



THE MEMPHIS DEPOT TENNESSEE

ADMINISTRATIVE RECORD COVER SHEET

AR File Number 658

Part II of II



STL Pittsburgh
450 William Pitt Way
Pittsburgh, PA 15238

Tel 412 820 8380
Fax 412 820 2080
www.stl-inc.com

ANALYTICAL REPORT

PROJECT NO. UXB 7512-060

Dunn Field, Def Depot Memphis

Lot #: C0E240180

Randy Reed

UXB International

SEVERN TRENT LABORATORIES, INC.

A handwritten signature in black ink, appearing to read "Dave Dunlap".

Dave Dunlap
Project Manager

June 7, 2000

CASE NARRATIVE
UXB International Inc.
Dunn Field

LOT # C0E240180

Sample Receiving:

Two samples were received on May 24, 2000.

Volatiles:

There were no problems associated with the analyses.

Semivolatiles:

There were no problems associated with the analyses.

Pesticides:

Two of the calibration verification standards had compounds outside of the $\pm 15\%$ difference criteria. The average % difference of all compounds in the calibration verification standards were within the $\pm 15\%$ difference criteria. Compounds exceeding these criteria were not detected in the samples. The following table lists the calibration verifications and compounds outside of the $\pm 15\%$ difference criteria.

Column: RTX-CLB2			
Calibration Verification Date & Times	Affected Compound	% Difference	Average % Difference of All Compounds in Standard
6/1/00 @ 00:15/00.41	alpha-BHC	-20.5	13
	gamma-BHC	-18.2	
	heptachlor	-18.0	
	dieldrin	-16.0	
	endrin	-16.6	
	4,4-DDT	-23.3	
	methoxychlor	-15.8	
	delta-BHC	-20.3	

Herbicides:

There were no problems associated with the analyses.

Metals:

There were no problems associated with the analyses.

**CASE NARRATIVE
UXB International Inc.
Dunn Field**

658 890

LOT # C0E240180

TCLP Metals:

There were no problems associated with the analyses.

General Chemistry:

The reactive cyanide and reactive sulfide analyses were completed at the STL North Canton, OH laboratory.

METHODS SUMMARY

COR240180

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
Chlorinated Herbicides by GC	SW846 8151A	SW846 1311/8150
Ignitability	SW846 SECTION 7	SW846 SECTION 7
Inductively Coupled Plasma (ICP) Metals	SW846 6010B	SW846 1311/3010
Mercury in Liquid Waste (Manual Cold-Vapor)	SW846 7470A	SW846 1311/7470
Organochlorine Pesticides	SW846 8081A	SW846 1311/3510
Reactive Cyanide	SW846 7.3.3	SW846 7.3.3
Reactive Sulfide	SW846 7.3.4	SW846 7.3.4
Semivolatile Organic Compounds by GC/MS	SW846 8270C	SW846 1311/3520
Soil and Waste pH	SW846 9045C	SW846 9045C
Total Residue as Percent Solids	MCAWW 160.3 MOD	MCAWW 160.3 MOD
Trace Inductively Coupled Plasma (ICP) Metals	SW846 6010B	SW846 3050B
Volatile Organics by GC/MS	SW846 8260B	SW846 1311/5030

References:

- MCAWW "Methods for Chemical Analysis of Water and Wastes",
EPA-600/4-79-020, March 1983 and subsequent revisions.
- SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical
Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

658 892

C0E240180

WO #	SAMPLE#	CLIENT SAMPLE ID	DATE	TIME
DDLX3	001	DF/S1/0143/SDC/002	05/23/00	07:56
DDLX6	002	DF/S1/0143/SDC/003	05/23/00	08:30

NOTE (S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: odor, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Chain of Custody Record

Quanterra, Inc. - Pittsburgh PA Lab
450 William Pitt Way
Pittsburgh PA 15238



QUA-4124

Client

IXB Tort, Inc.

Project Manager

Frank Jensen

Date

5/23/00

Chain Of Custody Number

67221

Address

6141 Old Poplar Pike

Telephone Number (Area Code/Fax Number)

(901) 745-4999

Lab Number

Page _____ of _____

Analysis

City Memphis, TN 38119

Site Contact

Jim Thoren

Project Name

Drum Field

Carrier/Vehicle Number

Fedex

Contract/Purchase Order/Quote No.

Sample I.D. No. and Description

DTLS1/0143/50C1002

Date

5/23/00

Time

0756

Sample Type

SOIL

Total Volume

4,830.2 G/LBS

Containers Type No.

3

Preservative

Condition on Receipt

TCLP+RCI

X

Total 60103

X

Special Instructions

Possible Hazard Identification

☒ Non-Hazard

☐ Flammable

☐ Skin Irritant

☐ Poison B

☐ Unknown

Sample Disposal

☐ Return To Client

☐ Disposal By Lab

☐ Archive For _____ Months

Turn Around Time Required

☒ Normal

☐ Rush

QC Level

☐ I.

☐ II.

☐ III.

Project Specific (Specify)

1. Received By

MA

Date

5/23/00

Time

0756

1 Relinquished By

D.A. Thoren

2 Relinquished By

3 Relinquished By

Date

Time

Date

Time

3 Received By

Date

Date

Time

Comments

DISTRIBUTION. WHITE - Stays with Sample; CANARY - Returned to Client with Report; PINK - Field Copy

Chain of Custody Record

Quanterra, Inc. - Pittsburgh PA Lab
450 William Pitt Way
Pittsburgh PA 15238



958894

QUA 412A

Client

UXB Int'l. Inc.

Project Manager

Frank Johnson

Date 5/23/00

Chain Of Custody Number 67224

Address

6741 Old Darlar Pike

Telephone Number (Area Code/Fax Number)

(901) 745-4999

Lab Number

Page 1 of 1

City

Memphis

State

TX 38119

Site Contact

Jim Warren

Project Name

Drug Field

Camera/Watch Number

Contract/Purchase Order/Quote No

Sample I.D. No. and Description

DF1510143/SDC/003

Date

5/23/00

Time

0830

Sample Type

Soil

Total Volume

4.8, 2002

Containers Type No.

4, 8, 2002

Preservative

Condition on Receipt

Full TLC P
Total 6010 B

Special Instructions

Possible Hazard Identification

☒ Non-Hazard

☐ Flammable

☐ Skin Irritant

☐ Poison B

☐ Unknown

Sample Disposal

☐ Return To Client

☐ Disposal By Lab

☐ Archive For

Months

Turn Around Time Required

☒ Normal

☐ Rush

1 Relinquished By

5/23/00

Date

5/23/00

Time

0830

1 Received By

5/24/00

Date

5/24/00

Time

0930

2 Relinquished By

3 Relinquished By

Date

Time

3 Received By

Date

Time

Comments

DISTRIBUTION: WHITE - Stays with Sample, CANARY - Returned to Client with Report, PINK - Field Copy

Cooler Receipt Form

STL Pittsburgh

Client: UVB Project: 5/24/05 Quote: 34878
 Cooler Rec'd & Opened for Temp. Check on: 5/24/05
 Coolers Opened and Unpacked on: 5/24/05 By: [Signature]
 (Signature)

STL Pittsburgh Lot Number: COE 240180

	Yes	No
1. Were custody seals on the outside of the cooler? _____	☒	☐
If YES, how many and where? Quantity <u>1</u> Location <u>1 ft 1 side</u>		
Were signatures and date correct? _____	☒	☐
2. Were custody papers included inside the cooler? _____	☒	☐
3. Were custody papers properly filled out (ink, signed, match labels)? _____	☒	☐
4. Did you sign the custody papers in the appropriate place? _____	☒	☐
5. Was shippers packing slip attached to this form? _____	☒	☐
6. Were packing materials used? _____	☒	☐
If YES, what type? <u>Bubble Pack</u>		
7. Were the samples chilled? (Record temperatures on reverse side.) _____	☒	☐
8. Were the samples appropriately preserved? _____	☒	☐
9. Were all bottles sealed in separate plastic bags? _____	☐	☒
10. Did all bottles arrive in good condition (unbroken)? _____	☒	☐
11. Were all bottle labels complete (sample ID, preservatives, etc.)? _____	☒	☐
12. Did all bottle labels and/or tags agree with custody papers? _____	☒	☐
13. Were correct bottles used for tests indicated? _____	☒	☐
14. Were all VOA vials checked for the presence of air bubbles? _____	☒	☐
15. Was a sufficient amount of sample sent in each bottle? _____	☒	☐
16. Samples received by: <u>FEDEX</u> UPS CLIENT DROP-OFF OTHER AIRBORNE		

Explain any discrepancies: _____

Level 2 Review _____

Was contacted on _____ by _____ to resolve discrepancies.

Color Receipt Form

STL Pittsburgh

P: Preserved

UP: Unpreserved

[illegible]

(1) "NUT" could include sample bottles for ammonia, chemical oxygen demand, nitrate/nitrite, TKN, or total phosphorus

Comments: _____

Cooler Number

Temperature

Bottle Type

Lot Number*

[illegible][illegible]

* Please use an asterisk if bottle lot number was covered by the label.

[illegible]

SBCCOM
Monitoring Branch Laboratory

CLEARANCE REPORT

May-23, 2000

Dunn Field, Memphis Defense Depot

Results for CWM Soil Sample Analysis

Analyst: CHRIS DRUYOR

Sample#		1,4- Thioxane	1,4- Dithiane	TDG	Mustard	Lewisite
DF/S1/01 43/SDC/ 002		ND	ND	N/A	ND	ND
DF/S1/01 43/SDC/ 003		ND	ND	N/A	ND	ND

ND= Not detected at or above the method detection limit (MDL)

MDL= 200 ppb

BDL= Below detection limit, results > 100ppb, but < 200 ppb

MS= matrix spike

MSD= matrix spike duplicate

DUP= duplicate

DATA SUMMARY PACKAGE

GC/MS VOLATILE SUMMARY

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0E240180 001

Method: SW846 8260B

Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL

Date Received: 05/24/00

Work Order: DDLX3102

Date Extracted: 05/26/00

Dilution factor: 1

Date Analyzed: 05/26/00

Moisture %: 15

QC Batch: 0147338

Client Sample Id: DF/S1/0143/SDC/002

		CONCENTRATION UNITS:	
CAS NO.	COMPOUND	(ug/L or ug/kg) mg/L	Q
71-43-2	Benzene	0.050	U
78-93-3	2-Butanone	0.020	J B
56-23-5	Carbon tetrachloride	0.050	U
108-90-7	Chlorobenzene	0.050	U
67-66-3	Chloroform	0.050	U
107-06-2	1,2-Dichloroethane	0.050	U
75-35-4	1,1-Dichloroethene	0.050	U
127-18-4	Tetrachloroethene	0.050	U
79-01-6	Trichloroethene	0.050	U
75-01-4	Vinyl chloride	0.050	U

UXB INTERNATIONAL

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0E240180 002

Method: SW846 8260B

Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL

Date Received: 05/24/00

Work Order: DDLX6102

Date Extracted: 05/26/00

Dilution factor: 1

Date Analyzed: 05/26/00

Moisture %: 19

QC Batch: 0147338

Client Sample Id: DF/S1/0143/SDC/003

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
71-43-2	Benzene	0.050	U
78-93-3	2-Butanone	0.050	U
56-23-5	Carbon tetrachloride	0.050	U
108-90-7	Chlorobenzene	0.050	U
67-66-3	Chloroform	0.050	U
107-06-2	1,2-Dichloroethane	0.050	U
75-35-4	1,1-Dichloroethene	0.050	U
127-18-4	Tetrachloroethene	0.050	U
79-01-6	Trichloroethene	0.050	U
75-01-4	Vinyl chloride	0.050	U

UXB INTERNATIONAL
CHECK SAMPLE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0E260000 338

Method: SW846 8260B

Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL

Date Received: 05/23/00

Work Order: DDT3T102

Date Extracted: 05/26/00

Dilution factor: 1

Date Analyzed: 05/26/00

Moisture %: NA

QC Batch: 0147338

Client Sample Id: CHECK SAMPLE

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
71-43-2	Benzene	0.470	
78-93-3	2-Butanone	0.315	
56-23-5	Carbon tetrachloride	0.490	
108-90-7	Chlorobenzene	0.477	
67-66-3	Chloroform	0.470	
107-06-2	1,2-Dichloroethane	0.479	
75-35-4	1,1-Dichloroethene	0.451	
127-18-4	Tetrachloroethene	0.510	
79-01-6	Trichloroethene	0.476	
75-01-4	Vinyl chloride	0.513	

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

QESSDG:

Lot #: C0E240180

	CLIENT ID.	SRG01	SRG02	SRG03	SRG04	TOT OUT
	=====	=====	=====	=====	=====	=====
01	INTRA-LAB QC	102	97	92	97	00
02	DF/S1/0143/SDC/002	102	88	85	95	00
03	DF/S1/0143/SDC/003	106	87	83	97	00
04	METHOD BLK. DDNC5101	100	100	97	92	00
05	METHOD BLK. DDNPV101	99	100	93	97	00
06	LCS DDT3T102	97	102	104	100	00
07	LAB MS/MSD D	98	99	101	98	00
08	LAB MS/MSD S	100	101	102	101	00

SURROGATES

SRG01 = 1,2-Dichloroethane-d4
 SRG02 = Toluene-d8
 SRG03 = 4-Bromofluorobenzene
 SRG04 = Dibromofluoromethane

QC LIMITS

(77-120)
 (78-111)
 (80-114)
 (78-110)

Column to be used to flag recovery values
 * Values outside of required QC Limits
 D System monitoring Compound diluted out

FORM II

658 905

SW846 8260B CHECK SAMPLE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Lot #: C0E260000

WO #: DDT3T102

BATCH: 0147338

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	% REC	QC LIMITS REC	QUAL
=====	=====	=====	=====	=====	=====
Benzene	0.500	0.470	94	79 - 116	
2-Butanone	0.500	0.315	63	35 - 156	
Carbon tetrachloride	0.500	0.490	98	72 - 133	
Chlorobenzene	0.500	0.477	95	81 - 115	
Chloroform	0.500	0.470	94	81 - 122	
1,2-Dichloroethane	0.500	0.479	96	73 - 127	
1,1-Dichloroethene	0.500	0.451	90	65 - 119	
Tetrachloroethene	0.500	0.510	102	78 - 131	
Trichloroethene	0.500	0.476	95	80 - 122	
Vinyl chloride	0.500	0.513	103	53 - 134	

NOTES (S) :

* Values outside of QC limits

Spike Recovery: 0 out of 10 outside limits

COMMENTS:

FORM III

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Matrix Spike ID: LAB MS/MSD

Level: (low/med) LOW

Lot #: C0E230168

WO #: DDK2310V

BATCH: 0147338

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	MS CONCENT. (mg/L)	MS % REC	LIMITS REC	QUAL
=====	=====	=====	=====	=====	=====	=====
Benzene	0.500	ND	0.474	95	73 - 123	
2-Butanone	0.500	0.026	0.338	62	10 - 151	
Carbon tetrachloride	0.500	ND	0.469	94	61 - 143	
Chlorobenzene	0.500	ND	0.471	94	70 - 122	
Chloroform	0.500	ND	0.476	95	65 - 131	
1,2-Dichloroethane	0.500	ND	0.498	100	67 - 132	
1,1-Dichloroethene	0.500	ND	0.431	86	57 - 138	
Tetrachloroethene	0.500	ND	0.489	98	70 - 130	
Trichloroethene	0.500	ND	0.476	95	58 - 141	
Vinyl chloride	0.500	ND	0.488	98	51 - 133	

NOTES (S) :

Column to be used to flag recovery and RPD values with an asterisk
 * Values outside of QC limits

RPD: 0 out of 0 outside limitsSpike Recovery: 0 out of 10 outside limits

COMMENTS:

658 907

SW846 8260B MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Matrix Spike ID: LAB MS/MSD

Level: (low/med) LOW

Lot #: C0E230168

WO #: DDK2310W

BATCH: 0147338

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENT. (mg/L)	MSD % REC	% RPD	QC LIMITS RPD	REC	QUAL
=====	=====	=====	=====	=====	=====	=====	=====
Benzene	0.500	0.477	95	0.79	20	73 - 123	
2-Butanone	0.500	0.346	64	2.5	34	10 - 151	
Carbon tetrachloride	0.500	0.469	94	0.060	20	61 - 143	
Chlorobenzene	0.500	0.476	95	0.90	20	70 - 122	
Chloroform	0.500	0.480	96	0.75	20	65 - 131	
1,2-Dichloroethane	0.500	0.497	99	0.18	20	67 - 132	
1,1-Dichloroethene	0.500	0.444	89	3.1	20	57 - 138	
Tetrachloroethene	0.500	0.480	96	1.9	20	70 - 130	
Trichloroethene	0.500	0.478	96	0.37	20	58 - 141	
Vinyl chloride	0.500	0.496	99	1.7	20	51 - 133	

NOTES (S) :

Column to be used to flag recovery and RPD values with an asterisk
 * Values outside of QC limits

RPD: 0 out of 10 outside limits
 Spike Recovery: 0 out of 10 outside limits

COMMENTS:

FORM III

SW846 8260B METHOD BLANK SUMMARY

DDNC5101

Lab Name: Severn Trent Laboratories, Inc.

Lab Code: QESPIT

SDG Number:

Lab File ID: 4052603

Lot Number: C0E240180

Date Analyzed: 05/26/00

Time Analyzed: 12:02

Matrix: SOLID

Date Extracted: 05/26/00

GC Column: RTX-624 ID: .18

Extraction Method: 1311/5030B

Instrument ID: HP4

Level: (low/med) LOW

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS, LCSD, MS , MSD:

	CLIENT ID.	SAMPLE WORK ORDER #	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	=====	=====	=====	=====	=====
01	LAB MS/MSD	DDK2310V S	4052606	05/26/00	13:21
02	LAB MS/MSD	DDK2310W D	4052607	05/26/00	13:46
03	INTRA-LAB QC	DDK23102	4052605	05/26/00	12:57
04	DF/S1/0143/SDC/002	DDLX3102	4052614	05/26/00	17:07
05	DF/S1/0143/SDC/003	DDLX6102	4052617	05/26/00	18:32
06	CHECK SAMPLE	DDT3T102 C	4052604	05/26/00	12:32
07					
08					
09					
10					
11					
12					
13					
14					
15					
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22					
23					
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25					
26					
27					
28					
29					
30					

COMMENTS:

FORM IV

UXB INTERNATIONAL
METHOD BLANK COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SOLID Lab Sample ID: C0E250000 190
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/23/00
Work Order: DDNPV101 Date Extracted: 05/26/00
Dilution factor: 1 Date Analyzed: 05/26/00
Moisture %: NA

QC Batch: 0147338

Client Sample Id: INTRA-LAB BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
71-43-2	Benzene	0.050	U
78-93-3	2-Butanone	0.018	J
56-23-5	Carbon tetrachloride	0.050	U
108-90-7	Chlorobenzene	0.050	U
67-66-3	Chloroform	0.050	U
107-06-2	1,2-Dichloroethane	0.050	U
75-35-4	1,1-Dichloroethene	0.050	U
127-18-4	Tetrachloroethene	0.050	U
79-01-6	Trichloroethene	0.050	U
75-01-4	Vinyl chloride	0.050	U

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: STL-PITTSBURGH

Contract:

Lab Code: STLPIT Case No.:

SAS No.: 40325

SDG No.: C0E240180

Lab File ID (Standard): CC40526

Date Analyzed: 05/26/00

Instrument ID: HP4

Time Analyzed: 0757

GC Column: DB 624 ID: 0.18 (mm)

Heated Purge: (Y/N) N

	IS1 (CBZ)		IS2 (DCB)		IS3	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
=====	=====	=====	=====	=====	=====	=====
12 HOUR STD	147987	10.12	243399	12.46	607109	7.00
UPPER LIMIT	295974	10.32	486798	12.66	1214218	7.20
LOWER LIMIT	73994	9.92	121700	12.26	303554	6.80
=====	=====	=====	=====	=====	=====	=====
EPA SAMPLE NO.						
=====	=====	=====	=====	=====	=====	=====
01 INTRA-LAB BL	189507	10.12	271553	12.46	895220	7.01
02 INTRA-LAB CH	183691	10.13	282052	12.46	766435	7.00
03 DF/S1/0143/S	134075	10.12	182530	12.46	614589	7.01
04 DF/S1/0143/S	130635	10.12	176519	12.46	576193	7.01
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						

IS1 (CBZ) = Chlorobenzene-d5
 IS2 (DCB) = 1,4-Dichlorobenzene-d4
 IS3 = Fluorobenzene

AREA UPPER LIMIT = +100% of internal standard area
 AREA LOWER LIMIT = - 50% of internal standard area
 RT UPPER LIMIT = + 0.20 minutes of internal standard RT
 RT LOWER LIMIT = - 0.20 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
 * Values outside of QC limits.

658 911

GC/MS SEMIVOLATILE SUMMARY

UXB INTERNATIONAL

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SOLID Lab Sample ID: COE240180 001

Method: SW846 8270C

Base/Neutrals and Acids (8270C)

Sample WT/Vol: 200 / mL Date Received: 05/24/00

Work Order: DDLX3103 Date Extracted: 05/30/00

Dilution factor: 1 Date Analyzed: 06/01/00

QC Batch: 0151187

Client Sample Id: DF/S1/0143/SDC/002

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
106-46-7	1,4-Dichlorobenzene	0.050	U
121-14-2	2,4-Dinitrotoluene	0.050	U
118-74-1	Hexachlorobenzene	0.050	U
87-68-3	Hexachlorobutadiene	0.050	U
67-72-1	Hexachloroethane	0.050	U
98-95-3	Nitrobenzene	0.050	U
87-86-5	Pentachlorophenol	0.25	U
110-86-1	Pyridine	0.10	U
95-95-4	2,4,5-Trichlorophenol	0.050	U
88-06-2	2,4,6-Trichlorophenol	0.050	U
1319-77-3	Cresols (total)	0.050	U

UXB INTERNATIONAL
MATRIX SPIKE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: COE240180 001

Method: SW846 8270C

Base/Neutrals and Acids (8270C)

Sample WT/Vol: 200 / mL

Date Received: 05/24/00

Work Order: DDLX310U

Date Extracted: 05/30/00

Dilution factor: 1

Date Analyzed: 06/01/00

QC Batch: 0151187

Client Sample Id: DF/S1/0143/SDC/002

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
106-46-7	1,4-Dichlorobenzene	0.161	
121-14-2	2,4-Dinitrotoluene	0.198	
118-74-1	Hexachlorobenzene	0.228	
87-68-3	Hexachlorobutadiene	0.154	
67-72-1	Hexachloroethane	0.157	
98-95-3	Nitrobenzene	0.165	
87-86-5	Pentachlorophenol	0.203	
110-86-1	Pyridine	0.124	
95-95-4	2,4,5-Trichlorophenol	0.183	
88-06-2	2,4,6-Trichlorophenol	0.175	
1319-77-3	Cresols (total)	0.562	

UXB INTERNATIONAL
MATRIX SPIKE DUPLICATE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SOLID Lab Sample ID: C0E240180 001
 Method: SW846 8270C
 Base/Neutrals and Acids (8270C)

Sample WT/Vol: 200 / mL Date Received: 05/24/00
 Work Order: DDLX310V Date Extracted: 05/30/00
 Dilution factor: 1 Date Analyzed: 06/01/00

QC Batch: 0151187

Client Sample Id: DF/S1/0143/SDC/002

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
106-46-7	1,4-Dichlorobenzene	0.152	
121-14-2	2,4-Dinitrotoluene	0.192	
118-74-1	Hexachlorobenzene	0.215	
87-68-3	Hexachlorobutadiene	0.154	
67-72-1	Hexachloroethane	0.149	
98-95-3	Nitrobenzene	0.162	
87-86-5	Pentachlorophenol	0.191	
110-86-1	Pyridine	0.118	
95-95-4	2,4,5-Trichlorophenol	0.178	
88-06-2	2,4,6-Trichlorophenol	0.167	
1319-77-3	Cresols (total)	0.535	

UXB INTERNATIONAL

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0E240180 002

Method: SW846 8270C

Base/Neutrals and Acids (8270C)

Sample WT/Vol: 200 / mL

Date Received: 05/24/00

Work Order: DDLX6103

Date Extracted: 05/30/00

Dilution factor: 1

Date Analyzed: 06/01/00

QC Batch: 0151187

Client Sample Id: DF/S1/0143/SDC/003

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
106-46-7	1,4-Dichlorobenzene	0.050	U
121-14-2	2,4-Dinitrotoluene	0.050	U
118-74-1	Hexachlorobenzene	0.050	U
87-68-3	Hexachlorobutadiene	0.050	U
67-72-1	Hexachloroethane	0.050	U
98-95-3	Nitrobenzene	0.050	U
87-86-5	Pentachlorophenol	0.25	U
110-86-1	Pyridine	0.10	U
95-95-4	2,4,5-Trichlorophenol	0.050	U
88-06-2	2,4,6-Trichlorophenol	0.050	U
1319-77-3	Cresols (total)	0.050	U

UXB INTERNATIONAL
CHECK SAMPLE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SOLID Lab Sample ID: C0E300000 187

Method: SW846 8270C
Base/Neutrals and Acids (8270C)

Sample WT/Vol: 200 / mL Date Received: 05/24/00

Work Order: DDWFT102 Date Extracted: 05/30/00

Dilution factor: 1 Date Analyzed: 06/01/00

QC Batch: 0151187

Client Sample Id: CHECK SAMPLE

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
106-46-7	1,4-Dichlorobenzene	0.211	
121-14-2	2,4-Dinitrotoluene	0.237	
118-74-1	Hexachlorobenzene	0.228	
87-68-3	Hexachlorobutadiene	0.214	
67-72-1	Hexachloroethane	0.209	
98-95-3	Nitrobenzene	0.210	
87-86-5	Pentachlorophenol	0.213	
110-86-1	Pyridine	0.165	
95-95-4	2,4,5-Trichlorophenol	0.220	
88-06-2	2,4,6-Trichlorophenol	0.216	
1319-77-3	Cresols (total)	0.719	

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

QESSDG:

Lot #: C0E240180

	CLIENT ID.	SRG01	SRG02	SRG03	SRG04	SRG05	SRG06	TOT OUT
	=====	=====	=====	=====	=====	=====	=====	=====
01	DF/S1/0143/SDC/002	74	73	97	67	78	89	00
02	DF/S1/0143/SDC/003	69	69	105	60	71	84	00
03	METHOD BLK. DDWFT101	75	77	93	69	80	89	00
04	LCS DDWFT102	82	84	96	79	93	96	00
05	DF/S1/0143/SDC/002 D	65	63	100	56	67	80	00
06	DF/S1/0143/SDC/002 S	66	65	104	59	71	85	00

SURROGATES

SRG01 = Nitrobenzene-d5
 SRG02 = 2-Fluorobiphenyl
 SRG03 = Terphenyl-d14
 SRG04 = 2-Fluorophenol
 SRG05 = Phenol-d5
 SRG06 = 2,4,6-Tribromophenol

QC LIMITS

(32-112)
 (30-110)
 (10-144)
 (13-110)
 (10-113)
 (21-122)

Column to be used to flag recovery values
 * Values outside of required QC Limits
 D System monitoring Compound diluted out

FORM II

SW846 8270C CHECK SAMPLE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Lot #: COE300000

WO #: DDWFT102

BATCH: 0151187

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	% REC	QC LIMITS REC	QUAL
1,4-Dichlorobenzene	0.250	0.211	84	28- 110	
2,4-Dinitrotoluene	0.250	0.237	95	47- 131	
Hexachlorobenzene	0.250	0.228	91	57- 128	
Hexachlorobutadiene	0.250	0.214	86	36- 116	
Hexachloroethane	0.250	0.209	84	30- 110	
Nitrobenzene	0.250	0.210	84	45- 130	
Pentachlorophenol	0.250	0.213	85	10- 140	
Pyridine	0.250	0.165	66	10- 148	
2,4,5-Trichlorophenol	0.250	0.220	88	41- 125	
2,4,6-Trichlorophenol	0.250	0.216	87	46- 135	
Cresols (total)	0.750	0.719	96	29- 144	

NOTES (S) :

* Values outside of QC limits

Spike Recovery: 0 out of 11 outside limits

COMMENTS:

FORM III

658 919

SW846 8270C MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Matrix Spike ID: DF/S1/0143/SDC/002

Level: (low/med) LOW

Lot #: C0E240180

WO #: DDLX310U

BATCH: 0151187

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	MS CONCENT. (mg/L)	MS % REC	LIMITS REC	QUAL
1,4-Dichlorobenzene	0.250	ND	0.161	64	18 - 110	
2,4-Dinitrotoluene	0.250	ND	0.198	79	31 - 131	
Hexachlorobenzene	0.250	ND	0.228	91	36 - 132	
Hexachlorobutadiene	0.250	ND	0.154	61	18 - 116	
Hexachloroethane	0.250	ND	0.157	63	18 - 110	
Nitrobenzene	0.250	ND	0.165	66	10 - 211	
Pentachlorophenol	0.250	ND	0.203	81	10 - 140	
Pyridine	0.250	ND	0.124	50	10 - 148	
2,4,5-Trichlorophenol	0.250	ND	0.183	73	24 - 143	
2,4,6-Trichlorophenol	0.250	ND	0.175	70	36 - 135	
Cresols (total)	0.750	ND	0.562	75	25 - 144	

NOTES (S) :

Column to be used to flag recovery and RPD values with an asterisk
 * Values outside of QC limits

RPD: 0 out of 0 outside limits
 Spike Recovery: 0 out of 11 outside limits

COMMENTS:

FORM III

SW846 8270C MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Matrix Spike ID: DF/S1/0143/SDC/002

Level: (low/med) LOW

Lot #: C0E240180

WO #: DDLX310V

BATCH: 0151187

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENT. (mg/L)	MSD % REC	% RPD	QC LIMITS RPD	REC	QUAL
=====	=====	=====	=====	=====	=====	=====	=====
1,4-Dichlorobenzene	0.250	0.152	61	5.6	36	18 - 110	
2,4-Dinitrotoluene	0.250	0.192	77	2.8	32	31 - 131	
Hexachlorobenzene	0.250	0.215	86	5.7	22	36 - 132	
Hexachlorobutadiene	0.250	0.154	62	0.27	32	18 - 116	
Hexachloroethane	0.250	0.149	60	5.0	33	18 - 110	
Nitrobenzene	0.250	0.162	65	1.8	50	10 - 211	
Pentachlorophenol	0.250	0.191	76	6.2	56	10 - 140	
Pyridine	0.250	0.118	47	4.7	65	10 - 148	
2,4,5-Trichlorophenol	0.250	0.178	71	2.6	22	24 - 143	
2,4,6-Trichlorophenol	0.250	0.167	67	4.8	27	36 - 135	
Cresols (total)	0.750	0.535	71	5.0	33	25 - 144	

NOTES (S) :

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 11 outside limitsSpike Recovery: 0 out of 11 outside limits

COMMENTS:

658 921

SW846 8270C METHOD BLANK SUMMARY

BLANK WORKORDER NO.

DDWFT101

Lab Name: Severn Trent Laboratories, Inc.

Lab Code: QESPIT

SDG Number:

Lab File ID: D0601001.

Lot Number: C0E240180

Date Analyzed: 06/01/00

Time Analyzed: 10:35

Matrix: SOLID

Date Extracted: 05/30/00

GC Column: HP5MS ID: .25

Extraction Method: 1311/3520C

Instrument ID: 721

Level: (low/med) LOW

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS, LCSD, MS , MSD:

	CLIENT ID.	SAMPLE WORK ORDER #	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	DF/S1/0143/SDC/002	DDLX310U S	D0601004.	06/01/00	12:05
02	DF/S1/0143/SDC/002	DDLX310V D	D0601005.	06/01/00	12:35
03	DF/S1/0143/SDC/002	DDLX3103	D0601003.	06/01/00	11:35
04	DF/S1/0143/SDC/003	DDLX6103	D0601006.	06/01/00	13:06
05	CHECK SAMPLE	DDWFT102 C	D0601002.	06/01/00	11:05
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

COMMENTS:

FORM IV

UXB INTERNATIONAL
METHOD BLANK COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SOLID Lab Sample ID: C0E300000 187

Method: SW846 8270C
Base/Neutrals and Acids (8270C)

Sample WT/Vol: 200 / mL Date Received: 05/24/00

Work Order: DDWFT101 Date Extracted: 05/30/00

Dilution factor: 1 Date Analyzed: 06/01/00

QC Batch: 0151187

Client Sample Id: INTRA-LAB BLANK

CONCENTRATION UNITS:			
CAS NO.	COMPOUND	(ug/L or ug/kg) mg/L	Q
106-46-7	1,4-Dichlorobenzene	0.050	U
121-14-2	2,4-Dinitrotoluene	0.050	U
118-74-1	Hexachlorobenzene	0.050	U
87-68-3	Hexachlorobutadiene	0.050	U
67-72-1	Hexachloroethane	0.050	U
98-95-3	Nitrobenzene	0.050	U
87-86-5	Pentachlorophenol	0.25	U
110-86-1	Pyridine	0.10	U
95-95-4	2,4,5-Trichlorophenol	0.050	U
88-06-2	2,4,6-Trichlorophenol	0.050	U
1319-77-3	Cresols (total)	0.050	U

Lab Name: STL PITTSBURGH

Contract:

Lab Code: STL PIT Case No.:

SAS No.:

SDG No.: COE240180

Lab File ID (Standard): D0601CCC

Date Analyzed: 06/01/00

Instrument ID: 721

Time Analyzed: 1005

	IS1 (DCB)	RT #	IS2 (NPT)	RT #	IS3 (ANT)	RT #
	AREA #		AREA #		AREA #	
=====	=====	=====	=====	=====	=====	=====
12 HOUR STD	90704	4.48	339526	5.68	185944	8.19
UPPER LIMIT	181408	4.98	679052	6.18	371888	8.69
LOWER LIMIT	45352	3.98	169763	5.18	92972	7.69
=====	=====	=====	=====	=====	=====	=====
CLIENT						
SAMPLE NO.						
=====	=====	=====	=====	=====	=====	=====
01 INTRA-LAB BL	88677	4.48	349254	5.67	196739	8.18
02 LCS	86634	4.48	337766	5.67	190680	8.18
03 DF/S1/0143/S	89244	4.48	344494	5.67	195990	8.19
04 DF/S1/0143/S	85970	4.48	336128	5.67	187279	8.19
05 DF/S1/0143/S	90253	4.48	347041	5.67	198482	8.19
06 DF/S1/0143/S	85818	4.48	334788	5.67	187939	8.19
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = - 50% of internal standard area

RT UPPER LIMIT = + 0.50 minutes of internal standard RT

RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.

* Values outside of QC limits.

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

658 924

Lab Name: STL PITTSBURGH

Contract:

Lab Code: STL PIT

Case No.:

SAS No.:

SDG No.: C0E240180

Lab File ID (Standard): D0601CCC

Date Analyzed: 06/01/00

Instrument ID: 721

Time Analyzed: 1005

	IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
=====	=====	=====	=====	=====	=====	=====
12 HOUR STD	360334	11.04	322032	16.86	276273	19.81
UPPER LIMIT	720668	11.54	644064	17.36	552546	20.31
LOWER LIMIT	180167	10.54	161016	16.36	138137	19.31
=====	=====	=====	=====	=====	=====	=====
CLIENT SAMPLE NO.						
=====	=====	=====	=====	=====	=====	=====
01 INTRA-LAB BL	394768	11.03	354033	16.84	313962	19.80
02 LCS	377023	11.04	355010	16.84	318408	19.80
03 DF/S1/0143/S	389034	11.04	332733	16.85	292278	19.80
04 DF/S1/0143/S	362957	11.04	316224	16.85	274413	19.80
05 DF/S1/0143/S	389782	11.04	333945	16.85	293274	19.80
06 DF/S1/0143/S	376219	11.04	322473	16.85	278952	19.80
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						

IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = - 50% of internal standard area

RT UPPER LIMIT = + 0.50 minutes of internal standard RT

RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.

* Values outside of QC limits.

658 925

PESTICIDE SUMMARY

UXB INTERNATIONAL

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0E240180 001

Method: SW846 8081A

Pesticides (8081A)

Sample WT/Vol: 100 / mL

Date Received: 05/24/00

Work Order: DDLX3104

Date Extracted: 05/26/00

Dilution factor: 1

Date Analyzed: 05/31/00

Moisture %: 15

QC Batch: 0147439

Client Sample Id: DF/S1/0143/SDC/002

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
57-74-9	Chlordane (technical)	0.0050	U
72-20-8	Endrin	0.00050	U
76-44-8	Heptachlor	0.00050	U
1024-57-3	Heptachlor epoxide	0.00050	U
58-89-9	Lindane	0.00050	U
72-43-5	Methoxychlor	0.0010	U
8001-35-2	Toxaphene	0.020	U

FORM I

658 927

UXB INTERNATIONAL
MATRIX SPIKE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SOLID Lab Sample ID: C0E240180 001
Method: SW846 8081A
Pesticides (8081A)

Sample WT/Vol: 100 / mL Date Received: 05/24/00
Work Order: DDLX310M Date Extracted: 05/26/00
Dilution factor: 1 Date Analyzed: 05/31/00
Moisture %: 15

QC Batch: 0147439

Client Sample Id: DF/S1/0143/SDC/002

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
72-20-8	Endrin	0.00234	
76-44-8	Heptachlor	0.00255	
1024-57-3	Heptachlor epoxide	0.00212	
58-89-9	Lindane	0.00200	
72-43-5	Methoxychlor	0.00337	

UXB INTERNATIONAL
MATRIX SPIKE DUPLICATE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SOLID Lab Sample ID: C0E240180 001
 Method: SW846 8081A
 Pesticides (8081A)

Sample WT/Vol: 100 / mL Date Received: 05/24/00
 Work Order: DDLX310N Date Extracted: 05/26/00
 Dilution factor: 1 Date Analyzed: 05/31/00
 Moisture %: 15

Client Sample Id: DF/S1/0143/SDC/002 QC Batch: 0147439

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
72-20-8	Endrin	0.00240	
76-44-8	Heptachlor	0.00260	
1024-57-3	Heptachlor epoxide	0.00216	
58-89-9	Lindane	0.00204	
72-43-5	Methoxychlor	0.00345	

UXB INTERNATIONAL

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0E240180 002

Method: SW846 8081A

Pesticides (8081A)

Sample WT/Vol: 100 / mL

Date Received: 05/24/00

Work Order: DDLX6104

Date Extracted: 05/26/00

Dilution factor: 1

Date Analyzed: 05/31/00

Moisture %: 19

QC Batch: 0147439

Client Sample Id: DF/S1/0143/SDC/003

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
57-74-9	Chlordane (technical)	0.0050	U
72-20-8	Endrin	0.00050	U
76-44-8	Heptachlor	0.00050	U
1024-57-3	Heptachlor epoxide	0.00050	U
58-89-9	Lindane	0.00050	U
72-43-5	Methoxychlor	0.0010	U
8001-35-2	Toxaphene	0.020	U

UXB INTERNATIONAL
CHECK SAMPLE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SOLID Lab Sample ID: C0E260000 439

Method: SW846 8081A

Pesticides (8081A)

Sample WT/Vol: 100 / mL Date Received: 05/24/00

Work Order: DDTM6102 Date Extracted: 05/26/00

Dilution factor: 1 Date Analyzed: 05/31/00

Moisture %: NA

QC Batch: 0147439

Client Sample Id: CHECK SAMPLE

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
72-20-8	Endrin	0.00237	
76-44-8	Heptachlor	0.00272	
1024-57-3	Heptachlor epoxide	0.00228	
58-89-9	Lindane	0.00222	
72-43-5	Methoxychlor	0.00322	

658 931

SW846 8081A SURROGATE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

QESSDG:

Lot #: C0E240180

	CLIENT ID.	SRG01	SRG02	TOT OUT
	=====	=====	=====	=====
01	DF/S1/0143/SDC/002	91	91	00
02	DF/S1/0143/SDC/003	97	93	00
03	METHOD BLK. DDTM6101	100	100	00
04	LCS DDTM6102	103	101	00
05	DF/S1/0143/SDC/002 D	102	95	00
06	DF/S1/0143/SDC/002 S	98	93	00

SURROGATES

SRG01 = Decachlorobiphenyl
SRG02 = Tetrachloro-m-xylene

QC LIMITS

(10-147)
(39-130)

Column to be used to flag recovery values
* Values outside of required QC Limits
D System monitoring Compound diluted out

FORM II

SW846 8081A CHECK SAMPLE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Lot #: C0E260000

WO #: DDTM6102

BATCH: 0147439

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	% REC	QC LIMITS REC	QUAL
Lindane	0.00250	0.00222	89	49 - 137	
Heptachlor	0.00250	0.00272	109	57 - 124	
Heptachlor epoxide	0.00250	0.00228	91	53 - 135	
Endrin	0.00250	0.00237	95	46 - 137	
Methoxychlor	0.00250	0.00322	129	12 - 154	

NOTES (S) :

* Values outside of QC limits

Spike Recovery: 0 out of 5 outside limits

COMMENTS:

FORM III

658 933

SW846 8081A MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Matrix Spike ID: DF/S1/0143/SDC/002

Level: (low/med) LOW

Lot #: C0E240180

WO #: DDLX310M

BATCH: 0147439

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	MS CONCENT. (mg/L)	MS % REC	LIMITS REC	QUAL
=====	=====	=====	=====	=====	=====	=====
Lindane	0.00250	ND	0.00200	80	30 - 148	
Heptachlor	0.00250	ND	0.00255	102	25 - 135	
Heptachlor epoxide	0.00250	ND	0.00212	85	38 - 138	
Endrin	0.00250	ND	0.00234	94	28 - 148	
Methoxychlor	0.00250	ND	0.00337	135	13 - 154	

NOTES (S) :

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 0 outside limits
Spike Recovery: 0 out of 5 outside limits

COMMENTS:

FORM III

SW846 8081A MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Matrix Spike ID: DF/S1/0143/SDC/002

Level: (low/med) LOW

Lot #: C0E240180

WO #: DDLX310N

BATCH: 0147439

COMPOUND	SPIKE	MSD	MSD	QC LIMITS				QUAL
	ADDED (mg/L)	CONCENT. (mg/L)	% REC	% RPD	RPD	REC		
Lindane	0.00250	0.00204	81	1.8	22	30 - 148		
Heptachlor	0.00250	0.00260	104	1.6	32	25 - 135		
Heptachlor epoxide	0.00250	0.00216	86	1.7	31	38 - 138		
Endrin	0.00250	0.00240	96	2.4	40	28 - 148		
Methoxychlor	0.00250	0.00345	138	2.4	29	13 - 154		

NOTES (S) :

Column to be used to flag recovery and RPD values with an asterisk
 * Values outside of QC limits

RPD: 0 out of 5 outside limits
 Spike Recovery: 0 out of 5 outside limits

COMMENTS:

658 935

SW846 8081A METHOD BLANK SUMMARY

BLANK WORKORDER NO.

DDTM6101

Lab Name: Severn Trent Laboratories, Inc.

Lab Code: QESPIT

SDG Number:

Lab File ID: c-b2592.d

Lot Number: C0E240180

Matrix: SOLID

Extraction Method: 1311/3510

Date Extracted: 05/26/00

Date Analyzed(1): 05/31/00

Date Analyzed(2): N/A

Time Analyzed(1): 22:58

Time Analyzed(2): N/A

Instrument ID(1): E/F

Instrument ID(2): N/A

GC Column(1): DB608 1701 ID: 053

GC Column(2): N/A

ID: N/A

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, AND MSD:

	CLIENT ID.	SAMPLE WORK ORDER #	DATE ANALYZED (1)	DATE ANALYZED (2)
	=====	=====	=====	=====
01	DF/S1/0143/SDC/002	DDLX310M S	05/31/00	N/A
02	DF/S1/0143/SDC/002	DDLX310N D	05/31/00	N/A
03	DF/S1/0143/SDC/002	DDLX3104	05/31/00	N/A
04	DF/S1/0143/SDC/003	DDLX6104	05/31/00	N/A
05	CHECK SAMPLE	DDTM6102 C	05/31/00	N/A
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

COMMENTS:

FORM IV

UXB INTERNATIONAL
METHOD BLANK COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SOLID Lab Sample ID: COE260000 439
Method: SW846 8081A
Pesticides (8081A)

Sample WT/Vol: 100 / mL Date Received: 05/24/00
Work Order: DDTM6101 Date Extracted: 05/26/00
Dilution factor: 1 Date Analyzed: 05/31/00
Moisture %: NA

QC Batch: 0147439

Client Sample Id: INTRA-LAB BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
57-74-9	Chlordane (technical)	0.0050	U
72-20-8	Endrin	0.00050	U
76-44-8	Heptachlor	0.00050	U
1024-57-3	Heptachlor epoxide	0.00050	U
58-89-9	Lindane	0.00050	U
72-43-5	Methoxychlor	0.0010	U
8001-35-2	Toxaphene	0.020	U

658 937

HERBICIDE SUMMARY

UXB INTERNATIONAL
MATRIX SPIKE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0E240180 001

Method: SW846 8151A

Herbicides (8151A)

Sample WT/Vol: 100 / mL

Date Received: 05/24/00

Work Order: DDLX310P

Date Extracted: 05/26/00

Dilution factor: 1

Date Analyzed: 06/01/00

Moisture %: 15

QC Batch: 0147444

Client Sample Id: DF/S1/0143/SDC/002

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
94-75-7	2,4-D	0.178	
93-72-1	2,4,5-TP (Silvex)	0.0454	

UXB INTERNATIONAL

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0E240180 001

Method: SW846 8151A

Herbicides (8151A)

Sample WT/Vol: 100 / mL

Date Received: 05/24/00

Work Order: DDLX3105

Date Extracted: 05/26/00

Dilution factor: 1

Date Analyzed: 06/01/00

Moisture %: 15

QC Batch: 0147444

Client Sample Id: DF/S1/0143/SDC/002

		CONCENTRATION UNITS:	
CAS NO.	COMPOUND	(ug/L or ug/kg) mg/L	Q
94-75-7	2,4-D	0.0050	U
93-72-1	2,4,5-TP (Silvex)	0.0050	U

FORM I

UXB INTERNATIONAL
MATRIX SPIKE DUPLICATE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc. SDG Number:
Matrix: (soil/water) SOLID Lab Sample ID: C0E240180 001
Method: SW846 8151A
Herbicides (8151A)
Sample WT/Vol: 100 / mL Date Received: 05/24/00
Work Order: DDLX310Q Date Extracted: 05/26/00
Dilution factor: 1 Date Analyzed: 06/01/00
Moisture %: 15
QC Batch: 0147444
Client Sample Id: DF/S1/0143/SDC/002

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
94-75-7	2,4-D	0.157	
93-72-1	2,4,5-TP (Silvex)	0.0404	

UXB INTERNATIONAL

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0E240180 002

Method: SW846 8151A

Herbicides (8151A)

Sample WT/Vol: 100 / mL

Date Received: 05/24/00

Work Order: DDLX6105

Date Extracted: 05/26/00

Dilution factor: 1

Date Analyzed: 06/01/00

Moisture %: 19

QC Batch: 0147444

Client Sample Id: DF/S1/0143/SDC/003

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
94-75-7	2,4-D	0.0050	U
93-72-1	2,4,5-TP (Silvex)	0.0050	U

UXB INTERNATIONAL
CHECK SAMPLE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SOLID
Method: SW846 8151A
Herbicides (8151A)

Lab Sample ID: C0E260000 444

Sample WT/Vol: 100 / mL
Work Order: DDTMQ102
Dilution factor: 1
Moisture %: NADate Received: 05/24/00
Date Extracted: 05/26/00
Date Analyzed: 06/01/00

QC Batch: 0147444

Client Sample Id: CHECK SAMPLE

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
94-75-7	2,4-D	0.128	
93-72-1	2,4,5-TP (Silvex)	0.0363	

658 943

SW846 8151A SURROGATE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

QESSDG:

Lot #: C0E240180

	CLIENT ID.	SRG01	TOT OUT
	=====	=====	=====
01	DF/S1/0143/SDC/002	101	00
02	DF/S1/0143/SDC/003	102	00
03	METHOD BLK. DDTMQ101	100	00
04	LCS DDTMQ102	90	00
05	DF/S1/0143/SDC/002 D	105	00
06	DF/S1/0143/SDC/002 S	114	00

SURROGATES

SRG01 = DCAA

QC LIMITS

(42-125)

- # Column to be used to flag recovery values
- * Values outside of required QC Limits
- D System monitoring Compound diluted out

FORM II

SW846 8151A CHECK SAMPLE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Lot #: C0E260000

WO #: DDTMQ102

BATCH: 0147444

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	% REC	QC LIMITS REC	QUAL
=====	=====	=====	=====	=====	=====
2,4-D	0.160	0.128	80	28 - 136	
2,4,5-TP (Silvex)	0.0400	0.0363	91	50 - 128	

NOTES (S) :

* Values outside of QC limits

Spike Recovery: 0 out of 2 outside limits

COMMENTS:

FORM III

658 945

SW846 8151A MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Matrix Spike ID: DF/S1/0143/SDC/002

Lot #: C0E240180

WO #: DDLX310P

BATCH: 0147444

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	MS CONCENT. (mg/L)	MS, % REC	LIMITS REC	QUAL
=====	=====	=====	=====	=====	=====	=====
2,4-D	0.160	ND	0.178	111	35 - 133	
2,4,5-TP (Silvex)	0.0400	ND	0.0454	113	50 - 131	

NOTES(S) :

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 0 outside limits
Spike Recovery: 0 out of 2 outside limits

COMMENTS:

FORM III

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Matrix Spike ID: DF/S1/0143/SDC/002

Lot #: C0E240180

WO #: DDLX310Q

BATCH: 0147444

COMPOUND	SPIKE ADDED	MSD CONCENT.	MSD %	MSD %	QC LIMITS		QUAL
	(mg/L)	(mg/L)	REC	RPD	RPD	REC	
=====	=====	=====	=====	=====	=====	=====	=====
2,4-D	0.160	0.157	98	13	20	35- 133	
2,4,5-TP (Silvex)	0.0400	0.0404	101	12	20	50- 131	

NOTES (S) :

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 2 outside limits
Spike Recovery: 0 out of 2 outside limits

COMMENTS:

FORM III

658 947

SW846 8151A METHOD BLANK SUMMARY

BLANK WORKORDER NO.

DDTMQ101

Lab Name: Severn Trent Laboratories, Inc.

Lab Code: QESPIT

SDG Number:

Lab File ID: a-a30114.

Lot Number: C0E240180

Matrix: SOLID

Extraction Method:

Date Extracted: 05/26/00

Date Analyzed(1): 06/01/00

Date Analyzed(2): N/A

Time Analyzed(1): 13:22

Time Analyzed(2): N/A

Instrument ID(1): A/B

Instrument ID(2): N/A

GC Column(1): DB5/DB1701 ID: 053

GC Column(2): N/A

ID: N/A

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, AND MSD:

	CLIENT ID.	SAMPLE WORK ORDER #	DATE ANALYZED (1)	DATE ANALYZED (2)
01	DF/S1/0143/SDC/002	DDLX310P S	06/01/00	N/A
02	DF/S1/0143/SDC/002	DDLX310Q D	06/01/00	N/A
03	DF/S1/0143/SDC/002	DDLX3105	06/01/00	N/A
04	DF/S1/0143/SDC/003	DDLX6105	06/01/00	N/A
05	CHECK SAMPLE	DDTMQ102 C	06/01/00	N/A
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

COMMENTS:

FORM IV

UXB INTERNATIONAL
METHOD BLANK COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc. SDG Number:
Matrix: (soil/water) SOLID Lab Sample ID: C0E260000 444
Method: SW846 8151A
Herbicides (8151A)
Sample WT/Vol: 100 / mL Date Received: 05/24/00
Work Order: DDTMQ101 Date Extracted: 05/26/00
Dilution factor: 1 Date Analyzed: 06/01/00
Moisture %: NA
QC Batch: 0147444
Client Sample Id: INTRA-LAB BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
94-75-7	2,4-D	0.0050	U
93-72-1	2,4,5-TP (Silvex)	0.0050	U

658 949

METALS SUMMARY

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: DDLX3 Client ID: DF/S1/0143/SDC/002
Matrix: Soil Units: mg/kg Prep Date: 5/30/00 Prep Batch: 0151223
Weight: 1.00 Volume: 100 Percent Moisture: 15.35

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Arsenic	189.04	0.30	1.2	9.4		1	ICPST	5/30/00	20:25

Comments: Lot #: C0E240180 Sample #: 1

Version 3.63.4

U Result is less than the MDL
B Result is between MDL and RL

Form 1 Equivalent

658 951

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: DDLX6 Client ID: DF/S1/0143/SDC/003
Matrix: Soil Units: mg/kg Prep Date: 5/30/00 Prep Batch: 0151223
Weight: 1.00 Volume: 100 Percent Moisture: 18.97

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Arsenic	189.04	0.32	1.2	10.5		1	ICPST	5/30/00	20:42

Comments: Lot #: C0E240180 Sample #: 2

Version 3.63.4

U Result is less than the MDL
B Result is between MDL and RL

Form 1 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Initial Calibration Blank Results

Instrument: ICPSTUnits: ug/LChart Number: T00530C.ARC

Standard Source: _____

Standard ID: _____

			ICB1 5/30/00 7:28 PM					
Element	WL/ Mass	Report Limit	Found	Q	Found	Q	Found	Q
Arsenic	189.042	10	2.6	U				

Metals Data Reporting Form

Continuing Calibration Blank Results

Instrument: ICPSTUnits: ug/LChart Number: T00530C.ARC

Standard Source: _____

Standard ID: _____

Element	WL/ Mass	Report Limit	CCB1 5/30/00 8:21 PM	CCB2 5/30/00 9:11 PM			
			Found Q	Found Q	Found Q	Found Q	Found Q
Arsenic	189.042	10	2.6 U	2.6 U			

STL-Pittsburgh

Metals Data Reporting Form

Preparation Blank Results

Lab Sample ID: DDWJ9BMatrix: Soil Units: mg/kg Prep Date: 5/30/00 Prep Batch: 0151223Weight: 1.00 Volume: 100 Percent Moisture: NA

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Arsenic	189.042	0.26	1.0	0.26	U	1	ICPST	5/30/00	20:08

Comments: Lot #: C0E240180

Version 3.63.4

U Result is less than the MDL

Form 3 Equivalent

B Result is between MDL and RL

658 955

STL-Pittsburgh

Metals Data Reporting Form

Matrix Spike Sample Results

Spike Sample ID: DDLX3SOriginal Sample ID: DDLX3 Client ID: DF/S1/0143/SDC/002SMatrix: Soil Units: mg/kg Prep Date: 5/30/00 Prep Batch: 0151223Weight: 1.00 Volume: 100 Percent Moisture: 15.35

Element	WL/ Mass	OS Conc	Q	MS Conc	Q	Spike Level	% Rec	OS DF	MS DF	Instr	OS Anal Date	OS Anal Time	MS Anal Date	MS Anal Time
Arsenic	189.0	9.4		240		236.27	97.6	1	1	ICPST	5/30/00	20:25	5/30/00	20:33

Comments: Lot #: C0E240180 Sample #: 1

Version 3.63.4

U Result is less than the MDL

Form 5A Equivalent

B Result is between MDL and RL

N Spike recovery failed

NC Percent recovery was not calculated

* Duplicate analysis RPD was not within limits

STL-Pittsburgh

Metals Data Reporting Form

Matrix Spike Duplicate Sample Results

Spike Sample ID: DDLX3D

Original Sample ID: DDLX3 Client ID: DF/S1/0143/SDC/002D

Matrix: Soil Units: mg/kg Prep Date: 5/30/00 Prep Batch: 0151223

Weight: 1.00 Volume: 100 Percent Moisture: 15.35

Element	WL/ Mass	OS Conc	Q	MSD Conc	Q	Spike Level	% Rec	OS DF	MSD DF	Instr	OS Anal Date	OS Anal Time	MSD Anal Date	MSD Anal Time
Arsenic	189 0	9.4		232		236.27	94.2	1	1	ICPST	5/30/00	20:25	5/30/00	20:38

Comments: Lot #: C0E240180 Sample #: 1

Version 3.63.4

U Result is less than the MDL
 B Result is between MDL and RL
 N Spike recovery failed
 NC Percent recovery was not calculated
 * Duplicate analysis RPD was not within limits

Form 5A Equivalent

Metals Data Reporting Form

Matrix Spike Duplicate RPD Report

Matrix Spike Duplicate Sample ID: DDLX3DMatrix Spike Sample ID: DDLX3S Client ID: DF/S1/0143/SDC/002DMatrix: Soil Units: mg/kg Prep Date: 5/30/00 Prep Batch: 0151223Weight: 1.00 Volume: 100 Percent Moisture: 15.35

Element	WL/ Mass	MS Conc	Q	MSD Conc	Q	RPD	MS DF	MSD DF	Instr	MS Anal Date	MS Anal Time	MSD Anal Date	MSD Anal Time
Arsenic	189.042	240		232		3.5 %	1	1	ICPST	5/30/00	20:33	5/30/00	20:38

Comments: Lot #: C0E240180 Sample #: 1

Version 3.63.4

U Result is less than the MDL

B Result is between MDL and RL

N Spike recovery failed

NC Percent recovery was not calculated

* Duplicate analysis RPD was not within limits

Form 6 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Laboratory Control Sample Results

Lab Sample ID: DDWJ9CMatrix: Soil Units: mg/kg Prep Date: 5/30/00 Prep Batch: 0151223Weight: 1.00 Volume: 100 Percent Moisture: NA

Element	WL/ Mass	Spike Level	Conc	Percent Recovery	Q	Range	DF	Instr	Anal Date	Anal Time
Arsenic	189.042	200	188	93.9		80-120	1	ICPST	5/30/00	20:13

Comments: Lot #: C0E240180

Version 3.63.4

STL Pittsburgh

U Result is less than the MDL

B Result is between MDL and RL

Form 7 Equivalent

658 959

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TCLP METALS SUMMARY

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: DDLX3T Client ID: DF/S1/0143/SDC/002
Matrix: Water Units: mg/L Prep Date: 5/30/00 Prep Batch: 0151097
Weight: NA Volume: 100 Percent Moisture: NA

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.000045	0.00020	0.000045	U	1	CVAA	5/30/00	10:40

Comments: Lot#: C0E240180 Sample#: 1

Version 3.63.4

U Result is less than the MDL
B Result is between MDL and RL

Form 1 Equivalent

658 961

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: DDLX6T Client ID: DF/S1/0143/SDC/003
Matrix: Water Units: mg/L Prep Date: 5/30/00 Prep Batch: 0151097
Weight: NA Volume: 100 Percent Moisture: NA

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.000045	0.00020	0.000045	U	I	CVAA	5/30/00	10:46

Comments: Lot#: C0E240180 Sample#: 2

Version 3.63.4

U Result is less than the MDL
B Result is between MDL and RL

Form 1 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: DDLX3T **Client ID:** DF/S1/0143/SDC/002
Matrix: Water **Units:** mg/L **Prep Date:** 5/30/00 **Prep Batch:** 0151226
Weight: NA **Volume:** 50 **Percent Moisture:** NA

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Arsenic	193.7	0.030	0.50	0.11	B	1	ICP	5/30/00	20:39
Barium	493.41	0.00041	10.0	1.2	B	1	ICP	5/30/00	20:39
Cadmium	228.80	0.0028	0.10	0.0028	U	1	ICP	5/30/00	20:39
Chromium	267.72	0.0038	0.50	0.0038	U	1	ICP	5/30/00	20:39
Lead	220.35	0.025	0.50	0.025	U	1	ICP	5/30/00	20:39
Selenium	196.03	0.067	0.25	0.067	U	1	ICP	5/30/00	20:39
Silver	328.07	0.0031	0.50	0.0031	U	1	ICP	5/30/00	20:39

Comments: Lot#: C0E240180 Sample#: 1

Version 3.63.4

U Result is less than the MDL

Form 1 Equivalent

B Result is between MDL and RL

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: DDLX6T Client ID: DF/S1/0143/SDC/003
 Matrix: Water Units: mg/L Prep Date: 5/30/00 Prep Batch: 0151226
 Weight: NA Volume: 50 Percent Moisture: NA

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Arsenic	193.7	0.030	0.50	0.097	B	1	ICP	5/30/00	20:51
Barium	493.41	0.00041	10.0	1.1	B	1	ICP	5/30/00	20:51
Cadmium	228.80	0.0028	0.10	0.0035	B	1	ICP	5/30/00	20:51
Chromium	267.72	0.0038	0.50	0.0038	U	1	ICP	5/30/00	20:51
Lead	220.35	0.025	0.50	0.025	U	1	ICP	5/30/00	20:51
Selenium	196.03	0.067	0.25	0.067	U	1	ICP	5/30/00	20:51
Silver	328.07	0.0031	0.50	0.0031	U	1	ICP	5/30/00	20:51

Comments: Lot#: C0E240180 Sample#: 2

Version 3.63.4

U Result is less than the MDL
B Result is between MDL and RL

Form-1 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Initial Calibration Blank Results

Instrument: CVAAUnits: ug/LChart Number: 0530HGA.PRN

Standard Source: _____

Standard ID: _____

			ICB1 5/30/00 10:21 AM					
Element	WL/ Mass	Report Limit	Found	Q	Found	Q	Found	Q
Mercury	253.7	0.2	-0.1	B				

658 965

STL-Pittsburgh

Metals Data Reporting Form

Initial Calibration Blank Results

Instrument: ICPUnits: ug/LChart Number: J00530C.ARC

Standard Source: _____

Standard ID: _____

Element	WL/ Mass	Report Limit	ICB1 5/30/00 8:19 PM		Found	Q	Found	Q	Found	Q	Found	Q
			Found	Q								
Arsenic	193.696	500	30.3	U								
Barium	493.409	10000	0.4	U								
Cadmium	228.802	100	2.8	U								
Chromium	267.716	500	3.8	U								
Lead	220.353	500	24.6	U								
Selenium	196.026	250	68.4	B								
Silver	328.068	500	3.1	U								

STL-Pittsburgh

Metals Data Reporting Form

Continuing Calibration Blank Results

Instrument: CVAAUnits: ug/LChart Number: 0530HGA.PRN

Standard Source: _____

Standard ID: _____

Element	WL/ Mass	Report Limit	CCB1 5/30/00 10:27 AM	CCB2 5/30/00 10:52 AM	Found Q	Found Q	Found Q	Found Q
			Found Q	Found Q				
Mercury	253.7	0.2	0 0 U	0.0 U				

Metals Data Reporting Form

Continuing Calibration Blank Results

Instrument: ICPUnits: ug/LChart Number: J00530C.ARC

Standard Source: _____

Standard ID: _____

Element	WL/ Mass	Report Limit	CCB1 5/30/00 8:57 PM							
			Found	Q	Found	Q	Found	Q	Found	Q
Arsenic	193.696	500	30.3	U						
Barium	493.409	10000	0.4	U						
Cadmium	228.802	100	2.8	U						
Chromium	267.716	500	3.8	U						
Lead	220.353	500	24.6	U						
Selenium	196.026	250	67.4	U						
Silver	328.068	500	3.1	U						

STL-Pittsburgh

Metals Data Reporting Form

Preparation Blank Results

Lab Sample ID: DDRA2BTMatrix: Water Units: mg/L Prep Date: 5/30/00 Prep Batch: 0151097Weight: NA Volume: 100 Percent Moisture: NA

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.000045	0.00020	0.000045	U	1	CVAA	5/30/00	10:38

Comments: _____

Version 3.63 4

U Result is less than the MDL

Form 3 Equivalent

B Result is between MDL and RL

658 969

STL-Pittsburgh

Metals Data Reporting Form

Preparation Blank Results

Lab Sample ID: DDW9WBTMatrix: Water Units: mg/L Prep Date: 5/30/00 Prep Batch: 0151097Weight: NA Volume: 100 Percent Moisture: NA

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.000045	0.00020	-0.000045	B	1	CVAA	5/30/00	10:29

Comments: _____

Version 3 63 4

U Result is less than the MDL
B Result is between MDL and RL

Form 3 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Preparation Blank Results

Lab Sample ID: DDRA2BTMatrix: Water Units: mg/L Prep Date: 5/30/00 Prep Batch: 0151226Weight: NA Volume: 50 Percent Moisture: NA

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Arsenic	193.696	0.030	0.50	0.13	B	1	ICP	5/30/00	20:29
Barium	493.409	0.00041	10.0	0.0082	B	1	ICP	5/30/00	20:29
Cadmium	228.802	0.0028	0.10	0.0028	U	1	ICP	5/30/00	20:29
Chromium	267.716	0.0038	0.50	0.0038	U	1	ICP	5/30/00	20:29
Lead	220.353	0.025	0.50	0.025	U	1	ICP	5/30/00	20:29
Selenium	196.026	0.067	0.25	0.067	U	1	ICP	5/30/00	20:29
Silver	328.068	0.0031	0.50	0.0031	U	1	ICP	5/30/00	20:29

Comments: _____

Version 3.63.4

U Result is less than the MDL

Form 3 Equivalent

B Result is between MDL and RL

STL-Pittsburgh

Metals Data Reporting Form

Preparation Blank Results

Lab Sample ID: DDWJFBTMatrix: Water Units: mg/L Prep Date: 5/30/00 Prep Batch: 0151226Weight: NA Volume: 50 Percent Moisture: NA

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Arsenic	193.696	0.030	0.50	0.030	U	1	ICP	5/30/00	20:35
Barium	493.409	0.00041	10.0	0.00041	U	1	ICP	5/30/00	20:35
Cadmium	228.802	0.0028	0.10	0.0028	U	1	ICP	5/30/00	20:35
Chromium	267.716	0.0038	0.50	0.0038	U	1	ICP	5/30/00	20:35
Lead	220.353	0.025	0.50	0.025	U	1	ICP	5/30/00	20:35
Selenium	196.026	0.067	0.25	0.086	B	1	ICP	5/30/00	20:35
Silver	328.068	0.0031	0.50	0.0031	U	1	ICP	5/30/00	20:35

Comments: _____

STL-Pittsburgh

Metals Data Reporting Form

Matrix Spike Sample Results

Spike Sample ID: DDLX3ST
 Original Sample ID: DDLX3T Client ID: DF/S1/0143/SDC/002S
 Matrix: Water Units: mg/L Prep Date: 5/30/00 Prep Batch: 0151097
 Weight: NA Volume: 100 Percent Moisture: NA

Element	WL/ Mass	OS Conc	Q	MS Conc	Q	Spike Level	% Rec	OS DF	MS DF	Instr	OS Anal Date	OS Anal Time	MS Anal Date	MS Anal Time
Mercury	253.7	0.000045	U	0.0053		0.005	105.0	1	1	CVAA	5/30/00	10:40	5/30/00	10:41

Comments: _____

Version 3.63.4

U Result is less than the MDL

Form 5A Equivalent

B Result is between MDL and RL

N Spike recovery failed

NC Percent recovery was not calculated

* Duplicate analysis RPD was not within limits

658 973

STL-Pittsburgh

Metals Data Reporting Form

Matrix Spike Sample Results

Spike Sample ID: DDLX3STOriginal Sample ID: DDLX3T Client ID: DF/S1/0143/SDC/002SMatrix: Water Units: mg/L Prep Date: 5/30/00 Prep Batch: 0151226Weight: NA Volume: 50 Percent Moisture: NA

Element	WL/ Mass	OS Conc	Q	MS Conc	Q	Spike Level	% Rec	OS DF	MS DF	Instr	OS Anal Date	OS Anal Time	MS Anal Date	MS Anal Time
Arsenic	193.7	0.11	B	4.9		5	94.8	1	1	ICP	5/30/00	20:39	5/30/00	20:45
Barium	493.4	1.2	B	43.9		50	85.4	1	1	ICP	5/30/00	20:39	5/30/00	20:45
Cadmium	228.8	0.0028	U	0.96		1	95.8	1	1	ICP	5/30/00	20:39	5/30/00	20:45
Chromium	267.7	0.0038	U	4.3		5	85.7	1	1	ICP	5/30/00	20:39	5/30/00	20:45
Lead	220.4	0.025	U	4.5		5	90.1	1	1	ICP	5/30/00	20:39	5/30/00	20:45
Selenium	196.0	0.067	U	1.1		1	106.0	1	1	ICP	5/30/00	20:39	5/30/00	20:45
Silver	328.1	0.0031	U	0.92		1	91.6	1	1	ICP	5/30/00	20:39	5/30/00	20:45

Comments: _____

Version 3.63.4

U Result is less than the MDL

B Result is between MDL and RL

N Spike recovery failed

NC Percent recovery was not calculated

* Duplicate analysis RPD was not within limits

Form 5A Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Matrix Spike Duplicate Sample Results

Spike Sample ID: DDLX3DT

Original Sample ID: DDLX3T Client ID: DF/S1/0143/SDC/002D

Matrix: Water Units: mg/L Prep Date: 5/30/00 Prep Batch: 0151097

Weight: NA Volume: 100 Percent Moisture: NA

Element	WL/ Mass	OS Conc	Q	MSD Conc	Q	Spike Level	% Rec	OS DF	MSD DF	Instr	OS Anal Date	OS Anal Time	MSD Anal Date	MSD Anal Time
Mercury	253.7	0.000045	U	0.0051		0.005	101.2	1	1	CVAA	5/30/00	10:40	5/30/00	10 45

Comments: _____

Version 3.63.4

U Result is less than the MDL

Form 5A Equivalent

B Result is between MDL and RL

N Spike recovery failed

NC Percent recovery was not calculated

* Duplicate analysis RPD was not within limits

Metals Data Reporting Form

Matrix Spike Duplicate Sample Results

Spike Sample ID: DDLX3DTOriginal Sample ID: DDLX3T Client ID: DF/S1/0143/SDC/002DMatrix: Water Units: mg/L Prep Date: 5/30/00 Prep Batch: 0151226Weight: NA Volume: 50 Percent Moisture: NA

Element	WL/ Mass	OS Conc	Q	MSD Conc	Q	Spike Level	% Rec	OS DF	MSD DF	Instr	OS Anal Date	OS Anal Time	MSD Anal Date	MSD Anal Time
Arsenic	193.7	0.11	B	4.7		5	92.7	1	1	ICP	5/30/00	20:39	5/30/00	20:48
Barium	493.4	1.2	B	41.9		50	81.5	1	1	ICP	5/30/00	20:39	5/30/00	20:48
Cadmium	228.8	0.0028	U	0.93		1	93.3	1	1	ICP	5/30/00	20:39	5/30/00	20:48
Chromium	267.7	0.0038	U	4.2		5	83.5	1	1	ICP	5/30/00	20:39	5/30/00	20:48
Lead	220.4	0.025	U	4.4		5	87.4	1	1	ICP	5/30/00	20:39	5/30/00	20:48
Selenium	196.0	0.067	U	1.0		1	102.8	1	1	ICP	5/30/00	20:39	5/30/00	20:48
Silver	328.1	0.0031	U	0.89		1	89.3	1	1	ICP	5/30/00	20:39	5/30/00	20:48

Comments: _____

Version 3.63.4

U Result is less than the MDL

B Result is between MDL and RL

N Spike recovery failed

NC Percent recovery was not calculated

* Duplicate analysis RPD was not within limits

Form 5A Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Matrix Spike Duplicate RPD Report

Matrix Spike Duplicate Sample ID: DDLX3DTMatrix Spike Sample ID: DDLX3ST Client ID: DF/S1/0143/SDC/002DMatrix: Water Units: mg/L Prep Date: 5/30/00 Prep Batch: 0151097Weight: NA Volume: 100 Percent Moisture: NA

Element	WL/ Mass	MS Conc	Q	MSD Conc	Q	RPD	MS DF	MSD DF	Instr	MS Anal Date	MS Anal Time	MSD Anal Date	MSD Anal Time
Mercury	253.7	0.0053		0.0051		3.7 %	1	1	CVAA	5/30/00	10:41	5/30/00	10:45

Comments: _____

Version 3.63 4

- U Result is less than the MDL
- B Result is between MDL and RL
- N Spike recovery failed
- NC Percent recovery was not calculated
- * Duplicate analysis RPD was not within limits

Form 6 Equivalent

Metals Data Reporting Form

Matrix Spike Duplicate RPD Report

Matrix Spike Duplicate Sample ID: DDLX3DTMatrix Spike Sample ID: DDLX3ST Client ID: DF/S1/0143/SDC/002DMatrix: Water Units: mg/L Prep Date: 5/30/00 Prep Batch: 0151226Weight: NA Volume: 50 Percent Moisture: NA

Element	WL/ Mass	MS Conc	Q	MSD Conc	Q	RPD	MS DF	MSD DF	Instr	MS Anal Date	MS Anal Time	MSD Anal Date	MSD Anal Time
Arsenic	193.696	4.9		4.7		2.3 %	1	1	ICP	5/30/00	20:45	5/30/00	20:48
Barium	493.409	43.9		41.9		4.6 %	1	1	ICP	5/30/00	20:45	5/30/00	20:48
Cadmium	228.802	0.96		0.93		2.7 %	1	1	ICP	5/30/00	20:45	5/30/00	20:48
Chromium	267.716	4.3		4.2		2.6 %	1	1	ICP	5/30/00	20:45	5/30/00	20:48
Lead	220.353	4.5		4.4		3.1 %	1	1	ICP	5/30/00	20:45	5/30/00	20:48
Selenium	196.026	1.1		1.0		3.1 %	1	1	ICP	5/30/00	20:45	5/30/00	20:48
Silver	328.068	0.92		0.89		2.5 %	1	1	ICP	5/30/00	20:45	5/30/00	20:48

Comments: _____

Version 3.63.4

U Result is less than the MDL

B Result is between MDL and RL

N Spike recovery failed

NC Percent recovery was not calculated

* Duplicate analysis RPD was not within limits

Form 6 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Laboratory Control Sample Results

Lab Sample ID: DDW9WCTMatrix: Water Units: mg/L Prep Date: 5/30/00 Prep Batch: 0151097Weight: NA Volume: 100 Percent Moisture: NA

Element	WL/ Mass	Spike Level	Conc	Percent Recovery	Q	Range	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.0025	0.0027	108.0		80-120	1	CVAA	5/30/00	10:31

Comments: _____

Version 3.63.4

U Result is less than the MDL

Form 7 Equivalent

B Result is between MDL and RL

STL-Pittsburgh

Metals Data Reporting Form

Laboratory Control Sample Results

Lab Sample ID: DDWJFCTMatrix: Water Units: mg/L Prep Date: 5/30/00 Prep Batch: 0151226Weight: NA Volume: 50 Percent Moisture: NA

Element	WL/ Mass	Spike Level	Conc	Percent Recovery	Q	Range	DF	Instr	Anal Date	Anal Time
Arsenic	193.696	2.0	2.2	108.8		80-120	1	ICP	5/30/00	20:32
Barium	493.409	2.0	1.8	92.2	B	80-120	1	ICP	5/30/00	20:32
Cadmium	228.802	0.050	0.052	104.8	B	80-120	1	ICP	5/30/00	20:32
Chromium	267.716	0.20	0.19	94.1	B	80-120	1	ICP	5/30/00	20:32
Lead	220.353	0.50	0.45	89.8	B	80-120	1	ICP	5/30/00	20:32
Selenium	196.026	2.0	2.2	111.7		80-120	1	ICP	5/30/00	20:32
Silver	328.068	0.050	0.048	96.7	B	80-120	1	ICP	5/30/00	20:32

Comments: _____

Version 3.63.4

STL Pittsburgh

U Result is less than the MDL

B Result is between MDL and RL

Form 7 Equivalent

GENERAL CHEMISTRY SUMMARY

658 981

UXB INTERNATIONAL

Client Sample ID: DF/S1/0143/SDC/002

General Chemistry

Lot-Sample #....: COE240180-001 Work Order #....: DDLX3 Matrix.....: SOLID
 Date Sampled....: 05/23/00 Date Received...: 05/24/00
 % Moisture.....: 15

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
pH	8.1		No Units	SW846 9045C	05/25/00	0146159
	Dilution Factor: 1		MS Run #.....: 0146043			
Ignitability	NO	--	No Units	SW846 SECTION 7.1	05/25/00	0146150
	Dilution Factor: 1		MS Run #.....: 0146035			
Percent Solids	84.7		%	MCAWW 160.3 MOD	05/25-05/26/00	0146362
	Dilution Factor: 1		MS Run #.....: 0146158			
Reactive Cyanide	ND	200	mg/kg	SW846 7.3.3	05/27/00	0151121
	Dilution Factor: 1		MS Run #.....: 0151017			
Reactive Sulfide	ND	200	mg/kg	SW846 7.3.4	05/27/00	0151120
	Dilution Factor: 1		MS Run #.....: 0151016			

Client Sample ID: DF/S1/0143/SDC/003

General Chemistry

Lot-Sample #...: C0E240180-002 Work Order #...: DDLX6 Matrix.....: SOLID
 Date Sampled...: 05/23/00 Date Received...: 05/24/00
 % Moisture.....: 19

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
pH	8.1		No Units	SW846 9045C	05/25/00	0146159
	Dilution Factor: 1		MS Run #.....: 0146043			
Ignitability	NO	--	No Units	SW846 SECTION 7.1	05/25/00	0146150
	Dilution Factor: 1		MS Run #.....: 0146035			
Percent Solids	81.0		%	MCAWW 160.3 MOD	05/25-05/26/00	0146362
	Dilution Factor: 1		MS Run #.....: 0146158			
Reactive Cyanide	ND	200	mg/kg	SW846 7.3.3	05/27/00	0151121
	Dilution Factor: 1		MS Run #.....: 0151017			
Reactive Sulfide	ND	200	mg/kg	SW846 7.3.4	05/27/00	0151120
	Dilution Factor: 1		MS Run #.....: 0151016			

658 983

METHOD BLANK REPORT

General Chemistry

Client Lot #...: C0E240180

Matrix.....: SOLID

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>PREP</u> <u>BATCH #</u>
Reactive Cyanide	ND	Work Order #: DDWC5101 200	mg/kg	MB Lot-Sample #: A0E300000-121 SW846 7.3.3	05/27/00	0151121
		Dilution Factor: 1				
Reactive Sulfide	ND	Work Order #: DDWC4101 200	mg/kg	MB Lot-Sample #: A0E300000-120 SW846 7.3.4	05/27/00	0151120
		Dilution Factor: 1				

NOTE (S) :

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

LABORATORY CONTROL SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: C0E240180

Matrix.....: SOLID

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
pH	100	Work Order #: DDNL4101 (85 - 115)	LCS Lot-Sample#: C0E250000-159 SW846 9045C	05/25/00	0146159
		Dilution Factor: 1			

NOTE(S) :

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

658 985

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #....: COE240180

Work Order #....: DDLX3-SMP
DDLX3-DUP

Matrix.....: SOLID

Date Sampled....: 05/23/00

Date Received...: 05/24/00

% Moisture.....: 15

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
pH	8.1	8.0	No Units	0.74	(0-20)	SD Lot-Sample #: COE240180-001 SW846 9045C	05/25/00	0146159

Dilution Factor: 1

Prep Date.....: 0146043

Analysis Date...:

Prep Batch #....:

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: C0E240180

Work Order #...: DDL3C-SMP
DDL3C-DUP

Matrix.....: SOLID

Date Sampled...: 05/22/00

Date Received...: 05/24/00

% Moisture.....: 24

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Reactive Cyanide	ND	ND	mg/kg	67	(0-20)	SD Lot-Sample #: A0E240104-001 SW846 7.3.3	05/27/00	0151121
Dilution Factor: 1								
			Prep Date.....: 0151017	Analysis Date...:		Prep Batch #...:		
Reactive Sulfide	ND	ND	mg/kg	88	(0-20)	SD Lot-Sample #: A0E240104-001 SW846 7.3.4	05/27/00	0151120
Dilution Factor: 1								
			Prep Date.....: 0151016	Analysis Date...:		Prep Batch #...:		

658 987

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: COE240180

Work Order #....: DDNMX-SMP

Matrix.....: SOLID

DDNMX-DUP

Date Sampled....: 05/24/00

Date Received...: 05/25/00

% Moisture.....: 16

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Percent Solids	83.6	84.1	%	0.56	(0-20)	SD Lot-Sample #: COE250132-001 MCAWW 160.3 MOD	05/25-05/26/00	0146362

Dilution Factor: 1

Prep Date.....: 0146158

Analysis Date...:

Prep Batch #...:

GC/MS VOLATILE DATA

**GC/MS VOLATILE
QC SUMMARY**

SW846 8260B SURROGATE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

QESSDG:

Lot #: C0E240180

	CLIENT ID.	SRG01	SRG02	SRG03	SRG04	TOT OUT
	=====	=====	=====	=====	=====	=====
01	INTRA-LAB QC	102	97	92	97	00
02	DF/S1/0143/SDC/002	102	88	85	95	00
03	DF/S1/0143/SDC/003	106	87	83	97	00
04	METHOD BLK. DDNC5101	100	100	97	92	00
05	METHOD BLK. DDNPV101	99	100	93	97	00
06	LCS DDT3T102	97	102	104	100	00
07	LAB MS/MSD D	98	99	101	98	00
08	LAB MS/MSD S	100	101	102	101	00

SURROGATES

SRG01 = 1,2-Dichloroethane-d4
 SRG02 = Toluene-d8
 SRG03 = 4-Bromofluorobenzene
 SRG04 = Dibromofluoromethane

QC LIMITS

(77-120)
 (78-111)
 (80-114)
 (78-110)

Column to be used to flag recovery values
 * Values outside of required QC Limits
 D System monitoring Compound diluted out

FORM II

658 991

SW846 8260B CHECK SAMPLE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Lot #: C0E260000

WO #: DDT3T102

BATCH: 0147338

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	% REC	QC LIMITS REC	QUAL
=====	=====	=====	=====	=====	=====
Benzene	0.500	0.470	94	79 - 116	
2-Butanone	0.500	0.315	63	35 - 156	
Carbon tetrachloride	0.500	0.490	98	72 - 133	
Chlorobenzene	0.500	0.477	95	81 - 115	
Chloroform	0.500	0.470	94	81 - 122	
1,2-Dichloroethane	0.500	0.479	96	73 - 127	
1,1-Dichloroethene	0.500	0.451	90	65 - 119	
Tetrachloroethene	0.500	0.510	102	78 - 131	
Trichloroethene	0.500	0.476	95	80 - 122	
Vinyl chloride	0.500	0.513	103	53 - 134	

NOTES(S):

* Values outside of QC limits

Spike Recovery: 0 out of 10 outside limits

COMMENTS:

FORM III

SW846 8260B MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Matrix Spike ID: LAB MS/MSD

Level: (low/med) LOW

Lot #: C0E230168

WO #: DDK2310V

BATCH: 0147338

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	MS CONCENT. (mg/L)	MS % REC	LIMITS REC	QUAL
=====	=====	=====	=====	=====	=====	=====
Benzene	0.500	ND	0.474	95	73 - 123	
2-Butanone	0.500	0.026	0.338	62	10 - 151	
Carbon tetrachloride	0.500	ND	0.469	94	61 - 143	
Chlorobenzene	0.500	ND	0.471	94	70 - 122	
Chloroform	0.500	ND	0.476	95	65 - 131	
1,2-Dichloroethane	0.500	ND	0.498	100	67 - 132	
1,1-Dichloroethene	0.500	ND	0.431	86	57 - 138	
Tetrachloroethene	0.500	ND	0.489	98	70 - 130	
Trichloroethene	0.500	ND	0.476	95	58 - 141	
Vinyl chloride	0.500	ND	0.488	98	51 - 133	

NOTES (S) :

Column to be used to flag recovery and RPD values with an asterisk
 * Values outside of QC limits

RPD: 0 out of 0 outside limitsSpike Recovery: 0 out of 10 outside limits

COMMENTS:

658 993

SW846 8260B MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Matrix Spike ID: LAB MS/MSD

Level: (low/med) LOW

Lot #: C0E230168

WO #: DDK2310W

BATCH: 0147338

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENT. (mg/L)	MSD % REC	% RPD	QC LIMITS		QUAL
					RPD	REC	
Benzene	0.500	0.477	95	0.79	20	73 - 123	
2-Butanone	0.500	0.346	64	2.5	34	10 - 151	
Carbon tetrachloride	0.500	0.469	94	0.060	20	61 - 143	
Chlorobenzene	0.500	0.476	95	0.90	20	70 - 122	
Chloroform	0.500	0.480	96	0.75	20	65 - 131	
1,2-Dichloroethane	0.500	0.497	99	0.18	20	67 - 132	
1,1-Dichloroethene	0.500	0.444	89	3.1	20	57 - 138	
Tetrachloroethene	0.500	0.480	96	1.9	20	70 - 130	
Trichloroethene	0.500	0.478	96	0.37	20	58 - 141	
Vinyl chloride	0.500	0.496	99	1.7	20	51 - 133	

NOTES (S) :

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 10 outside limitsSpike Recovery: 0 out of 10 outside limits

COMMENTS:

FORM III

BLANK WORKORDER NO.

SW846 8260B METHOD BLANK SUMMARY

DDNC5101

Lab Name: Severn Trent Laboratories, Inc.

Lab Code: QESPIT

SDG Number:

Lab File ID: 4052603

Lot Number: C0E240180

Date Analyzed: 05/26/00

Time Analyzed: 12:02

Matrix: SOLID

Date Extracted: 05/26/00

GC Column: RTX-624 ID: .18

Extraction Method: 1311/5030B

Instrument ID: HP4

Level: (low/med) LOW

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS, LCSD, MS , MSD:

	CLIENT ID.	SAMPLE WORK ORDER #	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	LAB MS/MSD	DDK2310V S	4052606	05/26/00	13:21
02	LAB MS/MSD	DDK2310W D	4052607	05/26/00	13:46
03	INTRA-LAB QC	DDK23102	4052605	05/26/00	12:57
04	DF/S1/0143/SDC/002	DDLX3102	4052614	05/26/00	17:07
05	DF/S1/0143/SDC/003	DDLX6102	4052617	05/26/00	18:32
06	CHECK SAMPLE	DDT3T102 C	4052604	05/26/00	12:32
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

COMMENTS:

FORM IV

658 995

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: STL-PITTSBURGH

Contract:

Lab Code: STLPIT

Case No.:

SAS No.: 40325

SDG No.: C0E240180

Lab File ID: BF40526

BFB Injection Date: 05/26/00

Instrument ID: HP4

BFB Injection Time: 0727

GC Column: DB624 20M ID: 0.18 (mm)

Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.3
75	30.0 - 60.0% of mass 95	44.5
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	5.6
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 100.0% of mass 95	63.9
175	5.0 - 9.0% of mass 174	5.0 (7.8)1
176	95.0 - 101.0% of mass 174	64.4 (100.8)1
177	5.0 - 9.0% of mass 176	4.1 (6.3)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD50	VSTD50	CC40526	05/26/00	0757
02	VSTD5	VSTD5	1A40526	05/26/00	0836
03	VSTD20	VSTD20	1B40526	05/26/00	0902
04	VSTD100	VSTD100	1D40526	05/26/00	0927
05	VSTD200	VSTD200	2E40526	05/26/00	1051
06	INTRA-LAB BL	DDNPV101	4052602	05/26/00	1129
07	INTRA-LAB CH	DDT3T102	4052604	05/26/00	1232
08	DF/S1/0143/S	DDLX3102	4052614	05/26/00	1707
09	DF/S1/0143/S	DDLX6102	4052617	05/26/00	1832
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

658 996

Lab Name: STL-PITTSBURGH

Contract:

Lab Code: STLPIT

Case No.:

SAS No.: 40325

SDG No.: COE240180

Lab File ID (Standard): CC40526

Date Analyzed: 05/26/00

Instrument ID: HP4

Time Analyzed: 0757

GC Column: DB 624 ID: 0.18 (mm)

Heated Purge: (Y/N) N

	IS1 (CBZ) AREA #	RT #	IS2 (DCB) AREA #	RT #	IS3 AREA #	RT #
=====	=====	=====	=====	=====	=====	=====
12 HOUR STD	147987	10.12	243399	12.46	607109	7.00
UPPER LIMIT	295974	10.32	486798	12.66	1214218	7.20
LOWER LIMIT	73994	9.92	121700	12.26	303554	6.80
=====	=====	=====	=====	=====	=====	=====
EPA SAMPLE NO.						
=====	=====	=====	=====	=====	=====	=====
01 INTRA-LAB BL	189507	10.12	271553	12.46	895220	7.01
02 INTRA-LAB CH	183691	10.13	282052	12.46	766435	7.00
03 DF/S1/0143/S	134075	10.12	182530	12.46	614589	7.01
04 DF/S1/0143/S	130635	10.12	176519	12.46	576193	7.01
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						

IS1 (CBZ) = Chlorobenzene-d5
IS2 (DCB) = 1,4-Dichlorobenzene-d4
IS3 = Fluorobenzene

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.20 minutes of internal standard RT
RT LOWER LIMIT = - 0.20 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

**GC/MS VOLATILE
SAMPLE DATA**

UXB INTERNATIONAL

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SOLID Lab Sample ID: C0E240180 001

Method: SW846 8260B

 Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/24/00

Work Order: DDLX3102 Date Extracted: 05/26/00

Dilution factor: 1 Date Analyzed: 05/26/00

Moisture %: 15

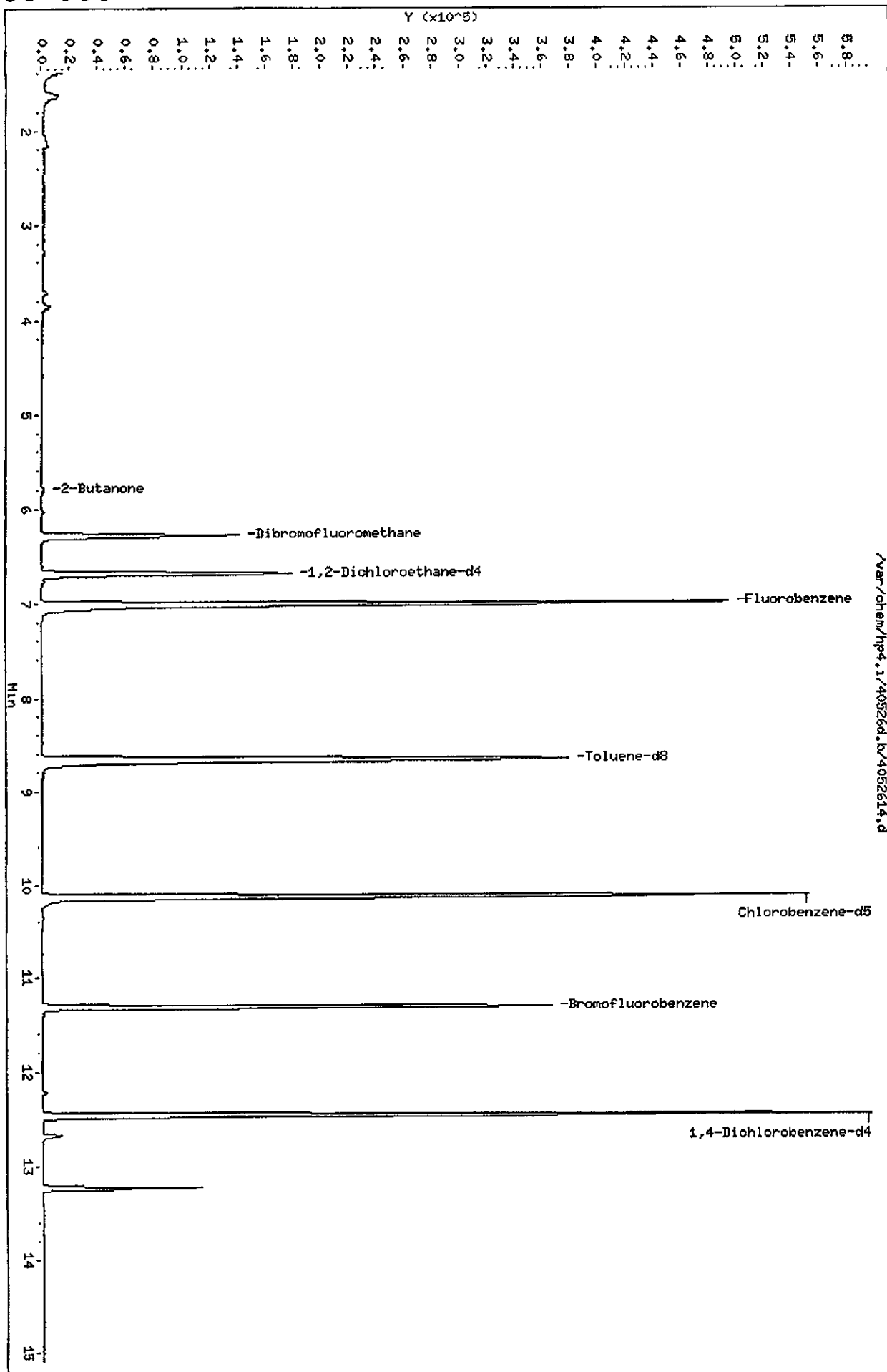
 QC Batch: 0147338

Client Sample Id: DF/S1/0143/SDC/002

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
71-43-2	Benzene	0.050	U
78-93-3	2-Butanone	0.020	J B
56-23-5	Carbon tetrachloride	0.050	U
108-90-7	Chlorobenzene	0.050	U
67-66-3	Chloroform	0.050	U
107-06-2	1,2-Dichloroethane	0.050	U
75-35-4	1,1-Dichloroethene	0.050	U
127-18-4	Tetrachloroethene	0.050	U
79-01-6	Trichloroethene	0.050	U
75-01-4	Vinyl chloride	0.050	U

Data File: /var/chem/hp4.1/40526d.b/4052614.d
Date: 26-May-2000 17:07
Client ID:
Sample Info: c0e240180-001 (1ml/10ml)/5ml
Volume Injected (uL): 5.0
Column phase: DB 624

Instrument: hp4.1
Operator: 16328
Column diameter: 0.18



Data File: /var/chem/hp4.i/40526d.b/4052614.d
Report Date: 27-May-2000 06:56

STL-PITTSBURGH

VOLATILE REPORT SW-846 Method

Data file : /var/chem/hp4.i/40526d.b/4052614.d
Lab Smp Id:
Inj Date : 26-MAY-2000 17:07
Operator : 16328
Smp Info : c0e240180-001 (1ml/10ml)/5ml
Misc Info : ,40526d.b,med1000.m
Comment :
Method : /var/chem/hp4.i/40526d.b/8260bh2o.m
Meth Date : 26-May-2000 12:31 dudeckk
Cal Date : 26-MAY-2000 07:57
Als bottle: 23
Dil Factor: 1.00000
Integrator: HP RTE
Target Version: 3.40
Processing Host: hpuxcs21

Inst ID: hp4.i
Ks/27/w
Quant Type: ISTD
Cal File: cc40526.d
Compound Sublist: tclp.sub

Concentration Formula: Amt * DF * (Vf/Vo)/Vi

Name	Value	Description
DF	1.000	Dilution Factor
Vf	5.000	FinalVolume
Vo	5.000	Sample Volume
Vi	5.000	Purge Volume

Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng)	FINAL (UG/L)
* 46 Fluorobenzene	96	7 012	6 999	(1.000)	614589			
* 69 Chlorobenzene-d5	119	10 124	10.123	(1.000)	134075			
* 92 1,4-Dichlorobenzene-d4	152	12 459	12.459	(1.000)	182530			
\$ 43 1,2-Dichloroethane-d4	65	6.688	6 688	(0.954)	131994	255.990	51.20	
\$ 39 Dibromofluoromethane	113	6.291	6 284	(0.897)	111533	238.099	47.62	
\$ 59 Toluene-d8	98	8 657	8.650	(0.855)	471853	220.936	44.19	
\$ 80 Bromofluorobenzene	95	11 304	11 309	(1.117)	164867	211.693	42.34	
3 Vinyl Chloride	62.00	Compound Not Detected.						
12 1,1-Dichloroethene	96 00	Compound Not Detected.						
31 2-Butanone	43	5.783	5.813	(0.825)	5766	10.1032	2.021	
37 Chloroform	83 00	Compound Not Detected.						
41 Carbon Tetrachloride	117 00	Compound Not Detected.						
42 Benzene	78.00	Compound Not Detected.						
45 1,2-Dichloroethane	62.00	Compound Not Detected.						
47 Trichloroethene	130 00	Compound Not Detected.						

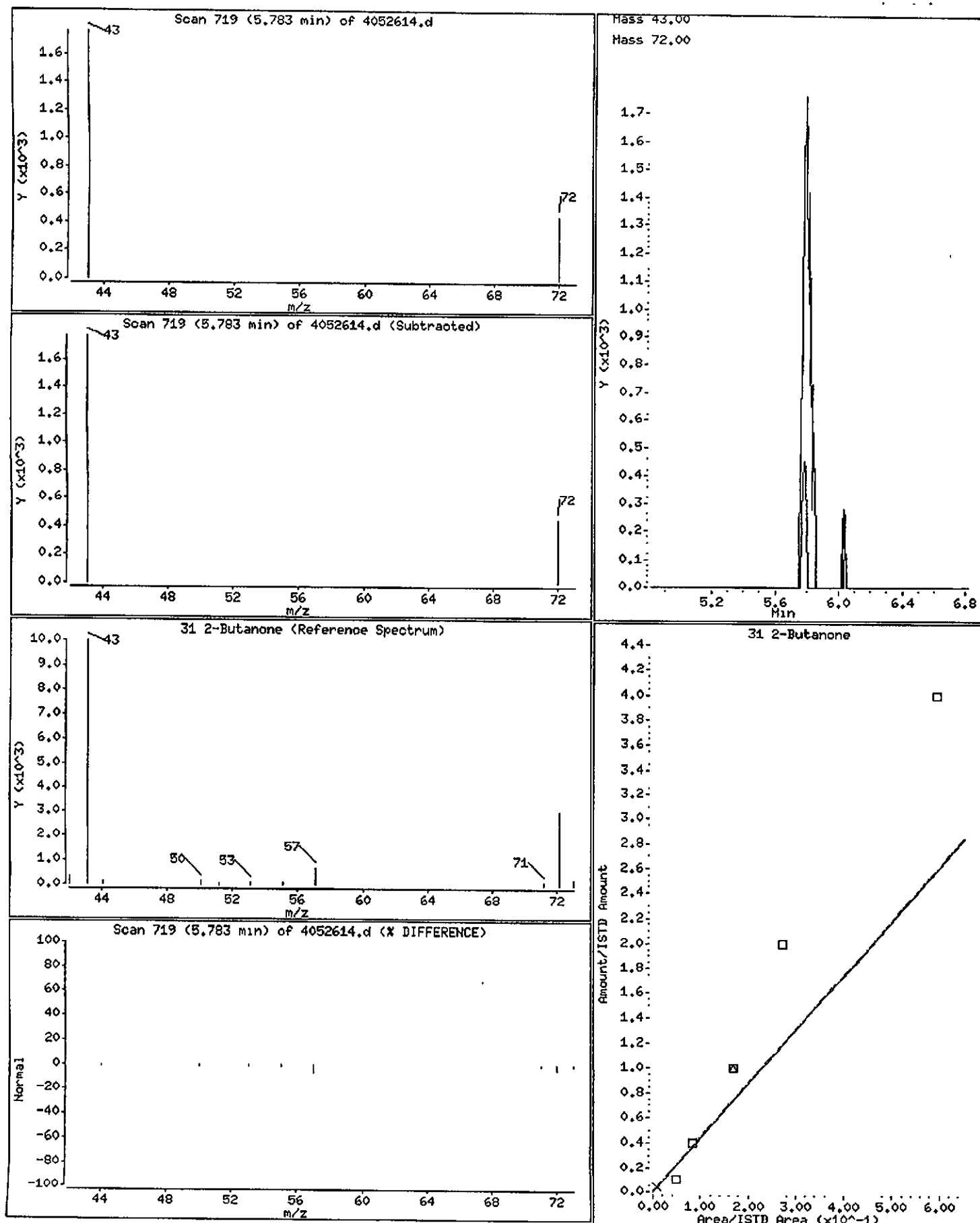
6581001

Data File: /var/chem/hp4.i/40526d.b/4052614.d
Report Date: 27-May-2000 06:56

Page 2

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN	FINAL
	MASS					(ng)	(UG/L)
=====	====	==	=====	=====	=====	=====	=====
65 Tetrachloroethene	164 00				Compound Not Detected.		
70 Chlorobenzene	112.00				Compound Not Detected.		

31 2-Butanone



6581003

UXB INTERNATIONAL

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0E240180 002

Method: SW846 8260B

Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL

Date Received: 05/24/00

Work Order: DDLX6102

Date Extracted: 05/26/00

Dilution factor: 1

Date Analyzed: 05/26/00

Moisture %: 19

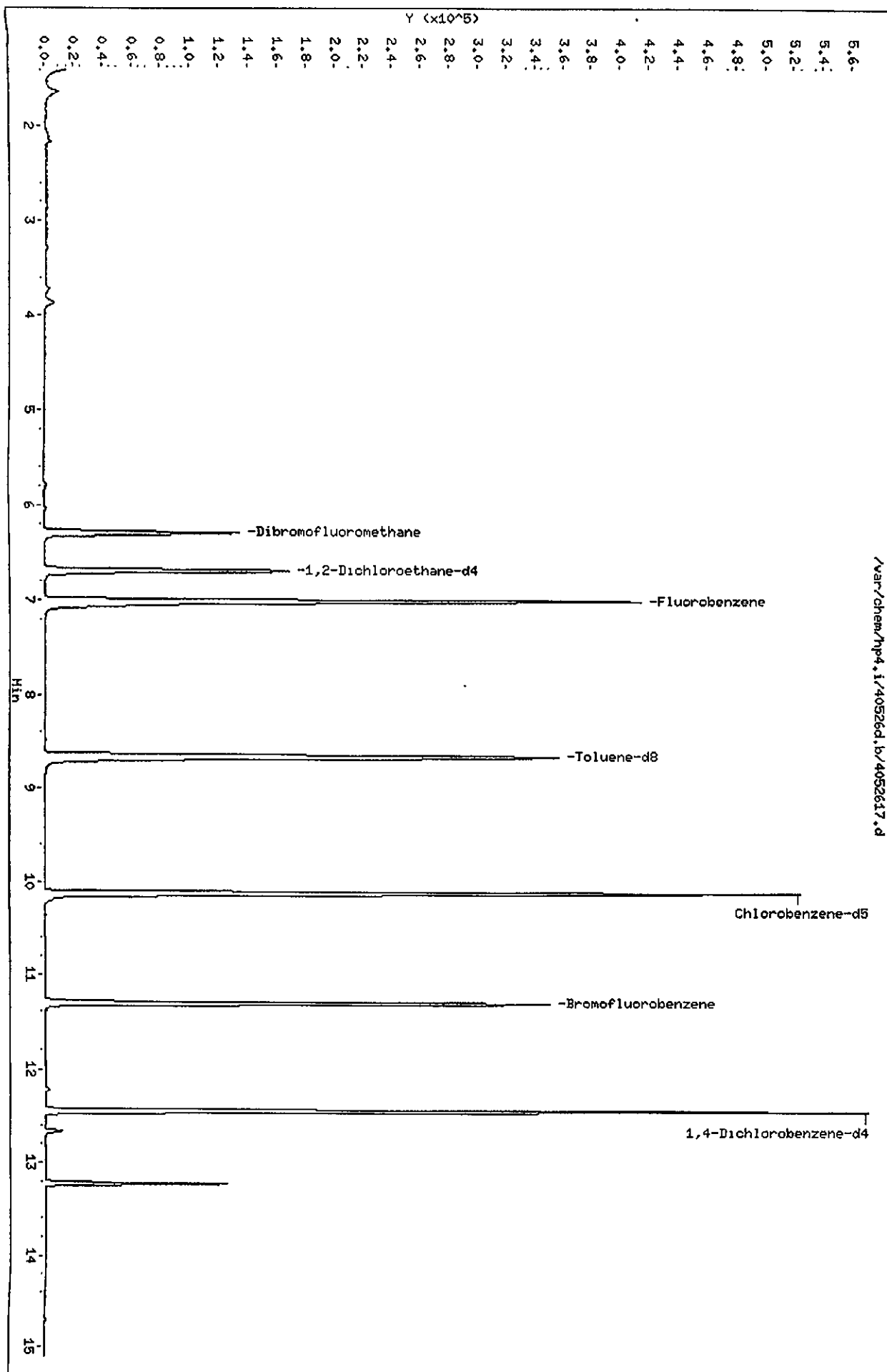
QC Batch: 0147338

Client Sample Id: DF/S1/0143/SDC/003

CONCENTRATION UNITS:			
CAS NO.	COMPOUND	(ug/L or ug/kg) mg/L	Q
71-43-2	Benzene	0.050	U
78-93-3	2-Butanone	0.050	U
56-23-5	Carbon tetrachloride	0.050	U
108-90-7	Chlorobenzene	0.050	U
67-66-3	Chloroform	0.050	U
107-06-2	1,2-Dichloroethane	0.050	U
75-35-4	1,1-Dichloroethene	0.050	U
127-18-4	Tetrachloroethene	0.050	U
79-01-6	Trichloroethene	0.050	U
75-01-4	Vinyl chloride	0.050	U

Data File: /var/chem/hp4.1/40526d.b/4052617.d
Date: 26-MAY-2000 18:32
Client ID:
Sample Info: 00240180-002 (1ml/10ml)/5ml
Volume Injected (ul): 5.0
Column phase: DB 624

Instrument: hp4.1
Operator: 16328
Column diameter: 0.18



Data File: /var/chem/hp4.i/40526d.b/4052617.d
 Report Date: 27-May-2000 07:04

STL-PITTSBURGH

VOLATILE REPORT SW-846 Method

Data file : /var/chem/hp4.i/40526d.b/4052617.d
 Lab Smp Id:
 Inj Date : 26-MAY-2000 18:32
 Operator : 16328 Inst ID: hp4.i
 Smp Info : c0e240180-002 (1ml/10ml)/5ml
 Misc Info : ,40526d.b,med1000.m
 Comment :
 Method : /var/chem/hp4.i/40526d.b/8260bh2o.m
 Meth Date : 26-May-2000 12:31 dudeckk Quant Type: ISTD
 Cal Date : 26-MAY-2000 07:57 Cal File: cc40526.d
 Als bottle: 26
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: tclp.sub
 Target Version: 3.40
 Processing Host: hpuxcs21

Concentration Formula: Amt * DF * (Vf/Vo)/Vi

Name	Value	Description
DF	1.000	Dilution Factor
Vf	5.000	Final Volume
Vo	5.000	Sample Volume
Vi	5.000	Purge Volume

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng)	FINAL (UG/L)
* 46 Fluorobenzene	96	7.013	6.999	(1.000)	576193		
* 69 Chlorobenzene-d5	119	10.124	10.123	(1.000)	130635		
* 92 1,4-Dichlorobenzene-d4	152	12.460	12.459	(1.000)	176519		
\$ 43 1,2-Dichloroethane-d4	65	6.695	6.688	(0.955)	127969	264.723	52.94
\$ 39 Dibromofluoromethane	113	6.291	6.284	(0.897)	106857	243.318	48.66
\$ 59 Toluene-d8	98	8.663	8.650	(0.856)	450522	216.503	43.30
\$ 80 Bromofluorobenzene	95	11.304	11.309	(1.117)	156681	206.479	41.30
3 Vinyl Chloride	62 00				Compound Not Detected.		
12 1,1-Dichloroethene	96.00				Compound Not Detected.		
31 2-Butanone	43 00				Compound Not Detected.		
37 Chloroform	83 00				Compound Not Detected.		
41 Carbon Tetrachloride	117.00				Compound Not Detected.		
42 Benzene	78.00				Compound Not Detected.		
45 1,2-Dichloroethane	62 00				Compound Not Detected.		
47 Trichloroethene	130 00				Compound Not Detected.		

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN	FINAL
	MASS					(ng)	(UG/L)
=====	====	==	=====	=====	=====	=====	=====
65 Tetrachloroethene	164.00				Compound Not Detected		
70 Chlorobenzene	112 00				Compound Not Detected		

6581007

**GC/MS VOLATILE
CALIBRATION DATA**

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: STL-PITTSBURGH

Contract:

Lab Code: STLPIT

Case No.:

SAS No.: 40325

SDG No.: 40826D

Instrument ID: HP4

Calibration Date(s): 05/26/00 05/26/00

Heated Purge: (Y/N) N

Calibration Time(s): 0757 1051

GC Column: DB 624 ID: 0.18 (mm)

LAB FILE ID:		RRF5 =1A40526		RRF20 =1B40526			
RRF50 =CC40526		RRF100=1D40526		RRF200=2E40526			
COMPOUND	RRF5	RRF20	RRF50	RRF100	RRF200	RRF	% RSD
Dichlorodifluoromethane	0.191	0.177	0.159	0.162	0.151	0.168	9.5
Chloromethane	* 0.494	0.389	0.344	0.326	0.320	0.375	19.2*
Vinyl Chloride	0.335	0.292	0.266	0.274	0.268	0.287	10.1
Bromomethane	0.047	0.039	0.035	0.039	0.038	0.040	10.6
Chloroethane	0.075	0.061	0.058	0.052	0.050	0.059	16.3
Trichlorofluoromethane	0.141	0.128	0.129	0.113	0.114	0.125	9.5
1,1-Dichloroethene	0.289	0.252	0.235	0.224	0.203	0.241	13.4
Methylene Chloride	0.284	0.242	0.237	0.208	0.202	0.235	13.9
trans-1,2-Dichloroethene	0.279	0.254	0.226	0.228	0.224	0.242	10.0
1,1-Dichloroethane	* 0.474	0.434	0.388	0.382	0.368	0.409	10.7*
cis-1,2-dichloroethene	0.298	0.279	0.256	0.245	0.240	0.264	9.1
Chloroform	0.438	0.391	0.353	0.335	0.326	0.369	12.5
Bromochloromethane	0.131	0.126	0.113	0.107	0.106	0.117	9.7
1,1,1-Trichloroethane	0.304	0.298	0.276	0.272	0.262	0.282	6.3
Carbon Tetrachloride	0.220	0.214	0.215	0.213	0.204	0.213	2.7
1,2-Dichloroethane	0.295	0.273	0.250	0.239	0.225	0.256	10.8
Benzene	1.242	1.130	1.040	0.999	0.930	1.068	11.3
Trichloroethene	0.279	0.257	0.237	0.235	0.226	0.247	8.6
1,2-Dichloropropane	0.284	0.268	0.248	0.240	0.234	0.255	8.2
Bromodichloromethane	0.277	0.254	0.249	0.246	0.237	0.253	6.0
cis-1,3-Dichloropropene	0.398	0.384	0.371	0.372	0.363	0.378	3.6
Toluene	5.867	5.220	4.684	4.486	4.096	4.871	14.1
trans-1,3-Dichloropropene	1.486	1.415	1.338	1.348	1.308	1.379	5.2
1,1,2-Trichloroethane	1.082	0.960	0.868	0.849	0.805	0.913	12.1
Tetrachloroethene	0.808	0.756	0.701	0.705	0.656	0.725	8.1
Dibromochloromethane	0.710	0.718	0.712	0.750	0.721	0.722	2.2
Chlorobenzene	* 3.923	3.325	3.039	2.924	2.664	3.175	15.1*
Ethylbenzene	2.039	1.839	1.722	1.616	1.488	1.741	12.1
Styrene	4.080	3.655	3.446	3.358	2.976	3.503	11.6
Bromoform	* 0.348	0.362	0.406	0.407	0.405	0.386	7.4*
1,1,2,2-Tetrachloroethane	* 0.925	0.803	0.750	0.730	0.706	0.783	11.1*
1,3-Dichlorobenzene	1.850	1.661	1.461	1.429	1.323	1.545	13.6
1,4-Dichlorobenzene	1.921	1.642	1.444	1.412	1.316	1.547	15.5
1,2-Dichlorobenzene	1.759	1.492	1.347	1.310	1.246	1.431	14.3
Dibromomethane	0.152	0.134	0.124	0.120	0.115	0.129	11.3
1,2-Dibromoethane	0.957	0.879	0.798	0.800	0.756	0.838	9.5
1,1,1,2-Tetrachloroethane	0.982	0.887	0.846	0.856	0.762	0.867	9.1

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

6581009

6A
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: STL-PITTSBURGH

Contract:

Lab Code: STLPIT

Case No.:

SAS No.: 40325

SDG No.: 40826D

Instrument ID: HP4

Calibration Date(s): 05/26/00 05/26/00

Heated Purge: (Y/N) N

Calibration Time(s): 0757 1051

GC Column: DB 624 ID: 0.18 (mm)

LAB FILE ID:		RRF5 =1A40526		RRF20 =1B40526			
RRF50 =CC40526		RRF100=1D40526		RRF200=2E40526			
COMPOUND	RRF5	RRF20	RRF50	RRF100	RRF200	RRF	% RSD
1,2,3-Trichloropropane	0.259	0.226	0.207	0.207	0.194	0.219	11.6
1,2-Dibromo-3-chloropropane	0.078	0.080	0.077	0.086	0.092	0.083	7.7
2,2-Dichloropropane	0.312	0.302	0.275	0.283	0.274	0.289	5.9
1,1-Dichloropropene	0.313	0.308	0.294	0.291	0.273	0.296	5.4
1,3-Dichloropropane	1.888	1.685	1.555	1.500	1.404	1.606	11.7
n-Propylbenzene	1.096	1.045	0.949	0.969	0.864	0.985	9.1
Bromobenzene	0.842	0.765	0.679	0.719	0.678	0.737	9.3
1,3,5-Trimethylbenzene	3.160	2.898	2.657	2.639	2.400	2.751	10.5
2-Chlorotoluene	0.985	0.865	0.780	0.784	0.716	0.826	12.5
4-Chlorotoluene	1.024	0.934	0.820	0.798	0.707	0.857	14.4
tert-Butylbenzene	2.661	2.558	2.340	2.367	2.186	2.422	7.8
1,2,4-Trimethylbenzene	3.290	3.007	2.761	2.702	2.472	2.846	11.0
sec-Butylbenzene	4.342	4.018	3.686	3.659	3.277	3.796	10.6
4-Isopropyltoluene	3.459	3.240	3.002	2.946	2.629	3.055	10.3
n-Butylbenzene	3.615	3.344	3.076	3.134	2.957	3.225	8.0
1,2,4-Trichlorobenzene	0.834	0.586	0.525	0.575	0.607	0.625	19.2
Hexachlorobutadiene	0.377	0.301	0.279	0.309	0.330	0.319	11.6
Naphthalene	1.995	1.037	0.779	0.947	1.048	1.161	41.2
1,2,3-Trichlorobenzene	0.969	0.389	0.289	0.344	0.375	0.473	59.1
Acetone	0.078	0.070	0.084	0.072	0.075	0.076	7.2
Carbon Disulfide	0.661	0.840	0.769	0.761	0.664	0.739	10.3
2-Butanone	0.484	0.217	0.171	0.138	0.150	0.232	62.1
4-Methyl-2-Pentanone	0.634	0.840	1.177	1.242	1.321	1.043	28.1
2-Hexanone	0.413	0.553	0.853	0.879	0.913	0.722	31.1
Methyl tert-butyl ether	0.439	0.590	0.543	0.567	0.553	0.538	10.8
Isopropylbenzene	5.553	5.493	5.197	4.922	4.374	5.108	9.4
1,2-Dichloroethene (total)	0.288	0.266	0.241	0.236	0.232	0.253	9.5
Xylenes (total)	2.287	2.201	2.054	1.970	1.822	2.067	8.9
Dibromofluoromethane	0.209	0.208	0.192	0.182	0.162	0.191	10.2
1,2-Dichloroethane-d4	0.223	0.232	0.214	0.198	0.181	0.210	9.7
Toluene-d8	4.330	4.430	4.097	3.783	3.270	3.982	11.8
Bromofluorobenzene	1.511	1.584	1.526	1.410	1.230	1.452	9.6

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.

INITIAL CALIBRATION REPORT

Instrument ID: hp4.i
Lab File ID: 1a40526.d
Analysis Type: WATER

Injection Date: 26-MAY-2000 08:36
Lab Sample ID: vstd1
Method File: /var/chem/hp4.i/40526d.b/8260bh2

COMPOUND	%RSD
-----	-----
Xylenes (total)	8.9
1,2-Dichloroethene (total)	9.5
Dichlorodifluoromethane	9.5
Chloromethane	19.2
Vinyl Chloride	10.1
Bromomethane	10.6
Chloroethane	16.3
Trichlorofluoromethane	9.5
1,1-Dichloroethene	13.4
Carbon Disulfide	10.3
Acetone	7.2
Methylene Chloride	13.9
trans-1,2-Dichloroethene	10.0
Methyl tert-butyl ether	10.8
1,1-Dichloroethane	10.7
2,2-Dichloropropane	5.9
cis-1,2-dichloroethene	9.1
2-Butanone	62.1
Bromochloromethane	9.7
Chloroform	12.5
1,1,1-Trichloroethane	6.3
Dibromofluoromethane	10.2
Carbon Tetrachloride	2.7
1,1-Dichloropropene	5.4
Benzene	11.3
1,2-Dichloroethane-d4	9.7
1,2-Dichloroethane	10.8
Trichloroethene	8.6
1,2-Dichloropropane	8.2
Dibromomethane	11.3
Bromodichloromethane	6.0
cis-1,3-Dichloropropene	3.6
4-Methyl-2-Pentanone	28.1
Toluene-d8	11.8
Toluene	14.1
trans-1,3-Dichloropropene	5.2
1,1,2-Trichloroethane	12.1
Tetrachloroethene	8.1
1,3-Dichloropropane	11.7

6581011

Data File: /var/chem/hp4.i/40526d.b/1a40526.d
Report Date: 05/26/2000

Pag

INITIAL CALIBRATION REPORT

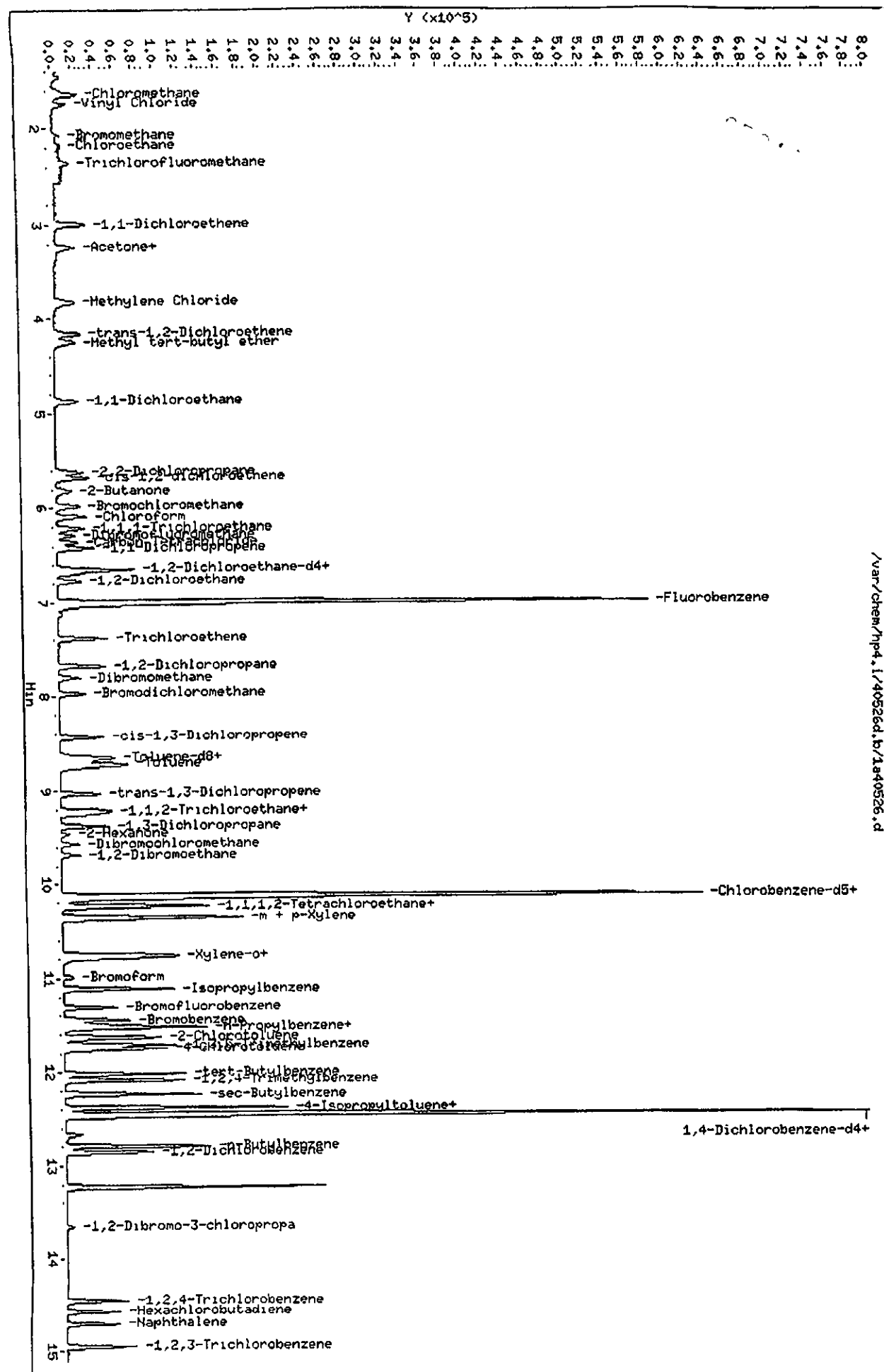
Instrument ID: hp4.i
Lab File ID: 1a40526.d
Analysis Type: WATERInjection Date: 26-MAY-2000 08:36
Lab Sample ID: vstd1
Method File: /var/chem/hp4.i/40526d.b/8260bh2

COMPOUND	%RSD
-----	-----
2-Hexanone	31.1
Dibromochloromethane	2.2
1,2-Dibromoethane	9.5
Chlorobenzene	15.1
Ethylbenzene	12.1
1,1,1,2-Tetrachloroethane	9.1
m + p-Xylene	13.8
Xylene-o	8.9
Styrene	11.6
Bromoform	7.4
Isopropylbenzene	9.4
Bromofluorobenzene	9.6
Bromobenzene	9.3
1,1,2,2-Tetrachloroethane	11.1
n-Propylbenzene	9.1
1,2,3-Trichloropropane	11.6
2-Chlorotoluene	12.5
1,3,5-Trimethylbenzene	10.5
4-Chlorotoluene	14.4
tert-Butylbenzene	7.8
1,2,4-Trimethylbenzene	11.0
sec-Butylbenzene	10.6
4-Isopropyltoluene	10.3
1,3-Dichlorobenzene	13.6
1,4-Dichlorobenzene	15.5
n-Butylbenzene	8.0
1,2-Dichlorobenzene	14.3
1,2-Dibromo-3-chloropropane	7.7
1,2,4-Trichlorobenzene	19.2
Hexachlorobutadiene	11.6
Naphthalene	41.2
1,2,3-Trichlorobenzene	59.1

The average of all %RSD's in the initial calibration is 12.7

Data File: /var/chem/hp4.1/40526d.b/140526.d
 Date: 26-MAY-2000 08:36
 Client ID: vstd1
 Sample Info: vstd5 Bml
 Volume Injected (ul): 5.0
 Column phase: DB 624

Instrument: hp4.1
 Operator: 16328
 Column diameter: 0.18



6581013

Data File: /var/chem/hp4.i/40526d.b/1a40526.d
 Report Date: 26-May-2000 11:08

Page 1

STL-PITTSBURGH

VOLATILE REPORT SW-846 Method

Data file : /var/chem/hp4.i/40526d.b/1a40526.d
 Lab Smp Id: vstd1 Client Smp ID: vstd1
 Inj Date : 26-MAY-2000 08:36
 Operator : 16328 Inst ID: hp4.i
 Smp Info : vstd5 5ml
 Misc Info : ,40526d.b,med1000.m
 Comment :
 Method : /var/chem/hp4.i/40526d.b/8260bh2o.m
 Meth Date : 26-May-2000 11:08 dudeckk Quant Type: ISTD
 Cal Date : 26-MAY-2000 10:51 Cal File: 2e40526.d
 Als bottle: 5 Calibration Sample, Level: 1
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 2-padep.sub
 Target Version: 3.40
 Processing Host: hpuxcs21

Concentration Formula: Amt * DF * (Vf/Vo)/Vi

Name	Value	Description
DF	1.000	Dilution Factor
Vf	5.000	Final Volume
Vo	5.000	Sample Volume
Vi	5.000	Purge Volume

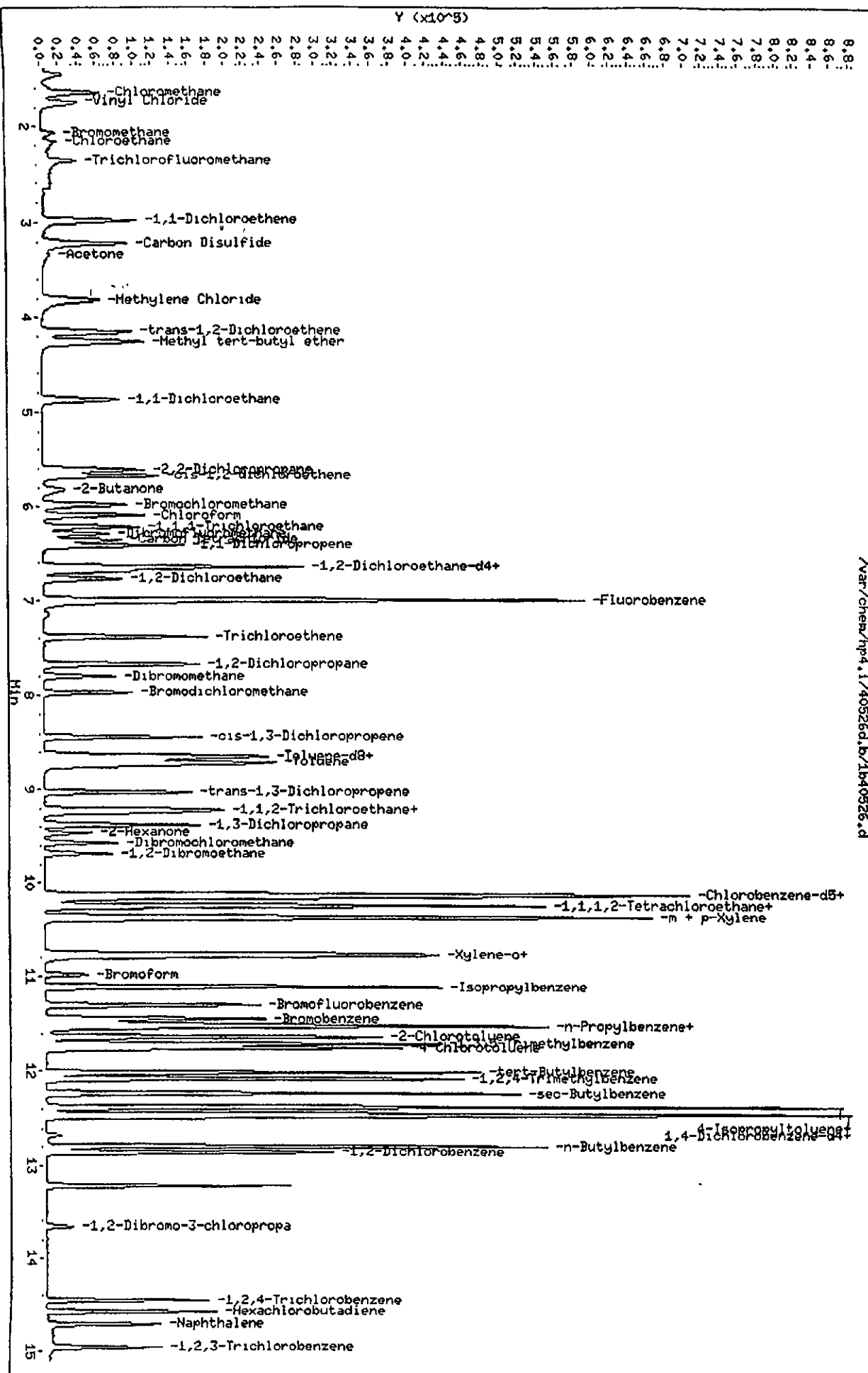
Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT (ng)	ON-COL (ng)
* 46 Fluorobenzene		96	7.003	7.003	(1.000)	673219		
* 69 Chlorobenzene-d5		119	10.126	10.126	(1.000)	153402		
* 92 1,4-Dichlorobenzene-d4		152	12.456	12.456	(1.000)	239237		
\$ 39 Dibromofluoromethane		113	6.293	6.293	(0.899)	14066	25.0000	27.41
\$ 43 1,2-Dichloroethane-d4		65	6.685	6.685	(0.955)	15041	25.0000	26.63
\$ 59 Toluene-d8		98	8.653	8.653	(0.855)	66431	25.0000	27.19
\$ 80 Bromofluorobenzene		95	11.306	11.306	(1.117)	23175	25.0000	26.01
1 Dichlorodifluoromethane		85	1.452	1.452	(0.207)	12867	25.0000	28.45
2 Chloromethane		50	1.635	1.635	(0.233)	33256	25.0000	32.97
3 Vinyl Chloride		62	1.739	1.739	(0.248)	22571	25.0000	29.23
4 Bromomethane		94	2.069	2.069	(0.295)	3144	25.0000	29.34
5 Chloroethane		64	2.155	2.155	(0.308)	5025	25.0000	31.58
6 Trichlorofluoromethane		101	2.363	2.363	(0.337)	9525	25.0000	28.26
12 1,1-Dichloroethene		96	2.998	2.998	(0.428)	19440	25.0000	30.00
13 Acetone		43	3.335	3.335	(0.476)	5254	25.0000	25.71

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ng)	ON-COL (ng)
-----	----	--	-----	-----	-----	-----	-----
15 Carbon Disulfide	76	3.237	3.237	(0.462)	44527	25.0000	22.37
18 Methylene Chloride	84	3.830	3.830	(0.547)	19096	25.0000	30.24
19 trans-1,2-Dichloroethene	96	4.160	4.160	(0.594)	18811	25.0000	28.86
20 Methyl tert-butyl ether	73	4.252	4.252	(0.607)	29546	25.0000	20.38
24 1,1-Dichloroethane	63	4.875	4.875	(0.696)	31891	25.0000	28.95
27 2,2-Dichloropropane	77	5.621	5.621	(0.803)	21037	25.0000	27.00
28 cis-1,2-dichloroethene	96	5.676	5.676	(0.811)	20030	25.0000	28.21
M 29 1,2-Dichloroethene (total)	100				38841	50.0000	57.04
30 Bromochloromethane	128	5.976	5.976	(0.853)	8829	25.0000	28.10
31 2-Butanone	43	5.804	5.804	(0.829)	32607	25.0000	52.16
37 Chloroform	83	6.092	6.092	(0.870)	29507	25.0000	29.72
38 1,1,1-Trichloroethane	97	6.214	6.214	(0.887)	20472	25.0000	26.93
40 1,1-Dichloropropene	75	6.410	6.410	(0.915)	21097	25.0000	26.48
41 Carbon Tetrachloride	117	6.355	6.355	(0.907)	14811	25.0000	25.78
42 Benzene	78	6.642	6.642	(0.948)	83610	25.0000	29.06
45 1,2-Dichloroethane	62	6.770	6.770	(0.967)	19869	25.0000	28.78
47 Trichloroethene	130	7.382	7.382	(1.054)	18778	25.0000	28.27
49 1,2-Dichloropropane	63	7.675	7.675	(1.096)	19147	25.0000	27.88
50 Dibromomethane	93	7.797	7.797	(1.113)	10221	25.0000	29.45
53 Bromodichloromethane	83	7.968	7.968	(1.138)	18666	25.0000	27.42
57 cis-1,3-Dichloropropene	75	8.433	8.433	(1.204)	26817	25.0000	26.35
58 4-Methyl-2-Pentanone	43	8.629	8.629	(0.852)	9733	25.0000	15.21
60 Toluene	91	8.714	8.714	(0.861)	90007	25.0000	30.12
61 trans-1,3-Dichloropropene	75	9.026	9.026	(0.891)	22803	25.0000	26.94
63 1,3-Dichloropropane	76	9.375	9.375	(0.926)	28965	25.0000	29.38
64 1,1,2-Trichloroethane	97	9.203	9.203	(0.909)	16594	25.0000	29.63
65 Tetrachloroethene	164	9.240	9.240	(0.912)	12400	25.0000	27.86
66 2-Hexanone	43	9.460	9.460	(0.934)	6341	25.0000	14.31
67 Dibromochloromethane	129	9.564	9.564	(0.944)	10890	25.0000	24.58
68 1,2-Dibromoethane	107	9.680	9.680	(0.956)	14677	25.0000	28.54
70 Chlorobenzene	112	10.151	10.151	(1.002)	60182	25.0000	30.89
71 1,1,1,2-Tetrachloroethane	131	10.243	10.243	(1.011)	15065	25.0000	28.32
72 Ethylbenzene	106	10.237	10.237	(1.011)	31276	25.0000	29.28
73 m + p-Xylene	106	10.359	10.359	(1.023)	77312	50.0000	59.43
74 Xylene-o	106	10.756	10.756	(1.062)	35082	25.0000	27.66
M 75 Xylenes (total)	106				112394	25.0000	88.62
76 Styrene	104	10.781	10.781	(1.065)	62596	25.0000	29.12
77 Bromoform	173	10.982	10.982	(1.085)	5334	25.0000	22.54
78 Isopropylbenzene	105	11.111	11.111	(1.097)	85187	25.0000	27.18
79 Bromobenzene	156	11.447	11.447	(0.919)	20140	25.0000	28.57
81 n-Propylbenzene	120	11.520	11.520	(0.925)	26220	25.0000	27.82
82 2-Chlorotoluene	126	11.630	11.630	(0.934)	23561	25.0000	29.80
83 1,1,2,2-Tetrachloroethane	83	11.490	11.490	(0.922)	22141	25.0000	29.54
84 1,2,3-Trichloropropane	110	11.533	11.533	(0.926)	6199	25.0000	29.60
85 4-Chlorotoluene	126	11.747	11.747	(0.943)	24496	25.0000	29.88
86 1,3,5-Trimethylbenzene	105	11.710	11.710	(0.940)	75591	25.0000	28.72
87 tert-Butylbenzene	119	12.015	12.015	(0.965)	63669	25.0000	27.47

Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
*****	----	--	-----	-----	-----	-----	-----
88 1,2,4-Trimethylbenzene	105	12.083	12.083	(0.970)	78721	25.0000	28.90
89 sec-Butylbenzene	105	12.236	12.236	(0.982)	103884	25.0000	28.59
90 4-Isopropyltoluene	119	12.382	12.382	(0.994)	82755	25.0000	28.31
91 1,3-Dichlorobenzene	146	12.382	12.382	(0.994)	44264	25.0000	29.94
93 1,4-Dichlorobenzene	146	12.480	12.480	(1.002)	45951	25.0000	31.04
94 n-Butylbenzene	91	12.792	12.792	(1.027)	86492	25.0000	28.02
95 1,2-Dichlorobenzene	146	12.853	12.853	(1.032)	42084	25.0000	30.73
96 1,2-Dibromo-3-chloropropane	157	13.654	13.654	(1.096)	1870	25.0000	23.62
97 1,2,4-Trichlorobenzene	180	14.461	14.461	(1.161)	19945	25.0000	33.32
98 Hexachlorobutadiene	225	14.583	14.583	(1.171)	9011	25.0000	29.50
99 Naphthalene	128	14.711	14.711	(1.181)	47734	25.0000	42.95
100 1,2,3-Trichlorobenzene	180	14.956	14.956	(1.201)	23174	25.0000	51.16

Data File: /var/chem/hp4.1/40526d.b/1b40526.d
 Date: 26-May-2000 09:02
 Client ID: vstd20
 Sample Info: vstd20 5ml
 Volume Injected (ul): 5.0
 Column phase: DB 624

Instrument: hp4.1
 Operator: 16328
 Column diameter: 0.18



6581017

Data File: /var/chem/hp4.i/40526d.b/1b40526.d
Report Date: 26-May-2000 11:29

Page 1

STL-PITTSBURGH

VOLATILE REPORT SW-846 Method

Data file : /var/chem/hp4.i/40526d.b/1b40526.d
 Lab Smp Id: vstd20 Client Smp ID: vstd20
 Inj Date : 26-MAY-2000 09:02 Inst ID: hp4.i
 Operator : 16328
 Smp Info : vstd20 5ml
 Misc Info : ,40526d.b,med1000.m
 Comment :
 Method : /var/chem/hp4.i/40526d.b/8260bh2o.m
 Meth Date : 26-May-2000 11:28 dudeckk Quant Type: ISTD
 Cal Date : 26-MAY-2000 07:57 Cal File: cc40526.d
 Als bottle: 6 Calibration Sample, Level: 2
 Dil Factor: 1.00000 Compound Sublist: 2-padep.sub
 Integrator: HP RTE
 Target Version: 3.40
 Processing Host: hpuxcs21

کس/م/ن

Concentration Formula: Amt * DF * (Vf/Vo)/Vi

Name	Value	Description
DF	1.000	Dilution Factor
Vf	5.000	FinalVolume
Vo	5.000	Sample Volume
Vi	5.000	Purge Volume

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ng)	ON-COL (ng)
*****	****	**	*****	*****	*****	*****	*****
* 46 Fluorobenzene	96	6.996	6.996	(1.000)	686004		
* 69 Chlorobenzene-d5	119	10.126	10.126	(1.000)	162490		
* 92 1,4-Dichlorobenzene-d4	152	12.455	12.455	(1.000)	257528		
\$ 39 Dibromofluoromethane	113	6.287	6.287	(0.899)	57089	100.000	109.2
\$ 43 1,2-Dichloroethane-d4	65	6.684	6.684	(0.955)	63579	100.000	110.5
\$ 59 Toluene-d8	98	8.653	8.653	(0.855)	287950	100.000	111.2
\$ 80 Bromofluorobenzene	95	11.306	11.306	(1.117)	102988	100.000	109.1
1 Dichlorodifluoromethane	85	1.458	1.458	(0.208)	48504	100.000	105.2
2 Chloromethane	50	1.647	1.647	(0.235)	106849	100.000	103.9
3 Vinyl Chloride	62	1.751	1.751	(0.250)	80058	100.000	101.7
4 Bromomethane	94	2.063	2.063	(0.295)	10810	100.000	98.99
5 Chloroethane	64	2.167	2.167	(0.310)	16679	100.000	102.8
6 Trichlorofluoromethane	101	2.362	2.362	(0.338)	35260	100.000	102.7
12 1,1-Dichloroethene	96	2.980	2.980	(0.426)	69185	100.000	104.8
13 Acetone	43	3.340	3.340	(0.477)	19195	100.000	92.18

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ng)	ON-COL (ng)
-----	----	--	-----	-----	-----	-----	-----
15 Carbon Disulfide	76	3.218	3.218	(0.460)	230514	100.000	113.6
18 Methylene Chloride	84	3.811	3.811	(0.545)	66325	100.000	103.1
19 trans-1,2-Dichloroethene	96	4.147	4.147	(0.593)	69630	100.000	104.8
20 Methyl tert-butyl ether	73	4.251	4.251	(0.608)	161846	100.000	109.5
24 1,1-Dichloroethane	63	4.869	4.869	(0.696)	118976	100.000	106.0
27 2,2-Dichloropropane	77	5.615	5.615	(0.803)	82816	100.000	104.3
28 cis-1,2-dichloroethene	96	5.676	5.676	(0.811)	76546	100.000	105.8
M 29 1,2-Dichloroethene (total)	100				146176	200.000	210.7
30 Bromochloromethane	128	5.975	5.975	(0.854)	34622	100.000	108.1
31 2-Butanone	43	5.822	5.822	(0.832)	59525	100.000	93.44
37 Chloroform	83	6.091	6.091	(0.871)	107397	100.000	106.1
38 1,1,1-Trichloroethane	97	6.214	6.214	(0.888)	81746	100.000	105.5
40 1,1-Dichloropropane	75	6.409	6.409	(0.916)	84637	100.000	104.3
41 Carbon Tetrachloride	117	6.354	6.354	(0.908)	58791	100.000	100.4
42 Benzene	78	6.642	6.642	(0.949)	310107	100.000	105.8
45 1,2-Dichloroethane	62	6.776	6.776	(0.969)	74854	100.000	106.4
47 Trichloroethene	130	7.381	7.381	(1.055)	70464	100.000	104.1
49 1,2-Dichloropropane	63	7.669	7.669	(1.096)	73670	100.000	105.3
50 Dibromomethane	93	7.797	7.797	(1.114)	36743	100.000	103.9
53 Bromodichloromethane	83	7.968	7.968	(1.139)	69860	100.000	100.7
57 cis-1,3-Dichloropropene	75	8.433	8.433	(1.205)	105483	100.000	101.7
58 4-Methyl-2-Pentanone	43	8.628	8.628	(0.852)	54620	100.000	80.57
60 Toluene	91	8.720	8.720	(0.861)	339271	100.000	107.2
61 trans-1,3-Dichloropropene	75	9.032	9.032	(0.892)	91961	100.000	102.6
63 1,3-Dichloropropane	76	9.374	9.374	(0.926)	109505	100.000	104.9
64 1,1,2-Trichloroethane	97	9.209	9.209	(0.909)	62364	100.000	105.1
65 Tetrachloroethene	164	9.240	9.240	(0.912)	49105	100.000	104.2
66 2-Hexanone	43	9.460	9.460	(0.934)	35949	100.000	76.58
67 Dibromochloromethane	129	9.564	9.564	(0.944)	46689	100.000	99.47
68 1,2-Dibromoethane	107	9.680	9.680	(0.956)	57129	100.000	104.9
70 Chlorobenzene	112	10.151	10.151	(1.002)	216132	100.000	104.7
71 1,1,1,2-Tetrachloroethane	131	10.242	10.242	(1.011)	57670	100.000	102.4
72 Ethylbenzene	106	10.236	10.236	(1.011)	119554	100.000	105.7
73 m + p-Xylene	106	10.359	10.359	(1.023)	295210	200.000	214.2
74 Xylene-o	106	10.756	10.756	(1.062)	143059	100.000	106.5
M 75 Xylenes (total)	106				438269	100.000	326.2
76 Styrene	104	10.780	10.780	(1.065)	237582	100.000	104.3
77 Bromoform	173	10.982	10.982	(1.085)	23526	100.000	93.84
78 Isopropylbenzene	105	11.110	11.110	(1.097)	357051	100.000	107.5
79 Bromobenzene	156	11.447	11.447	(0.919)	78779	100.000	103.8
81 n-Propylbenzene	120	11.520	11.520	(0.925)	107693	100.000	106.2
82 2-Chlorotoluene	126	11.630	11.630	(0.934)	89151	100.000	104.8
83 1,1,2,2-Tetrachloroethane	83	11.490	11.490	(0.922)	82734	100.000	102.5
84 1,2,3-Trichloropropane	110	11.532	11.532	(0.926)	23334	100.000	103.5
85 4-Chlorotoluene	126	11.746	11.746	(0.943)	96262	100.000	109.1
86 1,3,5-Trimethylbenzene	105	11.710	11.710	(0.940)	298536	100.000	105.4
87 tert-Butylbenzene	119	12.015	12.015	(0.965)	263470	100.000	105.6

6581019

Data File: /var/chem/hp4.i/40526d.b/1b40526.d
Report Date: 26-May-2000 11:29

Page 3

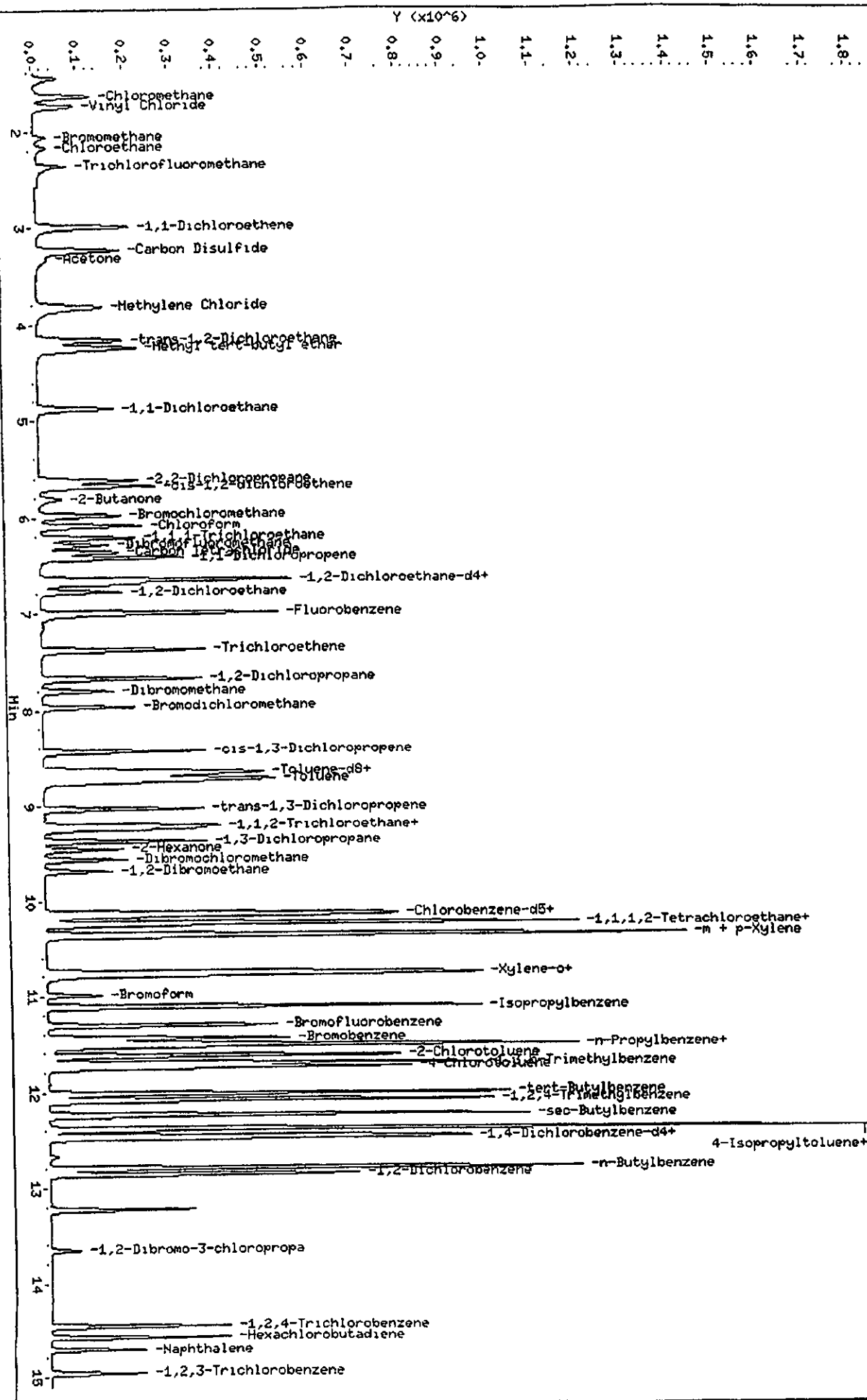
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ng)	ON-COL (ng)
-----	----	--	-----	-----	-----	-----	-----
88 1,2,4-Trimethylbenzene	105	12.082	12.082	(0.970)	309778	100.000	105.6
89 sec-Butylbenzene	105	12.235	12.235	(0.982)	413898	100.000	105.8
90 4-Isopropyltoluene	119	12.382	12.382	(0.994)	333717	100.000	106.0
91 1,3-Dichlorobenzene	146	12.382	12.382	(0.994)	171093	100.000	107.5
93 1,4-Dichlorobenzene	146	12.480	12.480	(1.002)	169124	100.000	106.1
94 n-Butylbenzene	91	12.792	12.792	(1.027)	344423	100.000	103.7
95 1,2-Dichlorobenzene	146	12.859	12.859	(1.032)	153714	100.000	104.3
96 1,2-Dibromo-3-chloropropane	157	13.666	13.666	(1.097)	8197	100.000	96.20
97 1,2,4-Trichlorobenzene	180	14.454	14.454	(1.160)	60409	100.000	93.75
98 Hexachlorobutadiene	225	14.577	14.577	(1.170)	31055	100.000	94.44
99 Naphthalene	128	14.711	14.711	(1.181)	106860	100.000	89.31
100 1,2,3-Trichlorobenzene	180	14.962	14.962	(1.201)	40078	100.000	82.20

