657 0
File: 541.460.000n
C.H.

THE MEMPHIS DEPOT
TENNESSEE

ADMINISTRATIVE RECORD
COVER SHEET

AR File Number 657

SEVERN TRENT SERVICES

STL Pittsburgh
450 William Pitt Way
Pittsburgh, PA 15238

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

ANALYTICAL REPORT

PROJECT NO. UXB 7512-060

Dunn Field, Def Depot Memphis

Lot #: C0E130194

Frank Johnson

Memphis Depot

SEVERN TRENT LABORATORIES, INC.

Dave Dunlap
Project Manager

May 25, 2000

CASE NARRATIVE
UXB International Inc.
Dunn Field

LOT # C0E130194

Sample Receiving:
Samples were received on May 13, 2000. The COC listed only one sample, although four sets of sample bottles were received. It was agreed with the client that the bottles were to be broken out as individual samples and labeled as the sample listed on the COC, with each sample having a suffix to differentiate between them.

Volatiles:
There were no problems associated with the analyses.

Semivolatiles:
There were no problems associated with the analyses.

Pesticides:
Several of the calibration verification standards had compounds outside of the ±15% difference criteria. The average % difference of all compounds in the calibration verification standards were within the ±15% difference criteria. Compounds exceeding these criteria that were not detected in the samples. The following table lists the calibration verifications and compounds outside of the ±15% difference criteria.

Column: RTX-CLP2			
Calibration Verification Date & Times	Affected Compound	% Difference	Average % Difference of All Compounds in Standard
5/19/00 @ 09:50/10:16	alpha-BHC gamma-BHC	-16.7 -19.8	11
5/19/00 @ 14:10/14:36	Tetrachloro-m-xylene alpha-BHC gamma-BHC heptachlor endrin	-16.3 -18.3 -20.6 -16.4 -15.1	13

Herbicides:
There were no problems associated with the analyses.

Metals:
There were no problems associated with the analyses.

TCLP Metals:
The serial dilution percent difference was outside control limits for barium. All associated results were flagged with an "E" qualifier.

CASE NARRATIVE
UXB International Inc.
Dunn Field

LOT # C0E130194

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

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METHODS SUMMARY

C0R130194

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
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

C0E130194

WO #	SAMPLE#	CLIENT SAMPLE ID	DATE
DD6A4	001	DF/S1/0133/SDC/001 A	05/12/00
DD6A5	002	DF/S1/0133/SDC/001 B	05/12/00
DD6A6	003	DF/S1/0133/SDC/001 C	05/12/00
DD6A7	004	DF/S1/0133/SDC/001 D	05/12/00

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.

[redacted]

Chain of Custody Record

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

Quanterra

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OUA-4124 QUANTIMS 34878

Client: GXB INT'L. INC.	Project Manager: FRANK JOHNSON	Date: 12 MAY 00	Chain Of Custody Number: 67179
Address: 6141 OLD POPLAR PIKE	Telephone Number (Area Code)/Fax Number: (901) 885-9595	Lab Number:	Page ____ of ____
City: MEMPHIS State: TN Zip Code: 38119	Site Contact: JIM THOREN		
Project Name: DUNN FIELD.	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No:			

Sample I D No and Description	Date	Time	Sample Type	Total Volume	Containers Type	Containers No.	Preservative	Condition on Receipt	Analysis: X FULTCLP(ARCL)	Analysis: X TOTALS 6010B
DF/S1/0133/SOC/001	5/12/00	1043	SOIL	4,8,32oz	GLASS	12	—		X	X

Special Instructions:

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months

Turn Around Time Required
☒ Normal ☐ Rush

QC Level
☐ I ☐ II ☐ III

Project Specific (Specify)

1 Relinquished By: Jim Thoren	Date: 5/12/00	Time: 1416	1 Received By: [signature]	Date: 5/13/00	Time: 1340
2. Relinquished By	Date	Time	2 Received By	Date	Time
3 Relinquished By	Date	Time	3. Received By	Date	Time

Comments:

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

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STL Pittsburgh

SBCCOM
Monitoring Branch Laboratory

CLEARANCE REPORT

May-12, 2000
Dunn Field, Memphis Defense Depot
Results for CWM Composite Soil Sample Analysis
Analyst: Shawn Heinlein

Sample#		1,4-Thioxane	1,4-Dithiane	TDG	Mustard	Lewisite
DF/S1/0133/SDC/001		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

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Cool r Receipt Form

STL Pittsburgh

Client: UBX Project: _____ Quote: _____

Cooler Rec'd & Opened for Temp. Check on: 5/13/00

Coolers Opened and Unpacked on: 5/13/00 By: _____ (Signature)

STL Pittsburgh Lot Number: COE 13097

	Yes	No
1. Were custody seals on the outside of the cooler?	✓	
If YES, how many and where? Quantity __ Location Rt		
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? Bubble Pad		
7. Were the samples chilled? (Record temperatures on reverse side.)	✓	
8. Were the samples appropriately preserved?	N/A	
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: (FEDEX) UPS CLIENT DROP-OFF OTHER AIRBORNE

Explain any discrepancies: _____

Level 2 Review _____

Was contacted on _____ by _____ to resolve discrepancies.

