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**THE MEMPHIS DEPOT
TENNESSEE**

**ADMINISTRATIVE RECORD
COVER SHEET**

AR File Number 664

664

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SEVERN

TRENT

SERVICES

STL Pittsburgh
450 William Pitt Way
Pittsburgh, PA 15238-1330

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 #: COG130203

Frank Johnson

UXB International

SEVERN TRENT LABORATORIES, INC.



Dave Dunlap
Project Manager

July 26, 2000

CASE NARRATIVE
UXB International Inc.
Dunn Field

LOT # C0G130203

Sample Receiving:

STL Pittsburgh received samples on July 13, 2000 in good condition and within the proper temperature range.

Volatiles:

There were no problems associated with the analysis.

Semivolatiles:

There were no problems associated with the analysis.

Pesticides:

There were no problems associated with the analysis.

Herbicides:

There were no problems associated with the analysis.

Metals:

There were no problems associated with the analysis.

Metals (TCLP):

There were no problems associated with the analysis.

General Chemistry:

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

METHODS SUMMARY

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COG130203

<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

COG130203

<u>WO #</u>	<u>SAMPLE#</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
DG5C7	001	DF/S1/0194/SDC/019	07/12/00	11:00
DG5CG	002	DF/S1/0194/SDC/020	07/12/00	11:00
DG5CK	003	DF/S1/0194/GRAB/004	07/12/00	11:00

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: color, 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.

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Cooler Receipt Form
STL Pittsburgh

Client: UYB

Project: 7/13/05

Quote: [Signature]

Cooler Rec'd & Opened for Temp Check on: 7/13/05

Coolers Opened and Unpacked on: 7/13/05

By: [Signature]
(Signature)

STL Pittsburgh Lot Number: 206130203

- | | Yes | No |
|---|-----|----|
| 1. Were custody seals on the outside of the cooler? _____ | / | — |
| If YES, how many and where? Quantity <u>1 Pat</u> Location <u>1 Boel</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.

FedEx TM **Airbill** FedEx Tracking Number 821738766977

1 From 7/1/20

Date 7/1/20

Sender's Name Chris Rose Phone 701 745-4999

Company WXB Int.

Address: Residence Inn Rm 603 614 Old Poplar Pk

City Memphis State TN zip 38119

2 Your Internal Billing Reference

3 To Recipient's Name Rusty Vincie Phone 412 820-2091

Company Southern Trent

Address 450 Seventh Street William Pitt Way

City Pittsburgh State PA ZIP 15208



0200

4a Express Package Service

FedEx Priority Overnight Next business morning

FedEx 2Day Second business day

FedEx Standard Overnight Next business afternoon

FedEx Express Saver Third business day

FedEx 3Day Freight Third business day

4b Express Freight Service

FedEx 1Day Freight Next business day

FedEx 2Day Freight Second business day

FedEx 3Day Freight Third business day

5 Packaging

FedEx Letter Other FedEx Box, FedEx Tube, Messenger Pkg.

Other Pkg

6 Special Handling

Saturday Delivery Available for FedEx Priority Overnight and FedEx 2Day to select ZIP codes

Sunday Delivery Available for FedEx Priority Overnight and FedEx 2Day to select ZIP codes

HOLD Weekday at FedEx Location Not available with FedEx First Overnight

HOLD Saturday at FedEx Location Available for FedEx Priority Overnight and FedEx 2Day to select ZIP codes

7 Payment - Bill to

Sender's Account Bill to be paid

Recipient

Third Party

Credit Card

Cash/Check

8 Release Signature

Total Packages 38

Total Declared Value \$.00

Total Charges 360

By signing you authorize us to debit this shipment without obtaining a signature and agree to indemnify and hold us harmless from any resulting claim.

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SBCCOM
Monitoring Branch Laboratory

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CLEARANCE REPORT

JULY 12, 2000
Dunn Field, Memphis Defense Depot
 Results for CWM Soil Sample Analysis
 Analyst: Christopher Druyor

Sample#	1,4-Thioxane	1,4-Dithiane	TDG	Mustard	Lewisite
DF/S1/01 94/SDC/ 019	ND	ND	N/A	ND	ND
DF/S1/01 94/SDC/ 020	ND	ND	N/A	ND	ND
DF/S1/01 94/GRAB /004	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

UXB INTERNATIONAL

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0G130203 001

Method: SW846 8260B

Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL

Date Received: 07/13/00

Work Order: DG5C7102

Date Extracted: 07/19/00

Dilution factor: 1

Date Analyzed: 07/19/00

Moisture %: 15

QC Batch: 0201215

Client Sample Id: DF/S1/0194/SDC/019

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg)	mg/L
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

FORM I

UXB INTERNATIONAL
MATRIX SPIKE COMPOUNDS

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

Matrix: (soil/water) SOLID Lab Sample ID: COG130203 001

Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 07/13/00

Work Order: DG5C7110 Date Extracted: 07/19/00

Dilution factor: 1 Date Analyzed: 07/19/00

Moisture %: 15

Client Sample Id: DF/S1/0194/SDC/019 QC Batch: 0201215

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg)	mg/L
71-43-2	Benzene	0.450	Q
78-93-3	2-Butanone	0.309	
56-23-5	Carbon tetrachloride	0.440	
108-90-7	Chlorobenzene	0.425	
67-66-3	Chloroform	0.456	
107-06-2	1,2-Dichloroethane	0.441	
75-35-4	1,1-Dichloroethene	0.478	
127-18-4	Tetrachloroethene	0.423	
79-01-6	Trichloroethene	0.441	
75-01-4	Vinyl chloride	0.480	

FORM I

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UXB INTERNATIONAL
MATRIX SPIKE DUPLICATE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: COG130203 001

Method: SW846 8260B

Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL

Date Received: 07/13/00

Work Order: DG5C7111

Date Extracted: 07/19/00

Dilution factor: 1

Date Analyzed: 07/19/00

Moisture %: 15

QC Batch: 0201215

Client Sample Id: DF/S1/0194/SDC/019

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg)	mg/L
71-43-2	Benzene	0.440	
78-93-3	2-Butanone	0.316	
56-23-5	Carbon tetrachloride	0.434	
108-90-7	Chlorobenzene	0.424	
67-66-3	Chloroform	0.437	
107-06-2	1,2-Dichloroethane	0.428	
75-35-4	1,1-Dichloroethene	0.468	
127-18-4	Tetrachloroethene	0.414	
79-01-6	Trichloroethene	0.427	
75-01-4	Vinyl chloride	0.460	

FORM I

UXB INTERNATIONAL

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

Matrix: (soil/water) SOLID Lab Sample ID: COG130203 002

Method: SW846 8260B
Volatile Organics, GC/MS (8260B)Sample WT/Vol: 5 / mL Date Received: 07/13/00
Work Order: DG5CG102 Date Extracted: 07/19/00
Dilution factor: 1 Date Analyzed: 07/19/00
Moisture %: 12

QC Batch: 0201215

Client Sample Id: DF/S1/0194/SDC/020

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

FORM I

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: COG130203 003

Method: SW846 8260B

Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL

Date Received: 07/13/00

Work Order: DG5CK102

Date Extracted: 07/19/00

Dilution factor: 1

Date Analyzed: 07/19/00

Moisture %: 18

QC Batch: 0201215

Client Sample Id: DF/S1/0194/GRAB/004

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: COG190000 215
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 07/13/00
Work Order: DGF6V102 Date Extracted: 07/19/00
Dilution factor: 1 Date Analyzed: 07/19/00
Moisture %: NA

QC Batch: 0201215

Client Sample Id: CHECK SAMPLE

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg)	mg/L
71-43-2	Benzene	0.466	
78-93-3	2-Butanone	0.340	
56-23-5	Carbon tetrachloride	0.476	
108-90-7	Chlorobenzene	0.443	
67-66-3	Chloroform	0.464	
107-06-2	1,2-Dichloroethane	0.460	
75-35-4	1,1-Dichloroethene	0.505	
127-18-4	Tetrachloroethene	0.438	
79-01-6	Trichloroethene	0.451	
75-01-4	Vinyl chloride	0.492	

FORM I

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

QESSDG:

Lot #: COG130203

	CLIENT ID.	SRG01	SRG02	SRG03	SRG04	TOT OUT
01	DF/S1/0194/SDC/020	92	97	85	94	00
02	DF/S1/0194/GRAB/004	101	105	90	102	00
03	DF/S1/0194/SDC/019	97	102	85	99	00
04	METHOD BLK. DGF6V101	89	93	81	90	00
05	LCS DGF6V102	103	102	101	101	00
06	DF/S1/0194/SDC/019 D	94	94	95	94	00
07	DF/S1/0194/SDC/019 S	93	99	99	102	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

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Lot #: COG190000

WO #: DGF6V102

BATCH: 0201215

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	% REC	QC LIMITS REC	QUAL
Benzene	0.500	0.466	93	79 - 116	
2-Butanone	0.500	0.340	68	35 - 156	
Carbon tetrachloride	0.500	0.476	95	72 - 133	
Chlorobenzene	0.500	0.443	89	81 - 115	
Chloroform	0.500	0.464	93	81 - 122	
1,2-Dichloroethane	0.500	0.460	92	73 - 127	
1,1-Dichloroethene	0.500	0.505	101	65 - 119	
Tetrachloroethene	0.500	0.438	88	78 - 131	
Trichloroethene	0.500	0.451	90	80 - 122	
Vinyl chloride	0.500	0.492	98	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: DF/S1/0194/SDC/019

Level: (low/med) LOW

Lot #: COG130203

WO #: DG5C7110

BATCH: 0201215

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	MS CONCENT. (mg/L)	MS % REC	LIMITS REC	QUAL
Benzene	0.500	ND	0.450	90	73- 123	
2-Butanone	0.500	ND	0.309	62	10- 151	
Carbon tetrachloride	0.500	ND	0.440	88	61- 143	
Chlorobenzene	0.500	ND	0.425	85	70- 122	
Chloroform	0.500	ND	0.456	91	65- 131	
1,2-Dichloroethane	0.500	ND	0.441	88	67- 132	
1,1-Dichloroethene	0.500	ND	0.478	96	57- 138	
Tetrachloroethene	0.500	ND	0.423	85	70- 130	
Trichloroethene	0.500	ND	0.441	88	58- 141	
Vinyl chloride	0.500	ND	0.480	96	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 limits
 Spike Recovery: 0 out of 10 outside limits

COMMENTS:

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Matrix Spike ID: DF/S1/0194/SDC/019

Level: (low/med) LOW

Lot #: COG130203

WO #: DG5C7111

BATCH: 0201215

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENT. (mg/L)	MSD		QC LIMITS		QUAL
			% REC	% RPD	RPD	REC	
Benzene	0.500	0.440	88	2.2	20	73- 123	
2-Butanone	0.500	0.316	63	2.0	34	10- 151	
Carbon tetrachloride	0.500	0.434	87	1.5	20	61- 143	
Chlorobenzene	0.500	0.424	85	0.14	20	70- 122	
1,1-Dichloroethene	0.500	0.468	94	2.2	20	57- 138	
Chloroform	0.500	0.437	87	4.4	20	65- 131	
1,2-Dichloroethane	0.500	0.428	86	3.0	20	67- 132	
Tetrachloroethene	0.500	0.414	83	2.1	20	70- 130	
Trichloroethene	0.500	0.427	85	3.3	20	58- 141	
Vinyl chloride	0.500	0.460	92	4.3	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:

DGF6V101

Lab Name: Severn Trent Laboratories, Inc.

Lab Code: QESPIT

SDG Number: .

Lab File ID: 3071902.D

Lot Number: COG130203

Date Analyzed: 07/19/00

Time Analyzed: 08:53

Matrix: SOLID

Date Extracted:07/19/00

GC Column: RTX-624 ID: .18

Extraction Method: 1311/5030B

Instrument ID: HP3

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	CHECK SAMPLE	DGF6V102 C	3071910.D	07/19/00	12:01
02	DF/S1/0194/SDC/020	DG5CG102	3071906.D	07/19/00	10:26
03	DF/S1/0194/GRAB/004	DG5CK102	3071908.D	07/19/00	11:11
04	DF/S1/0194/SDC/019	DG5C7102	3071904.D	07/19/00	09:40
05	DF/S1/0194/SDC/019	DG5C7110 S	3071911.D	07/19/00	12:23
06	DF/S1/0194/SDC/019	DG5C7111 D	3071912.D	07/19/00	12:46
07					
08					
09					
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30					

COMMENTS:

UXB INTERNATIONAL
METHOD BLANK COMPOUNDS

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

Matrix: (soil/water) SOLID Lab Sample ID: COG190000 215
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 07/13/00
Work Order: DGF6V101 Date Extracted: 07/19/00
Dilution factor: 1 Date Analyzed: 07/19/00
Moisture %: NA

QC Batch: 0201215

Client Sample Id: INTRA-LAB BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg)	mg/L
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

FORM I

Lab Name: STL PITTSBURGH Contract:
 Lab Code: STLPIT Case No.: SAS No.: SDG No.: COG130203
 Lab File ID (Standard): CC30718 Date Analyzed: 07/19/00
 Instrument ID: HP3 Time Analyzed: 0559
 GC Column: DB 624 ID: 0.18 (mm) Heated Purge: (Y/N) N

	IS1 (CBZ)	RT #	IS2 (DCB)	RT #	IS3	RT #
	AREA #		AREA #		AREA #	
=====	=====	=====	=====	=====	=====	=====
12 HOUR STD	161635	9.87	279770	12.19	550938	6.75
UPPER LIMIT	323270	10.07	559540	12.39	1101876	6.95
LOWER LIMIT	80818	9.67	139885	11.99	275469	6.55
=====	=====	=====	=====	=====	=====	=====
EPA SAMPLE NO.						
=====	=====	=====	=====	=====	=====	=====
01 INTRA-LAB BL	137622	9.87	196541	12.19	522878	6.75
02 DF/S1/0194/S	142262	9.87	202871	12.19	546856	6.75
03 DF/S1/0194/S	139382	9.87	199163	12.19	539362	6.75
04 DF/S1/0194/S	136934	9.87	193268	12.19	514339	6.76
05 INTRA-LAB CH	154671	9.87	244548	12.20	554820	6.75
06 DF/S1/0194/S	163938	9.88	260026	12.19	569256	6.75
07 DF/S1/0194/S	164839	9.87	263517	12.20	596138	6.75
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 SEMIVOLATILE SUMMARY

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0G130203 001

Method: SW846 8270C

Base/Neutrals and Acids (8270C)

Sample WT/Vol: 200 / mL

Date Received: 07/13/00

Work Order: DG5C7103

Date Extracted: 07/18/00

Dilution factor: 1

Date Analyzed: 07/21/00

Moisture %: 15

QC Batch: 0201094

Client Sample Id: DF/S1/0194/SDC/019

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg)	mg/L
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: C0G130203 001
 Method: SW846 8270C
 Base/Neutrals and Acids (8270C)
 Sample WT/Vol: 200 / mL Date Received: 07/13/00
 Work Order: DG5C710U Date Extracted: 07/18/00
 Dilution factor: 1 Date Analyzed: 07/21/00
 Moisture %: 15
 Client Sample Id: DF/S1/0194/SDC/019 QC Batch: 0201094

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg)	mg/L
106-46-7	1,4-Dichlorobenzene	0.145	
121-14-2	2,4-Dinitrotoluene	0.180	
118-74-1	Hexachlorobenzene	0.192	
87-68-3	Hexachlorobutadiene	0.138	
67-72-1	Hexachloroethane	0.138	
98-95-3	Nitrobenzene	0.156	
87-86-5	Pentachlorophenol	0.164	
110-86-1	Pyridine	0.137	
95-95-4	2,4,5-Trichlorophenol	0.174	
88-06-2	2,4,6-Trichlorophenol	0.168	
1319-77-3	Cresols (total)	0.480	

UXB INTERNATIONAL
MATRIX SPIKE DUPLICATE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0G130203 001

Method: SW846 8270C

Base/Neutrals and Acids (8270C)

Sample WT/Vol: 200 / mL

Date Received: 07/13/00

Work Order: DG5C710V

Date Extracted: 07/18/00

Dilution factor: 1

Date Analyzed: 07/21/00

Moisture %: 15

QC Batch: 0201094

Client Sample Id: DF/S1/0194/SDC/019

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg)	mg/L
106-46-7	1,4-Dichlorobenzene	0.142	
121-14-2	2,4-Dinitrotoluene	0.175	
118-74-1	Hexachlorobenzene	0.191	
87-68-3	Hexachlorobutadiene	0.136	
67-72-1	Hexachloroethane	0.134	
98-95-3	Nitrobenzene	0.152	
87-86-5	Pentachlorophenol	0.158	
110-86-1	Pyridine	0.130	
95-95-4	2,4,5-Trichlorophenol	0.175	
88-06-2	2,4,6-Trichlorophenol	0.166	
1319-77-3	Cresols (total)	0.464	

FORM I

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: COG130203 002

Method: SW846 8270C

Base/Neutrals and Acids (8270C)

Sample WT/Vol: 200 / mL

Date Received: 07/13/00

Work Order: DG5CG103

Date Extracted: 07/18/00

Dilution factor: 1

Date Analyzed: 07/21/00

Moisture %: 12

QC Batch: 0201094

Client Sample Id: DF/S1/0194/SDC/020

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

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: COG130203 003

Method: SW846 8270C

Base/Neutrals and Acids (8270C)

Sample WT/Vol: 200 / mL

Date Received: 07/13/00

Work Order: DG5CK103

Date Extracted: 07/18/00

Dilution factor: 1

Date Analyzed: 07/21/00

Moisture %: 18

QC Batch: 0201094

Client Sample Id: DF/S1/0194/GRAB/004

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg)	mg/L
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: COG190000 094

Method: SW846 8270C

Base/Neutrals and Acids (8270C)

Sample WT/Vol: 200 / mL

Date Received: 07/13/00

Work Order: DGERA102

Date Extracted: 07/18/00

Dilution factor: 1

Date Analyzed: 07/21/00

Moisture %: NA

QC Batch: 0201094

Client Sample Id: CHECK SAMPLE

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg)	mg/L
106-46-7	1,4-Dichlorobenzene	0.150	Q
121-14-2	2,4-Dinitrotoluene	0.174	
118-74-1	Hexachlorobenzene	0.188	
87-68-3	Hexachlorobutadiene	0.147	
67-72-1	Hexachloroethane	0.148	
98-95-3	Nitrobenzene	0.156	
87-86-5	Pentachlorophenol	0.173	
110-86-1	Pyridine	0.161	
95-95-4	2,4,5-Trichlorophenol	0.174	
88-06-2	2,4,6-Trichlorophenol	0.166	
1319-77-3	Cresols (total)	0.504	

FORM I

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

QESSDG:

Lot #: COG130203

	CLIENT ID.	SRG01	SRG02	SRG03	SRG04	SRG05	SRG06	TOT OUT
01	DF/S1/0194/SDC/020	60	58	94	53	60	72	00
02	DF/S1/0194/GRAB/004	48	46	86	41	46	61	00
03	DF/S1/0194/SDC/019	43	46	94	35	42	67	00
04	METHOD BLK. DGERA101	73	73	88	72	77	78	00
05	LCS DGERA102	62	65	91	60	66	72	00
06	DF/S1/0194/SDC/019 D	62	63	94	53	62	74	00
07	DF/S1/0194/SDC/019 S	64	62	97	55	64	74	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

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Lot #: COG190000

WO #: DGERA102

BATCH: 0201094

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	% REC	QC LIMITS REC	QUAL
1,4-Dichlorobenzene	0.250	0.150	60	28- 110	
2,4-Dinitrotoluene	0.250	0.174	69	47- 131	
Hexachlorobenzene	0.250	0.188	75	57- 128	
Hexachlorobutadiene	0.250	0.147	59	36- 116	
Hexachloroethane	0.250	0.148	59	30- 110	
Nitrobenzene	0.250	0.156	62	45- 130	
Pentachlorophenol	0.250	0.173	69	10- 140	
Pyridine	0.250	0.161	65	10- 148	
2,4,5-Trichlorophenol	0.250	0.174	70	41- 125	
2,4,6-Trichlorophenol	0.250	0.166	67	46- 135	
Cresols (total)	0.750	0.504	67	29- 144	

NOTES (S) :

* Values outside of QC limits

Spike Recovery: 0 out of 11 outside limits

COMMENTS:

FORM III

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Matrix Spike ID: DF/S1/0194/SDC/019

Level: (low/med) LOW

Lot #: COG130203

WO #: DG5C710U

BATCH: 0201094

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	MS CONCENT. (mg/L)	MS % REC	LIMITS REC	QUAL
1,4-Dichlorobenzene	0.250	ND	0.145	58	18- 110	
2,4-Dinitrotoluene	0.250	ND	0.180	72	31- 131	
Hexachlorobenzene	0.250	ND	0.192	77	36- 132	
Hexachlorobutadiene	0.250	ND	0.138	55	18- 116	
Hexachloroethane	0.250	ND	0.138	55	18- 110	
Nitrobenzene	0.250	ND	0.156	62	10- 211	
Pentachlorophenol	0.250	ND	0.164	65	10- 140	
Pyridine	0.250	ND	0.137	55	10- 148	
2,4,5-Trichlorophenol	0.250	ND	0.174	70	24- 143	
2,4,6-Trichlorophenol	0.250	ND	0.168	67	36- 135	
Cresols (total)	0.750	ND	0.480	64	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:

FORM III

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No.

Matrix Spike ID: DF/S1/0194/SDC/019

Level: (low/med) LOW

Lot #: C0G130203

WO #: DG5C710V

BATCH: 0201094

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENT. (mg/L)	MSD		QC LIMITS		QUAL
			% REC	% RPD	RPD	REC	
1,4-Dichlorobenzene	0.250	0.142	57	2.4	36	18- 110	
2,4-Dinitrotoluene	0.250	0.175	70	2.8	32	31- 131	
Hexachlorobenzene	0.250	0.191	76	0.37	22	36- 132	
Hexachlorobutadiene	0.250	0.136	54	1.4	32	18- 116	
Hexachloroethane	0.250	0.134	54	3.3	33	18- 110	
Nitrobenzene	0.250	0.152	61	2.6	50	10- 211	
Pentachlorophenol	0.250	0.158	63	3.5	56	10- 140	
Pyridine	0.250	0.130	52	5.0	65	10- 148	
2,4,5-Trichlorophenol	0.250	0.175	70	0.17	22	24- 143	
2,4,6-Trichlorophenol	0.250	0.166	66	0.91	27	36- 135	
Cresols (total)	0.750	0.464	62	3.3	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 limits
 Spike Recovery: 0 out of 11 outside limits

COMMENTS:

DGERA101

Lab Name: Severn Trent Laboratories, Inc.

Lab Code: QESPIT

SDG Number:

Lab File ID: S0721001.

Lot Number: COG130203

Date Analyzed: 07/21/00

Time Analyzed: 09:20

Matrix: SOLID

Date Extracted: 07/18/00

GC Column: DB5MS ID: .25

Extraction Method: 1311/3520C

Instrument ID: 71

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 CHECK SAMPLE	DGERA102 C	S0721002	07/21/00	09:51
02 DF/S1/0194/SDC/020	DG5CG103	S0721003.	07/21/00	10:23
03 DF/S1/0194/GRAB/004	DG5CK103	S0721007.	07/21/00	12:29
04 DF/S1/0194/SDC/019	DG5C710U S	S0721004.	07/21/00	10:54
05 DF/S1/0194/SDC/019	DG5C710V D	S0721005.	07/21/00	11:26
06 DF/S1/0194/SDC/019	DG5C7103	S0721006.	07/21/00	11:57
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:

UXB INTERNATIONAL
METHOD BLANK COMPOUNDS

664 37

Lab Name: Severn Trent Laboratories, Inc. SDG Number:
 Matrix: (soil/water) SOLID Lab Sample ID: C0G190000 094
 Method: SW846 8270C
 Base/Neutrals and Acids (8270C)
 Sample WT/Vol: 200 / mL Date Received: 07/13/00
 Work Order: DGERA101 Date Extracted: 07/18/00
 Dilution factor: 1 Date Analyzed: 07/21/00
 Moisture %: NA
 Client Sample Id: INTRA-LAB BLANK QC Batch: 0201094

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg)	mg/L
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: STLPIT Case No.:

SAS No.:

SDG No.: COG130203

Lab File ID (Standard): S0721CCC

Date Analyzed: 07/21/00

Instrument ID: 71

Time Analyzed: 0848

	IS1 (DCB)		IS2 (NPT)		IS3 (ANT)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
=====	=====	=====	=====	=====	=====	=====
12 HOUR STD	62917	4.68	237673	6.13	123565	9.03
UPPER LIMIT	125834	5.18	475346	6.63	247130	9.53
LOWER LIMIT	31459	4.18	118837	5.63	61783	8.53
=====	=====	=====	=====	=====	=====	=====
CLIENT						
SAMPLE NO.						
=====	=====	=====	=====	=====	=====	=====
01 INTRA-LAB BL	72944	4.69	278983	6.14	145712	9.04
02 INTRA-LAB CH	69166	4.68	267249	6.13	140691	9.02
03 DF/S1/0194/S	73748	4.69	286846	6.14	148849	9.03
04 DF/S1/0194/S	67255	4.68	262923	6.13	138491	9.02
05 DF/S1/0194/S	70598	4.68	272228	6.13	139812	9.02
06 DF/S1/0194/S	71193	4.69	276100	6.14	142259	9.04
07 DF/S1/0194/G	83333	4.69	317869	6.14	160669	9.03
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 **664**

39

Lab Name: STL-PITTSBURGH

Contract:

Lab Code: STLPIT Case No.:

SAS No.:

SDG No.: COG130203

Lab File ID (Standard): S0721CCC

Date Analyzed: 07/21/00

Instrument ID: 71

Time Analyzed: 0848

	IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
=====	=====	=====	=====	=====	=====	=====
12 HOUR STD	213088	12.26	231432	18.84	291356	22.18
UPPER LIMIT	426176	12.76	462864	19.34	582712	22.68
LOWER LIMIT	106544	11.76	115716	18.34	145678	21.68
=====	=====	=====	=====	=====	=====	=====
CLIENT						
SAMPLE NO.						
=====	=====	=====	=====	=====	=====	=====
01 INTRA-LAB BL	246340	12.26	225698	18.84	264446	22.18
02 INTRA-LAB CH	239547	12.25	219127	18.82	250304	22.16
03 DF/S1/0194/S	247540	12.26	223376	18.83	249296	22.17
04 DF/S1/0194/S	238474	12.25	213562	18.82	241094	22.16
05 DF/S1/0194/S	235205	12.25	213446	18.82	245686	22.16
06 DF/S1/0194/S	237535	12.27	219037	18.84	252146	22.18
07 DF/S1/0194/G	267967	12.26	247877	18.83	286588	22.17
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.

PESTICIDE SUMMARY

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: COG130203 001

Method: SW846 8081A

Pesticides (8081A)

Sample WT/Vol: 100 / mL

Date Received: 07/13/00

Work Order: DG5C7104

Date Extracted: 07/18/00

Dilution factor: 1

Date Analyzed: 07/20/00

Moisture %: 15

QC Batch: 0200512

Client Sample Id: DF/S1/0194/SDC/019

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
MATRIX SPIKE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: COG130203 001

Method: SW846 8081A

Pesticides (8081A)

Sample WT/Vol: 100 / mL

Date Received: 07/13/00

Work Order: DG5C710R

Date Extracted: 07/18/00

Dilution factor: 1

Date Analyzed: 07/19/00

Moisture %: 15

QC Batch: 0200512

Client Sample Id: DF/S1/0194/SDC/019

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg)	mg/L
72-20-8	Endrin	0.00232	Q
76-44-8	Heptachlor	0.00208	
1024-57-3	Heptachlor epoxide	0.00208	
58-89-9	Lindane	0.00168	
72-43-5	Methoxychlor	0.00230	

UXB INTERNATIONAL
 MATRIX SPIKE DUPLICATE COMPOUNDS

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

Matrix: (soil/water) SOLID Lab Sample ID: COG130203 001
 Method: SW846 8081A
 Pesticides (8081A)

Sample WT/Vol: 100 / mL Date Received: 07/13/00
 Work Order: DG5C710T Date Extracted: 07/18/00
 Dilution factor: 1 Date Analyzed: 07/19/00
 Moisture %: 15

QC Batch: 0200512

Client Sample Id: DF/S1/0194/SDC/019

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg)	mg/L
72-20-8	Endrin	0.00238	
76-44-8	Heptachlor	0.00214	
1024-57-3	Heptachlor epoxide	0.00211	
58-89-9	Lindane	0.00172	
72-43-5	Methoxychlor	0.00237	

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: COG130203 002

Method: SW846 8081A

Pesticides (8081A)

Sample WT/Vol: 100 / mL

Date Received: 07/13/00

Work Order: DG5CG104

Date Extracted: 07/18/00

Dilution factor: 1

Date Analyzed: 07/20/00

Moisture %: 12

QC Batch: 0200512

Client Sample Id: DF/S1/0194/SDC/020

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

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

Matrix: (soil/water) SOLID Lab Sample ID: COG130203 003
 Method: SW846 8081A
 Pesticides (8081A)

Sample WT/Vol: 100 / mL Date Received: 07/13/00
 Work Order: DG5CK104 Date Extracted: 07/18/00
 Dilution factor: 1 Date Analyzed: 07/20/00
 Moisture %: 18

QC Batch: 0200512

Client Sample Id: DF/S1/0194/GRAB/004

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

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

QESSDG:

Lot #: C0G130203

	CLIENT ID.	SRG01	SRG02	TOT OUT
01	DF/S1/0194/SDC/020	91	86	00
02	DF/S1/0194/GRAB/004	94	86	00
03	DF/S1/0194/SDC/019	96	88	00
04	METHOD BLK. DGELX101	92	82	00
05	LCS DGELX102	94	88	00
06	DF/S1/0194/SDC/019 D	95	85	00
07	DF/S1/0194/SDC/019 S	93	84	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 #: COG180000

WO #: DGELX102

BATCH: 0200512

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	% REC	QC LIMITS REC	QUAL
Lindane	0.00250	0.00179	72	49 - 137	
Heptachlor	0.00250	0.00218	87	57 - 124	
Heptachlor epoxide	0.00250	0.00219	88	53 - 135	
Endrin	0.00250	0.00231	92	46 - 137	
Methoxychlor	0.00250	0.00235	94	12 - 154	

NOTES (S) :

* Values outside of QC limits

Spike Recovery: 0 out of 5 outside limits

COMMENTS:

Lab Name: Severn Trent Laboratories, Inc. Client: UXB INTERNATIONAL

Lab Code: QESPIT SDG No:

Matrix Spike ID: DF/S1/0194/SDC/019 Level: (low/med) LOW

Lot #: C0G130203 WO #: DG5C710R
 BATCH: 0200512

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	MS CONCENT. (mg/L)	MS % REC	LIMITS REC	QUAL
Lindane	0.00250	ND	0.00168	67	30 - 148	
Heptachlor	0.00250	ND	0.00208	83	25 - 135	
Heptachlor epoxide	0.00250	ND	0.00208	83	38 - 138	
Endrin	0.00250	ND	0.00232	93	28 - 148	
Methoxychlor	0.00250	ND	0.00230	92	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:

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Matrix Spike ID: DF/S1/0194/SDC/019

Level. (low/med) LOW

Lot #: COG130203

WO #: DG5C710T

BATCH: 0200512

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENT. (mg/L)	MSD		QC LIMITS		QUAL
			% REC	% RPD	RPD	REC	
Lindane	0.00250	0.00172	69	2.5	22	30 - 148	
Heptachlor	0.00250	0.00214	86	3.0	32	25 - 135	
Heptachlor epoxide	0.00250	0.00211	84	1.5	31	38 - 138	
Endrin	0.00250	0.00238	95	2.8	40	28 - 148	
Methoxychlor	0.00250	0.00237	95	2.9	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:

SW846 8081A METHOD BLANK SUMMARY

BLANK WORKORDER NO.

DGELX101

Lab Name: Severn Trent Laboratories, Inc.

Lab Code: QESPIT

Lab File ID: d-a4379.d

Matrix: SOLID

Date Analyzed(1): 07/19/00

Time Analyzed(1): 22:17

Instrument ID(1): G/H

GC Column(1): DB608/1701 ID: 053

SDG Number:

Lot Number: COG130203

Extraction Method: 1311/3510

Date Extracted: 07/18/00

Date Analyzed(2): N/A

Time Analyzed(2): N/A

Instrument ID(2): N/A

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 CHECK SAMPLE	DGELX102 C	07/19/00	N/A
02 DF/S1/0194/SDC/020	DG5CG104	07/20/00	N/A
03 DF/S1/0194/GRAB/004	DG5CK104	07/20/00	N/A
04 DF/S1/0194/SDC/019	DG5C710R S	07/19/00	N/A
05 DF/S1/0194/SDC/019	DG5C710T D	07/19/00	N/A
06 DF/S1/0194/SDC/019	DG5C7104	07/20/00	N/A
07			
08			
09			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			

COMMENTS:

HERBICIDE SUMMARY

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: COG130203 001

Method: SW846 8151A

Herbicides (8151A)

Sample WT/Vol: 100 / mL

Date Received: 07/13/00

Work Order: DG5C7105

Date Extracted: 07/18/00

Dilution factor: 1

Date Analyzed: 07/19/00

QC Batch: 0200509

Client Sample Id: DF/S1/0194/SDC/019

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg)	mg/L
94-75-7	2,4-D	0.040	U
93-72-1	2,4,5-TP (Silvex)	0.010	U

UXB INTERNATIONAL
MATRIX SPIKE COMPOUNDS

664 55

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

Matrix: (soil/water) SOLID Lab Sample ID: C0G130203 001
Method: SW846 8151A
Herbicides (8151A)

Sample WT/Vol: 100 / mL Date Received: 07/13/00
Work Order: DG5C710W Date Extracted: 07/18/00
Dilution factor: 1 Date Analyzed: 07/19/00

QC Batch: 0200509

Client Sample Id: DF/S1/0194/SDC/019

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
94-75-7	2,4-D	0.140	
93-72-1	2,4,5-TP (Silvex)	0.0351	

FORM I

UXB INTERNATIONAL
 MATRIX SPIKE DUPLICATE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: COG130203 001

Method: SW846 8151A

Herbicides (8151A)

Sample WT/Vol: 100 / mL

Date Received: 07/13/00

Work Order: DG5C710X

Date Extracted: 07/18/00

Dilution factor: 1

Date Analyzed: 07/19/00

QC Batch: 0200509

Client Sample Id: DF/S1/0194/SDC/019

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg)	mg/L
94-75-7	2,4-D	0.149	
93-72-1	2,4,5-TP (Silvex)	0.0357	

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: COG130203 002

Method: SW846 8151A

Herbicides (8151A)

Sample WT/Vol: 100 / mL

Date Received: 07/13/00

Work Order: DG5CG105

Date Extracted: 07/18/00

Dilution factor: 1

Date Analyzed: 07/19/00

QC Batch: 0200509

Client Sample Id: DF/S1/0194/SDC/020

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/kg)	mg/L	
94-75-7	2,4-D	0.040		U
93-72-1	2,4,5-TP (Silvex)	0.010		U

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

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

Lab Sample ID: C0G130203 003

Sample WT/Vol: 100 / mL
Work Order: DG5CK105
Dilution factor: 1

Date Received: 07/13/00
Date Extracted: 07/18/00
Date Analyzed: 07/19/00

QC Batch: 0200509

Client Sample Id: DF/S1/0194/GRAB/004

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg)	mg/L
94-75-7	2,4-D	0.040	U
93-72-1	2,4,5-TP (Silvex)	0.010	U

UXB INTERNATIONAL
CHECK SAMPLE COMPOUNDS

664 59

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

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

Lab Sample ID: COG180000 509

Sample WT/Vol: 100 / mL
Work Order: DGELF102
Dilution factor: 1

Date Received: 07/13/00
Date Extracted: 07/18/00
Date Analyzed: 07/19/00

QC Batch: 0200509

Client Sample Id: CHECK SAMPLE

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg)	mg/L
94-75-7	2,4-D	0.123	
93-72-1	2,4,5-TP (Silvex)	0.0336	

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

QESSDG:

Lot #: C0G130203

	CLIENT ID.	SRG01	TOT OUT
01	DF/S1/0194/SDC/020	58	00
02	DF/S1/0194/GRAB/004	59	00
03	DF/S1/0194/SDC/019	52	00
04	METHOD BLK. DGELF101	84	00
05	LCS DGELF102	93	00
06	DF/S1/0194/SDC/019 D	67	00
07	DF/S1/0194/SDC/019 S	79	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

664 . 61

Lab Name: Severn-Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Lot #: COG180000

WO #: DGELF102

BATCH: 0200509

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	% REC	QC LIMITS REC	QUAL
2,4-D	0.160	0.123	77	28 - 136	
2,4,5-TP (Silvex)	0.0400	0.0336	84	50 - 128	

in 7/21/00

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/S1/0194/SDC/019

Lot #: COG130203

WO #: DG5C710W

BATCH: 0200509

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	MS CONCENT. (mg/L)	MS % REC	LIMITS REC	QUAL
2,4-D	0.160	ND	0.140	87	35 - 133	
2,4,5-TP (Silvex)	0.0400	ND	0.0351	88	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:

SW846 8151A MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

664 63

Lab Name: Severn-Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Matrix Spike ID: DF/S1/0194/SDC/019

Lot #: COG130203

WO #: DG5C710X

BATCH: 0200509

COMPOUND	SPIKE	MSD	MSD	QC LIMITS		QUAL
	ADDED (mg/L)	CONCENT. (mg/L)	% REC	% RPD	RPD REC	
2,4-D	0.160	0.149	93	6.4	20	35- 133
2,4,5-TP (Silvex)	0.0400	0.0357	89	1.6	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

DGELF101

Lab Name: Severn Trent Laboratories, Inc.

Lab Code: QESPIT

SDG Number:

Lab File ID: a-b40295.

Lot Number: COG130203

Matrix: SOLID

Extraction Method:

Date Extracted: 07/18/00

Date Analyzed(1): 07/19/00

Date Analyzed(2): N/A

Time Analyzed(1): 14:51

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	CHECK SAMPLE	DGELF102 C	07/19/00	N/A
02	DF/S1/0194/SDC/020	DG5CG105	07/19/00	N/A
03	DF/S1/0194/GRAB/004	DG5CK105	07/19/00	N/A
04	DF/S1/0194/SDC/019	DG5C710W S	07/19/00	N/A
05	DF/S1/0194/SDC/019	DG5C710X D	07/19/00	N/A
06	DF/S1/0194/SDC/019	DG5C7105	07/19/00	N/A
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

COMMENTS:

METALS SUMMARY

Metals Data Reporting Form

Sample Results

Lab Sample ID: DG5C7 Client ID: DF/S1/0194/SDC/019
 Matrix: Soil Units: mg/kg Prep Date: 7/14/00 Prep Batch: 0196219
 Weight: 1.00 Volume: 100 Percent Moisture: 14.71

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	7/17/00	13:22

Comments: Lot #: C0G130203 Sample #: 1

Version 3.63.5

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

Form 1 Equivalent

Metals Data Reporting Form

Sample Results

Lab Sample ID: DG5CG Client ID: DF/S1/0194/SDC/020
 Matrix: Soil Units: mg/kg Prep Date: 7/14/00 Prep Batch: 0196219
 Weight: 1.00 Volume: 100 Percent Moisture: 11.69

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Arsenic	189.04	0.29	1.1	11.0		1	ICPST	7/17/00	13:39

Comments: Lot #: C0G130203 Sample #: 2

Version 3.63.5

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

Form 1 Equivalent

Metals Data Reporting Form

Sample Results

Lab Sample ID: DG5CK Client ID: DF/S1/0194/SDC/004
 Matrix: Soil Units: mg/kg Prep Date: 7/14/00 Prep Batch: 0196219
 Weight: 1.00 Volume: 100 Percent Moisture: 18.45

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Arsenic	189.04	0.31	1.2	10.9		1	ICPST	7/17/00	13:43

Comments: Lot #: C0G130203 Sample #: 3

Version 3.63.5

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

Form 1 Equivalent

Metals Data Reporting Form

Initial Calibration Blank Results

Instrument: ICPST

Units: ug/L

Chart Number: T00717C.ARC

Standard Source: _____

Standard ID: _____

Element	WL/ Mass	Report Limit	ICB1 7/17/00 12:10 PM		Found	Q	Found	Q	Found	Q	Found	Q
			Found	Q								
Arsenic	189.042	10	2.6	U								

Metals Data Reporting Form

Continuing Calibration Blank Results

Instrument: ICPST

Units: ug/L

Chart Number: T00717C.ARC

Standard Source: _____

Standard ID: _____

Element	WL/ Mass	Report Limit	CCB1 7/17/00 1:02 PM		CCB2 7/17/00 1:51 PM		Found	Q	Found	Q
			Found	Q	Found	Q				
Arsenic	189.042	10	2.6	U	2.6	U				

Metals Data Reporting Form

Preparation Blank Results

Lab Sample ID: DG7ANB

Matrix: Soil Units: mg/kg Prep Date: 7/14/00 Prep Batch: 0196219

Weight: 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	7/17/00	13:14

Comments: Lot #: C0G130203

Metals Data Reporting Form

Matrix Spike Sample Results

Spike Sample ID: DG5C7S
 Original Sample ID: DG5C7 Client ID: DF/S1/0194/SDC/019S
 Matrix: Soil Units: mg/kg Prep Date: 7/14/00 Prep Batch: 0196219
 Weight: 1.00 Volume: 100 Percent Moisture: 14.71

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		211		234.49	86.0	1	1	ICPST	7/17/00	13:22	7/17/00	13:31

Comments: Lot #: C0G130203 Sample #: 1

Version 3.63.5

- 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 Sample Results

Spike Sample ID: DG5C7D
 Original Sample ID: DG5C7 Client ID: DF/S1/0194/SDC/019D
 Matrix: Soil Units: mg/kg Prep Date: 7/14/00 Prep Batch: 0196219
 Weight: 1.00 Volume: 100 Percent Moisture: 14.71

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		211		234.49	85.9	1	1	ICPST	7/17/00	13:22	7/17/00	13:35

Comments: Lot #: C0G130203 Sample #: 1

Version 3.63.5

- 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 SA Equivalent

Metals Data Reporting Form

Matrix Spike Duplicate RPD Report

Matrix Spike Duplicate Sample ID: DG5C7DMatrix Spike Sample ID: DG5C7S Client ID: DF/S1/0194/SDC/019DMatrix: Soil Units: mg/kg Prep Date: 7/14/00 Prep Batch: 0196219Weight: 1.00 Volume: 100 Percent Moisture: 14.71

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	211		211		0.1 %	1	1	ICPST	7/17/00	13:31	7/17/00	13:35

Comments: Lot #: C0G130203 Sample #: 1

Version 3.63.5

- 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

Laboratory Control Sample Results

Lab Sample ID: DG7ANC
 Matrix: Soil Units: mg/kg Prep Date: 7/14/00 Prep Batch: 0196219
 Weight: 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	196	98.2		80-120	1	ICPST	7/17/00	13:18

Comments: Lot #: C0G130203

TCLP METALS SUMMARY

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: DG5C7T **Client ID:** DF/S1/0194/SDC/019
Matrix: Water **Units:** mg/L **Prep Date:** 7/19/00 **Prep Batch:** 0200349
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	7/19/00	13:04

Comments: Lot#: C0G130203 Sample#: 1 TCLP Analysis

Version 3.63.5

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

Form 1 Equivalent

Metals Data Reporting Form

Sample Results

Lab Sample ID: DG5CGT **Client ID:** DF/S1/0194/SDC/020
Matrix: Water **Units:** mg/L **Prep Date:** 7/19/00 **Prep Batch:** 0200349
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	7/19/00	13:06

Comments: Lot#: C0G130203 Sample#: 2 TCLP Analysis

Version 3.63.5

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

Form 1 Equivalent

Metals Data Reporting Form

Sample Results

Lab Sample ID: DG5CKT Client ID: DF/S1/0194/SDC/004
 Matrix: Water Units: mg/L Prep Date: 7/19/00 Prep Batch: 0200349
 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	7/19/00	13:08

Comments: Lot#: C0G130203 Sample#: 3 TCLP Analysis

Version 3.63.5

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

Form 1 Equivalent

Metals Data Reporting Form

Sample Results

Lab Sample ID: DG5C7T Client ID: DF/S1/0194/SDC/019
 Matrix: Water Units: mg/L Prep Date: 7/19/00 Prep Batch: 0201254
 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	0.18	B	1	ICP	7/20/00	13:07
Barium	493.41	0.00041	10.0	1.8	B	1	ICP	7/20/00	13:07
Cadmium	228.80	0.0028	0.10	0.0028	U	1	ICP	7/20/00	13:07
Chromium	267.72	0.0038	0.50	0.0038	U	1	ICP	7/20/00	13:07
Lead	220.35	0.025	0.50	69.2		1	ICP	7/20/00	13:07
Selenium	196.03	0.067	0.25	0.067	U	1	ICP	7/20/00	13:07
Silver	328.07	0.0031	0.50	0.0031	U	1	ICP	7/20/00	13:07

Comments: Lot#: C0G130203 Sample#: 1 TCLP Analysis

Version 3.63.5

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

Form I Equivalent

Metals Data Reporting Form

Sample Results

Lab Sample ID: DG5CGT Client ID: DF/S1/0194/SDC/020
 Matrix: Water Units: mg/L Prep Date: 7/19/00 Prep Batch: 0201254
 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	0.19	B	1	ICP	7/20/00	12:54
Barium	493.41	0.00041	10.0	1.7	B	1	ICP	7/20/00	12:54
Cadmium	228.80	0.0028	0.10	0.0028	U	1	ICP	7/20/00	12:54
Chromium	267.72	0.0038	0.50	0.0038	U	1	ICP	7/20/00	12:54
Lead	220.35	0.025	0.50	1.9		1	ICP	7/20/00	12:54
Selenium	196.03	0.067	0.25	0.067	U	1	ICP	7/20/00	12:54
Silver	328.07	0.0031	0.50	0.0031	U	1	ICP	7/20/00	12:54

Comments: Lot#: C0G130203 Sample#: 2 TCLP Analysis

Version 3.63.5

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

Form 1 Equivalent

Metals Data Reporting Form

Sample Results

Lab Sample ID: DG5CKT Client ID: DF/S1/0194/SDC/004
 Matrix: Water Units: mg/L Prep Date: 7/19/00 Prep Batch: 0201254
 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	0.18	B	1	ICP	7/20/00	18:41
Barium	493.41	0.00041	10.0	1.8	B	1	ICP	7/20/00	18:41
Cadmium	228.80	0.0028	0.10	0.0028	U	1	ICP	7/20/00	18:41
Chromium	267.72	0.0038	0.50	0.0038	U	1	ICP	7/20/00	18:41
Lead	220.35	0.025	0.50	0.025	U	1	ICP	7/20/00	18:41
Selenium	196.03	0.067	0.25	0.067	U	1	ICP	7/20/00	18:41
Silver	328.07	0.0031	0.50	0.0031	U	1	ICP	7/20/00	18:41

Comments: Lot#: C0G130203 Sample#: 3 TCLP Analysis

Version 3.63.5

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

Form 1 Equivalent

Metals Data Reporting Form

Initial Calibration Blank Results

Instrument: CVAA

Units: ug/L

Chart Number: 0719HGA.PRN

Standard Source: _____

Standard ID: _____

Element	WL/ Mass	Report Limit	ICBI 7/19/00 11:27 AM		Found	Q	Found	Q	Found	Q	Found	Q
			Found	Q								
Mercury	253.7	0.2	0.0	U								

Metals Data Reporting Form

Initial Calibration Blank Results

Instrument: ICPUnits: ug/LChart Number: J00720A.ARC

Standard Source: _____

Standard ID: _____

Element	WL/ Mass	Report Limit	ICB1 7/20/00 12:33 PM		Found	Q	Found	Q	Found	Q	Found	Q
			Found	Q								
Arsenic	193.696	500	30.3	U								
Barium	493.409	10000	-0.8	B								
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								

Metals Data Reporting Form

Initial Calibration Blank Results

Instrument: ICP

Units: ug/L

Chart Number: J00720B.ARC

Standard Source: _____

Standard ID: _____

Element	WL/ Mass	Report Limit	ICB1 7/20/00 6:29 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	67.4	U								
Silver	328.068	500	3.1	U								

Metals Data Reporting Form

Continuing Calibration Blank Results

Instrument: CVAAUnits: ug/LChart Number: 0719HGA.PRN

Standard Source: _____

Standard ID: _____

Element	WL/ Mass	Report Limit	CCB1 7/19/00 11:31 AM		CCB2 7/19/00 11:49 AM		CCB3 7/19/00 12:09 PM		CCB4 7/19/00 12:29 PM		CCB5 7/19/00 12:50 PM	
			Found	Q	Found	Q	Found	Q	Found	Q	Found	Q
Mercury	253.7	0.2	0.0	B	0.0	U	0.0	U	-0.1	B	0.0	U

Metals Data Reporting Form

Continuing Calibration Blank Results

Instrument: CVAA

Units: ug/L

Chart Number: 0719HGA.PRN

Standard Source: _____

Standard ID: _____

Element	WL/ Mass	Report Limit	CCB6 7/19/00 1:11 PM		CCB7 7/19/00 1:32 PM		Found	Q	Found	Q
			Found	Q	Found	Q				
Mercury	253.7	0.2	0.0	U	-0.1	B				

Metals Data Reporting Form

Continuing Calibration Blank Results

Instrument: ICPUnits: ug/LChart Number: J00720A.ARC

Standard Source: _____

Standard ID: _____

Element	WL/ Mass	Report Limit	CCB1 7/20/00 1:13 PM		Found	Q	Found	Q	Found	Q	Found	Q
			Found	Q								
Arsenic	193.696	500	30.3	U								
Barium	493.409	10000	-1.0	B								
Cadmium	228.802	100	2.8	U								
Chromium	267.716	500	-4.4	B								
Lead	220.353	500	24.6	U								
Selenium	196.026	250	67.4	U								
Silver	328.068	500	3.1	U								

Metals Data Reporting Form

Continuing Calibration Blank Results

Instrument: ICP

Units: ug/L

Chart Number: J00720B.ARC

Standard Source: _____

Standard ID: _____

Element	WL/ Mass	Report Limit	CCBI 7/20/00 6:54 PM		Found	Q	Found	Q	Found	Q	Found	Q
			Found	Q								
Arsenic	193.696	500	30.3	U								
Barium	493.409	10000	3.0	B								
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								

Metals Data Reporting Form

Preparation Blank Results

Lab Sample ID: DGDQKBTMatrix: Water Units: mg/L Prep Date: 7/19/00 Prep Batch: 0200349Weight: 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	7/19/00	13:01

Comments: _____

Version 3.63.5

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

Form 3 Equivalent

Metals Data Reporting Form

Preparation Blank Results

Lab Sample ID: DGE1FBT
 Matrix: Water Units: mg/L Prep Date: 7/19/00 Prep Batch: 0200349
 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	7/19/00	12:58

Comments: _____

Metals Data Reporting Form

Preparation Blank Results

Lab Sample ID: DGDQKBT

Matrix: Water Units: mg/L Prep Date: 7/19/00 Prep Batch: 0201254

Weight: 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	0.19	B	1	ICP	7/20/00	12:51
Barium	493.409	0.00041	10.0	0.00041	U	1	ICP	7/20/00	12:51
Cadmium	228.802	0.0028	0.10	-0.0045	B	1	ICP	7/20/00	12:51
Chromium	267.716	0.0038	0.50	0.0038	U	1	ICP	7/20/00	12:51
Lead	220.353	0.025	0.50	0.025	U	1	ICP	7/20/00	12:51
Selenium	196.026	0.067	0.25	0.067	U	1	ICP	7/20/00	12:51
Silver	328.068	0.0031	0.50	0.0031	U	1	ICP	7/20/00	12:51

Comments: _____

Version 3.63.5

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

Form 3 Equivalent

Metals Data Reporting Form

Preparation Blank Results

Lab Sample ID: DGFEABT

Matrix: Water Units: mg/L Prep Date: 7/19/00 Prep Batch: 0201254

Weight: 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	7/20/00	12:45
Barium	493.409	0.00041	10.0	-0.00092	B	1	ICP	7/20/00	12:45
Cadmium	228.802	0.0028	0.10	0.0028	U	1	ICP	7/20/00	12:45
Chromium	267.716	0.0038	0.50	0.0038	U	1	ICP	7/20/00	12:45
Lead	220.353	0.025	0.50	0.025	U	1	ICP	7/20/00	12:45
Selenium	196.026	0.067	0.25	0.067	U	1	ICP	7/20/00	12:45
Silver	328.068	0.0031	0.50	0.0031	U	1	ICP	7/20/00	12:45

Comments: _____

STL-Pittsburgh
Metals Data Reporting Form

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Matrix Spike Sample Results

Spike Sample ID: DG5CKST
 Original Sample ID: DG5CKT Client ID: DF/S1/0194/SDC/004S
 Matrix: Water Units: mg/L Prep Date: 7/19/00 Prep Batch: 0200349
 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	105.2	1	1	CVAA	7/19/00	13:08	7/19/00	13:12

Comments: _____

Version 3.63.5

- 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 Sample Results

Spike Sample ID: DG5CKDT
 Original Sample ID: DG5CKT Client ID: DF/S1/0194/SDC/004D
 Matrix: Water Units: mg/L Prep Date: 7/19/00 Prep Batch: 0200349
 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	0.0052		0.005	103.4	1	1	CVAA	7/19/00	13:08	7/19/00	13:14

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 Sample Results

Spike Sample ID: DG5CGST
 Original Sample ID: DG5CGT Client ID: DF/S1/0194/SDC/020S
 Matrix: Water Units: mg/L Prep Date: 7/19/00 Prep Batch: 0201254
 Weight: 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	0.19	B	5.0		5	95.2	1	1	ICP	7/20/00	12:54	7/20/00	13:01
Barium	493.4	1.7	B	44.8		50	86.3	1	1	ICP	7/20/00	12:54	7/20/00	13:01
Cadmium	228.8	0.0028	U	0.96		1	95.5	1	1	ICP	7/20/00	12:54	7/20/00	13:01
Chromium	267.7	0.0038	U	4.5		5	89.7	1	1	ICP	7/20/00	12:54	7/20/00	13:01
Lead	220.4	1.9		6.4		5	89.2	1	1	ICP	7/20/00	12:54	7/20/00	13:01
Selenium	196.0	0.067	U	1.0		1	104.0	1	1	ICP	7/20/00	12:54	7/20/00	13:01
Silver	328.1	0.0031	U	0.90		1	90.1	1	1	ICP	7/20/00	12:54	7/20/00	13:01

Comments: _____

Version 3 63.5

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 Sample Results

Spike Sample ID: DG5CGDT
 Original Sample ID: DG5CGT Client ID: DF/S1/0194/SDC/020D
 Matrix: Water Units: mg/L Prep Date: 7/19/00 Prep Batch: 0201254
 Weight: 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	0.19	B	4.8		5	91.7	1	1	ICP	7/20/00	12:54	7/20/00	13:04
Barium	493.4	1.7	B	43.4		50	83.5	1	1	ICP	7/20/00	12:54	7/20/00	13:04
Cadmium	228.8	0.0028	U	0.94		1	93.5	1	1	ICP	7/20/00	12:54	7/20/00	13:04
Chromium	267.7	0.0038	U	4.4		5	86.9	1	1	ICP	7/20/00	12:54	7/20/00	13:04
Lead	220.4	1.9		6.1		5	84.1	1	1	ICP	7/20/00	12:54	7/20/00	13:04
Selenium	196.0	0.067	U	1.0		1	100.9	1	1	ICP	7/20/00	12:54	7/20/00	13:04
Silver	328.1	0.0031	U	0.89		1	89.3	1	1	ICP	7/20/00	12:54	7/20/00	13:04

Comments: _____

- 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

Metals Data Reporting Form

Matrix Spike Duplicate RPD Report

Matrix Spike Duplicate Sample ID: DG5CKDTMatrix Spike Sample ID: DG5CKST Client ID: DF/S1/0194/SDC/004DMatrix: Water Units: mg/L Prep Date: 7/19/00 Prep Batch: 0200349Weight: 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		0.0052		1.7%	1	1	CVAA	7/19/00	13:12	7/19/00	13:14

Comments: _____

Version 3 63.5

- 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: DG5CGDT

Matrix Spike Sample ID: DG5CGST Client ID: DF/S1/0194/SDC/020D

Matrix: Water Units: mg/L Prep Date: 7/19/00 Prep Batch: 0201254

Weight: 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	5.0		4.8		3.7 %	1	1	ICP	7/20/00	13:01	7/20/00	13:04
Barium	493.409	44.8		43.4		3.3 %	1	1	ICP	7/20/00	13:01	7/20/00	13:04
Cadmium	228.802	0.96		0.94		2.1 %	1	1	ICP	7/20/00	13:01	7/20/00	13:04
Chromium	267.716	4.5		4.4		3.1 %	1	1	ICP	7/20/00	13:01	7/20/00	13:04
Lead	220.353	6.4		6.1		5.9 %	1	1	ICP	7/20/00	13:01	7/20/00	13:04
Selenium	196.026	1.0		1.0		3.0 %	1	1	ICP	7/20/00	13:01	7/20/00	13:04
Silver	328.068	0.90		0.89		0.8 %	1	1	ICP	7/20/00	13:01	7/20/00	13:04

Comments: _____

Version 3.63.5

- 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

Laboratory Control Sample Results

Lab Sample ID: DGE1FCTMatrix: Water Units: mg/L Prep Date: 7/19/00 Prep Batch: 0200349Weight: 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	106.4		80-120	1	CVAA	7/19/00	13:02

Comments: _____

Version 3.63.5

U Result is less than the MDL

Form 7 Equivalent

B Result is between MDL and RL

Metals Data Reporting Form

Laboratory Control Sample Results

Lab Sample ID: DGFEACTMatrix: Water Units: mg/L Prep Date: 7/19/00 Prep Batch: 0201254Weight: 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	108.3		80-120	1	ICP	7/20/00	12:48
Barium	493.409	2.0	1.9	95.0	B	80-120	1	ICP	7/20/00	12:48
Cadmium	228.802	0.050	0.045	90.3	B	80-120	1	ICP	7/20/00	12:48
Chromium	267.716	0.20	0.19	94.6	B	80-120	1	ICP	7/20/00	12:48
Lead	220.353	0.50	0.47	94.3	B	80-120	1	ICP	7/20/00	12:48
Selenium	196.026	2.0	2.3	112.7		80-120	1	ICP	7/20/00	12:48
Silver	328.068	0.050	0.042	84.7	B	80-120	1	ICP	7/20/00	12:48

Comments: _____

Version 3.63.5

U Result is less than the MDL

B Result is between MDL and RL

Form 7 Equivalent

GENERAL CHEMISTRY SUMMARY

Client Sample ID: DF/S1/0194/SDC/019

General Chemistry

Lot-Sample #....: COG130203-001 Work Order #....: DG5C7 Matrix.....: SOLID
 Date Sampled....: 07/12/00 Date Received...: 07/13/00
 % Moisture.....: 15

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
pH	8.4		No Units	SW846 9045C	07/14/00	0196130
	Dilution Factor: 1		MS Run #.....: 0196034			
Ignitability	NO	--	No Units	SW846 SECTION 7.1	07/14/00	0196138
	Dilution Factor: 1		MS Run #.....: 0196038			
Percent Solids	85.3		%	MCAWW 160.3 MOD	07/14-07/15/00	0196288
	Dilution Factor: 1		MS Run #.....: 0196151			
Reactive Cyanide	ND	200	mg/kg	SW846 7.3.3	07/17/00	0200389
	Dilution Factor: 1		MS Run #.....: 0200155			
Reactive Sulfide	ND	200	mg/kg	SW846 7.3.4	07/17/00	0200382
	Dilution Factor: 1		MS Run #.....: 0202208			

Client Sample ID: DF/S1/0194/SDC/020

General Chemistry

Lot-Sample #...: COG130203-002 Work Order #...: DG5CG Matrix.....: SOLID
 Date Sampled...: 07/12/00 Date Received...: 07/13/00
 ‡ Moisture.....: 12

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
pH	8.3		No Units	SW846 9045C	07/14/00	0196130
	Dilution Factor: 1		MS Run #.....: 0196034			
Ignitability	NO	--	No Units	SW846 SECTION 7.1	07/14/00	0196138
	Dilution Factor: 1		MS Run #.....: 0196038			
Percent Solids	88.3		‡	MCAWW 160.3 MOD	07/14-07/15/00	0196288
	Dilution Factor: 1		MS Run #.....: 0196151			
Reactive Cyanide	ND	200	mg/kg	SW846 7.3.3	07/17/00	0200389
	Dilution Factor: 1		MS Run #.....: 0200155			
Reactive Sulfide	ND	200	mg/kg	SW846 7.3.4	07/17/00	0200382
	Dilution Factor: 1		MS Run #.....: 0202208			

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UXB INTERNATIONAL

Client Sample ID: DF/S1/0194/GRAB/004

General Chemistry

Lot-Sample #....: COG130203-003 Work Order #....: DG5CK Matrix.....: SOLID
 Date Sampled....: 07/12/00 Date Received...: 07/13/00
 % Moisture.....: 18

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
pH	8.2		No Units	SW846 9045C	07/14/00	0196130
	Dilution Factor: 1		MS Run #.....: 0196034			
Ignitability	NO	--	No Units	SW846 SECTION 7.1	07/14/00	0196138
	Dilution Factor: 1		MS Run #.....: 0196038			
Percent Solids	81.6		%	MCAWW 160.3 MOD	07/14-07/15/00	0196288
	Dilution Factor: 1		MS Run #.....: 0196151			
Reactive Cyanide	ND	200	mg/kg	SW846 7.3.3	07/17/00	0200389
	Dilution Factor: 1		MS Run #.....: 0200155			
Reactive Sulfide	ND	200	mg/kg	SW846 7.3.4	07/17/00	0200382
	Dilution Factor: 1		MS Run #.....: 0202208			

General Chemistry

Client Lot #...: COG130203

Matrix.....: SOLID

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Reactive Cyanide	ND	Work Order #: DGE4K101 200	mg/kg	MB Lot-Sample #: SW846 7.3.3	AOG180000-389 07/17/00	0200389
		Dilution Factor: 1				
Reactive Sulfide	ND	Work Order #: DGE40101 200	mg/kg	MB Lot-Sample #: SW846 7.3.4	AOG180000-382 07/17/00	0200382
		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 #....: COG130203

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 #: DG6WL101 (85 - 115)	LCS Lot-Sample#: COG140000-130 SW846 9045C	07/14/00	0196130

Dilution Factor: 1

NOTE(S) :

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

SAMPLE DUPLICATE EVALUATION REPORT

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General Chemistry

Client Lot #...: C0G130203

Work Order #...: DG1JM-SMP
DG1JM-DUP

Matrix.....: SOLID

Date Sampled...: 07/11/00

Date Received...: 07/11/00

* Moisture.....: 14

<u>PARAM</u>	<u>RESULT</u>	<u>DUPLICATE</u>	<u>UNITS</u>	<u>RPD</u>	<u>RPD</u>	<u>LIMIT</u>	<u>METHOD</u>	<u>PREPARATION-</u>	<u>PREP</u>
		<u>RESULT</u>						<u>ANALYSIS DATE</u>	<u>BATCH #</u>
Reactive Cyanide	ND	ND	mg/kg	0	(0-20)	SW846 7.3.3	SD Lot-Sample #: AOG110212-001	07/17/00	0200389
							Dilution Factor: 1		
							Prep Date.....: 0200155	Analysis Date...:	Prep Batch #...:
Reactive Sulfide	ND	ND	mg/kg	0	(0-20)	SW846 7.3.4	SD Lot-Sample #: AOG110212-001	07/17/00	0200382
							Dilution Factor: 1		
							Prep Date.....: 0202208	Analysis Date...:	Prep Batch #...:

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GC/MS VOLATILE DATA

**GC/MS VOLATILE
QC SUMMARY**

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

QESSDG:

Lot #: COG130203

	CLIENT ID.	SRG01	SRG02	SRG03	SRG04	TOT OUT
01	DF/S1/0194/SDC/020	94	92	97	85	00
02	DF/S1/0194/GRAB/004	102	101	105	90	00
03	DF/S1/0194/SDC/019	99	97	102	85	00
04	METHOD BLK. DGF6V101	90	89	93	81	00
05	LCS DGF6V102	101	103	102	101	00
06	DF/S1/0194/SDC/019 D	94	94	94	95	00
07	DF/S1/0194/SDC/019 S	102	93	99	99	00

<u>SURROGATES</u>		<u>QC LIMITS</u>
SRG01	= Dibromofluoromethane	(78-110)
SRG02	= 1,2-Dichloroethane-d4	(77-120)
SRG03	= Toluene-d8	(78-111)
SRG04	= 4-Bromofluorobenzene	(80-114)

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 #: C0G190000

WO #: DGF6V102

BATCH: 0201215

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	% REC	QC LIMITS REC	QUAL
Benzene	0.500	0.466	93	79 - 116	
2-Butanone	0.500	0.340	68	35 - 156	
Carbon tetrachloride	0.500	0.476	95	72 - 133	
Chlorobenzene	0.500	0.443	89	81 - 115	
Chloroform	0.500	0.464	93	81 - 122	
1,2-Dichloroethane	0.500	0.460	92	73 - 127	
1,1-Dichloroethene	0.500	0.505	101	65 - 119	
Tetrachloroethene	0.500	0.438	88	78 - 131	
Trichloroethene	0.500	0.451	90	80 - 122	
Vinyl chloride	0.500	0.492	98	53 - 134	

NOTES (S) :

* Values outside of QC limits

Spike Recovery: 0 out of 10 outside limits

COMMENTS:

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Matrix Spike ID: DF/S1/0194/SDC/019

Level: (low/med) LOW

Lot #: COG130203

WO #: DG5C7110

BATCH: 0201215

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	MS CONCENT. (mg/L)	MS % REC	LIMITS REC	QUAL
Benzene	0.500	ND	0.450	90	73- 123	
2-Butanone	0.500	ND	0.309	62	10- 151	
Carbon tetrachloride	0.500	ND	0.440	88	61- 143	
Chlorobenzene	0.500	ND	0.425	85	70- 122	
Chloroform	0.500	ND	0.456	91	65- 131	
1,2-Dichloroethane	0.500	ND	0.441	88	67- 132	
1,1-Dichloroethene	0.500	ND	0.478	96	57- 138	
Tetrachloroethene	0.500	ND	0.423	85	70- 130	
Trichloroethene	0.500	ND	0.441	88	58- 141	
Vinyl chloride	0.500	ND	0.480	96	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 limits

Spike Recovery: 0 out of 10 outside limits

COMMENTS:

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Matrix Spike ID: DF/S1/0194/SDC/019

Level: (low/med) LOW

Lot #: COG130203

WO #: DG5C7111

BATCH: 0201215

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENT. (mg/L)	MSD		QC LIMITS		QUAL
			% REC	% RPD	RPD	REC	
Benzene	0.500	0.440	88	2.2	20	73 - 123	
2-Butanone	0.500	0.316	63	2.0	34	10 - 151	
Carbon tetrachloride	0.500	0.434	87	1.5	20	61 - 143	
Chlorobenzene	0.500	0.424	85	0.14	20	70 - 122	
Chloroform	0.500	0.437	87	4.4	20	65 - 131	
1,2-Dichloroethane	0.500	0.428	86	3.0	20	67 - 132	
1,1-Dichloroethene	0.500	0.468	94	2.2	20	57 - 138	
Tetrachloroethene	0.500	0.414	83	2.1	20	70 - 130	
Trichloroethene	0.500	0.427	85	3.3	20	58 - 141	
Vinyl chloride	0.500	0.460	92	4.3	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:

664 116

SW846 8260B METHOD BLANK SUMMARY

BLANK WORKORDER NO.

DGF6V101

Lab Name: Severn Trent Laboratories, Inc.

Lab Code: QESPIT

SDG Number:

Lab File ID: 3071902.D

Lot Number: COG130203

Date Analyzed: 07/19/00

Time Analyzed: 08:53

Matrix: SOLID

Date Extracted:07/19/00

GC Column: RTX-624 ID: .18

Extraction Method: 1311/5030B

Instrument ID: HP3

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	CHECK SAMPLE	DGF6V102 C	3071910.D	07/19/00	12:01
02	DF/S1/0194/SDC/020	DG5CG102	3071906.D	07/19/00	10:26
03	DF/S1/0194/GRAB/004	DG5CK102	3071908.D	07/19/00	11:11
04	DF/S1/0194/SDC/019	DG5C7102	3071904.D	07/19/00	09:40
05	DF/S1/0194/SDC/019	DG5C7110 S	3071911.D	07/19/00	12:23
06	DF/S1/0194/SDC/019	DG5C7111 D	3071912.D	07/19/00	12:46
07					
08					
09					
10					
11					
12					
13					
14					
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29					
30					

COMMENTS:

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

664 117

Lab Name: STL PITTSBURGH Contract:
 Lab Code: STLPIT Case No.: SAS No.: SDG No.: 30718D
 Lab File ID: BF30718 BFB Injection Date: 07/18/00
 Instrument ID: HP3 BFB Injection Time: 0521
 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	17.9
75	30.0 - 60.0% of mass 95	48.7
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.4
173	Less than 2.0% of mass 174	0.5 (0.8)1
174	50.0 - 100.0% of mass 95	67.6
175	5.0 - 9.0% of mass 174	4.5 (6.7)1
176	95.0 - 101.0% of mass 174	65.9 (97.5)1
177	5.0 - 9.0% of mass 176	4.5 (6.9)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	1C30718	07/18/00	0614
02	VSTD100	VSTD100	1D30718	07/18/00	0955
03	VSTD200	VSTD200	1E30718	07/18/00	1017
04	VSTD20	VSTD20	3B30718	07/18/00	1239
05	VSTD5	VSTD5	4A30718	07/18/00	1316
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: STL PITTSBURGH

Contract:

Lab Code: STLPIT Case No.:

SAS No.:

SDG No.: C0G130203

Lab File ID: BF30719

BFB Injection Date: 07/19/00

Instrument ID: HP3

BFB Injection Time: 0537

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	18.1
75	30.0 - 60.0% of mass 95	47.6
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.5 (0.7)1
174	50.0 - 100.0% of mass 95	67.1
175	5.0 - 9.0% of mass 174	4.7 (7.0)1
176	95.0 - 101.0% of mass 174	66.4 (98.9)1
177	5.0 - 9.0% of mass 176	4.6 (7.0)2

1-Value is % mass 174

2-Value is % mass 176

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

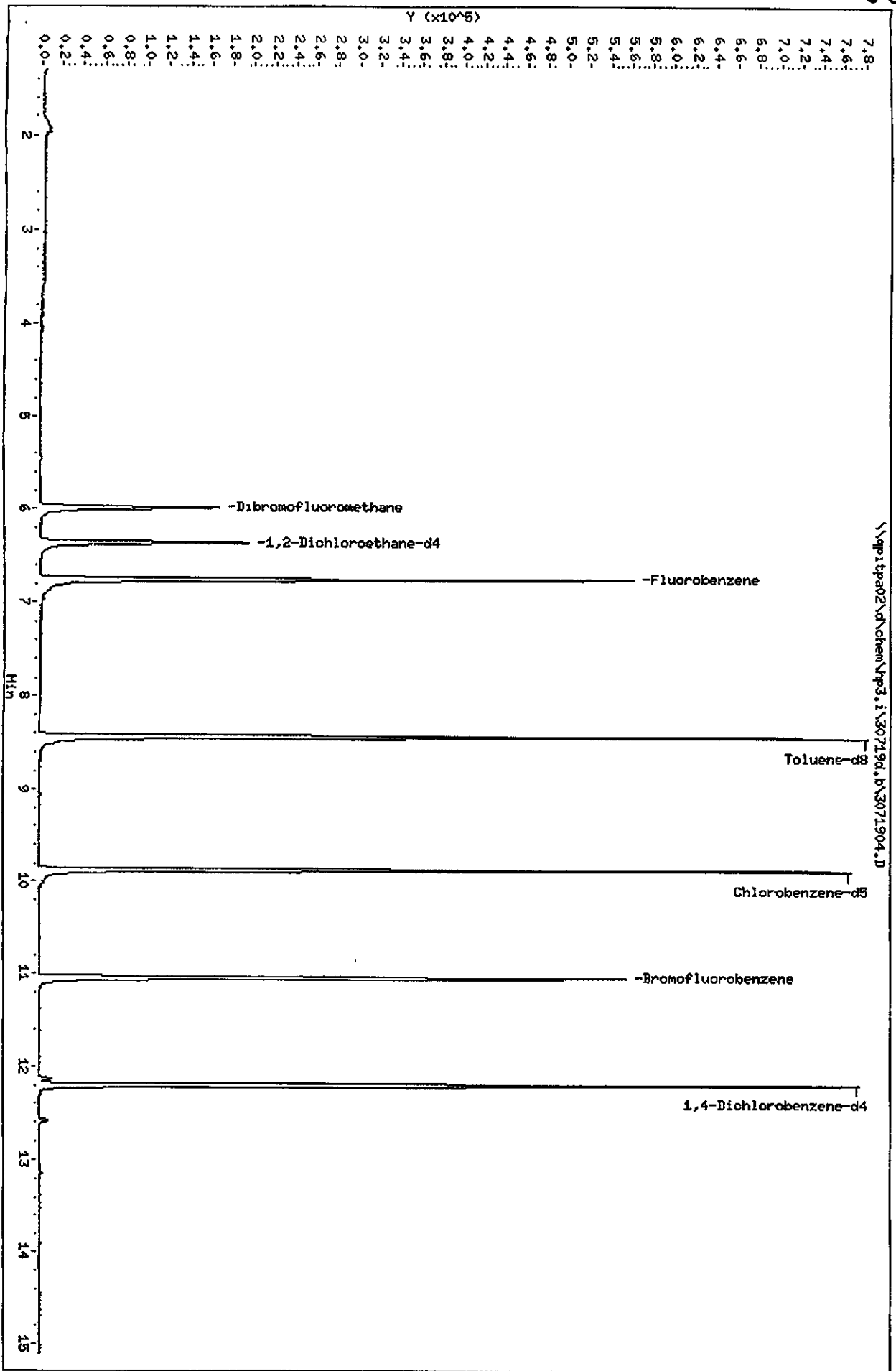
	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD50	VSTD50	CC30718	07/19/00	0559
02	INTRA-LAB BL	DGF6V101	3071902	07/19/00	0853
03	DF/S1/0194/S	DG5C7102	3071904	07/19/00	0940
04	DF/S1/0194/S	DG5CG102	3071906	07/19/00	1026
05	DF/S1/0194/S	DG5CK102	3071908	07/19/00	1111
06	INTRA-LAB CH	DGF6V102	3071910	07/19/00	1201
07	DF/S1/0194/S	DG5C7110	3071911	07/19/00	1223
08	DF/S1/0194/S	DG5C7111	3071912	07/19/00	1246
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

664 120

**GC/MS VOLATILE
SAMPLE DATA**

Data File: \\pptpa02\chem\mp3.i\30719d.b\3071904.D
Date: 19-JUL-2000 09:40
Client ID: DF/S1/0194/SDC/109
Sample Info: C06130203-001 (1ml/10ml)/En1
Purge Volume: 5.0
Column phase: DB 624

Instrument: mp3.i
Operator: 10099
Column diameter: 0.18



STL Pittsburgh

VOLATILE REPORT SW-846 Method

Data file : \\qpitpa02\d\chem\hp3.i\30719d.b\3071904.D
 Lab Smp Id: DG5C7102 Client Smp ID: DF/S1/0194/SDC/109
 Inj Date : 19-JUL-2000 09:40 MS Autotune Date: 20-FEB-1997 10:53
 Operator : 10099 Inst ID: hp3.i
 Smp Info : COG130203-001 (1ml/10ml)/5ml
 Misc Info : dg5c7102,30719d.b,8260bh2o.m,tclp.sub
 Comment :
 Method : \\qpitpa02\d\chem\hp3.i\30719d.b\8260bh2o.m
 Meth Date : 19-Jul-2000 06:35 gordonk Quant Type: ISTD
 Cal Date : 18-JUL-2000 13:16 Cal File: 4A30718.D
 Als bottle: 11
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.04
 Processing Host: PITPC076

KLG
7/19/00 Compound Sublist: tclp.sub

Concentration Formula: Amt * DF * 1/Vo*Vt

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	Sample Volume
Vt	1.000	mg/L conversion (1.0 if no conversion)

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng)	FINAL (UG/L)
* 46 Fluorobenzene	96		6.754	6.751	(1.000)	546856	250.000	
* 69 Chlorobenzene-d5	119		9.874	9.871	(1.000)	142262	250.000	
* 92 1,4-Dichlorobenzene-d4	152		12.191	12.194	(1.000)	202871	250.000	
\$ 39 Dibromofluoromethane	113		5.988	5.997	(0.887)	131732	248.151	49.63
\$ 43 1,2-Dichloroethane-d4	65		6.359	6.356	(0.941)	159192	242.273	48.45
\$ 59 Toluene-d8	98		8.432	8.430	(0.854)	525767	255.304	51.06
\$ 80 Bromofluorobenzene	95		11.041	11.039	(1.118)	195562	213.307	42.66
3 Vinyl Chloride	62		Compound Not Detected.					
12 1,1-Dichloroethene	96		Compound Not Detected.					
31 2-Butanone	43		Compound Not Detected.					
37 Chloroform	83		Compound Not Detected.					
41 Carbon Tetrachloride	117		Compound Not Detected.					
42 Benzene	78		Compound Not Detected.					
45 1,2-Dichloroethane	62		Compound Not Detected.					
47 Trichloroethene	130		Compound Not Detected.					
65 Tetrachloroethene	164		Compound Not Detected.					

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

UXB INTERNATIONAL

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

Matrix: (soil/water) SOLID Lab Sample ID: COG130203 002
 Method: SW846 8260B
 Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 07/13/00
 Work Order: DG5CG102 Date Extracted: 07/19/00
 Dilution factor: 1 Date Analyzed: 07/19/00
 Moisture %: 12

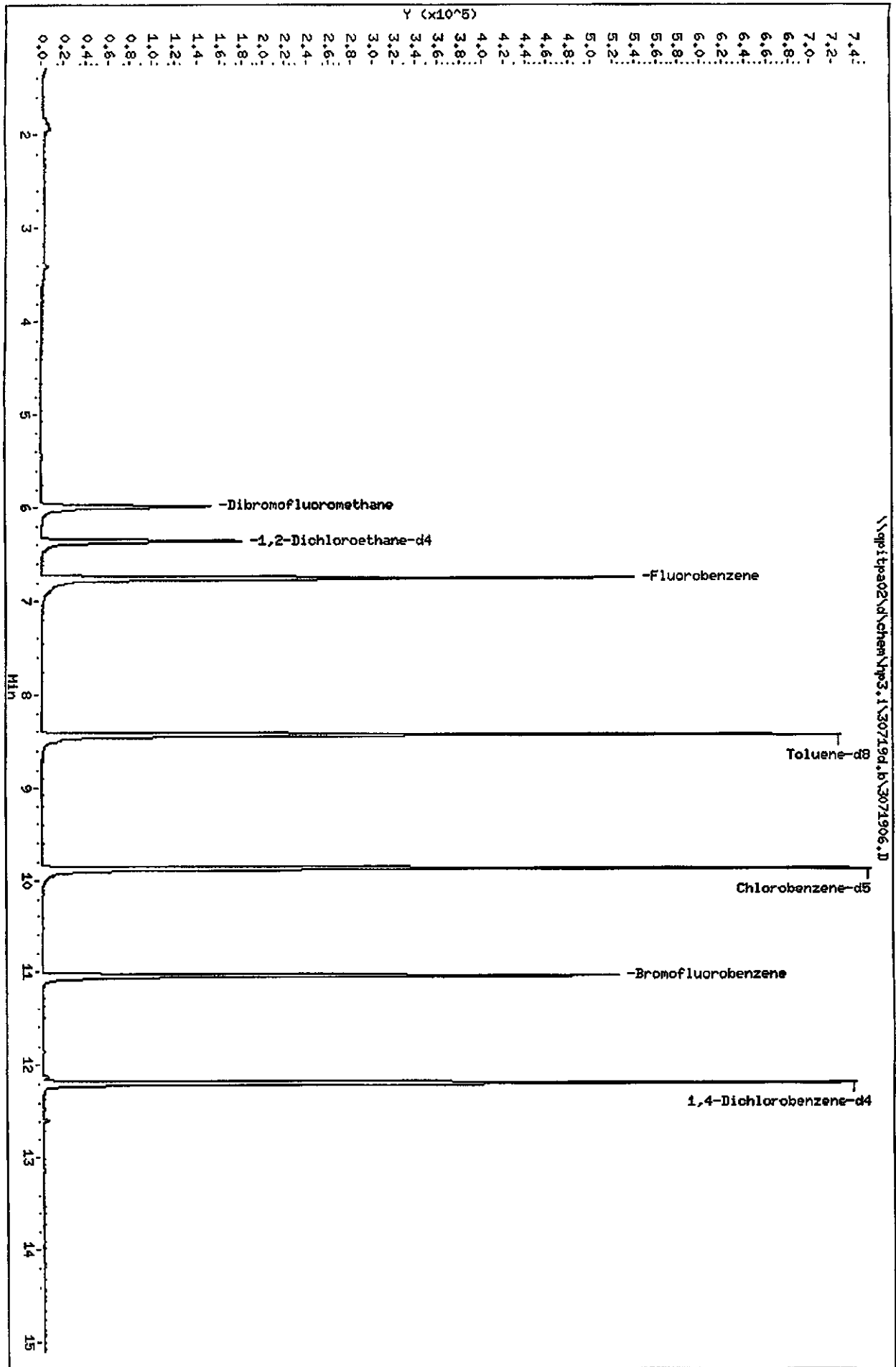
Client Sample Id: DF/S1/0194/SDC/020 QC Batch: 0201215

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

FORM I

Data File: \\qpltpa02\chem\hp3.1\30719d.b\3071906.D
 Date: 19-JUL-2000 10:26
 Client ID: DF/SL/0194/SHC/020
 Sample Info: C06130203-002 (IHL/10HIL)/SHL
 Purge Volume: 5.0
 Column phase: DB 624

Instrument: hp3.1
 Operator: 10099
 Column diameter: 0.18



Data File: \\qpitpa02\d\chem\hp3.i\30719d.b\3071906.D
 Report Date: 19-Jul-2000 10:57

STL Pittsburgh

VOLATILE REPORT SW-846 Method

Data file : \\qpitpa02\d\chem\hp3.i\30719d.b\3071906.D
 Lab Smp Id: DG5CG102 Client Smp ID: DF/S1/0194/SDC/020
 Inj Date : 19-JUL-2000 10:26 MS Autotune Date: 20-FEB-1997 10:53
 Operator : 10099 Inst ID: hp3.i
 Smp Info : C0G130203-002 (1ML/10ML)/5ML
 Misc Info : dg5cg102,30719d.b,8260bh2o.m,tclp.sub
 Comment :
 Method : \\QPITPA02\D\chem\hp3.i\30719d.b\8260bh2o.m
 Meth Date : 19-Jul-2000 06:35 gordonk Quant Type: ISTD
 Cal Date : 18-JUL-2000 13:16 Cal File: 4A30718.D
 Als bottle: 13
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: tclp.sub
 Target Version: 4.04
 Processing Host: PITPC073

KLG
7/19/00

Concentration Formula: Amt * DF * 1/Vo*Vt

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	Sample Volume
Vt	1.000	mg/L conversion (1.0 if no conversion)

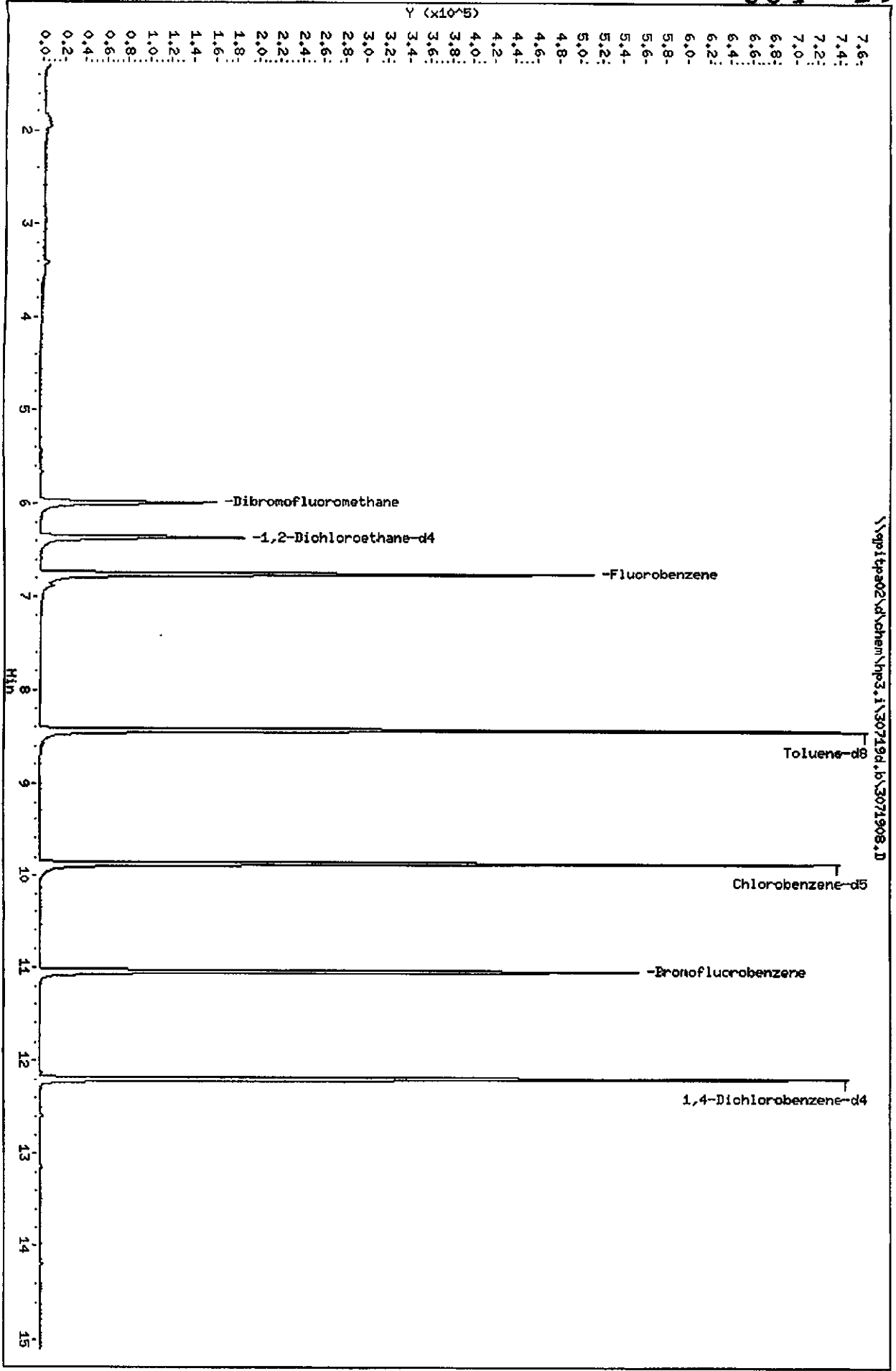
Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng)	FINAL (UG/L)
* 46 Fluorobenzene	96		6.754	6.751	(1.000)	539362	250.000	
* 69 Chlorobenzene-d5	119		9.873	9.871	(1.000)	139382	250.000	
* 92 1,4-Dichlorobenzene-d4	152		12.190	12.194	(1.000)	199163	250.000	
\$ 39 Dibromofluoromethane	113		5.987	5.997	(0.887)	123322	235.536	47.11
\$ 43 1,2-Dichloroethane-d4	65		6.358	6.356	(0.941)	149088	230.048	46.01
\$ 59 Toluene-d8	98		8.432	8.430	(0.854)	488965	242.340	48.47
\$ 80 Bromofluorobenzene	95		11.041	11.039	(1.118)	190000	211.522	42.30
3 Vinyl Chloride	62		Compound Not Detected.					
12 1,1-Dichloroethene	96		Compound Not Detected.					
31 2-Butanone	43		Compound Not Detected.					
37 Chloroform	83		Compound Not Detected.					
41 Carbon Tetrachloride	117		Compound Not Detected.					
42 Benzene	78		Compound Not Detected.					
45 1,2-Dichloroethane	62		Compound Not Detected.					
47 Trichloroethene	130		Compound Not Detected.					
65 Tetrachloroethene	164		Compound Not Detected.					

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng)	FINAL (UG/L)
----- 70 Chlorobenzene	==== 112	==	=====	=====	-----	-----	

Compound Not Detected.

Data File: \\sp1tpa02\chem\hp3.1\30719d.b\3071908.D
Date: 19-JUL-2000 11:11
Client ID: DF/SL/0194/SDC/004
Sample Info: C06130203-003 (1ML/10ML)/5HL
Purge Volume: 5.0
Column phase: DB 624

Instrument: hp3.1
Operator: 10099
Column diameter: 0.18



Data File: \\qpitpa02\d\chem\hp3.i\30719d.b\3071908.D
 Report Date: 19-Jul-2000 11:52

STL Pittsburgh

VOLATILE REPORT SW-846 Method

Data file : \\qpitpa02\d\chem\hp3.i\30719d.b\3071908.D
 Lab Smp Id: DG5CK102 Client Smp ID: DF/S1/0194/SDC/004
 Inj Date : 19-JUL-2000 11:11 MS Autotune Date: 20-FEB-1997 10:53
 Operator : 10099 Inst ID: hp3.i
 Smp Info : C0G130203-003 (1ML/10ML)/5ML
 Misc Info : dg5ck102,30719d.b,8260bh2o.m,tclp.sub
 Comment :
 Method : \\qpitpa02\d\chem\hp3.i\30719d.b\8260bh2o.m
 Meth Date : 19-Jul-2000 06:35 gordonk Quant Type: ISTD
 Cal Date : 18-JUL-2000 13:16 Cal File: 4A30718.D
 Als bottle: 15
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.04
 Processing Host: PITPC076

*KG
7/19/00*

Compound Sublist: tclp.sub

Concentration Formula: Amt * DF * 1/Vo*Vt

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	Sample Volume
Vt	1.000	mg/L conversion (1.0 if no conversion)

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng)	FINAL (UG/L)
* 46 Fluorobenzene	96		6.756	6.751	(1.000)	514339	250.000	
* 69 Chlorobenzene-d5	119		9.869	9.871	(1.000)	136934	250.000	
* 92 1,4-Dichlorobenzene-d4	152		12.192	12.194	(1.000)	193268	250.000	
\$ 39 Dibromofluoromethane	113		5.989	5.997	(0.887)	127102	254.566	50.91
\$ 43 1,2-Dichloroethane-d4	65		6.360	6.356	(0.941)	155660	251.874	50.37
\$ 59 Toluene-d8	98		8.434	8.430	(0.855)	517956	261.297	52.26
\$ 80 Bromofluorobenzene	95		11.043	11.039	(1.119)	199392	225.946	45.19
3 Vinyl Chloride	62		Compound Not Detected.					
12 1,1-Dichloroethene	96		Compound Not Detected.					
31 2-Butanone	43		Compound Not Detected.					
37 Chloroform	83		Compound Not Detected.					
41 Carbon Tetrachloride	117		Compound Not Detected.					
42 Benzene	78		Compound Not Detected.					
45 1,2-Dichloroethane	62		Compound Not Detected.					
47 Trichloroethene	130		Compound Not Detected.					
65 Tetrachloroethene	164		Compound Not Detected.					

Data File: \\qpitpa02\d\chem\hp3.i\30719d.b\3071908.D
Report Date: 19-Jul-2000 11:52

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng)	FINAL (UG/L)
----- 70 Chlorobenzene	112						

Compound Not Detected.

**GC/MS VOLATILE
CALIBRATION DATA**

6A
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: STL PITTSBURGH

Contract:

664 134

Lab Code: STLPIT

Case No.:

SAS No.:

SDG No.: 30718D

Instrument ID: HP3

Calibration Date(s): 07/18/00

07/18/00

Heated Purge: (Y/N) N

Calibration Time(s): 0614

1316

GC Column: DB 624 ID: 0.18 (mm)

LAB FILE ID:		RRF5 =4A30718		RRF20 =3B30718			
RRF50 =1C30718		RRF100=1D30718		RRF200=1E30718			
COMPOUND	RRF5	RRF20	RRF50	RRF100	RRF200	RRF	% RSD
Dichlorodifluoromethane	0.159	0.142	0.076	0.126	0.128	0.126	24.7
Chloromethane	* 0.253	0.269	0.168	0.200	0.216	0.221	18.3*
Vinyl Chloride	0.273	0.280	0.209	0.234	0.255	0.250	11.7
Bromomethane	0.126	0.114	0.094	0.090	0.090	0.103	16.0
Chloroethane	0.087	0.088	0.078	0.071	0.073	0.079	9.8
Trichlorofluoromethane	0.113	0.150	0.145	0.140	0.136	0.137	10.6
1,1-Dichloroethene	0.321	0.296	0.231	0.273	0.243	0.273	13.6
Methylene Chloride	0.357	0.357	0.307	0.308	0.300	0.326	8.8
trans-1,2-Dichloroethene	0.236	0.239	0.197	0.229	0.214	0.223	7.9
1,1-Dichloroethane	* 0.479	0.508	0.385	0.435	0.438	0.449	10.5*
cis-1,2-dichloroethene	0.272	0.312	0.241	0.275	0.279	0.276	9.1
Chloroform	0.482	0.522	0.432	0.430	0.452	0.464	8.4
Bromochloromethane	0.134	0.150	0.126	0.130	0.135	0.135	6.5
1,1,1-Trichloroethane	0.317	0.326	0.264	0.368	0.380	0.331	13.9
Carbon Tetrachloride	0.244	0.276	0.215	0.298	0.298	0.266	13.7
1,2-Dichloroethane	0.380	0.423	0.343	0.356	0.370	0.374	8.2
Benzene	1.032	1.112	0.941	1.034	0.993	1.022	6.1
Trichloroethene	0.256	0.302	0.243	0.264	0.280	0.269	8.4
1,2-Dichloropropane	0.240	0.290	0.240	0.250	0.267	0.257	8.3
Bromodichloromethane	0.269	0.340	0.325	0.304	0.345	0.317	9.8
cis-1,3-Dichloropropene	0.248	0.355	0.356	0.335	0.385	0.336	15.5
Toluene	4.154	5.030	4.182	4.645	4.469	4.496	8.1
trans-1,3-Dichloropropene	1.104	1.430	1.280	1.398	1.456	1.334	10.9
1,1,2-Trichloroethane	1.019	1.113	0.926	0.950	0.923	0.986	8.2
Tetrachloroethene	0.763	0.877	0.704	0.781	0.784	0.782	7.9
Dibromochloromethane	0.789	1.004	0.942	0.973	1.021	0.946	9.8
Chlorobenzene	* 3.498	3.720	3.133	3.218	3.178	3.349	7.5*
Ethylbenzene	1.614	1.975	1.678	1.781	1.781	1.766	7.8
Styrene	3.111	4.051	3.605	3.813	3.988	3.714	10.2
Bromoform	* 0.436	0.514	0.498	0.538	0.580	0.513	10.3*
1,1,2,2-Tetrachloroethane	* 0.916	0.877	0.754	0.720	0.716	0.797	11.7*
1,3-Dichlorobenzene	1.689	1.762	1.487	1.440	1.489	1.573	9.0
1,4-Dichlorobenzene	1.860	1.837	1.523	1.478	1.534	1.646	11.3
1,2-Dichlorobenzene	1.643	1.703	1.480	1.424	1.522	1.554	7.4
Dibromomethane	0.162	0.194	0.159	0.159	0.172	0.169	8.8
1,2-Dibromoethane	0.924	1.085	0.915	0.978	0.953	0.971	7.1
1,1,1,2-Tetrachloroethane	1.059	1.215	1.073	1.102	1.130	1.116	5.6

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

6A
VOLATILE ORGANICS INITIAL CALIBRATION DATA

664 135

Lab Name: STL PITTSBURGH Contract:
 Lab Code: STLPIT Case No.: SAS No.: SDG No.: 30718D
 Instrument ID: HP3 Calibration Date(s): 07/18/00 07/18/00
 Heated Purge: (Y/N) N Calibration Time(s): 0614 1316
 GC Column: DB 624 ID: 0.18 (mm)

LAB FILE ID: RRF5 =4A30718 RRF20 =3B30718							
RRF50 =1C30718 RRF100=1D30718 RRF200=1E30718							
COMPOUND	RRF5	RRF20	RRF50	RRF100	RRF200	RRF	% RSD
1,2,3-Trichloropropane	0.315	0.295	0.242	0.238	0.230	0.264	14.6
1,2-Dibromo-3-chloropropane	0.116	0.106	0.099	0.104	0.119	0.109	7.8
2,2-Dichloropropane	0.246	0.264	0.194	0.270	0.264	0.248	12.5
1,1-Dichloropropene	0.194	0.241	0.222	0.251	0.251	0.232	10.4
1,3-Dichloropropane	1.487	1.808	1.548	1.634	1.635	1.622	7.5
n-Propylbenzene	0.828	1.043	0.901	0.896	0.903	0.914	8.6
Bromobenzene	0.788	0.867	0.724	0.728	0.746	0.771	7.7
1,3,5-Trimethylbenzene	2.658	3.271	2.803	2.864	2.992	2.918	7.9
2-Chlorotoluene	0.901	1.029	0.863	0.867	0.916	0.915	7.4
4-Chlorotoluene	0.901	1.029	0.863	0.867	0.916	0.915	7.4
tert-Butylbenzene	2.009	2.632	2.312	2.300	2.363	2.323	9.5
1,2,4-Trimethylbenzene	2.677	3.207	2.793	2.755	2.808	2.848	7.3
sec-Butylbenzene	3.417	4.192	3.471	3.595	3.619	3.659	8.5
4-Isopropyltoluene	2.888	3.486	2.953	3.055	3.162	3.109	7.6
n-Butylbenzene	2.363	2.951	2.657	2.719	2.921	2.722	8.7
1,2,4-Trichlorobenzene	0.753	0.813	0.714	0.723	0.781	0.757	5.4
Hexachlorobutadiene	0.414	0.392	0.315	0.310	0.328	0.352	13.6
Naphthalene	2.140	2.125	1.918	1.756	1.890	1.966	8.3
1,2,3-Trichlorobenzene	0.776	0.752	0.652	0.624	0.661	0.693	9.6
Acetone	0.558	0.264	0.188	0.144	0.131	0.257	68.7
Carbon Disulfide	0.822	0.671	0.635	0.743	0.678	0.710	10.4
2-Butanone	0.130	0.176	0.162	0.163	0.188	0.164	13.1
4-Methyl-2-Pentanone	0.494	0.918	0.946	1.096	1.161	0.923	28.2
2-Hexanone	0.301	0.612	0.628	0.809	0.836	0.637	33.6
Methyl tert-butyl ether	0.504	0.426	0.343	0.513	0.462	0.450	15.3
Isopropylbenzene	4.718	6.367	5.342	5.958	5.944	5.666	11.4
1,2-Dichloroethene (total)	0.254	0.276	0.219	0.252	0.246	0.249	8.2
Xylenes (total)	1.906	2.441	2.114	2.260	2.336	2.211	9.4
Dibromofluoromethane	0.198	0.240	0.255	0.250	0.271	0.243	11.4
1,2-Dichloroethane-d4	0.265	0.278	0.317	0.310	0.332	0.300	9.4
Toluene-d8	2.773	3.522	3.786	4.025	3.988	3.619	14.2
Bromofluorobenzene	1.292	1.695	1.633	1.686	1.750	1.611	11.4

* 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: hp3.i
Lab File ID: 4A30718.D
Analysis Type: WATER

Injection Date: 18-JUL-2000 13:16
Lab Sample ID: VSTD5
Method File: \\QPITPA02\D\chem\hp3.i\30718d.b

COMPOUND	%RSD
Xylenes (total)	9.4
1,2-Dichloroethene (total)	8.2
Dichlorodifluoromethane	24.7
Chloromethane	18.3
Vinyl Chloride	11.7
Bromomethane	16.0
Chloroethane	9.8
Trichlorofluoromethane	10.6
1,1-Dichloroethene	13.6
Acetone	68.7
Carbon Disulfide	10.4
Methylene Chloride	8.8
trans-1,2-Dichloroethene	7.9
Methyl tert-butyl ether	15.3
1,1-Dichloroethane	10.5
2,2-Dichloropropane	12.5
cis-1,2-dichloroethene	9.1
2-Butanone	13.1
Bromochloromethane	6.5
Chloroform	8.4
1,1,1-Trichloroethane	13.9
Dibromofluoromethane	11.4
Carbon Tetrachloride	13.7
1,1-Dichloropropene	10.4
1,2-Dichloroethane-d4	9.4
Benzene	6.1
1,2-Dichloroethane	8.2
Trichloroethene	8.4
1,2-Dichloropropane	8.3
Dibromomethane	8.8
Bromodichloromethane	9.8
cis-1,3-Dichloropropene	15.5
4-Methyl-2-Pentanone	28.2
Toluene-d8	14.2
Toluene	8.1
trans-1,3-Dichloropropene	10.9
1,1,2-Trichloroethane	8.2
Tetrachloroethene	7.9
1,3-Dichloropropane	7.5

INITIAL CALIBRATION REPORT

Instrument ID: hp3.i
Lab File ID: 4A30718.D
Analysis Type: WATER

Injection Date: 18-JUL-2000 13:16
Lab Sample ID: VSTD5
Method File: \\QPITPA02\D\chem\hp3.i\30718d.b

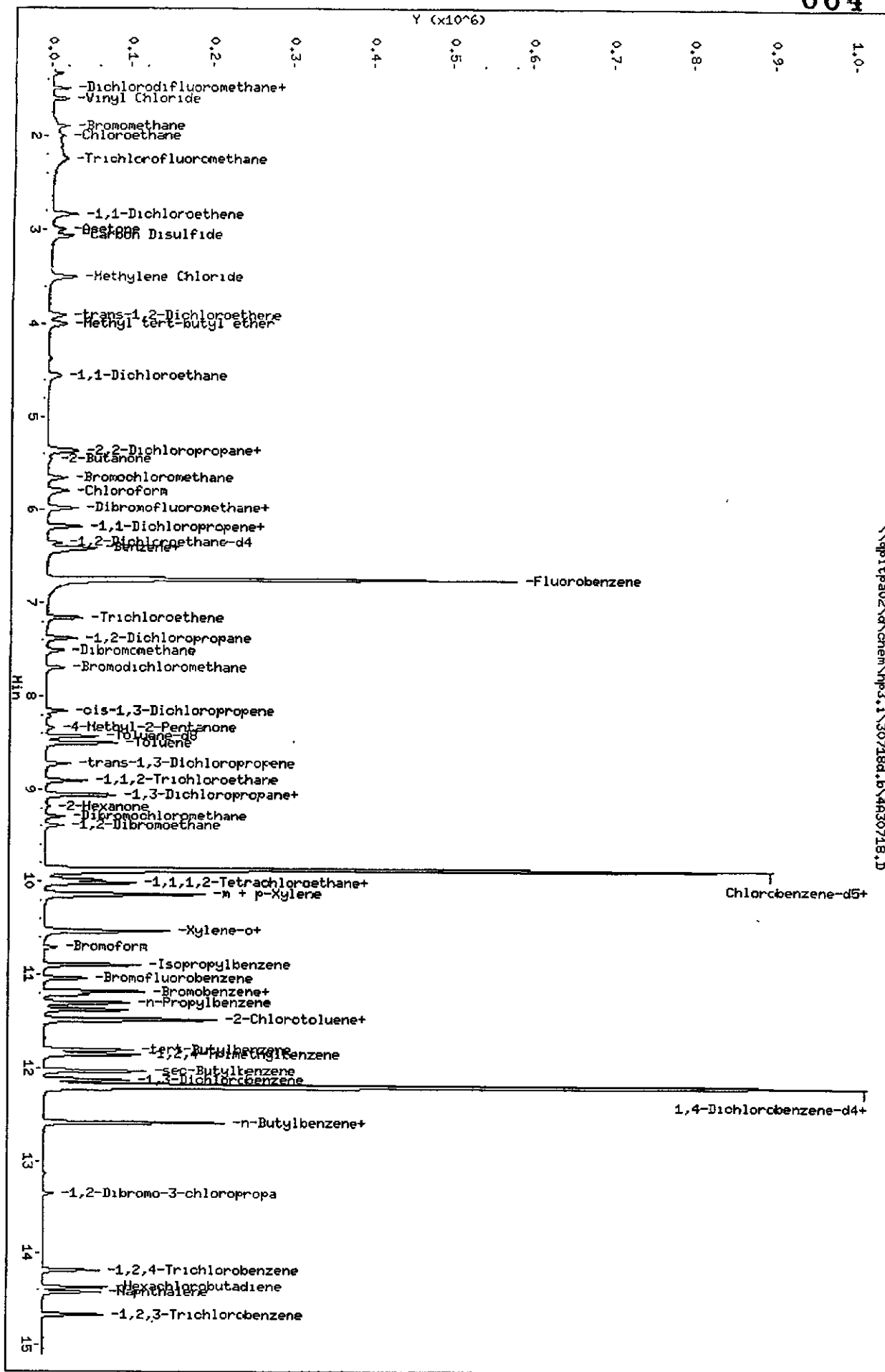
COMPOUND	%RSD
2-Hexanone	33.6
Dibromochloromethane	9.8
1,2-Dibromoethane	7.1
Chlorobenzene	7.5
1,1,1,2-Tetrachloroethane	5.6
Ethylbenzene	7.8
m + p-Xylene	7.7
Xylene-o	9.4
Styrene	10.2
Bromoform	10.3
Isopropylbenzene	11.4
Bromofluorobenzene	11.4
1,1,2,2-Tetrachloroethane	11.7
Bromobenzene	7.2
1,2,3-Trichloropropane	14.6
n-Propylbenzene	8.6
4-Chlorotoluene	7.4
2-Chlorotoluene	7.4
1,3,5-Trimethylbenzene	7.9
tert-Butylbenzene	9.5
1,2,4-Trimethylbenzene	7.3
sec-Butylbenzene	8.5
1,3-Dichlorobenzene	9.0
4-Isopropyltoluene	7.6
1,4-Dichlorobenzene	11.3
n-Butylbenzene	8.7
1,2-Dichlorobenzene	7.4
1,2-Dibromo-3-chloropropane	7.8
1,2,4-Trichlorobenzene	5.4
Hexachlorobutadiene	13.6
Naphthalene	8.3
1,2,3-Trichlorobenzene	9.6

The average of all %RSD's in the initial calibration is 11.5

Data File: \\sp1tpa02\chem\hpe3.1\30718d.b\4430718.D
Date: 18-JUL-2000 13:16

Client ID: VSTD5
Sample Info: VSTD5 5HL
Purge Volume: 5.0
Column phase: DB 624

Instrument: hpe3.1
Operator: 10099
Column diameter: 0.18



STL Pittsburgh

VOLATILE REPORT SW-846 Method

Data file : \\qpitpa02\d\chem\hp3.i\30718d.b\4A30718.D
 Lab Smp Id: VSTD5 Client Smp ID: VSTD5
 Inj Date : 18-JUL-2000 13:16 MS Autotune Date: 20-FEB-1997 10:53
 Operator : 10099 Inst ID: hp3.i
 Smp Info : VSTD5 5ML
 Misc Info : ,30718d.b,8260bh2o.m,4-dwh20.sub
 Comment :
 Method : \\QPITPA02\D\chem\hp3.i\30718d.b\8260bh2o.m
 Meth Date : 18-Jul-2000 13:47 gordonk Quant Type: ISTD
 Cal Date : 18-JUL-2000 13:16 Cal File: 4A30718.D
 Als bottle: 18 Calibration Sample, Level: 1
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 4-dwh20.sub
 Target Version: 4.04
 Processing Host: PITPC073

KLG
7/18/00

Concentration Formula: Amt * DF * 1/Vo*Vt

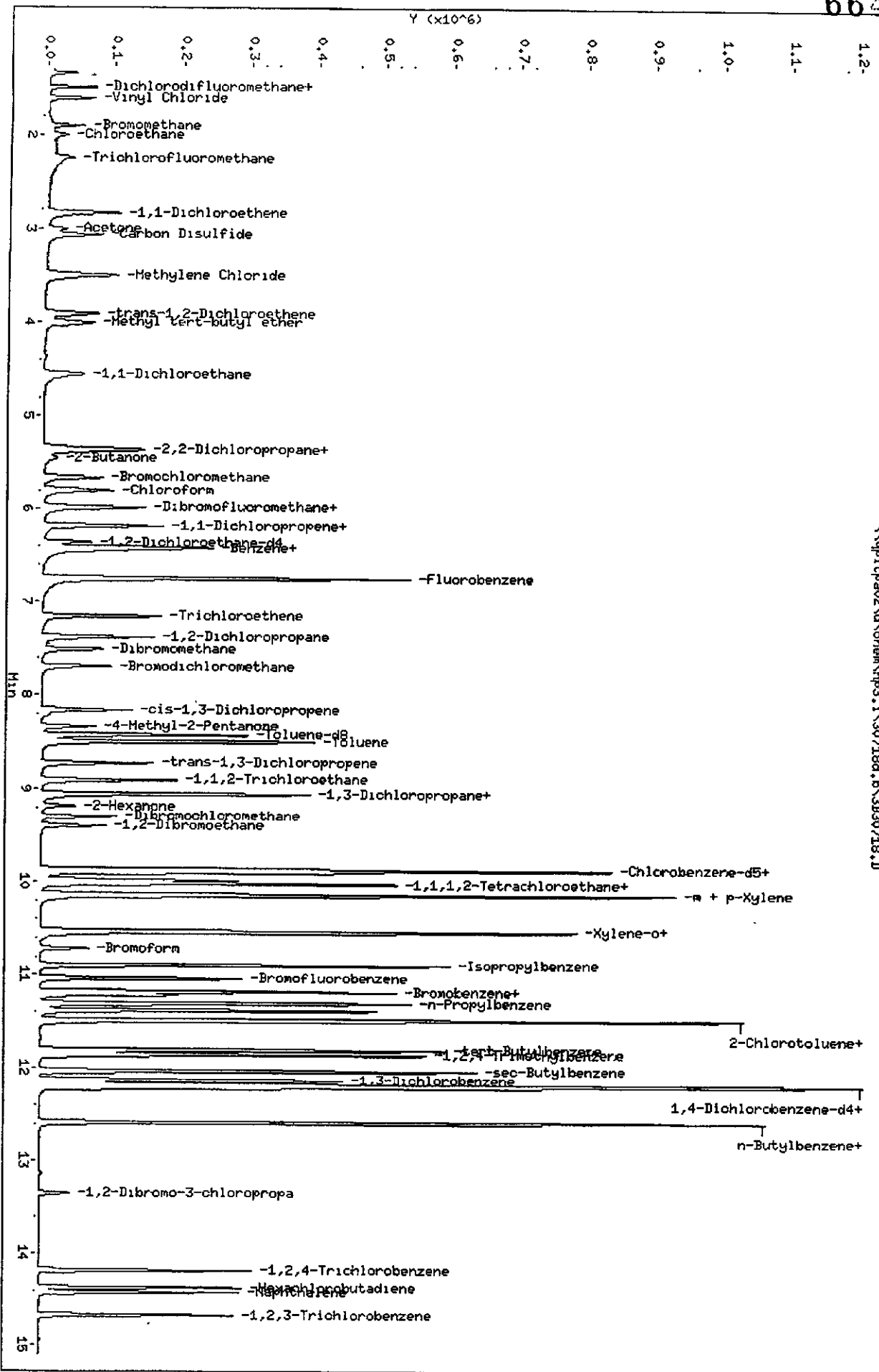
Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	Sample Volume
Vt	1.000	mg/L conversion (1.0 if no conversion)

Compounds	QUANT SIG			AMOUNTS			
	MASS	RT	EXP RT	RBL RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
* 46 Fluorobenzene	96	6.752	6.752	(1.000)	594582	250.000	
* 69 Chlorobenzene-d5	119	9.871	9.871	(1.000)	162178	250.000	
* 92 1,4-Dichlorobenzene-d4	152	12.194	12.194	(1.000)	262136	250.000	
\$ 39 Dibromofluoromethane	113	5.991	5.991	(0.887)	11743	25.0000	20.34
\$ 43 1,2-Dichloroethane-d4	65	6.356	6.356	(0.941)	15745	25.0000	22.04
\$ 59 Toluene-d8	98	8.430	8.430	(0.854)	44975	25.0000	19.16
\$ 80 Bromofluorobenzene	95	11.039	11.039	(1.118)	20953	25.0000	20.05
1 Dichlorodifluoromethane	85	1.339	1.339	(0.198)	9457	25.0000	31.52
2 Chloromethane	50	1.491	1.491	(0.221)	15071	25.0000	28.60
3 Vinyl Chloride	62	1.601	1.601	(0.237)	16250	25.0000	27.30
4 Bromomethane	94	1.899	1.899	(0.281)	7521	25.0000	30.73
5 Chloroethane	64	1.996	1.996	(0.296)	5174	25.0000	27.35
6 Trichlorofluoromethane	101	2.245	2.245	(0.333)	6701	25.0000	20.62
12 1,1-Dichloroethene	96	2.835	2.835	(0.420)	19079	25.0000	29.38
15 Carbon Disulfide	76	3.066	3.066	(0.454)	48849	25.0000	28.94
13 Acetone	43	2.993	2.993	(0.443)	33212	25.0000	54.35

Compounds	QUANT SIG			AMOUNTS			
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
18 Methylene Chloride	84	3.498	3.498	(0.518)	21205	25.0000	27.36
19 trans-1,2-Dichloroethene	96	3.905	3.905	(0.578)	14048	25.0000	26.49
20 Methyl tert-butyl ether	73	4.009	4.009	(0.594)	29967	25.0000	28.02
24 1,1-Dichloroethane	63	4.562	4.562	(0.676)	28484	25.0000	26.68
27 2,2-Dichloropropane	77	5.347	5.347	(0.792)	14660	25.0000	24.88
28 cis-1,2-dichloroethene	96	5.371	5.371	(0.796)	16171	25.0000	24.66
M 29 1,2-Dichloroethene (total)	96				30220	50.0000	50.95
30 Bromochloromethane	128	5.663	5.663	(0.839)	7998	25.0000	24.89
31 2-Butanone	43	5.456	5.456	(0.808)	7763	25.0000	19.91
37 Chloroform	83	5.803	5.803	(0.859)	28656	25.0000	25.99
38 1,1,1-Trichloroethane	97	5.985	5.985	(0.887)	18832	25.0000	23.90
40 1,1-Dichloropropene	75	6.192	6.192	(0.917)	11554	25.0000	20.95
41 Carbon Tetrachloride	117	6.186	6.186	(0.916)	14534	25.0000	22.94
42 Benzene	78	6.417	6.417	(0.950)	61377	25.0000	25.24
45 1,2-Dichloroethane	62	6.447	6.447	(0.955)	22567	25.0000	25.35
47 Trichloroethene	130	7.159	7.159	(1.060)	15222	25.0000	23.80
49 1,2-Dichloropropane	63	7.384	7.384	(1.094)	14278	25.0000	23.31
50 Dibromomethane	93	7.512	7.512	(1.113)	9641	25.0000	23.94
53 Bromodichloromethane	83	7.694	7.694	(1.140)	15984	25.0000	21.22
57 cis-1,3-Dichloropropene	75	8.162	8.162	(1.209)	14778	25.0000	18.49
58 4-Methyl-2-Pentanone	43	8.333	8.333	(0.844)	8013	25.0000	13.38
60 Toluene	91	8.497	8.497	(0.861)	67372	25.0000	23.10
61 trans-1,3-Dichloropropene	75	8.728	8.728	(0.884)	17903	25.0000	20.69
63 1,3-Dichloropropane	76	9.062	9.062	(0.918)	24118	25.0000	22.91
64 1,1,2-Trichloroethane	97	8.904	8.904	(0.902)	16521	25.0000	25.83
65 Tetrachloroethene	164	9.056	9.056	(0.917)	12382	25.0000	24.41
66 2-Hexanone	43	9.184	9.184	(0.930)	4880	25.0000	11.80
67 Dibromochloromethane	129	9.300	9.300	(0.942)	12797	25.0000	20.86
68 1,2-Dibromoethane	107	9.397	9.397	(0.952)	14987	25.0000	23.79
70 Chlorobenzene	112	9.902	9.902	(1.003)	56733	25.0000	26.11
71 1,1,1,2-Tetrachloroethane	131	9.981	9.981	(1.011)	17170	25.0000	23.72
72 Ethylbenzene	106	10.017	10.017	(1.015)	26178	25.0000	22.85
73 m + p-Xylene	106	10.139	10.139	(1.027)	69996	50.0000	46.11
74 Xylene-o	106	10.528	10.528	(1.067)	30907	25.0000	21.54
M 75 Xylenes (total)	106				100904	25.0000	70.33
76 Styrene	104	10.540	10.540	(1.068)	50450	25.0000	20.94
77 Bromoform	173	10.710	10.710	(1.085)	7071	25.0000	21.24
78 Isopropylbenzene	105	10.899	10.899	(1.104)	76520	25.0000	20.82
79 Bromobenzene	156	11.185	11.185	(0.917)	20647	25.0000	25.55
81 n-Propylbenzene	120	11.306	11.306	(0.927)	21703	25.0000	22.64
82 2-Chlorotoluene	126	11.489	11.489	(0.942)	23621	25.0000	24.61
83 1,1,1,2,2-Tetrachloroethane	83	11.185	11.185	(0.917)	23999	25.0000	28.74
84 1,2,3-Trichloropropane	110	11.215	11.215	(0.920)	8261	25.0000	29.83
85 4-Chlorotoluene	126	11.489	11.489	(0.942)	23621	25.0000	24.61
86 1,3,5-Trimethylbenzene	105	11.489	11.489	(0.942)	69666	25.0000	22.77
87 tert-Butylbenzene	119	11.805	11.805	(0.968)	52658	25.0000	21.62
88 1,2,4-Trimethylbenzene	105	11.854	11.854	(0.972)	70186	25.0000	23.50

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Compounds	QUANT SIG				RESPONSE	AMOUNTS	
	MASS	RT	EXP RT	REL RT		CAL-AMT (ng)	ON-COL (ng)
89 sec-Butylbenzene	105	12.030	12.030	(0.987)	89560	25.0000	23.35
90 4-Isopropyltoluene	119	12.176	12.176	(0.999)	75700	25.0000	23.22
91 1,3-Dichlorobenzene	146	12.127	12.127	(0.995)	44284	25.0000	26.84
93 1,4-Dichlorobenzene	146	12.219	12.219	(1.002)	48769	25.0000	28.25
94 n-Butylbenzene	91	12.584	12.584	(1.032)	61945	25.0000	21.70
95 1,2-Dichlorobenzene	146	12.584	12.584	(1.032)	43066	25.0000	26.42
96 1,2-Dibromo-3-chloropropane	157	13.350	13.350	(1.095)	3055	25.0000	26.76
97 1,2,4-Trichlorobenzene	180	14.189	14.189	(1.164)	19741	25.0000	24.87
98 Hexachlorobutadiene	225	14.371	14.371	(1.179)	10866	25.0000	29.46
99 Naphthalene	128	14.426	14.426	(1.183)	56090	25.0000	27.21
100 1,2,3-Trichlorobenzene	180	14.669	14.669	(1.203)	20340	25.0000	27.99



Data File: \\pp1tpa02\chem\hp3.1\307184.b\3830718.D
 Date: 18-JUL-2000 12:39
 Client ID: VSTD20
 Sample Info: VSTD20 EHL
 Purge Volume: 5.0
 Column Phase: DB 624

Instrument: hp3.1
 Operator: 10099
 Column diameter: 0.18

\\pp1tpa02\chem\hp3.1\307184.b\3830718.D

664 143

STL Pittsburgh

VOLATILE REPORT SW-846 Method

Data file : \\qpitpa02\d\chem\hp3.i\30718d.b\3B30718.D
 Lab Smp Id: VSTD20 Client Smp ID: VSTD20
 Inj Date : 18-JUL-2000 12:39 MS Autotune Date: 20-FEB-1997 10:53
 Operator : 10099 Inst ID: hp3.i
 Smp Info : VSTD20 5ML
 Misc Info : ,30718d.b,8260bh2o.m,4-dwh20.sub
 Comment :
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 Meth Date : 18-Jul-2000 13:09 gordonk Quant Type: ISTD
 Cal Date : 18-JUL-2000 12:39 Cal File: 3B30718.D
 Als bottle: 17 Calibration Sample, Level: 2
 Dil Factor: 1.00000
 Integrator: HP RTE *KLG 7/18/00* Compound Sublist: 4-dwh20.sub
 Target Version: 4.04
 Processing Host: PITPC073

Concentration Formula: Amt * DF * 1/Vo*Vt

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	Sample Volume
Vt	1.000	mg/L conversion (1.0 if no conversion)

Compounds	QUANT SIG		AMOUNTS				
	MASS	RT	EXP RT	RBL RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
* 46 Fluorobenzene	96	6.748	6.748	(1.000)	542654	250.000	
* 69 Chlorobenzene-d5	119	9.868	9.868	(1.000)	152347	250.000	
* 92 1,4-Dichlorobenzene-d4	152	12.191	12.191	(1.000)	264206	250.000	
\$ 39 Dibromofluoromethane	113	5.994	5.994	(0.888)	52036	100.000	95.93
\$ 43 1,2-Dichloroethane-d4	65	6.359	6.359	(0.942)	60260	100.000	88.97
\$ 59 Toluene-d8	98	8.432	8.432	(0.855)	214631	100.000	96.47
\$ 80 Bromofluorobenzene	95	11.041	11.041	(1.119)	103318	100.000	104.0
1 Dichlorodifluoromethane	85	1.336	1.336	(0.198)	30736	100.000	113.3
2 Chloromethane	50	1.494	1.494	(0.221)	58453	100.000	123.7
3 Vinyl Chloride	62	1.603	1.603	(0.238)	60847	100.000	115.2
4 Bromomethane	94	1.895	1.895	(0.281)	24715	100.000	110.1
5 Chloroethane	64	1.998	1.998	(0.296)	19143	100.000	110.6
6 Trichlorofluoromethane	101	2.242	2.242	(0.332)	32584	100.000	108.5
12 1,1-Dichloroethene	96	2.832	2.832	(0.420)	64337	100.000	110.2
15 Carbon Disulfide	76	3.063	3.063	(0.454)	145636	100.000	100.8
13 Acetone	43	3.002	3.002	(0.445)	57226	100.000	92.65

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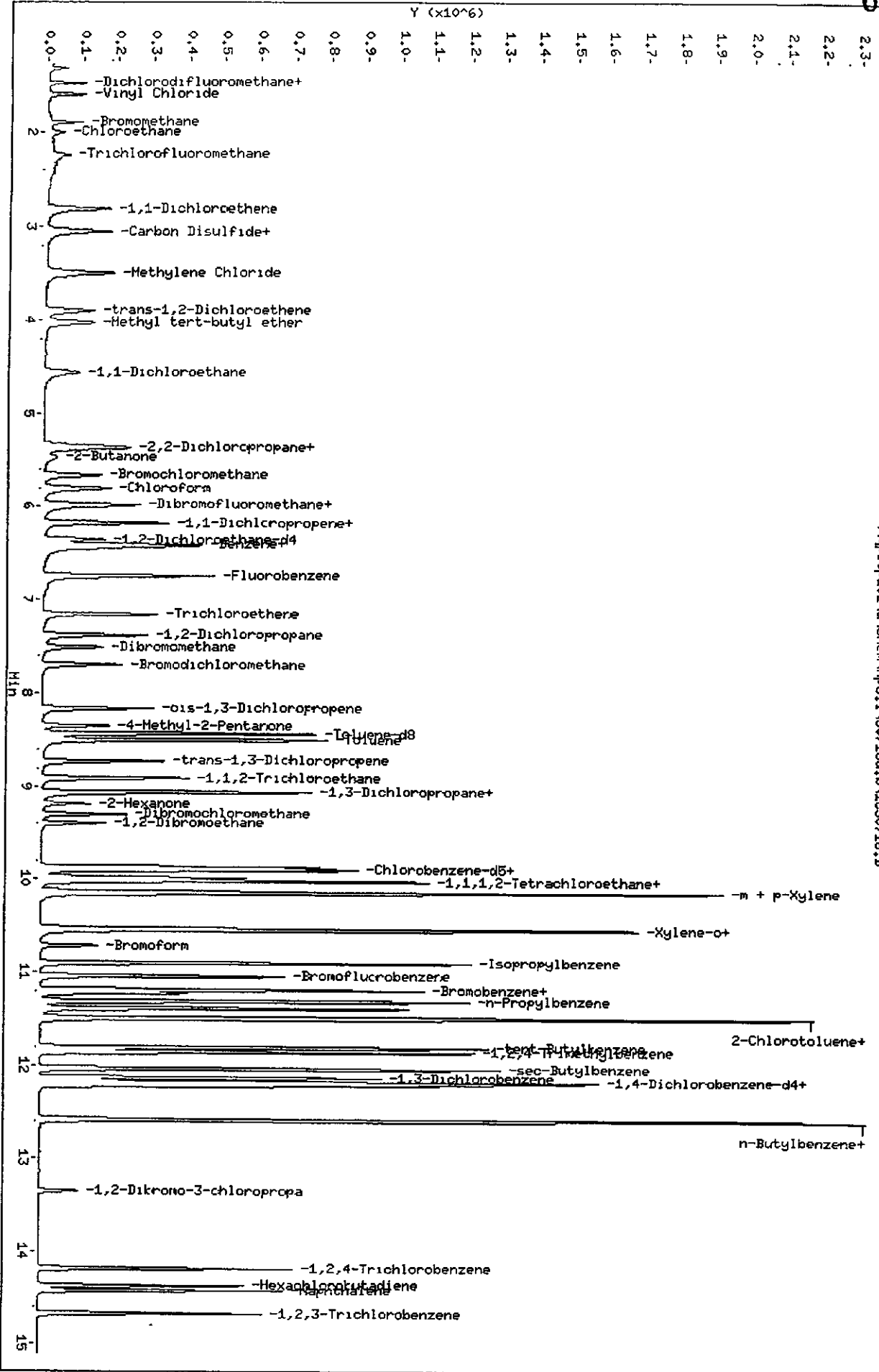
Compounds	QUANT SIG				AMOUNTS		
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
18 Methylene Chloride	84	3.494	3.494	(0.518)	77528	100.000	107.5
19 trans-1,2-Dichloroethene	96	3.908	3.908	(0.579)	51954	100.000	109.6
20 Methyl tert-butyl ether	73	4.005	4.005	(0.594)	92455	100.000	104.6
24 1,1-Dichloroethane	63	4.559	4.559	(0.676)	110340	100.000	115.4
27 2,2-Dichloropropane	77	5.349	5.349	(0.793)	57243	100.000	109.3
28 cis-1,2-dichloroethene	96	5.374	5.374	(0.796)	67693	100.000	115.6
M 29 1,2-Dichloroethene (total)	96				119648	200.000	225.8
30 Bromochloromethane	128	5.659	5.659	(0.839)	32479	100.000	112.6
31 2-Butanone	43	5.453	5.453	(0.808)	38287	100.000	104.2
37 Chloroform	83	5.799	5.799	(0.859)	113321	100.000	114.8
38 1,1,1-Trichloroethane	97	5.982	5.982	(0.886)	70874	100.000	101.1
40 1,1-Dichloropropene	75	6.188	6.188	(0.917)	52302	100.000	107.6
41 Carbon Tetrachloride	117	6.182	6.182	(0.916)	60030	100.000	106.1
42 Benzene	78	6.420	6.420	(0.951)	241286	100.000	111.9
45 1,2-Dichloroethane	62	6.444	6.444	(0.955)	91887	100.000	116.2
47 Trichloroethene	130	7.161	7.161	(1.061)	65504	100.000	114.7
49 1,2-Dichloropropane	63	7.380	7.380	(1.094)	63071	100.000	114.7
50 Dibromomethane	93	7.508	7.508	(1.113)	42153	100.000	115.1
53 Bromodichloromethane	83	7.697	7.697	(1.141)	73821	100.000	108.5
57 cis-1,3-Dichloropropene	75	8.159	8.159	(1.209)	76971	100.000	108.3
58 4-Methyl-2-Pentanone	43	8.335	8.335	(0.845)	55966	100.000	98.43
60 Toluene	91	8.499	8.499	(0.861)	306554	100.000	114.3
61 trans-1,3-Dichloropropene	75	8.724	8.724	(0.884)	87129	100.000	111.6
63 1,3-Dichloropropane	76	9.065	9.065	(0.919)	110202	100.000	113.7
64 1,1,2-Trichloroethane	97	8.907	8.907	(0.903)	67817	100.000	115.5
65 Tetrachloroethene	164	9.053	9.053	(0.917)	53466	100.000	115.7
66 2-Hexanone	43	9.180	9.180	(0.930)	37329	100.000	96.19
67 Dibromochloromethane	129	9.296	9.296	(0.942)	61162	100.000	108.4
68 1,2-Dibromoethane	107	9.393	9.393	(0.952)	66139	100.000	115.1
70 Chlorobenzene	112	9.898	9.898	(1.003)	226708	100.000	111.6
71 1,1,1,2-Tetrachloroethane	131	9.983	9.983	(1.012)	74035	100.000	112.5
72 Ethylbenzene	106	10.020	10.020	(1.015)	120350	100.000	115.2
73 m + p-Xylene	106	10.135	10.135	(1.027)	316166	200.000	228.8
74 Xylene-o	106	10.524	10.524	(1.067)	148743	100.000	114.9
M 75 Xylenes (total)	106				464910	100.000	359.2
76 Styrene	104	10.543	10.543	(1.068)	246892	100.000	113.7
77 Bromoform	173	10.713	10.713	(1.086)	31307	100.000	104.0
78 Isopropylbenzene	105	10.895	10.895	(1.104)	388001	100.000	117.6
79 Bromobenzene	156	11.181	11.181	(0.917)	91655	100.000	117.0
81 n-Propylbenzene	120	11.309	11.309	(0.928)	110223	100.000	120.4
82 2-Chlorotoluene	126	11.491	11.491	(0.943)	108777	100.000	116.6
83 1,1,2,2-Tetrachloroethane	83	11.181	11.181	(0.917)	92659	100.000	115.7
84 1,2,3-Trichloropropane	110	11.218	11.218	(0.920)	31202	100.000	117.7
85 4-Chlorotoluene	126	11.491	11.491	(0.943)	108777	100.000	116.6
86 1,3,5-Trimethylbenzene	105	11.485	11.485	(0.942)	345724	100.000	117.5
87 tert-Butylbenzene	119	11.808	11.808	(0.969)	278124	100.000	119.6
88 1,2,4-Trimethylbenzene	105	11.850	11.850	(0.972)	338926	100.000	118.8

Compounds	QUANT SIG		AMOUNTS				
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
89 sec-Butylbenzene	105	12 026	12.026	(0.987)	443000	100 000	121.5
90 4-Isopropyltoluene	119	12 172	12.172	(0.999)	368430	100 000	118.1
91 1,3-Dichlorobenzene	146	12 130	12.130	(0.995)	186189	100.000	117.2
93 1,4-Dichlorobenzene	146	12 215	12.215	(1.002)	194189	100.000	116.0
94 n-Butylbenzene	91	12.580	12.580	(1.032)	311832	100 000	115.8
95 1,2-Dichlorobenzene	146	12 580	12.580	(1.032)	179944	100 000	115.1
96 1,2-Dibromo-3-chloropropane	157	13 346	13.346	(1.095)	11174	100.000	105.4
97 1,2,4-Trichlorobenzene	180	14 185	14.185	(1.164)	85951	100.000	116.4
98 Hexachlorobutadiene	225	14 374	14.374	(1.179)	41400	100.000	122.5
99 Naphthalene	128	14 423	14.423	(1.183)	224588	100.000	124.0
100 1,2,3-Trichlorobenzene	180	14 672	14.672	(1.204)	79437	100 000	120.6

Data File: \\spitpa02\chem\hp3.1\30718d.b\IC30718.D
Date: 18-JUL-2000 06:14
Client ID: VSTD50
Sample Info: VSTD50 BHL
Purge Volume: 5.0
Column phase: DB 624

Instrument: hp3.1
Operator: 10099
Column diameter: 0.18

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VOLATILE REPORT SW-846 Method

Data file : \\qpitpa02\d\chem\hp3.i\30718d.b\1C30718.D
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 Operator : 10099 Inst ID: hp3.i
 Smp Info : VSTD50 5ML
 Misc Info : VSTD50,30718d.b,8260bh2o.m,4-dwh20.sub
 Comment :
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 Meth Date : 18-Jul-2000 09:17 gordonk Quant Type: ISTD
 Cal Date : 18-JUL-2000 06:14 Cal File: 1C30718.D
 Als bottle: 3 Calibration Sample, Level: 3
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 4-dwh20.sub
 Target Version: 4.04
 Processing Host: PITPC073

Concentration Formula: Amt * DF * 1/Vo*Vt

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	Sample Volume
Vt	1.000	mg/L conversion (1.0 if no conversion)

Compounds	QUANT SIG		AMOUNTS					
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
* 46 Fluorobenzene	96		6.748	6.748	(1.000)	489351	250.000	
* 69 Chlorobenzene-d5	119		9.874	9.874	(1.000)	144127	250.000	
* 92 1,4-Dichlorobenzene-d4	152		12.191	12.191	(1.000)	257376	250.000	
\$ 39 Dibromofluoromethane	113		5.994	5.994	(0.688)	124818	250.000	250.0
\$ 43 1,2-Dichloroethane-d4	65		6.359	6.359	(0.942)	155195	250.000	250.0
\$ 59 Toluene-d8	98		8.432	8.432	(0.854)	545657	250.000	250.0
\$ 80 Bromofluorobenzene	95		11.041	11.041	(1.118)	235333	250.000	250.0
1 Dichlorodifluoromethane	85		1.336	1.336	(0.198)	36975	250.000	250.0
2 Chloromethane	50		1.488	1.488	(0.221)	82420	250.000	250.0
3 Vinyl Chloride	62		1.603	1.603	(0.238)	102461	250.000	250.0
4 Bromomethane	94		1.895	1.895	(0.281)	46031	250.000	250.0
5 Chloroethane	64		1.998	1.998	(0.296)	38270	250.000	250.0
6 Trichlorofluoromethane	101		2.236	2.236	(0.331)	71020	250.000	250.0
12 1,1-Dichloroethene	96		2.819	2.819	(0.418)	112993	250.000	250.0
15 Carbon Disulfide	76		3.050	3.050	(0.452)	310905	250.000	250.0
13 Acetone	43		3.026	3.026	(0.448)	91756	250.000	250.0

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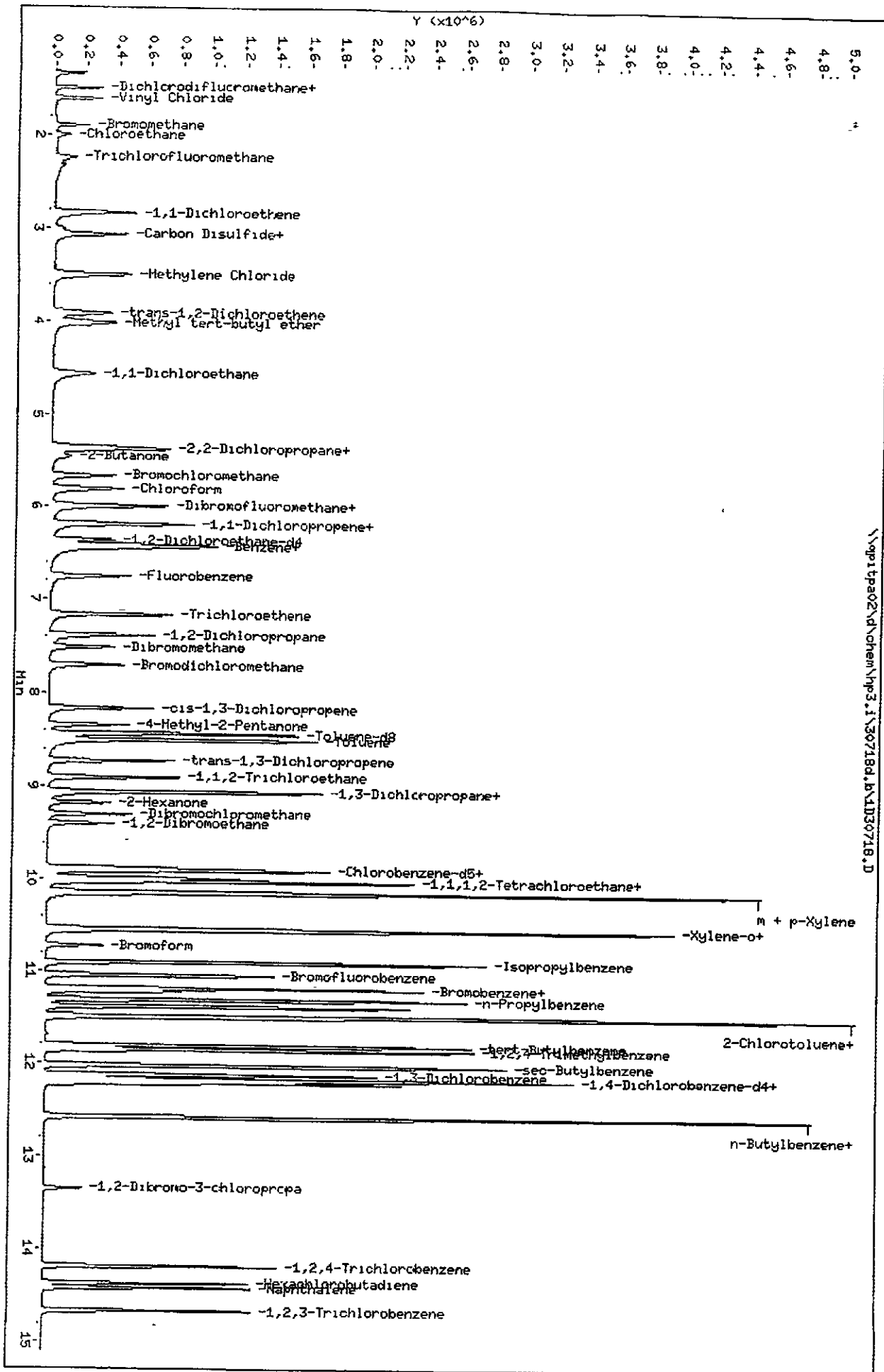
Compounds	QUANT SIG				AMOUNTS		
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
18 Methylene Chloride	84	3 494	3 494	(0.518)	150472	250.000	250.0
19 trans-1,2-Dichloroethene	96	3 902	3 902	(0.578)	96343	250.000	250.0
20 Methyl tert-butyl ether	73	4 030	4 030	(0.597)	168086	250.000	250.0
24 1,1-Dichloroethane	63	4.559	4 559	(0.676)	188434	250.000	250.0
27 2,2-Dichloropropane	77	5.349	5.349	(0.793)	95148	250.000	250.0
28 cis-1,2-dichloroethene	96	5.374	5.374	(0.796)	117904	250.000	250.0
M 29 1,2-Dichloroethene (total)	96				214247	500.000	500.0
30 Bromochloromethane	128	5 665	5 665	(0.840)	61931	250.000	250.0
31 2-Butanone	43	5.477	5 477	(0.812)	79444	250.000	250.0
37 Chloroform	83	5.805	5 805	(0.860)	211322	250.000	250.0
38 1,1,1-Trichloroethane	97	5.982	5.982	(0.886)	129411	250.000	250.0
40 1,1-Dichloropropene	75	6.188	6.188	(0.917)	108554	250.000	250.0
41 Carbon Tetrachloride	117	6.182	6.182	(0.916)	105045	250.000	250.0
42 Benzene	78	6.413	6 413	(0.950)	460434	250.000	250.0
45 1,2-Dichloroethane	62	6.444	6 444	(0.955)	167751	250.000	250.0
47 Trichloroethene	130	7.161	7.161	(1.061)	118830	250.000	250.0
49 1,2-Dichloropropane	63	7.386	7.386	(1.095)	117565	250.000	250.0
50 Dibromomethane	93	7.508	7.508	(1.113)	78013	250.000	250.0
53 Bromodichloromethane	83	7.697	7.697	(1.141)	158996	250.000	250.0
57 cis-1,3-Dichloropropene	75	8.159	8 159	(1.209)	174331	250.000	250.0
58 4-Methyl-2-Pentanone	43	8.347	8.347	(0.845)	136356	250.000	250.0
60 Toluene	91	8.499	8.499	(0.861)	602711	250.000	250.0
61 trans-1,3-Dichloropropene	75	8.730	8.730	(0.884)	184503	250.000	250.0
63 1,3-Dichloropropane	76	9.065	9.065	(0.918)	223144	250.000	250.0
64 1,1,2-Trichloroethane	97	8.907	8 907	(0.902)	133442	250.000	250.0
65 Tetrachloroethene	164	9.053	9 053	(0.917)	101543	250.000	250.0
66 2-Hexanone	43	9.180	9.180	(0.930)	90503	250.000	250.0
67 Dibromochloromethane	129	9.302	9.302	(0.942)	135778	250.000	250.0
68 1,2-Dibromoethane	107	9.399	9.399	(0.952)	131900	250.000	250.0
70 Chlorobenzene	112	9.898	9.898	(1.002)	451580	250.000	250.0
71 1,1,1,2-Tetrachloroethane	131	9.983	9.983	(1.011)	154612	250.000	250.0
72 Ethylbenzene	106	10.020	10 020	(1.015)	241816	250.000	250.0
73 m + p-Xylene	106	10.135	10.135	(1.026)	629101	500.000	500.0
74 Xylene-o	106	10.530	10.530	(1.067)	304746	250.000	250.0
M 75 Xylenes (total)	106				933847	250.000	766.1
76 Styrene	104	10.543	10 543	(1.068)	519583	250.000	250.0
77 Bromoform	173	10.713	10 713	(1.085)	71833	250.000	250.0
78 Isopropylbenzene	105	10.895	10.895	(1.103)	770009	250.000	250.0
79 Bromobenzene	156	11.187	11.187	(0.918)	186393	250.000	250.0
81 n-Propylbenzene	120	11.309	11.309	(0.928)	231830	250.000	250.0
82 2-Chlorotoluene	126	11.491	11 491	(0.943)	222069	250.000	250.0
83 1,1,2,2-Tetrachloroethane	83	11.187	11 187	(0.918)	193934	250.000	250.0
84 1,2,3-Trichloropropane	110	11.218	11 218	(0.920)	62375	250.000	250.0
85 4-Chlorotoluene	126	11.491	11.491	(0.943)	222069	250.000	250.0
86 1,3,5-Trimethylbenzene	105	11.485	11.485	(0.942)	721437	250.000	250.0
87 tert-Butylbenzene	119	11.808	11.808	(0.969)	594962	250.000	250.0
88 1,2,4-Trimethylbenzene	105	11.850	11.850	(0.972)	718834	250.000	250.0

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Compounds	QUANT SIG				AMOUNTS		
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
89 sec-Butylbenzene	105	12 026	12 026	(0.987)	893385	250 000	250 0
90 4-Isopropyltoluene	119	12 172	12.172	(0.999)	760030	250 000	250.0
91 1,3-Dichlorobenzene	146	12 124	12.124	(0.995)	382812	250 000	250.0
93 1,4-Dichlorobenzene	146	12 215	12.215	(1 002)	391889	250 000	250 0
94 n-Butylbenzene	91	12.580	12 580	(1 032)	683791	250.000	250.0
95 1,2-Dichlorobenzene	146	12.580	12 580	(1.032)	380976	250.000	250.0
96 1,2-Dibromo-3-chloropropane	157	13 346	13 346	(1.095)	25462	250.000	250.0
97 1,2,4-Trichlorobenzene	180	14.185	14.185	(1.164)	183903	250 000	250.0
98 Hexachlorobutadiene	225	14 374	14 374	(1.179)	81009	250 000	250 0
99 Naphthalene	128	14.423	14 423	(1 183)	493740	250.000	250 0
100 1,2,3-Trichlorobenzene	180	14 672	14 672	(1 204)	167685	250 000	250.0

Data File: \\ppltpa02\chem\hp3.1\30718d.b\1D30718.D
Date: 18-JUL-2000 09:55
Client ID: VSTD100
Sample Info: VSTD100 BHL
Purge Volume: 5.0
Column phase: DB 624

Instrument: hp3.1
Operator: 10099
Column diameter: 0.18



STL Pittsburgh

VOLATILE REPORT SW-846 Method

Data file : \\qpitpa02\d\chem\hp3.i\30718d.b\1D30718.D
 Lab Smp Id: VSTD100 Client Smp ID: VSTD100
 Inj Date : 18-JUL-2000 09:55 MS Autotune Date: 20-FEB-1997 10:53
 Operator : 10099 Inst ID: hp3.i
 Smp Info : VSTD100 5ML
 Misc Info : ,30718d.b,8260bh2o.m,4-dwh20.sub
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 Meth Date : 18-Jul-2000 10:25 gordonk Quant Type: ISTD
 Cal Date : 18-JUL-2000 09:55 Cal File: 1D30718.D
 Als bottle: 12 Calibration Sample, Level: 4
 Dil Factor: 1.00000
 Integrator: HP RTE *KEG 7/18/00* Compound Sublist: 4-dwh20.sub
 Target Version: 4.04
 Processing Host: PITPC073

Concentration Formula: Amt * DF * 1/Vo*Vt

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	Sample Volume
Vt	1.000	mg/L conversion (1.0 if no conversion)

Compounds	QUANT SIG				AMOUNTS		
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
* 46 Fluorobenzene	96	6.751	6.751	(1.000)	563567	250.000	
* 69 Chlorobenzene-d5	119	9.877	9.877	(1.000)	149698	250.000	
* 92 1,4-Dichlorobenzene-d4	152	12.194	12.194	(1.000)	278213	250.000	
\$ 39 Dibromofluoromethane	113	5.997	5.997	(0.888)	281850	500.000	499.2
\$ 43 1,2-Dichloroethane-d4	65	6.362	6.362	(0.942)	349562	500.000	496.4
\$ 59 Toluene-d8	98	8.436	8.436	(0.854)	1205178	500.000	560.8
\$ 80 Bromofluorobenzene	95	11.038	11.038	(1.118)	504632	500.000	541.4
1 Dichlorodifluoromethane	85	1.333	1.333	(0.197)	142500	500.000	530.8
2 Chloromethane	50	1.491	1.491	(0.221)	225559	500.000	502.6
3 Vinyl Chloride	62	1.600	1.600	(0.237)	263198	500.000	520.6
4 Bromomethane	94	1.898	1.898	(0.281)	100891	500.000	444.2
5 Chloroethane	64	2.001	2.001	(0.297)	80315	500.000	457.8
6 Trichlorofluoromethane	101	2.245	2.245	(0.333)	157393	500.000	501.2
12 1,1-Dichloroethane	96	2.835	2.835	(0.420)	308115	500.000	520.5
15 Carbon Disulfide	76	3.066	3.066	(0.454)	837622	500.000	600.6
13 Acetone	43	3.011	3.011	(0.446)	162705	500.000	224.4

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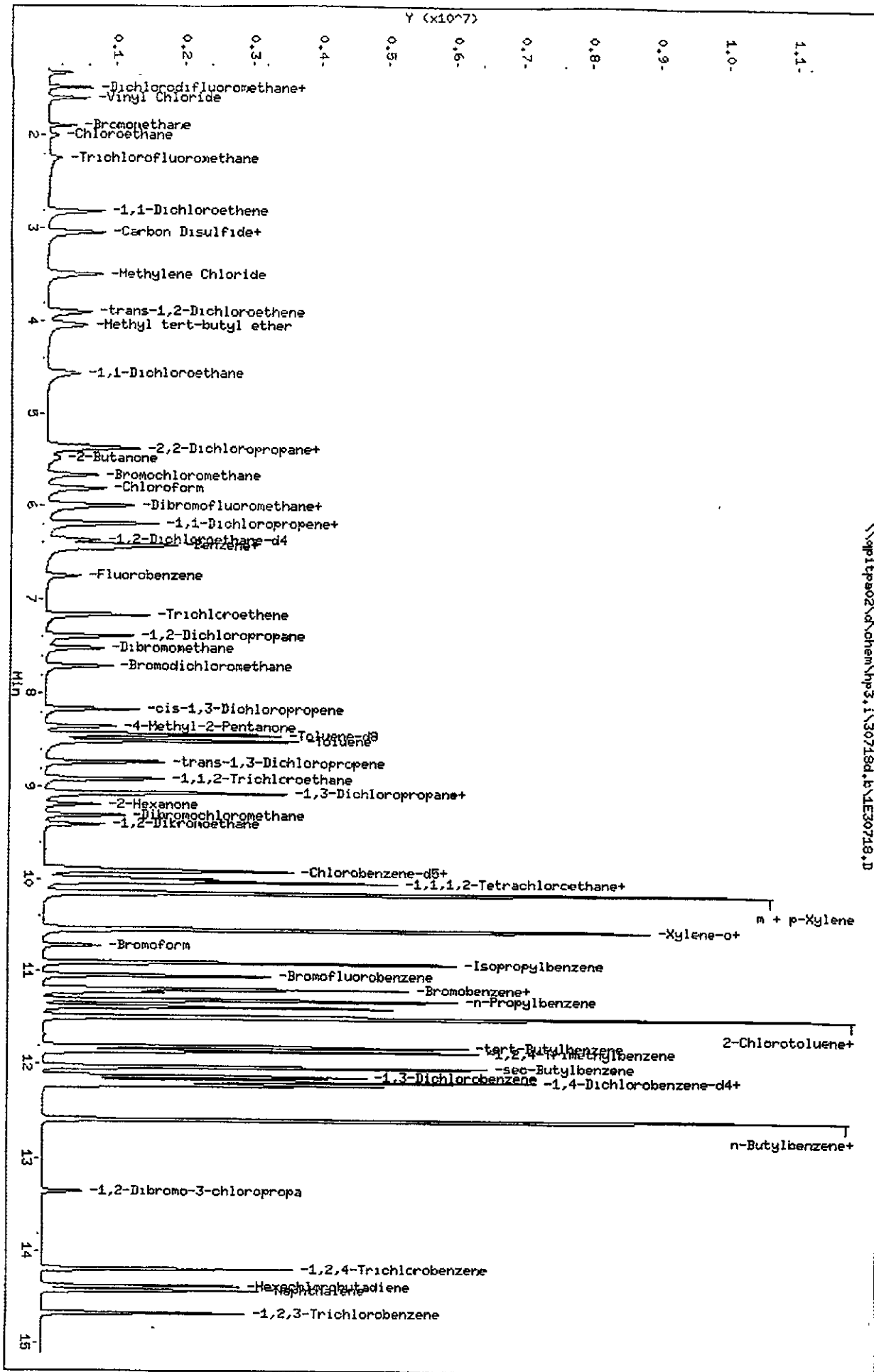
Compounds	QUANT SIG				AMOUNTS		
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
18 Methylene Chloride	84	3 497	3 497	(0 518)	347153	500.000	472 5
19 trans-1,2-Dichloroethene	96	3 911	3 911	(0.579)	257991	500.000	560.2
20 Methyl tert-butyl ether	73	4 014	4.014	(0.595)	578429	500 000	750.8
24 1,1-Dichloroethane	63	4.562	4 562	(0 676)	489902	500 000	526 6
27 2,2-Dichloropropane	77	5.358	5 358	(0 794)	304759	500.000	639 0
28 cis-1,2-dichloroethene	96	5 377	5 377	(0.796)	310029	500 000	563.1
M 29 1,2-Dichloroethene (total)	96				568021	1000.00	1123
30 Bromochloromethane	128	5.669	5 669	(0.840)	146661	500.000	524.0
31 2-Butanone	43	5.462	5 462	(0 809)	183420	500 000	527 6
37 Chloroform	83	5.808	5.808	(0 860)	485059	500 000	507.9
38 1,1,1-Trichloroethane	97	5 991	5 991	(0.887)	415341	500.000	651 4
40 1,1-Dichloropropene	75	6 191	6 191	(0.917)	283295	500.000	656 8
41 Carbon Tetrachloride	117	6.191	6.191	(0.917)	335979	500.000	667 3
42 Benzene	78	6.423	6.423	(0.951)	1165709	500.000	564 3
45 1,2-Dichloroethane	62	6.453	6.453	(0 956)	400992	500.000	527 5
47 Trichloroethene	130	7 165	7 165	(1 061)	297668	500.000	569.3
49 1,2-Dichloropropane	63	7.383	7.383	(1.094)	281561	500 000	548.1
50 Dibromomethane	93	7.511	7 511	(1.113)	179074	500 000	512.9
53 Bromodichloromethane	83	7.700	7.700	(1.141)	342732	500.000	540 4
57 cis-1,3-Dichloropropene	75	8 162	8.162	(1 209)	378033	500.000	595.2
58 4-Methyl-2-Pentanone	43	8.338	8 338	(0.844)	328106	500.000	669.0
60 Toluene	91	8 502	8 502	(0 861)	1390620	500.000	577 8
61 trans-1,3-Dichloropropene	75	8.727	8.727	(0 884)	418645	500 000	630 5
63 1,3-Dichloropropane	76	9.068	9.068	(0.918)	489267	500.000	562 1
64 1,1,2-Trichloroethane	97	8.910	8.910	(0 902)	284384	500.000	528 5
65 Tetrachloroethene	164	9 056	9 056	(0.917)	233720	500 000	570.0
66 2-Hexanone	43	9.177	9.177	(0.929)	242198	500.000	735.3
67 Dibromochloromethane	129	9.299	9 299	(0.942)	291243	500.000	593 5
68 1,2-Dibromoethane	107	9 396	9.396	(0 951)	292666	500.000	571.6
70 Chlorobenzene	112	9 901	9 901	(1.002)	963584	500.000	514.1
71 1,1,1,2-Tetrachloroethane	131	9 986	9 986	(1 011)	329811	500 000	564.5
72 Ethylbenzene	106	10.017	10 017	(1.014)	533369	500 000	570.0
73 m + p-Xylene	106	10.138	10.138	(1.026)	1396476	1000 00	1145
74 Xylene-o	106	10.527	10.527	(1.066)	676621	500.000	601 2
M 75 Xylenes (total)	106				2073098	500.000	1842
76 Styrene	104	10 540	10.540	(1.067)	1141562	500.000	604.5
77 Bromoform	173	10.716	10.716	(1.085)	161155	500 000	623.9
78 Isopropylbenzene	105	10.898	10 898	(1.103)	1783965	500.000	623 8
79 Bromobenzene	156	11 184	11.184	(0 917)	405016	500.000	538 0
81 n-Propylbenzene	120	11 306	11.306	(0 927)	498877	500 000	580 0
82 2-Chlorotoluene	126	11 494	11.494	(0.943)	482620	500.000	543.4
83 1,1,2,2-Tetrachloroethane	83	11.184	11 184	(0.917)	400660	500 000	512.6
84 1,2,3-Trichloropropane	110	11.221	11.221	(0 920)	132559	500 000	512 9
85 4-Chlorotoluene	126	11.494	11.494	(0 943)	482620	500.000	543.4
86 1,3,5-Trimethylbenzene	105	11.482	11.482	(0.942)	1593435	500.000	576.4
87 tert-Butylbenzene	119	11 805	11 805	(0 968)	1279529	500.000	589 8
88 1,2,4-Trimethylbenzene	105	11.853	11.853	(0.972)	1533024	500 000	565.2

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Compounds	QUANT SIG		AMOUNTS				
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
-----	----	--	-----	-----	-----	-----	-----
89 sec-Butylbenzene	105	12.023	12.023	(0.986)	2000194	500.000	584.8
90 4-Isopropyltoluene	119	12.176	12.176	(0.999)	1699937	500.000	580.4
91 1,3-Dichlorobenzene	146	12.127	12.127	(0.995)	801521	500.000	522.4
93 1,4-Dichlorobenzene	146	12.212	12.212	(1.001)	822260	500.000	504.7
94 n-Butylbenzene	91	12.577	12.577	(1.031)	1513047	500.000	615.2
95 1,2-Dichlorobenzene	146	12.583	12.583	(1.032)	792358	500.000	530.5
96 1,2-Dibromo-3-chloropropane	157	13.349	13.349	(1.095)	58013	500.000	608.1
97 1,2,4-Trichlorobenzene	180	14.188	14.188	(1.164)	402155	500.000	604.8
98 Hexachlorobutadiene	225	14.371	14.371	(1.179)	172670	500.000	545.1
99 Naphthalene	128	14.420	14.420	(1.183)	977048	500.000	602.7
100 1,2,3-Trichlorobenzene	180	14.669	14.669	(1.203)	347336	500.000	566.8

Data File: \\pp1tpa02\chem\hp3.1\30718d.b\1E0718.D
Date: 18-JUL-2000 10:17
Client ID: VSTD200
Sample Info: VSTD200 SWL
Purge Volume: 5.0
Column phase: DB 624

Instrument: hp3.1
Operator: 10099
Column diameter: 0.18



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STL Pittsburgh

VOLATILE REPORT SW-846 Method

Data file : \\qpitpa02\d\chem\hp3.i\30718d.b\1E30718.D
 Lab Smp Id: VSTD200 Client Smp ID: VSTD200
 Inj Date : 18-JUL-2000 10:17 MS Autotune Date: 20-FEB-1997 10:53
 Operator : 10099 Inst ID: hp3.i
 Smp Info : VSTD200 5ML
 Misc Info : ,30718d.b,8260bh2o.m,4-dwh20.sub
 Comment :
 Method : \\QPITPA02\D\chem\hp3.i\30718d.b\8260bh2o.m
 Meth Date : 18-Jul-2000 10:48 gordonk Quant Type: ISTD
 Cal Date : 18-JUL-2000 10:17 Cal File: 1E30718.D
 Als bottle: 13 Calibration Sample, Level: 5
 Dil Factor: 1.00000 Compound Sublist: 4-dwh20.sub
 Integrator: HP RTE
 Target Version: 4.04
 Processing Host: PITPC073

*KEG
7/18/00*

Concentration Formula: Amt * DF * 1/Vo * Vt

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	Sample Volume
Vt	1.000	mg/L conversion (1.0 if no conversion)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ng)	ON-COL (ng)
* 46 Fluorobenzene	96	6.754	6.754	(1.000)	552460	250.000	
* 69 Chlorobenzene-d5	119	9.873	9.873	(1.000)	165000	250.000	
* 92 1,4-Dichlorobenzene-d4	152	12.190	12.190	(1.000)	306229	250.000	
\$ 39 Dibromofluoromethane	113	6.000	6.000	(0.888)	599005	1000.00	1065
\$ 43 1,2-Dichloroethane-d4	65	6.364	6.364	(0.942)	734193	1000.00	1050
\$ 59 Toluene-d8	98	8.432	8.432	(0.854)	2632294	1000.00	1087
\$ 80 Bromofluorobenzene	95	11.041	11.041	(1.118)	1154935	1000.00	1097
1 Dichlorodifluoromethane	85	1.335	1.335	(0.198)	282910	1000.00	1059
2 Chloromethane	50	1.493	1.493	(0.221)	478583	1000.00	1069
3 Vinyl Chloride	62	1.603	1.603	(0.237)	563658	1000.00	1107
4 Bromomethane	94	1.901	1.901	(0.281)	200207	1000.00	917.6
5 Chloroethane	64	2.004	2.004	(0.297)	161516	1000.00	950.7
6 Trichlorofluoromethane	101	2.241	2.241	(0.332)	299885	1000.00	979.3
12 1,1-Dichloroethene	96	2.813	2.813	(0.417)	538067	1000.00	941.0
15 Carbon Disulfide	76	3.044	3.044	(0.451)	1498768	1000.00	1076
13 Acetone	43	3.038	3.038	(0.450)	288661	1000.00	460.8

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Compounds	QUANT SIG			AMOUNTS			
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
18 Methylene Chloride	84	3.494	3.494	(0.517)	662971	1000.00	935.4
19 trans-1,2-Dichloroethene	96	3.901	3.901	(0.578)	472150	1000.00	1036
20 Methyl tert-butyl ether	73	4.041	4.041	(0.598)	1021031	1000.00	1263
24 1,1-Dichloroethane	63	4.558	4.558	(0.675)	966979	1000.00	1048
27 2,2-Dichloropropane	77	5.361	5.361	(0.794)	582485	1000.00	1187
28 cis-1,2-dichloroethene	96	5.373	5.373	(0.796)	616456	1000.00	1110
M 29 1,2-Dichloroethene (total)	96				1088606	2000.00	2154
30 Bromochloromethane	128	5.671	5.671	(0.840)	297733	1000.00	1067
31 2-Butanone	43	5.483	5.483	(0.812)	414517	1000.00	1166
37 Chloroform	83	5.811	5.811	(0.860)	998463	1000.00	1052
38 1,1,1-Trichloroethane	97	5.987	5.987	(0.887)	840980	1000.00	1258
40 1,1-Dichloropropene	75	6.188	6.188	(0.916)	555244	1000.00	1236
41 Carbon Tetrachloride	117	6.188	6.188	(0.916)	659544	1000.00	1252
42 Benzene	78	6.419	6.419	(0.950)	2194178	1000.00	1066
45 1,2-Dichloroethane	62	6.450	6.450	(0.955)	817111	1000.00	1076
47 Trichloroethene	130	7.161	7.161	(1.060)	617915	1000.00	1158
49 1,2-Dichloropropane	63	7.386	7.386	(1.094)	590284	1000.00	1133
50 Dibromomethane	93	7.514	7.514	(1.113)	380556	1000.00	1088
53 Bromodichloromethane	83	7.702	7.702	(1.140)	762952	1000.00	1174
57 cis-1,3-Dichloropropene	75	8.164	8.164	(1.209)	851359	1000.00	1274
58 4-Methyl-2-Pentanone	43	8.347	8.347	(0.845)	766045	1000.00	1308
60 Toluene	91	8.499	8.499	(0.861)	2949709	1000.00	1088
61 trans-1,3-Dichloropropene	75	8.730	8.730	(0.884)	960836	1000.00	1236
63 1,3-Dichloropropane	76	9.071	9.071	(0.919)	1078916	1000.00	1097
64 1,1,2-Trichloroethane	97	8.906	8.906	(0.902)	609460	1000.00	1022
65 Tetrachloroethene	164	9.058	9.058	(0.917)	517367	1000.00	1112
66 2-Hexanone	43	9.180	9.180	(0.930)	551972	1000.00	1377
67 Dibromochloromethane	129	9.302	9.302	(0.942)	673982	1000.00	1188
68 1,2-Dibromoethane	107	9.399	9.399	(0.952)	628981	1000.00	1089
70 Chlorobenzene	112	9.904	9.904	(1.003)	2097586	1000.00	1012
71 1,1,1,2-Tetrachloroethane	131	9.989	9.989	(1.012)	746023	1000.00	1123
72 Ethylbenzene	106	10.019	10.019	(1.015)	1175675	1000.00	1109
73 m + p-Xylene	106	10.141	10.141	(1.027)	3213176	2000.00	2300
74 Xylene-o	106	10.530	10.530	(1.067)	1542066	1000.00	1186
M 75 Xylenes (total)	106				4755242	1000.00	3656
76 Styrene	104	10.542	10.542	(1.068)	2632021	1000.00	1201
77 Bromoform	173	10.719	10.719	(1.086)	382742	1000.00	1258
78 Isopropylbenzene	105	10.901	10.901	(1.104)	3922809	1000.00	1186
79 Bromobenzene	156	11.187	11.187	(0.918)	914391	1000.00	1081
81 n-Propylbenzene	120	11.309	11.309	(0.928)	1105709	1000.00	1130
82 2-Chlorotoluene	126	11.497	11.497	(0.943)	1122607	1000.00	1115
83 1,1,2,2-Tetrachloroethane	83	11.187	11.187	(0.918)	877268	1000.00	1016
84 1,2,3-Trichloropropane	110	11.223	11.223	(0.921)	281212	1000.00	990.8
85 4-Chlorotoluene	126	11.497	11.497	(0.943)	1122607	1000.00	1115
86 1,3,5-Trimethylbenzene	105	11.485	11.485	(0.942)	3664745	1000.00	1157
87 tert-Butylbenzene	119	11.807	11.807	(0.969)	2894139	1000.00	1163
88 1,2,4-Trimethylbenzene	105	11.856	11.856	(0.973)	3439193	1000.00	1118

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Compounds	QUANT SIG				AMOUNTS		
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
89 sec-Butylbenzene	105	12.026	12.026	(0.987)	4432714	1000.00	1137
90 4-Isopropyltoluene	119	12.172	12.172	(0.999)	3872965	1000.00	1155
91 1,3-Dichlorobenzene	146	12.130	12.130	(0.995)	1824477	1000.00	1063
93 1,4-Dichlorobenzene	146	12.215	12.215	(1.002)	1879646	1000.00	1038
94 n-Butylbenzene	91	12.580	12.580	(1.032)	3578097	1000.00	1242
95 1,2-Dichlorobenzene	146	12.586	12.586	(1.032)	1864528	1000.00	1104
96 1,2-Dibromo-3-chloropropane	157	13.346	13.346	(1.095)	145809	1000.00	1288
97 1,2,4-Trichlorobenzene	180	14.185	14.185	(1.164)	956642	1000.00	1231
98 Hexachlorobutadiene	225	14.374	14.374	(1.179)	401501	1000.00	1118
99 Naphthalene	128	14.422	14.422	(1.183)	2314780	1000.00	1224
100 1,2,3-Trichlorobenzene	180	14.672	14.672	(1.204)	810117	1000.00	1155

CONTINUING CALIBRATION COMPOUNDS
 PERCENT DRIFT REPORT

Instrument ID: hp3.i
 Lab File ID: CC30718.D
 Analysis Type: WATER

Injection Date: 19-JUL-2000 05:59
 Lab Sample ID: VSTD50
 Method File: \\QPITPA02\D\chem\hp3.i\30719d.b

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
154 Xylenes (total)	750.0000	670.8101	10.6	50.0
153 1,2-Dichloroethene (total)	500.0000	433.4868	13.3	50.0
1 Dichlorodifluoromethane	250.0000	214.7564	14.1	50.0
2 Chloromethane	250.0000	223.5403	10.6	50.0
3 Vinyl Chloride	250.0000	207.6151	17.0	20.0
4 Bromomethane	250.0000	211.6733	15.3	50.0
5 Chloroethane	250.0000	205.7491	17.7	50.0
6 Trichlorofluoromethane	250.0000	244.9342	2.0	50.0
9 1,1-Dichloroethene	250.0000	209.3456	16.3	20.0
106 Acetone	250.0000	151.7100	39.3	50.0
107 Carbon Disulfide	250.0000	206.1406	17.5	50.0
10 Methylene Chloride	250.0000	212.9580	14.8	50.0
13 trans-1,2-Dichloroethene	250.0000	213.9132	14.4	50.0
134 Methyl tert-butyl ether	250.0000	177.9717	28.8	50.0
15 1,1-Dichloroethane	250.0000	218.5195	12.6	50.0
74 2,2-Dichloropropane	250.0000	214.2189	14.3	50.0
17 cis-1,2-dichloroethene	250.0000	219.0322	12.4	50.0
108 2-Butanone	250.0000	222.7404	10.9	50.0
19 Bromochloromethane	250.0000	221.6368	11.3	50.0
18 Chloroform	250.0000	220.2654	11.9	20.0
20 1,1,1-Trichloroethane	250.0000	201.3100	19.5	50.0
149 Dibromofluoromethane	250.0000	261.4196	4.6	50.0
21 Carbon Tetrachloride	250.0000	191.0248	23.6	50.0
75 1,1-Dichloropropene	250.0000	190.4582	23.8	50.0
150 1,2-Dichloroethane-d4	250.0000	250.7912	0.3	50.0
24 Benzene	250.0000	215.2245	13.9	50.0
23 1,2-Dichloroethane	250.0000	215.7863	13.7	50.0
137 Fluorobenzene	250.0000	250.0000	0.0	50.0
26 Trichloroethene	250.0000	211.5349	15.4	50.0
27 1,2-Dichloropropane	250.0000	213.4522	14.6	20.0
60 Dibromomethane	250.0000	223.1864	10.7	50.0
28 Bromodichloromethane	250.0000	226.9043	9.2	50.0
31 cis-1,3-Dichloropropene	250.0000	222.2355	11.1	50.0
110 4-Methyl-2-Pentanone	250.0000	238.5611	4.6	50.0
151 Toluene-d8	250.0000	247.8998	0.8	50.0
33 Toluene	250.0000	219.8473	12.1	20.0
34 trans-1,3-Dichloropropene	250.0000	223.1228	10.8	50.0
36 1,1,2-Trichloroethane	250.0000	214.1471	14.3	50.0
37 Tetrachloroethene	250.0000	213.6518	14.5	50.0

CONTINUING CALIBRATION COMPOUNDS
 PERCENT DRIFT REPORT

Instrument ID: hp3.i
 Lab File ID: CC30718.D
 Analysis Type: WATER

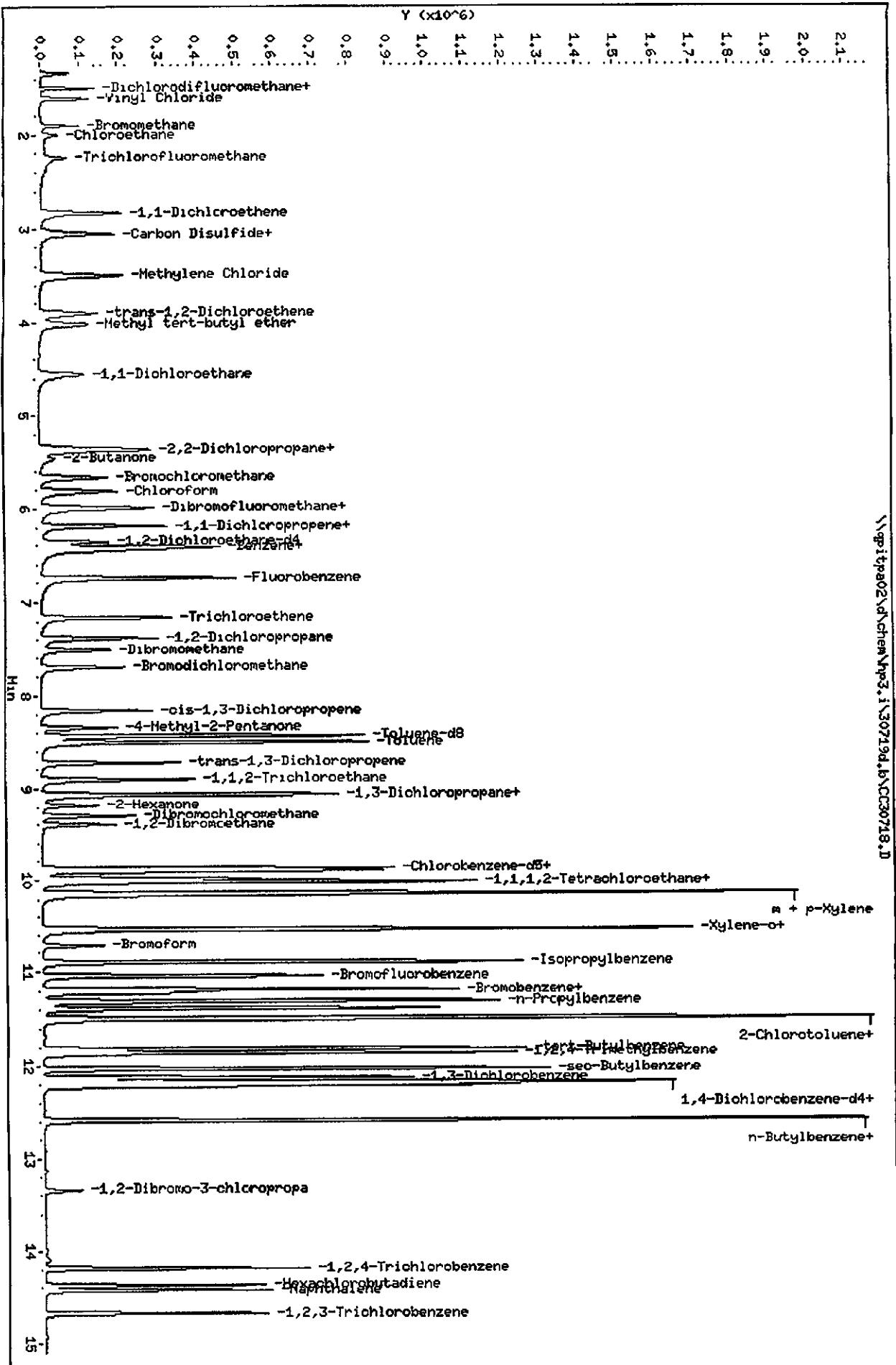
Injection Date: 19-JUL-2000 05:59
 Lab Sample ID: VSTD50
 Method File: \\QPITPA02\D\chem\hp3.i\30719d.b

