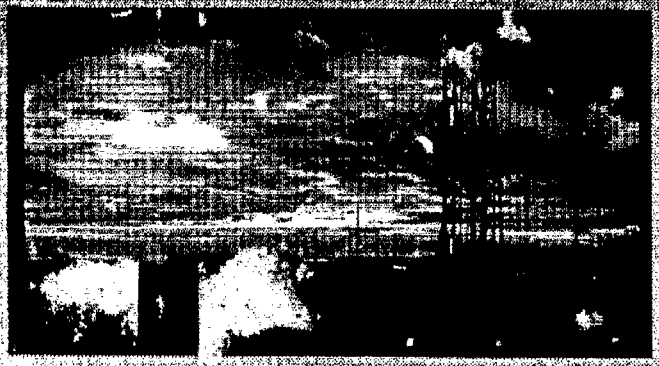
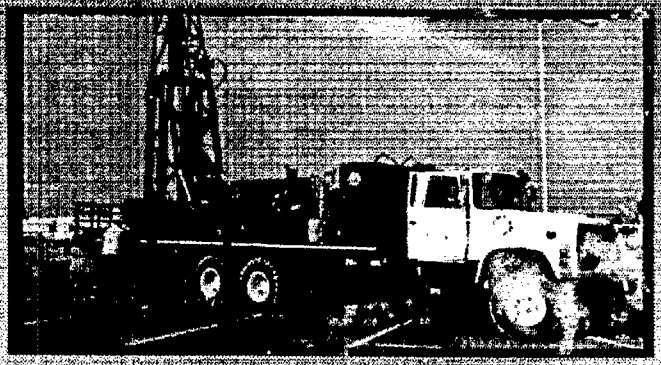
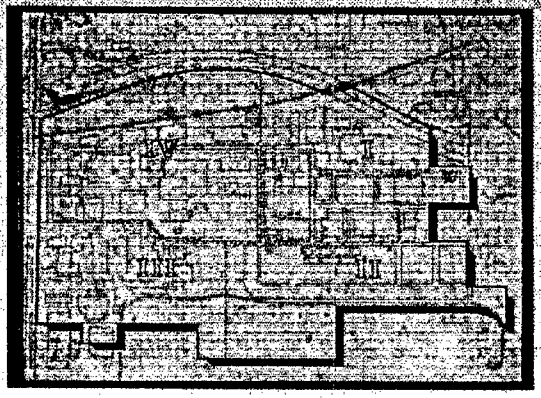
COMPREHENSIVE SITE ASSESSMENT REPORT
AZUSA/IRWINDALE STUDY AREA
SAN GABRIEL VALLEY
LOS ANGELES COUNTY, CALIFORNIA

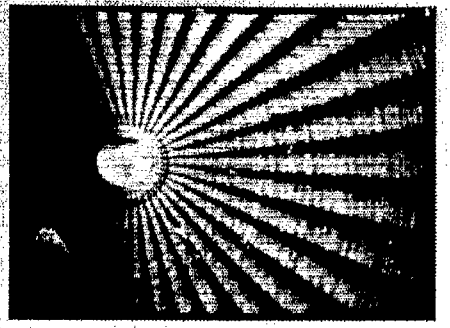
SFUND RECORDS CTR
21522

GENCORP
AEROJET









HLA

September 1994
VOLUME III

Volume III
Comprehensive Site Assessment Report
Azusa/Irwindale Study Area
San Gabriel Valley
Los Angeles County, California

Prepared for

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I VLEACH OUTPUT AND PARAMETER FILES

DISTRIBUTION

EXECUTIVE SUMMARY

This *Comprehensive Site Assessment Report* is submitted to the California Regional Water Quality Control Board, Los Angeles Region (RWQCB), on behalf of Aerojet General Corporation (Aerojet). This report was prepared by Harding Lawson Associates (HLA) and documents the extent, procedures, and the results of the site assessment performed at the Azusa/Irwindale Study Area (AISA) in San Gabriel Valley, Los Angeles County, California. The objectives of this report are as follows:

- Document site assessment activities performed and their compliance with the Revised Work Plan (HLA, 1991b), Quality Assurance Project Plan (HLA, 1992a), Revised Sampling and Analysis Plan (HLA, 1992b), and supporting documents approved by the RWQCB.
- Provide a comprehensive presentation of all vadose zone and groundwater data collected to date at the AISA. Vadose zone sampling has not yet been performed in the southern Kincaid Pit in the northern part of the AISA due to access restrictions.
- Provide an evaluation of vadose zone chemical data including spatial concentration trends in relation to potential source areas.
- Provide an evaluation of hydrogeologic and groundwater chemical data including spatial and temporal trends in groundwater levels and in volatile organic compounds (VOCs).
- Document the development of conceptual and numerical models of groundwater flow in the Baldwin Park Operable Unit, which have been demonstrated to accurately represent the regional groundwater flow system and local groundwater flow conditions at the AISA.
- Develop a conceptual model that describes the fate and transport of VOCs in the subsurface at the AISA.
- Verify the primary mechanisms of VOC fate and transport identified in the conceptual model using theoretical models to predict VOC mass transfer and migration.
- Develop recommendations for additional site assessment and remediation activities at the AISA.

SCOPE OF THE AISA SITE ASSESSMENT

Data collection activities performed from January 1992 through July 1994 at the AISA have included:

- Soil-gas surveys; 823 shallow vapor probe samples collected at an average depth of 5 feet,
- Soil-matrix sampling and analysis; 276 samples collected from 72 near surface, soil boring, and monitoring well locations (soil-vapor and groundwater),
- Soil-vapor monitoring well installation; 88 vapor monitoring wells in 32 well clusters to depths of 50 feet; and 28 vapor monitoring wells in six well clusters to maximum depths of 308 feet,
- Soil-vapor monitoring well sampling and chemical analysis,
- Groundwater monitoring well installation; five monitoring wells to a maximum depth of 367 feet, and
- Groundwater level monitoring and sampling.

SIGNIFICANT FINDINGS

On the basis of a detailed evaluation of the spatial distribution of inorganic and organic chemical data, two shallow areas of somewhat elevated VOC concentrations of 1,1,1-trichloroethane (1,1,1-TCA) and 1,1,2-trichloro-1,2,2-trifluoroethane (CFC-113) were identified. Maximum concentrations of these VOCs in these areas were 620 and 3,400 micrograms per liter (μg/l), respectively as measured in the June 1994 vapor sampling event. These areas are located in the central part of the AISA on Optical Radiation Corporation (ORC) property and near Building 57 and the 210 Freeway. A third area of somewhat elevated shallow trichloroethene (TCE) concentrations was also identified in the northwest portion of Quadrant III (southern Ponded Liquid Area 5). TCE concentrations were measured at 190 μg/l during the June 1994 vapor sampling event. Soil-gas and soil-vapor sampling has confirmed that TCE concentrations are limited in lateral and vertical extent in this area.

Detections of other VOCs in the upper 50 feet of the vadose zone were of generally low concentration and limited in lateral and vertical extent.

A conceptual model was developed based on five primary transport pathways including:

- Downward concentration-driven gas diffusion from possible shallow sources,
- Groundwater transport of VOCs onto the AISA from upgradient sources,
- VOC offgassing from groundwater,
- Upward concentration-driven gas diffusion, and
- Lateral concentration-driven gas diffusion from areas of higher vapor concentration to areas of lower concentration.

The shallow areas of somewhat elevated concentrations of 1,1,1-TCA, CFC-113, and TCE described above provide a driving force for concentration-driven gas diffusion both laterally and vertically downward. Groundwater transport of TCE, tetrachloroethene (PCE), and carbon tetrachloride (CCl_4), from upgradient sources has resulted in significant concentrations of these VOCs in groundwater at the upgradient boundary of the AISA near the 210 Freeway. Although trichlorofluoromethane (CFC-11) was not detected in groundwater samples collected from the AISA at a practical quantitation limit (PQL) of 5 μg/l, CFC-11 may be present in groundwater at concentrations below the 5 μg/l PQL. Groundwater concentrations of TCE, PCE, CCl_4, and CFC-11 act as a source of VOCs that are offgassing to the vadose zone at the AISA. The resultant VOCs in soil vapor provide a driving force for vertically upward and lateral concentration-driven gas diffusion to areas of lower concentration. The VOC chemical transport processes utilized in the AISA conceptual model are well documented in the scientific literature and are supported by (1) observed concentration trends and gradients and 2) VLEACH model simulations indicating that groundwater offgassing and upward concentration-driven gas diffusion results in soil-vapor concentrations that are observed in the vadose zone at the AISA.

An evaluation of potential impacts to groundwater indicates that TCE, PCE, CCl4, and CFC-11 concentrations in the vadose zone at the AISA are not degrading water quality, hence these VOCs do not warrant further investigation at the AISA. Instead, groundwater offgassing appears to be degrading the vadose zone at the AISA. Simulations of downward concentration-driven gas diffusion from shallow areas of somewhat elevated 1,1,1-TCA and CFC-113 and TCE concentrations indicate that mass transfer of these VOCs does not adversely affect groundwater quality relative to state and federal maximum contaminant levels.

RECOMMENDATIONS

On the basis of the findings presented in this report, it is recommended that:

- Continued monitoring of the soil-vapor concentrations at depths greater than 50 feet be performed at the AISA to further verify VOC mass transfer from groundwater to the vadose zone. (As groundwater remediation in the Baldwin Park Operable Unit progresses via groundwater extraction and treatment, it is anticipated that VOC concentrations will also decrease in the vadose zone.)

- Continue monthly groundwater level monitoring and quarterly groundwater sampling to monitor the affects of the saturated zone on VOC mass transport in the vadose zone.

APPENDIX C

SOIL MATRIX LABORATORY DATA SHEETS

Enseco
A Corning Company

Enseco - CRL
7440 Lincoln Way • Garden Grove, CA 92641
(714) 898-6370 • (213) 598-0458 • (800) LAB-1-CRL
FAX: (714) 891-5917

June 9, 1994

HARDING LAWSON ASSOCIATES
3 HUTTON CENTRE DRIVE, STE 200
SANTA ANA, CA 92707
ATTN: MR. TOM LINDROS

LAB NO.: 105669-0001/0007
DATE SAMPLED: 26-MAY-1994
DATE SAMPLE REC'D: 26-MAY-1994
PROJECT: (26522-10.4) AEROJET

Enclosed with this letter is the report of the analytical results for the project specified above. Anomalies associated with this report are described in the Narrative section.

Report data sheets contain a list of the constituents measured in each test, the analytical results and the Enseco-CRL reporting limit. Reporting limits are adjusted to reflect any dilution factors or dry weight correction, when applicable. Solid and waste samples are reported on an "as received" basis, unless dry-weight correction is requested.

Melanie Stoner
REVIEWED

Sabina R. Sudoko
APPROVED

The Report Cover Letter is an integral part of this report.
This report pertains only to the samples investigated and does not necessarily apply to other apparently identical or similar materials. This report is submitted for the exclusive use of the client to whom it is addressed. Any reproduction of this report or use of this Laboratory's name for advertising or publicity purposes without authorization is prohibited.

Enseco
Corning Environmental Services

Section	Description
Cover letter	Signature page, report narrative as applicable.
Sample Description Information	Tabulated cross-reference between the Lab ID and Client ID, including matrix, date and time sampled and the date received for all samples in the project.
Sample Analysis Results Sheets	Lists sample results, test components, reporting limit, dates prepared and analyzed and any data qualifiers. Pages are organized by test.
QC Lot Assignment Report	Cross-reference between lab ID's and applicable QC batches (DCS, LCS, SCS, Blank, MS/SD, DU)
Duplicate Control Sample Report	Percent recovery and RPD results, with acceptance limits, for the laboratory duplicate control samples for each test are tabulated in this report. These are measures of accuracy and precision for each test. Acceptance limits are based upon laboratory historical data.
Laboratory Control Sample Report	Percent recovery results for a single Laboratory Control Sample (if applicable) are tabulated in this report, with the applicable acceptance limits for each test.
Matrix Spike/Matrix Spike Duplicate Report	Percent recovery and RPD results for matrix-specific QC samples and acceptance limits, where applicable. This report can be used to assess matrix effects on an analysis.
Single Control Sample Report	A tabulation of the surrogate recoveries for the blank for organic analyses.
Method Blank Report	A summary of the results of the analysis of the method blank for each test.

List of Abbreviations and Terms

DCS	Duplicate Control Sample	MSD	Matrix Spike Duplicate
DU	Sample Duplicate	QC Run	Preparation batch
EB	Equipment Blank	QC Category	LIMS QC Category
FB	Field Blank	QC Lot	DCS batch
FD	Field Duplicate	ND	Not Detected at the reporting limit expressed
IDL	Instrument Detection Limit (Metals)	QC Matrix	Matrix of the laboratory control sample (s)
LCS	Laboratory Control Sample	RL	Reporting Limit
MB	Method Blank	QC	Quality Control
MDL	Method Detection Limit (Organics)	SA	Sample
MS	Matrix Spike	SD	See MSD
RPD	Relative Percent Difference	TB	Trip Blank
ppm (parts per million)	mg/L or mg/kg	ppb (parts per billion)	ug/L or ug/kg
QUAL	Qualifier flag	DIL	Dilution Factor

Refer to the Enseco Quality Assurance Program Plan for detailed explanations of terms summarized above.

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LIMS # 105669

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II. Chain of Custody and Sample Description Information

III. Analytical Results Summary (LIMS Report)
- A. LIMS Datasheets
- B. QC Summaries

NARRATIVE

LIMS # 105669

The samples were received by Enseco-CRL in a chilled state, intact, and with the chain of custody.

Per instruction from HLA, sample ID "PSW-IDVMW-01" was changed to "PWS-..." on the Chain of Custody.

Harding Lawson Associates
Rolling Oaks Drive, Suite 100
Thousand Oaks, CA 91361
(805) 494-7725 • (805) 494-8386 FAX

CHAIN OF CUSTODY FORM

105669

Lab: Ensco - CR

Samplers: Bob Witbaard & Peter Book

Job Number:

Name/Location: Aerojet - HISA

Project Manager: Tom Lindros

Recorder: (Signature Required)

SOURCE CODE	MATRIX: Water	Sediment	Soil	Oil	#CONTAINERS & PRESERV.: Unpres.	H_2SO_4	HNO_3	HCl	NaOH	Chilled	SAMPLE NUMBER OR LAB NUMBER: Yr Wk Seq	DATE: Yr Mo Dy Time	STATION DESCRIPTION/ NOTES	EPA 601/8010	EPA 602/8020	EPA 624/8240	EPA 625/8270	ICP METALS	EPA 8015M/TPH	EPA 300.0 NO_3/Cl^-	EPA 9012 Cyanide	EPA 415.1 TOC	EPA 601/7470 PP Metals
10	X							3		X	MW-4	940526 1140	3x40 ml VOAs			X							
10	X							3		X	MW-18	940526 1155	3x40 ml VOAs			X							
10	X				2					X	MW-4	940526 1140	2x 1 liter Amber				X						
10	X				1					X	MW-4	940526 1140	1x 8oz Plastic							X			
10	X								1	X	MW-4	940526 1140	1x 6oz. Plastic								X		
10	X					1				X	MW-4	940526 1140	1x 8oz. ~~Plastic~~ Amber									X	
10	X						1			X	MW-4	940526 1140	1x 6oz Plastic.										X

cool custodody seal # 5262

LAB NUMBER Yr Wk Seq	DEPTH IN FEET	COL MTD CD	QA CODE	MISCELLANEOUS
				- Send Reports to Tom Harder @ HLA Santa Ana
				- Analyze per Aerojet Contract
				- Metals Samples filtered
				- Report Low (5-10 ppb) detection limits.
				- Complete L.A. RWQCB WIP Forms.
				- 48 hr. holding time on 300.0
				Questions call Tom Lindros @ 805) 494-7725

CHAIN OF CUSTODY RECORD

RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
	[illegible]	5-26-94 17:35
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
[illegible]		5-26-94 18:45
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
DISPATCHED BY: (Signature) DATE/TIME	RECEIVED FOR LAB BY: (Signature)	DATE/TIME
	[illegible]	5/26/94 18:45

METHOD OF SHIPMENT

Laboratory Copy White | Project Office Copy Yellow | Field or Office Copy Pink

6533

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Thousand Oaks, CA 91361
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CHAIN OF CUSTODY FORM

105669

Lab: Enseco - CRL

Samplers: Bob Witbaard + Peter Bozek

Job Number:

Name/Location: Aerojet - AISA

Project Manager: Tom Lindros

Recorder: [signature] (Signature Required)

SOURCE CODE	MATRIX: Water	Sediment	Soil	Oil	#CONTAINERS & PRESERV.: Unpres.	H_2SO_4	HNO_3	HCl	NaOH	Chilled	SAMPLE NUMBER OR LAB NUMBER: Yr	Wk	Seq	DATE: Yr	Mo	Dy	Time	STATION DESCRIPTION/ NOTES	EPA 601/8010	EPA 602/8020	EPA 624/8240	EPA 625/8270	ICP METALS	EPA 8015M/TPH	EPA 300.0 N-/cl-	EPA 9012 Cyanide	EPA 415.1 TOC	EPA 6010/7000 pp Metals
10	X							3		X	mw-3			94	05	26	1340	3x40 ml VOAs			X							
10	X							3		X	mw-15			94	05	26	1352	3x40 ml VOAs			X							
10	X				2					X	mw-3			94	05	26	1340	2x1 liter Amber				X						
10	X				1					X	mw-3			94	05	26	1340	1x8 oz. Plastic							X			
10	X								1	X	mw-3			94	05	26	1340	1x6 oz. Plastic								X		
10	X					1				X	mw-3			94	05	26	1340	1x8 oz. Amber									X	
10	X						1			X	mw-3			94	05	26	1340	1x6 oz Plastic										X

Cooler Custody Seal # 5264

LAB NUMBER: Yr	Wk	Seq	DEPTH IN FEET	COL MTD CD	QA CODE	MISCELLANEOUS
						- Send Reports to Tom Harder at Santa Ana HLA.
						- Analyse per Aerojet Contract
						- Metals Samples filtered
						- Report Low (5-10ppb) detection limits
						- Complete L.A. RWQCB WIP forms
						- 48 hr. holding Time on 3000
						Questions call Tom Lindros @ 805) ~~77~~ 494-7725

CHAIN OF CUSTODY RECORD

RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
[signature]	[signature]	5-26-94 17:30
RELINQUISHED BY: (Signature) [signature]	RECEIVED BY: (Signature)	DATE/TIME 5-26-94 18:45
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
DISPATCHED BY: (Signature) DATE/TIME	RECEIVED FOR LAB BY: (Signature) [signature]	DATE/TIME 5/26/ 18:45
METHOD OF SHIPMENT		

Laboratory Copy White | Project Office Copy Yellow | Field or Office Copy Pink

6533

HLA
[illegible]ding Lawson Associates
[illegible] Rolling Oaks Drive, Suite 100
[illegible]usand Oaks, CA 91361
(805) 494-7725 • (805) 494-8386 FAX

105669

CHAIN OF [illegible]STODY FORM

Lab: Enseco - CRL

Samplers: Bob Witbaard + Peter Bozek

Job Number: 26522.10.4

Name/Location: Aerojet - AISA

Project Manager: Tom Lindros

Recorder: [signature] (Signature Required)

SOURCE CODE	MATRIX: Water	Sediment	Soil	Oil	#CONTAINERS & PRESERV.: Unpres.	H_2SO_4	HNO_3	HCl	NaOH	Chilled	SAMPLE NUMBER OR LAB NUMBER: Yr	Wk	Seq	DATE: Yr	Mo	Dy	Time	STATION DESCRIPTION/ NOTES	EPA 601/8010	EPA 602/8020	EPA 624/8240	EPA 625/8270	ICP METALS	EPA 8015M/TPH	EPA: 300.0 N/cl	EPA: 9012 Cyanide	EPA: 415.1 TOC	EPA: 6010/7000 ppm metals
10	X							3		X	MW-2			94	05	26	0920	3x40 ml VOA			X							
10	X							3		X	MW-14			94	05	26	0943	3x40 ml VOA			X							
10	X				2					X	MW-2			94	05	26	0920	2x1 liter Amber				X						
10	X				1					X	MW-2			94	05	26	0920	1x8 oz. Plastic							X			
10	X								1	X	MW-2			94	05	26	0920	1x6 oz. Plastic								X		
10	X						1			X	MW-2			94	05	26	0920	1x8 oz. Amber									X	
10	X						1			X	MW-2			94	05	26	0920	1x6 oz. Plastic.										X

Cooler Custody Seal # 5261

LAB NUMBER: Yr	Wk	Seq	DEPTH IN FEET	COL MTD CD	QA CODE	MISCELLANEOUS
						-Send Reports to Tom Harder @ Santa Ana HLA
						-Analyze per Aerojet Contract
						• Metals Samples Filtered
						-Reports Low (5-10 ppb) detection limits.
						-Complete L.A. RWQCB WIP Forms
						-48 hr holding time on 300.0
						Questions? call Tom Lindros (@ 805) 494-7725

CHAIN OF CUSTODY RECORD

RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
[signature]	[signature]	5-26-94 17:35
RELINQUISHED BY: (Signature) [signature]	RECEIVED BY: (Signature)	5-26-94 18:45
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
DISPATCHED BY: (Signature) DATE/TIME	RECEIVED FOR LAB BY: (Signature) [signature]	DATE/TIME 5/26/94 1845
METHOD OF SHIPMENT		

Laboratory Copy White | Project Office Copy Yellow | Field or Office Copy Pink

6533

Enseco
Corning Environmental Services

SAMPLE DESCRIPTION INFORMATION
for
Harding Lawson Associates

Lab ID	Client ID	Matrix	Sampled Date	Sampled Time	Received Date
105669-0001-SA	MW-2	AQUEOUS	26 MAY 94	09:20	26 MAY 94
105669-0002-SA	MW-3	AQUEOUS	26 MAY 94	13:40	26 MAY 94
105669-0003-SA	MW-4	AQUEOUS	26 MAY 94	11:40	26 MAY 94
105669-0004-SA	MW-18	AQUEOUS	26 MAY 94	11:55	26 MAY 94
105669-0005-SA	MW-15	AQUEOUS	26 MAY 94	13:52	26 MAY 94
105669-0006-SA	MW-14	AQUEOUS	26 MAY 94	09:43	26 MAY 94
105669-0007-SA	PWS-1DVMW-01	AQUEOUS	26 MAY 94	13:24	26 MAY 94

Holding Time Report Project: 105669 Client: Harding Lawson Associates Today: 09 JUN 94

	Field ID	Lab ID	Lab Test Code	Analytical Method	Collected	Received	Extracted	Analyzed	CTA	RTA	ETA	HTV	Corrective Action
Test:	Method 3010 - Prep - Total Metals						Prep: n/a						Total: 3
1	MW-2	105669-0001-SA	P-M-3010-AT	3010	26 MAY 94	26 MAY 94	07 JUN 94	n/a	12	12	n/a		
2	MW-3	105669-0002-SA	P-M-3010-AT	3010	26 MAY 94	26 MAY 94	07 JUN 94	n/a	12	12	n/a		
3	MW-4	105669-0003-SA	P-M-3010-AT	3010	26 MAY 94	26 MAY 94	07 JUN 94	n/a	12	12	n/a		
Test:	Method 300.0 - Chlorate, Ion Chromatography						Prep: n/a						Total: 3
1	MW-2	105669-0001-SA	CLO3-MDL-A	300.0	26 MAY 94	26 MAY 94	n/a	07 JUN 94	12	12	n/a		
2	MW-3	105669-0002-SA	CLO3-MDL-A	300.0	26 MAY 94	26 MAY 94	n/a	07 JUN 94	12	12	n/a		
3	MW-4	105669-0003-SA	CLO3-MDL-A	300.0	26 MAY 94	26 MAY 94	n/a	07 JUN 94	12	12	n/a		
Test:	Method 9012 - Cyanide, Total						Prep: P-CN-AT						Total: 3
1	MW-2	105669-0001-SA	CN-MDL-AT	9012	26 MAY 94	26 MAY 94	06 JUN 94	07 JUN 94	12	12	n/a		
2	MW-3	105669-0002-SA	CN-MDL-AT	9012	26 MAY 94	26 MAY 94	06 JUN 94	07 JUN 94	12	12	n/a		
3	MW-4	105669-0003-SA	CN-MDL-AT	9012	26 MAY 94	26 MAY 94	06 JUN 94	07 JUN 94	12	12	n/a		
Test:	Method 300.0 - Nitrate, Ion Chromatography						Prep: n/a						Total: 3
1	MW-2	105669-0001-SA	NO3-IC-MDL-A	300.0	26 MAY 94	26 MAY 94	n/a	27 MAY 94	1	1	n/a		
2	MW-3	105669-0002-SA	NO3-IC-MDL-A	300.0	26 MAY 94	26 MAY 94	n/a	27 MAY 94	1	1	n/a		
3	MW-4	105669-0003-SA	NO3-IC-MDL-A	300.0	26 MAY 94	26 MAY 94	n/a	27 MAY 94	1	1	n/a		
Test:	Method 9012 - Prep - Cyanide, Total						Prep: n/a						Total: 3
1	MW-2	105669-0001-SA	P-CN-AT	9012	26 MAY 94	26 MAY 94	06 JUN 94	n/a	11	11	n/a		
2	MW-3	105669-0002-SA	P-CN-AT	9012	26 MAY 94	26 MAY 94	06 JUN 94	n/a	11	11	n/a		
3	MW-4	105669-0003-SA	P-CN-AT	9012	26 MAY 94	26 MAY 94	06 JUN 94	n/a	11	11	n/a		
Test:	Method 415.1 - Total Organic Carbon (TOC)						Prep: n/a						Total: 3
1	MW-2	105669-0001-SA	TOC-415_1-MDL-A	415.1	26 MAY 94	26 MAY 94	n/a	02 JUN 94	7	7	n/a		
2	MW-3	105669-0002-SA	TOC-415_1-MDL-A	415.1	26 MAY 94	26 MAY 94	n/a	02 JUN 94	7	7	n/a		
3	MW-4	105669-0003-SA	TOC-415_1-MDL-A	415.1	26 MAY 94	26 MAY 94	n/a	02 JUN 94	7	7	n/a		

CTA = Number of Days from Collected to Analyzed.
RTA = Number of Days from Received to Analyzed.
ETA = Number of Days from Extraction to Analyzed.
HTV = Hold Time Violation (Y=Yes, blank=No)

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Corning Environmental Services

Holding Time Report Project: 105669 Client: Harding Lawson Associates Today: 09 JUN 94

	Field ID	Lab ID	Lab Test Code	Analytical Method	Collected	Received	Extracted	Analyzed	CTA	RTA	ETA	HTV	Corrective Action
Test:	Method 8270 - Semivolatile Organics						Prep:	P-8270-A					Total: 3
1	MW-2	105669-0001-SA	8270-HLA-A	8270	26 MAY 94	26 MAY 94	27 MAY 94	31 MAY 94	5	5	4		
2	MW-3	105669-0002-SA	8270-HLA-A	8270	26 MAY 94	26 MAY 94	27 MAY 94	31 MAY 94	5	5	4		
3	MW-4	105669-0003-SA	8270-HLA-A	8270	26 MAY 94	26 MAY 94	27 MAY 94	31 MAY 94	5	5	4		
Test:	Method 8240 - Volatile Organics, EPA 8240 Extended List						Prep:	P-VOASCR-A					Total: 7
1	MW-2	105669-0001-SA	8240-HLA-A	8240	26 MAY 94	26 MAY 94	31 MAY 94	31 MAY 94	5	5	n/a		
2	MW-3	105669-0002-SA	8240-HLA-A	8240	26 MAY 94	26 MAY 94	31 MAY 94	31 MAY 94	5	5	n/a		
3	MW-4	105669-0003-SA	8240-HLA-A	8240	26 MAY 94	26 MAY 94	01 JUN 94	01 JUN 94	6	6	n/a		
4	MW-18	105669-0004-SA	8240-HLA-A	8240	26 MAY 94	26 MAY 94	01 JUN 94	01 JUN 94	6	6	n/a		
5	MW-15	105669-0005-SA	8240-HLA-A	8240	26 MAY 94	26 MAY 94	01 JUN 94	01 JUN 94	6	6	n/a		
6	MW-14	105669-0006-SA	8240-HLA-A	8240	26 MAY 94	26 MAY 94	01 JUN 94	01 JUN 94	6	6	n/a		
7	PWS-1DVMW-	105669-0007-SA	8240-HLA-A	8240	26 MAY 94	26 MAY 94	01 JUN 94	01 JUN 94	6	6	n/a		
Test:	Method 5030 - Prep - Volatile Organics						Prep:	n/a					Total: 7
1	MW-2	105669-0001-SA	P-VOASCR-A	5030	26 MAY 94	26 MAY 94	31 MAY 94	n/a	5	5	n/a		
2	MW-3	105669-0002-SA	P-VOASCR-A	5030	26 MAY 94	26 MAY 94	31 MAY 94	n/a	5	5	n/a		
3	MW-4	105669-0003-SA	P-VOASCR-A	5030	26 MAY 94	26 MAY 94	01 JUN 94	n/a	6	6	n/a		
4	MW-18	105669-0004-SA	P-VOASCR-A	5030	26 MAY 94	26 MAY 94	01 JUN 94	n/a	6	6	n/a		
5	MW-15	105669-0005-SA	P-VOASCR-A	5030	26 MAY 94	26 MAY 94	01 JUN 94	n/a	6	6	n/a		
6	MW-14	105669-0006-SA	P-VOASCR-A	5030	26 MAY 94	26 MAY 94	01 JUN 94	n/a	6	6	n/a		
7	PWS-1DVMW-	105669-0007-SA	P-VOASCR-A	5030	26 MAY 94	26 MAY 94	01 JUN 94	n/a	6	6	n/a		
Test:	Method EPA 3520 - Prep - Semivolatile Organics by GC/MS						Prep:	n/a					Total: 3
1	MW-2	105669-0001-SA	P-8270-A	3520	26 MAY 94	26 MAY 94	27 MAY 94	n/a	1	1	n/a		
2	MW-3	105669-0002-SA	P-8270-A	3520	26 MAY 94	26 MAY 94	27 MAY 94	n/a	1	1	n/a		
3	MW-4	105669-0003-SA	P-8270-A	3520	26 MAY 94	26 MAY 94	27 MAY 94	n/a	1	1	n/a		
Test:	Method 7062 - Arsenic, Hydride AA						Prep:	P-M-3010-AT					Total: 3
1	MW-2	105669-0001-SA	AS-HAA-MDL-AT	7062	26 MAY 94	26 MAY 94	07 JUN 94	08 JUN 94	13	13	n/a		
2	MW-3	105669-0002-SA	AS-HAA-MDL-AT	7062	26 MAY 94	26 MAY 94	07 JUN 94	08 JUN 94	13	13	n/a		
3	MW-4	105669-0003-SA	AS-HAA-MDL-AT	7062	26 MAY 94	26 MAY 94	07 JUN 94	08 JUN 94	13	13	n/a		
Test:	Method 7470 - Mercury, Cold Vapor AA						Prep:	P-HG-CVAA-AT					Total: 3
1	MW-2	105669-0001-SA	HG-CVAA-MDL-AT	7470	26 MAY 94	26 MAY 94	02 JUN 94	02 JUN 94	7	7	n/a		
2	MW-3	105669-0002-SA	HG-CVAA-MDL-AT	7470	26 MAY 94	26 MAY 94	02 JUN 94	02 JUN 94	7	7	n/a		
3	MW-4	105669-0003-SA	HG-CVAA-MDL-AT	7470	26 MAY 94	26 MAY 94	02 JUN 94	02 JUN 94	7	7	n/a		
Test:	Method 6010 - ICP Metals (Total)						Prep:	P-M-3010-AT					Total: 3
1	MW-2	105669-0001-SA	ICP-MDL-AT	6010	26 MAY 94	26 MAY 94	07 JUN 94	08 JUN 94	13	13	n/a		
2	MW-3	105669-0002-SA	ICP-MDL-AT	6010	26 MAY 94	26 MAY 94	07 JUN 94	08 JUN 94	13	13	n/a		
3	MW-4	105669-0003-SA	ICP-MDL-AT	6010	26 MAY 94	26 MAY 94	07 JUN 94	08 JUN 94	13	13	n/a		
Test:	Prep - Mercury, Cold Vapor AA (Total)						Prep:	n/a					Total: 3
1	MW-2	105669-0001-SA	P-HG-CVAA-AT	7470	26 MAY 94	26 MAY 94	02 JUN 94	n/a	7	7	n/a		
2	MW-3	105669-0002-SA	P-HG-CVAA-AT	7470	26 MAY 94	26 MAY 94	02 JUN 94	n/a	7	7	n/a		
3	MW-4	105669-0003-SA	P-HG-CVAA-AT	7470	26 MAY 94	26 MAY 94	02 JUN 94	n/a	7	7	n/a		

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QC LOT ASSIGNMENT REPORT - MS QC
Metals Analysis and Preparation

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
105669-0001-SA	AQUEOUS	AS-HAA-AT	07 JUN 94-A	07 JUN 94-A	07 JUN 94-AA
105669-0001-SA	AQUEOUS	HG-CVAA-A	02 JUN 94-D	02 JUN 94-D	02 JUN 94-DA
105669-0001-SA	AQUEOUS	ICP-AT	07 JUN 94-A	07 JUN 94-A	07 JUN 94-AA
105669-0002-SA	AQUEOUS	AS-HAA-AT	07 JUN 94-A	07 JUN 94-A	07 JUN 94-AA
105669-0002-SA	AQUEOUS	HG-CVAA-A	02 JUN 94-D	02 JUN 94-D	02 JUN 94-DA
105669-0002-SA	AQUEOUS	ICP-AT	07 JUN 94-A	07 JUN 94-A	07 JUN 94-AA
105669-0003-SA	AQUEOUS	AS-HAA-AT	07 JUN 94-A	07 JUN 94-A	07 JUN 94-AA
105669-0003-SA	AQUEOUS	HG-CVAA-A	02 JUN 94-D	02 JUN 94-D	02 JUN 94-DA
105669-0003-SA	AQUEOUS	ICP-AT	07 JUN 94-A	07 JUN 94-A	07 JUN 94-AA

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METHOD BLANK REPORT
Metals Analysis and Preparation
Project: 105669

Test: AS-HAA-MDL-AT Method 7062 - Arsenic, Hydride AA
Matrix: AQUEOUS
QC Run: 07 JUN 94-A Date Analyzed: 08 JUN 94

Analyte	Result	Units	Reporting Limit
Arsenic	ND	mg/L	0.0050

Test: HG-CVAA-MDL-AT Method 7470 - Mercury, Cold Vapor AA
Matrix: AQUEOUS
QC Run: 02 JUN 94-D Date Analyzed: 02 JUN 94

Analyte	Result	Units	Reporting Limit
Mercury	ND	mg/L	0.00050

Test: ICP-MDL-AT Method 6010 - ICP Metals (Total)
Matrix: AQUEOUS
QC Run: 07 JUN 94-A Date Analyzed: 07 JUN 94

Analyte	Result	Units	Reporting Limit
Aluminum	ND	mg/L	0.10
Barium	ND	mg/L	0.010
Cadmium	ND	mg/L	0.0050
Chromium	ND	mg/L	0.010
Copper	ND	mg/L	0.020
Lead	ND	mg/L	0.050
Manganese	ND	mg/L	0.010
Nickel	ND	mg/L	0.040
Zinc	TR	mg/L	0.020

ND = Not Detected

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Corning Environmental Services

MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Metals Analysis and Preparation
Project: 105669

Category: AS-HAA-AT Arsenic, Hydride AA (Total)
Matrix: AQUEOUS
Sample: 105646-0001
MS Run: 07 JUN 94-AA
Units: mg/L

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Arsenic	0.00590	0.471	0.460	0.500	93	91	2.4	78-118	25

Category: HG-CVAA-A Mercury by CVAA
Matrix: AQUEOUS
Sample: 105646-0004
MS Run: 02 JUN 94-DA
Units: mg/L

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Mercury	ND	0.00285	0.00288	0.00250	114	115	1.0	36-151	29

Category: ICP-AT ICP Metals
Matrix: AQUEOUS
Sample: 105646-0001
MS Run: 07 JUN 94-AA
Units: mg/L

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Aluminum	ND	2.10	2.07	2.00	105	104	1.4	47-145	39
Barium	0.162	2.14	2.11	2.00	99	97	1.5	63-119	23
Cadmium	ND	0.0547	0.0560	0.0500	109	112	2.3	53-118	23
Chromium	0.0137	0.230	0.229	0.200	108	108	0.4	61-123	25
Copper	ND	0.257	0.254	0.250	103	102	1.2	69-127	19
Lead	ND	0.523	0.541	0.500	105	108	3.4	63-117	14
Manganese	0.00460 J	0.515	0.509	0.500	102	101	1.2	54-128	28
Nickel	0.0141 J	0.537	0.529	0.500	105	103	1.5	57-123	14
Zinc	0.0139 J	0.549	0.538	0.500	107	105	2.1	61-119	20

J = Result is detected below the reporting limit or is an estimated concentration.
ND = Not Detected

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

Enseco
Corning Environmental Services

DUPLICATE CONTROL SAMPLE REPORT
Metals Analysis and Preparation
Project: 105669

Category: AS-HAA-AT Arsenic, Hydride AA (Total)
Matrix: AQUEOUS
QC Lot: 07 JUN 94-A
Date Analyzed: 08 JUN 94
Concentration Units: mg/L

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Arsenic	0.500	0.478	0.463	0.470	94	73-112	3.2	20

Category: HG-CVAA-A Mercury by CVAA
Matrix: AQUEOUS
QC Lot: 02 JUN 94-D
Date Analyzed: 02 JUN 94
Concentration Units: mg/L

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Mercury	0.00250	0.00257	0.00267	0.00262	105	76-131	3.8	13

Category: ICP-AT ICP Metals
Matrix: AQUEOUS
QC Lot: 07 JUN 94-A
Date Analyzed: 07 JUN 94
Concentration Units: mg/L

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Aluminum	2.00	2.05	2.04	2.04	102	85-104	0.49	5
Barium	2.00	1.98	1.98	1.98	99	86-108	0.0	4
Cadmium	0.0500	0.0513	0.0507	0.0510	102	72-111	1.2	12
Calcium	100	106	105	106	106	85-106	0.95	6
Chromium	0.200	0.212	0.218	0.215	108	83-112	2.8	10
Copper	0.250	0.251	0.254	0.252	101	90-114	1.2	8
Iron	1.00	1.01	1.02	1.02	102	83-108	0.99	10
Lead	0.500	0.533	0.533	0.533	107	81-109	0.0	8
Magnesium	50.0	50.9	50.2	50.6	101	90-110	1.4	4
Manganese	0.500	0.508	0.509	0.508	102	84-105	0.20	5
Nickel	0.500	0.523	0.524	0.524	105	79-111	0.19	14
Potassium	50.0	51.0	50.3	50.6	101	85-107	1.4	6
Silica as SiO2	21.4	21.9	22.0	22.0	103	80-120	0.46	20
Silver	0.0500	0.0467	0.0462	0.0464	93	76-111	1.1	13
Sodium	115	117	116	116	101	86-112	0.86	5
Titanium	1.00	1.04	1.04	1.04	104	80-120	0.0	20
Zinc	0.500	0.530	0.534	0.532	106	81-111	0.75	14

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

Enseco
Corning Environmental Services

METALS
(Water - Total)

Client Name: Harding Lawson Associates
Client ID: MW-2
LAB ID: 105669-0001-SA
Matrix: AQUEOUS Sampled: 26 MAY 94 Received: 26 MAY 94
Authorized: 30 MAY 94 Prepared: See Below Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Arsenic	TR		0.0020	0.0050	mg/L	7062	07 JUN 94	08 JUN 94
Aluminum	ND		0.025	0.10	mg/L	6010	07 JUN 94	08 JUN 94
Barium	0.17		0.00080	0.010	mg/L	6010	07 JUN 94	08 JUN 94
Cadmium	ND		0.0036	0.0050	mg/L	6010	07 JUN 94	08 JUN 94
Chromium	ND		0.0081	0.010	mg/L	6010	07 JUN 94	08 JUN 94
Copper	TR		0.0044	0.020	mg/L	6010	07 JUN 94	08 JUN 94
Lead	ND		0.017	0.050	mg/L	6010	07 JUN 94	08 JUN 94
Manganese	TR		0.0011	0.010	mg/L	6010	07 JUN 94	08 JUN 94
Mercury	0.00052		0.00020	0.00050	mg/L	7470	02 JUN 94	02 JUN 94
Nickel	TR		0.0045	0.040	mg/L	6010	07 JUN 94	08 JUN 94
Zinc	0.030	B	0.0011	0.020	mg/L	6010	07 JUN 94	08 JUN 94

B = Compound is also detected in the blank.
ND = Not Detected

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METALS
(Water - Total)

Client Name: Harding Lawson Associates
Client ID: MW-3
LAB ID: 105669-0002-SA
Matrix: AQUEOUS — Sampled: 26 MAY 94 — Received: 26 MAY 94
Authorized: 30 MAY 94 — Prepared: See Below — Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Arsenic	TR		0.0020	0.0050	mg/L	7062	07 JUN 94	08 JUN 94
Aluminum	ND		0.025	0.10	mg/L	6010	07 JUN 94	08 JUN 94
Barium	0.19		0.00080	0.010	mg/L	6010	07 JUN 94	08 JUN 94
Cadmium	ND		0.0036	0.0050	mg/L	6010	07 JUN 94	08 JUN 94
Chromium	ND		0.0081	0.010	mg/L	6010	07 JUN 94	08 JUN 94
Copper	ND		0.0044	0.020	mg/L	6010	07 JUN 94	08 JUN 94
Lead	ND		0.017	0.050	mg/L	6010	07 JUN 94	08 JUN 94
Manganese	TR		0.0011	0.010	mg/L	6010	07 JUN 94	08 JUN 94
Mercury	ND		0.00020	0.00050	mg/L	7470	02 JUN 94	02 JUN 94
Nickel	TR		0.0045	0.040	mg/L	6010	07 JUN 94	08 JUN 94
Zinc	0.042	B	0.0011	0.020	mg/L	6010	07 JUN 94	08 JUN 94

B = Compound is also detected in the blank.
ND = Not Detected

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METALS
(Water - Total)

Client Name: Harding Lawson Associates
Client ID: MW-4
LAB ID: 105669-0003-SA
Matrix: AQUEOUS Sampled: 26 MAY 94 Received: 26 MAY 94
Authorized: 30 MAY 94 Prepared: See Below Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Arsenic	TR		0.0020	0.0050	mg/L	7062	07 JUN 94	08 JUN 94
Aluminum	TR		0.025	0.10	mg/L	6010	07 JUN 94	08 JUN 94
Barium	0.16		0.00080	0.010	mg/L	6010	07 JUN 94	08 JUN 94
Cadmium	ND		0.0036	0.0050	mg/L	6010	07 JUN 94	08 JUN 94
Chromium	ND		0.0081	0.010	mg/L	6010	07 JUN 94	08 JUN 94
Copper	TR		0.0044	0.020	mg/L	6010	07 JUN 94	08 JUN 94
Lead	ND		0.017	0.050	mg/L	6010	07 JUN 94	08 JUN 94
Manganese	TR		0.0011	0.010	mg/L	6010	07 JUN 94	08 JUN 94
Mercury	TR		0.00020	0.00050	mg/L	7470	02 JUN 94	02 JUN 94
Nickel	TR		0.0045	0.040	mg/L	6010	07 JUN 94	08 JUN 94
Zinc	0.023	B	0.0011	0.020	mg/L	6010	07 JUN 94	08 JUN 94

B = Compound is also detected in the blank.
ND = Not Detected

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QC LOT ASSIGNMENT REPORT - MS QC
Wet Chemistry Analysis and Preparation

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
105669-0001-SA	AQUEOUS	CN-A	06 JUN 94-A	06 JUN 94-A	06 JUN 94-AC
105669-0001-SA	AQUEOUS	CLO3-A	07 JUN 94-A	07 JUN 94-A	07 JUN 94-AA
105669-0001-SA	AQUEOUS	NO3-A	27 MAY 94-A	27 MAY 94-A	27 MAY 94-AA
105669-0001-SA	AQUEOUS	TOC-A	02 JUN 94-A	02 JUN 94-A	02 JUN 94-AA
105669-0002-SA	AQUEOUS	CN-A	06 JUN 94-A	06 JUN 94-A	06 JUN 94-AC
105669-0002-SA	AQUEOUS	CLO3-A	07 JUN 94-A	07 JUN 94-A	07 JUN 94-AA
105669-0002-SA	AQUEOUS	NO3-A	27 MAY 94-A	27 MAY 94-A	27 MAY 94-AA
105669-0002-SA	AQUEOUS	TOC-A	02 JUN 94-A	02 JUN 94-A	02 JUN 94-AA
105669-0003-SA	AQUEOUS	CN-A	06 JUN 94-A	06 JUN 94-A	06 JUN 94-AC
105669-0003-SA	AQUEOUS	CLO3-A	07 JUN 94-A	07 JUN 94-A	07 JUN 94-AA
105669-0003-SA	AQUEOUS	NO3-A	27 MAY 94-A	27 MAY 94-A	27 MAY 94-AA
105669-0003-SA	AQUEOUS	TOC-A	02 JUN 94-A	02 JUN 94-A	02 JUN 94-AA

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METHOD BLANK REPORT
Wet Chemistry Analysis and Preparation
Project: 105669

Test: CN-MDL-AT Method 9012 - Cyanide, Total
Matrix: AQUEOUS
QC Run: 06 JUN 94-A Date Analyzed: 07 JUN 94

Analyte	Result	Units	Reporting Limit
Cyanide, Total	ND	mg/L	0.010

Test: CLO3-MDL-A Method 300.0 - Chlorate, Ion Chromatography
Matrix: AQUEOUS
QC Run: 07 JUN 94-A Date Analyzed: 07 JUN 94

Analyte	Result	Units	Reporting Limit
Chlorate	ND	mg/L	0.20

Test: NO3-IC-MDL-A Method 300.0 - Nitrate, Ion Chromatography
Matrix: AQUEOUS
QC Run: 27 MAY 94-A Date Analyzed: 27 MAY 94

Analyte	Result	Units	Reporting Limit
Nitrate as N	ND	mg/L	0.10

Test: TOC-415_1-MDL-A Method 415.1 - Total Organic Carbon (TOC)
Matrix: AQUEOUS
QC Run: 02 JUN 94-A Date Analyzed: 02 JUN 94

Analyte	Result	Units	Reporting Limit
Total Organic Carbon	ND	mg/L	1.0

ND = Not Detected

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Wet Chemistry Analysis and Preparation
Project: 105669 (cont.)

Category: TOC-A Total Organic Carbon
Matrix: AQUEOUS
Sample: 105646-0004
MS Run: 02 JUN 94-AA
Units: mg/L

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Total Organic Carbon	1.10	205	205	200	102	102	0.0	70-130	30

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Wet Chemistry Analysis and Preparation
Project: 105669

Category: CN-A Cyanide
Matrix: AQUEOUS
Sample: 105646-0004
MS Run: 06 JUN 94-AC
Units: mg/L

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Cyanide, Total	0.0820	0.177	0.186	0.100	95	104	9.0	30-143	71

Category: CLO3-A Chlorate, Ion Chromatography (300.0)
Matrix: AQUEOUS
Sample: 105646-0004
MS Run: 07 JUN 94-AA
Units: mg/L

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Chlorate	ND	9.22	9.22	10.0	92	92	0.0	80-120	20

Category: NO3-A Nitrate, Ion Chromatography (300.0)
Matrix: AQUEOUS
Sample: 105646-0004
MS Run: 27 MAY 94-AA
Units: mg/L

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Nitrate as N	8.05	47.2	47.5	40.0	98	99	0.7	84-112	4

ND = Not Detected

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

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DUPLICATE CONTROL SAMPLE REPORT
Wet Chemistry Analysis and Preparation
Project: 105669

Category: CN-A Cyanide
Matrix: AQUEOUS
QC Lot: 06 JUN 94-A
Date Analyzed: 07 JUN 94
Concentration Units: mg/L

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Cyanide, Total	0.100	0.102	0.0964	0.0992	99	67-118	5.6	25

Category: CLO3-A Chlorate, Ion Chromatography (300.0)
Matrix: AQUEOUS
QC Lot: 07 JUN 94-A
Date Analyzed: 07 JUN 94
Concentration Units: mg/L

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Chlorate	2.00	1.96	1.80	1.88	94	80-120	8.5	20

Category: NO3-A Nitrate, Ion Chromatography (300.0)
Matrix: AQUEOUS
QC Lot: 27 MAY 94-A
Date Analyzed: 27 MAY 94
Concentration Units: mg/L

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Nitrate as N	4.00	4.07	4.10	4.08	102	89-114	0.73	5

Category: TOC-A Total Organic Carbon
Matrix: AQUEOUS
QC Lot: 02 JUN 94-A
Date Analyzed: 02 JUN 94
Concentration Units: mg/L

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Total Organic Carbon	86.8	88.6	89.1	88.8	102	80-120	0.56	10

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

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GENERAL INORGANICS

Client Name: Harding Lawson Associates
Client ID: MW-2
Lab ID: 105669-0001-SA
Matrix: AQUEOUS Sampled: 26 MAY 94 Received: 26 MAY 94
Authorized: 30 MAY 94 Prepared: See Below Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Cyanide, Total	0.037		0.0060	0.010	mg/L	9012	06 JUN 94	07 JUN 94
Chlorate	ND		0.10	0.20	mg/L	300.0	NA	07 JUN 94
Nitrate as N	12.6		0.080	0.50	mg/L	300.0	NA	27 MAY 94
Total Organic Carbon	ND		1.0	1.0	mg/L	415.1	NA	02 JUN 94

ND = Not Detected

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GENERAL INORGANICS

Client Name: Harding Lawson Associates
Client ID: MW-3
LAB ID: 105669-0002-SA
Matrix: AQUEOUS
Authorized: 30 MAY 94

Sampled: 26 MAY 94
Prepared: See Below

Received: 26 MAY 94
Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Cyanide, Total	0.026		0.0060	0.010	mg/L	9012	06 JUN 94	07 JUN 94
Chlorate	ND		0.10	0.20	mg/L	300.0	NA	07 JUN 94
Nitrate as N	8.3		0.080	0.50	mg/L	300.0	NA	27 MAY 94
Total Organic Carbon	2.1		1.0	1.0	mg/L	415.1	NA	02 JUN 94

ND = Not Detected

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GENERAL INORGANICS

Client Name: Harding Lawson Associates
Client ID: MW-4
Lab ID: 105669-0003-SA
Matrix: AQUEOUS Sampled: 26 MAY 94 Received: 26 MAY 94
Authorized: 30 MAY 94 Prepared: See Below Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Cyanide, Total	0.051		0.0060	0.010	mg/L	9012	06 JUN 94	07 JUN 94
Chlorate	ND		0.10	0.20	mg/L	300.0	NA	07 JUN 94
Nitrate as N	7.2		0.080	0.50	mg/L	300.0	NA	27 MAY 94
Total Organic Carbon	1.7		1.0	1.0	mg/L	415.1	NA	02 JUN 94

ND = Not Detected

QC LOT ASSIGNMENT REPORT - MS QC
Volatile Organics by GC/MS

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
105669-0001-SA	AQUEOUS	8240-A	27 MAY 94-AF	31 MAY 94-BF	31 MAY 94-BF
105669-0002-SA	AQUEOUS	8240-A	27 MAY 94-AF	31 MAY 94-BF	31 MAY 94-BF
105669-0003-SA	AQUEOUS	8240-A	27 MAY 94-AF	31 MAY 94-BF	31 MAY 94-BF
105669-0004-SA	AQUEOUS	8240-A	27 MAY 94-AF	01 JUN 94-AF	31 MAY 94-BF
105669-0005-SA	AQUEOUS	8240-A	27 MAY 94-AF	31 MAY 94-BF	31 MAY 94-BF
105669-0006-SA	AQUEOUS	8240-A	27 MAY 94-AF	31 MAY 94-BF	31 MAY 94-BF
105669-0007-SA	AQUEOUS	8240-A	27 MAY 94-AF	31 MAY 94-BF	31 MAY 94-BF

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METHOD BLANK REPORT
Volatile Organics by GC/MS
Project: 105669

Test: 8240-HLA-A Method 8240 - Volatile Organics, EPA 8240 Extended List
Matrix: AQUEOUS
QC Run: 31 MAY 94-BF Date Analyzed: 31 MAY 94

Analyte	Result	Units	Reporting Limit
Dichlorodifluoromethane	ND	ug/L	10
Chloromethane	ND	ug/L	10
Bromomethane	ND	ug/L	10
Vinyl chloride	ND	ug/L	10
Chloroethane	ND	ug/L	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	5.0
Methylene chloride	ND	ug/L	5.0
Acetone	ND	ug/L	10
Trichlorofluoromethane	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	5.0
Nitromethane	ND	ug/L	200
trans-1,2-Dichloroethene	ND	ug/L	5.0
cis-1,2-Dichloroethene	ND	ug/L	5.0
1,1-Dichloroethane	ND	ug/L	5.0
2,2-Dichloropropane	ND	ug/L	5.0
Bromochloromethane	ND	ug/L	5.0
Chloroform	ND	ug/L	5.0
1,1-Dichloropropene	ND	ug/L	5.0
1,2-Dichloroethane	ND	ug/L	5.0
Dibromomethane	ND	ug/L	5.0
1,1,1-Trichloroethane	ND	ug/L	5.0
Carbon tetrachloride	ND	ug/L	5.0
Bromodichloromethane	ND	ug/L	5.0
1,2-Dichloropropane	ND	ug/L	5.0
1,3-Dichloropropane	ND	ug/L	5.0
Trichloroethene	ND	ug/L	5.0
Dibromochloromethane	ND	ug/L	5.0
1,1,2-Trichloroethane	ND	ug/L	5.0
Benzene	ND	ug/L	5.0
Bromoform	ND	ug/L	5.0
Tetrachloroethene	ND	ug/L	5.0
1,2-Dibromoethane (EDB)	ND	ug/L	5.0
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0
Toluene	ND	ug/L	5.0
Chlorobenzene	ND	ug/L	5.0
Ethylbenzene	ND	ug/L	5.0
Styrene	ND	ug/L	5.0
Xylenes (total)	ND	ug/L	5.0
1-Methylethylbenzene	ND	ug/L	5.0
Bromobenzene	ND	ug/L	5.0
1,2,3-Trichloropropane	ND	ug/L	5.0
2-Chlorotoluene	ND	ug/L	5.0
n-Propyl benzene	ND	ug/L	5.0
1,3,5-Trimethylbenzene	ND	ug/L	5.0

ND = Not Detected

METHOD BLANK REPORT
Volatile Organics by GC/MS (cont.)
Project: 105669

Test: 8240-HLA-A Method 8240 - Volatile Organics, EPA 8240 Extended List
Matrix: AQUEOUS
QC Run: 31 MAY 94-BF Date Analyzed: 31 MAY 94

Analyte	Result	Units	Reporting Limit
4-Chlorotoluene	ND	ug/L	5.0
tert-Butylbenzene	ND	ug/L	5.0
1,2,4-Trimethylbenzene	ND	ug/L	5.0
sec-Butylbenzene	ND	ug/L	5.0
Isopropyltoluene	ND	ug/L	5.0
1,3-Dichlorobenzene	ND	ug/L	5.0
1,4-Dichlorobenzene	ND	ug/L	5.0
n-Butylbenzene	ND	ug/L	5.0
1,2-Dichlorobenzene	ND	ug/L	5.0
1,2,4-Trichlorobenzene	ND	ug/L	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND	ug/L	5.0
Hexachlorobutadiene	ND	ug/L	5.0
Naphthalene	ND	ug/L	5.0
1,2,3-Trichlorobenzene	ND	ug/L	5.0

ND = Not Detected

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METHOD BLANK REPORT
Volatile Organics by GC/MS (cont.)
Project: 105669

Test: 8240-HLA-A Method 8240 - Volatile Organics, EPA 8240 Extended List
Matrix: AQUEOUS

QC Run: 01 JUN 94-AF Date Analyzed: 01 JUN 94

Analyte	Result	Units	Reporting Limit
Dichlorodifluoromethane	ND	ug/L	10
Chloromethane	ND	ug/L	10
Bromomethane	ND	ug/L	10
Vinyl chloride	ND	ug/L	10
Chloroethane	ND	ug/L	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	5.0
Methylene chloride	TR	ug/L	5.0
Acetone	ND	ug/L	10
Trichlorofluoromethane	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	5.0
Nitromethane	ND	ug/L	200
trans-1,2-Dichloroethene	ND	ug/L	5.0
cis-1,2-Dichloroethene	ND	ug/L	5.0
1,1-Dichloroethane	ND	ug/L	5.0
2,2-Dichloropropane	ND	ug/L	5.0
Bromochloromethane	ND	ug/L	5.0
Chloroform	ND	ug/L	5.0
1,1-Dichloropropene	ND	ug/L	5.0
1,2-Dichloroethane	ND	ug/L	5.0
Dibromomethane	ND	ug/L	5.0
1,1,1-Trichloroethane	ND	ug/L	5.0
Carbon tetrachloride	ND	ug/L	5.0
Bromodichloromethane	ND	ug/L	5.0
1,2-Dichloropropane	ND	ug/L	5.0
1,3-Dichloropropane	ND	ug/L	5.0
Trichloroethene	ND	ug/L	5.0
Dibromochloromethane	ND	ug/L	5.0
1,1,2-Trichloroethane	ND	ug/L	5.0
Benzene	ND	ug/L	5.0
Bromoform	ND	ug/L	5.0
Tetrachloroethene	ND	ug/L	5.0
1,2-Dibromoethane (EDB)	ND	ug/L	5.0
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0
Toluene	ND	ug/L	5.0
Chlorobenzene	ND	ug/L	5.0
Ethylbenzene	ND	ug/L	5.0
Styrene	ND	ug/L	5.0
Xylenes (total)	ND	ug/L	5.0
1-Methylethylbenzene	ND	ug/L	5.0
Bromobenzene	ND	ug/L	5.0
1,2,3-Trichloropropane	ND	ug/L	5.0
2-Chlorotoluene	ND	ug/L	5.0
n-Propyl benzene	ND	ug/L	5.0

ND = Not Detected

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METHOD BLANK REPORT
Volatile Organics by GC/MS (cont.)
Project: 105669

Test: 8240-HLA-A Method 8240 - Volatile Organics, EPA 8240 Extended List
Matrix: AQUEOUS

QC Run: 01 JUN 94-AF Date Analyzed: 01 JUN 94

Analyte	Result	Units	Reporting Limit
1,3,5-Trimethylbenzene	ND	ug/L	5.0
4-Chlorotoluene	ND	ug/L	5.0
tert-Butylbenzene	ND	ug/L	5.0
1,2,4-Trimethylbenzene	ND	ug/L	5.0
sec-Butylbenzene	ND	ug/L	5.0
Isopropyltoluene	ND	ug/L	5.0
1,3-Dichlorobenzene	ND	ug/L	5.0
1,4-Dichlorobenzene	ND	ug/L	5.0
n-Butylbenzene	ND	ug/L	5.0
1,2-Dichlorobenzene	ND	ug/L	5.0
1,2,4-Trichlorobenzene	ND	ug/L	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND	ug/L	5.0
Hexachlorobutadiene	ND	ug/L	5.0
Naphthalene	ND	ug/L	5.0
1,2,3-Trichlorobenzene	ND	ug/L	5.0

ND = Not Detected

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Volatile Organics by GC/MS
Project: 105669

Category: 8240-A Volatile Organics
Matrix: AQUEOUS
Sample: 105646-0004
MS Run: 31 MAY 94-BF
Units: ug/L

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
1,1-Dichloroethene	ND	47.7	52.1	50.0	95	104	8.8	45-126	18
Trichloroethene	ND	48.6	52.6	50.0	97	105	7.9	74-131	17
Benzene	ND	47.2	50.0	50.0	94	100	5.8	76-128	14
Toluene	ND	47.0	50.5	50.0	94	101	7.2	73-128	15
Chlorobenzene	ND	46.8	49.5	50.0	94	99	5.6	80-131	16

ND = Not Detected

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

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DUPLICATE CONTROL SAMPLE REPORT
Volatile Organics by GC/MS
Project: 105669

Category: 8240-A Volatile Organics
Matrix: AQUEOUS
QC Lot: 27 MAY 94-AF
Concentration Units: ug/L

Date Analyzed: 27 MAY 94

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average(%) DCS	Accuracy Average(%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
1,1-Dichloroethene	50.0	52.5	55.2	53.8	108	50-124	5.0	15
Trichloroethene	50.0	55.1	56.6	55.8	112	80-126	2.7	13
Benzene	50.0	53.2	54.1	53.6	107	78-124	1.7	13
Toluene	50.0	55.7	55.8	55.8	112	80-121	0.18	13
Chlorobenzene	50.0	53.4	54.7	54.0	108	82-131	2.4	13

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

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SINGLE CONTROL SAMPLE REPORT
Volatile Organics by GC/MS
Project: 105669

Category: 8240-A Volatile Organics
Matrix: AQUEOUS
QC Run: 01 JUN 94-AF Date Analyzed: 01 JUN 94
Concentration Units: ug/L

Analyte	Concentration Spiked	Concentration Measured	Accuracy(%) SCS	Accuracy(%) Limits
1,2-Dichloroethane-d4	50.0	46.7	93	82-121
Toluene-d8	50.0	47.6	95	88-110
Bromofluorobenzene	50.0	46.8	94	86-114

Category: 8240-A Volatile Organics
Matrix: AQUEOUS
QC Run: 31 MAY 94-BF Date Analyzed: 31 MAY 94
Concentration Units: ug/L

Analyte	Concentration Spiked	Concentration Measured	Accuracy(%) SCS	Accuracy(%) Limits
1,2-Dichloroethane-d4	50.0	47.6	95	82-121
Toluene-d8	50.0	49.6	99	88-110
Bromofluorobenzene	50.0	49.2	98	86-114

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

Enseco
Corning Environmental Services

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: MW-2
LAB ID: 105669-0001-SA
Matrix: AQUEOUS — Sampled: 26 MAY 94 — Received: 26 MAY 94
Authorized: 30 MAY 94 — Prepared: 31 MAY 94 — Analyzed: 31 MAY 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.6	ug/L	10
Chloromethane	ND		3.2	ug/L	10
Bromomethane	ND		1.4	ug/L	10
Vinyl chloride	ND		1.4	ug/L	10
Chloroethane	ND		2.2	ug/L	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/L	5.0
Methylene chloride	ND		0.97	ug/L	5.0
Acetone	ND		7.1	ug/L	10
Trichlorofluoromethane	ND		2.5	ug/L	5.0
1,1-Dichloroethene	12		1.5	ug/L	5.0
Nitromethane	ND		84	ug/L	200
trans-1,2-Dichloroethene	ND		0.89	ug/L	5.0
cis-1,2-Dichloroethene	25		0.92	ug/L	5.0
1,1-Dichloroethane	TR		1.1	ug/L	5.0
2,2-Dichloropropane	ND		1.9	ug/L	5.0
Bromochloromethane	ND		0.69	ug/L	5.0
Chloroform	79		0.88	ug/L	5.0
1,1-Dichloropropene	ND		0.87	ug/L	5.0
1,2-Dichloroethane	33		0.85	ug/L	5.0
Dibromomethane	ND		0.51	ug/L	5.0
1,1,1-Trichloroethane	TR		1.4	ug/L	5.0
Carbon tetrachloride	26		1.0	ug/L	5.0
Bromodichloromethane	ND		0.71	ug/L	5.0
1,2-Dichloropropane	ND		0.88	ug/L	5.0
1,3-Dichloropropane	ND		0.75	ug/L	5.0
Trichloroethene	2800	o	0.84	ug/L	50
Dibromochloromethane	ND		1.1	ug/L	5.0
1,1,2-Trichloroethane	TR		0.98	ug/L	5.0
Benzene	ND		1.0	ug/L	5.0
Bromoform	ND		1.9	ug/L	5.0
Tetrachloroethene	390		0.85	ug/L	5.0
1,2-Dibromoethane (EDB)	ND		0.69	ug/L	5.0
1,1,1,2-Tetrachloroethane	ND		1.1	ug/L	5.0
1,1,2,2-Tetrachloroethane	ND		1.9	ug/L	5.0
Toluene	ND		0.96	ug/L	5.0
Chlorobenzene	ND		0.95	ug/L	5.0
Ethylbenzene	ND		1.1	ug/L	5.0
Styrene	ND		1.1	ug/L	5.0
Xylenes (total)	ND		1.7	ug/L	5.0
1-Methylethylbenzene	ND		0.91	ug/L	5.0
Bromobenzene	ND		1.3	ug/L	5.0
1,2,3-Trichloropropane	ND		2.0	ug/L	5.0
2-Chlorotoluene	ND		1.2	ug/L	5.0
n-Propyl benzene	ND		0.70	ug/L	5.0
1,3,5-Trimethylbenzene	ND		0.98	ug/L	5.0
4-Chlorotoluene	ND		1.2	ug/L	5.0

o = Reporting limit varies due to high level of analyte present in sample.
ND = Not Detected

Volatile Organic Compounds
Method 8240 (cont.)

Client Name: Harding Lawson Associates
Client ID: MW-2
LAB ID: 105669-0001-SA
Matrix: AQUEOUS Sampled: 26 MAY 94 Received: 26 MAY 94
Authorized: 30 MAY 94 Prepared: 31 MAY 94 Analyzed: 31 MAY 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
tert-Butylbenzene	ND		1.0	ug/L	5.0
1,2,4-Trimethylbenzene	ND		1.2	ug/L	5.0
sec-Butylbenzene	ND		0.93	ug/L	5.0
Isopropyltoluene	ND		0.97	ug/L	5.0
1,3-Dichlorobenzene	ND		1.1	ug/L	5.0
1,4-Dichlorobenzene	ND		1.3	ug/L	5.0
n-Butylbenzene	ND		0.80	ug/L	5.0
1,2-Dichlorobenzene	ND		1.4	ug/L	5.0
1,2,4-Trichlorobenzene	ND		0.95	ug/L	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		3.3	ug/L	5.0
Hexachlorobutadiene	ND		1.2	ug/L	5.0
Naphthalene	ND		1.6	ug/L	5.0
1,2,3-Trichlorobenzene	ND		1.0	ug/L	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	101	%
Toluene-d8	99	%
Bromofluorobenzene	97	%

ND = Not Detected

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Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: MW-3
LAB ID: 105669-0002-SA
Matrix: AQUEOUS Sampled: 26 MAY 94 Received: 26 MAY 94
Authorized: 30 MAY 94 Prepared: 31 MAY 94 Analyzed: 31 MAY 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.6	ug/L	10
Chloromethane	ND		3.2	ug/L	10
Bromomethane	ND		1.4	ug/L	10
Vinyl chloride	ND		1.4	ug/L	10
Chloroethane	ND		2.2	ug/L	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/L	5.0
Methylene chloride	TR		0.97	ug/L	5.0
Acetone	ND		7.1	ug/L	10
Trichlorofluoromethane	ND		2.5	ug/L	5.0
1,1-Dichloroethene	5.9		1.5	ug/L	5.0
Nitromethane	ND		84	ug/L	200
trans-1,2-Dichloroethene	33		0.89	ug/L	5.0
cis-1,2-Dichloroethene	1200	o	0.92	ug/L	200
1,1-Dichloroethane	TR		1.1	ug/L	5.0
2,2-Dichloropropane	ND		1.9	ug/L	5.0
Bromochloromethane	ND		0.69	ug/L	5.0
Chloroform	TR		0.88	ug/L	5.0
1,1-Dichloropropene	ND		0.87	ug/L	5.0
1,2-Dichloroethane	6.7		0.85	ug/L	5.0
Dibromomethane	ND		0.51	ug/L	5.0
1,1,1-Trichloroethane	6.8		1.4	ug/L	5.0
Carbon tetrachloride	TR		1.0	ug/L	5.0
Bromodichloromethane	ND		0.71	ug/L	5.0
1,2-Dichloropropane	ND		0.88	ug/L	5.0
1,3-Dichloropropane	ND		0.75	ug/L	5.0
Trichloroethene	1700	o	0.84	ug/L	200
Dibromochloromethane	ND		1.1	ug/L	5.0
1,1,2-Trichloroethane	ND		0.98	ug/L	5.0
Benzene	ND		1.0	ug/L	5.0
Bromoform	ND		1.9	ug/L	5.0
Tetrachloroethene	6900	o	0.85	ug/L	200
1,2-Dibromoethane (EDB)	TR		0.69	ug/L	5.0
1,1,1,2-Tetrachloroethane	ND		1.1	ug/L	5.0
1,1,2,2-Tetrachloroethane	ND		1.9	ug/L	5.0
Toluene	ND		0.96	ug/L	5.0
Chlorobenzene	ND		0.95	ug/L	5.0
Ethylbenzene	ND		1.1	ug/L	5.0
Styrene	ND		1.1	ug/L	5.0
Xylenes (total)	ND		1.7	ug/L	5.0
1-Methylethylbenzene	ND		0.91	ug/L	5.0
Bromobenzene	ND		1.3	ug/L	5.0
1,2,3-Trichloropropane	ND		2.0	ug/L	5.0
2-Chlorotoluene	ND		1.2	ug/L	5.0
n-Propyl benzene	ND		0.70	ug/L	5.0
1,3,5-Trimethylbenzene	ND		0.98	ug/L	5.0
4-Chlorotoluene	ND		1.2	ug/L	5.0

o = Reporting limit varies due to high level of analyte present in sample.
ND = Not Detected

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Corning Environmental Services

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: MW-3
LAB ID: 105669-0002-SA
Matrix: AQUEOUS Sampled: 26 MAY 94 Received: 26 MAY 94
Authorized: 30 MAY 94 Prepared: 31 MAY 94 Analyzed: 31 MAY 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
tert-Butylbenzene	ND		1.0	ug/L	5.0
1,2,4-Trimethylbenzene	ND		1.2	ug/L	5.0
sec-Butylbenzene	ND		0.93	ug/L	5.0
Isopropyltoluene	ND		0.97	ug/L	5.0
1,3-Dichlorobenzene	ND		1.1	ug/L	5.0
1,4-Dichlorobenzene	ND		1.3	ug/L	5.0
n-Butylbenzene	ND		0.80	ug/L	5.0
1,2-Dichlorobenzene	ND		1.4	ug/L	5.0
1,2,4-Trichlorobenzene	ND		0.95	ug/L	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		3.3	ug/L	5.0
Hexachlorobutadiene	ND		1.2	ug/L	5.0
Naphthalene	ND		1.6	ug/L	5.0
1,2,3-Trichlorobenzene	ND		1.0	ug/L	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	102	%
Toluene-d8	101	%
Bromofluorobenzene	105	%

ND = Not Detected

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Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: MW-4
LAB ID: 105669-0003-SA
Matrix: AQUEOUS Sampled: 26 MAY 94 Received: 26 MAY 94
Authorized: 30 MAY 94 Prepared: 01 JUN 94 Analyzed: 01 JUN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.6	ug/L	10
Chloromethane	ND		3.2	ug/L	10
Bromomethane	ND		1.4	ug/L	10
Vinyl chloride	ND		1.4	ug/L	10
Chloroethane	ND		2.2	ug/L	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/L	5.0
Methylene chloride	TR		0.97	ug/L	5.0
Acetone	ND		7.1	ug/L	10
Trichlorofluoromethane	ND		2.5	ug/L	5.0
1,1-Dichloroethene	13		1.5	ug/L	5.0
Nitromethane	ND		84	ug/L	200
trans-1,2-Dichloroethene	ND		0.89	ug/L	5.0
cis-1,2-Dichloroethene	7.9		0.92	ug/L	5.0
1,1-Dichloroethane	ND		1.1	ug/L	5.0
2,2-Dichloropropane	ND		1.9	ug/L	5.0
Bromochloromethane	ND		0.69	ug/L	5.0
Chloroform	23		0.88	ug/L	5.0
1,1-Dichloropropene	ND		0.87	ug/L	5.0
1,2-Dichloroethane	TR		0.85	ug/L	5.0
Dibromomethane	ND		0.51	ug/L	5.0
1,1,1-Trichloroethane	TR		1.4	ug/L	5.0
Carbon tetrachloride	66		1.0	ug/L	5.0
Bromodichloromethane	ND		0.71	ug/L	5.0
1,2-Dichloropropane	ND		0.88	ug/L	5.0
1,3-Dichloropropane	ND		0.75	ug/L	5.0
Trichloroethene	3000	o	0.84	ug/L	50
Dibromochloromethane	ND		1.1	ug/L	5.0
1,1,2-Trichloroethane	ND		0.98	ug/L	5.0
Benzene	ND		1.0	ug/L	5.0
Bromoform	ND		1.9	ug/L	5.0
Tetrachloroethene	260		0.85	ug/L	5.0
1,2-Dibromoethane (EDB)	ND		0.69	ug/L	5.0
1,1,1,2-Tetrachloroethane	ND		1.1	ug/L	5.0
1,1,2,2-Tetrachloroethane	ND		1.9	ug/L	5.0
Toluene	ND		0.96	ug/L	5.0
Chlorobenzene	ND		0.95	ug/L	5.0
Ethylbenzene	ND		1.1	ug/L	5.0
Styrene	ND		1.1	ug/L	5.0
Xylenes (total)	ND		1.7	ug/L	5.0
1-Methylethylbenzene	ND		0.91	ug/L	5.0
Bromobenzene	ND		1.3	ug/L	5.0
1,2,3-Trichloropropane	ND		2.0	ug/L	5.0
2-Chlorotoluene	ND		1.2	ug/L	5.0
n-Propyl benzene	ND		0.70	ug/L	5.0
1,3,5-Trimethylbenzene	ND		0.98	ug/L	5.0
4-Chlorotoluene	ND		1.2	ug/L	5.0

o = Reporting limit varies due to high level of analyte present in sample.
ND = Not Detected

Enseco
Corning Environmental Services

(cont.)

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: MW-4
LAB ID: 105669-0003-SA
Matrix: AQUEOUS — Sampled: 26 MAY 94 — Received: 26 MAY 94
Authorized: 30 MAY 94 — Prepared: 01 JUN 94 — Analyzed: 01 JUN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
tert-Butylbenzene	ND		1.0	ug/L	5.0
1,2,4-Trimethylbenzene	ND		1.2	ug/L	5.0
sec-Butylbenzene	ND		0.93	ug/L	5.0
Isopropyltoluene	ND		0.97	ug/L	5.0
1,3-Dichlorobenzene	ND		1.1	ug/L	5.0
1,4-Dichlorobenzene	ND		1.3	ug/L	5.0
n-Butylbenzene	ND		0.80	ug/L	5.0
1,2-Dichlorobenzene	ND		1.4	ug/L	5.0
1,2,4-Trichlorobenzene	ND		0.95	ug/L	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		3.3	ug/L	5.0
Hexachlorobutadiene	ND		1.2	ug/L	5.0
Naphthalene	ND		1.6	ug/L	5.0
1,2,3-Trichlorobenzene	ND		1.0	ug/L	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	99	%
Toluene-d8	96	%
Bromofluorobenzene	94	%

ND = Not Detected

Enseco
Corning Environmental Services

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: MW-18
LAB ID: 105669-0004-SA
Matrix: AQUEOUS Sampled: 26 MAY 94 Received: 26 MAY 94
Authorized: 30 MAY 94 Prepared: 01 JUN 94 Analyzed: 01 JUN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.6	ug/L	10
Chloromethane	ND		3.2	ug/L	10
Bromomethane	ND		1.4	ug/L	10
Vinyl chloride	ND		1.4	ug/L	10
Chloroethane	ND		2.2	ug/L	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/L	5.0
Methylene chloride	ND		0.97	ug/L	5.0
Acetone	ND		7.1	ug/L	10
Trichlorofluoromethane	ND		2.5	ug/L	5.0
1,1-Dichloroethene	ND		1.5	ug/L	5.0
Nitromethane	ND		84	ug/L	200
trans-1,2-Dichloroethene	ND		0.89	ug/L	5.0
cis-1,2-Dichloroethene	ND		0.92	ug/L	5.0
1,1-Dichloroethane	ND		1.1	ug/L	5.0
2,2-Dichloropropane	ND		1.9	ug/L	5.0
Bromochloromethane	ND		0.69	ug/L	5.0
Chloroform	ND		0.88	ug/L	5.0
1,1-Dichloropropene	ND		0.87	ug/L	5.0
1,2-Dichloroethane	ND		0.85	ug/L	5.0
Dibromomethane	ND		0.51	ug/L	5.0
1,1,1-Trichloroethane	ND		1.4	ug/L	5.0
Carbon tetrachloride	ND		1.0	ug/L	5.0
Bromodichloromethane	ND		0.71	ug/L	5.0
1,2-Dichloropropane	ND		0.88	ug/L	5.0
1,3-Dichloropropane	ND		0.75	ug/L	5.0
Trichloroethene	ND		0.84	ug/L	5.0
Dibromochloromethane	ND		1.1	ug/L	5.0
1,1,2-Trichloroethane	ND		0.98	ug/L	5.0
Benzene	ND		1.0	ug/L	5.0
Bromoform	ND		1.9	ug/L	5.0
Tetrachloroethene	ND		0.85	ug/L	5.0
1,2-Dibromoethane (EDB)	ND		0.69	ug/L	5.0
1,1,1,2-Tetrachloroethane	ND		1.1	ug/L	5.0
1,1,2,2-Tetrachloroethane	ND		1.9	ug/L	5.0
Toluene	ND		0.96	ug/L	5.0
Chlorobenzene	ND		0.95	ug/L	5.0
Ethylbenzene	ND		1.1	ug/L	5.0
Styrene	ND		1.1	ug/L	5.0
Xylenes (total)	ND		1.7	ug/L	5.0
1-Methylethylbenzene	ND		0.91	ug/L	5.0
Bromobenzene	ND		1.3	ug/L	5.0
1,2,3-Trichloropropane	ND		2.0	ug/L	5.0
2-Chlorotoluene	ND		1.2	ug/L	5.0
n-Propyl benzene	ND		0.70	ug/L	5.0
1,3,5-Trimethylbenzene	ND		0.98	ug/L	5.0
4-Chlorotoluene	ND		1.2	ug/L	5.0
tert-Butylbenzene	ND		1.0	ug/L	5.0

ND = Not Detected

Enseco
Corning Environmental Services

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: MW-18
LAB ID: 105669-0004-SA
Matrix: AQUEOUS Sampled: 26 MAY 94 Received: 26 MAY 94
Authorized: 30 MAY 94 Prepared: 01 JUN 94 Analyzed: 01 JUN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
1,2,4-Trimethylbenzene	ND		1.2	ug/L	5.0
sec-Butylbenzene	ND		0.93	ug/L	5.0
Isopropyltoluene	ND		0.97	ug/L	5.0
1,3-Dichlorobenzene	ND		1.1	ug/L	5.0
1,4-Dichlorobenzene	ND		1.3	ug/L	5.0
n-Butylbenzene	ND		0.80	ug/L	5.0
1,2-Dichlorobenzene	ND		1.4	ug/L	5.0
1,2,4-Trichlorobenzene	ND		0.95	ug/L	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		3.3	ug/L	5.0
Hexachlorobutadiene	ND		1.2	ug/L	5.0
Naphthalene	ND		1.6	ug/L	5.0
1,2,3-Trichlorobenzene	ND		1.0	ug/L	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	90	%
Toluene-d8	93	%
Bromofluorobenzene	90	%

ND = Not Detected

Enseco
Corning Environmental Services

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: MW-15
LAB ID: 105669-0005-SA
Matrix: AQUEOUS Sampled: 26 MAY 94 Received: 26 MAY 94
Authorized: 30 MAY 94 Prepared: 01 JUN 94 Analyzed: 01 JUN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.6	ug/L	10
Chloromethane	ND		3.2	ug/L	10
Bromomethane	ND		1.4	ug/L	10
Vinyl chloride	ND		1.4	ug/L	10
Chloroethane	ND		2.2	ug/L	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/L	5.0
Methylene chloride	TR		0.97	ug/L	5.0
Acetone	ND		7.1	ug/L	10
Trichlorofluoromethane	ND		2.5	ug/L	5.0
1,1-Dichloroethene	ND		1.5	ug/L	5.0
Nitromethane	ND		84	ug/L	200
trans-1,2-Dichloroethene	ND		0.89	ug/L	5.0
cis-1,2-Dichloroethene	ND		0.92	ug/L	5.0
1,1-Dichloroethane	ND		1.1	ug/L	5.0
2,2-Dichloropropane	ND		1.9	ug/L	5.0
Bromochloromethane	ND		0.69	ug/L	5.0
Chloroform	ND		0.88	ug/L	5.0
1,1-Dichloropropene	ND		0.87	ug/L	5.0
1,2-Dichloroethane	ND		0.85	ug/L	5.0
Dibromomethane	ND		0.51	ug/L	5.0
1,1,1-Trichloroethane	ND		1.4	ug/L	5.0
Carbon tetrachloride	ND		1.0	ug/L	5.0
Bromodichloromethane	ND		0.71	ug/L	5.0
1,2-Dichloropropane	ND		0.88	ug/L	5.0
1,3-Dichloropropane	ND		0.75	ug/L	5.0
Trichloroethene	ND		0.84	ug/L	5.0
Dibromochloromethane	ND		1.1	ug/L	5.0
1,1,2-Trichloroethane	ND		0.98	ug/L	5.0
Benzene	ND		1.0	ug/L	5.0
Bromoform	ND		1.9	ug/L	5.0
Tetrachloroethene	ND		0.85	ug/L	5.0
1,2-Dibromoethane (EDB)	ND		0.69	ug/L	5.0
1,1,1,2-Tetrachloroethane	ND		1.1	ug/L	5.0
1,1,2,2-Tetrachloroethane	ND		1.9	ug/L	5.0
Toluene	ND		0.96	ug/L	5.0
Chlorobenzene	ND		0.95	ug/L	5.0
Ethylbenzene	ND		1.1	ug/L	5.0
Styrene	ND		1.1	ug/L	5.0
Xylenes (total)	ND		1.7	ug/L	5.0
1-Methylethylbenzene	ND		0.91	ug/L	5.0
Bromobenzene	ND		1.3	ug/L	5.0
1,2,3-Trichloropropane	ND		2.0	ug/L	5.0
2-Chlorotoluene	ND		1.2	ug/L	5.0
n-Propyl benzene	ND		0.70	ug/L	5.0
1,3,5-Trimethylbenzene	ND		0.98	ug/L	5.0
4-Chlorotoluene	ND		1.2	ug/L	5.0
tert-Butylbenzene	ND		1.0	ug/L	5.0

ND = Not Detected

Enseco
Corning Environmental Services

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: MW-15
LAB ID: 105669-0005-SA
Matrix: AQUEOUS Sampled: 26 MAY 94 Received: 26 MAY 94
Authorized: 30 MAY 94 Prepared: 01 JUN 94 Analyzed: 01 JUN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
1,2,4-Trimethylbenzene	ND		1.2	ug/L	5.0
sec-Butylbenzene	ND		0.93	ug/L	5.0
Isopropyltoluene	ND		0.97	ug/L	5.0
1,3-Dichlorobenzene	ND		1.1	ug/L	5.0
1,4-Dichlorobenzene	ND		1.3	ug/L	5.0
n-Butylbenzene	ND		0.80	ug/L	5.0
1,2-Dichlorobenzene	ND		1.4	ug/L	5.0
1,2,4-Trichlorobenzene	ND		0.95	ug/L	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		3.3	ug/L	5.0
Hexachlorobutadiene	ND		1.2	ug/L	5.0
Naphthalene	ND		1.6	ug/L	5.0
1,2,3-Trichlorobenzene	ND		1.0	ug/L	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	108	%
Toluene-d8	99	%
Bromofluorobenzene	103	%

ND = Not Detected

Enseco
Corning Environmental Services

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: MW-14
LAB ID: 105669-0006-SA
Matrix: AQUEOUS Sampled: 26 MAY 94 Received: 26 MAY 94
Authorized: 30 MAY 94 Prepared: 01 JUN 94 Analyzed: 01 JUN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.6	ug/L	10
Chloromethane	ND		3.2	ug/L	10
Bromomethane	ND		1.4	ug/L	10
Vinyl chloride	ND		1.4	ug/L	10
Chloroethane	ND		2.2	ug/L	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/L	5.0
Methylene chloride	ND		0.97	ug/L	5.0
Acetone	ND		7.1	ug/L	10
Trichlorofluoromethane	ND		2.5	ug/L	5.0
1,1-Dichloroethene	ND		1.5	ug/L	5.0
Nitromethane	ND		84	ug/L	200
trans-1,2-Dichloroethene	ND		0.89	ug/L	5.0
cis-1,2-Dichloroethene	ND		0.92	ug/L	5.0
1,1-Dichloroethane	ND		1.1	ug/L	5.0
2,2-Dichloropropane	ND		1.9	ug/L	5.0
Bromochloromethane	ND		0.69	ug/L	5.0
Chloroform	TR		0.88	ug/L	5.0
1,1-Dichloropropene	ND		0.87	ug/L	5.0
1,2-Dichloroethane	ND		0.85	ug/L	5.0
Dibromomethane	ND		0.51	ug/L	5.0
1,1,1-Trichloroethane	ND		1.4	ug/L	5.0
Carbon tetrachloride	ND		1.0	ug/L	5.0
Bromodichloromethane	ND		0.71	ug/L	5.0
1,2-Dichloropropane	ND		0.88	ug/L	5.0
1,3-Dichloropropane	ND		0.75	ug/L	5.0
Trichloroethene	ND		0.84	ug/L	5.0
Dibromochloromethane	ND		1.1	ug/L	5.0
1,1,2-Trichloroethane	ND		0.98	ug/L	5.0
Benzene	ND		1.0	ug/L	5.0
Bromoform	ND		1.9	ug/L	5.0
Tetrachloroethene	ND		0.85	ug/L	5.0
1,2-Dibromoethane (EDB)	ND		0.69	ug/L	5.0
1,1,1,2-Tetrachloroethane	ND		1.1	ug/L	5.0
1,1,2,2-Tetrachloroethane	ND		1.9	ug/L	5.0
Toluene	ND		0.96	ug/L	5.0
Chlorobenzene	ND		0.95	ug/L	5.0
Ethylbenzene	ND		1.1	ug/L	5.0
Styrene	ND		1.1	ug/L	5.0
Xylenes (total)	ND		1.7	ug/L	5.0
1-Methylethylbenzene	ND		0.91	ug/L	5.0
Bromobenzene	ND		1.3	ug/L	5.0
1,2,3-Trichloropropane	ND		2.0	ug/L	5.0
2-Chlorotoluene	ND		1.2	ug/L	5.0
n-Propyl benzene	ND		0.70	ug/L	5.0
1,3,5-Trimethylbenzene	ND		0.98	ug/L	5.0
4-Chlorotoluene	ND		1.2	ug/L	5.0
tert-Butylbenzene	ND		1.0	ug/L	5.0

ND = Not Detected

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Corning Environmental Services

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: MW-14
LAB ID: 105669-0006-SA
Matrix: AQUEOUS Sampled: 26 MAY 94 Received: 26 MAY 94
Authorized: 30 MAY 94 Prepared: 01 JUN 94 Analyzed: 01 JUN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
1,2,4-Trimethylbenzene	ND		1.2	ug/L	5.0
sec-Butylbenzene	ND		0.93	ug/L	5.0
Isopropyltoluene	ND		0.97	ug/L	5.0
1,3-Dichlorobenzene	ND		1.1	ug/L	5.0
1,4-Dichlorobenzene	ND		1.3	ug/L	5.0
n-Butylbenzene	ND		0.80	ug/L	5.0
1,2-Dichlorobenzene	ND		1.4	ug/L	5.0
1,2,4-Trichlorobenzene	ND		0.95	ug/L	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		3.3	ug/L	5.0
Hexachlorobutadiene	ND		1.2	ug/L	5.0
Naphthalene	ND		1.6	ug/L	5.0
1,2,3-Trichlorobenzene	ND		1.0	ug/L	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	100	%
Toluene-d8	96	%
Bromofluorobenzene	95	%

ND = Not Detected

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Corning Environmental Services

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: PWS-1DVMW-01
LAB ID: 105669-0007-SA
Matrix: AQUEOUS Sampled: 26 MAY 94 Received: 26 MAY 94
Authorized: 30 MAY 94 Prepared: 01 JUN 94 Analyzed: 01 JUN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.6	ug/L	10
Chloromethane	ND		3.2	ug/L	10
Bromomethane	ND		1.4	ug/L	10
Vinyl chloride	ND		1.4	ug/L	10
Chloroethane	ND		2.2	ug/L	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/L	5.0
Methylene chloride	TR		0.97	ug/L	5.0
Acetone	ND		7.1	ug/L	10
Trichlorofluoromethane	ND		2.5	ug/L	5.0
1,1-Dichloroethene	ND		1.5	ug/L	5.0
Nitromethane	ND		84	ug/L	200
trans-1,2-Dichloroethene	ND		0.89	ug/L	5.0
cis-1,2-Dichloroethene	ND		0.92	ug/L	5.0
1,1-Dichloroethane	ND		1.1	ug/L	5.0
2,2-Dichloropropane	ND		1.9	ug/L	5.0
Bromochloromethane	ND		0.69	ug/L	5.0
Chloroform	ND		0.88	ug/L	5.0
1,1-Dichloropropene	ND		0.87	ug/L	5.0
1,2-Dichloroethane	ND		0.85	ug/L	5.0
Dibromomethane	ND		0.51	ug/L	5.0
1,1,1-Trichloroethane	ND		1.4	ug/L	5.0
Carbon tetrachloride	ND		1.0	ug/L	5.0
Bromodichloromethane	TR		0.71	ug/L	5.0
1,2-Dichloropropane	ND		0.88	ug/L	5.0
1,3-Dichloropropane	ND		0.75	ug/L	5.0
Trichloroethene	ND		0.84	ug/L	5.0
Dibromochloromethane	TR		1.1	ug/L	5.0
1,1,2-Trichloroethane	ND		0.98	ug/L	5.0
Benzene	ND		1.0	ug/L	5.0
Bromoform	TR		1.9	ug/L	5.0
Tetrachloroethene	ND		0.85	ug/L	5.0
1,2-Dibromoethane (EDB)	ND		0.69	ug/L	5.0
1,1,1,2-Tetrachloroethane	ND		1.1	ug/L	5.0
1,1,2,2-Tetrachloroethane	ND		1.9	ug/L	5.0
Toluene	ND		0.96	ug/L	5.0
Chlorobenzene	ND		0.95	ug/L	5.0
Ethylbenzene	ND		1.1	ug/L	5.0
Styrene	ND		1.1	ug/L	5.0
Xylenes (total)	ND		1.7	ug/L	5.0
1-Methylethylbenzene	ND		0.91	ug/L	5.0
Bromobenzene	ND		1.3	ug/L	5.0
1,2,3-Trichloropropane	ND		2.0	ug/L	5.0
2-Chlorotoluene	ND		1.2	ug/L	5.0
n-Propyl benzene	ND		0.70	ug/L	5.0
1,3,5-Trimethylbenzene	ND		0.98	ug/L	5.0
4-Chlorotoluene	ND		1.2	ug/L	5.0
tert-Butylbenzene	ND		1.0	ug/L	5.0

ND = Not Detected

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Corning Environmental Services

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: PWS-1DVMW-01
LAB ID: 105669-0007-SA
Matrix: AQUEOUS Sampled: 26 MAY 94 Received: 26 MAY 94
Authorized: 30 MAY 94 Prepared: 01 JUN 94 Analyzed: 01 JUN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
1,2,4-Trimethylbenzene	ND		1.2	ug/L	5.0
sec-Butylbenzene	ND		0.93	ug/L	5.0
Isopropyltoluene	ND		0.97	ug/L	5.0
1,3-Dichlorobenzene	ND		1.1	ug/L	5.0
1,4-Dichlorobenzene	ND		1.3	ug/L	5.0
n-Butylbenzene	ND		0.80	ug/L	5.0
1,2-Dichlorobenzene	ND		1.4	ug/L	5.0
1,2,4-Trichlorobenzene	ND		0.95	ug/L	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		3.3	ug/L	5.0
Hexachlorobutadiene	ND		1.2	ug/L	5.0
Naphthalene	ND		1.6	ug/L	5.0
1,2,3-Trichlorobenzene	ND		1.0	ug/L	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	99	%
Toluene-d8	94	%
Bromofluorobenzene	93	%

ND = Not Detected

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QC LOT ASSIGNMENT REPORT - MS QC
Semivolatile Organics by GC/MS

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
105669-0001-SA	AQUEOUS	8270-A	27 MAY 94-E	27 MAY 94-E	27 MAY 94-EA
105669-0002-SA	AQUEOUS	8270-A	27 MAY 94-E	27 MAY 94-E	27 MAY 94-EA
105669-0003-SA	AQUEOUS	8270-A	27 MAY 94-E	27 MAY 94-E	27 MAY 94-EA

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METHOD BLANK REPORT
Semivolatile Organics by GC/MS
Project: 105669

Test: 8270-HLA-A Method 8270 - Semivolatile Organics
Matrix: AQUEOUS
QC Run: 27 MAY 94-E Date Analyzed: 30 MAY 94

Analyte	Result	Units	Reporting Limit
N-Nitrosodimethylamine	ND	ug/L	10
Phenol	ND	ug/L	10
bis(2-Chloroethyl) ether	ND	ug/L	10
2-Chlorophenol	ND	ug/L	10
1,3-Dichlorobenzene	ND	ug/L	10
1,4-Dichlorobenzene	ND	ug/L	10
Benzyl alcohol	ND	ug/L	10
1,2-Dichlorobenzene	ND	ug/L	10
2-Methylphenol	ND	ug/L	10
bis(2-Chloroisopropyl)-ether	ND	ug/L	10
3/4-Methylphenol	ND	ug/L	10
N-Nitroso-di-n-propylamine	ND	ug/L	10
Hexachloroethane	ND	ug/L	10
Nitrobenzene	ND	ug/L	10
Isophorone	ND	ug/L	10
2-Nitrophenol	ND	ug/L	10
2,4-Dimethylphenol	ND	ug/L	10
Benzoic acid	ND	ug/L	50
bis(2-Chloroethoxy)-methane	ND	ug/L	10
2,4-Dichlorophenol	ND	ug/L	10
1,2,4-Trichlorobenzene	ND	ug/L	10
Naphthalene	ND	ug/L	10
4-Chloroaniline	ND	ug/L	10
Hexachlorobutadiene	ND	ug/L	10
4-Chloro-3-methylphenol	ND	ug/L	10
2-Methylnaphthalene	ND	ug/L	10
Hexachlorocyclopentadiene	ND	ug/L	10
2,4,6-Trichlorophenol	ND	ug/L	10
2,4,5-Trichlorophenol	ND	ug/L	50
2-Chloronaphthalene	ND	ug/L	10
2-Nitroaniline	ND	ug/L	50
Dimethyl phthalate	ND	ug/L	10
Acenaphthylene	ND	ug/L	10
3-Nitroaniline	ND	ug/L	50
Acenaphthene	ND	ug/L	10
2,4-Dinitrophenol	ND	ug/L	50
4-Nitrophenol	ND	ug/L	50
Dibenzofuran	ND	ug/L	10
2,4-Dinitrotoluene	ND	ug/L	10
2,6-Dinitrotoluene	ND	ug/L	10
Diethyl phthalate	ND	ug/L	10
4-Chlorophenyl phenyl ether	ND	ug/L	10
Fluorene	ND	ug/L	10
4-Nitroaniline	ND	ug/L	50
4,6-Dinitro-2-methylphenol	ND	ug/L	50

ND = Not Detected

METHOD BLANK REPORT
Semivolatile Organics by GC/MS (cont.)
Project: 105669

Test: 8270-HLA-A Method 8270 - Semivolatile Organics
Matrix: AQUEOUS
QC Run: 27 MAY 94-E Date Analyzed: 30 MAY 94

Analyte	Result	Units	Reporting Limit
N-Nitrosodiphenylamine	ND	ug/L	10
4-Bromophenyl phenyl ether	ND	ug/L	10
Hexachlorobenzene	ND	ug/L	10
Pentachlorophenol	ND	ug/L	50
Phenanthrene	ND	ug/L	10
Anthracene	ND	ug/L	10
Di-n-butyl phthalate	ND	ug/L	10
Fluoranthene	ND	ug/L	10
Pyrene	ND	ug/L	10
Butyl benzyl phthalate	ND	ug/L	10
3,3'-Dichlorobenzidine	ND	ug/L	20
Benzo(a)anthracene	ND	ug/L	10
bis(2-Ethylhexyl)-phthalate	ND	ug/L	10
Chrysene	ND	ug/L	10
Di-n-octyl phthalate	ND	ug/L	10
Benzo(b)fluoranthene	ND	ug/L	10
Benzo(k)fluoranthene	ND	ug/L	10
Benzo(a)pyrene	ND	ug/L	10
Indeno(1,2,3-c,d)pyrene	ND	ug/L	10
Dibenz(a,h)anthracene	ND	ug/L	10
Xylidine (Total)	ND	ug/L	10
Benzo(g,h,i)perylene	ND	ug/L	10

ND = Not Detected

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Semivolatile Organics by GC/MS
Project: 105669

Category: 8270-A Acid, Base and Neutrals by GC/MS
Matrix: AQUEOUS
Sample: 105646-0004
MS Run: 27 MAY 94-EA
Units: ug/L

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Phenol	ND	204	201	400	51	50	1.5	10-115	57
2-Chlorophenol	ND	321	326	400	80	82	1.5	36-111	37
1,4-Dichlorobenzene	ND	149	144	200	74	72	3.4	46-100	32
N-Nitroso-di-n-propylamine	ND	152	156	200	76	78	2.6	45-118	30
1,2,4-Trichlorobenzene	ND	145	145	200	72	72	0.0	50-107	26
4-Chloro-3-methylphenol	ND	322	321	400	80	80	0.3	36-128	36
Acenaphthene	ND	163	164	200	82	82	0.6	52-119	23
4-Nitrophenol	ND	207	189	400	52	47	9.1	10-159	49
2,4-Dinitrotoluene	ND	163	169	200	82	84	3.6	32-120	30
Pentachlorophenol	ND	354	366	400	88	92	3.3	30-152	39
Pyrene	ND	172	187	200	86	94	8.4	38-126	34

ND = Not Detected

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

Enseco
Corning Environmental Services

DUPLICATE CONTROL SAMPLE REPORT
Semivolatile Organics by GC/MS
Project: 105669

Category: 8270-A Acid, Base and Neutrals by GC/MS
Matrix: AQUEOUS
QC Lot: 27 MAY 94-E
Date Analyzed: 30 MAY 94
Concentration Units: ug/L

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Phenol	200	99.4	97.3	98.4	49	8-117	2.1	27
2-Chlorophenol	200	159	156	158	79	50-108	1.9	22
1,4-Dichlorobenzene	100	73.4	71.9	72.6	73	47-104	2.1	19
N-Nitroso-di-n-propylamine	100	80.4	77.0	78.7	79	50-109	4.3	20
1,2,4-Trichlorobenzene	100	71.3	71.0	71.2	71	48-115	0.42	20
4-Chloro-3-methylphenol	200	161	156	158	79	45-120	3.2	22
Acenaphthene	100	79.2	78.0	78.6	79	51-115	1.5	18
4-Nitrophenol	200	94.0	87.9	91.0	45	10-145	6.7	49
2,4-Dinitrotoluene	100	79.8	79.0	79.4	79	29-114	1.0	24
Pentachlorophenol	200	171	164	168	84	45-135	4.2	25
Pyrene	100	88.2	85.6	86.9	87	30-142	3.0	25

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

Enseco
Corning Environmental Services

SINGLE CONTROL SAMPLE REPORT
Semivolatile Organics by GC/MS
Project: 105669

Category: 8270-A Acid, Base and Neutrals by GC/MS
Matrix: AQUEOUS
QC Run: 27 MAY 94-E Date Analyzed: 30 MAY 94
Concentration Units: ug/L

Analyte	Concentration Spiked	Concentration Measured	Accuracy(%) SCS	Accuracy(%) Limits
2-Fluorophenol	200	135	68	21-100
Phenol-d5	200	85.4	43	10-94
Nitrobenzene-d5	100	72.3	72	41-121
2-Fluorobiphenyl	100	74.8	75	43-116
2,4,6-Tribromophenol	200	165	82	31-129
Terphenyl-d14	100	73.5	74	38-132

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

Enseco
Corning Environmental Services

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: MW-2
LAB ID: 105669-0001-SA
Matrix: AQUEOUS Sampled: 26 MAY 94 Received: 26 MAY 94
Authorized: 30 MAY 94 Prepared: 27 MAY 94 Analyzed: 31 MAY 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
N-Nitrosodimethylamine	ND		5.0	ug/L	10
Phenol	ND		2.5	ug/L	10
bis(2-Chloroethyl) ether	ND		1.0	ug/L	10
2-Chlorophenol	ND		2.8	ug/L	10
1,3-Dichlorobenzene	ND		2.4	ug/L	10
1,4-Dichlorobenzene	ND		1.9	ug/L	10
Benzyl alcohol	ND		3.3	ug/L	10
1,2-Dichlorobenzene	ND		2.5	ug/L	10
2-Methylphenol	ND		3.2	ug/L	10
bis(2-Chloroisopropyl)-ether	ND		3.8	ug/L	10
3/4-Methylphenol	ND		3.2	ug/L	10
N-Nitroso-di-n-propylamine	ND		3.2	ug/L	10
Hexachloroethane	ND		3.1	ug/L	10
Nitrobenzene	ND		1.3	ug/L	10
Isophorone	ND		1.0	ug/L	10
2-Nitrophenol	ND		2.5	ug/L	10
2,4-Dimethylphenol	ND		6.9	ug/L	10
Benzoic acid	ND		18	ug/L	50
bis(2-Chloroethoxy)-methane	ND		1.2	ug/L	10
2,4-Dichlorophenol	ND		2.2	ug/L	10
1,2,4-Trichlorobenzene	ND		2.2	ug/L	10
Naphthalene	ND		1.7	ug/L	10
4-Chloroaniline	ND		1.4	ug/L	10
Hexachlorobutadiene	ND		1.3	ug/L	10
4-Chloro-3-methylphenol	ND		4.1	ug/L	10
2-Methylnaphthalene	ND		1.0	ug/L	10
Hexachlorocyclopentadiene	ND		6.8	ug/L	10
2,4,6-Trichlorophenol	ND		3.9	ug/L	10
2,4,5-Trichlorophenol	ND		2.5	ug/L	50
2-Chloronaphthalene	ND		2.5	ug/L	10
2-Nitroaniline	ND		16	ug/L	50
Dimethyl phthalate	ND		1.4	ug/L	10
Acenaphthylene	ND		1.2	ug/L	10
3-Nitroaniline	ND		6.8	ug/L	50
Acenaphthene	ND		1.6	ug/L	10
2,4-Dinitrophenol	ND		11	ug/L	50
4-Nitrophenol	ND		11	ug/L	50
Dibenzofuran	ND		1.5	ug/L	10
2,4-Dinitrotoluene	ND		1.8	ug/L	10
2,6-Dinitrotoluene	ND		2.3	ug/L	10
Diethyl phthalate	ND		2.1	ug/L	10
4-Chlorophenyl phenyl ether	ND		2.0	ug/L	10
Fluorene	ND		1.7	ug/L	10
4-Nitroaniline	ND		9.5	ug/L	50

ND = Not Detected

Enseco
Corning Environmental Services

Semivolatile Organic Compounds
Method 8270
(cont.)

Client Name: Harding Lawson Associates
Client ID: MW-2
LAB ID: 105669-0001-SA
Matrix: AQUEOUS Sampled: 26 MAY 94 Received: 26 MAY 94
Authorized: 30 MAY 94 Prepared: 27 MAY 94 Analyzed: 31 MAY 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
4,6-Dinitro-2-methylphenol	ND		11	ug/L	50
N-Nitrosodiphenylamine	ND		1.6	ug/L	10
4-Bromophenyl phenyl ether	ND		3.1	ug/L	10
Hexachlorobenzene	ND		1.7	ug/L	10
Pentachlorophenol	ND		5.7	ug/L	50
Phenanthrene	ND		1.0	ug/L	10
Anthracene	ND		0.64	ug/L	10
Di-n-butyl phthalate	ND		1.8	ug/L	10
Fluoranthene	ND		1.6	ug/L	10
Pyrene	ND		0.92	ug/L	10
Butyl benzyl phthalate	ND		1.7	ug/L	10
3,3'-Dichlorobenzidine	ND		2.3	ug/L	20
Benzo(a)anthracene	ND		1.0	ug/L	10
bis(2-Ethylhexyl)-phthalate	ND		1.8	ug/L	10
Chrysene	ND		1.6	ug/L	10
Di-n-octyl phthalate	ND		1.8	ug/L	10
Benzo(b)fluoranthene	ND		1.8	ug/L	10
Benzo(k)fluoranthene	ND		2.8	ug/L	10
Benzo(a)pyrene	ND		1.1	ug/L	10
Indeno(1,2,3-c,d)pyrene	ND		1.6	ug/L	10
Dibenz(a,h)anthracene	ND		1.5	ug/L	10
Benzo(g,h,i)perylene	ND		0.78	ug/L	10
Xylidine (Total)	ND		7.8	ug/L	10

Surrogate	Recovery	
2-Fluorophenol	56	%
Phenol-d5	30	%
Nitrobenzene-d5	75	%
2-Fluorobiphenyl	85	%
2,4,6-Tribromophenol	96	%
Terphenyl-d14	85	%

ND = Not Detected

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Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: MW-3
LAB ID: 105669-0002-SA
Matrix: AQUEOUS Sampled: 26 MAY 94 Received: 26 MAY 94
Authorized: 30 MAY 94 Prepared: 27 MAY 94 Analyzed: 31 MAY 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
N-Nitrosodimethylamine	ND		5.0	ug/L	10
Phenol	ND		2.5	ug/L	10
bis(2-Chloroethyl) ether	ND		1.0	ug/L	10
2-Chlorophenol	ND		2.8	ug/L	10
1,3-Dichlorobenzene	ND		2.4	ug/L	10
1,4-Dichlorobenzene	ND		1.9	ug/L	10
Benzyl alcohol	ND		3.3	ug/L	10
1,2-Dichlorobenzene	ND		2.5	ug/L	10
2-Methylphenol	ND		3.2	ug/L	10
bis(2-Chloroisopropyl)-ether	ND		3.8	ug/L	10
3/4-Methylphenol	ND		3.2	ug/L	10
N-Nitroso-di-n-propylamine	ND		3.2	ug/L	10
Hexachloroethane	ND		3.1	ug/L	10
Nitrobenzene	ND		1.3	ug/L	10
Isophorone	ND		1.0	ug/L	10
2-Nitrophenol	ND		2.5	ug/L	10
2,4-Dimethylphenol	ND		6.9	ug/L	10
Benzoic acid	ND		18	ug/L	50
bis(2-Chloroethoxy)-methane	ND		1.2	ug/L	10
2,4-Dichlorophenol	ND		2.2	ug/L	10
1,2,4-Trichlorobenzene	ND		2.2	ug/L	10
Naphthalene	ND		1.7	ug/L	10
4-Chloroaniline	ND		1.4	ug/L	10
Hexachlorobutadiene	ND		1.3	ug/L	10
4-Chloro-3-methylphenol	ND		4.1	ug/L	10
2-Methylnaphthalene	ND		1.0	ug/L	10
Hexachlorocyclopentadiene	ND		6.8	ug/L	10
2,4,6-Trichlorophenol	ND		3.9	ug/L	10
2,4,5-Trichlorophenol	ND		2.5	ug/L	50
2-Chloronaphthalene	ND		2.5	ug/L	10
2-Nitroaniline	ND		16	ug/L	50
Dimethyl phthalate	ND		1.4	ug/L	10
Acenaphthylene	ND		1.2	ug/L	10
3-Nitroaniline	ND		6.8	ug/L	50
Acenaphthene	ND		1.6	ug/L	10
2,4-Dinitrophenol	ND		11	ug/L	50
4-Nitrophenol	ND		11	ug/L	50
Dibenzofuran	ND		1.5	ug/L	10
2,4-Dinitrotoluene	ND		1.8	ug/L	10
2,6-Dinitrotoluene	ND		2.3	ug/L	10
Diethyl phthalate	ND		2.1	ug/L	10
4-Chlorophenyl phenyl ether	ND		2.0	ug/L	10
Fluorene	ND		1.7	ug/L	10
4-Nitroaniline	ND		9.5	ug/L	50

ND = Not Detected

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Corning Environmental Services

Semivolatile Organic Compounds
Method 8270 (cont.)

Client Name: Harding Lawson Associates
Client ID: MW-3
LAB ID: 105669-0002-SA
Matrix: AQUEOUS Sampled: 26 MAY 94 Received: 26 MAY 94
Authorized: 30 MAY 94 Prepared: 27 MAY 94 Analyzed: 31 MAY 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
4,6-Dinitro-2-methylphenol	ND		11	ug/L	50
N-Nitrosodiphenylamine	ND		1.6	ug/L	10
4-Bromophenyl phenyl ether	ND		3.1	ug/L	10
Hexachlorobenzene	ND		1.7	ug/L	10
Pentachlorophenol	ND		5.7	ug/L	50
Phenanthrene	ND		1.0	ug/L	10
Anthracene	ND		0.64	ug/L	10
Di-n-butyl phthalate	ND		1.8	ug/L	10
Fluoranthene	ND		1.6	ug/L	10
Pyrene	ND		0.92	ug/L	10
Butyl benzyl phthalate	ND		1.7	ug/L	10
3,3'-Dichlorobenzidine	ND		2.3	ug/L	20
Benzo(a)anthracene	ND		1.0	ug/L	10
bis(2-Ethylhexyl)-phthalate	ND		1.8	ug/L	10
Chrysene	ND		1.6	ug/L	10
Di-n-octyl phthalate	ND		1.8	ug/L	10
Benzo(b)fluoranthene	ND		1.8	ug/L	10
Benzo(k)fluoranthene	ND		2.8	ug/L	10
Benzo(a)pyrene	ND		1.1	ug/L	10
Indeno(1,2,3-c,d)pyrene	ND		1.6	ug/L	10
Dibenz(a,h)anthracene	ND		1.5	ug/L	10
Benzo(g,h,i)perylene	ND		0.78	ug/L	10
Xylidine (Total)	ND		7.8	ug/L	10

Surrogate	Recovery	
2-Fluorophenol	55	%
Phenol-d5	29	%
Nitrobenzene-d5	72	%
2-Fluorobiphenyl	82	%
2,4,6-Tribromophenol	92	%
Terphenyl-d14	90	%

ND = Not Detected

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Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: MW-4
LAB ID: 105669-0003-SA
Matrix: AQUEOUS — Sampled: 26 MAY 94 — Received: 26 MAY 94
Authorized: 30 MAY 94 — Prepared: 27 MAY 94 — Analyzed: 31 MAY 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
N-Nitrosodimethylamine	ND		5.0	ug/L	10
Phenol	ND		2.5	ug/L	10
bis(2-Chloroethyl) ether	ND		1.0	ug/L	10
2-Chlorophenol	ND		2.8	ug/L	10
1,3-Dichlorobenzene	ND		2.4	ug/L	10
1,4-Dichlorobenzene	ND		1.9	ug/L	10
Benzyl alcohol	ND		3.3	ug/L	10
1,2-Dichlorobenzene	ND		2.5	ug/L	10
2-Methylphenol	ND		3.2	ug/L	10
bis(2-Chloroisopropyl)-ether	ND		3.8	ug/L	10
3/4-Methylphenol	ND		3.2	ug/L	10
N-Nitroso-di-n-propylamine	ND		3.2	ug/L	10
Hexachloroethane	ND		3.1	ug/L	10
Nitrobenzene	ND		1.3	ug/L	10
Isophorone	ND		1.0	ug/L	10
2-Nitrophenol	ND		2.5	ug/L	10
2,4-Dimethylphenol	ND		6.9	ug/L	10
Benzoic acid	ND		18	ug/L	50
bis(2-Chloroethoxy)-methane	ND		1.2	ug/L	10
2,4-Dichlorophenol	ND		2.2	ug/L	10
1,2,4-Trichlorobenzene	ND		2.2	ug/L	10
Naphthalene	ND		1.7	ug/L	10
4-Chloroaniline	ND		1.4	ug/L	10
Hexachlorobutadiene	ND		1.3	ug/L	10
4-Chloro-3-methylphenol	ND		4.1	ug/L	10
2-Methylnaphthalene	ND		1.0	ug/L	10
Hexachlorocyclopentadiene	ND		6.8	ug/L	10
2,4,6-Trichlorophenol	ND		3.9	ug/L	10
2,4,5-Trichlorophenol	ND		2.5	ug/L	50
2-Chloronaphthalene	ND		2.5	ug/L	10
2-Nitroaniline	ND		16	ug/L	50
Dimethyl phthalate	ND		1.4	ug/L	10
Acenaphthylene	ND		1.2	ug/L	10
3-Nitroaniline	ND		6.8	ug/L	50
Acenaphthene	ND		1.6	ug/L	10
2,4-Dinitrophenol	ND		11	ug/L	50
4-Nitrophenol	ND		11	ug/L	50
Dibenzofuran	ND		1.5	ug/L	10
2,4-Dinitrotoluene	ND		1.8	ug/L	10
2,6-Dinitrotoluene	ND		2.3	ug/L	10
Diethyl phthalate	ND		2.1	ug/L	10
4-Chlorophenyl phenyl ether	ND		2.0	ug/L	10
Fluorene	ND		1.7	ug/L	10
4-Nitroaniline	ND		9.5	ug/L	50

ND = Not Detected

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Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: MW-4
LAB ID: 105669-0003-SA
Matrix: AQUEOUS Sampled: 26 MAY 94 Received: 26 MAY 94
Authorized: 30 MAY 94 Prepared: 27 MAY 94 Analyzed: 31 MAY 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
4,6-Dinitro-2-methylphenol	ND		11	ug/L	50
N-Nitrosodiphenylamine	ND		1.6	ug/L	10
4-Bromophenyl phenyl ether	ND		3.1	ug/L	10
Hexachlorobenzene	ND		1.7	ug/L	10
Pentachlorophenol	ND		5.7	ug/L	50
Phenanthrene	ND		1.0	ug/L	10
Anthracene	ND		0.64	ug/L	10
Di-n-butyl phthalate	ND		1.8	ug/L	10
Fluoranthene	ND		1.6	ug/L	10
Pyrene	ND		0.92	ug/L	10
Butyl benzyl phthalate	ND		1.7	ug/L	10
3,3'-Dichlorobenzidine	ND		2.3	ug/L	20
Benzo(a)anthracene	ND		1.0	ug/L	10
bis(2-Ethylhexyl)-phthalate	ND		1.8	ug/L	10
Chrysene	ND		1.6	ug/L	10
Di-n-octyl phthalate	ND		1.8	ug/L	10
Benzo(b)fluoranthene	ND		1.8	ug/L	10
Benzo(k)fluoranthene	ND		2.8	ug/L	10
Benzo(a)pyrene	ND		1.1	ug/L	10
Indeno(1,2,3-c,d)pyrene	ND		1.6	ug/L	10
Dibenz(a,h)anthracene	ND		1.5	ug/L	10
Benzo(g,h,i)perylene	ND		0.78	ug/L	10
Xylidine (Total)	ND		7.8	ug/L	10

Surrogate	Recovery	
2-Fluorophenol	58	%
Phenol-d5	30	%
Nitrobenzene-d5	78	%
2-Fluorobiphenyl	89	%
2,4,6-Tribromophenol	95	%
Terphenyl-d14	93	%

ND = Not Detected

COC
Invoice ✓

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A Corning Company

Enseco – CRL
7440 Lincoln Way • Garden Grove, CA 92641
(714) 898-6370 • (213) 598-0458 • (800) LAB-1-CRL
FAX: (714) 891-5917

October 21, 1993

HARDING LAWSON ASSOCIATES
3 HUTTON CENTRE DRIVE, STE 200
SANTA ANA, CA 92707
ATTN: MR. MATT HUNTER

Lab No.: 102955-0001/0004
Date Sampled: 8-OCT-1993
Date Sample Rec'd: 8-OCT-1993
Project: (11074.54) AEROJET

Enclosed with this letter is the report on the chemical and physical analyses on the samples from LAB NO: 102955-0001/0004 shown above.

The samples were received by CRL in a chilled state, intact and with the chain-of-custody record attached.

Note that ND means not detected at the reporting limit expressed. The reporting limit is raised to reflect the dilution factor of the sample.

Solid samples are reported on "as received" basis.

Sabina R. Sudoku
Reviewed

Phillip J. Zy
Approved

The Report Cover Letter is an integral part of this report.
This report pertains only to the samples investigated and does not necessarily apply to other apparently identical or similar materials. This report is submitted for the exclusive use of the client to whom it is addressed. Any reproduction of this report or use of this Laboratory's name for advertising or publicity purposes without authorization is prohibited.

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SAMPLE DESCRIPTION INFORMATION
for
Harding Lawson Associates

Lab ID	Client ID	Matrix	Sampled Date	Sampled Time	Received Date
102955-0001-SA	MW-2 58.25'-58.5'	SOIL	08 OCT 93		08 OCT 93
102955-0002-SA	MW-2 20'	SOIL	08 OCT 93		08 OCT 93
102955-0003-SA	MW-2 40'	SOIL	08 OCT 93		08 OCT 93
102955-0004-SA	MW-2 76'	SOIL	08 OCT 93		08 OCT 93

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GENERAL INORGANICS

Client Name: Harding Lawson Associates
Client ID: MW-2 58.25'-58.5'
LAB ID: 102955-0001-SA
Matrix: SOIL Sampled: 08 OCT 93 Received: 08 OCT 93
Authorized: 09 OCT 93 Prepared: See Below Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Percent Water	0.20			0.10	%	D2216	NA	19 OCT 93
pH	7.9		NA	NA	units	9045	NA	08 OCT 93

Volatile Organic Compounds
Method 8240

Enseco
A Corning Company

Client Name: Harding Lawson Associates
Client ID: MW-2 58.25'-58.5'
LAB ID: 102955-0001-SA
Matrix: SOIL Sampled: 08 OCT 93 Received: 08 OCT 93
Authorized: 09 OCT 93 Prepared: 11 OCT 93 Analyzed: 11 OCT 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/kg	5.0
Methylene chloride	TR		1.1	ug/kg	5.0
Acetone	ND		7.1	ug/kg	10
Trichlorofluoromethane	ND		0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	ND		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	ND		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	ND		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	ND		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0
tert-Butylbenzene	ND		0.55	ug/kg	5.0
1,2,4-Trimethylbenzene	ND		0.53	ug/kg	5.0

ND = Not Detected

Volatile Organic Compounds
Method 8240

Enseco
A Corning Company

Client Name: Harding Lawson Associates
Client ID: MW-2 58.25'-58.5'
LAB ID: 102955-0001-SA
Matrix: SOIL Sampled: 08 OCT 93 Received: 08 OCT 93
Authorized: 09 OCT 93 Prepared: 11 OCT 93 Analyzed: 11 OCT 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	101	%
Toluene-d8	102	%
Bromofluorobenzene	99	%

ND = Not Detected

Semivolatile Organic Compounds
Method 8270

Enseco
A Corning Company

Client Name: Harding Lawson Associates
Client ID: MW-2 58.25'-58.5'
LAB ID: 102955-0001-SA
Matrix: SOIL Sampled: 08 OCT 93 Received: 08 OCT 93
Authorized: 09 OCT 93 Prepared: 11 OCT 93 Analyzed: 12 OCT 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
N-Nitrosodiethylamine	ND		0.26	mg/kg	0.33
Phenol	ND		0.030	mg/kg	0.33
bis(2-Chloroethyl) ether	ND		0.060	mg/kg	0.33
2-Chlorophenol	ND		0.040	mg/kg	0.33
1,3-Dichlorobenzene	ND		0.030	mg/kg	0.33
1,4-Dichlorobenzene	ND		0.060	mg/kg	0.33
Benzyl alcohol	ND		0.070	mg/kg	0.33
1,2-Dichlorobenzene	ND		0.040	mg/kg	0.33
2-Methylphenol	ND		0.030	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND		0.040	mg/kg	0.33
3/4-Methylphenol	ND		0.040	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND		0.030	mg/kg	0.33
Hexachloroethane	ND		0.030	mg/kg	0.33
Nitrobenzene	ND		0.090	mg/kg	0.33
Isophorone	ND		0.040	mg/kg	0.33
2-Nitrophenol	ND		0.050	mg/kg	0.33
2,4-Dimethylphenol	ND		0.030	mg/kg	0.33
Benzoic acid	ND		0.51	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND		0.020	mg/kg	0.33
2,4-Dichlorophenol	ND		0.030	mg/kg	0.33
1,2,4-Trichlorobenzene	ND		0.040	mg/kg	0.33
Naphthalene	ND		0.030	mg/kg	0.33
4-Chloroaniline	ND		0.10	mg/kg	0.33
Hexachlorobutadiene	ND		0.040	mg/kg	0.33
4-Chloro-3-methylphenol	ND		0.040	mg/kg	0.33
2-Methylnaphthalene	ND		0.030	mg/kg	0.33
Hexachlorocyclopentadiene	ND		0.050	mg/kg	0.33
2,4,6-Trichlorophenol	ND		0.040	mg/kg	0.33
2,4,5-Trichlorophenol	ND		0.050	mg/kg	1.7
2-Chloronaphthalene	ND		0.030	mg/kg	0.33
2-Nitroaniline	ND		0.030	mg/kg	1.7
Dimethyl phthalate	ND		0.030	mg/kg	0.33
Acenaphthylene	ND		0.020	mg/kg	0.33
3-Nitroaniline	ND		0.14	mg/kg	1.7
Acenaphthene	ND		0.030	mg/kg	0.33
2,4-Dinitrophenol	ND		0.23	mg/kg	1.7
4-Nitrophenol	ND		0.25	mg/kg	1.7
Dibenzofuran	ND		0.040	mg/kg	0.33
2,4-Dinitrotoluene	ND		0.040	mg/kg	0.33
2,6-Dinitrotoluene	ND		0.050	mg/kg	0.33
Diethyl phthalate	ND		0.020	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND		0.030	mg/kg	0.33
Fluorene	ND		0.030	mg/kg	0.33
4-Nitroaniline	ND		0.18	mg/kg	1.7

ND = Not Detected

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Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: MW-2 58.25'-58.5'
LAB ID: 102955-0001-SA
Matrix: SOIL Sampled: 08 OCT 93 Received: 08 OCT 93
Authorized: 09 OCT 93 Prepared: 11 OCT 93 Analyzed: 12 OCT 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
4,6-Dinitro-2-methylphenol	ND		0.36	mg/kg	1.7
N-Nitrosodiphenylamine	ND		0.040	mg/kg	0.33
4-Bromophenyl phenyl ether	ND		0.080	mg/kg	0.33
Hexachlorobenzene	ND		0.030	mg/kg	0.33
Pentachlorophenol	ND		0.19	mg/kg	1.7
Phenanthrene	ND		0.030	mg/kg	0.33
Anthracene	ND		0.020	mg/kg	0.33
Di-n-butyl phthalate	ND		0.24	mg/kg	0.33
Fluoranthene	ND		0.030	mg/kg	0.33
Pyrene	ND		0.020	mg/kg	0.33
Butyl benzyl phthalate	ND		0.030	mg/kg	0.33
3,3'-Dichlorobenzidine	ND		0.33	mg/kg	0.66
Benzo(a)anthracene	ND		0.040	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	2.0		0.13	mg/kg	0.33
Chrysene	ND		0.040	mg/kg	0.33
Di-n-octyl phthalate	ND		0.040	mg/kg	0.33
Benzo(b)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(k)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(a)pyrene	ND		0.040	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND		0.030	mg/kg	0.33
Dibenz(a,h)anthracene	ND		0.030	mg/kg	0.33
Benzo(g,h,i)perylene	ND		0.020	mg/kg	0.33
Xylidine (Total)	ND		0.076	mg/kg	0.33

Surrogate	Recovery	
Nitrobenzene-d5	63	%
2-Fluorobiphenyl	66	%
Terphenyl-d14	81	%
Phenol-d5	63	%
2-Fluorophenol	62	%
2,4,6-Tribromophenol	65	%

ND = Not Detected

Enseco
A Corning Company

QC LOT ASSIGNMENT REPORT - MS QC
Wet Chemistry Analysis and Preparation

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
102955-0001-SA	SOLID	PH-S	08 OCT 93-A		

Enseco
A Corning Company

DUPLICATE CONTROL SAMPLE REPORT
Wet Chemistry Analysis and Preparation
Project: 102955

Category: PH-S pH, Solid
Matrix: SOLID
QC Lot: 08 OCT 93-A
Concentration Units: units

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
pH	9.18	9.10	9.11	9.10	99	98-102	0.11	1

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

Enseco
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QC LOT ASSIGNMENT REPORT - MS QC
Volatile Organics by GC/MS

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
102955-0001-SA	SOLID	8240-S	15 OCT 93-AG	11 OCT 93-BG	11 OCT 93-BG

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A Corning Company

DUPLICATE CONTROL SAMPLE REPORT
Volatile Organics by GC/MS
Project: 102955

Category: 8240-S Volatile Organics
Matrix: SOLID
QC Lot: 15 OCT 93-AG
Concentration Units: ug/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average(%) DCS	Accuracy Average(%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
1,1-Dichloroethene	50.0	55.3	42.7	49.0	98	50-121	26	31
Trichloroethene	50.0	56.2	48.0	52.1	104	69-114	16	17
Benzene	50.0	58.2	48.7	53.4	107	78-117	18	16
Toluene	50.0	57.1	49.4	53.2	107	79-118	14	17
Chlorobenzene	50.0	54.9	48.7	51.8	104	79-119	12	17

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Volatile Organics by GC/MS
Project: 102955

Category: 8240-S Volatile Organics
Matrix: SOLID
Sample: 102955-0001
MS Run: 11 OCT 93-BG
Units: ug/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
1,1-Dichloroethene	ND	52.7	48.7	50.0	105	97	7.9	46-136	28
Trichloroethene	ND	59.3	57.4	50.0	119	115	3.4	58-131	26
Benzene	ND	58.5	54.5	50.0	117	109	7.1	63-139	23
Toluene	ND	60.2	55.2	50.0	120	110	8.7	68-140	24
Chlorobenzene	ND	58.4	55.2	50.0	117	110	6.2	68-138	23

ND = Not Detected

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

Enseco
A Corning Company

SINGLE CONTROL SAMPLE REPORT
Volatile Organics by GC/MS
Project: 102955

Category: 8240-S Volatile Organics
Matrix: SOLID
QC Run: 11 OCT 93-BG
Concentration Units: ug/kg

Analyte	Concentration Spiked	Concentration Measured	Accuracy(%) SCS	Accuracy(%) Limits
1,2-Dichloroethane-d4	50.0	50.0	100	70-121
Toluene-d8	50.0	51.5	103	81-117
Bromofluorobenzene	50.0	51.2	102	74-121

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

Enseco
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METHOD BLANK REPORT
Volatile Organics by GC/MS
Project: 102955

Test: 8240-HLA-S Method 8240 - Volatile Organics, EPA 8240 Extended List
Matrix: SOLID
QC Run: 11 OCT 93-BG

Analyte	Result	Units	Reporting Limit
Dichlorodifluoromethane	ND	ug/kg	10
Chloromethane	ND	ug/kg	10
Bromomethane	ND	ug/kg	10
Vinyl chloride	ND	ug/kg	10
Chloroethane	ND	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/kg	5.0
Methylene chloride	ND	ug/kg	5.0
Acetone	ND	ug/kg	10
Trichlorofluoromethane	ND	ug/kg	5.0
1,1-Dichloroethene	ND	ug/kg	5.0
Nitromethane	ND	ug/kg	200
trans-1,2-Dichloroethene	ND	ug/kg	5.0
cis-1,2-Dichloroethene	ND	ug/kg	5.0
1,1-Dichloroethane	ND	ug/kg	5.0
2,2-Dichloropropane	ND	ug/kg	5.0
Bromochloromethane	ND	ug/kg	5.0
Chloroform	ND	ug/kg	5.0
1,1-Dichloropropene	ND	ug/kg	5.0
1,2-Dichloroethane	ND	ug/kg	5.0
Dibromomethane	ND	ug/kg	5.0
1,1,1-Trichloroethane	ND	ug/kg	5.0
Carbon tetrachloride	ND	ug/kg	5.0
Bromodichloromethane	ND	ug/kg	5.0
1,2-Dichloropropane	ND	ug/kg	5.0
1,3-Dichloropropane	ND	ug/kg	5.0
Trichloroethene	ND	ug/kg	5.0
Dibromochloromethane	ND	ug/kg	5.0
1,1,2-Trichloroethane	ND	ug/kg	5.0
Benzene	ND	ug/kg	5.0
Bromoform	ND	ug/kg	5.0
Tetrachloroethene	ND	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.0
Toluene	ND	ug/kg	5.0
Chlorobenzene	ND	ug/kg	5.0
Ethylbenzene	ND	ug/kg	5.0
Styrene	ND	ug/kg	5.0
Xylenes (total)	ND	ug/kg	5.0
1-Methylethylbenzene	ND	ug/kg	5.0
Bromobenzene	ND	ug/kg	5.0
1,2,3-Trichloropropane	ND	ug/kg	5.0
2-Chlorotoluene	ND	ug/kg	5.0
n-Propyl benzene	ND	ug/kg	5.0

ND = Not Detected

METHOD BLANK REPORT
Volatile Organics by GC/MS (cont.)
Project: 102955

Test: 8240-HLA-S Method 8240 - Volatile Organics, EPA 8240 Extended List
Matrix: SOLID
QC Run: 11 OCT 93-BG

Analyte	Result	Units	Reporting Limit
1,3,5-Trimethylbenzene	ND	ug/kg	5.0
4-Chlorotoluene	ND	ug/kg	5.0
tert-Butylbenzene	ND	ug/kg	5.0
1,2,4-Trimethylbenzene	ND	ug/kg	5.0
sec-Butylbenzene	ND	ug/kg	5.0
Isopropyltoluene	ND	ug/kg	5.0
1,3-Dichlorobenzene	ND	ug/kg	5.0
1,4-Dichlorobenzene	ND	ug/kg	5.0
n-Butylbenzene	ND	ug/kg	5.0
1,2-Dichlorobenzene	ND	ug/kg	5.0
1,2,4-Trichlorobenzene	ND	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND	ug/kg	5.0
Hexachlorobutadiene	ND	ug/kg	5.0
Naphthalene	ND	ug/kg	5.0
1,2,3-Trichlorobenzene	ND	ug/kg	5.0

ND = Not Detected

Enseco
A Corning Company

QC LOT ASSIGNMENT REPORT - MS QC
Semivolatile Organics by GC/MS

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
102955-0001-SA	SOLID	8270-S	06 OCT 93-E	11 OCT 93-C	11 OCT 93-C

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DUPLICATE CONTROL SAMPLE REPORT
Semivolatile Organics by GC/MS
Project: 102955

Category: 8270-S Acid, Base and Neutrals by GC/MS.
Matrix: SOLID
QC Lot: 06 OCT 93-E
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Phenol	200	83.2	72.8	78.0	39	39-106	13	31
2-Chlorophenol	200	180	164	172	86	44-107	9.3	32
1,4-Dichlorobenzene	100	107	99.3	103	103	40-107	7.5	23
N-Nitroso-di-n-propylamine	100	112	111	112	112	31-132	0.90	38
1,2,4-Trichlorobenzene	100	111	105	108	108	38-120	5.6	22
4-Chloro-3-methylphenol	200	205	212	208	104	40-119	3.4	24
Acenaphthene	100	120	117	118	119	30-140	2.5	24
2,4-Dinitrotoluene	100	112	114	113	113	30-121	1.8	28
4-Nitrophenol	200	89.9	86.7	88.3	44	16-143	3.6	54
Pentachlorophenol	200	258	259	258	129	21-152	0.39	43
Pyrene	100	123	121	122	122	45-120	1.6	26

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

Enseco
A Corning Company

MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Semivolatile Organics by GC/MS
Project: 102955

Category: 8270-S Acid, Base and Neutrals by GC/MS.
Matrix: SOLID
Sample: 102955-0001
MS Run: 11 OCT 93-C
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Phenol	ND	3.58	4.57	6.67	54	69	25	25-110	74
2-Chlorophenol	ND	3.74	4.94	6.67	56	74	28	33-103	42
1,4-Dichlorobenzene	ND	2.04	2.76	3.33	61	83	31	22-110	55
N-Nitroso-di-n-propylamine	ND	2.23	3.11	3.33	67	93	32	18-138	49
1,2,4-Trichlorobenzene	ND	2.14	2.94	3.33	64	88	32	29-119	43
4-Chloro-3-methylphenol	ND	3.97	5.01	6.67	60	75	22	36-119	41
Acenaphthene	ND	2.42	2.83	3.33	73	85	15	17-148	36
2,4-Dinitrotoluene	ND	2.59	2.99	3.33	78	90	14	27-120	41
4-Nitrophenol	ND	4.60	5.85	6.67	69	88	24	16-143	80
Pentachlorophenol	ND	5.30	5.66	6.67	79	85	7.3	21-152	61
Pyrene	ND	2.72	2.88	3.33	82	86	4.8	24-133	46

ND = Not Detected

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

Enseco
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SINGLE CONTROL SAMPLE REPORT
Semivolatile Organics by GC/MS
Project: 102955

Category: 8270-S Acid, Base and Neutrals by GC/MS.
Matrix: SOLID
QC Run: 11 OCT 93-C
Concentration Units: mg/kg

Analyte	Concentration Spiked	Concentration Measured	Accuracy(%) SCS	Accuracy(%) Limits
2-Fluorophenol	6.67	5.09	76	25-121
Phenol-d5	6.67	5.57	84	24-113
Nitrobenzene-d5	3.33	2.95	89	23-120
2-Fluorobiphenyl	3.33	2.78	83	30-115
2,4,6-Tribromophenol	6.67	5.74	86	19-122
Terphenyl-d14	3.33	2.84	85	18-137

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

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METHOD BLANK REPORT
Semivolatile Organics by GC/MS
Project: 102955

Test: 8270-HLA-S Method 8270 - Semivolatile Organics
Matrix: SOLID
QC Run: 11 OCT 93-C

Analyte	Result	Units	Reporting Limit
N-Nitrosodiethylamine	ND	mg/kg	0.33
Phenol	ND	mg/kg	0.33
bis(2-Chloroethyl) ether	ND	mg/kg	0.33
2-Chlorophenol	ND	mg/kg	0.33
1,3-Dichlorobenzene	ND	mg/kg	0.33
1,4-Dichlorobenzene	ND	mg/kg	0.33
Benzyl alcohol	ND	mg/kg	0.33
1,2-Dichlorobenzene	ND	mg/kg	0.33
2-Methylphenol	ND	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND	mg/kg	0.33
3/4-Methylphenol	ND	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND	mg/kg	0.33
Hexachloroethane	ND	mg/kg	0.33
Nitrobenzene	ND	mg/kg	0.33
Isophorone	ND	mg/kg	0.33
2-Nitrophenol	ND	mg/kg	0.33
2,4-Dimethylphenol	ND	mg/kg	0.33
Benzoic acid	ND	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND	mg/kg	0.33
2,4-Dichlorophenol	ND	mg/kg	0.33
1,2,4-Trichlorobenzene	ND	mg/kg	0.33
Naphthalene	ND	mg/kg	0.33
4-Chloroaniline	ND	mg/kg	0.33
Hexachlorobutadiene	ND	mg/kg	0.33
4-Chloro-3-methylphenol	ND	mg/kg	0.33
2-Methylnaphthalene	ND	mg/kg	0.33
Hexachlorocyclopentadiene	ND	mg/kg	0.33
2,4,6-Trichlorophenol	ND	mg/kg	0.33
2,4,5-Trichlorophenol	ND	mg/kg	1.7
2-Chloronaphthalene	ND	mg/kg	0.33
2-Nitroaniline	ND	mg/kg	1.7
Dimethyl phthalate	ND	mg/kg	0.33
Acenaphthylene	ND	mg/kg	0.33
3-Nitroaniline	ND	mg/kg	1.7
Acenaphthene	ND	mg/kg	0.33
2,4-Dinitrophenol	ND	mg/kg	1.7
4-Nitrophenol	ND	mg/kg	1.7
Dibenzofuran	ND	mg/kg	0.33
2,4-Dinitrotoluene	ND	mg/kg	0.33
2,6-Dinitrotoluene	ND	mg/kg	0.33
Diethyl phthalate	ND	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND	mg/kg	0.33
Fluorene	ND	mg/kg	0.33
4-Nitroaniline	ND	mg/kg	1.7

ND = Not Detected

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METHOD BLANK REPORT
Semivolatile Organics by GC/MS (cont.)
Project: 102955

Test: 8270-HLA-S Method 8270 - Semivolatile Organics
Matrix: SOLID
QC Run: 11 OCT 93-C

Analyte	Result	Units	Reporting Limit
4,6-Dinitro-2-methylphenol	ND	mg/kg	1.7
N-Nitrosodiphenylamine	ND	mg/kg	0.33
4-Bromophenyl phenyl ether	ND	mg/kg	0.33
Hexachlorobenzene	ND	mg/kg	0.33
Pentachlorophenol	ND	mg/kg	1.7
Phenanthrene	ND	mg/kg	0.33
Anthracene	ND	mg/kg	0.33
Di-n-butyl phthalate	ND	mg/kg	0.33
Fluoranthene	ND	mg/kg	0.33
Pyrene	ND	mg/kg	0.33
Butyl benzyl phthalate	ND	mg/kg	0.33
3,3'-Dichlorobenzidine	ND	mg/kg	0.66
Benzo(a)anthracene	ND	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND	mg/kg	0.33
Chrysene	ND	mg/kg	0.33
Di-n-octyl phthalate	ND	mg/kg	0.33
Benzo(b)fluoranthene	ND	mg/kg	0.33
Benzo(k)fluoranthene	ND	mg/kg	0.33
Benzo(a)pyrene	ND	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND	mg/kg	0.33
Dibenz(a,h)anthracene	ND	mg/kg	0.33
Benzo(g,h,i)perylene	ND	mg/kg	0.33
Xylidine (Total)	ND	mg/kg	0.33

ND = Not Detected

Harding Lawson Associates
3 Hutton Centre Drive, Suite 200
Santa Ana, California 92707
714/556-7992 – 213/617-7232
FAX: 714/662-3297

CHAIN OF CUSTODY FORM 102955

Lab: ENSECO CRL

Samplers: KAREN WITBAARD

Job Number: 11074-54

Name/Location:

Project Manager:

Recorder: Karen Witbaard (Signature Required)

SOURCE CODE	MATRIX: Water	Sediment	Soil	Oil	#CONTAINERS & PRESERV.: Unpres.	H_2SO_4	HNO_3	CHILLED	SAMPLE NUMBER OR LAB NUMBER: Yr	Wk	Seq	DATE: Yr	Mo	Dy	Time	STATION DESCRIPTION/ NOTES	ANALYSIS REQUESTED: EPA 601/8010	EPA 602/8020	EPA 624/8240	EPA 625/8270	Priority Pllnt. Metals	Benzene/Toluene/Xylene	Total Petrol. Hydrocarb.	8240 EXTENDED	8270	9060	9045	ASTM METHOD D-2216	HOLD
48			X		X				mw	-2	20'	93	10	08															X
									mw	-2	40																		X
									mw	-2	26																		X
									mw	-2	58.25-58.5													X	X	X	X	X	X
																								cancelled per Matt H. S2 10/12 10:50 AM					

LAB NUMBER: Yr	Wk	Seq	DEPTH IN FEET	COL MTD CD	QA CODE	MISCELLANEOUS
						CHECK W/ MATT HUNTER 714-4981 287 FOR ASTM METHOD D-2216 & SAMPLES ON HOLD

CHAIN OF CUSTODY RECORD

RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
Karen Witbaard	[signature]	10/8/93 1650
[signature]		10/8/93 1630

DISPATCHED BY: (Signature)	DATE/TIME	RECEIVED FOR LAB BY: (Signature)	DATE/TIME
		Nils J. Conrad	10/8/93 18:30

METHOD OF SHIPMENT

Laboratory Copy White | Project Office Copy Yellow | Field or Office Copy Pink

6533

Enseco – CRL
7440 Lincoln Way • Garden Grove, CA 92641
(714) 898-6370 • (213) 598-0458 • (800) LAB-1-CRL
FAX: (714) 891-5917

Enseco
A Corning Company

January 7, 1994

HARDING LAWSON ASSOCIATES
3 HUTTON CENTRE DRIVE, STE 200
SANTA ANA, CA 92707
ATTN: MR. MATT HUNTER

Lab No.: 103884-0001/0025
Date Sampled: 21 DEC-1993
Date Sample Rec'd: 21 DEC-1993
Project: AEROJET-AISA

Enclosed with this letter is the report on the chemical and physical analyses on the samples from LAB NO: 103884-0001/0025 shown above.

The samples were received by CRL in a chilled state, intact and with the chain-of-custody record attached.

Note that ND means not detected at the reporting limit expressed. The reporting limit is raised to reflect the dilution factor of the sample.

Solid samples are reported on "as received" basis.

Preliminary data except chlorate were provided on January 5, 1994 at 5:00 PM to Matt Hunter. Preliminary chlorate data were provided on January 6, 1994 at 5:20 PM to Matt Hunter.

Case Narrative:

The MS/MSD Percent Recoveries for Aluminum, Cadmium, and Manganese were not within the acceptance limits specified in HLA's "Laboratory Analytical Technical Requirements," nor was it within Enseco's-CRL's established acceptance limits. However, the DCS recoveries were within all acceptable ranges, therefore the data was accepted and no further action was required.

The MS Percent Recovery for Chromium was not within the acceptance limits specified in HLA's "Laboratory Analytical Technical Requirements," but was within Enseco's-CRL's established acceptance limits, therefore the data was accepted and no further action was required.

The MSD Percent Recovery for and 2,4-Dinitrotoluene was not within the acceptance limits specified in HLA's "Laboratory Analytical Technical Requirements," nor was it within Enseco's-CRL'S established acceptance limits. However, the DCS recoveries were within all acceptable ranges, therefore the data was accepted and no further action was required.

The Report Cover Letter is an integral part of this report.
This report pertains only to the samples investigated and does not necessarily apply to other apparently identical or similar materials. This report is submitted for the exclusive use of the client to whom it is addressed. Any reproduction of this report or use of this Laboratory's name for advertising or publicity purposes without authorization is prohibited.

Enseco
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Enseco - CRL
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(714) 898-6370 • (213) 598-0458 • (800) LAB-1-CRL
FAX: (714) 891-5917

January 7, 1994

HARDING LAWSON ASSOCIATES
3 HUTTON CENTRE DRIVE, STE 200
SANTA ANA, CA 92707
ATTN: MR. MATT HUNTER

Lab No.: 103884-0001/0025
Date Sampled: 21 DEC-1993
Date Sample Rec'd: 21 DEC-1993
Project: AEROJET-AISA

Case Narrative (cont.):

The MS Percent Recovery for Pentachlorophenol was within the acceptance limits specified in HLA's "Laboratory Analytical Technical Requirements," but was not within Enseco's-CRL's established acceptance limits. However, the DCS recovery was within all acceptable ranges, therefore the data was accepted and no further action was required.

Sabina R. Sudoko
Reviewed

Mei Bloom
Approved

The Report Cover Letter is an integral part of this report.
This report pertains only to the samples investigated and does not necessarily apply to other apparently identical or similar materials. This report is submitted for the exclusive use of the client to whom it is addressed. Any reproduction of this report or use of this Laboratory's name for advertising or publicity purposes without authorization is prohibited.

Enseco
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SAMPLE DESCRIPTION INFORMATION
for
Harding Lawson Associates

Lab ID	Client ID	Matrix	Sampled Date	Sampled Time	Received Date
103884-0001-SA	SZB-37-4.75	SOIL	21 DEC 93	08:35	21 DEC 93
103884-0002-SA	SZB-37-4.50	SOIL	21 DEC 93	08:35	21 DEC 93
103884-0003-SA	SZB-37-20.50	SOIL	21 DEC 93	09:31	21 DEC 93
103884-0004-SA	SZB-36-4.75	SOIL	21 DEC 93	11:43	21 DEC 93
103884-0005-SA	SZB-36-4.50	SOIL	21 DEC 93	11:43	21 DEC 93
103884-0006-SA	SZB-36-27.50	SOIL	21 DEC 93	12:38	21 DEC 93
103884-0007-SA	SZB-36-27.25	SOIL	21 DEC 93	12:38	21 DEC 93
103884-0008-SA	SZB-36-39.75	SOIL	21 DEC 93	13:32	21 DEC 93
103884-0009-SA	SZB-36-39.50	SOIL	21 DEC 93	13:32	21 DEC 93
103884-0010-SA	SZB-37-9.75	SOIL	21 DEC 93	08:57	21 DEC 93
103884-0011-SA	SZB-37-15.00	SOIL	21 DEC 93	15:00	21 DEC 93
103884-0012-SA	SZB-37-14.75	SOIL	21 DEC 93	09:17	21 DEC 93
103884-0013-SA	SZB-37-14.50	SOIL	21 DEC 93	09:17	21 DEC 93
103884-0014-SA	SZB-37-20.25	SOIL	21 DEC 93	09:31	21 DEC 93
103884-0015-SA	SZB-36-10.00	SOIL	21 DEC 93	11:53	21 DEC 93
103884-0016-SA	SZB-36-9.75	SOIL	21 DEC 93	11:53	21 DEC 93
103884-0017-SA	SZB-36-9.50	SOIL	21 DEC 93	11:53	21 DEC 93
103884-0018-SA	SZB-36-14.50	SOIL	21 DEC 93	12:01	21 DEC 93
103884-0019-SA	SZB-36-19.75	SOIL	21 DEC 93	12:17	21 DEC 93
103884-0020-SA	SZB-36-19.50	SOIL	21 DEC 93	12:17	21 DEC 93
103884-0021-SA	SZB-36-27.00	SOIL	21 DEC 93	12:38	21 DEC 93
103884-0022-SA	SZB-36-29.75	SOIL	21 DEC 93	13:10	21 DEC 93
103884-0023-SA	SZB-36-29.50	SOIL	21 DEC 93	13:10	21 DEC 93
103884-0024-SA	SZB-36-36.25	SOIL	21 DEC 93	13:24	21 DEC 93
103884-0025-SA	SZB-36-36.00	SOIL	21 DEC 93	13:24	21 DEC 93

Enseco
A Corning Company

METALS

Client Name: Harding Lawson Associates
Client ID: SZB-37-4.50
LAB ID: 103884-0002-SA
Matrix: SOIL — Sampled: 21 DEC 93 — Received: 21 DEC 93
Authorized: 22 DEC 93 — Prepared: See Below — Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Aluminum	6340		50.0	200	mg/kg	7020	28 DEC 93	04 JAN 94
Arsenic	2.3		0.20	0.50	mg/kg	7062	28 DEC 93	28 DEC 93
Barium	114		20.0	50.0	mg/kg	7080	28 DEC 93	04 JAN 94
Chromium	TR		5.0	10.0	mg/kg	7190	28 DEC 93	04 JAN 94
Copper	19.0		5.0	10.0	mg/kg	7210	28 DEC 93	30 DEC 93
Lead	ND		20.0	20.0	mg/kg	7420	28 DEC 93	30 DEC 93
Manganese	226		2.0	5.0	mg/kg	7460	28 DEC 93	30 DEC 93
Nickel	ND		5.0	10.0	mg/kg	7520	28 DEC 93	30 DEC 93
Zinc	30.9		1.0	2.0	mg/kg	7950	28 DEC 93	04 JAN 94
Cadmium	ND		2.0	5.0	mg/kg	7130	28 DEC 93	04 JAN 94
Mercury	TR		0.090	0.10	mg/kg	7471	29 DEC 93	29 DEC 93

ND = Not Detected

Enseco
A Corning Company

METALS

Client Name: Harding Lawson Associates
Client ID: SZB-36-4.50
[redacted] ID: 103884-0005-SA
[redacted]ix: SOIL
Authorized: 22 DEC 93

Sampled: 21 DEC 93
Prepared: See Below

Received: 21 DEC 93
Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Aluminum	4020		50.0	100	mg/kg	7020	28 DEC 93	04 JAN 94
Arsenic	4.1		0.20	0.50	mg/kg	7062	28 DEC 93	28 DEC 93
Barium	TR		20.0	50.0	mg/kg	7080	28 DEC 93	04 JAN 94
Chromium	TR		5.0	10.0	mg/kg	7190	28 DEC 93	04 JAN 94
Copper	41.0		5.0	10.0	mg/kg	7210	28 DEC 93	30 DEC 93
Lead	ND		20.0	20.0	mg/kg	7420	28 DEC 93	30 DEC 93
Manganese	187		2.0	5.0	mg/kg	7460	28 DEC 93	30 DEC 93
Nickel	10.0		5.0	10.0	mg/kg	7520	28 DEC 93	30 DEC 93
Zinc	39.7		1.0	2.0	mg/kg	7950	28 DEC 93	04 JAN 94
Cadmium	ND		2.0	5.0	mg/kg	7130	28 DEC 93	04 JAN 94
Mercury	ND		0.090	0.10	mg/kg	7471	29 DEC 93	29 DEC 93

ND = Not Detected

Enseco
A Corning Company

GENERAL INORGANICS

Client Name: Harding Lawson Associates
Client ID: SZB-37-4.50
LAB ID: 103884-0002-SA
Matrix: SOIL — Sampled: 21 DEC 93 — Received: 21 DEC 93
Authorized: 22 DEC 93 — Prepared: See Below — Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Cyanide, Total	ND		0.30	0.50	mg/kg	9012	03 JAN 94	03 JAN 94
Chlorate, Solid	ND		0.50	1.0	mg/kg	300.0	05 JAN 94	06 JAN 94

ND = Not Detected

Enseco
A Corning Company

GENERAL INORGANICS

Client Name: Harding Lawson Associates
Client ID: SZB-37-20.50
Lab ID: 103884-0003-SA
Matrix: SOIL Sampled: 21 DEC 93 Received: 21 DEC 93
Authorized: 22 DEC 93 Prepared: See Below Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Chlorate, Solid	ND		0.50	1.0	mg/kg	300.0	05 JAN 94	06 JAN 94

ND = Not Detected

Enseco
A Corning Company

GENERAL INORGANICS

Client Name: Harding Lawson Associates
Client ID: SZB-36-4.50
LAB ID: 103884-0005-SA
Matrix: SOIL — Sampled: 21 DEC 93 — Received: 21 DEC 93
Authorized: 22 DEC 93 — Prepared: See Below — Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Cyanide, Total	ND		0.30	0.50	mg/kg	9012	03 JAN 94	03 JAN 94
Chlorate, Solid	ND		0.50	1.0	mg/kg	300.0	05 JAN 94	06 JAN 94

ND = Not Detected

Enseco
A Corning Company

GENERAL INORGANICS

Client Name: Harding Lawson Associates
Client ID: SZB-36-27.25
ID: 103884-0007-SA
Matrix: SOIL
Authorized: 22 DEC 93

Sampled: 21 DEC 93
Prepared: See Below

Received: 21 DEC 93
Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Chlorate, Solid	ND		0.50	1.0	mg/kg	300.0	05 JAN 94	06 JAN 94

ND = Not Detected

Enseco
A Corning Company

GENERAL INORGANICS

Client Name: Harding Lawson Associates
Client ID: SZB-36-39.50
LAB ID: 103884-0009-SA
Matrix: SOIL Sampled: 21 DEC 93 Received: 21 DEC 93
Authorized: 22 DEC 93 Prepared: See Below Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Chlorate, Solid	ND		0.50	1.0	mg/kg	300.0	05 JAN 94	06 JAN 94

ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-37-4.75
LAB ID: 103884-0001-SA
Matrix: SOIL — Sampled: 21 DEC 93 — Received: 21 DEC 93
Authorized: 22 DEC 93 — Prepared: 23 DEC 93 — Analyzed: 23 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/kg	5.0
Methylene chloride	TR	B	1.1	ug/kg	5.0
Acetone	ND		7.1	ug/kg	10
Trichlorofluoromethane	ND		0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	ND		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	TR		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	ND		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	6.2		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0

B = Compound is also detected in the blank.
ND = Not Detected

Enseco
A Corning Company

(cont.)

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-37-4.75
LAB ID: 103884-0001-SA
Matrix: SOIL Sampled: 21 DEC 93 Received: 21 DEC 93
Authorized: 22 DEC 93 Prepared: 23 DEC 93 Analyzed: 23 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
tert-Butylbenzene	ND		0.55	ug/kg	5.0
1,2,4-Trimethylbenzene	ND		0.53	ug/kg	5.0
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery		
1,2-Dichloroethane-d4	111		%
Toluene-d8	87		%
Bromofluorobenzene	62	I	%

I = Surrogate recovery outside of limits due to sample matrix interference.
ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-37-20.50
LAB ID: 103884-0003-SA
Matrix: SOIL Sampled: 21 DEC 93 Received: 21 DEC 93
Authorized: 22 DEC 93 Prepared: 27 DEC 93 Analyzed: 27 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/kg	5.0
Methylene chloride	TR	B	1.1	ug/kg	5.0
Acetone	ND		7.1	ug/kg	10
Trichlorofluoromethane	TR		0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	ND		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	ND		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	ND		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	ND		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0

B = Compound is also detected in the blank.
ND = Not Detected

Enseco (cont.)
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-37-20.50
LAB ID: 103884-0003-SA
Matrix: SOIL Sampled: 21 DEC 93 Received: 21 DEC 93
Authorized: 22 DEC 93 Prepared: 27 DEC 93 Analyzed: 27 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
tert-Butylbenzene	ND		0.55	ug/kg	5.0
1,2,4-Trimethylbenzene	ND		0.53	ug/kg	5.0
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	105	%
Toluene-d8	109	%
Bromofluorobenzene	102	%

ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-36-4.75
LAB ID: 103884-0004-SA
Matrix: SOIL Sampled: 21 DEC 93 Received: 21 DEC 93
Authorized: 22 DEC 93 Prepared: 23 DEC 93 Analyzed: 23 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/kg	5.0
Methylene chloride	TR	B	1.1	ug/kg	5.0
Acetone	ND		7.1	ug/kg	10
Trichlorofluoromethane	ND		0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	ND		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	ND		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	ND		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	ND		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0

B = Compound is also detected in the blank.
ND = Not Detected

Enseco (cont.)
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-36-4.75
LAB ID: 103884-0004-SA
Matrix: SOIL Sampled: 21 DEC 93 Received: 21 DEC 93
Authorized: 22 DEC 93 Prepared: 23 DEC 93 Analyzed: 23 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
tert-Butylbenzene	ND		0.55	ug/kg	5.0
1,2,4-Trimethylbenzene	ND		0.53	ug/kg	5.0
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	105	%
Toluene-d8	104	%
Bromofluorobenzene	101	%

ND = Not Detected

Enseco
A Coming Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-36-27.50
LAB ID: 103884-0006-SA
Matrix: SOIL Sampled: 21 DEC 93 Received: 21 DEC 93
Authorized: 22 DEC 93 Prepared: 23 DEC 93 Analyzed: 23 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/kg	5.0
Methylene chloride	TR	B	1.1	ug/kg	5.0
Acetone	ND		7.1	ug/kg	10
Trichlorofluoromethane	ND		0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	ND		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	ND		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	ND		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	ND		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0

B = Compound is also detected in the blank.
ND = Not Detected

Enseco (cont) A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-36-27.50
LAB ID: 103884-0006-SA
Matrix: SOIL Sampled: 21 DEC 93 Received: 21 DEC 93
Authorized: 22 DEC 93 Prepared: 23 DEC 93 Analyzed: 23 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
tert-Butylbenzene	ND		0.55	ug/kg	5.0
1,2,4-Trimethylbenzene	ND		0.53	ug/kg	5.0
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery
1,2-Dichloroethane-d4	107 %
Toluene-d8	107 %
Bromofluorobenzene	103 %

ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-36-39.75
LAB ID: 103884-0008-SA
Matrix: SOIL Sampled: 21 DEC 93 Received: 21 DEC 93
Authorized: 22 DEC 93 Prepared: 23 DEC 93 Analyzed: 23 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/kg	5.0
Methylene chloride	TR	B	1.1	ug/kg	5.0
Acetone	ND		7.1	ug/kg	10
Trichlorofluoromethane	ND		0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	ND		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	ND		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	ND		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	ND		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0

B = Compound is also detected in the blank.
ND = Not Detected

Enseco (cont.)
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-36-39.75
LAB ID: 103884-0008-SA
Matrix: SOIL Sampled: 21 DEC 93 Received: 21 DEC 93
Authorized: 22 DEC 93 Prepared: 23 DEC 93 Analyzed: 23 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
tert-Butylbenzene	ND		0.55	ug/kg	5.0
1,2,4-Trimethylbenzene	ND		0.53	ug/kg	5.0
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	106	%
Toluene-d8	106	%
Bromofluorobenzene	100	%

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-37-4.75
LAB ID: 103884-0001-SA
Matrix: SOIL — Sampled: 21 DEC 93 — Received: 21 DEC 93
Authorized: 22 DEC 93 — Prepared: 22 DEC 93 — Analyzed: 23 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
N-Nitrosodiethylamine	ND		0.26	mg/kg	0.33
Phenol	ND		0.030	mg/kg	0.33
bis(2-Chloroethyl) ether	ND		0.060	mg/kg	0.33
2-Chlorophenol	ND		0.040	mg/kg	0.33
1,3-Dichlorobenzene	ND		0.030	mg/kg	0.33
1,4-Dichlorobenzene	ND		0.060	mg/kg	0.33
Benzyl alcohol	ND		0.070	mg/kg	0.33
1,2-Dichlorobenzene	ND		0.040	mg/kg	0.33
2-Methylphenol	ND		0.030	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND		0.040	mg/kg	0.33
3/4-Methylphenol	ND		0.040	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND		0.030	mg/kg	0.33
Hexachloroethane	ND		0.030	mg/kg	0.33
Nitrobenzene	ND		0.090	mg/kg	0.33
Isophorone	ND		0.040	mg/kg	0.33
2-Nitrophenol	ND		0.050	mg/kg	0.33
2,4-Dimethylphenol	ND		0.030	mg/kg	0.33
Benzoic acid	ND		0.51	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND		0.020	mg/kg	0.33
2,4-Dichlorophenol	ND		0.030	mg/kg	0.33
1,2,4-Trichlorobenzene	ND		0.040	mg/kg	0.33
Naphthalene	ND		0.030	mg/kg	0.33
4-Chloroaniline	ND		0.10	mg/kg	0.33
Hexachlorobutadiene	ND		0.040	mg/kg	0.33
4-Chloro-3-methylphenol	ND		0.040	mg/kg	0.33
2-Methylnaphthalene	ND		0.030	mg/kg	0.33
Hexachlorocyclopentadiene	ND		0.050	mg/kg	0.33
2,4,6-Trichlorophenol	ND		0.040	mg/kg	0.33
2,4,5-Trichlorophenol	ND		0.050	mg/kg	1.7
2-Chloronaphthalene	ND		0.030	mg/kg	0.33
2-Nitroaniline	ND		0.030	mg/kg	1.7
Dimethyl phthalate	ND		0.030	mg/kg	0.33
Acenaphthylene	ND		0.020	mg/kg	0.33
3-Nitroaniline	ND		0.14	mg/kg	1.7
Acenaphthene	ND		0.030	mg/kg	0.33
2,4-Dinitrophenol	ND		0.23	mg/kg	1.7
4-Nitrophenol	ND		0.25	mg/kg	1.7
Dibenzofuran	ND		0.040	mg/kg	0.33
2,4-Dinitrotoluene	ND		0.040	mg/kg	0.33
2,6-Dinitrotoluene	ND		0.050	mg/kg	0.33
Diethyl phthalate	ND		0.020	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND		0.030	mg/kg	0.33
Fluorene	ND		0.030	mg/kg	0.33
4-Nitroaniline	ND		0.18	mg/kg	1.7

ND = Not Detected

Enseco
A Corning Company

(cont.)