Cooler Rec ipt Form

STL Pittsburgh

P: Preserved

UP: Unpreserved

Sample ID	TMET PH<2	DMET PH<2	HG PH<2	NUT(1) PH<2	CN PH ≥12	OG TPHC PH<2	PHEN PH<2	SULF PH ≥12	TOC PH<2	TOX PH<2	VOA P/UP	hrdnss PH<2			

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

Comments: _____

_____

_____

Cooler Number	Temperature
	3°

Bottle Type	Lot Number*

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

FedEx

FedEx Tracking Number 821277365631

Form LD No 0200

1 Date 12/[illegible]

Sender's Name Jim Thoren Phone 901 745-4999

Company UXB

Address 6141 Old Poplar Pike

Dept./Floor/Suite/Room

City Memphis, State TN. ZIP 38119

2 Your Internal Billing Reference

3 To Recipient's Name Rusty Vicinie Phone 412 820-8380

Company Severn Trent

Address 450 William Pitt Way

We cannot deliver to P.O. boxes or P.O. ZIP codes. Dept./Floor/Suite/Room

To "HOLD" at FedEx location, print FedEx address here.

City Pittsburgh, State PA, ZIP 15238

821277365631

4a Express Package Service — Packages up to 150 lbs. Delivery commitment may be later in some areas.

- [X] FedEx Priority Overnight — Next business morning
- [ ] FedEx Standard Overnight — Next business afternoon
- [ ] FedEx First Overnight* — Earliest next business morning delivery to select locations
- [ ] FedEx 2Day* — Second business day
- [ ] FedEx Express Saver* — Third business day

* FedEx Letter Rate not available. Minimum charge: one-pound rate

4b Express Freight Service — Packages over 150 lbs. Delivery commitment may be later in some areas.

- [ ] FedEx 1Day Freight* — Next business day
- [ ] FedEx 2Day Freight — Second business day
- [ ] FedEx 3Day Freight — Third business day

* Call for Confirmation:

5 Packaging — * Declared value limit $500

- [ ] FedEx Letter*
- [ ] FedEx Pak*
- [X] Other Pkg — Includes FedEx Box, FedEx Tube, and customer pkg.

6 Special Handling

- [X] Saturday Delivery — Available for FedEx Priority Overnight and FedEx 2Day to select ZIP codes
- [ ] Sunday Delivery — Available for FedEx Priority Overnight 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 locations

Does this shipment contain dangerous goods? One box must be checked

- [ ] No
- [ ] Yes — As per attached Shipper's Declaration
- [ ] Yes — Shipper's Declaration not required
- [ ] Dry Ice — Dry Ice, 9, UN 1845 ____ x ____ kg

Dangerous Goods cannot be shipped in FedEx packaging.

- [ ] Cargo Aircraft Only

7 Payment Bill to: — Enter FedEx Acct. No. or Credit Card No. below.

- [X] Sender — Acct. No. in Section 1 will be billed
- [ ] Recipient
- [ ] Third Party
- [ ] Credit Card
- [ ] Cash/Check

- [ ] Obtain Recip. Acct. No.

Total Packages	Total Weight	Total Declared Value†	Total Charges
1	57	$ .00	Credit Card Auth. $

†Our liability is limited to $100 unless you declare a higher value. See back for details.

8 Release Signature — Sign to authorize delivery without obtaining signature.

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

Questions? Call 1-800-Go-FedEx® (800-463-3339)

Visit our Web site at www.fedex.com

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DATA SUMMARY PACKAGE

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GC/MS VOLATILE SUMMARY

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

Matrix: (soil/water) SOLID Lab Sample ID:C0E130194 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/13/00
Work Order: DD6A4101 Date Extracted:05/17/00
Dilution factor: 1 Date Analyzed: 05/17/00
Moisture %:10

QC Batch: 0138262

Client Sample Id: DF/S1/0133/SDC/001 A

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**	**0.027**	**J**
56-23-5	Carbon tetrachloride	0.050	U
108-90-7	Chlorobenzene	0.050	U
67-66-3	Chloroform	0.050	U
107-06-2	1,2-Dichloroethane	0.050	U
75-35-4	1,1-Dichloroethene	0.050	U
127-18-4	Tetrachloroethene	0.050	U
79-01-6	Trichloroethene	0.050	U
75-01-4	Vinyl chloride	0.050	U

UXB INTERNATIONAL
MATRIX SPIKE COMPOUNDS

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

Matrix: (soil/water) SOLID Lab Sample ID:C0E130194 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/13/00
Work Order: DD6A410P Date Extracted:05/17/00
Dilution factor: 1 Date Analyzed: 05/17/00
Moisture %:10

QC Batch: 0138262

Client Sample Id: DF/S1/0133/SDC/001 A

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) mg/L	Q
71-43-2	Benzene	0.544	
78-93-3	2-Butanone	0.532	
56-23-5	Carbon tetrachloride	0.563	
108-90-7	Chlorobenzene	0.546	
67-66-3	Chloroform	0.536	
107-06-2	1,2-Dichloroethane	0.552	
75-35-4	1,1-Dichloroethene	0.518	
127-18-4	Tetrachloroethene	0.555	
79-01-6	Trichloroethene	0.545	
75-01-4	Vinyl chloride	0.635	

FORM I

UXB INTERNATIONAL
MATRIX SPIKE DUPLICATE COMPOUNDS

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

Matrix: (soil/water) SOLID Lab Sample ID: C0E130194 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/13/00
Work Order: DD6A410Q Date Extracted: 05/17/00
Dilution factor: 1 Date Analyzed: 05/17/00
Moisture %: 10

QC Batch: 0138262

Client Sample Id: DF/S1/0133/SDC/001 A

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) mg/L	Q
71-43-2	Benzene	0.552	
78-93-3	2-Butanone	0.526	
56-23-5	Carbon tetrachloride	0.571	
108-90-7	Chlorobenzene	0.550	
67-66-3	Chloroform	0.541	
107-06-2	1,2-Dichloroethane	0.561	
75-35-4	1,1-Dichloroethene	0.522	
127-18-4	Tetrachloroethene	0.567	
79-01-6	Trichloroethene	0.551	
75-01-4	Vinyl chloride	0.638	