Data File: /var/chem/hp4.1/40526d.b/cc40526.d
 Date: 26-May-2000 07:57
 Client ID: vstd50
 Sample Info: vstd50 Sm
 Volume Injected (ul): 5.0
 Column phase: DB 624

Instrument: hp4.1

Operator: 16328
 Column diameter: 0.18

/var/chem/hp4.1/40526d.b/cc40526.d



6581021

Data File: /var/chem/hp4.i/40526d.b/cc40526.d
Report Date: 26-May-2000 11:28

Page 1

STL-PITTSBURGH

VOLATILE REPORT SW-846 Method

Data file : /var/chem/hp4.i/40526d.b/cc40526.d
Lab Smp Id: vstd50 Client Smp ID: vstd50
Inj Date : 26-MAY-2000 07:57
Operator : 16328 Inst ID: hp4.i
Smp Info : vstd50 5ml
Misc Info : ,40526d.b,med1000.m
Comment :
Method : /var/chem/hp4.i/40526d.b/8260bh2o.m
Meth Date : 26-May-2000 11:28 dudeckk Quant Type: ISTD
Cal Date : 26-MAY-2000 07:57 Cal File: cc40526.d
Als bottle: 4 Calibration Sample, Level: 3
Dil Factor: 1.00000 Compound Sublist: 2-padep.sub
Integrator: HP RTE
Target Version: 3.40
Processing Host: hpuxcs21

Concentration Formula: $\text{Amt} * \text{DF} * (\text{Vf}/\text{Vo})/\text{Vi}$

Name	Value	Description
DF	1.000	Dilution Factor
Vf	5.000	FinalVolume
Vo	5.000	Sample Volume
Vi	5.000	Purge Volume

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ng)	ON-COL (ng)
* 46 Fluorobenzene	96	6.999	6.999	(1.000)	607109		
* 69 Chlorobenzene-d5	119	10.123	10.123	(1.000)	147987		
* 92 1,4-Dichlorobenzene-d4	152	12.459	12.459	(1.000)	243399		
\$ 39 Dibromofluoromethane	113	6.284	6.284	(0.898)	116310	250.000	251.4
\$ 43 1,2-Dichloroethane-d4	65	6.688	6.688	(0.955)	130247	250.000	255.7
\$ 59 Toluene-d8	98	8.650	8.650	(0.854)	606280	250.000	257.2
\$ 80 Bromofluorobenzene	95	11.309	11.309	(1.117)	225786	250.000	262.6
1 Dichlorodifluoromethane	85	1.449	1.449	(0.207)	96698	250.000	237.1
2 Chloromethane	50	1.644	1.644	(0.235)	208633	250.000	229.3
3 Vinyl Chloride	62	1.742	1.742	(0.249)	161288	250.000	231.6
4 Bromomethane	94	2.066	2.066	(0.295)	21358	250.000	221.0
5 Chloroethane	64	2.164	2.164	(0.309)	34962	250.000	243.6
6 Trichlorofluoromethane	101	2.359	2.359	(0.337)	78178	250.000	257.2
12 1,1-Dichloroethene	96	2.995	2.995	(0.428)	142962	250.000	244.6
13 Acetone	43	3.338	3.338	(0.477)	51006	250.000	276.8

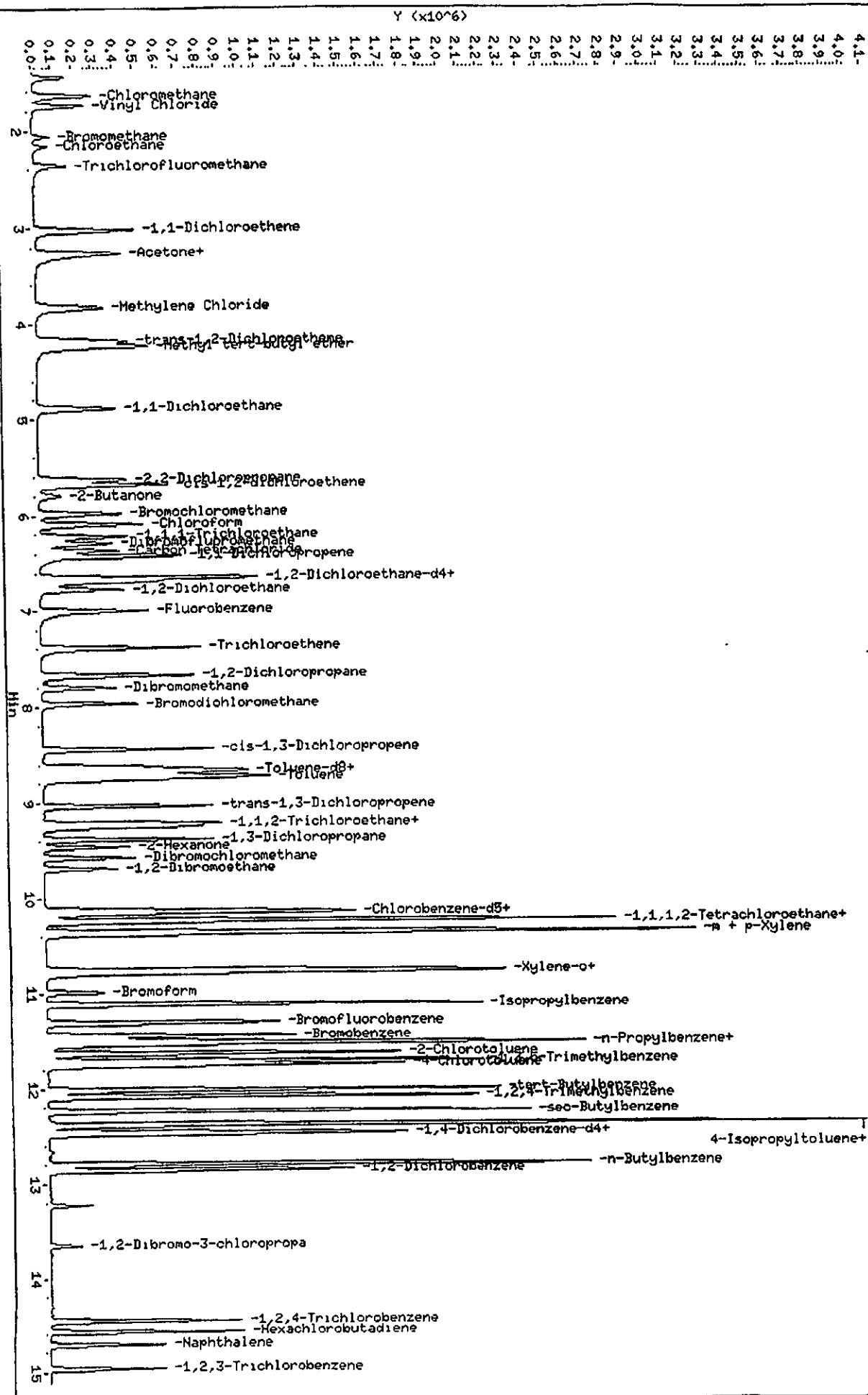
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ng)	ON-COL (ng)
*****	****	==	*****	*****	*****	*****	*****
15 Carbon Disulfide	76	3 234	3 234	(0.462)	466798	250.000	260.0
18 Methylene Chloride	84	3 827	3 827	(0.547)	144013	250.000	252.9
19 trans-1,2-Dichloroethene	96	4 157	4.157	(0.594)	136936	250.000	232.9
20 Methyl tert-butyl ether	73	4.248	4.248	(0.607)	329691	250.000	252.1
24 1,1-Dichloroethane	63	4 878	4 878	(0.697)	235694	250.000	237.3
27 2,2-Dichloropropane	77	5.618	5 618	(0.803)	167000	250.000	237.7
28 cis-1,2-dichloroethene	96	5 679	5 679	(0.811)	155651	250.000	243.1
M 29 1,2-Dichloroethene (total)	100				292587	500.000	476.5
30 Bromochloromethane	128	5 985	5 985	(0.855)	68503	250.000	241.7
31 2-Butanone	43	5 813	5 813	(0.831)	103958	250.000	184.4
37 Chloroform	83	6 089	6 089	(0.870)	214125	250.000	239.1
38 1,1,1-Trichloroethane	97	6 211	6 211	(0.887)	167511	250.000	244.3
40 1,1-Dichloropropane	75	6.413	6 413	(0.916)	178296	250.000	248.2
41 Carbon Tetrachloride	117	6.358	6.358	(0.908)	130775	250.000	252.4
42 Benzene	78	6.645	6.645	(0.949)	631483	250.000	243.4
45 1,2-Dichloroethane	62	6.773	6.773	(0.968)	151756	250.000	243.8
47 Trichloroethene	130	7 378	7 378	(1.054)	143993	250.000	240.4
49 1,2-Dichloropropane	63	7.672	7.672	(1.096)	150593	250.000	243.2
50 Dibromomethane	93	7.800	7.800	(1.114)	75101	250.000	240.0
53 Bromodichloromethane	83	7 965	7 965	(1.138)	151028	250.000	246.0
57 cis-1,3-Dichloropropene	75	8.436	8 436	(1.205)	225358	250.000	245.5
58 4-Methyl-2-Pentanone	43	8 619	8.619	(0.851)	174171	250.000	282.1
60 Toluene	91	8.723	8 723	(0.862)	693250	250.000	240.4
61 trans-1,3-Dichloropropene	75	9.029	9.029	(0.892)	198032	250.000	242.6
63 1,3-Dichloropropane	76	9 378	9.378	(0.926)	230134	250.000	242.0
64 1,1,2-Trichloroethane	97	9.206	9.206	(0.909)	128419	250.000	237.7
65 Tetrachloroethene	164	9.237	9.237	(0.912)	103787	250.000	241.8
66 2-Hexanone	43	9.457	9.457	(0.934)	126210	250.000	295.2
67 Dibromochloromethane	129	9.567	9.567	(0.945)	105399	250.000	246.6
68 1,2-Dibromoethane	107	9.677	9 677	(0.956)	118175	250.000	238.2
70 Chlorobenzene	112	10.154	10 154	(1.003)	449799	250.000	239.3
71 1,1,1,2-Tetrachloroethane	131	10 239	10.239	(1.011)	125191	250.000	244.0
72 Ethylbenzene	106	10.239	10.239	(1.011)	254835	250.000	247.3
73 m + p-Xylene	106	10 356	10.356	(1.023)	621004	500.000	494.8
74 Xylene-o	106	10 753	10 753	(1.062)	304001	250.000	248.5
M 75 Xylenes (total)	106				925005	250.000	756.1
76 Styrene	104	10.784	10.784	(1.065)	509933	250.000	245.9
77 Bromoform	173	10 985	10 985	(1.085)	60132	250.000	263.4
78 Isopropylbenzene	105	11 108	11.108	(1.097)	769032	250.000	254.3
79 Bromobenzene	156	11 444	11 444	(0.919)	165184	250.000	230.3
81 n-Propylbenzene	120	11.517	11.517	(0.924)	231008	250.000	241.0
82 2-Chlorotoluene	126	11.627	11.627	(0.933)	189775	250.000	235.9
83 1,1,2,2-Tetrachloroethane	83	11.487	11 487	(0.922)	182679	250.000	239.6
84 1,2,3-Trichloropropane	110	11.536	11 536	(0.926)	50411	250.000	236.6
85 4-Chlorotoluene	126	11.749	11 749	(0.943)	199598	250.000	239.3
86 1,3,5-Trimethylbenzene	105	11 707	11.707	(0.940)	646693	250.000	241.5
87 tert-Butylbenzene	119	12 012	12.012	(0.964)	569536	250.000	241.5

Compounds	QUANT SIG		RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
	MASS						CAL-AMT (ng)	ON-COL (ng)
88 1,2,4-Trimethylbenzene	105		12.080	12.080	(0.970)	672073	250.000	242.5
89 sec-Butylbenzene	105		12.232	12.232	(0.982)	897111	250.000	242.7
90 4-Isopropyltoluene	119		12.385	12.385	(0.994)	730616	250.000	245.6
91 1,3-Dichlorobenzene	146		12.379	12.379	(0.994)	355655	250.000	236.4
93 1,4-Dichlorobenzene	146		12.483	12.483	(1.002)	351605	250.000	233.4
94 n-Butylbenzene	91		12.795	12.795	(1.027)	748597	250.000	238.4
95 1,2-Dichlorobenzene	146		12.856	12.856	(1.032)	327930	250.000	235.4
96 1,2-Dibromo-3-chloropropane	157		13.663	13.663	(1.097)	18841	250.000	234.0
97 1,2,4-Trichlorobenzene	180		14.458	14.458	(1.160)	127785	250.000	209.8
98 Hexachlorobutadiene	225		14.580	14.580	(1.170)	67862	250.000	218.4
99 Naphthalene	128		14.708	14.708	(1.181)	189587	250.000	167.6
100 1,2,3-Trichlorobenzene	180		14.959	14.959	(1.201)	70429	250.000	152.8

Data File: /var/chem/hp4.i/405264.b/1440526.d
 Date: 26-MAY-2000 09:27
 Client ID: vstd100
 Sample Info: vstd100 5ml
 Volume Injected (ul): 5.0
 Column phase: DB 624

Instrument: hp4.i
 Operator: 16328
 Column diameter: 0.18

/var/chem/hp4.i/405264.b/1440526.d



STL-PITTSBURGH

VOLATILE REPORT SW-846 Method

Data file : /var/chem/hp4.i/40526d.b/1d40526.d
 Lab Smp Id: vstd100 Client Smp ID: vstd100
 Inj Date : 26-MAY-2000 09:27 Inst ID: hp4.i
 Operator : 16328
 Smp Info : vstd100 5ml
 Misc Info : ,40526d.b,med1000.m
 Comment :
 Method : /var/chem/hp4.i/40526d.b/8260bh2o.m
 Meth Date : 26-May-2000 11:29 dudeckk Quant Type: ISTD
 Cal Date : 26-MAY-2000 07:57 Cal File: cc40526.d
 Als bottle: 7 Calibration Sample, Level: 4
 Dil Factor: 1.00000 Compound Sublist: 2-padep.sub
 Integrator: HP RTE
 Target Version: 3.40
 Processing Host: hpuxcs21

Concentration Formula: Amt * DF * (Vf/Vo)/Vi

Name	Value	Description
DF	1.000	Dilution Factor
Vf	5.000	FinalVolume
Vo	5.000	Sample Volume
Vi	5.000	Purge Volume

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ng)	ON-COL (ng)
*****	----	--	-----	-----	-----	-----	-----
* 46 Fluorobenzene	96	7.000	7.000	(1.000)	723327		
* 69 Chlorobenzene-d5	119	10.130	10.130	(1.000)	178879		
* 92 1,4-Dichlorobenzene-d4	152	12.459	12.459	(1.000)	269400		
\$ 39 Dibromofluoromethane	113	6.291	6.291	(0.899)	263178	500.000	477.4
\$ 43 1,2-Dichloroethane-d4	65	6.688	6.688	(0.955)	287013	500.000	473.0
\$ 59 Toluene-d8	98	8.663	8.663	(0.855)	1353491	500.000	475.0
\$ 80 Bromofluorobenzene	95	11.310	11.310	(1.116)	504287	500.000	485.3
1 Dichlorodifluoromethane	85	1.449	1.449	(0.207)	233735	500.000	481.0
2 Chloromethane	50	1.638	1.638	(0.234)	470950	500.000	434.5
3 Vinyl Chloride	62	1.742	1.742	(0.249)	395980	500.000	477.2
4 Bromomethane	94	2.060	2.060	(0.294)	57122	500.000	496.1
5 Chloroethane	64	2.158	2.158	(0.308)	75845	500.000	443.6
6 Trichlorofluoromethane	101	2.360	2.360	(0.337)	164114	500.000	453.2
12 1,1-Dichloroethene	96	3.026	3.026	(0.432)	324122	500.000	465.5
13 Acetone	43	3.320	3.320	(0.474)	104839	500.000	477.5

Data File: /var/chem/hp4.i/40526d.b/1d40526.d
Report Date: 26-May-2000 11:29

Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
15 Carbon Disulfide	76	3.265	3.265	(0.466)	1100934	500.000	514.8
18 Methylene Chloride	84	3.833	3.833	(0.548)	300757	500.000	443.3
19 trans-1,2-Dichloroethene	96	4.182	4.182	(0.597)	329487	500.000	470.4
20 Methyl tert-butyl ether	73	4.237	4.237	(0.605)	820303	500.000	526.6
24 1,1-Dichloroethane	63	4.885	4.885	(0.698)	552464	500.000	466.8
27 2,2-Dichloropropane	77	5.624	5.624	(0.803)	409048	500.000	488.7
28 cis-1,2-dichloroethene	96	5.685	5.685	(0.812)	354388	500.000	464.6
M 29 1,2-Dichloroethene (total)	100				683875	1000.00	934.8
30 Bromochloromethane	128	5.979	5.979	(0.854)	155441	500.000	460.4
31 2-Butanone	43	5.796	5.796	(0.828)	200386	500.000	298.3
37 Chloroform	83	6.095	6.095	(0.871)	485205	500.000	454.8
38 1,1,1-Trichloroethane	97	6.217	6.217	(0.888)	392929	500.000	481.0
40 1,1-Dichloropropene	75	6.419	6.419	(0.917)	420774	500.000	491.6
41 Carbon Tetrachloride	117	6.364	6.364	(0.909)	307882	500.000	498.7
42 Benzene	78	6.651	6.651	(0.950)	1444740	500.000	467.4
45 1,2-Dichloroethane	62	6.774	6.774	(0.968)	345315	500.000	465.5
47 Trichloroethene	130	7.385	7.385	(1.055)	339476	500.000	475.6
49 1,2-Dichloropropane	63	7.672	7.672	(1.096)	347964	500.000	471.6
50 Dibromomethane	93	7.801	7.801	(1.114)	173865	500.000	466.3
53 Bromodichloromethane	83	7.966	7.966	(1.138)	355777	500.000	486.5
57 cis-1,3-Dichloropropene	75	8.436	8.436	(1.205)	538843	500.000	492.7
58 4-Methyl-2-Pentanone	43	8.614	8.614	(0.850)	444312	500.000	595.3
60 Toluene	91	8.730	8.730	(0.862)	1604729	500.000	460.4
61 trans-1,3-Dichloropropene	75	9.029	9.029	(0.891)	482240	500.000	488.7
63 1,3-Dichloropropane	76	9.378	9.378	(0.926)	536634	500.000	466.8
64 1,1,2-Trichloroethane	97	9.207	9.207	(0.909)	303900	500.000	465.4
65 Tetrachloroethene	164	9.243	9.243	(0.912)	252328	500.000	486.3
66 2-Hexanone	43	9.451	9.451	(0.933)	314444	500.000	608.5
67 Dibromochloromethane	129	9.567	9.567	(0.944)	268206	500.000	519.0
68 1,2-Dibromoethane	107	9.684	9.684	(0.956)	286096	500.000	477.1
70 Chlorobenzene	112	10.154	10.154	(1.002)	1046052	500.000	460.4
71 1,1,1,2-Tetrachloroethane	131	10.246	10.246	(1.011)	306215	500.000	493.8
72 Ethylbenzene	106	10.240	10.240	(1.011)	578216	500.000	464.2
73 m + p-Xylene	106	10.362	10.362	(1.023)	1397494	1000.00	921.2
74 Xylene-o	106	10.760	10.760	(1.062)	704772	500.000	476.6
M 75 Xylenes (total)	106				2102266	500.000	1422
76 Styrene	104	10.784	10.784	(1.065)	1201433	500.000	479.3
77 Bromoform	173	10.986	10.986	(1.084)	145683	500.000	527.9
78 Isopropylbenzene	105	11.108	11.108	(1.097)	1761063	500.000	481.8
79 Bromobenzene	156	11.444	11.444	(0.919)	387507	500.000	488.2
81 n-Propylbenzene	120	11.524	11.524	(0.925)	521984	500.000	491.9
82 2-Chlorotoluene	126	11.634	11.634	(0.934)	422658	500.000	474.7
83 1,1,2,2-Tetrachloroethane	83	11.487	11.487	(0.922)	393607	500.000	466.3
84 1,2,3-Trichloropropane	110	11.536	11.536	(0.926)	111617	500.000	473.4
85 4-Chlorotoluene	126	11.750	11.750	(0.943)	430132	500.000	465.9
86 1,3,5-Trimethylbenzene	105	11.707	11.707	(0.940)	1421910	500.000	479.7
87 tert-Butylbenzene	119	12.019	12.019	(0.965)	1275180	500.000	488.5

6581027

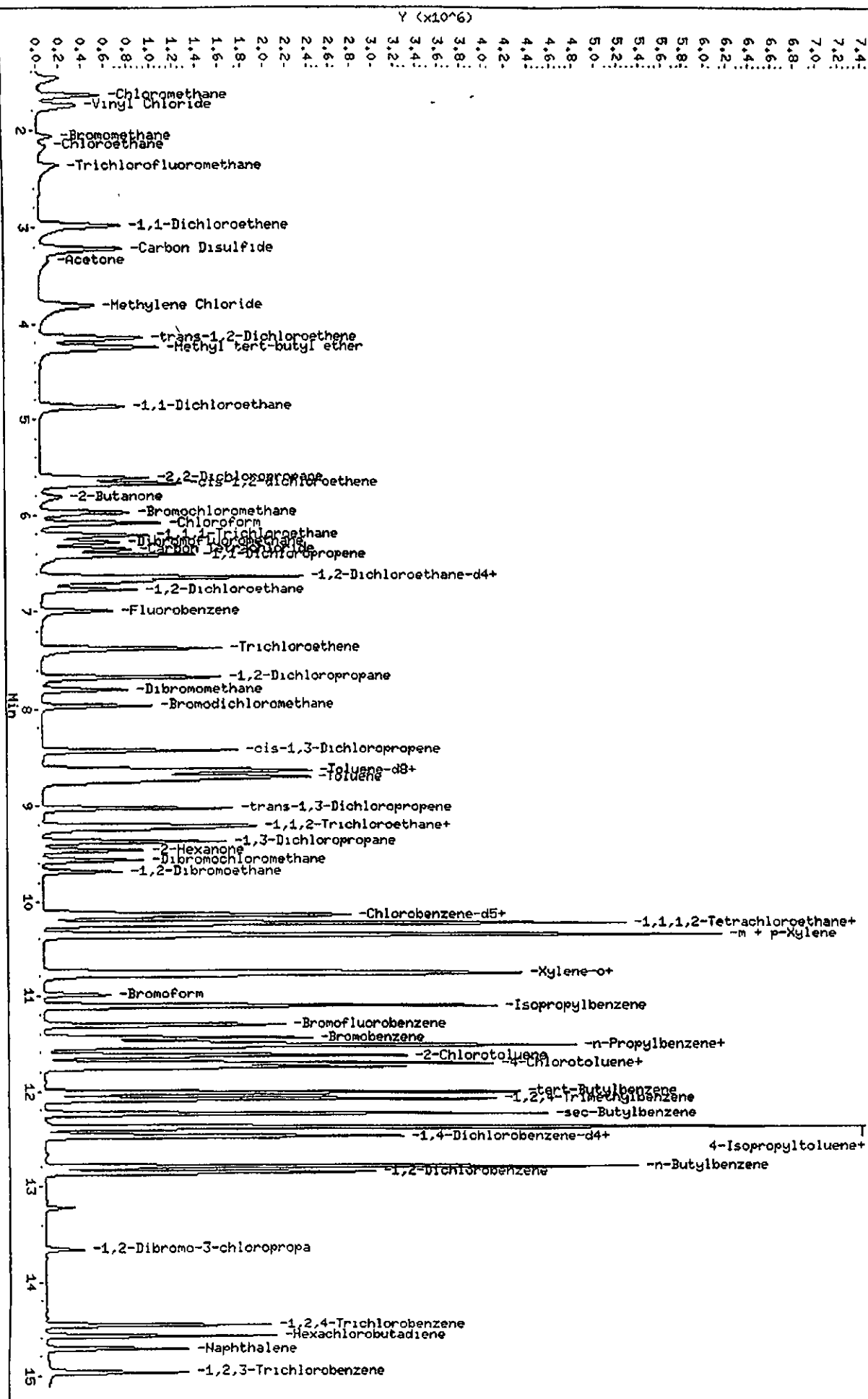
Data File: /var/chem/hp4.i/40526d.b/1d40526.d
Report Date: 26-May-2000 11:29

Page 3

Compounds	QUANT SIG		RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
	MASS						CAL-AMT (ng)	ON-COL (ng)
88 1,2,4-Trimethylbenzene	105		12.080	12.080	(0.970)	1455995	500.000	474.6
89 sec-Butylbenzene	105		12.239	12.239	(0.982)	1971646	500.000	481.9
90 4-Isopropyltoluene	119		12.386	12.386	(0.994)	1587070	500.000	482.1
91 1,3-Dichlorobenzene	146		12.386	12.386	(0.994)	769930	500.000	462.5
93 1,4-Dichlorobenzene	146		12.484	12.484	(1.002)	761028	500.000	456.4
94 n-Butylbenzene	91		12.795	12.795	(1.027)	1688531	500.000	485.8
95 1,2-Dichlorobenzene	146		12.856	12.856	(1.032)	706057	500.000	457.9
96 1,2-Dibromo-3-chloropropane	157		13.663	13.663	(1.097)	46390	500.000	520.4
97 1,2,4-Trichlorobenzene	180		14.458	14.458	(1.160)	309850	500.000	459.7
98 Hexachlorobutadiene	225		14.580	14.580	(1.170)	166674	500.000	484.6
99 Naphthalene	128		14.715	14.715	(1.181)	510459	500.000	407.8
100 1,2,3-Trichlorobenzene	180		14.959	14.959	(1.201)	185493	500.000	363.6

Data File: /var/chem/hp4.i/40526d.b/2e40526.d
 Date: 26-MAY-2000 10:51
 Client ID: vstd200
 Sample Info: vstd200 5ml
 Volume Injected (ul): 5.0
 Column phase: DB 624

Instrument: hp4.i
 Operator: 16328
 Column diameter: 0.18



6581029

Data File: /var/chem/hp4.i/40526d.b/2e40526.d
Report Date: 26-May-2000 11:29

Page 1

STL-PITTSBURGH

VOLATILE REPORT SW-846 Method

Data file : /var/chem/hp4.i/40526d.b/2e40526.d
 Lab Smp Id: vstd200 Client Smp ID: vstd200
 Inj Date : 26-MAY-2000 10:51
 Operator : 16328 Inst ID: hp4.i
 Smp Info : vstd200 5ml
 Misc Info : ,40526d.b,med1000.m
 Comment :
 Method : /var/chem/hp4.i/40526d.b/8260bh2o.m
 Meth Date : 26-May-2000 11:29 dudeckk Quant Type: ISTD
 Cal Date : 26-MAY-2000 10:51 Cal File: 2e40526.d
 Als bottle: 10 Calibration Sample, Level: 5
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 2-padep.sub
 Target Version: 3.40
 Processing Host: hpuxcs21

Concentration Formula: Amt * DF * (Vf/Vo)/Vi

Name	Value	Description
DF	1.000	Dilution Factor
Vf	5.000	FinalVolume
Vo	5.000	Sample Volume
Vi	5.000	Purge Volume

Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT (ng)	ON-COL (ng)
* 46 Fluorobenzene	96	6.993	6.993	(1.000)	775918			
* 69 Chlorobenzene-d5	119	10.123	10.123	(1.000)	187823			
* 92 1,4-Dichlorobenzene-d4	152	12.459	12.459	(1.000)	275247			
\$ 39 Dibromofluoromethane	113	6.284	6.284	(0.899)	503555	1000.00	851.5	
\$ 43 1,2-Dichloroethane-d4	65	6.682	6.682	(0.955)	560699	1000.00	861.3	
\$ 59 Toluene-d8	98	8.650	8.650	(0.854)	2457145	1000.00	821.3	
\$ 80 Bromofluorobenzene	95	11.309	11.309	(1.117)	924341	1000.00	847.2	
1 Dichlorodifluoromethane	85	1.455	1.455	(0.208)	468484	1000.00	898.8	
2 Chloromethane	50	1.644	1.644	(0.235)	994735	1000.00	855.6	
3 Vinyl Chloride	62	1.748	1.748	(0.250)	830302	1000.00	932.8	
4 Bromomethane	94	2.066	2.066	(0.295)	118646	1000.00	960.5	
5 Chloroethane	64	2.176	2.176	(0.311)	155335	1000.00	846.9	
6 Trichlorofluoromethane	101	2.359	2.359	(0.337)	352502	1000.00	907.5	
12 1,1-Dichloroethene	96	2.983	2.983	(0.427)	629410	1000.00	842.7	
13 Acetone	43	3.350	3.350	(0.479)	232567	1000.00	987.5	

Compounds	QUANT SIG				RESPONSE	AMOUNTS	
	MASS	RT	EXP RT	REL RT		CAL-AMT (ng)	ON-COL (ng)
-----	----	--	-----	-----	-----	-----	-----
15 Carbon Disulfide	76	3.215	3.215	(0.460)	2062129	1000.00	898.9
18 Methylene Chloride	84	3.814	3.814	(0.545)	626785	1000.00	861.2
19 trans-1,2-Dichloroethene	96	4.151	4.151	(0.594)	694786	1000.00	924.8
20 Methyl tert-butyl ether	73	4.248	4.248	(0.608)	1717653	1000.00	1028
24 1,1-Dichloroethane	63	4.872	4.872	(0.697)	1141838	1000.00	899.4
27 2,2-Dichloropropane	77	5.618	5.618	(0.803)	851350	1000.00	948.2
28 cis-1,2-dichloroethene	96	5.673	5.673	(0.811)	745904	1000.00	911.6
M 29 1,2-Dichloroethene (total)	100				1440690	2000.00	1836
30 Bromochloromethane	128	5.979	5.979	(0.855)	328576	1000.00	907.2
31 2-Butanone	43	5.814	5.814	(0.831)	464734	1000.00	645.0
37 Chloroform	83	6.089	6.089	(0.871)	1011196	1000.00	883.6
38 1,1,1-Trichloroethane	97	6.211	6.211	(0.888)	813485	1000.00	928.4
40 1,1-Dichloropropene	75	6.413	6.413	(0.917)	846268	1000.00	921.8
41 Carbon Tetrachloride	117	6.351	6.351	(0.908)	634510	1000.00	958.1
42 Benzene	78	6.639	6.639	(0.949)	2887368	1000.00	870.9
45 1,2-Dichloroethane	62	6.773	6.773	(0.969)	699115	1000.00	878.6
47 Trichloroethene	130	7.379	7.379	(1.055)	701125	1000.00	915.7
49 1,2-Dichloropropane	63	7.672	7.672	(1.097)	725315	1000.00	916.3
50 Dibromomethane	93	7.794	7.794	(1.115)	356133	1000.00	890.4
53 Bromodichloromethane	83	7.965	7.965	(1.139)	736286	1000.00	938.6
57 cis-1,3-Dichloropropene	75	8.436	8.436	(1.206)	1127794	1000.00	961.4
58 4-Methyl-2-Pentanone	43	8.626	8.626	(0.852)	992816	1000.00	1267
60 Toluene	91	8.717	8.717	(0.861)	3077604	1000.00	841.0
61 trans-1,3-Dichloropropene	75	9.029	9.029	(0.892)	982840	1000.00	948.6
63 1,3-Dichloropropane	76	9.378	9.378	(0.926)	1055157	1000.00	874.2
64 1,1,2-Trichloroethane	97	9.206	9.206	(0.909)	604724	1000.00	881.9
65 Tetrachloroethene	164	9.237	9.237	(0.912)	492497	1000.00	903.9
66 2-Hexanone	43	9.463	9.463	(0.935)	685841	1000.00	1264
67 Dibromochloromethane	129	9.567	9.567	(0.945)	541436	1000.00	997.9
68 1,2-Dibromoethane	107	9.683	9.683	(0.957)	568392	1000.00	902.7
70 Chlorobenzene	112	10.154	10.154	(1.003)	2001249	1000.00	838.9
71 1,1,1,2-Tetrachloroethane	131	10.240	10.240	(1.011)	572874	1000.00	879.7
72 Ethylbenzene	106	10.233	10.233	(1.011)	1117641	1000.00	854.6
73 m + p-Xylene	106	10.356	10.356	(1.023)	2642742	2000.00	1659
74 Xylene-o	106	10.753	10.753	(1.062)	1368694	1000.00	881.4
M 75 Xylenes (total)	106				4011436	1000.00	2583
76 Styrene	104	10.784	10.784	(1.065)	2236139	1000.00	849.6
77 Bromoform	173	10.985	10.985	(1.085)	304479	1000.00	1051
78 Isopropylbenzene	105	11.108	11.108	(1.097)	3286098	1000.00	856.3
79 Bromobenzene	156	11.444	11.444	(0.919)	746815	1000.00	920.9
81 n-Propylbenzene	120	11.523	11.523	(0.925)	951540	1000.00	877.7
82 2-Chlorotoluene	126	11.633	11.633	(0.934)	788801	1000.00	867.2
83 1,1,1,2,2-Tetrachloroethane	83	11.493	11.493	(0.922)	777936	1000.00	902.1
84 1,2,3-Trichloropropane	110	11.536	11.536	(0.926)	213810	1000.00	887.5
85 4-Chlorotoluene	126	11.750	11.750	(0.943)	778170	1000.00	825.0
86 1,3,5-Trimethylbenzene	105	11.707	11.707	(0.940)	2642628	1000.00	872.6
87 tert-Butylbenzene	119	12.019	12.019	(0.965)	2406920	1000.00	902.5

Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
88 1,2,4-Trimethylbenzene	105	12.080	12.080	(0.970)	2721443	1000.00	868.3
89 sec-Butylbenzene	105	12.239	12.239	(0.982)	3608139	1000.00	863.2
90 4-Isopropyltoluene	119	12.385	12.385	(0.994)	2894218	1000.00	860.5
91 1,3-Dichlorobenzene	146	12.385	12.385	(0.994)	1456972	1000.00	856.6
93 1,4-Dichlorobenzene	146	12.483	12.483	(1.002)	1449370	1000.00	850.8
94 n-Butylbenzene	91	12.795	12.795	(1.027)	3255708	1000.00	916.9
95 1,2-Dichlorobenzene	146	12.856	12.856	(1.032)	1371666	1000.00	870.6
96 1,2-Dibromo-3-chloropropane	157	13.663	13.663	(1.097)	101657	1000.00	1116
97 1,2,4-Trichlorobenzene	180	14.458	14.458	(1.160)	668789	1000.00	971.1
98 Hexachlorobutadiene	225	14.580	14.580	(1.170)	363025	1000.00	1033
99 Naphthalene	128	14.715	14.715	(1.181)	1154388	1000.00	902.7
100 1,2,3-Trichlorobenzene	180	14.959	14.959	(1.201)	413265	1000.00	793.0

FORM 7
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: STL-PITTSBURGH

Contract:

Lab Code: STLPIT

Case No.:

SAS No.: 40325

SDG No.: C0E240180

Instrument ID: HP4

Calibration Date: 05/26/00 Time: 0757

Lab File ID: CC40526

Init. Calib. Date(s): 05/26/00 05/26/00

Heated Purge: (Y/N) N

Init. Calib. Times: 0757 1051

GC Column: DB 624 ID: 0.18 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	0.168	0.159	0.01	5.4	50.0
Chloromethane	0.375	0.344	0.1	8.3	50.0
Vinyl Chloride	0.287	0.266	0.01	7.3	20.0
Bromomethane	0.040	0.035	0.01	12.5	50.0
Chloroethane	0.059	0.058	0.01	1.7	50.0
Trichlorofluoromethane	0.125	0.129	0.01	3.2	50.0
1,1-Dichloroethene	0.241	0.235	0.01	2.5	20.0
Methylene Chloride	0.235	0.237	0.01	0.8	50.0
trans-1,2-Dichloroethene	0.242	0.226	0.01	6.6	50.0
1,1-Dichloroethane	0.409	0.388	0.1	5.1	50.0
cis-1,2-dichloroethene	0.264	0.256	0.01	3.0	50.0
Chloroform	0.369	0.353	0.01	4.3	20.0
Bromochloromethane	0.117	0.113	0.01	3.4	50.0
1,1,1-Trichloroethane	0.282	0.276	0.01	2.1	50.0
Carbon Tetrachloride	0.213	0.215	0.01	0.9	50.0
1,2-Dichloroethane	0.256	0.250	0.01	2.3	50.0
Benzene	1.068	1.040	0.01	2.6	50.0
Trichloroethene	0.247	0.237	0.01	4.0	50.0
1,2-Dichloropropane	0.255	0.248	0.01	2.7	20.0
Bromodichloromethane	0.253	0.249	0.01	1.6	50.0
cis-1,3-Dichloropropene	0.378	0.371	0.01	1.8	50.0
Toluene	4.871	4.684	0.01	3.8	20.0
trans-1,3-Dichloropropene	1.379	1.338	0.01	3.0	50.0
1,1,2-Trichloroethane	0.913	0.868	0.01	4.9	50.0
Tetrachloroethene	0.725	0.701	0.01	3.3	50.0
Dibromochloromethane	0.722	0.712	0.01	1.4	50.0
Chlorobenzene	3.175	3.039	0.3	4.3	50.0
Ethylbenzene	1.741	1.722	0.01	1.1	20.0
Styrene	3.503	3.446	0.01	1.6	50.0
Bromoform	0.386	0.406	0.1	5.2	50.0
1,1,2,2-Tetrachloroethane	0.783	0.750	0.3	4.2	50.0
1,3-Dichlorobenzene	1.545	1.461	0.01	5.4	50.0
1,4-Dichlorobenzene	1.547	1.444	0.01	6.6	50.0
1,2-Dichlorobenzene	1.431	1.347	0.01	5.9	50.0
Dibromomethane	0.129	0.124	0.01	3.9	50.0
1,2-Dibromoethane	0.838	0.798	0.01	4.8	50.0
1,1,1,2-Tetrachloroethane	0.867	0.846	0.01	2.4	50.0

FORM 7
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: STL-PITTSBURGH

Contract:

Lab Code: STLPIT

Case No.:

SAS No.: 40325

SDG No.: C0E240180

Instrument ID: HP4

Calibration Date: 05/26/00 Time: 0757

Lab File ID: CC40526

Init. Calib. Date(s): 05/26/00 05/26/00

Heated Purge: (Y/N) N

Init. Calib. Times: 0757 1051

GC Column: DB 624 ID: 0.18 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
=====	=====	=====	=====	=====	=====
1,2,3-Trichloropropane	0.219	0.207	0.01	5.5	50.0
1,2-Dibromo-3-chloropropane	0.083	0.077	0.01	7.2	50.0
2,2-Dichloropropane	0.289	0.275	0.01	4.8	50.0
1,1-Dichloropropene	0.296	0.294	0.01	0.7	50.0
1,3-Dichloropropane	1.606	1.555	0.01	3.2	50.0
n-Propylbenzene	0.985	0.949	0.01	3.6	50.0
Bromobenzene	0.737	0.679	0.01	7.9	50.0
1,3,5-Trimethylbenzene	2.751	2.657	0.01	3.4	50.0
2-Chlorotoluene	0.826	0.780	0.01	5.6	50.0
4-Chlorotoluene	0.857	0.820	0.01	4.3	50.0
tert-Butylbenzene	2.422	2.340	0.01	3.4	50.0
1,2,4-Trimethylbenzene	2.846	2.761	0.01	3.0	50.0
sec-Butylbenzene	3.796	3.686	0.01	2.9	50.0
4-Isopropyltoluene	3.055	3.002	0.01	1.7	50.0
n-Butylbenzene	3.225	3.076	0.01	4.6	50.0
1,2,4-Trichlorobenzene	0.625	0.525	0.01	16.0	50.0
Hexachlorobutadiene	0.319	0.279	0.01	12.5	50.0
Naphthalene	1.161	0.779	0.01	32.9	50.0
1,2,3-Trichlorobenzene	0.473	0.289	0.01	38.9	50.0
Acetone	0.076	0.084	0.01	10.5	50.0
Carbon Disulfide	0.739	0.769	0.01	4.0	50.0
2-Butanone	0.232	0.171	0.01	26.3	50.0
4-Methyl-2-Pentanone	1.043	1.177	0.01	12.8	50.0
2-Hexanone	0.722	0.853	0.01	18.1	50.0
Methyl tert-butyl ether	0.538	0.543	0.01	0.9	50.0
Isopropylbenzene	5.108	5.197	0.01	1.7	50.0
1,2-Dichloroethene (total)	0.253	0.241	0.01	4.7	50.0
Xylenes (total)	2.067	2.054	0.01	0.6	50.0
=====	=====	=====	=====	=====	=====
Dibromofluoromethane	0.191	0.192	0.01	0.5	50.0
1,2-Dichloroethane-d4	0.210	0.214	0.01	1.9	50.0
Toluene-d8	3.982	4.097	0.01	2.9	50.0
Bromofluorobenzene	1.452	1.526	0.01	5.1	50.0

CONTINUING CALIBRATION COMPOUNDS
PERCENT DRIFT REPORT

6581034

Instrument ID: hp4.i
Lab File ID: cc40526.d
Analysis Type: WATER

Injection Date: 26-MAY-2000 07:57
Lab Sample ID: vstd50
Method File: /var/chem/hp4.i/40526d.b/8260bh2o.m

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
0 Xylene-o	250.0000	248.4816	0.6	50.0
0 m + p-Xylene	500.0000	494.8050	1.0	50.0
1 Dichlorodifluoromethane	250.0000	237.1085	5.2	50.0
2 Chloromethane	250.0000	229.3359	8.3	50.0
3 Vinyl Chloride	250.0000	231.5881	7.4	20.0
4 Bromomethane	250.0000	220.9913	11.6	50.0
5 Chloroethane	250.0000	243.6119	2.6	50.0
6 Trichlorofluoromethane	250.0000	257.2238	2.9	50.0
9 1,1-Dichloroethene	250.0000	244.6358	2.1	20.0
10 Methylene Chloride	250.0000	252.9078	1.2	50.0
13 trans-1,2-Dichloroethene	250.0000	232.9446	6.8	50.0
15 1,1-Dichloroethane	250.0000	237.2649	5.1	50.0
17 cis-1,2-dichloroethene	250.0000	243.1231	2.8	50.0
18 Chloroform	250.0000	239.1376	4.3	20.0
19 Bromochloromethane	250.0000	241.7325	3.3	50.0
20 1,1,1-Trichloroethane	250.0000	244.3238	2.3	50.0
21 Carbon Tetrachloride	250.0000	252.3685	0.9	50.0
23 1,2-Dichloroethane	250.0000	243.7556	2.5	50.0
24 Benzene	250.0000	243.4257	2.6	50.0
26 Trichloroethene	250.0000	240.3580	3.9	50.0
27 1,2-Dichloropropane	250.0000	243.1551	2.7	20.0
28 Bromodichloromethane	250.0000	246.0529	1.6	50.0
31 cis-1,3-Dichloropropene	250.0000	245.5278	1.8	50.0
33 Toluene	250.0000	240.4423	3.8	20.0
34 trans-1,3-Dichloropropene	250.0000	242.5743	3.0	50.0
36 1,1,2-Trichloroethane	250.0000	237.7000	4.9	50.0
37 Tetrachloroethene	250.0000	241.7693	3.3	50.0
38 Dibromochloromethane	250.0000	246.5574	1.4	50.0
40 Chlorobenzene	250.0000	239.3181	4.3	50.0
41 Ethylbenzene	250.0000	247.2990	1.1	20.0
44 Styrene	250.0000	245.8997	1.6	50.0
45 Bromoform	250.0000	263.3748	5.3	50.0
46 1,1,2,2-Tetrachloroethane	250.0000	239.5556	4.2	50.0
48 1,3-Dichlorobenzene	250.0000	236.4515	5.4	50.0
49 1,4-Dichlorobenzene	250.0000	233.4164	6.6	50.0
50 1,2-Dichlorobenzene	250.0000	235.3806	5.8	50.0
60 Dibromomethane	250.0000	239.9728	4.0	50.0
63 1,2-Dibromoethane	250.0000	238.2011	4.7	50.0
64 1,1,1,2-Tetrachloroethane	250.0000	244.0032	2.4	50.0

6581035

CONTINUING CALIBRATION COMPOUNDS
 PERCENT DRIFT REPORT

Instrument ID: hp4.i
 Lab File ID: cc40526.d
 Analysis Type: WATER

Injection Date: 26-MAY-2000 07:57
 Lab Sample ID: vstd50
 Method File: /var/chem/hp4.i/40526d.b/8260bh2

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
65 1,2,3-Trichloropropane	250.0000	236.6236	5.4	50.0
69 1,2-Dibromo-3-chloropropane	250.0000	233.9578	6.4	50.0
74 2,2-Dichloropropane	250.0000	237.7194	4.9	50.0
75 1,1-Dichloropropene	250.0000	248.2045	0.7	50.0
77 1,3-Dichloropropane	250.0000	242.0001	3.2	50.0
83 n-Propylbenzene	250.0000	240.9559	3.6	50.0
84 Bromobenzene	250.0000	230.3476	7.9	50.0
85 1,3,5-Trimethylbenzene	250.0000	241.4693	3.4	50.0
86 2-Chlorotoluene	250.0000	235.9332	5.6	50.0
87 4-Chlorotoluene	250.0000	239.3002	4.3	50.0
88 tert-Butylbenzene	250.0000	241.4926	3.4	50.0
89 1,2,4-Trimethylbenzene	250.0000	242.4990	3.0	50.0
90 sec-Butylbenzene	250.0000	242.7071	2.9	50.0
91 4-Isopropyltoluene	250.0000	245.6437	1.7	50.0
94 n-Butylbenzene	250.0000	238.4120	4.6	50.0
95 1,2,4-Trichlorobenzene	250.0000	209.8233	16.1	50.0
96 Hexachlorobutadiene	250.0000	218.3650	12.7	50.0
97 Naphthalene	250.0000	167.6545	32.9	50.0
98 1,2,3-Trichlorobenzene	250.0000	152.8260	38.9	50.0
101 Chlorobenzene-d5	250.0000	250.0000	0.0	50.0
102 1,4-Dichlorobenzene-d4	250.0000	250.0000	0.0	50.0
106 Acetone	250.0000	276.7916	10.7	50.0
107 Carbon Disulfide	250.0000	260.0550	4.0	50.0
108 2-Butanone	250.0000	184.3992	26.2	50.0
110 4-Methyl-2-Pentanone	250.0000	282.0933	12.8	50.0
111 2-Hexanone	250.0000	295.2157	18.1	50.0
134 Methyl tert-butyl ether	250.0000	252.1406	0.9	50.0
137 Fluorobenzene	250.0000	250.0000	0.0	50.0
144 Isopropylbenzene	250.0000	254.3406	1.7	50.0
153 1,2-Dichloroethene (total)	500.0000	476.5017	4.7	50.0
154 Xylenes (total)	790.0000	756.0721	0.8	50.0
149 Dibromofluoromethane	250.0000	251.3561	0.5	50.0
150 1,2-Dichloroethane-d4	250.0000	255.7145	2.3	50.0
151 Toluene-d8	250.0000	257.1916	2.9	50.0
152 Bromofluorobenzene	250.0000	262.6598	5.1	50.0

**GC/MS VOLATILE
QC DATA**

Data File: /var/chem/hp4.i/40526d.b/bf40526.d

Date : 26-MAY-2000 07:27

Client ID: 50NGBFB

Instrument: hp4.1

Sample Info: bfb 1ul

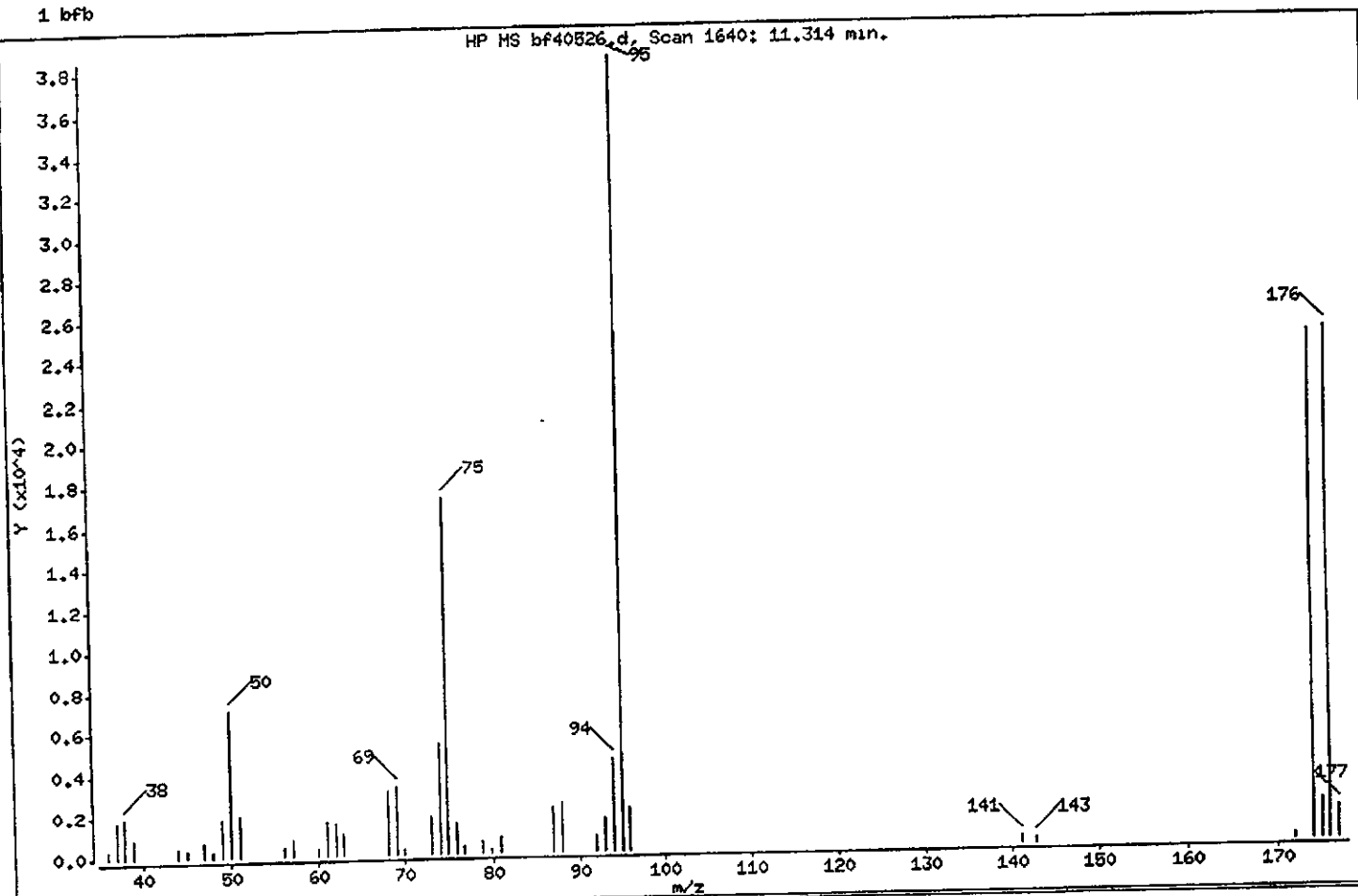
Volume Injected (ul): 1.0

Operator: 16328

Column phase: DB624 20m

Column diameter: 0.18

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	18.32
75	30.00 - 60.00% of mass 95	44.50
96	5.00 - 9.00% of mass 95	5.63
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 100.00% of mass 95	63.85
175	5.00 - 9.00% of mass 174	4.99 (7.82)
176	95.00 - 101.00% of mass 174	64.37 (100.81)
177	5.00 - 9.00% of mass 176	4.06 (6.31)

Data File: /var/chem/hp4.1/40526d.b/bf40526.d

Date : 26-MAY-2000 07:27

Client ID: 50NGBFB

Instrument: hp4.i

Sample Info: bfb 1ul

Volume Injected (ul): 1.0

Operator: 16328

Column phase: DB624 20m

Column diameter: 0.18

Data File: bf40526.d

Spectrum: HP MS bf40526.d, Scan 1640: 11.314 min.

Location of Maximum: 95.00

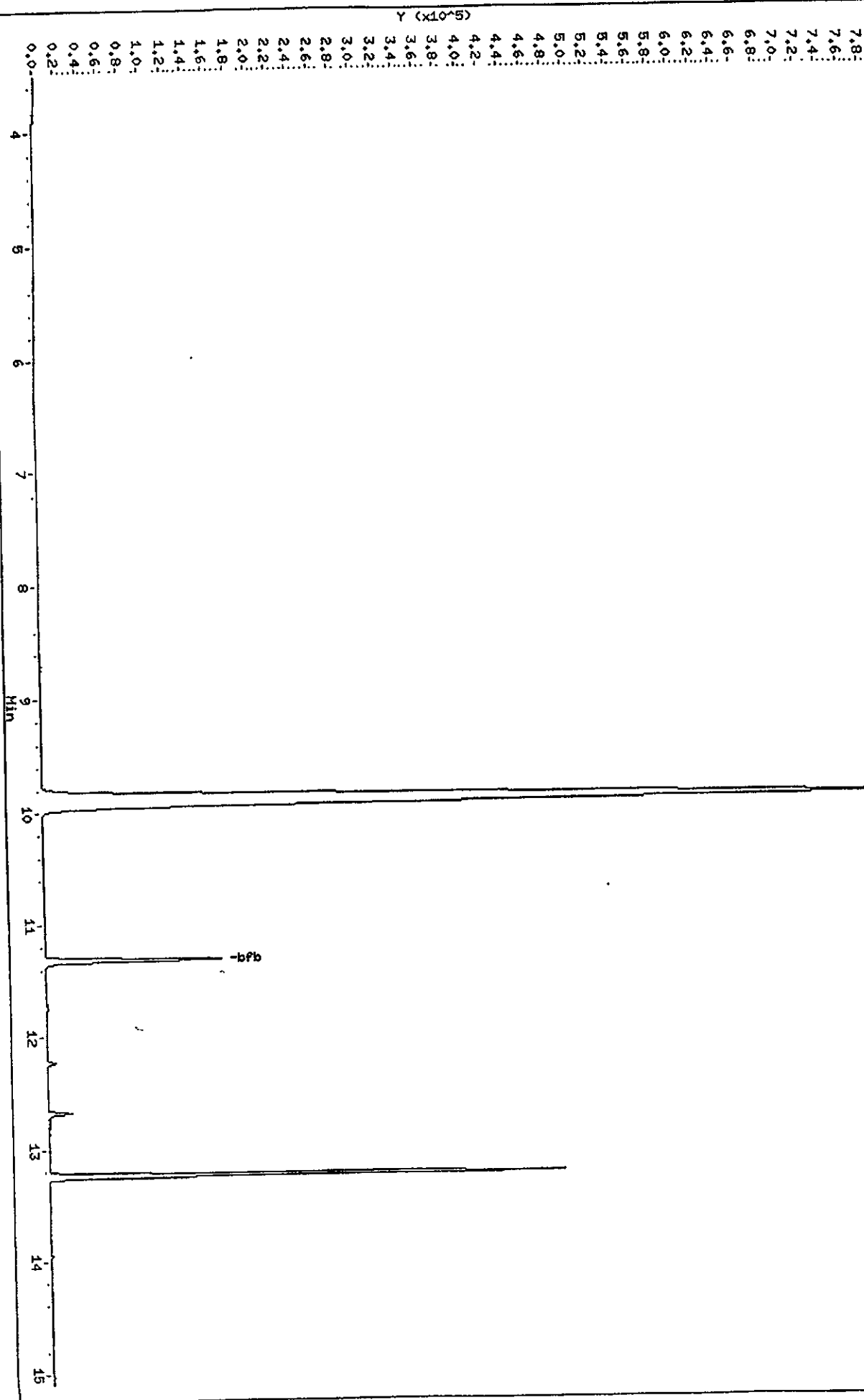
Number of points: 43

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.10	359	51.00	2030	74.00	5334	94.00	4405
37.10	1779	56.10	485	75.00	17168	95.00	38876
38.10	1931	57.00	835	76.00	1519	95.95	2171
39.05	852	60.05	313	76.85	357	141.05	322
44.05	403	61.05	1680	78.85	641	142.80	275
45.05	367	61.95	1612	79.85	215	171.95	255
46.95	729	62.95	1057	80.95	767	173.95	24632
47.75	215	68.00	3144	86.90	2188	174.95	1926
48.05	231	69.00	3281	88.00	2420	175.95	24832
49.00	1863	69.90	295	92.00	766	176.95	1568
50.00	7067	73.00	1824	93.00	1700		

Data File: /var/chem/hp4.i/40526d.b/bf40526.d
 Date: 26-MAY-2000 07:27
 Client ID: 50NGBFB
 Sample Info: bfb 1u1
 Volume Injected (uL): 1.0
 Column Phase: DB624 20m

Instrument: hp4.i
 Operator: 16328
 Column diameter: 0.18

/var/chem/hp4.i/40526d.b/bf40526.d



UXB INTERNATIONAL
METHOD BLANK COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SOLID Lab Sample ID: C0E250000 190
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/23/00
Work Order: DDNPV101 Date Extracted: 05/26/00
Dilution factor: 1 Date Analyzed: 05/26/00
Moisture %: NA

QC Batch: 0147338

Client Sample Id: INTRA-LAB BLANK

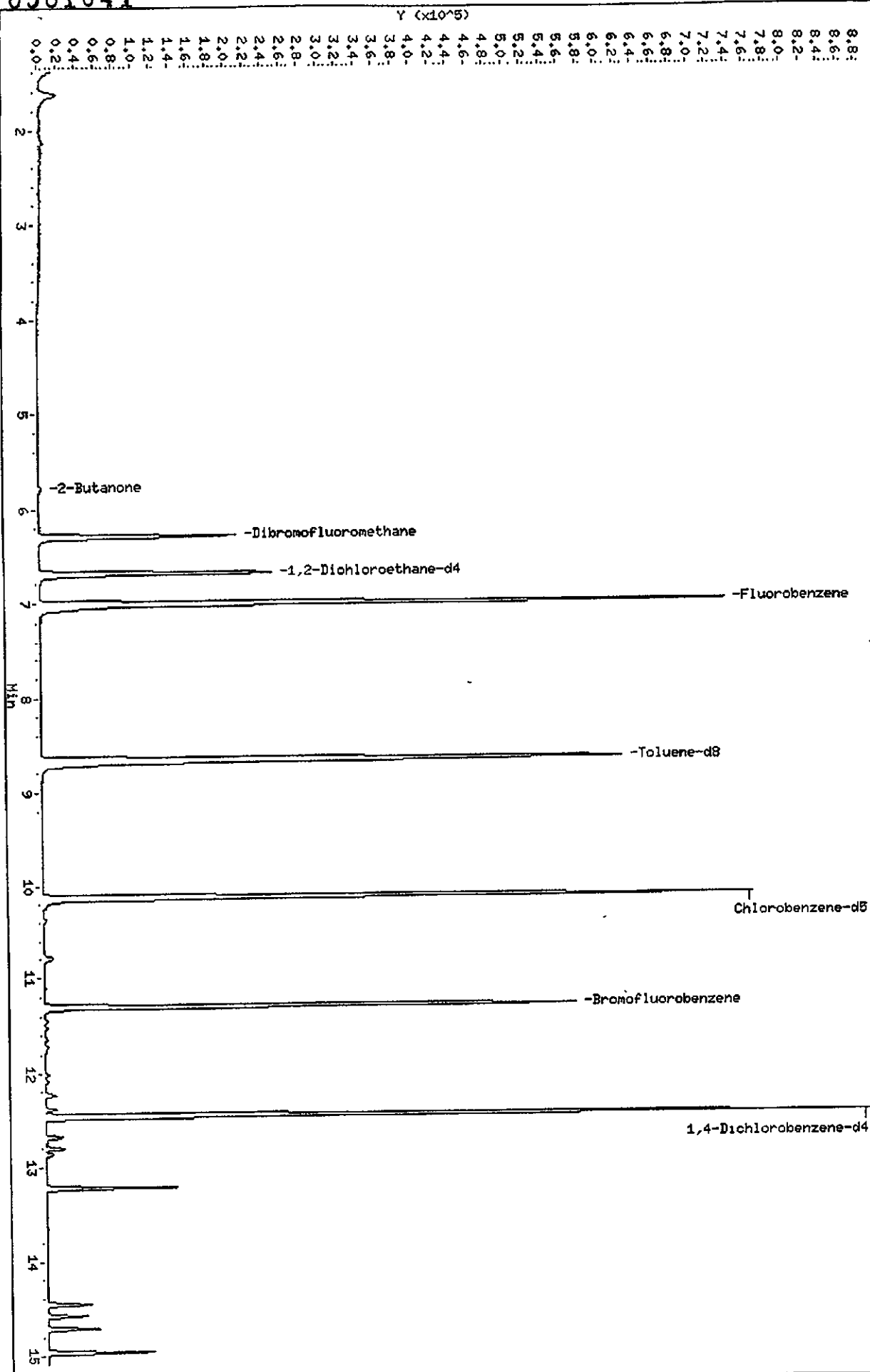
CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
71-43-2	Benzene	0.050	U
78-93-3	2-Butanone	0.018	J
56-23-5	Carbon tetrachloride	0.050	U
108-90-7	Chlorobenzene	0.050	U
67-66-3	Chloroform	0.050	U
107-06-2	1,2-Dichloroethane	0.050	U
75-35-4	1,1-Dichloroethene	0.050	U
127-18-4	Tetrachloroethene	0.050	U
79-01-6	Trichloroethene	0.050	U
75-01-4	Vinyl chloride	0.050	U

6581041

Data File: /var/chem/hp4.i/40526d.b/4052602.d
Date: 26-MAY-2000 11:29
Client ID:
Sample Info: pb blk (1ml/10ml)/5ml
Volume injected (ul): 5.0
Column phase: DB 624

Instrument: hp4.i
Operator: 16328
Column diameter: 0.18

/var/chem/hp4.i/40526d.b/4052602.d



Data File: /var/chem/hp4.i/40526d.b/4052602.d
Report Date: 27-May-2000 07:06

STL-PITTSBURGH

VOLATILE REPORT SW-846 Method

Data file : /var/chem/hp4.i/40526d.b/4052602.d
Lab Smp Id:
Inj Date : 26-MAY-2000 11:29
Operator : 16328
Smp Info : pb blk (1ml/10ml)/5ml
Misc Info : ,40526d.b,med1000.m
Comment :
Method : /var/chem/hp4.i/40526d.b/8260bh2o.m
Meth Date : 26-May-2000 12:31 dudeckk Quant Type: ISTD
Cal Date : 26-MAY-2000 07:57 Cal File: cc40526.d
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE
Target Version: 3.40
Processing Host: hpuxcs21

K_s/21/w

Compound Sublist: tclp.sub

Concentration Formula: Amt * DF * (Vf/Vo)/Vi

Name	Value	Description
DF	1.000	Dilution Factor
Vf	5.000	FinalVolume
Vo	5.000	Sample Volume
Vi	5.000	Purge Volume

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS		
						ON-COLUMN (ng)	FINAL (UG/L)	
* 46 Fluorobenzene	96	7.011	6.999	(1.000)	895220			
* 69 Chlorobenzene-d5	119	10.123	10.123	(1.000)	189507			
* 92 1,4-Dichlorobenzene-d4	152	12.458	12.459	(1.000)	271553			
\$ 43 1,2-Dichloroethane-d4	65	6.687	6.688	(0.954)	185547	247.046	49.41	
\$ 39 Dibromofluoromethane	113	6.290	6.284	(0.897)	166099	243.431	48.69	
\$ 59 Toluene-d8	98	8.656	8.650	(0.855)	752473	249.272	49.85	
\$ 80 Bromofluorobenzene	95	11.309	11.309	(1.117)	255270	231.897	46.38	
3 Vinyl Chloride	62.00	Compound Not Detected.						
12 1,1-Dichloroethene	96.00	Compound Not Detected.						
31 2-Butanone	43	5.782	5.813	(0.825)	7310	8.79337	1.759	
37 Chloroform	83.00	Compound Not Detected						
41 Carbon Tetrachloride	117.00	Compound Not Detected						
42 Benzene	78.00	Compound Not Detected						
45 1,2-Dichloroethane	62.00	Compound Not Detected.						
47 Trichloroethene	130.00	Compound Not Detected						

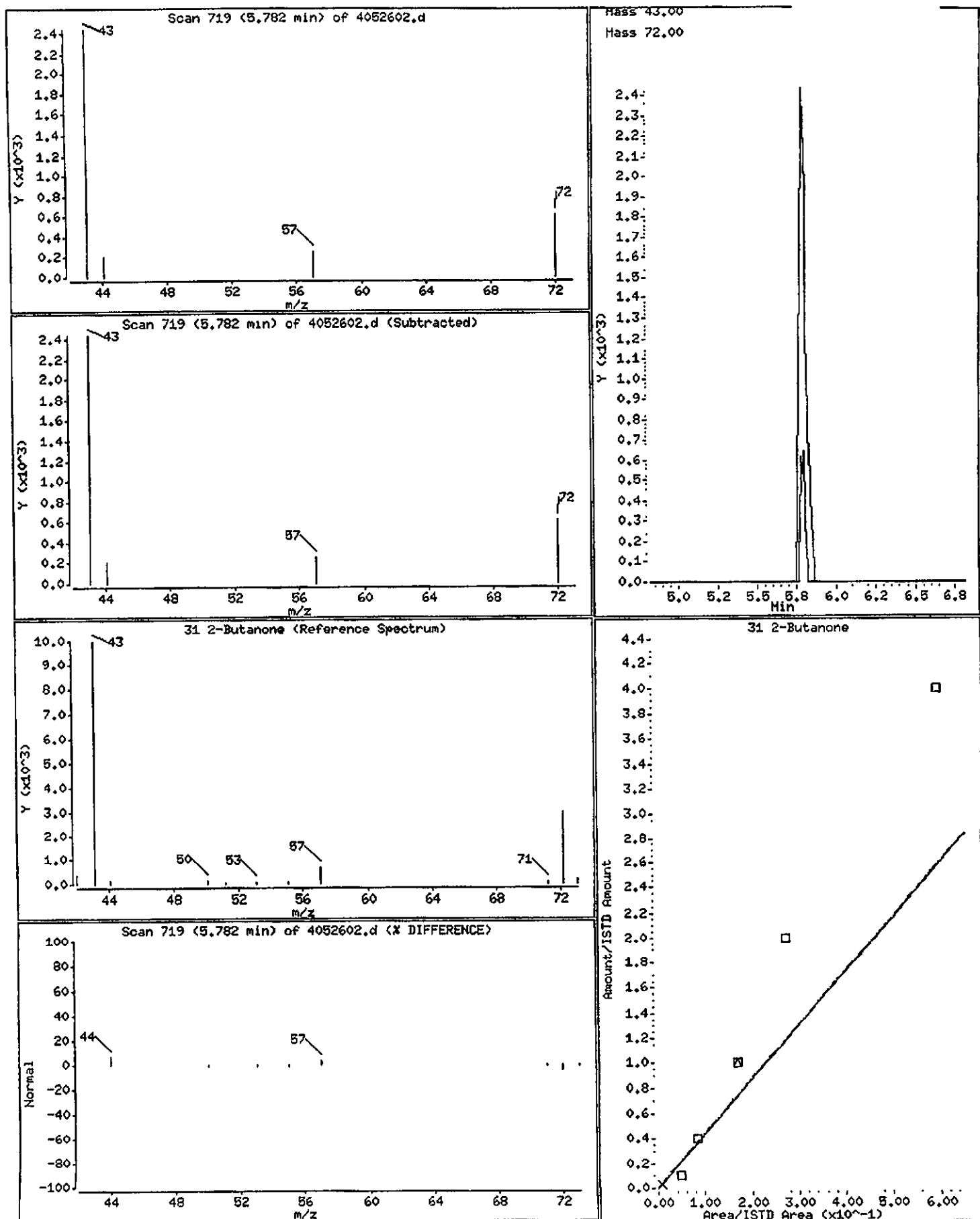
6581043

Data File: /var/chem/hp4.i/40526d.b/4052602.d
Report Date: 27-May-2000 07:06

Page 2

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN	FINAL
	MASS					(ng)	(UG/L)
*****	----	==	=====	=====	*****	*****	*****
65 Tetrachloroethene	164.00				Compound Not Detected.		
70 Chlorobenzene	112.00				Compound Not Detected.		

31 2-Butanone



6581045

UXB INTERNATIONAL
CHECK SAMPLE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SOLID Lab Sample ID: C0E260000 338

Method: SW846 8260B
Volatile Organics, GC/MS (8260B)Sample WT/Vol: 5 / mL Date Received: 05/23/00
Work Order: DDT3T102 Date Extracted: 05/26/00
Dilution factor: 1 Date Analyzed: 05/26/00
Moisture %: NA

QC Batch: 0147338

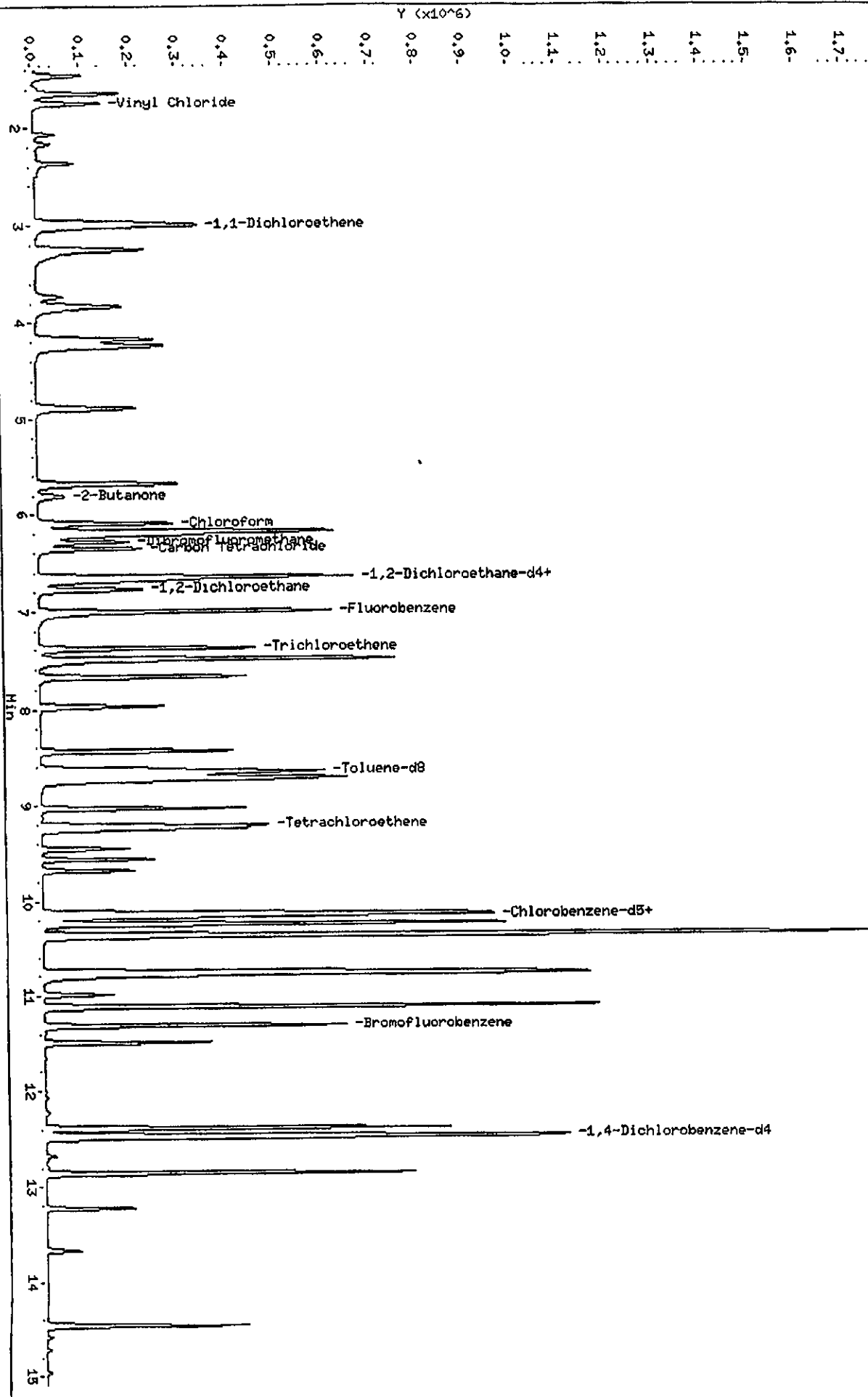
Client Sample Id: CHECK SAMPLE

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
71-43-2	Benzene	0.470	
78-93-3	2-Butanone	0.315	
56-23-5	Carbon tetrachloride	0.490	
108-90-7	Chlorobenzene	0.477	
67-66-3	Chloroform	0.470	
107-06-2	1,2-Dichloroethane	0.479	
75-35-4	1,1-Dichloroethene	0.451	
127-18-4	Tetrachloroethene	0.510	
79-01-6	Trichloroethene	0.476	
75-01-4	Vinyl chloride	0.513	

Data File: /var/chem/hp4.i/40526d.b/4052604.d
Date: 26-MAY-2000 12:32
Client ID:
Sample Info: blk ms c06230168 (1ml/10ml)/5ml
Volume injected (ul): 5.0
Column phase: DB 624

Instrument: hp4.i
Operator: 16328
Column diameter: 0.18

/var/chem/hp4.i/40526d.b/4052604.d



STL-PITTSBURGH

VOLATILE REPORT SW-846 Method

Data file : /var/chem/hp4.i/40526d.b/4052604.d

Lab Smp Id:

Inj Date : 26-MAY-2000 12:32

Operator : 16328

Inst ID: hp4.i

Smp Info : blk ms c0e230168 (1ml/10ml)/5ml

Misc Info : ,40526d.b,med1000.m

K-5/26/00

Comment :

Method : /var/chem/hp4.i/40526d.b/8260bh2o.m

Meth Date : 26-May-2000 12:31 dudeckk

Quant Type: ISTD

Cal Date : 26-MAY-2000 07:57

Cal File: cc40526.d

Als bottle: 13

Dil Factor: 1.00000

Integrator: HP RTE

Compound Sublist: tclp.sub

Target Version: 3.40

Processing Host: hpuxcs21

Concentration Formula: Amt * DF * (Vf/Vo)/Vi

Name	Value	Description
DF	1.000	Dilution Factor
Vf	5.000	FinalVolume
Vo	5.000	Sample Volume
Vi	5.000	Purge Volume

Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng)	FINAL (UG/L)
* 46 Fluorobenzene	----	96	7.003	6 999	(1.000)	766435		
* 69 Chlorobenzene-d5		119	10.127	10 123	(1.000)	183691		
* 92 1,4-Dichlorobenzene-d4		152	12.456	12 459	(1.000)	282052		
\$ 43 1,2-Dichloroethane-d4		65	6.685	6 688	(0.955)	156351	243 153	48.63
\$ 39 Dibromofluoromethane		113	6.288	6 284	(0.898)	145506	249.083	49.82
\$ 59 Toluene-d8		98	8.654	8.650	(0.855)	745680	254 842	50 97
\$ 80 Bromofluorobenzene		95	11.307	11.309	(1.117)	276715	259.337	51 87
3 Vinyl Chloride		62	1.746	1.742	(0.249)	225411	256.378	51 28
12 1,1-Dichloroethene		96	3 011	2.995	(0 430)	166483	225.663	45.13
31 2-Butanone		43	5.805	5 813	(0.829)	112037	157.418	31.48
37 Chloroform		83	6.092	6 089	(0.870)	265666	235.022	47.00
41 Carbon Tetrachloride		117	6.361	6.358	(0 908)	160445	245 261	49.05
42 Benzene		78	6.649	6.645	(0 949)	770505	235.273	47.05
45 1,2-Dichloroethane		62	6.771	6 773	(0 967)	188352	239.646	47.93
47 Trichloroethene		130	7 382	7.378	(1.054)	180009	238.014	47 60

Data File: /var/chem/hp4.i/40526d.b/4052604.d
Report Date: 26-May-2000 12:52

Compounds	QUANT SIG						CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN	FINAL	
						(ng)	(UG/L)	
-----	----	RT	-----	-----	-----	-----	-----	
65 Tetrachloroethene	164	9.241	9.237	(0.912)	135864	254.975	51.00	
70 Chlorobenzene	112	10.151	10.154	(1.002)	556027	238.335	47.67	

6581049

**GC/MS VOLATILE
MISCELLANEOUS**

ZIFE Leachate Worksheet

Quanterra Incorporated
450 William Pitt Way
Pittsburgh, PA 15238

(Method 1311)

pH Buffer 4	4.00
pH Buffer 7	7.01
pH Buffer 10	10.04

P014609

Temp 21

Quanterra
Pittsburgh
Tel 888 448 4894

Lab Sample ID #	Client ID	Weight (gm)	Vessel	Extraction Fluid No. / Volume	On		Off			
					Date	Time	Initials	Date	Time	Initials
1. COE230215	BAK	23.04	JT	Tell # 1	5/25/2002	10:50	WT	5/26/2000	0500	SM
2.	013		B							
3	014		X							
4	015		L							
5. COE240180	001		ZZ							
6.	002		AA							
7. COE240147	001		SS							
8. COE240137	001									
9.										
10										
11										
12										
13.										
14.										
15.										
16										
17										
18										
19										
20										
21										
22										

Extract(s)
(Record line number from above)

Date

Time

Analyst

Location

Date

Time

Analyst

Location

ALL ABOVE

5-26-00

0600

James Miller

ORG. PREP.

5-26-00

0605

James Miller

CCP-01

5/25/00

1000

K. D. Del

CCP-01

23.01

WT

5/25/2000

WT

5/26/2000

Revised by: James Miller

Date: 5-26-00

0501859

000000

Analyst: Ko

Reviewed by: HP-y

Date: 192-11-7

Method No.: 8200-11

Instrument ID: HP-y

Methanol Lot No.: 192-11-7

Sid.: 192-11-11

Sid.: 192-11-11

Sid.: 192-11-11

Sid.: 192-11-11

Sid.: 192-11-11

Date	Run No.	Lot No./ Sample No.	Vol./Wt	pH	Port No.	Comments
192-11-11	1. 8F40526	DFD	1.1			0727
	2. CC40526	VSTD50	S-L			
	3. 1A40526	VSTD5	S-L			
	4. 1B40526	VSTD24	S-L			
	5. 1D40526	VSTD100	S-L			
	6. 1E40526	VSTD200	S-L			
	7. 4052601	VGLK	S-L			
	8. 2E40526	VSTD200	S-L			
	9. 4052602	PD BLK COE23015-001	(1.0/1.0) S-L	5		
	10. 4052603	PD BLK COE23015	(1.0/1.0) S-L	5		
	11. 4052604	BLK M1	(1.0/1.0) S-L	5		
	12. 4052605	COE23015-001	(1.0/1.0) S-L	6		
	13. 4052606	-001 M5	(1.0/1.0) S-L	6		
	14. 4052607	-001 MJD		6		
	15. 4052608	COE23015-009		6		2A11
	16. 4052609	-010		6	1	
	17. 4052610	-011		6	2	
	18. 4052611	-012		6	3	
	19. 4052612	PD BLK COE23015-009		6	4	
	20. 4052613	-013		6	5	
	21. 4052614	COE24015-001		6	6	
	22. 4052615	COE23015-015		6	7	

Quanterra PT/Rev-96/96-001/GCMSLOG.DOC

65081052

Analyst: Ks Date: 2006-11-2
Method No.: 2006-11-2 Instrument ID: HP-4
Std.: Sid.: Reviewed by:
Methanol Lot No.: Date:
Std.: Sid.:

Date	Run No.	Lot No./ Sample No.	Vol./Wt	pH	Port No.	Comments
5/21/06	1. 4052616	COE230215-014	(1.2/10.2)/54	6		
	2. 4052617	COE240180-002	(1.2/10.2)/54	6		
	3. 4052618	COE240147-001	(1.2/10.2)/54	6		700pm
	4.					
	5.					
	6.					
	7.					
	8.					
	9.					
	10.					
	11.					
	12.					
	13.					
	14.					
	15.					
	16.					
	17.					
	18.					
	19.					
	20.					
	21.					
	22.					

6581053

PSR024 5/25/00 5:52:40 MT

SAMPLE CUSTODIAN REMOVAL REQUEST

PAGE 001

REQUESTED BY: TROUTB

METHOD: QK Volatile Organics, GC/MS (8260B)

STORAGE LOCATION	WORK ORDER #	PICKED CNTR#	CONTROL #	CLIENT #	ANALYSIS	LOTID	SMP#	SFX	MATRIX DESCRIPTION	QTY RCVD	QTY REQD
6A	DDKFL-1-01	---	236566	131369	A-58-QK	COE230215	013		SOLID	0	4 1
6A	DDKFM-1-01	---	236567	131369	A-58-QK	COE230215	014		SOLID	0	4 1
6A	DDKFN-1-01	---	236568	131369	A-58-QK	COE230215	015		SOLID	0	4 1
~~6B CLP1~~	~~DDLFB-1-01~~	~~---~~	~~236572~~	~~416241~~	~~A-58-QK~~	~~COE240137~~	~~001~~		~~SOLID~~ WT 5/25/2000	0	9 1
6B CLP1	DDLGI-1-05	---	236571	416241	A-15-QK	COE240147	001		SOLID	0	8 1
6A CLP1	DDLX3-1-02	---	236569	399411	A-58-QK	COE240180	001		SOLID	0	3 1
6A CLP1	DDLX6-1-02	---	236570	399411	A-58-QK	COE240180	002		SOLID	0	3 1

RELINQUISHED BY

RECEIVED BY

DATE/TIME

Ken Seely
B Trout

B Trout
Ken Seely

5/25/2000 08:05
5/25/2000 11:10

***** END OF REPORT *****

GC/MS SEMIVOLATILE DATA

6581055

**GC/MS SEMIVOLATILE
QC SUMMARY**

SW846 8270C SURROGATE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

QESSDG:

Lot #: C0E240180

	CLIENT ID.	SRG01	SRG02	SRG03	SRG04	SRG05	SRG06	TOT OUT
	=====	=====	=====	=====	=====	=====	=====	=====
01	DF/S1/0143/SDC/002	74	73	97	67	78	89	00
02	DF/S1/0143/SDC/003	69	69	105	60	71	84	00
03	METHOD BLK. DDWFT101	75	77	93	69	80	89	00
04	LCS DDWFT102	82	84	96	79	93	96	00
05	DF/S1/0143/SDC/002 D	65	63	100	56	67	80	00
06	DF/S1/0143/SDC/002 S	66	65	104	59	71	85	00

SURROGATES

SRG01 = Nitrobenzene-d5
 SRG02 = 2-Fluorobiphenyl
 SRG03 = Terphenyl-d14
 SRG04 = 2-Fluorophenol
 SRG05 = Phenol-d5
 SRG06 = 2,4,6-Tribromophenol

QC LIMITS

(32-112)
 (30-110)
 (10-144)
 (13-110)
 (10-113)
 (21-122)

Column to be used to flag recovery values
 * Values outside of required QC Limits
 D System monitoring Compound diluted out

FORM II

6581057

SW846 8270C CHECK SAMPLE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UKB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Lot #: C0E300000

WO #: DDWFT102

BATCH: 0151187

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	% REC	QC LIMITS REC	QUAL
1,4-Dichlorobenzene	0.250	0.211	84	28- 110	
2,4-Dinitrotoluene	0.250	0.237	95	47- 131	
Hexachlorobenzene	0.250	0.228	91	57- 128	
Hexachlorobutadiene	0.250	0.214	86	36- 116	
Hexachloroethane	0.250	0.209	84	30- 110	
Nitrobenzene	0.250	0.210	84	45- 130	
Pentachlorophenol	0.250	0.213	85	10- 140	
Pyridine	0.250	0.165	66	10- 148	
2,4,5-Trichlorophenol	0.250	0.220	88	41- 125	
2,4,6-Trichlorophenol	0.250	0.216	87	46- 135	
Cresols (total)	0.750	0.719	96	29- 144	

NOTES (S) :

* Values outside of QC limits

Spike Recovery: 0 out of 11 outside limits

COMMENTS:

FORM III

SW846 8270C MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Matrix Spike ID: DF/S1/0143/SDC/002

Level: (low/med) LOW

Lot #: C0E240180

WO #: DDLX310U

BATCH: 0151187

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	MS CONCENT. (mg/L)	MS % REC	LIMITS REC	QUAL
1,4-Dichlorobenzene	0.250	ND	0.161	64	18 - 110	
2,4-Dinitrotoluene	0.250	ND	0.198	79	31 - 131	
Hexachlorobenzene	0.250	ND	0.228	91	36 - 132	
Hexachlorobutadiene	0.250	ND	0.154	61	18 - 116	
Hexachloroethane	0.250	ND	0.157	63	18 - 110	
Nitrobenzene	0.250	ND	0.165	66	10 - 211	
Pentachlorophenol	0.250	ND	0.203	81	10 - 140	
Pyridine	0.250	ND	0.124	50	10 - 148	
2,4,5-Trichlorophenol	0.250	ND	0.183	73	24 - 143	
2,4,6-Trichlorophenol	0.250	ND	0.175	70	36 - 135	
Cresols (total)	0.750	ND	0.562	75	25 - 144	

NOTES (S) :

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 0 outside limitsSpike Recovery: 0 out of 11 outside limits

COMMENTS:

6581059

SW846 8270C MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Matrix Spike ID: DF/S1/0143/SDC/002

Level: (low/med) LOW

Lot #: C0E240180

WO #: DDLX310V

BATCH: 0151187

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENT. (mg/L)	MSD		QC LIMITS		QUAL
			% REC	% RPD	RPD	REC	
1,4-Dichlorobenzene	0.250	0.152	61	5.6	36	18 - 110	
2,4-Dinitrotoluene	0.250	0.192	77	2.8	32	31 - 131	
Hexachlorobenzene	0.250	0.215	86	5.7	22	36 - 132	
Hexachlorobutadiene	0.250	0.154	62	0.27	32	18 - 116	
Hexachloroethane	0.250	0.149	60	5.0	33	18 - 110	
Nitrobenzene	0.250	0.162	65	1.8	50	10 - 211	
Pentachlorophenol	0.250	0.191	76	6.2	56	10 - 140	
Pyridine	0.250	0.118	47	4.7	65	10 - 148	
2,4,5-Trichlorophenol	0.250	0.178	71	2.6	22	24 - 143	
2,4,6-Trichlorophenol	0.250	0.167	67	4.8	27	36 - 135	
Cresols (total)	0.750	0.535	71	5.0	33	25 - 144	

NOTES (S) :

Column to be used to flag recovery and RPD values with an asterisk
 * Values outside of QC limits

RPD: 0 out of 11 outside limitsSpike Recovery: 0 out of 11 outside limits

COMMENTS:

FORM III

SW846 8270C METHOD BLANK SUMMARY

DDWFT101

Lab Name: Severn Trent Laboratories, Inc.

Lab Code: QESPIT

SDG Number:

Lab File ID: D0601001.

Lot Number: C0E240180

Date Analyzed: 06/01/00

Time Analyzed: 10:35

Matrix: SOLID

Date Extracted: 05/30/00

GC Column: HP5MS ID: .25

Extraction Method: 1311/3520C

Instrument ID: 721

Level: (low/med) LOW

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS, LCSD, MS , MSD:

	CLIENT ID.	SAMPLE WORK ORDER #	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	DF/S1/0143/SDC/002	DDLX310U S	D0601004.	06/01/00	12:05
02	DF/S1/0143/SDC/002	DDLX310V D	D0601005.	06/01/00	12:35
03	DF/S1/0143/SDC/002	DDLX3103	D0601003.	06/01/00	11:35
04	DF/S1/0143/SDC/003	DDLX6103	D0601006.	06/01/00	13:06
05	CHECK SAMPLE	DDWFT102 C	D0601002.	06/01/00	11:05
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

COMMENTS:

6581061

5B
SEMIVOLATILE ORGANIC GC/MS TUNING AND MASS
CALIBRATION - DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: STL PITTSBURGH

Contract:

Lab Code: STL PIT

Case No.:

SAS No.:

SDG No.:

Lab File ID: D0525DF3

DFTPP Injection Date: 05/25/00

Instrument ID: 721

DFTPP Injection Time: 1854

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	39.3
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	54.8
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	48.3
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 - 9.0% of mass 198	7.0
275	10.0 - 30.0% of mass 198	22.8
365	Greater than 1.0% of mass 198	2.5
441	Present, but less than mass 443	11.3
442	Greater than 40.0% of mass 198	70.3
443	17.0 - 23.0% of mass 442	14.1 (20.1)2

1-Value is % of mass 69

2-Value is % of mass 442

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD020	SSTD20	D0525CC1	05/25/00	1915
02	SSTD050	SSTD50	D0525CC2	05/25/00	1945
03	SSTD080	SSTD80	D0525CC3	05/25/00	2015
04	SSTD120	SSTD120	D0525CC4	05/25/00	2045
05	SSTD160	SSTD160	D0525CC5	05/25/00	2115
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

6581062

Lab Name: STL PITTSBURGH

Contract:

Lab Code: STL PIT

Case No.:

SAS No.:

SDG No.: C0E240180

Lab File ID: D0601DF2

DFTPP Injection Date: 06/01/00

Instrument ID: 721

DFTPP Injection Time: 0943

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	39.2
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	51.7
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	48.7
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.3
275	10.0 - 30.0% of mass 198	21.6
365	Greater than 1.0% of mass 198	3.13
441	Present, but less than mass 443	10.1
442	Greater than 40.0% of mass 198	64.7
443	17.0 - 23.0% of mass 442	12.7 (19.7)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD050	SSTD50	D0601CCC	06/01/00	1005
02	INTRA-LAB BL	DDWFT101	D0601001	06/01/00	1035
03	LCS	DDWFT102	D0601002	06/01/00	1105
04	DF/S1/0143/S	DDLX3103	D0601003	06/01/00	1135
05	DF/S1/0143/S	DDLX310U	D0601004	06/01/00	1205
06	DF/S1/0143/S	DDLX310V	D0601005	06/01/00	1235
07	DF/S1/0143/S	DDLX6103	D0601006	06/01/00	1306
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

Lab Name: STL PITTSBURGH

Contract:

Lab Code: STL PIT Case No.:

SAS No.:

SDG No.: C0E240180

Lab File ID (Standard): D0601CCC

Date Analyzed: 06/01/00

Instrument ID: 721

Time Analyzed: 1005

	IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
=====	=====	=====	=====	=====	=====	=====
12 HOUR STD	90704	4.48	339526	5.68	185944	8.19
UPPER LIMIT	181408	4.98	679052	6.18	371888	8.69
LOWER LIMIT	45352	3.98	169763	5.18	92972	7.69
=====	=====	=====	=====	=====	=====	=====
CLIENT SAMPLE NO.						
=====	=====	=====	=====	=====	=====	=====
01 INTRA-LAB BL	88677	4.48	349254	5.67	196739	8.18
02 LCS	86634	4.48	337766	5.67	190680	8.18
03 DF/S1/0143/S	89244	4.48	344494	5.67	195990	8.19
04 DF/S1/0143/S	85970	4.48	336128	5.67	187279	8.19
05 DF/S1/0143/S	90253	4.48	347041	5.67	198482	8.19
06 DF/S1/0143/S	85818	4.48	334788	5.67	187939	8.19
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = - 50% of internal standard area

RT UPPER LIMIT = + 0.50 minutes of internal standard RT

RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.

* Values outside of QC limits.

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

6581064

Lab Name: STL PITTSBURGH

Contract:

Lab Code: STL PIT

Case No.:

SAS No.:

SDG No.: C0E240180

Lab File ID (Standard): D0601CCC

Date Analyzed: 06/01/00

Instrument ID: 721

Time Analyzed: 1005

	IS4 (PHN)		IS5 (CRY)		IS6 (PRY)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
=====	=====	=====	=====	=====	=====	=====
12 HOUR STD	360334	11.04	322032	16.86	276273	19.81
UPPER LIMIT	720668	11.54	644064	17.36	552546	20.31
LOWER LIMIT	180167	10.54	161016	16.36	138137	19.31
=====	=====	=====	=====	=====	=====	=====
CLIENT						
SAMPLE NO.						
=====	=====	=====	=====	=====	=====	=====
01 INTRA-LAB BL	394768	11.03	354033	16.84	313962	19.80
02 LCS	377023	11.04	355010	16.84	318408	19.80
03 DF/S1/0143/S	389034	11.04	332733	16.85	292278	19.80
04 DF/S1/0143/S	362957	11.04	316224	16.85	274413	19.80
05 DF/S1/0143/S	389782	11.04	333945	16.85	293274	19.80
06 DF/S1/0143/S	376219	11.04	322473	16.85	278952	19.80
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						

IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = - 50% of internal standard area

RT UPPER LIMIT = + 0.50 minutes of internal standard RT

RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.

* Values outside of QC limits.

6581065

**GC/MS SEMIVOLATILE
SAMPLE DATA**

UXB INTERNATIONAL

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: COE240180 001

Method: SW846 8270C

Base/Neutrals and Acids (8270C)

Sample WT/Vol: 200 / mL

Date Received: 05/24/00

Work Order: DDLX3103

Date Extracted: 05/30/00

Dilution factor: 1

Date Analyzed: 06/01/00

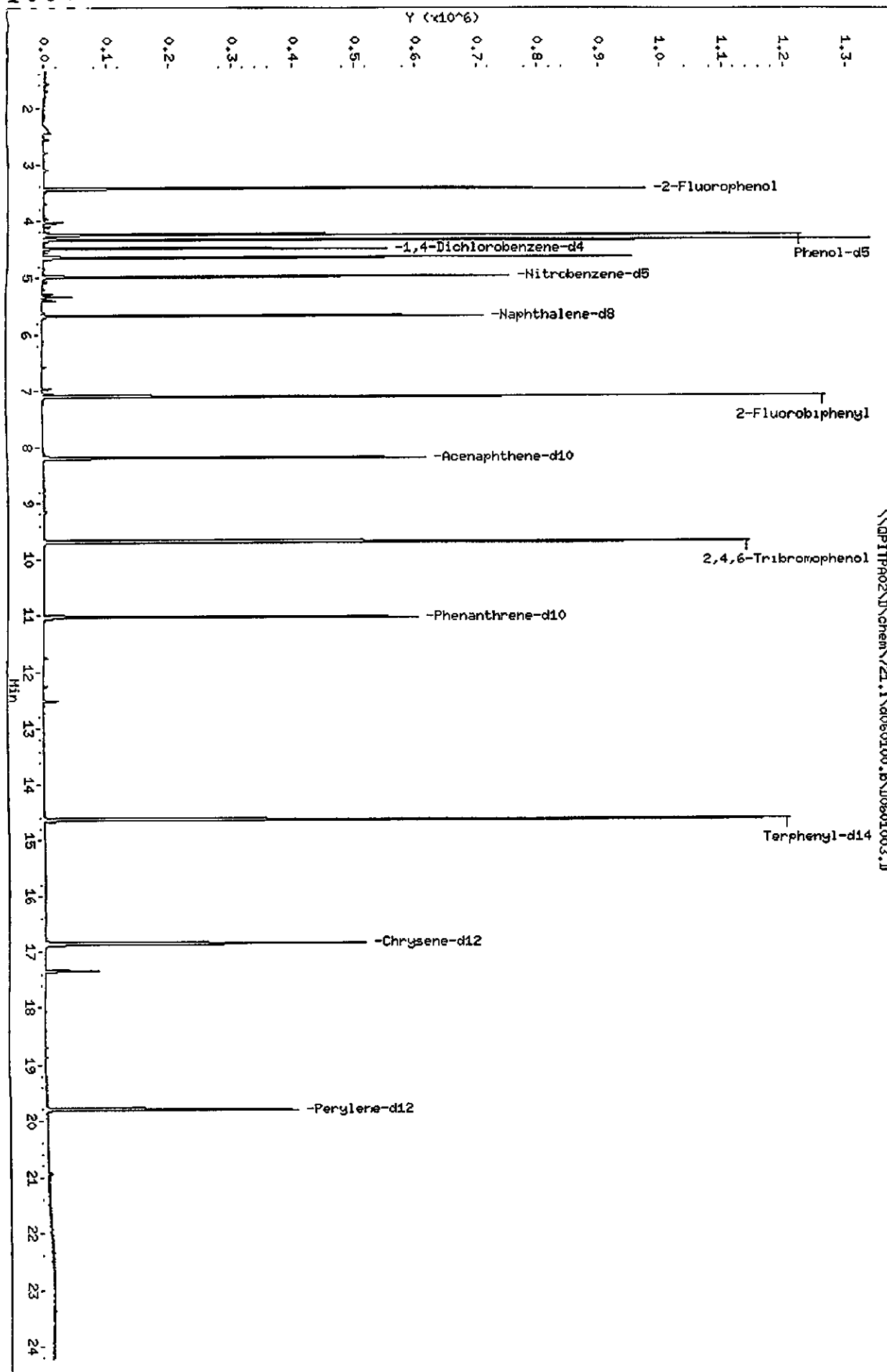
QC Batch: 0151187

Client Sample Id: DF/S1/0143/SDC/002

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
106-46-7	1,4-Dichlorobenzene	0.050	U
121-14-2	2,4-Dinitrotoluene	0.050	U
118-74-1	Hexachlorobenzene	0.050	U
87-68-3	Hexachlorobutadiene	0.050	U
67-72-1	Hexachloroethane	0.050	U
98-95-3	Nitrobenzene	0.050	U
87-86-5	Pentachlorophenol	0.25	U
110-86-1	Pyridine	0.10	U
95-95-4	2,4,5-Trichlorophenol	0.050	U
88-06-2	2,4,6-Trichlorophenol	0.050	U
1319-77-3	Cresols (total)	0.050	U

Data File: \\GPITPA02\\D\\chem\\724.i\\d060100.b\\D0601003.D
Date: 01-JUN-2000 11:35
Client ID: DF/SL/0143/SLC/002
Sample Info: c0e240180-001 tc1p 5/30/00 8270c
Volume Injected (uL): 2.0
Column phase: Hp5-HS

Instrument: 724.i
Operator: 001562, MLF
Column diameter: 0.25



Data File: \\Qpitpa02\D\chem\721.i\d060100.b\D0601003.D
Report Date: 01-Jun-2000 12:07

Page 1

STL Pittsburgh

Semivolatile REPORT SW-846 Method 8270

Data file : \\Qpitpa02\D\chem\721.i\d060100.b\D0601003.D
Lab Smp Id: DDLX3103 Client Smp ID: DF/S1/0143/SDC/002
Inj Date : 01-JUN-2000 11:35
Operator : 001562, DLF Inst ID: 721.i
Smp Info : c0e240180-001 tclp 5/30/00 8270c
Misc Info : ddlx3103,d060100.b,8270c.m,tclp.sub
Comment :
Method : \\Qpitpa02\D\chem\721.i\d060100.b\8270c.m
Meth Date : 01-Jun-2000 10:45 ferguson Quant Type: ISTD
Cal Date : 25-MAY-2000 21:15 Cal File: D0525CC5.D
Als bottle: 5
Dil Factor: 1.00000
Integrator: HP RTE
Target Version: 4.04
Processing Host: PITPC013

ph
6-1-00

Compound Sublist: tclp.sub

Concentration Formula: $\text{Amt} * \text{DF} * \text{Uf} * \text{Vt} / (\text{Vo} * \text{Vi})$

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.001	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	200.000	Volume of sample extracted (mL)
Vi	2.000	Volume injected (uL)

Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (NG)	FINAL (mg/L)
* 1 1,4-Dichlorobenzene-d4	152	4.484	4.482 (1.000)	89244	40.0000	(aQ)		
* 2 Naphthalene-d8	136	5.673	5.678 (1.000)	344494	40.0000	(a)		
* 3 Acenaphthene-d10	164	8.186	8.191 (1.000)	195990	40.0000	(a)		
* 4 Phenanthrene-d10	188	11.035	11.040 (1.000)	389034	40.0000	(a)		
* 5 Chrysene-d12	240	16.847	16.859 (1.000)	332733	40.0000	(a)		
* 6 Perylene-d12	264	19.804	19.809 (1.000)	292278	40.0000	(a)		
9 Pyridine	79	Compound Not Detected.						
27 1,4-Dichlorobenzene	146	Compound Not Detected.						
M 195 Cresols, total	100	Compound Not Detected.						
30 2-Methylphenol	108	Compound Not Detected.						
192 4-Methylphenol	108	Compound Not Detected.						
34 Hexachloroethane	117	Compound Not Detected.						
35 Nitrobenzene	77	Compound Not Detected.						
56 Hexachlorobutadiene	224	Compound Not Detected.						

6581068

Data File: \\Qpitpa02\D\chem\721.i\d060100.b\D0601003.D
Report Date: 01-Jun-2000 12:07

Page 2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (NG)	FINAL (mg/L)
=====	====	==	=====	=====	=====	=====	=====
66 2,4,6-Trichlorophenol	196				Compound Not Detected		
67 2,4,5-Trichlorophenol	196				Compound Not Detected.		
87 2,4-Dinitrotoluene	165				Compound Not Detected.		
107 Hexachlorobenzene	283				Compound Not Detected.		
111 Pentachlorophenol	265				Compound Not Detected.		
\$ 154 Nitrobenzene-d5	82	4.988	4.986	(0.879)	252406	74 1595	0.18540(a)
\$ 155 2-Fluorobiphenyl	172	7.098	7.103	(0.867)	483811	73.4186	0.18355(a)
\$ 156 Terphenyl-d14	244	14.637	14.628	(0.869)	768528	96 6142	0.24154(a)
\$ 157 Phenol-d5	99	4.242	4.240	(0.946)	348661	117.187	0.29297(a)
\$ 158 2-Fluorophenol	112	3.436	3.427	(0.766)	270961	100.346	0.25086(a)
\$ 159 2,4,6-Tribromophenol	330	9.685	9.689	(0.878)	220172	133 850	0.33462(a)

QC Flag Legend

- a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

UXB INTERNATIONAL

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0E240180 002

Method: SW846 8270C

Base/Neutrals and Acids (8270C)

Sample WT/Vol: 200 / mL

Date Received: 05/24/00

Work Order: DDLX6103

Date Extracted: 05/30/00

Dilution factor: 1

Date Analyzed: 06/01/00

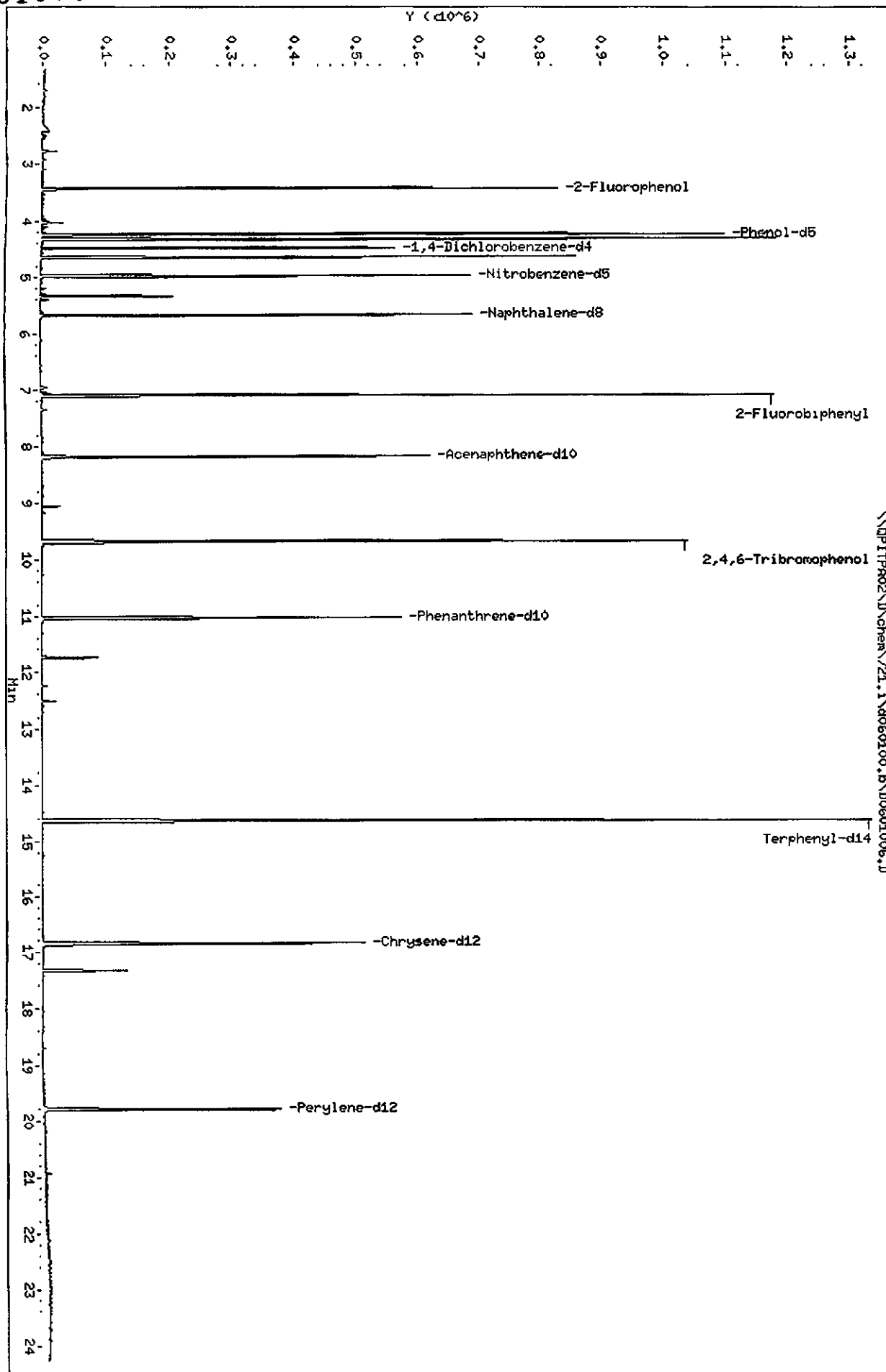
QC Batch: 0151187

Client Sample Id: DF/S1/0143/SDC/003

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
106-46-7	1,4-Dichlorobenzene	0.050	U
121-14-2	2,4-Dinitrotoluene	0.050	U
118-74-1	Hexachlorobenzene	0.050	U
87-68-3	Hexachlorobutadiene	0.050	U
67-72-1	Hexachloroethane	0.050	U
98-95-3	Nitrobenzene	0.050	U
87-86-5	Pentachlorophenol	0.25	U
110-86-1	Pyridine	0.10	U
95-95-4	2,4,5-Trichlorophenol	0.050	U
88-06-2	2,4,6-Trichlorophenol	0.050	U
1319-77-3	Cresols (total)	0.050	U

Data File: \\NPITPA02\chem\724.1\060100.b\0601006.D
Date: 01-JUN-2000 13:06
Client ID: DF/SI/0143/SDC/003
Sample Info: 00240180-002 to 1p 5/30/00 8270c
Volume Injected (uL): 2.0
Column phase: Hp5-MS

Instrument: 724.1
Operator: 001562, DLF
Column diameter: 0.25



Data File: \\Qpitpa02\D\chem\721.i\d060100.b\D0601006.D
Report Date: 01-Jun-2000 13:46

STL Pittsburgh

Semivolatile REPORT SW-846 Method 8270

Data file : \\Qpitpa02\D\chem\721.i\d060100.b\D0601006.D
Lab Smp Id: DDLX6103 Client Smp ID: DF/S1/0143/SDC/003
Inj Date : 01-JUN-2000 13:06
Operator : 001562, DLF Inst ID: 721.i
Smp Info : c0e240180-002 tclp 5/30/00 8270c
Misc Info : ddlx6103,d060100.b,8270c.m,tclp.sub
Comment :
Method : \\Qpitpa02\D\chem\721.i\d060100.b\8270c.m
Meth Date : 01-Jun-2000 10:45 ferguson Quant Type: ISTD
Cal Date : 25-MAY-2000 21:15 Cal File: D0525CC5.D
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE
Target Version: 4.04
Processing Host: PITPC013

ALZ
6-1-00

Compound Sublist: tclp.sub

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi)

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.001	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	200.000	Volume of sample extracted (mL)
Vi	2.000	Volume injected (uL)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (NG)	FINAL (mg/L)
* 1 1,4-Dichlorobenzene-d4	152	4.484	4.482	(1.000)	85818	40.0000	(aQ)
* 2 Naphthalene-d8	136	5.674	5.678	(1.000)	334788	40.0000	(a)
* 3 Acenaphthene-d10	164	8.187	8.191	(1.000)	187939	40.0000	(a)
* 4 Phenanthrene-d10	188	11.036	11.040	(1.000)	376219	40.0000	(a)
* 5 Chrysene-d12	240	16.848	16.859	(1.000)	322473	40.0000	(a)
* 6 Perylene-d12	264	19.798	19.809	(1.000)	278952	40.0000	(a)
9 Pyridine	79	Compound Not Detected					
27 1,4-Dichlorobenzene	146	Compound Not Detected.					
M 195 Cresols, total	100	Compound Not Detected.					
30 2-Methylphenol	108	Compound Not Detected					
192 4-Methylphenol	108	Compound Not Detected					
34 Hexachloroethane	117	Compound Not Detected.					
35 Nitrobenzene	77	Compound Not Detected					
56 Hexachlorobutadiene	224	Compound Not Detected '					

6581072

Data File: \\Qpitpa02\D\chem\721.i\d060100.b\D0601006.D
Report Date: 01-Jun-2000 13:46

Page 2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (NG)	FINAL (mg/L)
=====	=====	==	=====	=====	=====	=====	=====
66 2,4,6-Trichlorophenol	196				Compound Not Detected.		
67 2,4,5-Trichlorophenol	196				Compound Not Detected.		
87 2,4-Dinitrotoluene	165				Compound Not Detected.		
107 Hexachlorobenzene	283				Compound Not Detected.		
111 Pentachlorophenol	265				Compound Not Detected.		
\$ 154 Nitrobenzene-d5	82	4.982	4.986	(0.878)	228122	68.9678	0.17242(a)
\$ 155 2-Fluorobiphenyl	172	7.098	7.103	(0.867)	438018	69.3170	0.17329(a)
\$ 156 Terphenyl-d14	244	14.637	14.628	(0.869)	807743	104.775	0.26194(a)
\$ 157 Phenol-d5	99	4.243	4.240	(0.946)	305920	106.927	0.26732(a)
\$ 158 2-Fluorophenol	112	3.436	3.427	(0.766)	232274	89.4525	0.22363(a)
\$ 159 2,4,6-Tribromophenol	330	9.685	9.689	(0.878)	201022	126.370	0.31592(a)

QC Flag Legend

- a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

**GC/MS SEMIVOLATILE
CALIBRATION DATA**

Lab Name: STL PITTSBURGH

Contract:

Lab Code: STL PIT

Case No.:

SAS No.:

SDG No.:

Instrument ID: 721

Calibration Date(s): 05/25/00

Min $\overline{RRF}$ for SPCC(#) = 0.050

Max %RSD for CCC(*) = 30.0%

LAB FILE ID:		RRF1	=D0525CC1.D	RRF2	=D0525CC2.D			
RRF3		=D0525CC3.D	RRF4	=D0525CC4.D	RRF5	=D0525CC5.D		
COMPOUND		RRF1	RRF2	RRF3	RRF4	RRF5	$\overline{RRF}$	% RSD
Phenol	*	1.505	1.502	1.503	1.431	1.409	1.470	3.2*
bis(2-Chloroethyl) ether		1.119	1.126	1.110	1.070	1.060	1.097	2.7
2-Chlorophenol		1.415	1.481	1.441	1.402	1.381	1.424	2.7
1,3-Dichlorobenzene		1.504	1.564	1.553	1.506	1.492	1.524	2.1
1,4-Dichlorobenzene	*	1.571	1.605	1.585	1.528	1.540	1.566	2.0*
1,2-Dichlorobenzene		1.455	1.482	1.493	1.454	1.466	1.470	1.2
2-Methylphenol		1.020	1.055	1.048	1.009	0.989	1.024	2.7
2,2'-oxybis(1-Chloropropane		1.286	1.297	1.281	1.211	1.184	1.252	4.1
4-Methylphenol		1.075	1.114	1.113	1.073	1.079	1.091	1.9
Hexachloroethane		0.708	0.730	0.724	0.682	0.690	0.707	3.0
Nitrobenzene		0.391	0.404	0.409	0.400	0.402	0.401	1.6
Isophorone		0.614	0.634	0.635	0.622	0.646	0.630	1.9
2-Nitrophenol	*	0.219	0.229	0.232	0.222	0.229	0.226	2.3*
2,4-Dimethylphenol		0.346	0.375	0.375	0.367	0.379	0.368	3.6
bis(2-Chloroethoxy)methane		0.357	0.360	0.366	0.353	0.359	0.359	1.3
N-Nitroso-di-n-propylamine	#	0.816	0.867	0.871	0.825	0.821	0.840	3.2#
2,4-Dichlorophenol	*	0.295	0.310	0.303	0.296	0.306	0.302	2.1*
1,2,4-Trichlorobenzene		0.344	0.356	0.353	0.350	0.357	0.352	1.5
Naphthalene		1.038	1.060	1.080	1.062	1.089	1.066	1.9
4-Chloroaniline		0.419	0.439	0.433	0.415	0.423	0.426	2.4
Hexachlorobutadiene	*	0.232	0.240	0.246	0.243	0.253	0.243	3.0*
4-Chloro-3-Methylphenol		0.296	0.303	0.307	0.296	0.303	0.301	1.6
2-Methylnaphthalene		0.629	0.660	0.666	0.653	0.662	0.654	2.3
Hexachlorocyclopentadiene	#	0.559	0.571	0.584	0.594	0.608	0.583	3.3#
2,4,6-Trichlorophenol	*	0.446	0.450	0.451	0.452	0.464	0.453	1.5*
2,4,5-Trichlorophenol		0.475	0.486	0.467	0.471	0.482	0.476	1.6
2-Chloronaphthalene		1.202	1.221	1.229	1.229	1.256	1.227	1.6
2-Nitroaniline		0.413	0.413	0.420	0.418	0.416	0.416	0.7
Dimethylphthalate		1.434	1.468	1.472	1.460	1.459	1.459	1.0
Acenaphthylene		1.812	1.823	1.822	1.797	1.821	1.815	0.6
2,6-Dinitrotoluene		0.341	0.346	0.350	0.342	0.355	0.347	1.8
3-Nitroaniline		0.359	0.374	0.379	0.382	0.385	0.376	2.7
Acenaphthene	*	1.106	1.131	1.137	1.135	1.158	1.133	1.6*
2,4-Dinitrophenol	#	0.226	0.258	0.265	0.275	0.279	0.261	8.0#
4-Nitrophenol	#	0.290	0.305	0.309	0.314	0.328	0.309	4.4#
Dibenzofuran		1.615	1.665	1.687	1.655	1.684	1.661	1.7
2,4-Dinitrotoluene		0.439	0.456	0.462	0.460	0.462	0.456	2.1

6C
SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

6581075

Lab Name: STL PITTSBURGH

Contract:

Lab Code: STL PIT

Case No.:

SAS No.:

SDG No.: _

Instrument ID: 721

Calibration Date(s): 05/25/00

Min $\overline{RRF}$ for SPCC(#) = 0.050

Max %RSD for CCC(*) = 30.0%

LAB FILE ID:		RRF1	=D0525CC1.D	RRF2	=D0525CC2.D		
RRF3		=D0525CC3.D	RRF4	=D0525CC4.D	RRF5	=D0525CC5.D	
COMPOUND	RRF1	RRF2	RRF3	RRF4	RRF5	RRF	% RSD
Diethylphthalate	1.537	1.573	1.576	1.612	1.645	1.589	2.6
4-Chlorophenyl-phenylether	0.671	0.685	0.701	0.698	0.717	0.694	2.5
Fluorene	1.275	1.305	1.313	1.325	1.340	1.312	1.9
4-Nitroaniline	0.336	0.358	0.356	0.361	0.366	0.355	3.3
4,6-Dinitro-2-methylphenol	0.158	0.179	0.181	0.190	0.190	0.180	7.4
N-Nitrosodiphenylamine (1) *	0.509	0.516	0.509	0.536	0.531	0.520	2.4*
4-Bromophenyl-phenylether	0.217	0.229	0.234	0.239	0.239	0.232	4.0
Hexachlorobenzene	0.274	0.289	0.294	0.293	0.293	0.289	2.8
Pentachlorophenol *	0.164	0.188	0.191	0.196	0.197	0.187	7.3*
Phenanthrene	0.946	0.992	1.005	0.999	0.998	0.988	2.4
Anthracene	0.970	1.014	1.012	1.017	1.018	1.006	2.0
Carbazole	0.851	0.900	0.900	0.912	0.913	0.895	2.8
Di-n-Butylphthalate	1.294	1.384	1.391	1.380	1.401	1.370	3.1
Fluoranthene *	0.983	1.057	1.071	1.082	1.095	1.058	4.2*
Pyrene	1.221	1.242	1.266	1.218	1.200	1.229	2.1
Butylbenzylphthalate	0.657	0.680	0.694	0.660	0.657	0.670	2.5
3,3'-Dichlorobenzidine	0.424	0.449	0.466	0.467	0.472	0.456	4.3
Benzo (a) Anthracene	1.039	1.080	1.114	1.087	1.095	1.083	2.6
Chrysene	0.995	1.030	1.054	1.032	1.047	1.032	2.2
bis(2-ethylhexyl) Phthalate	0.902	0.966	0.982	0.954	0.946	0.950	3.2
Di-n-octylphthalate *	1.719	1.801	1.833	1.752	1.718	1.765	2.9*
Benzo (b) fluoranthene	1.134	1.207	1.211	1.408	1.478	1.288	11.4
Benzo (k) fluoranthene	1.196	1.229	1.327	1.148	1.094	1.199	7.3
Benzo (a) pyrene *	1.020	1.102	1.135	1.133	1.148	1.108	4.7*
Indeno (1,2,3-cd) pyrene	0.994	1.112	1.188	1.245	1.302	1.168	10.3
Dibenz (a,h) anthracene	1.047	1.174	1.244	1.287	1.366	1.224	9.9
Benzo (g,h,i) perylene	1.035	1.165	1.229	1.266	1.341	1.207	9.5
Pyridine	1.182	1.119	1.131	1.108	1.084	1.125	3.2
N-Nitrosodimethylamine	0.667	0.668	0.685	0.652	0.640	0.662	2.6
Aniline	1.666	1.665	1.720	1.651	1.646	1.670	1.8
Benzyl Alcohol	0.770	0.787	0.790	0.757	0.772	0.775	1.7
Benzoic Acid	0.217	0.242	0.248	0.226	0.267	0.240	8.1
1-Methylnaphthalene	0.606	0.607	0.604	0.600	0.610	0.605	0.7
2,3,4,6-Tetrachlorophenol	0.381	0.387	0.402	0.396	0.419	0.397	3.8
2,3,5,6-Tetrachlorophenol	0.386	0.389	0.403	0.406	0.412	0.399	2.8

6C
SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Contract :

SDG No. :

Calibration Date(s): 05/25/00

Max %RSD for CCC(*) = 30.0%

2024

INITIAL CALIBRATION REPORT

Instrument ID: 721.i
Lab File ID: D0525CC5.D
Analysis Type: NONE

Injection Date: 25-MAY-2000 21:15
Lab Sample ID: sstd160
Method File: \\QPITPA02\D\chem\721.i\d052500.b

COMPOUND	%RSD
Benzo(b)fluoranthene	11.4
Benzo(k)fluoranthene	7.3
7,12-dimethylbenz(a)anthracene	6.9
Benzo(a)pyrene	4.7
Indeno(1,2,3-cd)pyrene	10.3
Dibenz(a,h)anthracene	9.9
Benzo(g,h,i)perylene	9.5

The average of all %RSD's in the initial calibration is 3.4

6581078

Data File: \\QPITPA02\D\chem\721.i\d052500.b/D0525CC5.D

Report Date: 05/25/2000

INITIAL CALIBRATION REPORT

Instrument ID: 721.i
 Lab File ID: D0525CC5.D
 Analysis Type: NONE

Injection Date: 25-MAY-2000 21:15
 Lab Sample ID: sstd160
 Method File: \\QPITPA02\D\chem\721.i\d052500.b

COMPOUND	%RSD
Pyridine	3.2
N-Nitrosodimethylamine	2.6
Methyl methanesulfonate	3.3
2-Fluorophenol	3.0
Phenol-d5	2.7
Phenol	3.2
Aniline	1.8
bis(2-Chloroethyl) ether	2.7
2-Chlorophenol-d4	1.9
2-Chlorophenol	2.7
1,3-Dichlorobenzene	2.1
1,4-Dichlorobenzene	2.0
Benzyl Alcohol	1.7
1,2-Dichlorobenzene-d4	1.8
1,2-Dichlorobenzene	1.2
2-Methylphenol	2.7
2,2'-oxybis(1-Chloropropane)	4.1
4-Methylphenol	1.9
N-Nitroso-di-n-propylamine	3.2
Hexachloroethane	3.0
Nitrobenzene-d5	2.5
Nitrobenzene	1.6
Isophorone	1.9
2-Nitrophenol	2.3
2,4-Dimethylphenol	3.6
bis(2-Chloroethoxy) methane	1.3
2,4-Dichlorophenol	2.1
Benzoic Acid	8.1
1,2,4-Trichlorobenzene	1.5
Naphthalene	1.9
4-Chloroaniline	2.4
Hexachlorobutadiene	3.0
4-Chloro-3-Methylphenol	1.6
2-Methylnaphthalene	2.3
1-Methylnaphthalene	0.7
Hexachlorocyclopentadiene	3.3
2,4,6-Trichlorophenol	1.5
2,4,5-Trichlorophenol	1.6
2-Fluorobiphenyl	1.9

INITIAL CALIBRATION REPORT

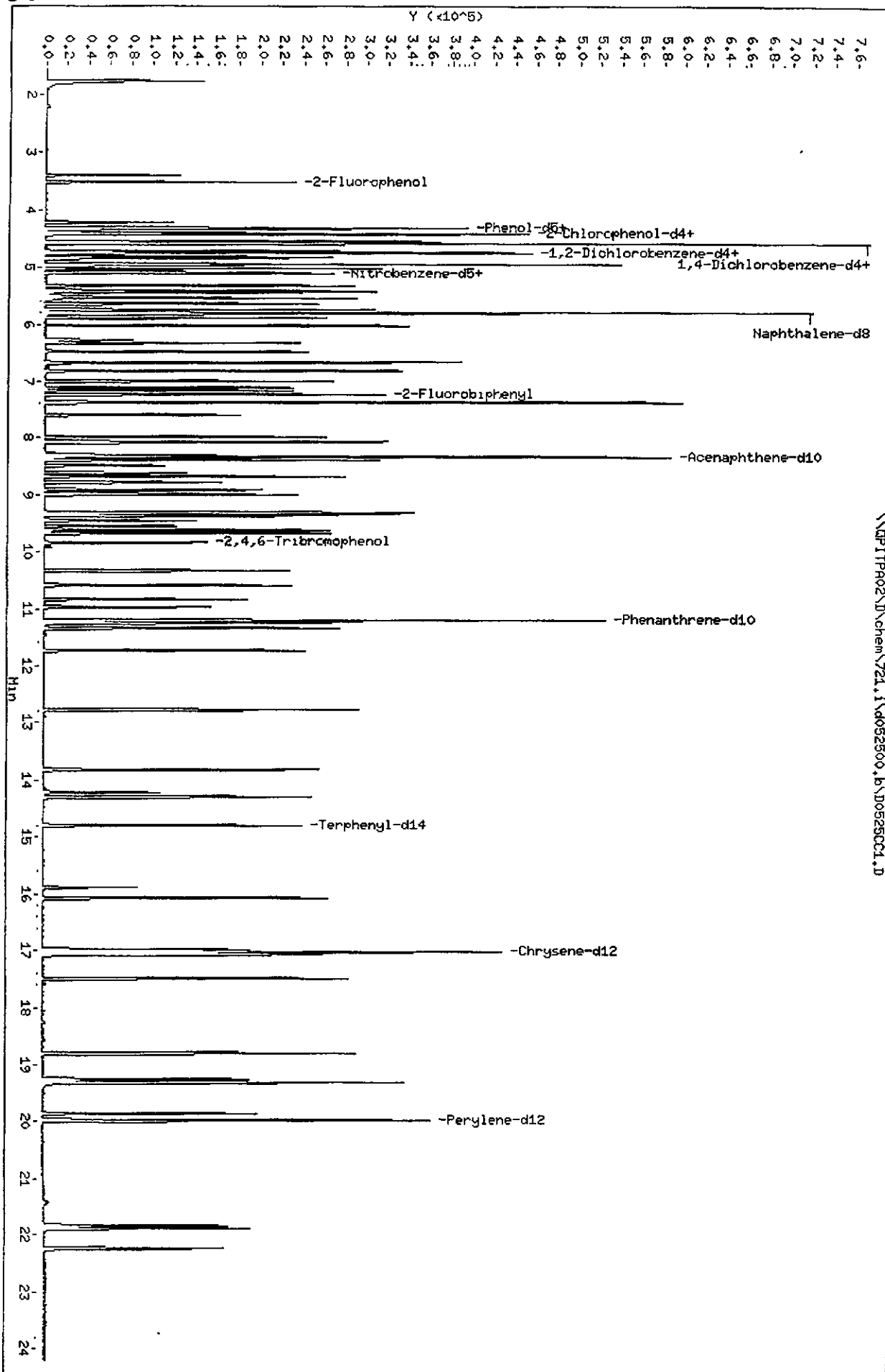
Instrument ID: 721.i
 Lab File ID: D0525CC5.D
 Analysis Type: NONE

Injection Date: 25-MAY-2000 21:15
 Lab Sample ID: sstd160
 Method File: \\QPITPA02\D\chem\721.i\d052500.b

COMPOUND	%RSD
2-Chloronaphthalene	1.6
2-Nitroaniline	0.7
Dimethylphthalate	1.0
Acenaphthylene	0.6
2,6-Dinitrotoluene	1.8
3-Nitroaniline	2.7
Acenaphthene	1.6
2,4-Dinitrophenol	8.0
4-Nitrophenol	4.4
Dibenzofuran	1.7
2,4-Dinitrotoluene	2.1
2,3,5,6-Tetrachlorophenol	2.8
2-Naphthylamine	13.1
2,3,4,6-Tetrachlorophenol	3.8
Diethylphthalate	2.6
Fluorene	1.9
4-Chlorophenyl-phenylether	2.5
4-Nitroaniline	3.3
4,6-Dinitro-2-methylphenol	7.4
N-Nitrosodiphenylamine (1)	2.4
1,2-Diphenylhydrazine	3.5
2,4,6-Tribromophenol	7.2
4-Bromophenyl-phenylether	4.0
Hexachlorobenzene	2.8
Pentachlorophenol	7.3
Phenanthrene	2.4
Anthracene	2.0
Carbazole	2.8
Di-n-Butylphthalate	3.1
Fluoranthene	4.2
Benzidine	4.7
Pyrene	2.1
Terphenyl-d14	2.7
Butylbenzylphthalate	2.5
Benzo(a)Anthracene	2.6
3,3'-Dichlorobenzidine	4.3
Chrysene	2.2
bis(2-ethylhexyl)Phthalate	3.2
Di-n-octylphthalate	2.9

Data File: \\QPI1P002\chem\721.1\4052500.b\00525001.D
Date: 25-MAY-2000 19:15
Client ID: SST020
Sample Info: sst020 (10UG/ML) 194-175-10 8270/c1p/625
Column phase: HP5-MS

Instrument: 721.1
Operator: 001562, DLF
Column diameter: 0.25



STL Pittsburgh

Semivolatile REPORT SW-846 Method 8270
Data file : \\QPITPA02\D\chem\721.i\d052500.b\D0525CC1.D
Lab Smp Id: sstd20 Client Smp ID: SSTD020
Inj Date : 25-MAY-2000 19:15
Operator : 001562, DLF Inst ID: 721.i
Smp Info : sstd020 (10UG/ML) 194-175-10 8270/clp/625
Misc Info : sstd20,d052500.b,8270c.m,3-root.sub,1,1
Comment :
Method : \\QPITPA02\D\chem\721.i\d052500.b\8270c.m
Meth Date : 25-May-2000 21:25 ferguson Quant Type: ISTD
Cal Date : 25-MAY-2000 20:45 Cal File: D0525CC4.D
Als bottle: 2 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 3-root.sub
Target Version: 4.03
Processing Host: PITPC013

Ww
5/25/00

Compounds	QUANT SIG						AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE		CAL-AMT	ON-COL
							(NG)	(NG)
* 1 1,4-Dichlorobenzene-d4	152	4.582	4.582	(1.000)	112066	40	0000	
* 2 Naphthalene-d8	136	5.799	5.799	(1.000)	394224	40	0000	
* 3 Acenaphthene-d10	164	8.345	8.345	(1.000)	194720	40	0000	
* 4 Phenanthrene-d10	188	11.208	11.208	(1.000)	358848	40	0000	
* 5 Chrysene-d12	240	17.033	17.033	(1.000)	293994	40	0000	
* 6 Perylene-d12	264	19.983	19.983	(1.000)	258675	40	0000	
10 N-Nitrosodimethylamine	74	1.760	1.760	(0.384)	37373	20	0000	21.352
9 Pyridine	79	1.760	1.760	(0.384)	66222	20.0000		22.184
16 Methyl methanesulfonate	80	3.393	3.393	(0.740)	54773	20	0000	20.260
21 Aniline	93	4.347	4.347	(0.949)	93371	20.0000		19.679
22 Phenol	94	4.327	4.327	(0.944)	84335	20.0000		20.268
23 bis(2-Chloroethyl)ether	93	4.394	4.394	(0.959)	62720	20.0000		19.815
24 2-Chlorophenol	128	4.435	4.435	(0.968)	79271	20	0000	19.847
26 1,3-Dichlorobenzene	146	4.549	4.549	(0.993)	84303	20.0000		19.781
27 1,4-Dichlorobenzene	146	4.596	4.596	(1.003)	88051	20.0000		20.106
28 1,2-Dichlorobenzene	146	4.757	4.757	(1.038)	81516	20.0000		19.823
29 Benzyl Alcohol	108	4.717	4.717	(1.029)	43171	20	0000	19.172
30 2-Methylphenol	108	4.824	4.824	(1.053)	57166	20	0000	19.256
31 2,2'-oxybis(1-Chloropropane)	45	4.851	4.851	(1.059)	72079	20.0000		20.720
32 N-Nitroso-di-n-propylamine	70	4.979	4.979	(1.087)	45707	20.0000		19.487
192 4-Methylphenol	108	4.945	4.945	(1.079)	60227	20.0000		19.046
34 Hexachloroethane	117	5.026	5.026	(1.097)	39663	20.0000		19.982
35 Nitrobenzene	77	5.106	5.106	(0.881)	77020	20	0000	19.881
41 Isophorone	82	5.328	5.328	(0.919)	121112	20	0000	19.434
42 2-Nitrophenol	139	5.416	5.416	(0.934)	43219	20	0000	19.604
43 2,4-Dimethylphenol	107	5.442	5.442	(0.939)	68182	20	0000	18.385

Compounds	QUANT SIG				RESPONSE	AMOUNTS	
	MASS	RT	EXP RT	REL RT		CAL-AMT (NG)	ON-COL (NG)
=====	====	==	=====	=====	=====	=====	=====
44 bis(2-Chloroethoxy)methane	93	5.550	5.550	(0.957)	70387	20.0000	19.730
48 2,4-Dichlorophenol	162	5.651	5.651	(0.975)	58078	20.0000	19.130
49 Benzoic Acid	122	5.550	5.550	(0.957)	42822	20.0000	19.523 (H)
50 1,2,4-Trichlorobenzene	180	5.752	5.752	(0.992)	67725	20.0000	19.242
51 Naphthalene	128	5.819	5.819	(1.003)	204602	20.0000	19.651
52 4-Chloroaniline	127	5.893	5.893	(1.016)	82605	20.0000	19.475
56 Hexachlorobutadiene	225	6.027	6.027	(1.039)	45829	20.0000	19.272
59 4-Chloro-3-Methylphenol	107	6.484	6.484	(1.118)	58377	20.0000	19.113
62 2-Methylnaphthalene	142	6.672	6.672	(1.151)	123983	20.0000	19.319
63 1-Methylnaphthalene	142	6.827	6.827	(1.177)	119521	20.0000	19.833
64 Hexachlorocyclopentadiene	237	7.001	7.001	(0.839)	54391	20.0000	20.210
66 2,4,6-Trichlorophenol	196	7.116	7.116	(0.853)	43375	20.0000	20.155
67 2,4,5-Trichlorophenol	196	7.169	7.169	(0.859)	46230	20.0000	20.168
70 2-Chloronaphthalene	162	7.384	7.384	(0.885)	117038	20.0000	19.849
73 2-Nitroaniline	65	7.599	7.599	(0.911)	40209	20.0000	20.225
76 Dimethylphthalate	163	7.982	7.982	(0.957)	139636	20.0000	19.697
78 2,6-Dinitrotoluene	165	8.090	8.090	(0.969)	33168	20.0000	19.673
79 Acenaphthylene	152	8.070	8.070	(0.967)	176393	20.0000	20.281 (Q)
81 3-Nitroaniline	138	8.312	8.312	(0.996)	34940	20.0000	19.411
82 Acenaphthene	153	8.399	8.399	(1.006)	107685	20.0000	19.828
83 2,4-Dinitrophenol	184	8.493	8.493	(1.018)	22043	20.0000	17.926
85 4-Nitrophenol	109	8.627	8.627	(1.034)	28289	20.0000	19.700
86 Dibenzofuran	168	8.688	8.688	(1.041)	157255	20.0000	19.537
87 2,4-Dinitrotoluene	165	8.789	8.789	(1.053)	42760	20.0000	19.030
91 2,3,5,6-Tetrachlorophenol	232	8.916	8.916	(1.068)	37568	20.0000	20.123
88 2,3,4,6-Tetrachlorophenol	232	9.004	9.004	(1.079)	37062	20.0000	19.946
92 2-Naphthylamine	143	8.977	8.977	(1.076)	97309	20.0000	23.136
93 Diethylphthalate	149	9.313	9.313	(1.116)	149620	20.0000	19.776
94 Fluorene	166	9.333	9.333	(1.118)	124122	20.0000	19.623
95 4-Chlorophenyl-phenylether	204	9.373	9.373	(1.123)	65329	20.0000	19.605
96 4-Nitroaniline	138	9.461	9.461	(1.134)	32732	20.0000	19.065
98 4,6-Dinitro-2-methylphenol	198	9.555	9.555	(0.853)	28282	20.0000	17.833
99 N-Nitrosodiphenylamine (1)	169	9.622	9.622	(0.859)	91356	20.0000	19.620
100 1,2-Diphenylhydrazine	77	9.676	9.676	(0.863)	142863	20.0000	19.421
106 4-Bromophenyl-phenylether	248	10.334	10.334	(0.922)	38879	20.0000	18.904
107 Hexachlorobenzene	284	10.589	10.589	(0.945)	49261	20.0000	19.143
111 Pentachlorophenol	266	10.972	10.972	(0.979)	29372	20.0000	18.766 (Q)
115 Phenanthrene	178	11.255	11.255	(1.004)	169752	20.0000	19.157
116 Anthracene	178	11.342	11.342	(1.012)	174046	20.0000	19.351
119 Carbazole	167	11.725	11.725	(1.046)	152734	20.0000	18.983 (Q)
120 Di-n-Butylphthalate	149	12.773	12.773	(1.140)	232209	20.0000	19.173
123 Fluoranthene	202	13.821	13.821	(1.233)	176328	20.0000	18.855
124 Benzidine	184	14.211	14.211	(0.834)	67616	20.0000	18.584
125 Pyrene	202	14.292	14.292	(0.839)	179486	20.0000	19.975
131 Butylbenzylphthalate	149	16.072	16.072	(0.944)	96519	20.0000	19.711
135 3,3'-Dichlorobenzidine	252	17.060	17.060	(1.002)	62390	20.0000	18.764
136 Benzo(a)Anthracene	228	16.986	16.986	(0.997)	152733	20.0000	19.249

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Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (NG)	ON-COL (NG)
*****	----	--	-----	-----	-----	-----	-----
137 Chrysene	228	17.080	17 080	(1 003)	146226	20 0000	19 422
139 bis(2-ethylhexyl)Phthalate	149	17.497	17 497	(1.027)	132528	20 0000	19 212
140 Di-n-octylphthalate	149	18 807	18.807	(0 941)	222351	20 0000	19 693
141 Benzo(b)fluoranthene	252	19 257	19 257	(0.964)	146666	20.0000	17 531 (H)
142 Benzo(k)fluoranthene	252	19.311	19 311	(0 966)	154708	20.0000	20 475
143 7,12-dimethylbenz[a]anthracen	256	19.324	19 324	(0 967)	66309	20 0000	18 324
146 Benzo(a)pyrene	252	19.862	19 862	(0 994)	131955	20 0000	18 576
149 Indeno(1,2,3-cd)pyrene	276	21 844	21 844	(1.093)	128549	20 0000	16 976 (H)
150 Dibenzo(a,h)anthracene	278	21 891	21 891	(1 095)	135400	20 0000	17 348
151 Benzo(g,h,i)perylene	276	22.247	22 247	(1 113)	133926	20 0000	17 410
\$ 154 Nitrobenzene-d5	82	5 093	5 093	(0 878)	74846	20.0000	19 402
\$ 155 2-Fluorobiphenyl	172	7 237	7 237	(0.867)	127148	20 0000	19 538
\$ 156 Terphenyl-d14	244	14.796	14 796	(0 869)	135906	20.0000	19 406
\$ 157 Phenol-d5	99	4.320	4.320	(0.943)	76275	20.0000	19.932
\$ 158 2-Fluorophenol	112	3 521	3.521	(0.768)	69977	20 0000	20 251
\$ 159 2,4,6-Tribromophenol	330	9 844	9 844	(0 878)	27036	20.0000	18 085
\$ 186 2-Chlorophenol-d4	132	4 421	4.421	(0 965)	72858	20 0000	20 091
\$ 187 1,2-Dichlorobenzene-d4	152	4 744	4 744	(1 035)	50462	20 0000	19 528

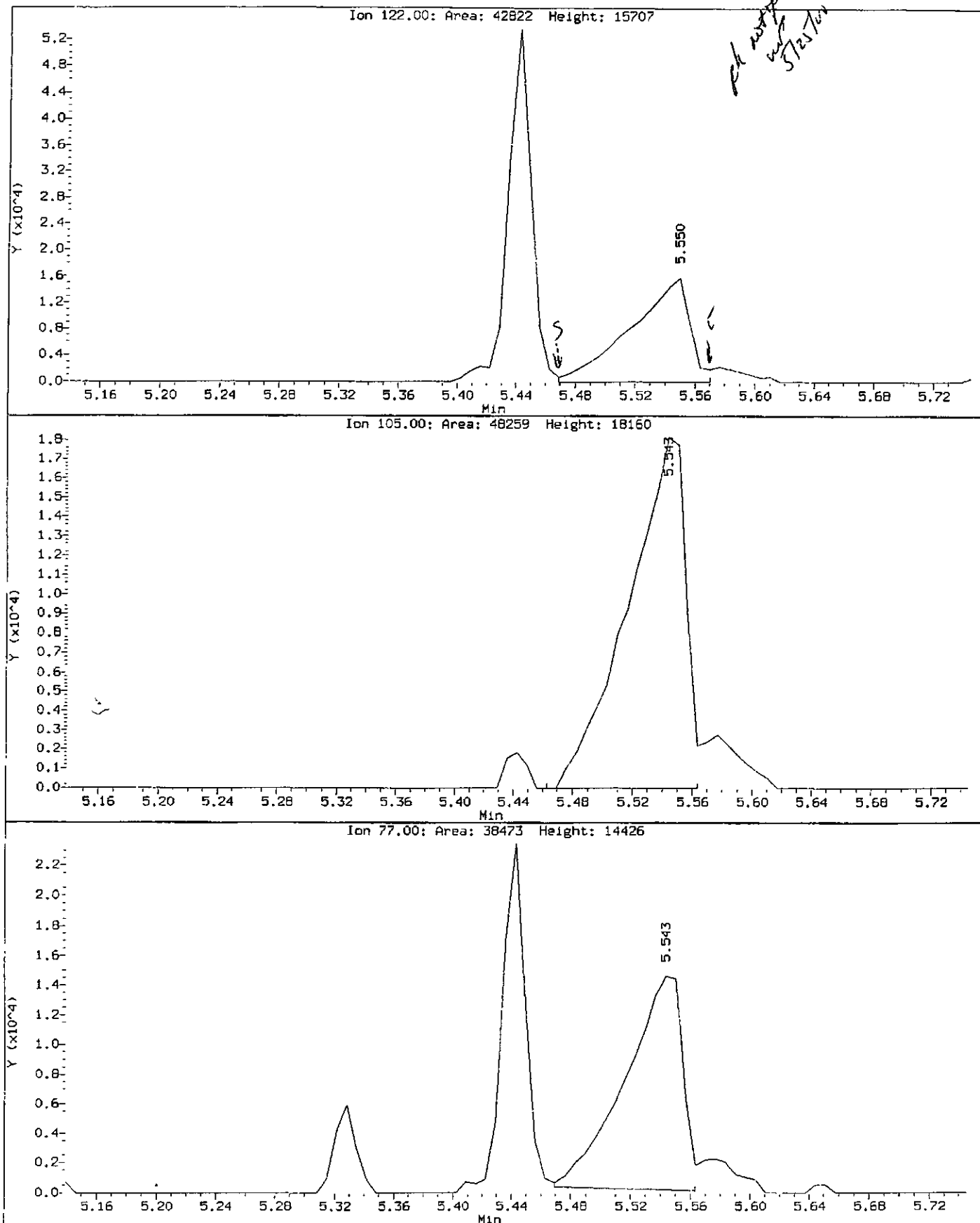
QC Flag Legend

Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

6581084

Data File: \\QPITPA02\B\chem\721.1\052500.b\052500c1.D
Injection Date: 25-MAY-2000 19:15
Instrument: 721.1
Client Sample ID: SST0020

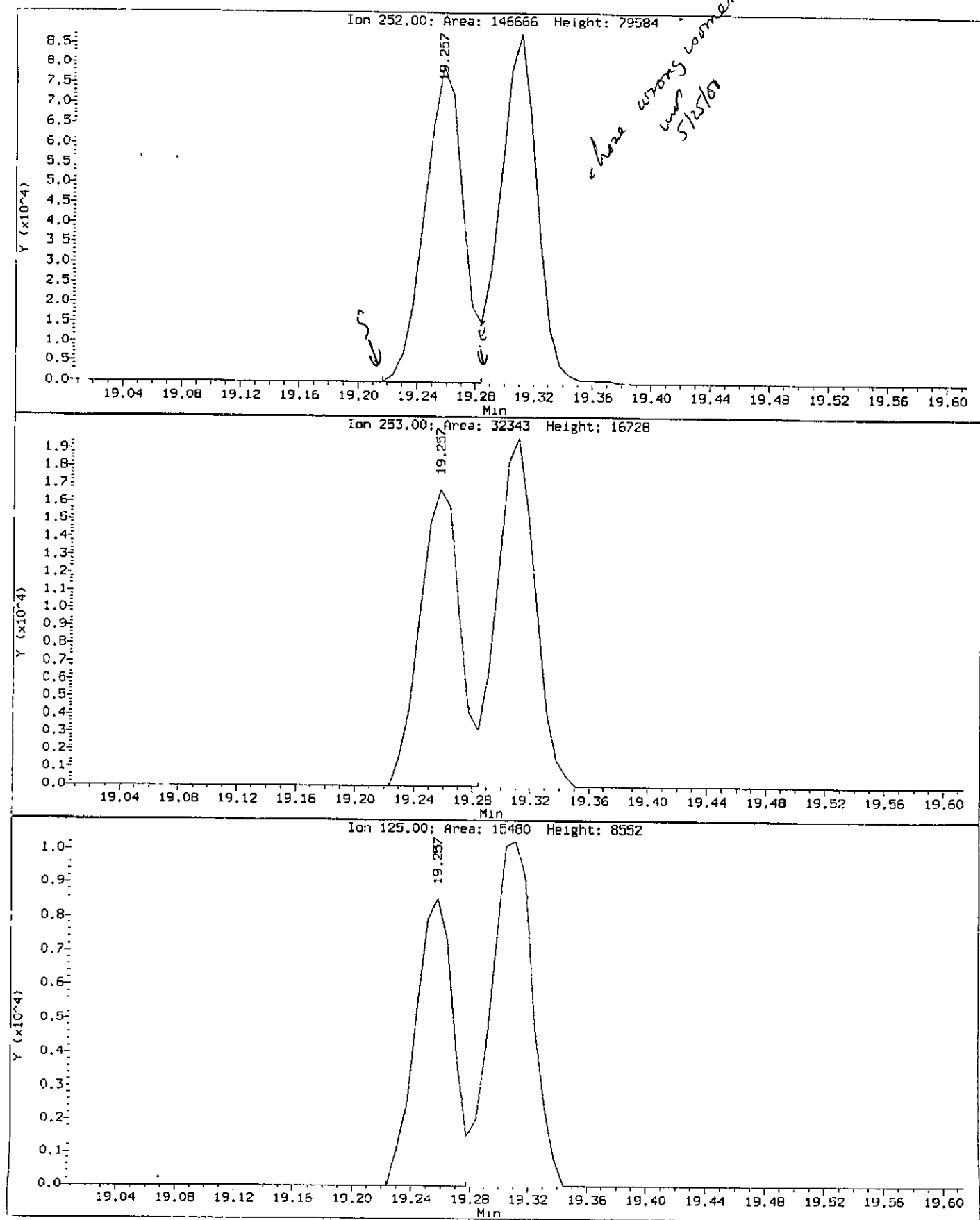
Compound: Benzoic Acid
CAS Number: 65-85-0