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-37-4.75
LAB ID: 103884-0001-SA
Matrix: SOIL — Sampled: 21 DEC 93 — Received: 21 DEC 93
Authorized: 22 DEC 93 — Prepared: 22 DEC 93 — Analyzed: 23 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
4,6-Dinitro-2-methylphenol	ND		0.36	mg/kg	1.7
N-Nitrosodiphenylamine	ND		0.040	mg/kg	0.33
4-Bromophenyl phenyl ether	ND		0.080	mg/kg	0.33
Hexachlorobenzene	ND		0.030	mg/kg	0.33
Pentachlorophenol	ND		0.19	mg/kg	1.7
Phenanthrene	TR		0.030	mg/kg	0.33
Anthracene	ND		0.020	mg/kg	0.33
Di-n-butyl phthalate	ND		0.24	mg/kg	0.33
Fluoranthene	ND		0.030	mg/kg	0.33
Pyrene	ND		0.020	mg/kg	0.33
Butyl benzyl phthalate	ND		0.030	mg/kg	0.33
3,3'-Dichlorobenzidine	ND		0.33	mg/kg	0.66
Benzo(a)anthracene	ND		0.040	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND		0.13	mg/kg	0.33
Chrysene	ND		0.040	mg/kg	0.33
Di-n-octyl phthalate	ND		0.040	mg/kg	0.33
Benzo(b)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(k)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(a)pyrene	ND		0.040	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND		0.030	mg/kg	0.33
Dibenz(a,h)anthracene	ND		0.030	mg/kg	0.33
Benzo(g,h,i)perylene	ND		0.020	mg/kg	0.33
Xylidine (Total)	ND		0.076	mg/kg	0.33

Surrogate	Recovery	
Nitrobenzene-d5	60	%
2-Fluorobiphenyl	61	%
Terphenyl-d14	58	%
Phenol-d5	51	%
2-Fluorophenol	54	%
2,4,6-Tribromophenol	45	%

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-37-20.50
LAB ID: 103884-0003-SA
Matrix: SOIL — Sampled: 21 DEC 93 — Received: 21 DEC 93
Authorized: 22 DEC 93 — Prepared: 22 DEC 93 — Analyzed: 23 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
N-Nitrosodiethylamine	ND		0.26	mg/kg	0.33
Phenol	ND		0.030	mg/kg	0.33
bis(2-Chloroethyl) ether	ND		0.060	mg/kg	0.33
2-Chlorophenol	ND		0.040	mg/kg	0.33
1,3-Dichlorobenzene	ND		0.030	mg/kg	0.33
1,4-Dichlorobenzene	ND		0.060	mg/kg	0.33
Benzyl alcohol	ND		0.070	mg/kg	0.33
1,2-Dichlorobenzene	ND		0.040	mg/kg	0.33
2-Methylphenol	ND		0.030	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND		0.040	mg/kg	0.33
3/4-Methylphenol	ND		0.040	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND		0.030	mg/kg	0.33
Hexachloroethane	ND		0.030	mg/kg	0.33
Nitrobenzene	ND		0.090	mg/kg	0.33
Isophorone	ND		0.040	mg/kg	0.33
2-Nitrophenol	ND		0.050	mg/kg	0.33
2,4-Dimethylphenol	ND		0.030	mg/kg	0.33
Benzoic acid	ND		0.51	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND		0.020	mg/kg	0.33
2,4-Dichlorophenol	ND		0.030	mg/kg	0.33
1,2,4-Trichlorobenzene	ND		0.040	mg/kg	0.33
Naphthalene	ND		0.030	mg/kg	0.33
4-Chloroaniline	ND		0.10	mg/kg	0.33
Hexachlorobutadiene	ND		0.040	mg/kg	0.33
4-Chloro-3-methylphenol	ND		0.040	mg/kg	0.33
2-Methylnaphthalene	ND		0.030	mg/kg	0.33
Hexachlorocyclopentadiene	ND		0.050	mg/kg	0.33
2,4,6-Trichlorophenol	ND		0.040	mg/kg	0.33
2,4,5-Trichlorophenol	ND		0.050	mg/kg	1.7
2-Chloronaphthalene	ND		0.030	mg/kg	0.33
2-Nitroaniline	ND		0.030	mg/kg	1.7
Dimethyl phthalate	ND		0.030	mg/kg	0.33
Acenaphthylene	ND		0.020	mg/kg	0.33
3-Nitroaniline	ND		0.14	mg/kg	1.7
Acenaphthene	ND		0.030	mg/kg	0.33
2,4-Dinitrophenol	ND		0.23	mg/kg	1.7
4-Nitrophenol	ND		0.25	mg/kg	1.7
Dibenzofuran	ND		0.040	mg/kg	0.33
2,4-Dinitrotoluene	ND		0.040	mg/kg	0.33
2,6-Dinitrotoluene	ND		0.050	mg/kg	0.33
Diethyl phthalate	ND		0.020	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND		0.030	mg/kg	0.33
Fluorene	ND		0.030	mg/kg	0.33
4-Nitroaniline	ND		0.18	mg/kg	1.7

ND = Not Detected

Enseco (cont)
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-37-20.50
LAB ID: 103884-0003-SA
Matrix: SOIL Sampled: 21 DEC 93 Received: 21 DEC 93
Authorized: 22 DEC 93 Prepared: 22 DEC 93 Analyzed: 23 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
4,6-Dinitro-2-methylphenol	ND		0.36	mg/kg	1.7
N-Nitrosodiphenylamine	ND		0.040	mg/kg	0.33
4-Bromophenyl phenyl ether	ND		0.080	mg/kg	0.33
Hexachlorobenzene	ND		0.030	mg/kg	0.33
Pentachlorophenol	ND		0.19	mg/kg	1.7
Phenanthrene	ND		0.030	mg/kg	0.33
Anthracene	ND		0.020	mg/kg	0.33
Di-n-butyl phthalate	ND		0.24	mg/kg	0.33
Fluoranthene	ND		0.030	mg/kg	0.33
Pyrene	ND		0.020	mg/kg	0.33
Butyl benzyl phthalate	ND		0.030	mg/kg	0.33
3,3'-Dichlorobenzidine	ND		0.33	mg/kg	0.66
Benzo(a)anthracene	ND		0.040	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND		0.13	mg/kg	0.33
Chrysene	ND		0.040	mg/kg	0.33
Di-n-octyl phthalate	ND		0.040	mg/kg	0.33
Benzo(b)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(k)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(a)pyrene	ND		0.040	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND		0.030	mg/kg	0.33
Dibenz(a,h)anthracene	ND		0.030	mg/kg	0.33
Benzo(g,h,i)perylene	ND		0.020	mg/kg	0.33
Xylidine (Total)	ND		0.076	mg/kg	0.33

Surrogate	Recovery	
Nitrobenzene-d5	55	%
2-Fluorobiphenyl	56	%
Terphenyl-d14	66	%
Phenol-d5	49	%
2-Fluorophenol	53	%
2,4,6-Tribromophenol	54	%

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-36-4.75
LAB ID: 103884-0004-SA
Matrix: SOIL Sampled: 21 DEC 93 Received: 21 DEC 93
Authorized: 22 DEC 93 Prepared: 22 DEC 93 Analyzed: 23 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
N-Nitrosodiethylamine	ND		0.26	mg/kg	0.33
Phenol	ND		0.030	mg/kg	0.33
bis(2-Chloroethyl) ether	ND		0.060	mg/kg	0.33
2-Chlorophenol	ND		0.040	mg/kg	0.33
1,3-Dichlorobenzene	ND		0.030	mg/kg	0.33
1,4-Dichlorobenzene	ND		0.060	mg/kg	0.33
Benzyl alcohol	ND		0.070	mg/kg	0.33
1,2-Dichlorobenzene	ND		0.040	mg/kg	0.33
2-Methylphenol	ND		0.030	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND		0.040	mg/kg	0.33
3/4-Methylphenol	ND		0.040	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND		0.030	mg/kg	0.33
Hexachloroethane	ND		0.030	mg/kg	0.33
Nitrobenzene	ND		0.090	mg/kg	0.33
Isophorone	ND		0.040	mg/kg	0.33
2-Nitrophenol	ND		0.050	mg/kg	0.33
2,4-Dimethylphenol	ND		0.030	mg/kg	0.33
Benzoic acid	ND		0.51	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND		0.020	mg/kg	0.33
2,4-Dichlorophenol	ND		0.030	mg/kg	0.33
1,2,4-Trichlorobenzene	ND		0.040	mg/kg	0.33
Naphthalene	ND		0.030	mg/kg	0.33
4-Chloroaniline	ND		0.10	mg/kg	0.33
Hexachlorobutadiene	ND		0.040	mg/kg	0.33
4-Chloro-3-methylphenol	ND		0.040	mg/kg	0.33
2-Methylnaphthalene	ND		0.030	mg/kg	0.33
Hexachlorocyclopentadiene	ND		0.050	mg/kg	0.33
2,4,6-Trichlorophenol	ND		0.040	mg/kg	0.33
2,4,5-Trichlorophenol	ND		0.050	mg/kg	1.7
2-Chloronaphthalene	ND		0.030	mg/kg	0.33
2-Nitroaniline	ND		0.030	mg/kg	1.7
Dimethyl phthalate	ND		0.030	mg/kg	0.33
Acenaphthylene	ND		0.020	mg/kg	0.33
3-Nitroaniline	ND		0.14	mg/kg	1.7
Acenaphthene	ND		0.030	mg/kg	0.33
2,4-Dinitrophenol	ND		0.23	mg/kg	1.7
4-Nitrophenol	ND		0.25	mg/kg	1.7
Dibenzofuran	ND		0.040	mg/kg	0.33
2,4-Dinitrotoluene	ND		0.040	mg/kg	0.33
2,6-Dinitrotoluene	ND		0.050	mg/kg	0.33
Diethyl phthalate	ND		0.020	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND		0.030	mg/kg	0.33
Fluorene	ND		0.030	mg/kg	0.33
4-Nitroaniline	ND		0.18	mg/kg	1.7

ND = Not Detected

Enseco (cont.)
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-36-4.75
LAB ID: 103884-0004-SA
Matrix: SOIL Sampled: 21 DEC 93 Received: 21 DEC 93
Authorized: 22 DEC 93 Prepared: 22 DEC 93 Analyzed: 23 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
4,6-Dinitro-2-methylphenol	ND		0.36	mg/kg	1.7
N-Nitrosodiphenylamine	ND		0.040	mg/kg	0.33
4-Bromophenyl phenyl ether	ND		0.080	mg/kg	0.33
Hexachlorobenzene	ND		0.030	mg/kg	0.33
Pentachlorophenol	ND		0.19	mg/kg	1.7
Phenanthrene	ND		0.030	mg/kg	0.33
Anthracene	ND		0.020	mg/kg	0.33
Di-n-butyl phthalate	ND		0.24	mg/kg	0.33
Fluoranthene	ND		0.030	mg/kg	0.33
Pyrene	ND		0.020	mg/kg	0.33
Butyl benzyl phthalate	ND		0.030	mg/kg	0.33
3,3'-Dichlorobenzidine	ND		0.33	mg/kg	0.66
Benzo(a)anthracene	ND		0.040	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND		0.13	mg/kg	0.33
Chrysene	ND		0.040	mg/kg	0.33
Di-n-octyl phthalate	ND		0.040	mg/kg	0.33
Benzo(b)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(k)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(a)pyrene	ND		0.040	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND		0.030	mg/kg	0.33
Dibenz(a,h)anthracene	ND		0.030	mg/kg	0.33
Benzo(g,h,i)perylene	ND		0.020	mg/kg	0.33
Xylidine (Total)	ND		0.076	mg/kg	0.33

Surrogate	Recovery	
Nitrobenzene-d5	56	%
2-Fluorobiphenyl	68	%
Terphenyl-d14	64	%
Phenol-d5	62	%
2-Fluorophenol	60	%
2,4,6-Tribromophenol	57	%

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-36-27.50
LAB ID: 103884-0006-SA
Matrix: SOIL — Sampled: 21 DEC 93 — Received: 21 DEC 93
Authorized: 22 DEC 93 — Prepared: 22 DEC 93 — Analyzed: 23 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
N-Nitrosodiethylamine	ND		0.26	mg/kg	0.33
Phenol	ND		0.030	mg/kg	0.33
bis(2-Chloroethyl) ether	ND		0.060	mg/kg	0.33
2-Chlorophenol	ND		0.040	mg/kg	0.33
1,3-Dichlorobenzene	ND		0.030	mg/kg	0.33
1,4-Dichlorobenzene	ND		0.060	mg/kg	0.33
Benzyl alcohol	ND		0.070	mg/kg	0.33
1,2-Dichlorobenzene	ND		0.040	mg/kg	0.33
2-Methylphenol	ND		0.030	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND		0.040	mg/kg	0.33
3/4-Methylphenol	ND		0.040	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND		0.030	mg/kg	0.33
Hexachloroethane	ND		0.030	mg/kg	0.33
Nitrobenzene	ND		0.090	mg/kg	0.33
Isophorone	ND		0.040	mg/kg	0.33
2-Nitrophenol	ND		0.050	mg/kg	0.33
2,4-Dimethylphenol	ND		0.030	mg/kg	0.33
Benzoic acid	ND		0.51	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND		0.020	mg/kg	0.33
2,4-Dichlorophenol	ND		0.030	mg/kg	0.33
1,2,4-Trichlorobenzene	ND		0.040	mg/kg	0.33
Naphthalene	ND		0.030	mg/kg	0.33
4-Chloroaniline	ND		0.10	mg/kg	0.33
Hexachlorobutadiene	ND		0.040	mg/kg	0.33
4-Chloro-3-methylphenol	ND		0.040	mg/kg	0.33
2-Methylnaphthalene	ND		0.030	mg/kg	0.33
Hexachlorocyclopentadiene	ND		0.050	mg/kg	0.33
2,4,6-Trichlorophenol	ND		0.040	mg/kg	0.33
2,4,5-Trichlorophenol	ND		0.050	mg/kg	1.7
2-Chloronaphthalene	ND		0.030	mg/kg	0.33
2-Nitroaniline	ND		0.030	mg/kg	1.7
Dimethyl phthalate	ND		0.030	mg/kg	0.33
Acenaphthylene	ND		0.020	mg/kg	0.33
3-Nitroaniline	ND		0.14	mg/kg	1.7
Acenaphthene	ND		0.030	mg/kg	0.33
2,4-Dinitrophenol	ND		0.23	mg/kg	1.7
4-Nitrophenol	ND		0.25	mg/kg	1.7
Dibenzofuran	ND		0.040	mg/kg	0.33
2,4-Dinitrotoluene	ND		0.040	mg/kg	0.33
2,6-Dinitrotoluene	ND		0.050	mg/kg	0.33
Diethyl phthalate	ND		0.020	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND		0.030	mg/kg	0.33
Fluorene	ND		0.030	mg/kg	0.33
4-Nitroaniline	ND		0.18	mg/kg	1.7

ND = Not Detected

Enseco (cont)
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-36-27.50
LAB ID: 103884-0006-SA
Matrix: SOIL Sampled: 21 DEC 93 Received: 21 DEC 93
Authorized: 22 DEC 93 Prepared: 22 DEC 93 Analyzed: 23 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
4,6-Dinitro-2-methylphenol	ND		0.36	mg/kg	1.7
N-Nitrosodiphenylamine	ND		0.040	mg/kg	0.33
4-Bromophenyl phenyl ether	ND		0.080	mg/kg	0.33
Hexachlorobenzene	ND		0.030	mg/kg	0.33
Pentachlorophenol	ND		0.19	mg/kg	1.7
Phenanthrene	ND		0.030	mg/kg	0.33
Anthracene	ND		0.020	mg/kg	0.33
Di-n-butyl phthalate	ND		0.24	mg/kg	0.33
Fluoranthene	ND		0.030	mg/kg	0.33
Pyrene	ND		0.020	mg/kg	0.33
Butyl benzyl phthalate	ND		0.030	mg/kg	0.33
3,3'-Dichlorobenzidine	ND		0.33	mg/kg	0.66
Benzo(a)anthracene	ND		0.040	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND		0.13	mg/kg	0.33
Chrysene	ND		0.040	mg/kg	0.33
Di-n-octyl phthalate	ND		0.040	mg/kg	0.33
Benzo(b)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(k)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(a)pyrene	ND		0.040	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND		0.030	mg/kg	0.33
Dibenz(a,h)anthracene	ND		0.030	mg/kg	0.33
Benzo(g,h,i)perylene	ND		0.020	mg/kg	0.33
Xylidine (Total)	ND		0.076	mg/kg	0.33

Surrogate	Recovery	
Nitrobenzene-d5	55	%
2-Fluorobiphenyl	64	%
Terphenyl-d14	64	%
Phenol-d5	59	%
2-Fluorophenol	56	%
2,4,6-Tribromophenol	57	%

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-36-39.75
LAB ID: 103884-0008-SA
Matrix: SOIL — Sampled: 21 DEC 93 — Received: 21 DEC 93
Authorized: 22 DEC 93 — Prepared: 22 DEC 93 — Analyzed: 23 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
N-Nitrosodiethylamine	ND		0.26	mg/kg	0.33
Phenol	ND		0.030	mg/kg	0.33
bis(2-Chloroethyl) ether	ND		0.060	mg/kg	0.33
2-Chlorophenol	ND		0.040	mg/kg	0.33
1,3-Dichlorobenzene	ND		0.030	mg/kg	0.33
1,4-Dichlorobenzene	ND		0.060	mg/kg	0.33
Benzyl alcohol	ND		0.070	mg/kg	0.33
1,2-Dichlorobenzene	ND		0.040	mg/kg	0.33
2-Methylphenol	ND		0.030	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND		0.040	mg/kg	0.33
3/4-Methylphenol	ND		0.040	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND		0.030	mg/kg	0.33
Hexachloroethane	ND		0.030	mg/kg	0.33
Nitrobenzene	ND		0.090	mg/kg	0.33
Isophorone	ND		0.040	mg/kg	0.33
2-Nitrophenol	ND		0.050	mg/kg	0.33
2,4-Dimethylphenol	ND		0.030	mg/kg	0.33
Benzoic acid	ND		0.51	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND		0.020	mg/kg	0.33
2,4-Dichlorophenol	ND		0.030	mg/kg	0.33
1,2,4-Trichlorobenzene	ND		0.040	mg/kg	0.33
Naphthalene	ND		0.030	mg/kg	0.33
4-Chloroaniline	ND		0.10	mg/kg	0.33
Hexachlorobutadiene	ND		0.040	mg/kg	0.33
4-Chloro-3-methylphenol	ND		0.040	mg/kg	0.33
2-Methylnaphthalene	ND		0.030	mg/kg	0.33
Hexachlorocyclopentadiene	ND		0.050	mg/kg	0.33
2,4,6-Trichlorophenol	ND		0.040	mg/kg	0.33
2,4,5-Trichlorophenol	ND		0.050	mg/kg	1.7
2-Chloronaphthalene	ND		0.030	mg/kg	0.33
2-Nitroaniline	ND		0.030	mg/kg	1.7
Dimethyl phthalate	ND		0.030	mg/kg	0.33
Acenaphthylene	ND		0.020	mg/kg	0.33
3-Nitroaniline	ND		0.14	mg/kg	1.7
Acenaphthene	ND		0.030	mg/kg	0.33
2,4-Dinitrophenol	ND		0.23	mg/kg	1.7
4-Nitrophenol	ND		0.25	mg/kg	1.7
Dibenzofuran	ND		0.040	mg/kg	0.33
2,4-Dinitrotoluene	ND		0.040	mg/kg	0.33
2,6-Dinitrotoluene	ND		0.050	mg/kg	0.33
Diethyl phthalate	ND		0.020	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND		0.030	mg/kg	0.33
Fluorene	ND		0.030	mg/kg	0.33
4-Nitroaniline	ND		0.18	mg/kg	1.7

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-36-39.75
LAB ID: 103884-0008-SA
Matrix: SOIL — Sampled: 21 DEC 93 — Received: 21 DEC 93
Authorized: 22 DEC 93 — Prepared: 22 DEC 93 — Analyzed: 23 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
4,6-Dinitro-2-methylphenol	ND		0.36	mg/kg	1.7
N-Nitrosodiphenylamine	ND		0.040	mg/kg	0.33
4-Bromophenyl phenyl ether	ND		0.080	mg/kg	0.33
Hexachlorobenzene	ND		0.030	mg/kg	0.33
Pentachlorophenol	ND		0.19	mg/kg	1.7
Phenanthrene	ND		0.030	mg/kg	0.33
Anthracene	ND		0.020	mg/kg	0.33
Di-n-butyl phthalate	ND		0.24	mg/kg	0.33
Fluoranthene	ND		0.030	mg/kg	0.33
Pyrene	ND		0.020	mg/kg	0.33
Butyl benzyl phthalate	ND		0.030	mg/kg	0.33
3,3'-Dichlorobenzidine	ND		0.33	mg/kg	0.66
Benzo(a)anthracene	ND		0.040	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND		0.13	mg/kg	0.33
Chrysene	ND		0.040	mg/kg	0.33
Di-n-octyl phthalate	ND		0.040	mg/kg	0.33
Benzo(b)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(k)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(a)pyrene	ND		0.040	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND		0.030	mg/kg	0.33
Dibenz(a,h)anthracene	ND		0.030	mg/kg	0.33
Benzo(g,h,i)perylene	ND		0.020	mg/kg	0.33
Xylidine (Total)	ND		0.076	mg/kg	0.33

Surrogate	Recovery	
Nitrobenzene-d5	58	%
2-Fluorobiphenyl	61	%
Terphenyl-d14	61	%
Phenol-d5	50	%
2-Fluorophenol	56	%
2,4,6-Tribromophenol	57	%

ND = Not Detected

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C LOT ASSIGNMENT REPORT - MS QC
etals Analysis and Preparation

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
103884-0002-SA	SOLID	AL-FLAA-S	28 DEC 93-A	28 DEC 93-A	28 DEC 93-AA
103884-0002-SA	SOLID	AS-HAA-S	28 DEC 93-A	28 DEC 93-A	28 DEC 93-AA
103884-0002-SA	SOLID	CD-FLAA-S	28 DEC 93-A	28 DEC 93-A	28 DEC 93-AA
103884-0002-SA	SOLID	CR-FLAA-S	28 DEC 93-A	28 DEC 93-A	28 DEC 93-AA
103884-0002-SA	SOLID	MN-FLAA-S	28 DEC 93-A	28 DEC 93-A	28 DEC 93-AA
103884-0002-SA	SOLID	NI-FLAA-S	28 DEC 93-A	28 DEC 93-A	28 DEC 93-AA
103884-0002-SA	SOLID	PB-FLAA-S	28 DEC 93-A	28 DEC 93-A	28 DEC 93-AA
103884-0002-SA	SOLID	CU-FLAA-S	28 DEC 93-A	28 DEC 93-A	28 DEC 93-AA
103884-0002-SA	SOLID	ZN-FLAA-S	28 DEC 93-A	28 DEC 93-A	28 DEC 93-AA
103884-0002-SA	SOLID	BA-FLAA-S	28 DEC 93-A	28 DEC 93-A	28 DEC 93-AA
103884-0002-SA	SOLID	HG-CVAA-S	29 DEC 93-E	29 DEC 93-E	29 DEC 93-EA
103884-0005-SA	SOLID	AL-FLAA-S	28 DEC 93-A	28 DEC 93-A	28 DEC 93-AA
103884-0005-SA	SOLID	AS-HAA-S	28 DEC 93-A	28 DEC 93-A	28 DEC 93-AA
103884-0005-SA	SOLID	CD-FLAA-S	28 DEC 93-A	28 DEC 93-A	28 DEC 93-AA
103884-0005-SA	SOLID	CR-FLAA-S	28 DEC 93-A	28 DEC 93-A	28 DEC 93-AA
103884-0005-SA	SOLID	MN-FLAA-S	28 DEC 93-A	28 DEC 93-A	28 DEC 93-AA
103884-0005-SA	SOLID	NI-FLAA-S	28 DEC 93-A	28 DEC 93-A	28 DEC 93-AA
103884-0005-SA	SOLID	PB-FLAA-S	28 DEC 93-A	28 DEC 93-A	28 DEC 93-AA
103884-0005-SA	SOLID	CU-FLAA-S	28 DEC 93-A	28 DEC 93-A	28 DEC 93-AA
103884-0005-SA	SOLID	ZN-FLAA-S	28 DEC 93-A	28 DEC 93-A	28 DEC 93-AA
103884-0005-SA	SOLID	BA-FLAA-S	28 DEC 93-A	28 DEC 93-A	28 DEC 93-AA
103884-0005-SA	SOLID	HG-CVAA-S	29 DEC 93-E	29 DEC 93-E	29 DEC 93-EA

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DUPLICATE CONTROL SAMPLE REPORT
Metals Analysis and Preparation
Project: 103884

Category: AL-FLAA-S Aluminum, Flame AA
Matrix: SOLID
QC Lot: 28 DEC 93-A
Date Analyzed: 04 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average(%) DCS	Accuracy Average(%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Aluminum	10700	9900	8960	9430	88	47-153	10	20

Category: AS-HAA-S Arsenic, Hydride AA
Matrix: SOLID
QC Lot: 28 DEC 93-A
Date Analyzed: 28 DEC 93
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average(%) DCS	Accuracy Average(%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Arsenic	145	127	129	128	88	59-141	1.6	20

Category: CD-FLAA-S Cadmium, Flame AA
Matrix: SOLID
QC Lot: 28 DEC 93-A
Date Analyzed: 04 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average(%) DCS	Accuracy Average(%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Cadmium	154	172	172	172	112	68-132	0.0	20

Category: CR-FLAA-S Chromium, Flame AA
Matrix: SOLID
QC Lot: 28 DEC 93-A
Date Analyzed: 04 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average(%) DCS	Accuracy Average(%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Chromium	151	152	140	146	97	66-133	8.2	20

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

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DUPLICATE CONTROL SAMPLE REPORT
Metals Analysis and Preparation
Project: 103884

Category: MN-FLAA-S Manganese, Flame AA Method 7460
Matrix: SOLID
QC Lot: 28 DEC 93-A
Date Analyzed: 30 DEC 93
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Manganese	423	391	401	396	94	74-125	2.5	20

Category: NI-FLAA-S Nickel Flame AA
Matrix: SOLID
QC Lot: 28 DEC 93-A
Date Analyzed: 30 DEC 93
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Nickel	166	165	167	166	100	67-133	1.2	20

Category: PB-FLAA-S Method 7420 - Lead, Flame AA
Matrix: SOLID
QC Lot: 28 DEC 93-A
Date Analyzed: 30 DEC 93
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Lead	148	157	151	154	104	66-135	3.9	20

Category: CU-FLAA-S Copper Flame AA
Matrix: SOLID
QC Lot: 28 DEC 93-A
Date Analyzed: 30 DEC 93
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Copper	162	160	159	160	98	68-132	0.63	20

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

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DUPLICATE CONTROL SAMPLE REPORT
Metals Analysis and Preparation
Project: 103884

Category: ZN-FLAA-S Zinc, Flame AA
Matrix: SOLID
QC Lot: 28 DEC 93-A
Date Analyzed: 04 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Zinc	530	583	601	592	112	65-135	3.0	20

Category: BA-FLAA-S Barium, Flame AA
Matrix: SOLID
QC Lot: 28 DEC 93-A
Date Analyzed: 04 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Barium	503	527	525	526	105	76-124	0.38	20

Category: HG-CVAA-S Mercury by CVAA
Matrix: SOLID
QC Lot: 29 DEC 93-E
Date Analyzed: 29 DEC 93
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Mercury	29.0	30.9	31.3	31.1	107	52-148	1.3	20

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

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A Corning Company

MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Metals Analysis and Preparation
Project: 103884

Category: AL-FLAA-S Aluminum, Flame AA
Matrix: SOLID
Sample: 103884-0002
MS Run: 28 DEC 93-AA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Aluminum	6340	6110	6110	200	NC	NC	NC	60-130	20

Category: AS-HAA-S Arsenic, Hydride AA
Matrix: SOLID
Sample: 103884-0002
MS Run: 28 DEC 93-AA
Units mg/kg Units Qualifier: Wet wt.

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Arsenic	2.34	46.6	43.6	50.0	89	83	7.0	50-127	25

Category: CD-FLAA-S Cadmium, Flame AA
Matrix: SOLID
Sample: 103884-0002
MS Run: 28 DEC 93-AA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Cadmium	ND	ND	ND	5.00	NC	NC	NC	52-130	28

NC = Not Calculated, calculation not applicable.
ND = Not Detected

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

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A Corning Company

MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Metals Analysis and Preparation
Project: 103884 (cont.)

Category: CR-FLAA-S Chromium, Flame AA
Matrix: SOLID
Sample: 103884-0002
MS Run: 28 DEC 93-AA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Chromium	ND	26.5	25.9	20.0	133	130	2.3	40-190	33

Category: MN-FLAA-S Manganese, Flame AA Method 7460
Matrix: SOLID
Sample: 103884-0002
MS Run: 28 DEC 93-AA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Manganese	226	248	248	50.0	NC	NC	NC	60-130	40

Category: NI-FLAA-S Nickel Flame AA
Matrix: SOLID
Sample: 103884-0002
MS Run: 28 DEC 93-AA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Nickel	ND	53.0	50.0	50.0	106	100	5.8	55-155	25

NC = Not Calculated, calculation not applicable.
ND = Not Detected

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

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A Corning Company

MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Metals Analysis and Preparation
Project: 103884 (cont.)

Category: PB-FLAA-S Method 7420 - Lead, Flame AA
Matrix: SOLID
Sample: 103884-0002
MS Run: 28 DEC 93-AA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Lead	ND	54.0	49.0	50.0	108	98	9.7	14-169	40

Category: CU-FLAA-S Copper Flame AA
Matrix: SOLID
Sample: 103884-0002
MS Run: 28 DEC 93-AA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Copper	19.0	45.0	41.0	25.0	104	88	17	49-144	23

Category: ZN-FLAA-S Zinc, Flame AA
Matrix: SOLID
Sample: 103884-0002
MS Run: 28 DEC 93-AA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Zinc	30.9	84.5	78.0	50.0	107	94	13	65-138	25

ND = Not Detected

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Metals Analysis and Preparation
Project: 103884 (cont.)

Category: BA-FLAA-S Barium, Flame AA
Matrix: SOLID
Sample: 103884-0002
MS Run: 28 DEC 93-AA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Barium	114	362	354	200	124	120	3.3	40-130	30

Category: HG-CVAA-S Mercury by CVAA
Matrix: SOLID
Sample: 103884-0002
MS Run: 29 DEC 93-EA
Units mg/kg Units Qualifier: Wet wt.

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Mercury	ND	0.507	0.458	0.438	116	105	10	33-178	40

ND = Not Detected

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

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METHOD BLANK REPORT
Metals Analysis and Preparation
Project: 103884

Test: AL-FLAA-MDL-S Method 7020 - Aluminum, Flame AA
Matrix: SOLID
QC Run: 28 DEC 93-A Date Analyzed: 04 JAN 94

Analyte	Result	Units	Reporting Limit
Aluminum	ND	mg/kg	100

Test: AS-HAA-MDL-S Method 7062 - Arsenic, Hydride AA
Matrix: SOLID
QC Run: 28 DEC 93-A Date Analyzed: 28 DEC 93

Analyte	Result	Units	Reporting Limit
Arsenic	ND	mg/kg	0.50

Test: CD-FLAA-MDL-S Method 7130 - Cadmium, Flame AA
Matrix: SOLID
QC Run: 28 DEC 93-A Date Analyzed: 04 JAN 94

Analyte	Result	Units	Reporting Limit
Cadmium	ND	mg/kg	5.0

Test: CR-FLAA-MDL-S Method 7190 - Chromium, Flame AA
Matrix: SOLID
QC Run: 28 DEC 93-A Date Analyzed: 04 JAN 94

Analyte	Result	Units	Reporting Limit
Chromium	ND	mg/kg	10.0

Test: MN-FLAA-MDL-S Manganese, Flame AA
Matrix: SOLID
QC Run: 28 DEC 93-A Date Analyzed: 30 DEC 93

Analyte	Result	Units	Reporting Limit
Manganese	ND	mg/kg	5.0

ND = Not Detected

METHOD BLANK REPORT
Metals Analysis and Preparation (cont.)
Project: 103884

Test: NI-FLAA-MDL-S Method 7520 - Nickel, Flame AA
Matrix: SOLID
QC Run: 28 DEC 93-A Date Analyzed: 30 DEC 93

Analyte	Result	Units	Reporting Limit
Nickel	ND	mg/kg	10.0

Test: PB-FLAA-MDL-S Method 7420 - Lead, FLame AA
Matrix: SOLID
QC Run: 28 DEC 93-A Date Analyzed: 30 DEC 93

Analyte	Result	Units	Reporting Limit
Lead	ND	mg/kg	20.0

Test: CU-FLAA-MDL-S Method 7210 - Copper, Flame AA
Matrix: SOLID
QC Run: 28 DEC 93-A Date Analyzed: 30 DEC 93

Analyte	Result	Units	Reporting Limit
Copper	ND	mg/kg	10.0

Test: ZN-FLAA-MDL-S Method 7950 - Zinc, Flame AA
Matrix: SOLID
QC Run: 28 DEC 93-A Date Analyzed: 04 JAN 94

Analyte	Result	Units	Reporting Limit
Zinc	ND	mg/kg	2.0

Test: BA-FLAA-MDL-S Method 7080 - Barium, Flame AA
Matrix: SOLID
QC Run: 28 DEC 93-A Date Analyzed: 04 JAN 94

Analyte	Result	Units	Reporting Limit
Barium	ND	mg/kg	50.0

ND = Not Detected

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METHOD BLANK REPORT
Metals Analysis and Preparation (cont.)
Project: 103884

Test: HG-CVAA-MDL-S Method 7471 - Mercury, Cold Vapor AA
Matrix: SOLID
QC Run: 29 DEC 93-E Date Analyzed: 29 DEC 93

Analyte	Result	Units	Reporting Limit
Mercury	ND	mg/kg	0.10

ND = Not Detected

QC LOT ASSIGNMENT REPORT - MS QC
Wet Chemistry Analysis and Preparation

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
103884-0002-SA	SOLID	CN-S	03 JAN 94-A	03 JAN 94-A	03 JAN 94-AB
103884-0002-SA	SOLID	CLO3-S	05 JAN 94-A	05 JAN 94-A	05 JAN 94-AA
103884-0003-SA	SOLID	CLO3-S	05 JAN 94-A	05 JAN 94-A	05 JAN 94-AA
103884-0005-SA	SOLID	CN-S	03 JAN 94-A	03 JAN 94-A	03 JAN 94-AB
103884-0005-SA	SOLID	CLO3-S	05 JAN 94-A	05 JAN 94-A	05 JAN 94-AA
103884-0007-SA	SOLID	CLO3-S	05 JAN 94-A	05 JAN 94-A	05 JAN 94-AA
103884-0009-SA	SOLID	CLO3-S	05 JAN 94-A	05 JAN 94-A	05 JAN 94-AA

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DUPLICATE CONTROL SAMPLE REPORT
Wet Chemistry Analysis and Preparation
Project: 103884

Category: CN-S Cyanide (9012) SOLID
Matrix: SOLID
QC Lot: 03 JAN 94-A Date Analyzed: 03 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average(%) DCS	Accuracy Average(%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Cyanide, Total	5.00	4.35	4.50	4.42	89	70-123	3.4	21

Category: CLO3-S Chlorate, Liquid
Matrix: SOLID
QC Lot: 05 JAN 94-A Date Analyzed: 06 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average(%) DCS	Accuracy Average(%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Chlorate, Solid	10.0	9.40	9.10	9.25	93	80-120	3.2	20

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Wet Chemistry Analysis and Preparation
Project: 103884

Category: CN-S Cyanide (9012) SOLID
Matrix: SOLID
Sample: 103884-0002
MS Run: 03 JAN 94-AB
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Cyanide, Total	ND	4.65	4.40	5.00	93	88	5.6	41-159	48

Category: CLO3-S Chlorate, Liquid
Matrix: SOLID
Sample: 103884-0002
MS Run: 05 JAN 94-AA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Chlorate, Solid	ND	1820	1790	2000	91	90	1.1	80-120	20

ND = Not Detected

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

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METHOD BLANK REPORT
Wet Chemistry Analysis and Preparation
Project: 103884

Test: CN-MDL-S Method 9012 - Cyanide, Total
Matrix: SOLID
QC Run: 03 JAN 94-A Date Analyzed: 03 JAN 94

Analyte	Result	Units	Reporting Limit
Cyanide, Total	ND	mg/kg	0.50

Test: CLO3-MDL-S Method 300.0 - Chlorate, Ion Chromatography
Matrix: SOLID
QC Run: 05 JAN 94-A Date Analyzed: 06 JAN 94

Analyte	Result	Units	Reporting Limit
Chlorate, Solid	ND	mg/kg	1.0

ND = Not Detected

QC LOT ASSIGNMENT REPORT - MS QC
Volatile Organics by GC/MS

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
103884-0001-SA	SOLID	8240-S	23 DEC 93-AF	23 DEC 93-AF	27 DEC 93-AF
103884-0003-SA	SOLID	8240-S	23 DEC 93-AF	27 DEC 93-AF	27 DEC 93-AF
103884-0004-SA	SOLID	8240-S	23 DEC 93-AF	23 DEC 93-AF	27 DEC 93-AF
103884-0006-SA	SOLID	8240-S	23 DEC 93-AF	23 DEC 93-AF	27 DEC 93-AF
103884-0008-SA	SOLID	8240-S	23 DEC 93-AF	23 DEC 93-AF	27 DEC 93-AF

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DUPLICATE CONTROL SAMPLE REPORT
Volatile Organics by GC/MS
Project: 103884

Category: 8240-S Volatile Organics
Matrix: SOLID
QC Lot: 23 DEC 93-AF
Date Analyzed: 23 DEC 93
Concentration Units: ug/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average(%) DCS	Accuracy Average(%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
1,1-Dichloroethene	50.0	37.3	36.4	36.8	74	50-121	2.4	31
Trichloroethene	50.0	45.2	45.9	45.6	91	69-114	1.5	17
Benzene	50.0	45.7	46.3	46.0	92	78-117	1.3	16
Toluene	50.0	47.0	48.3	47.6	95	79-118	2.7	17
Chlorobenzene	50.0	49.3	48.8	49.0	98	79-119	1.0	17

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

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SINGLE CONTROL SAMPLE REPORT
Volatile Organics by GC/MS
Project: 103884

Category: 8240-S Volatile Organics
Matrix: SOLID
QC Run: 27 DEC 93-AF Date Analyzed: 27 DEC 93
Concentration Units: ug/kg

Analyte	Concentration Spiked	Concentration Measured	Accuracy(%) SCS	Accuracy(%) Limits
1,2-Dichloroethane-d4	50.0	49.4	99	70-121
Toluene-d8	50.0	51.5	103	81-117
Bromofluorobenzene	50.0	49.6	99	74-121

Category: 8240-S Volatile Organics
Matrix: SOLID
QC Run: 23 DEC 93-AF Date Analyzed: 23 DEC 93
Concentration Units: ug/kg

Analyte	Concentration Spiked	Concentration Measured	Accuracy(%) SCS	Accuracy(%) Limits
1,2-Dichloroethane-d4	50.0	48.9	98	70-121
Toluene-d8	50.0	49.5	99	81-117
Bromofluorobenzene	50.0	47.2	94	74-121

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Volatile Organics by GC/MS
Project: 103884

Category: 8240-S Volatile Organics
Matrix: SOLID
Sample: 103884-0003
MS Run: 27 DEC 93-AF
Units: ug/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
1,1-Dichloroethene	ND	36.3	34.2	50.0	73	68	7.1	46-136	28
Trichloroethene	ND	50.1	48.9	50.0	100	98	2.0	58-131	26
Benzene	ND	50.3	49.7	50.0	101	99	2.0	63-139	23
Toluene	ND	52.7	52.5	50.0	105	105	0.0	68-140	24
Chlorobenzene	ND	52.0	50.2	50.0	104	100	3.9	68-138	23

ND = Not Detected

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

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METHOD BLANK REPORT
Volatile Organics by GC/MS
Project: 103884

Test: 8240-HLA-S Method 8240 - Volatile Organics, EPA 8240 Extended List
Matrix: SOLID
QC Run: 23 DEC 93-AF Date Analyzed: 23 DEC 93

Analyte	Result	Units	Reporting Limit
Dichlorodifluoromethane	ND	ug/kg	10
Chloromethane	ND	ug/kg	10
Bromomethane	ND	ug/kg	10
Vinyl chloride	ND	ug/kg	10
Chloroethane	ND	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/kg	5.0
Methylene chloride	TR	ug/kg	5.0
Acetone	ND	ug/kg	10
Trichlorofluoromethane	ND	ug/kg	5.0
1,1-Dichloroethene	ND	ug/kg	5.0
Nitromethane	ND	ug/kg	200
trans-1,2-Dichloroethene	ND	ug/kg	5.0
cis-1,2-Dichloroethene	ND	ug/kg	5.0
1,1-Dichloroethane	ND	ug/kg	5.0
2,2-Dichloropropane	ND	ug/kg	5.0
Bromochloromethane	ND	ug/kg	5.0
Chloroform	ND	ug/kg	5.0
1,1-Dichloropropene	ND	ug/kg	5.0
1,2-Dichloroethane	ND	ug/kg	5.0
Dibromomethane	ND	ug/kg	5.0
1,1,1-Trichloroethane	ND	ug/kg	5.0
Carbon tetrachloride	ND	ug/kg	5.0
Bromodichloromethane	ND	ug/kg	5.0
1,2-Dichloropropane	ND	ug/kg	5.0
1,3-Dichloropropane	ND	ug/kg	5.0
Trichloroethene	ND	ug/kg	5.0
Dibromochloromethane	ND	ug/kg	5.0
1,1,2-Trichloroethane	ND	ug/kg	5.0
Benzene	ND	ug/kg	5.0
Bromoform	ND	ug/kg	5.0
Tetrachloroethene	ND	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.0
Toluene	ND	ug/kg	5.0
Chlorobenzene	ND	ug/kg	5.0
Ethylbenzene	ND	ug/kg	5.0
Styrene	ND	ug/kg	5.0
Xylenes (total)	ND	ug/kg	5.0
1-Methylethylbenzene	ND	ug/kg	5.0
Bromobenzene	ND	ug/kg	5.0
1,2,3-Trichloropropane	ND	ug/kg	5.0
2-Chlorotoluene	ND	ug/kg	5.0
n-Propyl benzene	ND	ug/kg	5.0
1,3,5-Trimethylbenzene	ND	ug/kg	5.0

ND = Not Detected

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METHOD BLANK REPORT
Volatile Organics by GC/MS (cont.)
Project: 103884

Test: 8240-HLA-S Method 8240 - Volatile Organics, EPA 8240 Extended List
Matrix: SOLID
QC Run: 23 DEC 93-AF Date Analyzed: 23 DEC 93

Analyte	Result	Units	Reporting Limit
4-Chlorotoluene	ND	ug/kg	5.0
tert-Butylbenzene	ND	ug/kg	5.0
1,2,4-Trimethylbenzene	ND	ug/kg	5.0
sec-Butylbenzene	ND	ug/kg	5.0
Isopropyltoluene	ND	ug/kg	5.0
1,3-Dichlorobenzene	ND	ug/kg	5.0
1,4-Dichlorobenzene	ND	ug/kg	5.0
n-Butylbenzene	ND	ug/kg	5.0
1,2-Dichlorobenzene	ND	ug/kg	5.0
1,2,4-Trichlorobenzene	ND	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND	ug/kg	5.0
Hexachlorobutadiene	ND	ug/kg	5.0
Naphthalene	ND	ug/kg	5.0
1,2,3-Trichlorobenzene	ND	ug/kg	5.0

ND = Not Detected

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METHOD BLANK REPORT
Volatile Organics by GC/MS (cont.)
Project: 103884

Test: 8240-HLA-S Method 8240 - Volatile Organics, EPA 8240 Extended List
Matrix: SOLID

QC Run: 27 DEC 93-AF Date Analyzed: 27 DEC 93

Analyte	Result	Units	Reporting Limit
Dichlorodifluoromethane	ND	ug/kg	10
Chloromethane	ND	ug/kg	10
Bromomethane	ND	ug/kg	10
Vinyl chloride	ND	ug/kg	10
Chloroethane	ND	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/kg	5.0
Methylene chloride	TR	ug/kg	5.0
Acetone	ND	ug/kg	10
Trichlorofluoromethane	ND	ug/kg	5.0
1,1-Dichloroethene	ND	ug/kg	5.0
Nitromethane	ND	ug/kg	200
trans-1,2-Dichloroethene	ND	ug/kg	5.0
cis-1,2-Dichloroethene	ND	ug/kg	5.0
1,1-Dichloroethane	ND	ug/kg	5.0
2,2-Dichloropropane	ND	ug/kg	5.0
Bromochloromethane	ND	ug/kg	5.0
Chloroform	ND	ug/kg	5.0
1,1-Dichloropropene	ND	ug/kg	5.0
1,2-Dichloroethane	ND	ug/kg	5.0
Dibromomethane	ND	ug/kg	5.0
1,1,1-Trichloroethane	ND	ug/kg	5.0
Carbon tetrachloride	ND	ug/kg	5.0
Bromodichloromethane	ND	ug/kg	5.0
1,2-Dichloropropane	ND	ug/kg	5.0
1,3-Dichloropropane	ND	ug/kg	5.0
Trichloroethene	ND	ug/kg	5.0
Dibromochloromethane	ND	ug/kg	5.0
1,1,2-Trichloroethane	ND	ug/kg	5.0
Benzene	ND	ug/kg	5.0
Bromoform	ND	ug/kg	5.0
Tetrachloroethene	ND	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.0
Toluene	ND	ug/kg	5.0
Chlorobenzene	ND	ug/kg	5.0
Ethylbenzene	ND	ug/kg	5.0
Styrene	ND	ug/kg	5.0
Xylenes (total)	ND	ug/kg	5.0
1-Methylethylbenzene	ND	ug/kg	5.0
Bromobenzene	ND	ug/kg	5.0
1,2,3-Trichloropropane	ND	ug/kg	5.0
2-Chlorotoluene	ND	ug/kg	5.0
n-Propyl benzene	ND	ug/kg	5.0

ND = Not Detected

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METHOD BLANK REPORT
Volatile Organics by GC/MS (cont.)
Project: 103884

Test: 8240-HLA-S Method 8240 - Volatile Organics, EPA 8240 Extended List
Matrix: SOLID

QC Run: 27 DEC 93-AF Date Analyzed: 27 DEC 93

Analyte	Result	Units	Reporting Limit
1,3,5-Trimethylbenzene	ND	ug/kg	5.0
4-Chlorotoluene	ND	ug/kg	5.0
tert-Butylbenzene	ND	ug/kg	5.0
1,2,4-Trimethylbenzene	ND	ug/kg	5.0
sec-Butylbenzene	ND	ug/kg	5.0
Isopropyltoluene	ND	ug/kg	5.0
1,3-Dichlorobenzene	ND	ug/kg	5.0
1,4-Dichlorobenzene	ND	ug/kg	5.0
n-Butylbenzene	ND	ug/kg	5.0
1,2-Dichlorobenzene	ND	ug/kg	5.0
1,2,4-Trichlorobenzene	ND	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND	ug/kg	5.0
Hexachlorobutadiene	ND	ug/kg	5.0
Naphthalene	ND	ug/kg	5.0
1,2,3-Trichlorobenzene	ND	ug/kg	5.0

ND = Not Detected

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QC LOT ASSIGNMENT REPORT - MS QC
Semivolatile Organics by GC/MS

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
103884-0001-SA	SOLID	8270-S	22 DEC 93-B	22 DEC 93-B	22 DEC 93-BA
103884-0003-SA	SOLID	8270-S	22 DEC 93-B	22 DEC 93-B	22 DEC 93-BA
103884-0004-SA	SOLID	8270-S	22 DEC 93-B	22 DEC 93-B	22 DEC 93-BA
103884-0006-SA	SOLID	8270-S	22 DEC 93-B	22 DEC 93-B	22 DEC 93-BA
103884-0008-SA	SOLID	8270-S	22 DEC 93-B	22 DEC 93-B	22 DEC 93-BA

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DUPLICATE CONTROL SAMPLE REPORT
Semivolatile Organics by GC/MS
Project: 103884

Category: 8270-S Method 8270 - TCL Semivolatile Organics
Matrix: SOLID
QC Lot: 22 DEC 93-B Date Analyzed: 23 DEC 93
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Phenol	6.67	5.06	4.37	4.72	71	39-106	15	31
2-Chlorophenol	6.67	4.84	4.62	4.73	71	44-107	4.7	32
1,4-Dichlorobenzene	3.33	2.83	2.75	2.79	84	40-107	2.9	23
N-Nitroso-di-n-propylamine	3.33	2.60	2.58	2.59	78	31-132	0.77	38
1,2,4-Trichlorobenzene	3.33	2.62	2.77	2.70	81	38-120	5.6	22
4-Chloro-3-methylphenol	6.67	4.52	4.83	4.68	70	40-119	6.6	24
Acenaphthene	3.33	2.88	2.97	2.92	88	30-140	3.1	24
2,4-Dinitrotoluene	3.33	2.45	2.72	2.58	78	30-121	10	28
4-Nitrophenol	6.67	5.74	6.29	6.02	90	16-143	9.1	54
Pentachlorophenol	6.67	7.20	7.53	7.36	110	21-152	4.5	43
Pyrene	3.33	3.09	3.32	3.20	96	45-120	7.2	26

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

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SINGLE CONTROL SAMPLE REPORT
Semivolatile Organics by GC/MS
Project: 103884

Category: 8270-S Method 8270 - TCL Semivolatile Organics
Matrix: SOLID
QC Run: 22 DEC 93-B Date Analyzed: 23 DEC 93
Concentration Units: mg/kg

Analyte	Concentration Spiked	Concentration Measured	Accuracy(%) SCS	Accuracy(%) Limits
2-Fluorophenol	6.67	4.67	70	25-121
Phenol-d5	6.67	4.18	63	24-113
Nitrobenzene-d5	3.33	2.50	75	23-120
2-Fluorobiphenyl	3.33	2.66	80	30-115
2,4,6-Tribromophenol	6.67	4.81	72	19-122
Terphenyl-d14	3.33	2.73	82	18-137

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Semivolatile Organics by GC/MS
Project: 103884

Category: 8270-S Method 8270 - TCL Semivolatile Organics
Matrix: SOLID
Sample: 103884-0001
MS Run: 22 DEC 93-BA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Phenol	ND	3.32	2.47	6.67	50	37	30	25-110	74
2-Chlorophenol	ND	3.16	2.39	6.67	47	36	27	33-103	42
1,4-Dichlorobenzene	ND	1.74	1.29	3.33	52	39	29	22-110	55
N-Nitroso-di-n-propylamine	ND	1.96	1.43	3.33	59	43	31	18-138	49
1,2,4-Trichlorobenzene	ND	1.81	1.37	3.33	54	41	28	29-119	43
4-Chloro-3-methylphenol	ND	3.77	3.02	6.67	57	45	24	36-119	41
Acenaphthene	ND	1.83	1.43	3.33	55	43	24	17-148	36
2,4-Dinitrotoluene	ND	1.03	0.546	3.33	31	16	65	27-120	41
4-Nitrophenol	ND	5.32	3.74	6.67	80	56	35	16-143	80
Pentachlorophenol	ND	1.04	2.02	6.67	16	30	61	21-152	61
Pyrene	ND	2.39	2.09	3.33	72	63	13	24-133	46

ND = Not Detected

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

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A Corning Company

METHOD BLANK REPORT
Semivolatile Organics by GC/MS
Project: 103884

Test: 8270-HLA-S Method 8270 - Semivolatile Organics
Matrix: SOLID
QC Run: 22 DEC 93-B Date Analyzed: 23 DEC 93

Analyte	Result	Units	Reporting Limit
N-Nitrosodiethylamine	ND	mg/kg	0.33
Phenol	ND	mg/kg	0.33
bis(2-Chloroethyl) ether	ND	mg/kg	0.33
2-Chlorophenol	ND	mg/kg	0.33
1,3-Dichlorobenzene	ND	mg/kg	0.33
1,4-Dichlorobenzene	ND	mg/kg	0.33
Benzyl alcohol	ND	mg/kg	0.33
1,2-Dichlorobenzene	ND	mg/kg	0.33
2-Methylphenol	ND	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND	mg/kg	0.33
3/4-Methylphenol	ND	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND	mg/kg	0.33
Hexachloroethane	ND	mg/kg	0.33
Nitrobenzene	ND	mg/kg	0.33
Isophorone	ND	mg/kg	0.33
2-Nitrophenol	ND	mg/kg	0.33
2,4-Dimethylphenol	ND	mg/kg	0.33
Benzoic acid	ND	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND	mg/kg	0.33
2,4-Dichlorophenol	ND	mg/kg	0.33
1,2,4-Trichlorobenzene	ND	mg/kg	0.33
Naphthalene	ND	mg/kg	0.33
4-Chloroaniline	ND	mg/kg	0.33
Hexachlorobutadiene	ND	mg/kg	0.33
4-Chloro-3-methylphenol	ND	mg/kg	0.33
2-Methylnaphthalene	ND	mg/kg	0.33
Hexachlorocyclopentadiene	ND	mg/kg	0.33
2,4,6-Trichlorophenol	ND	mg/kg	0.33
2,4,5-Trichlorophenol	ND	mg/kg	1.7
2-Chloronaphthalene	ND	mg/kg	0.33
2-Nitroaniline	ND	mg/kg	1.7
Dimethyl phthalate	ND	mg/kg	0.33
Acenaphthylene	ND	mg/kg	0.33
3-Nitroaniline	ND	mg/kg	1.7
Acenaphthene	ND	mg/kg	0.33
2,4-Dinitrophenol	ND	mg/kg	1.7
4-Nitrophenol	ND	mg/kg	1.7
Dibenzofuran	ND	mg/kg	0.33
2,4-Dinitrotoluene	ND	mg/kg	0.33
2,6-Dinitrotoluene	ND	mg/kg	0.33
Diethyl phthalate	ND	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND	mg/kg	0.33
Fluorene	ND	mg/kg	0.33
4-Nitroaniline	ND	mg/kg	1.7
4,6-Dinitro-2-methylphenol	ND	mg/kg	1.7

ND = Not Detected

Enseco
A Corning Company

METHOD BLANK REPORT
Semivolatile Organics by GC/MS (cont.)
Project: 103884

Test: 8270-HLA-S Method 8270 - Semivolatile Organics
Matrix: SOLID
QC Run: 22 DEC 93-B Date Analyzed: 23 DEC 93

Analyte	Result	Units	Reporting Limit
N-Nitrosodiphenylamine	ND	mg/kg	0.33
4-Bromophenyl phenyl ether	ND	mg/kg	0.33
Hexachlorobenzene	ND	mg/kg	0.33
Pentachlorophenol	ND	mg/kg	1.7
Phenanthrene	ND	mg/kg	0.33
Anthracene	ND	mg/kg	0.33
Di-n-butyl phthalate	ND	mg/kg	0.33
Fluoranthene	ND	mg/kg	0.33
Pyrene	ND	mg/kg	0.33
Butyl benzyl phthalate	ND	mg/kg	0.33
3,3'-Dichlorobenzidine	ND	mg/kg	0.66
Benzo(a)anthracene	ND	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND	mg/kg	0.33
Chrysene	ND	mg/kg	0.33
Di-n-octyl phthalate	ND	mg/kg	0.33
Benzo(b)fluoranthene	ND	mg/kg	0.33
Benzo(k)fluoranthene	ND	mg/kg	0.33
Benzo(a)pyrene	ND	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND	mg/kg	0.33
Dibenz(a,h)anthracene	ND	mg/kg	0.33
Benzo(g,h,i)perylene	ND	mg/kg	0.33
Xylidine (Total)	ND	mg/kg	0.33

ND = Not Detected

Harding Lawson Associates
3 Hutton Centre Drive, Suite 200
Santa Ana, California 92707
714/556-7992 – 213/617-7232
FAX: 714/662-3297

103884

CHAIN OF CUSTODY FORM

Lab: ENSECO CRL

Samplers: Tom Lindros

Job Number: 26522.2.3

Name/Location: Aerojet-AISA Offsite SZB

Project Manager: Matt Hunter

Recorder: (Signature Required)

SOURCE CODE	MATRIX: Water	Sediment	Soil	Oil	#CONTAINERS & PRESERV.: Unpres.	H_2SO_4	HNO_3	Chilled	SAMPLE NUMBER OR LAB NUMBER (Yr Wk Seq)	DATE Yr Mo Dy	TIME	STATION DESCRIPTION/ NOTES (SZB-37-4.75)	EPA 601/8010	EPA 602/8020	EPA 624/8240 VOCs	EPA 625/8270 SVOCs	Priority Pllnt. Metals	Benzene/Toluene/Xylene	Total Petrol. Hydrocarb.	EPA 9012 – Cyanide	EPA – (Chloride)	EPA 600/7000 Series metals
50			X		X			X	SZB-37-[illegible]	931221	0835	2½" Ø x 3" Stainless steel Tube			X	X						
50			X		X			X	SZB-37-[illegible]	931221	0835	SZB-37-4.50								X	X	X
50			X		X			X	SZB-37-[illegible]	931221	0857	SZB-37-9.75										
50			X		X			X	SZB-37-[illegible]	931221	0917	SZB-37-15.00										
50			X		X			X	SZB-37-[illegible]	931221	0917	SZB-37-14.75										
50			X		X			X	SZB-37-[illegible]	931221	0917	SZB-37-14.50										
50			X		X			X	SZB-37-[illegible]	931221	0931	SZB-37-20.50		*	X	X				X		
50			X		X			X	SZB-37-[illegible]	931221	0931	SZB-37-20.25										
50			X		X			X	SZB-36-[illegible]	931221	1143	SZB-36-4.75		*	X	X						
50			X		X			X	SZB-36-[illegible]	931221	1143	SZB-36-4.50								X	X	X

Custody Seal No's 5693 | 5694

LAB NUMBER Yr Wk Seq	DEPTH IN FEET	COL MTD CD	QA CODE	MISCELLANEOUS
				- Report to Matt Hunter
				- Analyze per Aerojet contract
				- Matt Hunter to Fax Requested Laboratory analyses

CHAIN OF CUSTODY RECORD

RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
[signature]	[signature]	12/21 5:05
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature) [signature]	RECEIVED BY: (Signature)	DATE/TIME
DISPATCHED BY: (Signature) DATE/TIME	RECEIVED FOR LAB BY: (Signature) [signature]	DATE/TIME 12/21/93 18:20

METHOD OF SHIPMENT: LAB Courier Pickup

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Page 2 of 3

Harding Lawson Associates
Hutton Centre Drive, Suite 200
Santa Ana, California 92707
714/556-7992 – 213/617-7232
FAX: 714/662-3297

CHAIN OF CUSTODY FORM

Lab: Enseco Cal

Samplers: Tom Lindros

Job Number: 26522.2.3

Name/Location: AEROJET - AISA

Project Manager: MATT HUNTER

Recorder: [signature] (Signature Required)

SOURCE CODE	MATRIX: Water	Sediment	Soil	Oil	#CONTAINERS & PRESERV.: Unpres.	H_2SO_4	HNO_3	Chilled	SAMPLE NUMBER OR LAB NUMBER: Yr	Wk	Seq	DATE: Yr	Mo	Dy	Time	STATION DESCRIPTION/ NOTES	EPA 601/8010	EPA 602/8020	EPA 624/8240 VOCs	EPA 625/8270 SVOCs	Priority Pllnt. Metals	Benzene/Toluene/Xylene	Total Petrol. Hydrocarb.	EPA 9012 - Cyanide	EPA Chlorate - Chlorate	EPA 6010/7000 Series Metals
50			x		x			x	SZB-36-~~10.25A~~ 10.00			93	12	21	1153	SZB-36-10.00 2½"Ø x 3" stainless steel										
50			x		x			x	SZB-36-~~10.25B~~ 9.75			93	12	21	1153	SZB-36-9.75										
50			x		x			x	SZB-36-~~10.25C~~ 9.50			93	12	21	1153	SZB-36-9.50										
50			x		x			x	SZB-36-~~14.75A~~ 14.50			93	12	21	1201	SZB-36-14.50										
50			x		x			x	SZB-36-~~20.0A~~ 19.75			93	12	21	1217	SZB-36-19.75										
50			x		x			x	SZB-36-~~20.0B~~ 19.50			93	12	21	1217	SZB-36-19.50										
50			x		x			x	SZB-36-~~27.75A~~ 27.50			93	12	21	1238	SZB-36-27.50		x	x	x						
50			x		x			x	SZB-36-~~27.75B~~ 27.25			93	12	21	1238	SZB-36-27.25									x	
50			x		x			x	SZB-36-~~27.75B~~ 27.00			93	12	21	1238	SZB-36-27.00										
50			x		x			x	SZB-36-~~30.0A~~ 29.75			93	12	21	1310	SZB-36-29.75										

Custody Seal No's 5693 | 5694

LAB NUMBER: Yr	Wk	Seq	DEPTH IN FEET	COL MTD CD	QA CODE	MISCELLANEOUS
						- Report to Matt Hunter
						- Analyze per Aerojet Contract
						- Matt Hunter to Fax Requested Laboratory analyses

CHAIN OF CUSTODY RECORD

RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
[signature]	[signature]	12/21 5:05
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature) [signature]	RECEIVED BY: (Signature)	DATE/TIME
DISPATCHED BY: (Signature) DATE/TIME	RECEIVED FOR LAB BY: (Signature) [signature]	DATE/TIME 12/21 1820

METHOD OF SHIPMENT: LAB Courier Pickup at Project site

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Page 3 of 3

Harding Lawson Associates
3 Hutton Centre Drive, Suite 200
Santa Ana, California 92707
714/556-7992 – 213/617-7232
FAX: 714/662-3297

CHAIN OF CUSTODY FORM

Lab: Enseco CRL

Samplers: Tom Lindros

Job Number: 26522.2.3

Name/Location: Aerojet-AISA

Project Manager: Matt Hunter

Recorder: [signature] (Signature Required)

SOURCE CODE	MATRIX: Water	Sediment	Soil	Oil	#CONTAINERS & PRESERV.: Unpres.	H_2SO_4	HNO_3	Chilled	SAMPLE NUMBER OR LAB NUMBER: Yr	Wk	Seq	DATE: Yr	Mo	Dy	Time	STATION DESCRIPTION/ NOTES	EPA 601/8010	EPA 602/8020	EPA 624/8240 VOCs	EPA 625/8270 SVOCs	Priority Pllnt. Metals	Benzene/Toluene/Xylene	Total Petrol. Hydrocarb.	EPA 9012 - cyanide	EHLORATE	EPA 6010/7000 metals	HOLD
50			X		X			X	SZB-36-29.50			93	12	21	1310	SZB-36-29.50 2 1/2 Ø x 3" Stainless steel											
50			X		X			X	SZB-36-36.25			93	12	21	1324	SZB-36-36.25											
50			X		X			X	SZB-36-36.00			93	12	21	1324	SZB-36-36.00											
50			X		X			X	SZB-36-39.75			93	12	21	1332	SZB-36-39.75			X	X							
50			X		X			X	SZB-36-39.50			93	12	21	1332	SZB-36-39.50									X		

Custody Seal No's 5693 & 5694

LAB NUMBER: Yr	Wk	Seq	DEPTH IN FEET	COL MTD CD	QA CODE	MISCELLANEOUS
						-Report to Matt Hunter
						-Analyze per Aerojet Contract
						- Matt Hunter to Fax Requested Laboratory analyses

CHAIN OF CUSTODY RECORD

RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
[signature]	[signature]	12/21 5:05
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature) [signature]	RECEIVED BY: (Signature)	DATE/TIME
DISPATCHED BY: (Signature) DATE/TIME	RECEIVED FOR LAB BY: (Signature) [signature]	DATE/TIME 12/21/93 1870

METHOD OF SHIPMENT Lab Courier Pickup at Project Site

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Enseco
A Corning Company

Enseco - CRL
7440 Lincoln Way • Garden Grove, CA 92641
(714) 898-6370 • (213) 598-0458 • (800) LAB-1-CRL
FAX: (714) 891-5917

January 7, 1994

HARDING LAWSON ASSOCIATES
3 HUTTON CENTRE DRIVE, STE 200
SANTA ANA, CA 92707
ATTN: MR. MATT HUNTER

Lab No.: 103906-0001/0009
Date Sampled: 22 DEC-1993
Date Sample Rec'd: 22 DEC-1993
Project: AEROJET-AISA

Enclosed with this letter is the report on the chemical and physical analyses on the samples from LAB NO: 103906-0001/0009 shown above.

The samples were received by CRL in a chilled state, intact and with the chain-of-custody record attached.

Note that ND means not detected at the reporting limit expressed. The reporting limit is raised to reflect the dilution factor of the sample.

Solid samples are reported on "as received" basis.

Preliminary data were provided on January 6, 1994 at 5:15 PM to Matt Hunter.

Case Narrative:

The MS/MSD Percent Recoveries for Aluminum, Cadmium, and Manganese were not within the acceptance limits specified in HLA's "Laboratory Analytical Technical Requirements," nor was it within Enseco's-CRL's established acceptance limits. However, the DCS recoveries were within all acceptable ranges, therefore the data was accepted and no further action was required.

The MS Percent Recovery for Chromium was not within the acceptance limits specified in HLA's "Laboratory Analytical Technical Requirements," but was within Enseco's-CRL's established acceptance limits, therefore the data was accepted and no further action was required.

The MSD Percent Recovery for and 2,4-Dinitrotoluene was not within the acceptance limits specified in HLA's "Laboratory Analytical Technical Requirements," nor was it within Enseco's-CRL'S established acceptance limits. However, the DCS recoveries were within all acceptable ranges, therefore the data was accepted and no further action was required.

The Report Cover Letter is an integral part of this report.
This report pertains only to the samples investigated and does not necessarily apply to other apparently identical or similar materials. This report is submitted for the exclusive use of the client to whom it is addressed. Any reproduction of this report or use of this Laboratory's name for advertising or publicity purposes without authorization is prohibited.

Enseco
A Corning Company

Enseco - CRL
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FAX: (714) 891-5917

January 7, 1994

HARDING LAWSON ASSOCIATES
3 HUTTON CENTRE DRIVE, STE 200
SANTA ANA, CA 92707
ATTN: MR. MATT HUNTER

Lab No.: 103906-0001/0009
Date Sampled: 22 DEC-1993
Date Sample Rec'd: 22 DEC-1993
Project: AEROJET-AISA

Case Narrative (cont.):

The MS Percent Recovery for Pentachlorophenol was within the acceptance limits specified in HLA's "Laboratory Analytical Technical Requirements," but was not within Enseco's-CRL's established acceptance limits. However, the DCS recovery was within all acceptable ranges, therefore the data was accepted and no further action was required.

Sabina R. Sudoko
Reviewed

Melanie Stone
Approved

The Report Cover Letter is an integral part of this report.

This report pertains only to the samples investigated and does not necessarily apply to other apparently identical or similar materials. This report is submitted for the exclusive use of the client to whom it is addressed. Any reproduction of this report or use of this Laboratory's name for advertising or publicity purposes without authorization is prohibited.

Enseco
A Corning Company

SAMPLE DESCRIPTION INFORMATION
for
Harding Lawson Associates

Lab ID	Client ID	Matrix	Sampled Date	Sampled Time	Received Date
103906-0001-SA	SZB-39-4.0	SOIL	22 DEC 93	11:40	22 DEC 93
103906-0002-SA	SZB-39A-4.50	SOIL	22 DEC 93	12:03	22 DEC 93
103906-0003-SA	SZB-39A-20.00	SOIL	22 DEC 93	12:38	22 DEC 93
103906-0004-SA	SZB-39A-20.25	SOIL	22 DEC 93	12:38	22 DEC 93
103906-0005-SA	SZB-39A-11.50	SOIL	22 DEC 93	12:22	22 DEC 93
103906-0006-SA	SZB-39A-11.75	SOIL	22 DEC 93	12:22	22 DEC 93
103906-0007-SA	SZB-39A-14.50	SOIL	22 DEC 93	12:27	22 DEC 93
103906-0008-SA	SZB-39A-14.75	SOIL	22 DEC 93	12:27	22 DEC 93
103906-0009-SA	SZB-40-4.50	SOIL	22 DEC 93	13:56	22 DEC 93

Enseco
A Corning Company

METALS

Client Name: Harding Lawson Associates
Client ID: SZB-39A-4.50
LAB ID: 103906-0002-SA
Matrix: SOIL — Sampled: 22 DEC 93 — Received: 22 DEC 93
Authorized: 27 DEC 93 — Prepared: See Below — Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Aluminum	6160		50.0	200	mg/kg	7020	28 DEC 93	04 JAN 94
Arsenic	4.1		0.20	0.50	mg/kg	7062	28 DEC 93	28 DEC 93
Barium	93.0		20.0	50.0	mg/kg	7080	28 DEC 93	04 JAN 94
Chromium	12.3		5.0	10.0	mg/kg	7190	28 DEC 93	04 JAN 94
Copper	11.0		5.0	10.0	mg/kg	7210	28 DEC 93	30 DEC 93
Lead	ND		20.0	20.0	mg/kg	7420	28 DEC 93	30 DEC 93
Manganese	323		2.0	5.0	mg/kg	7460	28 DEC 93	30 DEC 93
Nickel	TR		5.0	10.0	mg/kg	7520	28 DEC 93	30 DEC 93
Zinc	42.0		1.0	2.0	mg/kg	7950	28 DEC 93	04 JAN 94
Cadmium	ND		2.0	5.0	mg/kg	7130	28 DEC 93	04 JAN 94
Mercury	TR		0.090	0.10	mg/kg	7471	29 DEC 93	29 DEC 93

ND = Not Detected

Enseco
A Corning Company

GENERAL INORGANICS

Client Name: Harding Lawson Associates
Client ID: SZB-39-4.0
Lab ID: 103906-0001-SA
Matrix: SOIL Sampled: 22 DEC 93 Received: 22 DEC 93
Authorized: 27 DEC 93 Prepared: See Below Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Cyanide, Total	ND		0.30	0.50	mg/kg	9012	03 JAN 94	03 JAN 94

ND = Not Detected

Enseco
A Corning Company

GENERAL INORGANICS

Client Name: Harding Lawson Associates
Client ID: SZB-39A-4.50
LAB ID: 103906-0002-SA
Matrix: SOIL — Sampled: 22 DEC 93 — Received: 22 DEC 93
Authorized: 27 DEC 93 — Prepared: See Below — Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Chlorate, Solid	ND		0.50	1.0	mg/kg	300.0	05 JAN 94	06 JAN 94

ND = Not Detected

Enseco
A Corning Company

GENERAL INORGANICS

Client Name: Harding Lawson Associates
Client ID: SZB-39A-20.00
Lab ID: 103906-0003-SA
Matrix: SOIL
Authorized: 27 DEC 93

Sampled: 22 DEC 93
Prepared: See Below

Received: 22 DEC 93
Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Chlorate, Solid	ND		0.50	1.0	mg/kg	300.0	05 JAN 94	06 JAN 94

ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-39-4.0
LAB ID: 103906-0001-SA
Matrix: SOIL Sampled: 22 DEC 93 Received: 22 DEC 93
Authorized: 27 DEC 93 Prepared: 27 DEC 93 Analyzed: 27 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/kg	5.0
Methylene chloride	TR	B	1.1	ug/kg	5.0
Acetone	ND		7.1	ug/kg	10
Trichlorofluoromethane	TR		0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	ND		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	ND		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	ND		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	ND		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0

B = Compound is also detected in the blank.
ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-39-4.0
LAB ID: 103906-0001-SA
Matrix: SOIL Sampled: 22 DEC 93 Received: 22 DEC 93
Authorized: 27 DEC 93 Prepared: 27 DEC 93 Analyzed: 27 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
tert-Butylbenzene	ND		0.55	ug/kg	5.0
1,2,4-Trimethylbenzene	ND		0.53	ug/kg	5.0
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	116	%
Toluene-d8	101	%
Bromofluorobenzene	83	%

ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-39A-20.25
LAB ID: 103906-0004-SA
Matrix: SOIL — Sampled: 22 DEC 93 — Received: 22 DEC 93
Authorized: 27 DEC 93 — Prepared: 23 DEC 93 — Analyzed: 23 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/kg	5.0
Methylene chloride	TR	B	1.1	ug/kg	5.0
Acetone	ND		7.1	ug/kg	10
Trichlorofluoromethane	ND		0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	ND		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	ND		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	ND		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	ND		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0

B = Compound is also detected in the blank.
ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-39A-20.25
LAB ID: 103906-0004-SA
Matrix: SOIL Sampled: 22 DEC 93 Received: 22 DEC 93
Authorized: 27 DEC 93 Prepared: 23 DEC 93 Analyzed: 23 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
tert-Butylbenzene	ND		0.55	ug/kg	5.0
1,2,4-Trimethylbenzene	ND		0.53	ug/kg	5.0
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	106	%
Toluene-d8	108	%
Bromofluorobenzene	100	%

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-39-4.0
LAB ID: 103906-0001-SA
Matrix: SOIL Sampled: 22 DEC 93 Received: 22 DEC 93
Authorized: 27 DEC 93 Prepared: 23 DEC 93 Analyzed: 28 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
N-Nitrosodiethylamine	ND		0.26	mg/kg	0.33
Phenol	ND		0.030	mg/kg	0.33
bis(2-Chloroethyl) ether	ND		0.060	mg/kg	0.33
2-Chlorophenol	ND		0.040	mg/kg	0.33
1,3-Dichlorobenzene	ND		0.030	mg/kg	0.33
1,4-Dichlorobenzene	ND		0.060	mg/kg	0.33
Benzyl alcohol	ND		0.070	mg/kg	0.33
1,2-Dichlorobenzene	ND		0.040	mg/kg	0.33
2-Methylphenol	ND		0.030	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND		0.040	mg/kg	0.33
3/4-Methylphenol	ND		0.040	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND		0.030	mg/kg	0.33
Hexachloroethane	ND		0.030	mg/kg	0.33
Nitrobenzene	ND		0.090	mg/kg	0.33
Isophorone	ND		0.040	mg/kg	0.33
2-Nitrophenol	ND		0.050	mg/kg	0.33
2,4-Dimethylphenol	ND		0.030	mg/kg	0.33
Benzoic acid	ND		0.51	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND		0.020	mg/kg	0.33
2,4-Dichlorophenol	ND		0.030	mg/kg	0.33
1,2,4-Trichlorobenzene	ND		0.040	mg/kg	0.33
Naphthalene	ND		0.030	mg/kg	0.33
4-Chloroaniline	ND		0.10	mg/kg	0.33
Hexachlorobutadiene	ND		0.040	mg/kg	0.33
4-Chloro-3-methylphenol	ND		0.040	mg/kg	0.33
2-Methylnaphthalene	ND		0.030	mg/kg	0.33
Hexachlorocyclopentadiene	ND		0.050	mg/kg	0.33
2,4,6-Trichlorophenol	ND		0.040	mg/kg	0.33
2,4,5-Trichlorophenol	ND		0.050	mg/kg	1.7
2-Chloronaphthalene	ND		0.030	mg/kg	0.33
2-Nitroaniline	ND		0.030	mg/kg	1.7
Dimethyl phthalate	ND		0.030	mg/kg	0.33
Acenaphthylene	ND		0.020	mg/kg	0.33
3-Nitroaniline	ND		0.14	mg/kg	1.7
Acenaphthene	ND		0.030	mg/kg	0.33
2,4-Dinitrophenol	ND		0.23	mg/kg	1.7
4-Nitrophenol	ND		0.25	mg/kg	1.7
Dibenzofuran	ND		0.040	mg/kg	0.33
2,4-Dinitrotoluene	ND		0.040	mg/kg	0.33
2,6-Dinitrotoluene	ND		0.050	mg/kg	0.33
Diethyl phthalate	ND		0.020	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND		0.030	mg/kg	0.33
Fluorene	ND		0.030	mg/kg	0.33
4-Nitroaniline	ND		0.18	mg/kg	1.7

ND = Not Detected

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Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-39-4.0
LAB ID: 103906-0001-SA
Matrix: SOIL Sampled: 22 DEC 93 Received: 22 DEC 93
Authorized: 27 DEC 93 Prepared: 23 DEC 93 Analyzed: 28 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
4,6-Dinitro-2-methylphenol	ND		0.36	mg/kg	1.7
N-Nitrosodiphenylamine	ND		0.040	mg/kg	0.33
4-Bromophenyl phenyl ether	ND		0.080	mg/kg	0.33
Hexachlorobenzene	ND		0.030	mg/kg	0.33
Pentachlorophenol	ND		0.19	mg/kg	1.7
Phenanthrene	ND		0.030	mg/kg	0.33
Anthracene	ND		0.020	mg/kg	0.33
Di-n-butyl phthalate	ND		0.24	mg/kg	0.33
Fluoranthene	ND		0.030	mg/kg	0.33
Pyrene	ND		0.020	mg/kg	0.33
Butyl benzyl phthalate	ND		0.030	mg/kg	0.33
3,3'-Dichlorobenzidine	ND		0.33	mg/kg	0.66
Benzo(a)anthracene	ND		0.040	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND		0.13	mg/kg	0.33
Chrysene	ND		0.040	mg/kg	0.33
Di-n-octyl phthalate	ND		0.040	mg/kg	0.33
Benzo(b)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(k)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(a)pyrene	ND		0.040	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND		0.030	mg/kg	0.33
Dibenz(a,h)anthracene	ND		0.030	mg/kg	0.33
Benzo(g,h,i)perylene	ND		0.020	mg/kg	0.33
Xylidine (Total)	ND		0.076	mg/kg	0.33

Surrogate	Recovery	
Nitrobenzene-d5	69	%
2-Fluorobiphenyl	69	%
Terphenyl-d14	64	%
Phenol-d5	66	%
2-Fluorophenol	64	%
2,4,6-Tribromophenol	72	%

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-39A-20.25
LAB ID: 103906-0004-SA
Matrix: SOIL Sampled: 22 DEC 93 Received: 22 DEC 93
Authorized: 27 DEC 93 Prepared: 23 DEC 93 Analyzed: 28 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
N-Nitrosodiethylamine	ND		0.26	mg/kg	0.33
Phenol	ND		0.030	mg/kg	0.33
bis(2-Chloroethyl) ether	ND		0.060	mg/kg	0.33
2-Chlorophenol	ND		0.040	mg/kg	0.33
1,3-Dichlorobenzene	ND		0.030	mg/kg	0.33
1,4-Dichlorobenzene	ND		0.060	mg/kg	0.33
Benzyl alcohol	ND		0.070	mg/kg	0.33
1,2-Dichlorobenzene	ND		0.040	mg/kg	0.33
2-Methylphenol	ND		0.030	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND		0.040	mg/kg	0.33
3/4-Methylphenol	ND		0.040	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND		0.030	mg/kg	0.33
Hexachloroethane	ND		0.030	mg/kg	0.33
Nitrobenzene	ND		0.090	mg/kg	0.33
Isophorone	ND		0.040	mg/kg	0.33
2-Nitrophenol	ND		0.050	mg/kg	0.33
2,4-Dimethylphenol	ND		0.030	mg/kg	0.33
Benzoic acid	ND		0.51	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND		0.020	mg/kg	0.33
2,4-Dichlorophenol	ND		0.030	mg/kg	0.33
1,2,4-Trichlorobenzene	ND		0.040	mg/kg	0.33
Naphthalene	ND		0.030	mg/kg	0.33
4-Chloroaniline	ND		0.10	mg/kg	0.33
Hexachlorobutadiene	ND		0.040	mg/kg	0.33
4-Chloro-3-methylphenol	ND		0.040	mg/kg	0.33
2-Methylnaphthalene	ND		0.030	mg/kg	0.33
Hexachlorocyclopentadiene	ND		0.050	mg/kg	0.33
2,4,6-Trichlorophenol	ND		0.040	mg/kg	0.33
2,4,5-Trichlorophenol	ND		0.050	mg/kg	1.7
2-Chloronaphthalene	ND		0.030	mg/kg	0.33
2-Nitroaniline	ND		0.030	mg/kg	1.7
Dimethyl phthalate	ND		0.030	mg/kg	0.33
Acenaphthylene	ND		0.020	mg/kg	0.33
3-Nitroaniline	ND		0.14	mg/kg	1.7
Acenaphthene	ND		0.030	mg/kg	0.33
2,4-Dinitrophenol	ND		0.23	mg/kg	1.7
4-Nitrophenol	ND		0.25	mg/kg	1.7
Dibenzofuran	ND		0.040	mg/kg	0.33
2,4-Dinitrotoluene	ND		0.040	mg/kg	0.33
2,6-Dinitrotoluene	ND		0.050	mg/kg	0.33
Diethyl phthalate	ND		0.020	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND		0.030	mg/kg	0.33
Fluorene	ND		0.030	mg/kg	0.33
4-Nitroaniline	ND		0.18	mg/kg	1.7

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-39A-20.25
LAB ID: 103906-0004-SA
Matrix: SOIL Sampled: 22 DEC 93 Received: 22 DEC 93
Authorized: 27 DEC 93 Prepared: 23 DEC 93 Analyzed: 28 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
4,6-Dinitro-2-methylphenol	ND		0.36	mg/kg	1.7
N-Nitrosodiphenylamine	ND		0.040	mg/kg	0.33
4-Bromophenyl phenyl ether	ND		0.080	mg/kg	0.33
Hexachlorobenzene	ND		0.030	mg/kg	0.33
Pentachlorophenol	ND		0.19	mg/kg	1.7
Phenanthrene	ND		0.030	mg/kg	0.33
Anthracene	ND		0.020	mg/kg	0.33
Di-n-butyl phthalate	ND		0.24	mg/kg	0.33
Fluoranthene	ND		0.030	mg/kg	0.33
Pyrene	ND		0.020	mg/kg	0.33
Butyl benzyl phthalate	ND		0.030	mg/kg	0.33
3,3'-Dichlorobenzidine	ND		0.33	mg/kg	0.66
Benzo(a)anthracene	ND		0.040	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND		0.13	mg/kg	0.33
Chrysene	ND		0.040	mg/kg	0.33
Di-n-octyl phthalate	ND		0.040	mg/kg	0.33
Benzo(b)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(k)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(a)pyrene	ND		0.040	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND		0.030	mg/kg	0.33
Dibenz(a,h)anthracene	ND		0.030	mg/kg	0.33
Benzo(g,h,i)perylene	ND		0.020	mg/kg	0.33
Xylidine (Total)	ND		0.076	mg/kg	0.33

Surrogate	Recovery	
Nitrobenzene-d5	58	%
2-Fluorobiphenyl	54	%
Terphenyl-d14	56	%
Phenol-d5	50	%
2-Fluorophenol	51	%
2,4,6-Tribromophenol	54	%

ND = Not Detected

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QC LOT ASSIGNMENT REPORT - MS QC
Metals Analysis and Preparation

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
103906-0002-SA	SOLID	AL-FLAA-S	28 DEC 93-A	28 DEC 93-A	28 DEC 93-AA
103906-0002-SA	SOLID	AS-HAA-S	28 DEC 93-A	28 DEC 93-A	28 DEC 93-AA
103906-0002-SA	SOLID	CD-FLAA-S	28 DEC 93-A	28 DEC 93-A	28 DEC 93-AA
103906-0002-SA	SOLID	CR-FLAA-S	28 DEC 93-A	28 DEC 93-A	28 DEC 93-AA
103906-0002-SA	SOLID	MN-FLAA-S	28 DEC 93-A	28 DEC 93-A	28 DEC 93-AA
103906-0002-SA	SOLID	NI-FLAA-S	28 DEC 93-A	28 DEC 93-A	28 DEC 93-AA
103906-0002-SA	SOLID	PB-FLAA-S	28 DEC 93-A	28 DEC 93-A	28 DEC 93-AA
103906-0002-SA	SOLID	CU-FLAA-S	28 DEC 93-A	28 DEC 93-A	28 DEC 93-AA
103906-0002-SA	SOLID	ZN-FLAA-S	28 DEC 93-A	28 DEC 93-A	28 DEC 93-AA
103906-0002-SA	SOLID	BA-FLAA-S	28 DEC 93-A	28 DEC 93-A	28 DEC 93-AA
103906-0002-SA	SOLID	HG-CVAA-S	29 DEC 93-E	29 DEC 93-E	29 DEC 93-EA

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DUPLICATE CONTROL SAMPLE REPORT
Metals Analysis and Preparation
Project: 103906

Category: AL-FLAA-S Aluminum, Flame AA
Matrix: SOLID
QC Lot: 28 DEC 93-A
Date Analyzed: 04 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Aluminum	10700	9900	8960	9430	88	47-153	10	20

Category: AS-HAA-S Arsenic, Hydride AA
Matrix: SOLID
QC Lot: 28 DEC 93-A
Date Analyzed: 28 DEC 93
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Arsenic	145	127	129	128	88	59-141	1.6	20

Category: CD-FLAA-S Cadmium, Flame AA
Matrix: SOLID
QC Lot: 28 DEC 93-A
Date Analyzed: 04 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Cadmium	154	172	172	172	112	68-132	0.0	20

Category: CR-FLAA-S Chromium, Flame AA
Matrix: SOLID
QC Lot: 28 DEC 93-A
Date Analyzed: 04 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Chromium	151	152	140	146	97	66-133	8.2	20

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

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DUPLICATE CONTROL SAMPLE REPORT
Metals Analysis and Preparation
Project: 103906

Category: MN-FLAA-S Manganese, Flame AA Method 7460
Matrix: SOLID
QC Lot: 28 DEC 93-A
Date Analyzed: 30 DEC 93
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Manganese	423	391	401	396	94	74-125	2.5	20

Category: NI-FLAA-S Nickel Flame AA
Matrix: SOLID
QC Lot: 28 DEC 93-A
Date Analyzed: 30 DEC 93
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Nickel	166	165	167	166	100	67-133	1.2	20

Category: PB-FLAA-S Method 7420 - Lead, Flame AA
Matrix: SOLID
QC Lot: 28 DEC 93-A
Date Analyzed: 30 DEC 93
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Lead	148	157	151	154	104	66-135	3.9	20

Category: CU-FLAA-S Copper Flame AA
Matrix: SOLID
QC Lot: 28 DEC 93-A
Date Analyzed: 30 DEC 93
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Copper	162	160	159	160	98	68-132	0.63	20

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

Enseco
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DUPLICATE CONTROL SAMPLE REPORT
Metals Analysis and Preparation
Project: 103906

Category: ZN-FLAA-S Zinc, Flame AA
Matrix: SOLID
QC Lot: 28 DEC 93-A
Date Analyzed: 04 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Zinc	530	583	601	592	112	65-135	3.0	20

Category: BA-FLAA-S Barium, Flame AA
Matrix: SOLID
QC Lot: 28 DEC 93-A
Date Analyzed: 04 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Barium	503	527	525	526	105	76-124	0.38	20

Category: HG-CVAA-S Mercury by CVAA
Matrix: SOLID
QC Lot: 29 DEC 93-E
Date Analyzed: 29 DEC 93
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Mercury	29.0	30.9	31.3	31.1	107	52-148	1.3	20

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Metals Analysis and Preparation
Project: 103906

Category: AL-FLAA-S Aluminum, Flame AA
Matrix: SOLID
Sample: 103884-0002
MS Run: 28 DEC 93-AA
Units: mg/kg

Analyte	Concentration Sample Result	MS Result	MSD Result	Amount Spiked MS/MSD	%Recovery MS	MSD	%RPD	Acceptance Limit Recov.	RPD
Aluminum	6340	6110	6110	200	NC	NC	NC	60-130	20

Category: AS-HAA-S Arsenic, Hydride AA
Matrix: SOLID
Sample: 103884-0002
MS Run: 28 DEC 93-AA
Units mg/kg Units Qualifier: Wet wt.

Analyte	Concentration Sample Result	MS Result	MSD Result	Amount Spiked MS/MSD	%Recovery MS	MSD	%RPD	Acceptance Limit Recov.	RPD
Arsenic	2.34	46.6	43.6	50.0	89	83	7.0	50-127	25

Category: CD-FLAA-S Cadmium, Flame AA
Matrix: SOLID
Sample: 103884-0002
MS Run: 28 DEC 93-AA
Units: mg/kg

Analyte	Concentration Sample Result	MS Result	MSD Result	Amount Spiked MS/MSD	%Recovery MS	MSD	%RPD	Acceptance Limit Recov.	RPD
Cadmium	ND	ND	ND	5.00	NC	NC	NC	52-130	28

NC = Not Calculated, calculation not applicable.
ND = Not Detected

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Metals Analysis and Preparation
Project: 103906 (cont.)

Category: CR-FLAA-S Chromium, Flame AA
Matrix: SOLID
Sample: 103884-0002
MS Run: 28 DEC 93-AA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Chromium	ND	26.5	25.9	20.0	133	130	2.3	40-190	33

Category: MN-FLAA-S Manganese, Flame AA Method 7460
Matrix: SOLID
Sample: 103884-0002
MS Run: 28 DEC 93-AA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Manganese	226	248	248	50.0	NC	NC	NC	60-130	40

Category: NI-FLAA-S Nickel Flame AA
Matrix: SOLID
Sample: 103884-0002
MS Run: 28 DEC 93-AA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Nickel	ND	53.0	50.0	50.0	106	100	5.8	55-155	25

NC = Not Calculated, calculation not applicable.
ND = Not Detected

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Metals Analysis and Preparation
Project: 103906 (cont.)

Category: PB-FLAA-S Method 7420 - Lead, Flame AA
Matrix: SOLID
Sample: 103884-0002
MS Run: 28 DEC 93-AA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Lead	ND	54.0	49.0	50.0	108	98	9.7	14-169	40

Category: CU-FLAA-S Copper Flame AA
Matrix: SOLID
Sample: 103884-0002
MS Run: 28 DEC 93-AA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Copper	19.0	45.0	41.0	25.0	104	88	17	49-144	23

Category: ZN-FLAA-S Zinc, Flame AA
Matrix: SOLID
Sample: 103884-0002
MS Run: 28 DEC 93-AA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Zinc	30.9	84.5	78.0	50.0	107	94	13	65-138	25

ND = Not Detected

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Metals Analysis and Preparation
Project: 103906 (cont.)

Category: BA-FLAA-S Barium, Flame AA
Matrix: SOLID
Sample: 103884-0002
MS Run: 28 DEC 93-AA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Barium	114	362	354	200	124	120	3.3	40-130	30

Category: HG-CVAA-S Mercury by CVAA
Matrix: SOLID
Sample: 103884-0002
MS Run: 29 DEC 93-EA
Units mg/kg Units Qualifier: Wet wt.

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Mercury	ND	0.507	0.458	0.438	116	105	10	33-178	40

ND = Not Detected

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

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METHOD BLANK REPORT
Metals Analysis and Preparation
Project: 103906

Test: AL-FLAA-MDL-S Method 7020 - Aluminum, Flame AA
Matrix: SOLID
QC Run: 28 DEC 93-A Date Analyzed: 04 JAN 94

Analyte	Result	Units	Reporting Limit
Aluminum	ND	mg/kg	100

Test: AS-HAA-MDL-S Method 7062 - Arsenic, Hydride AA
Matrix: SOLID
QC Run: 28 DEC 93-A Date Analyzed: 28 DEC 93

Analyte	Result	Units	Reporting Limit
Arsenic	ND	mg/kg	0.50

Test: CD-FLAA-MDL-S Method 7130 - Cadmium, Flame AA
Matrix: SOLID
QC Run: 28 DEC 93-A Date Analyzed: 04 JAN 94

Analyte	Result	Units	Reporting Limit
Cadmium	ND	mg/kg	5.0

Test: CR-FLAA-MDL-S Method 7190 - Chromium, Flame AA
Matrix: SOLID
QC Run: 28 DEC 93-A Date Analyzed: 04 JAN 94

Analyte	Result	Units	Reporting Limit
Chromium	ND	mg/kg	10.0

Test: MN-FLAA-MDL-S Manganese, Flame AA
Matrix: SOLID
QC Run: 28 DEC 93-A Date Analyzed: 30 DEC 93

Analyte	Result	Units	Reporting Limit
Manganese	ND	mg/kg	5.0

ND = Not Detected

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METHOD BLANK REPORT
Metals Analysis and Preparation (cont.)
Project: 103906

Test: NI-FLAA-MDL-S Method 7520 - Nickel, Flame AA
Matrix: SOLID
QC Run: 28 DEC 93-A Date Analyzed: 30 DEC 93

Analyte	Result	Units	Reporting Limit
Nickel	ND	mg/kg	10.0

Test: PB-FLAA-MDL-S Method 7420 - Lead, FLame AA
Matrix: SOLID
QC Run: 28 DEC 93-A Date Analyzed: 30 DEC 93

Analyte	Result	Units	Reporting Limit
Lead	ND	mg/kg	20.0

Test: CU-FLAA-MDL-S Method 7210 - Copper, Flame AA
Matrix: SOLID
QC Run: 28 DEC 93-A Date Analyzed: 30 DEC 93

Analyte	Result	Units	Reporting Limit
Copper	ND	mg/kg	10.0

Test: ZN-FLAA-MDL-S Method 7950 - Zinc, Flame AA
Matrix: SOLID
QC Run: 28 DEC 93-A Date Analyzed: 04 JAN 94

Analyte	Result	Units	Reporting Limit
Zinc	ND	mg/kg	2.0

Test: BA-FLAA-MDL-S Method 7080 - Barium, Flame AA
Matrix: SOLID
QC Run: 28 DEC 93-A Date Analyzed: 04 JAN 94

Analyte	Result	Units	Reporting Limit
Barium	ND	mg/kg	50.0

ND = Not Detected

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METHOD BLANK REPORT
Metals Analysis and Preparation (cont.)
Project: 103906

Test: HG-CVAA-MDL-S Method 7471 - Mercury, Cold Vapor AA
Matrix: SOLID
QC Run: 29 DEC 93-E Date Analyzed: 29 DEC 93

Analyte	Result	Units	Reporting Limit
Mercury	ND	mg/kg	0.10

ND = Not Detected

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QC LOT ASSIGNMENT REPORT - MS QC
Wet Chemistry Analysis and Preparation

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
103906-0001-SA	SOLID	CN-S	03 JAN 94-A	03 JAN 94-A	03 JAN 94-AB
103906-0002-SA	SOLID	CLO3-S	05 JAN 94-A	05 JAN 94-A	05 JAN 94-AA
103906-0003-SA	SOLID	CLO3-S	05 JAN 94-A	05 JAN 94-A	05 JAN 94-AA

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DUPLICATE CONTROL SAMPLE REPORT
Wet Chemistry Analysis and Preparation
Project: 103906

Category: CN-S Cyanide (9012) SOLID
Matrix: SOLID
QC Lot: 03 JAN 94-A Date Analyzed: 03 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Cyanide, Total	5.00	4.35	4.50	4.42	89	70-123	3.4	21

Category: CLO3-S Chlorate, Liquid
Matrix: SOLID
QC Lot: 05 JAN 94-A Date Analyzed: 06 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Chlorate, Solid	10.0	9.40	9.10	9.25	93	80-120	3.2	20

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Wet Chemistry Analysis and Preparation
Project: 103906

Category: CN-S Cyanide (9012) SOLID
Matrix: SOLID
Sample: 103884-0002
MS Run: 03 JAN 94-AB
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Cyanide, Total	ND	4.65	4.40	5.00	93	88	5.6	41-159	48

Category: CLO3-S Chlorate, Liquid
Matrix: SOLID
Sample: 103884-0002
MS Run: 05 JAN 94-AA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Chlorate, Solid	ND	1820	1790	2000	91	90	1.1	80-120	20

ND = Not Detected

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

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METHOD BLANK REPORT
Wet Chemistry Analysis and Preparation
Project: 103906

Test: CN-MDL-S Method 9012 - Cyanide, Total
Matrix: SOLID
QC Run: 03 JAN 94-A Date Analyzed: 03 JAN 94

Analyte	Result	Units	Reporting Limit
Cyanide, Total	ND	mg/kg	0.50

Test: CLO3-MDL-S Method 300.0 - Chlorate, Ion Chromatography
Matrix: SOLID
QC Run: 05 JAN 94-A Date Analyzed: 06 JAN 94

Analyte	Result	Units	Reporting Limit
Chlorate, Solid	ND	mg/kg	1.0

ND = Not Detected

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QC LOT ASSIGNMENT REPORT - MS QC
Volatile Organics by GC/MS

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
103906-0001-SA	SOLID	8240-S	23 DEC 93-AF	27 DEC 93-AF	27 DEC 93-AF
103906-0004-SA	SOLID	8240-S	23 DEC 93-AF	23 DEC 93-AF	27 DEC 93-AF

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DUPLICATE CONTROL SAMPLE REPORT
Volatile Organics by GC/MS
Project: 103906

Category: 8240-S Volatile Organics
Matrix: SOLID
QC Lot: 23 DEC 93-AF
Date Analyzed: 23 DEC 93
Concentration Units: ug/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
1,1-Dichloroethene	50.0	37.3	36.4	36.8	74	50-121	2.4	31
Trichloroethene	50.0	45.2	45.9	45.6	91	69-114	1.5	17
Benzene	50.0	45.7	46.3	46.0	92	78-117	1.3	16
Toluene	50.0	47.0	48.3	47.6	95	79-118	2.7	17
Chlorobenzene	50.0	49.3	48.8	49.0	98	79-119	1.0	17

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

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SINGLE CONTROL SAMPLE REPORT
Volatile Organics by GC/MS
Project: 103906

Category: 8240-S Volatile Organics
Matrix: SOLID
QC Run: 27 DEC 93-AF Date Analyzed: 27 DEC 93
Concentration Units: ug/kg

Analyte	Concentration Spiked	Concentration Measured	Accuracy(%) SCS	Accuracy(%) Limits
1,2-Dichloroethane-d4	50.0	49.4	99	70-121
Toluene-d8	50.0	51.5	103	81-117
Bromofluorobenzene	50.0	49.6	99	74-121

Category: 8240-S Volatile Organics
Matrix: SOLID
QC Run: 23 DEC 93-AF Date Analyzed: 23 DEC 93
Concentration Units: ug/kg

Analyte	Concentration Spiked	Concentration Measured	Accuracy(%) SCS	Accuracy(%) Limits
1,2-Dichloroethane-d4	50.0	48.9	98	70-121
Toluene-d8	50.0	49.5	99	81-117
Bromofluorobenzene	50.0	47.2	94	74-121

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Volatile Organics by GC/MS
Project: 103906

Category: 8240-S Volatile Organics
Matrix: SOLID
Sample: 103884-0003
MS Run: 27 DEC 93-AF
Units: ug/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
1,1-Dichloroethene	ND	36.3	34.2	50.0	73	68	7.1	46-136	28
Trichloroethene	ND	50.1	48.9	50.0	100	98	2.0	58-131	26
Benzene	ND	50.3	49.7	50.0	101	99	2.0	63-139	23
Toluene	ND	52.7	52.5	50.0	105	105	0.0	68-140	24
Chlorobenzene	ND	52.0	50.2	50.0	104	100	3.9	68-138	23

ND = Not Detected

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

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METHOD BLANK REPORT
Volatile Organics by GC/MS
Project: 103906

Test: 8240-HLA-S Method 8240 - Volatile Organics, EPA 8240 Extended List
Matrix: SOLID
QC Run: 27 DEC 93-AF Date Analyzed: 27 DEC 93

Analyte	Result	Units	Reporting Limit
Dichlorodifluoromethane	ND	ug/kg	10
Chloromethane	ND	ug/kg	10
Bromomethane	ND	ug/kg	10
Vinyl chloride	ND	ug/kg	10
Chloroethane	ND	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/kg	5.0
Methylene chloride	TR	ug/kg	5.0
Acetone	ND	ug/kg	10
Trichlorofluoromethane	ND	ug/kg	5.0
1,1-Dichloroethene	ND	ug/kg	5.0
Nitromethane	ND	ug/kg	200
trans-1,2-Dichloroethene	ND	ug/kg	5.0
cis-1,2-Dichloroethene	ND	ug/kg	5.0
1,1-Dichloroethane	ND	ug/kg	5.0
2,2-Dichloropropane	ND	ug/kg	5.0
Bromochloromethane	ND	ug/kg	5.0
Chloroform	ND	ug/kg	5.0
1,1-Dichloropropene	ND	ug/kg	5.0
1,2-Dichloroethane	ND	ug/kg	5.0
Dibromomethane	ND	ug/kg	5.0
1,1,1-Trichloroethane	ND	ug/kg	5.0
Carbon tetrachloride	ND	ug/kg	5.0
Bromodichloromethane	ND	ug/kg	5.0
1,2-Dichloropropane	ND	ug/kg	5.0
1,3-Dichloropropane	ND	ug/kg	5.0
Trichloroethene	ND	ug/kg	5.0
Dibromochloromethane	ND	ug/kg	5.0
1,1,2-Trichloroethane	ND	ug/kg	5.0
Benzene	ND	ug/kg	5.0
Bromoform	ND	ug/kg	5.0
Tetrachloroethene	ND	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.0
Toluene	ND	ug/kg	5.0
Chlorobenzene	ND	ug/kg	5.0
Ethylbenzene	ND	ug/kg	5.0
Styrene	ND	ug/kg	5.0
Xylenes (total)	ND	ug/kg	5.0
1-Methylethylbenzene	ND	ug/kg	5.0
Bromobenzene	ND	ug/kg	5.0
1,2,3-Trichloropropane	ND	ug/kg	5.0
2-Chlorotoluene	ND	ug/kg	5.0
n-Propyl benzene	ND	ug/kg	5.0
1,3,5-Trimethylbenzene	ND	ug/kg	5.0

ND = Not Detected

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METHOD BLANK REPORT
Volatile Organics by GC/MS (cont.)
Project: 103906

Test: 8240-HLA-S Method 8240 - Volatile Organics, EPA 8240 Extended List
Matrix: SOLID
QC Run: 27 DEC 93-AF Date Analyzed: 27 DEC 93

Analyte	Result	Units	Reporting Limit
4-Chlorotoluene	ND	ug/kg	5.0
tert-Butylbenzene	ND	ug/kg	5.0
1,2,4-Trimethylbenzene	ND	ug/kg	5.0
sec-Butylbenzene	ND	ug/kg	5.0
Isopropyltoluene	ND	ug/kg	5.0
1,3-Dichlorobenzene	ND	ug/kg	5.0
1,4-Dichlorobenzene	ND	ug/kg	5.0
n-Butylbenzene	ND	ug/kg	5.0
1,2-Dichlorobenzene	ND	ug/kg	5.0
1,2,4-Trichlorobenzene	ND	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND	ug/kg	5.0
Hexachlorobutadiene	ND	ug/kg	5.0
Naphthalene	ND	ug/kg	5.0
1,2,3-Trichlorobenzene	ND	ug/kg	5.0

ND = Not Detected

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METHOD BLANK REPORT
Volatile Organics by GC/MS (cont.)
Project: 103906

Test: 8240-HLA-S Method 8240 - Volatile Organics, EPA 8240 Extended List
Matrix: SOLID

QC Run: 23 DEC 93-AF Date Analyzed: 23 DEC 93

Analyte	Result	Units	Reporting Limit
Dichlorodifluoromethane	ND	ug/kg	10
Chloromethane	ND	ug/kg	10
Bromomethane	ND	ug/kg	10
Vinyl chloride	ND	ug/kg	10
Chloroethane	ND	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/kg	5.0
Methylene chloride	TR	ug/kg	5.0
Acetone	ND	ug/kg	10
Trichlorofluoromethane	ND	ug/kg	5.0
1,1-Dichloroethene	ND	ug/kg	5.0
Nitromethane	ND	ug/kg	200
trans-1,2-Dichloroethene	ND	ug/kg	5.0
cis-1,2-Dichloroethene	ND	ug/kg	5.0
1,1-Dichloroethane	ND	ug/kg	5.0
2,2-Dichloropropane	ND	ug/kg	5.0
Bromochloromethane	ND	ug/kg	5.0
Chloroform	ND	ug/kg	5.0
1,1-Dichloropropene	ND	ug/kg	5.0
1,2-Dichloroethane	ND	ug/kg	5.0
Dibromomethane	ND	ug/kg	5.0
1,1,1-Trichloroethane	ND	ug/kg	5.0
Carbon tetrachloride	ND	ug/kg	5.0
Bromodichloromethane	ND	ug/kg	5.0
1,2-Dichloropropane	ND	ug/kg	5.0
1,3-Dichloropropane	ND	ug/kg	5.0
Trichloroethene	ND	ug/kg	5.0
Dibromochloromethane	ND	ug/kg	5.0
1,1,2-Trichloroethane	ND	ug/kg	5.0
Benzene	ND	ug/kg	5.0
Bromoform	ND	ug/kg	5.0
Tetrachloroethene	ND	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.0
Toluene	ND	ug/kg	5.0
Chlorobenzene	ND	ug/kg	5.0
Ethylbenzene	ND	ug/kg	5.0
Styrene	ND	ug/kg	5.0
Xylenes (total)	ND	ug/kg	5.0
1-Methylethylbenzene	ND	ug/kg	5.0
Bromobenzene	ND	ug/kg	5.0
1,2,3-Trichloropropane	ND	ug/kg	5.0
2-Chlorotoluene	ND	ug/kg	5.0
n-Propyl benzene	ND	ug/kg	5.0

ND = Not Detected

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METHOD BLANK REPORT
Volatile Organics by GC/MS (cont.)
Project: 103906

Test: 8240-HLA-S Method 8240 - Volatile Organics, EPA 8240 Extended List
Matrix: SOLID

QC Run: 23 DEC 93-AF Date Analyzed: 23 DEC 93

Analyte	Result	Units	Reporting Limit
1,3,5-Trimethylbenzene	ND	ug/kg	5.0
4-Chlorotoluene	ND	ug/kg	5.0
tert-Butylbenzene	ND	ug/kg	5.0
1,2,4-Trimethylbenzene	ND	ug/kg	5.0
sec-Butylbenzene	ND	ug/kg	5.0
Isopropyltoluene	ND	ug/kg	5.0
1,3-Dichlorobenzene	ND	ug/kg	5.0
1,4-Dichlorobenzene	ND	ug/kg	5.0
n-Butylbenzene	ND	ug/kg	5.0
1,2-Dichlorobenzene	ND	ug/kg	5.0
1,2,4-Trichlorobenzene	ND	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND	ug/kg	5.0
Hexachlorobutadiene	ND	ug/kg	5.0
Naphthalene	ND	ug/kg	5.0
1,2,3-Trichlorobenzene	ND	ug/kg	5.0

ND = Not Detected

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QC LOT ASSIGNMENT REPORT - MS QC
Semivolatile Organics by GC/MS

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
103906-0001-SA	SOLID	8270-S	22 DEC 93-B	23 DEC 93-E	22 DEC 93-BA
103906-0004-SA	SOLID	8270-S	22 DEC 93-B	23 DEC 93-E	22 DEC 93-BA

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DUPLICATE CONTROL SAMPLE REPORT
Semivolatile Organics by GC/MS
Project: 103906

Category: 8270-S Method 8270 - TCL Semivolatile Organics
Matrix: SOLID
QC Lot: 22 DEC 93-B Date Analyzed: 23 DEC 93
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Phenol	6.67	5.06	4.37	4.72	71	39-106	15	31
2-Chlorophenol	6.67	4.84	4.62	4.73	71	44-107	4.7	32
1,4-Dichlorobenzene	3.33	2.83	2.75	2.79	84	40-107	2.9	23
N-Nitroso-di-n-propylamine	3.33	2.60	2.58	2.59	78	31-132	0.77	38
1,2,4-Trichlorobenzene	3.33	2.62	2.77	2.70	81	38-120	5.6	22
4-Chloro-3-methylphenol	6.67	4.52	4.83	4.68	70	40-119	6.6	24
Acenaphthene	3.33	2.88	2.97	2.92	88	30-140	3.1	24
2,4-Dinitrotoluene	3.33	2.45	2.72	2.58	78	30-121	10	28
4-Nitrophenol	6.67	5.74	6.29	6.02	90	16-143	9.1	54
Pentachlorophenol	6.67	7.20	7.53	7.36	110	21-152	4.5	43
Pyrene	3.33	3.09	3.32	3.20	96	45-120	7.2	26

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

Enseco
A Corning Company

SINGLE CONTROL SAMPLE REPORT
Semivolatile Organics by GC/MS
Project: 103906

Category: 8270-S Method 8270 - TCL Semivolatile Organics
Matrix: SOLID
QC Run: 23 DEC 93-E Date Analyzed: 28 DEC 93
Concentration Units: mg/kg

Analyte	Concentration Spiked	Concentration Measured	Accuracy(%) SCS	Accuracy(%) Limits
2-Fluorophenol	6.67	5.30	79	25-121
Phenol-d5	6.67	5.07	76	24-113
Nitrobenzene-d5	3.33	2.63	79	23-120
2-Fluorobiphenyl	3.33	2.67	80	30-115
2,4,6-Tribromophenol	6.67	4.77	72	19-122
Terphenyl-d14	3.33	2.62	79	18-137

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

Enseco
A Corning Company

MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Semivolatile Organics by GC/MS
Project: 103906

Category: 8270-S Method 8270 - TCL Semivolatile Organics
Matrix: SOLID
Sample: 103884-0001
MS Run: 22 DEC 93-BA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Phenol	ND	3.32	2.47	6.67	50	37	30	25-110	74
2-Chlorophenol	ND	3.16	2.39	6.67	47	36	27	33-103	42
1,4-Dichlorobenzene	ND	1.74	1.29	3.33	52	39	29	22-110	55
N-Nitroso-di-n-propylamine	ND	1.96	1.43	3.33	59	43	31	18-138	49
1,2,4-Trichlorobenzene	ND	1.81	1.37	3.33	54	41	28	29-119	43
4-Chloro-3-methylphenol	ND	3.77	3.02	6.67	57	45	24	36-119	41
Acenaphthene	ND	1.83	1.43	3.33	55	43	24	17-148	36
2,4-Dinitrotoluene	ND	1.03	0.546	3.33	31	16	65	27-120	41
4-Nitrophenol	ND	5.32	3.74	6.67	80	56	35	16-143	80
Pentachlorophenol	ND	1.04	2.02	6.67	16	30	61	21-152	61
Pyrene	ND	2.39	2.09	3.33	72	63	13	24-133	46

ND = Not Detected

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

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A Corning Company

METHOD BLANK REPORT
Semivolatile Organics by GC/MS
Project: 103906

Test: 8270-HLA-S Method 8270 - Semivolatile Organics
Matrix: SOLID
QC Run: 23 DEC 93-E Date Analyzed: 28 DEC 93

Analyte	Result	Units	Reporting Limit
N-Nitrosodiethylamine	ND	mg/kg	0.33
Phenol	ND	mg/kg	0.33
bis(2-Chloroethyl) ether	ND	mg/kg	0.33
2-Chlorophenol	ND	mg/kg	0.33
1,3-Dichlorobenzene	ND	mg/kg	0.33
1,4-Dichlorobenzene	ND	mg/kg	0.33
Benzyl alcohol	ND	mg/kg	0.33
1,2-Dichlorobenzene	ND	mg/kg	0.33
2-Methylphenol	ND	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND	mg/kg	0.33
3/4-Methylphenol	ND	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND	mg/kg	0.33
Hexachloroethane	ND	mg/kg	0.33
Nitrobenzene	ND	mg/kg	0.33
Isophorone	ND	mg/kg	0.33
2-Nitrophenol	ND	mg/kg	0.33
2,4-Dimethylphenol	ND	mg/kg	0.33
Benzoic acid	ND	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND	mg/kg	0.33
2,4-Dichlorophenol	ND	mg/kg	0.33
1,2,4-Trichlorobenzene	ND	mg/kg	0.33
Naphthalene	ND	mg/kg	0.33
4-Chloroaniline	ND	mg/kg	0.33
Hexachlorobutadiene	ND	mg/kg	0.33
4-Chloro-3-methylphenol	ND	mg/kg	0.33
2-Methylnaphthalene	ND	mg/kg	0.33
Hexachlorocyclopentadiene	ND	mg/kg	0.33
2,4,6-Trichlorophenol	ND	mg/kg	0.33
2,4,5-Trichlorophenol	ND	mg/kg	1.7
2-Chloronaphthalene	ND	mg/kg	0.33
2-Nitroaniline	ND	mg/kg	1.7
Dimethyl phthalate	ND	mg/kg	0.33
Acenaphthylene	ND	mg/kg	0.33
3-Nitroaniline	ND	mg/kg	1.7
Acenaphthene	ND	mg/kg	0.33
2,4-Dinitrophenol	ND	mg/kg	1.7
4-Nitrophenol	ND	mg/kg	1.7
Dibenzofuran	ND	mg/kg	0.33
2,4-Dinitrotoluene	ND	mg/kg	0.33
2,6-Dinitrotoluene	ND	mg/kg	0.33
Diethyl phthalate	ND	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND	mg/kg	0.33
Fluorene	ND	mg/kg	0.33
4-Nitroaniline	ND	mg/kg	1.7
4,6-Dinitro-2-methylphenol	ND	mg/kg	1.7

ND = Not Detected

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A Corning Company

METHOD BLANK REPORT
Semivolatile Organics by GC/MS (cont.)
Project: 103906

Test: 8270-HLA-S Method 8270 - Semivolatile Organics
Matrix: SOLID
QC Run: 23 DEC 93-E Date Analyzed: 28 DEC 93

Analyte	Result	Units	Reporting Limit
N-Nitrosodiphenylamine	ND	mg/kg	0.33
4-Bromophenyl phenyl ether	ND	mg/kg	0.33
Hexachlorobenzene	ND	mg/kg	0.33
Pentachlorophenol	ND	mg/kg	1.7
Phenanthrene	ND	mg/kg	0.33
Anthracene	ND	mg/kg	0.33
Di-n-butyl phthalate	ND	mg/kg	0.33
Fluoranthene	ND	mg/kg	0.33
Pyrene	ND	mg/kg	0.33
Butyl benzyl phthalate	ND	mg/kg	0.33
3,3'-Dichlorobenzidine	ND	mg/kg	0.66
Benzo(a)anthracene	ND	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND	mg/kg	0.33
Chrysene	ND	mg/kg	0.33
Di-n-octyl phthalate	ND	mg/kg	0.33
Benzo(b)fluoranthene	ND	mg/kg	0.33
Benzo(k)fluoranthene	ND	mg/kg	0.33
Benzo(a)pyrene	ND	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND	mg/kg	0.33
Dibenz(a,h)anthracene	ND	mg/kg	0.33
Benzo(g,h,i)perylene	ND	mg/kg	0.33
Xylidine (Total)	ND	mg/kg	0.33

ND = Not Detected

103906 Page 1 of

Harding Lawson Associates
Hutton Centre Drive, Suite 200
Santa Ana, California 92707
714/556-7992 – 213/617-7232
FAX: 714/662-3297

CHAIN OF CUSTODY FORM

Lab: ENSECO CRL

Samplers: Tom Lindros

Job Number: 26522.2.3

Name/Location: AEROJET - AISA

Project Manager: MATT HUNTER

Recorder: [signature] (Signature Required)

SOURCE CODE	MATRIX: Water	Sediment	Soil	Oil	#CONTAINERS & PRESERV.: Unpres.	H_2SO_4	HNO_3	Chilled	SAMPLE NUMBER OR LAB NUMBER: Yr	Wk	Seq	DATE: Yr	Mo	Dy	Time	STATION DESCRIPTION/ NOTES	EPA 601/8010	EPA 602/8020	EPA 624 (8240) VOCs	EPA 625 (8270) SVOCs	Priority Pllntt. Metals	Benzene/Toluene/Xylene	Total Petrol. Hydrocarb.	EPA 9012 (Cyanide)	Chlorate	EPA 6010/7000 metals	HOLD
50			X		X			X	SZB-39-		4.0	93	12	22	1140	2½" x 3" Stainless Sleeve			X	X				X			
50			X		X			X	SZB-39A-		4.50	93	12	22	1203										X	X	
50			X		X			X	SZB-39A-		11.50	93	12	22	1222												X
50			X		X			X	SZB-39A-		11.75	93	12	22	1222												X
50			X		X			X	SZB-39A-		14.50	93	12	22	1227												X
50			X		X			X	SZB-39A-		14.75	93	12	22	1227												X
50			X		X			X	SZB-39A-		20.00	93	12	22	1238										X		
50			X		X			X	SZB-39A-		20.25	93	12	22	1238				X	X							
50			X		X			X	SZB-40-		4.50	93	12	22	1356												X

Custody Seal Nos 8926 & 8927

LAB NUMBER: Yr	Wk	Seq	DEPTH IN FEET	COL MTD CD	QA CODE	MISCELLANEOUS
						- Report to Matt Hunter
						- Analyze per Aerojet Contract
						- Matt Hunter to Fax requested Laboratory analyses.

CHAIN OF CUSTODY RECORD

RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
[signature]	[signature]	12/22/93 1550
[signature]		
[signature]		

DISPATCHED BY: (Signature)	DATE/TIME	RECEIVED FOR LAB BY: (Signature)	DATE/TIME
		[signature]	12/22/93 18:25

METHOD OF SHIPMENT Lab Courier Pickup at Project Site

Laboratory Copy Project Office Copy Field or Office Copy Pink

6533

Enseco
A Corning Company

Enseco - CRL
7440 Lincoln Way • Garden Grove, CA 92641
(714) 898-6370 • (213) 598-0458 • (800) LAB-1-CRL
FAX: (714) 891-5917

January 7, 1994

HARDING LAWSON ASSOCIATES
3 HUTTON CENTRE DRIVE, STE 200
SANTA ANA, CA 92707
ATTN: MR. JOE SERACUSE

Lab No.: 103915-0001/0008
Date Sampled: 23 DEC-1993
Date Sample Rec'd: 23 DEC-1993
Project: AEROJET-AISA

Enclosed with this letter is the report on the chemical and physical analyses on the samples from LAB NO: 103915-0001/0008 shown above.

The samples were received by CRL in a chilled state, intact and with the chain-of-custody record attached.

Note that ND means not detected at the reporting limit expressed. The reporting limit is raised to reflect the dilution factor of the sample.

Solid samples are reported on "as received" basis.

Preliminary 8240 and 8270 data were provided on December 30, 1993 at 3:40 PM to Matt Hunter. Preliminary metals data were provided on January 5, 1994 at 6:25 PM to Matt Hunter. Preliminary chlorate data were provided on January 6, 1994 at 5:30 PM to Matt Hunter.

Case Narrative:

The MS/MSD Percent Recoveries for Aluminum, Cadmium, and Manganese was not within the acceptance limits specified in HLA's "Laboratory Analytical Technical Requirements," nor was it within Enseco's-CRL's established acceptance limits. However, the DCS recoveries were within all acceptable ranges, therefore the data was accepted and no further action was required.

The MS Percent Recovery for Chromium was not within the acceptance limits specified in HLA's "Laboratory Analytical Technical Requirements," but was within Enseco's-CRL's established acceptance limits, therefore the data was accepted and no further action was required.

The MS/MSD Percent Recovery for Pentachlorophenol and 2,4-Dinitrotoluene were not within the acceptance limits specified in HLA's "Laboratory Analytical Technical Requirements," nor was it within Enseco's-CRL'S established acceptance limits. However, the DCS recoveries were within all acceptable ranges, therefore the data was accepted and no further action was required.

Sabrina R. Sudoko
Reviewed

Phillip J. Toy
Approved

The Report Cover Letter is an integral part of this report.

This report pertains only to the samples investigated and does not necessarily apply to other apparently identical or similar materials. This report is submitted for the exclusive use of the client to whom it is addressed. Any reproduction of this report or use of this Laboratory's name for advertising or publicity purposes without authorization is prohibited.

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A Corning Company

SAMPLE DESCRIPTION INFORMATION
for
Harding Lawson Associates

Lab ID	Client ID	Matrix	Sampled Date	Sampled Time	Received Date
103915-0001-SA	SZB-40A-20.00	SOIL	23 DEC 93	08:30	23 DEC 93
103915-0002-SA	SZB-40A-20.25	SOIL	23 DEC 93	08:30	23 DEC 93
103915-0003-SA	SVMW-38-10.00	SOIL	23 DEC 93	11:35	23 DEC 93
103915-0004-SA	SVMW-38-10.25	SOIL	23 DEC 93	11:35	23 DEC 93
103915-0005-SA	SVMW-38-20.00	SOIL	23 DEC 93	11:50	23 DEC 93
103915-0006-SA	SZB-40A-25.25	SOIL	23 DEC 93	08:38	23 DEC 93
103915-0007-SA	SVMW-38-15.00	SOIL	23 DEC 93	11:45	23 DEC 93
103915-0008-SA	SVMW-38-15.25	SOIL	23 DEC 93	11:45	23 DEC 93

Enseco
A Corning Company

METALS

Client Name: Harding Lawson Associates
Client ID: SVMW-38-10.00
[illegible] ID: 103915-0003-SA
Matrix: SOIL Sampled: 23 DEC 93 Received: 23 DEC 93
Authorized: 27 DEC 93 Prepared: See Below Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Aluminum	3330		50.0	100	mg/kg	7020	28 DEC 93	04 JAN 94
Arsenic	3.0		0.20	0.50	mg/kg	7062	28 DEC 93	28 DEC 93
Barium	TR		20.0	50.0	mg/kg	7080	28 DEC 93	04 JAN 94
Chromium	TR		5.0	10.0	mg/kg	7190	28 DEC 93	04 JAN 94
Copper	TR		5.0	10.0	mg/kg	7210	28 DEC 93	30 DEC 93
Lead	ND		20.0	20.0	mg/kg	7420	28 DEC 93	30 DEC 93
Manganese	161		2.0	5.0	mg/kg	7460	28 DEC 93	30 DEC 93
Nickel	ND		5.0	10.0	mg/kg	7520	28 DEC 93	30 DEC 93
Zinc	24.8		1.0	2.0	mg/kg	7950	28 DEC 93	04 JAN 94
Cadmium	ND		2.0	5.0	mg/kg	7130	28 DEC 93	04 JAN 94
Mercury	ND		0.090	0.10	mg/kg	7471	29 DEC 93	29 DEC 93

ND = Not Detected

Enseco
A Corning Company

GENERAL INORGANICS

Client Name: Harding Lawson Associates
Client ID: SZB-40A-20.00
LAB ID: 103915-0001-SA
Matrix: SOIL
Sampled: 23 DEC 93
Received: 23 DEC 93
Authorized: 27 DEC 93
Prepared: See Below
Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Chlorate, Solid	ND		0.50	1.0	mg/kg	300.0	05 JAN 94	06 JAN 94

ND = Not Detected

Enseco
A Corning Company

GENERAL INORGANICS

Client Name: Harding Lawson Associates
Client ID: SVMW-38-10.00
Lab ID: 103915-0003-SA
Matrix: SOIL
Authorized: 27 DEC 93

Sampled: 23 DEC 93
Prepared: See Below

Received: 23 DEC 93
Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Chlorate, Solid	ND		0.50	1.0	mg/kg	300.0	05 JAN 94	06 JAN 94

ND = Not Detected

Enseco
A Corning Company

GENERAL INORGANICS

Client Name: Harding Lawson Associates
Client ID: SVMW-38-20.00
LAB ID: 103915-0005-SA
Matrix: SOIL — Sampled: 23 DEC 93 — Received: 23 DEC 93
Authorized: 27 DEC 93 — Prepared: See Below — Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Chlorate, Solid	ND		0.50	1.0	mg/kg	300.0	05 JAN 94	06 JAN 94

ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-40A-20.25
LAB ID: 103915-0002-SA
Matrix: SOIL Sampled: 23 DEC 93 Received: 23 DEC 93
Authorized: 27 DEC 93 Prepared: 27 DEC 93 Analyzed: 27 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/kg	5.0
Methylene chloride	TR	B	1.1	ug/kg	5.0
Acetone	ND		7.1	ug/kg	10
Trichlorofluoromethane	TR		0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	ND		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	ND		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	ND		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	ND		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0

B = Compound is also detected in the blank.
ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-40A-20.25
LAB ID: 103915-0002-SA
Matrix: SOIL — Sampled: 23 DEC 93 — Received: 23 DEC 93
Authorized: 27 DEC 93 — Prepared: 27 DEC 93 — Analyzed: 27 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
tert-Butylbenzene	ND		0.55	ug/kg	5.0
1,2,4-Trimethylbenzene	ND		0.53	ug/kg	5.0
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	100	%
Toluene-d8	101	%
Bromofluorobenzene	100	%

ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SVMW-38-10.25
LAB ID: 103915-0004-SA
Matrix: SOIL Sampled: 23 DEC 93 Received: 23 DEC 93
Authorized: 27 DEC 93 Prepared: 27 DEC 93 Analyzed: 27 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/kg	5.0
Methylene chloride	TR	B	1.1	ug/kg	5.0
Acetone	ND		7.1	ug/kg	10
Trichlorofluoromethane	ND		0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	ND		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	TR		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	ND		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	TR		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0

B = Compound is also detected in the blank.
ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SVMW-38-10.25
LAB ID: 103915-0004-SA
Matrix: SOIL Sampled: 23 DEC 93 Received: 23 DEC 93
Authorized: 27 DEC 93 Prepared: 27 DEC 93 Analyzed: 27 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
tert-Butylbenzene	ND		0.55	ug/kg	5.0
1,2,4-Trimethylbenzene	ND		0.53	ug/kg	5.0
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	115	%
Toluene-d8	110	%
Bromofluorobenzene	97	%

ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SVMW-38-20.00
LAB ID: 103915-0005-SA
Matrix: SOIL Sampled: 23 DEC 93 Received: 23 DEC 93
Authorized: 27 DEC 93 Prepared: 27 DEC 93 Analyzed: 27 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/kg	5.0
Methylene chloride	ND		1.1	ug/kg	5.0
Acetone	ND		7.1	ug/kg	10
Trichlorofluoromethane	ND		0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	ND		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	TR		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	ND		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	TR		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0
tert-Butylbenzene	ND		0.55	ug/kg	5.0

ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240
(cont.)

Client Name: Harding Lawson Associates
Client ID: SVMW-38-20.00
LAB ID: 103915-0005-SA
Matrix: SOIL Sampled: 23 DEC 93 Received: 23 DEC 93
Authorized: 27 DEC 93 Prepared: 27 DEC 93 Analyzed: 27 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
1,2,4-Trimethylbenzene	ND		0.53	ug/kg	5.0
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	111	%
Toluene-d8	99	%
Bromofluorobenzene	87	%

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-40A-20.25
LAB ID: 103915-0002-SA
Matrix: SOIL Sampled: 23 DEC 93 Received: 23 DEC 93
Authorized: 27 DEC 93 Prepared: 27 DEC 93 Analyzed: 28 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
N-Nitrosodiethylamine	ND		0.26	mg/kg	0.33
Phenol	ND		0.030	mg/kg	0.33
bis(2-Chloroethyl) ether	ND		0.060	mg/kg	0.33
2-Chlorophenol	ND		0.040	mg/kg	0.33
1,3-Dichlorobenzene	ND		0.030	mg/kg	0.33
1,4-Dichlorobenzene	ND		0.060	mg/kg	0.33
Benzyl alcohol	ND		0.070	mg/kg	0.33
1,2-Dichlorobenzene	ND		0.040	mg/kg	0.33
2-Methylphenol	ND		0.030	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND		0.040	mg/kg	0.33
3/4-Methylphenol	ND		0.040	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND		0.030	mg/kg	0.33
Hexachloroethane	ND		0.030	mg/kg	0.33
Nitrobenzene	ND		0.090	mg/kg	0.33
Isophorone	ND		0.040	mg/kg	0.33
2-Nitrophenol	ND		0.050	mg/kg	0.33
2,4-Dimethylphenol	ND		0.030	mg/kg	0.33
Benzoic acid	ND		0.51	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND		0.020	mg/kg	0.33
2,4-Dichlorophenol	ND		0.030	mg/kg	0.33
1,2,4-Trichlorobenzene	ND		0.040	mg/kg	0.33
Naphthalene	ND		0.030	mg/kg	0.33
4-Chloroaniline	ND		0.10	mg/kg	0.33
Hexachlorobutadiene	ND		0.040	mg/kg	0.33
4-Chloro-3-methylphenol	ND		0.040	mg/kg	0.33
2-Methylnaphthalene	ND		0.030	mg/kg	0.33
Hexachlorocyclopentadiene	ND		0.050	mg/kg	0.33
2,4,6-Trichlorophenol	ND		0.040	mg/kg	0.33
2,4,5-Trichlorophenol	ND		0.050	mg/kg	1.7
2-Chloronaphthalene	ND		0.030	mg/kg	0.33
2-Nitroaniline	ND		0.030	mg/kg	1.7
Dimethyl phthalate	ND		0.030	mg/kg	0.33
Acenaphthylene	ND		0.020	mg/kg	0.33
3-Nitroaniline	ND		0.14	mg/kg	1.7
Acenaphthene	ND		0.030	mg/kg	0.33
2,4-Dinitrophenol	ND		0.23	mg/kg	1.7
4-Nitrophenol	ND		0.25	mg/kg	1.7
Dibenzofuran	ND		0.040	mg/kg	0.33
2,4-Dinitrotoluene	ND		0.040	mg/kg	0.33
2,6-Dinitrotoluene	ND		0.050	mg/kg	0.33
Diethyl phthalate	ND		0.020	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND		0.030	mg/kg	0.33
Fluorene	ND		0.030	mg/kg	0.33
4-Nitroaniline	ND		0.18	mg/kg	1.7

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-40A-20.25
LAB ID: 103915-0002-SA
Matrix: SOIL — Sampled: 23 DEC 93 — Received: 23 DEC 93
Authorized: 27 DEC 93 — Prepared: 27 DEC 93 — Analyzed: 28 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
4,6-Dinitro-2-methylphenol	ND		0.36	mg/kg	1.7
N-Nitrosodiphenylamine	ND		0.040	mg/kg	0.33
4-Bromophenyl phenyl ether	ND		0.080	mg/kg	0.33
Hexachlorobenzene	ND		0.030	mg/kg	0.33
Pentachlorophenol	ND		0.19	mg/kg	1.7
Phenanthrene	ND		0.030	mg/kg	0.33
Anthracene	ND		0.020	mg/kg	0.33
Di-n-butyl phthalate	ND		0.24	mg/kg	0.33
Fluoranthene	ND		0.030	mg/kg	0.33
Pyrene	ND		0.020	mg/kg	0.33
Butyl benzyl phthalate	ND		0.030	mg/kg	0.33
3,3'-Dichlorobenzidine	ND		0.33	mg/kg	0.66
Benzo(a)anthracene	ND		0.040	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND		0.13	mg/kg	0.33
Chrysene	ND		0.040	mg/kg	0.33
Di-n-octyl phthalate	ND		0.040	mg/kg	0.33
Benzo(b)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(k)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(a)pyrene	ND		0.040	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND		0.030	mg/kg	0.33
Dibenz(a,h)anthracene	ND		0.030	mg/kg	0.33
Benzo(g,h,i)perylene	ND		0.020	mg/kg	0.33
Xylidine (Total)	ND		0.076	mg/kg	0.33

Surrogate	Recovery	
Nitrobenzene-d5	69	%
2-Fluorobiphenyl	74	%
Terphenyl-d14	72	%
Phenol-d5	66	%
2-Fluorophenol	76	%
2,4,6-Tribromophenol	77	%

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SVMW-38-10.25
LAB ID: 103915-0004-SA
Matrix: SOIL Sampled: 23 DEC 93 Received: 23 DEC 93
Authorized: 27 DEC 93 Prepared: 27 DEC 93 Analyzed: 28 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
N-Nitrosodiethylamine	ND		0.26	mg/kg	0.33
Phenol	ND		0.030	mg/kg	0.33
bis(2-Chloroethyl) ether	ND		0.060	mg/kg	0.33
2-Chlorophenol	ND		0.040	mg/kg	0.33
1,3-Dichlorobenzene	ND		0.030	mg/kg	0.33
1,4-Dichlorobenzene	ND		0.060	mg/kg	0.33
Benzyl alcohol	ND		0.070	mg/kg	0.33
1,2-Dichlorobenzene	ND		0.040	mg/kg	0.33
2-Methylphenol	ND		0.030	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND		0.040	mg/kg	0.33
3/4-Methylphenol	ND		0.040	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND		0.030	mg/kg	0.33
Hexachloroethane	ND		0.030	mg/kg	0.33
Nitrobenzene	ND		0.090	mg/kg	0.33
Isophorone	ND		0.040	mg/kg	0.33
2-Nitrophenol	ND		0.050	mg/kg	0.33
2,4-Dimethylphenol	ND		0.030	mg/kg	0.33
Benzoic acid	ND		0.51	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND		0.020	mg/kg	0.33
2,4-Dichlorophenol	ND		0.030	mg/kg	0.33
1,2,4-Trichlorobenzene	ND		0.040	mg/kg	0.33
Naphthalene	ND		0.030	mg/kg	0.33
4-Chloroaniline	ND		0.10	mg/kg	0.33
Hexachlorobutadiene	ND		0.040	mg/kg	0.33
4-Chloro-3-methylphenol	ND		0.040	mg/kg	0.33
2-Methylnaphthalene	ND		0.030	mg/kg	0.33
Hexachlorocyclopentadiene	ND		0.050	mg/kg	0.33
2,4,6-Trichlorophenol	ND		0.040	mg/kg	0.33
2,4,5-Trichlorophenol	ND		0.050	mg/kg	1.7
2-Chloronaphthalene	ND		0.030	mg/kg	0.33
2-Nitroaniline	ND		0.030	mg/kg	1.7
Dimethyl phthalate	ND		0.030	mg/kg	0.33
Acenaphthylene	ND		0.020	mg/kg	0.33
3-Nitroaniline	ND		0.14	mg/kg	1.7
Acenaphthene	ND		0.030	mg/kg	0.33
2,4-Dinitrophenol	ND		0.23	mg/kg	1.7
4-Nitrophenol	ND		0.25	mg/kg	1.7
Dibenzofuran	ND		0.040	mg/kg	0.33
2,4-Dinitrotoluene	ND		0.040	mg/kg	0.33
2,6-Dinitrotoluene	ND		0.050	mg/kg	0.33
Diethyl phthalate	ND		0.020	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND		0.030	mg/kg	0.33
Fluorene	ND		0.030	mg/kg	0.33
4-Nitroaniline	ND		0.18	mg/kg	1.7

ND = Not Detected

Enseco
A Corning Company

(Cont.)

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SVMW-38-10.25
LAB ID: 103915-0004-SA
Matrix: SOIL Sampled: 23 DEC 93 Received: 23 DEC 93
Authorized: 27 DEC 93 Prepared: 27 DEC 93 Analyzed: 28 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
4,6-Dinitro-2-methylphenol	ND		0.36	mg/kg	1.7
N-Nitrosodiphenylamine	ND		0.040	mg/kg	0.33
4-Bromophenyl phenyl ether	ND		0.080	mg/kg	0.33
Hexachlorobenzene	ND		0.030	mg/kg	0.33
Pentachlorophenol	ND		0.19	mg/kg	1.7
Phenanthrene	ND		0.030	mg/kg	0.33
Anthracene	ND		0.020	mg/kg	0.33
Di-n-butyl phthalate	ND		0.24	mg/kg	0.33
Fluoranthene	ND		0.030	mg/kg	0.33
Pyrene	ND		0.020	mg/kg	0.33
Butyl benzyl phthalate	ND		0.030	mg/kg	0.33
3,3'-Dichlorobenzidine	ND		0.33	mg/kg	0.66
Benzo(a)anthracene	ND		0.040	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND		0.13	mg/kg	0.33
Chrysene	ND		0.040	mg/kg	0.33
Di-n-octyl phthalate	ND		0.040	mg/kg	0.33
Benzo(b)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(k)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(a)pyrene	ND		0.040	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND		0.030	mg/kg	0.33
Dibenz(a,h)anthracene	ND		0.030	mg/kg	0.33
Benzo(g,h,i)perylene	ND		0.020	mg/kg	0.33
Xylidine (Total)	ND		0.076	mg/kg	0.33

Surrogate	Recovery	
Nitrobenzene-d5	62	%
2-Fluorobiphenyl	63	%
Terphenyl-d14	54	%
Phenol-d5	65	%
2-Fluorophenol	62	%
2,4,6-Tribromophenol	62	%

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SVMW-38-20.00
LAB ID: 103915-0005-SA
Matrix: SOIL
Authorized: 27 DEC 93

Sampled: 23 DEC 93
Prepared: 27 DEC 93

Received: 23 DEC 93
Analyzed: 28 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
N-Nitrosodiethylamine	ND		0.26	mg/kg	0.33
Phenol	ND		0.030	mg/kg	0.33
bis(2-Chloroethyl) ether	ND		0.060	mg/kg	0.33
2-Chlorophenol	ND		0.040	mg/kg	0.33
1,3-Dichlorobenzene	ND		0.030	mg/kg	0.33
1,4-Dichlorobenzene	ND		0.060	mg/kg	0.33
Benzyl alcohol	ND		0.070	mg/kg	0.33
1,2-Dichlorobenzene	ND		0.040	mg/kg	0.33
2-Methylphenol	ND		0.030	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND		0.040	mg/kg	0.33
3/4-Methylphenol	ND		0.040	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND		0.030	mg/kg	0.33
Hexachloroethane	ND		0.030	mg/kg	0.33
Nitrobenzene	ND		0.090	mg/kg	0.33
Isophorone	ND		0.040	mg/kg	0.33
2-Nitrophenol	ND		0.050	mg/kg	0.33
2,4-Dimethylphenol	ND		0.030	mg/kg	0.33
Benzoic acid	ND		0.51	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND		0.020	mg/kg	0.33
2,4-Dichlorophenol	ND		0.030	mg/kg	0.33
1,2,4-Trichlorobenzene	ND		0.040	mg/kg	0.33
Naphthalene	ND		0.030	mg/kg	0.33
4-Chloroaniline	ND		0.10	mg/kg	0.33
Hexachlorobutadiene	ND		0.040	mg/kg	0.33
4-Chloro-3-methylphenol	ND		0.040	mg/kg	0.33
2-Methylnaphthalene	ND		0.030	mg/kg	0.33
Hexachlorocyclopentadiene	ND		0.050	mg/kg	0.33
2,4,6-Trichlorophenol	ND		0.040	mg/kg	0.33
2,4,5-Trichlorophenol	ND		0.050	mg/kg	1.7
2-Chloronaphthalene	ND		0.030	mg/kg	0.33
2-Nitroaniline	ND		0.030	mg/kg	1.7
Dimethyl phthalate	ND		0.030	mg/kg	0.33
Acenaphthylene	ND		0.020	mg/kg	0.33
3-Nitroaniline	ND		0.14	mg/kg	1.7
Acenaphthene	ND		0.030	mg/kg	0.33
2,4-Dinitrophenol	ND		0.23	mg/kg	1.7
4-Nitrophenol	ND		0.25	mg/kg	1.7
Dibenzofuran	ND		0.040	mg/kg	0.33
2,4-Dinitrotoluene	ND		0.040	mg/kg	0.33
2,6-Dinitrotoluene	ND		0.050	mg/kg	0.33
Diethyl phthalate	ND		0.020	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND		0.030	mg/kg	0.33
Fluorene	ND		0.030	mg/kg	0.33
4-Nitroaniline	ND		0.18	mg/kg	1.7

ND = Not Detected

Semivolatile Organic Compounds
Method 8270

Enseco (cont.)
A Corning Company

Client Name: Harding Lawson Associates
Client ID: SVMW-38-20.00
LAB ID: 103915-0005-SA
Matrix: SOIL Sampled: 23 DEC 93 Received: 23 DEC 93
Authorized: 27 DEC 93 Prepared: 27 DEC 93 Analyzed: 28 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
4,6-Dinitro-2-methylphenol	ND		0.36	mg/kg	1.7
N-Nitrosodiphenylamine	ND		0.040	mg/kg	0.33
4-Bromophenyl phenyl ether	ND		0.080	mg/kg	0.33
Hexachlorobenzene	ND		0.030	mg/kg	0.33
Pentachlorophenol	ND		0.19	mg/kg	1.7
Phenanthrene	ND		0.030	mg/kg	0.33
Anthracene	ND		0.020	mg/kg	0.33
Di-n-butyl phthalate	ND		0.24	mg/kg	0.33
Fluoranthene	ND		0.030	mg/kg	0.33
Pyrene	ND		0.020	mg/kg	0.33
Butyl benzyl phthalate	ND		0.030	mg/kg	0.33
3,3'-Dichlorobenzidine	ND		0.33	mg/kg	0.66
Benzo(a)anthracene	ND		0.040	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND		0.13	mg/kg	0.33
Chrysene	ND		0.040	mg/kg	0.33
Di-n-octyl phthalate	ND		0.040	mg/kg	0.33
Benzo(b)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(k)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(a)pyrene	ND		0.040	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND		0.030	mg/kg	0.33
Dibenz(a,h)anthracene	ND		0.030	mg/kg	0.33
Benzo(g,h,i)perylene	ND		0.020	mg/kg	0.33
Xylidine (Total)	ND		0.076	mg/kg	0.33

Surrogate	Recovery	
Nitrobenzene-d5	56	%
2-Fluorobiphenyl	56	%
Terphenyl-d14	65	%
Phenol-d5	66	%
2-Fluorophenol	64	%
2,4,6-Tribromophenol	65	%

ND = Not Detected

C LOT ASSIGNMENT REPORT - MS QC
Metals Analysis and Preparation

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
103915-0003-SA	SOLID	AL-FLAA-S	28 DEC 93-A	28 DEC 93-A	28 DEC 93-AA
103915-0003-SA	SOLID	AS-HAA-S	28 DEC 93-A	28 DEC 93-A	28 DEC 93-AA
103915-0003-SA	SOLID	CD-FLAA-S	28 DEC 93-A	28 DEC 93-A	28 DEC 93-AA
103915-0003-SA	SOLID	CR-FLAA-S	28 DEC 93-A	28 DEC 93-A	28 DEC 93-AA
103915-0003-SA	SOLID	MN-FLAA-S	28 DEC 93-A	28 DEC 93-A	28 DEC 93-AA
103915-0003-SA	SOLID	NI-FLAA-S	28 DEC 93-A	28 DEC 93-A	28 DEC 93-AA
103915-0003-SA	SOLID	PB-FLAA-S	28 DEC 93-A	28 DEC 93-A	28 DEC 93-AA
103915-0003-SA	SOLID	CU-FLAA-S	28 DEC 93-A	28 DEC 93-A	28 DEC 93-AA
103915-0003-SA	SOLID	ZN-FLAA-S	28 DEC 93-A	28 DEC 93-A	28 DEC 93-AA
103915-0003-SA	SOLID	BA-FLAA-S	28 DEC 93-A	28 DEC 93-A	28 DEC 93-AA
103915-0003-SA	SOLID	HG-CVAA-S	29 DEC 93-E	29 DEC 93-E	29 DEC 93-EA

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DUPLICATE CONTROL SAMPLE REPORT
Metals Analysis and Preparation
Project: 103915

Category: AL-FLAA-S Aluminum, Flame AA
Matrix: SOLID
QC Lot: 28 DEC 93-A
Date Analyzed: 04 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Aluminum	10700	9900	8960	9430	88	47-153	10	20

Category: AS-HAA-S Arsenic, Hydride AA
Matrix: SOLID
QC Lot: 28 DEC 93-A
Date Analyzed: 28 DEC 93
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Arsenic	145	127	129	128	88	59-141	1.6	20

Category: CD-FLAA-S Cadmium, Flame AA
Matrix: SOLID
QC Lot: 28 DEC 93-A
Date Analyzed: 04 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Cadmium	154	172	172	172	112	68-132	0.0	20

Category: CR-FLAA-S Chromium, Flame AA
Matrix: SOLID
QC Lot: 28 DEC 93-A
Date Analyzed: 04 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Chromium	151	152	140	146	97	66-133	8.2	20

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

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DUPLICATE CONTROL SAMPLE REPORT
Metals Analysis and Preparation
Project: 103915

Category: MN-FLAA-S Manganese, Flame AA Method 7460
Matrix: SOLID
QC Lot: 28 DEC 93-A
Date Analyzed: 30 DEC 93
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Manganese	423	391	401	396	94	74-125	2.5	20

Category: NI-FLAA-S Nickel Flame AA
Matrix: SOLID
QC Lot: 28 DEC 93-A
Date Analyzed: 30 DEC 93
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Nickel	166	165	167	166	100	67-133	1.2	20

Category: PB-FLAA-S Method 7420 - Lead, Flame AA
Matrix: SOLID
QC Lot: 28 DEC 93-A
Date Analyzed: 30 DEC 93
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Lead	148	157	151	154	104	66-135	3.9	20

Category: CU-FLAA-S Copper Flame AA
Matrix: SOLID
QC Lot: 28 DEC 93-A
Date Analyzed: 30 DEC 93
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Copper	162	160	159	160	98	68-132	0.63	20

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

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DUPLICATE CONTROL SAMPLE REPORT
Metals Analysis and Preparation
Project: 103915

Category: ZN-FLAA-S Zinc, Flame AA
Matrix: SOLID
QC Lot: 28 DEC 93-A
Date Analyzed: 04 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Zinc	530	583	601	592	112	65-135	3.0	20

Category: BA-FLAA-S Barium, Flame AA
Matrix: SOLID
QC Lot: 28 DEC 93-A
Date Analyzed: 04 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Barium	503	527	525	526	105	76-124	0.38	20

Category: HG-CVAA-S Mercury by CVAA
Matrix: SOLID
QC Lot: 29 DEC 93-E
Date Analyzed: 29 DEC 93
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Mercury	29.0	30.9	31.3	31.1	107	52-148	1.3	20

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Metals Analysis and Preparation
Project: 103915

Category: AL-FLAA-S Aluminum, Flame AA
Matrix: SOLID
Sample: 103884-0002
MS Run: 28 DEC 93-AA
Units: mg/kg

Analyte	Concentration Sample Result	MS Result	MSD Result	Amount Spiked MS/MSD	%Recovery MS	MSD	%RPD	Acceptance Limit Recov.	RPD
Aluminum	6340	6110	6110	200	NC	NC	NC	60-130	20

Category: AS-HAA-S Arsenic, Hydride AA
Matrix: SOLID
Sample: 103884-0002
MS Run: 28 DEC 93-AA
Units mg/kg Units Qualifier: Wet wt.

Analyte	Concentration Sample Result	MS Result	MSD Result	Amount Spiked MS/MSD	%Recovery MS	MSD	%RPD	Acceptance Limit Recov.	RPD
Arsenic	2.34	46.6	43.6	50.0	89	83	7.0	50-127	25

Category: CD-FLAA-S Cadmium, Flame AA
Matrix: SOLID
Sample: 103884-0002
MS Run: 28 DEC 93-AA
Units: mg/kg

Analyte	Concentration Sample Result	MS Result	MSD Result	Amount Spiked MS/MSD	%Recovery MS	MSD	%RPD	Acceptance Limit Recov.	RPD
Cadmium	ND	ND	ND	5.00	NC	NC	NC	52-130	28

NC = Not Calculated, calculation not applicable.
ND = Not Detected

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Metals Analysis and Preparation
Project: 103915 (cont.)

Category: CR-FLAA-S Chromium, Flame AA
Matrix: SOLID
Sample: 103884-0002
MS Run: 28 DEC 93-AA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Chromium	ND	26.5	25.9	20.0	133	130	2.3	40-190	33

Category: MN-FLAA-S Manganese, Flame AA Method 7460
Matrix: SOLID
Sample: 103884-0002
MS Run: 28 DEC 93-AA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Manganese	226	248	248	50.0	NC	NC	NC	60-130	40

Category: NI-FLAA-S Nickel Flame AA
Matrix: SOLID
Sample: 103884-0002
MS Run: 28 DEC 93-AA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Nickel	ND	53.0	50.0	50.0	106	100	5.8	55-155	25

NC = Not Calculated, calculation not applicable.
ND = Not Detected

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Metals Analysis and Preparation
Project: 103915 (cont.)

Category: PB-FLAA-S Method 7420 - Lead, Flame AA
Matrix: SOLID
Sample: 103884-0002
MS Run: 28 DEC 93-AA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Lead	ND	54.0	49.0	50.0	108	98	9.7	14-169	40

Category: CU-FLAA-S Copper Flame AA
Matrix: SOLID
Sample: 103884-0002
MS Run: 28 DEC 93-AA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Copper	19.0	45.0	41.0	25.0	104	88	17	49-144	23

Category: ZN-FLAA-S Zinc, Flame AA
Matrix: SOLID
Sample: 103884-0002
MS Run: 28 DEC 93-AA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Zinc	30.9	84.5	78.0	50.0	107	94	13	65-138	25

ND = Not Detected

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Metals Analysis and Preparation
Project: 103915 (cont.)

Category: BA-FLAA-S Barium, Flame AA
Matrix: SOLID
Sample: 103884-0002
MS Run: 28 DEC 93-AA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Barium	114	362	354	200	124	120	3.3	40-130	30

Category: HG-CVAA-S Mercury by CVAA
Matrix: SOLID
Sample: 103884-0002
MS Run: 29 DEC 93-EA
Units mg/kg Units Qualifier: Wet wt.

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Mercury	ND	0.507	0.458	0.438	116	105	10	33-178	40

ND = Not Detected

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

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METHOD BLANK REPORT
Metals Analysis and Preparation
Project: 103915

Test: AL-FLAA-MDL-S Method 7020 - Aluminum, Flame AA
Matrix: SOLID
QC Run: 28 DEC 93-A Date Analyzed: 04 JAN 94

Analyte	Result	Units	Reporting Limit
Aluminum	ND	mg/kg	100

Test: AS-HAA-MDL-S Method 7062 - Arsenic, Hydride AA
Matrix: SOLID
QC Run: 28 DEC 93-A Date Analyzed: 28 DEC 93

Analyte	Result	Units	Reporting Limit
Arsenic	ND	mg/kg	0.50

Test: CD-FLAA-MDL-S Method 7130 - Cadmium, Flame AA
Matrix: SOLID
QC Run: 28 DEC 93-A Date Analyzed: 04 JAN 94

Analyte	Result	Units	Reporting Limit
Cadmium	ND	mg/kg	5.0

Test: CR-FLAA-MDL-S Method 7190 - Chromium, Flame AA
Matrix: SOLID
QC Run: 28 DEC 93-A Date Analyzed: 04 JAN 94

Analyte	Result	Units	Reporting Limit
Chromium	ND	mg/kg	10.0

Test: MN-FLAA-MDL-S Manganese, Flame AA
Matrix: SOLID
QC Run: 28 DEC 93-A Date Analyzed: 30 DEC 93

Analyte	Result	Units	Reporting Limit
Manganese	ND	mg/kg	5.0

ND = Not Detected

METHOD BLANK REPORT
Metals Analysis and Preparation (cont.)
Project: 103915

Test: NI-FLAA-MDL-S Method 7520 - Nickel, Flame AA
Matrix: SOLID
QC Run: 28 DEC 93-A Date Analyzed: 30 DEC 93

Analyte	Result	Units	Reporting Limit
Nickel	ND	mg/kg	10.0

Test: PB-FLAA-MDL-S Method 7420 - Lead, FLame AA
Matrix: SOLID
QC Run: 28 DEC 93-A Date Analyzed: 30 DEC 93

Analyte	Result	Units	Reporting Limit
Lead	ND	mg/kg	20.0

Test: CU-FLAA-MDL-S Method 7210 - Copper, Flame AA
Matrix: SOLID
QC Run: 28 DEC 93-A Date Analyzed: 30 DEC 93

Analyte	Result	Units	Reporting Limit
Copper	ND	mg/kg	10.0

Test: ZN-FLAA-MDL-S Method 7950 - Zinc, Flame AA
Matrix: SOLID
QC Run: 28 DEC 93-A Date Analyzed: 04 JAN 94

Analyte	Result	Units	Reporting Limit
Zinc	ND	mg/kg	2.0

Test: BA-FLAA-MDL-S Method 7080 - Barium, Flame AA
Matrix: SOLID
QC Run: 28 DEC 93-A Date Analyzed: 04 JAN 94

Analyte	Result	Units	Reporting Limit
Barium	ND	mg/kg	50.0

ND = Not Detected

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METHOD BLANK REPORT
Metals Analysis and Preparation (cont.)
Project: 103915

Test: HG-CVAA-MDL-S Method 7471 - Mercury, Cold Vapor AA
Matrix: SOLID
QC Run: 29 DEC 93-E Date Analyzed: 29 DEC 93

Analyte	Result	Units	Reporting Limit
Mercury	ND	mg/kg	0.10

ND = Not Detected

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QC LOT ASSIGNMENT REPORT - MS QC
Wet Chemistry Analysis and Preparation

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
103915-0001-SA	SOLID	CLO3-S	05 JAN 94-A	05 JAN 94-A	05 JAN 94-AA
103915-0003-SA	SOLID	CLO3-S	05 JAN 94-A	05 JAN 94-A	05 JAN 94-AA
103915-0005-SA	SOLID	CLO3-S	05 JAN 94-A	05 JAN 94-A	05 JAN 94-AA

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DUPLICATE CONTROL SAMPLE REPORT
Wet Chemistry Analysis and Preparation
Project: 103915

Category: CLO3-S Chlorate, Liquid
Matrix: SOLID
QC Lot: 05 JAN 94-A
Date Analyzed: 06 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Chlorate, Solid	10.0	9.40	9.10	9.25	93	80-120	3.2	20

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Wet Chemistry Analysis and Preparation
Project: 103915

Category: CLO3-S Chlorate, Liquid
Matrix: SOLID
Sample: 103884-0002
MS Run: 05 JAN 94-AA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Chlorate, Solid	ND	1820	1790	2000	91	90	1.1	80-120	20

ND = Not Detected

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

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METHOD BLANK REPORT
Wet Chemistry Analysis and Preparation
Project: 103915

Test: CLO3-MDL-S Method 300.0 - Chlorate, Ion Chromatography
Matrix: SOLID
QC Run: 05 JAN 94-A Date Analyzed: 06 JAN 94

Analyte	Result	Units	Reporting Limit
Chlorate, Solid	ND	mg/kg	1.0

ND = Not Detected

QC LOT ASSIGNMENT REPORT - MS QC
Volatile Organics by GC/MS

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
103915-0002-SA	SOLID	8240-S	23 DEC 93-AF	27 DEC 93-AF	27 DEC 93-AF
103915-0004-SA	SOLID	8240-S	23 DEC 93-AF	27 DEC 93-AF	27 DEC 93-AF
103915-0005-SA	SOLID	8240-S	23 DEC 93-AF	27 DEC 93-AF	27 DEC 93-AF

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DUPLICATE CONTROL SAMPLE REPORT
Volatile Organics by GC/MS
Project: 103915

Category: 8240-S Volatile Organics
Matrix: SOLID
QC Lot: 23 DEC 93-AF
Date Analyzed: 23 DEC 93
Concentration Units: ug/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
1,1-Dichloroethene	50.0	37.3	36.4	36.8	74	50-121	2.4	31
Trichloroethene	50.0	45.2	45.9	45.6	91	69-114	1.5	17
Benzene	50.0	45.7	46.3	46.0	92	78-117	1.3	16
Toluene	50.0	47.0	48.3	47.6	95	79-118	2.7	17
Chlorobenzene	50.0	49.3	48.8	49.0	98	79-119	1.0	17

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Volatile Organics by GC/MS
Project: 103915

Category: 8240-S Volatile Organics
Matrix: SOLID
Sample: 103884-0003
MS Run: 27 DEC 93-AF
Units: ug/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
1,1-Dichloroethene	ND	36.3	34.2	50.0	73	68	7.1	46-136	28
Trichloroethene	ND	50.1	48.9	50.0	100	98	2.0	58-131	26
Benzene	ND	50.3	49.7	50.0	101	99	2.0	63-139	23
Toluene	ND	52.7	52.5	50.0	105	105	0.0	68-140	24
Chlorobenzene	ND	52.0	50.2	50.0	104	100	3.9	68-138	23

ND = Not Detected

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

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SINGLE CONTROL SAMPLE REPORT
Volatile Organics by GC/MS
Project: 103915

Category: 8240-S Volatile Organics
Matrix: SOLID
QC Run: 27 DEC 93-AF Date Analyzed: 27 DEC 93
Concentration Units: ug/kg

Analyte	Concentration Spiked	Concentration Measured	Accuracy(%) SCS	Accuracy(%) Limits
1,2-Dichloroethane-d4	50.0	49.4	99	70-121
Toluene-d8	50.0	51.5	103	81-117
Bromofluorobenzene	50.0	49.6	99	74-121

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

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METHOD BLANK REPORT
Volatile Organics by GC/MS
Project: 103915

Test: 8240-HLA-S Method 8240 - Volatile Organics, EPA 8240 Extended List
Matrix: SOLID
QC Run: 27 DEC 93-AF Date Analyzed: 27 DEC 93

Analyte	Result	Units	Reporting Limit
Dichlorodifluoromethane	ND	ug/kg	10
Chloromethane	ND	ug/kg	10
Bromomethane	ND	ug/kg	10
Vinyl chloride	ND	ug/kg	10
Chloroethane	ND	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/kg	5.0
Methylene chloride	TR	ug/kg	5.0
Acetone	ND	ug/kg	10
Trichlorofluoromethane	ND	ug/kg	5.0
1,1-Dichloroethene	ND	ug/kg	5.0
Nitromethane	ND	ug/kg	200
trans-1,2-Dichloroethene	ND	ug/kg	5.0
cis-1,2-Dichloroethene	ND	ug/kg	5.0
1,1-Dichloroethane	ND	ug/kg	5.0
2,2-Dichloropropane	ND	ug/kg	5.0
Bromochloromethane	ND	ug/kg	5.0
Chloroform	ND	ug/kg	5.0
1,1-Dichloropropene	ND	ug/kg	5.0
1,2-Dichloroethane	ND	ug/kg	5.0
Dibromomethane	ND	ug/kg	5.0
1,1,1-Trichloroethane	ND	ug/kg	5.0
Carbon tetrachloride	ND	ug/kg	5.0
Bromodichloromethane	ND	ug/kg	5.0
1,2-Dichloropropane	ND	ug/kg	5.0
1,3-Dichloropropane	ND	ug/kg	5.0
Trichloroethene	ND	ug/kg	5.0
Dibromochloromethane	ND	ug/kg	5.0
1,1,2-Trichloroethane	ND	ug/kg	5.0
Benzene	ND	ug/kg	5.0
Bromoform	ND	ug/kg	5.0
Tetrachloroethene	ND	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.0
Toluene	ND	ug/kg	5.0
Chlorobenzene	ND	ug/kg	5.0
Ethylbenzene	ND	ug/kg	5.0
Styrene	ND	ug/kg	5.0
Xylenes (total)	ND	ug/kg	5.0
1-Methylethylbenzene	ND	ug/kg	5.0
Bromobenzene	ND	ug/kg	5.0
1,2,3-Trichloropropane	ND	ug/kg	5.0
2-Chlorotoluene	ND	ug/kg	5.0
n-Propyl benzene	ND	ug/kg	5.0
1,3,5-Trimethylbenzene	ND	ug/kg	5.0

ND = Not Detected

METHOD BLANK REPORT
Volatile Organics by GC/MS (cont.)
Project: 103915

Test: 8240-HLA-S Method 8240 - Volatile Organics, EPA 8240 Extended List
Matrix: SOLID
QC Run: 27 DEC 93-AF Date Analyzed: 27 DEC 93

Analyte	Result	Units	Reporting Limit
4-Chlorotoluene	ND	ug/kg	5.0
tert-Butylbenzene	ND	ug/kg	5.0
1,2,4-Trimethylbenzene	ND	ug/kg	5.0
sec-Butylbenzene	ND	ug/kg	5.0
Isopropyltoluene	ND	ug/kg	5.0
1,3-Dichlorobenzene	ND	ug/kg	5.0
1,4-Dichlorobenzene	ND	ug/kg	5.0
n-Butylbenzene	ND	ug/kg	5.0
1,2-Dichlorobenzene	ND	ug/kg	5.0
1,2,4-Trichlorobenzene	ND	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND	ug/kg	5.0
Hexachlorobutadiene	ND	ug/kg	5.0
Naphthalene	ND	ug/kg	5.0
1,2,3-Trichlorobenzene	ND	ug/kg	5.0

ND = Not Detected

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QC LOT ASSIGNMENT REPORT - MS QC
Semivolatile Organics by GC/MS

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
103915-0002-SA	SOLID	8270-S	22 DEC 93-B	27 DEC 93-A	22 DEC 93-BA
103915-0004-SA	SOLID	8270-S	22 DEC 93-B	27 DEC 93-A	22 DEC 93-BA
103915-0005-SA	SOLID	8270-S	22 DEC 93-B	27 DEC 93-A	22 DEC 93-BA

Enseco
A Corning Company

DUPLICATE CONTROL SAMPLE REPORT
Semivolatile Organics by GC/MS
Project: 103915

Category: 8270-S Method 8270 - TCL Semivolatile Organics
Matrix: SOLID
QC Lot: 22 DEC 93-B Date Analyzed: 23 DEC 93
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average(%) DCS	Accuracy Limits	Precision (RPD) DCS	Precision Limit
Phenol	6.67	5.06	4.37	4.72	71	39-106	15	31
2-Chlorophenol	6.67	4.84	4.62	4.73	71	44-107	4.7	32
1,4-Dichlorobenzene	3.33	2.83	2.75	2.79	84	40-107	2.9	23
N-Nitroso-di-n-propylamine	3.33	2.60	2.58	2.59	78	31-132	0.77	38
1,2,4-Trichlorobenzene	3.33	2.62	2.77	2.70	81	38-120	5.6	22
4-Chloro-3-methylphenol	6.67	4.52	4.83	4.68	70	40-119	6.6	24
Acenaphthene	3.33	2.88	2.97	2.92	88	30-140	3.1	24
2,4-Dinitrotoluene	3.33	2.45	2.72	2.58	78	30-121	10	28
4-Nitrophenol	6.67	5.74	6.29	6.02	90	16-143	9.1	54
Pentachlorophenol	6.67	7.20	7.53	7.36	110	21-152	4.5	43
Pyrene	3.33	3.09	3.32	3.20	96	45-120	7.2	26

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

Enseco
A Corning Company

MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Semivolatile Organics by GC/MS
Project: 103915

Category: 8270-S Method 8270 - TCL Semivolatile Organics
Matrix: SOLID
Sample: 103884-0001
MS Run: 22 DEC 93-BA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Phenol	ND	3.32	2.47	6.67	50	37	30	25-110	74
2-Chlorophenol	ND	3.16	2.39	6.67	47	36	27	33-103	42
1,4-Dichlorobenzene	ND	1.74	1.29	3.33	52	39	29	22-110	55
N-Nitroso-di-n-propylamine	ND	1.96	1.43	3.33	59	43	31	18-138	49
1,2,4-Trichlorobenzene	ND	1.81	1.37	3.33	54	41	28	29-119	43
4-Chloro-3-methylphenol	ND	3.77	3.02	6.67	57	45	24	36-119	41
Acenaphthene	ND	1.83	1.43	3.33	55	43	24	17-148	36
2,4-Dinitrotoluene	ND	1.03	0.546	3.33	31	16	65	27-120	41
4-Nitrophenol	ND	5.32	3.74	6.67	80	56	35	16-143	80
Pentachlorophenol	ND	1.04	2.02	6.67	16	30	61	21-152	61
Pyrene	ND	2.39	2.09	3.33	72	63	13	24-133	46

ND = Not Detected

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

Enseco
A Corning Company

SINGLE CONTROL SAMPLE REPORT
Semivolatile Organics by GC/MS
Project: 103915

Category: 8270-S Method 8270 - TCL Semivolatile Organics
Matrix: SOLID
QC Run: 27 DEC 93-A Date Analyzed: 27 DEC 93
Concentration Units: mg/kg

Analyte	Concentration Spiked	Concentration Measured	Accuracy(%) SCS	Accuracy(%) Limits
2-Fluorophenol	6.67	4.95	74	25-121
Phenol-d5	6.67	4.27	64	24-113
Nitrobenzene-d5	3.33	2.35	71	23-120
2-Fluorobiphenyl	3.33	2.78	83	30-115
2,4,6-Tribromophenol	6.67	4.51	68	19-122
Terphenyl-d14	3.33	2.55	77	18-137

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

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METHOD BLANK REPORT
Semivolatile Organics by GC/MS
Project: 103915

Test: 8270-HLA-S Method 8270 - Semivolatile Organics
Matrix: SOLID
QC Run: 27 DEC 93-A

Date Analyzed: 27 DEC 93

Analyte	Result	Units	Reporting Limit
N-Nitrosodiethylamine	ND	mg/kg	0.33
Phenol	ND	mg/kg	0.33
bis(2-Chloroethyl) ether	ND	mg/kg	0.33
2-Chlorophenol	ND	mg/kg	0.33
1,3-Dichlorobenzene	ND	mg/kg	0.33
1,4-Dichlorobenzene	ND	mg/kg	0.33
Benzyl alcohol	ND	mg/kg	0.33
1,2-Dichlorobenzene	ND	mg/kg	0.33
2-Methylphenol	ND	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND	mg/kg	0.33
3/4-Methylphenol	ND	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND	mg/kg	0.33
Hexachloroethane	ND	mg/kg	0.33
Nitrobenzene	ND	mg/kg	0.33
Isophorone	ND	mg/kg	0.33
2-Nitrophenol	ND	mg/kg	0.33
2,4-Dimethylphenol	ND	mg/kg	0.33
Benzoic acid	ND	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND	mg/kg	0.33
2,4-Dichlorophenol	ND	mg/kg	0.33
1,2,4-Trichlorobenzene	ND	mg/kg	0.33
Naphthalene	ND	mg/kg	0.33
4-Chloroaniline	ND	mg/kg	0.33
Hexachlorobutadiene	ND	mg/kg	0.33
4-Chloro-3-methylphenol	ND	mg/kg	0.33
2-Methylnaphthalene	ND	mg/kg	0.33
Hexachlorocyclopentadiene	ND	mg/kg	0.33
2,4,6-Trichlorophenol	ND	mg/kg	0.33
2,4,5-Trichlorophenol	ND	mg/kg	1.7
2-Chloronaphthalene	ND	mg/kg	0.33
2-Nitroaniline	ND	mg/kg	1.7
Dimethyl phthalate	ND	mg/kg	0.33
Acenaphthylene	ND	mg/kg	0.33
3-Nitroaniline	ND	mg/kg	1.7
Acenaphthene	ND	mg/kg	0.33
2,4-Dinitrophenol	ND	mg/kg	1.7
4-Nitrophenol	ND	mg/kg	1.7
Dibenzofuran	ND	mg/kg	0.33
2,4-Dinitrotoluene	ND	mg/kg	0.33
2,6-Dinitrotoluene	ND	mg/kg	0.33
Diethyl phthalate	ND	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND	mg/kg	0.33
Fluorene	ND	mg/kg	0.33
4-Nitroaniline	ND	mg/kg	1.7
4,6-Dinitro-2-methylphenol	ND	mg/kg	1.7

ND = Not Detected

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METHOD BLANK REPORT
Semivolatile Organics by GC/MS (cont.)
Project: 103915

Test: 8270-HLA-S Method 8270 - Semivolatile Organics
Matrix: SOLID
QC Run: 27 DEC 93-A Date Analyzed: 27 DEC 93

Analyte	Result	Units	Reporting Limit
N-Nitrosodiphenylamine	ND	mg/kg	0.33
4-Bromophenyl phenyl ether	ND	mg/kg	0.33
Hexachlorobenzene	ND	mg/kg	0.33
Pentachlorophenol	ND	mg/kg	1.7
Phenanthrene	ND	mg/kg	0.33
Anthracene	ND	mg/kg	0.33
Di-n-butyl phthalate	ND	mg/kg	0.33
Fluoranthene	ND	mg/kg	0.33
Pyrene	ND	mg/kg	0.33
Butyl benzyl phthalate	ND	mg/kg	0.33
3,3'-Dichlorobenzidine	ND	mg/kg	0.66
Benzo(a)anthracene	ND	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND	mg/kg	0.33
Chrysene	ND	mg/kg	0.33
Di-n-octyl phthalate	ND	mg/kg	0.33
Benzo(b)fluoranthene	ND	mg/kg	0.33
Benzo(k)fluoranthene	ND	mg/kg	0.33
Benzo(a)pyrene	ND	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND	mg/kg	0.33
Dibenz(a,h)anthracene	ND	mg/kg	0.33
Benzo(g,h,i)perylene	ND	mg/kg	0.33
Xylidine (Total)	ND	mg/kg	0.33

ND = Not Detected

Harding Lawson Associates
3 Hutton Centre Drive, Suite 200
Santa Ana, California 92707
714/556-7992 – 213/617-7232
FAX: 714/662-3297

CHAIN OF CUSTODY FORM

103915

Lab: Enseco Crl

Job Number: 26522.2.3 (SZB) / 26522.2.4 (SVMW)
Name/Location: Aerojet - AISA
Project Manager: Matt Hunter

Samplers: Tom Lindros, Karen Witbaard
Recorder: [signature] (Signature Required)

SOURCE CODE	MATRIX: Water	Sediment	Soil	Oil	#CONTAINERS & PRESERV.: Unpres.	H_2SO_4	HNO_3	Chilled	SAMPLE NUMBER OR LAB NUMBER: Yr	Wk	Seq	DATE: Yr	Mo	Dy	Time	STATION DESCRIPTION/ NOTES	EPA 601/8010	EPA 602/8020	EPA 624/8240	EPA 625/8270	Priority Pltnt. Metals	Benzene/Toluene/Xylene	Total Petrol. Hydrocarb.	EPA 9012 cyanide	Chlorate	EPA 6010/7000 metals			HOLD
50			X		X			X	SZB-40A-20.00			93	12	23	0830	2½" ø x 3" stainless sleeve								X					
50			X		X			X	SZB-40A-20.25			93	12	23	0830				X	X									
50			X		X			X	SZB-40A-25.25			93	12	23	0838														X
50			X		1			X	SVMW-38-10.00			93	12	23	1135									X	X				
50			X		1			X	SVMW-38 10.25			93	12	23	1135				X	X									
50			X		1			X	SVMW-38 15.00			93	12	23	1145														X
50			X		1			X	SVMW-38 15.25			93	12	23	1145														X
50			X		1			X	SVMW-38 20.00			93	12	23	1150				X	X				X					

Custody Seal No's 0917 and 0918

LAB NUMBER: Yr	Wk	Seq	DEPTH IN FEET	COL MTD CD	QA CODE	MISCELLANEOUS
						-Report to Matt Hunter -Analyze per Aerojet Contract ~~-Matt Hunter to fax requested laboratory analyses~~ [initials]

CHAIN OF CUSTODY RECORD

RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
[signature]	[signature]	12-23-93 155
[signature] 12-23-93 155		

DISPATCHED BY: (Signature) DATE/TIME

RECEIVED FOR LAB BY: (Signature) Virginia Luna DATE/TIME 12/23/93 15:55

METHOD OF SHIPMENT Lab Courier Pickup at Project Site

Laboratory Copy White — Project Office Copy Yellow — Field or Office Copy Pink

Enseco
A Corning Company

Enseco - CRL
7440 Lincoln Way • Garden Grove, CA 92641
(714) 898-6370 • (213) 598-0458 • (800) LAB-1-CRL
FAX: (714) 891-5917

January 10, 1994

HARDING LAWSON ASSOCIATES
3 HUTTON CENTRE DRIVE, STE 200
SANTA ANA, CA 92707
ATTN: MR. MATT HUNTER

Lab No.: 103928-0001/0024
Date Sampled: 27 DEC-1993
Date Sample Rec'd: 27 DEC-1993
Project: (26522-2.3) AEROJET-AISA

Enclosed with this letter is the report on the chemical and physical analyses on the samples from LAB NO: 103928-0001/0024 shown above.

