-gas 0N, 160E Z C/D
PLF-SG-044	PH-19	40	ND(1)	ND(1)	<1			soil-gas 0N, 90W Z C/D
PLF-SG-045	PH-20	40	ND(1)	ND(1)	ND(1)			soil-gas 600N, 283W Z A
PLF-SG-046	PH-21	30	22	99	7			soil-gas 40 ft. East of MW-4
PLF-SG-048	PH-22	40	<1	2	ND(1)			soil-gas 19N, 509W Z A
PLF-SG-049	PH-23	42	ND(1)	3	ND(1)			soil-gas 283S, 683W Z A
PLF-SG-050	PH-24	40	1	1	ND(1)			soil-gas 533S, 283W Z A
PLF-SG-051	PH-08	30	2	2	ND(1)			soil-gas 283S, 283W Z A
PLF-SG-052	PH-08	15	1	<1	ND(1)			soil-gas 283S, 283W Z A
PLF-SG-052D	PH-08	15	1	<1	ND(1)			QC-Duplicate
PLF-SG-053	—	—	ND(1)	ND(1)	ND(1)			QC-System Blank

D duplicate analysis
QC quality control
µg/L micrograms of compound detected per liter of headspace vapor analyzed

Data QA: [signature]

Date: 11/5/92

RECON® SAMPLE ANALYSIS

Data Summary Table

Date 10-31-92

QA/QC [signature]

Project No 621419-2020-14

Date 11/5/92

Sample I.D.	Probe Hole Number	1,1-DCE (µg/L)	1,1-DCA (µg/L)	trans-1,2-DCE (µg/L)	chloroform (µg/L)	1,1,1-TCA (µg/L)	Depth	Comments
PLF-SG-054	—	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	—	
PLF-SG-055	—	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	—	
PLF-SG-056	—	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	—	
PLF-SG-057	PH-25	102	ND(1)	ND(1)	ND(1)	1	40	
PLF-SG-058	PH-26	2	ND(1)	ND(1)	ND(1)	ND(1)	40	
PLF-SG-058-D	PH-26	2	ND(1)	ND(1)	ND(1)	ND(1)	40	
PLF-SG-059	—	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	—	

D duplicate analysis
QC quality control
µg/L micrograms of compound detected per liter of headspace vapor analyzed

RECON® SAMPLE ANALYSIS

Data Summary Table

Date 10-31-92

QA/QC [signature]

Project No. 624419-7020-14

Date 11/5/92

Sample I.D.	Probe Hole Number	TCE (µg/L)	PCE (µg/L)	toluene (µg/L)	(µg/L)	(µg/L)	Depth	Comments
PLF-SG-054	—	ND(1)	ND(1)	ND(1)			—	
PLF-SG-055	—	ND(1)	ND(1)	ND(1)			—	
PLF-SG-056	—	ND(1)	ND(1)	ND(1)			—	
PLF-SG-057	PH-25	ND(1)	<1	ND(1)			40	
PLF-SG-058	PH-26	ND(1)	ND(1)	ND(1)			40	
PLF-SG-058-D	PH-26	ND(1)	ND(1)	ND(1)			40	
PLF-SG-059	—	ND(1)	ND(1)	ND(1)			—	

D duplicate analysis
QC quality control
µg/L micrograms of compound detected per liter of headspace vapor analyzed

*** External Standard ***

Operator: GWW 30 Oct 92 1:26 pm
Sample Info : PLF-SG-046
Misc Info: PH-21 (40 FEET EAST OF MW-4) SOIL-GAS AT 30 FT BGS
Integration File Name : DATA:DEFAULT.I
consisting of channels : 1. GC Signal 1 of PLFSG46A.D
2. GC Signal 1
Bottle Number : 0 Repetition Number: 1

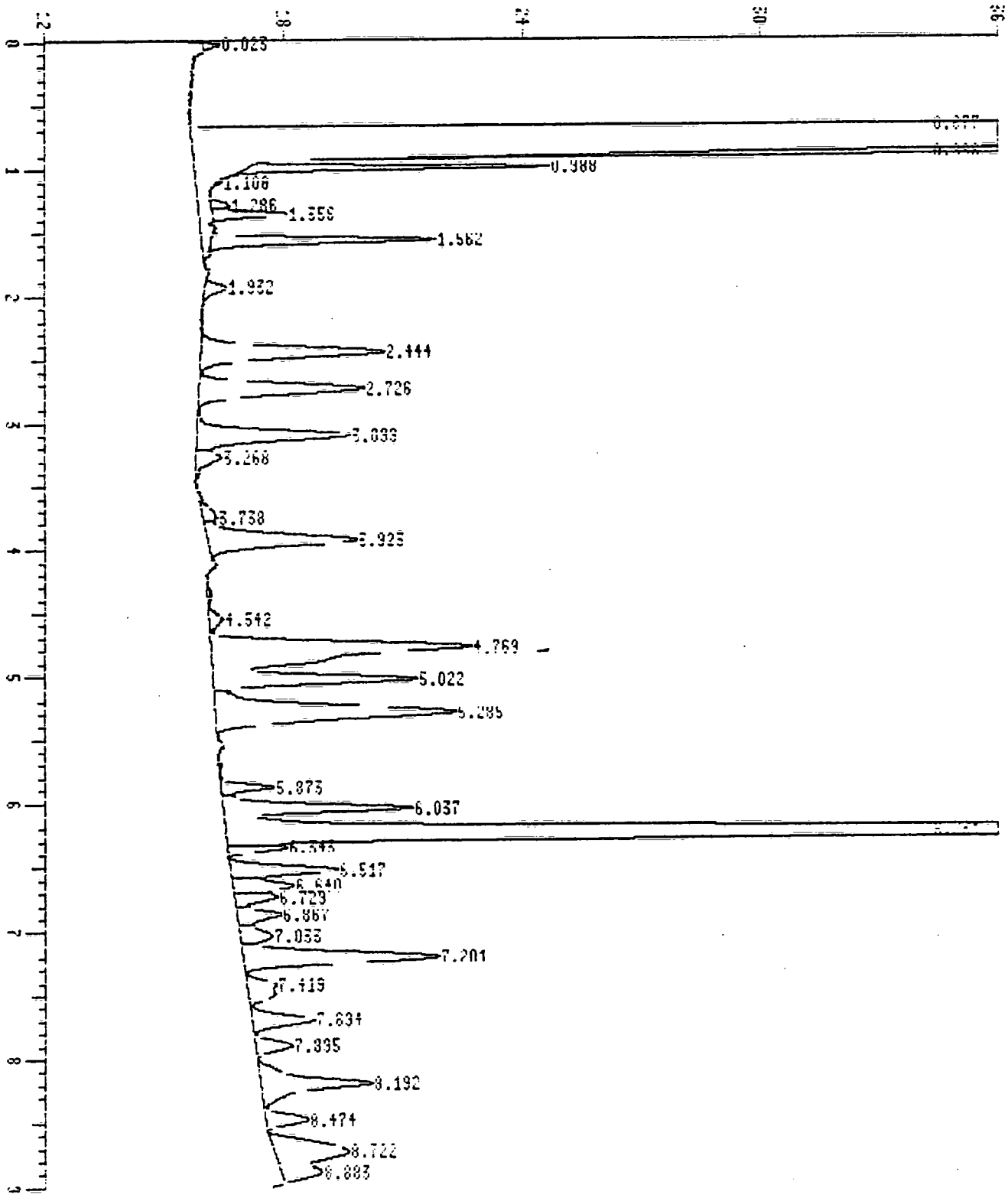
Calibration file: DATA:STD-1029.0 Last Update: 30 Oct 92 1:48 pm
Reference Peak Window: 20.00 % of Retention Time
Non-Reference Peak Window: 4.00 % of Retention Time
Sample Amount: 0.000 Uncalibrated Peak RF: 10.00e-9 Multiplier: 1.000