Data File: \\QPITPA02\N\chem\721.1\052500.b\0525CC1.D
Injection Date: 25-MAY-2000 19:15
Instrument: 721.1
Client Sample ID: SST020

6581085

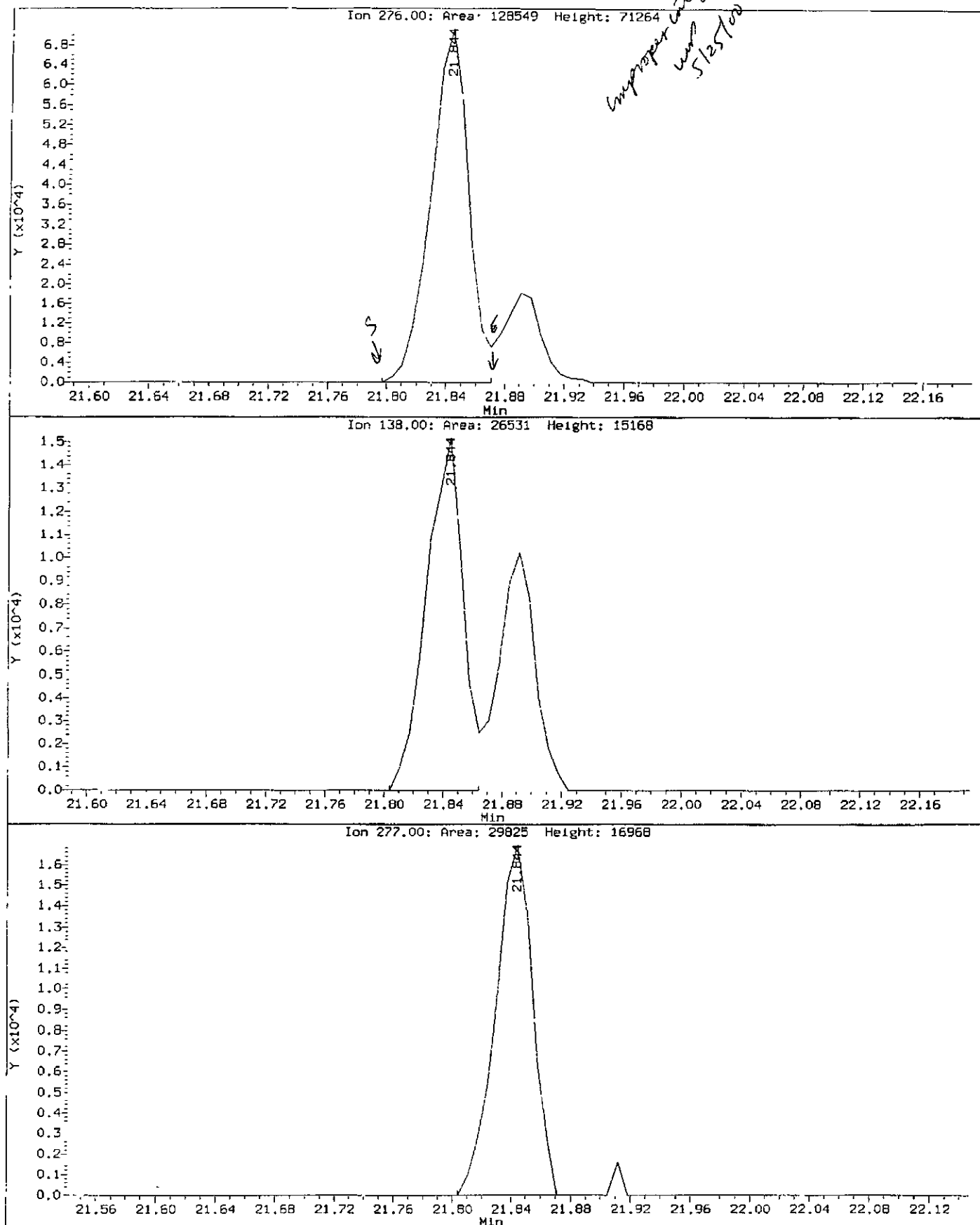
Compound: Benzo(b)fluoranthene
CAS Number: 205-99-2



6581086

Data File: \\QPIITPA02\\D\\chem\\721.i\\d052500.b\\D0525CC1.D
Injection Date: 25-MAY-2000 19:15
Instrument: 721.i
Client Sample ID: SST0020

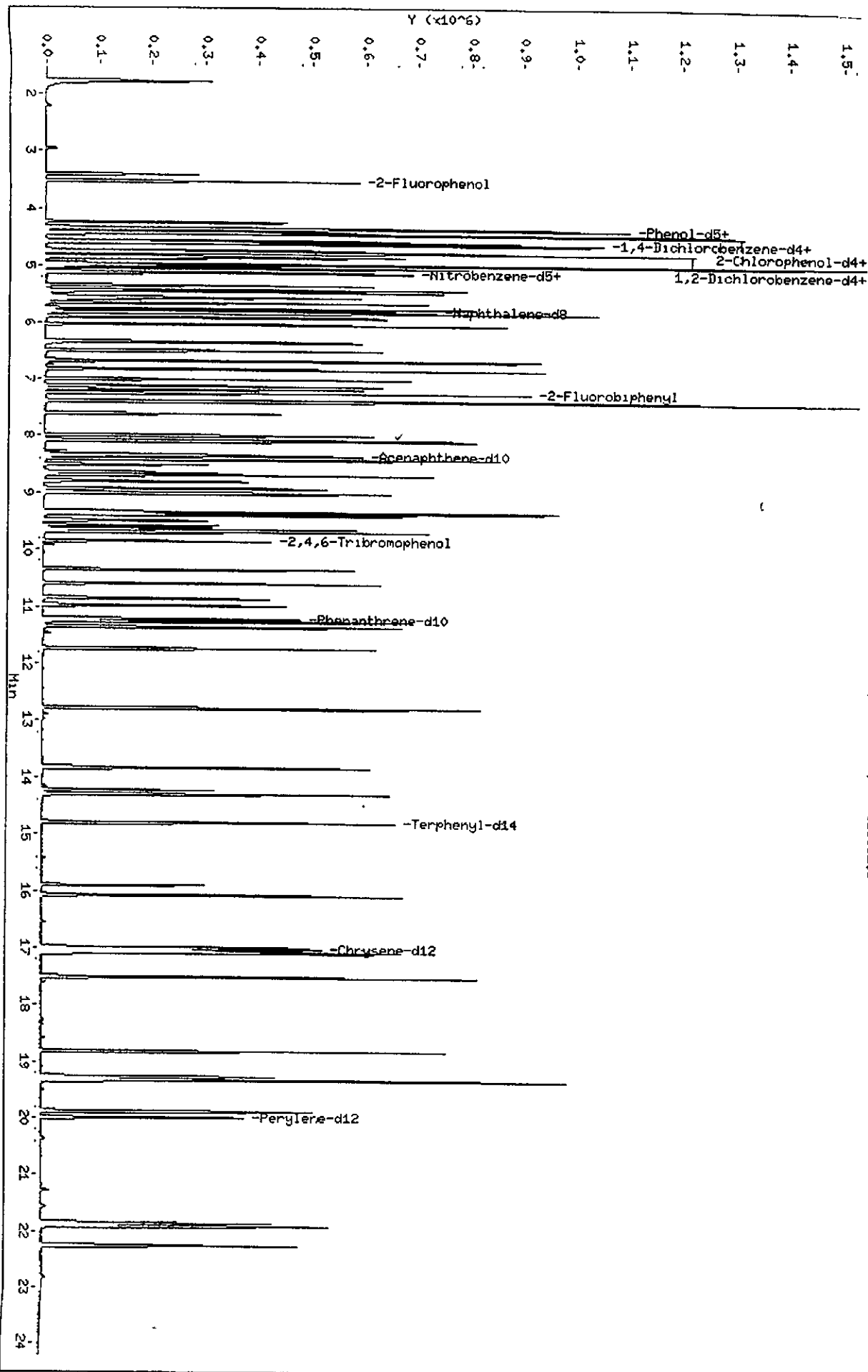
Compound: Indeno(1,2,3-cd)pyrene
CAS Number: 193-39-5



Data File: \\APITPA02\chem\721.1\4052500.b\0525002.D
Date: 25-MAY-2000 19:45
Client ID: SST050
Sample Info: sstd050 (25UG/ML) 194-176-9 8270/c1p/625
Column phase: Hp5-MS

Instrument: 721.1
Operator: 001562, DLF
Column diameter: 0.25

\\APITPA02\chem\721.1\4052500.b\0525002.D



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Data File: \\QPITPA02\D\chem\721.i\d052500.b\D0525CC2.D
 Report Date: 25-May-2000 21:26

Page 1

STL Pittsburgh

Semivolatile REPORT SW-846 Method 8270

Data file : \\QPITPA02\D\chem\721.i\d052500.b\D0525CC2.D
 Lab Smp Id: sstd50 Client Smp ID: SSTDO50
 Inj Date : 25-MAY-2000 19:45
 Operator : 001562, DLF Inst ID: 721.i
 Smp Info : sstd050 (25UG/ML) 194-176-9 8270/clp/625
 Misc Info : sstd50,d052500.b,8270c.m,3-root.sub,1,2
 Comment :
 Method : \\QPITPA02\D\chem\721.i\d052500.b\8270c.m
 Meth Date : 25-May-2000 21:26 ferguson Quant Type: ISTD
 Cal Date : 25-MAY-2000 20:45 Cal File: D0525CC4.D
 Als bottle: 3 Calibration Sample, Level: 2
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.03
 Processing Host: PITPC013

Compound Sublist: 3-root.sub

WJL
5/25/00

Compounds	QUANT SIG	AMOUNTS					
		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (NG)	ON-COL (NG)
-----	----	==	=====	=====	=====	=====	=====
* 1 1,4-Dichlorobenzene-d4	152	4.585	4.585	(1.000)	113836	40.0000	
* 2 Naphthalene-d8	136	5.801	5.801	(1.000)	400510	40.0000	
* 3 Acenaphthene-d10	164	8.348	8.348	(1.000)	202701	40.0000	
* 4 Phenanthrene-d10	188	11.217	11.217	(1.000)	364515	40.0000	
* 5 Chrysene-d12	240	17.036	17.036	(1.000)	309899	40.0000	
* 6 Perylene-d12	264	19.992	19.992	(1.000)	277030	40.0000	
10 N-Nitrosodimethylamine	74	1.770	1.770	(0.386)	95052	50.0000	53.462
9 Pyridine	79	1.757	1.757	(0.383)	159271	50.0000	52.526
16 Methyl methanesulfonate	80	3.403	3.403	(0.742)	138873	50.0000	50.569
21 Aniline	93	4.350	4.350	(0.949)	236943	50.0000	49.161
22 Phenol	94	4.337	4.337	(0.946)	213729	50.0000	50.565
23 bis(2-Chloroethyl) ether	93	4.404	4.404	(0.960)	160200	50.0000	49.824
24 2-Chlorophenol	128	4.438	4.438	(0.968)	210799	50.0000	51.957
26 1,3-Dichlorobenzene	146	4.552	4.552	(0.993)	222553	50.0000	51.408
27 1,4-Dichlorobenzene	146	4.599	4.599	(1.003)	228378	50.0000	51.338
28 1,2-Dichlorobenzene	146	4.760	4.760	(1.038)	210839	50.0000	50.475
29 Benzyl Alcohol	108	4.720	4.720	(1.029)	111978	50.0000	48.955
30 2-Methylphenol	108	4.827	4.827	(1.053)	150073	50.0000	49.767
31 2,2'-oxybis(1-Chloropropane)	45	4.854	4.854	(1.059)	184605	50.0000	52.242
32 N-Nitroso-di-n-propylamine	70	4.989	4.989	(1.088)	123406	50.0000	51.794
192 4-Methylphenol	108	4.955	4.955	(1.081)	158584	50.0000	49.371
34 Hexachloroethane	117	5.029	5.029	(1.097)	103912	50.0000	51.536
35 Nitrobenzene	77	5.116	5.116	(0.882)	202019	50.0000	51.328
41 Isophorone	82	5.338	5.338	(0.920)	317624	50.0000	50.167
42 2-Nitrophenol	139	5.418	5.418	(0.934)	114767	50.0000	51.241
43 2,4-Dimethylphenol	107	5.452	5.452	(0.940)	187726	50.0000	49.824

Compounds	QUANT SIG			AMOUNTS			
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (NG)	ON-COL (NG)
*****	----	--	-----	-----	-----	-----	-----
44 bis (2-Chloroethoxy)methane	93	5.553	5.553	(0.957)	180190	50.0000	49.717
48 2,4-Dichlorophenol	162	5.654	5.654	(0.975)	154998	50.0000	50.254
49 Benzoic Acid	122	5.600	5.600	(0.965)	121116	50.0000	54.351
50 1,2,4-Trichlorobenzene	180	5.755	5.755	(0.992)	178202	50.0000	49.837
51 Naphthalene	128	5.822	5.822	(1.003)	530975	50.0000	50.198
52 4-Chloroaniline	127	5.902	5.902	(1.017)	219665	50.0000	50.976
56 Hexachlorobutadiene	225	6.030	6.030	(1.039)	120274	50.0000	49.783
59 4-Chloro-3-Methylphenol	107	6.494	6.494	(1.119)	151591	50.0000	48.853
62 2-Methylnaphthalene	142	6.675	6.675	(1.151)	330538	50.0000	50.697
63 1-Methylnaphthalene	142	6.830	6.830	(1.177)	303776	50.0000	49.618
64 Hexachlorocyclopentadiene	237	7.004	7.004	(0.839)	144581	50.0000	51.006
66 2,4,6-Trichlorophenol	196	7.119	7.119	(0.853)	114153	50.0000	50.955
67 2,4,5-Trichlorophenol	196	7.172	7.172	(0.859)	123047	50.0000	51.566
70 2-Chloronaphthalene	162	7.394	7.394	(0.886)	309432	50.0000	50.413
73 2-Nitroaniline	65	7.609	7.609	(0.911)	104738	50.0000	50.608
76 Dimerhylphthalate	163	7.999	7.999	(0.958)	372006	50.0000	50.408
78 2,6-Dinitrotoluene	165	8.100	8.100	(0.970)	87633	50.0000	49.931
79 Acenaphthylene	152	8.079	8.079	(0.968)	461823	50.0000	51.008
81 3-Nitroaniline	138	8.328	8.328	(0.998)	94853	50.0000	50.622
82 Acenaphthene	153	8.409	8.409	(1.007)	286585	50.0000	50.691
83 2,4-Dinitrophenol	184	8.509	8.509	(1.019)	65397	50.0000	51.089
85 4-Nitrophenol	109	8.644	8.644	(1.035)	77354	50.0000	51.749
86 Dibenzofuran	168	8.691	8.691	(1.041)	421895	50.0000	50.353
87 2,4-Dinitrotoluene	165	8.805	8.805	(1.055)	115496	50.0000	49.377
91 2,3,5,6-Tetrachlorophenol	232	8.926	8.926	(1.069)	98611	50.0000	50.739
88 2,3,4,6-Tetrachlorophenol	232	9.013	9.013	(1.080)	97979	50.0000	50.655
92 2-Naphthylamine	143	8.993	8.993	(1.077)	180654	50.0000	41.260
93 Diethylphthalate	149	9.322	9.322	(1.117)	398485	50.0000	50.597
94 Fluorene	166	9.342	9.342	(1.119)	330669	50.0000	50.218
95 4-Chlorophenyl-phenylether	204	9.383	9.383	(1.124)	173503	50.0000	50.017
96 4-Nitroaniline	138	9.490	9.490	(1.137)	90727	50.0000	50.764
98 4,6-Dinitro-2-methylphenol	198	9.578	9.578	(0.854)	81606	50.0000	50.656
99 N-Nitrosodiphenylamine (1)	169	9.638	9.638	(0.859)	235205	50.0000	49.728
100 1,2-Diphenylhydrazine	77	9.685	9.685	(0.863)	388816	50.0000	52.034
106 4-Bromophenyl-phenylether	248	10.344	10.344	(0.922)	104381	50.0000	49.964
107 Hexachlorobenzene	284	10.599	10.599	(0.945)	131620	50.0000	50.353
111 Pentachlorophenol	266	10.982	10.982	(0.979)	85591	50.0000	53.836
115 Phenanthrene	178	11.264	11.264	(1.004)	452085	50.0000	50.226
116 Anthracene	178	11.358	11.358	(1.013)	461942	50.0000	50.561
119 Carbazole	167	11.741	11.741	(1.047)	410000	50.0000	50.166
120 Di-n-Butylphthalate	149	12.783	12.783	(1.140)	630547	50.0000	51.254
123 Fluoranthene	202	13.831	13.831	(1.233)	481795	50.0000	50.718
124 Benzidine	184	14.221	14.221	(0.835)	203122	50.0000	52.963
125 Pyrene	202	14.301	14.301	(0.839)	481113	50.0000	50.796
131 Butylbenzylphthalate	149	16.082	16.082	(0.944)	263302	50.0000	51.012
135 3,3'-Dichlorobenzidine	252	17.070	17.070	(1.002)	174098	50.0000	49.674
136 Benzo(a)Anthracene	228	16.996	16.996	(0.998)	418454	50.0000	50.031

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Data File: \\QPITPA02\D\chem\721.i\d052500.b\D0525CC2.D

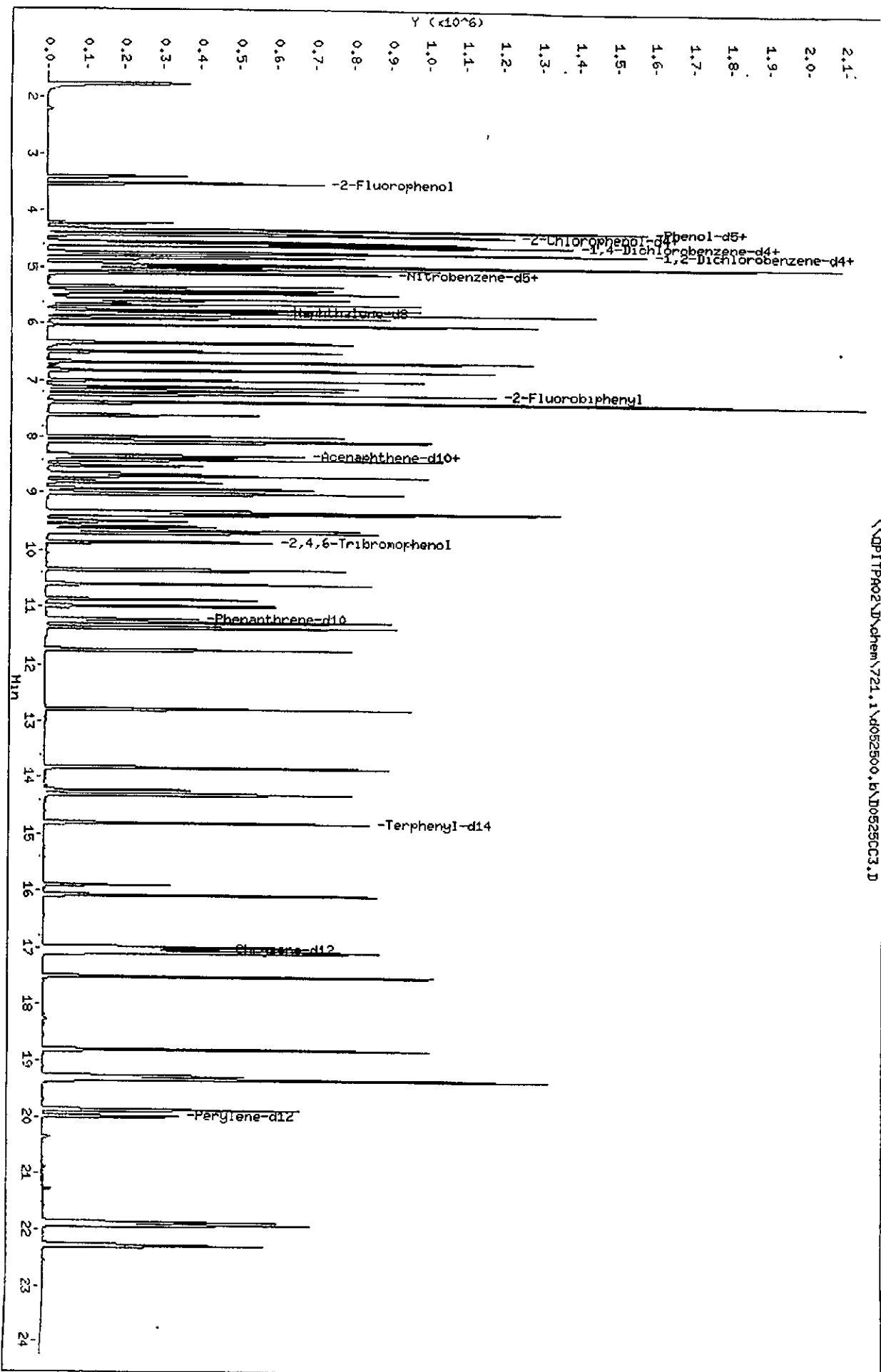
Page 3

Report Date: 25-May-2000 21:26

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (NG)	ON-COL (NG)
=====	=====	==	=====	=====	=====	=====	=====
137 Chrysene	228	17.096	17.096	(1.004)	399031	50.0000	50.279
139 bis(2-ethylhexyl)Phthalate	149	17.506	17.506	(1.028)	374112	50.0000	51.451
140 Di-n-octylphthalate	149	18.817	18.817	(0.941)	623827	50.0000	51.589
141 Benzo(b)fluoranthene	252	19.274	19.274	(0.964)	417856	50.0000	46.636
142 Benzo(k)fluoranthene	252	19.327	19.327	(0.967)	425479	50.0000	52.579
143 7,12-dimethylbenz(a)anthracen	256	19.341	19.341	(0.967)	189635	50.0000	48.931
146 Benzo(a)pyrene	252	19.885	19.885	(0.995)	381526	50.0000	50.152
149 Indeno(1,2,3-cd)pyrene	276	21.860	21.860	(1.093)	385083	50.0000	47.486
150 Dibenz(a,h)anthracene	278	21.914	21.914	(1.096)	406371	50.0000	48.617
151 Benzo(g,h,i)perylene	276	22.270	22.270	(1.114)	403534	50.0000	48.984
\$ 154 Nitrobenzene-d5	82	5.096	5.096	(0.878)	197323	50.0000	50.350
\$ 155 2-Fluorobiphenyl	172	7.246	7.246	(0.868)	340193	50.0000	50.218
\$ 156 Terphenyl-d14	244	14.805	14.805	(0.869)	370385	50.0000	50.172
\$ 157 Phenol-d5	99	4.330	4.330	(0.944)	193786	50.0000	49.853
\$ 158 2-Fluorophenol	112	3.524	3.524	(0.768)	175525	50.0000	50.005
\$ 159 2,4,6-Tribromophenol	330	9.847	9.847	(0.878)	74809	50.0000	49.265
\$ 186 2-Chlorophenol-d4	132	4.424	4.424	(0.965)	187183	50.0000	50.815
\$ 187 1,2-Dichlorobenzene-d4	152	4.747	4.747	(1.035)	133768	50.0000	50.961

Data File: \\QPI1P602\chem\721.1\4052500.b\40525003.D
 Date: 25-MAY-2000 20:15
 Client ID: SST080
 Sample Info: sst080 (40UG/ML) 194-175-12 8270/cjp/625
 Column phase: Hp5-MS

Instrument: 721.1
 Operator: 001562, DLF
 Column diameter: 0.25



6581092

Data File: \\QPITPA02\D\chem\721.i\d052500.b\D0525CC3.D
 Report Date: 25-May-2000 21:27

Page 1

STL Pittsburgh

Semivolatile REPORT SW-846 Method 8270

Data file : \\QPITPA02\D\chem\721.i\d052500.b\D0525CC3.D
 Lab Smp Id: sstd80 Client Smp ID: SSTD080
 Inj Date : 25-MAY-2000 20:15
 Operator : 001562, DLF Inst ID: 721.i
 Smp Info : sstd80 (40UG/ML) 194-175-12 8270/clp/625
 Misc Info : sstd80,d052500.b,8270c.m,3-root.sub,1,3
 Comment :
 Method : \\QPITPA02\D\chem\721.i\d052500.b\8270c.m
 Meth Date : 25-May-2000 21:27 ferguson Quant Type: ISTD
 Cal Date : 25-MAY-2000 20:45 Cal File: D0525CC4.D
 Als bottle: 4 Calibration Sample, Level: 3
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.03
 Processing Host: PITPC013

WJF
5/25/00

Compounds	QUANT SIG	AMOUNTS					
		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (NG)	ON-COL (NG)
*****	****	---	-----	-----	-----	-----	-----
* 1 1,4-Dichlorobenzene-d4	152	4 583	4 583	(1 000)	96239	40 0000	
* 2 Naphthalene-d8	136	5 800	5 800	(1 000)	333815	40 0000	
* 3 Acenaphthene-d10	164	8.353	8 353	(1 000)	169433	40.0000	
* 4 Phenanthrene-d10	188	11 215	11.215	(1.000)	306214	40 0000	
* 5 Chrysene-d12	240	17 041	17 041	(1 000)	257576	40.0000	
* 6 Perylene-d12	264	19 991	19 991	(1.000)	235697	40.0000	
10 N-Nitrosodimethylamine	74	1.775	1 775	(0.387)	131922	80 0000	87.766
9 Pyridine	79	1.755	1.755	(0 383)	217725	80 0000	84 933
16 Methyl methanesulfonate	80	3 408	3.408	(0 743)	186494	80.0000	80.327
21 Aniline	93	4 355	4.355	(0.950)	331007	80.0000	81 235
22 Phenol	94	4 341	4 341	(0.947)	289241	80.0000	80 943
23 bis(2-Chloroethyl)ether	93	4 409	4.409	(0.962)	213686	80 0000	78.611
24 2-Chlorophenol	128	4 442	4.442	(0.969)	277420	80.0000	80.881
26 1,3-Dichlorobenzene	146	4 556	4 556	(0.994)	298874	80 0000	81.661
27 1,4-Dichlorobenzene	146	4 597	4 597	(1.003)	305029	80 0000	81.106
28 1,2-Dichlorobenzene	146	4.758	4 758	(1 038)	287367	80 0000	81 375
29 Benzyl Alcohol	108	4 724	4.724	(1 031)	151968	80 0000	78.586
30 2-Methylphenol	108	4 832	4 832	(1 054)	201763	80 0000	79 142
31 2,2'-oxybis(1-Chloropropane)	45	4.859	4 859	(1 060)	246612	80 0000	82 550
32 N-Nitroso-di-n-propylamine	70	4.993	4 993	(1.089)	167630	80 0000	83.220
192 4-Methylphenol	108	4 960	4 960	(1 082)	214222	80 0000	78 887
34 Hexachloroethane	117	5.027	5 027	(1.097)	139277	80.0000	81 706
35 Nitrobenzene	77	5.121	5 121	(0 883)	272830	80 0000	83 169
41 Isophorone	82	5 343	5.343	(0.921)	424021	80.0000	80.353
42 2-Nitrophenol	139	5 423	5.423	(0.935)	154633	80.0000	82.834
43 2,4-Dimethylphenol	107	5 457	5 457	(0.941)	250443	80 0000	79.750

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (NG)	ON-COL (NG)
-----	----	--	-----	-----	-----	-----	-----
44 bis (2-Chloroethoxy)methane	93	5.558	5.558	(0.958)	244276	80.0000	80.866
48 2,4-Dichlorophenol	162	5.658	5.658	(0.976)	202371	80.0000	78.723
49 Benzoic Acid	122	5.618	5.618	(0.969)	165474	80.0000	89.093
50 1,2,4-Trichlorobenzene	180	5.759	5.759	(0.993)	235852	80.0000	79.139
51 Naphthalene	128	5.826	5.826	(1.005)	721249	80.0000	81.809
52 4-Chloroaniline	127	5.900	5.900	(1.017)	289383	80.0000	80.572
56 Hexachlorobutadiene	225	6.028	6.028	(1.039)	163994	80.0000	81.441
59 4-Chloro-3-Methylphenol	107	6.498	6.498	(1.120)	205066	80.0000	79.290
62 2-Methylnaphthalene	142	6.680	6.680	(1.152)	444901	80.0000	81.872
63 1-Methylnaphthalene	142	6.834	6.834	(1.178)	403530	80.0000	79.080
64 Hexachlorocyclopentadiene	237	7.002	7.002	(0.838)	198076	80.0000	84.583
66 2,4,6-Trichlorophenol	196	7.123	7.123	(0.853)	152954	80.0000	81.680
67 2,4,5-Trichlorophenol	196	7.184	7.184	(0.860)	158134	80.0000	79.283
70 2-Chloronaphthalene	162	7.392	7.392	(0.885)	416406	80.0000	81.162
73 2-Nitroaniline	65	7.614	7.614	(0.912)	142208	80.0000	82.205
76 Dimethylphthalate	163	8.003	8.003	(0.958)	498695	80.0000	80.843
78 2,6-Dinitrotoluene	165	8.104	8.104	(0.970)	118793	80.0000	80.975
79 Acenaphthylene	152	8.077	8.077	(0.967)	617508	80.0000	81.595 (Q)
81 3-Nitroaniline	138	8.333	8.333	(0.998)	128469	80.0000	82.025
82 Acenaphthene	153	8.413	8.413	(1.007)	385324	80.0000	81.538
83 2,4-Dinitrophenol	184	8.514	8.514	(1.019)	89804	80.0000	83.932
85 4-Nitrophenol	109	8.655	8.655	(1.036)	104870	80.0000	83.932
86 Dibenzofuran	168	8.695	8.695	(1.041)	571688	80.0000	81.627
87 2,4-Dinitrotoluene	165	8.816	8.816	(1.056)	156750	80.0000	80.172
91 2,3,5,6-Tetrachlorophenol	232	8.931	8.931	(1.069)	136654	80.0000	84.120
88 2,3,4,6-Tetrachlorophenol	232	9.025	9.025	(1.080)	136396	80.0000	84.362
92 2-Naphthylamine	143	9.005	9.005	(1.078)	295414	80.0000	80.718
93 Diethylphthalate	149	9.327	9.327	(1.117)	533576	80.0000	81.114
94 Fluorene	166	9.347	9.347	(1.119)	444894	80.0000	80.832
95 4-Chlorophenyl-phenylether	204	9.381	9.381	(1.123)	237526	80.0000	81.917
96 4-Nitroaniline	138	9.502	9.502	(1.138)	120720	80.0000	80.809
98 4,6-Dinitro-2-methylphenol	198	9.582	9.582	(0.854)	111094	80.0000	82.091
99 N-Nitrosodiphenylamine (1)	169	9.643	9.643	(0.860)	311541	80.0000	78.408
100 1,2-Diphenylhydrazine	77	9.690	9.690	(0.864)	519565	80.0000	82.771
106 4-Bromophenyl-phenylether	248	10.348	10.348	(0.923)	143015	80.0000	81.491
107 Hexachlorobenzene	284	10.604	10.604	(0.945)	179794	80.0000	81.878
111 Pentachlorophenol	266	10.987	10.987	(0.980)	117213	80.0000	87.762 (Q)
115 Phenanthrene	178	11.269	11.269	(1.005)	615493	80.0000	81.400
116 Anthracene	178	11.363	11.363	(1.013)	619937	80.0000	80.773
119 Carbazole	167	11.746	11.746	(1.047)	551543	80.0000	80.334 (Q)
120 Di-n-Butylphthalate	149	12.788	12.788	(1.140)	851810	80.0000	82.422
123 Fluoranthene	202	13.836	13.836	(1.234)	656003	80.0000	82.205
124 Benzidine	184	14.225	14.225	(0.835)	256289	80.0000	80.401
125 Pyrene	202	14.313	14.313	(0.840)	652227	80.0000	82.850
131 Butylbenzylphthalate	149	16.087	16.087	(0.944)	357391	80.0000	83.306
135 3,3'-Dichlorobenzidine	252	17.074	17.074	(1.002)	240279	80.0000	82.484
136 Benzo (a) Anthracene	228	17.007	17.007	(0.998)	574112	80.0000	82.586

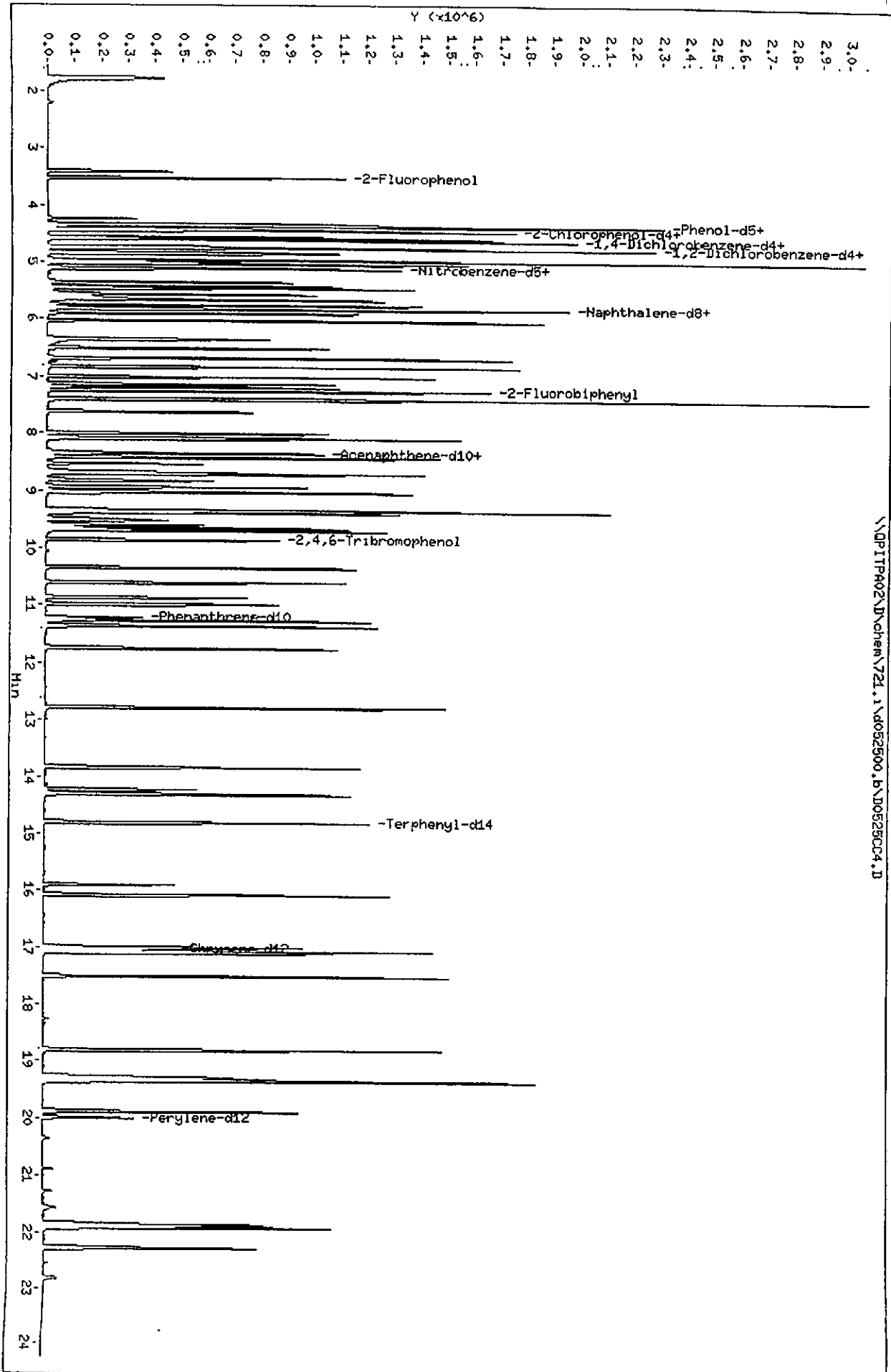
Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (NG)	ON-COL (NG)
=====	=====	==	=====	=====	=====	=====	=====
137 Chrysene	228	17.101	17.101	(1.004)	542797	80.0000	82.287
139 bis(2-ethylhexyl)Phthalate	149	17.504	17.504	(1.027)	505880	80.0000	83.705
140 Di-n-octylphthalate	149	18.821	18.821	(0.942)	863997	80.0000	83.981
141 Benzo(b)fluoranthene	252	19.285	19.285	(0.965)	570940	80.0000	74.896
142 Benzo(k)fluoranthene	252	19.339	19.339	(0.967)	625665	80.0000	90.876
143 7,12-dimethylbenz[a]anthracen	256	19.352	19.352	(0.968)	276410	80.0000	83.829
146 Benzo(a)pyrene	252	19.890	19.890	(0.995)	535202	80.0000	82.690
149 Indeno(1,2,3-cd)pyrene	276	21.872	21.872	(1.094)	559898	80.0000	81.150
150 Dibenz(a,h)anthracene	278	21.919	21.919	(1.096)	586391	80.0000	82.456
151 Benzo(g,h,i)perylene	276	22.282	22.282	(1.115)	579264	80.0000	82.646
\$ 154 Nitrobenzene-d5	82	5.101	5.101	(0.880)	268731	80.0000	82.271
\$ 155 2-Fluorobiphenyl	172	7.251	7.251	(0.868)	456137	80.0000	80.554
\$ 156 Terphenyl-d14	244	14.810	14.810	(0.869)	512551	80.0000	83.534
\$ 157 Phenol-d5	99	4.335	4.335	(0.946)	260519	80.0000	79.275
\$ 158 2-Fluorophenol	112	3.528	3.528	(0.770)	235331	80.0000	79.302
\$ 159 2,4,6-Tribromophenol	330	9.851	9.851	(0.878)	105138	80.0000	82.420
\$ 186 2-Chlorophenol-d4	132	4.429	4.429	(0.966)	252026	80.0000	80.928
\$ 187 1,2-Dichlorobenzene-d4	152	4.745	4.745	(1.035)	179896	80.0000	81.066

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: \\QPI1P402\N\chem\721.1\4052500.b\4052500C4.D
Date: 25-MAY-2000 20:45
Client ID: SST120
Sample Info: sstd120 (60UG/ML) 194-175-13 8270/c1p/625
Column phase: Hp5-MS

Instrument: 721.1
Operator: 001562, DLF
Column diameter: 0.25



6581096

Data File: \\QPITPA02\D\chem\721.i\d052500.b\D0525CC4.D
 Report Date: 25-May-2000 21:28

Page 1

STL Pittsburgh

Semivolatile REPORT SW-846 Method 8270

Data file : \\QPITPA02\D\chem\721.i\d052500.b\D0525CC4.D
 Lab Smp Id: sstd120 Client Smp ID: SSTD120
 Inj Date : 25-MAY-2000 20:45
 Operator : 001562, DLF Inst ID: 721.i
 Smp Info : sstd120 (60UG/ML) 194-175-13 8270/clp/625
 Misc Info : sstd120,d052500.b,8270c.m,3-root.sub,1,4
 Comment :
 Method : \\QPITPA02\D\chem\721.i\d052500.b\8270c.m
 Meth Date : 25-May-2000 21:28 ferguson Quant Type: ISTD
 Cal Date : 25-MAY-2000 20:45 Cal File: D0525CC4.D
 Als bottle: 5 Calibration Sample, Level: 4
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.03
 Processing Host: PITPC013

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5/25/00

Compound Sublist: 3-root.sub

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (NG)	ON-COL (NG)
*****	=====	==	=====	=====	=====	=====	=====
* 1 1,4-Dichlorobenzene-d4	152	4.586	4.586	(1.000)	98662	40.0000	(Q)
* 2 Naphthalene-d8	136	5.802	5.802	(1.000)	332346	40.0000	
* 3 Acenaphthene-d10	164	8.349	8.349	(1.000)	166003	40.0000	
* 4 Phenanthrene-d10	188	11.218	11.218	(1.000)	296932	40.0000	
* 5 Chrysene-d12	240	17.043	17.043	(1.000)	263521	40.0000	
* 6 Perylene-d12	264	20.000	20.000	(1.000)	243672	40.0000	
10 N-Nitrosodimethylamine	74	1.784	1.784	(0.389)	192930	120.000	125.20
9 Pyridine	79	1.757	1.757	(0.383)	327882	120.000	124.76
16 Methyl methanesulfonate	80	3.417	3.417	(0.745)	275497	120.000	115.75
21 Aniline	93	4.357	4.357	(0.950)	488635	120.000	116.97
22 Phenol	94	4.351	4.351	(0.949)	423516	120.000	115.61
23 bis(2-Chloroethyl)ether	93	4.411	4.411	(0.962)	316639	120.000	113.62
24 2-Chlorophenol	128	4.445	4.445	(0.969)	414877	120.000	117.98
26 1,3-Dichlorobenzene	146	4.559	4.559	(0.994)	445882	120.000	118.84
27 1,4-Dichlorobenzene	146	4.599	4.599	(1.003)	452243	120.000	117.30
28 1,2-Dichlorobenzene	146	4.761	4.761	(1.038)	430454	120.000	118.90
29 Benzyl Alcohol	108	4.727	4.727	(1.031)	224205	120.000	113.09
30 2-Methylphenol	108	4.835	4.835	(1.054)	298581	120.000	114.24
31 2,2'-oxybis(1-Chloropropane)	45	4.861	4.861	(1.060)	358412	120.000	117.03(Q)
32 N-Nitroso-di-n-propylamine	70	5.003	5.003	(1.091)	244205	120.000	118.26
192 4-Methylphenol	108	4.969	4.969	(1.084)	317710	120.000	114.12
34 Hexachloroethane	117	5.029	5.029	(1.097)	201730	120.000	115.44
35 Nitrobenzene	77	5.123	5.123	(0.883)	398701	120.000	122.08
41 Isophorone	82	5.352	5.352	(0.922)	619914	120.000	117.99
42 2-Nitrophenol	139	5.426	5.426	(0.935)	221165	120.000	119.00
43 2,4-Dimethylphenol	107	5.459	5.459	(0.941)	366319	120.000	117.16

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (NG)	ON-COL (NG)
44 bis(2-Chloroethoxy)methane	93	5.567	5.567	(0.959)	351701	120.000	116.94
48 2,4-Dichlorophenol	162	5.668	5.668	(0.977)	295571	120.000	115.48
49 Benzoic Acid	122	5.648	5.648	(0.973)	225479	120.000	121.94
50 1,2,4-Trichlorobenzene	180	5.762	5.762	(0.993)	349234	120.000	117.70
51 Naphthalene	128	5.829	5.829	(1.005)	1058985	120.000	120.65
52 4-Chloroaniline	127	5.910	5.910	(1.019)	413538	120.000	115.65
56 Hexachlorobutadiene	225	6.031	6.031	(1.039)	242468	120.000	120.94
59 4-Chloro-3-Methylphenol	107	6.508	6.508	(1.122)	295372	120.000	114.71
62 2-Methylnaphthalene	142	6.682	6.682	(1.152)	651549	120.000	120.43
63 1-Methylnaphthalene	142	6.837	6.837	(1.178)	597863	120.000	117.68
64 Hexachlorocyclopentadiene	237	7.005	7.005	(0.839)	295773	120.000	128.91
66 2,4,6-Trichlorophenol	196	7.133	7.133	(0.854)	225031	120.000	122.65
67 2,4,5-Trichlorophenol	196	7.193	7.193	(0.862)	234752	120.000	120.13
70 2-Chloronaphthalene	162	7.401	7.401	(0.887)	612216	120.000	121.79
73 2-Nitroaniline	65	7.623	7.623	(0.913)	208340	120.000	122.92
76 Dimethylphthalate	163	8.006	8.006	(0.959)	727231	120.000	120.33
78 2,6-Dinitrotoluene	165	8.114	8.114	(0.972)	170380	120.000	118.54(Q)
79 Acenaphthylene	152	8.087	8.087	(0.969)	894891	120.000	120.69(Q)
81 3-Nitroaniline	138	8.342	8.342	(0.999)	190127	120.000	123.90
82 Acenaphthene	153	8.416	8.416	(1.008)	565245	120.000	122.08
83 2,4-Dinitrophenol	184	8.523	8.523	(1.021)	136931	120.000	130.62
85 4-Nitrophenol	109	8.671	8.671	(1.039)	156189	120.000	127.59(Q)
86 Dibenzofuran	168	8.705	8.705	(1.043)	824083	120.000	120.10
87 2,4-Dinitrotoluene	165	8.826	8.826	(1.057)	228983	120.000	119.54
91 2,3,5,6-Tetrachlorophenol	232	8.940	8.940	(1.071)	202232	120.000	127.06
88 2,3,4,6-Tetrachlorophenol	232	9.034	9.034	(1.082)	197217	120.000	124.50
92 2-Naphthylamine	143	9.014	9.014	(1.080)	403934	120.000	112.65
93 Diethylphthalate	149	9.336	9.336	(1.118)	802918	120.000	124.49
94 Fluorene	166	9.357	9.357	(1.121)	660086	120.000	122.41
95 4-Chlorophenyl-phenylether	204	9.390	9.390	(1.125)	347432	120.000	122.30
96 4-Nitroaniline	138	9.524	9.524	(1.141)	179890	120.000	122.90
98 4,6-Dinitro-2-methylphenol	198	9.605	9.605	(0.856)	168854	120.000	128.67
99 N-Nitrosodiphenylamine (1)	169	9.652	9.652	(0.860)	477765	120.000	124.00
100 1,2-Diphenylhydrazine	77	9.699	9.699	(0.865)	731798	120.000	120.22
106 4-Bromophenyl-phenylether	248	10.351	10.351	(0.923)	212829	120.000	125.06
107 Hexachlorobenzene	284	10.613	10.613	(0.946)	260820	120.000	122.49
111 Pentachlorophenol	266	10.989	10.989	(0.980)	174397	120.000	134.66(Q)
115 Phenanthrene	178	11.278	11.278	(1.005)	889631	120.000	121.33
116 Anthracene	178	11.372	11.372	(1.014)	906263	120.000	121.77
119 Carbazole	167	11.755	11.755	(1.048)	812669	120.000	122.07(Q)
120 Di-n-Butylphthalate	149	12.790	12.790	(1.140)	1229199	120.000	122.66
123 Fluoranthene	202	13.845	13.845	(1.234)	964075	120.000	124.59
124 Benzidine	184	14.235	14.235	(0.835)	399396	120.000	122.47
125 Pyrene	202	14.315	14.315	(0.840)	962703	120.000	119.53
131 Butylbenzylphthalate	149	16.089	16.089	(0.944)	521441	120.000	118.80
135 3,3'-Dichlorobenzidine	252	17.084	17.084	(1.002)	369428	120.000	123.96
136 Benzo(a)Anthracene	228	17.016	17.016	(0.998)	859588	120.000	120.86

Compounds	QUANT SIG	AMOUNTS						
		MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT	ON-COL
							(NG)	(NG)
=====	=====	==	=====	=====	=====	=====	=====	
137 Chrysene	228	17.111	17 111	(1.004)	815621	120 000	120 86	
139 bis(2-ethylhexyl)Phthalate	149	17.507	17.507	(1.027)	753990	120 000	121 94	
140 Di-n-octylphthalate	149	18.824	18.824	(0.941)	1280494	120 000	120 39	
141 Benzo(b)fluoranthene	252	19.308	19.308	(0.965)	1028919	120 000	130 56	
142 Benzo(k)fluoranthene	252	19.355	19.355	(0.968)	839128	120.000	117.89	
143 7,12-dimethylbenz[a]anthracen	256	19.368	19.368	(0.968)	439415	120 000	128 90	
146 Benzo(a)pyrene	252	19.906	19.906	(0.995)	828267	120 000	123 78	
149 Indeno(1,2,3-cd)pyrene	276	21.888	21.888	(1.094)	910208	120 000	127.60	
150 Dibenz(a,h)anthracene	278	21.935	21.935	(1.097)	941076	120 000	128 00	
151 Benzo(g,h,i)perylene	276	22.298	22.298	(1.115)	925893	120 000	127.78	
\$ 154 Nitrobenzene-d5	82	5.103	5 103	(0.880)	393901	120.000	121.12	
\$ 155 2-Fluorobiphenyl	172	7.253	7.253	(0.869)	673712	120 000	121 44	
\$ 156 Terphenyl-d14	244	14.813	14.813	(0.869)	747654	120 000	119 10	
\$ 157 Phenol-d5	99	4.337	4.337	(0.946)	387643	120.000	115 06	
\$ 158 2-Fluorophenol	112	3.531	3.531	(0.770)	351057	120.000	115 39	
\$ 159 2,4,6-Tribromophenol	330	9.861	9.861	(0.879)	159701	120 000	129 11	
\$ 186 2-Chlorophenol-d4	132	4.431	4.431	(0.966)	379070	120 000	118.73	
\$ 187 1,2-Dichlorobenzene-d4	152	4.747	4.747	(1.035)	269486	120.000	118.45	

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: \\QIPITPA02\Nchem\721.1\4052500.b\40525005.D
Date: 25-MAY-2000 21:15

Client ID: SSTDL60

Sample Info: sstd160 (80UG/ML) 194-175-14 8270/c/p/625

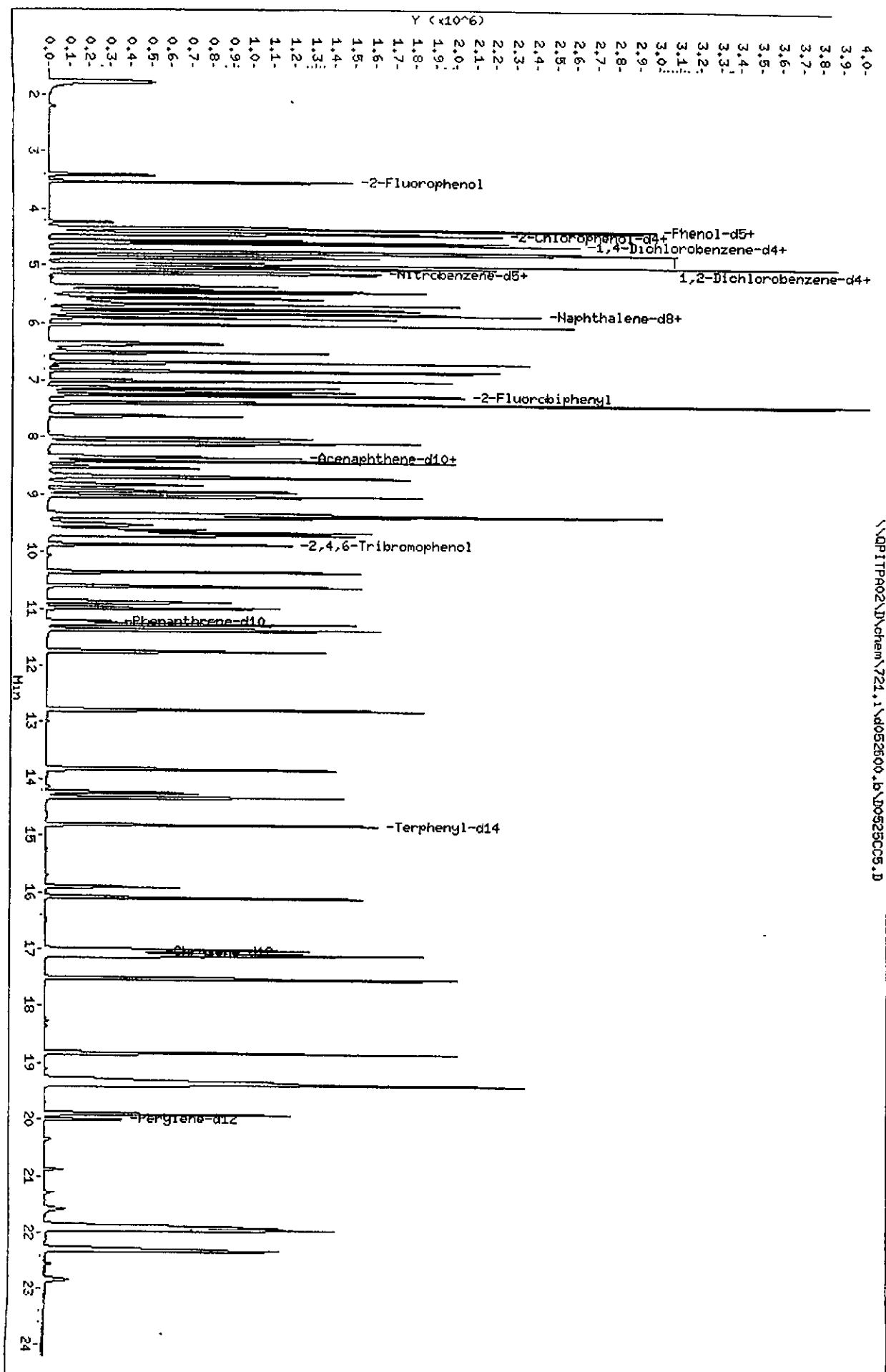
Column phase: hp5-HS

Instrument: 721.1

Operator: 001562, ILF

Column diameter: 0.25

Page 5



6581100

Data File: \\QPITPA02\D\chem\721.i\d052500.b\D0525CC5.D
Report Date: 25-May-2000 21:46

Page 1

STL Pittsburgh

Semivolatile REPORT SW-846 Method 8270

Data file : \\QPITPA02\D\chem\721.i\d052500.b\D0525CC5.D
 Lab Smp Id: sstd160 Client Smp ID: SSTD160
 Inj Date : 25-MAY-2000 21:15
 Operator : 001562, DLF Inst ID: 721.i
 Smp Info : sstd160 (80UG/ML) 194-175-14 8270/clp/625
 Misc Info : sstd160,d052500.b,8270c.m,3-root.sub,1,5
 Comment :
 Method : \\QPITPA02\D\chem\721.i\d052500.b\8270c.m
 Meth Date : 25-May-2000 21:46 ferguson Quant Type: ISTD
 Cal Date : 25-MAY-2000 21:15 Cal File: D0525CC5.D
 Als bottle: 6 Calibration Sample, Level: 5
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.03
 Processing Host: PITPC013

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5/25/00

Compound Sublist: 3-root.sub

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (NG)	ON-COL (NG)
*****	****	==	=====	=====	=====	=====	=====
* 1 1,4-Dichlorobenzene-d4	152	4 587	4 587	(1 000)	103331	40.0000	(Q)
* 2 Naphthalene-d8	136	5 810	5 810	(1 000)	337054	40 0000	
* 3 Acenaphthene-d10	164	8 350	8.350	(1 000)	169921	40.0000	
* 4 Phenanthrene-d10	188	11 219	11 219	(1.000)	304559	40.0000	
* 5 Chrysene-d12	240	17.051	17 051	(1.000)	276068	40.0000	
* 6 Perylene-d12	264	20 008	20 008	(1 000)	262256	40.0000	
10 N-Nitrosodimethylamine	74	1 792	1.792	(0.391)	264530	160 000	154.58
9 Pyridine	79	1.751	1.751	(0 382)	447933	160 000	154 16
16 Methyl methanesulfonate	80	3 418	3 418	(0.745)	374882	160.000	152.43
21 Aniline	93	4 359	4 359	(0.950)	680430	160.000	157.75
22 Phenol	94	4.359	4.359	(0.950)	582339	160.000	153 36
23 bis(2-Chloroethyl)ether	93	4.419	4 419	(0 963)	438026	160 000	154 57(M)
24 2-Chlorophenol	128	4.446	4 446	(0.969)	570839	160 000	155 17
26 1,3-Dichlorobenzene	146	4 560	4 560	(0.994)	616523	160.000	156.61
27 1,4-Dichlorobenzene	146	4 600	4 600	(1 003)	636513	160.000	157 36
28 1,2-Dichlorobenzene	146	4 762	4 762	(1.038)	606087	160 000	159 60
29 Benzyl Alcohol	108	4.735	4.735	(1.032)	319197	160 000	159 37
30 2-Methylphenol	108	4 842	4 842	(1.056)	408962	160 000	154.56
31 2,2'-oxybis(1-Chloropropane)	45	4 862	4 862	(1 060)	489543	160 000	151.36(Q)
32 N-Nitroso-di-n-propylamine	70	5.017	5 017	(1.094)	339182	160 000	156 32
192 4-Methylphenol	108	4.977	4 977	(1 085)	446010	160 000	158 26
34 Hexachloroethane	117	5.030	5.030	(1.097)	285135	160 000	156.20
35 Nitrobenzene	77	5 131	5 131	(0.883)	542239	160.000	160.48(A)
41 Isophorone	82	5 360	5 360	(0 923)	870326	160.000	163.88(A)
42 2-Nitrophenol	139	5 427	5 427	(0 934)	308491	160.000	161 88(A)
43 2,4-Dimethylphenol	107	5 467	5 467	(0.941)	511635	160 000	164 74(A)

Compounds	QUANT SIG			RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
	MASS							CAL-AMT (NG)	ON-COL (NG)
44 bis(2-Chloroethoxy)methane	93			5.568	5.568	(0.958)	484635	160.000	160.20 (A)
48 2,4-Dichlorophenol	162			5.676	5.676	(0.977)	413150	160.000	162.32 (A)
49 Benzoic Acid	122			5.676	5.676	(0.977)	360498	160.000	178.18 (A)
50 1,2,4-Trichlorobenzene	180			5.763	5.763	(0.992)	480844	160.000	162.14 (A)
51 Naphthalene	128			5.837	5.837	(1.005)	1468531	160.000	163.48 (A)
52 4-Chloroaniline	127			5.911	5.911	(1.017)	570359	160.000	158.96
56 Hexachlorobutadiene	225			6.032	6.032	(1.038)	340737	160.000	166.50 (AQ)
59 4-Chloro-3-Methylphenol	107			6.522	6.522	(1.123)	408535	160.000	161.03 (A)
62 2-Methylnaphthalene	142			6.690	6.690	(1.152)	892470	160.000	161.90 (A)
63 1-Methylnaphthalene	142			6.838	6.838	(1.177)	823138	160.000	161.32 (A)
64 Hexachlorocyclopentadiene	237			7.006	7.006	(0.839)	413209	160.000	166.81 (A)
66 2,4,6-Trichlorophenol	196			7.133	7.133	(0.854)	315641	160.000	164.12 (A)
67 2,4,5-Trichlorophenol	196			7.201	7.201	(0.862)	327852	160.000	162.08 (A)
70 2-Chloronaphthalene	162			7.409	7.409	(0.887)	853507	160.000	163.69 (A)
73 2-Nitroaniline	65			7.631	7.631	(0.914)	282600	160.000	159.90
76 Dimethylphthalate	163			8.014	8.014	(0.960)	991782	160.000	160.05 (A)
78 2,6-Dinitrotoluene	165			8.121	8.121	(0.973)	241548	160.000	163.90 (AQ)
79 Acenaphthylene	152			8.088	8.088	(0.969)	1237728	160.000	160.54 (AQ)
81 3-Nitroaniline	138			8.356	8.356	(1.001)	261941	160.000	164.04 (A)
82 Acenaphthene	153			8.424	8.424	(1.009)	787364	160.000	163.51 (A)
83 2,4-Dinitrophenol	184			8.538	8.538	(1.023)	189418	160.000	171.08 (A)
85 4-Nitrophenol	109			8.692	8.692	(1.041)	222816	160.000	169.55 (AQ)
86 Dibenzofuran	168			8.713	8.713	(1.043)	1144836	160.000	162.22 (AQ)
87 2,4-Dinitrotoluene	165			8.840	8.840	(1.059)	313920	160.000	162.11 (A)
91 2,3,5,6-Tetrachlorophenol	232			8.948	8.948	(1.072)	279958	160.000	165.06 (A)
88 2,3,4,6-Tetrachlorophenol	232			9.042	9.042	(1.083)	285120	160.000	169.03 (A)
92 2-Naphthylamine	143			9.028	9.028	(1.081)	525125	160.000	148.29
93 Diethylphthalate	149			9.351	9.351	(1.120)	1118415	160.000	165.73 (A)
94 Fluorene	166			9.358	9.358	(1.121)	910585	160.000	163.43 (A)
95 4-Chlorophenyl-phenylether	204			9.398	9.398	(1.126)	487315	160.000	165.23 (A)
96 4-Nitroaniline	138			9.546	9.546	(1.143)	249140	160.000	164.90 (A)
98 4,6-Dinitro-2-methylphenol	198			9.620	9.620	(0.857)	232089	160.000	169.68 (A)
99 N-Nitrosodiphenylamine (1)	169			9.667	9.667	(0.862)	646612	160.000	163.24 (A)
100 1,2-Diphenylhydrazine	77			9.707	9.707	(0.865)	1061981	160.000	166.39 (A)
106 4-Bromophenyl-phenylether	248			10.359	10.359	(0.923)	291652	160.000	165.45 (A)
107 Hexachlorobenzene	284			10.614	10.614	(0.946)	357212	160.000	162.56 (A)
111 Pentachlorophenol	266			10.997	10.997	(0.980)	239957	160.000	168.41 (AQ)
115 Phenanthrene	178			11.286	11.286	(1.006)	1215322	160.000	161.57 (A)
116 Anthracene	178			11.380	11.380	(1.014)	1239896	160.000	161.83 (A)
119 Carbazole	167			11.763	11.763	(1.049)	1112605	160.000	163.19 (AQ)
120 Di-n-Butylphthalate	149			12.798	12.798	(1.141)	1706992	160.000	163.64 (A)
123 Fluoranthene	202			13.853	13.853	(1.235)	1333976	160.000	165.64 (A)
124 Benzidine	184			14.236	14.236	(0.835)	553168	160.000	161.07 (A)
125 Pyrene	202			14.323	14.323	(0.840)	1324894	160.000	156.16
131 Butylbenzylphthalate	149			16.097	16.097	(0.944)	725707	160.000	157.09
135 3,3'-Dichlorobenzidine	252			17.091	17.091	(1.002)	521357	160.000	165.68 (A)
136 Benzo(a)Anthracene	228			17.024	17.024	(0.998)	1208770	160.000	161.70 (A)

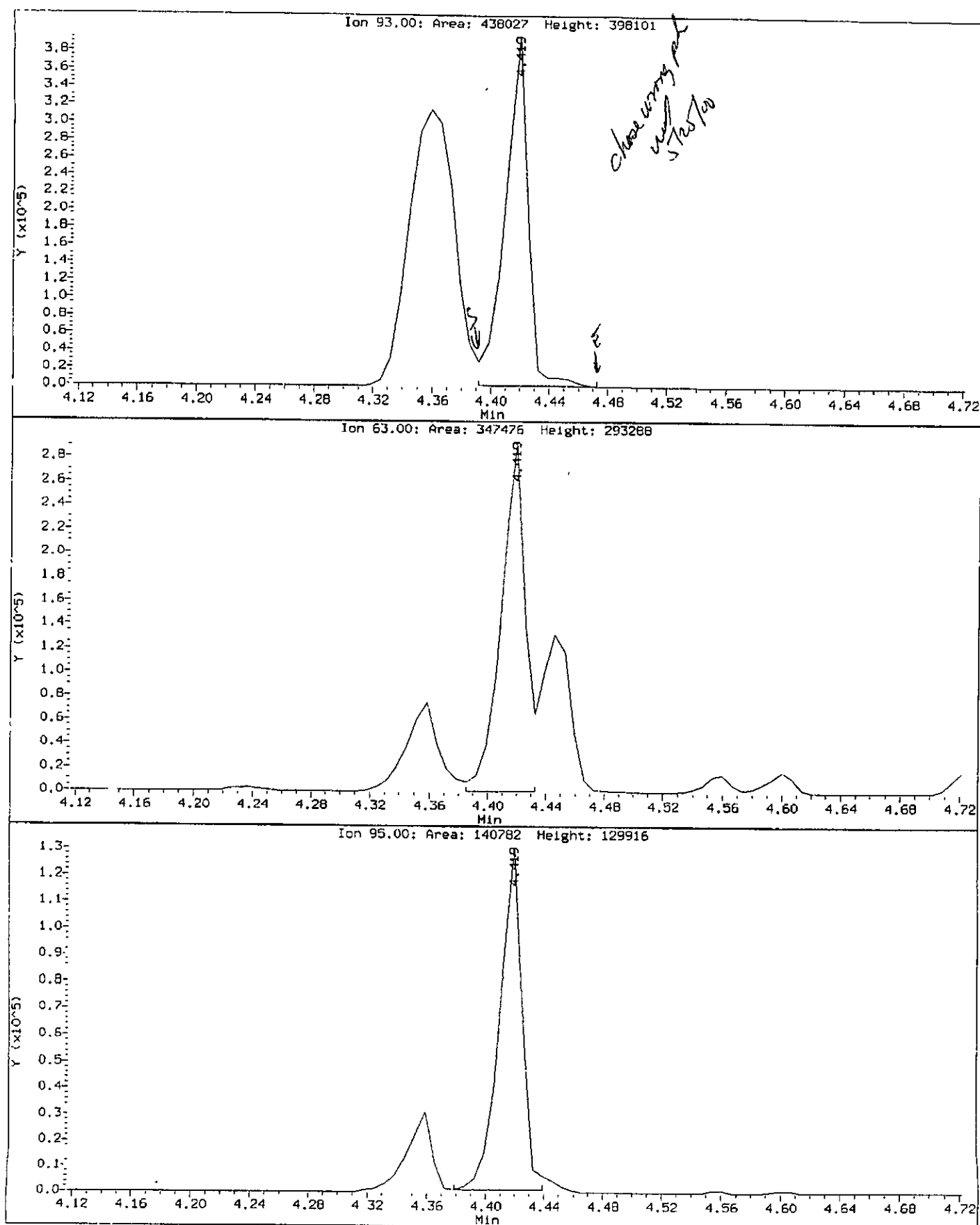
Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT	ON-COL
						(NG)	(NG)
=====	====	==	=====	=====	=====	=====	=====
137 Chrysene	228	17.125	17.125	(1.004)	1156301	160.000	162.43 (A)
139 bis(2-ethylhexyl)Phthalate	149	17.515	17.515	(1.027)	1044162	160.000	159.30
140 Di-n-octylphthalate	149	18.838	18.838	(0.942)	1802536	160.000	155.79
141 Benzo(b)fluoranthene	252	19.329	19.329	(0.966)	1550107	160.000	183.65 (A)
142 Benzo(k)fluoranthene	252	19.389	19.389	(0.969)	1147323	160.000	145.98 (M)
143 7,12-dimethylbenz[a]anthracen	256	19.389	19.389	(0.969)	632840	160.000	169.28 (A)
146 Benzo(a)pyrene	252	19.920	19.920	(0.996)	1204888	160.000	165.89 (A)
149 Indeno(1,2,3-cd)pyrene	276	21.902	21.902	(1.095)	1365464	160.000	178.29 (A)
150 Dibenz(a,h)anthracene	278	21.956	21.956	(1.097)	1432857	160.000	178.62 (A)
151 Benzo(g,h,i)perylene	276	22.319	22.319	(1.116)	1406556	160.000	177.68 (A)
\$ 154 Nitrobenzene-d5	82	5.111	5.111	(0.880)	545395	160.000	163.78 (A)
\$ 155 2-Fluorobiphenyl	172	7.261	7.261	(0.870)	935998	160.000	163.83 (A)
\$ 156 Terphenyl-d14	244	14.820	14.820	(0.869)	1060110	160.000	160.62 (A)
\$ 157 Phenol-d5	99	4.345	4.345	(0.947)	529627	160.000	153.74
\$ 158 2-Fluorophenol	112	3.532	3.532	(0.770)	479611	160.000	153.40
\$ 159 2,4,6-Tribromophenol	330	9.868	9.868	(0.880)	219070	160.000	170.12 (A)
\$ 186 2-Chlorophenol-d4	132	4.432	4.432	(0.966)	518510	160.000	155.35
\$ 187 1,2-Dichlorobenzene-d4	152	4.748	4.748	(1.035)	384809	160.000	161.33 (A)

QC Flag Legend

- A - Target compound detected but, quantitated amount exceeded maximum amount.
 Q - Qualifier signal failed the ratio test.
 M - Compound response manually integrated.

Data File: \\QPITPA02\0\chem\721.1\d052500.b\d0525CC5.D
Injection Date: 25-MAY-2000 21:15
Instrument: 721.1
Client Sample ID:

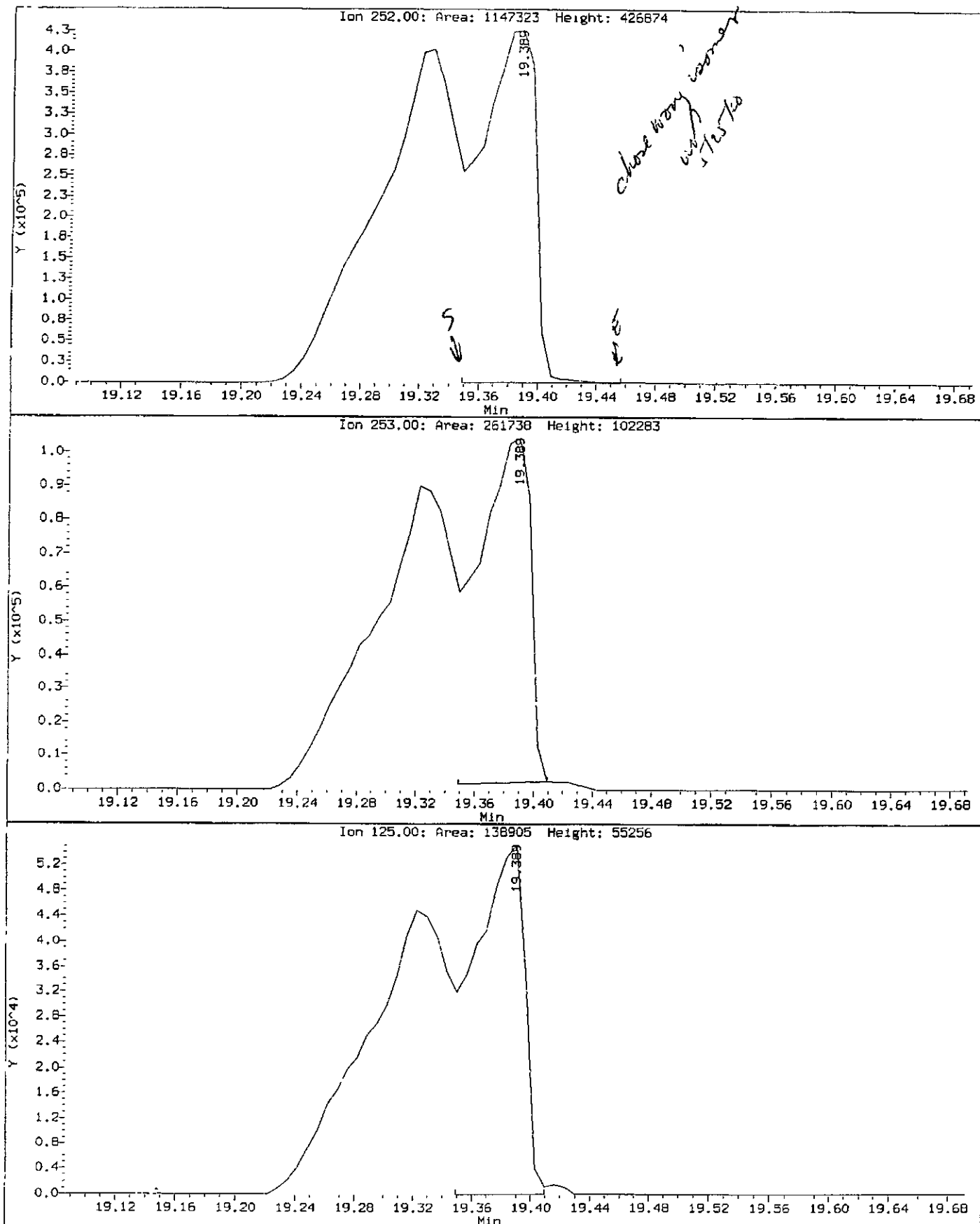
Compound: bis(2-Chloroethyl)ether
CAS Number: 111-44-4



6581104

Data File: \\QPITPA02\chem\721.i\d052500.b\d0525005.D
Injection Date: 25-MAY-2000 21:15
Instrument: 721.i
Client Sample ID:

Compound: Benzo(k)fluoranthene
CAS Number: 207-08-9



FORM 7
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: STL PITTSBURGH

Contract:

Lab Code: STL PIT

Case No.:

SAS No.:

SDG No.: C0E240180

Instrument ID: 721

Calibration Date: 06/01/00 Time: 1005

Lab File ID: D0601CCC

Init. Calib. Date(s): 05/25/00 05/25/00

Init. Calib. Times: 1915 2115

GC Column: HP5-MS ID: 0.25 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Phenol	1.470	1.541	0.01	4.8	20.0
bis(2-Chloroethyl)ether	1.097	1.109	0.01	1.1	50.0
2-Chlorophenol	1.424	1.446	0.01	1.5	50.0
1,3-Dichlorobenzene	1.524	1.530	0.01	0.4	50.0
1,4-Dichlorobenzene	1.566	1.596	0.01	1.9	20.0
1,2-Dichlorobenzene	1.470	1.493	0.01	1.6	50.0
2-Methylphenol	1.024	1.050	0.01	2.5	50.0
2,2'-oxybis(1-Chloropropane)	1.252	1.225	0.01	2.2	50.0
4-Methylphenol	1.091	1.170	0.01	7.2	50.0
Hexachloroethane	0.707	0.707	0.01	0.0	50.0
Nitrobenzene	0.401	0.398	0.01	0.7	50.0
Isophorone	0.630	0.647	0.01	2.7	50.0
2-Nitrophenol	0.226	0.223	0.01	1.3	20.0
2,4-Dimethylphenol	0.368	0.368	0.01	0.0	50.0
bis(2-Chloroethoxy)methane	0.359	0.359	0.01	0.0	50.0
N-Nitroso-di-n-propylamine	0.840	0.899	0.05	7.0	50.0
2,4-Dichlorophenol	0.302	0.302	0.01	0.0	20.0
1,2,4-Trichlorobenzene	0.352	0.345	0.01	2.0	50.0
Naphthalene	1.066	1.052	0.01	1.3	50.0
4-Chloroaniline	0.426	0.453	0.01	6.3	50.0
Hexachlorobutadiene	0.243	0.247	0.01	1.6	20.0
4-Chloro-3-Methylphenol	0.301	0.320	0.01	6.3	20.0
2-Methylnaphthalene	0.654	0.688	0.01	5.2	50.0
Hexachlorocyclopentadiene	0.583	0.502	0.05	13.9	50.0
2,4,6-Trichlorophenol	0.453	0.439	0.01	3.1	20.0
2,4,5-Trichlorophenol	0.476	0.469	0.01	1.5	50.0
2-Chloronaphthalene	1.227	1.222	0.01	0.4	50.0
2-Nitroaniline	0.416	0.409	0.01	1.7	50.0
Dimethylphthalate	1.459	1.485	0.01	1.8	50.0
Acenaphthylene	1.815	1.831	0.01	0.9	50.0
2,6-Dinitrotoluene	0.347	0.355	0.01	2.3	50.0
3-Nitroaniline	0.376	0.377	0.01	0.3	50.0
Acenaphthene	1.133	1.138	0.01	0.4	20.0
2,4-Dinitrophenol	0.261	0.244	0.05	6.5	50.0
4-Nitrophenol	0.309	0.342	0.05	10.7	50.0
Dibenzofuran	1.661	1.661	0.01	0.0	50.0
2,4-Dinitrotoluene	0.456	0.477	0.01	4.6	50.0

FORM 7
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: STL PITTSBURGH

Contract:

Lab Code: STL PIT

Case No.:

SAS No.:

SDG No.: C0E240180

Instrument ID: 721

Calibration Date: 06/01/00

Time: 1005

Lab File ID: D0601CCC

Init. Calib. Date(s): 05/25/00

05/25/00

Init. Calib. Times: 1915

2115

GC Column: HP5-MS

ID: 0.25 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Diethylphthalate	1.589	1.734	0.01	9.1	50.0
4-Chlorophenyl-phenylether	0.694	0.693	0.01	0.1	50.0
Fluorene	1.312	1.345	0.01	2.5	50.0
4-Nitroaniline	0.355	0.368	0.01	3.7	50.0
4,6-Dinitro-2-methylphenol	0.180	0.170	0.01	5.6	50.0
N-Nitrosodiphenylamine (1)	0.520	0.493	0.01	5.2	20.0
4-Bromophenyl-phenylether	0.232	0.226	0.01	2.6	50.0
Hexachlorobenzene	0.289	0.286	0.01	1.0	50.0
Pentachlorophenol	0.187	0.170	0.01	9.1	20.0
Phenanthrene	0.988	0.994	0.01	0.6	50.0
Anthracene	1.006	0.999	0.01	0.7	50.0
Carbazole	0.895	0.874	0.01	2.3	50.0
Di-n-Butylphthalate	1.370	1.407	0.01	2.7	50.0
Fluoranthene	1.058	1.081	0.01	2.2	20.0
Pyrene	1.229	1.205	0.01	2.0	50.0
Butylbenzylphthalate	0.670	0.684	0.01	2.1	50.0
3,3'-Dichlorobenzidine	0.456	0.463	0.01	1.5	50.0
Benzo(a)Anthracene	1.083	1.072	0.01	1.0	50.0
Chrysene	1.032	1.034	0.01	0.2	50.0
bis(2-ethylhexyl)Phthalate	0.950	0.964	0.01	1.5	50.0
Di-n-octylphthalate	1.765	1.918	0.01	8.7	20.0
Benzo(b)fluoranthene	1.288	1.236	0.01	4.0	50.0
Benzo(k)fluoranthene	1.199	1.292	0.01	7.8	50.0
Benzo(a)pyrene	1.108	1.107	0.01	0.1	20.0
Indeno(1,2,3-cd)pyrene	1.168	1.057	0.01	9.5	50.0
Dibenz(a,h)anthracene	1.224	1.096	0.01	10.4	50.0
Benzo(g,h,i)perylene	1.207	1.041	0.01	13.8	50.0
Pyridine	1.125	0.982	0.01	12.7	50.0
N-Nitrosodimethylamine	0.662	0.579	0.01	12.5	50.0
Aniline	1.670	1.722	0.01	3.1	50.0
Benzyl Alcohol	0.775	0.814	0.01	5.0	50.0
Benzoic Acid	0.240	0.236	0.01	1.7	50.0
1-Methylnaphthalene	0.605	0.656	0.01	8.4	50.0
2,3,4,6-Tetrachlorophenol	0.397	0.416	0.01	4.8	50.0
2,3,5,6-Tetrachlorophenol	0.399	0.410	0.01	2.8	50.0
1,2-Diphenylhydrazine	0.838	0.818	0.01	2.4	50.0
Benzidine	0.498	0.423	0.01	15.1	50.0

FORM 7
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: STL PITTSBURGH

Contract:

Lab Code: STL PIT

Case No.:

SAS No.:

SDG No.: C0E240180

Instrument ID: 721

Calibration Date: 06/01/00 Time: 1005

Lab File ID: D0601CCC

Init. Calib. Date(s): 05/25/00 05/25/00

Init. Calib. Times: 1915 2115

GC Column: HP5-MS ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
=====	=====	=====	=====	=====	=====
Methyl methanesulfonate	0.952	0.907	0.01	4.7	50.0
2-Naphthylamine	0.834	1.011	0.01	21.2	50.0
7,12-dimethylbenz[a]anthracene	0.570	0.614	0.01	7.7	50.0
=====	=====	=====	=====	=====	=====
Nitrobenzene-d5	0.395	0.397	0.01	0.5	50.0
2-Fluorobiphenyl	1.345	1.311	0.01	2.5	50.0
Terphenyl-d14	0.956	0.961	0.01	0.5	50.0
Phenol-d5	1.334	1.432	0.01	7.3	50.0
2-Fluorophenol	1.210	1.192	0.01	1.5	50.0
2,4,6-Tribromophenol	0.169	0.172	0.01	1.8	50.0
2-Chlorophenol-d4	1.292	1.352	0.01	4.6	50.0
1,2-Dichlorobenzene-d4	0.923	0.926	0.01	0.3	50.0

6581108

Data File: \\Qpitpa02\D\chem\721.i\d060100.b/D0601CCC.D
 Report Date: 06/01/2000

CONTINUING CALIBRATION COMPOUNDS
 PERCENT DRIFT REPORT

Instrument ID: 721.i
 Lab File ID: D0601CCC.D
 Analysis Type: NONE

Injection Date: 01-JUN-2000 10:05
 Lab Sample ID: sstd50
 Method File: \\Qpitpa02\D\chem\721.i\d060100.

8270c

COMPOUND	EXPECTED CONC.	MEASURED CONC	%D	MAX %D
66 Pyridine	50.0000	43.6693	12.7	50.0
67 N-Nitrosodimethylamine	50.0000	43.7375	12.5	50.0
87 Methyl methanesulfonate	50.0000	47.6589	4.7	50.0
185 2-Fluorophenol	50.0000	49.2247	1.6	50.0
184 Phenol-d5	50.0000	53.7071	7.4	50.0
1 Phenol	50.0000	52.4278	4.9	20.0
68 Aniline	50.0000	51.5533	3.1	50.0
2 bis(2-Chloroethyl)ether	50.0000	50.5433	1.1	50.0
187 2-Chlorophenol-d4	50.0000	52.3064	4.6	50.0
3 2-Chlorophenol	50.0000	50.7766	1.6	50.0
4 1,3-Dichlorobenzene	50.0000	50.1928	0.4	50.0
11 1,4-Dichlorobenzene-d4	40.0000	40.0000	0.0	50.0
5 1,4-Dichlorobenzene	50.0000	50.9770	2.0	20.0
69 Benzyl Alcohol	50.0000	52.4692	4.9	50.0
188 1,2-Dichlorobenzene-d4	50.0000	50.1358	0.3	50.0
6 1,2-Dichlorobenzene	50.0000	50.7836	1.6	50.0
7 2-Methylphenol	50.0000	51.2329	2.5	50.0
8 2,2'-oxybis(1-Chloropropane)	50.0000	48.9068	2.2	50.0
9 4-Methylphenol	50.0000	53.6028	7.2	50.0
18 N-Nitroso-di-n-propylamine	50.0000	53.5294	7.1	50.0
12 Hexachloroethane	50.0000	50.0150	0.0	50.0
181 Nitrobenzene-d5	50.0000	50.2338	0.5	50.0
13 Nitrobenzene	50.0000	49.6189	0.8	50.0
14 Isophorone	50.0000	51.3432	2.7	50.0
15 2-Nitrophenol	50.0000	49.3342	1.3	20.0
16 2,4-Dimethylphenol	50.0000	49.9131	0.2	50.0
17 bis(2-Chloroethoxy)methane	50.0000	49.9648	0.1	50.0
71 Benzoic Acid	50.0000	49.0425	1.9	50.0
18 2,4-Dichlorophenol	50.0000	50.0258	0.1	20.0
19 1,2,4-Trichlorobenzene	50.0000	49.0569	1.9	50.0
32 Naphthalene-d8	40.0000	40.0000	0.0	50.0
20 Naphthalene	50.0000	49.3220	1.4	50.0
21 4-Chloroaniline	50.0000	53.1742	6.3	50.0
22 Hexachlorobutadiene	50.0000	50.8127	1.6	20.0
23 4-Chloro-3-Methylphenol	50.0000	53.2396	6.5	20.0
24 2-Methylnaphthalene	50.0000	52.6059	5.2	50.0
72 1-Methylnaphthalene	50.0000	54.1850	8.4	50.0
25 Hexachlorocyclopentadiene	50.0000	43.0457	13.9	50.0
26 2,4,6-Trichlorophenol	50.0000	48.5167	3.0	20.0

CONTINUING CALIBRATION COMPOUNDS
 PERCENT DRIFT REPORT

Instrument ID: 721.i
 Lab File ID: D0601CCC.D
 Analysis Type: NONE

Injection Date: 01-JUN-2000 10:05
 Lab Sample ID: sstd50
 Method File: \\Qpitpa02\D\chem\721.i\d060100.b

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
27 2,4,5-Trichlorophenol	50.0000	49.2398	1.5	50.0
182 2-Fluorobiphenyl	50.0000	48.7330	2.5	50.0
28 2-Chloronaphthalene	50.0000	49.7745	0.5	50.0
29 2-Nitroaniline	50.0000	49.1981	1.6	50.0
30 Dimethylphthalate	50.0000	50.9032	1.8	50.0
31 Acenaphthylene	50.0000	50.4358	0.9	50.0
32 2,6-Dinitrotoluene	50.0000	51.1964	2.4	50.0
33 3-Nitroaniline	50.0000	50.1753	0.4	50.0
52 Acenaphthene-d10	40.0000	40.0000	0.0	50.0
34 Acenaphthene	50.0000	50.2055	0.4	20.0
35 2,4-Dinitrophenol	50.0000	46.9132	6.2	50.0
36 4-Nitrophenol	50.0000	55.3388	10.7	50.0
37 Dibenzofuran	50.0000	49.9794	0.0	50.0
38 2,4-Dinitrotoluene	50.0000	52.3395	4.7	50.0
77 2,3,5,6-Tetrachlorophenol	50.0000	51.3071	2.6	50.0
114 2-Naphthylamine	50.0000	60.6290	21.3	50.0
76 2,3,4,6-Tetrachlorophenol	50.0000	52.4380	4.9	50.0
39 Diethylphthalate	50.0000	54.5832	9.2	50.0
41 Fluorene	50.0000	51.2759	2.6	50.0
40 4-Chlorophenyl-phenylether	50.0000	49.9358	0.1	50.0
42 4-Nitroaniline	50.0000	51.6655	3.3	50.0
43 4,6-Dinitro-2-methylphenol	50.0000	47.3877	5.2	50.0
44 N-Nitrosodiphenylamine (1)	50.0000	47.4238	5.2	20.0
78 1,2-Diphenylhydrazine	50.0000	48.8224	2.4	50.0
186 2,4,6-Tribromophenol	50.0000	50.8286	1.7	50.0
45 4-Bromophenyl-phenylether	50.0000	48.7671	2.5	50.0
46 Hexachlorobenzene	50.0000	49.5141	1.0	50.0
47 Pentachlorophenol	50.0000	45.4212	9.2	20.0
78 Phenanthrene-d10	40.0000	40.0000	0.0	50.0
48 Phenanthrene	50.0000	50.3285	0.7	50.0
49 Anthracene	50.0000	49.6304	0.7	50.0
50 Carbazole	50.0000	48.8308	2.3	50.0
51 Di-n-Butylphthalate	50.0000	51.3613	2.7	50.0
52 Fluoranthene	50.0000	51.1112	2.2	20.0
79 Benzidine	50.0000	42.4928	15.0	50.0
53 Pyrene	50.0000	49.0148	2.0	50.0
183 Terphenyl-d14	50.0000	50.2276	0.5	50.0
54 Butylbenzylphthalate	50.0000	51.0749	2.1	50.0
56 Benzo(a)Anthracene	50.0000	49.4966	1.0	50.0

6581110

Data File: \\Qpitpa02\D\chem\721.i\d060100.b\D0601CCC.D
Report Date: 06/01/2000

CONTINUING CALIBRATION COMPOUNDS
PERCENT DRIFT REPORT

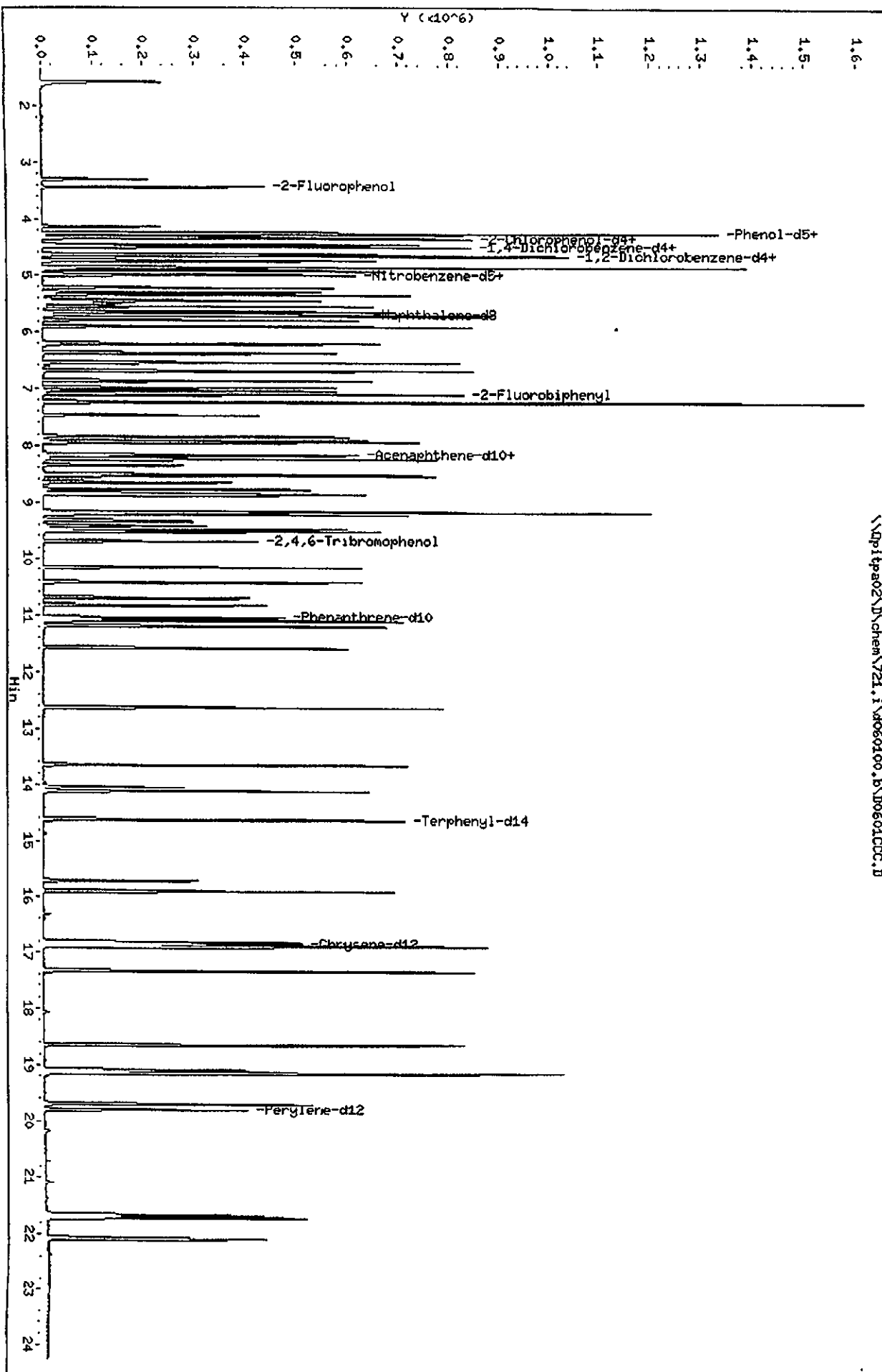
Instrument ID: 721.i
Lab File ID: D0601CCC.D
Analysis Type: NONE

Injection Date: 01-JUN-2000 10:05
Lab Sample ID: sstd50
Method File: \\Qpitpa02\D\chem\721.i\d060100.

COMPOUND	EXPECTED CONC	MEASURED CONC	%D	MAX %D
90 Chrysene-d12	40.0000	40.0000	0.0	50.0
55 3,3'-Dichlorobenzidine	50.0000	50.7822	1.6	50.0
57 Chrysene	50.0000	50.1155	0.2	50.0
58 bis(2-ethylhexyl)Phthalate	50.0000	50.7416	1.5	50.0
59 Di-n-octylphthalate	50.0000	54.3440	8.7	20.0
60 Benzo(b)fluoranthene	50.0000	48.0086	4.0	50.0
61 Benzo(k)fluoranthene	50.0000	53.9069	7.8	50.0
143 7,12-dimethylbenz(a)anthracen	50.0000	53.8351	7.7	50.0
62 Benzo(a)pyrene	50.0000	49.9605	0.1	20.0
101 Perylene-d12	40.0000	40.0000	0.0	50.0
63 Indeno(1,2,3-cd)pyrene	50.0000	45.2383	9.5	50.0
64 Dibenz(a,h)anthracene	50.0000	44.7977	10.4	50.0
65 Benzo(g,h,i)perylene	50.0000	43.1032	13.8	50.0

Data File: \\qpltpa02\chem\721.1\060100.b\060100C.D
 Date: 01-JUN-2000 10:05
 Client ID: SST050
 Sample Info: sstd050 (2500/HL) 194-177-4 8270/c/p/625
 Column phase: Hp5-MS

Instrument: 721.1
 Operator: 001562, ILF
 Column diameter: 0.25



6581112

Data File: \\Qpitpa02\D\chem\721.i\d060100.b\D0601CCC.D
Report Date: 01-Jun-2000 10:45

Page 1

STL Pittsburgh

Semivolatile REPORT SW-846 Method 8270

Data file : \\Qpitpa02\D\chem\721.i\d060100.b\D0601CCC.D
Lab Smp Id: sstd50 Client Smp ID: SSTD050
Inj Date : 01-JUN-2000 10:05
Operator : 001562, DLF Inst ID: 721.i
Smp Info : sstd050 (25UG/ML) 194-177-4 8270/clp/625
Misc Info : sstd50,d060100.b,8270c.m,3-root.sub,2
Comment :
Method : \\Qpitpa02\D\chem\721.i\d060100.b\8270c.m
Meth Date : 01-Jun-2000 10:45 ferguson Quant Type: ISTD
Cal Date : 25-MAY-2000 21:15 Cal File: D0525CC5.D
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE
Target Version: 4.04
Processing Host: PITPC013

DLF
6-1-00

Compound Sublist: 3-root.sub

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (NG)	ON-COL (NG)
*****	****	==	=====	=====	=====	=====	=====
* 1 1,4-Dichlorobenzene-d4	152	4.482	4.482	(1.000)	90704	40.0000	
* 2 Naphthalene-d8	136	5.678	5.678	(1.000)	339526	40.0000	
* 3 Acenaphthene-d10	164	8.191	8.191	(1.000)	185944	40.0000	
* 4 Phenanthrene-d10	188	11.040	11.040	(1.000)	360334	40.0000	
* 5 Chrysene-d12	240	16.859	16.859	(1.000)	322032	40.0000	
* 6 Perylene-d12	264	19.809	19.809	(1.000)	276273	40.0000	
10 N-Nitrosodimethylamine	74	1.586	1.586	(0.354)	65700	50.0000	43.737
9 Pyridine	79	1.573	1.573	(0.351)	111379	50.0000	43.669
16 Methyl methanesulfonate	80	3.293	3.293	(0.735)	102887	50.0000	47.659
21 Aniline	93	4.254	4.254	(0.949)	195188	50.0000	51.553
22 Phenol	94	4.254	4.254	(0.949)	174752	50.0000	52.428
23 bis(2-Chloroethyl)ether	93	4.307	4.307	(0.961)	125727	50.0000	50.543
24 2-Chlorophenol	128	4.341	4.341	(0.969)	163966	50.0000	50.777
26 1,3-Dichlorobenzene	146	4.448	4.448	(0.993)	173443	50.0000	50.193
27 1,4-Dichlorobenzene	146	4.495	4.495	(1.003)	181000	50.0000	50.977
28 1,2-Dichlorobenzene	146	4.650	4.650	(1.037)	169284	50.0000	50.784
29 Benzyl Alcohol	108	4.623	4.623	(1.031)	92249	50.0000	52.469
30 2-Methylphenol	108	4.737	4.737	(1.057)	118995	50.0000	51.233
31 2,2'-oxybis(1-Chloropropane)	45	4.751	4.751	(1.060)	138854	50.0000	48.907
32 N-Nitroso-di-n-propylamine	70	4.878	4.878	(1.088)	101951	50.0000	53.529
192 4-Methylphenol	108	4.858	4.858	(1.084)	132605	50.0000	53.603
34 Hexachloroethane	117	4.919	4.919	(1.097)	80141	50.0000	50.015
35 Nitrobenzene	77	5.006	5.006	(0.882)	168890	50.0000	49.619
41 Isophorone	82	5.221	5.221	(0.920)	274671	50.0000	51.343
42 2-Nitrophenol	139	5.302	5.302	(0.934)	94702	50.0000	49.334
43 2,4-Dimethylphenol	107	5.342	5.342	(0.941)	156156	50.0000	49.913

Data File: \\Qpitpa02\D\chem\721.i\d060100.b\D0601CCC.D
Report Date: 01-Jun-2000 10:45

Compounds	QUANT SIG MASS					AMOUNTS	
		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (NG)	ON-COL (NG)
=====	----	==	-----	-----	-----	-----	-----
44 bis(2-Chloroethoxy)methane	93	5.443	5.443	(0.959)	152264	50.0000	49.965
48 2,4-Dichlorophenol	162	5.544	5.544	(0.976)	128259	50.0000	50.026
49 Benzoic Acid	122	5.497	5.497	(0.968)	99954	50.0000	49.042
50 1,2,4-Trichlorobenzene	180	5.631	5.631	(0.992)	146551	50.0000	49.057
51 Naphthalene	128	5.705	5.705	(1.005)	446307	50.0000	49.322
52 4-Chloroaniline	127	5.779	5.779	(1.018)	192195	50.0000	53.174
56 Hexachlorobutadiene	225	5.900	5.900	(1.039)	104747	50.0000	50.813
59 4-Chloro-3-Methylphenol	107	6.377	6.377	(1.123)	136058	50.0000	53.240
62 2-Methylnaphthalene	142	6.545	6.545	(1.153)	292124	50.0000	52.606
63 1-Methylnaphthalene	142	6.693	6.693	(1.179)	278510	50.0000	54.185
64 Hexachlorocyclopentadiene	237	6.861	6.861	(0.838)	116686	50.0000	43.046
66 2,4,6-Trichlorophenol	196	6.982	6.982	(0.852)	102107	50.0000	48.517
67 2,4,5-Trichlorophenol	196	7.042	7.042	(0.860)	108994	50.0000	49.240
70 2-Chloronaphthalene	162	7.244	7.244	(0.884)	284009	50.0000	49.774
73 2-Nitroaniline	65	7.465	7.465	(0.911)	95147	50.0000	49.198
76 Dimethylphthalate	163	7.848	7.848	(0.958)	345172	50.0000	50.903
78 2,6-Dinitrotoluene	165	7.949	7.949	(0.970)	82564	50.0000	51.196
79 Acenaphthylene	152	7.922	7.922	(0.967)	425523	50.0000	50.436 (Q)
81 3-Nitroaniline	138	8.178	8.178	(0.998)	87677	50.0000	50.175
82 Acenaphthene	153	8.251	8.251	(1.007)	264549	50.0000	50.205
83 2,4-Dinitrophenol	184	8.359	8.359	(1.021)	56839	50.0000	46.913
85 4-Nitrophenol	109	8.520	8.520	(1.040)	79581	50.0000	55.339
86 Dibenzofuran	168	8.534	8.534	(1.042)	385975	50.0000	49.979
87 2,4-Dinitrotoluene	165	8.648	8.648	(1.056)	110911	50.0000	52.340
91 2,3,5,6-Tetrachlorophenol	232	8.776	8.776	(1.071)	95226	50.0000	51.307
88 2,3,4,6-Tetrachlorophenol	232	8.863	8.863	(1.082)	96792	50.0000	52.438
92 2-Naphthylamine	143	8.836	8.836	(1.079)	234938	50.0000	60.629
93 Diethylphthalate	149	9.165	9.165	(1.119)	403084	50.0000	54.583
94 Fluorene	166	9.179	9.179	(1.121)	312634	50.0000	51.276
95 4-Chlorophenyl-phenylether	204	9.219	9.219	(1.125)	161161	50.0000	49.936
96 4-Nitroaniline	138	9.333	9.333	(1.139)	85419	50.0000	51.666
98 4,6-Dinitro-2-methylphenol	198	9.421	9.421	(0.853)	76685	50.0000	47.388
99 N-Nitrosodiphenylamine (1)	169	9.474	9.474	(0.858)	222250	50.0000	47.424
100 1,2-Diphenylhydrazine	77	9.521	9.521	(0.862)	368664	50.0000	48.822
106 4-Bromophenyl-phenylether	248	10.173	10.173	(0.921)	101711	50.0000	48.767
107 Hexachlorobenzene	284	10.429	10.429	(0.945)	128728	50.0000	49.514
111 Pentachlorophenol	266	10.818	10.818	(0.980)	76571	50.0000	45.421 (Q)
115 Phenanthrene	178	11.094	11.094	(1.005)	447899	50.0000	50.328
116 Anthracene	178	11.188	11.188	(1.013)	449883	50.0000	49.630
119 Carbazole	167	11.578	11.578	(1.049)	393894	50.0000	48.831 (Q)
120 Di-n-Butylphthalate	149	12.619	12.619	(1.143)	633873	50.0000	51.361
123 Fluoranthene	202	13.654	13.654	(1.237)	487000	50.0000	51.111
124 Benzidine	184	14.050	14.050	(0.833)	170228	50.0000	42.493
125 Pyrene	202	14.124	14.124	(0.838)	485102	50.0000	49.015
131 Butylbenzylphthalate	149	15.911	15.911	(0.944)	275240	50.0000	51.075
135 3,3'-Dichlorobenzidine	252	16.899	16.899	(1.002)	186406	50.0000	50.782
136 Benzo(a)Anthracene	228	16.825	16.825	(0.998)	431613	50.0000	49.496

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT	ON-COL
	MASS					(NG)	(NG)
=====	----	--	-----	-----	-----	-----	-----
137 Chrysene	228	16 919	16 919	(1.004)	416165	50.0000	50.116
139 bis(2-ethylhexyl)Phthalate	149	17.336	17.336	(1.028)	387974	50.0000	50.742
140 Di-n-octylphthalate	149	18 646	18 646	(0.941)	662366	50.0000	54.344
141 Benzo(b)fluoranthene	252	19 096	19.096	(0.964)	426886	50.0000	48.009
142 Benzo(k)fluoranthene	252	19 150	19 150	(0.967)	446322	50.0000	53.907
143 7,12-dimethylbenz[a]anthracen	256	19.163	19.163	(0.967)	212020	50.0000	53.835
146 Benzo(a)pyrene	252	19.701	19.701	(0.995)	382265	50.0000	49.960
149 Indeno(1,2,3-cd)pyrene	276	21.683	21.683	(1.095)	364974	50.0000	45.238
150 Dibenz(a,h)anthracene	278	21.730	21.730	(1.097)	378568	50.0000	44.798
151 Benzo(g,h,i)perylene	276	22.086	22.086	(1.115)	359452	50.0000	43.103
\$ 154 Nitrobenzene-d5	82	4.986	4.986	(0.878)	168508	50.0000	50.234
\$ 155 2-Fluorobiphenyl	172	7 103	7.103	(0.867)	304678	50.0000	48.733
\$ 156 Terphenyl-d14	244	14.628	14.628	(0.868)	386691	50.0000	50.228
\$ 157 Phenol-d5	99	4.240	4.240	(0.946)	162406	50.0000	53.707
\$ 158 2-Fluorophenol	112	3.427	3.427	(0.765)	135095	50.0000	49.225
\$ 159 2,4,6-Tribromophenol	330	9.689	9.689	(0.878)	77441	50.0000	50.829
\$ 186 2-Chlorophenol-d4	132	4.327	4.327	(0.966)	153251	50.0000	52.306
\$ 187 1,2-Dichlorobenzene-d4	152	4 643	4.643	(1.036)	104974	50.0000	50.136

QC Flag Legend

Q - Qualifier signal failed the ratio test.

**GC/MS SEMIVOLATILE
QC DATA**

Date : 25-MAY-2000 18:54

Client ID: DFTPP02

Instrument: 721.i

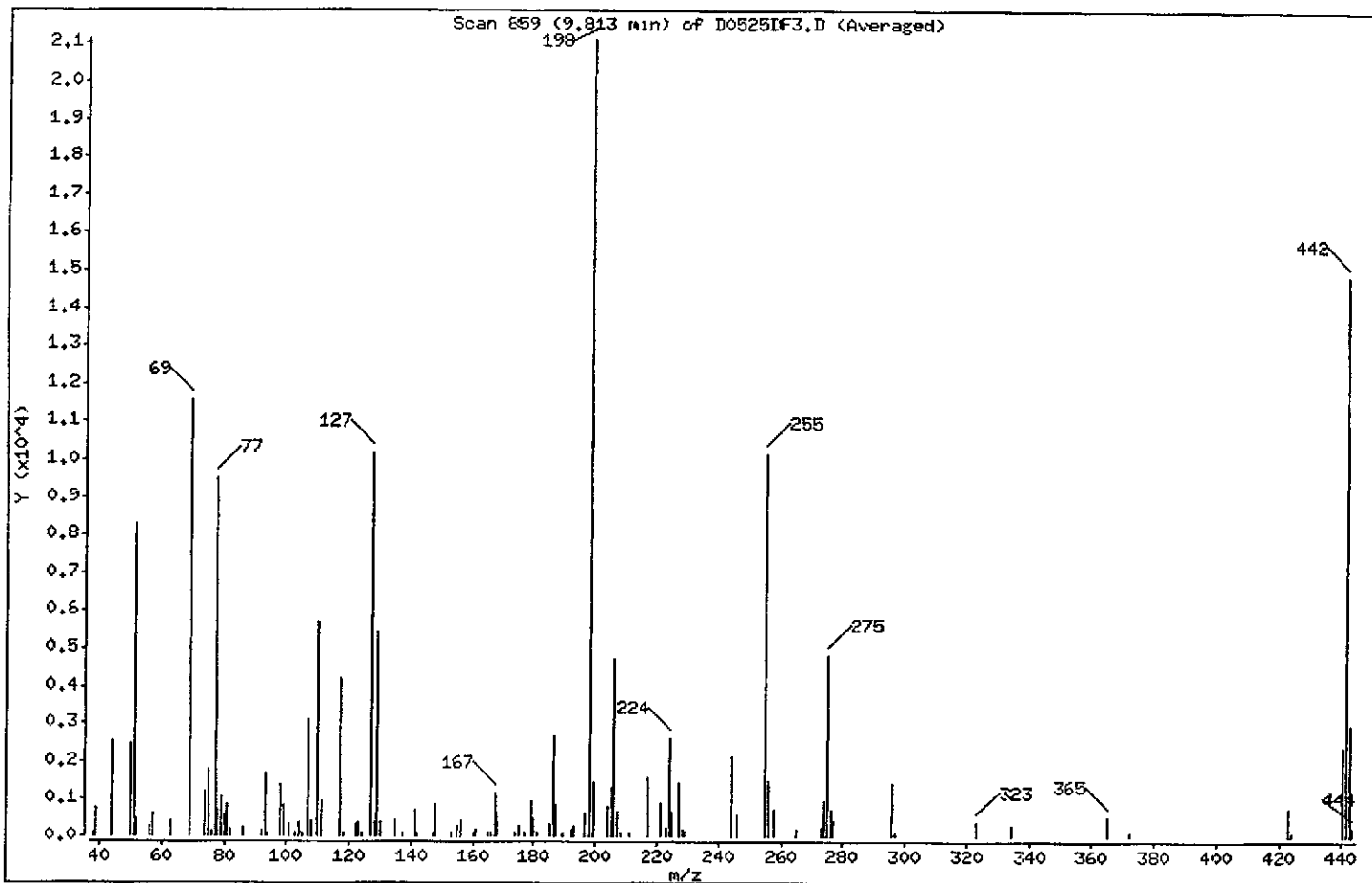
Sample Info: dftpp (25ug/ml) 194-175-8

Operator: 001562, DLF

Column phase:

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	39.34
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	54.82
70	Less than 2.00% of mass 69	0.00 (0.00)
127	40.00 - 60.00% of mass 198	48.34
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.96
275	10.00 - 30.00% of mass 198	22.82
365	Greater than 1.00% of mass 198	2.52
441	Present, but less than mass 442	11.27
442	Greater than 40.00% of mass 198	70.29
443	17.00 - 23.00% of mass 442	14.14 (20.11)

Data File: \\QP1TPA02\N\chem\721.1\052500.b\0525DF3.D

Page 4

Date : 25-MAY-2000 18:54

Client ID: DFTPP02

Instrument: 721.1

Sample Info: dftpp (25ug/ml) 194-175-8

Operator: 001562, DLF

Column phase:

Column diameter: 0.25

Data File: 0525DF3.D

Spectrum: Scan 860 (9.813 min) of 0525DF3.D (Averaged)

Location of Maximum: 198.00

Number of points: 109

m/z	Y	m/z	Y	m/z	Y	m/z	Y

38.00	103	105.00	91	169.00	665	228.00	204
39.00	793	107.00	3095	174.00	115	229.00	122
44.00	2545	108.00	436	175.00	310	244.00	2155
50.00	2489	110.00	5659	177.00	96	246.00	561
51.00	8307	111.00	949	179.00	965	255.00	10162

52.00	477	117.00	4187	180.00	502	256.00	1509
56.00	289	118.00	120	181.00	108	258.00	726
57.00	629	122.00	338	185.00	319	265.00	185
63.00	457	123.00	401	186.00	2683	273.00	252
69.00	11574	124.00	96	187.00	859	274.00	977

74.00	1210	127.00	10207	189.00	100	275.00	4818
75.00	1773	128.00	376	192.00	210	276.00	706
76.00	151	129.00	5451	193.00	277	277.00	457
77.00	9495	130.00	372	196.00	613	296.00	1456
78.00	709	135.00	443	198.00	21114	297.00	101

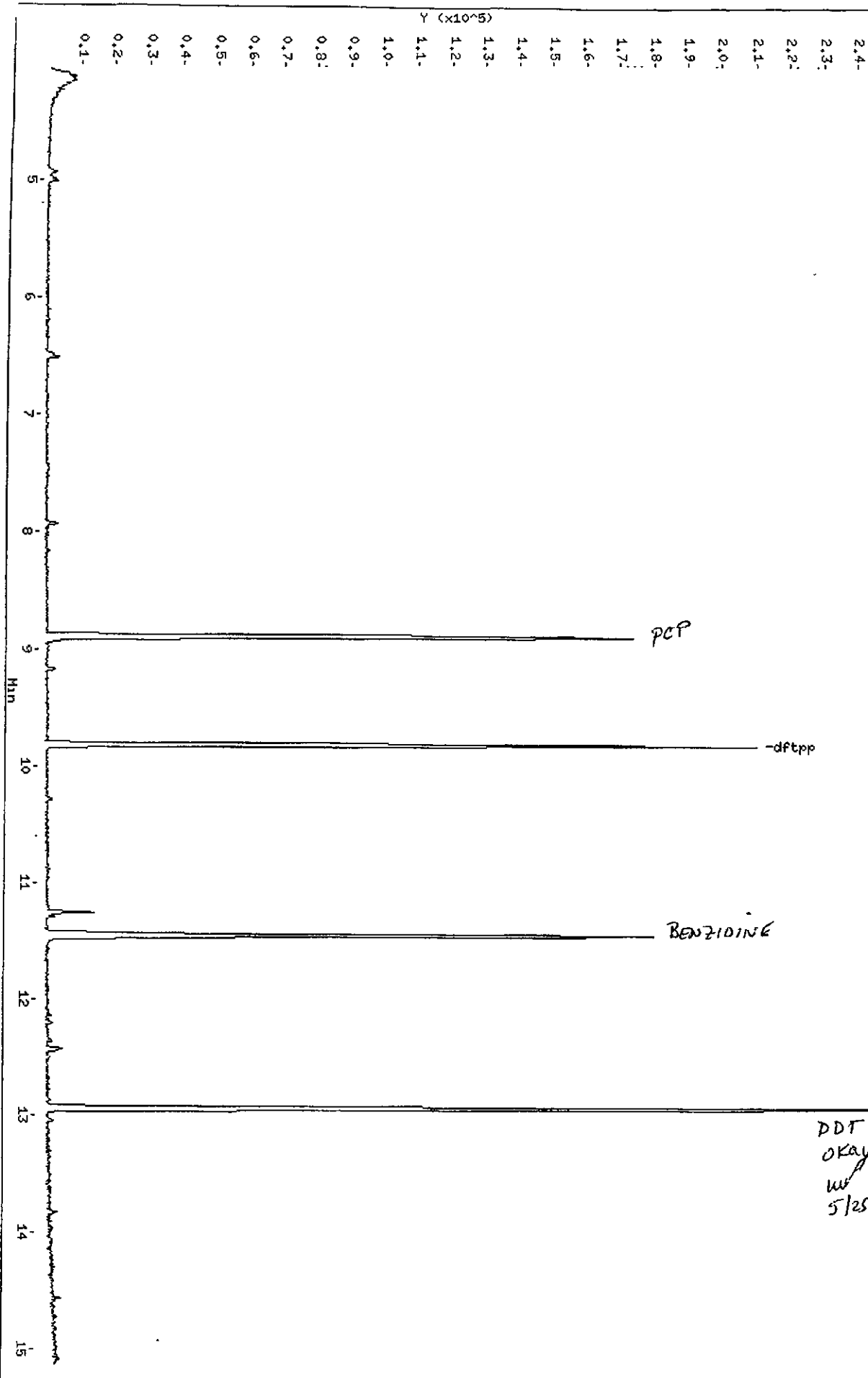
79.00	1070	137.00	117	199.00	1470	323.00	399
80.00	584	141.00	705	204.00	848	334.00	314
81.00	864	142.00	91	205.00	1305	365.00	532
82.00	184	147.00	106	206.00	4688	372.00	106
86.00	223	148.00	879	207.00	668	423.00	793

92.00	127	153.00	117	208.00	121	424.00	93
93.00	1687	155.00	315	211.00	103	441.00	2380
94.00	91	156.00	416	217.00	1580	442.00	14841
98.00	1402	160.00	101	221.00	931	443.00	2985
99.00	873	161.00	200	223.00	246	444.00	229

101.00	335	165.00	101	224.00	2602		
103.00	107	166.00	91	225.00	691		
104.00	394	167.00	1150	227.00	1476		

Column phase:

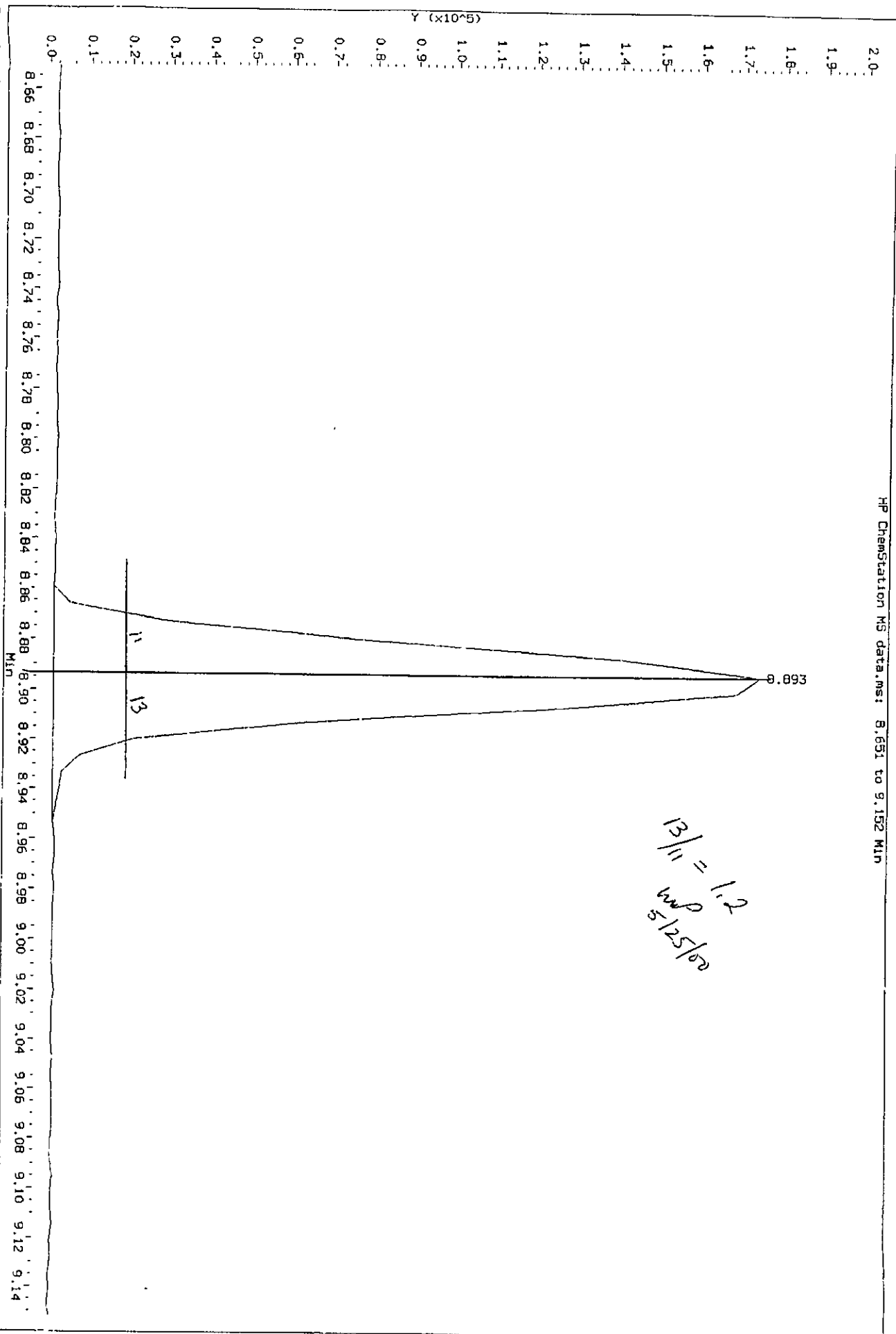
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8111859

Data File: \\NPIPA02\chem\721.1\052500.b\0525DF3.D
Injection Date: 25-MAY-2000 18:54
Instrument: 721.1
Client Sample ID: DF1PP02

HP ChemStation MS data.ms: 8.651 to 9.152 Min

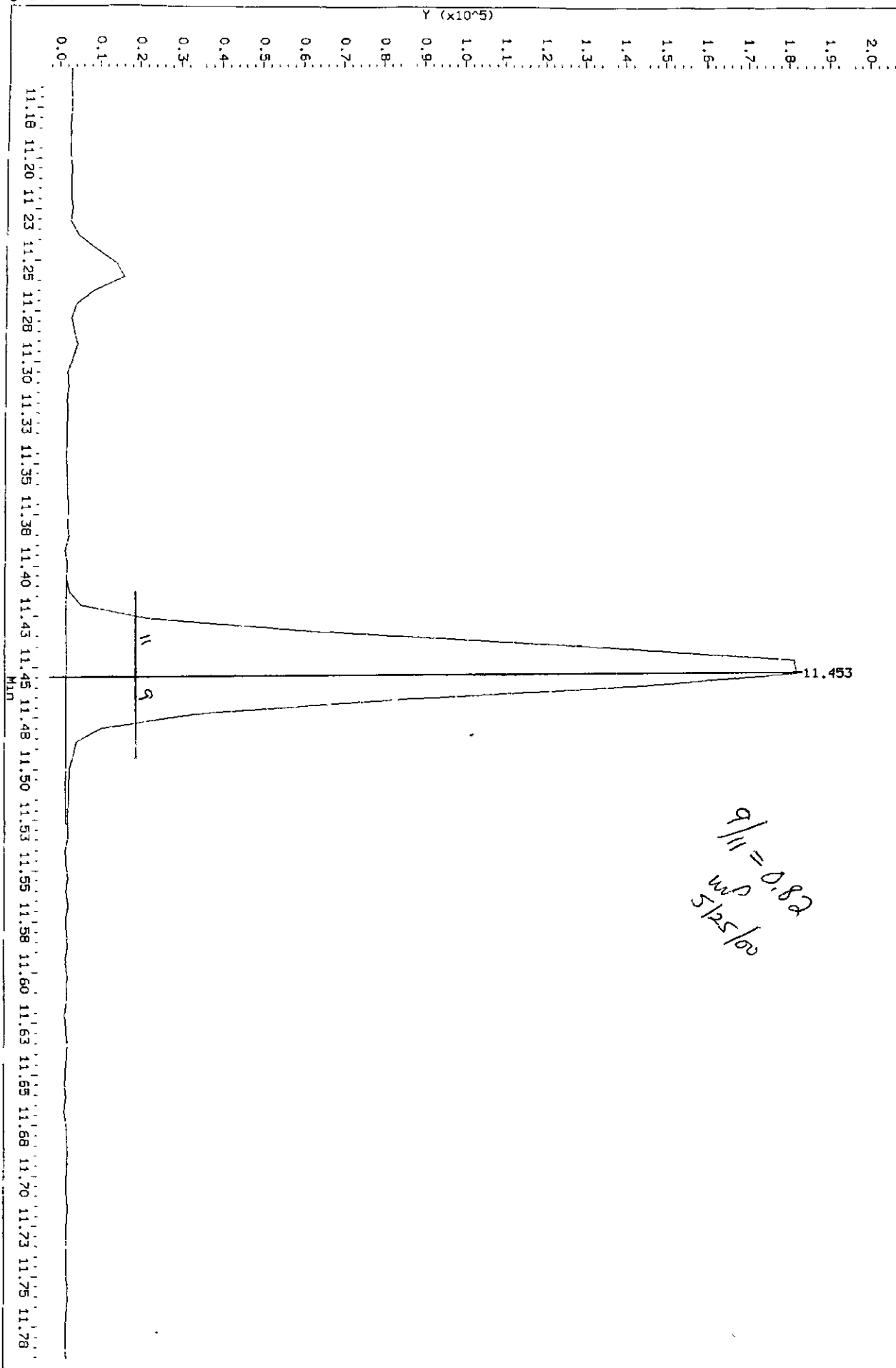


6411859

6581120

Data File: \\DPTPA02\chem\721.1\052500.b\0525003.D
Injection Date: 25-May-2000 18:54
Instrument: 721.1
Client Sample ID: DFTPP02

HP ChemStation MS data.ms: 11.156 to 11.790 Min



Data File: \\QPITPA02\chem\721.i\d060109.b\D0601DF2.D

Date : 01-JUN-2000 09:43

Client ID: DFTPP02

Instrument: 721.i

Sample Info: dftpp (25ug/ml) 194-175-8

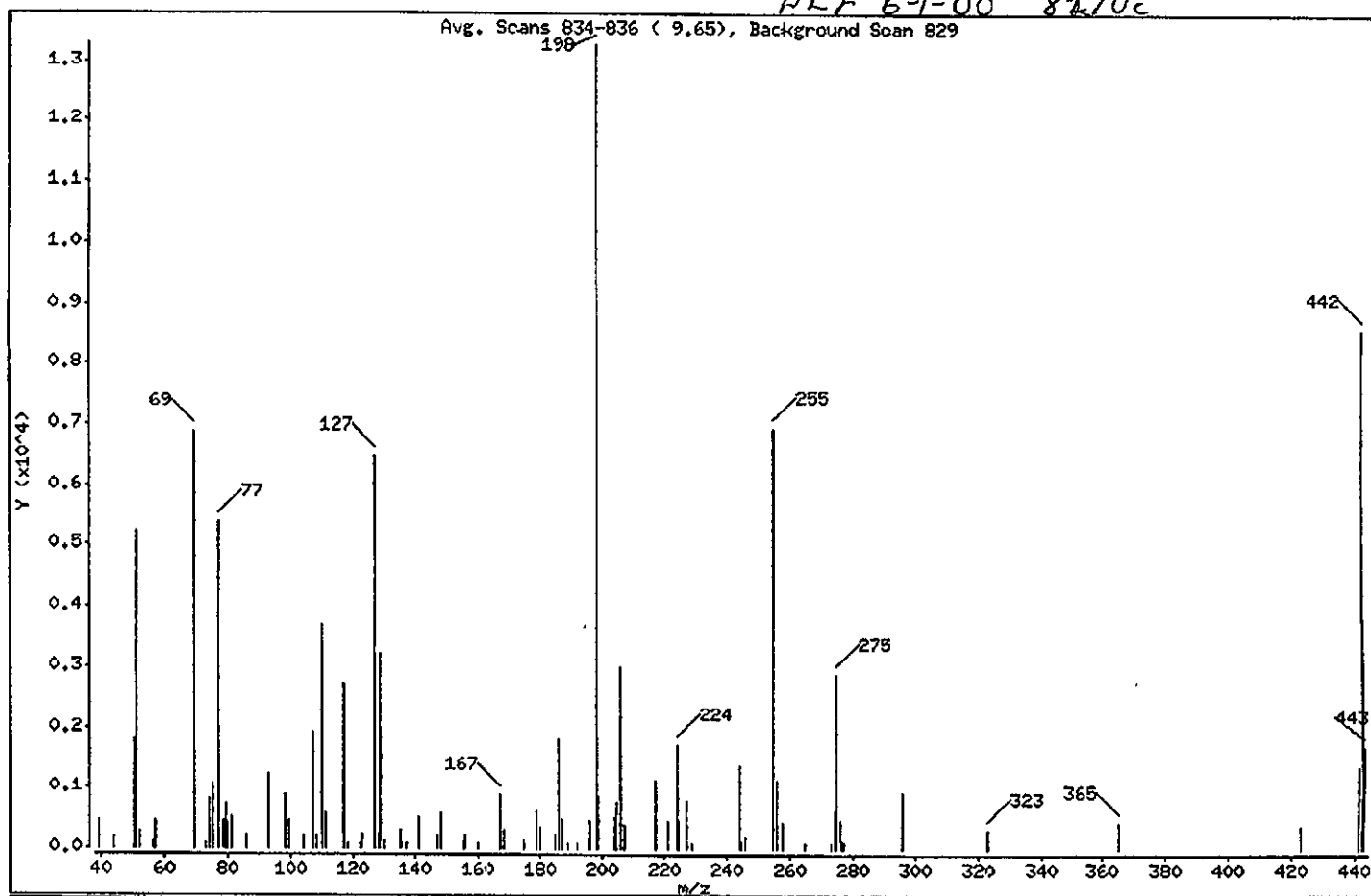
Operator: 001562, DLF

Column phase:

Column diameter: 0.25

1 dftpp

Avg. Scans 834-836 (9.65), Background Scan 829



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
199	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	39.24
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	51.71
70	Less than 2.00% of mass 69	0.00 (0.00)
127	40.00 - 60.00% of mass 198	48.74
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.34
275	10.00 - 30.00% of mass 198	21.58
365	Greater than 1.00% of mass 198	3.13
441	Present, but less than mass 443	10.96
442	Greater than 40.00% of mass 198	64.69
443	17.00 - 23.00% of mass 442	12.74 (19.69)

Date : 01-JUN-2000 09:43

Client ID: DFTPP02

Instrument: 721.i

Sample Info: dftpp (25ug/ml) 194-175-8

Operator: 001562, DLF

Column phase:

Column diameter: 0.25

Data File: D0601DF2.D

Spectrum: Avg. Scans 834-836 (9.65), Background Scan 829

Location of Maximum: 198.00

Number of points: 83

m/z	Y	m/z	Y	m/z	Y	m/z	Y
39.00	464	107.00	1917	168.00	296	229.00	92
44.00	183	108.00	217	175.00	127	244.00	1370
50.00	1790	110.00	3702	179.00	613	245.00	114
51.00	5217	111.00	593	180.00	332	246.00	193
52.00	267	117.00	2725	185.00	227	255.00	6933
56.00	116	118.00	84	186.00	1793	256.00	1130
57.00	448	122.00	97	187.00	475	258.00	429
69.00	6874	123.00	259	189.00	91	265.00	90
73.00	87	127.00	6479	192.00	84	273.00	97
74.00	820	128.00	246	196.00	448	274.00	607
75.00	1076	129.00	3201	198.00	13294	275.00	2869
77.00	5388	130.00	137	199.00	843	276.00	465
78.00	484	135.00	301	204.00	512	277.00	117
79.00	730	137.00	94	205.00	765	296.00	926
80.00	435	141.00	515	206.00	3007	323.00	319
81.00	525	147.00	222	207.00	402	365.00	416
86.00	200	148.00	582	217.00	1126	423.00	374
93.00	1215	155.00	115	221.00	449	441.00	1337
98.00	853	156.00	219	224.00	1714	442.00	8600
99.00	451	160.00	89	225.00	448	443.00	1693
104.00	206	167.00	888	227.00	795		

Data File: \NPI1P802\chem\721.1\0060100.b\00601DF2.D
Date: 01-JUN-2000 09:43
Client ID: DFTPP02
Sample Info: dftpp (25ug/ml) 194-175-8

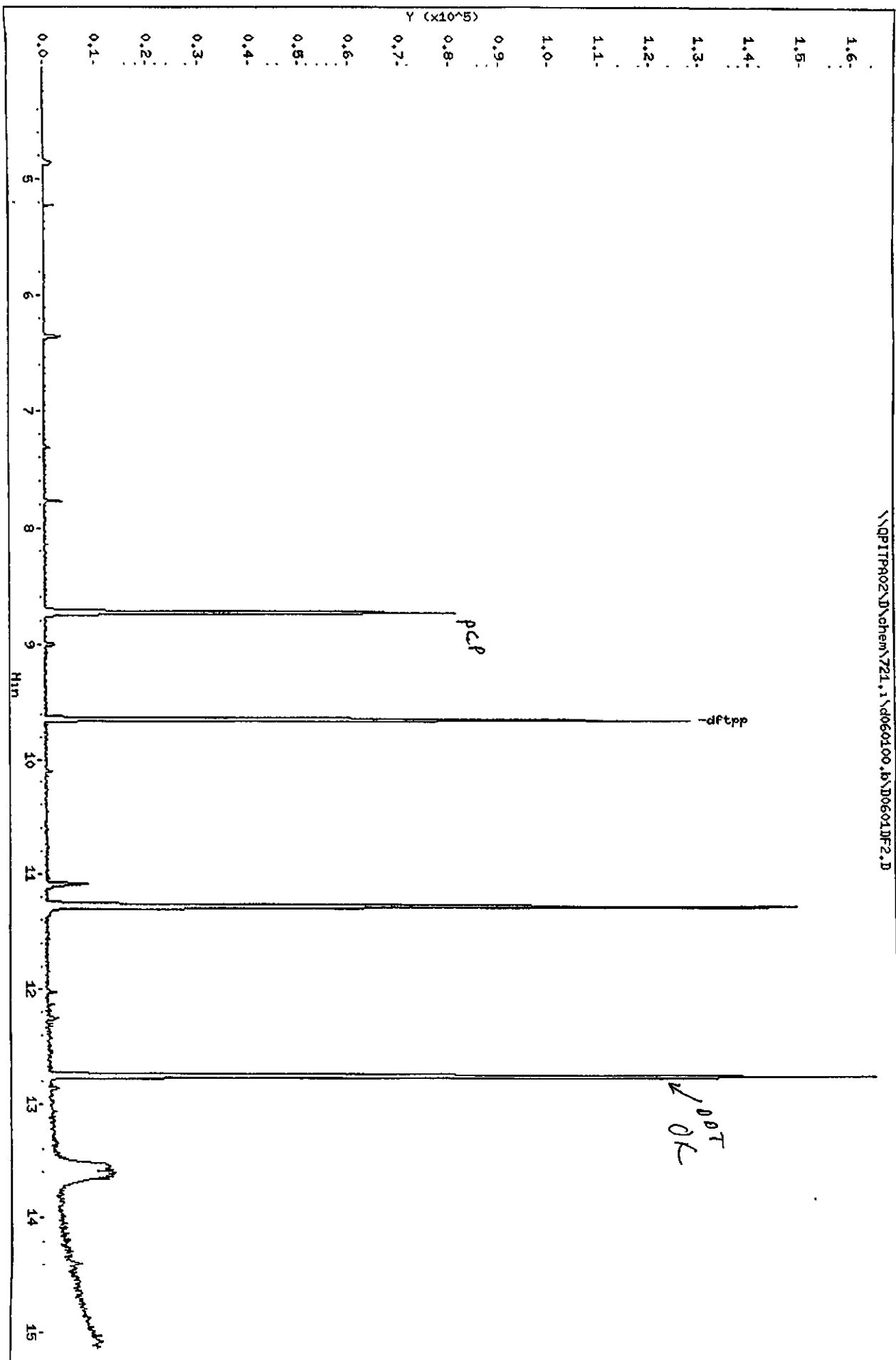
Instrument: 721.1

Operator: 001562, DLF

Column diameter: 0.25

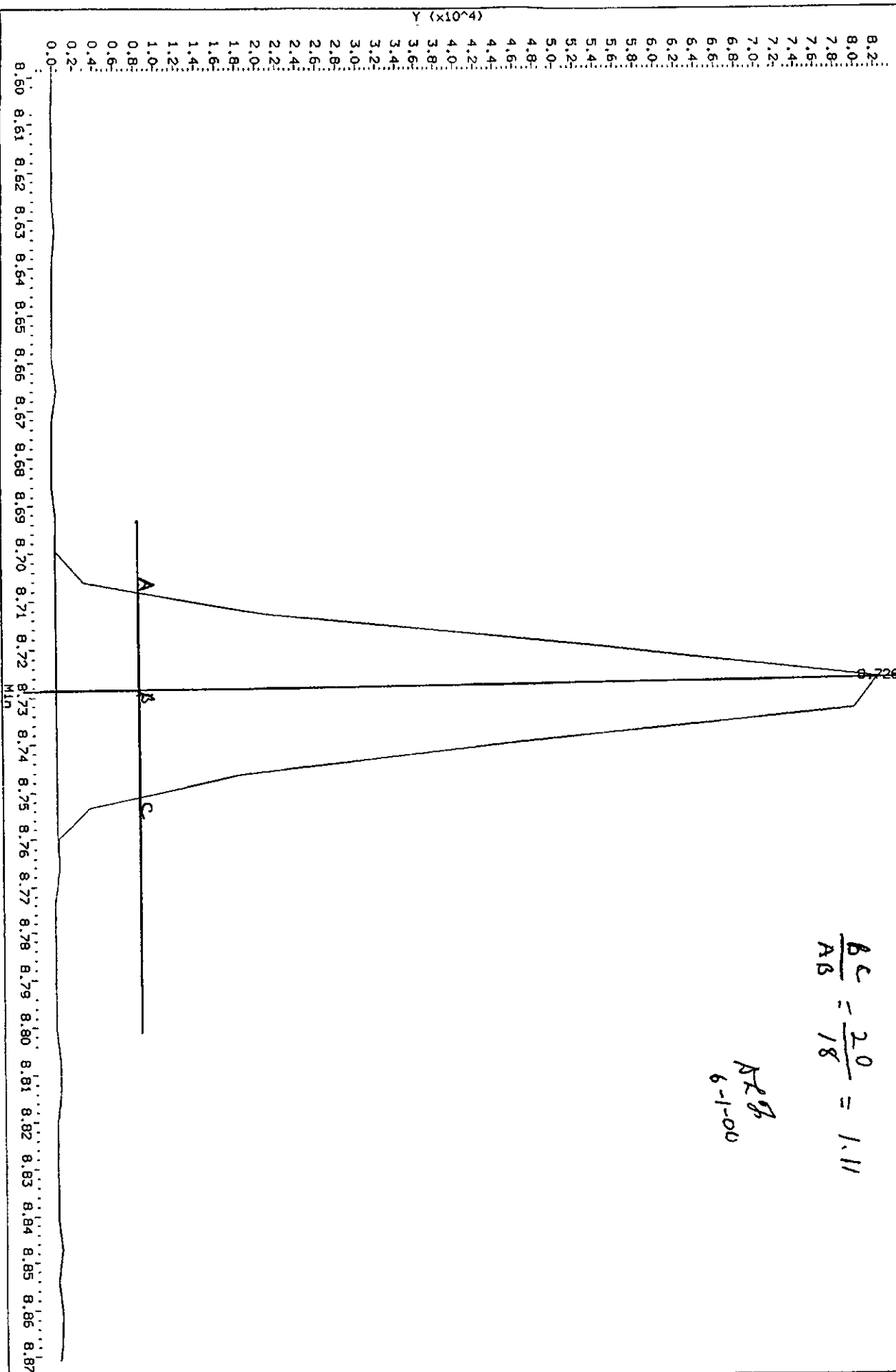
Column phase:

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Data File: \\dpltpa02\chem\721.1\0060100.b\00601DF2.D
 Injection Date: 01-JUN-2000 09:43
 Instrument: 721.1
 Client Sample ID: DFTFP02

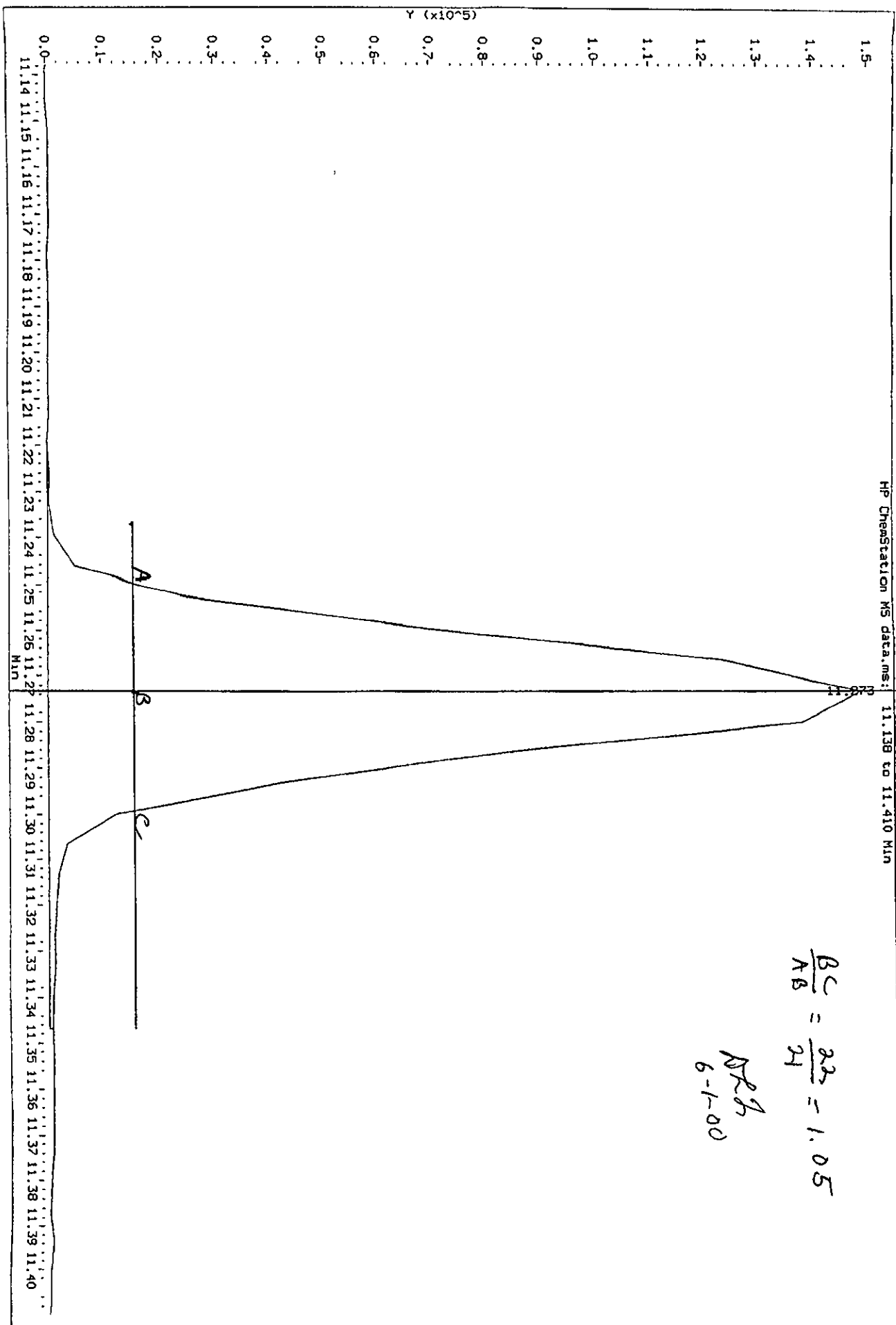
HP ChemStation MS data.ms: 8.599 to 8.871 Min



$$\frac{b_c}{a_b} = \frac{2.0}{1.8} = 1.11$$

AKB
 6-1-00

Data File: \\p01p02\\D\\chem\\721.1\\060100.b\\0601DF2.D
 Injection Date: 01-JUN-2000 09:43
 Instrument: 721.1
 Client Sample ID: DFTPP02



6581126

UXB INTERNATIONAL
METHOD BLANK COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0E300000 187

Method: SW846 8270C

Base/Neutrals and Acids (8270C)

Sample WT/Vol: 200 / mL

Date Received: 05/24/00

Work Order: DDWFT101

Date Extracted: 05/30/00

Dilution factor: 1

Date Analyzed: 06/01/00

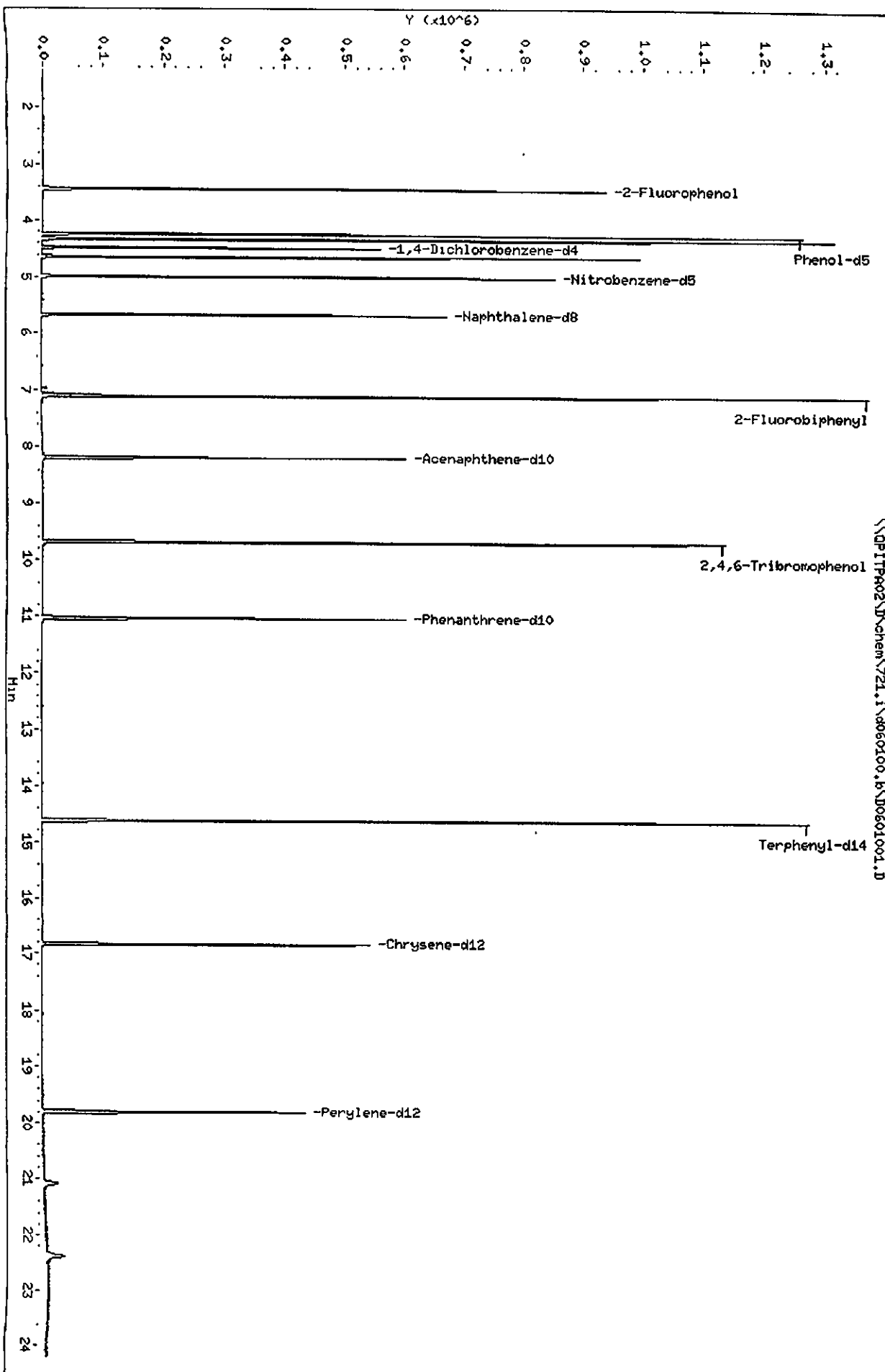
QC Batch: 0151187

Client Sample Id: INTRA-LAB BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
106-46-7	1,4-Dichlorobenzene	0.050	U
121-14-2	2,4-Dinitrotoluene	0.050	U
118-74-1	Hexachlorobenzene	0.050	U
87-68-3	Hexachlorobutadiene	0.050	U
67-72-1	Hexachloroethane	0.050	U
98-95-3	Nitrobenzene	0.050	U
87-86-5	Pentachlorophenol	0.25	U
110-86-1	Pyridine	0.10	U
95-95-4	2,4,5-Trichlorophenol	0.050	U
88-06-2	2,4,6-Trichlorophenol	0.050	U
1319-77-3	Cresols (total)	0.050	U

Data File: \\NPITPA02\\chem\\721.i\\060100.b\\0601001.D
Date: 01-JUN-2000 10:35
Client ID: INTR-LAB BLANK
Sample Info: 00240180-solk tcip 5/30/00 8270c
Volume Injected (uL): 2.0
Column Phase: HP5-MS

Instrument: 721.i
Operator: 001562, DLF
Column diameter: 0.25



STL Pittsburgh

Semivolatile REPORT SW-846 Method 8270

Data file : \\Qpitpa02\D\chem\721.i\d060100.b\D0601001.D
 Lab Smp Id: DDWFT101 Client Smp ID: INTRA-LAB BLANK
 Inj Date : 01-JUN-2000 10:35
 Operator : 001562, DLF Inst ID: 721.i
 Smp Info : c0e240180-sblk tclp 5/30/00 8270c
 Misc Info : ddwft101,d060100.b,8270c.m,tclp.sub
 Comment :
 Method : \\Qpitpa02\D\chem\721.i\d060100.b\8270c.m
 Meth Date : 01-Jun-2000 10:45 ferguson Quant Type: ISTD
 Cal Date : 25-MAY-2000 21:15 Cal File: D0525CC5.D
 Als bottle: 3 QC Sample: BLANK
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.04
 Processing Host: PITPC013

PLH
6-1-00

Concentration Formula: $\text{Amt} * \text{DF} * \text{Uf} * \text{Vt} / (\text{Vo} * \text{Vi})$

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.001	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	200.000	Volume of sample extracted (mL)
Vi	2.000	Volume injected (uL)

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (NG)	FINAL (mg/L)
* 1 1,4-Dichlorobenzene-d4	152	4.481	4.482	(1.000)	88677	40.0000	(aQ)
* 2 Naphthalene-d8	136	5.670	5.678	(1.000)	349254	40.0000	(a)
* 3 Acenaphthene-d10	164	8.183	8.191	(1.000)	196739	40.0000	(a)
* 4 Phenanthrene-d10	188	11.032	11.040	(1.000)	394768	40.0000	(a)
* 5 Chrysene-d12	240	16.844	16.859	(1.000)	354033	40.0000	(a)
* 6 Perylene-d12	264	19.801	19.809	(1.000)	313962	40.0000	(a)
9 Pyridine	79	Compound Not Detected.					
27 1,4-Dichlorobenzene	146	Compound Not Detected.					
M 195 Cresols, total	100	Compound Not Detected.					
30 2-Methylphenol	108	Compound Not Detected.					
192 4-Methylphenol	108	Compound Not Detected.					
34 Hexachloroethane	117	Compound Not Detected.					
35 Nitrobenzene	77	Compound Not Detected.					
56 Hexachlorobutadiene	224	Compound Not Detected.					