The samples were received by CRL in a chilled state, intact and with the chain-of-custody record attached.

Note that ND means not detected at the reporting limit expressed. The reporting limit is raised to reflect the dilution factor of the sample.

Solid samples are reported on "as received" basis.

Preliminary data were provided on January 10, 1994 at 9:45 A.M. Matt Hunter.

Case Narrative:

The MS/MSD Percent Recoveries for Aluminum, Cadmium, and Manganese were not within the acceptance limits specified in HLA's "Laboratory Analytical Technical Requirements," nor was it within Enseco's-CRL's established acceptance limits. However, the DCS recoveries were within all acceptable ranges, therefore the data was accepted and no further action was required.

The MSD Percent Recovery for Chromium was not within the acceptance limits specified in HLA's "Laboratory Analytical Technical Requirements," but was within Enseco's-CRL's established acceptance limits, therefore the data was accepted and no further action was required.

The MSD Percent Recovery for 2,4-Dinitrotoluene was not within the acceptance limits specified in HLA's "Laboratory Analytical Technical Requirements," nor was it within Enseco's-CRL'S established acceptance limits. However, the DCS recoveries were within all acceptable ranges, therefore the data was accepted and no further action was required.

The MS Percent Recovery for Pentachlorophenol was within the acceptance limits specified in HLA's "Laboratory Analytical Technical Requirements," but was not within Enseco's-CRL's established acceptance limits. However, the DCS recovery was within all acceptable ranges, therefore the data was accepted and no further action was required.

Sabina R. Sudoko
Reviewed

Meri Bloom
Approved

The Report Cover Letter is an integral part of this report.

This report pertains only to the samples investigated and does not necessarily apply to other apparently identical or similar materials. This report is submitted for the exclusive use of the client to whom it is addressed. Any reproduction of this report or use of this Laboratory's name for advertising or publicity purposes without authorization is prohibited.

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SAMPLE DESCRIPTION INFORMATION
for
Harding Lawson Associates

Lab ID	Client ID	Matrix	Sampled Date	Sampled Time	Received Date
103928-0001-SA	SZB-20-20.50	SOLID	27 DEC 93	09:30	27 DEC 93
103928-0002-SA	SZB-20A-5.25	SOLID	27 DEC 93	11:05	27 DEC 93
103928-0003-SA	SZB-20A-5.50	SOLID	27 DEC 93	11:05	27 DEC 93
103928-0004-SA	SZB-19-37.25	SOLID	27 DEC 93	14:00	27 DEC 93
103928-0005-SA	SZB-19A-5.75	SOLID	27 DEC 93	15:00	27 DEC 93
103928-0006-SA	SZB-19A-6.00	SOLID	27 DEC 93	15:00	27 DEC 93
103928-0007-SA	SZB-20-10.25	SOLID	27 DEC 93	09:00	27 DEC 93
103928-0008-SA	SZB-20-10.50	SOLID	27 DEC 93	09:00	27 DEC 93
103928-0009-SA	SZB-20-15.0	SOLID	27 DEC 93	09:15	27 DEC 93
103928-0010-SA	SZB-20-20.25	SOLID	27 DEC 93	09:30	27 DEC 93
103928-0011-SA	SZB-20A-5.0	SOLID	27 DEC 93	10:55	27 DEC 93
103928-0012-SA	SZB-19-5.0	SOLID	27 DEC 93	12:35	27 DEC 93
103928-0013-SA	SZB-19-10.0	SOLID	27 DEC 93	12:50	27 DEC 93
103928-0014-SA	SZB-19-15.0	SOLID	27 DEC 93	13:00	27 DEC 93
103928-0015-SA	SZB-19-15.25	SOLID	27 DEC 93	13:00	27 DEC 93
103928-0016-SA	SZB-19-20.00	SOLID	27 DEC 93	13:15	27 DEC 93
103928-0017-SA	SZB-19-20.25	SOLID	27 DEC 93	13:15	27 DEC 93
103928-0018-SA	SZB-19-25.00	SOLID	27 DEC 93	13:30	27 DEC 93
103928-0019-SA	SZB-19-30.00	SOLID	27 DEC 93	13:40	27 DEC 93
103928-0020-SA	SZB-19-30.25	SOLID	27 DEC 93	13:40	27 DEC 93
103928-0021-SA	SZB-19-37.0	SOLID	27 DEC 93	14:00	27 DEC 93
103928-0022-SA	SZB-19-40.0	SOLID	27 DEC 93	14:05	27 DEC 93
103928-0023-SA	SZB-19-40.25	SOLID	27 DEC 93	14:05	27 DEC 93
103928-0024-SA	SZB-19A-5.50	SOLID	27 DEC 93	15:00	27 DEC 93

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METALS

Client Name: Harding Lawson Associates
Client ID: SZB-20A-5.25
Lab ID: 103928-0002-SA
Matrix: SOLID — Sampled: 27 DEC 93 — Received: 27 DEC 93
Authorized: 29 DEC 93 — Prepared: See Below — Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Aluminum	3460		50.0	100	mg/kg	7020	30 DEC 93	04 JAN 94
Arsenic	1.4		0.20	0.50	mg/kg	7062	30 DEC 93	05 JAN 94
Barium	54.0		20.0	50.0	mg/kg	7080	30 DEC 93	04 JAN 94
Chromium	TR		5.0	10.0	mg/kg	7190	30 DEC 93	04 JAN 94
Copper	10.0		5.0	10.0	mg/kg	7210	30 DEC 93	30 DEC 93
Lead	ND		20.0	20.0	mg/kg	7420	30 DEC 93	30 DEC 93
Manganese	328		2.0	5.0	mg/kg	7460	30 DEC 93	30 DEC 93
Nickel	ND		5.0	10.0	mg/kg	7520	30 DEC 93	30 DEC 93
Zinc	26.2		1.0	2.0	mg/kg	7950	30 DEC 93	04 JAN 94
Cadmium	ND		2.0	5.0	mg/kg	7130	30 DEC 93	04 JAN 94
Mercury	ND		0.090	0.10	mg/kg	7471	29 DEC 93	29 DEC 93

ND = Not Detected

Enseco
A Corning Company

METALS

Client Name: Harding Lawson Associates
Client ID: SZB-19A-5.75
LAB ID: 103928-0005-SA
Matrix: SOLID — Sampled: 27 DEC 93 — Received: 27 DEC 93
Authorized: 29 DEC 93 — Prepared: See Below — Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Aluminum	3450		50.0	100	mg/kg	7020	30 DEC 93	04 JAN 94
Arsenic	2.0		0.20	0.50	mg/kg	7062	30 DEC 93	05 JAN 94
Barium	TR		20.0	50.0	mg/kg	7080	30 DEC 93	04 JAN 94
Chromium	TR		5.0	10.0	mg/kg	7190	30 DEC 93	04 JAN 94
Copper	11.0		5.0	10.0	mg/kg	7210	30 DEC 93	30 DEC 93
Lead	ND		20.0	20.0	mg/kg	7420	30 DEC 93	30 DEC 93
Manganese	146		2.0	5.0	mg/kg	7460	30 DEC 93	30 DEC 93
Nickel	ND		5.0	10.0	mg/kg	7520	30 DEC 93	30 DEC 93
Zinc	21.0		1.0	2.0	mg/kg	7950	30 DEC 93	04 JAN 94
Cadmium	ND		2.0	5.0	mg/kg	7130	30 DEC 93	04 JAN 94
Mercury	ND		0.090	0.10	mg/kg	7471	29 DEC 93	29 DEC 93

ND = Not Detected

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GENERAL INORGANICS

Client Name: Harding Lawson Associates
Client ID: SZB-20A-5.25
Lab ID: 103928-0002-SA
Matrix: SOLID — Sampled: 27 DEC 93 — Received: 27 DEC 93
Authorized: 29 DEC 93 — Prepared: See Below — Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Cyanide, Total	ND		0.30	0.50	mg/kg	9012	03 JAN 94	03 JAN 94

ND = Not Detected

Enseco
A Corning Company

GENERAL INORGANICS

Client Name: Harding Lawson Associates
Client ID: SZB-19A-5.75
LAB ID: 103928-0005-SA
Matrix: SOLID — Sampled: 27 DEC 93 — Received: 27 DEC 93
Authorized: 29 DEC 93 — Prepared: See Below — Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Cyanide, Total	ND		0.30	0.50	mg/kg	9012	03 JAN 94	03 JAN 94

ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-20-20.50
LAB ID: 103928-0001-SA
Matrix: SOLID Sampled: 27 DEC 93 Received: 27 DEC 93
Authorized: 29 DEC 93 Prepared: 29 DEC 93 Analyzed: 29 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/kg	5.0
Methylene chloride	TR		1.1	ug/kg	5.0
Acetone	ND		7.1	ug/kg	10
Trichlorofluoromethane	TR	B	0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	ND		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	ND		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	ND		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	ND		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0

B = Compound is also detected in the blank.
ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-20-20.50
LAB ID: 103928-0001-SA
Matrix: SOLID — Sampled: 27 DEC 93 — Received: 27 DEC 93
Authorized: 29 DEC 93 — Prepared: 29 DEC 93 — Analyzed: 29 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
1,2,4-Trimethylbenzene	ND		0.53	ug/kg	5.0
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	99	%
Toluene-d8	103	%
Bromofluorobenzene	97	%

ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-20A-5.50
LAB ID: 103928-0003-SA
Matrix: SOLID Sampled: 27 DEC 93 Received: 27 DEC 93
Authorized: 29 DEC 93 Prepared: 29 DEC 93 Analyzed: 29 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/kg	5.0
Methylene chloride	ND		1.1	ug/kg	5.0
Acetone	ND		7.1	ug/kg	10
Trichlorofluoromethane	TR	B	0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	ND		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	ND		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	ND		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	ND		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0

B = Compound is also detected in the blank.
ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-20A-5.50
LAB ID: 103928-0003-SA
Matrix: SOLID — Sampled: 27 DEC 93 — Received: 27 DEC 93
Authorized: 29 DEC 93 — Prepared: 29 DEC 93 — Analyzed: 29 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
tert-Butylbenzene	ND		0.55	ug/kg	5.0
1,2,4-Trimethylbenzene	ND		0.53	ug/kg	5.0
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	102	%
Toluene-d8	109	%
Bromofluorobenzene	100	%

ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-19-37.25
LAB ID: 103928-0004-SA
Matrix: SOLID — Sampled: 27 DEC 93 — Received: 27 DEC 93
Authorized: 29 DEC 93 — Prepared: 29 DEC 93 — Analyzed: 29 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
tert-Butylbenzene	ND		0.55	ug/kg	5.0
1,2,4-Trimethylbenzene	ND		0.53	ug/kg	5.0
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	97	%
Toluene-d8	100	%
Bromofluorobenzene	95	%

ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-19A-6.00
LAB ID: 103928-0006-SA
Matrix: SOLID — Sampled: 27 DEC 93 — Received: 27 DEC 93
Authorized: 29 DEC 93 — Prepared: 29 DEC 93 — Analyzed: 29 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/kg	5.0
Methylene chloride	TR		1.1	ug/kg	5.0
Acetone	ND		7.1	ug/kg	10
Trichlorofluoromethane	TR	B	0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	ND		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	ND		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	ND		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	ND		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0

B = Compound is also detected in the blank.
ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-19A-6.00
LAB ID: 103928-0006-SA
Matrix: SOLID Sampled: 27 DEC 93 Received: 27 DEC 93
Authorized: 29 DEC 93 Prepared: 29 DEC 93 Analyzed: 29 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
tert-Butylbenzene	ND		0.55	ug/kg	5.0
1,2,4-Trimethylbenzene	ND		0.53	ug/kg	5.0
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	104	%
Toluene-d8	110	%
Bromofluorobenzene	102	%

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-20-20.50
LAB ID: 103928-0001-SA
Matrix: SOLID — Sampled: 27 DEC 93 — Received: 27 DEC 93
Authorized: 29 DEC 93 — Prepared: 29 DEC 93 — Analyzed: 30 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
N-Nitrosodiethylamine	ND		0.26	mg/kg	0.33
Phenol	ND		0.030	mg/kg	0.33
bis(2-Chloroethyl) ether	ND		0.060	mg/kg	0.33
2-Chlorophenol	ND		0.040	mg/kg	0.33
1,3-Dichlorobenzene	ND		0.030	mg/kg	0.33
1,4-Dichlorobenzene	ND		0.060	mg/kg	0.33
Benzyl alcohol	ND		0.070	mg/kg	0.33
1,2-Dichlorobenzene	ND		0.040	mg/kg	0.33
2-Methylphenol	ND		0.030	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND		0.040	mg/kg	0.33
3/4-Methylphenol	ND		0.040	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND		0.030	mg/kg	0.33
Hexachloroethane	ND		0.030	mg/kg	0.33
Nitrobenzene	ND		0.090	mg/kg	0.33
Isophorone	ND		0.040	mg/kg	0.33
2-Nitrophenol	ND		0.050	mg/kg	0.33
2,4-Dimethylphenol	ND		0.030	mg/kg	0.33
Benzoic acid	ND		0.51	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND		0.020	mg/kg	0.33
2,4-Dichlorophenol	ND		0.030	mg/kg	0.33
1,2,4-Trichlorobenzene	ND		0.040	mg/kg	0.33
Naphthalene	ND		0.030	mg/kg	0.33
4-Chloroaniline	ND		0.10	mg/kg	0.33
Hexachlorobutadiene	ND		0.040	mg/kg	0.33
4-Chloro-3-methylphenol	ND		0.040	mg/kg	0.33
2-Methylnaphthalene	ND		0.030	mg/kg	0.33
Hexachlorocyclopentadiene	ND		0.050	mg/kg	0.33
2,4,6-Trichlorophenol	ND		0.040	mg/kg	0.33
2,4,5-Trichlorophenol	ND		0.050	mg/kg	1.7
2-Chloronaphthalene	ND		0.030	mg/kg	0.33
2-Nitroaniline	ND		0.030	mg/kg	1.7
Dimethyl phthalate	ND		0.030	mg/kg	0.33
Acenaphthylene	ND		0.020	mg/kg	0.33
3-Nitroaniline	ND		0.14	mg/kg	1.7
Acenaphthene	ND		0.030	mg/kg	0.33
2,4-Dinitrophenol	ND		0.23	mg/kg	1.7
4-Nitrophenol	ND		0.25	mg/kg	1.7
Dibenzofuran	ND		0.040	mg/kg	0.33
2,4-Dinitrotoluene	ND		0.040	mg/kg	0.33
2,6-Dinitrotoluene	ND		0.050	mg/kg	0.33
Diethyl phthalate	ND		0.020	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND		0.030	mg/kg	0.33
Fluorene	ND		0.030	mg/kg	0.33
4-Nitroaniline	ND		0.18	mg/kg	1.7

ND = Not Detected

Enseco
A Corning Company

(cont.)

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-20-20.50
LAB ID: 103928-0001-SA
Matrix: SOLID — Sampled: 27 DEC 93 — Received: 27 DEC 93
Authorized: 29 DEC 93 — Prepared: 29 DEC 93 — Analyzed: 30 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
4,6-Dinitro-2-methylphenol	ND		0.36	mg/kg	1.7
N-Nitrosodiphenylamine	ND		0.040	mg/kg	0.33
4-Bromophenyl phenyl ether	ND		0.080	mg/kg	0.33
Hexachlorobenzene	ND		0.030	mg/kg	0.33
Pentachlorophenol	ND		0.19	mg/kg	1.7
Phenanthrene	ND		0.030	mg/kg	0.33
Anthracene	ND		0.020	mg/kg	0.33
Di-n-butyl phthalate	ND		0.24	mg/kg	0.33
Fluoranthene	ND		0.030	mg/kg	0.33
Pyrene	ND		0.020	mg/kg	0.33
Butyl benzyl phthalate	ND		0.030	mg/kg	0.33
3,3'-Dichlorobenzidine	ND		0.33	mg/kg	0.66
Benzo(a)anthracene	ND		0.040	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND		0.13	mg/kg	0.33
Chrysene	ND		0.040	mg/kg	0.33
Di-n-octyl phthalate	ND		0.040	mg/kg	0.33
Benzo(b)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(k)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(a)pyrene	ND		0.040	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND		0.030	mg/kg	0.33
Dibenz(a,h)anthracene	ND		0.030	mg/kg	0.33
Benzo(g,h,i)perylene	ND		0.020	mg/kg	0.33
Xylidine (Total)	ND		0.076	mg/kg	0.33

Surrogate	Recovery	
Nitrobenzene-d5	73	%
2-Fluorobiphenyl	69	%
Terphenyl-d14	75	%
Phenol-d5	66	%
2-Fluorophenol	75	%
2,4,6-Tribromophenol	73	%

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-20A-5.50
LAB ID: 103928-0003-SA
Matrix: SOLID Sampled: 27 DEC 93 Received: 27 DEC 93
Authorized: 29 DEC 93 Prepared: 29 DEC 93 Analyzed: 30 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
N-Nitrosodiethylamine	ND		0.26	mg/kg	0.33
Phenol	ND		0.030	mg/kg	0.33
bis(2-Chloroethyl) ether	ND		0.060	mg/kg	0.33
2-Chlorophenol	ND		0.040	mg/kg	0.33
1,3-Dichlorobenzene	ND		0.030	mg/kg	0.33
1,4-Dichlorobenzene	ND		0.060	mg/kg	0.33
Benzyl alcohol	ND		0.070	mg/kg	0.33
1,2-Dichlorobenzene	ND		0.040	mg/kg	0.33
2-Methylphenol	ND		0.030	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND		0.040	mg/kg	0.33
3/4-Methylphenol	ND		0.040	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND		0.030	mg/kg	0.33
Hexachloroethane	ND		0.030	mg/kg	0.33
Nitrobenzene	ND		0.090	mg/kg	0.33
Isophorone	ND		0.040	mg/kg	0.33
2-Nitrophenol	ND		0.050	mg/kg	0.33
2,4-Dimethylphenol	ND		0.030	mg/kg	0.33
Benzoic acid	ND		0.51	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND		0.020	mg/kg	0.33
2,4-Dichlorophenol	ND		0.030	mg/kg	0.33
1,2,4-Trichlorobenzene	ND		0.040	mg/kg	0.33
Naphthalene	ND		0.030	mg/kg	0.33
4-Chloroaniline	ND		0.10	mg/kg	0.33
Hexachlorobutadiene	ND		0.040	mg/kg	0.33
4-Chloro-3-methylphenol	ND		0.040	mg/kg	0.33
2-Methylnaphthalene	ND		0.030	mg/kg	0.33
Hexachlorocyclopentadiene	ND		0.050	mg/kg	0.33
2,4,6-Trichlorophenol	ND		0.040	mg/kg	0.33
2,4,5-Trichlorophenol	ND		0.050	mg/kg	1.7
2-Chloronaphthalene	ND		0.030	mg/kg	0.33
2-Nitroaniline	ND		0.030	mg/kg	1.7
Dimethyl phthalate	ND		0.030	mg/kg	0.33
Acenaphthylene	ND		0.020	mg/kg	0.33
3-Nitroaniline	ND		0.14	mg/kg	1.7
Acenaphthene	ND		0.030	mg/kg	0.33
2,4-Dinitrophenol	ND		0.23	mg/kg	1.7
4-Nitrophenol	ND		0.25	mg/kg	1.7
Dibenzofuran	ND		0.040	mg/kg	0.33
2,4-Dinitrotoluene	ND		0.040	mg/kg	0.33
2,6-Dinitrotoluene	ND		0.050	mg/kg	0.33
Diethyl phthalate	ND		0.020	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND		0.030	mg/kg	0.33
Fluorene	ND		0.030	mg/kg	0.33
4-Nitroaniline	ND		0.18	mg/kg	1.7

ND = Not Detected

Enseco (cont)
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-20A-5.50
LAB ID: 103928-0003-SA
Matrix: SOLID Sampled: 27 DEC 93 Received: 27 DEC 93
Authorized: 29 DEC 93 Prepared: 29 DEC 93 Analyzed: 30 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
4,6-Dinitro-2-methylphenol	ND		0.36	mg/kg	1.7
N-Nitrosodiphenylamine	ND		0.040	mg/kg	0.33
4-Bromophenyl phenyl ether	ND		0.080	mg/kg	0.33
Hexachlorobenzene	ND		0.030	mg/kg	0.33
Pentachlorophenol	ND		0.19	mg/kg	1.7
Phenanthrene	ND		0.030	mg/kg	0.33
Anthracene	ND		0.020	mg/kg	0.33
Di-n-butyl phthalate	ND		0.24	mg/kg	0.33
Fluoranthene	ND		0.030	mg/kg	0.33
Pyrene	ND		0.020	mg/kg	0.33
Butyl benzyl phthalate	ND		0.030	mg/kg	0.33
3,3'-Dichlorobenzidine	ND		0.33	mg/kg	0.66
Benzo(a)anthracene	ND		0.040	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND		0.13	mg/kg	0.33
Chrysene	ND		0.040	mg/kg	0.33
Di-n-octyl phthalate	ND		0.040	mg/kg	0.33
Benzo(b)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(k)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(a)pyrene	ND		0.040	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND		0.030	mg/kg	0.33
Dibenz(a,h)anthracene	ND		0.030	mg/kg	0.33
Benzo(g,h,i)perylene	ND		0.020	mg/kg	0.33
Xylidine (Total)	ND		0.076	mg/kg	0.33

Surrogate	Recovery	
Nitrobenzene-d5	73	%
2-Fluorobiphenyl	66	%
Terphenyl-d14	70	%
Phenol-d5	66	%
2-Fluorophenol	75	%
2,4,6-Tribromophenol	74	%

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-19-37.25
LAB ID: 103928-0004-SA
Matrix: SOLID — Sampled: 27 DEC 93 — Received: 27 DEC 93
Authorized: 29 DEC 93 — Prepared: 29 DEC 93 — Analyzed: 30 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
N-Nitrosodiethylamine	ND		0.26	mg/kg	0.33
Phenol	ND		0.030	mg/kg	0.33
bis(2-Chloroethyl) ether	ND		0.060	mg/kg	0.33
2-Chlorophenol	ND		0.040	mg/kg	0.33
1,3-Dichlorobenzene	ND		0.030	mg/kg	0.33
1,4-Dichlorobenzene	ND		0.060	mg/kg	0.33
Benzyl alcohol	ND		0.070	mg/kg	0.33
1,2-Dichlorobenzene	ND		0.040	mg/kg	0.33
2-Methylphenol	ND		0.030	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND		0.040	mg/kg	0.33
3/4-Methylphenol	ND		0.040	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND		0.030	mg/kg	0.33
Hexachloroethane	ND		0.030	mg/kg	0.33
Nitrobenzene	ND		0.090	mg/kg	0.33
Isophorone	ND		0.040	mg/kg	0.33
2-Nitrophenol	ND		0.050	mg/kg	0.33
2,4-Dimethylphenol	ND		0.030	mg/kg	0.33
Benzoic acid	ND		0.51	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND		0.020	mg/kg	0.33
2,4-Dichlorophenol	ND		0.030	mg/kg	0.33
1,2,4-Trichlorobenzene	ND		0.040	mg/kg	0.33
Naphthalene	ND		0.030	mg/kg	0.33
4-Chloroaniline	ND		0.10	mg/kg	0.33
Hexachlorobutadiene	ND		0.040	mg/kg	0.33
4-Chloro-3-methylphenol	ND		0.040	mg/kg	0.33
2-Methylnaphthalene	ND		0.030	mg/kg	0.33
Hexachlorocyclopentadiene	ND		0.050	mg/kg	0.33
2,4,6-Trichlorophenol	ND		0.040	mg/kg	0.33
2,4,5-Trichlorophenol	ND		0.050	mg/kg	1.7
2-Chloronaphthalene	ND		0.030	mg/kg	0.33
2-Nitroaniline	ND		0.030	mg/kg	1.7
Dimethyl phthalate	ND		0.030	mg/kg	0.33
Acenaphthylene	ND		0.020	mg/kg	0.33
3-Nitroaniline	ND		0.14	mg/kg	1.7
Acenaphthene	ND		0.030	mg/kg	0.33
2,4-Dinitrophenol	ND		0.23	mg/kg	1.7
4-Nitrophenol	ND		0.25	mg/kg	1.7
Dibenzofuran	ND		0.040	mg/kg	0.33
2,4-Dinitrotoluene	ND		0.040	mg/kg	0.33
2,6-Dinitrotoluene	ND		0.050	mg/kg	0.33
Diethyl phthalate	ND		0.020	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND		0.030	mg/kg	0.33
Fluorene	ND		0.030	mg/kg	0.33
4-Nitroaniline	ND		0.18	mg/kg	1.7

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-19-37.25
LAB ID: 103928-0004-SA
Matrix: SOLID Sampled: 27 DEC 93 Received: 27 DEC 93
Authorized: 29 DEC 93 Prepared: 29 DEC 93 Analyzed: 30 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
4,6-Dinitro-2-methylphenol	ND		0.36	mg/kg	1.7
N-Nitrosodiphenylamine	ND		0.040	mg/kg	0.33
4-Bromophenyl phenyl ether	ND		0.080	mg/kg	0.33
Hexachlorobenzene	ND		0.030	mg/kg	0.33
Pentachlorophenol	ND		0.19	mg/kg	1.7
Phenanthrene	ND		0.030	mg/kg	0.33
Anthracene	ND		0.020	mg/kg	0.33
Di-n-butyl phthalate	ND		0.24	mg/kg	0.33
Fluoranthene	ND		0.030	mg/kg	0.33
Pyrene	ND		0.020	mg/kg	0.33
Butyl benzyl phthalate	ND		0.030	mg/kg	0.33
3,3'-Dichlorobenzidine	ND		0.33	mg/kg	0.66
Benzo(a)anthracene	ND		0.040	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND		0.13	mg/kg	0.33
Chrysene	ND		0.040	mg/kg	0.33
Di-n-octyl phthalate	ND		0.040	mg/kg	0.33
Benzo(b)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(k)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(a)pyrene	ND		0.040	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND		0.030	mg/kg	0.33
Dibenz(a,h)anthracene	ND		0.030	mg/kg	0.33
Benzo(g,h,i)perylene	ND		0.020	mg/kg	0.33
Xylidine (Total)	ND		0.076	mg/kg	0.33

Surrogate	Recovery	
Nitrobenzene-d5	68	%
2-Fluorobiphenyl	62	%
Terphenyl-d14	66	%
Phenol-d5	64	%
2-Fluorophenol	72	%
2,4,6-Tribromophenol	73	%

ND = Not Detected

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Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-19A-6.00
LAB ID: 103928-0006-SA
Matrix: SOLID Sampled: 27 DEC 93 Received: 27 DEC 93
Authorized: 29 DEC 93 Prepared: 29 DEC 93 Analyzed: 30 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
N-Nitrosodiethylamine	ND		0.26	mg/kg	0.33
Phenol	ND		0.030	mg/kg	0.33
bis(2-Chloroethyl) ether	ND		0.060	mg/kg	0.33
2-Chlorophenol	ND		0.040	mg/kg	0.33
1,3-Dichlorobenzene	ND		0.030	mg/kg	0.33
1,4-Dichlorobenzene	ND		0.060	mg/kg	0.33
Benzyl alcohol	ND		0.070	mg/kg	0.33
1,2-Dichlorobenzene	ND		0.040	mg/kg	0.33
2-Methylphenol	ND		0.030	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND		0.040	mg/kg	0.33
3/4-Methylphenol	ND		0.040	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND		0.030	mg/kg	0.33
Hexachloroethane	ND		0.030	mg/kg	0.33
Nitrobenzene	ND		0.090	mg/kg	0.33
Isophorone	ND		0.040	mg/kg	0.33
2-Nitrophenol	ND		0.050	mg/kg	0.33
2,4-Dimethylphenol	ND		0.030	mg/kg	0.33
Benzoic acid	ND		0.51	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND		0.020	mg/kg	0.33
2,4-Dichlorophenol	ND		0.030	mg/kg	0.33
1,2,4-Trichlorobenzene	ND		0.040	mg/kg	0.33
Naphthalene	ND		0.030	mg/kg	0.33
4-Chloroaniline	ND		0.10	mg/kg	0.33
Hexachlorobutadiene	ND		0.040	mg/kg	0.33
4-Chloro-3-methylphenol	ND		0.040	mg/kg	0.33
2-Methylnaphthalene	ND		0.030	mg/kg	0.33
Hexachlorocyclopentadiene	ND		0.050	mg/kg	0.33
2,4,6-Trichlorophenol	ND		0.040	mg/kg	0.33
2,4,5-Trichlorophenol	ND		0.050	mg/kg	1.7
2-Chloronaphthalene	ND		0.030	mg/kg	0.33
2-Nitroaniline	ND		0.030	mg/kg	1.7
Dimethyl phthalate	ND		0.030	mg/kg	0.33
Acenaphthylene	ND		0.020	mg/kg	0.33
3-Nitroaniline	ND		0.14	mg/kg	1.7
Acenaphthene	ND		0.030	mg/kg	0.33
2,4-Dinitrophenol	ND		0.23	mg/kg	1.7
4-Nitrophenol	ND		0.25	mg/kg	1.7
Dibenzofuran	ND		0.040	mg/kg	0.33
2,4-Dinitrotoluene	ND		0.040	mg/kg	0.33
2,6-Dinitrotoluene	ND		0.050	mg/kg	0.33
Diethyl phthalate	ND		0.020	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND		0.030	mg/kg	0.33
Fluorene	ND		0.030	mg/kg	0.33
4-Nitroaniline	ND		0.18	mg/kg	1.7

ND = Not Detected

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Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-19A-6.00
LAB ID: 103928-0006-SA
Matrix: SOLID — Sampled: 27 DEC 93 — Received: 27 DEC 93
Authorized: 29 DEC 93 — Prepared: 29 DEC 93 — Analyzed: 30 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
4,6-Dinitro-2-methylphenol	ND		0.36	mg/kg	1.7
N-Nitrosodiphenylamine	ND		0.040	mg/kg	0.33
4-Bromophenyl phenyl ether	ND		0.080	mg/kg	0.33
Hexachlorobenzene	ND		0.030	mg/kg	0.33
Pentachlorophenol	ND		0.19	mg/kg	1.7
Phenanthrene	ND		0.030	mg/kg	0.33
Anthracene	ND		0.020	mg/kg	0.33
Di-n-butyl phthalate	ND		0.24	mg/kg	0.33
Fluoranthene	ND		0.030	mg/kg	0.33
Pyrene	ND		0.020	mg/kg	0.33
Butyl benzyl phthalate	ND		0.030	mg/kg	0.33
3,3'-Dichlorobenzidine	ND		0.33	mg/kg	0.66
Benzo(a)anthracene	ND		0.040	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND		0.13	mg/kg	0.33
Chrysene	ND		0.040	mg/kg	0.33
Di-n-octyl phthalate	ND		0.040	mg/kg	0.33
Benzo(b)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(k)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(a)pyrene	ND		0.040	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND		0.030	mg/kg	0.33
Dibenz(a,h)anthracene	ND		0.030	mg/kg	0.33
Benzo(g,h,i)perylene	ND		0.020	mg/kg	0.33
Xylidine (Total)	ND		0.076	mg/kg	0.33

Surrogate	Recovery	
Nitrobenzene-d5	71	%
2-Fluorobiphenyl	63	%
Terphenyl-d14	66	%
Phenol-d5	65	%
2-Fluorophenol	74	%
2,4,6-Tribromophenol	70	%

ND = Not Detected

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QC LOT ASSIGNMENT REPORT - MS QC
Metals Analysis and Preparation

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
103928-0002-SA	SOLID	AL-FLAA-S	30 DEC 93-D	30 DEC 93-D	30 DEC 93-DB
103928-0002-SA	SOLID	AS-HAA-S	30 DEC 93-D	30 DEC 93-D	30 DEC 93-DB
103928-0002-SA	SOLID	CD-FLAA-S	30 DEC 93-D	30 DEC 93-D	30 DEC 93-DB
103928-0002-SA	SOLID	CR-FLAA-S	30 DEC 93-D	30 DEC 93-D	30 DEC 93-DB
103928-0002-SA	SOLID	MN-FLAA-S	30 DEC 93-D	30 DEC 93-D	30 DEC 93-DB
103928-0002-SA	SOLID	NI-FLAA-S	30 DEC 93-D	30 DEC 93-D	30 DEC 93-DB
103928-0002-SA	SOLID	PB-FLAA-S	30 DEC 93-D	30 DEC 93-D	30 DEC 93-DB
103928-0002-SA	SOLID	CU-FLAA-S	30 DEC 93-D	30 DEC 93-D	30 DEC 93-DB
103928-0002-SA	SOLID	ZN-FLAA-S	30 DEC 93-D	30 DEC 93-D	30 DEC 93-DB
103928-0002-SA	SOLID	BA-FLAA-S	30 DEC 93-D	30 DEC 93-D	30 DEC 93-DB
103928-0002-SA	SOLID	HG-CVAA-S	29 DEC 93-E	29 DEC 93-E	29 DEC 93-EA
103928-0005-SA	SOLID	AL-FLAA-S	30 DEC 93-D	30 DEC 93-D	30 DEC 93-DB
103928-0005-SA	SOLID	AS-HAA-S	30 DEC 93-D	30 DEC 93-D	30 DEC 93-DB
103928-0005-SA	SOLID	CD-FLAA-S	30 DEC 93-D	30 DEC 93-D	30 DEC 93-DB
103928-0005-SA	SOLID	CR-FLAA-S	30 DEC 93-D	30 DEC 93-D	30 DEC 93-DB
103928-0005-SA	SOLID	MN-FLAA-S	30 DEC 93-D	30 DEC 93-D	30 DEC 93-DB
103928-0005-SA	SOLID	NI-FLAA-S	30 DEC 93-D	30 DEC 93-D	30 DEC 93-DB
103928-0005-SA	SOLID	PB-FLAA-S	30 DEC 93-D	30 DEC 93-D	30 DEC 93-DB
103928-0005-SA	SOLID	CU-FLAA-S	30 DEC 93-D	30 DEC 93-D	30 DEC 93-DB
103928-0005-SA	SOLID	ZN-FLAA-S	30 DEC 93-D	30 DEC 93-D	30 DEC 93-DB
103928-0005-SA	SOLID	BA-FLAA-S	30 DEC 93-D	30 DEC 93-D	30 DEC 93-DB
103928-0005-SA	SOLID	HG-CVAA-S	29 DEC 93-E	29 DEC 93-E	29 DEC 93-EA

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DUPLICATE CONTROL SAMPLE REPORT
Metals Analysis and Preparation
Project: 103928

Category: AL-FLAA-S Aluminum, Flame AA
Matrix: SOLID
QC Lot: 30 DEC 93-D
Date Analyzed: 04 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Aluminum	10700	9200	8680	8940	84	47-153	5.8	20

Category: AS-HAA-S Arsenic, Hydride AA
Matrix: SOLID
QC Lot: 30 DEC 93-D
Date Analyzed: 05 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Arsenic	145	120	134	127	88	59-141	11	20

Category: CD-FLAA-S Cadmium, Flame AA
Matrix: SOLID
QC Lot: 30 DEC 93-D
Date Analyzed: 04 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Cadmium	154	152	149	150	98	68-132	2.0	20

Category: CR-FLAA-S Chromium, Flame AA
Matrix: SOLID
QC Lot: 30 DEC 93-D
Date Analyzed: 04 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Chromium	151	136	144	140	93	66-133	5.7	20

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

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DUPLICATE CONTROL SAMPLE REPORT
Metals Analysis and Preparation
Project: 103928

Category: MN-FLAA-S Manganese, Flame AA Method 7460
Matrix: SOLID
QC Lot: 30 DEC 93-D
Date Analyzed: 30 DEC 93
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Manganese	423	394	390	392	93	74-125	1.0	20

Category: NI-FLAA-S Nickel Flame AA
Matrix: SOLID
QC Lot: 30 DEC 93-D
Date Analyzed: 30 DEC 93
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Nickel	166	158	160	159	96	67-133	1.3	20

Category: PB-FLAA-S Method 7420 - Lead, Flame AA
Matrix: SOLID
QC Lot: 30 DEC 93-D
Date Analyzed: 30 DEC 93
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Lead	148	136	144	140	95	66-135	5.7	20

Category: CU-FLAA-S Copper Flame AA
Matrix: SOLID
QC Lot: 30 DEC 93-D
Date Analyzed: 30 DEC 93
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Copper	162	154	164	159	98	68-132	6.3	20

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

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DUPLICATE CONTROL SAMPLE REPORT
Metals Analysis and Preparation
Project: 103928

Category: ZN-FLAA-S Zinc, Flame AA
Matrix: SOLID
QC Lot: 30 DEC 93-D
Date Analyzed: 04 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Zinc	530	498	495	496	94	65-135	0.60	20

Category: BA-FLAA-S Barium, Flame AA
Matrix: SOLID
QC Lot: 30 DEC 93-D
Date Analyzed: 04 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Barium	503	529	524	526	105	76-124	0.95	20

Category: HG-CVAA-S Mercury by CVAA
Matrix: SOLID
QC Lot: 29 DEC 93-E
Date Analyzed: 29 DEC 93
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Mercury	29.0	30.9	31.3	31.1	107	52-148	1.3	20

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Metals Analysis and Preparation
Project: 103928

Category: AL-FLAA-S Aluminum, Flame AA
Matrix: SOLID
Sample: 103928-0002
MS Run: 30 DEC 93-DB
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Aluminum	3460	3410	3430	200	NC	NC	NC	60-130	20

Category: AS-HAA-S Arsenic, Hydride AA
Matrix: SOLID
Sample: 103928-0002
MS Run: 30 DEC 93-DB
Units mg/kg Units Qualifier: Wet wt.

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Arsenic	1.39	49.2	52.6	50.0	96	102	6.1	50-127	25

Category: CD-FLAA-S Cadmium, Flame AA
Matrix: SOLID
Sample: 103928-0002
MS Run: 30 DEC 93-DB
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Cadmium	ND	ND	ND	5.00	NC	NC	NC	52-130	28

NC = Not Calculated, calculation not applicable.
ND = Not Detected

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Metals Analysis and Preparation
Project: 103928 (cont.)

Category: CR-FLAA-S Chromium, Flame AA
Matrix: SOLID
Sample: 103928-0002
MS Run: 30 DEC 93-DB
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Chromium	ND	24.9	26.2	20.0	125	131	4.7	40-190	33

Category: MN-FLAA-S Manganese, Flame AA Method 7460
Matrix: SOLID
Sample: 103928-0002
MS Run: 30 DEC 93-DB
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Manganese	328	371	374	50.0	NC	NC	NC	60-130	40

Category: NI-FLAA-S Nickel Flame AA
Matrix: SOLID
Sample: 103928-0002
MS Run: 30 DEC 93-DB
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Nickel	ND	50.0	50.0	50.0	100	100	0.0	55-155	25

NC = Not Calculated, calculation not applicable.
ND = Not Detected

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Metals Analysis and Preparation
Project: 103928 (cont.)

Category: PB-FLAA-S Method 7420 - Lead, Flame AA
Matrix: SOLID
Sample: 103928-0002
MS Run: 30 DEC 93-DB
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Lead	ND	44.0	41.0	50.0	88	82	7.1	14-169	40

Category: CU-FLAA-S Copper Flame AA
Matrix: SOLID
Sample: 103928-0002
MS Run: 30 DEC 93-DB
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Copper	10.0	34.0	32.0	25.0	96	88	8.7	49-144	23

Category: ZN-FLAA-S Zinc, Flame AA
Matrix: SOLID
Sample: 103928-0002
MS Run: 30 DEC 93-DB
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Zinc	26.2	79.3	77.8	50.0	106	103	2.9	65-138	25

ND = Not Detected

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Metals Analysis and Preparation
Project: 103928 (cont.)

Category: BA-FLAA-S Barium, Flame AA
Matrix: SOLID
Sample: 103928-0002
MS Run: 30 DEC 93-DB
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Barium	54.0	254	246	200	100	96	4.1	40-130	30

Category: HG-CVAA-S Mercury by CVAA
Matrix: SOLID
Sample: 103884-0002
MS Run: 29 DEC 93-EA
Units mg/kg Units Qualifier: Wet wt.

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Mercury	ND	0.507	0.458	0.438	116	105	10	33-178	40

ND = Not Detected

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

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METHOD BLANK REPORT
Metals Analysis and Preparation
Project: 103928

Test: AL-FLAA-MDL-S Method 7020 - Aluminum, Flame AA
Matrix: SOLID
QC Run: 30 DEC 93-D Date Analyzed: 04 JAN 94

Analyte	Result	Units	Reporting Limit
Aluminum	ND	mg/kg	100

Test: AS-HAA-MDL-S Method 7062 - Arsenic, Hydride AA
Matrix: SOLID
QC Run: 30 DEC 93-D Date Analyzed: 05 JAN 94

Analyte	Result	Units	Reporting Limit
Arsenic	ND	mg/kg	0.50

Test: CD-FLAA-MDL-S Method 7130 - Cadmium, Flame AA
Matrix: SOLID
QC Run: 30 DEC 93-D Date Analyzed: 04 JAN 94

Analyte	Result	Units	Reporting Limit
Cadmium	ND	mg/kg	5.0

Test: CR-FLAA-MDL-S Method 7190 - Chromium, Flame AA
Matrix: SOLID
QC Run: 30 DEC 93-D Date Analyzed: 04 JAN 94

Analyte	Result	Units	Reporting Limit
Chromium	ND	mg/kg	10.0

Test: MN-FLAA-MDL-S Manganese, Flame AA
Matrix: SOLID
QC Run: 30 DEC 93-D Date Analyzed: 30 DEC 93

Analyte	Result	Units	Reporting Limit
Manganese	ND	mg/kg	5.0

ND = Not Detected

METHOD BLANK REPORT
Metals Analysis and Preparation (cont.)
Project: 103928

Test: NI-FLAA-MDL-S Method 7520 - Nickel, Flame AA
Matrix: SOLID
QC Run: 30 DEC 93-D Date Analyzed: 30 DEC 93

Analyte	Result	Units	Reporting Limit
Nickel	ND	mg/kg	10.0

Test: PB-FLAA-MDL-S Method 7420 - Lead, FLame AA
Matrix: SOLID
QC Run: 30 DEC 93-D Date Analyzed: 30 DEC 93

Analyte	Result	Units	Reporting Limit
Lead	ND	mg/kg	20.0

Test: CU-FLAA-MDL-S Method 7210 - Copper, Flame AA
Matrix: SOLID
QC Run: 30 DEC 93-D Date Analyzed: 30 DEC 93

Analyte	Result	Units	Reporting Limit
Copper	ND	mg/kg	10.0

Test: ZN-FLAA-MDL-S Method 7950 - Zinc, Flame AA
Matrix: SOLID
QC Run: 30 DEC 93-D Date Analyzed: 04 JAN 94

Analyte	Result	Units	Reporting Limit
Zinc	ND	mg/kg	2.0

Test: BA-FLAA-MDL-S Method 7080 - Barium, Flame AA
Matrix: SOLID
QC Run: 30 DEC 93-D Date Analyzed: 04 JAN 94

Analyte	Result	Units	Reporting Limit
Barium	ND	mg/kg	50.0

ND = Not Detected

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METHOD BLANK REPORT
Metals Analysis and Preparation (cont.)
Project: 103928

Test: HG-CVAA-MDL-S Method 7471 - Mercury, Cold Vapor AA
Matrix: SOLID
QC Run: 29 DEC 93-E Date Analyzed: 29 DEC 93

Analyte	Result	Units	Reporting Limit
Mercury	ND	mg/kg	0.10

ND = Not Detected

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C LOT ASSIGNMENT REPORT - MS QC
et Chemistry Analysis and Preparation

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
103928-0002-SA	SOLID	CN-S	03 JAN 94-A	03 JAN 94-A	03 JAN 94-AB
103928-0005-SA	SOLID	CN-S	03 JAN 94-A	03 JAN 94-A	03 JAN 94-AB

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DUPLICATE CONTROL SAMPLE REPORT
Wet Chemistry Analysis and Preparation
Project: 103928

Category: CN-S Cyanide (9012) SOLID
Matrix: SOLID
QC Lot: 03 JAN 94-A
Date Analyzed: 03 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Cyanide, Total	5.00	4.35	4.50	4.42	89	70-123	3.4	21

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Wet Chemistry Analysis and Preparation
Project: 103928

Category: CN-S Cyanide (9012) SOLID
Matrix: SOLID
Sample: 103884-0002
MS Run: 03 JAN 94-AB
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Cyanide, Total	ND	4.65	4.40	5.00	93	88	5.6	41-159	48

ND = Not Detected

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

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METHOD BLANK REPORT
Wet Chemistry Analysis and Preparation
Project: 103928

Test: CN-MDL-S Method 9012 - Cyanide, Total
Matrix: SOLID
QC Run: 03 JAN 94-A Date Analyzed: 03 JAN 94

Analyte	Result	Units	Reporting Limit
Cyanide, Total	ND	mg/kg	0.50

ND = Not Detected

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QC LOT ASSIGNMENT REPORT - MS QC
Volatile Organics by GC/MS

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
103928-0001-SA	SOLID	8240-S	23 DEC 93-AF	29 DEC 93-AF	27 DEC 93-AF
103928-0003-SA	SOLID	8240-S	23 DEC 93-AF	29 DEC 93-AF	27 DEC 93-AF
103928-0004-SA	SOLID	8240-S	23 DEC 93-AF	29 DEC 93-AF	27 DEC 93-AF
103928-0006-SA	SOLID	8240-S	23 DEC 93-AF	29 DEC 93-AF	27 DEC 93-AF

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DUPLICATE CONTROL SAMPLE REPORT
Volatile Organics by GC/MS
Project: 103928

Category: 8240-S Volatile Organics
Matrix: SOLID
QC Lot: 23 DEC 93-AF
Date Analyzed: 23 DEC 93
Concentration Units: ug/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
1,1-Dichloroethene	50.0	37.3	36.4	36.8	74	50-121	2.4	31
Trichloroethene	50.0	45.2	45.9	45.6	91	69-114	1.5	17
Benzene	50.0	45.7	46.3	46.0	92	78-117	1.3	16
Toluene	50.0	47.0	48.3	47.6	95	79-118	2.7	17
Chlorobenzene	50.0	49.3	48.8	49.0	98	79-119	1.0	17

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Volatile Organics by GC/MS
Project: 103928

Category: 8240-S Volatile Organics
Matrix: SOLID
Sample: 103884-0003
MS Run: 27 DEC 93-AF
Units: ug/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
1,1-Dichloroethene	ND	36.3	34.2	50.0	73	68	7.1	46-136	28
Trichloroethene	ND	50.1	48.9	50.0	100	98	2.0	58-131	26
Benzene	ND	50.3	49.7	50.0	101	99	2.0	63-139	23
Toluene	ND	52.7	52.5	50.0	105	105	0.0	68-140	24
Chlorobenzene	ND	52.0	50.2	50.0	104	100	3.9	68-138	23

ND = Not Detected

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

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SINGLE CONTROL SAMPLE REPORT
Volatile Organics by GC/MS
Project: 103928

Category: 8240-S Volatile Organics
Matrix: SOLID
QC Run: 29 DEC 93-AF
Date Analyzed: 29 DEC 93
Concentration Units: ug/kg

Analyte	Concentration Spiked	Concentration Measured	Accuracy(%) SCS	Accuracy(%) Limits
1,2-Dichloroethane-d4	50.0	48.5	97	70-121
Toluene-d8	50.0	50.9	102	81-117
Bromofluorobenzene	50.0	49.2	98	74-121

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

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Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-19-37.25
LAB ID: 103928-0004-SA
Matrix: SOLID Sampled: 27 DEC 93 Received: 27 DEC 93
Authorized: 29 DEC 93 Prepared: 29 DEC 93 Analyzed: 29 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/kg	5.0
Methylene chloride	TR		1.1	ug/kg	5.0
Acetone	ND		7.1	ug/kg	10
Trichlorofluoromethane	TR	B	0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	ND		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	ND		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	ND		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	ND		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0

B = Compound is also detected in the blank.
ND = Not Detected

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METHOD BLANK REPORT
Volatile Organics by GC/MS
Project: 103928

Test: 8240-HLA-S Method 8240 - Volatile Organics, EPA 8240 Extended List
Matrix: SOLID
QC Run: 29 DEC 93-AF Date Analyzed: 29 DEC 93

Analyte	Result	Units	Reporting Limit
Dichlorodifluoromethane	ND	ug/kg	10
Chloromethane	ND	ug/kg	10
Bromomethane	ND	ug/kg	10
Vinyl chloride	ND	ug/kg	10
Chloroethane	ND	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/kg	5.0
Methylene chloride	ND	ug/kg	5.0
Acetone	ND	ug/kg	10
Trichlorofluoromethane	TR	ug/kg	5.0
1,1-Dichloroethene	ND	ug/kg	5.0
Nitromethane	ND	ug/kg	200
trans-1,2-Dichloroethene	ND	ug/kg	5.0
cis-1,2-Dichloroethene	ND	ug/kg	5.0
1,1-Dichloroethane	ND	ug/kg	5.0
2,2-Dichloropropane	ND	ug/kg	5.0
Bromochloromethane	ND	ug/kg	5.0
Chloroform	ND	ug/kg	5.0
1,1-Dichloropropene	ND	ug/kg	5.0
1,2-Dichloroethane	ND	ug/kg	5.0
Dibromomethane	ND	ug/kg	5.0
1,1,1-Trichloroethane	ND	ug/kg	5.0
Carbon tetrachloride	ND	ug/kg	5.0
Bromodichloromethane	ND	ug/kg	5.0
1,2-Dichloropropane	ND	ug/kg	5.0
1,3-Dichloropropane	ND	ug/kg	5.0
Trichloroethene	ND	ug/kg	5.0
Dibromochloromethane	ND	ug/kg	5.0
1,1,2-Trichloroethane	ND	ug/kg	5.0
Benzene	ND	ug/kg	5.0
Bromoform	ND	ug/kg	5.0
Tetrachloroethene	ND	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.0
Toluene	ND	ug/kg	5.0
Chlorobenzene	ND	ug/kg	5.0
Ethylbenzene	ND	ug/kg	5.0
Styrene	ND	ug/kg	5.0
Xylenes (total)	ND	ug/kg	5.0
1-Methylethylbenzene	ND	ug/kg	5.0
Bromobenzene	ND	ug/kg	5.0
1,2,3-Trichloropropane	ND	ug/kg	5.0
2-Chlorotoluene	ND	ug/kg	5.0
n-Propyl benzene	ND	ug/kg	5.0
1,3,5-Trimethylbenzene	ND	ug/kg	5.0

ND = Not Detected

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METHOD BLANK REPORT
Volatile Organics by GC/MS (cont.)
Project: 103928

Test: 8240-HLA-S Method 8240 - Volatile Organics, EPA 8240 Extended List
Matrix: SOLID
QC Run: 29 DEC 93-AF Date Analyzed: 29 DEC 93

Analyte	Result	Units	Reporting Limit
4-Chlorotoluene	ND	ug/kg	5.0
tert-Butylbenzene	ND	ug/kg	5.0
1,2,4-Trimethylbenzene	ND	ug/kg	5.0
sec-Butylbenzene	ND	ug/kg	5.0
Isopropyltoluene	ND	ug/kg	5.0
1,3-Dichlorobenzene	ND	ug/kg	5.0
1,4-Dichlorobenzene	ND	ug/kg	5.0
n-Butylbenzene	ND	ug/kg	5.0
1,2-Dichlorobenzene	ND	ug/kg	5.0
1,2,4-Trichlorobenzene	ND	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND	ug/kg	5.0
Hexachlorobutadiene	ND	ug/kg	5.0
Naphthalene	ND	ug/kg	5.0
1,2,3-Trichlorobenzene	ND	ug/kg	5.0

ND = Not Detected

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QC LOT ASSIGNMENT REPORT - MS QC
Semivolatile Organics by GC/MS

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
103928-0001-SA	SOLID	8270-S	22 DEC 93-B	29 DEC 93-A	22 DEC 93-BA
103928-0003-SA	SOLID	8270-S	22 DEC 93-B	29 DEC 93-A	22 DEC 93-BA
103928-0004-SA	SOLID	8270-S	22 DEC 93-B	29 DEC 93-A	22 DEC 93-BA
103928-0006-SA	SOLID	8270-S	22 DEC 93-B	29 DEC 93-A	22 DEC 93-BA

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DUPLICATE CONTROL SAMPLE REPORT
Semivolatile Organics by GC/MS
Project: 103928

Category: 8270-S Method 8270 - TCL Semivolatile Organics
Matrix: SOLID
QC Lot: 22 DEC 93-B Date Analyzed: 23 DEC 93
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Phenol	6.67	5.06	4.37	4.72	71	39-106	15	31
2-Chlorophenol	6.67	4.84	4.62	4.73	71	44-107	4.7	32
1,4-Dichlorobenzene	3.33	2.83	2.75	2.79	84	40-107	2.9	23
N-Nitroso-di-n-propylamine	3.33	2.60	2.58	2.59	78	31-132	0.77	38
1,2,4-Trichlorobenzene	3.33	2.62	2.77	2.70	81	38-120	5.6	22
4-Chloro-3-methylphenol	6.67	4.52	4.83	4.68	70	40-119	6.6	24
Acenaphthene	3.33	2.88	2.97	2.92	88	30-140	3.1	24
2,4-Dinitrotoluene	3.33	2.45	2.72	2.58	78	30-121	10	28
4-Nitrophenol	6.67	5.74	6.29	6.02	90	16-143	9.1	54
Pentachlorophenol	6.67	7.20	7.53	7.36	110	21-152	4.5	43
Pyrene	3.33	3.09	3.32	3.20	96	45-120	7.2	26

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

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SINGLE CONTROL SAMPLE REPORT
Semivolatile Organics by GC/MS
Project: 103928

Category: 8270-S Method 8270 - TCL Semivolatile Organics
Matrix: SOLID
QC Run: 29 DEC 93-A Date Analyzed: 30 DEC 93
Concentration Units: mg/kg

Analyte	Concentration Spiked	Concentration Measured	Accuracy(%) SCS	Accuracy(%) Limits
2-Fluorophenol	6.67	4.41	66	25-121
Phenol-d5	6.67	4.43	66	24-113
Nitrobenzene-d5	3.33	2.43	73	23-120
2-Fluorobiphenyl	3.33	2.53	76	30-115
2,4,6-Tribromophenol	6.67	4.69	70	19-122
Terphenyl-d14	3.33	2.43	73	18-137

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Semivolatile Organics by GC/MS
Project: 103928

Category: 8270-S Method 8270 - TCL Semivolatile Organics
Matrix: SOLID
Sample: 103884-0001
MS Run: 22 DEC 93-BA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Phenol	ND	3.32	2.47	6.67	50	37	30	25-110	74
2-Chlorophenol	ND	3.16	2.39	6.67	47	36	27	33-103	42
1,4-Dichlorobenzene	ND	1.74	1.29	3.33	52	39	29	22-110	55
N-Nitroso-di-n-propylamine	ND	1.96	1.43	3.33	59	43	31	18-138	49
1,2,4-Trichlorobenzene	ND	1.81	1.37	3.33	54	41	28	29-119	43
4-Chloro-3-methylphenol	ND	3.77	3.02	6.67	57	45	24	36-119	41
Acenaphthene	ND	1.83	1.43	3.33	55	43	24	17-148	36
2,4-Dinitrotoluene	ND	1.03	0.546	3.33	31	16	65	27-120	41
4-Nitrophenol	ND	5.32	3.74	6.67	80	56	35	16-143	80
Pentachlorophenol	ND	1.04	2.02	6.67	16	30	61	21-152	61
Pyrene	ND	2.39	2.09	3.33	72	63	13	24-133	46

ND = Not Detected

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

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METHOD BLANK REPORT
Semivolatile Organics by GC/MS
Project: 103928

Test: 8270-HLA-S Method 8270 - Semivolatile Organics
Matrix: SOLID
QC Run: 29 DEC 93-A Date Analyzed: 30 DEC 93

Analyte	Result	Units	Reporting Limit
N-Nitrosodiethylamine	ND	mg/kg	0.33
Phenol	ND	mg/kg	0.33
bis(2-Chloroethyl) ether	ND	mg/kg	0.33
2-Chlorophenol	ND	mg/kg	0.33
1,3-Dichlorobenzene	ND	mg/kg	0.33
1,4-Dichlorobenzene	ND	mg/kg	0.33
Benzyl alcohol	ND	mg/kg	0.33
1,2-Dichlorobenzene	ND	mg/kg	0.33
2-Methylphenol	ND	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND	mg/kg	0.33
3/4-Methylphenol	ND	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND	mg/kg	0.33
Hexachloroethane	ND	mg/kg	0.33
Nitrobenzene	ND	mg/kg	0.33
Isophorone	ND	mg/kg	0.33
2-Nitrophenol	ND	mg/kg	0.33
2,4-Dimethylphenol	ND	mg/kg	0.33
Benzoic acid	ND	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND	mg/kg	0.33
2,4-Dichlorophenol	ND	mg/kg	0.33
1,2,4-Trichlorobenzene	ND	mg/kg	0.33
Naphthalene	ND	mg/kg	0.33
4-Chloroaniline	ND	mg/kg	0.33
Hexachlorobutadiene	ND	mg/kg	0.33
4-Chloro-3-methylphenol	ND	mg/kg	0.33
2-Methylnaphthalene	ND	mg/kg	0.33
Hexachlorocyclopentadiene	ND	mg/kg	0.33
2,4,6-Trichlorophenol	ND	mg/kg	0.33
2,4,5-Trichlorophenol	ND	mg/kg	1.7
2-Chloronaphthalene	ND	mg/kg	0.33
2-Nitroaniline	ND	mg/kg	1.7
Dimethyl phthalate	ND	mg/kg	0.33
Acenaphthylene	ND	mg/kg	0.33
3-Nitroaniline	ND	mg/kg	1.7
Acenaphthene	ND	mg/kg	0.33
2,4-Dinitrophenol	ND	mg/kg	1.7
4-Nitrophenol	ND	mg/kg	1.7
Dibenzofuran	ND	mg/kg	0.33
2,4-Dinitrotoluene	ND	mg/kg	0.33
2,6-Dinitrotoluene	ND	mg/kg	0.33
Diethyl phthalate	ND	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND	mg/kg	0.33
Fluorene	ND	mg/kg	0.33
4-Nitroaniline	ND	mg/kg	1.7
4,6-Dinitro-2-methylphenol	ND	mg/kg	1.7

ND = Not Detected

METHOD BLANK REPORT
Semivolatile Organics by GC/MS (cont.)
Project: 103928

Test: 8270-HLA-S Method 8270 - Semivolatile Organics
Matrix: SOLID
QC Run: 29 DEC 93-A Date Analyzed: 30 DEC 93

Analyte	Result	Units	Reporting Limit
N-Nitrosodiphenylamine	ND	mg/kg	0.33
4-Bromophenyl phenyl ether	ND	mg/kg	0.33
Hexachlorobenzene	ND	mg/kg	0.33
Pentachlorophenol	ND	mg/kg	1.7
Phenanthrene	ND	mg/kg	0.33
Anthracene	ND	mg/kg	0.33
Di-n-butyl phthalate	ND	mg/kg	0.33
Fluoranthene	ND	mg/kg	0.33
Pyrene	ND	mg/kg	0.33
Butyl benzyl phthalate	ND	mg/kg	0.33
3,3'-Dichlorobenzidine	ND	mg/kg	0.66
Benzo(a)anthracene	ND	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND	mg/kg	0.33
Chrysene	ND	mg/kg	0.33
Di-n-octyl phthalate	ND	mg/kg	0.33
Benzo(b)fluoranthene	ND	mg/kg	0.33
Benzo(k)fluoranthene	ND	mg/kg	0.33
Benzo(a)pyrene	ND	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND	mg/kg	0.33
Dibenz(a,h)anthracene	ND	mg/kg	0.33
Benzo(g,h,i)perylene	ND	mg/kg	0.33
Xylidine (Total)	ND	mg/kg	0.33

ND = Not Detected

103928

Harding Lawson Associates
3 Hutton Centre Drive, Suite 200
Santa Ana, California 92707
714/556-7992 – 213/617-7232
FAX: 714/662-3297

CHAIN OF CUSTODY FORM

Lab: ENCECO

Samplers: KAREN WITHAARD

Job Number: AEROJET

Name/Location: 26522-2.3

Project Manager: MATT HUNTER

Recorder: Karen Withaard (Signature Required)

SOURCE CODE	MATRIX: Water	Sediment	Soil	Oil		#CONTAINERS & PRESERV.: Unpres.	H_2SO_4	HNO_3	CHILLED		SAMPLE NUMBER OR LAB NUMBER: Yr	Wk	Seq	DATE: Yr	Mo	Dy	Time	STATION DESCRIPTION/ NOTES	EPA 601/8010	EPA 602/8020	EPA 624/8240	EPA 625/8270	Priority Pllnt. Metals	Benzene/Toluene/Xylene	Total Petrol. Hydrocarb.	EPA 9012 Cyanide	EPA 6010/7000 Series Metals							HOLD
50			X			1			X	-	52B	20	10.25	93	12	27	0900	2½"X3" STAINLESS STEEL SLEEVE															
50			X			1			X	-	52B	20	10.50				0900																
50			X			1			X	-	52B	20	15.0				0915																
50			X			1			X	-	52B	20	20.25				0930																
50			X			1			X	-	52B	20	20.50				0930				X	X											
50			X			1			X	-	52B	20A	5.0				1055																
50			X			1			X	-	52B	20A	5.25				1105									X	X						
50			X			1			X		52B	20A	5.50				1105				X	X											
50			X			1			X	-	52B	19	5.00				1235																
50			X			1			X	-	52B	19	10.00				1250																

LAB NUMBER: Yr	Wk	Seq	DEPTH IN FEET	COL MTD CD	QA CODE	MISCELLANEOUS
						REPORT TO MATT HUNTER

CHAIN OF CUSTODY RECORD

RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
Karen Withaard	[illegible]	12-27 1655
RELINQUISHED BY: (Signature) [illegible]	RECEIVED BY: (Signature)	12-27 1755
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
DISPATCHED BY: (Signature) DATE/TIME	RECEIVED FOR LAB BY: (Signature) [illegible]	DATE/TIME 12/27/93 17:55

METHOD OF SHIPMENT

Laboratory Copy White | Project Office Copy Yellow | Field or Office Copy Pink

6533

Harding Lawson Associates
Hutton Centre Drive, Suite 200
Santa Ana, California 92707
714/556-7992 – 213/617-7232
FAX: 714/662-3297

103928

CHAIN OF CUSTODY FORM

Lab: ENCEC

Samplers: KAREN WITHERARD

Job Number: 26522-2.3

Name/Location: AEROSET AISA

Project Manager: MATT HUNTER

Recorder: Karen Witherard (Signature Required)

SOURCE CODE	MATRIX: Water	Sediment	Soil	Oil	#CONTAINERS & PRESERV.: Unpres.	H_2SO_4	HNO_3	CHILLED	SAMPLE NUMBER OR LAB NUMBER: Yr	Wk	Seq	DATE: Yr	Mo	Dy	Time	STATION DESCRIPTION/ NOTES	EPA 601/8010	EPA 602/8020	EPA 624/8240	EPA 625/8270	Priority Pllnt. Metals	Benzene/Toluene/Xylene	Total Petrol. Hydrocarb.	HOLD
																2½"x3" SS SLEEVES								
50			X		1				52B-19		15.00				1300	~~52B-19 15~~								
									52B-19		15.25				1300									
									52B-19		20.00				1315									
									52B-19		20.25				1315									
									52B-19		25.00				1330									
									52B-19		30.00				1340									
									52B-19		30.25				1340									
									52B-19		37.0				1400									
									52B-19		37.25				1400			X	X					
									52B-19		40.0				1405									

LAB NUMBER: Yr	Wk	Seq	DEPTH IN FEET	COL MTD CD	QA CODE	MISCELLANEOUS
						REPORT TO MATT HUNTER

CHAIN OF CUSTODY RECORD

RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
Karen Witherard	[signature]	12-27 1655
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
[signature]	[signature]	12-27 1755
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
DISPATCHED BY: (Signature) DATE/TIME	RECEIVED FOR LAB BY: (Signature)	DATE/TIME
	[signature]	12/27/93 17:55
METHOD OF SHIPMENT		

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Harding Lawson Associates
3 Hutton Centre Drive, Suite 200
Santa Ana, California 92707
714/556-7992 – 213/617-7232
FAX: 714/662-3297

103928

CHAIN OF CUSTODY FORM

Lab: ENVECO

Job Number: 26522-2.3

Name/Location: AERO SET HISA

Project Manager: MATT HUNTER

Samplers: KAREN WITBRARD

Recorder: Karen Witbrard (Signature Required)

SOURCE CODE	MATRIX: Water	Sediment	Soil	Oil	#CONTAINERS & PRESERV.: Unpres.	H_2SO_4	HNO_3	Chilled		SAMPLE NUMBER OR LAB NUMBER: Yr	Wk	Seq	DATE: Yr	Mo	Dy	Time	STATION DESCRIPTION/ NOTES	EPA 601/8010	EPA 602/8020	EPA 624/8240	EPA 625/8270	Priority Pllt. Metals	Benzene/Toluene/Xylene	Total Petrol. Hydrocarb.	EPA 9012 Cyanide	EPA 6010/7000 Series metals								HOLD
50					1			X		528-19	40.25		93	12	27	1405	2½" x 3 SS. SLEEVES																
50										528-19A	5.50					1500																	
50										528-19A	5.75					1500									X	X							
50										528-19A	6.00					1500				X	X												

LAB NUMBER: Yr	Wk	Seq	DEPTH IN FEET	COL MTD CD	QA CODE	MISCELLANEOUS
						REPORT TO MATT HUNTER
						ANALYZE / AERO SET
						CONTRACT

CHAIN OF CUSTODY RECORD

RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
Karen Witbrard	[signature]	12-27 / 1655
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
[signature]		12-27 / 1755
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
DISPATCHED BY: (Signature) DATE/TIME	RECEIVED FOR LAB BY: (Signature)	DATE/TIME
	[signature]	12/27/93 17:55

METHOD OF SHIPMENT

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6533

Enseco - CRL
7440 Lincoln Way • Garden Grove, CA 92641
(714) 898-6370 • (213) 598-0458 • (800) LAB-1-CRL
FAX: (714) 891-5917

Enseco
A Corning Company

January 10, 1994

HARDING LAWSON ASSOCIATES
3 HUTTON CENTRE DRIVE, STE 200
SANTA ANA, CA 92707
ATTN: MR. MATT HUNTER

Lab No.: 103940-0001/0018
Date Sampled: 28 DEC-1993
Date Sample Rec'd: 28 DEC-1993
Project: (26522-2.4) AEROJET-AISA

Enclosed with this letter is the report on the chemical and physical analyses on the samples from LAB NO: 103940-0001/0018 shown above.

The samples were received by CRL in a chilled state, intact and with the chain-of-custody record attached.

Note that ND means not detected at the reporting limit expressed. The reporting limit is raised to reflect the dilution factor of the sample.

Solid samples are reported on "as received" basis.

Case Narrative:

The MS/MSD Percent Recoveries for Aluminum, Cadmium, and Manganese were not within the acceptance limits specified in HLA's "Laboratory Analytical Technical Requirements," nor was it within Enseco's-CRL's established acceptance limits. However, the DCS recoveries were within all acceptable ranges, therefore the data was accepted and no further action was required.

The MSD Percent Recovery for Chromium was not within the acceptance limits specified in HLA's "Laboratory Analytical Technical Requirements," but was within Enseco's-CRL's established acceptance limits, therefore the data was accepted and no further action was required.

Sabina R. Sudoko
Reviewed

Phillip J. Toy
Approved

The Report Cover Letter is an integral part of this report.
This report pertains only to the samples investigated and does not necessarily apply to other apparently identical or similar materials. This report is submitted for the exclusive use of the client to whom it is addressed. Any reproduction of this report or use of this Laboratory's name for advertising or publicity purposes without authorization is prohibited.

Enseco
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SAMPLE DESCRIPTION INFORMATION
for
Harding Lawson Associates

Lab ID	Client ID	Matrix	Sampled Date	Sampled Time	Received Date
103940-0001-SA	SVMW-37 25.25	SOLID	28 DEC 93	09:40	28 DEC 93
103940-0002-SA	SVMW-37A 4.50	SOLID	28 DEC 93	12:00	28 DEC 93
103940-0003-SA	SVMW-37A 4.75	SOLID	28 DEC 93		28 DEC 93
103940-0004-SA	SZB-14 5.00	SOLID	28 DEC 93	13:20	28 DEC 93
103940-0005-SA	SZB-14 10.00	SOLID	28 DEC 93	13:40	28 DEC 93
103940-0006-SA	SZB-14 20.25	SOLID	28 DEC 93	14:20	28 DEC 93
103940-0007-SA	SVMW-37 10.00	SOLID	28 DEC 93	08:30	28 DEC 93
103940-0008-SA	SVMW-37 10.25	SOLID	28 DEC 93	08:30	28 DEC 93
103940-0009-SA	SVMW-37 17.50	SOLID	28 DEC 93	08:50	28 DEC 93
103940-0010-SA	SVMW-37 17.75	SOLID	28 DEC 93	08:50	28 DEC 93
103940-0011-SA	SVMW-37 20.50	SOLID	28 DEC 93	09:27	28 DEC 93
103940-0012-SA	SVMW-37 20.75	SOLID	28 DEC 93	09:27	28 DEC 93
103940-0013-SA	SVMW-37 25.00	SOLID	28 DEC 93	09:40	28 DEC 93
103940-0014-SA	SVMW-37 30.00	SOLID	28 DEC 93	09:50	28 DEC 93
103940-0015-SA	SZB-14 10.25	SOLID	28 DEC 93	13:40	28 DEC 93
103940-0016-SA	SZB-14 15.00	SOLID	28 DEC 93	13:50	28 DEC 93
103940-0017-SA	SZB-14 15.25	SOLID	28 DEC 93	13:50	28 DEC 93
103940-0018-SA	SZB-14 20.00	SOLID	28 DEC 93	14:20	28 DEC 93

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METALS

Client Name: Harding Lawson Associates
Client ID: SVMW-37A 4.50
Lab ID: 103940-0002-SA
Matrix: SOLID Sampled: 28 DEC 93 Received: 28 DEC 93
Authorized: 29 DEC 93 Prepared: See Below Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Aluminum	6700		50.0	200	mg/kg	7020	30 DEC 93	04 JAN 94
Arsenic	2.0		0.20	0.50	mg/kg	7062	30 DEC 93	05 JAN 94
Barium	80.0		20.0	50.0	mg/kg	7080	30 DEC 93	04 JAN 94
Chromium	10.2		5.0	10.0	mg/kg	7190	30 DEC 93	04 JAN 94
Copper	16.0		5.0	10.0	mg/kg	7210	30 DEC 93	30 DEC 93
Lead	ND		20.0	20.0	mg/kg	7420	30 DEC 93	30 DEC 93
Manganese	268		2.0	5.0	mg/kg	7460	30 DEC 93	30 DEC 93
Nickel	TR		5.0	10.0	mg/kg	7520	30 DEC 93	30 DEC 93
Zinc	39.4		1.0	2.0	mg/kg	7950	30 DEC 93	04 JAN 94
Cadmium	ND		2.0	5.0	mg/kg	7130	30 DEC 93	04 JAN 94
Mercury	ND		0.090	0.10	mg/kg	7471	04 JAN 94	05 JAN 94

ND = Not Detected

Enseco
A Corning Company

METALS

Client Name: Harding Lawson Associates
Client ID: SZB-14 10.00
LAB ID: 103940-0005-SA
Matrix: SOLID Sampled: 28 DEC 93 Received: 28 DEC 93
Authorized: 29 DEC 93 Prepared: See Below Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Aluminum	4170		50.0	100	mg/kg	7020	30 DEC 93	04 JAN 94
Arsenic	6.9		0.20	0.50	mg/kg	7062	30 DEC 93	05 JAN 94
Barium	73.0		20.0	50.0	mg/kg	7080	30 DEC 93	04 JAN 94
Chromium	39.1		5.0	10.0	mg/kg	7190	30 DEC 93	04 JAN 94
Copper	33.0		5.0	10.0	mg/kg	7210	30 DEC 93	30 DEC 93
Lead	ND		20.0	20.0	mg/kg	7420	30 DEC 93	30 DEC 93
Manganese	346		2.0	5.0	mg/kg	7460	30 DEC 93	30 DEC 93
Nickel	27.0		5.0	10.0	mg/kg	7520	30 DEC 93	30 DEC 93
Zinc	35.6		1.0	2.0	mg/kg	7950	30 DEC 93	04 JAN 94
Cadmium	ND		2.0	5.0	mg/kg	7130	30 DEC 93	04 JAN 94
Mercury	ND		0.090	0.10	mg/kg	7471	04 JAN 94	05 JAN 94

ND = Not Detected

Enseco
A Corning Company

GENERAL INORGANICS

Client Name: Harding Lawson Associates
Client ID: SVMW-37A 4.50
Lab ID: 103940-0002-SA
Matrix: SOLID Sampled: 28 DEC 93 Received: 28 DEC 93
Authorized: 29 DEC 93 Prepared: See Below Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Cyanide, Total	ND		0.30	0.50	mg/kg	9012	03 JAN 94	03 JAN 94

ND = Not Detected

Enseco
A Corning Company

GENERAL INORGANICS

Client Name: Harding Lawson Associates
Client ID: SZB-14 10.00
LAB ID: 103940-0005-SA
Matrix: SOLID
Authorized: 29 DEC 93

Sampled: 28 DEC 93
Prepared: See Below

Received: 28 DEC 93
Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Cyanide, Total	ND		0.30	0.50	mg/kg	9012	03 JAN 94	03 JAN 94

ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SVMW-37 25.25
LAB ID: 103940-0001-SA
Matrix: SOLID Sampled: 28 DEC 93 Received: 28 DEC 93
Authorized: 29 DEC 93 Prepared: 29 DEC 93 Analyzed: 29 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/kg	5.0
Methylene chloride	TR		1.1	ug/kg	5.0
Acetone	ND		7.1	ug/kg	10
Trichlorofluoromethane	TR	B	0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	ND		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	ND		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	ND		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	ND		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0

= Compound is also detected in the blank.
ND = Not Detected

Volatile Organic Compounds
Method 8240
(cont.)

Client Name: Harding Lawson Associates
Client ID: SVMW-37 25.25
LAB ID: 103940-0001-SA
Matrix: SOLID Sampled: 28 DEC 93 Received: 28 DEC 93
Authorized: 29 DEC 93 Prepared: 29 DEC 93 Analyzed: 29 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
tert-Butylbenzene	ND		0.55	ug/kg	5.0
1,2,4-Trimethylbenzene	ND		0.53	ug/kg	5.0
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	99	%
Toluene-d8	102	%
Bromofluorobenzene	93	%

ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SVMW-37A 4.75
LAB ID: 103940-0003-SA
Matrix: SOLID Sampled: 28 DEC 93 Received: 28 DEC 93
Authorized: 29 DEC 93 Prepared: 29 DEC 93 Analyzed: 29 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/kg	5.0
Methylene chloride	TR		1.1	ug/kg	5.0
Acetone	ND		7.1	ug/kg	10
Trichlorofluoromethane	TR	B	0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	TR		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	ND		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	ND		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	ND		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0

B = Compound is also detected in the blank.
ND = Not Detected

Volatile Organic Compounds
Method 8240
(Cont.)

Client Name: Harding Lawson Associates
Client ID: SVMW-37A 4.75
LAB ID: 103940-0003-SA
Matrix: SOLID Sampled: 28 DEC 93 Received: 28 DEC 93
Authorized: 29 DEC 93 Prepared: 29 DEC 93 Analyzed: 29 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
tert-Butylbenzene	ND		0.55	ug/kg	5.0
1,2,4-Trimethylbenzene	ND		0.53	ug/kg	5.0
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	99	%
Toluene-d8	99	%
Bromofluorobenzene	87	%

ND = Not Detected

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Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-14 5.00
LAB ID: 103940-0004-SA
Matrix: SOLID Sampled: 28 DEC 93 Received: 28 DEC 93
Authorized: 29 DEC 93 Prepared: 29 DEC 93 Analyzed: 29 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/kg	5.0
Methylene chloride	TR		1.1	ug/kg	5.0
Acetone	TR		7.1	ug/kg	10
Trichlorofluoromethane	TR	B	0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	ND		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	ND		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	TR		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	20		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0

B = Compound is also detected in the blank.
ND = Not Detected

Volatile Organic Compounds
Method 8240
(Cont.)

Client Name: Harding Lawson Associates
Client ID: SZB-14 5.00
LAB ID: 103940-0004-SA
Matrix: SOLID Sampled: 28 DEC 93 Received: 28 DEC 93
Authorized: 29 DEC 93 Prepared: 29 DEC 93 Analyzed: 29 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
tert-Butylbenzene	ND		0.55	ug/kg	5.0
1,2,4-Trimethylbenzene	ND		0.53	ug/kg	5.0
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	105	%
Toluene-d8	96	%
Bromofluorobenzene	84	%

ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-14 20.25
LAB ID: 103940-0006-SA
Matrix: SOLID Sampled: 28 DEC 93 Received: 28 DEC 93
Authorized: 29 DEC 93 Prepared: 29 DEC 93 Analyzed: 29 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/kg	5.0
Methylene chloride	ND		1.1	ug/kg	5.0
Acetone	ND		7.1	ug/kg	10
Trichlorofluoromethane	TR	B	0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	ND		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	ND		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	ND		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	ND		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0

B = Compound is also detected in the blank.
ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-14 20.25
LAB ID: 103940-0006-SA
Matrix: SOLID Sampled: 28 DEC 93 Received: 28 DEC 93
Authorized: 29 DEC 93 Prepared: 29 DEC 93 Analyzed: 29 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
tert-Butylbenzene	ND		0.55	ug/kg	5.0
1,2,4-Trimethylbenzene	ND		0.53	ug/kg	5.0
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	105	%
Toluene-d8	106	%
Bromofluorobenzene	98	%

ND = Not Detected

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Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SVMW-37 25.25
LAB ID: 103940-0001-SA
Matrix: SOLID Sampled: 28 DEC 93 Received: 28 DEC 93
Authorized: 29 DEC 93 Prepared: 29 DEC 93 Analyzed: 30 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
N-Nitrosodiethylamine	ND		0.26	mg/kg	0.33
Phenol	ND		0.030	mg/kg	0.33
bis(2-Chloroethyl) ether	ND		0.060	mg/kg	0.33
2-Chlorophenol	ND		0.040	mg/kg	0.33
1,3-Dichlorobenzene	ND		0.030	mg/kg	0.33
1,4-Dichlorobenzene	ND		0.060	mg/kg	0.33
Benzyl alcohol	ND		0.070	mg/kg	0.33
1,2-Dichlorobenzene	ND		0.040	mg/kg	0.33
2-Methylphenol	ND		0.030	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND		0.040	mg/kg	0.33
3/4-Methylphenol	ND		0.040	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND		0.030	mg/kg	0.33
Hexachloroethane	ND		0.030	mg/kg	0.33
Nitrobenzene	ND		0.090	mg/kg	0.33
Isophorone	ND		0.040	mg/kg	0.33
2-Nitrophenol	ND		0.050	mg/kg	0.33
2,4-Dimethylphenol	ND		0.030	mg/kg	0.33
Benzoic acid	ND		0.51	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND		0.020	mg/kg	0.33
2,4-Dichlorophenol	ND		0.030	mg/kg	0.33
1,2,4-Trichlorobenzene	ND		0.040	mg/kg	0.33
Naphthalene	ND		0.030	mg/kg	0.33
4-Chloroaniline	ND		0.10	mg/kg	0.33
Hexachlorobutadiene	ND		0.040	mg/kg	0.33
4-Chloro-3-methylphenol	ND		0.040	mg/kg	0.33
2-Methylnaphthalene	ND		0.030	mg/kg	0.33
Hexachlorocyclopentadiene	ND		0.050	mg/kg	0.33
2,4,6-Trichlorophenol	ND		0.040	mg/kg	0.33
2,4,5-Trichlorophenol	ND		0.050	mg/kg	1.7
2-Chloronaphthalene	ND		0.030	mg/kg	0.33
2-Nitroaniline	ND		0.030	mg/kg	1.7
Dimethyl phthalate	ND		0.030	mg/kg	0.33
Acenaphthylene	ND		0.020	mg/kg	0.33
3-Nitroaniline	ND		0.14	mg/kg	1.7
Acenaphthene	ND		0.030	mg/kg	0.33
2,4-Dinitrophenol	ND		0.23	mg/kg	1.7
4-Nitrophenol	ND		0.25	mg/kg	1.7
Dibenzofuran	ND		0.040	mg/kg	0.33
2,4-Dinitrotoluene	ND		0.040	mg/kg	0.33
2,6-Dinitrotoluene	ND		0.050	mg/kg	0.33
Diethyl phthalate	ND		0.020	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND		0.030	mg/kg	0.33
Fluorene	ND		0.030	mg/kg	0.33
4-Nitroaniline	ND		0.18	mg/kg	1.7

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SVMW-37 25.25
LAB ID: 103940-0001-SA
Matrix: SOLID Sampled: 28 DEC 93 Received: 28 DEC 93
Authorized: 29 DEC 93 Prepared: 29 DEC 93 Analyzed: 30 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
4,6-Dinitro-2-methylphenol	ND		0.36	mg/kg	1.7
N-Nitrosodiphenylamine	ND		0.040	mg/kg	0.33
4-Bromophenyl phenyl ether	ND		0.080	mg/kg	0.33
Hexachlorobenzene	ND		0.030	mg/kg	0.33
Pentachlorophenol	ND		0.19	mg/kg	1.7
Phenanthrene	ND		0.030	mg/kg	0.33
Anthracene	ND		0.020	mg/kg	0.33
Di-n-butyl phthalate	ND		0.24	mg/kg	0.33
Fluoranthene	ND		0.030	mg/kg	0.33
Pyrene	ND		0.020	mg/kg	0.33
Butyl benzyl phthalate	ND		0.030	mg/kg	0.33
3,3'-Dichlorobenzidine	ND		0.33	mg/kg	0.66
Benzo(a)anthracene	ND		0.040	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND		0.13	mg/kg	0.33
Chrysene	ND		0.040	mg/kg	0.33
Di-n-octyl phthalate	ND		0.040	mg/kg	0.33
Benzo(b)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(k)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(a)pyrene	ND		0.040	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND		0.030	mg/kg	0.33
Dibenz(a,h)anthracene	ND		0.030	mg/kg	0.33
Benzo(g,h,i)perylene	ND		0.020	mg/kg	0.33
Xylidine (Total)	ND		0.076	mg/kg	0.33

Surrogate	Recovery	
Nitrobenzene-d5	60	%
2-Fluorobiphenyl	68	%
Terphenyl-d14	73	%
Phenol-d5	58	%
2-Fluorophenol	62	%
2,4,6-Tribromophenol	68	%

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SVMW-37A 4.75
LAB ID: 103940-0003-SA
Matrix: SOLID Sampled: 28 DEC 93 Received: 28 DEC 93
Authorized: 29 DEC 93 Prepared: 29 DEC 93 Analyzed: 30 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
N-Nitrosodiethylamine	ND		0.26	mg/kg	0.33
Phenol	ND		0.030	mg/kg	0.33
bis(2-Chloroethyl) ether	ND		0.060	mg/kg	0.33
2-Chlorophenol	ND		0.040	mg/kg	0.33
1,3-Dichlorobenzene	ND		0.030	mg/kg	0.33
1,4-Dichlorobenzene	ND		0.060	mg/kg	0.33
Benzyl alcohol	ND		0.070	mg/kg	0.33
1,2-Dichlorobenzene	ND		0.040	mg/kg	0.33
2-Methylphenol	ND		0.030	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND		0.040	mg/kg	0.33
3/4-Methylphenol	ND		0.040	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND		0.030	mg/kg	0.33
Hexachloroethane	ND		0.030	mg/kg	0.33
Nitrobenzene	ND		0.090	mg/kg	0.33
Isophorone	ND		0.040	mg/kg	0.33
2-Nitrophenol	ND		0.050	mg/kg	0.33
2,4-Dimethylphenol	ND		0.030	mg/kg	0.33
Benzoic acid	ND		0.51	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND		0.020	mg/kg	0.33
2,4-Dichlorophenol	ND		0.030	mg/kg	0.33
1,2,4-Trichlorobenzene	ND		0.040	mg/kg	0.33
Naphthalene	ND		0.030	mg/kg	0.33
4-Chloroaniline	ND		0.10	mg/kg	0.33
Hexachlorobutadiene	ND		0.040	mg/kg	0.33
4-Chloro-3-methylphenol	ND		0.040	mg/kg	0.33
2-Methylnaphthalene	ND		0.030	mg/kg	0.33
Hexachlorocyclopentadiene	ND		0.050	mg/kg	0.33
2,4,6-Trichlorophenol	ND		0.040	mg/kg	0.33
2,4,5-Trichlorophenol	ND		0.050	mg/kg	1.7
2-Chloronaphthalene	ND		0.030	mg/kg	0.33
2-Nitroaniline	ND		0.030	mg/kg	1.7
Dimethyl phthalate	ND		0.030	mg/kg	0.33
Acenaphthylene	ND		0.020	mg/kg	0.33
3-Nitroaniline	ND		0.14	mg/kg	1.7
Acenaphthene	ND		0.030	mg/kg	0.33
2,4-Dinitrophenol	ND		0.23	mg/kg	1.7
4-Nitrophenol	ND		0.25	mg/kg	1.7
Dibenzofuran	ND		0.040	mg/kg	0.33
2,4-Dinitrotoluene	ND		0.040	mg/kg	0.33
2,6-Dinitrotoluene	ND		0.050	mg/kg	0.33
Diethyl phthalate	ND		0.020	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND		0.030	mg/kg	0.33
Fluorene	ND		0.030	mg/kg	0.33
4-Nitroaniline	ND		0.18	mg/kg	1.7

ND = Not Detected

Semivolatile Organic Compounds (cont.)
Method 8270

Client Name: Harding Lawson Associates
Client ID: SVMW-37A 4.75
LAB ID: 103940-0003-SA
Matrix: SOLID Sampled: 28 DEC 93 Received: 28 DEC 93
Authorized: 29 DEC 93 Prepared: 29 DEC 93 Analyzed: 30 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
4,6-Dinitro-2-methylphenol	ND		0.36	mg/kg	1.7
N-Nitrosodiphenylamine	ND		0.040	mg/kg	0.33
4-Bromophenyl phenyl ether	ND		0.080	mg/kg	0.33
Hexachlorobenzene	ND		0.030	mg/kg	0.33
Pentachlorophenol	ND		0.19	mg/kg	1.7
Phenanthrene	ND		0.030	mg/kg	0.33
Anthracene	ND		0.020	mg/kg	0.33
Di-n-butyl phthalate	ND		0.24	mg/kg	0.33
Fluoranthene	ND		0.030	mg/kg	0.33
Pyrene	ND		0.020	mg/kg	0.33
Butyl benzyl phthalate	ND		0.030	mg/kg	0.33
3,3'-Dichlorobenzidine	ND		0.33	mg/kg	0.66
Benzo(a)anthracene	ND		0.040	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND		0.13	mg/kg	0.33
Chrysene	ND		0.040	mg/kg	0.33
Di-n-octyl phthalate	ND		0.040	mg/kg	0.33
Benzo(b)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(k)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(a)pyrene	ND		0.040	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND		0.030	mg/kg	0.33
Dibenz(a,h)anthracene	ND		0.030	mg/kg	0.33
Benzo(g,h,i)perylene	ND		0.020	mg/kg	0.33
Xylidine (Total)	ND		0.076	mg/kg	0.33

Surrogate	Recovery	
Nitrobenzene-d5	67	%
2-Fluorobiphenyl	66	%
Terphenyl-d14	68	%
Phenol-d5	60	%
2-Fluorophenol	58	%
2,4,6-Tribromophenol	67	%

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-14 5.00
LAB ID: 103940-0004-SA
Matrix: SOLID Sampled: 28 DEC 93 Received: 28 DEC 93
Authorized: 29 DEC 93 Prepared: 29 DEC 93 Analyzed: 30 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
N-Nitrosodiethylamine	ND		0.26	mg/kg	0.33
Phenol	ND		0.030	mg/kg	0.33
bis(2-Chloroethyl) ether	ND		0.060	mg/kg	0.33
2-Chlorophenol	ND		0.040	mg/kg	0.33
1,3-Dichlorobenzene	ND		0.030	mg/kg	0.33
1,4-Dichlorobenzene	ND		0.060	mg/kg	0.33
Benzyl alcohol	ND		0.070	mg/kg	0.33
1,2-Dichlorobenzene	ND		0.040	mg/kg	0.33
2-Methylphenol	ND		0.030	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND		0.040	mg/kg	0.33
3/4-Methylphenol	ND		0.040	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND		0.030	mg/kg	0.33
Hexachloroethane	ND		0.030	mg/kg	0.33
Nitrobenzene	ND		0.090	mg/kg	0.33
Isophorone	ND		0.040	mg/kg	0.33
2-Nitrophenol	ND		0.050	mg/kg	0.33
2,4-Dimethylphenol	ND		0.030	mg/kg	0.33
Benzoic acid	ND		0.51	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND		0.020	mg/kg	0.33
2,4-Dichlorophenol	ND		0.030	mg/kg	0.33
1,2,4-Trichlorobenzene	ND		0.040	mg/kg	0.33
Naphthalene	ND		0.030	mg/kg	0.33
4-Chloroaniline	ND		0.10	mg/kg	0.33
Hexachlorobutadiene	ND		0.040	mg/kg	0.33
4-Chloro-3-methylphenol	ND		0.040	mg/kg	0.33
2-Methylnaphthalene	ND		0.030	mg/kg	0.33
Hexachlorocyclopentadiene	ND		0.050	mg/kg	0.33
2,4,6-Trichlorophenol	ND		0.040	mg/kg	0.33
2,4,5-Trichlorophenol	ND		0.050	mg/kg	1.7
2-Chloronaphthalene	ND		0.030	mg/kg	0.33
2-Nitroaniline	ND		0.030	mg/kg	1.7
Dimethyl phthalate	ND		0.030	mg/kg	0.33
Acenaphthylene	ND		0.020	mg/kg	0.33
3-Nitroaniline	ND		0.14	mg/kg	1.7
Acenaphthene	ND		0.030	mg/kg	0.33
2,4-Dinitrophenol	ND		0.23	mg/kg	1.7
4-Nitrophenol	ND		0.25	mg/kg	1.7
Dibenzofuran	ND		0.040	mg/kg	0.33
2,4-Dinitrotoluene	ND		0.040	mg/kg	0.33
2,6-Dinitrotoluene	ND		0.050	mg/kg	0.33
Diethyl phthalate	ND		0.020	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND		0.030	mg/kg	0.33
Fluorene	ND		0.030	mg/kg	0.33
4-Nitroaniline	ND		0.18	mg/kg	1.7

ND = Not Detected

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Semivolatile Organic Compounds
Method 8270
(cont.)

Client Name: Harding Lawson Associates
Client ID: SZB-14 5.00
LAB ID: 103940-0004-SA
Matrix: SOLID Sampled: 28 DEC 93 Received: 28 DEC 93
Authorized: 29 DEC 93 Prepared: 29 DEC 93 Analyzed: 30 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
4,6-Dinitro-2-methylphenol	ND		0.36	mg/kg	1.7
N-Nitrosodiphenylamine	ND		0.040	mg/kg	0.33
4-Bromophenyl phenyl ether	ND		0.080	mg/kg	0.33
Hexachlorobenzene	ND		0.030	mg/kg	0.33
Pentachlorophenol	ND		0.19	mg/kg	1.7
Phenanthrene	ND		0.030	mg/kg	0.33
Anthracene	ND		0.020	mg/kg	0.33
Di-n-butyl phthalate	ND		0.24	mg/kg	0.33
Fluoranthene	ND		0.030	mg/kg	0.33
Pyrene	ND		0.020	mg/kg	0.33
Butyl benzyl phthalate	ND		0.030	mg/kg	0.33
3,3'-Dichlorobenzidine	ND		0.33	mg/kg	0.66
Benzo(a)anthracene	ND		0.040	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND		0.13	mg/kg	0.33
Chrysene	ND		0.040	mg/kg	0.33
Di-n-octyl phthalate	ND		0.040	mg/kg	0.33
Benzo(b)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(k)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(a)pyrene	ND		0.040	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND		0.030	mg/kg	0.33
Dibenz(a,h)anthracene	ND		0.030	mg/kg	0.33
Benzo(g,h,i)perylene	ND		0.020	mg/kg	0.33
Xylidine (Total)	ND		0.076	mg/kg	0.33

Surrogate	Recovery	
Nitrobenzene-d5	58	%
2-Fluorobiphenyl	62	%
Terphenyl-d14	57	%
Phenol-d5	54	%
2-Fluorophenol	53	%
2,4,6-Tribromophenol	58	%

ND = Not Detected

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Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-14 20.25
LAB ID: 103940-0006-SA
Matrix: SOLID Sampled: 28 DEC 93 Received: 28 DEC 93
Authorized: 29 DEC 93 Prepared: 29 DEC 93 Analyzed: 30 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
N-Nitrosodiethylamine	ND		0.26	mg/kg	0.33
Phenol	ND		0.030	mg/kg	0.33
bis(2-Chloroethyl) ether	ND		0.060	mg/kg	0.33
2-Chlorophenol	ND		0.040	mg/kg	0.33
1,3-Dichlorobenzene	ND		0.030	mg/kg	0.33
1,4-Dichlorobenzene	ND		0.060	mg/kg	0.33
Benzyl alcohol	ND		0.070	mg/kg	0.33
1,2-Dichlorobenzene	ND		0.040	mg/kg	0.33
2-Methylphenol	ND		0.030	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND		0.040	mg/kg	0.33
3/4-Methylphenol	ND		0.040	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND		0.030	mg/kg	0.33
Hexachloroethane	ND		0.030	mg/kg	0.33
Nitrobenzene	ND		0.090	mg/kg	0.33
Isophorone	ND		0.040	mg/kg	0.33
2-Nitrophenol	ND		0.050	mg/kg	0.33
2,4-Dimethylphenol	ND		0.030	mg/kg	0.33
Benzoic acid	ND		0.51	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND		0.020	mg/kg	0.33
2,4-Dichlorophenol	ND		0.030	mg/kg	0.33
1,2,4-Trichlorobenzene	ND		0.040	mg/kg	0.33
Naphthalene	ND		0.030	mg/kg	0.33
4-Chloroaniline	ND		0.10	mg/kg	0.33
Hexachlorobutadiene	ND		0.040	mg/kg	0.33
4-Chloro-3-methylphenol	ND		0.040	mg/kg	0.33
2-Methylnaphthalene	ND		0.030	mg/kg	0.33
Hexachlorocyclopentadiene	ND		0.050	mg/kg	0.33
2,4,6-Trichlorophenol	ND		0.040	mg/kg	0.33
2,4,5-Trichlorophenol	ND		0.050	mg/kg	1.7
2-Chloronaphthalene	ND		0.030	mg/kg	0.33
2-Nitroaniline	ND		0.030	mg/kg	1.7
Dimethyl phthalate	ND		0.030	mg/kg	0.33
Acenaphthylene	ND		0.020	mg/kg	0.33
3-Nitroaniline	ND		0.14	mg/kg	1.7
Acenaphthene	ND		0.030	mg/kg	0.33
2,4-Dinitrophenol	ND		0.23	mg/kg	1.7
4-Nitrophenol	ND		0.25	mg/kg	1.7
Dibenzofuran	ND		0.040	mg/kg	0.33
2,4-Dinitrotoluene	ND		0.040	mg/kg	0.33
2,6-Dinitrotoluene	ND		0.050	mg/kg	0.33
Diethyl phthalate	ND		0.020	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND		0.030	mg/kg	0.33
Fluorene	ND		0.030	mg/kg	0.33
4-Nitroaniline	ND		0.18	mg/kg	1.7

ND = Not Detected

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(cont.)

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-14 20.25
LAB ID: 103940-0006-SA
Matrix: SOLID Sampled: 28 DEC 93 Received: 28 DEC 93
Authorized: 29 DEC 93 Prepared: 29 DEC 93 Analyzed: 30 DEC 93

Parameter	Result	Qualifier	MDL	Units	Rep Limit
4,6-Dinitro-2-methylphenol	ND		0.36	mg/kg	1.7
N-Nitrosodiphenylamine	ND		0.040	mg/kg	0.33
4-Bromophenyl phenyl ether	ND		0.080	mg/kg	0.33
Hexachlorobenzene	ND		0.030	mg/kg	0.33
Pentachlorophenol	ND		0.19	mg/kg	1.7
Phenanthrene	ND		0.030	mg/kg	0.33
Anthracene	ND		0.020	mg/kg	0.33
Di-n-butyl phthalate	ND		0.24	mg/kg	0.33
Fluoranthene	ND		0.030	mg/kg	0.33
Pyrene	ND		0.020	mg/kg	0.33
Butyl benzyl phthalate	ND		0.030	mg/kg	0.33
3,3'-Dichlorobenzidine	ND		0.33	mg/kg	0.66
Benzo(a)anthracene	ND		0.040	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND		0.13	mg/kg	0.33
Chrysene	ND		0.040	mg/kg	0.33
Di-n-octyl phthalate	ND		0.040	mg/kg	0.33
Benzo(b)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(k)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(a)pyrene	ND		0.040	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND		0.030	mg/kg	0.33
Dibenz(a,h)anthracene	ND		0.030	mg/kg	0.33
Benzo(g,h,i)perylene	ND		0.020	mg/kg	0.33
Xylidine (Total)	ND		0.076	mg/kg	0.33

Surrogate	Recovery	
Nitrobenzene-d5	54	%
2-Fluorobiphenyl	58	%
Terphenyl-d14	59	%
Phenol-d5	51	%
2-Fluorophenol	51	%
2,4,6-Tribromophenol	62	%

ND = Not Detected

QC LOT ASSIGNMENT REPORT - MS QC
Metals Analysis and Preparation

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
103940-0002-SA	SOLID	AL-FLAA-S	30 DEC 93-D	30 DEC 93-D	30 DEC 93-DB
103940-0002-SA	SOLID	AS-HAA-S	30 DEC 93-D	30 DEC 93-D	30 DEC 93-DB
103940-0002-SA	SOLID	CD-FLAA-S	30 DEC 93-D	30 DEC 93-D	30 DEC 93-DB
103940-0002-SA	SOLID	CR-FLAA-S	30 DEC 93-D	30 DEC 93-D	30 DEC 93-DB
103940-0002-SA	SOLID	MN-FLAA-S	30 DEC 93-D	30 DEC 93-D	30 DEC 93-DB
103940-0002-SA	SOLID	NI-FLAA-S	30 DEC 93-D	30 DEC 93-D	30 DEC 93-DB
103940-0002-SA	SOLID	PB-FLAA-S	30 DEC 93-D	30 DEC 93-D	30 DEC 93-DB
103940-0002-SA	SOLID	CU-FLAA-S	30 DEC 93-D	30 DEC 93-D	30 DEC 93-DB
103940-0002-SA	SOLID	ZN-FLAA-S	30 DEC 93-D	30 DEC 93-D	30 DEC 93-DB
103940-0002-SA	SOLID	BA-FLAA-S	30 DEC 93-D	30 DEC 93-D	30 DEC 93-DB
103940-0002-SA	SOLID	HG-CVAA-S	04 JAN 94-E	04 JAN 94-E	04 JAN 94-EA
103940-0005-SA	SOLID	AL-FLAA-S	30 DEC 93-D	30 DEC 93-D	30 DEC 93-DB
103940-0005-SA	SOLID	AS-HAA-S	30 DEC 93-D	30 DEC 93-D	30 DEC 93-DB
103940-0005-SA	SOLID	CD-FLAA-S	30 DEC 93-D	30 DEC 93-D	30 DEC 93-DB
103940-0005-SA	SOLID	CR-FLAA-S	30 DEC 93-D	30 DEC 93-D	30 DEC 93-DB
103940-0005-SA	SOLID	MN-FLAA-S	30 DEC 93-D	30 DEC 93-D	30 DEC 93-DB
103940-0005-SA	SOLID	NI-FLAA-S	30 DEC 93-D	30 DEC 93-D	30 DEC 93-DB
103940-0005-SA	SOLID	PB-FLAA-S	30 DEC 93-D	30 DEC 93-D	30 DEC 93-DB
103940-0005-SA	SOLID	CU-FLAA-S	30 DEC 93-D	30 DEC 93-D	30 DEC 93-DB
103940-0005-SA	SOLID	ZN-FLAA-S	30 DEC 93-D	30 DEC 93-D	30 DEC 93-DB
103940-0005-SA	SOLID	BA-FLAA-S	30 DEC 93-D	30 DEC 93-D	30 DEC 93-DB
103940-0005-SA	SOLID	HG-CVAA-S	04 JAN 94-E	04 JAN 94-E	04 JAN 94-EA

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DUPLICATE CONTROL SAMPLE REPORT
Metals Analysis and Preparation
Project: 103940

Category: AL-FLAA-S Aluminum, Flame AA
Matrix: SOLID
QC Lot: 30 DEC 93-D
Date Analyzed: 04 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Aluminum	10700	9200	8680	8940	84	47-153	5.8	20

Category: AS-HAA-S Arsenic, Hydride AA
Matrix: SOLID
QC Lot: 30 DEC 93-D
Date Analyzed: 05 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Arsenic	145	120	134	127	88	59-141	11	20

Category: CD-FLAA-S Cadmium, Flame AA
Matrix: SOLID
QC Lot: 30 DEC 93-D
Date Analyzed: 04 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Cadmium	154	152	149	150	98	68-132	2.0	20

Category: CR-FLAA-S Chromium, Flame AA
Matrix: SOLID
QC Lot: 30 DEC 93-D
Date Analyzed: 04 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Chromium	151	136	144	140	93	66-133	5.7	20

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

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DUPLICATE CONTROL SAMPLE REPORT
Metals Analysis and Preparation
Project: 103940

Category: MN-FLAA-S Manganese, Flame AA Method 7460
Matrix: SOLID
QC Lot: 30 DEC 93-D
Date Analyzed: 30 DEC 93
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Manganese	423	394	390	392	93	74-125	1.0	20

Category: NI-FLAA-S Nickel Flame AA
Matrix: SOLID
QC Lot: 30 DEC 93-D
Date Analyzed: 30 DEC 93
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Nickel	166	158	160	159	96	67-133	1.3	20

Category: PB-FLAA-S Method 7420 - Lead, Flame AA
Matrix: SOLID
QC Lot: 30 DEC 93-D
Date Analyzed: 30 DEC 93
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Lead	148	136	144	140	95	66-135	5.7	20

Category: CU-FLAA-S Copper Flame AA
Matrix: SOLID
QC Lot: 30 DEC 93-D
Date Analyzed: 30 DEC 93
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Copper	162	154	164	159	98	68-132	6.3	20

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

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DUPLICATE CONTROL SAMPLE REPORT
Metals Analysis and Preparation
Project: 103940

Category: ZN-FLAA-S Zinc, Flame AA
Matrix: SOLID
QC Lot: 30 DEC 93-D
Date Analyzed: 04 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Zinc	530	498	495	496	94	65-135	0.60	20

Category: BA-FLAA-S Barium, Flame AA
Matrix: SOLID
QC Lot: 30 DEC 93-D
Date Analyzed: 04 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Barium	503	529	524	526	105	76-124	0.95	20

Category: HG-CVAA-S Mercury by CVAA
Matrix: SOLID
QC Lot: 04 JAN 94-E
Date Analyzed: 05 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Mercury	29.0	31.1	29.1	30.1	104	52-148	6.6	20

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Metals Analysis and Preparation
Project: 103940

Category: AL-FLAA-S Aluminum, Flame AA
Matrix: SOLID
Sample: 103928-0002
MS Run: 30 DEC 93-DB
Units: mg/kg

Analyte	Sample Result	MS Result	MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
	Concentration								
Aluminum	3460	3410	3430	200	NC	NC	NC	60-130	20

Category: AS-HAA-S Arsenic, Hydride AA
Matrix: SOLID
Sample: 103928-0002
MS Run: 30 DEC 93-DB
Units mg/kg Units Qualifier: Wet wt.

Analyte	Sample Result	MS Result	MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
	Concentration								
Arsenic	1.39	49.2	52.6	50.0	96	102	6.1	50-127	25

Category: CD-FLAA-S Cadmium, Flame AA
Matrix: SOLID
Sample: 103928-0002
MS Run: 30 DEC 93-DB
Units: mg/kg

Analyte	Sample Result	MS Result	MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
	Concentration								
Cadmium	ND	ND	ND	5.00	NC	NC	NC	52-130	28

NC = Not Calculated, calculation not applicable.
ND = Not Detected

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Metals Analysis and Preparation
Project: 103940 (cont.)

Category: CR-FLAA-S Chromium, Flame AA
Matrix: SOLID
Sample: 103928-0002
MS Run: 30 DEC 93-DB
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Chromium	ND	24.9	26.2	20.0	125	131	4.7	40-190	33

Category: MN-FLAA-S Manganese, Flame AA Method 7460
Matrix: SOLID
Sample: 103928-0002
MS Run: 30 DEC 93-DB
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Manganese	328	371	374	50.0	NC	NC	NC	60-130	40

Category: NI-FLAA-S Nickel Flame AA
Matrix: SOLID
Sample: 103928-0002
MS Run: 30 DEC 93-DB
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Nickel	ND	50.0	50.0	50.0	100	100	0.0	55-155	25

NC = Not Calculated, calculation not applicable.
ND = Not Detected

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

MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Metals Analysis and Preparation
Project: 103940 (cont.)

Category: PB-FLAA-S Method 7420 - Lead, Flame AA
Matrix: SOLID
Sample: 103928-0002
MS Run: 30 DEC 93-DB
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Lead	ND	44.0	41.0	50.0	88	82	7.1	14-169	40

Category: CU-FLAA-S Copper Flame AA
Matrix: SOLID
Sample: 103928-0002
MS Run: 30 DEC 93-DB
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Copper	10.0	34.0	32.0	25.0	96	88	8.7	49-144	23

Category: ZN-FLAA-S Zinc, Flame AA
Matrix: SOLID
Sample: 103928-0002
MS Run: 30 DEC 93-DB
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Zinc	26.2	79.3	77.8	50.0	106	103	2.9	65-138	25

ND = Not Detected

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Metals Analysis and Preparation
Project: 103940 (cont.)

Category: BA-FLAA-S Barium, Flame AA
Matrix: SOLID
Sample: 103928-0002
MS Run: 30 DEC 93-DB
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Barium	54.0	254	246	200	100	96	4.1	40-130	30

Category: HG-CVAA-S Mercury by CVAA
Matrix: SOLID
Sample: 103963-0001
MS Run: 04 JAN 94-EA
Units mg/kg Units Qualifier: Wet wt.

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Mercury	ND	0.478	0.444	0.438	109	101	7.6	33-178	40

ND = Not Detected

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

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METHOD BLANK REPORT
Metals Analysis and Preparation
Project: 103940

Test: AL-FLAA-MDL-S Method 7020 - Aluminum, Flame AA
Matrix: SOLID
QC Run: 30 DEC 93-D Date Analyzed: 04 JAN 94

Analyte	Result	Units	Reporting Limit
Aluminum	ND	mg/kg	100

Test: AS-HAA-MDL-S Method 7062 - Arsenic, Hydride AA
Matrix: SOLID
QC Run: 30 DEC 93-D Date Analyzed: 05 JAN 94

Analyte	Result	Units	Reporting Limit
Arsenic	ND	mg/kg	0.50

Test: CD-FLAA-MDL-S Method 7130 - Cadmium, Flame AA
Matrix: SOLID
QC Run: 30 DEC 93-D Date Analyzed: 04 JAN 94

Analyte	Result	Units	Reporting Limit
Cadmium	ND	mg/kg	5.0

Test: CR-FLAA-MDL-S Method 7190 - Chromium, Flame AA
Matrix: SOLID
QC Run: 30 DEC 93-D Date Analyzed: 04 JAN 94

Analyte	Result	Units	Reporting Limit
Chromium	ND	mg/kg	10.0

Test: MN-FLAA-MDL-S Manganese, Flame AA
Matrix: SOLID
QC Run: 30 DEC 93-D Date Analyzed: 30 DEC 93

Analyte	Result	Units	Reporting Limit
Manganese	ND	mg/kg	5.0

ND = Not Detected

METHOD BLANK REPORT
Metals Analysis and Preparation (cont.)
Project: 103940

Test: NI-FLAA-MDL-S Method 7520 - Nickel, Flame AA
Matrix: SOLID
QC Run: 30 DEC 93-D Date Analyzed: 30 DEC 93

Analyte	Result	Units	Reporting Limit
Nickel	ND	mg/kg	10.0

Test: PB-FLAA-MDL-S Method 7420 - Lead, FLame AA
Matrix: SOLID
QC Run: 30 DEC 93-D Date Analyzed: 30 DEC 93

Analyte	Result	Units	Reporting Limit
Lead	ND	mg/kg	20.0

Test: CU-FLAA-MDL-S Method 7210 - Copper, Flame AA
Matrix: SOLID
QC Run: 30 DEC 93-D Date Analyzed: 30 DEC 93

Analyte	Result	Units	Reporting Limit
Copper	ND	mg/kg	10.0

Test: ZN-FLAA-MDL-S Method 7950 - Zinc, Flame AA
Matrix: SOLID
QC Run: 30 DEC 93-D Date Analyzed: 04 JAN 94

Analyte	Result	Units	Reporting Limit
Zinc	ND	mg/kg	2.0

Test: BA-FLAA-MDL-S Method 7080 - Barium, Flame AA
Matrix: SOLID
QC Run: 30 DEC 93-D Date Analyzed: 04 JAN 94

Analyte	Result	Units	Reporting Limit
Barium	ND	mg/kg	50.0

ND = Not Detected

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METHOD BLANK REPORT
Metals Analysis and Preparation (cont.)
Project: 103940

Test: HG-CVAA-MDL-S Method 7471 - Mercury, Cold Vapor AA
Matrix: SOLID
QC Run: 04 JAN 94-E Date Analyzed: 05 JAN 94

Analyte	Result	Units	Reporting Limit
Mercury	ND	mg/kg	0.10

ND = Not Detected

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QC LOT ASSIGNMENT REPORT - MS QC
Wet Chemistry Analysis and Preparation

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
103940-0002-SA	SOLID	CN-S	03 JAN 94-A	03 JAN 94-A	03 JAN 94-AB
103940-0005-SA	SOLID	CN-S	03 JAN 94-A	03 JAN 94-A	03 JAN 94-AB

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DUPLICATE CONTROL SAMPLE REPORT
Wet Chemistry Analysis and Preparation
Project: 103940

Category: CN-S Cyanide (9012) SOLID
Matrix: SOLID
QC Lot: 03 JAN 94-A Date Analyzed: 03 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average(%) DCS	Accuracy Average(%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Cyanide, Total	5.00	4.35	4.50	4.42	89	70-123	3.4	21

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Wet Chemistry Analysis and Preparation
Project: 103940

Category: CN-S Cyanide (9012) SOLID
Matrix: SOLID
Sample: 103884-0002
MS Run: 03 JAN 94-AB
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Cyanide, Total	ND	4.65	4.40	5.00	93	88	5.6	41-159	48

ND = Not Detected

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

Enseco
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METHOD BLANK REPORT
Wet Chemistry Analysis and Preparation
Project: 103940

Test: CN-MDL-S Method 9012 - Cyanide, Total
Matrix: SOLID
QC Run: 03 JAN 94-A Date Analyzed: 03 JAN 94

Analyte	Result	Units	Reporting Limit
Cyanide, Total	ND	mg/kg	0.50

ND = Not Detected

QC LOT ASSIGNMENT REPORT - MS QC
Volatile Organics by GC/MS

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
103940-0001-SA	SOLID	8240-S	23 DEC 93-AF	29 DEC 93-AF	27 DEC 93-AF
103940-0003-SA	SOLID	8240-S	23 DEC 93-AF	29 DEC 93-AF	27 DEC 93-AF
103940-0004-SA	SOLID	8240-S	23 DEC 93-AF	29 DEC 93-AF	27 DEC 93-AF
103940-0006-SA	SOLID	8240-S	23 DEC 93-AF	29 DEC 93-AF	27 DEC 93-AF

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DUPLICATE CONTROL SAMPLE REPORT
Volatile Organics by GC/MS
Project: 103940

Category: 8240-S Volatile Organics
Matrix: SOLID
QC Lot: 23 DEC 93-AF
Date Analyzed: 23 DEC 93
Concentration Units: ug/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average(%) DCS	Accuracy Average(%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
1,1-Dichloroethene	50.0	37.3	36.4	36.8	74	50-121	2.4	31
Trichloroethene	50.0	45.2	45.9	45.6	91	69-114	1.5	17
Benzene	50.0	45.7	46.3	46.0	92	78-117	1.3	16
Toluene	50.0	47.0	48.3	47.6	95	79-118	2.7	17
Chlorobenzene	50.0	49.3	48.8	49.0	98	79-119	1.0	17

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Volatile Organics by GC/MS
Project: 103940

Category: 8240-S Volatile Organics
Matrix: SOLID
Sample: 103884-0003
MS Run: 27 DEC 93-AF
Units: ug/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
1,1-Dichloroethene	ND	36.3	34.2	50.0	73	68	7.1	46-136	28
Trichloroethene	ND	50.1	48.9	50.0	100	98	2.0	58-131	26
Benzene	ND	50.3	49.7	50.0	101	99	2.0	63-139	23
Toluene	ND	52.7	52.5	50.0	105	105	0.0	68-140	24
Chlorobenzene	ND	52.0	50.2	50.0	104	100	3.9	68-138	23

ND = Not Detected

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

Enseco
A Corning Company

SINGLE CONTROL SAMPLE REPORT
Volatile Organics by GC/MS
Project: 103940

Category: 8240-S Volatile Organics
Matrix: SOLID
QC Run: 29 DEC 93-AF Date Analyzed: 29 DEC 93
Concentration Units: ug/kg

Analyte	Concentration Spiked	Concentration Measured	Accuracy(%) SCS	Accuracy(%) Limits
1,2-Dichloroethane-d4	50.0	48.5	97	70-121
Toluene-d8	50.0	50.9	102	81-117
Bromofluorobenzene	50.0	49.2	98	74-121

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

Enseco
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METHOD BLANK REPORT
Volatile Organics by GC/MS
Project: 103940

Test: 8240-HLA-S Method 8240 - Volatile Organics, EPA 8240 Extended List
Matrix: SOLID
QC Run: 29 DEC 93-AF Date Analyzed: 29 DEC 93

Analyte	Result	Units	Reporting Limit
Dichlorodifluoromethane	ND	ug/kg	10
Chloromethane	ND	ug/kg	10
Bromomethane	ND	ug/kg	10
Vinyl chloride	ND	ug/kg	10
Chloroethane	ND	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/kg	5.0
Methylene chloride	ND	ug/kg	5.0
Acetone	ND	ug/kg	10
Trichlorofluoromethane	TR	ug/kg	5.0
1,1-Dichloroethene	ND	ug/kg	5.0
Nitromethane	ND	ug/kg	200
trans-1,2-Dichloroethene	ND	ug/kg	5.0
cis-1,2-Dichloroethene	ND	ug/kg	5.0
1,1-Dichloroethane	ND	ug/kg	5.0
2,2-Dichloropropane	ND	ug/kg	5.0
Bromochloromethane	ND	ug/kg	5.0
Chloroform	ND	ug/kg	5.0
1,1-Dichloropropene	ND	ug/kg	5.0
1,2-Dichloroethane	ND	ug/kg	5.0
Dibromomethane	ND	ug/kg	5.0
1,1,1-Trichloroethane	ND	ug/kg	5.0
Carbon tetrachloride	ND	ug/kg	5.0
Bromodichloromethane	ND	ug/kg	5.0
1,2-Dichloropropane	ND	ug/kg	5.0
1,3-Dichloropropane	ND	ug/kg	5.0
Trichloroethene	ND	ug/kg	5.0
Dibromochloromethane	ND	ug/kg	5.0
1,1,2-Trichloroethane	ND	ug/kg	5.0
Benzene	ND	ug/kg	5.0
Bromoform	ND	ug/kg	5.0
Tetrachloroethene	ND	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.0
Toluene	ND	ug/kg	5.0
Chlorobenzene	ND	ug/kg	5.0
Ethylbenzene	ND	ug/kg	5.0
Styrene	ND	ug/kg	5.0
Xylenes (total)	ND	ug/kg	5.0
1-Methylethylbenzene	ND	ug/kg	5.0
Bromobenzene	ND	ug/kg	5.0
1,2,3-Trichloropropane	ND	ug/kg	5.0
2-Chlorotoluene	ND	ug/kg	5.0
n-Propyl benzene	ND	ug/kg	5.0
1,3,5-Trimethylbenzene	ND	ug/kg	5.0

ND = Not Detected

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METHOD BLANK REPORT
Volatile Organics by GC/MS (cont.)
Project: 103940

Test: 8240-HLA-S Method 8240 - Volatile Organics, EPA 8240 Extended List
Matrix: SOLID
QC Run: 29 DEC 93-AF Date Analyzed: 29 DEC 93

Analyte	Result	Units	Reporting Limit
4-Chlorotoluene	ND	ug/kg	5.0
tert-Butylbenzene	ND	ug/kg	5.0
1,2,4-Trimethylbenzene	ND	ug/kg	5.0
sec-Butylbenzene	ND	ug/kg	5.0
Isopropyltoluene	ND	ug/kg	5.0
1,3-Dichlorobenzene	ND	ug/kg	5.0
1,4-Dichlorobenzene	ND	ug/kg	5.0
n-Butylbenzene	ND	ug/kg	5.0
1,2-Dichlorobenzene	ND	ug/kg	5.0
1,2,4-Trichlorobenzene	ND	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND	ug/kg	5.0
Hexachlorobutadiene	ND	ug/kg	5.0
Naphthalene	ND	ug/kg	5.0
1,2,3-Trichlorobenzene	ND	ug/kg	5.0

ND = Not Detected

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QC LOT ASSIGNMENT REPORT - MS QC
Semivolatile Organics by GC/MS

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
103940-0001-SA	SOLID	8270-S	29 DEC 93-A	29 DEC 93-A	29 DEC 93-AA
103940-0003-SA	SOLID	8270-S	29 DEC 93-A	29 DEC 93-A	29 DEC 93-AA
103940-0004-SA	SOLID	8270-S	29 DEC 93-A	29 DEC 93-A	29 DEC 93-AA
103940-0006-SA	SOLID	8270-S	29 DEC 93-A	29 DEC 93-A	29 DEC 93-AA

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DUPLICATE CONTROL SAMPLE REPORT
Semivolatile Organics by GC/MS
Project: 103940

Category: 8270-S Method 8270 - TCL Semivolatile Organics
Matrix: SOLID
QC Lot: 29 DEC 93-A Date Analyzed: 30 DEC 93
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Phenol	6.67	4.87	3.91	4.39	66	39-106	22	31
2-Chlorophenol	6.67	4.27	4.34	4.30	65	44-107	1.6	32
1,4-Dichlorobenzene	3.33	2.40	2.45	2.42	73	40-107	2.1	23
N-Nitroso-di-n-propylamine	3.33	2.76	2.40	2.58	77	31-132	14	38
1,2,4-Trichlorobenzene	3.33	2.85	2.77	2.81	84	38-120	2.8	22
4-Chloro-3-methylphenol	6.67	4.91	4.18	4.54	68	40-119	16	24
Acenaphthene	3.33	2.57	2.62	2.60	78	30-140	1.9	24
2,4-Dinitrotoluene	3.33	2.32	2.21	2.26	68	30-121	4.9	28
4-Nitrophenol	6.67	5.44	4.73	5.08	76	16-143	14	54
Pentachlorophenol	6.67	5.91	5.73	5.82	87	21-152	3.1	43
Pyrene	3.33	2.70	2.76	2.73	82	45-120	2.2	26

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Semivolatile Organics by GC/MS
Project: 103940

Category: 8270-S Method 8270 - TCL Semivolatile Organics
Matrix: SOLID
Sample: 103940-0001
MS Run: 29 DEC 93-AA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Phenol	ND	4.03	3.70	6.67	60	55	8.8	25-110	74
2-Chlorophenol	ND	4.01	4.01	6.67	60	60	0.0	33-103	42
1,4-Dichlorobenzene	ND	2.29	2.26	3.33	69	68	1.5	22-110	55
N-Nitroso-di-n-propylamine	ND	2.32	2.17	3.33	70	65	7.5	18-138	49
1,2,4-Trichlorobenzene	ND	2.66	2.51	3.33	80	75	6.5	29-119	43
4-Chloro-3-methylphenol	ND	4.14	4.15	6.67	62	62	0.0	36-119	41
Acenaphthene	ND	2.42	2.32	3.33	73	70	4.2	17-148	36
2,4-Dinitrotoluene	ND	2.18	1.98	3.33	65	59	9.7	27-120	41
4-Nitrophenol	ND	4.61	4.56	6.67	69	68	1.5	16-143	80
Pentachlorophenol	ND	5.65	5.24	6.67	85	79	7.3	21-152	61
Pyrene	ND	2.57	2.39	3.33	77	72	6.8	24-133	46

ND = Not Detected

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

Enseco
A Corning Company

SINGLE CONTROL SAMPLE REPORT
Semivolatile Organics by GC/MS
Project: 103940

Category: 8270-S Method 8270 - TCL Semivolatile Organics
Matrix: SOLID
QC Run: 29 DEC 93-A Date Analyzed: 30 DEC 93
Concentration Units: mg/kg

Analyte	Concentration Spiked	Concentration Measured	Accuracy(%) SCS	Accuracy(%) Limits
2-Fluorophenol	6.67	4.41	66	25-121
Phenol-d5	6.67	4.43	66	24-113
Nitrobenzene-d5	3.33	2.43	73	23-120
2-Fluorobiphenyl	3.33	2.53	76	30-115
2,4,6-Tribromophenol	6.67	4.69	70	19-122
Terphenyl-d14	3.33	2.43	73	18-137

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

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METHOD BLANK REPORT
Semivolatile Organics by GC/MS
Project: 103940

Test: 8270-HLA-S Method 8270 - Semivolatile Organics
Matrix: SOLID
QC Run: 29 DEC 93-A Date Analyzed: 30 DEC 93

Analyte	Result	Units	Reporting Limit
N-Nitrosodiethylamine	ND	mg/kg	0.33
Phenol	ND	mg/kg	0.33
bis(2-Chloroethyl) ether	ND	mg/kg	0.33
2-Chlorophenol	ND	mg/kg	0.33
1,3-Dichlorobenzene	ND	mg/kg	0.33
1,4-Dichlorobenzene	ND	mg/kg	0.33
Benzyl alcohol	ND	mg/kg	0.33
1,2-Dichlorobenzene	ND	mg/kg	0.33
2-Methylphenol	ND	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND	mg/kg	0.33
3/4-Methylphenol	ND	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND	mg/kg	0.33
Hexachloroethane	ND	mg/kg	0.33
Nitrobenzene	ND	mg/kg	0.33
Isophorone	ND	mg/kg	0.33
2-Nitrophenol	ND	mg/kg	0.33
2,4-Dimethylphenol	ND	mg/kg	0.33
Benzoic acid	ND	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND	mg/kg	0.33
2,4-Dichlorophenol	ND	mg/kg	0.33
1,2,4-Trichlorobenzene	ND	mg/kg	0.33
Naphthalene	ND	mg/kg	0.33
4-Chloroaniline	ND	mg/kg	0.33
Hexachlorobutadiene	ND	mg/kg	0.33
4-Chloro-3-methylphenol	ND	mg/kg	0.33
2-Methylnaphthalene	ND	mg/kg	0.33
Hexachlorocyclopentadiene	ND	mg/kg	0.33
2,4,6-Trichlorophenol	ND	mg/kg	0.33
2,4,5-Trichlorophenol	ND	mg/kg	1.7
2-Chloronaphthalene	ND	mg/kg	0.33
2-Nitroaniline	ND	mg/kg	1.7
Dimethyl phthalate	ND	mg/kg	0.33
Acenaphthylene	ND	mg/kg	0.33
3-Nitroaniline	ND	mg/kg	1.7
Acenaphthene	ND	mg/kg	0.33
2,4-Dinitrophenol	ND	mg/kg	1.7
4-Nitrophenol	ND	mg/kg	1.7
Dibenzofuran	ND	mg/kg	0.33
2,4-Dinitrotoluene	ND	mg/kg	0.33
2,6-Dinitrotoluene	ND	mg/kg	0.33
Diethyl phthalate	ND	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND	mg/kg	0.33
Fluorene	ND	mg/kg	0.33
4-Nitroaniline	ND	mg/kg	1.7
4,6-Dinitro-2-methylphenol	ND	mg/kg	1.7

ND = Not Detected

METHOD BLANK REPORT
Semivolatile Organics by GC/MS (cont.)
Project: 103940

Test: 8270-HLA-S Method 8270 - Semivolatile Organics
Matrix: SOLID
QC Run: 29 DEC 93-A Date Analyzed: 30 DEC 93

Analyte	Result	Units	Reporting Limit
N-Nitrosodiphenylamine	ND	mg/kg	0.33
4-Bromophenyl phenyl ether	ND	mg/kg	0.33
Hexachlorobenzene	ND	mg/kg	0.33
Pentachlorophenol	ND	mg/kg	1.7
Phenanthrene	ND	mg/kg	0.33
Anthracene	ND	mg/kg	0.33
Di-n-butyl phthalate	ND	mg/kg	0.33
Fluoranthene	ND	mg/kg	0.33
Pyrene	ND	mg/kg	0.33
Butyl benzyl phthalate	ND	mg/kg	0.33
3,3'-Dichlorobenzidine	ND	mg/kg	0.66
Benzo(a)anthracene	ND	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND	mg/kg	0.33
Chrysene	ND	mg/kg	0.33
Di-n-octyl phthalate	ND	mg/kg	0.33
Benzo(b)fluoranthene	ND	mg/kg	0.33
Benzo(k)fluoranthene	ND	mg/kg	0.33
Benzo(a)pyrene	ND	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND	mg/kg	0.33
Dibenz(a,h)anthracene	ND	mg/kg	0.33
Benzo(g,h,i)perylene	ND	mg/kg	0.33
Xylidine (Total)	ND	mg/kg	0.33

ND = Not Detected

103940

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714/556-7992 – 213/617-7232
FAX: 714/662-3297

CHAIN OF CUSTODY FORM

Lab: ENSECO

Samplers: KAREN WITBAARD

Job Number: 26522-2.4

Name/Location: AEROJET AISA

Project Manager: MATT HUNTER

Recorder: Karen Witbaard (Signature Required)

SOURCE CODE	MATRIX: Water	Sediment	Soil	Oil	#CONTAINERS & PRESERV.: Unpres.	H_2SO_4	HNO_3	CHILLED	SAMPLE NUMBER OR LAB NUMBER: Yr	Wk	Seq	DATE: Yr	Mo	Dy	Time	STATION DESCRIPTION/ NOTES	EPA 601/8010	EPA 602/8020	EPA 624 (8240)	EPA 625 (8270)	Priority Pllnt. Metals	Benzene/Toluene/Xylene	Total Petrol. Hydrocarb.	EPA 9012 CYANIDE	EPA 6010/7000 Series Metals								Total
50			X		1			X	SVMW-37		10.0	9	3	1	2	2	8	0830	2½"x3" SS-SLEEVE															X
50									SVMW-37		10.25							0830																
50									SVMW-37		17.50							0850																
50									SVMW-37		17.75							0850																
50									SVMW-37		20.50							0927																
50									SVMW-37		20.75							0927																
50									SVMW-37		25.0							0940																
50									SVMW-37		25.25							0940				X	X											
50									SVMW-37		30.00							0950																
									SVMW-37A		4.50							1200									X	X						

custody seal #0201 P 0211

LAB NUMBER: Yr	Wk	Seq	DEPTH IN FEET	COL MTD CD	QA CODE	MISCELLANEOUS
						REPORT TO MATT HUNTER.

CHAIN OF CUSTODY RECORD

RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
Karen Witbaard	[signature]	12 28 510
[signature]		1228 555

DISPATCHED BY: (Signature)	DATE/TIME	RECEIVED FOR LAB BY: (Signature)	DATE/TIME
		[signature]	12-28-93 17:55

METHOD OF SHIPMENT

Laboratory Copy White | Project Office Copy Yellow | Field or Office Copy Pink

6533

103940

Page 2 of –

Harding Lawson Associates
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Santa Ana, California 92707
714/556-7992 – 213/617-7232
FAX: 714/662-3297

CHAIN OF CUSTODY FORM

Lab: ENSECO

Samplers: KAREN WITBAARD

Job Number: 26522-2.4

Name/Location: AEROSET AISA

Project Manager: MATT HUNTER

Recorder: Karen Witbaard (Signature Required)

SOURCE CODE	MATRIX: Water	Sediment	Soil	Oil	#CONTAINERS & PRESERV.: Unpres.	H_2SO_4	HNO_3	CHILLED	SAMPLE NUMBER OR LAB NUMBER: Yr	Wk	Seq	DATE: Yr	Mo	Dy	Time	STATION DESCRIPTION/ NOTES	ANALYSIS REQUESTED: EPA 601/8010	EPA 602/8020	EPA 624/8240	EPA 625/8270	Priority Pltnt. Metals	Benzene/Toluene/Xylene	Total Petrol. Hydrocarb.	HOLD
2 0			X		X			1	SUMW	37A	4.75	93	12	28		2½"x3" S.S. SLEEVE			X	X				X

LAB NUMBER: Yr	Wk	Seq	DEPTH IN FEET	COL MTD CD	QA CODE	MISCELLANEOUS

CHAIN OF CUSTODY RECORD

RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
Karen Witbaard	Mat Pew	1228 510
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature) Mat Pew	DATE/TIME 1228 555
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
DISPATCHED BY: (Signature) DATE/TIME	RECEIVED FOR LAB BY: (Signature) Milo J. Congo	DATE/TIME 12-28-93 17155

METHOD OF SHIPMENT

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6533

Harding Lawson Associates
3[illegible] Centre Drive, Suite 200
Sa[illegible]na, California 92707
714/556-7992 – 213/617-7232
FAX: 714/662-3297

103940

CHAIN OF CU[illegible]TODY FORM

Lab: ENSECO

Samplers: KAREN WITBAARD

Job Number: 26522-2.3

Name/Location: AEROSET RISA

Project Manager: MATT HUNTER

Recorder: Karen Witbaard (Signature Required)

SOURCE CODE	MATRIX: Water	Sediment	Soil	Oil	#CONTAINERS & PRESERV.: Unpres.	H_2SO_4	HNO_3	COOLED	SAMPLE NUMBER OR LAB NUMBER: Yr	Wk	Seq	DATE: Yr	Mo	Dy	Time	STATION DESCRIPTION/ NOTES	EPA 601/8010	EPA 602/8020	EPA 624/8240	EPA 625/8270	Priority Pllnt. Metals	Benzene/Toluene/Xylene	Total Petrol. Hydrocarb.	EPA 9012 CYANIDE	EPA 6010/ Food Sensitivity								HOLD
50			X		1			X	52B-14		50	93	12	28	1320	2½" X 3" SS SLEEVE		X	X														
									52B-14		1010				1340								X	X									
									52B-14		1025				1340																		
									52B-14		1500				1350																		
									52B-14		1525				1350																		
									52B-14		2000				1420																		
									52B-14		2025				1420			X	X														

LAB NUMBER: Yr	Wk	Seq	DEPTH IN FEET	COL MTD CD	QA CODE	MISCELLANEOUS
						REPORT TO MATT HUNTER.

CHAIN OF CUSTODY RECORD

RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
Karen Witbaard	[illegible]	12-28 5:10
RELINQUISHED BY: (Signature) [illegible]	RECEIVED BY: (Signature) [illegible]	DATE/TIME 12-28 5:55
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
DISPATCHED BY: (Signature) DATE/TIME	RECEIVED FOR LAB BY: (Signature) [illegible]	DATE/TIME 12-28-94 17:55
METHOD OF SHIPMENT		

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6533

Enseco - CRL
7440 Lincoln Way • Garden Grove, CA 92641
(714) 898-6370 • (213) 598-0458 • (800) LAB-1-CRL
FAX: (714) 891-5917

Enseco
A Corning Company

January 14, 1994

HARDING LAWSON ASSOCIATES
3 HUTTON CENTRE DRIVE, STE 200
SANTA ANA, CA 92707
ATTN: MR. MATT HUNTER

Lab No.: 103963-0001/0008
Date Sampled: 31-DEC-1993
Date Sample Rec'd: 1-JAN-1994
Project: (26522-2.4) AEROJET

Enclosed with this letter is the report on the chemical and physical analyses on the samples from LAB NO: 103963-0001/0008 shown above.

The samples were received by CRL in a chilled state, intact and with the chain-of-custody record attached.

Note that ND means not detected at the reporting limit expressed. The reporting limit is raised to reflect the dilution factor of the sample.

Solid samples are reported on "as received" basis.

Case Narrative:

The MS/MSD Percent Recoveries for Aluminum, Cadmium, and Manganese were not within the acceptance limits specified in HLA's "Laboratory Analytical Technical Requirements," nor was it within Enseco's-CRL's established acceptance limits. However, the DCS recoveries were within all acceptable ranges, therefore the data was accepted and no further action was required.

Sabina R. Sudoko
Reviewed

Mei Bloom
Approved

The Report Cover Letter is an integral part of this report.
This report pertains only to the samples investigated and does not necessarily apply to other apparently identical or similar materials. This report is submitted for the exclusive use of the client to whom it is addressed. Any reproduction of this report or use of this Laboratory's name for advertising or publicity purposes without authorization is prohibited.

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SAMPLE DESCRIPTION INFORMATION
for
Harding Lawson Associates

Lab ID	Client ID	Matrix	Sampled Date	Sampled Time	Received Date
103963-0001-SA	SVMW-34 6.50	SOIL	31 DEC 93	08:00	01 JAN 94
103963-0002-SA	SVMW-34 6.75	SOIL	31 DEC 93	08:00	01 JAN 94
103963-0003-SA	SVMW-34 20.50	SOIL	31 DEC 93	09:10	01 JAN 94
103963-0004-SA	SVMW-34 10.00	SOIL	31 DEC 93	08:15	01 JAN 94
103963-0005-SA	SVMW-34 10.25	SOIL	31 DEC 93	08:15	01 JAN 94
103963-0006-SA	SVMW-34 16.50	SOIL	31 DEC 93	08:50	01 JAN 94
103963-0007-SA	SVMW-34 16.75	SOIL	31 DEC 93	08:50	01 JAN 94
103963-0008-SA	SVMW-34 20.00	SOIL	31 DEC 93	09:10	01 JAN 94

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METALS

Client Name: Harding Lawson Associates
Client ID: SVMW-34 6.50
Lab ID: 103963-0001-SA
Matrix: SOIL Sampled: 31 DEC 93 Received: 01 JAN 94
Authorized: 03 JAN 94 Prepared: See Below Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Aluminum	4210		50.0	100	mg/kg	7020	04 JAN 94	04 JAN 94
Arsenic	4.0		0.20	0.50	mg/kg	7062	04 JAN 94	05 JAN 94
Barium	85.0		20.0	50.0	mg/kg	7080	04 JAN 94	04 JAN 94
Chromium	12.9		5.0	10.0	mg/kg	7190	04 JAN 94	06 JAN 94
Copper	27.0		5.0	10.0	mg/kg	7210	04 JAN 94	06 JAN 94
Lead	ND		20.0	20.0	mg/kg	7420	04 JAN 94	04 JAN 94
Manganese	265		2.0	5.0	mg/kg	7460	04 JAN 94	05 JAN 94
Nickel	TR		5.0	10.0	mg/kg	7520	04 JAN 94	04 JAN 94
Zinc	34.6		1.0	2.0	mg/kg	7950	04 JAN 94	06 JAN 94
Cadmium	ND		2.0	5.0	mg/kg	7130	04 JAN 94	04 JAN 94
Mercury	TR		0.090	0.10	mg/kg	7471	04 JAN 94	05 JAN 94

ND = Not Detected

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GENERAL INORGANICS

Client Name: Harding Lawson Associates
Client ID: SVMW-34 6.50
LAB ID: 103963-0001-SA
Matrix: SOIL Sampled: 31 DEC 93 Received: 01 JAN 94
Authorized: 03 JAN 94 Prepared: See Below Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Cyanide, Total	ND		0.30	0.50	mg/kg	9012	10 JAN 94	11 JAN 94

ND = Not Detected

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Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SVMW-34 6.75
LAB ID: 103963-0002-SA
Matrix: SOIL Sampled: 31 DEC 93 Received: 01 JAN 94
Authorized: 03 JAN 94 Prepared: 04 JAN 94 Analyzed: 04 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/kg	5.0
Methylene chloride	TR		1.1	ug/kg	5.0
Acetone	10		7.1	ug/kg	10
Trichlorofluoromethane	ND		0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	ND		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	TR		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	TR		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	15		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0
tert-Butylbenzene	ND		0.55	ug/kg	5.0

ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SVMW-34 6.75
LAB ID: 103963-0002-SA
Matrix: SOIL Sampled: 31 DEC 93 Received: 01 JAN 94
Authorized: 03 JAN 94 Prepared: 04 JAN 94 Analyzed: 04 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
1,2,4-Trimethylbenzene	ND		0.53	ug/kg	5.0
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	111	%
Toluene-d8	101	%
Bromofluorobenzene	91	%

ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SVMW-34 20.50
LAB ID: 103963-0003-SA
Matrix: SOIL Sampled: 31 DEC 93 Received: 01 JAN 94
Authorized: 03 JAN 94 Prepared: 04 JAN 94 Analyzed: 04 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/kg	5.0
Methylene chloride	ND		1.1	ug/kg	5.0
Acetone	ND		7.1	ug/kg	10
Trichlorofluoromethane	ND		0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	ND		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	TR		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	ND		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	ND		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0
tert-Butylbenzene	ND		0.55	ug/kg	5.0

ND = Not Detected

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(cont.)

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SVMW-34 20.50
LAB ID: 103963-0003-SA
Matrix: SOIL Sampled: 31 DEC 93 Received: 01 JAN 94
Authorized: 03 JAN 94 Prepared: 04 JAN 94 Analyzed: 04 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
1,2,4-Trimethylbenzene	ND		0.53	ug/kg	5.0
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	102	%
Toluene-d8	100	%
Bromofluorobenzene	96	%

ND = Not Detected

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Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SVMW-34 6.75
LAB ID: 103963-0002-SA
Matrix: SOIL Sampled: 31 DEC 93 Received: 01 JAN 94
Authorized: 03 JAN 94 Prepared: 03 JAN 94 Analyzed: 04 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
N-Nitrosodiethylamine	ND		0.26	mg/kg	0.33
Phenol	ND		0.030	mg/kg	0.33
bis(2-Chloroethyl) ether	ND		0.060	mg/kg	0.33
2-Chlorophenol	ND		0.040	mg/kg	0.33
1,3-Dichlorobenzene	ND		0.030	mg/kg	0.33
1,4-Dichlorobenzene	ND		0.060	mg/kg	0.33
Benzyl alcohol	ND		0.070	mg/kg	0.33
1,2-Dichlorobenzene	ND		0.040	mg/kg	0.33
2-Methylphenol	ND		0.030	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND		0.040	mg/kg	0.33
3/4-Methylphenol	ND		0.040	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND		0.030	mg/kg	0.33
Hexachloroethane	ND		0.030	mg/kg	0.33
Nitrobenzene	ND		0.090	mg/kg	0.33
Isophorone	ND		0.040	mg/kg	0.33
2-Nitrophenol	ND		0.050	mg/kg	0.33
2,4-Dimethylphenol	ND		0.030	mg/kg	0.33
Benzoic acid	ND		0.51	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND		0.020	mg/kg	0.33
2,4-Dichlorophenol	ND		0.030	mg/kg	0.33
1,2,4-Trichlorobenzene	ND		0.040	mg/kg	0.33
Naphthalene	ND		0.030	mg/kg	0.33
4-Chloroaniline	ND		0.10	mg/kg	0.33
Hexachlorobutadiene	ND		0.040	mg/kg	0.33
4-Chloro-3-methylphenol	ND		0.040	mg/kg	0.33
2-Methylnaphthalene	ND		0.030	mg/kg	0.33
Hexachlorocyclopentadiene	ND		0.050	mg/kg	0.33
2,4,6-Trichlorophenol	ND		0.040	mg/kg	0.33
2,4,5-Trichlorophenol	ND		0.050	mg/kg	1.7
2-Chloronaphthalene	ND		0.030	mg/kg	0.33
2-Nitroaniline	ND		0.030	mg/kg	1.7
Dimethyl phthalate	ND		0.030	mg/kg	0.33
Acenaphthylene	ND		0.020	mg/kg	0.33
3-Nitroaniline	ND		0.14	mg/kg	1.7
Acenaphthene	ND		0.030	mg/kg	0.33
2,4-Dinitrophenol	ND		0.23	mg/kg	1.7
4-Nitrophenol	ND		0.25	mg/kg	1.7
Dibenzofuran	ND		0.040	mg/kg	0.33
2,4-Dinitrotoluene	ND		0.040	mg/kg	0.33
2,6-Dinitrotoluene	ND		0.050	mg/kg	0.33
Diethyl phthalate	ND		0.020	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND		0.030	mg/kg	0.33
Fluorene	ND		0.030	mg/kg	0.33
4-Nitroaniline	ND		0.18	mg/kg	1.7

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SVMW-34 6.75
LAB ID: 103963-0002-SA
Matrix: SOIL Sampled: 31 DEC 93 Received: 01 JAN 94
Authorized: 03 JAN 94 Prepared: 03 JAN 94 Analyzed: 04 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
4,6-Dinitro-2-methylphenol	ND		0.36	mg/kg	1.7
N-Nitrosodiphenylamine	ND		0.040	mg/kg	0.33
4-Bromophenyl phenyl ether	ND		0.080	mg/kg	0.33
Hexachlorobenzene	ND		0.030	mg/kg	0.33
Pentachlorophenol	ND		0.19	mg/kg	1.7
Phenanthrene	ND		0.030	mg/kg	0.33
Anthracene	ND		0.020	mg/kg	0.33
Di-n-butyl phthalate	ND		0.24	mg/kg	0.33
Fluoranthene	ND		0.030	mg/kg	0.33
Pyrene	ND		0.020	mg/kg	0.33
Butyl benzyl phthalate	ND		0.030	mg/kg	0.33
3,3'-Dichlorobenzidine	ND		0.33	mg/kg	0.66
Benzo(a)anthracene	ND		0.040	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND		0.13	mg/kg	0.33
Chrysene	ND		0.040	mg/kg	0.33
Di-n-octyl phthalate	ND		0.040	mg/kg	0.33
Benzo(b)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(k)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(a)pyrene	ND		0.040	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND		0.030	mg/kg	0.33
Dibenz(a,h)anthracene	ND		0.030	mg/kg	0.33
Benzo(g,h,i)perylene	ND		0.020	mg/kg	0.33
Xylidine (Total)	ND		0.076	mg/kg	0.33

Surrogate	Recovery		
Nitrobenzene-d5	46		%
2-Fluorobiphenyl	50		%
Terphenyl-d14	54		%
Phenol-d5	16	I	%
2-Fluorophenol	52		%
2,4,6-Tribromophenol	54		%

I = Surrogate recovery outside of limits due to sample matrix interference.
ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SVMW-34 20.50
LAB ID: 103963-0003-SA
Matrix: SOIL Sampled: 31 DEC 93 Received: 01 JAN 94
Authorized: 03 JAN 94 Prepared: 03 JAN 94 Analyzed: 04 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
N-Nitrosodiethylamine	ND		0.26	mg/kg	0.33
Phenol	ND		0.030	mg/kg	0.33
bis(2-Chloroethyl) ether	ND		0.060	mg/kg	0.33
2-Chlorophenol	ND		0.040	mg/kg	0.33
1,3-Dichlorobenzene	ND		0.030	mg/kg	0.33
1,4-Dichlorobenzene	ND		0.060	mg/kg	0.33
Benzyl alcohol	ND		0.070	mg/kg	0.33
1,2-Dichlorobenzene	ND		0.040	mg/kg	0.33
2-Methylphenol	ND		0.030	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND		0.040	mg/kg	0.33
3/4-Methylphenol	ND		0.040	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND		0.030	mg/kg	0.33
Hexachloroethane	ND		0.030	mg/kg	0.33
Nitrobenzene	ND		0.090	mg/kg	0.33
Isophorone	ND		0.040	mg/kg	0.33
2-Nitrophenol	ND		0.050	mg/kg	0.33
2,4-Dimethylphenol	ND		0.030	mg/kg	0.33
Benzoic acid	ND		0.51	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND		0.020	mg/kg	0.33
2,4-Dichlorophenol	ND		0.030	mg/kg	0.33
1,2,4-Trichlorobenzene	ND		0.040	mg/kg	0.33
Naphthalene	ND		0.030	mg/kg	0.33
4-Chloroaniline	ND		0.10	mg/kg	0.33
Hexachlorobutadiene	ND		0.040	mg/kg	0.33
4-Chloro-3-methylphenol	ND		0.040	mg/kg	0.33
2-Methylnaphthalene	ND		0.030	mg/kg	0.33
Hexachlorocyclopentadiene	ND		0.050	mg/kg	0.33
2,4,6-Trichlorophenol	ND		0.040	mg/kg	0.33
2,4,5-Trichlorophenol	ND		0.050	mg/kg	1.7
2-Chloronaphthalene	ND		0.030	mg/kg	0.33
2-Nitroaniline	ND		0.030	mg/kg	1.7
Dimethyl phthalate	ND		0.030	mg/kg	0.33
Acenaphthylene	ND		0.020	mg/kg	0.33
3-Nitroaniline	ND		0.14	mg/kg	1.7
Acenaphthene	ND		0.030	mg/kg	0.33
2,4-Dinitrophenol	ND		0.23	mg/kg	1.7
4-Nitrophenol	ND		0.25	mg/kg	1.7
Dibenzofuran	ND		0.040	mg/kg	0.33
2,4-Dinitrotoluene	ND		0.040	mg/kg	0.33
2,6-Dinitrotoluene	ND		0.050	mg/kg	0.33
Diethyl phthalate	ND		0.020	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND		0.030	mg/kg	0.33
Fluorene	ND		0.030	mg/kg	0.33
4-Nitroaniline	ND		0.18	mg/kg	1.7

ND = Not Detected

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Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SVMW-34 20.50
LAB ID: 103963-0003-SA
Matrix: SOIL Sampled: 31 DEC 93 Received: 01 JAN 94
Authorized: 03 JAN 94 Prepared: 03 JAN 94 Analyzed: 04 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
4,6-Dinitro-2-methylphenol	ND		0.36	mg/kg	1.7
N-Nitrosodiphenylamine	ND		0.040	mg/kg	0.33
4-Bromophenyl phenyl ether	ND		0.080	mg/kg	0.33
Hexachlorobenzene	ND		0.030	mg/kg	0.33
Pentachlorophenol	ND		0.19	mg/kg	1.7
Phenanthrene	ND		0.030	mg/kg	0.33
Anthracene	ND		0.020	mg/kg	0.33
Di-n-butyl phthalate	ND		0.24	mg/kg	0.33
Fluoranthene	ND		0.030	mg/kg	0.33
Pyrene	ND		0.020	mg/kg	0.33
Butyl benzyl phthalate	ND		0.030	mg/kg	0.33
3,3'-Dichlorobenzidine	ND		0.33	mg/kg	0.66
Benzo(a)anthracene	ND		0.040	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND		0.13	mg/kg	0.33
Chrysene	ND		0.040	mg/kg	0.33
Di-n-octyl phthalate	ND		0.040	mg/kg	0.33
Benzo(b)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(k)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(a)pyrene	ND		0.040	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND		0.030	mg/kg	0.33
Dibenz(a,h)anthracene	ND		0.030	mg/kg	0.33
Benzo(g,h,i)perylene	ND		0.020	mg/kg	0.33
Xylidine (Total)	ND		0.076	mg/kg	0.33

Surrogate	Recovery	
Nitrobenzene-d5	62	%
2-Fluorobiphenyl	57	%
Terphenyl-d14	69	%
Phenol-d5	59	%
2-Fluorophenol	68	%
2,4,6-Tribromophenol	61	%

ND = Not Detected

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QC LOT ASSIGNMENT REPORT - MS QC
Metals Analysis and Preparation

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
103963-0001-SA	SOLID	AL-FLAA-S	04 JAN 94-D	04 JAN 94-D	04 JAN 94-DA
103963-0001-SA	SOLID	AS-HAA-S	04 JAN 94-D	04 JAN 94-D	04 JAN 94-DA
103963-0001-SA	SOLID	CD-FLAA-S	04 JAN 94-D	04 JAN 94-D	04 JAN 94-DA
103963-0001-SA	SOLID	CR-FLAA-S	04 JAN 94-D	04 JAN 94-D	04 JAN 94-DA
103963-0001-SA	SOLID	MN-FLAA-S	04 JAN 94-D	04 JAN 94-D	04 JAN 94-DA
103963-0001-SA	SOLID	NI-FLAA-S	04 JAN 94-D	04 JAN 94-D	04 JAN 94-DA
103963-0001-SA	SOLID	PB-FLAA-S	04 JAN 94-D	04 JAN 94-D	04 JAN 94-DA
103963-0001-SA	SOLID	CU-FLAA-S	04 JAN 94-D	04 JAN 94-D	04 JAN 94-DA
103963-0001-SA	SOLID	ZN-FLAA-S	04 JAN 94-D	04 JAN 94-D	04 JAN 94-DA
103963-0001-SA	SOLID	BA-FLAA-S	04 JAN 94-D	04 JAN 94-D	04 JAN 94-DA
103963-0001-SA	SOLID	HG-CVAA-S	04 JAN 94-E	04 JAN 94-E	04 JAN 94-EA

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DUPLICATE CONTROL SAMPLE REPORT
Metals Analysis and Preparation
Project: 103963

Category: AL-FLAA-S Aluminum, Flame AA
Matrix: SOLID
QC Lot: 04 JAN 94-D
Date Analyzed: 04 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Aluminum	10700	9200	8900	9050	85	47-153	3.3	20

Category: AS-HAA-S Arsenic, Hydride AA
Matrix: SOLID
QC Lot: 04 JAN 94-D
Date Analyzed: 05 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Arsenic	145	142	137	140	96	59-141	3.6	20

Category: CD-FLAA-S Cadmium, Flame AA
Matrix: SOLID
QC Lot: 04 JAN 94-D
Date Analyzed: 04 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Cadmium	154	120	119	120	78	68-132	0.84	20

Category: CR-FLAA-S Chromium, Flame AA
Matrix: SOLID
QC Lot: 04 JAN 94-D
Date Analyzed: 06 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Chromium	151	130	126	128	85	66-133	3.1	20

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

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DUPLICATE CONTROL SAMPLE REPORT
Metals Analysis and Preparation
Project: 103963

Category: MN-FLAA-S Manganese, Flame AA Method 7460
Matrix: SOLID
QC Lot: 04 JAN 94-D
Date Analyzed: 05 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Manganese	423	428	430	429	101	74-125	0.47	20

Category: NI-FLAA-S Nickel Flame AA
Matrix: SOLID
QC Lot: 04 JAN 94-D
Date Analyzed: 04 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Nickel	166	193	181	187	113	67-133	6.4	20

Category: PB-FLAA-S Method 7420 - Lead, Flame AA
Matrix: SOLID
QC Lot: 04 JAN 94-D
Date Analyzed: 04 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Lead	148	145	138	142	96	66-135	4.9	20

Category: CU-FLAA-S Copper Flame AA
Matrix: SOLID
QC Lot: 04 JAN 94-D
Date Analyzed: 06 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Copper	162	149	152	150	93	68-132	2.0	20

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

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DUPLICATE CONTROL SAMPLE REPORT
Metals Analysis and Preparation
Project: 103963

Category: ZN-FLAA-S Zinc, Flame AA
Matrix: SOLID
QC Lot: 04 JAN 94-D
Date Analyzed: 06 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Zinc	530	548	541	544	103	65-135	1.3	20

Category: BA-FLAA-S Barium, Flame AA
Matrix: SOLID
QC Lot: 04 JAN 94-D
Date Analyzed: 04 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Barium	503	506	497	502	100	76-124	1.8	20

Category: HG-CVAA-S Mercury by CVAA
Matrix: SOLID
QC Lot: 04 JAN 94-E
Date Analyzed: 05 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Mercury	29.0	31.1	29.1	30.1	104	52-148	6.6	20

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Metals Analysis and Preparation
Project: 103963

Category: AL-FLAA-S Aluminum, Flame AA
Matrix: SOLID
Sample: 103963-0001
MS Run: 04 JAN 94-DA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Aluminum	4210	4570	4730	200	NC	NC	NC	60-130	20

Category: AS-HAA-S Arsenic, Hydride AA
Matrix: SOLID
Sample: 103963-0001
MS Run: 04 JAN 94-DA
Units mg/kg Units Qualifier: Wet wt.

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Arsenic	4.00	48.6	51.9	50.0	89	96	7.6	50-127	25

Category: CD-FLAA-S Cadmium, Flame AA
Matrix: SOLID
Sample: 103963-0001
MS Run: 04 JAN 94-DA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Cadmium	ND	ND	ND	5.00	NC	NC	NC	52-130	28

NC = Not Calculated, calculation not applicable.
ND = Not Detected

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Metals Analysis and Preparation
Project: 103963 (cont.)

Category: CR-FLAA-S Chromium, Flame AA
Matrix: SOLID
Sample: 103963-0001
MS Run: 04 JAN 94-DA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Chromium	12.9	32.3	32.4	20.0	97	98	1.0	40-190	33

Category: MN-FLAA-S Manganese, Flame AA Method 7460
Matrix: SOLID
Sample: 103963-0001
MS Run: 04 JAN 94-DA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Manganese	265	308	306	50.0	NC	NC	NC	60-130	40

Category: NI-FLAA-S Nickel Flame AA
Matrix: SOLID
Sample: 103963-0001
MS Run: 04 JAN 94-DA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Nickel	ND	57.0	60.0	50.0	114	120	5.1	55-155	25

NC = Not Calculated, calculation not applicable.
ND = Not Detected

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Metals Analysis and Preparation
Project: 103963 (cont.)

Category: PB-FLAA-S Method 7420 - Lead, Flame AA
Matrix: SOLID
Sample: 103963-0001
MS Run: 04 JAN 94-DA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Lead	ND	52.0	58.0	50.0	104	116	11	14-169	40

Category: CU-FLAA-S Copper Flame AA
Matrix: SOLID
Sample: 103963-0001
MS Run: 04 JAN 94-DA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Copper	27.0	46.0	48.0	25.0	76	84	10	49-144	23

Category: ZN-FLAA-S Zinc, Flame AA
Matrix: SOLID
Sample: 103963-0001
MS Run: 04 JAN 94-DA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Zinc	34.6	82.6	77.1	50.0	96	85	12	65-138	25

ND = Not Detected

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

MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Metals Analysis and Preparation
Project: 103963 (cont.)

Category: BA-FLAA-S Barium, Flame AA
Matrix: SOLID
Sample: 103963-0001
MS Run: 04 JAN 94-DA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Barium	85.0	286	260	200	101	88	14	40-130	30

Category: HG-CVAA-S Mercury by CVAA
Matrix: SOLID
Sample: 103963-0001
MS Run: 04 JAN 94-EA
Units mg/kg Units Qualifier: Wet wt.