Peak Num	Type	Int Type	Ret Time	Signal Description	Compound Name	Area	Amount
1		1	-------	GC Signal 1	1,1-DCE	*** Not Found ***	
2		1	-------	GC Signal 1	trans-1,2-DC	*** Not Found ***	
3		1	-------	GC Signal 1	1,1-DCA	*** Not Found ***	
4		1	-------	GC Signal 1	chloroform	*** Not Found ***	
5		1VV	4.765	GC Signal 1	1,1,1-TCA	544.09	228.56 ug/L
6		1BV	5.873	GC Signal 1	TCE	52.6317	22.083 ug/L
7	+	1VV	6.231	GC Signal 1	a,a,a-TFT	4533.35	665.77 ug/L
8		1VV	7.419	GC Signal 1	toluene	70.1975	6.5146 ug/L
9		1VV	8.192	GC Signal 1	PCE	196.72	98.663 ug/L
--------		PH	0.023	GC Signal 1	Uncalibrated	9.1094	91.09e-9 ug/L
--------		PH	0.023	GC Signal 1	Uncalibrated	9.1094	91.09e-9 ug/L
--------		BB S	0.677	GC Signal 1	Uncalibrated	5994362	0.059944 ug/L
--------		BB S	0.677	GC Signal 1	Uncalibrated	5994362	0.059944 ug/L
--------		BB T	0.888	GC Signal 1	Uncalibrated	518.92	5.189e-6 ug/L
--------		BB T	0.888	GC Signal 1	Uncalibrated	518.92	5.189e-6 ug/L
--------		BB T	0.988	GC Signal 1	Uncalibrated	167.83	1.678e-6 ug/L
--------		BB T	0.988	GC Signal 1	Uncalibrated	167.83	1.678e-6 ug/L
--------		BV T	1.108	GC Signal 1	Uncalibrated	2.3344	23.34e-9 ug/L
--------		BV T	1.108	GC Signal 1	Uncalibrated	2.3344	23.34e-9 ug/L
--------		PV T	1.286	GC Signal 1	Uncalibrated	14.7767	147.6e-9 ug/L
--------		PV T	1.286	GC Signal 1	Uncalibrated	14.7767	147.6e-9 ug/L
--------		VV T	1.356	GC Signal 1	Uncalibrated	61.3179	613.2e-9 ug/L
--------		VV T	1.356	GC Signal 1	Uncalibrated	61.3179	613.2e-9 ug/L
--------		BV T	1.562	GC Signal 1	Uncalibrated	185.92	1.859e-6 ug/L
--------		BV T	1.562	GC Signal 1	Uncalibrated	185.92	1.859e-6 ug/L
--------		BB	1.932	GC Signal 1	Uncalibrated	26.5364	265.4e-9 ug/L
--------		BB	1.932	GC Signal 1	Uncalibrated	26.5364	265.4e-9 ug/L
--------		BV	2.444	GC Signal 1	Uncalibrated	286.14	2.861e-6 ug/L
--------		BV	2.444	GC Signal 1	Uncalibrated	286.14	2.861e-6 ug/L
--------		VV	2.726	GC Signal 1	Uncalibrated	252.90	2.529e-6 ug/L
--------		VV	2.726	GC Signal 1	Uncalibrated	252.90	2.529e-6 ug/L
--------		PV	3.099	GC Signal 1	Uncalibrated	230.44	2.304e-6 ug/L
--------		PV	3.099	GC Signal 1	Uncalibrated	230.44	2.304e-6 ug/L
--------		VV	3.268	GC Signal 1	Uncalibrated	42.1454	421.5e-9 ug/L
--------		VV	3.268	GC Signal 1	Uncalibrated	42.1454	421.5e-9 ug/L
--------		VV	3.738	GC Signal 1	Uncalibrated	22.5399	225.4e-9 ug/L
--------		VV	3.738	GC Signal 1	Uncalibrated	22.5399	225.4e-9 ug/L
--------		VV	3.923	GC Signal 1	Uncalibrated	255.24	2.552e-6 ug/L
--------		VV	3.923	GC Signal 1	Uncalibrated	255.24	2.552e-6 ug/L
[illegible]		[illegible]	[illegible]	[illegible]	Uncalibrated	[illegible]	[illegible] ug/L