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

Matrix: (soil/water) SOLID Lab Sample ID:C0E130194 002
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/13/00
Work Order: DD6A5101 Date Extracted:05/17/00
Dilution factor: 1 Date Analyzed: 05/17/00
Moisture %:8.6

QC Batch: 0138262

Client Sample Id: DF/S1/0133/SDC/001 B

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**	**0.027**	**J**
56-23-5	Carbon tetrachloride	0.050	U
108-90-7	Chlorobenzene	0.050	U
67-66-3	Chloroform	0.050	U
107-06-2	1,2-Dichloroethane	0.050	U
75-35-4	1,1-Dichloroethene	0.050	U
127-18-4	Tetrachloroethene	0.050	U
79-01-6	Trichloroethene	0.050	U
75-01-4	Vinyl chloride	0.050	U

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

Matrix: (soil/water) SOLID Lab Sample ID:C0E130194 003
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/13/00
Work Order: DD6A6101 Date Extracted:05/17/00
Dilution factor: 1 Date Analyzed: 05/17/00
Moisture %:10

QC Batch: 0138262

Client Sample Id: DF/S1/0133/SDC/001 C

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	0.023	J
56-23-5	Carbon tetrachloride	0.050	U
108-90-7	Chlorobenzene	0.050	U
67-66-3	Chloroform	0.050	U
107-06-2	1,2-Dichloroethane	0.050	U
75-35-4	1,1-Dichloroethene	0.050	U
127-18-4	Tetrachloroethene	0.050	U
79-01-6	Trichloroethene	0.050	U
75-01-4	Vinyl chloride	0.050	U

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

Matrix: (soil/water) SOLID Lab Sample ID:C0E130194 004
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/13/00
Work Order: DD6A7101 Date Extracted:05/17/00
Dilution factor: 1 Date Analyzed: 05/17/00
Moisture %:11

QC Batch: 0138262

Client Sample Id: DF/S1/0133/SDC/001 D

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**	**0.039**	**J**
56-23-5	Carbon tetrachloride	0.050	U
108-90-7	Chlorobenzene	0.050	U
67-66-3	Chloroform	0.050	U
107-06-2	1,2-Dichloroethane	0.050	U
75-35-4	1,1-Dichloroethene	0.050	U
127-18-4	Tetrachloroethene	0.050	U
79-01-6	Trichloroethene	0.050	U
75-01-4	Vinyl chloride	0.050	U

UXB INTERNATIONAL
CHECK SAMPLE COMPOUNDS

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

Matrix: (soil/water) SOLID Lab Sample ID:C0E170000 262
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/13/00
Work Order: DDA08101 Date Extracted:05/17/00
Dilution factor: 1 Date Analyzed: 05/17/00
Moisture %:NA

QC Batch: 0138262

Client Sample Id: CHECK SAMPLE

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) mg/L	Q
71-43-2	Benzene	0.546	
78-93-3	2-Butanone	0.503	
56-23-5	Carbon tetrachloride	0.567	
108-90-7	Chlorobenzene	0.543	
67-66-3	Chloroform	0.540	
107-06-2	1,2-Dichloroethane	0.552	
75-35-4	1,1-Dichloroethene	0.510	
127-18-4	Tetrachloroethene	0.566	
79-01-6	Trichloroethene	0.545	
75-01-4	Vinyl chloride	0.627	

FORM I

SW846 8260B SURROGATE RECOVERY

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

Lab Code: QESPIT QESSDG:

Lot #: C0E130194

	CLIENT ID.	SRG01	SRG02	SRG03	SRG04	TOT OUT
01	DF/S1/0133/SDC/001 A	110	103	93	103	00
02	DF/S1/0133/SDC/001 B	108	99	89	104	00
03	DF/S1/0133/SDC/001 C	106	106	93	102	00
04	DF/S1/0133/SDC/001 D	119	96	91	107	00
05	METHOD BLK. DD95L101	104	100	90	98	00
06	LCS DDA08101	103	104	103	102	00
07	DF/S1/0133/SDC/001 A D	103	103	102	102	00
08	DF/S1/0133/SDC/001 A S	102	104	102	103	00

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

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

FORM II

SW846 8260B METHOD BLANK SUMMARY

BLANK WORKORDER NO.: DD95L101

Lab Name: Severn Trent Laboratories, Inc.

Lab Code: QESPIT

SDG Number:

Lab File ID: 4051703.d

Lot Number: C0E130194

Date Analyzed: 05/17/00

Time Analyzed: 14:39

Matrix: SOLID

Date Extracted: 05/17/00

GC Column: RTX-624 ID: .18

Extraction Method: 1311/5030B

Instrument ID: HP4

Level: (low/med) LOW

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

	CLIENT ID.	SAMPLE WORK ORDER #	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	CHECK SAMPLE	DDA08101 C	4051707.d	05/17/00	17:04
02	DF-001	DD6A410P S	4051705.d	05/17/00	16:07
03	DF-001	DD6A410Q D	4051706.d	05/17/00	16:35
04	DF-001	DD6A4101	4051708.d	05/17/00	17:39
05	S1-001	DD6A5101	4051709.d	05/17/00	18:08
06	0133/001	DD6A6101	4051712.d	05/17/00	19:29
07	SDC/001	DD6A7101	4051711.d	05/17/00	19:00
08					
09					
10					
11					
12					
13					
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30					

COMMENTS:

FORM IV

657 22 SW846 8260B CHECK SAMPLE RECOVERY

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

Lab Code: QESPIT SDG No:

Lot #: C0E170000 WO #: DDA08101
BATCH: 0138262

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	% REC	QC LIMITS REC	QUAL
Benzene	0.500	0.546	109	79 - 116	
2-Butanone	0.500	0.503	101	35 - 156	
Carbon tetrachloride	0.500	0.567	113	72 - 133	
Chlorobenzene	0.500	0.543	109	81 - 115	
Chloroform	0.500	0.540	108	81 - 122	
1,2-Dichloroethane	0.500	0.552	110	73 - 127	
1,1-Dichloroethene	0.500	0.510	102	65 - 119	
Tetrachloroethene	0.500	0.566	113	78 - 131	
Trichloroethene	0.500	0.545	109	80 - 122	
Vinyl chloride	0.500	0.627	125	53 - 134	

NOTES(S):

* Values outside of QC limits

Spike Recovery: 0 out of 10 outside limits

COMMENTS:

FORM III

SW846 8260B MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

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

Lab Code: QESPIT SDG No:

Matrix Spike ID: DF/S1/0133/SDC/001 A Level: (low/med) LOW

Lot #: C0E130194 WO #: DD6A410P
BATCH: 0138262

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	MS CONCENT. (mg/L)	MS % REC	LIMITS REC	QUAL
Benzene	0.500	ND	0.544	109	73 - 123	
2-Butanone	0.500	0.027	0.532	101	10 - 151	
Carbon tetrachloride	0.500	ND	0.563	113	61 - 143	
Chlorobenzene	0.500	ND	0.546	109	70 - 122	
Chloroform	0.500	ND	0.536	107	65 - 131	
1,2-Dichloroethane	0.500	ND	0.552	110	67 - 132	
1,1-Dichloroethene	0.500	ND	0.518	104	57 - 138	
Tetrachloroethene	0.500	ND	0.555	111	70 - 130	
Trichloroethene	0.500	ND	0.545	109	58 - 141	
Vinyl chloride	0.500	ND	0.635	127	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:

FORM III

SW846 8260B MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

657 24

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

Lab Code: QESPIT SDG No:

Matrix Spike ID: DF/S1/0133/SDC/001 A Level: (low/med) LOW

Lot #: C0E130194 WO #: DD6A410Q
BATCH: 0138262

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENT. (mg/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	QUAL
Benzene	0.500	0.552	110	1.5	20	73 - 123	
2-Butanone	0.500	0.526	100	1.1	34	10 - 151	
Carbon tetrachloride	0.500	0.571	114	1.5	20	61 - 143	
Chlorobenzene	0.500	0.550	110	0.69	20	70 - 122	
Chloroform	0.500	0.541	108	0.79	20	65 - 131	
1,2-Dichloroethane	0.500	0.561	112	1.6	20	67 - 132	
1,1-Dichloroethene	0.500	0.522	104	0.78	20	57 - 138	
Tetrachloroethene	0.500	0.567	113	2.2	20	70 - 130	
Trichloroethene	0.500	0.551	110	1.1	20	58 - 141	
Vinyl chloride	0.500	0.638	128	0.50	20	51 - 133	

NOTES(S):

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

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

COMMENTS:

FORM III

SW846 8260B METHOD BLANK SUMMARY

BLANK WORKORDER NO. DD95L101

Lab Name: Severn Trent Laboratories, Inc.

Lab Code: QESPIT SDG Number:

Lab File ID: 4051703.d Lot Number: C0E130194

Date Analyzed: 05/17/00 Time Analyzed: 14:39

Matrix: SOLID Date Extracted:05/17/00

GC Column: RTX-624 ID: .18 Extraction Method: 1311/5030B

Instrument ID: HP4 Level:(low/med) LOW

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

	CLIENT ID.	SAMPLE WORK ORDER #	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	CHECK SAMPLE	DDA08101 C	4051707.d	05/17/00	17:04
02	DF/S1/0133/SDC/001 A	DD6A410P S	4051705.d	05/17/00	16:07
03	DF/S1/0133/SDC/001 A	DD6A410Q D	4051706.d	05/17/00	16:35
04	DF/S1/0133/SDC/001 A	DD6A4101	4051708.d	05/17/00	17:39
05	DF/S1/0133/SDC/001 B	DD6A5101	4051709.d	05/17/00	18:08
06	DF/S1/0133/SDC/001 C	DD6A6101	4051712.d	05/17/00	19:29
07	DF/S1/0133/SDC/001 D	DD6A7101	4051711.d	05/17/00	19:00
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COMMENTS:

FORM IV

657 26

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

Matrix: (soil/water) SOLID Lab Sample ID:C0E170000 101
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/13/00
Work Order: DD95L101 Date Extracted:05/17/00
Dilution factor: 1 Date Analyzed: 05/17/00
Moisture %:NA

QC Batch: 0138262

Client Sample Id: INTRA-LAB BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) mg/L	Q
71-43-2	Benzene	0.050	U
78-93-3	2-Butanone	0.050	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

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: STL-PITTSBURGH Contract:

Lab Code: STLPIT Case No.: SAS No.: 40325 SDG No.: C0E130194

Lab File ID (Standard): CC40517 Date Analyzed: 05/17/00

Instrument ID: HP4 Time Analyzed: 1108

GC Column: DB 624 ID: 0.18 (mm) Heated Purge: (Y/N) N

	EPA SAMPLE NO.	IS1(CBZ) AREA #	IS1(CBZ) RT #	IS2(DCB) AREA #	IS2(DCB) RT #	IS3 AREA #	IS3 RT #
	12 HOUR STD	149779	10.12	227254	12.46	660677	6.99
	UPPER LIMIT	299558	10.32	454508	12.66	1321354	7.19
	LOWER LIMIT	74890	9.92	113627	12.26	330338	6.79
01	INTRA-LAB BL	154881	10.12	210752	12.46	792190	7.01
02	DF-001 A MS	159002	10.12	229690	12.46	736767	7.00
03	DF-001 A MSD	161550	10.13	232577	12.46	739353	7.00
04	INTRA-LAB CH	163960	10.13	229414	12.46	743134	7.00
05	~~DF-001~~ A	131368	10.13	173160	12.46	666337	7.01
06	~~S1-001~~ B	135805	10.13	180580	12.46	677588	7.01
07	~~SDC/001~~ D	123751	10.13	170776	12.46	585666	7.01
08	0133/~~001~~ C	142009	10.13	196867	12.46	736808	7.01
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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