Compounds	QUANT SIG MASS						CONCENTRATIONS	
		RT	EXP RT	REL RT	RESPONSE		ON-COLUMN (NG)	FINAL (mg/L)
*****	****	**	*****	*****	*****		*****	*****
66 2,4,6-Trichlorophenol	196				Compound Not Detected.			
67 2,4,5-Trichlorophenol	196				Compound Not Detected.			
87 2,4-Dinitrotoluene	165				Compound Not Detected.			
107 Hexachlorobenzene	283				Compound Not Detected.			
111 Pentachlorophenol	265				Compound Not Detected.			
\$ 154 Nitrobenzene-d5	82	4.985	4.986	(0.879)	260001	75.3499	0.18837(a)	
\$ 155 2-Fluorobiphenyl	172	7.101	7.103	(0.868)	508185	76.8238	0.19206(a)	
\$ 156 Terphenyl-d14	244	14.640	14.628	(0.869)	787359	93.0264	0.23256(a)	
\$ 157 Phenol-d5	99	4.239	4.240	(0.946)	354717	119.985	0.29996(a)	
\$ 158 2-Fluorophenol	112	3.426	3.427	(0.765)	277477	103.416	0.25854(a)	
\$ 159 2,4,6-Tribromophenol	330	9.688	9.689	(0.878)	221629	132.778	0.33194(a)	

QC Flag Legend

- a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
- Q - Qualifier signal failed the ratio test.

UXB INTERNATIONAL
CHECK SAMPLE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SOLID Lab Sample ID: COE300000 187
Method: SW846 8270C
Base/Neutrals and Acids (8270C)

Sample WT/Vol: 200 / mL Date Received: 05/24/00
Work Order: DDWFT102 Date Extracted: 05/30/00
Dilution factor: 1 Date Analyzed: 06/01/00

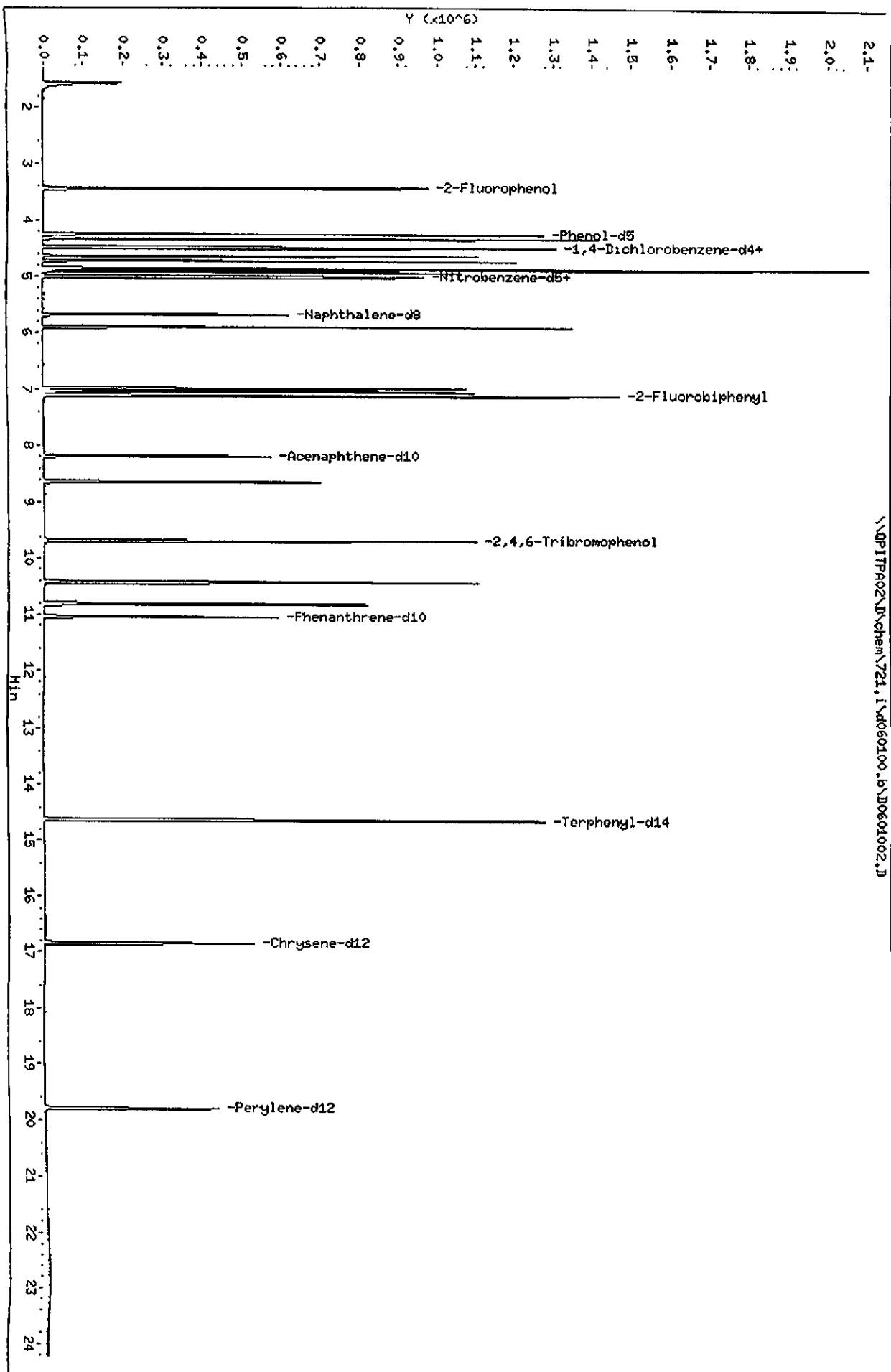
QC Batch: 0151187

Client Sample Id: CHECK SAMPLE

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
106-46-7	1,4-Dichlorobenzene	0.211	
121-14-2	2,4-Dinitrotoluene	0.237	
118-74-1	Hexachlorobenzene	0.228	
87-68-3	Hexachlorobutadiene	0.214	
67-72-1	Hexachloroethane	0.209	
98-95-3	Nitrobenzene	0.210	
87-86-5	Pentachlorophenol	0.213	
110-86-1	Pyridine	0.165	
95-95-4	2,4,5-Trichlorophenol	0.220	
88-06-2	2,4,6-Trichlorophenol	0.216	
1319-77-3	Cresols (total)	0.719	

Data File: \\GPITPA02\chem\721.i\060100.b\0601002.D
 Date: 01-JUN-2000 11:05
 Client ID: INTRA-LAB CHECK
 Sample Info: 00240180-10s tolp 5/30/00 8270c
 Volume Injected (uL): 2.0
 Column Phase: Hp5-MS

Instrument: 721.i
 Operator: 001562, DLF
 Column diameter: 0.25



STL Pittsburgh

Semivolatile REPORT SW-846 Method 8270

Data file : \\Qpitpa02\D\chem\721.i\d060100.b\D0601002.D
 Lab Smp Id: DDWFT102 Client Smp ID: LCS
 Inj Date : 01-JUN-2000 11:05
 Operator : 001562, DLF Inst ID: 721.i
 Smp Info : c0e240180-lcs tclp 5/30/00 8270c
 Misc Info : ddwft102,d060100.b,8270c.m,tclp.sub
 Comment :
 Method : \\Qpitpa02\D\chem\721.i\d060100.b\8270c.m
 Meth Date : 01-Jun-2000 10:45 ferguson Quant Type: ISTD
 Cal Date : 25-MAY-2000 21:15 Cal File: D0525CC5.D
 Als bottle: 4 QC Sample: LCS
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.04
 Processing Host: PITPC013

6-1-00

Compound Sublist: tclp.sub

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi)

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.001	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	200.000	Volume of sample extracted (mL)
Vi	2.000	Volume injected (uL)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (NG)	FINAL (mg/L)
* 1 1,4-Dichlorobenzene-d4	152	4.481	4.482	(1.000)	86634	40.0000	(a)
* 2 Naphthalene-d8	136	5.670	5.678	(1.000)	337766	40.0000	(a)
* 3 Acenaphthene-d10	164	8.183	8.191	(1.000)	190680	40.0000	(a)
* 4 Phenanthrene-d10	188	11.039	11.040	(1.000)	377023	40.0000	(a)
* 5 Chrysene-d12	240	16.844	16.859	(1.000)	355010	40.0000	(a)
* 6 Perylene-d12	264	19.801	19.809	(1.000)	318408	40.0000	(a)
9 Pyridine	79	1.572	1.573	(0.351)	161152	66.1526	0.16538(a)
27 1,4-Dichlorobenzene	146	4.494	4.495	(1.003)	286374	84.4437	0.21111(a)
M 195 Cresols, total	100				665949	287.528	0.71882(a)
30 2-Methylphenol	108	4.730	4.737	(1.055)	206329	93.0077	0.23252(a)
192 4-Methylphenol	108	4.864	4.858	(1.085)	459620	194.520	0.48630(aA)
34 Hexachloroethane	117	4.918	4.919	(1.097)	128049	83.6680	0.20917(a)
35 Nitrobenzene	77	5.005	5.006	(0.883)	284249	83.9459	0.20986(a)
56 Hexachlorobutadiene	225	5.899	5.900	(1.040)	175464	85.5610	0.21390(a)

Data File: \\Opitpa02\D\chem\721.i\d060100.b\D0601002.D
 Report Date: 01-Jun-2000 12:02

Page 4

Compounds	QUANT SIG						CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE		ON-COLUMN (NG)	FINAL (mg/L)
-----	----	--	-----	-----	-----		-----	-----
66 2,4,6-Trichlorophenol	196	6.981	6.982	(0.853)	186726		86.5202	0.21630(a)
67 2,4,5-Trichlorophenol	196	7.034	7.042	(0.860)	199993		88.1060	0.22026(a)
87 2,4-Dinitrotoluene	165	8.647	8.648	(1.057)	205907		94.7553	0.23689(a)
107 Hexachlorobenzene	284	10.434	10.429	(0.945)	247970		91.1576	0.22789(a)
111 Pentachlorophenol	266	10.817	10.818	(0.980)	150200		85.1534	0.21288(aQ)
\$ 154 Nitrobenzene-d5	82	4.992	4.986	(0.880)	273098		81.8373	0.20459(a)
\$ 155 2-Fluorobiphenyl	172	7.101	7.103	(0.868)	538013		83.9174	0.20979(a)
\$ 156 Terphenyl-d14	244	14.640	14.628	(0.869)	818536		96.4438	0.24111(a)
\$ 157 Phenol-d5	99	4.239	4.240	(0.946)	401110		138.877	0.34719(a)
\$ 158 2-Fluorophenol	112	3.426	3.427	(0.765)	308805		117.806	0.29451(a)
\$ 159 2,4,6-Tribromophenol	330	9.688	9.689	(0.878)	229886		144.207	0.36052(a)

QC Flag Legend

- a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
- A - Target compound detected but, quantitated amount
exceeded maximum amount.
- Q - Qualifier signal failed the ratio test.

6581134

UXB INTERNATIONAL
MATRIX SPIKE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0E240180 001

Method: SW846 8270C

Base/Neutrals and Acids (8270C)

Sample WT/Vol: 200 / mL

Date Received: 05/24/00

Work Order: DDLX310U

Date Extracted: 05/30/00

Dilution factor: 1

Date Analyzed: 06/01/00

QC Batch: 0151187

Client Sample Id: DF/S1/0143/SDC/002

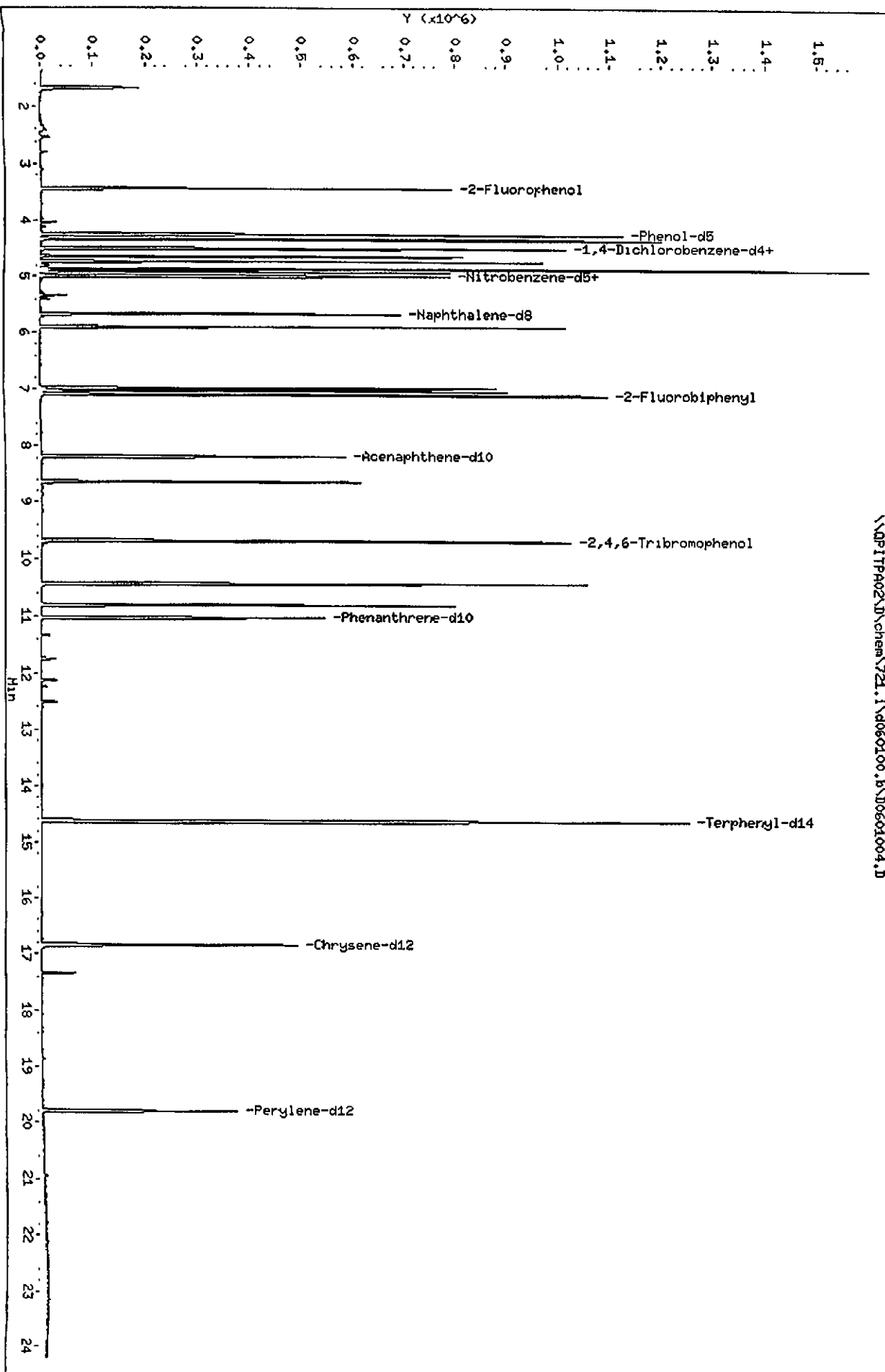
CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
106-46-7	1,4-Dichlorobenzene	0.161	
121-14-2	2,4-Dinitrotoluene	0.198	
118-74-1	Hexachlorobenzene	0.228	
87-68-3	Hexachlorobutadiene	0.154	
67-72-1	Hexachloroethane	0.157	
98-95-3	Nitrobenzene	0.165	
87-86-5	Pentachlorophenol	0.203	
110-86-1	Pyridine	0.124	
95-95-4	2,4,5-Trichlorophenol	0.183	
88-06-2	2,4,6-Trichlorophenol	0.175	
1319-77-3	Cresols (total)	0.562	

FORM I

Data File: \\NPITPA02\chem\721.i\d060100.b\D0601004.D
Date: 01-JUN-2000 12:05
Client ID: DF/SL/0143/SDC/002
Sample Info: c0e240180-001ms tcip 5/30/00 8270c
Volume Injected (uL): 2.0
Column phase: Hp5-MS

Instrument: 721.i
Operator: 001562, DLF
Column diameter: 0.25

\\NPITPA02\chem\721.i\d060100.b\D0601004.D



STL Pittsburgh

Semivolatile REPORT SW-846 Method 8270

Data file : \\Qpitpa02\D\chem\721.i\d060100.b\D0601004.D
 Lab Smp Id: DDLX310U Client Smp ID: DF/S1/0143/SDC/002
 Inj Date : 01-JUN-2000 12:05
 Operator : 001562, DLF Inst ID: 721.i
 Smp Info : c0e240180-001ms tclp 5/30/00 8270c
 Misc Info : ddlx310u,d060100.b,8270c.m,tclp.sub
 Comment :
 Method : \\Qpitpa02\D\chem\721.i\d060100.b\8270c.m
 Meth Date : 01-Jun-2000 10:45 ferguson Quant Type: ISTD
 Cal Date : 25-MAY-2000 21:15 Cal File: D0525CC5.D
 Als bottle: 6 QC Sample: MS
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.04
 Processing Host: PITPC013

Concentration Formula: Amt * DF * Uf * Vt / (Vo * Vi)

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.001	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	200.000	Volume of sample extracted (mL)
Vi	2.000	Volume injected (uL)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (NG)	FINAL (mg/L)
* 1 1,4-Dichlorobenzene-d4	152	4.483	4.482	(1.000)	85970	40.0000	(a)
* 2 Naphthalene-d8	136	5.673	5.678	(1.000)	336128	40.0000	(a)
* 3 Acenaphthene-d10	164	8.186	8.191	(1.000)	187279	40.0000	(a)
* 4 Phenanthrene-d10	188	11.041	11.040	(1.000)	362957	40.0000	(a)
* 5 Chrysene-d12	240	16.847	16.859	(1.000)	316224	40.0000	(a)
* 6 Perylene-d12	264	19.803	19.809	(1.000)	274413	40.0000	(a)
9 Pyridine	79	1.661	1.573	(0.371)	119934	49.6130	0.12403(a)
27 1,4-Dichlorobenzene	146	4.497	4.495	(1.003)	216408	64.3056	0.16076(a)
M 195 Cresols, total	100				516850	224.868	0.56217(a)
30 2-Methylphenol	108	4.732	4.737	(1.055)	159827	72.6022	0.18150(a)
192 4-Methylphenol	108	4.866	4.858	(1.085)	357023	152.266	0.38066(a)
34 Hexachloroethane	117	4.920	4.919	(1.097)	95245	62.7144	0.15678(a)
35 Nitrobenzene	77	5.008	5.006	(0.883)	221935	65.8624	0.16466(a)
56 Hexachlorobutadiene	225	5.901	5.900	(1.040)	125503	61.4969	0.15374(a)

Compounds	QUANT SIG						CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN	FINAL	
*****	****	==	*****	*****	*****	(NG)	(mg/L)	
66 2,4,6-Trichlorophenol	196	6.976	6.982	(0.852)	148602	70.1057	0.17526 (a)	
67 2,4,5-Trichlorophenol	196	7.030	7.042	(0.859)	163267	73.2327	0.18308 (a)	
87 2,4-Dinitrotoluene	165	8.643	8.648	(1.056)	169088	79.2248	0.19806 (a)	
107 Hexachlorobenzene	284	10.437	10.429	(0.945)	238604	91.1138	0.22778 (a)	
111 Pentachlorophenol	266	10.813	10.818	(0.979)	138183	81.3766	0.20344 (aQ)	
\$ 154 Nitrobenzene-d5	82	4.987	4.986	(0.879)	220203	66.3082	0.16577 (a)	
\$ 155 2-Fluorobiphenyl	172	7.104	7.103	(0.868)	410150	65.1356	0.16284 (a)	
\$ 156 Terphenyl-d14	244	14.643	14.628	(0.869)	786144	103.988	0.25997 (a)	
\$ 157 Phenol-d5	99	4.242	4.240	(0.946)	305004	106.418	0.26604 (a)	
\$ 158 2-Fluorophenol	112	3.435	3.427	(0.766)	229871	88.3705	0.22093 (a)	
\$ 159 2,4,6-Tribromophenol	330	9.684	9.689	(0.877)	195356	127.296	0.31824 (a)	

QC Flag Legend

- a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

6581138

UXB INTERNATIONAL
MATRIX SPIKE DUPLICATE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0E240180 001

Method: SW846 8270C

Base/Neutrals and Acids (8270C)

Sample WT/Vol: 200 / mL

Date Received: 05/24/00

Work Order: DDLX310V

Date Extracted: 05/30/00

Dilution factor: 1

Date Analyzed: 06/01/00

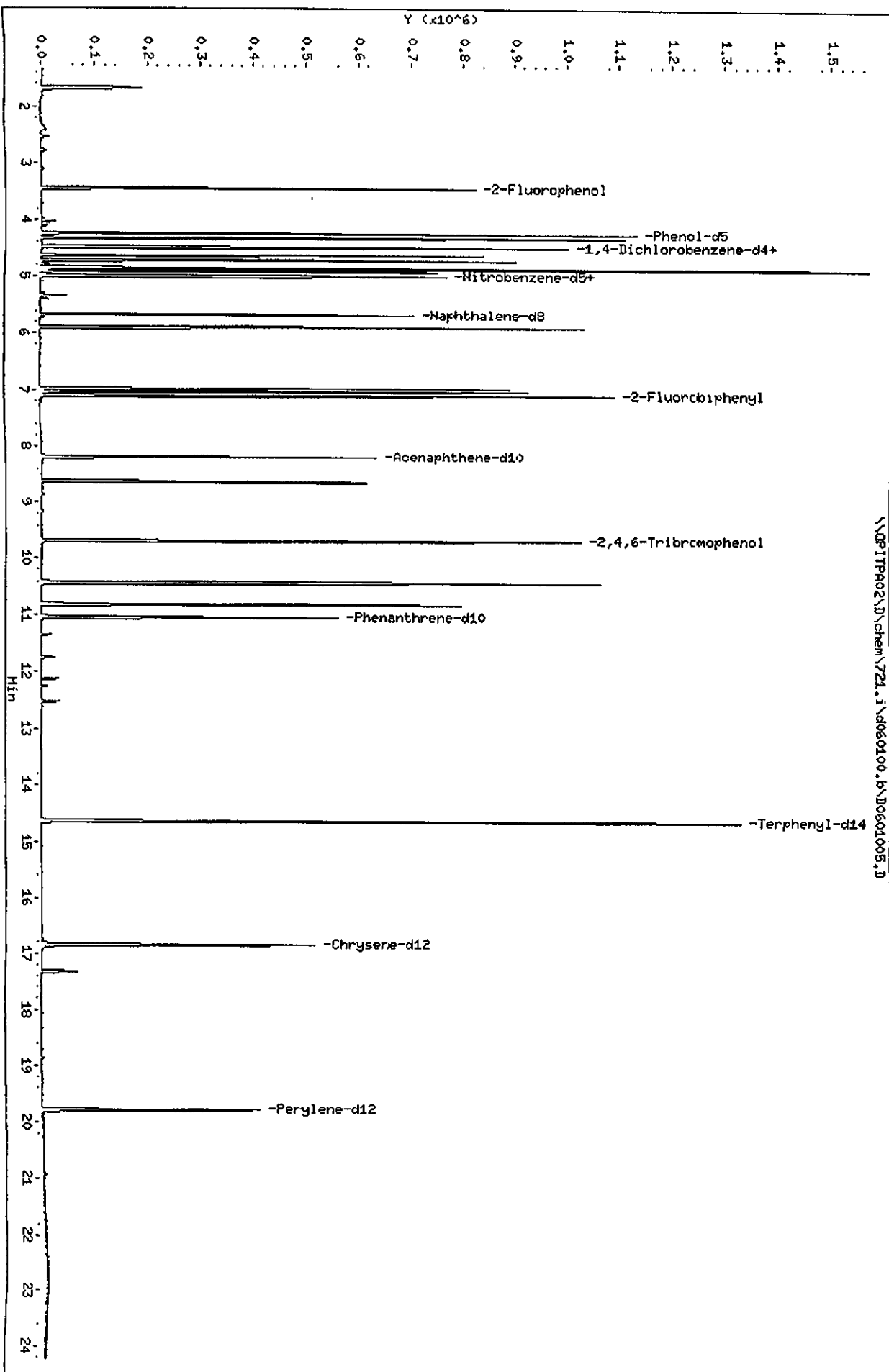
QC Batch: 0151187

Client Sample Id: DF/S1/0143/SDC/002

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
106-46-7	1,4-Dichlorobenzene	0.152	
121-14-2	2,4-Dinitrotoluene	0.192	
118-74-1	Hexachlorobenzene	0.215	
87-68-3	Hexachlorobutadiene	0.154	
67-72-1	Hexachloroethane	0.149	
98-95-3	Nitrobenzene	0.162	
87-86-5	Pentachlorophenol	0.191	
110-86-1	Pyridine	0.118	
95-95-4	2,4,5-Trichlorophenol	0.178	
88-06-2	2,4,6-Trichlorophenol	0.167	
1319-77-3	Cresols (total)	0.535	

Data File: \\QPIITPA02\J\chem\721.i\060100.b\0601005.D
Date: 01-JUN-2000 12:35
Client ID: LF/SL/0143/SLC/002
Sample Info: 00240180-001msd telc S/30/00 8270c
Volume Injected (uL): 2.0
Column phase: Hp5-HS

Instrument: 721.i
Operator: 001562, DLF
Column diameter: 0.25



STL Pittsburgh

Semivolatile REPORT SW-846 Method 8270

Data file : \\Qpitpa02\D\chem\721.i\d060100.b\D0601005.D
 Lab Smp Id: DDLX310V Client Smp ID: DF/S1/0143/SDC/002
 Inj Date : 01-JUN-2000 12:35
 Operator : 001562, DLF Inst ID: 721.i
 Smp Info : c0e240180-001msd tclp 5/30/00 8270c
 Misc Info : ddlx310v,d060100.b,8270c.m,tclp.sub
 Comment :
 Method : \\Qpitpa02\D\chem\721.i\d060100.b\8270c.m
 Meth Date : 01-Jun-2000 10:45 ferguson Quant Type: ISTD
 Cal Date : 25-MAY-2000 21:15 Cal File: D0525CC5.D
 Als bottle: 7 QC Sample: MSD
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.04
 Processing Host: PITPC013

DLH
6-1-00

Compound Sublist: tclp.sub

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi)

Name	Value	Description
DF	1.000	Dilution Factor
Uf	0.001	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)
Vo	200.000	Volume of sample extracted (mL)
Vi	2.000	Volume injected (uL)

Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (NG)	FINAL (mg/L)
* 1 1,4-Dichlorobenzene-d4		152	4.484	4.482	(1.000)	90253	40.0000	(a)
* 2 Naphthalene-d8		136	5.674	5.678	(1.000)	347041	40.0000	(a)
* 3 Acenaphthene-d10		164	8.187	8.191	(1.000)	198482	40.0000	(a)
* 4 Phenanthrene-d10		188	11.042	11.040	(1.000)	389782	40.0000	(a)
* 5 Chrysene-d12		240	16.848	16.859	(1.000)	333945	40.0000	(a)
* 6 Perylene-d12		264	19.797	19.809	(1.000)	293274	40.0000	(a)
9 Pyridine		79	1.662	1.573	(0.371)	120176	47.3539	0.11838(a)
27 1,4-Dichlorobenzene		146	4.498	4.495	(1.003)	214890	60.8242	0.15206(a)
M 195 Cresols, total		100				515964	213.862	0.53466(a)
30 2-Methylphenol		108	4.733	4.737	(1.055)	160769	69.5645	0.17391(a)
192 4-Methylphenol		108	4.867	4.858	(1.085)	355195	144.298	0.36074(a)
34 Hexachloroethane		117	4.921	4.919	(1.097)	95055	59.6191	0.14905(a)
35 Nitrobenzene		77	5.008	5.006	(0.883)	225019	64.6778	0.16169(a)
56 Hexachlorobutadiene		225	5.902	5.900	(1.040)	129928	61.6632	0.15416(a)

Compounds	QUANT SIG	CONCENTRATIONS						
		MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN	FINAL
							(NG)	(mg/L)
=====	====	==	=====	=====	=====	=====	=====	
66 2,4,6-Trichlorophenol	196	6.977	6.982	(0.852)	150169	66.8463	0.16712 (a)	
67 2,4,5-Trichlorophenol	196	7.031	7.042	(0.859)	168538	71.3300	0.17832 (a)	
87 2,4-Dinitrotoluene	165	8.643	8.648	(1.056)	174158	76.9945	0.19249 (a)	
107 Hexachlorobenzene	284	10.431	10.429	(0.945)	242003	86.0519	0.21513 (a)	
111 Pentachlorophenol	266	10.814	10.818	(0.979)	139481	76.4880	0.19122 (aQ)	
\$ 154 Nitrobenzene-d5	82	4.988	4.986	(0.879)	223028	65.0470	0.16262 (a)	
\$ 155 2-Fluorobiphenyl	172	7.105	7.103	(0.868)	421155	63.1081	0.15777 (a)	
\$ 156 Terphenyl-d14	244	14.637	14.628	(0.869)	796594	99.7790	0.24945 (a)	
\$ 157 Phenol-d5	99	4.242	4.240	(0.946)	303555	100.886	0.25222 (a)	
\$ 158 2-Fluorophenol	112	3.436	3.427	(0.766)	228736	83.7612	0.20940 (a)	
\$ 159 2,4,6-Tribromophenol	330	9.685	9.689	(0.877)	196961	119.509	0.29877 (a)	

QC Flag Legend

- a - Target compound detected but, quantitated amount
 Below Limit Of Quantitation(BLOQ).
- Q - Qualifier signal failed the ratio test.

6501142

**GC/MS SEMIVOLATILE
MISCELLANEOUS**

Continuous L-L Extraction Worksheet

STL
Committed to Your Success

STL Pittsburgh
450 William Pitt Way
Pittsburgh, PA 15238
412-820-8380

Begin 5-30-00		Time 1025		Prep Metl # 35200		H2SO4 186-15-12		Solvent 44612		Solvent Lot		NaSO4 Lot Number		Clean up Method	
Change over 5-31-00		Time 1030		Analysis 8270		NaOH 9299-07		Solvent Mfg. 04468		Surrogate Lot #		Surr Vol (mL)		Matrix Spike Lot #	
Completed 6-1-00		Time 0845		Client ID		Extract Vol (mL)		Final Volume mL		pH		Surrogate Lot #		Surr Vol (mL)	
Lot Number	Sample ID	Client ID	Extract Vol (mL)	Final Volume mL	pH	Surrogate Lot #	Surr Vol (mL)	Matrix Spike Lot #	MS Vol (mL)	Cleanup Inhibitor					
1. 606240180	BLK	NA	200	1.0	5.2	194-176-5	0.5	NA	NA	NA					
2. 606240180	LES	NA	200	1.0	5.2	194-176-5	0.5	NA	NA	NA					
3. 606240180	MS (001)	NA	200	1.0	5.2	194-176-5	0.5	NA	NA	NA					
4. 606240180	MSD (001)	NA	200	1.0	5.2	194-176-5	0.5	NA	NA	NA					
5. 606240180	001	NA	200	1.0	5.2	194-176-5	0.5	NA	NA	NA					
6. 606240180	002	NA	200	1.0	5.2	194-176-5	0.5	NA	NA	NA					
7. 606240180															
8. 606240180															
9. 606240180															
10. 606240180															
11. 606240180															
12. 606240180															
13. 606240180															
14. 606240180															
15. 606240180															
16. 606240180															
17. 606240180															
18. 606240180															
19. 606240180															
20. 606240180															
21. 606240180															
22. 606240180															
23. 606240180															
Prep Analysis: SM	SM	SM	SM	KG	SM	SM	SM	SM	SM	SM					
Extract(s)		Extract(s) Received		Extract(s) Relinquished		Extract(s) Relinquished		Extract(s) Relinquished		Extract(s) Relinquished					
(Record line number from above)		Date		Time		Analyst		Location		Date					
All Above		6-1-00		0835		K. J. J. J.		O. J. J. J.		6-1-00					
All Above		6-1-00		0845		K. J. J. J.		O. J. J. J.		6-1-00					
Batch Number: 0151187		Reviewed By: K. J. J. J.		Date: 6-1-00		Location: R. J. J. J.		Date: 6-1-00		Location: R. J. J. J.					

Quanterra N:\QA\LOGBOOKS_PDFC.L.L.EXT.DOC May-00

Log Book Number OP-00-0037

Page 25 of 100

TCCLP (Method 1311)

Quanterra Incorporated
450 William Pitt Way
Pittsburgh, Pennsylvania 15238
412/826-5477 FAX: 412/826-5571



QUA-4181

By Jeffrey O. Sawatz Date 5-25-00 Checked by William A. Kopf
 Project Number COE040180 Client Codes 39411
 Date 5-26-00 pH Instrument HiCrosslet 405 Probe 5U9082036 Balance C94817
 Solution Number 1 - Log Book Number 495404-12 Solution Number 2 - Log Book Number

Filter lot # 8320701W

Serial Number 043 Log Book Number 96-MT-526

Fluid Determination

Sample ID	Wgt/Vol	Init. pH	Final pH	Extract Fluid #1, or #2	Conc. HNO ₃ to Acidity (for Metals)	Sample ID	Wgt (g) Wet/Dry	Fluid Vol.	Final pH After Tumbling
DDLX3	5.00g/46.5ml	9.54	1.72	501#1	5 ml	1B-TCCLP 5-25-00	100.00g	2000ml Glass	4.86
DDLX6	↓ / ↓	9.43	1.67	↓	5 ml	DDLX3	↓	↓	6.25
						DDLX6	↓	↓	6.21
									5.85

TCCLP Extraction

Sample ID	Wgt (g)	Fluid Vol.	Final pH After Tumbling
DDLX3	100.00g	2000ml Glass	4.86
DDLX6	↓	↓	6.21
			5.85

Extract(s)

Extract(s) Received

Location

Date

Time

Analyst

Location

Record line number from above)	Date	Time	Analyst	Location	Date	Time	Analyst	Location
1	5-26-00	1030	Jeffrey O. Sawatz	Metals Prep	5-26-00	1035	Jeffrey O. Sawatz	30B

Extract(s) Relinquished

Sample ID	Wgt/Vol	Init. pH	Final pH	Extract Fluid #1, or #2	Conc. HNO ₃ to Acidity (for Metals)	Sample ID	Wgt (g) Wet/Dry	Fluid Vol.	Final pH After Tumbling
DDLX3	5.00g/46.5ml	9.54	1.72	501#1	5 ml	1B-TCCLP 5-25-00	100.00g	2000ml Glass	4.86
DDLX6	↓ / ↓	9.43	1.67	↓	5 ml	DDLX3	↓	↓	6.25
						DDLX6	↓	↓	6.21
									5.85

Date/Time On 5-25-00 1215 Date/Time Off 5-26-00 0700 30 ± 2
 pH Calibration 4.00 (4.0) 7.03 (7.0) 10.03 (10.0)

* = Sample determined to have free-liquid, % solid determination was performed.
 <5 = Extraction Fluid No 1 5.7 mL Glacial Acetic Acid dil 500 mL + 64.3 mL of 1N Na OH dil to 1L (pH 4.93 ± 0.05)
 >5 = Extraction Fluid No 2 5.7 mL Glacial Acetic Acid dil to 1L (pH 2.88 ± 0.05)

Room Temp 23°

Sequence Name: D:\HPCHEM\1\SEQUENCE\D052500.S
 Comment: STL PITT HP5972-1 Log 2ul inj 100ul + 1ul IS
 Operator: 001562, DLF
 Data Path: D:\HPCHEM\1\DATA\d052500.b\
 Pre-Seq Cmd:
 Post-Seq Cmd:

6681145

DL 5-25-00

Method Sections To Run On A Barcode Mismatch
 (X) Full Method (X) Inject Anyway
 () Reprocessing Only () Don't Inject

Line	Type	Vial	DataFile	Method	Sample Name
1	Sample	100	D0525WUP	70EARLY	25 warm up
2	Sample	100	D0525WU2	70EARLY	25 warm up
3	Sample	1	D0525DFT	DFTHP90	dftpp (25ug/ml) 194-175-8
4	Sample	1	D0525DF3	DFTHP90	dftpp (25ug/ml) 194-175-8
5	Sample	2	D0525CC1	70EARLY	sstd020 (10UG/ML) 194-175-10
6	Sample	3	D0525CC2	70EARLY	sstd050 (25UG/ML) 194-176-9 8
7	Sample	4	D0525CC3	70EARLY	sstd080 (40UG/ML) 194-175-12
8	Sample	5	D0525CC4	70EARLY	sstd120 (60UG/ML) 194-175-13
9	Sample	6	D0525CC5	70EARLY	sstd160 (80UG/ML) 194-175-14
10	Sample ✓ GOOD	7	D0525SV	70EARLY	std ver 194-174-9
11	Sample <i>inst blank</i>	8	D0525001	70EARLY	c0e170151-sblk tclp 5/22/00 8
12	Sample PQ	9	D0525002	70EARLY	c0e170151-lcs tclp 5/22/00 82
13	Sample PQ	10	D0525003	70EARLY	c0e130142-001 5x tclp 5/22/00
14	Sample PQ	11	D0525004	70EARLY	c0e170155-001 20x tclp 5/22/00
15	Sample PQ	12	D0525005	70EARLY	c0e120206-008 250x h2o 5/17/0
16	Sample ✓	13	D0525006	70EARLY	blank

ALL DUE TO BAD MATERIAL

6581146

Sequence Name: D:\HPCHEM\1\SEQUENCE\D060100.S
 Comment: STL PITT HP5972-1 Log 2ul inj 100ul + 1ul IS
 Operator: 001562, DLF
 Data Path: D:\HPCHEM\1\DATA\d060100.b\
 Pre-Seq Cmd:
 Post-Seq Cmd:

DLF
6-1-00

8270c

Method Sections To Run On A Barcode Mismatch
 (X) Full Method (X) Inject Anyway
 () Reprocessing Only () Don't Inject

I.S = 194-174-1

Line	Type	Vial	DataFile	Method	Sample Name
1	Sample	100	D0601WUP	70EARLY	25 warm up
2	Sample	1	D0601DFT	DFTHP90	dftpp (25ug/ml) 194-175-8
3	Sample	1	D0601DF2	DFTHP90	dftpp (25ug/ml) 194-175-8
4	Sample	2	D0601CCC	70EARLY	sstd050 (25UG/ML) 194-177-4 8
5	Sample	3	D0601001	70EARLY	c0e240180-sblk tclp 5/30/00 8
6	Sample	4	D0601002	70EARLY	c0e240180-lcs tclp 5/30/00 82
7	Sample	5	D0601003	70EARLY	c0e240180-001 tclp 5/30/00 82
8	Sample	6	D0601004	70EARLY	c0e240180-001ms tclp 5/30/00
9	Sample	7	D0601005	70EARLY	c0e240180-001msd tclp 5/30/00
10	Sample	8	D0601006	70EARLY	c0e240180-002 tclp 5/30/00 82
11	Sample	9	D0601007	70EARLY	c0e300175-blk 05/31/00 soil 8
12	Sample	10	D0601008	70EARLY	c0e300175-004 05/31/00 soil 8
13	Sample	11	D0601009	70EARLY	blank
14	Sample	12	D0601010	70EARLY	GPC B(1) 5/31/00
15	Sample	13	D0601011	70EARLY	GPC B(2) 5/31/00

PSR024 5/30/00 4:16:05 MT

SAMPLE CUSTODIAN REMOVAL REQUEST

PAGE C01

REQUESTED BY: MILLERJ

METHOD: QL Base/Neutrals and Acids (8270C)

<u>STORAGE LOCATION</u>	<u>WORK ORDER #</u>	<u>PICKED</u> <u>CNTR#</u>	<u>CONTROL #</u>	<u>CLIENT #</u>	<u>ANALYSIS</u>	<u>LOTID</u>	<u>SMP#</u>	<u>SFX</u>	<u>MATRIX</u> <u>DESCRIPTION</u>	<u>QTY</u> <u>RCVD</u>	<u>QTY</u> <u>REQD</u>
6A CLP1	DDLX3-1-03	_____	237056	399411	A-59-QL	COE240180	001		SOLID	0	3 1
6A CLP1	DDLX6-1-03	_____	237057	399411	A-59-QL	COE240180	002		SOLID	0	3 1

RELINQUISHED BY

RECEIVED BY

DATE/TIME

Ke. Bahr
James Miller

James Miller
Ke. Bahr

5-30-00 0620
5-30-00 1040

***** END OF REPORT *****

6581148

PESTICIDE DATA

**PESTICIDE
QC SUMMARY**

6581150

SW846 8081A SURROGATE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

QESSDG:

Lot #: C0E240180

	CLIENT ID.	SRG01	SRG02	TOT OUT
	=====	=====	=====	=====
01	DF/S1/0143/SDC/002	91	91	00
02	DF/S1/0143/SDC/003	97	93	00
03	METHOD BLK. DDTM6101	100	100	00
04	LCS DDTM6102	103	101	00
05	DF/S1/0143/SDC/002 D	102	95	00
06	DF/S1/0143/SDC/002 S	98	93	00

SURROGATES

SRG01 = Decachlorobiphenyl
SRG02 = Tetrachloro-m-xylene

QC LIMITS

(10-147)
(39-130)

- # Column to be used to flag recovery values
* Values outside of required QC Limits
D System monitoring Compound diluted out

FORM II

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Lot #: C0E260000

WO #: DDTM6102

BATCH: 0147439

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	% REC	QC LIMITS REC	QUAL
=====	=====	=====	=====	=====	=====
Lindane	0.00250	0.00222	89	49- 137	
Heptachlor	0.00250	0.00272	109	57- 124	
Heptachlor epoxide	0.00250	0.00228	91	53- 135	
Endrin	0.00250	0.00237	95	46- 137	
Methoxychlor	0.00250	0.00322	129	12- 154	

NOTES (S) :

* Values outside of QC limits

Spike Recovery: 0 out of 5 outside limits

COMMENTS:

6581152

SW846 8081A MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Matrix Spike ID: DF/S1/0143/SDC/002

Level: (low/med) LOW

Lot #: C0B240180

WO #: DDLX310M

BATCH: 0147439

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	MS CONCENT. (mg/L)	MS % REC	LIMITS REC	QUAL
=====	=====	=====	=====	=====	=====	=====
Lindane	0.00250	ND	0.00200	80	30 - 148	
Heptachlor	0.00250	ND	0.00255	102	25 - 135	
Heptachlor epoxide	0.00250	ND	0.00212	85	38 - 138	
Endrin	0.00250	ND	0.00234	94	28 - 148	
Methoxychlor	0.00250	ND	0.00337	135	13 - 154	

NOTES(S) :

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 0 outside limits
Spike Recovery: 0 out of 5 outside limits

COMMENTS:

FORM III

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Matrix Spike ID: DF/S1/0143/SDC/002

Level: (low/med) LOW

Lot #: C0E240180

WO #: DDLX310N

BATCH: 0147439

COMPOUND	SPIKE	MSD	MSD	QC LIMITS		QUAL
	ADDED (mg/L)	CONCENT. (mg/L)	% REC	% RPD	RPD REC	
Lindane	0.00250	0.00204	81	1.8	22 30 - 148	
Heptachlor	0.00250	0.00260	104	1.6	32 25 - 135	
Heptachlor epoxide	0.00250	0.00216	86	1.7	31 38 - 138	
Endrin	0.00250	0.00240	96	2.4	40 28 - 148	
Methoxychlor	0.00250	0.00345	138	2.4	29 13 - 154	

NOTES (S) :

Column to be used to flag recovery and RPD values with an asterisk
 * Values outside of QC limits

RPD: 0 out of 5 outside limits
 Spike Recovery: 0 out of 5 outside limits

COMMENTS:

6581154

SW846 8081A METHOD BLANK SUMMARY

BLANK WORKORDER NO.

DDTM6101

Lab Name: Severn Trent Laboratories, Inc.

Lab Code: QESPIT

Lab File ID: c-b2592.d

Matrix: SOLID

SDG Number:

Lot Number: C0E240180

Extraction Method: 1311/3510

Date Extracted: 05/26/00

Date Analyzed(1): 05/31/00

Date Analyzed(2): N/A

Time Analyzed(1): 22:58

Time Analyzed(2): N/A

Instrument ID(1): E/F

Instrument ID(2): N/A

GC Column(1): DB608 1701 ID: 053 GC Column(2): N/A ID: N/A

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, AND MSD:

	CLIENT ID.	SAMPLE WORK ORDER #	DATE ANALYZED(1)	DATE ANALYZED(2)
01	DF/S1/0143/SDC/002	DDLX310M S	05/31/00	N/A
02	DF/S1/0143/SDC/002	DDLX310N D	05/31/00	N/A
03	DF/S1/0143/SDC/002	DDLX3104	05/31/00	N/A
04	DF/S1/0143/SDC/003	DDLX6104	05/31/00	N/A
05	CHECK SAMPLE	DDTM6102 C	05/31/00	N/A
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

COMMENTS:

FORM IV

**PESTICIDE
SAMPLE DATA**

6581156

UXB INTERNATIONAL

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID
Method: SW846 8081A
Pesticides (8081A)

Lab Sample ID: C0E240180 001

Sample WT/Vol: 100 / mL
Work Order: DDLX3104
Dilution factor: 1
Moisture %: 15

Date Received: 05/24/00
Date Extracted: 05/26/00
Date Analyzed: 05/31/00

QC Batch: 0147439

Client Sample Id: DF/S1/0143/SDC/002

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
57-74-9	Chlordane (technical)	0.0050	U
72-20-8	Endrin	0.00050	U
76-44-8	Heptachlor	0.00050	U
1024-57-3	Heptachlor epoxide	0.00050	U
58-89-9	Lindane	0.00050	U
72-43-5	Methoxychlor	0.0010	U
8001-35-2	Toxaphene	0.020	U

Data File: /var/chem/gc3.i/2310-E.b/c-b2588.d
 Report Date: 01-Jun-2000 13:41

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2310-E.b/c-b2588.d
 Lab Smp Id: DDLX3104 Client Smp ID: DF/S1/0143/SDC/002
 Inj Date : 31-MAY-2000 21:14
 Operator : 1891 Inst ID: gc3.i
 Smp Info : DDLX3104,2310-E.b,,PEST.sub,,
 Misc Info : E240180001
 Comment :
 Method : /var/chem/gc3.i/2310-E.b/PESTB.m
 Meth Date : 01-Jun-2000 13:33 g Quant Type: ESTD
 Cal Date : 31-MAY-2000 19:30 Cal File: c-b2584.d
 Als bottle: 1
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: PEST.sub
 Target Version: 3.40

Concentration Formula: Amt * DF * (Vt/Vo)/Vi

Name	Value	Description
DF	1.000	Dilution Factor
Vt	10000.000	Volume of final extract (uL)
Vo	100.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ng)	FINAL (ug/L)
5 alpha-BHC				Compound Not Detected.		
6 gamma-BHC (Lindane)				Compound Not Detected.		
7 beta-BHC				Compound Not Detected.		
9 Chlordane				Compound Not Detected.		
10 Heptachlor				Compound Not Detected		
8 delta-BHC				Compound Not Detected		
11 Aldrin				Compound Not Detected		
12 Heptachlor epoxide				Compound Not Detected.		
13 gamma-Chlordane				Compound Not Detected		
14 alpha-Chlordane				Compound Not Detected.		
15 Endosulfan I				Compound Not Detected		
16 4,4'-DDE				Compound Not Detected.		
17 Dieldrin	12.858	12.858	0.000	5145	0.00132	0.131820(a)
20 Endrin				Compound Not Detected.		
18 Toxaphene				Compound Not Detected		
21 4,4'-DDD				Compound Not Detected.		

6581158

Data File: /var/chem/gc3.i/2310-E.b/c-b2588.d
Report Date: 01-Jun-2000 13:41

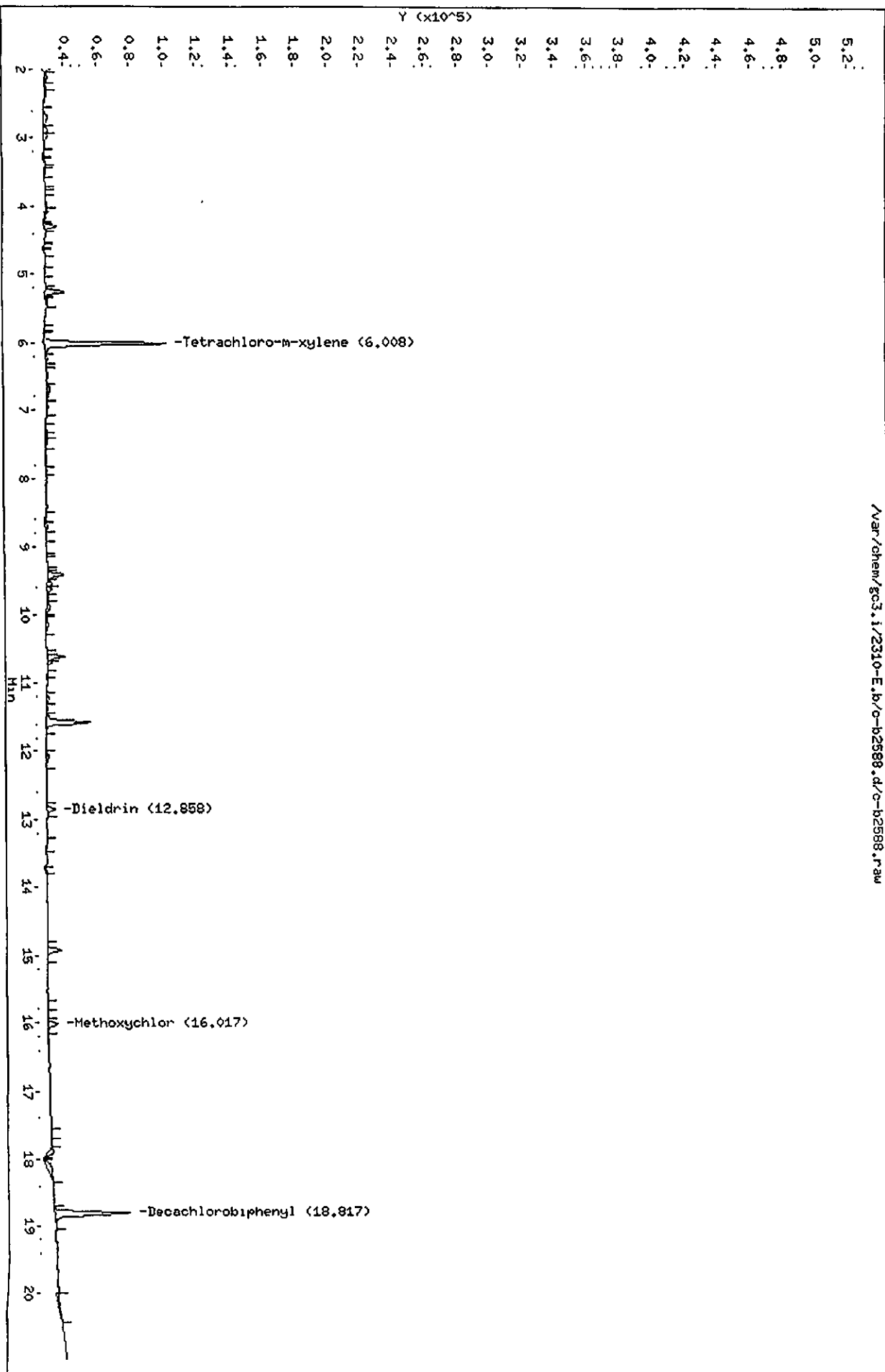
Compounds	RT	EXP	RT	DLT	RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
							(ng)	(ug/L)
=====	==	=====	=====	=====	=====	=====	=====	=====
22 Endosulfan II						Compound Not Detected		
23 4,4'-DDT						Compound Not Detected.		
24 Endrin aldehyde						Compound Not Detected.		
26 Endosulfan sulfate						Compound Not Detected.		
25 Methoxychlor	16.017	16.000			0.017	5572	0.00553	0.552525(a)
27 Endrin ketone						Compound Not Detected.		
\$ 1 Tetrachloro-m-xylene	6.008	6.008			0.000	73650	0.01825	1.82519(R)
\$ 30 Decachlorobiphenyl	18.817	18.817			0.000	45955	0.01820	1.82022(R)

QC Flag Legend

- a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
- R - Spike/Surrogate failed recovery limits.

Data File: /var/chem/gc3.i/2310-E.b/c-b2588.d
Date: 31-MAY-2000 21:14
Client ID: DF/SI/0143/SDC/002
Sample Info: DDLX3104, 2310-E.b, PEST, sub,,
Volume Injected (uL): 1.0
Column phase: RTX-CLP2

Instrument: gc3.i
Operator: 1891
Column diameter: 0.53



6581160

UXB INTERNATIONAL

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0E240180 002

Method: SW846 8081A

Pesticides (8081A)

Sample WT/Vol: 100 / mL

Date Received: 05/24/00

Work Order: DDLX6104

Date Extracted: 05/26/00

Dilution factor: 1

Date Analyzed: 05/31/00

Moisture %: 19

QC Batch: 0147439

Client Sample Id: DF/S1/0143/SDC/003

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
57-74-9	Chlordane (technical)	0.0050	U
72-20-8	Endrin	0.00050	U
76-44-8	Heptachlor	0.00050	U
1024-57-3	Heptachlor epoxide	0.00050	U
58-89-9	Lindane	0.00050	U
72-43-5	Methoxychlor	0.0010	U
8001-35-2	Toxaphene	0.020	U

FORM I

Data File: /var/chem/gc3.i/2310-E.b/c-b2591.d
 Report Date: 01-Jun-2000 13:41

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2310-E.b/c-b2591.d
 Lab Smp Id: DDLX6104 Client Smp ID: DF/S1/0143/SDC/003
 Inj Date : 31-MAY-2000 22:32
 Operator : 1891 Inst ID: gc3.i
 Smp Info : DDLX6104,2310-E.b,,PEST.sub,,,
 Misc Info : E240180002
 Comment :
 Method : /var/chem/gc3.i/2310-E.b/PESTB.m
 Meth Date : 01-Jun-2000 13:33 g Quant Type: ESTD
 Cal Date : 31-MAY-2000 19:30 Cal File: c-b2584.d
 Als bottle: 1
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: PEST.sub
 Target Version: 3.40

Concentration Formula: Amt * DF * (Vt/Vo)/Vi

Name	Value	Description
DF	1.000	Dilution Factor
Vt	10000.000	Volume of final extract (uL)
Vo	100.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ng)	FINAL (ug/L)
5 alpha-BHC						
6 gamma-BHC (Lindane)						
7 beta-BHC						
9 Chlordane						
10 Heptachlor						
8 delta-BHC						
11 Aldrin						
12 Heptachlor epoxide	11.508	11.475	0.033	1658	0.000373	0.0372854(a)
13 gamma-Chlordane						
14 alpha-Chlordane						
15 Endosulfan I						
16 4,4'-DDE						
17 Dieldrin	12.850	12.858	-0.008	2072	0.000531	0.0530867(a)
20 Endrin						
18 Toxaphene						
21 4,4'-DDD						

6581162

Data File: /var/chem/gc3.i/2310-E.b/c-b2591.d
Report Date: 01-Jun-2000 13:41

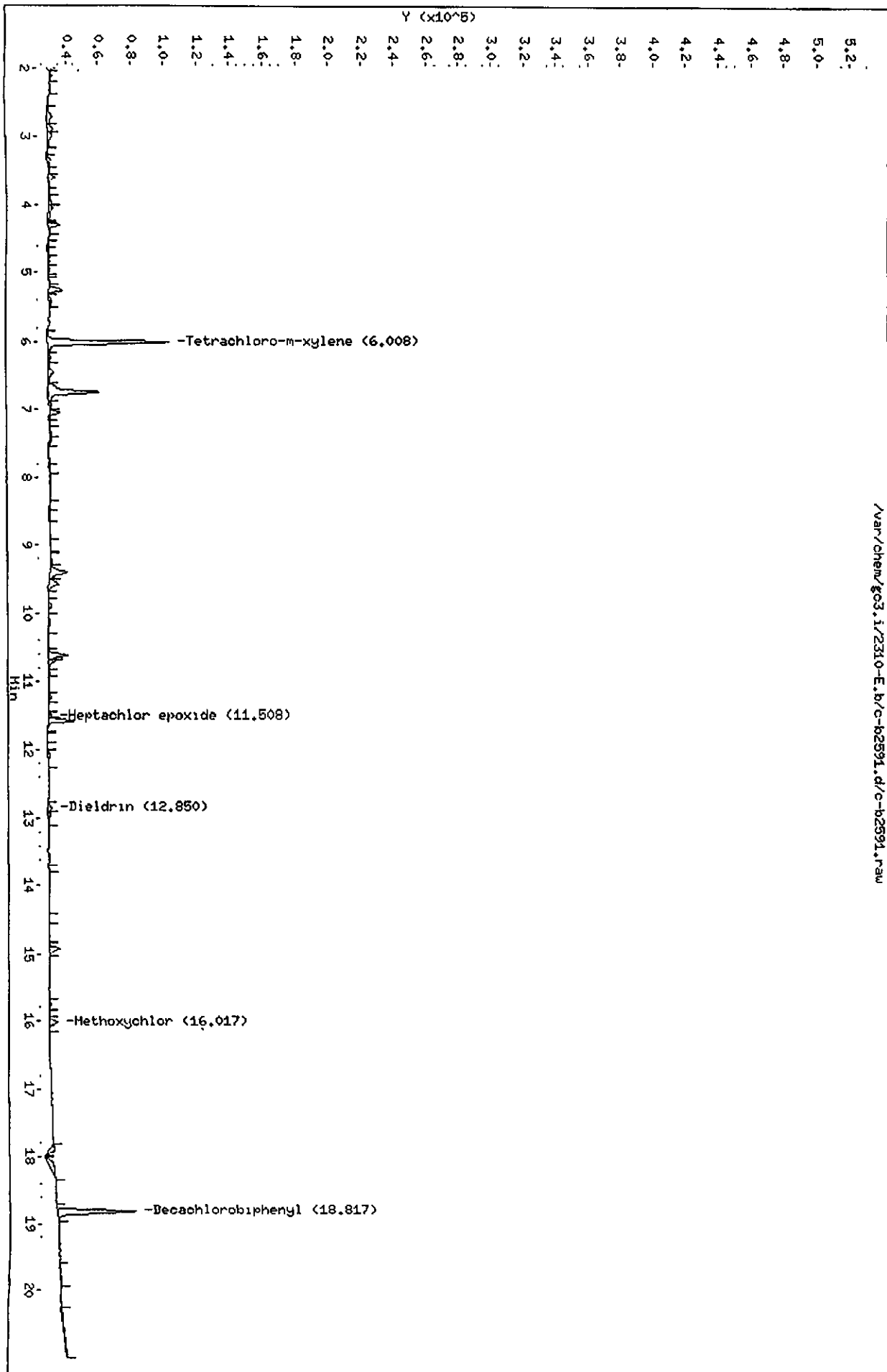
Compounds	RT	EXP	RT	DLT	RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
							(ng)	(ug/L)
=====	==	=====	=====	=====	=====	=====	=====	=====
22 Endosulfan II						Compound Not Detected		
23 4,4'-DDT						Compound Not Detected		
24 Endrin aldehyde						Compound Not Detected		
26 Endosulfan sulfate						Compound Not Detected		
25 Methoxychlor	16.017	16.000		0.017	4890		0.00485	0.484897(a)
27 Endrin ketone						Compound Not Detected		
\$ 1 Tetrachloro-m-xylene	6.008	6.008		0.000	74675		0.01851	1.85059(R)
\$ 30 Decachlorobiphenyl	18.817	18.817		0.000	48732		0.01930	1.93022(R)

QC Flag Legend

- a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
- R - Spike/Surrogate failed recovery limits.

Data File: /var/chem/gc3.1/2310-E.b/c-b2591.d
Date: 31-MAY-2000 22:32
Client ID: DF/S1/0143/SDC/003
Sample Info: DDLX6104, 2310-E.b,, PEST, sub,,
Volume Injected (uL): 1.0
Column phase: RTX-CLP2

Instrument: gc3.1
Operator: 1891
Column diameter: 0.53



6581164

**PESTICIDE
CALIBRATION DATA**

Report Date : 01-Jun-2000 13:30

HP58903F

RTX-Cop2

STL-PITTSBURGH

COMPOUND LISTING

Method file : /var/chem/gc3.i/2310-E.b/PESTB.m
 Quant Method : ESTD Target Version : 3.40
 Last Update : 01-Jun-2000 13:29 Number of Cpnds : 30
 Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events Values

 Initial:Start Threshold 40.000000
 Initial:End Threshold 20.000000
 Initial:Area Threshold 1000.000000
 Initial:P-P Resolution 1.000000
 Initial:Bunch Factor 1.000000
 Initial:Negative Peaks ON
 Initial:Tension 0.000000

Compound	RT	RT Window	RF
\$ 1 Tetrachloro-m-xylene	6.008	5.958-6.058	4.035e+06
2 Diallate A	7.233	7.183-7.283	
3 Diallate B	7.483	7.433-7.533	
5 alpha-BHC	7.633	7.583-7.683	5.875e+06
6 gamma-BHC (Lindane)	8.508	8.458-8.558	5.099e+06
7 beta-BHC	8.800	8.750-8.850	2.758e+06
9 Chlordane	9.142	9.092-9.192	1.436e+05
	9.475	9.425-9.525	2.511e+05
	11.883	11.833-11.933	3.740e+05
	12.200	12.150-12.250	3.080e+05
8 delta-BHC	9.467	9.417-9.517	4.337e+06
10 Heptachlor	9.475	9.425-9.525	4.863e+06
11 Aldrin	10.167	10.117-10.217	5.169e+06
19 Isodrin	11.025	10.975-11.075	
12 Heptachlor epoxide	11.475	11.425-11.525	4.447e+06
13 gamma-Chlordane	11.883	11.833-11.933	4.554e+06
14 alpha-Chlordane	12.200	12.150-12.250	4.441e+06
15 Endosulfan I	12.275	12.225-12.325	3.781e+06
16 4,4'-DDE	12.683	12.633-12.733	4.022e+06
17 Dieldrin	12.858	12.808-12.908	3.903e+06
20 Endrin	13.467	13.417-13.517	3.375e+06
28 Chlorobenzilate	13.650	13.600-13.700	

6581166

Report Date : 01-Jun-2000 13:30

STL-PITTSBURGH

COMPOUND LISTING

Method file : /var/chem/gc3.i/2310-E.b/PESTB.m

Compound	RT	RT Window	RF
18 Toxaphene	13.883	13.833-13.933	4.846e+04
	14.108	14.058-14.158	7.287e+04
	14.658	14.608-14.708	4.415e+04
	15.650	15.600-15.700	3.597e+04
21 4,4'-DDD	13.883	13.833-13.933	3.112e+06
22 Endosulfan II	13.933	13.883-13.983	3.409e+06
23 4,4'-DDT	14.500	14.450-14.550	1.849e+06
24 Endrin aldehyde	14.650	14.600-14.700	2.619e+06
26 Endosulfan sulfate	15.217	15.167-15.267	2.142e+06
25 Methoxychlor	16.000	15.950-16.050	1.008e+06
4 MIREX	16.092	16.042-16.142	
27 Endrin ketone	16.250	16.200-16.300	2.507e+06
29 Kepone	16.250	16.200-16.300	
\$ 30 Decachlorobiphenyl	18.817	18.767-18.867	2.525e+06

Report Date : 01-Jun-2000 13:29

STL-PITTSBURGH

INITIAL CALIBRATION DATA

Start Cal Date : 31-MAY-2000 14:45
 End Cal Date : 31-MAY-2000 19:30
 Quant Method : ESTD
 Origin : Disabled
 Target Version : 3.40
 Integrator : Falcon
 Method file : /var/chem/gc3.i/2310-E.b/PESTB.m
 Cal Date : 01-Jun-2000 13:29 g
 Curve Type : Average

Calibration File Names:

Level 1: /var/chem/gc3.i/2310-E.b/c-b2580.d
 Level 2: /var/chem/gc3.i/2310-E.b/c-b2581.d
 Level 3: /var/chem/gc3.i/2310-E.b/c-b2582.d
 Level 4: /var/chem/gc3.i/2310-E.b/c-b2583.d
 Level 5: /var/chem/gc3.i/2310-E.b/c-b2584.d

Compound	0.00500	0.01000	0.02500	0.05000	0.10000	RRF	% RSD
Level 1	Level 2	Level 3	Level 4	Level 5			
2 Diallyl A	+++++	+++++	+++++	+++++	+++++	+++++	+++++
3 Diallyl B	+++++	+++++	+++++	+++++	+++++	+++++	+++++
5 alpha-BHC	5869200	6135500	6041760	5860920	5467330	5874942	4.357
6 gamma-BHC (Lindane)	5235000	5360100	5140840	5028860	4732290	5099418	4.680
7 beta-BHC	3137600	3069200	2686520	2563860	2332860	2758008	12.356
9 Chlordane(1)	+++++	+++++	143580	+++++	+++++	143580	0.000
(2)	+++++	+++++	251076	+++++	+++++	251076	0.000
(3)	+++++	+++++	373960	+++++	+++++	373960	0.000
(4)	+++++	+++++	308016	+++++	+++++	308016	0.000
8 delta-BHC	4086200	4416900	4367800	4503160	4311410	4337094	3.618
10 Heptachlor	5097800	5167100	4968200	4746220	4335030	4862870	6.906
11 Aldrin	5492600	5585800	5186120	5019280	4560380	5168836	7.927
19 Isodrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++
12 Heptachlor epoxide	4814600	4860600	4404400	4284900	3869400	4446780	9.189
13 gamma-Chlordane	4836000	4904500	4520840	4432580	4076880	4554160	7.331
14 alpha-Chlordane	4756400	4822000	4405640	4282860	3935960	4440572	8.166
15 Endosulfan I	4013800	4015600	3828520	3679480	3367060	3780892	7.160
16 4,4'-DDE	4087000	4242700	4018360	4053220	3708470	4021950	4.850
17 Dieldrin	3952000	4050200	3990280	3896520	3626240	3903048	4.216
20 Endrin	3371200	3491000	3457080	3380700	3177400	3375476	3.607
28 Chlorobenzilate	+++++	+++++	+++++	+++++	+++++	+++++	+++++
18 Toxaphene(1)	+++++	+++++	48455	+++++	+++++	48455	0.000
(2)	+++++	+++++	72867	+++++	+++++	72867	0.000
(3)	+++++	+++++	44152	+++++	+++++	44152	0.000
(4)	+++++	+++++	35972	+++++	+++++	35972	0.000
21 4,4'-DDD	3122200	3238600	3171160	3129000	2901320	3112456	4.074

6581168

LOE

Report Date : 01-Jun-2000 13:29

HP50903f
RTX-Cp2

STL-PITTSBURGH

INITIAL CALIBRATION DATA

Start Cal Date : 31-MAY-2000 14:45
 End Cal Date : 31-MAY-2000 19:30
 Quant Method : ESTD
 Origin : Disabled
 Target Version : 3.40
 Integrator : Falcon
 Method file : /var/chem/gc3.i/2310-E.b/PESTB.m
 Cal Date : 01-Jun-2000 13:29 g
 Curve Type : Average

	0.00500	0.01000	0.02500	0.05000	0.10000		
Compound	Level 1	Level 2	Level 3	Level 4	Level 5	RRF	% RSD
22 Endosulfan II	3559400	3637800	3398280	3336740	3113010	3409046	6.010
23 4,4'-DDT	1563800	1759300	1817480	2009740	2092920	1848648	11.337
24 Endrin aldehyde	2804800	2821100	2563440	2534740	2368710	2618558	7.351
26 Endosulfan sulfate	2058000	2219900	2093160	2199260	2137580	2141580	3.202
25 Methoxychlor	966600	1037050	993900	1028730	1016025	1008461	2.826
4 MIREX	+++++	+++++	+++++	+++++	+++++	+++++	+++++
27 Endrin ketone	2432400	2629800	2430880	2568540	2471780	2506680	3.538
29 Kepone	+++++	+++++	+++++	+++++	+++++	+++++	+++++
\$ 1 Tetrachloro-m-xylene	4659800	4473500	4015360	3692420	3334890	4035194	13.520
\$ 30 Decachlorobiphenyl	2749000	2750000	2502760	2394040	2227660	2524692	9.007

7D
PESTICIDE CALIBRATION VERIFICATION SUMMARY

6581169

Lab Name: STL-PITTSBURGH

Contract:

Lab Code: STLPIT

Case No.:

SAS No.: 40325

SDG No.: D

GC Column: RTX-CLP2 ID: 0.53 (mm) Init. Calib. Date(s): 05/31/00 05/31/00

EPA Sample No. (PIBLK): _____

Date Analyzed : _____

Lab Sample ID (PIBLK): _____

Time Analyzed : _____

EPA Sample No. (PEM): EVALB

Date Analyzed : 05/31/00

Lab Sample ID (PEM): EVALB

Time Analyzed : 1419

PEM COMPOUND	RT	RT WINDOW FROM TO		CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
=====	=====	=====	=====	=====	=====	=====
Endrin	13.47	13.42	13.52	0.020219	0.025000	-19.1
4,4'-DDT	14.51	14.45	14.55	0.020625	0.025000	-17.5

4,4'-DDT % breakdown (1):

na
~~15.99~~

Endrin % breakdown (1):

3.6
~~4.05~~

Combined % breakdown (1):

~~20.04~~ *3.6*

[Signature]

6581170

7D
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: STL-PITTSBURGH

Contract:

Lab Code: STLPIT

Case No.:

SAS No.: 40325

SDG No.: D

GC Column: RTX-CLP2 ID: 0.53 (mm) Init. Calib. Date(s): 05/31/00 05/31/00

EPA Sample No. (PIBLK): _____

Date Analyzed : _____

Lab Sample ID (PIBLK): _____

Time Analyzed : _____

EPA Sample No. (PEM): EVALB

Date Analyzed : 05/31/00

Lab Sample ID (PEM): EVALB

Time Analyzed : 2048

PEM COMPOUND	RT	RT WINDOW FROM TO		CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
=====	=====	=====	=====	=====	=====	=====
Endrin	13.47	13.42	13.52	0.027053	0.025000	8.2
4,4'-DDT	14.50	14.45	14.55	0.028530	0.025000	14.1

4,4'-DDT % breakdown (1):

na
~~21.22~~

Endrin % breakdown (1):

4.6
~~6.88~~

Combined % breakdown (1):

~~28.11~~ *4.6**9/6/11/u*

7E
Data File: /var/chem/gc3.i/2310-E.b/c-b2595.d
Report Date: 01-Jun-2000 13:32

HPSC003F

RTX-C002

6581171

STL-PITTSBURGH

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc3.i
Lab File ID: c-b2595.d
Analysis Type:
Lab Sample ID: MEDA
Quant Type: ESTD

Injection Date: 01-JUN-2000 00:15
Init. Calibration Date(s): 05/31/0 05/31/0
Init. Calibration Times: 14:45 19:30
Method File: /var/chem/gc3.i/2310-E.b/PESTB.m

COMPOUND	RRF	RFO	MIN	MAX
1 Tetrachloro-m-xylene	4035194.000	4617880.000	0.000	-14.4 15.0
5 alpha-BHC	5874942.000	7078880.000	0.010	-20.5 15.0
6 gamma-BHC (Lindane)	5099418.000	6028640.000	0.010	-18.2 15.0
10 Heptachlor	4862870.000	5738640.000	0.010	-18.0 15.0
15 Endosulfan I	3780892.000	4330120.000	0.010	-14.5 15.0
17 Dieldrin	3903048.000	4527600.000	0.010	-16.0 15.0
20 Endrin	3375476.000	3934680.000	0.010	-16.6 15.0
21 4,4'-DDD	3112456.000	3552680.000	0.010	-14.1 15.0
23 4,4'-DDT	1848648.000	2280080.000	0.010	-23.3 15.0
25 Methoxychlor	1008461.000	1167920.000	0.010	-15.8 15.0
30 Decachlorobiphenyl	2524692.000	2743080.000	0.010	-8.7 15.0

6581172

7E

Data File: /var/chem/gc3.i/2310-E.b/c-b2596.d

Report Date: 01-Jun-2000 13:33

HDC903f

KTx-Cp2

STL-PITTSBURGH

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc3.i
Lab File ID: c-b2596.d
Analysis Type:
Lab Sample ID: MEDB
Quant Type: ESTD

Injection Date: 01-JUN-2000 00:41
Init. Calibration Date(s): 05/31/0 05/31/0
Init. Calibration Times: 14:45 19:30
Method File: /var/chem/gc3.i/2310-E.b/PESTB.m

COMPOUND	RRF	RFO	MIN	MAX
11 Aldrin	5168836.000	5561440.000	0.010	-7.6 15.0
7 beta-BHC	2758008.000	2911800.000	0.010	-5.6 15.0
8 delta-BHC	4337094.000	5217760.000	0.010	-20.3 15.0<-
12 Heptachlor epoxide	4446780.000	4768840.000	0.010	-7.2 15.0
13 gamma-Chlordane	4554160.000	4849000.000	0.010	-6.5 15.0
14 alpha-Chlordane	4440572.000	4705160.000	0.010	-6.0 15.0
16 4,4'-DDE	4021950.000	4256280.000	0.010	-5.8 15.0
22 Endosulfan II	3409046.000	3648800.000	0.010	-7.0 15.0
24 Endrin aldehyde	2618558.000	2795800.000	0.010	-6.8 15.0
26 Endosulfan sulfate	2141580.000	2453600.000	0.010	-14.6 15.0
27 Endrin ketone	2506680.000	2788680.000	0.010	-11.2 15.0

96-12.7

8D
PESTICIDE ANALYTICAL SEQUENCE

6581173

Lab Name: STL-PITTSBURGH

Contract:

Lab Code: STLPIT

Case No.:

SAS No.: 40325

SDG No.: C0E240180

GC Column: RTX-CLP2 ID: 0.53 (mm) Init. Calib. Date(s): 05/31/00 05/31/00

Instrument ID: GC3

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION					
TCX: 6.01			DCB: 18.82		
EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
=====	=====	=====	=====	=====	=====
01	EVALB	05/31/00	1419	6.01	18.82
02	MEDTOX	05/31/00	1445	6.01	18.82
03	MEDCHLOR	05/31/00	1511	6.01	18.82
04	LOWA	05/31/00	1537	6.01	18.82
05	MLOWA	05/31/00	1603	6.01	18.82
06	MEDA	05/31/00	1629	6.01	18.82
07	MHIGHA	05/31/00	1655	6.01	18.82
08	HIGHA	05/31/00	1721	6.01	18.82
09	LOWB	05/31/00	1747		
10	MLOWB	05/31/00	1813		
11	MEDB	05/31/00	1839		
12	MHIGHB	05/31/00	1905		
13	HIGHB	05/31/00	1930		
14	2ND A	05/31/00	1956	6.01	18.82
15	2ND B	05/31/00	2022		
16	EVALB	05/31/00	2048	6.01	18.82
17	DF/S1/0143/S	05/31/00	2114	6.01	18.82
18	DF/S1/0143/S	05/31/00	2140	6.01	18.82
19	DF/S1/0143/S	05/31/00	2206	6.01	18.82
20	DF/S1/0143/S	05/31/00	2232	6.01	18.82
21	PBLK	05/31/00	2258	6.01	18.82
22	LCS	05/31/00	2324	6.01	18.82
23	MEDA	06/01/00	0015	6.01	18.82
24	MEDB	06/01/00	0041		
25					
26					
27					
28					
29					
30					
31					
32					

QC LIMITS

TCX = Tetrachloro-m-xylene (+/- 0.05 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.05 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

6581174

Data File: /var/chem/gc3.i/2310-E.b/c-b2572.d
Report Date: 01-Jun-2000 13:47

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2310-E.b/c-b2572.d
Lab Smp Id: EVALB Client Smp ID: EVALB
Inj Date : 31-MAY-2000 14:19
Operator : 1891 Inst ID: gc3.i
Smp Info : EVALB,2310-E.b,,EVALBR.sub,,3,1
Misc Info : 190-88-8
Comment :
Method : /var/chem/gc3.i/2310-E.b/PESTB.m
Meth Date : 01-Jun-2000 13:33 g Quant Type: ESTD
Cal Date : 31-MAY-2000 19:30 Cal File: c-b2584.d
Als bottle: 1 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: EVALBR.sub
Target Version: 3.40

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ng)	FINAL (ng)
*****	**	*****	*****	*****	*****	*****
\$ 1 Tetrachloro-m-xylene	6.008	6.008	0.000	83457	0.02068	0.0206823 (R)
16 4,4'-DDE	12.650	12.683	-0.033	2821	0.000701	0.000701401
20 Endrin	13.475	13.467	0.008	68249	0.02022	0.0202191
21 4,4'-DDD	13.883	13.883	0.000	10257	0.00330	0.00329547
23 4,4'-DDT	14.508	14.500	0.008	38129	0.02063	0.0206253
24 Endrin aldehyde	14.658	14.650	0.008	765	0.000292	0.000292146 (M)
27 Endrin ketone	16.258	16.250	0.008	1806	0.00072	0.000720475
\$ 30 Decachlorobiphenyl	18.825	18.817	0.008	44803	0.01775	0.0177459 (R)

QC Flag Legend

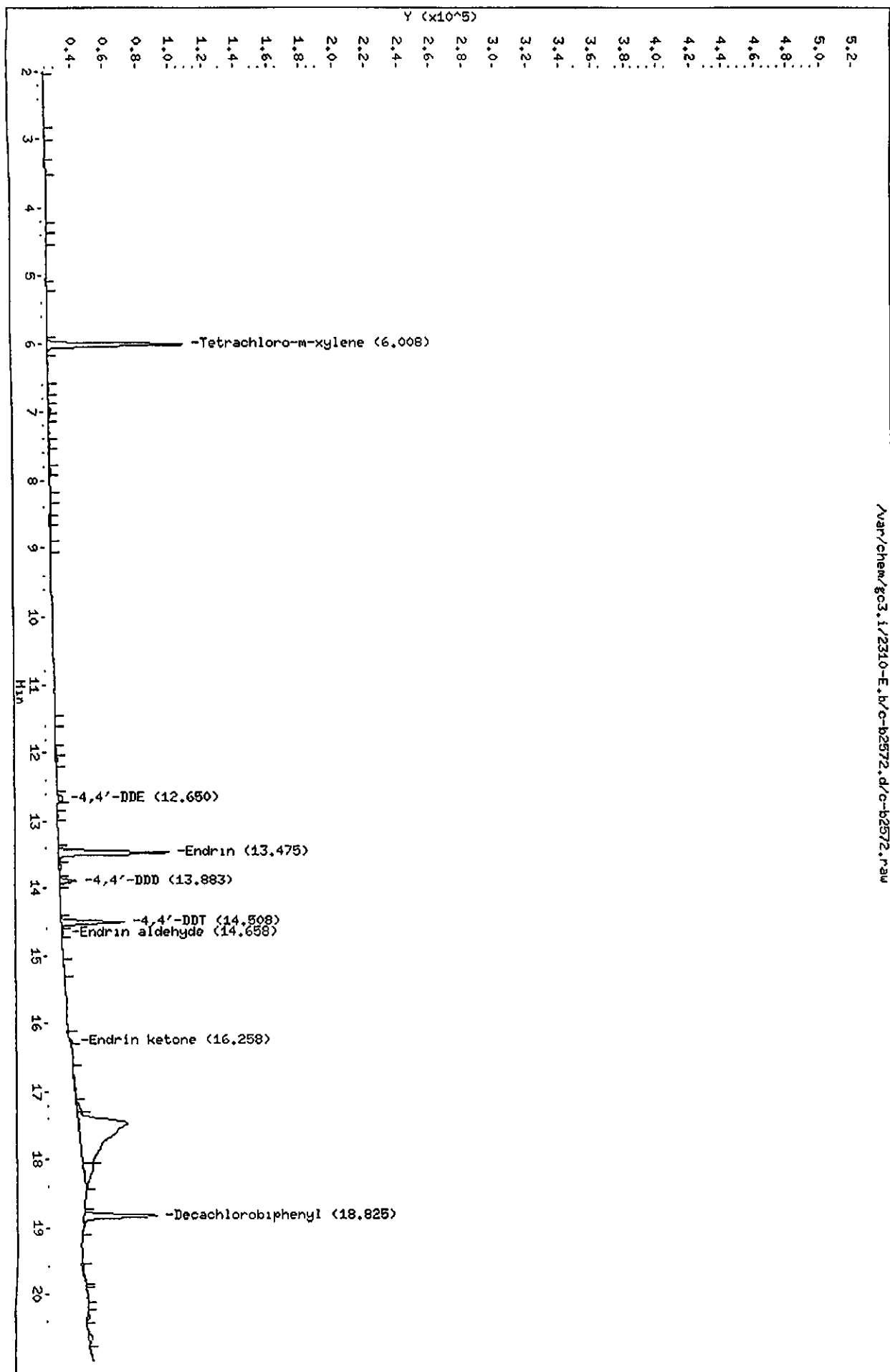
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

$$\text{Endrin Breakdown} = \frac{(765 + 1906)}{(765 + 1906 + 68249)} \times 100 = 3.6\%$$

$$\text{DDT Breakdown} = \frac{(221 + 10257)}{(221 + 10257 + 38129)} \times 100 = 2.6\%$$

Data File: /var/chem/gc3.1/2310-E.b/c-b2572.d
Date: 31-May-2000 14:19
Client ID: EVALB
Sample Info: EVALB,2310-E.b,,EVALBR,sub/,3.1
Column phase: RTX-CLP2

Instrument: gc3.1
Operator: 1891
Column diameter: 0.53



6581176

Data File: /var/chem/gc3.i/2310-E.b/c-b2573.d
Report Date: 01-Jun-2000 13:40

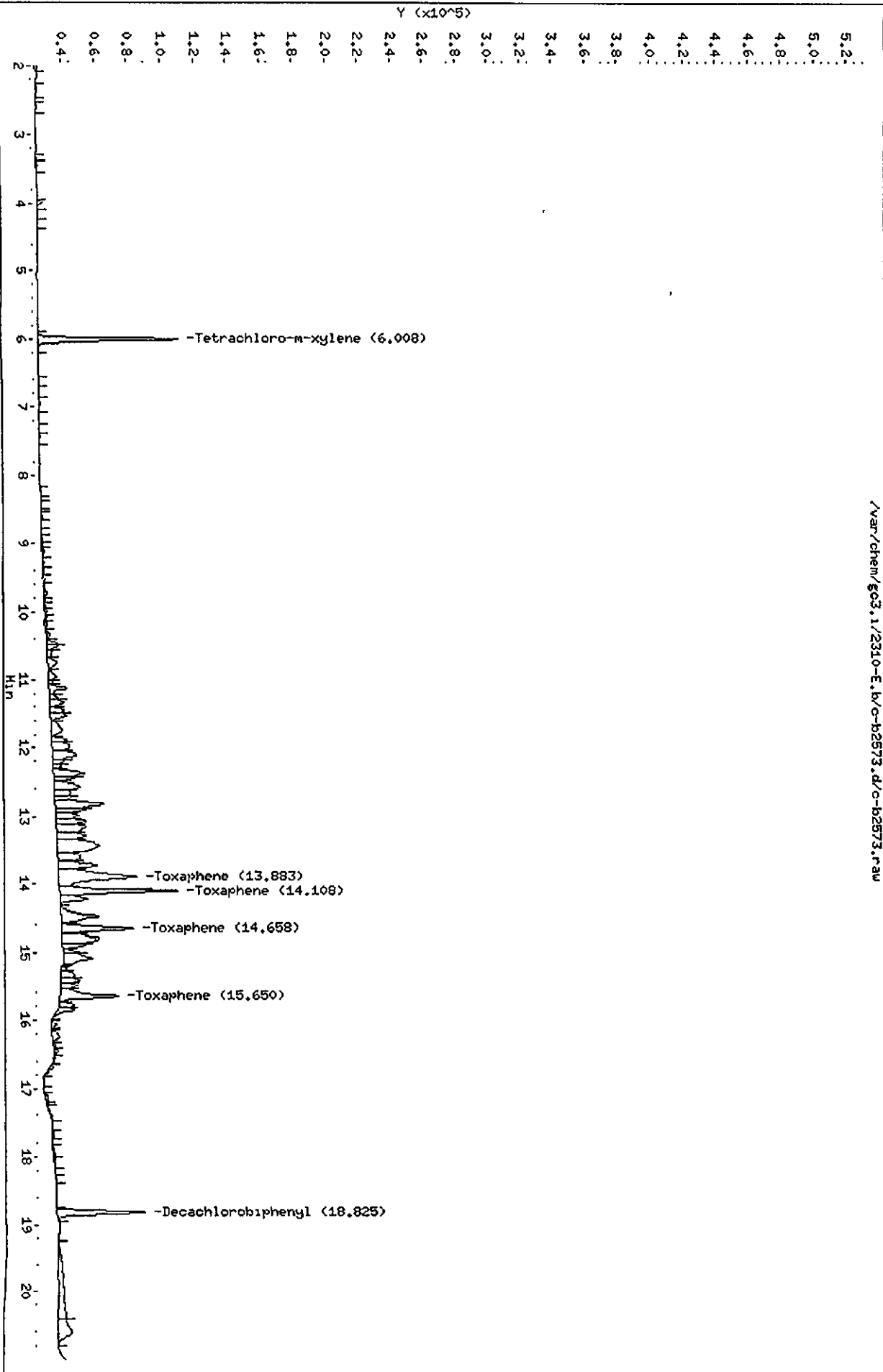
STL-PITTSBURGH

Data file : /var/chem/gc3.i/2310-E.b/c-b2573.d
Lab Smp Id: MEDTOX Client Smp ID: MEDTOX
Inj Date : 31-MAY-2000 14:45
Operator : 1891 Inst ID: gc3.i
Smp Info : MEDTOX,2310-E.b,,1-TOX.sub,,1,3
Misc Info : 190-84-13
Comment :
Method : /var/chem/gc3.i/2310-E.b/PESTB.m
Meth Date : 01-Jun-2000 13:33 g Quant Type: ESTD
Cal Date : 31-MAY-2000 14:45 Cal File: c-b2573.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 1-TOX.sub
Target Version: 3.40

Compounds					AMOUNTS	
	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
18 Toxaphene	13.883	13.883	0.000	48455	1.00000	1.00000
\$ 1 Tetrachloro-m-xylene	6.008	6.008	0.000	86059	0.02500	0.0250000
\$ 30 Decachlorobiphenyl	18.825	18.817	0.008	53973	0.02500	0.0250000

Data File: /var/chem/gc3.1/2310-E.b/c-b2573.d
Date : 31-MAY-2000 14:45
Client ID: NEDTOX
Sample Info: NEDTOX,2310-E.b,1-TOX,sub,1,3
Column phase: RTX-CLP2

Instrument: gc3.1
Operator: 1891
Column diameter: 0.53



6581178

Data File: /var/chem/gc3.i/2310-E.b/c-b2574.d
Report Date: 01-Jun-2000 13:40

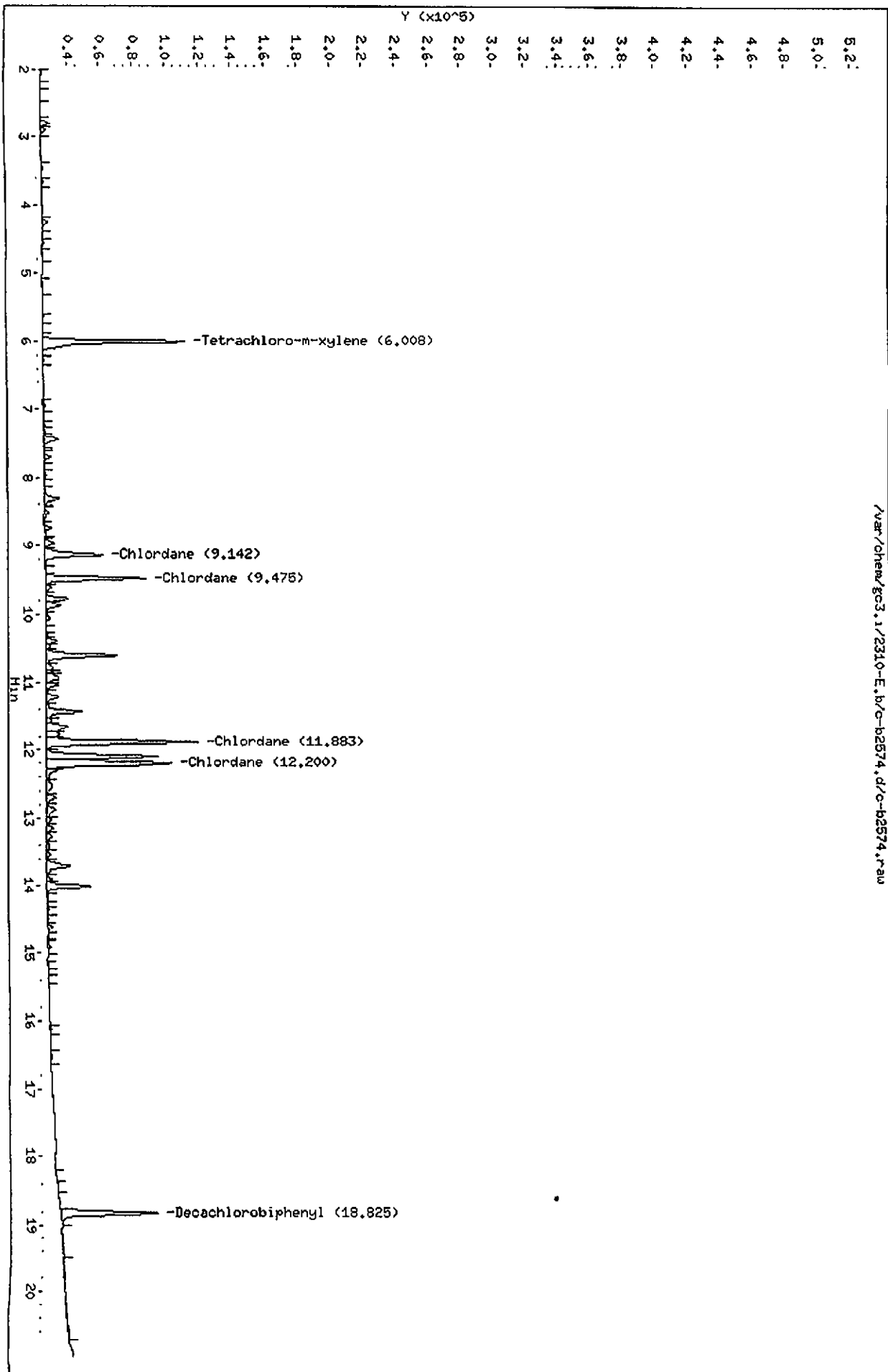
STL-PITTSBURGH

Data file : /var/chem/gc3.i/2310-E.b/c-b2574.d
Lab Smp Id: MEDCHLOR Client Smp ID: MEDCHLOR
Inj Date : 31-MAY-2000 15:11
Operator : 1891 Inst ID: gc3.i
Smp Info : MEDCHLOR,2310-E.b,,2-CHLO.sub,,1,3
Misc Info : 190-85-10
Comment :
Method : /var/chem/gc3.i/2310-E.b/PESTB.m
Meth Date : 01-Jun-2000 13:33 g Quant Type: ESTD
Cal Date : 31-MAY-2000 15:11 Cal File: c-b2574.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 2-CHLO.sub
Target Version: 3.40

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (ng)	ON-COL (ng)
9 Chlordane	9.142	9.142	0.000	35895	0 25000	0 250000
\$ 1 Tetrachloro-m-xylene	6.008	6 008	0 000	87701	0 02500	0.0250000
\$ 30 Decachlorobiphenyl	18.825	18 817	0.008	59986	0 02500	0 0250000

Data File: /var/chem/gc3.1/2310-E.b/c-b2574.d
Date : 31-MAY-2000 15:11
Client ID: HEDCHLOR
Sample Info: HEDCHLOR,2310-E.b,2-CHL0.sub,1,3
Column phase: RTX-CLP2

Instrument: gc3.1
Operator: 1891
Column diameter: 0.53



6581180

Data File: /var/chem/gc3.i/2310-E.b/c-b2575.d
Report Date: 01-Jun-2000 13:40

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2310-E.b/c-b2575.d
Lab Smp Id: LOWA Client Smp ID: LOWA
Inj Date : 31-MAY-2000 15:37
Operator : 1891 Inst ID: gc3.i
Smp Info : LOWA,2310-E.b,,3-INDA.sub,,1,1
Misc Info : 190-84-1
Comment :
Method : /var/chem/gc3.i/2310-E.b/PESTB.m
Meth Date : 01-Jun-2000 13:33 g Quant Type: ESTD
Cal Date : 31-MAY-2000 15:37 Cal File: c-b2575.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 3-INDA.sub
Target Version: 3.40

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (ng)	ON-COL (ng)
=====	==	=====	=====	=====	=====	=====
\$ 1 Tetrachloro-m-xylene	6.008	6.008	0.000	23299	0.00500	0.00570506
5 alpha-BHC	7.633	7.633	0.000	29346	0.00500	0.00500000
6 gamma-BHC (Lindane)	8.508	8.508	0.000	26175	0.00500	0.00500000
10 Heptachlor	9.475	9.475	0.000	25489	0.00500	0.00500000
15 Endosulfan I	12.275	12.275	0.000	20069	0.00500	0.00500000
17 Dieldrin	12.858	12.858	0.000	19760	0.00500	0.00500000
20 Endrin	13.467	13.467	0.000	16856	0.00500	0.00500000
21 4,4'-DDD	13.883	13.883	0.000	15611	0.00500	0.00500000
23 4,4'-DDT	14.500	14.500	0.000	7819	0.00500	0.00500000
25 Methoxychlor	16.000	16.000	0.000	9666	0.01000	0.01000000
\$ 30 Decachlorobiphenyl	18.825	18.817	0.008	13745	0.00500	0.00533948

Data File: /var/chem/gc3.1/2310-E.b/c-b2575.d

Date: 31-May-2000 15:37

Client ID: L044

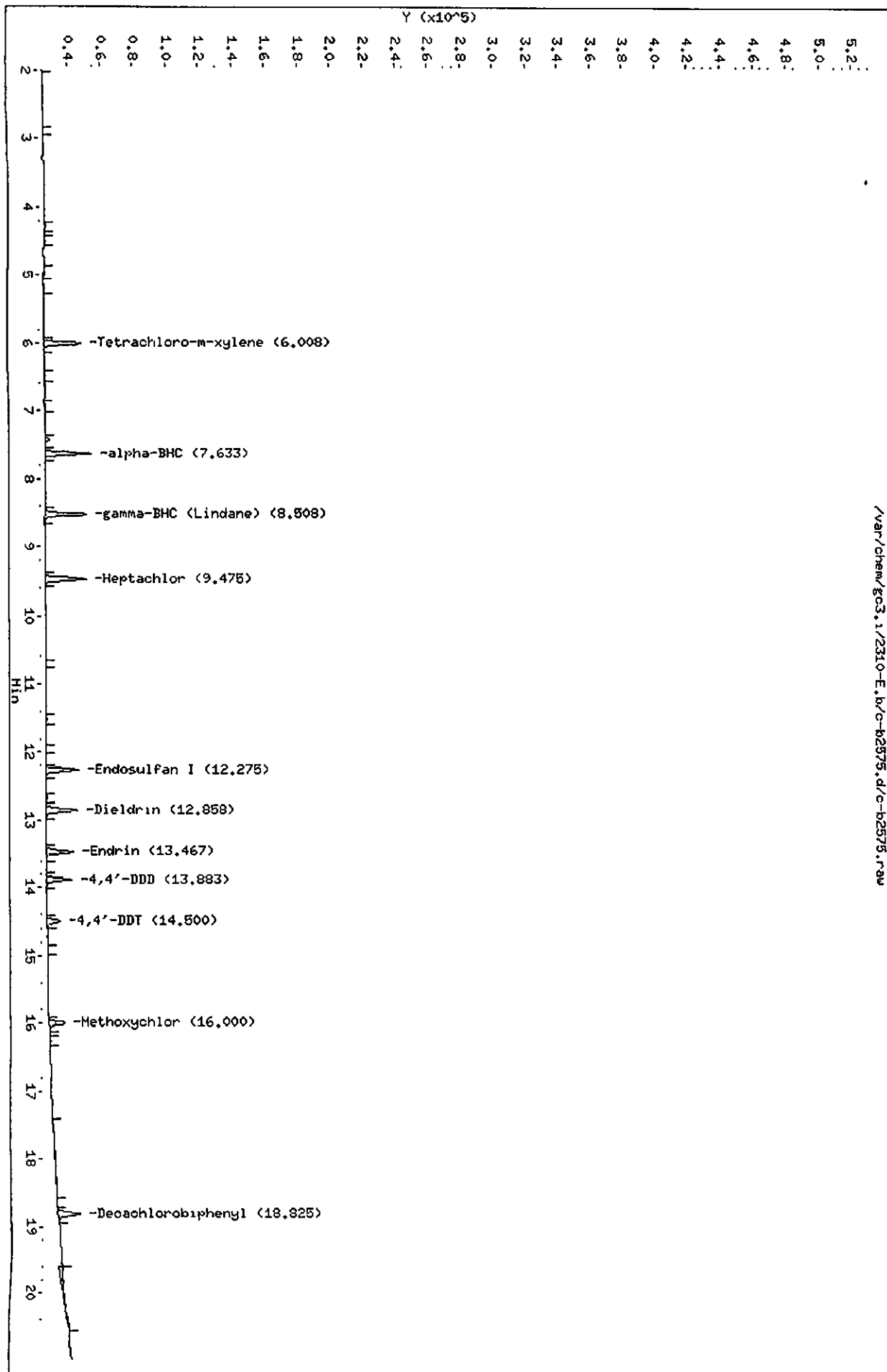
Sample Info: L044, 2310-E.b, 3-INDA, sub, r1.1

Column phase: RTX-CLP2

Instrument: gc3.1

Operator: 1891

Column diameter: 0.53



6581182

Data File: /var/chem/gc3.i/2310-E.b/c-b2576.d
Report Date: 01-Jun-2000 13:40

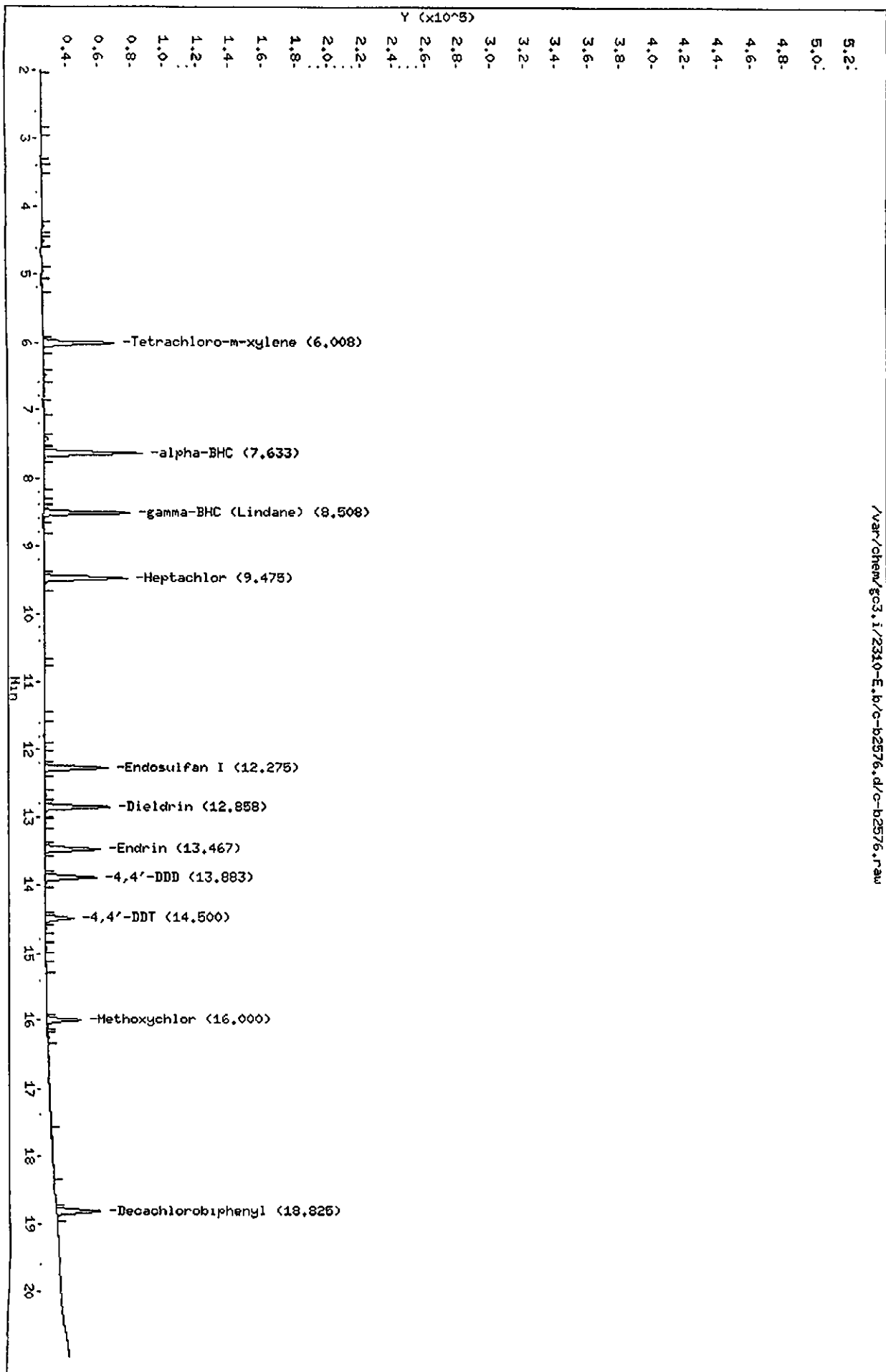
STL-PITTSBURGH

Data file : /var/chem/gc3.i/2310-E.b/c-b2576.d
Lab Smp Id: MLOWA Client Smp ID: MLOWA
Inj Date : 31-MAY-2000 16:03
Operator : 1891 Inst ID: gc3.i
Smp Info : MLOWA,2310-E.b,,3-INDA.sub,,1,2
Misc Info : 190-84-2
Comment :
Method : /var/chem/gc3.i/2310-E.b/PESTB.m
Meth Date : 01-Jun-2000 13:33 g Quant Type: ESTD
Cal Date : 31-MAY-2000 16:03 Cal File: c-b2576.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 3-INDA.sub
Target Version: 3.40

Compounds					AMOUNTS	
	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
*****	==	*****	*****	*****	*****	*****
\$ 1 Tetrachloro-m-xylene	6.008	6.008	0.000	44735	0.01000	0.0106164
5 alpha-BHC	7.633	7.633	0.000	61355	0.01000	0.0102218
6 gamma-BHC (Lindane)	8.508	8.508	0.000	53601	0.01000	0.0101181
10 Heptachlor	9.475	9.475	0.000	51671	0.01000	0.0100675
15 Endosulfan I	12.275	12.275	0.000	40156	0.01000	0.0100022
17 Dieldrin	12.858	12.858	0.000	40502	0.01000	0.0101227
20 Endrin	13.467	13.467	0.000	34910	0.01000	0.0101746
21 4,4'-DDD	13.883	13.883	0.000	32386	0.01000	0.0101830
23 4,4'-DDT	14.500	14.500	0.000	17593	0.01000	0.0105883
25 Methoxychlor	16.000	16.000	0.000	20741	0.02000	0.0207032
\$ 30 Decachlorobiphenyl	18.825	18.817	0.008	27500	0.01000	0.0104451

Data File: /var/chem/gc3.1/2310-E.b/c-b2576.d
Date : 31-MAY-2000 16:03
Client ID: HL004
Sample Info: HL004/2310-E.b./3-INDA.sub./1.2
Column phase: RTX-CLP2

Instrument: gc3.1
Operator: 1891
Column diameter: 0.53



6581184

Data File: /var/chem/gc3.i/2310-E.b/c-b2577.d
 Report Date: 01-Jun-2000 13:40

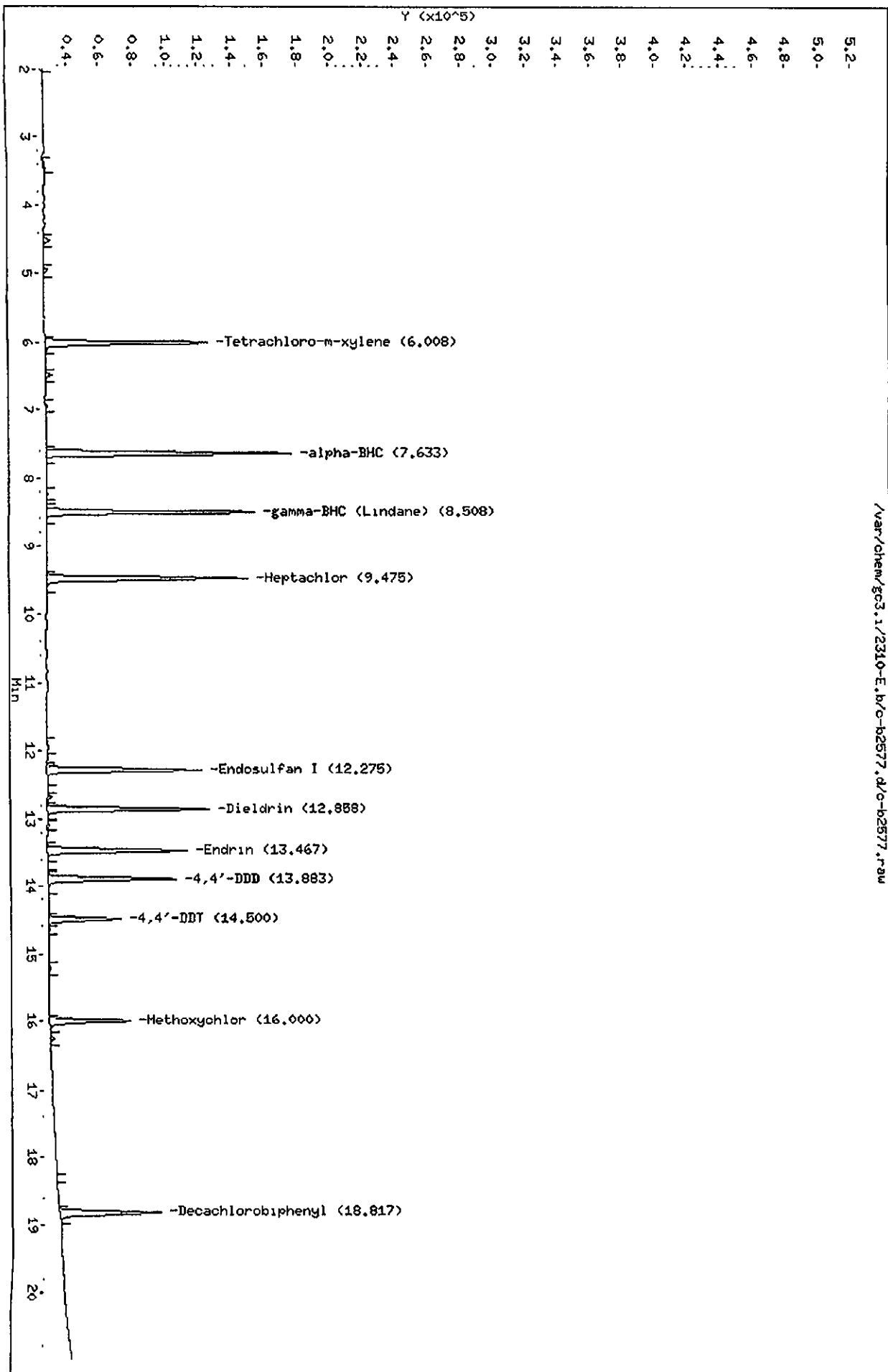
STL-PITTSBURGH

Data file : /var/chem/gc3.i/2310-E.b/c-b2577.d
 Lab Smp Id: MEDA Client Smp ID: MEDA
 Inj Date : 31-MAY-2000 16:29
 Operator : 1891 Inst ID: gc3.i
 Smp Info : MEDA,2310-E.b,,3-INDA.sub,,1,3
 Misc Info : 190-84-3
 Comment :
 Method : /var/chem/gc3.i/2310-E.b/PESTB.m
 Meth Date : 01-Jun-2000 13:33 g Quant Type: ESTD
 Cal Date : 31-MAY-2000 16:29 Cal File: c-b2577.d
 Als bottle: 1 Calibration Sample, Level: 3
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: 3-INDA.sub
 Target Version: 3.40

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (ng)	ON-COL (ng)
=====	==	=====	=====	=====	=====	=====
\$ 1 Tetrachloro-m-xylene	6.008	6.008	0.000	100384	0.02500	0.0229036
5 alpha-BHC	7.633	7.633	0.000	151044	0.02500	0.0251092
6 gamma-BHC (Lindane)	8.508	8.508	0.000	128521	0.02500	0.0245021
10 Heptachlor	9.475	9.475	0.000	124205	0.02500	0.0244609
15 Endosulfan I	12.275	12.275	0.000	95713	0.02500	0.0242150
17 Dieldrin	12.858	12.858	0.000	99757	0.02500	0.0249549
20 Endrin	13.467	13.467	0.000	86427	0.02500	0.0251259
21 4,4'-DDD	13.883	13.883	0.000	79279	0.02500	0.0249515
23 4,4'-DDT	14.500	14.500	0.000	45437	0.02500	0.0265166
25 Methoxychlor	16.000	16.000	0.000	49695	0.05000	0.0497356
\$ 30 Decachlorobiphenyl	18.817	18.817	0.000	62569	0.02500	0.0234582

Data File: /var/chem/gc3.1/2310-E.b/c-b2577.d
Date: 31-MAY-2000 16:29
Client ID: HEDA
Sample Info: HEDA,2310-E.b,3-INDA,sub,1,3
Column phase: RTX-CLP2

Instrument: gc3.1
Operator: 1891
Column diameter: 0.53



6581186

Data File: /var/chem/gc3.i/2310-E.b/c-b2578.d
 Report Date: 01-Jun-2000 13:40

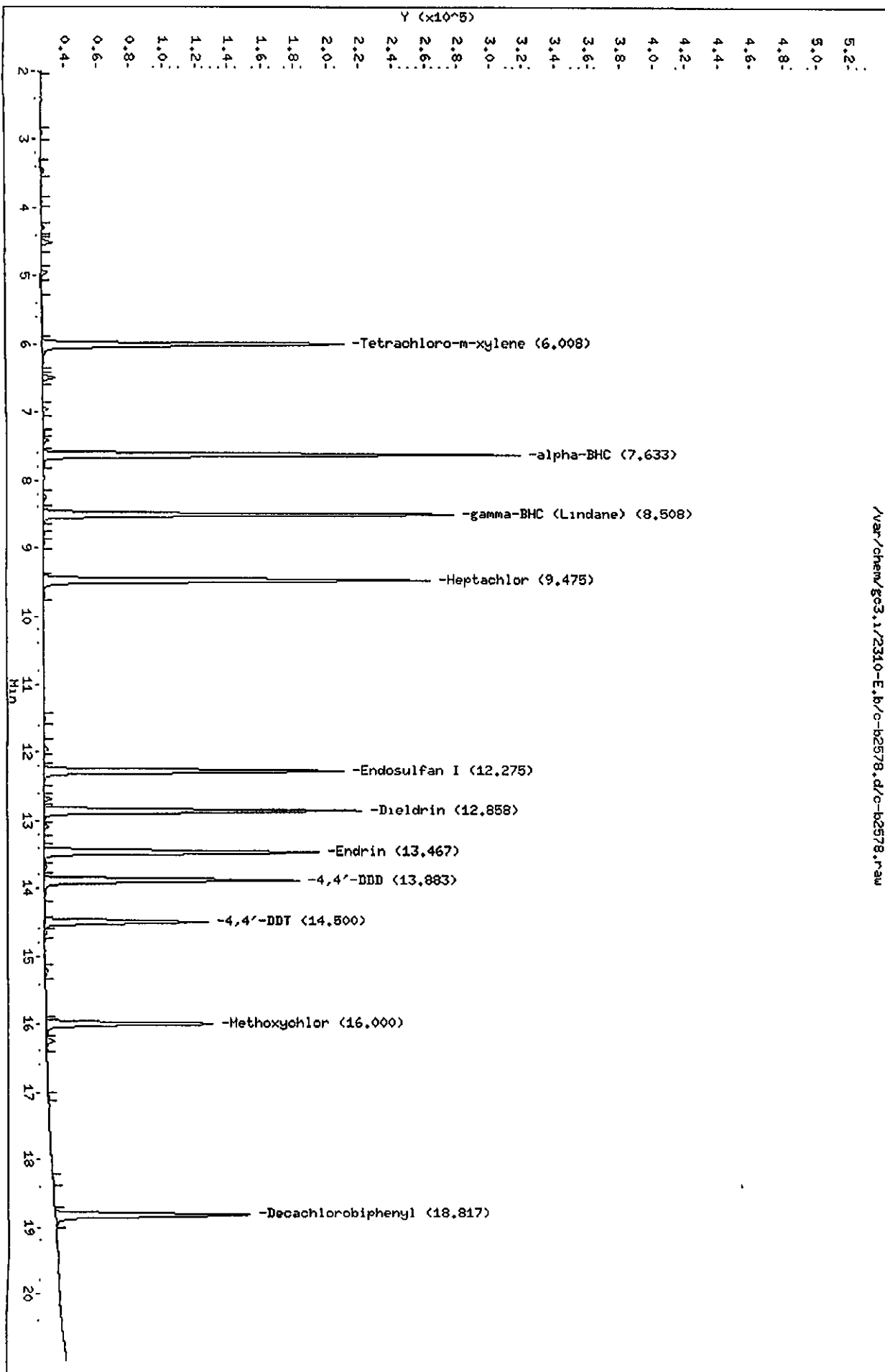
STL-PITTSBURGH

Data file : /var/chem/gc3.i/2310-E.b/c-b2578.d
 Lab Smp Id: MHIGHA Client Smp ID: MHIGHA
 Inj Date : 31-MAY-2000 16:55
 Operator : 1891 Inst ID: gc3.i
 Smp Info : MHIGHA, 2310-E.b, , 3-INDA.sub, , 1, 4
 Misc Info : 190-84-4
 Comment :
 Method : /var/chem/gc3.i/2310-E.b/PESTB.m
 Meth Date : 01-Jun-2000 13:33 g Quant Type: ESTD
 Cal Date : 31-MAY-2000 16:55 Cal File: c-b2578.d
 Als bottle: 1 Calibration Sample, Level: 4
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: 3-INDA.sub
 Target Version: 3.40

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (ng)	ON-COL (ng)
\$ 1 Tetrachloro-m-xylene	6.008	6.008	0.000	184621	0.05000	0.0438502
5 alpha-BHC	7.633	7.633	0.000	293046	0.05000	0.0490302
6 gamma-BHC (Lindane)	8.508	8.508	0.000	251443	0.05000	0.0484364
10 Heptachlor	9.475	9.475	0.000	237311	0.05000	0.0475113
15 Endosulfan I	12.275	12.275	0.000	183974	0.05000	0.0473629
17 Dieldrin	12.858	12.858	0.000	194826	0.05000	0.0490468
20 Endrin	13.467	13.467	0.000	169035	0.05000	0.0493534
21 4,4'-DDD	13.883	13.883	0.000	156450	0.05000	0.0494275
23 4,4'-DDT	14.500	14.500	0.000	100487	0.05000	0.0562140
25 Methoxychlor	16.000	16.000	0.000	102873	0.10000	0.102202
\$ 30 Decachlorobiphenyl	18.817	18.817	0.000	119702	0.05000	0.0460578

Data File: /var/chem/gc3.1/2310-E.b/c-b2578.d
Date: 31-May-2000 16:55
Client ID: HHCHA
Sample Info: HHCHA,2310-E.b./3-INDA.sub,1,4
Column phase: RTX-CLP2

Instrument: gc3.1
Operator: 1891
Column diameter: 0.53



6581188

Data File: /var/chem/gc3.i/2310-E.b/c-b2579.d
Report Date: 01-Jun-2000 13:40

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2310-E.b/c-b2579.d
Lab Smp Id: HIGHA Client Smp ID: HIGHA
Inj Date : 31-MAY-2000 17:21
Operator : 1891 Inst ID: gc3.i
Smp Info : HIGHA,2310-E.b,,3-INDA.sub,,1,5
Misc Info : 190-84-5
Comment :
Method : /var/chem/gc3.i/2310-E.b/PESTB.m
Meth Date : 01-Jun-2000 13:33 g Quant Type: ESTD
Cal Date : 31-MAY-2000 17:21 Cal File: c-b2579.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 3-INDA.sub
Target Version: 3.40

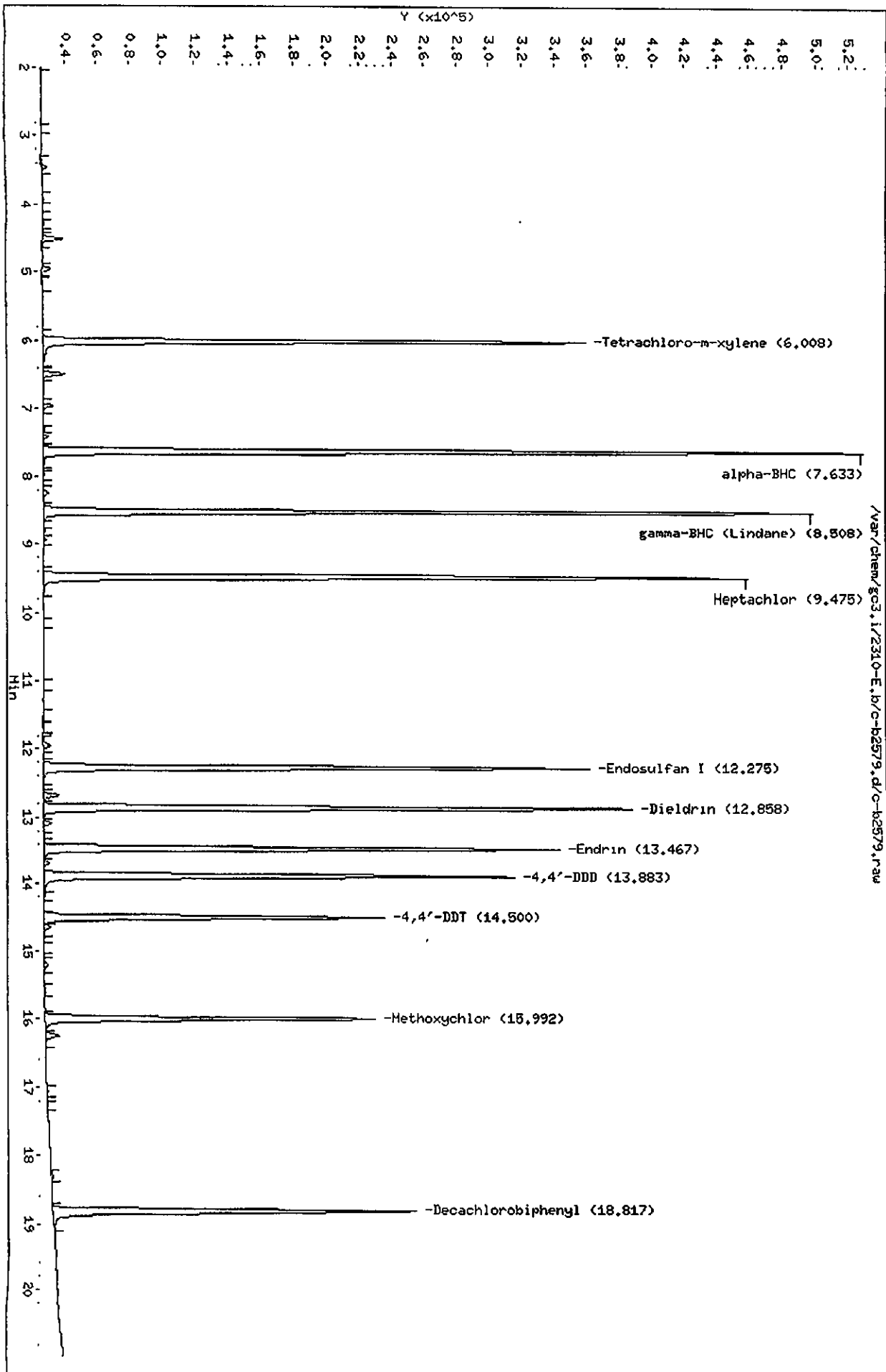
Compounds	RT	EXP RT	DLT RT	RT	RESPONSE	AMOUNTS	
						CAL-AMT	ON-COL
						(ng)	(ng)
\$ 1 Tetrachloro-m-xylene	6.008	6.008	0.000		333489	0.10000	0.0826451
5 alpha-BHC	7.633	7.633	0.000		546733	0.10000	0.0930618
6 gamma-BHC (Lindane)	8.508	8.508	0.000		473229	0.10000	0.0928006
10 Heptachlor	9.475	9.475	0.000		433503	0.10000	0.0891455
15 Endosulfan I	12.275	12.275	0.000		336706	0.10000	0.0890546
17 Dieldrin	12.858	12.858	0.000		362624	0.10000	0.0929079
20 Endrin	13.467	13.467	0.000		317740	0.10000	0.0941319
21 4,4'-DDD	13.983	13.983	0.000		290132	0.10000	0.0932164
23 4,4'-DDT	14.500	14.500	0.000		209292	0.10000	0.113214 (A)
25 Methoxychlor	15.992	16.000	-0.008		203205	0.20000	0.201500 (A)
\$ 30 Decachlorobiphenyl	18.817	18.817	0.000		222766	0.10000	0.0882349

QC Flag Legend

A - Target compound detected but, quantitated amount
exceeded maximum amount.

Data File: /var/chem/gc3.1/2310-E.b/c-b2579.d
Date: 31-May-2000 17:21
Client ID: HIGHA
Sample Info: HIGHA,2310-E.b,3-INDA,sub,1,5
Column phase: RTX-CLP2

Instrument: gc3.1
Operator: 1891
Column diameter: 0.53



6581190

Data File: /var/chem/gc3.i/2310-E.b/c-b2580.d
Report Date: 01-Jun-2000 13:40

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2310-E.b/c-b2580.d
Lab Smp Id: LOWB Client Smp ID: LOWB
Inj Date : 31-MAY-2000 17:47
Operator : 1891 Inst ID: gc3.i
Smp Info : LOWB,2310-E.b,,4-INDB.sub,,1,1
Misc Info : 190-84-7
Comment :
Method : /var/chem/gc3.i/2310-E.b/PESTB.m
Meth Date : 01-Jun-2000 13:33 g Quant Type: ESTD
Cal Date : 31-MAY-2000 17:47 Cal File: c-b2580.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 4-INDB.sub
Target Version: 3.40

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (ng)	ON-COL (ng)
=====	==	=====	=====	=====	=====	=====
11 Aldrin	10.167	10.167	0.000	27463	0.00500	0.00500000
7 beta-BHC	8.800	8.800	0.000	15688	0.00500	0.00500000
8 delta-BHC	9.467	9.467	0.000	20431	0.00500	0.00500000
12 Heptachlor epoxide	11.475	11.475	0.000	24073	0.00500	0.00500000
13 gamma-Chlordane	11.883	11.883	0.000	24180	0.00500	0.00500000
14 alpha-Chlordane	12.200	12.200	0.000	23782	0.00500	0.00500000
16 4,4'-DDE	12.683	12.683	0.000	20435	0.00500	0.00500000
22 Endosulfan II	13.933	13.933	0.000	17797	0.00500	0.00500000
24 Endrin aldehyde	14.650	14.650	0.000	14024	0.00500	0.00500000
26 Endosulfan sulfate	15.217	15.217	0.000	10290	0.00500	0.00500000
27 Endrin ketone	16.250	16.250	0.000	12162	0.00500	0.00500000

Data File: /var/chem/gc3.1/2310-E.b/c-b2580.d

Date: 31-May-2000 17:47

Client ID: LOWB

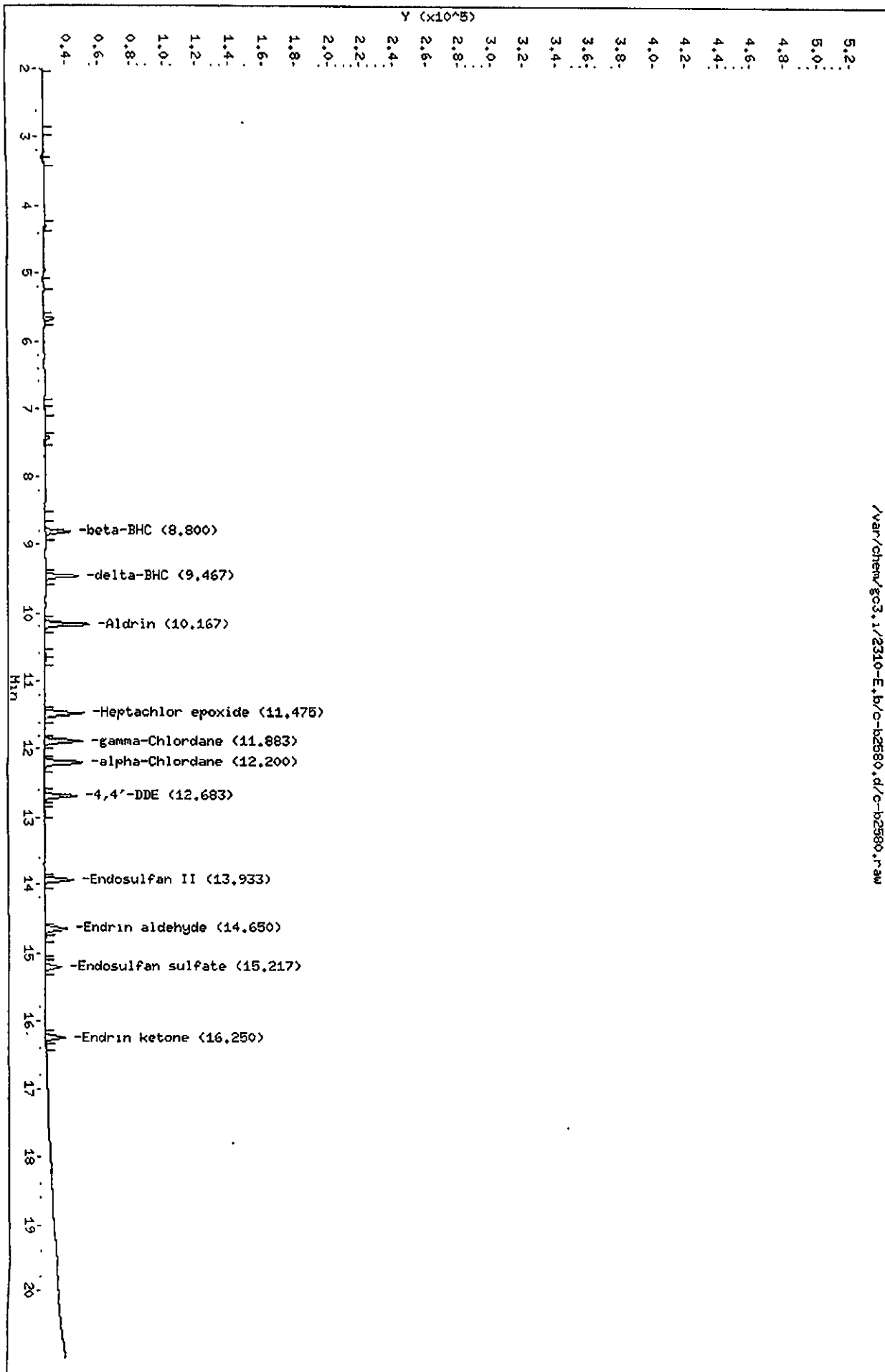
Sample Info: LOWB,2310-E.b,4-INDB,sub,1,1

Column phase: RTX-CLP2

Instrument: gc3.1

Operator: 1891

Column diameter: 0.53



6581192

Data File: /var/chem/gc3.i/2310-E.b/c-b2581.d
Report Date: 01-Jun-2000 13:40

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2310-E.b/c-b2581.d
Lab Smp Id: MLOWB Client Smp ID: MLOWB
Inj Date : 31-MAY-2000 18:13
Operator : 1891 Inst ID: gc3.i
Smp Info : MLOWB,2310-E.b,,4-INDB.sub,,1,2
Misc Info : 190-84-8
Comment :
Method : /var/chem/gc3.i/2310-E.b/PESTB.m
Meth Date : 01-Jun-2000 13:33 g Quant Type: ESTD
Cal Date : 31-MAY-2000 18:13 Cal File: c-b2581.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 4-INDB.sub
Target Version: 3.40

Compounds						AMOUNTS	
	RT	EXP RT	DLT RT	RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
=====	==	=====	=====		=====	=====	=====
11 Aldrin	10.167	10.167	0.000		55858	0.01000	0.0100841
7 beta-BHC	8.808	8.800	0.008		30692	0.01000	0.00988980
8 delta-BHC	9.467	9.467	0.000		44169	0.01000	0.0103889
12 Heptachlor epoxide	11.475	11.475	0.000		48606	0.01000	0.0100475
13 gamma-Chlordane	11.883	11.883	0.000		49045	0.01000	0.0100703
14 alpha-Chlordane	12.200	12.200	0.000		48220	0.01000	0.0100685
16 4,4'-DDE	12.683	12.683	0.000		42427	0.01000	0.0101869
22 Endosulfan II	13.933	13.933	0.000		36378	0.01000	0.0101089
24 Endrin aldehyde	14.650	14.650	0.000		28211	0.01000	0.0100290
26 Endosulfan sulfate	15.217	15.217	0.000		22199	0.01000	0.0103784
27 Endrin ketone	16.250	16.250	0.000		26298	0.01000	0.0103899

Data File: /var/chem/gc3.1/2310-E.b/c-b2581.d

Date: 31-MAY-2000 18:13

Client ID: HLOMB

Sample Info: HLOMB, 2310-E.b, 4-INDB, sub, 1.2

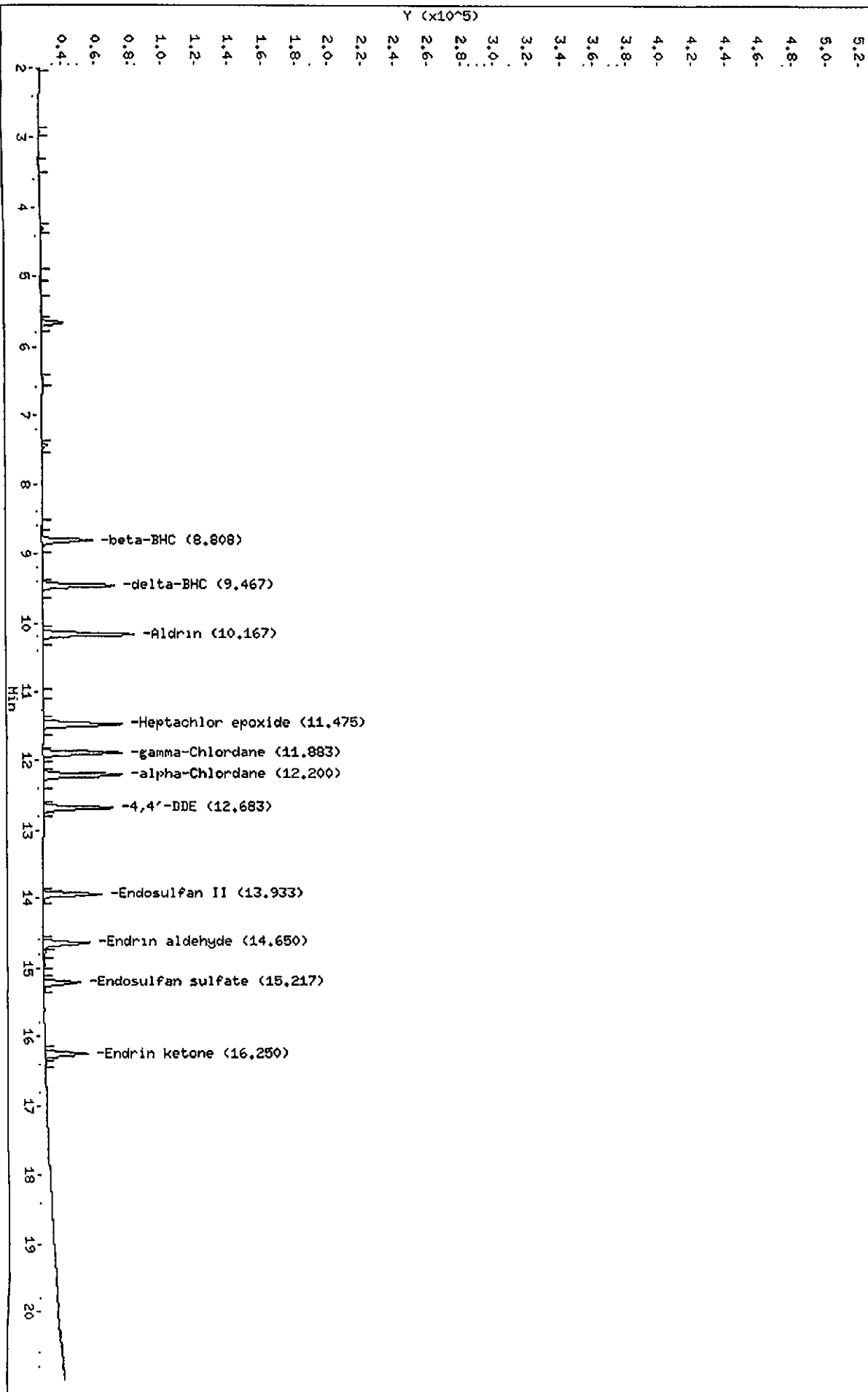
Column phase: RTX-CLP2

Instrument: gc3.1

Operator: 1891

Column diameter: 0.53

/var/chem/gc3.1/2310-E.b/c-b2581.d/c-b2581.raw



6581194

Data File: /var/chem/gc3.i/2310-E.b/c-b2582.d
Report Date: 01-Jun-2000 13:40

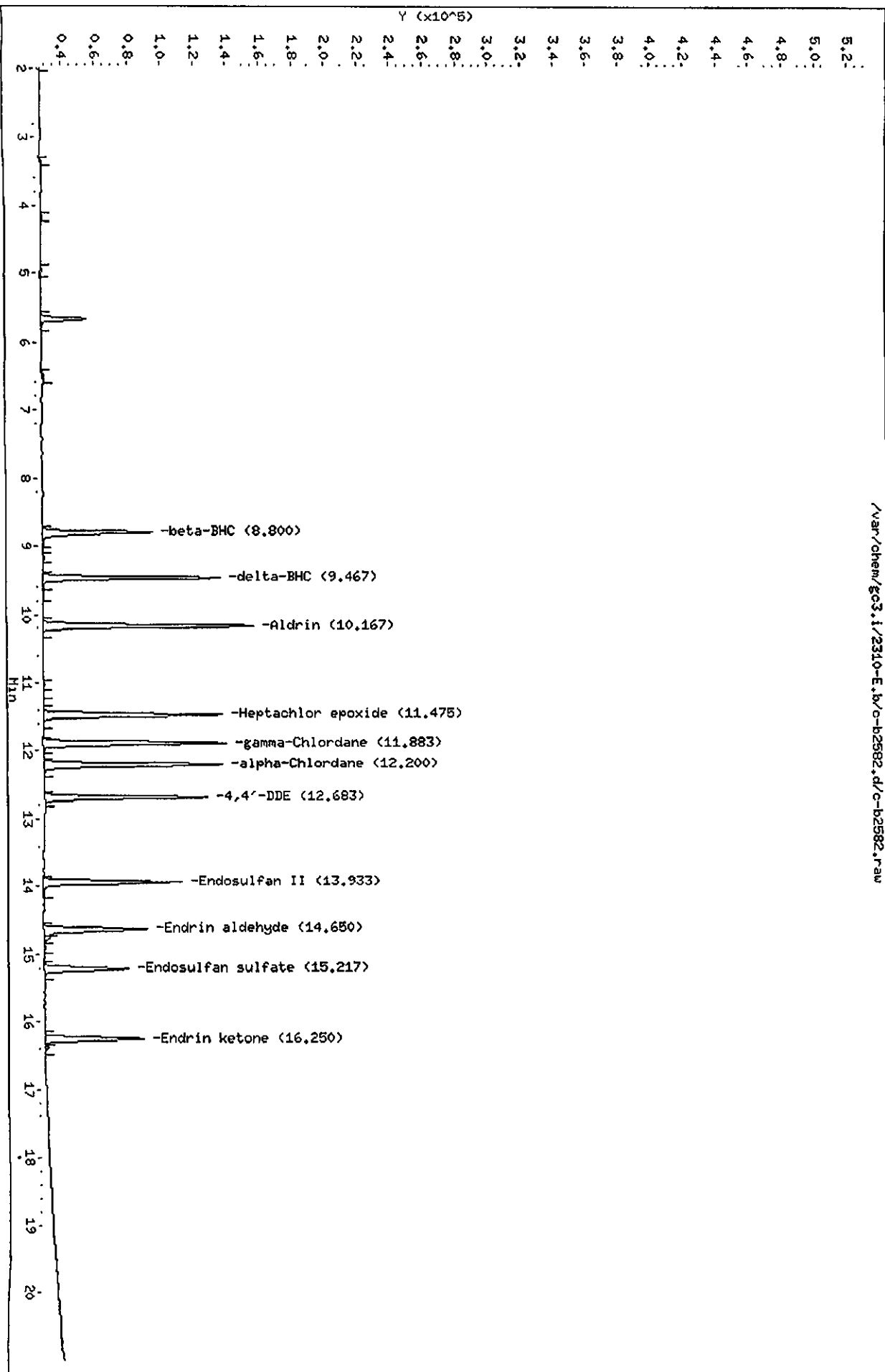
STL-PITTSBURGH

Data file : /var/chem/gc3.i/2310-E.b/c-b2582.d
Lab Smp Id: MEDB Client Smp ID: MEDB
Inj Date : 31-MAY-2000 18:39
Operator : 1891 Inst ID: gc3.i
Smp Info : MEDB, 2310-E.b, , 4-INDB.sub, , 1, 3
Misc Info : 190-84-9
Comment :
Method : /var/chem/gc3.i/2310-E.b/PESTB.m
Meth Date : 01-Jun-2000 13:33 g Quant Type: ESTD
Cal Date : 31-MAY-2000 18:39 Cal File: c-b2582.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 4-INDB.sub
Target Version: 3.40

Compounds	RT	EXP RT	DLT	RT	RESPONSE	AMOUNTS	
						CAL-AMT (ng)	ON-COL (ng)
=====	==	=====	=====	=====	=====	=====	
11 Aldrin	10.167	10.167	0.000	129653	0.02500	0.0239146	
7 beta-BHC	8.800	8.800	0.000	67163	0.02500	0.0226562	
8 delta-BHC	9.467	9.467	0.000	109195	0.02500	0.0254516	
12 Heptachlor epoxide	11.475	11.475	0.000	110110	0.02500	0.0234616	
13 gamma-Chlordane	11.883	11.883	0.000	113021	0.02500	0.0237750	
14 alpha-Chlordane	12.200	12.200	0.000	110141	0.02500	0.0236286	
16 4,4'-DDE	12.683	12.683	0.000	100459	0.02500	0.0244068	
22 Endosulfan II	13.933	13.933	0.000	84957	0.02500	0.0240547	
24 Endrin aldehyde	14.650	14.650	0.000	64086	0.02500	0.0234766	
26 Endosulfan sulfate	15.217	15.217	0.000	52329	0.02500	0.0246406	
27 Endrin ketone	16.250	16.250	0.000	60772	0.02500	0.0243312	

Data File: /var/chem/gc3.1/2310-E.b/c-b2582.d
Date : 31-MAY-2000 18:39
Client ID: HEDB
Sample Info: HEDB/2310-E.b/4-INDB.sub/1,3
Column phase: RTX-CLP2

Instrument: gc3.1
Operator: 1891
Column diameter: 0.53



6581196

Data File: /var/chem/gc3.i/2310-E.b/c-b2583.d

Report Date: 01-Jun-2000 13:40

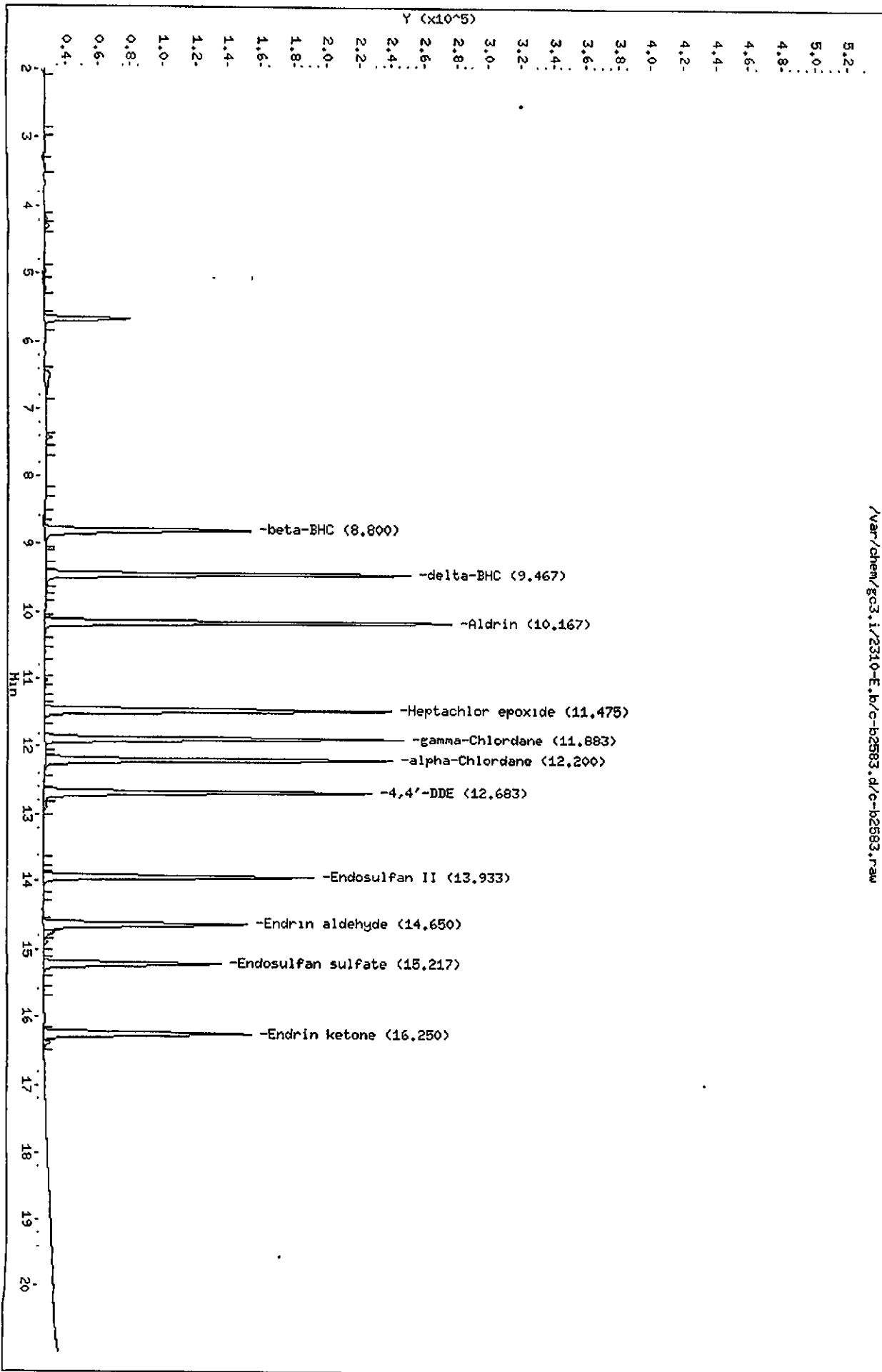
STL-PITTSBURGH

Data file : /var/chem/gc3.i/2310-E.b/c-b2583.d
 Lab Smp Id: MHIGHB Client Smp ID: MHIGHB
 Inj Date : 31-MAY-2000 19:05
 Operator : 1891 Inst ID: gc3.i
 Smp Info : MHIGHB,2310-E.b,,4-INDB.sub,,1,4
 Misc Info : 190-84-10
 Comment :
 Method : /var/chem/gc3.i/2310-E.b/PESTB.m
 Meth Date : 01-Jun-2000 13:33 g Quant Type: ESTD
 Cal Date : 31-MAY-2000 19:05 Cal File: c-b2583.d
 Als bottle: 1 Calibration Sample, Level: 4
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: 4-INDB.sub
 Target Version: 3.40

Compounds					AMOUNTS	
	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
=====	==	=====	=====	=====	=====	=====
11 Aldrin	10.167	10.167	0.000	250964	0.05000	0.0471653
7 beta-BHC	8.800	8.800	0.000	128193	0.05000	0.0447555
8 delta-BHC	9.467	9.467	0.000	225158	0.05000	0.0518377
12 Heptachlor epoxide	11.475	11.475	0.000	214245	0.05000	0.0466650
13 gamma-Chlordane	11.883	11.883	0.000	221629	0.05000	0.0474227
14 alpha-Chlordane	12.200	12.200	0.000	214143	0.05000	0.0468920
16 4,4'-DDE	12.683	12.683	0.000	202661	0.05000	0.0494256
22 Endosulfan II	13.933	13.933	0.000	166837	0.05000	0.0478996
24 Endrin aldehyde	14.650	14.650	0.000	126737	0.05000	0.0472719
26 Endosulfan sulfate	15.217	15.217	0.000	109963	0.05000	0.0513227
27 Endrin ketone	16.250	16.250	0.000	128427	0.05000	0.0510562

Data File: /var/chem/gc3.i/2310-E.b/c-b2583.d
Date: 31-MAY-2000 19:05
Client ID: HHIGHB
Sample Info: HHIGHB,2310-E.b,4-INDB.sub,1,4
Column phase: RTX-CLP2

Instrument: gc3.i
Operator: 1891
Column diameter: 0.53



6581198

Data File: /var/chem/gc3.i/2310-E.b/c-b2584.d
Report Date: 01-Jun-2000 13:40

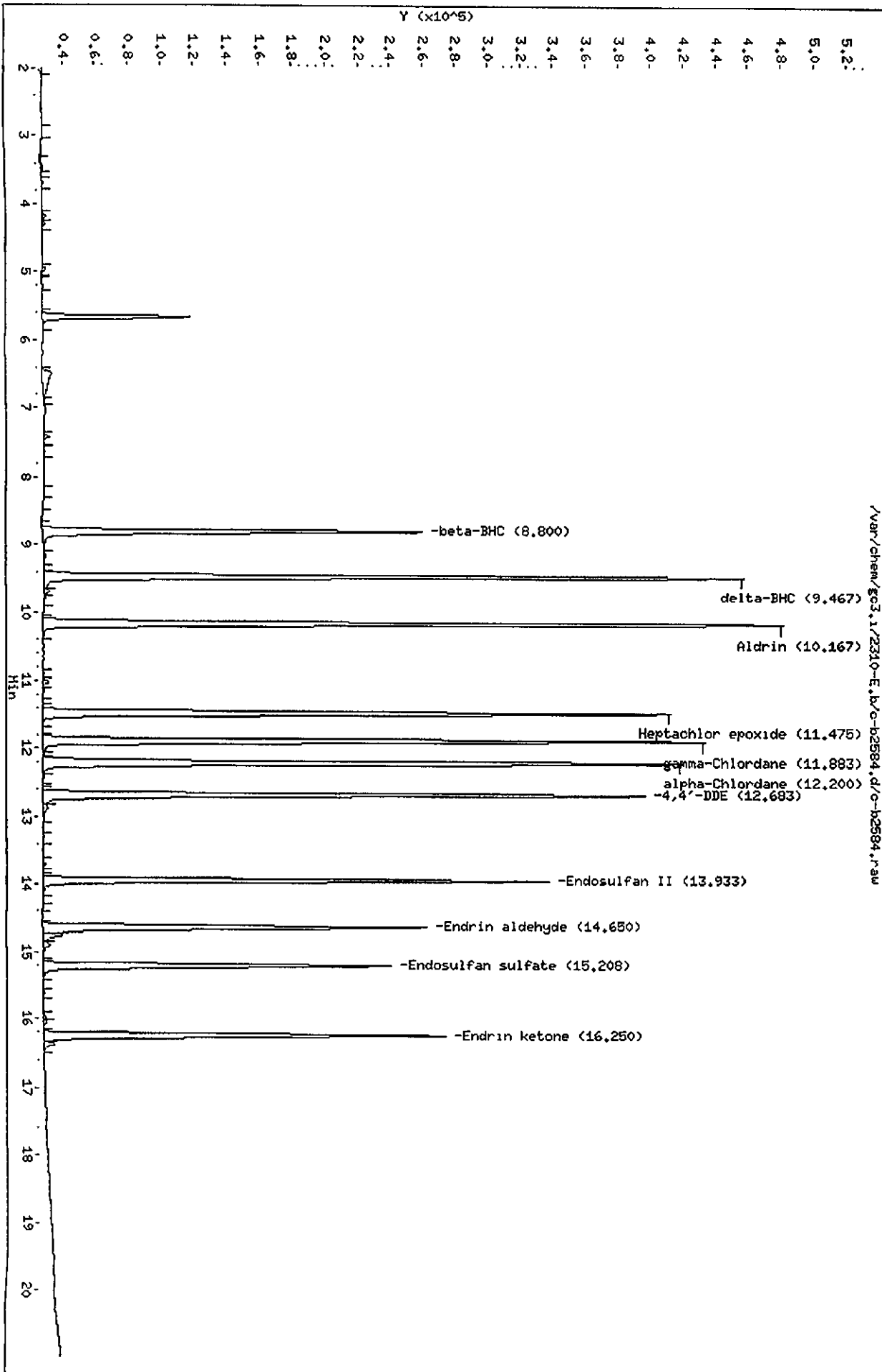
STL-PITTSBURGH

Data file : /var/chem/gc3.i/2310-E.b/c-b2584.d
Lab Smp Id: HIGHB Client Smp ID: HIGHB
Inj Date : 31-MAY-2000 19:30
Operator : 1891 Inst ID: gc3.i
Smp Info : HIGHB,2310-E.b,,4-INDB.sub,,1,5
Misc Info : 190-84-11
Comment :
Method : /var/chem/gc3.i/2310-E.b/PESTB.m
Meth Date : 01-Jun-2000 13:33 g Quant Type: ESTD
Cal Date : 31-MAY-2000 19:30 Cal File: c-b2584.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 4-INDB.sub
Target Version: 3.40

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (ng)	ON-COL (ng)
11 Aldrin	10.167	10.167	0.000	456038	0.10000	0.0882284
7 beta-BHC	8.800	8.800	0.000	233286	0.10000	0.0845850
8 delta-BHC	9.467	9.467	0.000	431141	0.10000	0.0994078
12 Heptachlor epoxide	11.475	11.475	0.000	386940	0.10000	0.0870158
13 gamma-Chlordane	11.883	11.883	0.000	407688	0.10000	0.0895199
14 alpha-Chlordane	12.200	12.200	0.000	393596	0.10000	0.0886363
16 4,4'-DDE	12.683	12.683	0.000	370847	0.10000	0.0922058
22 Endosulfan II	13.933	13.933	0.000	311301	0.10000	0.0913162
24 Endrin aldehyde	14.650	14.650	0.000	236871	0.10000	0.0904586
26 Endosulfan sulfate	15.208	15.217	-0.009	213758	0.10000	0.0998132
27 Endrin ketone	16.250	16.250	0.000	247178	0.10000	0.0986077

Data File: /var/chem/gc3.1/2310-E.b/c-b2584.d
Date: 31-MAY-2000 19:30
Client ID: HIGHB
Sample Info: HIGHB,2310-E.b,4-INDB.sub,1.5
Column phase: RTX-CLP2

Instrument: gc3.1
Operator: 1891
Column diameter: 0.53



6581200

Data File: /var/chem/gc3.i/2310-E.b/c-b2585.d
Report Date: 01-Jun-2000 13:40

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2310-E.b/c-b2585.d
Lab Smp Id: 2ND A Client Smp ID: 2ND A
Inj Date : 31-MAY-2000 19:56
Operator : 1891 Inst ID: gc3.i
Smp Info : 2ND A, 2310-E.b, , INDA.sub, , 2, 3
Misc Info : 190-82-2
Comment :
Method : /var/chem/gc3.i/2310-E.b/PESTB.m
Meth Date : 01-Jun-2000 13:33 g Quant Type: ESTD
Cal Date : 31-MAY-2000 19:30 Cal File: c-b2584.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: 3.40

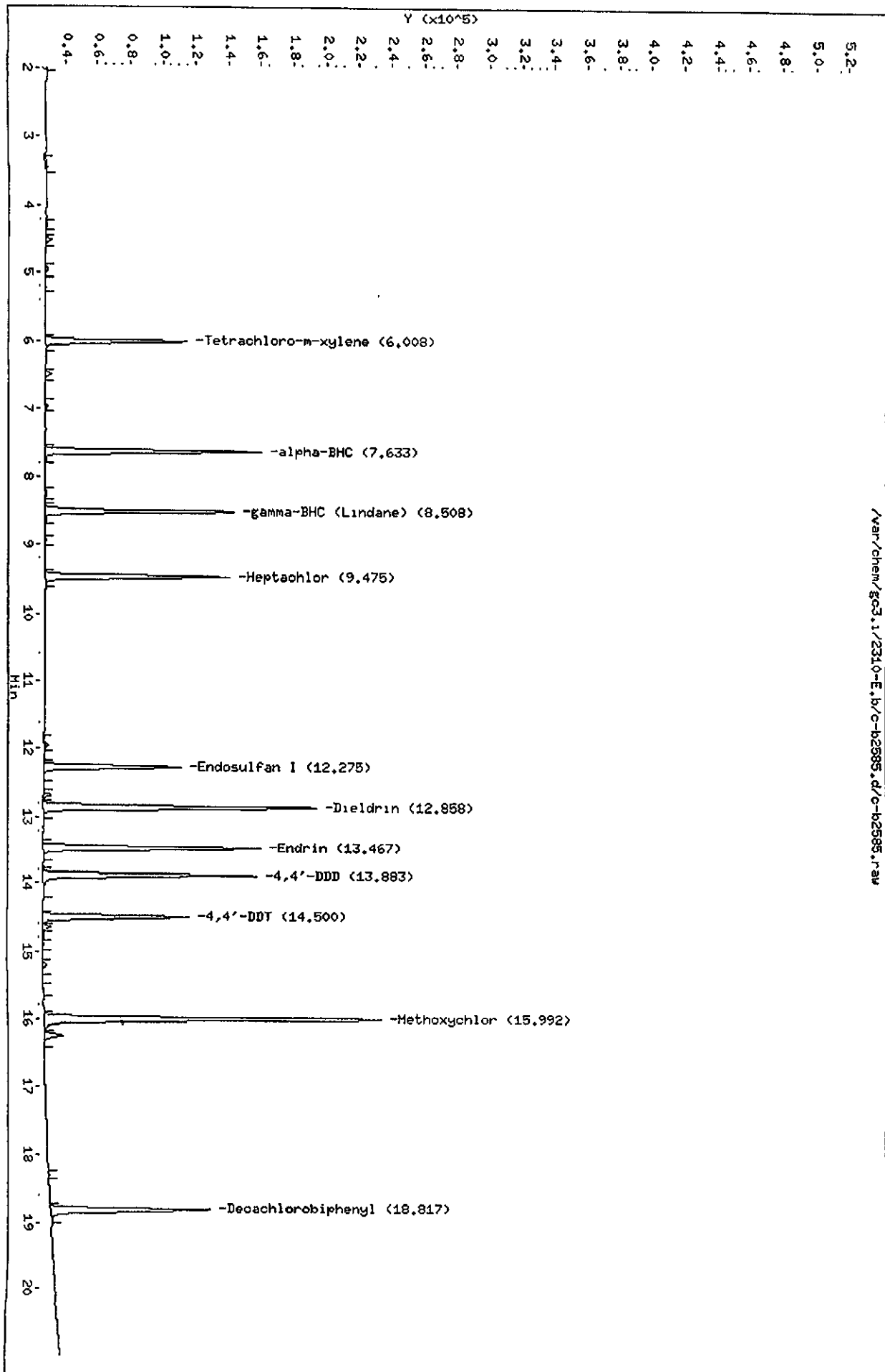
						AMOUNTS	
						CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ng)	(ng)	
=====	==	=====	=====	=====	=====	=====	
\$ 1 Tetrachloro-m-xylene	6.008	6.008	0.000	87648	0.02500	0.0217209	
5 alpha-BHC	7.633	7.633	0.000	132929	0.02500	0.0226264	
6 gamma-BHC (Lindane)	8.508	8.508	0.000	116799	0.02500	0.0229044	
10 Heptachlor	9.475	9.475	0.000	113417	0.02500	0.0233230	
15 Endosulfan I	12.275	12.275	0.000	84484	0.02500	0.0223450	
17 Dieldrin	12.858	12.858	0.000	167632	0.02500	0.0429490	
20 Endrin	13.467	13.467	0.000	133892	0.02500	0.0396661	
21 4,4'-DDD	13.883	13.883	0.000	131747	0.02500	0.0423290	
23 4,4'-DDT	14.500	14.500	0.000	90561	0.02500	0.0489877	
25 Methoxychlor	15.992	16.000	-0.008	207635	0.05000	0.205893 (A)	
\$ 30 Decachlorobiphenyl	18.817	18.817	0.000	98670	0.02500	0.0390820	

QC Flag Legend

A - Target compound detected but, quantitated amount
exceeded maximum amount.