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
77 1,3-Dichloropropane	250.0000	216.5859	13.4	50.0
111 2-Hexanone	250.0000	237.5154	5.0	50.0
38 Dibromochloromethane	250.0000	223.0936	10.8	50.0
63 1,2-Dibromoethane	250.0000	212.7429	14.9	50.0
101 Chlorobenzene-d5	250.0000	250.0000	0.0	50.0
40 Chlorobenzene	250.0000	213.2912	14.7	50.0
64 1,1,1,2-Tetrachloroethane	250.0000	218.9239	12.4	50.0
41 Ethylbenzene	250.0000	222.8807	10.8	20.0
0 m + p-Xylene	500.0000	428.3477	14.3	50.0
0 Xylene-o	250.0000	217.5345	13.0	50.0
44 Styrene	250.0000	217.7725	12.9	50.0
45 Bromoform	250.0000	216.3090	13.5	50.0
144 Isopropylbenzene	250.0000	226.7241	9.3	50.0
152 Bromofluorobenzene	250.0000	241.2382	3.5	50.0
46 1,1,2,2-Tetrachloroethane	250.0000	205.1696	17.9	50.0
84 Bromobenzene	250.0000	216.7219	13.3	50.0
65 1,2,3-Trichloropropane	250.0000	204.0081	18.4	50.0
83 n-Propylbenzene	250.0000	223.6974	10.5	50.0
85 1,3,5-Trimethylbenzene	250.0000	220.0810	12.0	50.0
86 2-Chlorotoluene	250.0000	216.6996	13.3	50.0
87 4-Chlorotoluene	250.0000	216.6996	13.3	50.0
88 tert-Butylbenzene	250.0000	224.6284	10.1	50.0
89 1,2,4-Trimethylbenzene	250.0000	220.0554	12.0	50.0
90 sec-Butylbenzene	250.0000	224.7160	10.1	50.0
48 1,3-Dichlorobenzene	250.0000	215.7344	13.7	50.0
91 4-Isopropyltoluene	250.0000	220.7759	11.7	50.0
102 1,4-Dichlorobenzene-d4	250.0000	250.0000	0.0	50.0
49 1,4-Dichlorobenzene	250.0000	211.9145	15.2	50.0
94 n-Butylbenzene	250.0000	215.4292	13.8	50.0
50 1,2-Dichlorobenzene	250.0000	210.0983	16.0	50.0
69 1,2-Dibromo-3-chloropropane	250.0000	197.1911	21.1	50.0
95 1,2,4-Trichlorobenzene	250.0000	224.5647	10.2	50.0
96 Hexachlorobutadiene	250.0000	195.1661	21.9	50.0
97 Naphthalene	250.0000	202.2226	19.1	50.0
98 1,2,3-Trichlorobenzene	250.0000	200.2308	19.9	50.0

Data File: \\pptpa02\nd\chem\hp3.1\30719d.b\CC30718.D
Date: 19-JUL-2000 05:59
Client ID: VST150
Sample Info: VST150 5HL
Purge Volume: 5.0
Column Phase: DB 624

Instrument: hp3.1
Operator: 10099
Column diameter: 0.18

\\pptpa02\nd\chem\hp3.1\30719d.b\CC30718.D



STL Pittsburgh

VOLATILE REPORT SW-846 Method

Data file : \\qpitpa02\d\chem\hp3.i\30719d.b\CC30718.D
 Lab Smp Id: VSTD50 Client Smp ID: VSTD50
 Inj Date : 19-JUL-2000 05:59 MS Autotune Date: 20-FEB-1997 10:53
 Operator : 10099 Inst ID: hp3.i
 Smp Info : VSTD50 5ML
 Misc Info : VSTD50,30719d.b,8260bh2o.m,4-dwh20.sub
 Comment :
 Method : \\QPITPA02\D\chem\hp3.i\30719d.b\8260bh2o.m
 Meth Date : 19-Jul-2000 06:30 gordonk Quant Type: ISTD
 Cal Date : 18-JUL-2000 13:16 Cal File: 4A30718.D
 Als bottle: 2 Continuing Calibration Sample
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 4-dwh20.sub
 Target Version: 4.04
 Processing Host: PITPC073

*KLG
7/19/00*

Concentration Formula: Amt * DF * 1/Vo*Vt

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	Sample Volume
Vt	1.000	mg/L conversion (1.0 if no conversion)

Compounds	QUANT SIG				AMOUNTS		
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
* 46 Fluorobenzene	96	6.751	6.751	(1.000)	550938	250.000	
* 69 Chlorobenzene-d5	119	9.871	9.871	(1.000)	161635	250.000	
* 92 1,4-Dichlorobenzene-d4	152	12.194	12.194	(1.000)	279770	250.000	
\$ 39 Dibromofluoromethane	113	5.997	5.997	(0.888)	139811	250.000	261.4
\$ 43 1,2-Dichloroethane-d4	65	6.356	6.356	(0.941)	166019	250.000	250.8
\$ 59 Toluene-d8	98	8.430	8.430	(0.854)	580042	250.000	247.9
\$ 80 Bromofluorobenzene	95	11.039	11.039	(1.118)	251289	250.000	241.2
1 Dichlorodifluoromethane	85	1.333	1.333	(0.197)	59695	250.000	214.8
2 Chloromethane	50	1.491	1.491	(0.221)	109155	250.000	223.5
3 Vinyl Chloride	62	1.600	1.600	(0.237)	114528	250.000	207.6
4 Bromomethane	94	1.898	1.898	(0.281)	48003	250.000	211.7
5 Chloroethane	64	1.996	1.996	(0.296)	36071	250.000	205.7
6 Trichlorofluoromethane	101	2.239	2.239	(0.332)	73765	250.000	244.9
12 1,1-Dichloroethene	96	2.823	2.823	(0.418)	125951	250.000	209.3
15 Carbon Disulfide	76	3.054	3.054	(0.452)	322471	250.000	206.1
13 Acetone	43	3.023	3.023	(0.448)	85904	250.000	151.7

664 164

Compounds	QUANT SIG		AMOUNTS				
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
-----	----	--	-----	-----	-----	-----	-----
18 Methylene Chloride	84	3.492	3.492	(0.517)	152930	250.000	213.0
19 trans-1,2-Dichloroethene	96	3.905	3.905	(0.578)	105130	250.000	213.9
20 Methyl tert-butyl ether	73	4.021	4.021	(0.596)	176387	250.000	178.0
24 1,1-Dichloroethane	63	4.556	4.556	(0.675)	216191	250.000	218.5
27 2,2-Dichloropropane	77	5.352	5.352	(0.793)	116954	250.000	214.2
28 cis-1,2-dichloroethene	96	5.371	5.371	(0.796)	133107	250.000	219.0
M 29 1,2-Dichloroethene (total)	96				238238	500.000	433.5
30 Bromochloromethane	128	5.669	5.669	(0.840)	65993	250.000	221.6
31 2-Butanone	43	5.462	5.462	(0.809)	80464	250.000	222.7
37 Chloroform	83	5.802	5.802	(0.859)	225040	250.000	220.3
38 1,1,1-Trichloroethane	97	5.979	5.979	(0.886)	147000	250.000	201.3
40 1,1-Dichloropropene	75	6.186	6.186	(0.916)	97352	250.000	190.4
41 Carbon Tetrachloride	117	6.180	6.180	(0.915)	112165	250.000	191.0
42 Benzene	78	6.417	6.417	(0.950)	484920	250.000	215.2
45 1,2-Dichloroethane	62	6.447	6.447	(0.955)	177966	250.000	215.8
47 Trichloroethene	130	7.159	7.159	(1.060)	125339	250.000	211.5
49 1,2-Dichloropropane	63	7.384	7.384	(1.094)	121162	250.000	213.4
50 Dibromomethane	93	7.511	7.511	(1.113)	83305	250.000	223.2
53 Bromodichloromethane	83	7.694	7.694	(1.140)	158329	250.000	226.9
57 cis-1,3-Dichloropropene	75	8.156	8.156	(1.208)	164561	250.000	222.2
58 4-Methyl-2-Pentanone	43	8.338	8.338	(0.845)	142368	250.000	238.6
60 Toluene	91	8.497	8.497	(0.861)	639080	250.000	219.8
61 trans-1,3-Dichloropropene	75	8.728	8.728	(0.884)	192382	250.000	223.1
63 1,3-Dichloropropane	76	9.062	9.062	(0.918)	227208	250.000	216.6
64 1,1,2-Trichloroethane	97	8.904	8.904	(0.902)	136538	250.000	214.1
65 Tetrachloroethene	164	9.056	9.056	(0.917)	108019	250.000	213.6
66 2-Hexanone	43	9.178	9.178	(0.930)	97872	250.000	237.5
67 Dibromochloromethane	129	9.299	9.299	(0.942)	136415	250.000	223.1
68 1,2-Dibromoethane	107	9.397	9.397	(0.952)	133562	250.000	212.7
70 Chlorobenzene	112	9.901	9.901	(1.003)	461923	250.000	213.3
71 1,1,1,2-Tetrachloroethane	131	9.986	9.986	(1.012)	157915	250.000	218.9
72 Ethylbenzene	106	10.017	10.017	(1.015)	254475	250.000	222.9
73 m + p-Xylene	106	10.138	10.138	(1.027)	648104	500.000	428.3
74 Xylene-o	106	10.528	10.528	(1.067)	311036	250.000	217.5
M 75 Xylenes (total)	106				959141	250.000	670.8
76 Styrene	104	10.540	10.540	(1.068)	522874	250.000	217.8
77 Bromoform	173	10.710	10.710	(1.085)	71782	250.000	216.3
78 Isopropylbenzene	105	10.899	10.899	(1.104)	830564	250.000	226.7
79 Bromobenzene	156	11.184	11.184	(0.917)	186919	250.000	216.7
81 n-Propylbenzene	120	11.306	11.306	(0.927)	228851	250.000	223.7
82 2-Chlorotoluene	126	11.495	11.495	(0.943)	221992	250.000	216.7
83 1,1,2,2-Tetrachloroethane	83	11.184	11.184	(0.917)	182857	250.000	205.2
84 1,2,3-Trichloropropane	110	11.221	11.221	(0.920)	60297	250.000	204.0
85 4-Chlorotoluene	126	11.495	11.495	(0.943)	221992	250.000	216.7
86 1,3,5-Trimethylbenzene	105	11.482	11.482	(0.942)	718551	250.000	220.1
87 tert-Butylbenzene	119	11.805	11.805	(0.968)	583923	250.000	224.6
88 1,2,4-Trimethylbenzene	105	11.853	11.853	(0.972)	701362	250.000	220.0

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Compounds	QUANT SIG		AMOUNTS				
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
89 sec-Butylbenzene	105	12.024	12.024	(0.986)	920064	250.000	224.7
90 4-Isopropyltoluene	119	12.176	12.176	(0.999)	768077	250.000	220.8
91 1,3-Dichlorobenzene	146	12.127	12.127	(0.995)	379929	250.000	215.7
93 1,4-Dichlorobenzene	146	12.218	12.218	(1.002)	390483	250.000	211.9
94 n-Butylbenzene	91	12.577	12.577	(1.031)	656269	250.000	215.4
95 1,2-Dichlorobenzene	146	12.583	12.583	(1.032)	365466	250.000	210.1
96 1,2-Dibromo-3-chloropropane	157	13.349	13.349	(1.095)	24031	250.000	197.2
97 1,2,4-Trichlorobenzene	180	14.189	14.189	(1.164)	190221	250.000	224.6
98 Hexachlorobutadiene	225	14.371	14.371	(1.179)	76840	250.000	195.2
99 Naphthalene	128	14.426	14.426	(1.183)	444864	250.000	202.2
100 1,2,3-Trichlorobenzene	180	14.669	14.669	(1.203)	155271	250.000	200.2

**GC/MS VOLATILE
QC DATA**

Data File: \\qpitpa02\chem\hp3.1\30718d.b\BF30718.D

Date : 18-JUL-2000 05:21

Client ID: 31019D

Instrument: hp3.1

Sample Info: BFB 192-185-1 50NG

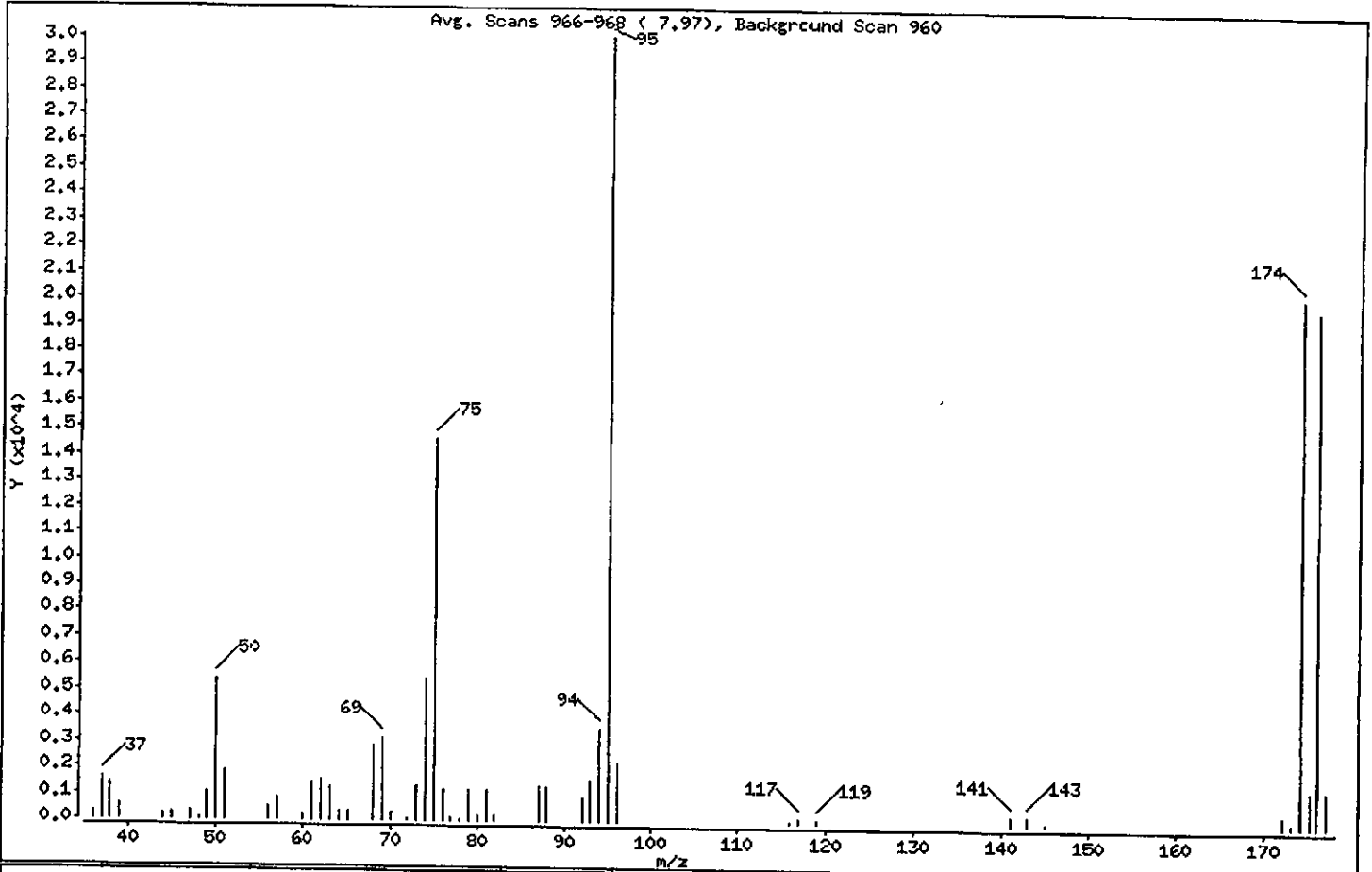
Volume Injected (uL): 1.0

Operator: 10099

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	17.94
75	30.00 - 60.00% of mass 95	48.67
96	5.00 - 9.00% of mass 95	7.41
173	Less than 2.00% of mass 174	0.52 (0.77)
174	50.00 - 100.00% of mass 95	67.61
175	5.00 - 9.00% of mass 174	4.51 (6.67)
176	95.00 - 101.00% of mass 174	65.92 (97.50)
177	5.00 - 9.00% of mass 176	4.53 (6.87)

Date : 18-JUL-2000 05:21

Client ID: 31019D

Instrument: hp3.1

664 168

Sample Info: BFB 192-185-1 50NG

Volume Injected (uL): 1.0

Operator: 10099

Column phase: DB624 20m

Column diameter: 0.18

Data File: BF30718.D

Spectrum: Avg. Scans 966-968 (7.97), Background Scan 960

Location of Maximum: 95.00

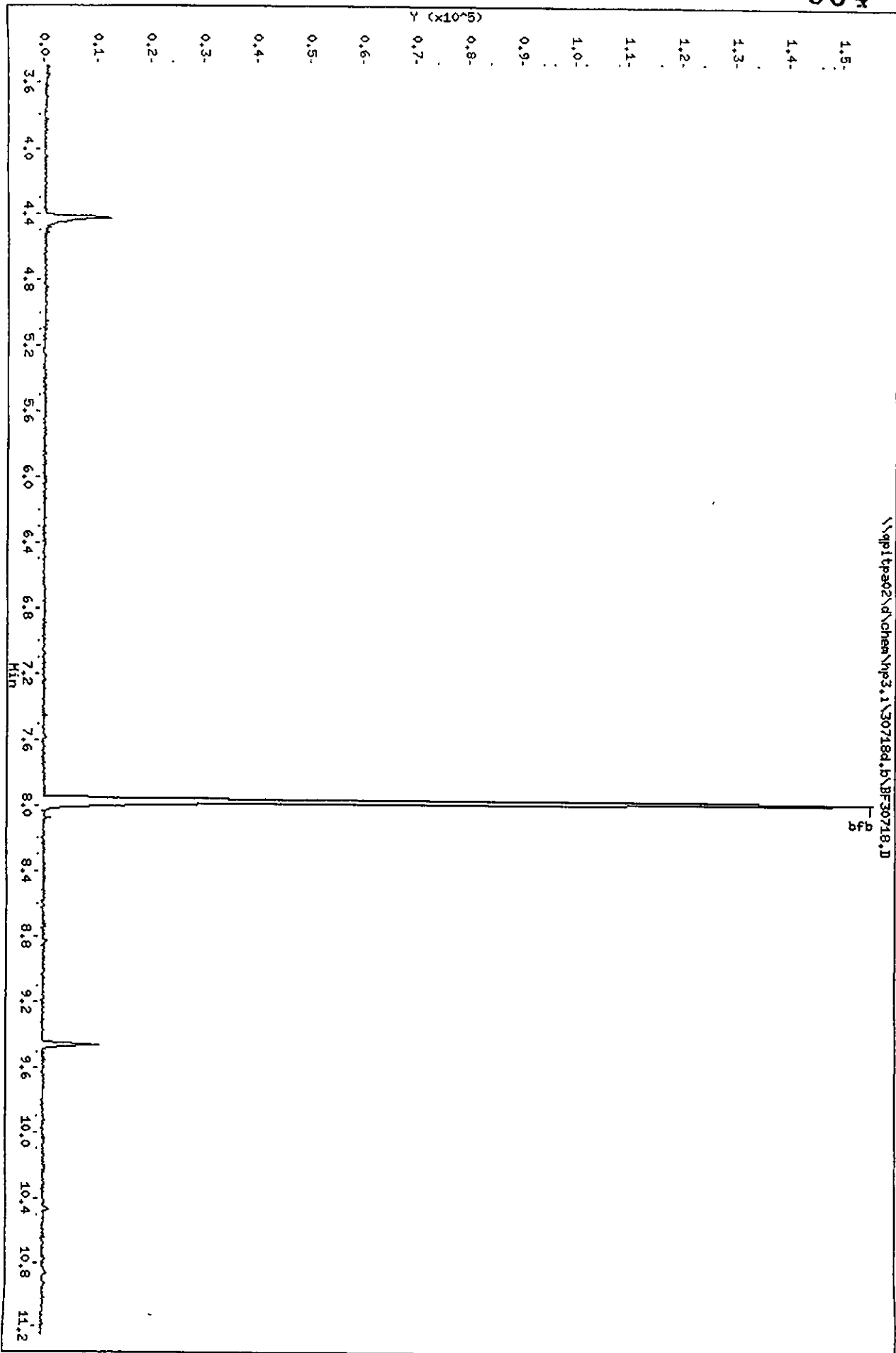
Number of points: 52

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36.00	253	61.00	1416	78.00	77	119.00	143
37.00	1622	62.00	1493	79.00	1197	141.00	363
38.00	1417	63.00	1272	80.00	205	143.00	376
39.00	546	64.00	320	81.00	1172	145.00	71
44.00	240	65.00	353	82.00	175	172.00	394
45.00	288	68.00	2818	87.00	1308	173.00	156
47.00	315	69.00	3125	88.00	1308	174.00	20312
48.00	93	70.00	287	92.00	871	175.00	1354
49.00	1050	72.00	68	93.00	1497	176.00	19800
50.00	5391	73.00	1340	94.00	3551	177.00	1361
51.00	1883	74.00	5389	95.00	30048		
56.00	457	75.00	14625	96.00	2226		
57.00	832	76.00	1202	116.00	75		
60.00	187	77.00	107	117.00	211		

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Date : 18-JUL-2000 05:21
Client ID: 31019D
Sample Info: BFB 192-185-1 50NG
Volume Injected (uL): 1.0
Column phase: DB624 20m

Instrument: hps3.i
Operator: 10099
Column diameter: 0.18

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Data File: \\qpitpa02\d\chem\hp3.i\30719d.b\BF30719.D

Date : 19-JUL-2000 05:37

Client ID: 31019D

Instrument: hp3.i

Sample Info: BFB 192-188-2 50NG

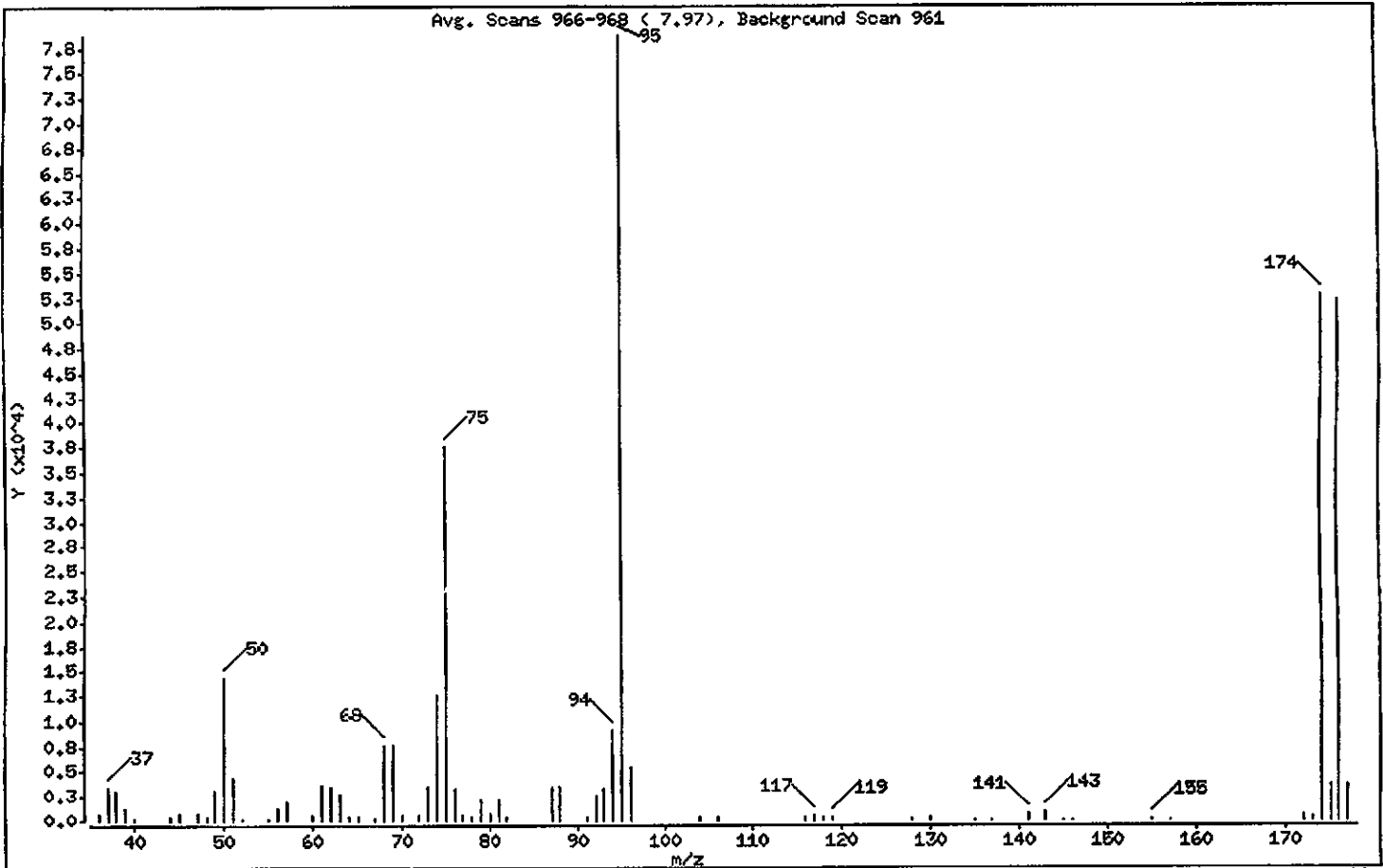
Volume Injected (uL): 1.0

Operator: 10099

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	18.11
75	30.00 - 60.00% of mass 95	47.60
96	5.00 - 9.00% of mass 95	6.87
173	Less than 2.00% of mass 174	0.46 (0.69)
174	50.00 - 100.00% of mass 95	67.13
175	5.00 - 9.00% of mass 174	4.69 (6.99)
176	95.00 - 101.00% of mass 174	66.38 (98.89)
177	5.00 - 9.00% of mass 176	4.63 (6.98)

Data File: \\qpitpa02\d\ohem\hp3.i\30719d.b\BF30719.D

Date : 19-JUL-2000 05:37

Client ID: 31019D

Instrument: hp3.i

Sample Info: BFB 192-188-2 50NG

Volume Injected (uL): 1.0

Operator: 10099

Column phase: DB624 20m

Column diameter: 0.18

Data File: BF30719.D

Spectrum: Avg. Scans 966-968 (7.97), Background Scan 961

Location of Maximum: 95.00

Number of points: 68

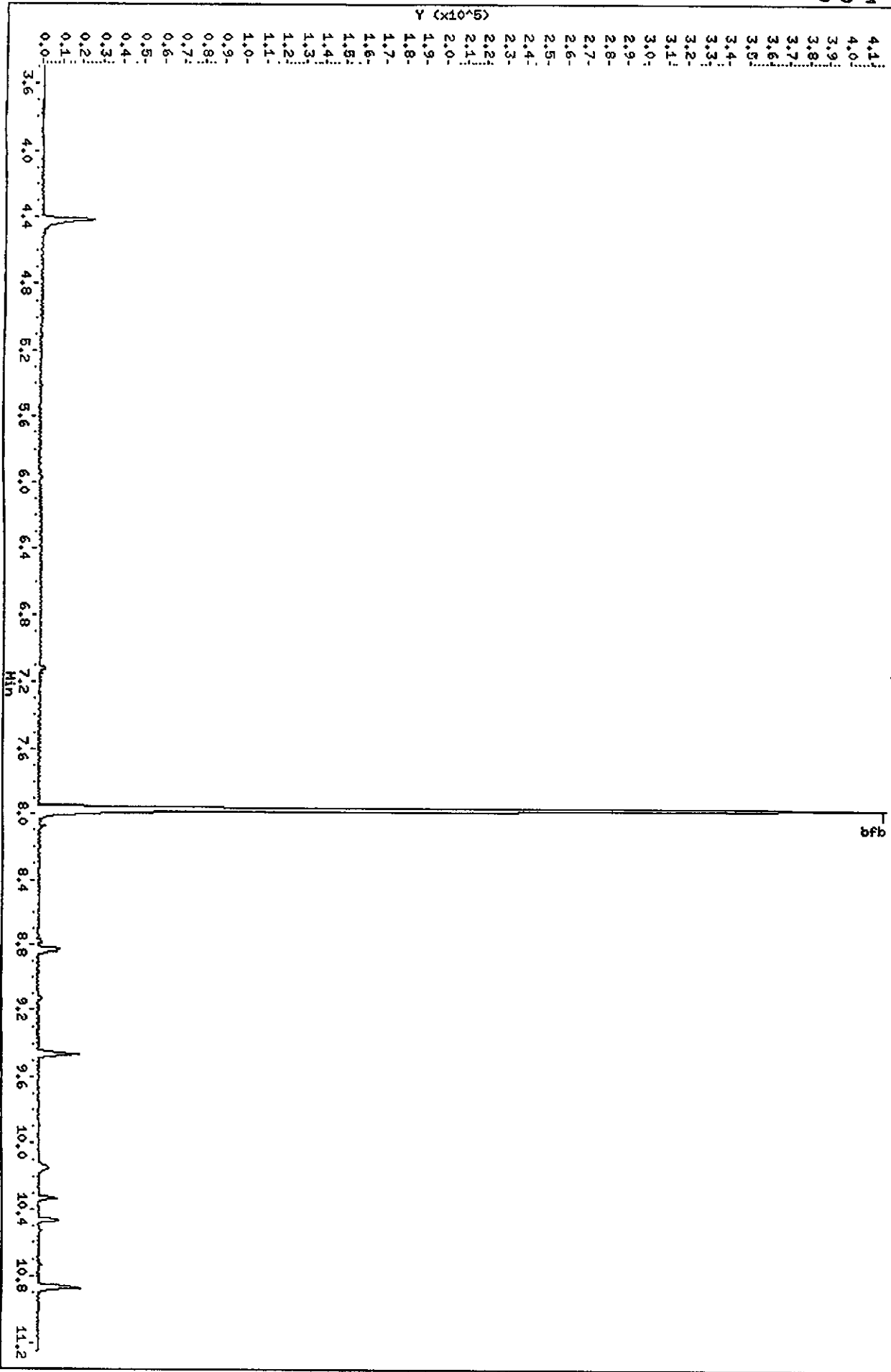
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36.00	643	62.00	3435	82.00	420	138.00	69
37.00	3440	63.00	2793	87.00	3489	137.00	79
38.00	3144	64.00	310	88.00	3439	141.00	778
39.00	1350	65.00	325	91.00	279	143.00	824
40.00	262	67.00	96	92.00	2839	145.00	84
44.00	337	68.00	7669	93.00	3190	146.00	74
45.00	676	69.00	7618	94.00	9046	155.00	96
47.00	767	70.00	563	95.00	78712	157.00	75
48.00	407	72.00	477	96.00	5406	172.00	512
49.00	3044	73.00	3401	97.00	84	173.00	362
50.00	14258	74.00	12482	104.00	339	174.00	52840
51.00	4263	75.00	37472	106.00	425	175.00	3693
52.00	166	76.00	3249	116.00	296	176.00	52248
55.00	249	77.00	467	117.00	528	177.00	3647
56.00	1188	78.00	371	118.00	288		
57.00	2020	79.00	2236	119.00	330		
60.00	628	80.00	716	128.00	255		
61.00	3658	81.00	2283	130.00	303		

Data File: \\ppitpa02\chem\hps.1\30719d.b\F30719.D
Date: 19-JUL-2000 05:37
Client ID: 31019D
Sample Info: BFB 192-188-2 BONG
Volume Injected (uL): 1.0
Column Phase: DB624 20m

Instrument: hps.1
Operator: 10099
Column diameter: 0.18

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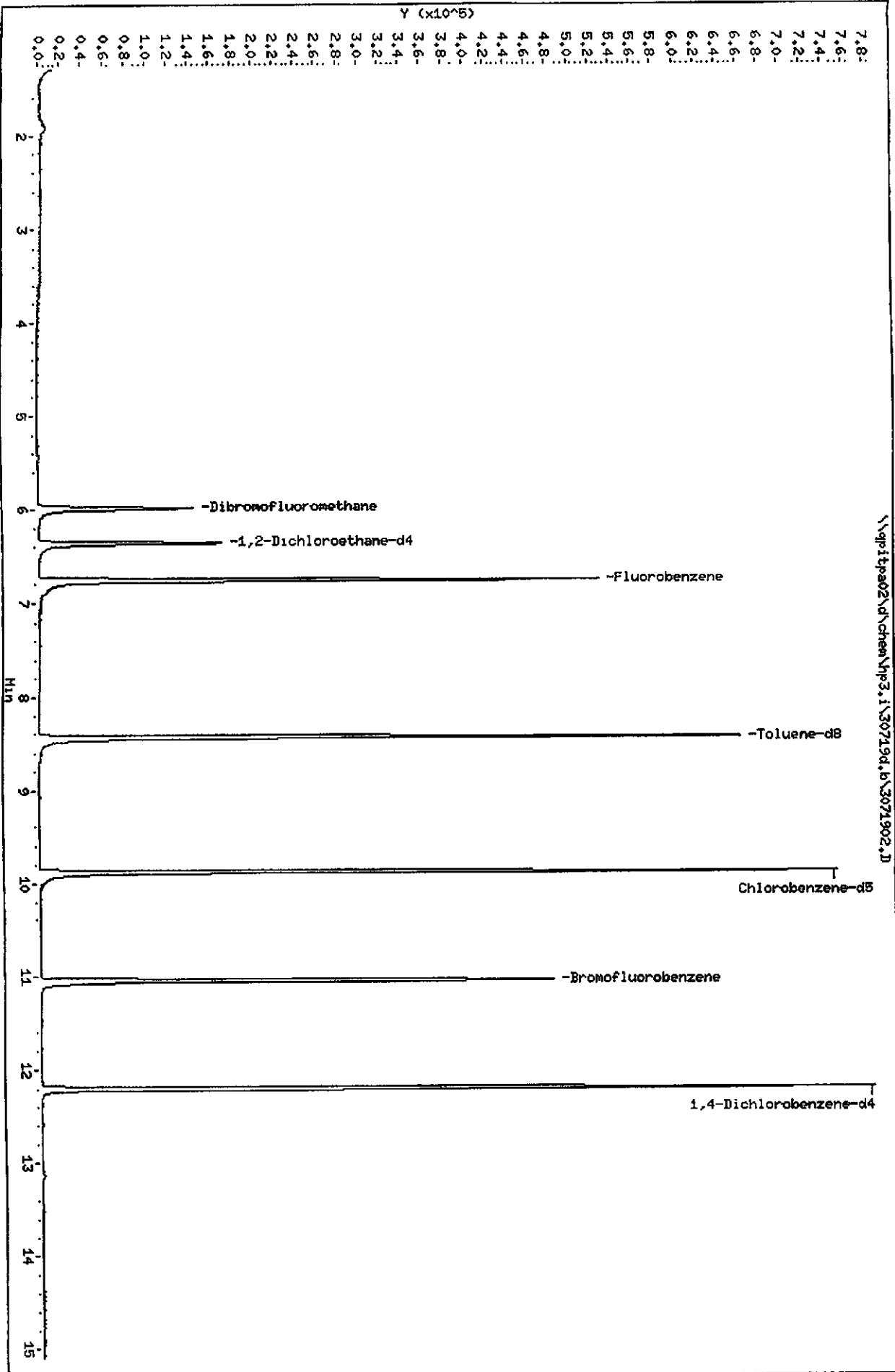
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Data File: \\sp1tpa02\chem\hps3.1\30719d.b\3071902.D
Date: 19-JUL-2000 08:53
Client ID:
Sample Info: TCLP PREP BLANK 7/17/00 (1HL/10ML)/GHL
Purge Volume: 5.0
Column phase: DB 624

Instrument: hps3.1
Operator: 10099
Column diameter: 0.18

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Data File: \\qpitpa02\d\chem\hp3.i\30719d.b\3071902.D
 Report Date: 19-Jul-2000 09:23

STL Pittsburgh

VOLATILE REPORT SW-846 Method

Data file : \\qpitpa02\d\chem\hp3.i\30719d.b\3071902.D

Lab Smp Id:

Inj Date : 19-JUL-2000 08:53

MS Autotune Date: 20-FEB-1997 10:53

Operator : 10099

Inst ID: hp3.i

Smp Info : TCLP PREP BLANK 7/17/00 (1ML/10ML)/5ML

Misc Info : ,30719d.b,8260bh2o.m,tclp.sub

Comment :

Method : \\QPITPA02\D\chem\hp3.i\30719d.b\8260bh2o.m

Meth Date : 19-Jul-2000 06:35 gordonk

Quant Type: ISTD

Cal Date : 18-JUL-2000 13:16

Cal File: 4A30718.D

Als bottle: 9

Dil Factor: 1.00000

Integrator: HP RTE

Target Version: 4.04

Processing Host: PITPC076

KLG
7/19/00

Compound Sublist: tclp.sub

Concentration Formula: Amt * DF * 1/Vo*Vt

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	Sample Volume
Vt	1.000	mg/L conversion (1.0 if no conversion)

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng)	FINAL (UG/L)
* 46 Fluorobenzene	96	6.751	6.751	(1.000)	522878	250.000	
* 69 Chlorobenzene-d5	119	9.870	9.871	(1.000)	137622	250.000	
* 92 1,4-Dichlorobenzene-d4	152	12.193	12.194	(1.000)	196541	250.000	
\$ 39 Dibromofluoromethane	113	5.984	5.997	(0.886)	114025	224.645	44.93
\$ 43 1,2-Dichloroethane-d4	65	6.355	6.356	(0.941)	139283	221.694	44.34
\$ 59 Toluene-d8	98	8.435	8.430	(0.855)	461517	231.661	46.33
\$ 80 Bromofluorobenzene	95	11.038	11.039	(1.118)	178669	201.452	40.29
3 Vinyl Chloride	62						Compound Not Detected.
12 1,1-Dichloroethene	96						Compound Not Detected.
31 2-Butanone	43						Compound Not Detected.
37 Chloroform	83						Compound Not Detected.
41 Carbon Tetrachloride	117						Compound Not Detected.
42 Benzene	78						Compound Not Detected.
45 1,2-Dichloroethane	62						Compound Not Detected.
47 Trichloroethene	130						Compound Not Detected.
65 Tetrachloroethene	164						Compound Not Detected.

664 176

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng)	FINAL (UG/L)
----- 70 Chlorobenzene	112						

Compound Not Detected.

UXB INTERNATIONAL
CHECK SAMPLE COMPOUNDS

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

Matrix: (soil/water) SOLID Lab Sample ID: C0G190000 215
 Method: SW846 8260B
 Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 07/13/00
 Work Order: DGF6V102 Date Extracted: 07/19/00
 Dilution factor: 1 Date Analyzed: 07/19/00
 Moisture %: NA

QC Batch: 0201215

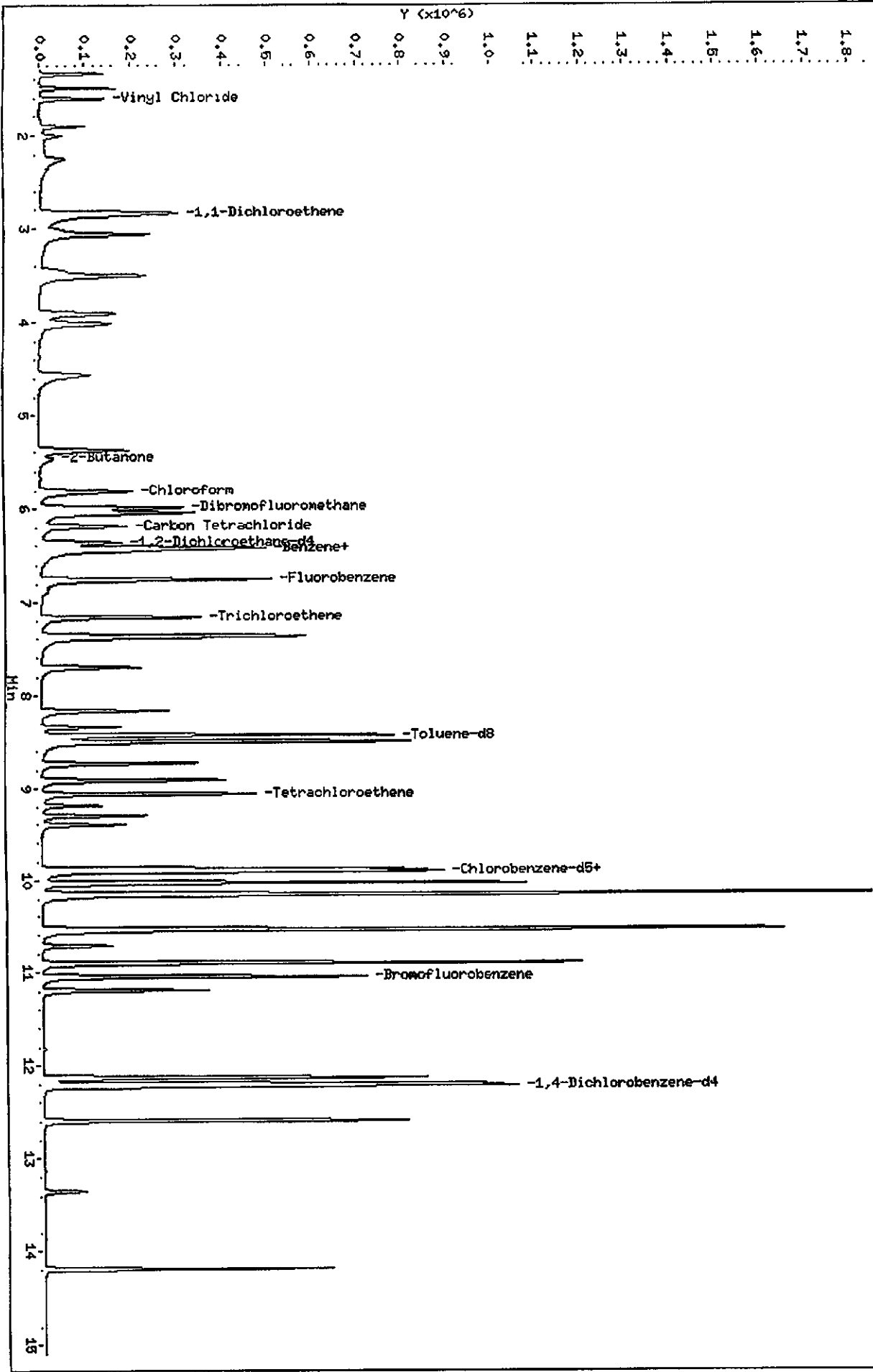
Client Sample Id: CHECK SAMPLE

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg)	mg/L
71-43-2	Benzene	0.466	Q
78-93-3	2-Butanone	0.340	
56-23-5	Carbon tetrachloride	0.476	
108-90-7	Chlorobenzene	0.443	
67-66-3	Chloroform	0.464	
107-06-2	1,2-Dichloroethane	0.460	
75-35-4	1,1-Dichloroethene	0.505	
127-18-4	Tetrachloroethene	0.438	
79-01-6	Trichloroethene	0.451	
75-01-4	Vinyl chloride	0.492	

Data File: \AQPTIP002\Nchem\hp3.1\307194.b\3071910.D
 Date: 19-JUL-2000 12:01
 Client ID:
 Sample Info: BLANK HS (1HL/10HL)/5HL
 Purge Volume: 5.0
 Column phase: DB 624

Instrument: hp3.1
 Operator: 10099
 Column diameter: 0.18

\AQPTIP002\Nchem\hp3.1\307194.b\3071910.D



Data File: \\QPITPA02\D\chem\hp3.i\30719d.b\3071910.D
 Report Date: 19-Jul-2000 12:19

STL Pittsburgh

VOLATILE REPORT SW-846 Method

Data file : \\QPITPA02\D\chem\hp3.i\30719d.b\3071910.D
 Lab Smp Id:
 Inj Date : 19-JUL-2000 12:01 MS Autotune Date: 20-FEB-1997 10:53
 Operator : 10099 Inst ID: hp3.i
 Smp Info : BLANK MS (1ML/10ML)/5ML
 Misc Info : ,30719d.b,8260bh2o.m,tclp.sub
 Comment :
 Method : \\QPITPA02\D\chem\hp3.i\30719d.b\8260bh2o.m
 Meth Date : 19-Jul-2000 06:35 gordonk Quant Type: ISTD
 Cal Date : 18-JUL-2000 13:16 Cal File: 4A30718.D
 Als bottle: 17
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: tclp.sub
 Target Version: 4.04
 Processing Host: PITPC076

*KLG
7/19/00*

Concentration Formula: Amt * DF * 1/Vo*Vt

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	Sample Volume
Vt	1.000	mg/L conversion (1.0 if no conversion)

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng)	FINAL (UG/L)
* 46 Fluorobenzene	96		6.754	6.751	(1.000)	554820	250.000	
* 69 Chlorobenzene-d5	119		9.873	9.871	(1.000)	154671	250.000	
* 92 1,4-Dichlorobenzene-d4	152		12.197	12.194	(1.000)	244548	250.000	
\$ 39 Dibromofluoromethane	113		6.000	5.997	(0.888)	136536	253.510	50.70
\$ 43 1,2-Dichloroethane-d4	65		6.365	6.356	(0.942)	172040	258.068	51.61
\$ 59 Toluene-d8	98		8.432	8.430	(0.854)	569810	254.492	50.90
\$ 80 Bromofluorobenzene	95		11.041	11.039	(1.118)	251566	252.378	50.48
3 Vinyl Chloride	62		1.603	1.600	(0.237)	136809	246.271	49.25
12 1,1-Dichloroethene	96		2.825	2.823	(0.418)	152959	252.456	50.49
31 2-Butanone	43		5.465	5.462	(0.809)	61748	169.736	33.95
37 Chloroform	83		5.805	5.802	(0.860)	238783	232.082	46.42
41 Carbon Tetrachloride	117		6.188	6.180	(0.916)	140651	237.864	47.57
42 Benzene	78		6.419	6.417	(0.950)	529220	233.243	46.65
45 1,2-Dichloroethane	62		6.450	6.447	(0.955)	190956	229.917	45.98
47 Trichloroethene	130		7.161	7.159	(1.060)	134690	225.727	45.14
65 Tetrachloroethene	164		9.059	9.056	(0.917)	106075	219.253	43.85

664 180

Compounds	QUANT SIG		CONCENTRATIONS				
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng)	FINAL (UG/L)
----- 70 Chlorobenzene	112	9.898	9.901	(1.002)	458844	221.409	44.28

UXB INTERNATIONAL
MATRIX SPIKE COMPOUNDS

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

Matrix: (soil/water) SOLID Lab Sample ID: COG130203 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 07/13/00
Work Order: DG5C7110 Date Extracted: 07/19/00
Dilution factor: 1 Date Analyzed: 07/19/00
Moisture %: 15

QC Batch: 0201215

Client Sample Id: DF/S1/0194/SDC/019

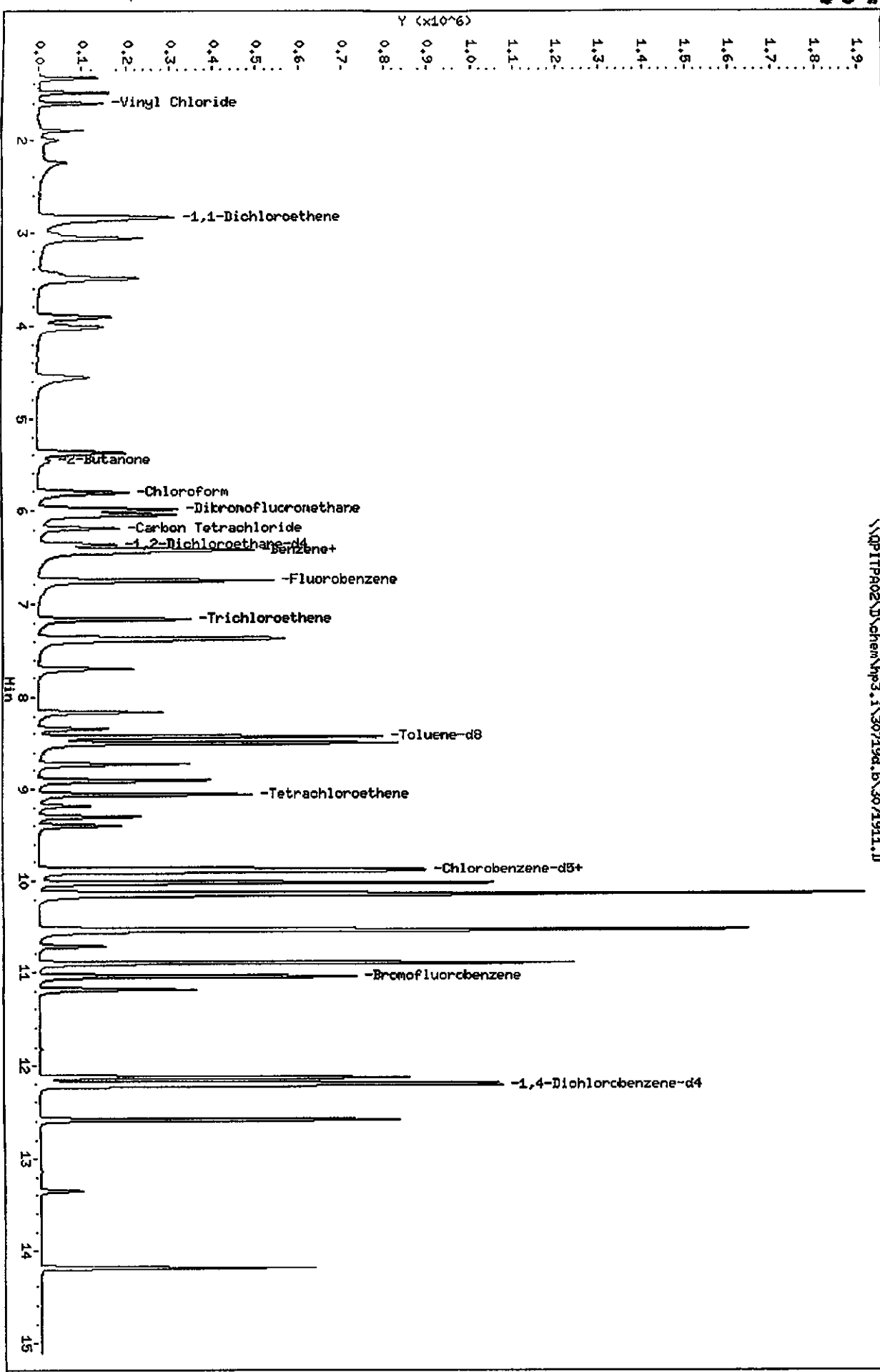
CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg)	mg/L
71-43-2	Benzene	0.450	Q
78-93-3	2-Butanone	0.309	
56-23-5	Carbon tetrachloride	0.440	
108-90-7	Chlorobenzene	0.425	
67-66-3	Chloroform	0.456	
107-06-2	1,2-Dichloroethane	0.441	
75-35-4	1,1-Dichloroethene	0.478	
127-18-4	Tetrachloroethene	0.423	
79-01-6	Trichloroethene	0.441	
75-01-4	Vinyl chloride	0.480	

FORM I

Data File: \NQPITP02\chem\hp3.1\30719d.b\3071911.D
Date: 19-JUL-2000 12:23
Client ID:
Sample Info: COG130203-001HS (4ML/10ML)/SHL
Purge Volume: 5.0
Column phase: DB 624

Instrument: hp3.1
Operator: 10099
Column diameter: 0.18

\NQPITP02\chem\hp3.1\30719d.b\3071911.D



664 183

STL Pittsburgh

VOLATILE REPORT SW-846 Method

Data file : \\QPITPA02\D\chem\hp3.i\30719d.b\3071911.D
 Lab Smp Id:
 Inj Date : 19-JUL-2000 12:23 MS Autotune Date: 20-FEB-1997 10:53
 Operator : 10099 Inst ID: hp3.i
 Smp Info : COG130203-001MS (1ML/10ML)/5ML
 Misc Info : ,30719d.b,8260bh2o.m,tclp.sub
 Comment :
 Method : \\QPITPA02\D\chem\hp3.i\30719d.b\8260bh2o.m
 Meth Date : 19-Jul-2000 06:35 gordonk Quant Type: ISTD
 Cal Date : 18-JUL-2000 13:16 Cal File: 4A30718.D
 Als bottle: 18
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.04
 Processing Host: PITPC076

Compound Sublist: tclp.sub

KLG
7/19/00

Concentration Formula: Amt * DF * 1/Vo*Vt

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	Sample Volume
Vt	1.000	mg/L conversion (1.0 if no conversion)

Compounds	QUANT SIG	CONCENTRATIONS					
		MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng)
* 46 Fluorobenzene	96	6.750	6.751	(1.000)	569256	250.000	
* 69 Chlorobenzene-d5	119	9.876	9.871	(1.000)	163938	250.000	
* 92 1,4-Dichlorobenzene-d4	152	12.193	12.194	(1.000)	260026	250.000	
\$ 39 Dibromofluoromethane	113	5.996	5.997	(0.888)	141027	255.208	51.04
\$ 43 1,2-Dichloroethane-d4	65	6.361	6.356	(0.942)	159756	233.564	46.71
\$ 59 Toluene-d8	98	8.429	8.430	(0.853)	590028	248.626	49.72
\$ 80 Bromofluorobenzene	95	11.044	11.039	(1.118)	261465	247.482	49.50
3 Vinyl Chloride	62	1.605	1.600	(0.238)	136742	239.909	47.98
12 1,1-Dichloroethene	96	2.828	2.823	(0.419)	148604	239.048	47.81
31 2-Butanone	43	5.461	5.462	(0.809)	57750	154.719	30.94
37 Chloroform	83	5.807	5.802	(0.860)	240767	228.076	45.62
41 Carbon Tetrachloride	117	6.185	6.180	(0.916)	133473	220.000	44.00
42 Benzene	78	6.422	6.417	(0.951)	523911	225.048	45.01
45 1,2-Dichloroethane	62	6.452	6.447	(0.956)	188076	220.707	44.14
47 Trichloroethene	130	7.164	7.159	(1.061)	135066	220.617	44.12
65 Tetrachloroethene	164	9.055	9.056	(0.917)	108425	211.443	42.29

664 184

Compounds	QUANT SIG		CONCENTRATIONS				
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng)	FINAL (UG/L)
----- 70 Chlorobenzene	112	9.900	9.901	(1.002)	466903	212.563	42.51

UXB INTERNATIONAL
MATRIX SPIKE DUPLICATE COMPOUNDS

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

Matrix: (soil/water) SOLID Lab Sample ID: COG130203 001
Method: SW846 8260B
 Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 07/13/00
Work Order: DG5C7111 Date Extracted: 07/19/00
Dilution factor: 1 Date Analyzed: 07/19/00
Moisture %: 15

Client Sample Id: DF/S1/0194/SDC/019 QC Batch: 0201215

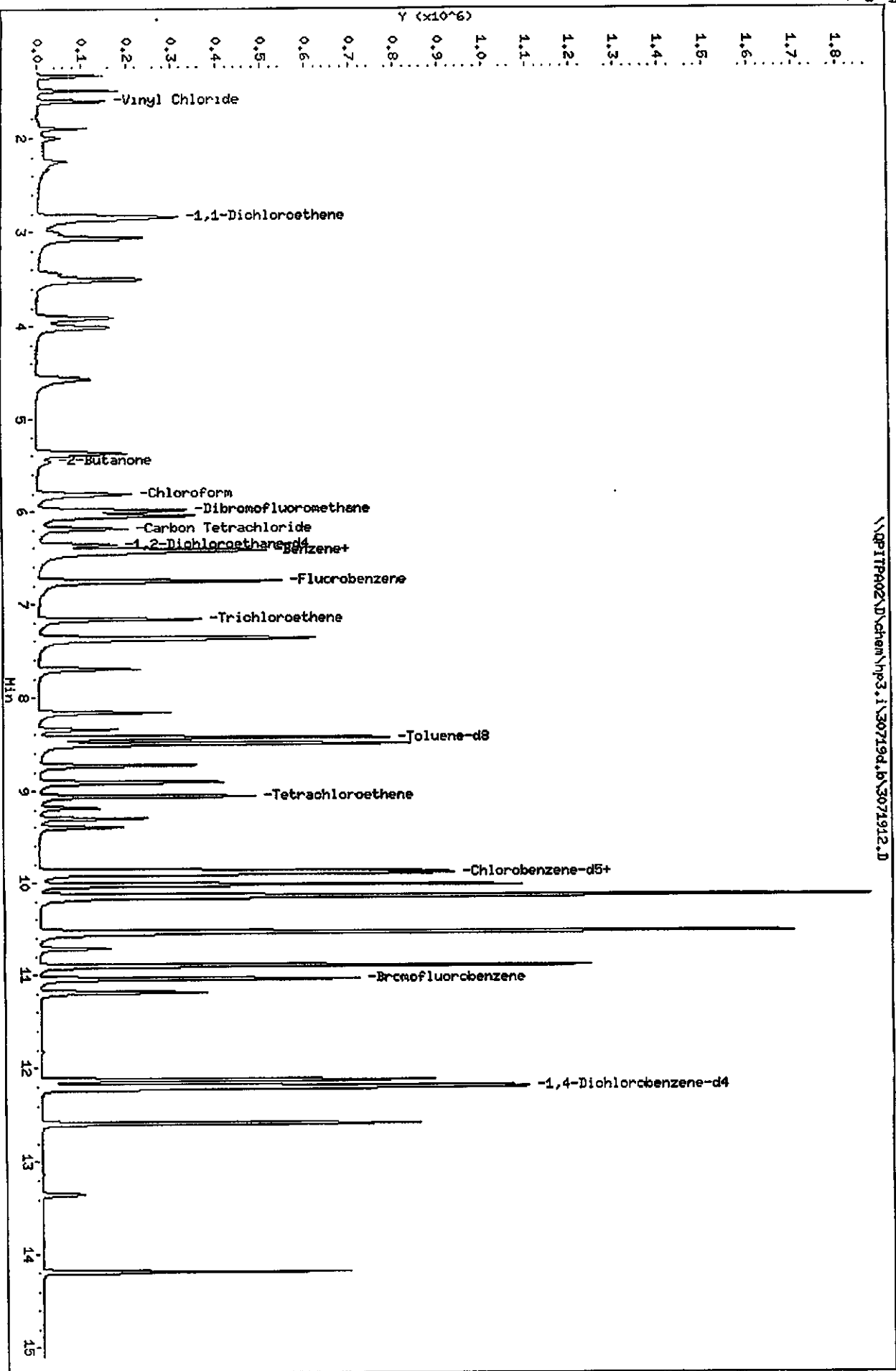
CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg)	mg/L
71-43-2	Benzene	0.440	
78-93-3	2-Butanone	0.316	
56-23-5	Carbon tetrachloride	0.434	
108-90-7	Chlorobenzene	0.424	
67-66-3	Chloroform	0.437	
107-06-2	1,2-Dichloroethane	0.428	
75-35-4	1,1-Dichloroethene	0.468	
127-18-4	Tetrachloroethene	0.414	
79-01-6	Trichloroethene	0.427	
75-01-4	Vinyl chloride	0.460	

FORM I

Data File: \\NPITPA02\chem\hp3.1\30719d.b\3071912.D
Date: 19-JUL-2000 12:46
Client ID:
Sample Info: C06130203-001HSD (4HL/10HL)/6HL
Purge Volume: 5.0
Column phase: DB 624

Instrument: hp3.1
Operator: 10099
Column diameter: 0.18

\\NPITPA02\chem\hp3.1\30719d.b\3071912.D



Data File: \\QPITPA02\D\chem\hp3.i\30719d.b\3071912.D
Report Date: 19-Jul-2000 13:04

STL Pittsburgh

VOLATILE REPORT SW-846 Method

Data file : \\QPITPA02\D\chem\hp3.i\30719d.b\3071912.D
Lab Smp Id:
Inj Date : 19-JUL-2000 12:46 MS Autotune Date: 20-FEB-1997 10:53
Operator : 10099 Inst ID: hp3.i
Smp Info : COG130203-001MSD (1ML/10ML)/5ML
Misc Info : ,30719d.b,8260bh2o.m,tclp.sub
Comment :
Method : \\QPITPA02\D\chem\hp3.i\30719d.b\8260bh2o.m
Meth Date : 19-Jul-2000 06:35 gordonk Quant Type: ISTD
Cal Date : 18-JUL-2000 13:16 Cal File: 4A30718.D
Als bottle: 19
Dil Factor: 1.00000
Integrator: HP RTE
Target Version: 4.04
Processing Host: PITPC076

Compound Sublist: tclp.sub

*KLG
7/19/00*

Concentration Formula: Amt * DF * 1/Vo*Vt

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	Sample Volume
Vt	1.000	mg/L conversion (1.0 if no conversion)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng)	FINAL (UG/L)
* 46 Fluorobenzene	96	6.753	6.751	(1.000)	596138	250.000	
* 69 Chlorobenzene-d5	119	9.873	9.871	(1.000)	164839	250.000	
* 92 1,4-Dichlorobenzene-d4	152	12.196	12.194	(1.000)	263517	250.000	
\$ 39 Dibromofluoromethane	113	5.993	5.997	(0.887)	135666	234.436	46.89
\$ 43 1,2-Dichloroethane-d4	65	6.364	6.356	(0.942)	167922	234.433	46.89
\$ 59 Toluene-d8	98	8.432	8.430	(0.854)	561275	235.216	47.04
\$ 80 Bromofluorobenzene	95	11.041	11.039	(1.118)	252620	237.802	47.56
3 Vinyl Chloride	62	1.603	1.600	(0.237)	137168	229.804	45.96
12 1,1-Dichloroethene	96	2.831	2.823	(0.419)	152202	233.795	46.76
31 2-Butanone	43	5.458	5.462	(0.808)	61699	157.845	31.57
37 Chloroform	83	5.805	5.802	(0.860)	241392	218.356	43.67
41 Carbon Tetrachloride	117	6.188	6.180	(0.916)	137739	216.793	43.36
42 Benzene	78	6.419	6.417	(0.950)	536487	220.058	44.01
45 1,2-Dichloroethane	62	6.449	6.447	(0.955)	191096	214.138	42.83
47 Trichloroethene	130	7.161	7.159	(1.060)	136831	213.421	42.68
65 Tetrachloroethene	164	9.052	9.056	(0.917)	106761	207.059	41.41

664 188

Compounds	QUANT SIG		CONCENTRATIONS				
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng)	FINAL (UG/L)
----- 70 Chlorobenzene	112	9.897	9.901	(1.002)	468831	212.273	42.45

**GC/MS VOLATILE
MISCELLANEOUS**

GCMS Volatile

Run Log

Analyst KLG

Std: 192-185-1BFB

Std: 192-186-9 VOA

Method: 8260B

Inst. ID 14P3

Reviewed by: _____

Std: 192-185-7 Int

Std: 192-182-3 MS



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

Date: _____

Std: 192-186-6 Ketones Std: 192-186-7 MTBE Std: 192-186-8

Std: _____

Date	File ID	Lot No. / Sample No.	Vol. / Wt.	pH	Port#	Comments
7/18/00	1. BE30718	BFB	50ng			0521
	2. IC30718	VS150	5ml			
	3. QC30718	ERA Q	5ml			
	4. WB30718	VBLK	5ml			
	5. QK30719	Blank MS	5ml			gaulo TCE
	6. ID30718	VS100	5ml			
	7. IE30718	VS120	5ml			
	8. 3B30718	VS1820 Vg1111111111	5ml			
	9. 4A30718	VS15	5ml			
	10.					
	11.					
	12.					
	13.					
	14.					
	15.					
	16.					
	17.					
	18.					
	19.					
	20.					
	21.					
	22.					

664 190



GCMS Volatile

Run Log

Method: 5240B

Inst. ID: 4123



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

Analyst: KG

Reviewed by: _____

Date: _____

Std: 192.186.2.BFB

Std: 192.185.717

Std: 192.185.8.Juvn

Std: 192-187.4.MS

Std: 192.186.6.Ketone

Std: 192.186.7.MT&KCS2

Std: 192.186.9.VDA

Std: _____

Std: _____

664

191

Date	File ID	Lot No./Sample No.	Vol./Wt.	pH	Port#	Comments
7/19/02	1. BFB30719	BFB	50ng			0537
	2. CC30718	VSID 50	5ml			
	3. UB30719	VBUL	5ml			
	4. OK30719	ERA Q	5ml			
	5. VB30720	BRNL MS	5ml			
	6. 3071901	COG100127-018	5ml			PE Sample
	7. 3071902	TRP Rep Blank 7/17/02	(1ml/0ml)/5ml	5		
	8. 3071903	COG100127-019	5ml			PE Sample Need 2X
	9. 3071904	COG130203-001	(1ml/0ml)/5ml	5		
	10. 3071905	COG100127-019	2.5ml/5ml			PE Sample
	11. 3071906	COG130203-002	(1ml/0ml)/5ml	5		
	12. 3071907	COG100127-018 MS	5ml			PE Sample
	13. 3071908	COG130203-003	(1ml/0ml)/5ml	5		
	14. 3071909	COG188127-018 MS	5ml			PE Sample
	15. 3071910	BRNL MS	(1ml/0ml)/5ml	5		
	16. 3071911	COG130203-001 MS	(1ml/0ml)/5ml	5		
	17. 3071912	COG130203-001 MS	(1ml/0ml)/5ml	5		
	18. 3071913	COG100127-019	2.5ml/5ml			PE Sample
	19. 3071914	COG100127-018	5ml			PE Sample
	20. 3071915	COG100127-018 MS	5ml			PE Sample
	21. 3071916					
	22.					

ZHE Leachate Worksheet
(Method 1311)

P020001

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



Lab Sample ID #	Client ID	Weight (gm)	Vessel	Extraction Fluid No. / Volume	pH	On		Off			
						Date	Time	Initials	Date	Time	Initials
1 C06130203	BIR	25.0g	2Z	TCLP #1	4.93	7/17/2000	09:35	WT	7/18/2000	06:00	WT
2	001	↓	SS	↓	4.96	↓	↓	↓	↓	↓	↓
3	002	↓	G	↓	5.50	↓	↓	↓	↓	↓	↓
4	003	↓	XX	↓	5.32	↓	↓	↓	↓	↓	↓
5.											
6											
7.											
8.											
9.											
10.											
11.											
12.											
13.											
14.											
15.											
16.											
17.											
18											

Extract(s) (Record line number from above)	Date	Time	Extract(s) Received		Location	Extract(s) Relinquished	
			Analyst	Analyst		Date	Time
All Above	7/18/2000	07:40	B Street	000 Prep	7/18/2000	07:45	B Street
All Above	7/19/00	0700	King Gordon	CP01	7/19/00	1330	King Gordon

Room Temp:	PH Calibration	Tumbler RPMs:
21	4.00	29
	7.00	
	4.00	
	7.01	
	10.04	

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

Reviewed by: *[Signature]* Date: 7-18-00 Comments

REQUESTED BY: TROUTB

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

<u>STORAGE LOCATION</u>	<u>WORK ORDER #</u>	<u>PICKED CNTR#</u>	<u>CONTROL #</u>	<u>CLIENT #</u>	<u>ANALYSIS</u>	<u>LOTID</u>	<u>SMP#</u>	<u>SFX</u>	<u>MATRIX DESCRIPTION</u>	<u>QTY RCVD</u>	<u>QTY REQD</u>
5E CLP1	DG5C7-1-02	___	250296	399411	A-58-QK	COG130203	001		SOLID	0	3 1
5E CLP1	DG5CG-1-02	___	250297	399411	A-58-QK	COG130203	002		SOLID	0	3 1
5E CLP1	DG5CK-1-02	___	250298	399411	A-58-QK	COG130203	003		SOLID	0	3 1

RELINQUISHED BY

RECEIVED BY

DATE/TIME

[Signature]
 B Trout

[Signature]
[Signature]

7/17/2000 07:20
 7/17/2000 09:00

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

GC/MS SEMIVOLATILE DATA

**GC/MS SEMIVOLATILE
QC SUMMARY**

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

QESSDG:

Lot #: COG130203

	CLIENT ID.	SRG01	SRG02	SRG03	SRG04	SRG05	SRG06	TOT OUT
01	DF/S1/0194/SDC/020	60	58	94	53	60	72	00
02	DF/S1/0194/GRAB/004	48	46	86	41	46	61	00
03	DF/S1/0194/SDC/019	43	46	94	35	42	67	00
04	METHOD BLK. DGERA101	73	73	88	72	77	78	00
05	LCS DGERA102	62	65	91	60	66	72	00
06	DF/S1/0194/SDC/019 D	62	63	94	53	62	74	00
07	DF/S1/0194/SDC/019 S	64	62	97	55	64	74	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

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Lot #: C0G190000

WO #: DGERA102

BATCH: 0201094

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	% REC	QC LIMITS REC	QUAL
1,4-Dichlorobenzene	0.250	0.150	60	28- 110	
2,4-Dinitrotoluene	0.250	0.174	69	47- 131	
Hexachlorobenzene	0.250	0.188	75	57- 128	
Hexachlorobutadiene	0.250	0.147	59	36- 116	
Hexachloroethane	0.250	0.148	59	30- 110	
Nitrobenzene	0.250	0.156	62	45- 130	
Pentachlorophenol	0.250	0.173	69	10- 140	
Pyridine	0.250	0.161	65	10- 148	
2,4,5-Trichlorophenol	0.250	0.174	70	41- 125	
2,4,6-Trichlorophenol	0.250	0.166	67	46- 135	
Cresols (total)	0.750	0.504	67	29- 144	

NOTES (S):

* Values outside of QC limits

Spike Recovery: 0 out of 11 outside limits

COMMENTS:

FORM III

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Matrix Spike ID: DF/S1/0194/SDC/019

Level: (low/med) LOW

Lot #: COG130203

WO #: DG5C710U

BATCH: 0201094

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	MS CONCENT. (mg/L)	MS % REC	LIMITS REC	QUAL
1,4-Dichlorobenzene	0.250	ND	0.145	58	18 - 110	
2,4-Dinitrotoluene	0.250	ND	0.180	72	31 - 131	
Hexachlorobenzene	0.250	ND	0.192	77	36 - 132	
Hexachlorobutadiene	0.250	ND	0.138	55	18 - 116	
Hexachloroethane	0.250	ND	0.138	55	18 - 110	
Nitrobenzene	0.250	ND	0.156	62	10 - 211	
Pentachlorophenol	0.250	ND	0.164	65	10 - 140	
Pyridine	0.250	ND	0.137	55	10 - 148	
2,4,5-Trichlorophenol	0.250	ND	0.174	70	24 - 143	
2,4,6-Trichlorophenol	0.250	ND	0.168	67	36 - 135	
Cresols (total)	0.750	ND	0.480	64	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:

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Matrix Spike ID: DF/S1/0194/SDC/019

Level: (low/med) LOW

Lot #: COG130203

WO #: DG5C710V

BATCH: 0201094

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENT. (mg/L)	MSD		QC LIMITS		QUAL
			% REC	% RPD	RPD	REC	
1,4-Dichlorobenzene	0.250	0.142	57	2.4	36	18- 110	
2,4-Dinitrotoluene	0.250	0.175	70	2.8	32	31- 131	
Hexachlorobenzene	0.250	0.191	76	0.37	22	36- 132	
Hexachlorobutadiene	0.250	0.136	54	1.4	32	18- 116	
Hexachloroethane	0.250	0.134	54	3.3	33	18- 110	
Nitrobenzene	0.250	0.152	61	2.6	50	10- 211	
Pentachlorophenol	0.250	0.158	63	3.5	56	10- 140	
Pyridine	0.250	0.130	52	5.0	65	10- 148	
2,4,5-Trichlorophenol	0.250	0.175	70	0.17	22	24- 143	
2,4,6-Trichlorophenol	0.250	0.166	66	0.91	27	36- 135	
Cresols (total)	0.750	0.464	62	3.3	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 limits
 Spike Recovery: 0 out of 11 outside limits

COMMENTS:

SW846 8270C METHOD BLANK SUMMARY

BLANK WORKORDER NO.

DGERA101

Lab Name: Severn Trent Laboratories, Inc.

Lab Code: QESPIT

SDG Number:

664 200

Lab File ID: S0721001.

Lot Number: COG130203

Date Analyzed: 07/21/00

Time Analyzed: 09:20

Matrix: SOLID

Date Extracted: 07/18/00

GC Column: DB5MS ID: .25

Extraction Method: 1311/3520C

Instrument ID: 71

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 CHECK SAMPLE	DGERA102 C	S0721002.	07/21/00	09:51
02 DF/S1/0194/SDC/020	DG5CG103	S0721003.	07/21/00	10:23
03 DF/S1/0194/GRAB/004	DG5CK103	S0721007.	07/21/00	12:29
04 DF/S1/0194/SDC/019	DG5C710U S	S0721004.	07/21/00	10:54
05 DF/S1/0194/SDC/019	DG5C710V D	S0721005.	07/21/00	11:26
06 DF/S1/0194/SDC/019	DG5C7103	S0721006.	07/21/00	11:57
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 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

664 201

Lab Name: STL-PITTSBURGH

Contract:

Lab Code: STLPIT Case No.:

SAS No.:

SDG No.: COB130203

Lab File ID: S0720DF2

DFTPP Injection Date: 07/20/00

Instrument ID: 71

DFTPP Injection Time: 1337

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	59.3
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	57.6
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	58.8
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	6.7
275	10.0 - 30.0% of mass 198	24.6
365	Greater than 1.0% of mass 198	5.10
441	Present, but less than mass 443	13.2
442	Greater than 40.0% of mass 198	82.2
443	17.0 - 23.0% of mass 442	15.7 (19.1)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	S0720CC2	07/20/00	1355
02	SSTD020	SSTD20	S0720CC1	07/20/00	1427
03	SSTD80	SSTD80	S0720CC3	07/20/00	1458
04	SSTD120	SSTD120	S0720CC4	07/20/00	1530
05	SSTD160	SSTD160	S0720CC5	07/20/00	1602
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)

664 202

Lab Name: STL-PITTSBURGH

Contract:

Lab Code: STLPIT Case No.:

SAS No.:

SDG No.: COG130203

Lab File ID: S0721DF2

DFTPP Injection Date: 07/21/00

Instrument ID: 71

DFTPP Injection Time: 0825

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	55.0
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	53.2
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	55.1
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	6.9
275	10.0 - 30.0% of mass 198	25.1
365	Greater than 1.0% of mass 198	4.55
441	Present, but less than mass 443	14.3
442	Greater than 40.0% of mass 198	83.3
443	17.0 - 23.0% of mass 442	16.6 (19.9)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	S0721CCC	07/21/00	0848
02	INTRA-LAB BL	DGERA101	S0721001	07/21/00	0920
03	INTRA-LAB CH	DGERA102	S0721002	07/21/00	0951
04	DF/S1/0194/S	DG5CG103	S0721003	07/21/00	1023
05	DF/S1/0194/S	DG5C710U	S0721004	07/21/00	1054
06	DF/S1/0194/S	DG5C710V	S0721005	07/21/00	1126
07	DF/S1/0194/S	DG5C7103	S0721006	07/21/00	1157
08	DF/S1/0194/G	DG5CK103	S0721007	07/21/00	1229
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

664 203

Lab Name: STL-PITTSBURGH

Contract:

Lab Code: STLPIT Case No.:

SAS No.:

SDG No.: COG130203

Lab File ID (Standard): S0721CCC

Date Analyzed: 07/21/00

Instrument ID: 71

Time Analyzed: 0848

	IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
=====	=====	=====	=====	=====	=====	=====
12 HOUR STD	62917	4.68	237673	6.13	123565	9.03
UPPER LIMIT	125834	5.18	475346	6.63	247130	9.53
LOWER LIMIT	31459	4.18	118837	5.63	61783	8.53
=====	=====	=====	=====	=====	=====	=====
CLIENT SAMPLE NO.						
=====	=====	=====	=====	=====	=====	=====
01 INTRA-LAB BL	72944	4.69	278983	6.14	145712	9.04
02 INTRA-LAB CH	69166	4.68	267249	6.13	140691	9.02
03 DF/S1/0194/S	73748	4.69	286846	6.14	148849	9.03
04 DF/S1/0194/S	67255	4.68	262923	6.13	138491	9.02
05 DF/S1/0194/S	70598	4.68	272228	6.13	139812	9.02
06 DF/S1/0194/S	71193	4.69	276100	6.14	142259	9.04
07 DF/S1/0194/G	83333	4.69	317869	6.14	160669	9.03
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

664 204

Lab Name: STL-PITTSBURGH

Contract:

Lab Code: STLPIT Case No.:

SAS No.:

SDG No.: COG130203

Lab File ID (Standard): S0721CCC

Date Analyzed: 07/21/00

Instrument ID: 71

Time Analyzed: 0848

	IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
=====	=====	=====	=====	=====	=====	=====
12 HOUR STD	213088	12.26	231432	18.84	291356	22.18
UPPER LIMIT	426176	12.76	462864	19.34	582712	22.68
LOWER LIMIT	106544	11.76	115716	18.34	145678	21.68
=====	=====	=====	=====	=====	=====	=====
CLIENT SAMPLE NO.						
=====	=====	=====	=====	=====	=====	=====
01 INTRA-LAB BL	246340	12.26	225698	18.84	264446	22.18
02 INTRA-LAB CH	239547	12.25	219127	18.82	250304	22.16
03 DF/S1/0194/S	247540	12.26	223376	18.83	249296	22.17
04 DF/S1/0194/S	238474	12.25	213562	18.82	241094	22.16
05 DF/S1/0194/S	235205	12.25	213446	18.82	245686	22.16
06 DF/S1/0194/S	237535	12.27	219037	18.84	252146	22.18
07 DF/S1/0194/G	267967	12.26	247877	18.83	286588	22.17
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.

**GC/MS SEMIVOLATILE
SAMPLE DATA**

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: COG130203 001

Method: SW846 8270C

Base/Neutrals and Acids (8270C)

Sample WT/Vol: 200 / mL

Date Received: 07/13/00

Work Order: DG5C7103

Date Extracted: 07/18/00

Dilution factor: 1

Date Analyzed: 07/21/00

Moisture %: 15

QC Batch: 0201094

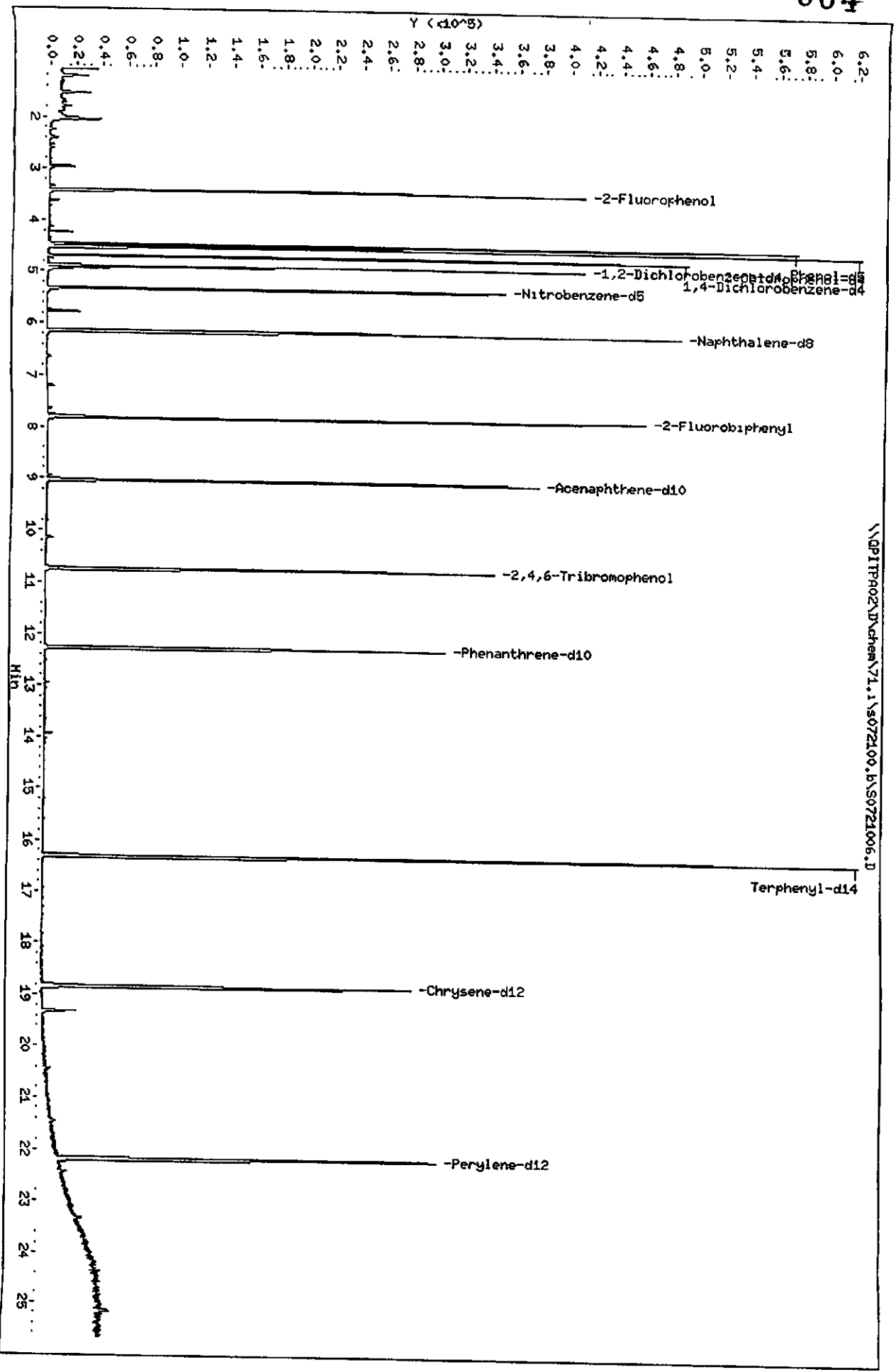
Client Sample Id: DF/S1/0194/SDC/019

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: \\QPITPRO2\chem\71.1\5072100.6\50721006.D
Date: 21-JUL-2000 14:57
Client ID: DF/SL/0194/SDC/019
Sample Info: c06130203-001 7/18/00 8270tc.jp
Volume Injected (uL): 2.0
Column phase: He5-HS

Instrument: 71.1
Operator: 045183
Column diameter: 0.25

\\QPITPRO2\chem\71.1\5072100.6\50721006.D



664 208

STL Pittsburgh

Semivolatile REPORT SW-846 Method 8270

Data file : \\Qpitpa02\D\chem\71.i\s072100.b\S0721006.D
 Lab Smp Id: DG5C7103 Client Smp ID: DF/S1/0194/SDC/019
 Inj Date : 21-JUL-2000 11:57
 Operator : 045183 Inst ID: 71.i
 Smp Info : c0g130203-001 7/18/00 8270tclp
 Misc Info : dg5c7103,s072100.b,8270clp.m,1-tclp.sub
 Comment :
 Method : \\QPITPA02\D\chem\71.i\s072100.b\8270clp.m
 Meth Date : 21-Jul-2000 12:30 bachas Quant Type: ISTD
 Cal Date : 20-JUL-2000 16:02 Cal File: S0720CC5.D
 Als bottle: 9
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 1-tclp.sub
 Target Version: 4.04
 Processing Host: PITPC050

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

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)
gpc	1.000	gpc correction factor

B7/uL

Compounds	QUANT	SIG	MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
								ON-COLUMN (ng)	FINAL (mg/L)
* 1 1,4-Dichlorobenzene-d4	152		4.693	4.680	(1.000)	71193	40.0000	(a)	
* 2 Naphthalene-d8	136		6.141	6.133	(1.000)	276100	40.0000	(a)	
* 3 Acenaphthene-d10	164		9.036	9.028	(1.000)	142259	40.0000	(a)	
* 4 Phenanthrene-d10	188		12.268	12.260	(1.000)	237535	40.0000	(a)	
* 5 Chrysene-d12	240		18.839	18.836	(1.000)	219037	40.0000	(a)	
* 6 Perylene-d12	264		22.178	22.181	(1.000)	252146	40.0000	(a)	
10 Pyridine	79							Compound Not Detected.	
28 1,4-Dichlorobenzene	146							Compound Not Detected.	
M 34 Cresols, total	100							Compound Not Detected.	
31 2-Methylphenol	108							Compound Not Detected.	
35 4-Methylphenol	108							Compound Not Detected.	
38 Hexachloroethane	117							Compound Not Detected.	
39 Nitrobenzene	77							Compound Not Detected.	

Compounds	QUANT SIG		CONCENTRATIONS					
	MASS		RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng)	FINAL (mg/L)
-----	----		==	-----	-----	-----	-----	-----
59 Hexachlorobutadiene	224							
69 2,4,6-Trichlorophenol	196							
70 2,4,5-Trichlorophenol	196							
91 2,4-Dinitrotoluene	165							
113 Hexachlorobenzene	283							
117 Pentachlorophenol	265							
\$ 172 Nitrobenzene-d5	82		5.318	5.310	(0.866)	143461	43.2156	0.10804 (a)
\$ 173 2-Fluorobiphenyl	172		7.802	7.794	(0.863)	211746	45.7149	0.11429 (a)
\$ 174 Terphenyl-d14	244		16.318	16.304	(0.866)	412769	93.5740	0.23393 (a)
\$ 175 Phenol-d5	99		4.453	4.445	(0.949)	199140	62.3928	0.15598 (a)
\$ 176 2-Fluorophenol	112		3.417	3.398	(0.728)	127562	53.2414	0.13310 (a)
\$ 177 2,4,6-Tribromophenol	330		10.746	10.743	(0.876)	60110	100.723	0.25181 (a)
\$ 178 2-Chlorophenol-d4	132		4.517	4.509	(0.962)	158672	70.8928	0.17723 (a)
\$ 179 1,2-Dichlorobenzene-d4	152		4.891	4.877	(1.042)	61002	39.3685	0.098421 (a)

QC Flag Legend

a - Target compound detected but, quantitated amount
 Below Limit Of Quantitation (BLOQ).

UXB INTERNATIONAL

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0G130203 002

Method: SW846 8270C

Base/Neutrals and Acids (8270C)

Sample WT/Vol: 200 / mL

Date Received: 07/13/00

Work Order: DG5CG103

Date Extracted: 07/18/00

Dilution factor: 1

Date Analyzed: 07/21/00

Moisture %: 12

QC Batch: 0201094

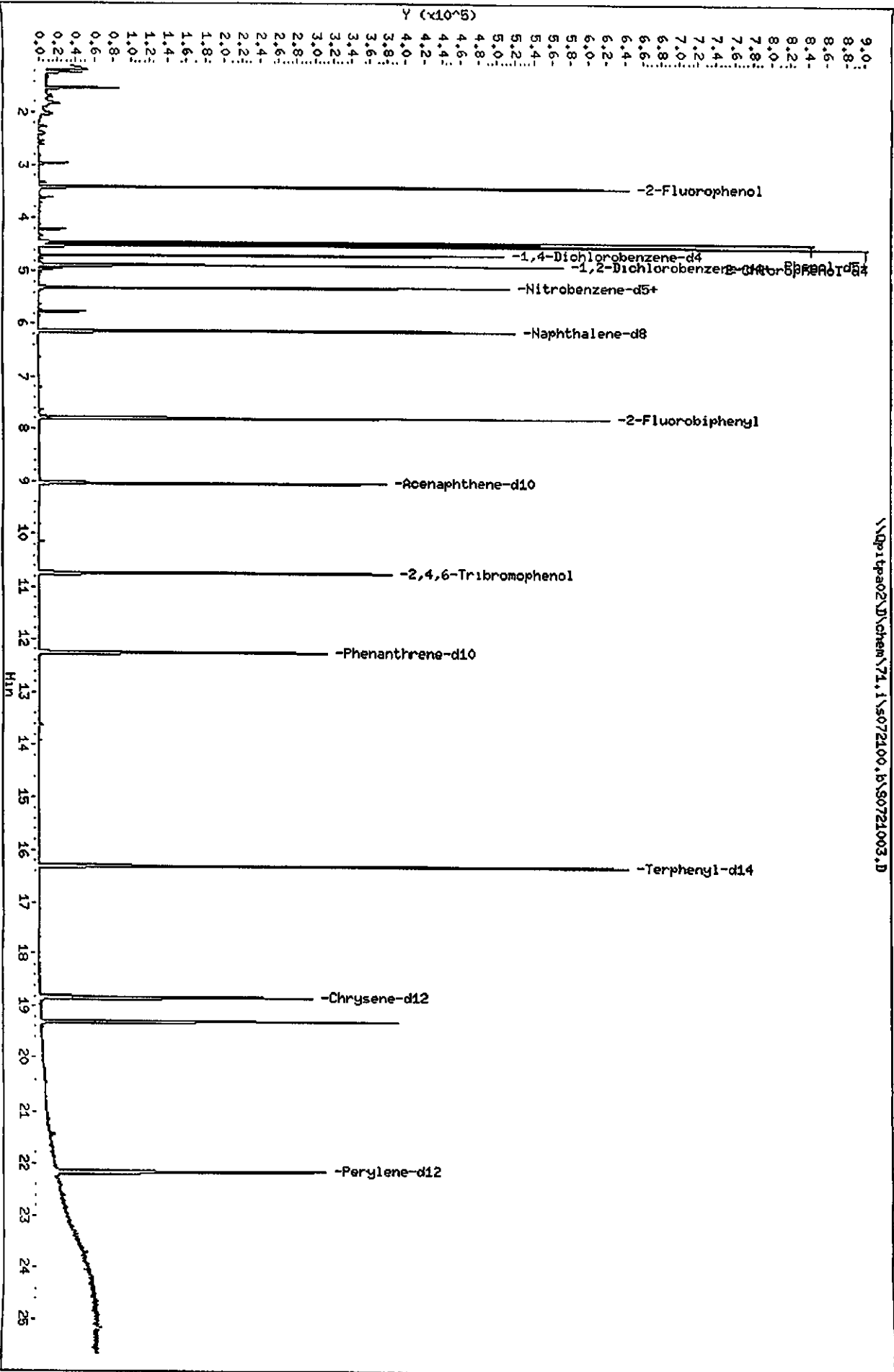
Client Sample Id: DF/S1/0194/SDC/020

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

FORM I

Data File: \\Dp1tpa02\chem\71.1\5072100.b\50721003.D
Date: 24-JUL-2000 10:23
Client ID: DF/SL/0194/SBC/020
Sample Info: c08130203-002 7/18/00 8270tolp
Volume Injected (uL): 2.0
Column phase: Hp5-HS

Instrument: 71.1
Operator: 045183
Column diameter: 0.25



\\Dp1tpa02\chem\71.1\5072100.b\50721003.D

664 212

STL Pittsburgh

Semivolatile REPORT SW-846 Method 8270

Data file : \\Qpitpa02\D\chem\71.i\s072100.b\S0721003.D
 Lab Smp Id: DG5CG103 Client Smp ID: DF/S1/0194/SDC/020
 Inj Date : 21-JUL-2000 10:23
 Operator : 045183 Inst ID: 71.i
 Smp Info : c0g130203-002 7/18/00 8270tclp
 Misc Info : dg5cg103,s072100.b,8270clp.m,1-tclp.sub
 Comment :
 Method : \\Qpitpa02\D\chem\71.i\s072100.b\8270clp.m
 Meth Date : 21-Jul-2000 10:53 bachas Quant Type: ISTD
 Cal Date : 20-JUL-2000 16:02 Cal File: S0720CC5.D
 Als bottle: 6
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 1-tclp.sub
 Target Version: 4.04
 Processing Host: PITPC050

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

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)
gpc	1.000	gpc correction factor

37/21/

Compounds	QUANT	SIG	MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
								ON-COLUMN (ng)	FINAL (mg/L)
* 1 1,4-Dichlorobenzene-d4	152		4.689	4.680	(1.000)	73748	40.0000	(a)	
* 2 Naphthalene-d8	136		6.137	6.133	(1.000)	286846	40.0000	(a)	
* 3 Acenaphthene-d10	164		9.032	9.028	(1.000)	148849	40.0000	(a)	
* 4 Phenanthrene-d10	188		12.264	12.260	(1.000)	247540	40.0000	(a)	
* 5 Chrysene-d12	240		18.829	18.836	(1.000)	223376	40.0000	(a)	
* 6 Perylene-d12	264		22.174	22.181	(1.000)	249296	40.0000	(a)	
10 Pyridine	79							Compound Not Detected.	
28 1,4-Dichlorobenzene	146							Compound Not Detected.	
M 34 Cresols, total	100							Compound Not Detected.	
31 2-Methylphenol	108							Compound Not Detected.	
35 4-Methylphenol	108							Compound Not Detected.	
38 Hexachloroethane	117							Compound Not Detected.	
39 Nitrobenzene	77							Compound Not Detected.	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng)	FINAL (mg/L)
59 Hexachlorobutadiene	224				Compound Not Detected.		
69 2,4,6-Trichlorophenol	196				Compound Not Detected.		
70 2,4,5-Trichlorophenol	196				Compound Not Detected		
91 2,4-Dinitrotoluene	165				Compound Not Detected		
113 Hexachlorobenzene	283				Compound Not Detected		
117 Pentachlorophenol	265				Compound Not Detected		
\$ 172 Nitrobenzene-d5	82	5.314	5.310	(0.866)	205298	59.5263	0.14882(a)
\$ 173 2-Fluorobiphenyl	172	7.798	7.794	(0.863)	280673	57.9132	0.14478(a)
\$ 174 Terphenyl-d14	244	16.313	16.304	(0.866)	421900	93.7863	0.23446(a)
\$ 175 Phenol-d5	99	4.448	4.445	(0.949)	295871	89.4882	0.22372(a)
\$ 176 2-Fluorophenol	112	3.412	3.398	(0.728)	198492	79.9762	0.19994(a)
\$ 177 2,4,6-Tribromophenol	330	10.741	10.743	(0.876)	67041	107.795	0.26949(a)
\$ 178 2-Chlorophenol-d4	132	4.513	4.509	(0.962)	230460	99.3998	0.24850(a)
\$ 179 1,2-Dichlorobenzene-d4	152	4.887	4.877	(1.042)	86318	53.7764	0.13444(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: COG130203 003

Method: SW846 8270C

Base/Neutrals and Acids (8270C)

Sample WT/Vol: 200 / mL

Date Received: 07/13/00

Work Order: DG5CK103

Date Extracted: 07/18/00

Dilution factor: 1

Date Analyzed: 07/21/00

Moisture %: 18

QC Batch: 0201094

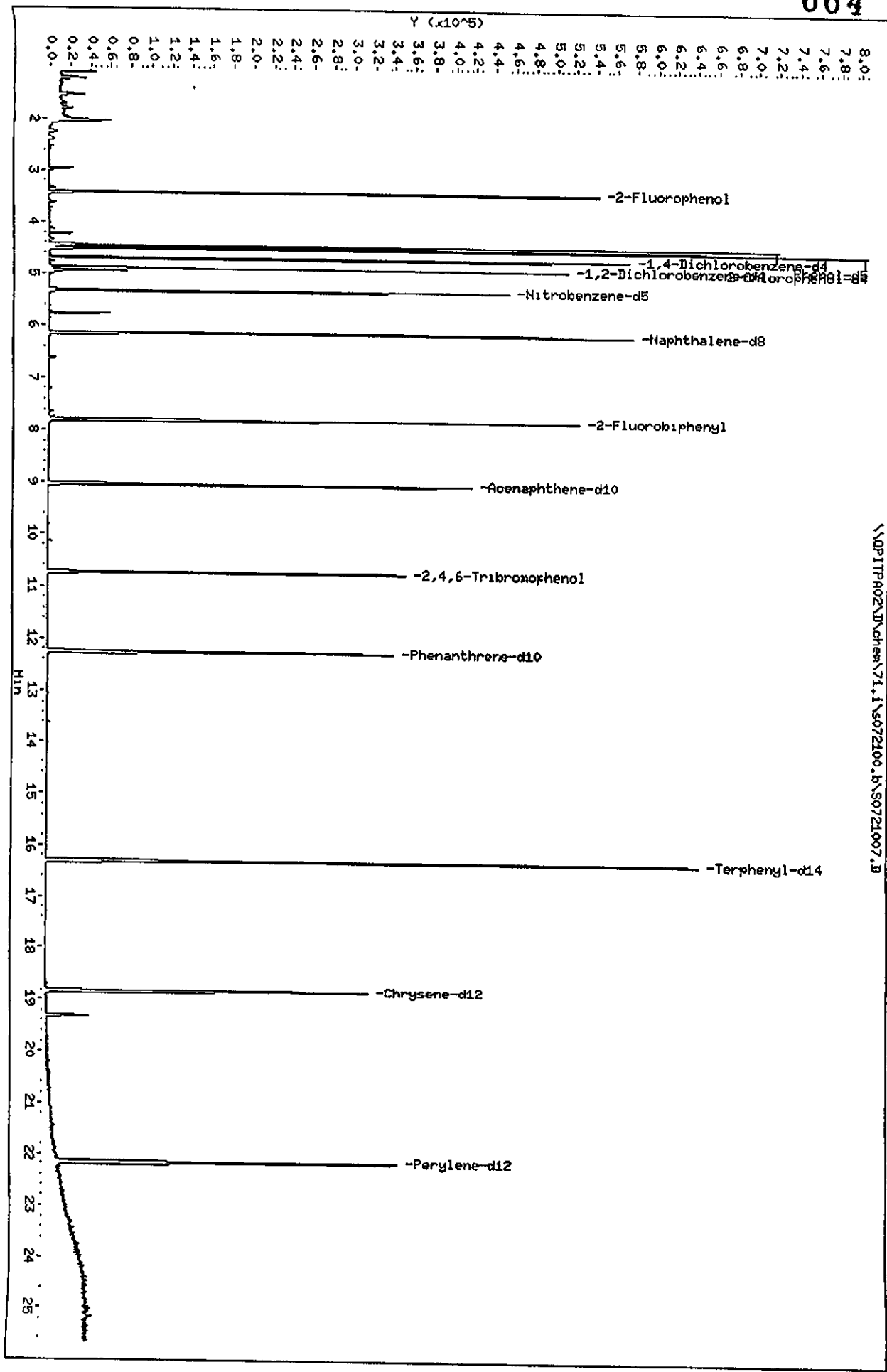
Client Sample Id: DF/S1/0194/GRAB/004

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: \\QP1TR02\Jchem\71.1\5072100.b\50721007.D
 Date: 21-JUL-2000 12:29
 Client ID: HF/SI/0194/SRB/004
 Sample Info: c08130203-003 7/18/00 82706c.jp
 Volume Injected (uL): 2.0
 Column phase: Hp5-HS

Instrument: 71.1
 Operator: 045183
 Column diameter: 0.25

\\QP1TR02\Jchem\71.1\5072100.b\50721007.D



664 216

STL Pittsburgh

Semivolatle REPORT SW-846 Method 8270

Data file : \\Qpitpa02\D\chem\71.i\s072100.b\S0721007.D
 Lab Smp Id: DG5CK103 Client Smp ID: DF/S1/0194/GRAB/004
 Inj Date : 21-JUL-2000 12:29
 Operator : 045183 Inst ID: 71.i
 Smp Info : c0g130203-003 7/18/00 8270tclp
 Misc Info : dg5ck103,s072100.b,8270clp.m,1-tclp.sub
 Comment :
 Method : \\QPITPA02\D\chem\71.i\s072100.b\8270clp.m
 Meth Date : 21-Jul-2000 12:30 bachas Quant Type: ISTD
 Cal Date : 20-JUL-2000 16:02 Cal File: S0720CC5.D
 Als bottle: 10
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 1-tclp.sub
 Target Version: 4.04
 Processing Host: PITPC050

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

S/Sal

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)
gpc	1.000	gpc correction factor

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng)	FINAL (mg/L)
* 1 1,4-Dichlorobenzene-d4	152	4.689	4.680	(1.000)	83333	40.0000	(a)
* 2 Naphthalene-d8	136	6.137	6.133	(1.000)	317869	40.0000	(a)
* 3 Acenaphthene-d10	164	9.032	9.028	(1.000)	160669	40.0000	(a)
* 4 Phenanthrene-d10	188	12.264	12.260	(1.000)	267967	40.0000	(a)
* 5 Chrysene-d12	240	18.830	18.836	(1.000)	247877	40.0000	(a)
* 6 Perylene-d12	264	22.174	22.181	(1.000)	286588	40.0000	(a)
10 Pyridine	79				Compound Not Detected		
28 1,4-Dichlorobenzene	146				Compound Not Detected.		
M 34 Cresols, total	100				Compound Not Detected.		
31 2-Methylphenol	108				Compound Not Detected		
35 4-Methylphenol	108				Compound Not Detected		
38 Hexachloroethane	117				Compound Not Detected.		
39 Nitrobenzene	77				Compound Not Detected.		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng)	FINAL (mg/L)
59 Hexachlorobutadiene	224						
69 2,4,6-Trichlorophenol	196						
70 2,4,5-Trichlorophenol	196						
91 2,4-Dinitrotoluene	165						
113 Hexachlorobenzene	283						
117 Pentachlorophenol	265						
\$ 172 Nitrobenzene-d5	82	5.314	5.310	(0.866)	182364	47.7160	0.11929 (a)
\$ 173 2-Fluorobiphenyl	172	7.793	7.794	(0.863)	242182	46.2948	0.11574 (a)
\$ 174 Terphenyl-d14	244	16.314	16.304	(0.866)	427209	85.5798	0.21395 (a)
\$ 175 Phenol-d5	99	4.449	4.445	(0.949)	255772	68.4618	0.17115 (a)
\$ 176 2-Fluorophenol	112	3.412	3.398	(0.728)	171536	61.1652	0.15291 (a)
\$ 177 2,4,6-Tribromophenol	330	10.742	10.743	(0.876)	61334	91.1011	0.22775 (a)
\$ 178 2-Chlorophenol-d4	132	4.513	4.509	(0.962)	203666	77.7391	0.19435 (a)
\$ 179 1,2-Dichlorobenzene-d4	152	4.887	4.877	(1.042)	75831	41.8088	0.10452 (a)

QC Flag Legend

a - Target compound detected but, quantitated amount
 Below Limit Of Quantitation(BLOQ).

**GC/MS SEMIVOLATILE
CALIBRATION DATA**

6B
SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

664 219

Lab Name: STL-PITTSBURGH

Contract:

Lab Code: STLPIT

Case No.:

SAS No.:

SDG No.: 06130203

Instrument ID: 71

Calibration Date(s): 07/20/00

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

Max %RSD for CCC(*) = 30.0%

LAB FILE ID:	RRF1	=S0720CC1.D	RRF2	=S0720CC2.D	RRF3	=S0720CC3.D	RRF4	=S0720CC4.D	RRF5	=S0720CC5.D		
COMPOUND	RRF1	RRF2	RRF3	RRF4	RRF5	\overline{RRF}	%	RSD				
Phenol	* 2.029	1.971	1.996	1.892	1.837	1.945	4.1*					
bis(2-Chloroethyl) ether	1.623	1.638	1.634	1.588	1.563	1.609	2.0					
2-Chlorophenol	1.436	1.444	1.433	1.351	1.329	1.399	3.9					
1,3-Dichlorobenzene	1.581	1.577	1.571	1.495	1.494	1.544	2.9					
1,4-Dichlorobenzene	* 1.605	1.634	1.589	1.516	1.513	1.571	3.5*					
1,2-Dichlorobenzene	1.495	1.490	1.469	1.399	1.369	1.444	3.9					
2-Methylphenol	1.375	1.387	1.380	1.276	1.240	1.332	5.2					
2,2'-oxybis(1-Chloropropane	2.658	2.664	2.598	2.489	2.413	2.564	4.3					
4-Methylphenol	1.448	1.466	1.442	1.356	1.298	1.402	5.1					
Hexachloroethane	0.677	0.678	0.681	0.660	0.660	0.671	1.5					
Nitrobenzene	0.520	0.527	0.527	0.519	0.523	0.523	0.7					
Isophorone	0.801	0.804	0.810	0.778	0.779	0.794	1.9					
2-Nitrophenol	* 0.195	0.198	0.204	0.197	0.200	0.199	1.7*					
2,4-Dimethylphenol	0.371	0.392	0.404	0.393	0.396	0.391	3.2					
bis(2-Chloroethoxy)methane	0.478	0.478	0.479	0.466	0.470	0.474	1.2					
N-Nitroso-di-n-propylamine	# 1.322	1.324	1.323	1.250	1.230	1.290	3.6#					
2,4-Dichlorophenol	* 0.279	0.282	0.283	0.272	0.269	0.277	2.3*					
1,2,4-Trichlorobenzene	0.296	0.296	0.296	0.289	0.292	0.294	1.2					
Naphthalene	1.113	1.114	1.105	1.067	1.061	1.092	2.4					
4-Chloroaniline	0.422	0.419	0.421	0.400	0.402	0.413	2.6					
Hexachlorobutadiene	* 0.162	0.164	0.165	0.160	0.163	0.163	1.3*					
4-Chloro-3-Methylphenol	* 0.333	0.334	0.337	0.323	0.325	0.330	1.8*					
2-Methylnaphthalene	0.706	0.707	0.700	0.673	0.672	0.692	2.5					
Hexachlorocyclopentadiene	# 0.250	0.289	0.323	0.324	0.345	0.306	12.1#					
2,4,6-Trichlorophenol	* 0.332	0.346	0.348	0.340	0.344	0.342	1.8*					
2,4,5-Trichlorophenol	0.358	0.363	0.369	0.362	0.352	0.361	1.6					
2-Chloronaphthalene	1.169	1.166	1.179	1.146	1.150	1.162	1.2					
2-Nitroaniline	0.481	0.500	0.515	0.512	0.532	0.508	3.7					
Dimethylphthalate	1.282	1.303	1.294	1.287	1.305	1.294	0.8					
Acenaphthylene	1.880	1.878	1.903	1.858	1.863	1.876	0.9					
2,6-Dinitrotoluene	0.276	0.291	0.290	0.292	0.298	0.289	2.8					
3-Nitroaniline	0.317	0.334	0.340	0.349	0.365	0.341	5.2					
Acenaphthene	* 1.178	1.181	1.190	1.156	1.160	1.173	1.2*					
2,4-Dinitrophenol	# 0.104	0.143	0.172	0.193	0.211	0.165	25.7#					
4-Nitrophenol	# 0.186	0.214	0.226	0.251	0.270	0.229	14.2#					
Dibenzofuran	1.588	1.616	1.612	1.580	1.591	1.597	1.0					
2,4-Dinitrotoluene	0.356	0.378	0.377	0.391	0.413	0.383	5.4					

6C
SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: STL-PITTSBURGH

Contract:

664 220

Lab Code: STLPIT

Case No.:

SAS No.:

SDG No.:

Instrument ID: 71

Calibration Date(s): 07/20/00 07/20/00

Calibration Time(s): 1355 1602

LAB FILE ID:	RRF20 =S0720CC1	RRF50 =S0720CC2			RRF80 =S0720CC3	RRF120=S0720CC4	RRF160=S0720CC5	
COMPOUND	RRF20	RRF50	RRF80	RRF120	RRF160	RRF	% RSD	
Diethylphthalate	1.292	1.331	1.309	1.328	1.381	1.328	2.5	
4-Chlorophenyl-phenylether	0.572	0.577	0.577	0.561	0.573	0.572	1.1	
Fluorene	1.278	1.278	1.275	1.241	1.259	1.266	1.3	
4-Nitroaniline	0.290	0.315	0.326	0.360	0.382	0.335	10.9	
4,6-Dinitro-2-methylphenol	0.126	0.136	0.152	0.161	0.160	0.147	10.5	
N-Nitrosodiphenylamine (1)	0.605	0.530	0.573	0.552	0.540	0.560	5.3	
4-Bromophenyl-phenylether	0.197	0.193	0.192	0.182	0.179	0.189	4.1	
Hexachlorobenzene	0.200	0.198	0.198	0.188	0.187	0.194	3.2	
Pentachlorophenol	0.078	0.102	0.104	0.108	0.115	0.101	13.7	
Phenanthrene	1.056	1.056	1.055	1.029	1.026	1.044	1.5	
Anthracene	1.083	1.081	1.087	1.073	1.066	1.078	0.8	
Carbazole	0.954	0.983	1.002	1.040	1.064	1.009	4.3	
Di-n-Butylphthalate	1.216	1.274	1.320	1.369	1.386	1.313	5.3	
Fluoranthene	0.969	1.008	1.054	1.141	1.163	1.067	7.8	
Pyrene	1.128	1.135	1.081	0.999	1.003	1.069	6.1	
Butylbenzylphthalate	0.636	0.670	0.663	0.650	0.652	0.654	2.0	
3,3'-Dichlorobenzidine	0.466	0.449	0.472	0.474	0.467	0.466	2.1	
Benzo (a) Anthracene	1.101	1.130	1.131	1.107	1.111	1.116	1.2	
Chrysene	1.044	1.075	1.059	1.029	1.032	1.048	1.9	
bis(2-ethylhexyl) Phthalate	0.996	1.025	0.981	0.956	0.959	0.983	2.9	
Di-n-octylphthalate	1.604	1.633	1.531	1.454	1.414	1.527	6.2	
Benzo (b) fluoranthene	1.051	1.083	1.145	1.161	1.364	1.161	10.5	
Benzo (k) fluoranthene	1.160	1.154	1.113	0.944	0.805	1.035	15.1	
Benzo (a) pyrene	1.066	1.081	1.079	1.042	1.046	1.063	1.7	
Indeno (1,2,3-cd) pyrene	1.333	1.325	1.383	1.341	1.442	1.365	3.6	
Dibenz (a, h) anthracene	1.344	1.350	1.358	1.331	1.408	1.358	2.2	
Benzo (g, h, i) perylene	1.346	1.347	1.354	1.360	1.411	1.364	2.0	
Pyridine	1.711	1.512	1.707	1.663	1.662	1.651	4.9	
N-Nitrosodimethylamine	0.967	0.970	0.976	0.955	0.957	0.965	0.9	
Aniline	2.571	2.067	2.394	2.256	2.186	2.295	8.5	
Benzyl Alcohol	1.075	1.021	1.016	1.009	0.981	1.020	3.3	
Benzoic Acid	0.057	0.112	0.159	0.175	0.189	0.138	38.8	
1-Methylnaphthalene	0.669	0.634	0.644	0.627	0.616	0.638	3.2	
2,3,4,6-Tetrachlorophenol	0.237	0.239	0.250	0.258	0.256	0.248	3.9	
2,3,5,6-Tetrachlorophenol	0.229	0.239	0.247	0.253	0.262	0.246	5.2	
1,2-Diphenylhydrazine	1.227	1.185	1.208	1.135	1.205	1.192	2.9	
Benzidine	0.645	0.462	0.619	0.576	0.543	0.569	12.5	

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

INITIAL CALIBRATION REPORT

664 222

Instrument ID: 71.i
Lab File ID: S0720CC5.D
Analysis Type: NONE

Injection Date: 20-JUL-2000 16:02
Lab Sample ID: sstd160
Method File: \\Qpitpa02\D\chem\71.i\s072000.b\

COMPOUND	%RSD
Benzo(b)fluoranthene	10.5
7,12-dimethylbenz[a]anthracen	2.3
Benzo(k)fluoranthene	15.1
Benzo(a)pyrene	1.7
Indeno(1,2,3-cd)pyrene	3.4
Dibenz(a,h)anthracene	2.2
Benzo(g,h,i)perylene	2.0

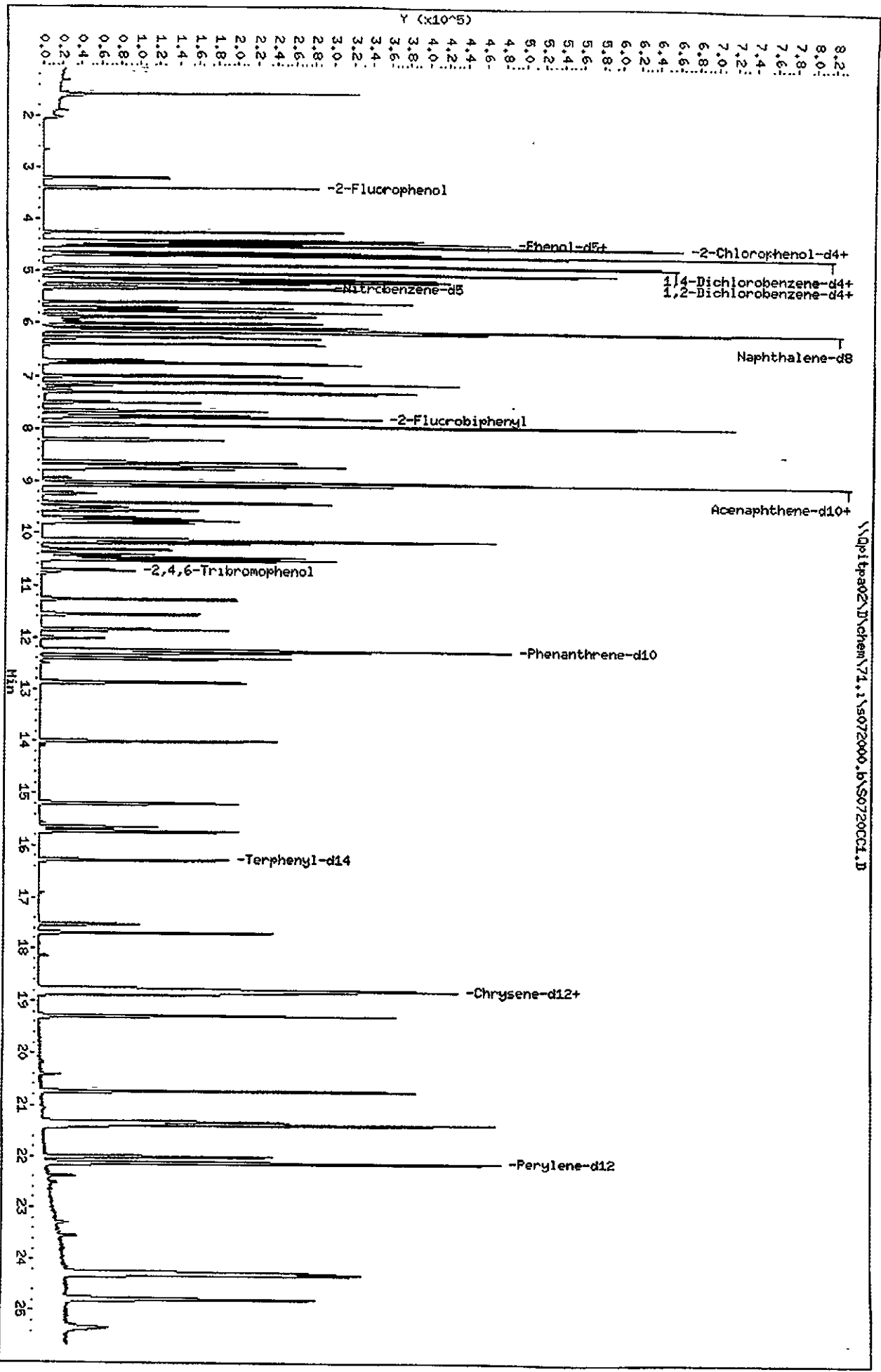
The average of all %RSD's in the initial calibration is 4.9

INITIAL CALIBRATION REPORT

Instrument ID: 71.i
Lab File ID: S0720CC5.D
Analysis Type: NONE

Injection Date: 20-JUL-2000 16:02
Lab Sample ID: sstd160
Method File: \\Qpitpa02\D\chem\71.i\s072000.b\

COMPOUND	%RSD
2-Chloronaphthalene	1.2
2-Nitroaniline	3.7
Dimethylphthalate	0.8
Acenaphthylene	0.9
2,6-Dinitrotoluene	2.8
3-Nitroaniline	5.2
Acenaphthene	1.2
2,4-Dinitrophenol	25.7
Dibenzofuran	1.0
4-Nitrophenol	14.2
2,4-Dinitrotoluene	5.4
2,3,5,6-Tetrachlorophenol	5.2
2-Naphthylamine	20.9
2,3,4,6-Tetrachlorophenol	3.9
Diethylphthalate	2.5
Fluorene	1.3
4-Chlorophenyl-phenylether	1.1
4-Nitroaniline	10.9
4,6-Dinitro-2-methylphenol	10.5
N-Nitrosodiphenylamine (1)	5.3
1,2-Diphenylhydrazine	2.9
2,4,6-Tribromophenol	1.0
4-Bromophenyl-phenylether	4.1
Hexachlorobenzene	3.2
Pentachlorophenol	13.7
Phenanthrene	1.5
Anthracene	0.8
Carbazole	4.3
Di-n-Butylphthalate	5.3
Fluoranthene	7.8
Benzidine	12.5
Pyrene	6.1
Terphenyl-d14	4.2
Butylbenzylphthalate	2.0
Benzo(a)Anthracene	1.2
3,3'-Dichlorobenzidine	2.1
Chrysene	1.9
bis(2-ethylhexyl)Phthalate	2.9
Di-n-octylphthalate	6.2



INITIAL CALIBRATION REPORT

664 224

Instrument ID: 71.i
Lab File ID: S0720CC5.D
Analysis Type: NONE

Injection Date: 20-JUL-2000 16:02
Lab Sample ID: sstd160
Method File: \\Qpitpa02\D\chem\71.i\s072000.b\

COMPOUND	%RSD
Pyridine	5.2
N-Nitrosodimethylamine	1.0
Methyl methanesulfonate	18.8
2-Fluorophenol	1.9
Aniline	8.5
Phenol-d5	4.5
Phenol	4.1
bis(2-Chloroethyl) ether	2.0
2-Chlorophenol-d4	3.5
2-Chlorophenol	3.9
1,3-Dichlorobenzene	2.9
1,4-Dichlorobenzene	3.5
1,2-Dichlorobenzene-d4	3.2
Benzyl Alcohol	3.3
1,2-Dichlorobenzene	3.9
2,2'-oxybis(1-Chloropropane)	4.3
2-Methylphenol	5.2
N-Nitroso-di-n-propylamine	3.6
4-Methylphenol	5.1
Hexachloroethane	1.5
Nitrobenzene-d5	2.2
Nitrobenzene	0.7
Isophorone	1.9
2-Nitrophenol	1.7
2,4-Dimethylphenol	3.2
bis(2-Chloroethoxy)methane	1.2
2,4-Dichlorophenol	2.3
Benzoic Acid	38.8
1,2,4-Trichlorobenzene	1.2
Naphthalene	2.4
4-Chloroaniline	2.6
Hexachlorobutadiene	1.3
4-Chloro-3-Methylphenol	1.8
2-Methylnaphthalene	2.5
1-Methylnaphthalene	3.2
Hexachlorocyclopentadiene	12.1
2,4,6-Trichlorophenol	1.8
2,4,5-Trichlorophenol	1.6
2-Fluorobiphenyl	1.6

664 226

STL Pittsburgh

Semivolatile REPORT SW-846 Method 8270

Data file : \\Qpitpa02\D\chem\71.i\s072000.b\S0720CC1.D
 Lab Smp Id: sstd20 Client Smp ID: sstd020
 Inj Date : 20-JUL-2000 14:27
 Operator : 045183 Inst ID: 71.i
 Smp Info : sstd20(10 ug/ml) 194-175-10 8270/clp
 Misc Info : sstd20,s072000.b,8270clp.m,1-82701.sub,1,1
 Comment :
 Method : \\Qpitpa02\D\chem\71.i\s072000.b\8270clp.m
 Meth Date : 20-Jul-2000 15:59 bachas Quant Type: ISTD
 Cal Date : 20-JUL-2000 15:30 Cal File: S0720CC4.D
 Als bottle: 2 Calibration Sample, Level: 1
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 1-82701.sub
 Target Version: 4.04
 Processing Host: PITPC050

WLF
7/20/00

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ng)	ON-COL (ng)
* 1 1,4-Dichlorobenzene-d4	152	4.684	4.684	(1.000)	119051	40.0000	
* 2 Naphthalene-d8	136	6.131	6.131	(1.000)	465315	40.0000	
* 3 Acenaphthene-d10	164	9.021	9.021	(1.000)	243134	40.0000	
* 4 Phenanthrene-d10	188	12.248	12.248	(1.000)	368987	40.0000	
* 5 Chrysene-d12	240	18.808	18.808	(1.000)	324274	40.0000	
* 6 Perylene-d12	264	22.142	22.142	(1.000)	416986	40.0000	
13 N-Nitrosodimethylamine	74	1.564	1.564	(0.334)	57549	20.0000	19.998 (M)
10 Pyridine	79	1.569	1.569	(0.335)	101873	20.0000	20.827 (M)
19 Methyl methanesulfonate	80	3.204	3.204	(0.684)	61333	20.0000	22.867
22 Aniline	93	4.400	4.400	(0.940)	153066	20.0000	22.147
23 Phenol	94	4.443	4.443	(0.949)	120806	20.0000	20.582
24 bis(2-Chloroethyl)ether	93	4.470	4.470	(0.954)	96598	20.0000	20.026
25 2-Chlorophenol	128	4.518	4.518	(0.965)	85504	20.0000	20.287
27 1,3-Dichlorobenzene	146	4.641	4.641	(0.991)	94104	20.0000	20.318
28 1,4-Dichlorobenzene	146	4.700	4.700	(1.003)	95555	20.0000	20.242
29 1,2-Dichlorobenzene	146	4.892	4.892	(1.044)	89003	20.0000	20.438
30 Benzyl Alcohol	108	4.870	4.870	(1.040)	63986	20.0000	20.866
31 2-Methylphenol	108	5.036	5.036	(1.075)	81845	20.0000	20.300
32 2,2'-oxybis(1-Chloropropane)	45	5.025	5.025	(1.073)	158244	20.0000	20.430
33 N-Nitroso-di-n-propylamine	70	5.175	5.175	(1.105)	78671	20.0000	20.261
35 4-Methylphenol	108	5.191	5.191	(1.108)	86179	20.0000	20.276
38 Hexachloroethane	117	5.212	5.212	(1.113)	40315	20.0000	20.092
39 Nitrobenzene	77	5.325	5.325	(0.868)	120949	20.0000	19.864
44 Isophorone	82	5.586	5.586	(0.911)	186286	20.0000	20.060
45 2-Nitrophenol	139	5.693	5.693	(0.929)	45417	20.0000	19.647
46 2,4-Dimethylphenol	107	5.773	5.773	(0.942)	86230	20.0000	19.003

WLF
7/20/00

664 227

Compounds	QUANT SIG			AMOUNTS			
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
-----	----	==	=====	-----	-----	-----	-----
47 bis(2-Chloroethoxy)methane	93	5.869	5.869	(0.957)	111323	20.0000	20.131
51 2,4-Dichlorophenol	162	5.998	5.998	(0.978)	64955	20.0000	19.987
52 Benzoic Acid	122	5.896	5.896	(0.962)	13353	20.0000	9.1109 (H)
53 1,2,4-Trichlorobenzene	180	6.078	6.078	(0.991)	68900	20.0000	20.112
54 Naphthalene	128	6.153	6.153	(1.003)	258937	20.0000	20.238
55 4-Chloroaniline	127	6.270	6.270	(1.023)	98214	20.0000	20.311
59 Hexachlorobutadiene	225	6.398	6.398	(1.044)	37671	20.0000	19.886
62 4-Chloro-3-Methylphenol	107	6.997	6.997	(1.141)	77583	20.0000	20.088
65 2-Methylnaphthalene	142	7.136	7.136	(1.164)	164334	20.0000	20.277
66 1-Methylnaphthalene	142	7.306	7.306	(1.192)	155633	20.0000	20.788
67 Hexachlorocyclopentadiene	237	7.504	7.504	(0.832)	30444	20.0000	16.870
69 2,4,6-Trichlorophenol	196	7.664	7.664	(0.850)	40421	20.0000	19.480
70 2,4,5-Trichlorophenol	196	7.745	7.745	(0.858)	43588	20.0000	19.757
73 2-Chloronaphthalene	162	7.937	7.937	(0.880)	142163	20.0000	20.074
77 2-Nitroaniline	65	8.215	8.215	(0.911)	58439	20.0000	19.147
80 Dimethylphthalate	163	8.631	8.631	(0.957)	155829	20.0000	19.848
82 2,6-Dinitrotoluene	165	8.760	8.760	(0.971)	33537	20.0000	19.214
83 Acenaphthylene	152	8.711	8.711	(0.966)	228499	20.0000	20.000
85 3-Nitroaniline	138	9.021	9.021	(1.000)	38539	20.0000	18.927
86 Acenaphthene	153	9.080	9.080	(1.007)	143226	20.0000	20.028
87 2,4-Dinitrophenol	184	9.230	9.230	(1.023)	12676	20.0000	13.617
89 4-Nitrophenol	109	9.486	9.486	(1.052)	22598	20.0000	16.956
90 Dibenzofuran	168	9.406	9.406	(1.043)	193086	20.0000	19.863
91 2,4-Dinitrotoluene	165	9.545	9.545	(1.058)	43322	20.0000	18.983
95 2,3,5,6-Tetrachlorophenol	232	9.700	9.700	(1.075)	27807	20.0000	18.909
92 2,3,4,6-Tetrachlorophenol	232	9.796	9.796	(1.086)	28826	20.0000	19.273
96 2-Naphthylamine	143	9.753	9.753	(1.081)	121683	20.0000	23.914
97 Diethylphthalate	149	10.122	10.122	(1.122)	157102	20.0000	19.655
98 Fluorene	166	10.138	10.138	(1.124)	155382	20.0000	20.159
99 4-Chlorophenyl-phenylether	204	10.181	10.181	(1.128)	69563	20.0000	20.014
100 4-Nitroaniline	138	10.319	10.319	(1.144)	35263	20.0000	17.981
102 4,6-Dinitro-2-methylphenol	198	10.416	10.416	(0.850)	23212	20.0000	17.498
103 N-Nitrosodiphenylamine (1)	169	10.474	10.474	(0.855)	111614	20.0000	21.403
104 1,2-Diphenylhydrazine	77	10.522	10.522	(0.859)	226313	20.0000	20.638
112 4-Bromophenyl-phenylether	248	11.265	11.265	(0.920)	36333	20.0000	20.626
113 Hexachlorobenzene	284	11.548	11.548	(0.943)	36965	20.0000	20.401
117 Pentachlorophenol	266	12.013	12.013	(0.981)	14478	20.0000	15.943
122 Phenanthrene	178	12.296	12.296	(1.004)	194853	20.0000	20.134
123 Anthracene	178	12.403	12.403	(1.013)	199845	20.0000	20.040
126 Carbazole	167	12.862	12.862	(1.050)	175950	20.0000	19.177
130 Di-n-Butylphthalate	149	14.000	14.000	(1.143)	224339	20.0000	18.782
135 Fluoranthene	202	15.197	15.197	(1.241)	178731	20.0000	18.579
136 Benzidine	184	15.646	15.646	(0.832)	104580	20.0000	22.411
137 Pyrene	202	15.726	15.726	(0.836)	182960	20.0000	20.781
144 Butylbenzylphthalate	149	17.697	17.697	(0.941)	103186	20.0000	19.438
149 3,3'-Dichlorobenzidine	252	18.840	18.840	(1.002)	75539	20.0000	20.024
150 Benzo(a)Anthracene	228	18.765	18.765	(0.998)	178497	20.0000	19.707

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Compounds	QUANT SIG				AMOUNTS		
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
151 Chrysene	228	18 867	18 867	(1.003)	169356	20.0000	19.860
153 bis(2-ethylhexyl)Phthalate	149	19 278	19 278	(1.025)	161531	20.0000	20.134
155 Di-n-octylphthalate	149	20.737	20 737	(0.937)	334469	20.0000	20.624
157 Benzo(b)fluoranthene	252	21.324	21 324	(0.963)	219218	20.0000	18.941
158 Benzo(k)fluoranthene	252	21 383	21.383	(0.966)	241958	20.0000	21.238
159 7,12-dimethylbenz(a)anthracen	256	21 388	21.388	(0.966)	96431	20 0000	19.357
167 Benzo(a)pyrene	252	22 013	22.013	(0.994)	222286	20.0000	19.979
169 Indeno(1,2,3-cd)pyrene	276	24 273	24 273	(1.096)	277873	20 0000	18 354 (M)
170 Dibenz(a,h)anthracene	278	24 316	24 316	(1.098)	280156	20.0000	19 968
171 Benzo(g,h,i)perylene	276	24.786	24.786	(1.119)	280688	20.0000	19.918
\$ 172 Nitrobenzene-d5	82	5.309	5.309	(0.866)	108753	20.0000	19 526
\$ 173 2-Fluorobiphenyl	172	7.787	7.787	(0.863)	157027	20.0000	19 833
\$ 174 Terphenyl-d14	244	16.281	16.281	(0.866)	133855	20 0000	20.301
\$ 175 Phenol-d5	99	4 432	4 432	(0.946)	113052	20 0000	20 861
\$ 176 2-Fluorophenol	112	3.396	3 396	(0.725)	81877	20.0000	20.318
\$ 177 2,4,6-Tribromophenol	330	10 720	10.720	(0.875)	18628	20 0000	20 058
\$ 178 2-Chlorophenol-d4	132	4.502	4.502	(0.961)	78172	20.0000	20 650
\$ 179 1,2-Dichlorobenzene-d4	152	4.876	4 876	(1.041)	52907	20.0000	20.203

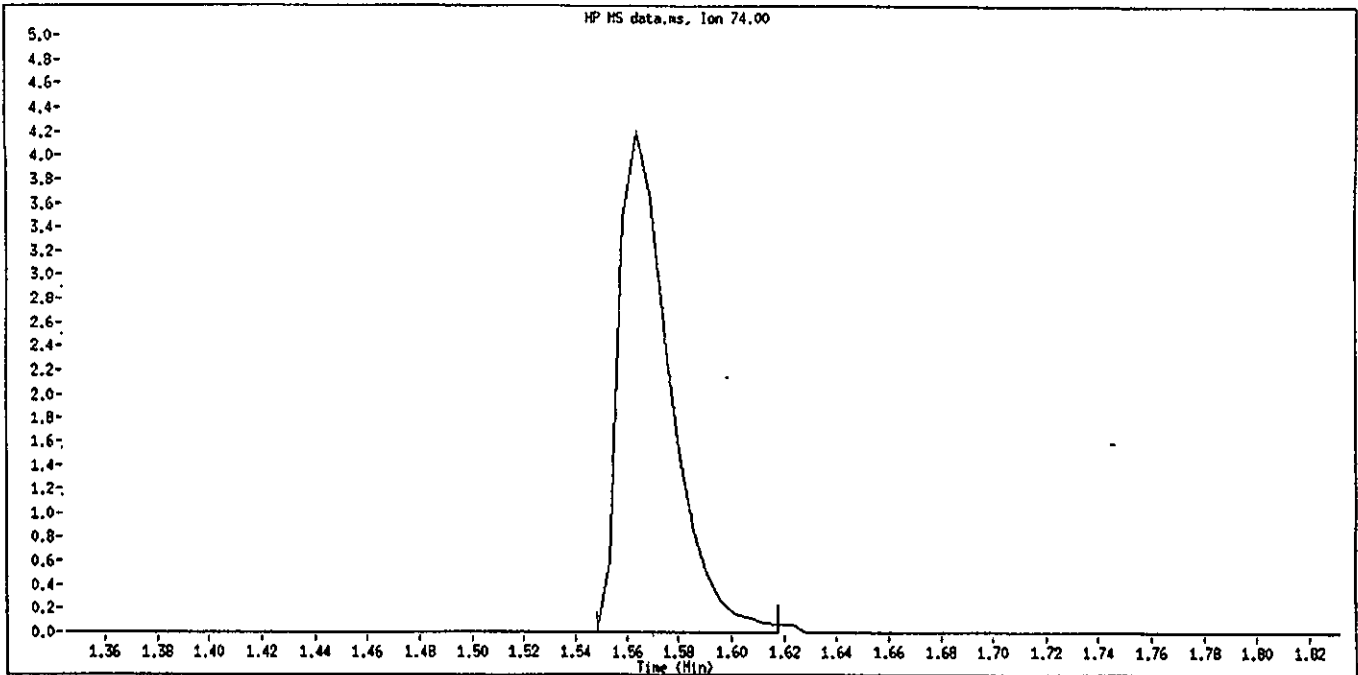
Handwritten: 7/20/00

QC Flag Legend

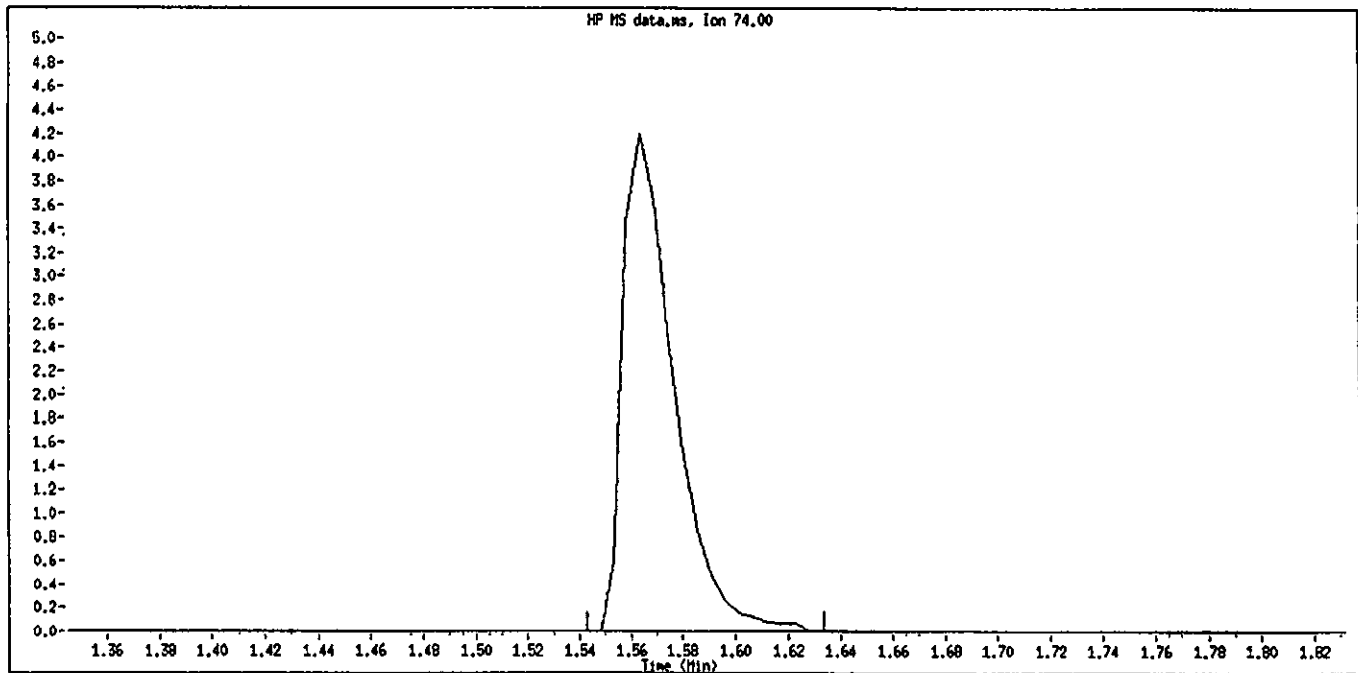
- M - Compound response manually integrated.
- H - Operator selected an alternate compound hit.

Data File Name. S0720CC1 D
Inj. Date and Time: 20-JUL-2000 14:27
Instrument ID 71 1
Client ID sstd020
Compound Name: N-Nitrosodimethylamine
CAS #: 62-75-9
Report Date 07/20/2000

664 229



Original Integration

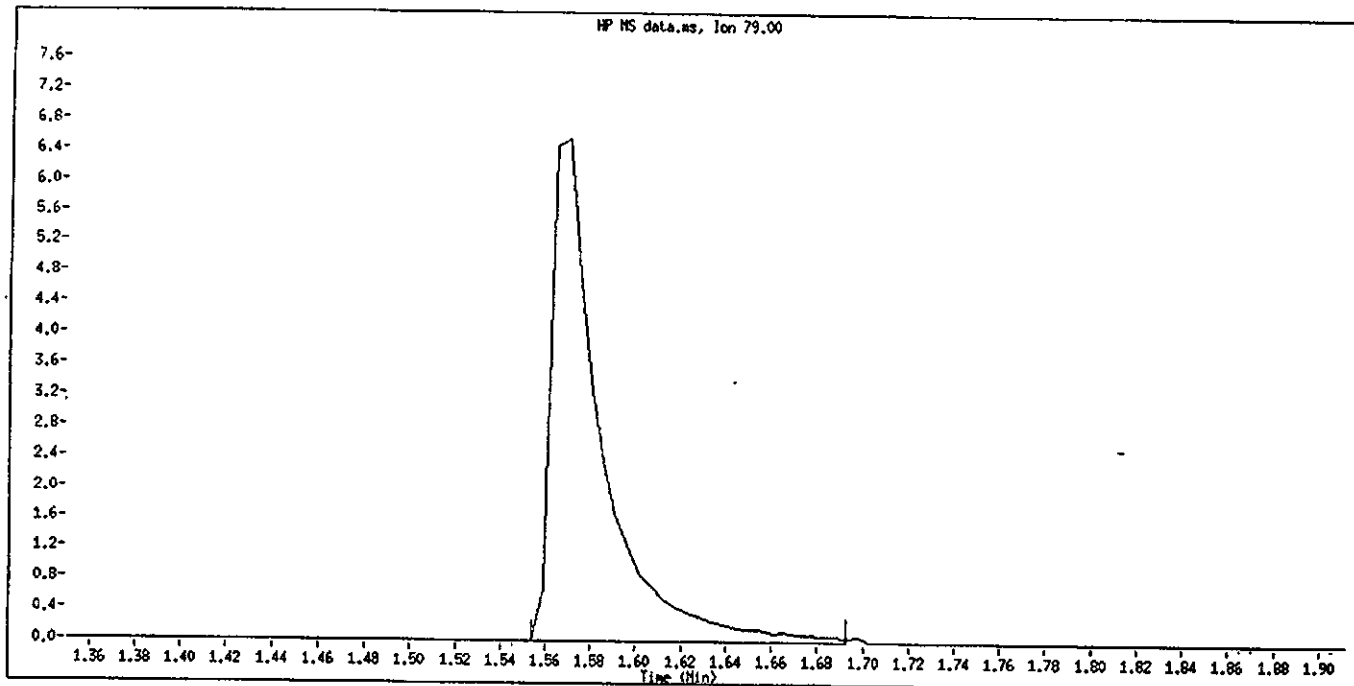


Manual Integration

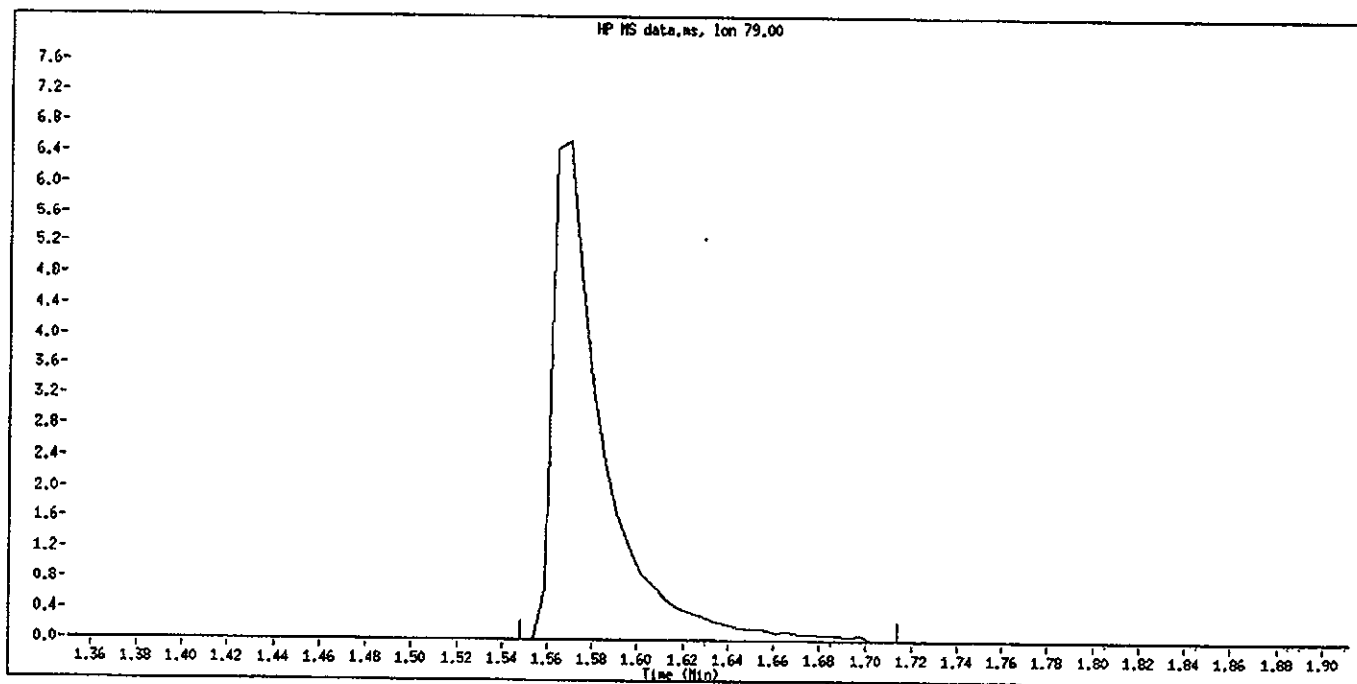
Manually Integrated By. Bachas/VUP 7/20/00
Manual Integration Reason. Poor Chromatography

Data File Name S0720CC1.D
Inj Date and Time 20-JUL-2000 14.27
Instrument ID: 71.1
Client ID. sstd020
Compound Name: Pyridine
CAS #: 110-86-1
Report Date 07/20/2000

664 230



Original Integration

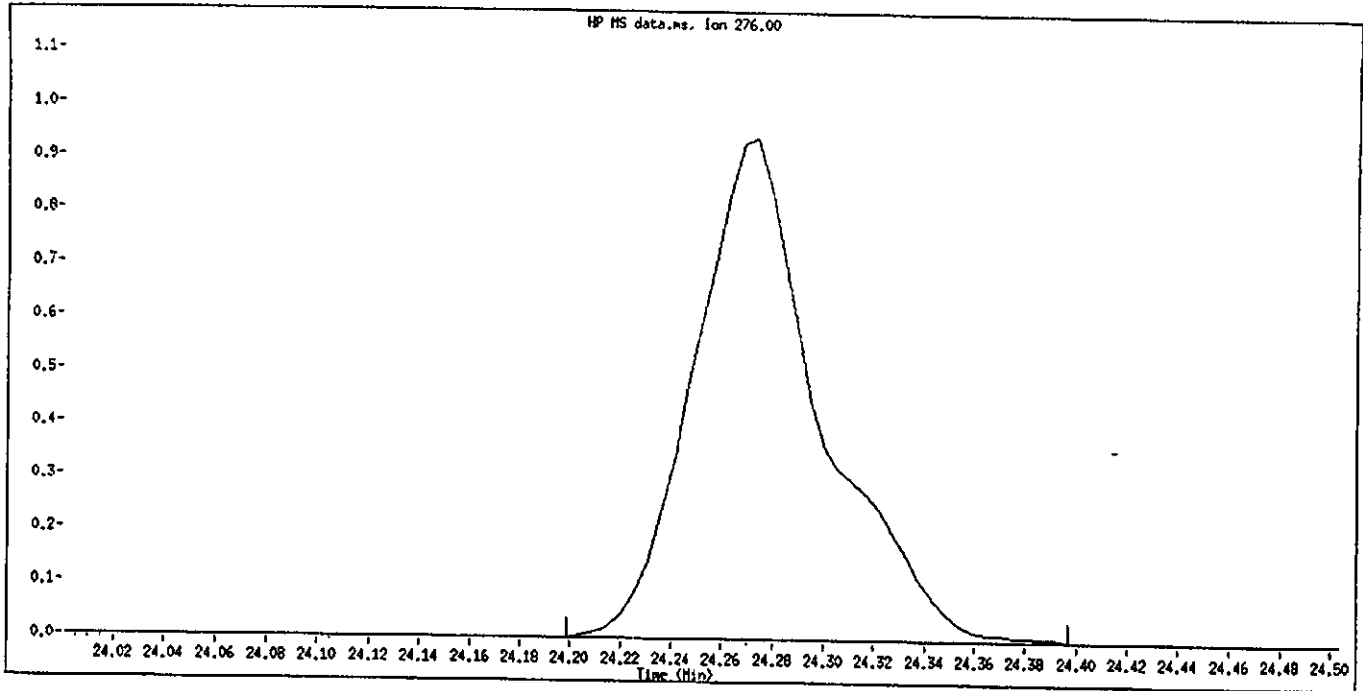


Manual Integration

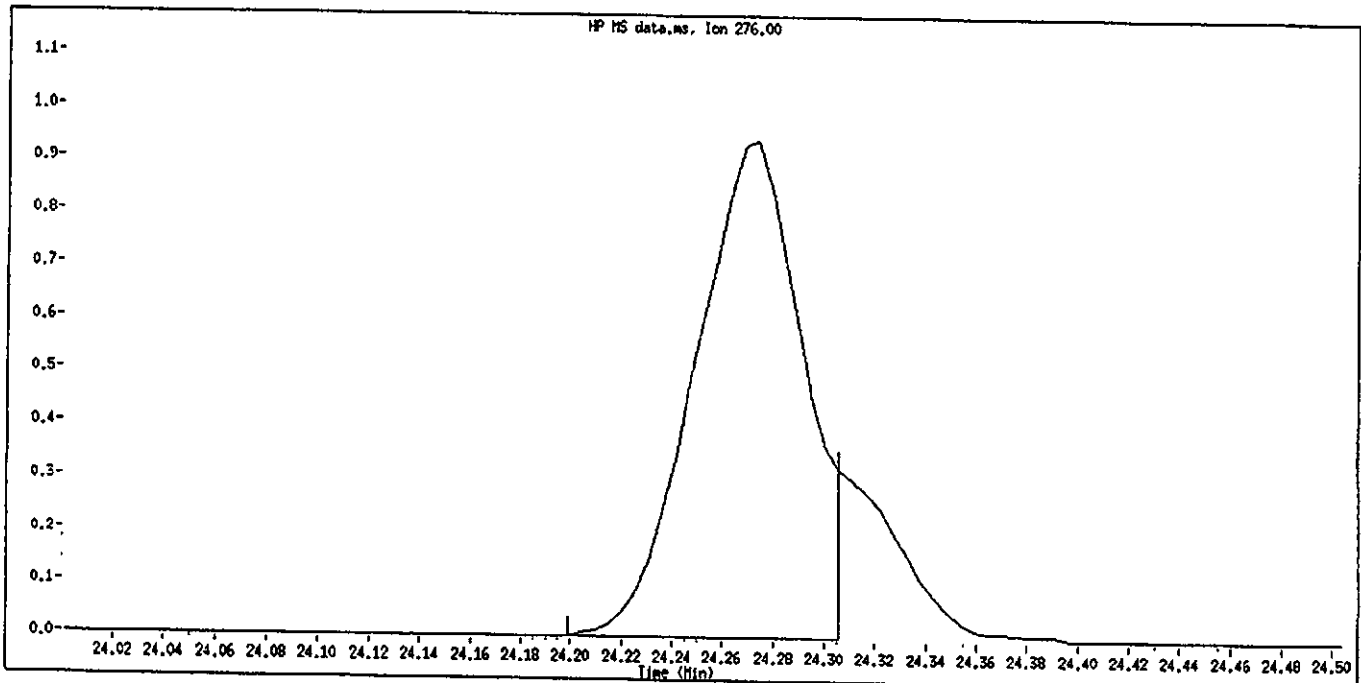
Manually Integrated By: BachaS/VJP 7/20/00
Manual Integration Reason: Poor Chromatography

Data File Name S0720CC1 D
Inj Date and Time 20-JUL-2000 14:27
Instrument ID 71 i
Client ID sstd020
Compound Name Indeno(1,2,3-cd)pyrene
CAS #: 193-39-5
Report Date 07/20/2000

664 231



Original Integration

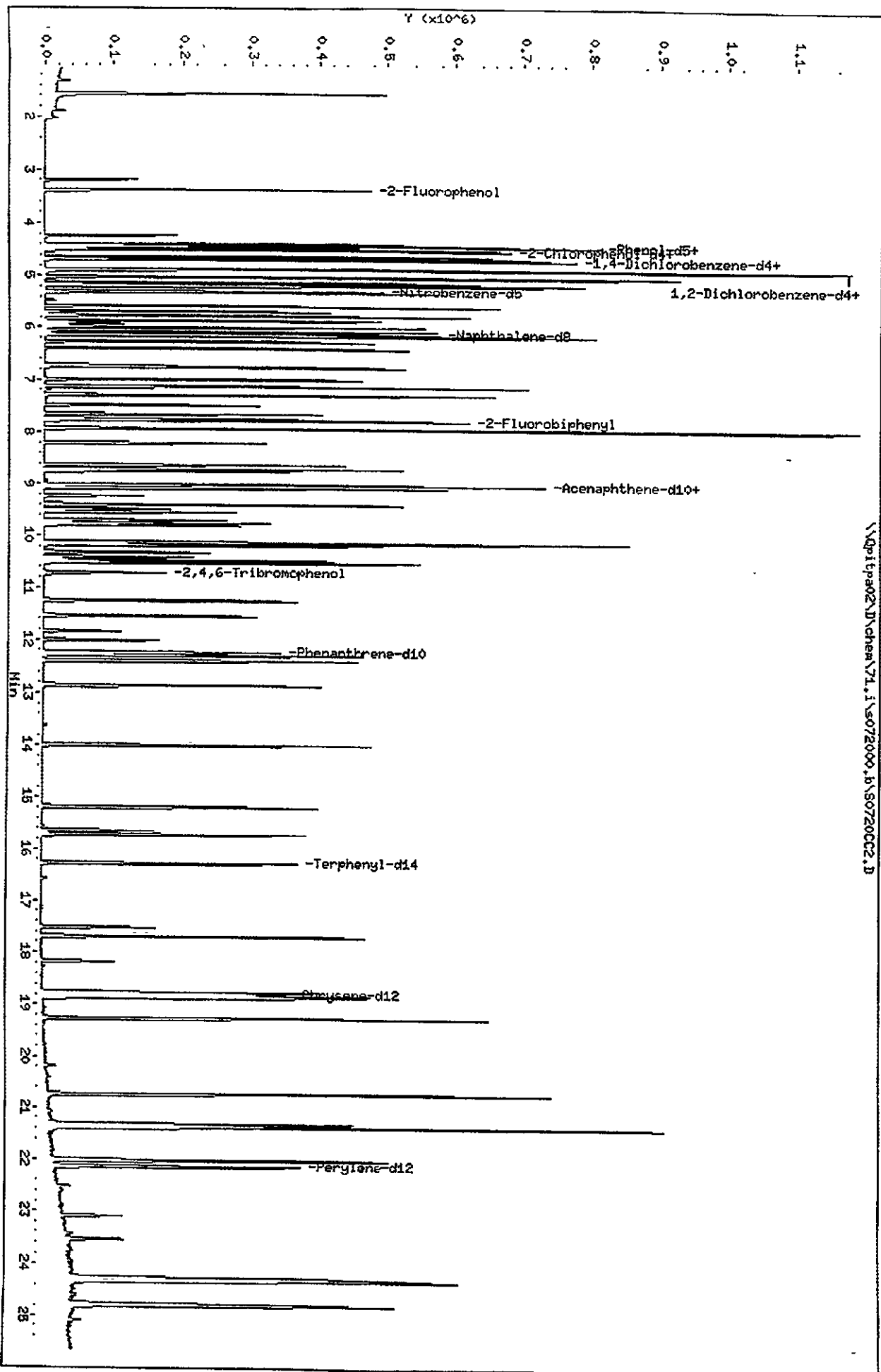


Manual Integration

Manually Integrated By: Bachas /wup 7/20/00
Manual Integration Reason: Poor Chromatography

Data File: \\dpltpa02\chem\71.i\5072000.b\50720002.D
Date: 20-JUL-2000 13:55
Client ID: sstd050
Sample Info: sstd050(25 ug/ml) 194-182-1 8270/slp
Column phase: Hp5-MS

Instrument: 71.i
Operator: 048183
Column diameter: 0.25



664 233

STL Pittsburgh

Semivolatiles REPORT SW-846 Method 8270

Data file : \\Qpitpa02\D\chem\71.i\s072000.b\S0720CC2.D
 Lab Smp Id: sstd50 Client Smp ID: sstd050
 Inj Date : 20-JUL-2000 13:55
 Operator : 045183 Inst ID: 71.i
 Smp Info : sstd50(25 ug/ml) 194-182-1 8270/clp
 Misc Info : sstd50,s072000.b,8270clp.m,1-82701.sub,1,2
 Comment :
 Method : \\Qpitpa02\D\chem\71.i\s072000.b\8270clp.m
 Meth Date : 20-Jul-2000 14:56 bachas Quant Type: ISTD
 Cal Date : 20-JUL-2000 13:55 Cal File: S0720CC2.D
 Als bottle: 3 Calibration Sample, Level: 2
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 1-82701.sub
 Target Version: 4.04
 Processing Host: PITPC050

AS 7/24/00

Compounds	QUANT SIG				AMOUNTS		
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
* 1 1,4-Dichlorobenzene-d4	152	4.680	4.680	(1.000)	81232	40.0000	
* 2 Naphthalene-d8	136	6.128	6.128	(1.000)	316158	40.0000	
* 3 Acenaphthene-d10	164	9.018	9.018	(1.000)	165182	40.0000	
* 4 Phenanthrene-d10	188	12.244	12.244	(1.000)	263166	40.0000	
* 5 Chrysene-d12	240	18.810	18.810	(1.000)	238604	40.0000	
* 6 Perylene-d12	264	22.143	22.143	(1.000)	309042	40.0000	
13 N-Nitrosodimethylamine	74	1.560	1.560	(0.333)	98549	50.0000	53.415
10 Pyridine	79	1.566	1.566	(0.335)	153511	50.0000	47.165 (M)
19 Methyl methanesulfonate	80	3.200	3.200	(0.684)	62010	50.0000	38.865
22 Aniline	93	4.402	4.402	(0.941)	209932	50.0000	44.483
23 Phenol	94	4.445	4.445	(0.950)	200097	50.0000	50.155
24 bis(2-Chloroethyl)ether	93	4.466	4.466	(0.954)	166309	50.0000	51.663
25 2-Chlorophenol	128	4.520	4.520	(0.966)	146623	50.0000	51.941
27 1,3-Dichlorobenzene	146	4.643	4.643	(0.992)	160163	50.0000	51.509
28 1,4-Dichlorobenzene	146	4.696	4.696	(1.003)	165883	50.0000	52.820
29 1,2-Dichlorobenzene	146	4.888	4.888	(1.045)	151266	50.0000	52.857
30 Benzyl Alcohol	108	4.872	4.872	(1.041)	104415	50.0000	51.516 (M)
31 2-Methylphenol	108	5.038	5.038	(1.076)	140852	50.0000	53.866
32 2,2'-oxybis(1-Chloropropane)	45	5.022	5.022	(1.073)	270540	50.0000	62.907
33 N-Nitroso-di-n-propylamine	70	5.177	5.177	(1.106)	134414	50.0000	59.296
35 4-Methylphenol	108	5.193	5.193	(1.110)	148829	50.0000	53.820
38 Hexachloroethane	117	5.209	5.209	(1.113)	68807	50.0000	54.584
39 Nitrobenzene	77	5.326	5.326	(0.869)	208435	50.0000	58.038
44 Isophorone	82	5.588	5.588	(0.912)	317829	50.0000	56.624
45 2-Nitrophenol	139	5.695	5.695	(0.929)	78301	50.0000	50.367
46 2,4-Dimethylphenol	107	5.775	5.775	(0.942)	155023	50.0000	55.069

664 234

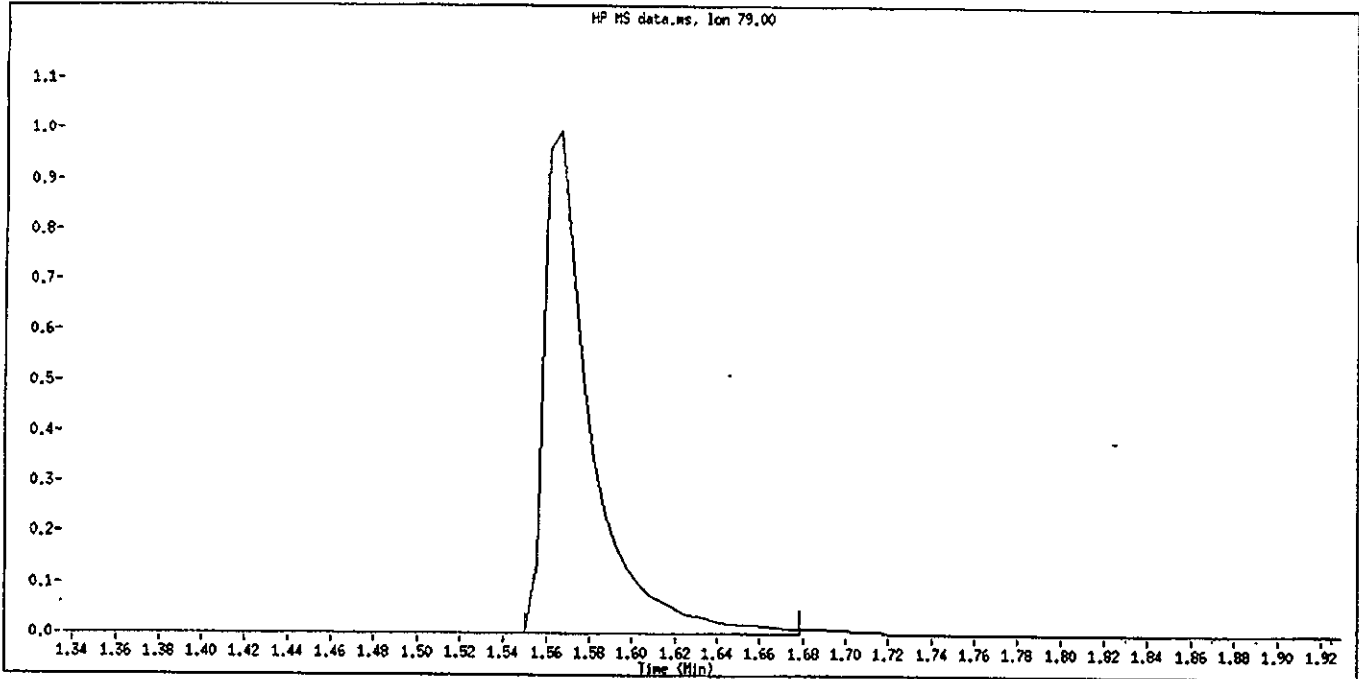
Compounds	QUANT SIG				AMOUNTS		
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
47 bis(2-Chloroethoxy)methane	93	5.866	5.866	(0.957)	188852	50.0000	52.676
51 2,4-Dichlorophenol	162	5.994	5.994	(0.978)	111625	50.0000	52.206
52 Benzoic Acid	122	5.925	5.925	(0.967)	44499	50.0000	38.768
53 1,2,4-Trichlorobenzene	180	6.080	6.080	(0.992)	117131	50.0000	51.153
54 Naphthalene	128	6.154	6.154	(1.004)	440456	50.0000	53.283
55 4-Chloroaniline	127	6.272	6.272	(1.024)	165661	50.0000	51.302
59 Hexachlorobutadiene	225	6.395	6.395	(1.044)	65040	50.0000	53.602
62 4-Chloro-3-Methylphenol	107	6.998	6.998	(1.142)	132060	50.0000	55.080
65 2-Methylnaphthalene	142	7.137	7.137	(1.165)	279255	50.0000	53.058
66 1-Methylnaphthalene	142	7.303	7.303	(1.192)	250608	50.0000	51.493
67 Hexachlorocyclopentadiene	237	7.501	7.501	(0.832)	59751	50.0000	45.015
69 2,4,6-Trichlorophenol	196	7.666	7.666	(0.850)	71366	50.0000	50.506
70 2,4,5-Trichlorophenol	196	7.746	7.746	(0.859)	74938	50.0000	50.307
73 2-Chloronaphthalene	162	7.939	7.939	(0.880)	240692	50.0000	52.795
77 2-Nitroaniline	65	8.216	8.216	(0.911)	103250	50.0000	60.342
80 Dimethylphthalate	163	8.638	8.638	(0.958)	269047	50.0000	53.222
82 2,6-Dinitrotoluene	165	8.756	8.756	(0.971)	60078	50.0000	51.733
83 Acenaphthylene	152	8.713	8.713	(0.966)	387770	50.0000	51.533
85 3-Nitroaniline	138	9.023	9.023	(1.001)	69022	50.0000	49.825
86 Acenaphthene	153	9.082	9.082	(1.007)	243939	50.0000	51.998
87 2,4-Dinitrophenol	184	9.231	9.231	(1.024)	29537	50.0000	52.690
89 4-Nitrophenol	109	9.488	9.488	(1.052)	44182	50.0000	60.545
90 Dibenzofuran	168	9.408	9.408	(1.043)	333685	50.0000	51.607
91 2,4-Dinitrotoluene	165	9.552	9.552	(1.059)	78048	50.0000	50.492
95 2,3,5,6-Tetrachlorophenol	232	9.702	9.702	(1.076)	49331	50.0000	48.766
92 2,3,4,6-Tetrachlorophenol	232	9.798	9.798	(1.086)	49270	50.0000	48.908
96 2-Naphthylamine	143	9.755	9.755	(1.082)	196587	50.0000	48.441
97 Diethylphthalate	149	10.124	10.124	(1.123)	274748	50.0000	55.391
98 Fluorene	166	10.134	10.134	(1.124)	263824	50.0000	51.835
99 4-Chlorophenyl-phenylether	204	10.182	10.182	(1.129)	119100	50.0000	50.887
100 4-Nitroaniline	138	10.327	10.327	(1.145)	65038	50.0000	47.511
102 4,6-Dinitro-2-methylphenol	198	10.417	10.417	(0.851)	44781	50.0000	53.295
103 N-Nitrosodiphenylamine (1)	169	10.476	10.476	(0.856)	174524	50.0000	49.749
104 1,2-Diphenylhydrazine	77	10.524	10.524	(0.860)	389719	50.0000	60.768
112 4-Bromophenyl-phenylether	248	11.267	11.267	(0.920)	63467	50.0000	51.950
113 Hexachlorobenzene	284	11.550	11.550	(0.943)	65310	50.0000	51.293
117 Pentachlorophenol	266	12.015	12.015	(0.981)	33637	50.0000	50.048
122 Phenanthrene	178	12.298	12.298	(1.004)	347555	50.0000	52.386
123 Anthracene	178	12.399	12.399	(1.013)	355475	50.0000	52.180
126 Carbazole	167	12.864	12.864	(1.051)	323459	50.0000	50.743
130 Di-n-Butylphthalate	149	14.002	14.002	(1.144)	419270	50.0000	52.747
135 Fluoranthene	202	15.199	15.199	(1.241)	331699	50.0000	49.674
136 Benzidine	184	15.642	15.642	(0.832)	137958	50.0000	39.709
137 Pyrene	202	15.727	15.727	(0.836)	338557	50.0000	50.227
144 Butylbenzylphthalate	149	17.699	17.699	(0.941)	199853	50.0000	49.760
149 3,3'-Dichlorobenzidine	252	18.842	18.842	(1.002)	134028	50.0000	48.897
150 Benzo(a)Anthracene	228	18.767	18.767	(0.998)	337008	50.0000	49.717

664 235

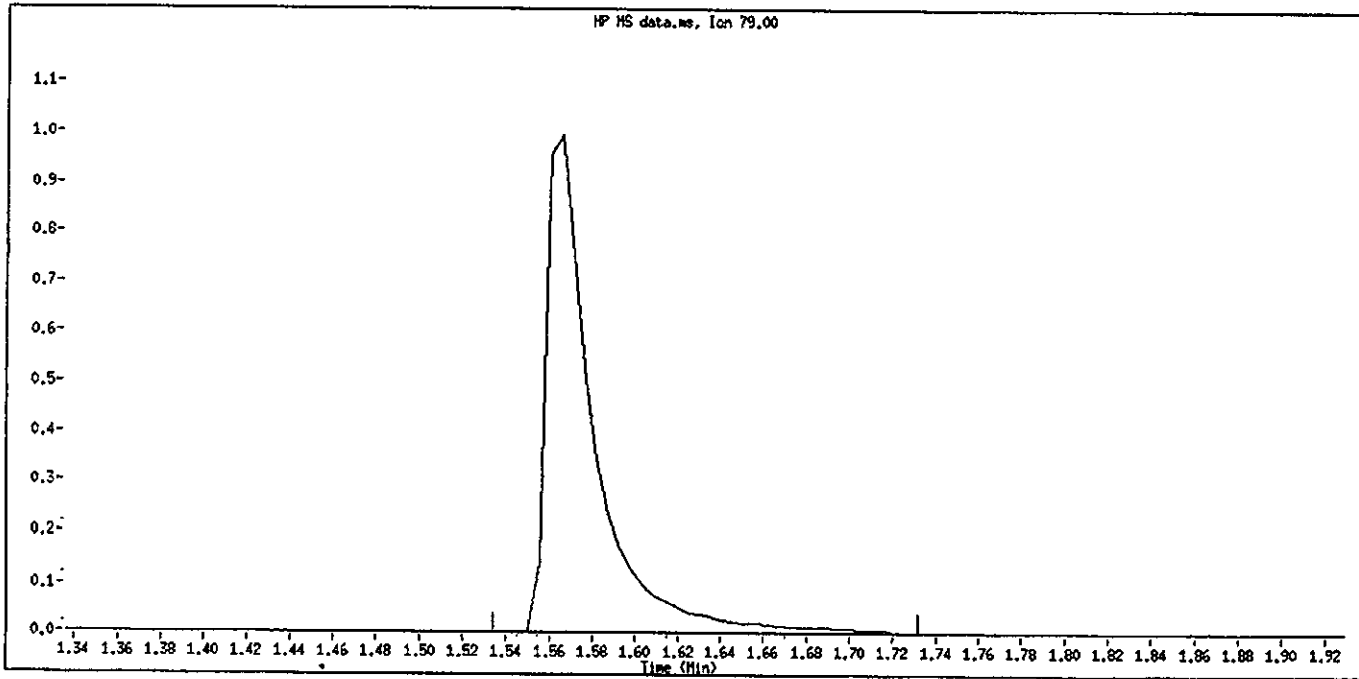
Compounds	QUANT SIG				RESPONSE	AMOUNTS	
	MASS	RT	EXP RT	REL RT		CAL-AMT (ng)	ON-COL (ng)
151 Chrysene	228	18.869	18.869	(1.003)	320718	50.0000	50.136
153 bis(2-ethylhexyl)Phthalate	149	19.280	19.280	(1.025)	305632	50.0000	46.417
155 Di-n-octylphthalate	149	20.738	20.738	(0.937)	631005	50.0000	50.232
157 Benzo(b)fluoranthene	252	21.331	21.331	(0.963)	418512	50.0000	50.093
158 Benzo(k)fluoranthene	252	21.390	21.390	(0.966)	445871	50.0000	57.624
159 7,12-dimethylbenz(a)anthracen	256	21.390	21.390	(0.966)	184650	50.0000	54.555
167 Benzo(a)pyrene	252	22.021	22.021	(0.994)	417666	50.0000	52.683
169 Indeno(1,2,3-cd)pyrene	276	24.280	24.280	(1.096)	511759	50.0000	45.885 (M)
170 Dibenz(a,h)anthracene	278	24.323	24.323	(1.098)	521588	50.0000	52.982
171 Benzo(g,h,i)perylene	276	24.798	24.798	(1.120)	520257	50.0000	51.850
\$ 172 Nitrobenzene-d5	82	5.305	5.305	(0.866)	186892	50.0000	56.650
\$ 173 2-Fluorobiphenyl	172	7.784	7.784	(0.863)	264202	50.0000	50.612
\$ 174 Terphenyl-d14	244	16.278	16.278	(0.865)	249365	50.0000	49.046
\$ 175 Phenol-d5	99	4.429	4.429	(0.946)	183285	50.0000	52.737
\$ 176 2-Fluorophenol	112	3.393	3.393	(0.725)	135392	50.0000	49.314
\$ 177 2,4,6-Tribromophenol	330	10.722	10.722	(0.876)	32650	50.0000	48.834
\$ 178 2-Chlorophenol-d4	132	4.504	4.504	(0.962)	128609	50.0000	50.959
\$ 179 1,2-Dichlorobenzene-d4	152	4.878	4.878	(1.042)	90597	50.0000	52.614

QC Flag Legend

M - Compound response manually integrated.