--------	[illegible]	[illegible]	GC Signal 1	Uncalibrated	[illegible]	[illegible]	ug/L
--------	VV	4.783	GC Signal 1	Uncalibrated	544.08	5.441e-6	ug/L
--------	VV	5.022	GC Signal 1	Uncalibrated	256.43	2.564e-6	ug/L
--------	VV	5.022	GC Signal 1	Uncalibrated	256.43	2.564e-6	ug/L
--------	VV	5.285	GC Signal 1	Uncalibrated	470.53	4.705e-6	ug/L
--------	VV	5.285	GC Signal 1	Uncalibrated	470.53	4.705e-6	ug/L
--------	BV	5.873	GC Signal 1	Uncalibrated	52.6317	526.3e-9	ug/L
--------	VV	6.037	GC Signal 1	Uncalibrated	216.04	2.160e-6	ug/L
--------	VV	6.037	GC Signal 1	Uncalibrated	216.04	2.160e-6	ug/L
--------	VV	6.231	GC Signal 1	Uncalibrated	4533.88	45.34e-6	ug/L
--------	VV	6.343	GC Signal 1	Uncalibrated	49.2502	492.5e-9	ug/L
--------	VV	6.343	GC Signal 1	Uncalibrated	49.2502	492.5e-9	ug/L
--------	PV	6.517	GC Signal 1	Uncalibrated	131.54	1.315e-6	ug/L
--------	PV	6.517	GC Signal 1	Uncalibrated	131.54	1.315e-6	ug/L
--------	VV	6.640	GC Signal 1	Uncalibrated	77.6573	776.6e-9	ug/L
--------	VV	6.640	GC Signal 1	Uncalibrated	77.6573	776.6e-9	ug/L
--------	VV	6.729	GC Signal 1	Uncalibrated	47.0453	470.5e-9	ug/L
--------	VV	6.729	GC Signal 1	Uncalibrated	47.0453	470.5e-9	ug/L
--------	VV	6.867	GC Signal 1	Uncalibrated	59.3015	593.0e-9	ug/L
--------	VV	6.867	GC Signal 1	Uncalibrated	59.3015	593.0e-9	ug/L
--------	VV	7.033	GC Signal 1	Uncalibrated	54.1094	541.1e-9	ug/L
--------	VV	7.033	GC Signal 1	Uncalibrated	54.1094	541.1e-9	ug/L
--------	VV	7.201	GC Signal 1	Uncalibrated	301.59	3.016e-6	ug/L
--------	VV	7.201	GC Signal 1	Uncalibrated	301.59	3.016e-6	ug/L
--------	VV	7.419	GC Signal 1	Uncalibrated	70.1975	702.0e-9	ug/L
--------	VV	7.694	GC Signal 1	Uncalibrated	89.0322	890.3e-9	ug/L
--------	VV	7.694	GC Signal 1	Uncalibrated	89.0322	890.3e-9	ug/L
--------	VV	7.895	GC Signal 1	Uncalibrated	49.1215	491.2e-9	ug/L
--------	VV	7.895	GC Signal 1	Uncalibrated	49.1215	491.2e-9	ug/L
--------	VV	8.192	GC Signal 1	Uncalibrated	198.72	1.987e-6	ug/L
--------	VV	8.474	GC Signal 1	Uncalibrated	57.2481	572.5e-9	ug/L
--------	VV	8.474	GC Signal 1	Uncalibrated	57.2481	572.5e-9	ug/L
--------	PV	8.722	GC Signal 1	Uncalibrated	175.06	1.751e-6	ug/L
--------	PV	8.722	GC Signal 1	Uncalibrated	175.06	1.751e-6	ug/L
--------	VBA	8.883	GC Signal 1	Uncalibrated	57.0633	570.6e-9	ug/L
--------	VBA	8.883	GC Signal 1	Uncalibrated	57.0633	570.6e-9	ug/L

Sample peak #1 not found at retention time 1.998 +/- 0.040 min.
Sample peak #2 not found at retention time 2.827 +/- 0.057 min.
Sample peak #3 not found at retention time 3.385 +/- 0.068 min.
Sample peak #4 not found at retention time 4.639 +/- 0.093 min.
*** Not all calibrated peaks found ***

1: Sig. 1 of DATA:PLF3G46A.D



End of plot. Time = 0.00 to 9.01 minutes Chart speed = 2.21 cm/min

*** External Standard ***

Operator: GWW 26 Oct 92 12:09 pm
Sample Info : PLF-SG-003
Misc Info: PH-01 SOIL-GAS AT 30 FEET
Intagration File Name : DATA:DEFAULT.I
consisting of channels : 1. GC Signal 1 of PLFSG003.D
Bottle Number : 0 Repetition Number: 1