UXB INTERNATIONAL

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

Matrix: (soil/water) SOLID Lab Sample ID: C0E130194 001
Method: SW846 8270C
Base/Neutrals and Acids (8270C)

Sample WT/Vol: 200 / mL Date Received: 05/13/00
Work Order: DD6A4102 Date Extracted: 05/18/00
Dilution factor. 1 Date Analyzed: 05/22/00
Moisture %: 10

QC Batch: 0140269

Client Sample Id: DF/S1/0133/SDC/001 A

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

UXB INTERNATIONAL
MATRIX SPIKE COMPOUNDS

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

Matrix: (soil/water) SOLID Lab Sample ID:C0E130194 001
Method: SW846 8270C
Base/Neutrals and Acids (8270C)

Sample WT/Vol 200 / mL Date Received: 05/13/00
Work Order: DD6A411G Date Extracted:05/18/00
Dilution factor: 1 Date Analyzed: 05/22/00
Moisture %:10

QC Batch: 0140269

Client Sample Id: DF/S1/0133/SDC/001 A

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) mg/L	Q
106-46-7	1,4-Dichlorobenzene	0.127	
121-14-2	2,4-Dinitrotoluene	0.118	
118-74-1	Hexachlorobenzene	0.174	
87-68-3	Hexachlorobutadiene	0.130	
67-72-1	Hexachloroethane	0.118	
98-95-3	Nitrobenzene	0.131	
87-86-5	Pentachlorophenol	0.138	
110-86-1	Pyridine	0.157	
95-95-4	2,4,5-Trichlorophenol	0.142	
88-06-2	2,4,6-Trichlorophenol	0.140	
1319-77-3	Cresols (total)	0.375	

UXB INTERNATIONAL
MATRIX SPIKE DUPLICATE COMPOUNDS

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

Matrix: (soil/water) SOLID Lab Sample ID: C0E130194 001
Method: SW846 8270C
Base/Neutrals and Acids (8270C)

Sample WT/Vol: 200 / mL Date Received: 05/13/00
Work Order: DD6A411H Date Extracted: 05/18/00
Dilution factor: 1 Date Analyzed: 05/22/00
Moisture %.10

QC Batch: 0140269

Client Sample Id: DF/S1/0133/SDC/001 A

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) mg/L	Q
106-46-7	1,4-Dichlorobenzene	0.131	
121-14-2	2,4-Dinitrotoluene	0.120	
118-74-1	Hexachlorobenzene	0.181	
87-68-3	Hexachlorobutadiene	0.135	
67-72-1	Hexachloroethane	0.122	
98-95-3	Nitrobenzene	0.136	
87-86-5	Pentachlorophenol	0.143	
110-86-1	Pyridine	0.164	
95-95-4	2,4,5-Trichlorophenol	0.146	
88-06-2	2,4,6-Trichlorophenol	0.143	
1319-77-3	Cresols (total)	0.391	

FORM I

UXB INTERNATIONAL

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

Matrix: (soil/water) SOLID Lab Sample ID:C0E130194 002
Method: SW846 8270C
Base/Neutrals and Acids (8270C)

Sample WT/Vol: 200 / mL Date Received: 05/13/00
Work Order: DD6A5102 Date Extracted:05/18/00
Dilution factor: 1 Date Analyzed: 05/22/00
Moisture %:8.6

QC Batch: 0140269

Client Sample Id: DF/S1/0133/SDC/001 B

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) mg/L	Q
106-46-7	1,4-Dichlorobenzene	0.050	U
121-14-2	2,4-Dinitrotoluene	0.050	U
118-74-1	Hexachlorobenzene	0.050	U
87-68-3	Hexachlorobutadiene	0 050	U
67-72-1	Hexachloroethane	0.050	U
98-95-3	Nitrobenzene	0.050	U
87-86-5	Pentachlorophenol	0.25	U
110-86-1	Pyridine	0.10	U
95-95-4	2,4,5-Trichlorophenol	0.050	U
88-06-2	2,4,6-Trichlorophenol	0.050	U
1319-77-3	Cresols (total)	0.050	U

UXB INTERNATIONAL

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

Matrix: (soil/water) SOLID Lab Sample ID: C0E130194 003
Method: SW846 8270C
Base/Neutrals and Acids (8270C)

Sample WT/Vol: 200 / mL Date Received: 05/13/00
Work Order: DD6A6102 Date Extracted: 05/18/00
Dilution factor: 1 Date Analyzed: 05/22/00
Moisture %: 10

QC Batch: 0140269

Client Sample Id: DF/S1/0133/SDC/001 C

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

UXB INTERNATIONAL

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

Matrix: (soil/water) SOLID Lab Sample ID:C0E130194 004
Method: SW846 8270C
Base/Neutrals and Acids (8270C)

Sample WT/Vol: 200 / mL Date Received: 05/13/00
Work Order: DD6A7102 Date Extracted:05/18/00
Dilution factor: 1 Date Analyzed: 05/22/00
Moisture %:11