Original Integration



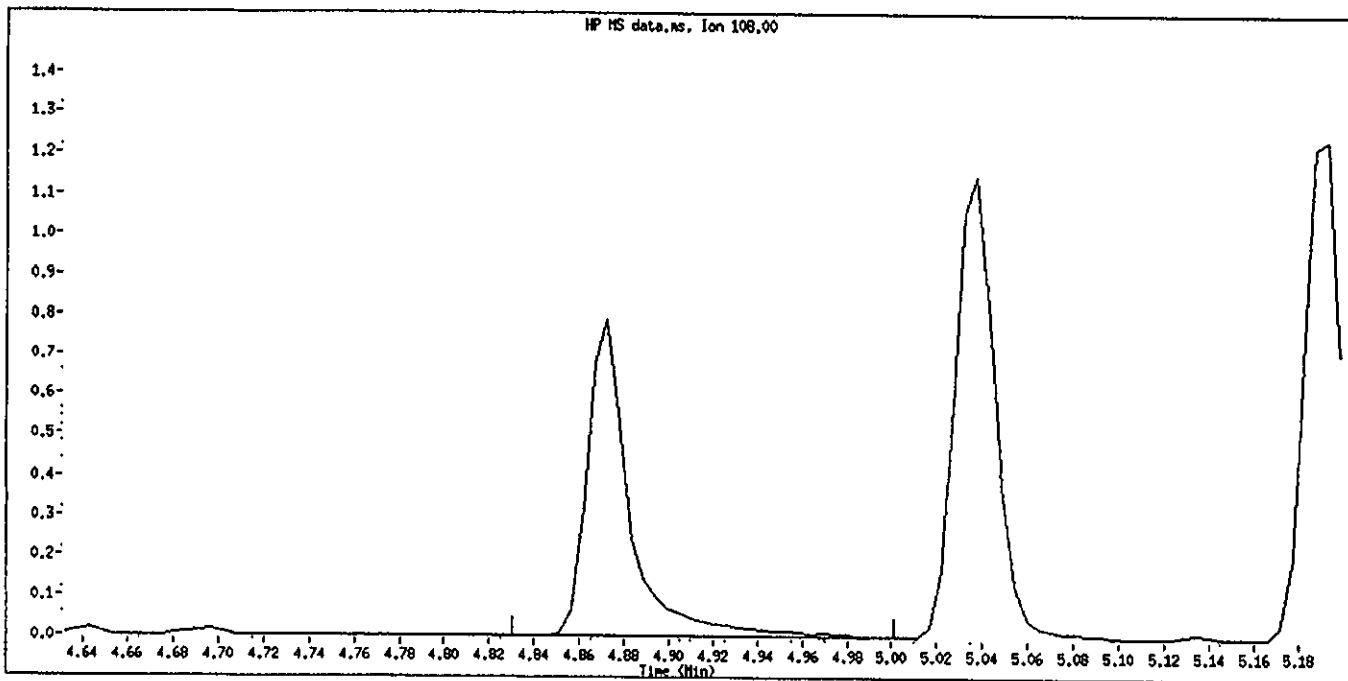
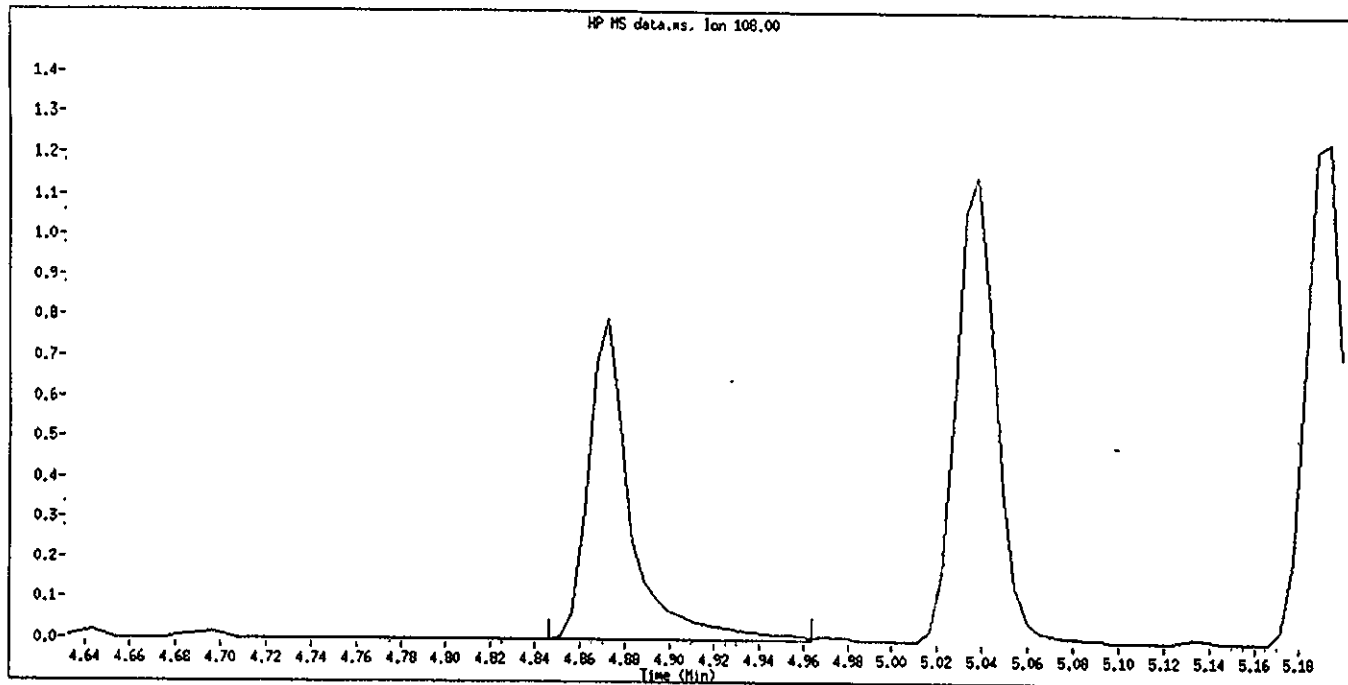
Manual Integration

Manually Integrated By: BachaS

Manual Integration Reason: Poor Chromatography

Data File Name S0720CC2.D
Inj. Date and Time: 20-JUL-2000 13 55
Instrument ID: 71.1
Client ID sstd050
Compound Name: Benzyl Alcohol
CAS #: 100-51-6
Report Date 07/20/2000

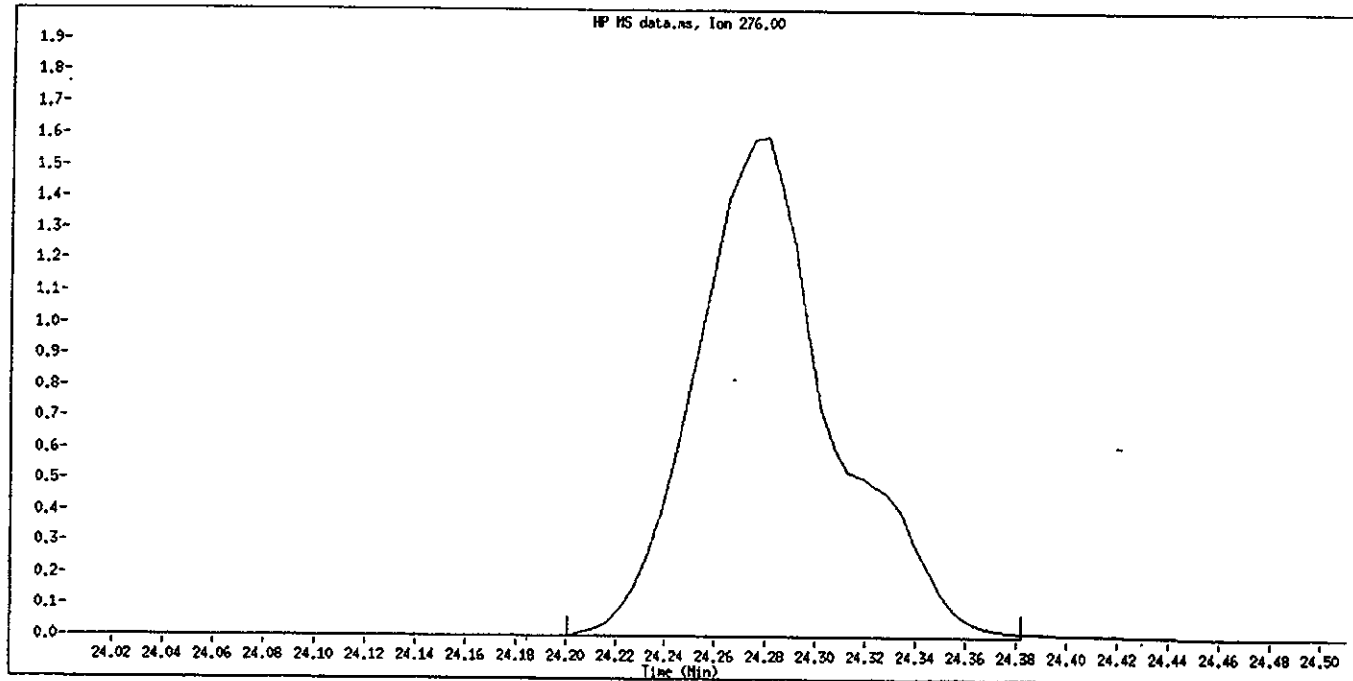
664 237



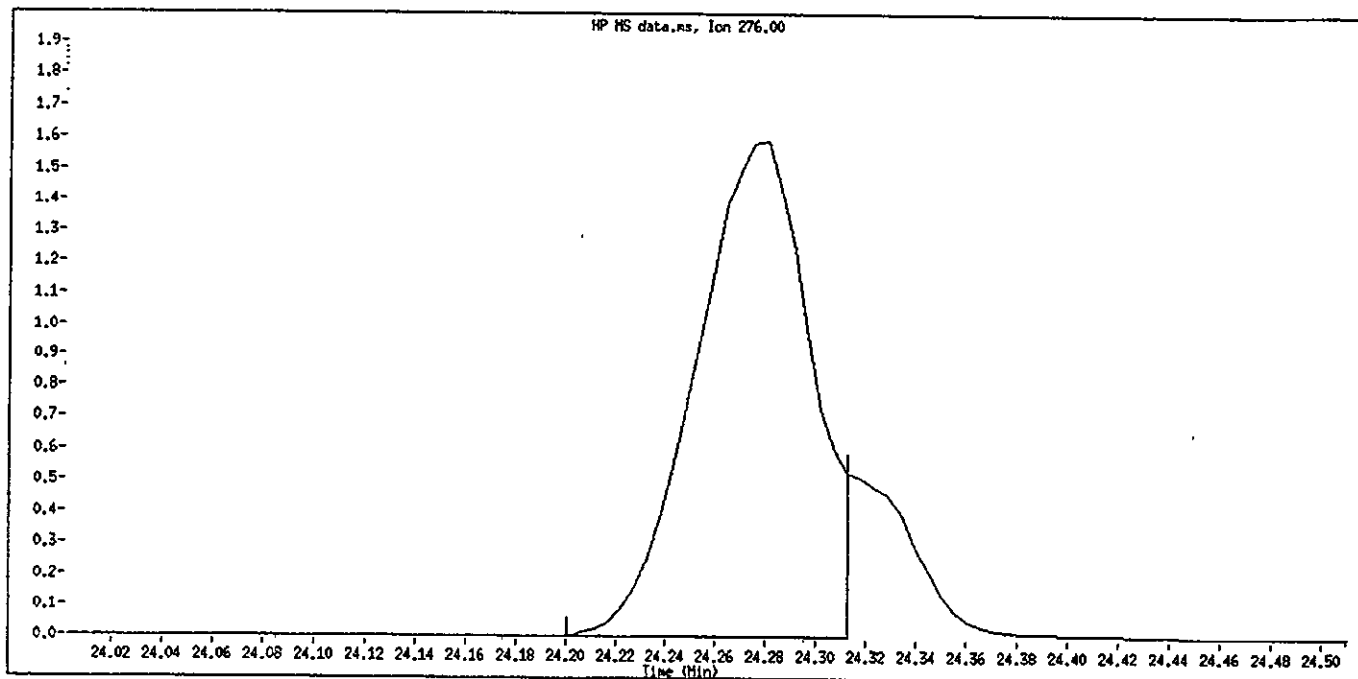
Manually Integrated By: BachaS
Manual Integration Reason Poor Chromatography

Data File Name: S0720CC2.D
Inj. Date and Time 20-JUL-2000 13:55
Instrument ID 71
Client ID: sstd050
Compound Name Indeno(1,2,3-cd)pyrene
CAS # 193-39-5
Report Date: 07/20/2000

664 238



Original Integration

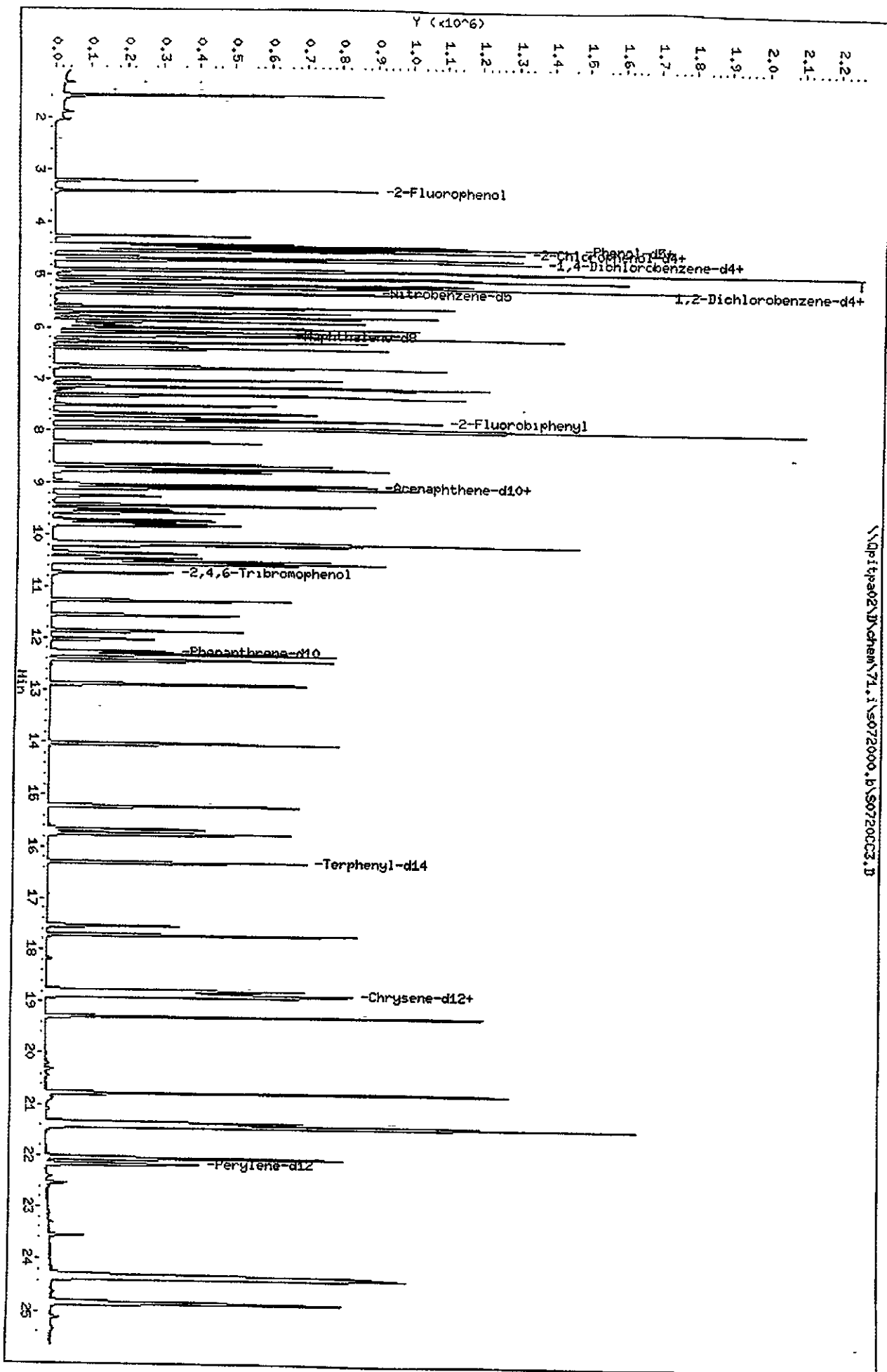


Manual Integration

Manually Integrated By: Bachas
Manual Integration Reason: Poor Chromatography

Data File: \\Optipao2\chem\71.i\5072000.b\50720003.D
Date: 20-JUL-2000 14:58
Client ID: SST080
Sample Info: sst080(40 ug/ml) 194-175-12 8270/c1p
Volume Injected (uL): 2.0
Column phase: He5-MS

Instrument: 71.i
Operator: 045183
Column diameter: 0.25



\\Optipao2\chem\71.i\5072000.b\50720003.D

664 240

STL Pittsburgh

Semivolatiles REPORT SW-846 Method 8270

Data file : \\Qpitpa02\D\chem\71.i\s072000.b\S0720CC3.D
 Lab Smp Id: sstd80 Client Smp ID: SSTD80
 Inj Date : 20-JUL-2000 14:58
 Operator : 045183 Inst ID: 71.i
 Smp Info : sstd80(40 ug/ml) 194-175-12 8270/clp
 Misc Info : sstd80,s072000.b,8270clp.m,1-82701.sub,1,3
 Comment :
 Method : \\Qpitpa02\D\chem\71.i\s072000.b\8270clp.m
 Meth Date : 20-Jul-2000 16:02 bachas Quant Type: ISTD
 Cal Date : 20-JUL-2000 15:30 Cal File: S0720CC4.D
 Als bottle: 4 Calibration Sample, Level: 3
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.04
 Processing Host: PITPC050

Compound Sublist: 1-82701.sub

*WJW
7/20/00*

Compounds	QUANT SIG				AMOUNTS		
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
* 1 1,4-Dichlorobenzene-d4	152	4.688	4.688	(1.000)	92225	40.0000	
* 2 Naphthalene-d8	136	6.141	6.141	(1.000)	351867	40.0000	
* 3 Acenaphthene-d10	164	9.031	9.031	(1.000)	178711	40.0000	
* 4 Phenanthrene-d10	188	12.263	12.263	(1.000)	281019	40.0000	
* 5 Chrysene-d12	240	18.828	18.828	(1.000)	280811	40.0000	
* 6 Perylene-d12	264	22.162	22.162	(1.000)	365160	40.0000	
13 N-Nitrosodimethylamine	74	1.573	1.573	(0.336)	180129	80.0000	80.867
10 Pyridine	79	1.563	1.563	(0.333)	314891	80.0000	83.150 (M)
19 Methyl methanesulfonate	80	3.208	3.208	(0.684)	186732	80.0000	89.870
22 Aniline	93	4.410	4.410	(0.941)	441518	80.0000	82.463
23 Phenol	94	4.453	4.453	(0.950)	368223	80.0000	80.982
24 bis(2-Chloroethyl)ether	93	4.479	4.479	(0.956)	301328	80.0000	80.639
25 2-Chlorophenol	128	4.528	4.528	(0.966)	264294	80.0000	80.949
27 1,3-Dichlorobenzene	146	4.650	4.650	(0.992)	289847	80.0000	80.785
28 1,4-Dichlorobenzene	146	4.704	4.704	(1.003)	293100	80.0000	80.149
29 1,2-Dichlorobenzene	146	4.896	4.896	(1.044)	270884	80.0000	80.299
30 Benzyl Alcohol	108	4.880	4.880	(1.041)	187360	80.0000	78.871
31 2-Methylphenol	108	5.046	5.046	(1.076)	254584	80.0000	81.513
32 2,2'-oxybis(1-Chloropropane)	45	5.035	5.035	(1.074)	479274	80.0000	79.875
33 N-Nitroso-di-n-propylamine	70	5.190	5.190	(1.107)	243989	80.0000	81.116
35 4-Methylphenol	108	5.201	5.201	(1.109)	266037	80.0000	80.799
38 Hexachloroethane	117	5.222	5.222	(1.114)	125698	80.0000	80.866
39 Nitrobenzene	77	5.340	5.340	(0.870)	370913	80.0000	80.556
44 Isophorone	82	5.601	5.601	(0.912)	570272	80.0000	81.208
45 2-Nitrophenol	139	5.703	5.703	(0.929)	143672	80.0000	82.189
46 2,4-Dimethylphenol	107	5.788	5.788	(0.943)	284456	80.0000	82.898

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Compounds	QUANT SIG			AMOUNTS			
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
47 bis(2-Chloroethoxy)methane	93	5.879	5.879	(0.957)	337157	80.0000	80.629
51 2,4-Dichlorophenol	162	6.007	6.007	(0.978)	199477	80.0000	81.169
52 Benzoic Acid	122	5.965	5.965	(0.971)	112000	80.0000	101.06
53 1,2,4-Trichlorobenzene	180	6.093	6.093	(0.992)	208607	80.0000	80.526
54 Naphthalene	128	6.168	6.168	(1.004)	777669	80.0000	80.376
55 4-Chloroaniline	127	6.280	6.280	(1.023)	296166	80.0000	80.994
59 Hexachlorobutadiene	225	6.408	6.408	(1.043)	116105	80.0000	81.051
62 4-Chloro-3-Methylphenol	107	7.012	7.012	(1.142)	237149	80.0000	81.201
65 2-Methylnaphthalene	142	7.145	7.145	(1.164)	492966	80.0000	80.437
66 1-Methylnaphthalene	142	7.316	7.316	(1.191)	453289	80.0000	80.066
67 Hexachlorocyclopentadiene	237	7.514	7.514	(0.832)	115601	80.0000	87.153
69 2,4,6-Trichlorophenol	196	7.679	7.679	(0.850)	124329	80.0000	81.517
70 2,4,5-Trichlorophenol	196	7.765	7.765	(0.860)	131758	80.0000	81.250
73 2-Chloronaphthalene	162	7.952	7.952	(0.881)	421378	80.0000	80.951
77 2-Nitroaniline	65	8.230	8.230	(0.911)	184227	80.0000	82.119
80 Dimethylphthalate	163	8.652	8.652	(0.958)	462552	80.0000	80.156
82 2,6-Dinitrotoluene	165	8.775	8.775	(0.972)	103751	80.0000	80.869
83 Acenaphthylene	152	8.726	8.726	(0.966)	680258	80.0000	81.004
85 3-Nitroaniline	138	9.042	9.042	(1.001)	121473	80.0000	81.164
86 Acenaphthene	153	9.095	9.095	(1.007)	425477	80.0000	80.944
87 2,4-Dinitrophenol	184	9.250	9.250	(1.024)	61416	80.0000	89.761
89 4-Nitrophenol	109	9.506	9.506	(1.053)	80830	80.0000	82.533
90 Dibenzofuran	168	9.426	9.426	(1.044)	576377	80.0000	80.667
91 2,4-Dinitrotoluene	165	9.571	9.571	(1.060)	134616	80.0000	80.252
95 2,3,5,6-Tetrachlorophenol	232	9.720	9.720	(1.076)	88369	80.0000	81.755
92 2,3,4,6-Tetrachlorophenol	232	9.811	9.811	(1.086)	89443	80.0000	81.360
96 2-Naphthylamine	143	9.774	9.774	(1.082)	259970	80.0000	69.509
97 Diethylphthalate	149	10.142	10.142	(1.123)	467823	80.0000	79.628
98 Fluorene	166	10.153	10.153	(1.124)	455712	80.0000	80.435
99 4-Chlorophenyl-phenylether	204	10.201	10.201	(1.130)	206262	80.0000	80.737
100 4-Nitroaniline	138	10.350	10.350	(1.146)	116426	80.0000	80.770
102 4,6-Dinitro-2-methylphenol	198	10.447	10.447	(0.852)	85682	80.0000	84.809
103 N-Nitrosodiphenylamine (1)	169	10.495	10.495	(0.856)	322279	80.0000	81.145
104 1,2-Diphenylhydrazine	77	10.543	10.543	(0.860)	679185	80.0000	81.326
112 4-Bromophenyl-phenylether	248	11.280	11.280	(0.920)	108006	80.0000	80.508
113 Hexachlorobenzene	284	11.568	11.568	(0.943)	111536	80.0000	80.828
117 Pentachlorophenol	266	12.033	12.033	(0.981)	58733	80.0000	84.921
122 Phenanthrene	178	12.316	12.316	(1.004)	592824	80.0000	80.432
123 Anthracene	178	12.423	12.423	(1.013)	610912	80.0000	80.439
126 Carbazole	167	12.883	12.883	(1.051)	563076	80.0000	80.582
130 Di-n-Butylphthalate	149	14.021	14.021	(1.143)	741839	80.0000	81.550
135 Fluoranthene	202	15.217	15.217	(1.241)	592124	80.0000	80.818
136 Benzidine	184	15.666	15.666	(0.832)	347805	80.0000	86.068
137 Pyrene	202	15.751	15.751	(0.837)	607115	80.0000	79.631
144 Butylbenzylphthalate	149	17.723	17.723	(0.941)	372140	80.0000	80.953
149 3,3'-Dichlorobenzidine	252	18.866	18.866	(1.002)	264954	80.0000	81.104
150 Benzo(a)Anthracene	228	18.786	18.786	(0.998)	635097	80.0000	80.970

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Compounds	QUANT SIG				AMOUNTS		
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
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151 Chrysene	228	18 893	18.893	(1.003)	594734	80 0000	80.538
153 bis(2-ethylhexyl)Phthalate	149	19 299	19.299	(1.025)	551098	80 0000	79.322
155 Di-n-octylphthalate	149	20 762	20.762	(0.937)	1118064	80.0000	78.728
157 Benzo(b)fluoranthene	252	21.361	21 361	(0.964)	836130	80.0000	82.499
158 Benzo(k)fluoranthene	252	21 430	21 430	(0.967)	812757	80.0000	81.467
159 7,12-dimethylbenz[a]anthracen	256	21 425	21.425	(0.967)	357048	80.0000	81 844
167 Benzo(a)pyrene	252	22 050	22.050	(0.995)	788090	80.0000	80 888
169 Indeno(1,2,3-cd)pyrene	276	24.315	24.315	(1.097)	1010172	80 0000	73 279 (M)
170 Dibenz(a,h)anthracene	278	24.363	24 363	(1.099)	991909	80 0000	80.734
171 Benzo(g,h,i)perylene	276	24 844	24.844	(1.121)	988874	80.0000	80 130
\$ 172 Nitrobenzene-d5	82	5.318	5.318	(0.866)	346102	80 0000	82 178
\$ 173 2-Fluorobiphenyl	172	7.797	7.797	(0.863)	477017	80.0000	81.967
\$ 174 Terphenyl-d14	244	16 302	16 302	(0.866)	465391	80.0000	81.508
\$ 175 Phenol-d5	99	4.442	4 442	(0.948)	336046	80.0000	80.045
\$ 176 2-Fluorophenol	112	3 400	3.400	(0.725)	252230	80.0000	80.798
\$ 177 2,4,6-Tribromophenol	330	10.735	10.735	(0.875)	57240	80.0000	80.929
\$ 178 2-Chlorophenol-d4	132	4.512	4 512	(0.962)	235487	80.0000	80.301
\$ 179 1,2-Dichlorobenzene-d4	152	4 885	4 885	(1.042)	164330	80.0000	81.003

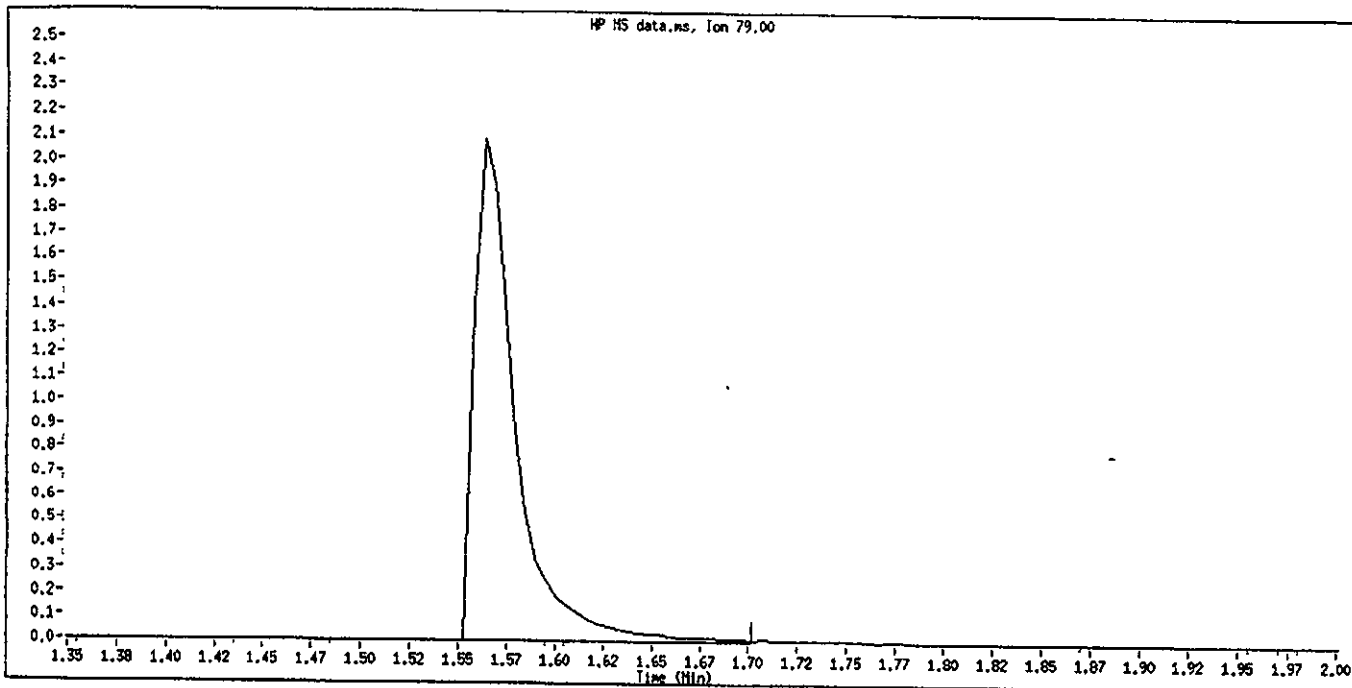
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QC Flag Legend

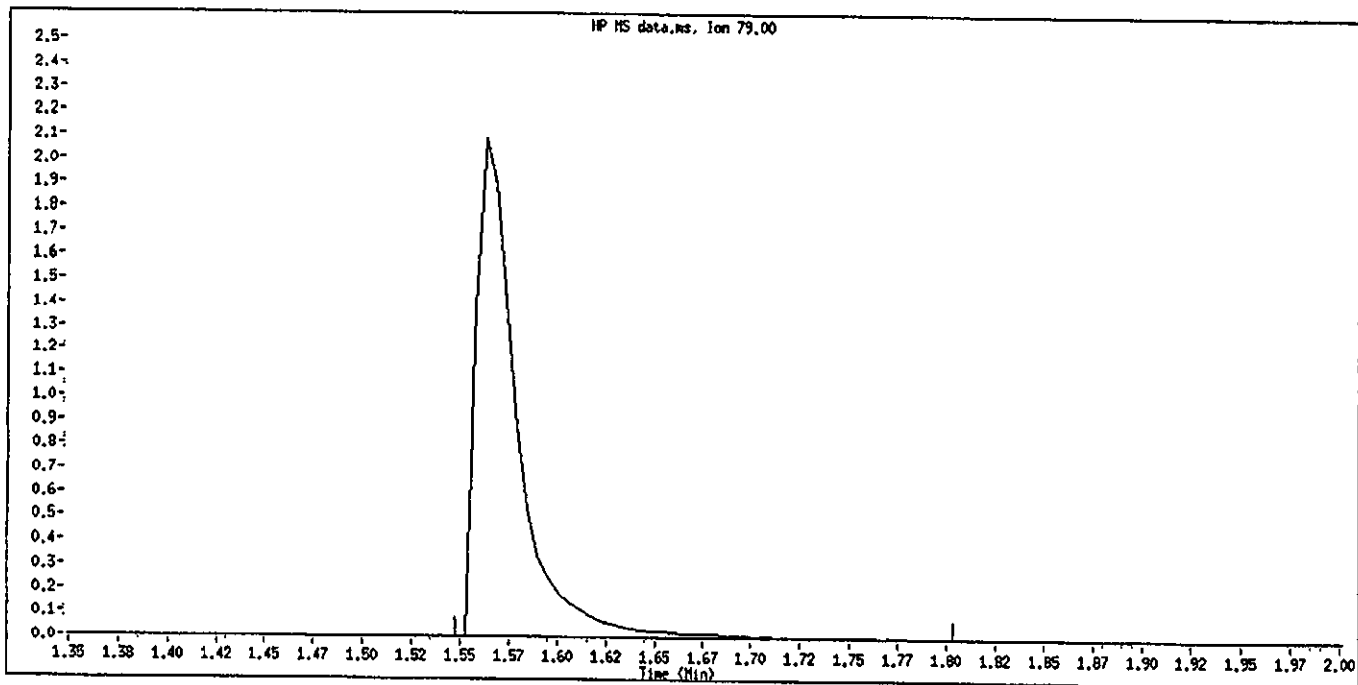
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Inj Date and Time: 20-JUL-2000 14 58
Instrument ID: 71 1
Client ID SSTD80
Compound Name Pyridine
CAS #: 110-86-1
Report Date: 07/20/2000

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Original Integration

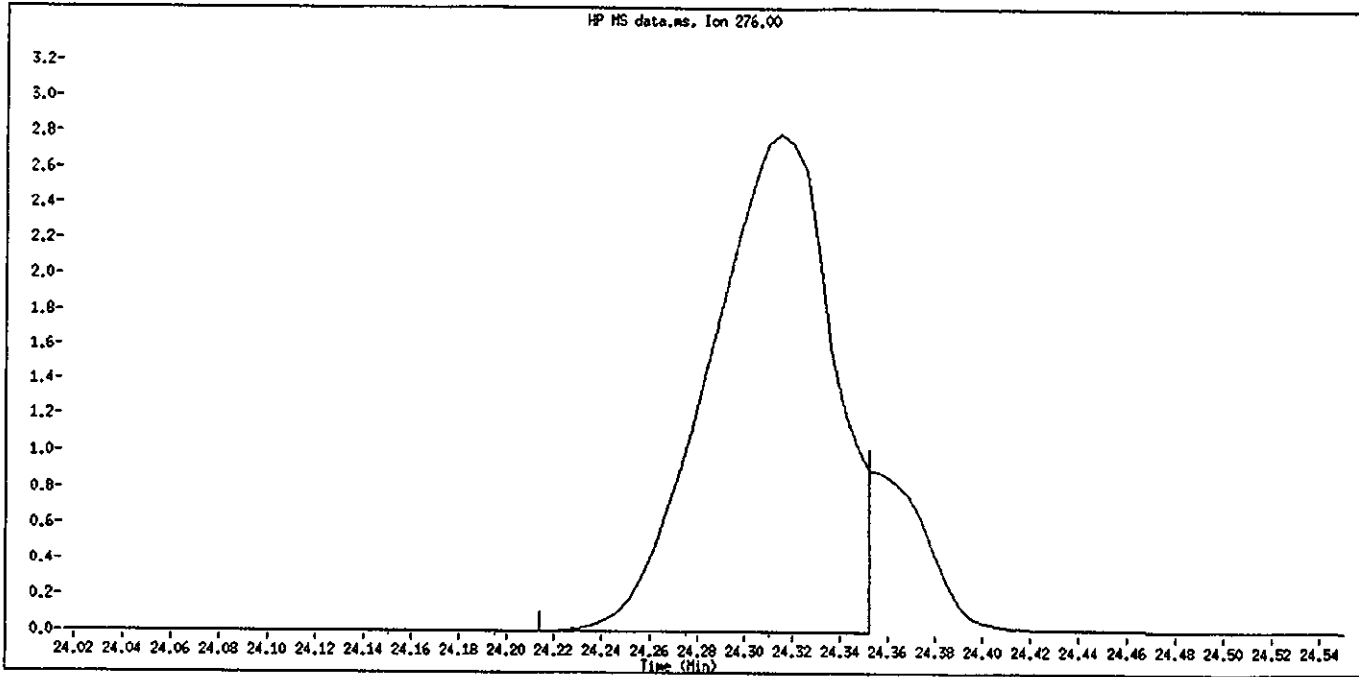
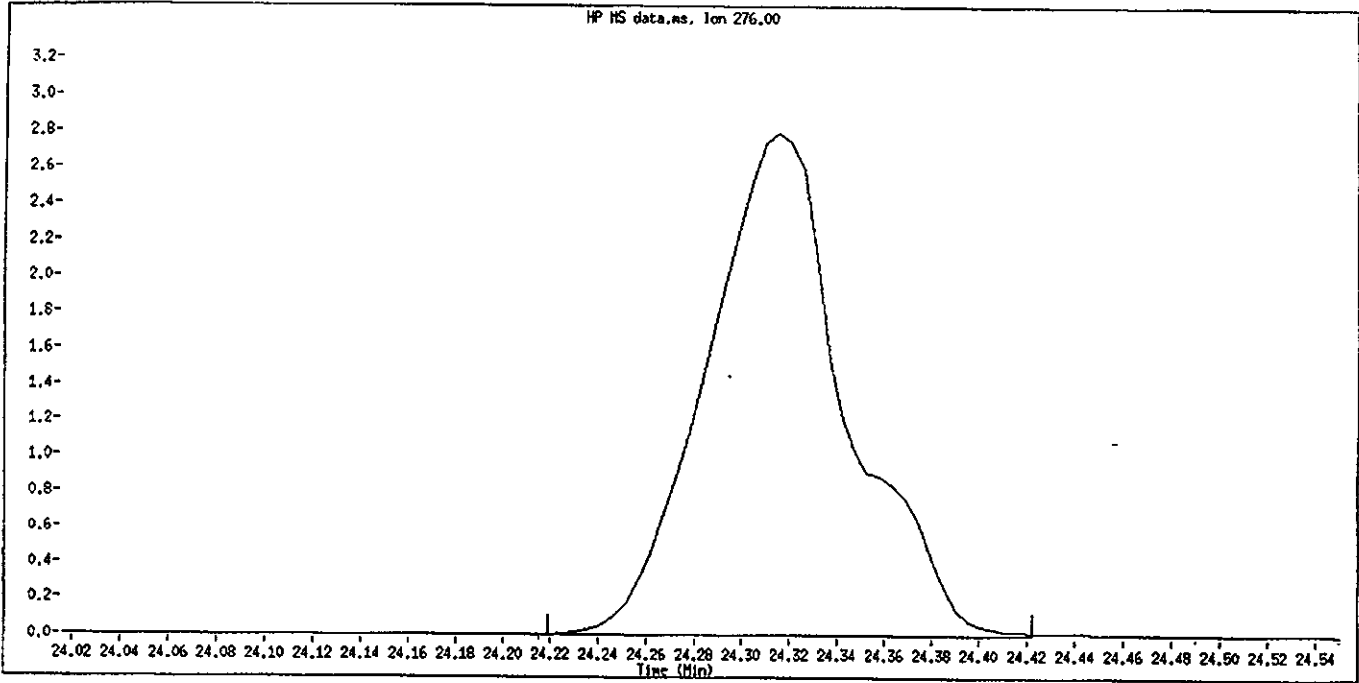


Manual Integration

Manually Integrated By: Bachas /yup 7/20/00
Manual Integration Reason Poor Chromatography

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Instrument ID 71 i
Client ID: SST80
Compound Name Indeno(1,2,3-cd)pyrene
CAS #: 193-39-5
Report Date. 07/20/2000

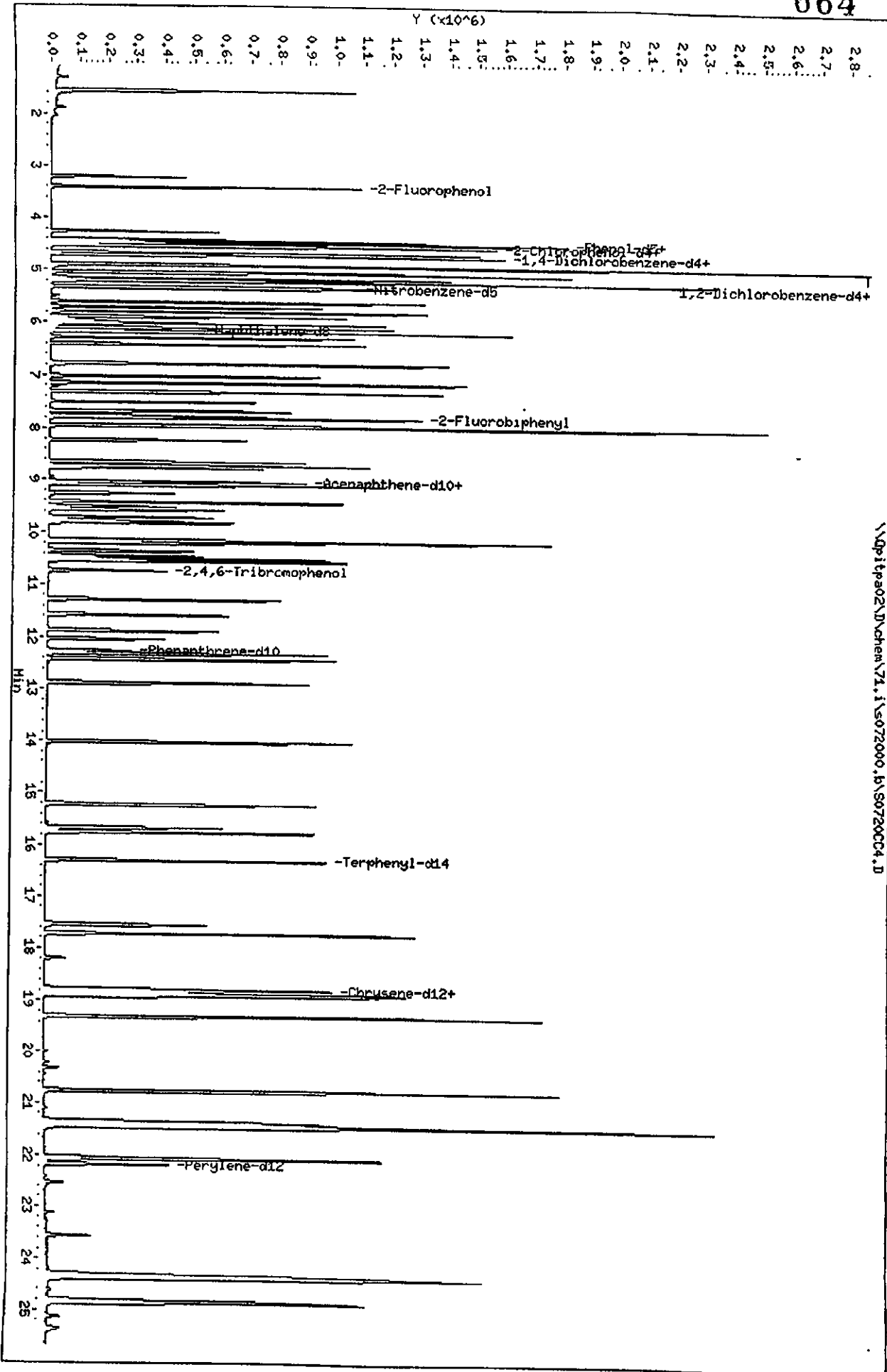
664 244



Manually Integrated By BachaS / VUP 7/20/00
Manual Integration Reason. Poor Chromatography

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Client ID: SSTH20
Sample Info: sstd120(60 ug/ml) 194-175-13 8270/c1p
Column phase: Hp5-MS

Instrument: 71.1
Operator: 048183
Column diameter: 0.25



664 246

STL Pittsburgh

Semivolatle REPORT SW-846 Method 8270

Data file : \\Qpitpa02\D\chem\71.i\s072000.b\S0720CC4.D
 Lab Smp Id: sstd120 Client Smp ID: SSTD120
 Inj Date : 20-JUL-2000 15:30
 Operator : 045183 Inst ID: 71.i
 Smp Info : sstd120(60 ug/ml) 194-175-13 8270/clp
 Misc Info : sstd120,s072000.b,8270clp.m,1-82701.sub,1,4
 Comment :
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 Meth Date : 20-Jul-2000 16:10 bachas Quant Type: ISTD
 Cal Date : 20-JUL-2000 15:30 Cal File: S0720CC4.D
 Als bottle: 5 Calibration Sample, Level: 4
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 1-82701.sub
 Target Version: 4.04
 Processing Host: PITPC050

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Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT (ng)	ON-COL (ng)
* 1 1,4-Dichlorobenzene-d4	152	4 694	4 694	(1.000)	78165	40.0000		
* 2 Naphthalene-d8	136	6 141	6.141	(1.000)	288882	40 0000		
* 3 Acenaphthene-d10	164	9.037	9 037	(1.000)	143653	40.0000		
* 4 Phenanthrene-d10	188	12.263	12.263	(1 000)	240497	40.0000		
* 5 Chrysene-d12	240	18.840	18.840	(1.000)	283448	40.0000		
* 6 Perylene-d12	264	22.178	22.178	(1.000)	373615	40.0000		
13 N-Nitrosodimethylamine	74	1.568	1.568	(0.334)	223981	120.000	118.59 (M)	
10 Pyridine	79	1.558	1 558	(0.332)	389895	120.000	121.66 (M)	
19 Methyl methanesulfonate	80	3.214	3.214	(0 685)	223084	120.000	126.68	
22 Aniline	93	4.410	4.410	(0.940)	529058	120.000	116.59	
23 Phenol	94	4.459	4.459	(0.950)	443670	120 000	115.13	
24 bis(2-Chloroethyl)ether	93	4.485	4.485	(0.956)	372501	120 000	117 62	
25 2-Chlorophenol	128	4.528	4.528	(0.965)	316810	120.000	114.49	
27 1,3-Dichlorobenzene	146	4.651	4.651	(0 991)	350555	120.000	115.28	
28 1,4-Dichlorobenzene	146	4.710	4.710	(1.003)	355581	120.000	114.72	
29 1,2-Dichlorobenzene	146	4.902	4.902	(1.044)	328057	120.000	114.74	
30 Benzyl Alcohol	108	4.886	4.886	(1.041)	236641	120.000	117.54	
31 2-Methylphenol	108	5.052	5.052	(1.076)	299247	120.000	113.05	
32 2,2'-oxybis(1-Chloropropane)	45	5.036	5.036	(1.073)	583578	120.000	114.75	
33 N-Nitroso-di-n-propylamine	70	5.196	5.196	(1.107)	293163	120.000	115 00	
35 4-Methylphenol	108	5.206	5 206	(1.109)	318083	120 000	113.98	
38 Hexachloroethane	117	5.222	5.222	(1 113)	154839	120.000	117.53	
39 Nitrobenzene	77	5.345	5.345	(0 870)	450103	120.000	119.07	
44 Isophorone	82	5.607	5.607	(0 913)	674192	120.000	116.94	
45 2-Nitrophenol	139	5.709	5.709	(0 930)	171061	120.000	119.19	
46 2,4-Dimethylphenol	107	5.789	5.789	(0.943)	340767	120.000	120.96	

Compounds	QUANT STG				AMOUNTS		
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
47 bis(2-Chloroethoxy)methane	93	5.885	5.885	(0.958)	403853	120.000	117.64
51 2,4-Dichlorophenol	162	6.013	6.013	(0.979)	236072	120.000	117.00
52 Benzoic Acid	122	5.986	5.986	(0.975)	151498	120.000	166.50(A)
53 1,2,4-Trichlorobenzene	180	6.093	6.093	(0.992)	250475	120.000	117.77
54 Naphthalene	128	6.173	6.173	(1.005)	924730	120.000	116.41
55 4-Chloroaniline	127	6.286	6.286	(1.023)	347141	120.000	115.63
59 Hexachlorobutadiene	225	6.414	6.414	(1.044)	138577	120.000	117.83
62 4-Chloro-3-Methylphenol	107	7.017	7.017	(1.143)	280267	120.000	116.89
65 2-Methylnaphthalene	142	7.151	7.151	(1.164)	583542	120.000	115.98
66 1-Methylnaphthalene	142	7.322	7.322	(1.192)	543535	120.000	116.94
67 Hexachlorocyclopentadiene	237	7.520	7.520	(0.832)	139756	120.000	131.08
69 2,4,6-Trichlorophenol	196	7.685	7.685	(0.850)	146317	120.000	119.35
70 2,4,5-Trichlorophenol	196	7.765	7.765	(0.859)	155888	120.000	119.59
73 2-Chloronaphthalene	162	7.958	7.958	(0.881)	494009	120.000	118.06
77 2-Nitroaniline	65	8.235	8.235	(0.911)	220789	120.000	122.44
80 Dimethylphthalate	163	8.657	8.657	(0.958)	554842	120.000	119.61
82 2,6-Dinitrotoluene	165	8.780	8.780	(0.972)	125627	120.000	121.82
83 Acenaphthylene	152	8.732	8.732	(0.966)	800612	120.000	118.60
85 3-Nitroaniline	138	9.047	9.047	(1.001)	150308	120.000	124.94
86 Acenaphthene	153	9.101	9.101	(1.007)	498220	120.000	117.91
87 2,4-Dinitrophenol	184	9.256	9.256	(1.024)	83358	120.000	151.56
89 4-Nitrophenol	109	9.512	9.512	(1.053)	108179	120.000	137.38
90 Dibenzofuran	168	9.432	9.432	(1.044)	680952	120.000	118.56
91 2,4-Dinitrotoluene	165	9.576	9.576	(1.060)	168417	120.000	124.90
95 2,3,5,6-Tetrachlorophenol	232	9.726	9.726	(1.076)	108961	120.000	125.41
92 2,3,4,6-Tetrachlorophenol	232	9.822	9.822	(1.087)	111299	120.000	125.95
96 2-Naphthylamine	143	9.779	9.779	(1.082)	287932	120.000	95.773
97 Diethylphthalate	149	10.148	10.148	(1.123)	572382	120.000	121.20
98 Fluorene	166	10.159	10.159	(1.124)	535034	120.000	117.48
99 4-Chlorophenyl-phenylether	204	10.207	10.207	(1.129)	241831	120.000	117.76
100 4-Nitroaniline	138	10.367	10.367	(1.147)	155031	120.000	133.80
102 4,6-Dinitro-2-methylphenol	198	10.452	10.452	(0.852)	116033	120.000	134.20
103 N-Nitrosodiphenylamine (1)	169	10.506	10.506	(0.857)	398512	120.000	117.25
104 1,2-Diphenylhydrazine	77	10.549	10.549	(0.860)	818960	120.000	114.58
112 4-Bromophenyl-phenylether	248	11.286	11.286	(0.920)	131159	120.000	114.24
113 Hexachlorobenzene	284	11.574	11.574	(0.944)	135874	120.000	115.06
117 Pentachlorophenol	266	12.039	12.039	(0.982)	78318	120.000	132.32
122 Phenanthrene	178	12.328	12.328	(1.005)	742388	120.000	117.70
123 Anthracene	178	12.429	12.429	(1.014)	774377	120.000	119.14
126 Carbazole	167	12.894	12.894	(1.051)	750094	120.000	125.43
130 Di-n-Butylphthalate	149	14.026	14.026	(1.144)	987623	120.000	126.86
135 Fluoranthene	202	15.228	15.228	(1.242)	823113	120.000	131.27
136 Benzidine	184	15.672	15.672	(0.832)	489509	120.000	120.01
137 Pyrene	202	15.763	15.763	(0.837)	849908	120.000	110.44
144 Butylbenzylphthalate	149	17.728	17.728	(0.941)	552856	120.000	119.15
149 3,3'-Dichlorobenzidine	252	18.877	18.877	(1.002)	403356	120.000	122.32
150 Benzo(a)Anthracene	228	18.802	18.802	(0.998)	941721	120.000	118.94

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Compounds	QUANT SIG				AMOUNTS		
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
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151 Chrysene	228	18 909	18 909	(1.004)	874771	120.000	117.36
153 bis(2-ethylhexyl)Phthalate	149	19.304	19 304	(1.025)	813227	120.000	115.96
155 Di-n-octylphthalate	149	20 773	20 773	(0.937)	1629779	120.000	112.16
157 Benzo(b)fluoranthene	252	21 382	21.382	(0.964)	1301442	120.000	125.50
158 Benzo(k)fluoranthene	252	21 452	21 452	(0.967)	1057797	120.000	103.63
159 7,12-dimethylbenz(a)anthracen	256	21.447	21.447	(0.967)	540367	120.000	121.06
167 Benzo(a)pyrene	252	22.072	22 072	(0.995)	1168568	120.000	117.22
169 Indeno(1,2,3-cd)pyrene	276	24 337	24.337	(1.097)	1502714	120.000	106.95 (M)
170 Dibenz(a,h)anthracene	278	24.390	24.390	(1.100)	1492099	120.000	118.70
171 Benzo(g,h,i)perylene	276	24 871	24.871	(1.121)	1524623	120.000	120.75
\$ 172 Nitrobenzene-d5	82	5 324	5.324	(0.867)	418541	120.000	121.04
\$ 173 2-Fluorobiphenyl	172	7.803	7 803	(0.863)	562160	120.000	120.17
\$ 174 Terphenyl-d14	244	16 313	16 313	(0.866)	648789	120.000	112.57
\$ 175 Phenol-d5	99	4.443	4.443	(0.947)	412068	120.000	115.81
\$ 176 2-Fluorophenol	112	3.401	3.401	(0.725)	314101	120.000	118.72
\$ 177 2,4,6-Tribromophenol	330	10 746	10 746	(0.876)	72606	120.000	119.95
\$ 178 2-Chlorophenol-d4	132	4 512	4 512	(0.961)	288691	120.000	116.15
\$ 179 1,2-Dichlorobenzene-d4	152	4.886	4 886	(1.041)	198751	120.000	115.59

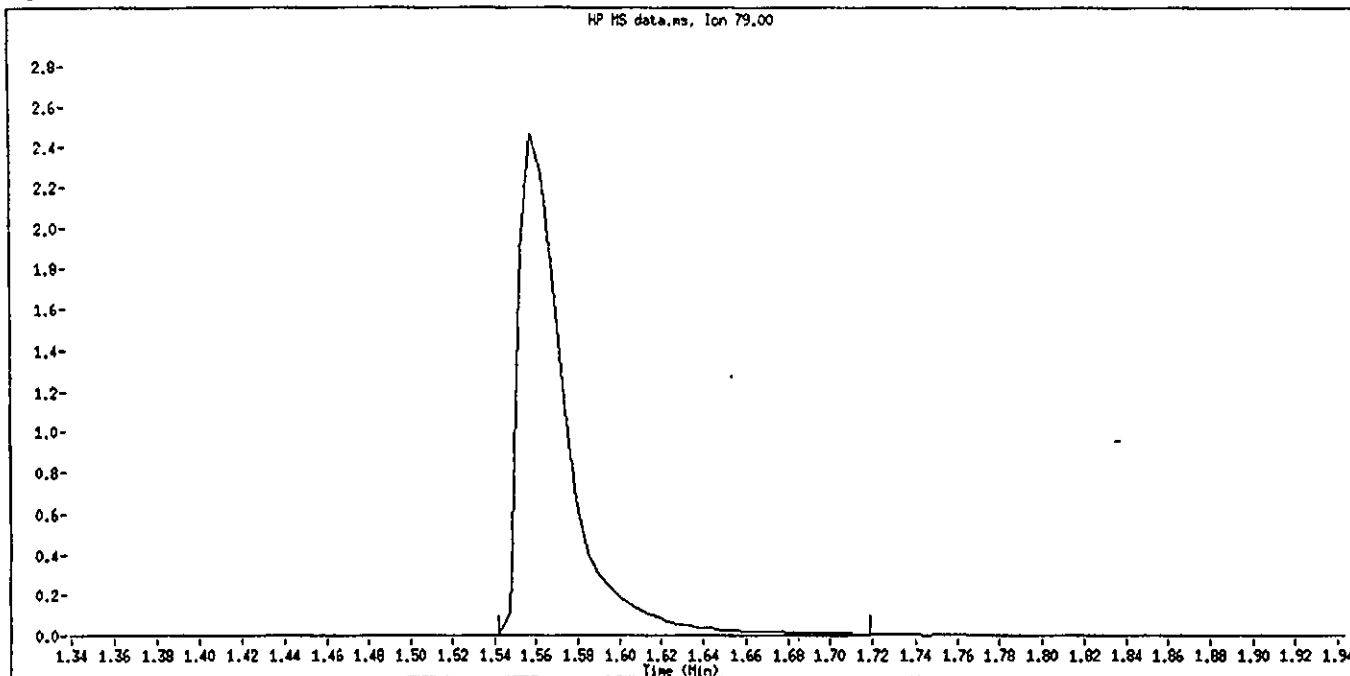
Handwritten: 7/20/00

QC Flag Legend

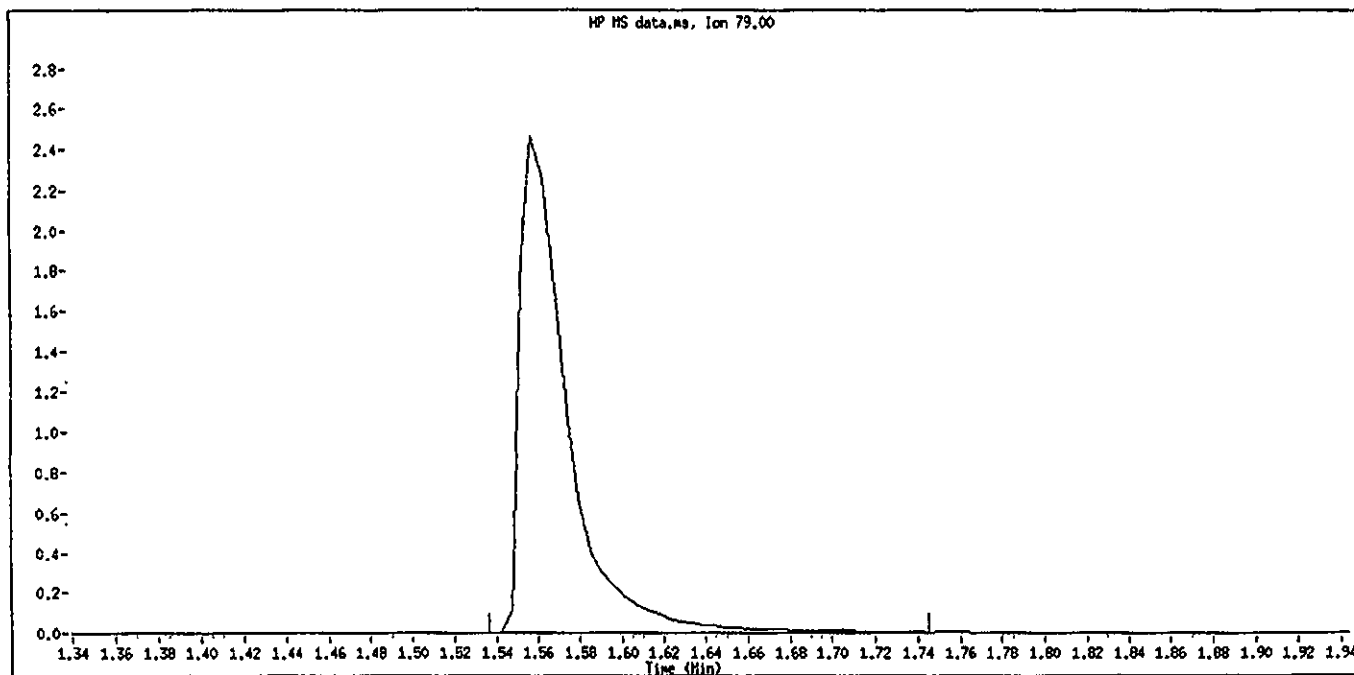
- A - Target compound detected but, quantitated amount exceeded maximum amount.
- M - Compound response manually integrated.

Data File Name S0720CC4 D
Inj Date and Time. 20-JUL-2000 15 30
Instrument ID: 71 1
Client ID. SSTD120
Compound Name Pyridine
CAS #: 110-86-1
Report Date: 07/20/2000

664 249



Original Integration

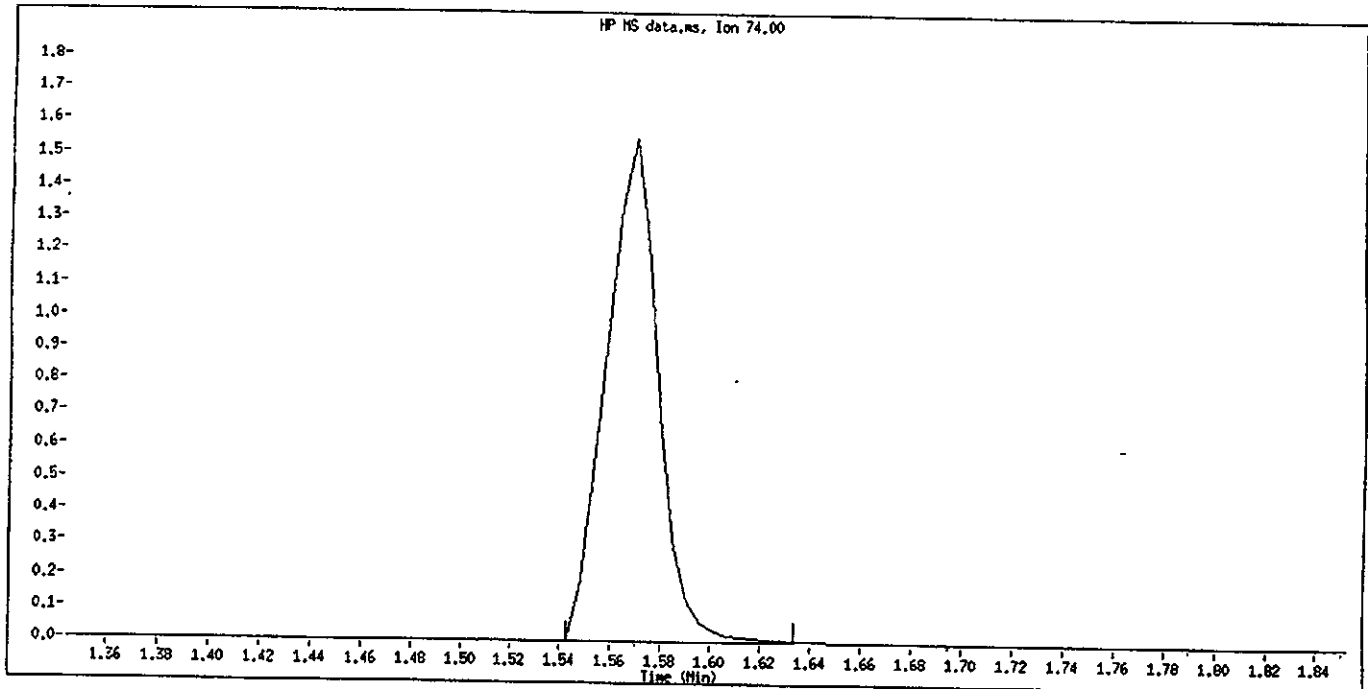


Manual Integration

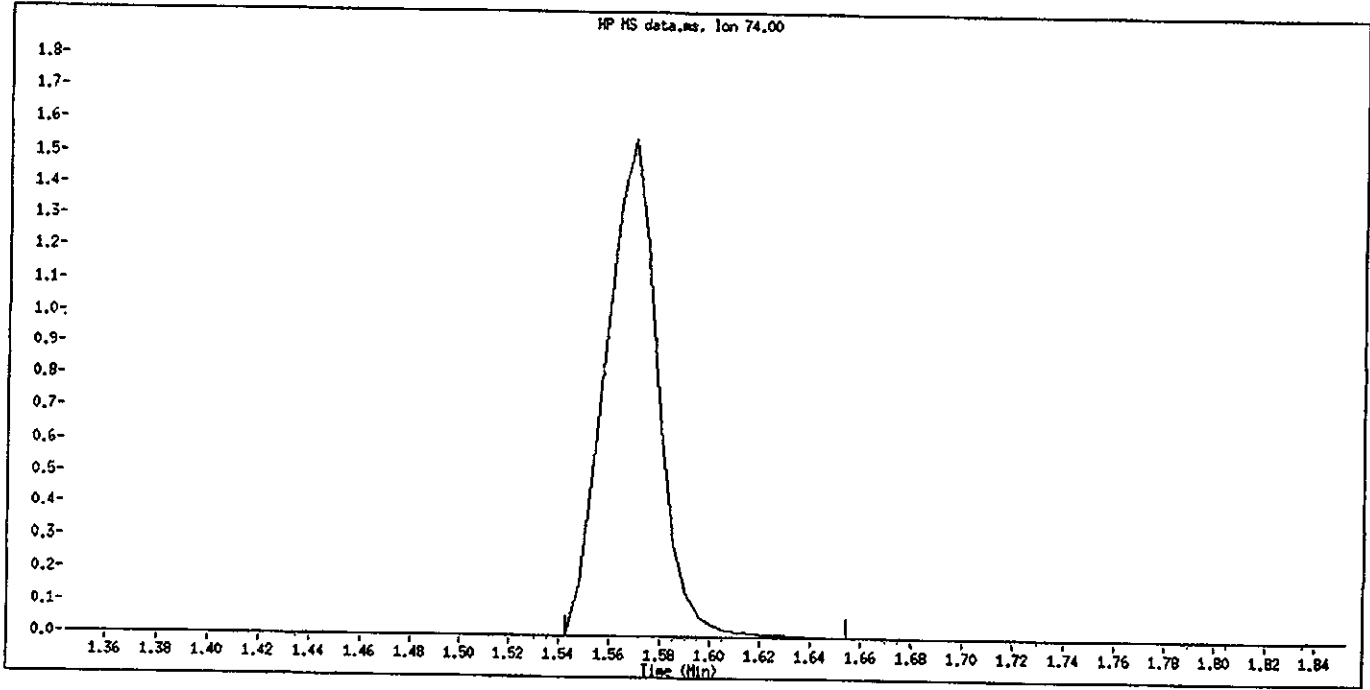
Manually Integrated By Bachas/wf 7/20/00
Manual Integration Reason: Poor Chromatography

Data File Name S0720CC4.D
Inj Date and Time. 20-JUL-2000 15 30
Instrument ID 71 1
Client ID: SSTD120
Compound Name N-Nitrosodimethylamine
CAS #. 62-75-9
Report Date: 07/20/2000

664 250



Original Integration

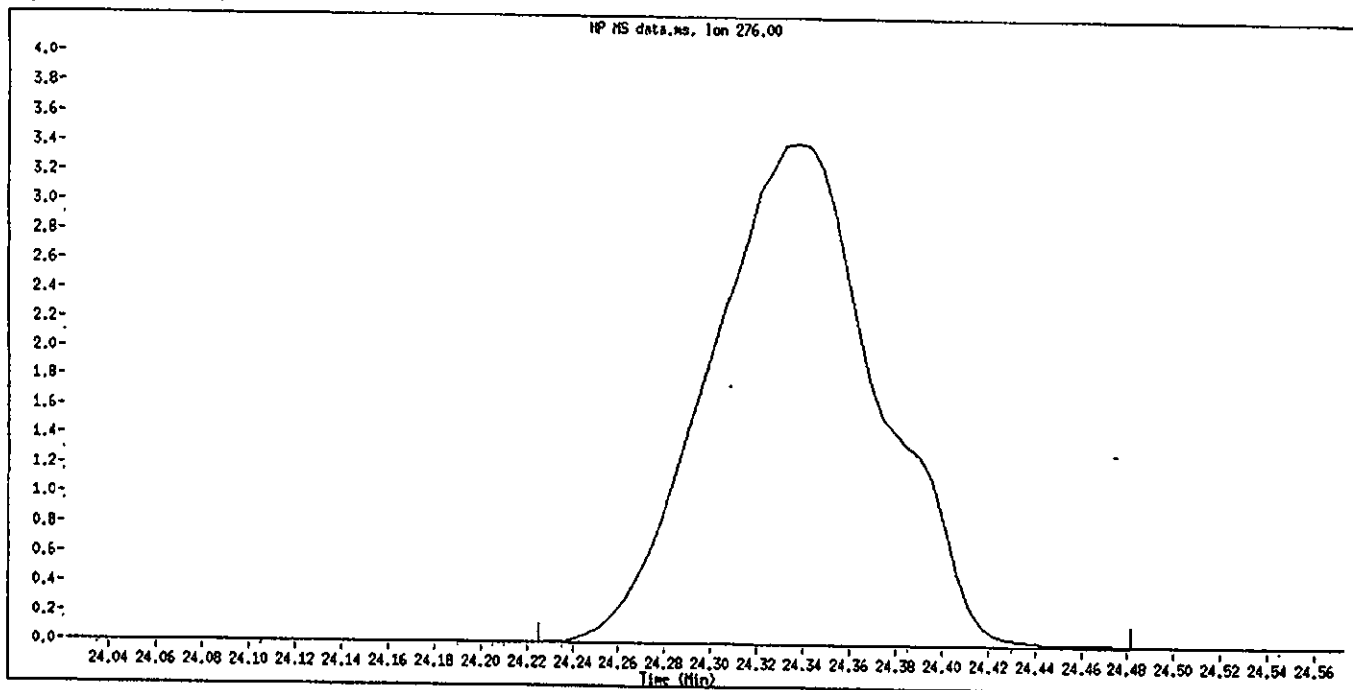


Manual Integration

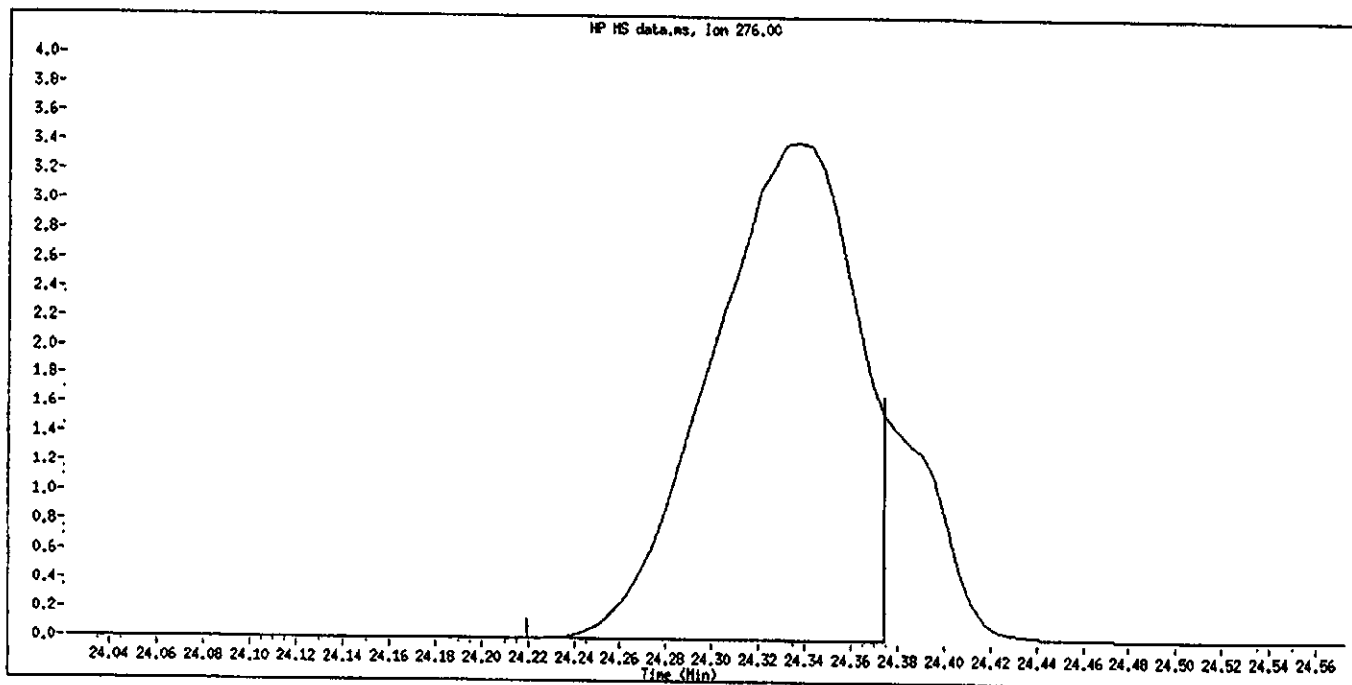
Manually Integrated By: Bachas/wf 7/20/00
Manual Integration Reason. Poor Chromatography

Data File Name S0720CC4.D
Inj Date and Time: 20-JUL-2000 15:30
Instrument ID: 71.1
Client ID: SSTD120
Compound Name: Indeno(1,2,3-cd)pyrene
CAS #: 193-39-5
Report Date: 07/20/2000

664 251



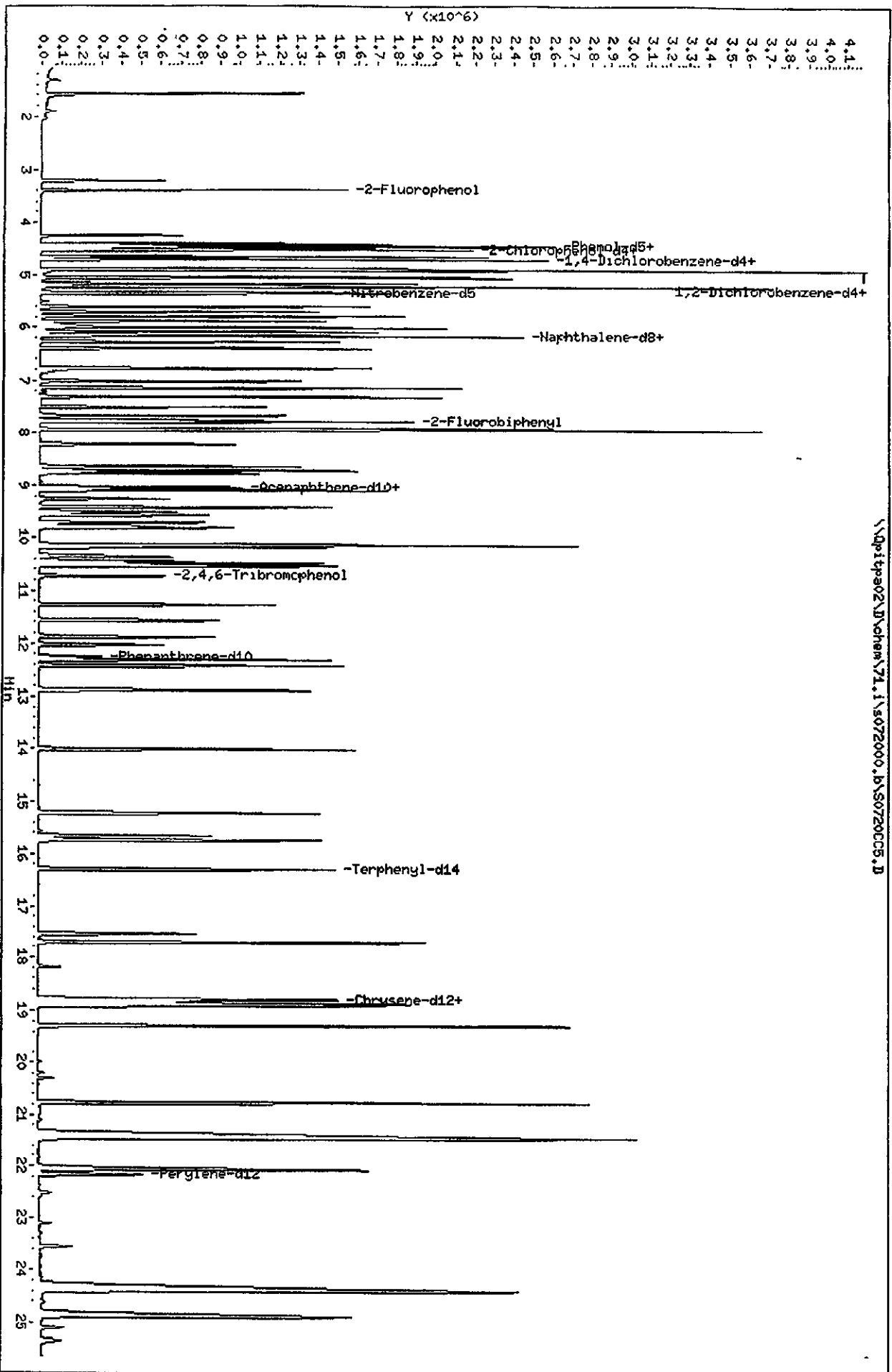
Original Integration



Manual Integration

Manually Integrated By: BachaS
Manual Integration Reason: Poor Chromatography

\\Dp1tpa02\chem\71.1\5072000.b\50720005.D



661 253

STL Pittsburgh

Semivolatile REPORT SW-846 Method 8270

Data file : \\Qpitpa02\D\chem\71.i\s072000.b\S0720CC5.D
 Lab Smp Id: sstd160 Client Smp ID: SSTD160
 Inj Date : 20-JUL-2000 16:02
 Operator : 045183 Inst ID: 71.i
 Smp Info : sstd160(80 ug/ml) 194-175-14 8270/clp
 Misc Info : sstd160,s072000.b,8270clp.m,1-82701.sub,1,5
 Comment :
 Method : \\Qpitpa02\D\chem\71.i\s072000.b\8270clp.m
 Meth Date : 20-Jul-2000 16:41 bachas Quant Type: ISTD
 Cal Date : 20-JUL-2000 16:02 Cal File: S0720CC5.D
 Als bottle: 6 Calibration Sample, Level: 5
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 1-82701.sub
 Target Version: 4.04
 Processing Host: PITPC050

*Wm
7/20/00*

Compounds	QUANT SIG				AMOUNTS		
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
* 1 1,4-Dichlorobenzene-d4	152	4.688	4.688	(1.000)	88036	40.0000	
* 2 Naphthalene-d8	136	6.136	6.136	(1.000)	314762	40.0000	
* 3 Acenaphthene-d10	164	9.026	9.026	(1.000)	155993	40.0000	
* 4 Phenanthrene-d10	188	12.258	12.258	(1.000)	273168	40.0000	
* 5 Chrysene-d12	240	18.834	18.834	(1.000)	327755	40.0000	
* 6 Perylene-d12	264	22.173	22.173	(1.000)	436807	40.0000	
13 N-Nitrosodimethylamine	74	1.584	1.584	(0.338)	336875	160.000	158.74
10 Pyridine	79	1.568	1.568	(0.335)	585415	160.000	161.82 (A)
19 Methyl methanesulfonate	80	3.214	3.214	(0.686)	324372	160.000	162.82 (A)
22 Aniline	93	4.410	4.410	(0.941)	769977	160.000	152.43
23 Phenol	94	4.458	4.458	(0.951)	646792	160.000	151.09
24 bis(2-Chloroethyl) ether	93	4.480	4.480	(0.956)	550391	160.000	155.41
25 2-Chlorophenol	128	4.528	4.528	(0.966)	467999	160.000	152.03
27 1,3-Dichlorobenzene	146	4.651	4.651	(0.992)	526004	160.000	154.82
28 1,4-Dichlorobenzene	146	4.704	4.704	(1.003)	532807	160.000	154.05
29 1,2-Dichlorobenzene	146	4.896	4.896	(1.044)	482182	160.000	151.68
30 Benzyl Alcohol	108	4.886	4.886	(1.042)	345465	160.000	153.82
31 2-Methylphenol	108	5.046	5.046	(1.076)	436573	160.000	148.96
32 2,2'-oxybis(1-Chloropropane)	45	5.030	5.030	(1.073)	849820	160.000	150.56
33 N-Nitroso-di-n-propylamine	70	5.196	5.196	(1.108)	433134	160.000	152.60
35 4-Methylphenol	108	5.201	5.201	(1.109)	457187	160.000	148.15
38 Hexachloroethane	117	5.217	5.217	(1.113)	232577	160.000	157.38
39 Nitrobenzene	77	5.340	5.340	(0.870)	658561	160.000	159.91
44 Isophorone	82	5.602	5.602	(0.913)	980413	160.000	156.84
45 2-Nitrophenol	139	5.703	5.703	(0.929)	251601	160.000	160.72 (A)
46 2,4-Dimethylphenol	107	5.789	5.789	(0.943)	499106	160.000	162.07 (A)

664 254

Compounds	QUANT SIG				AMOUNTS		
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
47 bis(2-Chloroethoxy)methane	93	5.879	5.879	(0.958)	592353	160.000	158.68
51 2,4-Dichlorophenol	162	6.008	6.008	(0.979)	338727	160.000	155.23
52 Benzoic Acid	122	6.008	6.008	(0.979)	238540	160.000	218.58 (A)
53 1,2,4-Trichlorobenzene	180	6.088	6.088	(0.992)	367115	160.000	158.73
54 Naphthalene	128	6.162	6.162	(1.004)	1336165	160.000	155.47
55 4-Chloroaniline	127	6.280	6.280	(1.024)	506682	160.000	155.89
59 Hexachlorobutadiene	225	6.403	6.403	(1.044)	205777	160.000	160.47 (A)
62 4-Chloro-3-Methylphenol	107	7.017	7.017	(1.144)	408915	160.000	157.20
65 2-Methylnaphthalene	142	7.145	7.145	(1.165)	846546	160.000	155.50
66 1-Methylnaphthalene	142	7.316	7.316	(1.192)	774988	160.000	154.37
67 Hexachlorocyclopentadiene	237	7.509	7.509	(0.832)	215342	160.000	180.14 (A)
69 2,4,6-Trichlorophenol	196	7.674	7.674	(0.850)	214670	160.000	161.00 (A)
70 2,4,5-Trichlorophenol	196	7.760	7.760	(0.860)	219975	160.000	156.30
73 2-Chloronaphthalene	162	7.952	7.952	(0.881)	717618	160.000	158.35
77 2-Nitroaniline	65	8.230	8.230	(0.912)	331755	160.000	167.44 (A)
80 Dimethylphthalate	163	8.652	8.652	(0.959)	814495	160.000	161.36 (A)
82 2,6-Dinitrotoluene	165	8.775	8.775	(0.972)	186120	160.000	164.92 (A)
83 Acenaphthylene	152	8.727	8.727	(0.967)	1162418	160.000	158.86
85 3-Nitroaniline	138	9.047	9.047	(1.002)	227928	160.000	171.37 (A)
86 Acenaphthene	153	9.095	9.095	(1.008)	723839	160.000	158.20
87 2,4-Dinitrophenol	184	9.256	9.256	(1.025)	131775	160.000	205.09 (A)
89 4-Nitrophenol	109	9.512	9.512	(1.054)	168245	160.000	188.12 (A)
90 Dibenzofuran	168	9.427	9.427	(1.044)	992554	160.000	159.31
91 2,4-Dinitrotoluene	165	9.576	9.576	(1.061)	257760	160.000	172.58 (A)
95 2,3,5,6-Tetrachlorophenol	232	9.715	9.715	(1.076)	163642	160.000	170.58 (A)
92 2,3,4,6-Tetrachlorophenol	232	9.816	9.816	(1.088)	159761	160.000	165.15 (A)
96 2-Naphthylamine	143	9.779	9.779	(1.083)	400845	160.000	128.77
97 Diethylphthalate	149	10.148	10.148	(1.124)	861840	160.000	166.38 (A)
98 Fluorene	166	10.153	10.153	(1.125)	785416	160.000	159.05
99 4-Chlorophenyl-phenylether	204	10.196	10.196	(1.130)	357302	160.000	160.18 (A)
100 4-Nitroaniline	138	10.372	10.372	(1.149)	238235	160.000	182.64 (A)
102 4,6-Dinitro-2-methylphenol	198	10.458	10.458	(0.853)	174815	160.000	174.09 (A)
103 N-Nitrosodiphenylamine (1)	169	10.500	10.500	(0.857)	590377	160.000	154.29
104 1,2-Diphenylhydrazine	77	10.543	10.543	(0.860)	1316643	160.000	161.74 (A)
112 4-Bromophenyl-phenylether	248	11.280	11.280	(0.920)	195405	160.000	151.77
113 Hexachlorobenzene	284	11.563	11.563	(0.943)	204852	160.000	154.12
117 Pentachlorophenol	266	12.033	12.033	(0.982)	126145	160.000	181.37 (A)
122 Phenanthrene	178	12.317	12.317	(1.005)	1120932	160.000	157.15
123 Anthracene	178	12.423	12.423	(1.014)	1164917	160.000	158.23
126 Carbazole	167	12.888	12.888	(1.051)	1162133	160.000	168.75 (A)
130 Di-n-Butylphthalate	149	14.015	14.015	(1.143)	1514941	160.000	168.93 (A)
135 Fluoranthene	202	15.223	15.223	(1.242)	1270636	160.000	174.40 (A)
136 Benzidine	184	15.666	15.666	(0.832)	711767	160.000	152.64
137 Pyrene	202	15.752	15.752	(0.836)	1314904	160.000	150.06
144 Butylbenzylphthalate	149	17.723	17.723	(0.941)	855265	160.000	159.52
149 3,3'-Dichlorobenzidine	252	18.871	18.871	(1.002)	611730	160.000	160.35 (A)
150 Benzo(a)Anthracene	228	18.802	18.802	(0.998)	1456187	160.000	159.25

664 255

Compounds	QUANT SIG		AMOUNTS				
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
-----	----	--	-----	-----	-----	-----	-----
151 Chrysene	228	18 909	18 909	(1 004)	1352558	160.000	157.53
153 bis(2-ethylhexyl)Phthalate	149	19 299	19.299	(1.025)	1256880	160.000	155.97
155 Di-n-octylphthalate	149	20.773	20.773	(0.937)	2470169	160.000	148.11
157 Benzo(b)fluoranthene	252	21.398	21.398	(0.965)	2383257	160.000	187.98 (A)
158 Benzo(k)fluoranthene	252	21 468	21.468	(0.968)	1405894	160.000	124.36
159 7,12-dimethylbenz[a]anthracen	256	21 452	21.452	(0.967)	855256	160.000	163.10 (A)
167 Benzo(a)pyrene	252	22 071	22 071	(0.995)	1827078	160.000	157.40
169 Indeno(1,2,3-cd)pyrene	276	24.363	24.363	(1.099)	2519109	160.000	150.52 (M)
170 Dibenz(a,h)anthracene	278	24 401	24 401	(1.100)	2460149	160.000	165.86 (A)
171 Benzo(g,h,i)perylene	276	24.887	24.887	(1.122)	2466034	160.000	165.59 (A)
\$ 172 Nitrobenzene-d5	82	5.318	5.318	(0.867)	616407	160.000	162.88 (A)
\$ 173 2-Fluorobiphenyl	172	7.797	7.797	(0.864)	812152	160.000	159.90
\$ 174 Terphenyl-d14	244	16 302	16 302	(0.866)	1015367	160.000	153.83
\$ 175 Phenol-d5	99	4.442	4.442	(0.948)	592646	160.000	150.16
\$ 176 2-Fluorophenol	112	3 401	3.401	(0.725)	463039	160.000	156.29
\$ 177 2,4,6-Tribromophenol	330	10 741	10.741	(0.876)	109038	160.000	158.87
\$ 178 2-Chlorophenol-d4	132	4.512	4 512	(0.962)	422582	160.000	152.68
\$ 179 1,2-Dichlorobenzene-d4	152	4.880	4.880	(1.041)	293507	160.000	153.18

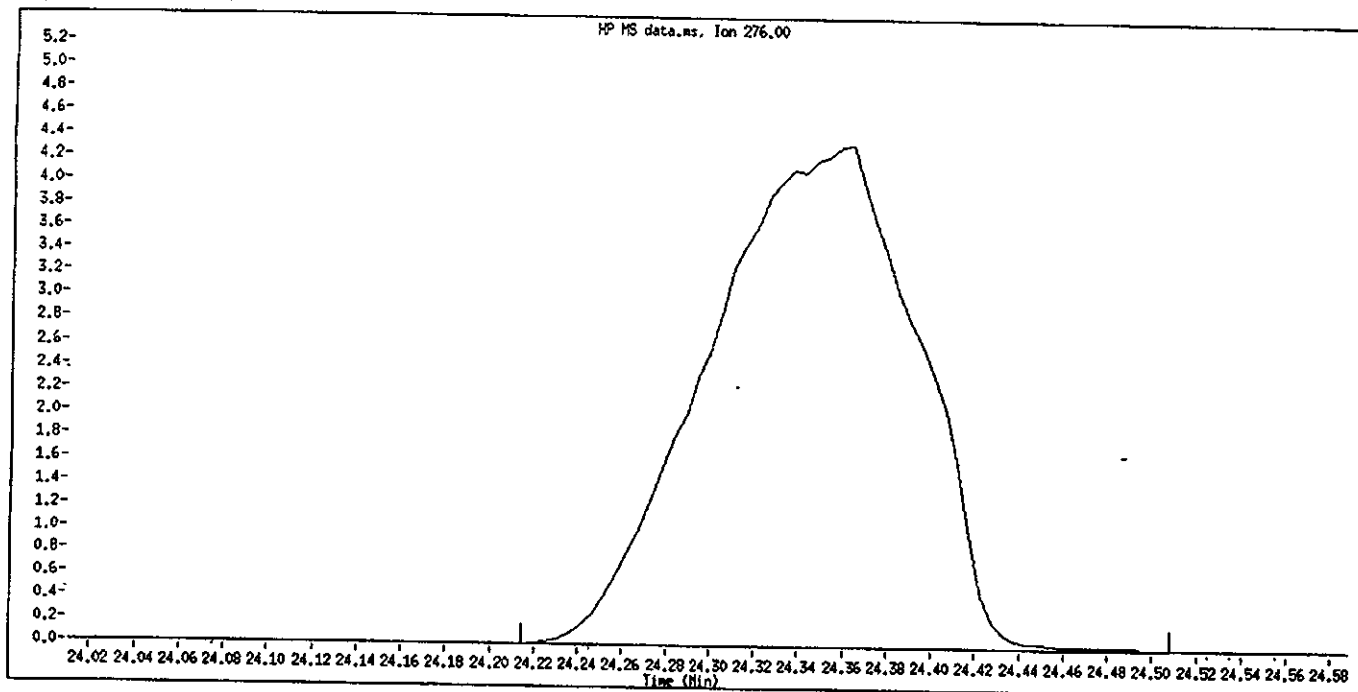
Handwritten: 7/20/00

QC Flag Legend

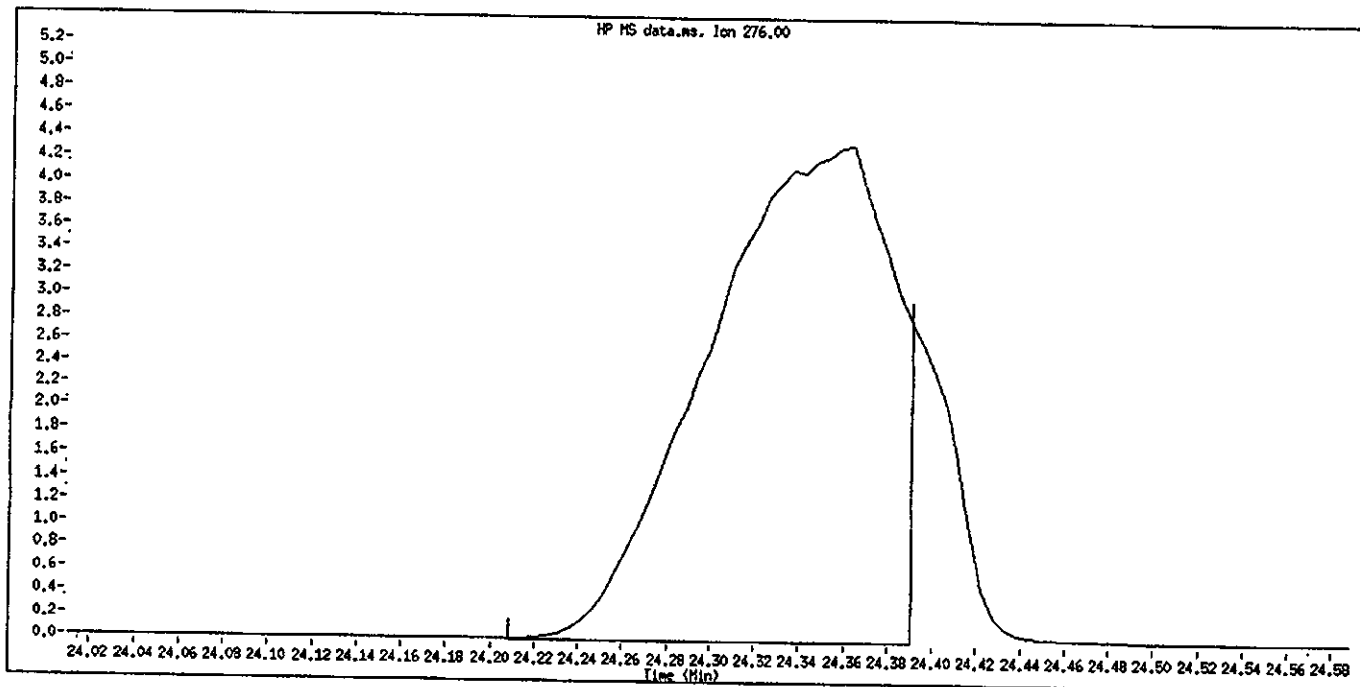
- A - Target compound detected but, quantitated amount exceeded maximum amount.
- M - Compound response manually integrated.

Data File Name: S0720CC5 D
Inj. Date and Time: 20-JUL-2000 16 02
Instrument ID: 71 1
Client ID: SSTD160
Compound Name: Indeno(1,2,3-cd)pyrene
CAS #: 193-39-5
Report Date: 07/20/2000

664 256



Original Integration



Manual Integration

Manually Integrated By: BachaS
Manual Integration Reason: Poor Chromatography

FORM 7
SEMIVOLATILE CONTINUING CALIBRATION CHECK

664 257

Lab Name: STL-PITTSBURGH

Contract:

Lab Code: STLPIT

Case No.:

SAS No.:

SDG No.: C06130203

Instrument ID: 71

Calibration Date: 07/21/00

Time: 0848

Lab File ID: S0721CCC

Init. Calib. Date(s): 07/20/00

07/20/00

Init. Calib. Times: 1355

1602

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

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Phenol	1.945	1.955	0.01	0.5	20.0
bis(2-Chloroethyl) ether	1.609	1.620	0.01	0.7	50.0
2-Chlorophenol	1.399	1.416	0.01	1.2	50.0
1,3-Dichlorobenzene	1.544	1.592	0.01	3.1	50.0
1,4-Dichlorobenzene	1.571	1.624	0.01	3.4	20.0
1,2-Dichlorobenzene	1.444	1.478	0.01	2.4	50.0
2-Methylphenol	1.332	1.335	0.01	0.2	50.0
2,2'-oxybis(1-Chloropropane)	2.564	2.509	0.01	2.1	50.0
4-Methylphenol	1.402	1.401	0.01	0.1	50.0
Hexachloroethane	0.671	0.671	0.01	0.0	50.0
Nitrobenzene	0.523	0.516	0.01	1.3	50.0
Isophorone	0.794	0.778	0.01	2.0	50.0
2-Nitrophenol	0.199	0.196	0.01	1.5	20.0
2,4-Dimethylphenol	0.391	0.387	0.01	1.0	50.0
bis(2-Chloroethoxy)methane	0.474	0.463	0.01	2.3	50.0
N-Nitroso-di-n-propylamine	1.290	1.247	0.05	3.3	50.0
2,4-Dichlorophenol	0.277	0.277	0.01	0.0	20.0
1,2,4-Trichlorobenzene	0.294	0.295	0.01	0.3	50.0
Naphthalene	1.092	1.103	0.01	1.0	50.0
4-Chloroaniline	0.413	0.415	0.01	0.5	50.0
Hexachlorobutadiene	0.163	0.164	0.01	0.6	20.0
4-Chloro-3-Methylphenol	0.330	0.326	0.01	1.2	20.0
2-Methylnaphthalene	0.692	0.701	0.01	1.3	50.0
Hexachlorocyclopentadiene	0.306	0.279	0.05	8.8	50.0
2,4,6-Trichlorophenol	0.342	0.344	0.01	0.6	20.0
2,4,5-Trichlorophenol	0.361	0.358	0.01	0.8	50.0
2-Chloronaphthalene	1.162	1.160	0.01	0.2	50.0
2-Nitroaniline	0.508	0.500	0.01	1.6	50.0
Dimethylphthalate	1.294	1.318	0.01	1.8	50.0
Acenaphthylene	1.876	1.860	0.01	0.8	50.0
2,6-Dinitrotoluene	0.289	0.289	0.01	0.0	50.0
3-Nitroaniline	0.341	0.351	0.01	2.9	50.0
Acenaphthene	1.173	1.179	0.01	0.5	20.0
2,4-Dinitrophenol	0.165	0.146	0.05	11.5	50.0
4-Nitrophenol	0.229	0.222	0.05	3.0	50.0
Dibenzofuran	1.597	1.631	0.01	2.1	50.0
2,4-Dinitrotoluene	0.383	0.397	0.01	3.6	50.0

FORM 7
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: STL-PITTSBURGH Contract: **664 258**
 Lab Code: STLPIT Case No.: SAS No.: SDG No.: CO6180063
 Instrument ID: 71 Calibration Date: 07/21/00 Time: 0848
 Lab File ID: S0721CCC Init. Calib. Date(s): 07/20/00 07/20/00
 Init. Calib. Times: 1355 1602
 GC Column: HP5-MS ID: 0.25 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Diethylphthalate	1.328	1.384	0.01	4.2	50.0
4-Chlorophenyl-phenylether	0.572	0.582	0.01	1.7	50.0
Fluorene	1.266	1.308	0.01	3.3	50.0
4-Nitroaniline	0.335	0.357	0.01	6.6	50.0
4,6-Dinitro-2-methylphenol	0.147	0.126	0.01	14.3	50.0
N-Nitrosodiphenylamine (1)	0.560	0.512	0.01	8.6	20.0
4-Bromophenyl-phenylether	0.189	0.181	0.01	4.2	50.0
Hexachlorobenzene	0.194	0.193	0.01	0.5	50.0
Pentachlorophenol	0.101	0.087	0.01	13.9	20.0
Phenanthrene	1.044	1.057	0.01	1.2	50.0
Anthracene	1.078	1.093	0.01	1.4	50.0
Carbazole	1.009	1.058	0.01	4.8	50.0
Di-n-Butylphthalate	1.313	1.380	0.01	5.1	50.0
Fluoranthene	1.067	1.131	0.01	6.0	20.0
Pyrene	1.069	1.079	0.01	0.9	50.0
Butylbenzylphthalate	0.654	0.668	0.01	2.1	50.0
3,3'-Dichlorobenzidine	0.466	0.459	0.01	1.5	50.0
Benzo(a)Anthracene	1.116	1.127	0.01	1.0	50.0
Chrysene	1.048	1.062	0.01	1.3	50.0
bis(2-ethylhexyl) Phthalate	0.983	0.999	0.01	1.6	50.0
Di-n-octylphthalate	1.527	1.548	0.01	1.4	20.0
Benzo(b)fluoranthene	1.161	1.141	0.01	1.7	50.0
Benzo(k)fluoranthene	1.035	1.120	0.01	8.2	50.0
Benzo(a)pyrene	1.063	1.080	0.01	1.6	20.0
Indeno(1,2,3-cd)pyrene	1.365	1.364	0.01	0.1	50.0
Dibenz(a,h)anthracene	1.358	1.310	0.01	3.5	50.0
Benzo(g,h,i)perylene	1.364	1.304	0.01	4.4	50.0
Pyridine	1.651	1.515	0.01	8.2	50.0
N-Nitrosodimethylamine	0.965	0.979	0.01	1.4	50.0
Aniline	2.295	2.042	0.01	11.0	50.0
Benzyl Alcohol	1.022	0.982	0.01	3.9	50.0
Benzoic Acid	0.138	0.168	0.01	21.7	50.0
1-Methylnaphthalene	0.638	0.623	0.01	2.4	50.0
2,3,4,6-Tetrachlorophenol	0.248	0.244	0.01	1.6	50.0
2,3,5,6-Tetrachlorophenol	0.246	0.240	0.01	2.4	50.0
1,2-Diphenylhydrazine	1.192	1.108	0.01	7.0	50.0
Benzidine	0.569	0.479	0.01	15.8	50.0

FORM 7
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: STL-PITTSBURGH

Contract:

664 259

Lab Code: STLPIT

Case No.:

SAS No.:

SDG No.: COG130203

Instrument ID: 71

Calibration Date: 07/21/00

Time: 0848

Lab File ID: S0721CCC

Init. Calib. Date(s): 07/20/00

07/20/00

Init. Calib. Times: 1355

1602

GC Column: HP5-MS

ID: 0.25 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Methyl methanesulfonate	0.905	0.602	0.01	33.5	50.0
2-Naphthylamine	0.798	1.010	0.01	26.6	50.0
7,12-dimethylbenz [a] anthrace	0.480	0.484	0.01	0.8	50.0
Nitrobenzene-d5	0.481	0.465	0.01	3.3	50.0
2-Fluorobiphenyl	1.303	1.258	0.01	3.4	50.0
Terphenyl-d14	0.806	0.802	0.01	0.5	50.0
Phenol-d5	1.793	1.762	0.01	1.7	50.0
2-Fluorophenol	1.346	1.332	0.01	1.0	50.0
2,4,6-Tribromophenol	0.101	0.094	0.01	6.9	50.0
2-Chlorophenol-d4	1.257	1.237	0.01	1.6	50.0
1,2-Dichlorobenzene-d4	0.871	0.885	0.01	1.6	50.0

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CONTINUING CALIBRATION COMPOUNDS
 PERCENT DRIFT REPORT

Instrument ID: 71.i
 Lab File ID: S0721CCC.D
 Analysis Type: NONE

Injection Date: 21-JUL-2000 08:48
 Lab Sample ID: sstd50
 Method File: \\Qpitpa02\D\chem\71.i\s072100.b\8270clp

COMPOUND	EXPECTED CONC	MEASURED CONC.	%D	MAX %D
67 N-Nitrosodimethylamine	50.0000	50.7154	1.4	50.0
66 Pyridine	50.0000	45.8885	8.2	50.0
87 Methyl methanesulfonate	50.0000	33.2523	33.5	50.0
185 2-Fluorophenol	50.0000	49.4628	1.1	50.0
68 Aniline	50.0000	44.4783	11.0	50.0
184 Phenol-d5	50.0000	49.1189	1.8	50.0
1 Phenol	50.0000	50.2563	0.5	20.0
2 bis(2-Chloroethyl) ether	50.0000	50.3415	0.7	50.0
187 2-Chlorophenol-d4	50.0000	49.1787	1.6	50.0
3 2-Chlorophenol	50.0000	50.6056	1.2	50.0
4 1,3-Dichlorobenzene	50.0000	51.5736	3.1	50.0
11 1,4-Dichlorobenzene-d4	40.0000	40.0000	0.0	50.0
5 1,4-Dichlorobenzene	50.0000	51.6554	3.3	20.0
69 Benzyl Alcohol	50.0000	48.0395	3.9	50.0
188 1,2-Dichlorobenzene-d4	50.0000	50.8064	1.6	50.0
6 1,2-Dichlorobenzene	50.0000	51.1653	2.3	50.0
8 2,2'-oxybis(1-Chloropropane)	50.0000	48.9140	2.2	50.0
7 2-Methylphenol	50.0000	50.1332	0.3	50.0
18 N-Nitroso-di-n-propylamine	50.0000	48.3550	3.3	50.0
9 4-Methylphenol	50.0000	49.9474	0.1	50.0
12 Hexachloroethane	50.0000	49.9465	0.1	50.0
181 Nitrobenzene-d5	50.0000	48.3644	3.3	50.0
13 Nitrobenzene	50.0000	49.2913	1.4	50.0
14 Isophorone	50.0000	48.9907	2.0	50.0
15 2-Nitrophenol	50.0000	49.3544	1.3	20.0
16 2,4-Dimethylphenol	50.0000	49.4671	1.1	50.0
17 bis(2-Chloroethoxy)methane	50.0000	48.7723	2.5	50.0
71 Benzoic Acid	50.0000	60.6763	21.4	50.0
18 2,4-Dichlorophenol	50.0000	50.0030	0.0	20.0
19 1,2,4-Trichlorobenzene	50.0000	50.2677	0.5	50.0
32 Naphthalene-d8	40.0000	40.0000	0.0	50.0
20 Naphthalene	50.0000	50.4970	1.0	50.0
21 4-Chloroaniline	50.0000	50.2451	0.5	50.0
22 Hexachlorobutadiene	50.0000	50.3151	0.6	20.0
23 4-Chloro-3-Methylphenol	50.0000	49.2930	1.4	20.0
24 2-Methylnaphthalene	50.0000	50.6682	1.3	50.0
72 1-Methylnaphthalene	50.0000	48.8498	2.3	50.0
25 Hexachlorocyclopentadiene	50.0000	45.5303	8.9	50.0
26 2,4,6-Trichlorophenol	50.0000	50.3004	0.6	20.0

CONTINUING CALIBRATION COMPOUNDS
 PERCENT DRIFT REPORT

Instrument ID: 71.i
 Lab File ID: S0721CCC.D
 Analysis Type: NONE

Injection Date: 21-JUL-2000 08:48
 Lab Sample ID: sstd50
 Method File: \\Qpitpa02\D\chem\71.i\s072100.b\

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
27 2,4,5-Trichlorophenol	50.0000	49.6002	0.8	50.0
182 2-Fluorobiphenyl	50.0000	48.2993	3.4	50.0
28 2-Chloronaphthalene	50.0000	49.9301	0.1	50.0
29 2-Nitroaniline	50.0000	49.2665	1.5	50.0
30 Dimethylphthalate	50.0000	50.8956	1.8	50.0
31 Acenaphthylene	50.0000	49.5770	0.8	50.0
32 2,6-Dinitrotoluene	50.0000	49.8829	0.2	50.0
52 Acenaphthene-d10	40.0000	40.0000	0.0	50.0
33 3-Nitroaniline	50.0000	51.4376	2.9	50.0
34 Acenaphthene	50.0000	50.2373	0.5	20.0
35 2,4-Dinitrophenol	50.0000	44.3448	11.3	50.0
37 Dibenzofuran	50.0000	51.0402	2.1	50.0
36 4-Nitrophenol	50.0000	48.5064	3.0	50.0
38 2,4-Dinitrotoluene	50.0000	51.8950	3.8	50.0
77 2,3,5,6-Tetrachlorophenol	50.0000	48.8093	2.4	50.0
114 2-Naphthylamine	50.0000	63.2965	26.6	50.0
76 2,3,4,6-Tetrachlorophenol	50.0000	49.1427	1.7	50.0
39 Diethylphthalate	50.0000	52.1040	4.2	50.0
41 Fluorene	50.0000	51.6409	3.3	50.0
40 4-Chlorophenyl-phenylether	50.0000	50.8503	1.7	50.0
42 4-Nitroaniline	50.0000	53.4092	6.8	50.0
43 4,6-Dinitro-2-methylphenol	50.0000	43.0426	13.9	50.0
44 N-Nitrosodiphenylamine (1)	50.0000	45.7126	8.6	20.0
78 1,2-Diphenylhydrazine	50.0000	46.4872	7.0	50.0
186 2,4,6-Tribromophenol	50.0000	47.0178	6.0	50.0
45 4-Bromophenyl-phenylether	50.0000	47.9875	4.0	50.0
46 Hexachlorobenzene	50.0000	49.5250	0.9	50.0
47 Pentachlorophenol	50.0000	42.9123	14.2	20.0
78 Phenanthrene-d10	40.0000	40.0000	0.0	50.0
48 Phenanthrene	50.0000	50.6090	1.2	50.0
49 Anthracene	50.0000	50.6896	1.4	50.0
50 Carbazole	50.0000	52.4424	4.9	50.0
51 Di-n-Butylphthalate	50.0000	52.5291	5.1	50.0
52 Fluoranthene	50.0000	52.9872	6.0	20.0
79 Benzidine	50.0000	42.1059	15.8	50.0
53 Pyrene	50.0000	50.4693	0.9	50.0
183 Terphenyl-d14	50.0000	49.7730	0.5	50.0
54 Butylbenzylphthalate	50.0000	51.0163	2.0	50.0
56 Benzo(a)Anthracene	50.0000	50.4784	1.0	50.0

CONTINUING CALIBRATION COMPOUNDS
PERCENT DRIFT REPORT

Instrument ID: 71.i
Lab File ID: S0721CCC.D
Analysis Type: NONE

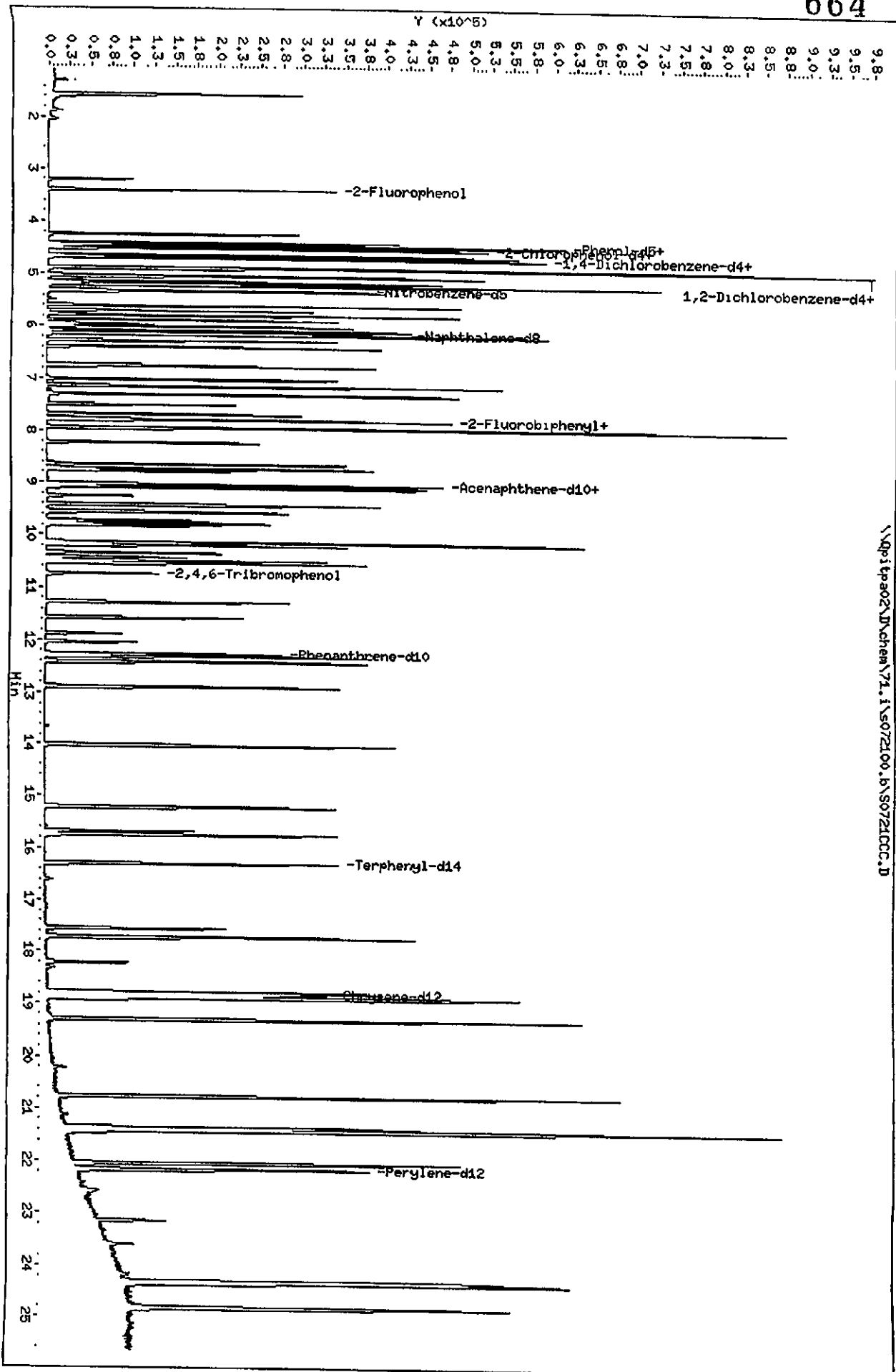
Injection Date: 21-JUL-2000 08:48
Lab Sample ID: sstd50
Method File: \\Qpitpa02\D\chem\71.i\s072100.b\

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	49.2778	1.4	50.0
57 Chrysene	50.0000	50.6870	1.4	50.0
58 bis(2-ethylhexyl)Phthalate	50.0000	50.7745	1.5	50.0
59 Di-n-octylphthalate	50.0000	50.6748	1.3	20.0
60 Benzo(b)fluoranthene	50.0000	49.1400	1.7	50.0
61 Benzo(k)fluoranthene	50.0000	54.1140	8.2	50.0
143 7,12-dimethylbenz[a]anthracen	50.0000	50.3778	0.8	50.0
62 Benzo(a)pyrene	50.0000	50.7812	1.6	20.0
101 Perylene-d12	40.0000	40.0000	0.0	50.0
63 Indeno(1,2,3-cd)pyrene	50.0000	49.9977	0.0	50.0
64 Dibenz(a,h)anthracene	50.0000	48.2448	3.5	50.0
65 Benzo(g,h,i)perylene	50.0000	47.8151	4.4	50.0

Data File: \\qpitpa02\jv\chem\71.1\5072100.b\5072100C.D
Date: 21-JUL-2000 08:48
Client ID: sstd050
Sample Info: sstd050(25 ug/ml) 194-182-1 8270/cip
Column phase: Hp5-MS

Instrument: 71.i
Operator: 045183
Column diameter: 0.25

\\qpitpa02\jv\chem\71.1\5072100.b\5072100C.D



664 264

STL Pittsburgh

Semivolatle REPORT SW-846 Method 8270

Data file : \\QPITPA02\D\chem\71.i\s072100.b\S0721CCC.D
 Lab Smp Id: sstd50 Client Smp ID: sstd050
 Inj Date : 21-JUL-2000 08:48
 Operator : 045183 Inst ID: 71.i
 Smp Info : sstd50(25 ug/ml) 194-182-1 8270/clp
 Misc Info : sstd50,s072100.b,8270clp.m,1-82701.sub,2,2
 Comment :
 Method : \\Qpitpa02\D\chem\71.i\s072100.b\8270clp.m
 Meth Date : 28-Jul-2000 08:20 bachas Quant Type: ISTD
 Cal Date : 20-JUL-2000 16:02 Cal File: S0720CC5.D
 Als bottle: 3 Continuing Calibration Sample
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 1-82701.sub
 Target Version: 4.04
 Processing Host: PITPC050

Handwritten: 5/27/00

Compounds	QUANT SIG		AMOUNTS				
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
* 1 1,4-Dichlorobenzene-d4	152	4.680	4.680	(1.000)	62917	40.0000	
* 2 Naphthalene-d8	136	6.133	6.133	(1.000)	237673	40.0000	
* 3 Acenaphthene-d10	164	9.028	9.028	(1.000)	123565	40.0000	
* 4 Phenanthrene-d10	188	12.260	12.260	(1.000)	213088	40.0000	
* 5 Chrysene-d12	240	18.836	18.836	(1.000)	231432	40.0000	
* 6 Perylene-d12	264	22.181	22.181	(1.000)	291356	40.0000	
13 N-Nitrosodimethylamine	74	1.555	1.555	(0.332)	76991	50.0000	50.715
10 Pyridine	79	1.565	1.565	(0.335)	119176	50.0000	45.888 (M)
19 Methyl methanesulfonate	80	3.200	3.200	(0.684)	47344	50.0000	33.252
22 Aniline	93	4.402	4.402	(0.941)	160565	50.0000	44.478
23 Phenol	94	4.455	4.455	(0.952)	153754	50.0000	50.256
24 bis(2-Chloroethyl)ether	93	4.471	4.471	(0.955)	127419	50.0000	50.341
25 2-Chlorophenol	128	4.525	4.525	(0.967)	111332	50.0000	50.606
27 1,3-Dichlorobenzene	146	4.642	4.642	(0.992)	125224	50.0000	51.574
28 1,4-Dichlorobenzene	146	4.696	4.696	(1.003)	127683	50.0000	51.655
29 1,2-Dichlorobenzene	146	4.893	4.893	(1.046)	116241	50.0000	51.165
30 Benzyl Alcohol	108	4.877	4.877	(1.042)	77213	50.0000	48.040
31 2-Methylphenol	108	5.048	5.048	(1.079)	105008	50.0000	50.133
32 2,2'-oxybis(1-Chloropropane)	45	5.027	5.027	(1.074)	197317	50.0000	48.914
33 N-Nitroso-di-n-propylamine	70	5.182	5.182	(1.107)	98091	50.0000	48.355
35 4-Methylphenol	108	5.203	5.203	(1.112)	110155	50.0000	49.947
38 Hexachloroethane	117	5.214	5.214	(1.114)	52749	50.0000	49.946
39 Nitrobenzene	77	5.331	5.331	(0.869)	153280	50.0000	49.291
44 Isophorone	82	5.599	5.599	(0.913)	231239	50.0000	48.991
45 2-Nitrophenol	139	5.700	5.700	(0.929)	58341	50.0000	49.354
46 2,4-Dimethylphenol	107	5.786	5.786	(0.943)	115026	50.0000	49.467

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Compounds	QUANT SIG		AMOUNTS				
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
-----	----	--	-----	-----	-----	-----	-----
47 bis(2-Chloroethoxy)methane	93	5.876	5.876	(0.958)	137475	50.0000	48.772
51 2,4-Dichlorophenol	162	6.010	6.010	(0.980)	82390	50.0000	50.003
52 Benzoic Acid	122	5.962	5.962	(0.972)	49999	50.0000	60.676 (H)
53 1,2,4-Trichlorobenzene	180	6.085	6.085	(0.992)	87786	50.0000	50.268
54 Naphthalene	128	6.159	6.159	(1.004)	327697	50.0000	50.497
55 4-Chloroaniline	127	6.277	6.277	(1.024)	123310	50.0000	50.245
59 Hexachlorobutadiene	225	6.400	6.400	(1.044)	48720	50.0000	50.315
62 4-Chloro-3-Methylphenol	107	7.020	7.020	(1.145)	96817	50.0000	49.293
65 2-Methylnaphthalene	142	7.142	7.142	(1.165)	208284	50.0000	50.668
66 1-Methylnaphthalene	142	7.313	7.313	(1.192)	185178	50.0000	48.850
67 Hexachlorocyclopentadiene	237	7.506	7.506	(0.831)	43113	50.0000	45.530
69 2,4,6-Trichlorophenol	196	7.682	7.682	(0.851)	53127	50.0000	50.300
70 2,4,5-Trichlorophenol	196	7.767	7.767	(0.860)	55294	50.0000	49.600
73 2-Chloronaphthalene	162	7.944	7.944	(0.880)	179241	50.0000	49.930
77 2-Nitroaniline	65	8.227	8.227	(0.911)	77319	50.0000	49.266
80 Dimethylphthalate	163	8.644	8.644	(0.957)	203503	50.0000	50.896
82 2,6-Dinitrotoluene	165	8.772	8.772	(0.972)	44592	50.0000	49.883
83 Acenaphthylene	152	8.724	8.724	(0.966)	287356	50.0000	49.577
85 3-Nitroaniline	138	9.039	9.039	(1.001)	54191	50.0000	51.438
86 Acenaphthene	153	9.087	9.087	(1.007)	182072	50.0000	50.237
87 2,4-Dinitrophenol	184	9.247	9.247	(1.024)	22569	50.0000	44.345
89 4-Nitrophenol	109	9.536	9.536	(1.056)	34364	50.0000	48.506
90 Dibenzofuran	168	9.418	9.418	(1.043)	251886	50.0000	51.040
91 2,4-Dinitrotoluene	165	9.562	9.562	(1.059)	61395	50.0000	51.895
95 2,3,5,6-Tetrachlorophenol	232	9.723	9.723	(1.077)	37091	50.0000	48.809
92 2,3,4,6-Tetrachlorophenol	232	9.814	9.814	(1.087)	37657	50.0000	49.143
96 2-Naphthylamine	143	9.771	9.771	(1.082)	156070	50.0000	63.296
97 Diethylphthalate	149	10.139	10.139	(1.123)	213788	50.0000	52.104
98 Fluorene	166	10.150	10.150	(1.124)	201995	50.0000	51.641
99 4-Chlorophenyl-phenylether	204	10.198	10.198	(1.130)	89848	50.0000	50.850
100 4-Nitroaniline	138	10.348	10.348	(1.146)	55183	50.0000	53.409
102 4,6-Dinitro-2-methylphenol	198	10.433	10.433	(0.851)	33716	50.0000	43.042
103 N-Nitrosodiphenylamine (1)	169	10.492	10.492	(0.856)	136448	50.0000	45.713
104 1,2-Diphenylhydrazine	77	10.540	10.540	(0.860)	295189	50.0000	46.487
112 4-Bromophenyl-phenylether	248	11.283	11.283	(0.920)	48196	50.0000	47.988
113 Hexachlorobenzene	284	11.566	11.566	(0.943)	51349	50.0000	49.525
117 Pentachlorophenol	266	12.036	12.036	(0.982)	23282	50.0000	42.912
122 Phenanthrene	178	12.314	12.314	(1.004)	281590	50.0000	50.609
123 Anthracene	178	12.420	12.420	(1.013)	291107	50.0000	50.690
126 Carbazole	167	12.891	12.891	(1.051)	281720	50.0000	52.442
130 Di-n-Butylphthalate	149	14.023	14.023	(1.144)	367462	50.0000	52.529
135 Fluoranthene	202	15.220	15.220	(1.241)	301149	50.0000	52.987
136 Benzidine	184	15.679	15.679	(0.832)	138638	50.0000	42.106
137 Pyrene	202	15.754	15.754	(0.836)	312271	50.0000	50.469
144 Butylbenzylphthalate	149	17.731	17.731	(0.941)	193137	50.0000	51.016
149 3,3'-Dichlorobenzidine	252	18.879	18.879	(1.002)	132747	50.0000	49.278
150 Benzo(a)Anthracene	228	18.799	18.799	(0.998)	325928	50.0000	50.478

664 266

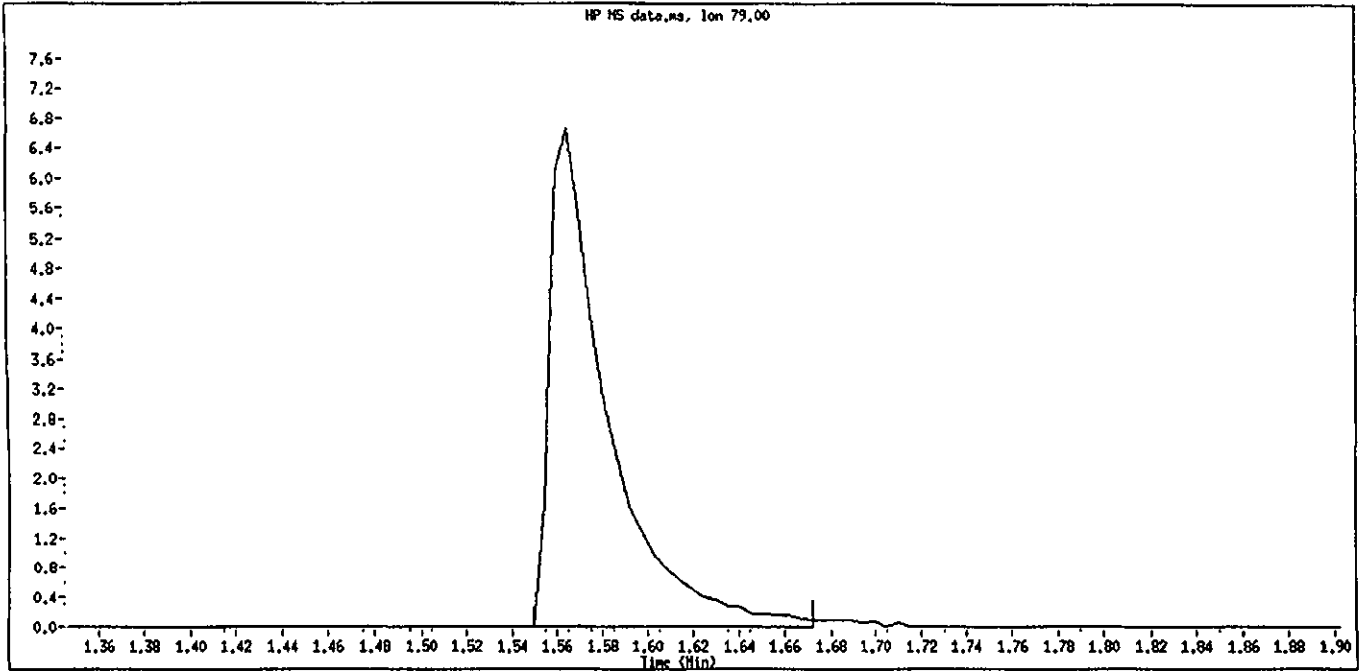
Compounds	QUANT SIG				RESPONSE	AMOUNTS	
	MASS	RT	EXP RT	REL RT		CAL-AMT (ng)	ON-COL (ng)
151 Chrysene	228	18.900	18.900	(1.003)	307295	50.0000	50.687
153 bis(2-ethylhexyl) Phthalate	149	19.312	19.312	(1.025)	288913	50.0000	50.774
155 Di-n-octylphthalate	149	20.776	20.776	(0.937)	563736	50.0000	50.675
157 Benzo(b)fluoranthene	252	21.369	21.369	(0.963)	415547	50.0000	49.140 (H)
158 Benzo(k)fluoranthene	252	21.427	21.427	(0.966)	408034	50.0000	54.114
159 7,12-dimethylbenz(a)anthracen	256	21.427	21.427	(0.966)	176208	50.0000	50.378
167 Benzo(a)pyrene	252	22.058	22.058	(0.994)	393168	50.0000	50.781
169 Indeno(1,2,3-cd)pyrene	276	24.323	24.323	(1.097)	496972	50.0000	49.998 (M)
170 Dibenz(a,h)anthracene	278	24.371	24.371	(1.099)	477311	50.0000	48.245
171 Benzo(g,h,i)perylene	276	24.852	24.852	(1.120)	474964	50.0000	47.815
\$ 172 Nitrobenzene-d5	82	5.310	5.310	(0.866)	138208	50.0000	48.364
\$ 173 2-Fluorobiphenyl	172	7.794	7.794	(0.863)	194318	50.0000	48.299
\$ 174 Terphenyl-d14	244	16.304	16.304	(0.866)	231980	50.0000	49.773
\$ 175 Phenol-d5	99	4.445	4.445	(0.950)	138549	50.0000	49.119
\$ 176 2-Fluorophenol	112	3.398	3.398	(0.726)	104732	50.0000	49.463
\$ 177 2,4,6-Tribromophenol	330	10.743	10.743	(0.876)	25172	50.0000	47.018
\$ 178 2-Chlorophenol-d4	132	4.509	4.509	(0.963)	97276	50.0000	49.179
\$ 179 1,2-Dichlorobenzene-d4	152	4.877	4.877	(1.042)	69574	50.0000	50.806

QC Flag Legend

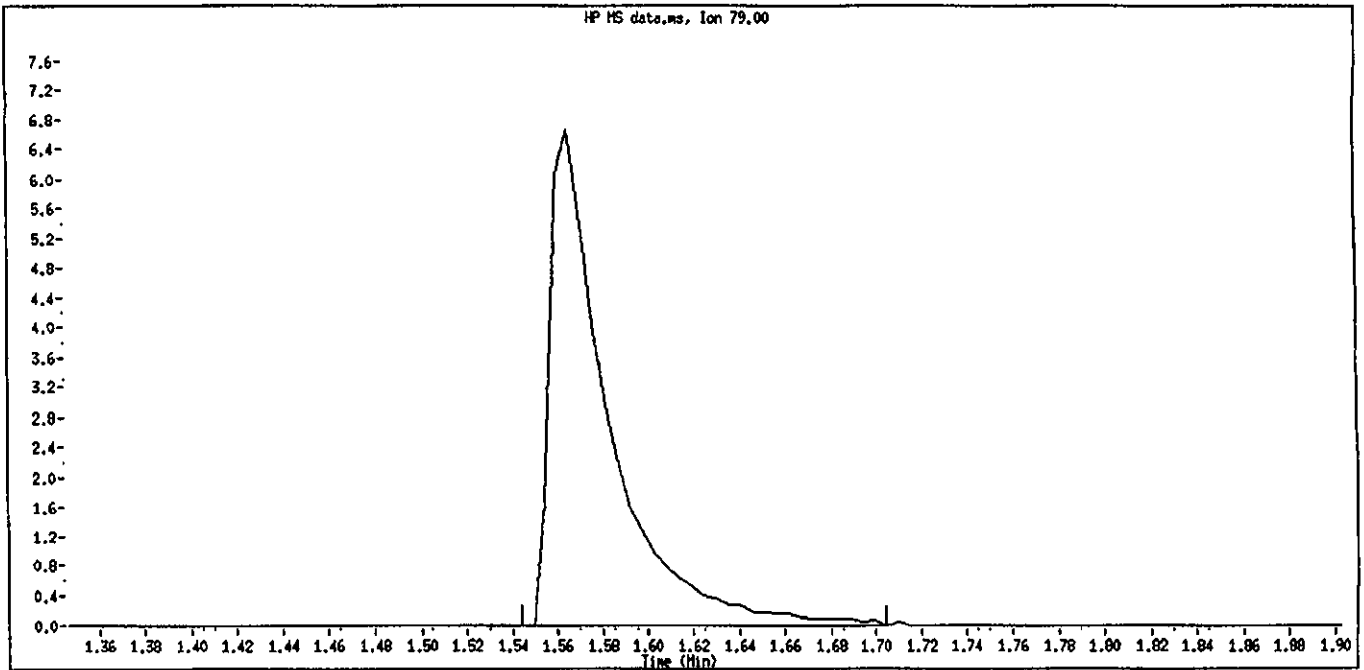
M - Compound response manually integrated.
 H - Operator selected an alternate compound hit.

Data File Name: S0721CCC.D
Inj. Date and Time: 21-JUL-2000 08:48
Instrument ID: 711
Client ID: sstd050
Compound Name: Pyridine
CAS #: 110-86-1
Report Date: 07/21/2000

664 267



Original Integration

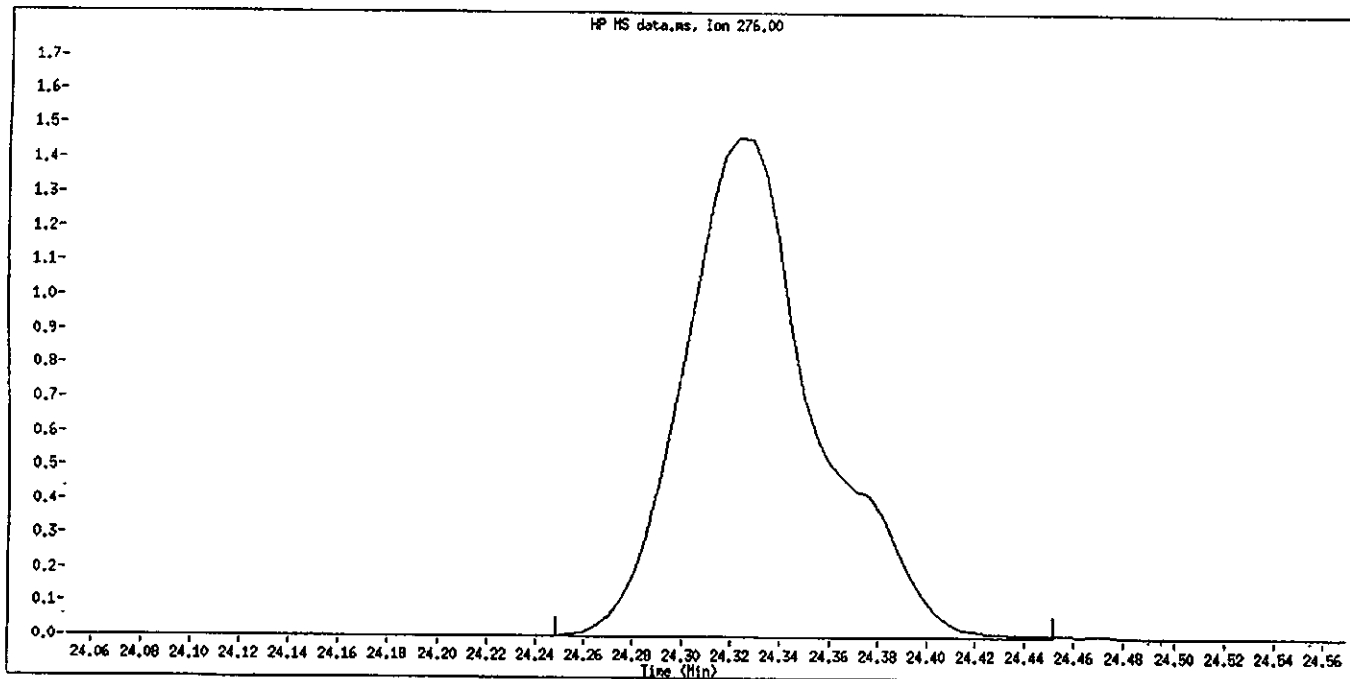


Manual Integration

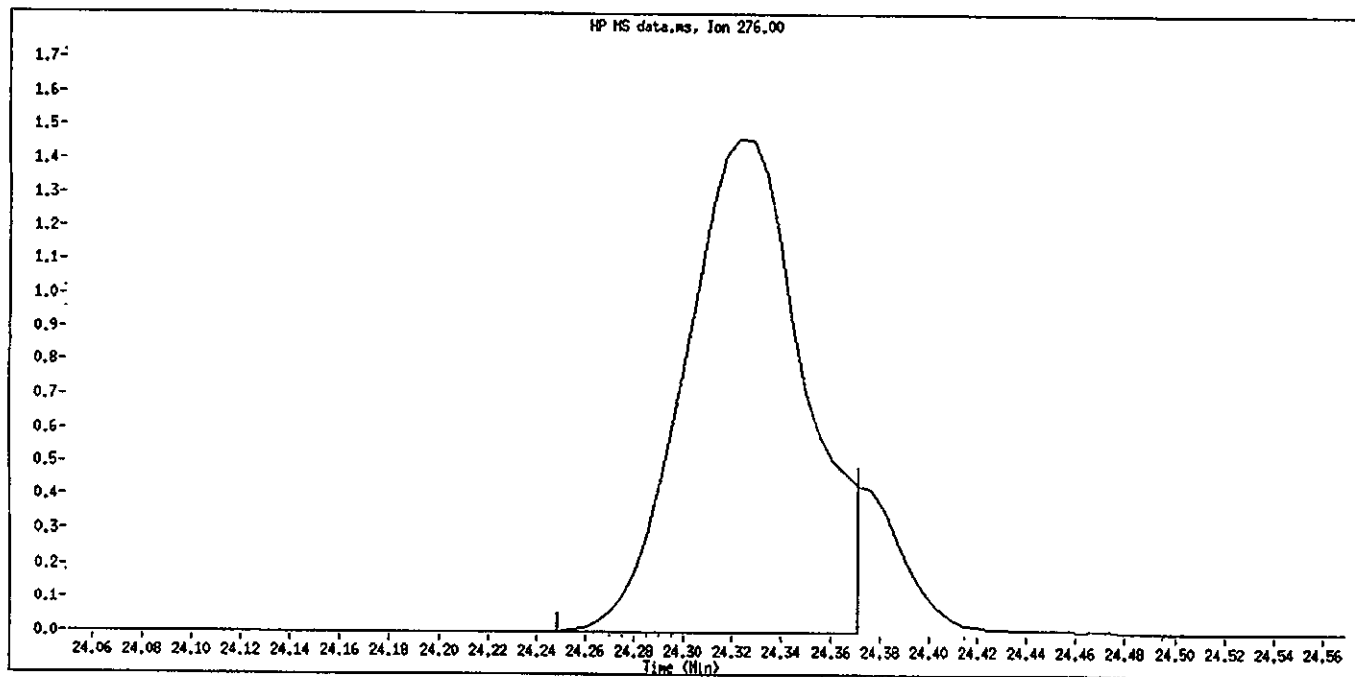
Manually Integrated By: Bachas
Manual Integration Reason: Poor Chromatography

Data File Name: S0721CCC D
Inj Date and Time: 21-JUL-2000 08 48
Instrument ID 71.i
Client ID: sstd050
Compound Name: Indeno(1,2,3-cd)pyrene
CAS #: 193-39-5
Report Date 07/21/2000

664 268



Original Integration



Manual Integration

Manually Integrated By: Bachas
Manual Integration Reason: Poor Chromatography

**GC/MS SEMIVOLATILE
QC DATA**

Date : 20-JUL-2000 13:37

Client ID: DFTPP02

Instrument: 71.i

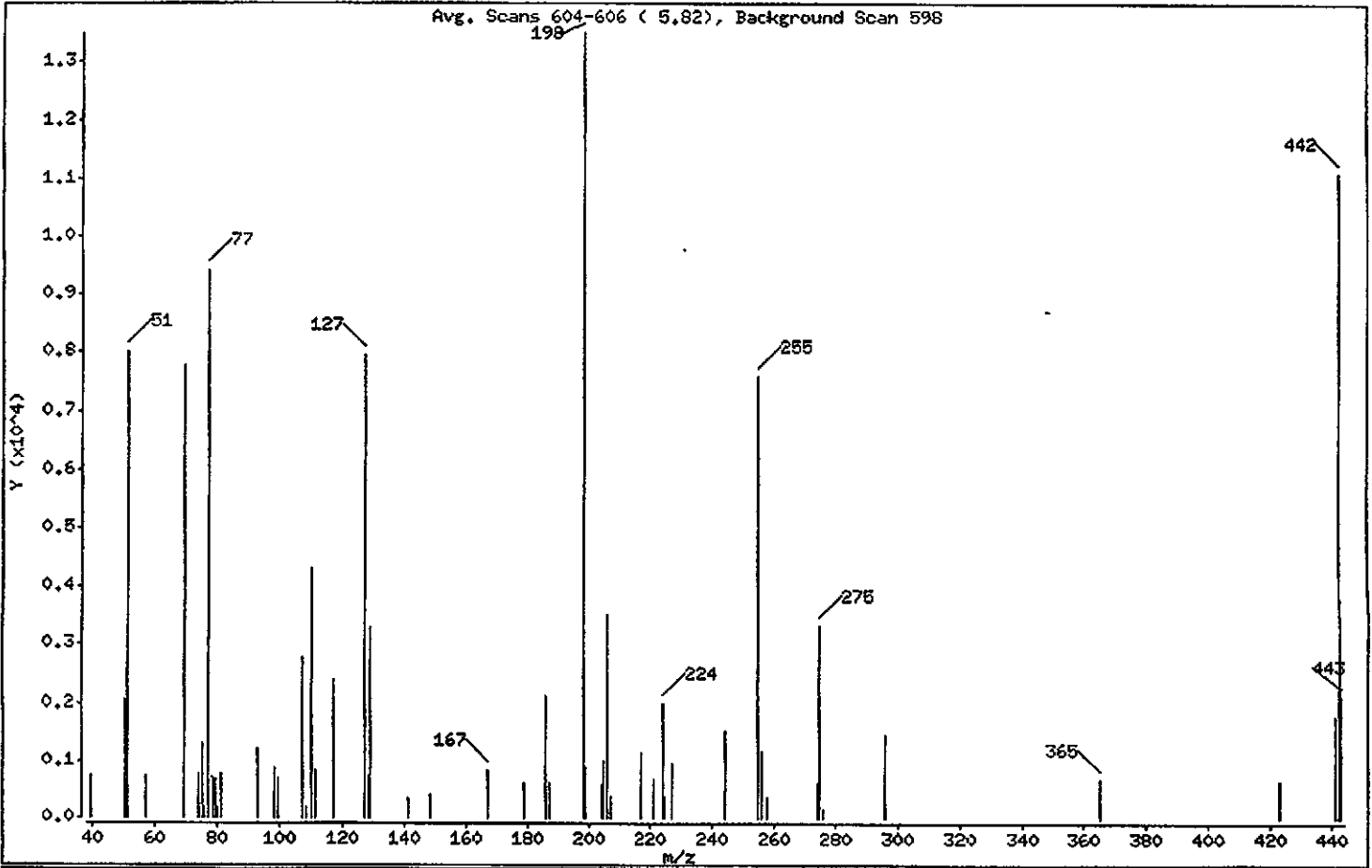
Sample Info: DFTPP050 (25ppb) 194-158-6

Operator: 045183

Column phase:

Column diameter: 2.00

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	59.31
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	57.57
70	Less than 2.00% of mass 69	0.00 (0.00)
127	40.00 - 60.00% of mass 198	58.78
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.69
275	10.00 - 30.00% of mass 198	24.59
365	Greater than 1.00% of mass 198	5.10
441	Present, but less than mass 443	13.15
442	Greater than 40.00% of mass 198	82.17
443	17.00 - 23.00% of mass 442	15.71 (19.11)

Date : 20-JUL-2000 13:37

Client ID: DFTPP02

Instrument: 71.i

664 271

Sample Info: DFTPP050 (25ppb) 194-158-6

Operator: 045183

Column phase:

Column diameter: 2.00

Data File: S0720DF2.D

Spectrum: Avg. Scans 604-606 (5.82), Background Scan 598

Location of Maximum: 198.00

Number of points: 54

m/z	Y	m/z	Y	m/z	Y	m/z	Y
39.00	738	98.00	874	186.00	2112	255.00	7580
50.00	2053	99.00	680	187.00	626	256.00	1170
51.00	8013	107.00	2750	198.00	13511	258.00	380
57.00	736	108.00	172	199.00	904	274.00	632
69.00	7778	110.00	4317	204.00	577	275.00	3323
74.00	771	111.00	841	205.00	981	276.00	169
75.00	1298	117.00	2393	206.00	3519	296.00	1460
76.00	175	127.00	7942	207.00	384	365.00	689
77.00	9401	128.00	744	217.00	1149	423.00	659
78.00	703	129.00	3306	221.00	675	441.00	1777
79.00	676	141.00	341	224.00	1985	442.00	11102
80.00	177	148.00	395	225.00	360	443.00	2122
81.00	790	167.00	848	227.00	978		
93.00	1204	179.00	623	244.00	1520		

Data File: \\QP1TPA02\chem\71.1\5072000.b\50720DF2.D

Date: 20-JUL-2000 13:37

Client ID: DFTPP02

Sample Info: DFTPP050 (25ppb) 194-158-6

66.1 272

Page 2

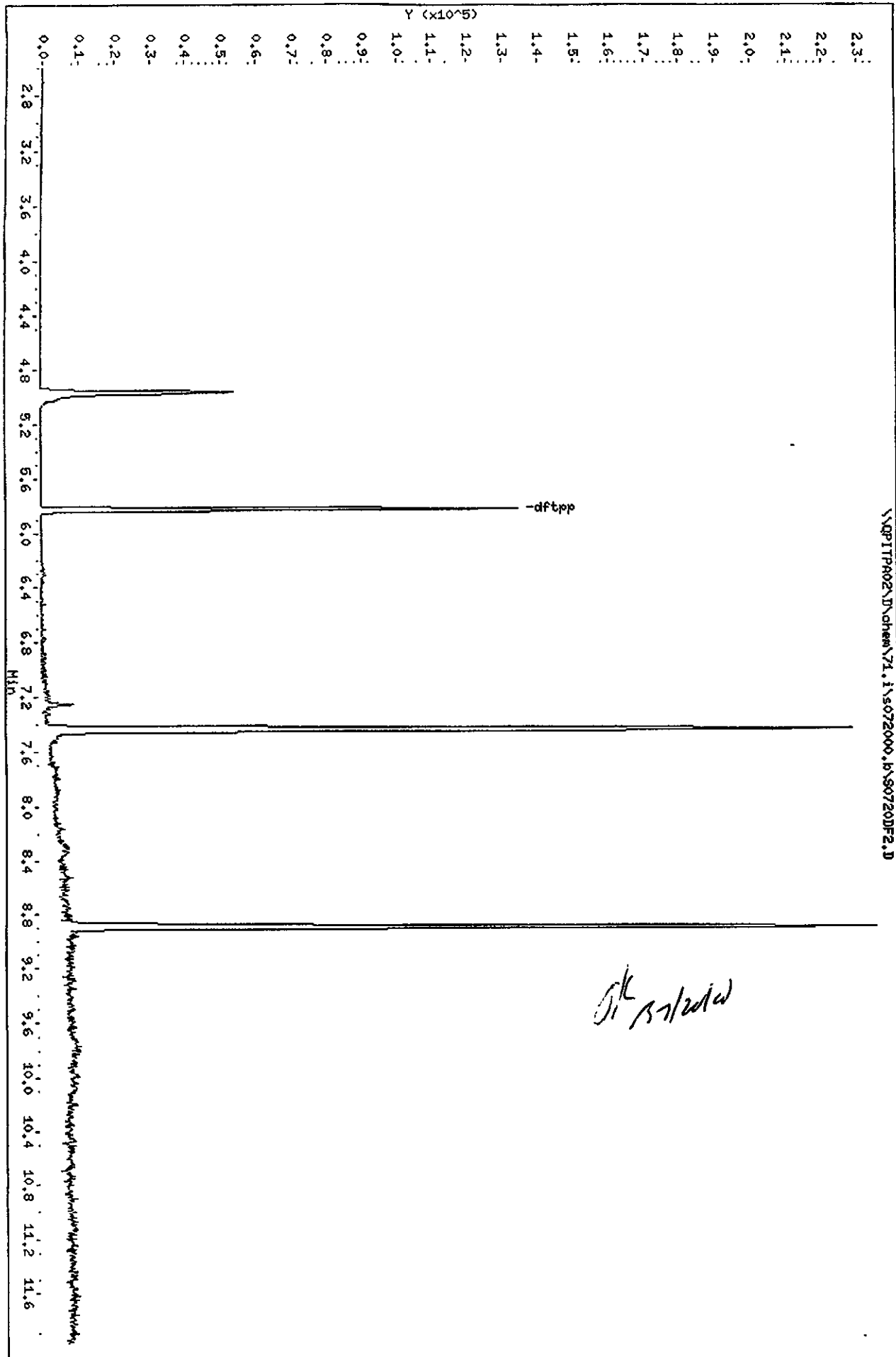
Instrument: 71.1

Operator: 045183

Column diameter: 2.00

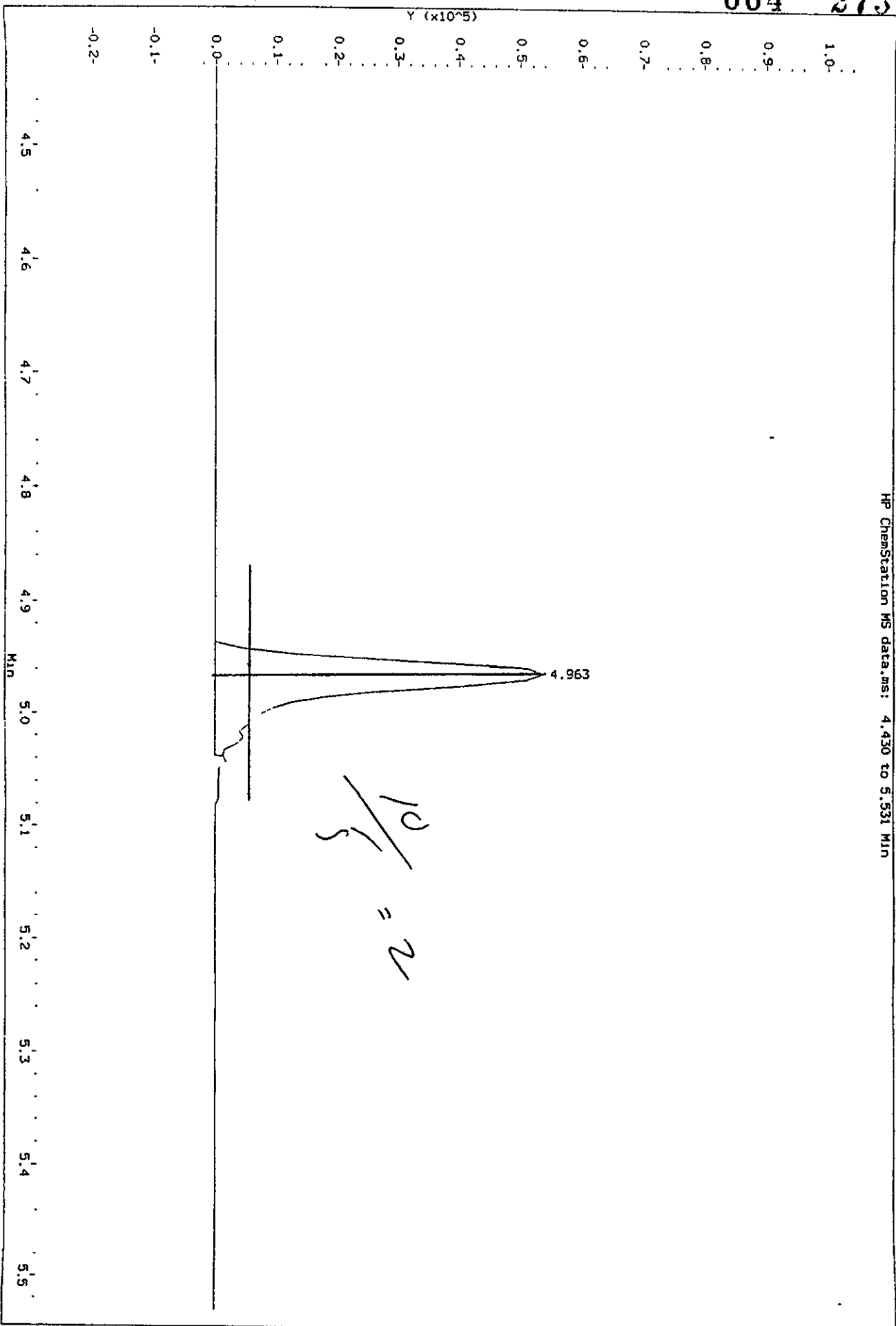
Column phases:

\\QP1TPA02\chem\71.1\5072000.b\50720DF2.D



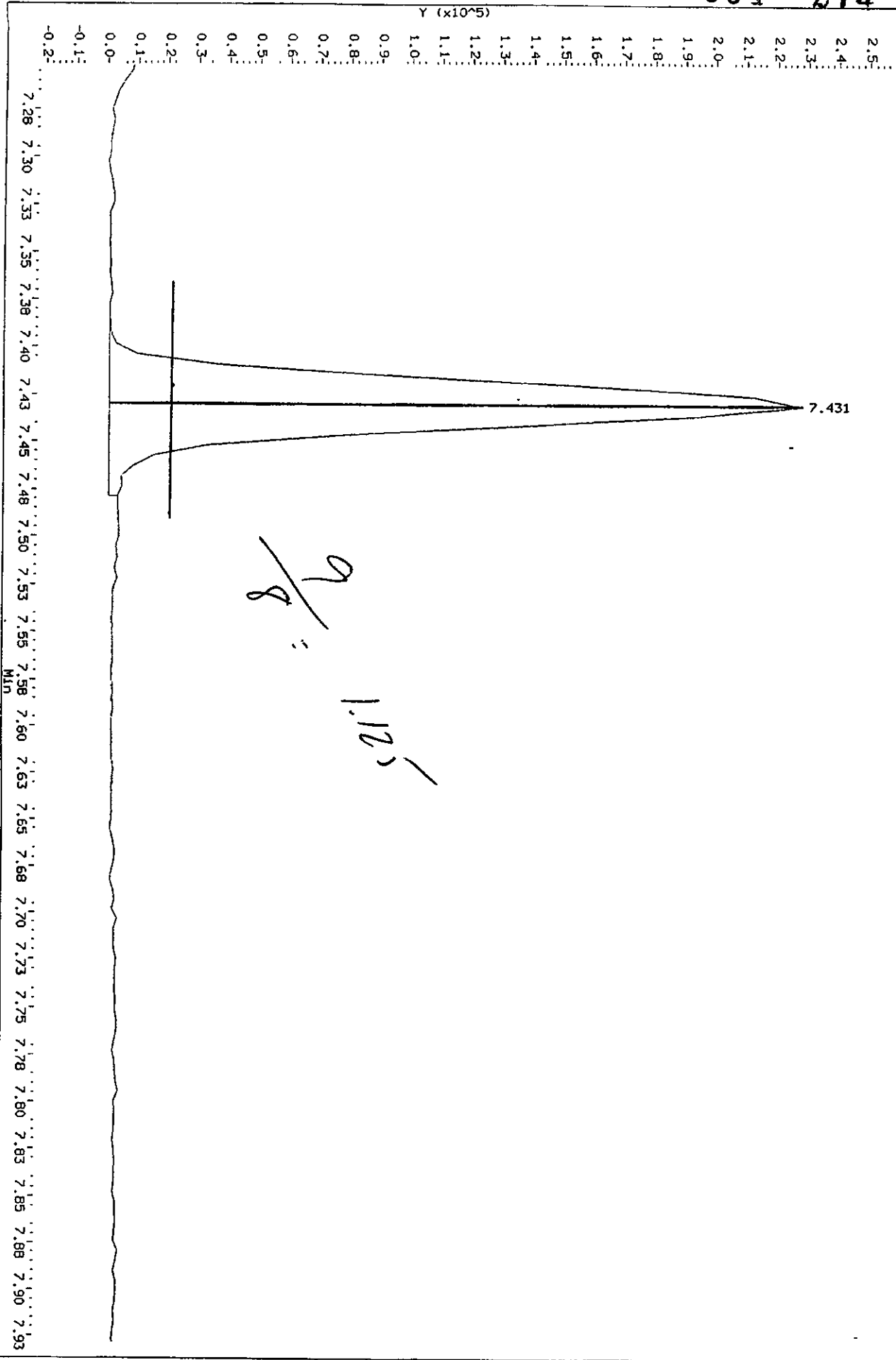
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Injection Date: 20-JUL-2000 13:37
Instrument: 71.1
Client Sample ID: DFTFP02

HP ChemStation MS data.ms: 4.430 to 5.531 MIN



Data File: \Dp1cpa02\chem\71.1\5072000.b\5072002.D
Injection Date: 20-JUL-2000 13:37
Instrument: 71.1
Client Sample ID: DFTPP02

HP ChemStation MS data.ms: 7.252 to 7.929 Min



Data File: \\Qpitpa02\D\chem\71.1\5072100.b\S0721DF2.D

Date : 21-JUL-2000 08:25

Client ID: DFTPP02

Instrument: 71.i

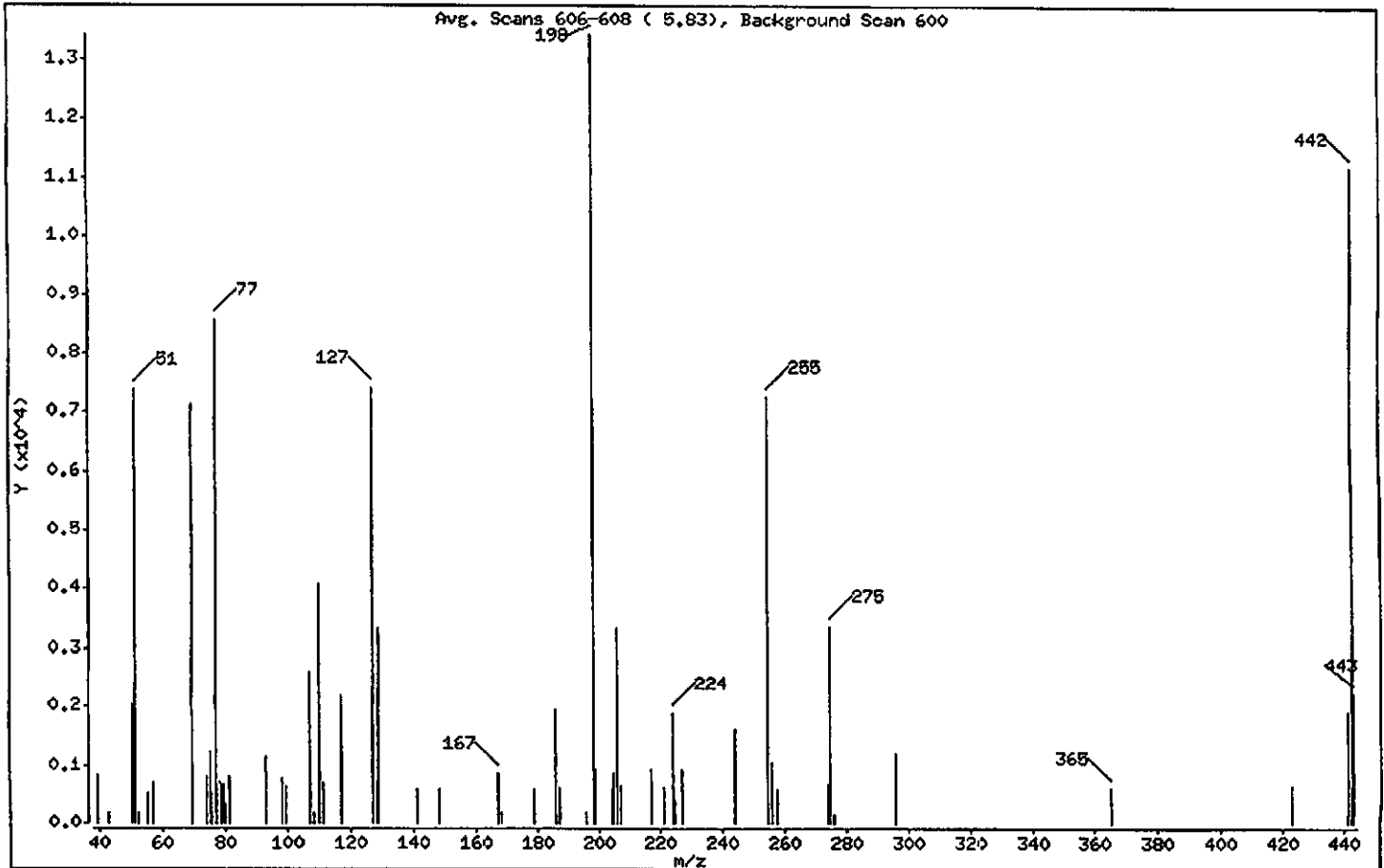
Sample Info: DFTPP050 (25ppb) 194-158-6

Operator: 048183

Column phase:

Column diameter: 2.00

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	54.99
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	53.21
70	Less than 2.00% of mass 69	0.00 (0.00)
127	40.00 - 60.00% of mass 198	55.14
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.93
275	10.00 - 30.00% of mass 198	25.10
365	Greater than 1.00% of mass 198	4.55
441	Present, but less than mass 443	14.25
442	Greater than 40.00% of mass 198	83.27
443	17.00 - 23.00% of mass 442	16.59 (19.92)

Date : 21-JUL-2000 08:25

Client ID: DFTPP02

Instrument: 71.i

Sample Info: DFTPP050 (25ppb) 194-158-6

Operator: 045183

Column phase:

Column diameter: 2.00

Data File: S0721DF2.D
 Spectrum: Avg. Scans 606-608 (5.83), Background Scan 600
 Location of Maximum: 198.00
 Number of points: 59

m/z	Y	m/z	Y	m/z	Y	m/z	Y
39.00	837	81.00	813	168.00	188	227.00	920
43.00	193	93.00	1145	179.00	597	244.00	1613
50.00	2047	98.00	781	186.00	1954	255.00	7267
51.00	7389	99.00	656	187.00	612	256.00	1050
52.00	170	107.00	2604	196.00	177	258.00	595
55.00	516	108.00	195	198.00	13436	274.00	694
57.00	725	110.00	4062	199.00	931	275.00	3372
69.00	7149	111.00	709	204.00	601	276.00	167
74.00	803	117.00	2199	205.00	878	296.00	1190
75.00	1236	127.00	7409	206.00	3325	365.00	611
76.00	188	128.00	703	207.00	646	423.00	634
77.00	8553	129.00	3351	217.00	930	441.00	1915
78.00	714	141.00	590	221.00	627	442.00	11188
79.00	670	148.00	574	224.00	1874	443.00	2229
80.00	344	167.00	878	225.00	392		

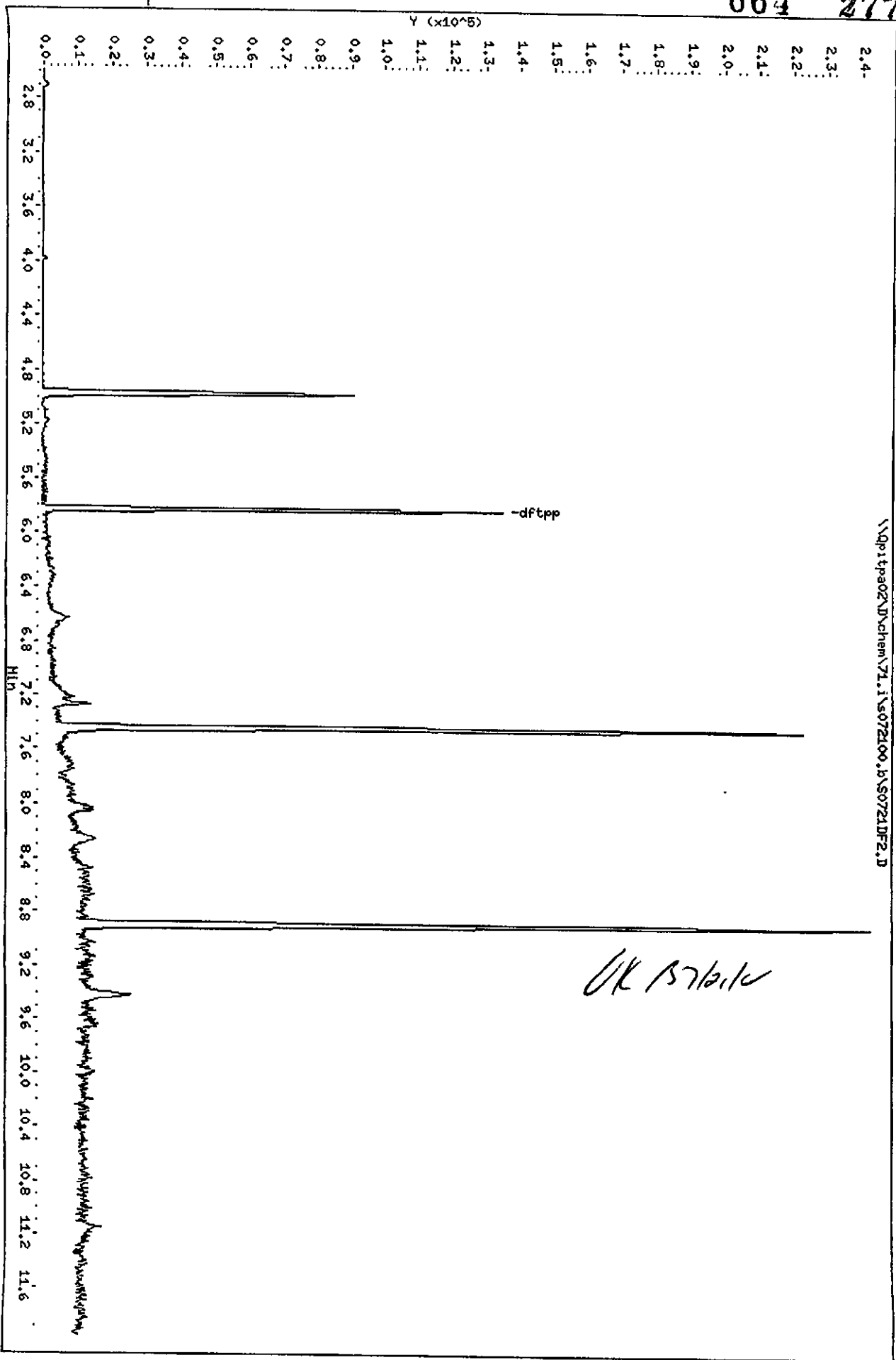
664 277

Data File: \\qpt\pa02\vn\chem\71.i\5072100.b\50721DF2.D
Date: 21-JUL-2000 08:25
Client ID: DFTPP02
Sample Info: DFTPP050 (25ppb) 194-158-6

Column phase:

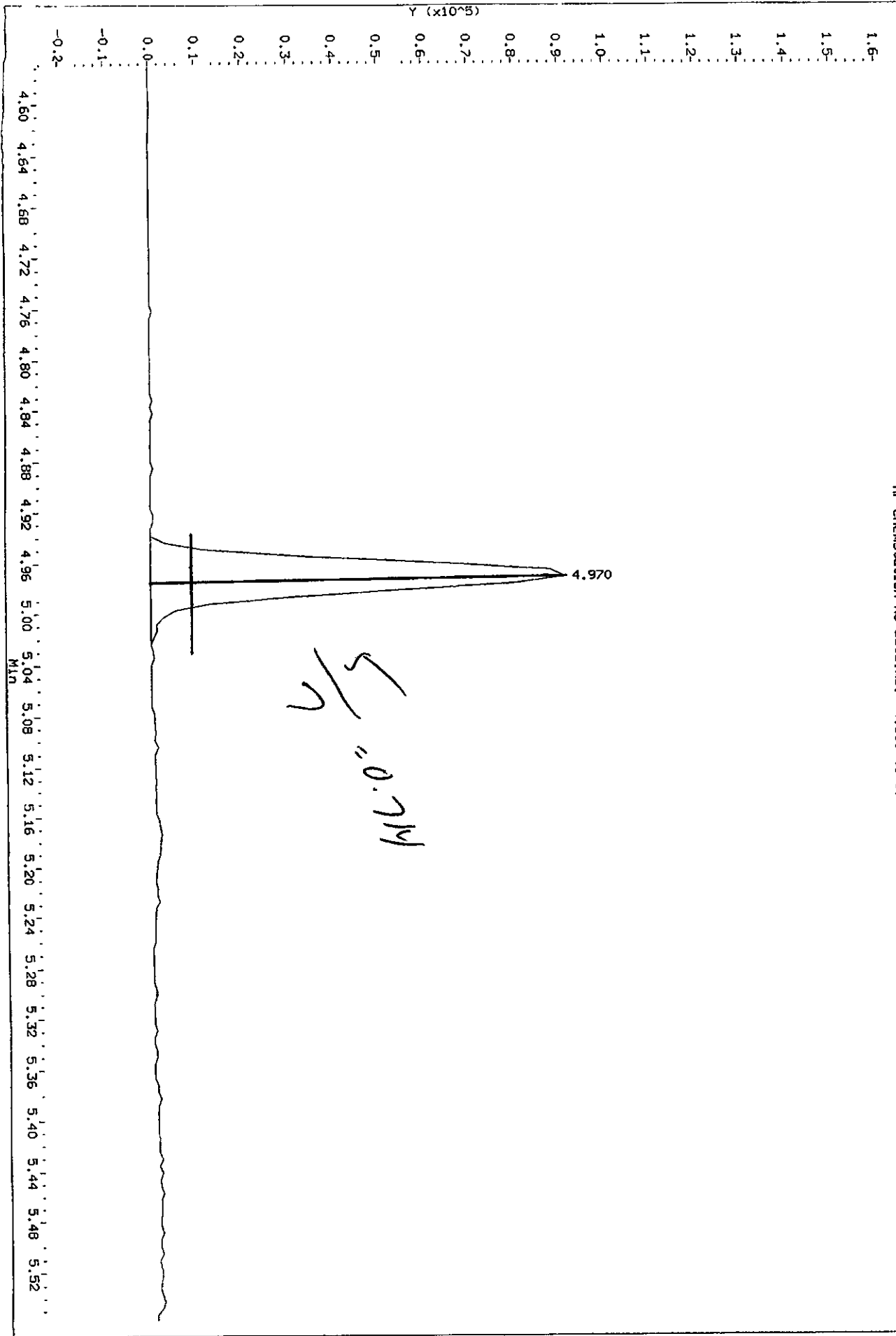
\\qpt\pa02\vn\chem\71.i\5072100.b\50721DF2.D

Instrument: 71.i
Operator: 045183
Column diameter: 2.00



Data File: \\Dp1tpa02\chem\71.1\5072100.b\50721DF2.D
Injection Date: 21-JUL-2000 08:25
Instrument: 71.1
Client Sample ID: DFTPP02

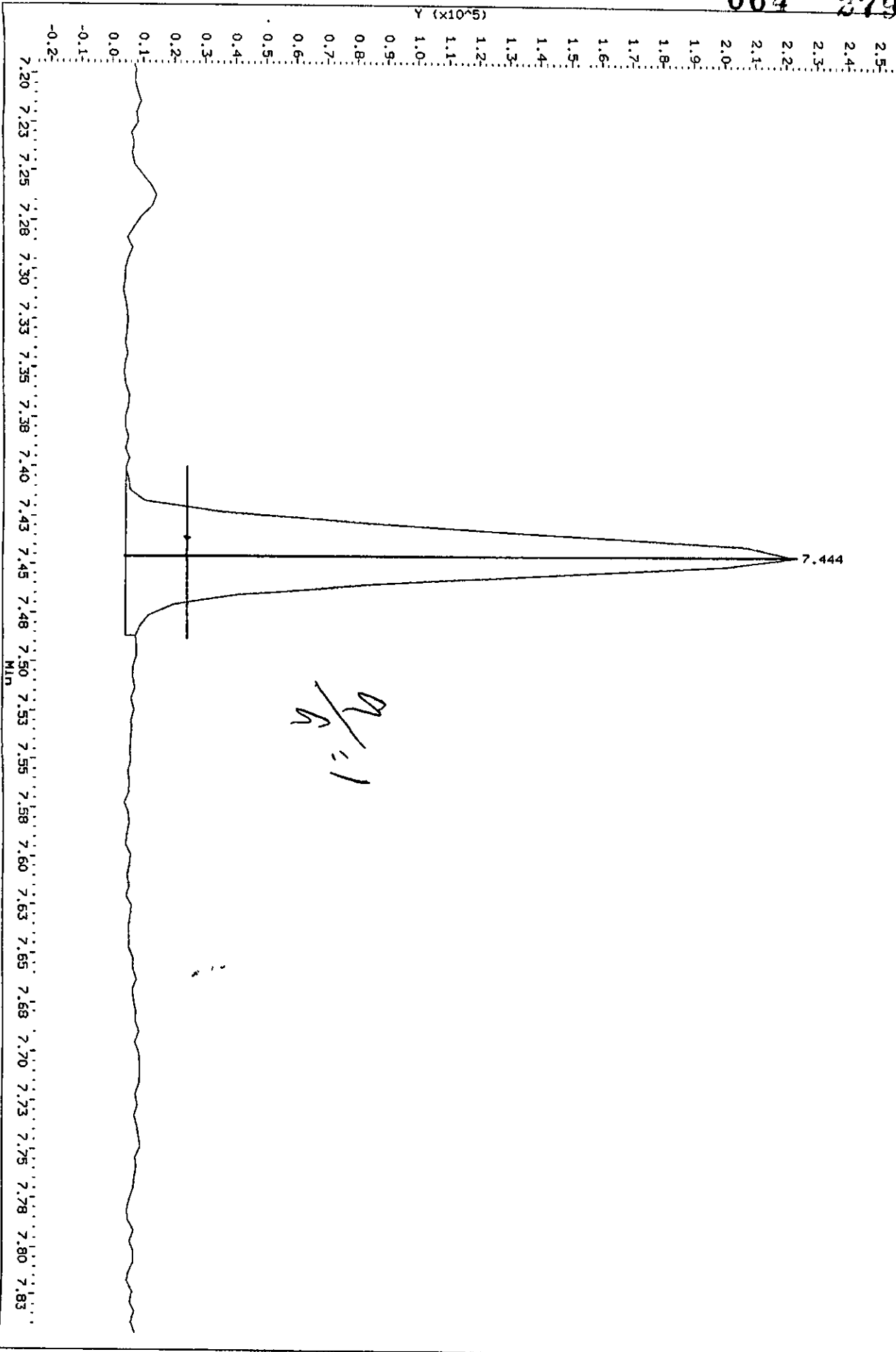
HP ChemStation MS data.ms: 4.569 to 5.558 MIN



664 279

Data File: \\Dpi\tpa02\0\chem\71.1\5072100.b\50721DF2.D
Injection Date: 21-JUL-2000 08:25
Instrument: 71.1
Client Sample ID: DFTPP02

HP ChemStation MS data.ms: 7.195 to 7.845 Min



UXB INTERNATIONAL
METHOD BLANK COMPOUNDS

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

Matrix: (soil/water) SOLID Lab Sample ID: COG190000 094
 Method: SW846 8270C
 Base/Neutrals and Acids (8270C)

Sample WT/Vol: 200 / mL Date Received: 07/13/00
 Work Order: DGERA101 Date Extracted: 07/18/00
 Dilution factor: 1 Date Analyzed: 07/21/00
 Moisture %: NA

QC Batch: 0201094

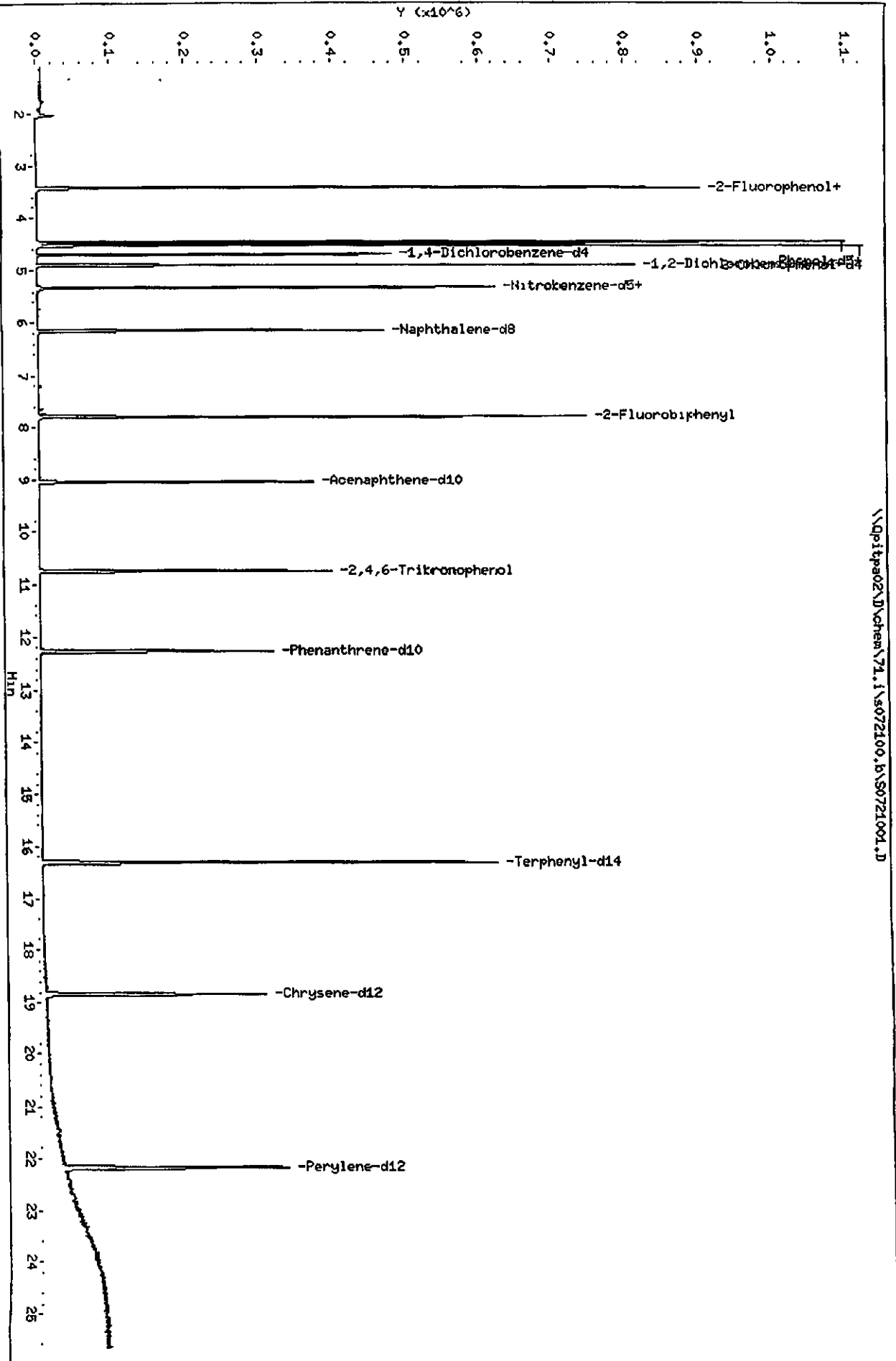
Client Sample Id: INTRA-LAB BLANK

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: \\spitpa02\chem\71.1\8072100.b\80721001.D
Date: 21-JUL-2000 09:20
Client ID: INTRA-LAB BLANK
Sample Info: 00130203-sblk 7/18/00 8270tc.jp
Volume Injected (uL): 2.0
Column phase: Hp5-MS

Instrument: 71.i
Operator: 045183
Column diameter: 0.25

\\spitpa02\chem\71.1\8072100.b\80721001.D



664 282

STL Pittsburgh

Semivolatiles REPORT SW-846 Method 8270

Data file : \\Qpitpa02\D\chem\71.i\s072100.b\S0721001.D
 Lab Smp Id: DGERA101 Client Smp ID: INTRA-LAB BLANK
 Inj Date : 21-JUL-2000 09:20
 Operator : 045183 Inst ID: 71.i
 Smp Info : c0g130203-sblk 7/18/00 8270tclp
 Misc Info : dgera101,s072100.b,8270clp.m,1-tclp.sub
 Comment :
 Method : \\Qpitpa02\D\chem\71.i\s072100.b\8270clp.m
 Meth Date : 21-Jul-2000 10:53 bachas Quant Type: ISTD
 Cal Date : 20-JUL-2000 16:02 Cal File: S0720CC5.D
 Als bottle: 4 QC Sample: BLANK
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 1-tclp.sub
 Target Version: 4.04
 Processing Host: PITPC050

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

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)
gpc	1.000	gpc correction factor

57/01/k

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng)	FINAL (mg/L)
* 1 1,4-Dichlorobenzene-d4	152	4.689	4.680	(1.000)	72944	40.0000	(a)
* 2 Naphthalene-d8	136	6.142	6.133	(1.000)	278983	40.0000	(a)
* 3 Acenaphthene-d10	164	9.037	9.028	(1.000)	145712	40.0000	(a)
* 4 Phenanthrene-d10	188	12.264	12.260	(1.000)	246340	40.0000	(a)
* 5 Chrysene-d12	240	18.840	18.836	(1.000)	225698	40.0000	(a)
* 6 Perylene-d12	264	22.179	22.181	(1.000)	264446	40.0000	(a)
10 Pyridine	79				Compound Not Detected		
28 1,4-Dichlorobenzene	146				Compound Not Detected.		
M 34 Cresols, total	100				Compound Not Detected.		
31 2-Methylphenol	108				Compound Not Detected.		
35 4-Methylphenol	108				Compound Not Detected.		
38 Hexachloroethane	117				Compound Not Detected.		
39 Nitrobenzene	77				Compound Not Detected.		