Data File: /var/chem/gc3.1/2310-E,b/c-b2585.d
Date: 31-MAY-2000 19:56
Client ID: 2ND A
Sample Info: 2ND A, 2310-E,b, INDA, sub., 2,3
Column phase: RTX-CLP2

Instrument: gc3.1
Operator: 1891
Column diameter: 0.53



6581202

Data File: /var/chem/gc3.i/2310-E.b/c-b2586.d
Report Date: 01-Jun-2000 13:40

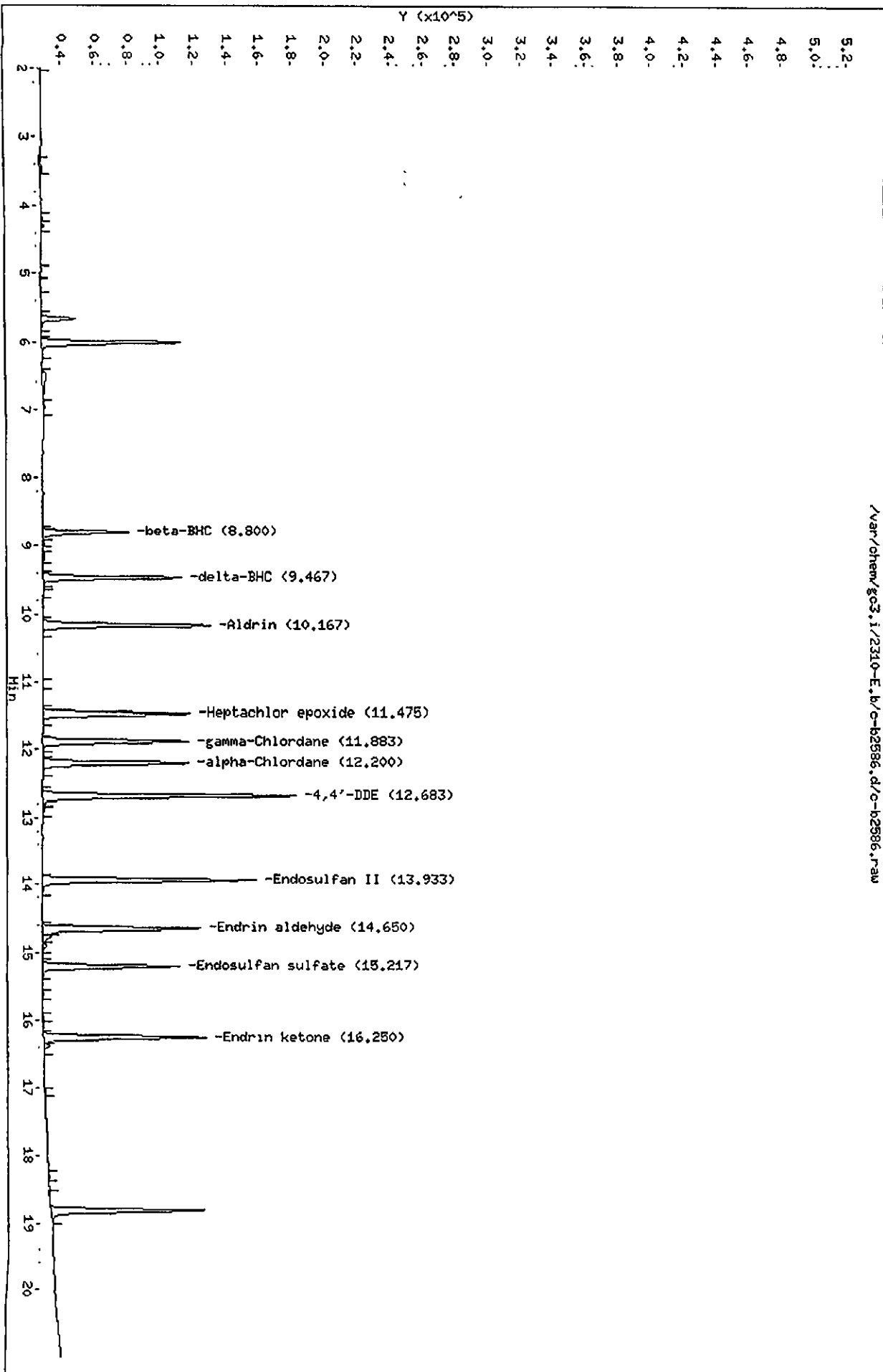
STL-PITTSBURGH

Data file : /var/chem/gc3.i/2310-E.b/c-b2586.d
Lab Smp Id: 2ND B Client Smp ID: 2ND B
Inj Date : 31-MAY-2000 20:22
Operator : 1891 Inst ID: gc3.i
Smp Info : 2ND B, 2310-E.b, , INDB.sub, , 2, 3
Misc Info : 190-82-5
Comment :
Method : /var/chem/gc3.i/2310-E.b/PESTB.m
Meth Date : 01-Jun-2000 13:33 g Quant Type: ESTD
Cal Date : 31-MAY-2000 19:30 Cal File: c-b2584.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDB.sub
Target Version: 3.40

Compounds					AMOUNTS	
	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
=====	==	=====	=====	=====	=====	=====
11 Aldrin	10.167	10.167	0.000	103621	0.02500	0.0200473
7 beta-BHC	8.800	8.800	0.000	53260	0.02500	0.0193110
8 delta-BHC	9.467	9.467	0.000	84588	0.02500	0.0195034
12 Heptachlor epoxide	11.475	11.475	0.000	91142	0.02500	0.0204962
13 gamma-Chlordane	11.883	11.883	0.000	90438	0.02500	0.0198583
14 alpha-Chlordane	12.200	12.200	0.000	89641	0.02500	0.0201868
16 4,4'-DDB	12.683	12.683	0.000	156311	0.02500	0.0388645
22 Endosulfan II	13.933	13.933	0.000	131820	0.02500	0.0386677
24 Endrin aldehyde	14.650	14.650	0.000	96779	0.02500	0.0369589
26 Endosulfan sulfate	15.217	15.217	0.000	84321	0.02500	0.0393733
27 Endrin ketone	16.250	16.250	0.000	100026	0.02500	0.0399038

Data File: /var/chem/gc3.1/2310-E.b/c-b2586.d
Date : 31-May-2000 20:22
Client ID: 2ND B
Sample Info: 2ND B, 2310-E.b, INDB.sub, 2.3
Column Phase: RTX-CLP2

Instrument: gc3.1
Operator: 1891
Column diameter: 0.53



6581204

Data File: /var/chem/gc3.i/2310-E.b/c-b2587.d
 Report Date: 01-Jun-2000 13:40

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2310-E.b/c-b2587.d
 Lab Smp Id: EVALB Client Smp ID: EVALB
 Inj Date : 31-MAY-2000 20:48
 Operator : 1891 Inst ID: gc3.i
 Smp Info : EVALB, 2310-E.b, , EVALBR.sub, , 3, 1
 Misc Info : 190-88-8
 Comment :
 Method : /var/chem/gc3.i/2310-E.b/PESTB.m
 Meth Date : 01-Jun-2000 13:33 g Quant Type: ESTD
 Cal Date : 31-MAY-2000 19:30 Cal File: c-b2584.d
 Als bottle: 1 QC Sample: PEM
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: EVALBR.sub
 Target Version: 3.40

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ng)	FINAL (ng)
=====	==	=====	=====	=====	=====	=====
\$ 1 Tetrachloro-m-xylene	6.008	6.008	0.000	88955	0.02204	0.0220448 (R)
16 4,4'-DDE	12.683	12.683	0.000	3616	0.000899	0.000899066
20 Endrin	13.467	13.467	0.000	91317	0.02705	0.0270531
21 4,4'-DDD	13.883	13.883	0.000	13716	0.00441	0.00440681
23 4,4'-DDT	14.500	14.500	0.000	52742	0.02853	0.0285300
24 Endrin aldehyde	14.650	14.650	0.000	1416	0.000541	0.000540756
27 Endrin ketone	16.250	16.250	0.000	2959	0.00118	0.00118044
\$ 30 Decachlorobiphenyl	18.817	18.817	0.000	54162	0.02145	0.0214529 (R)

QC Flag Legend

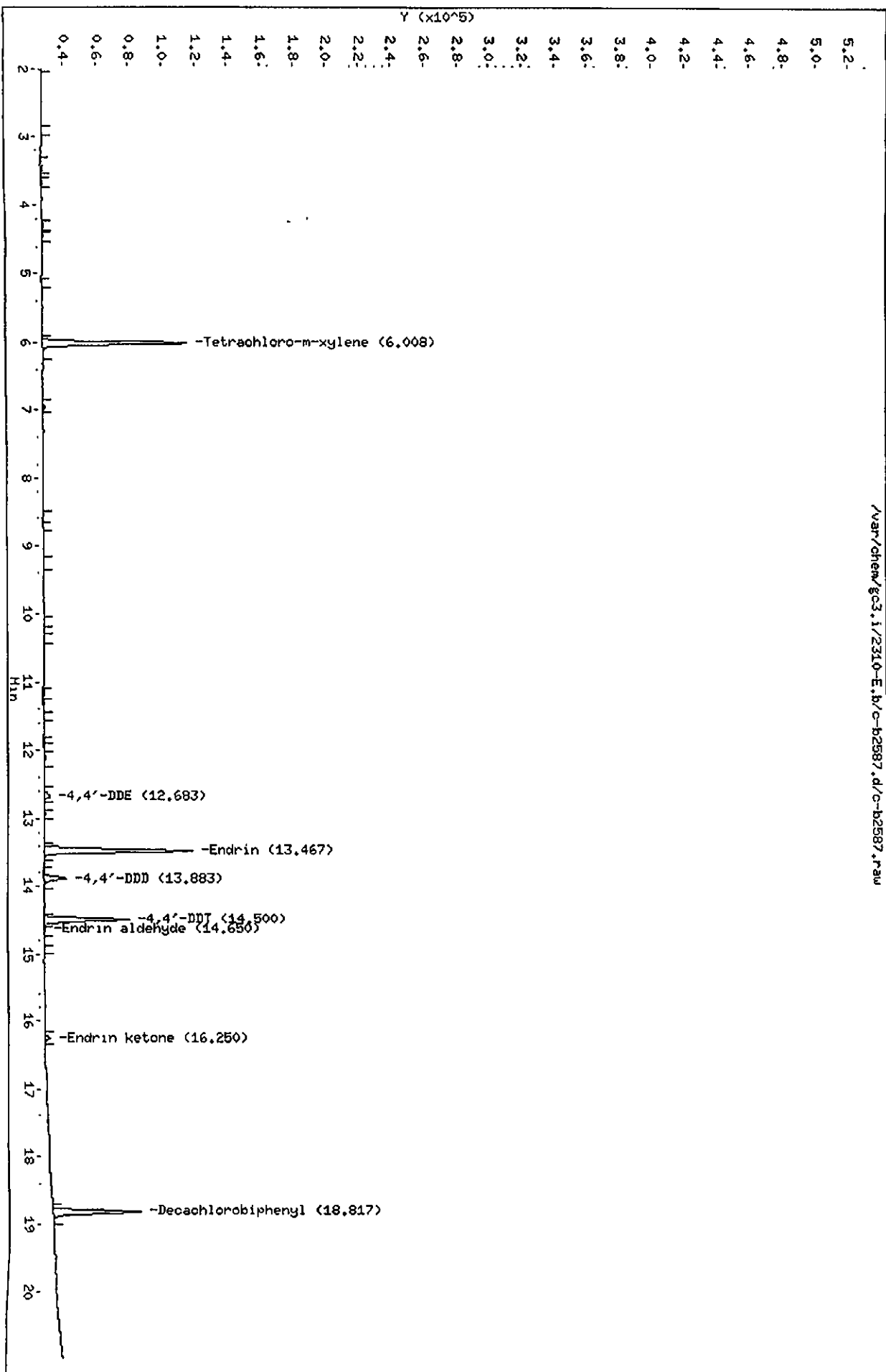
R - Spike/Surrogate failed recovery limits.

$$\text{Endrin Breakdown} = \frac{(1416 + 289)}{(1416 + 289 + 91317)} \times 100 = 4.6\%$$

$$\text{DDT Breakdown} = \frac{(3616 + 13716)}{(3616 + 13716 + 52742)} \times 100 = 28\%$$

Data File: /var/chem/gc3.1/2310-E.b/c-b2587.d
Date: 31-May-2000 20:48
Client ID: EVALB
Sample Info: EVALB.2310-E.b./EVALB.sub./3.1
Column phase: RTX-CLP2

Instrument: gc3.1
Operator: 1891
Column diameter: 0.53



6581206

Data File: /var/chem/gc3.i/2310-E.b/c-b2595.d
Report Date: 01-Jun-2000 13:41

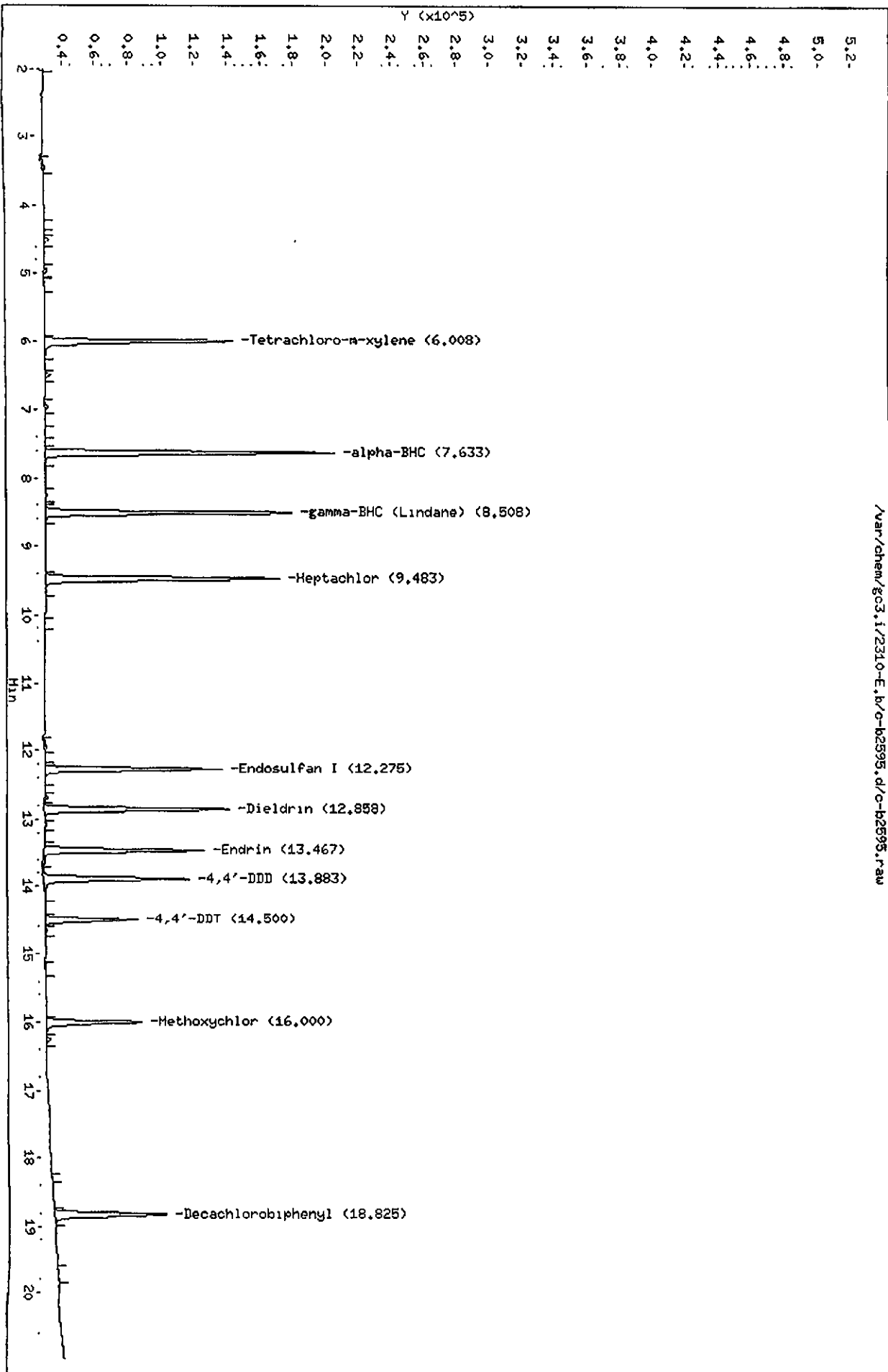
STL-PITTSBURGH

Data file : /var/chem/gc3.i/2310-E.b/c-b2595.d
Lab Smp Id: MEDA Client Smp ID: MEDA
Inj Date : 01-JUN-2000 00:15
Operator : 1891 Inst ID: gc3.i
Smp Info : MEDA,2310-E.b,,INDA.sub,,2,3
Misc Info : 190-84-3
Comment :
Method : /var/chem/gc3.i/2310-E.b/PESTB.m
Meth Date : 01-Jun-2000 13:33 g Quant Type: ESTD
Cal Date : 31-MAY-2000 19:30 Cal File: c-b2584.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: 3.40

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (ng)	ON-COL (ng)
=====	==	=====	=====	=====	=====	=====
\$ 1 Tetrachloro-m-xylene	6.008	6.008	0.000	115447	0.02500	0.0286100
5 alpha-BHC	7.633	7.633	0.000	176972	0.02500	0.0301232
6 gamma-BHC (Lindane)	8.508	8.508	0.000	150716	0.02500	0.0295555
10 Heptachlor	9.483	9.475	0.008	143466	0.02500	0.0295023
15 Endosulfan I	12.275	12.275	0.000	108253	0.02500	0.0286316
17 Dieldrin	12.858	12.858	0.000	113190	0.02500	0.0290004
20 Endrin	13.467	13.467	0.000	98367	0.02500	0.0291417
21 4,4'-DDD	13.883	13.883	0.000	88817	0.02500	0.0285360
23 4,4'-DDT	14.500	14.500	0.000	57002	0.02500	0.0308344
25 Methoxychlor	16.000	16.000	0.000	58396	0.05000	0.0579060
\$ 30 Decachlorobiphenyl	18.825	18.817	0.008	68577	0.02500	0.0271625

Data File: /var/chem/gc3.1/2310-E.b/c-b2595.d
Date: 01-JUN-2000 00:15
Client ID: MEDA
Sample Info: MEDA,2310-E.b,,INDA.sub,,2,3
Column phase: RTX-CLP2

Instrument: gc3.1
Operator: 1891
Column diameter: 0.53



6581208

Data File: /var/chem/gc3.i/2310-E.b/c-b2596.d

Report Date: 01-Jun-2000 13:41

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2310-E.b/c-b2596.d

Lab Smp Id: MEDB

Client Smp ID: MEDB

Inj Date : 01-JUN-2000 00:41

Operator : 1891

Inst ID: gc3.i

Smp Info : MEDB,2310-E.b,,INDB.sub,,2,3

Misc Info : 190-84-9

Comment :

Method : /var/chem/gc3.i/2310-E.b/PESTB.m

Meth Date : 01-Jun-2000 13:33 g

Quant Type: ESTD

Cal Date : 31-MAY-2000 19:30

Cal File: c-b2584.d

Als bottle: 1

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

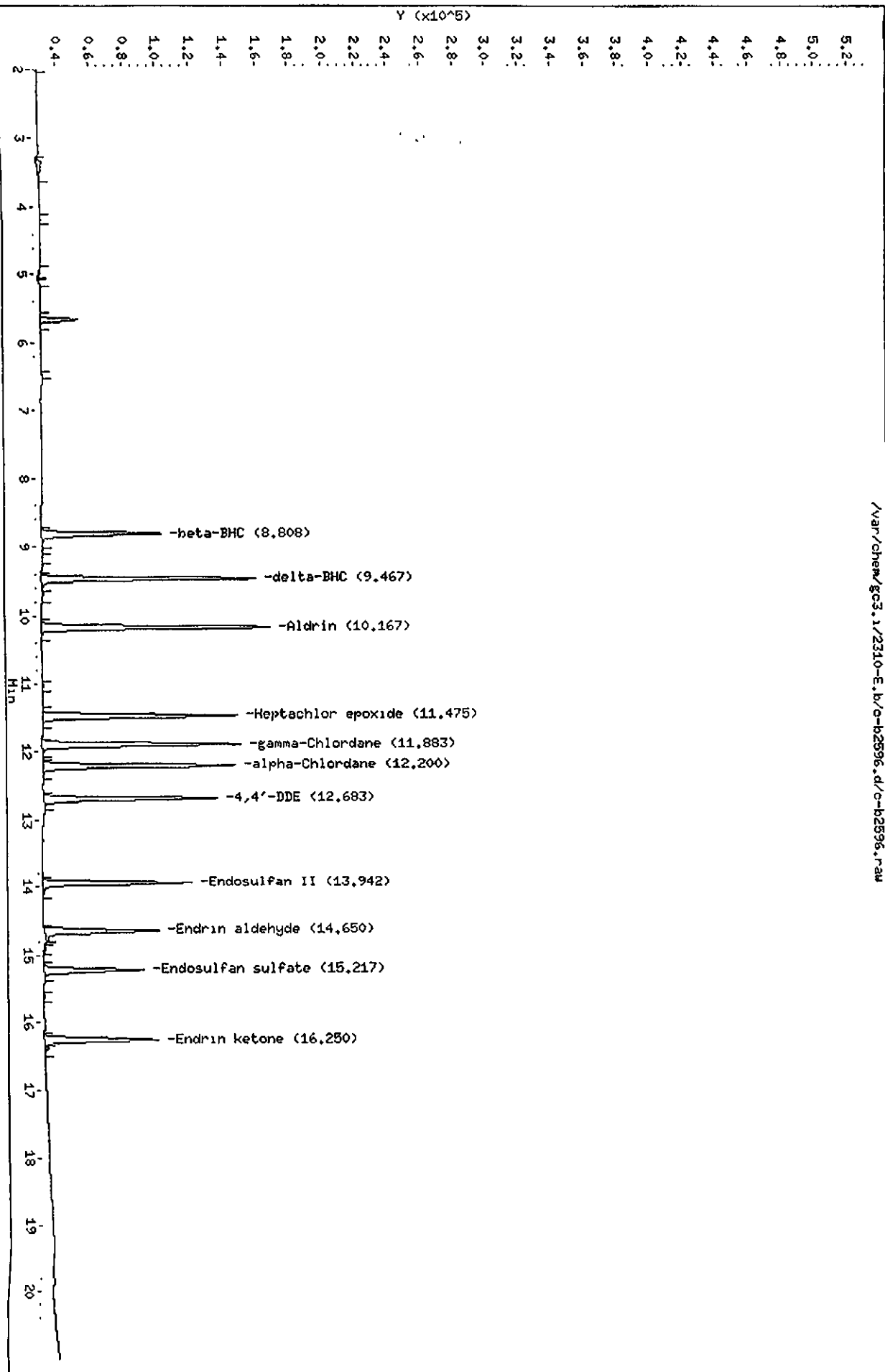
Compound Sublist: INDB.sub

Target Version: 3.40

Compounds					AMOUNTS	
	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
*****	**	*****	*****	*****	*****	*****
11 Aldrin	10.167	10.167	0.000	139036	0.02500	0.0268989
7 beta-BHC	8.808	8.800	0.008	72795	0.02500	0.0263940
8 delta-BHC	9.467	9.467	0.000	130444	0.02500	0.0300764
12 Heptachlor epoxide	11.475	11.475	0.000	119221	0.02500	0.0268106
13 gamma-Chlordane	11.883	11.883	0.000	121225	0.02500	0.0266185
14 alpha-Chlordane	12.200	12.200	0.000	117629	0.02500	0.0264896
16 4,4'-DDE	12.683	12.683	0.000	106407	0.02500	0.0264566
22 Endosulfan II	13.942	13.933	0.009	91220	0.02500	0.0267582
24 Endrin aldehyde	14.650	14.650	0.000	69895	0.02500	0.0266922
26 Endosulfan sulfate	15.217	15.217	0.000	61340	0.02500	0.0286424
27 Endrin ketone	16.250	16.250	0.000	69717	0.02500	0.0278125

Data file: /var/chem/gc3.1/2310-E.b/c-b2596.d
Date : 01-JUN-2000 00:41
Client ID: HEDB
Sample Info: HEDB,2310-E.b,,INDB.sub./2.3
Column phase: RTX-CLP2

Instrument: gc3.1
Operator: 1891
Column diameter: 0.53



6581210

**PESTICIDE
QC DATA**

UXB INTERNATIONAL
METHOD BLANK COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SOLID Lab Sample ID: C0E260000 439
Method: SW846 8081A
Pesticides (8081A)

Sample WT/Vol: 100 / mL Date Received: 05/24/00
Work Order: DDTM6101 Date Extracted: 05/26/00
Dilution factor: 1 Date Analyzed: 05/31/00
Moisture %: NA

QC Batch: 0147439

Client Sample Id: INTRA-LAB BLANK

		CONCENTRATION UNITS:	
CAS NO.	COMPOUND	(ug/L or ug/kg) mg/L	Q
57-74-9	Chlordane (technical)	0.0050	U
72-20-8	Endrin	0.00050	U
76-44-8	Heptachlor	0.00050	U
1024-57-3	Heptachlor epoxide	0.00050	U
58-89-9	Lindane	0.00050	U
72-43-5	Methoxychlor	0.0010	U
8001-35-2	Toxaphene	0.020	U

6581212

Data File: /var/chem/gc3.i/2310-E.b/c-b2592.d

Report Date: 01-Jun-2000 13:41

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2310-E.b/c-b2592.d
 Lab Smp Id: DDTM6101 Client Smp ID: PBLK
 Inj Date : 31-MAY-2000 22:58
 Operator : 1891 Inst ID: gc3.i
 Smp Info : DDTM6101,2310-E.b,,PEST.sub,,3,
 Misc Info : E240180BLK
 Comment :
 Method : /var/chem/gc3.i/2310-E.b/PESTB.m
 Meth Date : 01-Jun-2000 13:33 g Quant Type: ESTD
 Cal Date : 31-MAY-2000 19:30 Cal File: c-b2584.d
 Als bottle: 1 QC Sample: BLANK
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: PEST.sub
 Target Version: 3.40

Concentration Formula: Amt * DF * (Vt/Vo)/Vi

Name	Value	Description
DF	1.000	Dilution Factor
Vt	10000.000	Volume of final extract (uL)
Vo	100.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected

Compounds	RT	EXP RT	DLT RT	RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN	FINAL
						(ng)	(ug/L)
5 alpha-BHC							
6 gamma-BHC (Lindane)	8.508	8.508	0.000	2531	0.000496	0.0496331(a)	
7 beta-BHC	8.750	8.800	-0.050	1297	0.00047	0.0470267(a)	
9 Chlordane							
10 Heptachlor							
8 delta-BHC							
11 Aldrin	10.167	10.167	0.000	2586	0.00050	0.0500306(a)	
12 Heptachlor epoxide							
13 gamma-Chlordane							
14 alpha-Chlordane							
15 Endosulfan I							
16 4,4'-DDE							
17 Dieldrin	12.858	12.858	0.000	3987	0.00102	0.102151(a)	
20 Endrin	13.467	13.467	0.000	2916	0.000864	0.0863878(a)	
18 Toxaphene							
21 4,4'-DDD							

Data File: /var/chem/gc3.i/2310-E.b/c-b2592.d

Report Date: 01-Jun-2000 13:41

Compounds						CONCENTRATIONS	
	RT	EXP RT	DLT RT	RT	RESPONSE	ON-COLUMN (ng)	FINAL (ug/L)
=====	==	=====	=====	=====	=====	=====	=====
22 Endosulfan II	Compound Not Detected.						
23 4,4'-DDT	14.500	14.500	0.000		2275	0.00123	0.123063(a)
24 Endrin aldehyde	Compound Not Detected						
26 Endosulfan sulfate	Compound Not Detected						
25 Methoxychlor	16.017	16.000	0.017		1142	0.00113	0.113242(a)
27 Endrin ketone	Compound Not Detected.						
\$ 1 Tetrachloro-m-xylene	6.008	6.008	0.000		81064	0.02009	2.00892(R)
\$ 30 Decachlorobiphenyl	18.817	18.817	0.000		50383	0.01996	1.99561(R)

QC Flag Legend

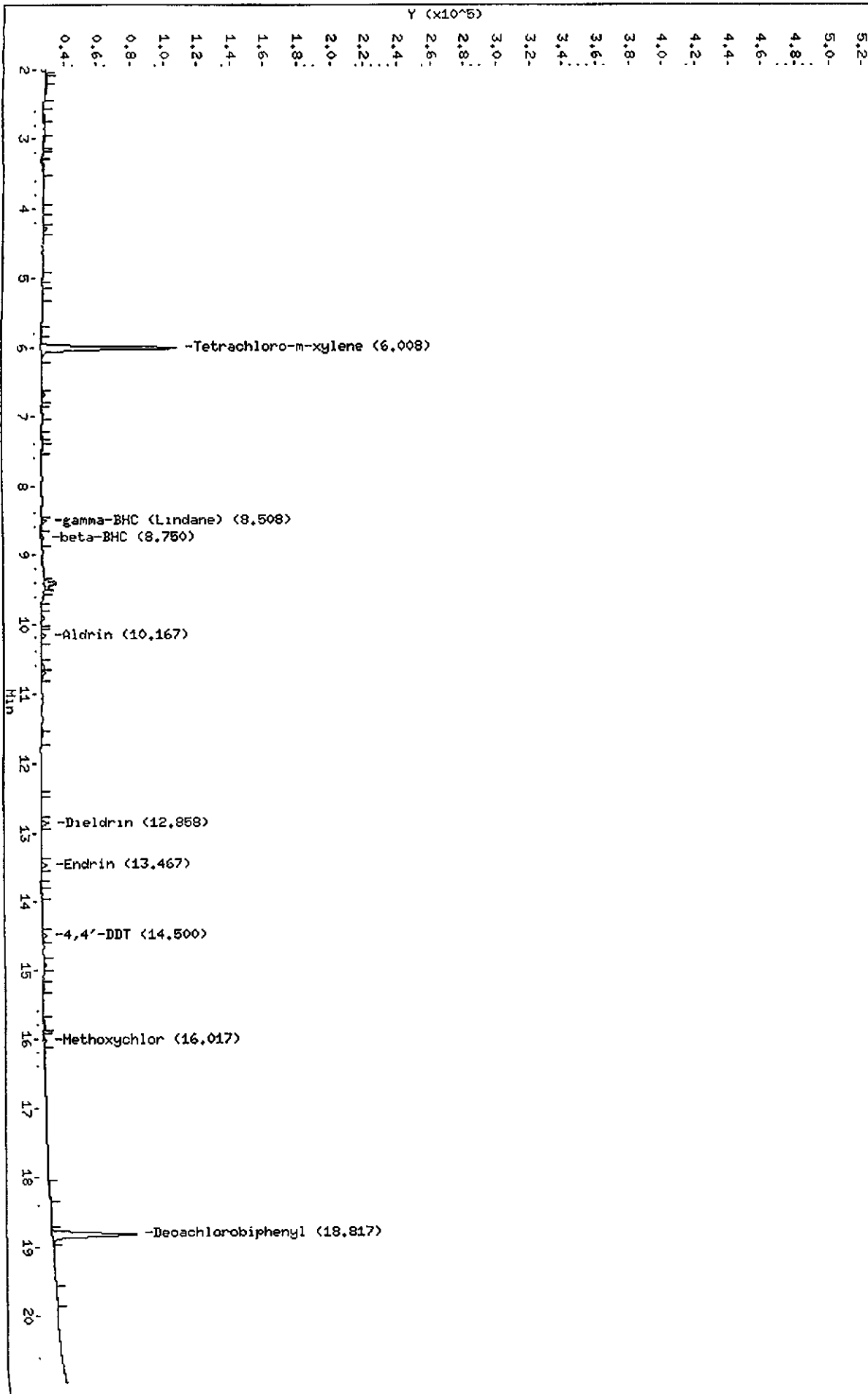
- a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
- R - Spike/Surrogate failed recovery limits.

6581214

Data File: /var/chem/gc3.1/2310-E.b/c-b2592.d
Date: 31-MAY-2000 22:58
Client ID: PELK
Sample Info: DDTM6101.2310-E.b, PEST, sub, 3,
Volume Injected (uL): 1.0
Column phase: RTX-CLP2

Instrument: gc3.1
Operator: 1894
Column diameter: 0.53

/var/chem/gc3.1/2310-E.b/c-b2592.d/c-b2592.raw



UXB INTERNATIONAL
CHECK SAMPLE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: COE260000 439

Method: SW846 8081A

Pesticides (8081A)

Sample WT/Vol: 100 / mL

Date Received: 05/24/00

Work Order: DDTM6102

Date Extracted: 05/26/00

Dilution factor: 1

Date Analyzed: 05/31/00

Moisture %: NA

QC Batch: 0147439

Client Sample Id: CHECK SAMPLE

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
72-20-8	Endrin	0.00237	
76-44-8	Heptachlor	0.00272	
1024-57-3	Heptachlor epoxide	0.00228	
58-89-9	Lindane	0.00222	
72-43-5	Methoxychlor	0.00322	

6581216

Data File: /var/chem/gc3.i/2310-E.b/c-b2593.d

Report Date: 01-Jun-2000 13:41

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2310-E.b/c-b2593.d
 Lab Smp Id: DDTM6102 Client Smp ID: LCS
 Inj Date : 31-MAY-2000 23:24
 Operator : 1891 Inst ID: gc3.i
 Smp Info : DDTM6102,2310-E.b,,PEST.sub,,3,
 Misc Info : E240180LCS
 Comment :
 Method : /var/chem/gc3.i/2310-E.b/PESTB.m
 Meth Date : 01-Jun-2000 13:33 g Quant Type: ESTD
 Cal Date : 31-MAY-2000 19:30 Cal File: c-b2584.d
 Als bottle: 1 QC Sample: LCS
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: PEST.sub
 Target Version: 3.40

Concentration Formula: Amt * DF * (Vt/Vo)/Vi

Name	Value	Description
DF	1.000	Dilution Factor
Vt	10000.000	Volume of final extract (uL)
Vo	100.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ng)	FINAL (ug/L)
5 alpha-BHC	7.633	7.633	0.000	112315	0.01912	1.91176
6 gamma-BHC (Lindane)	8.508	8.508	0.000	113228	0.02220	2.22041(R)
7 beta-BHC	8.800	8.800	0.000	62977	0.02283	2.28342
9 Chlordane	Compound Not Detected.					
10 Heptachlor	9.475	9.475	0.000	132283	0.02720	2.72027(R)
8 delta-BHC	Compound Not Detected.					
11 Aldrin	10.167	10.167	0.000	112537	0.02177	2.17722(R)
12 Heptachlor epoxide	11.475	11.475	0.000	101177	0.02275	2.27529
13 gamma-Chlordane	11.883	11.883	0.000	100697	0.02211	2.21110
14 alpha-Chlordane	12.200	12.200	0.000	100307	0.02259	2.25888
15 Endosulfan I	12.275	12.275	0.000	93876	0.02483	2.48291
16 4,4'-DDE	12.683	12.683	0.000	99751	0.02480	2.48016
17 Dieldrin	12.858	12.858	0.000	96764	0.02479	2.47919(R)
20 Endrin	13.467	13.467	0.000	80017	0.02371	2.37054(R)
18 Toxaphene	Compound Not Detected.					
21 4,4'-DDD	13.883	13.883	0.000	78584	0.02525	2.52482

Data File: /var/chem/gc3.i/2310-E.b/c-b2593.d

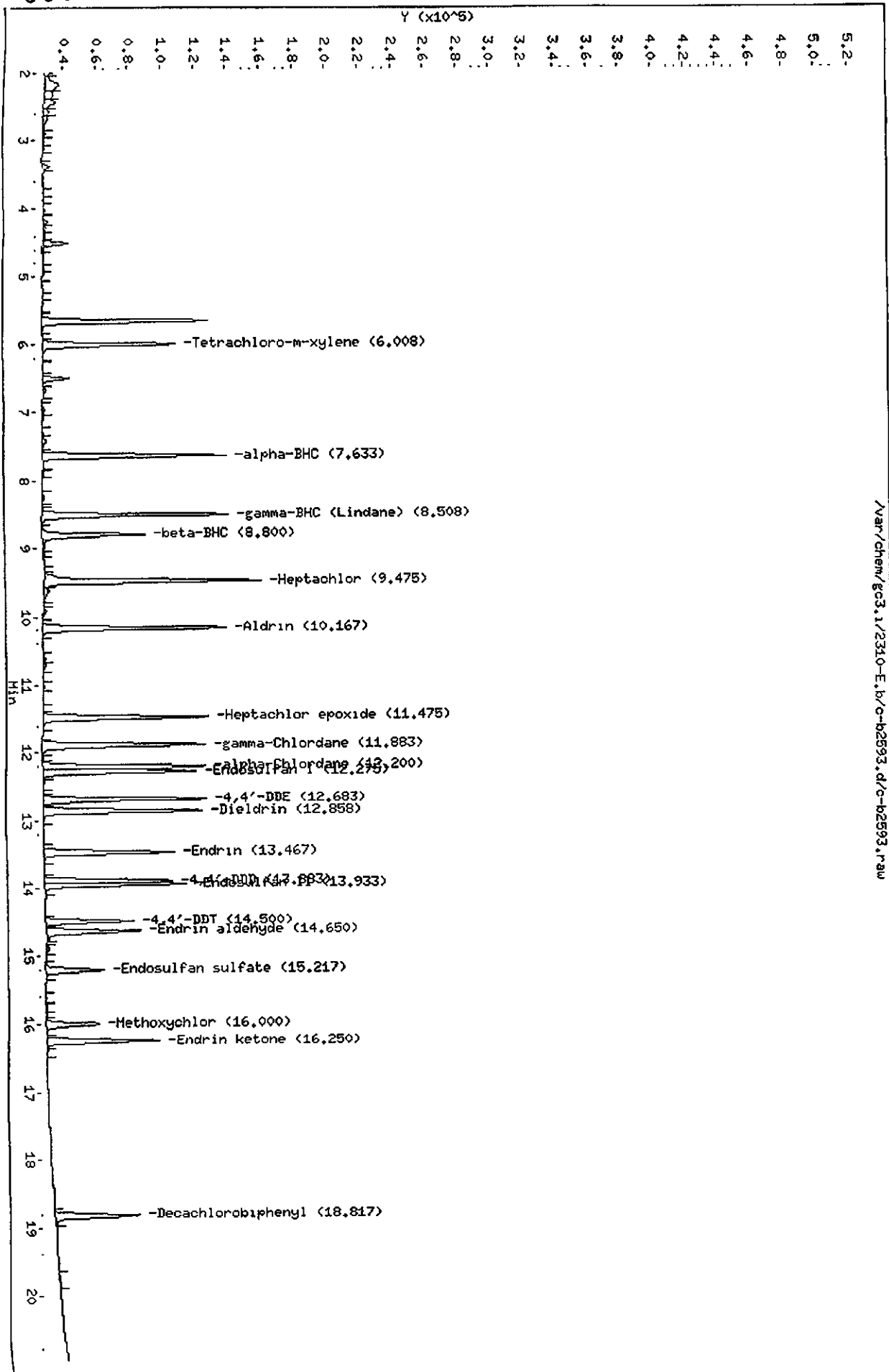
Report Date: 01-Jun-2000 13:41

Compounds	RT	EXP RT	DLT	RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN	FINAL
						(ng)	(ug/L)
*****	--	*****	*****	*****	*****	*****	*****
22 Endosulfan II	13.933	13.933	0.000		86593	0.02540	2.54009
23 4,4'-DDT	14.500	14.500	0.000		54556	0.02951	2.95113 (R)
24 Endrin aldehyde	14.650	14.650	0.000		58108	0.02219	2.21908
26 Endosulfan sulfate	15.217	15.217	0.000		36222	0.01691	1.69137
25 Methoxychlor	16.000	16.000	0.000		32505	0.03223	3.22323
27 Endrin ketone	16.250	16.250	0.000		69501	0.02773	2.77263
\$ 1 Tetrachloro-m-xylene	6.008	6.008	0.000		81238	0.02013	2.01324 (R)
\$ 30 Decachlorobiphenyl	18.817	18.817	0.000		51822	0.02053	2.05261 (R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

6581218



/var/chem/603.1/2310-E.b/c-b2593.d/c-b2593.d,raw

Data File: /var/chem/603.1/2310-E.b/c-b2593.d
 Date: 31-MAY-2000 23:24
 Client ID: LCS
 Sample Info: DDT6102,2310-E.b,PEST,sub,3,
 Volume Injected (ul): 1.0
 Column phase: RTX-CLP2

Instrument: 603.1
 Operator: 1891
 Column diameter: 0.53

6581220

Data File: /var/chem/gc3.i/2310-E.b/c-b2589.d
 Report Date: 01-Jun-2000 13:41

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2310-E.b/c-b2589.d
 Lab Smp Id: DDLX310M Client Smp ID: DF/S1/0143/SDC/002
 Inj Date : 31-MAY-2000 21:40
 Operator : 1891 Inst ID: gc3.i
 Smp Info : DDLX310M, 2310-E.b, , PEST.sub, , 3,
 Misc Info : 240180001S
 Comment :
 Method : /var/chem/gc3.i/2310-E.b/PESTB.m
 Meth Date : 01-Jun-2000 13:33 g Quant Type: ESTD
 Cal Date : 31-MAY-2000 19:30 Cal File: c-b2584.d
 Als bottle: 1 QC Sample: MS
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: PEST.sub
 Target Version: 3.40

Concentration Formula: $\text{Amt} * \text{DF} * (\text{Vt}/\text{Vo})/\text{Vi}$

Name	Value	Description
DF	1.000	Dilution Factor
Vt	10000.000	Volume of final extract (uL)
Vo	100.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ng)	FINAL (ug/L)
5 alpha-BHC	7.633	7.633	0.000	104049	0.01771	1.77106
6 gamma-BHC (Lindane)	8.508	8.508	0.000	102052	0.02001	2.00125 (R)
7 beta-BHC	8.800	8.800	0.000	57752	0.02094	2.09398
9 Chlordane	Compound Not Detected					
10 Heptachlor	9.475	9.475	0.000	124216	0.02554	2.55438 (R)
8 delta-BHC	Compound Not Detected.					
11 Aldrin	10.167	10.167	0.000	105880	0.02048	2.04843 (R)
12 Heptachlor epoxide	11.475	11.475	0.000	94472	0.02125	2.12450
13 gamma-Chlordane	11.883	11.883	0.000	93607	0.02055	2.05542
14 alpha-Chlordane	12.200	12.200	0.000	93279	0.02101	2.10061
15 Endosulfan I	12.275	12.275	0.000	87188	0.02306	2.30602
16 4,4'-DDE	12.683	12.683	0.000	92619	0.02303	2.30284
17 Dieldrin	12.858	12.858	0.000	95016	0.02434	2.43440 (R)
20 Endrin	13.467	13.467	0.000	79013	0.02341	2.34080 (R)
18 Toxaphene	Compound Not Detected					
21 4,4'-DDD	13.883	13.883	0.000	75414	0.02423	2.42297

UXB INTERNATIONAL
MATRIX SPIKE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0E240180 001

Method: SW846 8081A

Pesticides (8081A)

Sample WT/Vol: 100 / mL

Date Received: 05/24/00

Work Order: DDLX310M

Date Extracted: 05/26/00

Dilution factor: 1

Date Analyzed: 05/31/00

Moisture %: 15

QC Batch: 0147439

Client Sample Id: DF/S1/0143/SDC/002

		CONCENTRATION UNITS:	
CAS NO.	COMPOUND	(ug/L or ug/kg) mg/L	Q
72-20-8	Endrin	0.00234	
76-44-8	Heptachlor	0.00255	
1024-57-3	Heptachlor epoxide	0.00212	
58-89-9	Lindane	0.00200	
72-43-5	Methoxychlor	0.00337	

Data File: /var/chem/gc3.i/2310-E.b/c-b2589.d

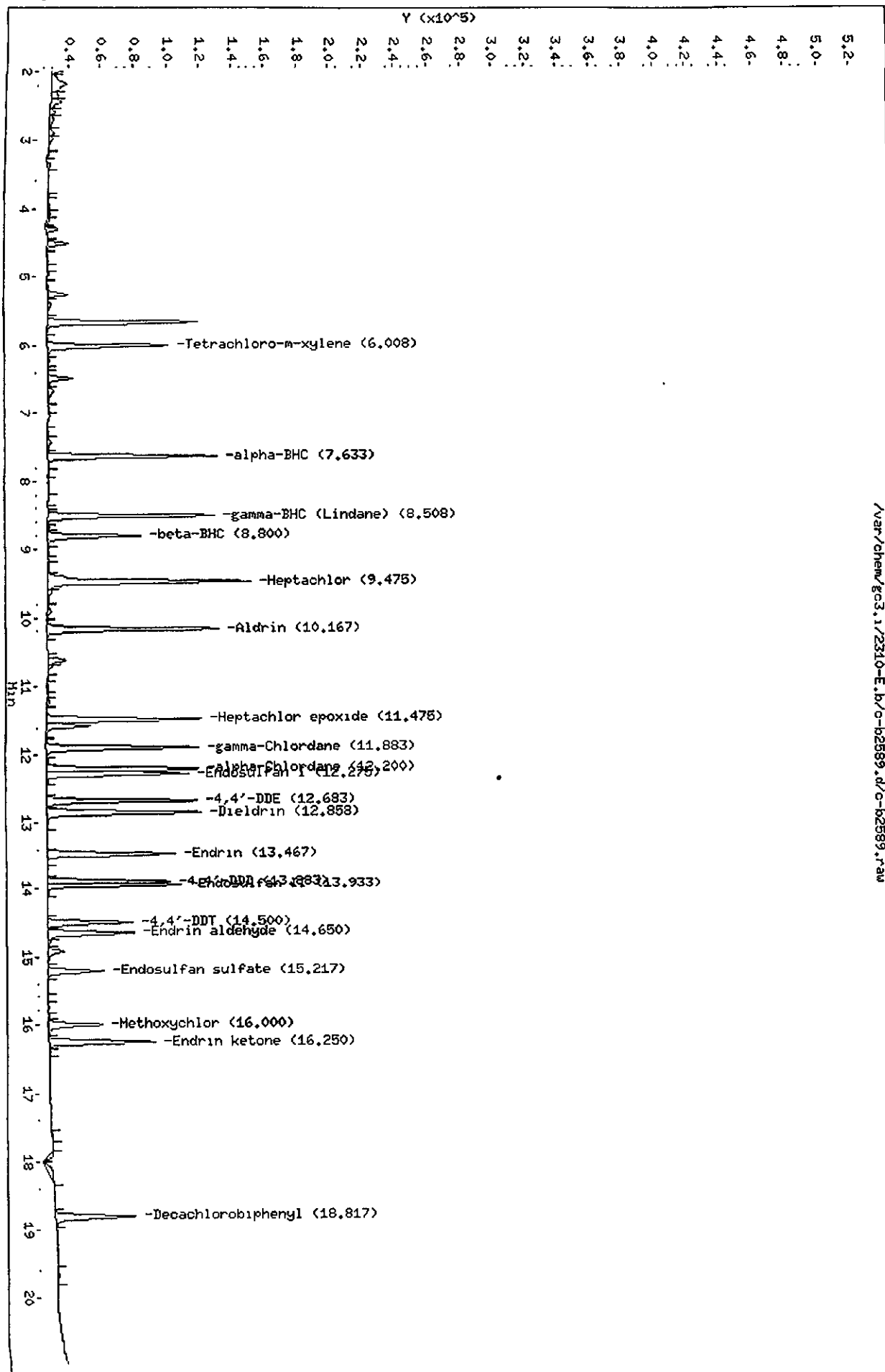
Report Date: 01-Jun-2000 13:41

Compounds	RT	EXP RT	DLT RT	RRSPONSE	CONCENTRATIONS	
					ON-COLUMN (ng)	FINAL (ug/L)
=====	==	=====	=====	=====	=====	=====
22 Endosulfan II	13.933	13.933	0.000	82141	0.02410	2.40950
23 4,4'-DDT	14.500	14.500	0.000	52853	0.02859	2.85901(R)
24 Endrin aldehyde	14.650	14.650	0.000	53782	0.02054	2.05388
26 Endosulfan sulfate	15.217	15.217	0.000	34771	0.01624	1.62361
25 Methoxychlor	16.000	16.000	0.000	33975	0.03369	3.36899
27 Endrin ketone	16.250	16.250	0.000	65666	0.02620	2.61964
\$ 1 Tetrachloro-m-xylene	6.008	6.008	0.000	74819	0.01854	1.85416(R)
\$ 30 Decachlorobiphenyl	18.817	18.817	0.000	49675	0.01968	1.96757(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

6581222



/var/chem/gc3.1/2310-E.b/c-b2589.d/c-b2589.raw

Data File: /var/chem/gc3.1/2310-E.b/c-b2589.d
 Date: 31-MAY-2000 21:40
 Client ID: DF/S1/0143/SDC/002
 Sample Info: DDLX310M/2310-E.b./PEST.sub/3,
 Volume Injected (uL): 1.0
 Column phase: RTX-CLP2

Instrument: gc3.1
 Operator: 1891
 Column diameter: 0.53

UXB INTERNATIONAL
MATRIX SPIKE DUPLICATE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0E240180 001

Method: SW846 8081A

Pesticides (8081A)

Sample WT/Vol: 100 / mL

Date Received: 05/24/00

Work Order: DDLX310N

Date Extracted: 05/26/00

Dilution factor: 1

Date Analyzed: 05/31/00

Moisture %: 15

QC Batch: 0147439

Client Sample Id: DF/S1/0143/SDC/002

		CONCENTRATION UNITS:	
CAS NO.	COMPOUND	(ug/L or ug/kg) mg/L	Q
72-20-8	Endrin	0.00240	
76-44-8	Heptachlor	0.00260	
1024-57-3	Heptachlor epoxide	0.00216	
58-89-9	Lindane	0.00204	
72-43-5	Methoxychlor	0.00345	

6581224

Data File: /var/chem/gc3.i/2310-E.b/c-b2590.d
Report Date: 01-Jun-2000 13:41

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2310-E.b/c-b2590.d
Lab Smp Id: DDLX310N Client Smp ID: DF/S1/0143/SDC/002
Inj Date : 31-MAY-2000 22:06
Operator : 1891 Inst ID: gc3.i
Smp Info : DDLX310N, 2310-E.b, , PEST.sub, , 3,
Misc Info : 240180001D
Comment :
Method : /var/chem/gc3.i/2310-E.b/PESTB.m
Meth Date : 01-Jun-2000 13:33 g Quant Type: ESTD
Cal Date : 31-MAY-2000 19:30 Cal File: c-b2584.d
Als bottle: 1 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEST.sub
Target Version: 3.40

Concentration Formula: Amt * DF * (Vt/Vo)/Vi

Name	Value	Description
DF	1.000	Dilution Factor
Vt	10000.000	Volume of final extract (uL)
Vo	100.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected

Compounds					CONCENTRATIONS	
	RT	EXP RT	DLT RT	RESPONSE	ON-COLUMN (ng)	FINAL (ug/L)
5 alpha-BHC	7.642	7.633	0.009	105637	0.01798	1.79809
6 gamma-BHC (Lindane)	8.508	8.508	0.000	103882	0.02037	2.03713 (R)
7 beta-BHC	8.808	8.800	0.008	58982	0.02139	2.13857
9 Chlordane	Compound Not Detected					
10 Heptachlor	9.475	9.475	0.000	126232	0.02596	2.59583 (R)
8 delta-BHC	Compound Not Detected.					
11 Aldrin	10.167	10.167	0.000	106584	0.02062	2.06205 (R)
12 Heptachlor epoxide	11.475	11.475	0.000	96121	0.02162	2.16159
13 gamma-Chlordane	11.892	11.883	0.009	95223	0.02091	2.09090
14 alpha-Chlordane	12.200	12.200	0.000	93775	0.02112	2.11178
15 Endosulfan I	12.275	12.275	0.000	88516	0.02341	2.34114
16 4,4'-DDE	12.683	12.683	0.000	95131	0.02365	2.36530
17 Dieldrin	12.858	12.858	0.000	96170	0.02464	2.46397 (R)
20 Endrin	13.467	13.467	0.000	80933	0.02398	2.39768 (R)
18 Toxaphene	Compound Not Detected.					
21 4,4'-DDD	13.883	13.883	0.000	76293	0.02451	2.45122

Data File: /var/chem/gc3.i/2310-E.b/c-b2590.d

Report Date: 01-Jun-2000 13:41

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ng)	FINAL (ug/L)
=====	==	=====	=====	=====	=====	=====
22 Endosulfan II	13.933	13.933	0.000	84048	0.02465	2.46544
23 4,4'-DDT	14.500	14.500	0.000	55312	0.02992	2.99202(R)
24 Endrin aldehyde	14.650	14.650	0.000	54515	0.02082	2.08187
26 Endosulfan sulfate	15.217	15.217	0.000	35681	0.01666	1.66611
25 Methoxychlor	16.000	16.000	0.000	34805	0.03451	3.45130
27 Endrin ketone	16.250	16.250	0.000	66398	0.02649	2.64884
\$ 1 Tetrachloro-m-xylene	6.008	6.008	0.000	76555	0.01897	1.89718(R)
\$ 30 Decachlorobiphenyl	18.817	18.817	0.000	51723	0.02049	2.04868(R)

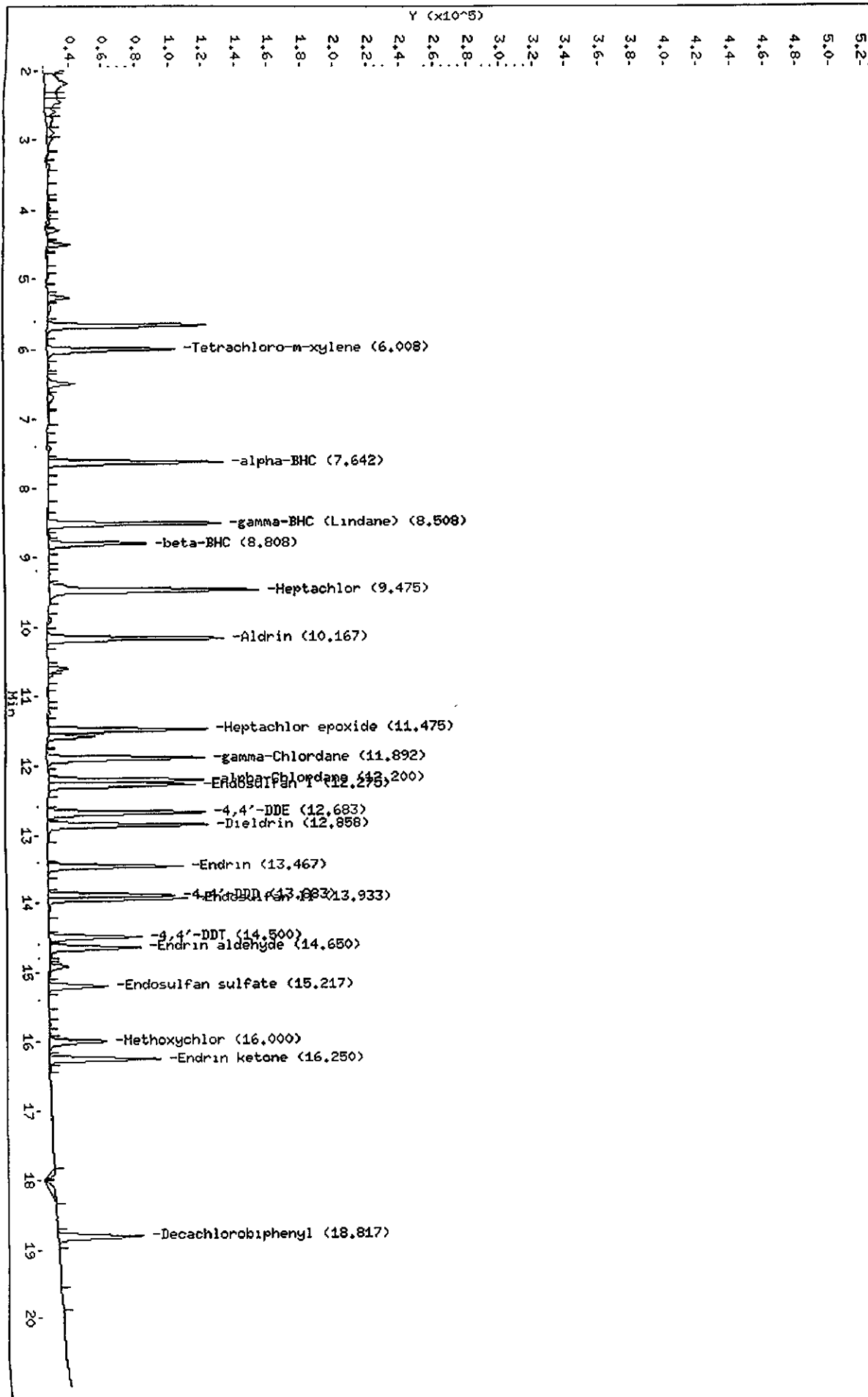
QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /var/chem/gc3.i/2310-E.b/c-b2590.d
 Date: 31-May-2000 22:06
 Client ID: DF/S1/0143/SDC/002
 Sample Info: DPLX310N, 2310-E.b, PEST, sub, 3,
 Volume Injected (uL): 1.0
 Column phase: RTX-CLP2

/var/chem/gc3.i/2310-E.b/c-b2590.d/c-b2590.raw

Instrument: gc3.i
 Operator: 1891
 Column diameter: 0.53



6581227

**PESTICIDE
MISCELLANEOUS**

Separatory Funnel

Extraction Worksheet

TRCP

0147439



STL Pittsburgh
450 William Pitt Way
Pittsburgh, PA 15238

Date Extraction Began 5-26-00 Date Completed 5-30-00 Page Meter 1841 (8081A) Method 3510C Solvent Lot 108286 Solvent Nbr 68K-083020-8380 Clean up Method 1114

Lot Number	Sample ID	Client ID	pH	Sample Volume (mL)	Final Volume (mL)	Surrogate Volume (mL)	Surrogate Number	Surrogate Volume (mL)	Matrix Spike Nbr.	Matrix Spike Volume (mL)	Cleanup Date
1. POE 210 180	BPB	NA	5	100	10.0	190-90-8	1.0	1.0	NA	NA	NA
2.	6(15)										
3.	005 MS		7								
4.	001 MS		7								
5.	001 MS		7								
6.	002		7								
7.											
8.											
9.											
10.											
11.											
12.											
13.											
14.											
15.											
16.											
17.											
18.											
19.											
20.											
21.											
22.											
23.											
24.											
Analyst	NY	NY	NY	NY	KG	NY	NY	NY	NY	NY	NY

P. Spachnick
5-25-00

Record line number from above

Extract(s)	Date	Time	Analyst	Location	Date	Time	Analyst	Location
Alle Above	5-26-00	15:40	NY	Lab	5-26-00	15:50	NY	Lab
Alle Above	5-30-00	09:00	NY	Lab	5-30-00	11:15	NY	Lab
Alle Above	5-31-00	14:00	NY	Lab	5-31-00	14:05	NY	Lab

Sodium Sulfate Mfg. Baker Lot Number 118523 Reviewed By K. J. Date 5-28-00

Turbochrom Sequence File : H:\ACQUIRE\MET_SEQ\2310-E.SEQ <Modified>

Created by : DE11/02/98 on : 6/1/00 11:46

Edited by : JC05/31/00 on : 6/1/00 13:20

Description : QUAN TERRA PGH 8081 RUN ON GC#3 CLP1/CLP2 COLUMNS

REVIEWED BY:

Number of Times Edited : 2

Sequence File Header Information:

Number of Rows : 25

Instrument Type : 760 / 900 Series Intelligent Interface

Injection Type : SINGLE

Row	Type	Sample Name	Sample Number	Sequence Sample Descriptions - Channel B		Sample Amount	ISTD Amount	Sample Volume	Dil. Factor	Mult	Divisor	Addend	Norm. factor
				Study Name									
1	Std Check	EVALB,2310-E.b,	190-88-8			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
2	Cal:Replace	MEDTOX,2310-E.b	190-84-13			1.000	1.000	1.000	1.000	333.000	1.000	0.000	100.000
3	Cal:Replace	MEDCHLOR,2310-E	190-85-10			1.000	1.000	1.000	1.000	333.000	1.000	0.000	100.000
4	Cal:Replace	LOWA,2310-E.b,,	190-84-1			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
5	Cal:Replace	MLOWA,2310-E.b,	190-84-2			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
6	Cal:Replace	MEDA,2310-E.b,,	190-84-3			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
7	Cal:Replace	MHIGHA,2310-E.b	190-84-4			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
8	Cal:Replace	MIGHA,2310-E.b,	190-84-5			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
9	Cal:Replace	LOWB,2310-E b,,	190-84-7			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
10	Cal:Replace	MLOWB,2310-E.b,	190-84-8			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
11	Cal:Replace	MEDB,2310-E.b,,	190-84-9			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
12	Cal:Replace	MHIGHB,2310-E.b	190-84-10			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
13	Cal:Replace	MIGHB,2310-E b,	190-84-11			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
14	Std Check	2ND A,2310-E.b,	190-82-2			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
15	Std Check	2ND B,2310-E b,	190-82-5			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
16	Std Check	EVALB,2310-E b,	190-88-8			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
17	Sample	DDLX3104,2310-E	E240180001			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
18	Sample	DDLX310M,2310-E	240180001S			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
19	Sample	DDLX310N,2310-E	240180001D			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
20	Sample	DDLX6104,2310-E	E240180002			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
21	Sample	DDTM6101,2310-E	E240180BLK			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
22	Sample	DDTM6102,2310-E	E240180LCS			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
23	Sample	DDN21102,2310-E	E230195LCS			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
24	Std Check	MEDA,2310-E.b,,	190-84-3			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
25	Std Check	MEDB,2310-E.b,,	190-84-9			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000

Row	Site	Rack	Vial	Inst Method	Process Method	Calib Method	Sequence Process Information - Channel B		Baseline File	Modified Raw File	Cal Rpt	Level Name	Update RT	Out Dev
							Report Format	Raw File						
1	-	1	1	GEN3C	GEN3B	122190A	EVAL	C-B2572	C-B2572	C-B2572	-	-	-	LPT1:
2	-	1	2	GEN3C	GEN3B	122190A	TOX	C-B2573	C-B2573	C-B2573	N	MED	N	LPT1:,LPT1
3	-	1	2	GEN3C	GEN3B	122190A	TOX	C-B2574	C-B2574	C-B2574	N	MED	N	LPT1:,LPT1
4	-	1	4	GEN3C	GEN3B	122190A	INDA	C-B2575	C-B2575	C-B2575	N	LOW	N	LPT1:
5	-	1	5	GEN3C	GEN3B	122190A	INDA	C-B2576	C-B2576	C-B2576	N	MLOW	N	LPT1:
6	-	1	6	GEN3C	GEN3B	122190A	INDA	C-B2577	C-B2577	C-B2577	N	MLOW	N	LPT1:
7	-	1	7	GEN3C	GEN3B	122190A	INDA	C-B2578	C-B2578	C-B2578	N	MLOW	N	LPT1:
8	-	1	8	GEN3C	GEN3B	122190A	INDA	C-B2579	C-B2579	C-B2579	N	MLOW	N	LPT1:
9	-	1	9	GEN3C	GEN3B	122190A	INDA	C-B2580	C-B2580	C-B2580	N	LOW	N	LPT1:
10	-	1	10	GEN3C	GEN3B	122190A	INDA	C-B2581	C-B2581	C-B2581	N	MLOW	N	LPT1:
11	-	1	11	GEN3C	GEN3B	122190A	INDA	C-B2582	C-B2582	C-B2582	N	MLOW	N	LPT1:
12	-	1	12	GEN3C	GEN3B	122190A	INDA	C-B2583	C-B2583	C-B2583	N	MLOW	N	LPT1:
13	-	1	13	GEN3C	GEN3B	122190A	INDA	C-B2584	C-B2584	C-B2584	N	MLOW	N	LPT1:
14	-	1	23	GEN3C	GEN3B	122190A	INDA	C-B2585	C-B2585	C-B2585	-	-	-	LPT1:
15	-	1	24	GEN3C	GEN3B	122190A	INDA	C-B2586	C-B2586	C-B2586	-	-	-	LPT1:
16	-	1	1	GEN3C	GEN3B	122190A	EVAL	C-B2587	C-B2587	C-B2587	-	-	-	LPT1:
17	-	1	23	GEN3C	GEN3B	122190A	INDA	C-B2588	C-B2588	C-B2588	-	-	-	LPT1:
18	-	1	23	GEN3C	GEN3B	122190A	INDA	C-B2589	C-B2589	C-B2589	-	-	-	LPT1:
19	-	1	23	GEN3C	GEN3B	122190A	INDA	C-B2590	C-B2590	C-B2590	-	-	-	LPT1:
20	-	1	23	GEN3C	GEN3B	122190A	INDA	C-B2591	C-B2591	C-B2591	-	-	-	LPT1:
21	-	1	23	GEN3C	GEN3B	122190A	INDA	C-B2592	C-B2592	C-B2592	-	-	-	LPT1:
22	-	1	23	GEN3C	GEN3B	122190A	INDA	C-B2593	C-B2593	C-B2593	-	-	-	LPT1:
23	-	1	23	GEN3C	GEN3B	122190A	INDA	C-B2594	C-B2594	C-B2594	-	-	-	LPT1:
24	-	1	6	GEN3C	GEN3B	122190A	INDA	C-B2595	C-B2595	C-B2595	-	-	-	LPT1:
25	-	1	11	GEN3C	GEN3B	122190A	INDA	C-B2596	C-B2596	C-B2596	-	-	-	LPT1:

6581231

PSR024 5/26/00 11:56:31 MT

SAMPLE CUSTODIAN REMOVAL REQUEST

PAGE 001

REQUESTED BY: PINOB

METHOD: QJ Pesticides (8081A)

<u>STORAGE LOCATION</u>	<u>WORK ORDER #</u>	<u>PICKED</u> <u>CNTR#</u>	<u>CONTROL #</u>	<u>CLIENT #</u>	<u>ANALYSIS</u>	<u>LOTID</u>	<u>SMP#</u>	<u>SFX</u>	<u>MATRIX</u> <u>DESCRIPTION</u>	<u>QTY</u> <u>RCVD</u>	<u>QTY</u> <u>REQD</u>
6A CLP1	DDLX3-1-04	___	236972	399411	A-36-QJ	COE240180	001		SOLID	0	3
6A CLP1	DDLX6-1-04	___	236973	399411	A-36-QJ	COE240180	002		SOLID	0	3

RELINQUISHED BY

RECEIVED BY

DATE/TIME

PBY 5-26-00

P. Yushinski
P. Yushinski

26
5-25-00 1415
5-25-00 194
26
PBY
5-26-00

***** END OF REPORT *****

STL Pittsburgh

3084

6581232

HERBICIDE DATA

6581233

**HERBICIDE
QC SUMMARY**

6581234

SW846 8151A SURROGATE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

QESSDG:

Lot #: COE240180

	CLIENT ID.	SRG01	TOT OUT
	=====	=====	=====
01	DF/S1/0143/SDC/002	101	00
02	DF/S1/0143/SDC/003	102	00
03	METHOD BLK. DDTMQ101	100	00
04	LCS DDTMQ102	90	00
05	DF/S1/0143/SDC/002 D	105	00
06	DF/S1/0143/SDC/002 S	114	00

SURROGATES

SRG01 = DCAA

QC LIMITS

(42-125)

Column to be used to flag recovery values
* Values outside of required QC Limits
D System monitoring Compound diluted out

FORM II

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Lot #: COE260000

WO #: DDTMQ102

BATCH: 0147444

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	% REC	QC LIMITS REC	QUAL
=====	=====	=====	=====	=====	=====
2,4-D	0.160	0.128	80	28 - 136	
2,4,5-TP (Silvex)	0.0400	0.0363	91	50 - 128	

NOTES (S) :

* Values outside of QC limits

Spike Recovery: 0 out of 2 outside limits

COMMENTS:

FORM III

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Matrix Spike ID: DF/S1/0143/SDC/002

Lot #: C0E240180

WO #: DDLX310P

BATCH: 0147444

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	MS CONCENT. (mg/L)	MS % REC	LIMITS REC	QUAL
2,4-D	0.160	ND	0.178	111	35 - 133	
2,4,5-TP (Silvex)	0.0400	ND	0.0454	113	50 - 131	

NOTES(S) :

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 0 outside limits
Spike Recovery: 0 out of 2 outside limits

COMMENTS:

FORM III

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Matrix Spike ID: DF/S1/0143/SDC/002

Lot #: C0E240180

WO #: DDLX310Q

BATCH: 0147444

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENT. (mg/L)	MSD % REC	% RPD	QC LIMITS		QUAL
					RPD	REC	
2,4-D	0.160	0.157	98	13	20	35 - 133	
2,4,5-TP (Silvex)	0.0400	0.0404	101	12	20	50 - 131	

NOTES(S) :

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 2 outside limits
Spike Recovery: 0 out of 2 outside limits

COMMENTS:

6581238

SW846 8151A METHOD BLANK SUMMARY

BLANK WORKORDER NO.

DDTMQ101

Lab Name: Severn Trent Laboratories, Inc.

Lab Code: QESPIT

SDG Number:

Lab File ID: a-a30114.

Lot Number: C0E240180

Matrix: SOLID

Extraction Method:

Date Extracted: 05/26/00

Date Analyzed(1): 06/01/00

Date Analyzed(2): N/A

Time Analyzed(1): 13:22

Time Analyzed(2): N/A

Instrument ID(1): A/B

Instrument ID(2): N/A

GC Column(1): DB5/DB1701 ID: 053

GC Column(2): N/A

ID: N/A

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, AND MSD:

	CLIENT ID.	SAMPLE WORK ORDER #	DATE ANALYZED (1)	DATE ANALYZED (2)
01	DF/S1/0143/SDC/002	DDLX310P S	06/01/00	N/A
02	DF/S1/0143/SDC/002	DDLX310Q D	06/01/00	N/A
03	DF/S1/0143/SDC/002	DDLX3105	06/01/00	N/A
04	DF/S1/0143/SDC/003	DDLX6105	06/01/00	N/A
05	CHECK SAMPLE	DDTMQ102 C	06/01/00	N/A
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

COMMENTS.

FORM IV

65,81239

**HERBICIDE
SAMPLE DATA**

6581240

UXB INTERNATIONAL

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0E240180 001

Method: SW846 8151A

Herbicides (8151A)

Sample WT/Vol: 100 / mL

Date Received: 05/24/00

Work Order: DDLX3105

Date Extracted: 05/26/00

Dilution factor: 1

Date Analyzed: 06/01/00

Moisture %: 15

QC Batch: 0147444

Client Sample Id: DF/S1/0143/SDC/002

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
94-75-7	2,4-D	0.0050	U
93-72-1	2,4,5-TP (Silvex)	0.0050	U

FORM I

Data File: /var/chem/gc1.i/3020.b/a-a30109.d
 Report Date: 01-Jun-2000 12:57

STL-PITTSBURGH

Data file : /var/chem/gc1.i/3020.b/a-a30109.d
 Lab Smp Id: DDLX3105 Client Smp ID: DF/S1/0143/SDC/002
 Inj Date : 01-JUN-2000 10:56
 Operator : 01797 Inst ID: gc1.i
 Smp Info : DDLX3105,3020.b
 Misc Info : 240180-1
 Comment :
 Method : /var/chem/gc1.i/3020.b/LONGH.m
 Meth Date : 01-Jun-2000 11:28 g Quant Type: ESTD
 Cal Date : 31-MAY-2000 17:35 Cal File: a-a30099.d
 Als bottle: 7
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: all.sub
 Target Version: 3.40

Concentration Formula: Amt * DF * 20*Vt/Vo/Vi

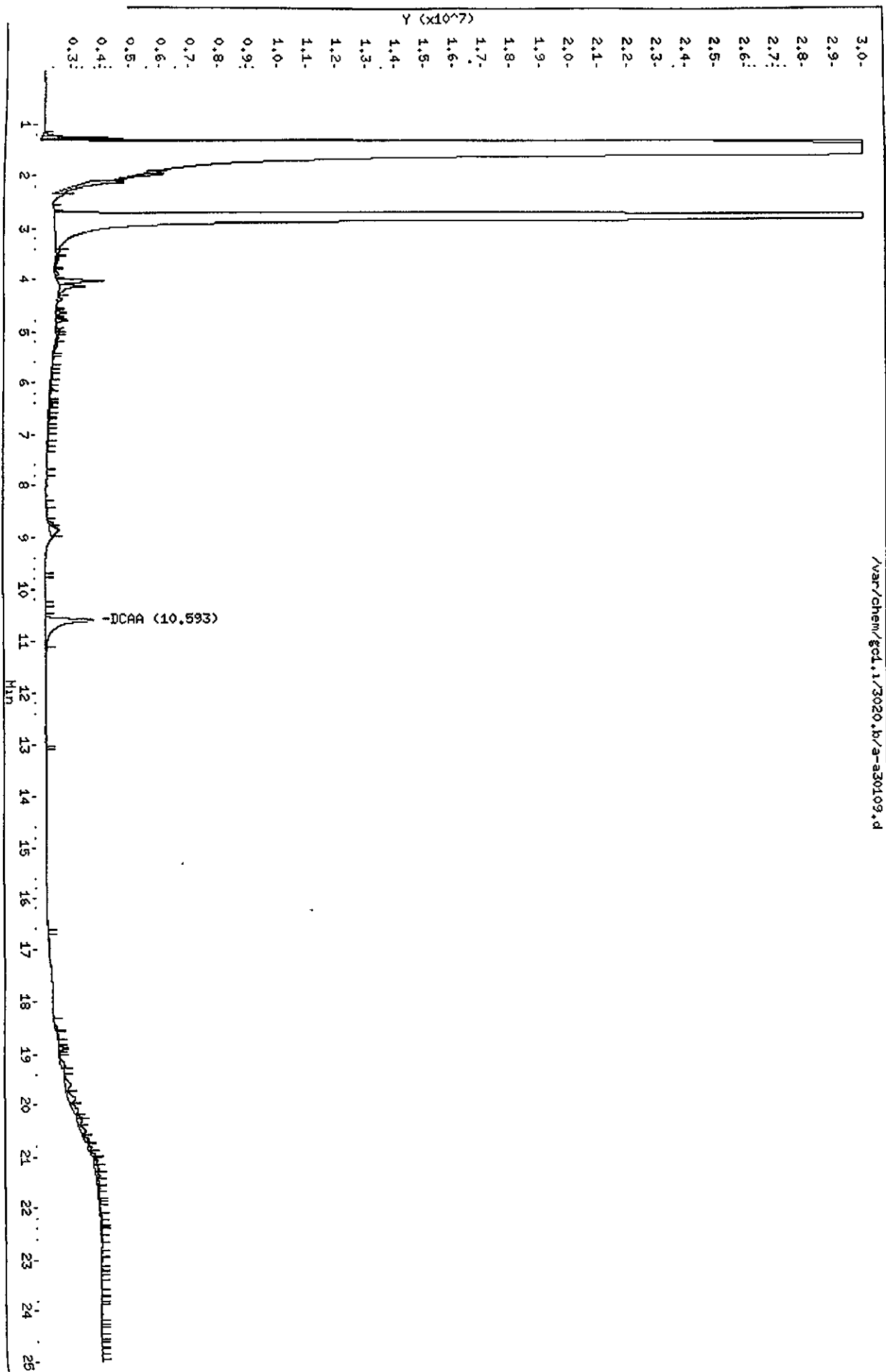
Name	Value	Description
DF	1.000	Dilution Factor
Vt	10000.000	Volume of final extract (uL)
Vo	100.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ng)	FINAL (ug/L)
1 DALAPON						
\$ 2 DCAA	10.593	10.596	-0.003	13341210	0.05046	100.9
3 MCPP						
4 DICAMBA						
5 MCPA						
6 DICHLOROPROP						
7 2,4-D						
8 PENTACHLOROPHENOL						
9 2,4,5-TP(SILVEX)						
10 2,4,5-T						
11 DINOSEB						
12 2,4-DB						

6581242

Data File: /var/chem/ec1.1/3020.b/a-a30109.d
 Date : 01-JUN-2000 10:56
 Client ID: DF/S1/0143/SDC/002
 Sample Info: DDLX3105,3020.b
 Volume Injected (uL): 1.0
 Column phase: DB608

Instrument: ec1.1
 Operator: 01797
 Column diameter: 0.53



UXB INTERNATIONAL

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0E240180 002

Method: SW846 8151A

Herbicides (8151A)

Sample WT/Vol: 100 / mL

Date Received: 05/24/00

Work Order: DDLX6105

Date Extracted: 05/26/00

Dilution factor: 1

Date Analyzed: 06/01/00

Moisture %: 19

QC Batch: 0147444

Client Sample Id: DF/S1/0143/SDC/003

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
94-75-7	2,4-D	0.0050	U
93-72-1	2,4,5-TP (Silvex)	0.0050	U

FORM I

6581244

Data File: /var/chem/gc1.i/3020.b/a-a30110.d
Report Date: 01-Jun-2000 12:57

STL-PITTSBURGH

Data file : /var/chem/gc1.i/3020.b/a-a30110.d
Lab Smp Id: DDLX6105 Client Smp ID: DF/S1/0143/SDC/003
Inj Date : 01-JUN-2000 11:26
Operator : 01797 Inst ID: gc1.i
Smp Info : DDLX6105,3020.b
Misc Info : 240180-2
Comment :
Method : /var/chem/gc1.i/3020.b/LONGH.m
Meth Date : 01-Jun-2000 11:28 g Quant Type: ESTD
Cal Date : 31-MAY-2000 17:35 Cal File: a-a30099.d
Als bottle: 8
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.40

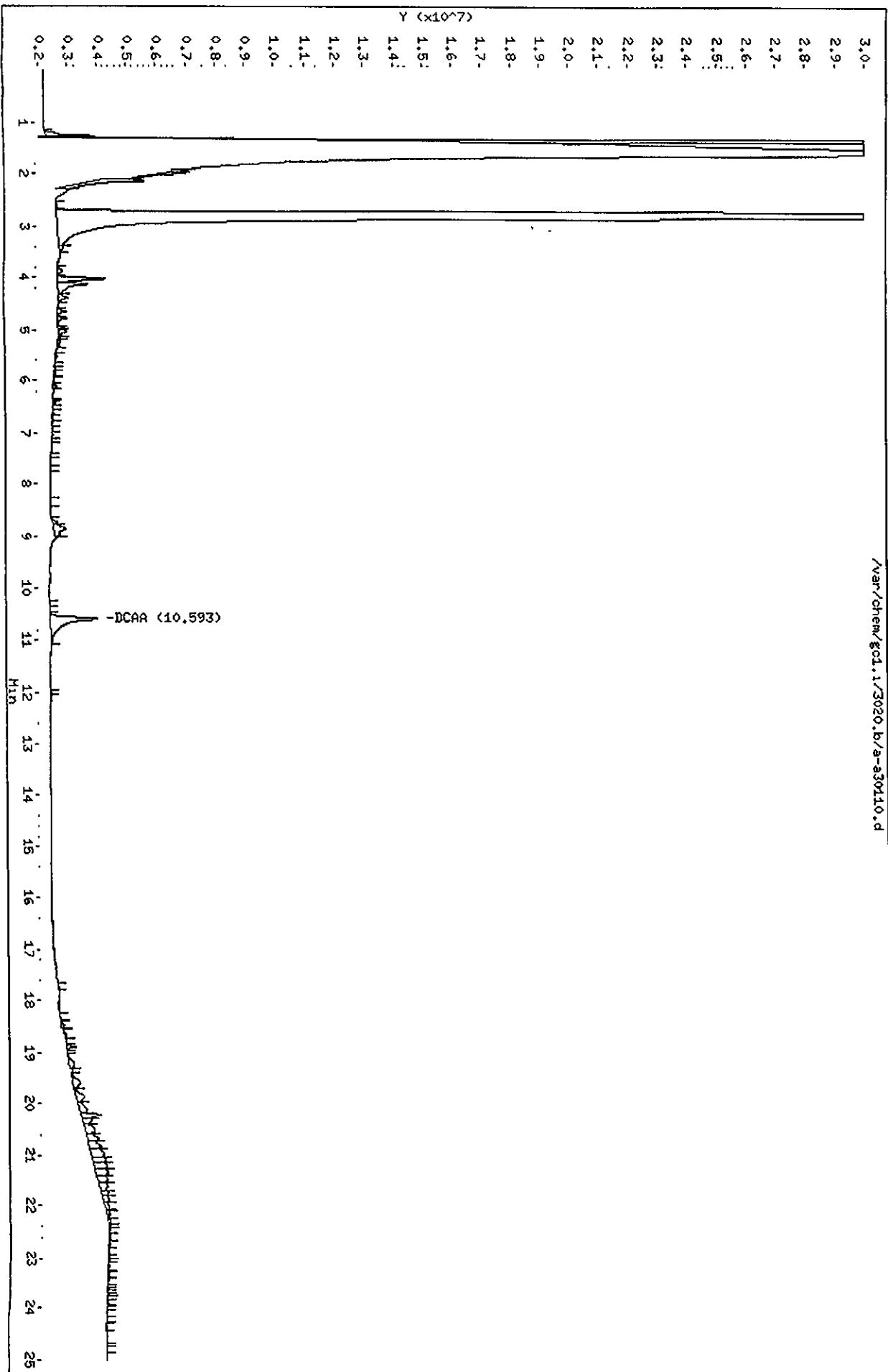
Concentration Formula: Amt * DF * 20*Vt/Vo/Vi

Name	Value	Description
DF	1.000	Dilution Factor
Vt	10000.000	Volume of final extract (uL)
Vo	100.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ng)	FINAL (ug/L)
1 DALAPON				Compound Not Detected.		
\$ 2 DCAA	10.593	10.596	-0.003	13511355	0.05111	102 2
3 MCPP				Compound Not Detected.		
4 DICAMBA				Compound Not Detected.		
5 MCPA				Compound Not Detected.		
6 DICHLOROPROP				Compound Not Detected.		
7 2,4-D				Compound Not Detected.		
8 PENTACHLOROPHENOL				Compound Not Detected.		
9 2,4,5-TP(SILVEX)				Compound Not Detected.		
10 2,4,5-T				Compound Not Detected.		
11 DINOSBB				Compound Not Detected.		
12 2,4-DB				Compound Not Detected.		

Data File: /var/chem/gc1.1/3020.b/a-a30110.d
Date : 01-JUN-2000 11:26
Client ID: DF/S1/0143/SDC/003
Sample Info: BDLX6105,3020.b
Volume Injected (uL): 1.0
Column phase: DB608

Instrument: gc1.1
Operator: 01797
Column diameter: 0.53



6581246

**HERBICIDE
CALIBRATION DATA**

6D
68901A
DB607

Report Date : 01-Jun-2000 09:40

STL-PITTSBURGH

COMPOUND LISTING

Method file : /var/chem/gcl.i/3010c.b/LONGH.m
 Quant Method : ESTD Target Version : 3.40
 Last Update : 01-Jun-2000 09:40 Number of Cpnds : 12
 Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	3608.000000
Initial:End Threshold	1804.000000
Initial:Area Threshold	36080.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	10.000000
Initial:Negative Peaks	ON
Initial:Tension	0.200000

Compound	RT	RT Window	RF
1 DALAPON	3.740	3.670-3.810	8.113e+07
\$ 2 DCAA	10.596	10.526-10.666	2.644e+08
3 MCPP	11.036	10.966-11.106	3.795e+05
4 DICAMBA	11.212	11.142-11.282	1.923e+08
5 MCPA	12.001	11.931-12.071	4.459e+05
6 DICHLOROPROP	12.834	12.764-12.904	4.918e+07
7 2,4-D	14.347	14.277-14.417	3.176e+08
8 PENTACHLOROPHENOL	15.577	15.507-15.647	4.766e+08
9 2,4,5-TP(SILVEX)	16.795	16.725-16.865	1.450e+09
10 2,4,5-T	17.907	17.837-17.977	1.161e+09
11 DINOSEB	18.079	18.009-18.149	1.143e+09
12 2,4-DB	18.578	18.508-18.648	1.591e+08

6581248

Report Date : 01-Jun-2000 09:40

6E
68901A
08608

STL-PITTSBURGH

INITIAL CALIBRATION DATA

Start Cal Date : 31-MAY-2000 15:39
 End Cal Date : 31-MAY-2000 17:35
 Quant Method : ESTD
 Origin : Disabled
 Target Version : 3.40
 Integrator : Falcon
 Method file : /var/chem/gc1.i/3010c.b/LONGH.m
 Cal Date : 01-Jun-2000 09:40 g
 Curve Type : Average

Calibration File Names:

Level 1: /var/chem/gc1.i/3010c.b/a-a30095.d
 Level 2: /var/chem/gc1.i/3010c.b/a-a30096.d
 Level 3: /var/chem/gc1.i/3010c.b/a-a30097.d
 Level 4: /var/chem/gc1.i/3010c.b/a-a30098.d
 Level 5: /var/chem/gc1.i/3010c.b/a-a30099.d

	0.00500	0.01000	0.02500	0.05000	0.10000		
Compound	Level 1	Level 2	Level 3	Level 4	Level 5	RRF	% RSD
1 DALAPON	75123545	73457045	87657927	84486800	84919523	81128968	7.873
3 MCPP	478740	439600	420373	317835	240994	379508	25.722 <-
4 DICAMBA	165590849	167983099	212810941	206767098	208554000	192341197	12.190
5 MCPA	557498	513916	485004	371683	301577	445936	23.771 <-
6 DICHLOROPROP	43086745	44208538	54945153	53150694	50505395	49179305	10.789
7 2,4-D	286698910	290203906	351534771	338129788	321405621	317594599	9.034
8 PENTACHLOROPHENOL	379116541	390910714	507677162	547355921	557836052	476579278	17.994
9 2,4,5-TP(SILVEX)	1.258e+09	1.248e+09	1.566e+09	1.578e+09	1.602e+09	1.450e+09	12.450
10 2,4,5-T	955456926	1.035e+09	1.237e+09	1.281e+09	1.297e+09	1.161e+09	13.396
11 DINOSEB	1.035e+09	1.075e+09	1.244e+09	1.183e+09	1.178e+09	1.143e+09	7.470
12 2,4-DB	189281991	154931517	156059302	150202692	144834186	159061938	10.981
\$ 2 DCAA	252824554	245658612	291601269	273605135	258217200	264381354	6.944

Ave = 13.2

Data File: /var/chem/gc1.i/3020.b/a-a30108.d
 Report Date: 01-Jun-2000 12:57

7E
 6801A
 DBL08

STL-PITTSBURGH

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc1.i Injection Date: 01-JUN-2000 10:27
 Lab File ID: a-a30108.d Init. Calibration Date(s): 05/31/00 05/31/00
 Analysis Type: Init. Calibration Times: 15:39 17:35
 Lab Sample ID: Mherb Method File: /var/chem/gc1.i/3020.b/LONGH.m
 Quant Type: ESTD

COMPOUND	RRF	RFO	MIN	MAX
1 DALAPON	81128968.058	87491867.882	0.010	-7.8 15.0
2 DCAA	264381354.029	299009165.687	0.010	-13.1 15.0
3 MCPP	379508.258	428925.117	0.010	-13.0 15.0
4 DICAMBA	192341197.271	217575976.471	0.010	-13.1 15.0
5 MCPA	445935.512	494616.706	0.010	-10.9 15.0
6 DICHLOROPROP	49179305.144	55580966.981	0.010	-13.0 15.0
7 2,4-D	317594599.103	355967837.838	0.010	-12.1 15.0
8 PENTACHLOROPHENOL	476579278.010	529398214.286	0.010	-11.1 15.0
9 2,4,5-TP (SILVEX)	1450398976.265	1616905497.630	0.010	-11.5 15.0
10 2,4,5-T	1160890209.212	1264645497.630	0.010	-8.9 15.0
11 DINOSEB	1142854655.953	1320066771.654	0.010	-15.5 15.0
12 2,4-DB	159061937.516	161326994.083	0.010	-1.4 15.0

NA

6581250

Data File: /var/chem/gc1.i/3020.b/a-a30126.d
 Report Date: 02-Jun-2000 07:52

FE
 68901A
 DB608

STL-PITTSBURGH

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc1.i Injection Date: 01-JUN-2000 19:11
 Lab File ID: a-a30126.d Init. Calibration Date(s): 05/31/00 05/31/00
 Analysis Type: Init. Calibration Times: 15:39 17:35
 Lab Sample ID: Mherb Method File: /var/chem/gc1.i/3020.b/LONGH.m
 Quant Type: ESTD

COMPOUND	RRF	RFO	MIN	MAX
1 DALAPON	81128968.058	82864441.913	0.010	-2.1 15.0
2 DCAA	264381354.029	278333772.033	0.010	-5.3 15.0
3 MCPP	379508.258	402397.887	0.010	-6.0 15.0
4 DICAMBA	192341197.271	198522611.765	0.010	-3.2 15.0
5 MCPA	445935.512	461792.991	0.010	-3.6 15.0
6 DICHLOROPROP	49179305.144	51149988.208	0.010	-4.0 15.0
7 2,4-D	317594599.103	332337285.546	0.010	-4.6 15.0
8 PENTACHLOROPHENOL	476579278.010	487163251.880	0.010	-2.2 15.0
9 2,4,5-TP(SILVEX)	1450398976.265	1492940663.507	0.010	-2.9 15.0
10 2,4,5-T	1160890209.212	1161819383.886	0.010	-0.1 15.0
11 DINOSEB	1142854655.953	1222576771.654	0.010	-7.0 15.0
12 2,4-DB	159061937.516	145232639.053	0.010	8.7 15.0

8D
PESTICIDE ANALYTICAL SEQUENCE

6581251

Lab Name: STL-PITTSBURGH

Contract:

Lab Code: STLPIT

Case No.:

SAS No.: 40325

SDG No.: C0E240180

GC Column: DB608

ID: 0.53

(mm)

Init. Calib. Date(s): 05/31/00 05/31/00

Instrument ID: GC1

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION							
S1 : 10.59							
	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	RT #	
	=====	=====	=====	=====	=====	=====	
01		LHERB	05/31/00	1539	10.60		
02		MLHERB	05/31/00	1608	10.60		
03		MHERB	05/31/00	1637	10.60		
04		MHHERB	05/31/00	1706	10.59		
05		HHERB	05/31/00	1735	10.59		
06		MHERB	06/01/00	1027	10.59		
07	DF/S1/0143/S	DDLX3105	06/01/00	1056	10.59		
08	DF/S1/0143/S	DDLX6105	06/01/00	1126	10.59		
09	DF/S1/0143/S	DDLX310P	06/01/00	1155	10.59		
10	DF/S1/0143/S	DDLX310Q	06/01/00	1224	10.59		
11	LCS1	DDTMQ102	06/01/00	1253	10.59		
12	PBLK1	DDTMQ101	06/01/00	1322	10.60		
13		MHERB	06/01/00	1911	10.59		
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							

S1 = DCAA QC LIMITS
(+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

6581252

Data File: /var/chem/gc1.i/3010c.b/a-a30095.d
 Report Date: 01-Jun-2000 12:38

STL-PITTSBURGH

Data file : /var/chem/gc1.i/3010c.b/a-a30095.d
 Lab Smp Id: Lherb
 Inj Date : 31-MAY-2000 15:39
 Operator : 01797
 Smp Info : Lherb,3010c.b
 Misc Info : 190-80-1
 Comment :
 Method : /var/chem/gc1.i/3010c.b/LONGH.m
 Meth Date : 01-Jun-2000 11:27 derubeij
 Cal Date : 31-MAY-2000 15:39
 Als bottle: 2
 Dil Factor: 1.00000
 Integrator: Falcon
 Target Version: 3.40

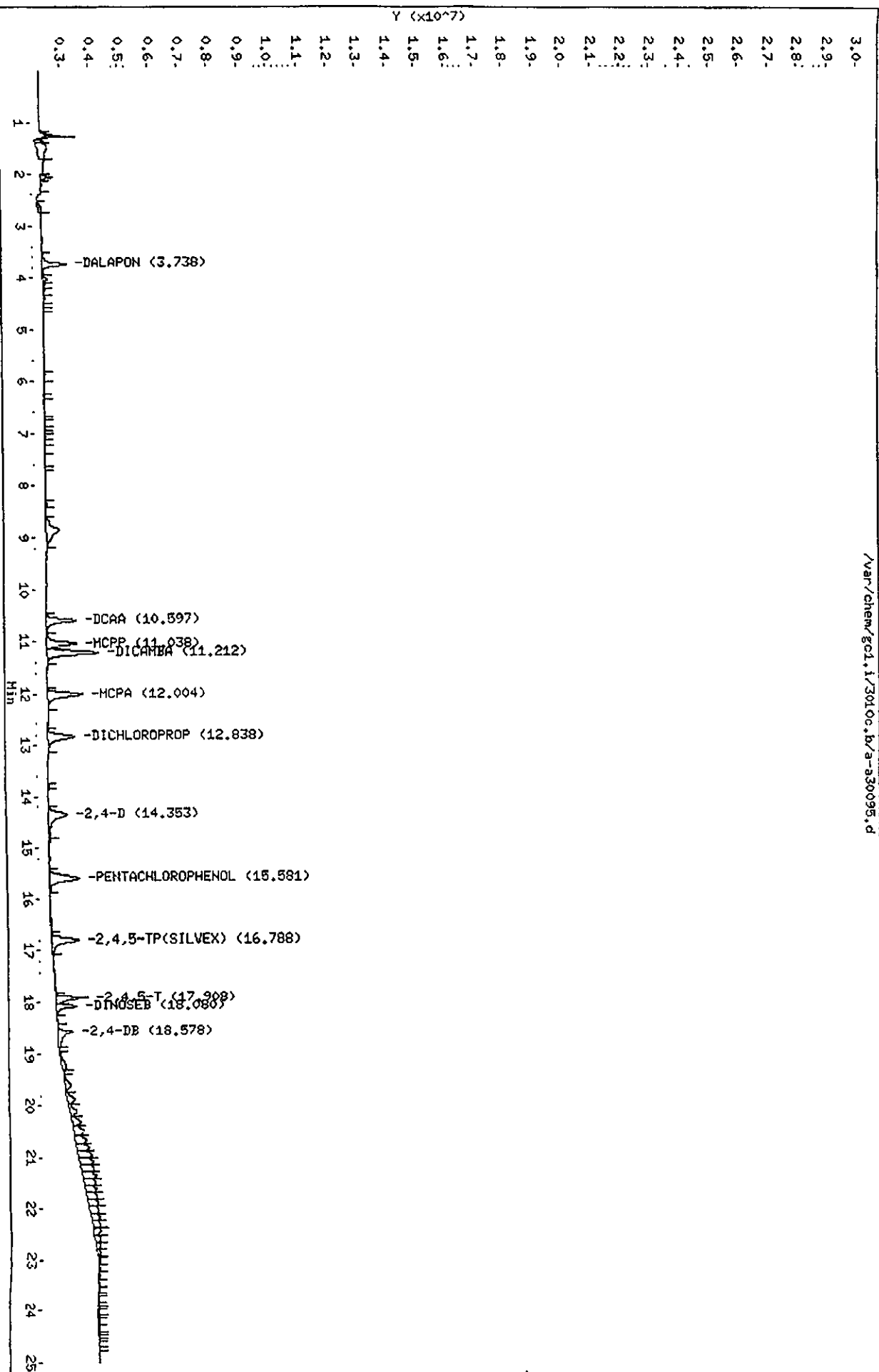
Inst ID: gc1.i
 Quant Type: ESTD
 Cal File: a-a30095.d
 Calibration Sample, Level: 1
 Compound Sublist: all.sub

Compounds					AMOUNTS	
	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
=====	==	=====	=====	=====	=====	=====
1 DALAPON	3.738	3.740	-0.002	826359	0.01100	0.01015
\$ 2 DCAA	10.597	10.596	0.001	5385163	0.02130	0.01978
3 MCPP	11.038	11.036	0.002	1014928	2.12000	2.258
4 DICAMBA	11.212	11.212	0.000	1755263	0.01060	0.009277
5 MCPA	12.004	12.001	0.003	1193046	2.14000	2.289
6 DICHLOROPROP	12.838	12.834	0.004	913439	0.02120	0.01864
7 2,4-D	14.353	14.347	0.006	6049347	0.02110	0.01896
8 PENTACHLOROPHENOL	15.581	15.577	0.004	1008450	0.00266	0.002274
9 2,4,5-TP(SILVEX)	16.788	16.795	-0.007	6603587	0.00525	0.004677
10 2,4,5-T	17.908	17.907	0.001	5035258	0.00527	0.004594
11 DINOSEB	18.080	18.079	0.001	3282480	0.00317	0.002880
12 2,4-DB	18.578	18.578	0.000	3993850	0.02110	0.02313

Data File: /var/chem/gc1.1/3010c.b/a-a30095.d
Date: 31-MAY-2000 15:39
Client ID:
Sample Info: lherb,3010c.b

Column phase: DB608

Instrument: gc1.1
Operator: 01797
Column diameter: 0.53



6581254

Data File: /var/chem/gc1.i/3010c.b/a-a30096.d
 Report Date: 01-Jun-2000 12:38

STL-PITTSBURGH

Data file : /var/chem/gc1.i/3010c.b/a-a30096.d
 Lab Smp Id: MLherb
 Inj Date : 31-MAY-2000 16:08
 Operator : 01797
 Smp Info : MLherb,3010c.b
 Misc Info : 190-80-2
 Comment :
 Method : /var/chem/gc1.i/3010c.b/LONGH.m
 Meth Date : 01-Jun-2000 11:27 derubeij
 Cal Date : 31-MAY-2000 15:39
 Als bottle: 3
 Dil Factor: 1.00000
 Integrator: Falcon
 Target Version: 3.40

Inst ID: gc1.i
 Quant Type: ESTD
 Cal File: a-a30095.d
 Calibration Sample, Level: 2
 Compound Sublist: all.sub

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (ng)	ON-COL (ng)
=====	==	=====	=====	=====	=====	=====
1 DALAPON	3.741	3.740	0.001	1616055	0.02200	0.02052
\$ 2 DCAA	10.596	10.596	0.000	10440491	0.04250	0.03964
3 MCPP	11.037	11.036	0.001	1872698	4.26000	4.197
4 DICAMBA	11.212	11.212	0.000	3578040	0.02130	0.01964
5 MCPA	12.002	12.001	0.001	2199559	4.28000	4.240
6 DICHLOROPROP	12.836	12.834	0.002	1874442	0.04240	0.03953
7 2,4-D	14.347	14.347	0.000	12333666	0.04250	0.03985
8 PENTACHLOROPHENOL	15.576	15.577	-0.001	2079645	0.00532	0.004883
9 2,4,5-TP (SILVEX)	16.788	16.795	-0.007	13108624	0.01050	0.009657
10 2,4,5-T	17.905	17.907	-0.002	10864238	0.01050	0.01010
11 DINOSEB	18.082	18.079	0.003	6824911	0.00635	0.006104
12 2,4-DB	18.582	18.578	0.004	6538110	0.04220	0.03921

Data File: /var/chem/gc1.i/3010c.b/a-a30096.d

Date: 31-May-2000 16:08

Client ID:

Sample Info: HLherb,3010c.b

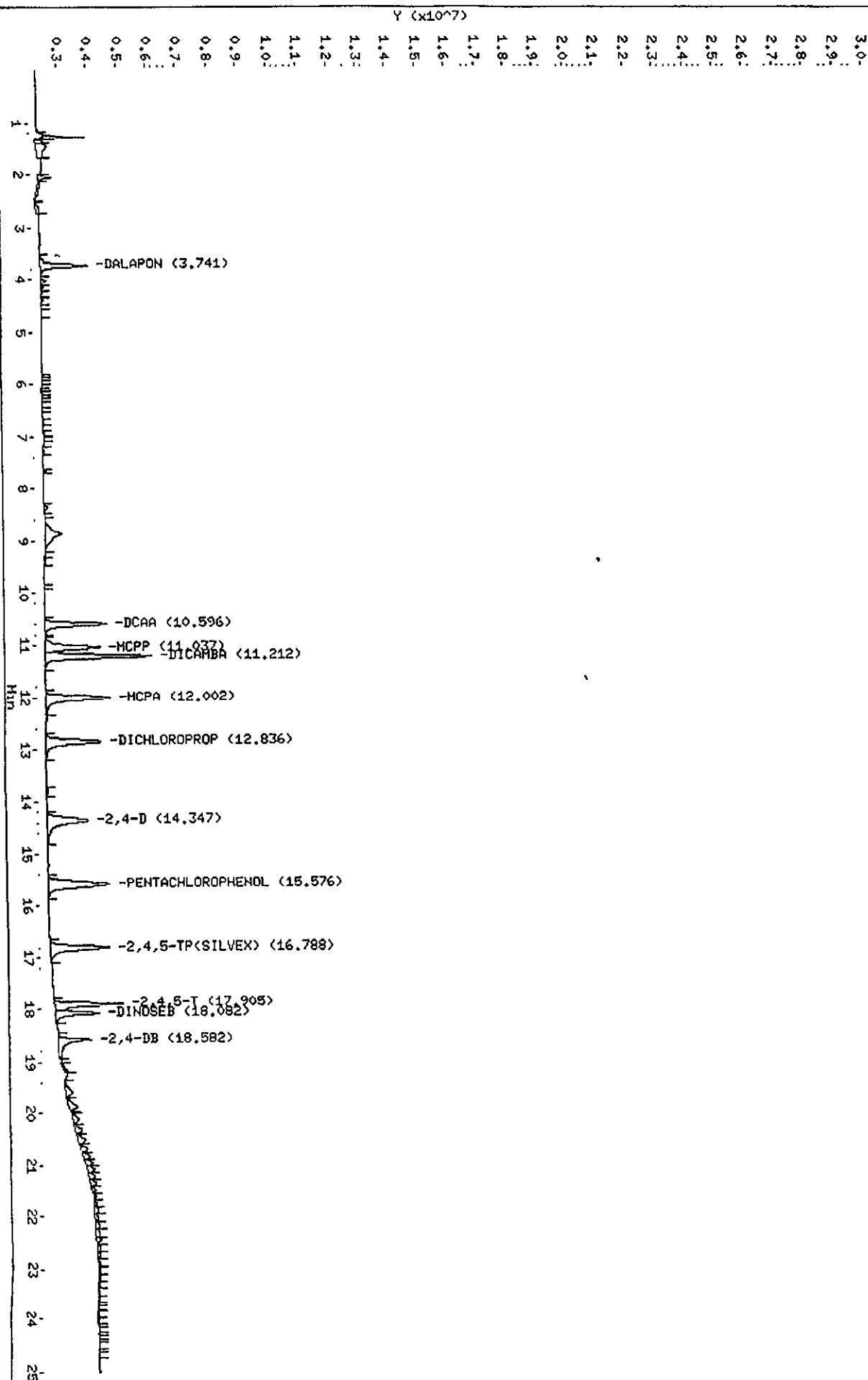
Column phase: DB608

Instrument: gc1.i

Operator: 01797

Column diameter: 0.53

/var/chem/gc1.i/3010c.b/a-a30096.d



6581256

Data File: /var/chem/gc1.i/3010c.b/a-a30097.d
Report Date: 01-Jun-2000 12:38

STL-PITTSBURGH

Data file : /var/chem/gc1.i/3010c.b/a-a30097.d
Lab Smp Id: Mherb
Inj Date : 31-MAY-2000 16:37
Operator : 01797
Smp Info : Mherb,3010c.b
Misc Info : 190-80-3
Comment :
Method : /var/chem/gc1.i/3010c.b/LONGH.m
Meth Date : 01-Jun-2000 11:27 derubeij
Cal Date : 31-MAY-2000 16:37
Als bottle: 4
Dil Factor: 1.00000
Integrator: Falcon
Target Version: 3.40

Inst ID: gc1.i
Quant Type: ESTD
Cal File: a-a30097.d
Calibration Sample, Level: 3
Compound Sublist: all.sub

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ng)	(ng)
=====	==	=====	=====	=====	=====	=====
1 DALAPON	3.740	3.740	0.000	3848183	0.04390	0.04390
\$ 2 DCAA	10.596	10.596	0.000	24815268	0.08510	0.08510
3 MCPP	11.036	11.036	0.000	3581575	8.52000	8.520
4 DICAMBA	11.212	11.212	0.000	9044465	0.04250	0.04250
5 MCPA	12.001	12.001	0.000	4151638	8.56000	8.560
6 DICHLOROPROP	12.834	12.834	0.000	4659349	0.08480	0.08480
7 2,4-D	14.347	14.347	0.000	29915609	0.08510	0.08510
8 PENTACHLOROPHENOL	15.577	15.577	0.000	5401685	0.01064	0.01064
9 2,4,5-TP(SILVEX)	16.795	16.795	0.000	33043773	0.02110	0.02110
10 2,4,5-T	17.907	17.907	0.000	26092633	0.02110	0.02110
11 DINOSEB	18.079	18.079	0.000	15797723	0.01270	0.01270
12 2,4-DB	18.578	18.578	0.000	13187011	0.08450	0.08450

Data File: /var/chem/gc1.1/3010c.b/a-a30097.d
Date: 31-MAY-2000 16:37

Client ID:

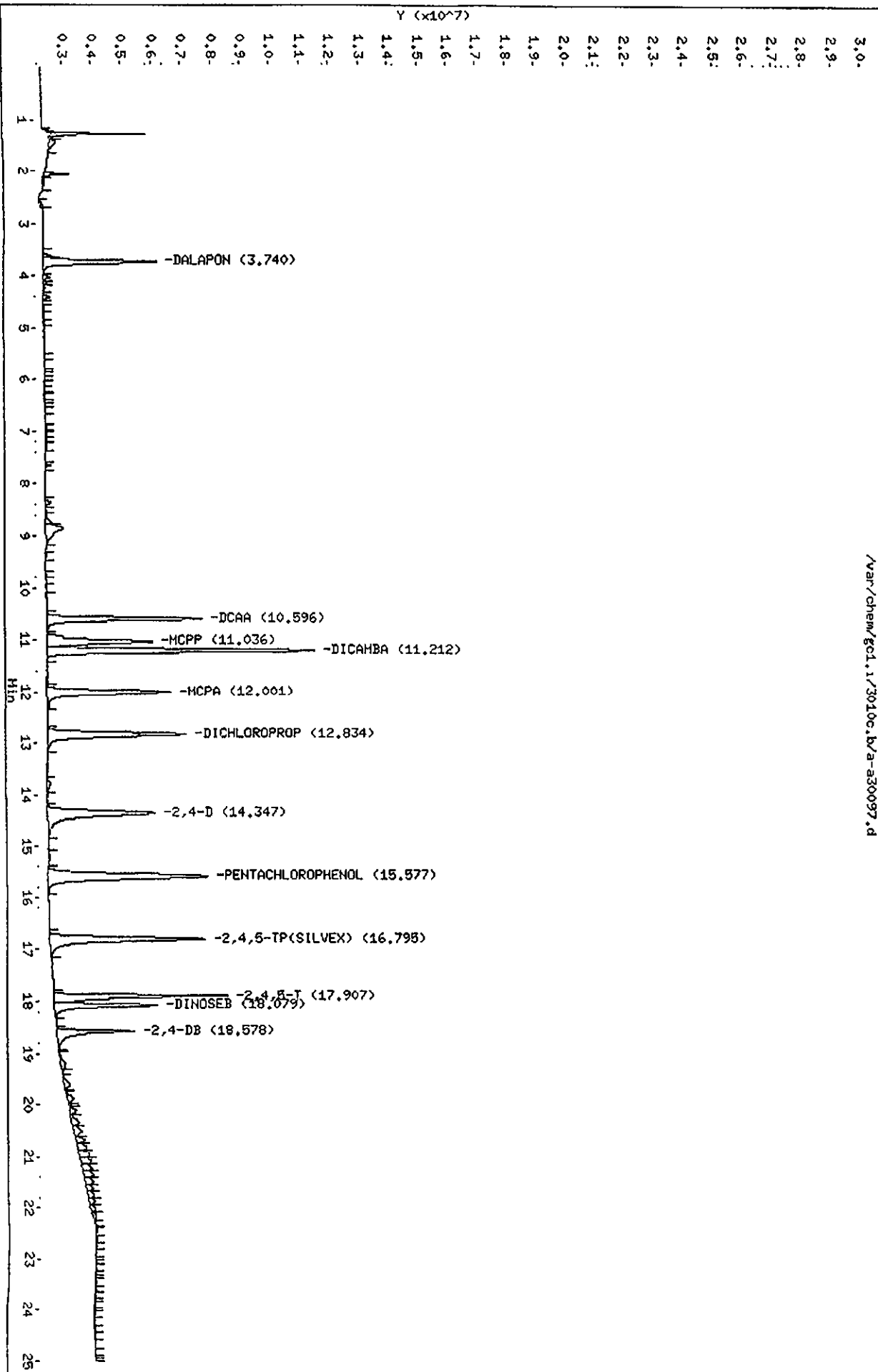
Sample Info: Mherb, 3010c.b

Column phase: DB608

Instrument: gc1.1

Operator: 01797

Column diameter: 0.53



6581258

Data File: /var/chem/gc1.i/3010c.b/a-a30098.d
 Report Date: 01-Jun-2000 12:38

STL-PITTSBURGH

Data file : /var/chem/gc1.i/3010c.b/a-a30098.d
 Lab Smp Id: MHherb
 Inj Date : 31-MAY-2000 17:06
 Operator : 01797
 Smp Info : MHherb,3010c.b
 Misc Info : 190-80-4
 Comment :
 Method : /var/chem/gc1.i/3010c.b/LONGH.m
 Meth Date : 01-Jun-2000 11:27 derubeij
 Cal Date : 31-MAY-2000 17:06
 Als bottle: 5
 Dil Factor: 1.00000
 Integrator: Falcon
 Target Version: 3.40

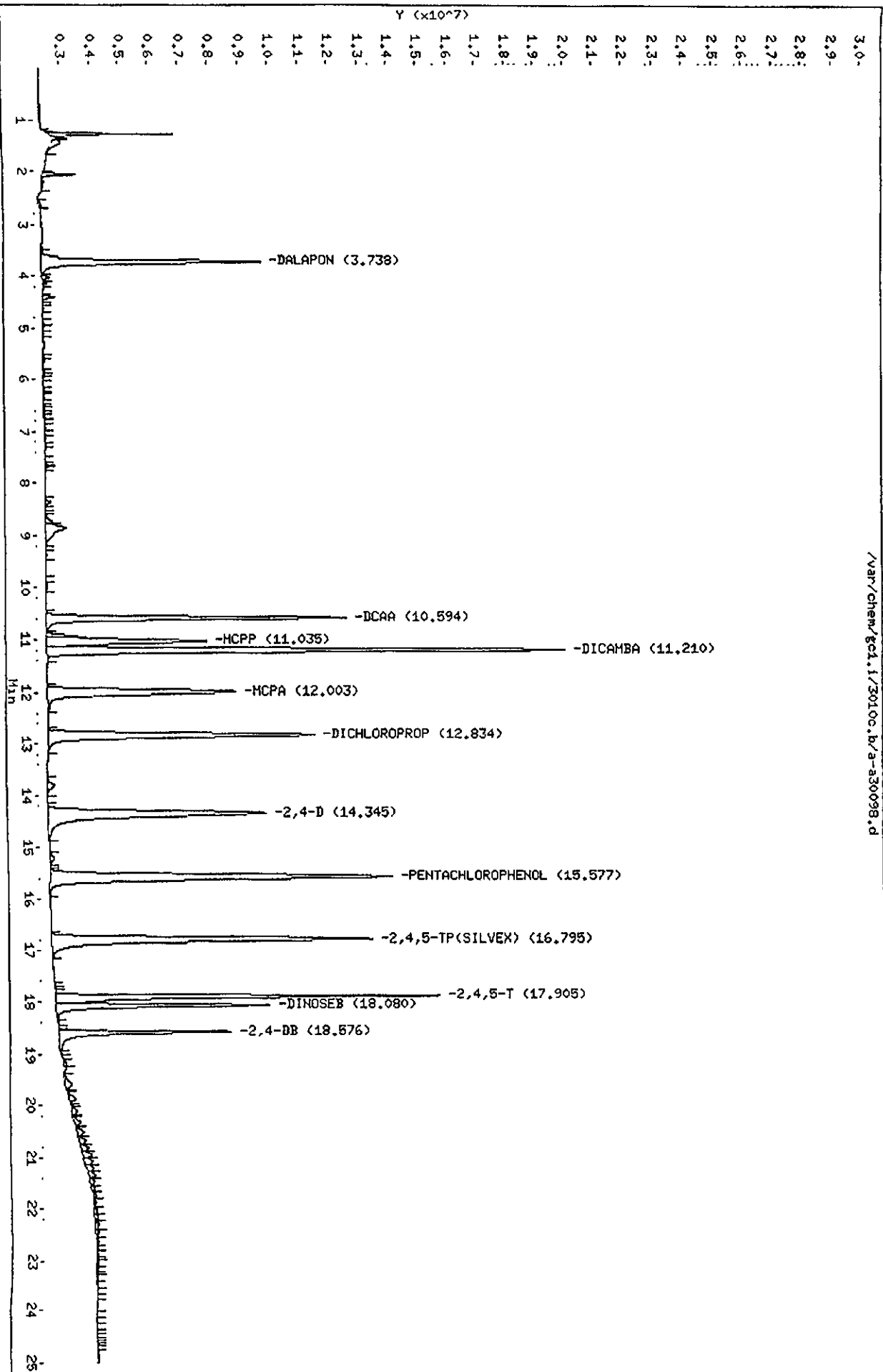
Inst ID: gc1.i
 Quant Type: ESTD
 Cal File: a-a30098.d
 Calibration Sample, Level: 4
 Compound Sublist: all.sub

Compounds					AMOUNTS	
	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
=====	==	=====	=====	=====	=====	=====
1 DALAPON	3.738	3.740	-0.002	7417941	0.08780	0.09251
\$ 2 DCAA	10.594	10.596	-0.002	46512873	0.17000	0.1749
3 MCPP	11.035	11.036	-0.001	5403191	17.0000	13.05
4 DICAMBA	11.210	11.212	-0.002	17595880	0.08510	0.09345
5 MCPA	12.003	12.001	0.002	6355776	17.1000	13.18
6 DICHLOROPROP	12.834	12.834	0.000	9035618	0.17000	0.1850
7 2,4-D	14.345	14.347	-0.002	57482064	0.17000	0.1815
8 PENTACHLOROPHENOL	15.577	15.577	0.000	11647734	0.02128	0.02553
9 2,4,5-TP(SILVEX)	16.795	16.795	0.000	66414167	0.04210	0.04702
10 2,4,5-T	17.905	17.907	-0.002	54059197	0.04220	0.04797
11 DINOSEB	18.080	18.079	0.001	30036981	0.02540	0.02648
12 2,4-DB	18.576	18.578	-0.002	25384255	0.16900	0.1561

Date File: /var/chem/gcl.1/3010c.b/a-a30098.d
Date: 31-MAY-2000 17:06
Client ID:
Sample Info: Htherb,3010c.b

Column phase: DB608

Instrument: gcl.i
Operator: 01797
Column diameter: 0.53



6581260

Data File: /var/chem/gc1.i/3010c.b/a-a30099.d
Report Date: 01-Jun-2000 12:38

STL-PITTSBURGH

Data file : /var/chem/gc1.i/3010c.b/a-a30099.d
Lab Smp Id: Hherb
Inj Date : 31-MAY-2000 17:35
Operator : 01797
Smp Info : Hherb,3010c.b
Misc Info : 190-80-5
Comment :
Method : /var/chem/gc1.i/3010c.b/LONGH.m
Meth Date : 01-Jun-2000 11:27 derubeij
Cal Date : 31-MAY-2000 17:35
Als bottle: 6
Dil Factor: 1.00000
Integrator: Falcon
Target Version: 3.40

Inst ID: gc1.i
Quant Type: ESTD
Cal File: a-a30099.d
Calibration Sample, Level: 5
Compound Sublist: all.sub

					AMOUNTS	
					CAL-AMT	ON-COL
					(ng)	(ng)
Compounds	RT	EXP RT	DLT RT	RESPONSE		
=====	==	=====	=====	=====	=====	=====
1 DALAPON	3.740	3.740	0.000	14945836	0.17600	0.1842
\$ 2 DCAA	10.590	10.596	-0.006	87793848	0.34000	0.3321
3 MCPP	11.035	11.036	-0.001	8217888	34.1000	21.65
4 DICAMBA	11.209	11.212	-0.003	35454180	0.17000	0.1843
5 MCPA	11.999	12.001	-0.002	10253602	34.0000	22.99
6 DICHLOROPROP	12.830	12.834	-0.004	17121329	0.33900	0.3481
7 2,4-D	14.342	14.347	-0.005	109277911	0.34000	0.3441
8 PENTACHLOROPHENOL	15.573	15.577	-0.004	23735924	0.04255	0.04980
9 2,4,5-TP(SILVEX)	16.788	16.795	-0.007	134579689	0.08400	0.09279
10 2,4,5-T	17.903	17.907	-0.004	109438398	0.08440	0.09427
11 DINOSEB	18.081	18.079	0.002	59818422	0.05080	0.05234
12 2,4-DB	18.576	18.578	-0.002	48953955	0.33800	0.3078

6581261

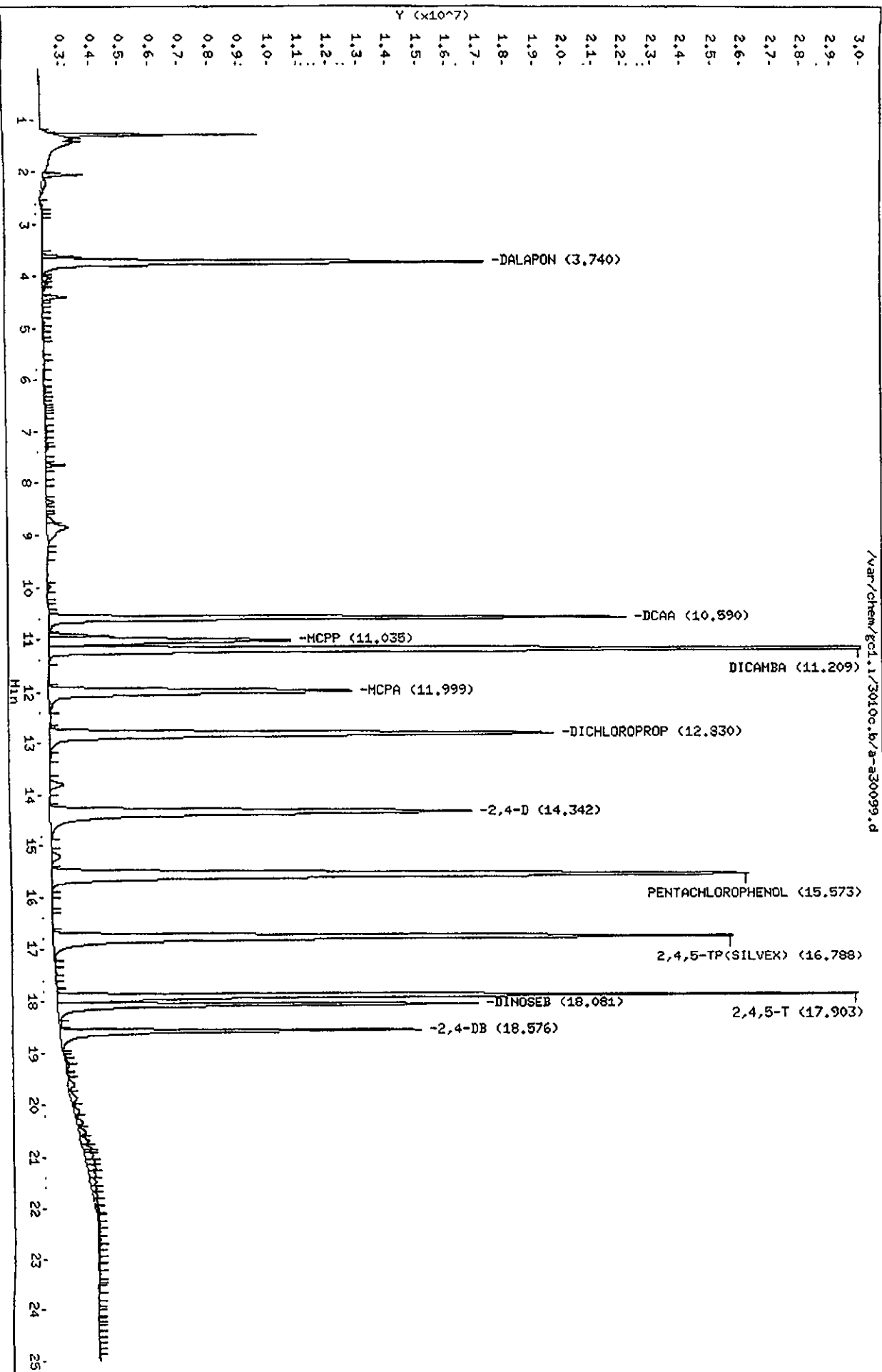
Data File: /var/chem/gc1.1/3010c.b/a-a30099.d
Date: 31-MAY-2000 17:35
Client ID:
Sample Info: Hhenb,3010c.b

Column phase: DB608

Instrument: gc1.1

Operator: 01797

Column diameter: 0.53



6581262

Data File: /var/chem/gc1.i/3020.b/a-a30108.d
Report Date: 01-Jun-2000 12:57

STL-PITTSBURGH

Data file : /var/chem/gc1.i/3020.b/a-a30108.d
Lab Smp Id: Mherb
Inj Date : 01-JUN-2000 10:27
Operator : 01797
Smp Info : Mherb,3020.b
Misc Info :
Comment :
Method : /var/chem/gc1.i/3020.b/LONGH.m
Meth Date : 01-Jun-2000 11:28 g
Cal Date : 31-MAY-2000 17:35
Als bottle: 4
Dil Factor: 1.00000
Integrator: Falcon
Target Version: 3.40

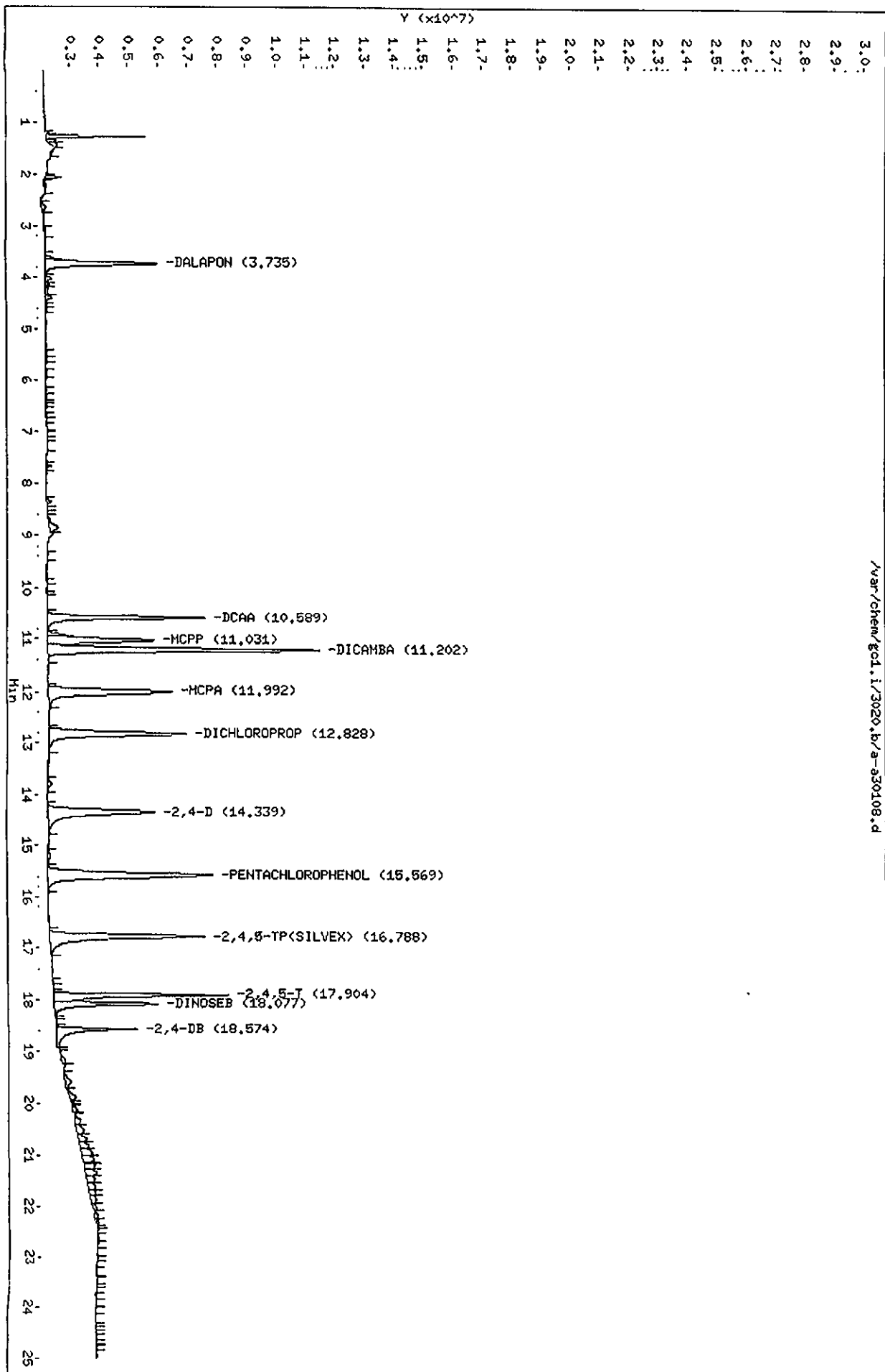
Inst ID: gc1.i
Quant Type: ESTD
Cal File: a-a30099.d
Continuing Calibration Sample
Compound Sublist: all.sub

Compounds					AMOUNTS	
	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
=====	==	=====	=====	=====	=====	=====
1 DALAPON	3.735	3.740	-0.005	3840893	0.04390	0.04734
\$ 2 DCAA	10.589	10.596	-0.007	25445680	0.08510	0.09625
3 MCPP	11.031	11.036	-0.005	3654442	8.52000	9.629
4 DICAMBA	11.202	11.212	-0.010	9246979	0.04250	0.04808
5 NCFA	11.992	12.001	-0.009	4233919	8.56000	9.494
6 DICHLOROPROP	12.828	12.834	-0.006	4713266	0.08480	0.09584
7 2,4-D	14.339	14.347	-0.008	30292863	0.08510	0.09538
8 PENTACHLOROPHENOL	15.569	15.577	-0.008	5632797	0.01064	0.01182
9 2,4,5-TP(SILVEX)	16.788	16.795	-0.007	34116706	0.02110	0.02352
10 2,4,5-T	17.904	17.907	-0.003	26684020	0.02110	0.02298
11 DINOSEB	18.077	18.079	-0.002	16764848	0.01270	0.01467
12 2,4-DB	18.574	18.578	-0.004	13632131	0.08450	0.08570

Data File: /var/chem/gc1.i/3020.b/a-a30108.d
Date: 01-JUN-2000 10:27
Client ID:
Sample Info: Mherb, 3020.b

Column phase: DB608

Instrument: gc1.i
Operator: 01797
Column diameter: 0.53



6581264

Data File: /var/chem/gc1.i/3020.b/a-a30126.d
Report Date: 02-Jun-2000 07:54

STL-PITTSBURGH

Data file : /var/chem/gc1.i/3020.b/a-a30126.d
Lab Smp Id: Mherb
Inj Date : 01-JUN-2000 19:11
Operator : 01797
Smp Info : Mherb,3020.b
Misc Info : 190-80-3
Comment :
Method : /var/chem/gc1.i/3020.b/LONGH.m
Meth Date : 02-Jun-2000 07:52 g
Cal Date : 31-MAY-2000 17:35
Als bottle: 4
Dil Factor: 1.00000
Integrator: Falcon
Target Version: 3.40

Inst ID: gc1.i
Quant Type: ESTD
Cal File: a-a30099.d
Continuing Calibration Sample
Compound Sublist: all.sub

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (ng)	ON-COL (ng)
=====	==	=====	=====	=====	=====	=====
1 DALAPON	3.740	3.740	0.000	3637749	0.04390	0.04484
\$ 2 DCAA	10.591	10.596	-0.005	23586204	0.08510	0.08959
3 MCPP	11.031	11.036	-0.005	3428430	8.52000	9.034
4 DICAMBA	11.207	11.212	-0.005	8437211	0.04250	0.04386
5 MCPA	12.000	12.001	-0.001	3952948	8.56000	8.864
6 DICHLOROPROP	12.830	12.834	-0.004	4337519	0.08480	0.08820
7 2,4-D	14.344	14.347	-0.003	28281903	0.08510	0.08905
8 PENTACHLOROPHENOL	15.574	15.577	-0.003	5183417	0.01064	0.01088
9 2,4,5-TP(SILVEX)	16.788	16.795	-0.007	31501048	0.02110	0.02172
10 2,4,5-T	17.903	17.907	-0.004	24514389	0.02110	0.02112
11 DINOSEB	18.080	18.079	0.001	15526725	0.01270	0.01358
12 2,4-DB	18.575	18.578	-0.003	12272158	0.08450	0.07715

Data File: /var/chem/gc1.1/3020.b/a-a30126.d

Date : 01-JUN-2000 19:11

Client ID:

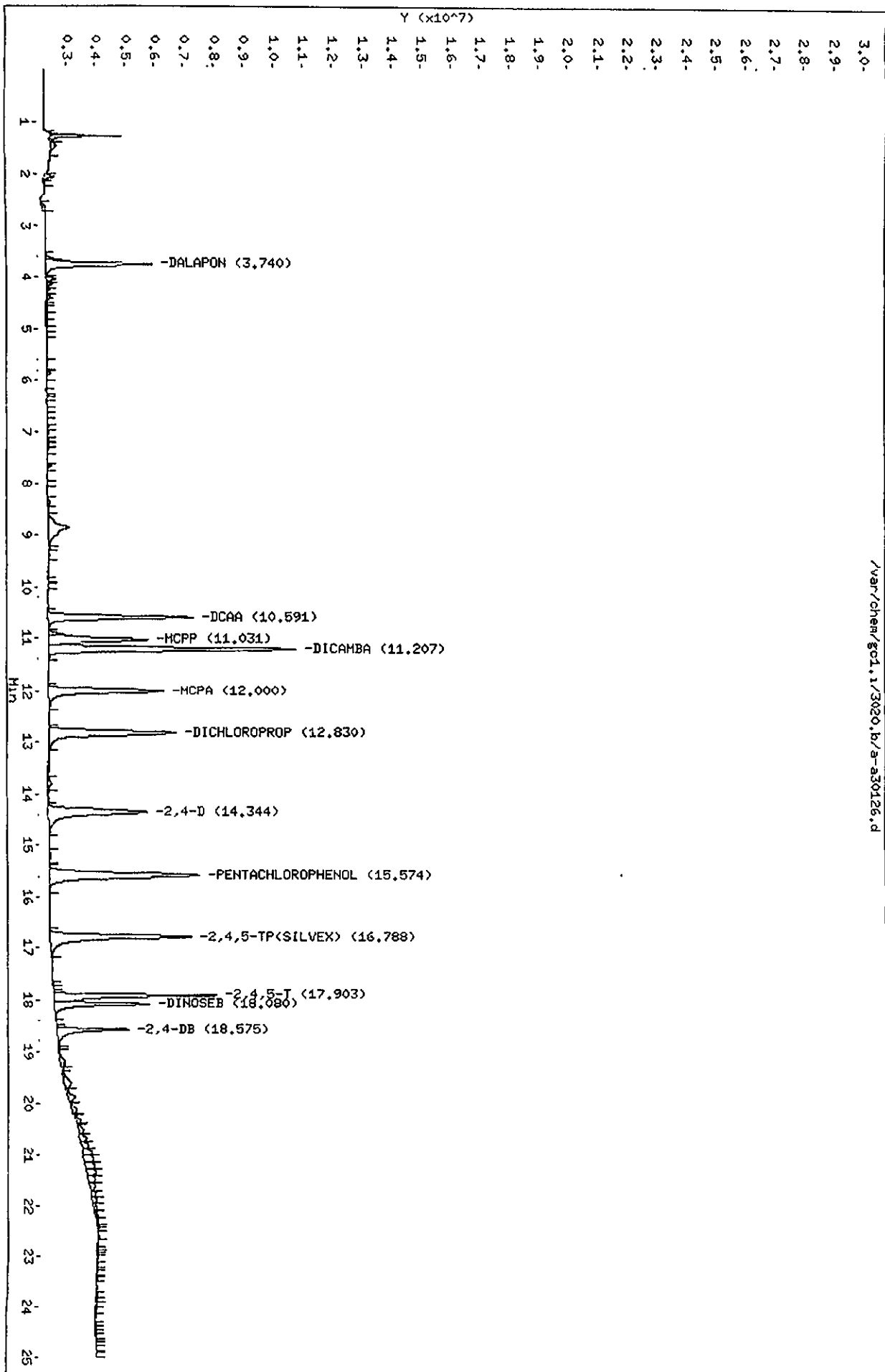
Sample Info: Hherb,3020.b

Column phase: DB608

Instrument: gc1.1

Operator: 01797

Column diameter: 0.53



6581266

**HERBICIDE
QC DATA**

UXB INTERNATIONAL
METHOD BLANK COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc. SDG Number:
Matrix: (soil/water) SOLID Lab Sample ID: C0E260000 444
Method: SW846 8151A
Herbicides (8151A)
Sample WT/Vol: 100 / mL Date Received: 05/24/00
Work Order: DDTMQ101 Date Extracted: 05/26/00
Dilution factor: 1 Date Analyzed: 06/01/00
Moisture %: NA
QC Batch: 0147444
Client Sample Id: INTRA-LAB BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
94-75-7	2,4-D	0.0050	U
93-72-1	2,4,5-TP (Silvex)	0.0050	U

6581268

Data File: /var/chem/gc1.i/3020.b/a-a30114.d
 Report Date: 01-Jun-2000 14:14

STL-PITTSBURGH

Data file : /var/chem/gc1.i/3020.b/a-a30114.d
 Lab Smp Id: DDTMQ101 Client Smp ID: PBLK1
 Inj Date : 01-JUN-2000 13:22
 Operator : 01797 Inst ID: gc1.i
 Smp Info : DDTMQ101,3020.b
 Misc Info : 240180blk
 Comment :
 Method : /var/chem/gc1.i/3020.b/LONGH.m
 Meth Date : 01-Jun-2000 11:28 g Quant Type: ESTD
 Cal Date : 31-MAY-2000 17:35 Cal File: a-a30099.d
 Als bottle: 12 QC Sample: BLANK
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: all.sub
 Target Version: 3.40

Concentration Formula: Amt * DF * 20*Vt/Vo/Vi

Name	Value	Description
DF	1.000	Dilution Factor
Vt	10000.000	Volume of final extract (uL)
Vo	100.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ng)	FINAL (ug/L)
=====	==	=====	=====	=====	=====	=====
1 DALAPON				Compound Not Detected.		
\$ 2 DCAA	10.596	10.596	0.000	13178069	0.04984	99.69
3 MCPP				Compound Not Detected.		
4 DICAMBA				Compound Not Detected.		
5 MCPA				Compound Not Detected		
6 DICHLOROPROP				Compound Not Detected		
7 2,4-D				Compound Not Detected		
8 PENTACHLOROPHENOL				Compound Not Detected		
9 2,4,5-TP(SILVEX)				Compound Not Detected.		
10 2,4,5-T				Compound Not Detected		
11 DINOSEB				Compound Not Detected		
12 2,4-DB				Compound Not Detected		

Data File: /var/chem/gcd.1/3020.b/a-a30114.d

Date : 01-JUN-2000 13:22

Client ID: PBLK1

Sample Info: DDTMQL01.3020.b

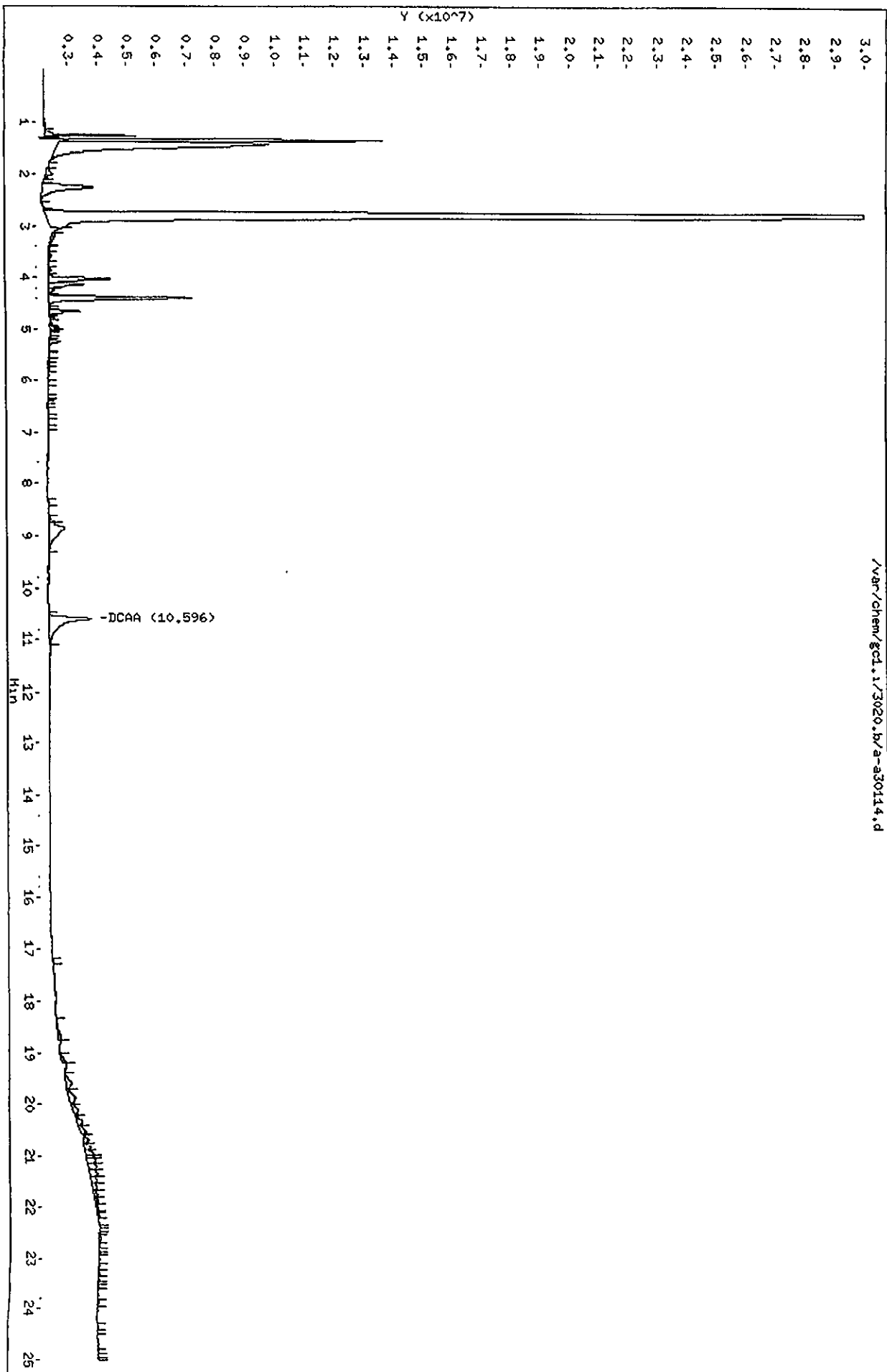
Volume Injected (uL): 1.0

Column phase: DB608

Instrument: gcd.1

Operator: 01797

Column diameter: 0.53



6581270

UXB INTERNATIONAL
CHECK SAMPLE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SOLID Lab Sample ID: C0E260000 444
Method: SW846 8151A
Herbicides (8151A)Sample WT/Vol: 100 / mL Date Received: 05/24/00
Work Order: DDTMQ102 Date Extracted: 05/26/00
Dilution factor: 1 Date Analyzed: 06/01/00
Moisture %: NA

QC Batch: 0147444

Client Sample Id: CHECK SAMPLE

		CONCENTRATION UNITS:	
CAS NO.	COMPOUND	(ug/L or ug/kg) mg/L	Q
94-75-7	2,4-D	0.128	
93-72-1	2,4,5-TP (Silvex)	0.0363	

FORM I

Data File: /var/chem/gc1.i/3020.b/a-a30113.d
 Report Date: 01-Jun-2000 13:45

STL-PITTSBURGH

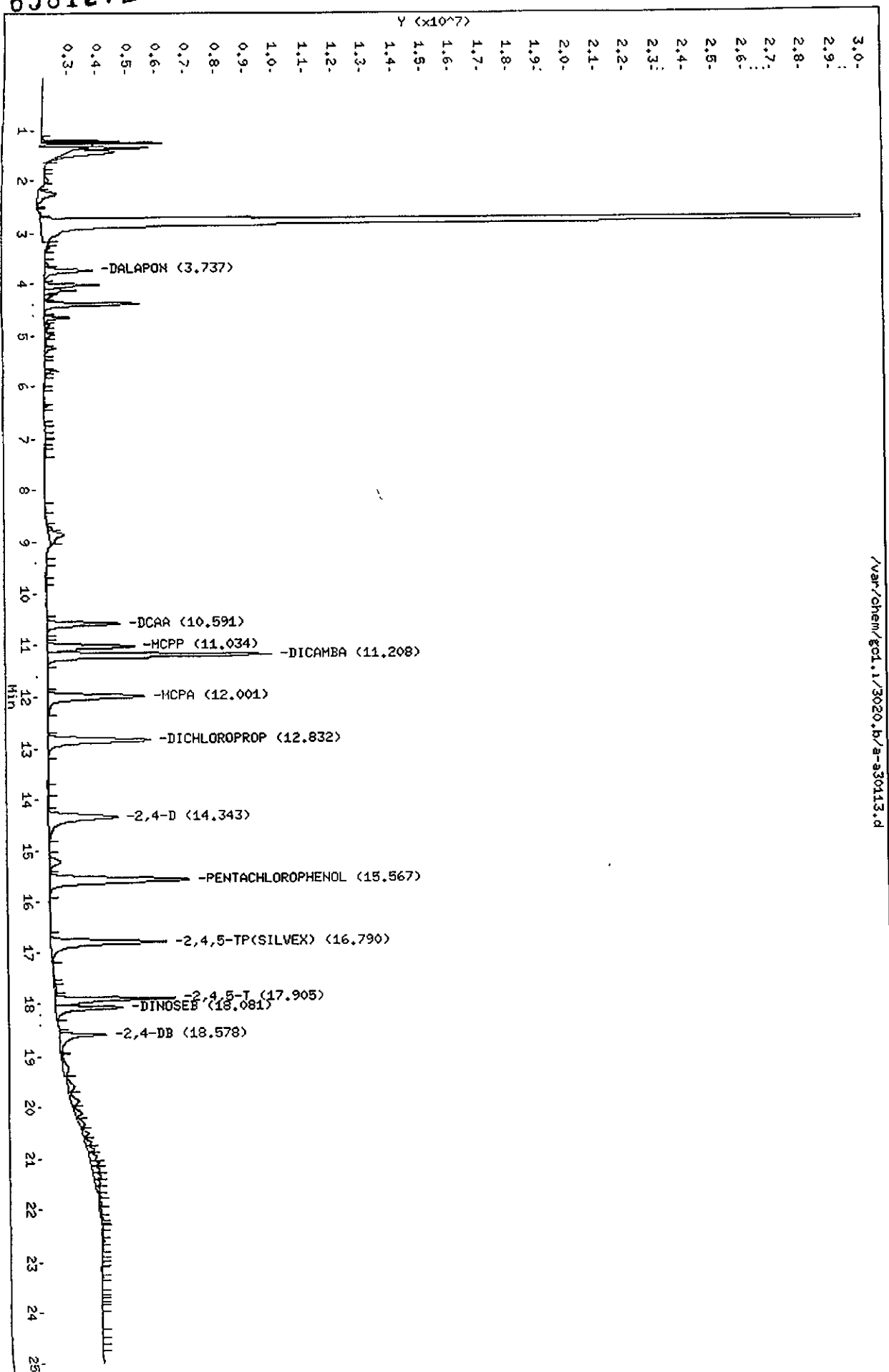
Data file : /var/chem/gc1.i/3020.b/a-a30113.d
 Lab Smp Id: DDTMQ102 Client Smp ID: LCS1
 Inj Date : 01-JUN-2000 12:53
 Operator : 01797 Inst ID: gc1.i
 Smp Info : DDTMQ102,3020.b
 Misc Info : 240180LCS
 Comment :
 Method : /var/chem/gc1.i/3020.b/LONGH.m
 Meth Date : 01-Jun-2000 11:28 g Quant Type: ESTD
 Cal Date : 31-MAY-2000 17:35 Cal File: a-a30099.d
 Als bottle: 11 QC Sample: LCS
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: all.sub
 Target Version: 3.40

Concentration Formula: Amt * DF * 20*Vt/Vo/Vi

Name	Value	Description
DF	1.000	Dilution Factor
Vt	10000.000	Volume of final extract (uL)
Vo	100.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ng)	FINAL (ug/L)
1 DALAPON	3.737	3.740	-0.003	1629980	0.02009	40.18
2 DCAA	10.591	10.596	-0.005	11945727	0.04518	90.37
3 MCPP	11.034	11.036	-0.002	2978735	7.84893	15700
4 DICAMBA	11.208	11.212	-0.004	7611403	0.03957	79.14
5 MCPA	12.001	12.001	0.000	3287125	7.37130	14740
6 DICHLOROPROP	12.832	12.834	-0.002	3470290	0.07056	141.1
7 2,4-D	14.343	14.347	-0.004	20355122	0.06409	128.2
8 PENTACHLOROPHENOL	15.567	15.577	-0.010	4753125	0.00997	19.95
9 2,4,5-TP(SILVEX)	16.790	16.795	-0.005	26327429	0.01815	36.30
10 2,4,5-T	17.905	17.907	-0.002	18821418	0.01621	32.42
11 DINOSBB	18.081	18.079	0.002	11350246	0.00993	19.86
12 2,4-DB	18.578	18.578	0.000	9151429	0.05753	115.1

6581272



/var/chem/gc1.1/3020.b/a-a30113.d

Data File: /var/chem/gc1.1/3020.b/a-a30113.d
Date: 01-JUN-2000 12:53
Client ID: LC61
Sample Info: DITHQ102.3020.b
Volume Injected (uL): 1.0
Column phase: DB608

Instrument: gc1.1
Operator: 01797
Column diameter: 0.53

UXB INTERNATIONAL
MATRIX SPIKE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SOLID
Method: SW846 8151A
Herbicides (8151A)

Lab Sample ID: C0E240180 001

Sample WT/Vol: 100 / mL
Work Order: DDLX310P
Dilution factor: 1
Moisture %: 15Date Received: 05/24/00
Date Extracted: 05/26/00
Date Analyzed: 06/01/00

QC Batch: 0147444

Client Sample Id: DF/S1/0143/SDC/002

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
94-75-7	2,4-D	0.178	
93-72-1	2,4,5-TP (Silvex)	0.0454	

FORM I

6581274

Data File: /var/chem/gc1.i/3020.b/a-a30111.d
 Report Date: 01-Jun-2000 12:57

STL-PITTSBURGH

Data file : /var/chem/gc1.i/3020.b/a-a30111.d
 Lab Smp Id: DDLX310P Client Smp ID: DF/S1/0143/SDC/002S
 Inj Date : 01-JUN-2000 11:55
 Operator : 01797 Inst ID: gc1.i
 Smp Info : DDLX310P,3020.b
 Misc Info : 240180-1S
 Comment :
 Method : /var/chem/gc1.i/3020.b/LONGH.m
 Meth Date : 01-Jun-2000 11:28 g Quant Type: ESTD
 Cal Date : 31-MAY-2000 17:35 Cal File: a-a30099.d
 Als bottle: 9 QC Sample: MS
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: all.sub
 Target Version: 3.40

Concentration Formula: Amt * DF * 20*Vt/Vo/Vi

Name	Value	Description
DF	1.000	Dilution Factor
Vt	10000.000	Volume of final extract (uL)
Vo	100.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ng)	FINAL (ug/L)
=====	==	=====	=====	=====	=====	=====
1 DALAPON	3 739	3 740	-0 001	2467515	0.03041	60 83
\$ 2 DCAA	10 592	10 596	-0 004	15130584	0.05723	114 5
3 MCPP	11 035	11 036	-0 001	3448298	9 08623	18170
4 DICAMBA	11 205	11 212	-0 007	9102947	0 04733	94 65
5 MCPA	11.997	12.001	-0.004	3962586	8 88601	17770
6 DICHLOROPROP	12.828	12 834	-0 006	4432763	0.09013	180 3
7 2,4-D	14 338	14 347	-0 009	28222566	0 08886	177.7
8 PENTACHLOROPHENOL	15 569	15 577	-0 008	5426057	0 01139	22.77 (R)
9 2,4,5-TP(SILVEX)	16 786	16.795	-0.009	32890409	0.02268	45 35
10 2,4,5-T	17 903	17 907	-0 004	24553523	0 02115	42 30
11 DINOSEB	18.077	18.079	-0 002	4849020	0.00424	8.486
12 2,4-DB	18 576	18 578	-0.002	11605840	0.07296	145 9

6581275

Data File: /var/chem/gc1.i/3020.b/a-a30111.d
Report Date: 01-Jun-2000 12:57

QC Flag Legend

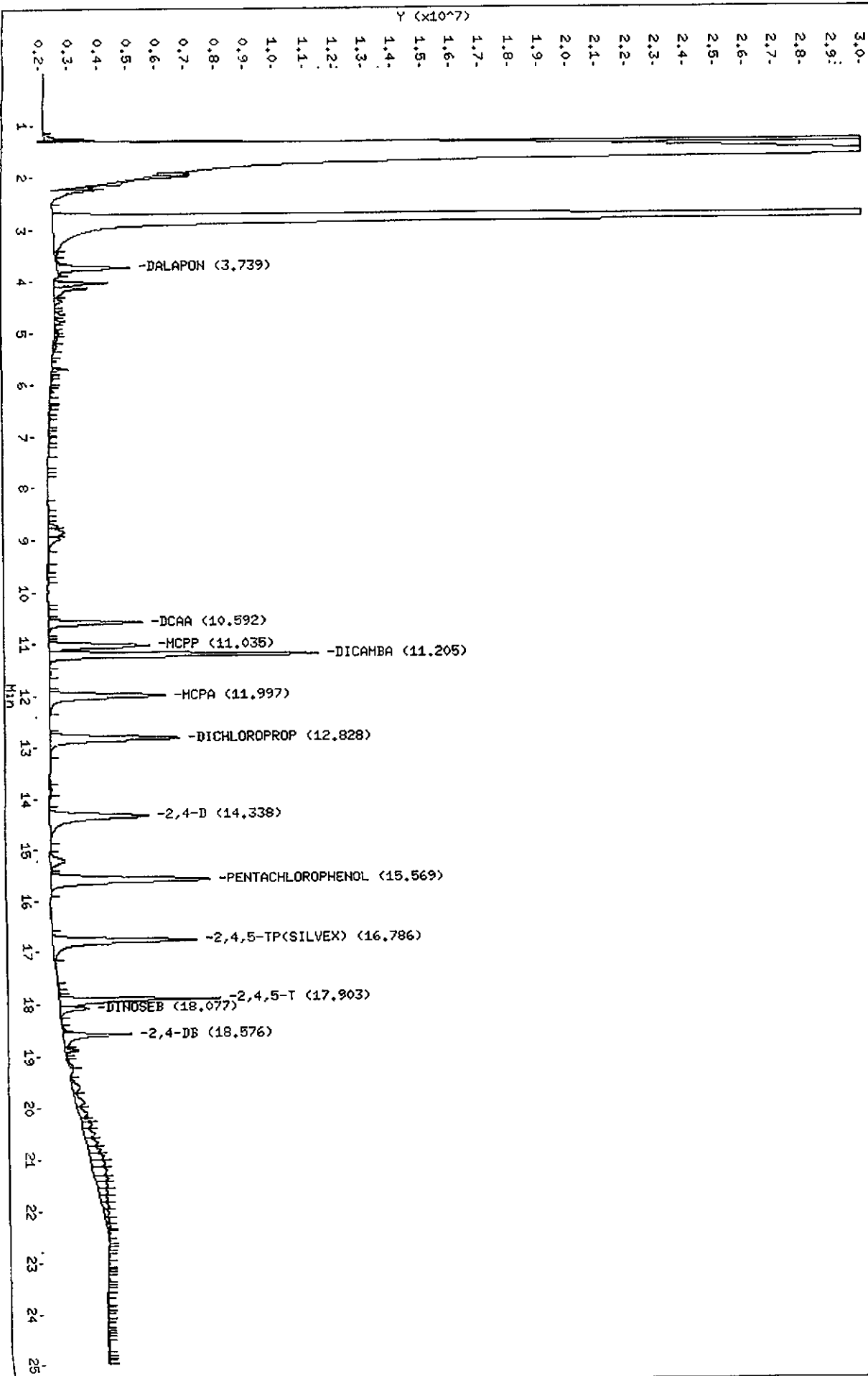
R - Spike/Surrogate failed recovery limits.