QC Batch: 0140269

Client Sample Id: DF/S1/0133/SDC/001 D

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

UXB INTERNATIONAL
CHECK SAMPLE COMPOUNDS

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

Matrix: (soil/water) SOLID Lab Sample ID.C0E190000 269
Method: SW846 8270C
Base/Neutrals and Acids (8270C)

Sample WT/Vol: 200 / mL Date Received: 05/13/00
Work Order: DDF2D102 Date Extracted:05/18/00
Dilution factor: 1 Date Analyzed: 05/22/00
Moisture %: NA

QC Batch: 0140269

Client Sample Id: CHECK SAMPLE

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) mg/L	Q
106-46-7	1,4-Dichlorobenzene	0.173	
121-14-2	2,4-Dinitrotoluene	0.136	
118-74-1	Hexachlorobenzene	0.191	
87-68-3	Hexachlorobutadiene	0.179	
67-72-1	Hexachloroethane	0.170	
98-95-3	Nitrobenzene	0.168	
87-86-5	Pentachlorophenol	0.162	
110-86-1	Pyridine	0.272	
95-95-4	2,4,5-Trichlorophenol	0.171	
88-06-2	2,4,6-Trichlorophenol	0.173	
1319-77-3	Cresols (total)	0.489	

SW846 8270C SURROGATE RECOVERY

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

Lab Code: QESPIT QESSDG:

Lot #: C0E130194

	CLIENT ID.	SRG01	SRG02	SRG03	SRG04	SRG05	SRG06	TOT OUT
01	DF/S1/0133/SDC/001 A	51	56	78	45	47	56	00
02	DF/S1/0133/SDC/001 B	55	57	75	49	51	59	00
03	DF/S1/0133/SDC/001 C	47	46	66	42	45	50	00
04	DF/S1/0133/SDC/001 D	53	54	67	48	51	59	00
05	METHOD BLK. DDF2D101	64	68	67	63	66	66	00
06	LCS DDF2D102	65	72	69	61	63	67	00
07	DF/S1/0133/SDC/001 A D	54	58	73	47	51	63	00
08	DF/S1/0133/SDC/001 A S	52	57	71	46	49	60	00

SURROGATES		QC LIMITS
SRG01	= Nitrobenzene-d5	(32-112)
SRG02	= 2-Fluorobiphenyl	(30-110)
SRG03	= Terphenyl-d14	(10-144)
SRG04	= 2-Fluorophenol	(13-110)
SRG05	= Phenol-d5	(10-113)
SRG06	= 2,4,6-Tribromophenol	(21-122)

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

FORM II

SW846 8270C CHECK SAMPLE RECOVERY

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

Lab Code: QESPIT SDG No:

Lot #: C0E190000 WO #: DDF2D102
BATCH: 0140269

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	% REC	QC LIMITS REC	QUAL
1,4-Dichlorobenzene	0.250	0.173	69	28- 110	
2,4-Dinitrotoluene	0.250	0.136	54	47- 131	
Hexachlorobenzene	0.250	0.191	77	57- 128	
Hexachlorobutadiene	0.250	0.179	72	36- 116	
Hexachloroethane	0.250	0.170	68	30- 110	
Nitrobenzene	0.250	0.168	67	45- 130	
Pentachlorophenol	0.250	0.162	65	10- 140	
Pyridine	0.250	0.272	109	10- 148	
2,4,5-Trichlorophenol	0.250	0.171	69	41- 125	
2,4,6-Trichlorophenol	0.250	0.173	69	46- 135	
Cresols (total)	0.750	0.489	65	29- 144	

NOTES(S):

* Values outside of QC limits

Spike Recovery: 0 out of 11 outside limits

COMMENTS:

FORM III

657 38 SW846 8270C MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

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

Lab Code: QESPIT SDG No:

Matrix Spike ID. DF/S1/0133/SDC/001 A Level:(low/med) LOW

Lot #: C0E130194 WO #: DD6A411G
BATCH: 0140269

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	MS CONCENT. (mg/L)	MS % REC	LIMITS REC	QUAL
1,4-Dichlorobenzene	0.250	ND	0.127	51	18 - 110	
2,4-Dinitrotoluene	0.250	ND	0.118	47	31 - 131	
Hexachlorobenzene	0.250	ND	0.174	70	36 - 132	
Hexachlorobutadiene	0.250	ND	0 130	52	18 - 116	
Hexachloroethane	0.250	ND	0 118	47	18 - 110	
Nitrobenzene	0.250	ND	0.131	52	10 - 211	
Pentachlorophenol	0.250	ND	0.138	55	10 - 140	
Pyridine	0.250	ND	0.157	63	10 - 148	
2,4,5-Trichlorophenol	0.250	ND	0.142	57	24 - 143	
2,4,6-Trichlorophenol	0.250	ND	0.140	56	36 - 135	
Cresols (total)	0.750	ND	0.375	50	25 - 144	

NOTES(S):

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

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

COMMENTS:

FORM III

SW846 8270C MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

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

Lab Code: QESPIT SDG No:

Matrix Spike ID: DF/S1/0133/SDC/001 A Level:(low/med) LOW

Lot #: C0E130194 WO #. DD6A411H
BATCH: 0140269

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENT. (mg/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	QUAL
1,4-Dichlorobenzene	0.250	0.131	53	3.2	36	18- 110	
2,4-Dinitrotoluene	0.250	0.120	48	1.4	32	31- 131	
Hexachlorobenzene	0.250	0.181	72	4.1	22	36- 132	
Hexachlorobutadiene	0.250	0.135	54	3.6	32	18- 116	
Hexachloroethane	0.250	0.122	49	3.4	33	18- 110	
Nitrobenzene	0.250	0.136	54	3.8	50	10- 211	
Pentachlorophenol	0.250	0.143	57	3.6	56	10- 140	
Pyridine	0.250	0.164	66	4.5	65	10- 148	
2,4,5-Trichlorophenol	0.250	0.146	58	2.4	22	24- 143	
2,4,6-Trichlorophenol	0.250	0.143	57	1.7	27	36- 135	
Cresols (total)	0.750	0.391	52	4.2	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:

FORM III

SW846 8270C METHOD BLANK SUMMARY

BLANK WORKORDER NO.: DDF2D101

Lab Name: Severn Trent Laboratories, Inc.