664 283

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng)	FINAL (mg/L)
59 Hexachlorobutadiene	224						
69 2,4,6-Trichlorophenol	196						
70 2,4,5-Trichlorophenol	196						
91 2,4-Dinitrotoluene	165						
113 Hexachlorobenzene	283						
117 Pentachlorophenol	265						
\$ 172 Nitrobenzene-d5	82	5.319	5.310	(0.866)	244754	72.9668	0.18242 (a)
\$ 173 2-Fluorobiphenyl	172	7.798	7.794	(0.863)	345501	72.8244	0.18206 (a)
\$ 174 Terphenyl-d14	244	16.313	16.304	(0.866)	400610	88.1374	0.22034 (a)
\$ 175 Phenol-d5	99	4.454	4.445	(0.950)	376853	115.238	0.28810 (a)
\$ 176 2-Fluorophenol	112	3.412	3.398	(0.728)	266762	108.668	0.27167 (a)
\$ 177 2,4,6-Tribromophenol	330	10.747	10.743	(0.876)	71990	116.316	0.29079 (a)
\$ 178 2-Chlorophenol-d4	132	4.518	4.509	(0.964)	286570	124.963	0.31241 (a)
\$ 179 1,2-Dichlorobenzene-d4	152	4.886	4.877	(1.042)	117577	74.0582	0.18514 (a)

QC Flag Legend

a - Target compound detected but, quantitated amount
 Below Limit Of Quantitation (BLOQ).

UXB INTERNATIONAL
CHECK SAMPLE COMPOUNDS

664 284

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: COG190000 094

Method: SW846 8270C

Base/Neutrals and Acids (8270C)

Sample WT/Vol: 200 / mL

Date Received: 07/13/00

Work Order: DGERA102

Date Extracted: 07/18/00

Dilution factor: 1

Date Analyzed: 07/21/00

Moisture %: NA

QC Batch: 0201094

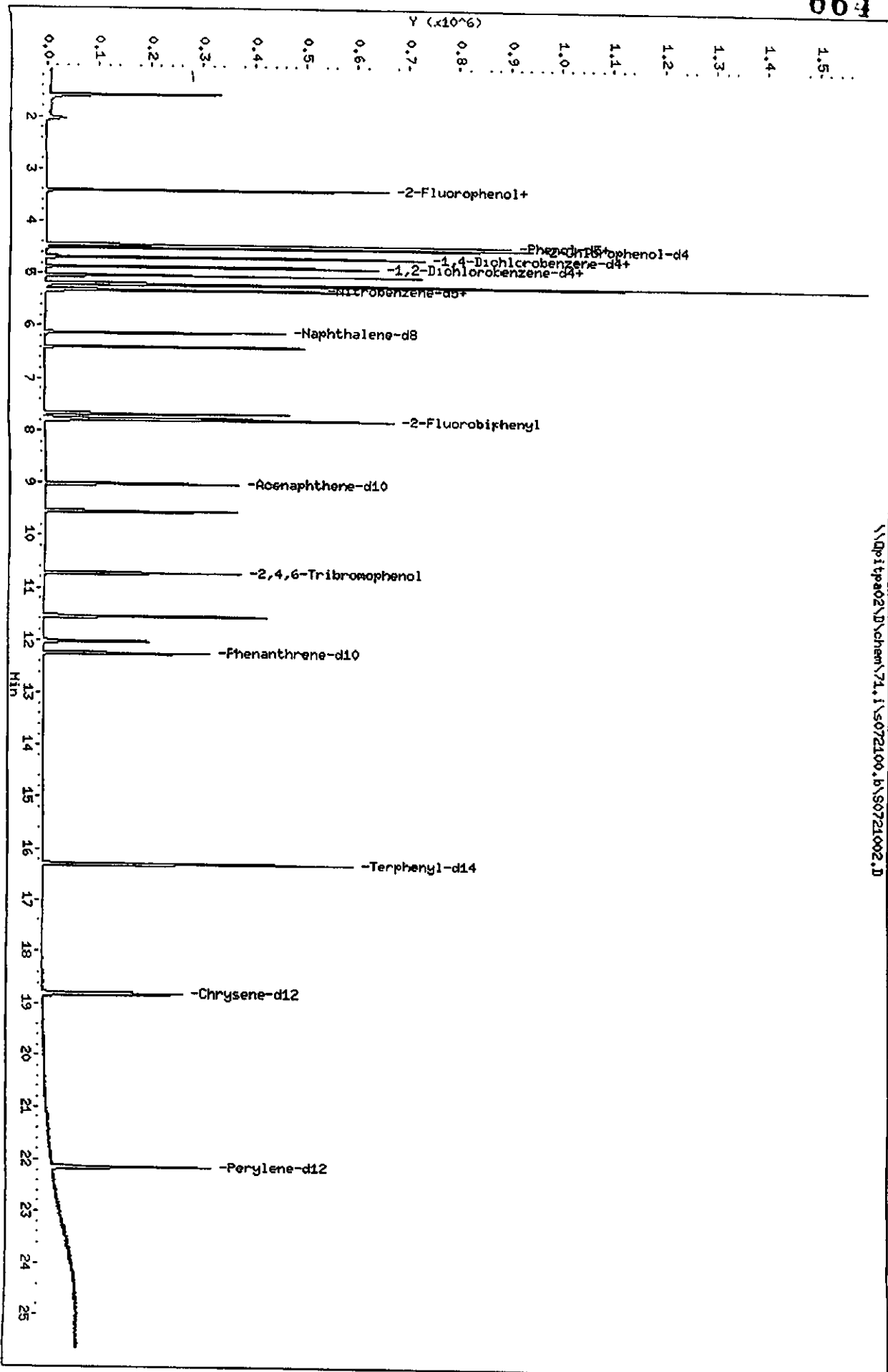
Client Sample Id: CHECK SAMPLE

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg)	mg/L
106-46-7	1,4-Dichlorobenzene	0.150	Q
121-14-2	2,4-Dinitrotoluene	0.174	
118-74-1	Hexachlorobenzene	0.188	
87-68-3	Hexachlorobutadiene	0.147	
67-72-1	Hexachloroethane	0.148	
98-95-3	Nitrobenzene	0.156	
87-86-5	Pentachlorophenol	0.173	
110-86-1	Pyridine	0.161	
95-95-4	2,4,5-Trichlorophenol	0.174	
88-06-2	2,4,6-Trichlorophenol	0.166	
1319-77-3	Cresols (total)	0.504	

FORM I

Data File: \\qpitpa02\chem\71.i\5072100.b\50721002.D
 Date: 21-JUL-2000 09:51
 Client ID: INTRA-LAB CHECK
 Sample Info: c06130203-ics 7/18/00 8270tolp
 Volume Injected (uL): 2.0
 Column phase: Hp5-MS

Instrument: 71.i
 Operator: 045183
 Column diameter: 0.25



\\qpitpa02\chem\71.i\5072100.b\50721002.D

664 286

STL Pittsburgh

Semivolatle REPORT SW-846 Method 8270

Data file : \\Qpitpa02\D\chem\71.i\s072100.b\S0721002.D
 Lab Smp Id: DGERA102 Client Smp ID: INTRA-LAB CHECK
 Inj Date : 21-JUL-2000 09:51
 Operator : 045183 Inst ID: 71.i
 Smp Info : c0g130203-lcs 7/18/00 8270tclp
 Misc Info : dgera102,s072100.b,8270clp.m,1-tclp.sub
 Comment :
 Method : \\Qpitpa02\D\chem\71.i\s072100.b\8270clp.m
 Meth Date : 21-Jul-2000 10:53 bachas Quant Type: ISTD
 Cal Date : 20-JUL-2000 16:02 Cal File: S0720CC5.D
 Als bottle: 5 QC Sample: LCS
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 1-tclp.sub
 Target Version: 4.04
 Processing Host: PITPC050

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

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)
gpc	1.000	gpc correction factor

Handwritten signature

Compounds	QUANT	SIG						CONCENTRATIONS	
			MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng)	FINAL (mg/L)
* 1 1,4-Dichlorobenzene-d4	152		4.683	4.680	(1.000)	69166	40.0000	(a)	
* 2 Naphthalene-d8	136		6.125	6.133	(1.000)	267249	40.0000	(a)	
* 3 Acenaphthene-d10	164		9.015	9.028	(1.000)	140691	40.0000	(a)	
* 4 Phenanthrene-d10	188		12.247	12.260	(1.000)	239547	40.0000	(a)	
* 5 Chrysene-d12	240		18.818	18.836	(1.000)	219127	40.0000	(a)	
* 6 Perylene-d12	264		22.157	22.181	(1.000)	250304	40.0000	(a)	
10 Pyridine	79		1.574	1.565	(0.336)	183525	64.5691	0.16142 (aM)	
28 1,4-Dichlorobenzene	146		4.699	4.696	(1.003)	162915	59.9542	0.14988 (a)	
M 34 Cresols, total	100					480747	201.635	0.50409 (a)	
31 2-Methylphenol	108		5.041	5.048	(1.076)	153223	66.5430	0.16636 (a)	
35 4-Methylphenol	108		5.206	5.203	(1.112)	327524	135.092	0.33773 (a)	
38 Hexachloroethane	117		5.212	5.214	(1.113)	68824	59.2799	0.14820 (a)	
39 Nitrobenzene	77		5.329	5.331	(0.870)	217520	62.2083	0.15552 (a)	

664 287

Compounds	QUANT SIG			CONCENTRATIONS			
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng)	FINAL (mg/L)
-----	----	==	=====	=====	=====	=====	=====
59 Hexachlorobutadiene	225	6.398	6.400	(1.044)	63854	58.6466	0.14662(a)
69 2,4,6-Trichlorophenol	196	7.669	7.682	(0.851)	80015	66.5360	0.16634(a)
70 2,4,5-Trichlorophenol	196	7.755	7.767	(0.860)	88474	69.7028	0.17426(a)
91 2,4-Dinitrotoluene	165	9.550	9.562	(1.059)	93558	69.4548	0.17364(a)
113 Hexachlorobenzene	284	11.553	11.566	(0.943)	87855	75.3750	0.18844(a)
117 Pentachlorophenol	266	12.023	12.036	(0.982)	42320	69.3877	0.17347(aM)
\$ 172 Nitrobenzene-d5	82	5.308	5.310	(0.867)	199701	62.1494	0.15537(a)
\$ 173 2-Fluorobiphenyl	172	7.787	7.794	(0.864)	295910	64.5976	0.16149(a)
\$ 174 Terphenyl-d14	244	16.297	16.304	(0.866)	400519	90.7598	0.22690(a)
\$ 175 Phenol-d5	99	4.442	4.445	(0.949)	307405	99.1362	0.24784(a)
\$ 176 2-Fluorophenol	112	3.406	3.398	(0.727)	210566	90.4614	0.22615(a)
\$ 177 2,4,6-Tribromophenol	330	10.730	10.743	(0.876)	64637	107.398	0.26849(a)
\$ 178 2-Chlorophenol-d4	132	4.507	4.509	(0.962)	230888	106.182	0.26545(a)
\$ 179 1,2-Dichlorobenzene-d4	152	4.875	4.877	(1.041)	93149	61.8765	0.15469(a)

QC Flag Legend

- a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
- M - Compound response manually integrated.

UXB INTERNATIONAL
MATRIX SPIKE COMPOUNDS

664 288

Lab Name: Severn Trent Laboratories, Inc. SDG Number:
 Matrix: (soil/water) SOLID Lab Sample ID: COG130203 001
 Method: SW846 8270C
 Base/Neutrals and Acids (8270C)
 Sample WT/Vol: 200 / mL Date Received: 07/13/00
 Work Order: DG5C710U Date Extracted: 07/18/00
 Dilution factor: 1 Date Analyzed: 07/21/00
 Moisture %: 15
 QC Batch: 0201094
 Client Sample Id: DF/S1/0194/SDC/019

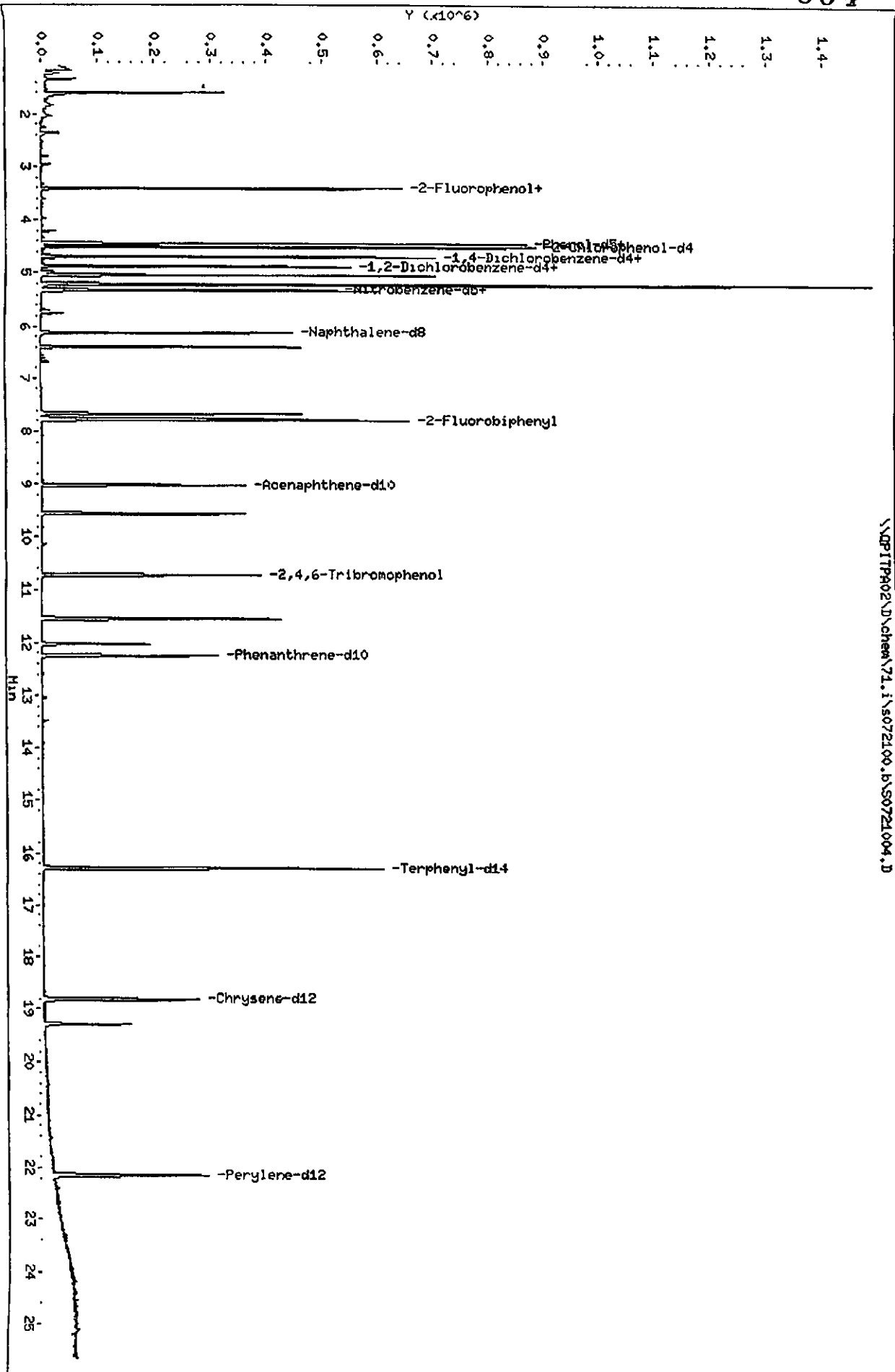
CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg)	mg/L
106-46-7	1,4-Dichlorobenzene	0.145	Q
121-14-2	2,4-Dinitrotoluene	0.180	
118-74-1	Hexachlorobenzene	0.192	
87-68-3	Hexachlorobutadiene	0.138	
67-72-1	Hexachloroethane	0.138	
98-95-3	Nitrobenzene	0.156	
87-86-5	Pentachlorophenol	0.164	
110-86-1	Pyridine	0.137	
95-95-4	2,4,5-Trichlorophenol	0.174	
88-06-2	2,4,6-Trichlorophenol	0.168	
1319-77-3	Cresols (total)	0.480	

FORM I

Data File: \\QPITP02\chem\74.i\5072100.b\50721004.D
 Date: 21-JUL-2000 10:54
 Client ID: DF/S1/0194/SDC/019
 Sample Info: 00130203-002ms 7/18/00 82700lp
 Volume Injected (ul): 2.0
 Column phase: Hp5-MS

Instrument: 74.1
 Operator: 045183
 Column diameter: 0.25

\\QPITP02\chem\74.i\5072100.b\50721004.D



664 290

STL Pittsburgh

Semivolatiles REPORT SW-846 Method 8270

Data file : \\Qpitpa02\D\chem\71.i\s072100.b\S0721004.D
 Lab Smp Id: DG5C710U Client Smp ID: DF/S1/0194/SDC/019m
 Inj Date : 21-JUL-2000 10:54
 Operator : 045183 Inst ID: 71.i
 Smp Info : c0g130203-001ms 7/18/00 8270tclp
 Misc Info : dg5c710u,s072100.b,8270clp.m,1-tclp.sub
 Comment :
 Method : \\Qpitpa02\D\chem\71.i\s072100.b\8270clp.m
 Meth Date : 21-Jul-2000 12:30 bachas Quant Type: ISTD
 Cal Date : 20-JUL-2000 16:02 Cal File: S0720CC5.D
 Als bottle: 7 QC Sample: MS
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 1-tclp.sub
 Target Version: 4.04
 Processing Host: PITPC050

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

5/7/01

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)
gpc	1.000	gpc correction factor

Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng)	FINAL (mg/L)
* 1 1,4-Dichlorobenzene-d4	152	4.682	4.680	(1.000)	67255	40.0000	(a)	
* 2 Naphthalene-d8	136	6.130	6.133	(1.000)	262923	40.0000	(a)	
* 3 Acenaphthene-d10	164	9.015	9.028	(1.000)	138491	40.0000	(a)	
* 4 Phenanthrene-d10	188	12.247	12.260	(1.000)	238474	40.0000	(a)	
* 5 Chrysene-d12	240	18.818	18.836	(1.000)	213562	40.0000	(a)	
* 6 Perylene-d12	264	22.156	22.181	(1.000)	241094	40.0000	(a)	
10 Pyridine	79	1.594	1.565	(0.341)	151230	54.7186	0.13680 (aM)	
28 1,4-Dichlorobenzene	146	4.698	4.696	(1.003)	153605	58.1343	0.14534 (a)	
M 34 Cresols, total	100				445199	191.975	0.47994 (a)	
31 2-Methylphenol	108	5.046	5.048	(1.078)	139431	62.2739	0.15568 (a)	
35 4-Methylphenol	108	5.206	5.203	(1.112)	305768	129.702	0.32425 (a)	
38 Hexachloroethane	117	5.211	5.214	(1.113)	62494	55.3572	0.13839 (a)	
39 Nitrobenzene	77	5.329	5.331	(0.869)	214896	62.4690	0.15617 (a)	

664 291

Compounds	QUANT SIG		CONCENTRATIONS				
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng)	FINAL (mg/L)
59 Hexachlorobutadiene	225	6.397	6.400	(1.044)	59087	55.1613	0.13790 (a)
69 2,4,6-Trichlorophenol	196	7.669	7.682	(0.851)	79390	67.0649	0.16766 (a)
70 2,4,5-Trichlorophenol	196	7.754	7.767	(0.860)	87166	69.7632	0.17441 (a)
91 2,4-Dinitrotoluene	165	9.554	9.562	(1.060)	95684	72.1615	0.18040 (a)
113 Hexachlorobenzene	284	11.552	11.566	(0.943)	88940	76.6492	0.19162 (a)
117 Pentachlorophenol	266	12.028	12.036	(0.982)	39723	65.4217	0.16355 (aM)
\$ 172 Nitrobenzene-d5	82	5.307	5.310	(0.866)	200815	63.5244	0.15881 (a)
\$ 173 2-Fluorobiphenyl	172	7.786	7.794	(0.864)	281231	62.3684	0.15592 (a)
\$ 174 Terphenyl-d14	244	16.296	16.304	(0.866)	418988	97.4191	0.24355 (a)
\$ 175 Phenol-d5	99	4.442	4.445	(0.949)	287644	95.3992	0.23850 (a)
\$ 176 2-Fluorophenol	112	3.405	3.398	(0.727)	185443	81.9320	0.20483 (a)
\$ 177 2,4,6-Tribromophenol	330	10.724	10.743	(0.876)	66252	110.576	0.27644 (a)
\$ 178 2-Chlorophenol-d4	132	4.506	4.509	(0.962)	219320	103.728	0.25932 (a)
\$ 179 1,2-Dichlorobenzene-d4	152	4.875	4.877	(1.041)	83451	57.0095	0.14252 (a)

QC Flag Legend

- a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
- M - Compound response manually integrated.

UXB INTERNATIONAL
 MATRIX SPIKE DUPLICATE COMPOUNDS

664 292

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: COG130203 001

Method: SW846 8270C

Base/Neutrals and Acids (8270C)

Sample WT/Vol: 200 / mL

Date Received: 07/13/00

Work Order: DG5C710V

Date Extracted: 07/18/00

Dilution factor: 1

Date Analyzed: 07/21/00

Moisture %: 15

QC Batch: 0201094

Client Sample Id: DF/S1/0194/SDC/019

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg)	mg/L
106-46-7	1,4-Dichlorobenzene	0.142	Q
121-14-2	2,4-Dinitrotoluene	0.175	
118-74-1	Hexachlorobenzene	0.191	
87-68-3	Hexachlorobutadiene	0.136	
67-72-1	Hexachloroethane	0.134	
98-95-3	Nitrobenzene	0.152	
87-86-5	Pentachlorophenol	0.158	
110-86-1	Pyridine	0.130	
95-95-4	2,4,5-Trichlorophenol	0.175	
88-06-2	2,4,6-Trichlorophenol	0.166	
1319-77-3	Cresols (total)	0.464	

FORM I

Data File: \\QPITPA02\N\chem\71.1\5072100.b\50721005.D

Date: 21-JUL-2000 11:26

Client ID: DF/S1/0194/SDC/019

Sample Info: 008130203-002msd 7/18/00 8270tc1p

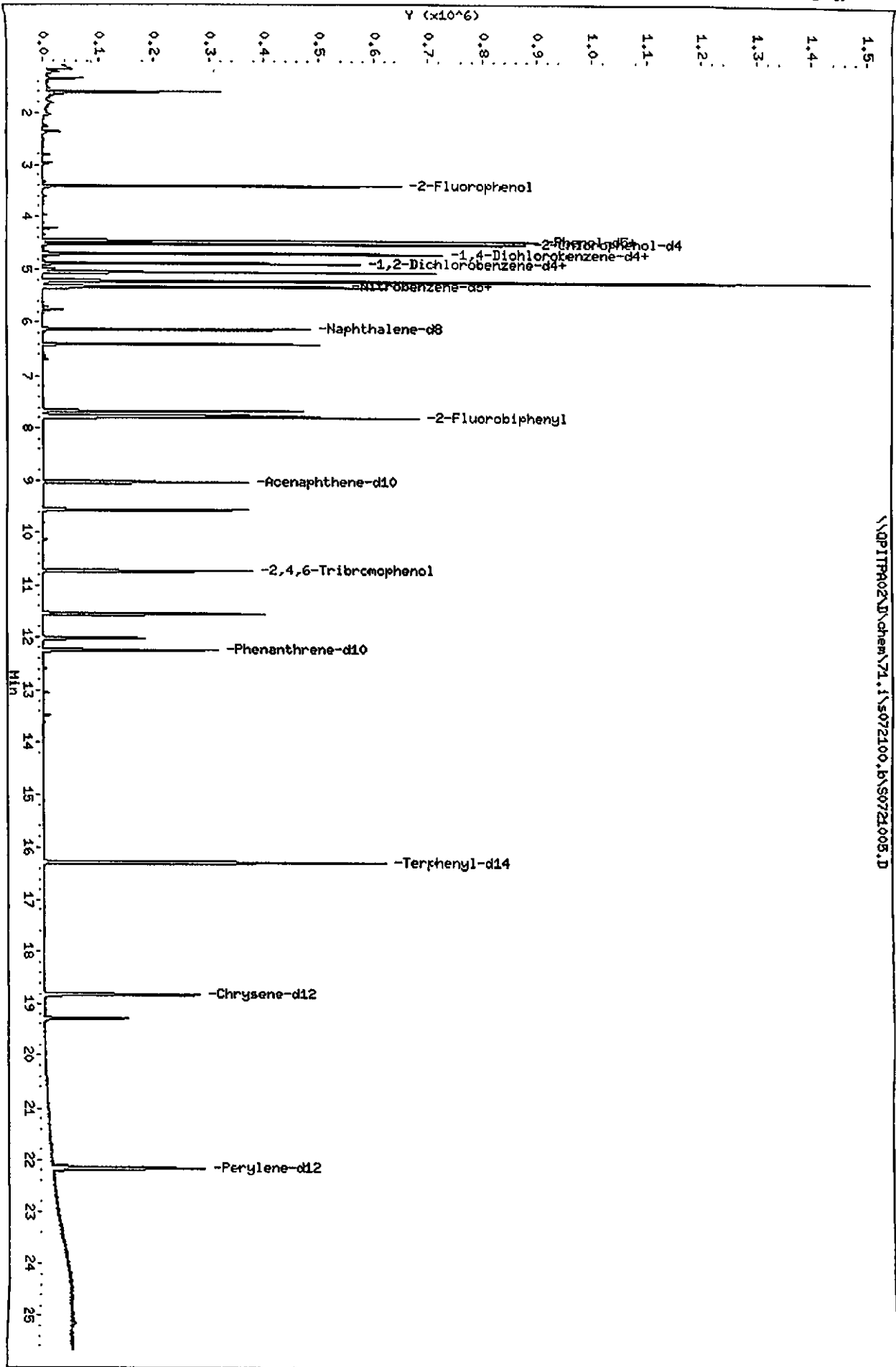
Volume Injected (uL): 2.0

Column phase: He5-MS

Instrument: 71.1

Operator: 045183

Column diameter: 0.25



\\QPITPA02\N\chem\71.1\5072100.b\50721005.D

664 294

STL Pittsburgh

Semivolatile REPORT SW-846 Method 8270

Data file : \\Qpitpa02\D\chem\71.i\s072100.b\S0721005.D
 Lab Smp Id: DG5C710V Client Smp ID: DF/S1/0194/SDC/019
 Inj Date : 21-JUL-2000 11:26
 Operator : 045183 Inst ID: 71.i
 Smp Info : c0g130203-001msd 7/18/00 8270tclp
 Misc Info : dg5c710v,s072100.b,8270clp.m,1-tclp.sub
 Comment :
 Method : \\Qpitpa02\D\chem\71.i\s072100.b\8270clp.m
 Meth Date : 21-Jul-2000 12:30 bachas Quant Type: ISTD
 Cal Date : 20-JUL-2000 16:02 Cal File: S0720CC5.D
 Als bottle: 8 QC Sample: MSD
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 1-tclp.sub
 Target Version: 4.04
 Processing Host: PITPC050

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

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)
gpc	1.000	gpc correction factor

B/4/

Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng)	FINAL (mg/L)
* 1 1,4-Dichlorobenzene-d4		152	4.683	4.680	(1.000)	70598	40.0000	(a)
* 2 Naphthalene-d8		136	6.131	6.133	(1.000)	272228	40.0000	(a)
* 3 Acenaphthene-d10		164	9.021	9.028	(1.000)	139812	40.0000	(a)
* 4 Phenanthrene-d10		188	12.253	12.260	(1.000)	235205	40.0000	(a)
* 5 Chrysene-d12		240	18.819	18.836	(1.000)	213446	40.0000	(a)
* 6 Perylene-d12		264	22.158	22.181	(1.000)	245686	40.0000	(a)
10 Pyridine		79	1.596	1.565	(0.341)	151043	52.0631	0.13016 (aM)
28 1,4-Dichlorobenzene		146	4.699	4.696	(1.003)	157470	56.7750	0.14194 (a)
M 34 Cresols, total		100				451823	185.662	0.46415 (a)
31 2-Methylphenol		108	5.047	5.048	(1.078)	144110	61.3159	0.15329 (a)
35 4-Methylphenol		108	5.207	5.203	(1.112)	307713	124.346	0.31086 (a)
38 Hexachloroethane		117	5.212	5.214	(1.113)	63459	53.5502	0.13388 (a)
39 Nitrobenzene		77	5.330	5.331	(0.869)	216843	60.8804	0.15220 (a)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng)	FINAL (mg/L)
59 Hexachlorobutadiene	225	6.398	6.400	(1.044)	60302	54.3713	0.13593(a)
69 2,4,6-Trichlorophenol	196	7.670	7.682	(0.850)	79416	66.4530	0.16613(a)
70 2,4,5-Trichlorophenol	196	7.755	7.767	(0.860)	88152	69.8857	0.17471(a)
91 2,4-Dinitrotoluene	165	9.555	9.562	(1.059)	93963	70.1940	0.17548(a)
113 Hexachlorobenzene	284	11.559	11.566	(0.943)	87396	76.3654	0.19091(a)
117 Pentachlorophenol	266	12.023	12.036	(0.981)	37829	63.1683	0.15792(aM)
\$ 172 Nitrobenzene-d5	82	5.314	5.310	(0.867)	204309	62.4206	0.15605(a)
\$ 173 2-Fluorobiphenyl	172	7.787	7.794	(0.863)	285647	62.7492	0.15687(a)
\$ 174 Terphenyl-d14	244	16.297	16.304	(0.866)	405343	94.2977	0.23574(a)
\$ 175 Phenol-d5	99	4.443	4.445	(0.949)	292161	92.3089	0.23077(a)
\$ 176 2-Fluorophenol	112	3.407	3.398	(0.727)	190580	80.2145	0.20054(a)
\$ 177 2,4,6-Tribromophenol	330	10.731	10.743	(0.876)	65492	110.827	0.27707(a)
\$ 178 2-Chlorophenol-d4	132	4.507	4.509	(0.962)	224614	101.201	0.25300(a)
\$ 179 1,2-Dichlorobenzene-d4	152	4.881	4.877	(1.042)	85775	55.8224	0.13956(a)

QC Flag Legend

- a - Target compound detected but, quantitated amount
 Below Limit Of Quantitation(BLOQ).
- M - Compound response manually integrated.

**GC/MS SEMIVOLATILE
MISCELLANEOUS**



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

Continuous L-L
Extraction Worksheet

Sample ID	Time	Prep Meth #	Client ID	Extract Vol (mL)	Final Volume mL	pH	Surrogate Lot #	Surr Vol (mL)	Matrix Spike Lot #	MS Vol. (mL)	Clean up Method	Date	Location	Analyst	Time	Date	Location	Analyst	Time	Date	Location	Analyst	
																							NaOH
1. C06-30203	12:50	35200	TCLP	200	1.0	5/2/11	194-179-6	0.5	NA	NA	NA	7/20/00	03/14/00	Ken Budy	11:20	7/20/00	03/14/00	Ken Budy	11:30	7/20/00	03/14/00	Ken Budy	Ref 12-EXT
2. BK	10:30	830	NA	200	1.0	5/2/11	194-179-6	0.5	NA	0.5	NA	7/21/00	7/21/00	Ken Budy	04:00	7/21/00	7/21/00	Ken Budy	08:30	7/21/00	7/21/00	Ken Budy	Ref 01-BNA
3. LCS																							
4. MS (001)																							
5. MS0 (001)																							
6. 001																							
7. 002																							
8. 003																							
9.																							
10.																							
11.																							
12.																							
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16.																							
17.																							
18.																							
19.																							
20.																							
21.																							
22.																							
23.																							
Prep Analyst:	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT	WT
Extract(s)		Extract(s)		Extract(s)		Extract(s)		Extract(s)		Extract(s)		Extract(s)		Extract(s)		Extract(s)		Extract(s)		Extract(s)		Extract(s)	
(Record line number from above)		(Record line number from above)		(Record line number from above)		(Record line number from above)		(Record line number from above)		(Record line number from above)		(Record line number from above)		(Record line number from above)		(Record line number from above)		(Record line number from above)		(Record line number from above)		(Record line number from above)	
All Above		All Above		All Above		All Above		All Above		All Above		All Above		All Above		All Above		All Above		All Above		All Above	
All Above		All Above		All Above		All Above		All Above		All Above		All Above		All Above		All Above		All Above		All Above		All Above	
Batch Number: 0201094		Batch Number: 0201094		Batch Number: 0201094		Batch Number: 0201094		Batch Number: 0201094		Batch Number: 0201094		Batch Number: 0201094		Batch Number: 0201094		Batch Number: 0201094		Batch Number: 0201094		Batch Number: 0201094		Batch Number: 0201094	

Sequence Name: D:\HPCHEM\1\SEQUENCE\S072000.S
 Comment: STL PITT HP597371A LOG 2ul inj (100ul+1ul IS)
 Operator: 045183
 Data Path: D:\HPCHEM\1\DATA\s072000.b\
 Pre-Seq Cmd:
 Post-Seq Cmd:

664 299

John G. Smith
 IS 7 194.172-5
 8270

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	1	S0720DF1	DFTPP1	DFTPP050 (25ppb) 194-158-6
2	Sample	1	S0720DF2	DFTPP1	DFTPP050 (25ppb) 194-158-6
3	Sample	3	S0720CC2	EARLY	sstd50(25 ug/ml) 194-182-1 82
4	Sample	2	S0720CC1	EARLY	sstd20(10 ug/ml) 194-175-10 8
5	Sample	4	S0720CC3	EARLY	sstd80(40 ug/ml) 194-175-12 8
6	Sample	5	S0720CC4	EARLY	sstd120(60 ug/ml) 194-175-13
7	Sample	6	S0720CC5	EARLY	sstd160(80 ug/ml) 194-175-14
8	Sample	7	S072OVER	EARLY	ver050(25 ug/ml) 194-175-7 82
9	Sample	8	S0720001	LATE	c0g130193-sblk 7/13/00 8270spl/6pc
10	Sample	9	S0720002	LATE	c0g130193-lcs 7/13/00 8270spl
11	Sample	10	S0720003	LATE	c0g130193-002 7/13/00 8270spl
12	Sample	11	S0720004	LATE	c0g130193-002ms 7/13/00 8270s
13	Sample	12	S0720005	LATE	c0g130193-002msd 7/13/00 8270
14	Sample	13	S0720006	LATE	c0g130193-001 7/13/00 8270spl
15	Sample	14	S0720007	LATE	c0g130193-003 7/13/00 8270spl
16	Sample	15	S0720008	LATE	c0g130193-003dup 7/13/00 8270
17	Sample	25	S07200VR	EARLY	ver050(25 ug/ml) 194-143-7 4X

7/20/04

C 1337
ACL

ACL

7/20/04

Sequence Name: D:\HPCHEM\1\SEQUENCE\S072100.S
 Comment: STL PITT HP597371A LOG 2ul inj (100ul+1ul IS)
 Operator: 045183
 Data Path: D:\HPCHEM\1\DATA\s072100.b\
 Pre-Seq Cmd:
 Post-Seq Cmd:

664 300
[Handwritten signature]
 25/94-1725
 8270

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	1	S0721DF1	DFTPP1	DFTPP050 (25ppb) 194-158-6
2	Sample	1	S0721DF1	DFTPP1	DFTPP050 (25ppb) 194-158-6
3	Sample	3	S0721008	EARLY	sstd50(25 ug/ml) 194-182-1 82
4	Sample	4	S0721008	EARLY	c0g130203-sblk 7/18/00 8270tc
5	Sample	5	S0721008	EARLY	c0g130203-lcs 7/18/00 8270tcl
6	Sample	6	S0721008	EARLY	c0g130203-002 7/18/00 8270tcl
7	Sample	7	S0721008	EARLY	c0g130203-001ms 7/18/00 8270t
8	Sample	8	S0721005	EARLY	c0g130203-001msd 7/18/00 8270
9	Sample	9	S0721005	EARLY	c0g130203-001 7/18/00 8270tcl
10	Sample	10	S0721005	EARLY	c0g130203-003 7/18/00 8270tcl
11	Sample	11	S0721008	EARLY	gpc b crql bna 7/14/00
12	Sample	12	S0721009	EARLY	gpc c crql bna 7/18/00
13	Sample	13	S0721010	EARLY	gpc c dup crql bna 7/18/00

5/7/00
0825
AQC
 ↓
8/7/00

REQUESTED BY: TROUTB

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

STORAGE LOCATION	WORK ORDER #	PICKED		CONTROL #	CLIENT #	ANALYSIS	LOTID	SMP#	SFX	MATRIX DESCRIPTION	QTY	QTY
		CNTR#									RCVD	REQD
5E CLP1	D65C7-1-03	___	___	250861	399411	A-59-QL	COG130203	001		SOLID	0	3 1
5E CLP1	D65CG-1-03	___	___	250862	399411	A-59-QL	COG130203	002		SOLID	0	3 1
5E CLP1	D65CK-1-03	___	___	250863	399411	A-59-QL	COG130203	003		SOLID	0	3 1

RELINQUISHED BY

E. J. Wasolahi
B Trout

RECEIVED BY

B Trout
E. J. Wasolahi

DATE/TIME

7/18/2000 10:50
7/18/2000 13:15

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

664 302

PESTICIDE DATA

**PESTICIDE
QC SUMMARY**

664 304

SW846 8081A SURROGATE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

QESSDG:

Lot #: COG130203

	CLIENT ID.	SRG01	SRG02	TOT OUT
	=====	=====	=====	=====
01	DF/S1/0194/SDC/020	91	86	00
02	DF/S1/0194/GRAB/004	94	86	00
03	DF/S1/0194/SDC/019	96	88	00
04	METHOD BLK. DGELX101	92	82	00
05	LCS DGELX102	94	88	00
06	DF/S1/0194/SDC/019 D	95	85	00
07	DF/S1/0194/SDC/019 S	93	84	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 #: COG180000

WO #: DGELX102

BATCH: 0200512

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	% REC	QC LIMITS REC	QUAL
Lindane	0.00250	0.00179	72	49 - 137	
Heptachlor	0.00250	0.00218	87	57 - 124	
Heptachlor epoxide	0.00250	0.00219	88	53 - 135	
Endrin	0.00250	0.00231	92	46 - 137	
Methoxychlor	0.00250	0.00235	94	12 - 154	

NOTES(S):

* Values outside of QC 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/S1/0194/SDC/019

Level: (low/med) LOW

Lot #: COG130203

WO #: DG5C710R

BATCH: 0200512

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	MS CONCENT. (mg/L)	MS % REC	LIMITS REC	QUAL
Lindane	0.00250	ND	0.00168	67	30 - 148	
Heptachlor	0.00250	ND	0.00208	83	25 - 135	
Heptachlor epoxide	0.00250	ND	0.00208	83	38 - 138	
Endrin	0.00250	ND	0.00232	93	28 - 148	
Methoxychlor	0.00250	ND	0.00230	92	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:

SW846 8081A MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

664 307

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Matrix Spike ID: DF/S1/0194/SDC/019

Level: (low/med) LOW

Lot #: C0G130203

WO #: DG5C710T

BATCH: 0200512

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENT. (mg/L)	MSD		QC LIMITS		QUAL
			% REC	% RPD	RPD	REC	
Lindane	0.00250	0.00172	69	2.5	22	30 - 148	
Heptachlor	0.00250	0.00214	86	3.0	32	25 - 135	
Heptachlor epoxide	0.00250	0.00211	84	1.5	31	38 - 138	
Endrin	0.00250	0.00238	95	2.8	40	28 - 148	
Methoxychlor	0.00250	0.00237	95	2.9	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:

664 308

SW846 8081A METHOD BLANK SUMMARY

BLANK WORKORDER NO.

DGELX101

Lab Name: Severn Trent Laboratories, Inc.

Lab Code: QESPIT

SDG Number:

Lab File ID: d-a4379.d

Lot Number: C0G130203

Matrix: SOLID

Extraction Method: 1311/3510

Date Analyzed(1): 07/19/00

Date Extracted: 07/18/00

Date Analyzed(2): N/A

Time Analyzed(1): 22:17

Time Analyzed(2): N/A

Instrument ID(1): G/H

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	CHECK SAMPLE	DGELX102 C	07/19/00	N/A
02	DF/S1/0194/SDC/020	DG5CG104	07/20/00	N/A
03	DF/S1/0194/GRAB/004	DG5CK104	07/20/00	N/A
04	DF/S1/0194/SDC/019	DG5C710R S	07/19/00	N/A
05	DF/S1/0194/SDC/019	DG5C710T D	07/19/00	N/A
06	DF/S1/0194/SDC/019	DG5C7104	07/20/00	N/A
07				
08				
09				
10				
11				
12				
13				
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15				
16				
17				
18				
19				
20				

COMMENTS:

FORM IV

664 309

**PESTICIDE
SAMPLE DATA**

664 310

UXB INTERNATIONAL

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0G130203 001

Method: SW846 8081A

Pesticides (8081A)

Sample WT/Vol: 100 / mL

Date Received: 07/13/00

Work Order: DG5C7104

Date Extracted: 07/18/00

Dilution factor: 1

Date Analyzed: 07/20/00

Moisture %: 15

QC Batch: 0200512

Client Sample Id: DF/S1/0194/SDC/019

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/kg)	mg/L	
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/gc4.i/4190-G.b/d-a4383.d
 Report Date: 20-Jul-2000 13:50

STL-PITTSBURGH

Data file : /var/chem/gc4.i/4190-G.b/d-a4383.d
 Lab Smp Id: DG5C7104 Client Smp ID: DF/S1/0194/SDC/019
 Inj Date : 20-JUL-2000 00:08
 Operator : 1891 Inst ID: gc4.i
 Smp Info : DG5C7104,4190-G.b,,PEST.sub,,,
 Misc Info : 130203001
 Comment :
 Method : /var/chem/gc4.i/4190-G.b/PESTA.m
 Meth Date : 20-Jul-2000 13:46 matkol Quant Type: ESTD
 Cal Date : 15-JUL-2000 00:38 Cal File: d-a4251.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	10.000	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 (ng)	FINAL (ug/L)
§ 1 Tetrachloro-m-xylene	6.093	6.093	0.000		60512	0.01761	0.001761(aR)
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	12.307	12.293	0.014		1744	0.000629	0.0006290(a)
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	15.507	15.507	0.000		21510	0.00601	0.0006014(a)
20 Endrin	16.127	16.140	-0.013		6804	0.00243	0.0002432(a)
21 4,4'-DDD	16.300	16.293	0.007		6764	0.00238	0.0002380(a)
18 Toxaphene					Compound Not Detected.		

Data File: /var/chem/gc4.i/4190-G.b/d-a4383.d
 Report Date: 20-Jul-2000 13:50

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ng)	FINAL (mg/L)
=====	==	=====	=====	=====	=====	=====
22 Endosulfan II				Compound Not Detected		
23 4,4'-DDT	16.833	16.853	-0.020	3954	0.00146	0.0001462 (a)
24 Endrin aldehyde				Compound Not Detected		
26 Endosulfan sulfate				Compound Not Detected		
25 Methoxychlor				Compound Not Detected.		
27 Endrin ketone				Compound Not Detected.		
\$ 30 Decachlorobiphenyl	23.480	23.480	0.000	32445	0.01926	0.001926 (aR)

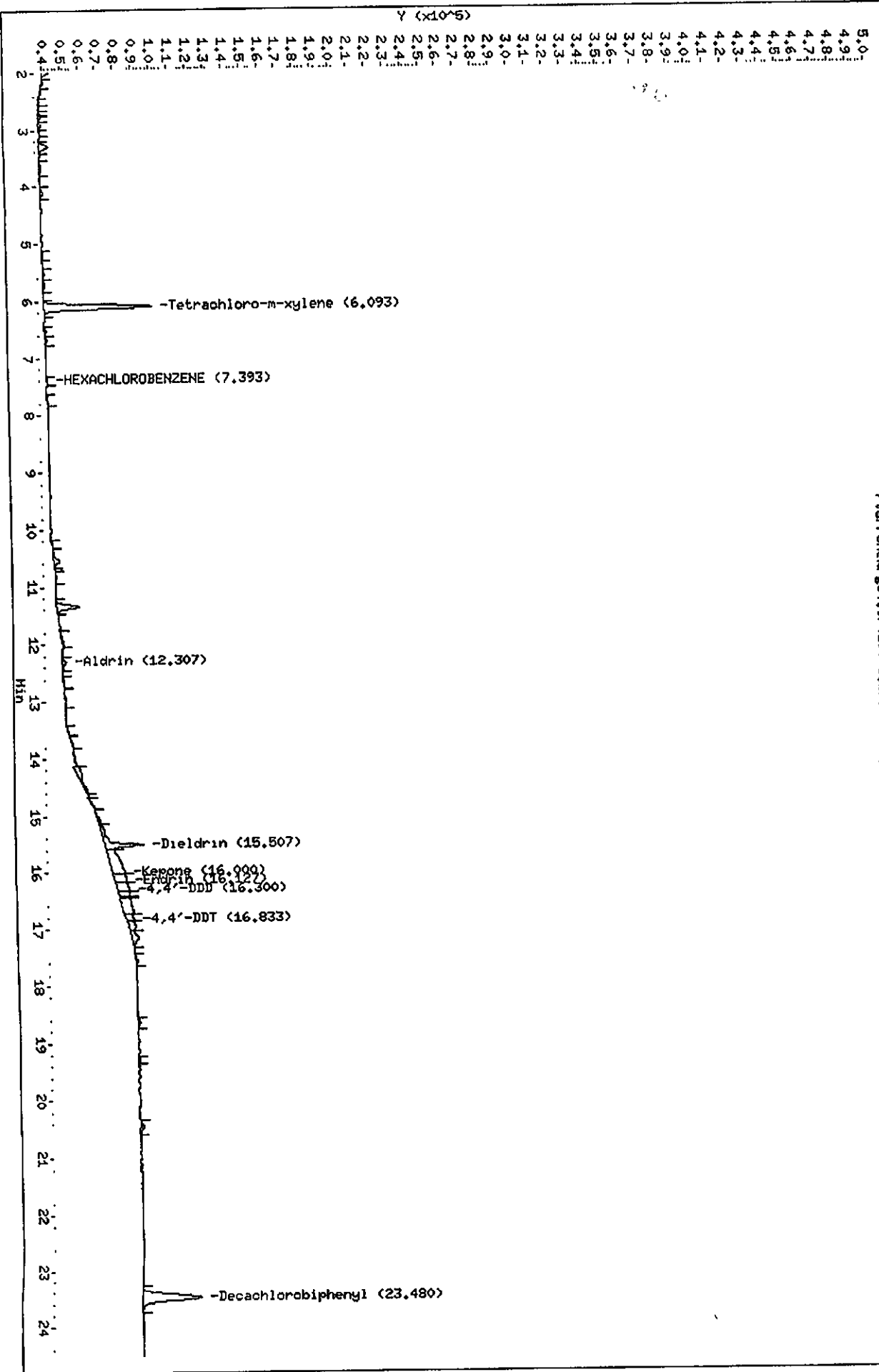
QC Flag Legend

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

Data File: /var/chem/gc4.1/4190-G.b/d-a4383.d
 Date: 20-JUL-2000 00:08
 Client ID: DF/SJ/0194/SDC/019
 Sample Info: DGC7104,4190-G.b,,PEST,sub,,,
 Volume Injected (ul): 1.0
 Column phase: DB608

Instrument: gc4.1
 Operator: 1891
 Column diameter: 0.53

/var/chem/gc4.1/4190-G.b/d-a4383.d/d-a4383.raw



664 314
UXB INTERNATIONAL

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

Matrix: (soil/water) SOLID Lab Sample ID: COG130203 002
 Method: SW846 8081A
 Pesticides (8081A)

Sample WT/Vol: 100 / mL Date Received: 07/13/00
 Work Order: DG5CG104 Date Extracted: 07/18/00
 Dilution factor: 1 Date Analyzed: 07/20/00
 Moisture %: 12

QC Batch: 0200512

Client Sample Id: DF/S1/0194/SDC/020

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg)	mg/L
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/gc4.i/4190-G.b/d-a4384.d
 Report Date: 20-Jul-2000 13:50

STL-PITTSBURGH

Data file : /var/chem/gc4.i/4190-G.b/d-a4384.d
 Lab Smp Id: DG5CG104 Client Smp ID: DF/S1/0194/SDC/020
 Inj Date : 20-JUL-2000 00:35
 Operator : 1891 Inst ID: gc4.i
 Smp Info : DG5CG104,4190-G.b,,PEST.sub,,,
 Misc Info : 130203002
 Comment :
 Method : /var/chem/gc4.i/4190-G.b/PESTA.m
 Meth Date : 20-Jul-2000 13:46 matkol Quant Type: ESTD
 Cal Date : 15-JUL-2000 00:38 Cal File: d-a4251.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	10.000	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 (mg/L)
§ 1 Tetrachloro-m-xylene	6.087	6.093	-0.006	58984	0.01716	0.001716 (aR)
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	12.307	12.293	0.014	1789	0.000645	0.00006452 (a)
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	15.513	15.507	0.006	1283	0.000359	0.00003587 (a)
20 Endrin	16.127	16.140	-0.013	2565	0.000917	0.00009170 (a)
21 4,4'-DDD	16.300	16.293	0.007	2376	0.000836	0.00008360 (a)
18 Toxaphene				Compound Not Detected		

Data File: /var/chem/gc4.i/4190-G.b/d-a4384.d
 Report Date: 20-Jul-2000 13:50

Compounds	RT	EXP	RT	DLT	RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng)	FINAL (mg/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						Compound Not Detected.		
27 Endrin ketone						Compound Not Detected.		
\$ 30 Decachlorobiphenyl	23.480	23.480	0.000		30782	0.01827	0.001827(aR)	

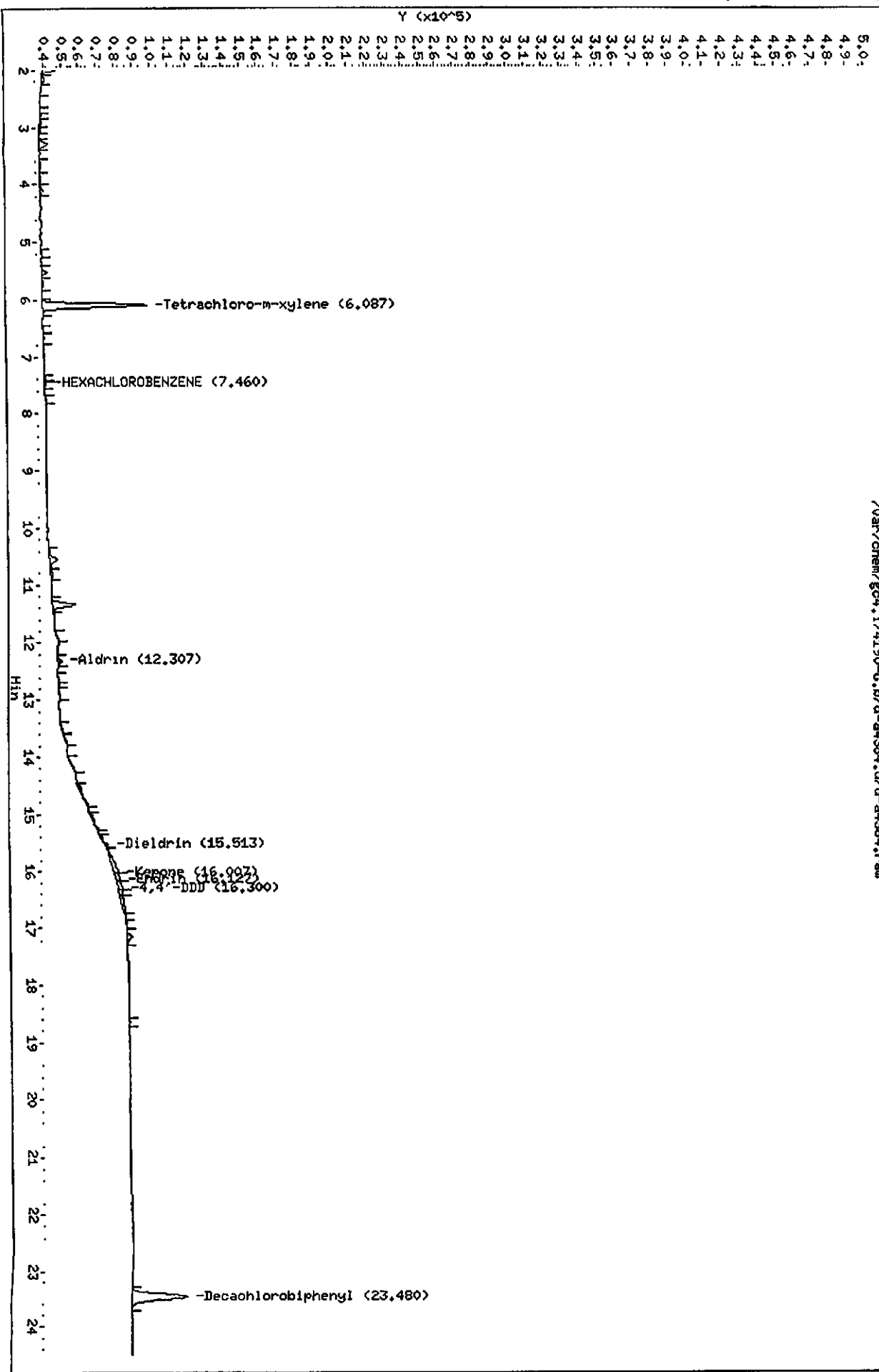
QC Flag Legend

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

Data File: /var/chem/gc4.1/4190-G.b/d-44384.d
 Date: 20-JUL-2000 00:35
 Client ID: DF/S1/0194/SDC/020
 Sample Info: D050G104,4190-G.b.,PEST,sub,,
 Volume Injected (uL): 1.0
 Column phase: DB608

Instrument: gc4.1
 Operator: 1891
 Column diameter: 0.53

/var/chem/gc4.1/4190-G.b/d-44384.d/d-44384.rsu



664 318

UXB INTERNATIONAL

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: COG130203 003

Method: SW846 8081A

Pesticides (8081A)

Sample WT/Vol: 100 / mL

Date Received: 07/13/00

Work Order: DG5CK104

Date Extracted: 07/18/00

Dilution factor: 1

Date Analyzed: 07/20/00

Moisture %: 18

QC Batch: 0200512

Client Sample Id: DF/S1/0194/GRAB/004

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/gc4.i/4190-G.b/d-a4385.d
 Report Date: 20-Jul-2000 13:50

STL-PITTSBURGH

Data file : /var/chem/gc4.i/4190-G.b/d-a4385.d
 Lab Smp Id: DG5CK104 Client Smp ID: DF/S1/0194/GRAB/004
 Inj Date : 20-JUL-2000 01:03
 Operator : 1891 Inst ID: gc4.i
 Smp Info : DG5CK104,4190-G.b,, PEST.sub,,,
 Misc Info : 130203003
 Comment :
 Method : /var/chem/gc4.i/4190-G.b/PESTA.m
 Meth Date : 20-Jul-2000 13:46 matkol Quant Type: ESTD
 Cal Date : 15-JUL-2000 00:38 Cal File: d-a4251.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	10.000	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 (mg/L)
§ 1 Tetrachloro-m-xylene	6.093	6.093	0.000	59134	0.01721	0.001721(aR)
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	12.307	12.293	0.014	3104	0.00112	0.0001119(a)
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	15.507	15.507	0.000	4246	0.00119	0.0001187(a)
20 Endrin				Compound Not Detected.		
21 4,4'-DDD				Compound Not Detected.		

664 320

Data File: /var/chem/gc4.i/4190-G.b/d-a4385.d
Report Date: 20-Jul-2000 13:50

Compounds	RT	EXP	RT	DLT	RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng)	FINAL (mg/L)
18 Toxaphene						Compound Not Detected.		
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						Compound Not Detected.		
27 Endrin ketone						Compound Not Detected.		
§ 30 Decachlorobiphenyl	23.480	23.480	0.000		31570	0.01874	0.001874 (aR)	

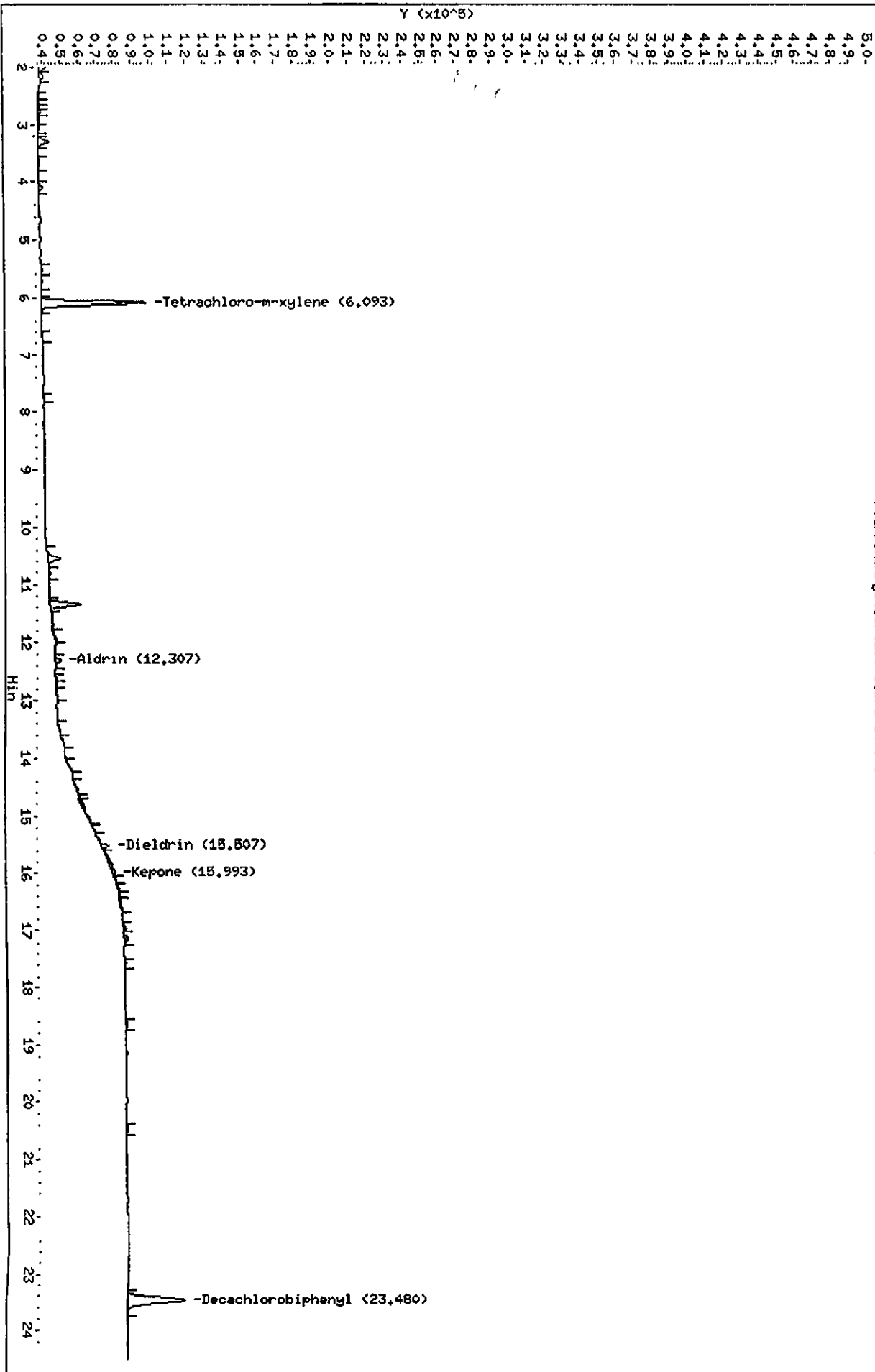
QC Flag Legend

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

Data File: /var/chem/gc4.i/4190-G.b/d-a4385.d
Date: 20-JUL-2000 01:03
Client ID: DF/SL/0194/CRAB/004
Sample Info: DCSCK104,4190-G.b,,PEST,sub,,,
Volume Injected (uL): 1.0
Column phase: DB608

Instrument: gc4.i
Operator: 1894
Column diameter: 0.53

/var/chem/gc4.i/4190-G.b/d-a4385.d/d-a4385.raw



664 322

**PESTICIDE
CALIBRATION DATA**

60
58904A
DB608

664 323

Report Date : -20-Jul-2000 13:34

STL-PITTSBURGH

COMPOUND LISTING

Method file : /var/chem/gc4.i/4190-G.b/PESTA.m
Quant Method : ESTD Target Version : 3.40
Last Update : 20-Jul-2000 13:34 Number of Cpnds : 31
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	6.093	6.043-6.143	3.436e+06
2 Diallate A	7.000	6.950-7.050	
3 Diallate B	7.293	7.243-7.343	
4 HEXACHLORO BENZENE	7.440	7.390-7.490	
5 alpha-BHC	8.447	8.397-8.497	4.039e+06
6 gamma-BHC (Lindane)	9.920	9.870-9.970	3.358e+06
7 beta-BHC	10.207	10.157-10.257	1.900e+06
8 delta-BHC	11.580	11.530-11.630	3.603e+06
9 Chlordane	10.647	10.597-10.697	9.803e+04
	11.227	11.177-11.277	1.736e+05
	14.540	14.490-14.590	3.254e+05
	14.887	14.837-14.937	2.519e+05
10 Heptachlor	11.180	11.130-11.230	3.124e+06
11 Aldrin	12.293	12.243-12.343	2.773e+06
12 Heptachlor epoxide	14.107	14.057-14.157	3.065e+06
13 gamma-Chlordane	14.507	14.457-14.557	3.335e+06
14 alpha-Chlordane	14.860	14.810-14.910	3.390e+06
15 Endosulfan I	14.920	14.870-14.970	3.090e+06
16 4,4'-DDE	15.347	15.297-15.397	3.585e+06
17 Dieldrin	15.507	15.457-15.557	3.577e+06
18 Toxaphene	16.213	16.163-16.263	5.864e+04
	16.360	16.310-16.410	6.735e+04
	16.527	16.477-16.577	7.928e+04
	18.273	18.223-18.323	4.873e+04

664 324

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58901A
DB608

Report Date : -20-Jul-2000 13:34

STL-PITTSBURGH

COMPOUND LISTING

Method file : /var/chem/gc4.i/4190-G.b/PESTA.m

Compound	RT	RT Window	RF
19 Isodrin	13.413	13.363-13.463	
20 Endrin	16.140	16.090-16.190	2.797e+06
21 4,4'-DDD	16.293	16.243-16.343	2.842e+06
22 Endosulfan II	16.460	16.410-16.510	2.966e+06
23 4,4'-DDT	16.853	16.803-16.903	2.705e+06
24 Endrin aldehyde	17.087	17.037-17.137	2.224e+06
25 Methoxychlor	18.793	18.743-18.843	1.153e+06
26 Endosulfan sulfate	17.340	17.290-17.390	2.250e+06
27 Endrin ketone	19.287	19.237-19.337	2.276e+06
28 MIREX	18.807	18.757-18.857	
29 Kepone	15.993	15.943-16.043	
58 CHLOROBENZILATE	15.780	15.730-15.830	
\$ 30 Decachlorobiphenyl	23.480	23.430-23.530	1.685e+06

62
589044
17608

STL-PITTSBURGH

INITIAL CALIBRATION DATA

Start Cal Date : 14-JUL-2000 19:34
 End Cal Date : 15-JUL-2000 00:38
 Quant Method : ESTD
 Origin : Disabled
 Target Version : 3.40
 Integrator : Falcon
 Method file : /var/chem/gc4.i/4140-G.b/PESTA.m
 Cal Date : 17-Jul-2000 09:29 g
 Curve Type : Average

Calibration File Names:

Level 1: /var/chem/gc4.i/4140-G.b/d-a4247.d
 Level 2: /var/chem/gc4.i/4140-G.b/d-a4248.d
 Level 3: /var/chem/gc4.i/4140-G.b/d-a4249.d
 Level 4: /var/chem/gc4.i/4140-G.b/d-a4250.d
 Level 5: /var/chem/gc4.i/4140-G.b/d-a4251.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 Diallylate A	+++++	+++++	+++++	+++++	+++++	+++++	+++++
3 Diallylate B	+++++	+++++	+++++	+++++	+++++	+++++	+++++
4 HEXACHLORO BENZENE	+++++	+++++	+++++	+++++	+++++	+++++	+++++
5 alpha-BHC	3698200	3798300	4046440	4342220	4309830	4038998	7.212
6 gamma-BHC (Lindane)	3151400	3202100	3352840	3544020	3540850	3358242	5.472
7 beta-BHC	1950200	2010900	1860400	1890440	1787240	1899836	4.497
8 delta-BHC	3135600	3398400	3561320	3963280	3954880	3602696	9.966
9 Chlordane(1)	+++++	+++++	98032	+++++	+++++	98032	0.000
(2)	+++++	+++++	173552	+++++	+++++	173552	0.000
(3)	+++++	+++++	325404	+++++	+++++	325404	0.000
(4)	+++++	+++++	251924	+++++	+++++	251924	0.000
10 Heptachlor	3056000	3045100	3077560	3191480	3247870	3123602	2.904
11 Aldrin	2531400	2666300	2676200	2969280	3020790	2772794	7.630
12 Heptachlor epoxide	2832400	3015300	3003040	3233360	3243080	3065436	5.661
13 gamma-Chlordane	3217400	3330300	3221720	3486360	3419050	3334966	3.569
14 alpha-Chlordane	3224600	3400000	3284480	3535380	3507690	3390430	4.000
15 Endosulfan I	2806400	3090900	3044760	3256520	3249890	3089694	5.963
16 4,4'-DDB	3239600	3518300	3489520	3831340	3847900	3585332	7.147
17 Dieldrin	3361400	3632700	3456040	3702380	3730110	3576526	4.495
18 Toxaphene(1)	+++++	+++++	58636	+++++	+++++	58636	0.000
(2)	+++++	+++++	67349	+++++	+++++	67349	0.000
(3)	+++++	+++++	79282	+++++	+++++	79282	0.000
(4)	+++++	+++++	48727	+++++	+++++	48727	0.000
19 Isodrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++
20 Endrin	2672600	2999000	2627440	2814460	2872060	2797112	5.391
21 4,4'-DDD	2615600	3099000	2703040	2866600	2926780	2842204	6.685

664 326

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58904A
08608

Report Date : 17-Jul-2000 09:29

STL-PITTSBURGH

INITIAL CALIBRATION DATA

Start Cal Date : 14-JUL-2000 19:34
 End Cal Date : 15-JUL-2000 00:38
 Quant Method : ESTD
 Origin : Disabled
 Target Version : 3.40
 Integrator : Falcon
 Method file : /var/chem/gc4.i/4140-G.b/PESTA.m
 Cal Date : 17-Jul-2000 09:29 g
 Curve Type : Average

Compound	0.00500	0.01000	0.02500	0.05000	0.10000	RRP	% RSD
22 Endosulfan II	2710000	2912200	2849040	3195200	3165570	2966402	7.040
23 4,4'-DDT	2512400	2673500	2629000	2816440	2893850	2705038	5.605
24 Endrin aldehyde	2139800	2258900	2166480	2295760	2259280	2224044	3.017
25 Methoxychlor	1141000	1147800	1136600	1171960	1165885	1152649	1.347
26 Endosulfan sulfate	2060600	2166600	2196360	2404540	2424080	2250436	7.022
27 Endrin ketone	2122800	2220200	2190000	2417440	2431300	2276348	6.139
28 MIREX	+++++	+++++	+++++	+++++	+++++	+++++	+++++
29 Kepone	+++++	+++++	+++++	+++++	+++++	+++++	+++++
58 CHLOROBENZILATE	+++++	+++++	+++++	+++++	+++++	+++++	+++++
\$ 1 Tetrachloro-m-xylene	3747800	3649200	3419360	3298980	3066290	3436326	7.948
\$ 30 Decachlorobiphenyl	1772400	1719800	1691600	1654700	1584180	1684536	4.195

7D
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: STL-PITTSBURGH Contract: **664 327**
 Lab Code: STLPIT Case No.: SAS No.: 40325 SDG No.: SDGA18738
 GC Column: DB608 ID: 0.53 (mm) Init. Calib. Date(s): 07/14/00 07/15/00

EPA Sample No. (PIBLK): _____ Date Analyzed : _____
 Lab Sample ID (PIBLK): _____ Time Analyzed : _____
 EPA Sample No. (PEM): _____ Date Analyzed : 07/14/00
 Lab Sample ID (PEM): EVALB Time Analyzed : 1906

PEM COMPOUND	RT	RT WINDOW		CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
		FROM	TO			
Endrin	16.17	16.12	16.22	0.02339	0.02500	-6.4
4,4'-DDT	16.88	16.83	16.93	0.02440	0.02500	-2.4

4,4'-DDT % breakdown (1): 0.00 Endrin % breakdown (1): ~~10.12~~
 Combined % breakdown (1): ~~10.12~~ 8.0

um
7/17/00

664 328

7D PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: STL-PITTSBURGH

Contract:

Lab Code: STLPIT

Case No.:

SAS No.: 40325

SDG No.: SDGA18738

GC Column: DB608

ID: 0.53

(mm)

Init. Calib. Date(s): 07/14/00 07/15/00

EPA Sample No. (PIBLK): _____

Date Analyzed : _____

Lab Sample ID (PIBLK): _____

Time Analyzed : _____

EPA Sample No. (PEM):

Date Analyzed : 07/15/00

Lab Sample ID (PEM): EVALB

Time Analyzed : 0202

PEM COMPOUND	RT	RT WINDOW		CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
		FROM	TO			
===== Endrin	16.17	16.12	16.22	0.02338	0.02500	-6.5
4,4'-DDT	16.88	16.83	16.93	0.02421	0.02500	-3.2
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____

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

~~4.43~~ 4.6

Endrin % breakdown (1):

~~12.17~~

Combined % breakdown (1):

~~16.60~~

13.14.1

9.5

LM
7/17/00

7D
PESTICIDE CALIBRATION VERIFICATION SUMMARY

664 329

Lab Name: STL-PITTSBURGH Contract: _____
 Lab Code: STLPIT Case No.: _____ SAS No.: 40325 SDG No.: SDGA18738
 GC Column: DB608 ID: 0.53 (mm) Init. Calib. Date(s): 07/14/00 07/15/00

EPA Sample No. (PIBLK): _____ Date Analyzed : _____
 Lab Sample ID (PIBLK): _____ Time Analyzed : _____
 EPA Sample No. (PEM): _____ Date Analyzed : 07/19/00
 Lab Sample ID (PEM): EVALB Time Analyzed : 2149

PEM COMPOUND	RT	RT WINDOW		CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
		FROM	TO			
=====	=====	=====	=====	=====	=====	=====
Endrin	16.14	16.09	16.19	0.02233	0.02500	-10.7
4,4'-DDT	16.85	16.80	16.90	0.02476	0.02500	-1.0

4,4'-DDT % breakdown (1): 0.00
 Combined % breakdown (1): ³17.80

Endrin % breakdown (1): ³17.80
um 7/29/00

664 330

Data File: /var/chem/gc4.i/4190-G.b/d-a4376.d
Report Date: 20-Jul-2000 13:34

7E
58704A
DB08

STL-PITTSBURGH

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc4.i
Lab File ID: d-a4376.d
Analysis Type:
Lab Sample ID: MEDA
Quant Type: ESTD

Injection Date: 19-JUL-2000 20:53
Init. Calibration Date(s): 07/14/0 07/15/0
Init. Calibration Times: 19:34 00:38
Method File: /var/chem/gc4.i/4190-G.b/PESTA.m

COMPOUND	RRF	RPO	MIN RRF	%D	MAX %D
1 Tetrachloro-m-xylene	3436326.000	3513600.000	0.000	-2.2	15.0
5 alpha-BHC	4038998.000	4189280.000	0.010	-3.7	15.0
6 gamma-BHC (Lindane)	3358242.000	3556000.000	0.010	-5.9	15.0
10 Heptachlor	3123602.000	3155360.000	0.010	-1.0	15.0
15 Endosulfan I	3089694.000	3161880.000	0.010	-2.3	15.0
17 Dieldrin	3576526.000	3542840.000	0.010	0.9	15.0
20 Endrin	2797112.000	2534040.000	0.010	9.4	15.0
21 4,4'-DDD	2842204.000	2810680.000	0.010	1.1	15.0
23 4,4'-DDT	2705038.000	2674560.000	0.010	1.1	15.0
25 Methoxychlor	1152649.000	1155520.000	0.010	-0.2	15.0
30 Decachlorobiphenyl	1684536.000	1738960.000	0.010	-3.2	15.0

Data File: /var/chem/gc4.i/4190-G.b/d-a4377.d
Report Date: 20-Jul-2000 13:34

tz
58704A
DB608

664 331

STL-PITTSBURGH

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc4.i
Lab File ID: d-a4377.d
Analysis Type:
Lab Sample ID: MEDB
Quant Type: ESTD

Injection Date: 19-JUL-2000 21:21
Init. Calibration Date(s): 07/14/0 07/15/0
Init. Calibration Times: 19:34 00:38
Method File: /var/chem/gc4.i/4190-G.b/PESTA.m

COMPOUND	RRP	RPO	MIN RRP	%D	MAX %D
11 Aldrin	2772794.000	2799920.000	0.010	-1.0	15.0
7 beta-BHC	1899836.000	1935800.000	0.010	-1.9	15.0
8 delta-BHC	3602696.000	3722160.000	0.010	-3.3	15.0
12 Heptachlor epoxide	3065436.000	3047720.000	0.010	0.6	15.0
13 gamma-Chlordane	3334966.000	3333400.000	0.010	0.0	15.0
14 alpha-Chlordane	3390430.000	3405040.000	0.010	-0.4	15.0
16 4,4'-DDE	3585332.000	3621040.000	0.010	-1.0	15.0
22 Endosulfan II	2966402.000	3035040.000	0.010	-2.3	15.0
24 Endrin aldehyde	2224044.000	2242880.000	0.010	-0.8	15.0
26 Endosulfan sulfate	2250436.000	2288400.000	0.010	-1.7	15.0
27 Endrin ketone	2276348.000	2381680.000	0.010	-4.6	15.0

664 332

7E
58704A
DC608

Data File: /var/chem/gc4.i/4190-G.b/d-a4397.d
Report Date: 20-Jul-2000 13:43

STL-PITTSBURGH

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc4.i
Lab File ID: d-a4397.d
Analysis Type:
Lab Sample ID: MEDA
Quant Type: ESTD

Injection Date: 20-JUL-2000 06:36
Init. Calibration Date(s): 07/14/0 07/15/0
Init. Calibration Times: 19:34 00:38
Method File: /var/chem/gc4.i/4190-G.b/PESTA.m

COMPOUND	RRF	RFO	MIN RRF	%D	MAX %D
\$ 1 Tetrachloro-m-xylene	3436326.000	3513080.000	0.000	-2.2	15.0
5 alpha-BHC	4038998.000	4232840.000	0.010	-4.8	15.0
6 gamma-BHC (Lindane)	3358242.000	3565320.000	0.010	-6.2	15.0
10 Heptachlor	3123602.000	3186920.000	0.010	-2.0	15.0
15 Endosulfan I	3089694.000	3228040.000	0.010	-4.5	15.0
17 Dieldrin	3576526.000	3586960.000	0.010	-0.3	15.0
20 Endrin	2797112.000	2663320.000	0.010	4.8	15.0
21 4,4'-DDD	2842204.000	2873800.000	0.010	-1.1	15.0
23 4,4'-DDT	2705038.000	2671320.000	0.010	1.2	15.0
25 Methoxychlor	1152649.000	1175000.000	0.010	-1.9	15.0
\$ 30 Decachlorobiphenyl	1684536.000	1736680.000	0.010	-3.1	15.0

Data File: /var/chem/gc4.i/4190-G.b/d-a4398.d
Report Date: 20-Jul-2000 13:43

12
58904A
DB608

664 333

STL-PITTSBURGH

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc4.i
Lab File ID: d-a4398.d
Analysis Type:
Lab Sample ID: MEDB
Quant Type: ESTD

Injection Date: 20-JUL-2000 07:04
Init. Calibration Date(s): 07/14/0 07/15/0
Init. Calibration Times: 19:34 00:38
Method File: /var/chem/gc4.i/4190-G.b/PESTA.m

COMPOUND	RRF	RPO	MIN RRF	%D	MAX %D
11 Aldrin	2772794.000	2827000.000	0.010	-2.0	15.0
7 beta-BHC	1899836.000	1944800.000	0.010	-2.4	15.0
8 delta-BHC	3602696.000	3770680.000	0.010	-4.7	15.0
12 Heptachlor epoxide	3065436.000	3140960.000	0.010	-2.5	15.0
13 gamma-Chlordane	3324966.000	3337680.000	0.010	-0.1	15.0
14 alpha-Chlordane	3390430.000	3423480.000	0.010	-1.0	15.0
16 4,4'-DDB	3585332.000	3671440.000	0.010	-2.4	15.0
22 Endosulfan II	2966402.000	3089760.000	0.010	-4.2	15.0
24 Endrin aldehyde	2224044.000	2257720.000	0.010	-1.5	15.0
26 Endosulfan sulfate	2250436.000	2354480.000	0.010	-4.6	15.0
27 Endrin ketone	2276348.000	2403000.000	0.010	-5.6	15.0

Lab Name: STL-PITTSBURGH

Contract:

Lab Code: STLPIT

Case No.:

SAS No.: 40325

SDG No.: C0G130203

GC Column: DB608

ID: 0.53 (mm) Init. Calib. Date(s): 07/14/00 07/15/00

Instrument ID: GC4

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

MEAN SURROGATE RT FROM INITIAL CALIBRATION					
TCX: 6.11			DCB: 23.53		
EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01	EVALB	07/14/00	1906	6.13	23.57
02	MEDTOX	07/14/00	1934	6.13	23.57
03	MEDCHLOR	07/14/00	2001	6.13	23.57
04	LOWA	07/14/00	2029	6.13	23.57
05	MLOWA	07/14/00	2057	6.13	23.57
06	MEDA	07/14/00	2125	6.13	23.56
07	MHIGHA	07/14/00	2152	6.13	23.57
08	HIGHA	07/14/00	2220	6.13	23.56
09	LOWB	07/14/00	2248		
10	MLOWB	07/14/00	2315		
11	MEDB	07/14/00	2343		
12	MHIGHB	07/15/00	0011		
13	HIGHB	07/15/00	0038		
14	2ND A	07/15/00	0106	6.13	23.57
15	2ND B	07/15/00	0134		
16	EVALB	07/15/00	0202	6.13	23.56
17	MEDA	07/19/00	2053	6.09	23.48
18	MEDB	07/19/00	2121		
19	EVALB	07/19/00	2149	6.09	23.49
20	PBLK1	DGELX101	07/19/00	6.09	23.49
21	LCS1	DGELX102	07/19/00	6.09	23.49
22	DF/S1/0194/S	DG5C710R	07/19/00	6.09	23.49
23	DF/S1/0194/S	DG5C710T	07/19/00	6.09	23.48
24	DF/S1/0194/S	DG5C7104	07/20/00	6.09	23.48
25	DF/S1/0194/S	DG5CG104	07/20/00	6.09	23.48
26	DF/S1/0194/G	DG5CK104	07/20/00	6.09	23.48
27		MEDA	07/20/00	6.09	23.47*
28		MEDB	07/20/00		
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.

MM
7/21/00

STL-PITTSBURGH

Data file : /var/chem/gc4.i/4140-G.b/d-a4239.d
 Lab Smp Id: EVALB
 Inj Date : 14-JUL-2000 19:06
 Operator : 1891
 Smp Info : EVALB, 4140-G.b, , EVALBR.sub, , 3, 1
 Misc Info : 190-88-8
 Comment :
 Method : /var/chem/gc4.i/4140-G.b/PESTA.m
 Meth Date : 17-Jul-2000 09:45 g
 Cal Date : 15-JUL-2000 00:38
 Als bottle: 1
 Dil Factor: 1.00000
 Integrator: Falcon
 Target Version: 3.40

Inst ID: gc4.i
 Quant Type: ESTD
 Cal File: d-a4251.d
 QC Sample: PEM
 Compound Sublist: EVALBR.sub

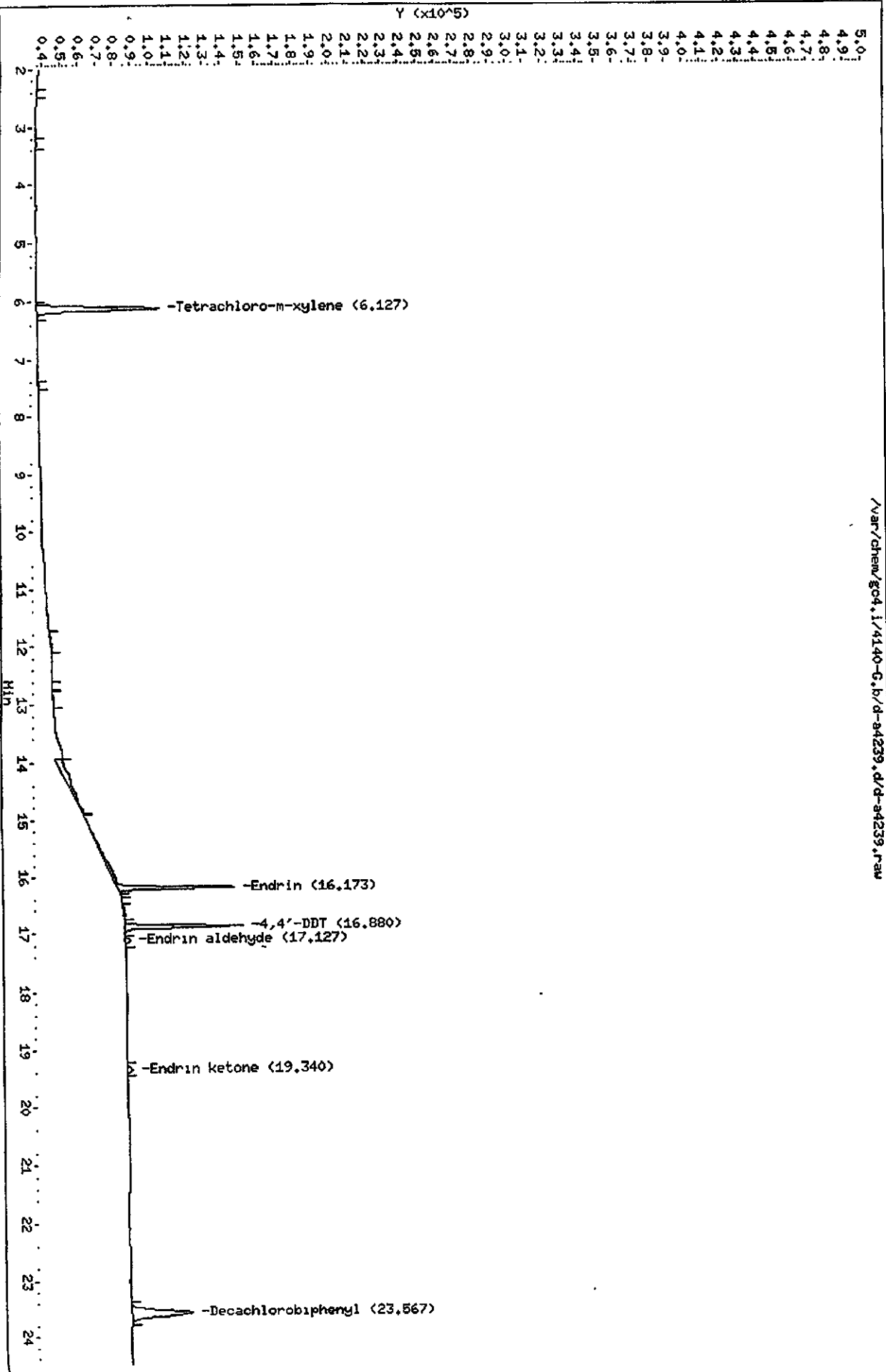
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ng)	FINAL (ng)
\$ 1 Tetrachloro-m-xylene	6.127	6.127	0.000	68913	0.02005	0.02005 (R)
16 4,4'-DDE				Compound Not Detected		
20 Endrin	16.173	16.173	0.000	65428	0.02339	0.02339
21 4,4'-DDD				Compound Not Detected.		
23 4,4'-DDT	16.880	16.880	0.000	66007	0.02440	0.02440
24 Endrin aldehyde	17.127	17.120	0.007	2896	0.00130	0.001302
27 Endrin ketone	19.340	19.340	0.000	2795	0.00123	0.001228
\$ 30 Decachlorobiphenyl	23.567	23.560	0.007	33808	0.02007	0.02007 (R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

*DDT=0
Endrin=8.0*

Y (x10^5)



/var/chem/gc04.i/4140-G.b/d-d-84239.raw

Data File: /var/chem/gc04.i/4140-G.b/d-d-84239.d
 Date: 14-JUL-2000 19:06
 Client ID:
 Sample Info: EVALB,4140-G.b,EVALBR.sub,3,1
 Column phase: DB608

Instrument: gc04.i
 Operator: 1891
 Column diameter: 0.53

Data File: /var/chem/gc4.i/4140-G.b/d-a4240.d
Report Date: 17-Jul-2000 09:45

664 337

STL-PITTSBURGH

Data file : /var/chem/gc4.i/4140-G.b/d-a4240.d
Lab Smp Id: MEDTOX
Inj Date : 14-JUL-2000 19:34
Operator : 1891 Inst ID: gc4.i
Smp Info : MEDTOX,4140-G.b,,1-TOX.sub,,1,3
Misc Info : 190-84-13
Comment :
Method : /var/chem/gc4.i/4140-G.b/PESTA.m
Meth Date : 17-Jul-2000 09:45 g Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 1-TOX.sub
Target Version: 3.40

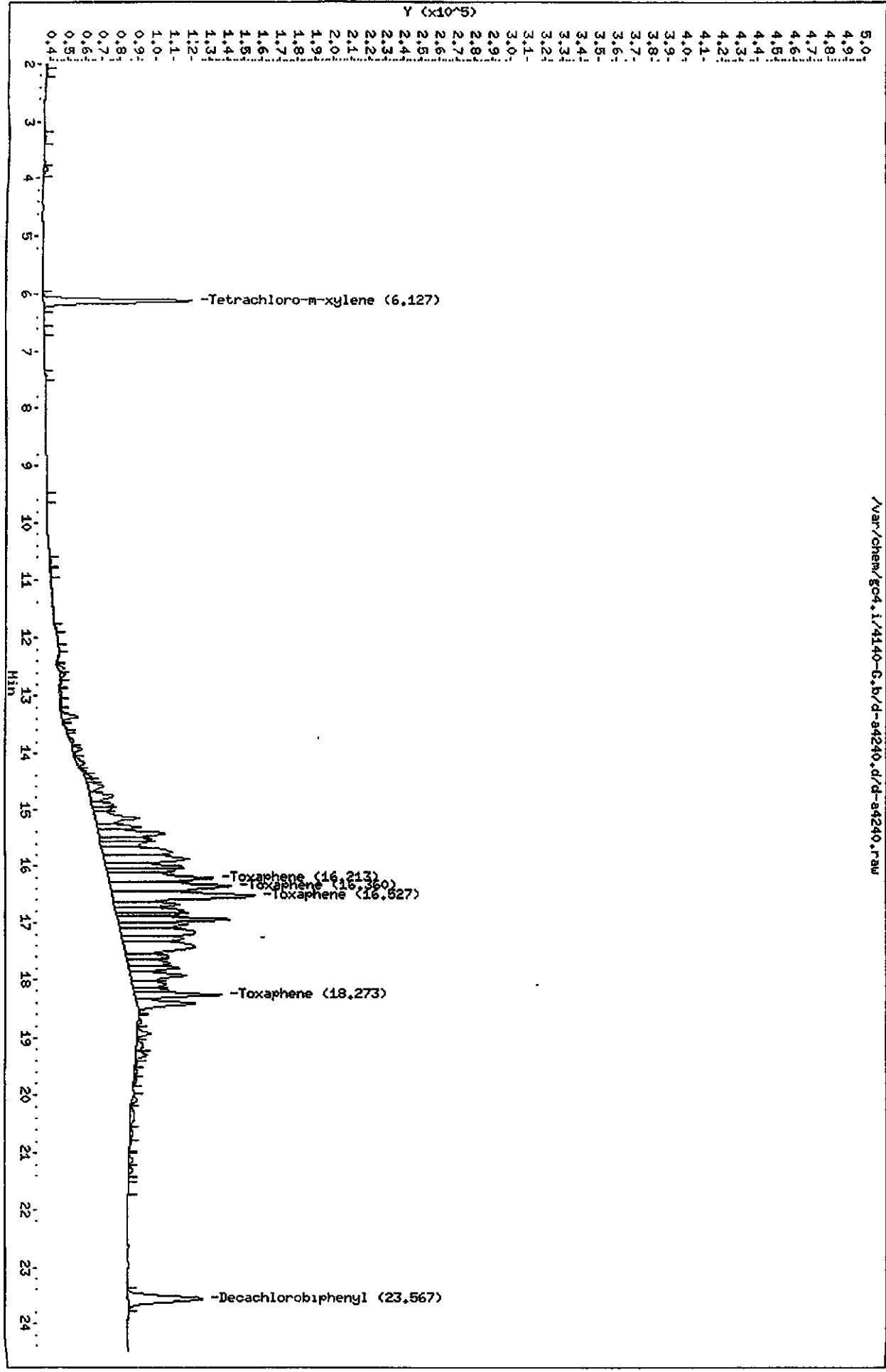
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (ng)	ON-COL (ng)
*****	**	*****	*****	*****	*****	*****
18 Toxaphene	16.213	16.213	0.000	58636	1.00000	1.000(M)
\$ 1 Tetrachloro-m-xylene	6.127	6.127	0.000	83404	0.02500	0.02500(M)
\$ 30 Decachlorobiphenyl	23.567	23.560	0.007	41620	0.02500	0.02500(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: /var/chem/g04.i/4140-G.b/d-34240.d
Date: 14-JUL-2000 19:34
Client ID:
Sample Info: HEDTOX,4140-G.b.,1-TOX.sub.,1,3
Column phase: DB608

Instrument: g04.i
Operator: 1891
Column diameter: 0.53



Data File: /var/chem/gc4.i/4140-G.b/d-a4241.d
Report Date: 17-Jul-2000 09:45

664 339

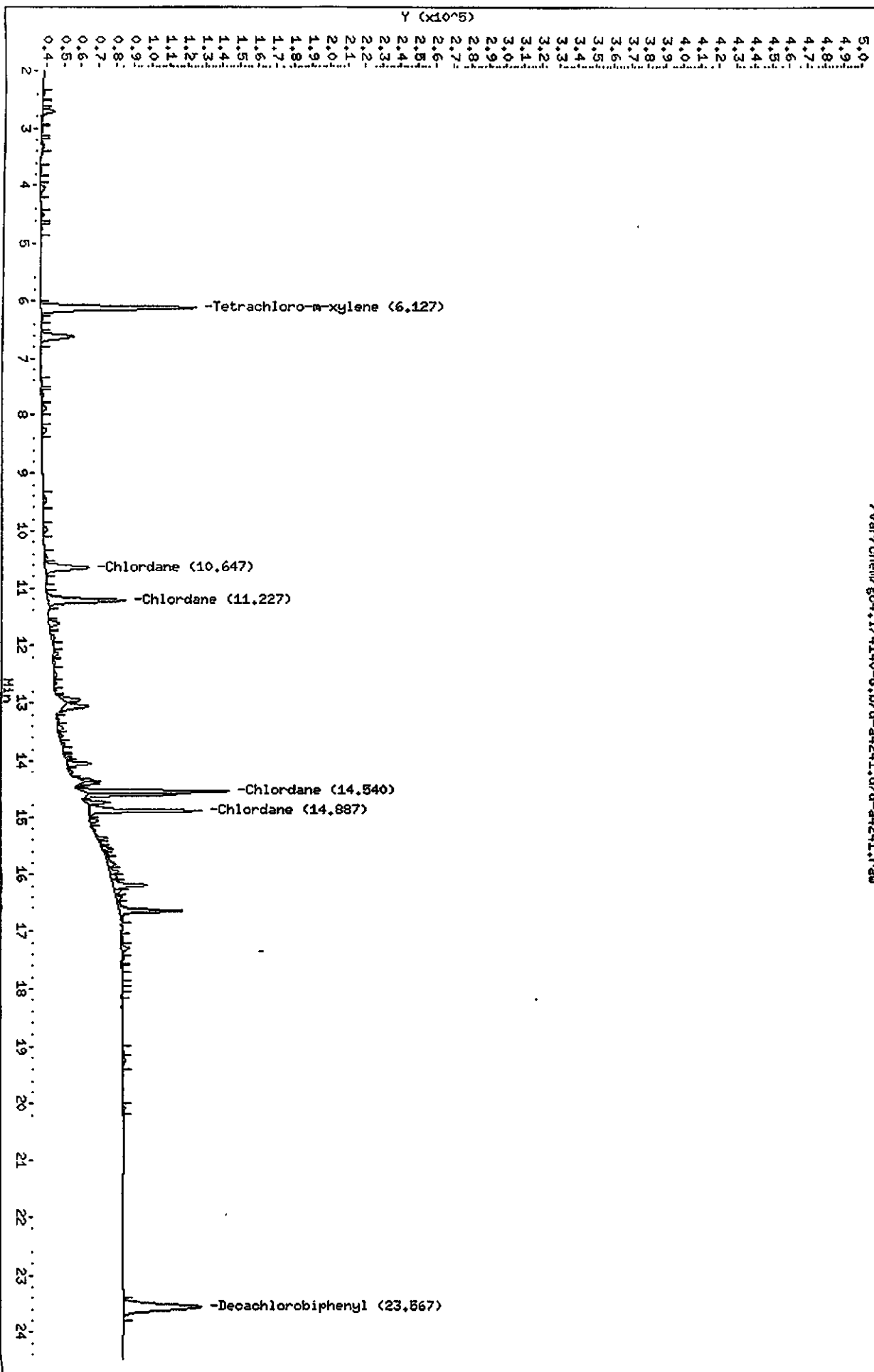
STL-PITTSBURGH

Data file : /var/chem/gc4.i/4140-G.b/d-a4241.d
Lab Smp Id: MEDCHLOR
Inj Date : 14-JUL-2000 20:01
Operator : 1891
Smp Info : MEDCHLOR, 4140-G.b,, 2-CHLO.sub,, 1,3
Misc Info : 190-85-10
Comment :
Method : /var/chem/gc4.i/4140-G.b/PESTA.m
Meth Date : 17-Jul-2000 09:45 g
Cal Date : 14-JUL-2000 23:43
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon
Target Version: 3.40
Inst ID: gc4.i
Quant Type: ESTD
Cal File: d-a4249.d
Calibration Sample, Level: 3
Compound Sublist: 2-CHLO.sub

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (ng)	ON-COL (ng)
9 Chlordane	10.647	10.647	0.000	24508	0.25000	0.2500 (M)
\$ 1 Tetrachloro-m-xylene	6.127	6.127	0.000	87617	0.02500	0.02500
\$ 30 Decachlorobiphenyl	23.567	23.560	0.007	43435	0.02500	0.02500

QC Flag Legend

M - Compound response manually integrated.



/var/chem/gc04.i/4140-G.b/d-a4241.d/d-a4241.raw

Data File: /var/chem/gc04.i/4140-G.b/d-a4241.d
Date: 14-JUL-2000 20:01
Client ID:
Sample Info: HEDCHLOR,4140-G,b,2-CHLO.sub,1,3
Column phase: DB608

Instrument: gc04.i
Operator: 1891
Column diameter: 0.53

Data File: /var/chem/gc4.i/4140-G.b/d-a4242.d
Report Date: 17-Jul-2000 09:45

664 341

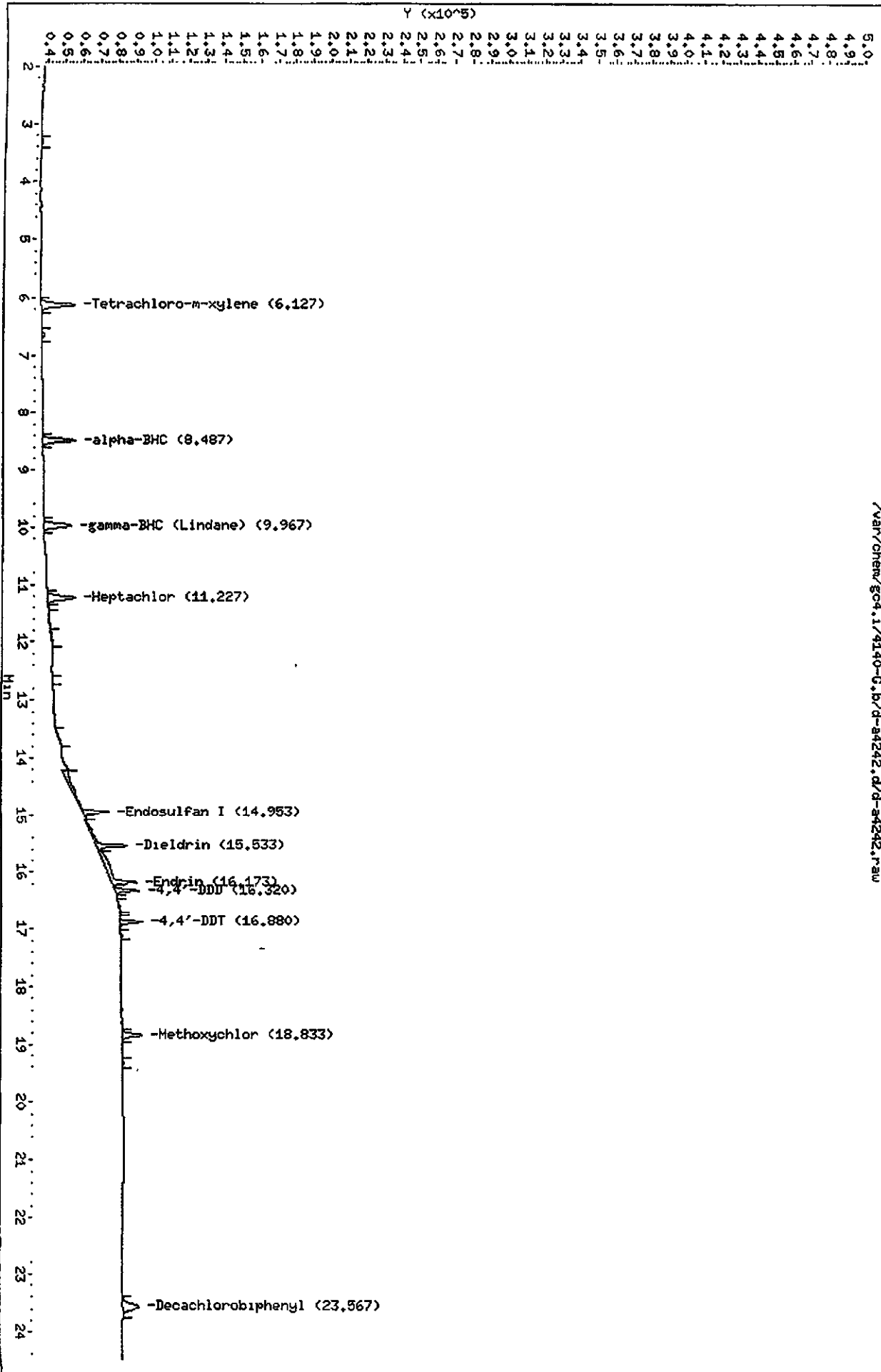
STL-PITTSBURGH

Data file : /var/chem/gc4.i/4140-G.b/d-a4242.d
Lab Smp Id: LOWA
Inj Date : 14-JUL-2000 20:29
Operator : 1891
Smp Info : LOWA,4140-G.b,,3-INDA.sub,,1,1
Misc Info : 190-84-1
Comment :
Method : /var/chem/gc4.i/4140-G.b/PESTA.m
Meth Date : 17-Jul-2000 09:45 g
Cal Date : 14-JUL-2000 23:43
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon
Target Version: 3.40
Inst ID: gc4.i
Quant Type: ESTD
Cal File: d-a4249.d
Calibration Sample, Level: 1
Compound Sublist: 3-INDA.sub

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (ng)	ON-COL (ng)
§ 1 Tetrachloro-m-xylene	6.127	6.127	0.000	18739	0.00500	0.005229
5 alpha-BHC	8.487	8.487	0.000	18491	0.00500	0.004775
6 gamma-BHC (Lindane)	9.967	9.973	-0.006	15757	0.00500	0.004845
10 Heptachlor	11.227	11.227	0.000	15280	0.00500	0.004982
15 Endosulfan I	14.953	14.947	0.006	14032	0.00500	0.004796
17 Dieldrin	15.533	15.533	0.000	16807	0.00500	0.004930
20 Endrin	16.173	16.173	0.000	13363	0.00500	0.005043
21 4,4'-DDD	16.320	16.320	0.000	13078	0.00500	0.004918
23 4,4'-DDT	16.880	16.880	0.000	12562	0.00500	0.004887
25 Methoxychlor	18.833	18.833	0.000	11410	0.01000	0.01002
§ 30 Decachlorobiphenyl	23.567	23.560	0.007	8862	0.00500	0.005117

Data File: /var/chem/g04.1/4140-G.b/d-s4242.d
Date: 14-JUL-2000 20:29
Client ID:
Sample Info: LOMR,4140-G.b.,3-INDR,sub.,1,1
Column phase: DB608

Instrument: g04.1
Operator: 1891
Column diameter: 0.53

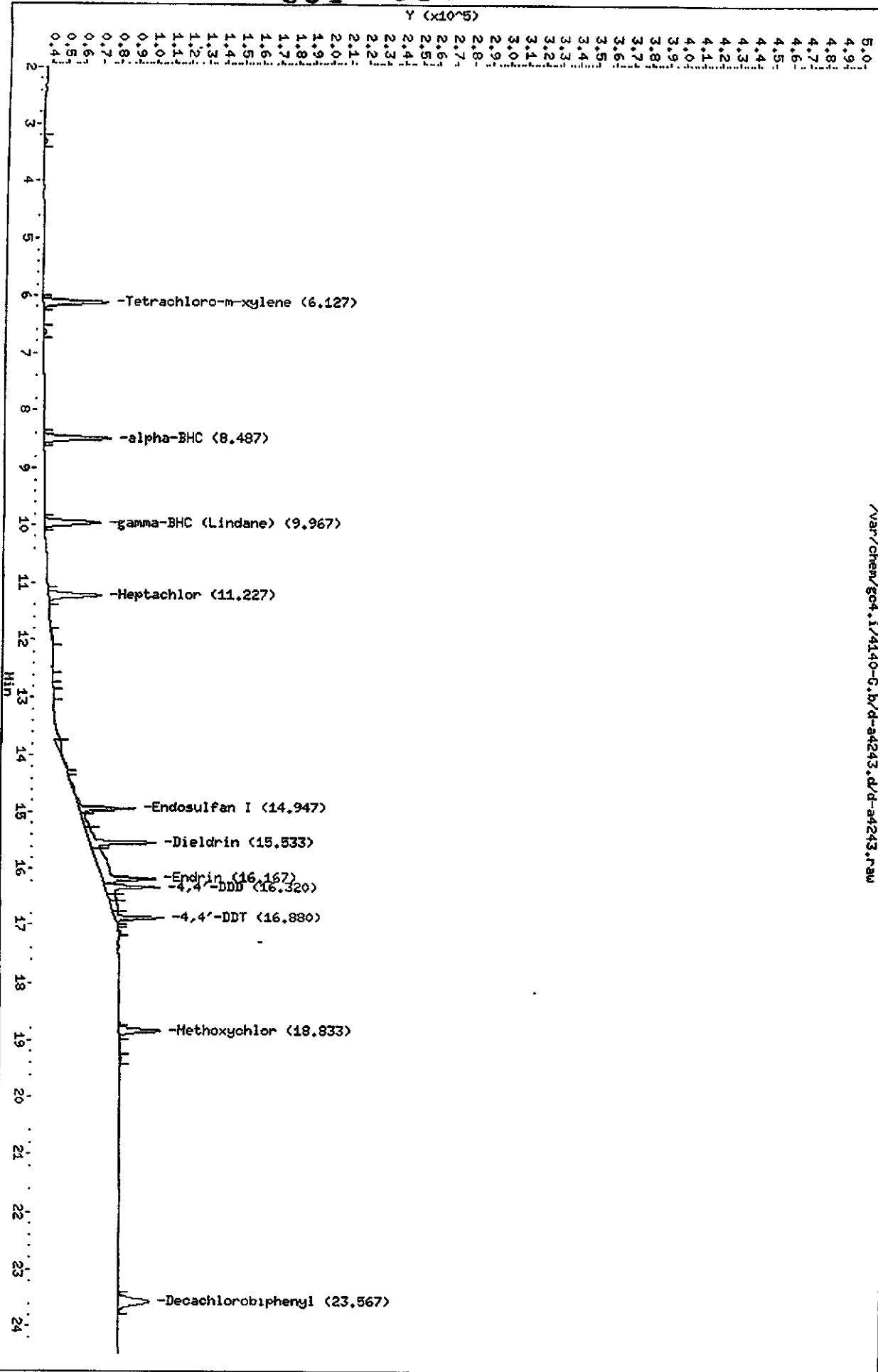


STL-PITTSBURGH

Data file : /var/chem/gc4.i/4140-G.b/d-a4243.d
 Lab Smp Id: MLOWA
 Inj Date : 14-JUL-2000 20:57
 Operator : 1891 Inst ID: gc4.i
 Smp Info : MLOWA,4140-G.b,,3-INDA.sub,,1,2
 Misc Info : 190-84-2
 Comment :
 Method : /var/chem/gc4.i/4140-G.b/PESTA.m
 Meth Date : 17-Jul-2000 09:45 g Quant Type: ESTD
 Cal Date : 14-JUL-2000 23:43 Cal File: d-a4249.d
 Als bottle: 1 Calibration Sample, Level: 2
 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	6.127	6.127	0.000	36492	0.01000	0.01012
5 alpha-BHC	8.487	8.487	0.000	37983	0.01000	0.009872
6 gamma-BHC (Lindane)	9.967	9.973	-0.006	32021	0.01000	0.009897
10 Heptachlor	11.227	11.227	0.000	30451	0.01000	0.009953
15 Endosulfan I	14.947	14.947	0.000	30909	0.01000	0.01037
17 Dieldrin	15.533	15.533	0.000	36327	0.01000	0.01043
20 Endrin	16.167	16.173	-0.006	29990	0.01000	0.01084
21 4,4'-DDD	16.320	16.320	0.000	30990	0.01000	0.01104
23 4,4'-DDT	16.880	16.880	0.000	26735	0.01000	0.01026
25 Methoxychlor	18.833	18.833	0.000	22956	0.02000	0.02010
\$ 30 Decachlorobiphenyl	23.567	23.560	0.007	17198	0.01000	0.009953

Y (x10⁵)



/var/chem/g04.1/4140-G.b/d-a4243.d/d-a4243.rsw

Data File: /var/chem/g04.1/4140-G.b/d-a4243.d
Date: 14-JUL-2000 20:57
Client ID:
Sample Info: HLOMR,4140-G.b,3-INDR,sub,1,2
Column phase: DB608

Instrument: g04.1
Operator: 1891
Column diameter: 0.53

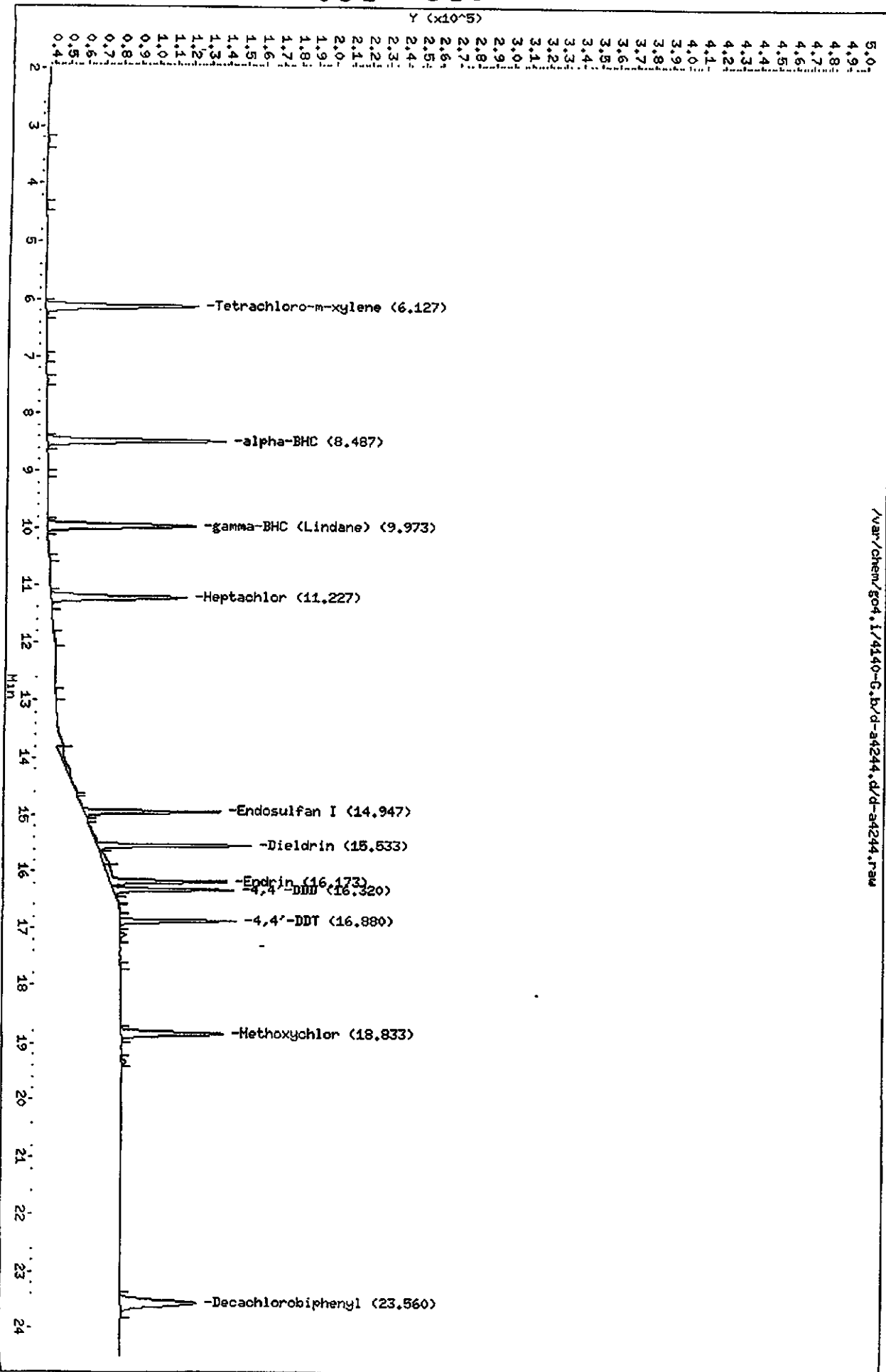
STL-PITTSBURGH

Data file : /var/chem/gc4.i/4140-G.b/d-a4244.d
 Lab Smp Id: MEDA
 Inj Date : 14-JUL-2000 21:25
 Operator : 1891 Inst ID: gc4.i
 Smp Info : MEDA,4140-G.b,,3-INDA.sub,,1,3
 Misc Info : 190-84-3
 Comment :
 Method : /var/chem/gc4.i/4140-G.b/PESTA.m
 Meth Date : 17-Jul-2000 09:45 g Quant Type: ESTD
 Cal Date : 14-JUL-2000 23:43 Cal File: d-a4249.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	6.127	6.127	0.000	85484	0.02500	0.02500
5 alpha-BHC	8.487	8.487	0.000	101161	0.02500	0.02500 (M)
6 gamma-BHC (Lindane)	9.973	9.973	0.000	83821	0.02500	0.02500 (M)
10 Heptachlor	11.227	11.227	0.000	76939	0.02500	0.02500 (M)
15 Endosulfan I	14.947	14.947	0.000	76119	0.02500	0.02500 (M)
17 Dieldrin	15.533	15.533	0.000	86401	0.02500	0.02500 (M)
20 Endrin	16.173	16.173	0.000	65686	0.02500	0.02500 (M)
21 4,4'-DDD	16.320	16.320	0.000	67576	0.02500	0.02500 (M)
23 4,4'-DDT	16.880	16.880	0.000	65725	0.02500	0.02500 (M)
25 Methoxychlor	18.833	18.833	0.000	56830	0.05000	0.05000 (M)
\$ 30 Decachlorobiphenyl	23.560	23.560	0.000	42290	0.02500	0.02500

QC Flag Legend

M - Compound response manually integrated.



/var/chem/ec4.1/4140-G.b/d-d-84244.rnw

Data File: /var/chem/ec4.1/4140-G.b/d-d-84244.d
Date: 14-JUL-2000 21:25
Client ID:
Sample Info: HEDR, 4140-G.b, 3-INDA, sub, 1,3
Column phase: DB608

Instrument: ec4.1
Operator: 1891
Column diameter: 0.53

Data File: /var/chem/gc4.i/4140-G.b/d-a4245.d
 Report Date: 17-Jul-2000 09:46

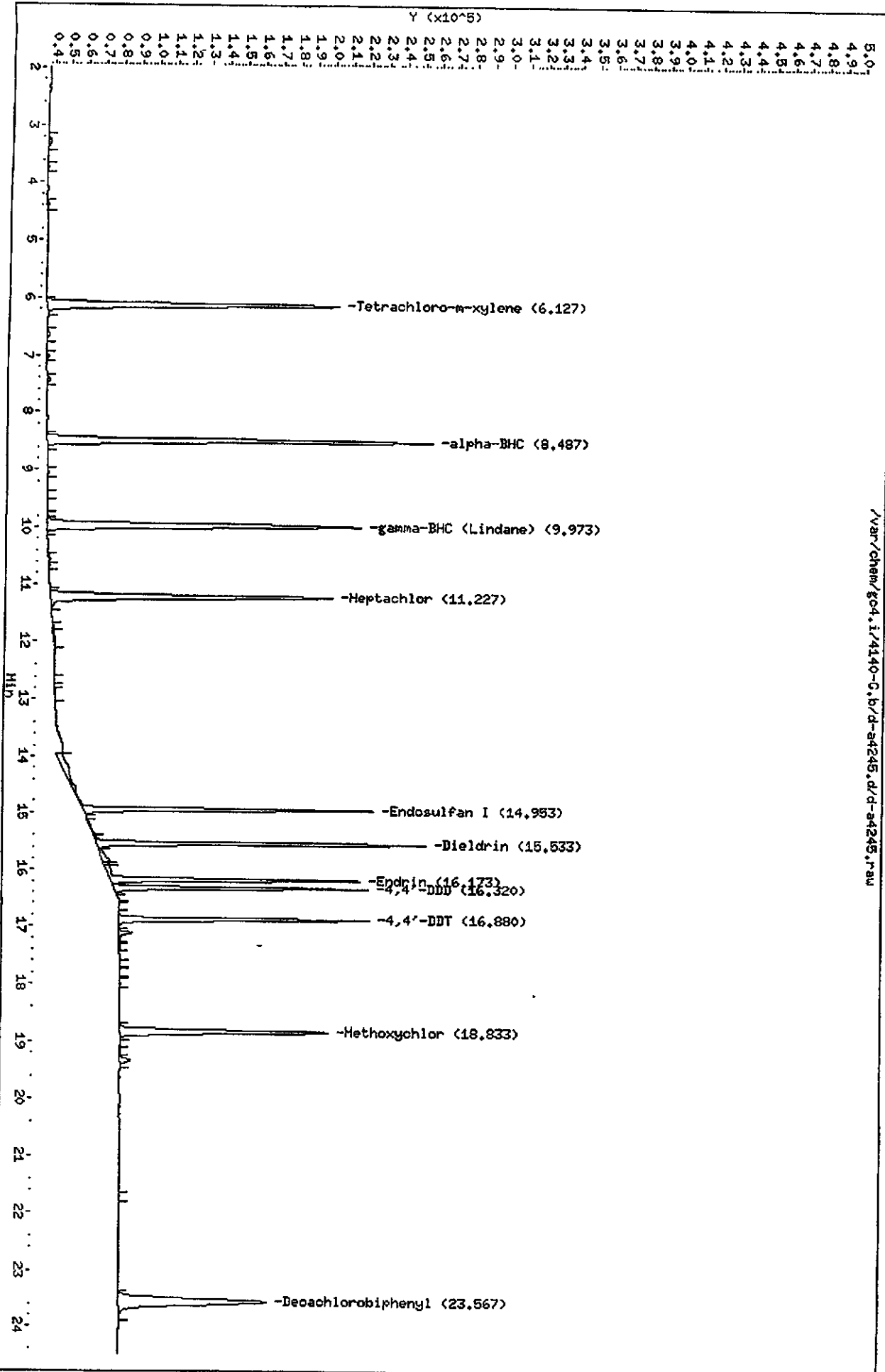
STL-PITTSBURGH

Data file : /var/chem/gc4.i/4140-G.b/d-a4245.d
 Lab Smp Id: MHIGHA
 Inj Date : 14-JUL-2000 21:52
 Operator : 1891 Inst ID: gc4.i
 Smp Info : MHIGHA,4140-G.b,,3-INDA.sub,,1,4
 Misc Info : 190-84-4
 Comment :
 Method : /var/chem/gc4.i/4140-G.b/PESTA.m
 Meth Date : 17-Jul-2000 09:45 g Quant Type: ESTD
 Cal Date : 14-JUL-2000 23:43 Cal File: d-a4249.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	6.127	6.127	0.000	164949	0.05000	0.04674
5 alpha-BHC	8.487	8.487	0.000	217111	0.05000	0.05467
6 gamma-BHC (Lindane)	9.973	9.973	0.000	177201	0.05000	0.05349
10 Heptachlor	11.227	11.227	0.000	159574	0.05000	0.05160
15 Endosulfan I	14.953	14.947	0.006	162826	0.05000	0.05339
17 Dieldrin	15.533	15.533	0.000	185119	0.05000	0.05232
20 Endrin	16.173	16.173	0.000	140723	0.05000	0.05065
21 4,4'-DDD	16.320	16.320	0.000	143330	0.05000	0.05081
23 4,4'-DDT	16.880	16.880	0.000	140822	0.05000	0.05298
25 Methoxychlor	18.833	18.833	0.000	117196	0.10000	0.1020
§ 30 Decachlorobiphenyl	23.567	23.560	0.007	82735	0.05000	0.04839

Data File: /var/chem/gc4.1/4140-G.b/d-s4245.d
 Date: 14-JUL-2000 21:52
 Client ID:
 Sample Info: HHCHE,4140-G.b,3-INDA.sub,1,4
 Column phase: DB608

Instrument: gc4.1
 Operator: 1891
 Column diameter: 0.53



Data File: /var/chem/gc4.i/4140-G.b/d-a4246.d
 Report Date: 17-Jul-2000 09:46

STL-PITTSBURGH

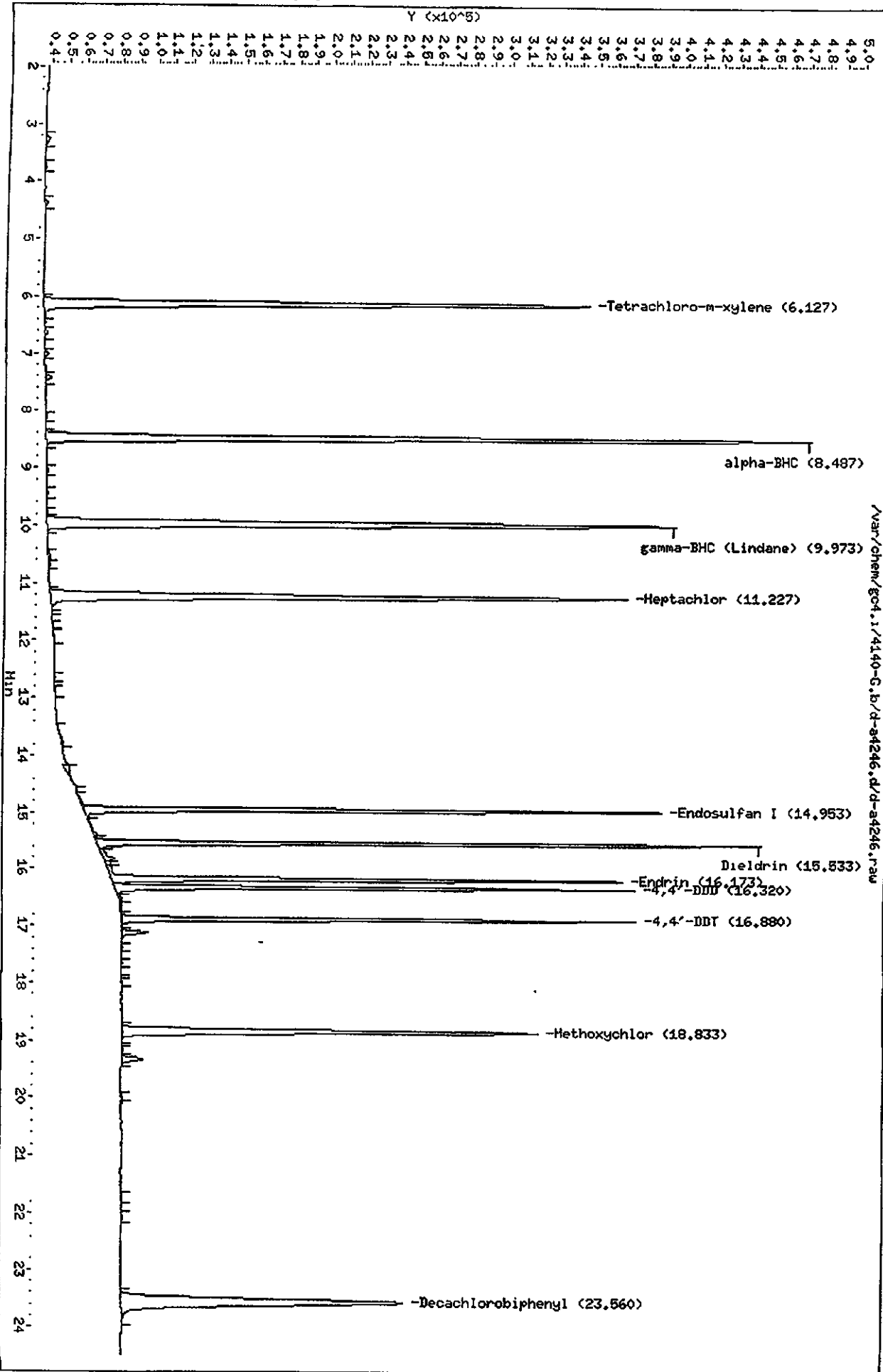
Data file : /var/chem/gc4.i/4140-G.b/d-a4246.d
 Lab Smp Id: HIGHA
 Inj Date : 14-JUL-2000 22:20
 Operator : 1891 Inst ID: gc4.i
 Smp Info : HIGHA,4140-G.b,,3-INDA.sub,,1,5
 Misc Info : 190-84-5
 Comment :
 Method : /var/chem/gc4.i/4140-G.b/PESTA.m
 Meth Date : 17-Jul-2000 09:45 g Quant Type: ESTD
 Cal Date : 14-JUL-2000 23:43 Cal File: d-a4249.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	RESPONSE	AMOUNTS	
						CAL-AMT (ng)	ON-COL (ng)
§ 1 Tetrachloro-m-xylene	6.127	6.127	0.000		306629	0.10000	0.08923
5 alpha-BHC	8.487	8.487	0.000		430983	0.10000	0.1067(A)
6 gamma-BHC (Lindane)	9.973	9.973	0.000		354085	0.10000	0.1054(A)
10 Heptachlor	11.227	11.227	0.000		324787	0.10000	0.1040(A)
15 Endosulfan I	14.953	14.947	0.006		324989	0.10000	0.1052(A)
17 Dieldrin	15.533	15.533	0.000		373011	0.10000	0.1043(A)
20 Endrin	16.173	16.173	0.000		287206	0.10000	0.1027(A)
21 4,4'-DDD	16.320	16.320	0.000		292678	0.10000	0.1030(A)
23 4,4'-DDT	16.880	16.880	0.000		289385	0.10000	0.1070(A)
25 Methoxychlor	18.833	18.833	0.000		233177	0.20000	0.2023(A)
§ 30 Decachlorobiphenyl	23.560	23.560	0.000		158418	0.10000	0.09404

QC Flag Legend

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

Y (x10⁵)



/var/chem/gc4.i/4140-G.b/d-84246.d/d-84246.raw

Data File: /var/chem/gc4.i/4140-G.b/d-84246.d
 Date: 14-JUL-2000 22:20
 Client ID:
 Sample Info: HIGH, 4140-G.b, 3-IND, sub, 1,5

Column phase: DB608

Instrument: gc4.i

Operator: 1891
 Column diameter: 0.53

Data File: /var/chem/gc4.i/4140-G.b/d-a4247.d
Report Date: 17-Jul-2000 09:46

664 351

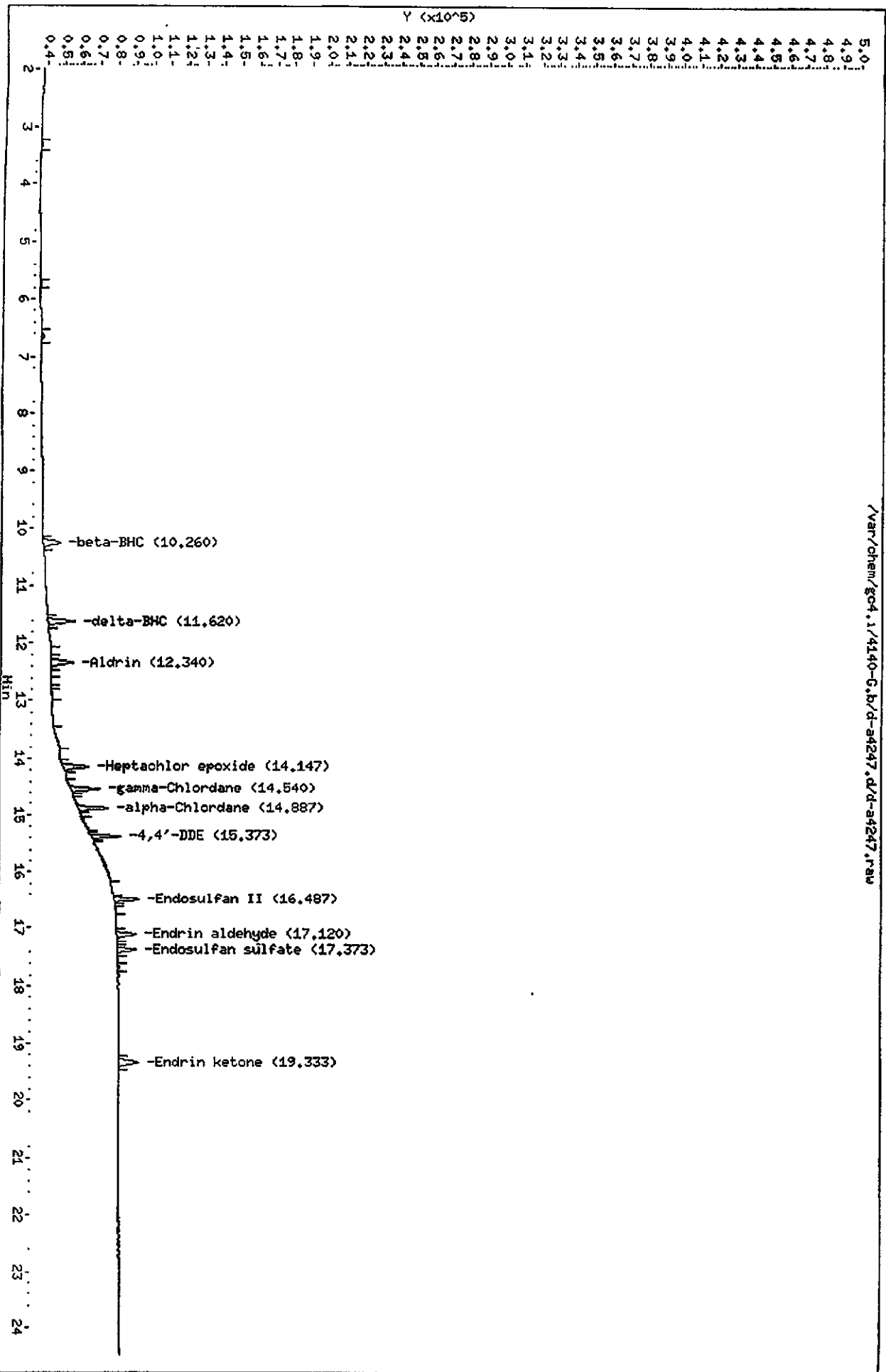
STL-PITTSBURGH

Data file : /var/chem/gc4.i/4140-G.b/d-a4247.d
Lab Smp Id: LOWB
Inj Date : 14-JUL-2000 22:48
Operator : 1891
Smp Info : LOWB,4140-G.b,,4-INDB.sub,,1,1
Misc Info : 190-84-7
Comment :
Method : /var/chem/gc4.i/4140-G.b/PESTA.m
Meth Date : 17-Jul-2000 09:45 g
Cal Date : 14-JUL-2000 23:43
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon
Target Version: 3.40
Inst ID: gc4.i
Quant Type: ESTD
Cal File: d-a4249.d
Calibration Sample, Level: 1
Compound Sublist: 4-INDB.sub

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (ng)	ON-COL (ng)
11 Aldrin	12.340	12.340	0.000	12657	0.00500	0.004861
7 beta-BHC	10.260	10.260	0.000	9751	0.00500	0.005118
8 delta-BHC	11.620	11.620	0.000	15678	0.00500	0.004682
12 Heptachlor epoxide	14.147	14.147	0.000	14162	0.00500	0.004854
13 gamma-Chlordane	14.540	14.540	0.000	16087	0.00500	0.004997
14 alpha-Chlordane	14.887	14.887	0.000	16123	0.00500	0.004954
16 4,4'-DDE	15.373	15.373	0.000	16198	0.00500	0.004814
22 Endosulfan II	16.487	16.493	-0.006	13550	0.00500	0.004875
24 Endrin aldehyde	17.120	17.120	0.000	10699	0.00500	0.004969
26 Endosulfan sulfate	17.373	17.373	0.000	10303	0.00500	0.004840
27 Endrin ketone	19.333	19.340	-0.007	10614	0.00500	0.004922

Data File: /var/chem/gc4.1/4140-G,b/d-s4247.d
Date : 14-JUL-2000 22:48
Client ID:
Sample Info: LOMB,4140-G,b,4-1HDB,sub,1,1
Column Phase: DB608

Instrument: gc4.1
Operator: 1891
Column diameter: 0.53

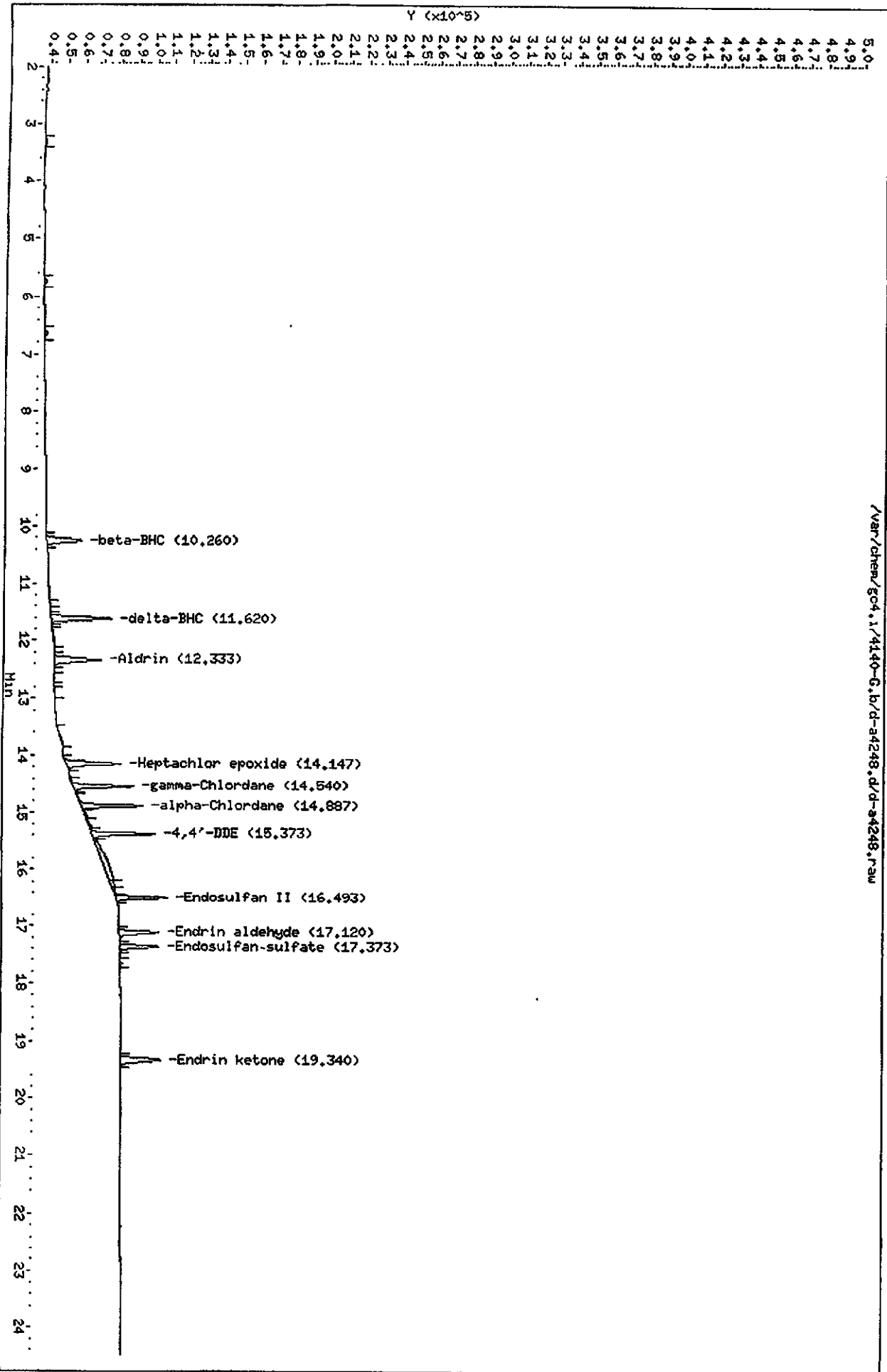


Data File: /var/chem/gc4.i/4140-G.b/d-a4248.d
 Report Date: 17-Jul-2000 09:46

STL-PITTSBURGH

Data file : /var/chem/gc4.i/4140-G.b/d-a4248.d
 Lab Smp Id: MLOWB
 Inj Date : 14-JUL-2000 23:15
 Operator : 1891 Inst ID: gc4.i
 Smp Info : MLOWB,4140-G.b,,4-INDB.sub,,1,2
 Misc Info : 190-84-8
 Comment :
 Method : /var/chem/gc4.i/4140-G.b/PESTA.m
 Meth Date : 17-Jul-2000 09:45 g Quant Type: ESTD
 Cal Date : 14-JUL-2000 23:43 Cal File: d-a4249.d
 Als bottle: 1 Calibration Sample, Level: 2
 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	12.333	12.340	-0.007	26663	0.01000	0.01016
7 beta-BHC	10.260	10.260	0.000	20109	0.01000	0.01036
8 delta-BHC	11.620	11.620	0.000	33984	0.01000	0.01010
12 Heptachlor epoxide	14.147	14.147	0.000	30153	0.01000	0.01022
13 gamma-Chlordane	14.540	14.540	0.000	33303	0.01000	0.01023
14 alpha-Chlordane	14.887	14.887	0.000	34000	0.01000	0.01029
16 4,4'-DDE	15.373	15.373	0.000	35183	0.01000	0.01030
22 Endosulfan II	16.493	16.493	0.000	29122	0.01000	0.01031
24 Endrin aldehyde	17.120	17.120	0.000	22589	0.01000	0.01032
26 Endosulfan sulfate	17.373	17.373	0.000	21666	0.01000	0.01012
27 Endrin ketone	19.340	19.340	0.000	22202	0.01000	0.01020



Data File: /var/chem/gc4.i/4140-G.b/d-a4248.d
 Date: 14-JUL-2000 23:15
 Client ID:
 Sample Info: HLOMB,4140-G.b/,4-INDB.sub,1,2
 Column phase: DB608

Instrument: gc4.i
 Operator: 1891
 Column diameter: 0.53
 /var/chem/gc4.i/4140-G.b/d-a4248.d/d-a4248.raw

Data File: /var/chem/gc4.i/4140-G.b/d-a4249.d
 Report Date: 17-Jul-2000 09:46

STL-PITTSBURGH

Data file : /var/chem/gc4.i/4140-G.b/d-a4249.d
 Lab Smp Id: MEDB
 Inj Date : 14-JUL-2000 23:43
 Operator : 1891
 Smp Info : MEDB,4140-G.b,,4-INDB.sub,,1,3
 Misc Info : 190-84-9
 Comment :
 Method : /var/chem/gc4.i/4140-G.b/PESTA.m
 Meth Date : 17-Jul-2000 09:45 g
 Cal Date : 14-JUL-2000 23:43
 Als bottle: 1
 Dil Factor: 1.00000
 Integrator: Falcon
 Target Version: 3.40

Inst ID: gc4.i
 Quant Type: ESTD
 Cal File: d-a4249.d
 Calibration Sample, Level: 3
 Compound Sublist: 4-INDB.sub

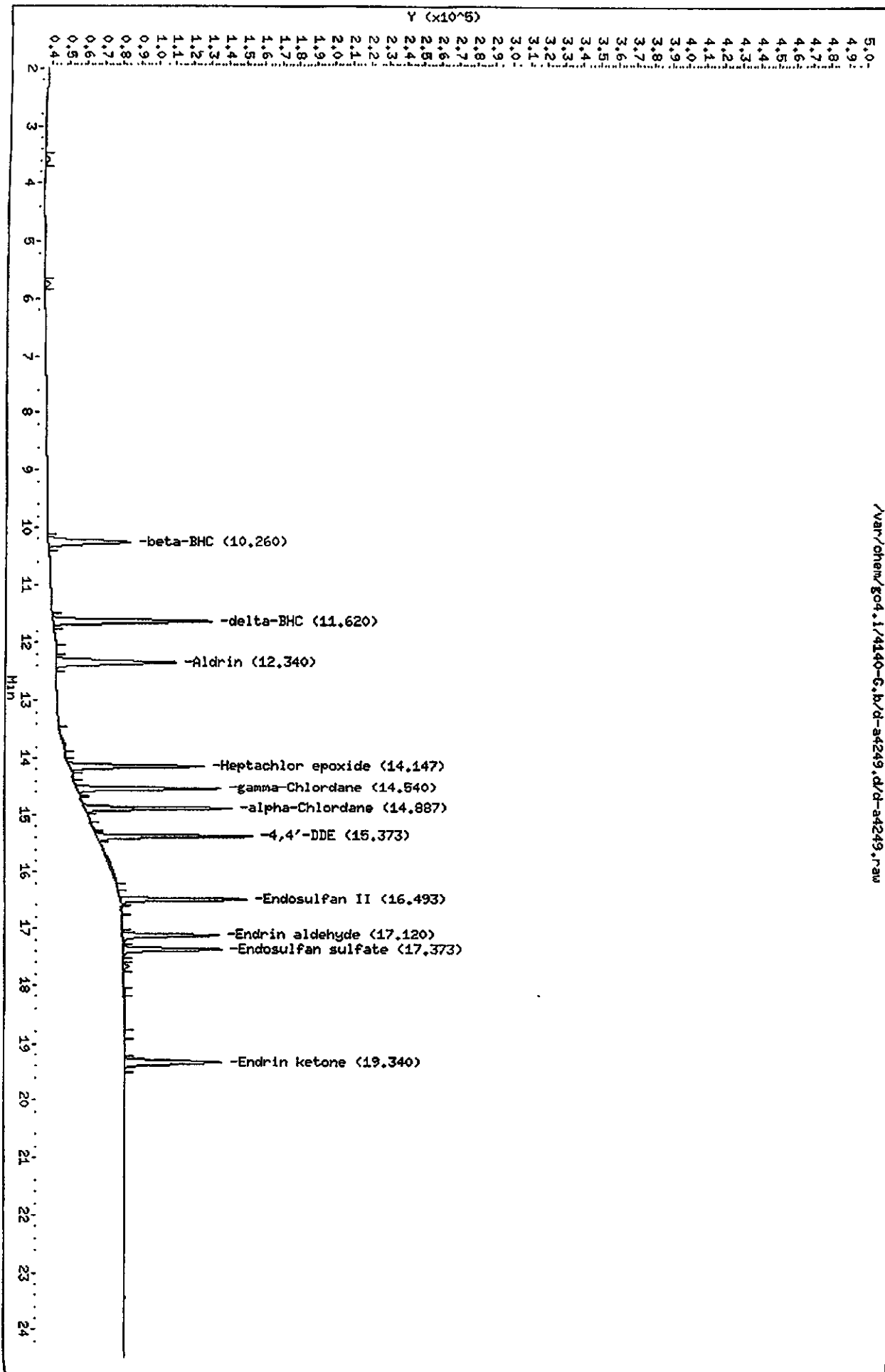
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (ng)	ON-COL (ng)
11 Aldrin	12.340	12.340	0.000	66905	0.02500	0.02500 (M)
7 beta-BHC	10.260	10.260	0.000	46510	0.02500	0.02500 (M)
8 delta-BHC	11.620	11.620	0.000	89033	0.02500	0.02500 (M)
12 Heptachlor epoxide	14.147	14.147	0.000	75076	0.02500	0.02500 (M)
13 gamma-Chlordane	14.540	14.540	0.000	80543	0.02500	0.02500 (M)
14 alpha-Chlordane	14.887	14.887	0.000	82112	0.02500	0.02500 (M)
16 4,4'-DDB	15.373	15.373	0.000	87238	0.02500	0.02500 (M)
22 Endosulfan II	16.493	16.493	0.000	71226	0.02500	0.02500 (M)
24 Endrin aldehyde	17.120	17.120	0.000	54162	0.02500	0.02500 (M)
26 Endosulfan sulfate	17.373	17.373	0.000	54909	0.02500	0.02500 (M)
27 Endrin ketone	19.340	19.340	0.000	54750	0.02500	0.02500 (M)

QC Flag Legend

M - Compound response manually integrated.

Data File: /var/chem/g04.i/4140-G.b/d-84249.d
 Date: 14-JUL-2000 23:43
 Client ID:
 Sample Info: HEDB,4140-G.b,4-INDB,sub,1,3
 Column phase: DB608

Instrument: g04.i
 Operator: 1891
 Column diameter: 0.53



Data File: /var/chem/gc4.i/4140-G.b/d-a4250.d
 Report Date: 17-Jul-2000 09:46

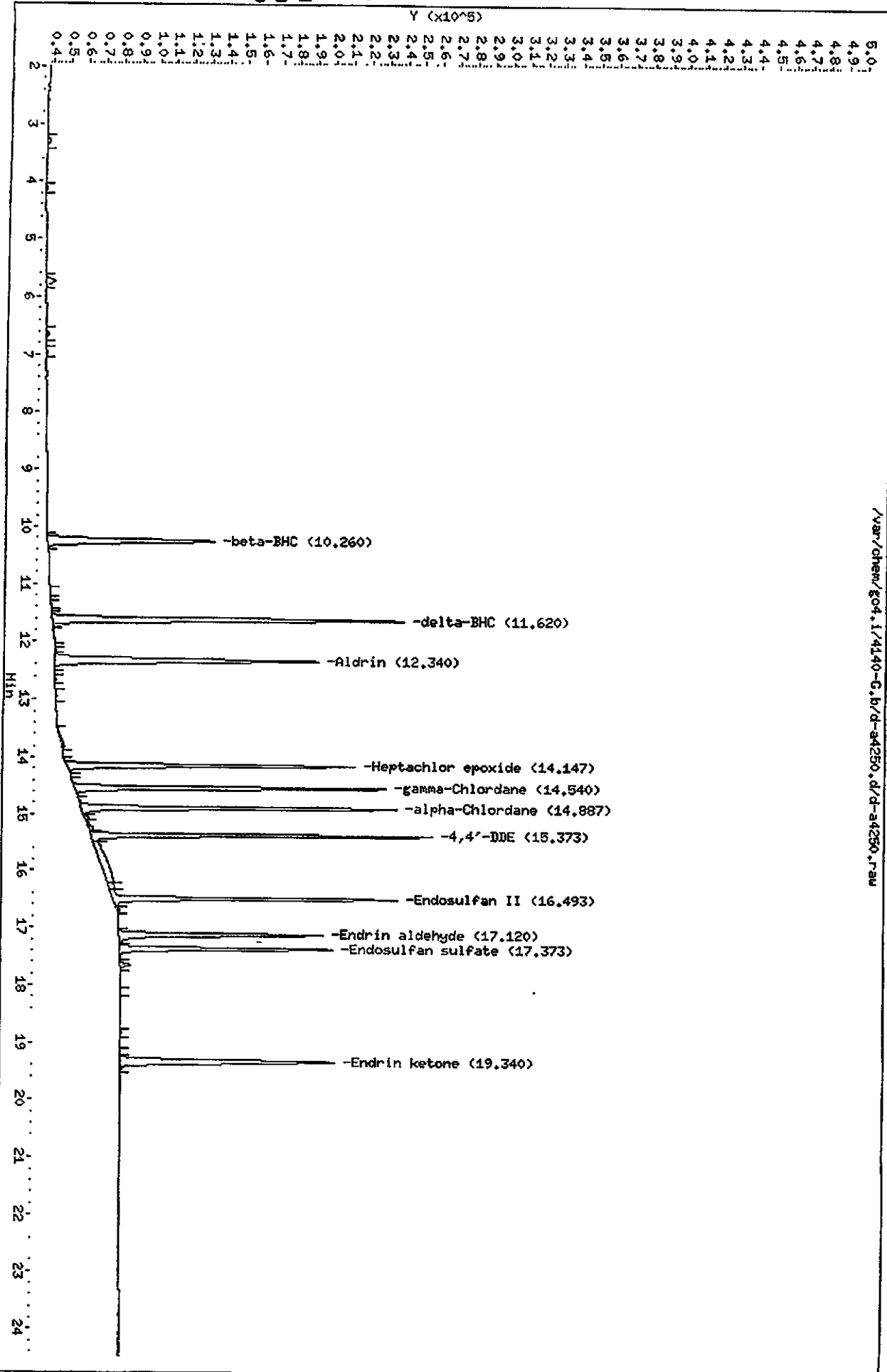
STL-PITTSBURGH

Data file : /var/chem/gc4.i/4140-G.b/d-a4250.d
 Lab Smp Id: MHIGHB
 Inj Date : 15-JUL-2000 00:11
 Operator : 1891 Inst ID: gc4.i
 Smp Info : MHIGHB,4140-G.b,,4-INDB.sub,,1,4
 Misc Info : 190-84-10
 Comment :
 Method : /var/chem/gc4.i/4140-G.b/PESTA.m
 Meth Date : 17-Jul-2000 09:45 g Quant Type: ESTD
 Cal Date : 15-JUL-2000 00:11 Cal File: d-a4250.d
 Als bottle: 1 Calibration Sample, Level: 4
 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	12.340	12.340	0.000	148464	0.05000	0.05477
7 beta-BHC	10.260	10.260	0.000	94522	0.05000	0.04903
8 delta-BHC	11.620	11.620	0.000	198164	0.05000	0.05638
12 Heptachlor epoxide	14.147	14.147	0.000	161668	0.05000	0.05351
13 gamma-Chlordane	14.540	14.540	0.000	174318	0.05000	0.05260
14 alpha-Chlordane	14.887	14.887	0.000	176769	0.05000	0.05259
16 4,4'-DDE	15.373	15.373	0.000	191567	0.05000	0.05443
22 Endosulfan II	16.493	16.493	0.000	159760	0.05000	0.05478
24 Endrin aldehyde	17.120	17.120	0.000	114788	0.05000	0.05182
26 Endosulfan sulfate	17.373	17.373	0.000	120227	0.05000	0.05447
27 Endrin ketone	19.340	19.340	0.000	120872	0.05000	0.05402

Data File: /var/chem/g04,i/4140-G,b/d-a4250.d
Date: 15-JUL-2000 00:11
Client ID:
Sample Info: NHHSB,4140-G,b,4-INDB,sub,,1,4
Column phase: DB608

Instrument: g04.i
Operator: 1891
Column diameter: 0.53



Data File: /var/chem/gc4.i/4140-G.b/d-a4251.d
 Report Date: 17-Jul-2000 09:46

STL-PITTSBURGH

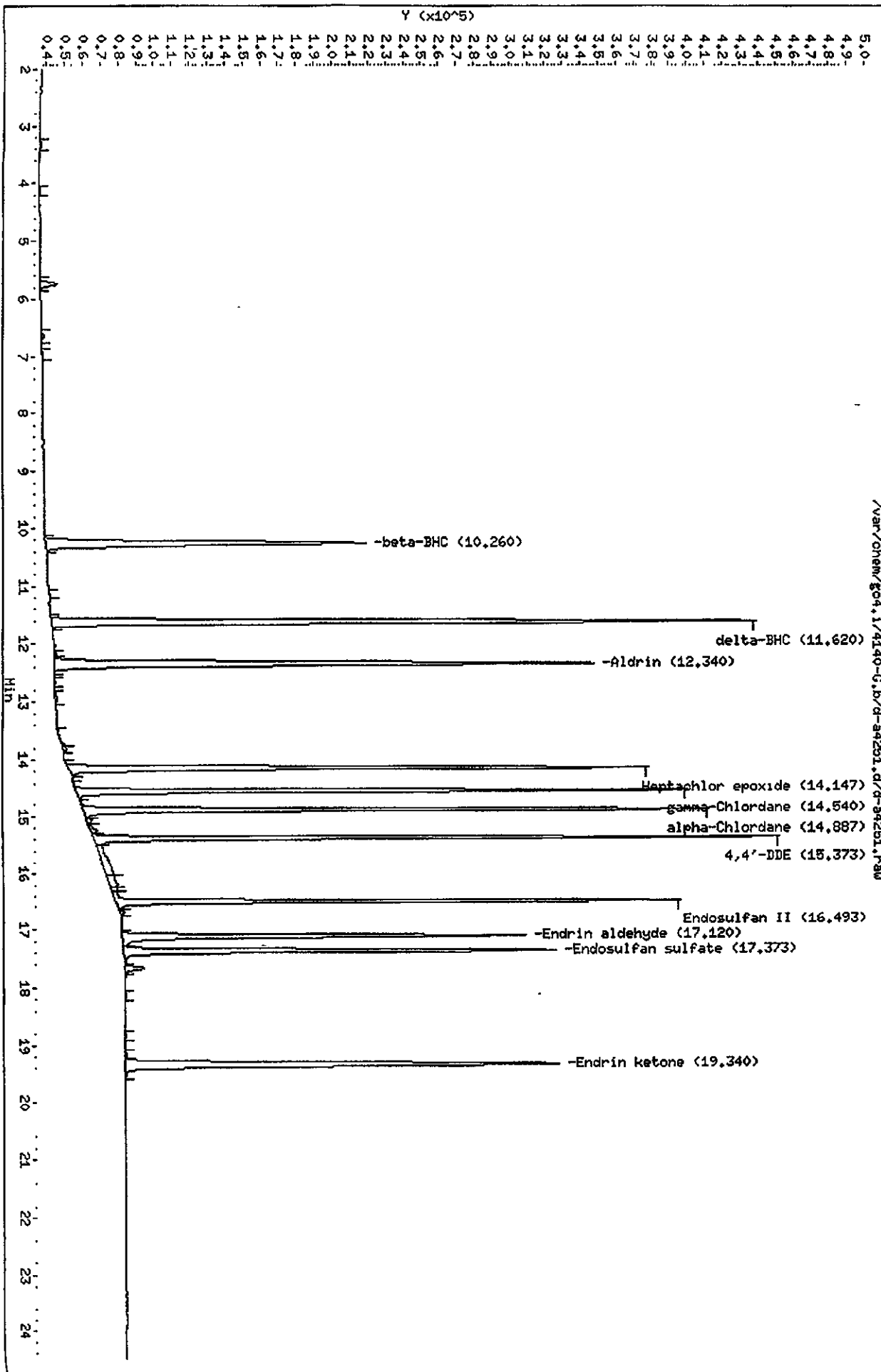
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 Lab Smp Id: HIGHB
 Inj Date : 15-JUL-2000 00:38
 Operator : 1891
 Smp Info : HIGHB,4140-G.b,,4-INDB.sub,,1,5
 Misc Info : 190-84-11
 Comment :
 Method : /var/chem/gc4.i/4140-G.b/PESTA.m
 Meth Date : 17-Jul-2000 09:45 g
 Cal Date : 15-JUL-2000 00:38
 Als bottle: 1
 Dil Factor: 1.00000
 Integrator: Falcon
 Target Version: 3.40

Inst ID: gc4.i
 Quant Type: ESTD
 Cal File: d-a4251.d
 Calibration Sample, Level: 5
 Compound Sublist: 4-INDB.sub

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (ng)	ON-COL (ng)
11 Aldrin	12.340	12.340	0.000	302079	0.10000	0.1089 (A)
7 beta-BHC	10.260	10.260	0.000	178724	0.10000	0.09407
8 delta-BHC	11.620	11.620	0.000	395488	0.10000	0.1098 (A)
12 Heptachlor epoxide	14.147	14.147	0.000	324308	0.10000	0.1058 (A)
13 gamma-Chlordane	14.540	14.540	0.000	341905	0.10000	0.1025 (A)
14 alpha-Chlordane	14.887	14.887	0.000	350769	0.10000	0.1034 (A)
16 4,4'-DDE	15.373	15.373	0.000	384790	0.10000	0.1073 (A)
22 Endosulfan II	16.493	16.493	0.000	316557	0.10000	0.1067 (A)
24 Endrin aldehyde	17.120	17.120	0.000	225928	0.10000	0.1016 (A)
26 Endosulfan sulfate	17.373	17.373	0.000	242408	0.10000	0.1077 (A)
27 Endrin ketone	19.340	19.340	0.000	243130	0.10000	0.1068 (A)

QC Flag Legend

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



/var/chem/g04.1/4140-G.b/d-a4251.rnw

Data File: /var/chem/g04.1/4140-G.b/d-a4251.d
 Date: 15-JUL-2000 00:38
 Client ID:
 Sample Info: HIGHB,4140-G.b,4-INDB,sub,1,5
 Column Phase: DB608

Instrument: g04.i
 Operator: 1891
 Column diameter: 0.53

Data File: /var/chem/gc4.i/4140-G.b/d-a4252.d
 Report Date: 17-Jul-2000 09:46

STL-PITTSBURGH

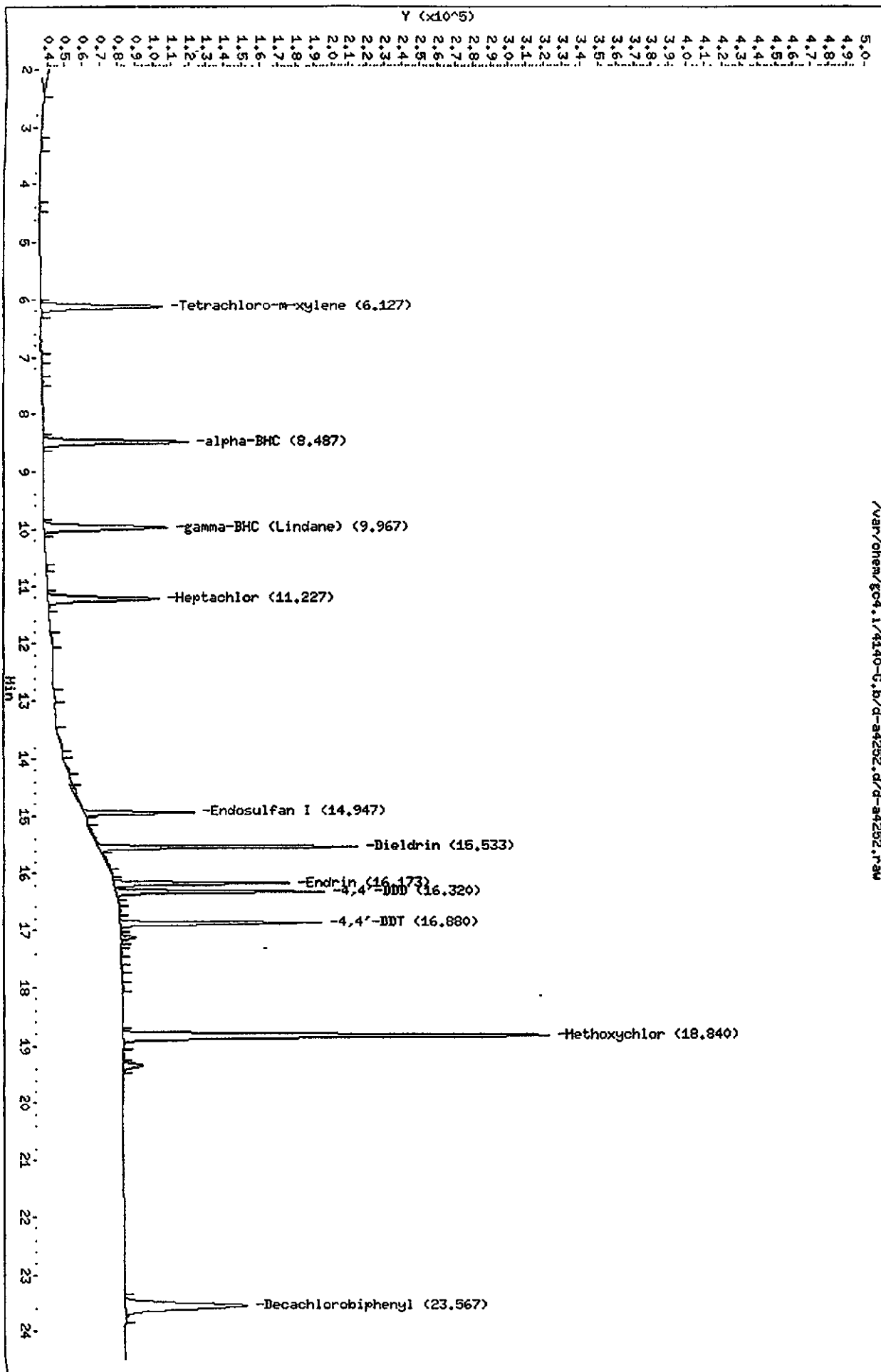
Data file : /var/chem/gc4.i/4140-G.b/d-a4252.d
 Lab Smp Id: 2ND A
 Inj Date : 15-JUL-2000 01:06
 Operator : 1891
 Smp Info : 2ND A, 4140-G.b, , INDA.sub, , 2, 3
 Misc Info : 190-82-2
 Comment :
 Method : /var/chem/gc4.i/4140-G.b/PESTA.m
 Meth Date : 17-Jul-2000 09:45 g
 Cal Date : 15-JUL-2000 00:38
 Als bottle: 1
 Dil Factor: 1.00000
 Integrator: Falcon
 Target Version: 3.40

Inst ID: gc4.i
 Quant Type: ESTD
 Cal File: d-a4251.d
 Continuing Calibration Sample
 Compound Sublist: INDA.sub

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (ng)	ON-COL (ng)
\$ 1 Tetrachloro-m-xylene	6.127	6.127	0.000	67896	0.02500	0.01976
5 alpha-BHC	8.487	8.487	0.000	81477	0.02500	0.02017
6 gamma-BHC (Lindane)	9.967	9.973	-0.006	69297	0.02500	0.02063
10 Heptachlor	11.227	11.227	0.000	62600	0.02500	0.02004
15 Endosulfan I	14.947	14.947	0.000	61617	0.02500	0.01994
17 Dieldrin	15.533	15.533	0.000	144332	0.02500	0.04036
20 Endrin	16.173	16.173	0.000	98115	0.02500	0.03508
21 4,4'-DDD	16.320	16.320	0.000	115817	0.02500	0.04075
23 4,4'-DDT	16.880	16.880	0.000	112511	0.02500	0.04159
25 Methoxychlor	18.840	18.833	0.007	238058	0.05000	0.2065 (A)
\$ 30 Decachlorobiphenyl	23.567	23.560	0.007	68227	0.02500	0.04050

QC Flag Legend

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



Data File: /var/chem/gc4.i/4140-G,b/d-a4252.d
 Date: 15-JUL-2000 01:06
 Client ID:
 Sample Info: 2ND R,4140-G,b,,INDR,sub,,2,3
 Column phase: DB608

/var/chem/gc4.i/4140-G,b/d-a4252.d/d-a4252.rsw

Instrument: gc4.i
 Operator: 1891
 Column diameter: 0.53

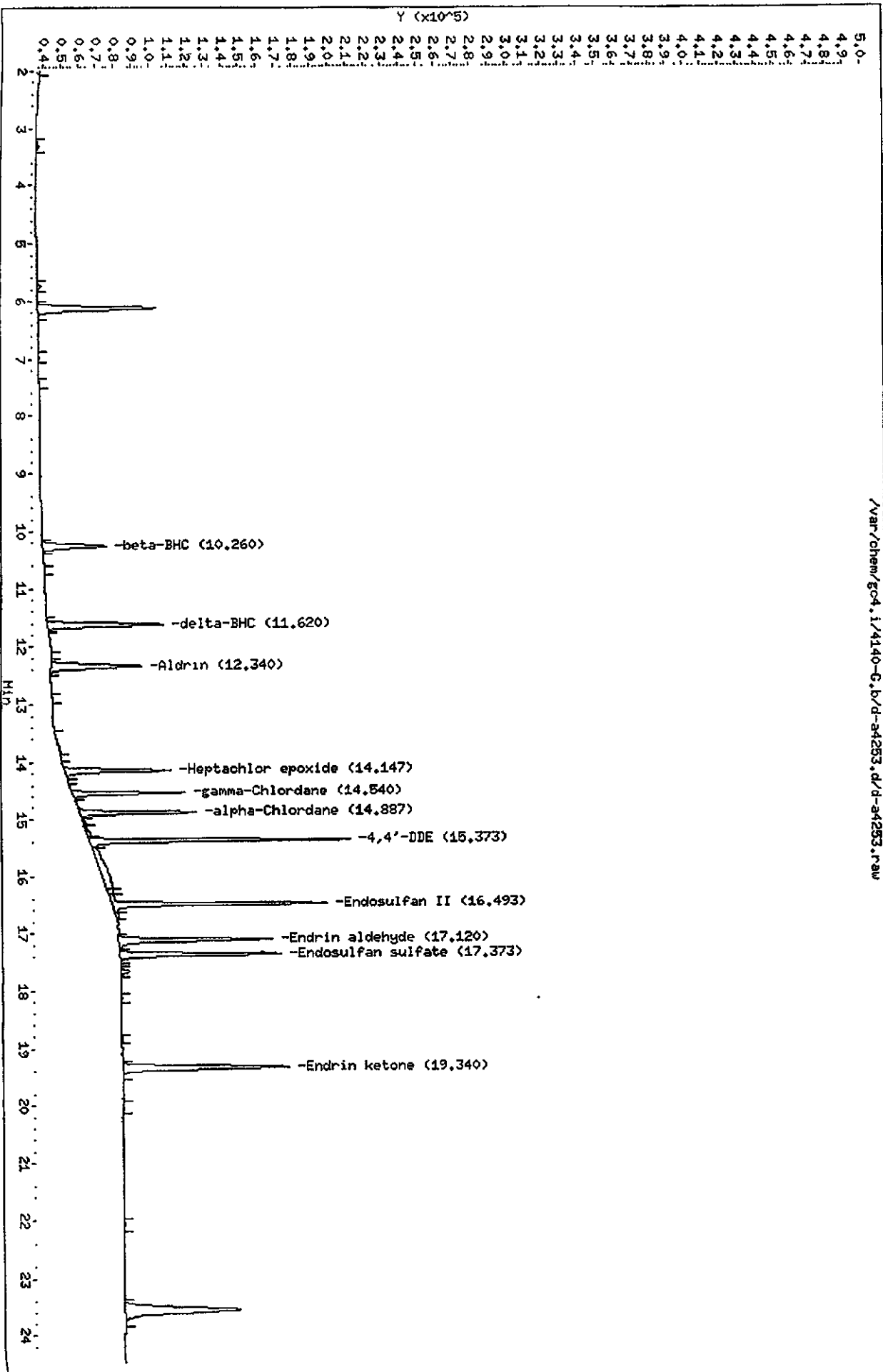
Data File: /var/chem/gc4.i/4140-G.b/d-a4253.d
 Report Date: 17-Jul-2000 09:46

STL-PITTSBURGH

Data file : /var/chem/gc4.i/4140-G.b/d-a4253.d
 Lab Smp Id: 2ND B
 Inj Date : 15-JUL-2000 01:34
 Operator : 1891
 Smp Info : 2ND B,4140-G.b,,INDB.sub,,2,3
 Misc Info : 190-82-5
 Comment :
 Method : /var/chem/gc4.i/4140-G.b/PESTA.m
 Meth Date : 17-Jul-2000 09:45 g
 Cal Date : 15-JUL-2000 00:38
 Als bottle: 1
 Dil Factor: 1.00000
 Integrator: Falcon
 Target Version: 3.40

Inst ID: gc4.i
 Quant Type: ESTD
 Cal File: d-a4251.d
 Continuing Calibration Sample
 Compound Sublist: INDB.sub

Compounds	AMOUNTS						
	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)	
11 Aldrin	12.340	12.340	0.000	51149	0.02500	0.01845	
7 beta-BHC	10.260	10.260	0.000	16402	0.02500	0.01916	
8 delta-BHC	11.620	11.620	0.000	65076	0.02500	0.01806	
12 Heptachlor epoxide	14.147	14.147	0.000	59496	0.02500	0.01941	
13 gamma-Chlordane	14.540	14.540	0.000	63096	0.02500	0.01892	
14 alpha-Chlordane	14.887	14.887	0.000	65147	0.02500	0.01921	
16 4,4'-DDE	15.373	15.373	0.000	144832	0.02500	0.04040	
22 Endosulfan II	16.493	16.493	0.000	119499	0.02500	0.04028	
24 Endrin aldehyde	17.120	17.120	0.000	85461	0.02500	0.03842	
26 Endosulfan sulfate	17.373	17.373	0.000	89362	0.02500	0.03971	
27 Endrin ketone	19.340	19.340	0.000	92952	0.02500	0.04083	



/var/chem/gc4,1/4140-G,b/d-a4253.raw

Data File: /var/chem/gc4,1/4140-G,b/d-a4253.d
 Date: 15-JUL-2000 04:34
 Client ID:
 Sample Info: 2ND B,4140-G,b,,INDB.sub,2,3
 Column phase: DB608

Instrument: gc4,1
 Operator: 1891
 Column diameter: 0.53

Data File: /var/chem/gc4.i/4140-G.b/d-a4254.d
 Report Date: 17-Jul-2000 09:46

STL-PITTSBURGH

Data file : /var/chem/gc4.i/4140-G.b/d-a4254.d
 Lab Smp Id: EVALB
 Inj Date : 15-JUL-2000 02:02
 Operator : 1891
 Smp Info : EVALB,4140-G.b,,EVALBR.sub,,3,1
 Misc Info : 190-88-8
 Comment :
 Method : /var/chem/gc4.i/4140-G.b/PESTA.m
 Meth Date : 17-Jul-2000 09:45 g
 Cal Date : 15-JUL-2000 00:38
 Als bottle: 1
 Dil Factor: 1.00000
 Integrator: Falcon
 Target Version: 3.40
 Inst ID: gc4.i
 Quant Type: ESTD
 Cal File: d-a4251.d
 QC Sample: PEM
 Compound Sublist: EVALBR.sub

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ng)	FINAL (ng)
\$ 1 Tetrachloro-m-xylene	6.127	6.127	0.000	69113	0.02011	0.02011(R)
16 4,4'-DDE	Compound Not Detected.					
20 Endrin	16.173	16.173	0.000	65402	0.02338	0.02338
21 4,4'-DDD	16.327	16.320	0.007	3145	0.00111	0.001106
23 4,4'-DDT	16.880	16.880	0.000	65493	0.02421	0.02421
24 Endrin aldehyde	17.120	17.120	0.000	3568	0.00160	0.001604
27 Endrin ketone	19.340	19.340	0.000	3276	0.00144	0.001439
\$ 30 Decachlorobiphenyl	23.560	23.560	0.000	34064	0.02022	0.02022(R)

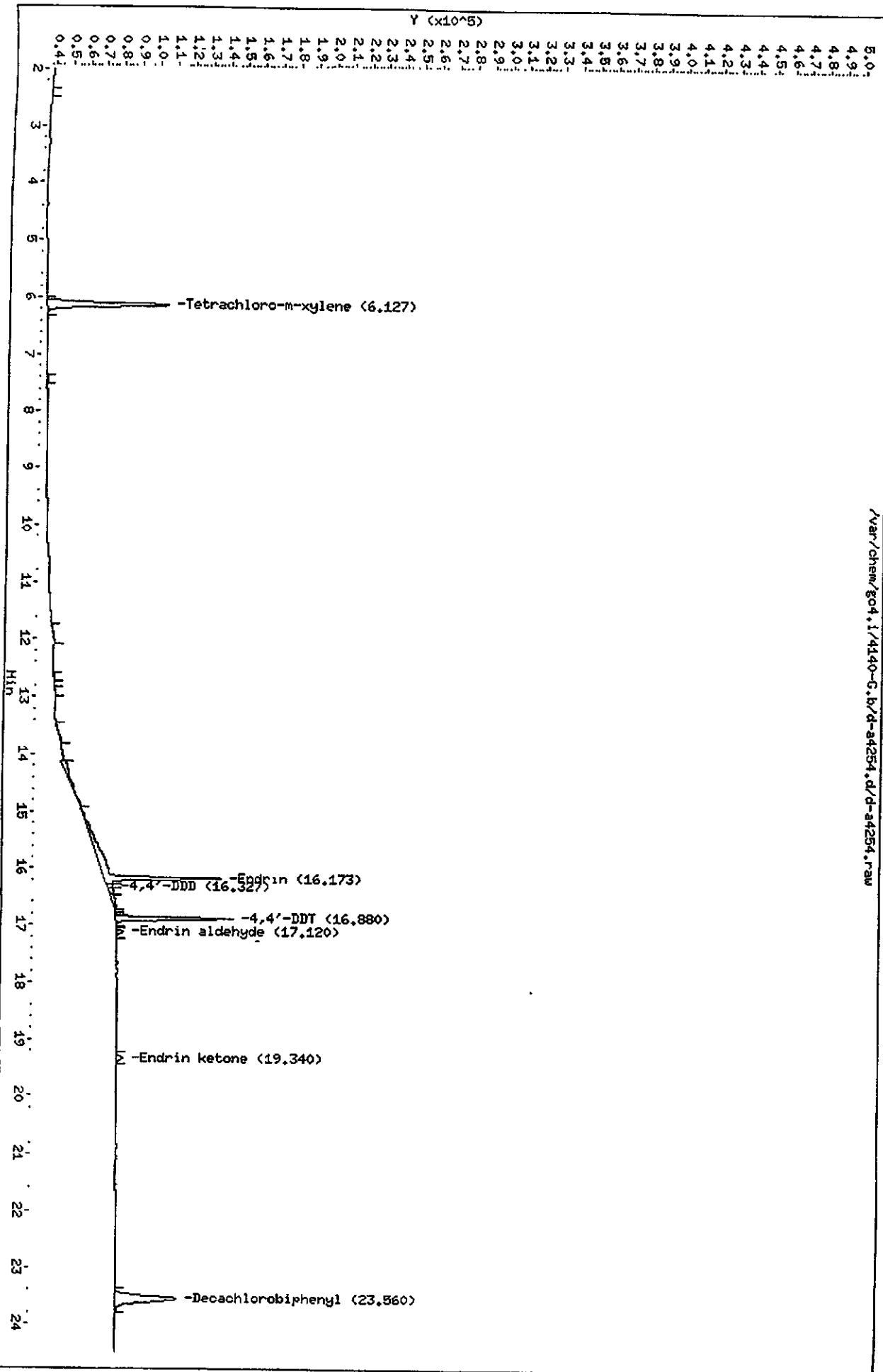
QC Flag Legend

R - Spike/Surrogate failed recovery limits.