6581276

Data File: /var/chem/gcd.1/3020.b/a-a30111.d
Date: 01-JUN-2000 11:55
Client ID: DF/S1/0143/SDC/0025
Sample Info: DULX310P.3020.b
Volume Injected (uL): 1.0
Column phase: DB608

/var/chem/gcd.1/3020.b/a-a30111.d

Instrument: gcd.1
Operator: 01797
Column diameter: 0.53



UXB INTERNATIONAL
MATRIX SPIKE DUPLICATE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc. SDG Number:
Matrix: (soil/water) SOLID Lab Sample ID: C0E240180 001
Method: SW846 8151A
Herbicides (8151A)
Sample WT/Vol: 100 / mL Date Received: 05/24/00
Work Order: DDLX310Q Date Extracted: 05/26/00
Dilution factor: 1 Date Analyzed: 06/01/00
Moisture %: 15
QC Batch: 0147444
Client Sample Id: DF/S1/0143/SDC/002

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/kg)	mg/L	
94-75-7	2,4-D	0.157		
93-72-1	2,4,5-TP (Silvex)	0.0404		

6581278

Data File: /var/chem/gc1.i/3020.b/a-a30112.d
 Report Date: 01-Jun-2000 13:45

STL-PITTSBURGH

Data file : /var/chem/gc1.i/3020.b/a-a30112.d
 Lab Smp Id: DDLX310Q Client Smp ID: DF/S1/0143/SDC/002D
 Inj Date : 01-JUN-2000 12:24
 Operator : 01797 Inst ID: gc1.i
 Smp Info : DDLX310Q,3020.b
 Misc Info : 240180-1MSD
 Comment :
 Method : /var/chem/gc1.i/3020.b/LONGH.m
 Meth Date : 01-Jun-2000 11:28 g Quant Type: ESTD
 Cal Date : 31-MAY-2000 17:35 Cal File: a-a30099.d
 Als bottle: 10 QC Sample: MSD
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: all.sub
 Target Version: 3.40

Concentration Formula: Amt * DF * 20*Vt/Vo/Vi

Name	Value	Description
DF	1.000	Dilution Factor
Vt	10000.000	Volume of final extract (uL)
Vo	100.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ng)	FINAL (ug/L)
1 DALAPON	3.740	3.740	0.000	2005645	0.02472	49.44
2 DCAA	10.590	10.596	-0.006	13935572	0.05271	105.4
3 MCPP	11.033	11.036	-0.003	3232536	8.51770	17040
4 DICAMBA	11.208	11.212	-0.004	8279696	0.04305	86.09
5 MCPA	12.000	12.001	-0.001	3685442	8.26452	16530
6 DICHLOROPROP	12.829	12.834	-0.005	3913856	0.07958	159.2
7 2,4-D	14.342	14.347	-0.005	24882544	0.07835	156.7
8 PENTACHLOROPHENOL	15.569	15.577	-0.008	5170102	0.01085	21.70(R)
9 2,4,5-TP(SILVEX)	16.788	16.795	-0.007	29299624	0.02020	40.40
10 2,4,5-T	17.903	17.907	-0.004	21446812	0.01847	36.95
11 DINOSEB	18.075	18.079	-0.004	7038460	0.00616	12.32
12 2,4-DB	18.575	18.578	-0.003	10412809	0.06546	130.9

658127g

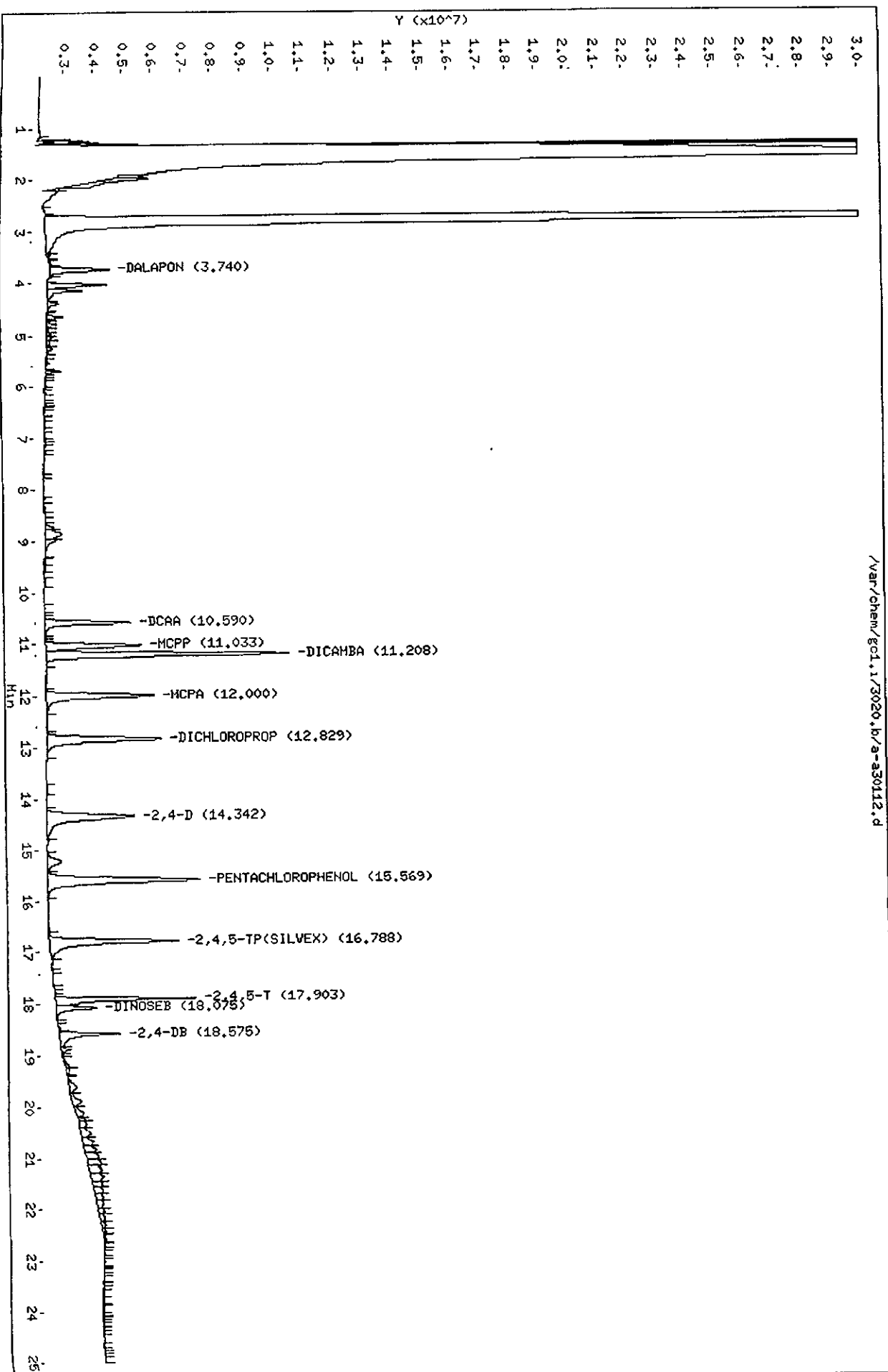
Data File: /var/chem/gc1.i/3020.b/a-a30112.d
Report Date: 01-Jun-2000 13:45

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /var/chem/gc1.i/3020.b/a-a30112.d
Date: 01-JUN-2000 12:24
Client ID: JF/S1/0143/SDC/002D
Sample Info: DDLX310Q.3020.b
Volume Injected (uL): 1.0
Column phase: DB608

Instrument: gc1.i
Operator: 01797
Column diameter: 0.53



**HERBICIDE
MISCELLANEOUS**

B# 0147444

3
Submitted By: **BAKER**

STL Pittsburgh
450 William Pitt Way
Pittsburgh, PA 15238
412-820-8380

412-820-8380

Date 5-30

Sequence Table (Front Injector):

A

Vial Information Part:

Line	Vial	Vial Information
====	====	=====
1	1	RINSE
2	2	190-80-1 95
3	3	190-80-2 96
4	4	190-80-3 97
5	5	190-80-4 98
6	6	190-80-5 99
7	7	~~C0E240180001~~
8	8	~~C0E240180002~~
9	9	~~C0E240180MS 001~~
10	10	~~C0E240180MSD 001~~
11	11	~~C0E240180LCS~~
12	12	~~C0E240180BLK~~
13	13	~~190-80-3~~

1/6/1/00

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
====	====	=====	=====	===	=====	=====	=====
1	1	HEXANE	HERB	1	Sample		
2	2	Lherb,3010c.b	HERB	1	Sample		
3	3	MLherb,3010c.b	HERB	1	Sample		
4	4	Mherb,3010c.b	HERB	1	Sample		
5	5	MHherb,3010c.b	HERB	1	Sample		
6	6	Hherb,3010c.b	HERB	1	Sample		
7	7	DDLX3105,3010c.b	HERB	1	Sample		
8	8	DDLX6105,3010c.b	HERB	1	Sample		
9	9	DDLX310P,3010c.b	HERB	1	Sample		
10	10	DDLX310Q,3010c.b	HERB	1	Sample		
11	11	DDTMQ102,3010c.b	HERB	1	Sample		
12	12	DDTMQ101,3010c.b	HERB	1	Sample		
13	13	Mherb,3010c.b	HERB	1	Sample		

Sequence Table (Back Injector):

Vial Information Part:

Sequence Table (Front Injector):

Vial Information Part:

A

Line	Vial	Vial Information
====	====	=====
1	1	RINSE
2	4	190-80-3 108
3	7	C0E240180001 109
4	8	C0E240180002 110
5	9	C0E240180MS 001 111
6	10	C0E240180MSD 001 112
7	11	C0E240180LCS 113
8	12	C0E240180BLK 114
9	61	C0E260147001 115
10	62	C0E260147MS 001 116
11	63	C0E260147MSD 001 117
12	64	C0E270126007 118
13	65	C0E270126008 119
14	66	C0E260147BLK 120
15	67	C0E260147LCS 121
16	68	C0E310127BLK 122
17	69	C0E310127LCS 123
18	70	C0E310127LCSD 124
19	71	C0E310127001 125
20	4	190-80-3 126

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
====	====	=====	=====	===	=====	=====	=====
1	1	HEXANE	HERB	1	Sample		
2	4	Mherb,3020.b	HERB	1	Sample		
3	7	DDLX3105,3020.b	HERB	1	Sample		
4	8	DDLX6105,3020.b	HERB	1	Sample		
5	9	DDLX310P,3020.b	HERB	1	Sample		

6581286

PSR024 5/26/00 11:57:02 MT

SAMPLE CUSTODIAN REMOVAL REQUEST

PAGE 001

REQUESTED BY: PINOB

METHOD: QS Herbicides (8151A)

<u>STORAGE LOCATION</u>	<u>WORK ORDER #</u>	<u>PICKED</u> <u>CNTR#</u>	<u>CONTROL #</u>	<u>CLIENT #</u>	<u>ANALYSIS</u>	<u>LOTID</u>	<u>SMP#</u>	<u>SFX</u>	<u>MATRIX</u> <u>DESCRIPTION</u>	<u>QTY</u> <u>RCVD</u>	<u>QTY</u> <u>REQD</u>
6A CLP1	DDLX3-1-05	___	236974	399411	A-64-QS	COE240180	001		SOLID	0	3
6A CLP1	DDLX6-1-05	___	236975	399411	A-64-QS	COE240180	002		SOLID	0	3

RELINQUISHED BY

RECEIVED BY

DATE/TIME

[Signature]
[Signature]

[Signature]
[Signature]

PBY
5-26-00
26
5-25-00 1415
26
5-25-00 1946
PBY
5-26-00

***** END OF REPORT *****

STL Pittsburgh

4055 /

METALS DATA

STL-Pittsburgh**Cover Page - Inorganic Analysis Data Package**

<u>Client ID</u>	<u>Lab Sample ID:</u>
<u>DF/S1/0143/SDC/002</u>	<u>DDLX3</u>
<u>DF/S1/0143/SDC/002D</u>	<u>DDLX3D</u>
<u>DF/S1/0143/SDC/002S</u>	<u>DDLX3S</u>
<u>DF/S1/0143/SDC/003</u>	<u>DDLX6</u>

Comments: UXB, DUNN FIELD
C0E240180
6010B

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

Signature: _____

Name: _____

Date: _____

Title: _____

REVIEWED BY: <u>2uf</u>
DATE: <u>6/00</u>

**METALS
RESULTS**

6581290

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: DDLX3 Client ID: DF/S1/0143/SDC/002
Matrix: Soil Units: mg/kg Prep Date: 5/30/00 Prep Batch: 0151223
Weight: 1.00 Volume: 100 Percent Moisture: 15.35

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Arsenic	189.04	0.30	1.2	9.4		1	ICPST	5/30/00	20:25

Comments: Lot #: C0E240180 Sample #: 1

Version 3.63.4

U Result is less than the MDL
B Result is between MDL and RL

Form 1 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: DDLX6 Client ID: DF/S1/0143/SDC/003
Matrix: Soil Units: mg/kg Prep Date: 5/30/00 Prep Batch: 0151223
Weight: 1.00 Volume: 100 Percent Moisture: 18.97

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Arsenic	189.04	0.32	1.2	10.5		1	ICPST	5/30/00	20:42

Comments: Lot #: C0E240180 Sample #: 2

Version 3.63.4

U Result is less than the MDL
B Result is between MDL and RL

Form 1 Equivalent

Metals Data Reporting Form

6581292

Initial Calibration Verification Standard

Instrument: ICPSTUnits: ug/LChart Number: T00530C.ARCAcceptable Range: 90% - 110%Standard Source: Inorganic VenturesStandard ID: 0014-110-4

Element	WL/ Mass	True Conc	ICV3-1 5/30/00 7:24 PM									
			Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Arsenic	189.042	250.0	255.44	102.2								

Metals Data Reporting Form

Continuing Calibration Verification

Instrument: ICPSTUnits: ug/LChart Number: T00530C.ARCAcceptable Range: 90% - 110%Standard Source: Inorganic VenturesStandard ID: 0014-110-3

Element	WL/ Mass	True Conc	CCV3-1 5/30/00 8:17 PM		CCV3-2 5/30/00 9:07 PM					
			Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Arsenic	189.042	500.0	504.26	100.9	503.74	100.7				

6581294

STL-Pittsburgh

Metals Data Reporting Form

Initial Calibration Blank Results

Instrument: ICPSTUnits: ug/LChart Number: T00530C.ARC

Standard Source: _____

Standard ID: _____

			ICB1 5/30/00 7:28 PM					
Element	WL/ Mass	Report Limit	Found	Q	Found	Q	Found	Q
Arsenic	189.042	10	2.6	U				

STL-Pittsburgh

Metals Data Reporting Form

Continuing Calibration Blank Results

Instrument: ICPSTUnits: ug/LChart Number: T00530C.ARC

Standard Source: _____

Standard ID: _____

			CCB1 5/30/00 8:21 PM	CCB2 5/30/00 9:11 PM			
Element	WL/ Mass	Report Limit	Found Q	Found Q	Found Q	Found Q	Found Q
Arsenic	189.042	10	2.6 U	2.6 U			

6581296

STL-Pittsburgh

Metals Data Reporting Form

Preparation Blank Results

Lab Sample ID: DDWJ9BMatrix: Soil Units: mg/kg Prep Date: 5/30/00 Prep Batch: 0151223Weight: 1.00 Volume: 100 Percent Moisture: NA

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Arsenic	189.042	0.26	1.0	0.26	U	1	ICPST	5/30/00	20:08

Comments: Lot #: C0E240180

Version 3 63.4

U Result is less than the MDL
B Result is between MDL and RL

Form 3 Equivalent

Metals Data Reporting Form

Interference Check Standard A

Instrument: ICPSTUnits: ug/LChart Number: T00530C.ARCAcceptable Range: 0% - 0%Standard Source: Inorganic VenturesStandard ID: 0014-088-12

				ICSA 5/30/00 7:32 PM				
Element	WL/ Mass	Reporting Limit	True Conc	Found	Found	Found	Found	Found
Arsenic	189.042	10		1				

STL-Pittsburgh

6581298

Metals Data Reporting Form

Interference Check Standard AB

Instrument: ICPSTUnits: ug/LChart Number: T00530C.ARCAcceptable Range: 80% - 120%Standard Source: Inorganic VenturesStandard ID: 0014-075-12

Element	WL/ Mass	True Conc	ICSAB 5/30/00 7:37 PM									
			Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Arsenic	189.042	1000	1034.7	103.5								

STL-Pittsburgh

Metals Data Reporting Form

Matrix Spike Sample Results

Spike Sample ID: DDLX3S
Original Sample ID: DDLX3 **Client ID:** DF/S1/0143/SDC/002S
Matrix: Soil **Units:** mg/kg **Prep Date:** 5/30/00 **Prep Batch:** 0151223
Weight: 1.00 **Volume:** 100 **Percent Moisture:** 15.35

Element	WL/ Mass	OS Conc	Q	MS Conc	Q	Spike Level	% Rec	OS DF	MS DF	Instr	OS Anal Date	OS Anal Time	MS Anal Date	MS Anal Time
Arsenic	189.0	94		240		236.27	97.6	1	1	ICPST	5/30/00	20:25	5/30/00	20:33

Comments: Lot #: C0E240180 Sample #: 1

Version 3.63.4

U Result is less than the MDL
 B Result is between MDL and RL
 N Spike recovery failed
 NC Percent recovery was not calculated
 * Duplicate analysis RPD was not within limits

Form 5A Equivalent

6581300

STL-Pittsburgh

Metals Data Reporting Form

Matrix Spike Duplicate Sample Results

Spike Sample ID: DDLX3D
Original Sample ID: DDLX3 Client ID: DF/S1/0143/SDC/002D
Matrix: Soil Units: mg/kg Prep Date: 5/30/00 Prep Batch: 0151223
Weight: 1.00 Volume: 100 Percent Moisture: 15.35

Element	WL/ Mass	OS Conc	Q	MSD Conc	Q	Spike Level	% Rec	OS DF	MSD DF	Instr	OS Anal Date	OS Anal Time	MSD Anal Date	MSD Anal Time
Arsenic	189.0	9.4		232		236.27	94.2	1	1	ICPST	5/30/00	20:25	5/30/00	20:38

Comments: Lot #: C0E240180 Sample #: 1

Version 3 63.4

- U Result is less than the MDL
B Result is between MDL and RL
N Spike recovery failed
NC Percent recovery was not calculated
* Duplicate analysis RPD was not within limits

Form 5A Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Matrix Spike Duplicate RPD Report

Matrix Spike Duplicate Sample ID: DDLX3DMatrix Spike Sample ID: DDLX3S Client ID: DF/S1/0143/SDC/002DMatrix: Soil Units: mg/kg Prep Date: 5/30/00 Prep Batch: 0151223Weight: 1.00 Volume: 100 Percent Moisture: 15.35

Element	WL/ Mass	MS Conc	Q	MSD Conc	Q	RPD	MS DF	MSD DF	Instr	MS Anal Date	MS Anal Time	MSD Anal Date	MSD Anal Time
Arsenic	189.042	240		232		3.5 %	1	1	ICPST	5/30/00	20:33	5/30/00	20:38

Comments: Lot #. C0E240180 Sample #: 1

Version 3.63.4

- U Result is less than the MDL
- B Result is between MDL and RL
- N Spike recovery failed
- NC Percent recovery was not calculated
- * Duplicate analysis RPD was not within limits

Form 6 Equivalent

6581302

STL-Pittsburgh

Metals Data Reporting Form

Laboratory Control Sample Results

Lab Sample ID: DDWJ9CMatrix: Soil Units: mg/kg Prep Date: 5/30/00 Prep Batch: 0151223Weight: 1.00 Volume: 100 Percent Moisture: NA

Element	WL/ Mass	Spike Level	Conc	Percent Recovery	Q	Range	DF	Instr	Anal Date	Anal Time
Arsenic	189.042	200	188	93.9		80-120	1	ICPST	5/30/00	20:13

Comments: Lot #: C0E240180

Version 3 63.4

STL Pittsburgh

U Result is less than the MDL

B Result is between MDL and RL

Form 7 Equivalent

5016

STL-Pittsburgh

Metals Data Reporting Form

Serial Dilution RPD Report

Serial Dilution Sample ID: DDLX3POriginal Sample ID: DDLX3 Client ID: DF/S1/0143/SDC/002Matrix: Soil Units: mg/kg Prep Date: 5/30/00 Prep Batch: 0151223Weight: 1.00 Volume: 100 Percent Moisture: 15.35

Element	WL/ Mass	OS Conc	Q	Serial Dilution Conc	Q	Percent Diff	OS DF	Ser Dil DF	Instr	OS Anal Date	OS Anal Time	Ser Dil Anal Date	Ser Dil Anal Time
Arsenic	189.042	9.4		10.1			1	5	ICPST	5/30/00	20:25	5/30/00	20:29

Comments: _____

Version 3.63.4

U Result is less than the MDL

B Result is between MDL and RL

E Serial dilution percent difference not within limits

Form 9 Equivalent

6581304

STL-Pittsburgh

Metals Data Reporting Form

Instrument Detection Limits

Instrument: ICPST

Units: ppb

Element	Wavelength /Mass	Reporting Limit	MDL	Date of MDL
Arsenic	189.04	10	2.6	4/1/00

Metals Data Reporting Form

Inter-Element Correction Factors

Instrument: ICPST Date of IEC's: 5/30/00

Interfering Element	Wavelength /Mass	Correction Factor(s)
Aluminum	308.215	Pb(0.000457), Se(0.00001), Tl(-0.00002)
Aluminum	308.215	Pb(-0.000157), Se(0.000011)
Chromium	267.716	Sb(0.006664)
Chromium	267.716	As(-0.002441), Sb(0.010481)
Cobalt	228.616	Se(-0.000324)
Cobalt	228.616	Cd(-0.000111), Fe(0.08869), Ni(-0.00066), Se(0.000351), Tl(0.002179)
Iron	271.441	Cd(0.000111), Pb(0.000107), Sb(0.000019), Se(-0.000024), V(-0.000349), Zn(0.000127)
Iron	271.441	Pb(0.000054), Sb(0.000021), Se(-0.000313)
Magnesium	279.078	Fe(-0.000306)
Manganese	257.61	Tl(-0.006029)
Molybdenum	202.03	Pb(-0.00068), Sb(-0.009237)
Molybdenum	202.03	Al(0.011136), As(-0.002441), Cr(-0.000312), Pb(-0.000307), Sb(-0.002657)
Nickel	231.604	Pb(0.000247), Sb(-0.000886), Zn(0.004557)
Nickel	231.604	Pb(0.000124)
Vanadium	292.402	Al(0.02185), Be(-0.0083), Cr(-0.000183), Fe(0.007812), Sb(-0.007991), Se(0.000216), Tl(0.001386)
Vanadium	292.402	Pb(-0.000475), Se(0.000099)

6581306

STL-Pittsburgh

Metals Data Reporting Form

Linear Dynamic Ranges

Instrument: ICPST

Units: ppb

Element	Wavelength /Mass	Linear Range	Date of Linear Range
Arsenic	189.04	10000	3/15/00

Metals Data Reporting Form

Preparation Log

Preparation Batch: 0151223 Instrument: ICP Matrix: Soil

Sample ID	Prep Date	Weight (g)	Volume (ml)	% Moisture
DDWJ9B	5/30/00	1.00	100	NA
DDWJ9C	5/30/00	1.00	100	NA
DDLX3	5/30/00	1.00	100	15.35
DDLX3D	5/30/00	1.00	100	15.35
DDLX3S	5/30/00	1.00	100	15.35
DDLX6	5/30/00	1.00	100	18.97

6581308

STL-Pittsburgh
Metals Data Reporting Form

Instrument Runlog

Instrument: ICPSTChart Number: T00530C.ARC

Sample Name	Date of Analysis	Time of Analysis
STD1	5/30/00	7:12 PM
STD6	5/30/00	7:16 PM
STD7	5/30/00	7:20 PM
ICV3-1	5/30/00	7:24 PM
ICB1	5/30/00	7:28 PM
ICSA	5/30/00	7:32 PM
ICSAB	5/30/00	7:37 PM
ZZZZZZ	5/30/00	7:43 PM
ZZZZZZ	5/30/00	7:47 PM
ZZZZZZ	5/30/00	7:51 PM
ZZZZZZ	5/30/00	7:55 PM
ZZZZZZ	5/30/00	8:00 PM
ZZZZZZ	5/30/00	8:04 PM
DDWJ9B	5/30/00	8:08 PM
DDWJ9C	5/30/00	8:13 PM
CCV3-1	5/30/00	8:17 PM
CCB1	5/30/00	8:21 PM
DDLX3	5/30/00	8:25 PM
DDLX3P	5/30/00	8:29 PM
DDLX3S	5/30/00	8:33 PM
DDLX3D	5/30/00	8:38 PM
DDLX6	5/30/00	8:42 PM
ZZZZZZ	5/30/00	8:46 PM
ZZZZZZ	5/30/00	8:50 PM
ZZZZZZ	5/30/00	8:54 PM
ZZZZZZ	5/30/00	8:58 PM
ZZZZZZ	5/30/00	9:02 PM
CCV3-2	5/30/00	9:07 PM
CCB2	5/30/00	9:11 PM
ZZZZZZ	5/30/00	9:15 PM
ZZZZZZ	5/30/00	9:19 PM
ZZZZZZ	5/30/00	9:23 PM
ZZZZZZ	5/30/00	9:27 PM
ZZZZZZ	5/30/00	9:32 PM
ZZZZZZ	5/30/00	9:36 PM
ZZZZZZ	5/30/00	9:40 PM
ZZZZZZ	5/30/00	9:44 PM
ZZZZZZ	5/30/00	9:48 PM
ZZZZZZ	5/30/00	9:52 PM
ZZZZZZ	5/30/00	9:56 PM
ZZZZZZ	5/30/00	10:01 PM

Metals Data Reporting Form

Instrument Runlog

Instrument: ICPSTChart Number: T00530C.ARC

Sample Name	Date of Analysis	Time of Analysis
ZZZZZZ	5/30/00	10:05 PM
ZZZZZZ	5/30/00	10:09 PM
ZZZZZZ	5/30/00	10:13 PM
ZZZZZZ	5/30/00	10:17 PM
ZZZZZZ	5/30/00	10:21 PM
ZZZZZZ	5/30/00	10:26 PM
ZZZZZZ	5/30/00	10:30 PM
ZZZZZZ	5/30/00	10:34 PM
ZZZZZZ	5/30/00	10:38 PM
ZZZZZZ	5/30/00	10:42 PM
ZZZZZZ	5/30/00	10:46 PM
ZZZZZZ	5/30/00	10:51 PM
ZZZZZZ	5/30/00	10:55 PM
ZZZZZZ	5/30/00	10:59 PM
ZZZZZZ	5/30/00	11:03 PM
ZZZZZZ	5/30/00	11:07 PM
ZZZZZZ	5/30/00	11:11 PM
ZZZZZZ	5/30/00	11:15 PM
ZZZZZZ	5/30/00	11:20 PM
ZZZZZZ	5/30/00	11:24 PM
ZZZZZZ	5/30/00	11:28 PM
ZZZZZZ	5/30/00	11:32 PM
ZZZZZZ	5/30/00	11:36 PM
ZZZZZZ	5/30/00	11:40 PM
ZZZZZZ	5/30/00	11:45 PM
ZZZZZZ	5/30/00	11:49 PM
ZZZZZZ	5/30/00	11:53 PM
ZZZZZZ	5/30/00	11:57 PM
ZZZZZZ	5/31/00	12:01 AM
ZZZZZZ	5/31/00	12:05 AM
ZZZZZZ	5/31/00	12:10 AM
ZZZZZZ	5/31/00	12:14 AM
ZZZZZZ	5/31/00	12:18 AM
ZZZZZZ	5/31/00	12:22 AM

6581310

**METALS
RAW DATA**

Remarked 53100
Sample Name AS

1	STD1	-.01503
2	STD6	5.96259
3	STD7	
4	ICV3-1 0014-110-4	.25544
5	ICB1	.00015
6	ICSA 0014-088-12	.00056
7	ICSAB 0014-075-12	1.0347
8	DDWJCB	.00053
9	DDWJCC	1.8594
10	DDNNA	.14301
11	DDNNAP5	.02960
12	DDNNAS	2.0347
13	DDNNAD	2.0228
14	DDWJ9B	.00161
15	DDWJ9C	1.8785
16	CCV3-1 0014-110-3	.50426
17	CCB1	-.00022
18	DDLX3	.07979
19	DDLX3P5	.01703
20	DDLX3S	2.0320
21	DDLX3D	1.9645
22	DDLX6	.08510
23	DDRMP	.07870
24	DD4TN	.00595
25	DD4TNF	.01241
26	DD4TN Raw Sample	.01638
27	DD4TNF Raw Sample	.02313
28	CCV3-2	.50374
29	CCB2	.00069
30	DDR9FB	.00003
31	DDR9FC	1.9767
32	DD7XD	.00453
33	DD7XDP5	.00122
34	DD7XDS	2.3984
35	DD7XDD	2.0179
36	DD7XE	.00703
37	DD7XF	.02402
38	DD7XG	.00063
39	DD7XH	.00082
40	CCV3-3	.50894
41	CCB3	.00159
42	DD7XJ	.00527
43	DD7XK	.02071
44	DD7XL	.01051
45	DD7XM	.00289
46	DD7XN	-.00037
47	DD7XP	.01421
48	DD7XQ	.00138
49	DD7XV	.00071
50	DD7XW	.00210
51	CCV3-4	.51225
52	CCB4	-.00001
53	DDRETBF	-.00031

#	Sample Name	AS
54	DDRETCF	1.9818
55	DD7XDF	.00120
56	DD7XDP5F	.00011
57	DD7XDSF	2.0842
58	DD7XDDF	2.4089
59	DD7XEF	.00482
60	DD7XFF	.02072
61	DD7XGF	.00145
62	DD7XHF	.00065
63	CCV3-5	.51416
64	CCB5	-.00033
65	DD7XJF	.00164
66	DD7XKF	.01124
67	DD7XLF	.00504
68	DD7XMF	.00109
69	DD7XNF	.00068
70	DD7XPF	.00633
71	DD7XQF	.00174
72	DD7XVF	-.00045
73	DD7XWF	.00055
74	CCV3-6	.52258
75	CCB6	.00050

R6 53100

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
1	STD1	T00530C	METTRA	05/30/00	19:12		X	IR
2	STD6	T00530C	METTRA	05/30/00	19:16		X	IR
3	STD7	T00530C	METTRA	05/30/00	19:20		X	IR
4	ICV3-1 0014-110-4	T00530C	METTRA	05/30/00	19:24	RJG	S	CONC
5	ICB1	T00530C	METTRA	05/30/00	19:28	RJG	S	CONC
6	ICSA 0014-088-12	T00530C	METTRA	05/30/00	19:32	RJG	Q	CONC
7	ICSAB 0014-075-12	T00530C	METTRA	05/30/00	19:37	RJG	Q	CONC
8	DDWJCB	T00530C	METTRA	05/30/00	19:43	RJG	S	CONC
9	DDWJCC	T00530C	METTRA	05/30/00	19:47	RJG	S	CONC
10	DDNNA	T00530C	METTRA	05/30/00	19:51	RJG	S	CONC
11	DDNNAP5	T00530C	METTRA	05/30/00	19:55	RJG	S	CONC
12	DDNNAS	T00530C	METTRA	05/30/00	20:00	RJG	S	CONC
13	DDNNAD	T00530C	METTRA	05/30/00	20:04	RJG	S	CONC
14	DDWJ9B	T00530C	METTRA	05/30/00	20:08	RJG	S	CONC
15	DDWJ9C	T00530C	METTRA	05/30/00	20:13	RJG	S	CONC
16	CCV3-1 0014-110-3	T00530C	METTRA	05/30/00	20:17	RJG	S	CONC
17	CCB1	T00530C	METTRA	05/30/00	20:21	RJG	S	CONC
18	DDLX3	T00530C	METTRA	05/30/00	20:25	RJG	S	CONC
19	DDLX3P5	T00530C	METTRA	05/30/00	20:29	RJG	S	CONC
20	DDLX3S	T00530C	METTRA	05/30/00	20:33	RJG	S	CONC
21	DDLX3D	T00530C	METTRA	05/30/00	20:38	RJG	S	CONC
22	DDLX6	T00530C	METTRA	05/30/00	20:42	RJG	S	CONC
23	DDRMP	T00530C	METTRA	05/30/00	20:46	RJG	S	CONC
24	DD4TN	T00530C	METTRA	05/30/00	20:50	RJG	S	CONC
25	DD4TNF	T00530C	METTRA	05/30/00	20:54	RJG	S	CONC
26	DD4TN Raw Sample	T00530C	METTRA	05/30/00	20:58	RJG	S	CONC
27	DD4TNF Raw Sample	T00530C	METTRA	05/30/00	21:02	RJG	S	CONC
28	CCV3-2	T00530C	METTRA	05/30/00	21:07	RJG	S	CONC
29	CCB2	T00530C	METTRA	05/30/00	21:11	RJG	S	CONC
30	DDR9FB	T00530C	METTRA	05/30/00	21:15	RJG	S	CONC
31	DDR9FC	T00530C	METTRA	05/30/00	21:19	RJG	S	CONC
32	DD7XD	T00530C	METTRA	05/30/00	21:23	RJG	S	CONC
33	DD7XDP5	T00530C	METTRA	05/30/00	21:27	RJG	S	CONC
34	DD7XDS	T00530C	METTRA	05/30/00	21:32	RJG	S	CONC
35	DD7XDD	T00530C	METTRA	05/30/00	21:36	RJG	S	CONC
36	DD7XE	T00530C	METTRA	05/30/00	21:40	RJG	S	CONC
37	DD7XF	T00530C	METTRA	05/30/00	21:44	RJG	S	CONC
38	DD7XG	T00530C	METTRA	05/30/00	21:48	RJG	S	CONC
39	DD7XH	T00530C	METTRA	05/30/00	21:52	RJG	S	CONC
40	CCV3-3	T00530C	METTRA	05/30/00	21:56	RJG	S	CONC
41	CCB3	T00530C	METTRA	05/30/00	22:01	RJG	S	CONC
42	DD7XJ	T00530C	METTRA	05/30/00	22:05	RJG	S	CONC
43	DD7XK	T00530C	METTRA	05/30/00	22:09	RJG	S	CONC
44	DD7XL	T00530C	METTRA	05/30/00	22:13	RJG	S	CONC
45	DD7XM	T00530C	METTRA	05/30/00	22:17	RJG	S	CONC
46	DD7XN	T00530C	METTRA	05/30/00	22:21	RJG	S	CONC
47	DD7XP	T00530C	METTRA	05/30/00	22:26	RJG	S	CONC
48	DD7XQ	T00530C	METTRA	05/30/00	22:30	RJG	S	CONC
49	DD7XV	T00530C	METTRA	05/30/00	22:34	RJG	S	CONC
50	DD7XW	T00530C	METTRA	05/30/00	22:38	RJG	S	CONC
51	CCV3-4	T00530C	METTRA	05/30/00	22:42	RJG	S	CONC
52	CCB4	T00530C	METTRA	05/30/00	22:46	RJG	S	CONC
53	DDRETB	T00530C	METTRA	05/30/00	22:51	RJG	S	CONC

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
54	DDRETCF	T00530C	METTRA	05/30/00	22:55	RJG	S	CONC
55	DD7XDF	T00530C	METTRA	05/30/00	22:59	RJG	S	CONC
56	DD7XDP5F	T00530C	METTRA	05/30/00	23:03	RJG	S	CONC
57	DD7XDSF	T00530C	METTRA	05/30/00	23:07	RJG	S	CONC
58	DD7XDDF	T00530C	METTRA	05/30/00	23:11	RJG	S	CONC
59	DD7XEF	T00530C	METTRA	05/30/00	23:15	RJG	S	CONC
60	DD7XFF	T00530C	METTRA	05/30/00	23:20	RJG	S	CONC
61	DD7XGF	T00530C	METTRA	05/30/00	23:24	RJG	S	CONC
62	DD7XHF	T00530C	METTRA	05/30/00	23:28	RJG	S	CONC
63	CCV3-5	T00530C	METTRA	05/30/00	23:32	RJG	S	CONC
64	CCB5	T00530C	METTRA	05/30/00	23:36	RJG	S	CONC
65	DD7XJF	T00530C	METTRA	05/30/00	23:40	RJG	S	CONC
66	DD7XKF	T00530C	METTRA	05/30/00	23:45	RJG	S	CONC
67	DD7XLF	T00530C	METTRA	05/30/00	23:49	RJG	S	CONC
68	DD7XMF	T00530C	METTRA	05/30/00	23:53	RJG	S	CONC
69	DD7XNF	T00530C	METTRA	05/30/00	23:57	RJG	S	CONC
70	DD7XPF	T00530C	METTRA	05/31/00	00:01	RJG	S	CONC
71	DD7XQF	T00530C	METTRA	05/31/00	00:05	RJG	S	CONC
72	DD7XVF	T00530C	METTRA	05/31/00	00:10	RJG	S	CONC
73	DD7XWF	T00530C	METTRA	05/31/00	00:14	RJG	S	CONC
74	CCV3-6	T00530C	METTRA	05/31/00	00:18	RJG	S	CONC
75	CCB6	T00530C	METTRA	05/31/00	00:22	RJG	S	CONC

Method: METTRA Standard: STD1
Run Time: 05/30/00 19:12:31

Elem	AG	AL	AS	BA	BE	CA	CD
Avge	-.00280	.13993	-.01503	.00025	-.07329	.00307	.00147
SDev	.00069	.00002	.00279	.00003	.00032	.00002	.00037
%RSD	24.815	.01703	18.552	10.192	.44200	.78642	25.127
#1	-.00329	.13995	-.01306	.00024	-.07306	.00309	.00121
#2	-.00231	.13991	-.01701	.00027	-.07352	.00305	.00173
Elem	CO	CR	CU	FE	MG	MN	MO
Avge	-.00122	-.00162	.01173	-.00145	-.00125	.00088	.00105
SDev	.00020	.00113	.00016	.00051	.00032	.00009	.00025
%RSD	16.471	70.133	1.3781	35.459	26.014	10.115	23.557
#1	-.00107	-.00242	.01162	-.00181	-.00148	.00094	.00087
#2	-.00136	-.00081	.01185	-.00109	-.00102	.00081	.00122
Elem	NI	PB/1	PB/2	SB/1	SB/2	SE/1	SE/2
Avge	.00003	.02815	.00573	-.03982	.01317	-.15421	.10338
SDev	.00005	.00017	.00658	.01320	.00201	.00015	.00556
%RSD	141.42	.58889	114.91	33.141	15.264	.09916	5.3743
#1	.00000	.02827	.00107	-.03049	.01175	-.15432	.10731
#2	.00007	.02804	.01039	-.04915	.01460	-.15410	.09945
Elem	TL	V	ZN				
Avge	-.04843	.00000	-.00064				
SDev	.00340	.00000	.00010				
%RSD	7.0200	.00000	15.645				
#1	-.05084	.00000	-.00057				
#2	-.04603	.00000	-.00071				

6581316

Standardization Rpt.

05/30/00 07:16:40 PM

page 2

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14811	--	--	--	--	--	--
SDev	113.7026	--	--	--	--	--	--
%RSD	.7677008	--	--	--	--	--	--
#1	14891	--	--	--	--	--	--
#2	14730	--	--	--	--	--	--

Method: METTRA Standard: STD6
Run Time: 05/30/00 19:16:45

0014087-8

Elem	AG	AS	CD	PB/1	PB/2	SB/1	SB/2
Avge	11.425	5.9626	13.628	5.5416	7.3338	10.415	6.9206
SDev	.060	.0324	.085	.0106	.0125	.025	.0149
%RSD	.52304	.54410	.62017	.19139	.17105	.23867	.21582

#1	11.467	5.9855	13.688	5.5491	7.3427	10.433	6.9311
#2	11.382	5.9397	13.568	5.5341	7.3250	10.397	6.9100

Elem	SE/1	SE/2	TL
Avge	5.7282	5.6608	4.3719
SDev	.0274	.0218	.0222
%RSD	.47753	.38567	.50824

#1	5.7475	5.6762	4.3876
#2	5.7088	5.6453	4.3562

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14785	--	--	--	--	--	--
SDev	99.24216	--	--	--	--	--	--
%RSD	.6712320	--	--	--	--	--	--
#1	14715	--	--	--	--	--	--
#2	14855	--	--	--	--	--	--

6581318

Standardization Rpt.

05/30/00 07:24:32 PM

page 1

Method: METTRA Standard: STD7
 Run Time: 05/30/00 19:20:56

0014087.9

Elem	AL	BA	BE	CA	CO	CR	CU
Avge	7.3243	13.719	12.244	4.7778	3.1539	12.299	3.7366
SDev	.0169	.052	.020	.0031	.0061	.022	.0103
%RSD	.23136	.38056	.16678	.06391	.19210	.17900	.27639

#1	7.3363	13.756	12.258	4.7799	3.1582	12.314	3.7439
#2	7.3123	13.682	12.230	4.7756	3.1497	12.283	3.7293

Elem	FE	MG	MN	MO	NI	V	ZN
Avge	4.1617	14.767	10.569	2.3728	2.5955	.85789	3.3020
SDev	.0093	.038	.027	.0065	.0041	.00094	.0035
%RSD	.22343	.25857	.25786	.27476	.15654	.10961	.10682

#1	4.1683	14.794	10.588	2.3682	2.5984	.85856	3.3045
#2	4.1551	14.740	10.550	2.3774	2.5927	.85723	3.2995

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14508	--	--	--	--	--	--
SDev	48.04804	--	--	--	--	--	--
%RSD	.3311779	--	--	--	--	--	--

#1	14474	--	--	--	--	--	--
#2	14542	--	--	--	--	--	--

Method: METTRA

Slope = Conc(SIR)/IR

Element	Wavelen	High std	Low std	Slope	Y-intercept	Date Standardized
AG	328.068	STD6	STD1	.175019	.000490	05/30/00 07:20:56
AL	308.215	STD7	STD1	6.97793	-.976433	05/30/00 07:20:56
AS	189.042	STD6	STD1	.167291	.002515	05/30/00 07:20:56
BA	493.409	STD7	STD1	.291568	-.000074	05/30/00 07:20:56
BE	313.042	STD7	STD1	.322051	.023604	05/30/00 07:20:56
CA	317.933	STD7	STD1	20.9437	-.064339	05/30/00 07:20:56
CD	226.502	STD6	STD1	.073386	-.000108	05/30/00 07:20:56
CO	228.616	STD7	STD1	1.26776	.001542	05/30/00 07:20:56
CR	267.716	STD7	STD1	.325039	.000525	05/30/00 07:20:56
CU	324.753	STD7	STD1	1.07386	-.012598	05/30/00 07:20:56
FE	271.441	STD7	STD1	12.0954	.017534	05/30/00 07:20:56
MG	279.078	STD7	STD1	6.77125	.008449	05/30/00 07:20:56
MN	257.610	STD7	STD1	.378493	-.000332	05/30/00 07:20:56
MO	202.030	STD7	STD1	1.68651	-.001767	05/30/00 07:20:56
NI	231.604	STD7	STD1	1.54011	-.000052	05/30/00 07:20:56
PB/1	220.351	STD6	STD1	.181374	-.005106	05/30/00 07:20:56
PB/2	220.352	STD6	STD1	.136461	-.000782	05/30/00 07:20:56
PB	220.353	NONE	NONE	.000000	.000000	*NOT STANDARDIZED
SB/1	206.831	STD6	STD1	.095649	.003809	05/30/00 07:20:56
SB/2	206.832	STD6	STD1	.144772	-.001907	05/30/00 07:20:56
SB	220.353	NONE	NONE	.000000	.000000	*NOT STANDARDIZED
SE/1	196.021	STD6	STD1	.169999	.026216	05/30/00 07:20:56
SE/2	196.022	STD6	STD1	.179940	-.018603	05/30/00 07:20:56
SE	220.353	NONE	NONE	.000000	.000000	*NOT STANDARDIZED
TL	190.864	STD6	STD1	.452457	.021913	05/30/00 07:20:56
V	292.402	STD7	STD1	4.64223	.000000	05/30/00 07:20:56
ZN	213.856	STD7	STD1	1.21861	.000782	05/30/00 07:20:56

Method: METTRA Sample Name: ICV3-1 0014-110-4 Operator: RJG
Run Time: 05/30/00 19:24:36
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Amended
53100

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.51459	11.936	.25545	.99439	.99872	25.056	.25100
SDev	.00249	.063	.00159	.00253	.00967	.268	.00208
%RSD	.48321	.52666	.62277	.25480	.96804	1.0693	.82731
#1	.51635	11.981	.25657	.99619	1.0056	25.245	.25247
#2	.51283	11.892	.25432	.99260	.99189	24.867	.24953
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.55000	13.750	.27500	1.1000	1.1000	27.500	.27500
Low	.45000	11.250	.22500	.90000	.90000	22.500	.22500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0125	1.0178	.96396	12.420	23.957	.99293	1.0230
SDev	.0068	.0076	.00446	.117	.162	.00668	.0069
%RSD	.67568	.75050	.46277	.94259	.67635	.67313	.67257
#1	1.0174	1.0232	.96711	12.503	24.071	.99766	1.0278
#2	1.0077	1.0124	.96080	12.338	23.842	.98820	1.0181
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	1.1000	1.1000	13.750	27.500	1.1000	1.1000
Low	.90000	.90000	.90000	11.250	22.500	.90000	.90000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0103	.26027	.25295	.25539	.25561	.25706	.25657
SDev	.0103	.00042	.00307	.00191	.00308	.00063	.00145
%RSD	1.0186	.16339	1.2153	.74741	1.2048	.24446	.56304
#1	1.0176	.25997	.25513	.25674	.25778	.25750	.25760
#2	1.0030	.26057	.25078	.25404	.25343	.25661	.25555
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	1.1000			.27500			.27500
Low	.90000			.22500			.22500
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.26258	.25909	.26025	.52030	1.0042	1.0388	
SDev	.00327	.00135	.00019	.00349	.0111	.0098	
%RSD	1.2470	.52251	.07203	.67114	1.1064	.94278	
#1	.26027	.26005	.26012	.52276	1.0120	1.0458	
#2	.26490	.25813	.26039	.51783	.99631	1.0319	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.27500	.55000	1.1000	1.1000	
Low			.22500	.45000	.90000	.90000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14661	--	--	--	--	--	--
SDev	86.79736	--	--	--	--	--	--
%RSD	.5920359	--	--	--	--	--	--
#1	14599	--	--	--	--	--	--
#2	14722	--	--	--	--	--	--

Method: METTRA Sample Name: ICB1

Operator: RJG

Run Time: 05/30/00 19:28:46

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00057	-.02739	.00015	.00039	.00061	.01371	-.00015
SDev	.00030	.00817	.00036	.00024	.00018	.00258	.00004
%RSD	53.456	29.815	235.35	62.689	29.811	18.821	29.441
#1	.00078	-.02161	-.00010	.00022	.00048	.01188	-.00018
#2	.00035	-.03316	.00041	.00056	.00074	.01553	-.00012
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00014	.00067	.00074	.01112	.00979	.00045	.00530
SDev	.00010	.00008	.00006	.01017	.00001	.00009	.00090
%RSD	67.457	11.497	8.8814	91.498	.06145	18.659	16.926
#1	.00007	.00072	.00069	.00392	.00979	.00039	.00593
#2	.00021	.00061	.00078	.01831	.00979	.00051	.00467
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.02500	.10000	5.0000	.01500	.04000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00056	.00093	-.00034	.00008	.00012	.00044	.00033
SDev	.00072	.00540	.00021	.00194	.00017	.00078	.00058
%RSD	128.30	579.98	60.893	2359.5	142.24	178.25	173.81
#1	-.00107	.00475	-.00019	.00145	-.00000	-.00011	-.00008
#2	-.00005	-.00289	-.00049	-.00129	.00025	.00099	.00074
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.04000			.00300			.06000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00417	-.00298	-.00060	.00301	.00031	.00307	
SDev	.00040	.00080	.00040	.00243	.00044	.00027	
%RSD	9.6047	26.716	66.228	80.542	140.79	8.7629	
#1	.00389	-.00242	-.00032	.00473	.00000	.00288	
#2	.00445	-.00355	-.00088	.00130	.00062	.00326	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.00500	.01000	.05000	.02000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	15160	--	--	--	--	--	--
SDev	68.05903	--	--	--	--	--	--
%RSD	.4489300	--	--	--	--	--	--
#1	15112	--	--	--	--	--	--
#2	15208	--	--	--	--	--	--

Method: METTRA Sample Name: ICSA 0014-088-12 Operator: RJG
 Run Time: 05/30/00 19:32:56
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00087	519.50	.00056	.00205	-.00177	481.54	-.00176
SDev	.00042	9.01	.00063	.00013	.00047	7.14	.00021
%RSD	47.913	1.7346	111.19	6.0949	26.443	1.4823	12.076
#1	.00058	513.13	.00012	.00196	-.00144	476.49	-.00191
#2	.00117	525.87	.00101	.00214	-.00210	486.59	-.00161
Errors	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	QC Pass	NOCHECK
Value		500.00				500.00	
Range		20.000				20.000	
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00067	.00241	.00025	203.94	529.35	.00804	-.00000
SDev	.00027	.00023	.00013	3.52	8.49	.00024	.00057
%RSD	41.076	9.5791	52.321	1.7245	1.6030	2.9369	71307.
#1	.00086	.00225	.00016	201.45	523.35	.00787	.00041
#2	.00047	.00257	.00034	206.43	535.35	.00821	-.00041
Errors	NOCHECK	NOCHECK	NOCHECK	QC Pass	QC Pass	NOCHECK	NOCHECK
Value				200.00	500.00		
Range				20.000	20.000		
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00113	.00813	-.00108	.00198	-.00090	.00022	-.00015
SDev	.00136	.00409	.00294	.00060	.00104	.00009	.00040
%RSD	120.31	50.264	271.07	30.167	115.68	38.089	266.34
#1	.00017	.00524	.00099	.00241	-.00016	.00028	.00013
#2	.00209	.01102	-.00316	.00156	-.00164	.00016	-.00044
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value							
Range							
Elem	SE/1	SE/2	SE	TL	V ₋	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.01065	-.00943	-.00274	.00706	.00734	.00062	
SDev	.00315	.00147	.00203	.00532	.00064	.00010	
%RSD	29.608	15.575	73.999	75.359	8.7306	16.234	
#1	.00842	-.01046	-.00418	.00330	.00689	.00055	
#2	.01287	-.00839	-.00131	.01082	.00780	.00069	
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	
Value							
Range							

6581325

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	13812	--	--	--	--	--	--
SDev	229.7393	--	--	--	--	--	--
%RSD	1.663373	--	--	--	--	--	--
#1	13974	--	--	--	--	--	--
#2	13649	--	--	--	--	--	--

Method: METTRA Sample Name: ICSAB 0014-075-12 Operator: RJG
 Run Time: 05/30/00 19:37:06
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.1425	531.08	1.0347	.53945	.49858	493.34	.94674
SDev	.0113	5.96	.0133	.00623	.00406	3.75	.00945
%RSD	.99278	1.1219	1.2830	1.1554	.81486	.75954	.99769
#1	1.1345	526.86	1.0253	.53505	.49571	490.69	.94006
#2	1.1505	535.29	1.0441	.54386	.50145	495.99	.95342
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	500.00	1.0000	.50000	.50000	500.00	1.0000
Range	20.000	20.000	20.000	20.000	20.000	20.000	20.000
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50178	.51279	.56046	209.35	540.31	.52008	.99915
SDev	.00551	.00485	.00625	2.13	5.37	.00502	.01613
%RSD	1.0984	.94492	1.1145	1.0187	.99342	.96460	1.6148
#1	.49788	.50936	.55604	207.84	536.52	.51654	.98774
#2	.50568	.51622	.56488	210.86	544.11	.52363	1.0106
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	.50000	.50000	200.00	500.00	.50000	1.0000
Range	20.000	20.000	20.000	20.000	20.000	20.000	20.000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0120	1.0751	1.0317	1.0462	1.0643	1.0597	1.0612
SDev	.0082	.0069	.0055	.0060	.0117	.0070	.0086
%RSD	.80751	.64262	.53116	.56930	1.1025	.66443	.81073
#1	1.0062	1.0702	1.0279	1.0420	1.0560	1.0547	1.0551
#2	1.0178	1.0800	1.0356	1.0504	1.0726	1.0647	1.0673
Errors	QC Pass	NOCHECK	NOCHECK	QC Pass	NOCHECK	NOCHECK	QC Pass
Value	1.0000			1.0000			1.0000
Range	20.000			20.000			20.000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	1.0337	1.0586	1.0503	1.0894	.52699	1.0691	
SDev	.0030	.0080	.0063	.0124	.00688	.0099	
%RSD	.28602	.75810	.60339	1.1400	1.3045	.92615	
#1	1.0316	1.0530	1.0458	1.0806	.52213	1.0621	
#2	1.0358	1.0643	1.0548	1.0982	.53185	1.0761	
Errors	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass	QC Pass	
Value			1.0000	1.0000	.50000	1.0000	
Range			20.000	20.000	20.000	20.000	

6581327

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	---	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	13685	--	--	--	--	--	--
SDev	83.58016	--	--	--	--	--	--
%RSD	.6107384	--	--	--	--	--	--
#1	13744	--	--	--	--	--	--
#2	13626	--	--	--	--	--	--

Method: METTRA Sample Name: DDWJCB

Operator: RJG

Run Time: 05/30/00 19:43:32

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00077	.02170	.00053	.00127	-.00091	.22933	.00016
SDev	.00028	.00516	.00030	.00001	.00014	.00282	.00008
%RSD	35.748	23.798	56.763	1.0176	15.927	1.2310	51.744
#1	.00057	.02535	.00032	.00126	-.00080	.23132	.00010
#2	.00096	.01805	.00075	.00128	-.00101	.22733	.00022
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00034	.00083	.00246	.03553	.06808	.00113	.00202
SDev	.00030	.00024	.00059	.00170	.00140	.00001	.00072
%RSD	88.574	28.766	23.961	4.7867	2.0505	.55876	35.929
#1	-.00055	.00066	.00204	.03673	.06907	.00113	.00253
#2	-.00013	.00100	.00288	.03433	.06709	.00114	.00151
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.02500	.10000	5.0000	.01500	.04000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00016	.00410	-.00221	-.00011	-.00141	.00023	-.00032
SDev	.00030	.00138	.00110	.00119	.00041	.00011	.00021
%RSD	187.81	33.673	49.704	1097.6	28.969	50.589	66.391
#1	.00037	.00312	-.00298	-.00095	-.00170	.00014	-.00047
#2	-.00005	.00507	-.00143	.00073	-.00112	.00031	-.00017
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.04000			.00300			.06000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V__	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	-.00100	-.00266	-.00211	-.00541	.00193	.00981	
SDev	.00024	.00153	.00110	.00110	.00271	.00055	
%RSD	24.221	57.522	52.272	20.341	140.54	5.5734	
#1	-.00083	-.00158	-.00133	-.00619	.00385	.00942	
#2	-.00117	-.00374	-.00289	-.00463	.00001	.01019	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.00500	.01000	.05000	.02000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14477	--	--	--	--	--	--
SDev	62.54373	--	--	--	--	--	--
%RSD	.4320132	--	--	--	--	--	--
#1	14522	--	--	--	--	--	--
#2	14433	--	--	--	--	--	--

Method: METTRA Sample Name: DDWJCC

Operator: RJG

Run Time: 05/30/00 19:47:41

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04879	1.9855	1.8594	1.8539	.04590	46.837	.04538
SDev	.00049	.0007	.0040	.0052	.00026	.097	.00001
%RSD	1.0037	.03633	.21314	.28220	.56399	.20651	.02173
#1	.04844	1.9850	1.8622	1.8576	.04608	46.906	.04538
#2	.04913	1.9860	1.8566	1.8502	.04571	46.769	.04539
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.06000	2.4000	2.4000	2.4000	.06000	60.000	.06000
Low	.04000	1.6000	1.6000	1.6000	.04000	40.000	.04000
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.46719	.18742	.23272	.87980	45.246	.46254	.93147
SDev	.00093	.00037	.00002	.00007	.064	.00036	.00501
%RSD	.19972	.19740	.00653	.00854	.14214	.07724	.53785
#1	.46785	.18716	.23271	.87985	45.292	.46280	.92793
#2	.46653	.18769	.23273	.87975	45.201	.46229	.93502
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.60000	.24000	.30000	1.2000	60.000	.60000	1.2000
Low	.40000	.16000	.20000	.80000	40.000	.40000	.80000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.46446	.48455	.47227	.47636	.45107	.45817	.45581
SDev	.00372	.00481	.00144	.00064	.00387	.00460	.00435
%RSD	.80139	.99349	.30404	.13547	.85701	1.0034	.95519
#1	.46710	.48114	.47329	.47590	.44834	.45492	.45273
#2	.46183	.48795	.47126	.47681	.45381	.46142	.45888
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.60000			.60000			.60000
Low	.40000			.40000			.40000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	1.8728	1.9023	1.8925	1.9597	.45908	.49761	
SDev	.0137	.0123	.0128	.0053	.00051	.00027	
%RSD	.73129	.64807	.67549	.27227	.11132	.05497	
#1	1.8631	1.8936	1.8834	1.9635	.45944	.49741	
#2	1.8825	1.9110	1.9015	1.9559	.45872	.49780	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			2.4000	2.4000	.60000	.60000	
Low			1.6000	1.6000	.40000	.40000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14784	--	--	--	--	--	--
SDev	55.08320	--	--	--	--	--	--
%RSD	.3725979	--	--	--	--	--	--
#1	14822	--	--	--	--	--	--
#2	14745	--	--	--	--	--	--

Method: METTRA Sample Name: DDNNA

Operator: RJG

Run Time: 05/30/00 19:51:50

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00100	36.562	.14301	.60351	.00295	96.128	.00194
SDev	.00017	.392	.00076	.00551	.00036	.698	.00058
%RSD	16.747	1.0729	.52909	.91375	12.383	.72637	29.694
#1	.00088	36.284	.14248	.59961	.00320	95.634	.00154
#2	.00112	36.839	.14355	.60741	.00269	96.621	.00235
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04469	.16639	.57247	153.81	28.448	1.7681	.01104
SDev	.00024	.00114	.00541	1.56	.264	.0154	.00029
%RSD	.53477	.68821	.94568	1.0129	.92653	.87310	2.5916
#1	.04452	.16558	.56864	152.71	28.262	1.7572	.01125
#2	.04486	.16720	.57630	154.91	28.634	1.7790	.01084
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09909	3.3883	3.3206	3.3431	.01608	.01452	.01504
SDev	.00140	.0244	.0504	.0418	.00129	.00113	.00118
%RSD	1.4133	.72024	1.5188	1.2493	8.0133	7.7930	7.8715
#1	.10008	3.3710	3.2849	3.3136	.01517	.01372	.01420
#2	.09810	3.4055	3.3563	3.3727	.01699	.01532	.01587
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.01606	.00308	.00740	.00608	.21004	1.4071	
SDev	.00266	.00009	.00095	.00040	.00184	.0115	
%RSD	16.553	2.9859	12.789	6.5348	.87464	.81878	
#1	.01418	.00301	.00673	.00637	.20874	1.3990	
#2	.01793	.00314	.00807	.00580	.21134	1.4153	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	15204	--	--	--	--	--	--
SDev	125.7593	--	--	--	--	--	--
%RSD	.8271478	--	--	--	--	--	--
#1	15293	--	--	--	--	--	--
#2	15115	--	--	--	--	--	--

Method: METTRA Sample Name: DDNNAP5 Operator: RJG
 Run Time: 05/30/00 19:55:59
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00063	7.2540	.02960	.12476	-.00005	20.296	.00038
SDev	.00040	.3109	.00109	.00491	.00056	.781	.00006
%RSD	63.934	4.2855	3.6774	3.9342	1215.3	3.8497	16.774
#1	.00034	7.4738	.03037	.12823	-.00044	20.848	.00033
#2	.00091	7.0342	.02883	.12129	.00035	19.743	.00042

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01079	.03557	.11546	32.197	5.8014	.37131	.00317
SDev	.00004	.00093	.00477	1.222	.2216	.01381	.00034
%RSD	.39026	2.6119	4.1317	3.7961	3.8200	3.7206	10.552
#1	.01082	.03623	.11883	33.061	5.9581	.38108	.00294
#2	.01076	.03491	.11209	31.333	5.6447	.36154	.00341

Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02024	.70178	.70057	.70097	.00335	.00236	.00269
SDev	.00078	.01900	.02255	.02137	.00218	.00077	.00124
%RSD	3.8395	2.7070	3.2195	3.0487	64.987	32.543	46.023
#1	.02079	.71522	.71652	.71609	.00490	.00290	.00356
#2	.01969	.68835	.68462	.68586	.00181	.00181	.00181

Elem	SE/1	SE/2	SE	TL	V_	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00299	.00141	.00193	.00246	.04497	.30394
SDev	.00145	.00192	.00080	.00006	.00170	.01142
%RSD	48.507	136.63	41.370	2.5802	3.7706	3.7575
#1	.00401	.00005	.00137	.00241	.04617	.31202
#2	.00196	.00277	.00250	.00250	.04378	.29587

Analysis Report

05/30/00 08:00:05 PM

page 2

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14665	--	--	--	--	--	--
SDev	454.3865	--	--	--	--	--	--
%RSD	3.098505	--	--	--	--	--	--
#1	14343	--	--	--	--	--	--
#2	14986	--	--	--	--	--	--

Method: METTRA Sample Name: DDNNAS

Operator: RJG

Run Time: 05/30/00 20:00:08

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04986	99.162	2.0347	2.7289	.05002	161.45	.04536
SDev	.00013	.361	.0095	.0064	.00007	.79	.00058
%RSD	.25300	.36439	.46695	.23418	.13187	.48640	1.2746
#1	.04977	98.907	2.0280	2.7244	.04997	160.90	.04495
#2	.04995	99.418	2.0415	2.7334	.05007	162.01	.04577
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.51839	.42677	.75977	184.13	68.713	2.2817	.90957
SDev	.00290	.00230	.00233	1.01	.293	.0117	.01008
%RSD	.55865	.53904	.30702	.54965	.42706	.51481	1.1077
#1	.51634	.42514	.75812	183.41	68.506	2.2734	.90244
#2	.52044	.42839	.76142	184.84	68.921	2.2900	.91669
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.59665	3.7335	3.6331	3.6665	.29243	.29494	.29410
SDev	.00040	.0204	.0052	.0103	.00253	.00227	.00235
%RSD	.06635	.54769	.14368	.28067	.86461	.76811	.80006
#1	.59637	3.7191	3.6294	3.6593	.29064	.29334	.29244
#2	.59693	3.7480	3.6368	3.6738	.29421	.29654	.29577
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	1.8526	1.8931	1.8796	1.8966	.76342	2.2237	
SDev	.0072	.0013	.0015	.0078	.00160	.0100	
%RSD	.38914	.07032	.08048	.40981	.20890	.44768	
#1	1.8475	1.8940	1.8786	1.8911	.76230	2.2166	
#2	1.8577	1.8922	1.8807	1.9021	.76455	2.2307	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	15212	--	--	--	--	--	--
SDev	73.96310	--	--	--	--	--	--
%RSD	.4862075	--	--	--	--	--	--
#1	15265	--	--	--	--	--	--
#2	15160	--	--	--	--	--	--

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Method: METTRA Sample Name: DDNNAD Operator: RJG
 Run Time: 05/30/00 20:04:46
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04965	104.21	2.0228	2.7599	.05215	136.43	.04360
SDev	.00019	.21	.0336	.0061	.00178	2.85	.00165
%RSD	.39268	.20314	1.6633	.22185	3.4104	2.0896	3.7843
#1	.04952	104.06	2.0466	2.7556	.05341	138.45	.04244
#2	.04979	104.36	1.9990	2.7642	.05089	134.41	.04477
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.51864	.44141	.70463	194.29	70.405	2.4449	.91727
SDev	.00198	.00273	.00196	.61	.595	.0117	.00370
%RSD	.38136	.61854	.27828	.31524	.84450	.47861	.40301
#1	.52003	.44335	.70602	194.72	70.826	2.4532	.91989
#2	.51724	.43948	.70325	193.86	69.985	2.4366	.91466
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.59737	3.8035	3.7239	3.7504	.27622	.27663	.27649
SDev	.02235	.0255	.0694	.0548	.00991	.00296	.00528
%RSD	3.7422	.67039	1.8643	1.4611	3.5892	1.0699	1.9080
#1	.61317	3.8215	3.7730	3.7891	.28323	.27872	.28022
#2	.58156	3.7854	3.6748	3.7116	.26921	.27454	.27276
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	1.8132	1.8717	1.8522	1.9344	.75052	2.0327	
SDev	.0009	.0326	.0221	.0472	.01639	.0362	
%RSD	.04761	1.7438	1.1909	2.4382	2.1845	1.7791	
#1	1.8138	1.8948	1.8678	1.9678	.76212	2.0583	
#2	1.8125	1.8486	1.8366	1.9010	.73893	2.0072	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	15307	--	--	--	--	--	--
SDev	55.08320	--	--	--	--	--	--
%RSD	.3598481	--	--	--	--	--	--
#1	15268	--	--	--	--	--	--
#2	15346	--	--	--	--	--	--

Method: METTRA Sample Name: DDWJ9B

Operator: RJG

Run Time: 05/30/00 20:08:54

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00034	.00615	.00161	.00288	-.00030	.32782	.00002
SDev	.00007	.02547	.00248	.00104	.00019	.05389	.00002
%RSD	19.577	413.93	153.40	36.239	63.928	16.439	87.235
#1	.00038	-.01186	-.00014	.00214	-.00043	.28972	.00004
#2	.00029	.02417	.00337	.00362	-.00016	.36593	.00001
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00038	.00100	.00350	H.12212	.08383	.00223	.00401
SDev	.00019	.00042	.00020	.07328	.02305	.00103	.00029
%RSD	50.367	41.716	5.6772	60.011	27.494	46.236	7.2671
#1	.00025	.00070	.00336	.07030	.06753	.00150	.00421
#2	.00052	.00129	.00364	H.17394	.10012	.00296	.00380
Errors	LC Pass	LC Pass	LC Pass	LC High	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.02500	.10000	5.0000	.01500	.04000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00162	.00553	-.00054	.00148	.00237	.00363	.00321
SDev	.00001	.00019	.00072	.00055	.00203	.00131	.00155
%RSD	.86255	3.3632	133.32	36.795	85.389	36.000	48.155
#1	.00163	.00540	-.00105	.00110	.00094	.00270	.00212
#2	.00161	.00566	-.00003	.00187	.00380	.00455	.00430
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.04000			.00300			.06000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00460	-.00150	.00053	.00201	.00067	.01425	
SDev	.00115	.00126	.00046	.00538	.00047	.00145	
%RSD	25.035	83.872	85.643	268.14	69.436	10.197	
#1	.00542	-.00239	.00021	-.00180	.00034	.01323	
#2	.00379	-.00061	.00085	.00581	.00100	.01528	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.00500	.01000	.05000	.02000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14758	--	--	--	--	--	--
SDev	124.4508	--	--	--	--	--	--
%RSD	.8432682	--	--	--	--	--	--
#1	14670	--	--	--	--	--	--
#2	14846	--	--	--	--	--	--

Method: METTRA Sample Name: DDWJ9C Operator: RJG
Run Time: 05/30/00 20:13:03
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04675	1.6497	1.8785	1.7987	.04659	L.32765	.04659
SDev	.00023	.0408	.0211	.0300	.00016	.01481	.00025
%RSD	.49888	2.4754	1.1237	1.6704	.33860	4.5211	.53967
#1	.04658	1.6209	1.8636	1.7774	.04648	L.31718	.04642
#2	.04691	1.6786	1.8935	1.8199	.04671	L.33813	.04677
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass
High	.06000	2.4000	2.4000	2.4000	.06000	60.000	.06000
Low	.04000	1.6000	1.6000	1.6000	.04000	40.000	.04000
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.47208	.18905	.21770	.95783	L.05341	.45962	L.00064
SDev	.00526	.00206	.00384	.00823	.00607	.00551	.00038
%RSD	1.1145	1.0911	1.7641	.85898	11.357	1.2000	59.098
#1	.46836	.18759	.21498	.95201	L.04912	.45572	L.00090
#2	.47580	.19051	.22042	.96365	L.05770	.46352	L.00037
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Low
High	.60000	.24000	.30000	1.2000	60.000	.60000	1.2000
Low	.40000	.16000	.20000	.80000	40.000	.40000	.80000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.46923	.46849	.46720	.46763	.00119	.00083	L.00095
SDev	.00383	.00355	.00303	.00320	.00161	.00080	.00000
%RSD	.81701	.75793	.64806	.68472	134.77	96.740	.01095
#1	.46652	.46598	.46506	.46537	.00233	.00026	L.00095
#2	.47194	.47101	.46934	.46989	.00006	.00140	L.00095
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Low
High	.60000			.60000			.60000
Low	.40000			.40000			.40000
Elem	SE/1	SE/2	SE	TL	V	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	1.8976	1.9200	1.9125	1.8655	.45505	.50156	
SDev	.0199	.0108	.0138	.0239	.00481	.00503	
%RSD	1.0482	.56337	.72355	1.2819	1.0578	1.0028	
#1	1.8835	1.9123	1.9028	1.8486	.45165	.49800	
#2	1.9117	1.9276	1.9223	1.8824	.45846	.50512	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			2.4000	2.4000	.60000	.60000	
Low			1.6000	1.6000	.40000	.40000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	15069	--	--	--	--	--	--
SDev	116.1071	--	--	--	--	--	--
%RSD	.7704952	--	--	--	--	--	--
#1	15151	--	--	--	--	--	--
#2	14987	--	--	--	--	--	--

Method: METTRA Sample Name: CCV3-1 0014-110-3 Operator: RJG
 Run Time: 05/30/00 20:17:13
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0281	23.793	.50427	1.9580	1.9923	49.723	.49148
SDev	.0058	.020	.00027	.0009	.0145	.438	.00427
%RSD	.56275	.08312	.05395	.04520	.72955	.88007	.86879
#1	1.0322	23.807	.50407	1.9586	2.0026	50.032	.49450
#2	1.0240	23.779	.50446	1.9574	1.9821	49.413	.48846
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	27.500	.55000	2.2000	2.2000	55.000	.55000
Low	.90000	22.500	.45000	1.8000	1.8000	45.000	.45000
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9987	1.9968	1.9149	24.675	48.009	1.9638	2.0016
SDev	.0144	.0153	.0034	.099	.263	.0122	.0018
%RSD	.71970	.76484	.17996	.40105	.54819	.61934	.08823
#1	2.0089	2.0076	1.9173	24.745	48.195	1.9724	2.0029
#2	1.9886	1.9860	1.9125	24.605	47.823	1.9552	2.0004
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.2000	2.2000	2.2000	27.500	55.000	2.2000	2.2000
Low	1.8000	1.8000	1.8000	22.500	45.000	1.8000	1.8000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9834	.52479	.50851	.51393	.50374	.51210	.50931
SDev	.0200	.01291	.00409	.00703	.00234	.00771	.00592
%RSD	1.0081	2.4600	.80505	1.3678	.46428	1.5063	1.1631
#1	1.9975	.53392	.51141	.51890	.50539	.51755	.51350
#2	1.9692	.51566	.50562	.50896	.50208	.50664	.50512
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	2.2000			.55000			.55000
Low	1.8000			.45000			.45000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.52160	.51328	.51605	1.0295	1.9771	2.0256	
SDev	.00788	.00476	.00580	.0091	.0163	.0124	
%RSD	1.5117	.92693	1.1237	.88716	.82522	.61119	
#1	.52718	.51665	.52015	1.0360	1.9887	2.0344	
#2	.51603	.50992	.51195	1.0230	1.9656	2.0169	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.55000	1.1000	2.2000	2.2000	
Low			.45000	.90000	1.8000	1.8000	

6581345

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14721	--	--	--	--	--	--
SDev	195.1262	--	--	--	--	--	--
%RSD	1.325494	--	--	--	--	--	--
#1	14583	--	--	--	--	--	--
#2	14859	--	--	--	--	--	--

Method: METTRA Sample Name: CCB1

Operator: RJG

Run Time: 05/30/00 20:21:22

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00075	-.04225	-.00023	.00063	.00006	.01606	.00003
SDev	.00078	.00669	.00039	.00001	.00003	.00293	.00008
%RSD	104.25	15.842	172.86	1.0334	46.795	18.220	233.77
#1	.00131	-.03752	.00005	.00063	.00004	.01399	.00009
#2	.00020	-.04698	-.00050	.00064	.00008	.01813	-.00002
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00108	.00106	.00169	.00088	.01568	.00054	.00673
SDev	.00006	.00008	.00058	.00286	.00128	.00005	.00295
%RSD	5.5827	7.3552	34.151	324.14	8.1303	9.8517	43.802
#1	.00103	.00111	.00128	-.00114	.01478	.00050	.00882
#2	.00112	.00100	.00209	.00290	.01658	.00058	.00465
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.02500	.10000	5.0000	.01500	.04000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00046	.00085	-.00062	-.00013	-.00021	.00164	.00102
SDev	.00073	.00020	.00103	.00062	.00086	.00114	.00047
%RSD	157.20	24.081	164.69	461.27	405.52	69.362	46.048
#1	-.00005	.00070	.00010	.00030	-.00082	.00244	.00135
#2	.00098	.00099	-.00135	-.00057	.00040	.00083	.00069
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.04000			.00300			.06000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.00487	-.00095	.00098	.00339	.00093	.00314	
SDev	.00137	.00002	.00044	.00069	.00000	.00034	
%RSD	28.253	2.6015	44.849	20.407	.05728	10.841	
#1	.00389	-.00094	.00067	.00291	.00093	.00290	
#2	.00584	-.00097	.00130	.00388	.00093	.00338	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.00500	.01000	.05000	.02000	
Low			-.00500	-.01000	-.05000	-.02000	

Analysis Report

05/30/00 08:25:27 PM

page 2

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14979	--	--	--	--	--	--
SDev	7.495056	--	--	--	--	--	--
%RSD	.0500381	--	--	--	--	--	--
#1	14973	--	--	--	--	--	--
#2	14984	--	--	--	--	--	--

Method: METTRA Sample Name: DDLX3 Operator: RJG
Run Time: 05/30/00 20:25:31
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00192	191.27	.07980	2.4472	.00618	H893.48	-.00147
SDev	.00007	.55	.00000	.0049	.00003	.37	.00036
%RSD	3.8437	.28544	.00541	.20117	.56091	.04114	24.785
#1	.00187	190.88	.07980	2.4437	.00616	H893.22	-.00173
#2	.00197	191.65	.07980	2.4506	.00621	H893.74	-.00121
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05116	.18463	.18721	149.12	24.137	3.1949	.00712
SDev	.00057	.00017	.00006	.36	.044	.0060	.00015
%RSD	1.1138	.09021	.03051	.24452	.18075	.18910	2.0661
#1	.05076	.18451	.18717	148.86	24.106	3.1907	.00723
#2	.05157	.18474	.18725	149.38	24.167	3.1992	.00702
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.12586	.27123	.25972	.26355	.01573	.00520	.00870
SDev	.00059	.00116	.00075	.00011	.00166	.00238	.00103
%RSD	.47233	.42893	.28741	.04191	10.564	45.768	11.867
#1	.12628	.27205	.25919	.26347	.01455	.00688	.00943
#2	.12544	.27041	.26024	.26363	.01690	.00351	.00797
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.01176	-.00320	.00178	.00804	.31896	.52516	
SDev	.00154	.00668	.00394	.00263	.00101	.00165	
%RSD	13.067	208.57	221.57	32.747	.31648	.31490	
#1	.01285	-.00793	-.00101	.00990	.31825	.52399	
#2	.01068	.00152	.00457	.00618	.31968	.52633	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	15367	--	--	--	--	--	--
SDev	13.89492	--	--	--	--	--	--
%RSD	.0904198	--	--	--	--	--	--
#1	15377	--	--	--	--	--	--
#2	15357	--	--	--	--	--	--

Method: METTRA Sample Name: DDLX3P5 Operator: RJG
Run Time: 05/30/00 20:29:41
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00071	37.328	.01703	.50191	.00118	200.07	-.00030
SDev	.00057	.157	.00069	.00147	.00023	1.06	.00006
%RSD	80.245	.41931	4.0254	.29294	19.971	.53185	19.857

#1	.00031	37.217	.01655	.50087	.00134	199.32	-.00034
#2	.00111	37.438	.01752	.50295	.00101	200.82	-.00026

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00951	.03891	.03744	30.358	4.8392	.65738	.00225
SDev	.00006	.00065	.00016	.165	.0262	.00387	.00003
%RSD	.59424	1.6682	.43483	.54413	.54239	.58857	1.3909

#1	.00955	.03845	.03756	30.241	4.8206	.65464	.00223
#2	.00947	.03937	.03733	30.475	4.8577	.66011	.00227

Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02570	.05785	.05139	.05354	.00179	.00137	.00151
SDev	.00099	.00051	.00091	.00044	.00307	.00098	.00037
%RSD	3.8663	.87929	1.7652	.81376	171.95	71.748	24.484

#1	.02500	.05749	.05203	.05385	.00396	.00067	.00177
#2	.02640	.05821	.05075	.05323	-.00039	.00206	.00125

Elem	SE/1	SE/2	SE	TL	V_	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00452	-.00079	.00098	.00513	.06683	.11281
SDev	.00006	.00056	.00039	.00376	.00050	.00085
%RSD	1.3561	70.441	40.014	73.384	.74218	.75370

#1	.00447	-.00118	.00070	.00779	.06648	.11221
#2	.00456	-.00040	.00125	.00247	.06718	.11341

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	15108	--	--	--	--	--	--
SDev	117.7685	--	--	--	--	--	--
%RSD	.7795147	--	--	--	--	--	--
#1	15191	--	--	--	--	--	--
#2	15025	--	--	--	--	--	--

Method: METTRA Sample Name: DDLX3S Operator: RJG
 Run Time: 05/30/00 20:33:50
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05468	208.71	2.0320	4.4420	.05319	H822.46	.04363
SDev	.00026	.41	.0119	.0102	.00042	5.31	.00003
%RSD	.48254	.19811	.58626	.22898	.79051	.64519	.07460
#1	.05487	209.00	2.0404	4.4492	.05349	H826.21	.04365
#2	.05450	208.41	2.0235	4.4348	.05289	H818.71	.04360
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.52405	.38280	.44456	146.32	26.612	3.4835	.00569
SDev	.00355	.00267	.00114	.59	.105	.0147	.00125
%RSD	.67751	.69728	.25584	.40600	.39315	.42171	21.945
#1	.52656	.38469	.44536	146.74	26.686	3.4939	.00658
#2	.52154	.38091	.44376	145.90	26.538	3.4732	.00481
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.59525	.74312	.70819	.71982	.01330	.00463	.00752
SDev	.00156	.00903	.00332	.00522	.00273	.00179	.00028
%RSD	.26166	1.2150	.46847	.72512	20.492	38.626	3.7940
#1	.59636	.74951	.71053	.72351	.01138	.00590	.00772
#2	.59415	.73674	.70584	.71613	.01523	.00337	.00732
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	1.9802	2.0197	2.0066	2.0697	.80588	1.0181	
SDev	.0226	.0022	.0090	.0037	.00394	.0064	
%RSD	1.1395	.10796	.44696	.17834	.48893	.63085	
#1	1.9961	2.0213	2.0129	2.0671	.80867	1.0226	
#2	1.9642	2.0182	2.0002	2.0723	.80309	1.0135	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	15607	--	--	--	--	--	--
SDev	55.43745	--	--	--	--	--	--
%RSD	.3552157	--	--	--	--	--	--
#1	15568	--	--	--	--	--	--
#2	15646	--	--	--	--	--	--

Method: METTRA Sample Name: DDLX3D Operator: RJG
Run Time: 05/30/00 20:38:00
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05282	217.14	1.9645	4.8281	.05175	H820.95	.04239
SDev	.00014	.32	.0041	.0050	.00007	1.74	.00036
%RSD	.25636	.14636	.20623	.10349	.13134	.21210	.84800
#1	.05272	216.92	1.9616	4.8245	.05170	H819.72	.04214
#2	.05292	217.37	1.9673	4.8316	.05179	H822.19	.04265
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51290	.37961	.42772	152.18	27.415	4.0063	.00618
SDev	.00120	.00093	.00038	.33	.039	.0083	.00027
%RSD	.23447	.24502	.08778	.21733	.14250	.20804	4.3115
#1	.51205	.37895	.42746	151.95	27.387	4.0004	.00637
#2	.51375	.38026	.42799	152.42	27.442	4.0122	.00599
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.58256	.79565	.74759	.76359	.01022	.00700	.00807
SDev	.00184	.00233	.00359	.00162	.00261	.00170	.00027
%RSD	.31608	.29236	.47986	.21191	25.523	24.307	3.2966
#1	.58386	.79400	.75012	.76473	.00837	.00820	.00826
#2	.58125	.79729	.74505	.76244	.01206	.00579	.00788
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	1.9194	1.9295	1.9261	1.9948	.80270	1.0351	
SDev	.0007	.0125	.0086	.0067	.00222	.0013	
%RSD	.03411	.64938	.44521	.33344	.27616	.12613	
#1	1.9199	1.9383	1.9322	1.9901	.80426	1.0342	
#2	1.9190	1.9206	1.9201	1.9995	.80113	1.0360	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

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IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	15706	--	--	--	--	--	--
SDev	73.75110	--	--	--	--	--	--
%RSD	.4695727	--	--	--	--	--	--
#1	15758	--	--	--	--	--	--
#2	15654	--	--	--	--	--	--

Method: METTRA Sample Name: DDLX6 Operator: RJG
Run Time: 05/30/00 20:42:10
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00178	161.36	.08511	1.4264	.00639	224.81	-.00095
SDev	.00019	.29	.00022	.0014	.00007	.81	.00021
%RSD	10.908	.18244	.26435	.09780	1.1538	.35929	22.190

#1	.00192	161.57	.08527	1.4274	.00644	225.38	-.00109
#2	.00165	161.15	.08495	1.4254	.00634	224.23	-.00080

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05914	.19666	.21286	168.65	22.970	3.3065	.00613
SDev	.00006	.00044	.00011	.32	.037	.0064	.00038
%RSD	.09922	.22424	.05184	.19244	.16115	.19400	6.1072

#1	.05910	.19697	.21294	168.87	22.997	3.3111	.00640
#2	.05918	.19634	.21278	168.42	22.944	3.3020	.00587

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000

Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.13988	.29274	.27046	.27788	.00883	.00523	.00643
SDev	.00116	.00015	.00245	.00169	.00669	.00185	.00100
%RSD	.82824	.04983	.90707	.60635	75.755	35.334	15.478

#1	.14070	.29284	.27220	.27907	.00410	.00653	.00572
#2	.13906	.29263	.26873	.27669	.01356	.00392	.00713

Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000

Elem	SE/1	SE/2	SE	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00866	.00352	.00523	.01443	.34774	.54479
SDev	.00025	.00176	.00125	.00545	.00361	.00017
%RSD	2.8507	49.867	23.949	37.782	1.0384	.03204

#1	.00884	.00476	.00612	.01829	.35029	.54491
#2	.00849	.00228	.00435	.01058	.34518	.54467

Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High			10.000	10.000	50.000	5.0000
Low			-.00500	-.01000	-.05000	-.02000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	15903	--	--	--	--	--	--
SDev	.6359818	--	--	--	--	--	--
%RSD	.0039992	--	--	--	--	--	--
#1	15903	--	--	--	--	--	--
#2	15902	--	--	--	--	--	--

Method: METTRA Sample Name: DDRMP Operator: RJG
Run Time: 05/30/00 20:46:19
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00196	172.70	.07871	1.9603	.00612	392.29	-.00041
SDev	.00008	.90	.00010	.0100	.00002	2.08	.00039
%RSD	4.0966	.52201	.12643	.50912	.38761	.52978	95.971
#1	.00190	172.07	.07864	1.9532	.00611	390.82	-.00069
#2	.00202	173.34	.07878	1.9673	.00614	393.76	-.00013
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.06081	.23353	.25014	164.71	23.719	3.1790	.00631
SDev	.00035	.00221	.00130	.92	.123	.0197	.00003
%RSD	.57232	.94653	.51919	.55576	.51950	.61812	.46324
#1	.06056	.23197	.24922	164.06	23.632	3.1651	.00633
#2	.06105	.23510	.25106	165.36	23.807	3.1929	.00629
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.14541	.44474	.41715	.42633	.00999	.00881	.00921
SDev	.00118	.00173	.00022	.00072	.00059	.00150	.00080
%RSD	.80912	.38807	.05226	.16891	5.8798	17.011	8.7376
#1	.14624	.44352	.41699	.42582	.01041	.00775	.00864
#2	.14458	.44596	.41730	.42684	.00958	.00987	.00978
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.00730	.00361	.00484	.01013	.32541	.63935	
SDev	.00281	.00110	.00167	.00311	.00126	.00343	
%RSD	38.483	30.412	34.469	30.684	.38707	.53697	
#1	.00532	.00283	.00366	.01233	.32452	.63692	
#2	.00929	.00438	.00602	.00793	.32630	.64178	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	15552	--	--	--	--	--	--
SDev	91.32312	--	--	--	--	--	--
%RSD	.5872086	--	--	--	--	--	--
#1	15617	--	--	--	--	--	--
#2	15488	--	--	--	--	--	--

Method: METTRA Sample Name: DD4TN

Operator: RJG

Run Time: 05/30/00 20:50:29

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00044	1.3753	.00596	.20463	-.00063	37.070	-.00021
SDev	.00027	.0244	.00018	.00104	.00009	.245	.00020
%RSD	60.648	1.7734	2.9833	.50906	14.770	.66174	94.723
#1	.00025	1.3925	.00583	.20537	-.00070	37.243	-.00035
#2	.00063	1.3580	.00609	.20390	-.00057	36.896	-.00007
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00022	.00174	.00339	1.2625	16.940	.08466	.00599
SDev	.00001	.00016	.00010	.0029	.090	.00022	.00020
%RSD	4.1768	9.3100	2.8814	.22754	.53114	.25780	3.3565
#1	-.00022	.00185	.00332	1.2605	17.004	.08481	.00613
#2	-.00021	.00162	.00346	1.2646	16.877	.08450	.00585
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00208	.00340	.00052	.00148	-.00101	-.00101	-.00101
SDev	.00139	.00052	.00129	.00069	.00069	.00050	.00010
%RSD	66.777	15.225	249.71	46.527	68.587	49.079	9.8822
#1	.00110	.00304	.00143	.00196	-.00150	-.00066	-.00094
#2	.00306	.00377	-.00040	.00099	-.00052	-.00136	-.00108
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.00328	-.00100	.00042	-.00180	.00044	.01138	
SDev	.00030	.00170	.00103	.00252	.00000	.00003	
%RSD	9.2830	169.91	243.99	139.62	.22754	.22409	
#1	.00307	.00020	.00116	-.00002	.00044	.01137	
#2	.00350	-.00221	-.00031	-.00358	.00044	.01140	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

Analysis Report

05/30/00 08:54:34 PM

6581361.
page 2

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14790	--	--	--	--	--	--
SDev	75.76677	--	--	--	--	--	--
%RSD	.5122898	--	--	--	--	--	--
#1	14736	--	--	--	--	--	--
#2	14843	--	--	--	--	--	--

Method: METTRA Sample Name: DD4TNF

Operator: RJG

Run Time: 05/30/00 20:54:38

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00032	-.06580	.01241	.15716	-.00078	37.603	-.00006
SDev	.00041	.00099	.00110	.00001	.00009	.053	.00020
%RSD	128.25	1.5033	8.8442	.00905	11.191	.14075	345.49
#1	.00061	-.06650	.01163	.15717	-.00084	37.641	.00008
#2	.00003	-.06510	.01319	.15715	-.00072	37.566	-.00020
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00022	.00091	.01834	-.02159	17.321	.07442	.00528
SDev	.00030	.00029	.00022	.00067	.006	.00007	.00033
%RSD	137.43	32.256	1.2214	3.1003	.03703	.09771	6.2832
#1	.00001	.00112	.01818	-.02111	17.326	.07437	.00504
#2	.00043	.00070	.01850	-.02206	17.317	.07447	.00551
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00098	.00052	-.00297	-.00181	.00125	-.00085	-.00015
SDev	.00044	.00225	.00071	.00027	.00160	.00287	.00138
%RSD	44.512	436.21	23.943	15.066	128.16	338.69	929.96
#1	.00129	.00210	-.00348	-.00162	.00012	.00118	.00083
#2	.00067	-.00107	-.00247	-.00201	.00239	-.00288	-.00112
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00337	-.00421	-.00169	.00482	-.00001	.02364	
SDev	.00074	.00086	.00082	.00081	.00000	.00056	
%RSD	21.866	20.453	48.574	16.902	3.1003	2.3611	
#1	.00285	-.00482	-.00227	.00424	-.00001	.02325	
#2	.00389	-.00360	-.00111	.00540	-.00001	.02404	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

6581363

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14846	--	--	--	--	--	--
SDev	21.60197	--	--	--	--	--	--
%RSD	.1455117	--	--	--	--	--	--
#1	14861	--	--	--	--	--	--
#2	14830	--	--	--	--	--	--

Method: METTRA Sample Name: DD4TN Raw Sample Operator: RJG
 Run Time: 05/30/00 20:58:47
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00039	1.3337	.01638	.18998	.00062	35.399	-.00014
SDev	.00020	.0347	.00046	.00032	.00004	.209	.00005
%RSD	52.020	2.5985	2.8037	.16946	6.1957	.59124	32.935
#1	.00053	1.3582	.01606	.19020	.00065	35.547	-.00011
#2	.00025	1.3092	.01671	.18975	.00059	35.251	-.00018
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00122	.00134	.00209	1.1041	16.082	.07934	.00345
SDev	.00045	.00016	.00001	.0138	.057	.00046	.00015
%RSD	37.058	11.886	.58945	1.2542	.35449	.57416	4.4892
#1	.00154	.00122	.00209	1.1139	16.122	.07966	.00356
#2	.00090	.00145	.00208	1.0944	16.042	.07901	.00334
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00009	.00475	.00175	.00275	.01372	-.00282	.00269
SDev	.00021	.00059	.00018	.00031	.00101	.00147	.00132
%RSD	218.74	12.450	10.073	11.441	7.3590	52.169	48.899
#1	.00024	.00433	.00162	.00253	.01444	-.00178	.00362
#2	-.00005	.00517	.00187	.00297	.01301	-.00386	.00176
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.06352	.00506	.02453	.03460	.00039	.00572	
SDev	.00564	.00260	.00015	.00336	.00001	.00027	
%RSD	8.8826	51.305	.59957	9.7164	1.2542	4.7297	
#1	.06751	.00322	.02463	.03222	.00039	.00553	
#2	.05953	.00690	.02442	.03698	.00038	.00591	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	15832	--	--	--	--	--	--
SDev	13.25825	--	--	--	--	--	--
%RSD	.0837424	--	--	--	--	--	--
#1	15823	--	--	--	--	--	--
#2	15842	--	--	--	--	--	--

Method: METTRA Sample Name: DD4TNF Raw Sample Operator: RJG
 Run Time: 05/30/00 21:02:56
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00024	-.08088	.02313	.15492	-.00057	37.549	-.00025
SDev	.00042	.00255	.00027	.00016	.00001	.124	.00001
%RSD	178.51	3.1543	1.1825	.10624	2.3913	.33123	2.3487
#1	-.00006	-.07908	.02332	.15504	-.00057	37.637	-.00026
#2	.00054	-.08269	.02294	.15481	-.00058	37.461	-.00025
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00029	.00030	.00213	-.05471	17.141	.07317	.00427
SDev	.00071	.00002	.00002	.00620	.040	.00021	.00070
%RSD	241.93	4.8696	.70985	11.339	.23380	.28341	16.413
#1	-.00021	.00031	.00212	-.05032	17.169	.07332	.00377
#2	.00079	.00029	.00214	-.05909	17.112	.07302	.00477
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00035	.00385	-.00069	.00082	.01449	-.00244	.00320
SDev	.00100	.00275	.00172	.00023	.00214	.00104	.00141
%RSD	284.37	71.371	247.41	27.987	14.776	42.720	44.018
#1	-.00036	.00191	.00052	.00098	.01600	-.00170	.00419
#2	.00106	.00580	-.00191	.00066	.01298	-.00318	.00220
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.05973	.00504	.02325	.03593	-.00002	.00239	
SDev	.00005	.00111	.00076	.00121	.00000	.00045	
%RSD	.08082	22.052	3.2557	3.3588	11.339	18.757	
#1	.05970	.00425	.02271	.03508	-.00002	.00207	
#2	.05976	.00582	.02379	.03679	-.00002	.00270	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	15224	--	--	--	--	--	--
SDev	10.18192	--	--	--	--	--	--
%RSD	.0668792	--	--	--	--	--	--
#1	15217	--	--	--	--	--	--
#2	15232	--	--	--	--	--	--

Method: METTRA Sample Name: CCV3-2

Operator: RJG

Run Time: 05/30/00 21:07:05

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0276	23.898	.50375	1.9796	1.9951	49.542	.49138
SDev	.0013	.082	.00037	.0056	.0011	.003	.00027
%RSD	.13091	.34521	.07361	.28453	.05395	.00595	.05569
#1	1.0266	23.839	.50349	1.9756	1.9958	49.540	.49119
#2	1.0285	23.956	.50401	1.9836	1.9943	49.544	.49157
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	27.500	.55000	2.2000	2.2000	55.000	.55000
Low	.90000	22.500	.45000	1.8000	1.8000	45.000	.45000
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9994	1.9940	1.9189	24.657	47.980	1.9612	1.9998
SDev	.0003	.0034	.0041	.042	.086	.0034	.0155
%RSD	.01334	.17088	.21303	.16988	.17928	.17245	.77700
#1	1.9996	1.9916	1.9160	24.628	47.920	1.9588	1.9889
#2	1.9992	1.9964	1.9218	24.687	48.041	1.9636	2.0108
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.2000	2.2000	2.2000	27.500	55.000	2.2000	2.2000
Low	1.8000	1.8000	1.8000	22.500	45.000	1.8000	1.8000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9741	.51591	.50334	.50752	.50413	.50404	.50407
SDev	.0073	.00269	.00422	.00371	.00025	.00293	.00187
%RSD	.37199	.52192	.83938	.73192	.04994	.58178	.37139
#1	1.9793	.51401	.50035	.50490	.50431	.50197	.50275
#2	1.9689	.51781	.50632	.51015	.50396	.50611	.50540
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	2.2000			.55000			.55000
Low	1.8000			.45000			.45000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.51082	.50805	.50897	1.0168	1.9743	2.0244	
SDev	.00499	.00098	.00101	.0049	.0001	.0010	
%RSD	.97654	.19315	.19777	.48057	.00555	.05136	
#1	.51434	.50736	.50968	1.0133	1.9744	2.0251	
#2	.50729	.50874	.50826	1.0202	1.9743	2.0236	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.55000	1.1000	2.2000	2.2000	
Low			.45000	.90000	1.8000	1.8000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14841	--	--	--	--	--	--
SDev	25.98617	--	--	--	--	--	--
%RSD	.1750922	--	--	--	--	--	--
#1	14823	--	--	--	--	--	--
#2	14860	--	--	--	--	--	--

6581370

Analysis Report

05/30/00 09:15:20 PM

page 1

Method: METTRA Sample Name: CCB2

Operator: RJG

Run Time: 05/30/00 21:11:15

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00084	-.08203	.00070	.00054	-.00056	.01708	-.00005
SDev	.00006	.00732	.00047	.00018	.00010	.00580	.00012
%RSD	7.0254	8.9191	67.152	32.951	18.518	33.954	186.05

#1	.00088	-.07686	.00103	.00042	-.00064	.01298	-.00015
#2	.00079	-.08721	.00037	.00067	-.00049	.02118	.00002

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00101	.00078	.00360	.01744	.01594	.00052	.00813
SDev	.00009	.00032	.00058	.00229	.00223	.00020	.00250
%RSD	9.0208	41.394	16.112	13.128	14.006	37.806	30.726

#1	.00095	.00055	.00319	.01582	.01436	.00038	.00989
#2	.00107	.00101	.00401	.01906	.01751	.00066	.00636

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.02500	.10000	5.0000	.01500	.04000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000

Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00052	.00240	-.00201	-.00054	-.00133	.00016	-.00034
SDev	.00022	.00269	.00052	.00125	.00114	.00109	.00035
%RSD	42.610	112.32	26.099	230.03	85.647	701.09	102.78

#1	.00067	.00430	-.00164	.00034	-.00052	-.00061	-.00058
#2	.00036	.00049	-.00238	-.00142	-.00213	.00093	-.00009

Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.04000			.00300			.06000
Low	-.04000			-.00300			-.06000

Elem	SE/1	SE/2	SE	TL	V_	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00282	-.00137	.00002	.00387	.00125	.00315
SDev	.00018	.00051	.00040	.00249	.00044	.00028
%RSD	6.3799	37.163	1623.0	64.475	35.300	9.0563

#1	.00295	-.00101	.00031	.00563	.00156	.00294
#2	.00270	-.00173	-.00026	.00210	.00094	.00335

Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High			.00500	.01000	.05000	.02000
Low			-.00500	-.01000	-.05000	-.02000

6581371

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14919	--	--	--	--	--	--
SDev	28.88504	--	--	--	--	--	--
%RSD	.1936108	--	--	--	--	--	--
#1	14899	--	--	--	--	--	--
#2	14940	--	--	--	--	--	--

6581372

Analysis Report

05/30/00 09:19:29 PM

page 1

Method: METTRA Sample Name: DDR9FB

Operator: RJG

Run Time: 05/30/00 21:15:24

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00012	-.06022	.00004	.00018	-.00132	.03935	-.00002
SDev	.00065	.01619	.00021	.00001	.00010	.00375	.00011
%RSD	559.43	26.876	552.56	3.4553	7.6907	9.5193	580.36
#1	-.00034	-.04878	.00019	.00018	-.00139	.03670	.00006
#2	.00057	-.07167	-.00011	.00019	-.00124	.04200	-.00010
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00068	.00006	.00309	.00511	.00169	.00077	.00206
SDev	.00038	.00051	.00037	.00119	.00298	.00002	.00018
%RSD	55.271	904.83	11.903	23.314	176.27	1.9260	8.5456
#1	-.00095	-.00030	.00283	.00595	-.00042	.00076	.00219
#2	-.00042	.00042	.00335	.00426	.00380	.00078	.00194
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.02500	.10000	5.0000	.01500	.04000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00005	.00127	-.00177	-.00076	.00066	.00076	.00073
SDev	.00000	.00020	.00209	.00146	.00420	.00033	.00162
%RSD	.47194	15.685	117.97	192.27	640.77	43.404	222.49
#1	-.00005	.00113	-.00325	-.00179	-.00231	.00053	-.00042
#2	-.00005	.00141	-.00029	.00027	.00362	.00100	.00187
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.04000			.00300			.06000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.00040	-.00100	-.00053	.00170	.00191	.00765	
SDev	.00104	.00427	.00250	.00334	.00270	.00004	
%RSD	257.90	427.78	470.65	196.06	141.27	.49237	
#1	-.00033	.00202	.00124	-.00066	.00000	.00763	
#2	.00114	-.00402	-.00230	.00406	.00382	.00768	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.00500	.01000	.05000	.02000	
Low			-.00500	-.01000	-.05000	-.02000	

Analysis Report

05/30/00 09:19:29 PM

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14542	--	--	--	--	--	--
SDev	45.96194	--	--	--	--	--	--
%RSD	.3160569	--	--	--	--	--	--
#1	14510	--	--	--	--	--	--
#2	14575	--	--	--	--	--	--

Method: METTRA Sample Name: DDR9FC

Operator: RJG

Run Time: 05/30/00 21:19:33

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04988	1.7351	1.9767	1.9263	.04873	L.10296	.04968
SDev	.00058	.0400	.0239	.0206	.00057	.00185	.00105
%RSD	1.1637	2.3081	1.2068	1.0701	1.1658	1.7990	2.1144
#1	.05030	1.7634	1.9936	1.9409	.04914	L.10165	.05042
#2	.04947	1.7067	1.9598	1.9118	.04833	L.10427	.04894
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass
High	.06000	2.4000	2.4000	2.4000	.06000	60.000	.06000
Low	.04000	1.6000	1.6000	1.6000	.04000	40.000	.04000
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50315	.19936	.23418	.98725	L.00614	.48750	L.00139
SDev	.00539	.00159	.00234	.01823	.00327	.00548	.00059
%RSD	1.0716	.79848	1.0004	1.8463	53.312	1.1242	42.457
#1	.50697	.20049	.23583	1.0001	L.00382	.49138	L.00181
#2	.49934	.19824	.23252	.97436	L.00845	.48362	L.00097
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Low
High	.60000	.24000	.30000	1.2000	60.000	.60000	1.2000
Low	.40000	.16000	.20000	.80000	40.000	.40000	.80000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49520	.49704	.49342	.49462	-.00040	-.00004	L-.00016
SDev	.00635	.00052	.00419	.00297	.00070	.00073	.00025
%RSD	1.2817	.10433	.84913	.59990	173.98	1734.7	157.74
#1	.49969	.49740	.49638	.49672	.00009	-.00056	L-.00034
#2	.49071	.49667	.49046	.49253	-.00089	.00047	L.00002
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Low
High	.60000			.60000			.60000
Low	.40000			.40000			.40000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	1.9748	1.9777	1.9768	1.9420	.48309	.52814	
SDev	.0133	.0041	.0072	.0254	.00405	.00616	
%RSD	.67158	.20815	.36233	1.3080	.83769	1.1659	
#1	1.9842	1.9806	1.9818	1.9599	.48595	.53250	
#2	1.9654	1.9748	1.9717	1.9240	.48023	.52379	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			2.4000	2.4000	.60000	.60000	
Low			1.6000	1.6000	.40000	.40000	

Analysis Report

05/30/00 09:23:38 PM

6581375
page 2

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14709	--	--	--	--	--	--
SDev	102.7073	--	--	--	--	--	--
%RSD	.6982768	--	--	--	--	--	--
#1	14636	--	--	--	--	--	--
#2	14781	--	--	--	--	--	--

Method: METTRA Sample Name: DD7XD

Operator: RJG

Run Time: 05/30/00 21:23:42

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00100	4.8669	.00453	2.0882	-.00059	266.79	-.00034
SDev	.00038	.1304	.00000	.0508	.00045	5.71	.00032
%RSD	38.242	2.6790	.00280	2.4309	75.609	2.1392	95.666
#1	.00073	4.7747	.00453	2.0523	-.00028	262.75	-.00056
#2	.00127	4.9591	.00453	2.1241	-.00091	270.82	-.00011
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00497	.02027	.03079	12.030	120.45	.38419	.00905
SDev	.00029	.00068	.00118	.305	2.72	.00868	.00080
%RSD	5.9127	3.3397	3.8445	2.5378	2.2545	2.2593	8.8701
#1	.00518	.01979	.02995	11.814	118.53	.37805	.00848
#2	.00476	.02074	.03163	12.246	122.37	.39033	.00961
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01970	.00345	-.00005	.00112	-.00056	-.00054	-.00055
SDev	.00117	.00488	.00117	.00084	.00299	.00143	.00004
%RSD	5.9152	141.22	2229.1	75.614	534.07	264.02	7.8083
#1	.01887	.00001	.00078	.00052	.00156	-.00155	-.00052
#2	.02052	.00690	-.00088	.00171	-.00268	.00047	-.00058
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.01168	-.00520	.00042	.00717	.01012	.06270	
SDev	.00289	.00018	.00084	.00006	.00041	.00205	
%RSD	24.734	3.4497	199.51	.90072	4.0730	3.2776	
#1	.00964	-.00507	-.00017	.00721	.00983	.06124	
#2	.01372	-.00533	.00102	.00712	.01041	.06415	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

Analysis Report

05/30/00 09:27:48 PM

page 2
6581377

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14513	--	--	--	--	--	--
SDev	194.6663	--	--	--	--	--	--
%RSD	1.341361	--	--	--	--	--	--
#1	14650	--	--	--	--	--	--
#2	14375	--	--	--	--	--	--

Method: METTRA Sample Name: DD7XDP5 Operator: RJG
 Run Time: 05/30/00 21:27:51
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00062	.79805	.00122	.42022	-.00065	54.365	-.00007
SDev	.00003	.00249	.00103	.00032	.00010	.027	.00008
%RSD	5.4621	.31268	84.408	.07628	16.055	.05028	120.46
#1	.00059	.79628	.00195	.42000	-.00057	54.346	-.00001
#2	.00064	.79981	.00049	.42045	-.00072	54.385	-.00013
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00082	.00430	.00899	2.3165	23.276	.07572	.00218
SDev	.00006	.00061	.00001	.0105	.029	.00017	.00050
%RSD	6.8388	14.202	.14441	.45141	.12322	.22568	22.882
#1	.00078	.00473	.00898	2.3091	23.255	.07560	.00183
#2	.00086	.00387	.00900	2.3239	23.296	.07584	.00254
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00448	.00102	-.00201	-.00100	.00056	.00054	.00054
SDev	.00061	.00148	.00003	.00048	.00128	.00045	.00013
%RSD	13.538	145.93	1.2720	47.729	229.80	83.657	23.043
#1	.00405	.00207	-.00203	-.00066	-.00035	.00086	.00046
#2	.00491	-.00003	-.00199	-.00134	.00146	.00022	.00063
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00690	-.00400	-.00037	.00255	.00376	.01592	
SDev	.00081	.00066	.00017	.00126	.00064	.00014	
%RSD	11.732	16.609	47.036	49.393	17.019	.85163	
#1	.00748	-.00447	-.00049	.00344	.00421	.01582	
#2	.00633	-.00353	-.00025	.00166	.00331	.01601	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14948	--	--	--	--	--	--
SDev	79.33752	--	--	--	--	--	--
%RSD	.5307532	--	--	--	--	--	--
#1	15004	--	--	--	--	--	--
#2	14892	--	--	--	--	--	--

Method: METTRA Sample Name: DD7XDS

Operator: RJG

Run Time: 05/30/00 21:32:01

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.06732	7.2645	2.3984	4.3726	.05622	269.71	.05466
SDev	.00104	.1057	.0294	.0526	.00029	3.44	.00085
%RSD	1.5462	1.4551	1.2239	1.2034	.51432	1.2760	1.5450
#1	.06806	7.3393	2.4192	4.4098	.05642	272.14	.05526
#2	.06658	7.1898	2.3777	4.3354	.05601	267.28	.05407
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.58836	.24940	.34096	13.145	121.07	.97435	.00929
SDev	.00680	.00306	.00465	.162	1.49	.01089	.00094
%RSD	1.1559	1.2270	1.3648	1.2342	1.2289	1.1179	10.096
#1	.59317	.25156	.34425	13.260	122.12	.98205	.00863
#2	.58355	.24723	.33767	13.030	120.02	.96665	.00995
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.59918	.65410	.60505	.62139	-.00229	.00143	.00019
SDev	.00983	.00841	.00381	.00534	.00224	.00011	.00067
%RSD	1.6402	1.2862	.62974	.85986	97.630	7.7421	356.79
#1	.60613	.66005	.60775	.62517	-.00388	.00151	-.00029
#2	.59223	.64815	.60236	.61761	-.00071	.00135	.00066
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	2.4237	2.4825	2.4629	2.6821	.59599	.68894	
SDev	.0295	.0257	.0270	.0295	.00653	.00852	
%RSD	1.2173	1.0367	1.0959	1.1004	1.0960	1.2374	
#1	2.4445	2.5007	2.4820	2.7030	.60061	.69497	
#2	2.4028	2.4643	2.4438	2.6613	.59137	.68291	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

6581381

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14405	--	--	--	--	--	--
SDev	179.9235	--	--	--	--	--	--
%RSD	1.249041	--	--	--	--	--	--
#1	14278	--	--	--	--	--	--
#2	14532	--	--	--	--	--	--

Method: METTRA Sample Name: DD7XDD

Operator: RJG

Run Time: 05/30/00 21:36:10

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05676	6.9697	2.0179	4.0049	.04731	271.58	.04555
SDev	.00000	.0047	.0009	.0015	.00004	.55	.00013
%RSD	.00343	.06755	.04597	.03711	.08896	.20261	.29192
#1	.05676	6.9664	2.0172	4.0059	.04728	271.19	.04546
#2	.05676	6.9730	2.0185	4.0038	.04734	271.97	.04565
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.49578	.21209	.29016	13.046	121.52	.88216	.00909
SDev	.00125	.00083	.00065	.033	.11	.00248	.00002
%RSD	.25129	.39043	.22552	.25570	.09361	.28100	.26852
#1	.49490	.21150	.29062	13.023	121.44	.88041	.00910
#2	.49666	.21267	.28970	13.070	121.60	.88392	.00907
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50665	.54989	.51239	.52488	.00154	-.00089	-.00008
SDev	.00022	.00085	.00291	.00222	.00145	.00041	.00075
%RSD	.04318	.15420	.56813	.42372	94.196	45.726	937.28
#1	.50650	.54929	.51033	.52330	.00051	-.00117	-.00061
#2	.50681	.55049	.51444	.52645	.00256	-.00060	.00045
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	2.0431	2.0971	2.0791	2.2674	.49824	.59506	
SDev	.0032	.0035	.0034	.0000	.00292	.00118	
%RSD	.15547	.16878	.16443	.00188	.58509	.19893	
#1	2.0409	2.0946	2.0767	2.2674	.50030	.59422	
#2	2.0454	2.0996	2.0815	2.2673	.49618	.59589	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14453	--	--	--	--	--	--
SDev	32.49169	--	--	--	--	--	--
%RSD	.2248113	--	--	--	--	--	--
#1	14430	--	--	--	--	--	--
#2	14476	--	--	--	--	--	--

Method: METTRA Sample Name: DD7XE

Operator: RJG

Run Time: 05/30/00 21:40:20

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00026	-.00079	.00704	.61348	-.00130	135.18	-.00021
SDev	.00020	.00643	.00053	.00410	.00009	.65	.00013
%RSD	78.566	811.53	7.5506	.66765	6.5590	.47962	61.399
#1	.00012	.00376	.00666	.61638	-.00124	135.63	-.00030
#2	.00041	-.00534	.00741	.61059	-.00136	134.72	-.00012
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00042	.00231	.00386	2.9530	66.862	.03037	.00523
SDev	.00016	.00053	.00008	.0056	.371	.00007	.00052
%RSD	37.365	22.897	2.0366	.18935	.55429	.22631	9.8849
#1	.00054	.00194	.00381	2.9569	67.124	.03042	.00486
#2	.00031	.00269	.00392	2.9490	66.600	.03032	.00559
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00144	.00024	-.00282	-.00180	.00158	.00105	.00123
SDev	.00031	.00263	.00061	.00128	.00183	.00004	.00058
%RSD	21.249	1111.2	21.761	71.289	115.76	3.6758	47.458
#1	.00122	.00210	-.00239	-.00089	.00029	.00108	.00082
#2	.00166	-.00162	-.00325	-.00271	.00287	.00102	.00164
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00416	-.00152	.00037	.00897	.00408	.01080	
SDev	.00270	.00169	.00022	.00059	.00067	.00039	
%RSD	64.998	110.96	60.124	6.6227	16.500	3.6085	
#1	.00607	-.00271	.00021	.00939	.00455	.01053	
#2	.00225	-.00033	.00053	.00855	.00360	.01108	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14466	--	--	--	--	--	--
SDev	46.06759	--	--	--	--	--	--
%RSD	.3184438	--	--	--	--	--	--
#1	14499	--	--	--	--	--	--
#2	14434	--	--	--	--	--	--

Method: METTRA Sample Name: DD7XF Operator: RJG
 Run Time: 05/30/00 21:44:30
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00038	2.5573	.02403	.23713	-.00096	58.237	-.00025
SDev	.00024	.0104	.00094	.00096	.00007	.154	.00001
%RSD	65.214	.40852	3.9031	.40440	7.4368	.26494	4.6292
#1	.00055	2.5499	.02469	.23645	-.00091	58.127	-.00024
#2	.00020	2.5646	.02337	.23781	-.00101	58.346	-.00026
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00327	.00636	.00654	4.7032	31.676	.13645	.00742
SDev	.00001	.00051	.00016	.0152	.142	.00036	.00026
%RSD	.34179	8.0235	2.4541	.32227	.44709	.26117	3.5766
#1	.00326	.00672	.00666	4.6924	31.576	.13620	.00761
#2	.00328	.00600	.00643	4.7139	31.776	.13670	.00723
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00714	.00582	.00103	.00262	-.00051	-.00001	-.00018
SDev	.00027	.00138	.00048	.00014	.00107	.00016	.00046
%RSD	3.7698	23.817	46.871	5.3330	209.38	1367.8	260.28
#1	.00695	.00484	.00137	.00252	.00025	.00010	.00015
#2	.00733	.00679	.00069	.00272	-.00127	-.00013	-.00051
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00650	-.00326	-.00001	-.00166	.00780	.01868	
SDev	.00018	.00202	.00128	.00202	.00063	.00050	
%RSD	2.8471	61.971	15659.	121.99	8.0139	2.6668	
#1	.00663	-.00468	-.00092	-.00309	.00825	.01833	
#2	.00637	-.00183	.00090	-.00023	.00736	.01903	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14684	--	--	--	--	--	--
SDev	94.99952	--	--	--	--	--	--
%RSD	.6469583	--	--	--	--	--	--
#1	14751	--	--	--	--	--	--
#2	14617	--	--	--	--	--	--

Method: METTRA Sample Name: DD7XG

Operator: RJG

Run Time: 05/30/00 21:48:39

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00048	-.02259	.00064	3.4242	-.00118	338.62	-.00022
SDev	.00012	.00376	.00015	.0218	.00015	1.89	.00005
%RSD	25.664	16.641	23.924	.63787	12.748	.55805	23.631

#1	.00039	-.01993	.00053	3.4088	-.00108	337.28	-.00018
#2	.00056	-.02524	.00075	3.4397	-.00129	339.96	-.00025

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00129	.00634	.00657	1.1865	165.14	.23386	.00187
SDev	.00024	.00001	.00048	.0188	1.03	.00178	.00057
%RSD	18.608	.21485	7.2482	1.5870	.62525	.76341	30.525

#1	-.00145	.00633	.00623	1.1731	164.41	.23260	.00228
#2	-.00112	.00635	.00690	1.1998	165.87	.23512	.00147

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000

Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00949	.00503	-.00452	-.00134	.00051	.00274	.00200
SDev	.00074	.00109	.00160	.00070	.00157	.00098	.00118
%RSD	7.8364	21.638	35.404	52.607	305.48	35.916	59.044

#1	.00897	.00426	-.00339	-.00084	-.00060	.00204	.00116
#2	.01002	.00580	-.00565	-.00184	.00163	.00343	.00283

Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000

Elem	SE/1	SE/2	SE	TL	V_	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01172	-.01220	-.00424	.00735	.00485	.08363
SDev	.00105	.00030	.00015	.00270	.00067	.00076
%RSD	8.9517	2.4262	3.5846	36.713	13.766	.91029

#1	.01097	-.01199	-.00434	.00926	.00532	.08309
#2	.01246	-.01241	-.00413	.00545	.00438	.08417

Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High			10.000	10.000	50.000	5.0000
Low			-.00500	-.01000	-.05000	-.02000

Analysis Report

05/30/00 09:52:45 PM

page 2

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14121	--	--	--	--	--	--
SDev	73.36233	--	--	--	--	--	--
%RSD	.5195384	--	--	--	--	--	--
#1	14173	--	--	--	--	--	--
#2	14069	--	--	--	--	--	--

Method: METTRA Sample Name: DD7XH

Operator: RJG

Run Time: 05/30/00 21:52:49

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00033	-.06991	.00083	.00095	-.00127	.29022	-.00015
SDev	.00001	.00271	.00002	.00047	.00002	.05697	.00024
%RSD	2.6043	3.8739	1.8417	49.848	1.7291	19.630	162.61
#1	.00033	-.06800	.00081	.00062	-.00129	.24994	.00002
#2	.00032	-.07183	.00084	.00129	-.00126	.33051	-.00031
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00024	.00050	.00312	.01715	.03699	.00071	.00014
SDev	.00025	.00019	.00025	.00999	.02331	.00007	.00008
%RSD	102.87	37.575	8.1665	58.259	63.008	10.454	58.615
#1	-.00007	.00064	.00329	.01009	.02051	.00065	.00008
#2	-.00041	.00037	.00294	.02422	.05348	.00076	.00020
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00079	.00007	-.00092	-.00059	-.00039	-.00075	-.00063
SDev	.00030	.00033	.00001	.00012	.00370	.00082	.00178
%RSD	37.680	475.49	.81864	19.564	943.44	108.60	280.69
#1	.00100	.00030	-.00091	-.00051	.00222	-.00017	.00062
#2	.00058	-.00016	-.00093	-.00067	-.00301	-.00133	-.00189
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00056	.00153	.00121	.00129	.00001	.01207	
SDev	.00114	.00275	.00221	.00110	.00000	.00015	
%RSD	204.62	179.58	183.42	85.217	58.259	1.2584	
#1	-.00025	-.00041	-.00036	.00207	.00000	.01197	
#2	.00136	.00347	.00277	.00051	.00001	.01218	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

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IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14591	--	--	--	--	--	--
SDev	5.409643	--	--	--	--	--	--
%RSD	.0370763	--	--	--	--	--	--
#1	14594	--	--	--	--	--	--
#2	14587	--	--	--	--	--	--

Method: METTRA Sample Name: CCV3-3

Operator: RJG

Run Time: 05/30/00 21:56:58

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0320	24.089	.50895	1.9815	2.0044	49.865	.49324
SDev	.0071	.183	.00061	.0134	.0110	.254	.00237
%RSD	.68408	.76042	.11961	.67809	.54879	.50883	.48126
#1	1.0270	23.959	.50938	1.9720	1.9966	49.686	.49156
#2	1.0370	24.218	.50852	1.9910	2.0122	50.045	.49492
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	27.500	.55000	2.2000	2.2000	55.000	.55000
Low	.90000	22.500	.45000	1.8000	1.8000	45.000	.45000
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0056	1.9941	1.9251	24.661	48.054	1.9646	2.0098
SDev	.0123	.0121	.0121	.190	.331	.0127	.0297
%RSD	.61374	.60776	.62877	.77164	.68912	.64872	1.4792
#1	1.9969	1.9856	1.9166	24.526	47.820	1.9556	1.9887
#2	2.0143	2.0027	1.9337	24.796	48.288	1.9736	2.0308
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.2000	2.2000	2.2000	27.500	55.000	2.2000	2.2000
Low	1.8000	1.8000	1.8000	22.500	45.000	1.8000	1.8000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9909	.51749	.50923	.51198	.50376	.50611	.50532
SDev	.0042	.00050	.00552	.00385	.00623	.00461	.00515
%RSD	.21054	.09726	1.0846	.75224	1.2373	.91155	1.0197
#1	1.9880	.51713	.50533	.50926	.49935	.50284	.50168
#2	1.9939	.51785	.51314	.51471	.50816	.50937	.50897
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	2.2000			.55000			.55000
Low	1.8000			.45000			.45000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.50836	.51248	.51111	1.0302	1.9881	2.0442	
SDev	.00382	.00402	.00395	.0134	.0120	.0124	
%RSD	.75177	.78341	.77292	1.3012	.60272	.60901	
#1	.50565	.50964	.50831	1.0207	1.9796	2.0354	
#2	.51106	.51532	.51390	1.0396	1.9966	2.0530	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.55000	1.1000	2.2000	2.2000	
Low			.45000	.90000	1.8000	1.8000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14859	--	--	--	--	--	--
SDev	125.9354	--	--	--	--	--	--
%RSD	.8475108	--	--	--	--	--	--
#1	14948	--	--	--	--	--	--
#2	14770	--	--	--	--	--	--

Method: METTRA Sample Name: CCB3

Operator: RJG

Run Time: 05/30/00 22:01:07

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00035	-.08933	.00159	.00060	-.00052	.02837	-.00003
SDev	.00020	.01544	.00076	.00022	.00024	.00637	.00016
%RSD	58.096	17.284	47.667	36.667	46.590	22.441	621.74
#1	.00020	-.07841	.00106	.00044	-.00069	.02386	-.00014
#2	.00049	-.10025	.00213	.00075	-.00035	.03287	.00009
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00047	.00057	.00350	.02441	.01552	.00060	.00645
SDev	.00011	.00015	.00043	.00286	.00610	.00023	.00264
%RSD	24.160	26.974	12.229	11.712	39.299	38.061	40.871
#1	.00055	.00046	.00319	.02238	.01121	.00044	.00831
#2	.00039	.00068	.00380	.02643	.01984	.00076	.00459
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.02500	.10000	5.0000	.01500	.04000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00062	.00063	-.00080	-.00032	.00136	-.00094	-.00017
SDev	.00081	.00009	.00169	.00116	.00112	.00041	.00065
%RSD	129.44	15.011	211.99	358.81	82.772	44.073	377.47
#1	.00005	.00070	.00040	.00050	.00215	-.00064	.00029
#2	.00119	.00056	-.00200	-.00114	.00056	-.00123	-.00063
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.04000			.00300			.06000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.00593	-.00276	.00013	-.00460	.00409	.00450	
SDev	.00212	.00167	.00040	.00285	.00047	.00029	
%RSD	35.824	60.367	301.56	61.826	11.518	6.4526	
#1	.00443	-.00158	.00042	-.00661	.00442	.00430	
#2	.00743	-.00394	-.00015	-.00259	.00376	.00471	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.00500	.01000	.05000	.02000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14794	--	--	--	--	--	--
SDev	102.3889	--	--	--	--	--	--
%RSD	.6920930	--	--	--	--	--	--
#1	14722	--	--	--	--	--	--
#2	14866	--	--	--	--	--	--

Method: METTRA Sample Name: DD7XJ Operator: RJG
Run Time: 05/30/00 22:05:17
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00059	11.998	.00528	.09051	-.00083	67.414	-.00027
SDev	.00011	.093	.00085	.00057	.00027	.342	.00001
%RSD	18.800	.77175	16.045	.63268	32.951	.50676	3.6968
#1	.00051	11.933	.00468	.09010	-.00063	67.173	-.00028
#2	.00067	12.064	.00588	.09091	-.00102	67.656	-.00026
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00609	.01868	.01440	14.159	42.554	.33107	.00742
SDev	.00010	.00035	.00059	.090	.254	.00221	.00012
%RSD	1.6290	1.8795	4.0981	.63744	.59765	.66673	1.5504
#1	.00616	.01843	.01398	14.095	42.374	.32951	.00750
#2	.00602	.01893	.01482	14.223	42.734	.33263	.00733
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01821	.00856	.00370	.00532	-.00012	.00113	.00071
SDev	.00050	.00083	.00008	.00022	.00063	.00238	.00137
%RSD	2.7587	9.7413	2.1867	4.2045	514.07	210.60	193.17
#1	.01856	.00915	.00364	.00548	.00032	-.00055	-.00026
#2	.01785	.00797	.00376	.00516	-.00057	.00281	.00168
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00377	-.00386	-.00132	-.00094	.02638	.06233	
SDev	.00011	.00251	.00171	.00524	.00015	.00102	
%RSD	2.9509	65.030	129.71	555.03	.55667	1.6285	
#1	.00369	-.00564	-.00253	-.00465	.02628	.06162	
#2	.00385	-.00209	-.00011	.00276	.02649	.06305	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14509	--	--	--	--	--	--
SDev	78.06417	--	--	--	--	--	--
%RSD	.5380452	--	--	--	--	--	--
#1	14564	--	--	--	--	--	--
#2	14454	--	--	--	--	--	--

Method: METTRA Sample Name: DD7XK Operator: RJG
Run Time: 05/30/00 22:09:26
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00004	17.625	.02071	.60749	-.00018	286.02	-.00045
SDev	.00001	.814	.00111	.02522	.00080	11.95	.00004
%RSD	28.215	4.6163	5.3554	4.1510	450.53	4.1772	9.6034
#1	-.00003	17.050	.01993	.58966	.00039	277.57	-.00048
#2	-.00004	18.201	.02150	.62532	-.00074	294.47	-.00042
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01004	.06593	.06070	21.712	96.727	.76173	.01300
SDev	.00003	.00289	.00363	.957	4.118	.03241	.00108
%RSD	.26442	4.3849	5.9797	4.4073	4.2571	4.2550	8.3327
#1	.01002	.06389	.05813	21.035	93.815	.73881	.01223
#2	.01005	.06797	.06326	22.388	99.639	.78465	.01376
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05718	.01994	.02098	.02064	.00828	.00521	.00623
SDev	.00290	.00252	.00050	.00051	.00211	.00191	.00057
%RSD	5.0637	12.643	2.3683	2.4619	25.428	36.631	9.1692
#1	.05514	.01816	.02133	.02028	.00679	.00656	.00663
#2	.05923	.02172	.02063	.02099	.00977	.00386	.00583
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.00706	-.00227	.00084	.00491	.05165	.11822	
SDev	.00139	.00010	.00053	.00348	.00255	.00535	
%RSD	19.731	4.2894	62.986	70.832	4.9359	4.5286	
#1	.00805	-.00220	.00121	.00737	.04984	.11443	
#2	.00608	-.00234	.00047	.00245	.05345	.12200	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14814	--	--	--	--	--	--
SDev	521.2088	--	--	--	--	--	--
%RSD	3.518270	--	--	--	--	--	--
#1	15183	--	--	--	--	--	--
#2	14446	--	--	--	--	--	--