Lab Code: QESPIT

SDG Number:

Lab File ID S0522006.

Lot Number: C0E130194

Date Analyzed: 05/22/00

Time Analyzed: 12:05

Matrix: SOLID

Date Extracted: 05/18/00

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	DDF2D102 C	S0522007.	05/22/00	12:41
02	DF/S1/0133/SDC/001 A	DD6A4102	S0522008.	05/22/00	13:17
03	DF/S1/0133/SDC/001 A	DD6A411G S	S0522009.	05/22/00	13:53
04	DF/S1/0133/SDC/001 A	DD6A411H D	S0522010.	05/22/00	14:29
05	DF/S1/0133/SDC/001 B	DD6A5102	S0522011.	05/22/00	15:05
06	DF/S1/0133/SDC/001 C	DD6A6102	S0522012.	05/22/00	15:41
07	DF/S1/0133/SDC/001 D	DD6A7102	S0522013.	05/22/00	16:17
08					
09					
10					
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COMMENTS:

FORM IV

UXB INTERNATIONAL
METHOD BLANK COMPOUNDS

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

Matrix: (soil/water) SOLID Lab Sample ID: C0E190000 269
Method. SW846 8270C
Base/Neutrals and Acids (8270C)

Sample WT/Vol: 200 / mL Date Received: 05/13/00
Work Order: DDF2D101 Date Extracted: 05/18/00
Dilution factor: 1 Date Analyzed: 05/22/00
Moisture %: NA

QC Batch: 0140269

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

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: C0E130194

Lab File ID (Standard): S0522CCC Date Analyzed: 05/22/00

Instrument ID: 71 Time Analyzed: 1127

		IS1(DCB) AREA	#	RT	#	IS2(NPT) AREA	#	RT	#	IS3(ANT) AREA	#	RT	#
	12 HOUR STD	145518		5.03		535078		6.56		265064		9.60	
	UPPER LIMIT	291036		5.53		1070156		7.06		530128		10.10	
	LOWER LIMIT	72759		4.53		267539		6.06		132532		9.10	
	CLIENT SAMPLE NO.												
01	INTRA-LAB BL	161868		5.03		630828		6.57		338411		9.60	
02	INTRA-LAB CH	161298		5.04		635000		6.56		326610		9.60	
03	DF/S1/0133/S	171047		5.03		654778		6.56		330853		9.60	
04	DF/S1/0133/S MS	165477		5.03		633807		6.57		317069		9.60	
05	DF/S1/0133/S MSD	165720		5.03		635621		6.57		322693		9.60	
06	DF/S1/0133/S	162741		5.03		618658		6.56		312452		9.60	
07	DF/S1/0133/S	171377		5.03		653524		6.56		328496		9.59	
08	DF/S1/0133/S	155705		5.03		593533		6.56		302566		9.59	
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 VIII SV

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: C0E130194

Lab File ID (Standard): S0522CCC Date Analyzed: 05/22/00

Instrument ID: 71 Time Analyzed: 1127

		IS4 (PHN) AREA #		RT #	IS5 (CRY) AREA #		RT #	IS6 (PRY) AREA #		RT #
	12 HOUR STD	427212		12.90	446724		19.53	599590		22.89
	UPPER LIMIT	854424		13.40	893448		20.03	1199180		23.39
	LOWER LIMIT	213606		12.40	223362		19.03	299795		22.39
	CLIENT SAMPLE NO.									
01	INTRA-LAB BL	564305		12.90	527745		19.53	648566		22.89
02	INTRA-LAB CH	529319		12.90	491727		19.52	616566		22.89
03	DF/S1/0133/S	540847		12.90	508153		19.53	598482		22.89
04	DF/S1/0133/S	528651	MS	12.90	549885		19.53	656369		22.90
05	DF/S1/0133/S	522771	MSD	12.90	519636		19.53	634789		22.90
06	DF/S1/0133/S	506789		12.89	498685		19.52	606512		22.88
07	DF/S1/0133/S	524299		12.89	498960		19.52	611014		22.88
08	DF/S1/0133/S	486337		12.89	495522		19.52	603824		22.88
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

UXB INTERNATIONAL

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

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

Lab Sample ID.C0E130194 001

Sample WT/Vol: 100 / mL
Work Order: DD6A4103
Dilution factor 1

Date Received: 05/13/00
Date Extracted:05/18/00
Date Analyzed: 05/19/00

QC Batch· 0139460

Client Sample Id: DF/S1/0133/SDC/001 A

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~~ WATER
Method: SW846 8081A
Pesticides (8081A)

Lab Sample ID:C0E130194 001

Sample WT/Vol: 100 / mL
Work Order: DD6A411A
Dilution factor: 1

Date Received: 05/13/00
Date Extracted:05/18/00
Date Analyzed: 05/19/00

QC Batch: 0139460

Client Sample Id: DF/S1/0133/SDC/001 A

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) mg/L	Q
72-20-8	Endrin	0.00212	
76-44-8	Heptachlor	0 00236	
1024-57-3	Heptachlor epoxide	0.00201	
58-89-9	Lindane	0.00172	
72-43-5	Methoxychlor	0.00289	