*DDT = 4.6
 Endrin = 9.5*

Data File: /var/chem/gc4.i/4140-G.b/d-84254.d
Date: 15-JUL-2000 02:02
Client ID:
Sample Info: EVALB,4140-G.b, EVAL BR, sub, 3.1
Column phase: DB608

Instrument: gc4.i
Operator: 1891
Column diameter: 0.53



Data File: /var/chem/gc4.i/4190-G.b/d-a4376.d
 Report Date: 20-Jul-2000 13:49

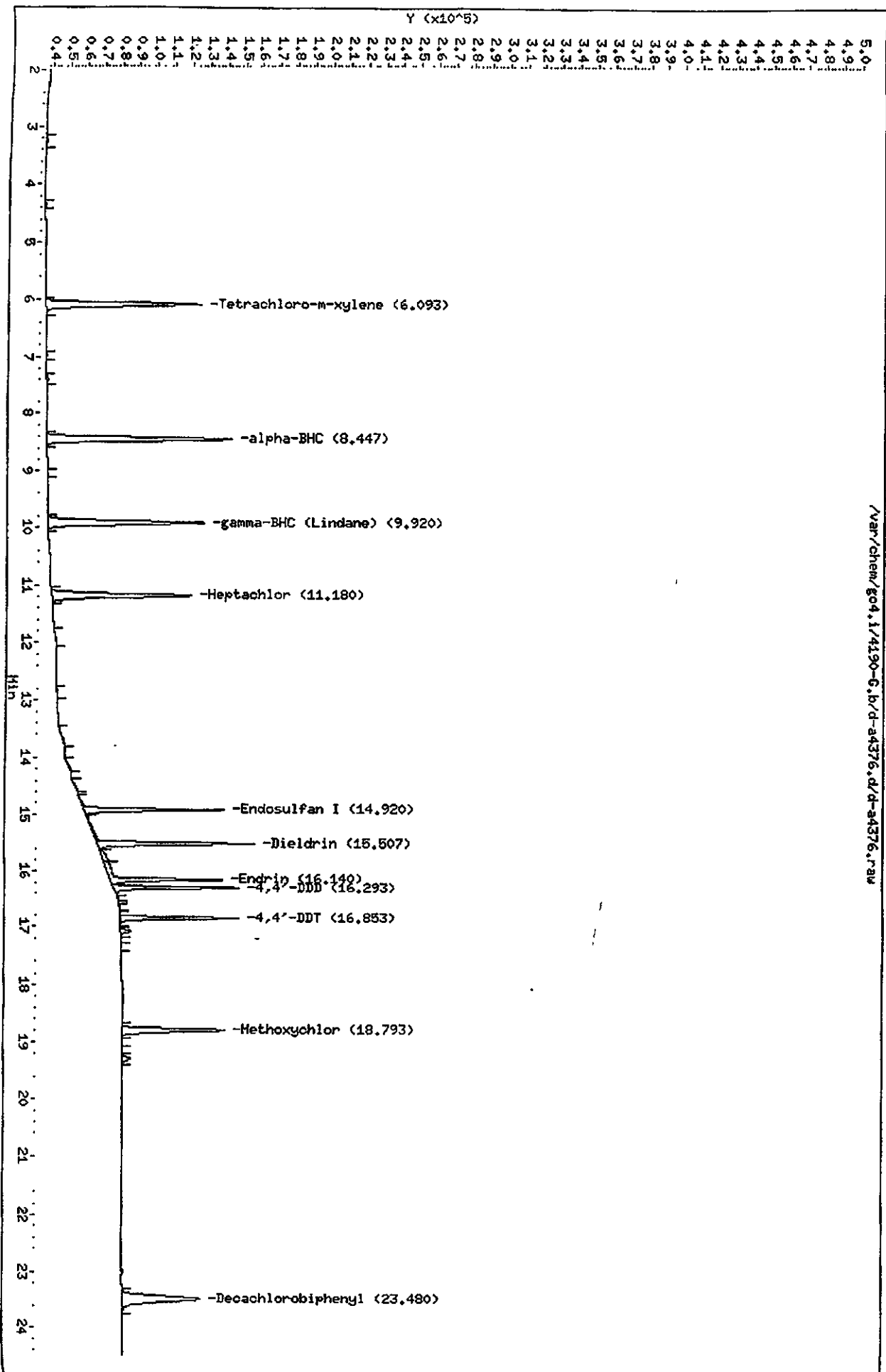
STL-PITTSBURGH

Data file : /var/chem/gc4.i/4190-G.b/d-a4376.d
 Lab Smp Id: MEDA
 Inj Date : 19-JUL-2000 20:53
 Operator : 1891 Inst ID: gc4.i
 Smp Info : MEDA, 4190-G.b, , INDA.sub, , 2, 3
 Misc Info : 190-84-3
 Comment :
 Method : /var/chem/gc4.i/4190-G.b/PESTA.m
 Meth Date : 20-Jul-2000 13:46 matkol Quant Type: ESTD
 Cal Date : 15-JUL-2000 00:38 Cal File: d-a4251.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	6.093	6.093	0.000	87840	0.02500	0.02556
5 alpha-BHC	8.447	8.447	0.000	104732	0.02500	0.02593
6 gamma-BHC (Lindane)	9.920	9.920	0.000	88900	0.02500	0.02647
10 Heptachlor	11.180	11.180	0.000	78884	0.02500	0.02525
15 Endosulfan I	14.920	14.920	0.000	79047	0.02500	0.02558
17 Dieldrin	15.507	15.507	0.000	88571	0.02500	0.02476
20 Endrin	16.140	16.140	0.000	63351	0.02500	0.02265
21 4,4'-DDD	16.293	16.293	0.000	70267	0.02500	0.02472
23 4,4'-DDT	16.853	16.853	0.000	66864	0.02500	0.02472
25 Methoxychlor	18.793	18.793	0.000	57776	0.05000	0.05012
§ 30 Decachlorobiphenyl	23.480	23.480	0.000	43474	0.02500	0.02581

Data File: /var/chem/g04,1/4190-G,b/d-a4376.d
 Date: 19-JUL-2000 20:53
 Client ID:
 Sample Info: HEDD,4190-G,b,INDA,sub,,2,3
 Column phase: DB608

Instrument: g04,1
 Operator: 1891
 Column diameter: 0.53



Data File: /var/chem/gc4.i/4190-G.b/d-a4377.d
 Report Date: 20-Jul-2000 13:49

STL-PITTSBURGH

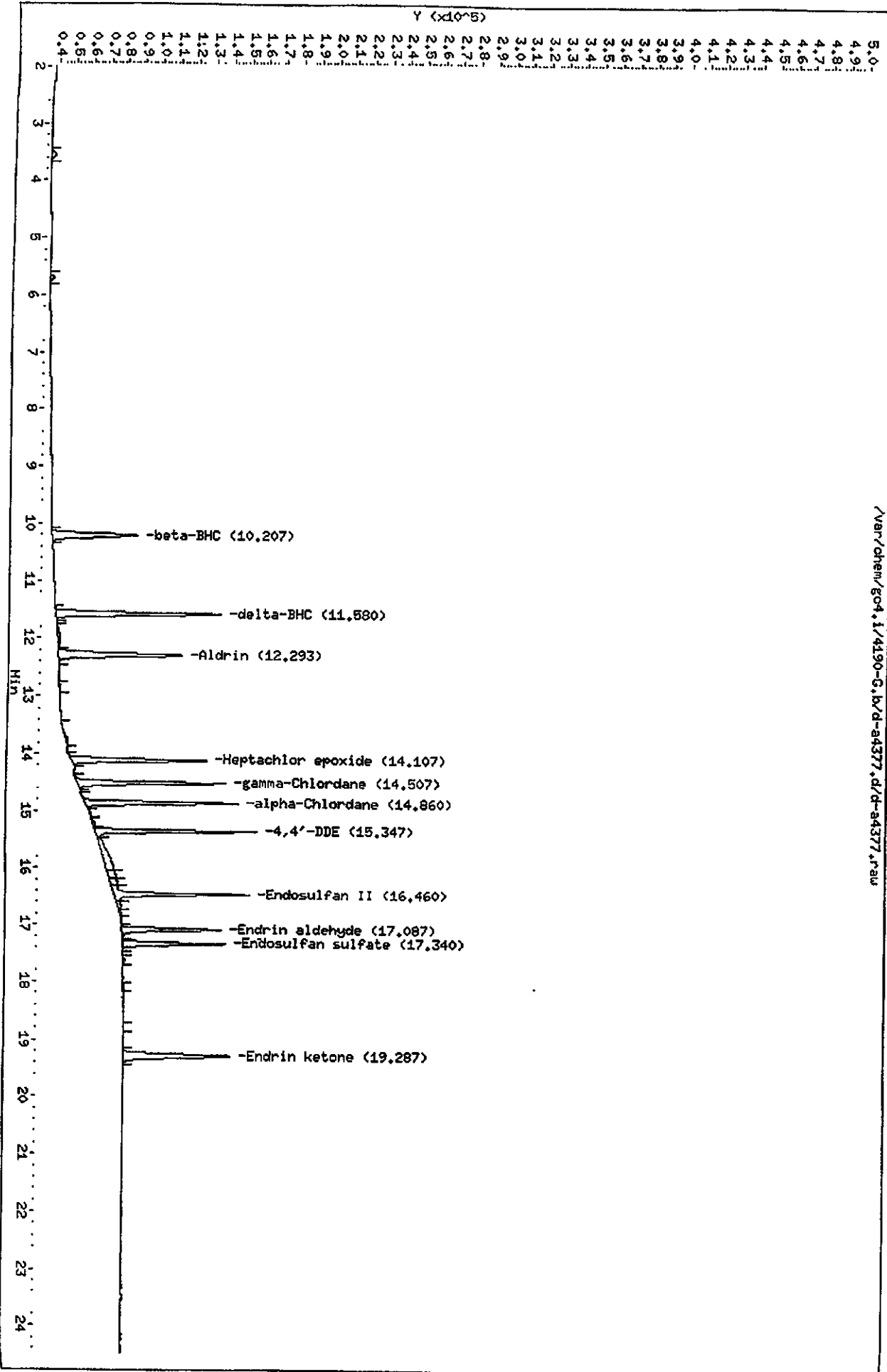
Data file : /var/chem/gc4.i/4190-G.b/d-a4377.d
 Lab Smp Id: MEDB
 Inj Date : 19-JUL-2000 21:21
 Operator : 1891
 Smp Info : MEDB,4190-G.b,,INDB.sub,,2,3
 Misc Info : 190-84-9
 Comment :
 Method : /var/chem/gc4.i/4190-G.b/PESTA.m
 Meth Date : 20-Jul-2000 13:46 matkol
 Cal Date : 15-JUL-2000 00:38
 Als bottle: 1
 Dil Factor: 1.00000
 Integrator: Falcon
 Target Version: 3.40

Inst ID: gc4.i
 Quant Type: ESTD
 Cal File: d-a4251.d
 Continuing Calibration Sample
 Compound Sublist: INDB.sub

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (ng)	ON-COL (ng)
11 Aldrin	12.293	12.293	0.000	69998	0.02500	0.02524
7 beta-BHC	10.207	10.207	0.000	48395	0.02500	0.02547
8 delta-BHC	11.580	11.580	0.000	93054	0.02500	0.02583
12 Heptachlor epoxide	14.107	14.107	0.000	76193	0.02500	0.02486
13 gamma-Chlordane	14.507	14.507	0.000	83335	0.02500	0.02499
14 alpha-Chlordane	14.860	14.860	0.000	85126	0.02500	0.02511
16 4,4'-DDE	15.347	15.347	0.000	90526	0.02500	0.02525
22 Endosulfan II	16.460	16.460	0.000	75876	0.02500	0.02558
24 Endrin aldehyde	17.087	17.087	0.000	56072	0.02500	0.02521
26 Endosulfan sulfate	17.340	17.340	0.000	57210	0.02500	0.02542
27 Endrin ketone	19.287	19.287	0.000	59542	0.02500	0.02616

Data File: \var\chem\604,1\4190-G,b,d-a4377.d
 Date : 19-JUL-2000 21:21
 Client ID:
 Sample Info: HEDB, 4190-G,b,, INDB.sub, 2,3
 Column phase: DB608

Instrument: 604.1
 Operator: 1891
 Column diameter: 0.53



Data File: /var/chem/gc4.i/4190-G.b/d-a4378.d
 Report Date: 20-Jul-2000 13:49

STL-PITTSBURGH

Data file : /var/chem/gc4.i/4190-G.b/d-a4378.d
 Lab Smp Id: EVALB
 Inj Date : 19-JUL-2000 21:49
 Operator : 1891 Inst ID: gc4.i
 Smp Info : EVALB,4190-G.b,,EVALBR.sub,,3,1
 Misc Info : 190-88-8
 Comment :
 Method : /var/chem/gc4.i/4190-G.b/PESTA.m
 Meth Date : 20-Jul-2000 13:46 matkol Quant Type: ESTD
 Cal Date : 15-JUL-2000 00:38 Cal File: d-a4251.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	6.093	6.093	0.000		69632	0.02026	0.02026 (R)
16 4,4'-DDE	Compound Not Detected.						
20 Endrin	16.140	16.140	0.000		62459	0.02233	0.02233
21 4,4'-DDD	Compound Not Detected.						
23 4,4'-DDT	16.853	16.853	0.000		66985	0.02476	0.02476
24 Endrin aldehyde	17.087	17.087	0.000		5478	0.00246	0.002463
27 Endrin ketone	19.287	19.287	0.000		4522	0.00199	0.001986
§ 30 Decachlorobiphenyl	23.487	23.480	0.007		35210	0.02090	0.02090 (R)

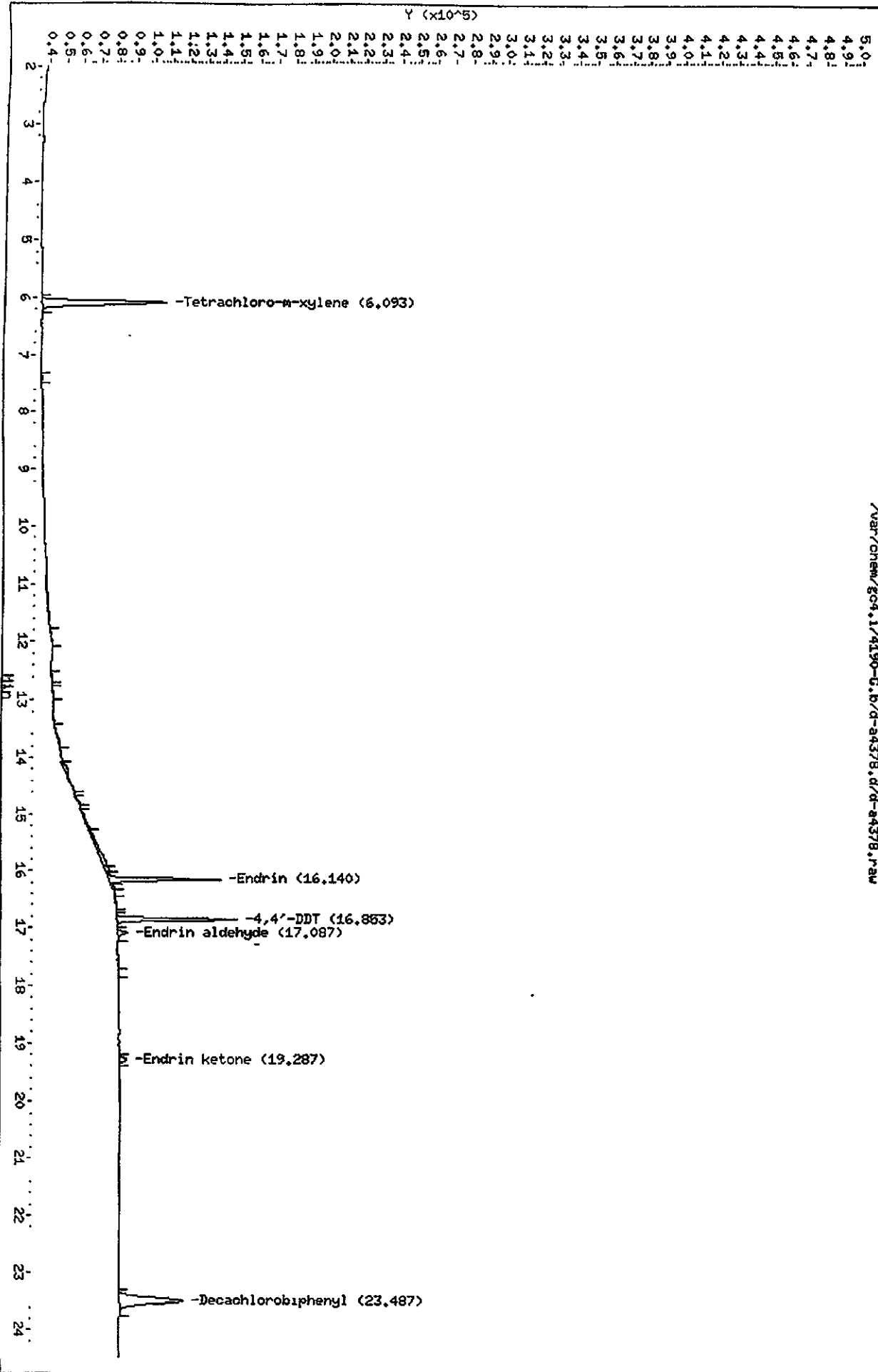
QC Flag Legend

R - Spike/Surrogate failed recovery limits.

*DDT=0
 Evidence 13.8*

Data File: /var/chem/gc04.1/4190-G.b/d-a4378.d
Date: 19-JUL-2000 21:49
Client ID:
Sample Info: EVALB,4190-G,b,,EVALBR,sub,,3,1
Column Phase: DB608

Instrument: gc04.1
Operator: 1891
Column diameter: 0.53



Data File: /var/chem/gc4.i/4190-G.b/d-a4397.d
 Report Date: 20-Jul-2000 13:51

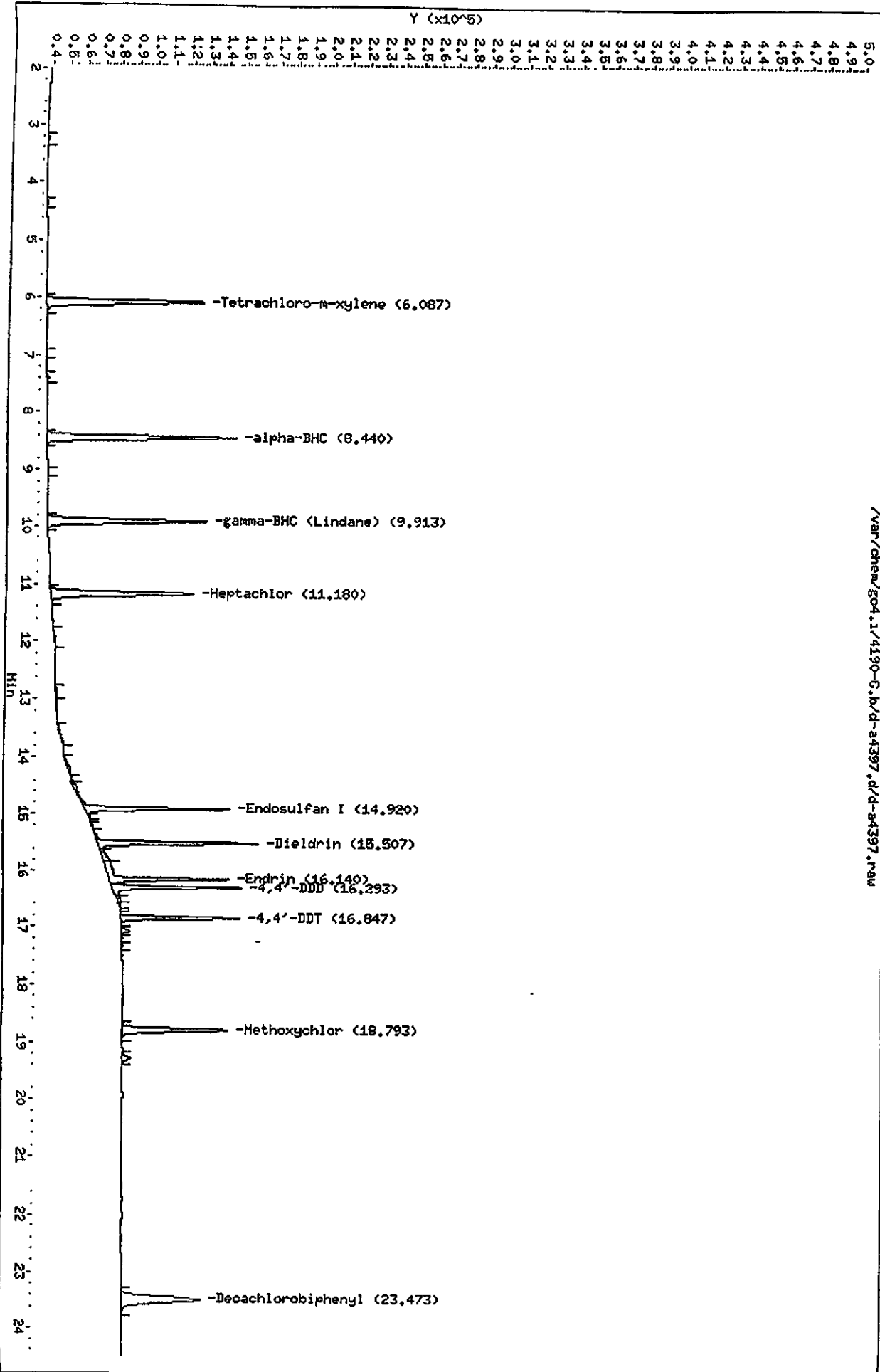
STL-PITTSBURGH

Data file : /var/chem/gc4.i/4190-G.b/d-a4397.d
 Lab Smp Id: MEDA
 Inj Date : 20-JUL-2000 06:36
 Operator : 1891 Inst ID: gc4.i
 Smp Info : MEDA,4190-G.b,,INDA.sub,,2,3
 Misc Info : 190-84-3
 Comment :
 Method : /var/chem/gc4.i/4190-G.b/PESTA.m
 Meth Date : 20-Jul-2000 13:46 matkol Quant Type: ESTD
 Cal Date : 15-JUL-2000 00:38 Cal File: d-a4251.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	6.087	6.093	-0.006	87827	0.02500	0.02556
5 alpha-BHC	8.440	8.447	-0.007	105821	0.02500	0.02620
6 gamma-BHC (Lindane)	9.913	9.920	-0.007	89133	0.02500	0.02654
10 Heptachlor	11.180	11.180	0.000	79673	0.02500	0.02551
15 Endosulfan I	14.920	14.920	0.000	80701	0.02500	0.02612
17 Dieldrin	15.507	15.507	0.000	89674	0.02500	0.02507
20 Endrin	16.140	16.140	0.000	66583	0.02500	0.02380
21 4,4'-DDD	16.293	16.293	0.000	71845	0.02500	0.02528
23 4,4'-DDT	16.847	16.853	-0.006	66783	0.02500	0.02469
25 Methoxychlor	18.793	18.793	0.000	58750	0.05000	0.05097
\$ 30 Decachlorobiphenyl	23.473	23.480	-0.007	43417	0.02500	0.02577

Data File: /var/chem/gcd,1/4190-G,b/d-a4397.d
Date: 20-JUL-2000 06:36
Client ID:
Sample Info: HED0,4190-G,b,,IND0,sub,2,3
Column phase: DB608

Instrument: gcd,1
Operator: 1891
Column diameter: 0.53



Data File: /var/chem/gc4.i/4190-G.b/d-a4398.d
 Report Date: 20-Jul-2000 13:51

STL-PITTSBURGH

Data file : /var/chem/gc4.i/4190-G.b/d-a4398.d
 Lab Smp Id: MEDB
 Inj Date : 20-JUL-2000 07:04
 Operator : 1891 Inst ID: gc4.i
 Smp Info : MEDB,4190-G.b,,INDB.sub,,2,3
 Misc Info : 190-84-9
 Comment :
 Method : /var/chem/gc4.i/4190-G.b/PESTA.m
 Meth Date : 20-Jul-2000 13:46 matkol Quant Type: ESTD
 Cal Date : 15-JUL-2000 00:38 Cal File: d-a4251.d
 Als bottle: 1 Continuing Calibration Sample
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: INDB.sub
 Target Version: 3.40

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (ng)	ON-COL (ng)
11 Aldrin	12.293	12.293	0.000	70675	0.02500	0.02549
7 beta-BHC	10.207	10.207	0.000	48620	0.02500	0.02559
8 delta-BHC	11.573	11.580	-0.007	94267	0.02500	0.02616
12 Heptachlor epoxide	14.107	14.107	0.000	78524	0.02500	0.02562
13 gamma-Chlordane	14.507	14.507	0.000	83442	0.02500	0.02502
14 alpha-Chlordane	14.853	14.860	-0.007	85587	0.02500	0.02524
16 4,4'-DDB	15.347	15.347	0.000	91786	0.02500	0.02560
22 Endosulfan II	16.460	16.460	0.000	77244	0.02500	0.02604
24 Endrin aldehyde	17.087	17.087	0.000	56443	0.02500	0.02538
26 Endosulfan sulfate	17.340	17.340	0.000	58862	0.02500	0.02616
27 Endrin ketone	19.287	19.287	0.000	60075	0.02500	0.02639

Data File: /var/chem/gc4.1/4190-G.b/d-4398.d

Date: 20-JUL-2000 07:04

Client ID:

Sample Info: MEDB,4190-G.b,,INDB,sub,2,3

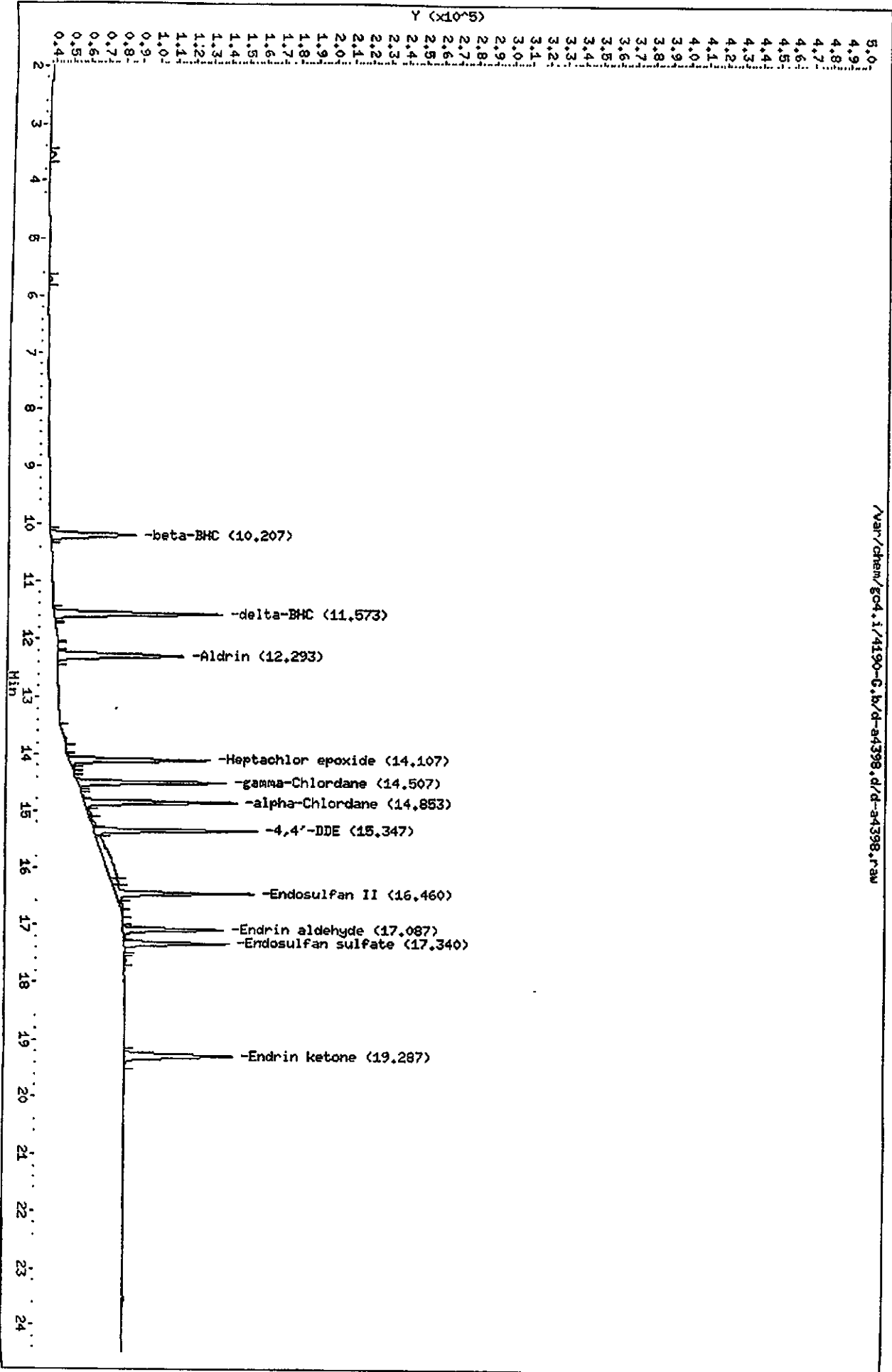
Column Phase: DB608

Instrument: gc4.1

Operator: 1891

Column diameter: 0.53

/var/chem/gc4.1/4190-G.b/d-4398.d/d-4398.raw



664 377

108

**PESTICIDE
QC DATA**

664 378

UKB INTERNATIONAL
METHOD BLANK COMPOUNDS

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

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

Lab Sample ID: C0G180000 512

Sample WT/Vol: 100 / mL
Work Order: DGELX101
Dilution factor: 1
Moisture %: NA

Date Received: 07/13/00
Date Extracted: 07/18/00
Date Analyzed: 07/19/00

QC Batch: 0200512

Client Sample Id: INTRA-LAB BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/kg)	mg/L	
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/gc4.i/4190-G.b/d-a4379.d
 Report Date: 20-Jul-2000 13:49

STL-PITTSBURGH

Data file : /var/chem/gc4.i/4190-G.b/d-a4379.d
 Lab Smp Id: DGELX101 Client Smp ID: PBLK1
 Inj Date : 19-JUL-2000 22:17
 Operator : 1891 Inst ID: gc4.i
 Smp Info : DGELX101,4190-G.b,,PEST.sub,,3,
 Misc Info : 130203BLK
 Comment :
 Method : /var/chem/gc4.i/4190-G.b/PESTA.m
 Meth Date : 20-Jul-2000 13:46 matkol Quant Type: ESTD
 Cal Date : 15-JUL-2000 00:38 Cal File: d-a4251.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	10.000	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 (mg/L)
\$ 1 Tetrachloro-m-xylene	6.087	6.093	-0.006	56296	0.01638	0.001638(aR)
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				Compound Not Detected.		
20 Endrin	16.133	16.140	-0.007	3971	0.00142	0.0001420(a)
21 4,4'-DDD	16.293	16.293	0.000	3255	0.00115	0.0001145(a)
18 Toxaphene				Compound Not Detected.		

664 380

Data File: /var/chem/gc4.i/4190-G.b/d-a4379.d
Report Date: 20-Jul-2000 13:49

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ng)	FINAL (mg/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				Compound Not Detected.		
27 Endrin ketone				Compound Not Detected.		
\$ 30 Decachlorobiphenyl	23.487	23.480	0.007	30822	0.01830	0.001830 (aR)

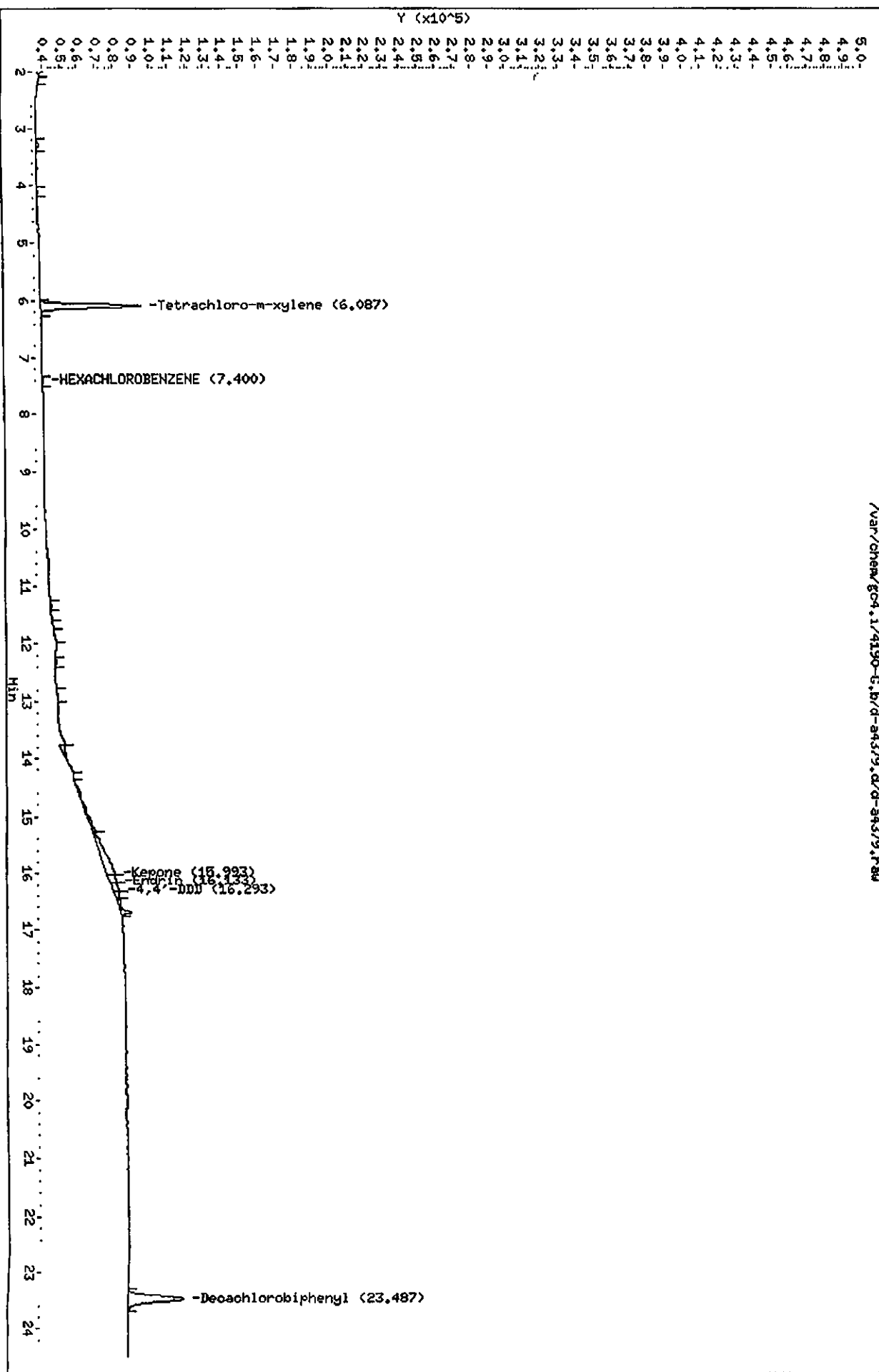
QC Flag Legend

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

Data File: /var/chem/g04.i/4190-G.b/d-24379.d
 Date: 19-JUL-2000 22:17
 Client ID: PBLK1
 Sample Info: DGELEX101,4190-G.b.,PEST,sub,,3,
 Volume Injected (uL): 1.0
 Column phase: DB608

Instrument: g04.i
 Operator: 1891
 Column diameter: 0.53

/var/chem/g04.i/4190-G.b/d-24379.d/d-24379.rsw



664 382

UXB INTERNATIONAL
CHECK SAMPLE COMPOUNDS

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

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

Lab Sample ID: C0G180000 512

Sample WT/Vol: 100 / mL
Work Order: DGELX102
Dilution factor: 1
Moisture %: NA

Date Received: 07/13/00
Date Extracted: 07/18/00
Date Analyzed: 07/19/00

QC Batch: 0200512

Client Sample Id: CHECK SAMPLE

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg)	mg/L
72-20-8	Endrin	0.00231	Q
76-44-8	Heptachlor	0.00218	
1024-57-3	Heptachlor epoxide	0.00219	
58-89-9	Lindane	0.00179	
72-43-5	Methoxychlor	0.00235	

Data File: /var/chem/gc4.i/4190-G.b/d-a4380.d
 Report Date: 20-Jul-2000 13:50

STL-PITTSBURGH

Data file : /var/chem/gc4.i/4190-G.b/d-a4380.d
 Lab Smp Id: DGELX102 Client Smp ID: LCS1
 Inj Date : 19-JUL-2000 22:44
 Operator : 1891 Inst ID: gc4.i
 Smp Info : DGELX102,4190-G.b,,PEST.sub,,3,
 Misc Info : 130203LCS
 Comment :
 Method : /var/chem/gc4.i/4190-G.b/PESTA.m
 Meth Date : 20-Jul-2000 13:46 matkol Quant Type: ESTD
 Cal Date : 15-JUL-2000 00:38 Cal File: d-a4251.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	10.000	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 (mg/L)
§ 1 Tetrachloro-m-xylene	6.093	6.093	0.000	60787	0.01769	0.001769(aR)
5 alpha-BHC	8.447	8.447	0.000	57716	0.01429	0.001429(a)
6 gamma-BHC (Lindane)	9.920	9.920	0.000	60105	0.01790	0.001790(aR)
7 beta-BHC	10.213	10.207	0.006	41486	0.02184	0.002184(a)
9 Chlordane	Compound Not Detected					
10 Heptachlor	11.180	11.180	0.000	68259	0.02185	0.002185(aR)
8 delta-BHC	11.580	11.580	0.000	2205	0.000612	0.00006120(a)
11 Aldrin	12.293	12.293	0.000	59232	0.02136	0.002136(aR)
12 Heptachlor epoxide	14.113	14.107	0.006	67066	0.02188	0.002188(a)
13 gamma-Chlordane	14.507	14.507	0.000	74090	0.02222	0.002222(a)
14 alpha-Chlordane	14.860	14.860	0.000	78740	0.02322	0.002322(a)
15 Endosulfan I	14.920	14.920	0.000	75166	0.02433	0.002433(a)
16 4,4'-DDE	15.347	15.347	0.000	88671	0.02473	0.002473(a)
17 Dieldrin	15.507	15.507	0.000	81390	0.02276	0.002276(aR)
20 Endrin	16.147	16.140	0.007	64588	0.02309	0.002309(aR)
21 4,4'-DDD	16.293	16.293	0.000	68145	0.02398	0.002398(a)
18 Toxaphene	Compound Not Detected.					

664 384

Data File: /var/chem/gc4.i/4190-G.b/d-a4380.d

Report Date: 20-Jul-2000 13:50

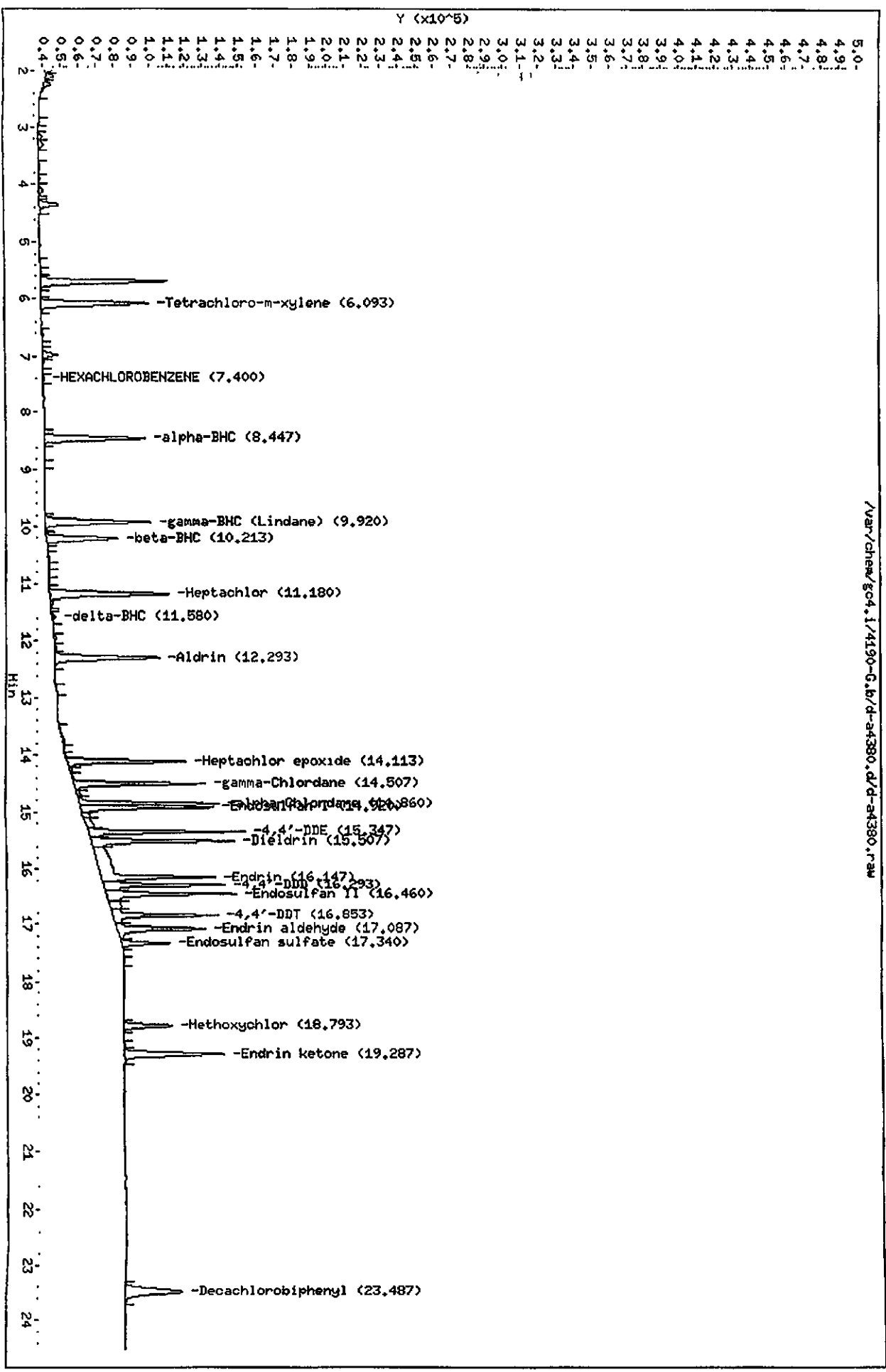
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ng)	FINAL (mg/L)
=====	==	=====	=====	=====	=====	=====
22 Endosulfan II	16.460	16.460	0.000	72838	0.02455	0.002455(a)
23 4,4'-DDT	16.853	16.853	0.000	58994	0.02181	0.002181(aR)
24 Endrin aldehyde	17.087	17.087	0.000	50166	0.02256	0.002256(a)
26 Endosulfan sulfate	17.340	17.340	0.000	27700	0.01231	0.001231(a)
25 Methoxychlor	18.793	18.793	0.000	27121	0.02353	0.002353(a)
27 Endrin ketone	19.287	19.287	0.000	55987	0.02460	0.002460(a)
\$ 30 Decachlorobiphenyl	23.487	23.480	0.007	31846	0.01890	0.001890(aR)

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/gc04.i/4190-G.b/d-a4380.d
Date: 19-JUL-2000 22:44
Client ID: LCS1
Sample Info: DGELX102,4190-G.b,,PEST,sub,,3,
Volume Injected (uL): 1.0
Column phase: DB608

Instrument: gc04.i
Operator: 1891
Column diameter: 0.53



664 386

UXB INTERNATIONAL
MATRIX SPIKE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

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

Lab Sample ID: COG130203 001

Sample WT/Vol: 100 / mL
Work Order: DG5C710R
Dilution factor: 1
Moisture %: 15

Date Received: 07/13/00
Date Extracted: 07/18/00
Date Analyzed: 07/19/00

QC Batch: 0200512

Client Sample Id: DF/S1/0194/SDC/019

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg)	mg/L
72-20-8	Endrin	0.00232	
76-44-8	Heptachlor	0.00208	
1024-57-3	Heptachlor epoxide	0.00208	
58-89-9	Lindane	0.00168	
72-43-5	Methoxychlor	0.00230	

FORM I

Data File: /var/chem/gc4.i/4190-G.b/d-a4381.d
 Report Date: 20-Jul-2000 13:50

STL-PITTSBURGH

Data file : /var/chem/gc4.i/4190-G.b/d-a4381.d
 Lab Smp Id: DG5C710R Client Smp ID: DF/S1/0194/SDC/019S
 Inj Date : 19-JUL-2000 23:12
 Operator : 1891 Inst ID: gc4.i
 Smp Info : DG5C710R,4190-G.b,,PEST.sub,,3,
 Misc Info : 130203001S
 Comment :
 Method : /var/chem/gc4.i/4190-G.b/PESTA.m
 Meth Date : 20-Jul-2000 13:46 matkol Quant Type: ESTD
 Cal Date : 15-JUL-2000 00:38 Cal File: d-a4251.d
 Als bottle: 1 QC Sample: MS
 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	10.000	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 (mg/L)
1 Tetrachloro-m-xylene	6.093	6.093	0.000	57436	0.01671	0.001671 (aR)
5 alpha-BHC	8.447	8.447	0.000	54468	0.01349	0.001348 (a)
6 gamma-BHC (Lindane)	9.920	9.920	0.000	56427	0.01680	0.001680 (aR)
7 beta-BHC	10.213	10.207	0.006	40059	0.02109	0.002108 (a)
9 Chlordane	Compound Not Detected.					
10 Heptachlor	11.180	11.180	0.000	64825	0.02075	0.002075 (aR)
8 delta-BHC	11.580	11.580	0.000	2152	0.000597	0.00005973 (a)
11 Aldrin	12.293	12.293	0.000	57068	0.02058	0.002058 (aR)
12 Heptachlor epoxide	14.113	14.107	0.006	63710	0.02078	0.002078 (a)
13 gamma-Chlordane	14.507	14.507	0.000	71890	0.02156	0.002156 (a)
14 alpha-Chlordane	14.860	14.860	0.000	76533	0.02257	0.002257 (a)
15 Endosulfan I	14.920	14.920	0.000	73572	0.02381	0.002381 (a)
16 4,4'-DDE	15.347	15.347	0.000	86736	0.02419	0.002419 (a)
17 Dieldrin	15.507	15.507	0.000	98938	0.02766	0.002766 (aR)
20 Endrin	16.140	16.140	0.000	64757	0.02315	0.002315 (aR)
21 4,4'-DDD	16.293	16.293	0.000	67377	0.02371	0.002370 (a)
18 Toxaphene	Compound Not Detected.					

Data File: /var/chem/gc4.i/4190-G.b/d-a4381.d
 Report Date: 20-Jul-2000 13:50

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ng)	FINAL (mg/L)
22 Endosulfan II	16.460	16.460	0.000	71852	0.02422	0.002422 (a)
23 4,4'-DDT	16.853	16.853	0.000	58202	0.02152	0.002152 (aR)
24 Endrin aldehyde	17.087	17.087	0.000	50771	0.02283	0.002283 (a)
26 Endosulfan sulfate	17.340	17.340	0.000	27690	0.01230	0.001230 (a)
25 Methoxychlor	18.793	18.793	0.000	26568	0.02305	0.002305 (a)
27 Endrin ketone	19.287	19.287	0.000	56127	0.02466	0.002466 (a)
\$ 30 Decachlorobiphenyl	23.487	23.480	0.007	31231	0.01854	0.001854 (aR)

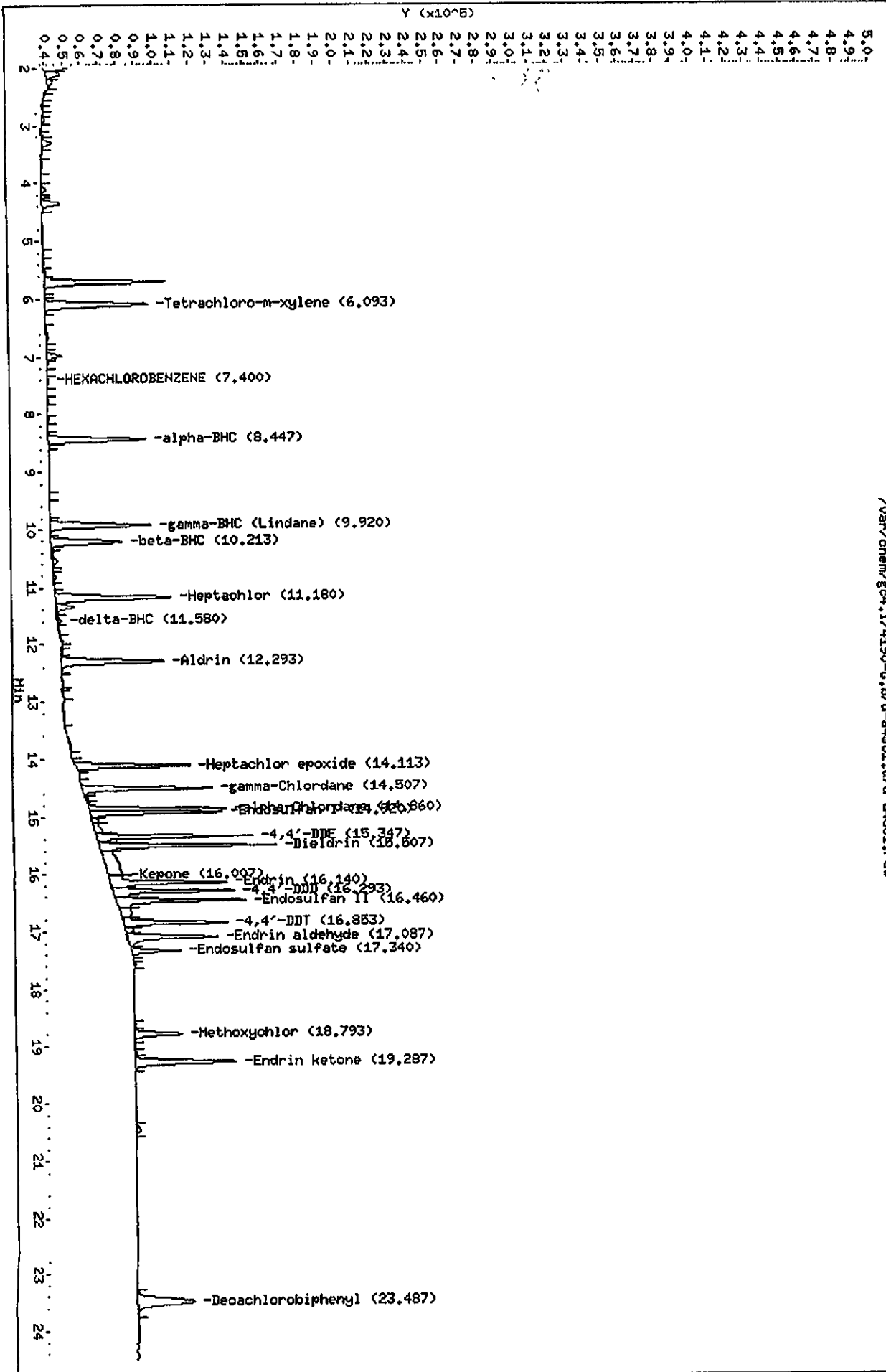
QC Flag Legend

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

Data File: /var/chem/gcd,1/4190-G,b/d-a4381.d
 Date: 19-JUL-2000 23:12
 Client ID: DF/SL/0194/SDC/0198
 Sample Info: DGC6710R,4190-G,b,PEST,sub,3,
 Volume Injected (ul): 1.0
 Column phase: DB608

Instrument: gcd,1
 Operator: 1891
 Column diameter: 0.53

/var/chem/gcd,1/4190-G,b/d-a4381.d/d-a4381.raw



664 390

UXB INTERNATIONAL
MATRIX SPIKE DUPLICATE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

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

Lab Sample ID: C0G130203 001

Sample WT/Vol: 100 / mL
Work Order: DG5C710T
Dilution factor: 1
Moisture %: 15

Date Received: 07/13/00
Date Extracted: 07/18/00
Date Analyzed: 07/19/00

QC Batch: 0200512

Client Sample Id: DF/S1/0194/SDC/019

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg)	mg/L
72-20-8	Endrin	0.00238	Q
76-44-8	Heptachlor	0.00214	
1024-57-3	Heptachlor epoxide	0.00211	
58-89-9	Lindane	0.00172	
72-43-5	Methoxychlor	0.00237	

FORM I

Data File: /var/chem/gc4.i/4190-G.b/d-a4382.d
 Report Date: 20-Jul-2000 13:50

STL-PITTSBURGH

Data file : /var/chem/gc4.i/4190-G.b/d-a4382.d
 Lab Smp Id: DG5C710T Client Smp ID: DF/S1/0194/SDC/019D
 Inj Date : 19-JUL-2000 23:40
 Operator : 1891 Inst ID: gc4.i
 Smp Info : DG5C710T,4190-G.b,,PEST.sub,,3,
 Misc Info : 130203001D
 Comment :
 Method : /var/chem/gc4.i/4190-G.b/PESTA.m
 Meth Date : 20-Jul-2000 13:46 matkol Quant Type: ESTD
 Cal Date : 15-JUL-2000 00:38 Cal File: d-a4251.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	10.000	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 (mg/L)
§ 1 Tetrachloro-m-xylene	6.093	6.093	0.000	58272	0.01696	0.001696 (aR)
5 alpha-BHC	8.447	8.447	0.000	55201	0.01367	0.001367 (a)
6 gamma-BHC (Lindane)	9.920	9.920	0.000	57865	0.01723	0.001723 (aR)
7 beta-BHC	10.213	10.207	0.006	40856	0.02151	0.002150 (a)
9 Chlordane	Compound Not Detected.					
10 Heptachlor	11.180	11.180	0.000	66770	0.02138	0.002138 (aR)
8 delta-BHC	11.580	11.580	0.000	2161	0.00060	0.00005998 (a)
11 Aldrin	12.293	12.293	0.000	58221	0.02100	0.002100 (aR)
12 Heptachlor epoxide	14.113	14.107	0.006	64680	0.02110	0.002110 (a)
13 gamma-Chlordane	14.507	14.507	0.000	72967	0.02188	0.002188 (a)
14 alpha-Chlordane	14.860	14.860	0.000	77805	0.02295	0.002295 (a)
15 Endosulfan I	14.920	14.920	0.000	73541	0.02380	0.002380 (a)
16 4,4'-DDE	15.347	15.347	0.000	88311	0.02463	0.002463 (a)
17 Dieldrin	15.507	15.507	0.000	100619	0.02813	0.002813 (aR)
20 Endrin	16.147	16.140	0.007	66607	0.02381	0.002381 (aR)
21 4,4'-DDD	16.293	16.293	0.000	68735	0.02418	0.002418 (a)
18 Toxaphene	Compound Not Detected.					

664 392

Data File: /var/chem/gc4.i/4190-G.b/d-a4382.d

Report Date: 20-Jul-2000 13:50

Compounds	RT	EXP RT	DLT RT	RSPONSE	CONCENTRATIONS	
					ON-COLUMN (ng)	FINAL (mg/L)
=====	==	=====	=====	=====	=====	=====
22 Endosulfan II	16.460	16.460	0.000	73020	0.02462	0.002462(a)
23 4,4'-DDT	16.853	16.853	0.000	59749	0.02209	0.002209(aR)
24 Endrin aldehyde	17.087	17.087	0.000	50392	0.02266	0.002266(a)
26 Endosulfan sulfate	17.340	17.340	0.000	27849	0.01237	0.001237(a)
25 Methoxychlor	18.793	18.793	0.000	27343	0.02372	0.002372(a)
27 Endrin ketone	19.287	19.287	0.000	56959	0.02502	0.002502(a)
§ 30 Decachlorobiphenyl	23.480	23.480	0.000	32089	0.01905	0.001905(aR)

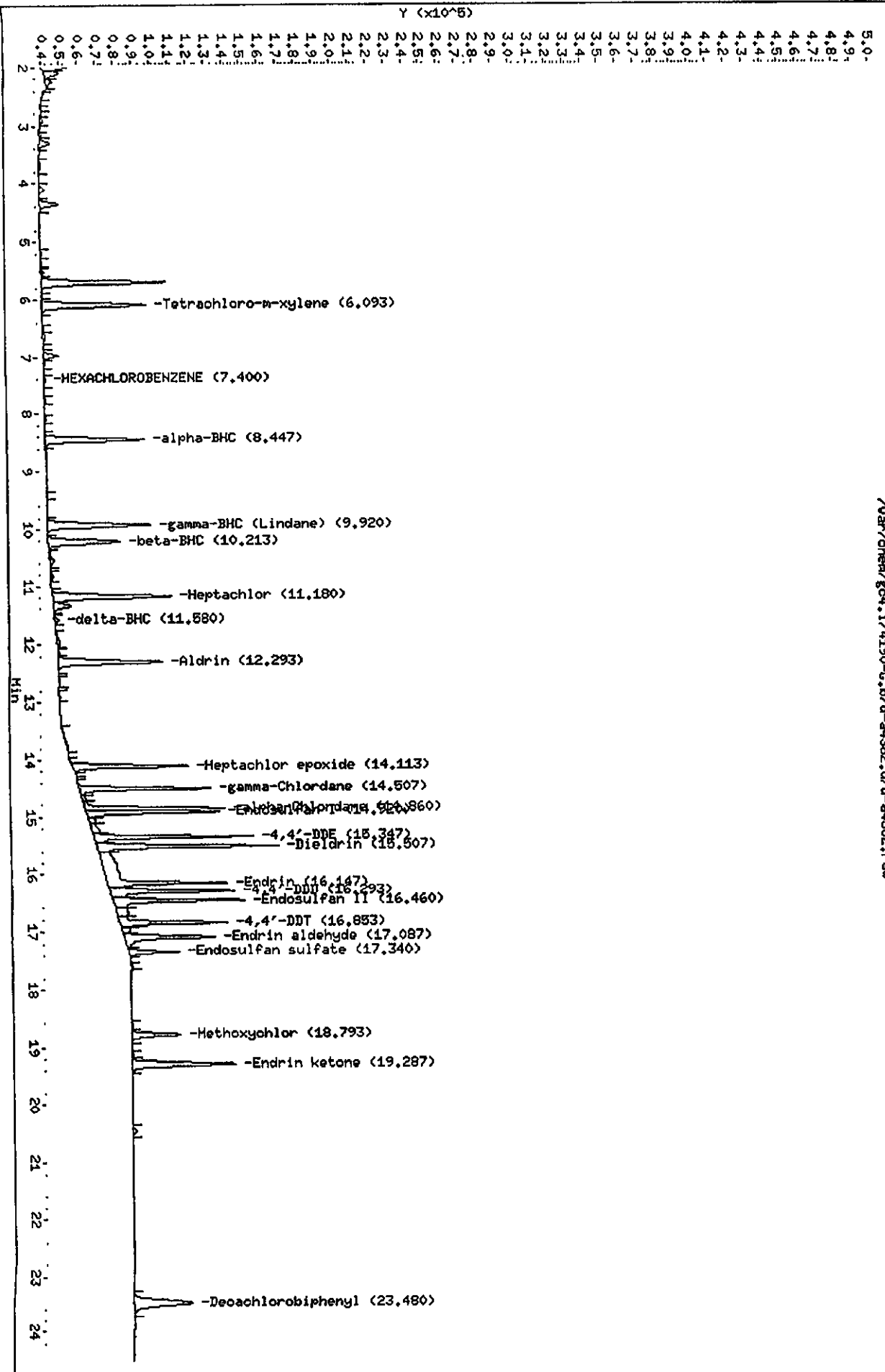
QC Flag Legend

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

Data File: /var/chem/gc4.i/4190-G.b/d-a4382.d
 Date: 19-JUL-2000 23:40
 Client ID: DF/SL/0194/SDC/019D
 Sample Info: DGC710T,4190-G.b,PEST,sub,3,
 Volume Injected (uL): 1.0
 Column phase: DB608

Instrument: gc4.i
 Operator: 1891
 Column diameter: 0.53

/var/chem/gc4.i/4190-G.b/d-a4382.d/d-a4382.raw



664 394

**PESTICIDE
MISCELLANEOUS**

Separatory Funnel
Extraction Worksheet



STL Pittsburgh
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Pittsburgh, PA 15238
Committed To Your Success
HEX-TL3268-8380

TRUP
B# 0200512
B# 0200512
B# 7-18-00
B# 7-18-00
B# 7-18-00

Lot Number	Date Extraction Began	Date Completed	Sample ID	Pipometer	Client ID	Method	pH	Sample Volume (mL)	Final Volume (mL)	Surrogate Number	Surrogate Volume (mL)	Solvent Mfg.	Matrix Spike No.	Matrix Spike Volume (mL)	Clean up Method
7-18-00	7-19-00	7-19-00	06130	203	08081A	3510C	5	100	10.0	190-93-4	1.0	NA	NA	NA	NA
			LS				5								
			001MS				5								
			001MS				5								
			001				5								
			002				5								
			003				7								
<div style="display: flex; justify-content: space-between;"> Analyst Extract(s) Received Logation Date Time Extract(s) Relinquished Analyst Location </div> <p>(Record line number from above)</p> <p>ALL ABOVE ALL ABOVE ALL ABOVE</p>															

Analyst: PY PY PY PY PY PY PY PY PY PY
 Extract(s) Received: PY PY PY PY PY PY PY PY PY PY
 Logation: KGTSM
 Date: 7-18-00 7-19-00 7-19-00 7-19-00 7-19-00 7-19-00 7-19-00 7-19-00 7-19-00
 Time: 19:00 19:00 19:00 19:00 19:00 19:00 19:00 19:00 19:00
 Extract(s) Relinquished: PY PY PY PY PY PY PY PY PY PY
 Analyst: P. Gushikma
 Location: 7-18-00
 Reviewed By: James M. [Signature]
 Date: 7-19-00

Turbochrom Sequence File : H:\ACQUIRE\MET_SEQ\4140-G.SEQ
 Created by : DE11/02/98 on : 7/17/00 09:06
 Edited by : LM07/14/00 on : 7/17/00 09:45
 Description : QUAN TERRA PGH 8081 RUN ON GC#4 DB608/DB1701
 REVIEWED BY:

664 396

G

Number of Times Edited : 2

Sequence File Header Information:

✓ DE 7-17-00

Number of Rows : 35
 Instrument Type : 760 / 900 Series Intelligent Interface
 Injection Type : SINGLE

Row	Type	Sample Name	Sample Number	Sequence Study Name	Sample Amount	ISTD Amount	Sample Volume	Dil. Factor	Mult	Divisor	Addend	Norm. factor
1	Std Check	EVALB,4140-G.b,	190-88-8		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
2	Cal:Replace	MEDTOX,4140-G.b	190-84-13		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
3	Cal:Replace	MEDCHLOR,4140-G	190-85-10		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
4	Cal:Replace	LOWA,4140-G.b,,	190-84-1		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
5	Cal:Replace	MLOWA,4140-G.b,	190-84-2		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
6	Cal:Replace	MEDA,4140-G.b,,	190-84-3		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
7	Cal:Replace	MHIGHA,4140-G.b	190-84-4		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
8	Cal:Replace	HIGHA,4140-G.b,	190-84-5		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
9	Cal:Replace	LOWB,4140-G.b,,	190-84-7		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
10	Cal:Replace	MLOWB,4140-G.b,	190-84-8		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
11	Cal:Replace	MEDB,4140-G.b,,	190-84-9		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
12	Cal:Replace	MHIGHB,4140-G.b	190-84-10		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
13	Cal:Replace	HIGHB,4140-G.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,4140-G.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,4140-G.b,	190-82-5		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
16	Std Check	EVALB,4140-G b,	190-88-8		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
17	Sample	DG128104,4140-G	110157-1		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
18	Sample	DG128108,4140-G	110157-1S		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
19	Sample	DG128109,4140-G	110157-1D		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
20	Sample	DG20H101,4140-G	110157-BLK		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
21	Sample	DG20H102,4140-G	110157-LCS		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
22	Sample	DG42K101,4140-G	230315BLK		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
23	Sample	DG42K102,4140-G	230315LCS		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
24	Sample	DG42K103,4140-G	230315LCD		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
25	Sample	DF8TR106,4140-G	230315001		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
26	Sample	DF8TW106,4140-G	230315002		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
27	Sample	DF8TX106,4140-G	230315003		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
28	Sample	DF3WV107,4140-G	210276001		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
29	Sample	DF3KZ107,4140-G	210276002		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
30	Sample	DF3X3107,4140-G	210276003		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
31	Sample	DG0C0101,4140-G	210276BLK		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
32	Sample	DG0C0102,4140-G	210276LCS		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
33	Sample	DG0C0103,4140-G	210276LCD		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
34	Std Check	MEDA,4140-G.b,,	190-84-3		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
35	Std Check	MEDB,4140-G.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 Report Format	Process Raw File	Information Result File	Channel A Baseline File	Modified Raw File	Cal Rpt	Level Name	Update RT	Out Dev
1	-	1	1	GEN4C	GEN4A	122190A	EVAL	D-A4239	D-A4239		D-A4239	-	-	-	LPT1
2	-	1	2	GEN4C	GEN4A	122190A	TOX	D-A4240	D-A4240		D-A4240	N	MED	N	LPT1, LPT2
3	-	1	2	GEN4C	GEN4A	122190A	TOX	D-A4241	D-A4241		D-A4241	N	MED	N	LPT1, LPT2
4	-	1	4	GEN4C	GEN4A	122190A	INDA	D-A4242	D-A4242		D-A4242	N	LOW	N	LPT1
5	-	1	5	GEN4C	GEN4A	122190A	INDA	D-A4243	D-A4243		D-A4243	N	MLOW	N	LPT1
6	-	1	6	GEN4C	GEN4A	122190A	INDA	D-A4244	D-A4244		D-A4244	N	MLOW	N	LPT1
7	-	1	7	GEN4C	GEN4A	122190A	INDA	D-A4245	D-A4245		D-A4245	N	MLOW	N	LPT1
8	-	1	8	GEN4C	GEN4A	122190A	INDA	D-A4246	D-A4246		D-A4246	N	MLOW	N	LPT1
9	-	1	9	GEN4C	GEN4A	122190A	INDA	D-A4247	D-A4247		D-A4247	N	LOW	N	LPT1
10	-	1	10	GEN4C	GEN4A	122190A	INDA	D-A4248	D-A4248		D-A4248	N	MLOW	N	LPT1
11	-	1	11	GEN4C	GEN4A	122190A	INDA	D-A4249	D-A4249		D-A4249	N	MLOW	N	LPT1
12	-	1	12	GEN4C	GEN4A	122190A	INDA	D-A4250	D-A4250		D-A4250	N	MLOW	N	LPT1
13	-	1	13	GEN4C	GEN4A	122190A	INDA	D-A4251	D-A4251		D-A4251	N	MLOW	N	LPT1
14	-	1	13	GEN4C	GEN4A	122190A	INDA	D-A4252	D-A4252		D-A4252	-	-	-	LPT1
15	-	1	24	GEN4C	GEN4A	122190A	INDA	D-A4253	D-A4253		D-A4253	-	-	-	LPT1
16	-	1	1	GEN4C	GEN4A	122190A	EVAL	D-A4254	D-A4254		D-A4254	-	-	-	LPT1
17	-	1	1	GEN4C	GEN4A	122190A	EVAL	D-A4255	D-A4255		D-A4255	-	-	-	LPT1

18	-	1	1	GEN4C	GEN4A	122190A	EVAL	D-A4256	D-A4256	D-A4256	-	-	-	LPT1
19	-	1	1	GEN4C	GEN4A	122190A	EVAL	D-A4257	D-A4257	D-A4257	-	-	-	LPT1
20	-	1	1	GEN4C	GEN4A	122190A	EVAL	D-A4258	D-A4258	D-A4258	-	-	-	LPT1
21	-	1	1	GEN4C	GEN4A	122190A	EVAL	D-A4259	D-A4259	D-A4259	-	-	-	LPT1
22	-	1	1	GEN4C	GEN4A	122190A	EVAL	D-A4260	D-A4260	D-A4260	-	-	-	LPT1
23	-	1	1	GEN4C	GEN4A	122190A	EVAL	D-A4261	D-A4261	D-A4261	-	-	-	LPT1
24	-	1	1	GEN4C	GEN4A	122190A	EVAL	D-A4262	D-A4262	D-A4262	-	-	-	LPT1
25	-	1	1	GEN4C	GEN4A	122190A	EVAL	D-A4263	D-A4263	D-A4263	-	-	-	LPT1
26	-	1	1	GEN4C	GEN4A	122190A	EVAL	D-A4264	D-A4264	D-A4264	-	-	-	LPT1
27	-	1	1	GEN4C	GEN4A	122190A	EVAL	D-A4265	D-A4265	D-A4265	-	-	-	LPT1
28	-	1	1	GEN4C	GEN4A	122190A	EVAL	D-A4266	D-A4266	D-A4266	-	-	-	LPT1
29	-	1	1	GEN4C	GEN4A	122190A	EVAL	D-A4267	D-A4267	D-A4267	-	-	-	LPT1
30	-	1	1	GEN4C	GEN4A	122190A	EVAL	D-A4268	D-A4268	D-A4268	-	-	-	LPT1
31	-	1	1	GEN4C	GEN4A	122190A	EVAL	D-A4269	D-A4269	D-A4269	-	-	-	LPT1
32	-	1	1	GEN4C	GEN4A	122190A	EVAL	D-A4270	D-A4270	D-A4270	-	-	-	LPT1
33	-	1	1	GEN4C	GEN4A	122190A	EVAL	D-A4271	D-A4271	D-A4271	-	-	-	LPT1
34	-	1	6	GEN4C	GEN4A	122190A	INDA	D-A4272	D-A4272	D-A4272	-	-	-	LPT1
35	-	1	11	GEN4C	GEN4A	122190A	INDA	D-A4273	D-A4273	D-A4273	-	-	-	LPT1

664 397

Turbochrom Sequence File : H:\ACQUIRE\MET_SEQ\4190-G.SEQ
 Created by : DE11/02/98 on : 7/20/00 13:10
 Edited by : LM07/19/00 on : 7/20/00 13:20
 Description : QUANTERRA PGH 8081 RUN ON GC#4 DB608/DB1701
 REVIEWED BY:

664 398

G

Number of Times Edited : 1

Sequence File Header Information:

DE 7/20/00

Number of Rows : 23
 Instrument Type : 760 / 900 Series Intelligent Interface
 Injection Type : SINGLE

Row	Type	Sample Name	Sample Number	Sequence Study Name	Sample Amount	ISTD Amount	Sample Volume	Dil. Factor	Mult	Divisor	Addend	Norm factor
1	Std Check	MEDA, 4190-G.b.,	190-84-3		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
2	Std Check	MEDB, 4190-G.b.,	190-84-9		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
3	Std Check	EVALB, 4190-G.b.,	190-88-8		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
4	Sample	DGELX101, 4190-G	130203BLK		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
5	Sample	DGELX102, 4190-G	130203LCS		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
6	Sample	DG5C710R, 4190-G	130203001S		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
7	Sample	DG5C710T, 4190-G	130203001D		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
8	Sample	DG5C7104, 4190-G	130203001		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
9	Sample	DG5CG104, 4190-G	130203002		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
10	Sample	DG5CK104, 4190-G	130203003		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
11	Sample	DG90J101, 4190-G	130193BLK		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
12	Sample	DG90J102, 4190-G	130193LCS		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
13	Sample	DG58E106, 4190-G	130193002S		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
14	Sample	DG58E107, 4190-G	130193002D		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
15	Sample	DG580102, 4190-G	130193001		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
16	Sample	DG58E102, 4190-G	130193002		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
17	Sample	DG58J102, 4190-G	130193003		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
18	Sample	DG568103, 4190-G	130181-5		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
19	Sample	DG91E101, 4190-G	130181-BLK		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
20	Sample	DG91E102, 4190-G	130181-LCS		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
21	Sample	DG91E103, 4190-G	130181-LCD		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
22	Std Check	MEDA, 4190-G.b.,	190-84-3		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
23	Std Check	MEDB, 4190-G.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	Report Format	Raw File	Result File	Baseline File	Modified Raw File	Cal Rpt	Level Name	Update RT	Out Dev
1	-	1	6	GEN4C	GEN4A	122190A	INDA	D-A4376	D-A4376	D-A4376	D-A4376	-	-	-	LPT1
2	-	1	11	GEN4C	GEN4A	122190A	INDA	D-A4377	D-A4377	D-A4377	D-A4377	-	-	-	LPT1
3	-	1	1	GEN4C	GEN4A	122190A	EVAL	D-A4378	D-A4378	D-A4378	D-A4378	-	-	-	LPT1
4	-	1	1	GEN4C	GEN4A	122190A	EVAL	D-A4379	D-A4379	D-A4379	D-A4379	-	-	-	LPT1
5	-	1	1	GEN4C	GEN4A	122190A	EVAL	D-A4380	D-A4380	D-A4380	D-A4380	-	-	-	LPT1
6	-	1	1	GEN4C	GEN4A	122190A	EVAL	D-A4381	D-A4381	D-A4381	D-A4381	-	-	-	LPT1
7	-	1	1	GEN4C	GEN4A	122190A	EVAL	D-A4382	D-A4382	D-A4382	D-A4382	-	-	-	LPT1
8	-	1	1	GEN4C	GEN4A	122190A	EVAL	D-A4383	D-A4383	D-A4383	D-A4383	-	-	-	LPT1
9	-	1	1	GEN4C	GEN4A	122190A	EVAL	D-A4384	D-A4384	D-A4384	D-A4384	-	-	-	LPT1
10	-	1	1	GEN4C	GEN4A	122190A	EVAL	D-A4385	D-A4385	D-A4385	D-A4385	-	-	-	LPT1
11	-	1	1	GEN4C	GEN4A	122190A	EVAL	D-A4386	D-A4386	D-A4386	D-A4386	-	-	-	LPT1
12	-	1	1	GEN4C	GEN4A	122190A	EVAL	D-A4387	D-A4387	D-A4387	D-A4387	-	-	-	LPT1
13	-	1	1	GEN4C	GEN4A	122190A	EVAL	D-A4388	D-A4388	D-A4388	D-A4388	-	-	-	LPT1
14	-	1	1	GEN4C	GEN4A	122190A	EVAL	D-A4389	D-A4389	D-A4389	D-A4389	-	-	-	LPT1
15	-	1	1	GEN4C	GEN4A	122190A	EVAL	D-A4390	D-A4390	D-A4390	D-A4390	-	-	-	LPT1
16	-	1	1	GEN4C	GEN4A	122190A	EVAL	D-A4391	D-A4391	D-A4391	D-A4391	-	-	-	LPT1
17	-	1	1	GEN4C	GEN4A	122190A	EVAL	D-A4392	D-A4392	D-A4392	D-A4392	-	-	-	LPT1
18	-	1	1	GEN4C	GEN4A	122190A	EVAL	D-A4393	D-A4393	D-A4393	D-A4393	-	-	-	LPT1
19	-	1	1	GEN4C	GEN4A	122190A	EVAL	D-A4394	D-A4394	D-A4394	D-A4394	-	-	-	LPT1
20	-	1	1	GEN4C	GEN4A	122190A	EVAL	D-A4395	D-A4395	D-A4395	D-A4395	-	-	-	LPT1
21	-	1	1	GEN4C	GEN4A	122190A	EVAL	D-A4396	D-A4396	D-A4396	D-A4396	-	-	-	LPT1
22	-	1	6	GEN4C	GEN4A	122190A	INDA	D-A4397	D-A4397	D-A4397	D-A4397	-	-	-	LPT1
23	-	1	11	GEN4C	GEN4A	122190A	INDA	D-A4398	D-A4398	D-A4398	D-A4398	-	-	-	LPT1

REQUESTED BY: YUSHINSC

METHOD: QJ Pesticides (8081A)

STORAGE LOCATION	WORK ORDER #	PICKED CNTR#	CONTROL #	CLIENT #	ANALYSIS	LOTID	SMP#	SFX	MATRIX DESCRIPTION	QTY	QTY
										RCVD	REQD
5E CLP1	DG5C7-1-04	___	250803	399411	A-36-QJ	COG130203	001		SOLID	0	3 1
5E CLP1	DG5CG-1-04	___	250804	399411	A-36-QJ	COG130203	002		SOLID	0	3 1
5E CLP1	DG5CK-1-04	___	250805	399411	A-36-QJ	COG130203	003		SOLID	0	3 1

RELINQUISHED BY

RECEIVED BY

DATE/TIME

<i>P. Yushinski</i>	<i>P. Yushinski</i>	<i>7-18-00 1535</i>
<i>P. Yushinski</i>	<i>P. Yushinski</i>	<i>7-18-00 2200</i>

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

664 400

HERBICIDE DATA

664 401

**HERBICIDE
QC SUMMARY**

664 402

SW846 8151A SURROGATE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

QESSDG:

Lot #: COG130203

	CLIENT ID.	SRG01	TOT OUT
01	DF/S1/0194/SDC/020	58	00
02	DF/S1/0194/GRAB/004	59	00
03	DF/S1/0194/SDC/019	52	00
04	METHOD BLK. DGELF101	84	00
05	LCS DGELF102	93	00
06	DF/S1/0194/SDC/019 D	67	00
07	DF/S1/0194/SDC/019 S	79	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 #: COG180000

WO #: DGELF102

BATCH: 0200509

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	% REC	QC LIMITS REC	QUAL
2,4-D	0.160	0.123	77 0	28 - 136	
2,4,5-TP (Silvex)	0.0400	0.0336	84 0	50 - 128	

m
7/21/00

NOTES (S):

* Values outside of QC limits

Spike Recovery: 0 / 2 out of 2 outside limits

COMMENTS:

COG180000

664 404

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/S1/0194/SDC/019

Lot #: COG130203

WO #: DG5C710W

BATCH: 0200509

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	MS CONCENT. (mg/L)	MS % REC	LIMITS REC	QUAL
2,4-D	0.160	ND	0.140	87	35 - 133	
2,4,5-TP (Silvex)	0.0400	ND	0.0351	88	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

SW846 8151A MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

664 405

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Matrix Spike ID: DF/S1/0194/SDC/019

Lot #: C0G130203

WO #: DG5C710X

BATCH: 0200509

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENT. (mg/L)	MSD		QC LIMITS		QUAL
			% REC	% RPD	RPD	REC	
2,4-D	0.160	0.149	93	6.4	20	35- 133	
2,4,5-TP (Silvex)	0.0400	0.0357	89	1.6	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:

664 406

SW846 8151A METHOD BLANK SUMMARY

BLANK WORKORDER NO.

DGELF101

Lab Name: Severn Trent Laboratories, Inc.

Lab Code: QESPIT

SDG Number:

Lab File ID: a-b40295.

Lot Number: COG130203

Matrix: SOLID

Extraction Method:

Date Extracted: 07/18/00

Date Analyzed(1): 07/19/00

Date Analyzed(2): N/A

Time Analyzed(1): 14:51

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	CHECK SAMPLE	DGELF102 C		07/19/00	N/A
02	DF/S1/0194/SDC/020	DG5CG105		07/19/00	N/A
03	DF/S1/0194/GRAB/004	DG5CK105		07/19/00	N/A
04	DF/S1/0194/SDC/019	DG5C710W S		07/19/00	N/A
05	DF/S1/0194/SDC/019	DG5C710X D		07/19/00	N/A
06	DF/S1/0194/SDC/019	DG5C7105		07/19/00	N/A
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

COMMENTS:

FORM IV

**HERBICIDE
SAMPLE DATA**

664 408

UXB INTERNATIONAL

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: COG130203 001

Method: SW846 8151A

Herbicides (8151A)

Sample WT/Vol: 100 / mL

Date Received: 07/13/00

Work Order: DG5C7105

Date Extracted: 07/18/00

Dilution factor: 1

Date Analyzed: 07/19/00

QC Batch: 0200509

Client Sample Id: DF/S1/0194/SDC/019

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
94-75-7	2,4-D	0.040	U
93-72-1	2,4,5-TP (Silvex)	0.010	U

FORM I

Data File: /var/chem/gc1.i/4050A.b/a-b40299.d
 Report Date: 20-Jul-2000 12:57

STL-PITTSBURGH

Data file : /var/chem/gc1.i/4050A.b/a-b40299.d
 Lab Smp Id: DG5C7105 Client Smp ID: DF/S1/0194/SDC/019
 Inj Date : 19-JUL-2000 16:46
 Operator : 01797 Inst ID: gc1.i
 Smp Info : DG5C7105,4050A.b
 Misc Info : 130203-1
 Comment :
 Method : /var/chem/gc1.i/4050A.b/LONGHB.m
 Meth Date : 20-Jul-2000 12:56 g Quant Type: ESTD
 Cal Date : 05-JUL-2000 19:29 Cal File: a-b40092.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	10.000	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 (mg/L)
1 DALAPON	4.636	4.658	-0.022	162291	0.00117	0.002333 (a)
2 DCAA	12.286	12.255	0.031	9990738	0.02601	0.05202 (a)
3 DICAMBA						Compound Not Detected.
4 MCPP						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 2,4-DB						Compound Not Detected.
12 DINOSEB						Compound Not Detected.

664 410

i

Data File: /var/chem/gc1.i/4050A.b/a-b40299.d
Report Date: 20-Jul-2000 12:57

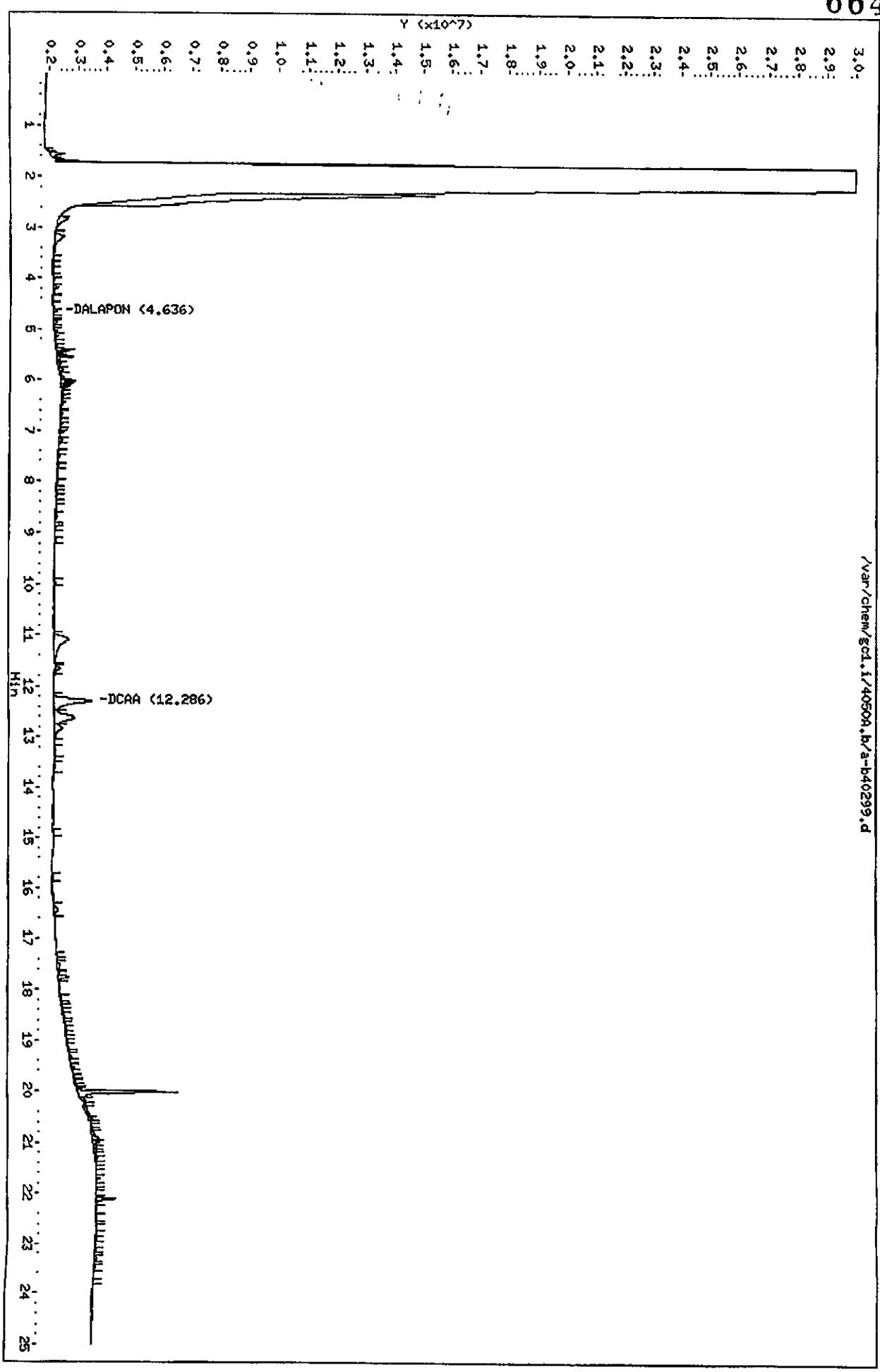
QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /var/chem/gcd.i/40504.b/a-b40239.d
Date: 19-JUL-2000 16:46
Client ID: DF/S4/0194/SDC/019
Sample Info: DCS02105,40504.b
Volume Injected (ul): 1.0
Column phase: DB1701

Instrument: gcd.i
Operator: 01797
Column diameter: 0.53

/var/chem/gcd.i/40504.b/a-b40239.d



664 412

UXB INTERNATIONAL

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

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

Lab Sample ID: C0G130203 002

Sample WT/Vol: 100 / mL
Work Order: DG5CG105
Dilution factor: 1

Date Received: 07/13/00
Date Extracted: 07/18/00
Date Analyzed: 07/19/00

QC Batch: 0200509

Client Sample Id: DF/S1/0194/SDC/020

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/kg)	mg/L	Q
94-75-7	2,4-D	0.040		U
93-72-1	2,4,5-TP (Silvex)	0.010		U

FORM I

Data File: /var/chem/gc1.i/4050A.b/a-b40300.d
 Report Date: 20-Jul-2000 12:57

STL-PITTSBURGH

Data file : /var/chem/gc1.i/4050A.b/a-b40300.d
 Lab Smp Id: DG5CG105 Client Smp ID: DF/S1/0194/SDC/020
 Inj Date : 19-JUL-2000 17:15
 Operator : 01797 Inst ID: gc1.i
 Smp Info : DG5CG105,4050A.b
 Misc Info : 130203-2
 Comment :
 Method : /var/chem/gc1.i/4050A.b/LONGHB.m
 Meth Date : 20-Jul-2000 12:56 g Quant Type: ESTD
 Cal Date : 05-JUL-2000 19:29 Cal File: a-b40092.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	10.000	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 (mg/L)
1 DALAPON								
2 DCAA	12.286	12.255	0	031	11130680	0.02898	0.05796(a)	
3 DICAMBA								
4 MCPP								
5 MCPA								
6 DICHLOROPROP								
7 2,4-D								
8 PENTACHLOROPHENOL								
9 2,4,5-TP(SILVEX)								
10 2,4,5-T								
11 2,4-DB								
12 DINOSEB								

664 414

Data File: /var/chem/gc1.i/4050A.b/a-b40300.d
Report Date: 20-Jul-2000 12:57

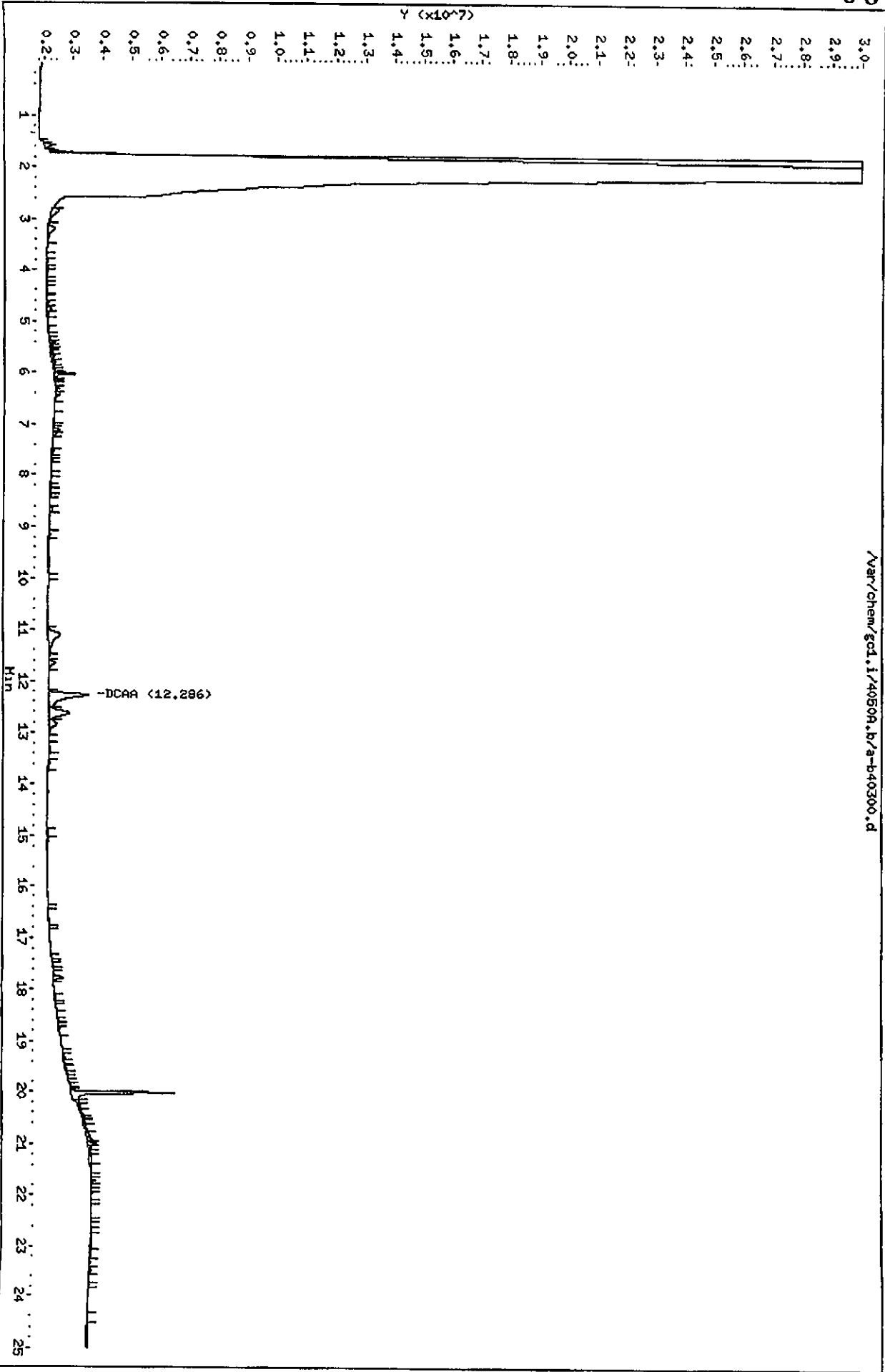
QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: \var\chem\gd1.i\4050a.b/a-b40300.d
Date: 19-JUL-2000 17:15
Client ID: DF/SI/0194/SDC/020
Sample Info: DSCC105,4050A,b
Volume Injected (uL): 1.0
Column phase: DB1701

Instrument: gd1.i
Operator: 01797
Column diameter: 0.53

\var\chem\gd1.i\4050a.b/a-b40300.d



664 416

UXB INTERNATIONAL

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0G130203 003

Method: SW846 8151A

Herbicides (8151A)

Sample WT/Vol: 100 / mL

Date Received: 07/13/00

Work Order: DG5CK105

Date Extracted: 07/18/00

Dilution factor: 1

Date Analyzed: 07/19/00

QC Batch: 0200509

Client Sample Id: DF/S1/0194/GRAB/004

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/kg)	mg/L	
94-75-7	2,4-D	0.040		U
93-72-1	2,4,5-TP (Silvex)	0.010		U

FORM I

Data File: /var/chem/gc1.i/4050A.b/a-b40301.d
 Report Date: 20-Jul-2000 12:58

STL-PITTSBURGH

Data file : /var/chem/gc1.i/4050A.b/a-b40301.d
 Lab Smp Id: DG5CK105 Client Smp ID: DF/S1/0194/GRAB/004
 Inj Date : 19-JUL-2000 17:43
 Operator : 01797 Inst ID: gc1.i
 Smp Info : DG5CK105,4050A.b
 Misc Info : 130203-3
 Comment :
 Method : /var/chem/gc1.i/4050A.b/LONGHB.m
 Meth Date : 20-Jul-2000 12:56 g Quant Type: ESTD
 Cal Date : 05-JUL-2000 19:29 Cal File: a-b40092.d
 Als bottle: 9
 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	10.000	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	RT	RESPONSE	ON-COLUMN (ng)	FINAL (mg/L)
1 DALAPON							
2 DCAA	12.284	12.255	0.029	11389709	0.02965	0.05930 (a)	
3 DICAMBA							
4 MCPP							
5 MCPA							
6 DICHLOROPROP							
7 2,4-D							
8 PENTACHLOROPHENOL							
9 2,4,5-TP (SILVEX)							
10 2,4,5-T							
11 2,4-DB	19.655	19.685	-0.030	65084	0.000956	0.001912 (a)	
12 DINOSEB	20.366	20.344	0.022	174566	0.000254	0.0005082 (a)	

664 418

Data File: /var/chem/gc1.i/4050A.b/a-b40301.d
Report Date: 20-Jul-2000 12:58

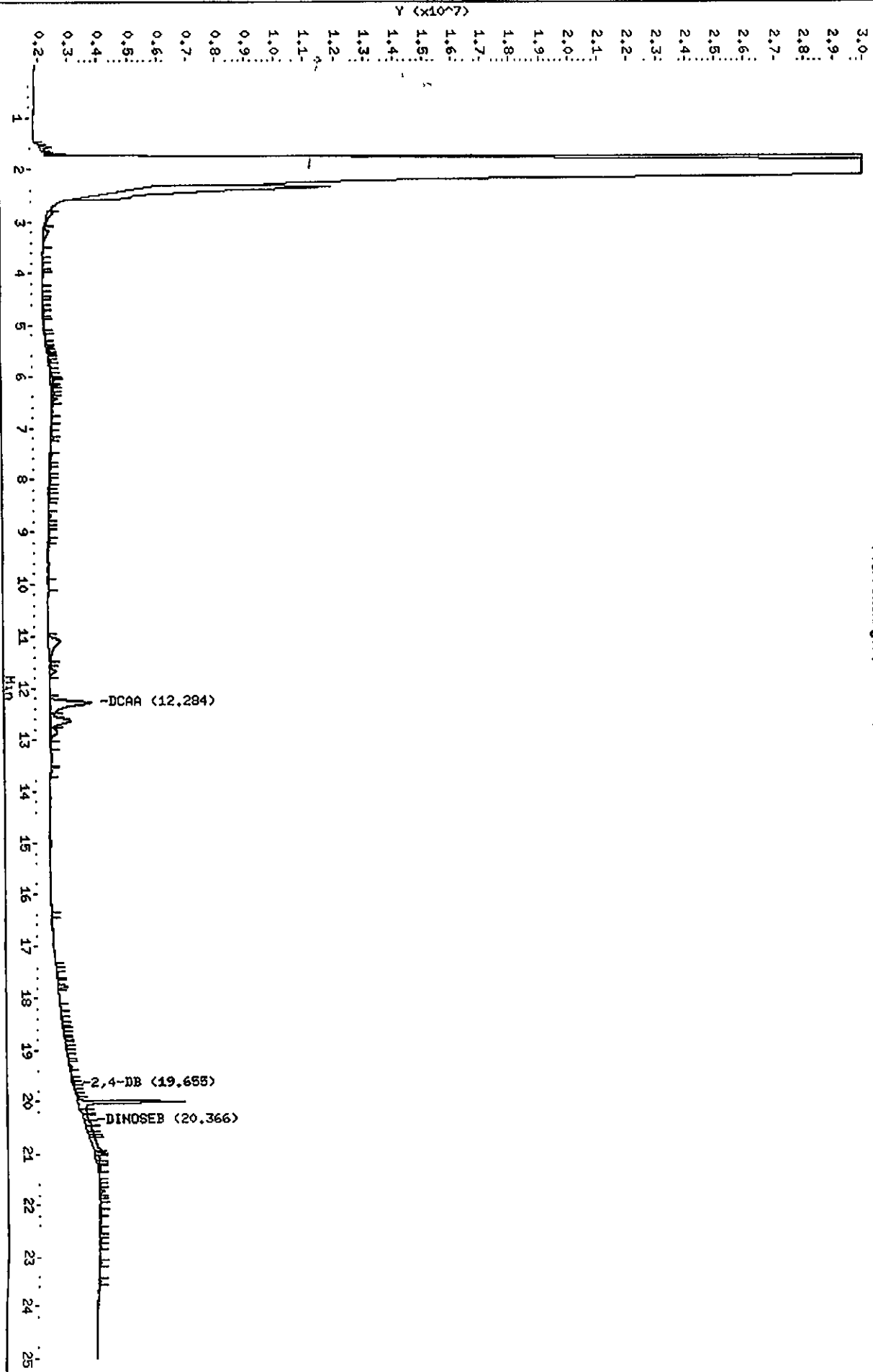
QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /var/chem/gc1.i/4050a.b/a-b40301.d
Date: 19-JUL-2000 17:43
Client ID: DF/S1/0194/GRGB/004
Sample Info: DGSCK105_4050A.b
Volume Injected (uL): 1.0
Column phase: DB1701

Instrument: gc1.i
Operator: 01797
Column diameter: 0.53

/var/chem/gc1.i/4050a.b/a-b40301.d



664 420

HERBICIDE
CALIBRATION DATA

6D
689010
DB1701

664 421

Report Date : 20-Jul-2000 12:50

STL-PITTSBURGH

COMPOUND LISTING

Method file : /var/chem/gc1.i/4050A.b/LONGHB.m
Quant Method : ESTD Target Version : 3.40
Last Update : 20-Jul-2000 12:49 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	4.658	4.588-4.728	1.391e+08
\$ 2 DCAA	12.255	12.185-12.325	3.841e+08
3 DICAMBA	12.942	12.872-13.012	3.062e+08
4 MCPP	13.436	13.366-13.506	2.575e+05
5 MCPA	14.440	14.370-14.510	3.438e+05
6 DICHLOROPROP	15.743	15.673-15.813	6.098e+07
7 2,4-D	17.068	16.998-17.138	8.205e+07
8 PENTACHLOROPHENOL	17.343	17.273-17.413	1.432e+09
9 2,4,5-TP(SILVEX)	18.509	18.439-18.579	7.319e+08
10 2,4,5-T	19.164	19.094-19.234	5.830e+08
11 2,4-DB	19.685	19.615-19.755	6.808e+07
12 DINOSEB	20.344	20.274-20.414	6.870e+08

689016
06/17/01

664 422

STL Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 05-JUL-2000 17:33
 End Cal Date : 05-JUL-2000 19:29
 Quant Method : ESTD
 Origin : Disabled
 Target Version : 4.04
 Integrator : Falcon
 Method file : \\QPITPA02\D\chem\gc1.i\4050A.b\LONGHB.m
 Cal Date : 06-Jul-2000 08:37 matkol
 Curve Type : Average

Calibration File Names:

- Level 1: \\QPITPA02\D\chem\gc1.i\4050A.b\A-B40088.D
- Level 2: \\QPITPA02\D\chem\gc1.i\4050A.b\A-B40089.D
- Level 3: \\QPITPA02\D\chem\gc1.i\4050A.b\A-B40090.D
- Level 4: \\QPITPA02\D\chem\gc1.i\4050A.b\A-B40091.D
- Level 5: \\QPITPA02\D\chem\gc1.i\4050A.b\A-B40092.D

Compound	Concentration					RRF	RSD
	0.00500	0.01000	0.02500	0.05000	0.10000		
	Level 1	Level 2	Level 3	Level 4	Level 5		
1 DALAPON	152122364	147606864	136342437	131515968	127984028	139114332	7.459
3 DICAMBA	309582358	312138545	310162565	301861939	297197606	306188603	2.080
4 MCPP	320967	287314	254722	221860	202629	257499	18.630
5 MCPA	413884	388733	338158	297881	280335	343798	16.645
6 DICHLOROPROP	64270425	63583868	61872488	58672282	56479103	60975633	5.438
7 2,4-D	74413886	79572165	83291011	85292000	87658797	82045572	6.332
8 PENTACHLOROPHENOL	1.376e+09	1.417e+09	1.450e+09	1.455e+09	1.464e+09	1.432e+09	2.527
9 2,4,5-TP(SILVEX)	676064190	711325524	736532559	755652874	779913786	731897787	5.479
10 2,4,5-T	478111195	538373524	576902180	630031730	691617133	583007152	14.103
11 2,4-DB	54077820	60990024	65942639	73975278	85415666	68080285	17.781
12 DINOSEB	683692744	694501417	683372520	677221535	696063465	686970336	1.169
\$ 2 DCAA	431908545	414136894	386079495	353961459	334469353	384111149	10.546

Data File: /var/chem/gc1.i/4050A.b/a-b40294.d
 Report Date: 20-Jul-2000 12:49

7E
 69901B
 DB1701
 664 423

STL-PITTSBURGH

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc1.i Injection Date: 19-JUL-2000 14:23
 Lab File ID: a-b40294.d Init. Calibration Date(s): 06/22/0 07/05/0
 Analysis Type: Init. Calibration Times: 16:34 19:29
 Lab Sample ID: Mherb Method File: /var/chem/gc1.i/4050A.b/LONGHB.m
 Quant Type: ESTD

COMPOUND	RRP	RF0	MIN RRP	%D	MAX %D
1 DALAPON	139114332.230	137793917.995	0.010	0.9	15.0
2 DCAA	384111149.039	386207896.592	0.010	-0.5	15.0
3 DICAMBA	306188602.515	308635764.706	0.010	-0.8	15.0
4 MCPP	257498.603	258397.770	0.010	-0.3	15.0
5 MCPA	343798.333	334867.991	0.010	2.6	15.0
6 DICHLOROPROP	60975633.252	60628101.415	0.010	0.6	15.0
7 2,4-D	82045571.719	77294806.110	0.010	5.8	15.0
8 PENTACHLOROPHENOL	1432344460.000	1435342481.203	0.010	-0.2	15.0
9 2,4,5-TP(SILVEX)	731897786.670	699236872.038	0.010	4.5	15.0
10 2,4,5-T	583007152.382	527922180.095	0.010	9.4	15.0
11 2,4-DB	68080285.288	56491313.609	0.010	17.0	15.0
12 DINOSEB	686970336.297	654169606.299	0.010	4.8	15.0

664 424

7E
68901B

Data File: /var/chem/gc1.i/4050A.b/a-b40308.d
Report Date: 20-Jul-2000 12:56

DB1701

STL-PITTSBURGH

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc1.i Injection Date: 19-JUL-2000 21:04
Lab File ID: a-b40308.d Init. Calibration Date(s): 06/22/0 07/05/0
Analysis Type: Init. Calibration Times: 16:34 19:29
Lab Sample ID: Mherb Method File: /var/chem/gc1.i/4050A.b/LONGHB.m
Quant Type: ESTD

COMPOUND	RRF	RPO	MIN RRF	%D	MAX %D
1 DALAPON	139114332.230	143348451.025	0.010	-3.0	15.0
2 DCAA	384111149.039	408946592.244	0.010	-6.5	15.0
3 DICAMBA	306188602.515	328077176.471	0.010	-7.1	15.0
4 MCPP	257498.603	267746.362	0.010	-4.0	15.0
5 MCPA	343798.333	351720.794	0.010	-2.3	15.0
6 DICHLOROPROP	60975633.252	64090471.698	0.010	-5.1	15.0
7 2,4-D	82045571.719	84812573.443	0.010	-3.4	15.0
8 PENTACHLOROPHENOL	1432344460.000	1489913251.880	0.010	-4.0	15.0
9 2,4,5-TP(SILVEX)	731897786.670	734471184.834	0.010	-0.4	15.0
10 2,4,5-T	583007152.382	572788578.199	0.010	1.8	15.0
11 2,4-DB	68080285.288	62993881.657	0.010	7.5	15.0
12 DINOSEB	686970336.297	690520708.661	0.010	-0.5	15.0

8D
PESTICIDE ANALYTICAL SEQUENCE

664 425

Lab Name: STL-PITTSBURGH

Contract:

Lab Code: STLPIT

Case No.:

SAS No.: 40325

SDG No.: C0G130203

GC Column: DB1701 ID: 0.53 (mm) Init. Calib. Date(s): 06/22/00 07/05/00

Instrument ID: GC1

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

MEAN SURROGATE RT FROM INITIAL CALIBRATION					
S1 : 12.26					
EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	RT #
=====	=====	=====	=====	=====	=====
01	LHERB	07/05/00	1733	12.26	
02	MLHERB	07/05/00	1802	12.26	
03	MHERB	07/05/00	1831	12.25	
04	MHHERB	07/05/00	1900	12.25	
05	HHERB	07/05/00	1929	12.25	
06	2NDHERB	07/05/00	1958	12.26	
07	MHERB	07/19/00	1423	12.26	
08	PBLK1 DGELF101	07/19/00	1451	12.29	
09	LCS1 DGELF102	07/19/00	1520	12.26	
10	DF/S1/0194/S DG5C710W	07/19/00	1549	12.26	
11	DF/S1/0194/S DG5C710X	07/19/00	1617	12.26	
12	DF/S1/0194/S DG5C7105	07/19/00	1646	12.29	
13	DF/S1/0194/S DG5CG105	07/19/00	1715	12.29	
14	DF/S1/0194/G DG5CK105	07/19/00	1743	12.28	
15	MHERB	07/19/00	2104	12.26	
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.

STL Pittsburgh

Data file : \\QPITPA02\D\chem\gc1.i\4050A.b\A-B40088.D
 Lab Smp Id: Lherb
 Inj Date : 05-JUL-2000 17:33
 Operator : 01797 Inst ID: gc1.i
 Smp Info : Lherb,4050A.b
 Misc Info : 190-94-1
 Comment :
 Method : \\QPITPA02\D\chem\gc1.i\4050A.b\LONGHB.m
 Meth Date : 06-Jul-2000 09:17 matkol Quant Type: ESTD
 Cal Date : 05-JUL-2000 17:33 Cal File: A-B40088.D
 Als bottle: 3 Calibration Sample, Level: 1
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: all.sub
 Target Version: 4.04
 Processing Host: PITPC085

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (ng)	ON-COL (ng)
1 DALAPON	4.656	4.655	0.001	1673346	0.01100	0.01203
\$ 2 DCAA	12.262	12.254	0.008	9199652	0.02130	0.02395
3 DICAMBA	12.944	12.943	0.001	3281573	0.01060	0.01072
4 MCPP	13.439	13.440	-0.001	680451	2.12000	2.642
5 MCPA	14.446	14.443	0.003	885711	2.14000	2.576
6 DICHLOROPROP	15.747	15.744	0.003	1362533	0.02120	0.02234
7 2,4-D	17.078	17.067	0.011	1570133	0.02110	0.01914
8 PENTACHLOROPHENOL	17.344	17.345	-0.001	3659952	0.00266	0.002555
9 2,4,5-TP(SILVEX)	18.511	18.510	0.001	3549337	0.00525	0.004849
10 2,4,5-T	19.168	19.163	0.005	2519646	0.00527	0.004322
11 2,4-DB	19.690	19.682	0.008	1141042	0.02110	0.01676
12 DINOSEB	20.344	20.345	-0.001	2167306	0.00317	0.003155

664 427

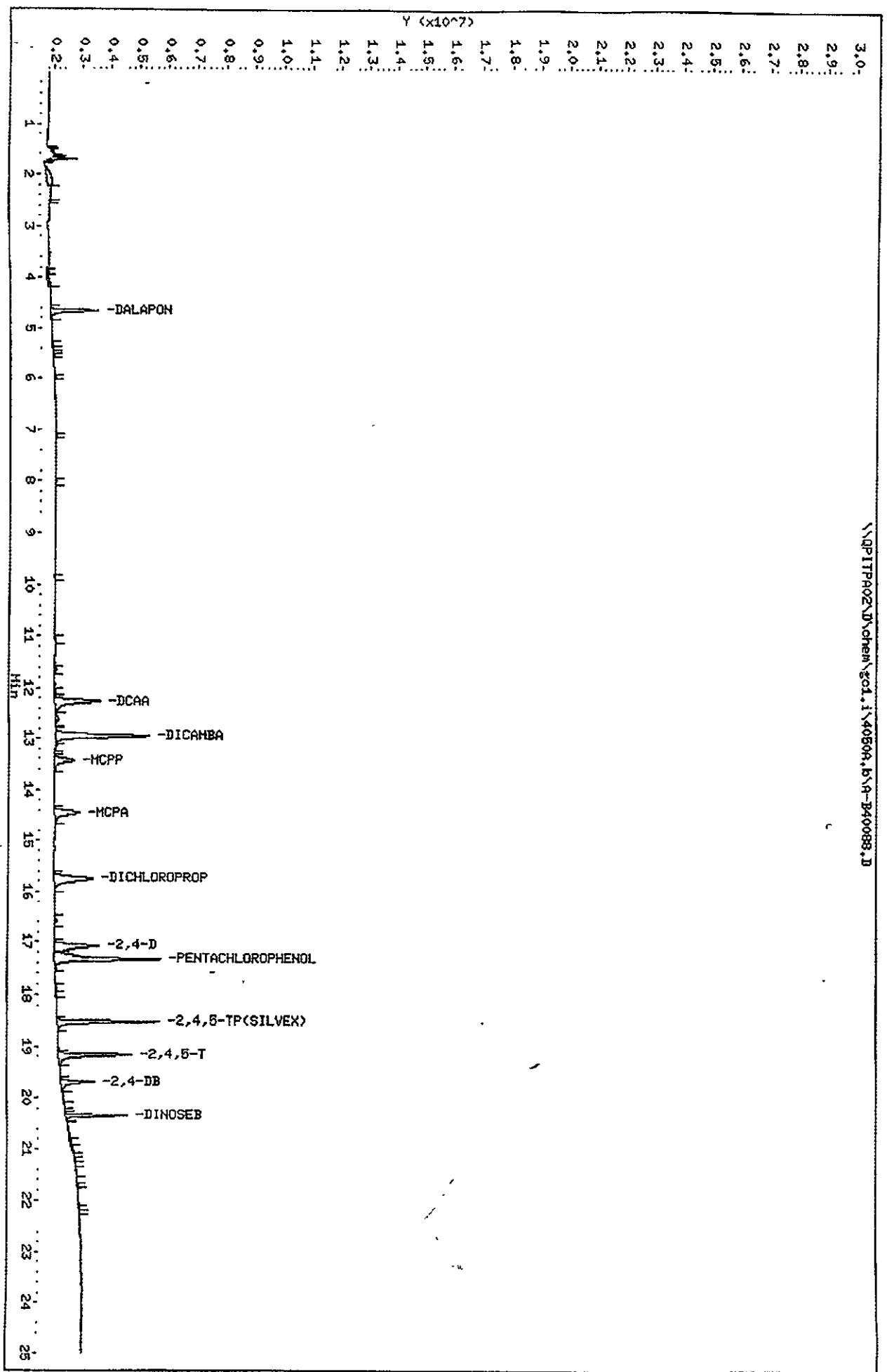
Data File: \\QPITPA02\chem\col.1\4050A.b\A-B40088.D
Date: 05-JUL-2000 17:33

Client ID:
Sample Info: Herb, 4050A.b
Column phase: DB1701

Instrument: col.1

Operator: 04797
Column diameter: 0.53

\\QPITPA02\chem\col.1\4050A.b\A-B40088.D



STL Pittsburgh

Data file : \\QPITPA02\D\chem\gc1.i\4050A.b\A-B40089.D
Lab Smp Id: MLherb
Inj Date : 05-JUL-2000 18:02
Operator : 01797 Inst ID: gc1.i
Smp Info : MLherb,4050A.b
Misc Info : 190-94-2
Comment :
Method : \\QPITPA02\D\chem\gc1.i\4050A.b\LONGHB.m
Meth Date : 06-Jul-2000 09:17 matkol Quant Type: ESTD
Cal Date : 05-JUL-2000 17:33 Cal File: A-B40088.D
Als bottle: 4 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.04
Processing Host: PITPC085

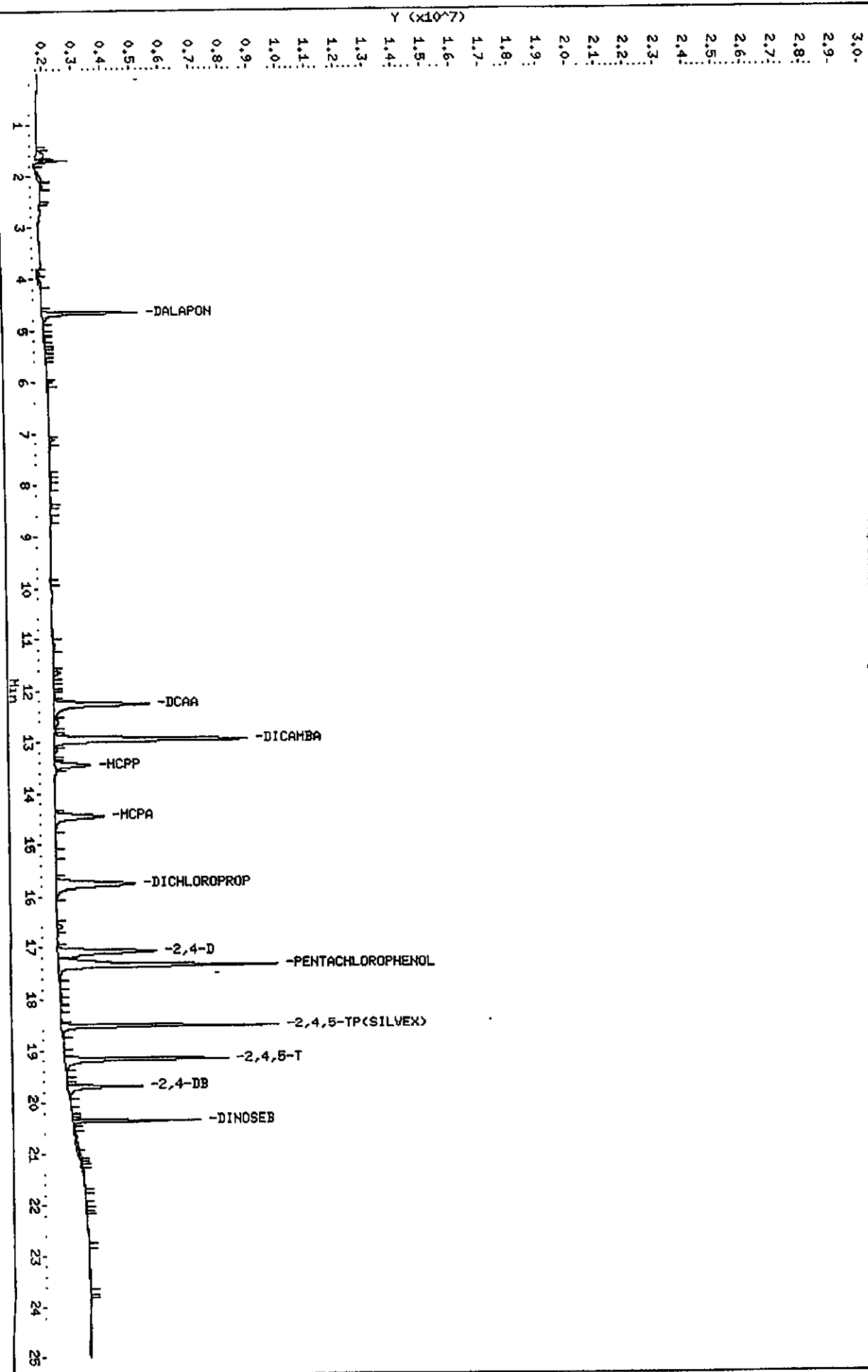
Compounds	AMOUNTS					
	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
1 DALAPON	4.656	4.655	0.001	3247351	0.02200	0.02334
\$ 2 DCAA	12.259	12.254	0.005	17600818	0.04250	0.04582
3 DICAMBA	12.944	12.943	0.001	6648551	0.02130	0.02171
4 MCPP	13.441	13.440	0.001	1223958	4.26000	4.753
5 MCPA	14.442	14.443	-0.001	1663779	4.28000	4.839
6 DICHLOROPROP	15.746	15.744	0.002	2695956	0.04240	0.04421
7 2,4-D	17.073	17.067	0.006	3381817	0.04250	0.04122
8 PENTACHLOROPHENOL	17.345	17.345	0.000	7538064	0.00532	0.005263
9 2,4,5-TP(SILVEX)	18.511	18.510	0.001	7468918	0.01050	0.01020
10 2,4,5-T	19.166	19.163	0.003	5652922	0.01050	0.009696
11 2,4-DB	19.686	19.682	0.004	2573779	0.04220	0.03780
12 DINOSEB	20.344	20.345	-0.001	4410084	0.00635	0.006420

Data File: \\QPITPA02\J\chem\gcl.i\4050A.b\A-B40089.D
Date: 05-JUL-2000 18:02

Client ID:
Sample Info: HHerb.4050A.b
Column phase: DB1701

Instrument: gcl.i
Operator: 01797
Column diameter: 0.53

\\QPITPA02\J\chem\gcl.i\4050A.b\A-B40089.D



STL Pittsburgh

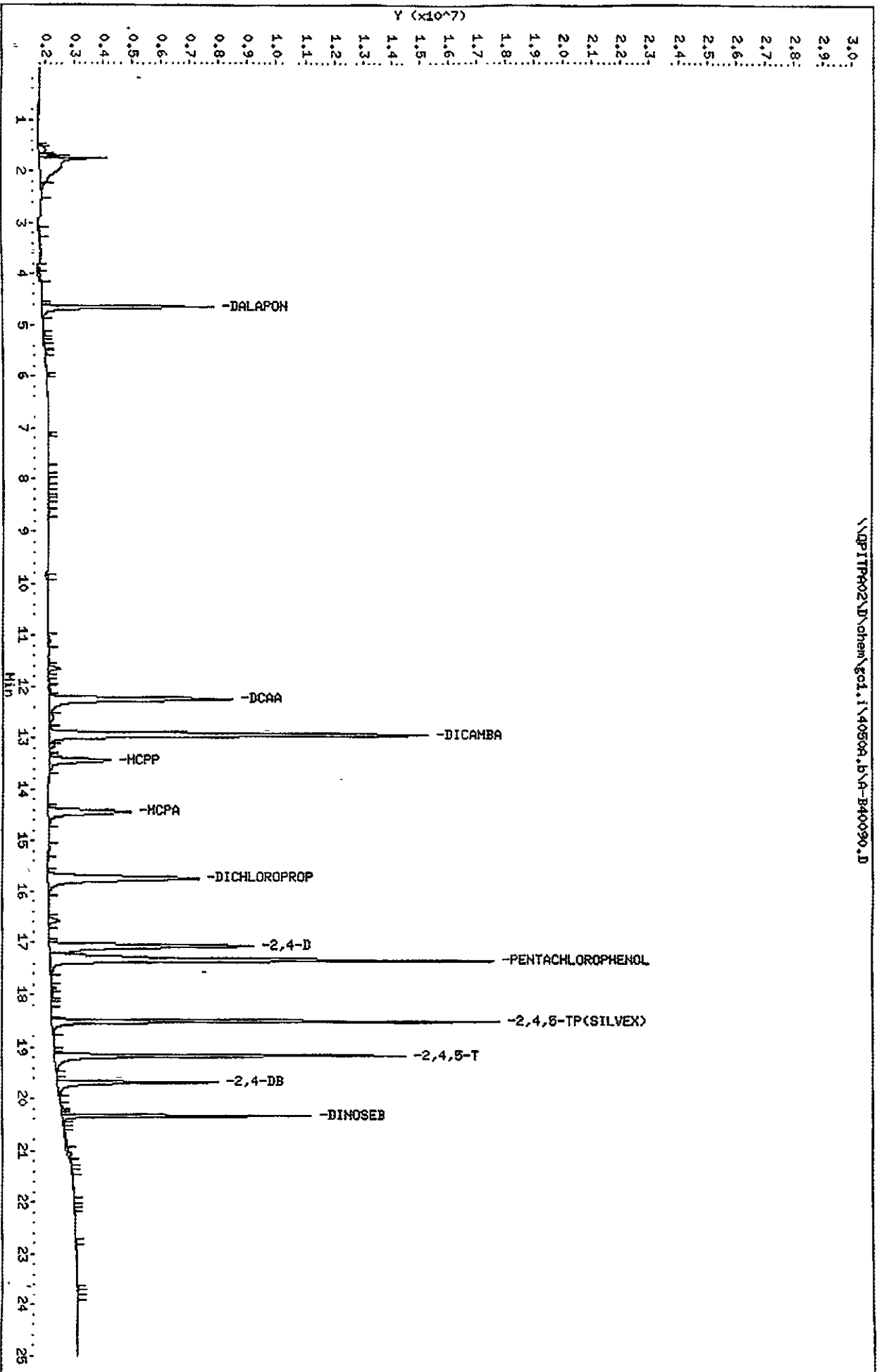
Data file : \\QPITPA02\D\chem\gc1.i\4050A.b\A-B40090.D
Lab Smp Id: Mherb
Inj Date : 05-JUL-2000 18:31
Operator : 01797 Inst ID: gc1.i
Smp Info : Mherb,4050A.b
Misc Info : 190-94-3
Comment :
Method : \\QPITPA02\D\chem\gc1.i\4050A.b\LONGHB.m
Meth Date : 06-Jul-2000 09:17 matkol Quant Type: ESTD
Cal Date : 05-JUL-2000 17:33 Cal File: A-B40088.D
Als bottle: 5 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.04
Processing Host: PITPC085

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (ng)	ON-COL (ng)
1 DALAPON	4.655	4.655	0.000	5985433	0.04390	0.04302
\$ 2 DCAA	12.254	12.254	0.000	32855365	0.08510	0.08554
3 DICAMBA	12.943	12.943	0.000	13181909	0.04250	0.04305
4 MCPP	13.440	13.440	0.000	2170234	8.52000	8.428
5 MCPA	14.443	14.443	0.000	2894635	8.56000	8.420
6 DICHLOROPROP	15.744	15.744	0.000	5246787	0.08480	0.08605
7 2,4-D	17.067	17.067	0.000	7088065	0.08510	0.08639
8 PENTACHLOROPHENOL	17.345	17.345	0.000	15429626	0.01064	0.01077
9 2,4,5-TP (SILVEX)	18.510	18.510	0.000	15540837	0.02110	0.02123
10 2,4,5-T	19.163	19.163	0.000	12172636	0.02110	0.02088
11 2,4-DB	19.682	19.682	0.000	5572153	0.08450	0.08185
12 DINOSBB	20.345	20.345	0.000	8678831	0.01270	0.01263

431
Data File: \\QPITP002\N\chem\gcl.1\40504.b\A-B40090.D
Date: 05-JUL-2000 18:31

664
Client ID:
Sample Info: Hherb,40504,b
Column phase: DB1.701

Instrument: gcl.1
Operator: 01797
Column diameter: 0.53



STL Pittsburgh

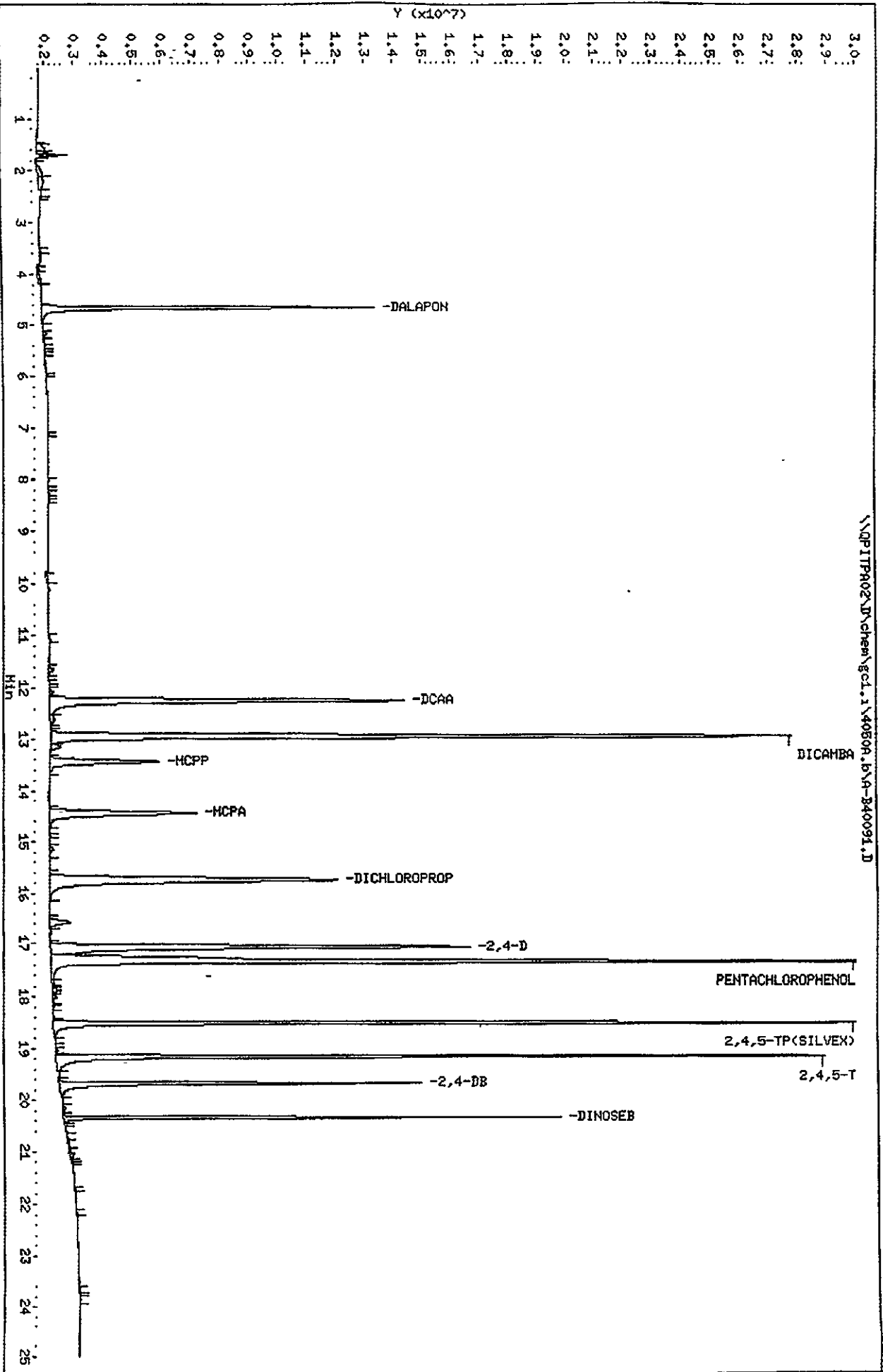
Data file : \\QPITPA02\D\chem\gc1.i\4050A.b\A-B40091.D
 Lab Smp Id: MHherb
 Inj Date : 05-JUL-2000 19:00
 Operator : 01797
 Smp Info : MHherb,4050A.b
 Misc Info : 190-94-4
 Comment :
 Method : \\QPITPA02\D\chem\gc1.i\4050A.b\LONGHB.m
 Meth Date : 06-Jul-2000 09:17 matkol
 Cal Date : 05-JUL-2000 17:33
 Als bottle: 6
 Dil Factor: 1.00000
 Integrator: Falcon
 Target Version: 4.04
 Processing Host: PITPC085

Inst ID: gc1.i
 Quant Type: ESTD
 Cal File: A-B40088.D
 Calibration Sample, Level: 4
 Compound Sublist: all.sub

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (ng)	ON-COL (ng)
1 DALAPON	4.656	4.655	0.001	11547102	0.08780	0.08300
2 DCAA	12.252	12.254	-0.002	60173448	0.17000	0.1566
3 DICAMBA	12.941	12.943	-0.002	25688451	0.08510	0.08390
4 MCFP	13.437	13.440	-0.003	3771618	17.0000	14.65
5 MCPA	14.440	14.443	-0.003	5092767	17.1000	14.82
6 DICHLOROPROP	15.742	15.744	-0.002	9974288	0.17000	0.1636
7 2,4-D	17.061	17.067	-0.006	14499640	0.17000	0.1767
8 PENTACHLOROPHENOL	17.342	17.345	-0.003	30957108	0.02128	0.02161
9 2,4,5-TP(SILVEX)	18.508	18.510	-0.002	31812986	0.04210	0.04347
10 2,4,5-T	19.160	19.163	-0.003	26587339	0.04220	0.04560
11 2,4-DE	19.678	19.682	-0.004	12501822	0.16900	0.1836
12 DINOSEB	20.343	20.345	-0.002	17201427	0.02540	0.02504

Data File: \NQPITPA02\chem\col.1\40509.b\A-B40091.D
Date: 05-JUL-2000 19:00
Client ID:
Sample Info: HHerb,40509.b
Column phase: DB1701

Instrument: col.1
Operator: 01797
Column diameter: 0.53



STL Pittsburgh

Data file : \\QPITPA02\D\chem\gc1.i\4050A.b\A-B40092.D
 Lab Smp Id: Hherb
 Inj Date : 05-JUL-2000 19:29
 Operator : 01797
 Smp Info : Hherb,4050A.b
 Misc Info : 190-94-5
 Comment :
 Method : \\QPITPA02\D\chem\gc1.i\4050A.b\LONGHB.m
 Meth Date : 06-Jul-2000 09:18 matkol
 Cal Date : 05-JUL-2000 19:29
 Als bottle: 7
 Dil Factor: 1.00000
 Integrator: Falcon
 Target Version: 4.04
 Processing Host: PITPC085

Inst ID: gc1.i
 Quant Type: ESTD
 Cal File: A-B40092.D
 Calibration Sample, Level: 5
 Compound Sublist: all.sub

Compounds	AMOUNTS					
	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
1 DALAPON	4.656	4.655	0.001	22525189	0.17600	0.1619
\$ 2 DCAA	12.248	12.254	-0.006	113719580	0.34000	0.2960
3 DICAMBA	12.941	12.943	-0.002	50523593	0.17000	0.1650
4 MCPP	13.438	13.440	-0.002	6909659	34.1000	26.83
5 MCEA	14.441	14.443	-0.002	9531397	34.0000	27.72
6 DICHLOROPROP	15.740	15.744	-0.004	19146416	0.33900	0.3140
7 2,4-D	17.056	17.067	-0.011	29803991	0.34000	0.3633
8 PENTACHLOROPHENOL	17.342	17.345	-0.003	62291798	0.04255	0.04349
9 2,4,5-TP(SILVEX)	18.507	18.510	-0.003	65512758	0.08400	0.08951
10 2,4,5-T	19.157	19.163	-0.006	58372486	0.08440	0.1001
11 2,4-DB	19.675	19.682	-0.007	28870495	0.33800	0.4241
12 DINOSEB	20.343	20.345	-0.002	35360024	0.05080	0.05147

Data File: \NQPITP02\chem\col.1\40504.b\A-B40092.D
Date: 05-JUL-2000 19:29

Client ID:

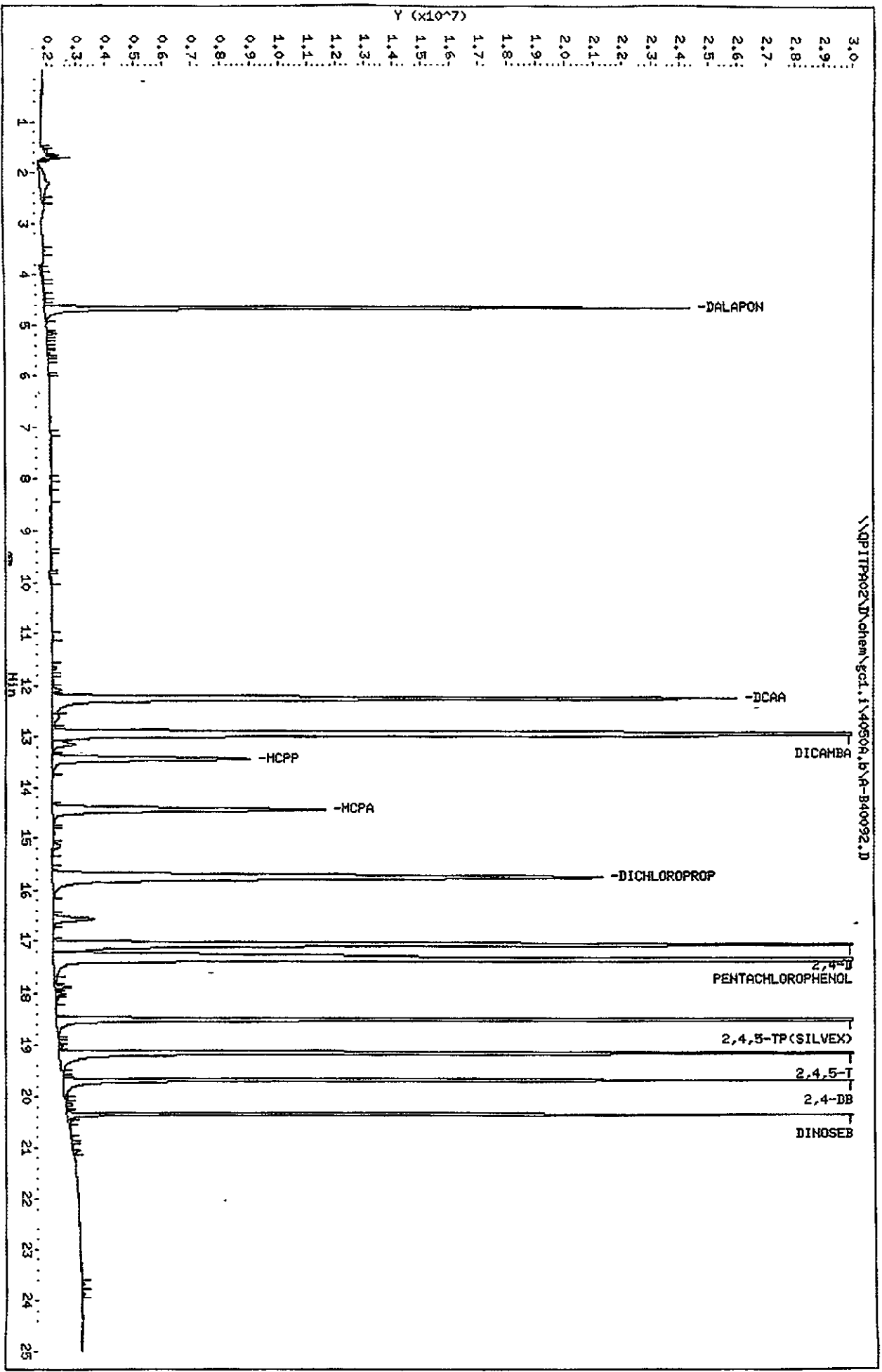
Sample Info: Herb,4080A,b

Column phase: DB1701

Instrument: col.1

Operator: 01797

Column diameter: 0.53



STL Pittsburgh

Data file : \\QPITPA02\D\chem\gc1.i\4050A.b\A-B40093.D
 Lab Smp Id: 2ndherb
 Inj Date : 05-JUL-2000 19:58
 Operator : 01797
 Smp Info : 2ndherb,4050A.b
 Misc Info : 190-80-3
 Comment :
 Method : \\QPITPA02\D\chem\gc1.i\4050A.b\LONGHB.m
 Meth Date : 06-Jul-2000 09:02 matkol
 Cal Date : 05-JUL-2000 19:29
 Als bottle: 8
 Dil Factor: 1.00000
 Integrator: Falcon
 Target Version: 4.04
 Processing Host: PITPC085

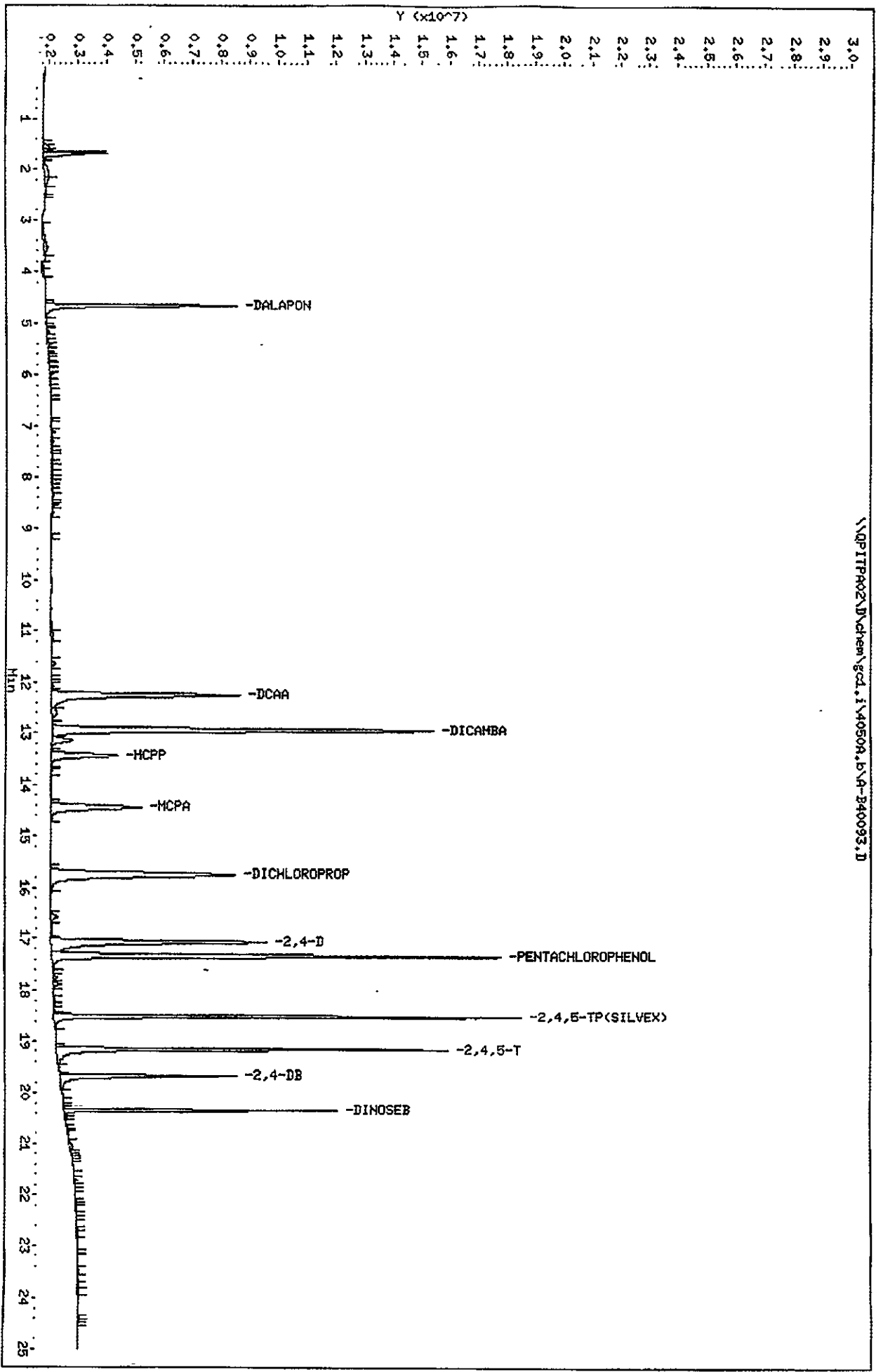
Inst ID: gc1.i
 Quant Type: ESTD
 Cal File: A-B40092.D
 Continuing Calibration Sample
 Compound Sublist: all.sub

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (ng)	ON-COL (ng)
1 DALAPON	4.656	4.655	0.001	6717254	0.04390	0.04828
\$ 2 DCAA	12.256	12.254	0.002	35240705	0.08510	0.09175
3 DICAMBA	12.942	12.943	-0.001	13359758	0.04250	0.04363
4 MCPP	13.435	13.440	-0.005	2324418	8.52000	9.027
5 MCPA	14.442	14.443	-0.001	3191454	8.56000	9.283
6 DICHLOROPROP	15.744	15.744	0.000	6448591	0.08480	0.1058
7 2,4-D	17.068	17.067	0.001	7494996	0.08510	0.09135
8 PENTACHLOROPHENOL	17.344	17.345	-0.001	15701537	0.01064	0.01096
9 2,4,5-TP(SILVEX)	18.508	18.510	-0.002	16346286	0.02110	0.02233
10 2,4,5-T	19.161	19.163	-0.002	13701760	0.02110	0.02350
11 2,4-DB	19.680	19.682	-0.002	6186664	0.08450	0.09087
12 DINOSEB	20.343	20.345	-0.002	9560236	0.01270	0.01392

664 437

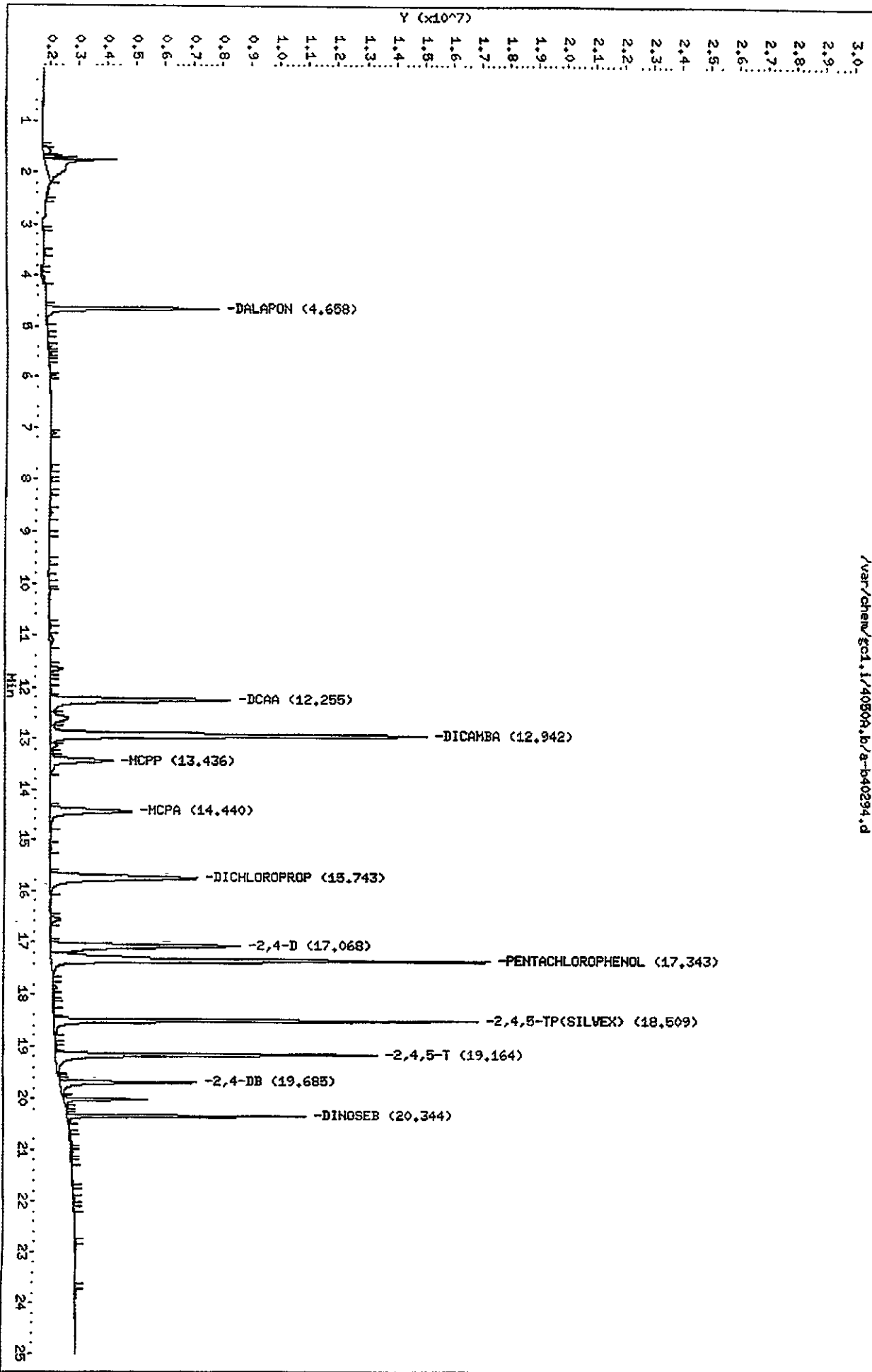
Data File: \\NPITPR02\Nchem\gcl.1\40509.b\A-B40093.D
Date: 05-JUL-2000 19:58
Client ID:
Sample Info: Zndherb,40509.b
Column phase: DB1701

Instrument: gcl.1
Operator: 01797
Column diameter: 0.53



Data File: Var/chem/gcd.1/4050A,b/a-b40294.d
 Date: 19-JUL-2000 14:23
 Client ID:
 Sample Info: Hherb,4050A,b
 Column phase: DB1701

Instrument: gcd.1
 Operator: 01797
 Column diameter: 0.53



Data File: /var/chem/gc1.i/4050A.b/a-b40294.d
 Report Date: 20-Jul-2000 12:57

STL-PITTSBURGH

Data file : /var/chem/gc1.i/4050A.b/a-b40294.d
 Lab Smp Id: Mherb
 Inj Date : 19-JUL-2000 14:23
 Operator : 01797
 Smp Info : Mherb,4050A.b
 Misc Info : 190-94-3
 Comment :
 Method : /var/chem/gc1.i/4050A.b/LONGHB.m
 Meth Date : 20-Jul-2000 12:56 g
 Cal Date : 05-JUL-2000 19:29
 Als bottle: 2
 Dil Factor: 1.00000
 Integrator: Falcon
 Target Version: 3.40

Inst ID: gc1.i
 Quant Type: ESTD
 Cal File: a-b40092.d
 Continuing Calibration Sample
 Compound Sublist: all.sub

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (ng)	ON-COL (ng)
1 DALAPON	4.658	4.658	0.000	6049153	0.04390	0.04348
\$ 2 DCAA	12.255	12.255	0.000	32866292	0.08510	0.08556
3 DICAMBA	12.942	12.942	0.000	13117020	0.04250	0.04284
4 MCPP	13.436	13.436	0.000	2201549	8.52000	8.550
5 MCPA	14.440	14.440	0.000	2866470	8.56000	8.338
6 DICHLOROPROP	15.743	15.743	0.000	5141263	0.08480	0.08432
7 2,4-D	17.068	17.068	0.000	6577788	0.08510	0.08017
8 PENTACHLOROPHENOL	17.343	17.343	0.000	15272044	0.01064	0.01066
9 2,4,5-TP(SILVEX)	18.509	18.509	0.000	14753898	0.02110	0.02016
10 2,4,5-T	19.164	19.164	0.000	11139158	0.02110	0.01911
11 2,4-DB	19.685	19.685	0.000	4773516	0.08450	0.07012
12 DINOSEB	20.344	20.344	0.000	8307954	0.01270	0.01209

Data File: /var/chem/gc1.i/4050A.b/a-b40308.d
 Report Date: 20-Jul-2000 12:58

STL-PITTSBURGH

Data file : /var/chem/gc1.i/4050A.b/a-b40308.d
 Lab Smp Id: Mherb
 Inj Date : 19-JUL-2000 21:04
 Operator : 01797
 Smp Info : Mherb,4050A.b
 Misc Info : 190-94-3
 Comment :
 Method : /var/chem/gc1.i/4050A.b/LONGHB.m
 Meth Date : 20-Jul-2000 12:56 g
 Cal Date : 05-JUL-2000 19:29
 Als bottle: 16
 Dil Factor: 1.00000
 Integrator: Falcon
 Target Version: 3.40

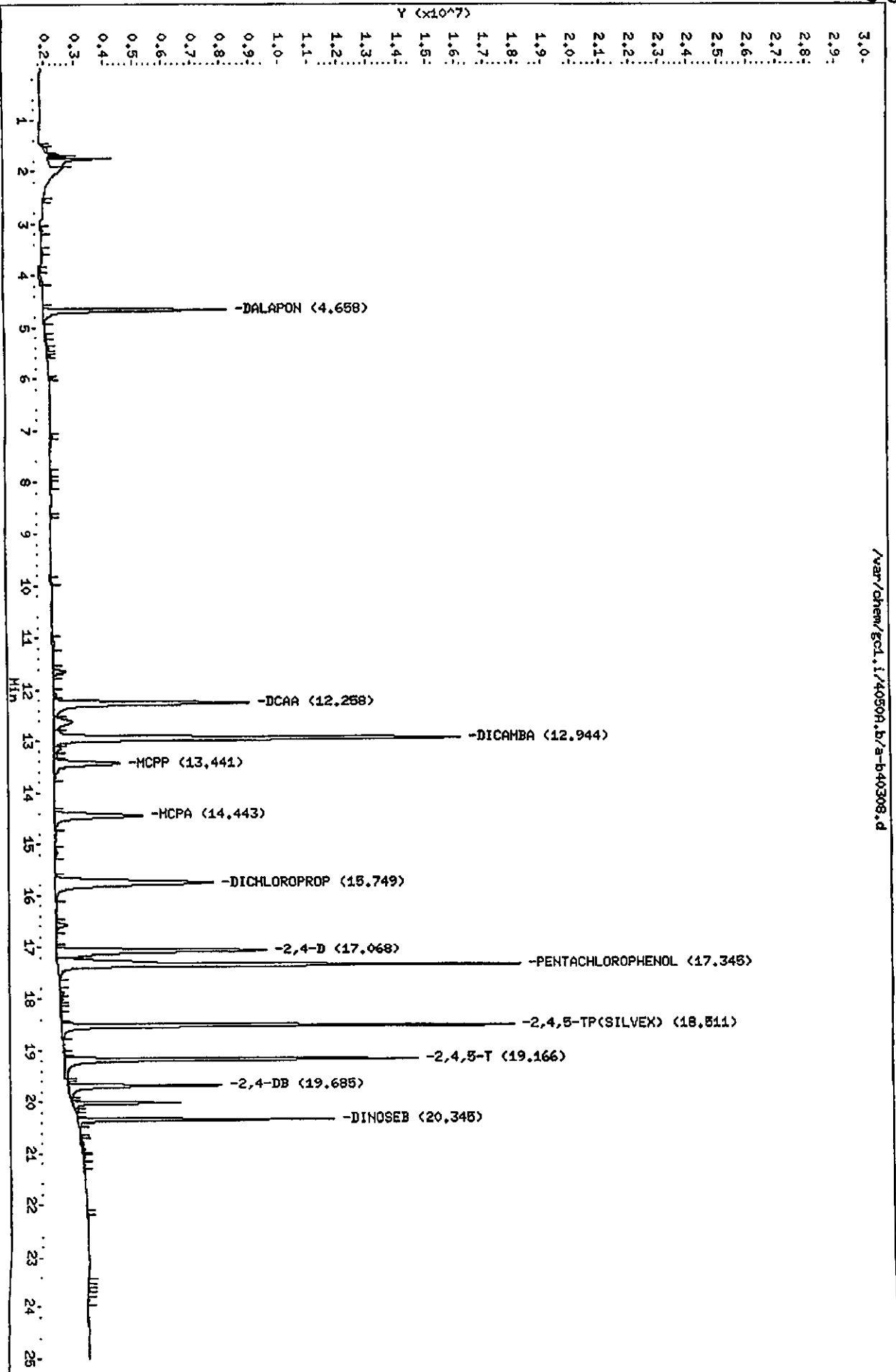
Inst ID: gc1.i
 Quant Type: ESTD
 Cal File: a-b40092.d
 Continuing Calibration Sample
 Compound Sublist: all.sub

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (ng)	ON-COL (ng)
1 DALAPON	4.658	4.658	0.000	6292997	0.04390	0.04524
2 DCAA	12.258	12.255	0.003	34801355	0.08510	0.09060
3 DICAMBA	12.944	12.942	0.002	13943280	0.04250	0.04554
4 MCPP	13.441	13.436	0.005	2281199	8 52000	8.859
5 MCPA	14.443	14.440	0.003	3010730	8 56000	8.757
6 DICHLOROPROP	15.749	15.743	0.006	5434872	0.08480	0.08913
7 2,4-D	17.068	17.068	0.000	7217550	0.08510	0.08797
8 PENTACHLOROPHENOL	17.345	17.343	0.002	15852677	0.01064	0.01107
9 2,4,5-TP(SILVEX)	18.511	18.509	0.002	15497342	0.02110	0.02117
10 2,4,5-T	19.166	19.164	0.002	12085839	0.02110	0.02073
11 2,4-DB	19.685	19.685	0.000	5322983	0.08450	0.07819
12 DINOSEB	20.345	20.344	0.001	8769613	0.01270	0.01276

Data File: /var/chem/gcl.i/4050A.b/a-b40308.d
Date: 19-JUL-2000 21:04
Client ID:
Sample Info: Hherb,4050A.b

Column phase: DB1701

Instrument: gcl.i
Operator: 01797
Column diameter: 0.53



664 442

**HERBICIDE
QC DATA**

UXB INTERNATIONAL
METHOD BLANK COMPOUNDS

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

Matrix: (soil/water) SOLID Lab Sample ID: C0G180000 509
Method: SW846 8151A
Herbicides (8151A)

Sample WT/Vol: 100 / mL Date Received: 07/13/00
Work Order: DGELF101 Date Extracted: 07/18/00
Dilution factor: 1 Date Analyzed: 07/19/00

QC Batch: 0200509

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	0.040	U
93-72-1	2,4,5-TP (Silvex)	0.010	U

664 444

Data File: /var/chem/gc1.i/4050A.b/a-b40295.d
Report Date: 20-Jul-2000 12:57

STL-PITTSBURGH

Data file : /var/chem/gc1.i/4050A.b/a-b40295.d
Lab Smp Id: DGELF101 Client Smp ID: PBLK1
Inj Date : 19-JUL-2000 14:51
Operator : 01797 Inst ID: gc1.i
Smp Info : DGELF101,4050A.b
Misc Info : 130203blk
Comment :
Method : /var/chem/gc1.i/4050A.b/LONGHB.m
Meth Date : 20-Jul-2000 12:56 g Quant Type: ESTD
Cal Date : 05-JUL-2000 19:29 Cal File: a-b40092.d
Als bottle: 3 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	10.000	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 (mg/L)
1 DALAPON								
\$ 2 DCAA	12.293	12.255	0.038		16144787	0.04203	0.08406(a)	
3 DICAMBA								
4 MCPP								
5 MCPA								
6 DICHLOROPROP								
7 2,4-D								
8 PENTACHLOROPHENOL								
9 2,4,5-TP(SILVEX)								
10 2,4,5-T								
11 2,4-DB								
12 DINOSEB								

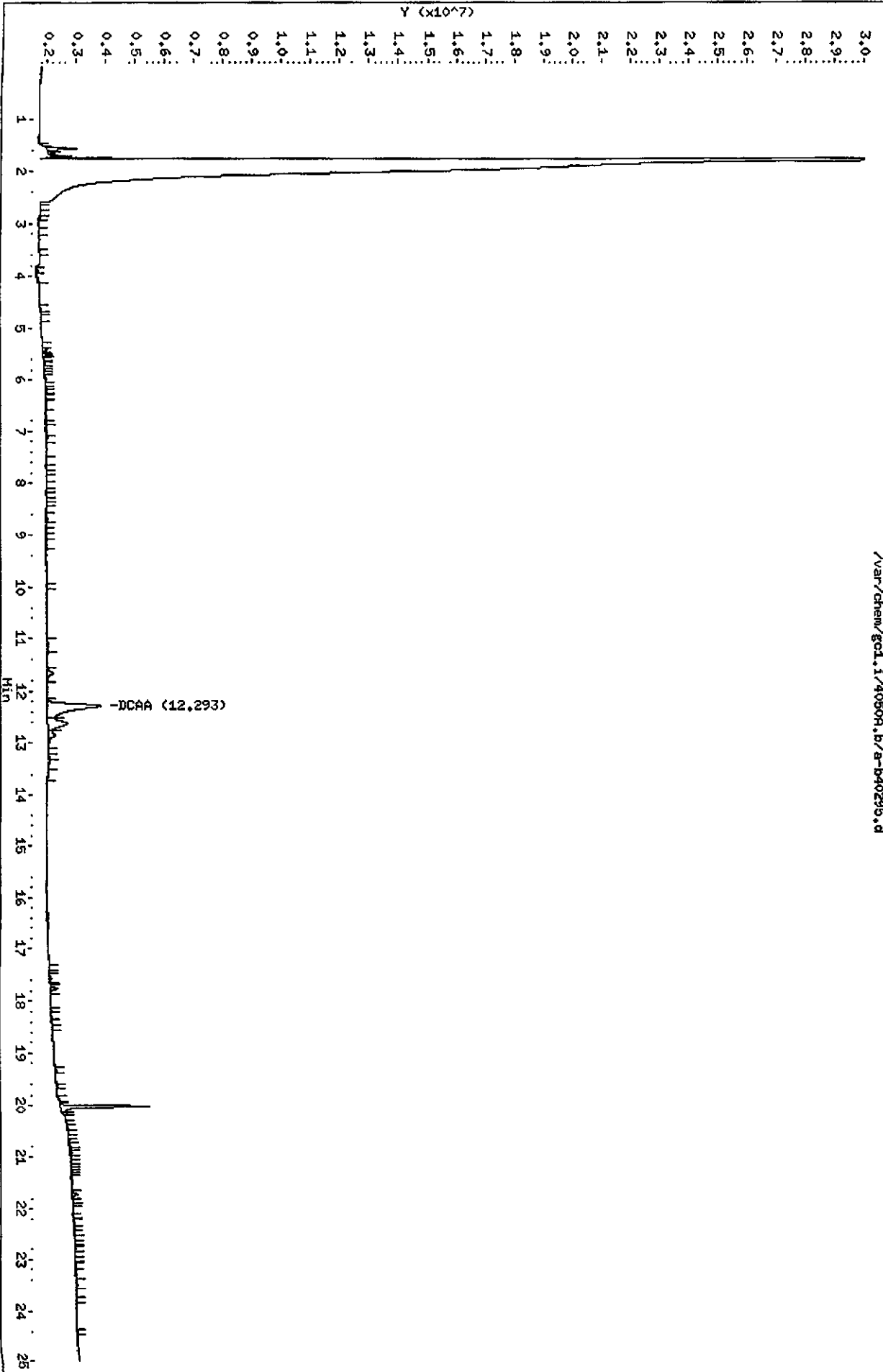
Data File: /var/chem/gc1.i/4050A.b/a-b40295.d
Report Date: 20-Jul-2000 12:57

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /var/chem/gcd.1/40509.b/a-b40295.d
Date: 19-JUL-2000 14:51
Client ID: PBLK1
Sample Info: DSELEF101.40509.b
Volume Injected (ul): 1.0
Column Phaset: DB1701

Instrument: gcd.1
Operator: 01797
Column diameter: 0.53



/var/chem/gcd.1/40509.b/a-b40295.d

UXB INTERNATIONAL
CHECK SAMPLE COMPOUNDS

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

Matrix: (soil/water) SOLID Lab Sample ID: COG180000 509
Method: SW846 8151A
Herbicides (8151A)

Sample WT/Vol: 100 / mL Date Received: 07/13/00
Work Order: DGELF102 Date Extracted: 07/18/00
Dilution factor: 1 Date Analyzed: 07/19/00

QC Batch: 0200509

Client Sample Id: CHECK SAMPLE

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg)	mg/L
94-75-7	2,4-D	0.123	
93-72-1	2,4,5-TP (Silvex)	0.0336	

664 448

Data File: /var/chem/gc1.i/4050A.b/a-b40296.d

Report Date: 20-Jul-2000 12:57

STL-PITTSBURGH

Data file : /var/chem/gc1.i/4050A.b/a-b40296.d
 Lab Smp Id: DGELF102 Client Smp ID: LCS1
 Inj Date : 19-JUL-2000 15:20
 Operator : 01797 Inst ID: gc1.i
 Smp Info : DGELF102,4050A.b
 Misc Info : 130203LCS
 Comment :
 Method : /var/chem/gc1.i/4050A.b/LONGHB.m
 Meth Date : 20-Jul-2000 12:56 g Quant Type: ESTD
 Cal Date : 05-JUL-2000 19:29 Cal File: a-b40092.d
 Als bottle: 4 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	10.000	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 (mg/L)
1 DALAPON	4.659	4.658	0.001	4342150	0.03121	0.06242(aR)
\$ 2 DCAA	12.263	12.255	0.008	17876990	0.04654	0.09308(a)
3 DICAMBA	12.945	12.942	0.003	11274195	0.03682	0.07364(a)
4 HCPP	13.442	13.436	0.006	1945046	7.55362	15.11
5 NCPA	14.447	14.440	0.007	2493692	7.25336	14.51
6 DICHLOROPROP	15.747	15.743	0.004	4256636	0.06981	0.1396(a)
7 2,4-D	17.072	17.068	0.004	5031954	0.06133	0.1227(aR)
8 PENTACHLOROPHENOL	17.346	17.343	0.003	13424781	0.00937	0.01874(a)
9 2,4,5-TP(SILVEX)	18.510	18.509	0.001	12305782	0.01681	0.03363(aR)
10 2,4,5-T	19.165	19.164	0.001	9118688	0.01564	0.03128(aR)
11 2,4-DB	19.683	19.685	-0.002	4010513	0.05891	0.1178(a)
12 DINOSEB	20.344	20.344	0.000	3779218	0.00550	0.01100(a)

Data File: /var/chem/gc1.i/4050A.b/a-b40296.d
Report Date: 20-Jul-2000 12:57

664 449

QC Flag Legend

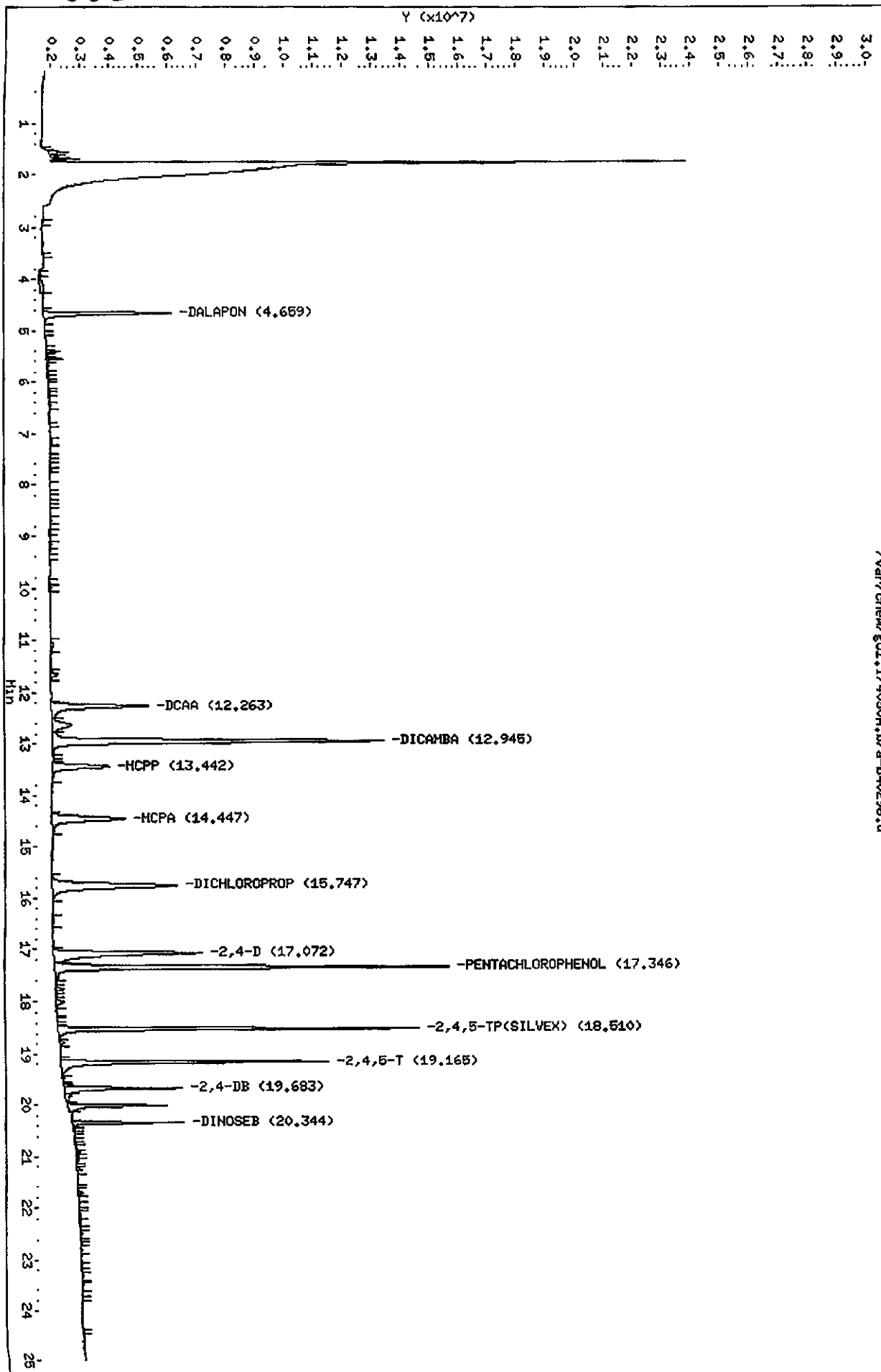
- a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
- R - Spike/Surrogate failed recovery limits.