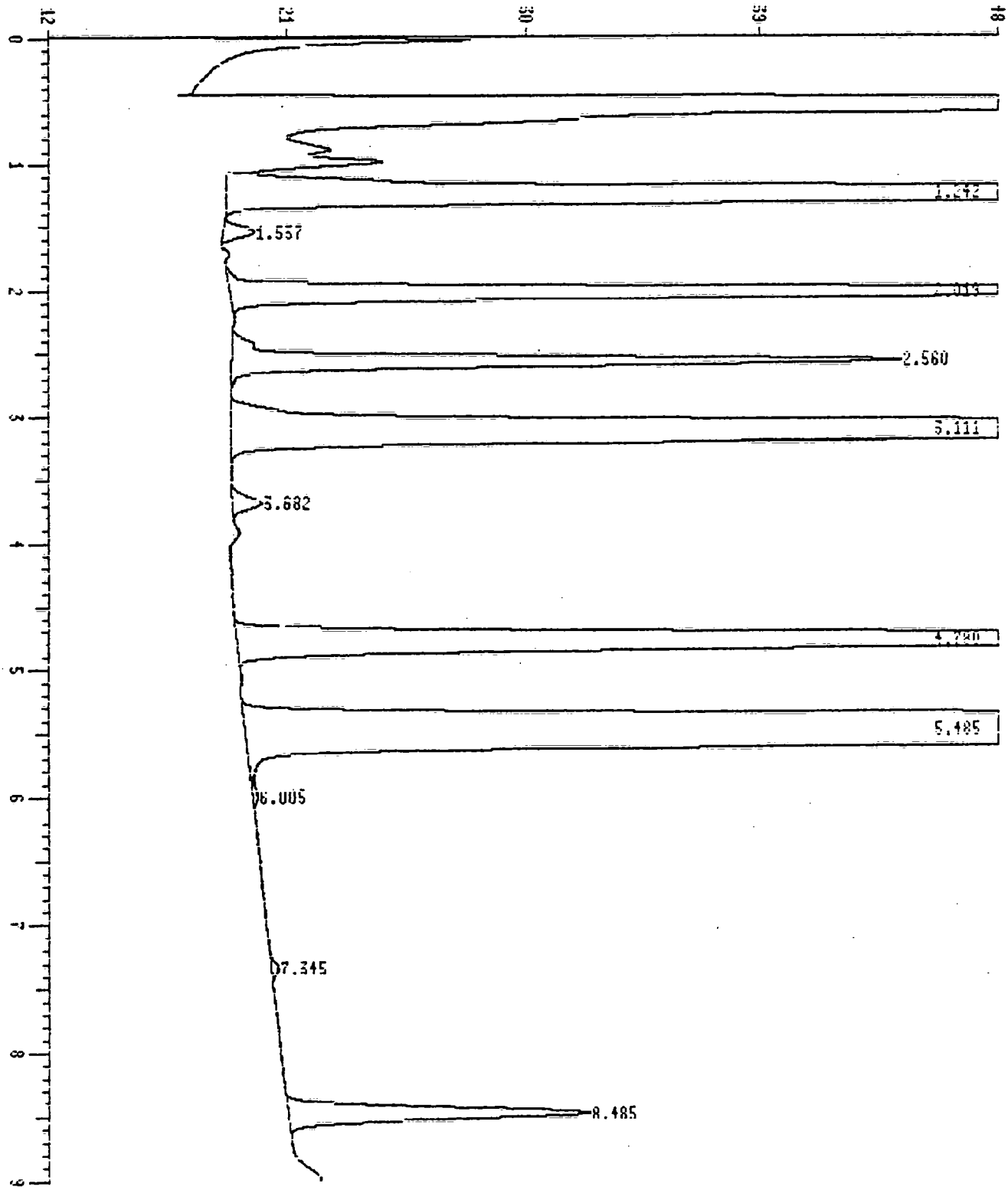
PASCO CALIBRATION FILE OCTOBER 26,1992

Calibration file: DATA:STD-1026.Q Last Update: 2 Nov 92 4:41 pm
Reference Peak Window: 20.00 % of Retention Time
Non-Reference Peak Window: 5.00 % of Retention Time
Sample Amount: 0.000 Uncalibrated Peak RF: 0.000 Multiplier: 0.1000

Peak Num	Type	Int Type	Rat Time	Signal Description	Compound Name	Area	Amount
1		1PH	1.242	GC Signal 1	1,1-DCE	11979	399.89 ug/L
2		1	-------	GC Signal 1	trans-1,2-DC	*** Not Found ***	
3		1BV	2.019	GC Signal 1	1,1-DCA	2800.15	95.877 ug/L
4		1	-------	GC Signal 1	chloroform	*** Not Found ***	
5		1PB	3.111	GC Signal 1	1,1,1-TCA	9018.02	411.19 ug/L
6		1BV	4.780	GC Signal 1	TCE	4499.92	211.87 ug/L
7	+	1BV	5.485	GC Signal 1	a,a,a-TFT	58498	5849.8 ug/L
8		1BB	7.345	GC Signal 1	toluene	17.3708	0.19494 ug/L
9		1BV	8.485	GC Signal 1	PCE	733.25	46.494 ug/L

Sample peak #2 not found at retention time 1.730 +/- 0.043 min.
Sample peak #4 not found at retention time 2.966 +/- 0.074 min.
*** Not all calibrated peaks found ***

1: Sig. 1 of DATA:PLFSG003.D



End of plot. Time = 0.00 to 9.01 minutes Chart speed = 2.21 cm/min

LANDFILL GAS I5.1

SAMPLES GPS-001 TO GPS-008

SOUND ANALYTICAL SERVICES, INC.

SPECIALIZING IN INDUSTRIAL & TOXIC WASTE ANALYSIS

4813 PACIFIC HIGHWAY EAST, TACOMA, WASHINGTON 98424 - TELEPHONE (206) 922-2310 - FAX (206) 922-5047

To: Burlington Environmental

PROJECT NUMBER: 624419

PROJECT NAME: Pasco Landfill

LABORATORY WORK ORDER NUMBER: 30894

Eight soil gas samples were collected on 03-22-93, and were received at the laboratory on 03-23-93. The samples were analyzed for volatile organic compounds in accordance with EPA SW-846 Method 8240, modified for soil gas analysis.

Samples 30894-1 through 30894-7 were analyzed on 03-23-93. Sample 30894-8 was analyzed on 03-24-93. Sample 30894-2 required a 1:50 dilution, while samples 30894-1 and 30894-3 through 30894-7 required 1:40 dilutions due to high target analyte levels present in the samples. A matrix spike/matrix spike duplicate analysis was performed for sample 30894-6.

The percent recovery for toluene-d8 (surrogate) in sample 30894-8 exceeded acceptable QC limits.

The percent recovery for chlorobenzene in the matrix spike analysis for sample 30894-6 exceeded advisory QC limits. The relative percent difference values for all five spike compounds exceeded advisory QC limits.

The internal standard areas were below QC limits in the analysis of sample 30894-1. However, surrogate recoveries for this sample were within acceptable limits.

All other quality control parameters were within acceptable limits.