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Mercury	ND	0.478	0.444	0.438	109	101	7.6	33-178	40

ND = Not Detected

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

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METHOD BLANK REPORT
Metals Analysis and Preparation
Project: 103963

Test: AL-FLAA-MDL-S Method 7020 - Aluminum, Flame AA
Matrix: SOLID
QC Run: 04 JAN 94-D Date Analyzed: 04 JAN 94

Analyte	Result	Units	Reporting Limit
Aluminum	ND	mg/kg	100

Test: AS-HAA-MDL-S Method 7062 - Arsenic, Hydride AA
Matrix: SOLID
QC Run: 04 JAN 94-D Date Analyzed: 05 JAN 94

Analyte	Result	Units	Reporting Limit
Arsenic	ND	mg/kg	0.50

Test: CD-FLAA-MDL-S Method 7130 - Cadmium, Flame AA
Matrix: SOLID
QC Run: 04 JAN 94-D Date Analyzed: 04 JAN 94

Analyte	Result	Units	Reporting Limit
Cadmium	ND	mg/kg	5.0

Test: CR-FLAA-MDL-S Method 7190 - Chromium, Flame AA
Matrix: SOLID
QC Run: 04 JAN 94-D Date Analyzed: 06 JAN 94

Analyte	Result	Units	Reporting Limit
Chromium	ND	mg/kg	10.0

Test: MN-FLAA-MDL-S Manganese, Flame AA
Matrix: SOLID
QC Run: 04 JAN 94-D Date Analyzed: 05 JAN 94

Analyte	Result	Units	Reporting Limit
Manganese	ND	mg/kg	5.0

ND = Not Detected

METHOD BLANK REPORT
Metals Analysis and Preparation (cont.)
Project: 103963

Test: NI-FLAA-MDL-S Method 7520 - Nickel, Flame AA
Matrix: SOLID
QC Run: 04 JAN 94-D Date Analyzed: 04 JAN 94

Analyte	Result	Units	Reporting Limit
Nickel	ND	mg/kg	10.0

Test: PB-FLAA-MDL-S Method 7420 - Lead, FLame AA
Matrix: SOLID
QC Run: 04 JAN 94-D Date Analyzed: 04 JAN 94

Analyte	Result	Units	Reporting Limit
Lead	ND	mg/kg	20.0

Test: CU-FLAA-MDL-S Method 7210 - Copper, Flame AA
Matrix: SOLID
QC Run: 04 JAN 94-D Date Analyzed: 06 JAN 94

Analyte	Result	Units	Reporting Limit
Copper	ND	mg/kg	10.0

Test: ZN-FLAA-MDL-S Method 7950 - Zinc, Flame AA
Matrix: SOLID
QC Run: 04 JAN 94-D Date Analyzed: 06 JAN 94

Analyte	Result	Units	Reporting Limit
Zinc	ND	mg/kg	2.0

Test: BA-FLAA-MDL-S Method 7080 - Barium, Flame AA
Matrix: SOLID
QC Run: 04 JAN 94-D Date Analyzed: 04 JAN 94

Analyte	Result	Units	Reporting Limit
Barium	ND	mg/kg	50.0

ND = Not Detected

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METHOD BLANK REPORT
Metals Analysis and Preparation (cont.)
Project: 103963

Test: HG-CVAA-MDL-S Method 7471 - Mercury, Cold Vapor AA
Matrix: SOLID
QC Run: 04 JAN 94-E Date Analyzed: 05 JAN 94

Analyte	Result	Units	Reporting Limit
Mercury	ND	mg/kg	0.10

ND = Not Detected

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QC LOT ASSIGNMENT REPORT - MS QC
Wet Chemistry Analysis and Preparation

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
103963-0001-SA	SOLID	CN-S	10 JAN 94-A	10 JAN 94-A	10 JAN 94-AB

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DUPLICATE CONTROL SAMPLE REPORT
Wet Chemistry Analysis and Preparation
Project: 103963

Category: CN-S Cyanide (9012) SOLID
Matrix: SOLID
QC Lot: 10 JAN 94-A
Date Analyzed: 11 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Cyanide, Total	5.00	4.35	4.90	4.62	93	70-123	12	21

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Wet Chemistry Analysis and Preparation
Project: 103963

Category: CN-S Cyanide (9012) SOLID
Matrix: SOLID
Sample: 103963-0001
MS Run: 10 JAN 94-AB
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Cyanide, Total	ND	5.25	5.60	5.00	105	112	6.5	41-159	48

ND = Not Detected

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

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METHOD BLANK REPORT
Wet Chemistry Analysis and Preparation
Project: 103963

Test: CN-MDL-S Method 9012 - Cyanide, Total
Matrix: SOLID
QC Run: 10 JAN 94-A Date Analyzed: 11 JAN 94

Analyte	Result	Units	Reporting Limit
Cyanide, Total	ND	mg/kg	0.50

ND = Not Detected

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QC LOT ASSIGNMENT REPORT - MS QC
Volatile Organics by GC/MS

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
103963-0002-SA	SOLID	8240-S	30 DEC 93-AF	03 JAN 94-BF	04 JAN 94-AF
103963-0003-SA	SOLID	8240-S	30 DEC 93-AF	03 JAN 94-BF	04 JAN 94-AF

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DUPLICATE CONTROL SAMPLE REPORT
Volatile Organics by GC/MS
Project: 103963

Category: 8240-S Volatile Organics
Matrix: SOLID
QC Lot: 30 DEC 93-AF
Date Analyzed: 30 DEC 93
Concentration Units: ug/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average(%) DCS	Accuracy Average(%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
1,1-Dichloroethene	50.0	47.6	48.4	48.0	96	50-121	1.7	31
Trichloroethene	50.0	50.6	53.0	51.8	104	69-114	4.6	17
Benzene	50.0	49.6	51.9	50.8	102	78-117	4.5	16
Toluene	50.0	49.6	52.1	50.8	102	79-118	4.9	17
Chlorobenzene	50.0	49.0	51.2	50.1	100	79-119	4.4	17

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Volatile Organics by GC/MS
Project: 103963

Category: 8240-S Volatile Organics
Matrix: SOLID
Sample: 103963-0003
MS Run: 04 JAN 94-AF
Units: ug/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
1,1-Dichloroethene	ND	34.9	32.5	50.0	70	65	7.5	46-136	28
Trichloroethene	ND	46.0	42.6	50.0	92	85	8.0	58-131	26
Benzene	ND	47.1	43.4	50.0	94	87	7.8	63-139	23
Toluene	ND	50.7	46.0	50.0	101	92	9.4	68-140	24
Chlorobenzene	ND	49.4	45.1	50.0	99	90	9.6	68-138	23

ND = Not Detected

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

Enseco
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SINGLE CONTROL SAMPLE REPORT
Volatile Organics by GC/MS
Project: 103963

Category: 8240-S Volatile Organics
Matrix: SOLID
QC Run: 03 JAN 94-BF Date Analyzed: 03 JAN 94
Concentration Units: ug/kg

Analyte	Concentration Spiked	Concentration Measured	Accuracy(%) SCS	Accuracy(%) Limits
1,2-Dichloroethane-d4	50.0	49.1	98	70-121
Toluene-d8	50.0	51.4	103	81-117
Bromofluorobenzene	50.0	49.2	98	74-121

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

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A Corning Company

METHOD BLANK REPORT
Volatile Organics by GC/MS
Project: 103963

Test: 8240-HLA-S Method 8240 - Volatile Organics, EPA 8240 Extended List
Matrix: SOLID
QC Run: 03 JAN 94-BF Date Analyzed: 03 JAN 94

Analyte	Result	Units	Reporting Limit
Dichlorodifluoromethane	ND	ug/kg	10
Chloromethane	ND	ug/kg	10
Bromomethane	ND	ug/kg	10
Vinyl chloride	ND	ug/kg	10
Chloroethane	ND	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/kg	5.0
Methylene chloride	ND	ug/kg	5.0
Acetone	ND	ug/kg	10
Trichlorofluoromethane	ND	ug/kg	5.0
1,1-Dichloroethene	ND	ug/kg	5.0
Nitromethane	ND	ug/kg	200
trans-1,2-Dichloroethene	ND	ug/kg	5.0
cis-1,2-Dichloroethene	ND	ug/kg	5.0
1,1-Dichloroethane	ND	ug/kg	5.0
2,2-Dichloropropane	ND	ug/kg	5.0
Bromochloromethane	ND	ug/kg	5.0
Chloroform	ND	ug/kg	5.0
1,1-Dichloropropene	ND	ug/kg	5.0
1,2-Dichloroethane	ND	ug/kg	5.0
Dibromomethane	ND	ug/kg	5.0
1,1,1-Trichloroethane	ND	ug/kg	5.0
Carbon tetrachloride	ND	ug/kg	5.0
Bromodichloromethane	ND	ug/kg	5.0
1,2-Dichloropropane	ND	ug/kg	5.0
1,3-Dichloropropane	ND	ug/kg	5.0
Trichloroethene	ND	ug/kg	5.0
Dibromochloromethane	ND	ug/kg	5.0
1,1,2-Trichloroethane	ND	ug/kg	5.0
Benzene	ND	ug/kg	5.0
Bromoform	ND	ug/kg	5.0
Tetrachloroethene	ND	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.0
Toluene	ND	ug/kg	5.0
Chlorobenzene	ND	ug/kg	5.0
Ethylbenzene	ND	ug/kg	5.0
Styrene	ND	ug/kg	5.0
Xylenes (total)	ND	ug/kg	5.0
1-Methylethylbenzene	ND	ug/kg	5.0
Bromobenzene	ND	ug/kg	5.0
1,2,3-Trichloropropane	ND	ug/kg	5.0
2-Chlorotoluene	ND	ug/kg	5.0
n-Propyl benzene	ND	ug/kg	5.0
1,3,5-Trimethylbenzene	ND	ug/kg	5.0

ND = Not Detected

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METHOD BLANK REPORT
Volatile Organics by GC/MS (cont.)
Project: 103963

Test: 8240-HLA-S Method 8240 - Volatile Organics, EPA 8240 Extended List
Matrix: SOLID
QC Run: 03 JAN 94-BF Date Analyzed: 03 JAN 94

Analyte	Result	Units	Reporting Limit
4-Chlorotoluene	ND	ug/kg	5.0
tert-Butylbenzene	ND	ug/kg	5.0
1,2,4-Trimethylbenzene	ND	ug/kg	5.0
sec-Butylbenzene	ND	ug/kg	5.0
Isopropyltoluene	ND	ug/kg	5.0
1,3-Dichlorobenzene	ND	ug/kg	5.0
1,4-Dichlorobenzene	ND	ug/kg	5.0
n-Butylbenzene	ND	ug/kg	5.0
1,2-Dichlorobenzene	ND	ug/kg	5.0
1,2,4-Trichlorobenzene	ND	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND	ug/kg	5.0
Hexachlorobutadiene	ND	ug/kg	5.0
Naphthalene	ND	ug/kg	5.0
1,2,3-Trichlorobenzene	TR	ug/kg	5.0

ND = Not Detected

Enseco
A Corning Company

QC LOT ASSIGNMENT REPORT - MS QC
Semivolatile Organics by GC/MS

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
103963-0002-SA	SOLID	8270-S	03 JAN 94-D	03 JAN 94-D	03 JAN 94-DB
103963-0003-SA	SOLID	8270-S	03 JAN 94-D	03 JAN 94-D	03 JAN 94-DB

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DUPLICATE CONTROL SAMPLE REPORT
Semivolatile Organics by GC/MS
Project: 103963

Category: 8270-S Method 8270 - TCL Semivolatile Organics
Matrix: SOLID
QC Lot: 03 JAN 94-D Date Analyzed: 03 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Phenol	6.67	3.81	2.85	3.33	50	39-106	29	31
2-Chlorophenol	6.67	3.54	3.18	3.36	50	44-107	11	32
1,4-Dichlorobenzene	3.33	1.91	1.68	1.80	54	40-107	13	23
N-Nitroso-di-n-propylamine	3.33	1.96	1.77	1.86	56	31-132	10	38
1,2,4-Trichlorobenzene	3.33	2.04	1.88	1.96	59	38-120	8.2	22
4-Chloro-3-methylphenol	6.67	3.75	3.51	3.63	54	40-119	6.6	24
Acenaphthene	3.33	2.05	1.95	2.00	60	30-140	5.0	24
2,4-Dinitrotoluene	3.33	1.89	1.74	1.82	55	30-121	8.3	28
4-Nitrophenol	6.67	4.04	3.56	3.80	57	16-143	13	54
Pentachlorophenol	6.67	4.96	4.43	4.70	70	21-152	11	43
Pyrene	3.33	2.18	2.02	2.10	63	45-120	7.6	26

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Semivolatile Organics by GC/MS
Project: 103963

Category: 8270-S Method 8270 - TCL Semivolatile Organics
Matrix: SOLID
Sample: 103957-0001
MS Run: 03 JAN 94-DB
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Phenol	ND	2.94	3.35	6.67	44	50	13	25-110	74
2-Chlorophenol	ND	2.81	3.26	6.67	42	49	16	33-103	42
1,4-Dichlorobenzene	ND	1.64	1.82	3.33	49	55	12	22-110	55
N-Nitroso-di-n-propylamine	ND	1.66	1.74	3.33	50	52	3.9	18-138	49
1,2,4-Trichlorobenzene	ND	1.70	1.91	3.33	51	57	11	29-119	43
4-Chloro-3-methylphenol	ND	3.40	3.47	6.67	51	52	2.0	36-119	41
Acenaphthene	ND	1.84	1.87	3.33	55	56	1.8	17-148	36
2,4-Dinitrotoluene	ND	1.56	1.73	3.33	47	52	10	27-120	41
4-Nitrophenol	ND	3.88	4.07	6.67	58	61	5.1	16-143	80
Pentachlorophenol	ND	4.75	4.84	6.67	71	73	2.8	21-152	61
Pyrene	ND	1.85	2.01	3.33	56	60	6.9	24-133	46

ND = Not Detected

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

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SINGLE CONTROL SAMPLE REPORT
Semivolatile Organics by GC/MS
Project: 103963

Category: 8270-S Method 8270 - TCL Semivolatile Organics
Matrix: SOLID
QC Run: 03 JAN 94-D Date Analyzed: 04 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Concentration Measured	Accuracy(%) SCS	Accuracy(%) Limits
2-Fluorophenol	6.67	5.15	77	25-121
Phenol-d5	6.67	4.60	69	24-113
Nitrobenzene-d5	3.33	2.42	73	23-120
2-Fluorobiphenyl	3.33	2.48	74	30-115
2,4,6-Tribromophenol	6.67	4.88	73	19-122
Terphenyl-d14	3.33	2.64	79	18-137

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

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METHOD BLANK REPORT
Semivolatile Organics by GC/MS
Project: 103963

Test: 8270-HLA-S Method 8270 - Semivolatile Organics
Matrix: SOLID
QC Run: 03 JAN 94-D Date Analyzed: 04 JAN 94

Analyte	Result	Units	Reporting Limit
N-Nitrosodiethylamine	ND	mg/kg	0.33
Phenol	ND	mg/kg	0.33
bis(2-Chloroethyl) ether	ND	mg/kg	0.33
2-Chlorophenol	ND	mg/kg	0.33
1,3-Dichlorobenzene	ND	mg/kg	0.33
1,4-Dichlorobenzene	ND	mg/kg	0.33
Benzyl alcohol	ND	mg/kg	0.33
1,2-Dichlorobenzene	ND	mg/kg	0.33
2-Methylphenol	ND	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND	mg/kg	0.33
3/4-Methylphenol	ND	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND	mg/kg	0.33
Hexachloroethane	ND	mg/kg	0.33
Nitrobenzene	ND	mg/kg	0.33
Isophorone	ND	mg/kg	0.33
2-Nitrophenol	ND	mg/kg	0.33
2,4-Dimethylphenol	ND	mg/kg	0.33
Benzoic acid	ND	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND	mg/kg	0.33
2,4-Dichlorophenol	ND	mg/kg	0.33
1,2,4-Trichlorobenzene	ND	mg/kg	0.33
Naphthalene	ND	mg/kg	0.33
4-Chloroaniline	ND	mg/kg	0.33
Hexachlorobutadiene	ND	mg/kg	0.33
4-Chloro-3-methylphenol	ND	mg/kg	0.33
2-Methylnaphthalene	ND	mg/kg	0.33
Hexachlorocyclopentadiene	ND	mg/kg	0.33
2,4,6-Trichlorophenol	ND	mg/kg	0.33
2,4,5-Trichlorophenol	ND	mg/kg	1.7
2-Chloronaphthalene	ND	mg/kg	0.33
2-Nitroaniline	ND	mg/kg	1.7
Dimethyl phthalate	ND	mg/kg	0.33
Acenaphthylene	ND	mg/kg	0.33
3-Nitroaniline	ND	mg/kg	1.7
Acenaphthene	ND	mg/kg	0.33
2,4-Dinitrophenol	ND	mg/kg	1.7
4-Nitrophenol	ND	mg/kg	1.7
Dibenzofuran	ND	mg/kg	0.33
2,4-Dinitrotoluene	ND	mg/kg	0.33
2,6-Dinitrotoluene	ND	mg/kg	0.33
Diethyl phthalate	ND	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND	mg/kg	0.33
Fluorene	ND	mg/kg	0.33
4-Nitroaniline	ND	mg/kg	1.7
4,6-Dinitro-2-methylphenol	ND	mg/kg	1.7

ND = Not Detected

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METHOD BLANK REPORT
Semivolatile Organics by GC/MS (cont.)
Project: 103963

Test: 8270-HLA-S Method 8270 - Semivolatile Organics
Matrix: SOLID
QC Run: 03 JAN 94-D Date Analyzed: 04 JAN 94

Analyte	Result	Units	Reporting Limit
N-Nitrosodiphenylamine	ND	mg/kg	0.33
4-Bromophenyl phenyl ether	ND	mg/kg	0.33
Hexachlorobenzene	ND	mg/kg	0.33
Pentachlorophenol	ND	mg/kg	1.7
Phenanthrene	ND	mg/kg	0.33
Anthracene	ND	mg/kg	0.33
Di-n-butyl phthalate	ND	mg/kg	0.33
Fluoranthene	ND	mg/kg	0.33
Pyrene	ND	mg/kg	0.33
Butyl benzyl phthalate	ND	mg/kg	0.33
3,3'-Dichlorobenzidine	ND	mg/kg	0.66
Benzo(a)anthracene	ND	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND	mg/kg	0.33
Chrysene	ND	mg/kg	0.33
Di-n-octyl phthalate	ND	mg/kg	0.33
Benzo(b)fluoranthene	ND	mg/kg	0.33
Benzo(k)fluoranthene	ND	mg/kg	0.33
Benzo(a)pyrene	ND	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND	mg/kg	0.33
Dibenz(a,h)anthracene	ND	mg/kg	0.33
Benzo(g,h,i)perylene	ND	mg/kg	0.33
Xylidine (Total)	ND	mg/kg	0.33

ND = Not Detected

Holding Time Report Project: 103963 Client: Harding Lawson Associates Today: 14 JAN 94

	Field ID	Lab ID	Lab Test Code	Analytical Method	Collected	Received	Extracted	Analyzed	CTA	RTA	ETA	HTV	Corrective Action
Test: Method 8270 - Semivolatile Organics								Prep: P-8270-S					Total: 2
1	SVMW-34	103963-0002-SA	8270-HLA-S	8270	31 DEC 93	01 JAN 94	03 JAN 94	04 JAN 94	4	3	1		
2	SVMW-34 2	103963-0003-SA	8270-HLA-S	8270	31 DEC 93	01 JAN 94	03 JAN 94	04 JAN 94	4	3	1		
Test: Method 8240 - Volatile Organics, EPA 8240 Extended List								Prep: P-VOASCR-S					Total: 2
1	SVMW-34	103963-0002-SA	8240-HLA-S	8240	31 DEC 93	01 JAN 94	04 JAN 94	04 JAN 94	4	3	n/a		
2	SVMW-34 2	103963-0003-SA	8240-HLA-S	8240	31 DEC 93	01 JAN 94	04 JAN 94	04 JAN 94	4	3	n/a		
Test: Method 5030 - Prep - Volatile Organics								Prep: n/a					Total: 2
1	SVMW-34	103963-0002-SA	P-VOASCR-S	5030	31 DEC 93	01 JAN 94	04 JAN 94	n/a	4	3	n/a		
2	SVMW-34 2	103963-0003-SA	P-VOASCR-S	5030	31 DEC 93	01 JAN 94	04 JAN 94	n/a	4	3	n/a		
Test: Method EPA 3550 - Prep - Semivolatile Organics by GC/MS								Prep: n/a					Total: 2
1	SVMW-34	103963-0002-SA	P-8270-S	3550	31 DEC 93	01 JAN 94	03 JAN 94	n/a	3	2	n/a		
2	SVMW-34 2	103963-0003-SA	P-8270-S	3550	31 DEC 93	01 JAN 94	03 JAN 94	n/a	3	2	n/a		
Test: Method 7020 - Aluminum, Flame AA								Prep: P-M-3050-S					Total: 1
1	SVMW-34	103963-0001-SA	AL-FLAA-MDL-S	7020	31 DEC 93	01 JAN 94	04 JAN 94	04 JAN 94	4	3	n/a		
Test: Method 7062 - Arsenic, Hydride AA								Prep: P-M-3050-S					Total: 1
1	SVMW-34	103963-0001-SA	AS-HAA-MDL-S	7062	31 DEC 93	01 JAN 94	04 JAN 94	05 JAN 94	5	4	n/a		
Test: Method 7080 - Barium, Flame AA								Prep: P-M-3050-S					Total: 1
1	SVMW-34	103963-0001-SA	BA-FLAA-MDL-S	7080	31 DEC 93	01 JAN 94	04 JAN 94	04 JAN 94	4	3	n/a		
Test: Method 7130 - Cadmium, Flame AA								Prep: P-M-3050-S					Total: 1
1	SVMW-34	103963-0001-SA	CD-FLAA-MDL-S	7130	31 DEC 93	01 JAN 94	04 JAN 94	04 JAN 94	4	3	n/a		
Test: Method 7190 - Chromium, Flame AA								Prep: P-M-3050-S					Total: 1
1	SVMW-34	103963-0001-SA	CR-FLAA-MDL-S	7190	31 DEC 93	01 JAN 94	04 JAN 94	06 JAN 94	6	5	n/a		
Test: Method 7210 - Copper, Flame AA								Prep: P-M-3050-S					Total: 1
1	SVMW-34	103963-0001-SA	CU-FLAA-MDL-S	7210	31 DEC 93	01 JAN 94	04 JAN 94	06 JAN 94	6	5	n/a		
Test: Method 7471 - Mercury, Cold Vapor AA								Prep: P-HG-CVAA-S					Total: 1
1	SVMW-34	103963-0001-SA	HG-CVAA-MDL-S	7471	31 DEC 93	01 JAN 94	04 JAN 94	05 JAN 94	5	4	n/a		
Test: Manganese, Flame AA								Prep: P-M-3050-S					Total: 1
1	SVMW-34	103963-0001-SA	MN-FLAA-MDL-S	7460	31 DEC 93	01 JAN 94	04 JAN 94	05 JAN 94	5	4	n/a		
Test: Method 7520 - Nickel, Flame AA								Prep: P-M-3050-S					Total: 1
1	SVMW-34	103963-0001-SA	NI-FLAA-MDL-S	7520	31 DEC 93	01 JAN 94	04 JAN 94	04 JAN 94	4	3	n/a		
Test: Method 7420 - Lead, Flame AA								Prep: P-M-3050-S					Total: 1
1	SVMW-34	103963-0001-SA	PB-FLAA-MDL-S	7420	31 DEC 93	01 JAN 94	04 JAN 94	04 JAN 94	4	3	n/a		
Test: Method 7950 - Zinc, Flame AA								Prep: P-M-3050-S					Total: 1
1	SVMW-34	103963-0001-SA	ZN-FLAA-MDL-S	7950	31 DEC 93	01 JAN 94	04 JAN 94	06 JAN 94	6	5	n/a		

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Holding Time Report | Project: 103963 | Client: Harding Lawson Associates | Today: 14 JAN 94

	Field ID	Lab ID	Lab Test Code	Analytical Method	Collected	Received	Extracted	Analyzed	CTA	RTA	ETA	HTV	Corrective Action
Test: Prep - Mercury, Cold Vapor AA, Solid							Prep: n/a						Total: 1
1	SVMW-34	103963-0001-SA	P-HG-CVAA-S	7471	31 DEC 93	01 JAN 94	04 JAN 94	n/a	4	3	n/a		
Test: Method 3050 - Prep - Total Metals							Prep: n/a						Total: 1
1	SVMW-34	103963-0001-SA	P-M-3050-S	3050	31 DEC 93	01 JAN 94	04 JAN 94	n/a	4	3	n/a		
Test: Method 9012 - Cyanide, Total							Prep: P-CN-S						Total: 1
1	SVMW-34	103963-0001-SA	CN-MDL-S	9012	31 DEC 93	01 JAN 94	10 JAN 94	11 JAN 94	11	10	n/a		
Test: Method 9012 - Prep - Cyanide, Total							Prep: n/a						Total: 1
1	SVMW-34	103963-0001-SA	P-CN-S	9012	31 DEC 93	01 JAN 94	10 JAN 94	n/a	10	9	n/a		

CTA = Number of Days from Collected to Analyzed.
RTA = Number of Days from Received to Analyzed.
ETA = Number of Days from Extraction to Analyzed.
HTV = Hold Time Violation (Y=Yes, blank=No)

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A Corning Company

Harding Lawson Associates
3 Hutton Centre Drive, Suite 200
Santa Ana, California 92707
714/556-7992 – 213/617-7232
FAX: 714/662-3297

CHAIN OF CUSTODY FORM

103963

Lab: ENSECO

Samplers: KAREN WITBAARD

Job Number: AEROSET AISA

Name/Location: 26528-2.4

Project Manager: MATT HUNTER

Recorder: Karen Witbaard (Signature Required)

SOURCE CODE	MATRIX: Water	Sediment	Soil	Oil	#CONTAINERS & PRESERV.: Unpres.	H_2SO_4	HNO_3	CHILLED	SAMPLE NUMBER OR LAB NUMBER: Yr	Wk	Seq	DATE: Yr	Mo	Dy	Time	STATION DESCRIPTION/ NOTES	EPA 601/8010	EPA 602/8020	EPA 624/8240	EPA 625/8270	Priority Pllnt. Metals	Benzene/Toluene/Xylene	Total Petrol. Hydrocarb.	EPA METHOD 9014 CYANIDE	6010/7000 SERIES METALS
56			X		X				SVMW-34 6.50			93	12	3	1 0800	SVMW-34 6.50 2½" SS							X	X	
									SVMW-34 6.75						0800	51 " SLEEVE			X	X					
									SVMW-34 10.0						0815	2½" SS SLEEVE									
									SVMW-34 10.25						0815	51									
									SVMW-34 11.5						0850	2" SS SLEEVE									
									SVMW-34 16.75						0850										
									SVMW-34 20.0						0910										
									SVMW-34 20.25						0910				X	X					

custody seal # 3964 - 3965

LAB NUMBER: Yr	Wk	Seq	DEPTH IN FEET	COL MTD CD	QA CODE	MISCELLANEOUS

CHAIN OF CUSTODY RECORD

RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
Karen Witbaard	Walter Berger	1/1/94 10:35AM
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
DISPATCHED BY: (Signature) DATE/TIME	RECEIVED FOR LAB BY: (Signature)	DATE/TIME 08/03/94 1200

METHOD OF SHIPMENT

Laboratory Copy White | Office Copy Yellow | Field or Office Copy Pink

6533

Enseco
A Corning Company

Enseco - CRL
7440 Lincoln Way • Garden Grove, CA 92641
(714) 898-6370 • (213) 598-0458 • (800) LAB-1-CRL
FAX: (714) 891-5917

January 13, 1994

HARDING LAWSON ASSOCIATES
3 HUTTON CENTRE DRIVE, STE 200
SANTA ANA, CA 92707
ATTN: MR. MATT HUNTER

Lab No.: 103957-0001/0014
Date Sampled: 29 DEC-1993
Date Sample Rec'd: 30 DEC-1993
Project: (26522-2.3) AEROJET-AISA

Enclosed with this letter is the report on the chemical and physical analyses on the samples from LAB NO: 103957-0001/0014 shown above.

The samples were received by CRL in a chilled state, intact and with the chain-of-custody record attached.

Note that ND means not detected at the reporting limit expressed. The reporting limit is raised to reflect the dilution factor of the sample.

Solid samples are reported on "as received" basis.

Case Narrative:

The MS/MSD Percent Recoveries for Aluminum, Cadmium, and Manganese were not within the acceptance limits specified in HLA's "Laboratory Analytical Technical Requirements," nor was it within Enseco's-CRL's established acceptance limits. However, the DCS recoveries were within all acceptable ranges, therefore the data was accepted and no further action was required.

Sabina R Sudoko
Reviewed

Approved

The Report Cover Letter is an integral part of this report.

This report pertains only to the samples investigated and does not necessarily apply to other apparently identical or similar materials. This report is submitted for the exclusive use of the client to whom it is addressed. Any reproduction of this report or use of this Laboratory's name for advertising or publicity purposes without authorization is prohibited.

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SAMPLE DESCRIPTION INFORMATION
for
Harding Lawson Associates

Lab ID	Client ID	Matrix	Sampled Date	Sampled Time	Received Date
103957-0001-SA	SZB-12B 5.00	SOIL	29 DEC 93	07:45	29 DEC 93
103957-0002-SA	SZB-12B 15.00	SOIL	29 DEC 93	08:30	29 DEC 93
103957-0003-SA	SZB-12B 40.00	SOIL	29 DEC 93	09:50	29 DEC 93
103957-0004-SA	SZB-12B 12.50	SOIL	29 DEC 93	08:15	29 DEC 93
103957-0005-SA	SZB-12B 15.25	SOIL	29 DEC 93	08:30	29 DEC 93
103957-0006-SA	SZB-12B 20.00	SOIL	29 DEC 93	08:40	29 DEC 93
103957-0007-SA	SZB-12B 20.25	SOIL	29 DEC 93	08:40	29 DEC 93
103957-0008-SA	SZB-12B 25.00	SOIL	29 DEC 93	09:00	29 DEC 93
103957-0009-SA	SZB-12B 25.25	SOIL	29 DEC 93	09:00	29 DEC 93
103957-0010-SA	SZB-12B 30.00	SOIL	29 DEC 93	09:20	29 DEC 93
103957-0011-SA	SZB-12B 30.25	SOIL	29 DEC 93	09:20	29 DEC 93
103957-0012-SA	SZB-12B 35.00	SOIL	29 DEC 93	09:35	29 DEC 93
103957-0013-SA	SZB-12B 35.25	SOIL	29 DEC 93	09:35	29 DEC 93
103957-0014-SA	SZB-12B 40.25	SOIL	29 DEC 93	09:50	29 DEC 93

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METALS

Client Name: Harding Lawson Associates
Client ID: SZB-12B 15.00
Lab ID: 103957-0002-SA
Matrix: SOIL Sampled: 29 DEC 93 Received: 29 DEC 93
Authorized: 03 JAN 94 Prepared: See Below Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Aluminum	4480		50.0	100	mg/kg	7020	04 JAN 94	04 JAN 94
Arsenic	2.6		0.20	0.50	mg/kg	7062	04 JAN 94	05 JAN 94
Barium	127		20.0	50.0	mg/kg	7080	04 JAN 94	04 JAN 94
Chromium	10.6		5.0	10.0	mg/kg	7190	04 JAN 94	06 JAN 94
Copper	14.0		5.0	10.0	mg/kg	7210	04 JAN 94	06 JAN 94
Lead	ND		20.0	20.0	mg/kg	7420	04 JAN 94	04 JAN 94
Manganese	342		2.0	5.0	mg/kg	7460	04 JAN 94	05 JAN 94
Nickel	TR		5.0	10.0	mg/kg	7520	04 JAN 94	04 JAN 94
Zinc	36.9		1.0	2.0	mg/kg	7950	04 JAN 94	06 JAN 94
Cadmium	ND		2.0	5.0	mg/kg	7130	04 JAN 94	04 JAN 94
Mercury	TR		0.090	0.10	mg/kg	7471	04 JAN 94	05 JAN 94

ND = Not Detected

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A Corning Company

GENERAL INORGANICS

Client Name: Harding Lawson Associates
Client ID: SZB-12B 15.00
LAB ID: 103957-0002-SA
Matrix: SOIL — Sampled: 29 DEC 93 — Received: 29 DEC 93
Authorized: 03 JAN 94 — Prepared: See Below — Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Cyanide, Total	ND		0.30	0.50	mg/kg	9012	03 JAN 94	03 JAN 94

ND = Not Detected

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Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-12B 5.00
LAB ID: 103957-0001-SA
Matrix: SOIL Sampled: 29 DEC 93 Received: 29 DEC 93
Authorized: 03 JAN 94 Prepared: 03 JAN 94 Analyzed: 03 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/kg	5.0
Methylene chloride	TR		1.1	ug/kg	5.0
Acetone	ND		7.1	ug/kg	10
Trichlorofluoromethane	ND		0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	ND		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	ND		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	ND		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	ND		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0
tert-Butylbenzene	ND		0.55	ug/kg	5.0

ND = Not Detected

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(cont.)

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-12B 5.00
LAB ID: 103957-0001-SA
Matrix: SOIL Sampled: 29 DEC 93 Received: 29 DEC 93
Authorized: 03 JAN 94 Prepared: 03 JAN 94 Analyzed: 03 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
1,2,4-Trimethylbenzene	ND		0.53	ug/kg	5.0
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	96	%
Toluene-d8	98	%
Bromofluorobenzene	94	%

ND = Not Detected

Enseco
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Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-12B 40.00
LAB ID: 103957-0003-SA
Matrix: SOIL Sampled: 29 DEC 93 Received: 29 DEC 93
Authorized: 03 JAN 94 Prepared: 04 JAN 94 Analyzed: 04 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/kg	5.0
Methylene chloride	TR		1.1	ug/kg	5.0
Acetone	ND		7.1	ug/kg	10
Trichlorofluoromethane	ND		0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	ND		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	TR		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	ND		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	ND		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0
tert-Butylbenzene	ND		0.55	ug/kg	5.0

ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240
(Conc.)

Client Name: Harding Lawson Associates
Client ID: SZB-12B 40.00
LAB ID: 103957-0003-SA
Matrix: SOIL Sampled: 29 DEC 93 Received: 29 DEC 93
Authorized: 03 JAN 94 Prepared: 04 JAN 94 Analyzed: 04 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
1,2,4-Trimethylbenzene	ND		0.53	ug/kg	5.0
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	101	%
Toluene-d8	100	%
Bromofluorobenzene	98	%

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-12B 5.00
LAB ID: 103957-0001-SA
Matrix: SOIL Sampled: 29 DEC 93 Received: 29 DEC 93
Authorized: 03 JAN 94 Prepared: 03 JAN 94 Analyzed: 04 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
N-Nitrosodiethylamine	ND		0.26	mg/kg	0.33
Phenol	ND		0.030	mg/kg	0.33
bis(2-Chloroethyl) ether	ND		0.060	mg/kg	0.33
2-Chlorophenol	ND		0.040	mg/kg	0.33
1,3-Dichlorobenzene	ND		0.030	mg/kg	0.33
1,4-Dichlorobenzene	ND		0.060	mg/kg	0.33
Benzyl alcohol	ND		0.070	mg/kg	0.33
1,2-Dichlorobenzene	ND		0.040	mg/kg	0.33
2-Methylphenol	ND		0.030	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND		0.040	mg/kg	0.33
3/4-Methylphenol	ND		0.040	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND		0.030	mg/kg	0.33
Hexachloroethane	ND		0.030	mg/kg	0.33
Nitrobenzene	ND		0.090	mg/kg	0.33
Isophorone	ND		0.040	mg/kg	0.33
2-Nitrophenol	ND		0.050	mg/kg	0.33
2,4-Dimethylphenol	ND		0.030	mg/kg	0.33
Benzoic acid	ND		0.51	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND		0.020	mg/kg	0.33
2,4-Dichlorophenol	ND		0.030	mg/kg	0.33
1,2,4-Trichlorobenzene	ND		0.040	mg/kg	0.33
Naphthalene	ND		0.030	mg/kg	0.33
4-Chloroaniline	ND		0.10	mg/kg	0.33
Hexachlorobutadiene	ND		0.040	mg/kg	0.33
4-Chloro-3-methylphenol	ND		0.040	mg/kg	0.33
2-Methylnaphthalene	ND		0.030	mg/kg	0.33
Hexachlorocyclopentadiene	ND		0.050	mg/kg	0.33
2,4,6-Trichlorophenol	ND		0.040	mg/kg	0.33
2,4,5-Trichlorophenol	ND		0.050	mg/kg	1.7
2-Chloronaphthalene	ND		0.030	mg/kg	0.33
2-Nitroaniline	ND		0.030	mg/kg	1.7
Dimethyl phthalate	ND		0.030	mg/kg	0.33
Acenaphthylene	ND		0.020	mg/kg	0.33
3-Nitroaniline	ND		0.14	mg/kg	1.7
Acenaphthene	ND		0.030	mg/kg	0.33
2,4-Dinitrophenol	ND		0.23	mg/kg	1.7
4-Nitrophenol	ND		0.25	mg/kg	1.7
Dibenzofuran	ND		0.040	mg/kg	0.33
2,4-Dinitrotoluene	ND		0.040	mg/kg	0.33
2,6-Dinitrotoluene	ND		0.050	mg/kg	0.33
Diethyl phthalate	ND		0.020	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND		0.030	mg/kg	0.33
Fluorene	ND		0.030	mg/kg	0.33
4-Nitroaniline	ND		0.18	mg/kg	1.7

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-12B 5.00
LAB ID: 103957-0001-SA
Matrix: SOIL Sampled: 29 DEC 93 Received: 29 DEC 93
Authorized: 03 JAN 94 Prepared: 03 JAN 94 Analyzed: 04 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
4,6-Dinitro-2-methylphenol	ND		0.36	mg/kg	1.7
N-Nitrosodiphenylamine	ND		0.040	mg/kg	0.33
4-Bromophenyl phenyl ether	ND		0.080	mg/kg	0.33
Hexachlorobenzene	ND		0.030	mg/kg	0.33
Pentachlorophenol	ND		0.19	mg/kg	1.7
Phenanthrene	ND		0.030	mg/kg	0.33
Anthracene	ND		0.020	mg/kg	0.33
Di-n-butyl phthalate	ND		0.24	mg/kg	0.33
Fluoranthene	ND		0.030	mg/kg	0.33
Pyrene	ND		0.020	mg/kg	0.33
Butyl benzyl phthalate	ND		0.030	mg/kg	0.33
3,3'-Dichlorobenzidine	ND		0.33	mg/kg	0.66
Benzo(a)anthracene	ND		0.040	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND		0.13	mg/kg	0.33
Chrysene	ND		0.040	mg/kg	0.33
Di-n-octyl phthalate	ND		0.040	mg/kg	0.33
Benzo(b)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(k)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(a)pyrene	ND		0.040	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND		0.030	mg/kg	0.33
Dibenz(a,h)anthracene	ND		0.030	mg/kg	0.33
Benzo(g,h,i)perylene	ND		0.020	mg/kg	0.33
Xylidine (Total)	ND		0.076	mg/kg	0.33

Surrogate	Recovery	
Nitrobenzene-d5	49	%
2-Fluorobiphenyl	50	%
Terphenyl-d14	61	%
Phenol-d5	48	%
2-Fluorophenol	54	%
2,4,6-Tribromophenol	57	%

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-12B 40.00
LAB ID: 103957-0003-SA
Matrix: SOIL Sampled: 29 DEC 93 Received: 29 DEC 93
Authorized: 03 JAN 94 Prepared: 03 JAN 94 Analyzed: 04 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
N-Nitrosodiethylamine	ND		0.26	mg/kg	0.33
Phenol	ND		0.030	mg/kg	0.33
bis(2-Chloroethyl) ether	ND		0.060	mg/kg	0.33
2-Chlorophenol	ND		0.040	mg/kg	0.33
1,3-Dichlorobenzene	ND		0.030	mg/kg	0.33
1,4-Dichlorobenzene	ND		0.060	mg/kg	0.33
Benzyl alcohol	ND		0.070	mg/kg	0.33
1,2-Dichlorobenzene	ND		0.040	mg/kg	0.33
2-Methylphenol	ND		0.030	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND		0.040	mg/kg	0.33
3/4-Methylphenol	ND		0.040	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND		0.030	mg/kg	0.33
Hexachloroethane	ND		0.030	mg/kg	0.33
Nitrobenzene	ND		0.090	mg/kg	0.33
Isophorone	ND		0.040	mg/kg	0.33
2-Nitrophenol	ND		0.050	mg/kg	0.33
2,4-Dimethylphenol	ND		0.030	mg/kg	0.33
Benzoic acid	ND		0.51	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND		0.020	mg/kg	0.33
2,4-Dichlorophenol	ND		0.030	mg/kg	0.33
1,2,4-Trichlorobenzene	ND		0.040	mg/kg	0.33
Naphthalene	ND		0.030	mg/kg	0.33
4-Chloroaniline	ND		0.10	mg/kg	0.33
Hexachlorobutadiene	ND		0.040	mg/kg	0.33
4-Chloro-3-methylphenol	ND		0.040	mg/kg	0.33
2-Methylnaphthalene	ND		0.030	mg/kg	0.33
Hexachlorocyclopentadiene	ND		0.050	mg/kg	0.33
2,4,6-Trichlorophenol	ND		0.040	mg/kg	0.33
2,4,5-Trichlorophenol	ND		0.050	mg/kg	1.7
2-Chloronaphthalene	ND		0.030	mg/kg	0.33
2-Nitroaniline	ND		0.030	mg/kg	1.7
Dimethyl phthalate	ND		0.030	mg/kg	0.33
Acenaphthylene	ND		0.020	mg/kg	0.33
3-Nitroaniline	ND		0.14	mg/kg	1.7
Acenaphthene	ND		0.030	mg/kg	0.33
2,4-Dinitrophenol	ND		0.23	mg/kg	1.7
4-Nitrophenol	ND		0.25	mg/kg	1.7
Dibenzofuran	ND		0.040	mg/kg	0.33
2,4-Dinitrotoluene	ND		0.040	mg/kg	0.33
2,6-Dinitrotoluene	ND		0.050	mg/kg	0.33
Diethyl phthalate	ND		0.020	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND		0.030	mg/kg	0.33
Fluorene	ND		0.030	mg/kg	0.33
4-Nitroaniline	ND		0.18	mg/kg	1.7

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-12B 40.00
LAB ID: 103957-0003-SA
Matrix: SOIL Sampled: 29 DEC 93 Received: 29 DEC 93
Authorized: 03 JAN 94 Prepared: 03 JAN 94 Analyzed: 04 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
4,6-Dinitro-2-methylphenol	ND		0.36	mg/kg	1.7
N-Nitrosodiphenylamine	ND		0.040	mg/kg	0.33
4-Bromophenyl phenyl ether	ND		0.080	mg/kg	0.33
Hexachlorobenzene	ND		0.030	mg/kg	0.33
Pentachlorophenol	ND		0.19	mg/kg	1.7
Phenanthrene	ND		0.030	mg/kg	0.33
Anthracene	ND		0.020	mg/kg	0.33
Di-n-butyl phthalate	ND		0.24	mg/kg	0.33
Fluoranthene	ND		0.030	mg/kg	0.33
Pyrene	ND		0.020	mg/kg	0.33
Butyl benzyl phthalate	ND		0.030	mg/kg	0.33
3,3'-Dichlorobenzidine	ND		0.33	mg/kg	0.66
Benzo(a)anthracene	ND		0.040	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND		0.13	mg/kg	0.33
Chrysene	ND		0.040	mg/kg	0.33
Di-n-octyl phthalate	ND		0.040	mg/kg	0.33
Benzo(b)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(k)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(a)pyrene	ND		0.040	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND		0.030	mg/kg	0.33
Dibenz(a,h)anthracene	ND		0.030	mg/kg	0.33
Benzo(g,h,i)perylene	ND		0.020	mg/kg	0.33
Xylidine (Total)	ND		0.076	mg/kg	0.33

Surrogate	Recovery	
Nitrobenzene-d5	49	%
2-Fluorobiphenyl	48	%
Terphenyl-d14	58	%
Phenol-d5	46	%
2-Fluorophenol	52	%
2,4,6-Tribromophenol	53	%

ND = Not Detected

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QC LOT ASSIGNMENT REPORT - MS QC
Metals Analysis and Preparation

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
103957-0002-SA	SOLID	AL-FLAA-S	04 JAN 94-D	04 JAN 94-D	04 JAN 94-DA
103957-0002-SA	SOLID	AS-HAA-S	04 JAN 94-D	04 JAN 94-D	04 JAN 94-DA
103957-0002-SA	SOLID	CD-FLAA-S	04 JAN 94-D	04 JAN 94-D	04 JAN 94-DA
103957-0002-SA	SOLID	CR-FLAA-S	04 JAN 94-D	04 JAN 94-D	04 JAN 94-DA
103957-0002-SA	SOLID	MN-FLAA-S	04 JAN 94-D	04 JAN 94-D	04 JAN 94-DA
103957-0002-SA	SOLID	NI-FLAA-S	04 JAN 94-D	04 JAN 94-D	04 JAN 94-DA
103957-0002-SA	SOLID	PB-FLAA-S	04 JAN 94-D	04 JAN 94-D	04 JAN 94-DA
103957-0002-SA	SOLID	CU-FLAA-S	04 JAN 94-D	04 JAN 94-D	04 JAN 94-DA
103957-0002-SA	SOLID	ZN-FLAA-S	04 JAN 94-D	04 JAN 94-D	04 JAN 94-DA
103957-0002-SA	SOLID	BA-FLAA-S	04 JAN 94-D	04 JAN 94-D	04 JAN 94-DA
103957-0002-SA	SOLID	HG-CVAA-S	04 JAN 94-E	04 JAN 94-E	04 JAN 94-EA

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DUPLICATE CONTROL SAMPLE REPORT
Metals Analysis and Preparation
Project: 103957

Category: ZN-FLAA-S Zinc, Flame AA
Matrix: SOLID
QC Lot: 04 JAN 94-D
Date Analyzed: 06 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Zinc	530	548	541	544	103	65-135	1.3	20

Category: BA-FLAA-S Barium, Flame AA
Matrix: SOLID
QC Lot: 04 JAN 94-D
Date Analyzed: 04 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Barium	503	506	497	502	100	76-124	1.8	20

Category: HG-CVAA-S Mercury by CVAA
Matrix: SOLID
QC Lot: 04 JAN 94-E
Date Analyzed: 05 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Mercury	29.0	31.1	29.1	30.1	104	52-148	6.6	20

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

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DUPLICATE CONTROL SAMPLE REPORT
Metals Analysis and Preparation
Project: 103957

Category: AL-FLAA-S Aluminum, Flame AA
Matrix: SOLID
QC Lot: 04 JAN 94-D
Date Analyzed: 04 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Aluminum	10700	9200	8900	9050	85	47-153	3.3	20

Category: AS-HAA-S Arsenic, Hydride AA
Matrix: SOLID
QC Lot: 04 JAN 94-D
Date Analyzed: 05 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Arsenic	145	142	137	140	96	59-141	3.6	20

Category: CD-FLAA-S Cadmium, Flame AA
Matrix: SOLID
QC Lot: 04 JAN 94-D
Date Analyzed: 04 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Cadmium	154	120	119	120	78	68-132	0.84	20

Category: CR-FLAA-S Chromium, Flame AA
Matrix: SOLID
QC Lot: 04 JAN 94-D
Date Analyzed: 06 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Chromium	151	130	126	128	85	66-133	3.1	20

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

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DUPLICATE CONTROL SAMPLE REPORT
Metals Analysis and Preparation
Project: 103957

Category: MN-FLAA-S Manganese, Flame AA Method 7460
Matrix: SOLID
QC Lot: 04 JAN 94-D
Date Analyzed: 05 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Manganese	423	428	430	429	101	74-125	0.47	20

Category: NI-FLAA-S Nickel Flame AA
Matrix: SOLID
QC Lot: 04 JAN 94-D
Date Analyzed: 04 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Nickel	166	193	181	187	113	67-133	6.4	20

Category: PB-FLAA-S Method 7420 - Lead, Flame AA
Matrix: SOLID
QC Lot: 04 JAN 94-D
Date Analyzed: 04 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Lead	148	145	138	142	96	66-135	4.9	20

Category: CU-FLAA-S Copper Flame AA
Matrix: SOLID
QC Lot: 04 JAN 94-D
Date Analyzed: 06 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Copper	162	149	152	150	93	68-132	2.0	20

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Metals Analysis and Preparation
Project: 103957

Category: AL-FLAA-S Aluminum, Flame AA
Matrix: SOLID
Sample: 103963-0001
MS Run: 04 JAN 94-DA
Units: mg/kg

Analyte	Sample Result	MS Result	MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
	Concentration								
Aluminum	4210	4570	4730	200	NC	NC	NC	60-130	20

Category: AS-HAA-S Arsenic, Hydride AA
Matrix: SOLID
Sample: 103963-0001
MS Run: 04 JAN 94-DA
Units mg/kg Units Qualifier: Wet wt.

Analyte	Sample Result	MS Result	MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
	Concentration								
Arsenic	4.00	48.6	51.9	50.0	89	96	7.6	50-127	25

Category: CD-FLAA-S Cadmium, Flame AA
Matrix: SOLID
Sample: 103963-0001
MS Run: 04 JAN 94-DA
Units: mg/kg

Analyte	Sample Result	MS Result	MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
	Concentration								
Cadmium	ND	ND	ND	5.00	NC	NC	NC	52-130	28

NC = Not Calculated, calculation not applicable.
ND = Not Detected

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Metals Analysis and Preparation
Project: 103957 (cont.)

Category: CR-FLAA-S Chromium, Flame AA
Matrix: SOLID
Sample: 103963-0001
MS Run: 04 JAN 94-DA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Chromium	12.9	32.3	32.4	20.0	97	98	1.0	40-190	33

Category: MN-FLAA-S Manganese, Flame AA Method 7460
Matrix: SOLID
Sample: 103963-0001
MS Run: 04 JAN 94-DA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Manganese	265	308	306	50.0	NC	NC	NC	60-130	40

Category: NI-FLAA-S Nickel Flame AA
Matrix: SOLID
Sample: 103963-0001
MS Run: 04 JAN 94-DA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Nickel	ND	57.0	60.0	50.0	114	120	5.1	55-155	25

NC = Not Calculated, calculation not applicable.
ND = Not Detected

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Metals Analysis and Preparation
Project: 103957 (cont.)

Category: PB-FLAA-S Method 7420 - Lead, Flame AA
Matrix: SOLID
Sample: 103963-0001
MS Run: 04 JAN 94-DA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Lead	ND	52.0	58.0	50.0	104	116	11	14-169	40

Category: CU-FLAA-S Copper Flame AA
Matrix: SOLID
Sample: 103963-0001
MS Run: 04 JAN 94-DA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Copper	27.0	46.0	48.0	25.0	76	84	10	49-144	23

Category: ZN-FLAA-S Zinc, Flame AA
Matrix: SOLID
Sample: 103963-0001
MS Run: 04 JAN 94-DA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Zinc	34.6	82.6	77.1	50.0	96	85	12	65-138	25

ND = Not Detected

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Metals Analysis and Preparation
Project: 103957 (cont.)

Category: BA-FLAA-S Barium, Flame AA
Matrix: SOLID
Sample: 103963-0001
MS Run: 04 JAN 94-DA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Barium	85.0	286	260	200	101	88	14	40-130	30

Category: HG-CVAA-S Mercury by CVAA
Matrix: SOLID
Sample: 103963-0001
MS Run: 04 JAN 94-EA
Units mg/kg Units Qualifier: Wet wt.

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Mercury	ND	0.478	0.444	0.438	109	101	7.6	33-178	40

ND = Not Detected

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

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METHOD BLANK REPORT
Metals Analysis and Preparation
Project: 103957

Test: AL-FLAA-MDL-S Method 7020 - Aluminum, Flame AA
Matrix: SOLID
QC Run: 04 JAN 94-D Date Analyzed: 04 JAN 94

Analyte	Result	Units	Reporting Limit
Aluminum	ND	mg/kg	100

Test: AS-HAA-MDL-S Method 7062 - Arsenic, Hydride AA
Matrix: SOLID
QC Run: 04 JAN 94-D Date Analyzed: 05 JAN 94

Analyte	Result	Units	Reporting Limit
Arsenic	ND	mg/kg	0.50

Test: CD-FLAA-MDL-S Method 7130 - Cadmium, Flame AA
Matrix: SOLID
QC Run: 04 JAN 94-D Date Analyzed: 04 JAN 94

Analyte	Result	Units	Reporting Limit
Cadmium	ND	mg/kg	5.0

Test: CR-FLAA-MDL-S Method 7190 - Chromium, Flame AA
Matrix: SOLID
QC Run: 04 JAN 94-D Date Analyzed: 06 JAN 94

Analyte	Result	Units	Reporting Limit
Chromium	ND	mg/kg	10.0

Test: MN-FLAA-MDL-S Manganese, Flame AA
Matrix: SOLID
QC Run: 04 JAN 94-D Date Analyzed: 05 JAN 94

Analyte	Result	Units	Reporting Limit
Manganese	ND	mg/kg	5.0

ND = Not Detected

METHOD BLANK REPORT
Metals Analysis and Preparation (cont.)
Project: 103957

Test: NI-FLAA-MDL-S Method 7520 - Nickel, Flame AA
Matrix: SOLID
QC Run: 04 JAN 94-D Date Analyzed: 04 JAN 94

Analyte	Result	Units	Reporting Limit
Nickel	ND	mg/kg	10.0

Test: PB-FLAA-MDL-S Method 7420 - Lead, FLame AA
Matrix: SOLID
QC Run: 04 JAN 94-D Date Analyzed: 04 JAN 94

Analyte	Result	Units	Reporting Limit
Lead	ND	mg/kg	20.0

Test: CU-FLAA-MDL-S Method 7210 - Copper, Flame AA
Matrix: SOLID
QC Run: 04 JAN 94-D Date Analyzed: 06 JAN 94

Analyte	Result	Units	Reporting Limit
Copper	ND	mg/kg	10.0

Test: ZN-FLAA-MDL-S Method 7950 - Zinc, Flame AA
Matrix: SOLID
QC Run: 04 JAN 94-D Date Analyzed: 06 JAN 94

Analyte	Result	Units	Reporting Limit
Zinc	ND	mg/kg	2.0

Test: BA-FLAA-MDL-S Method 7080 - Barium, Flame AA
Matrix: SOLID
QC Run: 04 JAN 94-D Date Analyzed: 04 JAN 94

Analyte	Result	Units	Reporting Limit
Barium	ND	mg/kg	50.0

ND = Not Detected

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METHOD BLANK REPORT
Metals Analysis and Preparation (cont.)
Project: 103957

Test: HG-CVAA-MDL-S Method 7471 - Mercury, Cold Vapor AA
Matrix: SOLID
QC Run: 04 JAN 94-E Date Analyzed: 05 JAN 94

Analyte	Result	Units	Reporting Limit
Mercury	ND	mg/kg	0.10

ND = Not Detected

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QC LOT ASSIGNMENT REPORT - MS QC
Wet Chemistry Analysis and Preparation

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
103957-0002-SA	SOLID	CN-S	03 JAN 94-A	03 JAN 94-A	03 JAN 94-AB

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DUPLICATE CONTROL SAMPLE REPORT
Wet Chemistry Analysis and Preparation
Project: 103957

Category: CN-S Cyanide (9012) SOLID
Matrix: SOLID
QC Lot: 03 JAN 94-A Date Analyzed: 03 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average(%) DCS	Accuracy Average(%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Cyanide, Total	5.00	4.35	4.50	4.42	89	70-123	3.4	21

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Wet Chemistry Analysis and Preparation
Project: 103957

Category: CN-S Cyanide (9012) SOLID
Matrix: SOLID
Sample: 103884-0002
MS Run: 03 JAN 94-AB
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Cyanide, Total	ND	4.65	4.40	5.00	93	88	5.6	41-159	48

ND = Not Detected

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

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METHOD BLANK REPORT
Wet Chemistry Analysis and Preparation
Project: 103957

Test: CN-MDL-S Method 9012 - Cyanide, Total
Matrix: SOLID
QC Run: 03 JAN 94-A Date Analyzed: 03 JAN 94

Analyte	Result	Units	Reporting Limit
Cyanide, Total	ND	mg/kg	0.50

ND = Not Detected

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QC LOT ASSIGNMENT REPORT - MS QC
Volatile Organics by GC/MS

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
103957-0001-SA	SOLID	8240-S	30 DEC 93-AF	03 JAN 94-BF	27 DEC 93-AF
103957-0003-SA	SOLID	8240-S	30 DEC 93-AF	03 JAN 94-BF	27 DEC 93-AF

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DUPLICATE CONTROL SAMPLE REPORT
Volatile Organics by GC/MS
Project: 103957

Category: 8240-S Volatile Organics
Matrix: SOLID
QC Lot: 30 DEC 93-AF
Date Analyzed: 30 DEC 93
Concentration Units: ug/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average(%) DCS	Accuracy Average(%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
1,1-Dichloroethene	50.0	47.6	48.4	48.0	96	50-121	1.7	31
Trichloroethene	50.0	50.6	53.0	51.8	104	69-114	4.6	17
Benzene	50.0	49.6	51.9	50.8	102	78-117	4.5	16
Toluene	50.0	49.6	52.1	50.8	102	79-118	4.9	17
Chlorobenzene	50.0	49.0	51.2	50.1	100	79-119	4.4	17

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

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SINGLE CONTROL SAMPLE REPORT
Volatile Organics by GC/MS
Project: 103957

Category: 8240-S Volatile Organics
Matrix: SOLID
QC Run: 03 JAN 94-BF
Date Analyzed: 03 JAN 94
Concentration Units: ug/kg

Analyte	Concentration Spiked	Concentration Measured	Accuracy(%) SCS	Accuracy(%) Limits
1,2-Dichloroethane-d4	50.0	49.1	98	70-121
Toluene-d8	50.0	51.4	103	81-117
Bromofluorobenzene	50.0	49.2	98	74-121

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Volatile Organics by GC/MS
Project: 103957

Category: 8240-S Volatile Organics
Matrix: SOLID
Sample: 103884-0003
MS Run: 27 DEC 93-AF
Units: ug/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
1,1-Dichloroethene	ND	36.3	34.2	50.0	73	68	7.1	46-136	28
Trichloroethene	ND	50.1	48.9	50.0	100	98	2.0	58-131	26
Benzene	ND	50.3	49.7	50.0	101	99	2.0	63-139	23
Toluene	ND	52.7	52.5	50.0	105	105	0.0	68-140	24
Chlorobenzene	ND	52.0	50.2	50.0	104	100	3.9	68-138	23

ND = Not Detected

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

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METHOD BLANK REPORT
Volatile Organics by GC/MS
Project: 103957

Test: 8240-HLA-S Method 8240 - Volatile Organics, EPA 8240 Extended List
Matrix: SOLID
QC Run: 03 JAN 94-BF Date Analyzed: 03 JAN 94

Analyte	Result	Units	Reporting Limit
Dichlorodifluoromethane	ND	ug/kg	10
Chloromethane	ND	ug/kg	10
Bromomethane	ND	ug/kg	10
Vinyl chloride	ND	ug/kg	10
Chloroethane	ND	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/kg	5.0
Methylene chloride	ND	ug/kg	5.0
Acetone	ND	ug/kg	10
Trichlorofluoromethane	ND	ug/kg	5.0
1,1-Dichloroethene	ND	ug/kg	5.0
Nitromethane	ND	ug/kg	200
trans-1,2-Dichloroethene	ND	ug/kg	5.0
cis-1,2-Dichloroethene	ND	ug/kg	5.0
1,1-Dichloroethane	ND	ug/kg	5.0
2,2-Dichloropropane	ND	ug/kg	5.0
Bromochloromethane	ND	ug/kg	5.0
Chloroform	ND	ug/kg	5.0
1,1-Dichloropropene	ND	ug/kg	5.0
1,2-Dichloroethane	ND	ug/kg	5.0
Dibromomethane	ND	ug/kg	5.0
1,1,1-Trichloroethane	ND	ug/kg	5.0
Carbon tetrachloride	ND	ug/kg	5.0
Bromodichloromethane	ND	ug/kg	5.0
1,2-Dichloropropane	ND	ug/kg	5.0
1,3-Dichloropropane	ND	ug/kg	5.0
Trichloroethene	ND	ug/kg	5.0
Dibromochloromethane	ND	ug/kg	5.0
1,1,2-Trichloroethane	ND	ug/kg	5.0
Benzene	ND	ug/kg	5.0
Bromoform	ND	ug/kg	5.0
Tetrachloroethene	ND	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.0
Toluene	ND	ug/kg	5.0
Chlorobenzene	ND	ug/kg	5.0
Ethylbenzene	ND	ug/kg	5.0
Styrene	ND	ug/kg	5.0
Xylenes (total)	ND	ug/kg	5.0
1-Methylethylbenzene	ND	ug/kg	5.0
Bromobenzene	ND	ug/kg	5.0
1,2,3-Trichloropropane	ND	ug/kg	5.0
2-Chlorotoluene	ND	ug/kg	5.0
n-Propyl benzene	ND	ug/kg	5.0
1,3,5-Trimethylbenzene	ND	ug/kg	5.0

ND = Not Detected

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METHOD BLANK REPORT
Volatile Organics by GC/MS (cont.)
Project: 103957

Test: 8240-HLA-S Method 8240 - Volatile Organics, EPA 8240 Extended List
Matrix: SOLID
QC Run: 03 JAN 94-BF Date Analyzed: 03 JAN 94

Analyte	Result	Units	Reporting Limit
4-Chlorotoluene	ND	ug/kg	5.0
tert-Butylbenzene	ND	ug/kg	5.0
1,2,4-Trimethylbenzene	ND	ug/kg	5.0
sec-Butylbenzene	ND	ug/kg	5.0
Isopropyltoluene	ND	ug/kg	5.0
1,3-Dichlorobenzene	ND	ug/kg	5.0
1,4-Dichlorobenzene	ND	ug/kg	5.0
n-Butylbenzene	ND	ug/kg	5.0
1,2-Dichlorobenzene	ND	ug/kg	5.0
1,2,4-Trichlorobenzene	ND	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND	ug/kg	5.0
Hexachlorobutadiene	ND	ug/kg	5.0
Naphthalene	ND	ug/kg	5.0
1,2,3-Trichlorobenzene	ND	ug/kg	5.0

ND = Not Detected

Enseco
A Corning Company

QC LOT ASSIGNMENT REPORT - MS QC
Semivolatile Organics by GC/MS

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
103957-0001-SA	SOLID	8270-S	03 JAN 94-D	03 JAN 94-D	03 JAN 94-DB
103957-0003-SA	SOLID	8270-S	03 JAN 94-D	03 JAN 94-D	03 JAN 94-DB

Enseco
A Corning Company

DUPLICATE CONTROL SAMPLE REPORT
Semivolatile Organics by GC/MS
Project: 103957

Category: 8270-S Method 8270 - TCL Semivolatile Organics
Matrix: SOLID
QC Lot: 03 JAN 94-D Date Analyzed: 03 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Phenol	6.67	3.81	2.85	3.33	50	39-106	29	31
2-Chlorophenol	6.67	3.54	3.18	3.36	50	44-107	11	32
1,4-Dichlorobenzene	3.33	1.91	1.68	1.80	54	40-107	13	23
N-Nitroso-di-n-propylamine	3.33	1.96	1.77	1.86	56	31-132	10	38
1,2,4-Trichlorobenzene	3.33	2.04	1.88	1.96	59	38-120	8.2	22
4-Chloro-3-methylphenol	6.67	3.75	3.51	3.63	54	40-119	6.6	24
Acenaphthene	3.33	2.05	1.95	2.00	60	30-140	5.0	24
2,4-Dinitrotoluene	3.33	1.89	1.74	1.82	55	30-121	8.3	28
4-Nitrophenol	6.67	4.04	3.56	3.80	57	16-143	13	54
Pentachlorophenol	6.67	4.96	4.43	4.70	70	21-152	11	43
Pyrene	3.33	2.18	2.02	2.10	63	45-120	7.6	26

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

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SINGLE CONTROL SAMPLE REPORT
Semivolatile Organics by GC/MS
Project: 103957

Category: 8270-S Method 8270 - TCL Semivolatile Organics
Matrix: SOLID
QC Run: 03 JAN 94-D Date Analyzed: 04 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Concentration Measured	Accuracy(%) SCS	Accuracy(%) Limits
2-Fluorophenol	6.67	5.15	77	25-121
Phenol-d5	6.67	4.60	69	24-113
Nitrobenzene-d5	3.33	2.42	73	23-120
2-Fluorobiphenyl	3.33	2.48	74	30-115
2,4,6-Tribromophenol	6.67	4.88	73	19-122
Terphenyl-d14	3.33	2.64	79	18-137

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Semivolatile Organics by GC/MS
Project: 103957

Category: 8270-S Method 8270 - TCL Semivolatile Organics
Matrix: SOLID
Sample: 103957-0001
MS Run: 03 JAN 94-DB
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Phenol	ND	2.94	3.35	6.67	44	50	13	25-110	74
2-Chlorophenol	ND	2.81	3.26	6.67	42	49	16	33-103	42
1,4-Dichlorobenzene	ND	1.64	1.82	3.33	49	55	12	22-110	55
N-Nitroso-di-n-propylamine	ND	1.66	1.74	3.33	50	52	3.9	18-138	49
1,2,4-Trichlorobenzene	ND	1.70	1.91	3.33	51	57	11	29-119	43
4-Chloro-3-methylphenol	ND	3.40	3.47	6.67	51	52	2.0	36-119	41
Acenaphthene	ND	1.84	1.87	3.33	55	56	1.8	17-148	36
2,4-Dinitrotoluene	ND	1.56	1.73	3.33	47	52	10	27-120	41
4-Nitrophenol	ND	3.88	4.07	6.67	58	61	5.1	16-143	80
Pentachlorophenol	ND	4.75	4.84	6.67	71	73	2.8	21-152	61
Pyrene	ND	1.85	2.01	3.33	56	60	6.9	24-133	46

ND = Not Detected

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

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METHOD BLANK REPORT
Semivolatile Organics by GC/MS
Project: 103957

Test: 8270-HLA-S Method 8270 - Semivolatile Organics
Matrix: SOLID
QC Run: 03 JAN 94-D Date Analyzed: 04 JAN 94

Analyte	Result	Units	Reporting Limit
N-Nitrosodiethylamine	ND	mg/kg	0.33
Phenol	ND	mg/kg	0.33
bis(2-Chloroethyl) ether	ND	mg/kg	0.33
2-Chlorophenol	ND	mg/kg	0.33
1,3-Dichlorobenzene	ND	mg/kg	0.33
1,4-Dichlorobenzene	ND	mg/kg	0.33
Benzyl alcohol	ND	mg/kg	0.33
1,2-Dichlorobenzene	ND	mg/kg	0.33
2-Methylphenol	ND	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND	mg/kg	0.33
3/4-Methylphenol	ND	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND	mg/kg	0.33
Hexachloroethane	ND	mg/kg	0.33
Nitrobenzene	ND	mg/kg	0.33
Isophorone	ND	mg/kg	0.33
2-Nitrophenol	ND	mg/kg	0.33
2,4-Dimethylphenol	ND	mg/kg	0.33
Benzoic acid	ND	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND	mg/kg	0.33
2,4-Dichlorophenol	ND	mg/kg	0.33
1,2,4-Trichlorobenzene	ND	mg/kg	0.33
Naphthalene	ND	mg/kg	0.33
4-Chloroaniline	ND	mg/kg	0.33
Hexachlorobutadiene	ND	mg/kg	0.33
4-Chloro-3-methylphenol	ND	mg/kg	0.33
2-Methylnaphthalene	ND	mg/kg	0.33
Hexachlorocyclopentadiene	ND	mg/kg	0.33
2,4,6-Trichlorophenol	ND	mg/kg	0.33
2,4,5-Trichlorophenol	ND	mg/kg	1.7
2-Chloronaphthalene	ND	mg/kg	0.33
2-Nitroaniline	ND	mg/kg	1.7
Dimethyl phthalate	ND	mg/kg	0.33
Acenaphthylene	ND	mg/kg	0.33
3-Nitroaniline	ND	mg/kg	1.7
Acenaphthene	ND	mg/kg	0.33
2,4-Dinitrophenol	ND	mg/kg	1.7
4-Nitrophenol	ND	mg/kg	1.7
Dibenzofuran	ND	mg/kg	0.33
2,4-Dinitrotoluene	ND	mg/kg	0.33
2,6-Dinitrotoluene	ND	mg/kg	0.33
Diethyl phthalate	ND	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND	mg/kg	0.33
Fluorene	ND	mg/kg	0.33
4-Nitroaniline	ND	mg/kg	1.7
4,6-Dinitro-2-methylphenol	ND	mg/kg	1.7

ND = Not Detected

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A Corning Company

METHOD BLANK REPORT
Semivolatile Organics by GC/MS (cont.)
Project: 103957

Test: 8270-HLA-S Method 8270 - Semivolatile Organics
Matrix: SOLID
QC Run: 03 JAN 94-D Date Analyzed: 04 JAN 94

Analyte	Result	Units	Reporting Limit
N-Nitrosodiphenylamine	ND	mg/kg	0.33
4-Bromophenyl phenyl ether	ND	mg/kg	0.33
Hexachlorobenzene	ND	mg/kg	0.33
Pentachlorophenol	ND	mg/kg	1.7
Phenanthrene	ND	mg/kg	0.33
Anthracene	ND	mg/kg	0.33
Di-n-butyl phthalate	ND	mg/kg	0.33
Fluoranthene	ND	mg/kg	0.33
Pyrene	ND	mg/kg	0.33
Butyl benzyl phthalate	ND	mg/kg	0.33
3,3'-Dichlorobenzidine	ND	mg/kg	0.66
Benzo(a)anthracene	ND	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND	mg/kg	0.33
Chrysene	ND	mg/kg	0.33
Di-n-octyl phthalate	ND	mg/kg	0.33
Benzo(b)fluoranthene	ND	mg/kg	0.33
Benzo(k)fluoranthene	ND	mg/kg	0.33
Benzo(a)pyrene	ND	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND	mg/kg	0.33
Dibenz(a,h)anthracene	ND	mg/kg	0.33
Benzo(g,h,i)perylene	ND	mg/kg	0.33
Xylidine (Total)	ND	mg/kg	0.33

ND = Not Detected

103957

page 1 of

Harding Lawson Associates
3 Hutton Centre Drive, Suite 200
Santa Ana, California 92707
714/556-7992 – 213/617-7232
FAX: 714/662-3297

CHAIN OF CUSTODY FORM

Lab: ENSECO

Job Number: ~~AR~~ 26522-2.3

Name/Location: AEROJET ASA

Project Manager: MATT HUNTER

Samplers: KAREN WITBAARD

Recorder: Karen Witbaard (Signature Required)

SOURCE CODE	MATRIX: Water	Sediment	Soil	Oil	#CONTAINERS & PRESERV.: Unpres.	H_2SO_4	HNO_3	CHILLED	SAMPLE NUMBER OR LAB NUMBER: Yr	Wk	Seq	DATE: Yr	Mo	Dy	Time	STATION DESCRIPTION/ NOTES	EPA 601/8010	EPA 602/8020	EPA 624/8240	EPA 625/8270	Priority Pllnt. Metals	Benzene/Toluene/Xylene	Total Petrol. Hydrocarb.	9013 CN	EPA 6010/7000 Scrvio metals	HOLD
50			X		1			X	SZB-12B		5.00	93	12	29	0745	2½" x 3" SS. SLEEVE			1X	X						
									SZB-12B		12.5				0815											
									SZB-12B		15.0				0830									1X	X	
									SZB-12B		15.25				0830											
									SZB-12B		20.0				0840											
									SZB-12B		20.25				0840											
									SZB-12B		25.0				0900											
									SZB-12B		25.25				0900											
									SZB-12B		30.0				0920											
									SZB-12B		30.25				0920											

LAB NUMBER: Yr	Wk	Seq	DEPTH IN FEET	COL MTD CD	QA CODE	MISCELLANEOUS
						REPORT TO MATT HUNTER

CHAIN OF CUSTODY RECORD

RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
Karen Witbaard	Matt Pero	1229 255
Matt Pero 1229 335		

DISPATCHED BY: (Signature)	DATE/TIME	RECEIVED FOR LAB BY: (Signature)	DATE/TIME
		Nils J. Corning	12/29/93 15:35

METHOD OF SHIPMENT

Laboratory Copy White | Project Office Copy Yellow | Field or Office Copy Pink

6533

Harding Lawson Associates
Sutton Centre Drive, Suite 200
Santa Ana, California 92707
714/556-7992 – 213/617-7232
FAX: 714/662-3297

103957

CHAIN OF CUSTODY FORM

page 1 of 1

Lab: ENSECO

Samplers: KAREN WITBAARD

Job Number: 26522-2.3

Name/Location: AEROJET AISA

Project Manager: MATT HUNTER

Recorder: Karen Witbaard (Signature Required)

SOURCE CODE	MATRIX: Water	Sediment	Soil	Oil	#CONTAINERS & PRESERV.: Unpres.	H_2SO_4	HNO_3	CHILL	SAMPLE NUMBER OR LAB NUMBER: Yr	Wk	Seq	DATE: Yr	Mo	Dy	Time	STATION DESCRIPTION/ NOTES	EPA 601/8010	EPA 602/8020	EPA 624(8240)	EPA 625(8270)	Priority Pltnt. Metals	Benzene/Toluene/Xylene	Total Petrol. Hydrocarb.
SO			X		X			I	SZB	12B	35.0	93	12	29	0935								X
			↓		↓			↓	SZB	12B	35.25				0935								
									SZB	12B	40.0				0950			X	X				
									SZB	12B	40.25				0956								

LAB NUMBER: Yr	Wk	Seq	DEPTH IN FEET	COL MTD CD	QA CODE	MISCELLANEOUS
						REPORT TO MATT HUNTER

CHAIN OF CUSTODY RECORD

RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
Karen Witbaard	[signature]	12 29 1255
RELINQUISHED BY: (Signature) [signature] 1229 335	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
DISPATCHED BY: (Signature) DATE/TIME	RECEIVED FOR LAB BY: (Signature) [signature]	DATE/TIME 12/29/93 15:35
METHOD OF SHIPMENT		

Laboratory Copy White | Project Office Copy Yellow | Field or Office Copy Pink

6533

Enseco
A Corning Company

Enseco - CRL
7440 Lincoln Way • Garden Grove, CA 92641
(714) 898-6370 • (213) 598-0458 • (800) LAB-1-CRL
FAX: (714) 891-5917

January 14, 1994

HARDING LAWSON ASSOCIATES
3 HUTTON CENTRE DRIVE, STE 200
SANTA ANA, CA 92707
ATTN: MR. MATT HUNTER

Lab No.: 103975-0001/0009
Date Sampled: 3-JAN-1994
Date Sample Rec'd: 3-JAN-1994
Project: (26522-2.4) AEROJET

Enclosed with this letter is the report on the chemical and physical analyses on the samples from LAB NO: 103975-0001/0009 shown above.

The samples were received by CRL in a chilled state, intact and with the chain-of-custody record attached.

Note that ND means not detected at the reporting limit expressed. The reporting limit is raised to reflect the dilution factor of the sample.

Solid samples are reported on "as received" basis.

Case Narrative:

The MS/MSD Percent Recoveries for Aluminum, Cadmium, Manganese and Zinc were not within the acceptance limits specified in HLA's "Laboratory Analytical Technical Requirements," nor was it within Enseco's-CRL's established acceptance limits. However, the DCS recoveries were within all acceptable ranges, therefore the data was accepted and no further action was required.

The MS Percent Recovery for Chromium was not within the acceptance limits specified in HLA's "Laboratory Analytical Technical Requirements, but it was within Enseco's-CRL established acceptance limits. Therefore the data was accepted and no further action was required.

Sabina L. Sudoko
Reviewed

Meri Bloom
Approved

The Report Cover Letter is an integral part of this report.

This report pertains only to the samples investigated and does not necessarily apply to other apparently identical or similar materials. This report is submitted for the exclusive use of the client to whom it is addressed. Any reproduction of this report or use of this Laboratory's name for advertising or publicity purposes without authorization is prohibited.

Enseco
A Corning Company

SAMPLE DESCRIPTION INFORMATION
for
Harding Lawson Associates

Lab ID	Client ID	Matrix	Sampled Date	Sampled Time	Received Date
103975-0001-SA	SVMW-36-4.00	SOIL	03 JAN 94	08:23	03 JAN 94
103975-0002-SA	SVMW-36-4.25	SOIL	03 JAN 94	08:23	03 JAN 94
103975-0003-SA	SVMW-36-20.00	SOIL	03 JAN 94	09:04	03 JAN 94
103975-0004-SA	SVMW-35-4.75	SOIL	03 JAN 94	12:21	03 JAN 94
103975-0005-SA	SVMW-35A-9.50	SOIL	03 JAN 94	13:03	03 JAN 94
103975-0006-SA	SVMW-36-15.25	SOIL	03 JAN 94	08:54	03 JAN 94
103975-0007-SA	SVMW-36-19.75	SOIL	03 JAN 94	09:04	03 JAN 94
103975-0008-SA	SVMW-35A-6.00	SOIL	03 JAN 94	12:57	03 JAN 94
103975-0009-SA	SVMW-35-0.50	SOIL	03 JAN 94	14:36	03 JAN 94

Enseco
A Corning Company

METALS

Client Name: Harding Lawson Associates
Client ID: SVMW-36-4.00
Lab ID: 103975-0001-SA
Matrix: SOIL Sampled: 03 JAN 94 Received: 03 JAN 94
Authorized: 04 JAN 94 Prepared: See Below Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Aluminum	7090		50.0	200	mg/kg	7020	05 JAN 94	10 JAN 94
Arsenic	3.4		0.20	0.50	mg/kg	7062	05 JAN 94	05 JAN 94
Barium	62.0		20.0	50.0	mg/kg	7080	05 JAN 94	10 JAN 94
Chromium	21.7		5.0	10.0	mg/kg	7190	05 JAN 94	06 JAN 94
Copper	39.0		5.0	10.0	mg/kg	7210	05 JAN 94	06 JAN 94
Lead	318		20.0	20.0	mg/kg	7420	05 JAN 94	06 JAN 94
Manganese	444		2.0	5.0	mg/kg	7460	05 JAN 94	05 JAN 94
Nickel	11.0		5.0	10.0	mg/kg	7520	05 JAN 94	06 JAN 94
Zinc	1450		1.0	40.0	mg/kg	7950	05 JAN 94	06 JAN 94
Cadmium	6.8		2.0	5.0	mg/kg	7130	05 JAN 94	06 JAN 94
Mercury	TR		0.090	0.10	mg/kg	7471	05 JAN 94	05 JAN 94

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A Corning Company

METALS

Client Name: Harding Lawson Associates
Client ID: SVMW-35A-9.50
LAB ID: 103975-0005-SA
Matrix: SOIL — Sampled: 03 JAN 94 — Received: 03 JAN 94
Authorized: 04 JAN 94 — Prepared: See Below — Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Aluminum	5720		50.0	200	mg/kg	7020	05 JAN 94	10 JAN 94
Arsenic	3.4		0.20	0.50	mg/kg	7062	05 JAN 94	05 JAN 94
Barium	109		20.0	50.0	mg/kg	7080	05 JAN 94	10 JAN 94
Chromium	11.4		5.0	10.0	mg/kg	7190	05 JAN 94	06 JAN 94
Copper	19.0		5.0	10.0	mg/kg	7210	05 JAN 94	06 JAN 94
Lead	ND		20.0	20.0	mg/kg	7420	05 JAN 94	06 JAN 94
Manganese	261		2.0	5.0	mg/kg	7460	05 JAN 94	05 JAN 94
Nickel	TR		5.0	10.0	mg/kg	7520	05 JAN 94	06 JAN 94
Zinc	37.3		1.0	2.0	mg/kg	7950	05 JAN 94	06 JAN 94
Cadmium	ND		2.0	5.0	mg/kg	7130	05 JAN 94	06 JAN 94
Mercury	ND		0.090	0.10	mg/kg	7471	05 JAN 94	05 JAN 94

ND = Not Detected

Enseco
A Corning Company

GENERAL INORGANICS

Client Name: Harding Lawson Associates
Client ID: SVMW-36-4.00
LAB ID: 103975-0001-SA
Matrix: SOIL
Sampled: 03 JAN 94
Received: 03 JAN 94
Authorized: 04 JAN 94
Prepared: See Below
Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Cyanide, Total	ND		0.30	0.50	mg/kg	9012	10 JAN 94	11 JAN 94

ND = Not Detected

Enseco
A Corning Company

GENERAL INORGANICS

Client Name: Harding Lawson Associates
Client ID: SVMW-35A-9.50
LAB ID: 103975-0005-SA
Matrix: SOIL — Sampled: 03 JAN 94 — Received: 03 JAN 94
Authorized: 04 JAN 94 — Prepared: See Below — Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Cyanide, Total	ND		0.30	0.50	mg/kg	9012	10 JAN 94	11 JAN 94

ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SVMW-36-4.25
LAB ID: 103975-0002-SA
Matrix: SOIL Sampled: 03 JAN 94 Received: 03 JAN 94
Authorized: 04 JAN 94 Prepared: 05 JAN 94 Analyzed: 05 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	TR		1.2	ug/kg	5.0
Methylene chloride	TR		1.1	ug/kg	5.0
Acetone	ND		7.1	ug/kg	10
Trichlorofluoromethane	TR	B	0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	ND		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	ND		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	ND		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	ND		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0

B = Compound is also detected in the blank.
ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SVMW-36-4.25
LAB ID: 103975-0002-SA
Matrix: SOIL — Sampled: 03 JAN 94 — Received: 03 JAN 94
Authorized: 04 JAN 94 — Prepared: 05 JAN 94 — Analyzed: 05 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
tert-Butylbenzene	ND		0.55	ug/kg	5.0
1,2,4-Trimethylbenzene	ND		0.53	ug/kg	5.0
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	82	%
Toluene-d8	109	%
Bromofluorobenzene	93	%

ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SVMW-36-20.00
LAB ID: 103975-0003-SA
Matrix: SOIL Sampled: 03 JAN 94 Received: 03 JAN 94
Authorized: 04 JAN 94 Prepared: 05 JAN 94 Analyzed: 05 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	TR		1.2	ug/kg	5.0
Methylene chloride	TR		1.1	ug/kg	5.0
Acetone	ND		7.1	ug/kg	10
Trichlorofluoromethane	ND		0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	ND		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	ND		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	ND		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	ND		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0
tert-Butylbenzene	ND		0.55	ug/kg	5.0

ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

(cont.)

Client Name: Harding Lawson Associates
Client ID: SVMW-36-20.00
LAB ID: 103975-0003-SA
Matrix: SOIL — Sampled: 03 JAN 94 — Received: 03 JAN 94
Authorized: 04 JAN 94 — Prepared: 05 JAN 94 — Analyzed: 05 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
1,2,4-Trimethylbenzene	ND		0.53	ug/kg	5.0
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	113	%
Toluene-d8	115	%
Bromofluorobenzene	114	%

ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SVMW-35-4.75
LAB ID: 103975-0004-SA
Matrix: SOIL Sampled: 03 JAN 94 Received: 03 JAN 94
Authorized: 04 JAN 94 Prepared: 05 JAN 94 Analyzed: 05 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	TR		1.2	ug/kg	5.0
Methylene chloride	TR		1.1	ug/kg	5.0
Acetone	ND		7.1	ug/kg	10
Trichlorofluoromethane	TR	B	0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	ND		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	ND		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	ND		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	ND		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0

B = Compound is also detected in the blank.
ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240
(cont.)

Client Name: Harding Lawson Associates
Client ID: SVMW-35-4.75
LAB ID: 103975-0004-SA
Matrix: SOIL Sampled: 03 JAN 94 Received: 03 JAN 94
Authorized: 04 JAN 94 Prepared: 05 JAN 94 Analyzed: 05 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
tert-Butylbenzene	ND		0.55	ug/kg	5.0
1,2,4-Trimethylbenzene	ND		0.53	ug/kg	5.0
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	115	%
Toluene-d8	105	%
Bromofluorobenzene	95	%

ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SVMW-35A-9.50
LAB ID: 103975-0005-SA
Matrix: SOIL Sampled: 03 JAN 94 Received: 03 JAN 94
Authorized: 04 JAN 94 Prepared: 05 JAN 94 Analyzed: 05 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	TR		1.2	ug/kg	5.0
Methylene chloride	TR		1.1	ug/kg	5.0
Acetone	ND		7.1	ug/kg	10
Trichlorofluoromethane	ND		0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	ND		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	ND		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	ND		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	ND		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0
tert-Butylbenzene	ND		0.55	ug/kg	5.0

ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SVMW-35A-9.50
LAB ID: 103975-0005-SA
Matrix: SOIL Sampled: 03 JAN 94 Received: 03 JAN 94
Authorized: 04 JAN 94 Prepared: 05 JAN 94 Analyzed: 05 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
1,2,4-Trimethylbenzene	ND		0.53	ug/kg	5.0
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	109	%
Toluene-d8	107	%
Bromofluorobenzene	103	%

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SVMW-36-4.25
LAB ID: 103975-0002-SA
Matrix: SOIL Sampled: 03 JAN 94 Received: 03 JAN 94
Authorized: 04 JAN 94 Prepared: 04 JAN 94 Analyzed: 05 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
N-Nitrosodiethylamine	ND		0.26	mg/kg	0.33
Phenol	ND		0.030	mg/kg	0.33
bis(2-Chloroethyl) ether	ND		0.060	mg/kg	0.33
2-Chlorophenol	ND		0.040	mg/kg	0.33
1,3-Dichlorobenzene	ND		0.030	mg/kg	0.33
1,4-Dichlorobenzene	ND		0.060	mg/kg	0.33
Benzyl alcohol	ND		0.070	mg/kg	0.33
1,2-Dichlorobenzene	ND		0.040	mg/kg	0.33
2-Methylphenol	ND		0.030	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND		0.040	mg/kg	0.33
3/4-Methylphenol	ND		0.040	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND		0.030	mg/kg	0.33
Hexachloroethane	ND		0.030	mg/kg	0.33
Nitrobenzene	ND		0.090	mg/kg	0.33
Isophorone	ND		0.040	mg/kg	0.33
2-Nitrophenol	ND		0.050	mg/kg	0.33
2,4-Dimethylphenol	ND		0.030	mg/kg	0.33
Benzoic acid	ND		0.51	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND		0.020	mg/kg	0.33
2,4-Dichlorophenol	ND		0.030	mg/kg	0.33
1,2,4-Trichlorobenzene	ND		0.040	mg/kg	0.33
Naphthalene	ND		0.030	mg/kg	0.33
4-Chloroaniline	ND		0.10	mg/kg	0.33
Hexachlorobutadiene	ND		0.040	mg/kg	0.33
4-Chloro-3-methylphenol	ND		0.040	mg/kg	0.33
2-Methylnaphthalene	ND		0.030	mg/kg	0.33
Hexachlorocyclopentadiene	ND		0.050	mg/kg	0.33
2,4,6-Trichlorophenol	ND		0.040	mg/kg	0.33
2,4,5-Trichlorophenol	ND		0.050	mg/kg	1.7
2-Chloronaphthalene	ND		0.030	mg/kg	0.33
2-Nitroaniline	ND		0.030	mg/kg	1.7
Dimethyl phthalate	ND		0.030	mg/kg	0.33
Acenaphthylene	ND		0.020	mg/kg	0.33
3-Nitroaniline	ND		0.14	mg/kg	1.7
Acenaphthene	ND		0.030	mg/kg	0.33
2,4-Dinitrophenol	ND		0.23	mg/kg	1.7
4-Nitrophenol	ND		0.25	mg/kg	1.7
Dibenzofuran	ND		0.040	mg/kg	0.33
2,4-Dinitrotoluene	ND		0.040	mg/kg	0.33
2,6-Dinitrotoluene	ND		0.050	mg/kg	0.33
Diethyl phthalate	ND		0.020	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND		0.030	mg/kg	0.33
Fluorene	ND		0.030	mg/kg	0.33
4-Nitroaniline	ND		0.18	mg/kg	1.7

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SVMW-36-4.25
LAB ID: 103975-0002-SA
Matrix: SOIL Sampled: 03 JAN 94 Received: 03 JAN 94
Authorized: 04 JAN 94 Prepared: 04 JAN 94 Analyzed: 05 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
4,6-Dinitro-2-methylphenol	ND		0.36	mg/kg	1.7
N-Nitrosodiphenylamine	ND		0.040	mg/kg	0.33
4-Bromophenyl phenyl ether	ND		0.080	mg/kg	0.33
Hexachlorobenzene	ND		0.030	mg/kg	0.33
Pentachlorophenol	ND		0.19	mg/kg	1.7
Phenanthrene	ND		0.030	mg/kg	0.33
Anthracene	ND		0.020	mg/kg	0.33
Di-n-butyl phthalate	ND		0.24	mg/kg	0.33
Fluoranthene	ND		0.030	mg/kg	0.33
Pyrene	ND		0.020	mg/kg	0.33
Butyl benzyl phthalate	ND		0.030	mg/kg	0.33
3,3'-Dichlorobenzidine	ND		0.33	mg/kg	0.66
Benzo(a)anthracene	ND		0.040	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND		0.13	mg/kg	0.33
Chrysene	ND		0.040	mg/kg	0.33
Di-n-octyl phthalate	ND		0.040	mg/kg	0.33
Benzo(b)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(k)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(a)pyrene	ND		0.040	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND		0.030	mg/kg	0.33
Dibenz(a,h)anthracene	ND		0.030	mg/kg	0.33
Benzo(g,h,i)perylene	ND		0.020	mg/kg	0.33
Xylidine (Total)	ND		0.076	mg/kg	0.33

Surrogate	Recovery	
Nitrobenzene-d5	74	%
2-Fluorobiphenyl	66	%
Terphenyl-d14	85	%
Phenol-d5	68	%
2-Fluorophenol	78	%
2,4,6-Tribromophenol	73	%

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SVMW-36-20.00
LAB ID: 103975-0003-SA
Matrix: SOIL Sampled: 03 JAN 94 Received: 03 JAN 94
Authorized: 04 JAN 94 Prepared: 04 JAN 94 Analyzed: 05 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
N-Nitrosodiethylamine	ND		0.26	mg/kg	0.33
Phenol	ND		0.030	mg/kg	0.33
bis(2-Chloroethyl) ether	ND		0.060	mg/kg	0.33
2-Chlorophenol	ND		0.040	mg/kg	0.33
1,3-Dichlorobenzene	ND		0.030	mg/kg	0.33
1,4-Dichlorobenzene	ND		0.060	mg/kg	0.33
Benzyl alcohol	ND		0.070	mg/kg	0.33
1,2-Dichlorobenzene	ND		0.040	mg/kg	0.33
2-Methylphenol	ND		0.030	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND		0.040	mg/kg	0.33
3/4-Methylphenol	ND		0.040	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND		0.030	mg/kg	0.33
Hexachloroethane	ND		0.030	mg/kg	0.33
Nitrobenzene	ND		0.090	mg/kg	0.33
Isophorone	ND		0.040	mg/kg	0.33
2-Nitrophenol	ND		0.050	mg/kg	0.33
2,4-Dimethylphenol	ND		0.030	mg/kg	0.33
Benzoic acid	ND		0.51	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND		0.020	mg/kg	0.33
2,4-Dichlorophenol	ND		0.030	mg/kg	0.33
1,2,4-Trichlorobenzene	ND		0.040	mg/kg	0.33
Naphthalene	ND		0.030	mg/kg	0.33
4-Chloroaniline	ND		0.10	mg/kg	0.33
Hexachlorobutadiene	ND		0.040	mg/kg	0.33
4-Chloro-3-methylphenol	ND		0.040	mg/kg	0.33
2-Methylnaphthalene	ND		0.030	mg/kg	0.33
Hexachlorocyclopentadiene	ND		0.050	mg/kg	0.33
2,4,6-Trichlorophenol	ND		0.040	mg/kg	0.33
2,4,5-Trichlorophenol	ND		0.050	mg/kg	1.7
2-Chloronaphthalene	ND		0.030	mg/kg	0.33
2-Nitroaniline	ND		0.030	mg/kg	1.7
Dimethyl phthalate	ND		0.030	mg/kg	0.33
Acenaphthylene	ND		0.020	mg/kg	0.33
3-Nitroaniline	ND		0.14	mg/kg	1.7
Acenaphthene	ND		0.030	mg/kg	0.33
2,4-Dinitrophenol	ND		0.23	mg/kg	1.7
4-Nitrophenol	ND		0.25	mg/kg	1.7
Dibenzofuran	ND		0.040	mg/kg	0.33
2,4-Dinitrotoluene	ND		0.040	mg/kg	0.33
2,6-Dinitrotoluene	ND		0.050	mg/kg	0.33
Diethyl phthalate	ND		0.020	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND		0.030	mg/kg	0.33
Fluorene	ND		0.030	mg/kg	0.33
4-Nitroaniline	ND		0.18	mg/kg	1.7

ND = Not Detected

Semivolatile Organic Compounds
Method 8270
(Cont.)

Client Name: Harding Lawson Associates
Client ID: SVMW-36-20.00
LAB ID: 103975-0003-SA
Matrix: SOIL Sampled: 03 JAN 94 Received: 03 JAN 94
Authorized: 04 JAN 94 Prepared: 04 JAN 94 Analyzed: 05 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
4,6-Dinitro-2-methylphenol	ND		0.36	mg/kg	1.7
N-Nitrosodiphenylamine	ND		0.040	mg/kg	0.33
4-Bromophenyl phenyl ether	ND		0.080	mg/kg	0.33
Hexachlorobenzene	ND		0.030	mg/kg	0.33
Pentachlorophenol	ND		0.19	mg/kg	1.7
Phenanthrene	ND		0.030	mg/kg	0.33
Anthracene	ND		0.020	mg/kg	0.33
Di-n-butyl phthalate	ND		0.24	mg/kg	0.33
Fluoranthene	ND		0.030	mg/kg	0.33
Pyrene	ND		0.020	mg/kg	0.33
Butyl benzyl phthalate	ND		0.030	mg/kg	0.33
3,3'-Dichlorobenzidine	ND		0.33	mg/kg	0.66
Benzo(a)anthracene	ND		0.040	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND		0.13	mg/kg	0.33
Chrysene	ND		0.040	mg/kg	0.33
Di-n-octyl phthalate	ND		0.040	mg/kg	0.33
Benzo(b)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(k)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(a)pyrene	ND		0.040	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND		0.030	mg/kg	0.33
Dibenz(a,h)anthracene	ND		0.030	mg/kg	0.33
Benzo(g,h,i)perylene	ND		0.020	mg/kg	0.33
Xylidine (Total)	ND		0.076	mg/kg	0.33

Surrogate	Recovery	
Nitrobenzene-d5	70	%
2-Fluorobiphenyl	68	%
Terphenyl-d14	77	%
Phenol-d5	66	%
2-Fluorophenol	73	%
2,4,6-Tribromophenol	71	%

ND = Not Detected

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Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SVMW-35-4.75
LAB ID: 103975-0004-SA
Matrix: SOIL Sampled: 03 JAN 94 Received: 03 JAN 94
Authorized: 04 JAN 94 Prepared: 04 JAN 94 Analyzed: 05 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
N-Nitrosodiethylamine	ND		0.26	mg/kg	0.33
Phenol	ND		0.030	mg/kg	0.33
bis(2-Chloroethyl) ether	ND		0.060	mg/kg	0.33
2-Chlorophenol	ND		0.040	mg/kg	0.33
1,3-Dichlorobenzene	ND		0.030	mg/kg	0.33
1,4-Dichlorobenzene	ND		0.060	mg/kg	0.33
Benzyl alcohol	ND		0.070	mg/kg	0.33
1,2-Dichlorobenzene	ND		0.040	mg/kg	0.33
2-Methylphenol	ND		0.030	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND		0.040	mg/kg	0.33
3/4-Methylphenol	ND		0.040	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND		0.030	mg/kg	0.33
Hexachloroethane	ND		0.030	mg/kg	0.33
Nitrobenzene	ND		0.090	mg/kg	0.33
Isophorone	ND		0.040	mg/kg	0.33
2-Nitrophenol	ND		0.050	mg/kg	0.33
2,4-Dimethylphenol	ND		0.030	mg/kg	0.33
Benzoic acid	ND		0.51	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND		0.020	mg/kg	0.33
2,4-Dichlorophenol	ND		0.030	mg/kg	0.33
1,2,4-Trichlorobenzene	ND		0.040	mg/kg	0.33
Naphthalene	ND		0.030	mg/kg	0.33
4-Chloroaniline	ND		0.10	mg/kg	0.33
Hexachlorobutadiene	ND		0.040	mg/kg	0.33
4-Chloro-3-methylphenol	ND		0.040	mg/kg	0.33
2-Methylnaphthalene	ND		0.030	mg/kg	0.33
Hexachlorocyclopentadiene	ND		0.050	mg/kg	0.33
2,4,6-Trichlorophenol	ND		0.040	mg/kg	0.33
2,4,5-Trichlorophenol	ND		0.050	mg/kg	1.7
2-Chloronaphthalene	ND		0.030	mg/kg	0.33
2-Nitroaniline	ND		0.030	mg/kg	1.7
Dimethyl phthalate	ND		0.030	mg/kg	0.33
Acenaphthylene	ND		0.020	mg/kg	0.33
3-Nitroaniline	ND		0.14	mg/kg	1.7
Acenaphthene	ND		0.030	mg/kg	0.33
2,4-Dinitrophenol	ND		0.23	mg/kg	1.7
4-Nitrophenol	ND		0.25	mg/kg	1.7
Dibenzofuran	ND		0.040	mg/kg	0.33
2,4-Dinitrotoluene	ND		0.040	mg/kg	0.33
2,6-Dinitrotoluene	ND		0.050	mg/kg	0.33
Diethyl phthalate	ND		0.020	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND		0.030	mg/kg	0.33
Fluorene	ND		0.030	mg/kg	0.33
4-Nitroaniline	ND		0.18	mg/kg	1.7

ND = Not Detected

Semivolatile Organic Compounds (cont.)
Method 8270

Client Name: Harding Lawson Associates
Client ID: SVMW-35-4.75
LAB ID: 103975-0004-SA
Matrix: SOIL Sampled: 03 JAN 94 Received: 03 JAN 94
Authorized: 04 JAN 94 Prepared: 04 JAN 94 Analyzed: 05 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
4,6-Dinitro-2-methylphenol	ND		0.36	mg/kg	1.7
N-Nitrosodiphenylamine	ND		0.040	mg/kg	0.33
4-Bromophenyl phenyl ether	ND		0.080	mg/kg	0.33
Hexachlorobenzene	ND		0.030	mg/kg	0.33
Pentachlorophenol	ND		0.19	mg/kg	1.7
Phenanthrene	ND		0.030	mg/kg	0.33
Anthracene	ND		0.020	mg/kg	0.33
Di-n-butyl phthalate	ND		0.24	mg/kg	0.33
Fluoranthene	ND		0.030	mg/kg	0.33
Pyrene	ND		0.020	mg/kg	0.33
Butyl benzyl phthalate	ND		0.030	mg/kg	0.33
3,3'-Dichlorobenzidine	ND		0.33	mg/kg	0.66
Benzo(a)anthracene	ND		0.040	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND		0.13	mg/kg	0.33
Chrysene	ND		0.040	mg/kg	0.33
Di-n-octyl phthalate	ND		0.040	mg/kg	0.33
Benzo(b)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(k)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(a)pyrene	ND		0.040	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND		0.030	mg/kg	0.33
Dibenz(a,h)anthracene	ND		0.030	mg/kg	0.33
Benzo(g,h,i)perylene	ND		0.020	mg/kg	0.33
Xylidine (Total)	ND		0.076	mg/kg	0.33

Surrogate	Recovery	
Nitrobenzene-d5	69	%
2-Fluorobiphenyl	63	%
Terphenyl-d14	80	%
Phenol-d5	65	%
2-Fluorophenol	75	%
2,4,6-Tribromophenol	68	%

ND = Not Detected

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Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SVMW-35A-9.50
LAB ID: 103975-0005-SA
Matrix: SOIL Sampled: 03 JAN 94 Received: 03 JAN 94
Authorized: 04 JAN 94 Prepared: 04 JAN 94 Analyzed: 05 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
N-Nitrosodiethylamine	ND		0.26	mg/kg	0.33
Phenol	ND		0.030	mg/kg	0.33
bis(2-Chloroethyl) ether	ND		0.060	mg/kg	0.33
2-Chlorophenol	ND		0.040	mg/kg	0.33
1,3-Dichlorobenzene	ND		0.030	mg/kg	0.33
1,4-Dichlorobenzene	ND		0.060	mg/kg	0.33
Benzyl alcohol	ND		0.070	mg/kg	0.33
1,2-Dichlorobenzene	ND		0.040	mg/kg	0.33
2-Methylphenol	ND		0.030	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND		0.040	mg/kg	0.33
3/4-Methylphenol	ND		0.040	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND		0.030	mg/kg	0.33
Hexachloroethane	ND		0.030	mg/kg	0.33
Nitrobenzene	ND		0.090	mg/kg	0.33
Isophorone	ND		0.040	mg/kg	0.33
2-Nitrophenol	ND		0.050	mg/kg	0.33
2,4-Dimethylphenol	ND		0.030	mg/kg	0.33
Benzoic acid	ND		0.51	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND		0.020	mg/kg	0.33
2,4-Dichlorophenol	ND		0.030	mg/kg	0.33
1,2,4-Trichlorobenzene	ND		0.040	mg/kg	0.33
Naphthalene	ND		0.030	mg/kg	0.33
4-Chloroaniline	ND		0.10	mg/kg	0.33
Hexachlorobutadiene	ND		0.040	mg/kg	0.33
4-Chloro-3-methylphenol	ND		0.040	mg/kg	0.33
2-Methylnaphthalene	ND		0.030	mg/kg	0.33
Hexachlorocyclopentadiene	ND		0.050	mg/kg	0.33
2,4,6-Trichlorophenol	ND		0.040	mg/kg	0.33
2,4,5-Trichlorophenol	ND		0.050	mg/kg	1.7
2-Chloronaphthalene	ND		0.030	mg/kg	0.33
2-Nitroaniline	ND		0.030	mg/kg	1.7
Dimethyl phthalate	ND		0.030	mg/kg	0.33
Acenaphthylene	ND		0.020	mg/kg	0.33
3-Nitroaniline	ND		0.14	mg/kg	1.7
Acenaphthene	ND		0.030	mg/kg	0.33
2,4-Dinitrophenol	ND		0.23	mg/kg	1.7
4-Nitrophenol	ND		0.25	mg/kg	1.7
Dibenzofuran	ND		0.040	mg/kg	0.33
2,4-Dinitrotoluene	ND		0.040	mg/kg	0.33
2,6-Dinitrotoluene	ND		0.050	mg/kg	0.33
Diethyl phthalate	ND		0.020	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND		0.030	mg/kg	0.33
Fluorene	ND		0.030	mg/kg	0.33
4-Nitroaniline	ND		0.18	mg/kg	1.7

ND = Not Detected

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SVMW-35A-9.50
LAB ID: 103975-0005-SA
Matrix: SOIL Sampled: 03 JAN 94 Received: 03 JAN 94
Authorized: 04 JAN 94 Prepared: 04 JAN 94 Analyzed: 05 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
4,6-Dinitro-2-methylphenol	ND		0.36	mg/kg	1.7
N-Nitrosodiphenylamine	ND		0.040	mg/kg	0.33
4-Bromophenyl phenyl ether	ND		0.080	mg/kg	0.33
Hexachlorobenzene	ND		0.030	mg/kg	0.33
Pentachlorophenol	ND		0.19	mg/kg	1.7
Phenanthrene	ND		0.030	mg/kg	0.33
Anthracene	ND		0.020	mg/kg	0.33
Di-n-butyl phthalate	ND		0.24	mg/kg	0.33
Fluoranthene	ND		0.030	mg/kg	0.33
Pyrene	ND		0.020	mg/kg	0.33
Butyl benzyl phthalate	ND		0.030	mg/kg	0.33
3,3'-Dichlorobenzidine	ND		0.33	mg/kg	0.66
Benzo(a)anthracene	ND		0.040	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND		0.13	mg/kg	0.33
Chrysene	ND		0.040	mg/kg	0.33
Di-n-octyl phthalate	ND		0.040	mg/kg	0.33
Benzo(b)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(k)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(a)pyrene	ND		0.040	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND		0.030	mg/kg	0.33
Dibenz(a,h)anthracene	ND		0.030	mg/kg	0.33
Benzo(g,h,i)perylene	ND		0.020	mg/kg	0.33
Xylidine (Total)	ND		0.076	mg/kg	0.33

Surrogate	Recovery	
Nitrobenzene-d5	62	%
2-Fluorobiphenyl	58	%
Terphenyl-d14	74	%
Phenol-d5	57	%
2-Fluorophenol	66	%
2,4,6-Tribromophenol	62	%

ND = Not Detected

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QC LOT ASSIGNMENT REPORT - MS QC
Metals Analysis and Preparation

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
103975-0001-SA	SOLID	AL-FLAA-S	05 JAN 94-B	05 JAN 94-B	05 JAN 94-BB
103975-0001-SA	SOLID	AS-HAA-S	05 JAN 94-B	05 JAN 94-B	05 JAN 94-BB
103975-0001-SA	SOLID	CD-FLAA-S	05 JAN 94-B	05 JAN 94-B	05 JAN 94-BB
103975-0001-SA	SOLID	CR-FLAA-S	05 JAN 94-B	05 JAN 94-B	05 JAN 94-BB
103975-0001-SA	SOLID	MN-FLAA-S	05 JAN 94-B	05 JAN 94-B	05 JAN 94-BB
103975-0001-SA	SOLID	NI-FLAA-S	05 JAN 94-B	05 JAN 94-B	05 JAN 94-BB
103975-0001-SA	SOLID	PB-FLAA-S	05 JAN 94-B	05 JAN 94-B	05 JAN 94-BB
103975-0001-SA	SOLID	CU-FLAA-S	05 JAN 94-B	05 JAN 94-B	05 JAN 94-BB
103975-0001-SA	SOLID	ZN-FLAA-S	05 JAN 94-B	05 JAN 94-B	05 JAN 94-BB
103975-0001-SA	SOLID	BA-FLAA-S	05 JAN 94-B	05 JAN 94-B	05 JAN 94-BB
103975-0001-SA	SOLID	HG-CVAA-S	05 JAN 94-C	05 JAN 94-C	05 JAN 94-CB
103975-0005-SA	SOLID	AL-FLAA-S	05 JAN 94-B	05 JAN 94-B	05 JAN 94-BB
103975-0005-SA	SOLID	AS-HAA-S	05 JAN 94-B	05 JAN 94-B	05 JAN 94-BB
103975-0005-SA	SOLID	CD-FLAA-S	05 JAN 94-B	05 JAN 94-B	05 JAN 94-BB
103975-0005-SA	SOLID	CR-FLAA-S	05 JAN 94-B	05 JAN 94-B	05 JAN 94-BB
103975-0005-SA	SOLID	MN-FLAA-S	05 JAN 94-B	05 JAN 94-B	05 JAN 94-BB
103975-0005-SA	SOLID	NI-FLAA-S	05 JAN 94-B	05 JAN 94-B	05 JAN 94-BB
103975-0005-SA	SOLID	PB-FLAA-S	05 JAN 94-B	05 JAN 94-B	05 JAN 94-BB
103975-0005-SA	SOLID	CU-FLAA-S	05 JAN 94-B	05 JAN 94-B	05 JAN 94-BB
103975-0005-SA	SOLID	ZN-FLAA-S	05 JAN 94-B	05 JAN 94-B	05 JAN 94-BB
103975-0005-SA	SOLID	BA-FLAA-S	05 JAN 94-B	05 JAN 94-B	05 JAN 94-BB
103975-0005-SA	SOLID	HG-CVAA-S	05 JAN 94-C	05 JAN 94-C	05 JAN 94-CB

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DUPLICATE CONTROL SAMPLE REPORT
Metals Analysis and Preparation
Project: 103975

Category: AL-FLAA-S Aluminum, Flame AA
Matrix: SOLID
QC Lot: 05 JAN 94-B
Concentration Units: mg/kg
Date Analyzed: 10 JAN 94

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Aluminum	10700	8020	8100	8060	75	47-153	0.99	20

Category: AS-HAA-S Arsenic, Hydride AA
Matrix: SOLID
QC Lot: 05 JAN 94-B
Concentration Units: mg/kg
Date Analyzed: 05 JAN 94

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Arsenic	145	130	141	136	93	59-141	8.1	20

Category: CD-FLAA-S Cadmium, Flame AA
Matrix: SOLID
QC Lot: 05 JAN 94-B
Concentration Units: mg/kg
Date Analyzed: 06 JAN 94

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Cadmium	154	162	163	162	106	68-132	0.62	20

Category: CR-FLAA-S Chromium, Flame AA
Matrix: SOLID
QC Lot: 05 JAN 94-B
Concentration Units: mg/kg
Date Analyzed: 06 JAN 94

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Chromium	151	119	118	118	78	66-133	0.84	20

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

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DUPLICATE CONTROL SAMPLE REPORT
Metals Analysis and Preparation
Project: 103975

Category: MN-FLAA-S Manganese, Flame AA Method 7460
Matrix: SOLID
QC Lot: 05 JAN 94-B
Date Analyzed: 05 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Manganese	423	430	425	428	101	74-125	1.2	20

Category: NI-FLAA-S Nickel Flame AA
Matrix: SOLID
QC Lot: 05 JAN 94-B
Date Analyzed: 06 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Nickel	166	180	168	174	105	67-133	6.9	20

Category: PB-FLAA-S Method 7420 - Lead, Flame AA
Matrix: SOLID
QC Lot: 05 JAN 94-B
Date Analyzed: 06 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Lead	148	146	142	144	97	66-135	2.8	20

Category: CU-FLAA-S Copper Flame AA
Matrix: SOLID
QC Lot: 05 JAN 94-B
Date Analyzed: 06 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Copper	162	149	150	150	92	68-132	0.67	20

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

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DUPLICATE CONTROL SAMPLE REPORT
Metals Analysis and Preparation
Project: 103975

Category: ZN-FLAA-S Zinc, Flame AA
Matrix: SOLID
QC Lot: 05 JAN 94-B
Date Analyzed: 06 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Zinc	530	566	539	552	104	65-135	4.9	20

Category: BA-FLAA-S Barium, Flame AA
Matrix: SOLID
QC Lot: 05 JAN 94-B
Date Analyzed: 10 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Barium	503	448	443	446	89	76-124	1.1	20

Category: HG-CVAA-S Mercury by CVAA
Matrix: SOLID
QC Lot: 05 JAN 94-C
Date Analyzed: 05 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Mercury	29.0	30.1	30.1	30.1	104	52-148	0.0	20

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Metals Analysis and Preparation
Project: 103975

Category: AL-FLAA-S Aluminum, Flame AA
Matrix: SOLID
Sample: 103975-0001
MS Run: 05 JAN 94-BB
Units: mg/kg

Analyte	Concentration Sample Result	MS Result	MSD Result	Amount Spiked MS/MSD	%Recovery MS	MSD	%RPD	Acceptance Limit Recov.	RPD
Aluminum	7090	7660	7620	200	NC	NC	NC	60-130	20

Category: AS-HAA-S Arsenic, Hydride AA
Matrix: SOLID
Sample: 103975-0001
MS Run: 05 JAN 94-BB
Units mg/kg Units Qualifier: Wet wt.

Analyte	Concentration Sample Result	MS Result	MSD Result	Amount Spiked MS/MSD	%Recovery MS	MSD	%RPD	Acceptance Limit Recov.	RPD
Arsenic	3.41	55.7	54.7	50.0	105	103	1.9	50-127	25

Category: CD-FLAA-S Cadmium, Flame AA
Matrix: SOLID
Sample: 103975-0001
MS Run: 05 JAN 94-BB
Units: mg/kg

Analyte	Concentration Sample Result	MS Result	MSD Result	Amount Spiked MS/MSD	%Recovery MS	MSD	%RPD	Acceptance Limit Recov.	RPD
Cadmium	6.80	11.1	12.2	5.00	86	108	23	52-130	28

NC = Not Calculated, calculation not applicable.

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

MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Metals Analysis and Preparation
Project: 103975 (cont.)

Category: CR-FLAA-S Chromium, Flame AA
Matrix: SOLID
Sample: 103975-0001
MS Run: 05 JAN 94-BB
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Chromium	21.7	49.7	40.3	20.0	140	93	41	40-190	33

Category: MN-FLAA-S Manganese, Flame AA Method 7460
Matrix: SOLID
Sample: 103975-0001
MS Run: 05 JAN 94-BB
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Manganese	444	449	477	50.0	NC	NC	NC	60-130	40

Category: NI-FLAA-S Nickel Flame AA
Matrix: SOLID
Sample: 103975-0001
MS Run: 05 JAN 94-BB
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Nickel	11.0	62.0	63.0	50.0	102	104	1.9	55-155	25

NC = Not Calculated, calculation not applicable.

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Metals Analysis and Preparation
Project: 103975 (cont.)

Category: PB-FLAA-S Method 7420 - Lead, Flame AA
Matrix: SOLID
Sample: 103975-0001
MS Run: 05 JAN 94-BB
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Lead	318	343	386	50.0	NC	NC	NC	14-169	40

Category: CU-FLAA-S Copper Flame AA
Matrix: SOLID
Sample: 103975-0001
MS Run: 05 JAN 94-BB
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Copper	39.0	62.0	65.0	25.0	92	104	12	49-144	23

Category: ZN-FLAA-S Zinc, Flame AA
Matrix: SOLID
Sample: 103975-0001
MS Run: 05 JAN 94-BB
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Zinc	1450	1790	1880	50.0	NC	NC	NC	65-138	25

NC = Not Calculated, calculation not applicable.

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Metals Analysis and Preparation
Project: 103975 (cont.)

Category: BA-FLAA-S Barium, Flame AA
Matrix: SOLID
Sample: 103975-0001
MS Run: 05 JAN 94-BB
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Barium	62.0	214	260	200	76	99	26	40-130	30

Category: HG-CVAA-S Mercury by CVAA
Matrix: SOLID
Sample: 103975-0001
MS Run: 05 JAN 94-CB
Units mg/kg Units Qualifier: Wet wt.

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Mercury	ND	0.478	0.382	0.438	109	87	22	33-178	40

ND = Not Detected

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

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METHOD BLANK REPORT
Metals Analysis and Preparation
Project: 103975

Test: AL-FLAA-MDL-S Method 7020 - Aluminum, Flame AA
Matrix: SOLID
QC Run: 05 JAN 94-B Date Analyzed: 10 JAN 94

Analyte	Result	Units	Reporting Limit
Aluminum	ND	mg/kg	100

Test: AS-HAA-MDL-S Method 7062 - Arsenic, Hydride AA
Matrix: SOLID
QC Run: 05 JAN 94-B Date Analyzed: 05 JAN 94

Analyte	Result	Units	Reporting Limit
Arsenic	ND	mg/kg	0.50

Test: CD-FLAA-MDL-S Method 7130 - Cadmium, Flame AA
Matrix: SOLID
QC Run: 05 JAN 94-B Date Analyzed: 06 JAN 94

Analyte	Result	Units	Reporting Limit
Cadmium	ND	mg/kg	5.0

Test: CR-FLAA-MDL-S Method 7190 - Chromium, Flame AA
Matrix: SOLID
QC Run: 05 JAN 94-B Date Analyzed: 06 JAN 94

Analyte	Result	Units	Reporting Limit
Chromium	ND	mg/kg	10.0

Test: MN-FLAA-MDL-S Manganese, Flame AA
Matrix: SOLID
QC Run: 05 JAN 94-B Date Analyzed: 05 JAN 94

Analyte	Result	Units	Reporting Limit
Manganese	ND	mg/kg	5.0

ND = Not Detected

METHOD BLANK REPORT
Metals Analysis and Preparation (cont.)
Project: 103975

Test: NI-FLAA-MDL-S Method 7520 - Nickel, Flame AA
Matrix: SOLID
QC Run: 05 JAN 94-B Date Analyzed: 06 JAN 94

Analyte	Result	Units	Reporting Limit
Nickel	ND	mg/kg	10.0

Test: PB-FLAA-MDL-S Method 7420 - Lead, FLame AA
Matrix: SOLID
QC Run: 05 JAN 94-B Date Analyzed: 06 JAN 94

Analyte	Result	Units	Reporting Limit
Lead	ND	mg/kg	20.0

Test: CU-FLAA-MDL-S Method 7210 - Copper, Flame AA
Matrix: SOLID
QC Run: 05 JAN 94-B Date Analyzed: 06 JAN 94

Analyte	Result	Units	Reporting Limit
Copper	ND	mg/kg	10.0

Test: ZN-FLAA-MDL-S Method 7950 - Zinc, Flame AA
Matrix: SOLID
QC Run: 05 JAN 94-B Date Analyzed: 06 JAN 94

Analyte	Result	Units	Reporting Limit
Zinc	ND	mg/kg	2.0

Test: BA-FLAA-MDL-S Method 7080 - Barium, Flame AA
Matrix: SOLID
QC Run: 05 JAN 94-B Date Analyzed: 10 JAN 94

Analyte	Result	Units	Reporting Limit
Barium	ND	mg/kg	50.0

ND = Not Detected

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METHOD BLANK REPORT
Metals Analysis and Preparation (cont.)
Project: 103975

Test: HG-CVAA-MDL-S Method 7471 - Mercury, Cold Vapor AA
Matrix: SOLID
QC Run: 05 JAN 94-C Date Analyzed: 05 JAN 94

Analyte	Result	Units	Reporting Limit
Mercury	ND	mg/kg	0.10

ND = Not Detected

QC LOT ASSIGNMENT REPORT - MS QC
Wet Chemistry Analysis and Preparation

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
103975-0001-SA	SOLID	CN-S	10 JAN 94-A	10 JAN 94-A	10 JAN 94-AB
103975-0005-SA	SOLID	CN-S	10 JAN 94-A	10 JAN 94-A	10 JAN 94-AB

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DUPLICATE CONTROL SAMPLE REPORT
Wet Chemistry Analysis and Preparation
Project: 103975

Category: CN-S Cyanide (9012) SOLID
Matrix: SOLID
QC Lot: 10 JAN 94-A
Date Analyzed: 11 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Cyanide, Total	5.00	4.35	4.90	4.62	93	70-123	12	21

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Wet Chemistry Analysis and Preparation
Project: 103975

Category: CN-S Cyanide (9012) SOLID
Matrix: SOLID
Sample: 103963-0001
MS Run: 10 JAN 94-AB
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Cyanide, Total	ND	5.25	5.60	5.00	105	112	6.5	41-159	48

ND = Not Detected

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

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METHOD BLANK REPORT
Wet Chemistry Analysis and Preparation
Project: 103975

Test: CN-MDL-S Method 9012 - Cyanide, Total
Matrix: SOLID
QC Run: 10 JAN 94-A Date Analyzed: 11 JAN 94

Analyte	Result	Units	Reporting Limit
Cyanide, Total	ND	mg/kg	0.50

ND = Not Detected

QC LOT ASSIGNMENT REPORT - MS QC
Volatile Organics by GC/MS

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
103975-0002-SA	SOLID	8240-S	05 JAN 94-AF	05 JAN 94-AF	04 JAN 94-AF
103975-0003-SA	SOLID	8240-S	05 JAN 94-AF	05 JAN 94-AF	04 JAN 94-AF
103975-0004-SA	SOLID	8240-S	05 JAN 94-AF	05 JAN 94-AF	04 JAN 94-AF
103975-0005-SA	SOLID	8240-S	05 JAN 94-AF	05 JAN 94-AF	04 JAN 94-AF

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DUPLICATE CONTROL SAMPLE REPORT
Volatile Organics by GC/MS
Project: 103975

Category: 8240-S Volatile Organics
Matrix: SOLID
QC Lot: 05 JAN 94-AF
Date Analyzed: 05 JAN 94
Concentration Units: ug/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average(%) DCS	Accuracy Average(%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
1,1-Dichloroethene	50.0	36.1	36.2	36.2	72	50-121	0.28	31
Trichloroethene	50.0	51.6	51.7	51.6	103	69-114	0.19	17
Benzene	50.0	52.4	53.0	52.7	105	78-117	1.1	16
Toluene	50.0	55.8	56.2	56.0	112	79-118	0.71	17
Chlorobenzene	50.0	54.6	55.2	54.9	110	79-119	1.1	17

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Volatile Organics by GC/MS
Project: 103975

Category: 8240-S Volatile Organics
Matrix: SOLID
Sample: 103963-0003
MS Run: 04 JAN 94-AF
Units: ug/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
1,1-Dichloroethene	ND	34.9	32.5	50.0	70	65	7.5	46-136	28
Trichloroethene	ND	46.0	42.6	50.0	92	85	8.0	58-131	26
Benzene	ND	47.1	43.4	50.0	94	87	7.8	63-139	23
Toluene	ND	50.7	46.0	50.0	101	92	9.4	68-140	24
Chlorobenzene	ND	49.4	45.1	50.0	99	90	9.6	68-138	23

ND = Not Detected

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

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SINGLE CONTROL SAMPLE REPORT
Volatile Organics by GC/MS
Project: 103975

Category: 8240-S Volatile Organics
Matrix: SOLID
QC Run: 05 JAN 94-AF Date Analyzed: 05 JAN 94
Concentration Units: ug/kg

Analyte	Concentration Spiked	Concentration Measured	Accuracy(%) SCS	Accuracy(%) Limits
1,2-Dichloroethane-d4	50.0	46.8	94	70-121
Toluene-d8	50.0	49.8	100	81-117
Bromofluorobenzene	50.0	48.7	97	74-121

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

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METHOD BLANK REPORT
Volatile Organics by GC/MS
Project: 103975

Test: 8240-HLA-S Method 8240 - Volatile Organics, EPA 8240 Extended List
Matrix: SOLID
QC Run: 05 JAN 94-AF Date Analyzed: 05 JAN 94

Analyte	Result	Units	Reporting Limit
Dichlorodifluoromethane	ND	ug/kg	10
Chloromethane	ND	ug/kg	10
Bromomethane	ND	ug/kg	10
Vinyl chloride	ND	ug/kg	10
Chloroethane	ND	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/kg	5.0
Methylene chloride	ND	ug/kg	5.0
Acetone	ND	ug/kg	10
Trichlorofluoromethane	TR	ug/kg	5.0
1,1-Dichloroethene	ND	ug/kg	5.0
Nitromethane	ND	ug/kg	200
trans-1,2-Dichloroethene	ND	ug/kg	5.0
cis-1,2-Dichloroethene	ND	ug/kg	5.0
1,1-Dichloroethane	ND	ug/kg	5.0
2,2-Dichloropropane	ND	ug/kg	5.0
Bromochloromethane	ND	ug/kg	5.0
Chloroform	ND	ug/kg	5.0
1,1-Dichloropropene	ND	ug/kg	5.0
1,2-Dichloroethane	ND	ug/kg	5.0
Dibromomethane	ND	ug/kg	5.0
1,1,1-Trichloroethane	ND	ug/kg	5.0
Carbon tetrachloride	ND	ug/kg	5.0
Bromodichloromethane	ND	ug/kg	5.0
1,2-Dichloropropane	ND	ug/kg	5.0
1,3-Dichloropropane	ND	ug/kg	5.0
Trichloroethene	ND	ug/kg	5.0
Dibromochloromethane	ND	ug/kg	5.0
1,1,2-Trichloroethane	ND	ug/kg	5.0
Benzene	ND	ug/kg	5.0
Bromoform	ND	ug/kg	5.0
Tetrachloroethene	ND	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.0
Toluene	ND	ug/kg	5.0
Chlorobenzene	ND	ug/kg	5.0
Ethylbenzene	ND	ug/kg	5.0
Styrene	ND	ug/kg	5.0
Xylenes (total)	ND	ug/kg	5.0
1-Methylethylbenzene	ND	ug/kg	5.0
Bromobenzene	ND	ug/kg	5.0
1,2,3-Trichloropropane	ND	ug/kg	5.0
2-Chlorotoluene	ND	ug/kg	5.0
n-Propyl benzene	ND	ug/kg	5.0
1,3,5-Trimethylbenzene	ND	ug/kg	5.0

ND = Not Detected

METHOD BLANK REPORT
Volatile Organics by GC/MS (cont.)
Project: 103975

Test: 8240-HLA-S Method 8240 - Volatile Organics, EPA 8240 Extended List
Matrix: SOLID
QC Run: 05 JAN 94-AF Date Analyzed: 05 JAN 94

Analyte	Result	Units	Reporting Limit
4-Chlorotoluene	ND	ug/kg	5.0
tert-Butylbenzene	ND	ug/kg	5.0
1,2,4-Trimethylbenzene	ND	ug/kg	5.0
sec-Butylbenzene	ND	ug/kg	5.0
Isopropyltoluene	ND	ug/kg	5.0
1,3-Dichlorobenzene	ND	ug/kg	5.0
1,4-Dichlorobenzene	ND	ug/kg	5.0
n-Butylbenzene	ND	ug/kg	5.0
1,2-Dichlorobenzene	ND	ug/kg	5.0
1,2,4-Trichlorobenzene	ND	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND	ug/kg	5.0
Hexachlorobutadiene	ND	ug/kg	5.0
Naphthalene	TR	ug/kg	5.0
1,2,3-Trichlorobenzene	TR	ug/kg	5.0

ND = Not Detected

QC LOT ASSIGNMENT REPORT - MS QC
Semivolatile Organics by GC/MS

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
103975-0002-SA	SOLID	8270-S	03 JAN 94-D	04 JAN 94-B	03 JAN 94-DB
103975-0003-SA	SOLID	8270-S	03 JAN 94-D	04 JAN 94-B	03 JAN 94-DB
103975-0004-SA	SOLID	8270-S	03 JAN 94-D	04 JAN 94-B	03 JAN 94-DB
103975-0005-SA	SOLID	8270-S	03 JAN 94-D	04 JAN 94-B	03 JAN 94-DB

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DUPLICATE CONTROL SAMPLE REPORT
Semivolatile Organics by GC/MS
Project: 103975

Category: 8270-S Method 8270 - TCL Semivolatile Organics
Matrix: SOLID
QC Lot: 03 JAN 94-D Date Analyzed: 03 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Phenol	6.67	3.81	2.85	3.33	50	39-106	29	31
2-Chlorophenol	6.67	3.54	3.18	3.36	50	44-107	11	32
1,4-Dichlorobenzene	3.33	1.91	1.68	1.80	54	40-107	13	23
N-Nitroso-di-n-propylamine	3.33	1.96	1.77	1.86	56	31-132	10	38
1,2,4-Trichlorobenzene	3.33	2.04	1.88	1.96	59	38-120	8.2	22
4-Chloro-3-methylphenol	6.67	3.75	3.51	3.63	54	40-119	6.6	24
Acenaphthene	3.33	2.05	1.95	2.00	60	30-140	5.0	24
2,4-Dinitrotoluene	3.33	1.89	1.74	1.82	55	30-121	8.3	28
4-Nitrophenol	6.67	4.04	3.56	3.80	57	16-143	13	54
Pentachlorophenol	6.67	4.96	4.43	4.70	70	21-152	11	43
Pyrene	3.33	2.18	2.02	2.10	63	45-120	7.6	26

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Semivolatile Organics by GC/MS
Project: 103975

Category: 8270-S Method 8270 - TCL Semivolatile Organics
Matrix: SOLID
Sample: 103957-0001
MS Run: 03 JAN 94-DB
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Phenol	ND	2.94	3.35	6.67	44	50	13	25-110	74
2-Chlorophenol	ND	2.81	3.26	6.67	42	49	16	33-103	42
1,4-Dichlorobenzene	ND	1.64	1.82	3.33	49	55	12	22-110	55
N-Nitroso-di-n-propylamine	ND	1.66	1.74	3.33	50	52	3.9	18-138	49
1,2,4-Trichlorobenzene	ND	1.70	1.91	3.33	51	57	11	29-119	43
4-Chloro-3-methylphenol	ND	3.40	3.47	6.67	51	52	2.0	36-119	41
Acenaphthene	ND	1.84	1.87	3.33	55	56	1.8	17-148	36
2,4-Dinitrotoluene	ND	1.56	1.73	3.33	47	52	10	27-120	41
4-Nitrophenol	ND	3.88	4.07	6.67	58	61	5.1	16-143	80
Pentachlorophenol	ND	4.75	4.84	6.67	71	73	2.8	21-152	61
Pyrene	ND	1.85	2.01	3.33	56	60	6.9	24-133	46

ND = Not Detected

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

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SINGLE CONTROL SAMPLE REPORT
Semivolatile Organics by GC/MS
Project: 103975

Category: 8270-S Method 8270 - TCL Semivolatile Organics
Matrix: SOLID
QC Run: 04 JAN 94-B Date Analyzed: 04 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Concentration Measured	Accuracy(%) SCS	Accuracy(%) Limits
2-Fluorophenol	6.67	5.02	75	25-121
Phenol-d5	6.67	4.38	66	24-113
Nitrobenzene-d5	3.33	2.20	66	23-120
2-Fluorobiphenyl	3.33	2.52	76	30-115
2,4,6-Tribromophenol	6.67	4.32	65	19-122
Terphenyl-d14	3.33	2.36	71	18-137

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

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METHOD BLANK REPORT
Semivolatile Organics by GC/MS
Project: 103975

Test: 8270-HLA-S Method 8270 - Semivolatile Organics
Matrix: SOLID
QC Run: 04 JAN 94-B Date Analyzed: 04 JAN 94

Analyte	Result	Units	Reporting Limit
N-Nitrosodiethylamine	ND	mg/kg	0.33
Phenol	ND	mg/kg	0.33
bis(2-Chloroethyl) ether	ND	mg/kg	0.33
2-Chlorophenol	ND	mg/kg	0.33
1,3-Dichlorobenzene	ND	mg/kg	0.33
1,4-Dichlorobenzene	ND	mg/kg	0.33
Benzyl alcohol	ND	mg/kg	0.33
1,2-Dichlorobenzene	ND	mg/kg	0.33
2-Methylphenol	ND	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND	mg/kg	0.33
3/4-Methylphenol	ND	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND	mg/kg	0.33
Hexachloroethane	ND	mg/kg	0.33
Nitrobenzene	ND	mg/kg	0.33
Isophorone	ND	mg/kg	0.33
2-Nitrophenol	ND	mg/kg	0.33
2,4-Dimethylphenol	ND	mg/kg	0.33
Benzoic acid	ND	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND	mg/kg	0.33
2,4-Dichlorophenol	ND	mg/kg	0.33
1,2,4-Trichlorobenzene	ND	mg/kg	0.33
Naphthalene	ND	mg/kg	0.33
4-Chloroaniline	ND	mg/kg	0.33
Hexachlorobutadiene	ND	mg/kg	0.33
4-Chloro-3-methylphenol	ND	mg/kg	0.33
2-Methylnaphthalene	ND	mg/kg	0.33
Hexachlorocyclopentadiene	ND	mg/kg	0.33
2,4,6-Trichlorophenol	ND	mg/kg	0.33
2,4,5-Trichlorophenol	ND	mg/kg	1.7
2-Chloronaphthalene	ND	mg/kg	0.33
2-Nitroaniline	ND	mg/kg	1.7
Dimethyl phthalate	ND	mg/kg	0.33
Acenaphthylene	ND	mg/kg	0.33
3-Nitroaniline	ND	mg/kg	1.7
Acenaphthene	ND	mg/kg	0.33
2,4-Dinitrophenol	ND	mg/kg	1.7
4-Nitrophenol	ND	mg/kg	1.7
Dibenzofuran	ND	mg/kg	0.33
2,4-Dinitrotoluene	ND	mg/kg	0.33
2,6-Dinitrotoluene	ND	mg/kg	0.33
Diethyl phthalate	ND	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND	mg/kg	0.33
Fluorene	ND	mg/kg	0.33
4-Nitroaniline	ND	mg/kg	1.7
4,6-Dinitro-2-methylphenol	ND	mg/kg	1.7

ND = Not Detected

Holding Time Report Project: 103975 Client: Harding Lawson Associates Today: 14 JAN 94

	Field ID	Lab ID	Lab Test Code	Analytical Method	Collected	Received	Extracted	Analyzed	CTA	RTA	ETA	HTV	Corrective Action
Test: Method 7471 - Mercury, Cold Vapor AA							Prep: P-HG-CVAA-S						Total: 2
1	SVMW-36-4.	103975-0001-SA	HG-CVAA-MDL-S	7471	03 JAN 94	03 JAN 94	05 JAN 94	05 JAN 94	2	2	n/a		
2	SVMW-35A-9	103975-0005-SA	HG-CVAA-MDL-S	7471	03 JAN 94	03 JAN 94	05 JAN 94	05 JAN 94	2	2	n/a		
Test: Manganese, Flame AA							Prep: P-M-3050-S						Total: 2
1	SVMW-36-4.	103975-0001-SA	MN-FLAA-MDL-S	7460	03 JAN 94	03 JAN 94	05 JAN 94	05 JAN 94	2	2	n/a		
2	SVMW-35A-9	103975-0005-SA	MN-FLAA-MDL-S	7460	03 JAN 94	03 JAN 94	05 JAN 94	05 JAN 94	2	2	n/a		
Test: Method 7520 - Nickel, Flame AA							Prep: P-M-3050-S						Total: 2
1	SVMW-36-4.	103975-0001-SA	NI-FLAA-MDL-S	7520	03 JAN 94	03 JAN 94	05 JAN 94	06 JAN 94	3	3	n/a		
2	SVMW-35A-9	103975-0005-SA	NI-FLAA-MDL-S	7520	03 JAN 94	03 JAN 94	05 JAN 94	06 JAN 94	3	3	n/a		
Test: Method 7420 - Lead, FLame AA							Prep: P-M-3050-S						Total: 2
1	SVMW-36-4.	103975-0001-SA	PB-FLAA-MDL-S	7420	03 JAN 94	03 JAN 94	05 JAN 94	06 JAN 94	3	3	n/a		
2	SVMW-35A-9	103975-0005-SA	PB-FLAA-MDL-S	7420	03 JAN 94	03 JAN 94	05 JAN 94	06 JAN 94	3	3	n/a		
Test: Method 7950 - Zinc, Flame AA							Prep: P-M-3050-S						Total: 2
1	SVMW-36-4.	103975-0001-SA	ZN-FLAA-MDL-S	7950	03 JAN 94	03 JAN 94	05 JAN 94	06 JAN 94	3	3	n/a		
2	SVMW-35A-9	103975-0005-SA	ZN-FLAA-MDL-S	7950	03 JAN 94	03 JAN 94	05 JAN 94	06 JAN 94	3	3	n/a		
Test: Prep - Mercury, Cold Vapor AA, Solid							Prep: n/a						Total: 2
1	SVMW-36-4.	103975-0001-SA	P-HG-CVAA-S	7471	03 JAN 94	03 JAN 94	05 JAN 94	n/a	2	2	n/a		
2	SVMW-35A-9	103975-0005-SA	P-HG-CVAA-S	7471	03 JAN 94	03 JAN 94	05 JAN 94	n/a	2	2	n/a		
Test: Method 3050 - Prep - Total Metals							Prep: n/a						Total: 2
1	SVMW-36-4.	103975-0001-SA	P-M-3050-S	3050	03 JAN 94	03 JAN 94	05 JAN 94	n/a	2	2	n/a		
2	SVMW-35A-9	103975-0005-SA	P-M-3050-S	3050	03 JAN 94	03 JAN 94	05 JAN 94	n/a	2	2	n/a		
Test: Method 9012 - Cyanide, Total							Prep: P-CN-S						Total: 2
1	SVMW-36-4.	103975-0001-SA	CN-MDL-S	9012	03 JAN 94	03 JAN 94	10 JAN 94	11 JAN 94	8	8	n/a		
2	SVMW-35A-9	103975-0005-SA	CN-MDL-S	9012	03 JAN 94	03 JAN 94	10 JAN 94	11 JAN 94	8	8	n/a		
Test: Method 9012 - Prep - Cyanide, Total							Prep: n/a						Total: 2
1	SVMW-36-4.	103975-0001-SA	P-CN-S	9012	03 JAN 94	03 JAN 94	10 JAN 94	n/a	7	7	n/a		
2	SVMW-35A-9	103975-0005-SA	P-CN-S	9012	03 JAN 94	03 JAN 94	10 JAN 94	n/a	7	7	n/a		

CTA = Number of Days from Collected to Analyzed.
RTA = Number of Days from Received to Analyzed.
ETA = Number of Days from Extraction to Analyzed.
HTV = Hold Time Violation (Y=Yes, blank=No)

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METHOD BLANK REPORT
Semivolatile Organics by GC/MS (cont.)
Project: 103975

Test: 8270-HLA-S Method 8270 - Semivolatile Organics
Matrix: SOLID
QC Run: 04 JAN 94-B Date Analyzed: 04 JAN 94

Analyte	Result	Units	Reporting Limit
N-Nitrosodiphenylamine	ND	mg/kg	0.33
4-Bromophenyl phenyl ether	ND	mg/kg	0.33
Hexachlorobenzene	ND	mg/kg	0.33
Pentachlorophenol	ND	mg/kg	1.7
Phenanthrene	ND	mg/kg	0.33
Anthracene	ND	mg/kg	0.33
Di-n-butyl phthalate	ND	mg/kg	0.33
Fluoranthene	ND	mg/kg	0.33
Pyrene	ND	mg/kg	0.33
Butyl benzyl phthalate	ND	mg/kg	0.33
3,3'-Dichlorobenzidine	ND	mg/kg	0.66
Benzo(a)anthracene	ND	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND	mg/kg	0.33
Chrysene	ND	mg/kg	0.33
Di-n-octyl phthalate	ND	mg/kg	0.33
Benzo(b)fluoranthene	ND	mg/kg	0.33
Benzo(k)fluoranthene	ND	mg/kg	0.33
Benzo(a)pyrene	ND	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND	mg/kg	0.33
Dibenz(a,h)anthracene	ND	mg/kg	0.33
Benzo(g,h,i)perylene	ND	mg/kg	0.33
Xylidine (Total)	ND	mg/kg	0.33

ND = Not Detected

Holding Time Report Project: 103975 Client: Harding Lawson Associates Today: 14 JAN 94

	Field ID	Lab ID	Lab Test Code	Analytical Method	Collected	Received	Extracted	Analyzed	CTA	RTA	ETA	HTV	Corrective Action
Test: Method 8270 - Semivolatile Organics							Prep: P-8270-S						Total: 4
1	SVMW-36-4.	103975-0002-SA	8270-HLA-S	8270	03 JAN 94	03 JAN 94	04 JAN 94	05 JAN 94	2	2	1		
2	SVMW-36-20	103975-0003-SA	8270-HLA-S	8270	03 JAN 94	03 JAN 94	04 JAN 94	05 JAN 94	2	2	1		
3	SVMW-35-4.	103975-0004-SA	8270-HLA-S	8270	03 JAN 94	03 JAN 94	04 JAN 94	05 JAN 94	2	2	1		
4	SVMW-35A-9	103975-0005-SA	8270-HLA-S	8270	03 JAN 94	03 JAN 94	04 JAN 94	05 JAN 94	2	2	1		
Test: Method 8240 - Volatile Organics, EPA 8240 Extended List							Prep: P-VOASCR-S						Total: 4
1	SVMW-36-4.	103975-0002-SA	8240-HLA-S	8240	03 JAN 94	03 JAN 94	05 JAN 94	05 JAN 94	2	2	n/a		
2	SVMW-36-20	103975-0003-SA	8240-HLA-S	8240	03 JAN 94	03 JAN 94	05 JAN 94	05 JAN 94	2	2	n/a		
3	SVMW-35-4.	103975-0004-SA	8240-HLA-S	8240	03 JAN 94	03 JAN 94	05 JAN 94	05 JAN 94	2	2	n/a		
4	SVMW-35A-9	103975-0005-SA	8240-HLA-S	8240	03 JAN 94	03 JAN 94	05 JAN 94	05 JAN 94	2	2	n/a		
Test: Method 5030 - Prep - Volatile Organics							Prep: n/a						Total: 4
1	SVMW-36-4.	103975-0002-SA	P-VOASCR-S	5030	03 JAN 94	03 JAN 94	05 JAN 94	n/a	2	2	n/a		
2	SVMW-36-20	103975-0003-SA	P-VOASCR-S	5030	03 JAN 94	03 JAN 94	05 JAN 94	n/a	2	2	n/a		
3	SVMW-35-4.	103975-0004-SA	P-VOASCR-S	5030	03 JAN 94	03 JAN 94	05 JAN 94	n/a	2	2	n/a		
4	SVMW-35A-9	103975-0005-SA	P-VOASCR-S	5030	03 JAN 94	03 JAN 94	05 JAN 94	n/a	2	2	n/a		
Test: Method EPA 3550 - Prep - Semivolatile Organics by GC/MS							Prep: n/a						Total: 4
1	SVMW-36-4.	103975-0002-SA	P-8270-S	3550	03 JAN 94	03 JAN 94	04 JAN 94	n/a	1	1	n/a		
2	SVMW-36-20	103975-0003-SA	P-8270-S	3550	03 JAN 94	03 JAN 94	04 JAN 94	n/a	1	1	n/a		
3	SVMW-35-4.	103975-0004-SA	P-8270-S	3550	03 JAN 94	03 JAN 94	04 JAN 94	n/a	1	1	n/a		
4	SVMW-35A-9	103975-0005-SA	P-8270-S	3550	03 JAN 94	03 JAN 94	04 JAN 94	n/a	1	1	n/a		
Test: Method 7020 - Aluminum, Flame AA							Prep: P-M-3050-S						Total: 2
1	SVMW-36-4.	103975-0001-SA	AL-FLAA-MDL-S	7020	03 JAN 94	03 JAN 94	05 JAN 94	10 JAN 94	7	7	n/a		
2	SVMW-35A-9	103975-0005-SA	AL-FLAA-MDL-S	7020	03 JAN 94	03 JAN 94	05 JAN 94	10 JAN 94	7	7	n/a		
Test: Method 7062 - Arsenic, Hydride AA							Prep: P-M-3050-S						Total: 2
1	SVMW-36-4.	103975-0001-SA	AS-HAA-MDL-S	7062	03 JAN 94	03 JAN 94	05 JAN 94	05 JAN 94	2	2	n/a		
2	SVMW-35A-9	103975-0005-SA	AS-HAA-MDL-S	7062	03 JAN 94	03 JAN 94	05 JAN 94	05 JAN 94	2	2	n/a		
Test: Method 7080 - Barium, Flame AA							Prep: P-M-3050-S						Total: 2
1	SVMW-36-4.	103975-0001-SA	BA-FLAA-MDL-S	7080	03 JAN 94	03 JAN 94	05 JAN 94	10 JAN 94	7	7	n/a		
2	SVMW-35A-9	103975-0005-SA	BA-FLAA-MDL-S	7080	03 JAN 94	03 JAN 94	05 JAN 94	10 JAN 94	7	7	n/a		
Test: Method 7130 - Cadmium, Flame AA							Prep: P-M-3050-S						Total: 2
1	SVMW-36-4.	103975-0001-SA	CD-FLAA-MDL-S	7130	03 JAN 94	03 JAN 94	05 JAN 94	06 JAN 94	3	3	n/a		
2	SVMW-35A-9	103975-0005-SA	CD-FLAA-MDL-S	7130	03 JAN 94	03 JAN 94	05 JAN 94	06 JAN 94	3	3	n/a		
Test: Method 7190 - Chromium, Flame AA							Prep: P-M-3050-S						Total: 2
1	SVMW-36-4.	103975-0001-SA	CR-FLAA-MDL-S	7190	03 JAN 94	03 JAN 94	05 JAN 94	06 JAN 94	3	3	n/a		
2	SVMW-35A-9	103975-0005-SA	CR-FLAA-MDL-S	7190	03 JAN 94	03 JAN 94	05 JAN 94	06 JAN 94	3	3	n/a		
Test: Method 7210 - Copper, Flame AA							Prep: P-M-3050-S						Total: 2
1	SVMW-36-4.	103975-0001-SA	CU-FLAA-MDL-S	7210	03 JAN 94	03 JAN 94	05 JAN 94	06 JAN 94	3	3	n/a		
2	SVMW-35A-9	103975-0005-SA	CU-FLAA-MDL-S	7210	03 JAN 94	03 JAN 94	05 JAN 94	06 JAN 94	3	3	n/a		

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 103975

Harding Lawson Associates
3 Hutton Centre Drive, Suite 200
Santa Ana, California 92707
714/556-7992 – 213/617-7232
FAX: 714/662-3297

CHAIN OF CUSTODY FORM

Lab: ENSECO CRL

Samplers: Tom Linoros

Job Number: 26522.204

Name/Location: Aerojet - ALSA

Project Manager: MATT HUNTER

Recorder: (Signature Required)

SOURCE CODE	MATRIX: Water	Sediment	Soil	Oil	#CONTAINERS & PRESERV.: Unpres.	H_2SO_4	HNO_3	Chilled	SAMPLE NUMBER OR LAB NUMBER: Yr Wk Seq	DATE: Yr Mo Dy Time	STATION DESCRIPTION/ NOTES	EPA 601/8010	EPA 602/8020	EPA 624/8240	EPA 625/8270	Priority Pllnt. Metals	Benzene/Toluene/Xylene	Total Petrol. Hydrocarb.		EPA 9012 (Cyanide)	EPA 6010/7000 metals	Chloride					HOLD
50			X		X			X	SVMW-36-4.0	940103 0823	2 1/2" & 3" stainless									X	X						
50			X		X			X	SVMW-36-4.25	940103 0823				X	X												
50			X		X			X	SVMW-36-15.25	940103 0854																	
50			X		X			X	SVMW-36-19.75	940103 0904																	
50			X		X			X	SVMW-36-20.00	940103 0904				X	X												
50			X		X			X	SVMW-35-4.75	940103 1222				X	X												
50			X		X			X	SVMW-35A-6.0	940103 1257																	
50			X		X			X	SVMW-35A-9.50	940103 1303				X	X					X	X						
50			X		X			X	SVMW-35-0.5	940103 1436																	

Custody Seal No: 2345 & 2346

LAB NUMBER: Yr Wk Seq	DEPTH IN FEET	COL MTD CD	QA CODE	MISCELLANEOUS
				- Analyze per Aerojet contract
				- Report to Matt Hunter
				- Matt Hunter to Fax Requested Laboratory Analyses.

CHAIN OF CUSTODY RECORD

RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
		1/3/94 4:30
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME 1/3/94 5:18
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
DISPATCHED BY: (Signature) DATE/TIME	RECEIVED FOR LAB BY: (Signature)	DATE/TIME 1/3/94 17:18

METHOD OF SHIPMENT: Lab Courier Pickup at Project Site

Laboratory Copy White | Project Office Copy Yellow | Field or Office Copy Pink

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METALS

Client Name: Harding Lawson Associates
Client ID: SVMW-36-4.00
Lab ID: 103975-0001-SA
Matrix: SOIL
Authorized: 04 JAN 94

Sampled: 03 JAN 94
Prepared: See Below

Received: 03 JAN 94
Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Aluminum	7090		50.0	200	mg/kg	7020	05 JAN 94	10 JAN 94
Arsenic	3.4		0.20	0.50	mg/kg	7062	05 JAN 94	05 JAN 94
Barium	62.0		20.0	50.0	mg/kg	7080	05 JAN 94	10 JAN 94
Chromium	21.7		5.0	10.0	mg/kg	7190	05 JAN 94	06 JAN 94
Copper	39.0		5.0	10.0	mg/kg	7210	05 JAN 94	06 JAN 94
Lead	318		20.0	20.0	mg/kg	7420	05 JAN 94	06 JAN 94
Manganese	444		2.0	5.0	mg/kg	7460	05 JAN 94	05 JAN 94
Nickel	11.0		5.0	10.0	mg/kg	7520	05 JAN 94	06 JAN 94
Zinc	1450		1.0	40.0	mg/kg	7950	05 JAN 94	06 JAN 94
Cadmium	6.8		2.0	5.0	mg/kg	7130	05 JAN 94	06 JAN 94
Mercury	TR		0.090	0.10	mg/kg	7471	05 JAN 94	05 JAN 94

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GENERAL INORGANICS

Client Name: Harding Lawson Associates
Client ID: SVMW-36-4.00
LAB ID: 103975-0001-SA
Matrix: SOIL
Authorized: 04 JAN 94

Sampled: 03 JAN 94
Prepared: See Below

Received: 03 JAN 94
Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Cyanide, Total	ND		0.30	0.50	mg/kg	9012	10 JAN 94	11 JAN 94

ND = Not Detected

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Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SVMW-36-4.25
LAB ID: 103975-0002-SA
Matrix: SOIL Sampled: 03 JAN 94 Received: 03 JAN 94
Authorized: 04 JAN 94 Prepared: 05 JAN 94 Analyzed: 05 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	TR		1.2	ug/kg	5.0
Methylene chloride	TR		1.1	ug/kg	5.0
Acetone	ND		7.1	ug/kg	10
Trichlorofluoromethane	TR	B	0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	ND		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	ND		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	ND		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	ND		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0

B = Compound is also detected in the blank.
ND = Not Detected

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A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SVMW-36-4.25
LAB ID: 103975-0002-SA
Matrix: SOIL Sampled: 03 JAN 94 Received: 03 JAN 94
Authorized: 04 JAN 94 Prepared: 05 JAN 94 Analyzed: 05 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
tert-Butylbenzene	ND		0.55	ug/kg	5.0
1,2,4-Trimethylbenzene	ND		0.53	ug/kg	5.0
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	82	%
Toluene-d8	109	%
Bromofluorobenzene	93	%

ND = Not Detected

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Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SVMW-36-20.00
LAB ID: 103975-0003-SA
Matrix: SOIL Sampled: 03 JAN 94 Received: 03 JAN 94
Authorized: 04 JAN 94 Prepared: 05 JAN 94 Analyzed: 05 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	TR		1.2	ug/kg	5.0
Methylene chloride	TR		1.1	ug/kg	5.0
Acetone	ND		7.1	ug/kg	10
Trichlorofluoromethane	ND		0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	ND		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	ND		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	ND		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	ND		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0
tert-Butylbenzene	ND		0.55	ug/kg	5.0

ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SVMW-36-20.00
LAB ID: 103975-0003-SA
Matrix: SOIL — Sampled: 03 JAN 94 — Received: 03 JAN 94
Authorized: 04 JAN 94 — Prepared: 05 JAN 94 — Analyzed: 05 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
1,2,4-Trimethylbenzene	ND		0.53	ug/kg	5.0
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	113	%
Toluene-d8	115	%
Bromofluorobenzene	114	%

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SVMW-36-4.25
LAB ID: 103975-0002-SA
Matrix: SOIL Sampled: 03 JAN 94 Received: 03 JAN 94
Authorized: 04 JAN 94 Prepared: 04 JAN 94 Analyzed: 05 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
N-Nitrosodiethylamine	ND		0.26	mg/kg	0.33
Phenol	ND		0.030	mg/kg	0.33
bis(2-Chloroethyl) ether	ND		0.060	mg/kg	0.33
2-Chlorophenol	ND		0.040	mg/kg	0.33
1,3-Dichlorobenzene	ND		0.030	mg/kg	0.33
1,4-Dichlorobenzene	ND		0.060	mg/kg	0.33
Benzyl alcohol	ND		0.070	mg/kg	0.33
1,2-Dichlorobenzene	ND		0.040	mg/kg	0.33
2-Methylphenol	ND		0.030	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND		0.040	mg/kg	0.33
3/4-Methylphenol	ND		0.040	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND		0.030	mg/kg	0.33
Hexachloroethane	ND		0.030	mg/kg	0.33
Nitrobenzene	ND		0.090	mg/kg	0.33
Isophorone	ND		0.040	mg/kg	0.33
2-Nitrophenol	ND		0.050	mg/kg	0.33
2,4-Dimethylphenol	ND		0.030	mg/kg	0.33
Benzoic acid	ND		0.51	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND		0.020	mg/kg	0.33
2,4-Dichlorophenol	ND		0.030	mg/kg	0.33
1,2,4-Trichlorobenzene	ND		0.040	mg/kg	0.33
Naphthalene	ND		0.030	mg/kg	0.33
4-Chloroaniline	ND		0.10	mg/kg	0.33
Hexachlorobutadiene	ND		0.040	mg/kg	0.33
4-Chloro-3-methylphenol	ND		0.040	mg/kg	0.33
2-Methylnaphthalene	ND		0.030	mg/kg	0.33
Hexachlorocyclopentadiene	ND		0.050	mg/kg	0.33
2,4,6-Trichlorophenol	ND		0.040	mg/kg	0.33
2,4,5-Trichlorophenol	ND		0.050	mg/kg	1.7
2-Chloronaphthalene	ND		0.030	mg/kg	0.33
2-Nitroaniline	ND		0.030	mg/kg	1.7
Dimethyl phthalate	ND		0.030	mg/kg	0.33
Acenaphthylene	ND		0.020	mg/kg	0.33
3-Nitroaniline	ND		0.14	mg/kg	1.7
Acenaphthene	ND		0.030	mg/kg	0.33
2,4-Dinitrophenol	ND		0.23	mg/kg	1.7
4-Nitrophenol	ND		0.25	mg/kg	1.7
Dibenzofuran	ND		0.040	mg/kg	0.33
2,4-Dinitrotoluene	ND		0.040	mg/kg	0.33
2,6-Dinitrotoluene	ND		0.050	mg/kg	0.33
Diethyl phthalate	ND		0.020	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND		0.030	mg/kg	0.33
Fluorene	ND		0.030	mg/kg	0.33
4-Nitroaniline	ND		0.18	mg/kg	1.7

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SVMW-36-4.25
LAB ID: 103975-0002-SA
Matrix: SOIL
Authorized: 04 JAN 94

Sampled: 03 JAN 94
Prepared: 04 JAN 94

Received: 03 JAN 94
Analyzed: 05 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
4,6-Dinitro-2-methylphenol	ND		0.36	mg/kg	1.7
N-Nitrosodiphenylamine	ND		0.040	mg/kg	0.33
4-Bromophenyl phenyl ether	ND		0.080	mg/kg	0.33
Hexachlorobenzene	ND		0.030	mg/kg	0.33
Pentachlorophenol	ND		0.19	mg/kg	1.7
Phenanthrene	ND		0.030	mg/kg	0.33
Anthracene	ND		0.020	mg/kg	0.33
Di-n-butyl phthalate	ND		0.24	mg/kg	0.33
Fluoranthene	ND		0.030	mg/kg	0.33
Pyrene	ND		0.020	mg/kg	0.33
Butyl benzyl phthalate	ND		0.030	mg/kg	0.33
3,3'-Dichlorobenzidine	ND		0.33	mg/kg	0.66
Benzo(a)anthracene	ND		0.040	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND		0.13	mg/kg	0.33
Chrysene	ND		0.040	mg/kg	0.33
Di-n-octyl phthalate	ND		0.040	mg/kg	0.33
Benzo(b)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(k)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(a)pyrene	ND		0.040	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND		0.030	mg/kg	0.33
Dibenz(a,h)anthracene	ND		0.030	mg/kg	0.33
Benzo(g,h,i)perylene	ND		0.020	mg/kg	0.33
Xylidine (Total)	ND		0.076	mg/kg	0.33

Surrogate	Recovery	
Nitrobenzene-d5	74	%
2-Fluorobiphenyl	66	%
Terphenyl-d14	85	%
Phenol-d5	68	%
2-Fluorophenol	78	%
2,4,6-Tribromophenol	73	%

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SVMW-36-20.00
LAB ID: 103975-0003-SA
Matrix: SOIL Sampled: 03 JAN 94 Received: 03 JAN 94
Authorized: 04 JAN 94 Prepared: 04 JAN 94 Analyzed: 05 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
N-Nitrosodiethylamine	ND		0.26	mg/kg	0.33
Phenol	ND		0.030	mg/kg	0.33
bis(2-Chloroethyl) ether	ND		0.060	mg/kg	0.33
2-Chlorophenol	ND		0.040	mg/kg	0.33
1,3-Dichlorobenzene	ND		0.030	mg/kg	0.33
1,4-Dichlorobenzene	ND		0.060	mg/kg	0.33
Benzyl alcohol	ND		0.070	mg/kg	0.33
1,2-Dichlorobenzene	ND		0.040	mg/kg	0.33
2-Methylphenol	ND		0.030	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND		0.040	mg/kg	0.33
3/4-Methylphenol	ND		0.040	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND		0.030	mg/kg	0.33
Hexachloroethane	ND		0.030	mg/kg	0.33
Nitrobenzene	ND		0.090	mg/kg	0.33
Isophorone	ND		0.040	mg/kg	0.33
2-Nitrophenol	ND		0.050	mg/kg	0.33
2,4-Dimethylphenol	ND		0.030	mg/kg	0.33
Benzoic acid	ND		0.51	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND		0.020	mg/kg	0.33
2,4-Dichlorophenol	ND		0.030	mg/kg	0.33
1,2,4-Trichlorobenzene	ND		0.040	mg/kg	0.33
Naphthalene	ND		0.030	mg/kg	0.33
4-Chloroaniline	ND		0.10	mg/kg	0.33
Hexachlorobutadiene	ND		0.040	mg/kg	0.33
4-Chloro-3-methylphenol	ND		0.040	mg/kg	0.33
2-Methylnaphthalene	ND		0.030	mg/kg	0.33
Hexachlorocyclopentadiene	ND		0.050	mg/kg	0.33
2,4,6-Trichlorophenol	ND		0.040	mg/kg	0.33
2,4,5-Trichlorophenol	ND		0.050	mg/kg	1.7
2-Chloronaphthalene	ND		0.030	mg/kg	0.33
2-Nitroaniline	ND		0.030	mg/kg	1.7
Dimethyl phthalate	ND		0.030	mg/kg	0.33
Acenaphthylene	ND		0.020	mg/kg	0.33
3-Nitroaniline	ND		0.14	mg/kg	1.7
Acenaphthene	ND		0.030	mg/kg	0.33
2,4-Dinitrophenol	ND		0.23	mg/kg	1.7
4-Nitrophenol	ND		0.25	mg/kg	1.7
Dibenzofuran	ND		0.040	mg/kg	0.33
2,4-Dinitrotoluene	ND		0.040	mg/kg	0.33
2,6-Dinitrotoluene	ND		0.050	mg/kg	0.33
Diethyl phthalate	ND		0.020	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND		0.030	mg/kg	0.33
Fluorene	ND		0.030	mg/kg	0.33
4-Nitroaniline	ND		0.18	mg/kg	1.7

ND = Not Detected

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SVMW-36-20.00
LAB ID: 103975-0003-SA
Matrix: SOIL Sampled: 03 JAN 94 Received: 03 JAN 94
Authorized: 04 JAN 94 Prepared: 04 JAN 94 Analyzed: 05 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
4,6-Dinitro-2-methylphenol	ND		0.36	mg/kg	1.7
N-Nitrosodiphenylamine	ND		0.040	mg/kg	0.33
4-Bromophenyl phenyl ether	ND		0.080	mg/kg	0.33
Hexachlorobenzene	ND		0.030	mg/kg	0.33
Pentachlorophenol	ND		0.19	mg/kg	1.7
Phenanthrene	ND		0.030	mg/kg	0.33
Anthracene	ND		0.020	mg/kg	0.33
Di-n-butyl phthalate	ND		0.24	mg/kg	0.33
Fluoranthene	ND		0.030	mg/kg	0.33
Pyrene	ND		0.020	mg/kg	0.33
Butyl benzyl phthalate	ND		0.030	mg/kg	0.33
3,3'-Dichlorobenzidine	ND		0.33	mg/kg	0.66
Benzo(a)anthracene	ND		0.040	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND		0.13	mg/kg	0.33
Chrysene	ND		0.040	mg/kg	0.33
Di-n-octyl phthalate	ND		0.040	mg/kg	0.33
Benzo(b)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(k)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(a)pyrene	ND		0.040	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND		0.030	mg/kg	0.33
Dibenz(a,h)anthracene	ND		0.030	mg/kg	0.33
Benzo(g,h,i)perylene	ND		0.020	mg/kg	0.33
Xylidine (Total)	ND		0.076	mg/kg	0.33

Surrogate	Recovery	
Nitrobenzene-d5	70	%
2-Fluorobiphenyl	68	%
Terphenyl-d14	77	%
Phenol-d5	66	%
2-Fluorophenol	73	%
2,4,6-Tribromophenol	71	%

ND = Not Detected

Enseco
A Corning Company

Enseco - CRL
7440 Lincoln Way • Garden Grove, CA 92641
(714) 898-6370 • (213) 598-0458 • (800) LAB-1-CRL
FAX: (714) 891-5917

January 18, 1994

HARDING LAWSON ASSOCIATES
3 HUTTON CENTRE DRIVE, STE 200
SANTA ANA, CA 92707
ATTN: MR. MATT HUNTER

Lab No.: 103992-0001/0022
Date Sampled: 04-JAN-1994
Date Sample Rec'd: 04-JAN-1994
Project: (26522-2.4/2.3) AEROJET

Enclosed with this letter is the report on the chemical and physical analyses on the samples from LAB NO: 103992-0001/0022 shown above.

The samples were received by CRL in a chilled state, intact and with the chain-of-custody record attached.

Note that ND means not detected at the reporting limit expressed. The reporting limit is raised to reflect the dilution factor of the sample.

Solid samples are reported on "as received" basis.

Case Narrative:

The MS/MSD Percent Recoveries for Aluminum, Cadmium, and Manganese were not within the acceptance limits specified in HLA's "Laboratory Analytical Technical Requirements," nor was it within Enseco's-CRL's established acceptance limits. However, the DCS recoveries were within all acceptable ranges, therefore the data was accepted and no further action was required.

The MSD Percent Recovery for Arsenic was not within the acceptance limits specified in HLA's "Laboratory Analytical Technical Requirements, but it was within Enseco's-CRL established acceptance limits. Therefore the data was accepted and no further action was required.

The MS/MSD Percent Recovery for Barium was not within the acceptance limits specified in HLA's "Laboratory Analytical Technical Requirements, but it was within Enseco's-CRL established acceptance limits. Therefore the data was accepted and no further action was required.

Sabina R. Sudoko
Reviewed

Mei Bloom
Approved

The Report Cover Letter is an integral part of this report.

This report pertains only to the samples investigated and does not necessarily apply to other apparently identical or similar materials. This report is submitted for the exclusive use of the client to whom it is addressed. Any reproduction of this report or use of this Laboratory's name for advertising or publicity purposes without authorization is prohibited.

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SAMPLE DESCRIPTION INFORMATION
for
Harding Lawson Associates

Lab ID	Client ID	Matrix	Sampled Date	Sampled Time	Received Date
103992-0001-SA	SVMW-33-4.50	SOIL	04 JAN 94	07:35	04 JAN 94
103992-0002-SA	SVMW-33-9.75	SOIL	04 JAN 94	07:44	04 JAN 94
103992-0003-SA	SVMW-33-14.75	SOIL	04 JAN 94	07:51	04 JAN 94
103992-0004-SA	SZB-13-4.50	SOIL	04 JAN 94	09:35	04 JAN 94
103992-0005-SA	SZB-13-20.00	SOIL	04 JAN 94	10:17	04 JAN 94
103992-0006-SA	SZB-13-30.25	SOIL	04 JAN 94	10:33	04 JAN 94
103992-0007-SA	SZB-13C-2.25	SOIL	04 JAN 94	12:34	04 JAN 94
103992-0008-SA	SZB-21-6.00	SOIL	04 JAN 94	15:20	04 JAN 94
103992-0009-SA	SZB-21-6.25	SOIL	04 JAN 94	15:20	04 JAN 94
103992-0010-SA	SZB-21-14.50	SOIL	04 JAN 94	15:30	04 JAN 94
103992-0011-SA	SZB-21-29.75	SOIL	04 JAN 94	16:01	04 JAN 94
103992-0012-SA	SZB-13-9.50	SOIL	04 JAN 94	09:45	04 JAN 94
103992-0013-SA	SZB-13-9.75	SOIL	04 JAN 94	09:45	04 JAN 94
103992-0014-SA	SZB-13-16.25	SOIL	04 JAN 94	10:13	04 JAN 94
103992-0015-SA	SZB-13-19.75	SOIL	04 JAN 94	10:17	04 JAN 94
103992-0016-SA	SZB-13-34.75	SOIL	04 JAN 94	10:50	04 JAN 94
103992-0017-SA	SZB-13-35.00	SOIL	04 JAN 94	10:50	04 JAN 94
103992-0018-SA	SZB-13-39.75	SOIL	04 JAN 94	10:58	04 JAN 94
103992-0019-SA	SZB-21-9.50	SOIL	04 JAN 94	15:25	04 JAN 94
103992-0020-SA	SZB-21-9.75	SOIL	04 JAN 94	15:25	04 JAN 94
103992-0021-SA	SZB-21-20.25	SOIL	04 JAN 94	15:38	04 JAN 94
103992-0022-SA	SZB-21-24.75	SOIL	04 JAN 94	15:50	04 JAN 94

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METALS

Client Name: Harding Lawson Associates
Client ID: SVMW-33-4.50
Lab ID: 103992-0001-SA
Matrix: SOIL
Authorized: 05 JAN 94

Sampled: 04 JAN 94
Prepared: See Below

Received: 04 JAN 94
Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Aluminum	4080		50.0	100	mg/kg	7020	06 JAN 94	09 JAN 94
Arsenic	37.6		0.20	2.5	mg/kg	7062	06 JAN 94	10 JAN 94
Barium	78.0		20.0	50.0	mg/kg	7080	06 JAN 94	10 JAN 94
Chromium	13.6		5.0	10.0	mg/kg	7190	06 JAN 94	06 JAN 94
Copper	16.0		5.0	10.0	mg/kg	7210	06 JAN 94	06 JAN 94
Lead	ND		20.0	20.0	mg/kg	7420	06 JAN 94	06 JAN 94
Manganese	224		2.0	5.0	mg/kg	7460	06 JAN 94	09 JAN 94
Nickel	12.0		5.0	10.0	mg/kg	7520	06 JAN 94	06 JAN 94
Zinc	36.2		1.0	2.0	mg/kg	7950	06 JAN 94	06 JAN 94
Cadmium	ND		2.0	5.0	mg/kg	7130	06 JAN 94	06 JAN 94
Mercury	TR		0.090	0.10	mg/kg	7471	06 JAN 94	10 JAN 94

ND = Not Detected

Enseco
A Corning Company

METALS

Client Name: Harding Lawson Associates
Client ID: SZB-13-4.50
LAB ID: 103992-0004-SA
Matrix: SOIL — Sampled: 04 JAN 94 — Received: 04 JAN 94
Authorized: 05 JAN 94 — Prepared: See Below — Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Aluminum	4640		50.0	100	mg/kg	7020	06 JAN 94	09 JAN 94
Arsenic	2.7		0.20	0.50	mg/kg	7062	06 JAN 94	10 JAN 94
Barium	57.0		20.0	50.0	mg/kg	7080	06 JAN 94	10 JAN 94
Chromium	TR		5.0	10.0	mg/kg	7190	06 JAN 94	06 JAN 94
Copper	27.0		5.0	10.0	mg/kg	7210	06 JAN 94	06 JAN 94
Lead	ND		20.0	20.0	mg/kg	7420	06 JAN 94	06 JAN 94
Manganese	246		2.0	5.0	mg/kg	7460	06 JAN 94	09 JAN 94
Nickel	108		5.0	10.0	mg/kg	7520	06 JAN 94	06 JAN 94
Zinc	48.8		1.0	2.0	mg/kg	7950	06 JAN 94	06 JAN 94
Cadmium	ND		2.0	5.0	mg/kg	7130	06 JAN 94	06 JAN 94
Mercury	ND		0.090	0.10	mg/kg	7471	06 JAN 94	10 JAN 94

ND = Not Detected

Enseco
A Corning Company

METALS

Client Name: Harding Lawson Associates
Client ID: SZB-21-6.00
Lab ID: 103992-0008-SA
Matrix: SOIL
Sampled: 04 JAN 94
Received: 04 JAN 94
Authorized: 05 JAN 94
Prepared: See Below
Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Aluminum	6190		50.0	200	mg/kg	7020	06 JAN 94	09 JAN 94
Arsenic	3.0		0.20	0.50	mg/kg	7062	06 JAN 94	10 JAN 94
Barium	80.0		20.0	50.0	mg/kg	7080	06 JAN 94	10 JAN 94
Chromium	34.3		5.0	10.0	mg/kg	7190	06 JAN 94	06 JAN 94
Copper	22.0		5.0	10.0	mg/kg	7210	06 JAN 94	06 JAN 94
Lead	21.0		20.0	20.0	mg/kg	7420	06 JAN 94	06 JAN 94
Manganese	288		2.0	5.0	mg/kg	7460	06 JAN 94	09 JAN 94
Nickel	11.0		5.0	10.0	mg/kg	7520	06 JAN 94	06 JAN 94
Zinc	150		1.0	4.0	mg/kg	7950	06 JAN 94	06 JAN 94
Cadmium	ND		2.0	5.0	mg/kg	7130	06 JAN 94	06 JAN 94
Mercury	ND		0.090	0.10	mg/kg	7471	06 JAN 94	10 JAN 94

ND = Not Detected

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GENERAL INORGANICS

Client Name: Harding Lawson Associates
Client ID: SVMW-33-4.50
Lab ID: 103992-0001-SA
Matrix: SOIL Sampled: 04 JAN 94 Received: 04 JAN 94
Authorized: 05 JAN 94 Prepared: See Below Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Cyanide, Total	ND	mg/kg	0.50	9012	11 JAN 94	13 JAN 94

ND = Not detected
NA = Not applicable

Reported By: Molly Delacruz Approved By: Jeannie Shoulder

Enseco
A Corning Company

GENERAL INORGANICS

Client Name: Harding Lawson Associates
Client ID: SZB-13-4.50
Lab ID: 103992-0004-SA
Matrix: SOIL Sampled: 04 JAN 94 Received: 04 JAN 94
Authorized: 05 JAN 94 Prepared: See Below Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Cyanide, Total	ND	mg/kg	0.50	9012	11 JAN 94	13 JAN 94

ND = Not detected
NA = Not applicable

Reported By: Molly Delacruz Approved By: Jeannie Shoulder

Enseco
A Corning Company

GENERAL INORGANICS

Client Name: Harding Lawson Associates
Client ID: SZB-21-6.00
Lab ID: 103992-0008-SA
Matrix: SOIL Sampled: 04 JAN 94 Received: 04 JAN 94
Authorized: 05 JAN 94 Prepared: See Below Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Cyanide, Total	ND	mg/kg	0.50	9012	11 JAN 94	13 JAN 94

ND = Not detected
NA = Not applicable

Reported By: Molly Delacruz Approved By: Jeannie Shoulder

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SVMW-33-9.75
LAB ID: 103992-0002-SA
Matrix: SOIL Sampled: 04 JAN 94 Received: 04 JAN 94
Authorized: 05 JAN 94 Prepared: 06 JAN 94 Analyzed: 06 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/kg	5.0
Methylene chloride	TR	B	1.1	ug/kg	5.0
Acetone	ND		7.1	ug/kg	10
Trichlorofluoromethane	ND		0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	ND		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	TR		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	TR		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	5.3		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0

B = Compound is also detected in the blank.
ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SVMW-33-9.75
LAB ID: 103992-0002-SA
Matrix: SOIL Sampled: 04 JAN 94 Received: 04 JAN 94
Authorized: 05 JAN 94 Prepared: 06 JAN 94 Analyzed: 06 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
tert-Butylbenzene	ND		0.55	ug/kg	5.0
1,2,4-Trimethylbenzene	ND		0.53	ug/kg	5.0
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	112	%
Toluene-d8	105	%
Bromofluorobenzene	93	%

ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SVMW-33-14.75
LAB ID: 103992-0003-SA
Matrix: SOIL Sampled: 04 JAN 94 Received: 04 JAN 94
Authorized: 05 JAN 94 Prepared: 06 JAN 94 Analyzed: 06 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/kg	5.0
Methylene chloride	TR	B	1.1	ug/kg	5.0
Acetone	ND		7.1	ug/kg	10
Trichlorofluoromethane	ND		0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	ND		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	TR		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	ND		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	ND		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0

B = Compound is also detected in the blank.
ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SVMW-33-14.75
LAB ID: 103992-0003-SA
Matrix: SOIL Sampled: 04 JAN 94 Received: 04 JAN 94
Authorized: 05 JAN 94 Prepared: 06 JAN 94 Analyzed: 06 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
tert-Butylbenzene	ND		0.55	ug/kg	5.0
1,2,4-Trimethylbenzene	ND		0.53	ug/kg	5.0
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	107	%
Toluene-d8	100	%
Bromofluorobenzene	93	%

ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-13-20.00
LAB ID: 103992-0005-SA
Matrix: SOIL Sampled: 04 JAN 94 Received: 04 JAN 94
Authorized: 05 JAN 94 Prepared: 07 JAN 94 Analyzed: 07 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/kg	5.0
Methylene chloride	TR	B	1.1	ug/kg	5.0
Acetone	ND		7.1	ug/kg	10
Trichlorofluoromethane	ND		0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	ND		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	TR		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	ND		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	ND		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0

B = Compound is also detected in the blank.
ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240
(cont.)