664 450

Data File: /var/chem/gc1.1/4050A.b/a-b40296.d
Date: 19-JUL-2000 15:20
Client ID: LC54
Sample Info: DGELEF102.4050A.b
Volume Injected (uL): 1.0
Column phase: DB1701

Instrument: gc1.1
Operator: 04797
Column diameter: 0.53

/var/chem/gc1.1/4050A.b/a-b40296.d



UXB INTERNATIONAL
MATRIX SPIKE COMPOUNDS

664 451

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

Matrix: (soil/water) SOLID Lab Sample ID: C0G130203 001
Method: SW846 8151A
Herbicides (8151A)

Sample WT/Vol: 100 / mL Date Received: 07/13/00
Work Order: DG5C710W Date Extracted: 07/18/00
Dilution factor: 1 Date Analyzed: 07/19/00

QC Batch: 0200509

Client Sample Id: DF/S1/0194/SDC/019

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg)	mg/L
94-75-7	2,4-D	0.140	
93-72-1	2,4,5-TP (Silvex)	0.0351	

FORM I

664 452

Data File: /var/chem/gc1.i/4050A.b/a-b40297.d
 Report Date: 20-Jul-2000 12:57

STL-PITTSBURGH

Data file : /var/chem/gc1.i/4050A.b/a-b40297.d
 Lab Smp Id: DG5C710W Client Smp ID: DF/S1/0194/SDC/019S
 Inj Date : 19-JUL-2000 15:49
 Operator : 01797 Inst ID: gc1.i
 Smp Info : DG5C710W,4050A.b
 Misc Info : 130203-1S
 Comment :
 Method : /var/chem/gc1.i/4050A.b/LONGHB.m
 Meth Date : 20-Jul-2000 12:56 g Quant Type: ESTD
 Cal Date : 05-JUL-2000 19:29 Cal File: a-b40092.d
 Als bottle: 5 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	10.000	Volume of final extract (uL)
Vo	100.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected

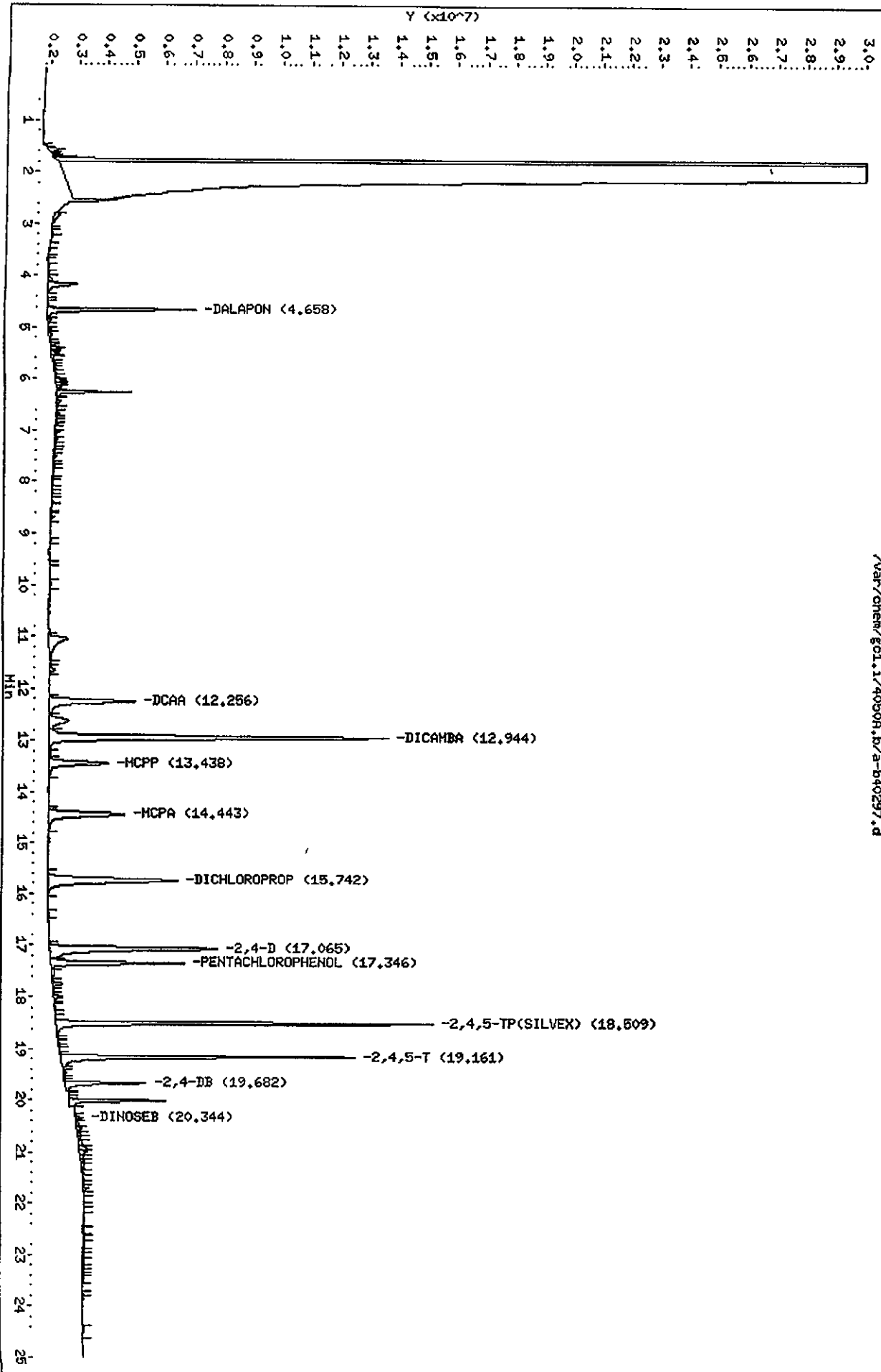
Compounds	RT	EXP RT	DLF	RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng)	FINAL (mg/L)
1 DALAPON	4.658	4.658	0.000		5076280	0.03649	0.07298 (aR)
2 DCAA	12.256	12.255	0.001		15081164	0.03926	0.07852 (a)
3 DICAMBA	12.944	12.942	0.002		11556865	0.03774	0.07549 (a)
4 MCPP	13.438	13.436	0.002		2030209	7.88435	15.77
5 MCPA	14.443	14.440	0.003		2624340	7.63337	15.27
6 DICHLOROPROP	15.742	15.743	-0.001		4441002	0.07283	0.1457 (a)
7 2,4-D	17.065	17.068	-0.003		5728050	0.06982	0.1396 (aR)
8 PENTACHLOROPHENOL	17.346	17.343	0.003		4544018	0.00317	0.006345 (a)
9 2,4,5-TP (SILVEX)	18.509	18.509	0.000		12851080	0.01756	0.03512 (aR)
10 2,4,5-T	19.161	19.164	-0.003		10042096	0.01722	0.03445 (aR)
11 2,4-DB	19.682	19.685	-0.003		2767414	0.04065	0.08130 (a)
12 DINOSEB	20.344	20.344	0.000		285700	0.000416	0.0008318 (a)

Data File: /var/chem/gc1.i/4050A.b/a-b40297.d
Report Date: 20-Jul-2000 12:57

QC Flag Legend

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

664 454



Data File: /var/chem/ec1.1/40509.b/a-b40297.d
Date: 19-JUL-2000 15:49
Client ID: DF/SI/0194/SDC/019S
Sample Info: DSECT10M,40509.b
Volume Injected (uL): 1.0
Column phase: DB1701

/var/chem/ec1.1/40509.b/a-b40297.d

Instrument: ec1.1
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: C0G130203 001
 Method: SW846 8151A
 Herbicides (8151A)
 Sample WT/Vol: 100 / mL Date Received: 07/13/00
 Work Order: DG5C710X Date Extracted: 07/18/00
 Dilution factor: 1 Date Analyzed: 07/19/00
 Client Sample Id: DF/S1/0194/SDC/019 QC Batch: 0200509

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg)	mg/L
94-75-7	2,4-D	0.149	
93-72-1	2,4,5-TP (Silvex)	0.0357	

664 456

Data File: /var/chem/gc1.i/4050A.b/a-b40298.d
Report Date: 20-Jul-2000 12:57

STL-PITTSBURGH

Data file : /var/chem/gc1.i/4050A.b/a-b40298.d
Lab Smp Id: DG5C710X Client Smp ID: DF/S1/0194/SDC/019D
Inj Date : 19-JUL-2000 16:17
Operator : 01797 Inst ID: gc1.i
Smp Info : DG5C710X,4050A.b
Misc Info : 130203-1D
Comment :
Method : /var/chem/gc1.i/4050A.b/LONGHB.m
Meth Date : 20-Jul-2000 12:56 g Quant Type: ESTD
Cal Date : 05-JUL-2000 19:29 Cal File: a-b40092.d
Als bottle: 6 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

Table with 3 columns: Name, Value, Description. Rows include DF (Dilution Factor), Vt (Volume of final extract), Vo (Volume of sample extracted), and Vi (Volume injected).

Table with 8 columns: Compounds, RT, EXP RT, DLT RT, RESPONSE, ON-COLUMN (ng), FINAL (mg/L). Lists various compounds like DALAPON, DCAA, DICAMBA, etc., with their respective retention times and concentrations.

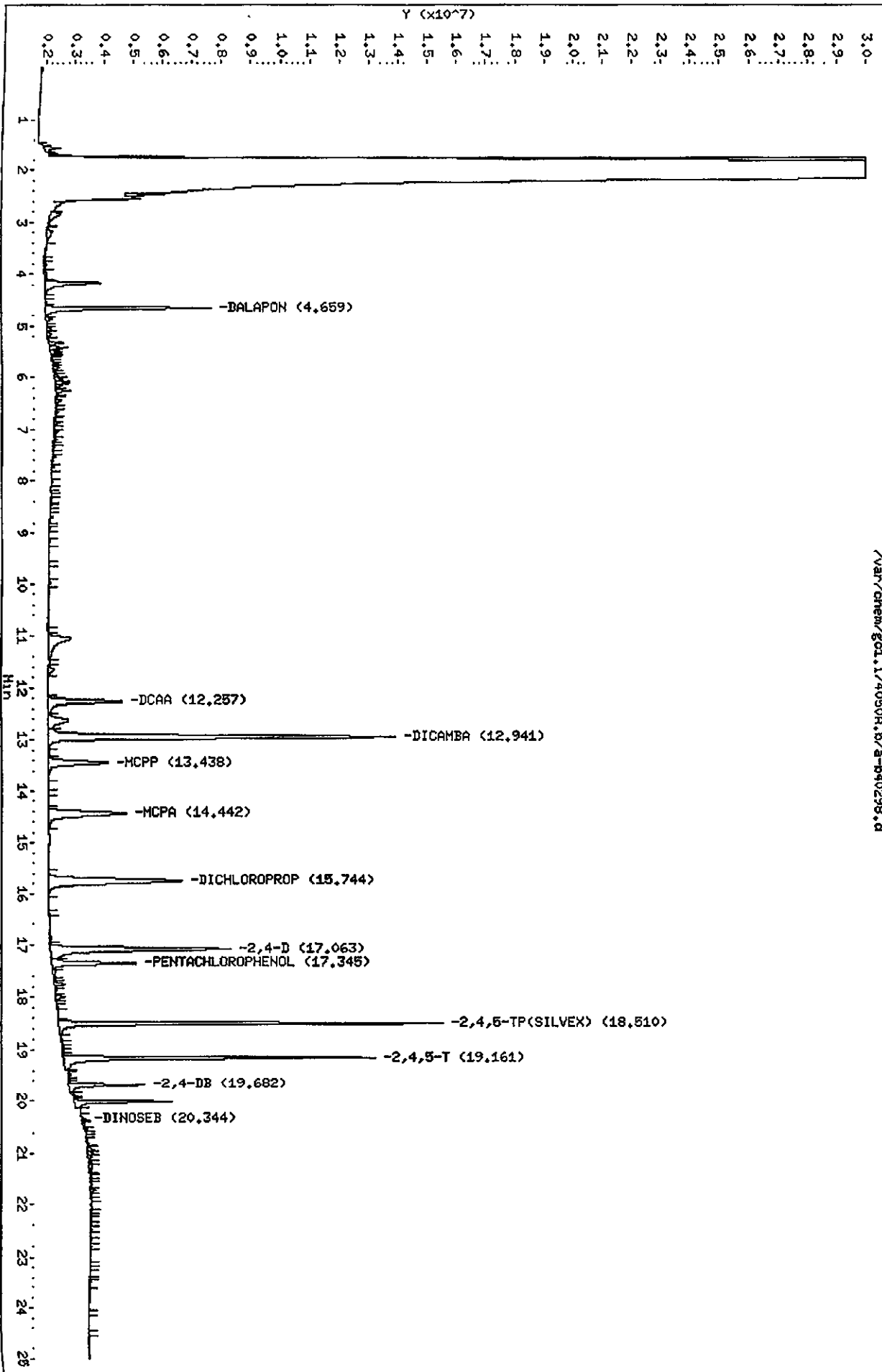
Data File: /var/chem/gc1.i/4050A.b/a-b40298.d
Report Date: 20-Jul-2000 12:57

664 457

QC Flag Legend

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

664 458



Data File: /var/chem/gc1.1/4050A.b/a-b40298.d
Date: 19-JUL-2000 16:17
Client ID: DF/S1/0194/SDC/019D
Sample Info: DGSC710X,4050A.b
Volume Injected (uL): 1.0
Column phase: DB1701

/var/chem/gc1.1/4050A.b/a-b40298.d

Instrument: gc1.1
Operator: 01797
Column diameter: 0.53

664 459

**HERBICIDE
MISCELLANEOUS**

664 469

Separatory Funnel

Extraction Worksheet

TRCP

Hex-703208 - BAKER



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

4061

Date Extraction Began	Date Completed	Parameter	Method	Spent Volume (mL)	Final Volume (mL)	Surrogate Number	Solvent Lot	Surrogate Volume (mL)	Solvent Mfg.	Matrix Spike No.	Matrix Spike Volume (mL)	Clean up Method
7-18-00	7-19-00	NRK	(RISA)	100	10.0	190-93-5	190-93-5	1.0	190-93-6	N/A	1.0	N/A
Lot Number	Sample ID	Client ID	PH	Sample Volume (mL)	Final Volume (mL)	Surrogate Number	Surrogate Volume (mL)	Matrix Spike No.	Matrix Spike Volume (mL)	Clean up Method	Cleanup Date	
1. PDC13B203	BDB	N/A	5.10	100	10.0	190-93-5	1.0	N/A	N/A	N/A	N/A	N/A
2.	615											
3.	001MS											
4.	001MSD											
5.	001											
6.	003											
7.	003											
8.												
9.												
10.												
11.												
12.												
13.												
14.												
15.												
16.												
17.												
18.												
19.												
20.												
21.												
22.												
23.												
24.												
Analyst	Extract(s)	Date	Time	Extract(s) Received	Location	Date	Time	Extract(s) Relinquished	Analyst	Location	Date	
NY	NY	7-18-00	30	NY	304 Ave	7-18-00	2130	NY	NY	304 Ave	7-18-00	
NY	NY	7-19-00	0450	NY	304 Ave	7-19-00	0820	NY	NY	304 Ave	7-19-00	
NY	NY	7-19-00	1210	NY	304 Ave	7-19-00	1230	NY	NY	304 Ave	7-19-00	
Sodium Sulfate Mfg:	BAKER	Lot Number	733625	Reviewed By	Juan M. Pa	Date	7-19-00					

P. G. Ludwig
7-18-00

Back
8151 664 461
Analysis

(12)

B

2	1	RINSE	
3	1	RINSE	
4	1	RINSE	
5	1	RINSE	
6	2	RINSE	
7	3	190-94-1	88
8	4	190-94-2	89
9	5	190-94-3	90
10	6	190-94-4	91
11	7	190-94-5	92
12	8	190-80-3	93
13	51	220175BLK	94
14	52	220175LCS	95
15	53	220175LCD	96
16	54	220175001	97
17	55	220175003	98
18	56	220175005	99
19	57	220175007	100
20	58	220175009	101
21	59	220175011	102
22	60	230222001	103
23	61	230222003	104
24	62	230222005	105
25	63	230222007	106
26	64	230222009	107
27	65	210119003	108
28	66	210119004	109
29	67	210119BLK	110
30	68	210119LCS	111
31	69	210119LCD	112

LM
CREATED: 7/5/00

✓
DE
7/10/00

OK um 7/10/00

369206444 50X
11549926 10X

32	70	190-94-3	113	664	462
33	100	190-94-3	129		
34	9	300129BLK	130		
35	14	300129004	131		
36	15	300129005	132		
37	16	300129006	133		
38	100	190-94-3	134		

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
====	====	=====	=====	===	=====	=====	=====
1	1	HEXANE,4050A.b	HERBA	1	Sample		
2	1	HEXANE,4050A.b	HERBA	1	Sample		
3	1	HEXANE,4050A.b	HERBA	1	Sample		
4	1	HEXANE,4050A.b	HERBA	1	Sample		
5	1	HEXANE,4050A.b	HERBA	1	Sample		
6	2	HEXANE,4050A.b	HERBA	1	Sample		
7	3	Lherb,4050A.b	HERBA	1	Sample		
8	4	MLherb,4050A.b	HERBA	1	Sample		
9	5	Mherb,4050A.b	HERBA	1	Sample		
10	6	MHherb,4050A.b	HERBA	1	Sample		
11	7	Hherb,4050A.b	HERBA	1	Sample		
12	8	2ndherb,4050A.b	HERBA	1	Sample		
13	51	DFAXA101,4050A.b	HERBA	1	Sample		
14	52	DFAXA102,4050A.b	HERBA	1	Sample		
15	53	DFAXA103,4050A.b	HERBA	1	Sample		
16	54	DF4V411R,4050A.b	HERBA	1	Sample		
17	55	DF4VK11M,4050A.b	HERBA	1	Sample		
18	56	DF4W511M,4050A.b	HERBA	1	Sample		
19	57	DF4WF11R,4050A.b	HERBA	1	Sample		
20	58	DF4WT11R,4050A.b	HERBA	1	Sample		
21	59	DF4X811R,4050A.b	HERBA	1	Sample		
22	60	DF80E11M,4050A.b	HERBA	1	Sample		
23	61	DF80R11M,4050A.b	HERBA	1	Sample		
24	62	DF81111M,4050A.b	HERBA	1	Sample		
25	63	DF81511N,4050A.b	HERBA	1	Sample		
26	64	DF81L11N,4050A.b	HERBA	1	Sample		
27	65	DF272101,4050A.b	HERBA	1	Sample		
28	66	DF273101,4050A.b	HERBA	1	Sample		
29	67	DFAXC101,4050A.b	HERBA	1	Sample		
30	68	DFAXC102,4050A.b	HERBA	1	Sample		
31	69	DFAXC103,4050A.b	HERBA	1	Sample		
32	70	Mherb,4050A.b	HERBA	1	Sample		
33	100	Mherb,4050A.b	HERBA	1	Sample		
34	9	DFM1M101,4050.b	HERBA	1	Sample		
35	14	DFJXF102,4050.b	HERBA	1	Sample		
36	15	DFJXN102,4050.b	HERBA	1	Sample		
37	16	DFJXR102,4050.b	HERBA	1	Sample		
38	100	Mherb,4050A.b	HERBA	1	Sample		

Sequence Table (Front Injector):

No entries - empty table!

B

Sequence Table (Back Injector):

Vial Information Part:

CREATED LM 7/19/00
LM 7/20/00
LM 7/19/00

Line	Vial	Vial Information
1	1	RINSE
2	2	190-94-3 294
3	3	130203BLK 295
4	4	130203LCS 296
5	5	130203001S 297
6	6	130203001D 298
7	7	130203001 299
8	8	130203002 300
9	9	130203003 301
10	10	140135BLK 302
11	11	140135LCS 303
12	12	140135001S 304
13	13	140135001D 305
14	14	140135001 306
15	15	140135002 307
16	16	190-94-3 308

✓ 30
7/20/00

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	HEXANE, 4050A.b	HERBA	1	Sample		
2	2	Mherb, 4050A.b	HERBA	1	Sample		
3	3	DGELF101, 4050A.b	HERBA	1	Sample		
4	4	DGELF102, 4050A.b	HERBA	1	Sample		
5	5	DG5C710W, 4050A.b	HERBA	1	Sample		
6	6	DG5C710X, 4050A.b	HERBA	1	Sample		
7	7	DG5C7105, 4050A.b	HERBA	1	Sample		
8	8	DG5CG105, 4050A.b	HERBA	1	Sample		

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
====	====	=====	=====	===	=====	=====	=====
9	9	DG5CK105,4050A.b	HERBA	1	Sample		
10	10	DGELT101,4050A.b	HERBA	1	Sample		
11	11	DGELT102,4050A.b	HERBA	1	Sample		
12	12	DG75W10J,4050A.b	HERBA	1	Sample		
13	13	DG75W10K,4050A.b	HERBA	1	Sample		
14	14	DG75W104,4050A.b	HERBA	1	Sample		
15	15	DG761104,4050A.b	HERBA	1	Sample		
16	16	Mherb,4050A.b	HERBA	1	Sample		

REQUESTED BY: YUSHINSC

METHOD: QS Herbicides (8151A)

STORAGE LOCATION	WORK ORDER #	PICKED CNTR#	CONTROL #	CLIENT #	ANALYSIS	LOTID	SMP#	SEX	MATRIX DESCRIPTION	QTY	QTY
										RCVD	REQD
5E CLP1	DG5C7-1-05	___	250806	399411	A-64-QS	COG130203	001		SOLID	0	3 1
5E CLP1	DG5CG-1-05	___	250807	399411	A-64-QS	COG130203	002		SOLID	0	3 1
5E CLP1	DG5CK-1-05	___	250808	399411	A-64-QS	COG130203	003		SOLID	0	3 1

RELINQUISHED BY

RECEIVED BY

DATE/TIME

<i>P. Yushinski</i>	<i>P. Yushinski</i>	7-18-00 1535
<i>P. Yushinski</i>	<i>P. Yushinski</i>	7-18-00 2200
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

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

664 466

METALS DATA

STL-Pittsburgh

Cover Page - Inorganic Analysis Data Package

<u>Client ID</u>	<u>Lab Sample ID:</u>
DF/S1/0194/SDC/004	DG5CK
DF/S1/0194/SDC/019	DG5C7
DF/S1/0194/SDC/019D	DG5C7D
DF/S1/0194/SDC/019S	DG5C7S
DF/S1/0194/SDC/020	DG5CG

Comments: UXB, DUNN FIELD
 C0G130203
 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: MTW
 DATE: 7-20-00

664 468

**METALS
RESULTS**

Metals Data Reporting Form

Sample Results

Lab Sample ID: DG5C7 **Client ID:** DF/S1/0194/SDC/019
Matrix: Soil **Units:** mg/kg **Prep Date:** 7/14/00 **Prep Batch:** 0196219
Weight: 1.00 **Volume:** 100 **Percent Moisture:** 14.71

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	7/17/00	13:22

Comments: Lot #: C0G130203 Sample #: 1

Version 3.63.5

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

Form 1 Equivalent

664 470

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: DG5CG Client ID: DF/S1/0194/SDC/020
 Matrix: Soil Units: mg/kg Prep Date: 7/14/00 Prep Batch: 0196219
 Weight: 1.00 Volume: 100 Percent Moisture: 11.69

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Arsenic	189.04	0.29	1.1	11.0		1	ICPST	7/17/00	13:39

Comments: Lot #: C0G130203 Sample #: 2

Version 3.63.5

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

Form 1 Equivalent

Metals Data Reporting Form

Sample Results

Lab Sample ID: DG5CK **Client ID:** DF/S1/0194/SDC/004
Matrix: Soil **Units:** mg/kg **Prep Date:** 7/14/00 **Prep Batch:** 0196219
Weight: 1.00 **Volume:** 100 **Percent Moisture:** 18.45

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Arsenic	189.04	0.31	1.2	10.9		1	ICPST	7/17/00	13:43

Comments: Lot #: C0G130203 Sample #: 3

Version 3.63.5

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

Form 1 Equivalent

664 472

STL-Pittsburgh
Metals Data Reporting Form

Initial Calibration Verification Standard

Instrument: ICPST

Units: ug/L

Chart Number: T00717C.ARC

Acceptable Range: 90% - 110%

Standard Source: Inorganic Ventures

Standard ID: 0014-146-5

Element	WL/ Mass	True Conc	ICV3-1 7/17/00 12:05 PM		Found	Rec	Found	Rec	Found	Rec	Found	Rec
			Found	% Rec								
Arsenic	189.042	250.0	250.92	100.4								

STL-Pittsburgh

Metals Data Reporting Form

664 473

Continuing Calibration Verification

Instrument: ICPST

Units: ug/L

Chart Number: T00717C.ARC

Acceptable Range: 90% - 110%

Standard Source: Inorganic Ventures

Standard ID: 0014-183-1

Element	WL/ Mass	True Conc	CCV3-1 7/17/00 12:57 PM		CCV3-2 7/17/00 1:47 PM							
			Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Arsenic	189.042	500.0	501.24	100.2	497.51	99.5						

664 474

STL-Pittsburgh

Metals Data Reporting Form

Initial Calibration Blank Results

Instrument: ICPST

Units: ug/L

Chart Number: T00717C.ARC

Standard Source: _____

Standard ID: _____

Element	WL/ Mass	Report Limit	ICB1 7/17/00 12:10 PM		Found	Q	Found	Q	Found	Q	Found	Q
			Found	Q								
Arsenic	189.042	10	2.6	U								

Metals Data Reporting Form

Continuing Calibration Blank Results

Instrument: ICPST

Units: ug/L

Chart Number: T00717C.ARC

Standard Source: _____

Standard ID: _____

Element	WL/ Mass	Report Limit	CCB1 7/17/00 1:02 PM		CCB2 7/17/00 1:51 PM		Found	Q	Found	Q
			Found	Q	Found	Q				
Arsenic	189.042	10	2.6	U	2.6	U				

664 476

STL-Pittsburgh

Metals Data Reporting Form

Preparation Blank Results

Lab Sample ID: DG7ANB

Matrix: Soil Units: mg/kg Prep Date: 7/14/00 Prep Batch: 0196219

Weight: 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	7/17/00	13:14

Comments: Lot #: COG130203

Version 3.63.5

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

Form 3 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

664 477

Interference Check Standard A

Instrument: ICPST

Units: ug/L

Chart Number: T00717C.ARC

Acceptable Range: 0% - 0%

Standard Source: Inorganic Ventures

Standard ID: 0014-170-1

Element	WL/ Mass	Reporting Limit	True Conc	ICSA 7/17/00 12:14 PM				
				Found	Found	Found	Found	Found
Arsenic	189.042	10		2				

664 478

STL-Pittsburgh
Metals Data Reporting Form

Interference Check Standard AB

Instrument: ICPST

Units: ug/L

Chart Number: T00717C.ARC

Acceptable Range: 80% - 120%

Standard Source: Inorganic Ventures

Standard ID: 0014-136-3

Element	WL/ Mass	True Conc	ICSAB 7/17/00 12:18 PM									
			Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Arsenic	189.042	1000	1014.9	101.5								

Metals Data Reporting Form

Matrix Spike Sample Results

Spike Sample ID: DG5C7S
 Original Sample ID: DG5C7 Client ID: DF/S1/0194/SDC/019S
 Matrix: Soil Units: mg/kg Prep Date: 7/14/00 Prep Batch: 0196219
 Weight: 1.00 Volume: 100 Percent Moisture: 14.71

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		211		234.49	86.0	1	1	ICPST	7/17/00	13:22	7/17/00	13:31

Comments: Lot #: C0G130203 Sample #: 1

Version 3.63.5

- 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

664 480

STL-Pittsburgh

Metals Data Reporting Form

Matrix Spike Duplicate Sample Results

Spike Sample ID: DG5C7D
 Original Sample ID: DG5C7 Client ID: DF/S1/0194/SDC/019D
 Matrix: Soil Units: mg/kg Prep Date: 7/14/00 Prep Batch: 0196219
 Weight: 1.00 Volume: 100 Percent Moisture: 14.71

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		211		234.49	85.9	1	1	ICPST	7/17/00	13:22	7/17/00	13:35

Comments: Lot #: COG130203 Sample #: 1

Version 3.63.5

- 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: DG5C7D
 Matrix Spike Sample ID: DG5C7S Client ID: DF/S1/0194/SDC/019D
 Matrix: Soil Units: mg/kg Prep Date: 7/14/00 Prep Batch: 0196219
 Weight: 1.00 Volume: 100 Percent Moisture: 14.71

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	211		211		0.1 %	1	1	ICPST	7/17/00	13:31	7/17/00	13:35

Comments: Lot #: C0G130203 Sample #: 1

Version 3.63.5

- 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

664 482

STL-Pittsburgh

Metals Data Reporting Form

Laboratory Control Sample Results

Lab Sample ID: DG7ANC

Matrix: Soil Units: mg/kg Prep Date: 7/14/00 Prep Batch: 0196219

Weight: 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	196	98.2		80-120	1	ICPST	7/17/00	13:18

Comments: Lot #: C0G130203

Version 3.63.5

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

Form 7 Equivalent

Metals Data Reporting Form

Serial Dilution RPD Report

Serial Dilution Sample ID: DG5C7P

Original Sample ID: DG5C7 Client ID: DF/S1/0194/SDC/019

Matrix: Soil Units: mg/kg Prep Date: 7/14/00 Prep Batch: 0196219

Weight: 1.00 Volume: 100 Percent Moisture: 14.71

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		10.3			1	5	ICPST	7/17/00	13:22	7/17/00	13:27

Comments: _____

664 484

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: 7/14/00

Interfering Element	Wavelength /Mass	Correction Factor(s)
Aluminum	308.215	Pb(0.000692), Se(0.00001), Tl(-0.00002)
Aluminum	308.215	Pb(-0.000278), Se(0.000011)
Chromium	267.716	Sb(0.009863)
Chromium	267.716	As(-0.003604), Sb(0.018266)
Cobalt	228.616	Se(-0.000324)
Cobalt	228.616	Cd(-0.000061), Fe(0.092519), Ni(-0.00066), Pb(0.000077), Se(0.000351), Tl(0.002179)
Iron	271.441	Cd(0.00006), Pb(0.000071), Sb(0.000019), Se(0.000005), Tl(-0.000034), V(-0.000349), Zn(0.000127)
Iron	271.441	Pb(0.000036), Sb(0.000021), Se(-0.00029)
Magnesium	279.078	Fe(-0.000306)
Manganese	257.61	Se(0.000579), Tl(-0.006029)
Molybdenum	202.03	Pb(-0.00068), Sb(-0.013818)
Molybdenum	202.03	Al(0.011136), As(-0.000847), Cr(-0.000312), Pb(-0.000502), Sb(-0.004716)
Nickel	231.604	Pb(0.000321), Sb(-0.000886), Zn(0.005465)
Nickel	231.604	Pb(0.000086)
Vanadium	292.402	Al(0.015519), Be(-0.00665), Cr(-0.000183), Fe(0.007812), Sb(-0.01101), Se(0.000216), Tl(0.001386)
Vanadium	292.402	Pb(-0.00027), Se(0.000099)

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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	6/15/00

STL-Pittsburgh

Metals Data Reporting Form

664 487

Preparation Log

Preparation Batch: 0196219 Instrument: ICP Matrix: Soil

Sample ID	Prep Date	Weight (g)	Volume (ml)	% Moisture
DG7ANB	7/14/00	1.00	100	NA
DG7ANC	7/14/00	1.00	100	NA
DG5C7	7/14/00	1.00	100	14.71
DG5C7D	7/14/00	1.00	100	14.71
DG5C7S	7/14/00	1.00	100	14.71
DG5CG	7/14/00	1.00	100	11.69
DG5CK	7/14/00	1.00	100	18.45

664 488

STL-Pittsburgh
Metals Data Reporting Form

Instrument Runlog

Instrument: ICPST

Chart Number: T00717C.ARC

Sample Name	Date of Analysis	Time of Analysis
STD1	7/17/00	11:53 AM
STD6	7/17/00	11:57 AM
STD7	7/17/00	12:02 PM
ICV3-1	7/17/00	12:05 PM
ICB1	7/17/00	12:10 PM
ICSA	7/17/00	12:14 PM
ICSAB	7/17/00	12:18 PM
ZZZZZZ	7/17/00	12:24 PM
ZZZZZZ	7/17/00	12:28 PM
ZZZZZZ	7/17/00	12:33 PM
ZZZZZZ	7/17/00	12:37 PM
ZZZZZZ	7/17/00	12:41 PM
ZZZZZZ	7/17/00	12:45 PM
ZZZZZZ	7/17/00	12:49 PM
ZZZZZZ	7/17/00	12:53 PM
CCV3-1	7/17/00	12:57 PM
CCB1	7/17/00	1:02 PM
ZZZZZZ	7/17/00	1:06 PM
ZZZZZZ	7/17/00	1:10 PM
DG7ANB	7/17/00	1:14 PM
DG7ANC	7/17/00	1:18 PM
DG5C7	7/17/00	1:22 PM
DG5C7P	7/17/00	1:27 PM
DG5C7S	7/17/00	1:31 PM
DG5C7D	7/17/00	1:35 PM
DG5CG	7/17/00	1:39 PM
DG5CK	7/17/00	1:43 PM
CCV3-2	7/17/00	1:47 PM
CCB2	7/17/00	1:51 PM
ZZZZZZ	7/17/00	1:56 PM
ZZZZZZ	7/17/00	2:00 PM
ZZZZZZ	7/17/00	2:04 PM
ZZZZZZ	7/17/00	2:08 PM
ZZZZZZ	7/17/00	2:12 PM
ZZZZZZ	7/17/00	2:16 PM
ZZZZZZ	7/17/00	2:21 PM
ZZZZZZ	7/17/00	2:25 PM
ZZZZZZ	7/17/00	2:29 PM
ZZZZZZ	7/17/00	2:33 PM
ZZZZZZ	7/17/00	2:37 PM
ZZZZZZ	7/17/00	2:41 PM

STL-Pittsburgh

Metals Data Reporting Form

664 489

Instrument Runlog

Instrument: ICPST

Chart Number: T00717C.ARC

Sample Name	Date of Analysis	Time of Analysis
ZZZZZZ	7/17/00	2:46 PM
ZZZZZZ	7/17/00	2:50 PM
ZZZZZZ	7/17/00	2:54 PM
ZZZZZZ	7/17/00	2:58 PM
ZZZZZZ	7/17/00	3:02 PM
ZZZZZZ	7/17/00	3:06 PM
ZZZZZZ	7/17/00	3:11 PM
ZZZZZZ	7/17/00	3:15 PM
ZZZZZZ	7/17/00	3:19 PM
ZZZZZZ	7/17/00	3:23 PM
ZZZZZZ	7/17/00	3:27 PM
ZZZZZZ	7/17/00	3:31 PM
ZZZZZZ	7/17/00	3:36 PM
ZZZZZZ	7/17/00	3:40 PM
ZZZZZZ	7/17/00	3:44 PM
ZZZZZZ	7/17/00	3:48 PM
ZZZZZZ	7/17/00	3:52 PM
ZZZZZZ	7/17/00	3:56 PM
ZZZZZZ	7/17/00	4:01 PM
ZZZZZZ	7/17/00	4:05 PM
ZZZZZZ	7/17/00	4:09 PM
ZZZZZZ	7/17/00	4:13 PM
ZZZZZZ	7/17/00	4:17 PM
ZZZZZZ	7/17/00	4:21 PM
ZZZZZZ	7/17/00	4:25 PM
ZZZZZZ	7/17/00	4:30 PM
ZZZZZZ	7/17/00	4:34 PM
ZZZZZZ	7/17/00	4:38 PM
ZZZZZZ	7/17/00	4:42 PM
ZZZZZZ	7/17/00	4:46 PM
ZZZZZZ	7/17/00	4:50 PM
ZZZZZZ	7/17/00	4:55 PM
ZZZZZZ	7/17/00	4:59 PM
ZZZZZZ	7/17/00	5:03 PM
ZZZZZZ	7/17/00	5:07 PM
ZZZZZZ	7/17/00	5:11 PM
ZZZZZZ	7/17/00	5:15 PM
ZZZZZZ	7/17/00	5:20 PM
ZZZZZZ	7/17/00	5:24 PM
ZZZZZZ	7/17/00	5:28 PM
ZZZZZZ	7/17/00	5:32 PM

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STL-Pittsburgh
Metals Data Reporting Form

Instrument Runlog

Instrument: ICPST

Chart Number: T00717C.ARC

Sample Name	Date of Analysis	Time of Analysis
ZZZZZZ	7/17/00	5:36 PM
ZZZZZZ	7/17/00	5:40 PM
ZZZZZZ	7/17/00	5:45 PM
ZZZZZZ	7/17/00	5:49 PM
ZZZZZZ	7/17/00	5:53 PM
ZZZZZZ	7/17/00	5:57 PM
ZZZZZZ	7/17/00	6:01 PM
ZZZZZZ	7/17/00	6:05 PM
ZZZZZZ	7/17/00	6:10 PM
ZZZZZZ	7/17/00	6:14 PM
ZZZZZZ	7/17/00	6:18 PM
ZZZZZZ	7/17/00	6:22 PM
ZZZZZZ	7/17/00	6:26 PM
ZZZZZZ	7/17/00	6:30 PM
ZZZZZZ	7/17/00	6:35 PM
ZZZZZZ	7/17/00	6:39 PM
ZZZZZZ	7/17/00	6:43 PM
ZZZZZZ	7/17/00	6:47 PM
ZZZZZZ	7/17/00	6:51 PM
ZZZZZZ	7/17/00	6:55 PM
ZZZZZZ	7/17/00	7:00 PM
ZZZZZZ	7/17/00	7:04 PM
ZZZZZZ	7/17/00	7:08 PM
ZZZZZZ	7/17/00	7:12 PM
ZZZZZZ	7/17/00	7:16 PM
ZZZZZZ	7/17/00	7:21 PM
ZZZZZZ	7/17/00	7:25 PM
ZZZZZZ	7/17/00	7:29 PM
ZZZZZZ	7/17/00	7:33 PM
ZZZZZZ	7/17/00	7:37 PM
ZZZZZZ	7/17/00	7:41 PM
ZZZZZZ	7/17/00	7:52 PM
ZZZZZZ	7/17/00	7:57 PM

**METALS
RAW DATA**

COG130203

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Analysis Report ⁶⁰¹⁰³ Averages

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Sample Name *Reburied 71800* AS

1	STD1	-.00233
2	STD6	7.08751
3	STD7	
4	ICV3-1 0014-146-5	.25092
5	ICB1	.00002
6	ICSA 0014-170-1	.00228
7	ICSAB 0014-136-3	1.0149
8	DG2M6BF	.00080
9	DG2M6CF	1.9172
10	DF349F	.00441
11	DF349P5F	.00058
12	DF349SF	1.9558
13	DF349DF	1.9332
14	DF34EF	.00081
15	DF34FF	.00365
16	CCV3-1 0014-183-1	.50124
17	CCB1	.00020
18	DF34JF	.00149
19	DF5JQF	-.00069
20	DG7ANB	.00034
21	DG7ANC	1.9631
22	DG5C7	.08017
23	DG5C7P5	.01757
24	DG5C7S	1.7998
25	DG5C7D	1.7974
26	DF5CG7 <i>RB 71800</i>	.09698
27	DF5CK	.08897
28	CCV3-2	.49751
29	CCB2	-.00044
30	DG2XGBE	.00044
31	DERVPBE	-.00003
32	DF0LPBE	-.00032
33	DF70LBE	-.00007
34	DFD8CBE	-.00028
35	DFGP8BE	-.00066
36	DG2XGCE	H3.8363
37	DEKR1E	.00497
38	DEKR1P5E	.00071
39	DEKR1SE	3.8284
40	CCV3-3	.49459
41	CCB3	.00021
42	DEKR1DE	3.9068
43	DEKRHE	.00635
44	DEKRJE	.00532
45	DENJME	.00401
46	DENJXE	.00551
47	DENK1E	.00448
48	DER4PE	.00450
49	DER4TE	.00551
50	DER4VE	.00514
51	DEV66E	.00609
52	CCV3-4	.49327
53	CCB4	.00095

#	Sample Name	AS	664	493
54	DEV68E	.00514		
55	DEV6GE	.00597		
56	DEXXPE	.00545		
57	DEXXQE	.00612		
58	DEXXRE	.00654		
59	DG30KBE	.00065		
60	DFW82BE	.00041		
61	DG19EBE	.00035		
62	DG30KCE	H3.7818		
63	CCV3-5	.49246		
64	CCB5	.00156		
65	DF3WVE	.00855		
66	DF3WVP5E	.00195		
67	DF3WVSE	3.8536		
68	DF3WVDE	3.8369		
69	DF3X2E	.00885		
70	DF3X3E	.00985		
71	DF8TRE	.00908		
72	DF8TWE	.01049		
73	DF8TXE	.01176		
74	CCV3-6	.49470		
75	CCB6	.00073		
76	DG4PJBF	-.00042		
77	DG4PJCF	1.8918		
78	DFV87F	.00027		
79	DFV8DF	.00030		
80	DFV8FF	.00016		
81	DFV8KF	.00048		
82	DFV8NF	-.00058		
83	DFV8TF	.00097		
84	DFV90F	.00091		
85	DFV93F	.00027		
86	CCV3-7	.49640		
87	CCB7	.00075		
88	DFV99F	.00000		
89	DFV99P5F	-.00003		
90	DFV99SF	2.0063		
91	DFV99DF	2.0002		
92	DFV9EF	.00226		
93	DFV9GF	.00084		
94	DFV9XF	.00001		
95	DFVA1F	.00050		
96	CCV3-8	.49350		
97	CCB8	.00031		
98	DG0WNB	-.00080		
99	DG0WNC	1.8547		
100	DFKAW/250 Pb	.00136		
101	DFKAWP1250 Pb	.00064		
102	DFKAWS/250 Pb	.00738		
103	DFKAWD/250 Pb	.00871		
104	DFKC7	.04757		
105	DFKCC	.03269		
106	DFKCD	.02534		
107	DFKCK	.06978		

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Analysis Report

Averages

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#	Sample Name	AS
108	CCV3-9	.49238
109	CCB9	.00029
110	DFKCL/100 Pb	.00254
111	DFKCN	.06689
112	DFKCQ	.07431
113	DDFKCT/25 Pb	.00558
114	CCV3-10	.49398
115	CCB10	.00025

R16 7-18-00

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#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
1	STD1	T00717C	METTRA	07/17/00	11:53		X	IR
2	STD6	T00717C	METTRA	07/17/00	11:57		X	IR
3	STD7	T00717C	METTRA	07/17/00	12:02		X	IR
4	ICV3-1 0014-146-5	T00717C	METTRA	07/17/00	12:05	RJG	S	CONC
5	ICB1	T00717C	METTRA	07/17/00	12:10	RJG	S	CONC
6	ICSA 0014-170-1	T00717C	METTRA	07/17/00	12:14	RJG	Q	CONC
7	ICSAB 0014-136-3	T00717C	METTRA	07/17/00	12:18	RJG	Q	CONC
8	DG2M6BF	T00717C	METTRA	07/17/00	12:24	RJG	S	CONC
9	DG2M6CF	T00717C	METTRA	07/17/00	12:28	RJG	S	CONC
10	DF349F	T00717C	METTRA	07/17/00	12:33	RJG	S	CONC
11	DF349P5F	T00717C	METTRA	07/17/00	12:37	RJG	S	CONC
12	DF349SF	T00717C	METTRA	07/17/00	12:41	RJG	S	CONC
13	DF349DF	T00717C	METTRA	07/17/00	12:45	RJG	S	CONC
14	DF34EF	T00717C	METTRA	07/17/00	12:49	RJG	S	CONC
15	DF34FF	T00717C	METTRA	07/17/00	12:53	RJG	S	CONC
16	CCV3-1 0014-183-1	T00717C	METTRA	07/17/00	12:57	RJG	S	CONC
17	CCB1	T00717C	METTRA	07/17/00	13:02	RJG	S	CONC
18	DF34JF	T00717C	METTRA	07/17/00	13:06	RJG	S	CONC
19	DF5JQF	T00717C	METTRA	07/17/00	13:10	RJG	S	CONC
20	DG7ANB	T00717C	METTRA	07/17/00	13:14	RJG	S	CONC
21	DG7ANC	T00717C	METTRA	07/17/00	13:18	RJG	S	CONC
22	DG5C7	T00717C	METTRA	07/17/00	13:22	RJG	S	CONC
23	DG5C7P5	T00717C	METTRA	07/17/00	13:27	RJG	S	CONC
24	DG5C7S	T00717C	METTRA	07/17/00	13:31	RJG	S	CONC
25	DG5C7D	T00717C	METTRA	07/17/00	13:35	RJG	S	CONC
26	DF5CG2	T00717C	METTRA	07/17/00	13:39	RJG	S	CONC
27	DF5CK	T00717C	METTRA	07/17/00	13:43	RJG	S	CONC
28	CCV3-2	T00717C	METTRA	07/17/00	13:47	RJG	S	CONC
29	CCB2	T00717C	METTRA	07/17/00	13:51	RJG	S	CONC
30	DG2XGBE	T00717C	METTRA	07/17/00	13:56	RJG	S	CONC
31	DERVPBE	T00717C	METTRA	07/17/00	14:00	RJG	S	CONC
32	DF0LPBE	T00717C	METTRA	07/17/00	14:04	RJG	S	CONC
33	DF70LBE	T00717C	METTRA	07/17/00	14:08	RJG	S	CONC
34	DFD8CBE	T00717C	METTRA	07/17/00	14:12	RJG	S	CONC
35	DFGP8BE	T00717C	METTRA	07/17/00	14:16	RJG	S	CONC
36	DG2XGCE	T00717C	METTRA	07/17/00	14:21	RJG	S	CONC
37	DEKR1E	T00717C	METTRA	07/17/00	14:25	RJG	S	CONC
38	DEKR1P5E	T00717C	METTRA	07/17/00	14:29	RJG	S	CONC
39	DEKR1SE	T00717C	METTRA	07/17/00	14:33	RJG	S	CONC
40	CCV3-3	T00717C	METTRA	07/17/00	14:37	RJG	S	CONC
41	CCB3	T00717C	METTRA	07/17/00	14:41	RJG	S	CONC
42	DEKR1DE	T00717C	METTRA	07/17/00	14:46	RJG	S	CONC
43	DEKRHE	T00717C	METTRA	07/17/00	14:50	RJG	S	CONC
44	DEKRJE	T00717C	METTRA	07/17/00	14:54	RJG	S	CONC
45	DENJME	T00717C	METTRA	07/17/00	14:58	RJG	S	CONC
46	DENJXE	T00717C	METTRA	07/17/00	15:02	RJG	S	CONC
47	DENK1E	T00717C	METTRA	07/17/00	15:06	RJG	S	CONC
48	DER4PE	T00717C	METTRA	07/17/00	15:11	RJG	S	CONC
49	DER4TE	T00717C	METTRA	07/17/00	15:15	RJG	S	CONC
50	DER4VE	T00717C	METTRA	07/17/00	15:19	RJG	S	CONC
51	DEV66E	T00717C	METTRA	07/17/00	15:23	RJG	S	CONC
52	CCV3-4	T00717C	METTRA	07/17/00	15:27	RJG	S	CONC
53	CCB4	T00717C	METTRA	07/17/00	15:31	RJG	S	CONC

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
54	DEV68E	T00717C	METTRA	07/17/00	15:36	RJG	S	CONC
55	DEV6GE	T00717C	METTRA	07/17/00	15:40	RJG	S	CONC
56	DEXXPE	T00717C	METTRA	07/17/00	15:44	RJG	S	CONC
57	DEXXQE	T00717C	METTRA	07/17/00	15:48	RJG	S	CONC
58	DEXXRE	T00717C	METTRA	07/17/00	15:52	RJG	S	CONC
59	DG30KBE	T00717C	METTRA	07/17/00	15:56	RJG	S	CONC
60	DFW82BE	T00717C	METTRA	07/17/00	16:01	RJG	S	CONC
61	DG19EBE	T00717C	METTRA	07/17/00	16:05	RJG	S	CONC
62	DG30KCE	T00717C	METTRA	07/17/00	16:09	RJG	S	CONC
63	CCV3-5	T00717C	METTRA	07/17/00	16:13	RJG	S	CONC
64	CCB5	T00717C	METTRA	07/17/00	16:17	RJG	S	CONC
65	DF3WVE	T00717C	METTRA	07/17/00	16:21	RJG	S	CONC
66	DF3WVP5E	T00717C	METTRA	07/17/00	16:25	RJG	S	CONC
67	DF3WVSE	T00717C	METTRA	07/17/00	16:30	RJG	S	CONC
68	DF3WVDE	T00717C	METTRA	07/17/00	16:34	RJG	S	CONC
69	DF3X2E	T00717C	METTRA	07/17/00	16:38	RJG	S	CONC
70	DF3X3E	T00717C	METTRA	07/17/00	16:42	RJG	S	CONC
71	DF8TRE	T00717C	METTRA	07/17/00	16:46	RJG	S	CONC
72	DF8TWE	T00717C	METTRA	07/17/00	16:50	RJG	S	CONC
73	DF8TXE	T00717C	METTRA	07/17/00	16:55	RJG	S	CONC
74	CCV3-6	T00717C	METTRA	07/17/00	16:59	RJG	S	CONC
75	CCB6	T00717C	METTRA	07/17/00	17:03	RJG	S	CONC
76	DG4PJBF	T00717C	METTRA	07/17/00	17:07	RJG	S	CONC
77	DG4PJCF	T00717C	METTRA	07/17/00	17:11	RJG	S	CONC
78	DFV87F	T00717C	METTRA	07/17/00	17:15	RJG	S	CONC
79	DFV8DF	T00717C	METTRA	07/17/00	17:20	RJG	S	CONC
80	DFV8FF	T00717C	METTRA	07/17/00	17:24	RJG	S	CONC
81	DFV8KF	T00717C	METTRA	07/17/00	17:28	RJG	S	CONC
82	DFV8NF	T00717C	METTRA	07/17/00	17:32	RJG	S	CONC
83	DFV8TF	T00717C	METTRA	07/17/00	17:36	RJG	S	CONC
84	DFV90F	T00717C	METTRA	07/17/00	17:40	RJG	S	CONC
85	DFV93F	T00717C	METTRA	07/17/00	17:45	RJG	S	CONC
86	CCV3-7	T00717C	METTRA	07/17/00	17:49	RJG	S	CONC
87	CCB7	T00717C	METTRA	07/17/00	17:53	RJG	S	CONC
88	DFV99F	T00717C	METTRA	07/17/00	17:57	RJG	S	CONC
89	DFV99P5F	T00717C	METTRA	07/17/00	18:01	RJG	S	CONC
90	DFV99SF	T00717C	METTRA	07/17/00	18:05	RJG	S	CONC
91	DFV99DF	T00717C	METTRA	07/17/00	18:10	RJG	S	CONC
92	DFV9EF	T00717C	METTRA	07/17/00	18:14	RJG	S	CONC
93	DFV9GF	T00717C	METTRA	07/17/00	18:18	RJG	S	CONC
94	DFV9XF	T00717C	METTRA	07/17/00	18:22	RJG	S	CONC
95	DFVA1F	T00717C	METTRA	07/17/00	18:26	RJG	S	CONC
96	CCV3-8	T00717C	METTRA	07/17/00	18:30	RJG	S	CONC
97	CCB8	T00717C	METTRA	07/17/00	18:35	RJG	S	CONC
98	DG0WNB	T00717C	METTRA	07/17/00	18:39	RJG	S	CONC
99	DG0WNC	T00717C	METTRA	07/17/00	18:43	RJG	S	CONC
100	DFKAW/250 Pb	T00717C	METTRA	07/17/00	18:47	RJG	S	CONC
101	DFKAWP1250 Pb	T00717C	METTRA	07/17/00	18:51	RJG	S	CONC
102	DFKAWS/250 Pb	T00717C	METTRA	07/17/00	18:55	RJG	S	CONC
103	DFKAWD/250 Pb	T00717C	METTRA	07/17/00	19:00	RJG	S	CONC
104	DFKC7	T00717C	METTRA	07/17/00	19:04	RJG	S	CONC
105	DFKCC	T00717C	METTRA	07/17/00	19:08	RJG	S	CONC
106	DFKCD	T00717C	METTRA	07/17/00	19:12	RJG	S	CONC
107	DFKCK	T00717C	METTRA	07/17/00	19:16	RJG	S	CONC

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
108	CCV3-9	T00717C	METTRA	07/17/00	19:21	RJG	S	CONC
109	CCB9	T00717C	METTRA	07/17/00	19:25	RJG	S	CONC
110	DFKCL/100 Pb	T00717C	METTRA	07/17/00	19:29	RJG	S	CONC
111	DFKCN	T00717C	METTRA	07/17/00	19:33	RJG	S	CONC
112	DFKCQ	T00717C	METTRA	07/17/00	19:37	RJG	S	CONC
113	DDFKCT/25 Pb	T00717C	METTRA	07/17/00	19:41	RJG	S	CONC
114	CCV3-10	T00717C	METTRA	07/17/00	19:52	RJG	S	CONC
115	CCB10	T00717C	METTRA	07/17/00	19:57	RJG	S	CONC

Method: METTRA Standard: STD1
 Run Time: 07/17/00 11:53:46

Elem	AG	AL	AS	BA	BE	CA	CD
Avge	-.00094	.04312	-.00234	.00044	-.05468	.00513	.00065
SDev	.00008	.00072	.00460	.00032	.00002	.00044	.00076
%RSD	8.0780	1.6682	196.88	70.892	.04511	8.6497	117.27
#1	-.00100	.04363	-.00559	.00022	-.05470	.00482	.00119
#2	-.00089	.04261	.00092	.00067	-.05466	.00544	.00011
Elem	CO	CR	CU	FE	MG	MN	MO
Avge	-.00085	-.00034	.01669	-.00150	-.00047	.00092	.00108
SDev	.00065	.00204	.00008	.00024	.00035	.00012	.00036
%RSD	76.677	608.56	.47668	15.952	75.044	13.096	32.864
#1	-.00039	.00111	.01664	-.00133	-.00022	.00083	.00083
#2	-.00131	-.00178	.01675	-.00167	-.00072	.00100	.00133
Elem	NI	PB/1	PB/2	SB/1	SB/2	SE/1	SE/2
Avge	.00044	.04549	.02092	-.02647	.00618	-.06109	.07651
SDev	.00055	.00715	.01315	.01795	.00057	.00623	.01699
%RSD	123.80	15.705	62.840	67.784	9.2720	10.191	22.207
#1	.00006	.05055	.01163	-.01379	.00659	-.05669	.08852
#2	.00083	.04044	.03022	-.03916	.00578	-.06550	.06450
Elem	TL	V	ZN				
Avge	-.03702	.00000	.00136				
SDev	.00044	.00000	.00200				
%RSD	1.1951	.00000	147.17				
#1	-.03670	.00000	-.00006				
#2	-.03733	.00000	.00278				

664

499

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	18032	--	--	--	--	--	--
SDev	43.59341	--	--	--	--	--	--
%RSD	.2417535	--	--	--	--	--	--
#1	18063	--	--	--	--	--	--
#2	18001	--	--	--	--	--	--

Method: METTRA Standard: STD6
 Run Time: 07/17/00 11:57:59

0014.165.1

Elem	AG	AS	CD	PB/1	PB/2	SB/1	SB/2
Avge	11.400	7.0875	21.048	8.3696	10.512	10.500	7.2063
SDev	.093	.0808	.224	.0817	.127	.068	.0844
%RSD	.81192	1.1398	1.0626	.97642	1.2127	.64321	1.1714
#1	11.466	7.1446	21.207	8.4274	10.602	10.548	7.2660
#2	11.335	7.0304	20.890	8.3118	10.422	10.452	7.1466

Elem	SE/1	SE/2	TL
Avge	6.4741	6.0084	5.4141
SDev	.0705	.0240	.0590
%RSD	1.0888	.39948	1.0891
#1	6.5239	6.0254	5.4558
#2	6.4242	5.9914	5.3724

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	18084	--	--	--	--	--	--
SDev	180.6299	--	--	--	--	--	--
%RSD	.9988505	--	--	--	--	--	--
#1	17956	--	--	--	--	--	--
#2	18212	--	--	--	--	--	--

Method: METTRA Standard: STD7
 Run Time: 07/17/00 12:02:10

0014.165.2

664 501

Elem	AL	BA	BE	CA	CO	CR	CU
Avge	7.3385	12.593	16.145	6.8876	4.3294	16.525	3.2031
SDev	.0543	.089	.127	.0584	.0305	.123	.0219
%RSD	.73989	.70659	.78963	.84754	.70428	.74239	.68306

#1	7.3769	12.656	16.235	6.9288	4.3509	16.611	3.2186
#2	7.3001	12.530	16.055	6.8463	4.3078	16.438	3.1876

Elem	FE	MG	MN	MO	NI	V	ZN
Avge	5.3853	18.620	13.303	2.9662	3.4789	1.0267	3.9368
SDev	.0395	.156	.099	.0055	.0329	.0084	.0290
%RSD	.73388	.83701	.74564	.18380	.94452	.81506	.73560

#1	5.4132	18.730	13.373	2.9701	3.5021	1.0326	3.9572
#2	5.3573	18.510	13.233	2.9624	3.4556	1.0208	3.9163

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17946	--	--	--	--	--	--
SDev	104.2623	--	--	--	--	--	--
%RSD	.5809644	--	--	--	--	--	--

#1	17873	--	--	--	--	--	--
#2	18020	--	--	--	--	--	--

Method: METTRA

Slope = Conc(SIR)/IR

Element	Wavelen	High std	Low std	Slope	Y-intercept	Date Standardized
AG	328.068	STD6	STD1	.175423	.000165	07/17/00 12:02:10
AL	308.215	STD7	STD1	6.86827	-.296136	07/17/00 12:02:10
AS	189.042	STD6	STD1	.141047	.000330	07/17/00 12:02:10
BA	493.409	STD7	STD1	.317649	-.000141	07/17/00 12:02:10
BE	313.042	STD7	STD1	.245281	.013412	07/17/00 12:02:10
CA	317.933	STD7	STD1	14.5298	-.074541	07/17/00 12:02:10
CD	226.502	STD6	STD1	.047511	-.000031	07/17/00 12:02:10
CO	228.616	STD7	STD1	.923740	.000782	07/17/00 12:02:10
CR	267.716	STD7	STD1	.241937	.000081	07/17/00 12:02:10
CU	324.753	STD7	STD1	1.25533	-.020955	07/17/00 12:02:10
FE	271.441	STD7	STD1	9.35080	.014004	07/17/00 12:02:10
MG	279.078	STD7	STD1	5.37037	.002534	07/17/00 12:02:10
MN	257.610	STD7	STD1	.300706	-.000275	07/17/00 12:02:10
MO	202.030	STD7	STD1	1.34902	-.001459	07/17/00 12:02:10
NI	231.604	STD7	STD1	1.14919	-.000511	07/17/00 12:02:10
PB/1	220.351	STD6	STD1	.120133	-.005465	07/17/00 12:02:10
PB/2	220.352	STD6	STD1	.095319	-.001994	07/17/00 12:02:10
PB	220.353	NONE	NONE	.000000	.000000	*NOT STANDARDIZED
SB/1	206.831	STD6	STD1	.095000	.002515	07/17/00 12:02:10
SB/2	206.832	STD6	STD1	.138886	-.000859	07/17/00 12:02:10
SB	220.353	NONE	NONE	.000000	.000000	*NOT STANDARDIZED
SE/1	196.021	STD6	STD1	.153018	.009348	07/17/00 12:02:10
SE/2	196.022	STD6	STD1	.168580	-.012898	07/17/00 12:02:10
SE	220.353	NONE	NONE	.000000	.000000	*NOT STANDARDIZED
TL	190.864	STD6	STD1	.366899	.013582	07/17/00 12:02:10
V_	292.402	STD7	STD1	3.87890	.000000	07/17/00 12:02:10
ZN	213.856	STD7	STD1	1.02359	-.001393	07/17/00 12:02:10

Method: METTRA Sample Name: ICV3-1 0014-146-5 Operator: RJE **664 503**
 Run Time: 07/17/00 12:05:51
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP *Renuwajed*
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49460	11.775	.25093	.98169	.97313	24.821	.24418
SDev	.00158	.024	.00258	.00979	.02587	.525	.00113
%RSD	.31840	.20757	1.0269	.99734	2.6580	2.1142	.46344

7.17.00

#1	.49349	11.758	.25275	.98861	.99142	25.192	.24498
#2	.49572	11.793	.24910	.97477	.95484	24.450	.24338

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
Avg	.99332	.99464	.95830	12.271	24.054	.96466	.99658
SDev	.00713	.00662	.00537	.004	.263	.00124	.01293
%RSD	.71761	.66527	.55994	.02940	1.0917	.12899	1.2974

#1	.98827	.98996	.96209	12.273	24.240	.96378	.98744
#2	.99836	.99932	.95450	12.268	23.868	.96554	1.0057

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
Avg	1.0175	.24376	.24461	.24433	.25198	.25024	.25082
SDev	.0396	.00119	.00108	.00112	.00481	.00449	.00139
%RSD	3.8895	.48905	.43981	.45617	1.9093	1.7958	.55633

#1	1.0455	.24460	.24537	.24512	.25538	.24707	.24984
#2	.98949	.24292	.24385	.24354	.24858	.25342	.25181

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
Avg	.24749	.25408	.25189	.49968	.99381	1.0094
SDev	.00425	.00363	.00101	.01676	.02317	.0160
%RSD	1.7172	1.4296	.40005	3.3534	2.3314	1.5858

#1	.24448	.25665	.25260	.51153	1.0102	1.0207
#2	.25049	.25152	.25118	.48783	.97743	.99810

Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High			.27500	.55000	1.1000	1.1000
Low			.22500	.45000	.90000	.90000

	1	2	3	4	5	6	7
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	18171	--	--	--	--	--	--
SDev	173.2771	--	--	--	--	--	--
%RSD	.9535952	--	--	--	--	--	--
#1	18293	--	--	--	--	--	--
#2	18048	--	--	--	--	--	--

Method: METTRA Sample Name: ICB1

Operator: RJG

Run Time: 07/17/00 12:10:00

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	-.00037	.00422	.00003	.00033	.00052	.02097	.00001
SDev	.00036	.00140	.00021	.00033	.00001	.00691	.00009
%RSD	98.004	33.085	716.94	97.994	1.8446	32.940	596.18
#1	-.00011	.00521	.00018	.00010	.00053	.01608	-.00005
#2	-.00062	.00323	-.00012	.00056	.00052	.02585	.00008
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	-.00002	.00025	.00012	.01227	.00885	.00045	.00273
SDev	.00018	.00045	.00066	.00765	.00643	.00021	.00013
%RSD	806.02	176.88	555.97	62.364	72.725	47.341	4.8932
#1	-.00015	-.00006	-.00035	.00686	.00430	.00030	.00282
#2	.00011	.00057	.00059	.01767	.01339	.00060	.00263
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	.00003	-.00194	.00065	-.00021	.00196	-.00145	-.00031
SDev	.00013	.00037	.00101	.00055	.00032	.00110	.00063
%RSD	420.66	18.906	154.74	263.28	16.227	75.792	199.15
#1	.00012	-.00168	-.00006	-.00060	.00218	-.00222	-.00076
#2	-.00006	-.00220	.00137	.00018	.00173	-.00067	.00013
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	-.00207	-.00181	-.00190	-.00113	.00000	-.00048	
SDev	.00037	.00166	.00098	.00181	.00000	.00050	
%RSD	18.058	91.638	51.753	160.85	62.364	103.27	
#1	-.00234	-.00064	-.00120	.00015	.00000	-.00083	
#2	-.00181	-.00299	-.00260	-.00241	.00001	-.00013	
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	18039	--	--	--	--	--	--
SDev	336.4060	--	--	--	--	--	--
%RSD	1.864833	--	--	--	--	--	--
#1	18277	--	--	--	--	--	--
#2	17802	--	--	--	--	--	--

Method: METTRA

Sample Name: ICSA 0014-170-1

Operator: RJG

Run Time: 07/17/00 12:14:10

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP 664 507

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00056	532.18	.00228	.00183	-.00058	503.61	.00072
SDev	.00033	1.58	.00014	.00013	.00011	.40	.00024
%RSD	59.869	.29660	6.0508	7.0572	18.219	.07923	33.363
#1	.00032	531.06	.00218	.00174	-.00051	503.89	.00055
#2	.00079	533.29	.00238	.00192	-.00066	503.33	.00089
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
Avg	.00067	.00393	.00140	204.51	520.32	.00843	.00110
SDev	.00031	.00003	.00060	.42	.20	.00001	.00169
%RSD	46.316	.69918	43.060	.20355	.03791	.12099	153.27
#1	.00089	.00391	.00098	204.22	520.18	.00843	.00230
#2	.00045	.00395	.00183	204.80	520.46	.00842	-.00009
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
Avg	.00338	-.03350	.01240	-.00288	-.00461	.00056	-.00116
SDev	.00118	.00229	.00375	.00174	.00558	.00034	.00163
%RSD	34.764	6.8358	30.262	60.432	121.11	62.029	139.92
#1	.00255	-.03188	.00975	-.00411	-.00855	.00080	-.00231
#2	.00422	-.03512	.01506	-.00165	-.00066	.00031	-.00001
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	
Avg	-.00619	-.00754	-.00709	.00665	.01252	-.00032	
SDev	.00459	.00382	.00102	.00312	.00003	.00000	
%RSD	74.094	50.666	14.383	46.921	.28197	.59162	
#1	-.00295	-.01024	-.00781	.00886	.01250	-.00032	
#2	-.00943	-.00484	-.00637	.00444	.01255	-.00032	
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	
Value							
Range							

664 508

	1	2	3	4	5	6	7
IntStd	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Mode	Y	--	--	--	--	--	--
Elem	371.030	--	--	--	--	--	--
Wavlen	16830	--	--	--	--	--	--
Avge	78.02895	--	--	--	--	--	--
SDev	.4636198	--	--	--	--	--	--
%RSD							
#1	16886	--	--	--	--	--	--
#2	16775	--	--	--	--	--	--

Method: METTRA Sample Name: ICSAB 0014-136-3 Operator: RJG

Run Time: 07/17/00 12:18:19

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP 664 509

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0872	526.01	1.0149	.52443	.48275	495.36	.91908
SDev	.0054	2.06	.0035	.00370	.00426	3.81	.00546
%RSD	.49777	.39174	.34126	.70649	.88315	.76910	.59379

#1	1.0910	527.47	1.0173	.52705	.48577	498.06	.92294
#2	1.0834	524.55	1.0124	.52181	.47974	492.67	.91522

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	.48713	.49992	.53927	202.41	511.51	.49914	.98016
SDev	.00255	.00214	.00242	1.07	3.30	.00220	.00119
%RSD	.52323	.42805	.44836	.52917	.64433	.44013	.12175

#1	.48893	.50143	.54098	203.16	513.84	.50069	.98100
#2	.48533	.49840	.53756	201.65	509.18	.49758	.97932

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	.97107	.93840	.96557	.95652	1.0431	1.0314	1.0353
SDev	.00819	.00712	.00523	.00586	.0043	.0064	.0057
%RSD	.84331	.75843	.54144	.61233	.41119	.61836	.54885

#1	.97686	.94343	.96926	.96066	1.0461	1.0359	1.0393
#2	.96528	.93336	.96187	.95238	1.0400	1.0269	1.0313

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	1.0013	1.0280	1.0191	1.0120	.51429	1.0292
SDev	.0000	.0104	.0069	.0030	.00600	.0071
%RSD	.00472	1.0089	.68033	.29324	1.1669	.69206

#1	1.0014	1.0353	1.0240	1.0141	.51853	1.0343
#2	1.0013	1.0207	1.0142	1.0099	.51004	1.0242

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

			664	510			
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17012	--	--	--	--	--	--
SDev	48.86080	--	--	--	--	--	--
%RSD	.2872222	--	--	--	--	--	--
#1	16977	--	--	--	--	--	--
#2	17046	--	--	--	--	--	--

Method: METTRA Sample Name: DG2M6BF **664 511** Operator: RJG
 Run Time: 07/17/00 12:24:46
 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
Avg	.00031	.01948	.00081	.00013	.00042	.03879	-.00000
SDev	.00028	.00087	.00059	.00002	.00046	.00103	.00007
%RSD	88.608	4.4463	72.984	17.827	111.24	2.6659	4491.2
#1	.00051	.01887	.00122	.00011	.00074	.03806	.00005
#2	.00012	.02009	.00039	.00014	.00009	.03952	-.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
Avg	.00004	.00045	.00006	.02401	.02154	.00007	.00070
SDev	.00026	.00004	.00047	.00604	.00235	.00001	.00014
%RSD	662.41	9.2545	760.84	25.140	10.918	19.693	19.316
#1	.00022	.00048	-.00027	.02828	.02320	.00006	.00060
#2	-.00014	.00042	.00040	.01974	.01988	.00008	.00079
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	.00011	-.00087	.00111	.00045	.00005	-.00007	-.00003
SDev	.00015	.00062	.00004	.00018	.00014	.00130	.00082
%RSD	139.90	71.357	3.5897	39.930	266.85	1945.6	3024.0
#1	.00022	-.00043	.00109	.00058	-.00005	.00085	.00055
#2	.00000	-.00131	.00114	.00032	.00015	-.00098	-.00061
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	-.00298	.00025	-.00083	-.00030	.00085	.00038	
SDev	.00213	.00019	.00058	.00062	.00003	.00023	
%RSD	71.251	74.935	70.516	208.83	3.5720	59.516	
#1	-.00449	.00038	-.00124	-.00073	.00083	.00022	
#2	-.00148	.00012	-.00042	.00014	.00087	.00054	
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	18464	--	--	--	--	--	--
SDev	712.4101	--	--	--	--	--	--
%RSD	3.858279	--	--	--	--	--	--
#1	18968	--	--	--	--	--	--
#2	17961	--	--	--	--	--	--

Method: METTRA Sample Name: DG2M6CF **664 513** Operator: RJG
 Run Time: 07/17/00 12:28:55
 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	.04865	1.9516	1.9172	1.8853	.04648	47.947	.04565
SDev	.00009	.0032	.0011	.0005	.00012	.001	.00007
%RSD	.19055	.16385	.05724	.02899	.24986	.00223	.14764
#1	.04871	1.9539	1.9180	1.8857	.04656	47.946	.04560
#2	.04858	1.9493	1.9164	1.8849	.04640	47.947	.04569
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	.47776	.19245	.23546	.87831	47.127	.46475	.97859
SDev	.00183	.00088	.00005	.01540	.052	.00066	.00626
%RSD	.38247	.45692	.01946	1.7534	.11036	.14254	.64001
#1	.47647	.19183	.23550	.86742	47.090	.46428	.97416
#2	.47905	.19307	.23543	.88920	47.164	.46521	.98301
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	.47538	.47188	.46328	.46614	.47968	.48477	.48308
SDev	.00147	.00251	.00505	.00253	.00415	.00094	.00075
%RSD	.30881	.53199	1.0904	.54347	.86447	.19375	.15616
#1	.47641	.47366	.45971	.46435	.47675	.48544	.48254
#2	.47434	.47011	.46685	.46794	.48261	.48411	.48361
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	1.9046	1.9130	1.9102	1.9093	.47144	.48507	
SDev	.0083	.0151	.0073	.0044	.00012	.00075	
%RSD	.43747	.78966	.38222	.23163	.02477	.15483	
#1	1.9105	1.9023	1.9050	1.9124	.47136	.48560	
#2	1.8987	1.9237	1.9154	1.9061	.47153	.48454	
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	18191	--	--	--	--	--	--
SDev	1.520556	--	--	--	--	--	--
%RSD	.0083589	--	--	--	--	--	--
#1	18190	--	--	--	--	--	--
#2	18192	--	--	--	--	--	--

Method: METTRA Sample Name: DF349F Operator: RJG
 Run Time: 07/17/00 12:33:04
 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	.00037	.02702	.00441	.05013	.00007	168.43	.00007
SDev	.00006	.00433	.00005	.00018	.00005	.28	.00021
%RSD	17.043	16.036	1.0719	.35631	68.983	.16759	302.12

#1	.00032	.03009	.00438	.05026	.00004	168.63	-.00008
#2	.00041	.02396	.00445	.05001	.00010	168.23	.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	.00154	.00093	.00135	5.5494	52.833	.61407	.00353
SDev	.00075	.00004	.00015	.0034	.046	.00013	.00058
%RSD	48.419	4.1463	11.453	.06133	.08654	.02029	16.414

#1	.00101	.00090	.00146	5.5518	52.866	.61416	.00394
#2	.00207	.00096	.00124	5.5470	52.801	.61398	.00312

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	.00138	-.00004	.00125	.00082	-.00063	.00190	.00106
SDev	.00014	.00188	.00073	.00014	.00061	.00141	.00114
%RSD	9.9958	5259.5	58.893	16.454	96.414	73.853	107.47

#1	.00128	-.00136	.00177	.00072	-.00020	.00290	.00187
#2	.00147	.00129	.00073	.00091	-.00106	.00091	.00025

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	.00384	.00055	.00164	.00157	.00377	.00521
SDev	.00143	.00072	.00001	.00197	.00015	.00003
%RSD	37.163	132.92	.55285	125.50	4.0540	.66661

#1	.00484	.00003	.00164	.00296	.00366	.00524
#2	.00283	.00106	.00165	.00018	.00388	.00519

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	17964	--	--	--	--	--	--
SDev	14.35482	--	--	--	--	--	--
%RSD	.0799077	--	--	--	--	--	--
#1	17974	--	--	--	--	--	--
#2	17954	--	--	--	--	--	--

Method: METTRA Sample Name: DF349P5F Operator: RJG
 Run Time: 07/17/00 12:37:13
 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	.00008	.01724	.00058	.00976	.00012	32.891	.00008
SDev	.00052	.00313	.00090	.00028	.00001	.122	.00012
%RSD	686.82	18.135	155.01	2.8415	8.7875	.37117	141.89
#1	-.00029	.01503	-.00006	.00956	.00013	32.805	-.00000
#2	.00044	.01945	.00122	.00995	.00011	32.978	.00017
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00056	.00008	.00006	1.0714	10.210	.12052	.00070
SDev	.00021	.00006	.00029	.0179	.051	.00063	.00005
%RSD	38.507	87.075	499.93	1.6723	.49682	.52571	6.3370
#1	.00071	.00003	-.00015	1.0587	10.174	.12007	.00074
#2	.00040	.00012	.00026	1.0840	10.246	.12097	.00067
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00030	-.00200	.00074	-.00017	-.00062	-.00034	-.00044
SDev	.00115	.00139	.00053	.00082	.00074	.00091	.00085
%RSD	378.58	69.595	72.177	472.88	119.47	263.49	195.26
#1	-.00051	-.00299	.00036	-.00075	-.00010	.00030	.00017
#2	.00112	-.00102	.00112	.00041	-.00115	-.00099	-.00104
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	-.00140	-.00028	-.00065	.00119	.00175	.00043	
SDev	.00180	.00154	.00043	.00255	.00195	.00010	
%RSD	128.74	548.31	65.113	215.02	111.52	22.347	
#1	-.00013	-.00137	-.00095	.00299	.00037	.00036	
#2	-.00267	-.00081	-.00035	-.00062	.00313	.00050	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	18386	--	--	--	--	--	--
SDev	61.23517	--	--	--	--	--	--
%RSD	.3330451	--	--	--	--	--	--
#1	18430	--	--	--	--	--	--
#2	18343	--	--	--	--	--	--

Method: METTRA Sample Name: DF349SF Operator: RJG
 Run Time: 07/17/00 12:41:21
 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	.05034	2.1485	1.9558	1.9938	.04676	214.74	.04533
SDev	.00072	.0083	.0077	.0005	.00007	.17	.00033
%RSD	1.4219	.38464	.39123	.02269	.14587	.08099	.72265
#1	.04984	2.1426	1.9504	1.9935	.04681	214.61	.04510
#2	.05085	2.1543	1.9612	1.9941	.04671	214.86	.04557
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	.49019	.19509	.25335	6.4329	101.59	1.0825	.98615
SDev	.00194	.00020	.00056	.0372	.18	.0015	.00522
%RSD	.39606	.10497	.22208	.57781	.17457	.13830	.52880
#1	.48882	.19495	.25295	6.4066	101.47	1.0814	.98246
#2	.49156	.19524	.25375	6.4592	101.72	1.0836	.98983
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	.47839	.48082	.46579	.47080	.49211	.50025	.49754
SDev	.00116	.00238	.00271	.00101	.00269	.00120	.00010
%RSD	.24282	.49534	.58123	.21510	.54637	.23929	.01948
#1	.47922	.48251	.46388	.47008	.49020	.50109	.49747
#2	.47757	.47914	.46771	.47151	.49401	.49940	.49760
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	1.9810	1.9864	1.9846	1.9609	.48667	.49585	
SDev	.0025	.0124	.0091	.0001	.00013	.00070	
%RSD	.12419	.62256	.45690	.00616	.02746	.14197	
#1	1.9793	1.9776	1.9782	1.9608	.48658	.49535	
#2	1.9827	1.9951	1.9910	1.9610	.48677	.49635	
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	

	1	2	3	4	5	6	7
IntStd	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Mode	Y	--	--	--	--	--	--
Elem	371.030	--	--	--	--	--	--
Wavlen	17960	--	--	--	--	--	--
Avge	18.17347	--	--	--	--	--	--
SDev	.1011880	--	--	--	--	--	--
%RSD		--	--	--	--	--	--
#1	17947	--	--	--	--	--	--
#2	17973	--	--	--	--	--	--

Method: METTRA Sample Name: DF349DF Operator: RJG
 Run Time: 07/17/00 12:45:30
 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
Avg	.04940	2.1279	1.9332	1.9693	.04637	211.06	.04458
SDev	.00027	.0072	.0084	.0104	.00015	1.03	.00011
%RSD	.54065	.33995	.43696	.52661	.31188	.49029	.24103
#1	.04921	2.1228	1.9272	1.9619	.04627	210.33	.04450
#2	.04959	2.1330	1.9391	1.9766	.04648	211.79	.04466
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	.48451	.19270	.24977	6.2968	100.00	1.0635	.97542
SDev	.00255	.00112	.00151	.0317	.54	.0066	.00936
%RSD	.52706	.58286	.60565	.50340	.54380	.61940	.95920
#1	.48271	.19191	.24870	6.2744	99.618	1.0588	.96880
#2	.48632	.19349	.25084	6.3193	100.39	1.0681	.98203
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	.47351	.47190	.46061	.46437	.48777	.49223	.49075
SDev	.00073	.00086	.00186	.00152	.00379	.00373	.00375
%RSD	.15518	.18206	.40290	.32817	.77651	.75666	.76323
#1	.47299	.47129	.45930	.46329	.48509	.48960	.48810
#2	.47403	.47251	.46192	.46545	.49045	.49487	.49340
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	1.9611	1.9764	1.9713	1.9359	.48248	.49118	
SDev	.0115	.0040	.0065	.0076	.00078	.00189	
%RSD	.58717	.20338	.33052	.39493	.16073	.38489	
#1	1.9529	1.9736	1.9667	1.9305	.48303	.48984	
#2	1.9692	1.9793	1.9759	1.9413	.48193	.49252	
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	18099	--	--	--	--	--	--
SDev	50.31092	--	--	--	--	--	--
%RSD	.2779766	--	--	--	--	--	--
#1	18135	--	--	--	--	--	--
#2	18063	--	--	--	--	--	--

Method: METTRA Sample Name: DF34EF Operator: RJG
 Run Time: 07/17/00 12:49:38
 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
Avg	.00054	.01810	.00081	.01832	.00036	33.542	-.00006
SDev	.00028	.00330	.00060	.00006	.00005	.191	.00015
%RSD	51.478	18.207	74.502	.35668	15.069	.57044	262.83

#1	.00034	.01577	.00038	.01837	.00039	33.407	-.00016
#2	.00074	.02043	.00124	.01828	.00032	33.677	.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
Avg	.00037	.00077	-.00028	-.05134	23.212	.00047	.00438
SDev	.00016	.00040	.00032	.00707	.157	.00003	.00006
%RSD	44.222	52.422	112.87	13.775	.67763	5.8894	1.2835

#1	.00048	.00049	-.00051	-.04633	23.100	.00048	.00434
#2	.00025	.00106	-.00006	-.05634	23.323	.00045	.00442

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	.00114	.00111	-.00018	.00025	-.00264	.00105	-.00018
SDev	.00112	.00138	.00031	.00025	.00113	.00191	.00090
%RSD	97.560	124.31	171.44	101.11	42.708	182.30	498.03

#1	.00035	.00013	.00004	.00007	-.00184	-.00030	-.00081
#2	.00193	.00209	-.00040	.00043	-.00343	.00239	.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
Avg	.00120	.00264	.00216	-.00076	.00092	.00092
SDev	.00033	.00090	.00049	.00095	.00044	.00004
%RSD	27.047	34.201	22.847	125.25	47.447	4.5324

#1	.00097	.00328	.00251	-.00009	.00123	.00095
#2	.00144	.00200	.00181	-.00143	.00061	.00089

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	18477	--	--	--	--	--	--
SDev	177.9078	--	--	--	--	--	--
%RSD	.9628373	--	--	--	--	--	--
#1	18603	--	--	--	--	--	--
#2	18352	--	--	--	--	--	--

Method: METTRA Sample Name: DF34FF Operator: RJG
 Run Time: 07/17/00 12:53:47
 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	.00040	.03421	.00365	.00936	.00018	23.192	.00001
SDev	.00019	.00541	.00048	.00003	.00002	.019	.00003
%RSD	46.887	15.803	13.130	.32238	11.011	.08352	300.70
#1	.00027	.03803	.00331	.00938	.00019	23.178	.00003
#2	.00054	.03039	.00399	.00934	.00016	23.205	-.00001
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	.00773	.00068	-.00716	20.734	.04640	.44288
SDev	.00007	.00002	.00013	.00069	.022	.00006	.00294
%RSD	39.693	.22096	18.511	9.5883	.10484	.13462	.66286
#1	.00013	.00774	.00059	-.00765	20.718	.04635	.44080
#2	.00023	.00772	.00077	-.00668	20.749	.04644	.44495
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	.00240	-.00183	-.00019	-.00074	-.00276	.00050	-.00058
SDev	.00040	.00204	.00190	.00059	.00120	.00180	.00080
%RSD	16.755	111.66	994.32	79.843	43.303	357.57	137.00
#1	.00212	-.00327	.00115	-.00032	-.00361	.00177	-.00002
#2	.00269	-.00038	-.00153	-.00115	-.00192	-.00077	-.00115
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	.00240	.00043	.00109	.00102	.19060	.00772	
SDev	.00215	.00176	.00189	.00456	.00004	.00029	
%RSD	89.314	410.98	174.07	447.66	.02301	3.7068	
#1	.00392	.00168	.00242	.00424	.19063	.00752	
#2	.00089	-.00082	-.00025	-.00221	.19057	.00792	
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	18336	--	--	--	--	--	--
SDev	24.53743	--	--	--	--	--	--
%RSD	.1338196	--	--	--	--	--	--
#1	18354	--	--	--	--	--	--
#2	18319	--	--	--	--	--	--

Method: METTRA Sample Name: CCV3-1 0014-183-1 Operator: RJG
 Run Time: 07/17/00 12:57:56
 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
Avg	1.0040	23.855	.50125	1.9582	1.9557	49.290	.48120
SDev	.0016	.053	.00082	.0010	.0001	.006	.00038
%RSD	.16013	.22179	.16304	.05061	.00400	.01179	.07912

#1	1.0029	23.818	.50067	1.9589	1.9557	49.294	.48094
#2	1.0052	23.893	.50183	1.9575	1.9556	49.286	.48147

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	1.9819	1.9791	1.9315	24.627	48.682	1.9459	1.9824
SDev	.0064	.0050	.0000	.059	.049	.0031	.0141
%RSD	.32068	.25289	.00079	.23806	.10032	.15962	.70980

#1	1.9774	1.9756	1.9315	24.585	48.648	1.9437	1.9725
#2	1.9863	1.9826	1.9315	24.668	48.717	1.9481	1.9924

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	1.9766	.48987	.48553	.48697	.50006	.50022	.50017
SDev	.0037	.00070	.00432	.00265	.00453	.00106	.00080
%RSD	.18850	.14319	.88884	.54313	.90489	.21120	.16037

#1	1.9793	.49036	.48248	.48510	.49686	.50097	.49960
#2	1.9740	.48937	.48858	.48884	.50326	.49948	.50073

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	.50026	.50536	.50366	.99283	1.9666	1.9818
SDev	.00199	.00421	.00347	.00054	.0035	.0016
%RSD	.39836	.83389	.68983	.05457	.17793	.08260

#1	.49885	.50238	.50120	.99321	1.9691	1.9806
#2	.50167	.50834	.50612	.99244	1.9641	1.9829

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	18305	--	--	--	--	--	--
SDev	56.74532	--	--	--	--	--	--
%RSD	.3100037	--	--	--	--	--	--
#1	18345	--	--	--	--	--	--
#2	18265	--	--	--	--	--	--

Method: METTRA Sample Name: CCB1

Operator: RJG

Run Time: 07/17/00 13:02:05

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	.00055	.02795	.00021	.00053	.00085	.01729	.00016
SDev	.00054	.00528	.00004	.00045	.00020	.00962	.00016
%RSD	98.623	18.880	19.364	84.593	23.141	55.684	102.03
#1	.00017	.02422	.00018	.00021	.00071	.01048	.00005
#2	.00093	.03168	.00023	.00084	.00098	.02409	.00028
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	.00078	.00063	-.00042	.01091	.01522	.00055	.00443
SDev	.00032	.00061	.00080	.01647	.01135	.00034	.00004
%RSD	40.767	96.717	189.83	150.99	74.598	61.195	.94869
#1	.00056	.00020	-.00099	-.00074	.00719	.00031	.00446
#2	.00101	.00107	.00015	.02255	.02324	.00079	.00440
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	-.00014	-.00257	.00089	-.00027	.00126	-.00065	-.00001
SDev	.00018	.00034	.00045	.00019	.00083	.00041	.00055
%RSD	128.83	13.070	50.973	71.111	66.259	63.704	4637.3
#1	-.00001	-.00234	.00057	-.00040	.00185	-.00036	.00038
#2	-.00026	-.00281	.00121	-.00013	.00067	-.00094	-.00040
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	-.00146	-.00163	-.00157	-.00094	.00000	-.00057	
SDev	.00016	.00141	.00088	.00012	.00001	.00033	
%RSD	11.270	86.445	56.167	12.583	150.99	58.114	
#1	-.00135	-.00262	-.00220	-.00103	-.00000	-.00081	
#2	-.00158	-.00063	-.00095	-.00086	.00001	-.00034	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.00500	.01000	.05000	.02000	
Low			-.00500	-.01000	-.05000	-.02000	

	1	2	3	4	5	6	7
IntStd	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Mode	Y	--	--	--	--	--	--
Elem	371.030	--	--	--	--	--	--
Wavlen	18435	--	--	--	--	--	--
Avge	30.37107	--	--	--	--	--	--
SDev	.1647439	--	--	--	--	--	--
%RSD							
#1	18457	--	--	--	--	--	--
#2	18414	--	--	--	--	--	--

Method: METTRA Sample Name: DF34JF Operator: RJG
 Run Time: 07/17/00 13:06:14
 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	.00053	.03782	.00149	.04901	.00042	30.572	.00039
SDev	.00032	.00174	.00043	.00016	.00008	.012	.00005
%RSD	59.532	4.6054	28.740	.32507	18.910	.03986	12.709
#1	.00031	.03658	.00180	.04912	.00037	30.563	.00042
#2	.00076	.03905	.00119	.04889	.00048	30.580	.00035
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	-.00004	.00107	-.00049	-.02988	20.092	.02887	.00163
SDev	.00002	.00042	.00039	.00368	.038	.00005	.00062
%RSD	50.180	39.344	80.050	12.303	.19119	.16826	38.054
#1	-.00005	.00077	-.00076	-.03248	20.065	.02883	.00119
#2	-.00002	.00136	-.00021	-.02728	20.119	.02890	.00207
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	.00887	.00019	-.00061	-.00034	-.00224	.00217	.00070
SDev	.00119	.00251	.00075	.00034	.00325	.00001	.00108
%RSD	13.389	1309.1	122.47	98.628	145.33	.29329	153.67
#1	.00803	-.00159	-.00008	-.00058	.00006	.00216	.00146
#2	.00971	.00197	-.00114	-.00010	-.00453	.00217	-.00006
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	.00385	.00427	.00413	-.00063	.00242	.04211	
SDev	.00314	.00049	.00072	.00004	.00015	.00014	
%RSD	81.513	11.558	17.371	6.3747	6.2346	.32007	
#1	.00163	.00462	.00362	-.00060	.00253	.04221	
#2	.00608	.00392	.00464	-.00065	.00232	.04202	
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	

	1	2	3	4	5	6	7
IntStd	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Mode	Y	--	--	--	--	--	--
Elem	371.030	--	--	--	--	--	--
Wavlen	18322	--	--	--	--	--	--
Avge	20.54062	--	--	--	--	--	--
SDev	.1121101	--	--	--	--	--	--
%RSD							
#1	18307	--	--	--	--	--	--
#2	18336	--	--	--	--	--	--

Method: METTRA Sample Name: DF5JQF Operator: RJG
 Run Time: 07/17/00 13:10:23
 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	-.00017	.03657	-.00070	.04335	.00021	58.295	-.00013
SDev	.00021	.00685	.00011	.00028	.00000	.328	.00002
%RSD	126.39	18.731	15.721	.65569	1.8703	.56296	12.384
#1	-.00002	.03172	-.00077	.04315	.00021	58.063	-.00012
#2	-.00032	.04141	-.00062	.04356	.00021	58.527	-.00014
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	-.00081	.00105	-.00094	-.06524	31.561	.00032	-.00005
SDev	.00080	.00006	.00004	.01310	.202	.00003	.00136
%RSD	99.368	5.9458	4.1655	20.079	.64033	8.0993	2824.4
#1	-.00138	.00109	-.00097	-.07451	31.418	.00030	.00091
#2	-.00024	.00100	-.00091	-.05598	31.704	.00034	-.00101
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	.00085	.00162	-.00149	-.00046	-.00314	.00111	-.00031
SDev	.00085	.00513	.00287	.00021	.00636	.00150	.00112
%RSD	99.426	316.80	192.67	45.995	202.43	135.22	364.64
#1	.00145	.00524	-.00352	-.00060	-.00764	.00217	-.00110
#2	.00025	-.00201	.00054	-.00031	.00136	.00005	.00048
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	.00059	-.00121	-.00061	-.00373	.00179	.00247	
SDev	.00335	.00285	.00079	.00501	.00074	.00012	
%RSD	568.27	236.40	129.17	134.35	41.460	4.8574	
#1	.00296	-.00322	-.00116	-.00727	.00232	.00238	
#2	-.00178	.00081	-.00005	-.00019	.00127	.00255	
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	18125	--	--	--	--	--	--
SDev	79.72629	--	--	--	--	--	--
%RSD	.4398795	--	--	--	--	--	--
#1	18181	--	--	--	--	--	--
#2	18068	--	--	--	--	--	--

Method: METTRA Sample Name: DG7ANB Operator: RJG
 Run Time: 07/17/00 13:14:33
 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	.00037	.03817	.00035	.00020	.00025	.29744	.00010
SDev	.00014	.00271	.00065	.00002	.00005	.00172	.00016
%RSD	38.481	7.1135	185.44	12.139	18.760	.57689	167.70
#1	.00027	.04009	-.00011	.00022	.00022	.29865	.00021
#2	.00047	.03625	.00081	.00018	.00029	.29622	-.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	-.00013	.00269	-.00044	.02814	.00844	.00051	.00050
SDev	.00014	.00010	.00062	.00178	.00168	.00001	.00006
%RSD	110.05	3.6971	140.80	6.3308	19.887	2.5170	10.952
#1	-.00003	.00276	-.00087	.02940	.00725	.00050	.00047
#2	-.00023	.00262	-.00000	.02688	.00962	.00052	.00054
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	.00123	-.00188	-.00123	-.00145	-.00205	-.00010	-.00075
SDev	.00076	.00009	.00116	.00080	.00154	.00298	.00147
%RSD	62.098	4.8362	94.300	55.550	74.729	2910.7	195.86
#1	.00069	-.00182	-.00041	-.00088	-.00097	-.00221	-.00179
#2	.00176	-.00194	-.00205	-.00201	-.00314	.00200	.00029
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	-.00549	-.00128	-.00268	-.00338	.00001	.01483	
SDev	.00070	.00195	.00107	.00183	.00000	.00004	
%RSD	12.819	152.48	39.742	54.334	6.3308	.26697	
#1	-.00599	.00010	-.00193	-.00208	.00001	.01481	
#2	-.00499	-.00266	-.00343	-.00467	.00001	.01486	
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	18202	--	--	--	--	--	--
SDev	26.51650	--	--	--	--	--	--
%RSD	.1456771	--	--	--	--	--	--
#1	18221	--	--	--	--	--	--
#2	18184	--	--	--	--	--	--

Method: METTRA Sample Name: DG7ANC Operator: RJG
 Run Time: 07/17/00 13:18:42
 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	.04847	1.8141	1.9631	1.8880	.04841	L.42994	.04832
SDev	.00032	.0017	.0023	.0014	.00007	.00381	.00004
%RSD	.66512	.09255	.11646	.07658	.15183	.88722	.08637
#1	.04870	1.8153	1.9615	1.8870	.04846	L.42724	.04834
#2	.04824	1.8129	1.9647	1.8891	.04836	L.43264	.04829
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
Avge	.50503	.20092	.23324	1.0002	L.01046	.47991	L.00006
SDev	.00040	.00041	.00027	.0063	.00266	.00040	.00051
%RSD	.07876	.20270	.11446	.62853	25.489	.08436	859.34
#1	.50475	.20063	.23343	1.0047	L.01234	.47963	L-.00030
#2	.50532	.20121	.23305	.99577	L.00857	.48020	L.00042
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
Avge	.50723	.48485	.48294	.48358	-.00204	-.00048	L-.00100
SDev	.00159	.00303	.00146	.00198	.00086	.00032	.00050
%RSD	.31268	.62410	.30296	.41018	42.168	66.757	49.998
#1	.50835	.48699	.48397	.48498	-.00143	-.00025	L-.00065
#2	.50611	.48272	.48190	.48217	-.00265	-.00070	L-.00135
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	
Avge	1.9700	1.9756	1.9737	1.9285	.48041	.52926	
SDev	.0043	.0048	.0047	.0006	.00021	.00022	
%RSD	.22045	.24476	.23668	.02901	.04334	.04087	
#1	1.9730	1.9790	1.9770	1.9281	.48056	.52911	
#2	1.9669	1.9722	1.9704	1.9289	.48026	.52941	
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	18649	--	--	--	--	--	--
SDev	42.28416	--	--	--	--	--	--
%RSD	.2267405	--	--	--	--	--	--
#1	18619	--	--	--	--	--	--
#2	18679	--	--	--	--	--	--

Method: METTRA Sample Name: DG5C7

Operator: RJG

Run Time: 07/17/00 13:22:52

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	.00173	83.186	.08017	1.1123	.00530	62.557	.00171
SDev	.00043	.081	.00139	.0006	.00000	.054	.00011
%RSD	24.752	.09691	1.7373	.04961	.03538	.08560	6.1507
#1	.00204	83.129	.07919	1.1120	.00530	62.595	.00164
#2	.00143	83.243	.08116	1.1127	.00530	62.519	.00178
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	.06823	.14167	.24472	155.25	19.527	4.5147	.00502
SDev	.00005	.00017	.00024	.08	.011	.0019	.00006
%RSD	.07416	.12253	.09795	.05370	.05642	.04176	1.1911
#1	.06819	.14154	.24489	155.20	19.534	4.5133	.00506
#2	.06826	.14179	.24455	155.31	19.519	4.5160	.00497
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	.14843	1.0019	.98652	.99163	.05408	.04963	.05111
SDev	.00162	.0011	.00306	.00167	.00547	.00168	.00294
%RSD	1.0892	.11098	.31023	.16852	10.118	3.3837	5.7567
#1	.14957	1.0026	.98435	.99044	.05021	.04844	.04903
#2	.14728	1.0011	.98868	.99281	.05795	.05082	.05319
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	-.00759	.00172	-.00138	.00863	.20751	.71939	
SDev	.00361	.00023	.00135	.00352	.00040	.00029	
%RSD	47.513	13.277	98.283	40.806	.19205	.04083	
#1	-.00504	.00189	-.00042	.00614	.20779	.71960	
#2	-.01014	.00156	-.00233	.01112	.20723	.71919	
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	20103	--	--	--	--	--	--
SDev	38.18377	--	--	--	--	--	--
%RSD	.1899449	--	--	--	--	--	--
#1	20076	--	--	--	--	--	--
#2	20130	--	--	--	--	--	--

Method: METTRA Sample Name: DG5C7P5 Operator: RJG
 Run Time: 07/17/00 13:27:01
 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	.00049	16.671	.01758	.23189	.00147	13.200	.00039
SDev	.00005	.062	.00019	.00142	.00005	.088	.00013
%RSD	10.486	.37375	1.0834	.61050	3.3352	.66482	32.063

#1	.00045	16.715	.01744	.23289	.00143	13.262	.00030
#2	.00053	16.627	.01771	.23088	.00150	13.138	.00048

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01473	.03053	.04807	32.779	4.0818	.93138	.00086
SDev	.00045	.00003	.00025	.161	.0216	.00427	.00006
%RSD	3.0815	.08123	.52834	.49063	.53035	.45829	6.7838

#1	.01441	.03052	.04825	32.893	4.0971	.93440	.00090
#2	.01505	.03055	.04789	32.665	4.0665	.92836	.00082

Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.03104	.21203	.20983	.21056	.00980	.00916	.00938
SDev	.00152	.00526	.00132	.00263	.00085	.00047	.00003
%RSD	4.9022	2.4805	.62729	1.2487	8.6275	5.0750	.30500

#1	.03212	.21575	.21076	.21242	.00920	.00949	.00940
#2	.02996	.20831	.20890	.20870	.01040	.00883	.00936

Elem	SE/1	SE/2	SE	TL	V_	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00097	-.00020	-.00046	.00255	.04423	.15120
SDev	.00058	.00377	.00232	.00015	.00017	.00071
%RSD	59.232	1911.8	509.37	5.9377	.37450	.46668

#1	-.00057	-.00286	-.00210	.00265	.04435	.15170
#2	-.00138	-.00247	.00118	.00244	.04412	.15070

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	18929	--	--	--	--	--	--
SDev	63.21562	--	--	--	--	--	--
%RSD	.3339627	--	--	--	--	--	--
#1	18884	--	--	--	--	--	--
#2	18974	--	--	--	--	--	--

Method: METTRA Sample Name: DG5C7S Operator: RJG
 Run Time: 07/17/00 13:31:10
 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	.04546	76.338	1.7998	2.8162	.04778	35.659	.04365
SDev	.00018	.791	.0181	.0305	.00040	.384	.00056
%RSD	.38754	1.0364	1.0034	1.0833	.84675	1.0780	1.2937
#1	.04534	76.897	1.8126	2.8378	.04807	35.930	.04405
#2	.04559	75.779	1.7870	2.7946	.04750	35.387	.04325
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	.51117	.29944	.46654	170.81	18.974	5.2874	.00604
SDev	.00508	.00269	.00442	1.71	.194	.0518	.00007
%RSD	.99364	.89709	.94830	1.0002	1.0212	.97955	1.1211
#1	.51476	.30134	.46966	172.02	19.111	5.3240	.00609
#2	.50758	.29754	.46341	169.60	18.837	5.2508	.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
Avg	.59479	1.7461	1.7346	1.7384	.02452	.01825	.02034
SDev	.00630	.0175	.0202	.0193	.00183	.00039	.00035
%RSD	1.0599	1.0040	1.1637	1.1103	7.4520	2.1453	1.7083
#1	.59925	1.7585	1.7488	1.7521	.02581	.01797	.02058
#2	.59033	1.7337	1.7203	1.7248	.02323	.01852	.02009
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	1.6963	1.7394	1.7251	1.7284	.61165	1.6432	
SDev	.0111	.0145	.0134	.0201	.00545	.0182	
%RSD	.65673	.83551	.77697	1.1653	.89023	1.1089	
#1	1.7042	1.7497	1.7345	1.7427	.61551	1.6561	
#2	1.6884	1.7291	1.7156	1.7142	.60780	1.6303	
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	20136	--	--	--	--	--	--
SDev	181.8328	--	--	--	--	--	--
%RSD	.9030177	--	--	--	--	--	--
#1	20008	--	--	--	--	--	--
#2	20265	--	--	--	--	--	--

Method: METTRA Sample Name: DG5C7D Operator: RJG
 Run Time: 07/17/00 13:35:19
 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
Avge	.04403	80.009	1.7974	2.8596	.04780	33.028	.04298
SDev	.00002	.031	.0042	.0055	.00015	.080	.00029
%RSD	.05405	.03927	.23360	.19384	.32448	.24264	.66808
#1	.04401	80.032	1.8003	2.8635	.04790	33.085	.04277
#2	.04405	79.987	1.7944	2.8557	.04769	32.971	.04318
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	.50435	.28533	.43085	165.63	18.925	5.8297	.00581
SDev	.00066	.00006	.00046	.02	.026	.0014	.00052
%RSD	.13143	.02248	.10635	.01485	.13544	.02370	8.8965
#1	.50388	.28538	.43117	165.61	18.943	5.8307	.00618
#2	.50482	.28528	.43052	165.65	18.907	5.8288	.00545
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	.59474	4.6465	4.5499	4.5821	.05887	.05816	.05840
SDev	.00141	.0040	.0175	.0103	.00024	.00010	.00002
%RSD	.23781	.08703	.38534	.22583	.41222	.16814	.02669
#1	.59574	4.6494	4.5375	4.5748	.05870	.05823	.05839
#2	.59374	4.6436	4.5623	4.5894	.05904	.05809	.05841
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	1.6893	1.7187	1.7089	1.7111	.62492	1.1908	
SDev	.0031	.0083	.0066	.0011	.00286	.0014	
%RSD	.18369	.48509	.38587	.06385	.45721	.11708	
#1	1.6871	1.7128	1.7043	1.7119	.62694	1.1918	
#2	1.6915	1.7246	1.7136	1.7103	.62290	1.1898	
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	19945	--	--	--	--	--	--
SDev	24.96004	--	--	--	--	--	--
%RSD	.1251415	--	--	--	--	--	--
#1	19963	--	--	--	--	--	--
#2	19928	--	--	--	--	--	--

Method: METTRA

Sample Name: DF5CG

Operator: RJG

Run Time: 07/17/00 13:39:28

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	.00079	79.823	.09698	1.4556	.00596	28.031	.00269
SDev	.00040	.026	.00079	.0016	.00004	.042	.00045
%RSD	50.602	.03267	.81902	.10956	.71542	.15093	16.604
#1	.00051	79.804	.09642	1.4567	.00599	28.060	.00237
#2	.00107	79.841	.09754	1.4545	.00593	28.001	.00300
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	.07615	.13701	.37804	185.56	20.513	6.4253	.00918
SDev	.00035	.00012	.00029	.04	.005	.0012	.00127
%RSD	.45485	.08653	.07752	.02064	.02525	.01813	13.807
#1	.07591	.13693	.37783	185.53	20.517	6.4245	.00828
#2	.07640	.13709	.37824	185.59	20.509	6.4261	.01007
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	.16635	.95276	.94794	.94955	.01628	.00949	.01175
SDev	.00039	.00431	.00054	.00108	.00041	.00129	.00100
%RSD	.23714	.45280	.05693	.11339	2.5067	13.585	8.4746
#1	.16663	.94971	.94832	.94879	.01599	.00858	.01105
#2	.16607	.95581	.94756	.95031	.01657	.01040	.01246
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	-.00457	.00407	.00120	.00572	.20774	1.1260	
SDev	.00120	.00206	.00177	.00130	.00042	.0010	
%RSD	26.179	50.602	148.35	22.791	.20022	.09323	
#1	-.00372	.00553	.00245	.00480	.20803	1.1267	
#2	-.00542	.00262	-.00006	.00664	.20745	1.1252	
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	20609	--	--	--	--	--	--
SDev	34.04747	--	--	--	--	--	--
%RSD	.1652082	--	--	--	--	--	--
#1	20633	--	--	--	--	--	--
#2	20585	--	--	--	--	--	--

Method: METTRA Sample Name: D⁶5CK Operator: RJG
 Run Time: 07/17/00 13:43:37
 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	.00271	107.62	.08897	1.3909	.00565	145.79	.00206
SDev	.00040	.05	.00043	.0024	.00005	.14	.00019
%RSD	14.578	.04959	.48136	.17082	.84416	.09451	9.1868
#1	.00243	107.66	.08928	1.3926	.00561	145.89	.00192
#2	.00299	107.58	.08867	1.3892	.00568	145.69	.00219
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	.07112	.19130	.39662	199.18	21.876	5.4397	.00744
SDev	.00017	.00005	.00022	.18	.013	.0029	.00085
%RSD	.24207	.02736	.05553	.08849	.05746	.05249	11.439
#1	.07100	.19127	.39647	199.30	21.885	5.4417	.00684
#2	.07125	.19134	.39678	199.05	21.867	5.4377	.00804
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	.15871	.74627	.73798	.74074	.01798	.01342	.01493
SDev	.00052	.00070	.00212	.00165	.00239	.00137	.00171
%RSD	.32914	.09370	.28788	.22274	13.300	10.215	11.451
#1	.15834	.74677	.73948	.74191	.01967	.01438	.01614
#2	.15908	.74578	.73648	.73957	.01628	.01245	.01372
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	-.00740	.00316	-.00036	.00466	.25445	1.0603	
SDev	.00347	.00170	.00229	.00379	.00048	.0017	
%RSD	46.899	53.655	643.83	81.224	.19007	.16383	
#1	-.00986	.00196	-.00197	.00199	.25479	1.0615	
#2	-.00495	.00436	.00126	.00734	.25410	1.0591	
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	20013	--	--	--	--	--	--
SDev	16.01625	--	--	--	--	--	--
%RSD	.0800283	--	--	--	--	--	--
#1	20002	--	--	--	--	--	--
#2	20025	--	--	--	--	--	--

Method: METTRA Sample Name: CCV3-2 Operator: RJG
 Run Time: 07/17/00 13:47:46
 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
Avg	.99611	23.599	.49751	1.9354	1.9607	49.388	.47934
SDev	.01601	.400	.00789	.0308	.0337	.829	.00800
%RSD	1.6069	1.6964	1.5860	1.5924	1.7192	1.6778	1.6685
#1	1.0074	23.882	.50309	1.9572	1.9846	49.974	.48500
#2	.98479	23.316	.49193	1.9137	1.9369	48.802	.47369
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	1.9685	1.9695	1.9114	24.651	48.887	1.9298	1.9673
SDev	.0329	.0324	.0330	.437	.792	.0306	.0266
%RSD	1.6695	1.6429	1.7269	1.7713	1.6210	1.5878	1.3525
#1	1.9917	1.9924	1.9347	24.960	49.447	1.9515	1.9861
#2	1.9453	1.9466	1.8880	24.342	48.327	1.9081	1.9485
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	1.9688	.48903	.48595	.48698	.50201	.49766	.49911
SDev	.0332	.00510	.01159	.00943	.01474	.00648	.00923
%RSD	1.6856	1.0434	2.3858	1.9369	2.9365	1.3025	1.8498
#1	1.9922	.49264	.49415	.49365	.51243	.50224	.50564
#2	1.9453	.48542	.47775	.48031	.49159	.49307	.49258
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	.49801	.50500	.50267	.98320	1.9594	1.9657	
SDev	.00381	.01197	.00925	.01637	.0319	.0335	
%RSD	.76427	2.3705	1.8406	1.6654	1.6277	1.7023	
#1	.50071	.51346	.50922	.99478	1.9820	1.9893	
#2	.49532	.49654	.49613	.97162	1.9369	1.9420	
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	18585	--	--	--	--	--	--
SDev	240.5226	--	--	--	--	--	--
%RSD	1.294178	--	--	--	--	--	--
#1	18415	--	--	--	--	--	--
#2	18755	--	--	--	--	--	--

Method: METTRA Sample Name: CCB2

Operator: RJG

Run Time: 07/17/00 13:51:55

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	.00035	.05276	-.00045	.00045	.00080	.00688	-.00004
SDev	.00015	.00843	.00058	.00011	.00000	.00211	.00020
%RSD	41.142	15.987	129.96	24.999	.35486	30.720	524.95
#1	.00025	.05873	-.00004	.00053	.00079	.00837	.00010
#2	.00046	.04680	-.00086	.00037	.00080	.00538	-.00018
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	.00040	.00043	-.00197	.02573	.01074	.00095	.00426
SDev	.00044	.00007	.00011	.00381	.00025	.00012	.00177
%RSD	110.87	16.291	5.4435	14.797	2.3279	12.724	41.582
#1	.00009	.00038	-.00190	.02304	.01092	.00104	.00551
#2	.00071	.00048	-.00205	.02842	.01056	.00087	.00301
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	-.00187	.00064	-.00020	.00049	-.00103	-.00052
SDev	.00022	.00091	.00011	.00038	.00060	.00062	.00022
%RSD	111.40	48.815	17.386	192.26	122.66	60.781	41.636
#1	.00036	-.00252	.00056	-.00046	.00091	-.00147	-.00068
#2	.00004	-.00123	.00072	.00007	.00006	-.00059	-.00037
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	-.00129	-.00133	-.00132	.00109	.00137	-.00063	
SDev	.00123	.00004	.00038	.00174	.00192	.00008	
%RSD	95.523	3.3480	28.844	159.82	140.39	12.917	
#1	-.00216	-.00130	-.00159	-.00014	.00272	-.00057	
#2	-.00042	-.00137	-.00105	.00232	.00001	-.00069	
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	18650	--	--	--	--	--	--
SDev	105.4998	--	--	--	--	--	--
%RSD	.5656900	--	--	--	--	--	--
#1	18575	--	--	--	--	--	--
#2	18724	--	--	--	--	--	--

Method: METTRA Sample Name: DG2XGBE Operator: RJG
 Run Time: 07/17/00 13:56:04
 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	.00039	.05821	.00044	.00080	.00033	.03153	.00005
SDev	.00005	.00575	.00027	.00013	.00002	.00126	.00015
%RSD	12.206	9.8837	61.989	16.259	7.2836	3.9942	275.46

#1	.00042	.06227	.00063	.00089	.00031	.03242	.00016
#2	.00036	.05414	.00025	.00071	.00034	.03064	-.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
Avg	.00040	.00058	-.00181	.03027	.00561	.00063	.00086
SDev	.00014	.00032	.00012	.00505	.00600	.00012	.00005
%RSD	35.058	54.526	6.7576	16.682	107.02	18.698	5.7167

#1	.00050	.00081	-.00172	.03384	.00986	.00071	.00082
#2	.00030	.00036	-.00189	.02670	.00136	.00054	.00089

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	.00077	-.00212	.00060	-.00031	-.00144	.00052	-.00013
SDev	.00128	.00075	.00135	.00115	.00012	.00069	.00042
%RSD	166.01	35.169	225.59	373.80	8.6733	134.19	314.67

#1	-.00013	-.00159	.00155	.00050	-.00153	.00101	.00016
#2	.00168	-.00265	-.00036	-.00112	-.00135	.00003	-.00043

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	-.00493	.00106	-.00094	-.00216	.00033	.00125
SDev	.00028	.00323	.00225	.00139	.00045	.00021
%RSD	5.7695	304.74	240.33	64.364	137.40	16.592

#1	-.00513	-.00122	-.00252	-.00118	.00065	.00139
#2	-.00473	.00334	.00065	-.00315	.00001	.00110

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	18355	--	--	--	--	--	--
SDev	24.21841	--	--	--	--	--	--
%RSD	.1319421	--	--	--	--	--	--
#1	18338	--	--	--	--	--	--
#2	18372	--	--	--	--	--	--

Method: METTRA Sample Name: DERVPBE Operator: RJG
 Run Time: 07/17/00 14:00:13
 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
Avg	.00005	.06351	-.00004	.00023	.00026	.08731	.00002
SDev	.00043	.00684	.00027	.00009	.00002	.00002	.00010
%RSD	935.81	10.763	737.61	40.405	8.0420	.02755	605.46
#1	.00035	.06834	.00016	.00029	.00027	.08729	.00009
#2	-.00026	.05868	-.00023	.00016	.00025	.08732	-.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
Avg	.00011	.00060	-.00161	.02574	.00605	.00088	.00075
SDev	.00034	.00044	.00012	.00286	.00581	.00006	.00052
%RSD	298.37	72.809	7.3585	11.100	95.921	6.5595	69.369
#1	.00035	.00091	-.00152	.02776	.01016	.00092	.00112
#2	-.00013	.00029	-.00169	.02372	.00195	.00084	.00038
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	-.00045	-.00123	.00045	-.00011	.00074	-.00264	-.00152
SDev	.00018	.00197	.00046	.00096	.00209	.00025	.00053
%RSD	39.590	159.78	101.02	895.49	283.02	9.4436	34.847
#1	-.00057	.00016	.00078	.00057	-.00074	-.00247	-.00189
#2	-.00032	-.00262	.00013	-.00079	.00222	-.00282	-.00114
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	-.00443	.00060	-.00107	-.00404	.00001	.00724	
SDev	.00128	.00090	.00103	.00136	.00000	.00008	
%RSD	29.002	148.67	95.729	33.594	11.100	1.1010	
#1	-.00352	.00124	-.00035	-.00500	.00001	.00718	
#2	-.00533	-.00003	-.00180	-.00308	.00001	.00730	
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	18314	--	--	--	--	--	--
SDev	2.722085	--	--	--	--	--	--
%RSD	.0148635	--	--	--	--	--	--
#1	18316	--	--	--	--	--	--
#2	18312	--	--	--	--	--	--

Method: METTRA Sample Name: DF0LPBE Operator: RJG
 Run Time: 07/17/00 14:04:22
 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	.00028	.06341	-.00033	.00060	.00026	.02839	.00008
SDev	.00041	.00211	.00077	.00001	.00007	.00005	.00004
%RSD	145.45	3.3240	235.86	2.3275	26.923	.18005	46.801
#1	.00058	.06490	-.00087	.00061	.00030	.02835	.00005
#2	-.00001	.06192	.00022	.00059	.00021	.02842	.00011
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	-.00005	.00013	-.00171	.02118	.00563	.00031	.00016
SDev	.00022	.00029	.00010	.00223	.00272	.00002	.00010
%RSD	418.01	228.95	6.0740	10.549	48.323	4.8932	57.810
#1	.00010	.00033	-.00164	.01960	.00370	.00030	.00023
#2	-.00021	-.00008	-.00178	.02276	.00755	.00032	.00010
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	.00059	-.00109	-.00076	-.00087	-.00098	.00008	-.00028
SDev	.00022	.00217	.00103	.00003	.00254	.00136	.00006
%RSD	36.657	197.87	135.83	3.8034	258.66	1790.6	22.221
#1	.00074	.00044	-.00149	-.00085	-.00278	.00104	-.00023
#2	.00044	-.00263	-.00003	-.00089	.00082	-.00089	-.00032
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	-.00440	-.00095	-.00210	-.00198	.00001	.00087	
SDev	.00087	.00202	.00106	.00072	.00000	.00003	
%RSD	19.887	213.04	50.380	36.264	10.549	2.9003	
#1	-.00378	-.00238	-.00285	-.00248	.00001	.00089	
#2	-.00502	.00048	-.00135	-.00147	.00001	.00085	
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	18281	--	--	--	--	--	--
SDev	108.8945	--	--	--	--	--	--
%RSD	.5956831	--	--	--	--	--	--
#1	18358	--	--	--	--	--	--
#2	18204	--	--	--	--	--	--

Method: METTRA Sample Name: DF70LBE Operator: RJG
 Run Time: 07/17/00 14:08:31
 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	.00016	.08023	-.00008	.01713	.00041	.50799	.00001
SDev	.00037	.00275	.00027	.00017	.00005	.00172	.00007
%RSD	228.90	3.4252	361.72	.98951	12.297	.33793	608.72
#1	.00042	.08217	.00012	.01725	.00038	.50921	-.00004
#2	-.00010	.07828	-.00027	.01701	.00045	.50678	.00006
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	.00013	.00224	.00081	.02259	.07208	.00053	-.00008
SDev	.00025	.00004	.00010	.00215	.00089	.00001	.00031
%RSD	183.51	1.9541	12.036	9.5363	1.2378	2.0143	407.35
#1	.00031	.00221	.00074	.02107	.07271	.00052	.00014
#2	-.00004	.00227	.00087	.02411	.07145	.00054	-.00030
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	.00126	-.00096	-.00027	-.00050	-.00167	-.00028	-.00074
SDev	.00189	.00050	.00006	.00021	.00268	.00194	.00219
%RSD	150.07	51.892	22.497	41.279	160.29	692.56	294.03
#1	.00259	-.00061	-.00023	-.00035	-.00357	-.00165	-.00229
#2	-.00008	-.00131	-.00031	-.00065	.00022	.00109	.00080
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	-.00279	-.00027	-.00111	.00055	.00001	.01522	
SDev	.00026	.00344	.00221	.00224	.00000	.00012	
%RSD	9.4672	1279.9	199.35	406.32	9.5363	.81771	
#1	-.00297	.00216	.00045	.00213	.00001	.01531	
#2	-.00260	-.00270	-.00267	-.00103	.00001	.01513	
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	18532	--	--	--	--	--	--
SDev	19.33909	--	--	--	--	--	--
%RSD	.1043544	--	--	--	--	--	--
#1	18518	--	--	--	--	--	--
#2	18546	--	--	--	--	--	--

Method: METTRA Sample Name: DFD8CBE Operator: RJG
 Run Time: 07/17/00 14:12:41
 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	.00029	.06874	-.00028	.00061	.00033	.04154	.00007
SDev	.00013	.00153	.00109	.00007	.00002	.00010	.00008
%RSD	43.585	2.2331	382.05	11.190	5.2394	.23680	120.31
#1	.00020	.06982	.00048	.00056	.00032	.04147	.00001
#2	.00038	.06765	-.00105	.00065	.00034	.04161	.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
Avg	-.00020	.00031	-.00161	.00894	.00370	.00026	.00015
SDev	.00003	.00001	.00031	.00145	.00124	.00003	.00031
%RSD	17.598	2.9558	18.963	16.165	33.434	13.370	201.86
#1	-.00022	.00032	-.00183	.00996	.00458	.00028	.00037
#2	-.00017	.00030	-.00140	.00792	.00283	.00023	-.00007
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	-.00104	.00086	.00023	-.00038	-.00064	-.00056
SDev	.00053	.00092	.00073	.00018	.00045	.00211	.00155
%RSD	1028.1	89.010	85.360	79.844	117.61	328.27	280.06
#1	-.00032	-.00169	.00138	.00036	-.00006	.00085	.00054
#2	.00043	-.00038	.00034	.00010	-.00070	-.00213	-.00165
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	-.00390	-.00103	-.00198	-.00087	.00000	.00232	
SDev	.00104	.00113	.00110	.00086	.00000	.00006	
%RSD	26.553	110.14	55.407	98.938	16.165	2.5262	
#1	-.00463	-.00183	-.00276	-.00148	.00000	.00236	
#2	-.00317	-.00023	-.00121	-.00026	.00000	.00228	
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	18400	--	--	--	--	--	--
SDev	15.59226	--	--	--	--	--	--
%RSD	.0847404	--	--	--	--	--	--
#1	18411	--	--	--	--	--	--
#2	18389	--	--	--	--	--	--

Method: METTRA Sample Name: DFGP8BE Operator: RJG
 Run Time: 07/17/00 14:16:50
 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	.00001	.06606	-.00067	.00105	.00031	.05145	-.00001
SDev	.00023	.00125	.00126	.00008	.00004	.00104	.00017
%RSD	2037.7	1.8973	188.32	7.8187	14.098	2.0170	3112.2

#1	.00017	.06694	.00022	.00111	.00034	.05071	-.00013
#2	-.00015	.06517	-.00156	.00099	.00028	.05218	.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
Avg	-.00043	.00022	-.00204	.00998	.00356	.00015	-.00050
SDev	.00022	.00058	.00057	.00287	.00061	.00002	.00032
%RSD	52.266	269.24	27.796	28.806	17.233	13.026	63.782

#1	-.00027	-.00019	-.00244	.00794	.00399	.00017	-.00073
#2	-.00059	.00063	-.00164	.01201	.00312	.00014	-.00028

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	.00027	-.00095	-.00142	-.00126	-.00115	-.00147	-.00136
SDev	.00049	.00200	.00003	.00069	.00091	.00178	.00149
%RSD	179.87	210.90	2.3678	54.457	79.310	121.04	109.30

#1	-.00007	-.00236	-.00144	-.00175	-.00051	-.00021	-.00031
#2	.00062	.00047	-.00140	-.00078	-.00180	-.00273	-.00242

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	-.00575	-.00011	-.00199	-.00355	.00000	.00317
SDev	.00054	.00070	.00029	.00158	.00030	.00005
%RSD	9.4521	615.95	14.516	44.622	13243.	1.7130

#1	-.00536	-.00061	-.00219	-.00243	.00021	.00313
#2	-.00613	.00038	-.00179	-.00467	-.00021	.00321

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	18337	--	--	--	--	--	--
SDev	151.0377	--	--	--	--	--	--
%RSD	.8236662	--	--	--	--	--	--
#1	18444	--	--	--	--	--	--
#2	18230	--	--	--	--	--	--

Method: METTRA Sample Name: DG2XGCE Operator: RJG
 Run Time: 07/17/00 14:21:00
 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	H.09843	H4.0970	H3.8363	H3.7992	H.09468	H97.007	H.09108
SDev	.00011	.0003	.0019	.0085	.00011	.029	.00005
%RSD	.11380	.00662	.04898	.22442	.11230	.02985	.05357
#1	H.09835	H4.0968	H3.8377	H3.8052	H.09476	H97.027	H.09111
#2	H.09851	H4.0972	H3.8350	H3.7931	H.09461	H96.986	H.09105
Errors	LC High	LC High	LC High	LC High	LC High	LC High	LC High
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	H.95079	H.38639	H.48140	H1.8481	H96.824	H.94163	H1.9437
SDev	.00156	.00022	.00093	.0079	.048	.00059	.0076
%RSD	.16460	.05789	.19323	.42939	.04980	.06242	.39319
#1	H.94968	H.38624	H.48206	H1.8537	H96.790	H.94121	H1.9383
#2	H.95189	H.38655	H.48074	H1.8425	H96.858	H.94204	H1.9491
Errors	LC High	LC High	LC High	LC High	LC High	LC High	LC High
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	H.95168	.95020	.92885	H.93596	.97735	.97524	H.97594
SDev	.00128	.00194	.00530	.00418	.00274	.00202	.00044
%RSD	.13466	.20445	.57071	.44689	.27999	.20737	.04485
#1	H.95077	.94883	.92510	H.93300	.97928	.97381	H.97563
#2	H.95258	.95158	.93260	H.93892	.97541	.97667	H.97625
Errors	LC High	NOCHECK	NOCHECK	LC High	NOCHECK	NOCHECK	LC High
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	3.7942	3.8741	H3.8475	H3.8717	H.96255	H.97040	
SDev	.0125	.0075	.0092	.0084	.00191	.00122	
%RSD	.32947	.19470	.23896	.21680	.19855	.12594	
#1	3.7854	3.8687	H3.8410	H3.8776	H.96390	H.97126	
#2	3.8030	3.8794	H3.8540	H3.8657	H.96120	H.96954	
Errors	NOCHECK	NOCHECK	LC High	LC High	LC High	LC High	
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	18227	--	--	--	--	--	--
SDev	1.944544	--	--	--	--	--	--
%RSD	.0106685	--	--	--	--	--	--
#1	18226	--	--	--	--	--	--
#2	18228	--	--	--	--	--	--

Method: METTRA Sample Name: DEKR1E Operator: RJG
 Run Time: 07/17/00 14:25:09
 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	.00085	6.2367	.00497	.22649	.00033	124.22	-.00000
SDev	.00133	.0327	.00003	.00115	.00007	.71	.00002
%RSD	156.45	.52388	.50357	.50900	20.372	.57526	426.37

#1	.00179	6.2598	.00499	.22731	.00028	124.72	-.00002
#2	-.00009	6.2136	.00496	.22568	.00037	123.71	.00001

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	.00181	.03424	.40365	.00554	.04377	.00044	.17858
SDev	.00050	.00088	.00098	.00513	.00747	.00003	.00209
%RSD	27.757	2.5697	.24398	92.591	17.076	6.2603	1.1724

#1	.00217	.03486	.40434	.00191	.04905	.00046	.18006
#2	.00146	.03361	.40295	.00916	.03848	.00042	.17710

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	.07970	.00314	-.00301	-.00096	.00367	.01009	.00795
SDev	.00290	.00587	.00407	.00076	.00738	.00217	.00101
%RSD	3.6358	186.84	135.20	78.991	201.13	21.517	12.698

#1	.08175	.00729	-.00589	-.00150	-.00155	.01162	.00724
#2	.07765	-.00101	-.00013	-.00042	.00889	.00855	.00866

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	.01462	.00999	.01153	.00065	.02325	.00200
SDev	.00311	.00293	.00092	.00143	.00149	.00009
%RSD	21.264	29.341	7.9765	221.89	6.3959	4.4006

#1	.01682	.00792	.01088	.00166	.02430	.00206
#2	.01242	.01206	.01218	-.00037	.02220	.00194

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	18441	--	--	--	--	--	--
SDev	119.0771	--	--	--	--	--	--
%RSD	.6457348	--	--	--	--	--	--
#1	18356	--	--	--	--	--	--
#2	18525	--	--	--	--	--	--

Method: METTRA Sample Name: DEKR1P5E Operator: RJG
 Run Time: 07/17/00 14:29:19
 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
Avge	-.00002	1.1810	.00071	.04373	.00050	24.184	.00006
SDev	.00035	.0033	.00050	.00031	.00000	.036	.00001
%RSD	2130.1	.28233	69.826	.70312	.55839	.14985	21.350

#1	-.00026	1.1834	.00107	.04352	.00050	24.158	.00006
#2	.00023	1.1786	.00036	.04395	.00050	24.210	.00005

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00007	.00654	.07360	-.00198	.01098	.00002	.03545
SDev	.00007	.00022	.00141	.00849	.00751	.00006	.00026
%RSD	104.76	3.3264	1.9140	428.04	68.353	270.09	.72826

#1	.00012	.00638	.07260	.00402	.00568	-.00002	.03563
#2	.00002	.00669	.07460	-.00798	.01629	.00006	.03526

Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01574	-.00164	-.00129	-.00141	.00115	.00119	.00117
SDev	.00009	.00047	.00098	.00050	.00099	.00137	.00059
%RSD	.55216	28.497	75.951	35.393	85.854	115.99	50.186

#1	.01581	-.00197	-.00060	-.00106	.00185	.00021	.00076
#2	.01568	-.00131	-.00198	-.00176	.00045	.00216	.00159

Elem	SE/1	SE/2	SE	TL	V_	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00278	.00250	.00259	-.00199	.00393	-.00040
SDev	.00135	.00191	.00172	.00102	.00001	.00022
%RSD	48.544	76.131	66.293	51.473	.18902	53.897

#1	.00182	.00116	.00138	-.00271	.00392	-.00055
#2	.00373	-.00385	.00381	-.00126	.00393	-.00025

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	18770	--	--	--	--	--	--
SDev	49.63972	--	--	--	--	--	--
%RSD	.2644673	--	--	--	--	--	--
#1	18805	--	--	--	--	--	--
#2	18735	--	--	--	--	--	--

Method: METTRA Sample Name: DEKR1SE Operator: RJG
 Run Time: 07/17/00 14:33:28
 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	.09781	10.497	3.8284	3.9680	.09352	218.64	.08864
SDev	.00049	.010	.0022	.0009	.00006	.20	.00005
%RSD	.50520	.09665	.05744	.02237	.06625	.09280	.05755
#1	.09746	10.490	3.8268	3.9673	.09357	218.49	.08860
#2	.09816	10.504	3.8300	3.9686	.09348	218.78	.08868
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	.94451	.41207	.88852	1.8257	96.266	.93139	2.0706
SDev	.00204	.00119	.00010	.0027	.089	.00146	.0107
%RSD	.21654	.28931	.01106	.14894	.09253	.15713	.51533
#1	.94307	.41123	.88845	1.8237	96.203	.93036	2.0630
#2	.94596	.41291	.88859	1.8276	96.329	.93243	2.0781
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	1.0167	.94011	.91440	.92296	.98671	.97746	.98054
SDev	.0002	.00469	.00036	.00133	.00136	.00299	.00245
%RSD	.02290	.49880	.03886	.14351	.13729	.30632	.24968
#1	1.0169	.93679	.91465	.92202	.98575	.97535	.97881
#2	1.0165	.94343	.91415	.92390	.98767	.97958	.98227
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	3.7945	3.8739	3.8475	3.8405	.97250	.96095	
SDev	.0138	.0067	.0090	.0060	.00138	.00085	
%RSD	.36301	.17233	.23496	.15512	.14247	.08841	
#1	3.7848	3.8692	3.8411	3.8448	.97152	.96155	
#2	3.8043	3.8787	3.8539	3.8363	.97348	.96035	
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	18324	--	--	--	--	--	--
SDev	31.74937	--	--	--	--	--	--
%RSD	.1732694	--	--	--	--	--	--
#1	18346	--	--	--	--	--	--
#2	18301	--	--	--	--	--	--

Method: METTRA Sample Name: CCV3-3 Operator: RJG
 Run Time: 07/17/00 14:37:37
 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	.98872	23.360	.49459	1.9176	1.9590	49.245	.47663
SDev	.00330	.061	.00018	.0070	.0089	.139	.00134
%RSD	.33340	.26230	.03700	.36274	.45627	.28162	.28098

#1	.99105	23.403	.49472	1.9225	1.9653	49.343	.47757
#2	.98639	23.316	.49446	1.9126	1.9527	49.147	.47568

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	1.9546	1.9550	1.8957	24.431	48.825	1.9249	1.9578
SDev	.0037	.0042	.0093	.041	.133	.0055	.0045
%RSD	.18776	.21651	.49268	.16713	.27256	.28533	.23090

#1	1.9572	1.9580	1.9023	24.459	48.919	1.9288	1.9546
#2	1.9520	1.9521	1.8891	24.402	48.731	1.9210	1.9610

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	1.9557	.48736	.48376	.48496	.50108	.49729	.49855
SDev	.0137	.00083	.00113	.00048	.00130	.00046	.00074
%RSD	.70272	.17069	.23377	.09842	.25902	.09272	.14838

#1	1.9654	.48677	.48456	.48530	.50200	.49762	.49908
#2	1.9460	.48795	.48296	.48462	.50016	.49697	.49803

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	.49670	.50182	.50012	.98578	1.9475	1.9519
SDev	.00093	.00172	.00084	.00168	.0066	.0084
%RSD	.18677	.34275	.16764	.17053	.34082	.43168

#1	.49735	.50061	.49952	.98459	1.9522	1.9579
#2	.49604	.50304	.50071	.98697	1.9428	1.9459

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	18683	--	--	--	--	--	--
SDev	58.15953	--	--	--	--	--	--
%RSD	.3112986	--	--	--	--	--	--
#1	18642	--	--	--	--	--	--
#2	18724	--	--	--	--	--	--

Method: METTRA Sample Name: CCB3

Operator: RJG

Run Time: 07/17/00 14:41:46

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	.00050	.07595	.00022	.00054	.00098	.01657	.00004
SDev	.00038	.00262	.00111	.00021	.00005	.00756	.00003
%RSD	75.991	3.4429	516.33	39.325	4.7883	45.643	57.748
#1	.00023	.07410	-.00057	.00039	.00095	.01122	.00003
#2	.00077	.07780	.00100	.00069	.00102	.02192	.00006
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	.00056	.00069	-.00233	.00400	.01516	.00046	.00537
SDev	.00035	.00029	.00056	.01264	.00654	.00013	.00170
%RSD	61.940	42.596	24.142	316.22	43.176	28.190	31.587
#1	.00032	.00048	-.00273	-.00494	.01053	.00036	.00658
#2	.00081	.00090	-.00193	.01293	.01979	.00055	.00417
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	.00111	-.00187	-.00061	-.00103	-.00005	.00077	.00050
SDev	.00021	.00012	.00136	.00087	.00185	.00072	.00110
%RSD	18.737	6.5480	221.48	83.855	3611.8	93.421	220.70
#1	.00126	-.00196	.00035	-.00042	-.00136	.00026	-.00028
#2	.00097	-.00179	-.00158	-.00165	.00126	.00128	.00127
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	-.00124	-.00171	-.00155	.00170	.00145	-.00063	
SDev	.00002	.00082	.00054	.00180	.00204	.00012	
%RSD	1.2907	48.130	34.946	106.05	140.98	18.754	
#1	-.00123	-.00229	-.00194	.00297	.00289	-.00072	
#2	-.00125	-.00113	-.00117	.00042	.00000	-.00055	
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	18741	--	--	--	--	--	--
SDev	89.97934	--	--	--	--	--	--
%RSD	.4801132	--	--	--	--	--	--
#1	18805	--	--	--	--	--	--
#2	18678	--	--	--	--	--	--

Method: METTRA Sample Name: DEKR1DE Operator: RJG
 Run Time: 07/17/00 14:46:11
 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	.09927	10.540	3.9068	4.0432	.09667	222.80	.09060
SDev	.00127	.102	.0743	.0724	.00308	6.40	.00154
%RSD	1.2762	.96461	1.9006	1.7895	3.1850	2.8720	1.6950
#1	.10016	10.611	3.9593	4.0943	.09885	227.32	.09168
#2	.09837	10.468	3.8543	3.9920	.09449	218.27	.08951
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	.95514	.41630	.89747	1.8498	98.346	.94398	2.0902
SDev	.00366	.00330	.01083	.0154	1.687	.00674	.0096
%RSD	.38334	.79222	1.2071	.83463	1.7151	.71388	.45873
#1	.95773	.41864	.90513	1.8607	99.539	.94875	2.0835
#2	.95255	.41397	.88981	1.8389	97.153	.93922	2.0970
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	1.0562	.94692	.93596	.93961	1.0151	.98587	.99561
SDev	.0509	.00056	.01927	.01304	.0297	.00194	.00860
%RSD	4.8166	.05938	2.0589	1.3879	2.9269	.19683	.86374
#1	1.0922	.94732	.94958	.94883	1.0361	.98450	1.0017
#2	1.0202	.94652	.92233	.93039	.99411	.98725	.98953
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	3.8123	3.9819	3.9254	3.9677	.99803	.98411	
SDev	.0354	.1145	.0645	.1350	.03239	.02547	
%RSD	.92923	2.8746	1.6444	3.4016	3.2455	2.5885	
#1	3.7872	4.0628	3.9711	4.0632	1.0209	1.0021	
#2	3.8373	3.9009	3.8798	3.8723	.97513	.96610	
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	18282	--	--	--	--	--	--
SDev	.3535534	--	--	--	--	--	--
%RSD	.0019338	--	--	--	--	--	--
#1	18283	--	--	--	--	--	--
#2	18282	--	--	--	--	--	--

Method: METTRA Sample Name: DEKRHE Operator: RJG
 Run Time: 07/17/00 14:50:21
 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	.00042	2.7293	.00635	.14316	.00043	103.04	.00014
SDev	.00029	.0101	.00068	.00055	.00003	.30	.00003
%RSD	69.895	.36969	10.754	.38243	7.6895	.29098	19.322
#1	.00021	2.7364	.00587	.14354	.00041	103.25	.00012
#2	.00063	2.7221	.00684	.14277	.00046	102.82	.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	.00198	.04927	.45099	.01807	.06819	.00050	.16302
SDev	.00032	.00013	.00119	.00145	.00044	.00009	.00171
%RSD	16.046	.26553	.26464	8.0365	.63853	18.306	1.0489
#1	.00220	.04936	.45183	.01704	.06849	.00057	.16423
#2	.00175	.04918	.45015	.01909	.06788	.00044	.16181
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	.08564	.00035	-.00195	-.00119	.00684	.00746	.00726
SDev	.00075	.00058	.00097	.00084	.00111	.00073	.00086
%RSD	.87914	164.86	49.615	70.733	16.274	9.7597	11.805
#1	.08511	.00076	-.00127	-.00059	.00763	.00798	.00786
#2	.08617	-.00006	-.00264	-.00178	.00606	.00695	.00665
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	.00608	.00929	.00822	.00352	.03949	.00457	
SDev	.00040	.00148	.00085	.00025	.00002	.00006	
%RSD	6.6419	15.908	10.359	7.0221	.03889	1.4294	
#1	.00579	.01034	.00883	.00370	.03950	.00462	
#2	.00636	.00825	.00762	.00335	.03948	.00453	
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	

664 582

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	18569	--	--	--	--	--	--
SDev	7.460529	--	--	--	--	--	--
%RSD	.0401776	--	--	--	--	--	--
#1	18564	--	--	--	--	--	--
#2	18574	--	--	--	--	--	--

Method: METTRA Sample Name: DEKRJE Operator: RJG
 Run Time: 07/17/00 14:54:30
 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
Avg	.00042	3.8512	.00533	.18149	.00032	104.23	-.00005
SDev	.00002	.0149	.00018	.00045	.00000	.17	.00000
%RSD	4.7435	.38777	3.3223	.24926	.85907	.16402	6.3312
#1	.00040	3.8407	.00520	.18117	.00032	104.11	-.00006
#2	.00043	3.8618	.00545	.18181	.00033	104.35	-.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
Avg	.00200	.03840	.57464	.02526	.04233	.00030	.18412
SDev	.00023	.00042	.00070	.00569	.00509	.00006	.00158
%RSD	11.443	1.0824	.12158	22.540	12.032	18.675	.85757
#1	.00184	.03811	.57415	.02123	.03873	.00026	.18301
#2	.00216	.03869	.57513	.02929	.04593	.00034	.18524
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	.08958	-.00113	-.00154	-.00140	.00893	.00704	.00767
SDev	.00083	.00098	.00053	.00003	.00051	.00246	.00181
%RSD	.92898	87.272	34.484	1.8955	5.7386	34.950	23.628
#1	.08899	-.00182	-.00117	-.00138	.00857	.00530	.00639
#2	.09017	-.00043	-.00192	-.00142	.00929	.00878	.00895
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	.00565	.01076	.00906	-.00080	.03128	.00455	
SDev	.00020	.00137	.00085	.00172	.00159	.00012	
%RSD	3.6198	12.780	9.3705	215.88	5.0892	2.6917	
#1	.00551	.01173	.00966	-.00202	.03015	.00446	
#2	.00580	.00978	.00846	.00042	.03241	.00463	
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	18420	--	--	--	--	--	--
SDev	28.32018	--	--	--	--	--	--
%RSD	.1537496	--	--	--	--	--	--
#1	18400	--	--	--	--	--	--
#2	18440	--	--	--	--	--	--

Method: METTRA Sample Name: DENJME Operator: RJG
 Run Time: 07/17/00 14:58:39
 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
Avg	.00080	4.4634	.00402	.07747	.00040	86.075	.00003
SDev	.00055	.0070	.00162	.00021	.00000	.072	.00002
%RSD	68.515	.15794	40.210	.27570	.26666	.08345	58.141
#1	.00119	4.4585	.00288	.07762	.00040	86.126	.00004
#2	.00041	4.4684	.00516	.07731	.00040	86.024	.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	.00073	.02795	.16102	.03161	.02584	.00035	.03622
SDev	.00007	.00010	.00012	.00389	.00138	.00001	.00008
%RSD	9.6050	.33975	.07221	12.302	5.3581	3.6578	.21693
#1	.00068	.02788	.16094	.03436	.02682	.00034	.03616
#2	.00078	.02801	.16111	.02886	.02486	.00036	.03627
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	.01402	-.00066	-.00025	-.00039	.00586	.00741	.00689
SDev	.00019	.00057	.00057	.00019	.00016	.00096	.00069
%RSD	1.3461	86.091	224.03	48.340	2.7074	12.951	10.051
#1	.01415	-.00026	-.00065	-.00052	.00575	.00673	.00640
#2	.01389	-.00106	.00015	-.00026	.00597	.00809	.00738
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	.00564	.00787	.00713	.00105	.02866	.00429	
SDev	.00216	.00074	.00022	.00126	.00024	.00014	
%RSD	38.312	9.4231	3.1595	119.71	.82817	3.3203	
#1	.00412	.00840	.00697	.00016	.02883	.00439	
#2	.00717	.00735	.00729	.00194	.02849	.00419	
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	18548	--	--	--	--	--	--
SDev	38.67819	--	--	--	--	--	--
%RSD	.2085330	--	--	--	--	--	--
#1	18575	--	--	--	--	--	--
#2	18520	--	--	--	--	--	--

Method: METTRA Sample Name: DENJXE Operator: RJG
 Run Time: 07/17/00 15:02:48
 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	.00056	5.0679	.00551	.06278	.00034	73.449	.00029
SDev	.00030	.0102	.00022	.00014	.00008	.123	.00004
%RSD	52.433	.20194	4.0820	.22616	23.323	.16769	13.772
#1	.00036	5.0752	.00535	.06288	.00029	73.536	.00026
#2	.00077	5.0607	.00567	.06268	.00040	73.362	.00032
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	.00056	.02057	.10084	.02741	.03528	.00026	.02070
SDev	.00018	.00043	.00025	.00072	.00394	.00007	.00022
%RSD	31.763	2.1121	.24451	2.6161	11.162	26.496	1.0892
#1	.00043	.02026	.10066	.02792	.03250	.00021	.02054
#2	.00068	.02088	.10101	.02691	.03807	.00031	.02086
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	.00977	-.00231	-.00091	-.00137	.01098	.01145	.01129
SDev	.00096	.00138	.00025	.00063	.00587	.00057	.00234
%RSD	9.8315	59.583	27.892	45.637	53.451	4.9900	20.688
#1	.01045	-.00328	-.00108	-.00182	.01513	.01185	.01294
#2	.00909	-.00134	-.00073	-.00093	.00683	.01104	.00964
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	.00251	.00410	.00357	-.00211	.02997	.00232	
SDev	.00164	.00155	.00049	.00055	.00042	.00007	
%RSD	65.276	37.778	13.680	25.965	1.4051	3.0120	
#1	.00135	.00520	.00392	-.00172	.03027	.00237	
#2	.00366	.00301	.00322	-.00249	.02967	.00227	
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	18450	--	--	--	--	--	--
SDev	15.48592	--	--	--	--	--	--
%RSD	.0839359	--	--	--	--	--	--
#1	18461	--	--	--	--	--	--
#2	18439	--	--	--	--	--	--

Method: METTRA Sample Name: DENK1E Operator: RJG
 Run Time: 07/17/00 15:06:58
 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	.00053	2.9703	.00448	.08874	.00037	81.291	-.00006
SDev	.00056	.0074	.00031	.00013	.00008	.101	.00006
%RSD	105.11	.24780	6.8248	.14780	21.600	.12442	94.465
#1	.00093	2.9651	.00427	.08865	.00031	81.363	-.00011
#2	.00014	2.9755	.00470	.08883	.00042	81.220	-.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
Avge	.00069	.02286	.14215	.00939	.03682	.00013	.03200
SDev	.00005	.00009	.00007	.00396	.00180	.00005	.00072
%RSD	7.6897	.37024	.04943	42.173	4.8933	34.198	2.2608
#1	.00066	.02280	.14220	.01219	.03554	.00010	.03149
#2	.00073	.02292	.14210	.00659	.03809	.00017	.03251
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	.01398	-.00015	-.00057	-.00043	.00806	.01013	.00944
SDev	.00047	.00304	.00016	.00112	.00172	.00006	.00053
%RSD	3.3260	2092.8	28.890	263.77	21.323	.60445	5.6327
#1	.01430	-.00230	-.00068	-.00122	.00928	.01009	.00982
#2	.01365	.00201	-.00045	.00037	.00685	.01017	.00907
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	.00575	.00635	.00615	-.00093	.03109	.00121	
SDev	.00266	.00171	.00026	.00404	.00159	.00010	
%RSD	46.223	26.907	4.1587	435.65	5.1075	8.2136	
#1	.00387	.00756	.00633	-.00378	.02996	.00128	
#2	.00763	.00515	.00597	.00193	.03221	.00114	
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	18406	--	--	--	--	--	--
SDev	29.69848	--	--	--	--	--	--
%RSD	.1613496	--	--	--	--	--	--
#1	18385	--	--	--	--	--	--
#2	18427	--	--	--	--	--	--

Method: METTRA Sample Name: DER4PE Operator: RJG
 Run Time: 07/17/00 15:11:07
 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	.00044	4.2694	.00450	.06549	.00058	82.416	-.00002
SDev	.00034	.0894	.00068	.00117	.00016	1.644	.00012
%RSD	77.022	2.0946	15.138	1.7926	26.998	1.9952	742.93
#1	.00020	4.2062	.00402	.06466	.00070	81.253	-.00010
#2	.00069	4.3326	.00498	.06632	.00047	83.579	.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	.00034	.02172	.10562	.01959	.03496	.00026	.01237
SDev	.00003	.00072	.00279	.01172	.00215	.00010	.00022
%RSD	8.1823	3.3021	2.6422	59.839	6.1472	38.923	1.8158
#1	.00032	.02122	.10364	.01130	.03344	.00019	.01221
#2	.00036	.02223	.10759	.02789	.03648	.00033	.01253
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	.00667	-.00071	-.00187	-.00148	.00433	.00945	.00775
SDev	.00006	.00028	.00052	.00025	.00169	.00076	.00006
%RSD	.85381	40.085	27.671	16.871	39.118	8.0033	.76966
#1	.00671	-.00091	-.00150	-.00131	.00553	.00892	.00779
#2	.00663	-.00051	-.00224	-.00166	.00313	.00999	.00771
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	.00620	.00661	.00647	-.00178	.02903	.00143	
SDev	.00240	.00244	.00083	.00111	.00253	.00014	
%RSD	38.695	36.840	12.767	62.342	8.7024	9.9544	
#1	.00450	.00834	.00706	-.00100	.02724	.00132	
#2	.00789	.00489	.00589	-.00257	.03081	.00153	
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	18726	--	--	--	--	--	--
SDev	304.1609	--	--	--	--	--	--
%RSD	1.624246	--	--	--	--	--	--
#1	18941	--	--	--	--	--	--
#2	18511	--	--	--	--	--	--

Method: METTRA Sample Name: DER4TE Operator: RJG
 Run Time: 07/17/00 15:15:16
 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	-.00021	5.5912	.00551	.04929	.00046	69.100	-.00007
SDev	.00027	.0008	.00042	.00015	.00004	.134	.00009
%RSD	131.93	.01359	7.6277	.30647	7.7145	.19454	139.12
#1	-.00040	5.5907	.00581	.04939	.00044	69.195	-.00013
#2	-.00001	5.5917	.00522	.04918	.00049	69.005	-.00000
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	.00030	.01560	.06064	.00675	.03509	.00012	.00733
SDev	.00005	.00012	.00005	.00991	.00091	.00003	.00028
%RSD	17.120	.76125	.07840	146.87	2.5929	29.453	3.8385
#1	.00026	.01552	.06061	-.00026	.03445	.00010	.00714
#2	.00033	.01568	.06067	.01375	.03574	.00015	.00753
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	.00371	-.00144	-.00098	-.00113	.01008	.01051	.01037
SDev	.00032	.00007	.00112	.00072	.00121	.00181	.00161
%RSD	8.5509	5.0065	114.36	63.949	11.965	17.179	15.491
#1	.00349	-.00149	-.00019	-.00062	.00923	.00924	.00923
#2	.00394	-.00139	-.00178	-.00165	.01093	.01179	.01151
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	.00370	.00469	.00436	-.00073	.02966	.00394	
SDev	.00026	.00025	.00025	.00103	.00006	.00003	
%RSD	6.9322	5.2549	5.7291	142.08	.19301	.66520	
#1	.00352	.00451	.00418	-.00145	.02970	.00396	
#2	.00388	.00486	.00453	.00000	.02962	.00392	
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	18639	--	--	--	--	--	--
SDev	54.37679	--	--	--	--	--	--
%RSD	.2917358	--	--	--	--	--	--
#1	18678	--	--	--	--	--	--
#2	18601	--	--	--	--	--	--

Method: METTRA Sample Name: DER4VE Operator: RJG
 Run Time: 07/17/00 15:19:26
 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	.00061	3.0389	.00514	.05472	.00047	77.007	.00006
SDev	.00083	.0144	.00164	.00034	.00002	.426	.00013
%RSD	136.00	.47430	31.872	.62693	5.0222	.55277	215.25
#1	.00002	3.0491	.00630	.05496	.00045	77.308	-.00003
#2	.00119	3.0288	.00398	.05448	.00048	76.706	.00015
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	.01796	.09038	.01044	.03481	.00010	.01090
SDev	.00023	.00032	.00055	.01389	.00383	.00009	.00060
%RSD	103.74	1.7806	.61002	132.96	11.013	93.338	5.4637
#1	.00006	.01773	.09077	.00062	.03210	.00003	.01048
#2	.00038	.01818	.08999	.02026	.03752	.00016	.01132
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	.00572	-.00155	-.00028	-.00071	.00930	.00955	.00947
SDev	.00030	.00396	.00030	.00152	.00215	.00014	.00081
%RSD	5.1796	255.58	106.83	215.68	23.079	1.4690	8.5378
#1	.00551	-.00435	-.00050	-.00178	.01082	.00965	.01004
#2	.00592	.00125	-.00007	.00037	.00778	.00945	.00890
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	.00232	.00881	.00665	-.00232	.03356	.00148	
SDev	.00132	.00086	.00014	.00183	.00010	.00003	
%RSD	56.682	9.7605	2.0253	79.067	.28193	1.8807	
#1	.00326	.00820	.00655	-.00361	.03350	.00150	
#2	.00139	.00942	.00675	-.00102	.03363	.00147	
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	18551	--	--	--	--	--	--
SDev	32.06702	--	--	--	--	--	--
%RSD	.1728617	--	--	--	--	--	--
#1	18528	--	--	--	--	--	--
#2	18573	--	--	--	--	--	--

Method: METTRA Sample Name: DEV66E Operator: RJG
 Run Time: 07/17/00 15:23:36
 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
Avg	.00040	3.7603	.00609	.05992	.00043	76.559	-.00007
SDev	.00042	.0043	.00123	.00001	.00003	.036	.00008
%RSD	103.26	.11355	20.210	.02177	8.1206	.04711	117.32
#1	.00011	3.7573	.00522	.05993	.00041	76.584	-.00001
#2	.00070	3.7633	.00696	.05992	.00046	76.533	-.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
Avg	.00012	.01987	.10391	.02612	.03544	.00021	.00852
SDev	.00023	.00045	.00021	.01535	.00231	.00005	.00043
%RSD	187.89	2.2616	.20435	58.751	6.5206	22.065	5.0356
#1	-.00004	.01955	.10376	.01527	.03381	.00018	.00821
#2	.00028	.02019	.10406	.03698	.03708	.00024	.00882
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	.00439	-.00224	-.00134	-.00164	.00489	.00836	.00720
SDev	.00078	.00308	.00083	.00047	.00112	.00047	.00006
%RSD	17.794	137.48	62.264	28.578	22.920	5.6317	.81699
#1	.00494	-.00006	-.00193	-.00131	.00409	.00869	.00716
#2	.00384	-.00441	-.00075	-.00197	.00568	.00803	.00724
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	.00633	.00756	.00715	.00022	.03341	.00308	
SDev	.00174	.00002	.00057	.00097	.00021	.00009	
%RSD	27.485	.24583	7.9303	438.56	.62926	2.8582	
#1	.00510	.00758	.00675	.00091	.03326	.00302	
#2	.00757	.00755	.00756	-.00047	.03356	.00315	
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	18524	--	--	--	--	--	--
SDev	31.50216	--	--	--	--	--	--
%RSD	.1700625	--	--	--	--	--	--
#1	18546	--	--	--	--	--	--
#2	18502	--	--	--	--	--	--

Method: METTRA Sample Name: CCV3-4

Operator: RJG

Run Time: 07/17/00 15:27:45

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
Avge	.98624	23.319	.49327	1.9162	1.9699	49.390	.47682
SDev	.00062	.009	.00122	.0046	.0040	.102	.00025
%RSD	.06317	.03955	.24709	.24032	.20341	.20633	.05234
#1	.98669	23.326	.49413	1.9194	1.9727	49.462	.47700
#2	.98580	23.313	.49241	1.9129	1.9670	49.317	.47665
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	1.9508	1.9545	1.8936	24.449	49.118	1.9301	1.9532
SDev	.0001	.0008	.0044	.005	.059	.0011	.0097
%RSD	.00255	.03891	.23052	.02151	.12111	.05830	.49580
#1	1.9508	1.9550	1.8967	24.445	49.160	1.9309	1.9464
#2	1.9509	1.9539	1.8905	24.452	49.076	1.9293	1.9601
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	1.9554	.48533	.48291	.48372	.50597	.49357	.49770
SDev	.0048	.00006	.00148	.00097	.00182	.00203	.00075
%RSD	.24709	.01249	.30594	.19955	.35926	.41130	.15043
#1	1.9588	.48528	.48396	.48440	.50469	.49501	.49823
#2	1.9520	.48537	.48187	.48303	.50726	.49213	.49717
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	.49551	.50494	.50180	.98568	1.9458	1.9524	
SDev	.00008	.00141	.00097	.00908	.0074	.0031	
%RSD	.01656	.27959	.19309	.92085	.38137	.15619	
#1	.49545	.50395	.50112	.99210	1.9511	1.9546	
#2	.49556	.50594	.50249	.97927	1.9406	1.9503	
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	18721	--	--	--	--	--	--
SDev	15.09783	--	--	--	--	--	--
%RSD	.0806464	--	--	--	--	--	--
#1	18710	--	--	--	--	--	--
#2	18732	--	--	--	--	--	--

Method: METTRA Sample Name: CCB4 Operator: RJG
 Run Time: 07/17/00 15:31:55
 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	.00039	.10500	.00095	.00043	.00107	.01328	.00016
SDev	.00026	.00193	.00125	.00019	.00021	.00732	.00004
%RSD	65.361	1.8397	131.31	43.713	19.287	55.082	24.397

#1	.00058	.10363	.00007	.00030	.00093	.00811	.00019
#2	.00021	.10636	.00183	.00056	.00122	.01846	.00013

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	.00074	.00035	-.00345	.01367	.01278	.00047	.00383
SDev	.00012	.00006	.00041	.00806	.00278	.00027	.00028
%RSD	16.291	18.633	11.860	58.949	21.774	56.557	7.4285

#1	.00066	.00039	-.00374	.00797	.01081	.00028	.00363
#2	.00083	.00030	-.00316	.01937	.01475	.00066	.00404

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	.00147	-.00270	.00009	-.00084	-.00005	-.00097	-.00066
SDev	.00005	.00090	.00030	.00010	.00284	.00183	.00028
%RSD	3.4008	33.333	344.10	12.058	5958.9	188.65	41.723

#1	.00151	-.00206	-.00012	-.00077	-.00206	.00032	-.00047
#2	.00144	-.00333	.00030	-.00091	.00196	-.00227	-.00086

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	-.00606	-.00286	-.00392	.00100	.00103	-.00064
SDev	.00044	.00027	.00003	.00210	.00029	.00023
%RSD	7.3387	9.3362	.76683	210.11	28.219	35.256

#1	-.00637	-.00267	-.00390	.00248	.00124	-.00080
#2	-.00574	-.00305	-.00395	-.00049	.00083	-.00048

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	18857	--	--	--	--	--	--
SDev	66.64481	--	--	--	--	--	--
%RSD	.3534189	--	--	--	--	--	--
#1	18810	--	--	--	--	--	--
#2	18904	--	--	--	--	--	--

Method: METTRA Sample Name: DEV68E Operator: RJG
 Run Time: 07/17/00 15:36:04
 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	.00020	5.1321	.00514	.04436	.00056	63.176	.00007
SDev	.00049	.0043	.00097	.00018	.00006	.059	.00001
%RSD	244.76	.08388	18.875	.40125	10.140	.09288	15.169

#1	-.00014	5.1351	.00446	.04449	.00052	63.218	.00006
#2	.00054	5.1290	.00583	.04424	.00060	63.135	.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	.00011	.01562	.05878	.00576	.04080	.00025	.00674
SDev	.00003	.00015	.00003	.01416	.00040	.00001	.00015
%RSD	30.873	.95863	.05187	245.77	.97721	4.6313	2.2474

#1	.00009	.01572	.05876	-.00425	.04052	.00026	.00664
#2	.00014	.01551	.05880	.01577	.04108	.00024	.00685

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	.00380	.00164	-.00200	-.00079	.00732	.01111	.00985
SDev	.00166	.00096	.00167	.00080	.00205	.00056	.00031
%RSD	43.565	58.661	83.896	101.38	27.961	5.0616	3.1137

#1	.00497	.00232	-.00318	-.00135	.00587	.01151	.00963
#2	.00263	.00096	-.00081	-.00022	.00877	.01071	.01006

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	.00795	.00609	.00671	-.00222	.02910	.00193
SDev	.00125	.00176	.00159	.00059	.00117	.00012
%RSD	15.742	28.931	23.726	26.414	4.0357	6.3641

#1	.00884	.00734	.00784	-.00263	.02827	.00184
#2	.00707	.00485	.00559	-.00180	.02993	.00202

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	18665	--	--	--	--	--	--
SDev	3.995430	--	--	--	--	--	--
%RSD	.0214060	--	--	--	--	--	--
#1	18662	--	--	--	--	--	--
#2	18668	--	--	--	--	--	--

Method: METTRA Sample Name: DEV6GE Operator: RJG
 Run Time: 07/17/00 15:40:14
 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	.00040	2.7124	.00598	.05332	.00048	70.618	-.00007
SDev	.00078	.0029	.00092	.00038	.00003	.293	.00010
%RSD	197.00	.10690	15.415	.72144	5.5607	.41449	141.43
#1	.00095	2.7144	.00532	.05359	.00049	70.825	.00000
#2	-.00016	2.7103	.00663	.05305	.00046	70.412	-.00014
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	.00051	.01693	.08367	.01723	.04413	.00032	.00805
SDev	.00053	.00037	.00055	.00065	.00486	.00002	.00040
%RSD	103.73	2.1908	.65275	3.8039	11.020	6.9011	4.9902
#1	.00088	.01719	.08406	.01769	.04757	.00034	.00833
#2	.00014	.01667	.08328	.01676	.04070	.00031	.00776
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	.00369	-.00129	-.00126	-.00127	.00990	.01173	.01112
SDev	.00131	.00129	.00146	.00054	.00069	.00243	.00139
%RSD	35.414	100.54	115.89	42.654	6.9271	20.730	12.529
#1	.00462	-.00037	-.00229	-.00165	.00942	.01344	.01210
#2	.00277	-.00220	-.00023	-.00088	.01039	.01001	.01013
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	.00779	.00751	.00760	-.00065	.03392	.00278	
SDev	.00158	.00096	.00117	.00145	.00071	.00005	
%RSD	20.244	12.802	15.340	223.72	2.0819	1.6967	
#1	.00667	.00683	.00678	-.00168	.03441	.00282	
#2	.00890	.00819	.00843	.00038	.03342	.00275	
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	18588	--	--	--	--	--	--
SDev	17.50089	--	--	--	--	--	--
%RSD	.0941497	--	--	--	--	--	--
#1	18601	--	--	--	--	--	--
#2	18576	--	--	--	--	--	--

Method: METTRA Sample Name: DEXXPE Operator: RJG
 Run Time: 07/17/00 15:44:23
 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	.00053	3.4463	.00545	.04631	.00048	63.667	.00017
SDev	.00027	.0033	.00167	.00014	.00002	.109	.00003
%RSD	50.096	.09695	30.568	.30549	3.4539	.17161	18.455
#1	.00072	3.4486	.00663	.04641	.00047	63.744	.00020
#2	.00035	3.4439	.00427	.04621	.00049	63.589	.00015
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	.00010	.01515	.05399	.02410	.03850	.00030	.00553
SDev	.00002	.00062	.00034	.00821	.00000	.00003	.00000
%RSD	18.436	4.0781	.63369	34.066	.00820	11.417	.01110
#1	.00011	.01558	.05375	.02990	.03850	.00033	.00553
#2	.00008	.01471	.05423	.01829	.03850	.00028	.00554
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	.00238	-.00125	-.00090	-.00102	.00604	.00996	.00865
SDev	.00057	.00032	.00040	.00038	.00020	.00120	.00073
%RSD	24.027	25.955	44.887	37.127	3.2488	12.002	8.4583
#1	.00197	-.00148	-.00118	-.00128	.00618	.00911	.00814
#2	.00278	-.00102	-.00061	-.00075	.00590	.01080	.00917
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	.00693	.01110	.00971	-.00239	.03342	.00270	
SDev	.00374	.00343	.00353	.00225	.00015	.00025	
%RSD	53.996	30.849	36.346	94.181	.44301	9.3632	
#1	.00957	.01352	.01221	-.00399	.03353	.00252	
#2	.00428	.00868	.00722	-.00080	.03332	.00287	
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	18517	--	--	--	--	--	--
SDev	1.625517	--	--	--	--	--	--
%RSD	.0087787	--	--	--	--	--	--
#1	18518	--	--	--	--	--	--
#2	18516	--	--	--	--	--	--

Method: METTRA Sample Name: DEXXQE Operator: RJG
 Run Time: 07/17/00 15:48:33
 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	.00030	4.3761	.00612	.03354	.00049	50.702	.00003
SDev	.00000	.0466	.00002	.00040	.00017	.671	.00012
%RSD	.46343	1.0651	.29794	1.1912	35.213	1.3225	359.49
#1	.00030	4.4091	.00613	.03382	.00037	51.176	-.00005
#2	.00030	4.3432	.00611	.03326	.00061	50.228	.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	.00020	.01261	.02887	.02914	.04594	.00028	.00436
SDev	.00029	.00027	.00023	.00022	.00045	.00002	.00047
%RSD	147.58	2.1333	.80506	.77333	.98501	6.0885	10.826
#1	.00041	.01280	.02903	.02899	.04626	.00030	.00469
#2	-.00001	.01242	.02870	.02930	.04562	.00027	.00402
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	.00125	-.00060	-.00171	-.00134	.00822	.00994	.00936
SDev	.00046	.00053	.00012	.00026	.00058	.00003	.00017
%RSD	36.989	88.376	7.2171	19.328	7.0367	.32617	1.8262
#1	.00092	-.00023	-.00162	-.00116	.00781	.00996	.00924
#2	.00158	-.00098	-.00180	-.00152	.00863	.00991	.00949
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	.00566	.01074	.00905	-.00389	.02844	.00174	
SDev	.00265	.00067	.00043	.00055	.00030	.00000	
%RSD	46.725	6.2430	4.7938	14.049	1.0418	.21073	
#1	.00379	.01121	.00874	-.00427	.02865	.00174	
#2	.00753	.01026	.00935	-.00350	.02823	.00174	
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	18558	--	--	--	--	--	--
SDev	193.4641	--	--	--	--	--	--
%RSD	1.042495	--	--	--	--	--	--
#1	18421	--	--	--	--	--	--
#2	18695	--	--	--	--	--	--

Method: METTRA Sample Name: DEXXRE Operator: RJG
 Run Time: 07/17/00 15:52:42
 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	-.00005	2.4365	.00654	.03881	.00051	57.870	-.00008
SDev	.00006	.0064	.00004	.00014	.00003	.143	.00019
%RSD	129.77	.26455	.55424	.35184	5.3093	.24706	241.91
#1	-.00009	2.4410	.00657	.03890	.00049	57.972	.00006
#2	-.00000	2.4319	.00651	.03871	.00053	57.769	-.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	.00000	.01344	.04413	.01450	.04649	.00013	.00477
SDev	.00019	.00010	.00019	.00034	.00296	.00002	.00063
%RSD	14682.	.70530	.44240	2.3103	6.3622	17.082	13.181
#1	.00014	.01351	.04427	.01474	.04439	.00011	.00521
#2	-.00013	.01338	.04399	.01427	.04858	.00014	.00432
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	.00248	-.00088	-.00054	-.00065	.01134	.01066	.01089
SDev	.00014	.00053	.00090	.00078	.00135	.00017	.00056
%RSD	5.5523	59.777	167.83	119.25	11.928	1.6090	5.1872
#1	.00258	-.00051	.00010	-.00010	.01038	.01054	.01049
#2	.00238	-.00125	-.00117	-.00120	.01229	.01078	.01129
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	.00643	.00849	.00781	-.00237	.03415	.00098	
SDev	.00177	.00175	.00176	.00151	.00037	.00001	
%RSD	27.553	20.591	22.500	63.538	1.0893	.47124	
#1	.00518	.00726	.00657	-.00131	.03441	.00098	
#2	.00768	.00973	.00905	-.00344	.03388	.00098	
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	18632	--	--	--	--	--	--
SDev	42.24963	--	--	--	--	--	--
%RSD	.2267587	--	--	--	--	--	--
#1	18602	--	--	--	--	--	--
#2	18662	--	--	--	--	--	--

Method: METTRA Sample Name: DG30KBE Operator: RJG
 Run Time: 07/17/00 15:56:52
 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
Avg	.00040	.11845	.00066	.00008	.00049	.04165	.00002
SDev	.00029	.00621	.00060	.00005	.00002	.00231	.00011
%RSD	72.514	5.2455	91.620	69.610	4.5157	5.5370	580.08
#1	.00019	.12284	.00108	.00011	.00051	.04328	.00010
#2	.00060	.11405	.00023	.00004	.00048	.04002	-.00006
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	-.00029	.00022	-.00398	.02207	-.00021	.00006	.00010
SDev	.00004	.00008	.00059	.00217	.00347	.00001	.00057
%RSD	13.699	37.648	14.883	9.8402	1675.1	22.473	550.93
#1	-.00026	.00028	-.00440	.02054	-.00266	.00005	-.00030
#2	-.00032	.00016	-.00357	.02361	.00224	.00007	.00051
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	-.00029	.00054	-.00115	-.00058	-.00074	-.00002	-.00026
SDev	.00083	.00256	.00012	.00077	.00242	.00256	.00090
%RSD	284.51	472.70	10.618	132.01	327.69	10419.	343.27
#1	-.00088	-.00127	-.00106	-.00113	.00097	-.00184	-.00090
#2	.00030	.00235	-.00123	-.00004	-.00245	.00179	.00037
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	-.00181	-.00074	-.00110	-.00306	.00262	.00114	
SDev	.00181	.00314	.00149	.00037	.00016	.00007	
%RSD	100.06	421.94	135.65	12.220	6.0634	6.3743	
#1	-.00309	.00147	-.00004	-.00279	.00251	.00119	
#2	-.00053	-.00296	-.00215	-.00332	.00273	.00109	
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	18569	--	--	--	--	--	--
SDev	73.53911	--	--	--	--	--	--
%RSD	.3960358	--	--	--	--	--	--
#1	18621	--	--	--	--	--	--
#2	18517	--	--	--	--	--	--