SAMPLE DATA SUMMARY PACKAGE

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

GPS-001

Lab Name Sound Analytical Se Contract: 624419

Lab Code SAS e No.: - AS No.: - DG No.: 30894

Matrix: (soil/w air Lab Sample ID: 30894-1

Sample wt/vol: 100 (g/mL) mL Lab File ID: d1512

Level: (low/med low Date Received: 03/23/93

% Moisture: not - Date Analyzed: 03/23/93

GC Colum DB-624 ID: 0.53 (mm) Dilution Factor: 40

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	8	U
74-83-9	Bromomethane	8	U
75-01-4	Vinyl Chloride	8	U
75-00-3	Chloroethane	8	U
75-09-2	Methylene Chloride	39	B
67-64-1	Acetone	9	
75-15-0	Carbon Disulfide	8	U
75-35-4	1,1-Dichloroethene	21	
75-34-3	1,1-Dichloroethane	8	U
540-59-0	1,2-Dichloroethene (tot	8	U
67-66-3	Chloroform	8	U
107-06-2	1,2-Dichloroethane	8	U
78-93-3	2-Butanone	8	U
71-55-6	1,1,1-Trichloroethane	8	U
56-23-5	Carbon Tetrachloride	8	U
75-27-4	Bromodichloromethane	8	U
78-87-5	1,2-Dichloropropane	8	U
10061-01-5	cis-1,3-Dichloropropene	8	U
79-01-6	Trichloroethene	32	
124-48-1	Dibromochloromethane	8	U
79-00-5	1,1,2-Trichloroethane	8	U
71-43-2	Benzene	8	U
10061-02-6	trans-1,3-Dichloroprope	8	U
75-25-2	Bromoform	8	U
108-10-1	4-Methyl-2-Pentanone	8	U
591-78-6	2-Hexanone	8	U
127-18-4	Tetrachloroethene	74	
79-34-5	1,1,2,2-Tetrachloroetha	8	U
108-88-3	Toluene	8	U
108-90-7	Chlorobenzene	8	U
100-41-4	Ethylbenzene	8	U
100-42-5	Styrene	8	U
1330-20-7	Xylene (total)	8	U

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

GPS-002

Lab Name Sound Analytical Se Contract: 624419

Lab Code SAS e No.: - AS No.: - DG No.: 30894

Matrix: (soil/w air Lab Sample ID: 30894-2

Sample wt/vol: 100 (g/mL) mL Lab File ID: d1513

Level: (low/med low Date Received: 03/23/93

% Moisture: not - Date Analyzed: 03/23/93

GC Colum DB-624 ID: 0.53 (mm) Dilution Factor: 50

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 (tot	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-Dichloroprope	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	12
79-34-5	1,1,2,2-Tetrachloroetha	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

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

GPS-003

Lab Name Sound Analytical Se Contract: 624419

Lab Code SAS e No.: - AS No.: - DG No.: 30894

Matrix: (soil/w air Lab Sample ID: 30894-3

Sample wt/vol: 100 (g/mL) mL Lab File ID: d1514

Level: (low/med low Date Received: 03/23/93

% Moisture: not - Date Analyzed: 03/23/93

GC Colum DB-624 ID: 0.53 (mm) Dilution Factor: 40

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	8 U
74-83-9- - - - - - -	Bromomethane	8 U
75-01-4- - - - - - -	Vinyl Chloride	8 U
75-00-3- - - - - -	Chloroethane	8 U
75-09-2- - - - - - -	Methylene Chloride	10 B
67-64-1- - - - - - -	Acetone	8 U
75-15-0- - - - - - -	Carbon Disulfide	8 U
75-35-4- - - - - - -	1,1-Dichloroethene	8 U
75-34-3- - - - - - -	1,1-Dichloroethane	8 U
540-59-0- - - - - -	1,2-Dichloroethene (tot	8 U
67-66-3- - - - - - -	Chloroform	8 U
107-06-2- - - - - -	1,2-Dichloroethane	8 U
78-93-3- - - - - - -	2-Butanone	8 U
71-55-6- - - - - - -	1,1,1-Trichloroethane	8 U
56-23-5- - - - - - -	Carbon Tetrachloride	8 U
75-27-4- - - - - - -	Bromodichloromethane	8 U
78-87-5- - - - - - -	1,2-Dichloropropane	8 U
10061-01-5- - - - -	cis-1,3-Dichloropropene	8 U
79-01-6- - - - - - -	Trichloroethene	8 U
124-48-1- - - - - -	Dibromochloromethane	8 U
79-00-5- - - - - -	1,1,2-Trichloroethane	8 U
71-43-2- - - - - - -	Benzene	8 U
10061-02-6- - - - -	trans-1,3-Dichloroprope	8 U
75-25-2- - - - - - -	Bromoform	8 U
108-10-1- - - - - -	4-Methyl-2-Pentanone	8 U
591-78-6 - - - - - -	2-Hexanone	8 U
127-18-4- - - - - -	Tetrachloroethene	20
79-34-5- - - - - - -	1,1,2,2-Tetrachloroetha	8 U
108-88-3- - - - - -	Toluene	8 U
108-90-7- - - - - -	Chlorobenzene	8 U
100-41-4- - - - - -	Ethylbenzene	8 U
100-42-5- - - - - -	Styrene	8 U
1330-20-7- - - - - -	Xylene (total)	8 U