Method: METTRA Sample Name: DD7XL
Run Time: 05/30/00 22:13:36
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Operator: RJG

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00026	.19918	.01051	.66797	-.00183	211.39	-.00030
SDev	.00046	.00811	.00112	.00411	.00008	.79	.00012
%RSD	176.50	4.0730	10.640	.61565	4.5949	.37205	40.469
#1	.00059	.20492	.00972	.66506	-.00189	210.83	-.00021
#2	-.00006	.19345	.01130	.67088	-.00177	211.94	-.00038
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00254	.00406	.00593	3.8240	77.732	.48327	.00506
SDev	.00129	.00040	.00006	.0038	.373	.00223	.00108
%RSD	50.762	9.8221	.96537	.09835	.48048	.46125	21.352
#1	.00346	.00434	.00589	3.8266	77.468	.48169	.00582
#2	.00163	.00378	.00597	3.8213	77.996	.48484	.00429
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01133	.00236	-.00154	-.00024	-.00049	.00072	.00031
SDev	.00044	.00051	.00122	.00099	.00138	.00220	.00193
%RSD	3.9006	21.485	79.473	405.25	283.24	307.22	612.07
#1	.01164	.00272	-.00068	.00045	.00049	.00227	.00168
#2	.01102	.00200	-.00241	-.00094	-.00147	-.00084	-.00105
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.00550	-.00222	.00035	-.00322	.00411	.02633	
SDev	.00273	.00181	.00212	.00347	.00023	.00044	
%RSD	49.691	81.541	611.05	107.98	5.5385	1.6696	
#1	.00357	-.00351	-.00115	-.00076	.00427	.02602	
#2	.00743	-.00094	.00185	-.00567	.00395	.02664	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

Analysis Report

05/30/00 10:17:41 PM

6581401

page 2

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14211	--	--	--	--	--	--
SDev	23.44087	--	--	--	--	--	--
%RSD	.1649508	--	--	--	--	--	--
#1	14227	--	--	--	--	--	--
#2	14194	--	--	--	--	--	--

Method: METTRA Sample Name: DD7XM

Operator: RJG

Run Time: 05/30/00 22:17:45

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00094	.04291	.00290	1.8844	-.00137	215.41	.00007
SDev	.00009	.01224	.00085	.0002	.00004	1.31	.00023
%RSD	9.9928	28.524	29.409	.01195	2.7166	.60712	344.04
#1	.00101	.05156	.00350	1.8843	-.00140	214.49	-.00009
#2	.00088	.03425	.00230	1.8846	-.00135	216.34	.00023
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00132	.00822	.03491	9.4828	82.602	.15739	.02266
SDev	.00062	.00006	.00023	.0526	.216	.00072	.00048
%RSD	46.743	.70631	.65745	.55451	.26137	.45954	2.1045
#1	.00089	.00818	.03475	9.4456	82.449	.15688	.02232
#2	.00176	.00826	.03507	9.5200	82.755	.15790	.02300
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04594	.00489	-.00261	-.00011	.00603	.01010	.00874
SDev	.00108	.00444	.00239	.00012	.00040	.00262	.00162
%RSD	2.3560	90.847	91.783	105.49	6.5810	25.989	18.509
#1	.04670	.00802	-.00430	-.00019	.00575	.01195	.00989
#2	.04517	.00175	-.00091	-.00003	.00631	.00824	.00760
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.00947	-.00658	-.00123	.00525	.00651	.07664	
SDev	.00174	.00066	.00014	.00064	.00134	.00084	
%RSD	18.324	10.034	11.183	12.287	20.607	1.0922	
#1	.01070	-.00705	-.00114	.00571	.00746	.07605	
#2	.00825	-.00611	-.00133	.00480	.00556	.07723	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14500	--	--	--	--	--	--
SDev	9.864278	--	--	--	--	--	--
%RSD	.0680289	--	--	--	--	--	--
#1	14493	--	--	--	--	--	--
#2	14507	--	--	--	--	--	--

Method: METTRA Sample Name: DD7XN

Operator: RJG

Run Time: 05/30/00 22:21:55

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00050	-.02638	-.00038	.22810	-.00090	49.045	-.00029
SDev	.00064	.01112	.00179	.00057	.00005	.152	.00002
%RSD	128.76	42.155	478.00	.24983	5.7632	.30980	7.6193
#1	.00004	-.01852	-.00164	.22850	-.00086	48.937	-.00031
#2	.00095	-.03425	.00089	.22770	-.00094	49.152	-.00028
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00090	.00198	.00496	1.2397	22.413	.06520	.00650
SDev	.00078	.00048	.00037	.0015	.036	.00051	.00019
%RSD	86.243	24.436	7.4627	.12205	.16226	.78140	2.9292
#1	.00035	.00164	.00470	1.2387	22.388	.06484	.00637
#2	.00146	.00232	.00522	1.2408	22.439	.06556	.00664
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00269	.00221	-.00250	-.00093	-.00045	.00243	.00147
SDev	.00081	.00128	.00036	.00066	.00029	.00023	.00025
%RSD	30.291	57.890	14.189	71.040	63.548	9.6378	17.132
#1	.00211	.00131	-.00276	-.00140	-.00066	.00227	.00129
#2	.00327	.00312	-.00225	-.00046	-.00025	.00260	.00165
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.00378	-.00583	-.00263	.00249	.00511	.01606	
SDev	.00145	.00134	.00138	.00037	.00090	.00031	
%RSD	38.370	23.077	52.529	15.016	17.598	1.9493	
#1	.00276	-.00678	-.00360	.00275	.00447	.01584	
#2	.00481	-.00488	-.00165	.00222	.00575	.01628	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

6581405

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14892	--	--	--	--	--	--
SDev	54.51835	--	--	--	--	--	--
%RSD	.3660903	--	--	--	--	--	--
#1	14931	--	--	--	--	--	--
#2	14854	--	--	--	--	--	--

Method: METTRA Sample Name: DD7XP Operator: RJG
Run Time: 05/30/00 22:26:04
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00043	.02691	.01421	.58870	-.00163	189.50	-.00033
SDev	.00045	.00837	.00026	.00228	.00003	1.25	.00007
%RSD	104.18	31.089	1.8128	.38708	2.0065	.66138	22.043
#1	.00011	.03283	.01403	.59031	-.00161	190.39	-.00028
#2	.00074	.02100	.01439	.58709	-.00166	188.62	-.00038
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00033	.00102	.00536	6.6136	71.803	.28512	.00081
SDev	.00041	.00038	.00017	.0331	.369	.00135	.00084
%RSD	122.87	37.213	3.1024	.50050	.51370	.47164	103.69
#1	.00004	.00075	.00524	6.6370	72.063	.28607	.00140
#2	.00062	.00129	.00548	6.5902	71.542	.28417	.00022
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00480	.00223	-.00309	-.00131	-.00076	.00023	-.00010
SDev	.00081	.00279	.00078	.00041	.00082	.00103	.00096
%RSD	16.894	124.93	25.378	30.936	107.32	443.06	974.59
#1	.00423	.00421	-.00364	-.00103	-.00134	-.00050	-.00078
#2	.00538	.00026	-.00253	-.00160	-.00018	.00096	.00058
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.00582	-.00119	.00114	-.00223	.00408	.01172	
SDev	.00026	.00011	.00016	.00161	.00070	.00064	
%RSD	4.4945	8.8583	13.793	72.393	17.183	5.4687	
#1	.00600	-.00112	.00125	-.00109	.00458	.01127	
#2	.00563	-.00127	.00103	-.00337	.00358	.01217	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

6581407

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14426	--	--	--	--	--	--
SDev	56.71010	--	--	--	--	--	--
%RSD	.3931022	--	--	--	--	--	--
#1	14386	--	--	--	--	--	--
#2	14466	--	--	--	--	--	--

Method: METTRA Sample Name: DD7XQ

Operator: RJG

Run Time: 05/30/00 22:30:13

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00117	.46017	.00139	.03635	-.00132	246.45	.00006
SDev	.00123	.03238	.00042	.00075	.00037	4.78	.00016
%RSD	105.14	7.0354	30.042	2.0574	28.213	1.9394	243.15
#1	.00203	.48306	.00168	.03688	-.00158	249.83	.00017
#2	.00030	.43728	.00109	.03582	-.00105	243.07	-.00005
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00182	.00512	.00727	.52930	169.57	.07615	.00214
SDev	.00106	.00149	.00068	.00928	3.10	.00160	.00033
%RSD	58.260	29.157	9.3199	1.7528	1.8301	2.1014	15.380
#1	.00256	.00618	.00775	.53586	171.76	.07728	.00237
#2	.00107	.00406	.00679	.52274	167.37	.07502	.00190
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04307	.00647	-.00251	.00048	-.00429	.00228	.00009
SDev	.00128	.00793	.00385	.00008	.00414	.00531	.00216
%RSD	2.9691	122.66	153.44	15.735	96.503	232.88	2351.6
#1	.04397	.01208	-.00523	.00053	-.00722	.00603	.00162
#2	.04216	.00086	.00021	.00043	-.00136	-.00147	-.00144
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00876	-.00805	-.00245	.00470	.00839	.02922	
SDev	.00240	.00124	.00003	.00522	.00312	.00015	
%RSD	27.363	15.381	1.1261	111.21	37.199	.51310	
#1	.01045	-.00892	-.00247	.00100	.01059	.02911	
#2	.00706	-.00717	-.00243	.00839	.00618	.02933	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14488	--	--	--	--	--	--
SDev	303.1368	--	--	--	--	--	--
%RSD	2.092323	--	--	--	--	--	--
#1	14274	--	--	--	--	--	--
#2	14702	--	--	--	--	--	--

Method: METTRA Sample Name: DD7XV

Operator: RJG

Run Time: 05/30/00 22:34:23

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00014	.09559	.00072	.52929	-.00121	125.85	-.00027
SDev	.00060	.00983	.00077	.00156	.00011	.69	.00003
%RSD	437.46	10.280	106.67	.29577	8.9308	.54905	13.116
#1	.00056	.10254	.00126	.53039	-.00129	126.34	-.00024
#2	-.00029	.08864	.00018	.52818	-.00114	125.36	-.00029
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00067	.00175	.00461	.61158	57.490	.08469	.00205
SDev	.00018	.00063	.00011	.00305	.185	.00038	.00017
%RSD	26.925	36.163	2.3162	.49806	.32235	.44951	8.5800
#1	.00080	.00220	.00469	.61373	57.621	.08496	.00217
#2	.00055	.00130	.00454	.60942	57.359	.08442	.00192
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00807	.00251	-.00177	-.00035	.00066	.00046	.00053
SDev	.00161	.00233	.00180	.00042	.00308	.00065	.00059
%RSD	20.017	92.954	101.49	121.99	466.31	141.88	112.80
#1	.00693	.00415	-.00304	-.00065	-.00152	.00092	.00011
#2	.00921	.00086	-.00050	-.00005	.00284	-.00000	.00094
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.00826	-.00559	-.00098	.00196	.00482	.01350	
SDev	.00132	.00227	.00107	.00504	.00024	.00051	
%RSD	15.949	40.534	109.51	257.40	4.9867	3.7990	
#1	.00919	-.00720	-.00174	.00552	.00499	.01314	
#2	.00733	-.00399	-.00022	-.00161	.00465	.01386	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

Method: METTRA Sample Name: DD7XW

Operator: RJG

Run Time: 05/30/00 22:38:33

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00436	4.3383	.00211	.09347	-.00145	412.06	.00058
SDev	.00021	.0684	.00034	.00112	.00025	4.03	.00003
%RSD	4.7180	1.5777	16.335	1.1925	17.358	.97758	5.5023

#1	.00422	4.3867	.00235	.09426	-.00163	414.91	.00060
#2	.00451	4.2899	.00186	.09268	-.00127	409.21	.00055

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02993	.02045	.01361	43.192	108.32	H31.876	.02297
SDev	.00079	.00006	.00073	.427	1.11	.290	.00096
%RSD	2.6520	.29553	5.3766	.98887	1.0277	.90834	4.1940

#1	.03049	.02040	.01309	43.494	109.11	H32.081	.02229
#2	.02937	.02049	.01413	42.890	107.53	H31.672	.02365

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000

Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.21728	.01128	.00721	.00856	-.00654	.00193	-.00090
SDev	.00378	.00036	.00112	.00063	.00047	.00138	.00108
%RSD	1.7397	3.1877	15.535	7.3220	7.1263	71.877	120.45

#1	.21995	.01103	.00800	.00901	-.00687	.00095	-.00166
#2	.21460	.01153	.00641	.00812	-.00621	.00290	-.00013

Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000

Elem	SE/1	SE/2	SE	TL	V_	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01530	.00539	.00869	.02757	.01832	H25.554
SDev	.00009	.00130	.00084	.00666	.00064	.276
%RSD	.61138	24.096	9.6140	24.146	3.5141	1.0785

#1	.01524	.00631	.00929	.02286	.01877	H25.748
#2	.01537	.00448	.00810	.03228	.01786	H25.359

Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC High
High			10.000	10.000	50.000	5.0000
Low			-.00500	-.01000	-.05000	-.02000

Analysis Report

05/30/00 10:38:29 PM

6581411
page 2

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14602	--	--	--	--	--	--
SDev	46.49227	--	--	--	--	--	--
%RSD	.3184037	--	--	--	--	--	--
#1	14569	--	--	--	--	--	--
#2	14635	--	--	--	--	--	--

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14349	--	--	--	--	--	--
SDev	164.3671	--	--	--	--	--	--
%RSD	1.145465	--	--	--	--	--	--
#1	14233	--	--	--	--	--	--
#2	14466	--	--	--	--	--	--

Method: METTRA Sample Name: CCV3-4

Operator: RJG

Run Time: 05/30/00 22:42:42

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0417	24.372	.51226	2.0063	2.0191	50.365	.49777
SDev	.0036	.077	.00278	.0051	.0096	.183	.00213
%RSD	.34242	.31458	.54232	.25312	.47496	.36283	.42683
#1	1.0442	24.426	.51422	2.0099	2.0259	50.494	.49928
#2	1.0392	24.317	.51029	2.0027	2.0123	50.236	.49627
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	27.500	.55000	2.2000	2.2000	55.000	.55000
Low	.90000	22.500	.45000	1.8000	1.8000	45.000	.45000
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0221	2.0103	1.9424	24.845	48.358	1.9680	2.0252
SDev	.0097	.0073	.0057	.087	.166	.0037	.0071
%RSD	.47917	.36397	.29226	.34978	.34280	.18843	.35205
#1	2.0289	2.0155	1.9464	24.906	48.475	1.9707	2.0201
#2	2.0152	2.0051	1.9384	24.783	48.241	1.9654	2.0302
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.2000	2.2000	2.2000	27.500	55.000	2.2000	2.2000
Low	1.8000	1.8000	1.8000	22.500	45.000	1.8000	1.8000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0218	.52159	.51281	.51574	.50787	.50583	.50651
SDev	.0084	.00037	.00468	.00324	.00369	.00144	.00219
%RSD	.41539	.07143	.91173	.62873	.72616	.28438	.43188
#1	2.0277	.52185	.51612	.51803	.51048	.50685	.50805
#2	2.0159	.52132	.50951	.51344	.50526	.50481	.50496
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	2.2000			.55000			.55000
Low	1.8000			.45000			.45000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.51082	.51550	.51394	1.0344	2.0097	2.0698	
SDev	.00031	.00127	.00095	.0040	.0108	.0059	
%RSD	.06154	.24577	.18480	.38340	.53803	.28498	
#1	.51104	.51640	.51461	1.0372	2.0173	2.0740	
#2	.51059	.51460	.51327	1.0316	2.0020	2.0656	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.55000	1.1000	2.2000	2.2000	
Low			.45000	.90000	1.8000	1.8000	

6581415

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14706	--	--	--	--	--	--
SDev	52.99710	--	--	--	--	--	--
%RSD	.3603694	--	--	--	--	--	--
#1	14669	--	--	--	--	--	--
#2	14744	--	--	--	--	--	--

Method: METTRA Sample Name: CCB4

Operator: RJG

Run Time: 05/30/00 22:46:52

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00036	-.11046	-.00001	.00054	-.00117	.03324	.00001
SDev	.00008	.01303	.00082	.00005	.00001	.00974	.00008
%RSD	23.526	11.797	5472.0	8.6775	.54335	29.312	1548.4
#1	.00042	-.10124	.00056	.00051	-.00117	.02635	.00006
#2	.00030	-.11967	-.00059	.00057	-.00117	.04013	-.00005
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00035	.00062	.00431	.01213	.01772	.00140	.00743
SDev	.00034	.00006	.00032	.00294	.00259	.00051	.00306
%RSD	98.979	10.003	7.4281	24.226	14.592	36.045	41.222
#1	.00010	.00057	.00408	.01420	.01590	.00105	.00959
#2	.00059	.00066	.00454	.01005	.01955	.00176	.00526
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.02500	.10000	5.0000	.01500	.04000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00064	.00090	-.00098	-.00036	.00143	.00049	.00080
SDev	.00067	.00084	.00119	.00107	.00135	.00104	.00114
%RSD	106.12	93.888	120.59	299.54	94.245	214.26	142.94
#1	.00111	.00030	-.00182	-.00112	.00048	-.00025	-.00001
#2	.00016	.00149	-.00015	.00040	.00238	.00122	.00161
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.04000			.00300			.06000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00565	-.00202	.00053	.00379	.00000	.00462	
SDev	.00166	.00102	.00013	.00277	.00000	.00111	
%RSD	29.420	50.518	23.929	73.218	24.226	24.031	
#1	.00682	-.00274	.00044	.00183	.00000	.00383	
#2	.00447	-.00130	.00062	.00575	.00000	.00540	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.00500	.01000	.05000	.02000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14592	--	--	--	--	--	--
SDev	60.59919	--	--	--	--	--	--
%RSD	.4152948	--	--	--	--	--	--
#1	14549	--	--	--	--	--	--
#2	14635	--	--	--	--	--	--

Method: METTRA Sample Name: DDRETFB Operator: RJG
 Run Time: 05/30/00 22:51:02
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00021	-.10300	-.00031	.00026	-.00170	.04282	-.00018
SDev	.00044	.00015	.00153	.00009	.00008	.00232	.00003
%RSD	209.35	.14943	492.54	35.433	4.6218	5.4232	19.130
#1	-.00010	-.10289	-.00140	.00020	-.00164	.04118	-.00016
#2	.00053	-.10311	.00077	.00033	-.00176	.04446	-.00020
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00019	.00017	.00561	.01714	.00962	.00095	.00220
SDev	.00083	.00032	.00007	.00170	.00232	.00000	.00032
%RSD	441.95	189.89	1.2985	9.9086	24.112	.34538	14.546
#1	-.00078	-.00006	.00556	.01594	.00798	.00095	.00242
#2	.00040	.00039	.00566	.01834	.01126	.00095	.00197
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.02500	.10000	5.0000	.01500	.04000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00043	.00078	-.00170	-.00087	-.00051	.00069	.00029
SDev	.00022	.00071	.00064	.00019	.00037	.00052	.00047
%RSD	52.548	91.089	37.969	22.107	72.013	75.129	160.45
#1	.00058	.00129	-.00215	-.00101	-.00077	.00032	-.00004
#2	.00027	.00028	-.00124	-.00074	-.00025	.00106	.00062
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.04000			.00300			.06000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00377	-.00157	.00021	-.00256	.00017	.00569	
SDev	.00188	.00251	.00230	.00133	.00023	.00010	
%RSD	49.790	159.86	1093.9	51.719	136.70	1.8068	
#1	.00510	.00020	.00183	-.00163	.00001	.00561	
#2	.00244	-.00334	-.00141	-.00350	.00033	.00576	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.00500	.01000	.05000	.02000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14464	--	--	--	--	--	--
SDev	37.01746	--	--	--	--	--	--
%RSD	.2559330	--	--	--	--	--	--
#1	14490	--	--	--	--	--	--
#2	14438	--	--	--	--	--	--

Method: METTRA Sample Name: DDRETCF Operator: RJG
 Run Time: 05/30/00 22:55:11
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05043	1.7300	1.9818	1.9464	.04792	L.13766	.04973
SDev	.00011	.0104	.0034	.0012	.00009	.00010	.00040
%RSD	.22505	.59966	.17352	.06191	.17752	.07161	.80702
#1	.05035	1.7374	1.9842	1.9473	.04786	L.13759	.05001
#2	.05051	1.7227	1.9794	1.9456	.04798	L.13773	.04944
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass
High	.06000	2.4000	2.4000	2.4000	.06000	60.000	.06000
Low	.04000	1.6000	1.6000	1.6000	.04000	40.000	.04000
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50309	.19892	.23867	1.0007	L.01244	.48417	L.00150
SDev	.00118	.00053	.00014	.0123	.00300	.00105	.00032
%RSD	.23493	.26502	.05666	1.2290	24.105	.21763	21.024
#1	.50392	.19929	.23857	1.0094	L.01456	.48491	L.00127
#2	.50225	.19854	.23876	.99197	L.01032	.48342	L.00172
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Low
High	.60000	.24000	.30000	1.2000	60.000	.60000	1.2000
Low	.40000	.16000	.20000	.80000	40.000	.40000	.80000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50309	.49850	.49247	.49447	-.00158	-.00029	L-.00072
SDev	.00261	.00186	.00291	.00256	.00012	.00070	.00043
%RSD	.51786	.37342	.59143	.51824	7.4396	245.67	59.792
#1	.50493	.49981	.49452	.49629	-.00166	.00021	L-.00041
#2	.50125	.49718	.49041	.49266	-.00150	-.00078	L-.00102
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Low
High	.60000			.60000			.60000
Low	.40000			.40000			.40000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	1.9416	1.9701	1.9606	1.9552	.48821	.52668	
SDev	.0116	.0180	.0159	.0050	.00133	.00157	
%RSD	.59790	.91530	.81063	.25480	.27269	.29859	
#1	1.9498	1.9828	1.9718	1.9588	.48915	.52779	
#2	1.9334	1.9573	1.9494	1.9517	.48727	.52557	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			2.4000	2.4000	.60000	.60000	
Low			1.6000	1.6000	.40000	.40000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14464	--	--	--	--	--	--
SDev	66.25604	--	--	--	--	--	--
%RSD	.4580866	--	--	--	--	--	--
#1	14417	--	--	--	--	--	--
#2	14510	--	--	--	--	--	--

Method: METTRA Sample Name: DD7XDF
Run Time: 05/30/00 22:59:21
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Operator: RJG

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00074	-.11252	.00120	2.1285	-.00164	269.47	-.00014
SDev	.00013	.00819	.00006	.0060	.00018	.09	.00023
%RSD	17.734	7.2797	4.9606	.28082	11.218	.03289	162.55
#1	.00084	-.10673	.00124	2.1327	-.00177	269.53	-.00030
#2	.00065	-.11831	.00116	2.1243	-.00151	269.41	.00002
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00080	.00135	.00663	.06013	123.80	.07677	.00814
SDev	.00074	.00009	.00003	.01248	.25	.00001	.00138
%RSD	91.724	6.9474	.42650	20.758	.20122	.00972	17.008
#1	-.00132	.00129	.00665	.05131	123.98	.07677	.00716
#2	-.00028	.00142	.00661	.06896	123.63	.07676	.00912
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00374	.00301	-.00460	-.00206	-.00403	.00224	.00015
SDev	.00075	.00178	.00123	.00142	.00023	.00125	.00091
%RSD	20.079	59.208	26.858	68.671	5.6740	55.666	614.15
#1	.00321	.00427	-.00372	-.00106	-.00387	.00312	.00079
#2	.00427	.00175	-.00547	L-.00307	-.00420	.00136	-.00049
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.00989	-.00700	-.00137	.00819	.00231	.03219	
SDev	.00108	.00333	.00186	.00298	.00047	.00138	
%RSD	10.881	47.618	135.80	36.377	20.243	4.2798	
#1	.00913	-.00464	-.00005	.01030	.00264	.03121	
#2	.01065	-.00935	-.00269	.00609	.00198	.03316	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

Analysis Report

05/30/00 11:03:27 PM

page 2

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14210	--	--	--	--	--	--
SDev	60.38720	--	--	--	--	--	--
%RSD	.4249716	--	--	--	--	--	--
#1	14167	--	--	--	--	--	--
#2	14252	--	--	--	--	--	--

Method: METTRA Sample Name: DD7XDP5F Operator: RJG
 Run Time: 05/30/00 23:03:31
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00043	-.14787	.00011	.42018	-.00094	53.424	-.00008
SDev	.00009	.00592	.00043	.00037	.00019	.241	.00002
%RSD	21.432	4.0030	377.74	.08903	20.377	.45180	31.354
#1	.00036	-.15205	.00042	.41991	-.00080	53.254	-.00006
#2	.00049	-.14368	-.00019	.42044	-.00107	53.595	-.00010

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00035	.00029	.00435	-.01239	23.386	.01495	.00164
SDev	.00047	.00037	.00037	.00606	.078	.00017	.00051
%RSD	136.06	128.78	8.5092	48.878	.33200	1.1736	30.764
#1	.00001	.00003	.00409	-.01668	23.331	.01483	.00128
#2	.00068	.00055	.00461	-.00811	23.441	.01508	.00200

Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00119	.00248	-.00218	-.00063	-.00103	.00019	-.00021
SDev	.00060	.00234	.00015	.00068	.00084	.00259	.00201
%RSD	49.849	94.485	7.0635	107.51	81.654	1345.3	936.61
#1	.00077	.00414	-.00229	-.00015	-.00043	.00202	.00120
#2	.00161	.00082	-.00207	-.00111	-.00162	-.00164	-.00163

Elem	SE/1	SE/2	SE	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00707	-.00355	-.00001	.00456	.00453	.01085
SDev	.00057	.00164	.00090	.00107	.00070	.00032
%RSD	8.1190	46.342	8689.7	23.349	15.360	2.9960
#1	.00666	-.00238	.00063	.00381	.00404	.01062
#2	.00748	-.00471	-.00065	.00532	.00502	.01108

6581425

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14858	--	--	--	--	--	--
SDev	100.5507	--	--	--	--	--	--
%RSD	.6767287	--	--	--	--	--	--
#1	14929	--	--	--	--	--	--
#2	14787	--	--	--	--	--	--

Method: METTRA Sample Name: DD7XDSF Operator: RJG
Run Time: 05/30/00 23:07:40
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05736	2.4233	2.0842	4.1269	.04763	271.10	.04764
SDev	.00012	.0036	.0006	.0008	.00003	.33	.00027
%RSD	.21588	.14721	.02734	.01937	.06272	.12248	.57487
#1	.05745	2.4259	2.0846	4.1275	.04761	270.86	.04745
#2	.05727	2.4208	2.0838	4.1264	.04765	271.33	.04783
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50851	.20249	.27547	1.1051	124.07	.58438	.00790
SDev	.00174	.00047	.00043	.0052	.12	.00067	.00043
%RSD	.34284	.22942	.15521	.47110	.09513	.11500	5.4868
#1	.50728	.20216	.27517	1.1088	123.98	.58391	.00759
#2	.50974	.20282	.27577	1.1015	124.15	.58486	.00821
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51671	.56799	.52742	.54093	.00021	.00193	.00136
SDev	.00092	.00231	.00239	.00236	.00210	.00048	.00038
%RSD	.17779	.40708	.45312	.43702	1017.6	24.985	27.830
#1	.51736	.56636	.52574	.53926	-.00128	.00227	.00109
#2	.51606	.56963	.52911	.54261	.00169	.00159	.00162
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	2.0816	2.1470	2.1252	2.3152	.51662	.58158	
SDev	.0006	.0153	.0104	.0151	.00141	.00229	
%RSD	.02967	.71179	.48930	.65090	.27265	.39385	
#1	2.0812	2.1362	2.1179	2.3045	.51562	.57996	
#2	2.0821	2.1578	2.1326	2.3259	.51762	.58320	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14046	--	--	--	--	--	--
SDev	12.93992	--	--	--	--	--	--
%RSD	.0921233	--	--	--	--	--	--
#1	14055	--	--	--	--	--	--
#2	14037	--	--	--	--	--	--

Method: METTRA Sample Name: DD7XDDF

Operator: RJG

Run Time: 05/30/00 23:11:49

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.06615	2.7692	2.4089	4.3698	.05645	264.22	.05514
SDev	.00199	.1067	.0757	.1387	.00126	8.03	.00153
%RSD	3.0032	3.8544	3.1408	3.1740	2.2319	3.0407	2.7719
#1	.06474	2.6937	2.3554	4.2717	.05555	258.54	.05406
#2	.06755	2.8447	2.4624	4.4679	.05734	269.90	.05622
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.58678	.23376	.31562	1.2723	120.75	.66147	.00758
SDev	.01954	.00695	.00998	.0614	3.78	.02018	.00003
%RSD	3.3296	2.9729	3.1623	4.8286	3.1267	3.0513	.46544
#1	.57296	.22885	.30856	1.2288	118.08	.64720	.00755
#2	.60059	.23867	.32268	1.3157	123.42	.67575	.00760
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.59748	.65611	.61296	.62733	.00206	-.00041	.00041
SDev	.01746	.00889	.01281	.01150	.00119	.00116	.00038
%RSD	2.9220	1.3551	2.0896	1.8338	57.570	280.49	92.382
#1	.58514	.64983	.60391	.61920	.00122	.00041	.00068
#2	.60983	.66240	.62202	.63547	.00290	-.00123	.00014
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	2.3997	2.4957	2.4637	2.6640	.59747	.66282	
SDev	.0502	.0535	.0524	.0780	.01853	.02084	
%RSD	2.0938	2.1441	2.1278	2.9285	3.1022	3.1437	
#1	2.3641	2.4579	2.4267	2.6089	.58436	.64809	
#2	2.4352	2.5336	2.5008	2.7192	.61057	.67756	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14623	--	--	--	--	--	--
SDev	310.4903	--	--	--	--	--	--
%RSD	2.123301	--	--	--	--	--	--
#1	14843	--	--	--	--	--	--
#2	14403	--	--	--	--	--	--

6581430

Analysis Report

05/30/00 11:20:05 PM

page 1

Method: METTRA Sample Name: DD7XEF Operator: RJG
 Run Time: 05/30/00 23:15:59
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00064	-.14774	.00482	.55599	-.00125	136.37	-.00027
SDev	.00027	.00507	.00155	.00251	.00006	.86	.00015
%RSD	41.526	3.4334	32.109	.45116	4.6098	.62917	56.643
#1	.00083	-.14415	.00373	.55776	-.00121	136.98	-.00038
#2	.00045	-.15133	.00592	.55422	-.00129	135.77	-.00016
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00045	.00069	.00452	-.04033	67.369	.02682	.00570
SDev	.00027	.00042	.00035	.01239	.375	.00026	.00010
%RSD	59.957	60.559	7.6889	30.717	.55617	.97786	1.7192
#1	.00026	.00040	.00427	-.04909	67.634	.02700	.00563
#2	.00064	.00099	.00477	-.03157	67.104	.02663	.00576
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00120	.00206	-.00300	-.00132	-.00258	-.00149	-.00185
SDev	.00029	.00211	.00171	.00044	.00098	.00019	.00020
%RSD	24.344	101.99	56.862	33.295	38.049	13.106	10.629
#1	.00140	.00355	-.00421	-.00163	-.00327	-.00135	-.00199
#2	.00099	.00058	-.00180	-.00101	-.00188	-.00162	-.00171
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.00911	-.00320	.00090	.00582	.00344	.00895	
SDev	.00387	.00099	.00063	.00011	.00001	.00051	
%RSD	42.485	31.106	69.330	1.8017	.35947	5.7360	
#1	.01185	-.00390	.00135	.00590	.00343	.00859	
#2	.00638	-.00249	.00046	.00575	.00344	.00932	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14805	--	--	--	--	--	--
SDev	34.43555	--	--	--	--	--	--
%RSD	.2325987	--	--	--	--	--	--
#1	14829	--	--	--	--	--	--
#2	14780	--	--	--	--	--	--

Method: METTRA Sample Name: DD7XFF Operator: RJG
Run Time: 05/30/00 23:20:08
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00063	-.13842	.02072	.18061	-.00172	55.420	-.00025
SDev	.00003	.00630	.00032	.00007	.00004	.150	.00017
%RSD	5.3773	4.5494	1.5446	.04043	2.5473	.26985	67.816
#1	.00061	-.13397	.02095	.18056	-.00169	55.314	-.00013
#2	.00066	-.14287	.02050	.18066	-.00175	55.526	-.00036
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00006	.00064	.00501	.25159	30.518	.05966	.00849
SDev	.00030	.00013	.00002	.00271	.040	.00019	.00047
%RSD	505.35	19.647	.42806	1.0774	.13000	.32708	5.5507
#1	-.00027	.00055	.00502	.24967	30.490	.05952	.00882
#2	.00015	.00073	.00499	.25351	30.546	.05980	.00815
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00121	.00359	-.00246	-.00044	.00078	.00077	.00078
SDev	.00060	.00126	.00050	.00008	.00267	.00049	.00056
%RSD	49.354	35.136	20.491	19.134	341.58	63.243	72.691
#1	.00079	.00448	-.00281	-.00038	.00267	.00043	.00117
#2	.00163	.00270	-.00210	-.00050	-.00111	.00112	.00038
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.00320	-.00070	.00060	-.00199	.00231	.00761	
SDev	.00144	.00118	.00127	.00197	.00001	.00036	
%RSD	44.934	168.82	212.89	98.833	.20735	4.7551	
#1	.00421	.00014	.00149	-.00338	.00230	.00736	
#2	.00218	-.00154	-.00030	-.00060	.00231	.00787	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14640	--	--	--	--	--	--
SDev	25.31429	--	--	--	--	--	--
%RSD	.1729118	--	--	--	--	--	--
#1	14658	--	--	--	--	--	--
#2	14622	--	--	--	--	--	--

Method: METTRA Sample Name: DD7XGF Operator: RJG
Run Time: 05/30/00 23:24:18
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00058	-.14052	.00146	3.4879	-.00188	344.14	-.00005
SDev	.00012	.00403	.00057	.0432	.00014	2.25	.00020
%RSD	21.325	2.8658	38.897	1.2384	7.5415	.65405	389.66
#1	.00066	-.13768	.00106	3.4573	-.00178	342.55	-.00019
#2	.00049	-.14337	.00186	3.5184	-.00198	345.73	.00009
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00085	.00073	.00641	L-.18071	166.57	.23290	.00142
SDev	.00005	.00016	.00078	.00948	1.60	.00234	.00010
%RSD	5.8846	22.119	12.251	5.2465	.96004	1.0068	7.2698
#1	-.00089	.00085	.00586	L-.17401	165.44	.23124	.00135
#2	-.00082	.00062	.00697	L-.18742	167.70	.23456	.00149
Errors	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00681	-.00006	-.00376	-.00253	.00060	.00026	.00037
SDev	.00105	.00026	.00027	.00027	.00078	.00002	.00025
%RSD	15.392	440.99	7.2120	10.598	130.61	5.5581	66.838
#1	.00607	.00013	-.00357	-.00234	.00115	.00025	.00055
#2	.00755	-.00024	-.00396	-.00272	.00005	.00027	.00020
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.00736	-.00519	-.00101	.00613	.00590	.07162	
SDev	.00260	.00215	.00230	.00556	.00050	.00086	
%RSD	35.340	41.417	228.08	90.690	8.4606	1.2040	
#1	.00920	-.00367	.00062	.01006	.00554	.07101	
#2	.00552	-.00671	-.00263	.00220	.00625	.07223	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14026	--	--	--	--	--	--
SDev	80.18619	--	--	--	--	--	--
%RSD	.5717090	--	--	--	--	--	--
#1	14082	--	--	--	--	--	--
#2	13969	--	--	--	--	--	--

Method: METTRA Sample Name: DD7XHF Operator: RJG
Run Time: 05/30/00 23:28:28
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00032	-.14640	.00065	.00034	-.00191	.09002	-.00011
SDev	.00007	.01712	.00100	.00004	.00000	.00652	.00000
%RSD	21.089	11.692	152.55	10.670	.19567	7.2454	2.9783
#1	.00037	-.13430	-.00005	.00037	-.00191	.09463	-.00011
#2	.00027	-.15851	.00136	.00032	-.00190	.08541	-.00011
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00036	.00037	.00573	.01595	.01825	.00072	.00096
SDev	.00046	.00019	.00040	.03530	.00332	.00002	.00007
%RSD	128.38	51.347	6.9305	221.30	18.212	2.1670	7.7901
#1	-.00003	.00050	.00544	.04091	.02060	.00071	.00091
#2	-.00068	.00024	.00601	-.00901	.01590	.00073	.00102
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00053	.00243	-.00158	-.00024	.00015	-.00093	-.00057
SDev	.00037	.00481	.00132	.00072	.00276	.00283	.00097
%RSD	70.362	197.85	83.686	294.53	1784.9	303.20	169.27
#1	.00027	-.00097	-.00064	-.00075	.00211	-.00293	-.00125
#2	.00079	.00583	-.00251	.00026	-.00180	.00107	.00011
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	-.00131	.00107	.00028	-.00250	.00001	.00632	
SDev	.00096	.00161	.00139	.00229	.00001	.00028	
%RSD	73.012	149.35	494.31	91.443	221.30	4.5135	
#1	-.00063	.00221	.00126	-.00412	.00001	.00612	
#2	-.00198	-.00006	-.00070	-.00089	-.00000	.00652	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14519	--	--	--	--	--	--
SDev	37.83021	--	--	--	--	--	--
%RSD	.2605602	--	--	--	--	--	--
#1	14492	--	--	--	--	--	--
#2	14546	--	--	--	--	--	--

Method: METTRA Sample Name: CCV3-5 Operator: RJG
Run Time: 05/30/00 23:32:37
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0496	24.693	.51417	2.0460	2.0227	50.404	.49580
SDev	.0007	.014	.00090	.0012	.0047	.091	.00049
%RSD	.07135	.05784	.17461	.06025	.23199	.17995	.09856
#1	1.0501	24.703	.51353	2.0468	2.0260	50.468	.49545
#2	1.0490	24.683	.51480	2.0451	2.0194	50.340	.49615
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	27.500	.55000	2.2000	2.2000	55.000	.55000
Low	.90000	22.500	.45000	1.8000	1.8000	45.000	.45000
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.0209	2.0069	1.9730	24.794	48.528	1.9742	2.0212
SDev	.0021	.0038	.0040	.015	.076	.0027	.0093
%RSD	.10616	.18803	.20354	.06169	.15575	.13707	.46150
#1	2.0224	2.0095	1.9758	24.805	48.581	1.9761	2.0146
#2	2.0194	2.0042	1.9701	24.783	48.474	1.9723	2.0278
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.2000	2.2000	2.2000	27.500	55.000	2.2000	2.2000
Low	1.8000	1.8000	1.8000	22.500	45.000	1.8000	1.8000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.0423	.51545	.51039	.51208	.50954	.50983	.50973
SDev	.0084	.00430	.00172	.00029	.00225	.00114	.00151
%RSD	.41091	.83493	.33659	.05610	.44057	.22292	.29536
#1	2.0483	.51850	.50917	.51228	.50795	.50902	.50867
#2	2.0364	.51241	.51160	.51187	.51113	.51063	.51080
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	2.2000			.55000			.55000
Low	1.8000			.45000			.45000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.51166	.51575	.51439	1.0290	2.0291	2.0794	
SDev	.00223	.00298	.00124	.0052	.0095	.0047	
%RSD	.43647	.57725	.24147	.50059	.46749	.22786	
#1	.51324	.51365	.51351	1.0254	2.0358	2.0827	
#2	.51008	.51786	.51527	1.0327	2.0224	2.0760	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.55000	1.1000	2.2000	2.2000	
Low			.45000	.90000	1.8000	1.8000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14678	--	--	--	--	--	--
SDev	33.12768	--	--	--	--	--	--
%RSD	.2257034	--	--	--	--	--	--
#1	14654	--	--	--	--	--	--
#2	14701	--	--	--	--	--	--

Method: METTRA Sample Name: CCB5

Operator: RJG

Run Time: 05/30/00 23:36:47

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00046	-.14911	-.00033	.00068	-.00119	.02672	.00000
SDev	.00028	.00974	.00032	.00037	.00004	.01288	.00009
%RSD	60.027	6.5297	95.956	54.506	2.9739	48.195	2414.4
#1	.00027	-.15600	-.00011	.00042	-.00116	.01761	-.00006
#2	.00066	-.14223	-.00056	.00094	-.00121	.03582	.00007
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00049	.00054	.00528	.00888	.01721	.00059	.00744
SDev	.00010	.00048	.00039	.00052	.00593	.00015	.00178
%RSD	20.677	89.361	7.4069	5.7970	34.451	25.875	23.918
#1	.00056	.00020	.00501	.00851	.01302	.00049	.00870
#2	.00042	.00088	.00556	.00924	.02140	.00070	.00618
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.02500	.10000	5.0000	.01500	.04000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00052	-.00091	-.00020	-.00043	.00209	-.00005	.00066
SDev	.00007	.00266	.00070	.00042	.00189	.00122	.00018
%RSD	13.175	293.59	358.01	96.850	90.209	2263.6	27.893
#1	.00057	.00097	-.00069	-.00014	.00076	.00081	.00079
#2	.00047	-.00279	.00030	-.00073	.00343	-.00092	.00053
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.04000			.00300			.06000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.00320	-.00209	-.00033	.00222	.00000	.00318	
SDev	.00176	.00009	.00053	.00411	.00000	.00037	
%RSD	54.925	4.1505	160.54	184.92	5.7970	11.720	
#1	.00444	-.00215	.00004	.00512	.00000	.00292	
#2	.00196	-.00203	-.00070	-.00068	.00000	.00344	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.00500	.01000	.05000	.02000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14730	--	--	--	--	--	--
SDev	131.2387	--	--	--	--	--	--
%RSD	.8909683	--	--	--	--	--	--
#1	14823	--	--	--	--	--	--
#2	14637	--	--	--	--	--	--

Method: METTRA Sample Name: DD7XJF

Operator: RJG

Run Time: 05/30/00 23:40:57

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00093	-.13173	.00164	.02933	-.00231	68.398	-.00000
SDev	.00044	.01335	.00035	.00003	.00004	.070	.00004
%RSD	46.844	10.131	21.151	.10336	1.5593	.10296	853.59
#1	.00062	-.12229	.00140	.02936	-.00234	68.448	.00002
#2	.00124	-.14116	.00189	.02931	-.00229	68.348	-.00003
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00033	.00104	.00617	-.06523	46.831	.12085	.00644
SDev	.00010	.00008	.00011	.00089	.016	.00022	.00036
%RSD	29.451	7.5423	1.8364	1.3699	.03383	.18457	5.5601
#1	.00026	.00098	.00625	-.06586	46.843	.12070	.00669
#2	.00040	.00109	.00609	-.06460	46.820	.12101	.00618
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00075	.00450	-.00453	-.00152	-.00329	.00096	-.00046
SDev	.00174	.00243	.00158	.00025	.00006	.00194	.00131
%RSD	232.42	53.843	34.849	16.145	1.6876	201.67	287.18
#1	-.00048	.00279	-.00342	-.00135	-.00333	-.00041	-.00138
#2	.00198	.00622	-.00565	-.00170	-.00325	.00233	.00047
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00130	-.00122	-.00038	.00128	.00062	.00997	
SDev	.00161	.00058	.00092	.00496	.00000	.00062	
%RSD	124.00	47.601	241.73	386.00	.28394	6.2264	
#1	.00016	-.00163	-.00103	-.00222	.00062	.00953	
#2	.00243	-.00081	.00027	.00479	.00062	.01041	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

6581443

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14393	--	--	--	--	--	--
SDev	46.38662	--	--	--	--	--	--
%RSD	.3222792	--	--	--	--	--	--
#1	14360	--	--	--	--	--	--
#2	14426	--	--	--	--	--	--

6581444

Analysis Report

05/30/00 11:49:13 PM

page 1

Method: METTRA Sample Name: DD7XKF

Operator: RJG

Run Time: 05/30/00 23:45:07

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00060	-.15264	.01125	.37305	-.00215	218.33	-.00009
SDev	.00014	.00329	.00066	.00054	.00006	.22	.00018
%RSD	22.875	2.1535	5.9049	.14373	2.7457	.10294	192.48
#1	.00050	-.15032	.01172	.37267	-.00219	218.17	.00003
#2	.00070	-.15497	.01078	.37343	-.00211	218.49	-.00022
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00018	.00100	.00629	.23226	82.539	.18172	.01078
SDev	.00037	.00044	.00008	.00766	.102	.00045	.00025
%RSD	203.97	44.448	1.2057	3.2998	.12321	.25004	2.3150
#1	-.00008	.00069	.00634	.23768	82.467	.18139	.01060
#2	.00045	.00132	.00624	.22684	82.610	.18204	.01095
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00714	.00238	-.00156	-.00024	-.00013	.00037	.00020
SDev	.00008	.00009	.00083	.00058	.00237	.00055	.00042
%RSD	1.0744	3.5781	53.230	237.41	1761.2	147.54	205.82
#1	.00709	.00244	-.00097	.00017	.00154	-.00002	.00050
#2	.00719	.00232	-.00214	-.00066	-.00181	.00076	-.00009
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.00473	-.00314	-.00052	-.00073	.00586	.01290	
SDev	.00034	.00232	.00166	.00146	.00000	.00036	
%RSD	7.1025	73.934	319.84	200.49	.03021	2.7919	
#1	.00497	-.00150	.00066	.00030	.00586	.01265	
#2	.00450	-.00479	-.00169	-.00176	.00586	.01316	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

Analysis Report

05/30/00 11:49:13 PM

page 2

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14455	--	--	--	--	--	--
SDev	2.262880	--	--	--	--	--	--
%RSD	.0156548	--	--	--	--	--	--
#1	14456	--	--	--	--	--	--
#2	14453	--	--	--	--	--	--

Method: METTRA Sample Name: DD7XLF

Operator: RJG

Run Time: 05/30/00 23:49:16

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00054	-.16188	.00505	.63903	-.00205	211.74	-.00017
SDev	.00033	.01186	.00063	.00020	.00006	.56	.00018
%RSD	60.545	7.3270	12.559	.03106	3.0841	.26370	106.78

#1	.00077	-.15349	.00549	.63917	-.00201	212.13	-.00030
#2	.00031	-.17026	.00460	.63889	-.00210	211.34	-.00004

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00209	.00066	.00636	.73976	77.331	.46901	.00490
SDev	.00009	.00026	.00001	.00349	.006	.00016	.00017
%RSD	4.4341	38.506	.14629	.47227	.00816	.03438	3.4982

#1	.00216	.00084	.00637	.74223	77.335	.46889	.00478
#2	.00203	.00048	.00636	.73729	77.327	.46912	.00502

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000

Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00838	.00266	-.00262	-.00086	.00174	.00057	.00096
SDev	.00031	.00007	.00022	.00017	.00414	.00167	.00249
%RSD	3.6915	2.4864	8.5018	19.767	238.23	293.53	260.11

#1	.00816	.00261	-.00278	-.00098	-.00119	-.00061	-.00080
#2	.00860	.00270	-.00246	-.00074	.00466	.00175	.00272

Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000

Elem	SE/1	SE/2	SE	TL	V_	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00542	-.00242	.00019	.00095	.00557	.01680
SDev	.00073	.00380	.00277	.00192	.00295	.00070
%RSD	13.403	156.93	1454.7	202.00	53.076	4.1679

#1	.00593	.00027	.00215	.00231	.00766	.01631
#2	.00490	-.00510	-.00177	-.00041	.00348	.01730

Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High			10.000	10.000	50.000	5.0000
Low			-.00500	-.01000	-.05000	-.02000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14427	--	--	--	--	--	--
SDev	12.93992	--	--	--	--	--	--
%RSD	.0896914	--	--	--	--	--	--
#1	14436	--	--	--	--	--	--
#2	14418	--	--	--	--	--	--

6581448

Analysis Report

05/30/00 11:57:32 PM

page 1

Method: METTRA Sample Name: DD7XMF

Operator: RJG

Run Time: 05/30/00 23:53:26

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00102	-.17899	.00110	1.8740	-.00199	216.48	-.00023
SDev	.00027	.00321	.00151	.0084	.00004	1.02	.00006
%RSD	26.192	1.7961	137.08	.44609	2.0598	.47269	26.662
#1	.00121	-.17672	.00003	1.8681	-.00202	215.75	-.00028
#2	.00083	-.18126	.00216	1.8800	-.00196	217.20	-.00019
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00009	.00105	.01053	L-.11621	82.968	.10914	.02294
SDev	.00013	.00048	.00079	.01328	.431	.00074	.00041
%RSD	145.18	45.589	7.4843	11.427	.51914	.68103	1.7888
#1	.00017	.00139	.00998	L-.12560	82.664	.10862	.02265
#2	-.00000	.00071	.01109	L-.10682	83.273	.10967	.02323
Errors	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02723	.00435	-.00465	-.00165	.00618	.00876	.00790
SDev	.00022	.00537	.00250	.00012	.00153	.00220	.00096
%RSD	.81608	123.39	53.834	7.0556	24.671	25.065	12.116
#1	.02707	.00814	-.00642	-.00157	.00510	.01032	.00858
#2	.02739	.00055	-.00288	-.00174	.00726	.00721	.00723
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.00996	-.01032	-.00357	.00583	.00190	.00947	
SDev	.00293	.00500	.00236	.00030	.00137	.00021	
%RSD	29.374	48.419	66.112	5.1353	71.992	2.1701	
#1	.01202	-.01386	L-.00524	.00561	.00286	.00933	
#2	.00789	-.00679	-.00190	.00604	.00093	.00962	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

6581449

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14367	--	--	--	--	--	--
SDev	2.686868	--	--	--	--	--	--
%RSD	.0187015	--	--	--	--	--	--
#1	14365	--	--	--	--	--	--
#2	14369	--	--	--	--	--	--

Method: METTRA Sample Name: DD7XNF

Operator: RJG

Run Time: 05/30/00 23:57:36

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00033	-.17437	.00068	.19731	-.00168	50.851	-.00030
SDev	.00019	.01125	.00027	.00027	.00002	.090	.00013
%RSD	58.767	6.4498	40.231	.13556	1.1688	.17654	44.350
#1	.00019	-.16641	.00087	.19712	-.00166	50.788	-.00040
#2	.00047	-.18232	.00049	.19750	-.00169	50.914	-.00021
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00053	.00069	.00582	.06477	23.107	.06369	.00647
SDev	.00045	.00027	.00024	.00814	.072	.00023	.00067
%RSD	85.414	38.373	4.1091	12.573	.31115	.35744	10.305
#1	.00085	.00088	.00565	.07052	23.056	.06353	.00695
#2	.00021	.00051	.00599	.05901	23.158	.06385	.00600
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00073	.00148	-.00274	-.00133	-.00037	.00040	.00014
SDev	.00008	.00170	.00041	.00029	.00059	.00003	.00022
%RSD	10.394	114.92	15.005	22.054	162.08	8.0854	154.19
#1	.00079	.00028	-.00245	-.00154	-.00079	.00037	-.00001
#2	.00068	.00269	-.00303	-.00112	.00005	.00042	.00030
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00797	-.00310	.00058	.00081	.00318	.01065	
SDev	.00076	.00054	.00011	.00044	.00224	.00074	
%RSD	9.4765	17.369	18.527	54.637	70.475	6.9268	
#1	.00850	-.00348	.00051	.00112	.00476	.01013	
#2	.00743	-.00272	.00066	.00050	.00159	.01117	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14735	--	--	--	--	--	--
SDev	35.39125	--	--	--	--	--	--
%RSD	.2401796	--	--	--	--	--	--
#1	14710	--	--	--	--	--	--
#2	14760	--	--	--	--	--	--

Method: METTRA Sample Name: DD7XPF Operator: RJG
 Run Time: 05/31/00 00:01:45
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00057	-.16725	.00633	.55885	-.00199	189.75	-.00031
SDev	.00056	.01431	.00024	.00477	.00043	2.62	.00034
%RSD	98.424	8.5535	3.7859	.85423	21.747	1.3790	109.88
#1	.00096	-.15713	.00650	.56222	-.00229	191.60	-.00007
#2	.00017	-.17737	.00617	.55547	-.00168	187.90	-.00055
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00036	.00072	.00553	4.0145	70.943	.27705	.00196
SDev	.00013	.00033	.00011	.0420	.755	.00289	.00002
%RSD	37.634	46.200	2.0194	1.0471	1.0642	1.0424	1.2462
#1	.00045	.00095	.00545	4.0443	71.477	.27909	.00194
#2	.00026	.00048	.00561	3.9848	70.409	.27501	.00198
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00378	.00096	-.00270	-.00148	-.00218	.00130	.00014
SDev	.00117	.00230	.00113	.00152	.00121	.00088	.00018
%RSD	30.934	239.49	41.766	102.43	55.366	67.635	130.79
#1	.00461	.00259	-.00191	-.00041	-.00133	.00068	.00001
#2	.00295	-.00067	-.00350	-.00256	-.00303	.00192	.00027
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V__	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	-.00013	-.00452	-.00306	-.00025	.00362	.00949	
SDev	.00421	.00365	.00384	.00159	.00049	.00016	
%RSD	3356.1	80.732	125.48	643.06	13.687	1.7195	
#1	-.00310	-.00711	L-.00577	.00088	.00397	.00938	
#2	.00285	-.00194	-.00034	-.00137	.00327	.00961	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14703	--	--	--	--	--	--
SDev	223.5169	--	--	--	--	--	--
%RSD	1.520202	--	--	--	--	--	--
#1	14545	--	--	--	--	--	--
#2	14861	--	--	--	--	--	--

Method: METTRA Sample Name: DD7XQF

Operator: RJG

Run Time: 05/31/00 00:05:55

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00066	-.18011	.00174	.03249	-.00133	251.35	-.00011
SDev	.00001	.00930	.00163	.00013	.00018	1.78	.00013
%RSD	1.3786	5.1634	93.462	.39592	13.585	.70893	116.86
#1	.00065	-.17353	.00059	.03240	-.00120	250.09	-.00002
#2	.00067	-.18668	.00289	.03258	-.00146	252.61	-.00020
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00097	.00120	.00657	L-.17565	170.44	.07033	.00213
SDev	.00003	.00006	.00029	.00604	1.04	.00059	.00038
%RSD	3.3783	4.9175	4.4020	3.4391	.60999	.83851	17.891
#1	.00099	.00124	.00677	L-.17992	169.71	.06991	.00239
#2	.00095	.00116	.00636	L-.17138	171.18	.07074	.00186
Errors	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03746	.00316	-.00370	-.00142	-.00310	.00070	-.00056
SDev	.00018	.00404	.00165	.00025	.00282	.00044	.00064
%RSD	.48036	128.09	44.540	17.415	90.887	62.990	114.08
#1	.03733	.00601	-.00487	-.00124	-.00510	.00102	-.00102
#2	.03759	.00030	-.00253	-.00159	-.00111	.00039	-.00011
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.00662	-.00447	-.00078	-.00073	.00723	.01413	
SDev	.00360	.00125	.00037	.00167	.00370	.00070	
%RSD	54.416	27.858	47.280	229.88	51.136	4.9354	
#1	.00916	-.00535	-.00052	-.00191	.00984	.01364	
#2	.00407	-.00359	-.00104	.00046	.00462	.01462	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14945	--	--	--	--	--	--
SDev	71.70091	--	--	--	--	--	--
%RSD	.4797571	--	--	--	--	--	--
#1	14996	--	--	--	--	--	--
#2	14895	--	--	--	--	--	--

Method: METTRA Sample Name: DD7XVF Operator: RJG
 Run Time: 05/31/00 00:10:05
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00017	-.18416	-.00046	.54534	-.00099	131.50	-.00017
SDev	.00015	.02336	.00030	.00284	.00021	.30	.00000
%RSD	87.158	12.685	65.319	.52095	21.542	.22992	.33728
#1	.00027	-.16764	-.00025	.54735	-.00114	131.71	-.00018
#2	.00006	L-.20068	-.00067	.54334	-.00084	131.29	-.00017
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00129	.00290	.00590	.45985	58.470	.08728	.00201
SDev	.00030	.00026	.00029	.01028	.191	.00012	.00109
%RSD	22.808	9.1114	4.9464	2.2352	.32702	.13794	54.042
#1	.00150	.00272	.00610	.45258	58.605	.08737	.00124
#2	.00108	.00309	.00569	.46712	58.335	.08720	.00278
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00985	.00286	-.00114	.00019	-.00038	.00125	.00071
SDev	.00040	.00074	.00046	.00055	.00162	.00018	.00042
%RSD	4.0076	25.763	40.388	286.10	428.68	14.286	59.102
#1	.01013	.00338	-.00081	.00058	-.00152	.00138	.00041
#2	.00957	.00234	-.00146	-.00020	.00077	.00112	.00101
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.00642	-.00410	-.00060	.00682	.00368	.00937	
SDev	.00253	.00043	.00055	.00427	.00064	.00005	
%RSD	39.369	10.577	92.265	62.640	17.401	.58119	
#1	.00463	-.00380	-.00099	.00380	.00323	.00934	
#2	.00821	-.00441	-.00021	.00984	.00413	.00941	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

Analysis Report

05/31/00 00:14:11 AM

page 2

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	15170	--	--	--	--	--	--
SDev	54.44722	--	--	--	--	--	--
%RSD	.3589185	--	--	--	--	--	--
#1	15131	--	--	--	--	--	--
#2	15208	--	--	--	--	--	--

6581458

Analysis Report

05/31/00 00:18:21 AM

page 1

Method: METTRA Sample Name: DD7XWF

Operator: RJG

Run Time: 05/31/00 00:14:15

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00539	-.18781	.00056	.04126	-.00116	432.12	.00099
SDev	.00050	.02505	.00042	.00022	.00012	2.19	.00013
%RSD	9.2174	13.338	74.598	.53311	10.530	.50770	13.340
#1	.00504	-.17010	.00085	.04141	-.00125	433.67	.00090
#2	.00574	L-.20553	.00026	.04110	-.00108	430.57	.00108
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03211	.01007	.00916	22.474	109.99	H38.989	.02806
SDev	.00002	.00052	.00038	.069	.56	.119	.00092
%RSD	.05202	5.1991	4.2096	.30856	.50963	.30606	3.2854
#1	.03210	.00970	.00888	22.523	110.39	H39.073	.02871
#2	.03212	.01044	.00943	22.425	109.59	H38.905	.02741
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.26252	.00368	.00130	.00209	-.00538	.00090	-.00119
SDev	.00140	.00202	.00155	.00036	.00004	.00042	.00029
%RSD	.53245	54.849	119.15	17.313	.79826	46.444	24.652
#1	.26153	.00510	.00020	.00184	-.00535	.00120	-.00098
#2	.26351	.00225	.00240	.00235	-.00541	.00061	-.00140
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.01872	.00646	.01054	.04057	.00692	H21.099	
SDev	.00189	.00053	.00099	.00432	.00002	.115	
%RSD	10.124	8.2848	9.3725	10.651	.29196	.54269	
#1	.01738	.00608	.00984	.03751	.00694	H21.180	
#2	.02006	.00684	.01124	.04362	.00691	H21.018	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC High	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	15043	--	--	--	--	--	--
SDev	65.08904	--	--	--	--	--	--
%RSD	.4326830	--	--	--	--	--	--
#1	14997	--	--	--	--	--	--
#2	15089	--	--	--	--	--	--

Method: METTRA Sample Name: CCV3-6 Operator: RJG
Run Time: 05/31/00 00:18:25
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0437	24.656	.52258	2.0736	2.0767	52.290	.51493
SDev	.0048	.123	.00431	.0099	.0160	.387	.00447
%RSD	.45527	.49721	.82539	.47954	.77004	.74005	.86726
#1	1.0470	24.742	.52563	2.0806	2.0881	52.564	.51809
#2	1.0403	24.569	.51953	2.0665	2.0654	52.017	.51177
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	27.500	.55000	2.2000	2.2000	55.000	.55000
Low	.90000	22.500	.45000	1.8000	1.8000	45.000	.45000
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.0753	2.0665	1.9592	25.552	49.065	2.0176	2.0531
SDev	.0120	.0114	.0116	.114	.272	.0064	.0025
%RSD	.57895	.55107	.58997	.44491	.55462	.31552	.12364
#1	2.0838	2.0745	1.9674	25.632	49.258	2.0221	2.0513
#2	2.0668	2.0584	1.9510	25.471	48.873	2.0131	2.0549
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.2000	2.2000	2.2000	27.500	55.000	2.2000	2.2000
Low	1.8000	1.8000	1.8000	22.500	45.000	1.8000	1.8000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.1284	.53194	.53151	.53165	.51743	.51676	.51698
SDev	.0191	.00086	.00340	.00255	.00502	.00173	.00282
%RSD	.89925	.16201	.63969	.48053	.97031	.33396	.54606
#1	2.1419	.53255	.53391	.53346	.52098	.51798	.51898
#2	2.1148	.53134	.52910	.52985	.51388	.51554	.51499
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	2.2000			.55000			.55000
Low	1.8000			.45000			.45000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.52098	.52785	.52556	1.0527	2.0814	2.1056	
SDev	.00090	.00525	.00320	.0106	.0171	.0127	
%RSD	.17342	.99510	.60939	1.0070	.82050	.60532	
#1	.52035	.53157	.52783	1.0602	2.0935	2.1146	
#2	.52162	.52414	.52330	1.0452	2.0694	2.0966	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.55000	1.1000	2.2000	2.2000	
Low			.45000	.90000	1.8000	1.8000	

Analysis Report

05/31/00 00:22:31 AM

page 2

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	15259	--	--	--	--	--	--
SDev	41.50661	--	--	--	--	--	--
%RSD	.2720060	--	--	--	--	--	--
#1	15230	--	--	--	--	--	--
#2	15289	--	--	--	--	--	--

Method: METTRA Sample Name: CCB6

Operator: RJG

Run Time: 05/31/00 00:22:35

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00051	L-.23635	.00051	.00051	-.00034	.03945	.00005
SDev	.00012	.02174	.00126	.00002	.00005	.00733	.00001
%RSD	23.577	9.2000	246.48	4.2052	15.528	18.588	18.449
#1	.00059	L-.22098	-.00038	.00053	-.00038	.03427	.00006
#2	.00042	L-.25173	.00140	.00050	-.00030	.04464	.00004
Errors	LC Pass	LC Low	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00077	.00064	.00537	.00070	.01368	.00165	.00643
SDev	.00029	.00019	.00024	.00613	.00245	.00049	.00286
%RSD	37.335	30.086	4.5158	881.72	17.920	29.889	44.506
#1	.00097	.00078	.00520	-.00364	.01194	.00130	.00846
#2	.00056	.00051	.00554	.00503	.01541	.00200	.00441
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.02500	.10000	5.0000	.01500	.04000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00020	.00109	-.00294	-.00160	-.00242	.00076	-.00030
SDev	.00077	.00325	.00066	.00064	.00020	.00085	.00050
%RSD	386.61	297.55	22.410	40.127	8.2079	112.06	167.36
#1	.00035	.00338	-.00341	-.00114	-.00256	.00136	.00005
#2	-.00074	-.00120	-.00247	-.00205	-.00228	.00016	-.00065
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.04000			.00300			.06000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.00677	-.00330	.00005	-.00018	.00359	.00435	
SDev	.00072	.00065	.00019	.00160	.00001	.00049	
%RSD	10.643	19.615	351.63	909.78	.22203	11.304	
#1	.00626	-.00284	.00019	.00096	.00359	.00400	
#2	.00728	-.00376	-.00008	-.00131	.00358	.00470	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.00500	.01000	.05000	.02000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	15536	--	--	--	--	--	--
SDev	43.76950	--	--	--	--	--	--
%RSD	.2817322	--	--	--	--	--	--
#1	15505	--	--	--	--	--	--
#2	15567	--	--	--	--	--	--

Metals Preparation Log



STL Pittsburgh
450 William Pitt Way
Pittsburgh, PA 15238
412-820-8380

Method: 3050B		Matrix: Soil		Start Time: 0835		SDG: _____		Balance# 6131		Reagents: 10 ml 1:1 HNO ₃ 5 ml conc. HNO ₃ 10 ml 30% H ₂ O ₂ 10 ml conc. HCl	
Analyst: <i>[Signature]</i>		Date: 5/30/00		Lot Number: COE240180		Lab Lot No. (book, page, line) 0014-089-1		MS		0014-110-5	
Review By: <i>[Signature]</i>		Date: 5-30-00		COE200147		MS-BIREV				0623435058 Mailin Lrd 3240V19401 Mailin Lrd 5587N-11AGZ Mailin Lrd	

Sample ID	Init Wt/Vol g/mL	Final Vol mL	Comments	Color		Clarity		Texture		Artifacts	Artifact Codes
				Pre	Post	Pre	Post	Pre	Post		
1 DD4X3	1.00g	100 mL									S=Stones
2 DD4X35			+1.0ml MS-BIREV								O=Organic
3 DD4X3D			+1.0ml MS-BIREV								(plant mat)
4 DD4X6			3x 5/30/00								W=free H ₂ O
5 DDRMP											G=Glass
6 DDWJ48											M=Metal Fragments
7 DDWJ4C			+1.0ml MS-BIREV								R=Rubber/Plastic
8											C=Cloth
9											P=Paper
10											I=Insects
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											
21											
22											
23											
24											

Digestate(s)	Digestate(s) Received			Digestate(s) Returned			Hot plate /Block Temp	Correction Factor	Color
	Date	Time	Analyst	Date	Time	Analyst			
Al Abor	5/30/00	1446	<i>[Signature]</i>	5/30/00	1445	<i>[Signature]</i>	195°C	-0.7°	R=Red BL=Blue BR=Brown BLK=Black Y=Yellow O=Orange
Al Abor	5/30/00	1446	<i>[Signature]</i>	5/30/00	1445	<i>[Signature]</i>	195°C	-0.7°	V=Violet P=Pink W=White GY=Gray GN=Green C=Colorless

REQUESTED BY: KRANCES

METHOD: QM Inductively Coupled Plasma (60108 Trace)

STORAGE LOCATION	WORK ORDER #	PICKED CNTR#	CONTROL #	CLIENT #	ANALYSIS	LOTID	SMP#	SFX	MATRIX DESCRIPTION	QTY	QTY
										RCVD	REQD
6A CLP1	DDLX3	___	237130	399411	A-46-QM	C0E240180	001		SOLID	0	3 1
6A CLP1	DDLX6	___	237131	399411	A-46-QM	C0E240180	002		SOLID	0	3 1
6E CLP1	DDRMP	___	237132	399411	A-46-QM	C0E260147	001		SOLID	0	3 1

RELINQUISHED BY

Edmund Faust
Suzanne France

RECEIVED BY

Suzanne France
Edmund Faust

DATE/TIME

5/30/00 0835
5/30/00 1125

***** END OF REPORT *****

6581466

**TCLP
METALS DATA**

STL-Pittsburgh**Cover Page - Inorganic Analysis Data Package**

Client ID	Lab Sample ID:
DF/S1/0143/SDC/002	DDLX3T
DF/S1/0143/SDC/002D	DDLX3DT
DF/S1/0143/SDC/002S	DDLX3ST
DF/S1/0143/SDC/003	DDLX6T

Comments: UXB, DUNN FIELD TCLP'S
C0E240180
6010B,7470A

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

Signature: _____

Name: _____

Date: _____

Title: _____

REVIEWED BY: <u>2uF</u>
DATE: <u>6-10</u>

Version 3.63.4

Cover Page Equivalent

6581468

**TCLP
METALS
RESULTS**

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: DDLX3T Client ID: DF/S1/0143/SDC/002
Matrix: Water Units: mg/L Prep Date: 5/30/00 Prep Batch: 0151097
Weight: NA Volume: 100 Percent Moisture: NA

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.000045	0.00020	0.000045	U	1	CVAA	5/30/00	10:40

Comments: Lot#: C0E240180 Sample#: 1

Version 3.63.4

U Result is less than the MDL

Form I Equivalent

B Result is between MDL and RL

6581470

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: DDLX6T Client ID: DF/S1/0143/SDC/003
Matrix: Water Units: mg/L Prep Date: 5/30/00 Prep Batch: 0151097
Weight: NA Volume: 100 Percent Moisture: NA

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.000045	0.00020	0.000045	U	1	CVAA	5/30/00	10:46

Comments: Lot#: C0E240180 Sample#: 2

Version 3 63.4

U Result is less than the MDL
B Result is between MDL and RL

Form 1 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: DDLX3T **Client ID:** DF/S1/0143/SDC/002
Matrix: Water **Units:** mg/L **Prep Date:** 5/30/00 **Prep Batch:** 0151226
Weight: NA **Volume:** 50 **Percent Moisture:** NA

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Arsenic	193.7	0.030	0.50	0.11	B	1	ICP	5/30/00	20:39
Barium	493.41	0.00041	10.0	1.2	B	1	ICP	5/30/00	20:39
Cadmium	228.80	0.0028	0.10	0.0028	U	1	ICP	5/30/00	20:39
Chromium	267.72	0.0038	0.50	0.0038	U	1	ICP	5/30/00	20:39
Lead	220.35	0.025	0.50	0.025	U	1	ICP	5/30/00	20:39
Selenium	196.03	0.067	0.25	0.067	U	1	ICP	5/30/00	20:39
Silver	328.07	0.0031	0.50	0.0031	U	1	ICP	5/30/00	20:39

Comments: Lot#: C0E240180 Sample#: 1

Version 3.63.4

U Result is less than the MDL
B Result is between MDL and RL

Form 1 Equivalent

6581472

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: DDLX6T Client ID: DF/S1/0143/SDC/003
Matrix: Water Units: mg/L Prep Date: 5/30/00 Prep Batch: 0151226
Weight: NA Volume: 50 Percent Moisture: NA

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Arsenic	193.7	0.030	0.50	0.097	B	1	ICP	5/30/00	20:51
Barium	493.41	0.00041	10.0	1.1	B	1	ICP	5/30/00	20:51
Cadmium	228.80	0.0028	0.10	0.0035	B	1	ICP	5/30/00	20:51
Chromium	267.72	0.0038	0.50	0.0038	U	1	ICP	5/30/00	20:51
Lead	220.35	0.025	0.50	0.025	U	1	ICP	5/30/00	20:51
Selenium	196.03	0.067	0.25	0.067	U	1	ICP	5/30/00	20:51
Silver	328.07	0.0031	0.50	0.0031	U	1	ICP	5/30/00	20:51

Comments: Lot#: C0E240180 Sample#: 2

Version 3.63.4

U Result is less than the MDL

Form 1 Equivalent

B Result is between MDL and RL

Metals Data Reporting Form

Initial Calibration Verification Standard

Instrument: CVAAUnits: ug/LChart Number: 0530HGA.PRNAcceptable Range: 90% - 110%Standard Source: UltraStandard ID: 0014-115-7

Element	WL/ Mass	True Conc	ICV5-1 5/30/00 10:19 AM									
			Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Mercury	253.7	2.5	2.48	99.2								

6581474

STL-Pittsburgh

Metals Data Reporting Form

Initial Calibration Verification Standard

Instrument: ICPUnits: ug/LChart Number: J00530C.ARCAcceptable Range: 90% - 110%Standard Source: Inorganic VenturesStandard ID: 0014-061-7

Element	WL/ Mass	True Conc	ICV2-1 5/30/00 8:15 PM									
			Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Arsenic	193.696	1000.0	980.61	98.1								
Barium	493.409	1000.0	985.58	98.6								
Cadmium	228.802	1000.0	1008.12	100.8								
Chromium	267.716	1000.0	1010.67	101.1								
Lead	220.353	1000.0	1007.27	100.7								
Selenium	196.026	1000.0	1068.56	106.9								
Silver	328.068	500.0	504.72	100.9								

Metals Data Reporting Form

Continuing Calibration Verification

Instrument: CVAAUnits: ug/LChart Number: 0530HGA.PRNAcceptable Range: 80% - 120%Standard Source: Inorganic VenturesStandard ID: 0014-115-9

Element	WL/ Mass	True Conc	CCV5-1 5/30/00 10:25 AM		CCV5-2 5/30/00 10:51 AM					
			Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Mercury	253.7	5.0	5.08	101.6	5.04	100.8				

STL-Pittsburgh

6581476

Metals Data Reporting Form

Continuing Calibration Verification

Instrument: ICPUnits: ug/LChart Number: J00530C.ARCAcceptable Range: 90% - 110%Standard Source: Inorganic VenturesStandard ID: 0014-087-7

Element	WL/ Mass	True Conc	CCV2-1 5/30/00 8:54 PM									
			Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Arsenic	193.696	5000.0	4924.53	98.5								
Barium	493.409	5000.0	4823.19	96.5								
Cadmium	228.802	5000.0	4966.22	99.3								
Chromium	267.716	5000.0	4872.03	97.4								
Lead	220.353	5000.0	4932.13	98.6								
Selenium	196.026	5000.0	5048.79	101.0								
Silver	328.068	1000.0	987.72	98.8								

Metals Data Reporting Form

Initial Calibration Blank Results

Instrument: CVAAUnits: ug/LChart Number: 0530HGA.PRN

Standard Source: _____

Standard ID: _____

			ICBI 5/30/00 10:21 AM					
Element	WL/ Mass	Report Limit	Found	Q	Found	Q	Found	Q
Mercury	253.7	0.2	-0.1	B				

6581478

STL-Pittsburgh

Metals Data Reporting Form

Initial Calibration Blank Results

Instrument: ICPUnits: ug/LChart Number: J00530C.ARC

Standard Source: _____

Standard ID: _____

Element	WL/ Mass	Report Limit	ICBI 5/30/00 8:19 PM							
			Found	Q	Found	Q	Found	Q	Found	Q
Arsenic	193.696	500	30.3	U						
Barium	493.409	10000	0.4	U						
Cadmium	228.802	100	2.8	U						
Chromium	267.716	500	3.8	U						
Lead	220.353	500	24.6	U						
Selenium	196.026	250	68.4	B						
Silver	328.068	500	3.1	U						

STL-Pittsburgh

Metals Data Reporting Form

Continuing Calibration Blank Results

Instrument: CVAAUnits: ug/LChart Number: 0530HGA.PRN

Standard Source: _____

Standard ID: _____

			CCB1 5/30/00 10:27 AM	CCB2 5/30/00 10:52 AM			
Element	WL/ Mass	Report Limit	Found Q	Found Q	Found Q	Found Q	Found Q
Mercury	253.7	0.2	0.0 U	0.0 U			

6581480

STL-Pittsburgh

Metals Data Reporting Form

Continuing Calibration Blank Results

Instrument: ICPUnits: ug/LChart Number: J00530C.ARC

Standard Source: _____

Standard ID: _____

Element	WL/ Mass	Report Limit	CCBI 5/30/00 8:57 PM							
			Found	Q	Found	Q	Found	Q	Found	Q
Arsenic	193.696	500	30.3	U						
Barium	493.409	10000	0.4	U						
Cadmium	228.802	100	2.8	U						
Chromium	267.716	500	3.8	U						
Lead	220.353	500	24.6	U						
Selenium	196.026	250	67.4	U						
Silver	328.068	500	3.1	U						

STL-Pittsburgh

Metals Data Reporting Form

Preparation Blank Results

Lab Sample ID: DDRA2BTMatrix: Water Units: mg/L Prep Date: 5/30/00 Prep Batch: 0151097Weight: NA Volume: 100 Percent Moisture: NA

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.000045	0.00020	0.000045	U	1	CVAA	5/30/00	10:38

Comments. _____

Version 3 63 4

U Result is less than the MDL
B Result is between MDL and RL

Form 3 Equivalent

6581482

STL-Pittsburgh

Metals Data Reporting Form

Preparation Blank Results

Lab Sample ID: DDW9WBTMatrix: Water Units: mg/L Prep Date: 5/30/00 Prep Batch: 0151097Weight: NA Volume: 100 Percent Moisture: NA

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.000045	0.00020	-0.000045	B	1	CVAA	5/30/00	10:29

Comments: _____

Version 3.63.4

U Result is less than the MDL
B Result is between MDL and RL

Form 3 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Preparation Blank Results

Lab Sample ID: DDRA2BTMatrix: Water Units: mg/L Prep Date: 5/30/00 Prep Batch: 0151226Weight: NA Volume: 50 Percent Moisture: NA

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Arsenic	193.696	0.030	0.50	0.13	B	1	ICP	5/30/00	20:29
Barium	493.409	0.00041	10.0	0.0082	B	1	ICP	5/30/00	20:29
Cadmium	228.802	0.0028	0.10	0.0028	U	1	ICP	5/30/00	20:29
Chromium	267.716	0.0038	0.50	0.0038	U	1	ICP	5/30/00	20:29
Lead	220.353	0.025	0.50	0.025	U	1	ICP	5/30/00	20:29
Selenium	196.026	0.067	0.25	0.067	U	1	ICP	5/30/00	20:29
Silver	328.068	0.0031	0.50	0.0031	U	1	ICP	5/30/00	20:29

Comments: _____

Version 3.63.4

U Result is less than the MDL

Form 3 Equivalent

B Result is between MDL and RL

6581484

STL-Pittsburgh

Metals Data Reporting Form

Preparation Blank Results

Lab Sample ID: DDWJFBTMatrix: Water Units: mg/L Prep Date: 5/30/00 Prep Batch: 0151226Weight: NA Volume: 50 Percent Moisture: NA

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Arsenic	193.696	0.030	0.50	0.030	U	1	ICP	5/30/00	20:35
Barium	493.409	0.00041	10.0	0.00041	U	1	ICP	5/30/00	20:35
Cadmium	228.802	0.0028	0.10	0.0028	U	1	ICP	5/30/00	20:35
Chromium	267.716	0.0038	0.50	0.0038	U	1	ICP	5/30/00	20:35
Lead	220.353	0.025	0.50	0.025	U	1	ICP	5/30/00	20:35
Selenium	196.026	0.067	0.25	0.086	B	1	ICP	5/30/00	20:35
Silver	328.068	0.0031	0.50	0.0031	U	1	ICP	5/30/00	20:35

Comments: _____

Version 3.63.4

U Result is less than the MDL

B Result is between MDL and RL

Form 3 Equivalent

Metals Data Reporting Form

Interference Check Standard A

Instrument: ICPUnits: ug/LChart Number: J00530C.ARCAcceptable Range: 0% - 0%Standard Source: Inorganic VenturesStandard ID: 0014-088-12

Element	WL/ Mass	Reporting Limit	True Conc	ICSA 5/30/00 8:22 PM	Found	Found	Found	Found
				Found				
Arsenic	193.696	500		-150				
Barium	493.409	10000		2				
Cadmium	228.802	100		0				
Chromium	267.716	500		0				
Lead	220.353	500		120				
Selenium	196.026	250		177				
Silver	328.068	500		-1				

6581486

Metals Data Reporting Form

Interference Check Standard AB

Instrument: ICPUnits: ug/LChart Number: J00530C.ARCAcceptable Range: 80% - 120%Standard Source: Inorganic VenturesStandard ID: 0014-104-1

Element	WL/ Mass	True Conc	ICSAB 5/30/00 8:25 PM									
			Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Arsenic	193.696	1000	819.1	81.9								
Barium	493.409	500	455.6	91.1								
Cadmium	228.802	1000	953.1	95.3								
Chromium	267.716	500	437.9	87.6								
Lead	220.353	1000	1006.8	100.7								
Selenium	196.026	1000	1099.0	109.9								
Silver	328.068	1000	948.4	94.8								

STL-Pittsburgh

Metals Data Reporting Form

Matrix Spike Sample Results

Spike Sample ID: DDLX3ST
 Original Sample ID: DDLX3T Client ID: DF/S1/0143/SDC/002S
 Matrix: Water Units: mg/L Prep Date: 5/30/00 Prep Batch: 0151097
 Weight: NA Volume: 100 Percent Moisture: NA

Element	WL/ Mass	OS Conc	Q	MS Conc	Q	Spike Level	% Rec	OS DF	MS DF	Instr	OS Anal Date	OS Anal Time	MS Anal Date	MS Anal Time
Mercury	253.7	0.000045	U	0.0053		0.005	105.0	1	1	CVAA	5/30/00	10:40	5/30/00	10:41

Comments: _____

Version 3.63.4

U Result is less than the MDL

Form 5A Equivalent

B Result is between MDL and RL

N Spike recovery failed

NC Percent recovery was not calculated

* Duplicate analysis RPD was not within limits

6581488

STL-Pittsburgh

Metals Data Reporting Form

Matrix Spike Sample Results

Spike Sample ID: DDLX3STOriginal Sample ID: DDLX3T Client ID: DF/S1/0143/SDC/002SMatrix: Water Units: mg/L Prep Date: 5/30/00 Prep Batch: 0151226Weight: NA Volume: 50 Percent Moisture: NA

Element	WL/ Mass	OS Conc	Q	MS Conc	Q	Spike Level	% Rec	OS DF	MS DF	Instr	OS Anal Date	OS Anal Time	MS Anal Date	MS Anal Time
Arsenic	193.7	0.11	B	4.9		5	94.8	1	1	ICP	5/30/00	20:39	5/30/00	20:45
Barium	493.4	1.2	B	43.9		50	85.4	1	1	ICP	5/30/00	20:39	5/30/00	20:45
Cadmium	228.8	0.0028	U	0.96		1	95.8	1	1	ICP	5/30/00	20:39	5/30/00	20:45
Chromium	267.7	0.0038	U	4.3		5	85.7	1	1	ICP	5/30/00	20:39	5/30/00	20:45
Lead	220.4	0.025	U	4.5		5	90.1	1	1	ICP	5/30/00	20:39	5/30/00	20:45
Selenium	196.0	0.067	U	1.1		1	106.0	1	1	ICP	5/30/00	20:39	5/30/00	20:45
Silver	328.1	0.0031	U	0.92		1	91.6	1	1	ICP	5/30/00	20:39	5/30/00	20:45

Comments: _____

Version 3.63.4

U Result is less than the MDL

B Result is between MDL and RL

N Spike recovery failed

NC Percent recovery was not calculated

* Duplicate analysis RPD was not within limits

Form 5A Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Matrix Spike Duplicate Sample Results

Spike Sample ID: DDLX3DTOriginal Sample ID: DDLX3T Client ID: DF/S1/0143/SDC/002DMatrix: Water Units: mg/L Prep Date: 5/30/00 Prep Batch: 0151097Weight: NA Volume: 100 Percent Moisture: NA

Element	WL/ Mass	OS Conc	Q	MSD Conc	Q	Spike Level	% Rec	OS DF	MSD DF	Instr	OS Anal Date	OS Anal Time	MSD Anal Date	MSD Anal Time
Mercury	253.7	0.000045	U	0.0051		0.005	101.2	1	1	CVAA	5/30/00	10.40	5/30/00	10:45

Comments: _____

Version 3.63.4

U Result is less than the MDL

B Result is between MDL and RL

N Spike recovery failed

NC Percent recovery was not calculated

* Duplicate analysis RPD was not within limits

Form 5A Equivalent

6581490

STL-Pittsburgh

Metals Data Reporting Form

Matrix Spike Duplicate Sample Results

Spike Sample ID: DDLX3DTOriginal Sample ID: DDLX3T Client ID: DF/S1/0143/SDC/002DMatrix: Water Units: mg/L Prep Date: 5/30/00 Prep Batch: 0151226Weight: NA Volume: 50 Percent Moisture: NA

Element	WL/ Mass	OS Conc	Q	MSD Conc	Q	Spike Level	% Rec	OS DF	MSD DF	Instr	OS Anal Date	OS Anal Time	MSD Anal Date	MSD Anal Time
Arsenic	193.7	0.11	B	4.7		5	92.7	1	1	ICP	5/30/00	20:39	5/30/00	20:48
Barium	493.4	1.2	B	41.9		50	81.5	1	1	ICP	5/30/00	20:39	5/30/00	20:48
Cadmium	228.8	0.0028	U	0.93		1	93.3	1	1	ICP	5/30/00	20:39	5/30/00	20:48
Chromium	267.7	0.0038	U	4.2		5	83.5	1	1	ICP	5/30/00	20:39	5/30/00	20:48
Lead	220.4	0.025	U	4.4		5	87.4	1	1	ICP	5/30/00	20:39	5/30/00	20:48
Selenium	196.0	0.067	U	1.0		1	102.8	1	1	ICP	5/30/00	20:39	5/30/00	20:48
Silver	328.1	0.0031	U	0.89		1	89.3	1	1	ICP	5/30/00	20:39	5/30/00	20:48

Comments: _____

Version 3.63.4

U Result is less than the MDL

B Result is between MDL and RL

N Spike recovery failed

NC Percent recovery was not calculated

* Duplicate analysis RPD was not within limits

Form 5A Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Matrix Spike Duplicate RPD Report

Matrix Spike Duplicate Sample ID: DDLX3DTMatrix Spike Sample ID: DDLX3ST Client ID: DF/S1/0143/SDC/002DMatrix: Water Units: mg/L Prep Date: 5/30/00 Prep Batch: 0151097Weight: NA Volume: 100 Percent Moisture: NA

Element	WL/ Mass	MS Conc	Q	MSD Conc	Q	RPD	MS DF	MSD DF	Instr	MS Anal Date	MS Anal Time	MSD Anal Date	MSD Anal Time
Mercury	253.7	0.0053		0.0051		3.7 %	1	1	CVAA	5/30/00	10:41	5/30/00	10:45

Comments. _____

Version 3.63.4

- U Result is less than the MDL
- B Result is between MDL and RL
- N Spike recovery failed
- NC Percent recovery was not calculated
- * Duplicate analysis RPD was not within limits

Form 6 Equivalent

6581492

STL-Pittsburgh

Metals Data Reporting Form

Matrix Spike Duplicate RPD Report

Matrix Spike Duplicate Sample ID: DDLX3DTMatrix Spike Sample ID: DDLX3ST Client ID: DF/S1/0143/SDC/002DMatrix: Water Units: mg/L Prep Date: 5/30/00 Prep Batch: 0151226Weight: NA Volume: 50 Percent Moisture: NA

Element	WL/ Mass	MS Conc	Q	MSD Conc	Q	RPD	MS DF	MSD DF	Instr	MS Anal Date	MS Anal Time	MSD Anal Date	MSD Anal Time
Arsenic	193.696	4.9		4.7		2.3 %	1	1	ICP	5/30/00	20:45	5/30/00	20:48
Barium	493.409	43.9		41.9		4.6 %	1	1	ICP	5/30/00	20:45	5/30/00	20:48
Cadmium	228.802	0.96		0.93		2.7 %	1	1	ICP	5/30/00	20:45	5/30/00	20:48
Chromium	267.716	4.3		4.2		2.6 %	1	1	ICP	5/30/00	20:45	5/30/00	20:48
Lead	220.353	4.5		4.4		3.1 %	1	1	ICP	5/30/00	20:45	5/30/00	20:48
Selenium	196.026	1.1		1.0		3.1 %	1	1	ICP	5/30/00	20:45	5/30/00	20:48
Silver	328.068	0.92		0.89		2.5 %	1	1	ICP	5/30/00	20:45	5/30/00	20:48

Comments: _____

Version 3.63.4

U Result is less than the MDL

B Result is between MDL and RL

N Spike recovery failed

NC Percent recovery was not calculated

* Duplicate analysis RPD was not within limits

Form 6 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Laboratory Control Sample Results

Lab Sample ID: DDW9WCTMatrix: Water Units: mg/L Prep Date: 5/30/00 Prep Batch: 0151097Weight: NA Volume: 100 Percent Moisture: NA

Element	WL/ Mass	Spike Level	Conc	Percent Recovery	Q	Range	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.0025	0.0027	108.0		80-120	1	CVAA	5/30/00	10:31

Comments: _____

Version 3.63.4

STL Pittsburgh

U Result is less than the MDL
B Result is between MDL and RL

Form 7 Equivalent

6028

6581494

STL-Pittsburgh

Metals Data Reporting Form

Laboratory Control Sample Results

Lab Sample ID: DDWJFCTMatrix: Water Units: mg/L Prep Date: 5/30/00 Prep Batch: 0151226Weight: NA Volume: 50 Percent Moisture: NA

Element	WL/ Mass	Spike Level	Conc	Percent Recovery	Q	Range	DF	Instr	Anal Date	Anal Time
Arsenic	193.696	2.0	2.2	108.8		80-120	1	ICP	5/30/00	20:32
Barium	493.409	2.0	1.8	92.2	B	80-120	1	ICP	5/30/00	20:32
Cadmium	228.802	0.050	0.052	104.8	B	80-120	1	ICP	5/30/00	20:32
Chromium	267.716	0.20	0.19	94.1	B	80-120	1	ICP	5/30/00	20:32
Lead	220.353	0.50	0.45	89.8	B	80-120	1	ICP	5/30/00	20:32
Selenium	196.026	2.0	2.2	111.7		80-120	1	ICP	5/30/00	20:32
Silver	328.068	0.050	0.048	96.7	B	80-120	1	ICP	5/30/00	20:32

Comments: _____

Version 3.63.4

U Result is less than the MDL

Form 7 Equivalent

B Result is between MDL and RL

STL-Pittsburgh

Metals Data Reporting Form

Serial Dilution RPD Report

Serial Dilution Sample ID: DDLX3PTOriginal Sample ID: DDLX3T Client ID: DF/S1/0143/SDC/002Matrix: Water Units: mg/L Prep Date: 5/30/00 Prep Batch: 0151226Weight: NA Volume: 50 Percent Moisture: NA

Element	WL/ Mass	OS Conc	Q	Serial Dilution Conc	Q	Percent Diff	OS DF	Ser Dil DF	Instr	OS Anal Date	OS Anal Time	Ser Dil Anal Date	Ser Dil Anal Time
Arsenic	193.696	0.11	B	0.15	U	6.1 %	1	5	ICP	5/30/00	20:39	5/30/00	20:42
Barium	493.409	1.2	B	1.2	B		1	5	ICP	5/30/00	20:39	5/30/00	20:42
Cadmium	228.802	0.0028	U	0.014	U		1	5	ICP	5/30/00	20:39	5/30/00	20:42
Chromium	267.716	0.0038	U	0.019	U		1	5	ICP	5/30/00	20:39	5/30/00	20:42
Lead	220.353	0.025	U	0.12	U		1	5	ICP	5/30/00	20:39	5/30/00	20:42
Selenium	196.026	0.067	U	0.34	U		1	5	ICP	5/30/00	20:39	5/30/00	20:42
Silver	328.068	0.0031	U	0.016	U		1	5	ICP	5/30/00	20:39	5/30/00	20:42

Comments: _____

Version 3.63.4

U Result is less than the MDL

B Result is between MDL and RL

E Serial dilution percent difference not within limits

Form 9 Equivalent

6581496

STL-Pittsburgh
Metals Data Reporting Form

Instrument Detection Limits

Instrument: CVAA

Units: ppb

Element	Wavelength /Mass	Reporting Limit	MDL	Date of MDL
Mercury	253.70	0.2	0.045	3/20/00

STL-Pittsburgh
Metals Data Reporting Form

Instrument Detection Limits

Instrument: ICP

Units: ppb

Element	Wavelength /Mass	Reporting Limit	MDL	Date of MDL
Arsenic	193.70	500	30.3	4/1/00
Barium	493.41	10000	0.41	4/1/00
Cadmium	228.80	100	2.8	4/1/00
Chromium	267.72	500	3.8	4/1/00
Lead	220.35	500	24.6	4/1/00
Selenium	196.03	250	67.4	4/1/00
Silver	328.07	500	3.1	4/1/00

Metals Data Reporting Form

Inter-Element Correction FactorsInstrument: ICPDate of IEC's: 3/27/00

Interfering Element	Wavelength /Mass	Correction Factor(s)
Aluminum	308.215	As(0.008365), Mn(0.00002), Pb(0.000527)
Antimony	206.838	Ni(-0.000449), Pb(-0.001338), Sn(-0.004668)
Arsenic	193.696	Cd(0.011196)
Barium	493.409	Co(0.000506)
Beryllium	313.042	Cd(0.008625)
Cadmium	228.802	Co(0.002633)
Chromium	267.716	Pb(-0.000686), Sb(0.008213), V(-0.001979)
Cobalt	228.616	Al(-0.014067), B(0.00201), Cd(-0.004523), Cu(-0.00091), Pb(-0.027395), Sb(-0.003935), Tl(0.007862)
Copper	324.754	Zn(0.00466)
Iron	259.94	Ag(-0.000239), As(0.001314), B(-0.001921), Cd(-0.000034), Cu(-0.00008), Mn(-0.000288), Mo(-0.00015), Pb(0.000225), Se(-0.003656), Sn(-0.00019), Tl(0.010326), Zn(0.000098)
Manganese	257.61	Ag(0.000201), Tl(-0.005634)
Molybdenum	202.03	Al(0.008699), Cr(-0.000292), Mn(-0.00033), Sb(0.005808), V(-0.019318)
Nickel	231.604	Cd(-0.000409), Sb(-0.009092), Zn(0.003263)
Tin	189.989	Sb(0.002262)
Titanium	334.941	Co(0.001637), Fe(-0.003475), Sb(0.001696), Sn(0.003624)
Vanadium	292.402	Ag(-0.005069), Al(0.012877), As(0.017242), Be(0.00265), Cd(0.000094), Cr(0.000568), Sb(-0.003793), Si(-0.012762), Tl(0.007148), Zn(-0.004494)

STL-Pittsburgh

Metals Data Reporting Form

Linear Dynamic Ranges

Instrument: CVAAUnits: ppb

Element	Wavelength /Mass	Linear Range	Date of Linear Range
Mercury	253.70	10	1/15/00

6581500

STL-Pittsburgh
Metals Data Reporting Form

Linear Dynamic Ranges

Instrument: ICP

Units: ppb

Element	Wavelength /Mass	Linear Range	Date of Linear Range
Arsenic	193.70	100000	4/5/00
Barium	493.41	100000	4/5/00
Cadmium	228.80	100000	4/5/00
Chromium	267.72	100000	4/5/00
Lead	220.35	100000	4/5/00
Selenium	196.03	100000	4/5/00
Silver	328.07	2000	4/5/00

STL-Pittsburgh
Metals Data Reporting Form

6581501

Preparation Log

Preparation Batch: 0151097 **Instrument:** CVAA **Matrix:** Water

Sample ID	Prep Date	Weight (g)	Volume (ml)	% Moisture
DDRA2BT	5/30/00	NA	100	NA
DDW9WBT	5/30/00	NA	100	NA
DDW9WCT	5/30/00	NA	100	NA
DDLX3DT	5/30/00	NA	100	NA
DDLX3ST	5/30/00	NA	100	NA
DDLX3T	5/30/00	NA	100	NA
DDLX6T	5/30/00	NA	100	NA

6581502

Metals Data Reporting Form

Preparation Log

Preparation Batch: 0151226Instrument: ICPMatrix: Water

Sample ID	Prep Date	Weight (g)	Volume (ml)	% Moisture
DDRA2BT	5/30/00	NA	50	NA
DDWJFBT	5/30/00	NA	50	NA
DDWJFCT	5/30/00	NA	50	NA
DDLX3DT	5/30/00	NA	50	NA
DDLX3ST	5/30/00	NA	50	NA
DDLX3T	5/30/00	NA	50	NA
DDLX6T	5/30/00	NA	50	NA

STL-Pittsburgh
Metals Data Reporting Form

6581503

Instrument Runlog

Instrument: CVAA

Chart Number: 0530HGA.PRN

Sample Name	Date of Analysis	Time of Analysis
Std1Rep1	5/30/00	10:04 AM
Std2Rep1	5/30/00	10:07 AM
Std3Rep1	5/30/00	10:09 AM
Std4Rep1	5/30/00	10:11 AM
Std5Rep1	5/30/00	10:13 AM
Std6Rep1	5/30/00	10:15 AM
ICV5-1	5/30/00	10:19 AM
ICB1	5/30/00	10:21 AM
ZZZZZZ	5/30/00	10:23 AM
CCV5-1	5/30/00	10:25 AM
CCB1	5/30/00	10:27 AM
DDW9WBT	5/30/00	10:29 AM
DDW9WCT	5/30/00	10:31 AM
ZZZZZZ	5/30/00	10:33 AM
ZZZZZZ	5/30/00	10:35 AM
DDRA2BT	5/30/00	10:38 AM
DDLX3T	5/30/00	10:40 AM
DDLX3ST	5/30/00	10:41 AM
DDLX3DT	5/30/00	10:45 AM
DDLX6T	5/30/00	10:46 AM
ZZZZZZ	5/30/00	10:48 AM
CCV5-2	5/30/00	10:51 AM
CCB2	5/30/00	10:52 AM
ZZZZZZ	5/30/00	10:54 AM
ZZZZZZ	5/30/00	10:56 AM
ZZZZZZ	5/30/00	10:58 AM
ZZZZZZ	5/30/00	11:00 AM
ZZZZZZ	5/30/00	11:02 AM
ZZZZZZ	5/30/00	11:05 AM
ZZZZZZ	5/30/00	11:06 AM
ZZZZZZ	5/30/00	11:08 AM
ZZZZZZ	5/30/00	11:11 AM
ZZZZZZ	5/30/00	11:13 AM
ZZZZZZ	5/30/00	11:14 AM
ZZZZZZ	5/30/00	11:17 AM
ZZZZZZ	5/30/00	11:19 AM
ZZZZZZ	5/30/00	11:21 AM
ZZZZZZ	5/30/00	11:23 AM
ZZZZZZ	5/30/00	11:24 AM
ZZZZZZ	5/30/00	11:27 AM
ZZZZZZ	5/30/00	11:29 AM

STL-Pittsburgh**6581504****Metals Data Reporting Form****Instrument Runlog**

Instrument: CVAA**Chart Number:** 0530HGA.PRN

Sample Name	Date of Analysis	Time of Analysis
ZZZZZZ	5/30/00	11:31 AM
ZZZZZZ	5/30/00	11:33 AM
ZZZZZZ	5/30/00	11:35 AM
ZZZZZZ	5/30/00	11:38 AM
ZZZZZZ	5/30/00	11:40 AM
ZZZZZZ	5/30/00	11:42 AM
ZZZZZZ	5/30/00	11:44 AM
ZZZZZZ	5/30/00	11:46 AM
ZZZZZZ	5/30/00	11:48 AM
ZZZZZZ	5/30/00	11:50 AM

Metals Data Reporting Form

Instrument Runlog

Instrument: ICPChart Number: J00530C.ARC

Sample Name	Date of Analysis	Time of Analysis
ZZZZZZ	5/30/00	7:39 PM
ZZZZZZ	5/30/00	7:42 PM
ZZZZZZ	5/30/00	7:45 PM
ZZZZZZ	5/30/00	7:48 PM
ZZZZZZ	5/30/00	7:52 PM
ZZZZZZ	5/30/00	7:56 PM
ZZZZZZ	5/30/00	7:59 PM
ZZZZZZ	5/30/00	8:02 PM
STD1	5/30/00	8:06 PM
STD5A	5/30/00	8:09 PM
STD5B	5/30/00	8:12 PM
ICV2-1	5/30/00	8:15 PM
ICB1	5/30/00	8:19 PM
ICSA	5/30/00	8:22 PM
ICSAB	5/30/00	8:25 PM
DDRA2BT	5/30/00	8:29 PM
DDWJFCT	5/30/00	8:32 PM
DDWJFBT	5/30/00	8:35 PM
DDLX3T	5/30/00	8:39 PM
DDLX3PT	5/30/00	8:42 PM
DDLX3ST	5/30/00	8:45 PM
DDLX3DT	5/30/00	8:48 PM
DDLX6T	5/30/00	8:51 PM
CCV2-1	5/30/00	8:54 PM
CCB1	5/30/00	8:57 PM
ZZZZZZ	5/30/00	9:00 PM
ZZZZZZ	5/30/00	9:04 PM
ZZZZZZ	5/30/00	9:07 PM
ZZZZZZ	5/30/00	9:10 PM
ZZZZZZ	5/30/00	9:13 PM
ZZZZZZ	5/30/00	9:16 PM
ZZZZZZ	5/30/00	9:19 PM
ZZZZZZ	5/30/00	9:23 PM
ZZZZZZ	5/30/00	9:26 PM
ZZZZZZ	5/30/00	9:29 PM
ZZZZZZ	5/30/00	9:32 PM
ZZZZZZ	5/30/00	9:35 PM
ZZZZZZ	5/30/00	9:38 PM
ZZZZZZ	5/30/00	9:41 PM
ZZZZZZ	5/30/00	9:45 PM
ZZZZZZ	5/30/00	9:48 PM

6581506

STL-Pittsburgh
Metals Data Reporting Form

Instrument Runlog

Instrument: ICPChart Number: J00530C.ARC

Sample Name	Date of Analysis	Time of Analysis
ZZZZZZ	5/30/00	9:51 PM
ZZZZZZ	5/30/00	9:54 PM
ZZZZZZ	5/30/00	9:57 PM
ZZZZZZ	5/30/00	10:00 PM
ZZZZZZ	5/30/00	10:03 PM
ZZZZZZ	5/30/00	10:06 PM
ZZZZZZ	5/30/00	10:10 PM
ZZZZZZ	5/30/00	10:13 PM
ZZZZZZ	5/30/00	10:16 PM
ZZZZZZ	5/30/00	10:19 PM
ZZZZZZ	5/30/00	10:22 PM
ZZZZZZ	5/30/00	10:25 PM
ZZZZZZ	5/30/00	10:28 PM
ZZZZZZ	5/30/00	10:32 PM
ZZZZZZ	5/30/00	10:35 PM
ZZZZZZ	5/30/00	10:38 PM
ZZZZZZ	5/30/00	10:41 PM

**TCLP
METALS
RAW DATA**

Euf 5-3100

6010B

65815059

#	Sample Name	AG	AS	BA	CD	CR	PB
1	STD1	-.00065	.00089	.00006	-.00004	.00049	.00069
2	STD5A	.27169	.5612	4.23665	.93562	3.83555	.26594
3	STD5B						
4	ICV2-1 0014-061-7	.50472	.98061	.98558	1.0081	1.0107	1.0073
5	ICB1	.00037	-.02462	.00009	.00006	.00078	.00368
6	ICSA 0014-088-12	-.00125	-.14641	.00204	.00013	.00026	.12035
7	ICSAB 0014-104-1	.94840	.81906	.45565	.95307	.43792	1.0068
8	DDWJFBT DDRAZBT Euf 5-3100	.00000	.13243	.00816	-.00192	.00104	-.00364
9	DDWJFCT	.04834	2.1767	1.8430	.05242	.18818	.44901
10	DDRAZBT DDWJFCT Euf 5-3100	.00107	-.00095	.00000	.00090	-.00026	-.02378
11	DDLX3T	-.00393	.11113	1.1727	-.00014	-.00287	.00370
12	DDLX3P5T	-.00214	.02630	.24894	.00178	-.00274	.00913
13	DDLX3ST	.91597	4.8516	43.856	.95800	4.2868	4.5055
14	DDLX3DT	.89305	4.7445	41.944	.93285	4.1750	4.3682
15	DDLX6T	-.00502	.09731	1.1209	.00349	.00117	-.01465
16	CCV2-1 0014-087-7	.98772	4.9245	4.8232	4.9662	4.8720	4.9321
17	CCB1	.00036	-.02180	.00037	.00091	-.00130	-.00730
18	DDWJCB	-.00106	-.00360	.00063	-.00039	-.00039	-.02743
19	DDWJCC	.04400	1.8111	1.7990	.04679	.18128	.45476
20	DDNNA	.00117	.12599	.60458	.00507	.16733	3.4225
21	DDNNAP5	-.00068	.00912	.12331	.00070	.03362	.68744
22	DDNNAS	.04783	1.9985	2.6873	.04763	.41598	3.5800
23	DDNNAD	.04533	2.0438	2.7184	.04900	.42604	3.6323
24	DDWJHB	.00000	-.01548	-.00021	.00256	.00117	-.00735
25	DDWJHC	.04805	1.8853	1.9003	.05009	.19341	.47929
26	DDFAN	-.00205	-.06550	.03316	.00115	.00104	.03997
27	DDCX0	-.00284	-.01999	.10211	.00052	-.00150	-.00519
28	CCV2-2	.96921	4.7729	4.6061	4.9380	4.7740	4.8445
29	CCB2	-.00143	-.01535	.00013	.00211	-.00025	-.02561
30	DDRL8	-.00094	-.02349	.07787	.00084	-.00052	-.01196
31	DDRL8P5	-.00188	-.02618	.01569	.00084	-.00052	-.01698
32	DDRL8S	.04451	1.8535	1.8902	.04843	.18258	.44286
33	DDRL8D	.04587	1.8285	1.8840	.04904	.18324	.46500
34	DDRL9	-.00122	-.03183	.07581	.00054	-.00104	.01392
35	DDWJVB	-.00214	-.01810	-.00014	.00270	.00038	-.01277
36	DDWJVC	.04654	1.8253	1.8284	.04718	.18832	.46615
37	DDRLH	-.00211	-.00167	.02386	.00058	.00091	-.01656
38	DDRLHP5	-.00035	-.03764	.00483	.00228	.00104	-.01096
39	DDRLHS	.05076	2.0330	2.0219	.05318	.20851	.50314
40	CCV2-3	.96267	4.8016	4.5577	4.8816	4.7107	4.7737
41	CCB3	.00036	-.00905	.00023	.00052	-.00117	-.02007
42	DDRLHD	.05381	2.1184	2.1525	.05887	.21961	.53154
43	DDWJMB	-.00071	-.02897	.00011	.00130	-.00104	-.01835
44	DDWJMC	.05141	2.0480	1.9766	.05577	.20304	.48903
45	DDLCP	-.00289	-.00745	.09078	.00032	-.00065	-.00722
46	DDLCP5	-.00143	-.02722	.01831	.00140	-.00104	-.02735
47	DDLCP5	.04248	1.7955	1.8344	.04833	.17476	.47828
48	DDLCPD	.04498	1.7892	1.8279	.04872	.17632	.47093
49	CCV2-4	.97084	4.7674	4.6532	4.8633	4.7189	4.8234
50	CCB4	-.00070	-.00092	.00044	.00033	.00143	-.01280

#	Sample Name	SE
1	STD1	-.00289
2	STD5A	.54554
3	STD5B	
4	ICV2-1 0014-061-7	1.0686
5	ICB1	.06840
6	ICSA 0014-088-12	.17647
7	ICSAB 0014-104-1	1.0990
8	~~DDWJFBT~~ DDRAZBT <i>2uf</i>	.04744
9	DDWJFCT <i>3-3100</i>	2.2345
10	~~DDRAZBT~~ DDWJFBT <i>2uf</i>	.08571
11	DDLX3T <i>3-3120</i>	.05302
12	DDLX3P5T	.06566
13	DDLX3ST	1.0595
14	DDLX3DT	1.0276
15	DDLX6T	.05589
16	CCV2-1 0014-087-7	5.0488
17	CCB1	.03101
18	DDWJCB	.03472
19	DDWJCC	1.9136
20	DDNNA	.21345
21	DDNNAP5	.09631
22	DDNNAS	2.0184
23	DDNNAD	2.0598
24	DDWJHB	.06931
25	DDWJHC	1.9393
26	DDFAN	.04565
27	DDCX0	.05823
28	CCV2-2	4.8638
29	CCB2	.05470
30	DDRL8	.04854
31	DDRL8P5	.02689
32	DDRL8S	1.9069
33	DDRL8D	1.9102
34	DDRL9	.05885
35	DDWJVB	.03466
36	DDWJVC	1.8608
37	DDRLH	.05805
38	DDRLHP5	.06485
39	DDRLHS	2.0770
40	CCV2-3	4.8139
41	CCB3	.04285
42	DDRLHD	2.1484
43	DDWJMB	.00913
44	DDWJMC	2.1026
45	DDLCP	.01829
46	DDLCP5	.04560
47	DDLCP5	1.8743
48	DDLCPD	1.8352
49	CCV2-4	4.8734
50	CCB4	.04924

euf 53100

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
1	STD1	J00530C	QUANMET	05/30/00	20:06		X	IR
2	STD5A	J00530C	QUANMET	05/30/00	20:09		X	IR
3	STD5B	J00530C	QUANMET	05/30/00	20:12		X	IR
4	ICV2-1 0014-061-7	J00530C	QUANMET	05/30/00	20:15	EMF	S	CONC
5	ICB1	J00530C	QUANMET	05/30/00	20:19	EMF	S	CONC
6	ICSA 0014-088-12	J00530C	QUANMET	05/30/00	20:22	EMF	Q	CONC
7	ICSAB 0014-104-1	J00530C	QUANMET	05/30/00	20:25	EMF	Q	CONC
8	~~DDWJFCT~~ DDRAZBT euf 5-3100	J00530C	QUANMET	05/30/00	20:29	EMF	S	CONC
9	DDWJFCT	J00530C	QUANMET	05/30/00	20:32	EMF	S	CONC
10	~~DDRAZBT~~ DDWJFCT euf 5-3100	J00530C	QUANMET	05/30/00	20:35	EMF	S	CONC
11	DDLX3T	J00530C	QUANMET	05/30/00	20:39	EMF	S	CONC
12	DDLX3P5T	J00530C	QUANMET	05/30/00	20:42	EMF	S	CONC
13	DDLX3ST	J00530C	QUANMET	05/30/00	20:45	EMF	S	CONC
14	DDLX3DT	J00530C	QUANMET	05/30/00	20:48	EMF	S	CONC
15	DDLX6T	J00530C	QUANMET	05/30/00	20:51	EMF	S	CONC
16	CCV2-1 0014-087-7	J00530C	QUANMET	05/30/00	20:54	EMF	S	CONC
17	CCB1	J00530C	QUANMET	05/30/00	20:57	EMF	S	CONC
18	DDWJCB	J00530C	QUANMET	05/30/00	21:00	EMF	S	CONC
19	DDWJCC	J00530C	QUANMET	05/30/00	21:04	EMF	S	CONC
20	DDNNA	J00530C	QUANMET	05/30/00	21:07	EMF	S	CONC
21	DDNNAP5	J00530C	QUANMET	05/30/00	21:10	EMF	S	CONC
22	DDNNAS	J00530C	QUANMET	05/30/00	21:13	EMF	S	CONC
23	DDNNAD	J00530C	QUANMET	05/30/00	21:16	EMF	S	CONC
24	DDWJHB	J00530C	QUANMET	05/30/00	21:19	EMF	S	CONC
25	DDWJHC	J00530C	QUANMET	05/30/00	21:23	EMF	S	CONC
26	DDFAN	J00530C	QUANMET	05/30/00	21:26	EMF	S	CONC
27	DDCX0	J00530C	QUANMET	05/30/00	21:29	EMF	S	CONC
28	CCV2-2	J00530C	QUANMET	05/30/00	21:32	EMF	S	CONC
29	CCB2	J00530C	QUANMET	05/30/00	21:35	EMF	S	CONC
30	DDRL8	J00530C	QUANMET	05/30/00	21:38	EMF	S	CONC
31	DDRL8P5	J00530C	QUANMET	05/30/00	21:41	EMF	S	CONC
32	DDRL8S	J00530C	QUANMET	05/30/00	21:45	EMF	S	CONC
33	DDRL8D	J00530C	QUANMET	05/30/00	21:48	EMF	S	CONC
34	DDRL9	J00530C	QUANMET	05/30/00	21:51	EMF	S	CONC
35	DDWJVB	J00530C	QUANMET	05/30/00	21:54	EMF	S	CONC
36	DDWJVC	J00530C	QUANMET	05/30/00	21:57	EMF	S	CONC
37	DDRLH	J00530C	QUANMET	05/30/00	22:00	EMF	S	CONC
38	DDRLHP5	J00530C	QUANMET	05/30/00	22:03	EMF	S	CONC
39	DDRLHS	J00530C	QUANMET	05/30/00	22:06	EMF	S	CONC
40	CCV2-3	J00530C	QUANMET	05/30/00	22:10	EMF	S	CONC
41	CCB3	J00530C	QUANMET	05/30/00	22:13	EMF	S	CONC
42	DDRLHD	J00530C	QUANMET	05/30/00	22:16	EMF	S	CONC
43	DDWJMB	J00530C	QUANMET	05/30/00	22:19	EMF	S	CONC
44	DDWJMC	J00530C	QUANMET	05/30/00	22:22	EMF	S	CONC
45	DDLCP	J00530C	QUANMET	05/30/00	22:25	EMF	S	CONC
46	DDLCP5	J00530C	QUANMET	05/30/00	22:28	EMF	S	CONC
47	DDLCP5	J00530C	QUANMET	05/30/00	22:32	EMF	S	CONC
48	DDLCPD	J00530C	QUANMET	05/30/00	22:35	EMF	S	CONC
49	CCV2-4	J00530C	QUANMET	05/30/00	22:38	EMF	S	CONC
50	CCB4	J00530C	QUANMET	05/30/00	22:41	EMF	S	CONC

Method: QUANMET Standard: STD1
Run Time: 05/30/00 20:06:29

Elem	AG	AL	AS	B _u	BA	BE	CA
Avge	-.00065	.01085	.00090	.00179	.00006	.00300	-.00103
SDev	.00025	.00092	.00186	.00057	.00004	.00016	.00095
%RSD	38.717	8.4304	207.28	31.960	66.667	5.4433	92.973
#1	-.00060	.01060	-.00060	.00094	.00008	.00300	-.00032
#2	-.00060	.01100	.00000	.00220	.00008	.00280	-.00219
#3	-.00100	.00980	.00360	.00200	.00000	.00320	-.00018
#4	-.00040	.01200	.00060	.00200	.00008	.00300	-.00142
Elem	CD	CO	CR	CU	FE	K _u	LI
Avge	-.00005	-.00010	.00050	.00040	.00060	-.02330	-.00025
SDev	.00027	.00042	.00123	.00016	.00036	.00854	.00046
%RSD	538.74	416.33	245.49	40.825	60.858	36.663	185.76
#1	-.00012	.00040	.00140	.00040	.00100	-.01840	.00033
#2	.00020	-.00060	-.00100	.00040	.00040	-.03120	-.00080
#3	-.00040	.00000	.00160	.00060	.00020	-.01380	-.00033
#4	.00012	-.00020	.00000	.00020	.00080	-.02980	-.00020
Elem	MG	MN	MO	NA	NI	PB	SB
Avge	-.00040	.00015	.00020	.05860	-.00089	.00070	.00010
SDev	.00085	.00010	.00000	.00271	.00080	.00082	.00066
%RSD	212.13	66.667	.00000	4.6212	90.874	117.80	663.32
#1	.00020	.00020	.00020	.05720	-.00051	.00160	-.00060
#2	-.00160	.00020	.00020	.05580	-.00167	.00000	.00000
#3	.00020	.00020	.00020	.05940	.00006	.00120	.00000
#4	-.00040	.00000	.00020	.06200	-.00142	.00000	.00100
Elem	SE	SI	SN	SR	TI	TL	V _u
Avge	-.00290	.00090	.00005	.00004	.00225	.00005	.00000
SDev	.00141	.00042	.00125	.00012	.00025	.00133	.00000
%RSD	48.603	46.259	2495.3	288.09	11.185	2660.8	.00000
#1	-.00140	.00100	.00140	.00020	.00220	-.00180	.00000
#2	-.00480	.00080	.00080	.00000	.00200	.00000	.00000
#3	-.00260	.00040	-.00120	-.00008	.00220	.00120	.00000
#4	-.00280	.00140	-.00080	.00005	.00260	.00080	.00000
Elem	ZN						
Avge	.00015						
SDev	.00012						
%RSD	81.715						
#1	.00004						
#2	.00012						
#3	.00032						
#4	.00012						

Method: QUANMET Standard: STD5A
Run Time: 05/30/00 20:09:38

0014-072-2

Elem	AG	AS	B	BA	BE	CD	CO
Avge	.27170	.56120	.61416	4.2367	15.907	.93562	1.5070
SDev	.00062	.00547	.00184	.0204	.033	.00575	.0052
%RSD	.22887	.97512	.29895	.48124	.20847	.61451	.34291
#1	.27080	.56660	.61512	4.2644	15.881	.92816	1.5006
#2	.27200	.55860	.61364	4.2228	15.943	.93760	1.5096
#3	.27180	.55480	.61604	4.2395	15.926	.93485	1.5052
#4	.27220	.56480	.61184	4.2200	15.876	.94187	1.5124
Elem	CR	CU	LI	MN	MO	NI	PB
Avge	3.8356	2.3894	4.5051	2.0758	.42780	1.8161	.26595
SDev	.0127	.0114	.0671	.0049	.00091	.0058	.00084
%RSD	.33215	.47767	1.4898	.23416	.21253	.32017	.31534
#1	3.8176	2.4028	4.5908	2.0688	.42700	1.8094	.26560
#2	3.8424	2.3850	4.4622	2.0776	.42720	1.8184	.26540
#3	3.8358	2.3936	4.5250	2.0768	.42900	1.8228	.26560
#4	3.8464	2.3762	4.4424	2.0800	.42800	1.8136	.26720
Elem	SB	SE	SI	SN	SR	TI	TL
Avge	.20455	.54555	.35195	1.0236	8.2083	6.2653	.36940
SDev	.00098	.00550	.00433	.0072	.0284	.0049	.00209
%RSD	.48149	1.0082	1.2305	.70711	.34598	.07743	.56439
#1	.20580	.54640	.34580	1.0176	8.2463	6.2664	.36740
#2	.20460	.55200	.35220	1.0304	8.1925	6.2702	.36780
#3	.20340	.53860	.35420	1.0170	8.2126	6.2660	.37120
#4	.20440	.54520	.35560	1.0292	8.1817	6.2586	.37120
Elem	V	ZN					
Avge	1.6747	1.5950					
SDev	.0025	.0030					
%RSD	.14804	.18886					
#1	1.6714	1.5914					
#2	1.6774	1.5948					
#3	1.6748	1.5948					
#4	1.6752	1.5988					

Method: QUANMET Standard: STD5B
Run Time: 05/30/00 20:12:47

0014-072-3

Elem	AL	CA	FE	K	MG	NA
Avge	11.470	25.121	30.384	2.3439	7.7184	49.735
SDev	.025	.116	.068	.0118	.0124	.313
%RSD	.21819	.46093	.22300	.50425	.16092	.62906
#1	11.471	25.015	30.303	2.3552	7.7036	49.894
#2	11.444	25.204	30.394	2.3380	7.7130	49.383
#3	11.504	25.028	30.373	2.3522	7.7308	50.082
#4	11.462	25.237	30.468	2.3302	7.7262	49.581

Method: QUANMET

Slope = Conc(SIR)/IR

Element	Wavelen	High std	Low std	Slope	Y-intercept	Date Standardized
AG	328.068	STD5A	STD1	7.16477	.004657	05/30/00 08:12:47
AL	308.215	STD5B	STD1	8.72646	-.094682	05/30/00 08:12:47
AS	193.696	STD5A	STD1	18.1553	-.016340	05/30/00 08:12:47
B	249.600	STD5A	STD1	16.3628	-.029212	05/30/00 08:12:47
BA	493.409	STD5A	STD1	2.36039	-.000146	05/30/00 08:12:47
BE	313.042	STD5A	STD1	.630457	-.001891	05/30/00 08:12:47
CA	317.933	STD5B	STD1	3.98060	.004086	05/30/00 08:12:47
CD	228.802	STD5A	STD1	10.8477	.000542	05/30/00 08:12:47
CO	228.616	STD5A	STD1	6.66717	.000667	05/30/00 08:12:47
CR	267.716	STD5A	STD1	2.60825	-.001304	05/30/00 08:12:47
CU	324.754	STD5A	STD1	4.18204	-.001673	05/30/00 08:12:47
FE	259.940	STD5B	STD1	3.29124	-.001975	05/30/00 08:12:47
K	766.491	STD5B	STD1	42.2440	.984285	05/30/00 08:12:47
LI	670.789	STD5A	STD1	2.21959	.000555	05/30/00 08:12:47
MG	279.079	STD5B	STD1	12.9554	.005182	05/30/00 08:12:47
MN	257.610	STD5A	STD1	4.81618	-.000722	05/30/00 08:12:47
MO	202.030	STD5A	STD1	23.3863	-.004677	05/30/00 08:12:47
NA	588.995	STD5B	STD1	2.01303	-.117964	05/30/00 08:12:47
NI	231.604	STD5A	STD1	5.50128	.004870	05/30/00 08:12:47
PB	220.353	STD5A	STD1	36.5912	-.025614	05/30/00 08:12:47
SB	206.838	STD5A	STD1	48.9684	-.004897	05/30/00 08:12:47
SE	196.026	STD5A	STD1	18.2332	.052876	05/30/00 08:12:47
SI	288.158	STD5A	STD1	28.1224	-.025310	05/30/00 08:12:47
SN	189.989	STD5A	STD1	9.76020	-.000488	05/30/00 08:12:47
SR	409.552	STD5A	STD1	1.21829	-.000050	05/30/00 08:12:47
TI	334.941	STD5A	STD1	1.59667	-.003592	05/30/00 08:12:47
TL	190.864	STD5A	STD1	54.4030	-.002720	05/30/00 08:12:47
V	292.402	STD5A	STD1	5.84405	.000000~	05/30/00 08:12:47
ZN	213.856	STD5A	STD1	6.29183	-.000925	05/30/00 08:12:47

Analysis Report

05/30/00 08:19:02 PM

6581515

page 1

Method: QUANMET Sample Name: ICV2-1 0014-061-7 Operator: EMF
 Run Time: 05/30/00 20:15:56
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50472	25.396	.98062	.98592	.98559	.97370	25.367
SDev	.00073	.074	.01245	.00327	.00528	.00155	.067
%RSD	.14547	.29020	1.2699	.33125	.53574	.15944	.26579
#1	.50582	25.388	.98692	.98866	.98705	.97596	25.380
#2	.50436	25.453	.99013	.98857	.98988	.97282	25.384
#3	.50435	25.447	.98295	.98200	.98752	.97345	25.272
#4	.50435	25.294	.96246	.98447	.97789	.97257	25.432
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.55000	27.500	1.1000	1.1000	1.1000	1.1000	27.500
Low	.45000	22.500	.90000	.90000	.90000	.90000	22.500
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0081	1.0007	1.0107	.98161	26.213	24.789	.97726
SDev	.0092	.0032	.0043	.00290	.031	.165	.01006
%RSD	.91718	.31914	.42643	.29497	.11809	.66411	1.0298
#1	1.0006	1.0000	1.0135	.98244	26.258	24.759	.97224
#2	1.0209	.99862	1.0104	.98244	26.210	24.675	.98482
#3	1.0088	.99865	1.0047	.98411	26.196	25.030	.98644
#4	1.0021	1.0053	1.0141	.97743	26.188	24.692	.96555
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	1.1000	1.1000	1.1000	27.500	27.500	1.1000
Low	.90000	.90000	.90000	.90000	22.500	22.500	.90000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	25.598	1.0019	.97679	25.342	1.0149	1.0073	1.0054
SDev	.054	.0021	.01010	.240	.0188	.0319	.0122
%RSD	.21012	.21364	1.0345	.94723	1.8563	3.1666	1.2160
#1	25.608	1.0036	.97680	25.211	1.0215	.97980	.99315
#2	25.639	1.0026	.98615	25.444	1.0363	1.0310	1.0030
#3	25.626	.99877	.98147	25.627	.99168	.97978	1.0223
#4	25.520	1.0026	.96276	25.088	1.0101	1.0386	1.0029
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	27.500	1.1000	1.1000	27.500	1.1000	1.1000	1.1000
Low	22.500	.90000	.90000	22.500	.90000	.90000	.90000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0686	.99551	.98506	.98246	.98275	4.8176	.99011
SDev	.0347	.00842	.01434	.00381	.00194	.0468	.00226
%RSD	3.2456	.84531	1.4560	.38818	.19743	.97048	.22786
#1	1.0386	.98853	.98549	.98422	.98442	4.7546	.99333
#2	1.0421	.98848	1.0031	.98480	.98315	4.8530	.98999

6581516

Analysis Report

05/30/00 08:19:02 PM

page 2

#3	1.0822	1.0053	.96805	.98407	.98347	4.8096	.98872
#4	H1.1113	.99971	.98359	.97676	.97995	4.8532	.98838
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	1.1000	1.1000	1.1000	1.1000	5.5000	1.1000
Low	.90000	.90000	.90000	.90000	.90000	4.5000	.90000

Elem	ZN
Units	ppm
Avge	1.0013
SDev	.0037
%RSD	.36452

#1	1.0001
#2	1.0066
#3	.99813
#4	1.0006

Errors	LC Pass
High	1.1000
Low	.90000

Method: QUANMET Sample Name: ICB1

Operator: EMF

Run Time: 05/30/00 20:19:04

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00037	.00696	-.02462	.00131	.00009	.00012	.02336
SDev	.00118	.00658	.05034	.00893	.00027	.00001	.00372
%RSD	316.96	94.636	204.47	680.57	302.00	6.0317	15.923
#1	.00182	.01351	.03792	.00679	.00033	.00011	.02848
#2	.00036	.00832	-.04910	.00353	-.00015	.00013	.02207
#3	.00038	.00820	-.00924	.00680	.00033	.00011	.02319
#4	-.00107	-.00220	-.07806	-.01188	-.00015	.00013	.01968
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.30000	.20000	.20000	.00500	5.0000
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00006	.00200	.00078	.00000	.00856	.07181	.00029
SDev	.00081	.00327	.00141	.00118	.00170	.35223	.00107
%RSD	1282.6	163.38	180.52	47162.	19.888	490.46	363.18
#1	-.00113	.00600	.00026	.00001	.01053	.18165	.00129
#2	.00021	.00200	-.00026	.00084	.00922	.27459	.00055
#3	.00064	-.00200	.00287	.00084	.00790	.28303	.00055
#4	.00053	.00200	.00026	-.00167	.00658	-.45201	-.00122
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.05000	.01000	.02500	.10000	5.0000	.05000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01490	.00024	.00234	.00795	.00763	.00369	-.01465
SDev	.00978	.00000	.00270	.00681	.00621	.02986	.01381
%RSD	65.651	.40691	115.41	85.665	81.354	809.38	94.247
#1	.02591	.00025	.00468	.00926	.01179	-.02547	-.00485
#2	.01814	.00024	.00000	.01610	.00854	.03293	-.03419
#3	.01296	.00024	.00000	.00684	.01159	-.01837	-.01463
#4	.00259	.00024	.00468	-.00040	-.00141	.02566	-.00495
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.0000	.01500	.04000	5.0000	.04000	.10000	.06000
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.06841	-.00278	.01311	.00028	.00008	.00260	.00238
SDev	.03735	.00003	.01269	.00023	.00076	.02875	.00270
%RSD	54.598	1.2510	96.821	82.265	952.19	1105.7	113.30
#1	.04927	-.00275	.03072	.00029	.00056	.02973	.00477
#2	.02738	-.00281	.00130	.00044	.00056	-.00283	-.00000

6581518

Analysis Report

05/30/00 08:22:10 PM

page 2

#3	.11125	-.00275	.01311	.00044	.00024	.01894	.00468
#4	.08572	-.00281	.00730	-.00005	-.00104	-.03544	.00009
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.25000	.50000	.10000	.05000	.05000	.30000	.05000
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-.30000	-.05000

Elem	ZN
Units	ppm
Avge	.00308
SDev	.00088
%RSD	28.576

#1	.00283
#2	.00282
#3	.00231
#4	.00434

Errors	LC Pass
High	.02000
Low	-.02000

Analysis Report

QC Standard

05/30/00 08:25:18 PM

Method: QUANMET Sample Name: ICOSA 0014-088-12 Operator: EMF
 Run Time: 05/30/00 20:22:13
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00125	499.12	-.14642	-.06092	.00205	.00003	479.22
SDev	.00185	1.03	.17070	.01525	.00022	.00006	1.53
%RSD	147.71	.20706	116.58	25.027	10.904	200.00	.31906
#1	-.00152	499.00	.10642	-.08333	.00221	.00000	479.65
#2	-.00316	498.93	-.19683	-.05207	.00174	.00013	477.26
#3	-.00161	500.52	-.23255	-.05061	.00202	.00000	479.04
#4	.00128	498.03	-.26272	-.05766	.00221	.00000	480.94
Errors	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass
Value		500.00					500.00
Range		20.000					20.000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00013	.01304	.00026	-.00597	183.94	-.05492	.00133
SDev	.00191	.00200	.00213	.00080	.36	.13658	.00092
%RSD	1424.7	15.358	810.14	13.308	.19593	248.70	68.718
#1	.00139	.01004	.00235	-.00699	184.32	-.17320	.00189
#2	-.00122	.01404	-.00183	-.00622	183.46	-.13941	.00055
#3	.00212	.01403	-.00130	-.00535	183.92	.13096	.00055
#4	-.00175	.01404	.00183	-.00534	184.06	-.03802	.00233
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass	NOCHECK	NOCHECK
Value					200.00		
Range					20.000		
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	488.91	.00518	.00763	.00332	-.00339	.12036	-.02433
SDev	.89	.00055	.00968	.00561	.01620	.02313	.02092
%RSD	.18230	10.711	126.88	168.94	477.39	19.220	85.998
#1	489.51	.00577	.01821	.00121	-.00445	.13858	-.00489
#2	487.80	.00552	-.00063	-.00282	.01973	.13153	-.05334
#3	489.74	.00466	.01347	.00443	-.01248	.08673	-.01464
#4	488.59	.00475	-.00054	.01047	-.01637	.12460	-.02445
Errors	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	500.00						
Range	20.000						
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.17647	.08015	-.06073	.01354	-.02419	.32292	.00015
SDev	.09755	.03094	.02782	.00012	.00055	.20905	.00019
%RSD	55.278	38.596	45.815	.89971	2.2865	64.738	127.27
#1	.27450	.06468	-.03958	.01348	-.02403	.22653	.00036
#2	.21301	.06468	-.10048	.01348	-.02499	.12658	-.00002

6581520

Analysis Report

QC Standard

05/30/00 08:25:18 PM

page 2

#3	.17457	.06468	-.05922	.01372	-.02403	.61145	.00026
#4	.04381	.12655	-.04363	.01348	-.02371	.32712	-.00001

Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value							
Range							

Elem	ZN
Units	ppm
Avge	.00208
SDev	.00225
%RSD	108.10

#1	.00113
#2	.00209
#3	-.00008
#4	.00518

Errors	NOCHECK
Value	
Range	

Method: QUANMET Sample Name: ICSAB 0014-104-1 Operator: EMF
 Run Time: 05/30/00 20:25:21
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.94840	495.91	.81907	.88903	.45566	.44842	472.88
SDev	.00179	1.62	.10182	.01493	.00146	.00154	2.32
%RSD	.18853	.32754	12.432	1.6793	.32028	.34386	.49148
#1	.94860	494.83	.81634	.90065	.45488	.44694	469.83
#2	.94593	498.17	.95796	.90221	.45771	.44896	472.30
#3	.94889	496.02	Q.78659	.88175	.45563	.45035	474.79
#4	.95020	494.63	Q.71539	.87151	.45441	.44745	474.59
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	500.00	1.0000	1.0000	.50000	.50000	500.00
Range	20.000	20.000	20.000	20.000	20.000	20.000	20.000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.95307	.44487	.43793	.47417	182.19	9.9442	.96463
SDev	.01121	.00198	.00225	.00246	.50	.2061	.00789
%RSD	1.1762	.44594	.51479	.51866	.27179	2.0724	.81805
#1	.95428	.44587	.43584	.47495	181.52	9.8471	.96856
#2	.94183	.44189	.43689	.47669	182.33	9.7034	.97226
#3	.94812	.44588	.44106	.47421	182.70	10.151	.96367
#4	.96806	.44583	.43793	.47082	182.19	10.075	.95404
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	.50000	.50000	.50000	200.00	10.000	1.0000
Range	20.000	20.000	20.000	20.000	20.000	20.000	20.000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	483.41	.44931	.87617	10.072	.86929	1.0068	.95169
SDev	1.07	.00177	.01242	.068	.01434	.0271	.01226
%RSD	.22053	.39421	1.4176	.67256	1.6492	2.6940	1.2885
#1	482.40	.44745	.85970	10.083	.86175	.97457	.95412
#2	483.99	.44859	.88788	10.164	.85632	.99449	.96369
#3	484.61	.45163	.87391	10.020	.88906	1.0249	.95439
#4	482.63	.44958	.88318	10.022	.87003	1.0330	.93454
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.00	.50000	1.0000	10.000	1.0000	1.0000	1.0000
Range	20.000	20.000	20.000	20.000	20.000	20.000	20.000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0990	1.0603	.85673	.91880	.87250	9.2101	.44791
SDev	.0709	.0000	.03228	.00327	.00284	.2660	.00024
%RSD	6.4551	.00029	3.7676	.35626	.32531	2.8885	.05376
#1	1.1103	1.0603	.88640	.91724	.86883	8.9667	.44759
#2	1.0512	1.0603	.87876	.92284	.87489	9.5024	.44814

6581522

Analysis Report

QC Standard

05/30/00 08:28:26 PM

page 2

#3	1.1948	1.0603	.81633	.91982	.87457	9.3679	.44788
#4	1.0398	1.0603	.84543	.91529	.87170	9.0034	.44805
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	1.0000	1.0000	1.0000	1.0000	10.000	.50000
Range	20.000	20.000	20.000	20.000	20.000	20.000	20.000

Elem	ZN
Units	ppm
Avge	.92587
SDev	.00558
%RSD	.60293

#1	.91850
#2	.92768
#3	.93184
#4	.92546

Errors	QC Pass
Value	1.0000
Range	20.000

Analysis Report

05/30/00 08:32:42 PM

DDRAZBT

Method: QUANMET Sample Name: ~~DDWTFBT~~ Operator: EMF
 Run Time: 05/30/00 20:29:36 *Quf 5-30-00*
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00000	.01095	.13243	-.00022	.00816	-.00003	.19058
SDev	.00137	.01031	.04659	.00811	.00013	.00006	.00252
%RSD	66551.	94.169	35.177	3631.6	1.6044	200.00	1.3217
#1	.00036	.01709	.11059	.00680	.00835	.00000	.19370
#2	-.00107	.00312	.07803	.00680	.00816	.00000	.18766
#3	-.00107	.00134	.17972	-.00725	.00807	.00000	.18986
#4	.00179	.02226	.16138	-.00725	.00807	-.00013	.19108
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK
High	.50000		.50000		10.000		
Low	-.50000		-.50000		-10.000		
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00192	.00100	.00104	.00126	.01004	.11406	-.00003
SDev	.00176	.00128	.00156	.00048	.00063	.08133	.00076
%RSD	91.565	127.89	150.11	38.406	6.2834	71.306	2900.9
#1	-.00285	.00200	.00287	.00168	.00987	.21544	.00055
#2	-.00249	.00200	.00182	.00084	.01053	.07181	-.00018
#3	.00070	-.00067	-.00026	.00167	.00921	.02957	.00055
#4	-.00305	.00067	-.00026	.00084	.01053	.13941	-.00104
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	.10000		.50000				
Low	-.10000		-.50000				
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02721	.00000	-.00351	S-.11796	.00301	-.00365	-.00492
SDev	.00958	.00048	.00234	.00000	.00542	.02602	.01596
%RSD	35.208	31813.	66.697	.00000	180.34	713.69	324.72
#1	.03887	.00024	-.00468	S-.11796	.00887	.01099	-.02443
#2	.02073	-.00072	-.00468	S-.11796	.00467	-.04020	-.00492
#3	.01814	.00024	-.00468	S-.11796	-.00413	.01827	-.00499
#4	.03109	.00024	.00000	S-.11796	.00261	-.00364	.01467
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	NOCHECK
High						.50000	
Low						-.50000	
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04744	.04359	.02731	.00229	-.00016	.03525	-.00007
SDev	.07321	.02446	.01110	.00012	.00031	.05993	.00004
%RSD	154.30	56.120	40.656	5.1966	191.49	170.02	66.290
#1	.02374	.06468	.01502	.00239	-.00008	-.02460	-.00008
#2	-.04554	.04781	.03853	.00214	-.00040	.06244	-.00009

6581524

Analysis Report

05/30/00 08:32:42 PM

page 2

#3	.11126	.00844	.03463	.00239	-.00040	.10600	-.00009
#4	.10032	.05343	.02105	.00224	.00024	-.00283	-.00000

Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	.25000						
Low	-.25000						

Elem	ZN
Units	ppm
Avge	.02025
SDev	.00156
%RSD	7.7227

#1	.02117
#2	.01793
#3	.02121
#4	.02068

Errors	NOCHECK
High	
Low	

Method: QUANMET Sample Name: DDWJFCT Operator: EMF
 Run Time: 05/30/00 20:32:45
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04835	1.9402	2.1767	.92043	1.8430	.04590	L.22495
SDev	.00136	.0118	.0148	.00232	.0094	.00032	.00490
%RSD	2.8189	.60765	.68044	.25175	.51025	.70509	2.1782
#1	.04727	1.9428	2.1694	.92159	1.8464	.04593	L.22494
#2	.04873	1.9236	2.1731	.92158	1.8353	.04604	L.23164
#3	.04727	1.9426	2.1985	.92160	1.8548	.04618	L.22321
#4	.05011	1.9515	2.1658	.91696	1.8355	.04544	L.22002
Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass	LC Low
High	.06000	2.4000	2.4000		2.4000	.06000	60.000
Low	.04000	1.6000	1.6000		1.6000	.04000	40.000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05243	.46997	.18818	.23805	1.0053	L-.05492	.91793
SDev	.00194	.00548	.00471	.00180	.0063	.41614	.01218
%RSD	3.7067	1.1669	2.5029	.75828	.62419	757.76	1.3271
#1	.05067	.47164	.19040	.23805	1.0084	L.08871	.92270
#2	.05499	.47696	.19300	.23722	1.0091	L.36752	.90006
#3	.05120	.46496	.18727	.24055	1.0078	L-.05492	.92743
#4	.05285	.46630	.18205	.23637	.99593	L-.62099	.92153
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	NOCHECK
High	.06000	.60000	.24000	.30000	1.2000	60.000	
Low	.04000	.40000	.16000	.20000	.80000	40.000	
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	L.01749	.47320	-.00570	S-.11796	.47488	.44901	L-.00585
SDev	.01086	.00318	.00448	.00000	.01553	.00380	.00947
%RSD	62.122	.67306	78.624	.00000	3.2691	.84676	162.00
#1	L.01814	.47536	-.00920	S-.11796	.49215	.44724	L.00161
#2	L.02850	.47537	-.00453	S-.11796	.48257	.45471	L.00157
#3	L.02073	.47344	.00015	S-.11796	.46762	.44704	L-.00840
#4	L.00259	.46862	-.00921	S-.11796	.45719	.44706	L-.01817
Errors	LC Low	LC Pass	NOCHECK	LC Low	LC Pass	LC Pass	LC Low
High	60.000	.60000		60.000	.60000	.60000	.60000
Low	40.000	.40000		40.000	.40000	.40000	.40000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.2345	.03825	.00602	.92899	.00024	1.9003	.46311
SDev	.0790	.03123	.01708	.00408	.00045	.0605	.00386
%RSD	3.5342	81.654	283.84	.43960	188.56	3.1846	.83432
#1	2.1680	.05934	.02899	.93017	-.00008	1.9846	.46305
#2	2.2300	.00878	.00557	.92671	.00024	1.8430	.46782

6581526

Analysis Report

05/30/00 08:35:50 PM

page 2

#3	2.3467	.01435	.00162	.93417	-.00008	1.8758	.46322
#4	2.1934	.07053	-.01210	.92491	.00088	1.8977	.45836
Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass
High	2.4000					2.4000	.60000
Low	1.6000					1.6000	.40000
Elem	ZN						
Units	ppm						
Avge	.50881						
SDev	.00351						
%RSD	.68946						
#1	.51028						
#2	.51233						
#3	.50857						
#4	.50409						
Errors	LC Pass						
High	.60000						
Low	.40000						

Analysis Report

05/30/00 08:38:58 PM

page 1

Method: QUANMET Sample Name: ~~DDRA2BT~~ *DDWJ FBT* Operator: EMF
 Run Time: 05/30/00 20:35:53 *2015-36-00*
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00108	.00484	-.00095	-.00548	-.00000	-.00003	.06477
SDev	.00143	.01176	.03196	.01612	.00010	.00012	.00188
%RSD	133.27	243.24	3356.4	294.15	5343e6	382.97	2.9009
#1	.00179	.00840	.03079	.00025	.00005	.00013	.06703
#2	-.00107	-.01264	-.01624	-.02921	.00005	.00000	.06253
#3	.00179	.01179	-.03823	.00025	.00005	-.00013	.06426
#4	.00179	.01179	.01987	.00679	-.00015	-.00013	.06525
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK
High	.50000		.50000		10.000		
Low	-.50000		-.50000		-10.000		
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00091	.00033	-.00026	.00000	.00395	.08238	-.00007
SDev	.00338	.00167	.00148	.00097	.00194	.12783	.00084
%RSD	371.88	504.55	563.56	156570.	49.101	155.18	1169.7
#1	.00544	.00199	-.00131	.00084	.00592	.08871	.00055
#2	-.00055	.00067	-.00130	-.00084	.00197	-.09716	-.00122
#3	-.00248	-.00199	.00182	-.00084	.00527	.19855	-.00018
#4	.00122	.00066	-.00026	.00084	.00263	.13941	.00055
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	.10000		.50000				
Low	-.10000		-.50000				
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01166	.00024	-.00351	.02134	.00676	-.02378	-.00235
SDev	.00539	.00000	.00448	.00860	.00715	.03749	.03037
%RSD	46.259	.43969	127.67	40.291	105.71	157.65	1289.9
#1	.01814	.00024	-.00935	.03342	.01050	-.01825	-.00473
#2	.01296	.00024	.00000	.02134	-.00395	-.06224	-.04409
#3	.00518	.00024	-.00468	.01409	.01058	.02559	.02455
#4	.01036	.00024	.00000	.01651	.00993	-.04022	.01484
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	NOCHECK
High						.50000	
Low						-.50000	
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.08571	.00000	-.00391	.00032	-.00008	.01900	-.00007
SDev	.08843	.00562	.01621	.00014	.00052	.05179	.00009
%RSD	103.18	3221e6	414.06	44.613	653.20	272.58	126.78
#1	.17688	-.00281	-.00051	.00044	-.00008	.05161	-.00018
#2	-.03464	-.00281	-.00264	.00019	-.00072	-.05715	-.00000

6581528

Analysis Report

05/30/00 08:38:58 PM

page 2

#3	.11124	.00844	.01329	.00044	.00056	.05165	-.00009
#4	.08935	-.00281	-.02579	.00019	-.00008	.02989	-.00000

Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	.25000						
Low	-.25000						

Elem	ZN
Units	ppm
Avge	.01099
SDev	.00101
%RSD	9.1454

#1	.01236
#2	.01012
#3	.01037
#4	.01110

Errors	NOCHECK
High	
Low	

Analysis Report

05/30/00 08:42:05 PM

page 1

Method: QUANMET Sample Name: DDLX3T Operator: EMF
 Run Time: 05/30/00 20:39:00
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00393	.04579	.11113	-.02717	1.1727	.00002	H748.39
SDev	.00203	.01223	.04337	.00160	.0120	.00012	4.57
%RSD	51.532	26.711	39.028	5.8738	1.0221	649.54	.61000
#1	-.00536	.03965	.09574	-.02587	1.1663	.00011	H748.35
#2	-.00107	.05010	.07025	-.02586	1.1592	-.00001	H745.31
#3	-.00537	.03273	.17207	-.02913	1.1802	-.00014	H745.06
#4	-.00393	.06069	.10648	-.02780	1.1850	.00011	H754.86
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00015	.00215	-.00287	.00356	.04064	1.6095	.00048
SDev	.00148	.00255	.00181	.00105	.00054	.5615	.00045
%RSD	1020.4	118.42	62.970	29.578	1.3247	34.886	93.768
#1	-.00140	.00416	-.00235	.00335	.04064	1.7109	-.00018
#2	.00066	.00149	-.00131	.00502	.04130	1.9137	.00082
#3	-.00138	-.00118	-.00548	.00251	.04064	.78996	.00055
#4	.00154	.00414	-.00235	.00335	.03998	2.0235	.00074
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	16.712	.12403	-.00116	S799.12	.00905	.00370	.01490
SDev	.114	.00124	.00702	1598.5	.00775	.03592	.02522
%RSD	.67989	1.0020	603.14	200.03	85.600	970.16	169.32
#1	16.710	.12451	.00468	S-.11796	.01868	.03307	.04425
#2	16.562	.12258	.00468	S3196.9	-.00030	.03297	.02455
#3	16.738	.12354	-.00935	S-.11796	.00907	-.04033	-.01442
#4	16.837	.12547	-.00467	S-.11796	.00876	-.01090	.00520
Errors	LC Pass	LC Pass	LC Pass	LC High	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05302	2.3314	.00758	2.2653	-.04902	.05191	.00494
SDev	.01518	.0530	.02969	.0202	.00066	.03205	.00067
%RSD	28.633	2.2718	391.90	.89079	1.3430	61.735	13.574
#1	.03479	2.3708	.04480	2.2578	-.04894	.05189	.00593
#2	.05667	2.2639	.00957	2.2405	-.04830	.01926	.00476

#3	.07126	2.3145	.00354	2.2775	-.04990	.09546	.00448
#4	.04938	2.3764	-.02761	2.2854	-.04894	.04103	.00458
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .02558
SDev .00163
%RSD 6.3714

#1 .02493
#2 .02624
#3 .02370
#4 .02747

Errors LC Pass
High 100.00
Low -.02000

Analysis Report

05/30/00 08:45:13 PM

page 1

Method: QUANMET Sample Name: DDLX3P5T Operator: EMF
 Run Time: 05/30/00 20:42:08
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00215	-.00127	.02631	-.02314	.24894	-.00000	155.48
SDev	.00138	.00736	.01951	.00184	.00140	.00001	.39
%RSD	64.173	577.82	74.157	7.9533	.56315	200.00	.24848

#1	-.00251	.00307	.04898	-.02457	.25103	.00000	155.08
#2	-.00106	-.00917	.00181	-.02073	.24847	-.00001	155.62
#3	-.00108	.00663	.03080	-.02266	.24828	.00000	155.95
#4	-.00394	-.00562	.02364	-.02458	.24800	.00000	155.27

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00178	.00055	-.00274	.00000	.00688	.05703	-.00052
SDev	.00159	.00218	.00187	.00118	.00126	.43116	.00122
%RSD	89.295	394.15	68.383	112320.	18.348	756.03	235.83