Client Name: Harding Lawson Associates
Client ID: SZB-13-20.00
LAB ID: 103992-0005-SA
Matrix: SOIL Sampled: 04 JAN 94 Received: 04 JAN 94
Authorized: 05 JAN 94 Prepared: 07 JAN 94 Analyzed: 07 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
tert-Butylbenzene	ND		0.55	ug/kg	5.0
1,2,4-Trimethylbenzene	ND		0.53	ug/kg	5.0
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	109	%
Toluene-d8	107	%
Bromofluorobenzene	101	%

ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-13-30.25
LAB ID: 103992-0006-SA
Matrix: SOIL Sampled: 04 JAN 94 Received: 04 JAN 94
Authorized: 05 JAN 94 Prepared: 07 JAN 94 Analyzed: 07 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/kg	5.0
Methylene chloride	TR	B	1.1	ug/kg	5.0
Acetone	ND		7.1	ug/kg	10
Trichlorofluoromethane	ND		0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	ND		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	TR		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	ND		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	ND		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0

B = Compound is also detected in the blank.
ND = Not Detected

Enseco (Cont.)
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-13-30.25
LAB ID: 103992-0006-SA
Matrix: SOIL Sampled: 04 JAN 94 Received: 04 JAN 94
Authorized: 05 JAN 94 Prepared: 07 JAN 94 Analyzed: 07 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
tert-Butylbenzene	ND		0.55	ug/kg	5.0
1,2,4-Trimethylbenzene	ND		0.53	ug/kg	5.0
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	115	%
Toluene-d8	99	%
Bromofluorobenzene	79	%

ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-13C-2.25
LAB ID: 103992-0007-SA
Matrix: SOIL — Sampled: 04 JAN 94 — Received: 04 JAN 94
Authorized: 05 JAN 94 — Prepared: 07 JAN 94 — Analyzed: 07 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/kg	5.0
Methylene chloride	TR	B	1.1	ug/kg	5.0
Acetone	ND		7.1	ug/kg	10
Trichlorofluoromethane	ND		0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	ND		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	TR		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	ND		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	ND		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0

B = Compound is also detected in the blank.
ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-13C-2.25
LAB ID: 103992-0007-SA
Matrix: SOIL Sampled: 04 JAN 94 Received: 04 JAN 94
Authorized: 05 JAN 94 Prepared: 07 JAN 94 Analyzed: 07 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
tert-Butylbenzene	ND		0.55	ug/kg	5.0
1,2,4-Trimethylbenzene	ND		0.53	ug/kg	5.0
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	117	%
Toluene-d8	102	%
Bromofluorobenzene	85	%

ND = Not Detected

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Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-21-6.25
LAB ID: 103992-0009-SA
Matrix: SOIL — Sampled: 04 JAN 94 — Received: 04 JAN 94
Authorized: 05 JAN 94 — Prepared: 07 JAN 94 — Analyzed: 07 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/kg	5.0
Methylene chloride	10		1.1	ug/kg	5.0
Acetone	ND		7.1	ug/kg	10
Trichlorofluoromethane	ND		0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	ND		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	TR		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	ND		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	TR		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0
tert-Butylbenzene	ND		0.55	ug/kg	5.0

ND = Not Detected

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(cont.)

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-21-6.25
LAB ID: 103992-0009-SA
Matrix: SOIL Sampled: 04 JAN 94 Received: 04 JAN 94
Authorized: 05 JAN 94 Prepared: 07 JAN 94 Analyzed: 07 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
1,2,4-Trimethylbenzene	ND		0.53	ug/kg	5.0
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	105	%
Toluene-d8	103	%
Bromofluorobenzene	94	%

ND = Not Detected

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Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-21-14.50
LAB ID: 103992-0010-SA
Matrix: SOIL Sampled: 04 JAN 94 Received: 04 JAN 94
Authorized: 05 JAN 94 Prepared: 07 JAN 94 Analyzed: 07 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/kg	5.0
Methylene chloride	TR	B	1.1	ug/kg	5.0
Acetone	ND		7.1	ug/kg	10
Trichlorofluoromethane	ND		0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	ND		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	ND		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	ND		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	ND		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0

B = Compound is also detected in the blank.
ND = Not Detected

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(Cont.)

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-21-14.50
LAB ID: 103992-0010-SA
Matrix: SOIL Sampled: 04 JAN 94 Received: 04 JAN 94
Authorized: 05 JAN 94 Prepared: 07 JAN 94 Analyzed: 07 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
tert-Butylbenzene	ND		0.55	ug/kg	5.0
1,2,4-Trimethylbenzene	ND		0.53	ug/kg	5.0
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	108	%
Toluene-d8	103	%
Bromofluorobenzene	93	%

ND = Not Detected

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Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-21-29.75
LAB ID: 103992-0011-SA
Matrix: SOIL Sampled: 04 JAN 94 Received: 04 JAN 94
Authorized: 05 JAN 94 Prepared: 10 JAN 94 Analyzed: 10 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/kg	5.0
Methylene chloride	TR	B	1.1	ug/kg	5.0
Acetone	ND		7.1	ug/kg	10
Trichlorofluoromethane	TR	B	0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	ND		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	ND		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	ND		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	ND		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0

B = Compound is also detected in the blank.
ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-21-29.75
LAB ID: 103992-0011-SA
Matrix: SOIL Sampled: 04 JAN 94 Received: 04 JAN 94
Authorized: 05 JAN 94 Prepared: 10 JAN 94 Analyzed: 10 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
tert-Butylbenzene	ND		0.55	ug/kg	5.0
1,2,4-Trimethylbenzene	ND		0.53	ug/kg	5.0
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	104	%
Toluene-d8	103	%
Bromofluorobenzene	99	%

ND = Not Detected

Enseco
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Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SVMW-33-9.75
LAB ID: 103992-0002-SA
Matrix: SOIL Sampled: 04 JAN 94 Received: 04 JAN 94
Authorized: 05 JAN 94 Prepared: 06 JAN 94 Analyzed: 07 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
N-Nitrosodiethylamine	ND		0.26	mg/kg	0.33
Phenol	ND		0.030	mg/kg	0.33
bis(2-Chloroethyl) ether	ND		0.060	mg/kg	0.33
2-Chlorophenol	ND		0.040	mg/kg	0.33
1,3-Dichlorobenzene	ND		0.030	mg/kg	0.33
1,4-Dichlorobenzene	ND		0.060	mg/kg	0.33
Benzyl alcohol	ND		0.070	mg/kg	0.33
1,2-Dichlorobenzene	ND		0.040	mg/kg	0.33
2-Methylphenol	ND		0.030	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND		0.040	mg/kg	0.33
3/4-Methylphenol	ND		0.040	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND		0.030	mg/kg	0.33
Hexachloroethane	ND		0.030	mg/kg	0.33
Nitrobenzene	ND		0.090	mg/kg	0.33
Isophorone	ND		0.040	mg/kg	0.33
2-Nitrophenol	ND		0.050	mg/kg	0.33
2,4-Dimethylphenol	ND		0.030	mg/kg	0.33
Benzoic acid	ND		0.51	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND		0.020	mg/kg	0.33
2,4-Dichlorophenol	ND		0.030	mg/kg	0.33
1,2,4-Trichlorobenzene	ND		0.040	mg/kg	0.33
Naphthalene	ND		0.030	mg/kg	0.33
4-Chloroaniline	ND		0.10	mg/kg	0.33
Hexachlorobutadiene	ND		0.040	mg/kg	0.33
4-Chloro-3-methylphenol	ND		0.040	mg/kg	0.33
2-Methylnaphthalene	ND		0.030	mg/kg	0.33
Hexachlorocyclopentadiene	ND		0.050	mg/kg	0.33
2,4,6-Trichlorophenol	ND		0.040	mg/kg	0.33
2,4,5-Trichlorophenol	ND		0.050	mg/kg	1.7
2-Chloronaphthalene	ND		0.030	mg/kg	0.33
2-Nitroaniline	ND		0.030	mg/kg	1.7
Dimethyl phthalate	ND		0.030	mg/kg	0.33
Acenaphthylene	ND		0.020	mg/kg	0.33
3-Nitroaniline	ND		0.14	mg/kg	1.7
Acenaphthene	ND		0.030	mg/kg	0.33
2,4-Dinitrophenol	ND		0.23	mg/kg	1.7
4-Nitrophenol	ND		0.25	mg/kg	1.7
Dibenzofuran	ND		0.040	mg/kg	0.33
2,4-Dinitrotoluene	ND		0.040	mg/kg	0.33
2,6-Dinitrotoluene	ND		0.050	mg/kg	0.33
Diethyl phthalate	ND		0.020	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND		0.030	mg/kg	0.33
Fluorene	ND		0.030	mg/kg	0.33
4-Nitroaniline	ND		0.18	mg/kg	1.7

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SVMW-33-9.75
LAB ID: 103992-0002-SA
Matrix: SOIL Sampled: 04 JAN 94 Received: 04 JAN 94
Authorized: 05 JAN 94 Prepared: 06 JAN 94 Analyzed: 07 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
4,6-Dinitro-2-methylphenol	ND		0.36	mg/kg	1.7
N-Nitrosodiphenylamine	ND		0.040	mg/kg	0.33
4-Bromophenyl phenyl ether	ND		0.080	mg/kg	0.33
Hexachlorobenzene	ND		0.030	mg/kg	0.33
Pentachlorophenol	ND		0.19	mg/kg	1.7
Phenanthrene	ND		0.030	mg/kg	0.33
Anthracene	ND		0.020	mg/kg	0.33
Di-n-butyl phthalate	ND		0.24	mg/kg	0.33
Fluoranthene	ND		0.030	mg/kg	0.33
Pyrene	ND		0.020	mg/kg	0.33
Butyl benzyl phthalate	ND		0.030	mg/kg	0.33
3,3'-Dichlorobenzidine	ND		0.33	mg/kg	0.66
Benzo(a)anthracene	ND		0.040	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND		0.13	mg/kg	0.33
Chrysene	ND		0.040	mg/kg	0.33
Di-n-octyl phthalate	ND		0.040	mg/kg	0.33
Benzo(b)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(k)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(a)pyrene	ND		0.040	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND		0.030	mg/kg	0.33
Dibenz(a,h)anthracene	ND		0.030	mg/kg	0.33
Benzo(g,h,i)perylene	ND		0.020	mg/kg	0.33
Xylidine (Total)	ND		0.076	mg/kg	0.33

Surrogate	Recovery	
Nitrobenzene-d5	63	%
2-Fluorobiphenyl	69	%
Terphenyl-d14	72	%
Phenol-d5	65	%
2-Fluorophenol	65	%
2,4,6-Tribromophenol	79	%

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SVMW-33-14.75
LAB ID: 103992-0003-SA
Matrix: SOIL Sampled: 04 JAN 94 Received: 04 JAN 94
Authorized: 05 JAN 94 Prepared: 06 JAN 94 Analyzed: 07 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
N-Nitrosodiethylamine	ND		0.26	mg/kg	0.33
Phenol	ND		0.030	mg/kg	0.33
bis(2-Chloroethyl) ether	ND		0.060	mg/kg	0.33
2-Chlorophenol	ND		0.040	mg/kg	0.33
1,3-Dichlorobenzene	ND		0.030	mg/kg	0.33
1,4-Dichlorobenzene	ND		0.060	mg/kg	0.33
Benzyl alcohol	ND		0.070	mg/kg	0.33
1,2-Dichlorobenzene	ND		0.040	mg/kg	0.33
2-Methylphenol	ND		0.030	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND		0.040	mg/kg	0.33
3/4-Methylphenol	ND		0.040	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND		0.030	mg/kg	0.33
Hexachloroethane	ND		0.030	mg/kg	0.33
Nitrobenzene	ND		0.090	mg/kg	0.33
Isophorone	ND		0.040	mg/kg	0.33
2-Nitrophenol	ND		0.050	mg/kg	0.33
2,4-Dimethylphenol	ND		0.030	mg/kg	0.33
Benzoic acid	ND		0.51	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND		0.020	mg/kg	0.33
2,4-Dichlorophenol	ND		0.030	mg/kg	0.33
1,2,4-Trichlorobenzene	ND		0.040	mg/kg	0.33
Naphthalene	ND		0.030	mg/kg	0.33
4-Chloroaniline	ND		0.10	mg/kg	0.33
Hexachlorobutadiene	ND		0.040	mg/kg	0.33
4-Chloro-3-methylphenol	ND		0.040	mg/kg	0.33
2-Methylnaphthalene	ND		0.030	mg/kg	0.33
Hexachlorocyclopentadiene	ND		0.050	mg/kg	0.33
2,4,6-Trichlorophenol	ND		0.040	mg/kg	0.33
2,4,5-Trichlorophenol	ND		0.050	mg/kg	1.7
2-Chloronaphthalene	ND		0.030	mg/kg	0.33
2-Nitroaniline	ND		0.030	mg/kg	1.7
Dimethyl phthalate	ND		0.030	mg/kg	0.33
Acenaphthylene	ND		0.020	mg/kg	0.33
3-Nitroaniline	ND		0.14	mg/kg	1.7
Acenaphthene	ND		0.030	mg/kg	0.33
2,4-Dinitrophenol	ND		0.23	mg/kg	1.7
4-Nitrophenol	ND		0.25	mg/kg	1.7
Dibenzofuran	ND		0.040	mg/kg	0.33
2,4-Dinitrotoluene	ND		0.040	mg/kg	0.33
2,6-Dinitrotoluene	ND		0.050	mg/kg	0.33
Diethyl phthalate	ND		0.020	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND		0.030	mg/kg	0.33
Fluorene	ND		0.030	mg/kg	0.33
4-Nitroaniline	ND		0.18	mg/kg	1.7

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SVMW-33-14.75
LAB ID: 103992-0003-SA
Matrix: SOIL Sampled: 04 JAN 94 Received: 04 JAN 94
Authorized: 05 JAN 94 Prepared: 06 JAN 94 Analyzed: 07 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
4,6-Dinitro-2-methylphenol	ND		0.36	mg/kg	1.7
N-Nitrosodiphenylamine	ND		0.040	mg/kg	0.33
4-Bromophenyl phenyl ether	ND		0.080	mg/kg	0.33
Hexachlorobenzene	ND		0.030	mg/kg	0.33
Pentachlorophenol	ND		0.19	mg/kg	1.7
Phenanthrene	ND		0.030	mg/kg	0.33
Anthracene	ND		0.020	mg/kg	0.33
Di-n-butyl phthalate	ND		0.24	mg/kg	0.33
Fluoranthene	ND		0.030	mg/kg	0.33
Pyrene	ND		0.020	mg/kg	0.33
Butyl benzyl phthalate	ND		0.030	mg/kg	0.33
3,3'-Dichlorobenzidine	ND		0.33	mg/kg	0.66
Benzo(a)anthracene	ND		0.040	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND		0.13	mg/kg	0.33
Chrysene	ND		0.040	mg/kg	0.33
Di-n-octyl phthalate	ND		0.040	mg/kg	0.33
Benzo(b)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(k)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(a)pyrene	ND		0.040	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND		0.030	mg/kg	0.33
Dibenz(a,h)anthracene	ND		0.030	mg/kg	0.33
Benzo(g,h,i)perylene	ND		0.020	mg/kg	0.33
Xylidine (Total)	ND		0.076	mg/kg	0.33

Surrogate	Recovery	
Nitrobenzene-d5	77	%
2-Fluorobiphenyl	72	%
Terphenyl-d14	80	%
Phenol-d5	64	%
2-Fluorophenol	62	%
2,4,6-Tribromophenol	68	%

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-13-20.00
LAB ID: 103992-0005-SA
Matrix: SOIL — Sampled: 04 JAN 94 — Received: 04 JAN 94
Authorized: 05 JAN 94 — Prepared: 06 JAN 94 — Analyzed: 07 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
N-Nitrosodiethylamine	ND		0.26	mg/kg	0.33
Phenol	ND		0.030	mg/kg	0.33
bis(2-Chloroethyl) ether	ND		0.060	mg/kg	0.33
2-Chlorophenol	ND		0.040	mg/kg	0.33
1,3-Dichlorobenzene	ND		0.030	mg/kg	0.33
1,4-Dichlorobenzene	ND		0.060	mg/kg	0.33
Benzyl alcohol	ND		0.070	mg/kg	0.33
1,2-Dichlorobenzene	ND		0.040	mg/kg	0.33
2-Methylphenol	ND		0.030	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND		0.040	mg/kg	0.33
3/4-Methylphenol	ND		0.040	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND		0.030	mg/kg	0.33
Hexachloroethane	ND		0.030	mg/kg	0.33
Nitrobenzene	ND		0.090	mg/kg	0.33
Isophorone	ND		0.040	mg/kg	0.33
2-Nitrophenol	ND		0.050	mg/kg	0.33
2,4-Dimethylphenol	ND		0.030	mg/kg	0.33
Benzoic acid	ND		0.51	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND		0.020	mg/kg	0.33
2,4-Dichlorophenol	ND		0.030	mg/kg	0.33
1,2,4-Trichlorobenzene	ND		0.040	mg/kg	0.33
Naphthalene	ND		0.030	mg/kg	0.33
4-Chloroaniline	ND		0.10	mg/kg	0.33
Hexachlorobutadiene	ND		0.040	mg/kg	0.33
4-Chloro-3-methylphenol	ND		0.040	mg/kg	0.33
2-Methylnaphthalene	ND		0.030	mg/kg	0.33
Hexachlorocyclopentadiene	ND		0.050	mg/kg	0.33
2,4,6-Trichlorophenol	ND		0.040	mg/kg	0.33
2,4,5-Trichlorophenol	ND		0.050	mg/kg	1.7
2-Chloronaphthalene	ND		0.030	mg/kg	0.33
2-Nitroaniline	ND		0.030	mg/kg	1.7
Dimethyl phthalate	ND		0.030	mg/kg	0.33
Acenaphthylene	ND		0.020	mg/kg	0.33
3-Nitroaniline	ND		0.14	mg/kg	1.7
Acenaphthene	ND		0.030	mg/kg	0.33
2,4-Dinitrophenol	ND		0.23	mg/kg	1.7
4-Nitrophenol	ND		0.25	mg/kg	1.7
Dibenzofuran	ND		0.040	mg/kg	0.33
2,4-Dinitrotoluene	ND		0.040	mg/kg	0.33
2,6-Dinitrotoluene	ND		0.050	mg/kg	0.33
Diethyl phthalate	ND		0.020	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND		0.030	mg/kg	0.33
Fluorene	ND		0.030	mg/kg	0.33
4-Nitroaniline	ND		0.18	mg/kg	1.7

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-13-20.00
LAB ID: 103992-0005-SA
Matrix: SOIL Sampled: 04 JAN 94 Received: 04 JAN 94
Authorized: 05 JAN 94 Prepared: 06 JAN 94 Analyzed: 07 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
4,6-Dinitro-2-methylphenol	ND		0.36	mg/kg	1.7
N-Nitrosodiphenylamine	ND		0.040	mg/kg	0.33
4-Bromophenyl phenyl ether	ND		0.080	mg/kg	0.33
Hexachlorobenzene	ND		0.030	mg/kg	0.33
Pentachlorophenol	ND		0.19	mg/kg	1.7
Phenanthrene	ND		0.030	mg/kg	0.33
Anthracene	ND		0.020	mg/kg	0.33
Di-n-butyl phthalate	ND		0.24	mg/kg	0.33
Fluoranthene	ND		0.030	mg/kg	0.33
Pyrene	ND		0.020	mg/kg	0.33
Butyl benzyl phthalate	ND		0.030	mg/kg	0.33
3,3'-Dichlorobenzidine	ND		0.33	mg/kg	0.66
Benzo(a)anthracene	ND		0.040	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND		0.13	mg/kg	0.33
Chrysene	ND		0.040	mg/kg	0.33
Di-n-octyl phthalate	ND		0.040	mg/kg	0.33
Benzo(b)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(k)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(a)pyrene	ND		0.040	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND		0.030	mg/kg	0.33
Dibenz(a,h)anthracene	ND		0.030	mg/kg	0.33
Benzo(g,h,i)perylene	ND		0.020	mg/kg	0.33
Xylidine (Total)	ND		0.076	mg/kg	0.33

Surrogate	Recovery	
Nitrobenzene-d5	70	%
2-Fluorobiphenyl	63	%
Terphenyl-d14	69	%
Phenol-d5	58	%
2-Fluorophenol	61	%
2,4,6-Tribromophenol	61	%

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-13-30.25
LAB ID: 103992-0006-SA
Matrix: SOIL Sampled: 04 JAN 94 Received: 04 JAN 94
Authorized: 05 JAN 94 Prepared: 06 JAN 94 Analyzed: 07 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
N-Nitrosodiethylamine	ND		0.26	mg/kg	0.33
Phenol	ND		0.030	mg/kg	0.33
bis(2-Chloroethyl) ether	ND		0.060	mg/kg	0.33
2-Chlorophenol	ND		0.040	mg/kg	0.33
1,3-Dichlorobenzene	ND		0.030	mg/kg	0.33
1,4-Dichlorobenzene	ND		0.060	mg/kg	0.33
Benzyl alcohol	ND		0.070	mg/kg	0.33
1,2-Dichlorobenzene	ND		0.040	mg/kg	0.33
2-Methylphenol	ND		0.030	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND		0.040	mg/kg	0.33
3/4-Methylphenol	ND		0.040	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND		0.030	mg/kg	0.33
Hexachloroethane	ND		0.030	mg/kg	0.33
Nitrobenzene	ND		0.090	mg/kg	0.33
Isophorone	ND		0.040	mg/kg	0.33
2-Nitrophenol	ND		0.050	mg/kg	0.33
2,4-Dimethylphenol	ND		0.030	mg/kg	0.33
Benzoic acid	ND		0.51	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND		0.020	mg/kg	0.33
2,4-Dichlorophenol	ND		0.030	mg/kg	0.33
1,2,4-Trichlorobenzene	ND		0.040	mg/kg	0.33
Naphthalene	ND		0.030	mg/kg	0.33
4-Chloroaniline	ND		0.10	mg/kg	0.33
Hexachlorobutadiene	ND		0.040	mg/kg	0.33
4-Chloro-3-methylphenol	ND		0.040	mg/kg	0.33
2-Methylnaphthalene	ND		0.030	mg/kg	0.33
Hexachlorocyclopentadiene	ND		0.050	mg/kg	0.33
2,4,6-Trichlorophenol	ND		0.040	mg/kg	0.33
2,4,5-Trichlorophenol	ND		0.050	mg/kg	1.7
2-Chloronaphthalene	ND		0.030	mg/kg	0.33
2-Nitroaniline	ND		0.030	mg/kg	1.7
Dimethyl phthalate	ND		0.030	mg/kg	0.33
Acenaphthylene	ND		0.020	mg/kg	0.33
3-Nitroaniline	ND		0.14	mg/kg	1.7
Acenaphthene	ND		0.030	mg/kg	0.33
2,4-Dinitrophenol	ND		0.23	mg/kg	1.7
4-Nitrophenol	ND		0.25	mg/kg	1.7
Dibenzofuran	ND		0.040	mg/kg	0.33
2,4-Dinitrotoluene	ND		0.040	mg/kg	0.33
2,6-Dinitrotoluene	ND		0.050	mg/kg	0.33
Diethyl phthalate	ND		0.020	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND		0.030	mg/kg	0.33
Fluorene	ND		0.030	mg/kg	0.33
4-Nitroaniline	ND		0.18	mg/kg	1.7

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-13-30.25
LAB ID: 103992-0006-SA
Matrix: SOIL Sampled: 04 JAN 94 Received: 04 JAN 94
Authorized: 05 JAN 94 Prepared: 06 JAN 94 Analyzed: 07 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
4,6-Dinitro-2-methylphenol	ND		0.36	mg/kg	1.7
N-Nitrosodiphenylamine	ND		0.040	mg/kg	0.33
4-Bromophenyl phenyl ether	ND		0.080	mg/kg	0.33
Hexachlorobenzene	ND		0.030	mg/kg	0.33
Pentachlorophenol	ND		0.19	mg/kg	1.7
Phenanthrene	ND		0.030	mg/kg	0.33
Anthracene	ND		0.020	mg/kg	0.33
Di-n-butyl phthalate	ND		0.24	mg/kg	0.33
Fluoranthene	ND		0.030	mg/kg	0.33
Pyrene	ND		0.020	mg/kg	0.33
Butyl benzyl phthalate	ND		0.030	mg/kg	0.33
3,3'-Dichlorobenzidine	ND		0.33	mg/kg	0.66
Benzo(a)anthracene	ND		0.040	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND		0.13	mg/kg	0.33
Chrysene	ND		0.040	mg/kg	0.33
Di-n-octyl phthalate	ND		0.040	mg/kg	0.33
Benzo(b)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(k)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(a)pyrene	ND		0.040	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND		0.030	mg/kg	0.33
Dibenz(a,h)anthracene	ND		0.030	mg/kg	0.33
Benzo(g,h,i)perylene	ND		0.020	mg/kg	0.33
Xylidine (Total)	ND		0.076	mg/kg	0.33

Surrogate	Recovery	
Nitrobenzene-d5	71	%
2-Fluorobiphenyl	69	%
Terphenyl-d14	71	%
Phenol-d5	60	%
2-Fluorophenol	67	%
2,4,6-Tribromophenol	66	%

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-13C-2.25
LAB ID: 103992-0007-SA
Matrix: SOIL Sampled: 04 JAN 94 Received: 04 JAN 94
Authorized: 05 JAN 94 Prepared: 06 JAN 94 Analyzed: 07 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
N-Nitrosodiethylamine	ND		0.26	mg/kg	0.33
Phenol	ND		0.030	mg/kg	0.33
bis(2-Chloroethyl) ether	ND		0.060	mg/kg	0.33
2-Chlorophenol	ND		0.040	mg/kg	0.33
1,3-Dichlorobenzene	ND		0.030	mg/kg	0.33
1,4-Dichlorobenzene	ND		0.060	mg/kg	0.33
Benzyl alcohol	ND		0.070	mg/kg	0.33
1,2-Dichlorobenzene	ND		0.040	mg/kg	0.33
2-Methylphenol	ND		0.030	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND		0.040	mg/kg	0.33
3/4-Methylphenol	ND		0.040	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND		0.030	mg/kg	0.33
Hexachloroethane	ND		0.030	mg/kg	0.33
Nitrobenzene	ND		0.090	mg/kg	0.33
Isophorone	ND		0.040	mg/kg	0.33
2-Nitrophenol	ND		0.050	mg/kg	0.33
2,4-Dimethylphenol	ND		0.030	mg/kg	0.33
Benzoic acid	ND		0.51	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND		0.020	mg/kg	0.33
2,4-Dichlorophenol	ND		0.030	mg/kg	0.33
1,2,4-Trichlorobenzene	ND		0.040	mg/kg	0.33
Naphthalene	ND		0.030	mg/kg	0.33
4-Chloroaniline	ND		0.10	mg/kg	0.33
Hexachlorobutadiene	ND		0.040	mg/kg	0.33
4-Chloro-3-methylphenol	ND		0.040	mg/kg	0.33
2-Methylnaphthalene	ND		0.030	mg/kg	0.33
Hexachlorocyclopentadiene	ND		0.050	mg/kg	0.33
2,4,6-Trichlorophenol	ND		0.040	mg/kg	0.33
2,4,5-Trichlorophenol	ND		0.050	mg/kg	1.7
2-Chloronaphthalene	ND		0.030	mg/kg	0.33
2-Nitroaniline	ND		0.030	mg/kg	1.7
Dimethyl phthalate	ND		0.030	mg/kg	0.33
Acenaphthylene	ND		0.020	mg/kg	0.33
3-Nitroaniline	ND		0.14	mg/kg	1.7
Acenaphthene	ND		0.030	mg/kg	0.33
2,4-Dinitrophenol	ND		0.23	mg/kg	1.7
4-Nitrophenol	ND		0.25	mg/kg	1.7
Dibenzofuran	ND		0.040	mg/kg	0.33
2,4-Dinitrotoluene	ND		0.040	mg/kg	0.33
2,6-Dinitrotoluene	ND		0.050	mg/kg	0.33
Diethyl phthalate	ND		0.020	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND		0.030	mg/kg	0.33
Fluorene	ND		0.030	mg/kg	0.33
4-Nitroaniline	ND		0.18	mg/kg	1.7

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-13C-2.25
LAB ID: 103992-0007-SA
Matrix: SOIL Sampled: 04 JAN 94 Received: 04 JAN 94
Authorized: 05 JAN 94 Prepared: 06 JAN 94 Analyzed: 07 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
4,6-Dinitro-2-methylphenol	ND		0.36	mg/kg	1.7
N-Nitrosodiphenylamine	ND		0.040	mg/kg	0.33
4-Bromophenyl phenyl ether	ND		0.080	mg/kg	0.33
Hexachlorobenzene	ND		0.030	mg/kg	0.33
Pentachlorophenol	ND		0.19	mg/kg	1.7
Phenanthrene	ND		0.030	mg/kg	0.33
Anthracene	ND		0.020	mg/kg	0.33
Di-n-butyl phthalate	ND		0.24	mg/kg	0.33
Fluoranthene	ND		0.030	mg/kg	0.33
Pyrene	ND		0.020	mg/kg	0.33
Butyl benzyl phthalate	ND		0.030	mg/kg	0.33
3,3'-Dichlorobenzidine	ND		0.33	mg/kg	0.66
Benzo(a)anthracene	ND		0.040	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND		0.13	mg/kg	0.33
Chrysene	ND		0.040	mg/kg	0.33
Di-n-octyl phthalate	ND		0.040	mg/kg	0.33
Benzo(b)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(k)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(a)pyrene	ND		0.040	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND		0.030	mg/kg	0.33
Dibenz(a,h)anthracene	ND		0.030	mg/kg	0.33
Benzo(g,h,i)perylene	ND		0.020	mg/kg	0.33
Xylidine (Total)	ND		0.076	mg/kg	0.33

Surrogate	Recovery	
Nitrobenzene-d5	63	%
2-Fluorobiphenyl	72	%
Terphenyl-d14	69	%
Phenol-d5	61	%
2-Fluorophenol	58	%
2,4,6-Tribromophenol	78	%

ND = Not Detected

QC LOT ASSIGNMENT REPORT - MS QC
Metals Analysis and Preparation

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
103992-0001-SA	SOLID	AL-FLAA-S	06 JAN 94-C	06 JAN 94-C	06 JAN 94-CA
103992-0001-SA	SOLID	AS-HAA-S	06 JAN 94-C	06 JAN 94-C	06 JAN 94-CA
103992-0001-SA	SOLID	CD-FLAA-S	06 JAN 94-C	06 JAN 94-C	06 JAN 94-CA
103992-0001-SA	SOLID	CR-FLAA-S	06 JAN 94-C	06 JAN 94-C	06 JAN 94-CA
103992-0001-SA	SOLID	MN-FLAA-S	06 JAN 93-C	06 JAN 94-C	06 JAN 94-CA
103992-0001-SA	SOLID	NI-FLAA-S	06 JAN 94-C	06 JAN 94-C	06 JAN 94-CA
103992-0001-SA	SOLID	PB-FLAA-S	06 JAN 94-C	06 JAN 94-C	06 JAN 94-CA
103992-0001-SA	SOLID	CU-FLAA-S	06 JAN 94-C	06 JAN 94-C	06 JAN 94-CA
103992-0001-SA	SOLID	ZN-FLAA-S	06 JAN 94-C	06 JAN 94-C	06 JAN 94-CA
103992-0001-SA	SOLID	BA-FLAA-S	06 JAN 94-C	06 JAN 94-C	06 JAN 94-CA
103992-0001-SA	SOLID	HG-CVAA-S	06 JAN 94-D	06 JAN 94-D	06 JAN 94-DC
103992-0004-SA	SOLID	AL-FLAA-S	06 JAN 94-C	06 JAN 94-C	06 JAN 94-CA
103992-0004-SA	SOLID	AS-HAA-S	06 JAN 94-C	06 JAN 94-C	06 JAN 94-CA
103992-0004-SA	SOLID	CD-FLAA-S	06 JAN 94-C	06 JAN 94-C	06 JAN 94-CA
103992-0004-SA	SOLID	CR-FLAA-S	06 JAN 94-C	06 JAN 94-C	06 JAN 94-CA
103992-0004-SA	SOLID	MN-FLAA-S	06 JAN 93-C	06 JAN 94-C	06 JAN 94-CA
103992-0004-SA	SOLID	NI-FLAA-S	06 JAN 94-C	06 JAN 94-C	06 JAN 94-CA
103992-0004-SA	SOLID	PB-FLAA-S	06 JAN 94-C	06 JAN 94-C	06 JAN 94-CA
103992-0004-SA	SOLID	CU-FLAA-S	06 JAN 94-C	06 JAN 94-C	06 JAN 94-CA
103992-0004-SA	SOLID	ZN-FLAA-S	06 JAN 94-C	06 JAN 94-C	06 JAN 94-CA
103992-0004-SA	SOLID	BA-FLAA-S	06 JAN 94-C	06 JAN 94-C	06 JAN 94-CA
103992-0004-SA	SOLID	HG-CVAA-S	06 JAN 94-D	06 JAN 94-D	06 JAN 94-DC
103992-0008-SA	SOLID	AL-FLAA-S	06 JAN 94-C	06 JAN 94-C	06 JAN 94-CA
103992-0008-SA	SOLID	AS-HAA-S	06 JAN 94-C	06 JAN 94-C	06 JAN 94-CA
103992-0008-SA	SOLID	CD-FLAA-S	06 JAN 94-C	06 JAN 94-C	06 JAN 94-CA
103992-0008-SA	SOLID	CR-FLAA-S	06 JAN 94-C	06 JAN 94-C	06 JAN 94-CA
103992-0008-SA	SOLID	MN-FLAA-S	06 JAN 93-C	06 JAN 94-C	06 JAN 94-CA
103992-0008-SA	SOLID	NI-FLAA-S	06 JAN 94-C	06 JAN 94-C	06 JAN 94-CA
103992-0008-SA	SOLID	PB-FLAA-S	06 JAN 94-C	06 JAN 94-C	06 JAN 94-CA
103992-0008-SA	SOLID	CU-FLAA-S	06 JAN 94-C	06 JAN 94-C	06 JAN 94-CA
103992-0008-SA	SOLID	ZN-FLAA-S	06 JAN 94-C	06 JAN 94-C	06 JAN 94-CA
103992-0008-SA	SOLID	BA-FLAA-S	06 JAN 94-C	06 JAN 94-C	06 JAN 94-CA
103992-0008-SA	SOLID	HG-CVAA-S	06 JAN 94-D	06 JAN 94-D	06 JAN 94-DC

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DUPLICATE CONTROL SAMPLE REPORT
Metals Analysis and Preparation
Project: 103992

Category: AL-FLAA-S Aluminum, Flame AA
Matrix: SOLID
QC Lot: 06 JAN 94-C
Date Analyzed: 09 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Aluminum	10700	9160	10600	9880	92	47-153	15	20

Category: AS-HAA-S Arsenic, Hydride AA
Matrix: SOLID
QC Lot: 06 JAN 94-C
Date Analyzed: 10 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Arsenic	145	135	141	138	95	59-141	4.3	20

Category: CD-FLAA-S Cadmium, Flame AA
Matrix: SOLID
QC Lot: 06 JAN 94-C
Date Analyzed: 06 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Cadmium	154	160	162	161	105	68-132	1.2	20

Category: CR-FLAA-S Chromium, Flame AA
Matrix: SOLID
QC Lot: 06 JAN 94-C
Date Analyzed: 06 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Chromium	151	130	118	124	82	66-133	9.7	20

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

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DUPLICATE CONTROL SAMPLE REPORT
Metals Analysis and Preparation
Project: 103992

Category: MN-FLAA-S Manganese, Flame AA Method 7460
Matrix: SOLID
QC Lot: 06 JAN 93-C
Date Analyzed: 09 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Manganese	423	386	362	374	88	74-125	6.4	20

Category: NI-FLAA-S Nickel Flame AA
Matrix: SOLID
QC Lot: 06 JAN 94-C
Date Analyzed: 06 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Nickel	166	181	175	178	107	67-133	3.4	20

Category: PB-FLAA-S Method 7420 - Lead, Flame AA
Matrix: SOLID
QC Lot: 06 JAN 94-C
Date Analyzed: 06 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Lead	148	149	142	146	98	66-135	4.8	20

Category: CU-FLAA-S Copper Flame AA
Matrix: SOLID
QC Lot: 06 JAN 94-C
Date Analyzed: 06 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Copper	162	156	148	152	94	68-132	5.3	20

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

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DUPLICATE CONTROL SAMPLE REPORT
Metals Analysis and Preparation
Project: 103992

Category: ZN-FLAA-S Zinc, Flame AA
Matrix: SOLID
QC Lot: 06 JAN 94-C
Date Analyzed: 06 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Zinc	530	531	521	526	99	65-135	1.9	20

Category: BA-FLAA-S Barium, Flame AA
Matrix: SOLID
QC Lot: 06 JAN 94-C
Date Analyzed: 10 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Barium	503	419	404	412	82	76-124	3.6	20

Category: HG-CVAA-S Mercury by CVAA
Matrix: SOLID
QC Lot: 06 JAN 94-D
Date Analyzed: 10 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Mercury	29.0	26.8	28.1	27.4	95	52-148	4.7	20

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Metals Analysis and Preparation
Project: 103992

Category: AL-FLAA-S Aluminum, Flame AA
Matrix: SOLID
Sample: 103992-0001
MS Run: 06 JAN 94-CA
Units: mg/kg

Analyte	Concentration Sample Result	MS Result	MSD Result	Amount Spiked MS/MSD	%Recovery MS	MSD	%RPD	Acceptance Limit Recov.	RPD
Aluminum	4080	4660	4390	200	NC	NC	NC	60-130	20

Category: AS-HAA-S Arsenic, Hydride AA
Matrix: SOLID
Sample: 103992-0001
MS Run: 06 JAN 94-CA
Units mg/kg Units Qualifier: Wet wt.

Analyte	Concentration Sample Result	MS Result	MSD Result	Amount Spiked MS/MSD	%Recovery MS	MSD	%RPD	Acceptance Limit Recov.	RPD
Arsenic	37.6	74.1	70.2	50.0	73	65	12	50-127	25

Category: CD-FLAA-S Cadmium, Flame AA
Matrix: SOLID
Sample: 103992-0001
MS Run: 06 JAN 94-CA
Units: mg/kg

Analyte	Concentration Sample Result	MS Result	MSD Result	Amount Spiked MS/MSD	%Recovery MS	MSD	%RPD	Acceptance Limit Recov.	RPD
Cadmium	ND	ND	ND	5.00	NC	NC	NC	52-130	28

NC = Not Calculated, calculation not applicable.
ND = Not Detected

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Metals Analysis and Preparation
Project: 103992 (cont.)

Category: CR-FLAA-S Chromium, Flame AA
Matrix: SOLID
Sample: 103992-0001
MS Run: 06 JAN 94-CA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Chromium	13.6	29.4	34.7	20.0	79	106	29	40-190	33

Category: MN-FLAA-S Manganese, Flame AA Method 7460
Matrix: SOLID
Sample: 103992-0001
MS Run: 06 JAN 94-CA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Manganese	224	250	257	50.0	NC	NC	NC	60-130	40

Category: NI-FLAA-S Nickel Flame AA
Matrix: SOLID
Sample: 103992-0001
MS Run: 06 JAN 94-CA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Nickel	12.0	63.0	69.0	50.0	102	114	11	55-155	25

NC = Not Calculated, calculation not applicable.

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Metals Analysis and Preparation
Project: 103992 (cont.)

Category: PB-FLAA-S Method 7420 - Lead, Flame AA
Matrix: SOLID
Sample: 103992-0001
MS Run: 06 JAN 94-CA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Lead	ND	50.0	50.0	50.0	100	100	0.0	14-169	40

Category: CU-FLAA-S Copper Flame AA
Matrix: SOLID
Sample: 103992-0001
MS Run: 06 JAN 94-CA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Copper	16.0	40.0	38.0	25.0	96	88	8.7	49-144	23

Category: ZN-FLAA-S Zinc, Flame AA
Matrix: SOLID
Sample: 103992-0001
MS Run: 06 JAN 94-CA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Zinc	36.2	80.5	79.9	50.0	89	87	2.3	65-138	25

ND = Not Detected

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Metals Analysis and Preparation
Project: 103992 (cont.)

Category: BA-FLAA-S Barium, Flame AA
Matrix: SOLID
Sample: 103992-0001
MS Run: 06 JAN 94-CA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Barium	78.0	216	212	200	69	67	2.9	40-130	30

Category: HG-CVAA-S Mercury by CVAA
Matrix: SOLID
Sample: 103992-0001
MS Run: 06 JAN 94-DC
Units mg/kg Units Qualifier: Wet wt.

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Mercury	ND	0.486	0.486	0.438	111	111	0.0	33-178	40

ND = Not Detected

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

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METHOD BLANK REPORT
Metals Analysis and Preparation
Project: 103992

Test: AL-FLAA-MDL-S Method 7020 - Aluminum, Flame AA
Matrix: SOLID
QC Run: 06 JAN 94-C Date Analyzed: 09 JAN 94

Analyte	Result	Units	Reporting Limit
Aluminum	ND	mg/kg	100

Test: AS-HAA-MDL-S Method 7062 - Arsenic, Hydride AA
Matrix: SOLID
QC Run: 06 JAN 94-C Date Analyzed: 10 JAN 94

Analyte	Result	Units	Reporting Limit
Arsenic	ND	mg/kg	0.50

Test: CD-FLAA-MDL-S Method 7130 - Cadmium, Flame AA
Matrix: SOLID
QC Run: 06 JAN 94-C Date Analyzed: 06 JAN 94

Analyte	Result	Units	Reporting Limit
Cadmium	ND	mg/kg	5.0

Test: CR-FLAA-MDL-S Method 7190 - Chromium, Flame AA
Matrix: SOLID
QC Run: 06 JAN 94-C Date Analyzed: 06 JAN 94

Analyte	Result	Units	Reporting Limit
Chromium	ND	mg/kg	10.0

Test: MN-FLAA-MDL-S Manganese, Flame AA
Matrix: SOLID
QC Run: 06 JAN 94-C Date Analyzed: 09 JAN 94

Analyte	Result	Units	Reporting Limit
Manganese	ND	mg/kg	5.0

ND = Not Detected

METHOD BLANK REPORT
Metals Analysis and Preparation (cont.)
Project: 103992

Test: NI-FLAA-MDL-S Method 7520 - Nickel, Flame AA
Matrix: SOLID
QC Run: 06 JAN 94-C Date Analyzed: 06 JAN 94

Analyte	Result	Units	Reporting Limit
Nickel	ND	mg/kg	10.0

Test: PB-FLAA-MDL-S Method 7420 - Lead, FLame AA
Matrix: SOLID
QC Run: 06 JAN 94-C Date Analyzed: 06 JAN 94

Analyte	Result	Units	Reporting Limit
Lead	ND	mg/kg	20.0

Test: CU-FLAA-MDL-S Method 7210 - Copper, Flame AA
Matrix: SOLID
QC Run: 06 JAN 94-C Date Analyzed: 06 JAN 94

Analyte	Result	Units	Reporting Limit
Copper	ND	mg/kg	10.0

Test: ZN-FLAA-MDL-S Method 7950 - Zinc, Flame AA
Matrix: SOLID
QC Run: 06 JAN 94-C Date Analyzed: 06 JAN 94

Analyte	Result	Units	Reporting Limit
Zinc	ND	mg/kg	2.0

Test: BA-FLAA-MDL-S Method 7080 - Barium, Flame AA
Matrix: SOLID
QC Run: 06 JAN 94-C Date Analyzed: 10 JAN 94

Analyte	Result	Units	Reporting Limit
Barium	ND	mg/kg	50.0

ND = Not Detected

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METHOD BLANK REPORT
Metals Analysis and Preparation (cont.)
Project: 103992

Test: HG-CVAA-MDL-S Method 7471 - Mercury, Cold Vapor AA
Matrix: SOLID
QC Run: 06 JAN 94-D Date Analyzed: 10 JAN 94

Analyte	Result	Units	Reporting Limit
Mercury	ND	mg/kg	0.10

ND = Not Detected

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QC LOT ASSIGNMENT REPORT - MS QC
Wet Chemistry Analysis and Preparation

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
103992-0001-SA	SOLID	CN-S	11 JAN 94-A	11 JAN 94-A	11 JAN 94-AA
103992-0004-SA	SOLID	CN-S	11 JAN 94-A	11 JAN 94-A	11 JAN 94-AA
103992-0008-SA	SOLID	CN-S	11 JAN 94-A	11 JAN 94-A	11 JAN 94-AA

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DUPLICATE CONTROL SAMPLE REPORT
Wet Chemistry Analysis and Preparation
Project: 103992

Category: CN-S Cyanide (9012) SOLID
Matrix: SOLID
QC Lot: 11 JAN 94-A Date Analyzed: 13 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Cyanide, Total	5.00	4.80	4.35	4.58	92	70-123	9.8	21

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Wet Chemistry Analysis and Preparation
Project: 103992

Category: CN-S Cyanide (9012) SOLID
Matrix: SOLID
Sample: 103992-0001
MS Run: 11 JAN 94-AA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Cyanide, Total	ND	4.25	4.65	5.00	85	93	9.0	41-159	48

ND = Not Detected

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

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METHOD BLANK REPORT
Wet Chemistry Analysis and Preparation
Project: 103992

Test: CN-MDL-S Method 9012 - Cyanide, Total
Matrix: SOLID
QC Run: 11 JAN 94-A Date Analyzed: 13 JAN 94

Analyte	Result	Units	Reporting Limit
Cyanide, Total	ND	mg/kg	0.50

ND = Not Detected

QC LOT ASSIGNMENT REPORT - MS QC
Volatile Organics by GC/MS

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
103992-0002-SA	SOLID	8240-S	05 JAN 94-AF	06 JAN 94-BF	06 JAN 94-BF
103992-0003-SA	SOLID	8240-S	05 JAN 94-AF	06 JAN 94-BF	06 JAN 94-BF
103992-0005-SA	SOLID	8240-S	05 JAN 94-AF	06 JAN 94-BF	06 JAN 94-BF
103992-0006-SA	SOLID	8240-S	05 JAN 94-AF	06 JAN 94-BF	06 JAN 94-BF
103992-0007-SA	SOLID	8240-S	05 JAN 94-AF	06 JAN 94-BF	06 JAN 94-BF
103992-0009-SA	SOLID	8240-S	05 JAN 94-AF	07 JAN 94-AF	06 JAN 94-BF
103992-0010-SA	SOLID	8240-S	05 JAN 94-AF	06 JAN 94-BF	06 JAN 94-BF
103992-0011-SA	SOLID	8240-S	05 JAN 94-AF	10 JAN 94-BF	06 JAN 94-BF

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DUPLICATE CONTROL SAMPLE REPORT
Volatile Organics by GC/MS
Project: 103992

Category: 8240-S Volatile Organics
Matrix: SOLID
QC Lot: 05 JAN 94-AF
Date Analyzed: 05 JAN 94
Concentration Units: ug/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
1,1-Dichloroethene	50.0	36.1	36.2	36.2	72	50-121	0.28	31
Trichloroethene	50.0	51.6	51.7	51.6	103	69-114	0.19	17
Benzene	50.0	52.4	53.0	52.7	105	78-117	1.1	16
Toluene	50.0	55.8	56.2	56.0	112	79-118	0.71	17
Chlorobenzene	50.0	54.6	55.2	54.9	110	79-119	1.1	17

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

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SINGLE CONTROL SAMPLE REPORT
Volatile Organics by GC/MS
Project: 103992

Category: 8240-S Volatile Organics
Matrix: SOLID
QC Run: 10 JAN 94-BF Date Analyzed: 10 JAN 94
Concentration Units: ug/kg

Analyte	Concentration Spiked	Concentration Measured	Accuracy(%) SCS	Accuracy(%) Limits
1,2-Dichloroethane-d4	50.0	49.1	98	70-121
Toluene-d8	50.0	49.8	100	81-117
Bromofluorobenzene	50.0	49.1	98	74-121

Category: 8240-S Volatile Organics
Matrix: SOLID
QC Run: 07 JAN 94-AF Date Analyzed: 07 JAN 94
Concentration Units: ug/kg

Analyte	Concentration Spiked	Concentration Measured	Accuracy(%) SCS	Accuracy(%) Limits
1,2-Dichloroethane-d4	50.0	50.5	101	70-121
Toluene-d8	50.0	52.7	105	81-117
Bromofluorobenzene	50.0	51.1	102	74-121

Category: 8240-S Volatile Organics
Matrix: SOLID
QC Run: 06 JAN 94-BF Date Analyzed: 06 JAN 94
Concentration Units: ug/kg

Analyte	Concentration Spiked	Concentration Measured	Accuracy(%) SCS	Accuracy(%) Limits
1,2-Dichloroethane-d4	50.0	51.8	104	70-121
Toluene-d8	50.0	53.0	106	81-117
Bromofluorobenzene	50.0	51.5	103	74-121

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Volatile Organics by GC/MS
Project: 103992

Category: 8240-S Volatile Organics
Matrix: SOLID
Sample: 103992-0002
MS Run: 06 JAN 94-BF
Units: ug/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
1,1-Dichloroethene	ND	32.9	31.3	50.0	66	63	4.7	46-136	28
Trichloroethene	ND	45.1	40.1	50.0	90	80	12	58-131	26
Benzene	ND	49.2	44.7	50.0	98	89	9.7	63-139	23
Toluene	ND	48.8	43.6	50.0	98	87	12	68-140	24
Chlorobenzene	ND	49.4	44.4	50.0	99	89	11	68-138	23

ND = Not Detected

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

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METHOD BLANK REPORT
Volatile Organics by GC/MS
Project: 103992

Test: 8240-HLA-S Method 8240 - Volatile Organics, EPA 8240 Extended List
Matrix: SOLID
QC Run: 06 JAN 94-BF Date Analyzed: 06 JAN 94

Analyte	Result	Units	Reporting Limit
Dichlorodifluoromethane	ND	ug/kg	10
Chloromethane	ND	ug/kg	10
Bromomethane	ND	ug/kg	10
Vinyl chloride	ND	ug/kg	10
Chloroethane	ND	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/kg	5.0
Methylene chloride	TR	ug/kg	5.0
Acetone	ND	ug/kg	10
Trichlorofluoromethane	ND	ug/kg	5.0
1,1-Dichloroethene	ND	ug/kg	5.0
Nitromethane	ND	ug/kg	200
trans-1,2-Dichloroethene	ND	ug/kg	5.0
cis-1,2-Dichloroethene	ND	ug/kg	5.0
1,1-Dichloroethane	ND	ug/kg	5.0
2,2-Dichloropropane	ND	ug/kg	5.0
Bromochloromethane	ND	ug/kg	5.0
Chloroform	ND	ug/kg	5.0
1,1-Dichloropropene	ND	ug/kg	5.0
1,2-Dichloroethane	ND	ug/kg	5.0
Dibromomethane	ND	ug/kg	5.0
1,1,1-Trichloroethane	ND	ug/kg	5.0
Carbon tetrachloride	ND	ug/kg	5.0
Bromodichloromethane	ND	ug/kg	5.0
1,2-Dichloropropane	ND	ug/kg	5.0
1,3-Dichloropropane	ND	ug/kg	5.0
Trichloroethene	ND	ug/kg	5.0
Dibromochloromethane	ND	ug/kg	5.0
1,1,2-Trichloroethane	ND	ug/kg	5.0
Benzene	ND	ug/kg	5.0
Bromoform	ND	ug/kg	5.0
Tetrachloroethene	ND	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.0
Toluene	ND	ug/kg	5.0
Chlorobenzene	ND	ug/kg	5.0
Ethylbenzene	ND	ug/kg	5.0
Styrene	ND	ug/kg	5.0
Xylenes (total)	ND	ug/kg	5.0
1-Methylethylbenzene	ND	ug/kg	5.0
Bromobenzene	ND	ug/kg	5.0
1,2,3-Trichloropropane	ND	ug/kg	5.0
2-Chlorotoluene	ND	ug/kg	5.0
n-Propyl benzene	ND	ug/kg	5.0
1,3,5-Trimethylbenzene	ND	ug/kg	5.0

ND = Not Detected

Enseco
A Corning Company

METHOD BLANK REPORT
Volatile Organics by GC/MS (cont.)
Project: 103992

Test: 8240-HLA-S Method 8240 - Volatile Organics, EPA 8240 Extended List
Matrix: SOLID
QC Run: 06 JAN 94-BF Date Analyzed: 06 JAN 94

Analyte	Result	Units	Reporting Limit
4-Chlorotoluene	ND	ug/kg	5.0
tert-Butylbenzene	ND	ug/kg	5.0
1,2,4-Trimethylbenzene	ND	ug/kg	5.0
sec-Butylbenzene	ND	ug/kg	5.0
Isopropyltoluene	ND	ug/kg	5.0
1,3-Dichlorobenzene	ND	ug/kg	5.0
1,4-Dichlorobenzene	ND	ug/kg	5.0
n-Butylbenzene	ND	ug/kg	5.0
1,2-Dichlorobenzene	ND	ug/kg	5.0
1,2,4-Trichlorobenzene	ND	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND	ug/kg	5.0
Hexachlorobutadiene	ND	ug/kg	5.0
Naphthalene	ND	ug/kg	5.0
1,2,3-Trichlorobenzene	ND	ug/kg	5.0

ND = Not Detected

Enseco
A Corning Company

METHOD BLANK REPORT
Volatile Organics by GC/MS (cont.)
Project: 103992

Test: 8240-HLA-S Method 8240 - Volatile Organics, EPA 8240 Extended List
Matrix: SOLID

QC Run: 07 JAN 94-AF Date Analyzed: 07 JAN 94

Analyte	Result	Units	Reporting Limit
Dichlorodifluoromethane	ND	ug/kg	10
Chloromethane	ND	ug/kg	10
Bromomethane	ND	ug/kg	10
Vinyl chloride	ND	ug/kg	10
Chloroethane	ND	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/kg	5.0
Methylene chloride	ND	ug/kg	5.0
Acetone	ND	ug/kg	10
Trichlorofluoromethane	ND	ug/kg	5.0
1,1-Dichloroethene	ND	ug/kg	5.0
Nitromethane	ND	ug/kg	200
trans-1,2-Dichloroethene	ND	ug/kg	5.0
cis-1,2-Dichloroethene	ND	ug/kg	5.0
1,1-Dichloroethane	ND	ug/kg	5.0
2,2-Dichloropropane	ND	ug/kg	5.0
Bromochloromethane	ND	ug/kg	5.0
Chloroform	ND	ug/kg	5.0
1,1-Dichloropropene	ND	ug/kg	5.0
1,2-Dichloroethane	ND	ug/kg	5.0
Dibromomethane	ND	ug/kg	5.0
1,1,1-Trichloroethane	ND	ug/kg	5.0
Carbon tetrachloride	ND	ug/kg	5.0
Bromodichloromethane	ND	ug/kg	5.0
1,2-Dichloropropane	ND	ug/kg	5.0
1,3-Dichloropropane	ND	ug/kg	5.0
Trichloroethene	ND	ug/kg	5.0
Dibromochloromethane	ND	ug/kg	5.0
1,1,2-Trichloroethane	ND	ug/kg	5.0
Benzene	ND	ug/kg	5.0
Bromoform	ND	ug/kg	5.0
Tetrachloroethene	ND	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.0
Toluene	ND	ug/kg	5.0
Chlorobenzene	ND	ug/kg	5.0
Ethylbenzene	ND	ug/kg	5.0
Styrene	ND	ug/kg	5.0
Xylenes (total)	ND	ug/kg	5.0
1-Methylethylbenzene	ND	ug/kg	5.0
Bromobenzene	ND	ug/kg	5.0
1,2,3-Trichloropropane	ND	ug/kg	5.0
2-Chlorotoluene	ND	ug/kg	5.0
n-Propyl benzene	ND	ug/kg	5.0

ND = Not Detected

Enseco
A Corning Company

METHOD BLANK REPORT
Volatile Organics by GC/MS (cont.)
Project: 103992

Test: 8240-HLA-S Method 8240 - Volatile Organics, EPA 8240 Extended List
Matrix: SOLID

QC Run: 07 JAN 94-AF Date Analyzed: 07 JAN 94

Analyte	Result	Units	Reporting Limit
1,3,5-Trimethylbenzene	ND	ug/kg	5.0
4-Chlorotoluene	ND	ug/kg	5.0
tert-Butylbenzene	ND	ug/kg	5.0
1,2,4-Trimethylbenzene	ND	ug/kg	5.0
sec-Butylbenzene	ND	ug/kg	5.0
Isopropyltoluene	ND	ug/kg	5.0
1,3-Dichlorobenzene	ND	ug/kg	5.0
1,4-Dichlorobenzene	ND	ug/kg	5.0
n-Butylbenzene	ND	ug/kg	5.0
1,2-Dichlorobenzene	ND	ug/kg	5.0
1,2,4-Trichlorobenzene	ND	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND	ug/kg	5.0
Hexachlorobutadiene	ND	ug/kg	5.0
Naphthalene	ND	ug/kg	5.0
1,2,3-Trichlorobenzene	ND	ug/kg	5.0

ND = Not Detected

METHOD BLANK REPORT
Volatile Organics by GC/MS (cont.)
Project: 103992

Test: 8240-HLA-S Method 8240 - Volatile Organics, EPA 8240 Extended List
Matrix: SOLID

QC Run: 10 JAN 94-BF Date Analyzed: 10 JAN 94

Analyte	Result	Units	Reporting Limit
Dichlorodifluoromethane	ND	ug/kg	10
Chloromethane	ND	ug/kg	10
Bromomethane	ND	ug/kg	10
Vinyl chloride	ND	ug/kg	10
Chloroethane	ND	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/kg	5.0
Methylene chloride	TR	ug/kg	5.0
Acetone	ND	ug/kg	10
Trichlorofluoromethane	TR	ug/kg	5.0
1,1-Dichloroethene	ND	ug/kg	5.0
Nitromethane	ND	ug/kg	200
trans-1,2-Dichloroethene	ND	ug/kg	5.0
cis-1,2-Dichloroethene	ND	ug/kg	5.0
1,1-Dichloroethane	ND	ug/kg	5.0
2,2-Dichloropropane	ND	ug/kg	5.0
Bromochloromethane	ND	ug/kg	5.0
Chloroform	ND	ug/kg	5.0
1,1-Dichloropropene	ND	ug/kg	5.0
1,2-Dichloroethane	ND	ug/kg	5.0
Dibromomethane	ND	ug/kg	5.0
1,1,1-Trichloroethane	ND	ug/kg	5.0
Carbon tetrachloride	ND	ug/kg	5.0
Bromodichloromethane	ND	ug/kg	5.0
1,2-Dichloropropane	ND	ug/kg	5.0
1,3-Dichloropropane	ND	ug/kg	5.0
Trichloroethene	ND	ug/kg	5.0
Dibromochloromethane	ND	ug/kg	5.0
1,1,2-Trichloroethane	ND	ug/kg	5.0
Benzene	ND	ug/kg	5.0
Bromoform	ND	ug/kg	5.0
Tetrachloroethene	ND	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.0
Toluene	ND	ug/kg	5.0
Chlorobenzene	ND	ug/kg	5.0
Ethylbenzene	ND	ug/kg	5.0
Styrene	ND	ug/kg	5.0
Xylenes (total)	ND	ug/kg	5.0
1-Methylethylbenzene	ND	ug/kg	5.0
Bromobenzene	ND	ug/kg	5.0
1,2,3-Trichloropropane	ND	ug/kg	5.0
2-Chlorotoluene	ND	ug/kg	5.0
n-Propyl benzene	ND	ug/kg	5.0

ND = Not Detected

Enseco
A Corning Company

METHOD BLANK REPORT
Volatile Organics by GC/MS (cont.)
Project: 103992

Test: 8240-HLA-S Method 8240 - Volatile Organics, EPA 8240 Extended List
Matrix: SOLID

QC Run: 10 JAN 94-BF Date Analyzed: 10 JAN 94

Analyte	Result	Units	Reporting Limit
1,3,5-Trimethylbenzene	ND	ug/kg	5.0
4-Chlorotoluene	ND	ug/kg	5.0
tert-Butylbenzene	ND	ug/kg	5.0
1,2,4-Trimethylbenzene	ND	ug/kg	5.0
sec-Butylbenzene	ND	ug/kg	5.0
Isopropyltoluene	ND	ug/kg	5.0
1,3-Dichlorobenzene	ND	ug/kg	5.0
1,4-Dichlorobenzene	ND	ug/kg	5.0
n-Butylbenzene	ND	ug/kg	5.0
1,2-Dichlorobenzene	ND	ug/kg	5.0
1,2,4-Trichlorobenzene	ND	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND	ug/kg	5.0
Hexachlorobutadiene	ND	ug/kg	5.0
Naphthalene	ND	ug/kg	5.0
1,2,3-Trichlorobenzene	ND	ug/kg	5.0

ND = Not Detected

Enseco
A Corning Company

QC LOT ASSIGNMENT REPORT - MS QC
Semivolatile Organics by GC/MS

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
103992-0002-SA	SOLID	8270-S	06 JAN 94-A	06 JAN 94-A	03 JAN 94-DB
103992-0003-SA	SOLID	8270-S	06 JAN 94-A	06 JAN 94-A	03 JAN 94-DB
103992-0005-SA	SOLID	8270-S	06 JAN 94-A	06 JAN 94-A	03 JAN 94-DB
103992-0006-SA	SOLID	8270-S	06 JAN 94-A	06 JAN 94-A	03 JAN 94-DB
103992-0007-SA	SOLID	8270-S	06 JAN 94-A	06 JAN 94-A	03 JAN 94-DB

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DUPLICATE CONTROL SAMPLE REPORT
Semivolatile Organics by GC/MS
Project: 103992

Category: 8270-S Method 8270 - TCL Semivolatile Organics
Matrix: SOLID
QC Lot: 06 JAN 94-A Date Analyzed: 06 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Phenol	6.67	3.47	3.62	3.54	53	39-106	4.2	31
2-Chlorophenol	6.67	4.30	4.19	4.24	64	44-107	2.6	32
1,4-Dichlorobenzene	3.33	2.48	2.47	2.48	74	40-107	0.40	23
N-Nitroso-di-n-propylamine	3.33	2.19	2.05	2.12	64	31-132	6.6	38
1,2,4-Trichlorobenzene	3.33	2.50	2.42	2.46	74	38-120	3.3	22
4-Chloro-3-methylphenol	6.67	4.29	4.16	4.22	63	40-119	3.1	24
Acenaphthene	3.33	2.34	2.24	2.29	69	30-140	4.4	24
2,4-Dinitrotoluene	3.33	1.92	1.84	1.88	56	30-121	4.3	28
4-Nitrophenol	6.67	4.68	4.56	4.62	69	16-143	2.6	54
Pentachlorophenol	6.67	6.65	6.32	6.48	97	21-152	5.1	43
Pyrene	3.33	2.52	2.41	2.46	74	45-120	4.5	26

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

Enseco
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SINGLE CONTROL SAMPLE REPORT
Semivolatile Organics by GC/MS
Project: 103992

Category: 8270-S Method 8270 - TCL Semivolatile Organics
Matrix: SOLID
QC Run: 06 JAN 94-A Date Analyzed: 06 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Concentration Measured	Accuracy(%) SCS	Accuracy(%) Limits
2-Fluorophenol	6.67	3.36	50	25-121
Phenol-d5	6.67	3.67	55	24-113
Nitrobenzene-d5	3.33	2.20	66	23-120
2-Fluorobiphenyl	3.33	2.11	63	30-115
2,4,6-Tribromophenol	6.67	4.04	61	19-122
Terphenyl-d14	3.33	2.54	76	18-137

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

Enseco
A Corning Company

MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Semivolatile Organics by GC/MS
Project: 103992

Category: 8270-S Method 8270 - TCL Semivolatile Organics
Matrix: SOLID
Sample: 103957-0001
MS Run: 03 JAN 94-DB
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Phenol	ND	2.94	3.35	6.67	44	50	13	25-110	74
2-Chlorophenol	ND	2.81	3.26	6.67	42	49	16	33-103	42
1,4-Dichlorobenzene	ND	1.64	1.82	3.33	49	55	12	22-110	55
N-Nitroso-di-n-propylamine	ND	1.66	1.74	3.33	50	52	3.9	18-138	49
1,2,4-Trichlorobenzene	ND	1.70	1.91	3.33	51	57	11	29-119	43
4-Chloro-3-methylphenol	ND	3.40	3.47	6.67	51	52	2.0	36-119	41
Acenaphthene	ND	1.84	1.87	3.33	55	56	1.8	17-148	36
2,4-Dinitrotoluene	ND	1.56	1.73	3.33	47	52	10	27-120	41
4-Nitrophenol	ND	3.88	4.07	6.67	58	61	5.1	16-143	80
Pentachlorophenol	ND	4.75	4.84	6.67	71	73	2.8	21-152	61
Pyrene	ND	1.85	2.01	3.33	56	60	6.9	24-133	46

ND = Not Detected

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

Enseco
A Corning Company

METHOD BLANK REPORT
Semivolatile Organics by GC/MS
Project: 103992

Test: 8270-HLA-S Method 8270 - Semivolatile Organics
Matrix: SOLID
QC Run: 06 JAN 94-A Date Analyzed: 06 JAN 94

Analyte	Result	Units	Reporting Limit
N-Nitrosodiethylamine	ND	mg/kg	0.33
Phenol	ND	mg/kg	0.33
bis(2-Chloroethyl) ether	ND	mg/kg	0.33
2-Chlorophenol	ND	mg/kg	0.33
1,3-Dichlorobenzene	ND	mg/kg	0.33
1,4-Dichlorobenzene	ND	mg/kg	0.33
Benzyl alcohol	ND	mg/kg	0.33
1,2-Dichlorobenzene	ND	mg/kg	0.33
2-Methylphenol	ND	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND	mg/kg	0.33
3/4-Methylphenol	ND	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND	mg/kg	0.33
Hexachloroethane	ND	mg/kg	0.33
Nitrobenzene	ND	mg/kg	0.33
Isophorone	ND	mg/kg	0.33
2-Nitrophenol	ND	mg/kg	0.33
2,4-Dimethylphenol	ND	mg/kg	0.33
Benzoic acid	ND	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND	mg/kg	0.33
2,4-Dichlorophenol	ND	mg/kg	0.33
1,2,4-Trichlorobenzene	ND	mg/kg	0.33
Naphthalene	ND	mg/kg	0.33
4-Chloroaniline	ND	mg/kg	0.33
Hexachlorobutadiene	ND	mg/kg	0.33
4-Chloro-3-methylphenol	ND	mg/kg	0.33
2-Methylnaphthalene	ND	mg/kg	0.33
Hexachlorocyclopentadiene	ND	mg/kg	0.33
2,4,6-Trichlorophenol	ND	mg/kg	0.33
2,4,5-Trichlorophenol	ND	mg/kg	1.7
2-Chloronaphthalene	ND	mg/kg	0.33
2-Nitroaniline	ND	mg/kg	1.7
Dimethyl phthalate	ND	mg/kg	0.33
Acenaphthylene	ND	mg/kg	0.33
3-Nitroaniline	ND	mg/kg	1.7
Acenaphthene	ND	mg/kg	0.33
2,4-Dinitrophenol	ND	mg/kg	1.7
4-Nitrophenol	ND	mg/kg	1.7
Dibenzofuran	ND	mg/kg	0.33
2,4-Dinitrotoluene	ND	mg/kg	0.33
2,6-Dinitrotoluene	ND	mg/kg	0.33
Diethyl phthalate	ND	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND	mg/kg	0.33
Fluorene	ND	mg/kg	0.33
4-Nitroaniline	ND	mg/kg	1.7
4,6-Dinitro-2-methylphenol	ND	mg/kg	1.7

ND = Not Detected

Enseco
A Corning Company

METHOD BLANK REPORT
Semivolatile Organics by GC/MS (cont.)
Project: 103992

Test: 8270-HLA-S Method 8270 - Semivolatile Organics
Matrix: SOLID
QC Run: 06 JAN 94-A Date Analyzed: 06 JAN 94

Analyte	Result	Units	Reporting Limit
N-Nitrosodiphenylamine	ND	mg/kg	0.33
4-Bromophenyl phenyl ether	ND	mg/kg	0.33
Hexachlorobenzene	ND	mg/kg	0.33
Pentachlorophenol	ND	mg/kg	1.7
Phenanthrene	ND	mg/kg	0.33
Anthracene	ND	mg/kg	0.33
Di-n-butyl phthalate	ND	mg/kg	0.33
Fluoranthene	ND	mg/kg	0.33
Pyrene	ND	mg/kg	0.33
Butyl benzyl phthalate	ND	mg/kg	0.33
3,3'-Dichlorobenzidine	ND	mg/kg	0.66
Benzo(a)anthracene	ND	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND	mg/kg	0.33
Chrysene	ND	mg/kg	0.33
Di-n-octyl phthalate	ND	mg/kg	0.33
Benzo(b)fluoranthene	ND	mg/kg	0.33
Benzo(k)fluoranthene	ND	mg/kg	0.33
Benzo(a)pyrene	ND	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND	mg/kg	0.33
Dibenz(a,h)anthracene	ND	mg/kg	0.33
Benzo(g,h,i)perylene	ND	mg/kg	0.33
Xylidine (Total)	ND	mg/kg	0.33

ND = Not Detected

Harding Lawson Associates
3 Hutton Centre Drive, Suite 200
Santa Ana, California 92707
714/556-7992 – 213/617-7232
FAX: 714/662-3297

CHAIN OF CUSTODY FORM

 103992

Lab: ENSECO ORL

Samplers: Tom Lindros

Job Number: 26522 2.4/2.3

Name/Location: Aerojet - AISA

Project Manager: Matt Hunter

Recorder: [signature] (Signature Required)

SOURCE CODE	MATRIX: Water	Sediment	Soil	Oil	#CONTAINERS & PRESERV.: Unpres.	H_2SO_4	HNO_3	Chilled	SAMPLE NUMBER OR LAB NUMBER: Yr	Wk	Seq	DATE: Yr	Mo	Dy	Time	STATION DESCRIPTION/ NOTES	EPA 601/8010	EPA 602/8020	EPA 624/8240 VOC's	EPA 625/8270 SVOC's	Priority Pltnt. Metals	Benzene/Toluene/Xylene	Total Petrol. Hydrocarb.	EPA 9012 Cyanide	EPA 6010/7000 (metals)	Chlorite	Hold
50			X		X			X	SVMW-33-4.50			94	01	04	0735	2½"ø x 3" stainless								X	X		
50			X		X			X	SVMW-33-9.75			94	01	04	0744				X	X							
50			X		X			X	SVMW-33-14.75			94	01	04	0751				X	X				~~X~~	~~X~~ Snow 1/5		
50			X		X			X	SZB-13-4.50			94	01	04	0935									X	X		
50			X		X			X	SZB-13-9.50			94	01	04	0945												X
50			X		X			X	SZB-13-9.75			94	01	04	0945												X
50			X		X			X	SZB-13-16.25			94	01	04	1013												X
50			X		X			X	SZB-13-19.75			94	01	04	1017												X
50			X		X			X	SZB-13-20.00			94	01	04	1017			*	X	X							
50			X		X			X	SZB-13-30.25			94	01	04	1033			*	X	X							

Custody Seal No's 2555 & 2556

LAB NUMBER: Yr	Wk	Seq	DEPTH IN FEET	COL MTD CD	QA CODE	MISCELLANEOUS
						- Report to Matt Hunter
						- Analyze per Aerojet Contract
						-
						- Matt Hunter to Fax requested ~~lab prog~~ analyses.

CHAIN OF CUSTODY RECORD

RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
[signature]	[signature]	1-4 4:30 P.M.
[signature]		

DISPATCHED BY: (Signature)	DATE/TIME	RECEIVED FOR LAB BY: (Signature)	DATE/TIME
		[signature]	1-4-94 2045

METHOD OF SHIPMENT: Lab Courier pickup at project site.

Laboratory Copy White | Project Office Copy Yellow | Field or Office Copy Pink

6533

[illegible]ing Lawson Associates
[illegible]n Centre Drive, Suite 200
Santa Ana, California 92707
714/556-7992 – 213/617-7232
FAX: 714/662-3297

CHAIN OF C[illegible]TODY FORM

Lab: Enseco CRL

Samplers: Tom Lindros

Job Number: 26522 Task 2.3/2.4

Name/Location: Aerojet - IAISA

Project Manager: Matt Hunter

Recorder: [signature] (Signature Required)

SOURCE CODE	MATRIX: Water	Sediment	Soil	Oil	#CONTAINERS & PRESERV.: Unpres.	H_2SO_4	HNO_3	Chilled	SAMPLE NUMBER OR LAB NUMBER: Yr	Wk	Seq	DATE: Yr	Mo	Dy	Time	STATION DESCRIPTION/ NOTES	EPA 601/8010	EPA 602/8020	EPA 624/8240 VOCS	EPA 625/8270 SVOCS	Priority Pllt. Metals	Benzene/Toluene/Xylene	Total Petrol. Hydrocarb.	EPA 9012 cyanide	Chlorate	EPA 6010/7000 metals	Hold
50			X		X			X	SZB	13	34.75	94	01	04	1050	2½"Ø x 3" Stainless											X
50			X		X			X	SZB	13	35.00	94	01	04	1050												X
50			X		X			X	SZB	13	39.75	94	01	04	1058												X
50			X		X			X	SZB	13C	2.25	94	01	04	1234				X	X							
50			X		X			X	SZB	21	6.0	94	01	04	1520									X		X	
50			X		X			X	SZB	21	6.25	94	01	04	1520				X								
50			X		X			X	SZB	21	9.50	94	01	04	1525												X
50			X		X			X	SZB	21	9.75	94	01	04	1525												X
50			X		X			X	SZB	21	14.50	94	01	04	1530				X								
50			X		X			X	SZB	21	20.25	94	01	04	1538												X

Custody Seal Nos. 2555 & 2556

LAB NUMBER: Yr	Wk	Seq	DEPTH IN FEET	COL MTD CD	QA CODE	MISCELLANEOUS
						- Report to Matt Hunter
						- Analyze per Aerojet Contract
						- Matt Hunter to Fax Requested Laboratory Analyses

CHAIN OF CUSTODY RECORD

RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
[signature]	PAB S	1-4 / 4:30 pm
PAB S		

DISPATCHED BY: (Signature)	DATE/TIME	RECEIVED FOR LAB BY: (Signature)	DATE/TIME
		[signature]	1-4-94 / 2045

METHOD OF SHIPMENT: Lab Carrier Pickup at Project Site.

Laboratory Copy White | Project Office Copy Yellow | Field or Office Copy Pink

6533

Page 3 of 3 103992

Harding Lawson Associates
3 Hutton Centre Drive, Suite 200
Santa Ana, California 92707
714/556-7992 – 213/617-7232
FAX: 714/662-3297

CHAIN OF CUSTODY FORM

Lab: Exisco CRL

Samplers: Tom Lindros

Job Number: 26522. 2.4/2.3

Name/Location: Aerojet-AISA

Project Manager: Matt Hunter

Recorder: [signature] (Signature Required)

SOURCE CODE	MATRIX: Water	Sediment	Soil	Oil	#CONTAINERS & PRESERV.: Unpres.	H_2SO_4	HNO_3	chilled	SAMPLE NUMBER OR LAB NUMBER: Yr	Wk	Seq	DATE: Yr	Mo	Dy	Time	STATION DESCRIPTION/ NOTES	EPA 601/8010	EPA 602/8020	EPA 624/8240	EPA 625/8270	Priority Pllnt. Metals	Benzene/Toluene/Xylene	Total Petrol. Hydrocarb.	EPA 9012 cyanide	Chlorate	EPA 6010/7000 metals	HOLD
50			X		X			X	SZB-21-24.75			94	01	04	1550	2 1/4"x3" stainless											X
50			X		X			X	SZB-21-29.75			94	01	04	1601	Y			X								

Custody Seal No's 2555 & 2556

LAB NUMBER: Yr	Wk	Seq	DEPTH IN FEET	COL MTD CD	QA CODE	MISCELLANEOUS
						-Report to Matt Hunter
						-Analyze per Aerojet Contract
						-Matt Hunter to Fax requested Laboratory Analyses.

CHAIN OF CUSTODY RECORD

RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
[signature]	PABS	1-4 4:8[illegible]
PABS		

DISPATCHED BY: (Signature)	DATE/TIME	RECEIVED FOR LAB BY: (Signature)	DATE/TIME
		[signature]	1/4/94 2045

METHOD OF SHIPMENT: Lab Courier pickup at Project Site

Laboratory Copy White | Project Office Copy Yellow | Field or Office Copy Pink

6533

Enseco
A Corning Company

Enseco - CRL
7440 Lincoln Way • Garden Grove, CA 92641
(714) 898-6370 • (213) 598-0458 • (800) LAB-1-CRL
FAX: (714) 891-5917

January 20, 1994

HARDING LAWSON ASSOCIATES
3 HUTTON CENTRE DRIVE, STE 200
SANTA ANA, CA 92707
ATTN: MR. MATT HUNTER

Lab No.: 104019-0001/0008
Date Sampled: 06-JAN-1994
Date Sample Rec'd: 06-JAN-1994
Project: (26522. 2.4/2.3) AEROJET

Enclosed with this letter is the report on the chemical and physical analyses on the samples from LAB NO: 104019-0001/0008 shown above.

The samples were received by CRL in a chilled state, intact and with the chain-of-custody record attached.

Note that ND means not detected at the reporting limit expressed. The reporting limit is raised to reflect the dilution factor of the sample.

Solid samples are reported on "as received" basis.

Case Narrative:

The MS/MSD Percent Recoveries for Aluminum, Cadmium, were not within the acceptance limits specified in HLA's "Laboratory Analytical Technical Requirements," nor was it within Enseco's-CRL's established acceptance limits. However, the DCS recoveries were within all acceptable ranges, therefore the data was accepted and no further action was required.

The MS Percent Recovery for Manganese was not within the acceptance limits specified in HLA's "Laboratory Analytical Technical Requirements," nor was it within Enseco's-CRL's established acceptance limits. However, the DCS recoveries were within all acceptable ranges, therefore the data was accepted and no further action was required.

The MS Percent Recovery for 1,1-Dichloroethene was not within the acceptance limits specified in HLA's "Laboratory Analytical Technical Requirements, but it was within Enseco's-CRL established acceptance limits. Therefore the data was accepted and no further action was required.

Sabina K. Sadoko
Reviewed

Kathryn E. Waters
Approved

The Report Cover Letter is an integral part of this report.
This report pertains only to the samples investigated and does not necessarily apply to other apparently identical or similar materials. This report is submitted for the exclusive *use of the client to whom it is addressed. Any reproduction* of this report or use of this Laboratory's name for advertising or publicity purposes without authorization is prohibited.

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SAMPLE DESCRIPTION INFORMATION
for
Harding Lawson Associates

Lab ID	Client ID	Matrix	Sampled Date	Sampled Time	Received Date
104019-0001-SA	SVMW-39-5.00	SOIL	06 JAN 94	07:50	06 JAN 94
104019-0002-SA	SVMW-39-5.25	SOIL	06 JAN 94	07:50	06 JAN 94
104019-0003-SA	SVMW-39-19.75	SOIL	06 JAN 94	08:25	06 JAN 94
104019-0004-SA	SVMW-39-36.25	SOIL	06 JAN 94	09:05	06 JAN 94
104019-0005-SA	SVMW-39-36.50	SOIL	06 JAN 94	09:05	06 JAN 94
104019-0006-SA	SZB-24-5.50	SOIL	06 JAN 94	13:37	06 JAN 94
104019-0007-SA	SZB-24-5.75	SOIL	06 JAN 94	13:37	06 JAN 94
104019-0008-SA	PWS-2.4-001	AQUEOUS	06 JAN 94	16:54	06 JAN 94

Enseco
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METALS

Client Name: Harding Lawson Associates
Client ID: SVMW-39-5.00
Lab ID: 104019-0001-SA
Matrix: SOIL Sampled: 06 JAN 94 Received: 06 JAN 94
Authorized: 08 JAN 94 Prepared: See Below Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Aluminum	4990		50.0	100	mg/kg	7020	11 JAN 94	13 JAN 94
Arsenic	1.3		0.20	0.50	mg/kg	7062	11 JAN 94	17 JAN 94
Barium	69.0		20.0	50.0	mg/kg	7080	11 JAN 94	16 JAN 94
Chromium	13.3		5.0	10.0	mg/kg	7190	11 JAN 94	13 JAN 94
Copper	16.0		5.0	10.0	mg/kg	7210	11 JAN 94	13 JAN 94
Lead	ND		20.0	20.0	mg/kg	7420	11 JAN 94	11 JAN 94
Manganese	192		2.0	5.0	mg/kg	7460	11 JAN 94	13 JAN 94
Nickel	10.0		5.0	10.0	mg/kg	7520	11 JAN 94	13 JAN 94
Zinc	32.4		1.0	2.0	mg/kg	7950	11 JAN 94	11 JAN 94
Cadmium	ND		2.0	5.0	mg/kg	7130	11 JAN 94	11 JAN 94
Mercury	TR		0.090	0.10	mg/kg	7471	12 JAN 94	16 JAN 94

ND = Not Detected

Enseco
A Corning Company

METALS

Client Name: Harding Lawson Associates
Client ID: SZB-24-5.50
LAB ID: 104019-0006-SA
Matrix: SOIL — Sampled: 06 JAN 94 — Received: 06 JAN 94
Authorized: 08 JAN 94 — Prepared: See Below — Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Aluminum	4150		50.0	100	mg/kg	7020	11 JAN 94	13 JAN 94
Arsenic	1.9		0.20	0.50	mg/kg	7062	11 JAN 94	17 JAN 94
Barium	70.0		20.0	50.0	mg/kg	7080	11 JAN 94	16 JAN 94
Chromium	13.3		5.0	10.0	mg/kg	7190	11 JAN 94	13 JAN 94
Copper	14.0		5.0	10.0	mg/kg	7210	11 JAN 94	13 JAN 94
Lead	ND		20.0	20.0	mg/kg	7420	11 JAN 94	11 JAN 94
Manganese	212		2.0	5.0	mg/kg	7460	11 JAN 94	13 JAN 94
Nickel	TR		5.0	10.0	mg/kg	7520	11 JAN 94	13 JAN 94
Zinc	29.2		1.0	2.0	mg/kg	7950	11 JAN 94	11 JAN 94
Cadmium	ND		2.0	5.0	mg/kg	7130	11 JAN 94	11 JAN 94
Mercury	ND		0.090	0.10	mg/kg	7471	12 JAN 94	16 JAN 94

ND = Not Detected

Enseco
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GENERAL INORGANICS

Client Name: Harding Lawson Associates
Client ID: SVMW-39-5.00
Lab ID: 104019-0001-SA
Matrix: SOIL
Sampled: 06 JAN 94
Received: 06 JAN 94
Authorized: 08 JAN 94
Prepared: See Below
Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Cyanide, Total	0.60		0.30	0.50	mg/kg	9012	14 JAN 94	14 JAN 94

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GENERAL INORGANICS

Client Name: Harding Lawson Associates
Client ID: SZB-24-5.50
LAB ID: 104019-0006-SA
Matrix: SOIL — Sampled: 06 JAN 94 — Received: 06 JAN 94
Authorized: 08 JAN 94 — Prepared: See Below — Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Cyanide, Total	0.70		0.30	0.50	mg/kg	9012	14 JAN 94	14 JAN 94

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SVMW-39-5.25
LAB ID: 104019-0002-SA
Matrix: SOIL Sampled: 06 JAN 94 Received: 06 JAN 94
Authorized: 08 JAN 94 Prepared: 10 JAN 94 Analyzed: 10 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/kg	5.0
Methylene chloride	TR	B	1.1	ug/kg	5.0
Acetone	ND		7.1	ug/kg	10
Trichlorofluoromethane	ND		0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	ND		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	ND		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	ND		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	ND		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0

B = Compound is also detected in the blank.
ND = Not Detected

Enseco
A Corning Company

(Cont.)

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SVMW-39-5.25
LAB ID: 104019-0002-SA
Matrix: SOIL
Authorized: 08 JAN 94

Sampled: 06 JAN 94
Prepared: 10 JAN 94

Received: 06 JAN 94
Analyzed: 10 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
tert-Butylbenzene	ND		0.55	ug/kg	5.0
1,2,4-Trimethylbenzene	ND		0.53	ug/kg	5.0
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	103	%
Toluene-d8	102	%
Bromofluorobenzene	97	%

ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SVMW-39-19.75
LAB ID: 104019-0003-SA
Matrix: SOIL Sampled: 06 JAN 94 Received: 06 JAN 94
Authorized: 08 JAN 94 Prepared: 10 JAN 94 Analyzed: 10 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/kg	5.0
Methylene chloride	TR	B	1.1	ug/kg	5.0
Acetone	ND		7.1	ug/kg	10
Trichlorofluoromethane	ND		0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	ND		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	ND		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	ND		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	ND		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0

B = Compound is also detected in the blank.
ND = Not Detected

Volatile Organic Compounds
Method 8240

Enseco
A Corning Company

Client Name: Harding Lawson Associates
Client ID: SVMW-39-19.75
LAB ID: 104019-0003-SA
Matrix: SOIL Sampled: 06 JAN 94 Received: 06 JAN 94
Authorized: 08 JAN 94 Prepared: 10 JAN 94 Analyzed: 10 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
tert-Butylbenzene	ND		0.55	ug/kg	5.0
1,2,4-Trimethylbenzene	ND		0.53	ug/kg	5.0
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	104	%
Toluene-d8	105	%
Bromofluorobenzene	100	%

ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SVMW-39-36.50
LAB ID: 104019-0005-SA
Matrix: SOIL — Sampled: 06 JAN 94 — Received: 06 JAN 94
Authorized: 08 JAN 94 — Prepared: 11 JAN 94 — Analyzed: 11 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/kg	5.0
Methylene chloride	TR		1.1	ug/kg	5.0
Acetone	ND		7.1	ug/kg	10
Trichlorofluoromethane	TR		0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	ND		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	TR		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	ND		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	ND		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0
tert-Butylbenzene	ND		0.55	ug/kg	5.0

ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

(Cont.)

Client Name: Harding Lawson Associates
Client ID: SVMW-39-36.50
LAB ID: 104019-0005-SA
Matrix: SOIL — Sampled: 06 JAN 94 — Received: 06 JAN 94
Authorized: 08 JAN 94 — Prepared: 11 JAN 94 — Analyzed: 11 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
1,2,4-Trimethylbenzene	ND		0.53	ug/kg	5.0
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	91	%
Toluene-d8	95	%
Bromofluorobenzene	91	%

ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-24-5.75
LAB ID: 104019-0007-SA
Matrix: SOIL Sampled: 06 JAN 94 Received: 06 JAN 94
Authorized: 08 JAN 94 Prepared: 11 JAN 94 Analyzed: 11 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/kg	5.0
Methylene chloride	TR		1.1	ug/kg	5.0
Acetone	ND		7.1	ug/kg	10
Trichlorofluoromethane	ND		0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	ND		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	TR		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	ND		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	ND		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0
tert-Butylbenzene	ND		0.55	ug/kg	5.0

ND = Not Detected

Volatile Organic Compounds
Method 8240

Ensaco
A Corning Company

Client Name: Harding Lawson Associates
Client ID: SZB-24-5.75
LAB ID: 104019-0007-SA
Matrix: SOIL Sampled: 06 JAN 94 Received: 06 JAN 94
Authorized: 08 JAN 94 Prepared: 11 JAN 94 Analyzed: 11 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
1,2,4-Trimethylbenzene	TR		0.53	ug/kg	5.0
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	96	%
Toluene-d8	94	%
Bromofluorobenzene	84	%

ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: PWS-2.4-001
LAB ID: 104019-0008-SA
Matrix: AQUEOUS Sampled: 06 JAN 94 Received: 06 JAN 94
Authorized: 08 JAN 94 Prepared: 10 JAN 94 Analyzed: 10 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.6	ug/L	10
Chloromethane	ND		3.2	ug/L	10
Bromomethane	ND		1.4	ug/L	10
Vinyl chloride	ND		1.4	ug/L	10
Chloroethane	ND		2.2	ug/L	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/L	5.0
Methylene chloride	ND		0.97	ug/L	5.0
Acetone	ND		7.1	ug/L	10
Trichlorofluoromethane	ND		2.5	ug/L	5.0
1,1-Dichloroethene	ND		1.5	ug/L	5.0
Nitromethane	ND		84	ug/L	200
trans-1,2-Dichloroethene	ND		0.89	ug/L	5.0
cis-1,2-Dichloroethene	ND		0.92	ug/L	5.0
1,1-Dichloroethane	ND		1.1	ug/L	5.0
2,2-Dichloropropane	ND		1.9	ug/L	5.0
Bromochloromethane	ND		0.69	ug/L	5.0
Chloroform	ND		0.88	ug/L	5.0
1,1-Dichloropropene	ND		0.87	ug/L	5.0
1,2-Dichloroethane	ND		0.85	ug/L	5.0
Dibromomethane	ND		0.51	ug/L	5.0
1,1,1-Trichloroethane	ND		1.4	ug/L	5.0
Carbon tetrachloride	ND		1.0	ug/L	5.0
Bromodichloromethane	TR		0.71	ug/L	5.0
1,2-Dichloropropane	ND		0.88	ug/L	5.0
1,3-Dichloropropane	ND		0.75	ug/L	5.0
Trichloroethene	ND		0.84	ug/L	5.0
Dibromochloromethane	TR		1.1	ug/L	5.0
1,1,2-Trichloroethane	ND		0.98	ug/L	5.0
Benzene	ND		1.0	ug/L	5.0
Bromoform	TR		1.9	ug/L	5.0
Tetrachloroethene	ND		0.85	ug/L	5.0
1,2-Dibromoethane (EDB)	ND		0.69	ug/L	5.0
1,1,1,2-Tetrachloroethane	ND		1.1	ug/L	5.0
1,1,2,2-Tetrachloroethane	ND		1.9	ug/L	5.0
Toluene	ND		0.96	ug/L	5.0
Chlorobenzene	ND		0.95	ug/L	5.0
Ethylbenzene	ND		1.1	ug/L	5.0
Styrene	ND		1.1	ug/L	5.0
Xylenes (total)	ND		1.7	ug/L	5.0
1-Methylethylbenzene	ND		0.91	ug/L	5.0
Bromobenzene	ND		1.3	ug/L	5.0
1,2,3-Trichloropropane	ND		2.0	ug/L	5.0
2-Chlorotoluene	ND		1.2	ug/L	5.0
n-Propyl benzene	ND		0.70	ug/L	5.0
1,3,5-Trimethylbenzene	ND		0.98	ug/L	5.0
4-Chlorotoluene	ND		1.2	ug/L	5.0
tert-Butylbenzene	ND		1.0	ug/L	5.0

ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: PWS-2.4-001
LAB ID: 104019-0008-SA
Matrix: AQUEOUS Sampled: 06 JAN 94 Received: 06 JAN 94
Authorized: 08 JAN 94 Prepared: 10 JAN 94 Analyzed: 10 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
1,2,4-Trimethylbenzene	ND		1.2	ug/L	5.0
sec-Butylbenzene	ND		0.93	ug/L	5.0
Isopropyltoluene	ND		0.97	ug/L	5.0
1,3-Dichlorobenzene	ND		1.1	ug/L	5.0
1,4-Dichlorobenzene	ND		1.3	ug/L	5.0
n-Butylbenzene	ND		0.80	ug/L	5.0
1,2-Dichlorobenzene	ND		1.4	ug/L	5.0
1,2,4-Trichlorobenzene	ND		0.95	ug/L	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		3.3	ug/L	5.0
Hexachlorobutadiene	ND		1.2	ug/L	5.0
Naphthalene	ND		1.6	ug/L	5.0
1,2,3-Trichlorobenzene	ND		1.0	ug/L	5.0

Surrogate	Recovery
1,2-Dichloroethane-d4	107 %
Toluene-d8	105 %
Bromofluorobenzene	102 %

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SVMW-39-5.25
LAB ID: 104019-0002-SA
Matrix: SOIL Sampled: 06 JAN 94 Received: 06 JAN 94
Authorized: 08 JAN 94 Prepared: 10 JAN 94 Analyzed: 11 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
N-Nitrosodiethylamine	ND		0.26	mg/kg	0.33
Phenol	ND		0.030	mg/kg	0.33
bis(2-Chloroethyl) ether	ND		0.060	mg/kg	0.33
2-Chlorophenol	ND		0.040	mg/kg	0.33
1,3-Dichlorobenzene	ND		0.030	mg/kg	0.33
1,4-Dichlorobenzene	ND		0.060	mg/kg	0.33
Benzyl alcohol	ND		0.070	mg/kg	0.33
1,2-Dichlorobenzene	ND		0.040	mg/kg	0.33
2-Methylphenol	ND		0.030	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND		0.040	mg/kg	0.33
3/4-Methylphenol	ND		0.040	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND		0.030	mg/kg	0.33
Hexachloroethane	ND		0.030	mg/kg	0.33
Nitrobenzene	ND		0.090	mg/kg	0.33
Isophorone	ND		0.040	mg/kg	0.33
2-Nitrophenol	ND		0.050	mg/kg	0.33
2,4-Dimethylphenol	ND		0.030	mg/kg	0.33
Benzoic acid	ND		0.51	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND		0.020	mg/kg	0.33
2,4-Dichlorophenol	ND		0.030	mg/kg	0.33
1,2,4-Trichlorobenzene	ND		0.040	mg/kg	0.33
Naphthalene	ND		0.030	mg/kg	0.33
4-Chloroaniline	ND		0.10	mg/kg	0.33
Hexachlorobutadiene	ND		0.040	mg/kg	0.33
4-Chloro-3-methylphenol	ND		0.040	mg/kg	0.33
2-Methylnaphthalene	ND		0.030	mg/kg	0.33
Hexachlorocyclopentadiene	ND		0.050	mg/kg	0.33
2,4,6-Trichlorophenol	ND		0.040	mg/kg	0.33
2,4,5-Trichlorophenol	ND		0.050	mg/kg	1.7
2-Chloronaphthalene	ND		0.030	mg/kg	0.33
2-Nitroaniline	ND		0.030	mg/kg	1.7
Dimethyl phthalate	ND		0.030	mg/kg	0.33
Acenaphthylene	ND		0.020	mg/kg	0.33
3-Nitroaniline	ND		0.14	mg/kg	1.7
Acenaphthene	ND		0.030	mg/kg	0.33
2,4-Dinitrophenol	ND		0.23	mg/kg	1.7
4-Nitrophenol	ND		0.25	mg/kg	1.7
Dibenzofuran	ND		0.040	mg/kg	0.33
2,4-Dinitrotoluene	ND		0.040	mg/kg	0.33
2,6-Dinitrotoluene	ND		0.050	mg/kg	0.33
Diethyl phthalate	ND		0.020	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND		0.030	mg/kg	0.33
Fluorene	ND		0.030	mg/kg	0.33
4-Nitroaniline	ND		0.18	mg/kg	1.7

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SVMW-39-5.25
LAB ID: 104019-0002-SA
Matrix: SOIL Sampled: 06 JAN 94 Received: 06 JAN 94
Authorized: 08 JAN 94 Prepared: 10 JAN 94 Analyzed: 11 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
4,6-Dinitro-2-methylphenol	ND		0.36	mg/kg	1.7
N-Nitrosodiphenylamine	ND		0.040	mg/kg	0.33
4-Bromophenyl phenyl ether	ND		0.080	mg/kg	0.33
Hexachlorobenzene	ND		0.030	mg/kg	0.33
Pentachlorophenol	ND		0.19	mg/kg	1.7
Phenanthrene	ND		0.030	mg/kg	0.33
Anthracene	ND		0.020	mg/kg	0.33
Di-n-butyl phthalate	ND		0.24	mg/kg	0.33
Fluoranthene	ND		0.030	mg/kg	0.33
Pyrene	ND		0.020	mg/kg	0.33
Butyl benzyl phthalate	ND		0.030	mg/kg	0.33
3,3'-Dichlorobenzidine	ND		0.33	mg/kg	0.66
Benzo(a)anthracene	ND		0.040	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND		0.13	mg/kg	0.33
Chrysene	ND		0.040	mg/kg	0.33
Di-n-octyl phthalate	ND		0.040	mg/kg	0.33
Benzo(b)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(k)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(a)pyrene	ND		0.040	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND		0.030	mg/kg	0.33
Dibenz(a,h)anthracene	ND		0.030	mg/kg	0.33
Benzo(g,h,i)perylene	ND		0.020	mg/kg	0.33
Xylidine (Total)	ND		0.076	mg/kg	0.33

Surrogate	Recovery	
Nitrobenzene-d5	70	%
2-Fluorobiphenyl	74	%
Terphenyl-d14	75	%
Phenol-d5	56	%
2-Fluorophenol	58	%
2,4,6-Tribromophenol	82	%

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SVMW-39-19.75
LAB ID: 104019-0003-SA
Matrix: SOIL Sampled: 06 JAN 94 Received: 06 JAN 94
Authorized: 08 JAN 94 Prepared: 10 JAN 94 Analyzed: 11 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
N-Nitrosodiethylamine	ND		0.26	mg/kg	0.33
Phenol	ND		0.030	mg/kg	0.33
bis(2-Chloroethyl) ether	ND		0.060	mg/kg	0.33
2-Chlorophenol	ND		0.040	mg/kg	0.33
1,3-Dichlorobenzene	ND		0.030	mg/kg	0.33
1,4-Dichlorobenzene	ND		0.060	mg/kg	0.33
Benzyl alcohol	ND		0.070	mg/kg	0.33
1,2-Dichlorobenzene	ND		0.040	mg/kg	0.33
2-Methylphenol	ND		0.030	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND		0.040	mg/kg	0.33
3/4-Methylphenol	ND		0.040	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND		0.030	mg/kg	0.33
Hexachloroethane	ND		0.030	mg/kg	0.33
Nitrobenzene	ND		0.090	mg/kg	0.33
Isophorone	ND		0.040	mg/kg	0.33
2-Nitrophenol	ND		0.050	mg/kg	0.33
2,4-Dimethylphenol	ND		0.030	mg/kg	0.33
Benzoic acid	ND		0.51	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND		0.020	mg/kg	0.33
2,4-Dichlorophenol	ND		0.030	mg/kg	0.33
1,2,4-Trichlorobenzene	ND		0.040	mg/kg	0.33
Naphthalene	ND		0.030	mg/kg	0.33
4-Chloroaniline	ND		0.10	mg/kg	0.33
Hexachlorobutadiene	ND		0.040	mg/kg	0.33
4-Chloro-3-methylphenol	ND		0.040	mg/kg	0.33
2-Methylnaphthalene	ND		0.030	mg/kg	0.33
Hexachlorocyclopentadiene	ND		0.050	mg/kg	0.33
2,4,6-Trichlorophenol	ND		0.040	mg/kg	0.33
2,4,5-Trichlorophenol	ND		0.050	mg/kg	1.7
2-Chloronaphthalene	ND		0.030	mg/kg	0.33
2-Nitroaniline	ND		0.030	mg/kg	1.7
Dimethyl phthalate	ND		0.030	mg/kg	0.33
Acenaphthylene	ND		0.020	mg/kg	0.33
3-Nitroaniline	ND		0.14	mg/kg	1.7
Acenaphthene	ND		0.030	mg/kg	0.33
2,4-Dinitrophenol	ND		0.23	mg/kg	1.7
4-Nitrophenol	ND		0.25	mg/kg	1.7
Dibenzofuran	ND		0.040	mg/kg	0.33
2,4-Dinitrotoluene	ND		0.040	mg/kg	0.33
2,6-Dinitrotoluene	ND		0.050	mg/kg	0.33
Diethyl phthalate	ND		0.020	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND		0.030	mg/kg	0.33
Fluorene	ND		0.030	mg/kg	0.33
4-Nitroaniline	ND		0.18	mg/kg	1.7

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270
(cont.)

Client Name: Harding Lawson Associates
Client ID: SVMW-39-19.75
LAB ID: 104019-0003-SA
Matrix: SOIL Sampled: 06 JAN 94 Received: 06 JAN 94
Authorized: 08 JAN 94 Prepared: 10 JAN 94 Analyzed: 11 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
4,6-Dinitro-2-methylphenol	ND		0.36	mg/kg	1.7
N-Nitrosodiphenylamine	ND		0.040	mg/kg	0.33
4-Bromophenyl phenyl ether	ND		0.080	mg/kg	0.33
Hexachlorobenzene	ND		0.030	mg/kg	0.33
Pentachlorophenol	ND		0.19	mg/kg	1.7
Phenanthrene	ND		0.030	mg/kg	0.33
Anthracene	ND		0.020	mg/kg	0.33
Di-n-butyl phthalate	ND		0.24	mg/kg	0.33
Fluoranthene	ND		0.030	mg/kg	0.33
Pyrene	ND		0.020	mg/kg	0.33
Butyl benzyl phthalate	ND		0.030	mg/kg	0.33
3,3'-Dichlorobenzidine	ND		0.33	mg/kg	0.66
Benzo(a)anthracene	ND		0.040	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND		0.13	mg/kg	0.33
Chrysene	ND		0.040	mg/kg	0.33
Di-n-octyl phthalate	ND		0.040	mg/kg	0.33
Benzo(b)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(k)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(a)pyrene	ND		0.040	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND		0.030	mg/kg	0.33
Dibenz(a,h)anthracene	ND		0.030	mg/kg	0.33
Benzo(g,h,i)perylene	ND		0.020	mg/kg	0.33
Xylidine (Total)	ND		0.076	mg/kg	0.33

Surrogate	Recovery	
Nitrobenzene-d5	67	%
2-Fluorobiphenyl	70	%
Terphenyl-d14	70	%
Phenol-d5	48	%
2-Fluorophenol	58	%
2,4,6-Tribromophenol	72	%

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SVMW-39-36.25
LAB ID: 104019-0004-SA
Matrix: SOIL Sampled: 06 JAN 94 Received: 06 JAN 94
Authorized: 08 JAN 94 Prepared: 10 JAN 94 Analyzed: 11 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
N-Nitrosodiethylamine	ND		0.26	mg/kg	0.33
Phenol	ND		0.030	mg/kg	0.33
bis(2-Chloroethyl) ether	ND		0.060	mg/kg	0.33
2-Chlorophenol	ND		0.040	mg/kg	0.33
1,3-Dichlorobenzene	ND		0.030	mg/kg	0.33
1,4-Dichlorobenzene	ND		0.060	mg/kg	0.33
Benzyl alcohol	ND		0.070	mg/kg	0.33
1,2-Dichlorobenzene	ND		0.040	mg/kg	0.33
2-Methylphenol	ND		0.030	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND		0.040	mg/kg	0.33
3/4-Methylphenol	ND		0.040	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND		0.030	mg/kg	0.33
Hexachloroethane	ND		0.030	mg/kg	0.33
Nitrobenzene	ND		0.090	mg/kg	0.33
Isophorone	ND		0.040	mg/kg	0.33
2-Nitrophenol	ND		0.050	mg/kg	0.33
2,4-Dimethylphenol	ND		0.030	mg/kg	0.33
Benzoic acid	ND		0.51	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND		0.020	mg/kg	0.33
2,4-Dichlorophenol	ND		0.030	mg/kg	0.33
1,2,4-Trichlorobenzene	ND		0.040	mg/kg	0.33
Naphthalene	ND		0.030	mg/kg	0.33
4-Chloroaniline	ND		0.10	mg/kg	0.33
Hexachlorobutadiene	ND		0.040	mg/kg	0.33
4-Chloro-3-methylphenol	ND		0.040	mg/kg	0.33
2-Methylnaphthalene	ND		0.030	mg/kg	0.33
Hexachlorocyclopentadiene	ND		0.050	mg/kg	0.33
2,4,6-Trichlorophenol	ND		0.040	mg/kg	0.33
2,4,5-Trichlorophenol	ND		0.050	mg/kg	1.7
2-Chloronaphthalene	ND		0.030	mg/kg	0.33
2-Nitroaniline	ND		0.030	mg/kg	1.7
Dimethyl phthalate	ND		0.030	mg/kg	0.33
Acenaphthylene	ND		0.020	mg/kg	0.33
3-Nitroaniline	ND		0.14	mg/kg	1.7
Acenaphthene	ND		0.030	mg/kg	0.33
2,4-Dinitrophenol	ND		0.23	mg/kg	1.7
4-Nitrophenol	ND		0.25	mg/kg	1.7
Dibenzofuran	ND		0.040	mg/kg	0.33
2,4-Dinitrotoluene	ND		0.040	mg/kg	0.33
2,6-Dinitrotoluene	ND		0.050	mg/kg	0.33
Diethyl phthalate	ND		0.020	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND		0.030	mg/kg	0.33
Fluorene	ND		0.030	mg/kg	0.33
4-Nitroaniline	ND		0.18	mg/kg	1.7

ND = Not Detected

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Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SVMW-39-36.25
LAB ID: 104019-0004-SA
Matrix: SOIL Sampled: 06 JAN 94 Received: 06 JAN 94
Authorized: 08 JAN 94 Prepared: 10 JAN 94 Analyzed: 11 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
4,6-Dinitro-2-methylphenol	ND		0.36	mg/kg	1.7
N-Nitrosodiphenylamine	ND		0.040	mg/kg	0.33
4-Bromophenyl phenyl ether	ND		0.080	mg/kg	0.33
Hexachlorobenzene	ND		0.030	mg/kg	0.33
Pentachlorophenol	ND		0.19	mg/kg	1.7
Phenanthrene	ND		0.030	mg/kg	0.33
Anthracene	ND		0.020	mg/kg	0.33
Di-n-butyl phthalate	ND		0.24	mg/kg	0.33
Fluoranthene	ND		0.030	mg/kg	0.33
Pyrene	ND		0.020	mg/kg	0.33
Butyl benzyl phthalate	ND		0.030	mg/kg	0.33
3,3'-Dichlorobenzidine	ND		0.33	mg/kg	0.66
Benzo(a)anthracene	ND		0.040	mg/kg	0.33
bis(2-Ethylhexyl)-. phthalate	ND		0.13	mg/kg	0.33
Chrysene	ND		0.040	mg/kg	0.33
Di-n-octyl phthalate	ND		0.040	mg/kg	0.33
Benzo(b)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(k)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(a)pyrene	ND		0.040	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND		0.030	mg/kg	0.33
Dibenz(a,h)anthracene	ND		0.030	mg/kg	0.33
Benzo(g,h,i)perylene	ND		0.020	mg/kg	0.33
Xylidine (Total)	ND		0.076	mg/kg	0.33

Surrogate	Recovery	
Nitrobenzene-d5	59	%
2-Fluorobiphenyl	66	%
Terphenyl-d14	66	%
Phenol-d5	47	%
2-Fluorophenol	42	%
2,4,6-Tribromophenol	70	%

ND = Not Detected

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Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-24-5.75
LAB ID: 104019-0007-SA
Matrix: SOIL Sampled: 06 JAN 94 Received: 06 JAN 94
Authorized: 08 JAN 94 Prepared: 10 JAN 94 Analyzed: 11 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
N-Nitrosodiethylamine	ND		0.26	mg/kg	0.33
Phenol	ND		0.030	mg/kg	0.33
bis(2-Chloroethyl) ether	ND		0.060	mg/kg	0.33
2-Chlorophenol	ND		0.040	mg/kg	0.33
1,3-Dichlorobenzene	ND		0.030	mg/kg	0.33
1,4-Dichlorobenzene	ND		0.060	mg/kg	0.33
Benzyl alcohol	ND		0.070	mg/kg	0.33
1,2-Dichlorobenzene	ND		0.040	mg/kg	0.33
2-Methylphenol	ND		0.030	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND		0.040	mg/kg	0.33
3/4-Methylphenol	ND		0.040	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND		0.030	mg/kg	0.33
Hexachloroethane	ND		0.030	mg/kg	0.33
Nitrobenzene	ND		0.090	mg/kg	0.33
Isophorone	ND		0.040	mg/kg	0.33
2-Nitrophenol	ND		0.050	mg/kg	0.33
2,4-Dimethylphenol	ND		0.030	mg/kg	0.33
Benzoic acid	ND		0.51	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND		0.020	mg/kg	0.33
2,4-Dichlorophenol	ND		0.030	mg/kg	0.33
1,2,4-Trichlorobenzene	ND		0.040	mg/kg	0.33
Naphthalene	ND		0.030	mg/kg	0.33
4-Chloroaniline	ND		0.10	mg/kg	0.33
Hexachlorobutadiene	ND		0.040	mg/kg	0.33
4-Chloro-3-methylphenol	ND		0.040	mg/kg	0.33
2-Methylnaphthalene	ND		0.030	mg/kg	0.33
Hexachlorocyclopentadiene	ND		0.050	mg/kg	0.33
2,4,6-Trichlorophenol	ND		0.040	mg/kg	0.33
2,4,5-Trichlorophenol	ND		0.050	mg/kg	1.7
2-Chloronaphthalene	ND		0.030	mg/kg	0.33
2-Nitroaniline	ND		0.030	mg/kg	1.7
Dimethyl phthalate	ND		0.030	mg/kg	0.33
Acenaphthylene	ND		0.020	mg/kg	0.33
3-Nitroaniline	ND		0.14	mg/kg	1.7
Acenaphthene	ND		0.030	mg/kg	0.33
2,4-Dinitrophenol	ND		0.23	mg/kg	1.7
4-Nitrophenol	ND		0.25	mg/kg	1.7
Dibenzofuran	ND		0.040	mg/kg	0.33
2,4-Dinitrotoluene	ND		0.040	mg/kg	0.33
2,6-Dinitrotoluene	ND		0.050	mg/kg	0.33
Diethyl phthalate	ND		0.020	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND		0.030	mg/kg	0.33
Fluorene	ND		0.030	mg/kg	0.33
4-Nitroaniline	ND		0.18	mg/kg	1.7

ND = Not Detected

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Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-24-5.75
LAB ID: 104019-0007-SA
Matrix: SOIL Sampled: 06 JAN 94 Received: 06 JAN 94
Authorized: 08 JAN 94 Prepared: 10 JAN 94 Analyzed: 11 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
4,6-Dinitro-2-methylphenol	ND		0.36	mg/kg	1.7
N-Nitrosodiphenylamine	ND		0.040	mg/kg	0.33
4-Bromophenyl phenyl ether	ND		0.080	mg/kg	0.33
Hexachlorobenzene	ND		0.030	mg/kg	0.33
Pentachlorophenol	ND		0.19	mg/kg	1.7
Phenanthrene	ND		0.030	mg/kg	0.33
Anthracene	ND		0.020	mg/kg	0.33
Di-n-butyl phthalate	ND		0.24	mg/kg	0.33
Fluoranthene	ND		0.030	mg/kg	0.33
Pyrene	ND		0.020	mg/kg	0.33
Butyl benzyl phthalate	ND		0.030	mg/kg	0.33
3,3'-Dichlorobenzidine	ND		0.33	mg/kg	0.66
Benzo(a)anthracene	ND		0.040	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND		0.13	mg/kg	0.33
Chrysene	ND		0.040	mg/kg	0.33
Di-n-octyl phthalate	ND		0.040	mg/kg	0.33
Benzo(b)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(k)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(a)pyrene	ND		0.040	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND		0.030	mg/kg	0.33
Dibenz(a,h)anthracene	ND		0.030	mg/kg	0.33
Benzo(g,h,i)perylene	ND		0.020	mg/kg	0.33
Xylidine (Total)	ND		0.076	mg/kg	0.33

Surrogate	Recovery	
Nitrobenzene-d5	71	%
2-Fluorobiphenyl	75	%
Terphenyl-d14	73	%
Phenol-d5	55	%
2-Fluorophenol	46	%
2,4,6-Tribromophenol	72	%

ND = Not Detected

QC LOT ASSIGNMENT REPORT - MS QC
Metals Analysis and Preparation

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
104019-0001-SA	SOLID	AL-FLAA-S	11 JAN 94-C	11 JAN 94-C	11 JAN 94-CA
104019-0001-SA	SOLID	AS-HAA-S	11 JAN 94-C	11 JAN 94-C	11 JAN 94-CA
104019-0001-SA	SOLID	CD-FLAA-S	11 JAN 94-C	11 JAN 94-C	11 JAN 94-CA
104019-0001-SA	SOLID	CR-FLAA-S	11 JAN 94-C	11 JAN 94-C	11 JAN 94-CA
104019-0001-SA	SOLID	MN-FLAA-S	11 JAN 94-C	11 JAN 94-C	11 JAN 94-CA
104019-0001-SA	SOLID	NI-FLAA-S	11 JAN 94-C	11 JAN 94-C	11 JAN 94-CA
104019-0001-SA	SOLID	PB-FLAA-S	11 JAN 94-C	11 JAN 94-C	11 JAN 94-CA
104019-0001-SA	SOLID	CU-FLAA-S	11 JAN 94-C	11 JAN 94-C	11 JAN 94-CA
104019-0001-SA	SOLID	ZN-FLAA-S	11 JAN 94-C	11 JAN 94-C	11 JAN 94-CA
104019-0001-SA	SOLID	BA-FLAA-S	11 JAN 94-C	11 JAN 94-C	11 JAN 94-CA
104019-0001-SA	SOLID	HG-CVAA-S	12 JAN 94-D	12 JAN 94-D	12 JAN 94-DA
104019-0006-SA	SOLID	AL-FLAA-S	11 JAN 94-C	11 JAN 94-C	11 JAN 94-CA
104019-0006-SA	SOLID	AS-HAA-S	11 JAN 94-C	11 JAN 94-C	11 JAN 94-CA
104019-0006-SA	SOLID	CD-FLAA-S	11 JAN 94-C	11 JAN 94-C	11 JAN 94-CA
104019-0006-SA	SOLID	CR-FLAA-S	11 JAN 94-C	11 JAN 94-C	11 JAN 94-CA
104019-0006-SA	SOLID	MN-FLAA-S	11 JAN 94-C	11 JAN 94-C	11 JAN 94-CA
104019-0006-SA	SOLID	NI-FLAA-S	11 JAN 94-C	11 JAN 94-C	11 JAN 94-CA
104019-0006-SA	SOLID	PB-FLAA-S	11 JAN 94-C	11 JAN 94-C	11 JAN 94-CA
104019-0006-SA	SOLID	CU-FLAA-S	11 JAN 94-C	11 JAN 94-C	11 JAN 94-CA
104019-0006-SA	SOLID	ZN-FLAA-S	11 JAN 94-C	11 JAN 94-C	11 JAN 94-CA
104019-0006-SA	SOLID	BA-FLAA-S	11 JAN 94-C	11 JAN 94-C	11 JAN 94-CA
104019-0006-SA	SOLID	HG-CVAA-S	12 JAN 94-D	12 JAN 94-D	12 JAN 94-DA

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DUPLICATE CONTROL SAMPLE REPORT
Metals Analysis and Preparation
Project: 104019

Category: AL-FLAA-S Aluminum, Flame AA
Matrix: SOLID
QC Lot: 11 JAN 94-C
Date Analyzed: 13 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Aluminum	10700	9500	9480	9490	89	47-153	0.21	20

Category: AS-HAA-S Arsenic, Hydride AA
Matrix: SOLID
QC Lot: 11 JAN 94-C
Date Analyzed: 17 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Arsenic	145	128	135	132	91	59-141	5.3	20

Category: CD-FLAA-S Cadmium, Flame AA
Matrix: SOLID
QC Lot: 11 JAN 94-C
Date Analyzed: 11 JAN
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Cadmium	154	167	165	166	108	68-132	1.2	20

Category: CR-FLAA-S Chromium, Flame AA
Matrix: SOLID
QC Lot: 11 JAN 94-C
Date Analyzed: 13 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Chromium	151	143	149	146	97	66-133	4.1	20

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

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DUPLICATE CONTROL SAMPLE REPORT
Metals Analysis and Preparation
Project: 104019

Category: MN-FLAA-S Manganese, Flame AA Method 7460
Matrix: SOLID
QC Lot: 11 JAN 94-C
Date Analyzed: 13 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Manganese	423	392	391	392	93	74-125	0.26	20

Category: NI-FLAA-S Nickel Flame AA
Matrix: SOLID
QC Lot: 11 JAN 94-C
Date Analyzed: 13 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Nickel	166	191	204	198	119	67-133	6.6	20

Category: PB-FLAA-S Method 7420 - Lead, Flame AA
Matrix: SOLID
QC Lot: 11 JAN 94-C
Date Analyzed: 11 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Lead	148	176	157	166	113	66-135	11	20

Category: CU-FLAA-S Copper Flame AA
Matrix: SOLID
QC Lot: 11 JAN 94-C
Date Analyzed: 13 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Copper	162	161	162	162	100	68-132	0.62	20

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

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DUPLICATE CONTROL SAMPLE REPORT
Metals Analysis and Preparation
Project: 104019

Category: ZN-FLAA-S Zinc, Flame AA
Matrix: SOLID
QC Lot: 11 JAN 94-C
Date Analyzed: 11 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Zinc	530	610	619	614	116	65-135	1.5	20

Category: BA-FLAA-S Barium, Flame AA
Matrix: SOLID
QC Lot: 11 JAN 94-C
Date Analyzed: 16 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Barium	503	471	473	472	94	76-124	0.42	20

Category: HG-CVAA-S Mercury by CVAA
Matrix: SOLID
QC Lot: 12 JAN 94-D
Date Analyzed: 16 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Mercury	29.0	30.4	29.6	30.0	103	52-148	2.7	20

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Metals Analysis and Preparation
Project: 104019

Category: AL-FLAA-S Aluminum, Flame AA
Matrix: SOLID
Sample: 104019-0001
MS Run: 11 JAN 94-CA
Units: mg/kg

Analyte	Sample Result	MS Result	MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
	Concentration								
Aluminum	4990	5960	5730	200	NC	NC	NC	60-130	20

Category: AS-HAA-S Arsenic, Hydride AA
Matrix: SOLID
Sample: 104019-0001
MS Run: 11 JAN 94-CA
Units mg/kg Units Qualifier: Wet wt.

Analyte	Sample Result	MS Result	MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
	Concentration								
Arsenic	1.28	43.1	44.8	50.0	84	87	3.5	50-127	25

Category: CD-FLAA-S Cadmium, Flame AA
Matrix: SOLID
Sample: 104019-0001
MS Run: 11 JAN 94-CA
Units: mg/kg

Analyte	Sample Result	MS Result	MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
	Concentration								
Cadmium	ND	ND	ND	5.00	NC	NC	NC	52-130	28

NC = Not Calculated, calculation not applicable.
ND = Not Detected

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Metals Analysis and Preparation
Project: 104019 (cont.)

Category: CR-FLAA-S Chromium, Flame AA
Matrix: SOLID
Sample: 104019-0001
MS Run: 11 JAN 94-CA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Chromium	13.3	35.7	34.6	20.0	112	107	4.6	40-190	33

Category: MN-FLAA-S Manganese, Flame AA Method 7460
Matrix: SOLID
Sample: 104019-0001
MS Run: 11 JAN 94-CA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Manganese	192	259	239	50.0	134	94	35	60-130	40

Category: NI-FLAA-S Nickel Flame AA
Matrix: SOLID
Sample: 104019-0001
MS Run: 11 JAN 94-CA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Nickel	10.0	53.0	56.0	50.0	86	92	6.7	55-155	25

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

MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Metals Analysis and Preparation
Project: 104019 (cont.)

Category: PB-FLAA-S Method 7420 - Lead, Flame AA
Matrix: SOLID
Sample: 104019-0001
MS Run: 11 JAN 94-CA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Lead	ND	54.0	56.0	50.0	108	112	3.6	14-169	40

Category: CU-FLAA-S Copper Flame AA
Matrix: SOLID
Sample: 104019-0001
MS Run: 11 JAN 94-CA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Copper	16.0	44.0	44.0	25.0	112	112	0.0	49-144	23

Category: ZN-FLAA-S Zinc, Flame AA
Matrix: SOLID
Sample: 104019-0001
MS Run: 11 JAN 94-CA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Zinc	32.4	88.1	87.1	50.0	111	109	1.8	65-138	25

ND = Not Detected

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Metals Analysis and Preparation
Project: 104019 (cont.)

Category: BA-FLAA-S Barium, Flame AA
Matrix: SOLID
Sample: 104019-0001
MS Run: 11 JAN 94-CA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Barium	69.0	236	240	200	84	86	2.4	40-130	30

Category: HG-CVAA-S Mercury by CVAA
Matrix: SOLID
Sample: 104019-0001
MS Run: 12 JAN 94-DA
Units mg/kg Units Qualifier: Wet wt.

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Mercury	ND	0.453	0.416	0.438	103	95	8.1	33-178	40

ND = Not Detected

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

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METHOD BLANK REPORT
Metals Analysis and Preparation
Project: 104019

Test: AL-FLAA-MDL-S Method 7020 - Aluminum, Flame AA
Matrix: SOLID
QC Run: 11 JAN 94-C Date Analyzed: 13 JAN 94

Analyte	Result	Units	Reporting Limit
Aluminum	ND	mg/kg	100

Test: AS-HAA-MDL-S Method 7062 - Arsenic, Hydride AA
Matrix: SOLID
QC Run: 11 JAN 94-C Date Analyzed: 17 JAN 94

Analyte	Result	Units	Reporting Limit
Arsenic	ND	mg/kg	0.50

Test: CD-FLAA-MDL-S Method 7130 - Cadmium, Flame AA
Matrix: SOLID
QC Run: 11 JAN 94-C Date Analyzed: 11 JAN 94

Analyte	Result	Units	Reporting Limit
Cadmium	ND	mg/kg	5.0

Test: CR-FLAA-MDL-S Method 7190 - Chromium, Flame AA
Matrix: SOLID
QC Run: 11 JAN 94-C Date Analyzed: 13 JAN 94

Analyte	Result	Units	Reporting Limit
Chromium	ND	mg/kg	10.0

Test: MN-FLAA-MDL-S Manganese, Flame AA
Matrix: SOLID
QC Run: 11 JAN 94-C Date Analyzed: 13 JAN 94

Analyte	Result	Units	Reporting Limit
Manganese	ND	mg/kg	5.0

ND = Not Detected

METHOD BLANK REPORT
Metals Analysis and Preparation (cont.)
Project: 104019

Test: NI-FLAA-MDL-S Method 7520 - Nickel, Flame AA
Matrix: SOLID
QC Run: 11 JAN 94-C Date Analyzed: 13 JAN 94

Analyte	Result	Units	Reporting Limit
Nickel	ND	mg/kg	10.0

Test: PB-FLAA-MDL-S Method 7420 - Lead, FLame AA
Matrix: SOLID
QC Run: 11 JAN 94-C Date Analyzed: 11 JAN 94

Analyte	Result	Units	Reporting Limit
Lead	ND	mg/kg	20.0

Test: CU-FLAA-MDL-S Method 7210 - Copper, Flame AA
Matrix: SOLID
QC Run: 11 JAN 94-C Date Analyzed: 13 JAN 94

Analyte	Result	Units	Reporting Limit
Copper	ND	mg/kg	10.0

Test: ZN-FLAA-MDL-S Method 7950 - Zinc, Flame AA
Matrix: SOLID
QC Run: 11 JAN 94-C Date Analyzed: 11 JAN 94

Analyte	Result	Units	Reporting Limit
Zinc	ND	mg/kg	2.0

Test: BA-FLAA-MDL-S Method 7080 - Barium, Flame AA
Matrix: SOLID
QC Run: 11 JAN 94-C Date Analyzed: 16 JAN 94

Analyte	Result	Units	Reporting Limit
Barium	ND	mg/kg	50.0

ND = Not Detected

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METHOD BLANK REPORT
Metals Analysis and Preparation (cont.)
Project: 104019

Test: HG-CVAA-MDL-S Method 7471 - Mercury, Cold Vapor AA
Matrix: SOLID
QC Run: 12 JAN 94-D Date Analyzed: 16 JAN 94

Analyte	Result	Units	Reporting Limit
Mercury	ND	mg/kg	0.10

ND = Not Detected

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QC LOT ASSIGNMENT REPORT - MS QC
Wet Chemistry Analysis and Preparation

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
104019-0001-SA	SOLID	CN-S	14 JAN 94-A	14 JAN 94-A	14 JAN 94-AB
104019-0006-SA	SOLID	CN-S	14 JAN 94-A	14 JAN 94-A	14 JAN 94-AB

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DUPLICATE CONTROL SAMPLE REPORT
Wet Chemistry Analysis and Preparation
Project: 104019

Category: CN-S Cyanide (9012) SOLID
Matrix: SOLID
QC Lot: 14 JAN 94-A
Date Analyzed: 14 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Cyanide, Total	5.00	5.15	4.90	5.02	101	70-123	5.0	21

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Wet Chemistry Analysis and Preparation
Project: 104019

Category: CN-S Cyanide (9012) SOLID
Matrix: SOLID
Sample: 104019-0001
MS Run: 14 JAN 94-AB
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Cyanide, Total	0.600	5.00	5.90	5.00	88	106	19	41-159	48

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

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METHOD BLANK REPORT
Wet Chemistry Analysis and Preparation
Project: 104019

Test: CN-MDL-S Method 9012 - Cyanide, Total
Matrix: SOLID
QC Run: 14 JAN 94-A Date Analyzed: 14 JAN 94

Analyte	Result	Units	Reporting Limit
Cyanide, Total	TR	mg/kg	0.50

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METHOD BLANK REPORT
Wet Chemistry Analysis and Preparation
Project: 104019

Test: CN-MDL-S Method 9012 - Cyanide, Total
Matrix: SOLID
QC Run: 14 JAN 94-A Date Analyzed: 14 JAN 94

Analyte	Result	Units	Reporting Limit
Cyanide, Total	TR	mg/kg	0.50

QC LOT ASSIGNMENT REPORT - MS QC
Volatile Organics by GC/MS

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
104019-0002-SA	SOLID	8240-S	05 JAN 94-AF	10 JAN 94-BF	06 JAN 94-BF
104019-0003-SA	SOLID	8240-S	05 JAN 94-AF	10 JAN 94-BF	06 JAN 94-BF
104019-0005-SA	SOLID	8240-S	05 JAN 94-AF	11 JAN 94-AF	06 JAN 94-BF
104019-0007-SA	SOLID	8240-S	05 JAN 94-AF	11 JAN 94-AF	06 JAN 94-BF
104019-0008-SA	AQUEOUS	8240-A	03 JAN 94-BF	10 JAN 94-BF	12 JAN 94-AF

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DUPLICATE CONTROL SAMPLE REPORT
Volatile Organics by GC/MS
Project: 104019

Category: 8240-S Volatile Organics
Matrix: SOLID
QC Lot: 05 JAN 94-AF
Date Analyzed: 05 JAN 94
Concentration Units: ug/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
1,1-Dichloroethene	50.0	36.1	36.2	36.2	72	50-121	0.28	31
Trichloroethene	50.0	51.6	51.7	51.6	103	69-114	0.19	17
Benzene	50.0	52.4	53.0	52.7	105	78-117	1.1	16
Toluene	50.0	55.8	56.2	56.0	112	79-118	0.71	17
Chlorobenzene	50.0	54.6	55.2	54.9	110	79-119	1.1	17

Category: 8240-A Volatile Organics
Matrix: AQUEOUS
QC Lot: 03 JAN 94-BF
Date Analyzed: 03 JAN 94
Concentration Units: ug/L

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
1,1-Dichloroethene	50.0	30.6	31.5	31.0	62	50-121	2.9	31
Trichloroethene	50.0	42.6	43.6	43.1	86	69-116	2.3	17
Benzene	50.0	44.5	46.2	45.4	91	78-117	3.7	[illegible]
Toluene	50.0	46.3	48.2	47.2	95	79-117	4.0	[illegible]
Chlorobenzene	50.0	45.3	45.5	45.4	91	79-118	0.44	17

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

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SINGLE CONTROL SAMPLE REPORT
Volatile Organics by GC/MS
Project: 104019

Category: 8240-S Volatile Organics
Matrix: SOLID
QC Run: 11 JAN 94-AF Date Analyzed: 11 JAN 94
Concentration Units: ug/kg

Analyte	Concentration Spiked	Concentration Measured	Accuracy(%) SCS	Accuracy(%) Limits
1,2-Dichloroethane-d4	50.0	47.6	95	70-121
Toluene-d8	50.0	49.8	100	81-117
Bromofluorobenzene	50.0	48.3	97	74-121

Category: 8240-S Volatile Organics
Matrix: SOLID
QC Run: 10 JAN 94-BF Date Analyzed: 10 JAN 94
Concentration Units: ug/kg

Analyte	Concentration Spiked	Concentration Measured	Accuracy(%) SCS	Accuracy(%) Limits
1,2-Dichloroethane-d4	50.0	49.1	98	70-121
Toluene-d8	50.0	49.8	100	81-117
Bromofluorobenzene	50.0	49.1	98	74-121

Category: 8240-A Volatile Organics
Matrix: AQUEOUS
QC Run: 10 JAN 94-BF Date Analyzed: 10 JAN 94
Concentration Units: ug/L

Analyte	Concentration Spiked	Concentration Measured	Accuracy(%) SCS	Accuracy(%) Limits
1,2-Dichloroethane-d4	50.0	49.1	98	76-114
Toluene-d8	50.0	49.8	100	88-110
Bromofluorobenzene	50.0	49.1	98	86-115

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Volatile Organics by GC/MS
Project: 104019

Category: 8240-S Volatile Organics
Matrix: SOLID
Sample: 103992-0002
MS Run: 06 JAN 94-BF
Units: ug/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
1,1-Dichloroethene	ND	32.9	31.3	50.0	66	63	4.7	46-136	28
Trichloroethene	ND	45.1	40.1	50.0	90	80	12	58-131	26
Benzene	ND	49.2	44.7	50.0	98	89	9.7	63-139	23
Toluene	ND	48.8	43.6	50.0	98	87	12	68-140	24
Chlorobenzene	ND	49.4	44.4	50.0	99	89	11	68-138	23

Category: 8240-A Volatile Organics
Matrix: AQUEOUS
Sample: 104019-0008
MS Run: 12 JAN 94-AF
Units: ug/L

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
1,1-Dichloroethene	ND	29.0	31.8	50.0	58	64	9.8	54-122	23
Trichloroethene	ND	40.6	45.3	50.0	81	91	12	74-143	35
Benzene	ND	41.8	47.3	50.0	84	95	12	62-134	15
Toluene	ND	44.0	49.1	50.0	88	98	11	79-121	15
Chlorobenzene	ND	45.3	49.3	50.0	91	99	8.4	77-121	16

ND = Not Detected

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

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METHOD BLANK REPORT
Volatile Organics by GC/MS
Project: 104019

Test: 8240-HLA-S Method 8240 - Volatile Organics, EPA 8240 Extended List
Matrix: SOLID
QC Run: 10 JAN 94-BF Date Analyzed: 10 JAN 94

Analyte	Result	Units	Reporting Limit
Dichlorodifluoromethane	ND	ug/kg	10
Chloromethane	ND	ug/kg	10
Bromomethane	ND	ug/kg	10
Vinyl chloride	ND	ug/kg	10
Chloroethane	ND	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/kg	5.0
Methylene chloride	TR	ug/kg	5.0
Acetone	ND	ug/kg	10
Trichlorofluoromethane	TR	ug/kg	5.0
1,1-Dichloroethene	ND	ug/kg	5.0
Nitromethane	ND	ug/kg	200
trans-1,2-Dichloroethene	ND	ug/kg	5.0
cis-1,2-Dichloroethene	ND	ug/kg	5.0
1,1-Dichloroethane	ND	ug/kg	5.0
2,2-Dichloropropane	ND	ug/kg	5.0
Bromochloromethane	ND	ug/kg	5.0
Chloroform	ND	ug/kg	5.0
1,1-Dichloropropene	ND	ug/kg	5.0
1,2-Dichloroethane	ND	ug/kg	5.0
Dibromomethane	ND	ug/kg	5.0
1,1,1-Trichloroethane	ND	ug/kg	5.0
Carbon tetrachloride	ND	ug/kg	5.0
Bromodichloromethane	ND	ug/kg	5.0
1,2-Dichloropropane	ND	ug/kg	5.0
1,3-Dichloropropane	ND	ug/kg	5.0
Trichloroethene	ND	ug/kg	5.0
Dibromochloromethane	ND	ug/kg	5.0
1,1,2-Trichloroethane	ND	ug/kg	5.0
Benzene	ND	ug/kg	5.0
Bromoform	ND	ug/kg	5.0
Tetrachloroethene	ND	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.0
Toluene	ND	ug/kg	5.0
Chlorobenzene	ND	ug/kg	5.0
Ethylbenzene	ND	ug/kg	5.0
Styrene	ND	ug/kg	5.0
Xylenes (total)	ND	ug/kg	5.0
1-Methylethylbenzene	ND	ug/kg	5.0
Bromobenzene	ND	ug/kg	5.0
1,2,3-Trichloropropane	ND	ug/kg	5.0
2-Chlorotoluene	ND	ug/kg	5.0
n-Propyl benzene	ND	ug/kg	5.0
1,3,5-Trimethylbenzene	ND	ug/kg	5.0

ND = Not Detected

METHOD BLANK REPORT
Volatile Organics by GC/MS (cont.)
Project: 104019

Test: 8240-HLA-S Method 8240 - Volatile Organics, EPA 8240 Extended List
Matrix: SOLID
QC Run: 10 JAN 94-BF Date Analyzed: 10 JAN 94

Analyte	Result	Units	Reporting Limit
4-Chlorotoluene	ND	ug/kg	5.0
tert-Butylbenzene	ND	ug/kg	5.0
1,2,4-Trimethylbenzene	ND	ug/kg	5.0
sec-Butylbenzene	ND	ug/kg	5.0
Isopropyltoluene	ND	ug/kg	5.0
1,3-Dichlorobenzene	ND	ug/kg	5.0
1,4-Dichlorobenzene	ND	ug/kg	5.0
n-Butylbenzene	ND	ug/kg	5.0
1,2-Dichlorobenzene	ND	ug/kg	5.0
1,2,4-Trichlorobenzene	ND	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND	ug/kg	5.0
Hexachlorobutadiene	ND	ug/kg	5.0
Naphthalene	ND	ug/kg	5.0
1,2,3-Trichlorobenzene	ND	ug/kg	5.0

ND = Not Detected

METHOD BLANK REPORT
Volatile Organics by GC/MS (cont.)
Project: 104019

Test: 8240-HLA-S Method 8240 - Volatile Organics, EPA 8240 Extended List
Matrix: SOLID

QC Run: 11 JAN 94-AF Date Analyzed: 11 JAN 94

Analyte	Result	Units	Reporting Limit
Dichlorodifluoromethane	ND	ug/kg	10
Chloromethane	ND	ug/kg	10
Bromomethane	ND	ug/kg	10
Vinyl chloride	ND	ug/kg	10
Chloroethane	ND	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/kg	5.0
Methylene chloride	ND	ug/kg	5.0
Acetone	ND	ug/kg	10
Trichlorofluoromethane	ND	ug/kg	5.0
1,1-Dichloroethene	ND	ug/kg	5.0
Nitromethane	ND	ug/kg	200
trans-1,2-Dichloroethene	ND	ug/kg	5.0
cis-1,2-Dichloroethene	ND	ug/kg	5.0
1,1-Dichloroethane	ND	ug/kg	5.0
2,2-Dichloropropane	ND	ug/kg	5.0
Bromochloromethane	ND	ug/kg	5.0
Chloroform	ND	ug/kg	5.0
1,1-Dichloropropene	ND	ug/kg	5.0
1,2-Dichloroethane	ND	ug/kg	5.0
Dibromomethane	ND	ug/kg	5.0
1,1,1-Trichloroethane	ND	ug/kg	5.0
Carbon tetrachloride	ND	ug/kg	5.0
Bromodichloromethane	ND	ug/kg	5.0
1,2-Dichloropropane	ND	ug/kg	5.0
1,3-Dichloropropane	ND	ug/kg	5.0
Trichloroethene	ND	ug/kg	5.0
Dibromochloromethane	ND	ug/kg	5.0
1,1,2-Trichloroethane	ND	ug/kg	5.0
Benzene	ND	ug/kg	5.0
Bromoform	ND	ug/kg	5.0
Tetrachloroethene	ND	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.0
Toluene	ND	ug/kg	5.0
Chlorobenzene	ND	ug/kg	5.0
Ethylbenzene	ND	ug/kg	5.0
Styrene	ND	ug/kg	5.0
Xylenes (total)	ND	ug/kg	5.0
1-Methylethylbenzene	ND	ug/kg	5.0
Bromobenzene	ND	ug/kg	5.0
1,2,3-Trichloropropane	ND	ug/kg	5.0
2-Chlorotoluene	ND	ug/kg	5.0
n-Propyl benzene	ND	ug/kg	5.0

ND = Not Detected

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METHOD BLANK REPORT
Volatile Organics by GC/MS (cont.)
Project: 104019

Test: 8240-HLA-S Method 8240 - Volatile Organics, EPA 8240 Extended List
Matrix: SOLID

QC Run: 11 JAN 94-AF Date Analyzed: 11 JAN 94

Analyte	Result	Units	Reporting Limit
1,3,5-Trimethylbenzene	ND	ug/kg	5.0
4-Chlorotoluene	ND	ug/kg	5.0
tert-Butylbenzene	ND	ug/kg	5.0
1,2,4-Trimethylbenzene	ND	ug/kg	5.0
sec-Butylbenzene	ND	ug/kg	5.0
Isopropyltoluene	ND	ug/kg	5.0
1,3-Dichlorobenzene	ND	ug/kg	5.0
1,4-Dichlorobenzene	ND	ug/kg	5.0
n-Butylbenzene	ND	ug/kg	5.0
1,2-Dichlorobenzene	ND	ug/kg	5.0
1,2,4-Trichlorobenzene	ND	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND	ug/kg	5.0
Hexachlorobutadiene	ND	ug/kg	5.0
Naphthalene	ND	ug/kg	5.0
1,2,3-Trichlorobenzene	ND	ug/kg	5.0

ND = Not Detected

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METHOD BLANK REPORT
Volatile Organics by GC/MS (cont.)
Project: 104019

Test: 8240-HLA-A Method 8240 - Volatile Organics, EPA 8240 Extended List
Matrix: AQUEOUS
QC Run: 10 JAN 94-BF Date Analyzed: 10 JAN 94

Analyte	Result	Units	Reporting Limit
Dichlorodifluoromethane	ND	ug/L	10
Chloromethane	ND	ug/L	10
Bromomethane	ND	ug/L	10
Vinyl chloride	ND	ug/L	10
Chloroethane	ND	ug/L	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	5.0
Methylene chloride	TR	ug/L	5.0
Acetone	ND	ug/L	10
Trichlorofluoromethane	TR	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	5.0
Nitromethane	ND	ug/L	200
trans-1,2-Dichloroethene	ND	ug/L	5.0
cis-1,2-Dichloroethene	ND	ug/L	5.0
1,1-Dichloroethane	ND	ug/L	5.0
2,2-Dichloropropane	ND	ug/L	5.0
Bromochloromethane	ND	ug/L	5.0
Chloroform	ND	ug/L	5.0
1,1-Dichloropropene	ND	ug/L	5.0
1,2-Dichloroethane	ND	ug/L	5.0
Dibromomethane	ND	ug/L	5.0
1,1,1-Trichloroethane	ND	ug/L	5.0
Carbon tetrachloride	ND	ug/L	5.0
Bromodichloromethane	ND	ug/L	5.0
1,2-Dichloropropane	ND	ug/L	5.0
1,3-Dichloropropane	ND	ug/L	5.0
Trichloroethene	ND	ug/L	5.0
Dibromochloromethane	ND	ug/L	5.0
1,1,2-Trichloroethane	ND	ug/L	5.0
Benzene	ND	ug/L	5.0
Bromoform	ND	ug/L	5.0
Tetrachloroethene	ND	ug/L	5.0
1,2-Dibromoethane (EDB)	ND	ug/L	5.0
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0
Toluene	ND	ug/L	5.0
Chlorobenzene	ND	ug/L	5.0
Ethylbenzene	ND	ug/L	5.0
Styrene	ND	ug/L	5.0
Xylenes (total)	ND	ug/L	5.0
1-Methylethylbenzene	ND	ug/L	5.0
Bromobenzene	ND	ug/L	5.0
1,2,3-Trichloropropane	ND	ug/L	5.0
2-Chlorotoluene	ND	ug/L	5.0
n-Propyl benzene	ND	ug/L	5.0

ND = Not Detected

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METHOD BLANK REPORT
Volatile Organics by GC/MS (cont.)
Project: 104019

Test: 8240-HLA-A Method 8240 - Volatile Organics, EPA 8240 Extended List
Matrix: AQUEOUS
QC Run: 10 JAN 94-BF Date Analyzed: 10 JAN 94

Analyte	Result	Units	Reporting Limit
1,3,5-Trimethylbenzene	ND	ug/L	5.0
4-Chlorotoluene	ND	ug/L	5.0
tert-Butylbenzene	ND	ug/L	5.0
1,2,4-Trimethylbenzene	ND	ug/L	5.0
sec-Butylbenzene	ND	ug/L	5.0
Isopropyltoluene	ND	ug/L	5.0
1,3-Dichlorobenzene	ND	ug/L	5.0
1,4-Dichlorobenzene	ND	ug/L	5.0
n-Butylbenzene	ND	ug/L	5.0
1,2-Dichlorobenzene	ND	ug/L	5.0
1,2,4-Trichlorobenzene	ND	ug/L	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND	ug/L	5.0
Hexachlorobutadiene	ND	ug/L	5.0
Naphthalene	ND	ug/L	5.0
1,2,3-Trichlorobenzene	ND	ug/L	5.0

ND = Not Detected

QC LOT ASSIGNMENT REPORT - MS QC
Semivolatile Organics by GC/MS

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
104019-0002-SA	SOLID	8270-S	06 JAN 94-A	10 JAN 94-J	03 JAN 94-DB
104019-0003-SA	SOLID	8270-S	06 JAN 94-A	10 JAN 94-J	03 JAN 94-DB
104019-0004-SA	SOLID	8270-S	06 JAN 94-A	10 JAN 94-J	03 JAN 94-DB
104019-0007-SA	SOLID	8270-S	06 JAN 94-A	10 JAN 94-J	03 JAN 94-DB

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DUPLICATE CONTROL SAMPLE REPORT
Semivolatile Organics by GC/MS
Project: 104019

Category: 8270-S Method 8270 - TCL Semivolatile Organics
Matrix: SOLID
QC Lot: 06 JAN 94-A Date Analyzed: 06 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Phenol	6.67	3.47	3.62	3.54	53	39-106	4.2	31
2-Chlorophenol	6.67	4.30	4.19	4.24	64	44-107	2.6	32
1,4-Dichlorobenzene	3.33	2.48	2.47	2.48	74	40-107	0.40	23
N-Nitroso-di-n-propylamine	3.33	2.19	2.05	2.12	64	31-132	6.6	38
1,2,4-Trichlorobenzene	3.33	2.50	2.42	2.46	74	38-120	3.3	22
4-Chloro-3-methylphenol	6.67	4.29	4.16	4.22	63	40-119	3.1	24
Acenaphthene	3.33	2.34	2.24	2.29	69	30-140	4.4	24
2,4-Dinitrotoluene	3.33	1.92	1.84	1.88	56	30-121	4.3	28
4-Nitrophenol	6.67	4.68	4.56	4.62	69	16-143	2.6	54
Pentachlorophenol	6.67	6.65	6.32	6.48	97	21-152	5.1	43
Pyrene	3.33	2.52	2.41	2.46	74	45-120	4.5	26

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

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SINGLE CONTROL SAMPLE REPORT
Semivolatile Organics by GC/MS
Project: 104019

Category: 8270-S Method 8270 - TCL Semivolatile Organics
Matrix: SOLID
QC Run: 10 JAN 94-J Date Analyzed: 11 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Concentration Measured	Accuracy(%) SCS	Accuracy(%) Limits
2-Fluorophenol	6.67	6.05	91	25-121
Phenol-d5	6.67	5.14	77	24-113
Nitrobenzene-d5	3.33	2.98	89	23-120
2-Fluorobiphenyl	3.33	2.85	86	30-115
2,4,6-Tribromophenol	6.67	5.75	86	19-122
Terphenyl-d14	3.33	2.89	87	18-137

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

Enseco
A Corning Company

MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Semivolatile Organics by GC/MS
Project: 104019

Category: 8270-S Method 8270 - TCL Semivolatile Organics
Matrix: SOLID
Sample: 103957-0001
MS Run: 03 JAN 94-DB
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Phenol	ND	2.94	3.35	6.67	44	50	13	25-110	74
2-Chlorophenol	ND	2.81	3.26	6.67	42	49	16	33-103	42
1,4-Dichlorobenzene	ND	1.64	1.82	3.33	49	55	12	22-110	55
N-Nitroso-di-n-propylamine	ND	1.66	1.74	3.33	50	52	3.9	18-138	49
1,2,4-Trichlorobenzene	ND	1.70	1.91	3.33	51	57	11	29-119	43
4-Chloro-3-methylphenol	ND	3.40	3.47	6.67	51	52	2.0	36-119	41
Acenaphthene	ND	1.84	1.87	3.33	55	56	1.8	17-148	36
2,4-Dinitrotoluene	ND	1.56	1.73	3.33	47	52	10	27-120	41
4-Nitrophenol	ND	3.88	4.07	6.67	58	61	5.1	16-143	80
Pentachlorophenol	ND	4.75	4.84	6.67	71	73	2.8	21-152	61
Pyrene	ND	1.85	2.01	3.33	56	60	6.9	24-133	46

ND = Not Detected

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

Enseco
A Corning Company

METHOD BLANK REPORT
Semivolatile Organics by GC/MS
Project: 104019

Test: 8270-HLA-S Method 8270 - Semivolatile Organics
Matrix: SOLID
QC Run: 10 JAN 94-J Date Analyzed: 11 JAN 94

Analyte	Result	Units	Reporting Limit
N-Nitrosodiethylamine	ND	mg/kg	0.33
Phenol	ND	mg/kg	0.33
bis(2-Chloroethyl) ether	ND	mg/kg	0.33
2-Chlorophenol	ND	mg/kg	0.33
1,3-Dichlorobenzene	ND	mg/kg	0.33
1,4-Dichlorobenzene	ND	mg/kg	0.33
Benzyl alcohol	ND	mg/kg	0.33
1,2-Dichlorobenzene	ND	mg/kg	0.33
2-Methylphenol	ND	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND	mg/kg	0.33
3/4-Methylphenol	ND	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND	mg/kg	0.33
Hexachloroethane	ND	mg/kg	0.33
Nitrobenzene	ND	mg/kg	0.33
Isophorone	ND	mg/kg	0.33
2-Nitrophenol	ND	mg/kg	0.33
2,4-Dimethylphenol	ND	mg/kg	0.33
Benzoic acid	ND	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND	mg/kg	0.33
2,4-Dichlorophenol	ND	mg/kg	0.33
1,2,4-Trichlorobenzene	ND	mg/kg	0.33
Naphthalene	ND	mg/kg	0.33
4-Chloroaniline	ND	mg/kg	0.33
Hexachlorobutadiene	ND	mg/kg	0.33
4-Chloro-3-methylphenol	ND	mg/kg	0.33
2-Methylnaphthalene	ND	mg/kg	0.33
Hexachlorocyclopentadiene	ND	mg/kg	0.33
2,4,6-Trichlorophenol	ND	mg/kg	0.33
2,4,5-Trichlorophenol	ND	mg/kg	1.7
2-Chloronaphthalene	ND	mg/kg	0.33
2-Nitroaniline	ND	mg/kg	1.7
Dimethyl phthalate	ND	mg/kg	0.33
Acenaphthylene	ND	mg/kg	0.33
3-Nitroaniline	ND	mg/kg	1.7
Acenaphthene	ND	mg/kg	0.33
2,4-Dinitrophenol	ND	mg/kg	1.7
4-Nitrophenol	ND	mg/kg	1.7
Dibenzofuran	ND	mg/kg	0.33
2,4-Dinitrotoluene	ND	mg/kg	0.33
2,6-Dinitrotoluene	ND	mg/kg	0.33
Diethyl phthalate	ND	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND	mg/kg	0.33
Fluorene	ND	mg/kg	0.33
4-Nitroaniline	ND	mg/kg	1.7
4,6-Dinitro-2-methylphenol	ND	mg/kg	1.7

ND = Not Detected

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METHOD BLANK REPORT
Semivolatile Organics by GC/MS (cont.)
Project: 104019

Test: 8270-HLA-S Method 8270 - Semivolatile Organics
Matrix: SOLID
QC Run: 10 JAN 94-J Date Analyzed: 11 JAN 94

Analyte	Result	Units	Reporting Limit
N-Nitrosodiphenylamine	ND	mg/kg	0.33
4-Bromophenyl phenyl ether	ND	mg/kg	0.33
Hexachlorobenzene	ND	mg/kg	0.33
Pentachlorophenol	ND	mg/kg	1.7
Phenanthrene	ND	mg/kg	0.33
Anthracene	ND	mg/kg	0.33
Di-n-butyl phthalate	ND	mg/kg	0.33
Fluoranthene	ND	mg/kg	0.33
Pyrene	ND	mg/kg	0.33
Butyl benzyl phthalate	ND	mg/kg	0.33
3,3'-Dichlorobenzidine	ND	mg/kg	0.66
Benzo(a)anthracene	ND	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND	mg/kg	0.33
Chrysene	ND	mg/kg	0.33
Di-n-octyl phthalate	ND	mg/kg	0.33
Benzo(b)fluoranthene	ND	mg/kg	0.33
Benzo(k)fluoranthene	ND	mg/kg	0.33
Benzo(a)pyrene	ND	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND	mg/kg	0.33
Dibenz(a,h)anthracene	ND	mg/kg	0.33
Benzo(g,h,i)perylene	ND	mg/kg	0.33
Xylidine (Total)	ND	mg/kg	0.33

ND = Not Detected

Holding Time Report | Project: 104019 | Client: Harding Lawson Associates | Today: 19 JAN 94

	Field ID	Lab ID	Lab Test Code	Analytical Method	Collected	Received	Extracted	Analyzed	CTA	RTA	ETA	HTV	Corrective Action
Test: Method 8270 - Semivolatile Organics							Prep: P-8270-S						Total: 4
1	SVMW-39-5.	104019-0002-SA	8270-HLA-S	8270	06 JAN 94	06 JAN 94	10 JAN 94	11 JAN 94	5	5	1		
2	SVMW-39-19	104019-0003-SA	8270-HLA-S	8270	06 JAN 94	06 JAN 94	10 JAN 94	11 JAN 94	5	5	1		
3	SVMW-39-36	104019-0004-SA	8270-HLA-S	8270	06 JAN 94	06 JAN 94	10 JAN 94	11 JAN 94	5	5	1		
4	SZB-24-5.7	104019-0007-SA	8270-HLA-S	8270	06 JAN 94	06 JAN 94	10 JAN 94	11 JAN 94	5	5	1		
Test: Method 8240 - Volatile Organics, EPA 8240 Extended List							Prep: P-VOASCR-A						Total: 1
1	PWS-2.4-00	104019-0008-SA	8240-HLA-A	8240	06 JAN 94	06 JAN 94	10 JAN 94	10 JAN 94	4	4	n/a		
Test: Method 8240 - Volatile Organics, EPA 8240 Extended List							Prep: P-VOASCR-S						Total: 4
1	SVMW-39-5.	104019-0002-SA	8240-HLA-S	8240	06 JAN 94	06 JAN 94	10 JAN 94	10 JAN 94	4	4	n/a		
2	SVMW-39-19	104019-0003-SA	8240-HLA-S	8240	06 JAN 94	06 JAN 94	10 JAN 94	10 JAN 94	4	4	n/a		
3	SVMW-39-36	104019-0005-SA	8240-HLA-S	8240	06 JAN 94	06 JAN 94	11 JAN 94	11 JAN 94	5	5	n/a		
4	SZB-24-5.7	104019-0007-SA	8240-HLA-S	8240	06 JAN 94	06 JAN 94	11 JAN 94	11 JAN 94	5	5	n/a		
Test: Method 5030 - Prep - Volatile Organics							Prep: n/a						Total: 1
1	PWS-2.4-00	104019-0008-SA	P-VOASCR-A	5030	06 JAN 94	06 JAN 94	10 JAN 94	n/a	4	4	n/a		
Test: Method 5030 - Prep - Volatile Organics							Prep: n/a						Total: 4
1	SVMW-39-5.	104019-0002-SA	P-VOASCR-S	5030	06 JAN 94	06 JAN 94	10 JAN 94	n/a	4	4	n/a		
2	SVMW-39-19	104019-0003-SA	P-VOASCR-S	5030	06 JAN 94	06 JAN 94	10 JAN 94	n/a	4	4	n/a		
3	SVMW-39-36	104019-0005-SA	P-VOASCR-S	5030	06 JAN 94	06 JAN 94	11 JAN 94	n/a	5	5	n/a		
4	SZB-24-5.7	104019-0007-SA	P-VOASCR-S	5030	06 JAN 94	06 JAN 94	11 JAN 94	n/a	5	5	n/a		
Test: Method EPA 3550 - Prep - Semivolatile Organics by GC/MS							Prep: n/a						Total: 4
1	SVMW-39-5.	104019-0002-SA	P-8270-S	3550	06 JAN 94	06 JAN 94	10 JAN 94	n/a	4	4	n/a		
2	SVMW-39-19	104019-0003-SA	P-8270-S	3550	06 JAN 94	06 JAN 94	10 JAN 94	n/a	4	4	n/a		
3	SVMW-39-36	104019-0004-SA	P-8270-S	3550	06 JAN 94	06 JAN 94	10 JAN 94	n/a	4	4	n/a		
4	SZB-24-5.7	104019-0007-SA	P-8270-S	3550	06 JAN 94	06 JAN 94	10 JAN 94	n/a	4	4	n/a		
Test: Method 7020 - Aluminum, Flame AA							Prep: P-M-3050-S						Total: 2
1	SVMW-39-5.	104019-0001-SA	AL-FLAA-MDL-S	7020	06 JAN 94	06 JAN 94	11 JAN 94	13 JAN 94	7	7	n/a		
2	SZB-24-5.5	104019-0006-SA	AL-FLAA-MDL-S	7020	06 JAN 94	06 JAN 94	11 JAN 94	13 JAN 94	7	7	n/a		
Test: Method 7062 - Arsenic, Hydride AA							Prep: P-M-3050-S						Total: 2
1	SVMW-39-5.	104019-0001-SA	AS-HAA-MDL-S	7062	06 JAN 94	06 JAN 94	11 JAN 94	17 JAN 94	11	11	n/a		
2	SZB-24-5.5	104019-0006-SA	AS-HAA-MDL-S	7062	06 JAN 94	06 JAN 94	11 JAN 94	17 JAN 94	11	11	n/a		
Test: Method 7080 - Barium, Flame AA							Prep: P-M-3050-S						Total: 2
1	SVMW-39-5.	104019-0001-SA	BA-FLAA-MDL-S	7080	06 JAN 94	06 JAN 94	11 JAN 94	16 JAN 94	10	10	n/a		
2	SZB-24-5.5	104019-0006-SA	BA-FLAA-MDL-S	7080	06 JAN 94	06 JAN 94	11 JAN 94	16 JAN 94	10	10	n/a		
Test: Method 7130 - Cadmium, Flame AA							Prep: P-M-3050-S						Total: 2
1	SVMW-39-5.	104019-0001-SA	CD-FLAA-MDL-S	7130	06 JAN 94	06 JAN 94	11 JAN 94	11 JAN 94	5	5	n/a		
2	SZB-24-5.5	104019-0006-SA	CD-FLAA-MDL-S	7130	06 JAN 94	06 JAN 94	11 JAN 94	11 JAN 94	5	5	n/a		
Test: Method 7190 - Chromium, Flame AA							Prep: P-M-3050-S						Total: 2
1	SVMW-39-5.	104019-0001-SA	CR-FLAA-MDL-S	7190	06 JAN 94	06 JAN 94	11 JAN 94	13 JAN 94	7	7	n/a		
2	SZB-24-5.5	104019-0006-SA	CR-FLAA-MDL-S	7190	06 JAN 94	06 JAN 94	11 JAN 94	13 JAN 94	7	7	n/a		

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Holding Time Report Project: 104019 Client: Harding Lawson Associates Today: 19 JAN 94

	Field ID	Lab ID	Lab Test Code	Analytical Method	Collected	Received	Extracted	Analyzed	CTA	RTA	ETA	HTV	Corrective Action
Test: Method 7210 - Copper, Flame AA							Prep: P-M-3050-S						Total: 2
1	SVMW-39-5.	104019-0001-SA	CU-FLAA-MDL-S	7210	06 JAN 94	06 JAN 94	11 JAN 94	13 JAN 94	7	7	n/a		
2	SZB-24-5.5	104019-0006-SA	CU-FLAA-MDL-S	7210	06 JAN 94	06 JAN 94	11 JAN 94	13 JAN 94	7	7	n/a		
Test: Method 7471 - Mercury, Cold Vapor AA							Prep: P-HG-CVAA-S						Total: 2
1	SVMW-39-5.	104019-0001-SA	HG-CVAA-MDL-S	7471	06 JAN 94	06 JAN 94	12 JAN 94	16 JAN 94	10	10	n/a		
2	SZB-24-5.5	104019-0006-SA	HG-CVAA-MDL-S	7471	06 JAN 94	06 JAN 94	12 JAN 94	16 JAN 94	10	10	n/a		
Test: Manganese, Flame AA							Prep: P-M-3050-S						Total: 2
1	SVMW-39-5.	104019-0001-SA	MN-FLAA-MDL-S	7460	06 JAN 94	06 JAN 94	11 JAN 94	13 JAN 94	7	7	n/a		
2	SZB-24-5.5	104019-0006-SA	MN-FLAA-MDL-S	7460	06 JAN 94	06 JAN 94	11 JAN 94	13 JAN 94	7	7	n/a		
Test: Method 7520 - Nickel, Flame AA							Prep: P-M-3050-S						Total: 2
1	SVMW-39-5.	104019-0001-SA	NI-FLAA-MDL-S	7520	06 JAN 94	06 JAN 94	11 JAN 94	13 JAN 94	7	7	n/a		
2	SZB-24-5.5	104019-0006-SA	NI-FLAA-MDL-S	7520	06 JAN 94	06 JAN 94	11 JAN 94	13 JAN 94	7	7	n/a		
Test: Method 7420 - Lead, FLame AA							Prep: P-M-3050-S						Total: 2
1	SVMW-39-5.	104019-0001-SA	PB-FLAA-MDL-S	7420	06 JAN 94	06 JAN 94	11 JAN 94	11 JAN 94	5	5	n/a		
2	SZB-24-5.5	104019-0006-SA	PB-FLAA-MDL-S	7420	06 JAN 94	06 JAN 94	11 JAN 94	11 JAN 94	5	5	n/a		
Test: Method 7950 - Zinc, Flame AA							Prep: P-M-3050-S						Total: 2
1	SVMW-39-5.	104019-0001-SA	ZN-FLAA-MDL-S	7950	06 JAN 94	06 JAN 94	11 JAN 94	11 JAN 94	5	5	n/a		
2	SZB-24-5.5	104019-0006-SA	ZN-FLAA-MDL-S	7950	06 JAN 94	06 JAN 94	11 JAN 94	11 JAN 94	5	5	n/a		
Test: Prep - Mercury, Cold Vapor AA, Solid							Prep: n/a						Total: 2
1	SVMW-39-5.	104019-0001-SA	P-HG-CVAA-S	7471	06 JAN 94	06 JAN 94	12 JAN 94	n/a	6	6	n/a		
2	SZB-24-5.5	104019-0006-SA	P-HG-CVAA-S	7471	06 JAN 94	06 JAN 94	12 JAN 94	n/a	6	6	n/a		
Test: Method 3050 - Prep - Total Metals							Prep: n/a						Total: 2
1	SVMW-39-5.	104019-0001-SA	P-M-3050-S	3050	06 JAN 94	06 JAN 94	11 JAN 94	n/a	5	5	n/a		
2	SZB-24-5.5	104019-0006-SA	P-M-3050-S	3050	06 JAN 94	06 JAN 94	11 JAN 94	n/a	5	5	n/a		
Test: Method 9012 - Cyanide, Total							Prep: P-CN-S						Total: 2
1	SVMW-39-5.	104019-0001-SA	CN-MDL-S	9012	06 JAN 94	06 JAN 94	14 JAN 94	14 JAN 94	8	8	n/a		
2	SZB-24-5.5	104019-0006-SA	CN-MDL-S	9012	06 JAN 94	06 JAN 94	14 JAN 94	14 JAN 94	8	8	n/a		
Test: Method 9012 - Prep - Cyanide, Total							Prep: n/a						Total: 2
1	SVMW-39-5.	104019-0001-SA	P-CN-S	9012	06 JAN 94	06 JAN 94	14 JAN 94	n/a	8	8	n/a		
2	SZB-24-5.5	104019-0006-SA	P-CN-S	9012	06 JAN 94	06 JAN 94	14 JAN 94	n/a	8	8	n/a		

CTA = Number of Days from Collected to Analyzed.
RTA = Number of Days from Received to Analyzed.
ETA = Number of Days from Extraction to Analyzed.
HTV = Hold Time Violation (Y=Yes, blank=No)

Enseco
A Corning Company

Harding Lawson Associates
Hamilton Centre Drive, Suite 200
Santa Ana, California 92707
714/556-7992 – 213/617-7232
FAX: 714/662-3297

CHAIN OF CUSTODY FORM

Page 1 of 1

Lab: Enseco CRL 104019

Samplers: Tom Lindros

Job Number: 26522.2.4

Name/Location: Aerojet-AISA

Project Manager: Matt Hunter

Recorder: [signature] (Signature Required)

SOURCE CODE	MATRIX: Water	Sediment	Soil	Oil	#CONTAINERS & PRESERV.: Unpres.	H_2SO_4	HNO_3	HCl	SAMPLE NUMBER OR LAB NUMBER: Yr	Wk	Seq	DATE: Yr	Mo	Dy	Time	STATION DESCRIPTION/ NOTES	EPA 601/8010	EPA 602/8020	EPA 624/8240 VOC's	EPA 625/8270	Priority Pllnt. Metals	Benzene/Toluene/Xylene	Total Petrol. Hydrocarb.	HOLD	OK PRL M.H. 1-7-96 1:55PM
10	X							4	PWS-2.4-001			94	01	06	1654	4x40ml VOAs			X						
10	X							2	TB-2.4-001			94	01	06	1700	2x40ml VOAs								X	

Custody Seal No's 2000 & 2001

LAB NUMBER: Yr	Wk	Seq	DEPTH IN FEET	COL MTD CD	QA CODE	MISCELLANEOUS
						-Report to Matt Hunter
						-Analyze for Aerojet Contact

CHAIN OF CUSTODY RECORD

RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
[signature]	[signature]	1-6 5:25
[signature]		

DISPATCHED BY: (Signature) DATE/TIME

RECEIVED FOR LAB BY: (Signature) [signature] DATE/TIME 1-6-96 1815

METHOD OF SHIPMENT Lab Courier Pickup at Project Site

Laboratory Copy White | Project Office Copy Yellow | Field or Office Copy Pink

6533

 104019

Harding Lawson Associates
3 Hutton Centre Drive, Suite 200
Santa Ana, California 92707
714/556-7992 – 213/617-7232
FAX: 714/662-3297

CHAIN OF CUSTODY FORM

Lab: ENSECO CRL

Samplers: Tom Lindnos

Job Number: 26522. 2.4

Name/Location: AEROJET - A1SA

Project Manager: MATT HUNTER

Recorder: DL (Signature Required)

SOURCE CODE	MATRIX: Water	Sediment	Soil	Oil	#CONTAINERS & PRESERV.: Unpres.	H_2SO_4	HNO_3	Chilled	SAMPLE NUMBER OR LAB NUMBER: Yr Wk Seq	DATE: Yr Mo Dy Time	STATION DESCRIPTION/ NOTES	EPA 601/8010	EPA 602/8020	EPA 624/8240 VOCs	EPA 625/8270 SVOCs	Priority Pltnt. Metals	Benzene/Toluene/Xylene	Total Petrol. Hydrocarb.	EPA 9012 Cyanide	EPA 6010/7000 metals	Chloride			Hold
50			X		X			X	9 SVMW-39-4.25	940106 0742	2/2 of 3" Stainless													X
50			X		X			X	SVMW-39-5.00	940106 0750									X	X				
50			X		X			X	SVMW-39-5.25	940106 0750				X	X									
50			X		X			X	SVMW-39-9.50	940106 0802														X
50			X		X			X	SVMW-39-9.75	940106 0802														X
50			X		X			X	SVMW-39-16.25	940106 0818														X
50			X		X			X	SVMW-39-19.50	940106 0825				X										X
50			X		X			X	SVMW-39-19.75	940106 0825				X	X									
50			X		X			X	SVMW-39-25.75	940106 0836														X
50			X		X			X	SVMW-39-26.0	940106 0836														X

Custody Seal Nos 656 and 657

LAB NUMBER: Yr Wk Seq	DEPTH IN FEET	COL MTD CD	QA CODE	MISCELLANEOUS
				-Report to Matt Hunter
				-Analyze per Aerojet Contract
				-Matt Hunter to Fax requested Laboratory analyses
				Analyses for Fax 1/7/94

CHAIN OF CUSTODY RECORD

RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
DL	Ken Houl	1-6 4:07
RELINQUISHED BY: (Signature) Ken Houl	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
DISPATCHED BY: (Signature) DATE/TIME	RECEIVED FOR LAB BY: (Signature) nal	DATE/TIME 1-6-94 1815

METHOD OF SHIPMENT – Lab Courier pickup at Project Site

Laboratory Copy White | Project Office Copy Yellow | Field or Office Copy Pink

6533

Harding Lawson Associates
Hutton Centre Drive, Suite 200
Santa Ana, California 92707
714/556-7992 – 213/617-7232
FAX: 714/662-3297

CHAIN OF CUSTODY FORM

Lab: ENSECO CRL

Samplers: Tom Lindros

Job Number: 26522 2.4 / 2.3

Name/Location: Aerojet - AISA

Project Manager: MATT Hunter

Recorder: [signature] (Signature Required)

SOURCE CODE	MATRIX: Water	Sediment	Soil	Oil	#CONTAINERS & PRESERV.: Unpres.	H_2SO_4	HNO_3	chilled	SAMPLE NUMBER OR LAB NUMBER: Yr	Wk	Seq	DATE: Yr	Mo	Dy	Time	STATION DESCRIPTION/ NOTES	EPA 601/8010	EPA 602/8020	EPA 624/8240 VOCs	EPA 625/8270 SVOCs	Priority Pllnt. Metals	Benzene/Toluene/Xylene	Total Petrol. Hydrocarb.	EPA 9012 Cyanide	EPA 6010/7000 metals	chlorate	HOLD
50			X		X			X	SVMW-39-35.0			94	01	06	0855	2½" 0x3" stainless											X
50			X		X			X	SVMW-39-36.0			94	01	06	0905												X
50			X		X			X	SVMW-39-36.25			94	01	06	0905					X							
50			X		X			X	SVMW-39-36.50			94	01	06	0905				X								
50			X		X			X	SZB-24-4.50			94	01	06	1330												X
50			X		X			X	SZB-24-5.50			94	01	06	1337									X	X		
50			X		X			X	SZB-24 5.75			94	01	06	1337				X	X							
50			X		X			X	SZB-24-15.0			94	01	06	1401												X
50			X		X			X	SZB-24-18.0			94	01	06	1414												X
50			X		X			X	SZB-24A-9.75			94	01	06	1517												X

Custody Seal No's. 656 & 657

LAB NUMBER: Yr	Wk	Seq	DEPTH IN FEET	COL MTD CD	QA CODE	MISCELLANEOUS
						- Report to Matt Hunter
						- Analyze per Aerojet Contract
						- Matt Hunter to Fax requested Laboratory Analyses

CHAIN OF CUSTODY RECORD

RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
[signature]	Ken Hoel	1-6 4:07
Ken Hoel		

DISPATCHED BY: (Signature)	DATE/TIME	RECEIVED FOR LAB BY: (Signature)	DATE/TIME
		[signature]	1-6-94 1815

METHOD OF SHIPMENT: Enb Carrier pickup at Project Site

Laboratory Copy White | Project Office Copy Yellow | Field or Office Copy Pink

6533

Enseco – CRL
7440 Lincoln Way • Garden Grove, CA 92641
(714) 898-6370 • (213) 598-0458 • (800) LAB-1-CRL
FAX: (714) 891-5917

Enseco
A Corning Company

January 24, 1994

HARDING LAWSON ASSOCIATES
3 HUTTON CENTRE DRIVE, STE 200
SANTA ANA, CA 92707
ATTN: MR. MATT HUNTER

Lab No.: 104020-0001/0021
Date Sampled: 7-JAN-1994
Date Sample Rec'd: 7-JAN-1994
Project: (26522-2.3) AEROJET

Enclosed with this letter is the report on the chemical and physical analyses on the samples from LAB NO: 104020-0001/0021 shown above.