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

GPS-004

Lab Name Sound Analytical Se Contract: 624419

Lab Code SAS e No.: - AS No.: - DG No.: 30894

Matrix: (soil/w air Lab Sample ID: 30894-4

Sample wt/vol: 100 (g/mL) mL Lab File ID: d1515

Level: (low/med low Date Received: 03/23/93

% Moisture: not - Date Analyzed: 03/23/93

GC Colum DB-624 ID: 0.53 (mm) Dilution Factor: 40

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	8 U
74-83-9- - - - - - -	Bromomethane	8 U
75-01-4- - - - - - -	Vinyl Chloride	8 U
75-00-3- - - - - -	Chloroethane	8 U
75-09-2- - - - - - -	Methylene Chloride	26 B
67-64-1- - - - - - -	Acetone	8 U
75-15-0- - - - - - -	Carbon Disulfide	8 U
75-35-4- - - - - - -	1,1-Dichloroethene	8 U
75-34-3- - - - - - -	1,1-Dichloroethane	12
540-59-0- - - - - -	1,2-Dichloroethene (tot	13
67-66-3- - - - - - -	Chloroform	8 U
107-06-2- - - - - -	1,2-Dichloroethane	8 U
78-93-3- - - - - - -	2-Butanone	8 U
71-55-6- - - - - - -	1,1,1-Trichloroethane	8 U
56-23-5- - - - - - -	Carbon Tetrachloride	8 U
75-27-4- - - - - - -	Bromodichloromethane	8 U
78-87-5- - - - - - -	1,2-Dichloropropane	8 U
10061-01-5- - - - -	cis-1,3-Dichloropropene	8 U
79-01-6- - - - - - -	Trichloroethene	15
124-48-1- - - - - -	Dibromochloromethane	8 U
79-00-5- - - - - -	1,1,2-Trichloroethane	8 U
71-43-2- - - - - - -	Benzene	8 U
10061-02-6- - - - -	trans-1,3-Dichloroprope	8 U
75-25-2- - - - - - -	Bromoform	8 U
108-10-1- - - - - -	4-Methyl-2-Pentanone	8 U
591-78-6 - - - - - -	2-Hexanone	8 U
127-18-4- - - - - -	Tetrachloroethene	27
79-34-5- - - - - - -	1,1,2,2-Tetrachloroetha	8 U
108-88-3- - - - - -	Toluene	8 U
108-90-7- - - - - -	Chlorobenzene	8 U
100-41-4- - - - - -	Ethylbenzene	8 U
100-42-5- - - - - -	Styrene	8 U
1330-20-7- - - - - -	Xylene (total)	8 U

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

GPS-005

Lab Name Sound Analytical Se Contract: 624419

Lab Code SAS e No.: - AS No.: - DG No.: 30894

Matrix: (soil/w air Lab Sample ID: 30894-5

Sample wt/vol: 100 (g/mL) mL Lab File ID: d1516

Level: (low/med low Date Received: 03/23/93

% Moisture: not - Date Analyzed: 03/23/93

GC Colum DB-624 ID: 0.53 (mm) Dilution Factor: 40

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	8 U
74-83-9	Bromomethane	8 U
75-01-4	Vinyl Chloride	8 U
75-00-3	Chloroethane	8 U
75-09-2	Methylene Chloride	8 U
67-64-1	Acetone	8 U
75-15-0	Carbon Disulfide	8 U
75-35-4	1,1-Dichloroethene	8 U
75-34-3	1,1-Dichloroethane	10
540-59-0	1,2-Dichloroethene (tot	11
67-66-3	Chloroform	8 U
107-06-2	1,2-Dichloroethane	8 U
78-93-3	2-Butanone	8 U
71-55-6	1,1,1-Trichloroethane	8 U
56-23-5	Carbon Tetrachloride	8 U
75-27-4	Bromodichloromethane	8 U
78-87-5	1,2-Dichloropropane	8 U
10061-01-5	cis-1,3-Dichloropropene	8 U
79-01-6	Trichloroethene	13
124-48-1	Dibromochloromethane	8 U
79-00-5	1,1,2-Trichloroethane	8 U
71-43-2	Benzene	8 U
10061-02-6	trans-1,3-Dichloroprope	8 U
75-25-2	Bromoform	8 U
108-10-1	4-Methyl-2-Pentanone	8 U
591-78-6	2-Hexanone	8 U
127-18-4	Tetrachloroethene	25
79-34-5	1,1,2,2-Tetrachloroetha	8 U
108-88-3	Toluene	8 U
108-90-7	Chlorobenzene	8 U
100-41-4	Ethylbenzene	8 U
100-42-5	Styrene	8 U
1330-20-7	Xylene (total)	8 U

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

GPS-006

Lab Name Sound Analytical Se Contract: 624419

Lab Code SAS e No.: - AS No.: - DG No.: 30894

Matrix: (soil/w air Lab Sample ID: 30894-6

Sample wt/vol: 100 (g/mL) mL Lab File ID: d1517

Level: (low/med low Date Received: 03/23/93

% Moisture: not - Date Analyzed: 03/23/93

GC Colum DB-624 ID: 0.53 (mm) Dilution Factor: 40

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	8 U
74-83-9- - - - - - -	Bromomethane	8 U
75-01-4- - - - - - -	Vinyl Chloride	8 U
75-00-3- - - - - -	Chloroethane	8 U
75-09-2- - - - - - -	Methylene Chloride	17 B
67-64-1- - - - - - -	Acetone	8 U
75-15-0- - - - - - -	Carbon Disulfide	8 U
75-35-4- - - - - - -	1,1-Dichloroethene	8 U
75-34-3- - - - - - -	1,1-Dichloroethane	12
540-59-0- - - - - -	1,2-Dichloroethene (tot	15
67-66-3- - - - - - -	Chloroform	8 U
107-06-2- - - - - -	1,2-Dichloroethane	8 U
78-93-3- - - - - - -	2-Butanone	8 U
71-55-6- - - - - - -	1,1,1-Trichloroethane	8 U
56-23-5- - - - - - -	Carbon Tetrachloride	8 U
75-27-4- - - - - - -	Bromodichloromethane	8 U
78-87-5- - - - - - -	1,2-Dichloropropane	8 U
10061-01-5- - - - -	cis-1,3-Dichloropropene	8 U
79-01-6- - - - - - -	Trichloroethene	12
124-48-1- - - - - -	Dibromochloromethane	8 U
79-00-5- - - - - -	1,1,2-Trichloroethane	8 U
71-43-2- - - - - - -	Benzene	8 U
10061-02-6- - - - -	trans-1,3-Dichloroprope	8 U
75-25-2- - - - - - -	Bromoform	8 U
108-10-1- - - - - -	4-Methyl-2-Pentanone	8 U
591-78-6 - - - - - -	2-Hexanone	8 U
127-18-4- - - - - -	Tetrachloroethene	21
79-34-5- - - - - - -	1,1,2,2-Tetrachloroetha	8 U
108-88-3- - - - - -	Toluene	9 B
108-90-7- - - - - -	Chlorobenzene	8 U
100-41-4- - - - - -	Ethylbenzene	8 U
100-42-5- - - - - -	Styrene	8 U
1330-20-7- - - - - -	Xylene (total)	8 U