Method: METTRA Sample Name: DFW82BE Operator: RJG
 Run Time: 07/17/00 16:01:01
 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
Avg	.00025	.12609	.00041	.00029	.00047	.06423	.00018
SDev	.00026	.00129	.00025	.00011	.00001	.00090	.00014
%RSD	105.93	1.0205	61.063	39.164	3.0250	1.4069	79.673
#1	.00006	.12700	.00024	.00037	.00048	.06359	.00027
#2	.00043	.12518	.00059	.00021	.00046	.06487	.00008
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	-.00013	.00054	-.00358	.01277	.01352	.00015	-.00073
SDev	.00005	.00019	.00031	.00889	.00248	.00006	.00021
%RSD	40.316	35.810	8.5687	69.577	18.344	37.938	28.248
#1	-.00016	.00041	-.00380	.00649	.01176	.00011	-.00088
#2	-.00009	.00068	-.00336	.01906	.01527	.00019	-.00059
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	-.00026	-.00036	-.00274	-.00195	-.00300	.00091	-.00039
SDev	.00009	.00151	.00136	.00040	.00227	.00092	.00137
%RSD	33.469	418.77	49.387	20.519	75.633	100.58	351.87
#1	-.00033	-.00143	-.00179	-.00167	-.00140	.00156	.00058
#2	-.00020	.00071	-.00370	-.00223	-.00460	.00026	-.00136
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	-.00337	-.00078	-.00164	-.00318	.00000	.00345	
SDev	.00426	.00258	.00030	.00152	.00000	.00001	
%RSD	126.61	332.11	18.240	47.900	69.577	.30812	
#1	-.00638	.00105	-.00143	-.00210	.00000	.00345	
#2	-.00035	-.00260	-.00185	-.00425	.00001	.00346	
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	18585	--	--	--	--	--	--
SDev	46.98808	--	--	--	--	--	--
%RSD	.2528249	--	--	--	--	--	--
#1	18618	--	--	--	--	--	--
#2	18552	--	--	--	--	--	--

Method: METTRA Sample Name: DG19EBE Operator: RJG
 Run Time: 07/17/00 16:05:11
 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	.00021	.12798	.00036	.00014	.00041	.04273	.00014
SDev	.00012	.00908	.00011	.00006	.00005	.00005	.00011
%RSD	56.813	7.0953	30.853	42.657	11.517	.10880	76.508
#1	.00013	.13440	.00028	.00019	.00038	.04276	.00006
#2	.00030	.12156	.00044	.00010	.00045	.04270	.00021
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	-.00018	.00018	-.00406	.01072	.00704	.00006	.00008
SDev	.00019	.00001	.00014	.01114	.00309	.00001	.00000
%RSD	107.15	4.9241	3.3909	103.93	43.833	19.838	.80921
#1	-.00004	.00017	-.00415	.00284	.00923	.00007	.00008
#2	-.00032	.00019	-.00396	.01859	.00486	.00005	.00007
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	.00021	-.00398	-.00104	-.00202	.00173	-.00050	.00024
SDev	.00101	.00131	.00042	.00072	.00164	.00210	.00085
%RSD	493.19	32.877	40.173	35.393	94.992	417.91	357.26
#1	.00092	-.00490	-.00134	-.00253	.00289	-.00199	-.00037
#2	-.00051	-.00305	-.00075	-.00152	.00057	.00098	.00084
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	-.00575	-.00089	-.00251	-.00261	.00147	.00145	
SDev	.00121	.00263	.00135	.00241	.00208	.00010	
%RSD	21.004	294.74	53.837	92.095	140.80	6.9856	
#1	-.00661	.00097	-.00155	-.00091	.00294	-.00137	
#2	-.00490	-.00275	-.00347	-.00432	.00001	.00152	
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	18461	--	--	--	--	--	--
SDev	7.318279	--	--	--	--	--	--
%RSD	.0396426	--	--	--	--	--	--
#1	18455	--	--	--	--	--	--
#2	18466	--	--	--	--	--	--

Method: METTRA Sample Name: DG30KCE Operator: RJG
 Run Time: 07/17/00 16:09:20
 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
Avg	H.09613	H4.0462	H3.7818	H3.7092	H.09462	H96.732	H.09007
SDev	.00097	.0197	.0178	.0170	.00041	.508	.00002
%RSD	1.0050	.48571	.47190	.45699	.43784	.52560	.02050
#1	H.09682	H4.0601	H3.7944	H3.7212	H.09491	H97.091	H.09009
#2	H.09545	H4.0323	H3.7692	H3.6972	H.09432	H96.372	H.09006
Errors	LC High	LC High	LC High	LC High	LC High	LC High	LC High
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	H.93579	H.38049	H.46804	H1.7960	H97.133	H.93062	H1.9083
SDev	.00333	.00135	.00202	.0007	.433	.00366	.0016
%RSD	.35551	.35363	.43120	.04059	.44583	.39384	.08176
#1	H.93814	H.38144	H.46947	H1.7965	H97.440	H.93322	H1.9094
#2	H.93344	H.37954	H.46661	H1.7955	H96.827	H.92803	H1.9072
Errors	LC High	LC High	LC High	LC High	LC High	LC High	LC High
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	H.93548	.93721	.91886	H.92497	.96972	.95698	H.96122
SDev	.00714	.00175	.00743	.00554	.01192	.00065	.00441
%RSD	.76314	.18652	.80842	.59859	1.2296	.06823	.45840
#1	H.94053	.93844	.92411	H.92888	.97815	.95744	H.96434
#2	H.93043	.93597	.91361	H.92105	.96129	.95651	H.95810
Errors	LC High	NOCHECK	NOCHECK	LC High	NOCHECK	NOCHECK	LC High
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	3.7522	3.8358	H3.8079	H3.8281	H.94203	H.95301	
SDev	.0010	.0409	.0276	.0262	.00522	.00581	
%RSD	.02588	1.0654	.72429	.68414	.55433	.60970	
#1	3.7529	3.8647	H3.8274	H3.8466	H.94572	H.95712	
#2	3.7515	3.8069	H3.7884	H3.8096	H.93834	H.94890	
Errors	NOCHECK	NOCHECK	LC High	LC High	LC High	LC High	
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	18638	--	--	--	--	--	--
SDev	59.68009	--	--	--	--	--	--
%RSD	.3201979	--	--	--	--	--	--
#1	18596	--	--	--	--	--	--
#2	18681	--	--	--	--	--	--

Method: METTRA Sample Name: CCV3-5 Operator: RJG
 Run Time: 07/17/00 16:13:30
 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	.97922	23.060	.49247	1.8912	1.9615	49.075	.47334
SDev	.00245	.077	.00099	.0046	.0021	.059	.00097
%RSD	.24979	.33579	.20069	.24315	.10573	.11987	.20543
#1	.97749	23.005	.49177	1.8880	1.9600	49.033	.47265
#2	.98095	23.115	.49317	1.8945	1.9630	49.116	.47403
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	1.9358	1.9402	1.8740	24.270	48.940	1.9159	1.9422
SDev	.0051	.0061	.0043	.045	.112	.0046	.0133
%RSD	.26469	.31604	.22951	.18615	.22896	.24184	.68695
#1	1.9321	1.9359	1.8709	24.238	48.861	1.9126	1.9327
#2	1.9394	1.9446	1.8770	24.301	49.019	1.9191	1.9516
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	1.9357	.48257	.47982	.48073	.50214	.48717	.49215
SDev	.0010	.00077	.00170	.00087	.00333	.00030	.00091
%RSD	.05152	.16029	.35344	.18171	.66262	.06120	.18472
#1	1.9350	.48202	.48102	.48135	.50449	.48696	.49279
#2	1.9364	.48312	.47862	.48012	.49978	.48738	.49151
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	.49338	.50049	.49812	.98046	1.9265	1.9311	
SDev	.00030	.00510	.00350	.00191	.0014	.0022	
%RSD	.06069	1.0187	.70272	.19472	.07478	.11413	
#1	.49317	.49688	.49565	.97911	1.9254	1.9295	
#2	.49360	.50409	.50060	.98181	1.9275	1.9326	
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	

	1	2	3	4	5	6	7
IntStd	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Mode	Y	--	--	--	--	--	--
Elem	371.030	--	--	--	--	--	--
Wavlen	18870	--	--	--	--	--	--
Avge	41.18897	--	--	--	--	--	--
SDev	.2182790	--	--	--	--	--	--
%RSD							
#1	18899	--	--	--	--	--	--
#2	18841	--	--	--	--	--	--

Method: METTRA Sample Name: CCB5

Operator: RJG

Run Time: 07/17/00 16:17:39

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
Avg	.00049	.12356	.00156	.00039	.00115	.02247	.00010
SDev	.00023	.00242	.00006	.00006	.00009	.02906	.00006
%RSD	46.562	1.9619	3.6208	15.774	7.7456	129.28	61.524
#1	.00033	.12527	.00160	.00034	.00121	.00193	.00014
#2	.00066	.12184	.00152	.00043	.00108	.04302	.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
Avg	.00043	.00052	-.00423	.00925	.01103	.00032	.00423
SDev	.00033	.00029	.00062	.00947	.00043	.00004	.00159
%RSD	76.000	56.064	14.617	102.42	3.8918	11.153	37.603
#1	.00020	.00031	-.00467	.01595	.01073	.00029	.00536
#2	.00066	.00072	-.00379	.00255	.01134	.00034	.00311
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	-.00336	-.00227	-.00264	.00193	.00051	.00098
SDev	.00000	.00104	.00206	.00103	.00067	.00139	.00071
%RSD	.71119	31.095	90.604	38.968	34.467	272.26	72.036
#1	.00052	-.00410	-.00082	-.00191	.00240	-.00047	.00048
#2	.00052	-.00262	-.00373	L-.00336	.00146	.00150	.00148
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	-.00125	-.00053	-.00077	-.00080	.00205	-.00082	
SDev	.00169	.00416	.00221	.00049	.00116	.00017	
%RSD	135.54	789.61	288.58	61.149	56.602	20.646	
#1	-.00005	-.00347	-.00233	-.00045	.00123	-.00070	
#2	-.00244	.00242	.00080	-.00115	.00287	-.00094	
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	18955	--	--	--	--	--	--
SDev	64.09812	--	--	--	--	--	--
%RSD	.3381590	--	--	--	--	--	--
#1	19000	--	--	--	--	--	--
#2	18910	--	--	--	--	--	--

Method: METTRA Sample Name: DF3WVE Operator: RJG
 Run Time: 07/17/00 16:21:49
 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
Avg	.00052	1.8680	.00855	.03699	.00048	55.787	.00017
SDev	.00090	.0152	.00082	.00233	.00007	.485	.00010
%RSD	172.17	.81523	9.5702	6.2934	15.151	.86907	59.994
#1	-.00011	1.8788	.00913	.03535	.00053	56.130	.00010
#2	.00116	1.8572	.00797	.03864	.00043	55.444	.00024
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	.00072	.01939	.10391	.01488	.07361	.00032	.00789
SDev	.00009	.00132	.00019	.01622	.00062	.00010	.00016
%RSD	12.453	6.7913	.18510	109.03	.84697	31.207	2.0077
#1	.00066	.01845	.10405	.00341	.07317	.00025	.00800
#2	.00078	.02032	.10378	.02635	.07405	.00039	.00778
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	.00360	-.00065	-.00192	-.00150	.00663	.00992	.00883
SDev	.00020	.00078	.00075	.00024	.00066	.00103	.00090
%RSD	5.5025	119.47	38.939	15.970	9.9487	10.356	10.254
#1	.00346	-.00121	-.00139	-.00133	.00710	.01065	.00947
#2	.00374	-.00010	-.00245	-.00167	.00617	.00919	.00819
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	.00362	.00910	.00727	-.00257	.03980	.00304	
SDev	.00089	.00158	.00076	.00149	.00037	.00007	
%RSD	24.580	17.376	10.424	58.038	.93759	2.2936	
#1	.00299	.01021	.00781	-.00152	.03954	.00299	
#2	.00425	.00798	.00674	-.00363	.04007	.00309	
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	18322	--	--	--	--	--	--
SDev	106.4196	--	--	--	--	--	--
%RSD	.5808199	--	--	--	--	--	--
#1	18247	--	--	--	--	--	--
#2	18398	--	--	--	--	--	--

Method: METTRA Sample Name: DF3WVP5E Operator: RJG
 Run Time: 07/17/00 16:25:59
 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	.00059	.45361	.00196	.00676	.00068	10.733	.00009
SDev	.00017	.00052	.00065	.00002	.00003	.015	.00005
%RSD	29.269	.11540	33.172	.21497	4.2320	.13795	54.327
#1	.00071	.45398	.00241	.00677	.00066	10.743	.00012
#2	.00047	.45324	.00150	.00675	.00070	10.722	.00005
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00005	.00368	.01524	.01294	.01662	.00010	.00114
SDev	.00005	.00019	.00045	.00000	.00124	.00003	.00030
%RSD	101.41	5.1046	2.9765	.02985	7.4546	33.643	26.567
#1	.00009	.00355	.01492	.01294	.01574	.00008	.00135
#2	.00001	.00382	.01556	.01295	.01749	.00013	.00093
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00002	-.00254	.00080	-.00031	.00086	.00233	.00184
SDev	.00017	.00371	.00156	.00019	.00016	.00044	.00024
%RSD	928.86	146.45	195.03	62.822	18.444	18.812	13.024
#1	.00010	-.00516	.00191	-.00045	.00075	.00264	.00201
#2	-.00014	.00009	-.00030	-.00017	.00097	.00202	.00167
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	-.00073	.00132	.00064	-.00133	.00748	-.00013	
SDev	.00148	.00159	.00057	.00148	.00001	.00000	
%RSD	202.78	120.49	89.040	110.87	.13768	1.9902	
#1	-.00178	.00244	.00104	-.00029	.00747	-.00014	
#2	.00032	-.00020	.00024	-.00238	.00749	-.00013	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	18685	--	--	--	--	--	--
SDev	25.73758	--	--	--	--	--	--
%RSD	.1377453	--	--	--	--	--	--
#1	18703	--	--	--	--	--	--
#2	18667	--	--	--	--	--	--

Method: METTRA Sample Name: DF3WVSE Operator: RJG
 Run Time: 07/17/00 16:30:09
 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	.09794	6.0387	3.8536	3.8090	.09621	154.13	.09030
SDev	.00030	.0208	.0227	.0226	.00050	.82	.00043
%RSD	.30644	.34407	.58872	.59311	.51644	.53230	.47321
#1	.09815	6.0534	3.8696	3.8250	.09656	154.71	.09061
#2	.09773	6.0240	3.8376	3.7931	.09586	153.55	.09000
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	.94433	.40221	.58896	1.8326	98.474	.94385	1.9380
SDev	.00363	.00100	.00375	.0199	.406	.00382	.0012
%RSD	.38407	.24759	.63626	1.0870	.41183	.40470	.06378
#1	.94689	.40292	.59161	1.8185	98.760	.94655	1.9389
#2	.94176	.40151	.58631	1.8467	98.187	.94115	1.9371
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	.95034	.94082	.92036	.92717	.98521	.97476	.97824
SDev	.00881	.00768	.00201	.00122	.00092	.00831	.00524
%RSD	.92670	.81676	.21858	.13126	.09292	.85288	.53569
#1	.95657	.94625	.91893	.92803	.98456	.98064	.98195
#2	.94411	.93538	.92178	.92631	.98585	.96888	.97453
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	3.7759	3.8526	3.8271	3.8725	.99933	.96018	
SDev	.0109	.0014	.0027	.0194	.00535	.00587	
%RSD	.28976	.03525	.07153	.50174	.53556	.61104	
#1	3.7836	3.8517	3.8290	3.8862	1.0031	.96433	
#2	3.7681	3.8536	3.8251	3.8587	.99554	.95603	
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	

	1	2	3	4	5	6	7
IntStd	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Mode	Y	--	--	--	--	--	--
Elem	371.030	--	--	--	--	--	--
Wavlen	18315	--	--	--	--	--	--
Avge	79.05509	--	--	--	--	--	--
SDev	.4316353	--	--	--	--	--	--
%RSD							
#1	18259	--	--	--	--	--	--
#2	18371	--	--	--	--	--	--

Method: METTRA Sample Name: DF3WVDE Operator: RJG
 Run Time: 07/17/00 16:34:18
 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	.09772	5.9755	3.8369	3.7814	.09575	152.77	.09033
SDev	.00000	.0055	.0073	.0115	.00054	.52	.00008
%RSD	.00382	.09178	.19082	.30461	.56425	.34163	.08788

#1	.09772	5.9716	3.8420	3.7895	.09613	153.14	.09028
#2	.09772	5.9794	3.8317	3.7732	.09536	152.40	.09039

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	.94041	.40067	.58348	1.8222	98.225	.93941	1.9325
SDev	.00165	.00036	.00137	.0074	.137	.00028	.0038
%RSD	.17577	.09085	.23429	.40400	.13987	.02966	.19459

#1	.93924	.40092	.58444	1.8170	98.322	.93961	1.9298
#2	.94158	.40041	.58251	1.8274	98.128	.93921	1.9351

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	.94598	.94368	.92320	.93002	.98591	.97561	.97904
SDev	.00601	.00126	.00759	.00548	.00709	.00818	.00782
%RSD	.63534	.13304	.82207	.58925	.71962	.83849	.79862

#1	.95023	.94279	.91783	.92614	.98089	.96983	.97351
#2	.94173	.94456	.92856	.93389	.99093	.98140	.98457

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	3.7726	3.8614	3.8319	3.8642	.99382	.95881
SDev	.0087	.0263	.0205	.0132	.00534	.00270
%RSD	.23104	.68177	.53399	.34113	.53694	.28215

#1	3.7664	3.8428	3.8174	3.8735	.99759	.96072
#2	3.7788	3.8800	3.8463	3.8548	.99005	.95689

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

	1	2	3	4	5	6	7
IntStd	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Mode	Y	--	--	--	--	--	--
Elem	371.030	--	--	--	--	--	--
Wavlen	18338	--	--	--	--	--	--
Avge	31.21904	--	--	--	--	--	--
SDev	.1702393	--	--	--	--	--	--
%RSD							
#1	18360	--	--	--	--	--	--
#2	18316	--	--	--	--	--	--

Method: METTRA Sample Name: DF3X2E Operator: RJG
 Run Time: 07/17/00 16:38:28
 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	.00014	2.8318	.00886	.02297	.00055	44.860	.00003
SDev	.00033	.0023	.00044	.00009	.00001	.042	.00024
%RSD	243.36	.08296	4.9733	.39193	2.2475	.09288	794.43
#1	-.00010	2.8334	.00855	.02304	.00056	44.889	-.00014
#2	.00037	2.8301	.00917	.02291	.00054	44.830	.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	.00048	.01605	.05855	.01978	.07817	.00026	.00860
SDev	.00007	.00015	.00030	.00640	.00460	.00005	.00127
%RSD	14.470	.93514	.50834	32.376	5.8884	17.395	14.774
#1	.00043	.01595	.05834	.01525	.08142	.00029	.00950
#2	.00053	.01616	.05876	.02431	.07491	.00023	.00770
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	.00209	.00194	-.00171	-.00050	.00914	.00877	.00889
SDev	.00088	.00026	.00004	.00011	.00171	.00097	.00007
%RSD	42.053	13.272	2.4703	22.987	18.731	11.031	.83899
#1	.00147	.00212	-.00168	-.00041	.01036	.00808	.00884
#2	.00271	.00176	-.00174	-.00058	.00793	.00945	.00895
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	.00704	.01116	.00978	.00004	.03207	.00216	
SDev	.00363	.00149	.00022	.00077	.00078	.00002	
%RSD	51.550	13.334	2.2049	1984.7	2.4436	.94021	
#1	.00447	.01221	.00963	.00059	.03152	.00218	
#2	.00960	.01010	.00994	-.00051	.03263	.00215	
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	18567	--	--	--	--	--	--
SDev	24.85508	--	--	--	--	--	--
%RSD	.1338639	--	--	--	--	--	--
#1	18585	--	--	--	--	--	--
#2	18550	--	--	--	--	--	--

Method: METTRA Sample Name: DF3X3E Operator: RJG
 Run Time: 07/17/00 16:42:38
 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
Avg	.00075	1.2679	.00986	.03118	.00059	48.311	-.00011
SDev	.00012	.0063	.00091	.00025	.00003	.176	.00001
%RSD	15.493	.49968	9.2315	.79263	4.9444	.36457	12.654

#1	.00083	1.2634	.01050	.03100	.00061	48.187	-.00012
#2	.00067	1.2724	.00921	.03135	.00057	48.436	-.00010

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	.00056	.01688	.08284	.01869	.07885	.00021	.00820
SDev	.00024	.00016	.00030	.00356	.00357	.00004	.00040
%RSD	43.550	.92653	.36018	19.019	4.5326	20.359	4.8454

#1	.00039	.01699	.08263	.01618	.08138	.00024	.00848
#2	.00073	.01677	.08305	.02120	.07633	.00018	.00792

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	.00015	-.00062	-.00037	.00899	.00873	.00882
SDev	.00015	.00117	.00126	.00045	.00435	.00049	.00177
%RSD	5.6860	791.18	201.53	122.26	48.359	5.5627	20.095

#1	.00280	.00097	-.00151	-.00068	.00592	.00839	.00757
#2	.00259	-.00068	.00026	-.00005	.01207	.00908	.01007

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	.00419	.00709	.00612	-.00095	.04006	.00058
SDev	.00053	.00025	.00035	.00023	.00012	.00003
%RSD	12.766	3.5753	5.6700	24.662	.29015	5.6590

#1	.00381	.00691	.00588	-.00079	.03997	.00056
#2	.00457	.00727	.00637	-.00112	.04014	.00060

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

664 636

	1	2	3	4	5	6	7
IntStd	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Mode	Y	--	--	--	--	--	--
Elem	371.030	--	--	--	--	--	--
Wavlen	18644	--	--	--	--	--	--
Avge	122.0118	--	--	--	--	--	--
SDev	.6544251	--	--	--	--	--	--
%RSD							
#1	18730	--	--	--	--	--	--
#2	18558	--	--	--	--	--	--

Method: METTRA Sample Name: DF8TRE Operator: RJG
 Run Time: 07/17/00 16:46:48
 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	1.6716	.00908	.02814	.00054	48.415	-.00001
SDev	.00007	.0027	.00056	.00018	.00000	.026	.00022
%RSD	22.794	.16167	6.1306	.64373	.65265	.05273	4187.9

#1	.00037	1.6697	.00869	.02801	.00054	48.397	.00015
#2	.00027	1.6735	.00948	.02827	.00055	48.434	-.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
Avge	.00025	.01294	.05406	.02599	.08944	.00047	.00555
SDev	.00016	.00004	.00006	.00179	.00118	.00002	.00010
%RSD	63.141	.30992	.10603	6.8925	1.3216	4.9611	1.7847

#1	.00036	.01297	.05402	.02472	.09027	.00045	.00562
#2	.00014	.01292	.05410	.02725	.08860	.00048	.00548

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	.00177	-.00141	-.00144	-.00143	.00634	.00838	.00770
SDev	.00035	.00016	.00108	.00077	.00073	.00167	.00087
%RSD	19.652	11.566	74.793	54.029	11.545	19.867	11.252

#1	.00201	-.00130	-.00068	-.00089	.00583	.00956	.00832
#2	.00152	-.00153	-.00221	-.00198	.00686	.00720	.00709

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	.00779	.00877	.00844	-.00098	.03825	.00127
SDev	.00027	.00212	.00151	.00159	.00002	.00010
%RSD	3.4325	24.220	17.832	161.80	.04632	7.8747

#1	.00798	.01027	.00951	.00014	.03824	.00120
#2	.00760	.00726	.00738	-.00211	.03826	.00134

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

664 638

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	18663	--	--	--	--	--	--
SDev	8.343031	--	--	--	--	--	--
%RSD	.0447046	--	--	--	--	--	--
#1	18668	--	--	--	--	--	--
#2	18657	--	--	--	--	--	--

Method: METTRA Sample Name: DF8TWE Operator: RJG
 Run Time: 07/17/00 16:50:58
 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
Avg	.00044	2.5739	.01050	.01942	.00050	39.224	-.00002
SDev	.00003	.0064	.00084	.00004	.00003	.052	.00011
%RSD	6.0005	.24779	7.9519	.20951	6.2142	.13285	475.16
#1	.00042	2.5694	.00991	.01939	.00047	39.187	-.00010
#2	.00046	2.5784	.01109	.01945	.00052	39.261	.00006
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	.00002	.01157	.02958	.02336	.08339	.00020	.00385
SDev	.00002	.00052	.00001	.01422	.00031	.00001	.00001
%RSD	71.793	4.4921	.01669	60.865	.37346	5.3405	.18233
#1	.00003	.01120	.02957	.01331	.08361	.00019	.00385
#2	.00001	.01194	.02958	.03342	.08317	.00021	.00384
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	.00132	-.00104	.00020	-.00021	.00995	.01176	.01116
SDev	.00013	.00299	.00015	.00089	.00134	.00312	.00164
%RSD	9.7981	287.61	74.638	425.45	13.444	26.560	14.674
#1	.00122	.00108	.00010	.00042	.00901	.01396	.01231
#2	.00141	-.00316	.00031	-.00084	.01090	.00955	.01000
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	.00271	.00756	.00595	-.00342	.02884	.00171	
SDev	.00522	.00142	.00269	.00005	.00203	.00001	
%RSD	192.49	18.806	45.209	1.4127	7.0569	.38745	
#1	-.00098	.00655	.00405	-.00346	.02740	.00172	
#2	.00641	.00856	.00785	-.00339	.03028	.00171	
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	18564	--	--	--	--	--	--
SDev	24.53605	--	--	--	--	--	--
%RSD	.1321715	--	--	--	--	--	--
#1	18546	--	--	--	--	--	--
#2	18581	--	--	--	--	--	--

Method: METTRA Sample Name: DF8TXE Operator: RJG
 Run Time: 07/17/00 16:55:07
 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
Avge	.00054	1.1102	.01177	.03539	.00064	41.630	-.00001
SDev	.00003	.0042	.00023	.00005	.00001	.041	.00012
%RSD	4.8818	.37984	1.9708	.12871	.97080	.09894	1814.6

#1	.00052	1.1132	.01193	.03536	.00064	41.601	-.00009
#2	.00056	1.1072	.01160	.03542	.00064	41.660	.00008

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	.00062	.01295	.04429	.02168	.09256	.00027	.00519
SDev	.00012	.00004	.00007	.00495	.00200	.00005	.00041
%RSD	19.699	.31214	.15414	22.828	2.1573	16.643	7.9312

#1	.00071	.01292	.04424	.02518	.09114	.00024	.00548
#2	.00053	.01298	.04434	.01818	.09397	.00030	.00490

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	.00300	-.00166	-.00089	-.00115	.00985	.01059	.01034
SDev	.00035	.00229	.00005	.00073	.00085	.00076	.00079
%RSD	11.563	138.28	5.8459	63.557	8.5842	7.1490	7.6040

#1	.00275	-.00328	-.00085	-.00166	.00925	.01006	.00979
#2	.00324	-.00004	-.00093	-.00063	.01044	.01113	.01090

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	.00559	.00605	.00590	-.00132	.03896	.00101
SDev	.00109	.00266	.00214	.00166	.00013	.00010
%RSD	19.572	44.030	36.314	125.52	.33154	9.3398

#1	.00636	.00794	.00741	-.00015	.03887	.00095
#2	.00481	.00417	.00438	-.00250	.03905	.00108

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	18672	--	--	--	--	--	--
SDev	7.671833	--	--	--	--	--	--
%RSD	.0410870	--	--	--	--	--	--
#1	18667	--	--	--	--	--	--
#2	18678	--	--	--	--	--	--

Method: METTRA Sample Name: CCV3-6 Operator: RJG
 Run Time: 07/17/00 16:59:17
 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
Avg	.98381	23.127	.49471	1.9007	1.9805	49.530	.47612
SDev	.00092	.013	.00198	.0015	.0017	.043	.00011
%RSD	.09300	.05636	.40077	.07882	.08427	.08618	.02247
#1	.98446	23.136	.49611	1.9017	1.9817	49.560	.47619
#2	.98316	23.118	.49330	1.8996	1.9794	49.500	.47604
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	1.9429	1.9517	1.8847	24.423	49.415	1.9282	1.9497
SDev	.0020	.0004	.0011	.009	.025	.0002	.0076
%RSD	.10064	.01935	.05692	.03525	.04977	.01106	.38959
#1	1.9415	1.9519	1.8854	24.417	49.432	1.9284	1.9443
#2	1.9442	1.9514	1.8839	24.429	49.398	1.9281	1.9551
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	1.9503	.48563	.48387	.48446	.50610	.49071	.49584
SDev	.0050	.00149	.00204	.00186	.00311	.00094	.00167
%RSD	.25382	.30758	.42208	.38386	.61490	.19259	.33613
#1	1.9538	.48458	.48243	.48314	.50390	.49005	.49466
#2	1.9468	.48669	.48532	.48577	.50830	.49138	.49702
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	.49438	.50833	.50368	.98798	1.9400	1.9451	
SDev	.00271	.00400	.00357	.00481	.0004	.0027	
%RSD	.54827	.78658	.70869	.48660	.02299	.13773	
#1	.49246	.50550	.50116	.98458	1.9397	1.9470	
#2	.49630	.51115	.50621	.99138	1.9403	1.9432	
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	18815	--	--	--	--	--	--
SDev	4.314456	--	--	--	--	--	--
%RSD	.0229305	--	--	--	--	--	--
#1	18818	--	--	--	--	--	--
#2	18812	--	--	--	--	--	--

Method: METTRA Sample Name: CCB6 Operator: RJG
 Run Time: 07/17/00 17:03:27
 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	.00103	.15837	.00074	.00053	.00136	.00903	.00024
SDev	.00010	.00361	.00084	.00030	.00021	.01091	.00018
%RSD	10.183	2.2803	113.07	55.979	15.698	120.80	74.403
#1	.00095	.15582	.00015	.00032	.00121	.00132	.00011
#2	.00110	.16093	.00133	.00074	.00151	.01675	.00037
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	.00084	.00113	-.00532	.01121	.01523	.00065	.00461
SDev	.00054	.00031	.00053	.00309	.00954	.00032	.00137
%RSD	63.543	27.099	9.9492	27.545	62.665	49.495	29.794
#1	.00047	.00091	-.00570	.00902	.00848	.00042	.00558
#2	.00122	.00134	-.00495	.01339	.02198	.00088	.00364
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	.00083	.00010	-.00093	-.00059	-.00002	.00021	.00013
SDev	.00025	.00124	.00014	.00051	.00019	.00088	.00065
%RSD	30.034	1237.6	15.344	86.551	1031.5	420.99	488.11
#1	.00100	.00098	-.00083	-.00023	.00012	.00084	.00060
#2	.00065	-.00078	-.00103	-.00095	-.00015	-.00042	-.00033
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	.00005	-.00203	-.00134	.00318	.00113	-.00039	
SDev	.00104	.00066	.00010	.00167	.00015	.00031	
%RSD	2317.5	32.699	7.1476	52.363	13.577	79.711	
#1	-.00069	-.00156	-.00127	.00436	.00103	-.00062	
#2	.00078	-.00250	-.00141	.00200	.00124	-.00017	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.00500	.01000	.05000	.02000	
Low			-.00500	-.01000	-.05000	-.02000	

	1	2	3	4	5	6	7
IntStd	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Mode	Y	--	--	--	--	--	--
Elem	371.030	--	--	--	--	--	--
Wavlen	18872	--	--	--	--	--	--
Avge	128.0222	--	--	--	--	--	--
SDev	.6783794	--	--	--	--	--	--
%RSD		--	--	--	--	--	--
#1	18962	--	--	--	--	--	--
#2	18781	--	--	--	--	--	--

Method: METTRA Sample Name: DG4PJBF Operator: RJG
 Run Time: 07/17/00 17:07:37
 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	-.00028	.15885	-.00043	.00011	.00073	.02132	-.00009
SDev	.00031	.00458	.00061	.00002	.00006	.00097	.00011
%RSD	111.74	2.8799	142.31	20.181	7.7008	4.5248	127.73
#1	-.00050	.16208	-.00086	.00010	.00069	.02200	-.00001
#2	-.00006	.15561	.00000	.00013	.00077	.02064	-.00016
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	-.00033	-.00018	-.00560	.00953	-.00033	.00012	.00023
SDev	.00042	.00000	.00022	.00563	.00161	.00001	.00035
%RSD	128.62	.70930	3.8924	59.099	485.58	11.036	149.69
#1	-.00063	-.00018	-.00575	.00555	.00081	.00013	-.00001
#2	-.00003	-.00018	-.00544	.01351	-.00147	.00011	.00048
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	-.00146	-.00306	-.00034	-.00125	-.00068	-.00071	-.00070
SDev	.00082	.00191	.00094	.00001	.00068	.00066	.00066
%RSD	56.168	62.637	272.51	1.0781	99.977	92.334	94.794
#1	-.00088	-.00170	-.00100	-.00124	-.00020	-.00025	-.00023
#2	-.00204	-.00441	.00032	-.00126	-.00115	-.00118	-.00117
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	-.00239	-.00085	-.00136	-.00081	-.00010	.00180	
SDev	.00365	.00028	.00140	.00346	.00015	.00013	
%RSD	153.03	33.040	103.20	426.03	148.05	6.9658	
#1	.00020	-.00065	-.00037	.00163	-.00021	.00171	
#2	-.00497	-.00104	-.00235	-.00326	.00000	.00189	
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	18719	--	--	--	--	--	--
SDev	81.21232	--	--	--	--	--	--
%RSD	.4338491	--	--	--	--	--	--
#1	18662	--	--	--	--	--	--
#2	18776	--	--	--	--	--	--

Method: METTRA Sample Name: DG4PJCF Operator: RJG
 Run Time: 07/17/00 17:11:47
 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	.04837	2.0275	1.8918	1.8320	.04797	48.674	.04555
SDev	.00041	.0132	.0033	.0080	.00021	.183	.00003
%RSD	.85133	.65221	.17417	.43518	.43885	.37551	.07305
#1	.04808	2.0368	1.8941	1.8376	.04812	48.804	.04557
#2	.04866	2.0181	1.8895	1.8264	.04782	48.545	.04553
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	.46997	.19038	.22533	.87575	48.374	.46221	.96241
SDev	.00052	.00007	.00072	.00460	.147	.00101	.00087
%RSD	.10967	.03935	.32125	.52508	.30451	.21785	.09015
#1	.47034	.19033	.22585	.87250	48.478	.46292	.96180
#2	.46961	.19043	.22482	.87900	48.270	.46150	.96302
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	.47368	.46597	.46220	.46345	.48415	.47369	.47717
SDev	.00321	.00239	.00042	.00052	.00189	.00313	.00146
%RSD	.67752	.51327	.09039	.11173	.39020	.66109	.30590
#1	.47595	.46427	.46249	.46309	.48548	.47148	.47614
#2	.47141	.46766	.46190	.46382	.48281	.47591	.47821
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	1.8768	1.9301	1.9123	1.9042	.46979	.47583	
SDev	.0014	.0050	.0038	.0016	.00167	.00128	
%RSD	.07323	.25821	.19776	.08631	.35538	.26786	
#1	1.8758	1.9266	1.9097	1.9053	.47097	.47673	
#2	1.8778	1.9336	1.9150	1.9030	.46861	.47492	
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	18647	--	--	--	--	--	--
SDev	7.954951	--	--	--	--	--	--
%RSD	.0426599	--	--	--	--	--	--
#1	18642	--	--	--	--	--	--
#2	18653	--	--	--	--	--	--

Method: METTRA Sample Name: DFV87F Operator: RJG
 Run Time: 07/17/00 17:15:56
 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
Avg	.00018	.19977	.00027	.03809	.00058	2.6079	.00009
SDev	.00032	.00317	.00026	.00004	.00003	.0027	.00003
%RSD	174.81	1.5859	95.230	.10401	5.1161	.10515	28.990
#1	-.00004	.20201	.00009	.03807	.00060	2.6059	.00007
#2	.00041	.19753	.00046	.03812	.00056	2.6098	.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	.00019	.00074	-.00330	.02952	.31252	.03004	.00175
SDev	.00037	.00005	.00006	.00107	.00276	.00015	.00052
%RSD	191.01	6.1976	1.9715	3.6380	.88145	.50026	29.509
#1	-.00007	.00071	-.00325	.03028	.31446	.02994	.00139
#2	.00046	.00078	-.00334	.02876	.31057	.03015	.00212
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	.00005	-.00290	-.00075	-.00147	.00088	.00012	.00037
SDev	.00018	.00102	.00100	.00101	.00125	.00001	.00042
%RSD	354.47	35.219	134.10	68.921	141.84	11.782	113.89
#1	.00017	-.00218	-.00004	-.00075	.00176	.00013	.00067
#2	-.00007	-.00362	-.00146	-.00218	-.00000	.00011	.00007
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	-.00175	.00262	.00117	-.00108	.00011	.00732	
SDev	.00170	.00349	.00289	.00029	.00371	.00002	
%RSD	97.233	132.98	247.62	27.168	3240.7	.33039	
#1	-.00055	.00509	.00321	-.00129	.00274	.00730	
#2	-.00295	.00016	-.00088	-.00087	-.00251	.00734	
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	18468	--	--	--	--	--	--
SDev	7.388713	--	--	--	--	--	--
%RSD	.0400079	--	--	--	--	--	--
#1	18473	--	--	--	--	--	--
#2	18463	--	--	--	--	--	--

Method: METTRA Sample Name: DFV8DF Operator: RJG
 Run Time: 07/17/00 17:20:06
 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
Avg	.00034	.18552	.00031	.06386	.00066	4.7417	.00547
SDev	.00017	.00423	.00011	.00003	.00000	.0018	.00010
%RSD	50.287	2.2822	36.037	.04297	.16262	.03811	1.8263
#1	.00022	.18851	.00039	.06388	.00066	4.7429	.00554
#2	.00047	.18252	.00023	.06384	.00066	4.7404	.00540
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	.00050	.23011	-.00503	.01612	.48614	.03931	.00086
SDev	.00054	.00048	.00026	.00076	.00089	.00004	.00020
%RSD	109.46	.21029	5.2586	4.7003	.18233	.10186	23.901
#1	.00011	.23045	-.00484	.01665	.48676	.03934	.00100
#2	.00088	.22977	-.00522	.01558	.48551	.03928	.00071
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	.00794	-.00082	-.00039	-.00053	-.00134	.00072	.00004
SDev	.00052	.00110	.00113	.00039	.00079	.00049	.00059
%RSD	6.5805	134.28	290.91	73.139	59.108	68.281	1571.2
#1	.00757	-.00160	.00041	-.00026	-.00078	.00107	.00046
#2	.00831	-.00004	-.00119	-.00081	-.00190	.00037	-.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	-.00246	.00105	-.00012	.00087	-.00010	.00540	
SDev	.00005	.00303	.00200	.00213	.00044	.00015	
%RSD	2.1916	288.51	1670.8	245.61	448.90	2.8070	
#1	-.00250	.00319	.00130	-.00064	.00021	.00530	
#2	-.00243	-.00109	-.00154	.00238	-.00041	.00551	
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	18623	--	--	--	--	--	--
SDev	2.722085	--	--	--	--	--	--
%RSD	.0146168	--	--	--	--	--	--
#1	18621	--	--	--	--	--	--
#2	18625	--	--	--	--	--	--

Method: METTRA Sample Name: DFV8FF Operator: RJG
 Run Time: 07/17/00 17:24:16
 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	.00049	.20184	.00017	.02987	.00074	1.8112	-.00000
SDev	.00044	.00481	.00003	.00008	.00001	.0008	.00013
%RSD	88.720	2.3847	17.052	.27470	1.9180	.04641	4230.5
#1	.00080	.20525	.00019	.02981	.00073	1.8106	.00009
#2	.00018	.19844	.00015	.02992	.00075	1.8118	-.00010
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	.00089	.00046	-.00212	.32351	.24673	.07157	.00016
SDev	.00009	.00040	.00016	.00462	.00141	.00013	.00067
%RSD	9.8003	88.380	7.7723	1.4285	.57295	.18113	408.34
#1	.00095	.00074	-.00201	.32678	.24773	.07148	.00063
#2	.00083	.00017	-.00224	.32025	.24573	.07166	-.00031
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	.00848	.00136	.00100	.00112	-.00313	.00178	.00015
SDev	.00072	.00083	.00034	.00051	.00258	.00094	.00149
%RSD	8.4374	61.079	34.562	45.309	82.333	52.983	1019.5
#1	.00798	.00195	.00124	.00148	-.00495	.00111	-.00091
#2	.00899	.00077	.00075	.00076	-.00131	.00245	.00120
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	-.00071	-.00226	-.00174	-.00258	.00188	.01932	
SDev	.00044	.00214	.00128	.00023	.00250	.00003	
%RSD	62.527	94.589	73.331	8.9948	133.00	.18254	
#1	-.00040	-.00377	-.00265	-.00242	.00364	.01934	
#2	-.00102	-.00075	-.00084	-.00274	.00011	.01929	
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	18715	--	--	--	--	--	--
SDev	46.13872	--	--	--	--	--	--
%RSD	.2465310	--	--	--	--	--	--
#1	18683	--	--	--	--	--	--
#2	18748	--	--	--	--	--	--

Method: METTRA Sample Name: DFV8KF Operator: RJG
 Run Time: 07/17/00 17:28:26
 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
Avge	.00041	.17721	.00049	.03458	.00083	4.8290	.00002
SDev	.00031	.00629	.00207	.00004	.00006	.0111	.00002
%RSD	75.140	3.5469	423.32	.12791	7.6802	.23027	97.516
#1	.00063	.18166	.00195	.03454	.00079	4.8211	.00004
#2	.00019	.17277	-.00097	.03461	.00088	4.8368	.00001
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	.00086	.00040	.01785	.02646	.34209	.00775	.00080
SDev	.00003	.00059	.00015	.00070	.00234	.00002	.00005
%RSD	4.0706	149.06	.86391	2.6340	.68307	.24225	6.5904
#1	.00083	-.00002	.01774	.02696	.34044	.00774	.00076
#2	.00088	.00082	.01796	.02597	.34374	.00776	.00084
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	.08784	-.00013	.00351	.00230	.00031	-.00132	-.00078
SDev	.00090	.00026	.00105	.00079	.00085	.00036	.00004
%RSD	1.0290	200.15	30.027	34.314	276.41	27.196	5.4145
#1	.08720	.00005	.00426	.00286	.00091	-.00158	-.00075
#2	.08848	-.00031	.00277	.00174	-.00029	-.00107	-.00081
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	-.00295	-.00134	-.00188	-.00021	.00104	.20145	
SDev	.00223	.00186	.00198	.00011	.00029	.00020	
%RSD	75.527	138.62	105.63	54.029	28.098	.10097	
#1	-.00453	-.00266	-.00328	-.00028	.00083	.20130	
#2	-.00137	-.00003	-.00048	-.00013	.00125	.20159	
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	18789	--	--	--	--	--	--
SDev	17.46498	--	--	--	--	--	--
%RSD	.0929520	--	--	--	--	--	--
#1	18802	--	--	--	--	--	--
#2	18777	--	--	--	--	--	--

Method: METTRA Sample Name: DFV8NF Operator: RJG
 Run Time: 07/17/00 17:32:36
 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	.00020	.18404	-.00058	.03068	.00074	4.4946	-.00008
SDev	.00059	.00181	.00100	.00003	.00010	.0004	.00011
%RSD	286.65	.98195	171.34	.10389	14.070	.00890	141.35

#1	.00062	.18531	-.00129	.03070	.00066	4.4943	-.00016
#2	-.00021	.18276	.00012	.03065	.00081	4.4949	-.00000

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	-.00007	.00044	-.00286	.01366	.52169	.02279	-.00048
SDev	.00001	.00006	.00007	.00071	.00094	.00008	.00016
%RSD	19.923	12.702	2.6013	5.2066	.17992	.36863	32.470

#1	-.00006	.00048	-.00292	.01316	.52236	.02273	-.00037
#2	-.00008	.00040	-.00281	.01417	.52103	.02284	-.00059

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	.00235	-.00278	.00004	-.00090	.00179	.00056	.00097
SDev	.00058	.00236	.00083	.00023	.00006	.00052	.00036
%RSD	24.508	84.679	2179.4	25.428	3.2744	91.858	37.481

#1	.00276	-.00112	-.00055	-.00074	.00183	.00093	.00123
#2	.00195	-.00445	.00063	-.00106	.00175	.00020	.00072

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	-.00142	.00099	.00019	-.00210	.00063	.01319
SDev	.00133	.00188	.00169	.00072	.00000	.00012
%RSD	93.516	190.06	908.61	34.219	.33432	.92895

#1	-.00048	.00232	.00139	-.00159	.00063	.01311
#2	-.00236	-.00034	-.00101	-.00261	.00063	.01328

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	18666	--	--	--	--	--	--
SDev	70.32122	--	--	--	--	--	--
%RSD	.3767257	--	--	--	--	--	--
#1	18617	--	--	--	--	--	--
#2	18716	--	--	--	--	--	--

Method: METTRA Sample Name: DFV8TF Operator: RJG
 Run Time: 07/17/00 17:36:46
 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
Avg	.00045	.21735	.00098	.03582	.00063	7.4194	.00623
SDev	.00013	.00161	.00003	.00007	.00003	.0217	.00005
%RSD	27.861	.74168	2.7916	.20559	4.4781	.29252	.78593
#1	.00036	.21849	.00100	.03577	.00061	7.4347	.00620
#2	.00054	.21621	.00096	.03587	.00065	7.4040	.00627
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	.00081	.00912	-.00508	.05183	.48751	.00898	.00003
SDev	.00060	.00021	.00037	.01412	.00084	.00001	.00015
%RSD	74.187	2.3104	7.3241	27.245	.17269	.16018	501.92
#1	.00038	.00897	-.00534	.04184	.48810	.00897	-.00008
#2	.00123	.00927	-.00482	.06181	.48691	.00899	.00014
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	.03019	-.00121	.00009	-.00035	-.00028	-.00037	-.00034
SDev	.00138	.00276	.00143	.00003	.00441	.00156	.00043
%RSD	4.5670	228.10	1659.3	9.8934	1564.4	424.69	125.61
#1	.03117	.00074	-.00092	-.00037	-.00340	.00074	-.00064
#2	.02922	-.00316	.00110	-.00032	.00284	-.00147	-.00004
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	-.00266	-.00030	-.00109	-.00331	.00180	.03994	
SDev	.00243	.00047	.00049	.00000	.00133	.00014	
%RSD	91.187	154.92	45.318	.12934	73.995	.35628	
#1	-.00095	-.00064	-.00074	-.00331	.00273	.04004	
#2	-.00438	.00003	-.00144	-.00331	.00086	.03984	
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	18565	--	--	--	--	--	--
SDev	40.05650	--	--	--	--	--	--
%RSD	.2157661	--	--	--	--	--	--
#1	18536	--	--	--	--	--	--
#2	18593	--	--	--	--	--	--

Method: METTRA Sample Name: DFV90F Operator: RJG
 Run Time: 07/17/00 17:40:56
 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
Avg	.00112	.19828	.00091	.03287	.00074	2.0158	.00008
SDev	.00016	.00404	.00025	.00004	.00010	.0083	.00004
%RSD	13.902	2.0359	27.251	.10902	13.985	.41092	52.412
#1	.00123	.20113	.00109	.03290	.00066	2.0216	.00005
#2	.00101	.19542	.00074	.03285	.00081	2.0099	.00010
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	.00039	.00071	-.00556	.01727	.21109	.02148	.00006
SDev	.00003	.00032	.00060	.00956	.00041	.00009	.00062
%RSD	8.7744	45.442	10.740	55.363	.19474	.40072	1030.5
#1	.00041	.00094	-.00599	.01051	.21079	.02155	.00050
#2	.00036	.00048	-.00514	.02403	.21138	.02142	-.00038
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	.00180	-.00013	-.00142	-.00099	-.00034	.00162	.00097
SDev	.00049	.00140	.00037	.00022	.00125	.00057	.00080
%RSD	26.988	1085.6	25.641	22.358	371.66	35.190	82.142
#1	.00214	.00086	-.00168	-.00084	-.00122	.00122	.00041
#2	.00146	-.00112	-.00117	-.00115	.00055	.00203	.00154
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	-.00359	-.00241	-.00280	-.00410	.00073	.02682	
SDev	.00104	.00078	.00017	.00287	.00015	.00012	
%RSD	28.991	32.317	6.1353	69.983	20.209	.44541	
#1	-.00286	-.00296	-.00292	-.00207	.00063	.02691	
#2	-.00433	-.00186	-.00268	-.00613	.00084	.02674	
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	18656	--	--	--	--	--	--
SDev	54.27045	--	--	--	--	--	--
%RSD	.2908941	--	--	--	--	--	--
#1	18618	--	--	--	--	--	--
#2	18695	--	--	--	--	--	--

Method: METTRA Sample Name: DFV93F Operator: RJG
 Run Time: 07/17/00 17:45:06
 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
Avg	.00047	.20539	.00027	.01725	.00073	1.6287	-.00015
SDev	.00005	.00123	.00043	.00003	.00003	.0023	.00004
%RSD	11.559	.59822	157.24	.18941	3.5308	.13995	27.115
#1	.00043	.20626	.00058	.01723	.00071	1.6303	-.00012
#2	.00051	.20452	-.00003	.01727	.00074	1.6271	-.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	.00031	.00011	-.00359	.03992	.21700	.03394	-.00012
SDev	.00017	.00016	.00052	.01034	.00109	.00005	.00016
%RSD	56.105	137.67	14.350	25.912	.50194	.14577	131.94
#1	.00019	.00022	-.00396	.03260	.21623	.03398	-.00023
#2	.00043	.00000	-.00323	.04723	.21777	.03391	-.00001
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	.00035	-.00331	-.00074	-.00159	.00099	.00097	.00097
SDev	.00087	.00092	.00152	.00132	.00120	.00031	.00019
%RSD	246.86	27.773	205.04	82.601	121.26	32.013	19.816
#1	.00097	-.00395	-.00181	-.00252	.00014	.00118	.00084
#2	-.00026	-.00266	.00033	-.00066	.00183	.00075	.00111
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	-.00296	.00019	-.00086	-.00205	.00022	.00957	
SDev	.00121	.00078	.00092	.00029	.00029	.00009	
%RSD	40.806	410.79	107.52	13.928	130.91	.92784	
#1	-.00210	.00074	-.00021	-.00185	.00043	.00963	
#2	-.00381	-.00036	-.00151	-.00226	.00002	.00951	
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	18618	--	--	--	--	--	--
SDev	41.43618	--	--	--	--	--	--
%RSD	.2225604	--	--	--	--	--	--
#1	18647	--	--	--	--	--	--
#2	18589	--	--	--	--	--	--

Method: METTRA Sample Name: CCV3-7 Operator: RJG
 Run Time: 07/17/00 17:49:16
 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	.98675	23.125	.49640	1.9010	1.9955	49.823	.47783
SDev	.00042	.021	.00067	.0017	.0026	.120	.00056
%RSD	.04283	.09138	.13513	.08963	.13069	.24053	.11631
#1	.98705	23.140	.49688	1.9022	1.9974	49.908	.47823
#2	.98645	23.110	.49593	1.8998	1.9937	49.739	.47744
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	1.9480	1.9584	1.8893	24.490	49.801	1.9364	1.9603
SDev	.0023	.0007	.0007	.011	.082	.0016	.0099
%RSD	.11643	.03374	.03500	.04309	.16547	.08178	.50452
#1	1.9496	1.9589	1.8898	24.497	49.859	1.9376	1.9533
#2	1.9464	1.9580	1.8888	24.482	49.743	1.9353	1.9673
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	1.9586	.48347	.48457	.48421	.51226	.49142	.49836
SDev	.0072	.00074	.00062	.00066	.00202	.00490	.00394
%RSD	.36802	.15392	.12830	.13681	.39443	.99614	.79018
#1	1.9637	.48400	.48501	.48467	.51083	.48796	.49558
#2	1.9535	.48294	.48413	.48374	.51369	.49488	.50114
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	.49626	.50886	.50466	.99078	1.9438	1.9497	
SDev	.00367	.00130	.00036	.00316	.0042	.0015	
%RSD	.73887	.25525	.07029	.31886	.21752	.07800	
#1	.49367	.50978	.50441	.99301	1.9468	1.9507	
#2	.49885	.50794	.50491	.98855	1.9408	1.9486	
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	18710	--	--	--	--	--	--
SDev	42.77996	--	--	--	--	--	--
%RSD	.2286537	--	--	--	--	--	--
#1	18740	--	--	--	--	--	--
#2	18679	--	--	--	--	--	--

Method: METTRA Sample Name: CCB7 Operator: RJG
Run Time: 07/17/00 17:53:26
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Table with 8 columns (Elem, Units, AG, AL, AS, BA, BE, CA, CD) and 8 rows of data for each element group, including average, standard deviation, and percentage RSD values.

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	18582	--	--	--	--	--	--
SDev	20.85965	--	--	--	--	--	--
%RSD	.1122582	--	--	--	--	--	--
#1	18567	--	--	--	--	--	--
#2	18597	--	--	--	--	--	--

Method: METTRA Sample Name: DFV99F Operator: RJG
 Run Time: 07/17/00 17:57:36
 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
Avg	.00035	.20535	.00000	.03340	.00092	2.0705	.00022
SDev	.00042	.00876	.00070	.00004	.00004	.0011	.00004
%RSD	119.90	4.2662	15966.	.11329	4.0382	.05159	16.614
#1	.00065	.21154	-.00049	.03337	.00090	2.0713	.00019
#2	.00005	.19915	.00050	.03343	.00095	2.0697	.00024
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	.00008	.00053	-.00606	.01654	.20988	.01998	.00126
SDev	.00026	.00012	.00013	.00003	.00081	.00004	.00030
%RSD	314.57	22.422	2.1932	.14932	.38796	.18069	23.833
#1	.00027	.00044	-.00597	.01652	.21045	.01995	.00105
#2	-.00010	.00061	-.00616	.01656	.20930	.02001	.00148
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	.00175	-.00146	-.00060	-.00089	.00003	.00042	.00029
SDev	.00043	.00087	.00013	.00020	.00208	.00128	.00155
%RSD	24.826	59.469	21.400	22.902	6386.9	308.19	536.55
#1	.00206	-.00085	-.00069	-.00074	.00150	.00132	.00138
#2	.00144	-.00208	-.00051	-.00103	-.00144	-.00049	-.00081
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	-.00471	-.00056	-.00195	-.00082	.00093	.00870	
SDev	.00110	.00063	.00078	.00264	.00044	.00009	
%RSD	23.242	111.27	40.248	320.62	46.937	1.0157	
#1	-.00394	-.00012	-.00139	-.00269	.00124	.00864	
#2	-.00549	-.00101	-.00250	.00104	.00062	.00876	
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	18817	--	--	--	--	--	--
SDev	18.94963	--	--	--	--	--	--
%RSD	.1007038	--	--	--	--	--	--
#1	18804	--	--	--	--	--	--
#2	18831	--	--	--	--	--	--

Method: METTRA Sample Name: DFV99P5F

Operator: RJG

Run Time: 07/17/00 18:01:46

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	.00029	.18331	-.00004	.00658	.00087	.39457	.00010
SDev	.00047	.00197	.00067	.00011	.00001	.00250	.00003
%RSD	165.81	1.0742	1761.7	1.6387	.98814	.63274	31.870
#1	.00062	.18470	-.00052	.00650	.00086	.39281	.00012
#2	-.00005	.18192	.00044	.00665	.00087	.39634	.00008
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00021	.00015	-.00638	-.00017	.04320	.00393	.00008
SDev	.00015	.00018	.00002	.00171	.00134	.00002	.00015
%RSD	75.600	125.01	.32142	1025.7	3.0976	.37957	182.25
#1	.00010	.00027	-.00636	-.00138	.04415	.00394	.00019
#2	.00031	.00002	-.00639	.00104	.04226	.00392	-.00002
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00057	-.00288	-.00023	-.00111	-.00152	.00127	.00034
SDev	.00000	.00064	.00179	.00141	.00212	.00010	.00064
%RSD	.00163	22.237	779.06	126.75	139.59	7.5233	186.88
#1	-.00057	-.00242	.00104	-.00012	-.00301	.00134	-.00011
#2	-.00057	-.00333	-.00150	-.00211	-.00002	.00120	.00080
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00116	-.00168	-.00073	-.00117	.00041	.00104	
SDev	.00064	.00070	.00025	.00218	.00058	.00006	
%RSD	54.734	41.659	34.746	186.08	141.59	5.9305	
#1	.00161	-.00217	-.00091	-.00271	-.00000	.00100	
#2	.00071	-.00118	-.00055	.00037	.00083	.00109	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	18816	--	--	--	--	--	--
SDev	34.43555	--	--	--	--	--	--
%RSD	.1830121	--	--	--	--	--	--
#1	18840	--	--	--	--	--	--
#2	18792	--	--	--	--	--	--

Analysis Report

07/17/00 06:10:02 PM

Method: METTRA Sample Name: DFV99SF Operator: RJG
 Run Time: 07/17/00 18:05:56
 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
Avg	.05046	2.1797	2.0063	1.9709	.05104	52.396	.04810
SDev	.00035	.0014	.0026	.0016	.00001	.000	.00011
%RSD	.69756	.06226	.12941	.07924	.02482	.00076	.23042
#1	.05021	2.1787	2.0045	1.9698	.05105	52.395	.04803
#2	.05071	2.1807	2.0081	1.9720	.05103	52.396	.04818
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	.49589	.20131	.23866	.92504	50.391	.50857	.98192
SDev	.00042	.00029	.00006	.01083	.045	.00036	.00529
%RSD	.08475	.14221	.02557	1.1713	.08969	.07024	.53881
#1	.49559	.20111	.23861	.93270	50.359	.50831	.97818
#2	.49619	.20152	.23870	.91738	50.423	.50882	.98566
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	.50149	.49023	.48860	.48915	.49762	.48795	.49117
SDev	.00093	.00395	.00122	.00213	.00078	.00277	.00211
%RSD	.18477	.80513	.25043	.43555	.15659	.56852	.42954
#1	.50214	.48744	.48774	.48764	.49707	.48599	.48968
#2	.50083	.49302	.48947	.49065	.49817	.48991	.49266
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	1.9980	2.0533	2.0349	2.0189	.49385	.51218	
SDev	.0097	.0096	.0096	.0025	.00125	.00055	
%RSD	.48551	.46519	.47184	.12223	.25358	.10638	
#1	1.9912	2.0465	2.0281	2.0172	.49474	.51179	
#2	2.0049	2.0600	2.0417	2.0206	.49297	.51256	
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	18710	--	--	--	--	--	--
SDev	2.687558	--	--	--	--	--	--
%RSD	.0143646	--	--	--	--	--	--
#1	18711	--	--	--	--	--	--
#2	18708	--	--	--	--	--	--

Method: METTRA Sample Name: DFV99DF Operator: RJG
 Run Time: 07/17/00 18:10:06
 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
Avg	.05017	2.1926	2.0002	1.9694	.05071	53.218	.04783
SDev	.00031	.0306	.0180	.0201	.00040	.517	.00062
%RSD	.61311	1.3941	.89882	1.0208	.79684	.97128	1.2965
#1	.04995	2.1710	1.9875	1.9551	.05042	52.852	.04739
#2	.05039	2.2142	2.0129	1.9836	.05100	53.583	.04826
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	.49438	.20154	.23877	.92752	51.179	.50788	1.0033
SDev	.00556	.00250	.00234	.02046	.568	.00575	.0148
%RSD	1.1247	1.2388	.98040	2.2053	1.1094	1.1331	1.4706
#1	.49045	.19977	.23711	.91305	50.777	.50382	.99285
#2	.49831	.20330	.24042	.94198	51.580	.51195	1.0137
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	.50061	.48638	.48191	.48340	.50521	.49488	.49832
SDev	.00488	.00144	.00995	.00711	.01198	.00297	.00597
%RSD	.97536	.29502	2.0638	1.4712	2.3712	.60054	1.1983
#1	.49715	.48536	.47488	.47837	.49674	.49278	.49410
#2	.50406	.48739	.48895	.48843	.51368	.49698	.50254
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	1.9864	2.0355	2.0191	2.0175	.49647	.51243	
SDev	.0168	.0278	.0242	.0237	.00462	.00497	
%RSD	.84767	1.3674	1.1971	1.1765	.93038	.97045	
#1	1.9745	2.0158	2.0020	2.0008	.49320	.50892	
#2	1.9983	2.0552	2.0362	2.0343	.49974	.51595	
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	18147	--	--	--	--	--	--
SDev	168.6809	--	--	--	--	--	--
%RSD	.9295492	--	--	--	--	--	--
#1	18266	--	--	--	--	--	--
#2	18027	--	--	--	--	--	--

Method: METTRA Sample Name: DfV9EF Operator: RJG
 Run Time: 07/17/00 18:14:16
 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	-.00015	.27177	.00227	.04604	.00084	33.145	.00008
SDev	.00016	.00229	.00051	.00000	.00004	.003	.00015
%RSD	112.25	.84090	22.502	.00147	4.7462	.00992	177.87
#1	-.00003	.27015	.00263	.04604	.00081	33.142	.00019
#2	-.00026	.27338	.00191	.04604	.00087	33.147	-.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	.00155	.00014	-.00699	72.802	2.8745	.40385	.00137
SDev	.00012	.00019	.00057	.071	.0015	.00025	.00106
%RSD	7.8033	136.49	8.1131	.09802	.05352	.06124	77.663
#1	.00147	.00028	-.00659	72.751	2.8756	.40367	.00212
#2	.00164	.00000	-.00739	72.852	2.8734	.40402	.00062
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	.00559	-.00177	.00068	-.00014	.00143	-.00039	.00021
SDev	.00129	.00041	.00120	.00067	.00243	.00192	.00047
%RSD	23.157	23.120	177.31	485.88	170.40	487.09	221.33
#1	.00651	-.00148	-.00017	-.00061	-.00029	.00096	.00054
#2	.00468	-.00206	.00153	.00033	.00314	-.00175	-.00012
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	-.00501	.00142	-.00072	-.00017	.00441	.01454	
SDev	.00085	.00517	.00373	.00158	.00114	.00018	
%RSD	16.931	363.38	518.66	949.30	25.787	1.2234	
#1	-.00441	.00508	.00192	-.00128	.00522	.01466	
#2	-.00561	-.00224	-.00336	.00095	.00361	.01441	
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	18834	--	--	--	--	--	--
SDev	2.155847	--	--	--	--	--	--
%RSD	.0114467	--	--	--	--	--	--
#1	18832	--	--	--	--	--	--
#2	18835	--	--	--	--	--	--

Method: METTRA Sample Name: .DFV9GF Operator: RJG
 Run Time: 07/17/00 18:18:26
 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	.00069	.21316	.00084	.01373	.00085	12.459	.00003
SDev	.00043	.00088	.00007	.00001	.00001	.002	.00006
%RSD	61.886	.41414	8.1250	.08060	1.4194	.01629	222.01
#1	.00039	.21254	.00079	.01374	.00084	12.457	-.00001
#2	.00100	.21379	.00089	.01372	.00086	12.460	.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	.00202	.00072	-.00644	36.386	.90606	1.9716	.00037
SDev	.00012	.00001	.00008	.030	.00012	.0010	.00015
%RSD	5.9645	1.1971	1.2797	.08364	.01264	.04877	41.410
#1	.00194	.00071	-.00638	36.365	.90614	1.9709	.00048
#2	.00211	.00072	-.00650	36.408	.90598	1.9723	.00026
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	.00148	.00584	.00772	.00709	.00078	.00164	.00136
SDev	.00082	.00013	.00131	.00083	.00075	.00076	.00076
%RSD	55.490	2.1810	16.979	11.726	96.139	46.423	55.989
#1	.00090	.00593	.00679	.00650	.00132	.00218	.00190
#2	.00206	.00575	.00864	.00768	.00025	.00110	.00082
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	-.00519	-.00021	-.00187	-.00450	.00156	.60080	
SDev	.00060	.00195	.00110	.00323	.00031	.00020	
%RSD	11.495	942.09	58.886	71.792	19.992	.03343	
#1	-.00562	.00117	-.00109	-.00679	.00134	.60066	
#2	-.00477	-.00158	-.00264	-.00222	.00178	.60094	
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	18791	--	--	--	--	--	--
SDev	14.99149	--	--	--	--	--	--
%RSD	.0797787	--	--	--	--	--	--
#1	18781	--	--	--	--	--	--
#2	18802	--	--	--	--	--	--

Method: METTRA Sample Name: DFV9XF Operator: RJG
 Run Time: 07/17/00 18:22:36
 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
Avg	.00081	.22058	.00001	.06842	.00089	1.9725	.00010
SDev	.00014	.00184	.00020	.00016	.00002	.0010	.00020
%RSD	17.149	.83287	1679.3	.23674	2.1156	.05294	204.23
#1	.00072	.21928	.00016	.06830	.00090	1.9717	-.00004
#2	.00091	.22188	-.00013	.06853	.00087	1.9732	.00024
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	.00372	.00096	-.00606	2.8498	.49970	1.0211	-.00006
SDev	.00013	.00015	.00050	.0161	.00078	.0016	.00086
%RSD	3.3956	15.388	8.1807	.56396	.15702	.15564	1462.5
#1	.00363	.00085	-.00641	2.8385	.49914	1.0200	-.00067
#2	.00381	.00106	-.00571	2.8612	.50025	1.0222	.00055
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	.00142	.00250	.00234	.00239	.00079	.00147	.00124
SDev	.00143	.00147	.00108	.00121	.00133	.00116	.00033
%RSD	100.77	58.781	46.248	50.601	169.93	79.073	26.620
#1	.00041	.00353	.00311	.00325	-.00016	.00229	.00148
#2	.00243	.00146	.00158	.00154	.00173	.00065	.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	-.00407	-.00207	-.00273	-.00215	.00048	.00676	
SDev	.00184	.00113	.00136	.00061	.00015	.00000	
%RSD	45.244	54.516	49.922	28.391	31.452	.05310	
#1	-.00277	-.00127	-.00177	-.00258	.00037	.00676	
#2	-.00537	-.00287	-.00370	-.00172	.00059	.00676	
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	18796	--	--	--	--	--	--
SDev	29.66258	--	--	--	--	--	--
%RSD	.1578172	--	--	--	--	--	--
#1	18816	--	--	--	--	--	--
#2	18775	--	--	--	--	--	--

Method: METTRA Sample Name: DFVA1F Operator: RJG
 Run Time: 07/17/00 18:26:46
 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
Avg	.00041	.20383	.00051	.06034	.00088	2.0194	.00008
SDev	.00047	.00085	.00048	.00026	.00011	.0143	.00011
%RSD	113.30	.41491	94.137	.42328	12.228	.71031	125.87
#1	.00008	.20324	.00084	.06016	.00095	2.0092	.00016
#2	.00074	.20443	.00017	.06052	.00080	2.0295	.00001
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	.00280	.00262	.00381	.28305	.50712	.92955	.00058
SDev	.00052	.00082	.00005	.00052	.00573	.00354	.00027
%RSD	18.434	31.137	1.3788	.18266	1.1299	.38104	46.317
#1	.00244	.00204	.00385	.28342	.50307	.92705	.00039
#2	.00317	.00320	.00377	.28269	.51117	.93205	.00077
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	.00168	.00226	.00263	.00251	-.00065	.00139	.00071
SDev	.00007	.00262	.00018	.00099	.00338	.00007	.00108
%RSD	4.1370	116.05	6.7286	39.525	523.52	5.3802	151.13
#1	.00173	.00041	.00251	.00181	.00175	.00134	.00147
#2	.00163	.00411	.00276	.00321	-.00304	.00144	-.00005
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	-.00025	-.00298	-.00207	.00022	.00041	.01469	
SDev	.00277	.00179	.00212	.00292	.00044	.00020	
%RSD	1094.6	60.056	102.10	1348.0	107.17	1.3341	
#1	.00170	-.00171	-.00058	.00228	.00010	.01455	
#2	-.00221	-.00425	-.00357	-.00185	.00072	.01483	
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	18882	--	--	--	--	--	--
SDev	139.1578	--	--	--	--	--	--
%RSD	.7369982	--	--	--	--	--	--
#1	18980	--	--	--	--	--	--
#2	18783	--	--	--	--	--	--

Method: METTRA Sample Name: CCV3-8

Operator: RJG

Run Time: 07/17/00 18:30:56

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
Avg	.98099	22.845	.49350	1.8798	1.9924	49.634	.47551
SDev	.00865	.205	.00253	.0168	.0169	.422	.00351
%RSD	.88152	.89841	.51295	.89383	.84929	.84952	.73782
#1	.97488	22.700	.49171	1.8679	1.9805	49.336	.47303
#2	.98711	22.990	.49529	1.8917	2.0044	49.932	.47799
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	1.9349	1.9457	1.8729	24.296	49.651	1.9194	1.9498
SDev	.0164	.0182	.0172	.225	.432	.0175	.0295
%RSD	.84774	.93487	.91668	.92658	.86997	.91098	1.5136
#1	1.9233	1.9328	1.8608	24.137	49.346	1.9071	1.9289
#2	1.9465	1.9586	1.8851	24.455	49.957	1.9318	1.9706
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	1.9515	.48139	.48191	.48174	.50840	.49033	.49635
SDev	.0096	.00334	.00468	.00423	.00363	.00984	.00777
%RSD	.48997	.69328	.97063	.87834	.71296	2.0060	1.5650
#1	1.9447	.47903	.47861	.47875	.50583	.48338	.49085
#2	1.9582	.48375	.48522	.48473	.51096	.49729	.50184
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	.49546	.50743	.50345	.98814	1.9291	1.9402	
SDev	.00905	.00551	.00669	.00449	.0199	.0148	
%RSD	1.8262	1.0851	1.3280	.45474	1.0329	.76069	
#1	.48906	.50354	.49872	.98496	1.9150	1.9298	
#2	.50186	.51133	.50818	.99132	1.9432	1.9507	
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	18803	--	--	--	--	--	--
SDev	152.8773	--	--	--	--	--	--
%RSD	.8130648	--	--	--	--	--	--
#1	18911	--	--	--	--	--	--
#2	18694	--	--	--	--	--	--

Method: METTRA Sample Name: CCB8 Operator: RJG
 Run Time: 07/17/00 18:35:07
 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	.00086	H.20611	.00032	.00042	.00135	.00067	.00019
SDev	.00100	.01245	.00027	.00012	.00005	.00937	.00006
%RSD	115.92	6.0405	85.412	28.749	3.7683	1394.9	31.164
#1	.00157	.19731	.00051	.00033	.00139	-.00596	.00015
#2	.00016	H.21492	.00013	.00050	.00132	.00730	.00023
Errors	LC Pass	LC High	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	.00072	.00085	-.00653	.01857	.01798	.00072	.00428
SDev	.00026	.00008	.00037	.00868	.00086	.00020	.00129
%RSD	36.593	9.8096	5.7342	46.745	4.8035	28.295	30.234
#1	.00090	.00091	-.00680	.02471	.01859	.00058	.00519
#2	.00053	.00079	-.00627	.01243	.01737	.00086	.00336
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	.00032	-.00153	-.00171	-.00165	-.00116	.00045	-.00009
SDev	.00015	.00090	.00060	.00070	.00075	.00060	.00015
%RSD	46.667	58.847	34.819	42.241	64.615	135.26	168.05
#1	.00021	-.00217	-.00214	-.00215	-.00063	.00002	-.00020
#2	.00042	-.00090	-.00129	-.00116	-.00170	.00087	.00002
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	-.00103	-.00446	-.00332	.00167	.00094	-.00022	
SDev	.00141	.00069	.00093	.00079	.00016	.00022	
%RSD	136.41	15.431	27.952	47.520	17.505	98.999	
#1	-.00004	-.00397	-.00266	.00223	.00082	-.00038	
#2	-.00203	-.00494	-.00397	.00111	.00105	-.00007	
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	18765	--	--	--	--	--	--
SDev	425.9973	--	--	--	--	--	--
%RSD	2.270160	--	--	--	--	--	--
#1	19066	--	--	--	--	--	--
#2	18464	--	--	--	--	--	--

Method: METTRA Sample Name: DG0WNB

Operator: RJG

Run Time: 07/17/00 18:39:17

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	.00052	H.21768	-.00081	.00037	.00063	.17459	-.00006
SDev	.00017	.00427	.00128	.00013	.00004	.00130	.00019
%RSD	33.029	1.9605	158.11	35.298	6.4889	.74637	307.05
#1	.00064	H.22070	-.00171	.00046	.00060	.17367	-.00019
#2	.00040	H.21467	.00010	.00028	.00066	.17551	.00007
Errors	LC Pass	LC High	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	.00006	.00108	-.00618	.03760	.00975	.00066	.00117
SDev	.00034	.00020	.00042	.00152	.00064	.00001	.00016
%RSD	574.87	19.030	6.7199	4.0482	6.5240	1.9967	13.789
#1	-.00018	.00093	-.00647	.03867	.01020	.00067	.00128
#2	.00030	.00122	-.00589	.03652	.00930	.00065	.00105
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	.00059	.00103	.00048	.00067	.00026	.00165	.00119
SDev	.00120	.00077	.00086	.00032	.00156	.00108	.00124
%RSD	203.11	74.723	178.54	47.859	599.37	65.207	104.21
#1	-.00026	.00158	-.00013	.00044	-.00084	.00089	.00031
#2	.00144	.00049	.00109	.00089	.00136	.00241	.00206
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	-.00305	.00045	-.00072	-.00183	.00065	.01168	
SDev	.00032	.00030	.00009	.00250	.00030	.00009	
%RSD	10.551	65.891	12.569	136.42	45.973	.79059	
#1	-.00328	.00066	-.00065	-.00360	.00044	.01162	
#2	-.00282	.00024	-.00078	-.00006	.00086	.01175	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.00500	.01000	.05000	.02000	
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	18225	--	--	--	--	--	--
SDev	28.39061	--	--	--	--	--	--
%RSD	.1557756	--	--	--	--	--	--
#1	18205	--	--	--	--	--	--
#2	18245	--	--	--	--	--	--

Method: METTRA Sample Name: DGOWNC

Operator: RJG

Run Time: 07/17/00 18:43:27

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	.04405	1.8455	1.8547	1.7529	.04758	L.26620	.04603
SDev	.00025	.0096	.0111	.0068	.00019	.00280	.00005
%RSD	.56970	.51991	.59945	.38997	.39950	1.0519	.10318
#1	.04423	1.8387	1.8468	1.7480	.04745	L.26422	.04600
#2	.04387	1.8523	1.8625	1.7577	.04772	L.26818	.04606
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	.47273	.18748	.21219	.96773	L.01200	.45649	L.00032
SDev	.00277	.00047	.00138	.01645	.00014	.00225	.00041
%RSD	.58563	.24979	.65151	1.7000	1.1422	.49187	130.34
#1	.47077	.18714	.21122	.95610	L.01210	.45490	L.00002
#2	.47469	.18781	.21317	.97937	L.01191	.45808	L.00061
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	.47896	.45264	.46137	.45846	-.00048	.00063	L.00026
SDev	.00198	.00430	.00300	.00344	.00081	.00003	.00029
%RSD	.41370	.95105	.65120	.74978	167.28	5.2735	111.71
#1	.47756	.44959	.45924	.45603	-.00105	.00061	L.00005
#2	.48037	.45568	.46349	.46089	.00009	.00066	L.00047
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	1.8715	1.9213	1.9047	1.8384	.44975	.48829	
SDev	.0173	.0100	.0124	.0055	.00299	.00257	
%RSD	.92610	.51844	.65183	.30143	.66387	.52562	
#1	1.8593	1.9142	1.8959	1.8345	.44764	.48647	
#2	1.8838	1.9283	1.9135	1.8423	.45186	.49010	
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	18997	--	--	--	--	--	--
SDev	125.9714	--	--	--	--	--	--
%RSD	.6630987	--	--	--	--	--	--
#1	19086	--	--	--	--	--	--
#2	18908	--	--	--	--	--	--

Method: METTRA Sample Name: DFKAW/250 Pb Operator: RJG
 Run Time: 07/17/00 18:47:37
 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
Avge	.00112	.26659	.00136	.01001	.00090	.03248	.00003
SDev	.00014	.00659	.00149	.00007	.00000	.00332	.00003
%RSD	12.439	2.4736	109.16	.68623	.26976	10.219	76.744
#1	.00121	.27125	.00031	.00996	.00090	.03014	.00005
#2	.00102	.26192	.00241	.01006	.00091	.03483	.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
Avge	.00023	.00283	.12359	4.2167	.01013	.00763	.00045
SDev	.00026	.00014	.00011	.0001	.00182	.00004	.00056
%RSD	115.14	4.8220	.08928	.00237	17.988	.47442	124.72
#1	.00041	.00292	.12351	4.2166	.01142	.00760	.00084
#2	.00004	.00273	.12367	4.2167	.00884	.00766	.00005
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	.00203	1.6947	1.7141	1.7077	.01185	.01060	.01102
SDev	.00074	.0017	.0058	.0044	.00167	.00120	.00024
%RSD	36.207	.10031	.33919	.26024	14.121	11.346	2.2208
#1	.00256	1.6935	1.7100	1.7045	.01304	.00975	.01084
#2	.00151	1.6960	1.7182	1.7108	.01067	.01145	.01119
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	-.00108	-.00074	-.00086	.00261	.00127	.01393	
SDev	.00151	.00172	.00165	.00326	.00088	.00032	
%RSD	140.35	231.08	193.06	124.89	69.416	2.2784	
#1	-.00214	-.00196	-.00202	.00031	.00064	.01371	
#2	-.00001	.00047	.00031	.00492	.00189	.01415	
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	18735	--	--	--	--	--	--
SDev	5.090616	--	--	--	--	--	--
%RSD	.0271713	--	--	--	--	--	--
#1	18739	--	--	--	--	--	--
#2	18732	--	--	--	--	--	--

Method: METTRA Sample Name: DFKAWP1250 Pb Operator: RJG
 Run Time: 07/17/00 18:51:48
 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	.21873	.00064	.00191	.00104	-.00552	.00007
SDev	.00057	.01206	.00084	.00006	.00015	.00009	.00001
%RSD	236.93	5.5151	129.94	3.4070	14.107	1.5690	18.037
#1	-.00016	.22726	.00123	.00187	.00093	-.00558	.00008
#2	.00064	.21020	.00005	.00196	.00114	-.00546	.00006
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00016	.00064	.01715	.85069	.00011	.00166	-.00007
SDev	.00011	.00021	.00055	.01698	.00224	.00003	.00037
%RSD	69.331	32.520	3.2127	1.9957	2070.5	1.6854	545.99
#1	.00024	.00049	.01754	.86269	-.00148	.00168	.00020
#2	.00008	.00079	.01676	.83868	.00169	.00164	-.00033
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00104	.32867	.33598	.33355	.00343	.00230	.00267
SDev	.00058	.00339	.00597	.00511	.00214	.00063	.00029
%RSD	55.753	1.0328	1.7760	1.5321	62.503	27.596	10.891
#1	.00145	.33107	.34020	.33716	.00191	.00274	.00247
#2	.00063	.32627	.33177	.32993	.00494	.00185	.00288
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	-.00314	.00017	-.00093	-.00225	.00029	.00237	
SDev	.00307	.00238	.00056	.00203	.00057	.00008	
%RSD	97.678	1417.3	60.432	90.277	195.75	3.5042	
#1	-.00531	.00185	-.00054	-.00081	-.00011	.00231	
#2	-.00097	-.00151	-.00133	-.00369	.00070	.00243	

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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	18946	--	--	--	--	--	--
SDev	273.9334	--	--	--	--	--	--
%RSD	1.445880	--	--	--	--	--	--
#1	18752	--	--	--	--	--	--
#2	19140	--	--	--	--	--	--

Method: METTRA Sample Name: DFKAWS/250 Pb Operator: RJG
 Run Time: 07/17/00 18:55:58
 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
Avg	.00108	.28212	.00738	.01648	.00129	.02437	.00023
SDev	.00001	.00232	.00036	.00013	.00005	.00008	.00001
%RSD	.53992	.82392	4.8320	.78239	3.8277	.32487	4.3350
#1	.00108	.28377	.00763	.01657	.00132	.02432	.00024
#2	.00107	.28048	.00713	.01639	.00125	.02443	.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	.00217	.00233	.06906	3.6286	.00721	.01007	.00060
SDev	.00028	.00026	.00014	.0102	.00260	.00005	.00101
%RSD	12.751	11.159	.20609	.28104	36.086	.52789	166.22
#1	.00198	.00252	.06896	3.6214	.00905	.01003	.00132
#2	.00237	.00215	.06916	3.6359	.00537	.01011	-.00011
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	.00283	.67380	.68298	.67993	.00295	.00283	.00287
SDev	.00009	.00006	.00048	.00030	.00103	.00143	.00130
%RSD	3.1354	.00968	.07013	.04379	34.952	50.555	45.204
#1	.00276	.67385	.68265	.67972	.00368	.00384	.00379
#2	.00289	.67376	.68332	.68014	.00222	.00182	.00195
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	.00837	.00656	.00716	.00900	.00219	.01398	
SDev	.00094	.00362	.00210	.00106	.00043	.00006	
%RSD	11.200	55.255	29.389	11.827	19.650	.46830	
#1	.00903	.00399	.00567	.00825	.00249	.01403	
#2	.00771	.00912	.00865	.00976	.00188	.01394	
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	18949	--	--	--	--	--	--
SDev	15.16827	--	--	--	--	--	--
%RSD	.0800459	--	--	--	--	--	--
#1	18960	--	--	--	--	--	--
#2	18939	--	--	--	--	--	--

Method: METTRA Sample Name: DFKAWD/250 Pb Operator: RJG
 Run Time: 07/17/00 19:00:08
 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
Avg	.00154	.31378	.00871	.03385	.00113	.01798	.00015
SDev	.00098	.00104	.00096	.00009	.00001	.00090	.00010
%RSD	63.426	.33226	11.041	.26717	.93175	5.0184	66.603
#1	.00085	.31305	.00803	.03392	.00112	.01735	.00008
#2	.00224	.31452	.00939	.03379	.00114	.01862	.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	.00115	.00282	.11447	4.7756	.01287	.00928	-.00020
SDev	.00028	.00028	.00038	.0080	.00526	.00000	.00087
%RSD	24.197	9.8531	.33502	.16853	40.869	.02579	446.03
#1	.00096	.00262	.11474	4.7813	.00915	.00928	.00042
#2	.00135	.00302	.11420	4.7699	.01659	.00928	-.00081
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	.00321	1.5329	1.5611	1.5517	.01447	.01380	.01402
SDev	.00064	.0027	.0116	.0086	.00050	.00009	.00023
%RSD	20.079	.17359	.74539	.55729	3.4747	.65592	1.6242
#1	.00275	1.5348	1.5694	1.5578	.01411	.01374	.01386
#2	.00367	1.5310	1.5529	1.5456	.01482	.01387	.01418
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	.00756	.00308	.00457	.00699	.00260	.03261	
SDev	.00114	.00073	.00011	.00115	.00044	.00025	
%RSD	15.123	23.770	2.3569	16.478	16.744	.76831	
#1	.00836	.00256	.00449	.00617	.00229	.03279	
#2	.00675	.00360	.00465	.00780	.00291	.03244	
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	18687	--	--	--	--	--	--
SDev	39.80928	--	--	--	--	--	--
%RSD	.2130308	--	--	--	--	--	--
#1	18659	--	--	--	--	--	--
#2	18715	--	--	--	--	--	--

Method: METTRA Sample Name: DFKC7

Operator: RJG

Run Time: 07/17/00 19:04:19

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
Avge	.00038	56.934	.04757	.41929	.00298	15.748	.00123
SDev	.00027	.403	.00176	.00263	.00009	.110	.00015
%RSD	70.035	.70718	3.7051	.62624	3.0408	.69874	11.790
#1	.00019	56.649	.04632	.41744	.00304	15.670	.00113
#2	.00057	57.218	.04882	.42115	.00291	15.826	.00133
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	.02530	.25598	3.9113	205.80	7.1829	.53525	.00006
SDev	.00047	.00133	.0309	1.58	.0596	.00400	.00024
%RSD	1.8473	.51976	.78875	.76906	.83013	.74789	427.01
#1	.02497	.25504	3.8895	204.68	7.1407	.53242	.00022
#2	.02563	.25693	3.9332	206.92	7.2250	.53808	-.00011
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	.05790	2.9676	2.9901	2.9826	.01106	.00173	.00484
SDev	.00017	.0247	.0025	.0099	.00484	.00086	.00218
%RSD	.28910	.83359	.08321	.33182	43.754	49.561	45.142
#1	.05778	2.9501	2.9884	2.9756	.01448	.00234	.00638
#2	.05801	2.9851	2.9919	2.9896	.00764	.00113	.00329
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	-.00110	.00514	.00306	.00951	.18510	.28087	
SDev	.00013	.00309	.00210	.00109	.00180	.00252	
%RSD	11.521	60.086	68.679	11.414	.97300	.89746	
#1	-.00101	.00732	.00455	.00874	.18383	.27909	
#2	-.00119	.00296	.00157	.01028	.18637	.28265	
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	19131	--	--	--	--	--	--
SDev	138.2394	--	--	--	--	--	--
%RSD	.7226049	--	--	--	--	--	--
#1	19228	--	--	--	--	--	--
#2	19033	--	--	--	--	--	--

Method: METTRA Sample Name: DFKCC

Operator: RJG

Run Time: 07/17/00 19:08:29

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
Avge	-.00061	74.796	.03270	.30564	.00574	1.4117	.00032
SDev	.00014	.056	.00069	.00063	.00001	.0033	.00012
%RSD	22.107	.07501	2.1044	.20540	.21172	.23643	38.580
#1	-.00071	74.835	.03221	.30609	.00573	1.4141	.00040
#2	-.00052	74.756	.03318	.30520	.00575	1.4093	.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
Avge	.03263	.09736	.10657	137.34	4.8719	.47007	.00082
SDev	.00020	.00002	.00066	.19	.0073	.00104	.00114
%RSD	.61552	.01909	.61610	.14161	.15033	.22128	139.40
#1	.03278	.09734	.10704	137.48	4.8771	.47081	.00001
#2	.03249	.09737	.10611	137.20	4.8668	.46933	.00162
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	.07441	.07769	.07609	.07662	.00663	.00246	.00385
SDev	.00024	.00342	.00072	.00066	.00071	.00048	.00008
%RSD	.32907	4.4006	.94855	.85748	10.712	19.511	2.1730
#1	.07458	.07527	.07660	.07616	.00714	.00212	.00379
#2	.07423	.08010	.07558	.07709	.00613	.00280	.00391
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	-.00081	.00239	.00133	.00237	.13051	.35599	
SDev	.00224	.00329	.00145	.00075	.00011	.00106	
%RSD	277.70	137.37	108.96	31.695	.08059	.29883	
#1	-.00239	.00472	.00235	.00184	.13058	.35674	
#2	.00078	.00007	.00030	.00290	.13043	.35523	
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	19264	--	--	--	--	--	--
SDev	8.697966	--	--	--	--	--	--
%RSD	.0451514	--	--	--	--	--	--
#1	19258	--	--	--	--	--	--
#2	19270	--	--	--	--	--	--

Method: METTRA Sample Name: DFKCD Operator: RJG
 Run Time: 07/17/00 19:12:39
 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
Avg	.00208	16.351	.02535	.34526	.00311	3.5578	.00135
SDev	.00035	.004	.00150	.00046	.00003	.0015	.00001
%RSD	16.678	.02355	5.9067	.13415	1.1231	.04284	.84031
#1	.00232	16.354	.02641	.34493	.00314	3.5589	.00135
#2	.00183	16.349	.02429	.34559	.00309	3.5567	.00134
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	.03672	.05132	1.2549	36.562	1.6212	.76959	.00682
SDev	.00036	.00021	.0007	.056	.0036	.00143	.00017
%RSD	.97231	.41980	.05264	.15353	.22082	.18609	2.4711
#1	.03647	.05117	1.2544	36.523	1.6237	.76858	.00694
#2	.03697	.05147	1.2553	36.602	1.6187	.77060	.00670
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	.06623	1.1652	1.1838	1.1776	.03057	.02510	.02692
SDev	.00120	.0125	.0006	.0038	.00184	.00074	.00111
%RSD	1.8103	1.0757	.05085	.32038	6.0223	2.9632	4.1199
#1	.06708	1.1564	1.1842	1.1749	.02926	.02457	.02613
#2	.06539	1.1741	1.1833	1.1803	.03187	.02562	.02770
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	.00370	.00076	.00174	.00556	.11210	.45194	
SDev	.00056	.00087	.00039	.00069	.00024	.00015	
%RSD	14.985	114.08	22.658	12.412	.21098	.03437	
#1	.00331	.00138	.00202	.00605	.11226	.45183	
#2	.00410	.00015	.00146	.00507	.11193	.45205	
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	19721	--	--	--	--	--	--
SDev	59.60827	--	--	--	--	--	--
%RSD	.3022640	--	--	--	--	--	--
#1	19763	--	--	--	--	--	--
#2	19678	--	--	--	--	--	--

Method: METTRA Sample Name: DFKCK Operator: RJG
 Run Time: 07/17/00 19:16:50
 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	.00029	59.844	.06979	.76172	.00379	2.8797	.00218
SDev	.00031	.025	.00039	.00110	.00004	.0007	.00013
%RSD	106.06	.04222	.56410	.14490	1.0452	.02549	5.8675
#1	.00051	59.826	.07006	.76094	.00377	2.8792	.00209
#2	.00007	59.862	.06951	.76250	.00382	2.8803	.00227
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	.03374	.14923	3.2048	183.12	6.2085	.64013	.00465
SDev	.00049	.00026	.0025	.04	.0009	.00049	.00026
%RSD	1.4512	.17443	.07821	.02451	.01392	.07732	5.4803
#1	.03409	.14941	3.2030	183.09	6.2091	.63978	.00483
#2	.03340	.14904	3.2066	183.15	6.2078	.64048	.00447
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	.07484	.28993	.29271	.29178	.02364	.01688	.01913
SDev	.00057	.00160	.00147	.00045	.00280	.00015	.00103
%RSD	.76761	.55076	.50358	.15472	11.841	.88776	5.3953
#1	.07443	.28880	.29375	.29210	.02562	.01698	.01986
#2	.07525	.29106	.29167	.29147	.02166	.01677	.01840
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	.01100	.01410	.01306	.00623	.30306	.77408	
SDev	.00100	.00334	.00190	.00561	.00039	.00032	
%RSD	9.0895	23.718	14.524	89.960	.12815	.04180	
#1	.01029	.01646	.01441	.00227	.30279	.77431	
#2	.01170	.01173	.01172	.01020	.30334	.77386	
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	19092	--	--	--	--	--	--
SDev	16.12259	--	--	--	--	--	--
%RSD	.0844446	--	--	--	--	--	--
#1	19081	--	--	--	--	--	--
#2	19104	--	--	--	--	--	--

Method: METTRA Sample Name: CCV3-9 Operator: RJG
 Run Time: 07/17/00 19:21:00
 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	.97822	22.572	.49239	1.8606	1.9808	49.507	.47320
SDev	.00026	.004	.00092	.0019	.0005	.022	.00048
%RSD	.02675	.01801	.18638	.10083	.02702	.04469	.10117
#1	.97803	22.569	.49303	1.8620	1.9812	49.523	.47287
#2	.97840	22.575	.49174	1.8593	1.9804	49.491	.47354
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	1.9228	1.9374	1.8662	24.243	49.556	1.9147	1.9459
SDev	.0007	.0009	.0007	.010	.006	.0002	.0065
%RSD	.03801	.04511	.03516	.03930	.01215	.01233	.33305
#1	1.9223	1.9368	1.8667	24.236	49.552	1.9145	1.9413
#2	1.9233	1.9381	1.8658	24.249	49.560	1.9148	1.9505
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	1.9481	.47894	.48204	.48101	.50912	.49293	.49833
SDev	.0039	.00119	.00094	.00102	.00164	.00078	.00106
%RSD	.20024	.24753	.19543	.21271	.32176	.15756	.21342
#1	1.9508	.47811	.48138	.48029	.50797	.49239	.49757
#2	1.9453	.47978	.48271	.48174	.51028	.49348	.49908
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	.49259	.51094	.50483	.98940	1.9199	1.9339	
SDev	.00274	.00333	.00314	.00244	.0007	.0008	
%RSD	.55594	.65274	.62129	.24638	.03523	.04213	
#1	.49065	.50858	.50261	.98768	1.9203	1.9344	
#2	.49452	.51330	.50705	.99112	1.9194	1.9333	
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	18733	--	--	--	--	--	--
SDev	16.29936	--	--	--	--	--	--
%RSD	.0870092	--	--	--	--	--	--
#1	18744	--	--	--	--	--	--
#2	18721	--	--	--	--	--	--

Method: METTRA Sample Name: CCB9

Operator: RJG

Run Time: 07/17/00 19:25:11

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	.00089	H.24400	.00029	.00038	.00130	-.00312	.00009
SDev	.00005	.00049	.00016	.00006	.00006	.00256	.00000
%RSD	5.0326	.19879	54.856	16.913	4.8682	81.898	1.3797
#1	.00085	H.24435	.00018	.00034	.00126	-.00493	.00009
#2	.00092	H.24366	.00041	.00043	.00135	-.00131	.00009
Errors	LC Pass	LC High	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	.00039	.00079	-.00782	.03154	.01104	.00046	.00336
SDev	.00014	.00017	.00027	.00280	.00018	.00012	.00058
%RSD	36.153	21.819	3.4867	8.8880	1.6285	26.882	17.180
#1	.00048	.00067	-.00801	.02956	.01092	.00037	.00377
#2	.00029	.00091	-.00763	.03353	.01117	.00055	.00295
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	-.00002	-.00128	-.00074	-.00092	.00088	.00159	.00135
SDev	.00070	.00113	.00027	.00056	.00255	.00140	.00008
%RSD	4528.5	88.901	36.898	61.018	288.98	88.035	5.9957
#1	.00048	-.00047	-.00054	-.00052	.00269	.00060	.00130
#2	-.00051	-.00208	-.00093	-.00131	-.00092	.00258	.00141
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	-.00245	-.00336	-.00306	-.00213	.00074	-.00039	
SDev	.00189	.00098	.00128	.00262	.00015	.00014	
%RSD	77.419	29.134	42.002	123.02	19.761	34.719	
#1	-.00378	-.00405	-.00396	-.00028	.00064	-.00049	
#2	-.00111	-.00267	-.00215	-.00398	.00084	-.00030	
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	18614	--	--	--	--	--	--
SDev	52.82032	--	--	--	--	--	--
%RSD	.2837644	--	--	--	--	--	--
#1	18577	--	--	--	--	--	--
#2	18652	--	--	--	--	--	--

Method: METTRA Sample Name: DFKCL/100 Pb Operator: RJG
 Run Time: 07/17/00 19:29:21
 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	.00122	.75846	.00255	.03639	.00114	.08634	.00015
SDev	.00043	.00526	.00125	.00001	.00005	.00237	.00015
%RSD	35.533	.69301	49.259	.03172	4.6200	2.7493	105.27
#1	.00092	.76217	.00166	.03639	.00111	.08466	.00004
#2	.00153	.75474	.00343	.03638	.00118	.08802	.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
Avg	.00052	.00360	.23225	5.0646	.03148	.01846	.00117
SDev	.00047	.00002	.00081	.0221	.00074	.00003	.00045
%RSD	89.737	.47596	.35106	.43589	2.3650	.17041	38.723
#1	.00086	.00361	.23283	5.0802	.03095	.01848	.00085
#2	.00019	.00359	.23168	5.0490	.03200	.01844	.00149
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	.00513	1.3632	1.3808	1.3749	.00333	.00436	.00402
SDev	.00051	.0047	.0045	.0045	.00157	.00030	.00032
%RSD	9.8842	.34154	.32417	.32990	47.140	6.9745	7.9861
#1	.00477	1.3665	1.3840	1.3782	.00445	.00414	.00424
#2	.00549	1.3599	1.3777	1.3717	.00222	.00457	.00379
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	-.00277	-.00276	-.00276	-.00042	.00218	.04959	
SDev	.00331	.00029	.00129	.00280	.00059	.00010	
%RSD	119.58	10.338	46.802	666.96	27.215	.19896	
#1	-.00511	-.00296	-.00368	.00156	.00260	.04966	
#2	-.00043	-.00256	-.00185	-.00240	.00176	.04952	
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	18740	--	--	--	--	--	--
SDev	42.81587	--	--	--	--	--	--
%RSD	.2284716	--	--	--	--	--	--
#1	18710	--	--	--	--	--	--
#2	18770	--	--	--	--	--	--

Method: METTRA Sample Name: DFKCN Operator: RJG
 Run Time: 07/17/00 19:33:32
 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	.00509	11.948	.06690	.78114	.00216	2.8430	.00075
SDev	.00024	.043	.00069	.00252	.00003	.0159	.00003
%RSD	4.6630	.35896	1.0316	.32220	1.4960	.55863	3.4819
#1	.00526	11.978	.06641	.78292	.00218	2.8543	.00073
#2	.00492	11.917	.06739	.77936	.00213	2.8318	.00077
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	.01994	.06912	3.0272	93.594	1.7663	.29893	.01226
SDev	.00013	.00008	.0087	.297	.0094	.00127	.00019
%RSD	.64211	.12160	.28659	.31726	.53081	.42564	1.5252
#1	.02003	.06918	3.0334	93.804	1.7730	.29983	.01213
#2	.01985	.06906	3.0211	93.384	1.7597	.29803	.01239
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	.07818	3.8907	3.9371	3.9217	.01547	.01419	.01462
SDev	.00149	.0088	.0232	.0184	.00115	.00037	.00063
%RSD	1.9068	.22567	.58879	.46883	7.4248	2.6227	4.3155
#1	.07713	3.8969	3.9535	3.9347	.01629	.01445	.01506
#2	.07924	3.8845	3.9208	3.9087	.01466	.01393	.01417
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	.00862	.00419	.00567	.00768	.13231	.56546	
SDev	.00184	.00046	.00092	.00102	.00058	.00260	
%RSD	21.400	10.883	16.210	13.266	.44020	.46019	
#1	.00731	.00387	.00502	.00840	.13272	.56730	
#2	.00992	.00452	.00632	.00696	.13190	.56362	
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	19564	--	--	--	--	--	--
SDev	11.42005	--	--	--	--	--	--
%RSD	.0583721	--	--	--	--	--	--
#1	19556	--	--	--	--	--	--
#2	19572	--	--	--	--	--	--

Method: METTRA Sample Name: DFKCQ Operator: RJG
 Run Time: 07/17/00 19:37:42
 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	.00054	23.521	.07432	.30069	.00225	2.2626	.00047
SDev	.00006	.013	.00037	.00063	.00001	.0034	.00005
%RSD	11.032	.05656	.50269	.20870	.55373	.14851	10.418
#1	.00058	23.530	.07458	.30113	.00224	2.2650	.00044
#2	.00050	23.511	.07406	.30025	.00225	2.2603	.00051
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	.01912	.06147	1.9346	155.23	4.6300	.64639	.00554
SDev	.00023	.00003	.0034	.23	.0065	.00069	.00060
%RSD	1.1971	.04000	.17373	.14902	.14091	.10614	10.728
#1	.01896	.06145	1.9370	155.39	4.6347	.64688	.00512
#2	.01928	.06149	1.9323	155.06	4.6254	.64591	.00596
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	.03709	.28192	.28199	.28197	.00550	.00369	.00429
SDev	.00011	.00068	.00007	.00027	.00210	.00088	.00011
%RSD	.28495	.24112	.02530	.09716	38.124	23.937	2.5353
#1	.03717	.28240	.28204	.28216	.00698	.00307	.00437
#2	.03702	.28144	.28194	.28177	.00402	.00431	.00422
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	.00995	.01667	.01443	.00272	.12129	.23781	
SDev	.00167	.00097	.00120	.00034	.00024	.00069	
%RSD	16.796	5.8132	8.3357	12.395	.20038	.29036	
#1	.00877	.01598	.01358	.00248	.12112	.23830	
#2	.01114	.01735	.01528	.00296	.12146	.23732	
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	18877	--	--	--	--	--	--
SDev	31.53669	--	--	--	--	--	--
%RSD	.1670619	--	--	--	--	--	--
#1	18855	--	--	--	--	--	--
#2	18900	--	--	--	--	--	--

Method: METTRA Sample Name: ~~DDPKT~~ ^{DFKCT} /25 Pb Operator: RJG
 Run Time: 07/17/00 19:41:52 ^{PS 1.1810}
 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	.00241	.99113	.00559	.15405	.00114	3.7735	.00047
SDev	.00023	.00089	.00011	.00006	.00006	.0092	.00013
%RSD	9.5201	.08986	2.0121	.03787	5.3596	.24462	28.151
#1	.00224	.99050	.00567	.15409	.00109	3.7800	.00038
#2	.00257	.99176	.00551	.15400	.00118	3.7669	.00056
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	.00236	.02441	.55993	34.435	.27704	.16953	.00210
SDev	.00003	.00011	.00060	.026	.00172	.00006	.00015
%RSD	1.4027	.44758	.10740	.07579	.62071	.03824	7.0698
#1	.00234	.02449	.56036	34.454	.27583	.16958	.00200
#2	.00238	.02433	.55951	34.417	.27826	.16949	.00221
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	.01847	1.3788	1.3996	1.3927	.02287	.02350	.02329
SDev	.00093	.0044	.0017	.0026	.00040	.00246	.00151
%RSD	5.0446	.31837	.11978	.18525	1.7468	10.473	6.4774
#1	.01913	1.3819	1.4008	1.3945	.02258	.02524	.02436
#2	.01781	1.3757	1.3984	1.3909	.02315	.02176	.02222
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	-.00336	-.00043	-.00141	-.00033	.00716	.26434	
SDev	.00005	.00076	.00052	.00128	.00014	.00093	
%RSD	1.4754	175.05	37.230	387.71	1.9927	.35203	
#1	-.00332	.00010	-.00104	-.00123	.00706	.26500	
#2	-.00339	-.00097	-.00178	.00057	.00726	.26369	
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	18742	--	--	--	--	--	--
SDev	20.93008	--	--	--	--	--	--
%RSD	.1116760	--	--	--	--	--	--
#1	18727	--	--	--	--	--	--
#2	18757	--	--	--	--	--	--

Method: METTRA Sample Name: CCV3-10

Operator: RJG

Run Time: 07/17/00 19:52:53

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	.98247	22.650	.49398	1.8648	1.9903	49.712	.47514
SDev	.00069	.053	.00113	.0046	.0020	.138	.00018
%RSD	.07027	.23529	.22787	.24803	.10141	.27802	.03822
#1	.98296	22.687	.49478	1.8681	1.9918	49.810	.47527
#2	.98198	22.612	.49319	1.8616	1.9889	49.614	.47501
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	1.9298	1.9432	1.8729	24.265	49.800	1.9213	1.9558
SDev	.0004	.0025	.0013	.036	.062	.0018	.0067
%RSD	.01984	.12659	.07004	.14696	.12516	.09240	.34245
#1	1.9295	1.9449	1.8738	24.290	49.845	1.9225	1.9511
#2	1.9300	1.9414	1.8720	24.239	49.756	1.9200	1.9606
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	1.9621	.48099	.48389	.48293	.51053	.49119	.49763
SDev	.0073	.00201	.00042	.00095	.00495	.00180	.00045
%RSD	.36976	.41838	.08724	.19706	.96882	.36599	.09002
#1	1.9672	.47957	.48359	.48225	.51402	.48992	.49795
#2	1.9570	.48241	.48419	.48360	.50703	.49246	.49731
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	.49429	.50727	.50295	.99234	1.9244	1.9427	
SDev	.00122	.00124	.00042	.00336	.0047	.0010	
%RSD	.24692	.24429	.08354	.33847	.24574	.05225	
#1	.49516	.50639	.50265	.99472	1.9278	1.9434	
#2	.49343	.50815	.50325	.98997	1.9211	1.9419	
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	

664 724

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	18610	--	--	--	--	--	--
SDev	52.96257	--	--	--	--	--	--
%RSD	.2845843	--	--	--	--	--	--
#1	18648	--	--	--	--	--	--
#2	18573	--	--	--	--	--	--

Method: METTRA Sample Name: CCB10

Operator: RJG

Run Time: 07/17/00 19:57:04

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	.00058	H.24231	.00025	.00027	.00158	-.00752	.00004
SDev	.00049	.00307	.00029	.00004	.00001	.00250	.00010
%RSD	85.316	1.2681	115.32	16.310	.64569	33.179	252.91
#1	.00023	H.24014	.00046	.00024	.00158	-.00929	-.00003
#2	.00093	H.24448	.00005	.00030	.00157	-.00576	.00011
Errors	LC Pass	LC High	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	.00027	.00036	-.00888	.01076	.00952	.00035	.00437
SDev	.00007	.00043	.00006	.00314	.00547	.00012	.00022
%RSD	24.937	118.96	.64574	29.127	57.431	33.357	5.1548
#1	.00022	.00006	-.00892	.00855	.00565	.00026	.00453
#2	.00032	.00066	-.00884	.01298	.01339	.00043	.00421
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	-.00036	-.00186	-.00172	-.00176	-.00253	-.00104	-.00154
SDev	.00108	.00070	.00132	.00111	.00237	.00173	.00036
%RSD	303.09	37.385	76.992	63.067	93.730	165.14	23.542
#1	-.00112	-.00137	-.00078	-.00098	-.00085	-.00226	-.00179
#2	.00041	-.00236	-.00265	-.00255	-.00420	.00018	-.00128
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	.00108	.00023	.00051	.00084	.00062	-.00080	
SDev	.00069	.00027	.00005	.00043	.00000	.00000	
%RSD	64.311	119.90	9.7279	51.490	.64804	.43440	
#1	.00157	.00003	.00055	.00114	.00062	-.00079	
#2	.00059	.00042	.00048	.00053	.00062	-.00080	
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	18864	--	--	--	--	--	--
SDev	89.51944	--	--	--	--	--	--
%RSD	.4745530	--	--	--	--	--	--
#1	18927	--	--	--	--	--	--
#2	18801	--	--	--	--	--	--

Metals Preparation



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

Method: 3650B Matrix: Soils Start Time: 0900 SDG: _____ Balance# 18198 Receivets:
 Analyst: Maheon Date: 7-14-00 Lot No. (book, page, line) 0014-162-6
 Reviewed By: Maheon Date: 7-14-00 MS MS-BREV

Sample ID	Init Wt Vol g/mL	Final Vol mL	Comments	Color		Clarity		Texture		Artifact Codes
				Pre	Post	Pre	Post	Pre	Post	
1. DG5C7	1.0g	100ml	7-14-00 MY							S=Stones
2. DG5C7 S	1.0g	100ml	1ml MS-BREV							O=Organic (plant mat'l)
3. DG5C7 D	1.0g	100ml	1ml MS-BREV							W=free H2O
4. DG5CC										G=Glass
5. DG5CK										M=Metal Frgmts
6. DG5TAN B										R=Rubber/Plastic
7. DG5TAN C										C=Cloth
8										P=Paper
9										I=Insects

Digestate(s)	Digestate(s) Received			Digestate(s) Releashed			Hot plate /Block Temp	Correction Factor	Color	
	Date	Time	Analyst	Location	Date	Time				Analyst
III ABOVE	7-14-00	14:20	M. Loizeaux	Metals Prep	7-14-00	14:25	M. Loizeaux	# 4 95°C	-0.7°C	R=Red BL=Blue BR=Brown BLK=Black Y=Yellow O=Orange
ALLANUR	7-14-00	07:55	P. M. Loizeaux	METALS	7-14-00	19:55	P. M. Loizeaux	# 5 95°C	-0.7°C	W=White GY=Gray GN=Green C=Colorless

Digestate(s)	Digestate(s) Received			Digestate(s) Releashed			Hot plate /Block Temp	Correction Factor	Color	
	Date	Time	Analyst	Location	Date	Time				Analyst
										R=Red BL=Blue BR=Brown BLK=Black Y=Yellow O=Orange
										W=White GY=Gray GN=Green C=Colorless

REQUESTED BY: MAHANM

METHOD: QM Inductively Coupled Plasma (6010B Trace)

<u>STORAGE LOCATION</u>	<u>WORK ORDER #</u>	<u>PICKED CNTR#</u>	<u>CONTROL #</u>	<u>CLIENT #</u>	<u>ANALYSIS</u>	<u>LOTID</u>	<u>SMP#</u>	<u>SFX</u>	<u>MATRIX DESCRIPTION</u>	<u>QTY RCVD</u>	<u>QTY REQD</u>
5E CLP1	DG5C7	___	250061	399411	A-46-QM	COG130203	001		SOLID	0	3
5E CLP1	DG5CG	___	250062	399411	A-46-QM	COG130203	002		SOLID	0	3
5E CLP1	DG5CK	___	250063	399411	A-46-QM	COG130203	003		SOLID	0	3

RELINQUISHED BYRECEIVED BYDATE/TIME

Amber A. Hale Melissa Mahan 7-14-00 9:00

Melissa Mahan Amber A. Hale 7-14-00 9:50

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

**TCLP
METALS DATA**

STL-Pittsburgh

Cover Page - Inorganic Analysis Data Package

Client ID	Lab Sample ID:
DF/S1/0194/SDC/004	DG5CKT
DF/S1/0194/SDC/004D	DG5CKDT
DF/S1/0194/SDC/004S	DG5CKST
DF/S1/0194/SDC/019	DG5C7T
DF/S1/0194/SDC/020	DG5CGT
DF/S1/0194/SDC/020D	DG5CGDT
DF/S1/0194/SDC/020S	DG5CGST

Comments: UXB, DUNN FIELD TCLP'S
COG130203
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: _____
Date: _____

Name: _____
Title: _____

REVIEWED BY: <u>MTW</u>
DATE: <u>7-21-00</u>

664 731

**TCLP
METALS
RESULTS**

664 732 STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: DG5C7T Client ID: DF/S1/0194/SDC/019
Matrix: Water Units: mg/L Prep Date: 7/19/00 Prep Batch: 0200349
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	7/19/00	13:04

Comments: Lot#: C0G130203 Sample#: 1 TCLP Analysis

Version 3.63.5

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: DG5CGT Client ID: DF/S1/0194/SDC/020
 Matrix: Water Units: mg/L Prep Date: 7/19/00 Prep Batch: 0200349
 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	7/19/00	13:06

Comments: Lot#: C0G130203 Sample#: 2 TCLP Analysis

Version 3.63.5

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

Form 1 Equivalent

664 734 STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: DG5CKT **Client ID:** DF/S1/0194/SDC/004
Matrix: Water **Units:** mg/L **Prep Date:** 7/19/00 **Prep Batch:** 0200349
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	7/19/00	13:08

Comments: Lot#: C0G130203 Sample#: 3 TCLP Analysis

Version 3.63.5

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

Form 1 Equivalent

Metals Data Reporting Form

Sample Results

Lab Sample ID: DG5C7T Client ID: DF/S1/0194/SDC/019
 Matrix: Water Units: mg/L Prep Date: 7/19/00 Prep Batch: 0201254
 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	0.18	B	1	ICP	7/20/00	13:07
Barium	493.41	0.00041	10.0	1.8	B	1	ICP	7/20/00	13:07
Cadmium	228.80	0.0028	0.10	0.0028	U	1	ICP	7/20/00	13:07
Chromium	267.72	0.0038	0.50	0.0038	U	1	ICP	7/20/00	13:07
Lead	220.35	0.025	0.50	69.2		1	ICP	7/20/00	13:07
Selenium	196.03	0.067	0.25	0.067	U	1	ICP	7/20/00	13:07
Silver	328.07	0.0031	0.50	0.0031	U	1	ICP	7/20/00	13:07

Comments: Lot#: C0G130203 Sample# 1 TCLP Analysis

Version 3.63.5

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

Form 1 Equivalent

Metals Data Reporting Form

Sample Results

Lab Sample ID: DG5CGT Client ID: DF/S1/0194/SDC/020
 Matrix: Water Units: mg/L Prep Date: 7/19/00 Prep Batch: 0201254
 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	0.19	B	1	ICP	7/20/00	12:54
Barium	493.41	0.00041	10.0	1.7	B	1	ICP	7/20/00	12:54
Cadmium	228.80	0.0028	0.10	0.0028	U	1	ICP	7/20/00	12:54
Chromium	267.72	0.0038	0.50	0.0038	U	1	ICP	7/20/00	12:54
Lead	220.35	0.025	0.50	1.9		1	ICP	7/20/00	12:54
Selenium	196.03	0.067	0.25	0.067	U	1	ICP	7/20/00	12:54
Silver	328.07	0.0031	0.50	0.0031	U	1	ICP	7/20/00	12:54

Comments: Lot#: C0G130203 Sample#: 2 TCLP Analysis

Version 3.63.5

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

Form 1 Equivalent

Metals Data Reporting Form

Sample Results

Lab Sample ID: DG5CKT Client ID: DF/S1/0194/SDC/004
 Matrix: Water Units: mg/L Prep Date: 7/19/00 Prep Batch: 0201254
 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	0.18	B	1	ICP	7/20/00	18:41
Barium	493.41	0.00041	10.0	1.8	B	1	ICP	7/20/00	18:41
Cadmium	228.80	0.0028	0.10	0.0028	U	1	ICP	7/20/00	18:41
Chromium	267.72	0.0038	0.50	0.0038	U	1	ICP	7/20/00	18:41
Lead	220.35	0.025	0.50	0.025	U	1	ICP	7/20/00	18:41
Selenium	196.03	0.067	0.25	0.067	U	1	ICP	7/20/00	18:41
Silver	328.07	0.0031	0.50	0.0031	U	1	ICP	7/20/00	18:41

Comments: Lot#: C0G130203 Sample#: 3 TCLP Analysis

Version 3.63.5

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

Form 1 Equivalent

Initial Calibration Verification Standard

Instrument: CVAA

Units: ug/L

Chart Number: 0719HGA.PRN

Acceptable Range: 90% - 110%

Standard Source: Ultra

Standard ID: 0014-187-9

Element	WL/ Mass	True Conc	ICV5-1 7/19/00 11:25 AM		Found	Rec	Found	Rec	Found	Rec	Found	Rec
			Found	% Rec								
Mercury	253.7	2.5	2.60	104.0								

Initial Calibration Verification Standard

Instrument: ICP

Units: ug/L

Chart Number: J00720A.ARC

Acceptable Range: 90% - 110%

Standard Source: Inorganic Ventures

Standard ID: 0014-148-7

Element	WL/ Mass	True Conc	ICV2-1 7/20/00 12:30 PM		Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
			Found	% Rec								
Arsenic	193.696	1000.0	1024.86	102.5								
Barium	493.409	1000.0	993.59	99.4								
Cadmium	228.802	1000.0	1014.36	101.4								
Chromium	267.716	1000.0	1006.98	100.7								
Lead	220.353	1000.0	1019.10	101.9								
Selenium	196.026	1000.0	1040.61	104.1								
Silver	328.068	500.0	503.57	100.7								

Initial Calibration Verification Standard

Instrument: ICP

Units: ug/L

Chart Number: J00720B.ARC

Acceptable Range: 90% - 110%

Standard Source: Inorganic Ventures

Standard ID: 0014-148-7

Element	WL/ Mass	True Conc	ICV2-1 7/20/00 6:26 PM		Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
			Found	% Rec								
Arsenic	193.696	1000.0	1005.67	100.6								
Barium	493.409	1000.0	1014.48	101.4								
Cadmium	228.802	1000.0	1006.16	100.6								
Chromium	267.716	1000.0	1016.37	101.6								
Lead	220.353	1000.0	1016.28	101.6								
Selenium	196.026	1000.0	1008.50	100.8								
Silver	328.068	500.0	508.68	101.7								

STL-Pittsburgh
Metals Data Reporting Form

664 741

Continuing Calibration Verification

Instrument: CVAA

Units: ug/L

Chart Number: 0719HGA.PRN

Acceptable Range: 80% - 120%

Standard Source: Inorganic Ventures

Standard ID: 0014-188-1

Element	WL/ Mass	True Conc	CCV5-1 7/19/00 11:29 AM		CCV5-2 7/19/00 11:48 AM		CCV5-3 7/19/00 12:07 PM		CCV5-4 7/19/00 12:27 PM		CCV5-5 7/19/00 12:49 PM	
			Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
			Mercury	253.7	5.0	5.10	102.0	5.16	103.2	5.21	104.2	5.24

STL-Pittsburgh

Metals Data Reporting Form

664 742

Continuing Calibration Verification

Instrument: CVAA

Units: ug/L

Chart Number: 0719HGA.PRN

Acceptable Range: 80% - 120%

Standard Source: Inorganic Ventures

Standard ID: 0014-188-1

Element	WL/ Mass	True Conc	CCV5-6 7/19/00 1:09 PM		CCV5-7 7/19/00 1:31 PM							
			Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Mercury	253.7	5.0	5.07	101.4	5.09	101.8						

STL-Pittsburgh
Metals Data Reporting Form

664 743

Continuing Calibration Verification

Instrument: ICP

Units: ug/L

Chart Number: J00720A.ARC

Acceptable Range: 90% - 110%

Standard Source: Inorganic Ventures

Standard ID: 0014-164-11

Element	WL/ Mass	True Conc	CCV2-1 7/20/00 1:10 PM		Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
			Found	% Rec								
Arsenic	193.696	5000.0	4915.79	98.3								
Barium	493.409	5000.0	4653.06	93.1								
Cadmium	228.802	5000.0	5034.45	100.7								
Chromium	267.716	5000.0	4881.12	97.6								
Lead	220.353	5000.0	4972.83	99.5								
Selenium	196.026	5000.0	5002.18	100.0								
Silver	328.068	1000.0	978.79	97.9								

STL-Pittsburgh
Metals Data Reporting Form

664 744

Continuing Calibration Verification

Instrument: ICP

Units: ug/L

Chart Number: J00720B.ARC

Acceptable Range: 90% - 110%

Standard Source: Inorganic Ventures

Standard ID: 0014-164-11

Element	WL/ Mass	True Conc	CCV2-1 7/20/00 6:51 PM		Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
			Found	% Rec								
Arsenic	193.696	5000.0	5149.92	103.0								
Barium	493.409	5000.0	5030.47	100.6								
Cadmium	228.802	5000.0	5005.17	100.1								
Chromium	267.716	5000.0	4948.32	99.0								
Lead	220.353	5000.0	5000.98	100.0								
Selenium	196.026	5000.0	5015.03	100.3								
Silver	328.068	1000.0	1005.22	100.5								

Metals Data Reporting Form

Initial Calibration Blank Results

Instrument: CVAA

Units: ug/L

Chart Number: 0719HGA.PRN

Standard Source: _____

Standard ID: _____

Element	WL/ Mass	Report Limit	ICB1 7/19/00 11:27 AM		Found	Q	Found	Q	Found	Q	Found	Q
			Found	Q								
Mercury	253.7	0.2	0.0	U								

Metals Data Reporting Form

Initial Calibration Blank Results

Instrument: ICP

Units: ug/L

Chart Number: J00720A.ARC

Standard Source: _____

Standard ID: _____

Element	WL/ Mass	Report Limit	ICBI 7/20/00 12:33 PM		Found	Q	Found	Q	Found	Q	Found	Q
			Found	Q								
Arsenic	193.696	500	30.3	U								
Barium	493.409	10000	-0.8	B								
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

664 747

Initial Calibration Blank Results

Instrument: ICP

Units: ug/L

Chart Number: J00720B.ARC

Standard Source: _____

Standard ID: _____

Element	WL/ Mass	Report Limit	ICB1 7/20/00 6:29 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	67.4	U								
Silver	328.068	500	3.1	U								

STL-Pittsburgh
Metals Data Reporting Form

664 748

Continuing Calibration Blank Results

Instrument: CVAA

Units: ug/L

Chart Number: 0719HGA.PRN

Standard Source: _____

Standard ID: _____

Element	WL/ Mass	Report Limit	CCB1 7/19/00 11:31 AM		CCB2 7/19/00 11:49 AM		CCB3 7/19/00 12:09 PM		CCB4 7/19/00 12:29 PM		CCB5 7/19/00 12:50 PM	
			Found	Q	Found	Q	Found	Q	Found	Q	Found	Q
Mercury	253.7	0.2	0.0	B	0.0	U	0.0	U	-0.1	B	0.0	U

Metals Data Reporting Form

Continuing Calibration Blank Results

Instrument: CVAA

Units: ug/L

Chart Number: 0719HGA.PRN

Standard Source: _____

Standard ID: _____

Element	WL/ Mass	Report Limit	CCB6 7/19/00 1:11 PM		CCB7 7/19/00 1:32 PM					
			Found	Q	Found	Q	Found	Q	Found	Q
Mercury	253.7	0.2	0.0	U	-0.1	B				

Metals Data Reporting Form

Continuing Calibration Blank Results

Instrument: ICP

Units: ug/L

Chart Number: J00720A.ARC

Standard Source: _____

Standard ID: _____

Element	WL/ Mass	Report Limit	CCB1 7/20/00 1:13 PM		Found	Q	Found	Q	Found	Q	Found	Q
			Found	Q								
Arsenic	193.696	500	30.3	U								
Barium	493.409	10000	-1.0	B								
Cadmium	228.802	100	2.8	U								
Chromium	267.716	500	-4.4	B								
Lead	220.353	500	24.6	U								
Selenium	196.026	250	67.4	U								
Silver	328.068	500	3.1	U								

Metals Data Reporting Form

Continuing Calibration Blank Results

Instrument: ICPUnits: ug/LChart Number: J00720B.ARC

Standard Source: _____

Standard ID: _____

Element	WL/ Mass	Report Limit	CCB1 7/20/00 6:54 PM		Found	Q	Found	Q	Found	Q	Found	Q
			Found	Q								
Arsenic	193.696	500	30.3	U								
Barium	493.409	10000	3.0	B								
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								

Metals Data Reporting Form

Preparation Blank Results

Lab Sample ID: DGDQKBT

Matrix: Water Units: mg/L Prep Date: 7/19/00 Prep Batch: 0200349

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	7/19/00	13:01

Comments: _____

Metals Data Reporting Form

Preparation Blank Results

Lab Sample ID: DGEIFBTMatrix: Water Units: mg/L Prep Date: 7/19/00 Prep Batch: 0200349Weight: 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	7/19/00	12:58

Comments: _____

Metals Data Reporting Form

Preparation Blank Results

Lab Sample ID: DGDQKBTMatrix: Water Units: mg/L Prep Date: 7/19/00 Prep Batch: 0201254Weight: 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	0.19	B	1	ICP	7/20/00	12:51
Barium	493.409	0.00041	10.0	0.00041	U	1	ICP	7/20/00	12:51
Cadmium	228.802	0.0028	0.10	-0.0045	B	1	ICP	7/20/00	12:51
Chromium	267.716	0.0038	0.50	0.0038	U	1	ICP	7/20/00	12:51
Lead	220.353	0.025	0.50	0.025	U	1	ICP	7/20/00	12:51
Selenium	196.026	0.067	0.25	0.067	U	1	ICP	7/20/00	12:51
Silver	328.068	0.0031	0.50	0.0031	U	1	ICP	7/20/00	12:51

Comments: _____

Metals Data Reporting Form

Preparation Blank Results

Lab Sample ID: DGFEABTMatrix: Water Units: mg/L Prep Date: 7/19/00 Prep Batch: 0201254Weight: 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	7/20/00	12:45
Barium	493.409	0.00041	10.0	-0.00092	B	1	ICP	7/20/00	12:45
Cadmium	228.802	0.0028	0.10	0.0028	U	1	ICP	7/20/00	12:45
Chromium	267.716	0.0038	0.50	0.0038	U	1	ICP	7/20/00	12:45
Lead	220.353	0.025	0.50	0.025	U	1	ICP	7/20/00	12:45
Selenium	196.026	0.067	0.25	0.067	U	1	ICP	7/20/00	12:45
Silver	328.068	0.0031	0.50	0.0031	U	1	ICP	7/20/00	12:45

Comments: _____

Interference Check Standard A

Instrument: ICP

Units: ug/L

Chart Number: J00720A.ARC

Acceptable Range: 0% - 0%

Standard Source: Inorganic Ventures

Standard ID: 0014-170-1

Element	WL/ Mass	Reporting Limit	True Conc	ICSA 7/20/00 12:36 PM				
				Found	Found	Found	Found	Found
Arsenic	193.696	500		-84				
Barium	493.409	10000		1				
Cadmium	228.802	100		-4				
Chromium	267.716	500		-3				
Lead	220.353	500		69				
Selenium	196.026	250		50				
Silver	328.068	500		-3				

STL-Pittsburgh
Metals Data Reporting Form

664 757

Interference Check Standard A

Instrument: ICP

Units: ug/L

Chart Number: J00720B.ARC

Acceptable Range: 0% - 0%

Standard Source: Inorganic Ventures

Standard ID: 0014-170-1

Element	WL/ Mass	Reporting Limit	True Conc	ICSA 7/20/00 6:33 PM				
				Found	Found	Found	Found	Found
Arsenic	193.696	500		-130				
Barium	493.409	10000		2				
Cadmium	228.802	100		-6				
Chromium	267.716	500		3				
Lead	220.353	500		90				
Selenium	196.026	250		2				
Silver	328.068	500		-2				

Interference Check Standard AB

Instrument: ICPUnits: ug/LChart Number: J00720A.ARCAcceptable Range: 80% - 120%Standard Source: Inorganic VenturesStandard ID: 0014-187-1

Element	WL/ Mass	True Conc	ICSAB 7/20/00 12:40 PM		Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
			Found	% Rec								
Arsenic	193.696	1000	867.3	86.7								
Barium	493.409	500	460.0	92.0								
Cadmium	228.802	1000	948.4	94.8								
Chromium	267.716	500	444.1	88.8								
Lead	220.353	1000	1005.1	100.5								
Selenium	196.026	1000	981.9	98.2								
Silver	328.068	1000	948.7	94.9								

STL-Pittsburgh
Metals Data Reporting Form

664 759

Interference Check Standard AB

Instrument: ICP

Units: ug/L

Chart Number: J00720B.ARC

Acceptable Range: 80% - 120%

Standard Source: Inorganic Ventures

Standard ID: 0014-187-1

Element	WL/ Mass	True Conc	ICSAB 7/20/00 6:36 PM		Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
			Found	% Rec								
Arsenic	193.696	1000	912.2	91.2								
Barium	493.409	500	472.2	94.4								
Cadmium	228.802	1000	954.7	95.5								
Chromium	267.716	500	446.5	89.3								
Lead	220.353	1000	982.0	98.2								
Selenium	196.026	1000	915.3	91.5								
Silver	328.068	1000	959.5	96.0								

STL-Pittsburgh
Metals Data Reporting Form

664 760

Matrix Spike Sample Results

Spike Sample ID: DG5CKST
Original Sample ID: DG5CKT **Client ID:** DF/S1/0194/SDC/004S
Matrix: Water **Units:** mg/L **Prep Date:** 7/19/00 **Prep Batch:** 0200349
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	105.2	1	1	CVAA	7/19/00	13:08	7/19/00	13:12

Comments: _____

Version 3.63.5

- 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 Sample Results

Spike Sample ID: DG5CKDT
 Original Sample ID: DG5CKT Client ID: DF/S1/0194/SDC/004D
 Matrix: Water Units: mg/L Prep Date: 7/19/00 Prep Batch: 0200349
 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	0.0052		0.005	103.4	1	1	CVAA	7/19/00	13:08	7/19/00	13:14

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 Sample Results

Spike Sample ID: DG5CGST
 Original Sample ID: DG5CGT Client ID: DF/S1/0194/SDC/020S
 Matrix: Water Units: mg/L Prep Date: 7/19/00 Prep Batch: 0201254
 Weight: 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	0.19	B	5.0		5	95.2	1	1	ICP	7/20/00	12:54	7/20/00	13:01
Barium	493.4	1.7	B	44.8		50	86.3	1	1	ICP	7/20/00	12:54	7/20/00	13:01
Cadmium	228.8	0.0028	U	0.96		1	95.5	1	1	ICP	7/20/00	12:54	7/20/00	13:01
Chromium	267.7	0.0038	U	4.5		5	89.7	1	1	ICP	7/20/00	12:54	7/20/00	13:01
Lead	220.4	1.9		6.4		5	89.2	1	1	ICP	7/20/00	12:54	7/20/00	13:01
Selenium	196.0	0.067	U	1.0		1	104.0	1	1	ICP	7/20/00	12:54	7/20/00	13:01
Silver	328.1	0.0031	U	0.90		1	90.1	1	1	ICP	7/20/00	12:54	7/20/00	13:01

Comments: _____

Version 3.63.5

- 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 Sample Results

Spike Sample ID: DG5CGDT
 Original Sample ID: DG5CGT Client ID: DF/S1/0194/SDC/020D
 Matrix: Water Units: mg/L Prep Date: 7/19/00 Prep Batch: 0201254
 Weight: 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	0.19	B	4.8		5	91.7	1	1	ICP	7/20/00	12:54	7/20/00	13:04
Barium	493.4	1.7	B	43.4		50	83.5	1	1	ICP	7/20/00	12:54	7/20/00	13:04
Cadmium	228.8	0.0028	U	0.94		1	93.5	1	1	ICP	7/20/00	12:54	7/20/00	13:04
Chromium	267.7	0.0038	U	4.4		5	86.9	1	1	ICP	7/20/00	12:54	7/20/00	13:04
Lead	220.4	1.9		6.1		5	84.1	1	1	ICP	7/20/00	12:54	7/20/00	13:04
Selenium	196.0	0.067	U	1.0		1	100.9	1	1	ICP	7/20/00	12:54	7/20/00	13:04
Silver	328.1	0.0031	U	0.89		1	89.3	1	1	ICP	7/20/00	12:54	7/20/00	13:04

Comments: _____

Version 3.63.5

- 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

664 764

Matrix Spike Duplicate RPD Report

Matrix Spike Duplicate Sample ID: DG5CKDT

Matrix Spike Sample ID: DG5CKST **Client ID:** DF/S1/0194/SDC/004D

Matrix: Water **Units:** mg/L **Prep Date:** 7/19/00 **Prep Batch:** 0200349

Weight: 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		0.0052		1.7 %	1	1	CVAA	7/19/00	13:12	7/19/00	13:14

Comments: _____

Version 3.63.5

- 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: DG5CGDTMatrix Spike Sample ID: DG5CGST Client ID: DF/S1/0194/SDC/020DMatrix: Water Units: mg/L Prep Date: 7/19/00 Prep Batch: 0201254Weight: 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	5.0		4.8		3.7 %	1	1	ICP	7/20/00	13:01	7/20/00	13:04
Barium	493.409	44.8		43.4		3.3 %	1	1	ICP	7/20/00	13:01	7/20/00	13:04
Cadmium	228.802	0.96		0.94		2.1 %	1	1	ICP	7/20/00	13:01	7/20/00	13:04
Chromium	267.716	4.5		4.4		3.1 %	1	1	ICP	7/20/00	13:01	7/20/00	13:04
Lead	220.353	6.4		6.1		5.9 %	1	1	ICP	7/20/00	13:01	7/20/00	13:04
Selenium	196.026	1.0		1.0		3.0 %	1	1	ICP	7/20/00	13:01	7/20/00	13:04
Silver	328.068	0.90		0.89		0.8 %	1	1	ICP	7/20/00	13:01	7/20/00	13:04

Comments: _____

Version 3.63.5

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

Laboratory Control Sample Results

Lab Sample ID: DGE1FCTMatrix: Water Units: mg/L Prep Date: 7/19/00 Prep Batch: 0200349Weight: 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	106.4		80-120	1	CVAA	7/19/00	13:02

Comments: _____

Version 3.63.5

U Result is less than the MDL

B Result is between MDL and RL

Form 7 Equivalent

Metals Data Reporting Form

Laboratory Control Sample Results

Lab Sample ID: DGFEACTMatrix: Water Units: mg/L Prep Date: 7/19/00 Prep Batch: 0201254Weight: 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	108.3		80-120	1	ICP	7/20/00	12:48
Barium	493.409	2.0	1.9	95.0	B	80-120	1	ICP	7/20/00	12:48
Cadmium	228.802	0.050	0.045	90.3	B	80-120	1	ICP	7/20/00	12:48
Chromium	267.716	0.20	0.19	94.6	B	80-120	1	ICP	7/20/00	12:48
Lead	220.353	0.50	0.47	94.3	B	80-120	1	ICP	7/20/00	12:48
Selenium	196.026	2.0	2.3	112.7		80-120	1	ICP	7/20/00	12:48
Silver	328.068	0.050	0.042	84.7	B	80-120	1	ICP	7/20/00	12:48

Comments: _____

Metals Data Reporting Form

Serial Dilution RPD Report

Serial Dilution Sample ID: DG5CGPTOriginal Sample ID: DG5CGT Client ID: DF/S1/0194/SDC/020Matrix: Water Units: mg/L Prep Date: 7/19/00 Prep Batch: 0201254Weight: 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	0.19	B	0.30	B		1	5	ICP	7/20/00	12:54	7/20/00	12:57
Barium	493.409	1.7	B	1.7	B	4.9%	1	5	ICP	7/20/00	12:54	7/20/00	12:57
Cadmium	228.802	0.0028	U	0.014	U		1	5	ICP	7/20/00	12:54	7/20/00	12:57
Chromium	267.716	0.0038	U	0.019	U		1	5	ICP	7/20/00	12:54	7/20/00	12:57
Lead	220.353	1.9	B	2.0	B	6.9%	1	5	ICP	7/20/00	12:54	7/20/00	12:57
Selenium	196.026	0.067	U	0.34	U		1	5	ICP	7/20/00	12:54	7/20/00	12:57
Silver	328.068	0.0031	U	0.016	U		1	5	ICP	7/20/00	12:54	7/20/00	12:57

Comments: _____

Version 3.63.5

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

Metals Data Reporting Form

Instrument Detection Limits

Instrument: CVAAUnits: ppb

Element	Wavelength /Mass	Reporting Limit	MDL	Date of MDL
Mercury	253.70	0.2	0.045	3/20/00

Metals Data Reporting Form

Instrument Detection Limits

Instrument: ICPUnits: 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: ICP Date of IEC's: 6/22/00

Interfering Element	Wavelength /Mass	Correction Factor(s)
Aluminum	308.215	As(0.008043), Mn(0.00002), Pb(0.000607)
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(0.001198), B(-0.001921), Cd(-0.000034), Cu(-0.00008), Mn(-0.000288), Mo(-0.00015), Pb(0.000239), Se(-0.002635), 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)

Metals Data Reporting Form

Linear Dynamic Ranges

Instrument: CVAA

Units: ppb

Element	Wavelength /Mass	Linear Range	Date of Linear Range
Mercury	253.70	10	1/15/00

Metals Data Reporting Form

Linear Dynamic RangesInstrument: ICPUnits: 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

Metals Data Reporting Form

Preparation Log

Preparation Batch: 0200349 Instrument: CVAA Matrix: Water

Sample ID	Prep Date	Weight (g)	Volume (ml)	% Moisture
DGDQKBT	7/19/00	NA	100	NA
DGE1FBT	7/19/00	NA	100	NA
DGE1FCT	7/19/00	NA	100	NA
DG5C7T	7/19/00	NA	100	NA
DG5CGT	7/19/00	NA	100	NA
DG5CKDT	7/19/00	NA	100	NA
DG5CKST	7/19/00	NA	100	NA
DG5CKT	7/19/00	NA	100	NA

Preparation LogPreparation Batch: 0201254 Instrument: ICP Matrix: Water

Sample ID	Prep Date	Weight (g)	Volume (ml)	% Moisture
DGDQKBT	7/19/00	NA	50	NA
DGFEABT	7/19/00	NA	50	NA
DGFEACT	7/19/00	NA	50	NA
DG5C7T	7/19/00	NA	50	NA
DG5CGDT	7/19/00	NA	50	NA
DG5CGST	7/19/00	NA	50	NA
DG5CGT	7/19/00	NA	50	NA
DG5CKT	7/19/00	NA	50	NA

Metals Data Reporting Form

Instrument Runlog

Instrument: CVAAChart Number: 0719HGA.PRN

Sample Name	Date of Analysis	Time of Analysis
Std1Rep1	7/19/00	11:14 AM
Std2Rep1	7/19/00	11:16 AM
Std3Rep1	7/19/00	11:17 AM
Std4Rep1	7/19/00	11:19 AM
Std5Rep1	7/19/00	11:21 AM
Std6Rep1	7/19/00	11:22 AM
ICV5-1	7/19/00	11:25 AM
ICB1	7/19/00	11:27 AM
CCV5-1	7/19/00	11:29 AM
CCB1	7/19/00	11:31 AM
ZZZZZZ	7/19/00	11:32 AM
ZZZZZZ	7/19/00	11:34 AM
ZZZZZZ	7/19/00	11:35 AM
ZZZZZZ	7/19/00	11:37 AM
ZZZZZZ	7/19/00	11:38 AM
ZZZZZZ	7/19/00	11:40 AM
ZZZZZZ	7/19/00	11:41 AM
ZZZZZZ	7/19/00	11:43 AM
ZZZZZZ	7/19/00	11:45 AM
ZZZZZZ	7/19/00	11:46 AM
CCV5-2	7/19/00	11:48 AM
CCB2	7/19/00	11:49 AM
ZZZZZZ	7/19/00	11:51 AM
ZZZZZZ	7/19/00	11:52 AM
ZZZZZZ	7/19/00	11:53 AM
ZZZZZZ	7/19/00	11:55 AM
ZZZZZZ	7/19/00	11:56 AM
ZZZZZZ	7/19/00	11:59 AM
ZZZZZZ	7/19/00	12:00 PM
ZZZZZZ	7/19/00	12:02 PM
ZZZZZZ	7/19/00	12:04 PM
ZZZZZZ	7/19/00	12:05 PM
CCV5-3	7/19/00	12:07 PM
CCB3	7/19/00	12:09 PM
ZZZZZZ	7/19/00	12:10 PM
ZZZZZZ	7/19/00	12:11 PM
ZZZZZZ	7/19/00	12:13 PM
ZZZZZZ	7/19/00	12:14 PM
ZZZZZZ	7/19/00	12:17 PM
ZZZZZZ	7/19/00	12:18 PM
ZZZZZZ	7/19/00	12:20 PM

Instrument Runlog

Instrument: CVAAChart Number: 0719HGA.PRN

Sample Name	Date of Analysis	Time of Analysis
ZZZZZZ	7/19/00	12:22 PM
ZZZZZZ	7/19/00	12:24 PM
ZZZZZZ	7/19/00	12:26 PM
CCV5-4	7/19/00	12:27 PM
CCB4	7/19/00	12:29 PM
ZZZZZZ	7/19/00	12:30 PM
ZZZZZZ	7/19/00	12:33 PM
ZZZZZZ	7/19/00	12:35 PM
ZZZZZZ	7/19/00	12:37 PM
ZZZZZZ	7/19/00	12:39 PM
ZZZZZZ	7/19/00	12:40 PM
ZZZZZZ	7/19/00	12:42 PM
ZZZZZZ	7/19/00	12:44 PM
ZZZZZZ	7/19/00	12:45 PM
ZZZZZZ	7/19/00	12:47 PM
CCV5-5	7/19/00	12:49 PM
CCB5	7/19/00	12:50 PM
ZZZZZZ	7/19/00	12:52 PM
ZZZZZZ	7/19/00	12:53 PM
ZZZZZZ	7/19/00	12:55 PM
ZZZZZZ	7/19/00	12:56 PM
DGE1FBT	7/19/00	12:58 PM
DGDQKBT	7/19/00	1:01 PM
DGE1FCT	7/19/00	1:02 PM
DG5C7T	7/19/00	1:04 PM
DG5CGT	7/19/00	1:06 PM
DG5CKT	7/19/00	1:08 PM
CCV5-6	7/19/00	1:09 PM
CCB6	7/19/00	1:11 PM
DG5CKST	7/19/00	1:12 PM
DG5CKDT	7/19/00	1:14 PM
ZZZZZZ	7/19/00	1:15 PM
ZZZZZZ	7/19/00	1:17 PM
ZZZZZZ	7/19/00	1:19 PM
ZZZZZZ	7/19/00	1:21 PM
ZZZZZZ	7/19/00	1:22 PM
ZZZZZZ	7/19/00	1:25 PM
ZZZZZZ	7/19/00	1:27 PM
ZZZZZZ	7/19/00	1:29 PM
CCV5-7	7/19/00	1:31 PM
CCB7	7/19/00	1:32 PM

Metals Data Reporting Form

Instrument Runlog

Instrument: CVAAChart Number: 0719HGA.PRN

Sample Name	Date of Analysis	Time of Analysis
ZZZZZZ	7/19/00	1:34 PM
ZZZZZZ	7/19/00	1:36 PM
ZZZZZZ	7/19/00	1:38 PM
ZZZZZZ	7/19/00	1:40 PM
ZZZZZZ	7/19/00	2:23 PM
ZZZZZZ	7/19/00	2:25 PM
ZZZZZZ	7/19/00	2:26 PM
ZZZZZZ	7/19/00	2:28 PM
ZZZZZZ	7/19/00	2:29 PM
ZZZZZZ	7/19/00	2:31 PM
ZZZZZZ	7/19/00	2:32 PM
ZZZZZZ	7/19/00	2:34 PM
ZZZZZZ	7/19/00	2:36 PM
ZZZZZZ	7/19/00	2:37 PM
ZZZZZZ	7/19/00	2:39 PM
ZZZZZZ	7/19/00	2:41 PM
ZZZZZZ	7/19/00	2:42 PM
ZZZZZZ	7/19/00	2:44 PM
ZZZZZZ	7/19/00	2:46 PM
ZZZZZZ	7/19/00	2:47 PM
ZZZZZZ	7/19/00	2:49 PM
ZZZZZZ	7/19/00	2:51 PM
ZZZZZZ	7/19/00	2:52 PM
ZZZZZZ	7/19/00	2:54 PM
ZZZZZZ	7/19/00	2:55 PM
ZZZZZZ	7/19/00	2:57 PM
ZZZZZZ	7/19/00	2:59 PM
ZZZZZZ	7/19/00	3:00 PM
ZZZZZZ	7/19/00	3:02 PM
ZZZZZZ	7/19/00	3:04 PM
ZZZZZZ	7/19/00	3:06 PM
ZZZZZZ	7/19/00	3:07 PM
ZZZZZZ	7/19/00	3:09 PM
ZZZZZZ	7/19/00	3:11 PM

STL-Pittsburgh

Metals Data Reporting Form

664 779

Instrument Runlog

Instrument: ICP

Chart Number: J00720A.ARC

Sample Name	Date of Analysis	Time of Analysis
ZZZZZZ	7/20/00	11:06 AM
ZZZZZZ	7/20/00	11:09 AM
ZZZZZZ	7/20/00	11:12 AM
ZZZZZZ	7/20/00	11:15 AM
ZZZZZZ	7/20/00	11:18 AM
ZZZZZZ	7/20/00	11:22 AM
ZZZZZZ	7/20/00	11:25 AM
ZZZZZZ	7/20/00	11:30 AM
ZZZZZZ	7/20/00	11:49 AM
ZZZZZZ	7/20/00	11:53 AM
ZZZZZZ	7/20/00	11:56 AM
ZZZZZZ	7/20/00	11:59 AM
ZZZZZZ	7/20/00	12:02 PM
ZZZZZZ	7/20/00	12:05 PM
ZZZZZZ	7/20/00	12:13 PM
STD1	7/20/00	12:21 PM
STD5A	7/20/00	12:24 PM
STD5B	7/20/00	12:27 PM
ICV2-1	7/20/00	12:30 PM
ICB1	7/20/00	12:33 PM
ICSA	7/20/00	12:36 PM
ICSAB	7/20/00	12:40 PM
DGFEABT	7/20/00	12:45 PM
DGFEACT	7/20/00	12:48 PM
DGDQKBT	7/20/00	12:51 PM
DG5CGT	7/20/00	12:54 PM
DG5CGPT	7/20/00	12:57 PM
DG5CGST	7/20/00	1:01 PM
DG5CGDT	7/20/00	1:04 PM
DG5C7T	7/20/00	1:07 PM
CCV2-1	7/20/00	1:10 PM
CCB1	7/20/00	1:13 PM
ZZZZZZ	7/20/00	1:16 PM
ZZZZZZ	7/20/00	1:19 PM
ZZZZZZ	7/20/00	1:23 PM
ZZZZZZ	7/20/00	1:26 PM
ZZZZZZ	7/20/00	1:29 PM
ZZZZZZ	7/20/00	1:32 PM
ZZZZZZ	7/20/00	1:35 PM
ZZZZZZ	7/20/00	1:38 PM
ZZZZZZ	7/20/00	1:41 PM

Metals Data Reporting Form

Instrument Runlog

Instrument: ICPChart Number: J00720A.ARC

Sample Name	Date of Analysis	Time of Analysis
ZZZZZZ	7/20/00	1:45 PM
ZZZZZZ	7/20/00	1:48 PM
ZZZZZZ	7/20/00	1:51 PM

STL-Pittsburgh
Metals Data Reporting Form

664 781

Instrument Runlog

Instrument: ICP

Chart Number: J00720B.ARC

Sample Name	Date of Analysis	Time of Analysis
ZZZZZZ	7/20/00	2:48 PM
ZZZZZZ	7/20/00	2:52 PM
ZZZZZZ	7/20/00	2:55 PM
ZZZZZZ	7/20/00	2:58 PM
ZZZZZZ	7/20/00	3:01 PM
ZZZZZZ	7/20/00	3:04 PM
ZZZZZZ	7/20/00	3:07 PM
ZZZZZZ	7/20/00	3:16 PM
ZZZZZZ	7/20/00	3:20 PM
ZZZZZZ	7/20/00	3:23 PM
ZZZZZZ	7/20/00	3:26 PM
ZZZZZZ	7/20/00	3:29 PM
ZZZZZZ	7/20/00	3:32 PM
ZZZZZZ	7/20/00	3:35 PM
ZZZZZZ	7/20/00	3:41 PM
ZZZZZZ	7/20/00	3:44 PM
ZZZZZZ	7/20/00	3:47 PM
ZZZZZZ	7/20/00	3:50 PM
ZZZZZZ	7/20/00	3:53 PM
ZZZZZZ	7/20/00	4:41 PM
ZZZZZZ	7/20/00	4:44 PM
ZZZZZZ	7/20/00	4:47 PM
ZZZZZZ	7/20/00	4:51 PM
ZZZZZZ	7/20/00	4:54 PM
ZZZZZZ	7/20/00	4:57 PM
ZZZZZZ	7/20/00	5:00 PM
ZZZZZZ	7/20/00	5:42 PM
ZZZZZZ	7/20/00	5:45 PM
ZZZZZZ	7/20/00	5:48 PM
ZZZZZZ	7/20/00	5:52 PM
ZZZZZZ	7/20/00	6:02 PM
ZZZZZZ	7/20/00	6:05 PM
ZZZZZZ	7/20/00	6:08 PM
ZZZZZZ	7/20/00	6:11 PM
STD1	7/20/00	6:17 PM
STD5A	7/20/00	6:20 PM
STD5B	7/20/00	6:23 PM
ICV2-1	7/20/00	6:26 PM
ICB1	7/20/00	6:29 PM
ICSA	7/20/00	6:33 PM
ICSAB	7/20/00	6:36 PM

Metals Data Reporting Form

Instrument Runlog

Instrument: ICPChart Number: J00720B.ARC

Sample Name	Date of Analysis	Time of Analysis
DG5CKT	7/20/00	6:41 PM
ZZZZZZ	7/20/00	6:44 PM
ZZZZZZ	7/20/00	6:47 PM
CCV2-1	7/20/00	6:51 PM
CCB1	7/20/00	6:54 PM

664 783

**TCLP
METALS
RAW DATA**

664 784

Handwritten signature
 7-20-00

#	Sample Name	AG	AS	BA	CD	CR	PB
1	STD1	-.0006	-.00044	.00037	.00007	.0015	.00014
2	STD5A	.25889	.51595	3.80177	.89276	3.60979	.24824
3	STD5B						
4	ICV2-1 0014-148-7	.50357	1.0249	.99359	1.0144	1.0070	1.0191
5	ICB1	-.00226	-.00003	-.00078	-.00206	-.00249	-.00586
6	ICSA 0014-170-1	-.00310	-.08444	.00060	-.00417	-.00332	.06941
7	ICSAB 0014-187-1	.94871	.86735	.45997	.94841	.44410	1.0051
8	DGFEABT	.00036	.01243	-.00092	-.00161	-.00249	-.00010
9	DGFEACT	.04237	2.1656	1.8999	.04513	.18920	.47139
10	DGDQKBT	-.00188	.18514	.00013	-.00447	-.00138	.00777
11	DG5CGT	-.00180	.19221	1.6621	.00172	.00165	1.8930
12	DG5CGP5T	-.00261	.05993	.34856	-.00213	-.00277	.40478
13	DG5CGST	.90086	4.9499	44.809	.95492	4.4838	6.3520
14	DG5CGDT	.89333	4.7752	43.428	.93505	4.3467	6.0956
15	DG5C7T	-.00215	.17462	1.7464	.00130	-.00153	69.165
16	CCV2-1 0014-164-11	.97879	4.9158	4.6531	5.0344	4.8811	4.9728
17	CCB1	-.00151	.01873	-.00097	-.00077	-.00443	.01367
18	DG5CKT	-.00486	.21243	1.6476	-.00283	-.00319	.03122
19	DG75WT	-.00227	.02264	.07306	-.00333	-.00249	.01161
20	DG761T	-.00469	-.01511	.04472	-.00294	-.00291	.20531
21	DGCA4B	-.00188	-.01085	-.00112	-.00057	-.00249	.01172
22	DGCA4C	.04737	1.9898	1.8648	.04845	.19683	.51972
23	DGCA4L	.04892	2.0604	1.8634	.04787	.19863	.55681
24	DG7Q1	.00036	.01181	-.00060	-.00139	-.00235	.01760
25	DG7QM	-.00149	.00424	.00016	.00028	-.00263	-.00400
26	DG7RF	.29163	.23388	.59998	.05197	.14250	2.4486
27	DG7RFP5	.05589	.05163	1.1901	.00953	.02414	.47401
28	CCV2-2	L-.00189	L.02060	L-.00081	L-.00046	L-.00083	L.00190
29	CCB2	H.98043	H4.8195	H4.6533	H5.0816	H4.9004	H5.0285

VOID ALL SAMPLES AFTER CCB1 DUE TO CCV2-2 & CCB2 BEING OUT OF SEQUENCE IN THE AUTOSAMPLER - PG 7-20-00

#	Sample Name	SE
1	STD1	-.00094
2	STD5A	.4975
3	STD5B	
4	ICV2-1 0014-148-7	1.0406
5	ICB1	.01503
6	ICSA 0014-170-1	.04962
7	ICSAB 0014-187-1	.98192
8	DGFEABT	.00705
9	DGFEACT	2.2536
10	DGDQKBT	.01906
11	DG5CGT	.05052
12	DG5CGP5T	.00327
13	DG5CGST	1.0405
14	DG5CGDT	1.0093
15	DG5C7T	.00782
16	CCV2-1 0014-164-11	5.0022
17	CCB1	.02305
18	DG5CKT	.04443
19	DG75WT	-.00903
20	DG761T	.02516

#	Sample Name	SE
21	DGCA4B	.03408
22	DGCA4C	2.0100
23	DGCA4L	2.0515
24	DG7Q1	.00600
25	DG7QM	.02012
26	DG7RF	.59341
27	DG7RFP5	.11121
28	CCV2-2	L.02609
29	CCB2	H4.8895

*Valid: According to Previous Page
Pg 7-20-00*

664 785

664

786

PMT 7-20-00

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
1	STD1	J00720A	QUANMET	07/20/00	12:21		X	IR
2	STD5A	J00720A	QUANMET	07/20/00	12:24		X	IR
3	STD5B	J00720A	QUANMET	07/20/00	12:27		X	IR
4	ICV2-1 0014-148-7	J00720A	QUANMET	07/20/00	12:30	PMG	S	CONC
5	ICB1	J00720A	QUANMET	07/20/00	12:33	PMG	S	CONC
6	ICSA 0014-170-1	J00720A	QUANMET	07/20/00	12:36	PMG	Q	CONC
7	ICSAB 0014-187-1	J00720A	QUANMET	07/20/00	12:40	PMG	Q	CONC
8	DGFEABT	J00720A	QUANMET	07/20/00	12:45	PMG	S	CONC
9	DGFEACT	J00720A	QUANMET	07/20/00	12:48	PMG	S	CONC
10	DGDQKBT	J00720A	QUANMET	07/20/00	12:51	PMG	S	CONC
11	DG5CGT	J00720A	QUANMET	07/20/00	12:54	PMG	S	CONC
12	DG5CGP5T	J00720A	QUANMET	07/20/00	12:57	PMG	S	CONC
13	DG5CGST	J00720A	QUANMET	07/20/00	13:01	PMG	S	CONC
14	DG5CGDT	J00720A	QUANMET	07/20/00	13:04	PMG	S	CONC
15	DG5C7T	J00720A	QUANMET	07/20/00	13:07	PMG	S	CONC
16	CCV2-1 0014-164-11	J00720A	QUANMET	07/20/00	13:10	PMG	S	CONC
17	CCB1	J00720A	QUANMET	07/20/00	13:13	PMG	S	CONC
18	DG5CKT	J00720A	QUANMET	07/20/00	13:16	PMG	S	CONC
19	DG75WT	J00720A	QUANMET	07/20/00	13:19	PMG	S	CONC
20	DG761T	J00720A	QUANMET	07/20/00	13:23	PMG	S	CONC
21	DGCA4B	J00720A	QUANMET	07/20/00	13:26	PMG	S	CONC
22	DGCA4C	J00720A	QUANMET	07/20/00	13:29	PMG	S	CONC
23	DGCA4L	J00720A	QUANMET	07/20/00	13:32	PMG	S	CONC
24	DG7Q1	J00720A	QUANMET	07/20/00	13:35	PMG	S	CONC
25	DG7QM	J00720A	QUANMET	07/20/00	13:38	PMG	S	CONC
26	DG7RF	J00720A	QUANMET	07/20/00	13:41	PMG	S	CONC
27	DG7RFP5	J00720A	QUANMET	07/20/00	13:45	PMG	S	CONC
28	CCV2-2	J00720A	QUANMET	07/20/00	13:48	PMG	S	CONC
29	CCB2	J00720A	QUANMET	07/20/00	13:51	PMG	S	CONC

Method: QUANMET Standard: STD1
Run Time: 07/20/00 12:21:07

664 787

Elem	AG	AL	AS	B	BA	BE	CA
Avge	-.00060	.00810	-.00045	.00081	.00037	.00370	.01226
SDev	.00016	.00035	.00151	.00051	.00006	.00026	.00065
%RSD	27.217	4.2767	335.30	62.705	15.873	6.9784	5.3333
#1	-.00080	.00780	-.00120	.00060	.00040	.00380	.01162
#2	-.00060	.00800	.00100	.00158	.00040	.00400	.01316
#3	-.00060	.00800	-.00220	.00060	.00040	.00360	.01221
#4	-.00040	.00860	.00060	.00048	.00028	.00340	.01202
Elem	CD	CO	CR	CU	FE	K	LI
Avge	.00007	.00015	.00150	.00070	.00355	-.04235	.00061
SDev	.00019	.00019	.00048	.00020	.00055	.00909	.00012
%RSD	267.36	127.66	31.740	28.571	15.514	21.460	19.549
#1	.00008	.00020	.00120	.00060	.00380	-.05440	.00076
#2	-.00020	.00040	.00140	.00100	.00320	-.03300	.00056
#3	.00020	.00000	.00120	.00060	.00420	-.03860	.00064
#4	.00020	.00000	.00220	.00060	.00300	-.04340	.00048
Elem	MG	MN	MO	NA	NI	PB	SB
Avge	.00005	.00030	.00060	.06130	.00180	.00015	.00020
SDev	.00085	.00012	.00016	.00255	.00023	.00019	.00028
%RSD	1708.8	38.490	27.217	4.1655	12.549	127.66	141.42
#1	-.00100	.00040	.00040	.05800	.00212	.00000	.00040
#2	.00100	.00040	.00080	.06360	.00159	.00000	-.00020
#3	-.00020	.00020	.00060	.06300	.00178	.00020	.00040
#4	.00040	.00020	.00060	.06060	.00172	.00040	.00020
Elem	SE	SI	SN	SR	TI	TL	V
Avge	-.00095	.00210	.00040	.00080	.00270	.00050	.00035
SDev	.00076	.00020	.00067	.00000	.00012	.00110	.00041
%RSD	79.472	9.5238	168.33	.00000	4.2767	220.30	117.80
#1	-.00160	.00180	.00020	.00080	.00280	.00000	.00080
#2	-.00040	.00220	.00120	.00080	.00280	.00120	.00060
#3	-.00160	.00220	-.00040	.00080	.00260	-.00080	.00000
#4	-.00020	.00220	.00060	.00080	.00260	.00160	.00000
Elem	ZN						
Avge	.00060						
SDev	.00008						
%RSD	12.808						
#1	.00064						
#2	.00064						
#3	.00064						
#4	.00048						

Method: QUANMET Standard: STD5A
 Run Time: 07/20/00 12:24:17

0014-155-1

Elem	AG	AS	B ₁	BA	BE	CD	CO
Avge	.25890	.51595	.56671	3.8018	14.991	.89276	1.3928
SDev	.00090	.00242	.00573	.0526	.162	.00129	.0062
%RSD	.34834	.46878	1.0112	1.3829	1.0827	.14453	.44637

#1	.26020	.51860	.57420	3.8639	15.191	.89252	1.4006
#2	.25820	.51380	.56432	3.7861	14.937	.89404	1.3928
#3	.25840	.51400	.56072	3.7391	14.805	.89344	1.3854
#4	.25880	.51740	.56760	3.8180	15.030	.89107	1.3922

Elem	CR	CU	LI	MN	MO	NI	PB
Avge	3.6098	2.1307	4.1047	1.9602	.39345	1.6592	.24825
SDev	.0164	.0276	.0713	.0101	.00238	.0041	.00208
%RSD	.45303	1.2948	1.7375	.51550	.60485	.24831	.83821

#1	3.6332	2.1634	4.1860	1.9738	.39620	1.6637	.25120
#2	3.6016	2.1204	4.0830	1.9602	.39200	1.6611	.24820
#3	3.5962	2.0988	4.0183	1.9496	.39100	1.6578	.24700
#4	3.6082	2.1402	4.1316	1.9572	.39460	1.6542	.24660

Elem	SB	SE	SI	SN	SR	TI	TL
Avge	.18690	.49750	.32435	.95225	7.2973	5.8239	.33265
SDev	.00159	.00332	.00238	.00597	.0917	.0515	.00179
%RSD	.84936	.66827	.73543	.62667	1.2567	.88408	.53860

#1	.18900	.49860	.32620	.95760	7.4065	5.8878	.33420
#2	.18720	.49280	.32380	.94380	7.2708	5.8102	.33420
#3	.18540	.50060	.32120	.95280	7.1882	5.7640	.33120
#4	.18600	.49800	.32620	.95480	7.3237	5.8336	.33100

Elem	V ₁	ZN
Avge	1.5362	1.4900
SDev	.0107	.0067
%RSD	.69422	.44931

#1	1.5504	1.4994
#2	1.5340	1.4839
#3	1.5246	1.4894
#4	1.5358	1.4872

Method: QUANMET Standard: STD5B
Run Time: 07/20/00 12:27:26

0014-155-2

664 789

Elem	AL	CA	FE	K	MG	NA
Avge	10.623	24.210	28.961	2.2315	7.1273	42.324
SDev	.045	.092	.104	.0107	.0324	.156
%RSD	.42524	.38047	.36020	.48074	.45482	.36941
#1	10.565	24.105	28.830	2.2254	7.0832	42.107
#2	10.651	24.281	29.031	2.2472	7.1462	42.416
#3	10.611	24.161	28.925	2.2240	7.1234	42.317
#4	10.666	24.293	29.057	2.2292	7.1562	42.456

Method: QUANMET

Slope = Conc(SIR)/IR

Element	Wavelen	High std	Low std	Slope	Y-intercept	Date Standardized
AG	328.068	STD5A	STD1	7.51955	.004512	07/20/00 12:27:26
AL	308.215	STD5B	STD1	9.42032	-.076305	07/20/00 12:27:26
AS	193.696	STD5A	STD1	19.6987	.008864	07/20/00 12:27:26
B ₁	249.600	STD5A	STD1	17.7067	-.014426	07/20/00 12:27:26
B ₂	493.409	STD5A	STD1	2.63061	-.000975	07/20/00 12:27:26
BE	313.042	STD5A	STD1	.669009	-.002475	07/20/00 12:27:26
CA	317.933	STD5B	STD1	4.13262	-.050649	07/20/00 12:27:26
CD	228.802	STD5A	STD1	11.3699	-.000803	07/20/00 12:27:26
CO	228.616	STD5A	STD1	7.21511	-.001082	07/20/00 12:27:26
CR	267.716	STD5A	STD1	2.77216	-.004158	07/20/00 12:27:26
CU	324.754	STD5A	STD1	4.69056	-.003283	07/20/00 12:27:26
FE	259.940	STD5B	STD1	3.45338	-.012259	07/20/00 12:27:26
K ₁	766.491	STD5B	STD1	43.9792	1.86252	07/20/00 12:27:26
L ₁	670.789	STD5A	STD1	2.43658	-.001491	07/20/00 12:27:26
MG	279.079	STD5B	STD1	14.0308	-.000702	07/20/00 12:27:26
MN	257.610	STD5A	STD1	5.10062	-.001530	07/20/00 12:27:26
MO	202.030	STD5A	STD1	25.4550	-.015273	07/20/00 12:27:26
NA	588.995	STD5B	STD1	2.36614	-.145045	07/20/00 12:27:26
NI	231.604	STD5A	STD1	6.03075	-.010855	07/20/00 12:27:26
PB	220.353	STD5A	STD1	39.1206	-.005868	07/20/00 12:27:26
SB	206.838	STD5A	STD1	53.6239	-.010725	07/20/00 12:27:26
SE	196.026	STD5A	STD1	20.0622	.019059	07/20/00 12:27:26
SI	288.158	STD5A	STD1	30.6358	-.064335	07/20/00 12:27:26
SN	189.989	STD5A	STD1	10.4949	-.004198	07/20/00 12:27:26
SR	409.552	STD5A	STD1	1.37052	-.001096	07/20/00 12:27:26
TI	334.941	STD5A	STD1	1.71786	-.004638	07/20/00 12:27:26
TL	190.864	STD5A	STD1	60.4960	-.030248	07/20/00 12:27:26
V ₁	292.402	STD5A	STD1	6.37239	-.002230	07/20/00 12:27:26
Z ₁	213.856	STD5A	STD1	6.73723	-.004023	07/20/00 12:27:26

Analysis Report

07/20/00 12:33:42 PM

page 1

Method: QUANMET Sample Name: *ICV2-1* 0014-148-7 Operator: PMG
 Run Time: 07/20/00 12:30:36
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP
 Mode: CONC Corr. Factor: 1

664 791

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50357	25.276	1.0249	.98322	.99360	.97737	25.381
SDev	.00090	.119	.0490	.01865	.00810	.00560	.082
%RSD	.17859	.47203	4.7827	1.8968	.81571	.57267	.32359
#1	.50278	25.180	.95588	.99813	.98739	.97260	25.438
#2	.50281	25.167	1.0268	.96924	.98581	.97245	25.452
#3	.50436	25.370	1.0683	1.0004	1.0009	.98194	25.275
#4	.50434	25.389	1.0485	.96508	1.0003	.98249	25.357
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
Avg	1.0144	.99957	1.0070	.98637	26.037	24.591	.99794
SDev	.0046	.00518	.0020	.00744	.064	.395	.01423
%RSD	.45303	.51840	.19766	.75460	.24737	1.6071	1.4263
#1	1.0193	1.0071	1.0074	.97910	25.972	24.960	.98641
#2	1.0094	.99706	1.0096	.98097	25.992	24.837	.98487
#3	1.0170	.99847	1.0057	.99411	26.078	24.081	1.0112
#4	1.0117	.99560	1.0052	.99130	26.104	24.485	1.0093
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
Avg	25.350	1.0050	.97500	25.033	1.0019	1.0191	.99640
SDev	.133	.0006	.01130	.232	.0123	.0331	.03154
%RSD	.52469	.05872	1.1586	.92623	1.2313	3.2477	3.1655
#1	25.269	1.0055	.97117	24.828	.99857	1.0116	.99636
#2	25.207	1.0045	.96100	24.840	.99256	.98786	1.0286
#3	25.443	1.0045	.98646	25.262	1.0200	1.0659	.95357
#4	25.482	1.0055	.98138	25.204	.99631	1.0111	1.0071
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
Avg	1.0406	1.0175	.97786	.99047	.98382	4.9306	.99230
SDev	.0300	.0183	.02306	.00696	.00357	.1386	.00428
%RSD	2.8872	1.8021	2.3581	.70302	.36292	2.8109	.43187
#1	1.0625	1.0266	.99465	.98529	.98073	5.0038	.98713
#2	1.0305	1.0267	.95912	.98365	.98073	4.9311	.99203

#3	1.0668	.99001	1.0007	.99653	.98691	5.0511	.99762
#4	1.0027	1.0267	.95692	.99642	.98691	4.7363	.99242
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	.99780
SDev	.00504
%RSD	.50543

#1	.99184
#2	1.0034
#3	1.0001
#4	.99585

Errors	LC Pass
High	1.1000
Low	.90000

Method: QUANMET Sample Name: ICB1 **664 793** Operator: PMG
 Run Time: 07/20/00 12:33:45
 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	-.00226	.00766	-.00004	-.00199	-.00079	-.00073	1.0002
SDev	.00359	.01021	.03526	.01041	.00066	.00010	.0069
%RSD	158.82	133.43	98467.	523.15	83.189	14.121	.69264

#1	-.00302	.00859	-.01085	-.00735	-.00097	-.00086	.99490
#2	-.00453	-.00084	.04044	.01348	-.00076	-.00073	.99617
#3	.00302	.02172	-.04257	-.00882	.00008	-.00061	1.0102
#4	-.00453	.00115	.01284	-.00527	-.00150	-.00073	.99967

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	-.00207	.00109	-.00250	-.00258	-.00484	.05058	-.00110
SDev	.00156	.00448	.00235	.00194	.00206	.73780	.00132
%RSD	75.340	411.61	94.215	75.141	42.654	1458.8	119.32

#1	-.00123	-.00396	-.00305	-.00423	-.00536	-.43320	-.00275
#2	-.00353	-.00107	-.00305	-.00422	-.00743	-.23969	-.00120
#3	-.00030	.00613	.00083	-.00046	-.00259	1.1501	.00046
#4	-.00320	.00326	-.00472	-.00140	-.00397	-.27487	-.00092

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	.00912	-.00103	-.01018	.00319	-.01184	-.00586	-.01610
SDev	.02155	.00059	.00720	.00647	.00403	.00013	.01855
%RSD	236.34	57.596	70.707	202.54	34.033	2.2791	115.20

#1	-.00351	-.00154	-.01527	.00592	-.01611	-.00600	-.01078
#2	-.00070	-.00154	-.01018	.00544	-.01009	-.00595	-.04289
#3	.04139	-.00051	-.00000	.00781	-.00710	-.00571	-.00007
#4	-.00070	-.00052	-.01527	-.00639	-.01405	-.00580	-.01068

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	.01503	-.00614	-.00480	.00027	-.00086	.00912	-.00116
SDev	.02198	.03186	.01473	.00032	.00056	.03619	.00268
%RSD	146.20	518.69	307.13	115.47	65.320	396.89	231.95

#1	-.01305	.00303	-.00214	-.00000	-.00155	.05454	-.00253
#2	.01101	.00303	-.01279	-.00000	-.00086	.01824	-.00243

#3	.02306	.02148	.01469	.00055	-.00017	-.03029	.00287
#4	.03911	-.05211	-.01894	.00055	-.00086	-.00602	-.00253

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 H.02598
SDev .00097
%RSD 3.7183

#1 H.02489
#2 H.02590
#3 H.02724
#4 H.02590

Errors LC High
High .02000
Low -.02000

Method: QUANMET Sample Name: ICSA 0014-170-1 Operator: PMG
 Run Time: 07/20/00 12:36:53
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP
 Mode: CONC Corr. Factor: 1

664 795

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00310	496.18	-.08444	-.03175	.00060	-.00083	483.23
SDev	.00184	4.35	.10558	.02071	.00043	.00007	1.60
%RSD	59.271	.87710	125.04	65.245	71.182	8.0462	.33188
#1	-.00525	497.30	.02915	-.02208	.00008	-.00086	484.11
#2	-.00368	501.79	-.19247	-.02156	.00060	-.00073	481.89
#3	-.00259	491.96	-.02069	-.02054	.00113	-.00086	481.87
#4	-.00088	493.68	-.15375	-.06280	.00060	-.00086	485.04
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
Avg	-.00417	.00907	-.00333	-.01024	185.60	-.21110	.00019
SDev	.00315	.00373	.00032	.00086	.77	.28242	.00050
%RSD	75.446	41.104	9.6269	8.3605	.41592	133.78	259.54
#1	-.00194	.00473	-.00305	-.00997	186.05	-.54754	-.00052
#2	-.00169	.01050	-.00305	-.01088	186.32	-.28367	.00026
#3	-.00461	.01340	-.00360	-.00914	184.58	.12974	.00066
#4	-.00846	.00763	-.00360	-.01095	185.46	-.14293	.00037
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
Avg	488.59	.00322	-.00025	.00615	-.01574	.06942	-.02135
SDev	3.50	.00015	.00292	.00630	.01805	.02731	.03174
%RSD	.71601	4.5391	1184.1	102.34	114.68	39.344	148.68
#1	489.81	.00333	-.00273	.00450	-.00625	.03135	-.02128
#2	492.91	.00332	.00241	-.00118	.00368	.06785	-.01041
#3	485.05	.00301	.00215	.00734	-.03699	.08989	-.06455
#4	486.60	.00323	-.00281	.01396	-.02341	.08858	.01085
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
Avg	.04963	.04899	-.06708	.01271	-.02173	.48212	-.00224
SDev	.08426	.03063	.03720	.00000	.00065	.15868	.00006
%RSD	169.78	62.531	55.459	.00000	2.9928	32.912	2.5138
#1	.06785	.03367	-.06122	.01271	-.02216	.62578	-.00229
#2	.10871	.03367	-.08631	.01271	-.02216	.25988	-.00219

664 796

#3	.09609	.03367	-.01763	.01271	-.02182	.55617	-.00220
#4	-.07414	.09493	-.10317	.01271	-.02079	.48666	-.00229

Errors Value Range	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
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Elem	ZN
Units	ppm
Avge	.00001
SDev	.00150
%RSD	11794.