The samples were received by CRL in a chilled state, intact and with the chain-of-custody record attached.

Note that ND means not detected at the reporting limit expressed. The reporting limit is raised to reflect the dilution factor of the sample.

Solid samples are reported on "as received" basis.

Case Narrative:

The MS/MSD Percent Recovery for Aluminum was not within the acceptance limits specified in HLA's "Laboratory Analytical Technical Requirements," nor was it within Enseco's-CRL's established acceptance limits. However, the DCS recovery was within all acceptable ranges, therefore the data was accepted and no further action was required.

The MS/MSD Percent Recovery for Cyanide was not within the acceptance limits specified in HLA's "Laboratory Analytical Technical Requirements," but was within Enseco's-CRL's established acceptance limits, therefore the data was accepted and no further action was required.

The MS/MSD Percent Recovery for Pentachlorophenol was not within the acceptance limits specified in HLA's "Laboratory Analytical Technical Requirements," but was within Enseco's-CRL's established acceptance limits, therefore the data was accepted and no further action was required.

The Report Cover Letter is an integral part of this report.

This report pertains only to the samples investigated and does not necessarily apply to other apparently identical or similar materials. This report is submitted for the exclusive use of the client to whom it is addressed. Any reproduction of this report or use of this Laboratory's name for advertising or publicity purposes without authorization is prohibited.

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Enseco - CRL
7440 Lincoln Way • Garden Grove, CA 92641
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FAX: (714) 891-5917

January 24, 1994

HARDING LAWSON ASSOCIATES
3 HUTTON CENTRE DRIVE, STE 200
SANTA ANA, CA 92707
ATTN: MR. MATT HUNTER

Lab No.: 104020-0001/0021
Date Sampled: 7-JAN-1994
Date Sample Rec'd: 7-JAN-1994
Project: (26522-2.3) AEROJET

Case Narrative (cont.):

The MSD Percent Recovery for 4-Nitrophenol was not within the acceptance limits specified in HLA's "Laboratory Analytical Technical Requirements," but was within Enseco's-CRL's established acceptance limits, therefore the data was accepted and no further action was required.

Sabina R. Sudoko
Reviewed

Mei Bloom
Approved

The Report Cover Letter is an integral part of this report.
This report pertains only to the samples investigated and does not necessarily apply to other apparently identical or similar materials. This report is submitted for the exclusive use of the client to whom it is addressed. Any reproduction of this report or use of this Laboratory's name for advertising or publicity purposes without authorization is prohibited.

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SAMPLE DESCRIPTION INFORMATION
for
Harding Lawson Associates

Lab ID	Client ID	Matrix	Sampled Date	Sampled Time	Received Date
104020-0001-SA	SZB-24A-20.75	SOIL	07 JAN 94		07 JAN 94
104020-0002-SA	SZB-22-4.25	SOIL	07 JAN 94	09:30	07 JAN 94
104020-0003-SA	SZB-22-4.50	SOIL	07 JAN 94	09:30	07 JAN 94
104020-0004-SA	SZB-22-24.75	SOIL	07 JAN 94	10:36	07 JAN 94
104020-0005-SA	SZB-34-9.25	SOIL	07 JAN 94	13:31	07 JAN 94
104020-0006-SA	SZB-34B-4.75	SOIL	07 JAN 94	14:00	07 JAN 94
104020-0007-SA	SZB-34C-6.25	SOIL	07 JAN 94	14:26	07 JAN 94
104020-0008-SA	SZB-38-4.50	SOIL	07 JAN 94	15:05	07 JAN 94
104020-0009-SA	SZB-38-4.75	SOIL	07 JAN 94	15:05	07 JAN 94
104020-0010-SA	SZB-38-4.00	SOIL	07 JAN 94		07 JAN 94
104020-0011-SA	SZB-24A-15.50	SOIL	07 JAN 94		07 JAN 94
104020-0012-SA	SZB-24A-21.00	SOIL	07 JAN 94		07 JAN 94
104020-0013-SA	SZB-24A-20.25	SOIL	07 JAN 94		07 JAN 94
104020-0014-SA	SZB-22-4.00	SOIL	07 JAN 94	09:30	07 JAN 94
104020-0015-SA	SZB-22-11.25	SOIL	07 JAN 94	09:45	07 JAN 94
104020-0016-SA	SZB-22-15.00	SOIL	07 JAN 94	10:00	07 JAN 94
104020-0017-SA	SZB-22-19.25	SOIL	07 JAN 94	10:20	07 JAN 94
104020-0018-SA	SZB-22-19.50	SOIL	07 JAN 94	10:20	07 JAN 94
104020-0019-SA	SZB-22-21.00	SOIL	07 JAN 94	10:30	07 JAN 94
104020-0020-SA	SZB-22-24.25	SOIL	07 JAN 94	10:36	07 JAN 94
104020-0021-SA	SZB-22-24.50	SOIL	07 JAN 94	10:36	07 JAN 94

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METALS

Client Name: Harding Lawson Associates
Client ID: SZB-22-4.25
LAB ID: 104020-0002-SA
Matrix: SOIL — Sampled: 07 JAN 94 — Received: 07 JAN 94
Authorized: 11 JAN 94 — Prepared: See Below — Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Aluminum	3740		50.0	100	mg/kg	7020	13 JAN 94	13 JAN 94
Arsenic	1.8		0.20	0.50	mg/kg	7062	13 JAN 94	17 JAN 94
Barium	118		20.0	50.0	mg/kg	7080	13 JAN 94	16 JAN 94
Chromium	16.2		5.0	10.0	mg/kg	7190	13 JAN 94	13 JAN 94
Copper	15.0		5.0	10.0	mg/kg	7210	13 JAN 94	18 JAN 94
Lead	ND		20.0	20.0	mg/kg	7420	13 JAN 94	16 JAN 94
Manganese	163		2.0	5.0	mg/kg	7460	13 JAN 94	18 JAN 94
Nickel	TR		5.0	10.0	mg/kg	7520	13 JAN 94	16 JAN 94
Zinc	36.0		1.0	2.0	mg/kg	7950	13 JAN 94	16 JAN 94
Cadmium	ND		2.0	5.0	mg/kg	7130	13 JAN 94	18 JAN 94
Mercury	ND		0.090	0.10	mg/kg	7471	12 JAN 94	16 JAN 94

ND = Not Detected

Enseco
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QC LOT ASSIGNMENT REPORT - MS QC
Semivolatile Organics by GC/MS

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
104020-0001-SA	SOLID	8270-S	11 JAN 94-I	11 JAN 94-I	11 JAN 94-IB
104020-0005-SA	SOLID	8270-S	11 JAN 94-I	11 JAN 94-I	11 JAN 94-IB
104020-0007-SA	SOLID	8270-S	11 JAN 94-I	11 JAN 94-I	11 JAN 94-IB
104020-0008-SA	SOLID	8270-S	11 JAN 94-I	11 JAN 94-I	11 JAN 94-IB

Enseco
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METALS

Client Name: Harding Lawson Associates
Client ID: SZB-34B-4.75
LAB ID: 104020-0006-SA
Matrix: SOIL — Sampled: 07 JAN 94 — Received: 07 JAN 94
Authorized: 11 JAN 94 — Prepared: See Below — Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Aluminum	3880		50.0	100	mg/kg	7020	13 JAN 94	13 JAN 94
Arsenic	1.2		0.20	0.50	mg/kg	7062	13 JAN 94	17 JAN 94
Barium	50.0		20.0	50.0	mg/kg	7080	13 JAN 94	16 JAN 94
Chromium	13.4		5.0	10.0	mg/kg	7190	13 JAN 94	13 JAN 94
Copper	TR		5.0	10.0	mg/kg	7210	13 JAN 94	18 JAN 94
Lead	ND		20.0	20.0	mg/kg	7420	13 JAN 94	16 JAN 94
Manganese	157		2.0	5.0	mg/kg	7460	13 JAN 94	18 JAN 94
Nickel	TR		5.0	10.0	mg/kg	7520	13 JAN 94	16 JAN 94
Zinc	27.1		1.0	2.0	mg/kg	7950	13 JAN 94	16 JAN 94
Cadmium	ND		2.0	5.0	mg/kg	7130	13 JAN 94	18 JAN 94
Mercury	ND		0.090	0.10	mg/kg	7471	12 JAN 94	16 JAN 94

ND = Not Detected

Enseco
A Corning Company

METALS

Client Name: Harding Lawson Associates
Client ID: SZB-38-4.75
Lab ID: 104020-0009-SA
Matrix: SOIL
Sampled: 07 JAN 94
Received: 07 JAN 94
Authorized: 11 JAN 94
Prepared: See Below
Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Aluminum	9850		50.0	500	mg/kg	7020	13 JAN 94	13 JAN 94
Arsenic	3.8		0.20	0.50	mg/kg	7062	13 JAN 94	17 JAN 94
Barium	122		20.0	50.0	mg/kg	7080	13 JAN 94	16 JAN 94
Chromium	22.3		5.0	10.0	mg/kg	7190	13 JAN 94	13 JAN 94
Copper	20.0		5.0	10.0	mg/kg	7210	13 JAN 94	18 JAN 94
Lead	ND		20.0	20.0	mg/kg	7420	13 JAN 94	16 JAN 94
Manganese	323		2.0	5.0	mg/kg	7460	13 JAN 94	18 JAN 94
Nickel	14.0		5.0	10.0	mg/kg	7520	13 JAN 94	16 JAN 94
Zinc	47.9		1.0	2.0	mg/kg	7950	13 JAN 94	16 JAN 94
Cadmium	ND		2.0	5.0	mg/kg	7130	13 JAN 94	18 JAN 94
Mercury	TR		0.090	0.10	mg/kg	7471	12 JAN 94	16 JAN 94

ND = Not Detected

Enseco
A Corning Company

GENERAL INORGANICS

Client Name: Harding Lawson Associates
Client ID: SZB-22-4.25
LAB ID: 104020-0002-SA
Matrix: SOIL — Sampled: 07 JAN 94 — Received: 07 JAN 94
Authorized: 11 JAN 94 — Prepared: See Below — Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Cyanide, Total	6.5		0.30	0.50	mg/kg	9012	19 JAN 94	19 JAN 94

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GENERAL INORGANICS

Client Name: Harding Lawson Associates
Client ID: SZB-34B-4.75
Lab ID: 104020-0006-SA
Matrix: SOIL — Sampled: 07 JAN 94 — Received: 07 JAN 94
Authorized: 11 JAN 94 — Prepared: See Below — Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Cyanide, Total	ND		0.30	0.50	mg/kg	9012	19 JAN 94	19 JAN 94
Chlorate, Solid	ND		0.50	1.0	mg/kg	300.0	14 JAN 94	14 JAN 94

ND = Not Detected

Enseco
A Corning Company

GENERAL INORGANICS

Client Name: Harding Lawson Associates
Client ID: SZB-38-4.75
LAB ID: 104020-0009-SA
Matrix: SOIL — Sampled: 07 JAN 94 — Received: 07 JAN 94
Authorized: 11 JAN 94 — Prepared: See Below — Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Cyanide, Total	ND		0.30	0.50	mg/kg	9012	19 JAN 94	19 JAN 94
Chlorate, Solid	ND		0.50	1.0	mg/kg	300.0	14 JAN 94	14 JAN 94

ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-24A-20.75
LAB ID: 104020-0001-SA
Matrix: SOIL — Sampled: 07 JAN 94 — Received: 07 JAN 94
Authorized: 11 JAN 94 — Prepared: 14 JAN 94 — Analyzed: 14 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	TR		1.2	ug/kg	5.0
Methylene chloride	TR		1.1	ug/kg	5.0
Acetone	190		7.1	ug/kg	10
Trichlorofluoromethane	ND		0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	ND		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	ND		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	ND		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	ND		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0
tert-Butylbenzene	ND		0.55	ug/kg	5.0

ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-24A-20.75
LAB ID: 104020-0001-SA
Matrix: SOIL — Sampled: 07 JAN 94 — Received: 07 JAN 94
Authorized: 11 JAN 94 — Prepared: 14 JAN 94 — Analyzed: 14 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
1,2,4-Trimethylbenzene	ND		0.53	ug/kg	5.0
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	96	%
Toluene-d8	100	%
Bromofluorobenzene	94	%

ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-22-4.50
LAB ID: 104020-0003-SA
Matrix: SOIL — Sampled: 07 JAN 94 — Received: 07 JAN 94
Authorized: 11 JAN 94 — Prepared: 11 JAN 94 — Analyzed: 11 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/kg	5.0
Methylene chloride	TR		1.1	ug/kg	5.0
Acetone	ND		7.1	ug/kg	10
Trichlorofluoromethane	TR		0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	ND		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	ND		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	ND		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	ND		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0
tert-Butylbenzene	ND		0.55	ug/kg	5.0

ND = Not Detected

Enseco
A Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-22-4.50
LAB ID: 104020-0003-SA
Matrix: SOIL Sampled: 07 JAN 94 Received: 07 JAN 94
Authorized: 11 JAN 94 Prepared: 11 JAN 94 Analyzed: 11 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
1,2,4-Trimethylbenzene	ND		0.53	ug/kg	5.0
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	100	%
Toluene-d8	103	%
Bromofluorobenzene	98	%

ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-22-24.75
LAB ID: 104020-0004-SA
Matrix: SOIL Sampled: 07 JAN 94 Received: 07 JAN 94
Authorized: 11 JAN 94 Prepared: 11 JAN 94 Analyzed: 11 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/kg	5.0
Methylene chloride	TR		1.1	ug/kg	5.0
Acetone	ND		7.1	ug/kg	10
Trichlorofluoromethane	ND		0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	ND		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	ND		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	ND		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	ND		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0
tert-Butylbenzene	ND		0.55	ug/kg	5.0

ND = Not Detected

Enseco
A Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-22-24.75
LAB ID: 104020-0004-SA
Matrix: SOIL — Sampled: 07 JAN 94 — Received: 07 JAN 94
Authorized: 11 JAN 94 — Prepared: 11 JAN 94 — Analyzed: 11 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
1,2,4-Trimethylbenzene	ND		0.53	ug/kg	5.0
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	99	%
Toluene-d8	103	%
Bromofluorobenzene	100	%

ND = Not Detected

Enseco
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Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-34-9.25
LAB ID: 104020-0005-SA
Matrix: SOIL Sampled: 07 JAN 94 Received: 07 JAN 94
Authorized: 11 JAN 94 Prepared: 11 JAN 94 Analyzed: 11 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/kg	5.0
Methylene chloride	5.3		1.1	ug/kg	5.0
Acetone	ND		7.1	ug/kg	10
Trichlorofluoromethane	TR		0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	ND		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	ND		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	ND		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	ND		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0
tert-Butylbenzene	ND		0.55	ug/kg	5.0

ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-34-9.25
LAB ID: 104020-0005-SA
Matrix: SOIL Sampled: 07 JAN 94 Received: 07 JAN 94
Authorized: 11 JAN 94 Prepared: 11 JAN 94 Analyzed: 11 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
1,2,4-Trimethylbenzene	ND		0.53	ug/kg	5.0
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	108	%
Toluene-d8	108	%
Bromofluorobenzene	107	%

ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-34C-6.25
LAB ID: 104020-0007-SA
Matrix: SOIL Sampled: 07 JAN 94 Received: 07 JAN 94
Authorized: 11 JAN 94 Prepared: 11 JAN 94 Analyzed: 11 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/kg	5.0
Methylene chloride	TR		1.1	ug/kg	5.0
Acetone	ND		7.1	ug/kg	10
Trichlorofluoromethane	TR		0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	ND		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	ND		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	ND		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	ND		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0
tert-Butylbenzene	ND		0.55	ug/kg	5.0

ND = Not Detected

Enseco
A Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-34C-6.25
LAB ID: 104020-0007-SA
Matrix: SOIL Sampled: 07 JAN 94 Received: 07 JAN 94
Authorized: 11 JAN 94 Prepared: 11 JAN 94 Analyzed: 11 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
1,2,4-Trimethylbenzene	ND		0.53	ug/kg	5.0
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	99	%
Toluene-d8	101	%
Bromofluorobenzene	97	%

ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-38-4.50
LAB ID: 104020-0008-SA
Matrix: SOIL Sampled: 07 JAN 94 Received: 07 JAN 94
Authorized: 11 JAN 94 Prepared: 11 JAN 94 Analyzed: 11 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/kg	5.0
Methylene chloride	TR		1.1	ug/kg	5.0
Acetone	ND		7.1	ug/kg	10
Trichlorofluoromethane	ND		0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	ND		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	ND		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	ND		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	ND		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0
tert-Butylbenzene	ND		0.55	ug/kg	5.0

ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-38-4.50
LAB ID: 104020-0008-SA
Matrix: SOIL Sampled: 07 JAN 94 Received: 07 JAN 94
Authorized: 11 JAN 94 Prepared: 11 JAN 94 Analyzed: 11 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
1,2,4-Trimethylbenzene	ND		0.53	ug/kg	5.0
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	97	%
Toluene-d8	98	%
Bromofluorobenzene	90	%

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-24A-20.75
LAB ID: 104020-0001-SA
Matrix: SOIL Sampled: 07 JAN 94 Received: 07 JAN 94
Authorized: 11 JAN 94 Prepared: 11 JAN 94 Analyzed: 13 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
N-Nitrosodiethylamine	ND		0.26	mg/kg	0.33
Phenol	ND		0.030	mg/kg	0.33
bis(2-Chloroethyl) ether	ND		0.060	mg/kg	0.33
2-Chlorophenol	ND		0.040	mg/kg	0.33
1,3-Dichlorobenzene	ND		0.030	mg/kg	0.33
1,4-Dichlorobenzene	ND		0.060	mg/kg	0.33
Benzyl alcohol	ND		0.070	mg/kg	0.33
1,2-Dichlorobenzene	ND		0.040	mg/kg	0.33
2-Methylphenol	ND		0.030	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND		0.040	mg/kg	0.33
3/4-Methylphenol	ND		0.040	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND		0.030	mg/kg	0.33
Hexachloroethane	ND		0.030	mg/kg	0.33
Nitrobenzene	ND		0.090	mg/kg	0.33
Isophorone	ND		0.040	mg/kg	0.33
2-Nitrophenol	ND		0.050	mg/kg	0.33
2,4-Dimethylphenol	ND		0.030	mg/kg	0.33
Benzoic acid	ND		0.51	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND		0.020	mg/kg	0.33
2,4-Dichlorophenol	ND		0.030	mg/kg	0.33
1,2,4-Trichlorobenzene	ND		0.040	mg/kg	0.33
Naphthalene	ND		0.030	mg/kg	0.33
4-Chloroaniline	ND		0.10	mg/kg	0.33
Hexachlorobutadiene	ND		0.040	mg/kg	0.33
4-Chloro-3-methylphenol	ND		0.040	mg/kg	0.33
2-Methylnaphthalene	ND		0.030	mg/kg	0.33
Hexachlorocyclopentadiene	ND		0.050	mg/kg	0.33
2,4,6-Trichlorophenol	ND		0.040	mg/kg	0.33
2,4,5-Trichlorophenol	ND		0.050	mg/kg	1.7
2-Chloronaphthalene	ND		0.030	mg/kg	0.33
2-Nitroaniline	ND		0.030	mg/kg	1.7
Dimethyl phthalate	ND		0.030	mg/kg	0.33
Acenaphthylene	ND		0.020	mg/kg	0.33
3-Nitroaniline	ND		0.14	mg/kg	1.7
Acenaphthene	ND		0.030	mg/kg	0.33
2,4-Dinitrophenol	ND		0.23	mg/kg	1.7
4-Nitrophenol	ND		0.25	mg/kg	1.7
Dibenzofuran	ND		0.040	mg/kg	0.33
2,4-Dinitrotoluene	ND		0.040	mg/kg	0.33
2,6-Dinitrotoluene	ND		0.050	mg/kg	0.33
Diethyl phthalate	ND		0.020	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND		0.030	mg/kg	0.33
Fluorene	ND		0.030	mg/kg	0.33
4-Nitroaniline	ND		0.18	mg/kg	1.7

ND = Not Detected

Enseco
A Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-24A-20.75
LAB ID: 104020-0001-SA
Matrix: SOIL — Sampled: 07 JAN 94 — Received: 07 JAN 94
Authorized: 11 JAN 94 — Prepared: 11 JAN 94 — Analyzed: 13 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
4,6-Dinitro-2-methylphenol	ND		0.36	mg/kg	1.7
N-Nitrosodiphenylamine	ND		0.040	mg/kg	0.33
4-Bromophenyl phenyl ether	ND		0.080	mg/kg	0.33
Hexachlorobenzene	ND		0.030	mg/kg	0.33
Pentachlorophenol	ND		0.19	mg/kg	1.7
Phenanthrene	ND		0.030	mg/kg	0.33
Anthracene	ND		0.020	mg/kg	0.33
Di-n-butyl phthalate	ND		0.24	mg/kg	0.33
Fluoranthene	ND		0.030	mg/kg	0.33
Pyrene	ND		0.020	mg/kg	0.33
Butyl benzyl phthalate	ND		0.030	mg/kg	0.33
3,3'-Dichlorobenzidine	ND		0.33	mg/kg	0.66
Benzo(a)anthracene	ND		0.040	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND		0.13	mg/kg	0.33
Chrysene	ND		0.040	mg/kg	0.33
Di-n-octyl phthalate	ND		0.040	mg/kg	0.33
Benzo(b)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(k)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(a)pyrene	ND		0.040	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND		0.030	mg/kg	0.33
Dibenz(a,h)anthracene	ND		0.030	mg/kg	0.33
Benzo(g,h,i)perylene	ND		0.020	mg/kg	0.33
Xylidine (Total)	ND		0.076	mg/kg	0.33

Surrogate	Recovery	
Nitrobenzene-d5	67	%
2-Fluorobiphenyl	79	%
Terphenyl-d14	73	%
Phenol-d5	61	%
2-Fluorophenol	54	%
2,4,6-Tribromophenol	78	%

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-34-9.25
LAB ID: 104020-0005-SA
Matrix: SOIL Sampled: 07 JAN 94 Received: 07 JAN 94
Authorized: 11 JAN 94 Prepared: 11 JAN 94 Analyzed: 13 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
N-Nitrosodiethylamine	ND		0.26	mg/kg	0.33
Phenol	ND		0.030	mg/kg	0.33
bis(2-Chloroethyl) ether	ND		0.060	mg/kg	0.33
2-Chlorophenol	ND		0.040	mg/kg	0.33
1,3-Dichlorobenzene	ND		0.030	mg/kg	0.33
1,4-Dichlorobenzene	ND		0.060	mg/kg	0.33
Benzyl alcohol	ND		0.070	mg/kg	0.33
1,2-Dichlorobenzene	ND		0.040	mg/kg	0.33
2-Methylphenol	ND		0.030	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND		0.040	mg/kg	0.33
3/4-Methylphenol	ND		0.040	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND		0.030	mg/kg	0.33
Hexachloroethane	ND		0.030	mg/kg	0.33
Nitrobenzene	ND		0.090	mg/kg	0.33
Isophorone	ND		0.040	mg/kg	0.33
2-Nitrophenol	ND		0.050	mg/kg	0.33
2,4-Dimethylphenol	ND		0.030	mg/kg	0.33
Benzoic acid	ND		0.51	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND		0.020	mg/kg	0.33
2,4-Dichlorophenol	ND		0.030	mg/kg	0.33
1,2,4-Trichlorobenzene	ND		0.040	mg/kg	0.33
Naphthalene	ND		0.030	mg/kg	0.33
4-Chloroaniline	ND		0.10	mg/kg	0.33
Hexachlorobutadiene	ND		0.040	mg/kg	0.33
4-Chloro-3-methylphenol	ND		0.040	mg/kg	0.33
2-Methylnaphthalene	ND		0.030	mg/kg	0.33
Hexachlorocyclopentadiene	ND		0.050	mg/kg	0.33
2,4,6-Trichlorophenol	ND		0.040	mg/kg	0.33
2,4,5-Trichlorophenol	ND		0.050	mg/kg	1.7
2-Chloronaphthalene	ND		0.030	mg/kg	0.33
2-Nitroaniline	ND		0.030	mg/kg	1.7
Dimethyl phthalate	ND		0.030	mg/kg	0.33
Acenaphthylene	ND		0.020	mg/kg	0.33
3-Nitroaniline	ND		0.14	mg/kg	1.7
Acenaphthene	ND		0.030	mg/kg	0.33
2,4-Dinitrophenol	ND		0.23	mg/kg	1.7
4-Nitrophenol	ND		0.25	mg/kg	1.7
Dibenzofuran	ND		0.040	mg/kg	0.33
2,4-Dinitrotoluene	ND		0.040	mg/kg	0.33
2,6-Dinitrotoluene	ND		0.050	mg/kg	0.33
Diethyl phthalate	ND		0.020	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND		0.030	mg/kg	0.33
Fluorene	ND		0.030	mg/kg	0.33
4-Nitroaniline	ND		0.18	mg/kg	1.7

ND = Not Detected

Enseco
A Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-34-9.25
LAB ID: 104020-0005-SA
Matrix: SOIL Sampled: 07 JAN 94 Received: 07 JAN 94
Authorized: 11 JAN 94 Prepared: 11 JAN 94 Analyzed: 13 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
4,6-Dinitro-2-methylphenol	ND		0.36	mg/kg	1.7
N-Nitrosodiphenylamine	ND		0.040	mg/kg	0.33
4-Bromophenyl phenyl ether	ND		0.080	mg/kg	0.33
Hexachlorobenzene	ND		0.030	mg/kg	0.33
Pentachlorophenol	ND		0.19	mg/kg	1.7
Phenanthrene	ND		0.030	mg/kg	0.33
Anthracene	ND		0.020	mg/kg	0.33
Di-n-butyl phthalate	ND		0.24	mg/kg	0.33
Fluoranthene	ND		0.030	mg/kg	0.33
Pyrene	ND		0.020	mg/kg	0.33
Butyl benzyl phthalate	ND		0.030	mg/kg	0.33
3,3'-Dichlorobenzidine	ND		0.33	mg/kg	0.66
Benzo(a)anthracene	ND		0.040	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND		0.13	mg/kg	0.33
Chrysene	ND		0.040	mg/kg	0.33
Di-n-octyl phthalate	ND		0.040	mg/kg	0.33
Benzo(b)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(k)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(a)pyrene	ND		0.040	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND		0.030	mg/kg	0.33
Dibenz(a,h)anthracene	ND		0.030	mg/kg	0.33
Benzo(g,h,i)perylene	ND		0.020	mg/kg	0.33
Xylidine (Total)	ND		0.076	mg/kg	0.33

Surrogate	Recovery	
Nitrobenzene-d5	70	%
2-Fluorobiphenyl	80	%
Terphenyl-d14	74	%
Phenol-d5	57	%
2-Fluorophenol	59	%
2,4,6-Tribromophenol	86	%

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-34C-6.25
LAB ID: 104020-0007-SA
Matrix: SOIL Sampled: 07 JAN 94 Received: 07 JAN 94
Authorized: 11 JAN 94 Prepared: 11 JAN 94 Analyzed: 13 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
N-Nitrosodiethylamine	ND		0.26	mg/kg	0.33
Phenol	ND		0.030	mg/kg	0.33
bis(2-Chloroethyl) ether	ND		0.060	mg/kg	0.33
2-Chlorophenol	ND		0.040	mg/kg	0.33
1,3-Dichlorobenzene	ND		0.030	mg/kg	0.33
1,4-Dichlorobenzene	ND		0.060	mg/kg	0.33
Benzyl alcohol	ND		0.070	mg/kg	0.33
1,2-Dichlorobenzene	ND		0.040	mg/kg	0.33
2-Methylphenol	ND		0.030	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND		0.040	mg/kg	0.33
3/4-Methylphenol	ND		0.040	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND		0.030	mg/kg	0.33
Hexachloroethane	ND		0.030	mg/kg	0.33
Nitrobenzene	ND		0.090	mg/kg	0.33
Isophorone	ND		0.040	mg/kg	0.33
2-Nitrophenol	ND		0.050	mg/kg	0.33
2,4-Dimethylphenol	ND		0.030	mg/kg	0.33
Benzoic acid	ND		0.51	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND		0.020	mg/kg	0.33
2,4-Dichlorophenol	ND		0.030	mg/kg	0.33
1,2,4-Trichlorobenzene	ND		0.040	mg/kg	0.33
Naphthalene	ND		0.030	mg/kg	0.33
4-Chloroaniline	ND		0.10	mg/kg	0.33
Hexachlorobutadiene	ND		0.040	mg/kg	0.33
4-Chloro-3-methylphenol	ND		0.040	mg/kg	0.33
2-Methylnaphthalene	ND		0.030	mg/kg	0.33
Hexachlorocyclopentadiene	ND		0.050	mg/kg	0.33
2,4,6-Trichlorophenol	ND		0.040	mg/kg	0.33
2,4,5-Trichlorophenol	ND		0.050	mg/kg	1.7
2-Chloronaphthalene	ND		0.030	mg/kg	0.33
2-Nitroaniline	ND		0.030	mg/kg	1.7
Dimethyl phthalate	ND		0.030	mg/kg	0.33
Acenaphthylene	ND		0.020	mg/kg	0.33
3-Nitroaniline	ND		0.14	mg/kg	1.7
Acenaphthene	ND		0.030	mg/kg	0.33
2,4-Dinitrophenol	ND		0.23	mg/kg	1.7
4-Nitrophenol	ND		0.25	mg/kg	1.7
Dibenzofuran	ND		0.040	mg/kg	0.33
2,4-Dinitrotoluene	ND		0.040	mg/kg	0.33
2,6-Dinitrotoluene	ND		0.050	mg/kg	0.33
Diethyl phthalate	ND		0.020	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND		0.030	mg/kg	0.33
Fluorene	ND		0.030	mg/kg	0.33
4-Nitroaniline	ND		0.18	mg/kg	1.7

ND = Not Detected

Enseco
A Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-34C-6.25
LAB ID: 104020-0007-SA
Matrix: SOIL Sampled: 07 JAN 94 Received: 07 JAN 94
Authorized: 11 JAN 94 Prepared: 11 JAN 94 Analyzed: 13 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
4,6-Dinitro-2-methylphenol	ND		0.36	mg/kg	1.7
N-Nitrosodiphenylamine	ND		0.040	mg/kg	0.33
4-Bromophenyl phenyl ether	ND		0.080	mg/kg	0.33
Hexachlorobenzene	ND		0.030	mg/kg	0.33
Pentachlorophenol	ND		0.19	mg/kg	1.7
Phenanthrene	ND		0.030	mg/kg	0.33
Anthracene	ND		0.020	mg/kg	0.33
Di-n-butyl phthalate	ND		0.24	mg/kg	0.33
Fluoranthene	ND		0.030	mg/kg	0.33
Pyrene	ND		0.020	mg/kg	0.33
Butyl benzyl phthalate	ND		0.030	mg/kg	0.33
3,3'-Dichlorobenzidine	ND		0.33	mg/kg	0.66
Benzo(a)anthracene	ND		0.040	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND		0.13	mg/kg	0.33
Chrysene	ND		0.040	mg/kg	0.33
Di-n-octyl phthalate	ND		0.040	mg/kg	0.33
Benzo(b)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(k)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(a)pyrene	ND		0.040	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND		0.030	mg/kg	0.33
Dibenz(a,h)anthracene	ND		0.030	mg/kg	0.33
Benzo(g,h,i)perylene	ND		0.020	mg/kg	0.33
Xylidine (Total)	ND		0.076	mg/kg	0.33

Surrogate	Recovery	
Nitrobenzene-d5	71	%
2-Fluorobiphenyl	78	%
Terphenyl-d14	71	%
Phenol-d5	61	%
2-Fluorophenol	57	%
2,4,6-Tribromophenol	81	%

ND = Not Detected

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A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-38-4.50
LAB ID: 104020-0008-SA
Matrix: SOIL Sampled: 07 JAN 94 Received: 07 JAN 94
Authorized: 11 JAN 94 Prepared: 11 JAN 94 Analyzed: 13 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
N-Nitrosodiethylamine	ND		0.26	mg/kg	0.33
Phenol	ND		0.030	mg/kg	0.33
bis(2-Chloroethyl) ether	ND		0.060	mg/kg	0.33
2-Chlorophenol	ND		0.040	mg/kg	0.33
1,3-Dichlorobenzene	ND		0.030	mg/kg	0.33
1,4-Dichlorobenzene	ND		0.060	mg/kg	0.33
Benzyl alcohol	ND		0.070	mg/kg	0.33
1,2-Dichlorobenzene	ND		0.040	mg/kg	0.33
2-Methylphenol	ND		0.030	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND		0.040	mg/kg	0.33
3/4-Methylphenol	ND		0.040	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND		0.030	mg/kg	0.33
Hexachloroethane	ND		0.030	mg/kg	0.33
Nitrobenzene	ND		0.090	mg/kg	0.33
Isophorone	ND		0.040	mg/kg	0.33
2-Nitrophenol	ND		0.050	mg/kg	0.33
2,4-Dimethylphenol	ND		0.030	mg/kg	0.33
Benzoic acid	ND		0.51	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND		0.020	mg/kg	0.33
2,4-Dichlorophenol	ND		0.030	mg/kg	0.33
1,2,4-Trichlorobenzene	ND		0.040	mg/kg	0.33
Naphthalene	ND		0.030	mg/kg	0.33
4-Chloroaniline	ND		0.10	mg/kg	0.33
Hexachlorobutadiene	ND		0.040	mg/kg	0.33
4-Chloro-3-methylphenol	ND		0.040	mg/kg	0.33
2-Methylnaphthalene	ND		0.030	mg/kg	0.33
Hexachlorocyclopentadiene	ND		0.050	mg/kg	0.33
2,4,6-Trichlorophenol	ND		0.040	mg/kg	0.33
2,4,5-Trichlorophenol	ND		0.050	mg/kg	1.7
2-Chloronaphthalene	ND		0.030	mg/kg	0.33
2-Nitroaniline	ND		0.030	mg/kg	1.7
Dimethyl phthalate	ND		0.030	mg/kg	0.33
Acenaphthylene	ND		0.020	mg/kg	0.33
3-Nitroaniline	ND		0.14	mg/kg	1.7
Acenaphthene	ND		0.030	mg/kg	0.33
2,4-Dinitrophenol	ND		0.23	mg/kg	1.7
4-Nitrophenol	ND		0.25	mg/kg	1.7
Dibenzofuran	ND		0.040	mg/kg	0.33
2,4-Dinitrotoluene	ND		0.040	mg/kg	0.33
2,6-Dinitrotoluene	ND		0.050	mg/kg	0.33
Diethyl phthalate	ND		0.020	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND		0.030	mg/kg	0.33
Fluorene	ND		0.030	mg/kg	0.33
4-Nitroaniline	ND		0.18	mg/kg	1.7

ND = Not Detected

Enseco
A Corporation Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-38-4.50
LAB ID: 104020-0008-SA
Matrix: SOIL Sampled: 07 JAN 94 Received: 07 JAN 94
Authorized: 11 JAN 94 Prepared: 11 JAN 94 Analyzed: 13 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
4,6-Dinitro-2-methylphenol	ND		0.36	mg/kg	1.7
N-Nitrosodiphenylamine	ND		0.040	mg/kg	0.33
4-Bromophenyl phenyl ether	ND		0.080	mg/kg	0.33
Hexachlorobenzene	ND		0.030	mg/kg	0.33
Pentachlorophenol	ND		0.19	mg/kg	1.7
Phenanthrene	ND		0.030	mg/kg	0.33
Anthracene	ND		0.020	mg/kg	0.33
Di-n-butyl phthalate	ND		0.24	mg/kg	0.33
Fluoranthene	ND		0.030	mg/kg	0.33
Pyrene	ND		0.020	mg/kg	0.33
Butyl benzyl phthalate	ND		0.030	mg/kg	0.33
3,3'-Dichlorobenzidine	ND		0.33	mg/kg	0.66
Benzo(a)anthracene	ND		0.040	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND		0.13	mg/kg	0.33
Chrysene	ND		0.040	mg/kg	0.33
Di-n-octyl phthalate	ND		0.040	mg/kg	0.33
Benzo(b)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(k)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(a)pyrene	ND		0.040	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND		0.030	mg/kg	0.33
Dibenz(a,h)anthracene	ND		0.030	mg/kg	0.33
Benzo(g,h,i)perylene	ND		0.020	mg/kg	0.33
Xylidine (Total)	ND		0.076	mg/kg	0.33

Surrogate	Recovery	
Nitrobenzene-d5	66	%
2-Fluorobiphenyl	69	%
Terphenyl-d14	66	%
Phenol-d5	50	%
2-Fluorophenol	52	%
2,4,6-Tribromophenol	75	%

ND = Not Detected

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QC LOT ASSIGNMENT REPORT - MS QC
Metals Analysis and Preparation

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
104020-0002-SA	SOLID	AL-FLAA-S	13 JAN 94-B	13 JAN 94-B	13 JAN 94-BA
104020-0002-SA	SOLID	AS-HAA-S	13 JAN 94-B	13 JAN 94-B	13 JAN 94-BA
104020-0002-SA	SOLID	CD-FLAA-S	13 JAN 94-B	13 JAN 94-B	13 JAN 94-BA
104020-0002-SA	SOLID	CR-FLAA-S	13 JAN 94-B	13 JAN 94-B	13 JAN 94-BA
104020-0002-SA	SOLID	MN-FLAA-S	13 JAN 94-B	13 JAN 94-B	13 JAN 94-BA
104020-0002-SA	SOLID	NI-FLAA-S	13 JAN 94-B	13 JAN 94-B	13 JAN 94-BA
104020-0002-SA	SOLID	PB-FLAA-S	13 JAN 94-B	13 JAN 94-B	13 JAN 94-BA
104020-0002-SA	SOLID	CU-FLAA-S	13 JAN 94-B	13 JAN 94-B	13 JAN 94-BA
104020-0002-SA	SOLID	ZN-FLAA-S	13 JAN 94-B	13 JAN 94-B	13 JAN 94-BA
104020-0002-SA	SOLID	BA-FLAA-S	13 JAN 94-B	13 JAN 94-B	13 JAN 94-BA
104020-0002-SA	SOLID	HG-CVAA-S	12 JAN 94-D	12 JAN 94-D	12 JAN 94-DA
104020-0006-SA	SOLID	AL-FLAA-S	13 JAN 94-B	13 JAN 94-B	13 JAN 94-BA
104020-0006-SA	SOLID	AS-HAA-S	13 JAN 94-B	13 JAN 94-B	13 JAN 94-BA
104020-0006-SA	SOLID	CD-FLAA-S	13 JAN 94-B	13 JAN 94-B	13 JAN 94-BA
104020-0006-SA	SOLID	CR-FLAA-S	13 JAN 94-B	13 JAN 94-B	13 JAN 94-BA
104020-0006-SA	SOLID	MN-FLAA-S	13 JAN 94-B	13 JAN 94-B	13 JAN 94-BA
104020-0006-SA	SOLID	NI-FLAA-S	13 JAN 94-B	13 JAN 94-B	13 JAN 94-BA
104020-0006-SA	SOLID	PB-FLAA-S	13 JAN 94-B	13 JAN 94-B	13 JAN 94-BA
104020-0006-SA	SOLID	CU-FLAA-S	13 JAN 94-B	13 JAN 94-B	13 JAN 94-BA
104020-0006-SA	SOLID	ZN-FLAA-S	13 JAN 94-B	13 JAN 94-B	13 JAN 94-BA
104020-0006-SA	SOLID	BA-FLAA-S	13 JAN 94-B	13 JAN 94-B	13 JAN 94-BA
104020-0006-SA	SOLID	HG-CVAA-S	12 JAN 94-D	12 JAN 94-D	12 JAN 94-DA
104020-0009-SA	SOLID	AL-FLAA-S	13 JAN 94-B	13 JAN 94-B	13 JAN 94-BA
104020-0009-SA	SOLID	AS-HAA-S	13 JAN 94-B	13 JAN 94-B	13 JAN 94-BA
104020-0009-SA	SOLID	CD-FLAA-S	13 JAN 94-B	13 JAN 94-B	13 JAN 94-BA
104020-0009-SA	SOLID	CR-FLAA-S	13 JAN 94-B	13 JAN 94-B	13 JAN 94-BA
104020-0009-SA	SOLID	MN-FLAA-S	13 JAN 94-B	13 JAN 94-B	13 JAN 94-BA
104020-0009-SA	SOLID	NI-FLAA-S	13 JAN 94-B	13 JAN 94-B	13 JAN 94-BA
104020-0009-SA	SOLID	PB-FLAA-S	13 JAN 94-B	13 JAN 94-B	13 JAN 94-BA
104020-0009-SA	SOLID	CU-FLAA-S	13 JAN 94-B	13 JAN 94-B	13 JAN 94-BA
104020-0009-SA	SOLID	ZN-FLAA-S	13 JAN 94-B	13 JAN 94-B	13 JAN 94-BA
104020-0009-SA	SOLID	BA-FLAA-S	13 JAN 94-B	13 JAN 94-B	13 JAN 94-BA
104020-0009-SA	SOLID	HG-CVAA-S	12 JAN 94-D	12 JAN 94-D	12 JAN 94-DA

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DUPLICATE CONTROL SAMPLE REPORT
Metals Analysis and Preparation
Project: 104020

Category: AL-FLAA-S Aluminum, Flame AA
Matrix: SOLID
QC Lot: 13 JAN 94-B
Date Analyzed: 13 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Aluminum	10700	8740	8260	8500	79	47-153	5.6	20

Category: AS-HAA-S Arsenic, Hydride AA
Matrix: SOLID
QC Lot: 13 JAN 94-B
Date Analyzed: 17 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Arsenic	145	120	131	126	87	59-141	8.8	20

Category: CD-FLAA-S Cadmium, Flame AA
Matrix: SOLID
QC Lot: 13 JAN 94-B
Date Analyzed: 18 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Cadmium	154	140	146	143	93	68-132	4.2	20

Category: CR-FLAA-S Chromium, Flame AA
Matrix: SOLID
QC Lot: 13 JAN 94-B
Date Analyzed: 13 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Chromium	151	145	148	146	97	66-133	2.0	20

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

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DUPLICATE CONTROL SAMPLE REPORT
Metals Analysis and Preparation
Project: 104020

Category: MN-FLAA-S Manganese, Flame AA Method 7460
Matrix: SOLID
QC Lot: 13 JAN 94-B
Date Analyzed: 18 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Manganese	423	357	368	362	86	74-125	3.0	20

Category: NI-FLAA-S Nickel Flame AA
Matrix: SOLID
QC Lot: 13 JAN 94-B
Date Analyzed: 16 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Nickel	166	189	193	191	115	67-133	2.1	20

Category: PB-FLAA-S Method 7420 - Lead, Flame AA
Matrix: SOLID
QC Lot: 13 JAN 94-B
Date Analyzed: 16 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Lead	148	134	140	137	93	66-135	4.4	20

Category: CU-FLAA-S Copper Flame AA
Matrix: SOLID
QC Lot: 13 JAN 94-B
Date Analyzed: 18 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Copper	162	147	151	149	92	68-132	2.7	20

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

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DUPLICATE CONTROL SAMPLE REPORT
Metals Analysis and Preparation
Project: 104020

Category: ZN-FLAA-S Zinc, Flame AA
Matrix: SOLID
QC Lot: 13 JAN 94-B
Date Analyzed: 16 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Zinc	530	575	624	600	113	65-135	8.2	20

Category: BA-FLAA-S Barium, Flame AA
Matrix: SOLID
QC Lot: 13 JAN 94-B
Date Analyzed: 16 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Barium	503	439	449	444	88	76-124	2.3	20

Category: HG-CVAA-S Mercury by CVAA
Matrix: SOLID
QC Lot: 12 JAN 94-D
Date Analyzed: 16 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Mercury	29.0	30.4	29.6	30.0	103	52-148	2.7	20

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Metals Analysis and Preparation
Project: 104020

Category: AL-FLAA-S Aluminum, Flame AA
Matrix: SOLID
Sample: 104020-0002
MS Run: 13 JAN 94-BA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Aluminum	3740	3810	3980	200	NC	NC	NC	60-130	20

Category: AS-HAA-S Arsenic, Hydride AA
Matrix: SOLID
Sample: 104020-0002
MS Run: 13 JAN 94-BA
Units mg/kg Units Qualifier: Wet wt.

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Arsenic	1.81	37.9	40.3	50.0	72	77	6.8	50-127	25

Category: CD-FLAA-S Cadmium, Flame AA
Matrix: SOLID
Sample: 104020-0002
MS Run: 13 JAN 94-BA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Cadmium	ND	5.10	5.40	5.00	102	108	5.7	52-130	28

NC = Not Calculated, calculation not applicable.
ND = Not Detected

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

MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Metals Analysis and Preparation
Project: 104020 (cont.)

Category: CR-FLAA-S Chromium, Flame AA
Matrix: SOLID
Sample: 104020-0002
MS Run: 13 JAN 94-BA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Chromium	16.2	30.3	33.7	20.0	70	88	23	40-190	33

Category: MN-FLAA-S Manganese, Flame AA Method 7460
Matrix: SOLID
Sample: 104020-0002
MS Run: 13 JAN 94-BA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Manganese	163	202	206	50.0	78	86	9.8	60-130	40

Category: NI-FLAA-S Nickel Flame AA
Matrix: SOLID
Sample: 104020-0002
MS Run: 13 JAN 94-BA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Nickel	ND	53.0	57.0	50.0	106	114	7.3	55-155	25

ND = Not Detected

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Metals Analysis and Preparation
Project: 104020 (cont.)

Category: PB-FLAA-S Method 7420 - Lead, Flame AA
Matrix: SOLID
Sample: 104020-0002
MS Run: 13 JAN 94-BA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Lead	ND	58.0	63.0	50.0	116	126	8.3	14-169	40

Category: CU-FLAA-S Copper Flame AA
Matrix: SOLID
Sample: 104020-0002
MS Run: 13 JAN 94-BA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Copper	15.0	37.0	39.0	25.0	88	96	8.7	49-144	23

Category: ZN-FLAA-S Zinc, Flame AA
Matrix: SOLID
Sample: 104020-0002
MS Run: 13 JAN 94-BA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Zinc	36.0	84.1	87.8	50.0	96	104	8.0	65-138	25

ND = Not Detected

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Metals Analysis and Preparation
Project: 104020 (cont.)

Category: BA-FLAA-S Barium, Flame AA
Matrix: SOLID
Sample: 104020-0002
MS Run: 13 JAN 94-BA
Units: mg/kg

Analyte	Concentration Sample Result	MS Result	MSD Result	Amount Spiked MS/MSD	%Recovery MS	MSD	%RPD	Acceptance Limit Recov.	RPD
Barium	118	297	325	200	90	104	14	40-130	30

Category: HG-CVAA-S Mercury by CVAA
Matrix: SOLID
Sample: 104019-0001
MS Run: 12 JAN 94-DA
Units mg/kg Units Qualifier: Wet wt.

Analyte	Concentration Sample Result	MS Result	MSD Result	Amount Spiked MS/MSD	%Recovery MS	MSD	%RPD	Acceptance Limit Recov.	RPD
Mercury	ND	0.453	0.416	0.438	103	95	8.1	33-178	40

ND = Not Detected

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

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METHOD BLANK REPORT
Metals Analysis and Preparation
Project: 104020

Test: AL-FLAA-MDL-S Method 7020 - Aluminum, Flame AA
Matrix: SOLID
QC Run: 13 JAN 94-B Date Analyzed: 13 JAN 94

Analyte	Result	Units	Reporting Limit
Aluminum	ND	mg/kg	100

Test: AS-HAA-MDL-S Method 7062 - Arsenic, Hydride AA
Matrix: SOLID
QC Run: 13 JAN 94-B Date Analyzed: 17 JAN 94

Analyte	Result	Units	Reporting Limit
Arsenic	ND	mg/kg	0.50

Test: CD-FLAA-MDL-S Method 7130 - Cadmium, Flame AA
Matrix: SOLID
QC Run: 13 JAN 94-B Date Analyzed: 18 JAN 94

Analyte	Result	Units	Reporting Limit
Cadmium	ND	mg/kg	5.0

Test: CR-FLAA-MDL-S Method 7190 - Chromium, Flame AA
Matrix: SOLID
QC Run: 13 JAN 94-B Date Analyzed: 13 JAN 94

Analyte	Result	Units	Reporting Limit
Chromium	ND	mg/kg	10.0

Test: MN-FLAA-MDL-S Manganese, Flame AA
Matrix: SOLID
QC Run: 13 JAN 94-B Date Analyzed: 18 JAN 94

Analyte	Result	Units	Reporting Limit
Manganese	ND	mg/kg	5.0

ND = Not Detected

METHOD BLANK REPORT
Metals Analysis and Preparation (cont.)
Project: 104020

Test: NI-FLAA-MDL-S Method 7520 - Nickel, Flame AA
Matrix: SOLID
QC Run: 13 JAN 94-B Date Analyzed: 16 JAN 94

Analyte	Result	Units	Reporting Limit
Nickel	ND	mg/kg	10.0

Test: PB-FLAA-MDL-S Method 7420 - Lead, FLame AA
Matrix: SOLID
QC Run: 13 JAN 94-B Date Analyzed: 16 JAN 94

Analyte	Result	Units	Reporting Limit
Lead	ND	mg/kg	20.0

Test: CU-FLAA-MDL-S Method 7210 - Copper, Flame AA
Matrix: SOLID
QC Run: 13 JAN 94-B Date Analyzed: 18 JAN 94

Analyte	Result	Units	Reporting Limit
Copper	ND	mg/kg	10.0

Test: ZN-FLAA-MDL-S Method 7950 - Zinc, Flame AA
Matrix: SOLID
QC Run: 13 JAN 94-B Date Analyzed: 16 JAN 94

Analyte	Result	Units	Reporting Limit
Zinc	ND	mg/kg	2.0

Test: BA-FLAA-MDL-S Method 7080 - Barium, Flame AA
Matrix: SOLID
QC Run: 13 JAN 94-B Date Analyzed: 16 JAN 94

Analyte	Result	Units	Reporting Limit
Barium	ND	mg/kg	50.0

ND = Not Detected

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METHOD BLANK REPORT
Metals Analysis and Preparation (cont.)
Project: 104020

Test: HG-CVAA-MDL-S Method 7471 - Mercury, Cold Vapor AA
Matrix: SOLID
QC Run: 12 JAN 94-D Date Analyzed: 16 JAN 94

Analyte	Result	Units	Reporting Limit
Mercury	ND	mg/kg	0.10

ND = Not Detected

QC LOT ASSIGNMENT REPORT - MS QC
Wet Chemistry Analysis and Preparation

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
104020-0002-SA	SOLID	CN-S	18 JAN 94-A	18 JAN 94-A	18 JAN 94-AA
104020-0006-SA	SOLID	CN-S	18 JAN 94-A	18 JAN 94-A	18 JAN 94-AA
104020-0006-SA	SOLID	CLO3-S	14 JAN 94-A	14 JAN 94-A	14 JAN 94-AA
104020-0009-SA	SOLID	CN-S	18 JAN 94-A	18 JAN 94-A	18 JAN 94-AA
104020-0009-SA	SOLID	CLO3-S	14 JAN 94-A	14 JAN 94-A	14 JAN 94-AA

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DUPLICATE CONTROL SAMPLE REPORT
Wet Chemistry Analysis and Preparation
Project: 104020

Category: CN-S Cyanide (9012) SOLID
Matrix: SOLID
QC Lot: 18 JAN 94-A Date Analyzed: 19 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Cyanide, Total	5.00	4.45	4.55	4.50	90	70-123	2.2	21

Category: CLO3-S Chlorate, Liquid
Matrix: SOLID
QC Lot: 14 JAN 94-A Date Analyzed: 14 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Chlorate, Solid	10.0	9.50	9.50	9.50	95	80-120	0.0	20

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Wet Chemistry Analysis and Preparation
Project: 104020

Category: CN-S Cyanide (9012) SOLID
Matrix: SOLID
Sample: 104020-0002
MS Run: 18 JAN 94-AA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Cyanide, Total	6.50	13.2	7.70	5.00	134	24	139	41-159	48

Category: CLO3-S Chlorate, Liquid
Matrix: SOLID
Sample: 104020-0006
MS Run: 14 JAN 94-AA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Chlorate, Solid	ND	8.98	8.99	10.0	90	90	0.0	80-120	20

ND = Not Detected

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

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METHOD BLANK REPORT
Wet Chemistry Analysis and Preparation
Project: 104020

Test: CN-MDL-S Method 9012 - Cyanide, Total
Matrix: SOLID
QC Run: 18 JAN 94-A Date Analyzed: 19 JAN 94

Analyte	Result	Units	Reporting Limit
Cyanide, Total	ND	mg/kg	0.50

Test: CLO3-MDL-S Method 300.0 - Chlorate, Ion Chromatography
Matrix: SOLID
QC Run: 14 JAN 94-A Date Analyzed: 14 JAN 94

Analyte	Result	Units	Reporting Limit
Chlorate, Solid	ND	mg/kg	1.0

ND = Not Detected

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QC LOT ASSIGNMENT REPORT - MS QC
Volatile Organics by GC/MS

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
104020-0001-SA	SOLID	8240-S	12 JAN 94-AF	14 JAN 94-AF	04 JAN 94-AF
104020-0003-SA	SOLID	8240-S	12 JAN 94-AF	11 JAN 94-AF	04 JAN 94-AF
104020-0004-SA	SOLID	8240-S	12 JAN 94-AF	11 JAN 94-AF	04 JAN 94-AF
104020-0005-SA	SOLID	8240-S	12 JAN 94-AF	11 JAN 94-AF	04 JAN 94-AF
104020-0007-SA	SOLID	8240-S	12 JAN 94-AF	11 JAN 94-AF	04 JAN 94-AF
104020-0008-SA	SOLID	8240-S	12 JAN 94-AF	11 JAN 94-AF	04 JAN 94-AF

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DUPLICATE CONTROL SAMPLE REPORT
Volatile Organics by GC/MS
Project: 104020

Category: 8240-S Volatile Organics
Matrix: SOLID
QC Lot: 12 JAN 94-AF
Date Analyzed: 12 JAN 94
Concentration Units: ug/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
1,1-Dichloroethene	50.0	30.9	31.1	31.0	62	50-121	0.65	31
Trichloroethene	50.0	43.9	44.4	44.2	88	69-114	1.1	17
Benzene	50.0	45.1	46.3	45.7	91	78-117	2.6	16
Toluene	50.0	47.1	48.7	47.9	96	79-118	3.3	17
Chlorobenzene	50.0	47.4	48.2	47.8	96	79-119	1.7	17

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Volatile Organics by GC/MS
Project: 104020

Category: 8240-S Volatile Organics
Matrix: SOLID
Sample: 103963-0003
MS Run: 04 JAN 94-AF
Units: ug/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
1,1-Dichloroethene	ND	34.9	32.5	50.0	70	65	7.5	46-136	28
Trichloroethene	ND	46.0	42.6	50.0	92	85	8.0	58-131	26
Benzene	ND	47.1	43.4	50.0	94	87	7.8	63-139	23
Toluene	ND	50.7	46.0	50.0	101	92	9.4	68-140	24
Chlorobenzene	ND	49.4	45.1	50.0	99	90	9.6	68-138	23

ND = Not Detected

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

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SINGLE CONTROL SAMPLE REPORT
Volatile Organics by GC/MS
Project: 104020

Category: 8240-S Volatile Organics
Matrix: SOLID
QC Run: 14 JAN 94-AF Date Analyzed: 14 JAN 94
Concentration Units: ug/kg

Analyte	Concentration Spiked	Concentration Measured	Accuracy(%) SCS	Accuracy(%) Limits
1,2-Dichloroethane-d4	50.0	48.2	96	70-121
Toluene-d8	50.0	51.4	103	81-117
Bromofluorobenzene	50.0	50.2	100	74-121

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

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METHOD BLANK REPORT
Volatile Organics by GC/MS
Project: 104020

Test: 8240-HLA-S Method 8240 - Volatile Organics, EPA 8240 Extended List
Matrix: SOLID
QC Run: 14 JAN 94-AF Date Analyzed: 14 JAN 94

Analyte	Result	Units	Reporting Limit
Dichlorodifluoromethane	ND	ug/kg	10
Chloromethane	ND	ug/kg	10
Bromomethane	ND	ug/kg	10
Vinyl chloride	ND	ug/kg	10
Chloroethane	ND	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/kg	5.0
Methylene chloride	ND	ug/kg	5.0
Acetone	ND	ug/kg	10
Trichlorofluoromethane	ND	ug/kg	5.0
1,1-Dichloroethene	ND	ug/kg	5.0
Nitromethane	ND	ug/kg	200
trans-1,2-Dichloroethene	ND	ug/kg	5.0
cis-1,2-Dichloroethene	ND	ug/kg	5.0
1,1-Dichloroethane	ND	ug/kg	5.0
2,2-Dichloropropane	ND	ug/kg	5.0
Bromochloromethane	ND	ug/kg	5.0
Chloroform	ND	ug/kg	5.0
1,1-Dichloropropene	ND	ug/kg	5.0
1,2-Dichloroethane	ND	ug/kg	5.0
Dibromomethane	ND	ug/kg	5.0
1,1,1-Trichloroethane	ND	ug/kg	5.0
Carbon tetrachloride	ND	ug/kg	5.0
Bromodichloromethane	ND	ug/kg	5.0
1,2-Dichloropropane	ND	ug/kg	5.0
1,3-Dichloropropane	ND	ug/kg	5.0
Trichloroethene	ND	ug/kg	5.0
Dibromochloromethane	ND	ug/kg	5.0
1,1,2-Trichloroethane	ND	ug/kg	5.0
Benzene	ND	ug/kg	5.0
Bromoform	ND	ug/kg	5.0
Tetrachloroethene	ND	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.0
Toluene	ND	ug/kg	5.0
Chlorobenzene	ND	ug/kg	5.0
Ethylbenzene	ND	ug/kg	5.0
Styrene	ND	ug/kg	5.0
Xylenes (total)	ND	ug/kg	5.0
1-Methylethylbenzene	ND	ug/kg	5.0
Bromobenzene	ND	ug/kg	5.0
1,2,3-Trichloropropane	ND	ug/kg	5.0
2-Chlorotoluene	ND	ug/kg	5.0
n-Propyl benzene	ND	ug/kg	5.0
1,3,5-Trimethylbenzene	ND	ug/kg	5.0

ND = Not Detected

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METHOD BLANK REPORT
Volatile Organics by GC/MS (cont.)
Project: 104020

Test: 8240-HLA-S Method 8240 - Volatile Organics, EPA 8240 Extended List
Matrix: SOLID
QC Run: 14 JAN 94-AF Date Analyzed: 14 JAN 94

Analyte	Result	Units	Reporting Limit
4-Chlorotoluene	ND	ug/kg	5.0
tert-Butylbenzene	ND	ug/kg	5.0
1,2,4-Trimethylbenzene	ND	ug/kg	5.0
sec-Butylbenzene	ND	ug/kg	5.0
Isopropyltoluene	ND	ug/kg	5.0
1,3-Dichlorobenzene	ND	ug/kg	5.0
1,4-Dichlorobenzene	ND	ug/kg	5.0
n-Butylbenzene	ND	ug/kg	5.0
1,2-Dichlorobenzene	ND	ug/kg	5.0
1,2,4-Trichlorobenzene	ND	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND	ug/kg	5.0
Hexachlorobutadiene	ND	ug/kg	5.0
Naphthalene	ND	ug/kg	5.0
1,2,3-Trichlorobenzene	ND	ug/kg	5.0

ND = Not Detected

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METHOD BLANK REPORT
Volatile Organics by GC/MS (cont.)
Project: 104020

Test: 8240-HLA-S Method 8240 - Volatile Organics, EPA 8240 Extended List
Matrix: SOLID

QC Run: 11 JAN 94-AF Date Analyzed: 11 JAN 94

Analyte	Result	Units	Reporting Limit
Dichlorodifluoromethane	ND	ug/kg	10
Chloromethane	ND	ug/kg	10
Bromomethane	ND	ug/kg	10
Vinyl chloride	ND	ug/kg	10
Chloroethane	ND	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/kg	5.0
Methylene chloride	ND	ug/kg	5.0
Acetone	ND	ug/kg	10
Trichlorofluoromethane	ND	ug/kg	5.0
1,1-Dichloroethene	ND	ug/kg	5.0
Nitromethane	ND	ug/kg	200
trans-1,2-Dichloroethene	ND	ug/kg	5.0
cis-1,2-Dichloroethene	ND	ug/kg	5.0
1,1-Dichloroethane	ND	ug/kg	5.0
2,2-Dichloropropane	ND	ug/kg	5.0
Bromochloromethane	ND	ug/kg	5.0
Chloroform	ND	ug/kg	5.0
1,1-Dichloropropene	ND	ug/kg	5.0
1,2-Dichloroethane	ND	ug/kg	5.0
Dibromomethane	ND	ug/kg	5.0
1,1,1-Trichloroethane	ND	ug/kg	5.0
Carbon tetrachloride	ND	ug/kg	5.0
Bromodichloromethane	ND	ug/kg	5.0
1,2-Dichloropropane	ND	ug/kg	5.0
1,3-Dichloropropane	ND	ug/kg	5.0
Trichloroethene	ND	ug/kg	5.0
Dibromochloromethane	ND	ug/kg	5.0
1,1,2-Trichloroethane	ND	ug/kg	5.0
Benzene	ND	ug/kg	5.0
Bromoform	ND	ug/kg	5.0
Tetrachloroethene	ND	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.0
Toluene	ND	ug/kg	5.0
Chlorobenzene	ND	ug/kg	5.0
Ethylbenzene	ND	ug/kg	5.0
Styrene	ND	ug/kg	5.0
Xylenes (total)	ND	ug/kg	5.0
1-Methylethylbenzene	ND	ug/kg	5.0
Bromobenzene	ND	ug/kg	5.0
1,2,3-Trichloropropane	ND	ug/kg	5.0
2-Chlorotoluene	ND	ug/kg	5.0
n-Propyl benzene	ND	ug/kg	5.0

ND = Not Detected

METHOD BLANK REPORT
Volatile Organics by GC/MS (cont.)
Project: 104020

Test: 8240-HLA-S Method 8240 - Volatile Organics, EPA 8240 Extended List
Matrix: SOLID

QC Run: 11 JAN 94-AF Date Analyzed: 11 JAN 94

Analyte	Result	Units	Reporting Limit
1,3,5-Trimethylbenzene	ND	ug/kg	5.0
4-Chlorotoluene	ND	ug/kg	5.0
tert-Butylbenzene	ND	ug/kg	5.0
1,2,4-Trimethylbenzene	ND	ug/kg	5.0
sec-Butylbenzene	ND	ug/kg	5.0
Isopropyltoluene	ND	ug/kg	5.0
1,3-Dichlorobenzene	ND	ug/kg	5.0
1,4-Dichlorobenzene	ND	ug/kg	5.0
n-Butylbenzene	ND	ug/kg	5.0
1,2-Dichlorobenzene	ND	ug/kg	5.0
1,2,4-Trichlorobenzene	ND	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND	ug/kg	5.0
Hexachlorobutadiene	ND	ug/kg	5.0
Naphthalene	ND	ug/kg	5.0
1,2,3-Trichlorobenzene	ND	ug/kg	5.0

ND = Not Detected

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DUPLICATE CONTROL SAMPLE REPORT
Semivolatile Organics by GC/MS
Project: 104020

Category: 8270-S Method 8270 - TCL Semivolatile Organics
Matrix: SOLID
QC Lot: 11 JAN 94-I Date Analyzed: 12 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Phenol	6.67	4.85	4.97	4.91	74	39-106	2.4	31
2-Chlorophenol	6.67	4.67	4.93	4.80	72	44-107	5.4	32
1,4-Dichlorobenzene	3.33	2.65	2.78	2.72	82	40-107	4.8	23
N-Nitroso-di-n-propylamine	3.33	2.91	3.00	2.96	89	31-132	3.0	38
1,2,4-Trichlorobenzene	3.33	2.92	2.93	2.92	88	38-120	0.34	22
4-Chloro-3-methylphenol	6.67	4.47	4.50	4.48	67	40-119	0.67	24
Acenaphthene	3.33	2.99	2.96	2.98	89	30-140	1.0	24
2,4-Dinitrotoluene	3.33	2.64	2.60	2.62	79	30-121	1.5	28
4-Nitrophenol	6.67	6.79	6.64	6.72	101	16-143	2.2	54
Pentachlorophenol	6.67	8.92	9.07	9.00	135	21-152	1.7	43
Pyrene	3.33	2.77	2.91	2.84	85	45-120	4.9	26

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Semivolatile Organics by GC/MS
Project: 104020

Category: 8270-S Method 8270 - TCL Semivolatile Organics
Matrix: SOLID
Sample: 104020-0001
MS Run: 11 JAN 94-IB
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Phenol	ND	4.30	4.69	6.67	64	70	9.0	25-110	74
2-Chlorophenol	ND	4.16	4.60	6.67	62	69	11	33-103	42
1,4-Dichlorobenzene	ND	2.34	2.61	3.33	70	78	11	22-110	55
N-Nitroso-di-n-propylamine	ND	2.52	2.90	3.33	76	87	14	18-138	49
1,2,4-Trichlorobenzene	ND	2.73	2.83	3.33	82	85	3.6	29-119	43
4-Chloro-3-methylphenol	ND	4.86	4.94	6.67	73	74	1.4	36-119	41
Acenaphthene	ND	2.88	3.02	3.33	86	91	5.7	17-148	36
2,4-Dinitrotoluene	ND	2.51	2.79	3.33	75	84	11	27-120	41
4-Nitrophenol	ND	7.41	8.04	6.67	111	121	8.6	16-143	80
Pentachlorophenol	ND	8.81	9.82	6.67	132	147	11	21-152	61
Pyrene	ND	2.67	2.79	3.33	80	84	4.9	24-133	46

ND = Not Detected

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

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SINGLE CONTROL SAMPLE REPORT
Semivolatile Organics by GC/MS
Project: 104020

Category: 8270-S Method 8270 - TCL Semivolatile Organics
Matrix: SOLID
QC Run: 11 JAN 94-I Date Analyzed: 12 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Concentration Measured	Accuracy(%) SCS	Accuracy(%) Limits
2-Fluorophenol	6.67	4.08	61	25-121
Phenol-d5	6.67	4.54	68	24-113
Nitrobenzene-d5	3.33	2.34	70	23-120
2-Fluorobiphenyl	3.33	2.93	88	30-115
2,4,6-Tribromophenol	6.67	5.39	81	19-122
Terphenyl-d14	3.33	2.66	80	18-137

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

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METHOD BLANK REPORT
Semivolatile Organics by GC/MS
Project: 104020

Test: 8270-HLA-S Method 8270 - Semivolatile Organics
Matrix: SOLID
QC Run: 11 JAN 94-I Date Analyzed: 12 JAN 94

Analyte	Result	Units	Reporting Limit
N-Nitrosodiethylamine	ND	mg/kg	0.33
Phenol	ND	mg/kg	0.33
bis(2-Chloroethyl) ether	ND	mg/kg	0.33
2-Chlorophenol	ND	mg/kg	0.33
1,3-Dichlorobenzene	ND	mg/kg	0.33
1,4-Dichlorobenzene	ND	mg/kg	0.33
Benzyl alcohol	ND	mg/kg	0.33
1,2-Dichlorobenzene	ND	mg/kg	0.33
2-Methylphenol	ND	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND	mg/kg	0.33
3/4-Methylphenol	ND	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND	mg/kg	0.33
Hexachloroethane	ND	mg/kg	0.33
Nitrobenzene	ND	mg/kg	0.33
Isophorone	ND	mg/kg	0.33
2-Nitrophenol	ND	mg/kg	0.33
2,4-Dimethylphenol	ND	mg/kg	0.33
Benzoic acid	ND	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND	mg/kg	0.33
2,4-Dichlorophenol	ND	mg/kg	0.33
1,2,4-Trichlorobenzene	ND	mg/kg	0.33
Naphthalene	ND	mg/kg	0.33
4-Chloroaniline	ND	mg/kg	0.33
Hexachlorobutadiene	ND	mg/kg	0.33
4-Chloro-3-methylphenol	ND	mg/kg	0.33
2-Methylnaphthalene	ND	mg/kg	0.33
Hexachlorocyclopentadiene	ND	mg/kg	0.33
2,4,6-Trichlorophenol	ND	mg/kg	0.33
2,4,5-Trichlorophenol	ND	mg/kg	1.7
2-Chloronaphthalene	ND	mg/kg	0.33
2-Nitroaniline	ND	mg/kg	1.7
Dimethyl phthalate	ND	mg/kg	0.33
Acenaphthylene	ND	mg/kg	0.33
3-Nitroaniline	ND	mg/kg	1.7
Acenaphthene	ND	mg/kg	0.33
2,4-Dinitrophenol	ND	mg/kg	1.7
4-Nitrophenol	ND	mg/kg	1.7
Dibenzofuran	ND	mg/kg	0.33
2,4-Dinitrotoluene	ND	mg/kg	0.33
2,6-Dinitrotoluene	ND	mg/kg	0.33
Diethyl phthalate	ND	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND	mg/kg	0.33
Fluorene	ND	mg/kg	0.33
4-Nitroaniline	ND	mg/kg	1.7
4,6-Dinitro-2-methylphenol	ND	mg/kg	1.7

ND = Not Detected

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METHOD BLANK REPORT
Semivolatile Organics by GC/MS (cont.)
Project: 104020

Test: 8270-HLA-S Method 8270 - Semivolatile Organics
Matrix: SOLID
QC Run: 11 JAN 94-I Date Analyzed: 12 JAN 94

Analyte	Result	Units	Reporting Limit
N-Nitrosodiphenylamine	ND	mg/kg	0.33
4-Bromophenyl phenyl ether	ND	mg/kg	0.33
Hexachlorobenzene	ND	mg/kg	0.33
Pentachlorophenol	ND	mg/kg	1.7
Phenanthrene	ND	mg/kg	0.33
Anthracene	ND	mg/kg	0.33
Di-n-butyl phthalate	ND	mg/kg	0.33
Fluoranthene	ND	mg/kg	0.33
Pyrene	ND	mg/kg	0.33
Butyl benzyl phthalate	ND	mg/kg	0.33
3,3'-Dichlorobenzidine	ND	mg/kg	0.66
Benzo(a)anthracene	ND	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND	mg/kg	0.33
Chrysene	ND	mg/kg	0.33
Di-n-octyl phthalate	ND	mg/kg	0.33
Benzo(b)fluoranthene	ND	mg/kg	0.33
Benzo(k)fluoranthene	ND	mg/kg	0.33
Benzo(a)pyrene	ND	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND	mg/kg	0.33
Dibenz(a,h)anthracene	ND	mg/kg	0.33
Benzo(g,h,i)perylene	ND	mg/kg	0.33
Xylidine (Total)	ND	mg/kg	0.33

ND = Not Detected

Holding Time Report Project: 104020 Client: Harding Lawson Associates Today: 24 JAN 94

	Field ID	Lab ID	Lab Test Code	Analytical Method	Collected	Received	Extracted	Analyzed	CTA	RTA	ETA	HTV	Corrective Action
Test:	Method 8270 - Semivolatile Organics						Prep: P-8270-S						Total: 4
1	SZB-24A-20	104020-0001-SA	8270-HLA-S	8270	07 JAN 94	07 JAN 94	11 JAN 94	13 JAN 94	6	6	2		
2	SZB-34-9.2	104020-0005-SA	8270-HLA-S	8270	07 JAN 94	07 JAN 94	11 JAN 94	13 JAN 94	6	6	2		
3	SZB-34C-6.	104020-0007-SA	8270-HLA-S	8270	07 JAN 94	07 JAN 94	11 JAN 94	13 JAN 94	6	6	2		
4	SZB-38-4.5	104020-0008-SA	8270-HLA-S	8270	07 JAN 94	07 JAN 94	11 JAN 94	13 JAN 94	6	6	2		
Test:	Method 8240 - Volatile Organics, EPA 8240 Extended List						Prep: P-VOASCR-S						Total: 6
1	SZB-24A-20	104020-0001-SA	8240-HLA-S	8240	07 JAN 94	07 JAN 94	14 JAN 94	14 JAN 94	7	7	n/a		
2	SZB-22-4.5	104020-0003-SA	8240-HLA-S	8240	07 JAN 94	07 JAN 94	11 JAN 94	11 JAN 94	4	4	n/a		
3	SZB-22-24.	104020-0004-SA	8240-HLA-S	8240	07 JAN 94	07 JAN 94	11 JAN 94	11 JAN 94	4	4	n/a		
4	SZB-34-9.2	104020-0005-SA	8240-HLA-S	8240	07 JAN 94	07 JAN 94	11 JAN 94	11 JAN 94	4	4	n/a		
5	SZB-34C-6.	104020-0007-SA	8240-HLA-S	8240	07 JAN 94	07 JAN 94	11 JAN 94	11 JAN 94	4	4	n/a		
6	SZB-38-4.5	104020-0008-SA	8240-HLA-S	8240	07 JAN 94	07 JAN 94	11 JAN 94	11 JAN 94	4	4	n/a		
Test:	Method 5030 - Prep - Volatile Organics						Prep: n/a						Total: 6
1	SZB-24A-20	104020-0001-SA	P-VOASCR-S	5030	07 JAN 94	07 JAN 94	14 JAN 94	n/a	7	7	n/a		
2	SZB-22-4.5	104020-0003-SA	P-VOASCR-S	5030	07 JAN 94	07 JAN 94	11 JAN 94	n/a	4	4	n/a		
3	SZB-22-24.	104020-0004-SA	P-VOASCR-S	5030	07 JAN 94	07 JAN 94	11 JAN 94	n/a	4	4	n/a		
4	SZB-34-9.2	104020-0005-SA	P-VOASCR-S	5030	07 JAN 94	07 JAN 94	11 JAN 94	n/a	4	4	n/a		
5	SZB-34C-6.	104020-0007-SA	P-VOASCR-S	5030	07 JAN 94	07 JAN 94	11 JAN 94	n/a	4	4	n/a		
6	SZB-38-4.5	104020-0008-SA	P-VOASCR-S	5030	07 JAN 94	07 JAN 94	11 JAN 94	n/a	4	4	n/a		
Test:	Method EPA 3550 - Prep - Semivolatile Organics by GC/MS						Prep: n/a						Total: 4
1	SZB-24A-20	104020-0001-SA	P-8270-S	3550	07 JAN 94	07 JAN 94	11 JAN 94	n/a	4	4	n/a		
2	SZB-34-9.2	104020-0005-SA	P-8270-S	3550	07 JAN 94	07 JAN 94	11 JAN 94	n/a	4	4	n/a		
3	SZB-34C-6.	104020-0007-SA	P-8270-S	3550	07 JAN 94	07 JAN 94	11 JAN 94	n/a	4	4	n/a		
4	SZB-38-4.5	104020-0008-SA	P-8270-S	3550	07 JAN 94	07 JAN 94	11 JAN 94	n/a	4	4	n/a		
Test:	Method 7020 - Aluminum, Flame AA						Prep: P-M-3050-S						Total: 3
1	SZB-22-4.2	104020-0002-SA	AL-FLAA-MDL-S	7020	07 JAN 94	07 JAN 94	13 JAN 94	13 JAN 94	6	6	n/a		
2	SZB-34B-4.	104020-0006-SA	AL-FLAA-MDL-S	7020	07 JAN 94	07 JAN 94	13 JAN 94	13 JAN 94	6	6	n/a		
3	SZB-38-4.7	104020-0009-SA	AL-FLAA-MDL-S	7020	07 JAN 94	07 JAN 94	13 JAN 94	13 JAN 94	6	6	n/a		
Test:	Method 7062 - Arsenic, Hydride AA						Prep: P-M-3050-S						Total: 3
1	SZB-22-4.2	104020-0002-SA	AS-HAA-MDL-S	7062	07 JAN 94	07 JAN 94	13 JAN 94	17 JAN 94	10	10	n/a		
2	SZB-34B-4.	104020-0006-SA	AS-HAA-MDL-S	7062	07 JAN 94	07 JAN 94	13 JAN 94	17 JAN 94	10	10	n/a		
3	SZB-38-4.7	104020-0009-SA	AS-HAA-MDL-S	7062	07 JAN 94	07 JAN 94	13 JAN 94	17 JAN 94	10	10	n/a		
Test:	Method 7080 - Barium, Flame AA						Prep: P-M-3050-S						Total: 3
1	SZB-22-4.2	104020-0002-SA	BA-FLAA-MDL-S	7080	07 JAN 94	07 JAN 94	13 JAN 94	16 JAN 94	9	9	n/a		
2	SZB-34B-4.	104020-0006-SA	BA-FLAA-MDL-S	7080	07 JAN 94	07 JAN 94	13 JAN 94	16 JAN 94	9	9	n/a		
3	SZB-38-4.7	104020-0009-SA	BA-FLAA-MDL-S	7080	07 JAN 94	07 JAN 94	13 JAN 94	16 JAN 94	9	9	n/a		
Test:	Method 7130 - Cadmium, Flame AA						Prep: P-M-3050-S						Total: 3
1	SZB-22-4.2	104020-0002-SA	CD-FLAA-MDL-S	7130	07 JAN 94	07 JAN 94	13 JAN 94	18 JAN 94	11	11	n/a		
2	SZB-34B-4.	104020-0006-SA	CD-FLAA-MDL-S	7130	07 JAN 94	07 JAN 94	13 JAN 94	18 JAN 94	11	11	n/a		
3	SZB-38-4.7	104020-0009-SA	CD-FLAA-MDL-S	7130	07 JAN 94	07 JAN 94	13 JAN 94	18 JAN 94	11	11	n/a		

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Holding Time Report Project: 104020 Client: Harding Lawson Associates Today: 24 JAN 94

	Field ID	Lab ID	Lab Test Code	Analytical Method	Collected	Received	Extracted	Analyzed	CTA	RTA	ETA	HTV	Corrective Action
Test:	Method 7190 - Chromium, Flame AA						Prep:	P-M-3050-S					Total: 3
1	SZB-22-4.2	104020-0002-SA	CR-FLAA-MDL-S	7190	07 JAN 94	07 JAN 94	13 JAN 94	13 JAN 94	6	6	n/a		
2	SZB-34B-4.	104020-0006-SA	CR-FLAA-MDL-S	7190	07 JAN 94	07 JAN 94	13 JAN 94	13 JAN 94	6	6	n/a		
3	SZB-38-4.7	104020-0009-SA	CR-FLAA-MDL-S	7190	07 JAN 94	07 JAN 94	13 JAN 94	13 JAN 94	6	6	n/a		
Test:	Method 7210 - Copper, Flame AA						Prep:	P-M-3050-S					Total: 3
1	SZB-22-4.2	104020-0002-SA	CU-FLAA-MDL-S	7210	07 JAN 94	07 JAN 94	13 JAN 94	18 JAN 94	11	11	n/a		
2	SZB-34B-4.	104020-0006-SA	CU-FLAA-MDL-S	7210	07 JAN 94	07 JAN 94	13 JAN 94	18 JAN 94	11	11	n/a		
3	SZB-38-4.7	104020-0009-SA	CU-FLAA-MDL-S	7210	07 JAN 94	07 JAN 94	13 JAN 94	18 JAN 94	11	11	n/a		
Test:	Method 7471 - Mercury, Cold Vapor AA						Prep:	P-HG-CVAA-S					Total: 3
1	SZB-22-4.2	104020-0002-SA	HG-CVAA-MDL-S	7471	07 JAN 94	07 JAN 94	12 JAN 94	16 JAN 94	9	9	n/a		
2	SZB-34B-4.	104020-0006-SA	HG-CVAA-MDL-S	7471	07 JAN 94	07 JAN 94	12 JAN 94	16 JAN 94	9	9	n/a		
3	SZB-38-4.7	104020-0009-SA	HG-CVAA-MDL-S	7471	07 JAN 94	07 JAN 94	12 JAN 94	16 JAN 94	9	9	n/a		
Test:	Manganese, Flame AA						Prep:	P-M-3050-S					Total: 3
1	SZB-22-4.2	104020-0002-SA	MN-FLAA-MDL-S	7460	07 JAN 94	07 JAN 94	13 JAN 94	18 JAN 94	11	11	n/a		
2	SZB-34B-4.	104020-0006-SA	MN-FLAA-MDL-S	7460	07 JAN 94	07 JAN 94	13 JAN 94	18 JAN 94	11	11	n/a		
3	SZB-38-4.7	104020-0009-SA	MN-FLAA-MDL-S	7460	07 JAN 94	07 JAN 94	13 JAN 94	18 JAN 94	11	11	n/a		
Test:	Method 7520 - Nickel, Flame AA						Prep:	P-M-3050-S					Total: 3
1	SZB-22-4.2	104020-0002-SA	NI-FLAA-MDL-S	7520	07 JAN 94	07 JAN 94	13 JAN 94	16 JAN 94	9	9	n/a		
2	SZB-34B-4.	104020-0006-SA	NI-FLAA-MDL-S	7520	07 JAN 94	07 JAN 94	13 JAN 94	16 JAN 94	9	9	n/a		
3	SZB-38-4.7	104020-0009-SA	NI-FLAA-MDL-S	7520	07 JAN 94	07 JAN 94	13 JAN 94	16 JAN 94	9	9	n/a		
Test:	Method 7420 - Lead, FLame AA						Prep:	P-M-3050-S					Total: 3
1	SZB-22-4.2	104020-0002-SA	PB-FLAA-MDL-S	7420	07 JAN 94	07 JAN 94	13 JAN 94	16 JAN 94	9	9	n/a		
2	SZB-34B-4.	104020-0006-SA	PB-FLAA-MDL-S	7420	07 JAN 94	07 JAN 94	13 JAN 94	16 JAN 94	9	9	n/a		
3	SZB-38-4.7	104020-0009-SA	PB-FLAA-MDL-S	7420	07 JAN 94	07 JAN 94	13 JAN 94	16 JAN 94	9	9	n/a		
Test:	Method 7950 - Zinc, Flame AA						Prep:	P-M-3050-S					Total: 3
1	SZB-22-4.2	104020-0002-SA	ZN-FLAA-MDL-S	7950	07 JAN 94	07 JAN 94	13 JAN 94	16 JAN 94	9	9	n/a		
2	SZB-34B-4.	104020-0006-SA	ZN-FLAA-MDL-S	7950	07 JAN 94	07 JAN 94	13 JAN 94	16 JAN 94	9	9	n/a		
3	SZB-38-4.7	104020-0009-SA	ZN-FLAA-MDL-S	7950	07 JAN 94	07 JAN 94	13 JAN 94	16 JAN 94	9	9	n/a		
Test:	Prep - Mercury, Cold Vapor AA, Solid						Prep:	n/a					Total: 3
1	SZB-22-4.2	104020-0002-SA	P-HG-CVAA-S	7471	07 JAN 94	07 JAN 94	12 JAN 94	n/a	5	5	n/a		
2	SZB-34B-4.	104020-0006-SA	P-HG-CVAA-S	7471	07 JAN 94	07 JAN 94	12 JAN 94	n/a	5	5	n/a		
3	SZB-38-4.7	104020-0009-SA	P-HG-CVAA-S	7471	07 JAN 94	07 JAN 94	12 JAN 94	n/a	5	5	n/a		
Test:	Method 3050 - Prep - Total Metals						Prep:	n/a					Total: 3
1	SZB-22-4.2	104020-0002-SA	P-M-3050-S	3050	07 JAN 94	07 JAN 94	13 JAN 94	n/a	6	6	n/a		
2	SZB-34B-4.	104020-0006-SA	P-M-3050-S	3050	07 JAN 94	07 JAN 94	13 JAN 94	n/a	6	6	n/a		
3	SZB-38-4.7	104020-0009-SA	P-M-3050-S	3050	07 JAN 94	07 JAN 94	13 JAN 94	n/a	6	6	n/a		
Test:	Method 300.0 - Chlorate, Ion Chromatography						Prep:	P-IC-DILEACH-S					Total: 2
1	SZB-34B-4.	104020-0006-SA	CLO3-MDL-S	300.0	07 JAN 94	07 JAN 94	14 JAN 94	14 JAN 94	7	7	n/a		
2	SZB-38-4.7	104020-0009-SA	CLO3-MDL-S	300.0	07 JAN 94	07 JAN 94	14 JAN 94	14 JAN 94	7	7	n/a		

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Holding Time Report Project: 104020 Client: Harding Lawson Associates Today: 24 JAN 94

	Field ID	Lab ID	Lab Test Code	Analytical Method	Collected	Received	Extracted	Analyzed	CTA	RTA	ETA	HTV	Corrective Action
Test: Method 9012 - Cyanide, Total							Prep: P-CN-S						Total: 3
1	SZB-22-4.2	104020-0002-SA	CN-MDL-S	9012	07 JAN 94	07 JAN 94	19 JAN 94	19 JAN 94	12	12	n/a		
2	SZB-34B-4.	104020-0006-SA	CN-MDL-S	9012	07 JAN 94	07 JAN 94	19 JAN 94	19 JAN 94	12	12	n/a		
3	SZB-38-4.7	104020-0009-SA	CN-MDL-S	9012	07 JAN 94	07 JAN 94	19 JAN 94	19 JAN 94	12	12	n/a		
Test: Method 9012 - Prep - Cyanide, Total							Prep: n/a						Total: 3
1	SZB-22-4.2	104020-0002-SA	P-CN-S	9012	07 JAN 94	07 JAN 94	19 JAN 94	n/a	12	12	n/a		
2	SZB-34B-4.	104020-0006-SA	P-CN-S	9012	07 JAN 94	07 JAN 94	19 JAN 94	n/a	12	12	n/a		
3	SZB-38-4.7	104020-0009-SA	P-CN-S	9012	07 JAN 94	07 JAN 94	19 JAN 94	n/a	12	12	n/a		
Test: Prep - Method 300.0-Mod.- Deionized Water Leach							Prep: n/a						Total: 2
1	SZB-34B-4.	104020-0006-SA	P-IC-DILEACH-S	300.0-Mod.	07 JAN 94	07 JAN 94	14 JAN 94	n/a	7	7	n/a		
2	SZB-38-4.7	104020-0009-SA	P-IC-DILEACH-S	300.0-Mod.	07 JAN 94	07 JAN 94	14 JAN 94	n/a	7	7	n/a		

CTA = Number of Days from Collected to Analyzed.
RTA = Number of Days from Received to Analyzed.
ETA = Number of Days from Extraction to Analyzed.
HTV = Hold Time Violation (Y=Yes, blank=No)

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[illegible]g Lawson Associates
3[illegible]n Centre Drive, Suite 200
Santa Ana, California 92707
714/556-7992 – 213/617-7232
FAX: 714/662-3297

CHAIN OF C[illegible]TODY FORM

104070

Lab: ENSECO [illegible]

Samplers: LYNN FLANIGAN

Job Number: 26522-23

Name/Location: AEROJET AISA

Project Manager: MATT HUNTER

Recorder: [signature] (Signature Required)

SOURCE CODE	MATRIX: Water	Sediment	Soil	Oil	#CONTAINERS & PRESERV.: Unpres.	H_2SO_4	HNO_3	CHILLED	SAMPLE NUMBER OR LAB NUMBER (Yr / Wk / Seq)	DATE (Yr / Mo / Dy / Time)	STATION DESCRIPTION/ NOTES	EPA 601/8010	EPA 602/8020	EPA 624/8240	EPA 625/8270	Priority Pllnt. Metals	Benzene/Toluene/Xylene	Total Petrol. Hydrocarb.	EPA 8270	CYANIDE 9012	CHLORATE	HOLD	EPA 6010/7000
50			X		X			X	SZB-22-19.5	94 01 07 1020	2½ x 3" brass (fair)	X	X									X	
									SZB-22-21.0	94 01 07 1030	poor (slough)											X	
									SZB-22-24.25	94 01 07 1036	poor (slough)											X	
									SZB-22-24.5	94 01 07 1036	(fair)	X	X									X	
									SZB-22-24.75	94 01 07 1036	(good)	X	X	X									
									SZB-34-9.25	1331	fair	X	X	X	X	X							
									SZB-34B-4.75	1400	(good)	X	X		X				X	X	X		X
									SZB-34C-6.25	1426	fair	X	X	X	X				X	X	X		X
									SZB-38-4.5	1505	(G)	X	X	X	X				X	X	X		X
									SZB-38-4.75	1505	(G)	X	X		X				X	X	X		X
									SZB-38-4.0													X	

LAB NUMBER (Yr / Wk / Seq)	DEPTH IN FEET	COL MTD CD	QA CODE	MISCELLANEOUS
				- CHECK w/ MATT HUNTER BEFORE ANALYZING - REPORT TO MATT HUNTER
				X omit per M.H.'s fax 1-10-94 @ 16:09 SV

CHAIN OF CUSTODY RECORD

RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
[signature]	[signature]	1-7-94 16:00
[signature]		

DISPATCHED BY: (Signature)	DATE/TIME	RECEIVED FOR LAB BY: (Signature)	DATE/TIME
		[signature]	1-7-94 1715

METHOD OF SHIPMENT

Laboratory Copy White | Project Office Copy Yellow | Field or Office Copy Pink

6533

Harding Lawson Associates
3 Hutton Centre Drive, Suite 200
Santa Ana, California 92707
714/556-7992 – 213/617-7232
FAX: 714/662-3297

CHAIN OF CUSTODY FORM

104020

Lab: ENSECO CRL

Samplers: LYNN FLANIGAN

Job Number: 26522-2.3

Name/Location: AEROJET-AISA

Project Manager: MATT HUNTER

Recorder: [signature] (Signature Required)

SOURCE CODE	MATRIX: Water	Sediment	Soil	Oil	#CONTAINERS & PRESERV.: Unpres.	H_2SO_4	HNO_3	CHILLED	SAMPLE NUMBER OR LAB NUMBER: Yr	Wk	Seq	DATE: Yr	Mo	Dy	Time	STATION DESCRIPTION/ NOTES	EPA 601/8010	EPA 602/8020	EPA 624/8240	EPA 625/8270	Priority Pllnt. Metals	Benzene/Toluene/Xylene	Total Petrol. Hydrocarb.	EPA METHOD 9010	EPA 6010/7000	HOLD
50			X		X			X	SZB-24A-15.5			94	01	07		2½"x3" BRASS TUBE	X	X		X				X		X
									SZB-24A-20.75			94	01	07			X	X	X	X				X		
									SZB-24A-21.0			94	01	07			X	X		X				X		X
									SZB-24A-20.25			94	01	07		(rock)										X
									SZB-22-4.25						0930		X	X						X	X	
									SZB-22-4.5						0930		X	X	X					X	X	
									SZB-22-4.0						0930	(poor)										X
									SZB-22-11.25						0945	(poor)										X
									SZB-22-15.0						1000	(poor)										X
									SZB-22-19.25						1020	(best)	X	X						X	X	X

ANALYSIS REQUESTED

LAB NUMBER: Yr	Wk	Seq	DEPTH IN FEET	COL MTD CD	QA CODE	MISCELLANEOUS
						REPORT TO MATT HUNTER - check w/ MATT HUNTER BEFORE ANALYZING
						(X) omit per M.H.'s fax 1/10/94 16:09 SZ

CHAIN OF CUSTODY RECORD

RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
[signature]	[signature]	1-7-94 16:00
[signature]		

DISPATCHED BY: (Signature) DATE/TIME

RECEIVED FOR LAB BY: (Signature) [signature] DATE/TIME 1-7-94 1715

METHOD OF SHIPMENT

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Enseco - CRL
7440 Lincoln Way • Garden Grove, CA 92641
(714) 898-6370 • (213) 598-0458 • (800) LAB-1-CRL
FAX: (714) 891-5917

Enseco
A Corning Company

January 24, 1994

HARDING LAWSON ASSOCIATES
3 HUTTON CENTRE DRIVE, STE 200
SANTA ANA, CA 92707
ATTN: MR. MATT HUNTER

Lab No.: 104049-0001/0015
Date Sampled: 10-JAN-1994
Date Sample Rec'd: 10-JAN-1994
Project: (26522-2.3) AEROJET

Enclosed with this letter is the report on the chemical and physical analyses on the samples from LAB NO: 104049-0001/0015 shown above.

The samples were received by CRL in a chilled state, intact and with the chain-of-custody record attached.

Note that ND means not detected at the reporting limit expressed. The reporting limit is raised to reflect the dilution factor of the sample.

Solid samples are reported on "as received" basis.

Case Narrative:

The MS/MSD Percent Recovery for Aluminum was not within the acceptance limits specified in HLA's "Laboratory Analytical Technical Requirements," nor was it within Enseco's-CRL's established acceptance limits. However, the DCS recovery was within all acceptable ranges, therefore the data was accepted and no further action was required.

The MS/MSD Percent Recovery for Cyanide was not within the acceptance limits specified in HLA's "Laboratory Analytical Technical Requirements," but was within Enseco's-CRL's established acceptance limits, therefore the data was accepted and no further action was required.

The MS/MSD Percent Recovery for Pentachlorophenol was not within the acceptance limits specified in HLA's "Laboratory Analytical Technical Requirements," but was within Enseco's-CRL's established acceptance limits, therefore the data was accepted and no further action was required.

The Report Cover Letter is an integral part of this report.

This report pertains only to the samples investigated and does not necessarily apply to other apparently identical or similar materials. This report is submitted for the exclusive use of the client to whom it is addressed. Any reproduction of this report or use of this Laboratory's name for advertising or publicity purposes without authorization is prohibited.

Enseco - CRL
7440 Lincoln Way • Garden Grove, CA 92641
(714) 898-6370 • (213) 598-0458 • (800) LAB-1-CRL
FAX: (714) 891-5917

Enseco
A Corning Company

January 24, 1994

HARDING LAWSON ASSOCIATES
3 HUTTON CENTRE DRIVE, STE 200
SANTA ANA, CA 92707
ATTN: MR. MATT HUNTER

Lab No.: 104049-0001/0015
Date Sampled: 10-JAN-1994
Date Sample Rec'd: 10-JAN-1994
Project: (26522-2.3) AEROJET

Case Narrative (cont.):

The MSD Percent Recovery for 4-Nitrophenol was not within the acceptance limits specified in HLA's "Laboratory Analytical Technical Requirements," but was within Enseco's-CRL's established acceptance limits, therefore the data was accepted and no further action was required.

Sabina R Sudoko
Reviewed

Mei Bloom
Approved

The Report Cover Letter is an integral part of this report.
This report pertains only to the samples investigated and does not necessarily apply to other apparently identical or similar materials. This report is submitted for the exclusive use of the client to whom it is addressed. Any reproduction of this report or use of this Laboratory's name for advertising or publicity purposes without authorization is prohibited.

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SAMPLE DESCRIPTION INFORMATION
for
Harding Lawson Associates

Lab ID	Client ID	Matrix	Sampled Date	Sampled Time	Received Date
104049-0001-SA	SZB-38-15.25	SOIL	10 JAN 94	07:20	10 JAN 94
104049-0002-SA	SZB-27-5.00	SOIL	10 JAN 94	09:30	10 JAN 94
104049-0003-SA	SZB-27-5.25	SOIL	10 JAN 94	09:30	10 JAN 94
104049-0004-SA	SZB-27-20.00	SOIL	10 JAN 94	10:05	10 JAN 94
104049-0005-SA	SZB-38-10.00	SOIL	10 JAN 94	07:10	10 JAN 94
104049-0006-SA	SZB-38-10.25	SOIL	10 JAN 94	07:10	10 JAN 94
104049-0007-SA	SZB-38-15.00	SOIL	10 JAN 94	07:20	10 JAN 94
104049-0008-SA	SZB-38-20.50	SOIL	10 JAN 94	07:30	10 JAN 94
104049-0009-SA	SZB-27-10.00	SOIL	10 JAN 94	09:45	10 JAN 94
104049-0010-SA	SZB-27-10.25	SOIL	10 JAN 94	09:45	10 JAN 94
104049-0011-SA	SZB-27-15.00	SOIL	10 JAN 94	09:55	10 JAN 94
104049-0012-SA	SZB-27-15.25	SOIL	10 JAN 94	09:55	10 JAN 94
104049-0013-SA	SZB-28-5.00	SOIL	10 JAN 94	10:50	10 JAN 94
104049-0014-SA	SZB-28-5.25	SOIL	10 JAN 94	10:50	10 JAN 94
104049-0015-SA	SZB-31-5.00	SOIL	10 JAN 94	13:00	10 JAN 94

Enseco
A Corning Company

METALS

Client Name: Harding Lawson Associates
Client ID: SZB-27-5.00
LAB ID: 104049-0002-SA
Matrix: SOIL — Sampled: 10 JAN 94 — Received: 10 JAN 94
Authorized: 11 JAN 94 — Prepared: See Below — Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Aluminum	6030		50.0	200	mg/kg	7020	13 JAN 94	13 JAN 94
Arsenic	34.2		0.20	2.5	mg/kg	7062	13 JAN 94	17 JAN 94
Barium	89.0		20.0	50.0	mg/kg	7080	13 JAN 94	16 JAN 94
Chromium	17.2		5.0	10.0	mg/kg	7190	13 JAN 94	13 JAN 94
Copper	20.0		5.0	10.0	mg/kg	7210	13 JAN 94	18 JAN 94
Lead	ND		20.0	20.0	mg/kg	7420	13 JAN 94	16 JAN 94
Manganese	263		2.0	5.0	mg/kg	7460	13 JAN 94	18 JAN 94
Nickel	TR		5.0	10.0	mg/kg	7520	13 JAN 94	16 JAN 94
Zinc	46.8		1.0	2.0	mg/kg	7950	13 JAN 94	16 JAN 94
Cadmium	ND		2.0	5.0	mg/kg	7130	13 JAN 94	18 JAN 94
Mercury	ND		0.090	0.10	mg/kg	7471	12 JAN 94	16 JAN 94

ND = Not Detected

Enseco
A Corning Company

GENERAL INORGANICS

Client Name: Harding Lawson Associates
Client ID: SZB-38-15.25
Lab ID: 104049-0001-SA
Matrix: SOIL — Sampled: 10 JAN 94 — Received: 10 JAN 94
Authorized: 11 JAN 94 — Prepared: See Below — Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Chlorate, Solid	ND		0.50	1.0	mg/kg	300.0	14 JAN 94	14 JAN 94

ND = Not Detected

Enseco
A Corning Company

GENERAL INORGANICS

Client Name: Harding Lawson Associates
Client ID: SZB-27-5.00
LAB ID: 104049-0002-SA
Matrix: SOIL — Sampled: 10 JAN 94 — Received: 10 JAN 94
Authorized: 11 JAN 94 — Prepared: See Below — Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Cyanide, Total	ND		0.30	0.50	mg/kg	9012	19 JAN 94	19 JAN 94
Chlorate, Solid	ND		0.50	1.0	mg/kg	300.0	14 JAN 94	14 JAN 94

ND = Not Detected

Enseco
A Corning Company

GENERAL INORGANICS

Client Name: Harding Lawson Associates
Client ID: SZB-27-20.00
[illegible] ID: 104049-0004-SA
Matrix: SOIL Sampled: 10 JAN 94 Received: 10 JAN 94
Authorized: 11 JAN 94 Prepared: See Below Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Chlorate, Solid	ND		0.50	1.0	mg/kg	300.0	14 JAN 94	14 JAN 94

ND = Not Detected

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Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-38-15.25
LAB ID: 104049-0001-SA
Matrix: SOIL Sampled: 10 JAN 94 Received: 10 JAN 94
Authorized: 11 JAN 94 Prepared: 12 JAN 94 Analyzed: 12 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/kg	5.0
Methylene chloride	TR		1.1	ug/kg	5.0
Acetone	ND		7.1	ug/kg	10
Trichlorofluoromethane	ND		0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	ND		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	ND		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	ND		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	ND		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0
tert-Butylbenzene	ND		0.55	ug/kg	5.0

ND = Not Detected

Enseco
A Corning Company
(cont.)

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-38-15.25
LAB ID: 104049-0001-SA
Matrix: SOIL Sampled: 10 JAN 94 Received: 10 JAN 94
Authorized: 11 JAN 94 Prepared: 12 JAN 94 Analyzed: 12 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
1,2,4-Trimethylbenzene	ND		0.53	ug/kg	5.0
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	102	%
Toluene-d8	106	%
Bromofluorobenzene	98	%

ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-27-5.25
LAB ID: 104049-0003-SA
Matrix: SOIL Sampled: 10 JAN 94 Received: 10 JAN 94
Authorized: 11 JAN 94 Prepared: 12 JAN 94 Analyzed: 12 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/kg	5.0
Methylene chloride	TR		1.1	ug/kg	5.0
Acetone	ND		7.1	ug/kg	10
Trichlorofluoromethane	ND		0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	ND		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	ND		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	ND		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	ND		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0
tert-Butylbenzene	ND		0.55	ug/kg	5.0

ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240
(cont.)

Client Name: Harding Lawson Associates
Client ID: SZB-27-5.25
LAB ID: 104049-0003-SA
Matrix: SOIL Sampled: 10 JAN 94 Received: 10 JAN 94
Authorized: 11 JAN 94 Prepared: 12 JAN 94 Analyzed: 12 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
1,2,4-Trimethylbenzene	ND		0.53	ug/kg	5.0
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	109	%
Toluene-d8	108	%
Bromofluorobenzene	98	%

ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-27-20.00
LAB ID: 104049-0004-SA
Matrix: SOIL Sampled: 10 JAN 94 Received: 10 JAN 94
Authorized: 11 JAN 94 Prepared: 12 JAN 94 Analyzed: 12 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/kg	5.0
Methylene chloride	TR		1.1	ug/kg	5.0
Acetone	ND		7.1	ug/kg	10
Trichlorofluoromethane	ND		0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	ND		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	ND		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	ND		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	ND		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0
tert-Butylbenzene	ND		0.55	ug/kg	5.0

ND = Not Detected

Enseco
A Corning Company
(cont.)

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-27-20.00
LAB ID: 104049-0004-SA
Matrix: SOIL Sampled: 10 JAN 94 Received: 10 JAN 94
Authorized: 11 JAN 94 Prepared: 12 JAN 94 Analyzed: 12 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
1,2,4-Trimethylbenzene	ND		0.53	ug/kg	5.0
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	106	%
Toluene-d8	104	%
Bromofluorobenzene	97	%

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-38-15.25
LAB ID: 104049-0001-SA
Matrix: SOIL — Sampled: 10 JAN 94 — Received: 10 JAN 94
Authorized: 11 JAN 94 — Prepared: 11 JAN 94 — Analyzed: 13 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
N-Nitrosodiethylamine	ND		0.26	mg/kg	0.33
Phenol	ND		0.030	mg/kg	0.33
bis(2-Chloroethyl) ether	ND		0.060	mg/kg	0.33
2-Chlorophenol	ND		0.040	mg/kg	0.33
1,3-Dichlorobenzene	ND		0.030	mg/kg	0.33
1,4-Dichlorobenzene	ND		0.060	mg/kg	0.33
Benzyl alcohol	ND		0.070	mg/kg	0.33
1,2-Dichlorobenzene	ND		0.040	mg/kg	0.33
2-Methylphenol	ND		0.030	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND		0.040	mg/kg	0.33
3/4-Methylphenol	ND		0.040	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND		0.030	mg/kg	0.33
Hexachloroethane	ND		0.030	mg/kg	0.33
Nitrobenzene	ND		0.090	mg/kg	0.33
Isophorone	ND		0.040	mg/kg	0.33
2-Nitrophenol	ND		0.050	mg/kg	0.33
2,4-Dimethylphenol	ND		0.030	mg/kg	0.33
Benzoic acid	ND		0.51	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND		0.020	mg/kg	0.33
2,4-Dichlorophenol	ND		0.030	mg/kg	0.33
1,2,4-Trichlorobenzene	ND		0.040	mg/kg	0.33
Naphthalene	ND		0.030	mg/kg	0.33
4-Chloroaniline	ND		0.10	mg/kg	0.33
Hexachlorobutadiene	ND		0.040	mg/kg	0.33
4-Chloro-3-methylphenol	ND		0.040	mg/kg	0.33
2-Methylnaphthalene	ND		0.030	mg/kg	0.33
Hexachlorocyclopentadiene	ND		0.050	mg/kg	0.33
2,4,6-Trichlorophenol	ND		0.040	mg/kg	0.33
2,4,5-Trichlorophenol	ND		0.050	mg/kg	1.7
2-Chloronaphthalene	ND		0.030	mg/kg	0.33
2-Nitroaniline	ND		0.030	mg/kg	1.7
Dimethyl phthalate	ND		0.030	mg/kg	0.33
Acenaphthylene	ND		0.020	mg/kg	0.33
3-Nitroaniline	ND		0.14	mg/kg	1.7
Acenaphthene	ND		0.030	mg/kg	0.33
2,4-Dinitrophenol	ND		0.23	mg/kg	1.7
4-Nitrophenol	ND		0.25	mg/kg	1.7
Dibenzofuran	ND		0.040	mg/kg	0.33
2,4-Dinitrotoluene	ND		0.040	mg/kg	0.33
2,6-Dinitrotoluene	ND		0.050	mg/kg	0.33
Diethyl phthalate	ND		0.020	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND		0.030	mg/kg	0.33
Fluorene	ND		0.030	mg/kg	0.33
4-Nitroaniline	ND		0.18	mg/kg	1.7

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-38-15.25
LAB ID: 104049-0001-SA
Matrix: SOIL Sampled: 10 JAN 94 Received: 10 JAN 94
Authorized: 11 JAN 94 Prepared: 11 JAN 94 Analyzed: 13 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
4,6-Dinitro-2-methylphenol	ND		0.36	mg/kg	1.7
N-Nitrosodiphenylamine	ND		0.040	mg/kg	0.33
4-Bromophenyl phenyl ether	ND		0.080	mg/kg	0.33
Hexachlorobenzene	ND		0.030	mg/kg	0.33
Pentachlorophenol	ND		0.19	mg/kg	1.7
Phenanthrene	ND		0.030	mg/kg	0.33
Anthracene	ND		0.020	mg/kg	0.33
Di-n-butyl phthalate	ND		0.24	mg/kg	0.33
Fluoranthene	ND		0.030	mg/kg	0.33
Pyrene	ND		0.020	mg/kg	0.33
Butyl benzyl phthalate	ND		0.030	mg/kg	0.33
3,3'-Dichlorobenzidine	ND		0.33	mg/kg	0.66
Benzo(a)anthracene	ND		0.040	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND		0.13	mg/kg	0.33
Chrysene	ND		0.040	mg/kg	0.33
Di-n-octyl phthalate	ND		0.040	mg/kg	0.33
Benzo(b)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(k)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(a)pyrene	ND		0.040	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND		0.030	mg/kg	0.33
Dibenz(a,h)anthracene	ND		0.030	mg/kg	0.33
Benzo(g,h,i)perylene	ND		0.020	mg/kg	0.33
Xylidine (Total)	ND		0.076	mg/kg	0.33

Surrogate	Recovery	
Nitrobenzene-d5	67	%
2-Fluorobiphenyl	73	%
Terphenyl-d14	66	%
Phenol-d5	52	%
2-Fluorophenol	55	%
2,4,6-Tribromophenol	77	%

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-27-5.25
LAB ID: 104049-0003-SA
Matrix: SOIL — Sampled: 10 JAN 94 — Received: 10 JAN 94
Authorized: 11 JAN 94 — Prepared: 11 JAN 94 — Analyzed: 13 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
N-Nitrosodiethylamine	ND		0.26	mg/kg	0.33
Phenol	ND		0.030	mg/kg	0.33
bis(2-Chloroethyl) ether	ND		0.060	mg/kg	0.33
2-Chlorophenol	ND		0.040	mg/kg	0.33
1,3-Dichlorobenzene	ND		0.030	mg/kg	0.33
1,4-Dichlorobenzene	ND		0.060	mg/kg	0.33
Benzyl alcohol	ND		0.070	mg/kg	0.33
1,2-Dichlorobenzene	ND		0.040	mg/kg	0.33
2-Methylphenol	ND		0.030	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND		0.040	mg/kg	0.33
3/4-Methylphenol	ND		0.040	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND		0.030	mg/kg	0.33
Hexachloroethane	ND		0.030	mg/kg	0.33
Nitrobenzene	ND		0.090	mg/kg	0.33
Isophorone	ND		0.040	mg/kg	0.33
2-Nitrophenol	ND		0.050	mg/kg	0.33
2,4-Dimethylphenol	ND		0.030	mg/kg	0.33
Benzoic acid	ND		0.51	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND		0.020	mg/kg	0.33
2,4-Dichlorophenol	ND		0.030	mg/kg	0.33
1,2,4-Trichlorobenzene	ND		0.040	mg/kg	0.33
Naphthalene	ND		0.030	mg/kg	0.33
4-Chloroaniline	ND		0.10	mg/kg	0.33
Hexachlorobutadiene	ND		0.040	mg/kg	0.33
4-Chloro-3-methylphenol	ND		0.040	mg/kg	0.33
2-Methylnaphthalene	ND		0.030	mg/kg	0.33
Hexachlorocyclopentadiene	ND		0.050	mg/kg	0.33
2,4,6-Trichlorophenol	ND		0.040	mg/kg	0.33
2,4,5-Trichlorophenol	ND		0.050	mg/kg	1.7
2-Chloronaphthalene	ND		0.030	mg/kg	0.33
2-Nitroaniline	ND		0.030	mg/kg	1.7
Dimethyl phthalate	ND		0.030	mg/kg	0.33
Acenaphthylene	ND		0.020	mg/kg	0.33
3-Nitroaniline	ND		0.14	mg/kg	1.7
Acenaphthene	ND		0.030	mg/kg	0.33
2,4-Dinitrophenol	ND		0.23	mg/kg	1.7
4-Nitrophenol	ND		0.25	mg/kg	1.7
Dibenzofuran	ND		0.040	mg/kg	0.33
2,4-Dinitrotoluene	ND		0.040	mg/kg	0.33
2,6-Dinitrotoluene	ND		0.050	mg/kg	0.33
Diethyl phthalate	ND		0.020	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND		0.030	mg/kg	0.33
Fluorene	ND		0.030	mg/kg	0.33
4-Nitroaniline	ND		0.18	mg/kg	1.7

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-27-5.25
LAB ID: 104049-0003-SA
Matrix: SOIL Sampled: 10 JAN 94 Received: 10 JAN 94
Authorized: 11 JAN 94 Prepared: 11 JAN 94 Analyzed: 13 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
4,6-Dinitro-2-methylphenol	ND		0.36	mg/kg	1.7
N-Nitrosodiphenylamine	ND		0.040	mg/kg	0.33
4-Bromophenyl phenyl ether	ND		0.080	mg/kg	0.33
Hexachlorobenzene	ND		0.030	mg/kg	0.33
Pentachlorophenol	ND		0.19	mg/kg	1.7
Phenanthrene	ND		0.030	mg/kg	0.33
Anthracene	ND		0.020	mg/kg	0.33
Di-n-butyl phthalate	ND		0.24	mg/kg	0.33
Fluoranthene	ND		0.030	mg/kg	0.33
Pyrene	ND		0.020	mg/kg	0.33
Butyl benzyl phthalate	ND		0.030	mg/kg	0.33
3,3'-Dichlorobenzidine	ND		0.33	mg/kg	0.66
Benzo(a)anthracene	ND		0.040	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND		0.13	mg/kg	0.33
Chrysene	ND		0.040	mg/kg	0.33
Di-n-octyl phthalate	ND		0.040	mg/kg	0.33
Benzo(b)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(k)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(a)pyrene	ND		0.040	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND		0.030	mg/kg	0.33
Dibenz(a,h)anthracene	ND		0.030	mg/kg	0.33
Benzo(g,h,i)perylene	ND		0.020	mg/kg	0.33
Xylidine (Total)	ND		0.076	mg/kg	0.33

Surrogate	Recovery	
Nitrobenzene-d5	66	%
2-Fluorobiphenyl	72	%
Terphenyl-d14	68	%
Phenol-d5	56	%
2-Fluorophenol	57	%
2,4,6-Tribromophenol	78	%

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-27-20.00
LAB ID: 104049-0004-SA
Matrix: SOIL Sampled: 10 JAN 94 Received: 10 JAN 94
Authorized: 11 JAN 94 Prepared: 11 JAN 94 Analyzed: 13 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
N-Nitrosodiethylamine	ND		0.26	mg/kg	0.33
Phenol	ND		0.030	mg/kg	0.33
bis(2-Chloroethyl) ether	ND		0.060	mg/kg	0.33
2-Chlorophenol	ND		0.040	mg/kg	0.33
1,3-Dichlorobenzene	ND		0.030	mg/kg	0.33
1,4-Dichlorobenzene	ND		0.060	mg/kg	0.33
Benzyl alcohol	ND		0.070	mg/kg	0.33
1,2-Dichlorobenzene	ND		0.040	mg/kg	0.33
2-Methylphenol	ND		0.030	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND		0.040	mg/kg	0.33
3/4-Methylphenol	ND		0.040	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND		0.030	mg/kg	0.33
Hexachloroethane	ND		0.030	mg/kg	0.33
Nitrobenzene	ND		0.090	mg/kg	0.33
Isophorone	ND		0.040	mg/kg	0.33
2-Nitrophenol	ND		0.050	mg/kg	0.33
2,4-Dimethylphenol	ND		0.030	mg/kg	0.33
Benzoic acid	ND		0.51	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND		0.020	mg/kg	0.33
2,4-Dichlorophenol	ND		0.030	mg/kg	0.33
1,2,4-Trichlorobenzene	ND		0.040	mg/kg	0.33
Naphthalene	ND		0.030	mg/kg	0.33
4-Chloroaniline	ND		0.10	mg/kg	0.33
Hexachlorobutadiene	ND		0.040	mg/kg	0.33
4-Chloro-3-methylphenol	ND		0.040	mg/kg	0.33
2-Methylnaphthalene	ND		0.030	mg/kg	0.33
Hexachlorocyclopentadiene	ND		0.050	mg/kg	0.33
2,4,6-Trichlorophenol	ND		0.040	mg/kg	0.33
2,4,5-Trichlorophenol	ND		0.050	mg/kg	1.7
2-Chloronaphthalene	ND		0.030	mg/kg	0.33
2-Nitroaniline	ND		0.030	mg/kg	1.7
Dimethyl phthalate	ND		0.030	mg/kg	0.33
Acenaphthylene	ND		0.020	mg/kg	0.33
3-Nitroaniline	ND		0.14	mg/kg	1.7
Acenaphthene	ND		0.030	mg/kg	0.33
2,4-Dinitrophenol	ND		0.23	mg/kg	1.7
4-Nitrophenol	ND		0.25	mg/kg	1.7
Dibenzofuran	ND		0.040	mg/kg	0.33
2,4-Dinitrotoluene	ND		0.040	mg/kg	0.33
2,6-Dinitrotoluene	ND		0.050	mg/kg	0.33
Diethyl phthalate	ND		0.020	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND		0.030	mg/kg	0.33
Fluorene	ND		0.030	mg/kg	0.33
4-Nitroaniline	ND		0.18	mg/kg	1.7

ND = Not Detected

Semivolatile Organic Compounds (cont.)
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-27-20.00
LAB ID: 104049-0004-SA
Matrix: SOIL — Sampled: 10 JAN 94 — Received: 10 JAN 94
Authorized: 11 JAN 94 — Prepared: 11 JAN 94 — Analyzed: 13 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
4,6-Dinitro-2-methylphenol	ND		0.36	mg/kg	1.7
N-Nitrosodiphenylamine	ND		0.040	mg/kg	0.33
4-Bromophenyl phenyl ether	ND		0.080	mg/kg	0.33
Hexachlorobenzene	ND		0.030	mg/kg	0.33
Pentachlorophenol	ND		0.19	mg/kg	1.7
Phenanthrene	ND		0.030	mg/kg	0.33
Anthracene	ND		0.020	mg/kg	0.33
Di-n-butyl phthalate	ND		0.24	mg/kg	0.33
Fluoranthene	ND		0.030	mg/kg	0.33
Pyrene	ND		0.020	mg/kg	0.33
Butyl benzyl phthalate	ND		0.030	mg/kg	0.33
3,3'-Dichlorobenzidine	ND		0.33	mg/kg	0.66
Benzo(a)anthracene	ND		0.040	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND		0.13	mg/kg	0.33
Chrysene	ND		0.040	mg/kg	0.33
Di-n-octyl phthalate	ND		0.040	mg/kg	0.33
Benzo(b)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(k)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(a)pyrene	ND		0.040	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND		0.030	mg/kg	0.33
Dibenz(a,h)anthracene	ND		0.030	mg/kg	0.33
Benzo(g,h,i)perylene	ND		0.020	mg/kg	0.33
Xylidine (Total)	ND		0.076	mg/kg	0.33

Surrogate	Recovery	
Nitrobenzene-d5	66	%
2-Fluorobiphenyl	68	%
Terphenyl-d14	63	%
Phenol-d5	52	%
2-Fluorophenol	52	%
2,4,6-Tribromophenol	73	%

ND = Not Detected

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QC LOT ASSIGNMENT REPORT - MS QC
Metals Analysis and Preparation

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
104049-0002-SA	SOLID	AL-FLAA-S	13 JAN 94-B	13 JAN 94-B	13 JAN 94-BA
104049-0002-SA	SOLID	AS-HAA-S	13 JAN 94-B	13 JAN 94-B	13 JAN 94-BA
104049-0002-SA	SOLID	CD-FLAA-S	13 JAN 94-B	13 JAN 94-B	13 JAN 94-BA
104049-0002-SA	SOLID	CR-FLAA-S	13 JAN 94-B	13 JAN 94-B	13 JAN 94-BA
104049-0002-SA	SOLID	MN-FLAA-S	13 JAN 94-B	13 JAN 94-B	13 JAN 94-BA
104049-0002-SA	SOLID	NI-FLAA-S	13 JAN 94-B	13 JAN 94-B	13 JAN 94-BA
104049-0002-SA	SOLID	PB-FLAA-S	13 JAN 94-B	13 JAN 94-B	13 JAN 94-BA
104049-0002-SA	SOLID	CU-FLAA-S	13 JAN 94-B	13 JAN 94-B	13 JAN 94-BA
104049-0002-SA	SOLID	ZN-FLAA-S	13 JAN 94-B	13 JAN 94-B	13 JAN 94-BA
104049-0002-SA	SOLID	BA-FLAA-S	13 JAN 94-B	13 JAN 94-B	13 JAN 94-BA
104049-0002-SA	SOLID	HG-CVAA-S	12 JAN 94-D	12 JAN 94-D	12 JAN 94-DA

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DUPLICATE CONTROL SAMPLE REPORT
Metals Analysis and Preparation
Project: 104049

Category: AL-FLAA-S Aluminum, Flame AA
Matrix: SOLID
QC Lot: 13 JAN 94-B
Date Analyzed: 13 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Aluminum	10700	8740	8260	8500	79	47-153	5.6	20

Category: AS-HAA-S Arsenic, Hydride AA
Matrix: SOLID
QC Lot: 13 JAN 94-B
Date Analyzed: 17 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Arsenic	145	120	131	126	87	59-141	8.8	20

Category: CD-FLAA-S Cadmium, Flame AA
Matrix: SOLID
QC Lot: 13 JAN 94-B
Date Analyzed: 18 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Cadmium	154	140	146	143	93	68-132	4.2	20

Category: CR-FLAA-S Chromium, Flame AA
Matrix: SOLID
QC Lot: 13 JAN 94-B
Date Analyzed: 13 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Chromium	151	145	148	146	97	66-133	2.0	20

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

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DUPLICATE CONTROL SAMPLE REPORT
Metals Analysis and Preparation
Project: 104049

Category: MN-FLAA-S Manganese, Flame AA Method 7460
Matrix: SOLID
QC Lot: 13 JAN 94-B
Date Analyzed: 18 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Manganese	423	357	368	362	86	74-125	3.0	20

Category: NI-FLAA-S Nickel Flame AA
Matrix: SOLID
QC Lot: 13 JAN 94-B
Date Analyzed: 16 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Nickel	166	189	193	191	115	67-133	2.1	20

Category: PB-FLAA-S Method 7420 - Lead, Flame AA
Matrix: SOLID
QC Lot: 13 JAN 94-B
Date Analyzed: 16 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Lead	148	134	140	137	93	66-135	4.4	20

Category: CU-FLAA-S Copper Flame AA
Matrix: SOLID
QC Lot: 13 JAN 94-B
Date Analyzed: 18 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Copper	162	147	151	149	92	68-132	2.7	20

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

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DUPLICATE CONTROL SAMPLE REPORT
Metals Analysis and Preparation
Project: 104049

Category: ZN-FLAA-S Zinc, Flame AA
Matrix: SOLID
QC Lot: 13 JAN 94-B
Date Analyzed: 16 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Zinc	530	575	624	600	113	65-135	8.2	20

Category: BA-FLAA-S Barium, Flame AA
Matrix: SOLID
QC Lot: 13 JAN 94-B
Date Analyzed: 16 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Barium	503	439	449	444	88	76-124	2.3	20

Category: HG-CVAA-S Mercury by CVAA
Matrix: SOLID
QC Lot: 12 JAN 94-D
Date Analyzed: 16 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Mercury	29.0	30.4	29.6	30.0	103	52-148	2.7	20

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Metals Analysis and Preparation
Project: 104049

Category: AL-FLAA-S Aluminum, Flame AA
Matrix: SOLID
Sample: 104020-0002
MS Run: 13 JAN 94-BA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Aluminum	3740	3810	3980	200	NC	NC	NC	60-130	20

Category: AS-HAA-S Arsenic, Hydride AA
Matrix: SOLID
Sample: 104020-0002
MS Run: 13 JAN 94-BA
Units mg/kg Units Qualifier: Wet wt.

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Arsenic	1.81	37.9	40.3	50.0	72	77	6.8	50-127	25

Category: CD-FLAA-S Cadmium, Flame AA
Matrix: SOLID
Sample: 104020-0002
MS Run: 13 JAN 94-BA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Cadmium	ND	5.10	5.40	5.00	102	108	5.7	52-130	28

NC = Not Calculated, calculation not applicable.
ND = Not Detected

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Metals Analysis and Preparation
Project: 104049 (cont.)

Category: CR-FLAA-S Chromium, Flame AA
Matrix: SOLID
Sample: 104020-0002
MS Run: 13 JAN 94-BA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Chromium	16.2	30.3	33.7	20.0	70	88	23	40-190	33

Category: MN-FLAA-S Manganese, Flame AA Method 7460
Matrix: SOLID
Sample: 104020-0002
MS Run: 13 JAN 94-BA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Manganese	163	202	206	50.0	78	86	9.8	60-130	40

Category: NI-FLAA-S Nickel Flame AA
Matrix: SOLID
Sample: 104020-0002
MS Run: 13 JAN 94-BA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Nickel	ND	53.0	57.0	50.0	106	114	7.3	55-155	25

ND = Not Detected

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Metals Analysis and Preparation
Project: 104049 (cont.)

Category: PB-FLAA-S Method 7420 - Lead, Flame AA
Matrix: SOLID
Sample: 104020-0002
MS Run: 13 JAN 94-BA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Lead	ND	58.0	63.0	50.0	116	126	8.3	14-169	40

Category: CU-FLAA-S Copper Flame AA
Matrix: SOLID
Sample: 104020-0002
MS Run: 13 JAN 94-BA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Copper	15.0	37.0	39.0	25.0	88	96	8.7	49-144	23

Category: ZN-FLAA-S Zinc, Flame AA
Matrix: SOLID
Sample: 104020-0002
MS Run: 13 JAN 94-BA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Zinc	36.0	84.1	87.8	50.0	96	104	8.0	65-138	25

ND = Not Detected

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Metals Analysis and Preparation
Project: 104049 (cont.)

Category: BA-FLAA-S Barium, Flame AA
Matrix: SOLID
Sample: 104020-0002
MS Run: 13 JAN 94-BA
Units: mg/kg

Analyte	Concentration Sample Result	MS Result	MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Barium	118	297	325	200	90	104	14	40-130	30

Category: HG-CVAA-S Mercury by CVAA
Matrix: SOLID
Sample: 104019-0001
MS Run: 12 JAN 94-DA
Units mg/kg Units Qualifier: Wet wt.

Analyte	Concentration Sample Result	MS Result	MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Mercury	ND	0.453	0.416	0.438	103	95	8.1	33-178	40

ND = Not Detected

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

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METHOD BLANK REPORT
Metals Analysis and Preparation
Project: 104049

Test: AL-FLAA-MDL-S Method 7020 - Aluminum, Flame AA
Matrix: SOLID
QC Run: 13 JAN 94-B Date Analyzed: 13 JAN 94

Analyte	Result	Units	Reporting Limit
Aluminum	ND	mg/kg	100

Test: AS-HAA-MDL-S Method 7062 - Arsenic, Hydride AA
Matrix: SOLID
QC Run: 13 JAN 94-B Date Analyzed: 17 JAN 94

Analyte	Result	Units	Reporting Limit
Arsenic	ND	mg/kg	0.50

Test: CD-FLAA-MDL-S Method 7130 - Cadmium, Flame AA
Matrix: SOLID
QC Run: 13 JAN 94-B Date Analyzed: 18 JAN 94

Analyte	Result	Units	Reporting Limit
Cadmium	ND	mg/kg	5.0

Test: CR-FLAA-MDL-S Method 7190 - Chromium, Flame AA
Matrix: SOLID
QC Run: 13 JAN 94-B Date Analyzed: 13 JAN 94

Analyte	Result	Units	Reporting Limit
Chromium	ND	mg/kg	10.0

Test: MN-FLAA-MDL-S Manganese, Flame AA
Matrix: SOLID
QC Run: 13 JAN 94-B Date Analyzed: 18 JAN 94

Analyte	Result	Units	Reporting Limit
Manganese	ND	mg/kg	5.0

ND = Not Detected

METHOD BLANK REPORT
Metals Analysis and Preparation (cont.)
Project: 104049

Test: NI-FLAA-MDL-S Method 7520 - Nickel, Flame AA
Matrix: SOLID
QC Run: 13 JAN 94-B Date Analyzed: 16 JAN 94

Analyte	Result	Units	Reporting Limit
Nickel	ND	mg/kg	10.0

Test: PB-FLAA-MDL-S Method 7420 - Lead, FLame AA
Matrix: SOLID
QC Run: 13 JAN 94-B Date Analyzed: 16 JAN 94

Analyte	Result	Units	Reporting Limit
Lead	ND	mg/kg	20.0

Test: CU-FLAA-MDL-S Method 7210 - Copper, Flame AA
Matrix: SOLID
QC Run: 13 JAN 94-B Date Analyzed: 18 JAN 94

Analyte	Result	Units	Reporting Limit
Copper	ND	mg/kg	10.0

Test: ZN-FLAA-MDL-S Method 7950 - Zinc, Flame AA
Matrix: SOLID
QC Run: 13 JAN 94-B Date Analyzed: 16 JAN 94

Analyte	Result	Units	Reporting Limit
Zinc	ND	mg/kg	2.0

Test: BA-FLAA-MDL-S Method 7080 - Barium, Flame AA
Matrix: SOLID
QC Run: 13 JAN 94-B Date Analyzed: 16 JAN 94

Analyte	Result	Units	Reporting Limit
Barium	ND	mg/kg	50.0

ND = Not Detected

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METHOD BLANK REPORT
Metals Analysis and Preparation (cont.)
Project: 104049

Test: HG-CVAA-MDL-S Method 7471 - Mercury, Cold Vapor AA
Matrix: SOLID
QC Run: 12 JAN 94-D Date Analyzed: 16 JAN 94

Analyte	Result	Units	Reporting Limit
Mercury	ND	mg/kg	0.10

ND = Not Detected

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QC LOT ASSIGNMENT REPORT - MS QC
Wet Chemistry Analysis and Preparation

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
104049-0001-SA	SOLID	CLO3-S	14 JAN 94-A	14 JAN 94-A	14 JAN 94-AA
104049-0002-SA	SOLID	CLO3-S	14 JAN 94-A	14 JAN 94-A	14 JAN 94-AA
104049-0002-SA	SOLID	CN-S	18 JAN 94-A	18 JAN 94-A	18 JAN 94-AA
104049-0004-SA	SOLID	CLO3-S	14 JAN 94-A	14 JAN 94-A	14 JAN 94-AA

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DUPLICATE CONTROL SAMPLE REPORT
Wet Chemistry Analysis and Preparation
Project: 104049

Category: CLO3-S Chlorate, Liquid
Matrix: SOLID
QC Lot: 14 JAN 94-A
Date Analyzed: 14 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Chlorate, Solid	10.0	9.50	9.50	9.50	95	80-120	0.0	20

Category: CN-S Cyanide (9012) SOLID
Matrix: SOLID
QC Lot: 18 JAN 94-A
Date Analyzed: 19 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Cyanide, Total	5.00	4.45	4.55	4.50	90	70-123	2.2	21

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Wet Chemistry Analysis and Preparation
Project: 104049

Category: CLO3-S Chlorate, Liquid
Matrix: SOLID
Sample: 104020-0006
MS Run: 14 JAN 94-AA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Chlorate, Solid	ND	8.98	8.99	10.0	90	90	0.0	80-120	20

Category: CN-S Cyanide (9012) SOLID
Matrix: SOLID
Sample: 104020-0002
MS Run: 18 JAN 94-AA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Cyanide, Total	6.50	13.2	7.70	5.00	134	24	139	41-159	48

ND = Not Detected

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

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METHOD BLANK REPORT
Wet Chemistry Analysis and Preparation
Project: 104049

Test: CLO3-MDL-S Method 300.0 - Chlorate, Ion Chromatography
Matrix: SOLID
QC Run: 14 JAN 94-A Date Analyzed: 14 JAN 94

Analyte	Result	Units	Reporting Limit
Chlorate, Solid	ND	mg/kg	1.0

Test: CN-MDL-S Method 9012 - Cyanide, Total
Matrix: SOLID
QC Run: 18 JAN 94-A Date Analyzed: 19 JAN 94

Analyte	Result	Units	Reporting Limit
Cyanide, Total	ND	mg/kg	0.50

ND = Not Detected

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QC LOT ASSIGNMENT REPORT - MS QC
Volatile Organics by GC/MS

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
104049-0001-SA	SOLID	8240-S	12 JAN 94-AF	12 JAN 94-AF	06 JAN 94-BF
104049-0003-SA	SOLID	8240-S	12 JAN 94-AF	12 JAN 94-AF	06 JAN 94-BF
104049-0004-SA	SOLID	8240-S	12 JAN 94-AF	12 JAN 94-AF	06 JAN 94-BF

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DUPLICATE CONTROL SAMPLE REPORT
Volatile Organics by GC/MS
Project: 104049

Category: 8240-S Volatile Organics
Matrix: SOLID
QC Lot: 12 JAN 94-AF
Date Analyzed: 12 JAN 94
Concentration Units: ug/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
1,1-Dichloroethene	50.0	30.9	31.1	31.0	62	50-121	0.65	31
Trichloroethene	50.0	43.9	44.4	44.2	88	69-114	1.1	17
Benzene	50.0	45.1	46.3	45.7	91	78-117	2.6	16
Toluene	50.0	47.1	48.7	47.9	96	79-118	3.3	17
Chlorobenzene	50.0	47.4	48.2	47.8	96	79-119	1.7	17

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Volatile Organics by GC/MS
Project: 104049

Category: 8240-S Volatile Organics
Matrix: SOLID
Sample: 103992-0002
MS Run: 06 JAN 94-BF
Units: ug/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
1,1-Dichloroethene	ND	32.9	31.3	50.0	66	63	4.7	46-136	28
Trichloroethene	ND	45.1	40.1	50.0	90	80	12	58-131	26
Benzene	ND	49.2	44.7	50.0	98	89	9.7	63-139	23
Toluene	ND	48.8	43.6	50.0	98	87	12	68-140	24
Chlorobenzene	ND	49.4	44.4	50.0	99	89	11	68-138	23

ND = Not Detected

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

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SINGLE CONTROL SAMPLE REPORT
Volatile Organics by GC/MS
Project: 104049

Category: 8240-S Volatile Organics
Matrix: SOLID
QC Run: 12 JAN 94-AF
Date Analyzed: 12 JAN 94
Concentration Units: ug/kg

Analyte	Concentration Spiked	Concentration Measured	Accuracy(%) SCS	Accuracy(%) Limits
1,2-Dichloroethane-d4	50.0	50.7	101	70-121
Toluene-d8	50.0	53.8	108	81-117
Bromofluorobenzene	50.0	50.8	102	74-121

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

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METHOD BLANK REPORT
Volatile Organics by GC/MS
Project: 104049

Test: 8240-HLA-S Method 8240 - Volatile Organics, EPA 8240 Extended List
Matrix: SOLID
QC Run: 12 JAN 94-AF Date Analyzed: 12 JAN 94

Analyte	Result	Units	Reporting Limit
Dichlorodifluoromethane	ND	ug/kg	10
Chloromethane	ND	ug/kg	10
Bromomethane	ND	ug/kg	10
Vinyl chloride	ND	ug/kg	10
Chloroethane	ND	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/kg	5.0
Methylene chloride	ND	ug/kg	5.0
Acetone	ND	ug/kg	10
Trichlorofluoromethane	ND	ug/kg	5.0
1,1-Dichloroethene	ND	ug/kg	5.0
Nitromethane	ND	ug/kg	200
trans-1,2-Dichloroethene	ND	ug/kg	5.0
cis-1,2-Dichloroethene	ND	ug/kg	5.0
1,1-Dichloroethane	ND	ug/kg	5.0
2,2-Dichloropropane	ND	ug/kg	5.0
Bromochloromethane	ND	ug/kg	5.0
Chloroform	ND	ug/kg	5.0
1,1-Dichloropropene	ND	ug/kg	5.0
1,2-Dichloroethane	ND	ug/kg	5.0
Dibromomethane	ND	ug/kg	5.0
1,1,1-Trichloroethane	ND	ug/kg	5.0
Carbon tetrachloride	ND	ug/kg	5.0
Bromodichloromethane	ND	ug/kg	5.0
1,2-Dichloropropane	ND	ug/kg	5.0
1,3-Dichloropropane	ND	ug/kg	5.0
Trichloroethene	ND	ug/kg	5.0
Dibromochloromethane	ND	ug/kg	5.0
1,1,2-Trichloroethane	ND	ug/kg	5.0
Benzene	ND	ug/kg	5.0
Bromoform	ND	ug/kg	5.0
Tetrachloroethene	ND	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.0
Toluene	ND	ug/kg	5.0
Chlorobenzene	ND	ug/kg	5.0
Ethylbenzene	ND	ug/kg	5.0
Styrene	ND	ug/kg	5.0
Xylenes (total)	ND	ug/kg	5.0
1-Methylethylbenzene	ND	ug/kg	5.0
Bromobenzene	ND	ug/kg	5.0
1,2,3-Trichloropropane	ND	ug/kg	5.0
2-Chlorotoluene	ND	ug/kg	5.0
n-Propyl benzene	ND	ug/kg	5.0
1,3,5-Trimethylbenzene	ND	ug/kg	5.0

ND = Not Detected

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METHOD BLANK REPORT
Volatile Organics by GC/MS (cont.)
Project: 104049

Test: 8240-HLA-S Method 8240 - Volatile Organics, EPA 8240 Extended List
Matrix: SOLID
QC Run: 12 JAN 94-AF Date Analyzed: 12 JAN 94

Analyte	Result	Units	Reporting Limit
4-Chlorotoluene	ND	ug/kg	5.0
tert-Butylbenzene	ND	ug/kg	5.0
1,2,4-Trimethylbenzene	ND	ug/kg	5.0
sec-Butylbenzene	ND	ug/kg	5.0
Isopropyltoluene	ND	ug/kg	5.0
1,3-Dichlorobenzene	ND	ug/kg	5.0
1,4-Dichlorobenzene	ND	ug/kg	5.0
n-Butylbenzene	ND	ug/kg	5.0
1,2-Dichlorobenzene	ND	ug/kg	5.0
1,2,4-Trichlorobenzene	ND	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND	ug/kg	5.0
Hexachlorobutadiene	ND	ug/kg	5.0
Naphthalene	ND	ug/kg	5.0
1,2,3-Trichlorobenzene	ND	ug/kg	5.0

ND = Not Detected

QC LOT ASSIGNMENT REPORT - MS QC
Semivolatile Organics by GC/MS

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
104049-0001-SA	SOLID	8270-S	11 JAN 94-I	11 JAN 94-I	11 JAN 94-IB
104049-0003-SA	SOLID	8270-S	11 JAN 94-I	11 JAN 94-I	11 JAN 94-IB
104049-0004-SA	SOLID	8270-S	11 JAN 94-I	11 JAN 94-I	11 JAN 94-IB

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DUPLICATE CONTROL SAMPLE REPORT
Semivolatile Organics by GC/MS
Project: 104049

Category: 8270-S Method 8270 - TCL Semivolatile Organics
Matrix: SOLID
QC Lot: 11 JAN 94-I Date Analyzed: 12 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average(%) DCS	Accuracy Limits	Precision (RPD) DCS	Precision Limit
Phenol	6.67	4.85	4.97	4.91	74	39-106	2.4	31
2-Chlorophenol	6.67	4.67	4.93	4.80	72	44-107	5.4	32
1,4-Dichlorobenzene	3.33	2.65	2.78	2.72	82	40-107	4.8	23
N-Nitroso-di-n-propylamine	3.33	2.91	3.00	2.96	89	31-132	3.0	38
1,2,4-Trichlorobenzene	3.33	2.92	2.93	2.92	88	38-120	0.34	22
4-Chloro-3-methylphenol	6.67	4.47	4.50	4.48	67	40-119	0.67	24
Acenaphthene	3.33	2.99	2.96	2.98	89	30-140	1.0	24
2,4-Dinitrotoluene	3.33	2.64	2.60	2.62	79	30-121	1.5	28
4-Nitrophenol	6.67	6.79	6.64	6.72	101	16-143	2.2	54
Pentachlorophenol	6.67	8.92	9.07	9.00	135	21-152	1.7	43
Pyrene	3.33	2.77	2.91	2.84	85	45-120	4.9	26

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

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A Corning Company

MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Semivolatile Organics by GC/MS
Project: 104049

Category: 8270-S Method 8270 - TCL Semivolatile Organics
Matrix: SOLID
Sample: 104020-0001
MS Run: 11 JAN 94-IB
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Phenol	ND	4.30	4.69	6.67	64	70	9.0	25-110	74
2-Chlorophenol	ND	4.16	4.60	6.67	62	69	11	33-103	42
1,4-Dichlorobenzene	ND	2.34	2.61	3.33	70	78	11	22-110	55
N-Nitroso-di-n-propylamine	ND	2.52	2.90	3.33	76	87	14	18-138	49
1,2,4-Trichlorobenzene	ND	2.73	2.83	3.33	82	85	3.6	29-119	43
4-Chloro-3-methylphenol	ND	4.86	4.94	6.67	73	74	1.4	36-119	41
Acenaphthene	ND	2.88	3.02	3.33	86	91	5.7	17-148	36
2,4-Dinitrotoluene	ND	2.51	2.79	3.33	75	84	11	27-120	41
4-Nitrophenol	ND	7.41	8.04	6.67	111	121	8.6	16-143	80
Pentachlorophenol	ND	8.81	9.82	6.67	132	147	11	21-152	61
Pyrene	ND	2.67	2.79	3.33	80	84	4.9	24-133	46

ND = Not Detected

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

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SINGLE CONTROL SAMPLE REPORT
Semivolatile Organics by GC/MS
Project: 104049

Category: 8270-S Method 8270 - TCL Semivolatile Organics
Matrix: SOLID
QC Run: 11 JAN 94-I Date Analyzed: 12 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Concentration Measured	Accuracy(%) SCS	Accuracy(%) Limits
2-Fluorophenol	6.67	4.08	61	25-121
Phenol-d5	6.67	4.54	68	24-113
Nitrobenzene-d5	3.33	2.34	70	23-120
2-Fluorobiphenyl	3.33	2.93	88	30-115
2,4,6-Tribromophenol	6.67	5.39	81	19-122
Terphenyl-d14	3.33	2.66	80	18-137

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

Enseco
A Corning Company

METHOD BLANK REPORT
Semivolatile Organics by GC/MS
Project: 104049

Test: 8270-HLA-S Method 8270 - Semivolatile Organics
Matrix: SOLID
QC Run: 11 JAN 94-I Date Analyzed: 12 JAN 94

Analyte	Result	Units	Reporting Limit
N-Nitrosodiethylamine	ND	mg/kg	0.33
Phenol	ND	mg/kg	0.33
bis(2-Chloroethyl) ether	ND	mg/kg	0.33
2-Chlorophenol	ND	mg/kg	0.33
1,3-Dichlorobenzene	ND	mg/kg	0.33
1,4-Dichlorobenzene	ND	mg/kg	0.33
Benzyl alcohol	ND	mg/kg	0.33
1,2-Dichlorobenzene	ND	mg/kg	0.33
2-Methylphenol	ND	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND	mg/kg	0.33
3/4-Methylphenol	ND	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND	mg/kg	0.33
Hexachloroethane	ND	mg/kg	0.33
Nitrobenzene	ND	mg/kg	0.33
Isophorone	ND	mg/kg	0.33
2-Nitrophenol	ND	mg/kg	0.33
2,4-Dimethylphenol	ND	mg/kg	0.33
Benzoic acid	ND	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND	mg/kg	0.33
2,4-Dichlorophenol	ND	mg/kg	0.33
1,2,4-Trichlorobenzene	ND	mg/kg	0.33
Naphthalene	ND	mg/kg	0.33
4-Chloroaniline	ND	mg/kg	0.33
Hexachlorobutadiene	ND	mg/kg	0.33
4-Chloro-3-methylphenol	ND	mg/kg	0.33
2-Methylnaphthalene	ND	mg/kg	0.33
Hexachlorocyclopentadiene	ND	mg/kg	0.33
2,4,6-Trichlorophenol	ND	mg/kg	0.33
2,4,5-Trichlorophenol	ND	mg/kg	1.7
2-Chloronaphthalene	ND	mg/kg	0.33
2-Nitroaniline	ND	mg/kg	1.7
Dimethyl phthalate	ND	mg/kg	0.33
Acenaphthylene	ND	mg/kg	0.33
3-Nitroaniline	ND	mg/kg	1.7
Acenaphthene	ND	mg/kg	0.33
2,4-Dinitrophenol	ND	mg/kg	1.7
4-Nitrophenol	ND	mg/kg	1.7
Dibenzofuran	ND	mg/kg	0.33
2,4-Dinitrotoluene	ND	mg/kg	0.33
2,6-Dinitrotoluene	ND	mg/kg	0.33
Diethyl phthalate	ND	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND	mg/kg	0.33
Fluorene	ND	mg/kg	0.33
4-Nitroaniline	ND	mg/kg	1.7
4,6-Dinitro-2-methylphenol	ND	mg/kg	1.7

ND = Not Detected

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METHOD BLANK REPORT
Semivolatile Organics by GC/MS (cont.)
Project: 104049

Test: 8270-HLA-S Method 8270 - Semivolatile Organics
Matrix: SOLID
QC Run: 11 JAN 94-I Date Analyzed: 12 JAN 94

Analyte	Result	Units	Reporting Limit
N-Nitrosodiphenylamine	ND	mg/kg	0.33
4-Bromophenyl phenyl ether	ND	mg/kg	0.33
Hexachlorobenzene	ND	mg/kg	0.33
Pentachlorophenol	ND	mg/kg	1.7
Phenanthrene	ND	mg/kg	0.33
Anthracene	ND	mg/kg	0.33
Di-n-butyl phthalate	ND	mg/kg	0.33
Fluoranthene	ND	mg/kg	0.33
Pyrene	ND	mg/kg	0.33
Butyl benzyl phthalate	ND	mg/kg	0.33
3,3'-Dichlorobenzidine	ND	mg/kg	0.66
Benzo(a)anthracene	ND	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND	mg/kg	0.33
Chrysene	ND	mg/kg	0.33
Di-n-octyl phthalate	ND	mg/kg	0.33
Benzo(b)fluoranthene	ND	mg/kg	0.33
Benzo(k)fluoranthene	ND	mg/kg	0.33
Benzo(a)pyrene	ND	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND	mg/kg	0.33
Dibenz(a,h)anthracene	ND	mg/kg	0.33
Benzo(g,h,i)perylene	ND	mg/kg	0.33
Xylidine (Total)	ND	mg/kg	0.33

ND = Not Detected

Holding Time Report | Project: 104049 | Client: Harding Lawson Associates | Today: 24 JAN 94

	Field ID	Lab ID	Lab Test Code	Analytical Method	Collected	Received	Extracted	Analyzed	CTA	RTA	ETA	HTV	Corrective Action
Test: Method 8270 - Semivolatile Organics							Prep: P-8270-S						Total: 3
1	SZB-38-15.	104049-0001-SA	8270-HLA-S	8270	10 JAN 94	10 JAN 94	11 JAN 94	13 JAN 94	3	3	2		
2	SZB-27-5.2	104049-0003-SA	8270-HLA-S	8270	10 JAN 94	10 JAN 94	11 JAN 94	13 JAN 94	3	3	2		
3	SZB-27-20.	104049-0004-SA	8270-HLA-S	8270	10 JAN 94	10 JAN 94	11 JAN 94	13 JAN 94	3	3	2		
Test: Method 8240 - Volatile Organics, EPA 8240 Extended List							Prep: P-VOASCR-S						Total: 3
1	SZB-38-15.	104049-0001-SA	8240-HLA-S	8240	10 JAN 94	10 JAN 94	12 JAN 94	12 JAN 94	2	2	n/a		
2	SZB-27-5.2	104049-0003-SA	8240-HLA-S	8240	10 JAN 94	10 JAN 94	12 JAN 94	12 JAN 94	2	2	n/a		
3	SZB-27-20.	104049-0004-SA	8240-HLA-S	8240	10 JAN 94	10 JAN 94	12 JAN 94	12 JAN 94	2	2	n/a		
Test: Method 5030 - Prep - Volatile Organics							Prep: n/a						Total: 3
1	SZB-38-15.	104049-0001-SA	P-VOASCR-S	5030	10 JAN 94	10 JAN 94	12 JAN 94	n/a	2	2	n/a		
2	SZB-27-5.2	104049-0003-SA	P-VOASCR-S	5030	10 JAN 94	10 JAN 94	12 JAN 94	n/a	2	2	n/a		
3	SZB-27-20.	104049-0004-SA	P-VOASCR-S	5030	10 JAN 94	10 JAN 94	12 JAN 94	n/a	2	2	n/a		
Test: Method EPA 3550 - Prep - Semivolatile Organics by GC/MS							Prep: n/a						Total: 3
1	SZB-38-15.	104049-0001-SA	P-8270-S	3550	10 JAN 94	10 JAN 94	11 JAN 94	n/a	1	1	n/a		
2	SZB-27-5.2	104049-0003-SA	P-8270-S	3550	10 JAN 94	10 JAN 94	11 JAN 94	n/a	1	1	n/a		
3	SZB-27-20.	104049-0004-SA	P-8270-S	3550	10 JAN 94	10 JAN 94	11 JAN 94	n/a	1	1	n/a		
Test: Method 7020 - Aluminum, Flame AA							Prep: P-M-3050-S						Total: 1
1	SZB-27-5.0	104049-0002-SA	AL-FLAA-MDL-S	7020	10 JAN 94	10 JAN 94	13 JAN 94	13 JAN 94	3	3	n/a		
Test: Method 7062 - Arsenic, Hydride AA							Prep: P-M-3050-S						Total: 1
1	SZB-27-5.0	104049-0002-SA	AS-HAA-MDL-S	7062	10 JAN 94	10 JAN 94	13 JAN 94	17 JAN 94	7	7	n/a		
Test: Method 7080 - Barium, Flame AA							Prep: P-M-3050-S						Total: 1
1	SZB-27-5.0	104049-0002-SA	BA-FLAA-MDL-S	7080	10 JAN 94	10 JAN 94	13 JAN 94	16 JAN 94	6	6	n/a		
Test: Method 7130 - Cadmium, Flame AA							Prep: P-M-3050-S						Total: 1
1	SZB-27-5.0	104049-0002-SA	CD-FLAA-MDL-S	7130	10 JAN 94	10 JAN 94	13 JAN 94	18 JAN 94	8	8	n/a		
Test: Method 7190 - Chromium, Flame AA							Prep: P-M-3050-S						Total: 1
1	SZB-27-5.0	104049-0002-SA	CR-FLAA-MDL-S	7190	10 JAN 94	10 JAN 94	13 JAN 94	13 JAN 94	3	3	n/a		
Test: Method 7210 - Copper, Flame AA							Prep: P-M-3050-S						Total: 1
1	SZB-27-5.0	104049-0002-SA	CU-FLAA-MDL-S	7210	10 JAN 94	10 JAN 94	13 JAN 94	18 JAN 94	8	8	n/a		
Test: Method 7471 - Mercury, Cold Vapor AA							Prep: P-HG-CVAA-S						Total: 1
1	SZB-27-5.0	104049-0002-SA	HG-CVAA-MDL-S	7471	10 JAN 94	10 JAN 94	12 JAN 94	16 JAN 94	6	6	n/a		
Test: Manganese, Flame AA							Prep: P-M-3050-S						Total: 1
1	SZB-27-5.0	104049-0002-SA	MN-FLAA-MDL-S	7460	10 JAN 94	10 JAN 94	13 JAN 94	18 JAN 94	8	8	n/a		
Test: Method 7520 - Nickel, Flame AA							Prep: P-M-3050-S						Total: 1
1	SZB-27-5.0	104049-0002-SA	NI-FLAA-MDL-S	7520	10 JAN 94	10 JAN 94	13 JAN 94	16 JAN 94	6	6	n/a		
Test: Method 7420 - Lead, FLame AA							Prep: P-M-3050-S						Total: 1
1	SZB-27-5.0	104049-0002-SA	PB-FLAA-MDL-S	7420	10 JAN 94	10 JAN 94	13 JAN 94	16 JAN 94	6	6	n/a		

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Holding Time Report Project: 104049 Client: Harding Lawson Associates Today: 24 JAN 94

	Field ID	Lab ID	Lab Test Code	Analytical Method	Collected	Received	Extracted	Analyzed	CTA	RTA	ETA	HTV	Corrective Action
Test: Method 7950 - Zinc, Flame AA							Prep: P-M-3050-S						Total: 1
1	SZB-27-5.0	104049-0002-SA	ZN-FLAA-MDL-S	7950	10 JAN 94	10 JAN 94	13 JAN 94	16 JAN 94	6	6	n/a		
Test: Prep - Mercury, Cold Vapor AA, Solid							Prep: n/a						Total: 1
1	SZB-27-5.0	104049-0002-SA	P-HG-CVAA-S	7471	10 JAN 94	10 JAN 94	12 JAN 94	n/a	2	2	n/a		
Test: Method 3050 - Prep - Total Metals							Prep: n/a						Total: 1
1	SZB-27-5.0	104049-0002-SA	P-M-3050-S	3050	10 JAN 94	10 JAN 94	13 JAN 94	n/a	3	3	n/a		
Test: Method 300.0 - Chlorate, Ion Chromatography							Prep: P-IC-DILEACH-S						Total: 3
1	SZB-38-15.	104049-0001-SA	CLO3-MDL-S	300.0	10 JAN 94	10 JAN 94	14 JAN 94	14 JAN 94	4	4	n/a		
2	SZB-27-5.0	104049-0002-SA	CLO3-MDL-S	300.0	10 JAN 94	10 JAN 94	14 JAN 94	14 JAN 94	4	4	n/a		
3	SZB-27-20.	104049-0004-SA	CLO3-MDL-S	300.0	10 JAN 94	10 JAN 94	14 JAN 94	14 JAN 94	4	4	n/a		
Test: Method 9012 - Cyanide, Total							Prep: P-CN-S						Total: 1
1	SZB-27-5.0	104049-0002-SA	CN-MDL-S	9012	10 JAN 94	10 JAN 94	19 JAN 94	19 JAN 94	9	9	n/a		
Test: Method 9012 - Prep - Cyanide, Total							Prep: n/a						Total: 1
1	SZB-27-5.0	104049-0002-SA	P-CN-S	9012	10 JAN 94	10 JAN 94	19 JAN 94	n/a	9	9	n/a		
Test: Prep - Method 300.0-Mod.- Deionized Water Leach							Prep: n/a						Total: 3
1	SZB-38-15.	104049-0001-SA	P-IC-DILEACH-S	300.0-Mod.	10 JAN 94	10 JAN 94	14 JAN 94	n/a	4	4	n/a		
2	SZB-27-5.0	104049-0002-SA	P-IC-DILEACH-S	300.0-Mod.	10 JAN 94	10 JAN 94	14 JAN 94	n/a	4	4	n/a		
3	SZB-27-20.	104049-0004-SA	P-IC-DILEACH-S	300.0-Mod.	10 JAN 94	10 JAN 94	14 JAN 94	n/a	4	4	n/a		

CTA = Number of Days from Collected to Analyzed.
RTA = Number of Days from Received to Analyzed.
ETA = Number of Days from Extraction to Analyzed.
HTV = Hold Time Violation (Y=Yes, blank=No)

Enseco
A Corning Company

H[redacted]g Lawson Associates
3[redacted]n Centre Drive, Suite 200
Santa Ana, California 92707
714/556-7992 – 213/617-7232
FAX: 714/662-3297

CHAIN OF C[redacted]TODY FORM

Lab: ENSECO

Samplers: KAREN WILLIAMS

Job Number: 26522.2.3

Name/Location: AEROSET

Project Manager: MATT HUNTER

Recorder: Karen Williams (Signature Required)

SOURCE CODE	MATRIX: Water	Sediment	Soil	Oil	#CONTAINERS & PRESERV.: Unpres.	H_2SO_4	HNO_3	CHILLED	SAMPLE NUMBER OR LAB NUMBER: Yr	Wk	Seq	DATE: Yr	Mo	Dy	Time	STATION DESCRIPTION/ NOTES	EPA 601/8010	EPA 602/8020	EPA 624/8240	EPA 625/8270	Priority Pllnt. Metals	Benzene/Toluene/Xylene	Total Petrol. Hydrocarb.	CHLORATE	9012 CN	6010/7000 Series metals
60			X		X			1	52B	38	10.0	94	01	10	0710	2 1/2" X 3" SS SLEEVE										
50			X		X			1	52B	38	10.25				0710											
50			X		X			1	52B	38	15.00				0720											
50			X		X			1	52B	38	15.25				0720				X	X			X			
50			X		X			1	52B	38	20.50				0730											
50			X		X			1	52B	27	5.0				0930								X	X	X	
50			X		X			1	52B	27	5.15				0930				X	X						
50									52B	27	10.0				0945											
50									52B	27	10.25				0945											
50									52B	27	15.0				0955											

custody sub 0329, 0336

LAB NUMBER: Yr	Wk	Seq	DEPTH IN FEET	COL MTD CD	QA CODE	MISCELLANEOUS
						REPORT TO MATT HUNTER

CHAIN OF CUSTODY RECORD

RELINQUISHED BY: (Signature) 1656 Karen Williams 1/10/93	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
DISPATCHED BY: (Signature) DATE/TIME	RECEIVED FOR LAB BY: (Signature) Virginia Luna 1/10/94 16:50	DATE/TIME
METHOD OF SHIPMENT		

Laboratory Copy White | Project Office Copy Yellow | Field or Office Copy Pink

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Page 2 of 2 10 4049

Harding Lawson Associates
15621 Redhill Avenue, Suite 100
Tustin, California 92680
714/259-7992 — 213/617-7232
Telecopy: 714/259-1378

CHAIN OF CUSTODY FORM

Lab: ENCECO

Samplers: KAREN WITBOARD

Job Number: AEROJET

Name/Location: 26522.2.3

Project Manager: M. HUNTER

Recorder: Karen Witboard (Signature Required)

SOURCE CODE	MATRIX: Water	Sediment	Soil	Oil	#CONTAINERS & PRESERV.: Unpres.	H_2SO_4	HNO_3	CHILL	SAMPLE NUMBER OR LAB NUMBER: Yr	Wk	Seq	DATE: Yr	Mo	Dy	Time	STATION DESCRIPTION/ NOTES	EPA 601/8010	EPA 602/8020	EPA 624/8240	EPA 625/8270	Priority Pltnt. Metals	Benzene/Toluene/Xylene	Total Petrol. Hydrocarb.	Chloride	HOLD
50			X		X			1	SZB-27		15.25	94	01	10	0955	2½" x 3" S.S. SLEEVE									
50			X		X			1	SZB-27		20.0				1005				1x	1x				1x	
50			X		X			1	SZB-28		5.0				1050										
50			X		X			1	SZB-28		5.25				1050										
50			X		X			1	SZB-31		5.0				1300										X

custody seal 0329, 0330

LAB NUMBER: Yr	Wk	Seq	DEPTH IN FEET	COL MTD CD	QA CODE	MISCELLANEOUS
						REPORT TO MATT HUNTER

CHAIN OF CUSTODY RECORD

RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
1656 Karen Witboard 1/10/94	[signature]	
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME

DISPATCHED BY: (Signature) DATE/TIME

RECEIVED FOR LAB BY: (Signature) Virginia Luna DATE/TIME 16:5[illegible] 1/10/94

METHOD OF SHIPMENT

Laboratory Copy White | Project Office Copy Yellow | Field or G[illegible] Copy Pi[illegible]

6533

Enseco
A Corning Company

Enseco - CRL
7440 Lincoln Way • Garden Grove, CA 92641
(714) 898-6370 • (213) 598-0458 • (800) LAB-1-CRL
FAX: (714) 891-5917

January 25, 1994

HARDING LAWSON ASSOCIATES
3 HUTTON CENTRE DRIVE, STE 200
SANTA ANA, CA 92707
ATTN: MR. MATT HUNTER

Lab No.: 104072-0001/0030
Date Sampled: 11-JAN-1994
Date Sample Rec'd: 11-JAN-1994
Project: (26522-2.3) AEROJET

Enclosed with this letter is the report on the chemical and physical analyses on the samples from LAB NO: 104072-0001/0030 shown above.