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

GPS-007

Lab Name Sound Analytical Se Contract: 624419

Lab Code SAS e No.: - AS No.: - DG No.: 30894

Matrix: (soil/w air Lab Sample ID: 30894-7

Sample wt/vol: 100 (g/mL) mL Lab File ID: d1518

Level: (low/med low Date Received: 03/23/93

% Moisture: not - Date Analyzed: 03/23/93

GC Colum DB-624 ID: 0.53 (mm) Dilution Factor: 40

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	8 U
74-83-9- - - - - - -	Bromomethane	8 U
75-01-4- - - - - - -	Vinyl Chloride	8 U
75-00-3- - - - - -	Chloroethane	8 U
75-09-2- - - - - - -	Methylene Chloride	21 B
67-64-1- - - - - - -	Acetone	8 U
75-15-0- - - - - - -	Carbon Disulfide	8 U
75-35-4- - - - - - -	1,1-Dichloroethene	8 U
75-34-3- - - - - - -	1,1-Dichloroethane	9
540-59-0- - - - - -	1,2-Dichloroethene (tot	12
67-66-3- - - - - - -	Chloroform	8 U
107-06-2- - - - - -	1,2-Dichloroethane	8 U
78-93-3- - - - - - -	2-Butanone	8 U
71-55-6- - - - - - -	1,1,1-Trichloroethane	8 U
56-23-5- - - - - - -	Carbon Tetrachloride	8 U
75-27-4- - - - - - -	Bromodichloromethane	8 U
78-87-5- - - - - - -	1,2-Dichloropropane	8 U
10061-01-5- - - - -	cis-1,3-Dichloropropene	8 U
79-01-6- - - - - - -	Trichloroethene	9
124-48-1- - - - - -	Dibromochloromethane	8 U
79-00-5- - - - - -	1,1,2-Trichloroethane	8 U
71-43-2- - - - - - -	Benzene	8 U
10061-02-6- - - - -	trans-1,3-Dichloroprope	8 U
75-25-2- - - - - - -	Bromoform	8 U
108-10-1- - - - - -	4-Methyl-2-Pentanone	8 U
591-78-6 - - - - - -	2-Hexanone	8 U
127-18-4- - - - - -	Tetrachloroethene	17
79-34-5- - - - - - -	1,1,2,2-Tetrachloroetha	8 U
108-88-3- - - - - -	Toluene	8 U
108-90-7- - - - - -	Chlorobenzene	8 U
100-41-4- - - - - -	Ethylbenzene	8 U
100-42-5- - - - - -	Styrene	8 U
1330-20-7- - - - - -	Xylene (total)	8 U

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

GPS-008

Lab Name Sound Analytical Se Contract: 624419

Lab Code SAS e No.: - AS No.: - DG No.: 30894

Matrix: (soil/w air Lab Sample ID: 30894-8

Sample wt/vol: 100 (g/mL) mL Lab File ID: D1528

Level: (low/med low Date Received: 03/23/93

% Moisture: not - Date Analyzed: 03/24/93

GC Colum DB-624 ID: 0.53 (mm) Dilution Factor: 1

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	0.2 U
74-83-9- - - - - - -	Bromomethane	0.2 U
75-01-4- - - - - - -	Vinyl Chloride	0.2 U
75-00-3- - - - - -	Chloroethane	0.2 U
75-09-2- - - - - - -	Methylene Chloride	0.2 U
67-64-1- - - - - - -	Acetone	0.2 U
75-15-0- - - - - - -	Carbon Disulfide	0.2 U
75-35-4- - - - - - -	1,1-Dichloroethene	0.2 U
75-34-3- - - - - - -	1,1-Dichloroethane	0.2 U
540-59-0- - - - - -	1,2-Dichloroethene (tot	0.2 U
67-66-3- - - - - - -	Chloroform	0.2 U
107-06-2- - - - - -	1,2-Dichloroethane	0.2 U
78-93-3- - - - - - -	2-Butanone	0.2 U
71-55-6- - - - - - -	1,1,1-Trichloroethane	0.2 U
56-23-5- - - - - - -	Carbon Tetrachloride	0.2 U
75-27-4- - - - - - -	Bromodichloromethane	0.2 U
78-87-5- - - - - - -	1,2-Dichloropropane	0.2 U
10061-01-5- - - - -	cis-1,3-Dichloropropene	0.2 U
79-01-6- - - - - - -	Trichloroethene	0.2 U
124-48-1- - - - - -	Dibromochloromethane	0.2 U
79-00-5- - - - - -	1,1,2-Trichloroethane	0.2 U
71-43-2- - - - - - -	Benzene	0.2 U
10061-02-6- - - - -	trans-1,3-Dichloroprope	0.2 U
75-25-2- - - - - - -	Bromoform	0.2 U
108-10-1- - - - - -	4-Methyl-2-Pentanone	0.2 U
591-78-6 - - - - - -	2-Hexanone	0.2 U
127-18-4- - - - - -	Tetrachloroethene	0.6
79-34-5- - - - - - -	1,1,2,2-Tetrachloroetha	0.2 U
108-88-3- - - - - -	Toluene	0.2 U
108-90-7- - - - - -	Chlorobenzene	0.2 U
100-41-4- - - - - -	Ethylbenzene	0.2 U
100-42-5- - - - - -	Styrene	0.2 U
1330-20-7- - - - - -	Xylene (total)	0.2 U

SOUND ANALYTICAL SERVICES, INC.

SPECIALIZING IN INDUSTRIAL & TOXIC WASTE ANALYSIS

4813 PACIFIC HIGHWAY EAST, TACOMA, WASHINGTON 98424 - TELEPHONE (206) 922-2310 - FAX (206) 922-5047

DATA QUALIFIER FLAGS

ND: Indicates that the analyte was analyzed for but was not detected. The associated numerical value is the practical quantitation limit, corrected for sample dilution.

J: The analyte was analyzed for and positively identified, but the associated numerical value is an estimated quantity.

C: The identification of this analyte was confirmed by GC/MS.

B1: This analyte was also detected in the associated method blank. The reported sample results have been adjusted for moisture, final extract volume, and/or dilutions performed during extract preparation. The analyte concentration was evaluated prior to sample preparation adjustments, and was determined not to be significantly higher than the associated method blank (less than ten times the concentration reported in the blank).