#1	-.00183
#2	-.00053
#3	.00087
#4	.00154

Errors Value Range	NOCHECK
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Method: QUANMET Sample Name: ICSAB 0014-187-1 Operator: PMG
 Run Time: 07/20/00 12:40:02
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP
 Mode: CONC Corr. Factor: 1

664 797

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.94871	489.47	.86736	.89896	.45998	.45228	478.34
SDev	.00147	11.69	.09997	.02305	.00192	.00194	.56
%RSD	.15544	.34430	11.526	2.5640	.41720	.42834	.11663
#1	.94687	489.90	.97800	.86651	.46068	.45258	478.47
#2	.94995	490.77	Q.76578	.90543	.46164	.45392	478.86
#3	.94816	487.00	.92357	.90296	.45721	.44949	478.48
#4	.94986	490.23	.80208	.92094	.46037	.45312	477.55
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
Avg	.94842	.45254	.44410	.46890	183.47	10.183	.98833
SDev	.00447	.00319	.00374	.00323	.55	.219	.00846
%RSD	.47097	.70596	.84254	.68894	.30211	2.1542	.85640
#1	.95008	.45073	.43996	.46774	183.66	10.192	.98951
#2	.94740	.45651	.44826	.47152	183.97	10.456	.99625
#3	.95338	.45361	.44216	.46485	182.68	10.166	.97638
#4	.94281	.44931	.44604	.47149	183.58	9.9195	.99117
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
Avg	481.56	.45266	.89163	10.001	.87206	1.0051	.94024
SDev	1.68	.00106	.02508	.038	.01098	.0473	.07598
%RSD	.34964	.23512	2.8134	.38284	1.2585	4.7034	8.0807
#1	481.93	.45195	.92857	10.018	.86039	1.0517	.91041
#2	483.10	.45405	.88280	10.024	.86760	1.0279	1.0072
#3	479.16	.45171	.88261	9.9432	.88626	.99889	.84666
#4	482.07	.45292	.87256	10.017	.87398	.94203	.99671
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
Avg	.98192	1.0781	.87039	.92808	.88435	9.4806	.45557
SDev	.09635	.0267	.02928	.00388	.00234	.4743	.00247
%RSD	9.8123	2.4744	3.3640	.41864	.26445	5.0027	.54307
#1	.99646	1.0872	.88812	.92925	.88453	9.7932	.45500
#2	.85283	1.0934	.90122	.93116	.88659	9.3665	.45413

664 798

#3	1.0862	1.0383	.85407	.92239	.88109	8.8595	.45921
#4	.99224	1.0934	.83813	.92952	.88521	9.9029	.45393
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	.93017
SDev	.00379
%RSD	.40702

#1	.93331
#2	.93077
#3	.92471
#4	.93190

Errors	QC Pass
Value	1.0000
Range	20.000

Method: QUANMET Sample Name: DGFEABT **664 799** Operator: PMG
 Run Time: 07/20/00 12:45:26
 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	.00037	.04953	.01243	-.00481	-.00092	-.00076	.01782
SDev	.00396	.02101	.03570	.00861	.00027	.00007	.01563
%RSD	1076.4	42.409	287.23	178.81	29.607	8.7782	87.723
#1	-.00151	.02736	-.02678	.00434	-.00119	-.00086	.00837
#2	-.00301	.07258	.01223	.00021	-.00097	-.00073	.04119
#3	.00601	.06136	.05961	-.00940	-.00054	-.00073	.01134
#4	-.00001	.03684	.00466	-.01441	-.00097	-.00073	.01037
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
Avg	-.00161	-.00144	-.00250	-.00188	.01364	.32765	-.00054
SDev	.00164	.00320	.00136	.00121	.00717	.33628	.00114
%RSD	101.43	222.50	54.384	64.566	52.553	102.64	209.96
#1	-.00278	-.00251	-.00416	-.00047	.00846	.41121	-.00189
#2	-.00230	-.00540	-.00139	-.00329	.02365	-.12534	-.00032
#3	.00081	.00036	-.00139	-.00141	.01399	.68388	.00086
#4	-.00218	.00181	-.00305	-.00234	.00846	.34084	-.00083
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
Avg	.05121	-.00127	-.00763	.00627	-.01094	-.00010	-.02149
SDev	.01244	.00051	.00294	.00779	.00730	.01174	.01958
%RSD	24.300	40.096	38.489	124.22	66.713	11382.	91.136
#1	.04700	-.00153	-.00509	-.00308	-.00612	-.01384	-.04293
#2	.06945	-.00051	-.01018	.00734	-.02066	.00954	-.03228
#3	.04700	-.00153	-.01018	.01585	-.00462	-.00591	-.01064
#4	.04139	-.00153	-.00509	.00497	-.01235	.00980	-.00011
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
Avg	.00706	-.01535	-.00377	-.00110	-.00077	-.00012	-.00238
SDev	.04893	.03318	.02347	.00000	.00071	.06441	.00005
%RSD	693.35	216.21	622.99	.00000	91.625	53819.	2.2763
#1	.01908	-.00309	.00820	-.00110	-.00155	.06649	-.00234
#2	.03918	-.00309	-.01903	-.00110	-.00086	.04216	-.00243

664 800

#3	.03515	.00916	-.02733	-.00110	.00017	-.06668	-.00243
#4	-.06518	-.06436	.02309	-.00110	-.00086	-.04244	-.00233

Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	.25000						
Low	-.25000						

Elem	ZN
Units	ppm
Avge	-.00056
SDev	.00142
%RSD	251.80

#1	-.00187
#2	-.00047
#3	.00138
#4	-.00129

Errors	NOCHECK
High	
Low	

Method: QUANMET Sample Name: DGFEACT Operator: PMG
 Run Time: 07/20/00 12:48:34
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP
 Mode: CONC Corr. Factor: 1

664 801

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04238	1.9367	2.1656	.95051	1.8999	.04609	.19897
SDev	.00288	.0192	.0952	.00085	.0207	.00036	.00770
%RSD	6.8059	.99378	4.3944	.08984	1.0904	.77310	3.8719
#1	.04164	1.9611	2.0639	.94977	1.8857	.04578	.20290
#2	L.03860	1.9348	2.2730	.95125	1.9290	.04660	.18870
#3	.04462	1.9141	2.2141	.94977	1.8845	.04593	.20645
#4	.04464	1.9366	2.1114	.95126	1.9004	.04605	.19784
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK
High	.06000		2.4000		2.4000		
Low	.04000		1.6000		1.6000		
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04514	.47584	.18921	.24184	1.0010	-.10115	.98371
SDev	.00081	.00361	.00257	.00140	.0033	.46997	.01507
%RSD	1.8025	.75853	1.3606	.58102	.32823	464.62	1.5317
#1	.04626	.47982	.18907	.24114	.99888	-.02859	.97320
#2	.04484	.47547	.18574	.24302	1.0030	-.76744	1.0051
#3	.04511	.47693	.19018	.24020	.99751	.33204	.97303
#4	.04434	.47115	.19184	.24301	1.0044	.05937	.98355
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	.06000		.24000				
Low	.04000		.16000				
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.07506	.47792	-.01512	S3759.8	.46548	.47140	-.01499
SDev	.00760	.00128	.00416	.5	.01914	.02436	.02129
%RSD	10.123	.26861	27.484	.01463	4.1127	5.1684	142.06
#1	.08629	.47817	-.01003	S3760.3	.46364	.46756	-.02580
#2	.07226	.47817	-.01512	S3760.0	.48713	.45963	-.02551
#3	.07226	.47613	-.01512	S3759.0	.47024	.50663	-.02560
#4	.06945	.47919	-.02021	S3759.9	.44089	.45175	.01695
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	NOCHECK
High						.60000	
Low						.40000	
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.2536	.02590	-.01719	.95846	-.00223	1.8727	.46941
SDev	.0660	.02755	.02881	.00908	.00129	.0413	.00295
%RSD	2.9273	106.35	167.63	.94768	57.564	2.2055	.62771
#1	2.1924	-.01542	.01267	.95332	-.00258	1.9272	.47206
#2	2.3289	.03966	-.01251	.97136	-.00361	1.8788	.46685

#3	2.2045	.03966	-.05660	.95108	-.00052	1.8304	.46686
#4	2.2887	.03972	-.01232	.95809	-.00223	1.8546	.47186

Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	2.4000						
Low	1.6000						

Elem	ZN
Units	ppm
Avge	.49588
SDev	.00137
%RSD	.27658

#1	.49471
#2	.49492
#3	.49768
#4	.49620

Errors	NOCHECK
High	
Low	

Method: QUANMET Sample Name: DGDQKBT Operator: PMG
 Run Time: 07/20/00 12:51:43
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP
 Mode: CONC Corr. Factor: 1

664 803

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00188	.00437	.18514	.00923	.00013	-.00080	.17025
SDev	.00188	.01101	.04537	.01164	.00011	.00008	.00419
%RSD	99.868	252.03	24.506	126.19	82.353	10.264	2.4615
#1	-.00001	.01608	.22151	.00476	.00029	-.00073	.16950
#2	-.00152	-.00071	.11922	.02619	.00008	-.00073	.17383
#3	-.00151	.01050	.19397	-.00025	.00008	-.00087	.17305
#4	-.00450	-.00840	.20587	.00620	.00008	-.00088	.16464
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
Avg	-.00448	-.00035	-.00139	-.00047	.00379	.39801	-.00120
SDev	.00249	.00433	.00217	.00203	.00221	.69946	.00020
%RSD	55.512	1246.6	156.30	432.61	58.305	175.74	16.948
#1	-.00196	-.00396	-.00083	-.00235	.00708	.03298	-.00109
#2	-.00305	.00470	.00138	.00235	.00224	1.2820	-.00103
#3	-.00754	-.00395	-.00250	-.00047	.00293	.59592	-.00120
#4	-.00537	.00182	-.00361	-.00141	.00293	-.31885	-.00149
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
Avg	.08068	-.00051	-.01400	S2819.6	-.00869	.00777	-.02682
SDev	.01168	.00083	.00487	1879.8	.00402	.05241	.02050
%RSD	14.481	162.37	34.818	66.670	46.242	674.11	76.451
#1	.09471	.00051	-.01018	S-.14504	-.00689	-.00600	-.01072
#2	.08348	-.00153	-.01527	S3758.7	-.00435	.04896	-.05359
#3	.07787	-.00052	-.02036	S3760.3	-.00981	.04874	-.03216
#4	.06665	-.00051	-.01018	S3759.6	-.01370	-.06060	-.01080
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
Avg	.01907	.03522	.00723	.00078	-.00112	-.02726	-.00091
SDev	.03513	.05010	.01460	.00015	.00059	.04880	.00244
%RSD	184.21	142.24	202.00	19.906	52.548	179.03	268.12
#1	-.02506	.03367	-.01054	.00082	-.00052	-.06657	-.00243
#2	.05116	.09494	.00605	.00087	-.00120	-.03030	-.00252

664 804

#3	.04314	.03981	.00825	.00087	-.00086	.04235	-.00135
#4	.00703	-.02754	.02514	.00055	-.00189	-.05451	.00266

Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	.25000						
Low	-.25000						

Elem	ZN
Units	ppm
Avge	.00460
SDev	.00088
%RSD	19.009

#1	.00432
#2	.00564
#3	.00488
#4	.00357

Errors	NOCHECK
High	
Low	

Method: QUANMET Sample Name: DG5CGT Operator: PMG
 Run Time: 07/20/00 12:54:51
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP
 Mode: CONC Corr. Factor: 1

664 805

Elem	AG	AL	AS	B_	BA .	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00180	.63742	.19222	.04323	1.6621	-.00040	104.13
SDev	.00144	.01353	.05872	.00001	.0172	.00007	.69
%RSD	79.741	2.1233	30.548	.01168	1.0356	17.503	.66282

#1	-.00292	.62282	.27503	.04322	1.6456	-.00034	103.79
#2	-.00142	.65482	.19203	.04323	1.6767	-.00034	104.76
#3	-.00295	.63986	.14497	.04323	1.6772	-.00046	103.32
#4	.00007	.63217	.15682	.04324	1.6488	-.00047	104.64

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
Avg	.00172	.00203	.00166	.04648	.51992	1.0137	.00111
SDev	.00175	.00138	.00215	.00133	.00256	.3995	.00039
%RSD	101.59	67.718	129.40	2.8564	.49169	39.410	35.092

#1	-.00024	.00241	.00415	.04742	.51681	1.4931	.00161
#2	.00391	.00382	.00083	.04742	.52234	1.0533	.00075
#3	.00215	.00094	-.00084	.04460	.51889	.51676	.00086
#4	.00108	.00096	.00249	.04648	.52165	.99173	.00123

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	18.683	.25261	-.01265	S3760.4	.00069	1.8930	.03761
SDev	.121	.00186	.00657	.4	.00344	.0295	.02837
%RSD	.64977	.73809	51.959	.01008	497.44	1.5600	75.422

#1	18.545	.25057	-.01520	S3760.9	.00554	1.9341	.01077
#2	18.826	.25465	-.01010	S3760.0	.00072	1.8715	.02150
#3	18.730	.25159	-.02029	S3760.2	-.00190	1.8715	.04310
#4	18.632	.25364	-.00501	S3760.5	-.00160	1.8950	.07508

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	.05052	7.2239	-.00237	.53768	.00481	-.02211	.00040
SDev	.02328	.0432	.03448	.00457	.00091	.03560	.00266
%RSD	46.072	.59783	1456.8	.85067	18.898	160.98	670.60

#1	.08462	7.1780	.03372	.53250	.00361	-.05841	.00258
#2	.04050	7.2822	.01067	.54205	.00567	.02624	.00267

664 806

#3	.03246	7.2147	-.04799	.54095	.00464	-.02208	-.00262
#4	.04451	7.2208	-.00587	.53520	.00533	-.03421	-.00105

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 .62241
 SDev .00408
 %RSD .65542

#1 .62250
 #2 .62228
 #3 .62743
 #4 .61744

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DG5CGP5T Operator: PMG
 Run Time: 07/20/00 12:57:59
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP
 Mode: CONC Corr. Factor: 1

664 807

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00262	.12541	.05994	.00030	.34856	-.00074	21.207
SDev	.00145	.00698	.04029	.00118	.00205	.00001	.169
%RSD	55.197	5.5684	67.216	398.44	.58732	1.0909	.79528

#1	-.00148	.12719	.06283	-.00006	.35125	-.00074	21.418
#2	-.00451	.11610	.05513	-.00070	.34862	-.00073	21.113
#3	-.00298	.13293	.11007	.00201	.34630	-.00074	21.260
#4	-.00150	.12542	.01172	-.00007	.34809	-.00073	21.037

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	-.00214	-.00017	-.00278	.00751	.09997	.03958	-.00069
SDev	.00115	.00182	.00115	.00054	.00262	.22012	.00068
%RSD	53.809	1067.6	41.559	7.2232	2.6162	556.11	98.249

#1	-.00284	.00019	-.00250	.00704	.10377	-.15173	-.00003
#2	-.00141	.00163	-.00139	.00798	.09963	.27927	-.00140
#3	-.00336	.00019	-.00306	.00798	.09825	.17372	-.00112
#4	-.00094	-.00270	-.00416	.00704	.09825	-.14293	-.00020

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	3.9419	.05154	-.01399	279.16	-.00486	.40478	-.00794
SDev	.0188	.00084	.00641	1.66	.00725	.02435	.02209
%RSD	.47577	1.6200	45.808	.59424	149.12	6.0145	278.12

#1	3.9588	.05256	-.00508	279.76	-.01248	.43220	.01070
#2	3.9335	.05154	-.02035	280.00	-.00781	.37743	-.02133
#3	3.9195	.05154	-.01526	276.68	.00462	.41655	.01092
#4	3.9560	.05052	-.01526	280.19	-.00377	.39294	-.03206

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	.00327	1.4016	-.01838	.11158	-.00026	-.04006	.00004
SDev	.05200	.0136	.00872	.00063	.00052	.03023	.00303
%RSD	1589.0	.97108	47.411	.56684	200.00	75.451	7052.4

#1	-.02079	1.4123	-.01043	.11251	.00017	-.00685	.00276
#2	-.05290	1.4062	-.02946	.11119	-.00086	-.03098	-.00263

						664	808
#3	.01932	1.4062	-.01252	.11119	.00017	-.07939	.00257
#4	.06747	1.3816	-.02112	.11142	-.00052	-.04304	-.00253
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	.12677						
SDev	.00195						
%RSD	1.5371						
#1	.12883						
#2	.12474						
#3	.12552						
#4	.12799						
Errors	LC Pass						
High	100.00						
Low	-.02000						

Method: QUANMET Sample Name: DG5CGST Operator: PMG
 Run Time: 07/20/00 13:01:07
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP
 Mode: CONC Corr. Factor: 1

664 809

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.90086	.58749	4.9499	.04313	44.809	-.00043	94.450
SDev	.00601	.01261	.0578	.00001	.682	.00006	.712
%RSD	.66735	2.1464	1.1667	.02418	1.5226	14.889	.75418
#1	.90388	.58892	4.9479	.04314	45.648	-.00047	94.690
#2	.90385	.60396	4.9242	.04314	44.671	-.00046	94.281
#3	.90388	.58324	5.0307	.04313	44.921	-.00034	95.262
#4	.89185	.57386	4.8968	.04312	43.996	-.00047	93.568
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	.95492	.00188	4.4838	.04249	.46795	1.2270	.00121
SDev	.00572	.00247	.0369	.00090	.00449	.6546	.00043
%RSD	.59854	131.51	.82241	2.1178	.95927	53.347	35.285
#1	.94665	.00220	4.5089	.04272	.47192	.99173	.00095
#2	.95693	-.00166	4.4779	.04178	.46847	.43759	.00086
#3	.95978	.00397	4.5145	.04366	.46985	1.5371	.00123
#4	.95633	.00301	4.4341	.04179	.46156	1.9417	.00181
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	17.010	.22914	-.01266	S3762.7	.00249	6.3520	.05179
SDev	.230	.00220	.00294	.2	.00505	.0334	.02395
%RSD	1.3535	.96246	23.223	.00612	202.77	.52610	46.248
#1	17.271	.23016	-.01520	S3762.5	-.00026	6.3735	.05954
#2	16.985	.22914	-.01011	S3762.5	-.00302	6.3578	.05986
#3	17.069	.23118	-.01011	S3763.0	.00810	6.3735	.01676
#4	16.716	.22607	-.01520	S3762.8	.00514	6.3031	.07101
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	1.0405	6.5376	-.01858	.48657	.00490	-.00053	.00002
SDev	.0317	.0904	.03035	.00643	.00033	.02684	.00253
%RSD	3.0438	1.3828	163.37	1.3222	6.7188	5052.4	10296.
#1	1.0675	6.6264	.02134	.49418	.00464	.01455	.00130
#2	1.0435	6.5222	-.05003	.48486	.00533	-.00956	-.00376

664 810

#3	1.0555	6.5835	-.03133	.48842	.00464	-.03384	.00141
#4	.99530	6.4181	-.01429	.47883	.00498	.02672	.00115
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 .56803
 SDev .00661
 %RSD 1.1630

#1 .56864
 #2 .56784
 #3 .57590
 #4 .55975

Errors LC Pass
 High 100.00
 Low -.02000

Method: QUANMET Sample Name: DG5CGDT

Operator: PMG

Run Time: 07/20/00 13:04:15

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP **664 811**

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.89334	.52386	4.7752	.04308	43.428	-.00043	88.073
SDev	.00370	.01669	.0183	.00001	.239	.00006	.675
%RSD	.41372	3.1865	.38397	.01255	.55050	14.860	.76688
#1	.89184	.50593	4.7714	.04307	43.560	-.00047	87.577
#2	.89635	.53991	4.7829	.04307	43.075	-.00034	88.650
#3	.88881	.51352	4.7517	.04307	43.589	-.00046	87.405
#4	.89636	.53610	4.7947	.04308	43.487	-.00047	88.660
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	.93506	-.00170	4.3467	.03803	.43531	.63990	.00059
SDev	.00505	.00284	.0215	.00133	.00448	.22948	.00088
%RSD	.53983	167.28	.49447	3.4944	1.0290	35.862	149.90
#1	.93135	-.00247	4.3309	.03896	.43324	.77184	.00181
#2	.93257	.00065	4.3609	.03803	.43531	.76304	.00066
#3	.93383	-.00538	4.3260	.03615	.43116	.29686	-.00011
#4	.94248	.00042	4.3692	.03897	.44153	.72786	.00000
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	15.867	.21383	-.01266	S3764.2	-.00025	6.0956	.03140
SDev	.079	.00118	.00294	.2	.00340	.0548	.02197
%RSD	.50075	.55121	23.216	.00442	1350.9	.89947	69.971
#1	15.899	.21281	-.01012	S3764.3	-.00269	6.0681	.00735
#2	15.792	.21485	-.01521	S3764.1	-.00125	6.1778	.05004
#3	15.812	.21280	-.01521	S3764.4	-.00184	6.0681	.01818
#4	15.963	.21485	-.01012	S3764.0	.00478	6.0683	.05004
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	1.0093	6.0964	-.00503	.45521	.00326	.01488	-.00057
SDev	.0341	.0417	.01379	.00201	.00101	.03275	.00247
%RSD	3.3809	.68458	274.19	.44111	30.989	220.15	437.46
#1	1.0594	6.1117	.00221	.45535	.00258	-.03350	-.00023
#2	.98319	6.0995	.00870	.45234	.00395	.03905	.00101

664 812

#3	.99522	6.0382	-.02293	.45645	.00223	.02707	-.00416
#4	.99926	6.1363	-.00809	.45672	.00429	.02689	.00112

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	.52455
SDev	.00104
%RSD	.19903

#1	.52555
#2	.52531
#3	.52340
#4	.52394

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DG5C7T
 Run Time: 07/20/00 13:07:23
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP
 Mode: CONC Corr. Factor: 1

Operator: PMG

664 813

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00216	3.3103	.17463	.10600	1.7464	-.00042	134.88
SDev	.00144	.0256	.03478	.00005	.0150	.00008	.96
%RSD	66.899	.77371	19.917	.04449	.86070	18.108	.71359
#1	-.00102	3.3342	.18621	.10606	1.7608	-.00036	135.97
#2	-.00253	3.3157	.12730	.10600	1.7413	-.00035	135.30
#3	-.00404	3.3174	.21005	.10600	1.7560	-.00049	134.49
#4	-.00103	3.2740	.17495	.10594	1.7276	-.00049	133.75
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	.00131	.03183	-.00153	.05661	3.7323	1.7218	.00421
SDev	.00186	.00343	.00209	.00121	.0249	.3627	.00167
%RSD	141.89	10.786	136.43	2.1439	.66613	21.067	39.581
#1	-.00127	.02967	-.00084	.05802	3.7604	1.5898	.00659
#2	.00223	.03688	.00082	.05709	3.7383	2.2495	.00407
#3	.00128	.03111	-.00195	.05614	3.7301	1.6250	.00281
#4	.00300	.02968	-.00417	.05520	3.7004	1.4227	.00338
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	15.857	2.2517	-.01599	S3762.4	.03121	69.165	.09695
SDev	.153	.0170	.00870	.2	.00470	.501	.00006
%RSD	.96357	.75698	54.391	.00501	15.047	.72368	.05694
#1	16.000	2.2703	-.00453	S3762.2	.03523	69.752	.09687
#2	15.834	2.2570	-.02490	S3762.5	.02743	69.322	.09701
#3	15.941	2.2499	-.01981	S3762.6	.03531	69.024	.09695
#4	15.652	2.2295	-.01472	S3762.5	.02686	68.563	.09695
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	.00783	12.863	.00302	.51880	.06682	.01619	.00733
SDev	.04687	.075	.02120	.00437	.00084	.04312	.00071
%RSD	598.87	.58520	702.37	.84204	1.2594	266.36	9.6142
#1	.00890	12.950	.01562	.52318	.06682	.04022	.00788
#2	.02088	12.870	-.01797	.51743	.06786	-.04438	.00749

664 814

#3	.05697	12.864	.02611	.52127	.06682	.01622	.00630
#4	-.05545	12.766	-.01168	.51332	.06579	.05271	.00767
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	.39416
SDev	.00259
%RSD	.65734

#1	.39624
#2	.39651
#3	.39244
#4	.39145

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: CV2-1 0014-164-11 Operator: PMG
 Run Time: 07/20/00 13:10:32
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP
 Mode: CONC Corr. Factor: 1

664 815

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.97879	48.063	4.9158	4.7625	4.6531	4.7007	50.380
SDev	.00775	.327	.0081	.0257	.0352	.0364	.288
%RSD	.79128	.68042	.16411	.54061	.75618	.77448	.57089
#1	.98304	48.206	4.9063	4.7638	4.6608	4.7257	50.572
#2	.97993	48.083	4.9195	4.7703	4.6561	4.7014	50.387
#3	.98464	48.359	4.9126	4.7887	4.6900	4.7268	50.591
#4	.96755	47.602	4.9248	4.7273	4.6053	4.6490	49.971
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
Avg	5.0345	4.8775	4.8811	4.6514	50.135	46.862	4.5950
SDev	.0221	.0287	.0363	.0351	.315	.069	.0355
%RSD	.43901	.58799	.74269	.75507	.62882	.14620	.77298
#1	5.0551	4.8832	4.9046	4.6695	50.291	46.809	4.6113
#2	5.0479	4.8904	4.8802	4.6554	50.197	46.862	4.5982
#3	5.0291	4.9005	4.9095	4.6798	50.377	46.959	4.6260
#4	5.0057	4.8358	4.8303	4.6009	49.675	46.818	4.5445
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
Avg	48.151	4.8586	4.8439	46.911	4.8680	4.9728	4.8740
SDev	.314	.0306	.0330	.326	.0355	.0454	.0489
%RSD	.65279	.63076	.68199	.69592	.72979	.91279	1.0027
#1	48.304	4.8714	4.8796	46.986	4.9164	4.9710	4.9385
#2	48.170	4.8653	4.8338	46.983	4.8561	4.9790	4.8847
#3	48.425	4.8837	4.8593	47.223	4.8677	5.0260	4.8308
#4	47.707	4.8141	4.8032	46.451	4.8320	4.9153	4.8420
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
Avg	5.0022	4.8960	4.9733	4.6926	4.7667	9.7272	4.8293
SDev	.0549	.0436	.0508	.0354	.0319	.0875	.0337
%RSD	1.0970	.89043	1.0212	.75387	.66864	.89961	.69727
#1	4.9625	4.9176	4.9521	4.7028	4.7834	9.6650	4.8453
#2	5.0746	4.9113	4.9812	4.6961	4.7693	9.8475	4.8291

664 816

#3	5.0149	4.9239	5.0397	4.7278	4.7930	9.7365	4.8603
#4	4.9568	4.8310	4.9202	4.6437	4.7212	9.6598	4.7825
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	4.8731
SDev	.0245
%RSD	.50258

#1	4.8875
#2	4.8887
#3	4.8793
#4	4.8369

Errors	LC Pass
High	5.5000
Low	4.5000

Method: QUANMET Sample Name: CCB1

Operator: PMG

Run Time: 07/20/00 13:13:40

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP **664 817**

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00152	.00426	.01874	-.00861	-.00097	-.00069	.21454
SDev	.00123	.00714	.03866	.00192	.00000	.00007	.00080
%RSD	80.952	167.46	206.31	22.321	.00000	9.7992	.37443
#1	-.00152	-.00095	.01680	-.00673	-.00097	-.00073	.21418
#2	-.00001	.01042	.06793	-.01090	-.00097	-.00073	.21573
#3	-.00152	.01041	-.02661	-.00944	-.00097	-.00073	.21428
#4	-.00303	-.00282	.01683	-.00735	-.00097	-.00059	.21398
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	-.00078	.00000	-.00443	-.00328	-.00691	-.07696	-.00139
SDev	.00111	.00182	.00166	.00000	.00118	.26236	.00020
%RSD	143.24	49595.	37.510	.04756	17.064	340.88	14.433
#1	-.00232	.00037	-.00582	-.00328	-.00674	.13853	-.00109
#2	-.00061	.00181	-.00360	-.00328	-.00812	.12974	-.00149
#3	-.00051	.00036	-.00249	-.00328	-.00743	-.16932	-.00149
#4	.00033	-.00252	-.00582	-.00329	-.00536	-.40681	-.00149
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	-.00421	-.00102	.00127	.22112	-.01150	.01367	-.01350
SDev	.01343	.00059	.00255	.00507	.01023	.02967	.01037
%RSD	319.14	57.682	200.16	2.2943	88.990	217.04	76.814
#1	-.00912	-.00051	.00509	.22029	-.00206	.00977	-.01071
#2	-.02034	-.00153	-.00000	.21650	-.00326	.05677	-.00001
#3	.01052	-.00051	-.00000	.21934	-.02108	-.00589	-.02166
#4	.00210	-.00153	-.00000	.22833	-.01959	-.00597	-.02164
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	.02305	-.04293	.00519	-.00110	-.00069	-.01806	-.00285
SDev	.01764	.00612	.01215	.00000	.00020	.03563	.00076
%RSD	76.531	14.261	234.27	.00000	28.868	197.23	26.809
#1	.00299	-.04598	-.01054	-.00110	-.00086	-.06647	-.00214
#2	.01503	-.04598	.00210	-.00110	-.00052	-.01807	-.00224

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#3	.04311	-.03374	.01249	-.00110	-.00052	-.00595	-.00351
#4	.03108	-.04600	.01669	-.00110	-.00086	.01824	-.00352

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	.00517
SDev	.00112
%RSD	21.733

#1	.00677
#2	.00487
#3	.00413
#4	.00492

Errors	LC Pass
High	.02000
Low	-.02000

Method: QUANMET Sample Name: DG5CKT

Operator: PMG

Run Time: 07/20/00 13:16:48

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP **664 819**

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00486	.13381	.21243	.04245	1.6476	-.00078	H701.26
SDev	.00076	.00781	.01640	.00001	.0116	.00006	2.89
%RSD	15.623	5.8326	7.7193	.01923	.70689	8.0822	.41237
#1	-.00448	.12731	.20853	.04244	1.6458	-.00075	H699.52
#2	-.00447	.12707	.19273	.04246	1.6404	-.00076	H702.10
#3	-.00600	.13853	.23213	.04246	1.6396	-.00074	H698.46
#4	-.00450	.14234	.21634	.04245	1.6646	-.00088	H704.94
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	-.00283	.00105	-.00319	.00986	.11433	1.5415	.00080
SDev	.00124	.00166	.00258	.00076	.00285	.2179	.00065
%RSD	43.824	158.29	80.704	7.7587	2.4904	14.135	81.241
#1	-.00179	.00249	-.00583	.00892	.11053	1.6074	.00075
#2	-.00295	-.00039	.00027	.00986	.11743	1.7042	.00163
#3	-.00206	-.00039	-.00305	.01080	.11467	1.6338	.00075
#4	-.00454	.00249	-.00416	.00986	.11467	1.2204	.00006
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	21.098	.12576	-.01016	S3761.2	-.00530	.03123	.00818
SDev	.123	.00098	.00831	.2	.00738	.02585	.03648
%RSD	.58405	.77783	81.791	.00641	139.21	82.785	446.28
#1	21.020	.12499	-.02035	S3761.3	-.01597	.05666	-.02130
#2	21.096	.12602	.00002	S3761.4	-.00249	.01746	-.02138
#3	21.003	.12499	-.01016	S3761.3	-.00367	.04885	.05365
#4	21.273	.12703	-.01016	S3760.8	.00093	.00194	.02173
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	.04444	4.6720	.00127	1.0881	-.04406	-.03984	.00490
SDev	.02567	.0278	.03527	.0068	.00017	.04671	.00267
%RSD	57.763	.59581	2779.4	.62569	.38986	117.25	54.460
#1	.01534	4.6414	-.01041	1.0861	-.04381	-.09125	.00629
#2	.03141	4.6721	.00218	1.0847	-.04415	.00549	.00797

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#3	.05949	4.7088	.04871	1.0834	-.04415	-.06704	.00267
#4	.07152	4.6659	-.03540	1.0982	-.04415	-.00656	.00266
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	.14525
SDev	.00287
%RSD	1.9749

#1	.14367
#2	.14228
#3	.14876
#4	.14629

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DG75WT

Operator: PMG

Run Time: 07/20/00 13:19:57

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP 664 821

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00227	.00669	.02264	.02239	.07306	-.00093	9.8137
SDev	.00087	.01178	.03731	.00281	.00044	.00017	.0397
%RSD	38.192	176.07	164.78	12.565	.60637	18.560	.40448

#1	-.00303	.00103	.07588	.02662	.07259	-.00100	9.7676
#2	-.00152	.00477	-.00689	.02099	.07290	-.00073	9.8113
#3	-.00303	-.00278	.00105	.02100	.07364	-.00113	9.8113
#4	-.00152	.02374	.02054	.02098	.07312	-.00086	9.8646

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	-.00334	-.00255	-.00250	-.00329	-.00225	1.4997	.00201
SDev	.00242	.00354	.00283	.00077	.00144	.2718	.00036
%RSD	72.391	138.72	113.21	23.390	63.937	18.124	18.095

#1	-.00167	-.00544	.00027	-.00329	-.00398	1.3963	.00241
#2	-.00207	-.00111	-.00139	-.00328	-.00190	1.6250	.00224
#3	-.00271	-.00544	-.00638	-.00423	-.00052	1.1764	.00166
#4	L-.00691	.00179	-.00250	-.00234	-.00259	1.8010	.00175

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	19.163	.02499	-.01146	14.723	-.01151	.01162	-.03221
SDev	.114	.00000	.00487	.107	.00321	.02505	.01513
%RSD	.59496	.00795	42.552	.72950	27.876	215.60	46.970

#1	19.061	.02499	-.01527	14.635	-.00894	.03309	-.01080
#2	19.118	.02499	-.00509	14.681	-.01513	.03316	-.04295
#3	19.325	.02499	-.01018	14.879	-.01328	-.01389	-.03224
#4	19.146	.02499	-.01527	14.695	-.00868	-.00589	-.04284

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	-.00903	.85931	-.00015	.01220	-.00146	.01533	-.00246
SDev	.05768	.03370	.02274	.00027	.00071	.02861	.00009
%RSD	638.53	3.9217	15631.	2.2472	48.507	186.71	3.7931

#1	.00300	.84246	.02514	.01206	-.00223	.05469	-.00252
#2	.01905	.84246	-.02328	.01206	-.00155	.01833	-.00233

#3	.03511	.84246	.01245	.01261	-.00155	-.00584	-.00244
#4	-.09330	.90985	-.01489	.01206	-.00052	-.00588	-.00253

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	.00775
SDev	.00085
%RSD	10.931

#1	.00814
#2	.00737
#3	.00871
#4	.00679

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DG761T Operator: PMG
 Run Time: 07/20/00 13:23:05
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP 664 823
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00470	.03543	-.01512	.05823	.04473	-.00087	183.37
SDev	.00124	.00849	.06076	.01840	.00035	.00001	.82
%RSD	26.376	23.958	401.87	31.599	.78358	.75262	.44708
#1	-.00622	.03492	-.00323	.04230	.04523	-.00086	184.11
#2	-.00469	.02366	-.04262	.07417	.04449	-.00088	182.75
#3	-.00319	.04250	.06360	.07417	.04470	-.00088	184.04
#4	-.00469	.04065	-.07822	.04229	.04449	-.00088	182.57
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	-.00294	-.00072	-.00292	-.00117	.03207	76.429	.20306
SDev	.00287	.00320	.00214	.00090	.00035	.605	.00173
%RSD	97.669	446.89	73.514	76.906	1.0786	.79119	.85001
#1	-.00265	-.00396	.00028	-.00141	.03190	77.305	.20559
#2	.00102	.00036	-.00416	-.00047	.03190	76.319	.20206
#3	L-.00514	-.00251	-.00361	-.00235	.03190	75.932	.20272
#4	-.00499	.00326	-.00416	-.00046	.03259	76.161	.20186
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	85.717	.98264	-.01527	70.083	-.01540	.20531	-.01609
SDev	.604	.00529	.00416	.563	.00168	.02789	.02057
%RSD	.70491	.53864	27.225	.80327	10.887	13.585	127.81
#1	86.563	.98901	-.01018	70.822	-.01442	.18173	-.03230
#2	85.682	.97881	-.01527	70.215	-.01604	.18188	-.01073
#3	85.469	.98493	-.02036	69.589	-.01745	.22094	.01077
#4	85.155	.97779	-.01527	69.705	-.01371	.23669	-.03211
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	.02516	.49172	.00103	.45241	-.01245	.04755	.00129
SDev	.02631	.03722	.01661	.00288	.00059	.03558	.00248
%RSD	104.57	7.5693	1619.9	.63618	4.7112	74.839	191.86
#1	.03118	.50546	.02089	.45645	-.01323	.03554	-.00243
#2	.01112	.43813	.00840	.45234	-.01254	.09591	.00256

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#3	-.00092	.49940	-.01459	.45097	-.01185	.01127	.00247
#4	.05927	.52391	-.01059	.44987	-.01220	.04748	.00256
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 .02041
 SDev .00226
 %RSD 11.087

#1 .01916
 #2 .01950
 #3 .02379
 #4 .01918

Errors LC Pass
 High 100.00
 Low -.02000

Method: QUANMET Sample Name: DGCA4B
 Run Time: 07/20/00 13:26:13
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP
 Mode: CONC Corr. Factor: 1

Operator: PMG

664 825

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00188	.00387	-.01086	-.01090	-.00113	-.00080	-.00659
SDev	.00144	.00905	.01956	.00480	.00018	.00007	.00834
%RSD	76.332	234.07	180.19	44.072	15.818	8.6473	126.58

#1	-.00149	.00852	-.00700	-.01444	-.00128	-.00074	.00346
#2	-.00001	.01239	-.01483	-.00381	-.00128	-.00086	-.00339
#3	-.00302	.00295	.01284	-.01299	-.00097	-.00086	-.01102
#4	-.00300	-.00840	-.03444	-.01236	-.00097	-.00074	-.01540

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	-.00057	.00072	-.00250	-.00235	-.00794	.16492	-.00040
SDev	.00092	.00138	.00120	.00077	.00278	.19001	.00098
%RSD	160.32	191.00	47.929	32.657	35.049	115.21	244.18

#1	.00061	-.00108	-.00194	-.00235	-.00950	.16492	.00063
#2	-.00156	.00181	-.00139	-.00328	-.00466	.25288	-.00052
#3	-.00095	.00036	-.00416	-.00235	-.01088	-.09895	-.00169
#4	-.00040	.00181	-.00250	-.00141	-.00674	.34084	-.00003

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	.01614	-.00077	-.01018	.02437	-.01019	.01173	-.02144
SDev	.00724	.00051	.00000	.00425	.00746	.04062	.00871
%RSD	44.904	66.120	.00409	17.440	73.191	346.46	40.650

#1	.01894	-.00052	-.01018	.02721	-.00590	-.04505	-.02142
#2	.02455	-.00052	-.01018	.02863	-.01079	.04110	-.01072
#3	.00772	-.00052	-.01018	.02201	-.02044	.04106	-.02156
#4	.01333	-.00154	-.01018	.01964	-.00363	.00979	-.03206

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	.03408	-.06433	-.00902	-.00110	-.00034	-.03320	.00012
SDev	.03610	.00004	.01192	.00000	.00020	.07922	.00294
%RSD	105.90	.05840	132.19	.00000	57.735	238.61	2517.0

#1	.07120	-.06430	-.00220	-.00110	-.00052	-.04226	.00267
#2	.05516	-.06437	-.01684	-.00110	-.00017	-.03020	-.00243

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#3	-.00906	-.06437	.00410	-.00110	-.00017	-.12692	-.00244
#4	.01904	-.06430	-.02114	-.00110	-.00052	.06657	.00267
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	-.00043
SDev	.00166
%RSD	386.59

#1	-.00105
#2	.00030
#3	.00144
#4	-.00241

Errors	LC Pass
High	.02000
Low	-.02000

Method: QUANMET Sample Name: DGCA4C Operator: PMG
 Run Time: 07/20/00 13:29:22
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP 664 827
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04737	1.9515	1.9898	.94982	1.8648	.04764	52.977
SDev	.00076	.0078	.0337	.00001	.0079	.00013	.157
%RSD	1.6145	.40122	1.6949	.00093	.42375	.26750	.29579
#1	.04776	1.9563	1.9769	.94983	1.8681	.04774	53.045
#2	.04776	1.9601	1.9690	.94981	1.8744	.04774	53.086
#3	.04776	1.9449	1.9731	.94981	1.8576	.04747	53.031
#4	.04623	1.9449	2.0401	.94982	1.8591	.04762	52.744
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
Avg	.04846	.50132	.19684	.23319	1.0451	47.898	.91287
SDev	.00444	.00514	.00071	.00121	.0025	.348	.00655
%RSD	9.1604	1.0249	.36195	.51987	.23631	.72645	.71788
#1	.04959	.49843	.19601	.23460	1.0472	48.305	.91059
#2	.05159	.50563	.19711	.23366	1.0465	47.715	.92177
#3	.04191	.50567	.19767	.23273	1.0451	48.050	.90621
#4	.05074	.49555	.19656	.23178	1.0416	47.522	.91292
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
Avg	50.579	.49892	.99163	47.725	.49204	.51972	.50666
SDev	.261	.00118	.00764	.214	.01526	.02354	.01021
%RSD	.51526	.23570	.77007	.44896	3.1015	4.5295	2.0146
#1	50.712	.49994	.98272	47.843	.48361	.50791	.50923
#2	50.880	.49994	.98781	47.952	.50879	.55503	.49884
#3	50.375	.49790	.99799	47.472	.50036	.50813	.52003
#4	50.347	.49790	.99799	47.632	.47538	.50782	.49854
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
Avg	2.0100	10.156	2.0944	.94692	.96733	1.9688	.49015
SDev	.0756	.038	.0481	.00326	.00351	.0447	.00247
%RSD	3.7615	.37531	2.2978	.34443	.36337	2.2704	.50403
#1	2.0561	10.211	2.1316	.94834	.97042	1.9870	.49125
#2	2.0922	10.150	2.0791	.95085	.97007	2.0232	.49135

#3	1.9478	10.138	2.1338	.94395	.96561	664	828	1.9264	.49155
#4	1.9438	10.125	2.0329	.94455	.96320			1.9387	.48645
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	.50924								
SDev	.00566								
%RSD	1.1123								
#1	.51228								
#2	.51410								
#3	.50930								
#4	.50128								
Errors	LC Pass								
High	.60000								
Low	.40000								

Method: QUANMET Sample Name: DGCA4L

Operator: PMG

Run Time: 07/20/00 13:32:30

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP

664 829

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04892	1.9661	2.0604	.95011	1.8634	.04784	53.164
SDev	.00144	.0094	.0351	.00001	.0083	.00013	.263
%RSD	2.9463	.47847	1.7043	.00066	.44285	.26680	.49462
#1	.04779	1.9676	2.0712	.95012	1.8555	.04774	53.508
#2	.05080	1.9599	2.0082	.95011	1.8607	.04787	53.205
#3	.04779	1.9582	2.0792	.95012	1.8623	.04774	53.050
#4	.04930	1.9789	2.0829	.95011	1.8749	.04800	52.891
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
Avg	.04787	.50060	.19864	.23508	1.1991	48.388	.91353
SDev	.00462	.00186	.00095	.00094	.0022	.276	.00709
%RSD	9.6433	.37078	.47695	.39919	.18168	.57070	.77634
#1	.05444	.49987	.19878	.23367	H1.2018	48.217	.90756
#2	.04565	.50133	.19989	.23555	1.1998	48.137	.91234
#3	.04390	.49845	.19767	.23555	1.1977	48.445	.91048
#4	.04749	.50276	.19822	.23555	1.1970	48.753	.92375
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
Avg	50.803	.50151	.98911	47.944	.49845	.55681	.49868
SDev	.121	.00177	.01520	.317	.00569	.02808	.00881
%RSD	.23725	.35238	1.5370	.66218	1.1424	5.0436	1.7659
#1	50.743	.50406	.98274	47.673	.50191	.57831	.49880
#2	50.796	.50101	1.0082	47.839	.50176	.56269	.48779
#3	50.698	.49998	.97256	47.860	.49000	.57047	.50935
#4	50.973	.50100	.99292	48.403	.50014	.51579	.49878
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
Avg	2.0515	10.153	2.0933	.94623	.96561	1.9189	.49138
SDev	.0617	.008	.0416	.00312	.00252	.1066	.00030
%RSD	3.0061	.07792	1.9861	.32999	.26146	5.5574	.06010
#1	2.0726	10.156	2.0687	.94427	.96423	1.7676	.49125
#2	1.9642	10.150	2.1316	.94542	.96458	1.9249	.49175

						664	830
#3	2.0605	10.144	2.1254	.94439	.96423	2.0096	.49105
#4	2.1087	10.162	2.0476	.95085	.96939	1.9733	.49145
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	.51003						
SDev	.00463						
%RSD	.90712						
#1	.51252						
#2	.51521						
#3	.50526						
#4	.50713						
Errors	LC Pass						
High	.60000						
Low	.40000						

Method: QUANMET Sample Name: DG7Q1

Operator: PMG

Run Time: 07/20/00 13:35:38

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP **664 831**

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00036	.00628	.01182	34.682	-.00060	-.00083	-.02373
SDev	.00144	.00233	.01773	.234	.00018	.00007	.00260
%RSD	397.62	37.058	149.98	.67602	29.608	8.0729	10.961

#1	.00149	.00678	-.00296	34.795	-.00076	-.00086	-.02464
#2	-.00001	.00854	.01278	34.786	-.00045	-.00086	-.02230
#3	.00149	.00302	.00101	34.331	-.00045	-.00073	-.02104
#4	-.00152	.00679	.03644	34.818	-.00076	-.00086	-.02692

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	-.00140	.00109	-.00236	-.00141	-.00570	14.443	-.00010
SDev	.00120	.00277	.00258	.00133	.00144	.306	.00134
%RSD	86.194	254.17	109.24	94.456	25.233	2.1169	1334.5

#1	-.00262	.00470	-.00139	-.00047	-.00397	14.687	.00106
#2	-.00001	-.00108	-.00250	-.00141	-.00605	14.379	-.00100
#3	-.00080	.00181	.00027	-.00047	-.00535	14.669	.00103
#4	-.00215	-.00107	-.00583	-.00328	-.00743	14.036	-.00149

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	.01193	-.00128	-.01273	73.264	-.01008	.01761	-.01612
SDev	.01403	.00051	.00657	.656	.00456	.02296	.00622
%RSD	117.65	39.656	51.637	.89577	45.187	130.40	38.599

#1	-.00351	-.00153	-.01018	73.873	-.01044	-.00577	-.02156
#2	.01333	-.00153	-.00509	73.288	-.00440	.04103	-.01070
#3	.03017	-.00154	-.01527	72.347	-.00994	.00199	-.01076
#4	.00772	-.00052	-.02037	73.548	-.01555	.03319	-.02145

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	.00600	-.05977	.01305	-.00110	-.00086	-.03019	-.00248
SDev	.03594	.00587	.02357	.00000	.00049	.06009	.00013
%RSD	598.70	9.8142	180.65	.00000	56.569	199.07	5.2070

#1	.01504	-.05211	.04398	-.00110	-.00086	-.06653	-.00243
#2	-.04516	-.06436	-.01264	-.00110	-.00120	.04243	-.00233

						664	832
#3	.01503	-.06437	.01464	-.00110	-.00017	-.00600	-.00252
#4	.03910	-.05824	.00620	-.00110	-.00120	-.09064	-.00264
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	.00064
SDev	.00117
%RSD	181.81

#1	.00219
#2	-.00052
#3	.00084
#4	.00007

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DG7QM

Operator: PMG

Run Time: 07/20/00 13:38:46

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP 664 833

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00150	.08110	.00425	.04301	.00016	-.00084	34.022
SDev	.00246	.01127	.01551	.00685	.00016	.00006	.149
%RSD	163.87	13.891	365.32	15.921	96.343	7.4192	.43875
#1	-.00149	.07636	.01214	.05291	-.00002	-.00087	34.191
#2	-.00452	.06885	.02015	.04228	.00008	-.00086	33.859
#3	.00150	.09525	.00023	.03812	.00029	-.00086	33.943
#4	-.00148	.08394	-.01553	.03874	.00029	-.00074	34.095
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	.00029	-.00036	-.00264	-.00141	.02400	.08576	-.00122
SDev	.00265	.00251	.00291	.00000	.00268	.44562	.00078
%RSD	921.79	692.08	110.42	.17039	11.148	519.61	64.423
#1	-.00001	-.00108	-.00527	-.00141	.02435	-.41560	-.00215
#2	.00164	-.00253	-.00416	-.00141	.02020	-.11654	-.00149
#3	.00280	-.00109	-.00250	-.00141	.02642	.27047	-.00032
#4	-.00329	.00326	.00138	-.00140	.02504	.60471	-.00092
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	3.1541	-.00051	-.01018	.23981	-.01503	-.00400	-.01881
SDev	.0062	.00000	.00000	.00749	.00598	.01735	.01612
%RSD	.19727	.11297	.00393	3.1217	39.775	433.26	85.716
#1	3.1478	-.00051	-.01018	.23354	-.02235	.00186	-.01075
#2	3.1618	-.00051	-.01018	.23874	-.01683	.00960	-.04299
#3	3.1562	-.00051	-.01018	.25057	-.01256	-.02945	-.01076
#4	3.1506	-.00051	-.01018	.23638	-.00838	.00197	-.01074
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	.02013	.30942	-.00900	.01593	.00026	-.03654	-.00020
SDev	.03825	.01323	.01837	.00014	.00043	.05801	.00263
%RSD	190.08	4.2746	204.05	.85883	167.77	158.75	1303.0
#1	-.01298	.30944	-.03573	.01580	.00086	-.00631	.00139
#2	.06726	.29714	.00400	.01590	-.00017	-.09092	-.00244

664 834

#3	.03518	.32777	-.00634	.01612	.00017	.03000	-.00243
#4	-.00896	.30333	.00205	.01590	.00017	-.07895	.00267
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	.00005
SDev	.00249
%RSD	4760.0

#1	-.00235
#2	-.00049
#3	-.00050
#4	.00355

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DG7RF

Operator: PMG

Run Time: 07/20/00 13:41:55

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP 664 835

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.29163	1.6991	.23389	.27159	.59999	.65110	.03820
SDev	.00194	.0113	.02983	.00410	.00169	.00335	.01048
%RSD	.66596	.66770	12.752	1.5096	.28178	.51407	27.431
#1	.29089	1.7057	.21607	.27545	.59917	.64688	.05276
#2	.29240	1.7113	.27510	.26776	.60233	.65504	.03852
#3	.28936	1.6869	.20843	.27481	.60001	.65158	.02894
#4	.29388	1.6925	.23595	.26835	.59843	.65091	.03259
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	.05197	.16082	.14251	.45480	1.7433	.25728	-.00101
SDev	.00227	.00344	.00262	.00325	.0059	.38236	.00048
%RSD	4.3723	2.1360	1.8376	.71446	.33993	148.62	47.037
#1	.05401	.15865	.14611	.45198	1.7414	.78063	-.00129
#2	.04872	.15866	.14056	.45949	1.7517	.02419	-.00083
#3	.05271	.16010	.14057	.45386	1.7379	-.07257	-.00149
#4	.05245	.16587	.14279	.45387	1.7421	.29686	-.00043
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	-.01754	1.7742	.11099	.06318	1.7699	2.4486	.38604
SDev	.00945	.0037	.00869	.00823	.0125	.0302	.00531
%RSD	53.864	.20670	7.8334	13.032	.70366	1.2328	1.3766
#1	-.01473	1.7750	.10208	.07027	1.7811	2.4935	.38346
#2	-.02034	1.7771	.10717	.06460	1.7600	2.4309	.38334
#3	-.02876	1.7689	.11226	.05135	1.7583	2.4310	.39401
#4	-.00631	1.7760	.12244	.06649	1.7803	2.4390	.38334
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	.59342	.04649	-.00101	.13685	-.00052	.10154	1.0019
SDev	.04480	.00004	.01888	.00027	.00063	.05166	.0028
%RSD	7.5490	.07699	1862.5	.19562	121.72	50.878	.27992
#1	.60144	.04652	.00842	.13663	.00017	.12273	1.0043
#2	.56134	.04652	-.01677	.13718	-.00017	.15894	1.0044

664 836

#3	.55729	.04645	-.01672	.13663	-.00120	.08646	.99941
#4	.65360	.04646	.02101	.13696	-.00086	.03801	.99961
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	1.3447
SDev	.0060
%RSD	.44908

#1	1.3521
#2	1.3451
#3	1.3373
#4	1.3445

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DG7RFP5

Operator: PMG

Run Time: 07/20/00 13:45:03

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP

664 837

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05589	.33697	.05163	.05489	.11902	.12572	-.03554
SDev	.00088	.00333	.02049	.00335	.00100	.00064	.00299
%RSD	1.5681	.98773	39.692	6.0954	.83678	.51265	8.4265

#1	.05665	.33785	.04175	.05281	.11889	.12518	-.03485
#2	.05665	.33985	.05750	.05843	.11836	.12559	-.03383
#3	.05512	.33801	.07730	.05697	.11836	.12547	-.03353
#4	.05515	.33217	.02998	.05136	.12047	.12666	-.03995

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	.00954	.03094	.02415	.08706	.33100	-.18691	-.00202
SDev	.00402	.00320	.00172	.00160	.00288	.30325	.00069
%RSD	42.146	10.355	7.1055	1.8385	.86930	162.24	34.229

#1	.00929	.03202	.02567	.08683	.33446	-.04618	-.00178
#2	.01233	.03346	.02512	.08777	.33031	.17372	-.00149
#3	.00394	.03204	.02179	.08495	.32755	-.42440	-.00178
#4	.01259	.02624	.02401	.08870	.33169	-.45079	-.00304

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	-.01052	.34387	.00896	.01538	.32359	.47402	.05721
SDev	.00810	.00196	.00487	.00553	.00534	.02820	.00875
%RSD	76.980	.56851	54.412	35.971	1.6505	5.9500	15.291

#1	-.00912	.34439	.01532	.02295	.33065	.47991	.05728
#2	-.00070	.34234	.00514	.01396	.32107	.49559	.04648
#3	-.02034	.34234	.00514	.00970	.32441	.48775	.06791
#4	-.01193	.34642	.01023	.01491	.31823	.43281	.05715

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	.11121	-.03886	-.01121	.02631	-.00086	-.00010	.19553
SDev	.04896	.00770	.02005	.00000	.00056	.04122	.00260
%RSD	44.027	19.826	178.79	.00000	65.320	42637.	1.3310

#1	.06809	-.04957	-.03325	.02631	-.00017	-.05762	.19694
#2	.10820	-.03732	-.01021	.02631	-.00086	.00290	.19674

#3	.08813	-.03738	.01508	.02631	-.00155	664 .03927	838 .19163
#4	.18043	-.03119	-.01646	.02631	-.00086	.01506	.19683
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	.25595
SDev	.00200
%RSD	.78102

#1	.25834
#2	.25678
#3	.25485
#4	.25385

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: CCV2-2 Operator: PMG
 Run Time: 07/20/00 13:48:11
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP 664 839
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	L-.00189	L.01428	L.02061	L.00256	L-.00081	L-.00083	L.09798
SDev	.00144	.00602	.04079	.00237	.00011	.00007	.00164
%RSD	76.150	42.145	197.95	92.617	13.333	8.0478	1.6788
#1	L-.00302	L.01811	L.07573	L.00329	L-.00076	L-.00086	L.09574
#2	L-.00302	L.00668	L.00097	L.00538	L-.00076	L-.00086	L.09788
#3	L-.00001	L.01997	L.02450	L-.00025	L-.00076	L-.00086	L.09958
#4	L-.00151	L.01235	L-.01878	L.00184	L-.00097	L-.00073	L.09871
Errors	LC Low	LC Low	LC Low	LC Low	LC Low	LC Low	LC Low
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
Avg	L-.00046	L-.00049	L-.00083	L-.00281	L.00545	L.13634	L-.00091
SDev	.00270	.00186	.00120	.00054	.00087	.24295	.00071
%RSD	582.06	382.61	143.72	19.247	15.964	178.20	78.440
#1	L-.00392	L.00024	L-.00250	L-.00328	L.00459	L-.17812	L-.00149
#2	L-.00082	L-.00265	L-.00028	L-.00235	L.00527	L.34084	L-.00063
#3	L.00255	L.00167	L-.00083	L-.00234	L.00666	L.31445	L-.00149
#4	L.00034	L-.00121	L.00028	L-.00328	L.00528	L.06817	L-.00003
Errors	LC Low	LC Low	LC Low	LC Low	LC Low	LC Low	LC Low
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
Avg	L-.00421	L-.00051	L-.01400	L.07004	L-.00884	L.00190	L-.02199
SDev	.00702	.00000	.00487	.00264	.00309	.02121	.01377
%RSD	166.67	.34348	34.818	3.7620	34.940	1114.7	62.603
#1	L-.01193	L-.00052	L-.02036	L.07027	L-.01306	L.03322	L-.01664
#2	L-.00351	L-.00051	L-.01018	L.06885	L-.00647	L-.01381	L-.02718
#3	L.00491	L-.00051	L-.01527	L.07359	L-.00924	L-.00589	L-.03809
#4	L-.00631	L-.00051	L-.01018	L.06744	L-.00660	L-.00592	L-.00606
Errors	LC Low	LC Low	LC Low	LC Low	LC Low	LC Low	LC Low
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
Avg	L.02610	L.04439	L2.5509	L-.00110	L.07756	L-.00609	L-.00250
SDev	.05347	.00587	.0593	.00000	.00059	.02208	.00010
%RSD	204.91	13.214	2.3252	.00000	.75651	362.73	3.8545
#1	L-.03309	L.04592	L2.5604	L-.00110	L.07782	L-.01818	L-.00263
#2	L.09130	L.03980	L2.4701	L-.00110	L.07679	L.00603	L-.00243

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#3	L.04315	L.05205	L2.5603	L-.00110	L.07816	L.01808	L-.00253
#4	L.00302	L.03980	L2.6129	L-.00110	L.07748	L-.03028	L-.00243

Errors	LC Low	LC Low	LC Low	LC Low	LC Low	LC Low	LC Low
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 L.00558
SDev .00028
%RSD 4.9633

#1 L.00546
#2 L.00543
#3 L.00599
#4 L.00544

Errors LC Low
High 5.5000
Low 4.5000

Method: QUANMET Sample Name: CCB2

Operator: PMG

Run Time: 07/20/00 13:51:19

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP **664 841**

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	H.98043	H48.082	H4.8195	H4.7772	H4.6533	H4.7447	H50.733
SDev	.00237	.328	.0315	.0458	.0346	.0319	.083
%RSD	.24132	.68226	.65307	.95937	.74372	.67291	.16451
#1	H.97839	H47.661	H4.8245	H4.7170	H4.6068	H4.7074	H50.692
#2	H.97854	H48.024	H4.7737	H4.7887	H4.6520	H4.7316	H50.802
#3	H.98321	H48.438	H4.8367	H4.8276	H4.6892	H4.7804	H50.803
#4	H.98158	H48.205	H4.8431	H4.7756	H4.6652	H4.7597	H50.635
Errors	LC High	LC High	LC High	LC High	LC High	LC High	LC High
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	H5.0816	H4.9112	H4.9004	H4.6601	H50.382	H47.089	H4.5721
SDev	.0079	.0154	.0134	.0378	.192	.068	.0501
%RSD	.15489	.31418	.27372	.81219	.38031	.14499	1.0958
#1	H5.0894	H4.9091	H4.8835	H4.6104	H50.155	H47.179	H4.5066
#2	H5.0766	H4.8990	H4.8996	H4.6526	H50.365	H47.020	H4.5630
#3	H5.0871	H4.9335	H4.9162	H4.6968	H50.623	H47.056	H4.6231
#4	H5.0732	H4.9033	H4.9023	H4.6808	H50.384	H47.100	H4.5959
Errors	LC High	LC High	LC High	LC High	LC High	LC High	LC High
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	H48.352	H4.8839	H4.8771	H47.037	H4.8924	H5.0285	H4.9115
SDev	.310	.0151	.0188	.437	.0190	.0223	.0332
%RSD	.64013	.30875	.38648	.92827	.38771	.44296	.67636
#1	H47.954	H4.8663	H4.8541	H46.490	H4.9060	H5.0424	H4.9063
#2	H48.310	H4.8837	H4.8796	H46.921	H4.8664	H5.0342	H4.9595
#3	H48.694	H4.9031	H4.9000	H47.508	H4.9070	H4.9956	H4.8954
#4	H48.450	H4.8827	H4.8745	H47.231	H4.8901	H5.0419	H4.8846
Errors	LC High	LC High	LC High	LC High	LC High	LC High	LC High
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	H4.8895	H4.9222	H5.0270	H4.6976	H4.7726	H9.7910	H4.8456
SDev	.0543	.0059	.0484	.0339	.0248	.0766	.0167
%RSD	1.1112	.12070	.96191	.72085	.51982	.78240	.34424
#1	H4.8698	H4.9173	H5.0969	H4.6525	H4.7401	H9.8357	H4.8244
#2	H4.8303	H4.9298	H5.0005	H4.6958	H4.7714	H9.7852	H4.8441

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#3	H4.9593	H4.9240	H4.9897	H4.7335	H4.7999	H9.6854	H4.8649
#4	H4.8985	H4.9177	H5.0211	H4.7085	H4.7793	H9.8575	H4.8491
Errors	LC High	LC High	LC High	LC High	LC High	LC High	LC High
High	.25000	.50000	.10000	.05000	.05000	.30000	.05000
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-.30000	-.05000

Elem ZN
 Units ppm
 Avge H4.8895
 SDev .0144
 %RSD .29357

#1 H4.8726
 #2 H4.9041
 #3 H4.8982
 #4 H4.8830

Errors LC High
 High .02000
 Low -.02000

7-20-00

664 843

#	Sample Name	AG	AS	BA	CD	CR	PB
1	STD1	-.00059	-.00024	.00002	.00009	.00004	.0004
2	STD5A	.26115	.53369	3.90687	.91408	3.7118	.25405
3	STD5B						
4	ICV2-1 0014-148-7	.50868	1.0057	1.0145	1.0062	1.0164	1.0163
5	ICB1	.00037	-.01911	.00036	-.00110	.00134	-.00578
6	ICSA 0014-170-1	-.00198	-.12790	.00156	-.00578	.00309	.08991
7	ICSAB 0014-187-1	.95954	.91217	.47223	.95471	.44654	.98202
8	DG5CKT	-.00370	.18155	1.7792	-.00095	.00148	-.01155
9	DG75WT	-.00036	.01984	.07790	-.00124	.00296	.00189
10	DG761T	-.00279	.02339	.04876	-.00130	.00040	.18174
11	CCV2-1 0014-164-11	1.0052	5.1499	5.0305	5.0052	4.9483	5.0010
12	CCB1	-.00111	.01311	.00304	.00248	.00364	-.01719

#	Sample Name	SE
1	STD1	-.00015
2	STD5A	.52224
3	STD5B	
4	ICV2-1 0014-148-7	1.0085
5	ICB1	.00193
6	ICSA 0014-170-1	.00209
7	ICSAB 0014-187-1	.91527
8	DG5CKT	.03384
9	DG75WT	-.01433
10	DG761T	.00203
11	CCV2-1 0014-164-11	5.0150
12	CCB1	-.00087

*PMG 7-20-00***664 844**

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
1	STD1	J00720B	QUANMET	07/20/00	18:17		X	IR
2	STD5A	J00720B	QUANMET	07/20/00	18:20		X	IR
3	STD5B	J00720B	QUANMET	07/20/00	18:23		X	IR
4	ICV2-1 0014-148-7	J00720B	QUANMET	07/20/00	18:26	PMG	S	CONC
5	ICB1	J00720B	QUANMET	07/20/00	18:29	PMG	S	CONC
6	ICSA 0014-170-1	J00720B	QUANMET	07/20/00	18:33	PMG	Q	CONC
7	ICSAB 0014-187-1	J00720B	QUANMET	07/20/00	18:36	PMG	Q	CONC
8	DG5CKT	J00720B	QUANMET	07/20/00	18:41	PMG	S	CONC
9	DG75WT	J00720B	QUANMET	07/20/00	18:44	PMG	S	CONC
10	DG761T	J00720B	QUANMET	07/20/00	18:47	PMG	S	CONC
11	CCV2-1 0014-164-11	J00720B	QUANMET	07/20/00	18:51	PMG	S	CONC
12	CCB1	J00720B	QUANMET	07/20/00	18:54	PMG	S	CONC

Method: QUANMET Standard: STD1
Run Time: 07/20/00 18:17:18

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Elem	AG	AL	AS	B	BA	BE	CA
Avge	-.00060	.00900	-.00025	.00044	.00003	.00260	.00435
SDev	.00023	.00105	.00143	.00039	.00009	.00016	.00083
%RSD	38.490	11.618	570.85	88.765	303.76	6.2807	19.034
#1	-.00080	.00980	.00060	.00040	.00008	.00260	.00398
#2	-.00080	.00820	-.00220	.00000	-.00008	.00240	.00336
#3	-.00040	.00800	.00100	.00040	.00012	.00280	.00511
#4	-.00040	.01000	-.00040	.00094	.00000	.00260	.00496
Elem	CD	CO	CR	CU	FE	K	LI
Avge	.00010	.00015	.00005	.00045	.00060	-.02745	-.00006
SDev	.00015	.00010	.00025	.00030	.00063	.00839	.00033
%RSD	150.20	66.667	503.32	66.667	105.41	30.574	569.21
#1	.00020	.00020	.00000	.00020	.00020	-.03440	-.00040
#2	.00012	.00020	-.00020	.00060	.00000	-.03300	-.00008
#3	-.00012	.00020	.00040	.00080	.00080	-.01600	.00040
#4	.00020	.00000	.00000	.00020	.00140	-.02640	-.00015
Elem	MG	MN	MO	NA	NI	PB	SB
Avge	.00025	.00005	.00005	.06190	.00005	.00040	-.00005
SDev	.00115	.00010	.00010	.00376	.00098	.00023	.00044
%RSD	458.98	200.00	200.00	6.0705	2092.9	57.735	886.94
#1	-.00140	.00000	.00000	.06360	-.00081	.00060	-.00040
#2	.00080	.00000	.00000	.05880	-.00080	.00060	-.00020
#3	.00120	.00020	.00000	.05880	.00091	.00020	-.00020
#4	.00040	.00000	.00020	.06640	.00089	.00020	.00060
Elem	SE	SI	SN	SR	TI	TL	V
Avge	-.00015	.00000	.00065	.00000	.00195	.00035	.00020
SDev	.00041	.00000	.00090	.00000	.00025	.00118	.00040
%RSD	274.87	.00000	138.46	.00000	12.906	337.66	200.00
#1	.00040	.00000	.00140	.00000	.00200	.00200	.00000
#2	-.00060	.00000	.00020	.00000	.00200	-.00040	.00000
#3	-.00020	.00000	.00140	.00000	.00160	-.00060	.00080
#4	-.00020	.00000	-.00040	.00000	.00220	.00040	.00000
Elem	ZN						
Avge	.00027						
SDev	.00008						
%RSD	29.240						
#1	.00028						
#2	.00015						
#3	.00032						
#4	.00032						

Method: QUANMET Standard: STD5A
Run Time: 07/20/00 18:20:28

0014-155-1

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Elem	AG	AS	B	BA	BE	CD	CO
Avge	.26115	.53370	.58083	3.9069	15.506	.91408	1.4422
SDev	.00060	.00289	.00208	.0215	.085	.00319	.0019
%RSD	.22869	.54176	.35774	.54931	.54744	.34887	.13398
#1	.26140	.53600	.58384	3.9349	15.616	.91555	1.4418
#2	.26040	.53000	.58044	3.9041	15.517	.91051	1.4406
#3	.26100	.53280	.57912	3.9059	15.474	.91255	1.4414
#4	.26180	.53600	.57992	3.8826	15.415	.91772	1.4450

Elem	CR	CU	LI	MN	MO	NI	PB
Avge	3.7118	2.1797	4.0430	2.0147	.40765	1.7199	.25405
SDev	.0038	.0145	.0418	.0032	.00109	.0064	.00259
%RSD	.10157	.66422	1.0351	.15644	.26685	.36989	1.0211
#1	3.7144	2.1978	4.0953	2.0178	.40800	1.7128	.25280
#2	3.7110	2.1802	4.0447	2.0116	.40620	1.7282	.25420
#3	3.7068	2.1784	4.0388	2.0124	.40760	1.7190	.25160
#4	3.7150	2.1624	3.9930	2.0170	.40880	1.7196	.25760

Elem	SB	SE	SI	SN	SR	TI	TL
Avge	.19305	.52225	.32900	.96890	7.5423	5.9636	.34810
SDev	.00070	.00619	.00016	.01146	.0366	.0194	.00281
%RSD	.36260	1.1842	.04964	1.1829	.48591	.32508	.80778
#1	.19280	.52940	.32880	.97260	7.5909	5.9912	.34960
#2	.19380	.51580	.32900	.97100	7.5373	5.9576	.34500
#3	.19220	.51860	.32900	.95260	7.5391	5.9600	.35120
#4	.19340	.52520	.32920	.97940	7.5019	5.9458	.34660

Elem	V	ZN
Avge	1.5859	1.5182
SDev	.0032	.0023
%RSD	.20449	.14948
#1	1.5904	1.5212
#2	1.5858	1.5185
#3	1.5842	1.5159
#4	1.5830	1.5172

Method: QUANMET Standard: STD5B

Run Time: 07/20/00 18:23:37

0014-155-2

664

847

Elem	AL	CA	FE	K	MG	NA
Avge	10.908	24.938	30.036	2.2816	7.3884	44.808
SDev	.065	.055	.123	.0222	.0397	.437
%RSD	.59173	.22217	.41008	.97098	.53727	.97439
#1	11.000	24.958	30.202	2.3144	7.4444	45.458
#2	10.866	24.907	29.955	2.2742	7.3702	44.600
#3	10.908	25.006	30.053	2.2720	7.3858	44.656
#4	10.859	24.881	29.931	2.2658	7.3530	44.520

Method: QUANMET

Slope = Conc(SIR)/IR

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Element	Wavelen	High std	Low std	Slope	Y-intercept	Date Standardized
AG	328.068	STD5A	STD1	7.45492	.004473	07/20/00 06:23:37
AL	308.215	STD5B	STD1	9.17486	-.082574	07/20/00 06:23:37
AS	193.696	STD5A	STD1	19.0513	.004763	07/20/00 06:23:37
B	249.600	STD5A	STD1	17.2644	-.007515	07/20/00 06:23:37
BA	493.409	STD5A	STD1	2.55961	-.000075	07/20/00 06:23:37
BE	313.042	STD5A	STD1	.646748	-.001682	07/20/00 06:23:37
CA	317.933	STD5B	STD1	4.01064	-.017458	07/20/00 06:23:37
CD	228.802	STD5A	STD1	11.1051	-.001111	07/20/00 06:23:37
CO	228.616	STD5A	STD1	6.96769	-.001045	07/20/00 06:23:37
CR	267.716	STD5A	STD1	2.69489	-.000135	07/20/00 06:23:37
CU	324.754	STD5A	STD1	4.58456	-.002063	07/20/00 06:23:37
FE	259.940	STD5B	STD1	3.32945	-.001998	07/20/00 06:23:37
K	766.491	STD5B	STD1	43.3079	1.18880	07/20/00 06:23:37
LI	670.789	STD5A	STD1	2.47340	.000145	07/20/00 06:23:37
MG	279.079	STD5B	STD1	13.5353	-.003384	07/20/00 06:23:37
MN	257.610	STD5A	STD1	4.96200	-.000248	07/20/00 06:23:37
MO	202.030	STD5A	STD1	24.5339	-.001227	07/20/00 06:23:37
NA	588.995	STD5B	STD1	2.23481	-.138335	07/20/00 06:23:37
NI	231.604	STD5A	STD1	5.81189	-.000274	07/20/00 06:23:37
PB	220.353	STD5A	STD1	38.2646	-.015306	07/20/00 06:23:37
SB	206.838	STD5A	STD1	51.8467	.002592	07/20/00 06:23:37
SE	196.026	STD5A	STD1	19.1424	.002871	07/20/00 06:23:37
SI	288.158	STD5A	STD1	30.0072	.000000	07/20/00 06:23:37
SN	189.989	STD5A	STD1	10.3171	-.006706	07/20/00 06:23:37
SR	409.552	STD5A	STD1	1.32585	.000000	07/20/00 06:23:37
TI	334.941	STD5A	STD1	1.67737	-.003271	07/20/00 06:23:37
TL	190.864	STD5A	STD1	57.7822	-.020224	07/20/00 06:23:37
V	292.402	STD5A	STD1	6.17226	-.001234	07/20/00 06:23:37
ZN	213.856	STD5A	STD1	6.61049	-.001769	07/20/00 06:23:37

Method: QUANMET Sample Name: ICV2-1 0014-148-7 Operator: PMG
 Run Time: 07/20/00 18:26:46
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP
 Mode: CONC Corr. Factor: 1

664 849

Handwritten signature and date: 7-20-00

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50869	25.273	1.0057	1.0227	1.0145	.99377	25.288
SDev	.00256	.080	.0226	.0216	.0061	.00393	.132
%RSD	.50409	.31584	2.2491	2.1081	.60455	.39567	.52096

#1	.50907	25.350	1.0365	1.0468	1.0216	.99865	25.229
#2	.50757	25.324	.99479	1.0349	1.0170	.99516	25.223
#3	.50606	25.246	.98410	1.0037	1.0119	.99128	25.215
#4	.51207	25.174	1.0073	1.0053	1.0075	.98997	25.486

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
Avg	1.0062	1.0052	1.0164	1.0084	26.043	24.343	1.0308
SDev	.0066	.0063	.0031	.0059	.049	.222	.0093
%RSD	.65629	.62427	.30761	.58122	.18757	.91195	.90526

#1	1.0031	1.0003	1.0156	1.0132	26.082	24.436	1.0389
#2	1.0005	1.0045	1.0150	1.0123	26.061	24.038	1.0370
#3	1.0056	1.0017	1.0139	1.0077	25.972	24.341	1.0288
#4	1.0156	1.0142	1.0209	1.0004	26.058	24.558	1.0184

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
Avg	25.326	1.0116	.99384	25.033	1.0218	1.0163	1.0074
SDev	.072	.0033	.00802	.160	.0124	.0303	.0329
%RSD	.28312	.32524	.80693	.63790	1.2129	2.9801	3.2647

#1	25.410	1.0134	1.0037	25.161	1.0179	1.0256	.96582
#2	25.354	1.0094	.99384	25.166	1.0297	.97225	1.0282
#3	25.245	1.0084	.98401	24.965	1.0060	1.0258	.99683
#4	25.294	1.0154	.99384	24.839	1.0334	1.0415	1.0386

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
Avg	1.0085	1.0660	1.0099	1.0085	.99812	4.9221	.99889
SDev	.0096	.0035	.0234	.0052	.00264	.1297	.00248
%RSD	.94742	.32689	2.3177	.51422	.26465	2.6360	.24826

#1	1.0057	1.0690	.98338	1.0141	1.0015	4.9247	.99785
#2	.99803	1.0630	1.0146	1.0113	.99846	5.0404	.99766

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#3	1.0093	1.0630	1.0392	1.0059	.99745	4.7409	.99747
#4	1.0210	1.0690	1.0023	1.0026	.99510	4.9826	1.0026
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 1.0059
 SDev .0026
 %RSD .25947

#1 1.0047
 #2 1.0039
 #3 1.0052
 #4 1.0097

Errors LC Pass
 High 1.1000
 Low .90000

Method: QUANMET Sample Name: ICB1

Operator: PMG

Run Time: 07/20/00 18:29:55

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP **664 851**

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00037	.00732	-.01912	.01952	.00036	.00019	.02323
SDev	.00143	.01224	.03546	.00899	.00023	.00007	.00137
%RSD	383.90	167.25	185.48	46.037	63.282	35.980	5.9027

#1	-.00000	.00552	-.04861	.00875	.00044	.00026	.02378
#2	.00148	.01467	.02754	.01770	.00014	.00014	.02354
#3	-.00150	-.00918	-.04469	.03049	.00023	.00013	.02123
#4	.00151	.01827	-.01070	.02114	.00065	.00025	.02435

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	-.00110	-.00174	.00135	-.00000	.00899	-.25552	.00002
SDev	.00054	.00180	.00203	.00138	.00139	.30887	.00068
%RSD	49.405	103.42	150.92	159260.	15.426	120.88	3112.8

#1	-.00188	-.00104	.00148	.00160	.00733	-.07579	.00081
#2	-.00091	-.00383	-.00013	-.00115	.00933	-.44824	-.00044
#3	-.00062	-.00244	-.00013	-.00115	.00866	-.57816	-.00064
#4	-.00099	.00035	.00418	.00069	.01066	.08012	.00035

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	.00677	.00050	.00000	.00223	.00103	-.00579	.00262
SDev	.01046	.00049	.00245	.00689	.00937	.01150	.01898
%RSD	154.49	99.313	182490.	308.33	912.73	198.71	724.86

#1	.01286	.00075	-.00123	.00335	-.00773	.00760	-.01817
#2	-.00338	.00075	-.00123	.00648	.01389	-.01539	.02343
#3	-.00068	.00075	-.00123	-.00782	-.00356	-.01538	-.00777
#4	.01827	-.00024	.00368	.00693	.00151	.00002	.01298

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	.00194	-.00000	-.01598	.00000	.00042	-.00296	-.00031
SDev	.03846	.00004	.01481	.00000	.00047	.04269	.00279
%RSD	1984.7	911.14	92.669	.00000	113.14	1440.5	911.14

#1	-.03157	-.00002	-.02743	.00000	.00042	-.05495	-.00126
#2	-.02390	-.00003	.00578	.00000	.00075	-.00871	-.00249

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#3	.01055	-.00002	-.02118	.00000	-.00025	.00283	-.00126
#4	.05267	.00005	-.02109	.00000	.00075	.04897	.00378

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	.00046
SDev	.00088
%RSD	190.16

#1	.00166
#2	.00028
#3	.00034
#4	-.00044

Errors	LC Pass
High	.02000
Low	-.02000

Method: QUANMET Sample Name: ICSA 0014-170-1 Operator: PMG

Run Time: 07/20/00 18:33:04

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP **664 853**

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00199	498.12	-.12790	-.03174	.00157	.00012	483.36
SDev	.00121	2.00	.08922	.00506	.00021	.00001	2.06
%RSD	60.831	.40104	69.758	15.939	13.462	7.7524	.42575
#1	-.00349	500.34	-.22953	-.03047	.00146	.00013	480.56
#2	-.00054	496.70	-.01719	-.03869	.00146	.00012	483.07
#3	-.00182	499.26	-.10741	-.03122	.00146	.00011	484.89
#4	-.00210	496.19	-.15749	-.02658	.00188	.00012	484.92
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	-.00578	.00945	.00310	-.00717	185.34	-.10827	.00222
SDev	.00222	.00331	.00295	.00115	.46	.39827	.00082
%RSD	38.312	35.035	95.242	16.004	.24732	367.85	36.976
#1	-.00717	.00737	.00472	-.00831	185.39	-.46556	.00134
#2	-.00247	.01432	.00363	-.00558	185.14	-.02382	.00329
#3	-.00681	.00736	.00525	-.00735	185.95	.41792	.00192
#4	-.00667	.00876	-.00121	-.00744	184.88	-.36162	.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	487.97	.00545	.00073	.00615	-.00713	.08992	.02345
SDev	1.21	.00081	.01011	.00694	.01744	.03283	.04240
%RSD	.24748	14.966	1387.9	112.88	244.49	36.512	180.80
#1	489.14	.00442	.00196	-.00067	-.02045	.05020	-.00778
#2	487.12	.00640	-.01280	.00112	-.02332	.11386	-.01802
#3	488.85	.00560	.00205	.01319	.00324	.11969	.06507
#4	486.75	.00535	.01170	.01095	.01199	.07591	.05454
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	.00209	.13657	-.06004	.01362	-.01895	.46095	.00311
SDev	.06749	.03712	.04698	.00031	.00057	.16956	.00354
%RSD	3226.2	27.177	78.251	2.2486	3.0227	36.784	114.06
#1	-.02935	.16802	-.07874	.01388	-.01971	.38822	-.00119
#2	-.03385	.09607	-.08297	.01335	-.01904	.29832	.00346

						664	854
#3	-.03171	.16813	-.08862	.01388	-.01870	.69442	.00746
#4	.10329	.11406	.01017	.01335	-.01837	.46283	.00269

Errors NOCHECK NOCHECK NOCHECK NOCHECK NOCHECK NOCHECK NOCHECK NOCHECK
 Value
 Range

Elem ZN
 Units ppm
 Avge .00378
 SDev .00064
 %RSD 16.983

#1 .00466
 #2 .00315
 #3 .00379
 #4 .00353

Errors NOCHECK
 Value
 Range

Method: QUANMET Sample Name: ICSAB 0014-187-1 Operator: PMG

Run Time: 07/20/00 18:36:12

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP 664 855

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.95955	492.27	.91217	.92706	.47224	.45994	476.63
SDev	.00668	5.32	.09579	.03017	.00702	.00501	1.79
%RSD	.69624	1.0808	10.501	3.2539	1.4873	1.0888	.37458

#1	.95060	486.38	Q.78613	.90155	.46520	.45423	474.31
#2	.95828	489.20	.94523	.90112	.46725	.45732	476.40
#3	.96474	497.34	1.0144	.94637	.47902	.46481	478.55
#4	.96457	496.15	.90288	.95920	.47749	.46341	477.28

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
Avg	.95471	.45286	.44655	.48544	183.20	9.7096	1.0259
SDev	.00444	.00398	.00142	.00734	1.31	.1403	.0147
%RSD	.46492	.87854	.31723	1.5122	.71362	1.4446	1.4318

#1	.95309	.45183	.44507	.47684	181.70	9.6165	1.0094
#2	.95023	.44765	.44776	.48241	182.53	9.8764	1.0176
#3	.96074	.45596	.44561	.49358	184.53	9.7724	1.0389
#4	.95480	.45598	.44776	.48895	184.02	9.5732	1.0376

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
Avg	480.48	.45827	.90693	10.046	.89864	.98203	.95586
SDev	4.13	.00336	.00863	.146	.01349	.05314	.05347
%RSD	.85925	.73262	.95204	1.4557	1.5007	5.4117	5.5938

#1	475.58	.45449	.90426	9.8830	.90822	.99159	.89378
#2	478.62	.45665	.89947	9.9666	.87865	.94376	.97631
#3	484.53	.46204	.91940	10.195	.90383	1.0534	1.0181
#4	483.18	.45992	.90460	10.141	.90386	.93936	.93523

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
Avg	.91528	1.1101	.85983	.94814	.89949	9.5940	.46034
SDev	.02574	.0326	.04302	.01168	.00855	.2388	.00485
%RSD	2.8117	2.9330	5.0031	1.2318	.95087	2.4893	1.0527

#1	.89507	1.0981	.85207	.93580	.89077	9.2743	.45658
#2	.90108	1.0982	.92276	.94069	.89379	9.7280	.46143

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#3	.95229	1.1582	.83455	.95973	.90855	9.5571	.46675
#4	.91265	1.0861	.82995	.95633	.90486	9.8167	.45659

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	.94044
SDev	.00697
%RSD	.74147

#1	.93550
#2	.93364
#3	.94811
#4	.94448

Errors	QC Pass
Value	1.0000
Range	20.000

Method: QUANMET Sample Name: DG5CKT

Operator: PMG

Run Time: 07/20/00 18:41:36

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP **664 857**

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00370	.13893	.18155	.04798	1.7792	.00005	H708.38
SDev	.00258	.01105	.04108	.00000	.0125	.00007	4.15
%RSD	69.713	7.9528	22.627	.00553	.70251	136.33	.58578

#1	-.00445	.12471	.18262	.04798	1.7705	-.00001	H703.38
#2	-.00445	.13572	.17110	.04798	1.7818	-.00001	H709.54
#3	.00002	.14862	.13671	.04798	1.7687	.00012	H713.30
#4	-.00594	.14667	.23579	.04798	1.7958	.00012	H707.30

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	-.00095	-.00013	.00148	.01216	.12953	1.3404	.00170
SDev	.00276	.00134	.00076	.00118	.00033	.2995	.00145
%RSD	290.82	1033.2	51.453	9.7365	.25689	22.345	85.692

#1	.00168	.00091	.00094	.01078	.12970	1.1455	.00113
#2	.00050	-.00188	.00256	.01170	.12970	1.0589	.00044
#3	-.00133	.00092	.00094	.01354	.12970	1.7172	.00378
#4	-.00466	-.00048	.00148	.01262	.12903	1.4400	.00143

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	21.964	.13078	.00247	S-.13833	.00259	-.01156	.02861
SDev	.113	.00081	.00470	.00000	.00813	.00764	.01793
%RSD	.51322	.61891	189.98	.00000	313.49	66.087	62.673

#1	21.818	.12979	.00370	S-.13833	-.00765	-.01536	.02330
#2	22.005	.13078	-.00121	S-.13833	.00310	-.01540	.05452
#3	21.948	.13178	-.00121	S-.13833	.00267	-.01538	.01317
#4	22.086	.13079	.00861	S-.13833	.01225	-.00010	.02345

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	.03384	4.9602	-.00536	1.1642	-.04328	-.00063	.00375
SDev	.03410	.0440	.02562	.0072	.00032	.10978	.00009
%RSD	100.77	.88635	478.06	.62127	.74219	17523.	2.4079

#1	.08361	4.8972	.01009	1.1578	-.04353	.06003	.00378
#2	.01853	4.9632	.00405	1.1669	-.04353	-.15952	.00369

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#3	.00704	4.9873	-.04361	1.1589	-.04286	.01382	.00368
#4	.02618	4.9933	.00803	1.1732	-.04319	.08316	.00387
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	.15317
SDev	.00336
%RSD	2.1969

#1	.14838
#2	.15418
#3	.15627
#4	.15383

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DG75WT

Operator: PMG

Run Time: 07/20/00 18:44:44

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP 664 859

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00036	.01370	.01984	.03170	.07790	-.00007	9.7799
SDev	.00223	.01344	.02295	.00326	.00107	.00007	.0228
%RSD	612.84	98.044	115.69	10.271	1.3679	99.715	.23287

#1	.00148	.00176	.00857	.02703	.07918	-.00013	9.7729
#2	.00151	.03296	.05396	.03394	.07765	-.00001	9.8108
#3	-.00148	.00916	.00462	.03190	.07816	-.00014	9.7564
#4	-.00297	.01093	.01222	.03393	.07662	-.00001	9.7797

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	-.00124	-.00108	.00296	-.00000	.00682	1.8579	.00265
SDev	.00096	.00254	.00148	.00115	.00064	.2695	.00072
%RSD	77.042	235.26	50.126	263190.	9.3758	14.507	27.348

#1	-.00214	-.00387	.00364	-.00023	.00666	1.6652	.00244
#2	-.00172	-.00247	.00202	-.00023	.00733	1.9250	.00332
#3	-.00116	.00171	.00148	-.00114	.00599	1.6305	.00311
#4	.00006	.00031	.00471	.00161	.00733	2.2109	.00172

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	19.610	.02655	.00123	15.333	-.00587	.00189	.01288
SDev	.126	.00000	.00283	.171	.00772	.03502	.02544
%RSD	.64241	.00437	230.75	1.1166	131.44	1849.9	197.49

#1	19.688	.02655	.00368	15.449	-.01435	-.02303	.02320
#2	19.615	.02655	-.00123	15.308	.00378	-.01534	.04409
#3	19.707	.02655	-.00123	15.475	-.00903	-.00762	-.00788
#4	19.431	.02655	.00368	15.101	-.00390	.05356	-.00787

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	-.01434	.96176	-.00045	.01485	-.00017	-.06060	.00250
SDev	.02199	.04658	.02024	.00000	.00074	.05122	.00244
%RSD	153.38	4.8436	4458.9	.00000	443.47	84.520	97.534

#1	-.04305	.96022	-.02929	.01485	-.00059	-.11256	-.00116
#2	.00289	1.0203	.00382	.01485	.00075	-.08950	.00368

664 860

#3	.00289	.96028	.01802	.01485	-.00092	-.04329	.00368
#4	-.02008	.90627	.00564	.01485	.00008	.00293	.00378
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 .00975
SDev .00139
%RSD 14.223

#1 .01095
#2 .00881
#3 .00831
#4 .01093

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DG761T

Operator: PMG

Run Time: 07/20/00 18:47:52

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP 664 861

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00279	.04308	.02339	.07457	.04877	-.00007	181.43
SDev	.00225	.00906	.05735	.01835	.00053	.00007	.73
%RSD	80.545	21.034	245.17	24.607	1.0778	110.13	.40190

#1	-.00017	.04217	.00431	.07889	.04949	-.00014	181.95
#2	-.00166	.05504	.09946	.08234	.04856	-.00001	180.36
#3	-.00467	.04213	.02725	.04782	.04826	.00000	181.56
#4	-.00467	.03300	-.03745	.08925	.04877	-.00013	181.84

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	-.00130	.00069	.00040	.00092	.04458	80.442	.22683
SDev	.00261	.00209	.00181	.00115	.00055	1.623	.00532
%RSD	200.30	301.50	447.99	125.25	1.2218	2.0176	2.3462

#1	.00017	.00313	.00094	-.00022	.04458	82.755	.23235
#2	-.00273	.00174	.00256	.00253	.04524	80.217	.22482
#3	-.00417	-.00104	-.00013	.00069	.04458	78.996	.22037
#4	.00153	-.00106	-.00175	.00069	.04391	79.801	.22976

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	88.459	.99862	.00369	74.388	-.00058	.18175	.00781
SDev	1.116	.00690	.00401	1.393	.00703	.03211	.00605
%RSD	1.2617	-.69092	108.67	1.8723	1216.6	17.669	77.505

#1	89.909	1.0080	.00369	76.202	.00219	.16842	.00269
#2	87.922	.99216	-.00122	73.817	.00719	.22961	.01308
#3	87.321	.99514	.00859	72.921	-.00937	.16065	.00245
#4	88.685	.99911	.00369	74.613	-.00232	.16832	.01301

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	.00203	.54765	-.01539	.48082	-.01065	.05716	.00131
SDev	.07407	.03304	.01661	.00728	.00039	.09780	.00280
%RSD	3645.5	6.0338	107.92	1.5151	3.6369	171.12	214.30

#1	-.06975	.57619	-.02522	.49027	-.01099	-.02661	.00378
#2	.09105	.57619	-.01485	.47653	-.01032	-.02670	.00368

						664	862	
#3	.03362	.51611	.00780	.47388	-.01032	.15829	-.00107	
#4	-.04678	.52211	-.02929	.48263	-.01099	.12365	-.00117	
Errors	LC Pass	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	.02605
SDev	.00187
%RSD	7.1716

#1	.02359
#2	.02597
#3	.02656
#4	.02809

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: CCV2-1 0014-164-11 Operator: PMG

Run Time: 07/20/00 18:51:00

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP 664 863

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0052	50.225	5.1499	5.0298	5.0305	4.9615	50.096
SDev	.0039	.225	.0709	.0194	.0238	.0202	.271
%RSD	.38412	.44888	1.3763	.38487	.47385	.40657	.54127

#1	1.0102	50.405	5.0906	5.0331	5.0525	4.9773	50.374
#2	1.0041	50.373	5.2442	5.0529	5.0491	4.9754	49.789
#3	1.0010	49.912	5.1645	5.0275	5.0055	4.9337	49.956
#4	1.0056	50.211	5.1004	5.0059	5.0147	4.9596	50.267

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
Avg	5.0052	4.9518	4.9483	5.0333	51.116	49.468	5.1331
SDev	.0230	.0219	.0230	.0255	.196	.234	.0377
%RSD	.46010	.44214	.46537	.50644	.38352	.47221	.73396

#1	5.0325	4.9805	4.9749	5.0514	51.342	49.642	5.1476
#2	4.9849	4.9459	4.9215	5.0578	51.047	49.347	5.1798
#3	4.9874	4.9278	4.9393	5.0046	50.884	49.200	5.1032
#4	5.0159	4.9528	4.9576	5.0193	51.190	49.685	5.1019

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
Avg	50.081	4.9655	4.9782	50.226	4.9641	5.0010	5.0648
SDev	.206	.0212	.0198	.243	.0125	.0537	.0243
%RSD	.41205	.42775	.39780	.48380	.25138	1.0747	.48048

#1	50.286	4.9911	5.0065	50.317	4.9760	5.0476	5.0982
#2	50.188	4.9523	4.9770	50.526	4.9498	5.0237	5.0468
#3	49.812	4.9443	4.9622	49.996	4.9578	4.9240	5.0674
#4	50.037	4.9742	4.9672	50.064	4.9731	5.0086	5.0466

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
Avg	5.0150	5.1453	5.0186	5.0108	4.9901	9.9333	4.9845
SDev	.0771	.0152	.0597	.0220	.0192	.1694	.0182
%RSD	1.5378	.29473	1.1887	.43844	.38395	1.7058	.36533

#1	5.0999	5.1531	5.0806	5.0317	5.0117	10.046	5.0086
#2	4.9421	5.1527	4.9442	5.0265	4.9930	9.9456	4.9770

664

864

#3	5.0604	5.1226	5.0000	4.9856	4.9651	10.051	4.9657
#4	4.9578	5.1529	5.0494	4.9994	4.9906	9.6899	4.9868
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 4.9976
 SDev .0117
 %RSD .23414

#1	5.0065
#2	4.9889
#3	4.9862
#4	5.0089

Errors LC Pass
 High 5.5000
 Low 4.5000

Method: QUANMET Sample Name: CCB1

Operator: PMG

Run Time: 07/20/00 18:54:08

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP

664 865

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00111	.02241	.01311	.01758	.00305	.00294	.42555
SDev	.00224	.01149	.01086	.01899	.00038	.00026	.01111
%RSD	201.66	51.259	82.796	108.06	12.424	8.9282	2.6104
#1	-.00298	.01647	.01983	.03398	.00270	.00298	.41244
#2	.00002	.03290	.01965	.03398	.00351	.00323	.43961
#3	.00149	.03111	.01592	-.00055	.00321	.00298	.42513
#4	-.00298	.00918	-.00295	.00290	.00279	.00259	.42503
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	.00248	.00173	.00364	.00138	.03197	-.39194	.00290
SDev	.00355	.00227	.00282	.00189	.00303	.48816	.00075
%RSD	142.90	131.41	77.413	137.19	9.4764	124.55	25.878
#1	-.00136	-.00105	-.00013	-.00114	.02997	-1.0199	.00224
#2	.00089	.00452	.00580	.00345	.03597	.15807	.00390
#3	.00353	.00173	.00310	.00161	.03264	-.43957	.00303
#4	H.00688	.00172	.00580	.00161	.02931	-.26634	.00242
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	.02707	.00324	.00982	.03732	-.00055	-.01719	-.00264
SDev	.02364	.00057	.00736	.00785	.00725	.00389	.01794
%RSD	87.321	17.676	74.968	21.041	1321.9	22.627	679.94
#1	-.00609	.00274	.00368	.02570	-.00561	-.02303	-.01823
#2	.04534	.00274	.01841	.04134	.00425	-.01519	.01296
#3	.02639	.00373	.01350	.03956	.00697	-.01531	-.01812
#4	.04264	.00373	.00368	.04268	-.00779	-.01525	.01284
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	-.00087	.03001	-.01910	.00338	.00302	-.09278	.00020
SDev	.06770	.03466	.02033	.00040	.00079	.02889	.00184
%RSD	7756.0	115.49	106.42	11.765	26.255	31.139	934.55
#1	-.05065	.00000	.00352	.00318	.00243	-.12452	.00007
#2	-.00086	.06005	-.04173	.00398	.00411	-.08997	.00284

664 866

#3	.09484	-.00001	-.02949	.00318	.00310	-.10144	-.00097
#4	-.04682	.06000	-.00871	.00318	.00243	-.05518	-.00115
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 .01434
SDev .00079
%RSD 5.5294

#1 .01544
#2 .01408
#3 .01429
#4 .01356

Errors LC Pass
High .02000
Low -.02000

STL-Pittsburgh Atomic Absorption Data for Mercury

Instrument: PS200EG

Analyst Name: Jeffrey D. Sauer
Michael J. Winkler

Date of Analysis: 7-19-00

File ID: 0719HGA

Matrix: WATER

Lot Number/SDG

Method

Lot Number/SDG	Method
<u>COG100127</u>	<u>7470A</u>
<u>COF270220</u>	
<u>COF280176</u>	
<u>COF290209</u>	
<u>COF300252</u>	
<u>COG130203 (TLP)</u>	
<u>COG140135 (TLP)</u>	
<u>COG140133</u>	
<u>COG180118</u>	
<u>COF300263 (TOTAL & dissolved)</u>	<u>7470A</u>
<u>COG070242 - dissolved</u>	

LRI → TOTALS
Dissolved

11:14:27 19 Jul 2000

Folder: 0719HGA
Protocol: HGMET

*Jeffrey. says
Michael TW 7-19-00*

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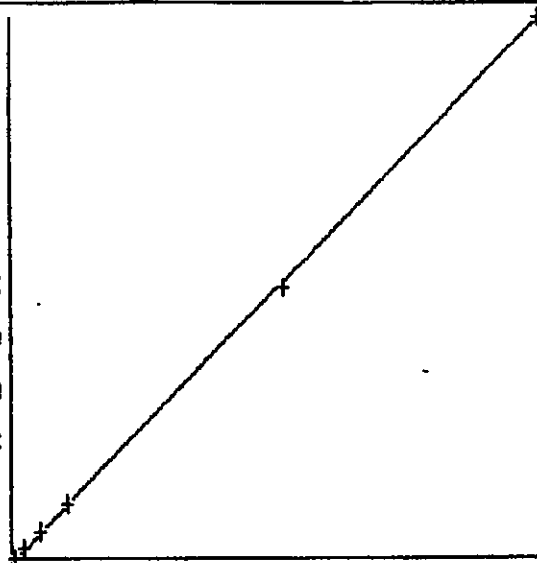
664 868

Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Standard: 1 Rep: 1				Seq: 0				11:14:27 19 Jul 2000 HG
Hg	.000	ppb	11256					
*** Standard: 2 Rep: 1				Seq: 1				11:16:02 19 Jul 2000 HG
Hg	.200	ppb	35754		<i>0014-187-4</i>			
*** Standard: 3 Rep: 1				Seq: 2				11:17:47 19 Jul 2000 HG
Hg	.500	ppb	77452		<i>0014-187-5</i>			
*** Standard: 4 Rep: 1				Seq: 3				11:19:37 19 Jul 2000 HG
Hg	1.00	ppb	144002		<i>0014-187-6</i>			
*** Standard: 5 Rep: 1				Seq: 4				11:21:12 19 Jul 2000 HG
Hg	5.00	ppb	691475		<i>0014-187-7</i>			
*** Standard: 6 Rep: 1				Seq: 5				11:22:44 19 Jul 2000 HG
Hg	10.0	ppb	1337203		<i>0014-187-8</i>			

*Not for use
Michael T. Vesich 7-19-00*

RunProt: HGMET STL-PITTSBURGH METALS ANALYSIS
 RunFold: 0719HGA Seq: 6 Batch:
 Prnt: R/T On Pump: On
 Rev: 4.2 11:23:02 19 Jul 2000 Xmit: Off Gas: 0.30 LPM
 State: Idle User: MTW/GDF A/S: On

CALIBRATION: Line proto: HGMET
 Hg Accepted
 Conc. Calc. Dev. ->linear
 S1 .000 -.007 -.007 Quadratic
 S2 .200 .177 -.023 Wtdlinear
 S3 .500 .498 -.010 C
 S4 1.00 .998 -.010 Accept o
 S5 5.00 5.10 .101 n
 S6 10.0 9.95 -.050 c
 A .0000000 r .999916
 B 7.50970e-6 C -9.10077e-2



	Mean	0 SD	
S1	11256	11256	
S2	35754	35754	0 %RSD
S3	77452	77452	0 %RSD
S4	144002	144002	0 %RSD
S5	691475	691475	0 %RSD
S6	1337203	1337203	0 %RSD

New cal coefficients stored

664 870

11:25:46 19 Jul 2000

Folder: 0719HGA
Protocol: HGMET

Michael Allenbach 7-19-00
Jeffrey D. Scurt

Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: ICV5-1								
			<i>0014-187-9</i>	Seq: 6				11:25:46 19 Jul 2000 HG
Hg	2.60	ppb	358698					
*** Sample ID: ICB1				Seq: 7				11:27:46 19 Jul 2000 HG
Hg	-.036	ppb	7479					
*** Sample ID: CCV5-1				Seq: 8				11:29:34 19 Jul 2000 HG
			<i>0014-188-1</i>					
Hg	5.10	ppb	691365					
*** Sample ID: CCB1				Seq: 9				11:31:12 19 Jul 2000 HG
Hg	-.045	ppb	6233					
*** Sample ID: DGE1CB				Seq: 10				11:32:37 19 Jul 2000 HG
Hg	-.015	ppb	10194					
*** Sample ID: DGE1CC				Seq: 11				11:34:05 19 Jul 2000 HG
			<i>0014-188-2</i>					
Hg	2.54	ppb	350672					
*** Sample ID: DGE1CL				Seq: 12				11:35:30 19 Jul 2000 HG
			<i>0014-188-3</i>					
Hg	2.50	ppb	344711					
*** Sample ID: DFXRD				Seq: 13				11:37:18 19 Jul 2000 HG
Hg	5.56	ppb	752220					
*** Sample ID: DG03V				Seq: 14				11:38:44 19 Jul 2000 HG
Hg	3.01	ppb	413012					
*** Sample ID: DGDX5B				Seq: 15				11:40:12 19 Jul 2000 HG
Hg	-.061	ppb	4069					
*** Sample ID: DGDX5C				Seq: 16				11:41:45 19 Jul 2000 HG
			<i>0014-188-4</i>					
Hg	2.50	ppb	345255					
*** Sample ID: DFD32				Seq: 17				11:43:24 19 Jul 2000 HG
Hg	-.035	ppb	7581					

11:45:12 19 Jul 2000

Folder: 0719HGA
Protocol: HGMET

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Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: DFD39								
				Seq: 18		11:45:12 19 Jul 2000	HG	
Hg	-.034	ppb	7700					
*** Sample ID: DFD3D								
				Seq: 19		11:46:37 19 Jul 2000	HG	
Hg	-.017	ppb	9963					
*** Sample ID: CCV5-2								
				Seq: 20		11:48:03 19 Jul 2000	HG	
Hg	5.16	ppb	699319					
*** Sample ID: CCB2								
				Seq: 21		11:49:40 19 Jul 2000	HG	
Hg	-.041	ppb	6803					
*** Sample ID: DFD3G								
				Seq: 22		11:51:05 19 Jul 2000	HG	
Hg	-.003	ppb	11859					
*** Sample ID: DFD3H								
				Seq: 23		11:52:31 19 Jul 2000	HG	
Hg	-.011	ppb	10730					
*** Sample ID: DFD3J								
				Seq: 24		11:53:58 19 Jul 2000	HG	
Hg	.004	ppb	12694					
*** Sample ID: DFD3K								
				Seq: 25		11:55:26 19 Jul 2000	HG	
Hg	-.019	ppb	9734					
*** Sample ID: DFEM2								
				Seq: 26		11:56:52 19 Jul 2000	HG	
Hg	-.036	ppb	7412					
*** Sample ID: DFENA								
				Seq: 27		11:59:31 19 Jul 2000	HG	
Hg	-.020	ppb	9621					
*** Sample ID: DFEND								
				Seq: 28		12:00:57 19 Jul 2000	HG	
Hg	-.023	ppb	9100					
*** Sample ID: DFENE								
				Seq: 29		12:02:42 19 Jul 2000	HG	
Hg	-.042	ppb	6585					

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12:04:21 19 Jul 2000

Folder: 0719HGA
Protocol: HGMET

Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: DFHAE				Seq: 30				12:04:21 19 Jul 2000 HG
Hg	-.020	ppb	9585					
*** Sample ID: DFHAM				Seq: 31				12:05:51 19 Jul 2000 HG
Hg	-.040	ppb	6858					
*** Sample ID: CCV5-3				Seq: 32				12:07:29 19 Jul 2000 HG
Hg	5.21	ppb	706086					
*** Sample ID: CCB3				Seq: 33				12:09:06 19 Jul 2000 HG
Hg	-.037	ppb	7277					
*** Sample ID: DFHAP				Seq: 34				12:10:32 19 Jul 2000 HG
Hg	-.028	ppb	8462					
*** Sample ID: DFHAPS				Seq: 35				12:11:59 19 Jul 2000 HG
Hg	1.05	ppb	152166					Sp. Rec - 105 ⁹ / ₂
*** Sample ID: DFHAPD				Seq: 36				12:13:27 19 Jul 2000 HG ^{MSW} 7-19-00
Hg	1.07	ppb	154650					Sp. Rec - 107 ⁹ / ₂
*** Sample ID: DFL6E				Seq: 37				12:14:54 19 Jul 2000 HG
Hg	-.047	ppb	5958					
*** Sample ID: DFL6N				Seq: 38				12:17:14 19 Jul 2000 HG
Hg	-.037	ppb	7357					
*** Sample ID: DGE05BF				Seq: 39				12:18:52 19 Jul 2000 HG
Hg	-.024	ppb	9027					
*** Sample ID: DGE05CF				Seq: 40				12:20:51 19 Jul 2000 HG
Hg	2.50	ppb	344530					0014-188-5
*** Sample ID: DFD32F				Seq: 41				12:22:21 19 Jul 2000 HG
Hg	-.038	ppb	7229					

12:24:44 19 Jul 2000

Folder: 0719HGA
Protocol: HGMET

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Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: DFD39F					Seq: 42			12:24:44 19 Jul 2000 HG
Hg	-.025	ppb	8876					
*** Sample ID: DFD3DF					Seq: 43			12:26:21 19 Jul 2000 HG
Hg	-.013	ppb	10448					
*** Sample ID: CCV5-4					Seq: 44			12:27:49 19 Jul 2000 HG
Hg	5.24	ppb	709436					
*** Sample ID: CCB4					Seq: 45			12:29:17 19 Jul 2000 HG
Hg	-.055	ppb	4882					
*** Sample ID: DFD36F					Seq: 46			12:30:59 19 Jul 2000 HG
Hg	-.016	ppb	10046					
*** Sample ID: DFD3HF					Seq: 47			12:33:32 19 Jul 2000 HG
Hg	-.027	ppb	8569					
*** Sample ID: DFD3JF					Seq: 48			12:35:42 19 Jul 2000 HG
Hg	-.050	ppb	5576					
*** Sample ID: DFEM2F					Seq: 49			12:37:22 19 Jul 2000 HG
Hg	-.044	ppb	6379					
*** Sample ID: DFENAF					Seq: 50			12:39:13 19 Jul 2000 HG
Hg	-.053	ppb	5207					
*** Sample ID: DFENDF					Seq: 51			12:40:42 19 Jul 2000 HG
Hg	-.030	ppb	8221					
*** Sample ID: DFHAEF					Seq: 52			12:42:13 19 Jul 2000 HG
Hg	-.004	ppb	11747					
*** Sample ID: DFHAMF					Seq: 53			12:44:02 19 Jul 2000 HG
Hg	-.012	ppb	10628					

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12:45:51 19 Jul 2000

Folder: 0719HGA
Protocol: HGMET

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Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: DFHAPF					Seq: 54	12:45:51 19 Jul 2000	HG	
Hg	-.029	ppb	8309					
*** Sample ID: DFHAPSF					Seq: 55	12:47:40 19 Jul 2000	HG	
Hg	1.04	ppb	150172					Sp. Rec - 104% NTW 7-19-00
*** Sample ID: CCV5-5					Seq: 56	12:49:11 19 Jul 2000	HG	
Hg	5.16	ppb	698941					
*** Sample ID: CCB5					Seq: 57	12:50:43 19 Jul 2000	HG	
Hg	-.044	ppb	6412					
*** Sample ID: DFHAPDF					Seq: 58	12:52:13 19 Jul 2000	HG	
Hg	1.08	ppb	156238					Sp. Rec - 108% NTW 7-15-00
*** Sample ID: DFHC2F					Seq: 59	12:53:46 19 Jul 2000	HG	
Hg	2.73	ppb	375875					
*** Sample ID: DFL6EF					Seq: 60	12:55:17 19 Jul 2000	HG	
Hg	-.018	ppb	9766					
*** Sample ID: DFL6NF					Seq: 61	12:56:47 19 Jul 2000	HG	
Hg	-.034	ppb	7669					
*** Sample ID: DGE1FBT					Seq: 62	12:58:53 19 Jul 2000	HG	
Hg	-.003	ppb	11870					
*** Sample ID: DGDQKBT					Seq: 63	13:01:14 19 Jul 2000	HG	
Hg	.022	ppb	15142					
*** Sample ID: DGE1FCT					Seq: 64	13:02:48 19 Jul 2000	HG	
Hg	2.66	ppb	366979	0014-188-6				
*** Sample ID: DG5C7T					Seq: 65	13:04:43 19 Jul 2000	HG	
Hg	-.001	ppb	12081					

13:06:30 19 Jul 2000

Folder: 0719HGA
Protocol: HGMET

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Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: DG5CGT					Seq: 66	13:06:30	19 Jul 2000	HG
Hg	.034	ppb	16709					
*** Sample ID: DG5CKT					Seq: 67	13:08:01	19 Jul 2000	HG
Hg	.014	ppb	14055					
*** Sample ID: CCV5-6					Seq: 68	13:09:31	19 Jul 2000	HG
Hg	5.07	ppb	687425					
*** Sample ID: CCB6					Seq: 69	13:11:07	19 Jul 2000	HG
Hg	-.043	ppb	6524					
*** Sample ID: DG5CKST					Seq: 70	13:12:39	19 Jul 2000	HG
Hg	5.26	ppb	712495					Sp. Rec - 105.2 ⁸
*** Sample ID: DG5CKDT					Seq: 71	13:14:13	19 Jul 2000	HG mfw 7-19-00
Hg	5.17	ppb	700166					Sp. Rec - 1034 ⁰
*** Sample ID: DG75WT					Seq: 72	13:15:47	19 Jul 2000	HG
Hg	-.031	ppb	8102					
*** Sample ID: DG761T					Seq: 73	13:17:41	19 Jul 2000	HG
Hg	.784	ppb	116679					
*** Sample ID: DGE1NB					Seq: 74	13:19:13	19 Jul 2000	HG
Hg	-.010	ppb	10838					
*** Sample ID: DGE1NC					Seq: 75	13:21:10	19 Jul 2000	HG
Hg	5.09	ppb	689707					0014-188-7 see Seq # 83 FOR ANALYSIS OF SAMPLE mfw 7-19-00
*** Sample ID: DG759					Seq: 76	13:22:44	19 Jul 2000	HG
Hg	.907	ppb	132973					
*** Sample ID: DG75Q					Seq: 77	13:25:44	19 Jul 2000	HG
Hg	-.013	ppb	10494					

NOT REPORTED
VOID - WRONG
Sample Accidentally
ANALYZED
mfw

664 876
13:27:57 19 Jul 2000

Folder: 0719HGA
Protocol: HGMET

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Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: DGD4V					Seq: 78	13:27:57	19 Jul 2000	HG
Hg	-.011	ppb	10694					
*** Sample ID: DGD4VS					Seq: 79	13:29:29	19 Jul 2000	HG
Hg	1.02	ppb	147570					Sp. Rec-102%
*** Sample ID: CCV5-7					Seq: 80	13:31:07	19 Jul 2000	HG
Hg	5.09	ppb	689618					MTW 7-19-00
*** Sample ID: CCB7					Seq: 81	13:32:39	19 Jul 2000	HG
Hg	-.051	ppb	5415					
*** Sample ID: DGD4VD					Seq: 82	13:34:32	19 Jul 2000	HG
Hg	1.01	ppb	146527					Sp. Rec-101%
*** Sample ID: DGE1					Seq: 83	13:36:09	19 Jul 2000	HG
Hg	2.55	ppb	352360					NC MTW 7-19-00 0014-188-7
*** Sample ID: CCV5-8					Seq: 84	13:38:03	19 Jul 2000	HG
Hg	5.07	ppb	687173					
*** Sample ID: CCB8					Seq: 85	13:40:19	19 Jul 2000	HG
Hg	-.033	ppb	7813					
*** Sample ID: DGF4NB					Seq: 86	14:23:28	19 Jul 2000	HG
Hg	.004	ppb	12736					
*** Sample ID: DGF4NC					Seq: 87	14:25:07	19 Jul 2000	HG
Hg	2.73	ppb	375943					
*** Sample ID: DGF4NL					Seq: 88	14:26:37	19 Jul 2000	HG
Hg	2.72	ppb	374443					
*** Sample ID: DFL8G					Seq: 89	14:28:09	19 Jul 2000	HG
Hg	-.038	ppb	7186					

Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: DFLBJ					Seq: 90	14:29:39 19 Jul 2000	HG	
Hg	-.002	ppb	11961					
*** Sample ID: DFLBGF					Seq: 91	14:31:19 19 Jul 2000	HG	
Hg	-.022	ppb	9230					
*** Sample ID: DFLBJF					Seq: 92	14:32:57 19 Jul 2000	HG	
Hg	-.021	ppb	9384					
*** Sample ID: DGF4QBF					Seq: 93	14:34:29 19 Jul 2000	HG	
Hg	-.028	ppb	8441					
*** Sample ID: DGF4QCF				0014-108-11	Seq: 94	14:36:14 19 Jul 2000	HG	
Hg	2.64	ppb	363557					
*** Sample ID: DFV87F					Seq: 95	14:37:43 19 Jul 2000	HG	
Hg	-.008	ppb	11223					
*** Sample ID: CCV5-9					Seq: 96	14:39:15 19 Jul 2000	HG	
Hg	5.15	ppb	698343					
*** Sample ID: CCB9					Seq: 97	14:41:14 19 Jul 2000	HG	
Hg	-.019	ppb	9728					
*** Sample ID: DFV8DF					Seq: 98	14:42:43 19 Jul 2000	HG	
Hg	-.004	ppb	11645					
*** Sample ID: DFV8FF					Seq: 99	14:44:32 19 Jul 2000	HG	
Hg	-.021	ppb	9456					
*** Sample ID: DFV8KF					Seq: 100	14:46:01 19 Jul 2000	HG	
Hg	-.010	ppb	10883					
*** Sample ID: DFV8NF					Seq: 101	14:47:54 19 Jul 2000	HG	
Hg	-.029	ppb	8426					

14:49:46 19 Jul 2000

Protocol: HGMET

Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: DFV8TF				Seq: 102			14:49:46 19 Jul 2000	HG
Hg	-.010	ppb	10855					
*** Sample ID: DFV90F				Seq: 103			14:51:17 19 Jul 2000	HG
Hg	-.008	ppb	11098					
*** Sample ID: DFV93F				Seq: 104			14:52:50 19 Jul 2000	HG
Hg	-.010	ppb	10881					
*** Sample ID: DFV99F				Seq: 105			14:54:22 19 Jul 2000	HG
Hg	-.048	ppb	5875					
*** Sample ID: DFV99SF				Seq: 106			14:55:52 19 Jul 2000	HG
Hg	1.10	ppb	158672					Sp. Rec - 110%
*** Sample ID: DFV99DF				Seq: 107			14:57:24 19 Jul 2000	HG
Hg	1.14	ppb	164437					Sp. Rec - 114%
*** Sample ID: CCV5-10				Seq: 108			14:59:05 19 Jul 2000	HG
Hg	5.12	ppb	693494					
*** Sample ID: CCB10				Seq: 109			15:00:36 19 Jul 2000	HG
Hg	-.029	ppb	8338					
*** Sample ID: DFV9EF				Seq: 110			15:02:19 19 Jul 2000	HG
Hg	-.042	ppb	6666					
*** Sample ID: DFV9GF				Seq: 111			15:04:05 19 Jul 2000	HG
Hg	-.022	ppb	9281					
*** Sample ID: DFV9XF				Seq: 112			15:06:16 19 Jul 2000	HG
Hg	-.026	ppb	8827					
*** Sample ID: DFVA1F				Seq: 113			15:07:52 19 Jul 2000	HG
Hg	-.029	ppb	8297					

15:09:25 19 Jul 2000

Folder: 0719HGA
Protocol: HGMET

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Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: CCV5-11				Seq: 114	15:09:25 19 Jul 2000 HG			
Hg	5.06	ppb	685760					
*** Sample ID: CCB11				Seq: 115	15:11:31 19 Jul 2000 HG			
Hg	-.025	ppb	8945					

END OF ANALYSIS

MTW 7-19-00

G.O.F 7-19-00

664 880

Geoffrey D. Grant
Michael T. Woods 7-19-00

RunProt: HGMET	STL-PITTSBURGH METALS ANALYSIS		
RunFold: 0719HGA	Seq: 116	Batch:	
	Prnt: R/T On		Pump: Off
	Rev: 4.2	15:25:57 19 Jul 2000	Xmit: Off Gas: LPM
State: Idle			User: MTW/GOF A/S: On

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	CCV5-1		1.0000	1.0000			
4	CCB1		1.0000	1.0000			
5	DGE1CB		1.0000	1.0000			
6	DGE1CC		1.0000	1.0000			
7	DGE1CL		1.0000	1.0000			
8	DFXR		1.0000	1.0000			
9	DG03V		1.0000	1.0000			
10	DGD5B		1.0000	1.0000			
11	DGD5C		1.0000	1.0000			
12	DFD32		1.0000	1.0000			
13	DFD39		1.0000	1.0000			
14	DFD3D		1.0000	1.0000			
15	CCV5-2		1.0000	1.0000			

PgDn

Full column mode Ins to switch

RunProt: HGMET	STL-PITTSBURGH METALS ANALYSIS		
RunFold: 0719HGA	Seq: 116	Batch:	
	Prnt: R/T On		Pump: Off
	Rev: 4.2	15:26:00 19 Jul 2000	Xmit: Off Gas: LPM
State: Idle			User: MTW/GOF A/S: On

AUTOSAMPLER:	Rack Edit	rack:	Range	1-44	Clear seq	Undo exit	PgUp
cup ID	Extended id	Weight	Volume	Macro	check	macros	
16	CCB2	1.0000	1.0000				
17	DFD3G	1.0000	1.0000				
18	DFD3H	1.0000	1.0000				
19	DFD3J	1.0000	1.0000				
20	DFD3K	1.0000	1.0000				
21	DFEM2	1.0000	1.0000				
22	DFENA	1.0000	1.0000				
23	DFEND	1.0000	1.0000				
24	DFENE	1.0000	1.0000				
25	DFHAE	1.0000	1.0000				
26	DFHAM	1.0000	1.0000				
27	CCV5-3	1.0000	1.0000				
28	CCB3	1.0000	1.0000				
29	DFHAP	1.0000	1.0000				
30	DFHAPS	1.0000	1.0000				

PgDn

Full column mode Ins to switch

RunProt: HGMET	STL-PITTSBURGH METALS ANALYSIS		
RunFold: 0719HGA	Seq: 116	Batch:	
	Prnt: R/T On		Pump: Off
	Rev: 4.2	15:26:01 19 Jul 2000	Xmit: Off Gas: LPM
State: Idle			User: MTW/GOF A/S: On

AUTOSAMPLER:	Rack Edit	rack: RACK1	Range 1-44	Clear seQ	Undo eXit	PgUp
cup ID	Extended id	Weight	Volume	Macro	check macros	
31 DFHAPD		1.0000	1.0000			
32 DFL6E		1.0000	1.0000			
33 DFL6N		1.0000	1.0000			
34 DGE05BF		1.0000	1.0000			
35 DGE05CF		1.0000	1.0000			
36 DFD32F		1.0000	1.0000			
37 DFD39F		1.0000	1.0000			
38 DFD3DF		1.0000	1.0000			
39 CCV5-4		1.0000	1.0000			
40 CCB4		1.0000	1.0000			
41 DFD3GF		1.0000	1.0000			
42 DFD3HF		1.0000	1.0000			
43 DFD3JF		1.0000	1.0000			
44 DFEM2F		1.0000	1.0000			

PgDn

Full column mode Ins to switch

RunProt: HGMET	STL-PITTSBURGH METALS ANALYSIS		
RunFold: 0719HGA	Seq: 116	Batch:	
	Prnt: R/T On		Pump: Off
	Rev: 4.2	15:26:06 19 Jul 2000	Xmit: Off Gas: LPM
State: Idle		User: MTW/GDF	A/S: On

AUTOSAMPLER:		Rack Edit	rack: RACK2	Range 1-44	Clear seQ	Undo exit
cup ID	Extended id	Weight	Volume	Macro	check	macros
1	DFENAF	1.0000	1.0000			
2	DFENDF	1.0000	1.0000			
3	DFHAEF	1.0000	1.0000			
4	DFHAMF	1.0000	1.0000			
5	DFHAPF	1.0000	1.0000			
6	DFHAPSF	1.0000	1.0000			
7	CCV5-5	1.0000	1.0000			
8	CCB5	1.0000	1.0000			
9	DFHAPDF	1.0000	1.0000			
10	DFHC2F	1.0000	1.0000			
11	DFL6EF	1.0000	1.0000			
12	DFL6NF	1.0000	1.0000			
13	DGE1FBT	1.0000	1.0000			
14	DGDQKBT	1.0000	1.0000			
15	DGE1FCT	1.0000	1.0000			

PgDn

For help on <hotkey> press Shift <hotkey>	Full column mode Ins to switch
---	--------------------------------

RunProt: HGMET	STL-PITTSBURGH METALS ANALYSIS		
RunFold: 0719HGA	Seq: 116	Batch:	
	Prnt: R/T On		Pump: Off
	Rev: 4.2	15:26:08 19 Jul 2000	Xmit: Dff Gas: LPM
State: Idle			User: MTW/GDF A/S: On

AUTOSAMPLER:		Rack Edit	rack: RACK2	Range 1-44	Clear seQ	Undo eXit	PgUp
cup ID	Extended id	Weight	Volume	Macro	check	macros	
16	DG5C7T	1.0000	1.0000				
17	DG5C6T	1.0000	1.0000				
18	DG5CKT	1.0000	1.0000				
19	CCV5-6	1.0000	1.0000				
20	CCB6	1.0000	1.0000				
21	DG5CKST	1.0000	1.0000				
22	DG5CKDT	1.0000	1.0000				
23	DG75WT	1.0000	1.0000				
24	DG761T	1.0000	1.0000				
25	DGE1NB	1.0000	1.0000				
26	DGE1NC	1.0000	1.0000				
27	DG759	1.0000	1.0000				
28	DG75Q	1.0000	1.0000				
29	DGD4V	1.0000	1.0000				
30	DGD4VS	1.0000	1.0000				

← void. NOT REPRATED
 WRONG Sample
 ACCIDENTALLY ANALYZED
 See Future Analysis
 For Sample #123
 7-19-00

PgDn

Full column mode Ins to switch

```

RunProt: HGMET      STL-PITTSBURGH METALS ANALYSIS
RunFold: 0719HGA  Seq: 116  Batch:
                  Prnt: R/T On
                  Rev: 4.2   15:26:09 19 Jul 2000
State: Idle
                  Pump: Off
                  Xmit: Off Gas: LPM
                  User: MTW/GOF  A/S: On

```

```

AUTOSAMPLER: Rack Edit rack: RACK2 Range 1-44 Clear seq Undo exit PgUp
cup ID      Extended id      Weight Volume Macro      check macros
31 CCV5-7
32 CCB7
33 DGD4VD
34 DGE12NC MTW 7-19-00 1.0000 1.0000
35 CCV5-8
36 CC88
37 DGF4NB
38 DGF4NC
39 DGF4NL
40 DFL8G
41 DFL8J
42 DFL8GF
43 DFL8JF
44 DGF4QBF

```

PgDn

```

Full column mode Ins to switch

```

RunProt: HGMET STL-PITTSBURGH METALS ANALYSIS
RunFold: 0719HGA Seq: 116 Batch:
Prnt: R/T On Pump: Off
Rev: 4.2 15:26:29 19 Jul 2000 Xmit: Off Gas: LPM
User: MTW/GDF A/S: On
State: Idle

AUTOSAMPLER: Rack Edit rack: RACK3 Range 1-44 Clear seQ Undo exit
cup ID Extended id Weight Volume Macro check macros

cup ID	Extended id	Weight	Volume	Macro	check macros
1	DGF4QCF	1.0000	1.0000		
2	DFV87F	1.0000	1.0000		
3	CCV5-9	1.0000	1.0000		
4	CCB9	1.0000	1.0000		
5	DFV8DF	1.0000	1.0000		
6	DFV8FF	1.0000	1.0000		
7	DFV8KF	1.0000	1.0000		
8	DFV8NF	1.0000	1.0000		
9	DFV8TF	1.0000	1.0000		
10	DFV90F	1.0000	1.0000		
11	DFV93F	1.0000	1.0000		
12	DFV99F	1.0000	1.0000		
13	DFV99SF	1.0000	1.0000		
14	DFV99DF	1.0000	1.0000		
15	CCV5-10	1.0000	1.0000		

PgDn

Full column mode Ins to switch
For help on <hotkey> press Shift <hotkey>

RunProt: HGMET STL-PITTSBURGH METALS ANALYSIS
 RunFold: 0719HGA Seq: 116 Batch:
 Prnt: R/T On Pump: Off
 Rev: 4.2 15:27:25 19 Jul 2000 Xmit: Off Gas: LPM
 State: Idle User: MTW/GOF A/S: On

AUTOSAMPLER:		Rack Edit	rack: RACK3	Range 1-44	Clear seq	Undo exit	PgUp
cup ID	Extended id	Weight	Volume	Macro	check macros		
16	CCB10	1.0000	1.0000				
17	DFV9EF	1.0000	1.0000				
18	DFV9GF	1.0000	1.0000				
19	DFV9XF	1.0000	1.0000				
20	DFVA1F	1.0000	1.0000				
21	CCV5-11	1.0000	1.0000				
22	CCB11	1.0000	1.0000				
23		1.0000	1.0000				
24		1.0000	1.0000				
25		1.0000	1.0000				
26		1.0000	1.0000				
27		1.0000	1.0000				
28		1.0000	1.0000				
29		1.0000	1.0000				
30		1.0000	1.0000				

PgDn

Full column mode Ins to switch

664 889

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



Metals Preparation Log
TCLP

Sample ID	Init Wt/Vol g/mL	Final Vol mL	Comments	Color		Clarity		Texture		Artifact Codes
				Pre	Post	Pre	Post	Pre	Post	
1 DG-5CG	50 ml	50 ml	MS-7-14-00							S-Stones
2 DG-5CG S			+0.5 ml TCLP SPIKE							O-Organic (plant mat'l)
3 DG-5CG D			+0.5 ml TCLP SPIKE							W-free H2O
4 DG-5CG 7										G-Glass
5 DG-5CG K										M-Metal Frgmts
6 DG-7SLW			MS-7-14-00							R-Rubber/Plastic
7 DG-7GL										C-Cloth
8 DG-DK B										P-Paper
9 DG-FEA B										I-Insects
10 DG-FEA C			+0.5 ml MS-BIREV							
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										

Digestate(s)	Digestate(s) Received		Digestate(s) Retinaquished		Hot plate /Block Temp	Correction Factor	Color
	Date	Time	Analyst	Location			
All Above	7-19-00	15:40	Melissa Mabe	Metals Pre	7-18-00	85°C	R=Red BL=Blue BR=Brown BLK=Black Y=Yellow O=Orange
for prep	7-20-00	9:40	MS	Metals Pre	7-19-00	71.0°C	V=Violet P=Pink W=White GY=Gray GN=Green C=Colorless

Reagents:
3ml conc HNO3
5ml 1:1 HCl

Balance#

SDG:

Start Time: 0900

Matrix: Water

Method: 3010A

Lab Lot No. (book, page, line)
0014-162-6

Lot Number:
COG130203

Date: 7-19-00

Analyst: Melissa Mabe

MS

COG140135

Date: 7-19-00

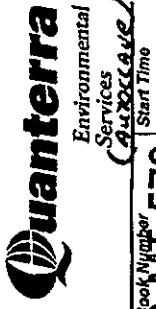
Revised By:

MS-BIREV TCLP SPIKE

MS-7-14-00

MS-7-19-00

MS-7-19-00



664 890

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

Hg Digestion Log

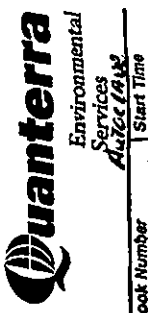
Serial Number 076 Log Book Number 96-MT-579 Start Time 10:10 → 10:25

Sample ID	Date Rec'd	Prep Date	Prepared By	Wt/Vol	Sample Type	Run Date	Comments
1. STD0	N/A	7-19-00	MTW	100ml	WATER	7-19-00	N/A
2. STD1							0014-187-4
3. STD2							0014-187-5
4. STD3							0014-187-6
5. STD4							0014-187-7
6. STD5							0014-187-8
7. IGV							0014-187-9
8. IGV							N/A
9. CCV							0014-188-1
10. CCB							N/A
11. DGEICA							↓
12. DGEICC							0014-188-2
13. DGEICL							0014-188-3
14. DFKRD							N/A
15. DGO3V	7-10-00						↓
16. DGAK5B	N/A						0014-188-4
17. DGAK5C							N/A
18. DFD32	6-27-00						↓
19. DFD39							0014-188-4
20. DFD3D							N/A
21. DFD3G							↓
22. DFD3H							0014-188-4
23. DFD3J							↓
24. DFD3K							0014-188-4
25. DFE12	6-28-00						↓
Reagents		Vol (mL)					Method
HNO3		3.5mL					7470A (A2010102) 15PSX, 120E
H2SO4		5.0mL					SuL2 = 0014-188-11
KMNO4		15.0mL					NACL.4H2O = 0014-171-1
K2S2O4		8.0mL					STW 7-19-00

Extract(s)	Date	Time	Analyst	Location	Date	Time	Analyst	Location
Extract(s) Relinquished								
(Record line number from above)								

Hg Digestion Log

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



664 891

Serial Number **077** Log Book Number **96-MT-579** Start Time **10:10:10.25**

Sample ID	Date Rec'd	Prep Date	Prepared By	Wt/Vol	Sample Type	Run Date	Comments
1. DFENJA	6-28-00	7-19-00	MTW	100ml	water	7-19-00	N/A
2. DFENB	↓	↓					
3. DFENE	↓	↓					
4. DFHAG	6-29-00						
5. DFHAM	↓	↓					
6. DFHAP	↓	↓					
7. DFHAPS							11ml 0014-187-2
8. DFHAPD							11ml 0014-187-2
9. DFLGE	6-30-00						N/A
10. DFLGN	↓	↓					
11. DGEOSBF	N/A						
12. DGEOSCF	↓	↓					0014-187-5
13. DFBZF	6-27-00						N/A
14. DFBZF							
15. DFBZDF							
16. DFBZGF							
17. DFBZHF							
18. DFBZJF	↓	↓					
19. DFBZKF	6-28-00						
20. DFBZLF	↓	↓					
21. DFBZMF	↓	↓					
22. DFBZNF	6-29-00						
23. DFBZOF							
24. DFBZPF	↓	↓					
25. DFBZSF	↓	↓					11ml 0014-187-2
Reagents							
HNO3		2.5ml		make up to 662205508		7/17/00 (A. Tolson)	150SI, 120R
H2SO4		5.0ml		make up to 5557 N21A13			Sucl ₂ = 0014-180-11
KMNO4		15.0ml		0014-184-14			NALL. NALON = 0014-171-1
K2S2O4		8.0ml		0014-184-15			0014-171-1
Extract(s)	Extract(s) Received		Extract(s) Relinquished				
(Record line number from above)	Date	Time	Analyst	Location	Date	Time	Analyst

Hg Digestion Log

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

664 893



Serial Number: 079
 Log Book Number: 96-MT-579
 Start Date: 7/3/00
 End Date: 7/3/00

Sample ID	Date Rec'd	Prep Date	Prepared By	WVVol	Sample Type	Run Date	Comments
1. DGF4NB	N/A	7-19-00	G.O.F.	100ml	Water	7-19-00	N/A
2. DGF4NL	↓						0014-188-9
3. DGF4NL	6-30-00						0014-188-10
4. DEL8G	↓						N/A
5. DEL8J	↓						
6. DEL8GF	↓						
7. DEL8TF	↓						
8. DGF4QBF	N/A						
9. DGF4QCF	↓						0014-188-11
10. DEV87E	7-7-00						N/A
11. DEV8DE	↓						
12. DEV8FF	↓						
13. DEV8KF	↓						
14. DEV8NF	↓						
15. DEV8TF	↓						
16. DEV9OF	↓						
17. DEV93E	↓						
18. DEV99F	↓						
19. DFU995E	↓						7/14/00 0014-187-2
20. DFU99DF	↓						7/14/00 0014-187-2
21. DEV9EF	↓						N/A
22. DEV96F	↓						
23. DEV9XF	↓						
24. DEV9TF	↓						
25.							
Reagents		Vol (mL)	Ref. Number	Method			
HNO3	2.5 ml	Mallinckrodt 6023N35057	7472A(Antarchlor) 15 p5f, 120°C				
H2SO4	5.0 ml	Mallinckrodt 5557N2113	SNCL2 = 0014-180-11				
KMNO4	15.0 ml	0014-184-14	NACL.NH2OH = 0014-17-1				
K2S2O4	8 ml	0014-184-15					
Extract(s)	Extract(s) Received		Extract(s) Relinquished				
(Record line number from above)	Date	Time	Analyst	Date	Time	Analyst	Location
			GF	7-19-00			

JOLOSH

Mercury (7470A, Cold Vapor) - Liquid

LOCATION	WORK ORDER #	PICKED	CONTROL #	CLIENT #	ANALYSIS	LOTID	SMP#	SFX	MATRIX DESCRIPTION	QTY	QTY
		CNTR#								RCVD	REQD
	DG5C7	---	250832	399411	A-0M-08	COG130203	001		SOLID	0	3 1
CLP1	DG5CG	---	250833	399411	A-0M-08	COG130203	002		SOLID	0	3 1
5E CLP1	DG5CK	---	250834	399411	A-0M-08	COG130203	003		SOLID	0	3 1
5F CLP1	DG75W	---	250835	059184	I-0M-08	COG140135	001		WATER	0	6 1
5F CLP1	DG761	---	250836	059184	I-0M-08	COG140135	002		WATER	0	6 1

DGDQKB

→ TClp Leachates

RELINQUISHED BY

RECEIVED BY

DATE/TIME

E. T. Wall
Michael M... ..
Alan
Melissa Mahan

Michael M...
E. T. Wall
Melissa Mahan
Alan

7-19-00 (06:50)
7-19-00 (08:00)
7-19-00 (08:30)
7-19-00 (09:30)

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

GENERAL CHEMISTRY DATA

UXB INTERNATIONAL

Client Sample ID: DF/S1/0194/SDC/019

664 896

General Chemistry

Lot-Sample #...: COG130203-001
 Date Sampled...: 07/12/00
 % Moisture.....: 15

Work Order #...: DG5C7
 Date Received...: 07/13/00

Matrix.....: SOLID

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
pH	8.4		No Units	SW846 9045C	07/14/00	0196130
	Dilution Factor: 1		MS Run #.....: 0196034			
Ignitability	NO	--	No Units	SW846 SECTION 7.1	07/14/00	0196138
	Dilution Factor: 1		MS Run #.....: 0196038			
Percent Solids	85.3		%	MCAWW 160.3 MOD	07/14-07/15/00	0196288
	Dilution Factor: 1		MS Run #.....: 0196151			
Reactive Cyanide	ND	200	mg/kg	SW846 7.3.3	07/17/00	0200389
	Dilution Factor: 1		MS Run #.....: 0200155			
Reactive Sulfide	ND	200	mg/kg	SW846 7.3.4	07/17/00	0200382
	Dilution Factor: 1		MS Run #.....: 0202208			

Client Sample ID: DF/S1/0194/SDC/020

General Chemistry

Lot-Sample #....: COG130203-002 Work Order #....: DG5CG Matrix.....: SOLID
 Date Sampled....: 07/12/00 Date Received...: 07/13/00
 % Moisture.....: 12

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
pH	8.3		No Units	SW846 9045C	07/14/00	0196130
	Dilution Factor: 1		MS Run #.....: 0196034			
Ignitability	NO	--	No Units	SW846 SECTION 7.1	07/14/00	0196138
	Dilution Factor: 1		MS Run #.....: 0196038			
Percent Solids	88.3		%	MCAWW 160.3 MOD	07/14-07/15/00	0196288
	Dilution Factor: 1		MS Run #.....: 0196151			
Reactive Cyanide	ND	200	mg/kg	SW846 7.3.3	07/17/00	0200389
	Dilution Factor: 1		MS Run #.....: 0200155			
Reactive Sulfide	ND	200	mg/kg	SW846 7.3.4	07/17/00	0200382
	Dilution Factor: 1		MS Run #.....: 0202208			

UXB INTERNATIONAL

Client Sample ID: DF/S1/0194/GRAB/004

664 898

General Chemistry

Lot-Sample #...: C0G130203-003 Work Order #...: DG5CK Matrix.....: SOLID
 Date Sampled...: 07/12/00 Date Received...: 07/13/00
 % Moisture.....: 18

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
pH	8.2		No Units	SW846 9045C	07/14/00	0196130
	Dilution Factor: 1		MS Run #.....: 0196034			
Ignitability	NO	--	No Units	SW846 SECTION 7.1	07/14/00	0196138
	Dilution Factor: 1		MS Run #.....: 0196038			
Percent Solids	81.6		%	MCAWW 160.3 MOD	07/14-07/15/00	0196288
	Dilution Factor: 1		MS Run #.....: 0196151			
Reactive Cyanide	ND	200	mg/kg	SW846 7.3.3	07/17/00	0200389
	Dilution Factor: 1		MS Run #.....: 0200155			
Reactive Sulfide	ND	200	mg/kg	SW846 7.3.4	07/17/00	0200382
	Dilution Factor: 1		MS Run #.....: 0202208			

METHOD BLANK REPORT

664 899

General Chemistry

Client Lot #...: COG130203

Matrix.....: SOLID

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Reactive Cyanide	ND	Work Order #: DGE4K101 200	mg/kg	MB Lot-Sample #: SW846 7.3.3	A0G180000-389 07/17/00	0200389
		Dilution Factor: 1				
Reactive Sulfide	ND	Work Order #: DGE40101 200	mg/kg	MB Lot-Sample #: SW846 7.3.4	A0G180000-382 07/17/00	0200382
		Dilution Factor: 1				

NOTE (S) :

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

664 900

LABORATORY CONTROL SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: COG130203

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 #: DG6WL101 (85 - 115) Dilution Factor: 1	LCS Lot-Sample#: COG140000-130 SW846 9045C	07/14/00	0196130

NOTE (S) :

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

SAMPLE DUPLICATE EVALUATION REPORT

664 901

General Chemistry

Client Lot #....: COG130203

Work Order #....: DG1JM-SMP
DG1JM-DUP

Matrix.....: SOLID

Date Sampled....: 07/11/00

Date Received...: 07/11/00

% Moisture.....: 14

<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>
Reactive Cyanide	ND	ND	mg/kg	0	(0-20)	SD Lot-Sample #: A0G110212-001 SW846 7.3.3	07/17/00	0200389
			Dilution Factor: 1					
			Prep Date.....: 0200155		Analysis Date...:		Prep Batch #...:	
Reactive Sulfide	ND	ND	mg/kg	0	(0-20)	SD Lot-Sample #: A0G110212-001 SW846 7.3.4	07/17/00	0200382
			Dilution Factor: 1					
			Prep Date.....: 0202208		Analysis Date...:		Prep Batch #...:	

**Quanterra Environmental Services
pH LOG SHEET**

664 902

Page of

Lot No. 664902 Batch No. 0194130 SDG No.

¹⁹ 7100061 (analyte) includes attachment(s) 694812
Analyst: P. Johnson
Date: 7-14-00
Start Time: 0900

pH Meter Calibration

Reading	Buffer	Manf. Lot No.	Rec'd	Expire
<u>7.00</u>	7.0	<u>Labchem 5062-04</u>	<u>5-19-00</u>	<u>2-1-02</u>
<u>4.00</u>	4.0	<u>5112-08</u>	<u>5-19-00</u>	<u>2-25-01</u>
<u>10.00</u>	10.0	<u>5010-07</u>	<u>2-24-00</u>	<u>1-17-01</u>

LCS ID No.: 342-155-10

Relative Percent Difference =

Range = ± .05 pH units

$$\frac{|X_1 - X_2|}{\frac{X_1 + X_2}{2}} \times 100$$

X₁ = Original Result
X₂ = Duplicate

Sample ID	pH Reading
LCS	<u>7.01</u>
<u>664902-001</u>	<u>8.39</u>
<u>001</u>	<u>8.54</u>
<u>002</u>	<u>8.34</u>
<u>003</u>	<u>8.22</u>
<u>LCS</u>	<u>7.02</u>
<u>P. Johnson</u>	
	<u>7.7400</u>

Solid { (next to first three rows)
1.87-215 (next to second row)

TESTED BY: JOHNSONP

METHOD: OZ pH (9045C) - Non-Aqueous

<u>STORAGE LOCATION</u>	<u>WORK ORDER #</u>	<u>PICKED CNTR#</u>	<u>CONTROL #</u>	<u>CLIENT #</u>	<u>ANALYSIS</u>	<u>LOTID</u>	<u>SMP#</u>	<u>SFX</u>	<u>MATRIX DESCRIPTION</u>	<u>QTY RCVD</u>	<u>QTY REQD</u>
5E CLP1	DG5CG-1-0F	___	249942	399411	A-88-OZ	COG130203	002		SOLID	3	1
5E CLP1	DG5CK-1-0F	___	249943	399411	A-88-OZ	COG130203	003		SOLID	3	1
5E CLP1	DG5C7-1-0F	___	249944	399411	A-88-OZ	COG130203	001		SOLID	3	1

RELINQUISHED BY

RECEIVED BY

DATE/TIME

C. L. Markali

P. J. Johnson

7-14-00/0800

P. J. Johnson

C. L. Markali

7-14-00/0820

REQUESTED BY: MESOLOSE

METHOD: IQ Ignitability (SW7.1.2)

<u>STORAGE LOCATION</u>	<u>WORK ORDER #</u>	<u>PICKED CNTR#</u>	<u>CONTROL #</u>	<u>CLIENT #</u>	<u>ANALYSIS</u>	<u>LOTID</u>	<u>SMP#</u>	<u>SFX</u>	<u>MATRIX DESCRIPTION</u>	<u>QTY RCVD</u>	<u>QTY REQD</u>
5E CLP1	DG5CG-1-0G	___	250074	399411	A-88-IQ	COG130203	002		SOLID	3	1
5E CLP1	DG5CK-1-0G	___	250075	399411	A-88-IQ	COG130203	003		SOLID	3	1
5E CLP1	DG5C7-1-0G	___	250076	399411	A-88-IQ	COG130203	001		SOLID	3	1

RELINQUISHED BY

E. Z. Mesolose
E. Z. Mesolose

RECEIVED BY

E. Z. Mesolose
E. Z. Mesolose

DATE/TIME

7/14/00 (09:30)
7/14/00 (09:40)

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

STL Pittsburgh
TOTAL SOLIDS/PERCENT MOISTURE LOG SHEET

Oven Temperature: 103°C±2°C

Date 7-14-00 Time in 1000

Analyst: Wesley N Morgan

Date 7-15-00 Time out 0915

Balance ID #: C94817

SAMPLE ID	TARE NO.	TARE	SAMPLE + TARE	DRIED SAMPLE + TARE	SAMPLE ID	TARE NO.	TARE	SAMPLE + TARE	DRIED SAMPLE + TARE	
C06130220-01	181	1.12	6.59	6.05	C06130220-39	55	1.61	6.04	5.77	
Dup -01	B5	1.04	6.75	6.33		40	205	1.00	6.70	6.36
	02	1.11	6.30	6.12		41	TN	1.01	7.53	6.84
	03	P30	6.44	5.22		42	J6	1.06	6.71	6.31
	04	40	7.00	6.55		43	66	1.11	6.41	6.13
	05	33	7.69	6.41		44	Y	1.06	6.77	6.45
	06	1551	6.42	6.09	Dup	44	P3	1.14	6.33	6.05
	07	Y9	6.39	5.61		45	96	1.05	6.50	5.94
	08	231	7.04	6.57		46	J8	1.07	6.80	6.10
	09	7	6.09	5.76		47	P25	1.09	7.56	7.02
	10	105	6.42	6.02		48	T12	1.01	6.32	5.90
	11	1291	6.99	5.91		49	200	1.06	6.36	6.03
	12	141	6.91	5.97		50	AA	0.99	6.78	6.32
	13	Y17	7.82	6.86		51	224	1.04	7.67	7.13
	14	P9	6.20	5.80		52	TJ	1.01	7.00	6.73
	15	T0	7.76	7.06		53	Y12	1.00	7.06	6.76
	16	P17	6.90	6.30		54	P21	1.04	6.59	6.18
	17	1AA	7.22	6.69		55	P8	1.05	6.58	6.26
	18	C	7.01	6.20		56	129	1.07	7.00	6.46
	19	130	6.99	6.27		57	X4	1.08	5.79	5.52
	22	165	6.52	6.29		58	K	1.03	6.07	5.78
	23	513	6.31	6.23		59	P16	1.06	6.1	5.51
Dup	23	C2	6.05	5.95		60	J12	1.05	6.61	6.06
	24	P29	7.48	7.36		61	821	0.99	6.27	6.07
	25	BA	6.11	5.76		62	124	1.11	6.37	6.23
	27	P11	6.53	6.40		63	A21	1.01	5.72	5.52
	28	TE	6.96	6.41		64	172	1.65	6.62	6.37
	29	88	6.81	6.63	Dup	64	B4	1.03	6.23	5.97
	30	A67	6.57	6.28		65	X5	1.08	7.63	7.37
	31	A3	6.94	6.75		66	B8	1.05	6.21	5.90
	32	A8	6.18	5.66		67	P7	1.05	6.11	5.75
	33	P1	6.01	5.66		68	314	1.03	6.57	6.23
	34	TC	6.29	5.96		69	J2	1.07	6.86	6.61
	35	TE	6.41	6.05		70	C5	1.01	5.87	5.70
	36	X7	6.55	6.16		71	213	1.04	6.40	6.08
	37	P27	6.57	6.05		72	X3	1.08	7.16	6.90
✓	38	1A1	0.99	6.47	✓	73	106	7.39	7.39	7.17

Wesley N Morgan 7-17-00
STL PFM May-00/96-003/TSLOG.DOC

num 72 1.06
7-17-00

664 908

STL - Pittsburgh WATER CONTENT SHEET

SHEET NUM 0007008
 TESTED. WWM 7/14/00
 CHECKED: [Signature] 7-18-00
 COMMENTS
 COG130220/COG130223

CREATED: 7/17/00 11:26:32 AM
 REVISED: 7/17/00 11:34:28 AM

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
COG130220	01	SMP 181	1.12	6.59	6.05	10:00	9:15	0.54	9.872	90.128
COG130220	01DUP	SMP B5	1.04	6.75	6.33	10:00	9:15	0.42	7.356	92.644
COG130220	02	SMP 117	1.11	6.3	6.12	10:00	9:15	0.18	3.468	96.532
COG130220	03	SMP P30	1.09	6.44	5.22	10:00	9:15	1.22	22.804	77.196
COG130220	04	SMP 40	1.14	7	6.55	10:00	9:15	0.45	7.679	92.321
COG130220	05	SMP 33	1.12	7.69	6.41	10:00	9:15	1.28	19.482	80.518
COG130220	06	SMP 1551	1.11	6.42	6.09	10:00	9:15	0.33	6.215	93.785
COG130220	07	SMP Y9	1.1	6.39	5.61	10:00	9:15	0.78	14.745	85.255
COG130220	08	SMP 231	1.11	7.04	6.57	10:00	9:15	0.47	7.926	92.074
COG130220	09	SMP 7	1.12	6.09	5.76	10:00	9:15	0.33	6.64	93.36
COG130220	10	SMP 105	1.14	6.42	6.02	10:00	9:15	0.4	7.576	92.424
COG130220	11	SMP 1291	1.13	6.99	5.91	10:00	9:15	1.08	18.43	81.57
COG130220	12	SMP 141	1.14	6.91	5.97	10:00	9:15	0.94	16.291	83.709
COG130220	13	SMP Y17	1.18	7.82	6.86	10:00	9:15	0.96	14.458	85.542
COG130220	14	SMP P9	1.05	6.2	5.8	10:00	9:15	0.4	7.767	92.233
COG130220	15	SMP T0	1.01	7.76	7.06	10:00	9:15	0.7	10.37	89.63
COG130220	16	SMP P17	1.07	6.9	6.3	10:00	9:15	0.6	10.292	89.708
COG130220	17	SMP 1AA	1.01	7.22	6.69	10:00	9:15	0.53	8.535	91.465

2.75%
 SPD

STL - Pittsburgh WATER CONTENT SHEET

664 909

SHEET NUM 0007008
 TESTED WWM 7/14/00
 CHECKED [Signature] 7-18-00
 COMMENTS:
 COG130220/COG130203

CREATED: 7/17/00 11:26:32 AM
 REVISED: 7/17/00 11:34:28 AM

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.
COG130220	18	SMP C	1.12	7.01	6.2	10:00	9:15	0.81	13.752	86.248
COG130220	19	SMP 130	1.11	6.99	6.27	10:00	9:15	0.72	12.245	87.755
COG130220	22	SMP 165	1.64	6.52	6.29	10:00	9:15	0.23	4.713	95.287
COG130220	23	SMP J13	1.12	6.31	6.23	10:00	9:15	0.08	1.541	98.459
COG130220	23DUP	SMP C2	1.04	6.05	5.95	10:00	9:15	0.1	1.996	98.004
COG130220	24	SMP P29	1.08	7.48	7.36	10:00	9:15	0.12	1.875	98.125
COG130220	25	SMP BA	1	6.11	5.76	10:00	9:15	0.35	6.849	93.151
COG130220	27	SMP P11	1.05	6.53	6.4	10:00	9:15	0.13	2.372	97.628
COG130220	28	SMP TE	1	6.96	6.41	10:00	9:15	0.55	9.228	90.772
COG130220	29	SMP 88	1	6.81	6.63	10:00	9:15	0.18	3.098	96.902
COG130220	30	SMP A67	1.01	6.57	6.28	10:00	9:15	0.29	5.216	94.784
COG130220	31	SMP A3	1.02	6.94	6.75	10:00	9:15	0.19	3.209	96.791
COG130220	32	SMP A8	1.02	6.18	5.66	10:00	9:15	0.52	10.078	89.922
COG130220	33	SMP P1	1.06	6.01	5.66	10:00	9:15	0.35	7.071	92.929
COG130220	34	SMP TC	1.02	6.29	5.96	10:00	9:15	0.33	6.262	93.738
COG130220	35	SMP T1	1.07	6.41	6.05	10:00	9:15	0.36	6.742	93.258
COG130220	36	SMP X7	1.07	6.55	6.16	10:00	9:15	0.39	7.117	92.883
COG130220	37	SMP P27	1.05	6.57	6.05	10:00	9:15	0.52	9.42	90.58

946
APD

STL - Pittsburgh WATER CONTENT SHEET

664 910

SHEET NUM: 0007008
 TESTED: WWM 7/14/00
 CHECKED: [Signature] 7:18 00
 COMMENTS:
 COG130220/COG130203

CREATED: 7/17/00 11:26:32 AM
 REVISED: 7/17/00 11:34:28 AM

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
COG130220	38	SMP 1A1	0.99	6.47	5.93	10:00	9:15	0.54	9.854	90.146
COG130220	39	SMP 55	1.61	6.04	5.77	10:00	9:15	0.27	6.095	93.905
COG130220	40	SMP 205	1	6.7	6.36	10:00	9:15	0.34	5.965	94.035
COG130220	41	SMP TN	1.01	7.53	6.84	10:00	9:15	0.69	10.583	89.417
COG130220	42	SMP J6	1.06	6.71	6.31	10:00	9:15	0.4	7.08	92.92
COG130220	43	SMP 66	1.11	6.41	6.13	10:00	9:15	0.28	5.283	94.717
COG130220	44	SMP Y	1.06	6.77	6.45	10:00	9:15	0.32	5.604	94.396
COG130220	44DUP	SMP P3	1.14	6.33	6.05	10:00	9:15	0.28	5.395	94.605
COG130220	45	SMP 96	1.05	6.5	5.94	10:00	9:15	0.56	10.275	89.725
COG130220	46	SMP J8	1.07	6.8	6.1	10:00	9:15	0.7	12.216	87.784
COG130220	47	SMP P25	1.09	7.56	7.02	10:00	9:15	0.54	8.346	91.654
COG130220	48	SMP T12	1.01	6.32	5.9	10:00	9:15	0.42	7.91	92.09
COG130220	49	SMP 200	1.06	6.36	6.03	10:00	9:15	0.33	6.226	93.774
COG130220	50	SMP AA	0.99	6.78	6.32	10:00	9:15	0.46	7.945	92.055
COG130220	51	SMP 224	1.04	7.67	7.13	10:00	9:15	0.54	8.145	91.855
COG130220	52	SMP TJ	1.01	7	6.73	10:00	9:15	0.27	4.508	95.492
COG130220	53	SMP Y12	1	7.06	6.76	10:00	9:15	0.3	4.95	95.05
COG130220	54	SMP P21	1.04	6.59	6.18	10:00	9:15	0.41	7.387	92.613

022 of
 PWD

STL - Pittsburgh WATER CONTENT SHEET

664 911

SHEET NUM 0007008
 TESTED: WWM 7/14/00
 CHECKED: [Signature] 7.1800
 COMMENTS
 COG130220/COG160203

CREATED: 7/17/00 11:26:32 AM
 REVISED: 7/17/00 11:34:28 AM

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.
COG130220	55	SMP P8	1.05	6.58	6.26	10.00	9:15	0.32	5.787	94.213
COG130220	56	SMP 129	1.07	7	6.46	10:00	9:15	0.54	9.106	90.894
COG130220	57	SMP X4	1.08	5.79	5.52	10.00	9:15	0.27	5.732	94.268
COG130220	58	SMP K	1.03	6.07	5.78	10.00	9:15	0.29	5.754	94.246
COG130220	59	SMP P18	1.06	6.1	5.51	10:00	9:15	0.59	11.706	88.294
COG130220	60	SMP J12	1.05	6.61	6.06	10.00	9:15	0.55	9.892	90.108
COG130220	61	SMP 821	0.99	6.27	6.07	10:00	9:15	0.2	3.788	96.212
COG130220	62	SMP 124	1.11	6.37	6.23	10:00	9:15	0.14	2.662	97.338
COG130220	63	SMP A21	1.01	5.72	5.52	10:00	9:15	0.2	4.246	95.754
COG130220	64	SMP 172	1.65	6.62	6.37	10:00	9:15	0.25	5.03	94.97
COG130220	64DUP	SMP B4	1.03	6.23	5.97	10:00	9:15	0.26	5	95
COG130220	65	SMP X5	1.08	7.63	7.37	10:00	9:15	0.26	3.969	96.031
COG130220	66	SMP B8	1.05	6.21	5.9	10.00	9:15	0.31	6.008	93.992
COG130220	67	SMP P7	1.05	6.11	5.75	10.00	9:15	0.36	7.115	92.885
COG130220	68	SMP 314	1.03	6.57	6.23	10.00	9:15	0.34	6.137	93.863
COG130220	69	SMP J2	1.07	6.86	6.61	10.00	9:15	0.25	4.318	95.682
COG130220	70	SMP C5	1.01	5.87	5.7	10.00	9:15	0.17	3.498	96.502
COG130220	71	SMP 213	1.04	6.4	6.08	10.00	9:15	0.32	5.97	94.03

010316
 - 210

STL - Pittsburgh WATER CONTENT SHEET

664 912

SHEET NUM 0007008
 ESTED. WWM 7/14/00
 CHECKED. *lg* 7:1800
 COMMENTS:
 COG130220/COG130203

CREATED: 7/17/00 11 26 32 AM
 REVISED: 7/17/00 11 34 28 AM

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
COG130220	72	SMP X3	1.08	7.16	6.9	10:00	9:15	0.26	4.276	95.724 ✓
COG130220	73	SMP Y2	1.06	7.39	7.17	10:00	9:15	0.22	3.476	96.524 ✓
COG130220	74	SMP 300	1.03	6.31	6.03	10:00	9:15	0.28	5.303	94.697 ✓
COG130220	75	SMP P19	1.06	6.65	6.2	10:00	9:15	0.45	8.05	91.95 ✓
COG130220	76	SMP Y5	1.08	5.71	5.52	10:00	9:15	0.19	4.104	95.896 ✓
COG130220	77	SMP J17	1.07	6.08	5.75	10:00	9:15	0.33	6.587	93.413 ✓
COG130220	78	SMP J10	1.07	6.17	5.84	10:00	9:15	0.33	6.471	93.529 ✓
COG130220	79	SMP P26	1.06	5.73	5.36	10:00	9:15	0.37	7.923	92.077 ✓
COG130220	80	SMP B6	1.22	7.09	6.44	10:00	9:15	0.65	11.073	88.927 ✓
COG130220	81	SMP Y20	1.06	6.13	5.95	10:00	9:15	0.18	3.55	96.45 ✓
COG130220	82	SMP 119	1.07	5.5	5.31	10:00	9:15	0.19	4.289	95.711 ✓
COG130203	01	SMP TD	1.02	6.53	5.72	10:00	9:15	0.81	14.701	85.299 ✓
COG130203	01DUP	SMP 1651	1.12	6.17	5.43	10:00	9:15	0.74	14.653	85.347 ✓
COG130203	02	SMP 74	1.03	7.19	6.47	10:00	9:15	0.72	11.688	88.312 ✓
COG130203	03	SMP 194	1.09	6.24	5.29	10:00	9:15	0.95	18.447	81.553 ✓

*COG130203
 01DUP
 85.347*

REQUESTED BY: MORGANW

IOD: SM Solids, Percent (as TS - 160.3 MOD) - Solids

STORAGE LOCATION	WORK ORDER #	PICKED CNTR#	CONTROL #	CLIENT #	ANALYSIS	LOTID	SMP#	SFX	MATRIX DESCRIPTION	QTY	QTY	
										RCVD	REQD	
5D	DG56K-1-01	___	249947	091133	A-88-SM	COG130188	001		SOLID	0	6	1
5D	DG56M-1-01	___	249948	091133	A-88-SM	COG130188	002		SOLID	0	2	1
5D	DG56P-1-01	___	249949	091133	A-88-SM	COG130188	003		SOLID	0	2	1
5D	DG56R-1-01	___	249950	091133	A-88-SM	COG130188	004		SOLID	0	2	1
5E	DG5J5-1-01	___	249951	382811	A-88-SM	COG130220	001		SOLID	0	1	1
5E	DG5J7-1-01	___	249952	382811	A-88-SM	COG130220	002		SOLID	0	1	1
5E	DG5J8-1-01	___	249953	382811	A-88-SM	COG130220	003		SOLID	0	1	1
5E	DG5J9-1-01	___	249954	382811	A-88-SM	COG130220	004		SOLID	0	1	1
5E	DG5JC-1-01	___	249955	382811	A-88-SM	COG130220	005		SOLID	0	1	1
5E	DG5JD-1-02	___	249956	382811	A-88-SM	COG130220	006		SOLID	0	1	1
--	DG5JG-1-02	___	249957	382811	A-88-SM	COG130220	007		SOLID	0	1	1
5E	DG5JJ-1-02	___	249958	382811	A-88-SM	COG130220	008		SOLID	0	1	1
5E	DG5JK-1-02	___	249959	382811	A-88-SM	COG130220	009		SOLID	0	1	1
5E	DG5JM-1-01	___	249960	382811	A-88-SM	COG130220	010		SOLID	0	1	1
5E	DG5JQ-1-02	___	249961	382811	A-88-SM	COG130220	011		SOLID	0	1	1
5E	DG5JV-1-01	___	249962	382811	A-88-SM	COG130220	012		SOLID	0	1	1
5E	DG5JX-1-02	___	249963	382811	A-88-SM	COG130220	013		SOLID	0	1	1
5E	DG5K1-1-02	___	249964	382811	A-88-SM	COG130220	014		SOLID	0	1	1
5E	DG5K4-1-02	___	249965	382811	A-88-SM	COG130220	015		SOLID	0	1	1
5E	DG5K5-1-02	___	249966	382811	A-88-SM	COG130220	016		SOLID	0	1	1
5E	DG5KA-1-02	___	249967	382811	A-88-SM	COG130220	017		SOLID	0	1	1
5E	DG5KG-1-02	___	249968	382811	A-88-SM	COG130220	018		SOLID	0	1	1
5E	DG5KM-1-02	___	249969	382811	A-88-SM	COG130220	019		SOLID	0	1	1
	DG5KV-1-02	___	249970	382811	A-88-SM	COG130220	022		SOLID	0	1	1
5E	DG5L1-1-01	___	249971	382811	A-88-SM	COG130220	023		SOLID	0	1	1
5E	DG5L3-1-01	___	249972	382811	A-88-SM	COG130220	024		SOLID	0	1	1

664 914

PSR024 7/14/00 6:01:13 MT

SAMPLE CUSTODIAN REMOVAL REQUEST

PAGE 002

JESTED BY: MORGANW

METHOD: SM Solids, Percent (as TS - 160.3 MOD) - Solids

STORAGE LOCATION	WORK ORDER #	PICKED CNTR#	CONTROL #	CLIENT #	ANALYSIS	LOTID	SMP#	SFX	MATRIX DESCRIPTION	QTY	QTY
										RCVD	REQD
5E	DG5L5-1-01	___	249973	382811	A-88-SM	COG130220	025		SOLID	0	1
5E	DG5LC-1-02	___	249974	382811	A-88-SM	COG130220	027		SOLID	0	1
5E	DG5LF-1-02	___	249975	382811	A-88-SM	COG130220	028		SOLID	0	1
5E	DG5LG-1-02	___	249976	382811	A-88-SM	COG130220	029		SOLID	0	1
5E	DG5LK-1-02	___	249977	382811	A-88-SM	COG130220	030		SOLID	0	1
5E	DG5LM-1-02	___	249978	382811	A-88-SM	COG130220	031		SOLID	0	1
5E	DG5LN-1-02	___	249979	382811	A-88-SM	COG130220	032		SOLID	0	1
5E	DG5LP-1-02	___	249980	382811	A-88-SM	COG130220	033		SOLID	0	1
5E	DG5LW-1-02	___	249981	382811	A-88-SM	COG130220	034		SOLID	0	1
5E	DG5LX-1-02	___	249982	382811	A-88-SM	COG130220	035		SOLID	0	1
5E	DG5M0-1-02	___	249983	382811	A-88-SM	COG130220	036		SOLID	0	1
5E	DG5M2-1-02	___	249984	382811	A-88-SM	COG130220	037		SOLID	0	1
5E	DG5M3-1-02	___	249985	382811	A-88-SM	COG130220	038		SOLID	0	1
5E	DG5M4-1-02	___	249986	382811	A-88-SM	COG130220	039		SOLID	0	1
5E	DG5M8-1-02	___	249987	382811	A-88-SM	COG130220	040		SOLID	0	1
5E	DG5M9-1-02	___	249988	382811	A-88-SM	COG130220	041		SOLID	0	1
5E	DG5MA-1-02	___	249989	382811	A-88-SM	COG130220	042		SOLID	0	1
5E	DG5MN-1-02	___	249990	382811	A-88-SM	COG130220	043		SOLID	0	1
5E	DG5MQ-1-02	___	249991	382811	A-88-SM	COG130220	044		SOLID	0	1
5E	DG5MR-1-02	___	249992	382811	A-88-SM	COG130220	045		SOLID	0	1
5E	DG5MV-1-02	___	249993	382811	A-88-SM	COG130220	046		SOLID	0	1
5E	DG5MW-1-02	___	249994	382811	A-88-SM	COG130220	047		SOLID	0	1
5E	DG5N0-1-02	___	249995	382811	A-88-SM	COG130220	048		SOLID	0	1
5E	DG5N2-1-02	___	249996	382811	A-88-SM	COG130220	049		SOLID	0	1
5E	DG5N6-1-02	___	249997	382811	A-88-SM	COG130220	050		SOLID	0	1
5E	DG5N8-1-02	___	249998	382811	A-88-SM	COG130220	051		SOLID	0	1

SEEL Pittsburgh

7029

JESTED BY: MORGANN

METHOD: SM Solids, Percent (as TS - 160.3 MOD) - Solids

STORAGE LOCATION	WORK ORDER #	PICKED CNTR#	CONTROL #	CLIENT #	ANALYSIS	LOTID	SMP#	SFX	MATRIX DESCRIPTION	QTY	QTY
										RCVD	REQD
5E	DG5NE-1-02	___	249999	382811	A-88-SM	COG130220	052		SOLID	0	1 1
5E	DG5NG-1-02	___	250000	382811	A-88-SM	COG130220	053		SOLID	0	1 1
5E	DG5NK-1-02	___	250001	382811	A-88-SM	COG130220	054		SOLID	0	1 1
5E	DG5NM-1-02	___	250002	382811	A-88-SM	COG130220	055		SOLID	0	1 1
5E	DG5NN-1-02	___	250003	382811	A-88-SM	COG130220	056		SOLID	0	1 1
5E	DG5NQ-1-02	___	250004	382811	A-88-SM	COG130220	057		SOLID	0	1 1
5E	DG5NR-1-02	___	250005	382811	A-88-SM	COG130220	058		SOLID	0	1 1
5E	DG5NV-1-02	___	250006	382811	A-88-SM	COG130220	059		SOLID	0	1 1
5E	DG5P0-1-02	___	250007	382811	A-88-SM	COG130220	060		SOLID	0	1 1
	DG5P2-1-02	___	250008	382811	A-88-SM	COG130220	061		SOLID	0	1 1
5E	DG5P4-1-02	___	250009	382811	A-88-SM	COG130220	062		SOLID	0	1 1
5E	DG5P5-1-02	___	250010	382811	A-88-SM	COG130220	063		SOLID	0	1 1
5E	DG5P8-1-02	___	250011	382811	A-88-SM	COG130220	064		SOLID	0	1 1
5E	DG5PA-1-02	___	250012	382811	A-88-SM	COG130220	065		SOLID	0	1 1
5E	DG5PC-1-02	___	250013	382811	A-88-SM	COG130220	066		SOLID	0	1 1
5E	DG5PE-1-02	___	250014	382811	A-88-SM	COG130220	067		SOLID	0	1 1
5E	DG5PG-1-02	___	250015	382811	A-88-SM	COG130220	068		SOLID	0	1 1
5E	DG5PH-1-02	___	250016	382811	A-88-SM	COG130220	069		SOLID	0	1 1
5E	DG5PM-1-02	___	250017	382811	A-88-SM	COG130220	070		SOLID	0	1 1
5E	DG5PN-1-02	___	250018	382811	A-88-SM	COG130220	071		SOLID	0	1 1
5E	DG5PR-1-02	___	250019	382811	A-88-SM	COG130220	072		SOLID	0	1 1
5E	DG5PW-1-02	___	250020	382811	A-88-SM	COG130220	073		SOLID	0	1 1
	DG5Q1-1-02	___	250021	382811	A-88-SM	COG130220	074		SOLID	0	1 1
5E	DG5Q2-1-02	___	250022	382811	A-88-SM	COG130220	075		SOLID	0	1 1
5E	DG5Q3-1-02	___	250023	382811	A-88-SM	COG130220	076		SOLID	0	1 1
5E	DG5Q4-1-02	___	250024	382811	A-88-SM	COG130220	077		SOLID	0	1 1

664 916

PSR024 7/14/00 6:01:13 MT

SAMPLE CUSTODIAN REMOVAL REQUEST

PAGE 004

JESTED BY: MORGANW

METHOD: SM Solids, Percent (as TS - 160.3 MOD) - Solids

STORAGE LOCATION	WORK ORDER #	PICKED CNTR#	CONTROL #	CLIENT #	ANALYSIS	LOTID	SMP#	SFX	MATRIX DESCRIPTION	QTY	QTY
										RCVD	REQD
5E	DG5Q8-1-02	___	250025	382811	A-88-SM	COG130220	078		SOLID	0	1 1
5E	DG5QA-1-02	___	250026	382811	A-88-SM	COG130220	079		SOLID	0	1 1
5E	DG5QC-1-02	___	250027	382811	A-88-SM	COG130220	080		SOLID	0	1 1
5E	DG5R7-1-02	___	250028	382811	A-88-SM	COG130220	081		SOLID	0	1 1
5E	DG5RF-1-02	___	250029	382811	A-88-SM	COG130220	082		SOLID	0	1 1

RELINQUISHED BY

RECEIVED BY

DATE/TIME

E. L. Wood
W. Meyer

W. Meyer
E. L. Wood

7-14-00 0900
7-14-00 1300

REQUESTED BY: MORGANW

664 917

MOD: SM Solids, Percent (as TS - 160.3 MOD) - Solids

STORAGE LOCATION	WORK ORDER #	PICKED CNTR#	CONTROL #	CLIENT #	ANALYSIS	LOTID	SMP#	SFX	MATRIX DESCRIPTION	QTY	QTY
										RCVD	REQD
5E CLP1	DG5C7-1-01	___	250099	399411	A-88-SM	COG130203	001		SOLID	0	3 1
5E CLP1	DG5CG-1-01	___	250100	399411	A-88-SM	COG130203	002		SOLID	0	3 1
5E CLP1	DG5CK-1-01	___	250101	399411	A-88-SM	COG130203	003		SOLID	0	3 1

RELINQUISHED BY

RECEIVED BY

DATE/TIME

<i>E. L. Wood</i>	<i>W. Morgan</i>	7-14-00 1300
<i>W. Morgan</i>	<i>E. L. Wood</i>	7-14-00 1350

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

664 918

QUANTERRA- NORTH CANTON
TITRIMETRIC LOGSHEET

Analysis Reac: Sulfide
Prep/ Anal. Date 7-17-00
Analyst ckk

Batch Number 0200381 / 0200382
LCS Number —
LCS Prep Date —
RL 200 mg / Kg

Titrant Name Sodium Tri: *Sodium*
Titrant Normality 0.0251 *0.0229*
Titrant Standardization Date/ Initials 7-10-00 1 TAR *7-14-00 JZ*

Sample Number	Sample Volume	Dil.	Titrant Vol (mL)	Final Conc.	Units	QC Calculations and Comments
BLK	109	1	23	113 mg / kg		
DG1H8		1	23			
DG0X4		1	22			
DG1JM		1	22			
DG1H8 Dup <i>600 7-17-00</i>		1	22			
DG1JM Dup		1	22			
DG5C7 <i>DG1JM Dup</i>		1	22			
DG5CG		1	22.5			
DG5CK		1	22			
DG792		1	22.2			
DG75W		1	22			
DG761		1	22			
DG761 Dup		1	22.2			

Rev. 10/30/98
N:Metals/Wet Log

QUANTERRA- NORTH CANTON
TITRIMETRIC LOGSHEET

664 919

Analysis Reactive Cu
Prep/ Anal. Date 7-17-00
Analyst ckk

Batch Number 020037/020039
LCS Number -
LCS Prep Date -
RL 200 mg/Kg

Titrant Name Silver Nitrate
Titrant Normality 0.0192 N
Titrant Standardization Date/ Initials - / -

Sample Number	Sample Volume	Dil.	Titrant Vol (mL)	Final Conc.	Units	QC Calculations and Comments
BLK	10g	1	0.05	ND	mg/kg	
DG15M		1	0.05	ND		
DG15M-Dup		1	0.05	ND		
DG792		1	0.05	ND		
DG5C7		1	0.05	ND		
DG5C6		1	0.05	ND		
DG5Ck		1	0.05	ND		
DG0X4		1	0.05	ND		
DG75W		1	0.05	ND		
DG761		1	0.05	ND		
DG761-Dup		1	0.05	ND		

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N:Metals/Wet Log

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PART I

ADMINISTRATIVE RECORD

PART I

FINAL PAGE