The samples were received by CRL in a chilled state, intact and with the chain-of-custody record attached.

Note that ND means not detected at the reporting limit expressed. The reporting limit is raised to reflect the dilution factor of the sample.

Solid samples are reported on "as received" basis.

Case Narrative:

The MS/MSD Percent Recoveries for Aluminum, Cadmium, and Manganese were not within the acceptance limits specified in HLA's "Laboratory Analytical Technical Requirements," nor was it within Enseco's-CRL's established acceptance limits. However, the DCS recovery was within all acceptable ranges, therefore the data was accepted and no further action was required.

The MSD Percent Recovery for Chromium and Nickel were not within the acceptance limits specified in HLA's "Laboratory Analytical Technical Requirements," but was within Enseco's-CRL's established acceptance limits, therefore the data was accepted and no further action was required.

The MS/MSD Percent Recovery for Lead was not within the acceptance limits specified in HLA's "Laboratory Analytical Technical Requirements," but was within Enseco's-CRL's established acceptance limits, therefore the data was accepted and no further action was required.

The MS/MSD Percent Recovery for Cyanide was not within the acceptance limits specified in HLA's "Laboratory Analytical Technical Requirements," but was within Enseco's-CRL's established acceptance limits, therefore the data was accepted and no further action was required.

The Report Cover Letter is an integral part of this report.

This report pertains only to the samples investigated and does not necessarily apply to other apparently identical or similar materials. This report is submitted for the exclusive use of the client to whom it is addressed. Any reproduction of this report or use of this Laboratory's name for advertising or publicity purposes without authorization is prohibited.

Enseco - CRL
7440 Lincoln Way • Garden Grove, CA 92641
(714) 898-6370 • (213) 598-0458 • (800) LAB-1-CRL
FAX: (714) 891-5917

Enseco
A Corning Company

January 25, 1994

HARDING LAWSON ASSOCIATES
3 HUTTON CENTRE DRIVE, STE 200
SANTA ANA, CA 92707
ATTN: MR. MATT HUNTER

Lab No.: 104072-0001/0030
Date Sampled: 11-JAN-1994
Date Sample Rec'd: 11-JAN-1994
Project: (26522-2.3) AEROJET

Case Narrative (cont.):

The MSD Percent Recovery for 4-Nitrophenol was not within the acceptance limits specified in HLA's "Laboratory Analytical Technical Requirements," but was within Enseco's-CRL's established acceptance limits, therefore the data was accepted and no further action was required.

The MS/MSD Percent Recovery for Pentachlorophenol was not within the acceptance limits specified in HLA's "Laboratory Analytical Technical Requirements," but was within Enseco's-CRL's established acceptance limits, therefore the data was accepted and no further action was required.

Sabina R. Sudoko
Reviewed

Mei Bloom
Approved

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SAMPLE DESCRIPTION INFORMATION
for
Harding Lawson Associates

Lab ID	Client ID	Matrix	Sampled Date	Sampled Time	Received Date
104072-0001-SA	SZB-33-5.00	SOIL	11 JAN 94	07:20	11 JAN 94
104072-0002-SA	SZB-33-5.25	SOIL	11 JAN 94	07:20	11 JAN 94
104072-0003-SA	SZB-33-20.00	SOIL	11 JAN 94	08:10	11 JAN 94
104072-0004-SA	SZB-33-24.00	SOIL	11 JAN 94	08:20	11 JAN 94
104072-0005-SA	SZB-33-40.00	SOIL	11 JAN 94	08:55	11 JAN 94
104072-0006-SA	SZB-33-40.25	SOIL	11 JAN 94	08:55	11 JAN 94
104072-0007-SA	SZB-41A-5.00	SOIL	11 JAN 94	10:20	11 JAN 94
104072-0008-SA	SZB-41A-5.25	SOIL	11 JAN 94	10:20	11 JAN 94
104072-0009-SA	SZB-41B-15.25	SOIL	11 JAN 94	11:00	11 JAN 94
104072-0010-SA	SZB-41B-30.00	SOIL	11 JAN 94	11:35	11 JAN 94
104072-0011-SA	SZB-41B-30.25	SOIL	11 JAN 94	11:35	11 JAN 94
104072-0012-SA	SZB-31A-5.00	SOIL	11 JAN 94	14:00	11 JAN 94
104072-0013-SA	SZB-31A-5.25	SOIL	11 JAN 94	14:00	11 JAN 94
104072-0014-SA	SZB-31B-20.25	SOIL	11 JAN 94	14:35	11 JAN 94
104072-0015-SA	SZB-33-10.00	SOIL	11 JAN 94	07:30	11 JAN 94
104072-0016-SA	SZB-33-10.25	SOIL	11 JAN 94	07:30	11 JAN 94
104072-0017-SA	SZB-33-14.00	SOIL	11 JAN 94	07:50	11 JAN 94
104072-0018-SA	SZB-33-15.00	SOIL	11 JAN 94	08:00	11 JAN 94
104072-0019-SA	SZB-33-15.25	SOIL	11 JAN 94	08:00	11 JAN 94
104072-0020-SA	SZB-33-30.00	SOIL	11 JAN 94	08:35	11 JAN 94
104072-0021-SA	SZB-33-30.25	SOIL	11 JAN 94	08:35	11 JAN 94
104072-0022-SA	SZB-33-35.00	SOIL	11 JAN 94	08:45	11 JAN 94
104072-0023-SA	SZB-41A-10.00	SOIL	11 JAN 94	10:30	11 JAN 94
104072-0024-SA	SZB-41A-10.25	SOIL	11 JAN 94	10:30	11 JAN 94
104072-0025-SA	SZB-41B-15.00	SOIL	11 JAN 94	11:00	11 JAN 94
104072-0026-SA	SZB-41B-19.25	SOIL	11 JAN 94	11:15	11 JAN 94
104072-0027-SA	SZB-41B-19.50	SOIL	11 JAN 94	11:15	11 JAN 94
104072-0028-SA	SZB-41B-25.00	SOIL	11 JAN 94	11:25	11 JAN 94
104072-0029-SA	SZB-31B-10.00	SOIL	11 JAN 94	14:15	11 JAN 94
104072-0030-SA	SZB-31B-14.00	SOIL	11 JAN 94	14:25	11 JAN 94

Enseco
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METALS

Client Name: Harding Lawson Associates
Client ID: SZB-33-5.00
LAB ID: 104072-0001-SA
Matrix: SOIL — Sampled: 11 JAN 94 — Received: 11 JAN 94
Authorized: 13 JAN 94 — Prepared: See Below — Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Aluminum	4790		50.0	100	mg/kg	7020	18 JAN 94	19 JAN 94
Arsenic	7.2		0.20	0.50	mg/kg	7062	18 JAN 94	19 JAN 94
Barium	56.0		20.0	50.0	mg/kg	7080	18 JAN 94	19 JAN 94
Chromium	47.0		5.0	10.0	mg/kg	7190	18 JAN 94	19 JAN 94
Copper	13.0		5.0	10.0	mg/kg	7210	18 JAN 94	18 JAN 94
Lead	ND		20.0	20.0	mg/kg	7420	18 JAN 94	19 JAN 94
Manganese	196		2.0	5.0	mg/kg	7460	18 JAN 94	18 JAN 94
Nickel	100		5.0	10.0	mg/kg	7520	18 JAN 94	19 JAN 94
Zinc	53.8		1.0	2.0	mg/kg	7950	18 JAN 94	19 JAN 94
Cadmium	ND		2.0	5.0	mg/kg	7130	18 JAN 94	18 JAN 94
Mercury	0.48		0.090	0.10	mg/kg	7471	17 JAN 94	18 JAN 94

ND = Not Detected

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METALS

Client Name: Harding Lawson Associates
Client ID: SZB-41A-5.00
Lab ID: 104072-0007-SA
Matrix: SOIL — Sampled: 11 JAN 94 — Received: 11 JAN 94
Authorized: 13 JAN 94 — Prepared: See Below — Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Aluminum	8930		50.0	200	mg/kg	7020	18 JAN 94	19 JAN 94
Arsenic	5.7		0.20	0.50	mg/kg	7062	18 JAN 94	19 JAN 94
Barium	133		20.0	50.0	mg/kg	7080	18 JAN 94	19 JAN 94
Chromium	24.7		5.0	10.0	mg/kg	7190	18 JAN 94	19 JAN 94
Copper	28.0		5.0	10.0	mg/kg	7210	18 JAN 94	18 JAN 94
Lead	ND		20.0	20.0	mg/kg	7420	18 JAN 94	19 JAN 94
Manganese	324		2.0	5.0	mg/kg	7460	18 JAN 94	18 JAN 94
Nickel	13.0		5.0	10.0	mg/kg	7520	18 JAN 94	19 JAN 94
Zinc	58.3		1.0	2.0	mg/kg	7950	18 JAN 94	19 JAN 94
Cadmium	ND		2.0	5.0	mg/kg	7130	18 JAN 94	18 JAN 94
Mercury	TR		0.090	0.10	mg/kg	7471	17 JAN 94	18 JAN 94

ND = Not Detected

Enseco
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METALS

Client Name: Harding Lawson Associates
Client ID: SZB-31A-5.00
LAB ID: 104072-0012-SA
Matrix: SOIL — Sampled: 11 JAN 94 — Received: 11 JAN 94
Authorized: 13 JAN 94 — Prepared: See Below — Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Aluminum	5760		50.0	200	mg/kg	7020	18 JAN 94	19 JAN 94
Arsenic	2.0		0.20	0.50	mg/kg	7062	18 JAN 94	19 JAN 94
Barium	51.0		20.0	50.0	mg/kg	7080	18 JAN 94	19 JAN 94
Chromium	10.6		5.0	10.0	mg/kg	7190	18 JAN 94	19 JAN 94
Copper	10.0		5.0	10.0	mg/kg	7210	18 JAN 94	18 JAN 94
Lead	ND		20.0	20.0	mg/kg	7420	18 JAN 94	19 JAN 94
Manganese	214		2.0	5.0	mg/kg	7460	18 JAN 94	18 JAN 94
Nickel	11.0		5.0	10.0	mg/kg	7520	18 JAN 94	19 JAN 94
Zinc	42.2		1.0	2.0	mg/kg	7950	18 JAN 94	19 JAN 94
Cadmium	ND		2.0	5.0	mg/kg	7130	18 JAN 94	18 JAN 94
Mercury	TR		0.090	0.10	mg/kg	7471	17 JAN 94	18 JAN 94

ND = Not Detected

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GENERAL INORGANICS

Client Name: Harding Lawson Associates
Client ID: SZB-33-5.00
Lab ID: 104072-0001-SA
Matrix: SOIL
Authorized: 13 JAN 94

Sampled: 11 JAN 94
Prepared: See Below

Received: 11 JAN 94
Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Cyanide, Total	ND		0.30	0.50	mg/kg	9012	19 JAN 94	19 JAN 94
Chlorate, Solid	ND		0.50	1.0	mg/kg	300.0	14 JAN 94	14 JAN 94

ND = Not Detected

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GENERAL INORGANICS

Client Name: Harding Lawson Associates
Client ID: SZB-33-24.00
LAB ID: 104072-0004-SA
Matrix: SOIL — Sampled: 11 JAN 94 — Received: 11 JAN 94
Authorized: 13 JAN 94 — Prepared: See Below — Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Chlorate, Solid	ND		0.50	1.0	mg/kg	300.0	18 JAN 94	18 JAN 94

ND = Not Detected

Enseco
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GENERAL INORGANICS

Client Name: Harding Lawson Associates
Client ID: SZB-33-40.00
Lab ID: 104072-0005-SA
Matrix: SOIL Sampled: 11 JAN 94 Received: 11 JAN 94
Authorized: 13 JAN 94 Prepared: See Below Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Chlorate, Solid	ND		0.50	1.0	mg/kg	300.0	18 JAN 94	18 JAN 94

ND = Not Detected

Enseco
A Corning Company

GENERAL INORGANICS

Client Name: Harding Lawson Associates
Client ID: SZB-41A-5.00
LAB ID: 104072-0007-SA
Matrix: SOIL — Sampled: 11 JAN 94 — Received: 11 JAN 94
Authorized: 13 JAN 94 — Prepared: See Below — Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Cyanide, Total	ND		0.30	0.50	mg/kg	9012	19 JAN 94	19 JAN 94
Chlorate, Solid	ND		0.50	1.0	mg/kg	300.0	14 JAN 94	14 JAN 94

ND = Not Detected

Enseco
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GENERAL INORGANICS

Client Name: Harding Lawson Associates
Client ID: SZB-41B-15.25
Lab ID: 104072-0009-SA
Matrix: SOIL — Sampled: 11 JAN 94 — Received: 11 JAN 94
Authorized: 13 JAN 94 — Prepared: See Below — Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Chlorate, Solid	ND		0.50	1.0	mg/kg	300.0	14 JAN 94	14 JAN 94

ND = Not Detected

Enseco
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GENERAL INORGANICS

Client Name: Harding Lawson Associates
Client ID: SZB-41B-30.00
LAB ID: 104072-0010-SA
Matrix: SOIL — Sampled: 11 JAN 94 — Received: 11 JAN 94
Authorized: 13 JAN 94 — Prepared: See Below — Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Chlorate, Solid	ND		0.50	1.0	mg/kg	300.0	18 JAN 94	18 JAN 94

ND = Not Detected

Enseco
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GENERAL INORGANICS

Client Name: Harding Lawson Associates
Client ID: SZB-31A-5.00
LAB ID: 104072-0012-SA
Matrix: SOIL — Sampled: 11 JAN 94 — Received: 11 JAN 94
Authorized: 13 JAN 94 — Prepared: See Below — Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Cyanide, Total	ND		0.30	0.50	mg/kg	9012	19 JAN 94	19 JAN 94
Chlorate, Solid	ND		0.50	1.0	mg/kg	300.0	14 JAN 94	14 JAN 94

ND = Not Detected

Enseco
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GENERAL INORGANICS

Client Name: Harding Lawson Associates
Client ID: SZB-31B-20.25
LAB ID: 104072-0014-SA
Matrix: SOIL
Authorized: 13 JAN 94

Sampled: 11 JAN 94
Prepared: See Below

Received: 11 JAN 94
Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Chlorate, Solid	ND		0.50	1.0	mg/kg	300.0	14 JAN 94	14 JAN 94

ND = Not Detected

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Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-33-5.25
LAB ID: 104072-0002-SA
Matrix: SOIL Sampled: 11 JAN 94 Received: 11 JAN 94
Authorized: 13 JAN 94 Prepared: 17 JAN 94 Analyzed: 17 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/kg	5.0
Methylene chloride	TR	B	1.1	ug/kg	5.0
Acetone	12		7.1	ug/kg	10
Trichlorofluoromethane	TR		0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	ND		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	TR		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	ND		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	ND		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0

B = Compound is also detected in the blank.
ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-33-5.25
LAB ID: 104072-0002-SA
Matrix: SOIL Sampled: 11 JAN 94 Received: 11 JAN 94
Authorized: 13 JAN 94 Prepared: 17 JAN 94 Analyzed: 17 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
tert-Butylbenzene	ND		0.55	ug/kg	5.0
1,2,4-Trimethylbenzene	ND		0.53	ug/kg	5.0
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	114	%
Toluene-d8	109	%
Bromofluorobenzene	95	%

ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-33-20.00
LAB ID: 104072-0003-SA
Matrix: SOIL Sampled: 11 JAN 94 Received: 11 JAN 94
Authorized: 13 JAN 94 Prepared: 17 JAN 94 Analyzed: 17 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/kg	5.0
Methylene chloride	TR	B	1.1	ug/kg	5.0
Acetone	ND		7.1	ug/kg	10
Trichlorofluoromethane	ND		0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	ND		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	ND		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	ND		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	ND		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0

B = Compound is also detected in the blank.
ND = Not Detected

Enseco
A Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-33-20.00
LAB ID: 104072-0003-SA
Matrix: SOIL Sampled: 11 JAN 94 Received: 11 JAN 94
Authorized: 13 JAN 94 Prepared: 17 JAN 94 Analyzed: 17 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
tert-Butylbenzene	ND		0.55	ug/kg	5.0
1,2,4-Trimethylbenzene	ND		0.53	ug/kg	5.0
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	103	%
Toluene-d8	107	%
Bromofluorobenzene	105	%

ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-33-40.25
LAB ID: 104072-0006-SA
Matrix: SOIL Sampled: 11 JAN 94 Received: 11 JAN 94
Authorized: 13 JAN 94 Prepared: 17 JAN 94 Analyzed: 17 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/kg	5.0
Methylene chloride	TR	B	1.1	ug/kg	5.0
Acetone	ND		7.1	ug/kg	10
Trichlorofluoromethane	ND		0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	ND		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	ND		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	ND		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	ND		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0

B = Compound is also detected in the blank.
ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-33-40.25
LAB ID: 104072-0006-SA
Matrix: SOIL Sampled: 11 JAN 94 Received: 11 JAN 94
Authorized: 13 JAN 94 Prepared: 17 JAN 94 Analyzed: 17 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
tert-Butylbenzene	ND		0.55	ug/kg	5.0
1,2,4-Trimethylbenzene	ND		0.53	ug/kg	5.0
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	108	%
Toluene-d8	110	%
Bromofluorobenzene	104	%

ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-41A-5.25
LAB ID: 104072-0008-SA
Matrix: SOIL Sampled: 11 JAN 94 Received: 11 JAN 94
Authorized: 13 JAN 94 Prepared: 17 JAN 94 Analyzed: 17 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/kg	5.0
Methylene chloride	TR	B	1.1	ug/kg	5.0
Acetone	ND		7.1	ug/kg	10
Trichlorofluoromethane	TR		0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	ND		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	TR		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	TR		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	TR		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0

B = Compound is also detected in the blank.
ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-41A-5.25
LAB ID: 104072-0008-SA
Matrix: SOIL Sampled: 11 JAN 94 Received: 11 JAN 94
Authorized: 13 JAN 94 Prepared: 17 JAN 94 Analyzed: 17 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
tert-Butylbenzene	ND		0.55	ug/kg	5.0
1,2,4-Trimethylbenzene	TR		0.53	ug/kg	5.0
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	113	%
Toluene-d8	98	%
Bromofluorobenzene	83	%

ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-41B-15.25
LAB ID: 104072-0009-SA
Matrix: SOIL Sampled: 11 JAN 94 Received: 11 JAN 94
Authorized: 13 JAN 94 Prepared: 17 JAN 94 Analyzed: 17 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/kg	5.0
Methylene chloride	TR	B	1.1	ug/kg	5.0
Acetone	ND		7.1	ug/kg	10
Trichlorofluoromethane	ND		0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	ND		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	ND		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	ND		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	ND		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0

B = Compound is also detected in the blank.
ND = Not Detected

Enseco
A Corporation Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-41B-15.25
LAB ID: 104072-0009-SA
Matrix: SOIL — Sampled: 11 JAN 94 — Received: 11 JAN 94
Authorized: 13 JAN 94 — Prepared: 17 JAN 94 — Analyzed: 17 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
tert-Butylbenzene	ND		0.55	ug/kg	5.0
1,2,4-Trimethylbenzene	ND		0.53	ug/kg	5.0
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	107	%
Toluene-d8	111	%
Bromofluorobenzene	105	%

ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-41B-30.25
LAB ID: 104072-0011-SA
Matrix: SOIL Sampled: 11 JAN 94 Received: 11 JAN 94
Authorized: 13 JAN 94 Prepared: 17 JAN 94 Analyzed: 17 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/kg	5.0
Methylene chloride	TR	B	1.1	ug/kg	5.0
Acetone	ND		7.1	ug/kg	10
Trichlorofluoromethane	ND		0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	ND		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	ND		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	ND		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	ND		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0

B = Compound is also detected in the blank.
ND = Not Detected

Enseco
A Corporation Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-41B-30.25
LAB ID: 104072-0011-SA
Matrix: SOIL Sampled: 11 JAN 94 Received: 11 JAN 94
Authorized: 13 JAN 94 Prepared: 17 JAN 94 Analyzed: 17 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
tert-Butylbenzene	ND		0.55	ug/kg	5.0
1,2,4-Trimethylbenzene	ND		0.53	ug/kg	5.0
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	110	%
Toluene-d8	110	%
Bromofluorobenzene	106	%

ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-31A-5.25
LAB ID: 104072-0013-SA
Matrix: SOIL Sampled: 11 JAN 94 Received: 11 JAN 94
Authorized: 13 JAN 94 Prepared: 18 JAN 94 Analyzed: 18 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/kg	5.0
Methylene chloride	TR		1.1	ug/kg	5.0
Acetone	ND		7.1	ug/kg	10
Trichlorofluoromethane	ND		0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	ND		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	ND		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	ND		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	ND		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0
tert-Butylbenzene	ND		0.55	ug/kg	5.0

ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-31A-5.25
LAB ID: 104072-0013-SA
Matrix: SOIL Sampled: 11 JAN 94 Received: 11 JAN 94
Authorized: 13 JAN 94 Prepared: 18 JAN 94 Analyzed: 18 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
1,2,4-Trimethylbenzene	ND		0.53	ug/kg	5.0
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	95	%
Toluene-d8	95	%
Bromofluorobenzene	86	%

ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-31B-20.25
LAB ID: 104072-0014-SA
Matrix: SOIL Sampled: 11 JAN 94 Received: 11 JAN 94
Authorized: 13 JAN 94 Prepared: 17 JAN 94 Analyzed: 17 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/kg	5.0
Methylene chloride	TR	B	1.1	ug/kg	5.0
Acetone	ND		7.1	ug/kg	10
Trichlorofluoromethane	ND		0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	ND		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	ND		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	ND		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	ND		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0

B = Compound is also detected in the blank.
ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-31B-20.25
LAB ID: 104072-0014-SA
Matrix: SOIL Sampled: 11 JAN 94 Received: 11 JAN 94
Authorized: 13 JAN 94 Prepared: 17 JAN 94 Analyzed: 17 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
tert-Butylbenzene	ND		0.55	ug/kg	5.0
1,2,4-Trimethylbenzene	ND		0.53	ug/kg	5.0
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	106	%
Toluene-d8	109	%
Bromofluorobenzene	105	%

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-33-5.25
LAB ID: 104072-0002-SA
Matrix: SOIL Sampled: 11 JAN 94 Received: 11 JAN 94
Authorized: 13 JAN 94 Prepared: 14 JAN 94 Analyzed: 17 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
N-Nitrosodiethylamine	ND	G	0.26	mg/kg	1.6
Phenol	ND	G	0.030	mg/kg	1.6
bis(2-Chloroethyl) ether	ND	G	0.060	mg/kg	1.6
2-Chlorophenol	ND	G	0.040	mg/kg	1.6
1,3-Dichlorobenzene	ND	G	0.030	mg/kg	1.6
1,4-Dichlorobenzene	ND	G	0.060	mg/kg	1.6
Benzyl alcohol	ND	G	0.070	mg/kg	1.6
1,2-Dichlorobenzene	ND	G	0.040	mg/kg	1.6
2-Methylphenol	ND	G	0.030	mg/kg	1.6
bis(2-Chloroisopropyl)-ether	ND	G	0.040	mg/kg	1.6
3/4-Methylphenol	ND	G	0.040	mg/kg	1.6
N-Nitroso-di-n-propylamine	ND	G	0.030	mg/kg	1.6
Hexachloroethane	ND	G	0.030	mg/kg	1.6
Nitrobenzene	ND	G	0.090	mg/kg	1.6
Isophorone	ND	G	0.040	mg/kg	1.6
2-Nitrophenol	ND	G	0.050	mg/kg	1.6
2,4-Dimethylphenol	ND	G	0.030	mg/kg	1.6
Benzoic acid	ND	G	0.51	mg/kg	8.5
bis(2-Chloroethoxy)-methane	ND	G	0.020	mg/kg	1.6
2,4-Dichlorophenol	ND	G	0.030	mg/kg	1.6
1,2,4-Trichlorobenzene	ND	G	0.040	mg/kg	1.6
Naphthalene	ND	G	0.030	mg/kg	1.6
4-Chloroaniline	ND	G	0.10	mg/kg	1.6
Hexachlorobutadiene	ND	G	0.040	mg/kg	1.6
4-Chloro-3-methylphenol	ND	G	0.040	mg/kg	1.6
2-Methylnaphthalene	ND	G	0.030	mg/kg	1.6
Hexachlorocyclopentadiene	ND	G	0.050	mg/kg	1.6
2,4,6-Trichlorophenol	ND	G	0.040	mg/kg	1.6
2,4,5-Trichlorophenol	ND	G	0.050	mg/kg	8.5
2-Chloronaphthalene	ND	G	0.030	mg/kg	1.6
2-Nitroaniline	ND	G	0.030	mg/kg	8.5
Dimethyl phthalate	ND	G	0.030	mg/kg	1.6
Acenaphthylene	ND	G	0.020	mg/kg	1.6
3-Nitroaniline	ND	G	0.14	mg/kg	8.5
Acenaphthene	ND	G	0.030	mg/kg	1.6
2,4-Dinitrophenol	ND	G	0.23	mg/kg	8.5
4-Nitrophenol	ND	G	0.25	mg/kg	8.5
Dibenzofuran	ND	G	0.040	mg/kg	1.6
2,4-Dinitrotoluene	ND	G	0.040	mg/kg	1.6
2,6-Dinitrotoluene	ND	G	0.050	mg/kg	1.6
Diethyl phthalate	ND	G	0.020	mg/kg	1.6
4-Chlorophenyl phenyl ether	ND	G	0.030	mg/kg	1.6
Fluorene	ND	G	0.030	mg/kg	1.6

G = Reporting Limit elevated due to sample matrix interference.
ND = Not Detected

Enseco
A Corning Company

(Cont.)

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-33-5.25
LAB ID: 104072-0002-SA
Matrix: SOIL Sampled: 11 JAN 94 Received: 11 JAN 94
Authorized: 13 JAN 94 Prepared: 14 JAN 94 Analyzed: 17 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
4-Nitroaniline	ND	G	0.18	mg/kg	8.5
4,6-Dinitro-2-methylphenol	ND	G	0.36	mg/kg	8.5
N-Nitrosodiphenylamine	ND	G	0.040	mg/kg	1.6
4-Bromophenyl phenyl ether	ND	G	0.080	mg/kg	1.6
Hexachlorobenzene	ND	G	0.030	mg/kg	1.6
Pentachlorophenol	ND	G	0.19	mg/kg	8.5
Phenanthrene	ND	G	0.030	mg/kg	1.6
Anthracene	TR	G	0.020	mg/kg	1.6
Di-n-butyl phthalate	ND	G	0.24	mg/kg	1.6
Fluoranthene	ND	G	0.030	mg/kg	1.6
Pyrene	ND	G	0.020	mg/kg	1.6
Butyl benzyl phthalate	ND	G	0.030	mg/kg	1.6
3,3'-Dichlorobenzidine	ND	G	0.33	mg/kg	3.3
Benzo(a)anthracene	ND	G	0.040	mg/kg	1.6
bis(2-Ethylhexyl)-phthalate	ND	G	0.13	mg/kg	1.6
Chrysene	ND	G	0.040	mg/kg	1.6
Di-n-octyl phthalate	ND	G	0.040	mg/kg	1.6
Benzo(b)fluoranthene	TR	G	0.030	mg/kg	1.6
Benzo(k)fluoranthene	ND	G	0.030	mg/kg	1.6
Benzo(a)pyrene	ND	G	0.040	mg/kg	1.6
Indeno(1,2,3-c,d)pyrene	TR	G	0.030	mg/kg	1.6
Dibenz(a,h)anthracene	ND	G	0.030	mg/kg	1.6
Benzo(g,h,i)perylene	TR	G	0.020	mg/kg	1.6
Xylidine (Total)	ND	G	0.076	mg/kg	1.6

Surrogate	Recovery	
Nitrobenzene-d5	59	%
2-Fluorobiphenyl	81	%
Terphenyl-d14	74	%
Phenol-d5	63	%
2-Fluorophenol	58	%
2,4,6-Tribromophenol	70	%

G = Reporting Limit elevated due to sample matrix interference.
ND = Not Detected

Enseco
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Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-33-20.00
LAB ID: 104072-0003-SA
Matrix: SOIL — Sampled: 11 JAN 94 — Received: 11 JAN 94
Authorized: 13 JAN 94 — Prepared: 14 JAN 94 — Analyzed: 17 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
N-Nitrosodiethylamine	ND		0.26	mg/kg	0.33
Phenol	ND		0.030	mg/kg	0.33
bis(2-Chloroethyl) ether	ND		0.060	mg/kg	0.33
2-Chlorophenol	ND		0.040	mg/kg	0.33
1,3-Dichlorobenzene	ND		0.030	mg/kg	0.33
1,4-Dichlorobenzene	ND		0.060	mg/kg	0.33
Benzyl alcohol	ND		0.070	mg/kg	0.33
1,2-Dichlorobenzene	ND		0.040	mg/kg	0.33
2-Methylphenol	ND		0.030	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND		0.040	mg/kg	0.33
3/4-Methylphenol	ND		0.040	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND		0.030	mg/kg	0.33
Hexachloroethane	ND		0.030	mg/kg	0.33
Nitrobenzene	ND		0.090	mg/kg	0.33
Isophorone	ND		0.040	mg/kg	0.33
2-Nitrophenol	ND		0.050	mg/kg	0.33
2,4-Dimethylphenol	ND		0.030	mg/kg	0.33
Benzoic acid	ND		0.51	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND		0.020	mg/kg	0.33
2,4-Dichlorophenol	ND		0.030	mg/kg	0.33
1,2,4-Trichlorobenzene	ND		0.040	mg/kg	0.33
Naphthalene	ND		0.030	mg/kg	0.33
4-Chloroaniline	ND		0.10	mg/kg	0.33
Hexachlorobutadiene	ND		0.040	mg/kg	0.33
4-Chloro-3-methylphenol	ND		0.040	mg/kg	0.33
2-Methylnaphthalene	ND		0.030	mg/kg	0.33
Hexachlorocyclopentadiene	ND		0.050	mg/kg	0.33
2,4,6-Trichlorophenol	ND		0.040	mg/kg	0.33
2,4,5-Trichlorophenol	ND		0.050	mg/kg	1.7
2-Chloronaphthalene	ND		0.030	mg/kg	0.33
2-Nitroaniline	ND		0.030	mg/kg	1.7
Dimethyl phthalate	ND		0.030	mg/kg	0.33
Acenaphthylene	ND		0.020	mg/kg	0.33
3-Nitroaniline	ND		0.14	mg/kg	1.7
Acenaphthene	ND		0.030	mg/kg	0.33
2,4-Dinitrophenol	ND		0.23	mg/kg	1.7
4-Nitrophenol	ND		0.25	mg/kg	1.7
Dibenzofuran	ND		0.040	mg/kg	0.33
2,4-Dinitrotoluene	ND		0.040	mg/kg	0.33
2,6-Dinitrotoluene	ND		0.050	mg/kg	0.33
Diethyl phthalate	ND		0.020	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND		0.030	mg/kg	0.33
Fluorene	ND		0.030	mg/kg	0.33
4-Nitroaniline	ND		0.18	mg/kg	1.7

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-33-20.00
LAB ID: 104072-0003-SA
Matrix: SOIL Sampled: 11 JAN 94 Received: 11 JAN 94
Authorized: 13 JAN 94 Prepared: 14 JAN 94 Analyzed: 17 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
4,6-Dinitro-2-methylphenol	ND		0.36	mg/kg	1.7
N-Nitrosodiphenylamine	ND		0.040	mg/kg	0.33
4-Bromophenyl phenyl ether	ND		0.080	mg/kg	0.33
Hexachlorobenzene	ND		0.030	mg/kg	0.33
Pentachlorophenol	ND		0.19	mg/kg	1.7
Phenanthrene	ND		0.030	mg/kg	0.33
Anthracene	ND		0.020	mg/kg	0.33
Di-n-butyl phthalate	ND		0.24	mg/kg	0.33
Fluoranthene	ND		0.030	mg/kg	0.33
Pyrene	ND		0.020	mg/kg	0.33
Butyl benzyl phthalate	ND		0.030	mg/kg	0.33
3,3'-Dichlorobenzidine	ND		0.33	mg/kg	0.66
Benzo(a)anthracene	ND		0.040	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND		0.13	mg/kg	0.33
Chrysene	ND		0.040	mg/kg	0.33
Di-n-octyl phthalate	ND		0.040	mg/kg	0.33
Benzo(b)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(k)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(a)pyrene	ND		0.040	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND		0.030	mg/kg	0.33
Dibenz(a,h)anthracene	ND		0.030	mg/kg	0.33
Benzo(g,h,i)perylene	ND		0.020	mg/kg	0.33
Xylidine (Total)	ND		0.076	mg/kg	0.33

Surrogate	Recovery	
Nitrobenzene-d5	61	%
2-Fluorobiphenyl	74	%
Terphenyl-d14	58	%
Phenol-d5	63	%
2-Fluorophenol	59	%
2,4,6-Tribromophenol	87	%

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-33-40.25
LAB ID: 104072-0006-SA
Matrix: SOIL Sampled: 11 JAN 94 Received: 11 JAN 94
Authorized: 13 JAN 94 Prepared: 14 JAN 94 Analyzed: 17 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
N-Nitrosodiethylamine	ND		0.26	mg/kg	0.33
Phenol	ND		0.030	mg/kg	0.33
bis(2-Chloroethyl) ether	ND		0.060	mg/kg	0.33
2-Chlorophenol	ND		0.040	mg/kg	0.33
1,3-Dichlorobenzene	ND		0.030	mg/kg	0.33
1,4-Dichlorobenzene	ND		0.060	mg/kg	0.33
Benzyl alcohol	ND		0.070	mg/kg	0.33
1,2-Dichlorobenzene	ND		0.040	mg/kg	0.33
2-Methylphenol	ND		0.030	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND		0.040	mg/kg	0.33
3/4-Methylphenol	ND		0.040	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND		0.030	mg/kg	0.33
Hexachloroethane	ND		0.030	mg/kg	0.33
Nitrobenzene	ND		0.090	mg/kg	0.33
Isophorone	ND		0.040	mg/kg	0.33
2-Nitrophenol	ND		0.050	mg/kg	0.33
2,4-Dimethylphenol	ND		0.030	mg/kg	0.33
Benzoic acid	ND		0.51	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND		0.020	mg/kg	0.33
2,4-Dichlorophenol	ND		0.030	mg/kg	0.33
1,2,4-Trichlorobenzene	ND		0.040	mg/kg	0.33
Naphthalene	ND		0.030	mg/kg	0.33
4-Chloroaniline	ND		0.10	mg/kg	0.33
Hexachlorobutadiene	ND		0.040	mg/kg	0.33
4-Chloro-3-methylphenol	ND		0.040	mg/kg	0.33
2-Methylnaphthalene	ND		0.030	mg/kg	0.33
Hexachlorocyclopentadiene	ND		0.050	mg/kg	0.33
2,4,6-Trichlorophenol	ND		0.040	mg/kg	0.33
2,4,5-Trichlorophenol	ND		0.050	mg/kg	1.7
2-Chloronaphthalene	ND		0.030	mg/kg	0.33
2-Nitroaniline	ND		0.030	mg/kg	1.7
Dimethyl phthalate	ND		0.030	mg/kg	0.33
Acenaphthylene	ND		0.020	mg/kg	0.33
3-Nitroaniline	ND		0.14	mg/kg	1.7
Acenaphthene	ND		0.030	mg/kg	0.33
2,4-Dinitrophenol	ND		0.23	mg/kg	1.7
4-Nitrophenol	ND		0.25	mg/kg	1.7
Dibenzofuran	ND		0.040	mg/kg	0.33
2,4-Dinitrotoluene	ND		0.040	mg/kg	0.33
2,6-Dinitrotoluene	ND		0.050	mg/kg	0.33
Diethyl phthalate	ND		0.020	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND		0.030	mg/kg	0.33
Fluorene	ND		0.030	mg/kg	0.33
4-Nitroaniline	ND		0.18	mg/kg	1.7

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-33-40.25
LAB ID: 104072-0006-SA
Matrix: SOIL Sampled: 11 JAN 94 Received: 11 JAN 94
Authorized: 13 JAN 94 Prepared: 14 JAN 94 Analyzed: 17 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
4,6-Dinitro-2-methylphenol	ND		0.36	mg/kg	1.7
N-Nitrosodiphenylamine	ND		0.040	mg/kg	0.33
4-Bromophenyl phenyl ether	ND		0.080	mg/kg	0.33
Hexachlorobenzene	ND		0.030	mg/kg	0.33
Pentachlorophenol	ND		0.19	mg/kg	1.7
Phenanthrene	ND		0.030	mg/kg	0.33
Anthracene	ND		0.020	mg/kg	0.33
Di-n-butyl phthalate	ND		0.24	mg/kg	0.33
Fluoranthene	ND		0.030	mg/kg	0.33
Pyrene	ND		0.020	mg/kg	0.33
Butyl benzyl phthalate	ND		0.030	mg/kg	0.33
3,3'-Dichlorobenzidine	ND		0.33	mg/kg	0.66
Benzo(a)anthracene	ND		0.040	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND		0.13	mg/kg	0.33
Chrysene	ND		0.040	mg/kg	0.33
Di-n-octyl phthalate	ND		0.040	mg/kg	0.33
Benzo(b)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(k)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(a)pyrene	ND		0.040	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND		0.030	mg/kg	0.33
Dibenz(a,h)anthracene	ND		0.030	mg/kg	0.33
Benzo(g,h,i)perylene	ND		0.020	mg/kg	0.33
Xylidine (Total)	ND		0.076	mg/kg	0.33

Surrogate	Recovery	
Nitrobenzene-d5	60	%
2-Fluorobiphenyl	72	%
Terphenyl-d14	53	%
Phenol-d5	61	%
2-Fluorophenol	59	%
2,4,6-Tribromophenol	79	%

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-41A-5.25
LAB ID: 104072-0008-SA
Matrix: SOIL Sampled: 11 JAN 94 Received: 11 JAN 94
Authorized: 13 JAN 94 Prepared: 14 JAN 94 Analyzed: 17 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
N-Nitrosodiethylamine	ND	G	0.26	mg/kg	1.6
Phenol	ND	G	0.030	mg/kg	1.6
bis(2-Chloroethyl) ether	ND	G	0.060	mg/kg	1.6
2-Chlorophenol	ND	G	0.040	mg/kg	1.6
1,3-Dichlorobenzene	ND	G	0.030	mg/kg	1.6
1,4-Dichlorobenzene	ND	G	0.060	mg/kg	1.6
Benzyl alcohol	ND	G	0.070	mg/kg	1.6
1,2-Dichlorobenzene	ND	G	0.040	mg/kg	1.6
2-Methylphenol	ND	G	0.030	mg/kg	1.6
bis(2-Chloroisopropyl)-ether	ND	G	0.040	mg/kg	1.6
3/4-Methylphenol	ND	G	0.040	mg/kg	1.6
N-Nitroso-di-n-propylamine	ND	G	0.030	mg/kg	1.6
Hexachloroethane	ND	G	0.030	mg/kg	1.6
Nitrobenzene	ND	G	0.090	mg/kg	1.6
Isophorone	ND	G	0.040	mg/kg	1.6
2-Nitrophenol	ND	G	0.050	mg/kg	1.6
2,4-Dimethylphenol	ND	G	0.030	mg/kg	1.6
Benzoic acid	ND	G	0.51	mg/kg	8.5
bis(2-Chloroethoxy)-methane	ND	G	0.020	mg/kg	1.6
2,4-Dichlorophenol	ND	G	0.030	mg/kg	1.6
1,2,4-Trichlorobenzene	ND	G	0.040	mg/kg	1.6
Naphthalene	ND	G	0.030	mg/kg	1.6
4-Chloroaniline	ND	G	0.10	mg/kg	1.6
Hexachlorobutadiene	ND	G	0.040	mg/kg	1.6
4-Chloro-3-methylphenol	ND	G	0.040	mg/kg	1.6
2-Methylnaphthalene	ND	G	0.030	mg/kg	1.6
Hexachlorocyclopentadiene	ND	G	0.050	mg/kg	1.6
2,4,6-Trichlorophenol	ND	G	0.040	mg/kg	1.6
2,4,5-Trichlorophenol	ND	G	0.050	mg/kg	8.5
2-Chloronaphthalene	ND	G	0.030	mg/kg	1.6
2-Nitroaniline	ND	G	0.030	mg/kg	8.5
Dimethyl phthalate	ND	G	0.030	mg/kg	1.6
Acenaphthylene	ND	G	0.020	mg/kg	1.6
3-Nitroaniline	ND	G	0.14	mg/kg	8.5
Acenaphthene	ND	G	0.030	mg/kg	1.6
2,4-Dinitrophenol	ND	G	0.23	mg/kg	8.5
4-Nitrophenol	ND	G	0.25	mg/kg	8.5
Dibenzofuran	ND	G	0.040	mg/kg	1.6
2,4-Dinitrotoluene	ND	G	0.040	mg/kg	1.6
2,6-Dinitrotoluene	ND	G	0.050	mg/kg	1.6
Diethyl phthalate	ND	G	0.020	mg/kg	1.6
4-Chlorophenyl phenyl ether	ND	G	0.030	mg/kg	1.6
Fluorene	ND	G	0.030	mg/kg	1.6

G = Reporting Limit elevated due to sample matrix interference.
ND = Not Detected

Enseco
A Corporation Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-41A-5.25
LAB ID: 104072-0008-SA
Matrix: SOIL Sampled: 11 JAN 94 Received: 11 JAN 94
Authorized: 13 JAN 94 Prepared: 14 JAN 94 Analyzed: 17 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
4-Nitroaniline	ND	G	0.18	mg/kg	8.5
4,6-Dinitro-2-methylphenol	ND	G	0.36	mg/kg	8.5
N-Nitrosodiphenylamine	ND	G	0.040	mg/kg	1.6
4-Bromophenyl phenyl ether	ND	G	0.080	mg/kg	1.6
Hexachlorobenzene	ND	G	0.030	mg/kg	1.6
Pentachlorophenol	ND	G	0.19	mg/kg	8.5
Phenanthrene	ND	G	0.030	mg/kg	1.6
Anthracene	ND	G	0.020	mg/kg	1.6
Di-n-butyl phthalate	ND	G	0.24	mg/kg	1.6
Fluoranthene	ND	G	0.030	mg/kg	1.6
Pyrene	ND	G	0.020	mg/kg	1.6
Butyl benzyl phthalate	ND	G	0.030	mg/kg	1.6
3,3'-Dichlorobenzidine	ND	G	0.33	mg/kg	3.3
Benzo(a)anthracene	ND	G	0.040	mg/kg	1.6
bis(2-Ethylhexyl)-phthalate	ND	G	0.13	mg/kg	1.6
Chrysene	ND	G	0.040	mg/kg	1.6
Di-n-octyl phthalate	ND	G	0.040	mg/kg	1.6
Benzo(b)fluoranthene	ND	G	0.030	mg/kg	1.6
Benzo(k)fluoranthene	ND	G	0.030	mg/kg	1.6
Benzo(a)pyrene	ND	G	0.040	mg/kg	1.6
Indeno(1,2,3-c,d)pyrene	ND	G	0.030	mg/kg	1.6
Dibenz(a,h)anthracene	ND	G	0.030	mg/kg	1.6
Benzo(g,h,i)perylene	ND	G	0.020	mg/kg	1.6
Xylidine (Total)	ND	G	0.076	mg/kg	1.6

Surrogate	Recovery	
Nitrobenzene-d5	41	%
2-Fluorobiphenyl	56	%
Terphenyl-d14	36	%
Phenol-d5	42	%
2-Fluorophenol	36	%
2,4,6-Tribromophenol	46	%

G = Reporting Limit elevated due to sample matrix interference.
ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-41B-15.25
LAB ID: 104072-0009-SA
Matrix: SOIL Sampled: 11 JAN 94 Received: 11 JAN 94
Authorized: 13 JAN 94 Prepared: 14 JAN 94 Analyzed: 17 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
N-Nitrosodiethylamine	ND		0.26	mg/kg	0.33
Phenol	ND		0.030	mg/kg	0.33
bis(2-Chloroethyl) ether	ND		0.060	mg/kg	0.33
2-Chlorophenol	ND		0.040	mg/kg	0.33
1,3-Dichlorobenzene	ND		0.030	mg/kg	0.33
1,4-Dichlorobenzene	ND		0.060	mg/kg	0.33
Benzyl alcohol	ND		0.070	mg/kg	0.33
1,2-Dichlorobenzene	ND		0.040	mg/kg	0.33
2-Methylphenol	ND		0.030	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND		0.040	mg/kg	0.33
3/4-Methylphenol	ND		0.040	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND		0.030	mg/kg	0.33
Hexachloroethane	ND		0.030	mg/kg	0.33
Nitrobenzene	ND		0.090	mg/kg	0.33
Isophorone	ND		0.040	mg/kg	0.33
2-Nitrophenol	ND		0.050	mg/kg	0.33
2,4-Dimethylphenol	ND		0.030	mg/kg	0.33
Benzoic acid	ND		0.51	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND		0.020	mg/kg	0.33
2,4-Dichlorophenol	ND		0.030	mg/kg	0.33
1,2,4-Trichlorobenzene	ND		0.040	mg/kg	0.33
Naphthalene	ND		0.030	mg/kg	0.33
4-Chloroaniline	ND		0.10	mg/kg	0.33
Hexachlorobutadiene	ND		0.040	mg/kg	0.33
4-Chloro-3-methylphenol	ND		0.040	mg/kg	0.33
2-Methylnaphthalene	ND		0.030	mg/kg	0.33
Hexachlorocyclopentadiene	ND		0.050	mg/kg	0.33
2,4,6-Trichlorophenol	ND		0.040	mg/kg	0.33
2,4,5-Trichlorophenol	ND		0.050	mg/kg	1.7
2-Chloronaphthalene	ND		0.030	mg/kg	0.33
2-Nitroaniline	ND		0.030	mg/kg	1.7
Dimethyl phthalate	ND		0.030	mg/kg	0.33
Acenaphthylene	ND		0.020	mg/kg	0.33
3-Nitroaniline	ND		0.14	mg/kg	1.7
Acenaphthene	ND		0.030	mg/kg	0.33
2,4-Dinitrophenol	ND		0.23	mg/kg	1.7
4-Nitrophenol	ND		0.25	mg/kg	1.7
Dibenzofuran	ND		0.040	mg/kg	0.33
2,4-Dinitrotoluene	ND		0.040	mg/kg	0.33
2,6-Dinitrotoluene	ND		0.050	mg/kg	0.33
Diethyl phthalate	ND		0.020	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND		0.030	mg/kg	0.33
Fluorene	ND		0.030	mg/kg	0.33
4-Nitroaniline	ND		0.18	mg/kg	1.7

ND = Not Detected

Enseco
A Corporation Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-41B-15.25
LAB ID: 104072-0009-SA
Matrix: SOIL Sampled: 11 JAN 94 Received: 11 JAN 94
Authorized: 13 JAN 94 Prepared: 14 JAN 94 Analyzed: 17 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
4,6-Dinitro-2-methylphenol	ND		0.36	mg/kg	1.7
N-Nitrosodiphenylamine	ND		0.040	mg/kg	0.33
4-Bromophenyl phenyl ether	ND		0.080	mg/kg	0.33
Hexachlorobenzene	ND		0.030	mg/kg	0.33
Pentachlorophenol	ND		0.19	mg/kg	1.7
Phenanthrene	ND		0.030	mg/kg	0.33
Anthracene	ND		0.020	mg/kg	0.33
Di-n-butyl phthalate	ND		0.24	mg/kg	0.33
Fluoranthene	ND		0.030	mg/kg	0.33
Pyrene	ND		0.020	mg/kg	0.33
Butyl benzyl phthalate	ND		0.030	mg/kg	0.33
3,3'-Dichlorobenzidine	ND		0.33	mg/kg	0.66
Benzo(a)anthracene	ND		0.040	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND		0.13	mg/kg	0.33
Chrysene	ND		0.040	mg/kg	0.33
Di-n-octyl phthalate	ND		0.040	mg/kg	0.33
Benzo(b)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(k)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(a)pyrene	ND		0.040	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND		0.030	mg/kg	0.33
Dibenz(a,h)anthracene	ND		0.030	mg/kg	0.33
Benzo(g,h,i)perylene	ND		0.020	mg/kg	0.33
Xylidine (Total)	ND		0.076	mg/kg	0.33

Surrogate	Recovery	
Nitrobenzene-d5	57	%
2-Fluorobiphenyl	72	%
Terphenyl-d14	54	%
Phenol-d5	60	%
2-Fluorophenol	60	%
2,4,6-Tribromophenol	81	%

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-41B-30.25
LAB ID: 104072-0011-SA
Matrix: SOIL Sampled: 11 JAN 94 Received: 11 JAN 94
Authorized: 13 JAN 94 Prepared: 14 JAN 94 Analyzed: 17 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
N-Nitrosodiethylamine	ND		0.26	mg/kg	0.33
Phenol	ND		0.030	mg/kg	0.33
bis(2-Chloroethyl) ether	ND		0.060	mg/kg	0.33
2-Chlorophenol	ND		0.040	mg/kg	0.33
1,3-Dichlorobenzene	ND		0.030	mg/kg	0.33
1,4-Dichlorobenzene	ND		0.060	mg/kg	0.33
Benzyl alcohol	ND		0.070	mg/kg	0.33
1,2-Dichlorobenzene	ND		0.040	mg/kg	0.33
2-Methylphenol	ND		0.030	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND		0.040	mg/kg	0.33
3/4-Methylphenol	ND		0.040	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND		0.030	mg/kg	0.33
Hexachloroethane	ND		0.030	mg/kg	0.33
Nitrobenzene	ND		0.090	mg/kg	0.33
Isophorone	ND		0.040	mg/kg	0.33
2-Nitrophenol	ND		0.050	mg/kg	0.33
2,4-Dimethylphenol	ND		0.030	mg/kg	0.33
Benzoic acid	ND		0.51	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND		0.020	mg/kg	0.33
2,4-Dichlorophenol	ND		0.030	mg/kg	0.33
1,2,4-Trichlorobenzene	ND		0.040	mg/kg	0.33
Naphthalene	ND		0.030	mg/kg	0.33
4-Chloroaniline	ND		0.10	mg/kg	0.33
Hexachlorobutadiene	ND		0.040	mg/kg	0.33
4-Chloro-3-methylphenol	ND		0.040	mg/kg	0.33
2-Methylnaphthalene	ND		0.030	mg/kg	0.33
Hexachlorocyclopentadiene	ND		0.050	mg/kg	0.33
2,4,6-Trichlorophenol	ND		0.040	mg/kg	0.33
2,4,5-Trichlorophenol	ND		0.050	mg/kg	1.7
2-Chloronaphthalene	ND		0.030	mg/kg	0.33
2-Nitroaniline	ND		0.030	mg/kg	1.7
Dimethyl phthalate	ND		0.030	mg/kg	0.33
Acenaphthylene	ND		0.020	mg/kg	0.33
3-Nitroaniline	ND		0.14	mg/kg	1.7
Acenaphthene	ND		0.030	mg/kg	0.33
2,4-Dinitrophenol	ND		0.23	mg/kg	1.7
4-Nitrophenol	ND		0.25	mg/kg	1.7
Dibenzofuran	ND		0.040	mg/kg	0.33
2,4-Dinitrotoluene	ND		0.040	mg/kg	0.33
2,6-Dinitrotoluene	ND		0.050	mg/kg	0.33
Diethyl phthalate	ND		0.020	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND		0.030	mg/kg	0.33
Fluorene	ND		0.030	mg/kg	0.33
4-Nitroaniline	ND		0.18	mg/kg	1.7

ND = Not Detected

Enseco
A Corporation Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-41B-30.25
LAB ID: 104072-0011-SA
Matrix: SOIL Sampled: 11 JAN 94 Received: 11 JAN 94
Authorized: 13 JAN 94 Prepared: 14 JAN 94 Analyzed: 17 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
4,6-Dinitro-2-methylphenol	ND		0.36	mg/kg	1.7
N-Nitrosodiphenylamine	ND		0.040	mg/kg	0.33
4-Bromophenyl phenyl ether	ND		0.080	mg/kg	0.33
Hexachlorobenzene	ND		0.030	mg/kg	0.33
Pentachlorophenol	ND		0.19	mg/kg	1.7
Phenanthrene	ND		0.030	mg/kg	0.33
Anthracene	ND		0.020	mg/kg	0.33
Di-n-butyl phthalate	ND		0.24	mg/kg	0.33
Fluoranthene	ND		0.030	mg/kg	0.33
Pyrene	ND		0.020	mg/kg	0.33
Butyl benzyl phthalate	ND		0.030	mg/kg	0.33
3,3'-Dichlorobenzidine	ND		0.33	mg/kg	0.66
Benzo(a)anthracene	ND		0.040	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND		0.13	mg/kg	0.33
Chrysene	ND		0.040	mg/kg	0.33
Di-n-octyl phthalate	ND		0.040	mg/kg	0.33
Benzo(b)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(k)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(a)pyrene	ND		0.040	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND		0.030	mg/kg	0.33
Dibenz(a,h)anthracene	ND		0.030	mg/kg	0.33
Benzo(g,h,i)perylene	ND		0.020	mg/kg	0.33
Xylidine (Total)	ND		0.076	mg/kg	0.33

Surrogate	Recovery	
Nitrobenzene-d5	66	%
2-Fluorobiphenyl	75	%
Terphenyl-d14	56	%
Phenol-d5	63	%
2-Fluorophenol	62	%
2,4,6-Tribromophenol	81	%

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-31A-5.25
LAB ID: 104072-0013-SA
Matrix: SOIL Sampled: 11 JAN 94 Received: 11 JAN 94
Authorized: 13 JAN 94 Prepared: 14 JAN 94 Analyzed: 17 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
N-Nitrosodiethylamine	ND		0.26	mg/kg	0.33
Phenol	ND		0.030	mg/kg	0.33
bis(2-Chloroethyl) ether	ND		0.060	mg/kg	0.33
2-Chlorophenol	ND		0.040	mg/kg	0.33
1,3-Dichlorobenzene	ND		0.030	mg/kg	0.33
1,4-Dichlorobenzene	ND		0.060	mg/kg	0.33
Benzyl alcohol	ND		0.070	mg/kg	0.33
1,2-Dichlorobenzene	ND		0.040	mg/kg	0.33
2-Methylphenol	ND		0.030	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND		0.040	mg/kg	0.33
3/4-Methylphenol	ND		0.040	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND		0.030	mg/kg	0.33
Hexachloroethane	ND		0.030	mg/kg	0.33
Nitrobenzene	ND		0.090	mg/kg	0.33
Isophorone	ND		0.040	mg/kg	0.33
2-Nitrophenol	ND		0.050	mg/kg	0.33
2,4-Dimethylphenol	ND		0.030	mg/kg	0.33
Benzoic acid	ND		0.51	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND		0.020	mg/kg	0.33
2,4-Dichlorophenol	ND		0.030	mg/kg	0.33
1,2,4-Trichlorobenzene	ND		0.040	mg/kg	0.33
Naphthalene	ND		0.030	mg/kg	0.33
4-Chloroaniline	ND		0.10	mg/kg	0.33
Hexachlorobutadiene	ND		0.040	mg/kg	0.33
4-Chloro-3-methylphenol	ND		0.040	mg/kg	0.33
2-Methylnaphthalene	ND		0.030	mg/kg	0.33
Hexachlorocyclopentadiene	ND		0.050	mg/kg	0.33
2,4,6-Trichlorophenol	ND		0.040	mg/kg	0.33
2,4,5-Trichlorophenol	ND		0.050	mg/kg	1.7
2-Chloronaphthalene	ND		0.030	mg/kg	0.33
2-Nitroaniline	ND		0.030	mg/kg	1.7
Dimethyl phthalate	ND		0.030	mg/kg	0.33
Acenaphthylene	ND		0.020	mg/kg	0.33
3-Nitroaniline	ND		0.14	mg/kg	1.7
Acenaphthene	ND		0.030	mg/kg	0.33
2,4-Dinitrophenol	ND		0.23	mg/kg	1.7
4-Nitrophenol	ND		0.25	mg/kg	1.7
Dibenzofuran	ND		0.040	mg/kg	0.33
2,4-Dinitrotoluene	ND		0.040	mg/kg	0.33
2,6-Dinitrotoluene	ND		0.050	mg/kg	0.33
Diethyl phthalate	ND		0.020	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND		0.030	mg/kg	0.33
Fluorene	ND		0.030	mg/kg	0.33
4-Nitroaniline	ND		0.18	mg/kg	1.7

ND = Not Detected

Enseco
A Corporation Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-31A-5.25
LAB ID: 104072-0013-SA
Matrix: SOIL Sampled: 11 JAN 94 Received: 11 JAN 94
Authorized: 13 JAN 94 Prepared: 14 JAN 94 Analyzed: 17 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
4,6-Dinitro-2-methylphenol	ND		0.36	mg/kg	1.7
N-Nitrosodiphenylamine	ND		0.040	mg/kg	0.33
4-Bromophenyl phenyl ether	ND		0.080	mg/kg	0.33
Hexachlorobenzene	ND		0.030	mg/kg	0.33
Pentachlorophenol	ND		0.19	mg/kg	1.7
Phenanthrene	ND		0.030	mg/kg	0.33
Anthracene	ND		0.020	mg/kg	0.33
Di-n-butyl phthalate	ND		0.24	mg/kg	0.33
Fluoranthene	ND		0.030	mg/kg	0.33
Pyrene	ND		0.020	mg/kg	0.33
Butyl benzyl phthalate	ND		0.030	mg/kg	0.33
3,3'-Dichlorobenzidine	ND		0.33	mg/kg	0.66
Benzo(a)anthracene	ND		0.040	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND		0.13	mg/kg	0.33
Chrysene	ND		0.040	mg/kg	0.33
Di-n-octyl phthalate	ND		0.040	mg/kg	0.33
Benzo(b)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(k)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(a)pyrene	ND		0.040	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND		0.030	mg/kg	0.33
Dibenz(a,h)anthracene	ND		0.030	mg/kg	0.33
Benzo(g,h,i)perylene	ND		0.020	mg/kg	0.33
Xylidine (Total)	ND		0.076	mg/kg	0.33

Surrogate	Recovery	
Nitrobenzene-d5	56	%
2-Fluorobiphenyl	70	%
Terphenyl-d14	59	%
Phenol-d5	59	%
2-Fluorophenol	56	%
2,4,6-Tribromophenol	80	%

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-31B-20.25
LAB ID: 104072-0014-SA
Matrix: SOIL Sampled: 11 JAN 94 Received: 11 JAN 94
Authorized: 13 JAN 94 Prepared: 14 JAN 94 Analyzed: 17 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
N-Nitrosodiethylamine	ND		0.26	mg/kg	0.33
Phenol	ND		0.030	mg/kg	0.33
bis(2-Chloroethyl) ether	ND		0.060	mg/kg	0.33
2-Chlorophenol	ND		0.040	mg/kg	0.33
1,3-Dichlorobenzene	ND		0.030	mg/kg	0.33
1,4-Dichlorobenzene	ND		0.060	mg/kg	0.33
Benzyl alcohol	ND		0.070	mg/kg	0.33
1,2-Dichlorobenzene	ND		0.040	mg/kg	0.33
2-Methylphenol	ND		0.030	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND		0.040	mg/kg	0.33
3/4-Methylphenol	ND		0.040	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND		0.030	mg/kg	0.33
Hexachloroethane	ND		0.030	mg/kg	0.33
Nitrobenzene	ND		0.090	mg/kg	0.33
Isophorone	ND		0.040	mg/kg	0.33
2-Nitrophenol	ND		0.050	mg/kg	0.33
2,4-Dimethylphenol	ND		0.030	mg/kg	0.33
Benzoic acid	ND		0.51	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND		0.020	mg/kg	0.33
2,4-Dichlorophenol	ND		0.030	mg/kg	0.33
1,2,4-Trichlorobenzene	ND		0.040	mg/kg	0.33
Naphthalene	ND		0.030	mg/kg	0.33
4-Chloroaniline	ND		0.10	mg/kg	0.33
Hexachlorobutadiene	ND		0.040	mg/kg	0.33
4-Chloro-3-methylphenol	ND		0.040	mg/kg	0.33
2-Methylnaphthalene	ND		0.030	mg/kg	0.33
Hexachlorocyclopentadiene	ND		0.050	mg/kg	0.33
2,4,6-Trichlorophenol	ND		0.040	mg/kg	0.33
2,4,5-Trichlorophenol	ND		0.050	mg/kg	1.7
2-Chloronaphthalene	ND		0.030	mg/kg	0.33
2-Nitroaniline	ND		0.030	mg/kg	1.7
Dimethyl phthalate	ND		0.030	mg/kg	0.33
Acenaphthylene	ND		0.020	mg/kg	0.33
3-Nitroaniline	ND		0.14	mg/kg	1.7
Acenaphthene	ND		0.030	mg/kg	0.33
2,4-Dinitrophenol	ND		0.23	mg/kg	1.7
4-Nitrophenol	ND		0.25	mg/kg	1.7
Dibenzofuran	ND		0.040	mg/kg	0.33
2,4-Dinitrotoluene	ND		0.040	mg/kg	0.33
2,6-Dinitrotoluene	ND		0.050	mg/kg	0.33
Diethyl phthalate	ND		0.020	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND		0.030	mg/kg	0.33
Fluorene	ND		0.030	mg/kg	0.33
4-Nitroaniline	ND		0.18	mg/kg	1.7

ND = Not Detected

Enseco
A Corporation Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-31B-20.25
LAB ID: 104072-0014-SA
Matrix: SOIL — Sampled: 11 JAN 94 — Received: 11 JAN 94
Authorized: 13 JAN 94 — Prepared: 14 JAN 94 — Analyzed: 17 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
4,6-Dinitro-2-methylphenol	ND		0.36	mg/kg	1.7
N-Nitrosodiphenylamine	ND		0.040	mg/kg	0.33
4-Bromophenyl phenyl ether	ND		0.080	mg/kg	0.33
Hexachlorobenzene	ND		0.030	mg/kg	0.33
Pentachlorophenol	ND		0.19	mg/kg	1.7
Phenanthrene	ND		0.030	mg/kg	0.33
Anthracene	ND		0.020	mg/kg	0.33
Di-n-butyl phthalate	ND		0.24	mg/kg	0.33
Fluoranthene	ND		0.030	mg/kg	0.33
Pyrene	ND		0.020	mg/kg	0.33
Butyl benzyl phthalate	ND		0.030	mg/kg	0.33
3,3'-Dichlorobenzidine	ND		0.33	mg/kg	0.66
Benzo(a)anthracene	ND		0.040	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND		0.13	mg/kg	0.33
Chrysene	ND		0.040	mg/kg	0.33
Di-n-octyl phthalate	ND		0.040	mg/kg	0.33
Benzo(b)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(k)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(a)pyrene	ND		0.040	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND		0.030	mg/kg	0.33
Dibenz(a,h)anthracene	ND		0.030	mg/kg	0.33
Benzo(g,h,i)perylene	ND		0.020	mg/kg	0.33
Xylidine (Total)	ND		0.076	mg/kg	0.33

Surrogate	Recovery	
Nitrobenzene-d5	59	%
2-Fluorobiphenyl	72	%
Terphenyl-d14	54	%
Phenol-d5	63	%
2-Fluorophenol	60	%
2,4,6-Tribromophenol	82	%

ND = Not Detected

QC LOT ASSIGNMENT REPORT - MS QC
Metals Analysis and Preparation

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
104072-0001-SA	SOLID	AL-FLAA-S	18 JAN 94-C	18 JAN 94-C	18 JAN 94-CB
104072-0001-SA	SOLID	AS-HAA-S	18 JAN 94-C	18 JAN 94-C	18 JAN 94-CB
104072-0001-SA	SOLID	CD-FLAA-S	18 JAN 94-C	18 JAN 94-C	18 JAN 94-CB
104072-0001-SA	SOLID	CR-FLAA-S	18 JAN 94-C	18 JAN 94-C	18 JAN 94-CB
104072-0001-SA	SOLID	MN-FLAA-S	18 JAN 94-C	18 JAN 94-C	18 JAN 94-CB
104072-0001-SA	SOLID	NI-FLAA-S	18 JAN 94-C	18 JAN 94-C	18 JAN 94-CB
104072-0001-SA	SOLID	PB-FLAA-S	18 JAN 94-C	18 JAN 94-C	18 JAN 94-CB
104072-0001-SA	SOLID	CU-FLAA-S	18 JAN 94-C	18 JAN 94-C	18 JAN 94-CB
104072-0001-SA	SOLID	ZN-FLAA-S	18 JAN 94-C	18 JAN 94-C	18 JAN 94-CB
104072-0001-SA	SOLID	BA-FLAA-S	18 JAN 94-C	18 JAN 94-C	18 JAN 94-CB
104072-0001-SA	SOLID	HG-CVAA-S	17 JAN 94-E	17 JAN 94-E	17 JAN 94-EB
104072-0007-SA	SOLID	AL-FLAA-S	18 JAN 94-C	18 JAN 94-C	18 JAN 94-CB
104072-0007-SA	SOLID	AS-HAA-S	18 JAN 94-C	18 JAN 94-C	18 JAN 94-CB
104072-0007-SA	SOLID	CD-FLAA-S	18 JAN 94-C	18 JAN 94-C	18 JAN 94-CB
104072-0007-SA	SOLID	CR-FLAA-S	18 JAN 94-C	18 JAN 94-C	18 JAN 94-CB
104072-0007-SA	SOLID	MN-FLAA-S	18 JAN 94-C	18 JAN 94-C	18 JAN 94-CB
104072-0007-SA	SOLID	NI-FLAA-S	18 JAN 94-C	18 JAN 94-C	18 JAN 94-CB
104072-0007-SA	SOLID	PB-FLAA-S	18 JAN 94-C	18 JAN 94-C	18 JAN 94-CB
104072-0007-SA	SOLID	CU-FLAA-S	18 JAN 94-C	18 JAN 94-C	18 JAN 94-CB
104072-0007-SA	SOLID	ZN-FLAA-S	18 JAN 94-C	18 JAN 94-C	18 JAN 94-CB
104072-0007-SA	SOLID	BA-FLAA-S	18 JAN 94-C	18 JAN 94-C	18 JAN 94-CB
104072-0007-SA	SOLID	HG-CVAA-S	17 JAN 94-E	17 JAN 94-E	17 JAN 94-EB
104072-0012-SA	SOLID	AL-FLAA-S	18 JAN 94-C	18 JAN 94-C	18 JAN 94-CB
104072-0012-SA	SOLID	AS-HAA-S	18 JAN 94-C	18 JAN 94-C	18 JAN 94-CB
104072-0012-SA	SOLID	CD-FLAA-S	18 JAN 94-C	18 JAN 94-C	18 JAN 94-CB
104072-0012-SA	SOLID	CR-FLAA-S	18 JAN 94-C	18 JAN 94-C	18 JAN 94-CB
104072-0012-SA	SOLID	MN-FLAA-S	18 JAN 94-C	18 JAN 94-C	18 JAN 94-CB
104072-0012-SA	SOLID	NI-FLAA-S	18 JAN 94-C	18 JAN 94-C	18 JAN 94-CB
104072-0012-SA	SOLID	PB-FLAA-S	18 JAN 94-C	18 JAN 94-C	18 JAN 94-CB
104072-0012-SA	SOLID	CU-FLAA-S	18 JAN 94-C	18 JAN 94-C	18 JAN 94-CB
104072-0012-SA	SOLID	ZN-FLAA-S	18 JAN 94-C	18 JAN 94-C	18 JAN 94-CB
104072-0012-SA	SOLID	BA-FLAA-S	18 JAN 94-C	18 JAN 94-C	18 JAN 94-CB
104072-0012-SA	SOLID	HG-CVAA-S	17 JAN 94-E	17 JAN 94-E	17 JAN 94-EB

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DUPLICATE CONTROL SAMPLE REPORT
Metals Analysis and Preparation
Project: 104072

Category: AL-FLAA-S Aluminum, Flame AA
Matrix: SOLID
QC Lot: 18 JAN 94-C
Date Analyzed: 19 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Aluminum	10700	9310	8920	9120	85	47-153	4.3	20

Category: AS-HAA-S Arsenic, Hydride AA
Matrix: SOLID
QC Lot: 18 JAN 94-C
Date Analyzed: 19 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Arsenic	145	131	124	128	88	59-141	5.5	20

Category: CD-FLAA-S Cadmium, Flame AA
Matrix: SOLID
QC Lot: 18 JAN 94-C
Date Analyzed: 18 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Cadmium	154	147	143	145	94	68-132	2.8	20

Category: CR-FLAA-S Chromium, Flame AA
Matrix: SOLID
QC Lot: 18 JAN 94-C
Date Analyzed: 19 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Chromium	151	162	162	162	107	66-133	0.0	20

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

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DUPLICATE CONTROL SAMPLE REPORT
Metals Analysis and Preparation
Project: 104072

Category: MN-FLAA-S Manganese, Flame AA Method 7460
Matrix: SOLID
QC Lot: 18 JAN 94-C
Date Analyzed: 18 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Manganese	423	394	362	378	89	74-125	8.5	20

Category: NI-FLAA-S Nickel Flame AA
Matrix: SOLID
QC Lot: 18 JAN 94-C
Date Analyzed: 19 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Nickel	166	179	172	176	106	67-133	4.0	20

Category: PB-FLAA-S Method 7420 - Lead, Flame AA
Matrix: SOLID
QC Lot: 18 JAN 94-C
Date Analyzed: 19 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Lead	148	153	164	158	107	66-135	6.9	20

Category: CU-FLAA-S Copper Flame AA
Matrix: SOLID
QC Lot: 18 JAN 94-C
Date Analyzed: 18 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Copper	162	166	148	157	97	68-132	11	20

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

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DUPLICATE CONTROL SAMPLE REPORT
Metals Analysis and Preparation
Project: 104072

Category: ZN-FLAA-S Zinc, Flame AA
Matrix: SOLID
QC Lot: 18 JAN 94-C
Date Analyzed: 19 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Zinc	530	534	522	528	100	65-135	2.3	20

Category: BA-FLAA-S Barium, Flame AA
Matrix: SOLID
QC Lot: 18 JAN 94-C
Date Analyzed: 19 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Barium	503	476	464	470	93	76-124	2.6	20

Category: HG-CVAA-S Mercury by CVAA
Matrix: SOLID
QC Lot: 17 JAN 94-E
Date Analyzed: 18 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Mercury	29.0	28.0	26.0	27.0	93	52-148	7.4	20

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Metals Analysis and Preparation
Project: 104072

Category: AL-FLAA-S Aluminum, Flame AA
Matrix: SOLID
Sample: 104072-0001
MS Run: 18 JAN 94-CB
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Aluminum	4790	5710	6480	200	NC	NC	NC	60-130	20

Category: AS-HAA-S Arsenic, Hydride AA
Matrix: SOLID
Sample: 104072-0001
MS Run: 18 JAN 94-CB
Units mg/kg Units Qualifier: Wet wt.

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Arsenic	7.19	54.7	51.7	50.0	95	89	6.5	50-127	25

Category: CD-FLAA-S Cadmium, Flame AA
Matrix: SOLID
Sample: 104072-0001
MS Run: 18 JAN 94-CB
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Cadmium	ND	7.10	7.30	5.00	142	146	2.8	52-130	28

NC = Not Calculated, calculation not applicable.
ND = Not Detected

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

MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Metals Analysis and Preparation
Project: 104072 (cont.)

Category: CR-FLAA-S Chromium, Flame AA
Matrix: SOLID
Sample: 104072-0001
MS Run: 18 JAN 94-CB
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Chromium	47.0	65.8	79.7	20.0	94	163	54	40-190	33

Category: MN-FLAA-S Manganese, Flame AA Method 7460
Matrix: SOLID
Sample: 104072-0001
MS Run: 18 JAN 94-CB
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Manganese	196	274	263	50.0	156	134	15	60-130	40

Category: NI-FLAA-S Nickel Flame AA
Matrix: SOLID
Sample: 104072-0001
MS Run: 18 JAN 94-CB
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Nickel	100	151	177	50.0	102	154	41	55-155	25

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Metals Analysis and Preparation
Project: 104072 (cont.)

Category: PB-FLAA-S Method 7420 - Lead, Flame AA
Matrix: SOLID
Sample: 104072-0001
MS Run: 18 JAN 94-CB
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Lead	ND	70.0	69.0	50.0	140	138	1.4	14-169	40

Category: CU-FLAA-S Copper Flame AA
Matrix: SOLID
Sample: 104072-0001
MS Run: 18 JAN 94-CB
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Copper	13.0	38.0	43.0	25.0	100	120	18	49-144	23

Category: ZN-FLAA-S Zinc, Flame AA
Matrix: SOLID
Sample: 104072-0001
MS Run: 18 JAN 94-CB
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Zinc	53.8	91.5	98.3	50.0	75	89	17	65-138	25

ND = Not Detected

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Metals Analysis and Preparation
Project: 104072 (cont.)

Category: BA-FLAA-S Barium, Flame AA
Matrix: SOLID
Sample: 104072-0001
MS Run: 18 JAN 94-CB
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Barium	56.0	230	253	200	87	99	13	40-130	30

Category: HG-CVAA-S Mercury by CVAA
Matrix: SOLID
Sample: 104072-0001
MS Run: 17 JAN 94-EB
Units mg/kg Units Qualifier: Wet wt.

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Mercury	0.476	0.978	0.898	0.438	115	96	18	33-178	40

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

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METHOD BLANK REPORT
Metals Analysis and Preparation
Project: 104072

Test: AL-FLAA-MDL-S Method 7020 - Aluminum, Flame AA
Matrix: SOLID
QC Run: 18 JAN 94-C Date Analyzed: 19 JAN 94

Analyte	Result	Units	Reporting Limit
Aluminum	ND	mg/kg	100

Test: AS-HAA-MDL-S Method 7062 - Arsenic, Hydride AA
Matrix: SOLID
QC Run: 18 JAN 94-C Date Analyzed: 19 JAN 94

Analyte	Result	Units	Reporting Limit
Arsenic	ND	mg/kg	0.50

Test: CD-FLAA-MDL-S Method 7130 - Cadmium, Flame AA
Matrix: SOLID
QC Run: 18 JAN 94-C Date Analyzed: 18 JAN 94

Analyte	Result	Units	Reporting Limit
Cadmium	ND	mg/kg	5.0

Test: CR-FLAA-MDL-S Method 7190 - Chromium, Flame AA
Matrix: SOLID
QC Run: 18 JAN 94-C Date Analyzed: 19 JAN 94

Analyte	Result	Units	Reporting Limit
Chromium	ND	mg/kg	10.0

Test: MN-FLAA-MDL-S Manganese, Flame AA
Matrix: SOLID
QC Run: 18 JAN 94-C Date Analyzed: 18 JAN 94

Analyte	Result	Units	Reporting Limit
Manganese	ND	mg/kg	5.0

ND = Not Detected

METHOD BLANK REPORT
Metals Analysis and Preparation (cont.)
Project: 104072

Test: NI-FLAA-MDL-S Method 7520 - Nickel, Flame AA
Matrix: SOLID
QC Run: 18 JAN 94-C Date Analyzed: 19 JAN 94

Analyte	Result	Units	Reporting Limit
Nickel	ND	mg/kg	10.0

Test: PB-FLAA-MDL-S Method 7420 - Lead, FLame AA
Matrix: SOLID
QC Run: 18 JAN 94-C Date Analyzed: 19 JAN 94

Analyte	Result	Units	Reporting Limit
Lead	ND	mg/kg	20.0

Test: CU-FLAA-MDL-S Method 7210 - Copper, Flame AA
Matrix: SOLID
QC Run: 18 JAN 94-C Date Analyzed: 18 JAN 94

Analyte	Result	Units	Reporting Limit
Copper	ND	mg/kg	10.0

Test: ZN-FLAA-MDL-S Method 7950 - Zinc, Flame AA
Matrix: SOLID
QC Run: 18 JAN 94-C Date Analyzed: 19 JAN 94

Analyte	Result	Units	Reporting Limit
Zinc	ND	mg/kg	2.0

Test: BA-FLAA-MDL-S Method 7080 - Barium, Flame AA
Matrix: SOLID
QC Run: 18 JAN 94-C Date Analyzed: 19 JAN 94

Analyte	Result	Units	Reporting Limit
Barium	ND	mg/kg	50.0

ND = Not Detected

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METHOD BLANK REPORT
Metals Analysis and Preparation (cont.)
Project: 104072

Test: HG-CVAA-MDL-S Method 7471 - Mercury, Cold Vapor AA
Matrix: SOLID
QC Run: 17 JAN 94-E Date Analyzed: 18 JAN 94

Analyte	Result	Units	Reporting Limit
Mercury	ND	mg/kg	0.10

ND = Not Detected

QC LOT ASSIGNMENT REPORT - MS QC
Wet Chemistry Analysis and Preparation

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
104072-0001-SA	SOLID	CN-S	18 JAN 94-A	18 JAN 94-A	18 JAN 94-AA
104072-0001-SA	SOLID	CLO3-S	14 JAN 94-A	14 JAN 94-A	14 JAN 94-AA
104072-0004-SA	SOLID	CLO3-S	18 JAN 94-A	18 JAN 94-A	18 JAN 94-AA
104072-0005-SA	SOLID	CLO3-S	18 JAN 94-A	18 JAN 94-A	18 JAN 94-AA
104072-0007-SA	SOLID	CN-S	18 JAN 94-A	18 JAN 94-A	18 JAN 94-AA
104072-0007-SA	SOLID	CLO3-S	14 JAN 94-A	14 JAN 94-A	14 JAN 94-AA
104072-0009-SA	SOLID	CLO3-S	14 JAN 94-A	14 JAN 94-A	14 JAN 94-AA
104072-0010-SA	SOLID	CLO3-S	18 JAN 94-A	18 JAN 94-A	18 JAN 94-AA
104072-0012-SA	SOLID	CN-S	18 JAN 94-A	18 JAN 94-A	18 JAN 94-AA
104072-0012-SA	SOLID	CLO3-S	14 JAN 94-A	14 JAN 94-A	14 JAN 94-AA
104072-0014-SA	SOLID	CLO3-S	14 JAN 94-A	14 JAN 94-A	14 JAN 94-AA

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DUPLICATE CONTROL SAMPLE REPORT
Wet Chemistry Analysis and Preparation
Project: 104072

Category: CN-S Cyanide (9012) SOLID
Matrix: SOLID
QC Lot: 18 JAN 94-A Date Analyzed: 19 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Cyanide, Total	5.00	4.45	4.55	4.50	90	70-123	2.2	21

Category: CLO3-S Chlorate, Liquid
Matrix: SOLID
QC Lot: 14 JAN 94-A Date Analyzed: 14 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Chlorate, Solid	10.0	9.50	9.50	9.50	95	80-120	0.0	20

Category: CLO3-S Chlorate, Liquid
Matrix: SOLID
QC Lot: 18 JAN 94-A Date Analyzed: 18 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Chlorate, Solid	10.0	10.2	10.1	10.1	101	80-120	0.99	20

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Wet Chemistry Analysis and Preparation
Project: 104072

Category: CN-S Cyanide (9012) SOLID
Matrix: SOLID
Sample: 104020-0002
MS Run: 18 JAN 94-AA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Cyanide, Total	6.50	13.2	7.70	5.00	134	24	139	41-159	48

Category: CLO3-S Chlorate, Liquid
Matrix: SOLID
Sample: 104020-0006
MS Run: 14 JAN 94-AA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Chlorate, Solid	ND	8.98	8.99	10.0	90	90	0.0	80-120	20

Category: CLO3-S Chlorate, Liquid
Matrix: SOLID
Sample: 104072-0004
MS Run: 18 JAN 94-AA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Chlorate, Solid	ND	9.89	9.44	10.0	99	94	5.2	80-120	20

ND = Not Detected

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

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METHOD BLANK REPORT
Wet Chemistry Analysis and Preparation
Project: 104072

Test: CN-MDL-S Method 9012 - Cyanide, Total
Matrix: SOLID
QC Run: 18 JAN 94-A Date Analyzed: 19 JAN 94

Analyte	Result	Units	Reporting Limit
Cyanide, Total	ND	mg/kg	0.50

Test: CLO3-MDL-S Method 300.0 - Chlorate, Ion Chromatography
Matrix: SOLID
QC Run: 14 JAN 94-A Date Analyzed: 14 JAN 94

Analyte	Result	Units	Reporting Limit
Chlorate, Solid	ND	mg/kg	1.0

QC Run: 18 JAN 94-A Date Analyzed: 18 JAN 94

Analyte	Result	Units	Reporting Limit
Chlorate, Solid	ND	mg/kg	1.0

ND = Not Detected

QC LOT ASSIGNMENT REPORT - MS QC
Volatile Organics by GC/MS

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
104072-0002-SA	SOLID	8240-S	12 JAN 94-AF	17 JAN 94-AF	04 JAN 94-AF
104072-0003-SA	SOLID	8240-S	12 JAN 94-AF	17 JAN 94-AF	04 JAN 94-AF
104072-0006-SA	SOLID	8240-S	12 JAN 94-AF	17 JAN 94-AF	04 JAN 94-AF
104072-0008-SA	SOLID	8240-S	12 JAN 94-AF	17 JAN 94-AF	04 JAN 94-AF
104072-0009-SA	SOLID	8240-S	12 JAN 94-AF	17 JAN 94-AF	04 JAN 94-AF
104072-0011-SA	SOLID	8240-S	12 JAN 94-AF	17 JAN 94-AF	04 JAN 94-AF
104072-0013-SA	SOLID	8240-S	12 JAN 94-AF	18 JAN 94-AF	04 JAN 94-AF
104072-0014-SA	SOLID	8240-S	12 JAN 94-AF	17 JAN 94-AF	04 JAN 94-AF

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DUPLICATE CONTROL SAMPLE REPORT
Volatile Organics by GC/MS
Project: 104072

Category: 8240-S Volatile Organics
Matrix: SOLID
QC Lot: 12 JAN 94-AF
Date Analyzed: 12 JAN 94
Concentration Units: ug/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average(%) DCS	Accuracy Average(%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
1,1-Dichloroethene	50.0	30.9	31.1	31.0	62	50-121	0.65	31
Trichloroethene	50.0	43.9	44.4	44.2	88	69-114	1.1	17
Benzene	50.0	45.1	46.3	45.7	91	78-117	2.6	16
Toluene	50.0	47.1	48.7	47.9	96	79-118	3.3	17
Chlorobenzene	50.0	47.4	48.2	47.8	96	79-119	1.7	17

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

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SINGLE CONTROL SAMPLE REPORT
Volatile Organics by GC/MS
Project: 104072

Category: 8240-S Volatile Organics
Matrix: SOLID
QC Run: 18 JAN 94-AF Date Analyzed: 18 JAN 94
Concentration Units: ug/kg

Analyte	Concentration Spiked	Concentration Measured	Accuracy(%) SCS	Accuracy(%) Limits
1,2-Dichloroethane-d4	50.0	44.5	89	70-121
Toluene-d8	50.0	46.1	92	81-117
Bromofluorobenzene	50.0	45.0	90	74-121

Category: 8240-S Volatile Organics
Matrix: SOLID
QC Run: 17 JAN 94-AF Date Analyzed: 17 JAN 94
Concentration Units: ug/kg

Analyte	Concentration Spiked	Concentration Measured	Accuracy(%) SCS	Accuracy(%) Limits
1,2-Dichloroethane-d4	50.0	45.7	91	70-121
Toluene-d8	50.0	48.2	96	81-117
Bromofluorobenzene	50.0	46.5	93	74-121

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Volatile Organics by GC/MS
Project: 104072

Category: 8240-S Volatile Organics
Matrix: SOLID
Sample: 103963-0003
MS Run: 04 JAN 94-AF
Units: ug/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
1,1-Dichloroethene	ND	34.9	32.5	50.0	70	65	7.5	46-136	28
Trichloroethene	ND	46.0	42.6	50.0	92	85	8.0	58-131	26
Benzene	ND	47.1	43.4	50.0	94	87	7.8	63-139	23
Toluene	ND	50.7	46.0	50.0	101	92	9.4	68-140	24
Chlorobenzene	ND	49.4	45.1	50.0	99	90	9.6	68-138	23

ND = Not Detected

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

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METHOD BLANK REPORT
Volatile Organics by GC/MS
Project: 104072

Test: 8240-HLA-S Method 8240 - Volatile Organics, EPA 8240 Extended List
Matrix: SOLID
QC Run: 17 JAN 94-AF Date Analyzed: 17 JAN 94

Analyte	Result	Units	Reporting Limit
Dichlorodifluoromethane	ND	ug/kg	10
Chloromethane	ND	ug/kg	10
Bromomethane	ND	ug/kg	10
Vinyl chloride	ND	ug/kg	10
Chloroethane	ND	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/kg	5.0
Methylene chloride	TR	ug/kg	5.0
Acetone	ND	ug/kg	10
Trichlorofluoromethane	ND	ug/kg	5.0
1,1-Dichloroethene	ND	ug/kg	5.0
Nitromethane	ND	ug/kg	200
trans-1,2-Dichloroethene	ND	ug/kg	5.0
cis-1,2-Dichloroethene	ND	ug/kg	5.0
1,1-Dichloroethane	ND	ug/kg	5.0
2,2-Dichloropropane	ND	ug/kg	5.0
Bromochloromethane	ND	ug/kg	5.0
Chloroform	ND	ug/kg	5.0
1,1-Dichloropropene	ND	ug/kg	5.0
1,2-Dichloroethane	ND	ug/kg	5.0
Dibromomethane	ND	ug/kg	5.0
1,1,1-Trichloroethane	ND	ug/kg	5.0
Carbon tetrachloride	ND	ug/kg	5.0
Bromodichloromethane	ND	ug/kg	5.0
1,2-Dichloropropane	ND	ug/kg	5.0
1,3-Dichloropropane	ND	ug/kg	5.0
Trichloroethene	ND	ug/kg	5.0
Dibromochloromethane	ND	ug/kg	5.0
1,1,2-Trichloroethane	ND	ug/kg	5.0
Benzene	ND	ug/kg	5.0
Bromoform	ND	ug/kg	5.0
Tetrachloroethene	ND	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.0
Toluene	ND	ug/kg	5.0
Chlorobenzene	ND	ug/kg	5.0
Ethylbenzene	ND	ug/kg	5.0
Styrene	ND	ug/kg	5.0
Xylenes (total)	ND	ug/kg	5.0
1-Methylethylbenzene	ND	ug/kg	5.0
Bromobenzene	ND	ug/kg	5.0
1,2,3-Trichloropropane	ND	ug/kg	5.0
2-Chlorotoluene	ND	ug/kg	5.0
n-Propyl benzene	ND	ug/kg	5.0
1,3,5-Trimethylbenzene	ND	ug/kg	5.0

ND = Not Detected

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METHOD BLANK REPORT
Volatile Organics by GC/MS (cont.)
Project: 104072

Test: 8240-HLA-S Method 8240 - Volatile Organics, EPA 8240 Extended List
Matrix: SOLID
QC Run: 17 JAN 94-AF Date Analyzed: 17 JAN 94

Analyte	Result	Units	Reporting Limit
4-Chlorotoluene	ND	ug/kg	5.0
tert-Butylbenzene	ND	ug/kg	5.0
1,2,4-Trimethylbenzene	ND	ug/kg	5.0
sec-Butylbenzene	ND	ug/kg	5.0
Isopropyltoluene	ND	ug/kg	5.0
1,3-Dichlorobenzene	ND	ug/kg	5.0
1,4-Dichlorobenzene	ND	ug/kg	5.0
n-Butylbenzene	ND	ug/kg	5.0
1,2-Dichlorobenzene	ND	ug/kg	5.0
1,2,4-Trichlorobenzene	ND	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND	ug/kg	5.0
Hexachlorobutadiene	ND	ug/kg	5.0
Naphthalene	ND	ug/kg	5.0
1,2,3-Trichlorobenzene	ND	ug/kg	5.0

ND = Not Detected

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METHOD BLANK REPORT
Volatile Organics by GC/MS (cont.)
Project: 104072

Test: 8240-HLA-S Method 8240 - Volatile Organics, EPA 8240 Extended List
Matrix: SOLID

QC Run: 18 JAN 94-AF Date Analyzed: 18 JAN 94

Analyte	Result	Units	Reporting Limit
Dichlorodifluoromethane	ND	ug/kg	10
Chloromethane	ND	ug/kg	10
Bromomethane	ND	ug/kg	10
Vinyl chloride	ND	ug/kg	10
Chloroethane	ND	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/kg	5.0
Methylene chloride	ND	ug/kg	5.0
Acetone	ND	ug/kg	10
Trichlorofluoromethane	ND	ug/kg	5.0
1,1-Dichloroethene	ND	ug/kg	5.0
Nitromethane	ND	ug/kg	200
trans-1,2-Dichloroethene	ND	ug/kg	5.0
cis-1,2-Dichloroethene	ND	ug/kg	5.0
1,1-Dichloroethane	ND	ug/kg	5.0
2,2-Dichloropropane	ND	ug/kg	5.0
Bromochloromethane	ND	ug/kg	5.0
Chloroform	ND	ug/kg	5.0
1,1-Dichloropropene	ND	ug/kg	5.0
1,2-Dichloroethane	ND	ug/kg	5.0
Dibromomethane	ND	ug/kg	5.0
1,1,1-Trichloroethane	ND	ug/kg	5.0
Carbon tetrachloride	ND	ug/kg	5.0
Bromodichloromethane	ND	ug/kg	5.0
1,2-Dichloropropane	ND	ug/kg	5.0
1,3-Dichloropropane	ND	ug/kg	5.0
Trichloroethene	ND	ug/kg	5.0
Dibromochloromethane	ND	ug/kg	5.0
1,1,2-Trichloroethane	ND	ug/kg	5.0
Benzene	ND	ug/kg	5.0
Bromoform	ND	ug/kg	5.0
Tetrachloroethene	ND	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.0
Toluene	ND	ug/kg	5.0
Chlorobenzene	ND	ug/kg	5.0
Ethylbenzene	ND	ug/kg	5.0
Styrene	ND	ug/kg	5.0
Xylenes (total)	ND	ug/kg	5.0
1-Methylethylbenzene	ND	ug/kg	5.0
Bromobenzene	ND	ug/kg	5.0
1,2,3-Trichloropropane	ND	ug/kg	5.0
2-Chlorotoluene	ND	ug/kg	5.0
n-Propyl benzene	ND	ug/kg	5.0

ND = Not Detected

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METHOD BLANK REPORT
Volatile Organics by GC/MS (cont.)
Project: 104072

Test: 8240-HLA-S Method 8240 - Volatile Organics, EPA 8240 Extended List
Matrix: SOLID

QC Run: 18 JAN 94-AF Date Analyzed: 18 JAN 94

Analyte	Result	Units	Reporting Limit
1,3,5-Trimethylbenzene	ND	ug/kg	5.0
4-Chlorotoluene	ND	ug/kg	5.0
tert-Butylbenzene	ND	ug/kg	5.0
1,2,4-Trimethylbenzene	ND	ug/kg	5.0
sec-Butylbenzene	ND	ug/kg	5.0
Isopropyltoluene	ND	ug/kg	5.0
1,3-Dichlorobenzene	ND	ug/kg	5.0
1,4-Dichlorobenzene	ND	ug/kg	5.0
n-Butylbenzene	ND	ug/kg	5.0
1,2-Dichlorobenzene	ND	ug/kg	5.0
1,2,4-Trichlorobenzene	ND	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND	ug/kg	5.0
Hexachlorobutadiene	ND	ug/kg	5.0
Naphthalene	ND	ug/kg	5.0
1,2,3-Trichlorobenzene	TR	ug/kg	5.0

ND = Not Detected

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QC LOT ASSIGNMENT REPORT - MS QC
Semivolatile Organics by GC/MS

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
104072-0002-SA	SOLID	8270-S	11 JAN 94-I	14 JAN 94-B	11 JAN 94-IB
104072-0003-SA	SOLID	8270-S	11 JAN 94-I	14 JAN 94-B	11 JAN 94-IB
104072-0006-SA	SOLID	8270-S	11 JAN 94-I	14 JAN 94-B	11 JAN 94-IB
104072-0008-SA	SOLID	8270-S	11 JAN 94-I	14 JAN 94-B	11 JAN 94-IB
104072-0009-SA	SOLID	8270-S	11 JAN 94-I	14 JAN 94-B	11 JAN 94-IB
104072-0011-SA	SOLID	8270-S	11 JAN 94-I	14 JAN 94-B	11 JAN 94-IB
104072-0013-SA	SOLID	8270-S	11 JAN 94-I	14 JAN 94-B	11 JAN 94-IB
104072-0014-SA	SOLID	8270-S	11 JAN 94-I	14 JAN 94-B	11 JAN 94-IB

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DUPLICATE CONTROL SAMPLE REPORT
Semivolatile Organics by GC/MS
Project: 104072

Category: 8270-S Method 8270 - TCL Semivolatile Organics
Matrix: SOLID
QC Lot: 11 JAN 94-I Date Analyzed: 12 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Phenol	6.67	4.85	4.97	4.91	74	39-106	2.4	31
2-Chlorophenol	6.67	4.67	4.93	4.80	72	44-107	5.4	32
1,4-Dichlorobenzene	3.33	2.65	2.78	2.72	82	40-107	4.8	23
N-Nitroso-di-n-propylamine	3.33	2.91	3.00	2.96	89	31-132	3.0	38
1,2,4-Trichlorobenzene	3.33	2.92	2.93	2.92	88	38-120	0.34	22
4-Chloro-3-methylphenol	6.67	4.47	4.50	4.48	67	40-119	0.67	24
Acenaphthene	3.33	2.99	2.96	2.98	89	30-140	1.0	24
2,4-Dinitrotoluene	3.33	2.64	2.60	2.62	79	30-121	1.5	28
4-Nitrophenol	6.67	6.79	6.64	6.72	101	16-143	2.2	54
Pentachlorophenol	6.67	8.92	9.07	9.00	135	21-152	1.7	43
Pyrene	3.33	2.77	2.91	2.84	85	45-120	4.9	26

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

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SINGLE CONTROL SAMPLE REPORT
Semivolatile Organics by GC/MS
Project: 104072

Category: 8270-S Method 8270 - TCL Semivolatile Organics
Matrix: SOLID
QC Run: 14 JAN 94-B Date Analyzed: 17 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Concentration Measured	Accuracy(%) SCS	Accuracy(%) Limits
2-Fluorophenol	6.67	4.04	61	25-121
Phenol-d5	6.67	4.29	64	24-113
Nitrobenzene-d5	3.33	2.20	66	23-120
2-Fluorobiphenyl	3.33	2.56	77	30-115
2,4,6-Tribromophenol	6.67	5.04	76	19-122
Terphenyl-d14	3.33	2.08	62	18-137

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Semivolatile Organics by GC/MS
Project: 104072

Category: 8270-S Method 8270 - TCL Semivolatile Organics
Matrix: SOLID
Sample: 104020-0001
MS Run: 11 JAN 94-IB
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Phenol	ND	4.30	4.69	6.67	64	70	9.0	25-110	74
2-Chlorophenol	ND	4.16	4.60	6.67	62	69	11	33-103	42
1,4-Dichlorobenzene	ND	2.34	2.61	3.33	70	78	11	22-110	55
N-Nitroso-di-n-propylamine	ND	2.52	2.90	3.33	76	87	14	18-138	49
1,2,4-Trichlorobenzene	ND	2.73	2.83	3.33	82	85	3.6	29-119	43
4-Chloro-3-methylphenol	ND	4.86	4.94	6.67	73	74	1.4	36-119	41
Acenaphthene	ND	2.88	3.02	3.33	86	91	5.7	17-148	36
2,4-Dinitrotoluene	ND	2.51	2.79	3.33	75	84	11	27-120	41
4-Nitrophenol	ND	7.41	8.04	6.67	111	121	8.6	16-143	80
Pentachlorophenol	ND	8.81	9.82	6.67	132	147	11	21-152	61
Pyrene	ND	2.67	2.79	3.33	80	84	4.9	24-133	46

ND = Not Detected

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

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METHOD BLANK REPORT
Semivolatile Organics by GC/MS
Project: 104072

Test: 8270-HLA-S Method 8270 - Semivolatile Organics
Matrix: SOLID
QC Run: 14 JAN 94-B Date Analyzed: 17 JAN 94

Analyte	Result	Units	Reporting Limit
N-Nitrosodiethylamine	ND	mg/kg	0.33
Phenol	ND	mg/kg	0.33
bis(2-Chloroethyl) ether	ND	mg/kg	0.33
2-Chlorophenol	ND	mg/kg	0.33
1,3-Dichlorobenzene	ND	mg/kg	0.33
1,4-Dichlorobenzene	ND	mg/kg	0.33
Benzyl alcohol	ND	mg/kg	0.33
1,2-Dichlorobenzene	ND	mg/kg	0.33
2-Methylphenol	ND	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND	mg/kg	0.33
3/4-Methylphenol	ND	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND	mg/kg	0.33
Hexachloroethane	ND	mg/kg	0.33
Nitrobenzene	ND	mg/kg	0.33
Isophorone	ND	mg/kg	0.33
2-Nitrophenol	ND	mg/kg	0.33
2,4-Dimethylphenol	ND	mg/kg	0.33
Benzoic acid	ND	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND	mg/kg	0.33
2,4-Dichlorophenol	ND	mg/kg	0.33
1,2,4-Trichlorobenzene	ND	mg/kg	0.33
Naphthalene	ND	mg/kg	0.33
4-Chloroaniline	ND	mg/kg	0.33
Hexachlorobutadiene	ND	mg/kg	0.33
4-Chloro-3-methylphenol	ND	mg/kg	0.33
2-Methylnaphthalene	ND	mg/kg	0.33
Hexachlorocyclopentadiene	ND	mg/kg	0.33
2,4,6-Trichlorophenol	ND	mg/kg	0.33
2,4,5-Trichlorophenol	ND	mg/kg	1.7
2-Chloronaphthalene	ND	mg/kg	0.33
2-Nitroaniline	ND	mg/kg	1.7
Dimethyl phthalate	ND	mg/kg	0.33
Acenaphthylene	ND	mg/kg	0.33
3-Nitroaniline	ND	mg/kg	1.7
Acenaphthene	ND	mg/kg	0.33
2,4-Dinitrophenol	ND	mg/kg	1.7
4-Nitrophenol	ND	mg/kg	1.7
Dibenzofuran	ND	mg/kg	0.33
2,4-Dinitrotoluene	ND	mg/kg	0.33
2,6-Dinitrotoluene	ND	mg/kg	0.33
Diethyl phthalate	ND	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND	mg/kg	0.33
Fluorene	ND	mg/kg	0.33
4-Nitroaniline	ND	mg/kg	1.7
4,6-Dinitro-2-methylphenol	ND	mg/kg	1.7

ND = Not Detected

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METHOD BLANK REPORT
Semivolatile Organics by GC/MS (cont.)
Project: 104072

Test: 8270-HLA-S Method 8270 - Semivolatile Organics
Matrix: SOLID
QC Run: 14 JAN 94-B Date Analyzed: 17 JAN 94

Analyte	Result	Units	Reporting Limit
N-Nitrosodiphenylamine	ND	mg/kg	0.33
4-Bromophenyl phenyl ether	ND	mg/kg	0.33
Hexachlorobenzene	ND	mg/kg	0.33
Pentachlorophenol	ND	mg/kg	1.7
Phenanthrene	ND	mg/kg	0.33
Anthracene	ND	mg/kg	0.33
Di-n-butyl phthalate	ND	mg/kg	0.33
Fluoranthene	ND	mg/kg	0.33
Pyrene	ND	mg/kg	0.33
Butyl benzyl phthalate	ND	mg/kg	0.33
3,3'-Dichlorobenzidine	ND	mg/kg	0.66
Benzo(a)anthracene	ND	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND	mg/kg	0.33
Chrysene	ND	mg/kg	0.33
Di-n-octyl phthalate	ND	mg/kg	0.33
Benzo(b)fluoranthene	ND	mg/kg	0.33
Benzo(k)fluoranthene	ND	mg/kg	0.33
Benzo(a)pyrene	ND	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND	mg/kg	0.33
Dibenz(a,h)anthracene	ND	mg/kg	0.33
Benzo(g,h,i)perylene	ND	mg/kg	0.33
Xylidine (Total)	ND	mg/kg	0.33

ND = Not Detected

Holding Time Report Project: 104072 Client: Harding Lawson Associates Today: 25 JAN 94

	Field ID	Lab ID	Lab Test Code	Analytical Method	Collected	Received	Extracted	Analyzed	CTA	RTA	ETA	HTV	Corrective Action
Test:	Method 8270 - Semivolatile Organics						Prep: P-8270-S						Total: 8
1	SZB-33-5.2	104072-0002-SA	8270-HLA-S	8270	11 JAN 94	11 JAN 94	14 JAN 94	17 JAN 94	6	6	3		
2	SZB-33-20.	104072-0003-SA	8270-HLA-S	8270	11 JAN 94	11 JAN 94	14 JAN 94	17 JAN 94	6	6	3		
3	SZB-33-40.	104072-0006-SA	8270-HLA-S	8270	11 JAN 94	11 JAN 94	14 JAN 94	17 JAN 94	6	6	3		
4	SZB-41A-5.	104072-0008-SA	8270-HLA-S	8270	11 JAN 94	11 JAN 94	14 JAN 94	17 JAN 94	6	6	3		
5	SZB-41B-15	104072-0009-SA	8270-HLA-S	8270	11 JAN 94	11 JAN 94	14 JAN 94	17 JAN 94	6	6	3		
6	SZB-41B-30	104072-0011-SA	8270-HLA-S	8270	11 JAN 94	11 JAN 94	14 JAN 94	17 JAN 94	6	6	3		
7	SZB-31A-5.	104072-0013-SA	8270-HLA-S	8270	11 JAN 94	11 JAN 94	14 JAN 94	17 JAN 94	6	6	3		
8	SZB-31B-20	104072-0014-SA	8270-HLA-S	8270	11 JAN 94	11 JAN 94	14 JAN 94	17 JAN 94	6	6	3		
Test:	Method 8240 - Volatile Organics, EPA 8240 Extended List						Prep: P-VOASCR-S						Total: 8
1	SZB-33-5.2	104072-0002-SA	8240-HLA-S	8240	11 JAN 94	11 JAN 94	17 JAN 94	17 JAN 94	6	6	n/a		
2	SZB-33-20.	104072-0003-SA	8240-HLA-S	8240	11 JAN 94	11 JAN 94	17 JAN 94	17 JAN 94	6	6	n/a		
3	SZB-33-40.	104072-0006-SA	8240-HLA-S	8240	11 JAN 94	11 JAN 94	17 JAN 94	17 JAN 94	6	6	n/a		
4	SZB-41A-5.	104072-0008-SA	8240-HLA-S	8240	11 JAN 94	11 JAN 94	17 JAN 94	17 JAN 94	6	6	n/a		
5	SZB-41B-15	104072-0009-SA	8240-HLA-S	8240	11 JAN 94	11 JAN 94	17 JAN 94	17 JAN 94	6	6	n/a		
6	SZB-41B-30	104072-0011-SA	8240-HLA-S	8240	11 JAN 94	11 JAN 94	17 JAN 94	17 JAN 94	6	6	n/a		
7	SZB-31A-5.	104072-0013-SA	8240-HLA-S	8240	11 JAN 94	11 JAN 94	18 JAN 94	18 JAN 94	7	7	n/a		
8	SZB-31B-20	104072-0014-SA	8240-HLA-S	8240	11 JAN 94	11 JAN 94	17 JAN 94	17 JAN 94	6	6	n/a		
Test:	Method 5030 - Prep - Volatile Organics						Prep: n/a						Total: 8
1	SZB-33-5.2	104072-0002-SA	P-VOASCR-S	5030	11 JAN 94	11 JAN 94	17 JAN 94	n/a	6	6	n/a		
2	SZB-33-20.	104072-0003-SA	P-VOASCR-S	5030	11 JAN 94	11 JAN 94	17 JAN 94	n/a	6	6	n/a		
3	SZB-33-40.	104072-0006-SA	P-VOASCR-S	5030	11 JAN 94	11 JAN 94	17 JAN 94	n/a	6	6	n/a		
4	SZB-41A-5.	104072-0008-SA	P-VOASCR-S	5030	11 JAN 94	11 JAN 94	17 JAN 94	n/a	6	6	n/a		
5	SZB-41B-15	104072-0009-SA	P-VOASCR-S	5030	11 JAN 94	11 JAN 94	17 JAN 94	n/a	6	6	n/a		
6	SZB-41B-30	104072-0011-SA	P-VOASCR-S	5030	11 JAN 94	11 JAN 94	17 JAN 94	n/a	6	6	n/a		
7	SZB-31A-5.	104072-0013-SA	P-VOASCR-S	5030	11 JAN 94	11 JAN 94	18 JAN 94	n/a	7	7	n/a		
8	SZB-31B-20	104072-0014-SA	P-VOASCR-S	5030	11 JAN 94	11 JAN 94	17 JAN 94	n/a	6	6	n/a		
Test:	Method EPA 3550 - Prep - Semivolatile Organics by GC/MS						Prep: n/a						Total: 8
1	SZB-33-5.2	104072-0002-SA	P-8270-S	3550	11 JAN 94	11 JAN 94	14 JAN 94	n/a	3	3	n/a		
2	SZB-33-20.	104072-0003-SA	P-8270-S	3550	11 JAN 94	11 JAN 94	14 JAN 94	n/a	3	3	n/a		
3	SZB-33-40.	104072-0006-SA	P-8270-S	3550	11 JAN 94	11 JAN 94	14 JAN 94	n/a	3	3	n/a		
4	SZB-41A-5.	104072-0008-SA	P-8270-S	3550	11 JAN 94	11 JAN 94	14 JAN 94	n/a	3	3	n/a		
5	SZB-41B-15	104072-0009-SA	P-8270-S	3550	11 JAN 94	11 JAN 94	14 JAN 94	n/a	3	3	n/a		
6	SZB-41B-30	104072-0011-SA	P-8270-S	3550	11 JAN 94	11 JAN 94	14 JAN 94	n/a	3	3	n/a		
7	SZB-31A-5.	104072-0013-SA	P-8270-S	3550	11 JAN 94	11 JAN 94	14 JAN 94	n/a	3	3	n/a		
8	SZB-31B-20	104072-0014-SA	P-8270-S	3550	11 JAN 94	11 JAN 94	14 JAN 94	n/a	3	3	n/a		
Test:	Method 7020 - Aluminum, Flame AA						Prep: P-M-3050-S						Total: 3
1	SZB-33-5.0	104072-0001-SA	AL-FLAA-MDL-S	7020	11 JAN 94	11 JAN 94	18 JAN 94	19 JAN 94	8	8	n/a		
2	SZB-41A-5.	104072-0007-SA	AL-FLAA-MDL-S	7020	11 JAN 94	11 JAN 94	18 JAN 94	19 JAN 94	8	8	n/a		
3	SZB-31A-5.	104072-0012-SA	AL-FLAA-MDL-S	7020	11 JAN 94	11 JAN 94	18 JAN 94	19 JAN 94	8	8	n/a		
Test:	Method 7062 - Arsenic, Hydride AA						Prep: P-M-3050-S						Total: 3
1	SZB-33-5.0	104072-0001-SA	AS-HAA-MDL-S	7062	11 JAN 94	11 JAN 94	18 JAN 94	19 JAN 94	8	8	n/a		
2	SZB-41A-5.	104072-0007-SA	AS-HAA-MDL-S	7062	11 JAN 94	11 JAN 94	18 JAN 94	19 JAN 94	8	8	n/a		
3	SZB-31A-5.	104072-0012-SA	AS-HAA-MDL-S	7062	11 JAN 94	11 JAN 94	18 JAN 94	19 JAN 94	8	8	n/a		

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Holding Time Report Project: 104072 Client: Harding Lawson Associates Today: 25 JAN 94

	Field ID	Lab ID	Lab Test Code	Analytical Method	Collected	Received	Extracted	Analyzed	CTA	RTA	ETA	HTV	Corrective Action
Test: Method 7080 - Barium, Flame AA							Prep: P-M-3050-S						Total: 3
1	SZB-33-5.0	104072-0001-SA	BA-FLAA-MDL-S	7080	11 JAN 94	11 JAN 94	18 JAN 94	19 JAN 94	8	8	n/a		
2	SZB-41A-5.	104072-0007-SA	BA-FLAA-MDL-S	7080	11 JAN 94	11 JAN 94	18 JAN 94	19 JAN 94	8	8	n/a		
3	SZB-31A-5.	104072-0012-SA	BA-FLAA-MDL-S	7080	11 JAN 94	11 JAN 94	18 JAN 94	19 JAN 94	8	8	n/a		
Test: Method 7130 - Cadmium, Flame AA							Prep: P-M-3050-S						Total: 3
1	SZB-33-5.0	104072-0001-SA	CD-FLAA-MDL-S	7130	11 JAN 94	11 JAN 94	18 JAN 94	18 JAN 94	7	7	n/a		
2	SZB-41A-5.	104072-0007-SA	CD-FLAA-MDL-S	7130	11 JAN 94	11 JAN 94	18 JAN 94	18 JAN 94	7	7	n/a		
3	SZB-31A-5.	104072-0012-SA	CD-FLAA-MDL-S	7130	11 JAN 94	11 JAN 94	18 JAN 94	18 JAN 94	7	7	n/a		
Test: Method 7190 - Chromium, Flame AA							Prep: P-M-3050-S						Total: 3
1	SZB-33-5.0	104072-0001-SA	CR-FLAA-MDL-S	7190	11 JAN 94	11 JAN 94	18 JAN 94	19 JAN 94	8	8	n/a		
2	SZB-41A-5.	104072-0007-SA	CR-FLAA-MDL-S	7190	11 JAN 94	11 JAN 94	18 JAN 94	19 JAN 94	8	8	n/a		
3	SZB-31A-5.	104072-0012-SA	CR-FLAA-MDL-S	7190	11 JAN 94	11 JAN 94	18 JAN 94	19 JAN 94	8	8	n/a		
Test: Method 7210 - Copper, Flame AA							Prep: P-M-3050-S						Total: 3
1	SZB-33-5.0	104072-0001-SA	CU-FLAA-MDL-S	7210	11 JAN 94	11 JAN 94	18 JAN 94	18 JAN 94	7	7	n/a		
2	SZB-41A-5.	104072-0007-SA	CU-FLAA-MDL-S	7210	11 JAN 94	11 JAN 94	18 JAN 94	18 JAN 94	7	7	n/a		
3	SZB-31A-5.	104072-0012-SA	CU-FLAA-MDL-S	7210	11 JAN 94	11 JAN 94	18 JAN 94	18 JAN 94	7	7	n/a		
Test: Method 7471 - Mercury, Cold Vapor AA							Prep: P-HG-CVAA-S						Total: 3
1	SZB-33-5.0	104072-0001-SA	HG-CVAA-MDL-S	7471	11 JAN 94	11 JAN 94	17 JAN 94	18 JAN 94	7	7	n/a		
2	SZB-41A-5.	104072-0007-SA	HG-CVAA-MDL-S	7471	11 JAN 94	11 JAN 94	17 JAN 94	18 JAN 94	7	7	n/a		
3	SZB-31A-5.	104072-0012-SA	HG-CVAA-MDL-S	7471	11 JAN 94	11 JAN 94	17 JAN 94	18 JAN 94	7	7	n/a		
Test: Manganese, Flame AA							Prep: P-M-3050-S						Total: 3
1	SZB-33-5.0	104072-0001-SA	MN-FLAA-MDL-S	7460	11 JAN 94	11 JAN 94	18 JAN 94	18 JAN 94	7	7	n/a		
2	SZB-41A-5.	104072-0007-SA	MN-FLAA-MDL-S	7460	11 JAN 94	11 JAN 94	18 JAN 94	18 JAN 94	7	7	n/a		
3	SZB-31A-5.	104072-0012-SA	MN-FLAA-MDL-S	7460	11 JAN 94	11 JAN 94	18 JAN 94	18 JAN 94	7	7	n/a		
Test: Method 7520 - Nickel, Flame AA							Prep: P-M-3050-S						Total: 3
1	SZB-33-5.0	104072-0001-SA	NI-FLAA-MDL-S	7520	11 JAN 94	11 JAN 94	18 JAN 94	19 JAN 94	8	8	n/a		
2	SZB-41A-5.	104072-0007-SA	NI-FLAA-MDL-S	7520	11 JAN 94	11 JAN 94	18 JAN 94	19 JAN 94	8	8	n/a		
3	SZB-31A-5.	104072-0012-SA	NI-FLAA-MDL-S	7520	11 JAN 94	11 JAN 94	18 JAN 94	19 JAN 94	8	8	n/a		
Test: Method 7420 - Lead, Flame AA							Prep: P-M-3050-S						Total: 3
1	SZB-33-5.0	104072-0001-SA	PB-FLAA-MDL-S	7420	11 JAN 94	11 JAN 94	18 JAN 94	19 JAN 94	8	8	n/a		
2	SZB-41A-5.	104072-0007-SA	PB-FLAA-MDL-S	7420	11 JAN 94	11 JAN 94	18 JAN 94	19 JAN 94	8	8	n/a		
3	SZB-31A-5.	104072-0012-SA	PB-FLAA-MDL-S	7420	11 JAN 94	11 JAN 94	18 JAN 94	19 JAN 94	8	8	n/a		
Test: Method 7950 - Zinc, Flame AA							Prep: P-M-3050-S						Total: 3
1	SZB-33-5.0	104072-0001-SA	ZN-FLAA-MDL-S	7950	11 JAN 94	11 JAN 94	18 JAN 94	19 JAN 94	8	8	n/a		
2	SZB-41A-5.	104072-0007-SA	ZN-FLAA-MDL-S	7950	11 JAN 94	11 JAN 94	18 JAN 94	19 JAN 94	8	8	n/a		
3	SZB-31A-5.	104072-0012-SA	ZN-FLAA-MDL-S	7950	11 JAN 94	11 JAN 94	18 JAN 94	19 JAN 94	8	8	n/a		
Test: Prep - Mercury, Cold Vapor AA, Solid							Prep: n/a						Total: 3
1	SZB-33-5.0	104072-0001-SA	P-HG-CVAA-S	7471	11 JAN 94	11 JAN 94	17 JAN 94	n/a	6	6	n/a		
2	SZB-41A-5.	104072-0007-SA	P-HG-CVAA-S	7471	11 JAN 94	11 JAN 94	17 JAN 94	n/a	6	6	n/a		
3	SZB-31A-5.	104072-0012-SA	P-HG-CVAA-S	7471	11 JAN 94	11 JAN 94	17 JAN 94	n/a	6	6	n/a		

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Holding Time Report Project: 104072 Client: Harding Lawson Associates Today: 25 JAN 94

	Field ID	Lab ID	Lab Test Code	Analytical Method	Collected	Received	Extracted	Analyzed	CTA	RTA	ETA	HTV	Corrective Action
Test: Method 3050 - Prep - Total Metals							Prep: n/a						Total: 3
1	SZB-33-5.0	104072-0001-SA	P-M-3050-S	3050	11 JAN 94	11 JAN 94	18 JAN 94	n/a	7	7	n/a		
2	SZB-41A-5.	104072-0007-SA	P-M-3050-S	3050	11 JAN 94	11 JAN 94	18 JAN 94	n/a	7	7	n/a		
3	SZB-31A-5.	104072-0012-SA	P-M-3050-S	3050	11 JAN 94	11 JAN 94	18 JAN 94	n/a	7	7	n/a		
Test: Method 300.0 - Chlorate, Ion Chromatography							Prep: P-IC-DILEACH-S						Total: 8
1	SZB-33-5.0	104072-0001-SA	CLO3-MDL-S	300.0	11 JAN 94	11 JAN 94	14 JAN 94	14 JAN 94	3	3	n/a		
2	SZB-33-24.	104072-0004-SA	CLO3-MDL-S	300.0	11 JAN 94	11 JAN 94	14 JAN 94	18 JAN 94	7	7	n/a		
3	SZB-33-40.	104072-0005-SA	CLO3-MDL-S	300.0	11 JAN 94	11 JAN 94	18 JAN 94	18 JAN 94	7	7	n/a		
4	SZB-41A-5.	104072-0007-SA	CLO3-MDL-S	300.0	11 JAN 94	11 JAN 94	14 JAN 94	14 JAN 94	3	3	n/a		
5	SZB-41B-15	104072-0009-SA	CLO3-MDL-S	300.0	11 JAN 94	11 JAN 94	14 JAN 94	14 JAN 94	3	3	n/a		
6	SZB-41B-30	104072-0010-SA	CLO3-MDL-S	300.0	11 JAN 94	11 JAN 94	18 JAN 94	18 JAN 94	7	7	n/a		
7	SZB-31A-5.	104072-0012-SA	CLO3-MDL-S	300.0	11 JAN 94	11 JAN 94	14 JAN 94	14 JAN 94	3	3	n/a		
8	SZB-31B-20	104072-0014-SA	CLO3-MDL-S	300.0	11 JAN 94	11 JAN 94	14 JAN 94	14 JAN 94	3	3	n/a		
Test: Method 9012 - Cyanide, Total							Prep: P-CN-S						Total: 3
1	SZB-33-5.0	104072-0001-SA	CN-MDL-S	9012	11 JAN 94	11 JAN 94	19 JAN 94	19 JAN 94	8	8	n/a		
2	SZB-41A-5.	104072-0007-SA	CN-MDL-S	9012	11 JAN 94	11 JAN 94	19 JAN 94	19 JAN 94	8	8	n/a		
3	SZB-31A-5.	104072-0012-SA	CN-MDL-S	9012	11 JAN 94	11 JAN 94	19 JAN 94	19 JAN 94	8	8	n/a		
Test: Method 9012 - Prep - Cyanide, Total							Prep: n/a						Total: 3
1	SZB-33-5.0	104072-0001-SA	P-CN-S	9012	11 JAN 94	11 JAN 94	19 JAN 94	n/a	8	8	n/a		
2	SZB-41A-5.	104072-0007-SA	P-CN-S	9012	11 JAN 94	11 JAN 94	19 JAN 94	n/a	8	8	n/a		
3	SZB-31A-5.	104072-0012-SA	P-CN-S	9012	11 JAN 94	11 JAN 94	19 JAN 94	n/a	8	8	n/a		
Test: Prep - Method 300.0-Mod.- Deionized Water Leach							Prep: n/a						Total: 8
1	SZB-33-5.0	104072-0001-SA	P-IC-DILEACH-S	300.0-Mod.	11 JAN 94	11 JAN 94	14 JAN 94	n/a	3	3	n/a		
2	SZB-33-24.	104072-0004-SA	P-IC-DILEACH-S	300.0-Mod.	11 JAN 94	11 JAN 94	14 JAN 94	n/a	3	3	n/a		
3	SZB-33-40.	104072-0005-SA	P-IC-DILEACH-S	300.0-Mod.	11 JAN 94	11 JAN 94	18 JAN 94	n/a	7	7	n/a		
4	SZB-41A-5.	104072-0007-SA	P-IC-DILEACH-S	300.0-Mod.	11 JAN 94	11 JAN 94	14 JAN 94	n/a	3	3	n/a		
5	SZB-41B-15	104072-0009-SA	P-IC-DILEACH-S	300.0-Mod.	11 JAN 94	11 JAN 94	14 JAN 94	n/a	3	3	n/a		
6	SZB-41B-30	104072-0010-SA	P-IC-DILEACH-S	300.0-Mod.	11 JAN 94	11 JAN 94	18 JAN 94	n/a	7	7	n/a		
7	SZB-31A-5.	104072-0012-SA	P-IC-DILEACH-S	300.0-Mod.	11 JAN 94	11 JAN 94	14 JAN 94	n/a	3	3	n/a		
8	SZB-31B-20	104072-0014-SA	P-IC-DILEACH-S	300.0-Mod.	11 JAN 94	11 JAN 94	14 JAN 94	n/a	3	3	n/a		

CTA = Number of Days from Collected to Analyzed.
RTA = Number of Days from Received to Analyzed.
ETA = Number of Days from Extraction to Analyzed.
HTV = Hold Time Violation (Y=Yes, blank=No)

Enseco
A Corning Company

Harding Lawson Associates
3[illegible]on Centre Drive, Suite 200
Santa Ana, California 92707
714/556-7992 – 213/617-7232
FAX: 714/662-3297

CHAIN OF CUSTODY FORM

104072 Page 1 of 3

Lab: ENSECO

Samplers: KAREN WITHAARK

Job Number: 26522-2.3

Name/Location: AEROSET

Project Manager: MATT HUNTER

Recorder: Karen Withaark (Signature Required)

SOURCE CODE	MATRIX: Water	Sediment	Soil	Oil	#CONTAINERS & PRESERV.: Unpres.	H_2SO_4	HNO_3	CHILLED	SAMPLE NUMBER OR LAB NUMBER: Yr	Wk	Seq	DATE: Yr	Mo	Dy	Time	STATION DESCRIPTION/ NOTES	EPA 601/8010	EPA 602/8020	EPA 624/8240	EPA 625/8270	Priority Pllntnt. Metals	Benzene/Toluene/Xylene	Total Petrol. Hydrocarb.	CHLORATE	EPA 6010/7000 SERIES	9012 CN		HOLD
SO			X		X			I	52B	33	5.0	94	01	11	0720	2½"x3" S.S. SLEEVE								X	X	X		
									52B	33	5.25	94	01	11	0720				X	X								
									52B	33	10.0				0730													X
									52B	33	10.25				0736													X
									52B	33	14.0				0750													X
									52B	33	15.0				0900													X
									52B	33	15.25				0800													X
									52B	33	20.0				0810				X	X				X				
									52B	33	24.0				0820				X	X				X				
									52B	33	30.0				0835													X

Custody seal # 3535 P 3536

LAB NUMBER: Yr	Wk	Seq	DEPTH IN FEET	COL MTD CD	QA CODE	MISCELLANEOUS
						REPORT TO MATT HUNTER FOR SELECTED ANALYSIS

CHAIN OF CUSTODY RECORD

RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
Karen Withaark	[illegible]	1/11/94 4:35
RELINQUISHED BY: (Signature) 1/11/94 17:30	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
DISPATCHED BY: (Signature) DATE/TIME	RECEIVED FOR LAB BY: (Signature) Virginia Luna	DATE/TIME 1/11/94 17:30
METHOD OF SHIPMENT		

Laboratory Copy White | Project Office Copy Yellow | Field or Office Copy Pink

6533

Harding Lawson Associates
3 Hutton Centre Drive, Suite 200
Santa Ana, California 92707
714/556-7992 – 213/617-7232
FAX: 714/662-3297

CHAIN OF CUSTODY FORM

Lab: ENSECO

Samplers: KAREN WITBAARD

Job Number: 26522-2.3

Name/Location: AEROSET

Project Manager: MATT

Recorder: Karen Witbaard (Signature Required)

SOURCE CODE	MATRIX: Water	Sediment	Soil	Oil	#CONTAINERS & PRESERV.: Unpres.	H_2SO_4	HNO_3	CHILLED	SAMPLE NUMBER OR LAB NUMBER: Yr Wk Seq	DATE: Yr Mo Dy Time	STATION DESCRIPTION/ NOTES	ANALYSIS REQUESTED: EPA 601/8010	EPA 602/8020	EPA 624/8240	EPA 625/8270	Priority Pllnt. Metals	Benzene/Toluene/Xylene	Total Petrol. Hydrocarb.	CHLORATE	EPA 6010/7000 SERIES	EPA 9012 CN			HOLD
50			X		X			1	52B-33 30.25	94 01 11 0835	2½" x 3" S.S. SLEEVE													X
									52B-33 35.0	0845														X
									52B-33 40.0	0855									X					
									52B-33 40.25	0855				X	X									
									52B-41A 5.0	1020									X	X	X			
									52B-41A 5.25	1020				X	X									
									52B-41A 10.0	1030														X
									52B-41A 10.25	1030														X
									52B-41B 15.0	1100														X
									52B-41B 15.25	1100				X	X				X					

LAB NUMBER: Yr Wk Seq	DEPTH IN FEET	COL MTD CD	QA CODE	MISCELLANEOUS
				REPORT TO MATT HUNTER

CHAIN OF CUSTODY RECORD

RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
Karen Witbaard	Matt Dero	1/11/94 4:35
RELINQUISHED BY: (Signature) 1/11/94 17:30	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
DISPATCHED BY: (Signature) DATE/TIME	RECEIVED FOR LAB BY: (Signature) Virginia Lane	DATE/TIME 1/11/94 17:30

METHOD OF SHIPMENT

Laboratory Copy White | Project Office Copy Yellow | Field or Office Copy Pink

6533

Harding Lawson Associates
[illegible]on Centre Drive, Suite 200
[illegible] Ana, California 92707
714/556-7992 – 213/617-7232
FAX: 714/662-3297

CHAIN OF CUSTODY FORM

Lab: ERGECO

Samplers: KAREN WITBOARD

Job Number: 26522.2.3

Name/Location: AEROSET

Project Manager: MATT HUNTER

Recorder: Karen Witboard (Signature Required)

SOURCE CODE	MATRIX: Water	Sediment	Soil	Oil	#CONTAINERS & PRESERV.: Unpres.	H_2SO_4	HNO_3	CHILLED	SAMPLE NUMBER OR LAB NUMBER: Yr	Wk	Seq	DATE: Yr	Mo	Dy	Time	STATION DESCRIPTION/ NOTES	EPA 601/8010	EPA 602/8020	EPA 624/8240	EPA 625/8270	Priority Pllnt. Metals	Benzene/Toluene/Xylene	Total Petrol. Hydrocarb.	CHLORATE	EPA 6010/7000 SERIES	EPA 9012 ON	HOLD
50			X		X				SZB-41B		19.25	94	01	11	1115	2½"x3" S.S. SLEEVE											X
									SZB-41B		19.50				1115												X
									SZB-41B		25.0				1125												X
									SZB-41B		30.0				1135									X			
									SZB-41B		30.25				1135				X	X							
									SZB-31A		5.0				1400									X	X	X	
									SZB-31A		5.25				1400				X	X							
									SZB-31B		10.0				1415												X
									SZB-31B		14.0				1425												X
									SZB-31B		20.25				1435				X	X				X			

ANALYSIS REQUESTED

LAB NUMBER: Yr	Wk	Seq	DEPTH IN FEET	COL MTD CD	QA CODE	MISCELLANEOUS
						REPORT TO MATT HUNTER FOR ANALYSIS SELECTION.

CHAIN OF CUSTODY RECORD

RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
Karen Witboard	Mat Reo	1/11/94 1435
RELINQUISHED BY: (Signature) 1/11/94 17:30 Mat Reo	RECEIVED BY: (Signature) Virginia	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
DISPATCHED BY: (Signature) DATE/TIME	RECEIVED FOR LAB BY: (Signature) Virginia Luna	DATE/TIME 1/11/94 17:30
METHOD OF SHIPMENT		

Laboratory Copy White | Project Office Copy Yellow | Field or Office Copy Pink

6535

Enseco
A Corning Company

Enseco - CRL
7440 Lincoln Way • Garden Grove, CA 92641
(714) 898-6370 • (213) 598-0458 • (800) LAB-1-CRL
FAX: (714) 891-5917

January 31, 1994

HARDING LAWSON ASSOCIATES
3 HUTTON CENTRE DRIVE, STE 200
SANTA ANA, CA 92707
ATTN: MR. MATT HUNTER

Lab No.: 104121-0001/0027
Date Sampled: 14 JAN-1994
Date Sample Rec'd: 14 JAN-1994
Project: (26522.2.3) AEROJET

Enclosed with this letter is the report on the chemical and physical analyses on the samples from LAB NO: 104121-0001/0027 shown above.

The samples were received by CRL in a chilled state, intact and with the chain-of-custody record attached.

Note that ND means not detected at the reporting limit expressed. The reporting limit is raised to reflect the dilution factor of the sample.

Solid samples are reported on "as received" basis.

Case Narrative:

The MS/MSD Percent Recoveries for Aluminum, and Manganese were not within the acceptance limits specified in HLA's "Laboratory Analytical Technical Requirements," nor was it within Enseco's-CRL's established acceptance limits. However, the DCS recoveries were within all acceptable ranges, therefore the data was accepted and no further action was required.

The MS/MSD Percent Recovery for Lead was not within the acceptance limits specified in HLA's "Laboratory Analytical Technical Requirements, but it was within Enseco's-CRL established acceptance limits. Therefore the data was accepted and no further action was required.

The MS/MSD Percent Recovery for Pentachlorophenol was not within the acceptance limits specified in HLA's "Laboratory Analytical Technical Requirements," but was within Enseco's-CRL's established acceptance limits, therefore the data was accepted and no further action was required.

Sabrina R. Sudoko
Reviewed

Philip J. Toy
Approved

The Report Cover Letter is an integral part of this report.
This report pertains only to the samples investigated and does not necessarily apply to other apparently identical or similar materials. This report is submitted for the exclusive use of the client to whom it is addressed. Any reproduction of this report or use of this Laboratory's name for advertising or publicity purposes without authorization is prohibited.

Enseco
A Corning Company

SAMPLE DESCRIPTION INFORMATION
for
Harding Lawson Associates

Lab ID	Client ID	Matrix	Sampled Date	Sampled Time	Received Date
104121-0001-SA	SZB-30-5.00	SOIL	14 JAN 94	08:25	14 JAN 94
104121-0002-SA	SZB-30-5.25	SOIL	14 JAN 94	08:25	14 JAN 94
104121-0003-SA	SZB-30A-19.25	SOIL	14 JAN 94	09:05	14 JAN 94
104121-0004-SA	SZB-26A-4.00	SOIL	14 JAN 94	10:35	14 JAN 94
104121-0005-SA	SZB-26A-4.25	SOIL	14 JAN 94	10:35	14 JAN 94
104121-0006-SA	SZB-26A-19.75	SOIL	14 JAN 94	11:08	14 JAN 94
104121-0007-SA	SZB-32-5.50	SOIL	14 JAN 94	13:25	14 JAN 94
104121-0008-SA	SZB-32-6.00	SOIL	14 JAN 94	13:30	14 JAN 94
104121-0009-SA	SZB-32-20.00	SOIL	14 JAN 94	13:50	14 JAN 94
104121-0010-SA	SZB-32-35.25	SOIL	14 JAN 94	14:35	14 JAN 94
104121-0011-SA	SZB-30A-9.00	SOIL	14 JAN 94	08:40	14 JAN 94
104121-0012-SA	SZB-30A-10.00	SOIL	14 JAN 94	08:50	14 JAN 94
104121-0013-SA	SZB-30A-10.25	SOIL	14 JAN 94	08:50	14 JAN 94
104121-0014-SA	SZB-30A-15.00	SOIL	14 JAN 94	09:00	14 JAN 94
104121-0015-SA	SZB-30A-15.25	SOIL	14 JAN 94	09:00	14 JAN 94
104121-0016-SA	SZB-30A-19.00	SOIL	14 JAN 94	09:05	14 JAN 94
104121-0017-SA	SZB-26A-10.00	SOIL	14 JAN 94	10:45	14 JAN 94
104121-0018-SA	SZB-26A-10.25	SOIL	14 JAN 94	10:45	14 JAN 94
104121-0019-SA	SZB-26A-16.00	SOIL	14 JAN 94	11:00	14 JAN 94
104121-0020-SA	SZB-26A-19.50	SOIL	14 JAN 94	11:08	14 JAN 94
104121-0021-SA	SZB-26A-26.00	SOIL	14 JAN 94	11:15	14 JAN 94
104121-0022-SA	SZB-32-9.50	SOIL	14 JAN 94	13:35	14 JAN 94
104121-0023-SA	SZB-32-9.75	SOIL	14 JAN 94	13:35	14 JAN 94
104121-0024-SA	SZB-32-14.00	SOIL	14 JAN 94	13:40	14 JAN 94
104121-0025-SA	SZB-32-25.00	SOIL	14 JAN 94	14:00	14 JAN 94
104121-0026-SA	SZB-32-30.00	SOIL	14 JAN 94	14:15	14 JAN 94
104121-0027-SA	SZB-32-35.00	SOIL	14 JAN 94	14:35	14 JAN 94

Enseco
A Corning Company

METALS

Client Name: Harding Lawson Associates
Client ID: SZB-30-5.00
Lab ID: 104121-0001-SA
Matrix: SOIL
Sampled: 14 JAN 94
Received: 14 JAN 94
Authorized: 18 JAN 94
Prepared: See Below
Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Aluminum	10500		50.0	500	mg/kg	7020	21 JAN 94	26 JAN 94
Arsenic	6.8		0.20	0.50	mg/kg	7062	21 JAN 94	26 JAN 94
Barium	152		20.0	50.0	mg/kg	7080	21 JAN 94	26 JAN 94
Chromium	19.1		5.0	10.0	mg/kg	7190	21 JAN 94	26 JAN 94
Copper	20.0		5.0	10.0	mg/kg	7210	21 JAN 94	25 JAN 94
Lead	ND		20.0	20.0	mg/kg	7420	21 JAN 94	24 JAN 94
Manganese	265		2.0	5.0	mg/kg	7460	21 JAN 94	24 JAN 94
Nickel	18.0		5.0	10.0	mg/kg	7520	21 JAN 94	24 JAN 94
Zinc	66.0		1.0	2.0	mg/kg	7950	21 JAN 94	25 JAN 94
Cadmium	ND		2.0	5.0	mg/kg	7130	21 JAN 94	25 JAN 94
Mercury	ND		0.090	0.10	mg/kg	7471	20 JAN 94	21 JAN 94

ND = Not Detected

Enseco
A Corning Company

METALS

Client Name: Harding Lawson Associates
Client ID: SZB-26A-4.00
LAB ID: 104121-0004-SA
Matrix: SOIL — Sampled: 14 JAN 94 — Received: 14 JAN 94
Authorized: 18 JAN 94 — Prepared: See Below — Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Aluminum	6610		50.0	200	mg/kg	7020	21 JAN 94	26 JAN 94
Arsenic	2.7		0.20	0.50	mg/kg	7062	21 JAN 94	26 JAN 94
Barium	65.0		20.0	50.0	mg/kg	7080	21 JAN 94	26 JAN 94
Chromium	10.1		5.0	10.0	mg/kg	7190	21 JAN 94	26 JAN 94
Copper	20.0		5.0	10.0	mg/kg	7210	21 JAN 94	25 JAN 94
Lead	ND		20.0	20.0	mg/kg	7420	21 JAN 94	24 JAN 94
Manganese	196		2.0	5.0	mg/kg	7460	21 JAN 94	24 JAN 94
Nickel	TR		5.0	10.0	mg/kg	7520	21 JAN 94	24 JAN 94
Zinc	34.3		1.0	2.0	mg/kg	7950	21 JAN 94	25 JAN 94
Cadmium	ND		2.0	5.0	mg/kg	7130	21 JAN 94	25 JAN 94
Mercury	ND		0.090	0.10	mg/kg	7471	20 JAN 94	21 JAN 94

ND = Not Detected

Enseco
A Corning Company

METALS

Client Name: Harding Lawson Associates
Client ID: SZB-32-6.00
Lab ID: 104121-0008-SA
Matrix: SOIL — Sampled: 14 JAN 94 — Received: 14 JAN 94
Authorized: 18 JAN 94 — Prepared: See Below — Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Aluminum	6990		50.0	200	mg/kg	7020	21 JAN 94	26 JAN 94
Arsenic	1.2		0.20	0.50	mg/kg	7062	21 JAN 94	26 JAN 94
Barium	64.0		20.0	50.0	mg/kg	7080	21 JAN 94	26 JAN 94
Chromium	ND		5.0	10.0	mg/kg	7190	21 JAN 94	26 JAN 94
Copper	15.0		5.0	10.0	mg/kg	7210	21 JAN 94	25 JAN 94
Lead	ND		20.0	20.0	mg/kg	7420	21 JAN 94	24 JAN 94
Manganese	234		2.0	5.0	mg/kg	7460	21 JAN 94	24 JAN 94
Nickel	TR		5.0	10.0	mg/kg	7520	21 JAN 94	24 JAN 94
Zinc	42.5		1.0	2.0	mg/kg	7950	21 JAN 94	25 JAN 94
Cadmium	ND		2.0	5.0	mg/kg	7130	21 JAN 94	25 JAN 94
Mercury	ND		0.090	0.10	mg/kg	7471	20 JAN 94	21 JAN 94

ND = Not Detected

Enseco
A Corning Company

GENERAL INORGANICS

Client Name: Harding Lawson Associates
Client ID: SZB-30-5.00
LAB ID: 104121-0001-SA
Matrix: SOIL — Sampled: 14 JAN 94 — Received: 14 JAN 94
Authorized: 18 JAN 94 — Prepared: See Below — Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Cyanide, Total	ND		0.30	0.50	mg/kg	9012	24 JAN 94	25 JAN 94
Chlorate, Solid	ND		0.50	1.0	mg/kg	300.0	19 JAN 94	19 JAN 94

ND = Not Detected

Enseco
A Corning Company

GENERAL INORGANICS

Client Name: Harding Lawson Associates
Client ID: SZB-30A-19.25
Lab ID: 104121-0003-SA
Matrix: SOIL Sampled: 14 JAN 94 Received: 14 JAN 94
Authorized: 18 JAN 94 Prepared: See Below Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Chlorate, Solid	ND		0.50	1.0	mg/kg	300.0	19 JAN 94	19 JAN 94

ND = Not Detected

Enseco
A Corning Company

GENERAL INORGANICS

Client Name: Harding Lawson Associates
Client ID: SZB-26A-4.00
LAB ID: 104121-0004-SA
Matrix: SOIL
Authorized: 18 JAN 94

Sampled: 14 JAN 94
Prepared: See Below

Received: 14 JAN 94
Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Cyanide, Total	ND		0.30	0.50	mg/kg	9012	24 JAN 94	25 JAN 94
Chlorate, Solid	ND		0.50	1.0	mg/kg	300.0	19 JAN 94	19 JAN 94

ND = Not Detected

Enseco
A Corning Company

GENERAL INORGANICS

Client Name: Harding Lawson Associates
Client ID: SZB-26A-19.75
Lab ID: 104121-0006-SA
Matrix: SOIL Sampled: 14 JAN 94 Received: 14 JAN 94
Authorized: 18 JAN 94 Prepared: See Below Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Chlorate, Solid	ND		0.50	1.0	mg/kg	300.0	19 JAN 94	19 JAN 94

ND = Not Detected

Enseco
A Corning Company

GENERAL INORGANICS

Client Name: Harding Lawson Associates
Client ID: SZB-32-6.00
LAB ID: 104121-0008-SA
Matrix: SOIL — Sampled: 14 JAN 94 — Received: 14 JAN 94
Authorized: 18 JAN 94 — Prepared: See Below — Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Cyanide, Total	ND		0.30	0.50	mg/kg	9012	24 JAN 94	25 JAN 94
Chlorate, Solid	ND		0.50	1.0	mg/kg	300.0	19 JAN 94	19 JAN 94

ND = Not Detected

Enseco
A Corning Company

GENERAL INORGANICS

Client Name: Harding Lawson Associates
Client ID: SZB-32-20.00
Lab ID: 104121-0009-SA
Matrix: SOIL Sampled: 14 JAN 94 Received: 14 JAN 94
Authorized: 18 JAN 94 Prepared: See Below Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Chlorate, Solid	ND		0.50	1.0	mg/kg	300.0	19 JAN 94	19 JAN 94

ND = Not Detected

Enseco
A Corning Company

GENERAL INORGANICS

Client Name: Harding Lawson Associates
Client ID: SZB-32-35.25
LAB ID: 104121-0010-SA
Matrix: SOIL — Sampled: 14 JAN 94 — Received: 14 JAN 94
Authorized: 18 JAN 94 — Prepared: See Below — Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Chlorate, Solid	ND		0.50	1.0	mg/kg	300.0	19 JAN 94	19 JAN 94

ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-30-5.25
LAB ID: 104121-0002-SA
Matrix: SOIL Sampled: 14 JAN 94 Received: 14 JAN 94
Authorized: 18 JAN 94 Prepared: 19 JAN 94 Analyzed: 19 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/kg	5.0
Methylene chloride	TR	B	1.1	ug/kg	5.0
Acetone	20		7.1	ug/kg	10
Trichlorofluoromethane	ND		0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	ND		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	ND		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	ND		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	ND		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0

B = Compound is also detected in the blank.
ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-30-5.25
LAB ID: 104121-0002-SA
Matrix: SOIL — Sampled: 14 JAN 94 — Received: 14 JAN 94
Authorized: 18 JAN 94 — Prepared: 19 JAN 94 — Analyzed: 19 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
tert-Butylbenzene	ND		0.55	ug/kg	5.0
1,2,4-Trimethylbenzene	ND		0.53	ug/kg	5.0
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	104	%
Toluene-d8	102	%
Bromofluorobenzene	90	%

ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-30A-19.25
LAB ID: 104121-0003-SA
Matrix: SOIL Sampled: 14 JAN 94 Received: 14 JAN 94
Authorized: 18 JAN 94 Prepared: 19 JAN 94 Analyzed: 19 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/kg	5.0
Methylene chloride	TR	B	1.1	ug/kg	5.0
Acetone	ND		7.1	ug/kg	10
Trichlorofluoromethane	ND		0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	ND		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	ND		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	ND		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	ND		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0

B = Compound is also detected in the blank.
ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-30A-19.25
LAB ID: 104121-0003-SA
Matrix: SOIL — Sampled: 14 JAN 94 — Received: 14 JAN 94
Authorized: 18 JAN 94 — Prepared: 19 JAN 94 — Analyzed: 19 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
tert-Butylbenzene	ND		0.55	ug/kg	5.0
1,2,4-Trimethylbenzene	ND		0.53	ug/kg	5.0
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	106	%
Toluene-d8	106	%
Bromofluorobenzene	102	%

ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-26A-4.25
LAB ID: 104121-0005-SA
Matrix: SOIL Sampled: 14 JAN 94 Received: 14 JAN 94
Authorized: 18 JAN 94 Prepared: 19 JAN 94 Analyzed: 19 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/kg	5.0
Methylene chloride	TR	B	1.1	ug/kg	5.0
Acetone	11		7.1	ug/kg	10
Trichlorofluoromethane	ND		0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	ND		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	ND		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	ND		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	ND		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0

B = Compound is also detected in the blank.
ND = Not Detected

Enseco
A Corning Company

(cont)

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-26A-4.25
LAB ID: 104121-0005-SA
Matrix: SOIL Sampled: 14 JAN 94 Received: 14 JAN 94
Authorized: 18 JAN 94 Prepared: 19 JAN 94 Analyzed: 19 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
tert-Butylbenzene	ND		0.55	ug/kg	5.0
1,2,4-Trimethylbenzene	ND		0.53	ug/kg	5.0
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	89	%
Toluene-d8	90	%
Bromofluorobenzene	87	%

ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-26A-19.75
LAB ID: 104121-0006-SA
Matrix: SOIL — Sampled: 14 JAN 94 — Received: 14 JAN 94
Authorized: 18 JAN 94 — Prepared: 19 JAN 94 — Analyzed: 19 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/kg	5.0
Methylene chloride	ND		1.1	ug/kg	5.0
Acetone	TR		7.1	ug/kg	10
Trichlorofluoromethane	ND		0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	ND		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	ND		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	ND		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	ND		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0
tert-Butylbenzene	ND		0.55	ug/kg	5.0

ND = Not Detected

Enseco
A Chemtech Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-26A-19.75
LAB ID: 104121-0006-SA
Matrix: SOIL Sampled: 14 JAN 94 Received: 14 JAN 94
Authorized: 18 JAN 94 Prepared: 19 JAN 94 Analyzed: 19 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
1,2,4-Trimethylbenzene	ND		0.53	ug/kg	5.0
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	112	%
Toluene-d8	113	%
Bromofluorobenzene	109	%

ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-32-5.50
LAB ID: 104121-0007-SA
Matrix: SOIL Sampled: 14 JAN 94 Received: 14 JAN 94
Authorized: 18 JAN 94 Prepared: 19 JAN 94 Analyzed: 19 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/kg	5.0
Methylene chloride	TR	B	1.1	ug/kg	5.0
Acetone	ND		7.1	ug/kg	10
Trichlorofluoromethane	ND		0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	ND		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	ND		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	ND		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	ND		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0

B = Compound is also detected in the blank.
ND = Not Detected

Enseco
A Corning Company

(cont.)