#1	.00178	-.00212	-.00548	-.00084	.00852	-.46891	-.00227
#2	.00397	.00055	-.00131	.00167	.00589	.51115	-.00018
#3	.00022	.00322	-.00235	.00000	.00721	.28303	.00055
#4	.00117	.00056	-.00183	-.00084	.00589	-.09716	-.00018

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.5362	.02625	-.00468	259.21	.00533	.00914	-.01701
SDev	.0149	.00000	.00000	1.76	.00380	.02495	.02813
%RSD	.42040	.00100	.00403	.67802	71.232	273.07	165.37

#1	3.5342	.02625	-.00468	261.70	.00953	-.02567	.00510
#2	3.5498	.02625	-.00468	257.63	.00164	.01832	.00495
#3	3.5446	.02625	-.00468	258.45	.00751	.03298	-.02436
#4	3.5161	.02625	-.00468	259.08	.00265	.01092	-.05374

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.06566	.48935	-.00248	.48186	-.01030	-.00538	.00107
SDev	.00632	.01489	.01836	.00183	.00037	.05209	.00234
%RSD	9.6181	3.0418	740.11	.38020	3.5805	968.99	218.02

#1	.06020	.47527	-.01799	.48456	-.00998	.01912	-.00010
#2	.06384	.49220	.01714	.48090	-.01062	.05173	.00458
#3	.07478	.50902	.00920	.48143	-.00998	-.06795	-.00009
#4	.06384	.48089	-.01827	.48056	-.01062	-.02440	-.00009

Elem	ZN
Units	ppm
Avge	.00874
SDev	.00162
%RSD	18.528

#1	.00734
#2	.00989
#3	.01037

6581532

Analysis Report

05/30/00 08:45:13 PM

page 2

#4 .00736

Analysis Report

05/30/00 08:48:21 PM

page 1

Method: QUANMET Sample Name: DDLX3ST

Operator: EMF

Run Time: 05/30/00 20:45:16

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.91598	.04842	4.8516	-.02782	43.856	.00012	H720.31
SDev	.00561	.00853	.0429	.00160	.613	.00010	2.92
%RSD	.61257	17.623	.88350	5.7398	1.3987	88.513	.40587
#1	.91025	.05890	4.8633	-.02912	43.393	.00012	H716.16
#2	.92314	.04835	4.9070	-.02912	44.723	.00012	H722.40
#3	.91311	.03800	4.8127	-.02720	43.452	-.00001	H720.38
#4	.91741	.04844	4.8235	-.02585	43.858	.00024	H722.32
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.95800	.00072	4.2868	.00272	.04723	1.4574	.00161
SDev	.00519	.00054	.0226	.00080	.00054	.2015	.00075
%RSD	.54142	75.105	.52805	29.410	1.1379	13.824	46.571
#1	.95710	.00028	4.2564	.00251	.04724	1.1702	.00178
#2	.96313	.00093	4.3101	.00168	.04789	1.4828	.00055
#3	.95116	.00027	4.2856	.00335	.04658	1.6348	.00178
#4	.96062	.00138	4.2950	.00335	.04723	1.5419	.00233
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	16.219	.12042	-.00350	S1598.9	.01745	4.5055	.02136
SDev	.126	.00092	.00589	1846.4	.00626	.0552	.02184
%RSD	.77731	.76741	168.11	115.48	35.859	1.2256	102.24
#1	16.111	.11969	-.00467	S3197.7	.01420	4.4268	.02892
#2	16.394	.12162	.00468	S-.11796	.01574	4.5439	-.00094
#3	16.145	.11969	-.00935	S3198.1	.01316	4.5439	.00914
#4	16.228	.12066	-.00467	S-.11796	.02670	4.5074	.04833
Errors	LC Pass	LC Pass	LC Pass	LC High	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0595	2.2244	.00857	2.1964	-.04606	.04640	.00374
SDev	.0641	.0400	.00802	.0283	.00052	.09339	.00014
%RSD	6.0467	1.7998	93.608	1.2897	1.1321	201.27	3.8421
#1	.98659	2.1682	.01544	2.1734	-.04543	-.01344	.00366
#2	1.0267	2.2582	.01530	2.2357	-.04606	.06272	.00394

6581534

Analysis Report

05/30/00 08:48:21 PM

page 2

#3	1.1252	2.2244	-.00027	2.1782	-.04606	.17153	.00362
#4	1.0996	2.2469	.00382	2.1981	-.04670	-.03521	.00373
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	.02372
SDev	.00094
%RSD	3.9789

#1	.02242
#2	.02442
#3	.02442
#4	.02363

Errors	LC Pass
High	100.00
Low	-.02000

Analysis Report

05/30/00 08:51:29 PM

page 1

Method: QUANMET Sample Name: DDLX3DT Operator: EMF
 Run Time: 05/30/00 20:48:23
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.89305	.04927	4.7445	-.02734	41.944	.00009	H709.68
SDev	.00203	.01037	.1016	.00135	.247	.00006	2.42
%RSD	.22695	21.039	2.1409	4.9245	.58773	74.134	.34125
#1	.89449	.05542	4.6382	-.02585	41.755	.00012	H713.29
#2	.89448	.03438	4.7147	-.02719	42.274	-.00001	H708.80
#3	.89019	.05014	4.7436	-.02721	41.992	.00012	H708.09
#4	.89305	.05715	4.8815	-.02913	41.756	.00012	H708.55
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.93285	.00175	4.1750	.00314	.04724	1.4236	.00062
SDev	.00809	.00329	.0137	.00173	.00142	.4189	.00013
%RSD	.86760	188.24	.32693	54.969	3.0106	29.423	21.053
#1	.93105	.00385	4.1917	.00503	.04856	1.9052	.00082
#2	.94012	-.00310	4.1787	.00084	.04789	.88290	.00055
#3	.93804	.00371	4.1703	.00335	.04526	1.4405	.00055
#4	.92220	.00254	4.1594	.00335	.04724	1.4659	.00055
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	15.757	.11825	.00118	S3198.7	.01638	4.3682	.01495
SDev	.035	.00056	.00234	.2	.00421	.0493	.01869
%RSD	.22077	.47028	198.78	.00484	25.708	1.1293	125.01
#1	15.777	.11873	.00001	S3198.6	.01783	4.4269	.03935
#2	15.793	.11873	.00001	S3198.9	.01129	4.3535	.01984
#3	15.715	.11777	.00468	S3198.7	.02124	4.3829	.00031
#4	15.743	.11777	.00001	S3198.6	.01516	4.3097	.00031
Errors	LC Pass	LC Pass	LC Pass	LC High	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0276	2.1583	-.01391	2.1228	-.04503	.02462	.00361
SDev	.0645	.0028	.02920	.0110	.00075	.04572	.00005
%RSD	6.2771	.13029	209.90	.51656	1.6758	185.71	1.3031
#1	.97930	2.1626	-.02551	2.1145	-.04447	.08444	.00362
#2	1.0814	2.1569	-.04707	2.1376	-.04606	.03009	.00359

6581536

Analysis Report

05/30/00 08:51:29 PM

page 2

#3	1.0850	2.1569	-.00422	2.1248	-.04511	-.02434	.00367
#4	.96471	2.1569	.02116	2.1145	-.04447	.00829	.00355
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .02920
SDev .00142
%RSD 4.8695

#1 .02869
#2 .03021
#3 .02743
#4 .03048

Errors LC Pass
High 100.00
Low -.02000

Analysis Report

05/30/00 08:54:36 PM

Method: QUANMET Sample Name: DDLX6T

Operator: EMF

Run Time: 05/30/00 20:51:31

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00502	.17498	.09732	-.01911	1.1209	.00012	596.46
SDev	.00182	.01276	.04042	.01651	.0161	.00010	4.13
%RSD	36.263	7.2931	41.536	86.375	1.4351	85.930	.69248
#1	-.00249	.18452	.06537	-.02715	1.1237	.00010	599.59
#2	-.00538	.15668	.08747	.00557	1.1040	.00024	590.75
#3	-.00540	.18283	.08007	-.02906	1.1142	.00013	599.41
#4	-.00683	.17588	.15636	-.02581	1.1418	-.00000	596.10
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00350	.00349	.00117	.01026	.07688	1.4215	.00078
SDev	.00204	.00414	.00293	.00080	.00269	.4388	.00077
%RSD	58.490	118.76	250.34	7.8241	3.4982	30.870	98.974
#1	.00418	.00548	-.00131	.01088	.07952	1.4574	.00055
#2	.00522	.00682	.00443	.01089	.07491	2.0150	.00055
#3	.00053	-.00250	.00287	.01004	.07886	1.2209	.00189
#4	.00405	.00414	-.00130	.00921	.07425	.99273	.00011
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	17.867	.23119	-.00116	S1598.8	.01262	-.01465	-.00231
SDev	.150	.00182	.00234	1846.3	.00802	.03251	.00494
%RSD	.84209	.78865	201.97	115.48	63.575	221.85	214.46
#1	18.000	.23240	.00001	S3197.4	.01458	.03296	-.00468
#2	17.684	.22855	.00001	S3198.0	.02131	-.02552	.00511
#3	17.803	.23240	-.00467	S-.11796	.00196	-.04044	-.00490
#4	17.979	.23144	.00001	S-.11796	.01263	-.02562	-.00475
Errors	LC Pass	LC Pass	LC Pass	LC High	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05589	2.4453	.02698	1.2892	-.03776	-.00499	.00378
SDev	.03347	.0273	.00617	.0156	.00094	.03364	.00423
%RSD	59.874	1.1165	22.848	1.2087	2.4896	674.61	111.85
#1	.02764	2.4552	.02111	1.2918	-.03680	.04118	.00935
#2	.10420	2.4045	.02311	1.2723	-.03744	-.02405	.00468

6581538

Analysis Report

05/30/00 08:54:36 PM

page 2

#3	.04222	2.4607	.03478	1.2835	-.03776	-.03485	-.00008
#4	.04950	2.4607	.02893	1.3093	-.03904	-.00222	.00117
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	.05964
SDev	.00171
%RSD	2.8671

#1	.06141
#2	.06063
#3	.05890
#4	.05761

Errors	LC Pass
High	100.00
Low	-.02000

Analysis Report

05/30/00 08:57:44 PM

page 1

Method: QUANMET Sample Name: CCV2-1 0014-087-7 Operator: EMF
 Run Time: 05/30/00 20:54:39
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.98773	50.102	4.9245	4.8606	4.8232	4.8172	49.917
SDev	.00323	.230	.1134	.0334	.0266	.0184	.228
%RSD	.32687	.45927	2.3018	.68621	.55224	.38175	.45745
#1	.98472	49.769	4.8562	4.8239	4.7856	4.7939	49.943
#2	.99221	50.242	5.0869	4.8891	4.8313	4.8380	50.225
#3	.98626	50.126	4.8382	4.8409	4.8275	4.8143	49.805
#4	.98772	50.269	4.9168	4.8887	4.8483	4.8226	49.697
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	55.000	5.5000	5.5000	5.5000	5.5000	55.000
Low	.90000	45.000	4.5000	4.5000	4.5000	4.5000	45.000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.9662	4.8813	4.8720	4.8244	51.130	49.958	4.8617
SDev	.0320	.0157	.0185	.0281	.166	.574	.0713
%RSD	.64364	.32141	.37953	.58318	.32499	1.1497	1.4676
#1	4.9538	4.8857	4.8649	4.7853	50.981	49.117	4.7684
#2	5.0038	4.9015	4.8993	4.8280	51.366	50.072	4.8499
#3	4.9780	4.8709	4.8659	4.8321	51.064	50.266	4.8929
#4	4.9293	4.8670	4.8581	4.8522	51.108	50.376	4.9355
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	55.000	55.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	45.000	45.000	4.5000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	49.937	4.8842	4.8486	49.708	4.8421	4.9321	4.9304
SDev	.206	.0174	.0127	.637	.0182	.0396	.0245
%RSD	.41159	.35537	.26149	1.2815	.37529	.80313	.49739
#1	49.655	4.8722	4.8299	48.852	4.8292	4.9398	4.9254
#2	50.124	4.9098	4.8533	49.662	4.8515	4.9765	4.9644
#3	49.920	4.8799	4.8580	49.964	4.8630	4.9318	4.9256
#4	50.047	4.8751	4.8533	50.354	4.8248	4.8804	4.9060
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55.000	5.5000	5.5000	55.000	5.5000	5.5000	5.5000
Low	45.000	4.5000	4.5000	45.000	4.5000	4.5000	4.5000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.0488	4.8936	4.8533	4.8239	4.8376	9.6732	4.8674
SDev	.1292	.0058	.0796	.0238	.0178	.0315	.0195
%RSD	2.5595	.11871	1.6405	.49403	.36806	.32602	.40042
#1	4.8595	4.8848	4.8987	4.7894	4.8139	9.6748	4.8460
#2	5.0724	4.8967	4.9242	4.8375	4.8563	9.6814	4.8932

#3	5.1297	4.8963	4.8460	4.8270	4.8365	9.6304	4.8640
#4	5.1335	4.8963	4.7444	4.8417	4.8436	9.7061	4.8663
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	5.5000	11.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	4.5000	9.0000	4.5000

Elem ZN
Units ppm
Avge 4.9344
SDev .0143
%RSD .29065

#1 4.9178
#2 4.9479
#3 4.9447
#4 4.9271

Errors LC Pass
High 5.5000
Low 4.5000

Analysis Report

05/30/00 09:00:52 PM

Page 1

Method: QUANMET Sample Name: CCB1 Operator: EMF
 Run Time: 05/30/00 20:57:47
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00037	-.00141	-.02181	-.00091	.00037	.00022	.01345
SDev	.00117	.00458	.05115	.00725	.00031	.00012	.00714
%RSD	319.14	324.11	234.58	800.37	83.010	55.090	53.102
#1	.00036	-.00745	.02002	.00679	.00033	.00013	.00638
#2	.00179	.00125	-.09624	-.00861	.00005	.00013	.00830
#3	-.00107	-.00235	-.00181	-.00532	.00080	.00038	.02052
#4	.00038	.00290	-.00919	.00352	.00033	.00024	.01860
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.30000	.20000	.20000	.00500	5.0000
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00092	.00100	-.00130	-.00063	.00560	-.28303	.00029
SDev	.00177	.00295	.00000	.00080	.00085	.13071	.00052
%RSD	192.19	296.35	.08335	127.66	15.188	46.180	177.78
#1	.00033	.00333	-.00130	-.00167	.00461	-.32528	-.00049
#2	.00342	.00199	-.00130	-.00083	.00527	-.42666	.00055
#3	-.00073	-.00333	-.00130	-.00000	.00658	-.11406	.00055
#4	.00066	.00200	-.00130	.00000	.00593	-.26614	.00055
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.05000	.01000	.02500	.10000	5.0000	.05000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00453	.00049	.01169	.01157	.00592	-.00730	-.00736
SDev	.01001	.00048	.00270	.01019	.00246	.03017	.03236
%RSD	220.70	98.978	23.093	88.057	41.471	413.11	439.87
#1	.00518	.00025	.00936	.00161	.00355	-.03291	-.05388
#2	.00000	.00025	.00936	.00523	.00416	-.03289	-.00490
#3	-.00518	.00025	.01403	.02416	.00734	.01090	.01466
#4	.01814	.00121	.01403	.01530	.00863	.02568	.01469
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.0000	.01500	.04000	5.0000	.04000	.10000	.06000
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.03102	-.00561	.00729	.00009	.00032	.04889	.00139
SDev	.01658	.00564	.00425	.00007	.00040	.02059	.00237
%RSD	53.447	100.47	58.312	83.333	125.83	42.125	170.11
#1	.03466	-.00281	.00707	.00005	-.00008	.05161	.00018
#2	.01643	-.00281	.00339	.00005	.00088	.01897	.00018

6581542

Analysis Report

05/30/00 09:00:52 PM

page 2

#3	.02008	-.01406	.00544	.00019	.00024	.06252	.00027
#4	.05290	-.00275	.01325	.00005	.00024	.06246	.00494
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.25000	.50000	.10000	.05000	.05000	.30000	.05000
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-.30000	-.05000

Elem	ZN
Units	ppm
Avge	.00421
SDev	.00084
%RSD	19.959

#1	.00359
#2	.00358
#3	.00431
#4	.00536

Errors	LC Pass
High	.02000
Low	-.02000

Analysis Report

05/30/00 09:04:01 PM

page 1

Method: QUANMET Sample Name: DDWJCB Operator: EMF
 Run Time: 05/30/00 21:00:55
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00107	-.00697	-.00360	.00355	.00064	-.00003	.20916
SDev	.00117	.00516	.04654	.00267	.00014	.00006	.00375
%RSD	109.40	74.096	1292.5	75.285	21.991	200.00	1.7914
#1	-.00107	-.01432	-.02351	.00355	.00052	-.00013	.20583
#2	-.00107	-.00564	-.04900	.00683	.00080	.00000	.21445
#3	-.00250	-.00566	.05993	.00355	.00052	.00000	.20742
#4	.00036	-.00224	-.00183	.00028	.00072	.00000	.20892
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.30000	.20000	.20000	.00500	5.0000
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00040	.00100	-.00039	.00000	.02123	-.06759	.00037
SDev	.00242	.00127	.00065	.00068	.00173	.36258	.00037
%RSD	607.09	126.89	167.42	26167.	8.1542	536.43	98.246
#1	-.00353	-.00066	-.00026	.00000	.02041	-.52805	.00055
#2	.00110	.00200	-.00026	.00084	.02370	.17320	.00055
#3	-.00102	.00067	.00026	.00000	.01975	.26614	-.00018
#4	.00185	.00200	-.00130	-.00083	.02106	-.18165	.00055
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.05000	.01000	.02500	.10000	5.0000	.05000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04599	.00097	.00000	.10528	.00618	-.02743	-.00979
SDev	.00955	.00048	.00764	.00523	.00559	.04488	.02038
%RSD	20.764	49.709	240630.	4.9713	90.459	163.62	208.26
#1	.03368	.00121	-.00935	.09783	.00352	-.08416	.01470
#2	.05700	.00121	.00000	.10750	.00610	.02566	-.00487
#3	.04664	.00025	.00000	.10589	.00111	-.02562	-.01473
#4	.04664	.00121	.00936	.10991	.01398	-.02561	-.03425
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.0000	.01500	.04000	5.0000	.04000	.10000	.06000
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.03472	.06468	.02534	.00013	-.00024	-.02470	-.00000
SDev	.04231	.01027	.00740	.00007	.00018	.01537	.00015
%RSD	121.86	15.876	29.219	54.681	76.980	62.208	20583.
#1	.04566	.05906	.03472	.00019	-.00008	-.04644	-.00018
#2	-.01997	.05343	.01706	.00019	-.00040	-.01385	-.00000

#3	.08212	.07593	.02287	.00009	-.00040	-.02469	.00000
#4	.03107	.07031	.02668	.00005	-.00008	-.01383	.00018
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.25000	.50000	.10000	.05000	.05000	.30000	.05000
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-.30000	-.05000

Elem ZN
Units ppm
Avge .01288
SDev .00034
%RSD 2.6080

#1 .01290
#2 .01311
#3 .01239
#4 .01310

Errors LC Pass
High .02000
Low -.02000

Method: QUANMET Sample Name: DDWJCC

Operator: EMF

Run Time: 05/30/00 21:04:03

6581545

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04400	1.9287	1.8111	1.0104	1.7990	.04463	46.968
SDev	.00137	.0036	.0140	.0064	.0089	.00016	.132
%RSD	3.1240	.18409	.77416	.63014	.49212	.36669	.28130
#1	.04293	1.9243	1.8103	1.0106	1.7987	.04470	46.876
#2	.04292	1.9279	1.8175	1.0040	1.7914	.04445	46.974
#3	.04438	1.9295	1.8247	1.0190	1.7945	.04456	47.152
#4	.04579	1.9329	1.7920	1.0079	1.8115	.04482	46.868
Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass	LC Pass
High	.06000	2.4000	2.4000		2.4000	.06000	60.000
Low	.04000	1.6000	1.6000		1.6000	.04000	40.000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04680	.45720	.18129	.22570	1.0170	46.815	.91219
SDev	.00382	.00504	.00209	.00143	.0032	.389	.00938
%RSD	8.1632	1.1020	1.1525	.63279	.31514	.83063	1.0286
#1	.05156	.45552	.18233	.22382	1.0181	47.250	.91959
#2	.04280	.45822	.18233	.22549	1.0122	47.013	.90730
#3	.04798	.46353	.18233	.22633	1.0188	46.388	.90139
#4	.04485	.45153	.17815	.22716	1.0188	46.608	.92048
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK
High	.06000	.60000	.24000	.30000	1.2000	60.000	
Low	.04000	.40000	.16000	.20000	.80000	40.000	
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	47.181	.45881	.90637	46.674	.45560	.45476	.45312
SDev	.132	.00167	.01037	.422	.01139	.00016	.03239
%RSD	.28064	.36444	1.1443	.90328	2.4994	.03544	7.1481
#1	47.139	.45929	.90287	47.000	.46298	.45473	.46062
#2	47.106	.45640	.89351	46.434	.44412	.45474	.41139
#3	47.101	.46026	.91222	46.203	.44778	.45499	.48977
#4	47.378	.45930	.91690	47.058	.46750	.45460	.45070
Errors	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	60.000	.60000		60.000	.60000	.60000	.60000
Low	40.000	.40000		40.000	.40000	.40000	.40000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9136	.50918	1.8232	.90334	.89717	1.7833	.45354
SDev	.0487	.01029	.0289	.00429	.00290	.0891	.00184
%RSD	2.5445	2.0202	1.5861	.47465	.32281	4.9958	.40546
#1	1.9237	.51479	1.7867	.90322	.89661	1.8758	.45260
#2	1.8799	.49792	1.8567	.89932	.89373	1.7126	.45242

6581546

Analysis Report

05/30/00 09:07:09 PM

page 2

#3	1.8726	.52046	1.8200	.90152	.89757	1.7016	.45629
#4	1.9784	.50355	1.8296	.90931	.90076	1.8431	.45286
Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass
High	2.4000					2.4000	.60000
Low	1.6000					1.6000	.40000

Elem	ZN
Units	ppm
Avge	.47812
SDev	.00419
%RSD	.87590

#1	.47515
#2	.47772
#3	.47543
#4	.48416

Errors	LC Pass
High	.60000
Low	.40000

Analysis Report

05/30/00 09:10:17 PM

page 1

Method: QUANMET Sample Name: DDNNA Operator: EMF
 Run Time: 05/30/00 21:07:11
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00117	38.834	.12600	-.00360	.60459	.00253	102.16
SDev	.00118	.099	.01668	.00625	.00093	.00007	.32
%RSD	101.08	.25479	13.240	173.58	.15303	2.8788	.31406
#1	-.00032	38.851	.11346	-.00676	.60492	.00247	101.81
#2	.00128	38.965	.11887	-.00542	.60567	.00259	102.56
#3	.00258	38.738	.15055	-.00787	.60350	.00247	102.26
#4	.00115	38.782	.12111	.00565	.60425	.00259	102.01
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00508	.05181	.16733	.57492	162.63	7.9229	.05794
SDev	.00251	.00278	.00274	.00080	.31	.1190	.00073
%RSD	49.341	5.3568	1.6400	.13892	.18869	1.5015	1.2649
#1	.00215	.05115	.16968	.57594	162.39	8.0813	.05806
#2	.00478	.04847	.16551	.57516	163.08	7.8194	.05884
#3	.00827	.05514	.16968	.57428	162.52	7.8447	.05779
#4	.00513	.05248	.16446	.57428	162.54	7.9461	.05706
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	31.250	1.8283	.00678	.67708	.10162	3.4225	.01584
SDev	.063	.0040	.00231	.00863	.01034	.0288	.01699
%RSD	.20191	.21980	34.141	1.2738	10.172	.84141	107.25
#1	31.238	1.8253	.01025	.67557	.10532	3.4463	.01089
#2	31.342	1.8342	.00568	.68765	.10178	3.4314	.04035
#3	31.202	1.8263	.00559	.67839	.11193	3.3806	.01105
#4	31.217	1.8273	.00560	.66672	.08746	3.4317	.00108
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.21345	3.2072	.10240	.28309	2.3754	.06177	.21085
SDev	.03257	.0608	.01293	.00046	.0029	.04691	.00005
%RSD	15.260	1.8962	12.630	.16293	.12291	75.951	.02276
#1	.19069	3.2227	.12137	.28340	2.3745	.06970	.21092
#2	.24062	3.2789	.09429	.28340	2.3796	.11703	.21082

6581548

Analysis Report

05/30/00 09:10:17 PM

page 2

#3	.24221	3.1327	.09992	.28242	2.3745	.05747	.21083
#4	.18029	3.1946	.09403	.28315	2.3729	.00288	.21082
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	1.4214
SDev	.0068
%RSD	.47624

#1	1.4124
#2	1.4278
#3	1.4252
#4	1.4200

Errors	LC Pass
High	100.00
Low	-.02000

Analysis Report

05/30/00 09:13:25 PM

page 1

Method: QUANMET Sample Name: DDNNAP5 Operator: EMF
 Run Time: 05/30/00 21:10:20
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00069	7.7950	.00913	-.02154	.12332	.00039	20.662
SDev	.00083	.0274	.05375	.00256	.00042	.00000	.083
%RSD	120.35	.35108	588.72	11.872	.33853	.07184	.40353

#1	-.00138	7.8251	-.05479	-.02328	.12318	.00039	20.715
#2	-.00143	7.7641	.04401	-.01787	.12318	.00039	20.631
#3	.00005	7.8094	-.01470	-.02331	.12298	.00039	20.743
#4	.00001	7.7815	.06200	-.02169	.12393	.00039	20.559

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00071	.01114	.03362	.11565	34.077	1.3983	.01208
SDev	.00330	.00133	.00154	.00068	.102	.1450	.00017
%RSD	466.73	11.955	4.5701	.59009	.29828	10.372	1.3837

#1	-.00413	.01049	.03310	.11482	34.173	1.5081	.01194
#2	.00217	.01314	.03206	.11565	33.982	1.1871	.01220
#3	.00155	.01047	.03571	.11649	34.157	1.4236	.01194
#4	.00324	.01047	.03362	.11564	33.996	1.4743	.01225

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	6.3345	.37617	.00042	.16789	.02416	.68745	.00171
SDev	.0257	.00095	.00542	.00237	.00415	.02153	.02812
%RSD	405.44	.25234	1294.1	1.4120	17.178	3.1314	1647.1
#1	6.3637	.37692	.00511	.17111	.02887	.67273	-.01541
#2	6.3481	.37590	-.00427	.16547	.01917	.66557	-.00559
#3	6.3093	.37691	.00511	.16789	.02279	.70934	-.01548
#4	6.3170	.37494	-.00427	.16708	.02579	.70215	.04331

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.09631	.67969	.02766	.05790	.48547	.02795	.04215
SDev	.02296	.02358	.01983	.00028	.00168	.07652	.00011
%RSD	23.835	3.4698	71.678	.48595	.34599	273.73	.25252

#1	.10486	.64454	.02565	.05814	.48467	.08138	.04224
#2	.12240	.69516	.00809	.05765	.48531	-.02549	.04206
#3	.06834	.68954	.02173	.05765	.48786	-.04903	.04225
#4	.08963	.68954	.05517	.05814	.48403	.10495	.04206

Elem	ZN
Units	ppm
Avge	.29204
SDev	.00207
%RSD	.70998

#1	.29228
#2	.29232
#3	.29429

#4 .28926

Method: QUANMET Sample Name: DDNNAS

Operator: EMF

Run Time: 05/30/00 21:13:28

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04784	99.130	1.9985	.90515	2.6873	.04861	166.57
SDev	.00207	.340	.0463	.00337	.0161	.00006	.93
%RSD	4.3220	.34332	2.3147	.37202	.59996	.13177	.55654
#1	.04635	99.206	1.9338	.90490	2.6946	.04858	165.83
#2	.04781	99.295	2.0273	.90049	2.6933	.04858	166.12
#3	.05077	98.632	2.0359	.90780	2.6633	.04858	167.91
#4	.04642	99.388	1.9972	.90743	2.6979	.04871	166.41
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04763	.51491	.41599	.72998	185.04	56.924	1.0030
SDev	.00254	.00001	.00320	.00484	.22	.244	.0120
%RSD	5.3241	.00223	.76869	.66272	.12144	.42795	1.1957
#1	.04691	.51491	.41220	.73373	184.81	56.865	1.0104
#2	.04766	.51490	.41586	.73123	184.92	56.991	1.0123
#3	.05102	.51492	.42003	.72290	185.31	56.628	.98600
#4	.04493	.51490	.41586	.73208	185.12	57.211	1.0033
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	71.434	2.2692	.90583	48.526	.57327	3.5800	.29505
SDev	.142	.0063	.00447	.455	.00709	.0484	.00975
%RSD	.19916	.27808	.49344	.93702	1.2371	1.3531	3.3051
#1	71.382	2.2634	.90228	48.766	.57713	3.5251	.29032
#2	71.534	2.2663	.91166	48.779	.57177	3.5690	.30967
#3	71.257	2.2780	.90236	47.845	.58018	3.6424	.29018
#4	71.563	2.2692	.90701	48.713	.56400	3.5835	.29002
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0184	7.3874	1.8141	1.3177	3.4489	1.8084	.74708
SDev	.1186	.0828	.0227	.0063	.0067	.1217	.00071
%RSD	5.8741	1.1213	1.2516	.47851	.19547	6.7305	.09506
#1	1.9027	7.4929	1.7803	1.3210	3.4436	1.8026	.74641
#2	1.9724	7.3861	1.8214	1.3198	3.4513	1.8450	.74777

#3	2.1817	7.2904	1.8292	1.3083	3.4433	1.9389	.74760
#4	2.0169	7.3804	1.8252	1.3217	3.4573	1.6471	.74651
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge 2.2007
SDev .0047
%RSD .21493

#1 2.2043
#2 2.1937
#3 2.2025
#4 2.2022

Errors LC Pass
High 100.00
Low -.02000

Analysis Report

05/30/00 09:19:41 PM

6581553
page 1

Method: QUANMET Sample Name: DDNNAD

Operator: EMF

Run Time: 05/30/00 21:16:36

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04534	103.76	2.0438	.88948	2.7184	.04920	137.05
SDev	.00199	.27	.0832	.00494	.0097	.00012	.34
%RSD	4.3946	.26391	4.0697	.55548	.35618	.24865	.24523
#1	.04816	103.64	1.9298	.88256	2.7154	.04916	137.02
#2	.04388	103.83	2.1241	.89428	2.7223	.04930	136.63
#3	.04531	103.47	2.0800	.89075	2.7066	.04905	137.45
#4	.04399	104.11	2.0413	.89033	2.7293	.04930	137.11
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04901	.51074	.42604	.67042	193.36	55.614	.98418
SDev	.00566	.00198	.00365	.00109	.27	.481	.00774
%RSD	11.543	.38837	.85682	.16230	.14177	.86419	.78656
#1	.05155	.51241	.42422	.66999	193.12	56.180	.99117
#2	.04287	.50975	.43152	.67167	193.30	55.268	.98318
#3	.04604	.50843	.42422	.66916	193.27	55.166	.97370
#4	.05557	.51238	.42422	.67087	193.75	55.842	.98866
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	72.292	2.4093	.90239	47.806	.55085	3.6323	.26307
SDev	.110	.0014	.00797	.296	.01311	.0243	.01477
%RSD	.15191	.05900	.88371	.61990	2.3795	.66971	5.6140
#1	72.213	2.4092	.90353	47.986	.53629	3.6599	.27020
#2	72.364	2.4083	.89420	47.838	.54404	3.6377	.25068
#3	72.185	2.4083	.91290	47.378	.56534	3.6305	.25094
#4	72.408	2.4113	.89895	48.021	.55771	3.6010	.28048
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0598	5.8938	1.7856	1.2226	3.3342	1.7208	.71606
SDev	.0512	.0652	.0599	.0036	.0048	.1374	.00235
%RSD	2.4871	1.1062	3.3531	.29623	.14388	7.9871	.32881
#1	2.0534	5.9908	1.8428	1.2209	3.3290	1.7287	.71958
#2	2.1124	5.8501	1.8212	1.2241	3.3363	1.9009	.71474

#3	1.9920	5.8670	1.7705	1.2185	3.3318	1.6837	.71509
#4	2.0813	5.8670	1.7082	1.2268	3.3398	1.5699	.71482
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge 1.9735
SDev .0043
%RSD .21793

#1 1.9744
#2 1.9789
#3 1.9718
#4 1.9687

Errors LC Pass
High 100.00
Low -.02000

°

Method: QUANMET Sample Name: DDWJHB

Operator: EMF

Run Time: 05/30/00 21:19:44

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00001	.00216	-.01548	.00189	-.00022	-.00007	.08767
SDev	.00138	.00226	.02686	.00189	.00014	.00008	.00338
%RSD	17703.	104.86	173.54	100.13	64.516	115.72	3.8546
#1	-.00107	.00479	-.00187	.00353	-.00042	.00000	.08449
#2	.00036	-.00045	-.04903	.00353	-.00015	.00000	.09143
#3	.00182	.00304	.01259	.00025	-.00015	-.00014	.08960
#4	-.00107	.00124	-.02362	.00025	-.00015	-.00013	.08515
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.30000	.20000	.20000	.00500	5.0000
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00257	-.00001	.00117	.00000	.00757	-.05703	.00011
SDev	.00125	.00231	.00167	.00118	.00174	.28219	.00089
%RSD	48.657	34718.	142.37	196310.	22.989	494.82	800.00
#1	.00145	-.00067	.00235	-.00084	.00856	-.25769	.00055
#2	.00416	-.00068	.00287	.00167	.00921	.35907	.00055
#3	.00170	.00333	-.00026	.00000	.00724	-.13096	.00055
#4	.00297	-.00201	-.00026	-.00084	.00527	-.19855	-.00122
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.05000	.01000	.02500	.10000	5.0000	.05000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00777	.00024	.00117	.00946	.00693	-.00735	-.02446
SDev	.01287	.00000	.00234	.00510	.00712	.03081	.02769
%RSD	165.55	.17658	199.79	53.882	102.80	419.07	113.21
#1	-.01036	.00024	.00000	.00362	-.00343	-.04030	-.02458
#2	.01814	.00024	.00000	.01168	.01186	.02559	-.00482
#3	.01555	.00024	.00000	.00725	.00791	.01106	-.00486
#4	.00777	.00024	.00468	.01530	.01138	-.02576	L-.06359
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.0000	.01500	.04000	5.0000	.04000	.10000	.06000
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.06931	-.00280	.01258	.00025	.00000	-.01097	.00119
SDev	.02277	.00797	.01373	.00007	.00055	.04104	.00232
%RSD	32.851	284.86	109.15	28.496	294e6	374.24	194.43
#1	.06385	-.01406	.01892	.00019	-.00008	-.01368	.00000
#2	.04562	.00281	.00340	.00034	-.00072	.01895	.00001

#3	.10031	.00287	.02877	.00029	.00056	.01891	.00467
#4	.06748	-.00281	-.00078	.00019	.00024	-.06804	.00009
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.25000	.50000	.10000	.05000	.05000	.30000	.05000
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-.30000	-.05000

Elem ZN
Units ppm
Avge .00905
SDev .00062
%RSD 6.8693

#1 .00990
#2 .00858
#3 .00914
#4 .00859

Errors LC Pass
High .02000
Low -.02000

Method: QUANMET Sample Name: DDWJHC

Operator: EMF

Run Time: 05/30/00 21:23:07

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04806	1.9147	1.8853	.91321	1.9003	.04694	L.05895
SDev	.00145	.0095	.0203	.00313	.0098	.00012	.00232
%RSD	3.0257	.49527	1.0767	.34256	.51314	.25819	3.9293

#1	.04733	1.9117	1.8899	.90912	1.8940	.04704	L.05850
#2	.04734	1.9152	1.8644	.91566	1.9127	.04703	L.05757
#3	.04733	1.9046	1.8754	.91565	1.9032	.04679	L.05738
#4	.05024	1.9273	1.9114	.91239	1.8912	.04689	L.06234

Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass	LC Low
High	.06000	2.4000	2.4000		2.4000	.06000	60.000
Low	.04000	1.6000	1.6000		1.6000	.04000	40.000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05010	.48440	.19341	.23723	1.0420	L.05914	.94567
SDev	.00343	.00252	.00167	.00137	.0050	.29141	.02009
%RSD	6.8367	.52070	.86346	.57571	.47853	492.74	2.1240

#1	.05078	.48473	.19224	.23723	1.0453	L.01267	.92798
#2	.05414	.48604	.19172	.23890	1.0427	L-.33373	.96675
#3	.04965	.48073	.19485	.23722	1.0348	L.30838	.95892
#4	.04583	.48608	.19485	.23556	1.0453	L.24924	.92902

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	NOCHECK
High	.06000	.60000	.24000	.30000	1.2000	60.000	
Low	.04000	.40000	.16000	.20000	.80000	40.000	

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	L-.01555	.48654	.97303	L.01490	.47941	.47930	.45032
SDev	.00560	.00145	.00382	.00386	.00698	.02886	.00807
%RSD	36.004	.29702	.39243	25.923	1.4567	6.0205	1.7926

#1	L-.02073	.48726	.97303	L.01208	.47145	.51407	.45030
#2	L-.01814	.48726	.96835	L.01691	.48116	.45555	.44055
#3	L-.01555	.48437	.97770	L.01127	.47702	.49201	.45012
#4	L-.00777	.48726	.97303	L.01933	.48802	.45557	.46032

Errors	LC Low	LC Pass	NOCHECK	LC Low	LC Pass	LC Pass	LC Pass
High	60.000	.60000		60.000	.60000	.60000	.60000
Low	40.000	.40000		40.000	.40000	.40000	.40000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9393	9.3174	1.9070	.94933	.94507	1.8889	.47589
SDev	.0327	.0393	.0433	.00395	.00181	.0564	.00439
%RSD	1.6841	.42162	2.2698	.41600	.19189	2.9865	.92247

#1	1.9092	9.2780	1.8841	.94689	.94451	1.8209	.47268
#2	1.9128	9.3512	1.9250	.95463	.94770	1.9405	.47609

#3	1.9675	9.2893	1.9582	.94996	.94355	1.8645	.47277
#4	1.9675	9.3512	1.8607	.94582	.94451	1.9296	.48203
Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass
High	2.4000					2.4000	.60000
Low	1.6000					1.6000	.40000
Elem	ZN						
Units	ppm						
Avge	.49141						
SDev	.00618						
%RSD	1.2568						
#1	.49047						
#2	.49045						
#3	.48491						
#4	.49980						
Errors	LC Pass						
High	.60000						
Low	.40000						

Method: QUANMET Sample Name: DDFAN

Operator: EMF

Run Time: 05/30/00 21:26:15

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00206	.39606	-.06550	1.4589	.03316	-.00002	182.55
SDev	.00071	.00176	.03623	.0198	.00014	.00001	.66
%RSD	34.553	.44368	55.316	1.3600	.41867	36.326	.36169
#1	-.00099	.39750	-.09635	1.4393	.03309	-.00001	182.62
#2	-.00242	.39737	-.01649	1.4707	.03309	-.00002	181.66
#3	-.00242	.39377	-.08906	1.4805	.03337	-.00001	183.25
#4	-.00240	.39559	-.06011	1.4451	.03309	-.00003	182.67
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00115	-.00034	.00104	.00065	.26887	140.40	.06089
SDev	.00297	.00351	.00215	.00080	.00066	1.57	.00141
%RSD	257.98	1025.8	206.45	123.57	.24558	1.1172	2.3144
#1	.00189	.00199	.00287	.00170	.26920	139.18	.06135
#2	.00275	-.00335	.00287	.00002	.26788	142.55	.06239
#3	.00319	-.00335	-.00026	.00085	.26920	140.58	.06080
#4	-.00323	.00333	-.00131	.00002	.26920	139.29	.05902
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	416.28	.02223	.00472	S-.11796	-.00896	.03998	.00491
SDev	2.43	.00048	.00854	.00000	.00899	.01336	.01129
%RSD	.58282	2.1760	181.02	.00000	100.36	33.426	229.82
#1	413.75	.02150	-.00464	S-.11796	-.00282	.05469	.01482
#2	418.11	.02246	.00004	S-.11796	-.02198	.04723	.01457
#3	418.60	.02247	.01407	S-.11796	-.00309	.03257	-.00483
#4	414.69	.02247	.00939	S-.11796	-.00795	.02543	-.00490
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04565	1.7001	-.04480	3.0909	-.00655	.10067	.00623
SDev	.03170	.0085	.01902	.0245	.00066	.02571	.00226
%RSD	69.442	.49708	42.460	.79377	10.056	25.539	36.326
#1	.05021	1.6902	-.04915	3.0664	-.00647	.13602	.00459
#2	.05021	1.6959	-.03743	3.1166	-.00742	.10343	.00585

#3	.00281	1.7071	-.06876	3.1067	-.00647	.08166	.00495
#4	.07939	1.7072	-.02386	3.0738	-.00583	.08158	.00953
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .18073
SDev .00230
%RSD 1.2740

#1 .17746
#2 .18109
#3 .18154
#4 .18284

Errors LC Pass
High 100.00
Low -.02000

Analysis Report

05/30/00 09:32:28 PM

page 1

Method: QUANMET Sample Name: DDCX0 Operator: EMP
 Run Time: 05/30/00 21:29:22
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00284	.06798	-.01999	.02354	.10211	-.00001	140.55
SDev	.00186	.00507	.01307	.00001	.00142	.00001	.56
%RSD	65.440	7.4592	65.354	.03410	1.3867	204.90	.39555
#1	-.00069	.06930	-.03907	.02354	.10221	.00000	140.87
#2	-.00500	.06405	-.01724	.02354	.10343	.00000	140.84
#3	-.00358	.06397	-.00990	.02355	.10268	.00000	140.77
#4	-.00209	.07460	-.01377	.02353	.10013	-.00002	139.72
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00052	.01430	-.00150	.00024	.21851	104.33	.16668
SDev	.00108	.00383	.00162	.00105	.00142	1.99	.00407
%RSD	207.76	26.785	107.96	440.33	.65124	1.9062	2.4392
#1	-.00021	.01663	-.00124	.00171	.22048	104.36	.16648
#2	.00209	.01529	-.00385	.00003	.21785	106.39	.17081
#3	-.00019	.00863	-.00071	-.00081	.21851	104.92	.16825
#4	.00040	.01663	-.00020	.00003	.21719	101.63	.16120
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	29.396	5.5871	.22688	16.296	.00720	-.00520	-.01093
SDev	.381	.0413	.00810	.354	.00781	.02769	.02329
%RSD	1.2966	.73890	3.5708	2.1701	108.51	532.82	213.03
#1	29.471	5.6035	.22922	16.235	.00312	.03328	-.01585
#2	29.771	5.6218	.22922	16.679	.01263	-.02531	-.02557
#3	29.479	5.5958	.23390	16.430	.01476	-.02550	-.02563
#4	28.865	5.5274	.21519	15.841	-.00172	-.00326	.02332
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05823	3.9329	-.00535	1.0674	-.00894	-.00628	.00438
SDev	.02426	.0446	.01083	.0148	.00055	.05971	.00367
%RSD	41.659	1.1335	202.54	1.3883	6.0994	950.25	83.805
#1	.06462	3.9625	-.01611	1.0689	-.00838	-.07151	.00443
#2	.08649	3.9568	-.00053	1.0824	-.00966	.07007	.00442

#3	.05368	3.9455	-.01225	1.0712	-.00902	.00472	-.00016
#4	.02814	3.8669	.00750	1.0470	-.00870	-.02842	.00883
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .00601
SDev .00139
%RSD 23.098

#1 .00683
#2 .00429
#3 .00552
#4 .00739

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: CCV2-2

Operator: EMF

Run Time: 05/30/00 21:32:30

6581563

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.96922	48.295	4.7729	4.7124	4.6061	4.6295	49.395
SDev	.00386	.101	.0582	.0370	.0121	.0162	.223
%RSD	.39879	.20899	1.2190	.78613	.26164	.35015	.45187
#1	.96370	48.329	4.7015	4.6767	4.6137	4.6110	49.072
#2	.97255	48.234	4.8029	4.7162	4.6024	4.6467	49.583
#3	.96962	48.421	4.8343	4.7624	4.6175	4.6387	49.480
#4	.97098	48.196	4.7530	4.6944	4.5908	4.6215	49.444
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	55.000	5.5000	5.5000	5.5000	5.5000	55.000
Low	.90000	45.000	4.5000	4.5000	4.5000	4.5000	45.000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.9380	4.7847	4.7740	4.5910	49.902	47.525	4.5699
SDev	.0246	.0154	.0194	.0153	.181	.495	.0715
%RSD	.49917	.32282	.40720	.33371	.36186	1.0407	1.5642
#1	4.9304	4.7621	4.7454	4.5943	49.655	48.036	4.6622
#2	4.9069	4.7915	4.7793	4.5927	50.043	47.149	4.5033
#3	4.9522	4.7967	4.7887	4.6069	50.031	47.858	4.5891
#4	4.9625	4.7887	4.7825	4.5701	49.879	47.056	4.5251
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	55.000	55.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	45.000	45.000	4.5000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	48.248	4.7876	4.7327	46.677	4.7128	4.8445	4.7857
SDev	.190	.0162	.0321	.501	.0195	.0292	.0331
%RSD	.39387	.33815	.67747	1.0731	.41273	.60230	.69233
#1	48.114	4.7648	4.6847	47.293	4.6863	4.8200	4.7590
#2	48.388	4.7987	4.7502	46.205	4.7214	4.8575	4.7979
#3	48.432	4.7996	4.7502	46.869	4.7116	4.8795	4.8270
#4	48.057	4.7871	4.7455	46.341	4.7318	4.8208	4.7588
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55.000	5.5000	5.5000	55.000	5.5000	5.5000	5.5000
Low	45.000	4.5000	4.5000	45.000	4.5000	4.5000	4.5000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.8638	4.7934	4.8203	4.5975	4.6754	9.3579	4.7323
SDev	.0453	.0161	.0408	.0102	.0112	.1758	.0139
%RSD	.93052	.33528	.84741	.22274	.23950	1.8786	.29271
#1	4.8255	4.7707	4.7694	4.5997	4.6622	9.4395	4.7155
#2	4.8561	4.8049	4.8184	4.5971	4.6839	9.4026	4.7484

#3	4.9290	4.8047	4.8693	4.6090	4.6855	9.4898	4.7367
#4	4.8446	4.7933	4.8241	4.5842	4.6702	9.0997	4.7285
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	5.5000	11.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	4.5000	9.0000	4.5000

Elem ZN
Units ppm
Avge 4.8660
SDev .0155
%RSD .31790

#1 4.8505
#2 4.8875
#3 4.8630
#4 4.8630

Errors LC Pass
High 5.5000
Low 4.5000

Analysis Report

05/30/00 09:38:44 PM

6581505
page 1

Method: QUANMET Sample Name: CCB2

Operator: EMF

Run Time: 05/30/00 21:35:38

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00143	-.01059	-.01535	-.00760	.00014	.00016	.00344
SDev	.00137	.00090	.04321	.00216	.00028	.00019	.00242
%RSD	95.775	8.5132	281.46	28.390	201.58	120.00	70.428
#1	.00036	-.00924	.00552	-.00727	.00005	.00000	.00114
#2	-.00107	-.01110	-.04167	-.00534	-.00015	.00000	.00188
#3	-.00250	-.01102	-.05983	-.00726	.00052	.00038	.00427
#4	-.00251	-.01098	.03458	-.01054	.00013	.00025	.00647
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.30000	.20000	.20000	.00500	5.0000
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00212	-.00001	-.00026	-.00084	.00231	-.07181	.00036
SDev	.00160	.00133	.00176	.00118	.00311	.28899	.00039
%RSD	75.663	20687.	682.50	141.53	134.95	402.41	109.09
#1	.00049	.00067	-.00130	-.00167	.00000	-.02112	-.00023
#2	.00100	-.00200	-.00130	-.00167	.00000	-.18165	.00055
#3	.00338	.00066	-.00078	-.00084	.00658	-.38442	.00055
#4	.00361	.00066	.00235	.00084	.00264	.29993	.00055
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.05000	.01000	.02500	.10000	5.0000	.05000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00065	.00025	.01286	.00654	.00654	-.02561	-.00245
SDev	.01127	.00000	.00448	.00614	.00470	.00595	.01671
%RSD	1739.7	.69654	34.814	93.918	71.866	23.232	682.12
#1	-.01555	.00024	.00935	-.00121	.00764	-.02562	-.02442
#2	.00259	.00025	.01871	.01127	.00850	-.01833	.01473
#3	.00518	.00025	.01403	.00443	-.00031	-.02560	-.00500
#4	.01036	.00024	.00935	.01168	.01031	-.03290	.00488
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.0000	.01500	.04000	5.0000	.04000	.10000	.06000
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05471	-.02390	-.00489	-.00005	.00048	.03534	.00025
SDev	.02157	.00281	.02300	.00000	.00031	.02085	.00009
%RSD	39.424	11.765	470.08	.00000	63.828	58.989	34.183
#1	.04194	-.02531	-.01622	-.00005	.00024	.06256	.00018
#2	.07111	-.02531	-.03165	-.00005	.00024	.01906	.00036

#3	.03102	-.02531	.01120	-.00005	.00056	.01897	.00027
#4	.07477	-.01969	.01710	-.00005	.00088	.04077	.00019
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.25000	.50000	.10000	.05000	.05000	.30000	.05000
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-.30000	-.05000

Elem ZN
Units ppm
Avge .00381
SDev .00133
%RSD 34.957

#1 .00557
#2 .00357
#3 .00234
#4 .00378

Errors LC Pass
High .02000
Low -.02000

Analysis Report

05/30/00 09:41:52 PM

6581567
page 1

Method: QUANMET Sample Name: DDRL8

Operator: EMF

Run Time: 05/30/00 21:38:46

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00094	.03620	-.02349	.02474	.07787	-.00007	49.027
SDev	.00165	.00472	.03500	.01792	.00061	.00007	.201
%RSD	175.47	13.039	149.02	72.461	.78910	105.57	.40955
#1	-.00237	.03789	.01007	.03669	.07841	-.00014	48.772
#2	.00049	.03793	-.06978	.03336	.07700	-.00001	48.985
#3	.00049	.03975	-.02988	-.00191	.07794	-.00013	49.245
#4	-.00238	.02924	-.00436	.03080	.07814	.00000	49.108
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00084	.00263	-.00052	-.00002	12.782	1.4469	.00042
SDev	.00247	.00172	.00052	.00105	.038	.2674	.00027
%RSD	292.10	65.364	99.662	5116.2	.29597	18.480	65.625
#1	.00088	.00063	-.00026	.00019	12.763	1.4236	.00055
#2	.00356	.00329	-.00026	.00102	12.738	1.6517	.00055
#3	.00134	.00463	-.00026	.00019	12.819	1.6348	.00055
#4	-.00241	.00197	-.00130	-.00148	12.808	1.0772	.00001
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.0583	.31505	.00191	27.242	.00445	-.01197	.00247
SDev	.0164	.00136	.00001	.271	.00814	.02892	.01469
%RSD	.40506	.43306	.29597	.99623	182.95	241.65	594.37
#1	4.0809	.31311	.00191	27.578	.01205	-.03581	-.00480
#2	4.0576	.31600	.00190	26.937	.00229	-.02106	.02451
#3	4.0524	.31602	.00192	27.142	.00953	.03015	-.00484
#4	4.0421	.31505	.00192	27.312	-.00607	-.02115	-.00498
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04855	3.8978	.01465	.25970	-.00232	-.01328	.00237
SDev	.03727	.0371	.00511	.00072	.00045	.01532	.00270
%RSD	76.767	.95285	34.888	.27688	19.506	115.32	113.74
#1	.05942	3.8444	.01364	.26041	-.00263	-.03486	.00471
#2	.06298	3.9006	.00791	.25870	-.00232	-.00197	.00471

#3	.07786	3.9231	.01755	.25978	-.00168	-.00278	.00004
#4	-.00606	3.9231	.01950	.25992	-.00263	-.01352	.00003
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .00713
SDev .00110
%RSD 15.353

#1 .00662
#2 .00613
#3 .00712
#4 .00866

Errors LC Pass
High 100.00
Low -.02000

Analysis Report

05/30/00 09:45:00 PM

page 1

Method: QUANMET Sample Name: DDRL8P5 Operator: EMF
 Run Time: 05/30/00 21:41:54
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00189	.00134	-.02618	-.02000	.01570	-.00013	9.9501
SDev	.00118	.00280	.03718	.00028	.00014	.00001	.0120
%RSD	62.689	208.33	142.01	1.4193	.88456	6.2134	.12051

#1	-.00044	.00127	-.04528	-.01957	.01563	-.00014	9.9333
#2	-.00334	-.00204	-.03063	-.02016	.01563	-.00012	9.9584
#3	-.00187	.00133	.02734	-.02016	.01590	-.00014	9.9590
#4	-.00189	.00481	-.05615	-.02011	.01563	-.00013	9.9499

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00084	.00232	-.00052	-.00146	2.6193	-.05281	.00011
SDev	.00234	.00334	.00124	.00068	.0083	.26783	.00089
%RSD	278.18	143.57	237.01	46.664	.31880	507.21	800.00

#1	-.00192	.00200	.00130	-.00146	2.6146	.12251	.00055
#2	-.00027	.00600	-.00130	-.00229	2.6172	-.45201	.00055
#3	.00251	.00332	-.00079	-.00062	2.6139	.06337	-.00122
#4	.00304	-.00202	-.00131	-.00146	2.6317	.05492	.00055

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.81878	.06433	-.00312	5.4953	.00285	-.01699	.00494
SDev	.00299	.00048	.00234	.0386	.00851	.01829	.03397
%RSD	.36541	.75074	75.031	.70228	298.54	107.67	687.97

#1	.81619	.06457	.00039	5.5387	-.00743	-.02615	-.00495
#2	.82137	.06457	-.00429	5.4642	.01212	-.02604	-.00474
#3	.82137	.06360	-.00429	5.4614	-.00019	.01045	-.02451
#4	.81619	.06457	-.00428	5.5169	.00690	-.02619	.05396

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02690	.78464	.01126	.05282	-.00064	-.04304	.00198
SDev	.02007	.00004	.01865	.00021	.00048	.02994	.00310
%RSD	74.603	.00500	165.62	.39965	75.000	69.572	156.32

#1	.02232	.78468	-.00001	.05278	-.00040	-.06205	.00469
#2	.00045	.78460	.00585	.05298	-.00136	-.00766	-.00125
#3	.04420	.78468	.03894	.05254	-.00040	-.07293	.00459
#4	.04062	.78462	.00027	.05298	-.00040	-.02951	-.00009

Elem	ZN
Units	ppm
Avge	.00528
SDev	.00083
%RSD	15.786

#1	.00613
#2	.00456
#3	.00588

#4 .00458

Method: QUANMET Sample Name: DDRL8S

Operator: EMF

Run Time: 05/30/00 21:45:02

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

6581571

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04451	1.8876	1.8535	.91720	1.8902	.04535	49.370
SDev	.00117	.0116	.0279	.01805	.0086	.00027	.144
%RSD	2.6311	.61655	1.5034	1.9683	.45635	.60114	.29099
#1	.04306	1.8771	1.8265	.90815	1.8841	.04508	49.253
#2	.04592	1.8789	1.8337	.90815	1.8820	.04520	49.358
#3	.04453	1.9015	1.8697	.90822	1.9002	.04544	49.295
#4	.04453	1.8928	1.8843	.94428	1.8945	.04569	49.576
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04844	.46181	.18259	.22527	13.874	1.2399	.91657
SDev	.00262	.00350	.00090	.00109	.036	.2131	.01201
%RSD	5.4008	.75785	.49460	.48190	.26089	17.188	1.3098
#1	.04799	.45682	.18181	.22401	13.841	1.1533	.91469
#2	.04704	.46215	.18233	.22485	13.849	1.3053	.90980
#3	.05225	.46346	.18233	.22569	13.886	1.0012	.93404
#4	.04648	.46481	.18389	.22653	13.919	1.4997	.90774
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.0868	.78159	.92116	27.738	.45535	.44287	.45059
SDev	.0218	.00215	.00270	.328	.00452	.01826	.02521
%RSD	.53392	.27448	.29370	1.1837	.99334	4.1240	5.5954
#1	4.0654	.78086	.91881	27.620	.45831	.45188	.44083
#2	4.0809	.77990	.91882	27.611	.45720	.45200	.42131
#3	4.1172	.78087	.92350	28.223	.44861	.41547	.46030
#4	4.0835	.78474	.92350	27.497	.45729	.45213	.47992
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9069	12.832	1.8237	1.1677	.90252	1.8672	.45558
SDev	.0435	.059	.0254	.0051	.00302	.0588	.00313
%RSD	2.2812	.46277	1.3918	.43290	.33504	3.1489	.68628
#1	1.8867	12.776	1.8183	1.1640	.90012	1.8213	.45291
#2	1.8575	12.787	1.7909	1.1629	.89980	1.8321	.45291

#3	1.9561	12.872	1.8359	1.1731	.90427	1.8643	.45884
#4	1.9271	12.894	1.8497	1.1709	.90587	1.9510	.45768
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .48801
SDev .00298
%RSD .60963

#1 .48421
#2 .49102
#3 .48958
#4 .48725

Errors LC Pass
High 100.00
Low -.02000

Analysis Report

05/30/00 09:51:16 PM

6581573
page 1

Method: QUANMET Sample Name: DDRL8D

Operator: EMF

Run Time: 05/30/00 21:48:10

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04588	1.8905	1.8285	.90806	1.8840	.04519	48.223
SDev	.00262	.0110	.0576	.00099	.0063	.00018	.103
%RSD	5.7003	.58367	3.1503	.10880	.33616	.39551	.21401

#1	.04874	1.8823	1.8122	.90756	1.8791	.04531	48.123
#2	.04732	1.9033	1.7684	.90954	1.8874	.04531	48.209
#3	.04444	1.8804	1.8268	.90752	1.8782	.04494	48.192
#4	.04302	1.8962	1.9065	.90761	1.8912	.04519	48.367

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04904	.46481	.18324	.22566	13.550	1.5335	.91202
SDev	.00105	.00288	.00227	.00137	.025	.0973	.00699
%RSD	2.1494	.61882	1.2389	.60714	.18724	6.3461	.76598

#1	.05034	.46481	.18285	.22566	13.542	1.4321	.90508
#2	.04942	.46347	.18233	.22566	13.568	1.4912	.91941
#3	.04800	.46215	.18650	.22399	13.518	1.6602	.90714
#4	.04840	.46880	.18129	.22734	13.573	1.5504	.91646

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.9767	.77524	.93280	26.971	.45946	.46501	.47259
SDev	.0149	.00122	.00854	.177	.01205	.02558	.02163
%RSD	.37382	.15702	.91526	.65462	2.6224	5.5014	4.5760

#1	3.9592	.77403	.92812	26.789	.46875	.45223	.48984
#2	3.9877	.77500	.92345	27.161	.46420	.45211	.44094
#3	3.9695	.77500	.94215	26.858	.46312	.50338	.47988
#4	3.9903	.77694	.93748	27.079	.44176	.45231	.47971

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9102	12.750	1.8286	1.1579	.90483	1.8051	.45786
SDev	.0582	.054	.0267	.0039	.00212	.0409	.00017
%RSD	3.0473	.42217	1.4615	.33586	.23477	2.2635	.03657

#1	1.8418	12.709	1.8341	1.1548	.90299	1.8134	.45776
#2	1.9623	12.793	1.7928	1.1599	.90651	1.7914	.45767

#3	1.9548	12.698	1.8301	1.1545	.90299	1.7593	.45804
#4	1.8821	12.799	1.8574	1.1624	.90683	1.8566	.45794
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .47709
SDev .00224
%RSD .46930

#1 .47918
#2 .47720
#3 .47396
#4 .47800

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DDRL9

Operator: EMF

Run Time: 05/30/00 21:51:18

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

6581575

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00123	.02708	-.03184	.01401	.07582	-.00003	48.722
SDev	.00203	.00903	.06480	.01798	.00061	.00012	.201
%RSD	165.33	33.326	203.54	128.32	.80384	333.27	.41317
#1	-.00122	.03103	-.05010	-.00140	.07653	-.00013	48.815
#2	.00019	.03099	-.02452	-.00163	.07511	.00000	48.656
#3	-.00410	.01360	-.10432	.03118	.07605	-.00013	48.475
#4	.00022	.03271	.05158	.02790	.07558	.00011	48.941
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00055	.00296	-.00104	.00616	11.610	1.4828	.00099
SDev	.00255	.00127	.00030	.00158	.051	.4860	.00122
%RSD	465.51	42.973	28.901	25.702	.43761	32.776	124.05
#1	-.00282	.00197	-.00130	.00512	11.678	.95049	.00055
#2	.00250	.00196	-.00078	.00594	11.555	1.5842	.00155
#3	-.00004	.00330	-.00078	.00511	11.605	1.2969	-.00049
#4	.00256	.00462	-.00131	.00846	11.602	2.0995	.00233
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.0324	.31134	-.00060	26.863	.00604	.01393	.00496
SDev	.0208	.00057	.00269	.466	.00617	.02100	.01386
%RSD	.51506	.18183	447.30	1.7351	102.16	150.76	279.36
#1	4.0524	.31184	-.00293	27.162	.01245	.00842	.02454
#2	4.0058	.31084	.00173	26.231	-.00238	.03036	-.00496
#3	4.0447	.31085	-.00294	27.262	.00726	.03040	-.00477
#4	4.0265	.31182	.00173	26.798	.00681	-.01347	.00504
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05885	3.8444	.00956	.25680	-.00192	.00152	.00116
SDev	.03952	.0046	.02982	.00243	.00048	.06646	.00237
%RSD	67.146	.11946	312.03	.94609	25.000	4358.0	204.98
#1	.07369	3.8500	.04480	.25953	-.00232	-.02364	-.00006
#2	.07324	3.8387	.02316	.25393	-.00136	.09731	.00003

#3	.08801	3.8443	-.01001	.25787	-.00232	-.05554	-.00006
#4	.00048	3.8444	-.01973	.25588	-.00168	-.01203	.00471
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	.01707
SDev	.00103
%RSD	6.0595

#1	.01645
#2	.01628
#3	.01699
#4	.01855

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DDWJVB

Operator: EMF

Run Time: 05/30/00 21:54:27

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00214	-.00870	-.01811	-.00197	-.00015	-.00010	.03902
SDev	.00215	.00463	.02823	.00443	.00000	.00006	.00400
%RSD	100.53	53.209	155.86	225.29	.00000	58.045	10.248
#1	-.00394	-.00911	.00189	.00025	-.00015	-.00013	.03542
#2	-.00105	-.01269	-.00543	.00024	-.00015	-.00001	.04469
#3	.00036	-.00211	-.05990	.00025	-.00015	-.00013	.03738
#4	-.00394	-.01088	-.00900	-.00861	-.00015	-.00013	.03860
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.30000	.20000	.20000	.00500	5.0000
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00270	.00166	.00039	-.00021	.00592	.04858	-.00025
SDev	.00258	.00275	.00197	.00080	.00076	.26470	.00133
%RSD	95.645	165.53	505.23	387.23	12.838	544.87	522.57
#1	.00396	-.00201	-.00131	-.00084	.00526	-.08026	-.00122
#2	.00496	.00465	.00182	.00000	.00658	.21544	.00160
#3	-.00095	.00200	-.00131	-.00083	.00527	-.25769	-.00122
#4	.00282	.00199	.00235	.00084	.00658	.31683	-.00018
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.05000	.01000	.02500	.10000	5.0000	.05000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00842	-.00072	-.00234	.00594	.00224	-.01277	-.01221
SDev	.01588	.00000	.00604	.00885	.00293	.01096	.00929
%RSD	188.63	.31121	258.30	148.99	130.59	85.819	76.027
#1	-.00777	-.00072	-.00935	-.00684	.00635	-.00374	-.02435
#2	.02850	-.00072	.00468	.00684	-.00005	-.00353	-.00501
#3	.00000	-.00072	-.00468	.01168	.00234	-.01826	-.01461
#4	.01296	-.00072	.00000	.01208	.00034	-.02556	-.00489
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.0000	.01500	.04000	5.0000	.04000	.10000	.06000
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.03466	-.02248	.00580	-.00005	-.00032	-.03001	.00112
SDev	.04920	.00327	.02704	.00000	.00031	.03384	.00243
%RSD	141.92	14.522	466.11	.00000	95.743	112.78	216.21
#1	.03466	-.02531	-.00841	-.00005	-.00072	-.04628	-.00018
#2	.07478	-.01962	.04634	-.00005	-.00008	-.05727	.00477

#3	.06384	-.01969	-.00641	-.00005	-.00008	.01897	-.00009
#4	-.03462	-.02531	-.00832	-.00005	-.00040	-.03545	.00000
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.25000	.50000	.10000	.05000	.05000	.30000	.05000
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-.30000	-.05000

Elem	ZN
Units	ppm
Avge	.00622
SDev	.00141
%RSD	22.641

#1	.00631
#2	.00813
#3	.00484
#4	.00558

Errors	LC Pass
High	.02000
Low	-.02000

Analysis Report

05/30/00 10:00:40 PM

page 1

Method: QUANMET Sample Name: DDWJVC Operator: EMF
 Run Time: 05/30/00 21:57:35
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04654	1.8425	1.8253	.87309	1.8284	.04509	L.19748
SDev	.00083	.0029	.0574	.01964	.0092	.00006	.00114
%RSD	1.7793	.15898	3.1434	2.2498	.50511	.13141	.57839
#1	.04584	1.8438	1.9052	.86327	1.8403	.04505	L.19628
#2	.04727	1.8386	1.8290	.86327	1.8310	.04518	L.19899
#3	.04725	1.8455	1.7818	.90255	1.8202	.04506	L.19707
#4	.04581	1.8422	1.7854	.86327	1.8220	.04506	L.19759
Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass	LC Low
High	.06000	2.4000	2.4000		2.4000	.06000	60.000
Low	.04000	1.6000	1.6000		1.6000	.04000	40.000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04718	.47115	.18833	.22634	1.0133	L-.13729	.91106
SDev	.00484	.00295	.00215	.00137	.0025	.25676	.01140
%RSD	10.264	.62497	1.1432	.60381	.24569	187.02	1.2514
#1	.04545	.47015	.18650	.22801	1.0096	L-.26614	.92578
#2	.05411	.47414	.18650	.22634	1.0149	L.19010	.91234
#3	.04286	.46751	.19068	.22466	1.0149	L-.07181	.89839
#4	.04630	.47283	.18963	.22634	1.0136	L-.40132	.90774
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	NOCHECK
High	.06000	.60000	.24000	.30000	1.2000	60.000	
Low	.04000	.40000	.16000	.20000	.80000	40.000	
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L-.01684	.47327	.94145	L.01409	.46709	.46615	.43823
SDev	.01243	.00056	.00589	.00255	.00637	.05491	.01681
%RSD	73.782	.11790	.62516	18.070	1.3639	11.778	3.8348
#1	L-.01814	.47279	.94028	L.01087	.46951	.41859	.46034
#2	L-.01036	.47376	.94028	L.01570	.46193	.51381	.44068
#3	L-.00518	.47376	.94964	L.01651	.46192	.51360	.42089
#4	L-.03368	.47279	.93561	L.01329	.47500	.41862	.43102
Errors	LC Low	LC Pass	NOCHECK	LC Low	LC Pass	LC Pass	LC Pass
High	60.000	.60000		60.000	.60000	.60000	.60000
Low	40.000	.40000		40.000	.40000	.40000	.40000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.8608	9.0599	1.8621	.91242	.91537	1.8322	.46037
SDev	.0182	.0319	.0211	.00380	.00080	.0426	.00267
%RSD	.97823	.35227	1.1313	.41621	.08721	2.3270	.58025
#1	1.8580	9.0135	1.8530	.91735	.91641	1.8757	.46268
#2	1.8726	9.0641	1.8607	.91345	.91513	1.7777	.46268

#3	1.8361	9.0810	1.8918	.90931	.91449	1.8213	.45820
#4	1.8763	9.0810	1.8431	.90956	.91545	1.8540	.45792
Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass
High	2.4000					2.4000	.60000
Low	1.6000					1.6000	.40000

Elem ZN
Units ppm
Avge .48631
SDev .00393
%RSD .80767

#1 .48826
#2 .48222
#3 .49080
#4 .48394

Errors LC Pass
High .60000
Low .40000

Analysis Report

05/30/00 10:03:49 PM

page 1

Method: QUANMET Sample Name: DDRLH

Operator: EMF

Run Time: 05/30/00 22:00:43

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00211	.27971	-.00167	-.01628	.02386	-.00003	4.3597
SDev	.00138	.01031	.03936	.00658	.00014	.00006	.0204
%RSD	65.129	3.6858	2354.1	40.426	.58191	181.74	.46780
#1	-.00391	.28063	.02466	-.01907	.02365	-.00013	4.3497
#2	-.00248	.26489	.03932	-.02428	.02393	.00000	4.3359
#3	-.00103	.28577	-.03717	-.01060	.02393	-.00001	4.3781
#4	-.00104	.28756	-.03349	-.01119	.02393	.00000	4.3753
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00059	.00430	.00091	.00462	.17052	.66746	.00233
SDev	.00119	.00168	.00311	.00084	.00221	.28026	.00145
%RSD	201.49	39.025	340.87	18.116	1.2983	41.989	62.209
#1	.00156	.00197	-.00078	.00420	.17118	.58719	.00233
#2	-.00114	.00597	-.00130	.00420	.16789	.33373	.00055
#3	.00099	.00464	.00026	.00420	.17315	.74772	.00233
#4	.00095	.00464	.00548	.00587	.16986	1.0012	.00411
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.3694	.05110	.00236	16.497	.00523	-.01657	-.02457
SDev	.0210	.00048	.00468	.137	.00294	.01923	.01381
%RSD	1.5333	.94538	197.84	.82900	56.227	116.08	56.184
#1	1.3474	.05037	-.00465	16.465	.00945	-.01849	-.04409
#2	1.3603	.05134	.00470	16.698	.00325	-.03297	-.01477
#3	1.3733	.05134	.00470	16.413	.00318	.01088	-.02459
#4	1.3966	.05134	.00470	16.410	.00506	-.02569	-.01484
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05806	3.8022	.05259	.04311	.00958	-.02599	.00092
SDev	.03361	.0323	.00579	.00024	.00066	.05758	.00178
%RSD	57.888	.85003	11.001	.56516	6.8718	221.52	193.13
#1	.03892	3.7543	.05787	.04324	.00918	-.01510	-.00009
#2	.02067	3.8218	.04434	.04324	.01014	-.08038	.00009

#3	.08268	3.8219	.05406	.04324	.00886	-.05868	.00360
#4	.08996	3.8106	.05410	.04275	.01014	.05018	.00010
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .31617
SDev .00182
%RSD .57453

#1 .31760
#2 .31762
#3 .31563
#4 .31383

Errors LC Pass
High 100.00
Low -.02000

Analysis Report

05/30/00 10:06:56 PM

page 1

Method: QUANMET Sample Name: DDRLHP5 Operator: EMF
 Run Time: 05/30/00 22:03:51
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00035	.04543	-.03764	-.00682	.00484	-.00003	.88428
SDev	.00185	.00388	.00622	.00735	.00014	.00012	.00699
%RSD	525.07	8.5388	16.523	107.77	2.8694	382.97	.79030

#1	-.00107	.05021	-.03859	.00358	.00477	-.00013	.87907
#2	.00180	.04146	-.03489	-.01374	.00477	.00000	.89359
#3	.00036	.04679	-.04582	-.00856	.00477	.00013	.88572
#4	-.00250	.04327	-.03127	-.00856	.00505	-.00013	.87874

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00228	.00165	.00104	.00021	.03407	.25769	.00055
SDev	.00159	.00228	.00202	.00042	.00181	.21858	.00000
%RSD	69.771	137.78	193.87	196.91	5.3186	84.825	.00000

#1	.00225	-.00068	.00182	.00000	.03227	.19010	.00055
#2	.00439	.00065	.00287	.00000	.03621	.17320	.00055
#3	.00197	.00466	.00130	.00084	.03489	.57874	.00055
#4	.00052	.00199	-.00183	.00000	.03292	.08871	.00055

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.28372	.00988	-.00350	3.2863	.00746	-.01097	-.00238
SDev	.00859	.00000	.00234	.0326	.00280	.02611	.01675
%RSD	3.0289	.01297	66.770	.99128	37.539	238.10	703.06

#1	.27465	.00988	-.00467	3.2535	.00351	-.03299	-.00494
#2	.28243	.00988	.00001	3.3296	.01010	-.01102	-.02440
#3	.29538	.00988	-.00467	3.2716	.00831	.02573	.01483
#4	.28243	.00988	-.00467	3.2905	.00791	-.02558	.00498

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.06485	.78180	.00731	.00872	.00224	.01873	-.00007
SDev	.00912	.00325	.02292	.00000	.00095	.01539	.00005
%RSD	14.065	.41536	313.69	.00000	42.658	82.149	72.705

#1	.06029	.77899	.03462	.00872	.00343	.02965	-.00009
#2	.07854	.78462	-.00646	.00872	.00247	.02960	.00001
#3	.06030	.77899	-.01604	.00872	.00184	.01870	-.00009
#4	.06029	.78462	.01711	.00872	.00120	-.00302	-.00009

Elem	ZN
Units	ppm
Avge	.06774
SDev	.00120
%RSD	1.7726

#1	.06901
#2	.06647
#3	.06699

6581584

Analysis Report

05/30/00 10:06:56 PM

page 2

#4

.06848

Method: QUANMET Sample Name: DDRLHS

Operator: EMF

Run Time: 05/30/00 22:06:59

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

6581585

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05077	3.2438	2.0330	.98466	2.0219	.04929	4.4465
SDev	.00178	.0198	.0513	.02052	.0100	.00016	.0057
%RSD	3.5113	.61037	2.5232	2.0841	.49671	.32148	.12832
#1	.05040	3.2596	2.0302	.99795	2.0263	.04948	4.4549
#2	.05324	3.2212	1.9616	.96714	2.0074	.04911	4.4450
#3	.04899	3.2612	2.0664	1.0064	2.0303	.04921	4.4438
#4	.05043	3.2332	2.0739	.96714	2.0237	.04934	4.4423
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05318	.51505	.20852	.25066	1.3188	.47102	1.0005
SDev	.00218	.00228	.00287	.00068	.0044	.11856	.0162
%RSD	4.0963	.44164	1.3762	.27293	.33020	25.171	1.6205
#1	.05025	.51805	.20787	.25150	1.3249	.42666	.99235
#2	.05458	.51273	.21100	.25066	1.3157	.58719	.98597
#3	.05507	.51404	.21047	.25066	1.3157	.54495	1.0231
#4	.05282	.51538	.20474	.24982	1.3190	.32528	1.0006
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.3668	.56989	.91460	16.456	.51992	.50315	.43420
SDev	.0115	.00121	.00604	.226	.01141	.01264	.02576
%RSD	.84070	.21276	.66017	1.3758	2.1942	2.5119	5.9319
#1	1.3525	.57109	.90759	16.371	.50496	.49223	.42189
#2	1.3629	.56820	.91226	16.246	.51774	.51413	.47090
#3	1.3785	.57013	.91694	16.775	.53124	.51406	.41214
#4	1.3733	.57013	.92162	16.431	.52574	.49218	.43187
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0770	13.754	1.8422	1.0402	.91170	1.9976	.50547
SDev	.0277	.024	.0330	.0047	.00349	.1045	.00455
%RSD	1.3317	.17184	1.7921	.44830	.38303	5.2334	.90067
#1	2.0561	13.761	1.8314	1.0432	.91513	2.1226	.50417
#2	2.0816	13.722	1.8336	1.0336	.90683	2.0248	.49959

#3	2.1144	13.756	1.8899	1.0439	.91226	1.9704	.50903
#4	2.0561	13.778	1.8139	1.0400	.91257	1.8724	.50911
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .83556
SDev .00446
%RSD .53341

#1 .84002
#2 .82937
#3 .83640
#4 .83643

Errors LC Pass
High 100.00
Low -.02000

Analysis Report

05/30/00 10:13:13 PM

6581587
page 1

Method: QUANMET Sample Name: CCV2-3

Operator: EMF

Run Time: 05/30/00 22:10:07

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.96268	47.796	4.8016	4.6685	4.5577	4.5407	48.609
SDev	.00310	.148	.0696	.0099	.0166	.0235	.284
%RSD	.32248	.30959	1.4496	.21104	.36493	.51798	.58520
#1	.96642	47.810	4.8153	4.6768	4.5623	4.5743	48.830
#2	.95897	47.950	4.8371	4.6564	4.5739	4.5228	48.236
#3	.96189	47.830	4.6999	4.6763	4.5601	4.5262	48.537
#4	.96342	47.595	4.8540	4.6644	4.5345	4.5394	48.831
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	55.000	5.5000	5.5000	5.5000	5.5000	55.000
Low	.90000	45.000	4.5000	4.5000	4.5000	4.5000	45.000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.8816	4.7326	4.7107	4.5391	49.482	46.897	4.5525
SDev	.0231	.0270	.0251	.0195	.183	.820	.1206
%RSD	.47404	.56975	.53386	.42899	.36891	1.7484	2.6497
#1	4.8942	4.7476	4.7324	4.5483	49.695	46.405	L4.4794
#2	4.8530	4.6984	4.6798	4.5574	49.277	47.884	4.6924
#3	4.8737	4.7250	4.7006	4.5382	49.398	47.233	4.6099
#4	4.9054	4.7596	4.7298	4.5124	49.558	46.067	L4.4283
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	55.000	55.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	45.000	45.000	4.5000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	47.715	4.7441	4.7069	46.438	4.6073	4.7737	4.7215
SDev	.101	.0221	.0181	.898	.0386	.0498	.0243
%RSD	.21232	.46585	.38435	1.9345	.83768	1.0428	.51460
#1	47.855	4.7629	4.7315	45.966	4.6206	4.8052	4.7483
#2	47.660	4.7166	4.6893	47.496	4.5499	4.7087	4.7186
#3	47.720	4.7359	4.6987	46.818	4.6334	4.8192	4.6901
#4	47.624	4.7610	4.7081	45.471	4.6252	4.7618	4.7290
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55.000	5.5000	5.5000	55.000	5.5000	5.5000	5.5000
Low	45.000	4.5000	4.5000	45.000	4.5000	4.5000	4.5000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.8139	4.7264	4.7435	4.5325	4.6253	9.2813	4.6615
SDev	.0172	.0253	.0299	.0123	.0113	.1895	.0171
%RSD	.35726	.53586	.63115	.27095	.24426	2.0414	.36621
#1	4.8038	4.7141	4.7617	4.5398	4.6411	9.5482	4.6848
#2	4.8023	4.7136	4.7732	4.5427	4.6175	9.2157	4.6465

#3	4.8392	4.7136	4.7068	4.5324	4.6168	9.2578	4.6514
#4	4.8106	4.7644	4.7323	4.5153	4.6258	9.1036	4.6633
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	5.5000	11.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	4.5000	9.0000	4.5000

Elem ZN
Units ppm
Avge 4.8331
SDev .0175
%RSD .36165

#1 4.8486
#2 4.8081
#3 4.8361
#4 4.8396

Errors LC Pass
High 5.5000
Low 4.5000

Analysis Report

05/30/00 10:16:20 PM

6581589
page 1

Method: QUANMET Sample Name: CCB3

Operator: EMF

Run Time: 05/30/00 22:13:15

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00036	-.00489	-.00906	-.01275	.00024	.00012	.00324
SDev	.00165	.01752	.01934	.00801	.00023	.00010	.00235
%RSD	452.49	358.45	213.43	62.786	97.666	83.401	72.557
#1	.00179	.01696	.01256	-.01054	.00005	.00000	.00427
#2	-.00105	-.02152	-.03438	-.02459	.00033	.00012	.00170
#3	.00179	.00125	-.00547	-.00726	.00052	.00013	.00605
#4	-.00107	-.01624	-.00895	-.00861	.00005	.00025	.00095
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.30000	.20000	.20000	.00500	5.0000
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00053	.00200	-.00117	-.00125	.00313	-.19432	.00055
SDev	.00110	.00000	.00066	.00048	.00112	.13062	.00060
%RSD	208.75	.11758	56.023	38.552	35.976	67.216	107.59
#1	-.00048	.00200	-.00182	-.00083	.00263	-.08871	.00055
#2	.00183	.00199	-.00026	-.00083	.00329	-.16475	-.00018
#3	-.00028	.00200	-.00130	-.00167	.00461	-.38442	.00129
#4	.00104	.00200	-.00130	-.00167	.00197	-.13941	.00055
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.05000	.01000	.02500	.10000	5.0000	.05000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00194	.00025	.01169	.00473	.00543	-.02008	-.00733
SDev	.00882	.00000	.00270	.00721	.00093	.01100	.01672
%RSD	453.79	.45895	23.092	152.46	17.056	54.799	228.02
#1	.00259	.00024	.00935	.00443	.00544	-.02560	-.02448
#2	.01036	.00025	.01403	-.00523	.00475	-.00357	.01469
#3	.00518	.00025	.00936	.01127	.00480	-.02557	-.00488
#4	-.01036	.00025	.01403	.00845	.00674	-.02557	-.01467
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.0000	.01500	.04000	5.0000	.04000	.10000	.06000
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04286	-.02389	-.00394	-.00005	.00040	.01355	.00110
SDev	.02533	.00280	.00697	.00000	.00041	.09166	.00178
%RSD	59.096	11.737	176.92	.00000	103.28	676.68	162.25
#1	.02736	-.02531	.00525	-.00005	.00056	-.03540	.00018
#2	.07112	-.02526	-.00823	-.00005	.00024	.07337	.00378

#3	.01643	-.01969	-.00247	-.00005	.00088	.10602	.00018
#4	.05653	-.02531	-.01032	-.00005	-.00008	-.08980	.00027
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.25000	.50000	.10000	.05000	.05000	.30000	.05000
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-.30000	-.05000

Elem	ZN
Units	ppm
Avge	.00395
SDev	.00103
%RSD	26.178

#1	.00535
#2	.00285
#3	.00380
#4	.00380

Errors	LC Pass
High	.02000
Low	-.02000

Method: QUANMET Sample Name: DDRLHD Operator: EMF
 Run Time: 05/30/00 22:16:23
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05381	3.3806	2.1184	1.0588	2.1525	.05248	4.3351
SDev	.00072	.0074	.0202	.0000	.0125	.00014	.0327
%RSD	1.3295	.21905	.95409	.00100	.58000	.25722	.75474
#1	.05343	3.3916	2.1120	1.0589	2.1661	.05268	4.2919
#2	.05348	3.3774	2.1083	1.0589	2.1595	.05240	4.3386
#3	.05345	3.3757	2.1484	1.0588	2.1454	.05241	4.3714
#4	.05488	3.3775	2.1048	1.0588	2.1390	.05241	4.3388
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05887	.54985	.21961	.26743	1.3907	.46468	1.0680
SDev	.00149	.00422	.00414	.00119	.0051	.61083	.0172
%RSD	2.5343	.76693	1.8863	.44294	.36848	131.45	1.6148
#1	.05685	.54584	.21413	.26826	1.3910	-.20700	1.0800
#2	.05998	.55117	.21935	.26743	1.3970	.15630	1.0809
#3	.05866	.55519	.22405	.26827	1.3904	1.1702	1.0672
#4	.06001	.54719	.22091	.26575	1.3844	.73927	1.0439
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.3584	.60341	1.0011	16.460	.54388	.53154	.49240
SDev	.0287	.00097	.0121	.244	.01186	.02426	.01665
%RSD	2.1148	.16016	1.2063	1.4822	2.1805	4.5650	3.3822
#1	1.3214	.60196	.98711	16.583	.52862	.51497	.49974
#2	1.3785	.60389	1.0058	16.693	.54701	.51514	.50956
#3	1.3836	.60389	1.0152	16.434	.54266	.56645	.48972
#4	1.3500	.60389	.99647	16.131	.55722	.52962	.47057
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.1484	14.531	1.9842	1.1031	.98810	2.1216	.53873
SDev	.0493	.039	.0396	.0054	.00346	.0874	.00397
%RSD	2.2956	.26547	1.9934	.48617	.35057	4.1200	.73757
#1	2.0746	14.476	1.9642	1.1091	.98858	2.0564	.53377
#2	2.1694	14.566	1.9818	1.1061	.99273	2.2412	.54349

#3	2.1767	14.543	2.0403	1.0998	.98634	2.1325	.53901
#4	2.1730	14.538	1.9504	1.0976	.98474	2.0564	.53864
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .86149
SDev .00209
%RSD .24305

#1 .85886
#2 .86388
#3 .86210
#4 .86110

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DDWJMB

Operator: EMF

Run Time: 05/30/00 22:19:31

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00071	-.00965	-.02898	-.01390	.00012	-.00013	.06054
SDev	.00072	.00389	.01714	.01012	.00014	.00000	.00273
%RSD	100.20	40.331	59.162	72.860	117.65	.00000	4.5116
#1	-.00107	-.01445	-.03075	-.02266	.00033	-.00013	.05775
#2	.00036	-.00743	-.01628	-.01939	.00005	-.00013	.05967
#3	-.00107	-.01103	-.05257	.00027	.00005	-.00013	.06047
#4	-.00107	-.00570	-.01630	-.01380	.00005	-.00013	.06426
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.30000	.20000	.20000	.00500	5.0000
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00131	-.00167	-.00104	-.00105	.00477	-.23445	.00037
SDev	.00209	.00333	.00278	.00042	.00136	.07693	.00110
%RSD	159.16	199.55	266.39	39.901	28.438	32.814	300.76
#1	.00395	-.00068	.00235	-.00167	.00461	-.16475	-.00122
#2	-.00054	.00200	-.00130	-.00083	.00329	-.23234	.00084
#3	-.00017	-.00600	-.00443	-.00084	.00658	-.19855	.00055
#4	.00200	-.00200	-.00078	-.00084	.00461	-.34218	.00129
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.05000	.01000	.02500	.10000	5.0000	.05000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00130	-.00072	.00351	.00221	.00643	-.01836	-.01468
SDev	.00617	.00000	.00234	.00578	.00203	.00598	.01959
%RSD	476.10	.13230	66.654	261.17	31.526	32.586	133.39
#1	-.00518	-.00072	.00468	-.00040	.00396	-.02563	-.00495
#2	-.00259	-.00072	.00468	.01087	.00867	-.01098	-.04406
#3	.00777	-.00072	.00468	-.00040	.00577	-.01847	-.00490
#4	.00518	-.00072	.00000	-.00121	.00733	-.01836	-.00482
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.0000	.01500	.04000	5.0000	.04000	.10000	.06000
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00913	-.01687	.01457	-.00005	.00000	.01628	.00007
SDev	.04525	.00726	.01331	.00000	.00031	.02059	.00005
%RSD	495.45	43.033	91.363	.00000	111e6	126.46	68.732
#1	-.04192	-.02531	.01706	-.00005	-.00008	.02987	.00010
#2	-.00910	-.00844	.02663	-.00005	.00024	.01899	.00009

#3	.02373	-.01969	.01901	-.00005	.00024	-.01363	.00008
#4	.06383	-.01406	-.00441	-.00005	-.00040	.02989	-.00000
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.25000	.50000	.10000	.05000	.05000	.30000	.05000
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-.30000	-.05000

Elem ZN
Units ppm
Avge .01086
SDev .00202
%RSD 18.583

#1 .01188
#2 .00860
#3 .00987
#4 .01312

Errors LC Pass
High .02000
Low -.02000

Analysis Report

05/30/00 10:25:44 PM

page 1

Method: QUANMET Sample Name: DDWJMC Operator: EMF
 Run Time: 05/30/00 22:22:39
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05142	2.0468	2.0480	.96758	1.9766	.04905	47.489
SDev	.00072	.0090	.0347	.00324	.0050	.00016	.091
%RSD	1.4020	.43804	1.6943	.33486	.25165	.32877	.19182
#1	.05177	2.0341	2.0299	.96288	1.9769	.04899	47.485
#2	.05034	2.0551	2.0407	.96806	1.9715	.04886	47.459
#3	.05177	2.0499	2.0988	.96999	1.9833	.04924	47.398
#4	.05179	2.0480	2.0225	.96941	1.9748	.04910	47.614
Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass	LC Pass
High	.06000	2.4000	2.4000		2.4000	.06000	60.000
Low	.04000	1.6000	1.6000		1.6000	.04000	40.000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05578	.50808	.20305	.24520	1.0897	45.945	.99436
SDev	.00265	.00172	.00178	.00108	.0022	.214	.00481
%RSD	4.7523	.33770	.87414	.44043	.20557	.46679	.48428
#1	.05415	.50609	.20057	.24562	1.0925	46.194	.99483
#2	.05315	.50743	.20474	.24394	1.0879	46.050	.99710
#3	.05901	.50874	.20318	.24645	1.0906	45.738	.99809
#4	.05680	.51008	.20370	.24478	1.0879	45.797	.98744
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK
High	.06000	.60000	.24000	.30000	1.2000	60.000	
Low	.04000	.40000	.16000	.20000	.80000	40.000	
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	47.084	.51591	.93094	45.488	.49728	.48903	.45842
SDev	.092	.00121	.00662	.139	.00761	.02960	.03938
%RSD	.19588	.23529	.71052	.30482	1.5304	6.0523	8.5910
#1	47.075	.51615	.93094	45.568	.48706	.51463	.48039
#2	47.000	.51422	.92626	45.530	.49936	.46344	.49021
#3	47.215	.51615	.92626	45.571	.50534	.46336	.40226
#4	47.049	.51712	.94029	45.282	.49734	.51470	.46082
Errors	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	60.000	.60000		60.000	.60000	.60000	.60000
Low	40.000	.40000		40.000	.40000	.40000	.40000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.1026	9.1138	1.8350	.98632	.90180	2.0514	.50110
SDev	.0130	.0674	.0233	.00194	.00048	.0348	.00246
%RSD	.61701	.73967	1.2707	.19699	.05312	1.6976	.49077
#1	2.0844	9.0309	1.8258	.98662	.90140	2.0378	.49993
#2	2.1026	9.0871	1.8649	.98419	.90140	2.0378	.49985

#3	2.1136	9.1715	1.8098	.98882	.90236	2.0269	.49985
#4	2.1099	9.1659	1.8394	.98565	.90204	2.1031	.50479
Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass
High	2.4000					2.4000	.60000
Low	1.6000					1.6000	.40000

Elem ZN
Units ppm
Avge .52856
SDev .00282
%RSD .53434

#1 .53003
#2 .53177
#3 .52671
#4 .52573

Errors LC Pass
High .60000
Low .40000

Method: QUANMET Sample Name: DDLCP

Operator: EMF

Run Time: 05/30/00 22:25:47

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00289	.02012	-.00745	-.00960	.09078	-.00016	70.322
SDev	.00180	.00995	.03280	.01485	.00040	.00006	.317
%RSD	62.322	49.463	440.07	154.68	.44221	40.000	.45095
#1	-.00253	.02918	.03422	-.01609	.09022	-.00013	69.987
#2	-.00540	.01536	-.01286	-.01879	.09088	-.00013	70.212
#3	-.00110	.02753	-.04564	.01259	.09088	-.00025	70.345
#4	-.00254	.00840	-.00554	-.01609	.09116	-.00013	70.743
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00033	.00329	-.00065	.00189	.01809	1.2483	.00606
SDev	.00197	.00188	.00130	.00105	.00038	.2018	.00037
%RSD	600.80	57.168	200.00	55.862	2.1099	16.162	6.0280
#1	-.00238	.00197	-.00130	.00168	.01842	1.3222	.00588
#2	.00072	.00596	-.00130	.00335	.01842	1.3222	.00588
#3	.00235	.00329	.00130	.00084	.01776	.95049	.00588
#4	.00062	.00196	-.00131	.00168	.01776	1.3983	.00661
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	12.972	.15581	.00000	61.788	.01085	-.00722	.01478
SDev	.073	.00055	.00764	.330	.00632	.02194	.01388
%RSD	.56010	.35575	282400.	.53415	58.243	303.68	93.959
#1	12.870	.15533	.00936	62.007	.01310	.02568	.02448
#2	12.997	.15533	.00000	61.489	.00157	-.01815	-.00488
#3	12.979	.15629	.00000	61.523	.01575	-.01820	.01484
#4	13.041	.15629	-.00935	62.134	.01297	-.01822	.02467
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01830	3.5462	.01619	1.2544	-.00399	-.00205	-.00000
SDev	.03453	.0260	.01843	.0053	.00071	.03554	.00015
%RSD	188.70	.73256	113.82	.42155	17.739	1729.6	11921.
#1	.04565	3.5237	.04259	1.2470	-.00423	-.04557	.00018
#2	.02012	3.5237	.01512	1.2543	-.00295	-.00208	-.00000

#3	-.03093	3.5687	.00351	1.2580	-.00455	-.00205	.00000
#4	.03835	3.5687	.00355	1.2584	-.00423	.04149	-.00018
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .03147
SDev .00116
%RSD 3.6984

#1 .02996
#2 .03125
#3 .03270
#4 .03196

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DDLCPPS Operator: EMF
 Run Time: 05/30/00 22:28:55
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00143	-.00388	-.02723	-.01477	.01831	-.00013	14.347
SDev	.00245	.00403	.01657	.00825	.00010	.00001	.033
%RSD	170.92	103.68	60.844	55.849	.53070	4.6117	.22745

#1	-.00251	-.00735	-.00902	-.01940	.01827	-.00013	14.344
#2	.00179	-.00041	-.02360	-.00342	.01846	-.00013	14.362
#3	-.00395	-.00739	-.02718	-.02208	.01827	-.00013	14.304
#4	-.00106	-.00038	-.04911	-.01418	.01827	-.00014	14.380

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00141	.00266	-.00104	.00084	.00559	.06125	.00189
SDev	.00150	.00133	.00052	.00068	.00316	.25076	.00053
%RSD	106.74	50.124	50.022	81.396	56.463	409.38	28.003

#1	.00284	.00465	-.00130	.00084	.00329	.29993	.00129
#2	-.00046	.00199	-.00130	.00000	.00263	.00422	.00233
#3	.00086	.00199	-.00026	.00084	.00724	-.26614	.00233
#4	.00238	.00199	-.00131	.00168	.00921	.20700	.00160

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.6533	.03179	-.00234	12.507	.01034	-.02736	.00987
SDev	.0183	.00048	.00468	.191	.00519	.00368	.02597
%RSD	.69054	1.5154	200.06	1.5286	50.169	13.464	263.01
#1	2.6584	.03203	.00000	12.560	.00747	-.02546	.01473
#2	2.6351	.03107	.00000	12.334	.00687	-.02558	-.01469
#3	2.6766	.03203	.00000	12.753	.01801	-.03288	-.00479
#4	2.6429	.03203	-.00935	12.380	.00903	-.02550	.04424

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04560	.75651	.02348	.25490	-.00096	.01369	.00112
SDev	.03561	.01218	.01487	.00108	.00016	.03263	.00225
%RSD	78.091	1.6098	63.331	.42317	16.667	238.30	200.34
#1	.05289	.74524	.02691	.25427	-.00104	-.02437	-.00000
#2	.01642	.75649	.03458	.25456	-.00104	.04093	-.00000
#3	.02008	.75087	.03073	.25651	-.00104	-.00263	-.00000
#4	.09302	.77343	.00167	.25427	-.00072	.04084	.00449

Elem	ZN
Units	ppm
Avge	.01061
SDev	.00163
%RSD	15.355

#1	.01089
#2	.00860
#3	.01256

#4 .01038

Method: QUANMET Sample Name: DDLCP5

Operator: EMF

Run Time: 05/30/00 22:32:03

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04248	1.8750	1.7955	.90608	1.8344	.04324	125.26
SDev	.00137	.0086	.0549	.01019	.0059	.00012	.45
%RSD	3.2290	.45601	3.0562	1.1242	.32353	.27865	.35622
#1	.04284	1.8755	1.8581	.89134	1.8325	.04334	125.77
#2	.04141	1.8651	1.8182	.91099	1.8283	.04321	125.43
#3	.04140	1.8859	1.7745	.90772	1.8425	.04334	124.73
#4	.04427	1.8737	1.7310	.91427	1.8342	.04308	125.12
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04833	.44621	.17476	.22130	.97511	56.119	.89946
SDev	.00306	.00653	.00284	.00069	.00248	.440	.00896
%RSD	6.3387	1.4629	1.6265	.31087	.25460	.78387	.99570
#1	.05012	.45421	.17816	.22214	.97462	56.696	.90147
#2	.05143	.44887	.17555	.22130	.97857	55.665	.88685
#3	.04717	.44087	.17137	.22045	.97265	56.189	.90803
#4	.04459	.44089	.17398	.22129	.97462	55.927	.90150
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	68.553	.60425	.89935	116.27	.43426	.47828	.45554
SDev	.096	.00125	.00588	.74	.00594	.02427	.00986
%RSD	.14049	.20610	.65441	.64019	1.3684	5.0736	2.1646
#1	68.607	.60570	.90754	116.40	.43981	.50595	.46039
#2	68.480	.60473	.89818	115.26	.42589	.46190	.46046
#3	68.661	.60280	.89818	117.05	.43644	.45435	.46055
#4	68.464	.60376	.89350	116.39	.43488	.49092	.44074
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.8743	12.599	1.7721	2.1047	.87633	1.7384	.44317
SDev	.0370	.007	.0471	.0053	.00092	.0791	.00012
%RSD	1.9749	.05764	2.6577	.25095	.10519	4.5525	.02657
#1	1.8542	12.607	1.7945	2.1014	.87713	1.6813	.44333
#2	1.9199	12.590	1.7301	2.1003	.87553	1.8009	.44315

6581602

Analysis Report

05/30/00 10:35:08 PM

page 2

#3	1.8870	12.602	1.7360	2.1120	.87713	1.6596	.44314
#4	1.8360	12.596	1.8276	2.1049	.87553	1.8119	.44305
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	.49138
SDev	.00260
%RSD	.52873

#1	.49356
#2	.48783
#3	.49106
#4	.49306

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DDLCPD

Operator: EMF

Run Time: 05/30/00 22:35:10

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04498	1.8581	1.7892	.90042	1.8279	.04290	116.27
SDev	.00184	.0212	.0257	.00979	.0302	.00060	.27
%RSD	4.0823	1.1404	1.4359	1.0869	1.6538	1.3947	.23645

#1	.04712	1.8389	1.8149	.89141	1.8056	.04259	116.07
#2	.04285	1.8581	1.7638	.89796	1.8307	.04296	116.32
#3	.04569	1.8477	1.8075	.89796	1.8056	.04234	116.05
#4	.04428	1.8876	1.7708	.91435	1.8696	.04371	116.64

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04872	.44555	.17633	.22109	1.0095	47.100	.89462
SDev	.00161	.00317	.00215	.00259	.0074	.347	.01703
%RSD	3.3119	.71258	1.2196	1.1713	.73103	.73573	1.9040

#1	.04890	.44358	.17398	.21962	1.0042	46.667	.88345
#2	.04861	.45022	.17815	.22130	1.0108	47.149	.88669
#3	.05066	.44490	.17815	.21879	1.0035	47.072	.88834
#4	.04672	.44352	.17502	.22464	1.0194	47.512	.91999

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	59.174	.60498	.89468	107.01	.43820	.47094	.44821
SDev	.793	.00372	.00702	1.84	.00935	.02351	.01238
%RSD	1.3396	.61552	.78431	1.7163	2.1344	4.9928	2.7629

#1	58.589	.60281	.88883	105.44	.43028	.46172	.43094
#2	59.266	.60378	.89819	106.57	.43281	.50583	.45070
#3	58.579	.60281	.88883	106.37	.43844	.45447	.45076
#4	60.261	.61052	.90287	109.66	.45126	.46173	.46042

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.8352	12.471	1.7857	2.0975	.87122	1.7844	.44074
SDev	.0222	.143	.0475	.0308	.00867	.0702	.00283
%RSD	1.2072	1.1444	2.6620	1.4699	.99551	3.9339	.64222

#1	1.8616	12.343	1.8296	2.0745	.86467	1.7463	.43829
#2	1.8106	12.444	1.7399	2.0995	.87202	1.8876	.44315

#3	1.8252	12.422	1.7497	2.0757	.86499	1.7681	.43829
#4	1.8435	12.675	1.8238	2.1404	.88320	1.7353	.44323
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .49091
SDev .00315
%RSD .64108

#1 .48854
#2 .48929
#3 .49030
#4 .49550

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: CCV2-4

Operator: EMF

Run Time: 05/30/00 22:38:18

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.97084	48.687	4.7674	4.7301	4.6532	4.5815	48.618
SDev	.00549	.317	.0583	.0282	.0308	.0167	.228
%RSD	.56586	.65185	1.2226	.59711	.66175	.36549	.46960
#1	.96493	48.277	4.7789	4.7172	4.6174	4.5598	48.318
#2	.97084	48.641	4.8404	4.7040	4.6393	4.5789	48.767
#3	.96943	48.800	4.7011	4.7297	4.6697	4.5877	48.566
#4	.97816	49.032	4.7494	4.7694	4.6863	4.5995	48.821
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	55.000	5.5000	5.5000	5.5000	5.5000	55.000
Low	.90000	45.000	4.5000	4.5000	4.5000	4.5000	45.000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.8633	4.7595	4.7189	4.6310	50.022	49.316	4.7398
SDev	.0223	.0156	.0139	.0221	.193	1.364	.0623
%RSD	.45780	.32729	.29503	.47626	.38577	2.7663	1.3140
#1	4.8335	4.7410	4.7017	4.6060	49.770	47.394	4.6545
#2	4.8814	4.7528	4.7210	4.6194	50.042	49.514	4.7442
#3	4.8589	4.7689	4.7173	4.6446	50.037	49.751	4.7573
#4	4.8793	4.7754	4.7355	4.6538	50.240	50.604	4.8032
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	55.000	55.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	45.000	45.000	4.5000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	48.370	4.7886	4.7514	48.172	4.6321	4.8234	4.7802
SDev	.262	.0170	.0302	.708	.0359	.0399	.0425
%RSD	.54113	.35517	.63525	1.4688	.77540	.82777	.88916
#1	48.067	4.7649	4.7081	47.234	4.6213	4.8121	4.7192
#2	48.241	4.7958	4.7783	48.128	4.6605	4.8196	4.8171
#3	48.546	4.7890	4.7596	48.397	4.5859	4.7833	4.7968
#4	48.627	4.8045	4.7596	48.927	4.6607	4.8785	4.7877
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55.000	5.5000	5.5000	55.000	5.5000	5.5000	5.5000
Low	45.000	4.5000	4.5000	45.000	4.5000	4.5000	4.5000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.8734	4.7817	4.7700	4.6009	4.6904	9.4224	4.6940
SDev	.0938	.0454	.0484	.0282	.0217	.1838	.0187
%RSD	1.9244	.95004	1.0140	.61291	.46193	1.9507	.39795
#1	4.7348	4.7139	4.7673	4.5664	4.6622	9.3627	4.6703
#2	4.9400	4.8098	4.7053	4.5907	4.6865	9.6427	4.6927

#3	4.9181	4.7986	4.8203	4.6162	4.7005	9.2073	4.6970
#4	4.9006	4.8044	4.7871	4.6301	4.7126	9.4771	4.7158
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	5.5000	11.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	4.5000	9.0000	4.5000

Elem ZN
Units ppm
Avge 4.8649
SDev .0091
%RSD .18655

#1 4.8555
#2 4.8623
#3 4.8646
#4 4.8772

Errors LC Pass
High 5.5000
Low 4.5000

Method: QUANMET Sample Name: CCB4

Operator: EMF

Run Time: 05/30/00 22:41:27

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00071	-.00280	-.00092	.00328	.00044	.00012	.00757
SDev	.00138	.00592	.04992	.00933	.00024	.00011	.00317
%RSD	195.41	211.66	5416.8	284.75	53.125	86.224	41.838
#1	.00037	.00468	.04895	.00678	.00080	-.00000	.01031
#2	.00039	-.00078	.03077	.01006	.00033	.00011	.00825
#3	-.00107	-.00753	-.02355	.00679	.00033	.00025	.00872
#4	-.00251	-.00755	-.05986	-.01053	.00033	.00013	.00301
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.30000	.20000	.20000	.00500	5.0000
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00034	.00133	.00144	-.00021	.00412	.15841	.00003
SDev	.00212	.00231	.00130	.00080	.00033	.37413	.00111
%RSD	631.22	173.19	90.548	386.72	7.9633	236.17	3396.5
#1	.00219	.00466	.00287	.00084	.00395	.41822	.00055
#2	-.00197	.00067	-.00025	.00000	.00395	.53650	-.00049
#3	.00208	.00066	.00183	-.00084	.00395	-.10561	.00129
#4	-.00096	-.00066	.00131	-.00084	.00461	-.21544	-.00122
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.05000	.01000	.02500	.10000	5.0000	.05000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01425	.00073	.01988	.00292	.00337	-.01281	-.02705
SDev	.01068	.00056	.00885	.00818	.00407	.01106	.04759
%RSD	74.966	76.441	44.539	280.28	120.91	86.340	175.93
#1	.02591	.00121	.01871	.00966	.00437	-.00347	.04400
#2	.01555	.00122	.03274	.00684	.00789	-.01834	-.04421
#3	.01555	.00025	.01403	-.00886	.00316	-.00371	-.05402
#4	.00000	.00025	.01403	.00403	-.00195	-.02570	-.05397
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.0000	.01500	.04000	5.0000	.04000	.10000	.06000
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04924	-.01545	.01354	-.00005	.00080	.00538	.00185
SDev	.01074	.00962	.01852	.00000	.00066	.01859	.00238
%RSD	21.801	62.268	136.80	.00000	82.462	345.55	128.89
#1	.03466	-.00279	.00166	-.00005	.00152	-.00280	.00154
#2	.06018	-.01399	.01687	-.00005	.00120	.00808	.00531

#3	.04924	-.02531	.03830	-.00005	.00024	.02988	.00027
#4	.05289	-.01969	-.00269	-.00005	.00024	-.01364	.00027
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.25000	.50000	.10000	.05000	.05000	.30000	.05000
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-.30000	-.05000

Elem ZN
Units ppm
Avge .00346
SDev .00083
%RSD 24.125

#1 .00232
#2 .00433
#3 .00358
#4 .00360

Errors LC Pass
High .02000
Low -.02000

6581609

Metals Preparation Log



STL Pittsburgh
450 William Pitt Way
Pittsburgh, PA 15238
412-820-8380

Method: 3010A		Matrix: TCEP		Start Time: 0825		SDG: _____		Balance# _____		Remnant: _____	
Analyst: <i>[Signature]</i>		Date: 5/30/00		Lot Number: COE340180		Lab Lot No. (book, page, line): 0014-089-1		MS		3010A, HNO3 5ml 1:1 HCl	
Revised By: <i>[Signature]</i>		Date: 5-30-00								4623N/35058 Mellichamp	
Sample ID		Init Wt/Vol	Final Vol	Comments		Color		Clarity		Texture	
		g/mL	mL			Pre Post		Pre Post		Pre Post	
1. DD-LX3		50 mL	50 mL	+0.5 mL MS-BIREV							
2. DD-LX3S				+0.5 mL MS-BIREV							
3. DD-LX3 D				+0.5 mL MS-BIREV							
4. DD-LX6				+0.5 mL MS-BIREV							
5. DDWSEB				+0.5 mL MS-BIREV							
6. DDWJFC				+0.5 mL MS-BIREV							
7. _____											
8. DDRAZB		50 mL	50 mL								
9. _____											
10. _____											
11. _____											
12. _____											
13. _____											
14. _____											
15. _____											
16. _____											
17. _____											
18. _____											
19. _____											
20. _____											
21. _____											
22. _____											
23. _____											
24. _____											

Digestate(s)	Digestate(s) Received			Digestate(s) Relinquished			Hot plate /Block Temp	Correction Factor	Color
	Date	Time	Analyst	Date	Time	Analyst			
All above	5/30/00	1555	<i>[Signature]</i>	5/30/00	1600	<i>[Signature]</i>	11/175°C	0.5°C	
All above	5/30/00	1925	<i>[Signature]</i>	5/30/00	2125	<i>[Signature]</i>			

Texture	Clarity	Color
F=Fine	C=Clear	R=Red
M=Medium	CL=Cloudy	BL=Blue
C=Coarse	O=Opaque	BR=Brown
		BLK=Black
		Y=Yellow
		GN=Green
		C=Colorless

6581610

PSR024 5/30/00 6:04:19 MT

SAMPLE CUSTODIAN REMOVAL REQUEST

PAGE 001

REQUESTED BY: KRANCES

METHOD: QO Inductively Coupled Plasma (6010B)

<u>STORAGE LOCATION</u>	<u>WORK ORDER #</u>	<u>PICKED</u> <u>CNTR#</u>	<u>CONTROL #</u>	<u>CLIENT #</u>	<u>ANALYSIS</u>	<u>LOTID</u>	<u>SMP#</u>	<u>SFX</u>	<u>MATRIX</u> <u>DESCRIPTION</u>	<u>QTY</u> <u>RCVD</u>	<u>QTY</u> <u>REQD</u>
6A CLP1	DDLX3	___	237124	399411	A-34-QO	C0E240180	001		SOLID	0	3 1
6A CLP1	DDLX6	___	237125	399411	A-34-QO	C0E240180	002		SOLID	0	3 1

RELINQUISHED BYRECEIVED BYDATE/TIME

Edmund Faust

Suzanne Krance

5/30/00 0835

Suzanne Krance

Edmund Faust

5/30/00 1125

***** END OF REPORT *****

STL-Pittsburgh Atomic Absorption Data for Mercury

Instrument: PS200HG

Analyst Name: William A. HyleDate of Analysis: 5-30-00File ID: 0530HGAMatrix: WATER

Lot Number/SDG

Method

<u>COE230168</u>	<u>TCLP</u>	<u>7470A</u>
<u>COE240180</u>	↓	↓
<u>COE240157</u>	<u>368X-5</u>	<u>ILM04.0</u>
<u>COE240127</u>		<u>7470A</u>
<u>COE260140</u>		↓
<u>COE200146</u>		↓
<u>COE240144</u>		↓
<u>COE250156</u>		↓
<u>COE250159</u>		↓
<u>COE250167</u>		↓

6581612

William a Hoyle 5-30-00

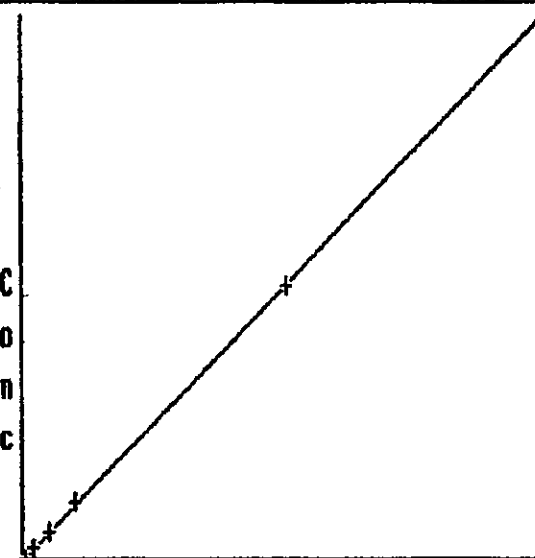
10:04:49 30 May 2000 Folder: 0530HGA Page 913
 Protocol: HGMET

Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Standard: 1 Rep: 1				Seq: 0		10:04:49 30 May 2000 HG		
Hg	.000	ppb	20462					
*** Standard: 2 Rep: 1				Seq: 1		10:07:02 30 May 2000 HG		
Hg	.200	ppb	51455		0014-115-2			
*** Standard: 3 Rep: 1				Seq: 2		10:09:07 30 May 2000 HG		
Hg	.500	ppb	125372		0014-115-3			
*** Standard: 4 Rep: 1				Seq: 3		10:11:26 30 May 2000 HG		
Hg	1.00	ppb	242110		0014-115-4			
*** Standard: 5 Rep: 1				Seq: 4		10:13:20 30 May 2000 HG		
Hg	5.00	ppb	1197170		0014-115-5			
*** Standard: 6 Rep: 1				Seq: 5		10:15:35 30 May 2000 HG		
Hg	10.0	ppb	2361566		0014-115-6			

RunProt: HGMET STL-PITTSBURGH METALS ANALYSIS
 RunFold: 0530HGA Seq: 6 Batch:
 Prnt: R/T On Pump: On
 Rev: 4.2 10:15:47 30 May 2000 Xmit: Off Gas: 0.30 LPM
 State: Idle User: MMH A/S: On

CALIBRATION: Line proto: HGMET

	Hg	Accepted
	Conc.	Calc. Dev. ->linear
S1	.000	.040 Quadratic
S2	.200	.172 -.020 Wtdlinear
S3	.500	.406 -.014
S4	1.00	.901 -.019 Accept
S5	5.00	5.04 .030
S6	10.0	9.90 -.016
A	.0000000	r .999971
B	4.24740e-6	C -4.70027e-2



	Mean	SD
S1	20462	20462
S2	51455	51455
S3	125372	125372
S4	242110	242110
S5	1197170	1197170
S6	2361566	2361566

New cal coefficients stored

6581614

William A. Hoyle 5-30-00

10:19:12 30 May 2000 Folder: 0530HGA Page 914
Protocol: HGMET

Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: ICV5-1				Seq: 6	10:19:12 30 May 2000 HG			
Hg	2.48	ppb	595583		0014-115-7			
*** Sample ID: ICB1				Seq: 7	10:21:35 30 May 2000 HG			
Hg	-.073	ppb	-6079					
*** Sample ID: CRA-1				Seq: 8	10:23:53 30 May 2000 HG			
Hg	.192	ppb	56253		0014-115-8			
*** Sample ID: CCV5-1				Seq: 9	10:25:43 30 May 2000 HG			
Hg	5.08	ppb	1208243		0014-115-9			
*** Sample ID: CCB1				Seq: 10	10:27:33 30 May 2000 HG			
Hg	-.008	ppb	9275					
*** Sample ID: DDW9WBT				Seq: 11	10:29:24 30 May 2000 HG			
Hg	-.045	ppb	511					
*** Sample ID: DDW9WCT				Seq: 12	10:31:15 30 May 2000 HG			
Hg	2.70	ppb	647155		0014-115-10			
*** Sample ID: DDNDNBT				Seq: 13	10:33:05 30 May 2000 HG			
Hg	.020	ppb	15716					
*** Sample ID: DDK23T				Seq: 14	10:35:16 30 May 2000 HG			
Hg	-.026	ppb	4993					
*** Sample ID: DDRA2BT				Seq: 15	10:38:18 30 May 2000 HG			
Hg	.011	ppb	13642					
*** Sample ID: DDLX3T				Seq: 16	10:40:08 30 May 2000 HG			
Hg	.019	ppb	15574					
*** Sample ID: DDLX3ST				Seq: 17	10:41:56 30 May 2000 HG			
Hg	5.25	ppb	1246528					

SP. REC.
105%

10:45:00 30 May 2000

Folder: 0530HGA.
Protocol: HGMET

Page 915

Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: DDLX3DT				Seq: 18	10:45:00 30 May 2000 HG			
Hg	5.06	ppb	1203144					SPREC. 101%
*** Sample ID: DDLX6T				Seq: 19	10:46:50 30 May 2000 HG			
Hg	-.001	ppb	10878					
*** Sample ID: DDWA1B				Seq: 20	10:48:51 30 May 2000 HG			
Hg	-.010	ppb	8801					
*** Sample ID: CCV5-2				Seq: 21	10:51:00 30 May 2000 HG			
Hg	5.04	ppb	1198485					
*** Sample ID: CCB2				Seq: 22	10:52:52 30 May 2000 HG			
Hg	-.040	ppb	1572					
*** Sample ID: DDWA1C				Seq: 23	10:54:42 30 May 2000 HG			
Hg	2.50	ppb	599781	0014-115-11				
*** Sample ID: DDWA1L				Seq: 24	10:56:30 30 May 2000 HG			
Hg	2.46	ppb	589472	0014-115-12				
*** Sample ID: DDLKT				Seq: 25	10:58:21 30 May 2000 HG			
Hg	.003	ppb	11883					
*** Sample ID: DDWA9BF				Seq: 26	11:00:31 30 May 2000 HG			
Hg	.006	ppb	12365					
*** Sample ID: DDWA9CF				Seq: 27	11:02:40 30 May 2000 HG			
Hg	2.48	ppb	596017	0014-115-13				
*** Sample ID: DDLCPF				Seq: 28	11:05:00 30 May 2000 HG			
Hg	-.041	ppb	1388					
*** Sample ID: DDLCPSF				Seq: 29	11:06:51 30 May 2000 HG			
Hg	1.01	ppb	249900					SPREC. 101%

6581616

Folder: 0530HGA
Protocol: HGMET

Page 916

11:08:40 30 May 2000

Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: DDLCPDF				Seq: 30	11:08:40 30 May 2000 HG			
Hg	1.05	ppb	259401					SP REC 105%
*** Sample ID: DDWA4B				Seq: 31	11:11:05 30 May 2000 HG			
Hg	-.027	ppb	4733					
*** Sample ID: DDWA4C				Seq: 32	11:13:06 30 May 2000 HG			
Hg	2.44	ppb	584911		0014-115-14			
*** Sample ID: CCV5-3				Seq: 33	11:14:55 30 May 2000 HG			
Hg	4.93	ppb	1172536					
*** Sample ID: CCB3				Seq: 34	11:17:18 30 May 2000 HG			
Hg	-.042	ppb	1181					
*** Sample ID: DDRLH				Seq: 35	11:19:17 30 May 2000 HG			
Hg	-.003	ppb	10352					
*** Sample ID: DDRLHS				Seq: 36	11:21:10 30 May 2000 HG			SP REC. 106%
Hg	1.06	ppb	260488					
*** Sample ID: DDRLHD				Seq: 37	11:23:01 30 May 2000 HG			SP REC. 103%
Hg	1.03	ppb	254336					
*** Sample ID: DDWACB				Seq: 38	11:24:52 30 May 2000 HG			
Hg	-.020	ppb	6375					
*** Sample ID: DDWACC				Seq: 39	11:27:13 30 May 2000 HG			
Hg	2.46	ppb	590386		0014-115-15			
*** Sample ID: DDGW6				Seq: 40	11:29:04 30 May 2000 HG			
Hg	9.43	ppb	2231519					
*** Sample ID: DDLFR				Seq: 41	11:31:27 30 May 2000 HG			
Hg	.821	ppb	204256					

11:33:21 30 May 2000

Folder: 0530HGA
Protocol: HGMET

Page 917

Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: DDNV3				Seq: 42	11:33:21 30 May 2000 HG			
Hg	-.044	ppb	641					
*** Sample ID: DDNV3S				Seq: 43	11:35:26 30 May 2000 HG			
Hg	.910	ppb	225219					
*** Sample ID: DDNV3D				Seq: 44	11:38:37 30 May 2000 HG			
Hg	.950	ppb	234639					
*** Sample ID: CCV5-4				Seq: 45	11:40:40 30 May 2000 HG			
Hg	4.56	ppb	1085527					
*** Sample ID: CCB4				Seq: 46	11:42:54 30 May 2000 HG			
Hg	-.016	ppb	7241					
*** Sample ID: DDNVQ				Seq: 47	11:44:55 30 May 2000 HG			
Hg	1.42	ppb	345269					
*** Sample ID: DDNWK				Seq: 48	11:46:46 30 May 2000 HG			
Hg	.876	ppb	217258					
*** Sample ID: CCV5-5				Seq: 49	11:48:40 30 May 2000 HG			
Hg	4.04	ppb	962470					
*** Sample ID: CCB5				Seq: 50	11:50:33 30 May 2000 HG			
Hg	-.032	ppb	3513					

SP.REC.
91%SP.REC.
95%END OF ANALYSIS
WAN
5-30-00

6581618

RunProt: HGMET STL-PITTSBURGH METALS ANALYSIS
 RunFold: 0530HGA Seq: 6 Batch:
 Prnt: R/T On Pump: On
 Rev: 4.2 10:16:56 30 May 2000 Xmit: Off Gas: 0.30 LPM
 User: WAH A/S: On
 State: Idle

AUTOSAMPLER: Rack Edit		rack: RACK1	Range 1-44	Clear seQ	Undo eXit
cup ID	Extended id	Weight	Volume	Macro	check macros
1	ICV5-1	1.0000	1.0000		
2	ICB1	1.0000	1.0000		
3	CRA-1	1.0000	1.0000		
4	CCV5-1	1.0000	1.0000		
5	CCB1	1.0000	1.0000		
6	DDW9WBT	1.0000	1.0000		
7	DDW9WCT	1.0000	1.0000		
8	DDNDNBT	1.0000	1.0000		
9	DDK23T	1.0000	1.0000		
10	DDRA2BT	1.0000	1.0000		
11	DDLX3T	1.0000	1.0000		
12	DDLX3ST	1.0000	1.0000		
13	DDLX3DT	1.0000	1.0000		
14	DDLX6T	1.0000	1.0000		
15	DDWA1B	1.0000	1.0000		

PgDn

Cup 10 ID: DDRA2BT

Cell down mode Ins to switch

RunProt: HGMET	STL-PITTSBURGH METALS ANALYSIS		
RunFold: 0530HGA	Seq: 0	Batch:	
	Prnt: R/T On	Pump: Off	
State: Idle	Rev: 4.2	09:13:56 30 May 2000	Xmit: Off Gas: LPM
		User: WAH	A/S: On

AUTOSAMPLER: Rack Edit rack: RACK1					PgUp
cup ID	Extended id	Weight	Volume	Macro	check macros
16	CCV5-2	1.0000	1.0000		
17	CCB2	1.0000	1.0000		
18	DDWA1C	1.0000	1.0000		
19	DDWA1L	1.0000	1.0000		
20	DDLKT	1.0000	1.0000		
21	DDWA9BF	1.0000	1.0000		
22	DDWA9CF	1.0000	1.0000		
23	DDLCPF	1.0000	1.0000		
24	DDLCPSF	1.0000	1.0000		
25	DDLCPDF	1.0000	1.0000		
26	DDWA4B	1.0000	1.0000		
27	DDWA4C	1.0000	1.0000		
28	CCV5-3	1.0000	1.0000		
29	CCB3	1.0000	1.0000		
30	DDRLH	1.0000	1.0000		

PgDn

Cup 16 ID: CCV5-2

Cell down mode Ins to switch

6581620

RunProt: HGMET STL-PITTSBURGH METALS ANALYSIS
RunFold: 0530HGA Seq: 0 Batch:
Prnt: R/T On Pump: Off
Rev: 4.2 09:13:57 30 May 2000 Xmit: Off Gas: LPM
User: WAH A/S: On
State: Idle

AUTOSAMPLER: Rack Edit rack: RACK1 PgUp
cup ID Extended id Weight Volume Macro check macros
31 DDRLHS 1.0000 1.0000
32 DDRLHD 1.0000 1.0000
33 DDWACB 1.0000 1.0000
34 DDWACC 1.0000 1.0000
35 DDGW6 1.0000 1.0000
36 DDLFR 1.0000 1.0000
37 DDNV3 1.0000 1.0000
38 DDNV3S 1.0000 1.0000
39 DDNV3D 1.0000 1.0000
40 CCV5-4 1.0000 1.0000
41 CCB4 1.0000 1.0000
42 DDNVQ 1.0000 1.0000
43 DDNWK 1.0000 1.0000
44 CCV5-5 1.0000 1.0000

PgDn

Cup 31 ID: DDRLHS

Cell down mode Ins to switch

RunProt: HGMET	STL-PITTSBURGH METALS ANALYSIS		
RunFold: 0530HGA	Seq: 0	Batch:	
	Prnt: R/T On	Pump: Off	
State: Idle	Rev: 4.2	09:18:04 30 May 2000	Xmit: Off Gas: LPM
		User: WAH	A/S: On

AUTOSAMPLER: Rack Edit		rack: RACK2	Range 1-44	Clear seQ	Undo eXit
cup ID	Extended id	Weight	Volume	Macro	checkK macros
1	CCB5	1.0000	1.0000		
2		1.0000	1.0000		
3		1.0000	1.0000		
4		1.0000	1.0000		
5		1.0000	1.0000		
6		1.0000	1.0000		
7		1.0000	1.0000		
8		1.0000	1.0000		
9		1.0000	1.0000		
10		1.0000	1.0000		
11		1.0000	1.0000		
12		1.0000	1.0000		
13		1.0000	1.0000		
14		1.0000	1.0000		
15		1.0000	1.0000		

PgDn

Cup 3 ID:

Cell down mode Ins to switch

Hg Digestion Log

Quanterra Incorporated
450 William Pitt Way
Pittsburgh, Pennsylvania 15238
412/826-5477 FAX: 412/826-5571



QUA-4169

PIPET # H31609

Serial Number 078 Log Book Number 96-MT-576 Start Time 08:30-08:45

Sample ID	Date Rec'd	Prep Date	Prepared By	WVVol	Sample Type	Run Date	Comments
1. STD0	N/A	5-30-00	MAH	100ml	WATER	5-30-00	N/A
2. STD1							0014-115-2
3. STD2							0014-115-3
4. STD3							0014-115-4
5. STD4							0014-115-5
6. STD5							0014-115-6
7. ICV							0014-115-7
8. ICB							N/A
9. CFA							0014-115-8
10. CCV							0014-115-9
11. CCB							N/A
12. DDWQWBT							0014-115-10
13. DDWQWCT							N/A
14. DDWQWBT	5-23-00						
15. DDK23T	N/A						
16. DDQA2BT	5-24-00						+5ml 0014-114-1
17. DDLX3T							+5ml 0014-114-4
18. DDLX3ST							N/A
19. DDLX3BT							0014-115-11
20. DDLX6T							0014-115-12
21. DDWA1B	N/A						N/A
22. DDWA1C							
23. DDWA1L	5-24-00						
24. DDLKT	N/A						
25. DDWA9BF							
Reagents		Vol (mL)			Ref. Number		Method
HNO3	2.5ml				MAILBACKROBT 6632 N35058		24200/ILIM040 AUTOCLAVE 15Psi 120°C
H2SO4	5.0ml				MAILBACKROBT 5557 N37A02		SACLA = 0014-094-10
KMNO4	15.0ml				0014-110-1		HACL: N/A
K2S2O4	8.0ml				0014-090-11		MAH 5-30-00
Extract(s)			Extract(s) Received				Extract(s) Relinquished
(Record line number from above)	Date	Time	Analyst	Location	Date	Time	Analyst
				MAH 5-30-00			

Hg Digestion Log

Quanterra
Environmental
Services

PIPE # 421605

Start Time

08:30 - 08:45

Sample ID	Date Rec'd	Prep Date	Prepared By	Wt/Vol	Sample Type	Run Date	Comments
1. DDW99CF	N/A	5-30-00	WAH	100ml	WATER	5-30-00	0014-115-13 N/A
2. DDLCPF	5-24-00						+1ml 0014-114-4 N/A
3. DDLCPSF							+1ml 0014-114-4 N/A
4. DDLCPDF							+1ml 0014-114-4 N/A
5. DDW94B	N/A						0014-115-14 N/A
6. DDW44C							+1ml 0014-114-4 N/A
7. DDRLH	5-26-00						+1ml 0014-114-4 N/A
8. DDRLH5							+1ml 0014-114-4 N/A
9. DDRLHD							0014-115-15 N/A
10. DDWACB	N/A						N/A
11. DDWACC							0014-115-15 N/A
12. DDGW6	5-20-00						N/A
13. DDIFR	5-24-00						
14. DDNV3	5-25-00						
15. DDNV3S							+1ml 0014-114-4 N/A
16. DDNV3D							+1ml 0014-114-4 N/A
17. DDNVQ							
18. DDNVK							
19.							
20.							
21.							
22.							
23.							
24.							
25.							

TCLP (Method 1311)

Quanterra Incorporated
450 William Pitt Way
Pittsburgh, Pennsylvania 15238
412/826-5477 FAX: 412/826-5571



QUA-4181

By Jeffrey O. Saut Date 5-25-00

Project Number CO240180

Fluid Determination

Checked by William A. Kops
Client Codes 39411

Filter lot # 83207012

Date 5-26-00
pH Instrument AccuSet 405
Solution Number 1 - Log Book Number 995404-12

Probe SJ9082030
Solution Number 2 - Log Book Number C94817

Serial Number 043 Log Book Number 96-MT-526

TCLP Extraction

Sample ID	Wgt/Vol	Init pH	Final pH	Extract Fluid #1, or #2	Conc HNO ₃ to Acidity (for Metals)	Sample ID	Wgt (g) Wet/Dry	Fluid Vol.	Final pH After Tumbling
DDLX3	5.00g/46.5mL	9.54	1.72	501#1	5mL	1#-TCLP 5-25-00	100.00g	2000.1 Glass	4.86
DDLX6	✓/✓ 9.43	1.67	✓	✓	6mL 5mL	2. DDLX3	✓	✓	6.25
						3. DDLX3	✓	✓	6.21
						4. DDLX6	✓	✓	5.85
						5.			
						6.			
						7.			
						8.			
						9.			
						10.			
						11.			
						12.			
						13.			

Extract(s)

(Record line number from above)

Extract(s)	Date	Time	Analyst	Location	Date	Time	Analyst	Location
All Above	5-26-00	1030	Jeffrey O. Saut	Harris Rsp	5-26-00	1035	Jeffrey O. Saut	308

Extract(s) Relinquished

= Sample determined to have free-liquid, % solid determination was performed

<5 = Extraction Fluid No 1 5.7 mL Glacial Acetic Acid dil 500 mL + 64.3 mL of 1N Na OH dil to 1L (pH 4.93 ± 0.05)

>5 = Extraction Fluid No 2 5.7 mL Glacial Acetic Acid dil to 1L (pH 2.88 ± 0.05)

Room Temp 23°

Date/Time On	Date/Time Off	Agitation Apparatus RPMs		
5-25-00 1215	5-26-00 0700	30 ± 2		
	pH Calibration	(4.0)	(7.0)	(10.0)
Date		4.00	7.03	10.05
5-25-00				
Date		4.00	7.01	10.03
5-26-00				
Comments				

Comments

6581624

REQUESTED BY: FAUSTG

METHOD: QO Inductively Coupled Plasma (60108)

STORAGE LOCATION	WORK ORDER #	PICKED CNTR#	CONTROL #	CLIENT #	ANALYSIS	LOTID	SMP#	SFX	MATRIX DESCRIPTION	QTY	
										RCVD	REQD
6A CLP1	DDLX3	___	236595	399411	A-34-QO	C0E240180	001		SOLID	0	3 1
6A CLP1	DDLX6	___	236596	399411	A-34-QO	C0E240180	002		SOLID	0	3 1

RELINQUISHED BY

RECEIVED BY

DATE/TIME

Geoffrey D. Braust
Geoffrey D. Braust

Geoffrey D. Braust
Geoffrey

5-25-00 1025
5-25-00 1125

***** END OF REPORT *****

REQUESTED BY: HOYLEW

METHOD: 08 Mercury (7470A, Cold Vapor) - Liquid

STORAGE LOCATION	WORK ORDER #	PICKED	CONTROL #	CLIENT #	ANALYSIS	LOTID	SMP#	SFX	MATRIX DESCRIPTION	QTY	QTY
		CNTR#								RCVD	REQD
4E,F	DDNDNB DDK23	— — —	236946	366694	A-OM-08	COE230168	001		SOLID	0	4 1
6A CLP1	DDLX3	— — —	236947	399411	A-OM-08	COE240180	001		SOLID	0	3 1
6A CLP1	DDLX6 DDRA9B	— — —	236948	399411	A-OM-08	COE240180	002		SOLID	0	3 1

RELINQUISHED BY	RECEIVED BY	DATE/TIME
<u>William a Hoyle</u>	<u>William a Hoyle</u>	<u>5-30-00 06:15</u>
<u>William a Hoyle</u>	<u>William a Hoyle</u>	<u>5-30-00 08:00</u>

***** END OF REPORT *****

GENERAL CHEMISTRY DATA

UXB INTERNATIONAL

6581628

Client Sample ID: DF/S1/0143/SDC/002

General Chemistry

Lot-Sample #....: C0E240180-001 Work Order #....: DDLX3 Matrix.....: SOLID
 Date Sampled...: 05/23/00 Date Received...: 05/24/00
 % Moisture.....: 15

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
pH	8.1		No Units	SW846 9045C	05/25/00	0146159
		Dilution Factor: 1		MS Run #.....: 0146043		
Ignitability	NO	--	No Units	SW846 SECTION 7.1	05/25/00	0146150
		Dilution Factor: 1		MS Run #.....: 0146035		
Percent Solids	84.7		%	MCAWW 160.3 MOD	05/25-05/26/00	0146362
		Dilution Factor: 1		MS Run #.....: 0146158		
Reactive Cyanide	ND	200	mg/kg	SW846 7.3.3	05/27/00	0151121
		Dilution Factor: 1		MS Run #.....: 0151017		
Reactive Sulfide	ND	200	mg/kg	SW846 7.3.4	05/27/00	0151120
		Dilution Factor: 1		MS Run #.....: 0151016		

Client Sample ID: DF/S1/0143/SDC/003

General Chemistry

Lot-Sample #....: C0E240180-002

Work Order #....: DDLX6

Matrix.....: SOLID

Date Sampled...: 05/23/00

Date Received...: 05/24/00

% Moisture.....: 19

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
pH	8.1		No Units	SW846 9045C	05/25/00	0146159
	Dilution Factor: 1			MS Run #.....: 0146043		
Ignitability	NO	--	No Units	SW846 SECTION 7.1	05/25/00	0146150
	Dilution Factor: 1			MS Run #.....: 0146035		
Percent Solids	81.0		%	MCAWW 160.3 MOD	05/25-05/26/00	0146362
	Dilution Factor: 1			MS Run #.....: 0146158		
Reactive Cyanide	ND	200	mg/kg	SW846 7.3.3	05/27/00	0151121
	Dilution Factor: 1			MS Run #.....: 0151017		
Reactive Sulfide	ND	200	mg/kg	SW846 7.3.4	05/27/00	0151120
	Dilution Factor: 1			MS Run #.....: 0151016		

6581630

METHOD BLANK REPORT

General Chemistry

Client Lot #...: COE240180

Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Reactive Cyanide	ND	Work Order #: DDWC5101 200	mg/kg	MB Lot-Sample #: A0E300000-121 SW846 7.3.3	05/27/00	0151121
		Dilution Factor: 1				
Reactive Sulfide	ND	Work Order #: DDWC4101 200	mg/kg	MB Lot-Sample #: A0E300000-120 SW846 7.3.4	05/27/00	0151120
		Dilution Factor: 1				

NOTE(S) :

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

LABORATORY CONTROL SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: C0E240180

Matrix.....: SOLID

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
pH	100	Work Order #: DDNL4101 (85 - 115)	LCS Lot-Sample#: C0E250000-159 SW846 9045C	05/25/00	0146159
		Dilution Factor: 1			

NOTE (S) :

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

6581632

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: C0E240180

Work Order #...: DDLX3-SMP
DDLX3-DUP

Matrix.....: SOLID

Date Sampled...: 05/23/00

Date Received...: 05/24/00

% Moisture.....: 15

<u>PARAM</u>	<u>RESULT</u>	<u>DUPLICATE</u> <u>RESULT</u>	<u>UNITS</u>	<u>RPD</u>	<u>RPD</u> <u>LIMIT</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>PREP</u> <u>BATCH #</u>
pH	8.1	8.0	No Units	0.74	(0-20)	SW846 9045C	05/25/00	0146159

SD Lot-Sample #: C0E240180-001

Dilution Factor: 1

Prep Date.....: 0146043

Analysis Date...:

Prep Batch #...:

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: C0E240180

Work Order #...: DDL3C-SMP
DDL3C-DUP

Matrix.....: SOLID

Date Sampled...: 05/22/00

Date Received...: 05/24/00

% Moisture.....: 24

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Reactive Cyanide	ND	ND	mg/kg	67	(0-20)	SD Lot-Sample #: A0E240104-001 SW846 7.3.3	05/27/00	0151121
Dilution Factor: 1								
Prep Date.....: 0151017 Analysis Date...: Prep Batch #...:								
Reactive Sulfide	ND	ND	mg/kg	88	(0-20)	SD Lot-Sample #: A0E240104-001 SW846 7.3.4	05/27/00	0151120
Dilution Factor: 1								
Prep Date.....: 0151016 Analysis Date...: Prep Batch #...:								

6581634

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #....: C0E240180

Work Order #....: DDNMX-SMP
DDNMX-DUP

Matrix.....: SOLID

Date Sampled....: 05/24/00

Date Received...: 05/25/00

% Moisture.....: 16

<u>PARAM</u>	<u>RESULT</u>	<u>DUPLICATE</u>	<u>UNITS</u>	<u>RPD</u>	<u>RPD</u>	<u>METHOD</u>	<u>PREPARATION-</u>	<u>PREP</u>
		<u>RESULT</u>			<u>LIMIT</u>		<u>ANALYSIS DATE</u>	<u>BATCH #</u>
Percent Solids						SD Lot-Sample #: C0E250132-001		
83.6		84.1	%	0.56	(0-20)	MCAWW 160.3 MOD	05/25-05/26/00	0146362

Dilution Factor: 1

Prep Date.....: 0146158

Analysis Date...:

Prep Batch #...:

Method: IGNITABILITY



6581635

ANALYST: ERIC L. WESOLOSKI DATE: 5-25-00
BATCH: 0146150 TIME: 08:10

SAMPLE ID	RESULT
~~COE240180~~ -001	NO
~~COE240180~~ -002	NO
~~COE240180~~ -002 Dup	NO
COE240147 -001	YES

Reviewed by ELW Date 5-25-00

Eric L. Wesoloski 0072
5-25-00

6581636

Quanterra Environmental Services pH LOG SHEET

COE250168
COE250162
Lot No. 0146180
COE240180
COE250134
COE250159
COE250167

Batch No. 0146159

SDG No.

BALANCE # Page 194817 of

Analyst: ERIC L. WESOLOSKI

Date: 5-25-00

Start Time: 08:00

pH Meter Calibration

Reading	Buffer	Manf. Lot No.	Rec'd	Expire
7.03	7.0	LAB Chem 9291-13	2-29-00	11-12-01
4.00	4.0	9167-08	5-9-00	6-25-01
10.05	10.0	0010-07	2-29-00	1-11-01

LCS ID No.: 342-155-10

Relative Percent Difference =

Range = ± .05 pH units

$$\frac{|X_1 - X_2|}{\left(\frac{X_1 + X_2}{2}\right)} \times 100$$

X₁ = Original ResultX₂ = Duplicate

Sample ID	pH Reading
LCS	7.03
COE240180-001	8.11 RPD
-001 Dup	8.05
-002	8.11
LCS	7.03
COE250134-001	7.98 RPD
-001 Dup	7.97
LCS	7.02
COE250159-001	8.75
COE250167-001	8.23
LCS	7.03
COE250162-002	5.67
COE250168-002	5.95
LCS	7.04

6581638

STL - Pittsburgh WATER CONTENT SHEET

SHEET NUM 0005017
 TESTED: CLL 5/25/00
 CHECKED: ELW 5/26/00

CREATED: 5/26/00 12:17:41 PM
 REVISED: 5/26/00 12:21:16 PM

COMMENTS:

C0E250132 C0E250133 C0E240180

CLIENT SAMPLE IDENTIFICATION	LAB SAMP IDENT.	TARE NO.	WEIGHT TARE	WEIGHT TARE + WET SMP	WEIGHT TARE + DRY SAMP	TIME IN	TIME OUT	WEIGHT WATER	WATER CONTENT CALC.	SOLIDS CONTENT CALC.	
C0E250132	001	SMP	AB	1.11	6.3	5.45	14:30	4:30	0.85	16.378	83.622
C0E250132	001D	SMP	231	1.12	6.59	5.72	14:30	4:30	0.87	15.905	84.095
C0E250132	002	SMP	108	1.14	6.38	5.5	14:30	4:30	0.88	16.794	83.206
C0E250132	003	SMP	152	1.13	6.63	5.74	14:30	4:30	0.89	16.182	83.818
C0E250133	001	SMP	AA	1.12	6.22	5.29	14:30	4:30	0.93	18.235	81.765
C0E240180	001	SMP	149	1.14	6.42	5.61	14:30	4:30	0.81	15.341	84.659
C0E240180	002	SMP	1151	1.11	6.54	5.51	14:30	4:30	1.03	18.969	81.031

PSR024 5/25/00 4:56:31 MT

SAMPLE CUSTODIAN REMOVAL REQUEST

PAGE 001

REQUESTED BY: MESOLOSE

METHOD: IQ Ignitability (SW7.1.2)

<u>STORAGE LOCATION</u>	<u>WORK ORDER #</u>	<u>PICKED</u> <u>CNTR#</u>	<u>CONTROL #</u>	<u>CLIENT #</u>	<u>ANALYSIS</u>	<u>LOTID</u>	<u>SMP#</u>	<u>SFX</u>	<u>MATRIX</u> <u>DESCRIPTION</u>	<u>QTY</u> <u>RCVD</u>	<u>QTY</u> <u>REQD</u>
6A CLP1	DDLX3-1-0G	___	236562	399411	A-88-IQ	C0E240180	001		SOLID	3	1
6A CLP1	DDLX6-1-0G	___	236563	399411	A-88-IQ	C0E240180	002		SOLID	3	1
6B CLP1	DDL61-1-15	___	236561	416241	A-88-IQ	C0E240147	001		SOLID	8	1

RELINQUISHED BY

RECEIVED BY

DATE/TIME

E. L. Mielke
E. L. Mielke

E. L. Mielke
E. L. Mielke

5/25/00 (07:00)
5/25/00 (08:40)

***** END OF REPORT *****

6581640

PSR024 5/25/00 4:56:41 MT

SAMPLE CUSTODIAN REMOVAL REQUEST

PAGE 001

REQUESTED BY: MESOLOSE

METHOD: OZ pH (9045C) - Non-Aqueous

<u>STORAGE LOCATION</u>	<u>WORK ORDER #</u>	<u>PICKED</u> <u>CNTR#</u>	<u>CONTROL #</u>	<u>CLIENT #</u>	<u>ANALYSIS</u>	<u>LOTID</u>	<u>SMP#</u>	<u>SFX</u>	<u>MATRIX</u> <u>DESCRIPTION</u>	<u>QTY</u> <u>RCVD</u>	<u>QTY</u> <u>REQD</u>
6A CLP1	DDLX3-1-OF	___	236564	399411	A-88-OZ	COE240180	001		SOLID	3	1
6A CLP1	DDLX6-1-OF	___	236565	399411	A-88-OZ	COE240180	002		SOLID	3	1

RELINQUISHED BY

RECEIVED BY

DATE/TIME

E. L. White
E. L. White

E. L. White
E. L. White

5/25/00 (07:00)
5/25/00 (09:00)

***** END OF REPORT *****

6581641

PSR024 5/25/00 10:37:53 MT

SAMPLE CUSTODIAN REMOVAL REQUEST

PAGE 001

REQUESTED BY: LOWEYDEC

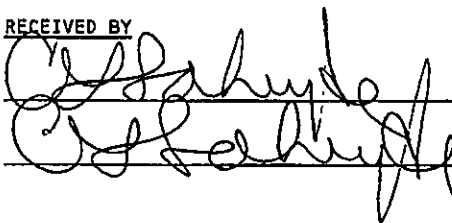
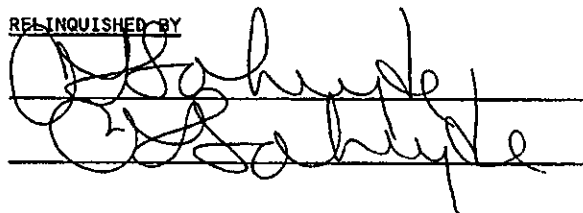
METHOD: SM Solids, Percent (as TS - 160.3 MOD) - Solids

<u>STORAGE LOCATION</u>	<u>WORK ORDER #</u>	<u>PICKED</u> <u>CNTR#</u>	<u>CONTROL #</u>	<u>CLIENT #</u>	<u>ANALYSIS</u>	<u>LOTID</u>	<u>SMP#</u>	<u>SFX</u>	<u>MATRIX</u> <u>DESCRIPTION</u>	<u>QTY</u> <u>RCVD</u>	<u>QTY</u> <u>REQD</u>
6A CLP1	DDLX3-1-01	___	236630	399411	A-88-SM	COE240180	001		SOLID	0	3
6A CLP1	DDLX6-1-01	___	236631	399411	A-88-SM	COE240180	002		SOLID	0	3

RELINQUISHED BY

RECEIVED BY

DATE/TIME

5-25-00 (307)
5-25-00 (500)

***** END OF REPORT *****

STL Pittsburgh

7015

6581642

QUANTERRA- NORTH CANTON
TITRIMETRIC LOGSHEET

Page 1 of 1

Analysis Reactive Cyanide
Prep/ Anal. Date 5/26/00
Analyst PSO/MLPBatch Number 0151121
LCS Number
LCS Prep Date
RL 200 mg/kgTitrant Name AgNO₃
Titrant Normality .0192
Titrant Standardization Date/ Initials

Sample Number	Sample Volume	Dil.	Titrant Vol (mL)	Final Conc.	Units	QC Calculations and Comments
BLK	10g	1	.05	6.25	mg/kg	
DDL3C			0.1	12.5		
↓ DUP			.05	6.25		
DDLSP			.05			
DDLX3			.05			
DDLX6			.05			
DDR96			.05			
NEC-000502						

Rev. 10/30/98
N:Metals/Wet Log

QUANTERRA- NORTH CANTON
TITRIMETRIC LOGSHEET

6581643 Page 1 of 1

Analysis Reactive Sulfide iodine .02789 N
Prep/ Anal. Date 5/26/00 5.25.00
Analyst P50/Hel MFG

Batch Number 0151120
LCS Number —
LCS Prep Date —
RL 200 mg/kg

Titrant Name Na₂SO₄
Titrant Normality .02483

Titrant Standardization Date/ Initials 5.8.00 / TAR

Sample Number	Sample Volume	Dil.	Titrant Vol (mL)	Final Conc.	Units	QC Calculations and Comments
BLK	10g	1	22.4	6.4	mg/kg	
DDL3C	1	1	22.3	16.364		
↓ DUP			22.4	6.4		
DDL58			22.4	6.4		
DDLX3			22.5	3.5		
DDLX6	1		22.3	16.364		
DDR9L	1	1	22.3	16.364		
MFG 000526						

FINAL PAGE

ADMINISTRATIVE RECORD

FINAL PAGE