B2: This analyte was also detected in the associated method blank. However, the analyte concentration in the sample was determined to be significantly higher than the method blank (greater than ten times the concentration reported in the blank).

E: The concentration of this analyte exceeded the instrument calibration range.

D: The reported result for this analyte is calculated based on a secondary dilution factor.

A: This TIC is a suspected aldol-condensation product.

M: Quantitation Limits are elevated due to matrix interferences.

S: The calibration quality control criteria for this compound were not met. The reported concentration should be considered an estimated quantity.

X1: Contaminant does not appear to be "typical" product. Elution pattern suggests it may be _____.

X2: Contaminant does not appear to be "typical" product. Further testing is suggested for identification.

X3: Identification and quantification of peaks was complicated by matrix interference; GC/MS confirmation is recommended.

X4: RPD for duplicates outside QC limits. Sample was re-analyzed with similar results. Sample matrix is nonhomogeneous.

X4a: RPD for duplicates outside QC limits due to analyte concentration near the method practical quantitation limit/detection limit.

X5: Matrix spike was diluted out during analysis.

X6: Recovery of matrix spike outside QC limits. Sample was re-analyzed with similar results.

X7: Recovery of matrix spike outside QC limits. Matrix interference is indicated by blank spike recovery data.

X7a: RPD value for MS/MSD outside QC limits due to high contaminant levels.

X8: Surrogate was diluted out during analysis.

X9: Surrogate recovery outside QC limits due to matrix composition.

X10: Surrogate recovery outside QC limits due to high contaminant levels.

CHAIN OF CUSTODY

BURLINGTON ENVIRONMENTAL

210 West Sand Bank Road
P.O. Box 330
Columbia, IL 62236-0330
618/281-7173
618/281-5120 FAX

CHAIN-OF-CUSTODY RECORD

C.O.C. SERIAL NO. 5344

PROJECT NAME PASCO LF
PROJECT NUMBER 624419 MAJOR TASK 7020.22
SAMPLERS L. LaRosa Jim Dolan
LAB DESTINATION SOUND ANALYTICAL

SAMPLE NO.	DATE	TIME	COMP	GRAB	SAMPLE LOCATION	NO. OF CONTAINERS	TYPE OF ANALYSIS: VOC	MS/MSD						PRESERVATIVES: ICED	CHEMICALS ADDED	REMARKS (CHEMICAL ANALYSIS REQUEST FORM NUMBER IF APPLICABLE)
GPS-001	3-22-93	1215		✓	GAS	1	✓									
GPS-002	↓	1240		✓	↓	1	✓									
GPS-003		1250		✓		1	✓									
GPS-004		1305		✓		1	✓									
GPS-005		1306		✓		1	✓									
GPS-006		1310		✓		1		✓								
GPS-007		1313		✓		1	✓									
GPS-008	↓	1315		✓	↓	1	✓									

RELINQUISHED BY SIGNATURE	DATE	TIME	RECEIVED BY SIGNATURE	DATE	TIME
Louis A. La Rosa	3-22-93	1600	SENT VIA FED EX	3-22-93	1600
			D. [illegible]	3/23	8:45

SHIPPING NOTES

LAB NOTES

BE-34 (1/92)

MEMORANDUM

DATE: May 7, 1993

TO: Ted Wall, Senior Environmental Engineer TW

FROM: Nels Cone, Chemist NBC

SUBJECT: DATA VALIDATION OF CHEMICAL ANALYSIS FROM PASCO LANDFILL PHASE I REMEDIAL INVESTIGATION, PROJECT 624419, DATA SET 17A

On March 22, 1993, eight soil-gas samples were collected by Burlington Environmental field personnel. The sample identifications numbers are as follows:

GPS-001	GPS-003	GPS-005	GPS-007
GPS-002	GPS-004	GPS-006	GPS-008

These samples were then submitted to Sound Analytical of Tacoma, Washington (work order 30894), for volatile organic compound analysis (USEPA SW-846, Method 8240). I performed a data quality review of the analytical results in accordance with the USEPA Contract Laboratory Program (CLP) Document Number 0LM01.0. These guidelines are normally used for water and soil monitoring. However, this document was relied upon for proper guidance in the soil-gas data validation. My findings and recommendations are summarized below.

FINDINGS

Properly completed chain-of-custody forms were included with documented signatures from field to laboratory receipt. All samples were shown as having been properly iced and received in good condition. The samples received the requested analyses, and all holding, extraction, and analysis times met the required guidelines.

Methylene chloride was detected in the method blank; results received the appropriate "B" data qualifier flag to indicate this. Surrogate compound recoveries were within expected QC limits. Internal standards displayed area response and retention times within required limits, with the exception of sample GPS-001. As such, data from this sample should be considered estimated values only. Initial calibration check met the required minimum relative response factors for all detected compounds, with the exception of methylene chloride. This appears related to the previously mentioned blank contamination issue and results have received "B" data qualifier flags.

Requisite instrument tuning check with bromofluorobenzene documented performance of gas chromatograph/mass spectral analyses. Matrix spike/matrix spike duplicate analyses displayed analytical accuracy within required QC limits with the exception of chlorobenzene. This compound was not detected in any samples and per CLP protocol, no further action is taken. The

relative percent differences (RPD) between spike analyses did not meet required precision QC limits. However, data usability remains intact as the continuing calibration verifications met QC limits required for determination of precision. Additional QC was supplied in the form of gas chromatograms, mass spectral data for the samples, method blank, matrix spikes, and calibration standards. Data consistency was demonstrated throughout.

RECOMMENDATIONS

Overall, the data quality guidelines as advised in the CLP Statement of Work are met once the following changes are made: all reported detections in sample GPS-001 must be appended with "J" data qualifier flags. This data can then be considered valid for its intended use.

Phase I Remedial Investigation Report
Pasco Landfill
Pasco, Washington

Volume IV - Appendix I, I2.5 - I5.1 March 1994

Prepared for: PASCO LANDFILL PLP GROUP