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-32-5.50
LAB ID: 104121-0007-SA
Matrix: SOIL Sampled: 14 JAN 94 Received: 14 JAN 94
Authorized: 18 JAN 94 Prepared: 19 JAN 94 Analyzed: 19 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
tert-Butylbenzene	ND		0.55	ug/kg	5.0
1,2,4-Trimethylbenzene	ND		0.53	ug/kg	5.0
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	91	%
Toluene-d8	90	%
Bromofluorobenzene	88	%

ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-32-20.00
LAB ID: 104121-0009-SA
Matrix: SOIL Sampled: 14 JAN 94 Received: 14 JAN 94
Authorized: 18 JAN 94 Prepared: 19 JAN 94 Analyzed: 19 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/kg	5.0
Methylene chloride	TR	B	1.1	ug/kg	5.0
Acetone	ND		7.1	ug/kg	10
Trichlorofluoromethane	ND		0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	ND		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	ND		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	ND		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	ND		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0

B = Compound is also detected in the blank.
ND = Not Detected

Enseco
A Corporate Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-32-20.00
LAB ID: 104121-0009-SA
Matrix: SOIL Sampled: 14 JAN 94 Received: 14 JAN 94
Authorized: 18 JAN 94 Prepared: 19 JAN 94 Analyzed: 19 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
tert-Butylbenzene	ND		0.55	ug/kg	5.0
1,2,4-Trimethylbenzene	ND		0.53	ug/kg	5.0
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	96	%
Toluene-d8	94	%
Bromofluorobenzene	90	%

ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-32-35.25
LAB ID: 104121-0010-SA
Matrix: SOIL — Sampled: 14 JAN 94 — Received: 14 JAN 94
Authorized: 18 JAN 94 — Prepared: 19 JAN 94 — Analyzed: 19 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/kg	5.0
Methylene chloride	ND		1.1	ug/kg	5.0
Acetone	ND		7.1	ug/kg	10
Trichlorofluoromethane	ND		0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	ND		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	ND		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	ND		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	ND		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0
tert-Butylbenzene	ND		0.55	ug/kg	5.0

ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-32-35.25
LAB ID: 104121-0010-SA
Matrix: SOIL — Sampled: 14 JAN 94 — Received: 14 JAN 94
Authorized: 18 JAN 94 — Prepared: 19 JAN 94 — Analyzed: 19 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
1,2,4-Trimethylbenzene	ND		0.53	ug/kg	5.0
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	116	%
Toluene-d8	111	%
Bromofluorobenzene	109	%

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-30-5.25
LAB ID: 104121-0002-SA
Matrix: SOIL Sampled: 14 JAN 94 Received: 14 JAN 94
Authorized: 18 JAN 94 Prepared: 19 JAN 94 Analyzed: 19 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
N-Nitrosodiethylamine	ND		0.26	mg/kg	0.33
Phenol	ND		0.030	mg/kg	0.33
bis(2-Chloroethyl) ether	ND		0.060	mg/kg	0.33
2-Chlorophenol	ND		0.040	mg/kg	0.33
1,3-Dichlorobenzene	ND		0.030	mg/kg	0.33
1,4-Dichlorobenzene	ND		0.060	mg/kg	0.33
Benzyl alcohol	ND		0.070	mg/kg	0.33
1,2-Dichlorobenzene	ND		0.040	mg/kg	0.33
2-Methylphenol	ND		0.030	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND		0.040	mg/kg	0.33
3/4-Methylphenol	ND		0.040	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND		0.030	mg/kg	0.33
Hexachloroethane	ND		0.030	mg/kg	0.33
Nitrobenzene	ND		0.090	mg/kg	0.33
Isophorone	ND		0.040	mg/kg	0.33
2-Nitrophenol	ND		0.050	mg/kg	0.33
2,4-Dimethylphenol	ND		0.030	mg/kg	0.33
Benzoic acid	ND		0.51	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND		0.020	mg/kg	0.33
2,4-Dichlorophenol	ND		0.030	mg/kg	0.33
1,2,4-Trichlorobenzene	ND		0.040	mg/kg	0.33
Naphthalene	ND		0.030	mg/kg	0.33
4-Chloroaniline	ND		0.10	mg/kg	0.33
Hexachlorobutadiene	ND		0.040	mg/kg	0.33
4-Chloro-3-methylphenol	ND		0.040	mg/kg	0.33
2-Methylnaphthalene	ND		0.030	mg/kg	0.33
Hexachlorocyclopentadiene	ND		0.050	mg/kg	0.33
2,4,6-Trichlorophenol	ND		0.040	mg/kg	0.33
2,4,5-Trichlorophenol	ND		0.050	mg/kg	1.7
2-Chloronaphthalene	ND		0.030	mg/kg	0.33
2-Nitroaniline	ND		0.030	mg/kg	1.7
Dimethyl phthalate	ND		0.030	mg/kg	0.33
Acenaphthylene	ND		0.020	mg/kg	0.33
3-Nitroaniline	ND		0.14	mg/kg	1.7
Acenaphthene	ND		0.030	mg/kg	0.33
2,4-Dinitrophenol	ND		0.23	mg/kg	1.7
4-Nitrophenol	ND		0.25	mg/kg	1.7
Dibenzofuran	ND		0.040	mg/kg	0.33
2,4-Dinitrotoluene	ND		0.040	mg/kg	0.33
2,6-Dinitrotoluene	ND		0.050	mg/kg	0.33
Diethyl phthalate	ND		0.020	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND		0.030	mg/kg	0.33
Fluorene	ND		0.030	mg/kg	0.33
4-Nitroaniline	ND		0.18	mg/kg	1.7

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-30-5.25
LAB ID: 104121-0002-SA
Matrix: SOIL Sampled: 14 JAN 94 Received: 14 JAN 94
Authorized: 18 JAN 94 Prepared: 19 JAN 94 Analyzed: 19 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
4,6-Dinitro-2-methylphenol	ND		0.36	mg/kg	1.7
N-Nitrosodiphenylamine	ND		0.040	mg/kg	0.33
4-Bromophenyl phenyl ether	ND		0.080	mg/kg	0.33
Hexachlorobenzene	ND		0.030	mg/kg	0.33
Pentachlorophenol	ND		0.19	mg/kg	1.7
Phenanthrene	ND		0.030	mg/kg	0.33
Anthracene	ND		0.020	mg/kg	0.33
Di-n-butyl phthalate	ND		0.24	mg/kg	0.33
Fluoranthene	ND		0.030	mg/kg	0.33
Pyrene	ND		0.020	mg/kg	0.33
Butyl benzyl phthalate	ND		0.030	mg/kg	0.33
3,3'-Dichlorobenzidine	ND		0.33	mg/kg	0.66
Benzo(a)anthracene	ND		0.040	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND		0.13	mg/kg	0.33
Chrysene	ND		0.040	mg/kg	0.33
Di-n-octyl phthalate	ND		0.040	mg/kg	0.33
Benzo(b)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(k)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(a)pyrene	ND		0.040	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND		0.030	mg/kg	0.33
Dibenz(a,h)anthracene	ND		0.030	mg/kg	0.33
Benzo(g,h,i)perylene	ND		0.020	mg/kg	0.33
Xylidine (Total)	ND		0.076	mg/kg	0.33

Surrogate	Recovery	
Nitrobenzene-d5	55	%
2-Fluorobiphenyl	55	%
Terphenyl-d14	67	%
Phenol-d5	51	%
2-Fluorophenol	64	%
2,4,6-Tribromophenol	31	%

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-30A-19.25
LAB ID: 104121-0003-SA
Matrix: SOIL — Sampled: 14 JAN 94 — Received: 14 JAN 94
Authorized: 18 JAN 94 — Prepared: 19 JAN 94 — Analyzed: 19 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
N-Nitrosodiethylamine	ND		0.26	mg/kg	0.33
Phenol	ND		0.030	mg/kg	0.33
bis(2-Chloroethyl) ether	ND		0.060	mg/kg	0.33
2-Chlorophenol	ND		0.040	mg/kg	0.33
1,3-Dichlorobenzene	ND		0.030	mg/kg	0.33
1,4-Dichlorobenzene	ND		0.060	mg/kg	0.33
Benzyl alcohol	ND		0.070	mg/kg	0.33
1,2-Dichlorobenzene	ND		0.040	mg/kg	0.33
2-Methylphenol	ND		0.030	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND		0.040	mg/kg	0.33
3/4-Methylphenol	ND		0.040	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND		0.030	mg/kg	0.33
Hexachloroethane	ND		0.030	mg/kg	0.33
Nitrobenzene	ND		0.090	mg/kg	0.33
Isophorone	ND		0.040	mg/kg	0.33
2-Nitrophenol	ND		0.050	mg/kg	0.33
2,4-Dimethylphenol	ND		0.030	mg/kg	0.33
Benzoic acid	ND		0.51	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND		0.020	mg/kg	0.33
2,4-Dichlorophenol	ND		0.030	mg/kg	0.33
1,2,4-Trichlorobenzene	ND		0.040	mg/kg	0.33
Naphthalene	ND		0.030	mg/kg	0.33
4-Chloroaniline	ND		0.10	mg/kg	0.33
Hexachlorobutadiene	ND		0.040	mg/kg	0.33
4-Chloro-3-methylphenol	ND		0.040	mg/kg	0.33
2-Methylnaphthalene	ND		0.030	mg/kg	0.33
Hexachlorocyclopentadiene	ND		0.050	mg/kg	0.33
2,4,6-Trichlorophenol	ND		0.040	mg/kg	0.33
2,4,5-Trichlorophenol	ND		0.050	mg/kg	1.7
2-Chloronaphthalene	ND		0.030	mg/kg	0.33
2-Nitroaniline	ND		0.030	mg/kg	1.7
Dimethyl phthalate	ND		0.030	mg/kg	0.33
Acenaphthylene	ND		0.020	mg/kg	0.33
3-Nitroaniline	ND		0.14	mg/kg	1.7
Acenaphthene	ND		0.030	mg/kg	0.33
2,4-Dinitrophenol	ND		0.23	mg/kg	1.7
4-Nitrophenol	ND		0.25	mg/kg	1.7
Dibenzofuran	ND		0.040	mg/kg	0.33
2,4-Dinitrotoluene	ND		0.040	mg/kg	0.33
2,6-Dinitrotoluene	ND		0.050	mg/kg	0.33
Diethyl phthalate	ND		0.020	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND		0.030	mg/kg	0.33
Fluorene	ND		0.030	mg/kg	0.33
4-Nitroaniline	ND		0.18	mg/kg	1.7

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-30A-19.25
LAB ID: 104121-0003-SA
Matrix: SOIL Sampled: 14 JAN 94 Received: 14 JAN 94
Authorized: 18 JAN 94 Prepared: 19 JAN 94 Analyzed: 19 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
4,6-Dinitro-2-methylphenol	ND		0.36	mg/kg	1.7
N-Nitrosodiphenylamine	ND		0.040	mg/kg	0.33
4-Bromophenyl phenyl ether	ND		0.080	mg/kg	0.33
Hexachlorobenzene	ND		0.030	mg/kg	0.33
Pentachlorophenol	ND		0.19	mg/kg	1.7
Phenanthrene	ND		0.030	mg/kg	0.33
Anthracene	ND		0.020	mg/kg	0.33
Di-n-butyl phthalate	ND		0.24	mg/kg	0.33
Fluoranthene	ND		0.030	mg/kg	0.33
Pyrene	ND		0.020	mg/kg	0.33
Butyl benzyl phthalate	ND		0.030	mg/kg	0.33
3,3'-Dichlorobenzidine	ND		0.33	mg/kg	0.66
Benzo(a)anthracene	ND		0.040	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND		0.13	mg/kg	0.33
Chrysene	ND		0.040	mg/kg	0.33
Di-n-octyl phthalate	ND		0.040	mg/kg	0.33
Benzo(b)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(k)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(a)pyrene	ND		0.040	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND		0.030	mg/kg	0.33
Dibenz(a,h)anthracene	ND		0.030	mg/kg	0.33
Benzo(g,h,i)perylene	ND		0.020	mg/kg	0.33
Xylidine (Total)	ND		0.076	mg/kg	0.33

Surrogate	Recovery	
Nitrobenzene-d5	70	%
2-Fluorobiphenyl	66	%
Terphenyl-d14	70	%
Phenol-d5	66	%
2-Fluorophenol	80	%
2,4,6-Tribromophenol	78	%

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-26A-4.25
LAB ID: 104121-0005-SA
Matrix: SOIL Sampled: 14 JAN 94 Received: 14 JAN 94
Authorized: 18 JAN 94 Prepared: 19 JAN 94 Analyzed: 20 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
N-Nitrosodiethylamine	ND		0.26	mg/kg	0.33
Phenol	ND		0.030	mg/kg	0.33
bis(2-Chloroethyl) ether	ND		0.060	mg/kg	0.33
2-Chlorophenol	ND		0.040	mg/kg	0.33
1,3-Dichlorobenzene	ND		0.030	mg/kg	0.33
1,4-Dichlorobenzene	ND		0.060	mg/kg	0.33
Benzyl alcohol	ND		0.070	mg/kg	0.33
1,2-Dichlorobenzene	ND		0.040	mg/kg	0.33
2-Methylphenol	ND		0.030	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND		0.040	mg/kg	0.33
3/4-Methylphenol	ND		0.040	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND		0.030	mg/kg	0.33
Hexachloroethane	ND		0.030	mg/kg	0.33
Nitrobenzene	ND		0.090	mg/kg	0.33
Isophorone	ND		0.040	mg/kg	0.33
2-Nitrophenol	ND		0.050	mg/kg	0.33
2,4-Dimethylphenol	ND		0.030	mg/kg	0.33
Benzoic acid	ND		0.51	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND		0.020	mg/kg	0.33
2,4-Dichlorophenol	ND		0.030	mg/kg	0.33
1,2,4-Trichlorobenzene	ND		0.040	mg/kg	0.33
Naphthalene	ND		0.030	mg/kg	0.33
4-Chloroaniline	ND		0.10	mg/kg	0.33
Hexachlorobutadiene	ND		0.040	mg/kg	0.33
4-Chloro-3-methylphenol	ND		0.040	mg/kg	0.33
2-Methylnaphthalene	ND		0.030	mg/kg	0.33
Hexachlorocyclopentadiene	ND		0.050	mg/kg	0.33
2,4,6-Trichlorophenol	ND		0.040	mg/kg	0.33
2,4,5-Trichlorophenol	ND		0.050	mg/kg	1.7
2-Chloronaphthalene	ND		0.030	mg/kg	0.33
2-Nitroaniline	ND		0.030	mg/kg	1.7
Dimethyl phthalate	ND		0.030	mg/kg	0.33
Acenaphthylene	ND		0.020	mg/kg	0.33
3-Nitroaniline	ND		0.14	mg/kg	1.7
Acenaphthene	ND		0.030	mg/kg	0.33
2,4-Dinitrophenol	ND		0.23	mg/kg	1.7
4-Nitrophenol	ND		0.25	mg/kg	1.7
Dibenzofuran	ND		0.040	mg/kg	0.33
2,4-Dinitrotoluene	ND		0.040	mg/kg	0.33
2,6-Dinitrotoluene	ND		0.050	mg/kg	0.33
Diethyl phthalate	ND		0.020	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND		0.030	mg/kg	0.33
Fluorene	ND		0.030	mg/kg	0.33
4-Nitroaniline	ND		0.18	mg/kg	1.7

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-26A-4.25
LAB ID: 104121-0005-SA
Matrix: SOIL Sampled: 14 JAN 94 Received: 14 JAN 94
Authorized: 18 JAN 94 Prepared: 19 JAN 94 Analyzed: 20 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
4,6-Dinitro-2-methylphenol	ND		0.36	mg/kg	1.7
N-Nitrosodiphenylamine	ND		0.040	mg/kg	0.33
4-Bromophenyl phenyl ether	ND		0.080	mg/kg	0.33
Hexachlorobenzene	ND		0.030	mg/kg	0.33
Pentachlorophenol	ND		0.19	mg/kg	1.7
Phenanthrene	ND		0.030	mg/kg	0.33
Anthracene	ND		0.020	mg/kg	0.33
Di-n-butyl phthalate	ND		0.24	mg/kg	0.33
Fluoranthene	ND		0.030	mg/kg	0.33
Pyrene	ND		0.020	mg/kg	0.33
Butyl benzyl phthalate	ND		0.030	mg/kg	0.33
3,3'-Dichlorobenzidine	ND		0.33	mg/kg	0.66
Benzo(a)anthracene	ND		0.040	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND		0.13	mg/kg	0.33
Chrysene	ND		0.040	mg/kg	0.33
Di-n-octyl phthalate	ND		0.040	mg/kg	0.33
Benzo(b)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(k)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(a)pyrene	ND		0.040	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND		0.030	mg/kg	0.33
Dibenz(a,h)anthracene	ND		0.030	mg/kg	0.33
Benzo(g,h,i)perylene	ND		0.020	mg/kg	0.33
Xylidine (Total)	ND		0.076	mg/kg	0.33

Surrogate	Recovery		
Nitrobenzene-d5	77		%
2-Fluorobiphenyl	72		%
Terphenyl-d14	80		%
Phenol-d5	70		%
2-Fluorophenol	78		%
2,4,6-Tribromophenol	13	I	%

I = Surrogate recovery outside of limits due to sample matrix interference.
ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-26A-19.75
LAB ID: 104121-0006-SA
Matrix: SOIL Sampled: 14 JAN 94 Received: 14 JAN 94
Authorized: 18 JAN 94 Prepared: 19 JAN 94 Analyzed: 20 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
N-Nitrosodiethylamine	ND		0.26	mg/kg	0.33
Phenol	ND		0.030	mg/kg	0.33
bis(2-Chloroethyl) ether	ND		0.060	mg/kg	0.33
2-Chlorophenol	ND		0.040	mg/kg	0.33
1,3-Dichlorobenzene	ND		0.030	mg/kg	0.33
1,4-Dichlorobenzene	ND		0.060	mg/kg	0.33
Benzyl alcohol	ND		0.070	mg/kg	0.33
1,2-Dichlorobenzene	ND		0.040	mg/kg	0.33
2-Methylphenol	ND		0.030	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND		0.040	mg/kg	0.33
3/4-Methylphenol	ND		0.040	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND		0.030	mg/kg	0.33
Hexachloroethane	ND		0.030	mg/kg	0.33
Nitrobenzene	ND		0.090	mg/kg	0.33
Isophorone	ND		0.040	mg/kg	0.33
2-Nitrophenol	ND		0.050	mg/kg	0.33
2,4-Dimethylphenol	ND		0.030	mg/kg	0.33
Benzoic acid	ND		0.51	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND		0.020	mg/kg	0.33
2,4-Dichlorophenol	ND		0.030	mg/kg	0.33
1,2,4-Trichlorobenzene	ND		0.040	mg/kg	0.33
Naphthalene	ND		0.030	mg/kg	0.33
4-Chloroaniline	ND		0.10	mg/kg	0.33
Hexachlorobutadiene	ND		0.040	mg/kg	0.33
4-Chloro-3-methylphenol	ND		0.040	mg/kg	0.33
2-Methylnaphthalene	ND		0.030	mg/kg	0.33
Hexachlorocyclopentadiene	ND		0.050	mg/kg	0.33
2,4,6-Trichlorophenol	ND		0.040	mg/kg	0.33
2,4,5-Trichlorophenol	ND		0.050	mg/kg	1.7
2-Chloronaphthalene	ND		0.030	mg/kg	0.33
2-Nitroaniline	ND		0.030	mg/kg	1.7
Dimethyl phthalate	ND		0.030	mg/kg	0.33
Acenaphthylene	ND		0.020	mg/kg	0.33
3-Nitroaniline	ND		0.14	mg/kg	1.7
Acenaphthene	ND		0.030	mg/kg	0.33
2,4-Dinitrophenol	ND		0.23	mg/kg	1.7
4-Nitrophenol	ND		0.25	mg/kg	1.7
Dibenzofuran	ND		0.040	mg/kg	0.33
2,4-Dinitrotoluene	ND		0.040	mg/kg	0.33
2,6-Dinitrotoluene	ND		0.050	mg/kg	0.33
Diethyl phthalate	ND		0.020	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND		0.030	mg/kg	0.33
Fluorene	ND		0.030	mg/kg	0.33
4-Nitroaniline	ND		0.18	mg/kg	1.7

ND = Not Detected

Enseco
A Quanterra Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-26A-19.75
LAB ID: 104121-0006-SA
Matrix: SOIL — Sampled: 14 JAN 94 — Received: 14 JAN 94
Authorized: 18 JAN 94 — Prepared: 19 JAN 94 — Analyzed: 20 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
4,6-Dinitro-2-methylphenol	ND		0.36	mg/kg	1.7
N-Nitrosodiphenylamine	ND		0.040	mg/kg	0.33
4-Bromophenyl phenyl ether	ND		0.080	mg/kg	0.33
Hexachlorobenzene	ND		0.030	mg/kg	0.33
Pentachlorophenol	ND		0.19	mg/kg	1.7
Phenanthrene	ND		0.030	mg/kg	0.33
Anthracene	ND		0.020	mg/kg	0.33
Di-n-butyl phthalate	ND		0.24	mg/kg	0.33
Fluoranthene	ND		0.030	mg/kg	0.33
Pyrene	ND		0.020	mg/kg	0.33
Butyl benzyl phthalate	ND		0.030	mg/kg	0.33
3,3'-Dichlorobenzidine	ND		0.33	mg/kg	0.66
Benzo(a)anthracene	ND		0.040	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND		0.13	mg/kg	0.33
Chrysene	ND		0.040	mg/kg	0.33
Di-n-octyl phthalate	ND		0.040	mg/kg	0.33
Benzo(b)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(k)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(a)pyrene	ND		0.040	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND		0.030	mg/kg	0.33
Dibenz(a,h)anthracene	ND		0.030	mg/kg	0.33
Benzo(g,h,i)perylene	ND		0.020	mg/kg	0.33
Xylidine (Total)	ND		0.076	mg/kg	0.33

Surrogate	Recovery	
Nitrobenzene-d5	87	%
2-Fluorobiphenyl	80	%
Terphenyl-d14	88	%
Phenol-d5	78	%
2-Fluorophenol	97	%
2,4,6-Tribromophenol	91	%

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-32-5.50
LAB ID: 104121-0007-SA
Matrix: SOIL — Sampled: 14 JAN 94 — Received: 14 JAN 94
Authorized: 18 JAN 94 — Prepared: 19 JAN 94 — Analyzed: 20 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
N-Nitrosodiethylamine	ND		0.26	mg/kg	0.33
Phenol	ND		0.030	mg/kg	0.33
bis(2-Chloroethyl) ether	ND		0.060	mg/kg	0.33
2-Chlorophenol	ND		0.040	mg/kg	0.33
1,3-Dichlorobenzene	ND		0.030	mg/kg	0.33
1,4-Dichlorobenzene	ND		0.060	mg/kg	0.33
Benzyl alcohol	ND		0.070	mg/kg	0.33
1,2-Dichlorobenzene	ND		0.040	mg/kg	0.33
2-Methylphenol	ND		0.030	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND		0.040	mg/kg	0.33
3/4-Methylphenol	ND		0.040	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND		0.030	mg/kg	0.33
Hexachloroethane	ND		0.030	mg/kg	0.33
Nitrobenzene	ND		0.090	mg/kg	0.33
Isophorone	ND		0.040	mg/kg	0.33
2-Nitrophenol	ND		0.050	mg/kg	0.33
2,4-Dimethylphenol	ND		0.030	mg/kg	0.33
Benzoic acid	ND		0.51	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND		0.020	mg/kg	0.33
2,4-Dichlorophenol	ND		0.030	mg/kg	0.33
1,2,4-Trichlorobenzene	ND		0.040	mg/kg	0.33
Naphthalene	ND		0.030	mg/kg	0.33
4-Chloroaniline	ND		0.10	mg/kg	0.33
Hexachlorobutadiene	ND		0.040	mg/kg	0.33
4-Chloro-3-methylphenol	ND		0.040	mg/kg	0.33
2-Methylnaphthalene	ND		0.030	mg/kg	0.33
Hexachlorocyclopentadiene	ND		0.050	mg/kg	0.33
2,4,6-Trichlorophenol	ND		0.040	mg/kg	0.33
2,4,5-Trichlorophenol	ND		0.050	mg/kg	1.7
2-Chloronaphthalene	ND		0.030	mg/kg	0.33
2-Nitroaniline	ND		0.030	mg/kg	1.7
Dimethyl phthalate	ND		0.030	mg/kg	0.33
Acenaphthylene	ND		0.020	mg/kg	0.33
3-Nitroaniline	ND		0.14	mg/kg	1.7
Acenaphthene	ND		0.030	mg/kg	0.33
2,4-Dinitrophenol	ND		0.23	mg/kg	1.7
4-Nitrophenol	ND		0.25	mg/kg	1.7
Dibenzofuran	ND		0.040	mg/kg	0.33
2,4-Dinitrotoluene	ND		0.040	mg/kg	0.33
2,6-Dinitrotoluene	ND		0.050	mg/kg	0.33
Diethyl phthalate	ND		0.020	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND		0.030	mg/kg	0.33
Fluorene	ND		0.030	mg/kg	0.33
4-Nitroaniline	ND		0.18	mg/kg	1.7

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-32-5.50
LAB ID: 104121-0007-SA
Matrix: SOIL — Sampled: 14 JAN 94 — Received: 14 JAN 94
Authorized: 18 JAN 94 — Prepared: 19 JAN 94 — Analyzed: 20 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
4,6-Dinitro-2-methylphenol	ND		0.36	mg/kg	1.7
N-Nitrosodiphenylamine	ND		0.040	mg/kg	0.33
4-Bromophenyl phenyl ether	ND		0.080	mg/kg	0.33
Hexachlorobenzene	ND		0.030	mg/kg	0.33
Pentachlorophenol	ND		0.19	mg/kg	1.7
Phenanthrene	ND		0.030	mg/kg	0.33
Anthracene	ND		0.020	mg/kg	0.33
Di-n-butyl phthalate	ND		0.24	mg/kg	0.33
Fluoranthene	ND		0.030	mg/kg	0.33
Pyrene	ND		0.020	mg/kg	0.33
Butyl benzyl phthalate	ND		0.030	mg/kg	0.33
3,3'-Dichlorobenzidine	ND		0.33	mg/kg	0.66
Benzo(a)anthracene	ND		0.040	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND		0.13	mg/kg	0.33
Chrysene	ND		0.040	mg/kg	0.33
Di-n-octyl phthalate	ND		0.040	mg/kg	0.33
Benzo(b)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(k)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(a)pyrene	ND		0.040	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND		0.030	mg/kg	0.33
Dibenz(a,h)anthracene	ND		0.030	mg/kg	0.33
Benzo(g,h,i)perylene	ND		0.020	mg/kg	0.33
Xylidine (Total)	ND		0.076	mg/kg	0.33

Surrogate	Recovery	
Nitrobenzene-d5	70	%
2-Fluorobiphenyl	70	%
Terphenyl-d14	78	%
Phenol-d5	65	%
2-Fluorophenol	78	%
2,4,6-Tribromophenol	83	%

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-32-20.00
LAB ID: 104121-0009-SA
Matrix: SOIL Sampled: 14 JAN 94 Received: 14 JAN 94
Authorized: 18 JAN 94 Prepared: 19 JAN 94 Analyzed: 20 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
N-Nitrosodiethylamine	ND		0.26	mg/kg	0.33
Phenol	ND		0.030	mg/kg	0.33
bis(2-Chloroethyl) ether	ND		0.060	mg/kg	0.33
2-Chlorophenol	ND		0.040	mg/kg	0.33
1,3-Dichlorobenzene	ND		0.030	mg/kg	0.33
1,4-Dichlorobenzene	ND		0.060	mg/kg	0.33
Benzyl alcohol	ND		0.070	mg/kg	0.33
1,2-Dichlorobenzene	ND		0.040	mg/kg	0.33
2-Methylphenol	ND		0.030	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND		0.040	mg/kg	0.33
3/4-Methylphenol	ND		0.040	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND		0.030	mg/kg	0.33
Hexachloroethane	ND		0.030	mg/kg	0.33
Nitrobenzene	ND		0.090	mg/kg	0.33
Isophorone	ND		0.040	mg/kg	0.33
2-Nitrophenol	ND		0.050	mg/kg	0.33
2,4-Dimethylphenol	ND		0.030	mg/kg	0.33
Benzoic acid	ND		0.51	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND		0.020	mg/kg	0.33
2,4-Dichlorophenol	ND		0.030	mg/kg	0.33
1,2,4-Trichlorobenzene	ND		0.040	mg/kg	0.33
Naphthalene	ND		0.030	mg/kg	0.33
4-Chloroaniline	ND		0.10	mg/kg	0.33
Hexachlorobutadiene	ND		0.040	mg/kg	0.33
4-Chloro-3-methylphenol	ND		0.040	mg/kg	0.33
2-Methylnaphthalene	ND		0.030	mg/kg	0.33
Hexachlorocyclopentadiene	ND		0.050	mg/kg	0.33
2,4,6-Trichlorophenol	ND		0.040	mg/kg	0.33
2,4,5-Trichlorophenol	ND		0.050	mg/kg	1.7
2-Chloronaphthalene	ND		0.030	mg/kg	0.33
2-Nitroaniline	ND		0.030	mg/kg	1.7
Dimethyl phthalate	ND		0.030	mg/kg	0.33
Acenaphthylene	ND		0.020	mg/kg	0.33
3-Nitroaniline	ND		0.14	mg/kg	1.7
Acenaphthene	ND		0.030	mg/kg	0.33
2,4-Dinitrophenol	ND		0.23	mg/kg	1.7
4-Nitrophenol	ND		0.25	mg/kg	1.7
Dibenzofuran	ND		0.040	mg/kg	0.33
2,4-Dinitrotoluene	ND		0.040	mg/kg	0.33
2,6-Dinitrotoluene	ND		0.050	mg/kg	0.33
Diethyl phthalate	ND		0.020	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND		0.030	mg/kg	0.33
Fluorene	ND		0.030	mg/kg	0.33
4-Nitroaniline	ND		0.18	mg/kg	1.7

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-32-20.00
LAB ID: 104121-0009-SA
Matrix: SOIL Sampled: 14 JAN 94 Received: 14 JAN 94
Authorized: 18 JAN 94 Prepared: 19 JAN 94 Analyzed: 20 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
4,6-Dinitro-2-methylphenol	ND		0.36	mg/kg	1.7
N-Nitrosodiphenylamine	ND		0.040	mg/kg	0.33
4-Bromophenyl phenyl ether	ND		0.080	mg/kg	0.33
Hexachlorobenzene	ND		0.030	mg/kg	0.33
Pentachlorophenol	ND		0.19	mg/kg	1.7
Phenanthrene	ND		0.030	mg/kg	0.33
Anthracene	ND		0.020	mg/kg	0.33
Di-n-butyl phthalate	ND		0.24	mg/kg	0.33
Fluoranthene	ND		0.030	mg/kg	0.33
Pyrene	ND		0.020	mg/kg	0.33
Butyl benzyl phthalate	ND		0.030	mg/kg	0.33
3,3'-Dichlorobenzidine	ND		0.33	mg/kg	0.66
Benzo(a)anthracene	ND		0.040	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND		0.13	mg/kg	0.33
Chrysene	ND		0.040	mg/kg	0.33
Di-n-octyl phthalate	ND		0.040	mg/kg	0.33
Benzo(b)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(k)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(a)pyrene	ND		0.040	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND		0.030	mg/kg	0.33
Dibenz(a,h)anthracene	ND		0.030	mg/kg	0.33
Benzo(g,h,i)perylene	ND		0.020	mg/kg	0.33
Xylidine (Total)	ND		0.076	mg/kg	0.33

Surrogate	Recovery	
Nitrobenzene-d5	80	%
2-Fluorobiphenyl	73	%
Terphenyl-d14	77	%
Phenol-d5	71	%
2-Fluorophenol	86	%
2,4,6-Tribromophenol	86	%

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-32-35.25
LAB ID: 104121-0010-SA
Matrix: SOIL Sampled: 14 JAN 94 Received: 14 JAN 94
Authorized: 18 JAN 94 Prepared: 19 JAN 94 Analyzed: 20 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
N-Nitrosodiethylamine	ND		0.26	mg/kg	0.33
Phenol	ND		0.030	mg/kg	0.33
bis(2-Chloroethyl) ether	ND		0.060	mg/kg	0.33
2-Chlorophenol	ND		0.040	mg/kg	0.33
1,3-Dichlorobenzene	ND		0.030	mg/kg	0.33
1,4-Dichlorobenzene	ND		0.060	mg/kg	0.33
Benzyl alcohol	ND		0.070	mg/kg	0.33
1,2-Dichlorobenzene	ND		0.040	mg/kg	0.33
2-Methylphenol	ND		0.030	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND		0.040	mg/kg	0.33
3/4-Methylphenol	ND		0.040	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND		0.030	mg/kg	0.33
Hexachloroethane	ND		0.030	mg/kg	0.33
Nitrobenzene	ND		0.090	mg/kg	0.33
Isophorone	ND		0.040	mg/kg	0.33
2-Nitrophenol	ND		0.050	mg/kg	0.33
2,4-Dimethylphenol	ND		0.030	mg/kg	0.33
Benzoic acid	ND		0.51	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND		0.020	mg/kg	0.33
2,4-Dichlorophenol	ND		0.030	mg/kg	0.33
1,2,4-Trichlorobenzene	ND		0.040	mg/kg	0.33
Naphthalene	ND		0.030	mg/kg	0.33
4-Chloroaniline	ND		0.10	mg/kg	0.33
Hexachlorobutadiene	ND		0.040	mg/kg	0.33
4-Chloro-3-methylphenol	ND		0.040	mg/kg	0.33
2-Methylnaphthalene	ND		0.030	mg/kg	0.33
Hexachlorocyclopentadiene	ND		0.050	mg/kg	0.33
2,4,6-Trichlorophenol	ND		0.040	mg/kg	0.33
2,4,5-Trichlorophenol	ND		0.050	mg/kg	1.7
2-Chloronaphthalene	ND		0.030	mg/kg	0.33
2-Nitroaniline	ND		0.030	mg/kg	1.7
Dimethyl phthalate	ND		0.030	mg/kg	0.33
Acenaphthylene	ND		0.020	mg/kg	0.33
3-Nitroaniline	ND		0.14	mg/kg	1.7
Acenaphthene	ND		0.030	mg/kg	0.33
2,4-Dinitrophenol	ND		0.23	mg/kg	1.7
4-Nitrophenol	ND		0.25	mg/kg	1.7
Dibenzofuran	ND		0.040	mg/kg	0.33
2,4-Dinitrotoluene	ND		0.040	mg/kg	0.33
2,6-Dinitrotoluene	ND		0.050	mg/kg	0.33
Diethyl phthalate	ND		0.020	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND		0.030	mg/kg	0.33
Fluorene	ND		0.030	mg/kg	0.33
4-Nitroaniline	ND		0.18	mg/kg	1.7

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-32-35.25
LAB ID: 104121-0010-SA
Matrix: SOIL — Sampled: 14 JAN 94 — Received: 14 JAN 94
Authorized: 18 JAN 94 — Prepared: 19 JAN 94 — Analyzed: 20 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
4,6-Dinitro-2-methylphenol	ND		0.36	mg/kg	1.7
N-Nitrosodiphenylamine	ND		0.040	mg/kg	0.33
4-Bromophenyl phenyl ether	ND		0.080	mg/kg	0.33
Hexachlorobenzene	ND		0.030	mg/kg	0.33
Pentachlorophenol	ND		0.19	mg/kg	1.7
Phenanthrene	ND		0.030	mg/kg	0.33
Anthracene	ND		0.020	mg/kg	0.33
Di-n-butyl phthalate	ND		0.24	mg/kg	0.33
Fluoranthene	ND		0.030	mg/kg	0.33
Pyrene	ND		0.020	mg/kg	0.33
Butyl benzyl phthalate	ND		0.030	mg/kg	0.33
3,3'-Dichlorobenzidine	ND		0.33	mg/kg	0.66
Benzo(a)anthracene	ND		0.040	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND		0.13	mg/kg	0.33
Chrysene	ND		0.040	mg/kg	0.33
Di-n-octyl phthalate	ND		0.040	mg/kg	0.33
Benzo(b)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(k)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(a)pyrene	ND		0.040	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND		0.030	mg/kg	0.33
Dibenz(a,h)anthracene	ND		0.030	mg/kg	0.33
Benzo(g,h,i)perylene	ND		0.020	mg/kg	0.33
Xylidine (Total)	ND		0.076	mg/kg	0.33

Surrogate	Recovery	
Nitrobenzene-d5	81	%
2-Fluorobiphenyl	80	%
Terphenyl-d14	80	%
Phenol-d5	77	%
2-Fluorophenol	94	%
2,4,6-Tribromophenol	90	%

ND = Not Detected

Enseco
A Corning Company

QC LOT ASSIGNMENT REPORT - MS QC
Metals Analysis and Preparation

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
104121-0001-SA	SOLID	AL-FLAA-S	21 JAN 94-B	21 JAN 94-B	21 JAN 94-BA
104121-0001-SA	SOLID	AS-HAA-S	21 JAN 94-B	21 JAN 94-B	21 JAN 94-BA
104121-0001-SA	SOLID	CD-FLAA-S	21 JAN 94-B	21 JAN 94-B	21 JAN 94-BA
104121-0001-SA	SOLID	CR-FLAA-S	21 JAN 94-B	21 JAN 94-B	21 JAN 94-BA
104121-0001-SA	SOLID	MN-FLAA-S	21 JAN 94-B	21 JAN 94-B	21 JAN 94-BA
104121-0001-SA	SOLID	NI-FLAA-S	21 JAN 94-B	21 JAN 94-B	21 JAN 94-BA
104121-0001-SA	SOLID	PB-FLAA-S	21 JAN 94-B	21 JAN 94-B	21 JAN 94-BA
104121-0001-SA	SOLID	CU-FLAA-S	21 JAN 94-B	21 JAN 94-B	21 JAN 94-BA
104121-0001-SA	SOLID	ZN-FLAA-S	21 JAN 94-B	21 JAN 94-B	21 JAN 94-BA
104121-0001-SA	SOLID	BA-FLAA-S	21 JAN 94-B	21 JAN 94-B	21 JAN 94-BA
104121-0001-SA	SOLID	HG-CVAA-S	20 JAN 94-D	20 JAN 94-D	20 JAN 94-DB
104121-0004-SA	SOLID	AL-FLAA-S	21 JAN 94-B	21 JAN 94-B	21 JAN 94-BA
104121-0004-SA	SOLID	AS-HAA-S	21 JAN 94-B	21 JAN 94-B	21 JAN 94-BA
104121-0004-SA	SOLID	CD-FLAA-S	21 JAN 94-B	21 JAN 94-B	21 JAN 94-BA
104121-0004-SA	SOLID	CR-FLAA-S	21 JAN 94-B	21 JAN 94-B	21 JAN 94-BA
104121-0004-SA	SOLID	MN-FLAA-S	21 JAN 94-B	21 JAN 94-B	21 JAN 94-BA
104121-0004-SA	SOLID	NI-FLAA-S	21 JAN 94-B	21 JAN 94-B	21 JAN 94-BA
104121-0004-SA	SOLID	PB-FLAA-S	21 JAN 94-B	21 JAN 94-B	21 JAN 94-BA
104121-0004-SA	SOLID	CU-FLAA-S	21 JAN 94-B	21 JAN 94-B	21 JAN 94-BA
104121-0004-SA	SOLID	ZN-FLAA-S	21 JAN 94-B	21 JAN 94-B	21 JAN 94-BA
104121-0004-SA	SOLID	BA-FLAA-S	21 JAN 94-B	21 JAN 94-B	21 JAN 94-BA
104121-0004-SA	SOLID	HG-CVAA-S	20 JAN 94-D	20 JAN 94-D	20 JAN 94-DB
104121-0008-SA	SOLID	AL-FLAA-S	21 JAN 94-B	21 JAN 94-B	21 JAN 94-BA
104121-0008-SA	SOLID	AS-HAA-S	21 JAN 94-B	21 JAN 94-B	21 JAN 94-BA
104121-0008-SA	SOLID	CD-FLAA-S	21 JAN 94-B	21 JAN 94-B	21 JAN 94-BA
104121-0008-SA	SOLID	CR-FLAA-S	21 JAN 94-B	21 JAN 94-B	21 JAN 94-BA
104121-0008-SA	SOLID	MN-FLAA-S	21 JAN 94-B	21 JAN 94-B	21 JAN 94-BA
104121-0008-SA	SOLID	NI-FLAA-S	21 JAN 94-B	21 JAN 94-B	21 JAN 94-BA
104121-0008-SA	SOLID	PB-FLAA-S	21 JAN 94-B	21 JAN 94-B	21 JAN 94-BA
104121-0008-SA	SOLID	CU-FLAA-S	21 JAN 94-B	21 JAN 94-B	21 JAN 94-BA
104121-0008-SA	SOLID	ZN-FLAA-S	21 JAN 94-B	21 JAN 94-B	21 JAN 94-BA
104121-0008-SA	SOLID	BA-FLAA-S	21 JAN 94-B	21 JAN 94-B	21 JAN 94-BA
104121-0008-SA	SOLID	HG-CVAA-S	20 JAN 94-D	20 JAN 94-D	20 JAN 94-DB

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DUPLICATE CONTROL SAMPLE REPORT
Metals Analysis and Preparation
Project: 104121

Category: AL-FLAA-S Aluminum, Flame AA
Matrix: SOLID
QC Lot: 21 JAN 94-B
Date Analyzed: 26 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Aluminum	10700	11900	11700	11800	110	47-153	1.7	20

Category: AS-HAA-S Arsenic, Hydride AA
Matrix: SOLID
QC Lot: 21 JAN 94-B
Date Analyzed: 26 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Arsenic	145	133	134	134	92	59-141	0.75	20

Category: CD-FLAA-S Cadmium, Flame AA
Matrix: SOLID
QC Lot: 21 JAN 94-B
Date Analyzed: 25 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Cadmium	154	155	152	154	100	68-132	2.0	20

Category: CR-FLAA-S Chromium, Flame AA
Matrix: SOLID
QC Lot: 21 JAN 94-B
Date Analyzed: 26 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Chromium	151	175	178	176	117	66-133	1.7	20

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

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DUPLICATE CONTROL SAMPLE REPORT
Metals Analysis and Preparation
Project: 104121

Category: MN-FLAA-S Manganese, Flame AA Method 7460
Matrix: SOLID
QC Lot: 21 JAN 94-B
Date Analyzed: 24 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Manganese	423	371	374	372	88	74-125	0.81	20

Category: NI-FLAA-S Nickel Flame AA
Matrix: SOLID
QC Lot: 21 JAN 94-B
Date Analyzed: 24 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Nickel	166	189	181	185	111	67-133	4.3	20

Category: PB-FLAA-S Method 7420 - Lead, Flame AA
Matrix: SOLID
QC Lot: 21 JAN 94-B
Date Analyzed: 24 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Lead	148	161	162	162	109	66-135	0.62	20

Category: CU-FLAA-S Copper Flame AA
Matrix: SOLID
QC Lot: 21 JAN 94-B
Date Analyzed: 25 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Copper	162	177	174	176	108	68-132	1.7	20

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

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DUPLICATE CONTROL SAMPLE REPORT
Metals Analysis and Preparation
Project: 104121

Category: ZN-FLAA-S Zinc, Flame AA
Matrix: SOLID
QC Lot: 21 JAN 94-B
Date Analyzed: 25 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Zinc	530	625	591	608	115	65-135	5.6	20

Category: BA-FLAA-S Barium, Flame AA
Matrix: SOLID
QC Lot: 21 JAN 94-B
Date Analyzed: 26 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Barium	503	453	441	447	89	76-124	2.7	20

Category: HG-CVAA-S Mercury by CVAA
Matrix: SOLID
QC Lot: 20 JAN 94-D
Date Analyzed: 21 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Mercury	29.0	31.8	32.0	31.9	110	52-148	0.63	20

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Metals Analysis and Preparation
Project: 104121

Category: AL-FLAA-S Aluminum, Flame AA
Matrix: SOLID
Sample: 104121-0001
MS Run: 21 JAN 94-BA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Aluminum	10500	11500	11200	200	NC	NC	NC	60-130	20

Category: AS-HAA-S Arsenic, Hydride AA
Matrix: SOLID
Sample: 104121-0001
MS Run: 21 JAN 94-BA
Units mg/kg Units Qualifier: Wet wt.

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Arsenic	6.80	54.1	51.8	50.0	95	90	5.4	50-127	25

Category: CD-FLAA-S Cadmium, Flame AA
Matrix: SOLID
Sample: 104121-0001
MS Run: 21 JAN 94-BA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Cadmium	ND	6.00	6.00	5.00	120	120	0.0	52-130	28

NC = Not Calculated, calculation not applicable.
ND = Not Detected

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

MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Metals Analysis and Preparation
Project: 104121 (cont.)

Category: CR-FLAA-S Chromium, Flame AA
Matrix: SOLID
Sample: 104121-0001
MS Run: 21 JAN 94-BA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Chromium	19.1	37.3	37.3	20.0	91	91	0.0	40-190	33

Category: MN-FLAA-S Manganese, Flame AA Method 7460
Matrix: SOLID
Sample: 104121-0001
MS Run: 21 JAN 94-BA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Manganese	265	298	298	50.0	NC	NC	NC	60-130	40

Category: NI-FLAA-S Nickel Flame AA
Matrix: SOLID
Sample: 104121-0001
MS Run: 21 JAN 94-BA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Nickel	18.0	76.0	78.0	50.0	116	120	3.4	55-155	25

NC = Not Calculated, calculation not applicable.

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Metals Analysis and Preparation
Project: 104121 (cont.)

Category: PB-FLAA-S Method 7420 - Lead, Flame AA
Matrix: SOLID
Sample: 104121-0001
MS Run: 21 JAN 94-BA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Lead	ND	70.0	67.0	50.0	140	134	4.4	14-169	40

Category: CU-FLAA-S Copper Flame AA
Matrix: SOLID
Sample: 104121-0001
MS Run: 21 JAN 94-BA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Copper	20.0	52.0	49.0	25.0	128	116	9.8	49-144	23

Category: ZN-FLAA-S Zinc, Flame AA
Matrix: SOLID
Sample: 104121-0001
MS Run: 21 JAN 94-BA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Zinc	66.0	107	107	50.0	82	82	0.0	65-138	25

ND = Not Detected

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Metals Analysis and Preparation
Project: 104121 (cont.)

Category: BA-FLAA-S Barium, Flame AA
Matrix: SOLID
Sample: 104121-0001
MS Run: 21 JAN 94-BA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Barium	152	298	297	200	73	73	0.0	40-130	30

Category: HG-CVAA-S Mercury by CVAA
Matrix: SOLID
Sample: 104121-0001
MS Run: 20 JAN 94-DB
Units mg/kg Units Qualifier: Wet wt.

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Mercury	ND	0.488	0.450	0.438	111	103	7.5	33-178	40

ND = Not Detected

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

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METHOD BLANK REPORT
Metals Analysis and Preparation
Project: 104121

Test: AL-FLAA-MDL-S Method 7020 - Aluminum, Flame AA
Matrix: SOLID
QC Run: 21 JAN 94-B Date Analyzed: 26 JAN 94

Analyte	Result	Units	Reporting Limit
Aluminum	ND	mg/kg	100

Test: AS-HAA-MDL-S Method 7062 - Arsenic, Hydride AA
Matrix: SOLID
QC Run: 21 JAN 94-B Date Analyzed: 26 JAN 94

Analyte	Result	Units	Reporting Limit
Arsenic	ND	mg/kg	0.50

Test: CD-FLAA-MDL-S Method 7130 - Cadmium, Flame AA
Matrix: SOLID
QC Run: 21 JAN 94-B Date Analyzed: 25 JAN 94

Analyte	Result	Units	Reporting Limit
Cadmium	ND	mg/kg	5.0

Test: CR-FLAA-MDL-S Method 7190 - Chromium, Flame AA
Matrix: SOLID
QC Run: 21 JAN 94-B Date Analyzed: 26 JAN 94

Analyte	Result	Units	Reporting Limit
Chromium	ND	mg/kg	10.0

Test: MN-FLAA-MDL-S Manganese, Flame AA
Matrix: SOLID
QC Run: 21 JAN 94-B Date Analyzed: 24 JAN 94

Analyte	Result	Units	Reporting Limit
Manganese	ND	mg/kg	5.0

ND = Not Detected

METHOD BLANK REPORT
Metals Analysis and Preparation (cont.)
Project: 104121

Test: NI-FLAA-MDL-S Method 7520 - Nickel, Flame AA
Matrix: SOLID
QC Run: 21 JAN 94-B Date Analyzed: 24 JAN 94

Analyte	Result	Units	Reporting Limit
Nickel	ND	mg/kg	10.0

Test: PB-FLAA-MDL-S Method 7420 - Lead, FLame AA
Matrix: SOLID
QC Run: 21 JAN 94-B Date Analyzed: 24 JAN 94

Analyte	Result	Units	Reporting Limit
Lead	ND	mg/kg	20.0

Test: CU-FLAA-MDL-S Method 7210 - Copper, Flame AA
Matrix: SOLID
QC Run: 21 JAN 94-B Date Analyzed: 25 JAN 94

Analyte	Result	Units	Reporting Limit
Copper	ND	mg/kg	10.0

Test: ZN-FLAA-MDL-S Method 7950 - Zinc, Flame AA
Matrix: SOLID
QC Run: 21 JAN 94-B Date Analyzed: 25 JAN 94

Analyte	Result	Units	Reporting Limit
Zinc	ND	mg/kg	2.0

Test: BA-FLAA-MDL-S Method 7080 - Barium, Flame AA
Matrix: SOLID
QC Run: 21 JAN 94-B Date Analyzed: 26 JAN 94

Analyte	Result	Units	Reporting Limit
Barium	ND	mg/kg	50.0

ND = Not Detected

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METHOD BLANK REPORT
Metals Analysis and Preparation (cont.)
Project: 104121

Test: HG-CVAA-MDL-S Method 7471 - Mercury, Cold Vapor AA
Matrix: SOLID
QC Run: 20 JAN 94-D Date Analyzed: 21 JAN 94

Analyte	Result	Units	Reporting Limit
Mercury	ND	mg/kg	0.10

ND = Not Detected

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QC LOT ASSIGNMENT REPORT - MS QC
Wet Chemistry Analysis and Preparation

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
104121-0001-SA	SOLID	CN-S	24 JAN 94-A	24 JAN 94-A	24 JAN 94-AA
104121-0001-SA	SOLID	CLO3-S	19 JAN 94-A	19 JAN 94-A	19 JAN 94-AA
104121-0003-SA	SOLID	CLO3-S	19 JAN 94-A	19 JAN 94-A	19 JAN 94-AA
104121-0004-SA	SOLID	CN-S	24 JAN 94-A	24 JAN 94-A	24 JAN 94-AA
104121-0004-SA	SOLID	CLO3-S	19 JAN 94-A	19 JAN 94-A	19 JAN 94-AA
104121-0006-SA	SOLID	CLO3-S	19 JAN 94-A	19 JAN 94-A	19 JAN 94-AA
104121-0008-SA	SOLID	CN-S	24 JAN 94-A	24 JAN 94-A	24 JAN 94-AA
104121-0008-SA	SOLID	CLO3-S	19 JAN 94-A	19 JAN 94-A	19 JAN 94-AA
104121-0009-SA	SOLID	CLO3-S	19 JAN 94-A	19 JAN 94-A	19 JAN 94-AA
104121-0010-SA	SOLID	CLO3-S	19 JAN 94-A	19 JAN 94-A	19 JAN 94-AA

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DUPLICATE CONTROL SAMPLE REPORT
Wet Chemistry Analysis and Preparation
Project: 104121

Category: CN-S Cyanide (9012) SOLID
Matrix: SOLID
QC Lot: 24 JAN 94-A Date Analyzed: 25 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Cyanide, Total	5.00	4.44	4.81	4.62	93	70-123	8.0	21

Category: CLO3-S Chlorate, Liquid
Matrix: SOLID
QC Lot: 19 JAN 94-A Date Analyzed: 19 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Chlorate, Solid	10.0	9.57	9.50	9.54	95	80-120	0.73	20

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Wet Chemistry Analysis and Preparation
Project: 104121

Category: CN-S Cyanide (9012) SOLID
Matrix: SOLID
Sample: 104121-0001
MS Run: 24 JAN 94-AA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Cyanide, Total	ND	4.86	4.75	5.00	97	95	2.1	41-159	48

Category: CLO3-S Chlorate, Liquid
Matrix: SOLID
Sample: 104121-0004
MS Run: 19 JAN 94-AA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Chlorate, Solid	ND	8.76	8.93	10.0	88	89	1.1	80-120	20

ND = Not Detected

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

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METHOD BLANK REPORT
Wet Chemistry Analysis and Preparation
Project: 104121

Test: CN-MDL-S Method 9012 - Cyanide, Total
Matrix: SOLID
QC Run: 24 JAN 94-A Date Analyzed: 25 JAN 94

Analyte	Result	Units	Reporting Limit
Cyanide, Total	ND	mg/kg	0.50

Test: CLO3-MDL-S Method 300.0 - Chlorate, Ion Chromatography
Matrix: SOLID
QC Run: 19 JAN 94-A Date Analyzed: 19 JAN 94

Analyte	Result	Units	Reporting Limit
Chlorate, Solid	ND	mg/kg	1.0

ND = Not Detected

QC LOT ASSIGNMENT REPORT - MS QC
Volatile Organics by GC/MS

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
104121-0002-SA	SOLID	8240-S	19 JAN 94-AF	19 JAN 94-AF	19 JAN 94-AF
104121-0003-SA	SOLID	8240-S	19 JAN 94-AF	19 JAN 94-AF	19 JAN 94-AF
104121-0005-SA	SOLID	8240-S	19 JAN 94-AF	19 JAN 94-AF	19 JAN 94-AF
104121-0006-SA	SOLID	8240-S	19 JAN 94-AF	19 JAN 94-AF	19 JAN 94-AF
104121-0007-SA	SOLID	8240-S	19 JAN 94-AF	19 JAN 94-AF	19 JAN 94-AF
104121-0009-SA	SOLID	8240-S	19 JAN 94-AF	19 JAN 94-AF	19 JAN 94-AF
104121-0010-SA	SOLID	8240-S	19 JAN 94-AF	19 JAN 94-AF	19 JAN 94-AF

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DUPLICATE CONTROL SAMPLE REPORT
Volatile Organics by GC/MS
Project: 104121

Category: 8240-S Volatile Organics
Matrix: SOLID
QC Lot: 19 JAN 94-AF
Date Analyzed: 19 JAN 94
Concentration Units: ug/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
1,1-Dichloroethene	50.0	37.4	36.8	37.1	74	50-121	1.6	31
Trichloroethene	50.0	49.3	47.9	48.6	97	69-114	2.9	17
Benzene	50.0	49.8	47.8	48.8	98	78-117	4.1	16
Toluene	50.0	51.6	51.0	51.3	103	79-118	1.2	17
Chlorobenzene	50.0	55.5	52.9	54.2	108	79-119	4.8	17

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Volatile Organics by GC/MS
Project: 104121

Category: 8240-S Volatile Organics
Matrix: SOLID
Sample: 104122-0003
MS Run: 19 JAN 94-AF
Units: ug/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
1,1-Dichloroethene	ND	36.8	34.3	50.0	74	69	7.0	46-136	28
Trichloroethene	ND	52.9	49.8	50.0	106	100	5.8	58-131	26
Benzene	ND	51.9	48.8	50.0	104	98	5.9	63-139	23
Toluene	ND	55.8	52.8	50.0	112	106	5.5	68-140	24
Chlorobenzene	ND	55.1	52.9	50.0	110	106	3.7	68-138	23

ND = Not Detected

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

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SINGLE CONTROL SAMPLE REPORT
Volatile Organics by GC/MS
Project: 104121

Category: 8240-S Volatile Organics
Matrix: SOLID
QC Run: 19 JAN 94-AF
Date Analyzed: 19 JAN 94
Concentration Units: ug/kg

Analyte	Concentration Spiked	Concentration Measured	Accuracy(%) SCS	Accuracy(%) Limits
1,2-Dichloroethane-d4	50.0	51.6	103	70-121
Toluene-d8	50.0	51.8	104	81-117
Bromofluorobenzene	50.0	50.9	102	74-121

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

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METHOD BLANK REPORT
Volatile Organics by GC/MS
Project: 104121

Test: 8240-HLA-S Method 8240 - Volatile Organics, EPA 8240 Extended List
Matrix: SOLID
QC Run: 19 JAN 94-AF Date Analyzed: 19 JAN 94

Analyte	Result	Units	Reporting Limit
Dichlorodifluoromethane	ND	ug/kg	10
Chloromethane	ND	ug/kg	10
Bromomethane	ND	ug/kg	10
Vinyl chloride	ND	ug/kg	10
Chloroethane	ND	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/kg	5.0
Methylene chloride	TR	ug/kg	5.0
Acetone	ND	ug/kg	10
Trichlorofluoromethane	ND	ug/kg	5.0
1,1-Dichloroethene	ND	ug/kg	5.0
Nitromethane	ND	ug/kg	200
trans-1,2-Dichloroethene	ND	ug/kg	5.0
cis-1,2-Dichloroethene	ND	ug/kg	5.0
1,1-Dichloroethane	ND	ug/kg	5.0
2,2-Dichloropropane	ND	ug/kg	5.0
Bromochloromethane	ND	ug/kg	5.0
Chloroform	ND	ug/kg	5.0
1,1-Dichloropropene	ND	ug/kg	5.0
1,2-Dichloroethane	ND	ug/kg	5.0
Dibromomethane	ND	ug/kg	5.0
1,1,1-Trichloroethane	ND	ug/kg	5.0
Carbon tetrachloride	ND	ug/kg	5.0
Bromodichloromethane	ND	ug/kg	5.0
1,2-Dichloropropane	ND	ug/kg	5.0
1,3-Dichloropropane	ND	ug/kg	5.0
Trichloroethene	ND	ug/kg	5.0
Dibromochloromethane	ND	ug/kg	5.0
1,1,2-Trichloroethane	ND	ug/kg	5.0
Benzene	ND	ug/kg	5.0
Bromoform	ND	ug/kg	5.0
Tetrachloroethene	ND	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.0
Toluene	ND	ug/kg	5.0
Chlorobenzene	ND	ug/kg	5.0
Ethylbenzene	ND	ug/kg	5.0
Styrene	ND	ug/kg	5.0
Xylenes (total)	ND	ug/kg	5.0
1-Methylethylbenzene	ND	ug/kg	5.0
Bromobenzene	ND	ug/kg	5.0
1,2,3-Trichloropropane	ND	ug/kg	5.0
2-Chlorotoluene	ND	ug/kg	5.0
n-Propyl benzene	ND	ug/kg	5.0
1,3,5-Trimethylbenzene	ND	ug/kg	5.0

ND = Not Detected

METHOD BLANK REPORT
Volatile Organics by GC/MS (cont.)
Project: 104121

Test: 8240-HLA-S Method 8240 - Volatile Organics, EPA 8240 Extended List
Matrix: SOLID
QC Run: 19 JAN 94-AF Date Analyzed: 19 JAN 94

Analyte	Result	Units	Reporting Limit
4-Chlorotoluene	ND	ug/kg	5.0
tert-Butylbenzene	ND	ug/kg	5.0
1,2,4-Trimethylbenzene	ND	ug/kg	5.0
sec-Butylbenzene	ND	ug/kg	5.0
Isopropyltoluene	ND	ug/kg	5.0
1,3-Dichlorobenzene	ND	ug/kg	5.0
1,4-Dichlorobenzene	ND	ug/kg	5.0
n-Butylbenzene	ND	ug/kg	5.0
1,2-Dichlorobenzene	ND	ug/kg	5.0
1,2,4-Trichlorobenzene	ND	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND	ug/kg	5.0
Hexachlorobutadiene	ND	ug/kg	5.0
Naphthalene	ND	ug/kg	5.0
1,2,3-Trichlorobenzene	ND	ug/kg	5.0

ND = Not Detected

QC LOT ASSIGNMENT REPORT - MS QC
Semivolatile Organics by GC/MS

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
104121-0002-SA	SOLID	8270-S	19 JAN 94-A	19 JAN 94-A	19 JAN 94-AA
104121-0003-SA	SOLID	8270-S	19 JAN 94-A	19 JAN 94-A	19 JAN 94-AA
104121-0005-SA	SOLID	8270-S	19 JAN 94-A	19 JAN 94-A	19 JAN 94-AA
104121-0006-SA	SOLID	8270-S	19 JAN 94-A	19 JAN 94-A	19 JAN 94-AA
104121-0007-SA	SOLID	8270-S	19 JAN 94-A	19 JAN 94-A	19 JAN 94-AA
104121-0009-SA	SOLID	8270-S	19 JAN 94-A	19 JAN 94-A	19 JAN 94-AA
104121-0010-SA	SOLID	8270-S	19 JAN 94-A	19 JAN 94-A	19 JAN 94-AA

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DUPLICATE CONTROL SAMPLE REPORT
Semivolatile Organics by GC/MS
Project: 104121

Category: 8270-S Method 8270 - TCL Semivolatile Organics
Matrix: SOLID
QC Lot: 19 JAN 94-A Date Analyzed: 20 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average(%) DCS	Accuracy Limits	Precision (RPD) DCS	Precision Limit
Phenol	6.67	3.94	3.59	3.76	56	39-106	9.3	31
2-Chlorophenol	6.67	3.88	4.26	4.07	61	44-107	9.3	32
1,4-Dichlorobenzene	3.33	2.71	2.62	2.66	80	40-107	3.4	23
N-Nitroso-di-n-propylamine	3.33	2.64	2.47	2.56	77	31-132	6.7	38
1,2,4-Trichlorobenzene	3.33	2.86	2.94	2.90	87	38-120	2.8	22
4-Chloro-3-methylphenol	6.67	4.82	4.44	4.63	69	40-119	8.2	24
Acenaphthene	3.33	2.50	2.63	2.56	77	30-140	5.1	24
2,4-Dinitrotoluene	3.33	2.61	2.50	2.56	77	30-121	4.3	28
4-Nitrophenol	6.67	6.07	5.85	5.96	89	16-143	3.7	54
Pentachlorophenol	6.67	8.73	8.51	8.62	129	21-152	2.6	43
Pyrene	3.33	2.73	2.75	2.74	82	45-120	0.73	26

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Semivolatile Organics by GC/MS
Project: 104121

Category: 8270-S Method 8270 - TCL Semivolatile Organics
Matrix: SOLID
Sample: 104121-0002
MS Run: 19 JAN 94-AA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Phenol	ND	5.08	4.56	6.67	76	68	11	25-110	74
2-Chlorophenol	ND	4.97	4.27	6.67	75	64	16	33-103	42
1,4-Dichlorobenzene	ND	2.76	2.36	3.33	83	71	16	22-110	55
N-Nitroso-di-n-propylamine	ND	2.94	2.67	3.33	88	80	9.5	18-138	49
1,2,4-Trichlorobenzene	ND	2.74	2.44	3.33	82	73	12	29-119	43
4-Chloro-3-methylphenol	ND	4.44	4.45	6.67	67	67	0.0	36-119	41
Acenaphthene	ND	2.70	2.54	3.33	81	76	6.4	17-148	36
2,4-Dinitrotoluene	ND	2.86	2.40	3.33	86	72	18	27-120	41
4-Nitrophenol	ND	4.14	2.16	6.67	62	32	64	16-143	80
Pentachlorophenol	ND	0.422	0.232	6.67	6	3	75	21-152	61
Pyrene	ND	3.33	3.02	3.33	100	91	9.5	24-133	46

ND = Not Detected

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

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SINGLE CONTROL SAMPLE REPORT
Semivolatile Organics by GC/MS
Project: 104121

Category: 8270-S Method 8270 - TCL Semivolatile Organics
Matrix: SOLID
QC Run: 19 JAN 94-A Date Analyzed: 19 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Concentration Measured	Accuracy(%) SCS	Accuracy(%) Limits
2-Fluorophenol	6.67	6.97	104	25-121
Phenol-d5	6.67	5.24	79	24-113
Nitrobenzene-d5	3.33	2.87	86	23-120
2-Fluorobiphenyl	3.33	2.79	84	30-115
2,4,6-Tribromophenol	6.67	5.44	82	19-122
Terphenyl-d14	3.33	3.21	96	18-137

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

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METHOD BLANK REPORT
Semivolatile Organics by GC/MS
Project: 104121

Test: 8270-HLA-S Method 8270 - Semivolatile Organics
Matrix: SOLID
QC Run: 19 JAN 94-A Date Analyzed: 19 JAN 94

Analyte	Result	Units	Reporting Limit
N-Nitrosodiethylamine	ND	mg/kg	0.33
Phenol	ND	mg/kg	0.33
bis(2-Chloroethyl) ether	ND	mg/kg	0.33
2-Chlorophenol	ND	mg/kg	0.33
1,3-Dichlorobenzene	ND	mg/kg	0.33
1,4-Dichlorobenzene	ND	mg/kg	0.33
Benzyl alcohol	ND	mg/kg	0.33
1,2-Dichlorobenzene	ND	mg/kg	0.33
2-Methylphenol	ND	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND	mg/kg	0.33
3/4-Methylphenol	ND	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND	mg/kg	0.33
Hexachloroethane	ND	mg/kg	0.33
Nitrobenzene	ND	mg/kg	0.33
Isophorone	ND	mg/kg	0.33
2-Nitrophenol	ND	mg/kg	0.33
2,4-Dimethylphenol	ND	mg/kg	0.33
Benzoic acid	ND	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND	mg/kg	0.33
2,4-Dichlorophenol	ND	mg/kg	0.33
1,2,4-Trichlorobenzene	ND	mg/kg	0.33
Naphthalene	ND	mg/kg	0.33
4-Chloroaniline	ND	mg/kg	0.33
Hexachlorobutadiene	ND	mg/kg	0.33
4-Chloro-3-methylphenol	ND	mg/kg	0.33
2-Methylnaphthalene	ND	mg/kg	0.33
Hexachlorocyclopentadiene	ND	mg/kg	0.33
2,4,6-Trichlorophenol	ND	mg/kg	0.33
2,4,5-Trichlorophenol	ND	mg/kg	1.7
2-Chloronaphthalene	ND	mg/kg	0.33
2-Nitroaniline	ND	mg/kg	1.7
Dimethyl phthalate	ND	mg/kg	0.33
Acenaphthylene	ND	mg/kg	0.33
3-Nitroaniline	ND	mg/kg	1.7
Acenaphthene	ND	mg/kg	0.33
2,4-Dinitrophenol	ND	mg/kg	1.7
4-Nitrophenol	ND	mg/kg	1.7
Dibenzofuran	ND	mg/kg	0.33
2,4-Dinitrotoluene	ND	mg/kg	0.33
2,6-Dinitrotoluene	ND	mg/kg	0.33
Diethyl phthalate	ND	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND	mg/kg	0.33
Fluorene	ND	mg/kg	0.33
4-Nitroaniline	ND	mg/kg	1.7
4,6-Dinitro-2-methylphenol	ND	mg/kg	1.7

ND = Not Detected

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METHOD BLANK REPORT
Semivolatile Organics by GC/MS (cont.)
Project: 104121

Test: 8270-HLA-S Method 8270 - Semivolatile Organics
Matrix: SOLID
QC Run: 19 JAN 94-A Date Analyzed: 19 JAN 94

Analyte	Result	Units	Reporting Limit
N-Nitrosodiphenylamine	ND	mg/kg	0.33
4-Bromophenyl phenyl ether	ND	mg/kg	0.33
Hexachlorobenzene	ND	mg/kg	0.33
Pentachlorophenol	ND	mg/kg	1.7
Phenanthrene	ND	mg/kg	0.33
Anthracene	ND	mg/kg	0.33
Di-n-butyl phthalate	ND	mg/kg	0.33
Fluoranthene	ND	mg/kg	0.33
Pyrene	ND	mg/kg	0.33
Butyl benzyl phthalate	ND	mg/kg	0.33
3,3'-Dichlorobenzidine	ND	mg/kg	0.66
Benzo(a)anthracene	ND	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND	mg/kg	0.33
Chrysene	ND	mg/kg	0.33
Di-n-octyl phthalate	ND	mg/kg	0.33
Benzo(b)fluoranthene	ND	mg/kg	0.33
Benzo(k)fluoranthene	ND	mg/kg	0.33
Benzo(a)pyrene	ND	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND	mg/kg	0.33
Dibenz(a,h)anthracene	ND	mg/kg	0.33
Benzo(g,h,i)perylene	ND	mg/kg	0.33
Xylidine (Total)	ND	mg/kg	0.33

ND = Not Detected

H[illegible] Lawson Associates
3 [illegible] Centre Drive, Suite 200
Santa Ana, California 92707
714/556-7992 – 213/617-7232
FAX: 714/662-3297

CHAIN OF CU[illegible]TODY FORM

10[illegible]21

Lab: ENSECO

Samplers: KAREN WITBAARD

Job Number: 26522-2.3

Name/Location: AEROSET

Project Manager: MATT HUNTER

Recorder: Karen Witbaard (Signature Required)

SOURCE CODE	MATRIX: Water	Sediment	Soil	Oil	#CONTAINERS & PRESERV.: Unpres.	H_2SO_4	HNO_3	CHILLED	SAMPLE NUMBER OR LAB NUMBER: Yr	Wk	Seq	DATE: Yr	Mo	Dy	Time	STATION DESCRIPTION/ NOTES	EPA 601/8010	EPA 602/8020	EPA 624/8240	EPA 625/8270	Priority Pllt. Metals	Benzene/Toluene/Xylene	Total Petrol. Hydrocarb.	EPA 7000 Series Metals	Chlorate	9012 CN	HSLD
50			X		X			1	SZB-30		5.0	94	01	14	0825	2½"x3" S.S. SLEEVE								X	X	X	
									SZB-30		5.25				0825				X	X							
									SZB-30A		9.0				0840												X
									SZB-30A		10.0				0850												X
									SZB-30A		10.25				0850												X
									SZB-30A		15.0				0900												X
									SZB-30A		15.25				0900												X
									SZB-30A		19.0				0905												X
									SZB-30A		19.25				0905				X	X					X		
									SZB-26A		4.0				1035									X	X	X	

custody seal #4342, 4343

LAB NUMBER: Yr	Wk	Seq	DEPTH IN FEET	COL MTD CD	QA CODE	MISCELLANEOUS
						REPORT TO MATT HUNTER FOR ANALYSIS SELECTION

CHAIN OF CUSTODY RECORD

1/14/94

RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
Karen Witbaard 1730		
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
DISPATCHED BY: (Signature) DATE/TIME	RECEIVED FOR LAB BY: (Signature) [signature]	DATE/TIME 1-14-94 1730

METHOD OF SHIPMENT

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6533

Harding Lawson Associates
3 Hutton Centre Drive, Suite 200
Santa Ana, California 92707
714/556-7992 – 213/617-7232
FAX: 714/662-3297

CHAIN OF CUSTODY FORM

Page 2 of 3

104121

Lab: ENSECO

Samplers: KAREN WITBAARD

Job Number: 26522-2.3

Name/Location: AEROJET

Project Manager: MATT HUNTER

Recorder: Karen Witbaard (Signature Required)

SOURCE CODE	MATRIX: Water	Sediment	Soil	Oil	#CONTAINERS & PRESERV.: Unpres.	H_2SO_4	HNO_3	CHILLED	SAMPLE NUMBER OR LAB NUMBER: Yr	Wk	Seq	DATE: Yr	Mo	Dy	Time	STATION DESCRIPTION/ NOTES	EPA 601/8010	EPA 602/8020	EPA 624/8240	EPA 625/8270	Priority Pllt. Metals	Benzene/Toluene/Xylene	Total Petrol. Hydrocarb.	EPA 7000 Series Metals	Chlorate	EP 9012 CN					HOLD
50			X		X			X	SZB-26A		4.25	94	01	14	1035	2½ X 3" SS. SLEEVE			X	X											
									SZB-26A		10.0				1045																X
									SZB-26A		10.25				1045																X
									SZB-26A		16.0				1100																X
									SZB-26A		19.5				1108																X
									SZB-26A		19.75				1108				X	X					X						
									SZB-26A		26				1115																X
									SZB-32		5.5				1325				X	X											
									SZB-32		6.0				1330									X	X	X					
									SZB-32		9.5				1335																X

LAB NUMBER: Yr	Wk	Seq	DEPTH IN FEET	COL MTD CD	QA CODE	MISCELLANEOUS
						REPORT TO MATT HUNTER FOR ANALYSIS

CHAIN OF CUSTODY RECORD

1114194

RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
Karen Witbaard 1730		
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
DISPATCHED BY: (Signature) DATE/TIME	RECEIVED FOR LAB BY: (Signature) [signature]	DATE/TIME 1-14-94 1730

METHOD OF SHIPMENT

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FAX: 714/662-3297

CHAIN OF CUSTODY FORM

Lab: RENSECO 104121

Samplers: KAREN WITBARD

Job Number: 26522.2.3

Name/Location: AEROSET

Project Manager: MATT HUNTER

Recorder: Karen Witbard (Signature Required)

SOURCE CODE	MATRIX: Water	Sediment	Soil	Oil	#CONTAINERS & PRESERV.: Unpres.	H_2SO_4	HNO_3	chilled	SAMPLE NUMBER OR LAB NUMBER: Yr	Wk	Seq	DATE: Yr	Mo	Dy	Time	STATION DESCRIPTION/ NOTES	EPA 601/8010	EPA 602/8020	EPA 624/8240	EPA 625/8270	Priority Pllnt. Metals	Benzene/Toluene/Xylene	Total Petrol. Hydrocarb.	Chlorate						HOLD
50			X		X				52B-32		19.75	94	01	14	1335	2½" x 3" S.S. SLEEVE														X
									52B-32		14.0				1340															X
									52B-32		20.0				1350				X	X				X						
									52B-32		25.0				1406															X
									52B-32		30.0				1415															X
									52B-32		35.0				1435															X
									52B-32		35.25				1435				X	X				X						

LAB NUMBER: Yr	Wk	Seq	DEPTH IN FEET	COL MTD CD	QA CODE	MISCELLANEOUS
						REPORT TO MATT HUNTER FOR ANALYSIS

CHAIN OF CUSTODY RECORD

1/14/94

RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
Karen Witbard		
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
DISPATCHED BY: (Signature) DATE/TIME	RECEIVED FOR LAB BY: (Signature)	DATE/TIME 1-14-94 1730
METHOD OF SHIPMENT		

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Enseco - CRL
7440 Lincoln Way • Garden Grove, CA 92641
(714) 898-6370 • (213) 598-0458 • (800) LAB-1-CRL
FAX: (714) 891-5917

January 31, 1994

HARDING LAWSON ASSOCIATES
3 HUTTON CENTRE DRIVE, STE 200
SANTA ANA, CA 92707
ATTN: MR. MATT HUNTER

Lab No.: 104122-0001/0010
Date Sampled: 17 JAN-1994
Date Sample Rec'd: 17 JAN-1994
Project: (26522.2.3) AEROJET

Enclosed with this letter is the report on the chemical and physical analyses on the samples from LAB NO: 104122-0001/0010 shown above.

The samples were received by CRL in a chilled state, intact and with the chain-of-custody record attached.

Note that ND means not detected at the reporting limit expressed. The reporting limit is raised to reflect the dilution factor of the sample.

Solid samples are reported on "as received" basis.

Case Narrative:

The MS/MSD Percent Recoveries for Aluminum, and Manganese were not within the acceptance limits specified in HLA's "Laboratory Analytical Technical Requirements," nor was it within Enseco's-CRL's established acceptance limits. However, the DCS recoveries were within all acceptable ranges, therefore the data was accepted and no further action was required.

The MS/MSD Percent Recovery for Lead was not within the acceptance limits specified in HLA's "Laboratory Analytical Technical Requirements, but it was within Enseco's-CRL established acceptance limits. Therefore the data was accepted and no further action was required.

The MS/MSD Percent Recovery for Pentachlorophenol was not within the acceptance limits specified in HLA's "Laboratory Analytical Technical Requirements," but was within Enseco's-CRL's established acceptance limits, therefore the data was accepted and no further action was required.

Sabina R. Sudoko
Reviewed

Phillip J. Toy
Approved

The Report Cover Letter is an integral part of this report.
This report pertains only to the samples investigated and does not necessarily apply to other apparently identical or similar materials. This report is submitted for the exclusive use of the client to whom it is addressed. Any reproduction of this report or use of this Laboratory's name for advertising or publicity purposes without authorization is prohibited.

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SAMPLE DESCRIPTION INFORMATION
for
Harding Lawson Associates

Lab ID	Client ID	Matrix	Sampled Date	Sampled Time	Received Date
104122-0001-SA	SZB-25-5.25	SOIL	17 JAN 94	08:00	17 JAN 94
104122-0002-SA	SZB-25-5.50	SOIL	17 JAN 94	08:00	17 JAN 94
104122-0003-SA	SZB-25-19.75	SOIL	17 JAN 94	10:35	17 JAN 94
104122-0004-SA	SZB-25-40.00	SOIL	17 JAN 94	11:25	17 JAN 94
104122-0005-SA	SZB-25-10.25	SOIL	17 JAN 94	08:15	17 JAN 94
104122-0006-SA	SZB-25-10.50	SOIL	17 JAN 94	08:15	17 JAN 94
104122-0007-SA	SZB-25-19.50	SOIL	17 JAN 94	10:35	17 JAN 94
104122-0008-SA	SZB-25-25.00	SOIL	17 JAN 94	10:45	17 JAN 94
104122-0009-SA	SZB-25-30.25	SOIL	17 JAN 94	11:00	17 JAN 94
104122-0010-SA	SZB-25-30.50	SOIL	17 JAN 94	11:00	17 JAN 94

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METALS

Client Name: Harding Lawson Associates
Client ID: SZB-25-5.25
Lab ID: 104122-0001-SA
Matrix: SOIL Sampled: 17 JAN 94 Received: 17 JAN 94
Authorized: 18 JAN 94 Prepared: See Below Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Aluminum	9650		50.0	200	mg/kg	7020	21 JAN 94	26 JAN 94
Arsenic	0.97		0.20	0.50	mg/kg	7062	21 JAN 94	26 JAN 94
Barium	109		20.0	50.0	mg/kg	7080	21 JAN 94	26 JAN 94
Chromium	10.1		5.0	10.0	mg/kg	7190	21 JAN 94	26 JAN 94
Copper	52.0		5.0	10.0	mg/kg	7210	21 JAN 94	25 JAN 94
Lead	ND		20.0	20.0	mg/kg	7420	21 JAN 94	24 JAN 94
Manganese	239		2.0	5.0	mg/kg	7460	21 JAN 94	24 JAN 94
Nickel	22.0		5.0	10.0	mg/kg	7520	21 JAN 94	24 JAN 94
Zinc	50.5		1.0	2.0	mg/kg	7950	21 JAN 94	25 JAN 94
Cadmium	ND		2.0	5.0	mg/kg	7130	21 JAN 94	25 JAN 94
Mercury	ND		0.090	0.10	mg/kg	7471	20 JAN 94	21 JAN 94

ND = Not Detected

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METALS

Client Name: Harding Lawson Associates
Client ID: SZB-25-19.75
LAB ID: 104122-0003-SA
Matrix: SOIL — Sampled: 17 JAN 94 — Received: 17 JAN 94
Authorized: 18 JAN 94 — Prepared: See Below — Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Aluminum	4480		50.0	100	mg/kg	7020	21 JAN 94	26 JAN 94
Arsenic	13.0		0.20	1.0	mg/kg	7062	21 JAN 94	26 JAN 94
Barium	58.0		20.0	50.0	mg/kg	7080	21 JAN 94	26 JAN 94
Chromium	ND		5.0	10.0	mg/kg	7190	21 JAN 94	26 JAN 94
Copper	17.0		5.0	10.0	mg/kg	7210	21 JAN 94	25 JAN 94
Lead	ND		20.0	20.0	mg/kg	7420	21 JAN 94	24 JAN 94
Manganese	150		2.0	5.0	mg/kg	7460	21 JAN 94	24 JAN 94
Nickel	TR		5.0	10.0	mg/kg	7520	21 JAN 94	24 JAN 94
Zinc	23.6		1.0	2.0	mg/kg	7950	21 JAN 94	25 JAN 94
Cadmium	ND		2.0	5.0	mg/kg	7130	21 JAN 94	25 JAN 94
Mercury	ND		0.090	0.10	mg/kg	7471	20 JAN 94	21 JAN 94

ND = Not Detected

Enseco
A Corning Company

GENERAL INORGANICS

Client Name: Harding Lawson Associates
Client ID: SZB-25-5.25
Lab ID: 104122-0001-SA
Matrix: SOIL
Authorized: 18 JAN 94

Sampled: 17 JAN 94
Prepared: See Below

Received: 17 JAN 94
Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Cyanide, Total	ND		0.30	0.50	mg/kg	9012	24 JAN 94	25 JAN 94
Chlorate, Solid	ND		0.50	1.0	mg/kg	300.0	19 JAN 94	19 JAN 94

ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-25-5.50
LAB ID: 104122-0002-SA
Matrix: SOIL Sampled: 17 JAN 94 Received: 17 JAN 94
Authorized: 18 JAN 94 Prepared: 19 JAN 94 Analyzed: 19 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/kg	5.0
Methylene chloride	TR	B	1.1	ug/kg	5.0
Acetone	ND		7.1	ug/kg	10
Trichlorofluoromethane	ND		0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	ND		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	ND		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	ND		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	ND		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0

B = Compound is also detected in the blank.
ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-25-5.50
LAB ID: 104122-0002-SA
Matrix: SOIL Sampled: 17 JAN 94 Received: 17 JAN 94
Authorized: 18 JAN 94 Prepared: 19 JAN 94 Analyzed: 19 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
tert-Butylbenzene	ND		0.55	ug/kg	5.0
1,2,4-Trimethylbenzene	ND		0.53	ug/kg	5.0
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	111	%
Toluene-d8	107	%
Bromofluorobenzene	101	%

ND = Not Detected

Enseco
A Corning Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-25-19.75
LAB ID: 104122-0003-SA
Matrix: SOIL Sampled: 17 JAN 94 Received: 17 JAN 94
Authorized: 18 JAN 94 Prepared: 19 JAN 94 Analyzed: 19 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/kg	5.0
Methylene chloride	TR	B	1.1	ug/kg	5.0
Acetone	ND		7.1	ug/kg	10
Trichlorofluoromethane	ND		0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	ND		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	ND		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	ND		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	ND		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0

B = Compound is also detected in the blank.
ND = Not Detected

Enseco
A Corporation Company

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-25-19.75
LAB ID: 104122-0003-SA
Matrix: SOIL Sampled: 17 JAN 94 Received: 17 JAN 94
Authorized: 18 JAN 94 Prepared: 19 JAN 94 Analyzed: 19 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
tert-Butylbenzene	ND		0.55	ug/kg	5.0
1,2,4-Trimethylbenzene	ND		0.53	ug/kg	5.0
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	106	%
Toluene-d8	101	%
Bromofluorobenzene	97	%

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-25-5.50
LAB ID: 104122-0002-SA
Matrix: SOIL Sampled: 17 JAN 94 Received: 17 JAN 94
Authorized: 18 JAN 94 Prepared: 19 JAN 94 Analyzed: 20 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
N-Nitrosodiethylamine	ND		0.26	mg/kg	0.33
Phenol	ND		0.030	mg/kg	0.33
bis(2-Chloroethyl) ether	ND		0.060	mg/kg	0.33
2-Chlorophenol	ND		0.040	mg/kg	0.33
1,3-Dichlorobenzene	ND		0.030	mg/kg	0.33
1,4-Dichlorobenzene	ND		0.060	mg/kg	0.33
Benzyl alcohol	ND		0.070	mg/kg	0.33
1,2-Dichlorobenzene	ND		0.040	mg/kg	0.33
2-Methylphenol	ND		0.030	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND		0.040	mg/kg	0.33
3/4-Methylphenol	ND		0.040	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND		0.030	mg/kg	0.33
Hexachloroethane	ND		0.030	mg/kg	0.33
Nitrobenzene	ND		0.090	mg/kg	0.33
Isophorone	ND		0.040	mg/kg	0.33
2-Nitrophenol	ND		0.050	mg/kg	0.33
2,4-Dimethylphenol	ND		0.030	mg/kg	0.33
Benzoic acid	ND		0.51	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND		0.020	mg/kg	0.33
2,4-Dichlorophenol	ND		0.030	mg/kg	0.33
1,2,4-Trichlorobenzene	ND		0.040	mg/kg	0.33
Naphthalene	ND		0.030	mg/kg	0.33
4-Chloroaniline	ND		0.10	mg/kg	0.33
Hexachlorobutadiene	ND		0.040	mg/kg	0.33
4-Chloro-3-methylphenol	ND		0.040	mg/kg	0.33
2-Methylnaphthalene	ND		0.030	mg/kg	0.33
Hexachlorocyclopentadiene	ND		0.050	mg/kg	0.33
2,4,6-Trichlorophenol	ND		0.040	mg/kg	0.33
2,4,5-Trichlorophenol	ND		0.050	mg/kg	1.7
2-Chloronaphthalene	ND		0.030	mg/kg	0.33
2-Nitroaniline	ND		0.030	mg/kg	1.7
Dimethyl phthalate	ND		0.030	mg/kg	0.33
Acenaphthylene	ND		0.020	mg/kg	0.33
3-Nitroaniline	ND		0.14	mg/kg	1.7
Acenaphthene	ND		0.030	mg/kg	0.33
2,4-Dinitrophenol	ND		0.23	mg/kg	1.7
4-Nitrophenol	ND		0.25	mg/kg	1.7
Dibenzofuran	ND		0.040	mg/kg	0.33
2,4-Dinitrotoluene	ND		0.040	mg/kg	0.33
2,6-Dinitrotoluene	ND		0.050	mg/kg	0.33
Diethyl phthalate	ND		0.020	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND		0.030	mg/kg	0.33
Fluorene	ND		0.030	mg/kg	0.33
4-Nitroaniline	ND		0.18	mg/kg	1.7

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-25-5.50
LAB ID: 104122-0002-SA
Matrix: SOIL — Sampled: 17 JAN 94 — Received: 17 JAN 94
Authorized: 18 JAN 94 — Prepared: 19 JAN 94 — Analyzed: 20 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
4,6-Dinitro-2-methylphenol	ND		0.36	mg/kg	1.7
N-Nitrosodiphenylamine	ND		0.040	mg/kg	0.33
4-Bromophenyl phenyl ether	ND		0.080	mg/kg	0.33
Hexachlorobenzene	ND		0.030	mg/kg	0.33
Pentachlorophenol	ND		0.19	mg/kg	1.7
Phenanthrene	ND		0.030	mg/kg	0.33
Anthracene	ND		0.020	mg/kg	0.33
Di-n-butyl phthalate	ND		0.24	mg/kg	0.33
Fluoranthene	ND		0.030	mg/kg	0.33
Pyrene	ND		0.020	mg/kg	0.33
Butyl benzyl phthalate	ND		0.030	mg/kg	0.33
3,3'-Dichlorobenzidine	ND		0.33	mg/kg	0.66
Benzo(a)anthracene	ND		0.040	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND		0.13	mg/kg	0.33
Chrysene	ND		0.040	mg/kg	0.33
Di-n-octyl phthalate	ND		0.040	mg/kg	0.33
Benzo(b)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(k)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(a)pyrene	ND		0.040	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND		0.030	mg/kg	0.33
Dibenz(a,h)anthracene	ND		0.030	mg/kg	0.33
Benzo(g,h,i)perylene	ND		0.020	mg/kg	0.33
Xylidine (Total)	ND		0.076	mg/kg	0.33

Surrogate	Recovery	
Nitrobenzene-d5	75	%
2-Fluorobiphenyl	71	%
Terphenyl-d14	78	%
Phenol-d5	70	%
2-Fluorophenol	86	%
2,4,6-Tribromophenol	81	%

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-25-19.75
LAB ID: 104122-0003-SA
Matrix: SOIL Sampled: 17 JAN 94 Received: 17 JAN 94
Authorized: 18 JAN 94 Prepared: 19 JAN 94 Analyzed: 20 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
N-Nitrosodiethylamine	ND		0.26	mg/kg	0.33
Phenol	ND		0.030	mg/kg	0.33
bis(2-Chloroethyl) ether	ND		0.060	mg/kg	0.33
2-Chlorophenol	ND		0.040	mg/kg	0.33
1,3-Dichlorobenzene	ND		0.030	mg/kg	0.33
1,4-Dichlorobenzene	ND		0.060	mg/kg	0.33
Benzyl alcohol	ND		0.070	mg/kg	0.33
1,2-Dichlorobenzene	ND		0.040	mg/kg	0.33
2-Methylphenol	ND		0.030	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND		0.040	mg/kg	0.33
3/4-Methylphenol	ND		0.040	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND		0.030	mg/kg	0.33
Hexachloroethane	ND		0.030	mg/kg	0.33
Nitrobenzene	ND		0.090	mg/kg	0.33
Isophorone	ND		0.040	mg/kg	0.33
2-Nitrophenol	ND		0.050	mg/kg	0.33
2,4-Dimethylphenol	ND		0.030	mg/kg	0.33
Benzoic acid	ND		0.51	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND		0.020	mg/kg	0.33
2,4-Dichlorophenol	ND		0.030	mg/kg	0.33
1,2,4-Trichlorobenzene	ND		0.040	mg/kg	0.33
Naphthalene	ND		0.030	mg/kg	0.33
4-Chloroaniline	ND		0.10	mg/kg	0.33
Hexachlorobutadiene	ND		0.040	mg/kg	0.33
4-Chloro-3-methylphenol	ND		0.040	mg/kg	0.33
2-Methylnaphthalene	ND		0.030	mg/kg	0.33
Hexachlorocyclopentadiene	ND		0.050	mg/kg	0.33
2,4,6-Trichlorophenol	ND		0.040	mg/kg	0.33
2,4,5-Trichlorophenol	ND		0.050	mg/kg	1.7
2-Chloronaphthalene	ND		0.030	mg/kg	0.33
2-Nitroaniline	ND		0.030	mg/kg	1.7
Dimethyl phthalate	ND		0.030	mg/kg	0.33
Acenaphthylene	ND		0.020	mg/kg	0.33
3-Nitroaniline	ND		0.14	mg/kg	1.7
Acenaphthene	ND		0.030	mg/kg	0.33
2,4-Dinitrophenol	ND		0.23	mg/kg	1.7
4-Nitrophenol	ND		0.25	mg/kg	1.7
Dibenzofuran	ND		0.040	mg/kg	0.33
2,4-Dinitrotoluene	ND		0.040	mg/kg	0.33
2,6-Dinitrotoluene	ND		0.050	mg/kg	0.33
Diethyl phthalate	ND		0.020	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND		0.030	mg/kg	0.33
Fluorene	ND		0.030	mg/kg	0.33
4-Nitroaniline	ND		0.18	mg/kg	1.7

ND = Not Detected

Enseco
A Corning Company

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-25-19.75
LAB ID: 104122-0003-SA
Matrix: SOIL Sampled: 17 JAN 94 Received: 17 JAN 94
Authorized: 18 JAN 94 Prepared: 19 JAN 94 Analyzed: 20 JAN 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
4,6-Dinitro-2-methylphenol	ND		0.36	mg/kg	1.7
N-Nitrosodiphenylamine	ND		0.040	mg/kg	0.33
4-Bromophenyl phenyl ether	ND		0.080	mg/kg	0.33
Hexachlorobenzene	ND		0.030	mg/kg	0.33
Pentachlorophenol	ND		0.19	mg/kg	1.7
Phenanthrene	ND		0.030	mg/kg	0.33
Anthracene	ND		0.020	mg/kg	0.33
Di-n-butyl phthalate	ND		0.24	mg/kg	0.33
Fluoranthene	ND		0.030	mg/kg	0.33
Pyrene	ND		0.020	mg/kg	0.33
Butyl benzyl phthalate	ND		0.030	mg/kg	0.33
3,3'-Dichlorobenzidine	ND		0.33	mg/kg	0.66
Benzo(a)anthracene	ND		0.040	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND		0.13	mg/kg	0.33
Chrysene	ND		0.040	mg/kg	0.33
Di-n-octyl phthalate	ND		0.040	mg/kg	0.33
Benzo(b)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(k)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(a)pyrene	ND		0.040	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND		0.030	mg/kg	0.33
Dibenz(a,h)anthracene	ND		0.030	mg/kg	0.33
Benzo(g,h,i)perylene	ND		0.020	mg/kg	0.33
Xylidine (Total)	ND		0.076	mg/kg	0.33

Surrogate	Recovery	
Nitrobenzene-d5	77	%
2-Fluorobiphenyl	74	%
Terphenyl-d14	75	%
Phenol-d5	71	%
2-Fluorophenol	88	%
2,4,6-Tribromophenol	88	%

ND = Not Detected

Enseco
A Corning Company

QC LOT ASSIGNMENT REPORT - MS QC
Metals Analysis and Preparation

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
104122-0001-SA	SOLID	AL-FLAA-S	21 JAN 94-B	21 JAN 94-B	21 JAN 94-BA
104122-0001-SA	SOLID	AS-HAA-S	21 JAN 94-B	21 JAN 94-B	21 JAN 94-BA
104122-0001-SA	SOLID	CD-FLAA-S	21 JAN 94-B	21 JAN 94-B	21 JAN 94-BA
104122-0001-SA	SOLID	CR-FLAA-S	21 JAN 94-B	21 JAN 94-B	21 JAN 94-BA
104122-0001-SA	SOLID	MN-FLAA-S	21 JAN 94-B	21 JAN 94-B	21 JAN 94-BA
104122-0001-SA	SOLID	NI-FLAA-S	21 JAN 94-B	21 JAN 94-B	21 JAN 94-BA
104122-0001-SA	SOLID	PB-FLAA-S	21 JAN 94-B	21 JAN 94-B	21 JAN 94-BA
104122-0001-SA	SOLID	CU-FLAA-S	21 JAN 94-B	21 JAN 94-B	21 JAN 94-BA
104122-0001-SA	SOLID	ZN-FLAA-S	21 JAN 94-B	21 JAN 94-B	21 JAN 94-BA
104122-0001-SA	SOLID	BA-FLAA-S	21 JAN 94-B	21 JAN 94-B	21 JAN 94-BA
104122-0001-SA	SOLID	HG-CVAA-S	20 JAN 94-D	20 JAN 94-D	20 JAN 94-DB
104122-0003-SA	SOLID	AL-FLAA-S	21 JAN 94-B	21 JAN 94-B	21 JAN 94-BA
104122-0003-SA	SOLID	AS-HAA-S	21 JAN 94-B	21 JAN 94-B	21 JAN 94-BA
104122-0003-SA	SOLID	CD-FLAA-S	21 JAN 94-B	21 JAN 94-B	21 JAN 94-BA
104122-0003-SA	SOLID	CR-FLAA-S	21 JAN 94-B	21 JAN 94-B	21 JAN 94-BA
104122-0003-SA	SOLID	MN-FLAA-S	21 JAN 94-B	21 JAN 94-B	21 JAN 94-BA
104122-0003-SA	SOLID	NI-FLAA-S	21 JAN 94-B	21 JAN 94-B	21 JAN 94-BA
104122-0003-SA	SOLID	PB-FLAA-S	21 JAN 94-B	21 JAN 94-B	21 JAN 94-BA
104122-0003-SA	SOLID	CU-FLAA-S	21 JAN 94-B	21 JAN 94-B	21 JAN 94-BA
104122-0003-SA	SOLID	ZN-FLAA-S	21 JAN 94-B	21 JAN 94-B	21 JAN 94-BA
104122-0003-SA	SOLID	BA-FLAA-S	21 JAN 94-B	21 JAN 94-B	21 JAN 94-BA
104122-0003-SA	SOLID	HG-CVAA-S	20 JAN 94-D	20 JAN 94-D	20 JAN 94-DB

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DUPLICATE CONTROL SAMPLE REPORT
Metals Analysis and Preparation
Project: 104122

Category: AL-FLAA-S Aluminum, Flame AA
Matrix: SOLID
QC Lot: 21 JAN 94-B
Date Analyzed: 26 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Aluminum	10700	11900	11700	11800	110	47-153	1.7	20

Category: AS-HAA-S Arsenic, Hydride AA
Matrix: SOLID
QC Lot: 21 JAN 94-B
Date Analyzed: 26 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Arsenic	145	133	134	134	92	59-141	0.75	20

Category: CD-FLAA-S Cadmium, Flame AA
Matrix: SOLID
QC Lot: 21 JAN 94-B
Date Analyzed: 25 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Cadmium	154	155	152	154	100	68-132	2.0	20

Category: CR-FLAA-S Chromium, Flame AA
Matrix: SOLID
QC Lot: 21 JAN 94-B
Date Analyzed: 26 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Chromium	151	175	178	176	117	66-133	1.7	20

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

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DUPLICATE CONTROL SAMPLE REPORT
Metals Analysis and Preparation
Project: 104122

Category: MN-FLAA-S Manganese, Flame AA Method 7460
Matrix: SOLID
QC Lot: 21 JAN 94-B
Date Analyzed: 24 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Manganese	423	371	374	372	88	74-125	0.81	20

Category: NI-FLAA-S Nickel Flame AA
Matrix: SOLID
QC Lot: 21 JAN 94-B
Date Analyzed: 24 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Nickel	166	189	181	185	111	67-133	4.3	20

Category: PB-FLAA-S Method 7420 - Lead, Flame AA
Matrix: SOLID
QC Lot: 21 JAN 94-B
Date Analyzed: 24 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Lead	148	161	162	162	109	66-135	0.62	20

Category: CU-FLAA-S Copper Flame AA
Matrix: SOLID
QC Lot: 21 JAN 94-B
Date Analyzed: 25 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Copper	162	177	174	176	108	68-132	1.7	20

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

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DUPLICATE CONTROL SAMPLE REPORT
Metals Analysis and Preparation
Project: 104122

Category: ZN-FLAA-S Zinc, Flame AA
Matrix: SOLID
QC Lot: 21 JAN 94-B
Date Analyzed: 25 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Zinc	530	625	591	608	115	65-135	5.6	20

Category: BA-FLAA-S Barium, Flame AA
Matrix: SOLID
QC Lot: 21 JAN 94-B
Date Analyzed: 26 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Barium	503	453	441	447	89	76-124	2.7	20

Category: HG-CVAA-S Mercury by CVAA
Matrix: SOLID
QC Lot: 20 JAN 94-D
Date Analyzed: 21 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Mercury	29.0	31.8	32.0	31.9	110	52-148	0.63	20

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Metals Analysis and Preparation
Project: 104122

Category: AL-FLAA-S Aluminum, Flame AA
Matrix: SOLID
Sample: 104121-0001
MS Run: 21 JAN 94-BA
Units: mg/kg

Analyte	Sample Result	MS Result	MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
	Concentration								
Aluminum	10500	11500	11200	200	NC	NC	NC	60-130	20

Category: AS-HAA-S Arsenic, Hydride AA
Matrix: SOLID
Sample: 104121-0001
MS Run: 21 JAN 94-BA
Units mg/kg Units Qualifier: Wet wt.

Analyte	Sample Result	MS Result	MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
	Concentration								
Arsenic	6.80	54.1	51.8	50.0	95	90	5.4	50-127	25

Category: CD-FLAA-S Cadmium, Flame AA
Matrix: SOLID
Sample: 104121-0001
MS Run: 21 JAN 94-BA
Units: mg/kg

Analyte	Sample Result	MS Result	MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
	Concentration								
Cadmium	ND	6.00	6.00	5.00	120	120	0.0	52-130	28

NC = Not Calculated, calculation not applicable.
ND = Not Detected

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Metals Analysis and Preparation
Project: 104122 (cont.)

Category: CR-FLAA-S Chromium, Flame AA
Matrix: SOLID
Sample: 104121-0001
MS Run: 21 JAN 94-BA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Chromium	19.1	37.3	37.3	20.0	91	91	0.0	40-190	33

Category: MN-FLAA-S Manganese, Flame AA Method 7460
Matrix: SOLID
Sample: 104121-0001
MS Run: 21 JAN 94-BA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Manganese	265	298	298	50.0	NC	NC	NC	60-130	40

Category: NI-FLAA-S Nickel Flame AA
Matrix: SOLID
Sample: 104121-0001
MS Run: 21 JAN 94-BA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Nickel	18.0	76.0	78.0	50.0	116	120	3.4	55-155	25

NC = Not Calculated, calculation not applicable.

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Metals Analysis and Preparation
Project: 104122 (cont.)

Category: PB-FLAA-S Method 7420 - Lead, Flame AA
Matrix: SOLID
Sample: 104121-0001
MS Run: 21 JAN 94-BA
Units: mg/kg

Analyte	Concentration Sample Result	MS Result	MSD Result	Amount Spiked MS/MSD	%Recovery MS	MSD	%RPD	Acceptance Limit Recov.	RPD
Lead	ND	70.0	67.0	50.0	140	134	4.4	14-169	40

Category: CU-FLAA-S Copper Flame AA
Matrix: SOLID
Sample: 104121-0001
MS Run: 21 JAN 94-BA
Units: mg/kg

Analyte	Concentration Sample Result	MS Result	MSD Result	Amount Spiked MS/MSD	%Recovery MS	MSD	%RPD	Acceptance Limit Recov.	RPD
Copper	20.0	52.0	49.0	25.0	128	116	9.8	49-144	23

Category: ZN-FLAA-S Zinc, Flame AA
Matrix: SOLID
Sample: 104121-0001
MS Run: 21 JAN 94-BA
Units: mg/kg

Analyte	Concentration Sample Result	MS Result	MSD Result	Amount Spiked MS/MSD	%Recovery MS	MSD	%RPD	Acceptance Limit Recov.	RPD
Zinc	66.0	107	107	50.0	82	82	0.0	65-138	25

ND = Not Detected

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Metals Analysis and Preparation
Project: 104122 (cont.)

Category: BA-FLAA-S Barium, Flame AA
Matrix: SOLID
Sample: 104121-0001
MS Run: 21 JAN 94-BA
Units: mg/kg

Analyte	Concentration Sample Result	MS Result	MSD Result	Amount Spiked MS/MSD	%Recovery MS	MSD	%RPD	Acceptance Limit Recov.	RPD
Barium	152	298	297	200	73	73	0.0	40-130	30

Category: HG-CVAA-S Mercury by CVAA
Matrix: SOLID
Sample: 104121-0001
MS Run: 20 JAN 94-DB
Units mg/kg Units Qualifier: Wet wt.

Analyte	Concentration Sample Result	MS Result	MSD Result	Amount Spiked MS/MSD	%Recovery MS	MSD	%RPD	Acceptance Limit Recov.	RPD
Mercury	ND	0.488	0.450	0.438	111	103	7.5	33-178	40

ND = Not Detected

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

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METHOD BLANK REPORT
Metals Analysis and Preparation
Project: 104122

Test: AL-FLAA-MDL-S Method 7020 - Aluminum, Flame AA
Matrix: SOLID
QC Run: 21 JAN 94-B Date Analyzed: 26 JAN 94

Analyte	Result	Units	Reporting Limit
Aluminum	ND	mg/kg	100

Test: AS-HAA-MDL-S Method 7062 - Arsenic, Hydride AA
Matrix: SOLID
QC Run: 21 JAN 94-B Date Analyzed: 26 JAN 94

Analyte	Result	Units	Reporting Limit
Arsenic	ND	mg/kg	0.50

Test: CD-FLAA-MDL-S Method 7130 - Cadmium, Flame AA
Matrix: SOLID
QC Run: 21 JAN 94-B Date Analyzed: 25 JAN 94

Analyte	Result	Units	Reporting Limit
Cadmium	ND	mg/kg	5.0

Test: CR-FLAA-MDL-S Method 7190 - Chromium, Flame AA
Matrix: SOLID
QC Run: 21 JAN 94-B Date Analyzed: 26 JAN 94

Analyte	Result	Units	Reporting Limit
Chromium	ND	mg/kg	10.0

Test: MN-FLAA-MDL-S Manganese, Flame AA
Matrix: SOLID
QC Run: 21 JAN 94-B Date Analyzed: 24 JAN 94

Analyte	Result	Units	Reporting Limit
Manganese	ND	mg/kg	5.0

ND = Not Detected

METHOD BLANK REPORT
Metals Analysis and Preparation (cont.)
Project: 104122

Test: NI-FLAA-MDL-S Method 7520 - Nickel, Flame AA
Matrix: SOLID
QC Run: 21 JAN 94-B Date Analyzed: 24 JAN 94

Analyte	Result	Units	Reporting Limit
Nickel	ND	mg/kg	10.0

Test: PB-FLAA-MDL-S Method 7420 - Lead, FLame AA
Matrix: SOLID
QC Run: 21 JAN 94-B Date Analyzed: 24 JAN 94

Analyte	Result	Units	Reporting Limit
Lead	ND	mg/kg	20.0

Test: CU-FLAA-MDL-S Method 7210 - Copper, Flame AA
Matrix: SOLID
QC Run: 21 JAN 94-B Date Analyzed: 25 JAN 94

Analyte	Result	Units	Reporting Limit
Copper	ND	mg/kg	10.0

Test: ZN-FLAA-MDL-S Method 7950 - Zinc, Flame AA
Matrix: SOLID
QC Run: 21 JAN 94-B Date Analyzed: 25 JAN 94

Analyte	Result	Units	Reporting Limit
Zinc	ND	mg/kg	2.0

Test: BA-FLAA-MDL-S Method 7080 - Barium, Flame AA
Matrix: SOLID
QC Run: 21 JAN 94-B Date Analyzed: 26 JAN 94

Analyte	Result	Units	Reporting Limit
Barium	ND	mg/kg	50.0

ND = Not Detected

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METHOD BLANK REPORT
Metals Analysis and Preparation (cont.)
Project: 104122

Test: HG-CVAA-MDL-S Method 7471 - Mercury, Cold Vapor AA
Matrix: SOLID
QC Run: 20 JAN 94-D Date Analyzed: 21 JAN 94

Analyte	Result	Units	Reporting Limit
Mercury	ND	mg/kg	0.10

ND = Not Detected

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QC LOT ASSIGNMENT REPORT - MS QC
Wet Chemistry Analysis and Preparation

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
104122-0001-SA	SOLID	CN-S	24 JAN 94-A	24 JAN 94-A	24 JAN 94-AA
104122-0001-SA	SOLID	CLO3-S	19 JAN 94-A	19 JAN 94-A	19 JAN 94-AA

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DUPLICATE CONTROL SAMPLE REPORT
Wet Chemistry Analysis and Preparation
Project: 104122

Category: CN-S Cyanide (9012) SOLID
Matrix: SOLID
QC Lot: 24 JAN 94-A Date Analyzed: 25 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Cyanide, Total	5.00	4.44	4.81	4.62	93	70-123	8.0	21

Category: CLO3-S Chlorate, Liquid
Matrix: SOLID
QC Lot: 19 JAN 94-A Date Analyzed: 19 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Chlorate, Solid	10.0	9.57	9.50	9.54	95	80-120	0.73	20

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Wet Chemistry Analysis and Preparation
Project: 104122

Category: CN-S Cyanide (9012) SOLID
Matrix: SOLID
Sample: 104121-0001
MS Run: 24 JAN 94-AA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Cyanide, Total	ND	4.86	4.75	5.00	97	95	2.1	41-159	48

Category: CLO3-S Chlorate, Liquid
Matrix: SOLID
Sample: 104121-0004
MS Run: 19 JAN 94-AA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Chlorate, Solid	ND	8.76	8.93	10.0	88	89	1.1	80-120	20

ND = Not Detected

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

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METHOD BLANK REPORT
Wet Chemistry Analysis and Preparation
Project: 104122

Test: CN-MDL-S Method 9012 - Cyanide, Total
Matrix: SOLID
QC Run: 24 JAN 94-A Date Analyzed: 25 JAN 94

Analyte	Result	Units	Reporting Limit
Cyanide, Total	ND	mg/kg	0.50

Test: CLO3-MDL-S Method 300.0 - Chlorate, Ion Chromatography
Matrix: SOLID
QC Run: 19 JAN 94-A Date Analyzed: 19 JAN 94

Analyte	Result	Units	Reporting Limit
Chlorate, Solid	ND	mg/kg	1.0

ND = Not Detected

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QC LOT ASSIGNMENT REPORT - MS QC
Volatile Organics by GC/MS

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
104122-0002-SA	SOLID	8240-S	19 JAN 94-AF	19 JAN 94-AF	19 JAN 94-AF
104122-0003-SA	SOLID	8240-S	19 JAN 94-AF	19 JAN 94-AF	19 JAN 94-AF

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DUPLICATE CONTROL SAMPLE REPORT
Volatile Organics by GC/MS
Project: 104122

Category: 8240-S Volatile Organics
Matrix: SOLID
QC Lot: 19 JAN 94-AF
Date Analyzed: 19 JAN 94
Concentration Units: ug/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average(%) DCS	Accuracy Average(%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
1,1-Dichloroethene	50.0	37.4	36.8	37.1	74	50-121	1.6	31
Trichloroethene	50.0	49.3	47.9	48.6	97	69-114	2.9	17
Benzene	50.0	49.8	47.8	48.8	98	78-117	4.1	16
Toluene	50.0	51.6	51.0	51.3	103	79-118	1.2	17
Chlorobenzene	50.0	55.5	52.9	54.2	108	79-119	4.8	17

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Volatile Organics by GC/MS
Project: 104122

Category: 8240-S Volatile Organics
Matrix: SOLID
Sample: 104122-0003
MS Run: 19 JAN 94-AF
Units: ug/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
1,1-Dichloroethene	ND	36.8	34.3	50.0	74	69	7.0	46-136	28
Trichloroethene	ND	52.9	49.8	50.0	106	100	5.8	58-131	26
Benzene	ND	51.9	48.8	50.0	104	98	5.9	63-139	23
Toluene	ND	55.8	52.8	50.0	112	106	5.5	68-140	24
Chlorobenzene	ND	55.1	52.9	50.0	110	106	3.7	68-138	23

ND = Not Detected

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

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SINGLE CONTROL SAMPLE REPORT
Volatile Organics by GC/MS
Project: 104122

Category: 8240-S Volatile Organics
Matrix: SOLID
QC Run: 19 JAN 94-AF Date Analyzed: 19 JAN 94
Concentration Units: ug/kg

Analyte	Concentration Spiked	Concentration Measured	Accuracy(%) SCS	Accuracy(%) Limits
1,2-Dichloroethane-d4	50.0	51.6	103	70-121
Toluene-d8	50.0	51.8	104	81-117
Bromofluorobenzene	50.0	50.9	102	74-121

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

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METHOD BLANK REPORT
Volatile Organics by GC/MS
Project: 104122

Test: 8240-HLA-S Method 8240 - Volatile Organics, EPA 8240 Extended List
Matrix: SOLID
QC Run: 19 JAN 94-AF Date Analyzed: 19 JAN 94

Analyte	Result	Units	Reporting Limit
Dichlorodifluoromethane	ND	ug/kg	10
Chloromethane	ND	ug/kg	10
Bromomethane	ND	ug/kg	10
Vinyl chloride	ND	ug/kg	10
Chloroethane	ND	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/kg	5.0
Methylene chloride	TR	ug/kg	5.0
Acetone	ND	ug/kg	10
Trichlorofluoromethane	ND	ug/kg	5.0
1,1-Dichloroethene	ND	ug/kg	5.0
Nitromethane	ND	ug/kg	200
trans-1,2-Dichloroethene	ND	ug/kg	5.0
cis-1,2-Dichloroethene	ND	ug/kg	5.0
1,1-Dichloroethane	ND	ug/kg	5.0
2,2-Dichloropropane	ND	ug/kg	5.0
Bromochloromethane	ND	ug/kg	5.0
Chloroform	ND	ug/kg	5.0
1,1-Dichloropropene	ND	ug/kg	5.0
1,2-Dichloroethane	ND	ug/kg	5.0
Dibromomethane	ND	ug/kg	5.0
1,1,1-Trichloroethane	ND	ug/kg	5.0
Carbon tetrachloride	ND	ug/kg	5.0
Bromodichloromethane	ND	ug/kg	5.0
1,2-Dichloropropane	ND	ug/kg	5.0
1,3-Dichloropropane	ND	ug/kg	5.0
Trichloroethene	ND	ug/kg	5.0
Dibromochloromethane	ND	ug/kg	5.0
1,1,2-Trichloroethane	ND	ug/kg	5.0
Benzene	ND	ug/kg	5.0
Bromoform	ND	ug/kg	5.0
Tetrachloroethene	ND	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.0
Toluene	ND	ug/kg	5.0
Chlorobenzene	ND	ug/kg	5.0
Ethylbenzene	ND	ug/kg	5.0
Styrene	ND	ug/kg	5.0
Xylenes (total)	ND	ug/kg	5.0
1-Methylethylbenzene	ND	ug/kg	5.0
Bromobenzene	ND	ug/kg	5.0
1,2,3-Trichloropropane	ND	ug/kg	5.0
2-Chlorotoluene	ND	ug/kg	5.0
n-Propyl benzene	ND	ug/kg	5.0
1,3,5-Trimethylbenzene	ND	ug/kg	5.0

ND = Not Detected

METHOD BLANK REPORT
Volatile Organics by GC/MS (cont.)
Project: 104122

Test: 8240-HLA-S Method 8240 - Volatile Organics, EPA 8240 Extended List
Matrix: SOLID
QC Run: 19 JAN 94-AF Date Analyzed: 19 JAN 94

Analyte	Result	Units	Reporting Limit
4-Chlorotoluene	ND	ug/kg	5.0
tert-Butylbenzene	ND	ug/kg	5.0
1,2,4-Trimethylbenzene	ND	ug/kg	5.0
sec-Butylbenzene	ND	ug/kg	5.0
Isopropyltoluene	ND	ug/kg	5.0
1,3-Dichlorobenzene	ND	ug/kg	5.0
1,4-Dichlorobenzene	ND	ug/kg	5.0
n-Butylbenzene	ND	ug/kg	5.0
1,2-Dichlorobenzene	ND	ug/kg	5.0
1,2,4-Trichlorobenzene	ND	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND	ug/kg	5.0
Hexachlorobutadiene	ND	ug/kg	5.0
Naphthalene	ND	ug/kg	5.0
1,2,3-Trichlorobenzene	ND	ug/kg	5.0

ND = Not Detected

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QC LOT ASSIGNMENT REPORT - MS QC
Semivolatile Organics by GC/MS

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
104122-0002-SA	SOLID	8270-S	19 JAN 94-A	19 JAN 94-A	19 JAN 94-AA
104122-0003-SA	SOLID	8270-S	19 JAN 94-A	19 JAN 94-A	19 JAN 94-AA

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DUPLICATE CONTROL SAMPLE REPORT
Semivolatile Organics by GC/MS
Project: 104122

Category: 8270-S Method 8270 - TCL Semivolatile Organics
Matrix: SOLID
QC Lot: 19 JAN 94-A Date Analyzed: 20 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Phenol	6.67	3.94	3.59	3.76	56	39-106	9.3	31
2-Chlorophenol	6.67	3.88	4.26	4.07	61	44-107	9.3	32
1,4-Dichlorobenzene	3.33	2.71	2.62	2.66	80	40-107	3.4	23
N-Nitroso-di-n-propylamine	3.33	2.64	2.47	2.56	77	31-132	6.7	38
1,2,4-Trichlorobenzene	3.33	2.86	2.94	2.90	87	38-120	2.8	22
4-Chloro-3-methylphenol	6.67	4.82	4.44	4.63	69	40-119	8.2	24
Acenaphthene	3.33	2.50	2.63	2.56	77	30-140	5.1	24
2,4-Dinitrotoluene	3.33	2.61	2.50	2.56	77	30-121	4.3	28
4-Nitrophenol	6.67	6.07	5.85	5.96	89	16-143	3.7	54
Pentachlorophenol	6.67	8.73	8.51	8.62	129	21-152	2.6	43
Pyrene	3.33	2.73	2.75	2.74	82	45-120	0.73	26

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

Enseco
A Corning Company

SINGLE CONTROL SAMPLE REPORT
Semivolatile Organics by GC/MS
Project: 104122

Category: 8270-S Method 8270 - TCL Semivolatile Organics
Matrix: SOLID
QC Run: 19 JAN 94-A Date Analyzed: 19 JAN 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Concentration Measured	Accuracy(%) SCS	Accuracy(%) Limits
2-Fluorophenol	6.67	6.97	104	25-121
Phenol-d5	6.67	5.24	79	24-113
Nitrobenzene-d5	3.33	2.87	86	23-120
2-Fluorobiphenyl	3.33	2.79	84	30-115
2,4,6-Tribromophenol	6.67	5.44	82	19-122
Terphenyl-d14	3.33	3.21	96	18-137

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

Enseco
A Corning Company

MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Semivolatile Organics by GC/MS
Project: 104122

Category: 8270-S Method 8270 - TCL Semivolatile Organics
Matrix: SOLID
Sample: 104121-0002
MS Run: 19 JAN 94-AA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Phenol	ND	5.08	4.56	6.67	76	68	11	25-110	74
2-Chlorophenol	ND	4.97	4.27	6.67	75	64	16	33-103	42
1,4-Dichlorobenzene	ND	2.76	2.36	3.33	83	71	16	22-110	55
N-Nitroso-di-n-propylamine	ND	2.94	2.67	3.33	88	80	9.5	18-138	49
1,2,4-Trichlorobenzene	ND	2.74	2.44	3.33	82	73	12	29-119	43
4-Chloro-3-methylphenol	ND	4.44	4.45	6.67	67	67	0.0	36-119	41
Acenaphthene	ND	2.70	2.54	3.33	81	76	6.4	17-148	36
2,4-Dinitrotoluene	ND	2.86	2.40	3.33	86	72	18	27-120	41
4-Nitrophenol	ND	4.14	2.16	6.67	62	32	64	16-143	80
Pentachlorophenol	ND	0.422	0.232	6.67	6	3	75	21-152	61
Pyrene	ND	3.33	3.02	3.33	100	91	9.5	24-133	46

ND = Not Detected

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

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METHOD BLANK REPORT
Semivolatile Organics by GC/MS
Project: 104122

Test: 8270-HLA-S Method 8270 - Semivolatile Organics
Matrix: SOLID
QC Run: 19 JAN 94-A Date Analyzed: 19 JAN 94

Analyte	Result	Units	Reporting Limit
N-Nitrosodiethylamine	ND	mg/kg	0.33
Phenol	ND	mg/kg	0.33
bis(2-Chloroethyl) ether	ND	mg/kg	0.33
2-Chlorophenol	ND	mg/kg	0.33
1,3-Dichlorobenzene	ND	mg/kg	0.33
1,4-Dichlorobenzene	ND	mg/kg	0.33
Benzyl alcohol	ND	mg/kg	0.33
1,2-Dichlorobenzene	ND	mg/kg	0.33
2-Methylphenol	ND	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND	mg/kg	0.33
3/4-Methylphenol	ND	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND	mg/kg	0.33
Hexachloroethane	ND	mg/kg	0.33
Nitrobenzene	ND	mg/kg	0.33
Isophorone	ND	mg/kg	0.33
2-Nitrophenol	ND	mg/kg	0.33
2,4-Dimethylphenol	ND	mg/kg	0.33
Benzoic acid	ND	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND	mg/kg	0.33
2,4-Dichlorophenol	ND	mg/kg	0.33
1,2,4-Trichlorobenzene	ND	mg/kg	0.33
Naphthalene	ND	mg/kg	0.33
4-Chloroaniline	ND	mg/kg	0.33
Hexachlorobutadiene	ND	mg/kg	0.33
4-Chloro-3-methylphenol	ND	mg/kg	0.33
2-Methylnaphthalene	ND	mg/kg	0.33
Hexachlorocyclopentadiene	ND	mg/kg	0.33
2,4,6-Trichlorophenol	ND	mg/kg	0.33
2,4,5-Trichlorophenol	ND	mg/kg	1.7
2-Chloronaphthalene	ND	mg/kg	0.33
2-Nitroaniline	ND	mg/kg	1.7
Dimethyl phthalate	ND	mg/kg	0.33
Acenaphthylene	ND	mg/kg	0.33
3-Nitroaniline	ND	mg/kg	1.7
Acenaphthene	ND	mg/kg	0.33
2,4-Dinitrophenol	ND	mg/kg	1.7
4-Nitrophenol	ND	mg/kg	1.7
Dibenzofuran	ND	mg/kg	0.33
2,4-Dinitrotoluene	ND	mg/kg	0.33
2,6-Dinitrotoluene	ND	mg/kg	0.33
Diethyl phthalate	ND	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND	mg/kg	0.33
Fluorene	ND	mg/kg	0.33
4-Nitroaniline	ND	mg/kg	1.7
4,6-Dinitro-2-methylphenol	ND	mg/kg	1.7

ND = Not Detected

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METHOD BLANK REPORT
Semivolatile Organics by GC/MS (cont.)
Project: 104122

Test: 8270-HLA-S Method 8270 - Semivolatile Organics
Matrix: SOLID
QC Run: 19 JAN 94-A Date Analyzed: 19 JAN 94

Analyte	Result	Units	Reporting Limit
N-Nitrosodiphenylamine	ND	mg/kg	0.33
4-Bromophenyl phenyl ether	ND	mg/kg	0.33
Hexachlorobenzene	ND	mg/kg	0.33
Pentachlorophenol	ND	mg/kg	1.7
Phenanthrene	ND	mg/kg	0.33
Anthracene	ND	mg/kg	0.33
Di-n-butyl phthalate	ND	mg/kg	0.33
Fluoranthene	ND	mg/kg	0.33
Pyrene	ND	mg/kg	0.33
Butyl benzyl phthalate	ND	mg/kg	0.33
3,3'-Dichlorobenzidine	ND	mg/kg	0.66
Benzo(a)anthracene	ND	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND	mg/kg	0.33
Chrysene	ND	mg/kg	0.33
Di-n-octyl phthalate	ND	mg/kg	0.33
Benzo(b)fluoranthene	ND	mg/kg	0.33
Benzo(k)fluoranthene	ND	mg/kg	0.33
Benzo(a)pyrene	ND	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND	mg/kg	0.33
Dibenz(a,h)anthracene	ND	mg/kg	0.33
Benzo(g,h,i)perylene	ND	mg/kg	0.33
Xylidine (Total)	ND	mg/kg	0.33

ND = Not Detected

Harding Lawson Associates
Hutton Centre Drive, Suite 200
Santa Ana, California 92707
714/556-7992 – 213/617-7232
FAX: 714/662-3297

CHAIN OF CUSTODY FORM 104122

Lab: ENSECO

Samplers: KAREN WITBAARK

Job Number: 26522.2.3

Name/Location: AEROSET

Project Manager: MATT HUNTER

Recorder: Karen Witbaark (Signature Required)

SOURCE CODE	MATRIX: Water	Sediment	Soil	Oil	#CONTAINERS & PRESERV.: Unpres.	H_2SO_4	HNO_3	CHILLED	SAMPLE NUMBER OR LAB NUMBER: Yr	Wk	Seq	DATE: Yr	Mo	Dy	Time	STATION DESCRIPTION/ NOTES	EPA 601/8010	EPA 602/8020	EPA 624/8240	EPA 625/8270	Priority Pltnt. Metals	Benzene/Toluene/Xylene	Total Petrol. Hydrocarb.	EPA 1010 Sim. metals	Chloride	EPA 9012 CN						HOLD
SO			X		X			I	SZB-25		5.25	94	01	17	0800	2½"X3" S.S. SLEEVE								X	X	X						
									SZB-25		5.50				0800			X	X													
									SZB-25		10.25				0815																	X
									SZB-25		10.50				0815																	X
									SZB-25		19.5				1035																	X
									SZB-25		19.75				1035			X	X				X									
									SZB-25		25.0				1045																	X
									SZB-25		30.25				1100																	X
									SZB-25		30.5				1100																	X
									SZB-25		40.0				1125			X	X						X							

custody seal # 3624 & 3625 missing

LAB NUMBER: Yr	Wk	Seq	DEPTH IN FEET	COL MTD CD	QA CODE	MISCELLANEOUS
						REPORT TO MATT HUNTER FOR ANALYSIS

CHAIN OF CUSTODY RECORD

1357 1/17/94

RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
Karen Witbaark		
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
DISPATCHED BY: (Signature) DATE/TIME	RECEIVED FOR LAB BY: (Signature) Cindy Conga	DATE/TIME 1/17/94 13:57

METHOD OF SHIPMENT

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6532

Inv COC
LOO.
Comm

Enseco
Corning Environmental Services

Enseco – CRL
7440 Lincoln Way • Garden Grove, CA 92641
(714) 898-6370 • (213) 598-0458 • (800) LAB-1-CRL
FAX: (714) 895-5360

April 25, 1994

HARDING LAWSON ASSOCIATES
3 HUTTON CENTRE DRIVE, STE 200
SANTA ANA, CA 92707
ATTN: MR. TOM LINDROS

LAB NO.: 105129-0001/0008
DATE SAMPLED: 11-APR-1994
DATE SAMPLE REC'D: 12-APR-1994
PROJECT: (26522.2.5) AEROJET

Enclosed with this letter is the report of the analytical results for the project specified above. Anomalies associated with this report are described in the Narrative section.

Report data sheets contain a list of the constituents measured in each test, the analytical results and the Enseco-CRL reporting limit. Reporting limits are adjusted to reflect any dilution factors or dry weight correction, when applicable. Solid and waste samples are reported on an "as received" basis, unless dry-weight correction is requested.

Melanie Lowry
REVIEWED

Sabina R. Sudoko
APPROVED

The Report Cover Letter is an integral part of this report.
This report pertains only to the samples investigated and does not necessarily apply to other apparently identical or similar materials. This report is submitted for the exclusive use of the client to whom it is addressed. Any reproduction of this report or use of this Laboratory's name for advertising or publicity purposes without authorization is prohibited.

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Corning Environmental Services

Section	Description
Cover letter	Signature page, report narrative as applicable.
Sample Description Information	Tabulated cross-reference between the Lab ID and Client ID, including matrix, date and time sampled and the date received for all samples in the project.
Sample Analysis Results Sheets	Lists sample results, test components, reporting limit, dates prepared and analyzed and any data qualifiers. Pages are organized by test.
QC Lot Assignment Report	Cross-reference between lab ID's and applicable QC batches (DCS, LCS, SCS, Blank, MS/SD, DU)
Duplicate Control Sample Report	Percent recovery and RPD results, with acceptance limits, for the laboratory duplicate control samples for each test are tabulated in this report. These are measures of accuracy and precision for each test. Acceptance limits are based upon laboratory historical data.
Laboratory Control Sample Report	Percent recovery results for a single Laboratory Control Sample (if applicable) are tabulated in this report, with the applicable acceptance limits for each test.
Matrix Spike/Matrix Spike Duplicate Report	Percent recovery and RPD results for matrix-specific QC samples and acceptance limits, where applicable. This report can be used to assess matrix effects on an analysis.
Single Control Sample Report	A tabulation of the surrogate recoveries for the blank for organic analyses.
Method Blank Report	A summary of the results of the analysis of the method blank for each test.

List of Abbreviations and Terms

DCS	Duplicate Control Sample	MSD	Matrix Spike Duplicate
DU	Sample Duplicate	QC Run	Preparation batch
EB	Equipment Blank	QC Category	LIMS QC Category
FB	Field Blank	QC Lot	DCS batch
FD	Field Duplicate	ND	Not Detected at the reporting limit expressed
IDL	Instrument Detection Limit (Metals)	QC Matrix	Matrix of the laboratory control sample (s)
LCS	Laboratory Control Sample	RL	Reporting Limit
MB	Method Blank	QC	Quality Control
MDL	Method Detection Limit (Organics)	SA	Sample
MS	Matrix Spike	SD	See MSD
RPD	Relative Percent Difference	TB	Trip Blank
ppm (parts per million)	mg/L or mg/kg	ppb (parts per billion)	ug/L or ug/kg
QUAL	Qualifier flag	DIL	Dilution Factor

Refer to the Enseco Quality Assurance Program Plan for detailed explanations of terms summarized above.

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LIMS # 105129

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II. Chain of Custody and Sample Description Information

III. Analytical Results Summary (LIMS Report)
- A. LIMS Datasheets
- B. QC Summaries

NARRATIVE

LIMS # 105129

The samples were received by Enseco-CRL in a chilled state, intact, and with the chain of custody.

Per instruction from HLA personnel, SW8240 was added to sample ID SZB-28D 4.0.

The MS Percent Recovery for 4-Nitrophenol was not within the acceptance limits specified in HLA's "Laboratory Analytical Technical Requirements," but it was within Enseco's-CRL's established acceptance limits. Therefore the data was accepted and no further action was required.

The MS/MSD Percent Recoveries for Aluminum, Manganese and Copper were not within the acceptance limits specified in HLA's "Laboratory Analytical Technical Requirements," nor was it within Enseco's-CRL's established acceptance limits. However, the DCS recoveries were within all acceptable ranges, therefore the data was accepted and no further action was required.

The MS/MSD Percent Recovery for Lead was not within the acceptance limits specified in HLA's "Laboratory Analytical Technical Requirements, but it was within Enseco's-CRL established acceptance limits, therefore the data was accepted and no further action was required.

Harding Lawson Associates
Hutton Centre Drive, Suite 200
Santa Ana, California 92707
714/556-7992 – 213/617-7232
FAX: 714/662-3297

105129

CHAIN OF CUSTODY FORM

Lab: ENSECO

Samplers: KAREN WITBAARD

Job Number: 26522.2.5

Name/Location: AEROSET AISA SZB OFF SITE

Project Manager: TOM LINDROS

Recorder: Karen Witbaard (Signature Required)

SOURCE CODE	MATRIX: Water	Sediment	Soil	Oil	#CONTAINERS & PRESERV.: Unpres.	H_2SO_4	HNO_3	SAMPLE NUMBER OR LAB NUMBER: Yr	Wk	Seq	DATE: Yr	Mo	Dy	Time	STATION DESCRIPTION/ NOTES	EPA 601/8010	EPA 602/8020	EPA 624/8240	EPA 625/8270	Priority Pllnt. Metals	Benzene/Toluene/Xylene	Total Petrol. Hydrocarb.	9012 EPA	8015 (mod)	EPA 601/ Priority Pollu. Metals	CHLORATE			NEED EPA DATA PACKAGE
50			X		1			SZB-28D		4.0	94	04	11	1536	2"x3½" SS SLEEVE		X	X				X		X	X	X			
50			X		1			SZB-28D		15.25				1639															X
50			X		1			SZB-28D		15.50				1639															X

(X) - see FAX from client
Shirna 4/12/94

custody seal # 0883 0884

LAB NUMBER: Yr	Wk	Seq	DEPTH IN FEET	COL MTD CD	QA CODE	MISCELLANEOUS
						analyze per project contract send lab results to Tom Hardie (714) 556-7992 QUESTIONS → PLEASE CALL TOM LINDROS (805)-494-7725

CHAIN OF CUSTODY RECORD

1714

RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
Karen Witbaard 4/11/94	[signature]	4/11/94
[signature]	[signature]	4/11/94 1823

DISPATCHED BY: (Signature)	DATE/TIME	RECEIVED FOR LAB BY: (Signature)	DATE/TIME
		[signature]	4-11-94 18:23

METHOD OF SHIPMENT: LAB COURIER PICK UP

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6533

105129

Harding Lawson Associates
3 Hutton Centre Drive, Suite 200
Santa Ana, California 92707
714/556-7992 – 213/617-7232
FAX: 714/662-3297

CHAIN OF CUSTODY FORM

Lab: ENSECO

Samplers: KAREN

Job Number: 26522.3.4

Name/Location: AEROJET AISA AIR ONSITE

Project Manager: TOM LUNDROS

Recorder: Karen Witbaard (Signature Required)

SOURCE CODE	MATRIX: Water	Sediment	Soil	Oil	#CONTAINERS & PRESERV.: Unpres.	H_2SO_4	HNO_3	SAMPLE NUMBER OR LAB NUMBER: Yr	Wk	Seq	DATE: Yr	Mo	Dy	Time	STATION DESCRIPTION/ NOTES	EPA 601/8010	EPA 602/8020	EPA 624/8240	EPA 625/8270	Priority Pltnt. Metals	Benzene/Toluene/Xylene	Total Petrol. Hydrocarb.	9010	6012/7000 SERIES	NEED RAW DATA PACKAGE	HOLD
50			X		1	KTW		SZ	B-05E	1.0	94	04	11	0914	2½"x3 SSI TUBES				X				X	X		
50			X		1			SZ	B-05E	1.25	94	04	11	0914	↓	KTW			X				X	X		X

custody seal #s 0883 & 0884

LAB NUMBER: Yr	Wk	Seq	DEPTH IN FEET	COL MTD CD	QA CODE	MISCELLANEOUS
						ANALYZE PER AEROJET CONTRACT SEND LAB RESULTS TO TOM HARDER 714 556-7992 QUESTIONS - PLEASE CALL TOM LINDROS @ 805-494-7725

CHAIN OF CUSTODY RECORD

1714

RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
Karen Witbaard 4/11/94	[signature]	4/11/94
[signature]		4/11/94 1823

DISPATCHED BY: (Signature) DATE/TIME

RECEIVED FOR LAB BY: (Signature) [signature] DATE/TIME 4/11/94 18:23

METHOD OF SHIPMENT: LAB CURIOUR PICK-UP.

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6533

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Corning Environmental Services

SAMPLE DESCRIPTION INFORMATION
for
Harding Lawson Associates

Lab ID	Client ID	Matrix	Sampled Date	Sampled Time	Received Date
105129-0001-SA	SZB-28D 4.0	SOLID	11 APR 94	15:36	11 APR 94
105129-0002-SA	SZB-05E 1.0	SOLID	11 APR 94	09:14	11 APR 94
105129-0003-SA	SZB-28D 15.25	SOLID	11 APR 94	16:39	11 APR 94
105129-0004-SA	SZB-28D 15.50	SOLID	11 APR 94	16:39	11 APR 94
105129-0005-SA	SZB-05E 1.25	SOLID	11 APR 94	09:14	11 APR 94

Enseco
Corning Environmental Services

METALS

Client Name: Harding Lawson Associates
Client ID: SZB-28D 4.0
LAB ID: 105129-0001-SA
Matrix: SOLID — Sampled: 11 APR 94 — Received: 11 APR 94
Authorized: 12 APR 94 — Prepared: See Below — Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Aluminum	8490		50.0	200	mg/kg	7020	14 APR 94	18 APR 94
Arsenic	5.0		0.20	0.50	mg/kg	7062	14 APR 94	19 APR 94
Barium	57.0		20.0	50.0	mg/kg	7080	14 APR 94	18 APR 94
Chromium	20.4		5.0	10.0	mg/kg	7190	14 APR 94	18 APR 94
Copper	32.0		5.0	10.0	mg/kg	7210	14 APR 94	15 APR 94
Lead	ND		20.0	20.0	mg/kg	7420	14 APR 94	15 APR 94
Manganese	254		2.0	5.0	mg/kg	7460	14 APR 94	15 APR 94
Nickel	29.0		5.0	10.0	mg/kg	7520	14 APR 94	15 APR 94
Zinc	47.0		1.0	2.0	mg/kg	7950	14 APR 94	18 APR 94
Cadmium	ND		2.0	5.0	mg/kg	7130	14 APR 94	18 APR 94
Mercury	ND		0.090	0.10	mg/kg	7471	14 APR 94	14 APR 94

ND = Not Detected

Enseco
Corning Environmental Services

METALS

Client Name: Harding Lawson Associates
Client ID: SZB-05E 1.0
Lab ID: 105129-0002-SA
Matrix: SOLID — Sampled: 11 APR 94 — Received: 11 APR 94
Authorized: 12 APR 94 — Prepared: See Below — Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Aluminum	7170		50.0	200	mg/kg	7020	14 APR 94	18 APR 94
Arsenic	47.2		0.20	5.0	mg/kg	7062	14 APR 94	19 APR 94
Barium	67.0		20.0	50.0	mg/kg	7080	14 APR 94	18 APR 94
Chromium	23.4		5.0	10.0	mg/kg	7190	14 APR 94	18 APR 94
Copper	31.0		5.0	10.0	mg/kg	7210	14 APR 94	15 APR 94
Lead	ND		20.0	20.0	mg/kg	7420	14 APR 94	15 APR 94
Manganese	298		2.0	5.0	mg/kg	7460	14 APR 94	15 APR 94
Nickel	20.0		5.0	10.0	mg/kg	7520	14 APR 94	15 APR 94
Zinc	64.5		1.0	2.0	mg/kg	7950	14 APR 94	18 APR 94
Cadmium	ND		2.0	5.0	mg/kg	7130	14 APR 94	18 APR 94
Mercury	0.54		0.090	0.10	mg/kg	7471	14 APR 94	14 APR 94

ND = Not Detected

Enseco
Corning Environmental Services

GENERAL INORGANICS

Client Name: Harding Lawson Associates
Client ID: SZB-28D 4.0
LAB ID: 105129-0001-SA
Matrix: SOLID — Sampled: 11 APR 94 — Received: 11 APR 94
Authorized: 12 APR 94 — Prepared: See Below — Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Cyanide, Total	ND		0.30	0.50	mg/kg	9012	14 APR 94	14 APR 94
Chlorate, Solid	ND		0.50	1.0	mg/kg	300.0	21 APR 94	21 APR 94

ND = Not Detected

Enseco
Corning Environmental Services

GENERAL INORGANICS

Client Name: Harding Lawson Associates
Client ID: SZB-05E 1.0
LAB ID: 105129-0002-SA
Matrix: SOLID — Sampled: 11 APR 94 — Received: 11 APR 94
Authorized: 12 APR 94 — Prepared: See Below — Analyzed: See Below

Parameter	Result	Qual	IDL	Rep Lim	Units	Method	Prepared Date	Analyzed Date
Cyanide, Total	ND		0.30	0.50	mg/kg	9012	14 APR 94	14 APR 94

ND = Not Detected

Enseco
Corning Environmental Services

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-28D 4.0
LAB ID: 105129-0001-SA
Matrix: SOLID Sampled: 11 APR 94 Received: 11 APR 94
Authorized: 12 APR 94 Prepared: 15 APR 94 Analyzed: 15 APR 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
Dichlorodifluoromethane	ND		1.2	ug/kg	10
Chloromethane	ND		0.79	ug/kg	10
Bromomethane	ND		0.73	ug/kg	10
Vinyl chloride	ND		1.5	ug/kg	10
Chloroethane	ND		1.4	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	ug/kg	5.0
Methylene chloride	TR		1.1	ug/kg	5.0
Acetone	11		7.1	ug/kg	10
Trichlorofluoromethane	ND		0.85	ug/kg	5.0
1,1-Dichloroethene	ND		2.5	ug/kg	5.0
Nitromethane	ND		16	ug/kg	200
trans-1,2-Dichloroethene	ND		0.99	ug/kg	5.0
cis-1,2-Dichloroethene	ND		0.93	ug/kg	5.0
1,1-Dichloroethane	ND		0.67	ug/kg	5.0
2,2-Dichloropropane	ND		0.85	ug/kg	5.0
Bromochloromethane	ND		0.74	ug/kg	5.0
Chloroform	ND		0.89	ug/kg	5.0
1,1-Dichloropropene	ND		0.62	ug/kg	5.0
1,2-Dichloroethane	ND		0.66	ug/kg	5.0
Dibromomethane	ND		0.70	ug/kg	5.0
1,1,1-Trichloroethane	ND		1.6	ug/kg	5.0
Carbon tetrachloride	ND		0.37	ug/kg	5.0
Bromodichloromethane	ND		0.34	ug/kg	5.0
1,2-Dichloropropane	ND		0.51	ug/kg	5.0
1,3-Dichloropropane	ND		0.54	ug/kg	5.0
Trichloroethene	ND		0.52	ug/kg	5.0
Dibromochloromethane	ND		0.45	ug/kg	5.0
1,1,2-Trichloroethane	ND		0.72	ug/kg	5.0
Benzene	ND		0.38	ug/kg	5.0
Bromoform	ND		0.53	ug/kg	5.0
Tetrachloroethene	ND		0.51	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND		0.74	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		0.58	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND		0.65	ug/kg	5.0
Toluene	ND		0.40	ug/kg	5.0
Chlorobenzene	ND		0.36	ug/kg	5.0
Ethylbenzene	ND		0.59	ug/kg	5.0
Styrene	ND		0.22	ug/kg	5.0
Xylenes (total)	ND		0.95	ug/kg	5.0
1-Methylethylbenzene	ND		0.43	ug/kg	5.0
Bromobenzene	ND		0.45	ug/kg	5.0
1,2,3-Trichloropropane	ND		2.8	ug/kg	5.0
2-Chlorotoluene	ND		1.0	ug/kg	5.0
n-Propyl benzene	ND		0.52	ug/kg	5.0
1,3,5-Trimethylbenzene	ND		0.61	ug/kg	5.0
4-Chlorotoluene	ND		1.0	ug/kg	5.0
tert-Butylbenzene	ND		0.55	ug/kg	5.0

ND = Not Detected

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Corning Environmental Services

(cont.)

Volatile Organic Compounds
Method 8240

Client Name: Harding Lawson Associates
Client ID: SZB-28D 4.0
LAB ID: 105129-0001-SA
Matrix: SOLID — Sampled: 11 APR 94 — Received: 11 APR 94
Authorized: 12 APR 94 — Prepared: 15 APR 94 — Analyzed: 15 APR 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
1,2,4-Trimethylbenzene	ND		0.53	ug/kg	5.0
sec-Butylbenzene	ND		0.61	ug/kg	5.0
Isopropyltoluene	ND		0.38	ug/kg	5.0
1,3-Dichlorobenzene	ND		0.51	ug/kg	5.0
1,4-Dichlorobenzene	ND		0.35	ug/kg	5.0
n-Butylbenzene	ND		0.77	ug/kg	5.0
1,2-Dichlorobenzene	ND		0.50	ug/kg	5.0
1,2,4-Trichlorobenzene	ND		0.72	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND		1.5	ug/kg	5.0
Hexachlorobutadiene	ND		0.97	ug/kg	5.0
Naphthalene	ND		0.88	ug/kg	5.0
1,2,3-Trichlorobenzene	ND		0.56	ug/kg	5.0

Surrogate	Recovery	
1,2-Dichloroethane-d4	96	%
Toluene-d8	90	%
Bromofluorobenzene	80	%

ND = Not Detected

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Corning Environmental Services

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-28D 4.0
LAB ID: 105129-0001-SA
Matrix: SOLID Sampled: 11 APR 94 Received: 11 APR 94
Authorized: 12 APR 94 Prepared: 12 APR 94 Analyzed: 14 APR 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
N-Nitrosodiethylamine	ND		0.26	mg/kg	0.33
Phenol	ND		0.030	mg/kg	0.33
bis(2-Chloroethyl) ether	ND		0.060	mg/kg	0.33
2-Chlorophenol	ND		0.040	mg/kg	0.33
1,3-Dichlorobenzene	ND		0.030	mg/kg	0.33
1,4-Dichlorobenzene	ND		0.060	mg/kg	0.33
Benzyl alcohol	ND		0.070	mg/kg	0.33
1,2-Dichlorobenzene	ND		0.040	mg/kg	0.33
2-Methylphenol	ND		0.030	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND		0.040	mg/kg	0.33
3/4-Methylphenol	ND		0.040	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND		0.030	mg/kg	0.33
Hexachloroethane	ND		0.030	mg/kg	0.33
Nitrobenzene	ND		0.090	mg/kg	0.33
Isophorone	ND		0.040	mg/kg	0.33
2-Nitrophenol	ND		0.050	mg/kg	0.33
2,4-Dimethylphenol	ND		0.030	mg/kg	0.33
Benzoic acid	ND		0.51	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND		0.020	mg/kg	0.33
2,4-Dichlorophenol	ND		0.030	mg/kg	0.33
1,2,4-Trichlorobenzene	ND		0.040	mg/kg	0.33
Naphthalene	ND		0.030	mg/kg	0.33
4-Chloroaniline	ND		0.10	mg/kg	0.33
Hexachlorobutadiene	ND		0.040	mg/kg	0.33
4-Chloro-3-methylphenol	ND		0.040	mg/kg	0.33
2-Methylnaphthalene	ND		0.030	mg/kg	0.33
Hexachlorocyclopentadiene	ND		0.050	mg/kg	0.33
2,4,6-Trichlorophenol	ND		0.040	mg/kg	0.33
2,4,5-Trichlorophenol	ND		0.050	mg/kg	1.7
2-Chloronaphthalene	ND		0.030	mg/kg	0.33
2-Nitroaniline	ND		0.030	mg/kg	1.7
Dimethyl phthalate	ND		0.030	mg/kg	0.33
Acenaphthylene	ND		0.020	mg/kg	0.33
3-Nitroaniline	ND		0.14	mg/kg	1.7
Acenaphthene	ND		0.030	mg/kg	0.33
2,4-Dinitrophenol	ND		0.23	mg/kg	1.7
4-Nitrophenol	ND		0.25	mg/kg	1.7
Dibenzofuran	ND		0.040	mg/kg	0.33
2,4-Dinitrotoluene	ND		0.040	mg/kg	0.33
2,6-Dinitrotoluene	ND		0.050	mg/kg	0.33
Diethyl phthalate	ND		0.020	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND		0.030	mg/kg	0.33
Fluorene	ND		0.030	mg/kg	0.33
4-Nitroaniline	ND		0.18	mg/kg	1.7

ND = Not Detected

Enseco
Corning Environmental Services

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-28D 4.0
LAB ID: 105129-0001-SA
Matrix: SOLID Sampled: 11 APR 94 Received: 11 APR 94
Authorized: 12 APR 94 Prepared: 12 APR 94 Analyzed: 14 APR 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
4,6-Dinitro-2-methylphenol	ND		0.36	mg/kg	1.7
N-Nitrosodiphenylamine	ND		0.040	mg/kg	0.33
4-Bromophenyl phenyl ether	ND		0.080	mg/kg	0.33
Hexachlorobenzene	ND		0.030	mg/kg	0.33
Pentachlorophenol	ND		0.19	mg/kg	1.7
Phenanthrene	ND		0.030	mg/kg	0.33
Anthracene	ND		0.020	mg/kg	0.33
Di-n-butyl phthalate	ND		0.24	mg/kg	0.33
Fluoranthene	ND		0.030	mg/kg	0.33
Pyrene	ND		0.020	mg/kg	0.33
Butyl benzyl phthalate	ND		0.030	mg/kg	0.33
3,3'-Dichlorobenzidine	ND		0.33	mg/kg	0.66
Benzo(a)anthracene	ND		0.040	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND		0.13	mg/kg	0.33
Chrysene	ND		0.040	mg/kg	0.33
Di-n-octyl phthalate	ND		0.040	mg/kg	0.33
Benzo(b)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(k)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(a)pyrene	ND		0.040	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND		0.030	mg/kg	0.33
Dibenz(a,h)anthracene	ND		0.030	mg/kg	0.33
Benzo(g,h,i)perylene	ND		0.020	mg/kg	0.33
Xylidine (Total)	ND		0.076	mg/kg	0.33

Surrogate	Recovery	
Nitrobenzene-d5	68	%
2-Fluorobiphenyl	69	%
Terphenyl-d14	67	%
Phenol-d5	62	%
2-Fluorophenol	81	%
2,4,6-Tribromophenol	66	%

ND = Not Detected

Enseco
Corning Environmental Services

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-05E 1.0
LAB ID: 105129-0002-SA
Matrix: SOLID Sampled: 11 APR 94 Received: 11 APR 94
Authorized: 12 APR 94 Prepared: 12 APR 94 Analyzed: 14 APR 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
N-Nitrosodiethylamine	ND		0.26	mg/kg	0.33
Phenol	ND		0.030	mg/kg	0.33
bis(2-Chloroethyl) ether	ND		0.060	mg/kg	0.33
2-Chlorophenol	ND		0.040	mg/kg	0.33
1,3-Dichlorobenzene	ND		0.030	mg/kg	0.33
1,4-Dichlorobenzene	ND		0.060	mg/kg	0.33
Benzyl alcohol	ND		0.070	mg/kg	0.33
1,2-Dichlorobenzene	ND		0.040	mg/kg	0.33
2-Methylphenol	ND		0.030	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND		0.040	mg/kg	0.33
3/4-Methylphenol	ND		0.040	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND		0.030	mg/kg	0.33
Hexachloroethane	ND		0.030	mg/kg	0.33
Nitrobenzene	ND		0.090	mg/kg	0.33
Isophorone	ND		0.040	mg/kg	0.33
2-Nitrophenol	ND		0.050	mg/kg	0.33
2,4-Dimethylphenol	ND		0.030	mg/kg	0.33
Benzoic acid	ND		0.51	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND		0.020	mg/kg	0.33
2,4-Dichlorophenol	ND		0.030	mg/kg	0.33
1,2,4-Trichlorobenzene	ND		0.040	mg/kg	0.33
Naphthalene	ND		0.030	mg/kg	0.33
4-Chloroaniline	ND		0.10	mg/kg	0.33
Hexachlorobutadiene	ND		0.040	mg/kg	0.33
4-Chloro-3-methylphenol	ND		0.040	mg/kg	0.33
2-Methylnaphthalene	ND		0.030	mg/kg	0.33
Hexachlorocyclopentadiene	ND		0.050	mg/kg	0.33
2,4,6-Trichlorophenol	ND		0.040	mg/kg	0.33
2,4,5-Trichlorophenol	ND		0.050	mg/kg	1.7
2-Chloronaphthalene	ND		0.030	mg/kg	0.33
2-Nitroaniline	ND		0.030	mg/kg	1.7
Dimethyl phthalate	ND		0.030	mg/kg	0.33
Acenaphthylene	ND		0.020	mg/kg	0.33
3-Nitroaniline	ND		0.14	mg/kg	1.7
Acenaphthene	ND		0.030	mg/kg	0.33
2,4-Dinitrophenol	ND		0.23	mg/kg	1.7
4-Nitrophenol	ND		0.25	mg/kg	1.7
Dibenzofuran	ND		0.040	mg/kg	0.33
2,4-Dinitrotoluene	ND		0.040	mg/kg	0.33
2,6-Dinitrotoluene	ND		0.050	mg/kg	0.33
Diethyl phthalate	ND		0.020	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND		0.030	mg/kg	0.33
Fluorene	ND		0.030	mg/kg	0.33
4-Nitroaniline	ND		0.18	mg/kg	1.7

ND = Not Detected

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Corning Environmental Services

Semivolatile Organic Compounds
Method 8270

Client Name: Harding Lawson Associates
Client ID: SZB-05E 1.0
LAB ID: 105129-0002-SA
Matrix: SOLID Sampled: 11 APR 94 Received: 11 APR 94
Authorized: 12 APR 94 Prepared: 12 APR 94 Analyzed: 14 APR 94

Parameter	Result	Qualifier	MDL	Units	Rep Limit
4,6-Dinitro-2-methylphenol	ND		0.36	mg/kg	1.7
N-Nitrosodiphenylamine	ND		0.040	mg/kg	0.33
4-Bromophenyl phenyl ether	ND		0.080	mg/kg	0.33
Hexachlorobenzene	ND		0.030	mg/kg	0.33
Pentachlorophenol	ND		0.19	mg/kg	1.7
Phenanthrene	ND		0.030	mg/kg	0.33
Anthracene	ND		0.020	mg/kg	0.33
Di-n-butyl phthalate	ND		0.24	mg/kg	0.33
Fluoranthene	ND		0.030	mg/kg	0.33
Pyrene	ND		0.020	mg/kg	0.33
Butyl benzyl phthalate	ND		0.030	mg/kg	0.33
3,3'-Dichlorobenzidine	ND		0.33	mg/kg	0.66
Benzo(a)anthracene	ND		0.040	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND		0.13	mg/kg	0.33
Chrysene	ND		0.040	mg/kg	0.33
Di-n-octyl phthalate	ND		0.040	mg/kg	0.33
Benzo(b)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(k)fluoranthene	ND		0.030	mg/kg	0.33
Benzo(a)pyrene	ND		0.040	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND		0.030	mg/kg	0.33
Dibenz(a,h)anthracene	ND		0.030	mg/kg	0.33
Benzo(g,h,i)perylene	ND		0.020	mg/kg	0.33
Xylidine (Total)	ND		0.076	mg/kg	0.33

Surrogate	Recovery	
2-Fluorophenol	65	%
Phenol-d5	50	%
Nitrobenzene-d5	57	%
2-Fluorobiphenyl	63	%
2,4,6-Tribromophenol	60	%
Terphenyl-d14	60	%

ND = Not Detected

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QC LOT ASSIGNMENT REPORT - MS QC
Metals Analysis and Preparation

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
105129-0001-SA	SOLID	AL-FLAA-S	14 APR 94-B	14 APR 94-B	14 APR 94-BC
105129-0001-SA	SOLID	AS-HAA-S	14 APR 94-B	14 APR 94-B	14 APR 94-BC
105129-0001-SA	SOLID	CD-FLAA-S	14 APR 94-B	14 APR 94-B	14 APR 94-BC
105129-0001-SA	SOLID	CR-FLAA-S	14 APR 94-B	14 APR 94-B	14 APR 94-BC
105129-0001-SA	SOLID	MN-FLAA-S	14 APR 94-B1	14 APR 94-B1	14 APR 94-BC
105129-0001-SA	SOLID	NI-FLAA-S	14 APR 94-B1	14 APR 94-B1	14 APR 94-BC
105129-0001-SA	SOLID	PB-FLAA-S	14 APR 94-B1	14 APR 94-B1	14 APR 94-BC
105129-0001-SA	SOLID	CU-FLAA-S	14 APR 94-B1	14 APR 94-B1	14 APR 94-BC
105129-0001-SA	SOLID	ZN-FLAA-S	14 APR 94-B	14 APR 94-B	14 APR 94-BC
105129-0001-SA	SOLID	BA-FLAA-S	14 APR 94-B	14 APR 94-B	14 APR 94-BC
105129-0001-SA	SOLID	HG-CVAA-S	14 APR 94-D1	14 APR 94-D1	14 APR 94-DB
105129-0002-SA	SOLID	AL-FLAA-S	14 APR 94-B	14 APR 94-B	14 APR 94-BC
105129-0002-SA	SOLID	AS-HAA-S	14 APR 94-B	14 APR 94-B	14 APR 94-BC
105129-0002-SA	SOLID	CD-FLAA-S	14 APR 94-B	14 APR 94-B	14 APR 94-BC
105129-0002-SA	SOLID	CR-FLAA-S	14 APR 94-B	14 APR 94-B	14 APR 94-BC
105129-0002-SA	SOLID	MN-FLAA-S	14 APR 94-B1	14 APR 94-B1	14 APR 94-BC
105129-0002-SA	SOLID	NI-FLAA-S	14 APR 94-B1	14 APR 94-B1	14 APR 94-BC
105129-0002-SA	SOLID	PB-FLAA-S	14 APR 94-B1	14 APR 94-B1	14 APR 94-BC
105129-0002-SA	SOLID	CU-FLAA-S	14 APR 94-B1	14 APR 94-B1	14 APR 94-BC
105129-0002-SA	SOLID	ZN-FLAA-S	14 APR 94-B	14 APR 94-B	14 APR 94-BC
105129-0002-SA	SOLID	BA-FLAA-S	14 APR 94-B	14 APR 94-B	14 APR 94-BC
105129-0002-SA	SOLID	HG-CVAA-S	14 APR 94-D1	14 APR 94-D1	14 APR 94-DB

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DUPLICATE CONTROL SAMPLE REPORT
Metals Analysis and Preparation
Project: 105129

Category: AL-FLAA-S Aluminum, Flame AA
Matrix: SOLID
QC Lot: 14 APR 94-B
Date Analyzed: 18 APR 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Aluminum	3650	3740	3720	3730	102	53-153	0.54	20

Category: AS-HAA-S Arsenic, Hydride AA
Matrix: SOLID
QC Lot: 14 APR 94-B
Date Analyzed: 19 APR 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Arsenic	72.1	72.2	72.0	72.1	100	49-153	0.28	20

Category: CD-FLAA-S Cadmium, Flame AA
Matrix: SOLID
QC Lot: 14 APR 94-B
Date Analyzed: 18 APR 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Cadmium	61.6	62.0	59.1	60.6	98	59-140	4.8	12

Category: CR-FLAA-S Chromium, Flame AA
Matrix: SOLID
QC Lot: 14 APR 94-B
Date Analyzed: 18 APR 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Chromium	44.1	43.4	42.5	43.0	97	59-138	2.1	15

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

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DUPLICATE CONTROL SAMPLE REPORT
Metals Analysis and Preparation
Project: 105129

Category: MN-FLAA-S Manganese, Flame AA Method 7460
Matrix: SOLID
QC Lot: 14 APR 94-B1 Date Analyzed: 15 APR 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Manganese	141	160	158	159	113	69-134	1.3	20

Category: NI-FLAA-S Nickel Flame AA
Matrix: SOLID
QC Lot: 14 APR 94-B1 Date Analyzed: 15 APR 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Nickel	110	149	148	148	135	59-142	0.67	12

Category: PB-FLAA-S Method 7420 - Lead, Flame AA
Matrix: SOLID
QC Lot: 14 APR 94-B1 Date Analyzed: 15 APR 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Lead	50.9	57.0	62.0	59.5	117	53-139	8.4	13

Category: CU-FLAA-S Copper Flame AA
Matrix: SOLID
QC Lot: 14 APR 94-B1 Date Analyzed: 15 APR 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Copper	78.1	78.0	79.0	78.5	101	62-144	1.3	12

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

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DUPLICATE CONTROL SAMPLE REPORT
Metals Analysis and Preparation
Project: 105129

Category: ZN-FLAA-S Zinc, Flame AA
Matrix: SOLID
QC Lot: 14 APR 94-B
Date Analyzed: 18 APR 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average(%) DCS	Accuracy Average(%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Zinc	78.2	71.9	77.9	74.9	96	58-152	8.0	10

Category: BA-FLAA-S Barium, Flame AA
Matrix: SOLID
QC Lot: 14 APR 94-B
Date Analyzed: 18 APR 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average(%) DCS	Accuracy Average(%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Barium	64.8	58.0	60.0	59.0	91	70-136	3.4	14

Category: HG-CVAA-S Mercury by CVAA
Matrix: SOLID
QC Lot: 14 APR 94-D1
Date Analyzed: 14 APR 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average(%) DCS	Accuracy Average(%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Mercury	32.0	31.6	33.0	32.3	101	52-148	4.3	20

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

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Corning Environmental Services

MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Metals Analysis and Preparation
Project: 105129

Category: AL-FLAA-S Aluminum, Flame AA
Matrix: SOLID
Sample: 105129-0001
MS Run: 14 APR 94-BC
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Aluminum	8490	7310	7860	200	NC	NC	NC	60-130	20

Category: AS-HAA-S Arsenic, Hydride AA
Matrix: SOLID
Sample: 105129-0001
MS Run: 14 APR 94-BC
Units mg/kg Units Qualifier: Wet wt.

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Arsenic	4.99	54.5	57.5	50.0	99	105	5.9	50-127	25

Category: CD-FLAA-S Cadmium, Flame AA
Matrix: SOLID
Sample: 105129-0001
MS Run: 14 APR 94-BC
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Cadmium	ND	6.20	6.30	5.00	124	126	1.6	52-130	28

NC = Not Calculated, calculation not applicable.
ND = Not Detected

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Metals Analysis and Preparation
Project: 105129 (cont.)

Category: CR-FLAA-S Chromium, Flame AA
Matrix: SOLID
Sample: 105129-0001
MS Run: 14 APR 94-BC
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Chromium	20.4	41.0	44.8	20.0	103	122	17	40-190	33

Category: MN-FLAA-S Manganese, Flame AA Method 7460
Matrix: SOLID
Sample: 105129-0001
MS Run: 14 APR 94-BC
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Manganese	254	286	330	50.0	NC	NC	NC	60-130	40

Category: NI-FLAA-S Nickel Flame AA
Matrix: SOLID
Sample: 105129-0001
MS Run: 14 APR 94-BC
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Nickel	29.0	77.0	77.0	50.0	96	96	0.0	55-155	25

NC = Not Calculated, calculation not applicable.

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Metals Analysis and Preparation
Project: 105129 (cont.)

Category: PB-FLAA-S Method 7420 - Lead, Flame AA
Matrix: SOLID
Sample: 105129-0001
MS Run: 14 APR 94-BC
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Lead	ND	70.0	73.0	50.0	140	146	4.2	53-147	26

Category: CU-FLAA-S Copper Flame AA
Matrix: SOLID
Sample: 105129-0001
MS Run: 14 APR 94-BC
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Copper	32.0	41.0	46.0	25.0	36	56	43	49-144	23

Category: ZN-FLAA-S Zinc, Flame AA
Matrix: SOLID
Sample: 105129-0001
MS Run: 14 APR 94-BC
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Zinc	47.0	83.4	89.4	50.0	73	85	15	65-138	25

ND = Not Detected

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

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Corning Environmental Services

MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Metals Analysis and Preparation
Project: 105129 (cont.)

Category: BA-FLAA-S Barium, Flame AA
Matrix: SOLID
Sample: 105129-0001
MS Run: 14 APR 94-BC
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Barium	57.0	253	259	200	98	101	3.0	40-130	30

Category: HG-CVAA-S Mercury by CVAA
Matrix: SOLID
Sample: 105129-0001
MS Run: 14 APR 94-DB
Units mg/kg Units Qualifier: Wet wt.

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Mercury	ND	0.402	0.385	0.438	92	88	4.3	49-159	38

ND = Not Detected

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

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METHOD BLANK REPORT
Metals Analysis and Preparation
Project: 105129

Test: AL-FLAA-MDL-S Method 7020 - Aluminum, Flame AA
Matrix: SOLID
QC Run: 14 APR 94-B Date Analyzed: 18 APR 94

Analyte	Result	Units	Reporting Limit
Aluminum	ND	mg/kg	100

Test: AS-HAA-MDL-S Method 7062 - Arsenic, Hydride AA
Matrix: SOLID
QC Run: 14 APR 94-B Date Analyzed: 19 APR 94

Analyte	Result	Units	Reporting Limit
Arsenic	ND	mg/kg	0.50

Test: CD-FLAA-MDL-S Method 7130 - Cadmium, Flame AA
Matrix: SOLID
QC Run: 14 APR 94-B Date Analyzed: 18 APR 94

Analyte	Result	Units	Reporting Limit
Cadmium	ND	mg/kg	5.0

Test: CR-FLAA-MDL-S Method 7190 - Chromium, Flame AA
Matrix: SOLID
QC Run: 14 APR 94-B Date Analyzed: 18 APR 94

Analyte	Result	Units	Reporting Limit
Chromium	ND	mg/kg	10.0

Test: MN-FLAA-MDL-S Manganese, Flame AA
Matrix: SOLID
QC Run: 14 APR 94-B1 Date Analyzed: 15 APR 94

Analyte	Result	Units	Reporting Limit
Manganese	ND	mg/kg	5.0

ND = Not Detected

METHOD BLANK REPORT
Metals Analysis and Preparation (cont.)
Project: 105129

Test: NI-FLAA-MDL-S Method 7520 - Nickel, Flame AA
Matrix: SOLID
QC Run: 14 APR 94-B1 Date Analyzed: 15 APR 94

Analyte	Result	Units	Reporting Limit
Nickel	ND	mg/kg	10.0

Test: PB-FLAA-MDL-S Method 7420 - Lead, Flame AA
Matrix: SOLID
QC Run: 14 APR 94-B1 Date Analyzed: 15 APR 94

Analyte	Result	Units	Reporting Limit
Lead	ND	mg/kg	20.0

Test: CU-FLAA-MDL-S Method 7210 - Copper, Flame AA
Matrix: SOLID
QC Run: 14 APR 94-B1 Date Analyzed: 15 APR 94

Analyte	Result	Units	Reporting Limit
Copper	ND	mg/kg	10.0

Test: ZN-FLAA-MDL-S Method 7950 - Zinc, Flame AA
Matrix: SOLID
QC Run: 14 APR 94-B Date Analyzed: 18 APR 94

Analyte	Result	Units	Reporting Limit
Zinc	ND	mg/kg	2.0

Test: BA-FLAA-MDL-S Method 7080 - Barium, Flame AA
Matrix: SOLID
QC Run: 14 APR 94-B Date Analyzed: 18 APR 94

Analyte	Result	Units	Reporting Limit
Barium	ND	mg/kg	50.0

ND = Not Detected

METHOD BLANK REPORT
Metals Analysis and Preparation (cont.)
Project: 105129

Test: HG-CVAA-MDL-S Method 7471 - Mercury, Cold Vapor AA
Matrix: SOLID
QC Run: 14 APR 94-D1 Date Analyzed: 14 APR 94

Analyte	Result	Units	Reporting Limit
Mercury	ND	mg/kg	0.10

ND = Not Detected

QC LOT ASSIGNMENT REPORT - MS QC
Wet Chemistry Analysis and Preparation

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
105129-0001-SA	SOLID	CN-S	14 APR 94-A	14 APR 94-A	14 APR 94-AB
105129-0001-SA	SOLID	CLO3-S	21 APR 94-A	21 APR 94-A	21 APR 94-AA
105129-0002-SA	SOLID	CN-S	14 APR 94-A	14 APR 94-A	14 APR 94-AB

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DUPLICATE CONTROL SAMPLE REPORT
Wet Chemistry Analysis and Preparation
Project: 105129

Category: CN-S Cyanide (9012) SOLID
Matrix: SOLID
QC Lot: 14 APR 94-A Date Analyzed: 14 APR 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Cyanide, Total	5.00	4.52	4.10	4.31	86	66-118	9.7	27

Category: CLO3-S Chlorate, Liquid
Matrix: SOLID
QC Lot: 21 APR 94-A Date Analyzed: 21 APR 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Chlorate, Solid	10.0	10.4	9.52	9.96	100	80-120	8.8	20

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
t Chemistry Analysis and Preparation
bject: 105129

Category: CN-S Cyanide (9012) SOLID
Matrix: SOLID
Sample: 105129-0001
MS Run: 14 APR 94-AB
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Cyanide, Total	ND	3.96	4.10	5.00	79	82	3.5	21-145	47

Category: CLO3-S Chlorate, Liquid
Matrix: SOLID
Sample: 105152-0003
MS Run: 21 APR 94-AA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
lorate, Solid	ND	9.10	9.06	10.0	91	91	0.4	80-120	20

ND = Not Detected

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

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METHOD BLANK REPORT
Wet Chemistry Analysis and Preparation
Project: 105129

Test: CN-MDL-S Method 9012 - Cyanide, Total
Matrix: SOLID
QC Run: 14 APR 94-A Date Analyzed: 14 APR 94

Analyte	Result	Units	Reporting Limit
Cyanide, Total	ND	mg/kg	0.50

Test: CLO3-MDL-S Method 300.0 - Chlorate, Ion Chromatography
Matrix: SOLID
QC Run: 21 APR 94-A Date Analyzed: 21 APR 94

Analyte	Result	Units	Reporting Limit
Chlorate, Solid	ND	mg/kg	1.0

ND = Not Detected

QC LOT ASSIGNMENT REPORT - MS QC
Volatile Organics by GC/MS

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
105129-0001-SA	SOLID	8240-S	15 APR 94-AC	15 APR 94-AC	08 APR 94-BC

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DUPLICATE CONTROL SAMPLE REPORT
Volatile Organics by GC/MS
Project: 105129

Category: 8240-S Volatile Organics
Matrix: SOLID
QC Lot: 15 APR 94-AC
Date Analyzed: 15 APR 94
Concentration Units: ug/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
1,1-Dichloroethene	50.0	43.3	43.2	43.2	87	47-125	0.23	20
Trichloroethene	50.0	44.0	45.1	44.6	89	78-127	2.5	15
Benzene	50.0	46.9	47.3	47.1	94	79-123	0.85	15
Toluene	50.0	43.9	44.9	44.4	89	80-122	2.3	15
Chlorobenzene	50.0	43.7	43.5	43.6	87	82-129	0.46	15

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Volatile Organics by GC/MS
Project: 105129

Category: 8240-S Volatile Organics
Matrix: SOLID
Sample: 105070-0001
MS Run: 08 APR 94-BC
Units: ug/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
1,1-Dichloroethene	ND	42.9	42.9	50.0	86	86	0.0	40-144	31
Trichloroethene	ND	42.5	41.8	50.0	85	84	1.7	62-152	22
Benzene	ND	40.8	41.0	50.0	82	82	0.4	65-141	22
Toluene	ND	46.5	47.8	50.0	93	96	2.8	67-143	23
Chlorobenzene	ND	45.8	45.8	50.0	92	92	0.0	69-146	21

ND = Not Detected

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

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SINGLE CONTROL SAMPLE REPORT
Volatile Organics by GC/MS
Project: 105129

Category: 8240-S Volatile Organics
Matrix: SOLID
QC Run: 15 APR 94-AC
Date Analyzed: 15 APR 94
Concentration Units: ug/kg

Analyte	Concentration Spiked	Concentration Measured	Accuracy(%) SCS	Accuracy(%) Limits
1,2-Dichloroethane-d4	50.0	46.5	93	84-119
Toluene-d8	50.0	45.9	92	86-114
Bromofluorobenzene	50.0	46.4	93	86-114

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

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METHOD BLANK REPORT
Volatile Organics by GC/MS
Project: 105129

Test: 8240-HLA-S Method 8240 - Volatile Organics, EPA 8240 Extended List
Matrix: SOLID
QC Run: 15 APR 94-AC Date Analyzed: 15 APR 94

Analyte	Result	Units	Reporting Limit
Dichlorodifluoromethane	ND	ug/kg	10
Chloromethane	ND	ug/kg	10
Bromomethane	ND	ug/kg	10
Vinyl chloride	ND	ug/kg	10
Chloroethane	ND	ug/kg	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/kg	5.0
Methylene chloride	ND	ug/kg	5.0
Acetone	ND	ug/kg	10
Trichlorofluoromethane	ND	ug/kg	5.0
1,1-Dichloroethene	ND	ug/kg	5.0
Nitromethane	ND	ug/kg	200
trans-1,2-Dichloroethene	ND	ug/kg	5.0
cis-1,2-Dichloroethene	ND	ug/kg	5.0
1,1-Dichloroethane	ND	ug/kg	5.0
2,2-Dichloropropane	ND	ug/kg	5.0
Bromochloromethane	ND	ug/kg	5.0
Chloroform	ND	ug/kg	5.0
1,1-Dichloropropene	ND	ug/kg	5.0
1,2-Dichloroethane	ND	ug/kg	5.0
Dibromomethane	ND	ug/kg	5.0
1,1,1-Trichloroethane	ND	ug/kg	5.0
Carbon tetrachloride	ND	ug/kg	5.0
Bromodichloromethane	ND	ug/kg	5.0
1,2-Dichloropropane	ND	ug/kg	5.0
1,3-Dichloropropane	ND	ug/kg	5.0
Trichloroethene	ND	ug/kg	5.0
Dibromochloromethane	ND	ug/kg	5.0
1,1,2-Trichloroethane	ND	ug/kg	5.0
Benzene	ND	ug/kg	5.0
Bromoform	ND	ug/kg	5.0
Tetrachloroethene	ND	ug/kg	5.0
1,2-Dibromoethane (EDB)	ND	ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.0
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.0
Toluene	ND	ug/kg	5.0
Chlorobenzene	ND	ug/kg	5.0
Ethylbenzene	ND	ug/kg	5.0
Styrene	ND	ug/kg	5.0
Xylenes (total)	ND	ug/kg	5.0
1-Methylethylbenzene	ND	ug/kg	5.0
Bromobenzene	ND	ug/kg	5.0
1,2,3-Trichloropropane	ND	ug/kg	5.0
2-Chlorotoluene	ND	ug/kg	5.0
n-Propyl benzene	ND	ug/kg	5.0
1,3,5-Trimethylbenzene	ND	ug/kg	5.0

ND = Not Detected

METHOD BLANK REPORT
Volatile Organics by GC/MS (cont.)
Project: 105129

Test: 8240-HLA-S Method 8240 - Volatile Organics, EPA 8240 Extended List
Matrix: SOLID
QC Run: 15 APR 94-AC Date Analyzed: 15 APR 94

Analyte	Result	Units	Reporting Limit
4-Chlorotoluene	ND	ug/kg	5.0
tert-Butylbenzene	ND	ug/kg	5.0
1,2,4-Trimethylbenzene	ND	ug/kg	5.0
sec-Butylbenzene	ND	ug/kg	5.0
Isopropyltoluene	ND	ug/kg	5.0
1,3-Dichlorobenzene	ND	ug/kg	5.0
1,4-Dichlorobenzene	ND	ug/kg	5.0
n-Butylbenzene	ND	ug/kg	5.0
1,2-Dichlorobenzene	ND	ug/kg	5.0
1,2,4-Trichlorobenzene	ND	ug/kg	5.0
1,2-Dibromo-3-chloro-propane (DBCP)	ND	ug/kg	5.0
Hexachlorobutadiene	ND	ug/kg	5.0
Naphthalene	ND	ug/kg	5.0
1,2,3-Trichlorobenzene	ND	ug/kg	5.0

ND = Not Detected

QC LOT ASSIGNMENT REPORT - MS QC
Semivolatile Organics by GC/MS

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK/LCS)	MS QC Run Number (SA,MS,SD,DU)
105129-0001-SA	SOLID	8270-S	12 APR 94-E	12 APR 94-E	12 APR 94-EA
105129-0002-SA	SOLID	8270-S	12 APR 94-E	12 APR 94-E	12 APR 94-EA

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DUPLICATE CONTROL SAMPLE REPORT
Semivolatile Organics by GC/MS
Project: 105129

Category: 8270-S Method 8270 - TCL Semivolatile Organics
Matrix: SOLID
QC Lot: 12 APR 94-E Date Analyzed: 12 APR 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average (%) DCS	Accuracy Average (%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Phenol	6.67	5.60	5.55	5.58	84	39-106	0.90	31
2-Chlorophenol	6.67	6.13	6.09	6.11	92	44-107	0.65	32
1,4-Dichlorobenzene	3.33	2.87	2.87	2.87	86	40-107	0.0	23
N-Nitroso-di-n-propylamine	3.33	3.14	3.17	3.16	95	31-132	0.95	38
1,2,4-Trichlorobenzene	3.33	2.68	2.80	2.74	82	38-120	4.4	22
4-Chloro-3-methylphenol	6.67	4.98	5.30	5.14	77	40-119	6.2	24
Acenaphthene	3.33	2.70	2.79	2.74	82	30-140	3.3	24
2,4-Dinitrotoluene	3.33	2.87	2.79	2.83	85	30-121	2.8	28
4-Nitrophenol	6.67	8.34	8.30	8.32	125	16-143	0.48	54
Pentachlorophenol	6.67	7.41	7.67	7.54	113	21-152	3.4	43
Pyrene	3.33	2.73	2.81	2.77	83	45-120	2.9	26

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

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MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC REPORT
Semivolatile Organics by GC/MS
Project: 105129

Category: 8270-S Method 8270 - TCL Semivolatile Organics
Matrix: SOLID
Sample: 105129-0001
MS Run: 12 APR 94-EA
Units: mg/kg

Analyte	Sample Result	Concentration MS Result	Concentration MSD Result	Amount Spiked MS/MSD	%Recovery MS	%Recovery MSD	%RPD	Acceptance Limit Recov.	Acceptance Limit RPD
Phenol	ND	4.94	4.69	6.67	74	70	5.2	34-109	39
2-Chlorophenol	ND	5.08	4.91	6.67	76	74	3.4	42-101	38
1,4-Dichlorobenzene	ND	2.35	2.25	3.33	71	68	4.3	42-102	37
N-Nitroso-di-n-propylamine	ND	2.64	2.48	3.33	79	74	6.2	28-126	41
1,2,4-Trichlorobenzene	ND	2.25	2.05	3.33	68	62	9.3	46-106	32
4-Chloro-3-methylphenol	ND	4.75	4.67	6.67	71	70	1.7	40-121	23
Acenaphthene	ND	2.49	2.43	3.33	75	73	2.4	48-113	20
2,4-Dinitrotoluene	ND	2.70	2.50	3.33	81	75	7.7	23-129	25
4-Nitrophenol	ND	8.39	8.01	6.67	126	120	4.6	29-159	42
Pentachlorophenol	ND	7.60	7.40	6.67	114	111	2.7	40-146	37
Pyrene	ND	2.69	2.53	3.33	81	76	6.1	27-139	32

ND = Not Detected

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

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SINGLE CONTROL SAMPLE REPORT
Semivolatile Organics by GC/MS
Project: 105129

Category: 8270-S Method 8270 - TCL Semivolatile Organics
Matrix: SOLID
QC Run: 12 APR 94-E Date Analyzed: 13 APR 94
Concentration Units: mg/kg

Analyte	Concentration Spiked	Concentration Measured	Accuracy(%) SCS	Accuracy(%) Limits
2-Fluorophenol	6.67	6.74	101	55-111
Phenol-d5	6.67	4.96	74	47-110
Nitrobenzene-d5	3.33	2.88	86	57-113
2-Fluorobiphenyl	3.33	2.90	87	51-104
2,4,6-Tribromophenol	6.67	5.48	82	41-131
Terphenyl-d14	3.33	2.70	81	44-130

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

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METHOD BLANK REPORT
Semivolatile Organics by GC/MS
Project: 105129

Test: 8270-HLA-S Method 8270 - Semivolatile Organics
Matrix: SOLID
QC Run: 12 APR 94-E Date Analyzed: 13 APR 94

Analyte	Result	Units	Reporting Limit
N-Nitrosodiethylamine	ND	mg/kg	0.33
Phenol	ND	mg/kg	0.33
bis(2-Chloroethyl) ether	ND	mg/kg	0.33
2-Chlorophenol	ND	mg/kg	0.33
1,3-Dichlorobenzene	ND	mg/kg	0.33
1,4-Dichlorobenzene	ND	mg/kg	0.33
Benzyl alcohol	ND	mg/kg	0.33
1,2-Dichlorobenzene	ND	mg/kg	0.33
2-Methylphenol	ND	mg/kg	0.33
bis(2-Chloroisopropyl)-ether	ND	mg/kg	0.33
3/4-Methylphenol	ND	mg/kg	0.33
N-Nitroso-di-n-propylamine	ND	mg/kg	0.33
Hexachloroethane	ND	mg/kg	0.33
Nitrobenzene	ND	mg/kg	0.33
Isophorone	ND	mg/kg	0.33
2-Nitrophenol	ND	mg/kg	0.33
2,4-Dimethylphenol	ND	mg/kg	0.33
Benzoic acid	ND	mg/kg	1.7
bis(2-Chloroethoxy)-methane	ND	mg/kg	0.33
2,4-Dichlorophenol	ND	mg/kg	0.33
1,2,4-Trichlorobenzene	ND	mg/kg	0.33
Naphthalene	ND	mg/kg	0.33
4-Chloroaniline	ND	mg/kg	0.33
Hexachlorobutadiene	ND	mg/kg	0.33
4-Chloro-3-methylphenol	ND	mg/kg	0.33
2-Methylnaphthalene	ND	mg/kg	0.33
Hexachlorocyclopentadiene	ND	mg/kg	0.33
2,4,6-Trichlorophenol	ND	mg/kg	0.33
2,4,5-Trichlorophenol	ND	mg/kg	1.7
2-Chloronaphthalene	ND	mg/kg	0.33
2-Nitroaniline	ND	mg/kg	1.7
Dimethyl phthalate	ND	mg/kg	0.33
Acenaphthylene	ND	mg/kg	0.33
3-Nitroaniline	ND	mg/kg	1.7
Acenaphthene	ND	mg/kg	0.33
2,4-Dinitrophenol	ND	mg/kg	1.7
4-Nitrophenol	ND	mg/kg	1.7
Dibenzofuran	ND	mg/kg	0.33
2,4-Dinitrotoluene	ND	mg/kg	0.33
2,6-Dinitrotoluene	ND	mg/kg	0.33
Diethyl phthalate	ND	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND	mg/kg	0.33
Fluorene	ND	mg/kg	0.33
4-Nitroaniline	ND	mg/kg	1.7
4,6-Dinitro-2-methylphenol	ND	mg/kg	1.7

ND = Not Detected

METHOD BLANK REPORT
Semivolatile Organics by GC/MS (cont.)
Project: 105129

Test: 8270-HLA-S Method 8270 - Semivolatile Organics
Matrix: SOLID
QC Run: 12 APR 94-E Date Analyzed: 13 APR 94

Analyte	Result	Units	Reporting Limit
N-Nitrosodiphenylamine	ND	mg/kg	0.33
4-Bromophenyl phenyl ether	ND	mg/kg	0.33
Hexachlorobenzene	ND	mg/kg	0.33
Pentachlorophenol	ND	mg/kg	1.7
Phenanthrene	ND	mg/kg	0.33
Anthracene	ND	mg/kg	0.33
Di-n-butyl phthalate	ND	mg/kg	0.33
Fluoranthene	ND	mg/kg	0.33
Pyrene	ND	mg/kg	0.33
Butyl benzyl phthalate	ND	mg/kg	0.33
3,3'-Dichlorobenzidine	ND	mg/kg	0.66
Benzo(a)anthracene	ND	mg/kg	0.33
bis(2-Ethylhexyl)-phthalate	ND	mg/kg	0.33
Chrysene	ND	mg/kg	0.33
Di-n-octyl phthalate	ND	mg/kg	0.33
Benzo(b)fluoranthene	ND	mg/kg	0.33
Benzo(k)fluoranthene	ND	mg/kg	0.33
Benzo(a)pyrene	ND	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	ND	mg/kg	0.33
Dibenz(a,h)anthracene	ND	mg/kg	0.33
Benzo(g,h,i)perylene	ND	mg/kg	0.33
Xylidine (Total)	ND	mg/kg	0.33

ND = Not Detected