UXB INTERNATIONAL
MATRIX SPIKE DUPLICATE COMPOUNDS

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

Matrix: (soil/water) ~~SOLID~~ WATER Lab Sample ID:C0E130194 001
Method. SW846 8081A LMS/SD
Pesticides (8081A)

Sample WT/Vol: 100 / mL Date Received: 05/13/00
Work Order: DD6A411C Date Extracted:05/18/00
Dilution factor: 1 Date Analyzed: 05/19/00

QC Batch: 0139460

Client Sample Id: DF/S1/0133/SDC/001 A

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) mg/L	Q
72-20-8	Endrin	0.00213	
76-44-8	Heptachlor	0.00238	
1024-57-3	Heptachlor epoxide	0.00199	
58-89-9	Lindane	0.00172	
72-43-5	Methoxychlor	0.00291	

UXB INTERNATIONAL

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

Matrix: (soil/water) ~~SOLID~~ WATER Lab Sample ID:C0E130194 002
Method: SW846 8081A LMS/23/00
Pesticides (8081A)

Sample WT/Vol. 100 / mL Date Received: 05/13/00
Work Order: DD6A5103 Date Extracted.05/18/00
Dilution factor: 1 Date Analyzed: 05/19/00

QC Batch: 0139460

Client Sample Id: DF/S1/0133/SDC/001 B

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

Lab Name·Severn Trent Laboratories, Inc SDG Number:

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

Lab Sample ID:C0E130194 003

Sample WT/Vol: 100 / mL
Work Order: DD6A6103
Dilution factor: 1

Date Received: 05/13/00
Date Extracted:05/18/00
Date Analyzed· 05/19/00

QC Batch: 0139460

Client Sample Id: DF/S1/0133/SDC/001 C

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

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

Matrix (soil/water) ~~SOLID~~ WATER Lab Sample ID.C0E130194 004
Method: SW846 8081A
Pesticides (8081A)

Sample WT/Vol: 100 / mL
Work Order: DD6A7103
Dilution factor: 1

Date Received: 05/13/00
Date Extracted:05/18/00
Date Analyzed 05/19/00

QC Batch: 0139460

Client Sample Id: DF/S1/0133/SDC/001 D

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

UXB INTERNATIONAL
CHECK SAMPLE COMPOUNDS

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

Matrix: (soil/water) ~~SOLID WATER~~ Lab Sample ID:C0E180000 460
Method: SW846 8081A ws 5/23 bo
Pesticides (8081A)

Sample WT/Vol: 100 / mL Date Received: 05/13/00
Work Order: DDE2E102 Date Extracted:05/18/00
Dilution factor: 1 Date Analyzed: 05/19/00

QC Batch: 0139460

Client Sample Id: CHECK SAMPLE

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) mg/L	Q
72-20-8	Endrin	0.00219	
76-44-8	Heptachlor	0.00212	
1024-57-3	Heptachlor epoxide	0.00219	
58-89-9	Lindane	0.00189	
72-43-5	Methoxychlor	0.00277	

FORM I

SW846 8081A SURROGATE RECOVERY

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

Lab Code: QESPIT QESSDG:

Lot #: C0E130194

	CLIENT ID.	SRG01	SRG02	TOT OUT
01	DF/S1/0133/SDC/001 A	92	80	00
02	DF/S1/0133/SDC/001 B	93	82	00
03	DF/S1/0133/SDC/001 C	93	82	00
04	DF/S1/0133/SDC/001 D	97	80	00
05	METHOD BLK. DDE2E101	95	58	00
06	LCS DDE2E102	97	91	00
07	DF/S1/0133/SDC/001 A D	95	70	00
08	DF/S1/0133/SDC/001 A S	97	69	00

SURROGATES		QC LIMITS
SRG01	= Decachlorobiphenyl	(10-147)
SRG02	= Tetrachloro-m-xylene	(39-130)

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

FORM II

SW846 8081A CHECK SAMPLE RECOVERY

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

Lab Code: QESPIT SDG No:

Lot #: C0E180000 WO #: DDE2E102
BATCH: 0139460

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	% REC	QC LIMITS REC	QUAL
Lindane	0.00250	0.00189	75	49- 137	
Heptachlor	0.00250	0.00212	85	57- 124	
Heptachlor epoxide	0.00250	0.00219	88	53- 135	
Endrin	0.00250	0.00219	88	46- 137	
Methoxychlor	0.00250	0.00277	111	12- 154	

NOTES(S):

* Values outside of QC limits

Spike Recovery: 0 out of 5 outside limits

COMMENTS:

FORM III

SW846 8081A MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

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

Lab Code: QESPIT SDG No:

Matrix Spike ID: DF/S1/0133/SDC/001 A Level: (low/med) LOW

Lot #: C0E130194 WO #: DD6A411A
BATCH: 0139460

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	MS CONCENT. (mg/L)	MS % REC	LIMITS REC	QUAL
Lindane	0.00250	ND	0.00172	69	30 - 148	
Heptachlor	0.00250	ND	0.00236	94	25 - 135	
Heptachlor epoxide	0.00250	ND	0.00201	80	38 - 138	
Endrin	0.00250	ND	0.00212	85	28 - 148	
Methoxychlor	0.00250	ND	0.00289	116	13 - 154	

NOTES(S):

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

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

COMMENTS:

FORM III

SW846 8081A MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

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

Lab Code: QESPIT SDG No:

Matrix Spike ID: DF/S1/0133/SDC/001 A Level: (low/med) LOW

Lot #: C0E130194 WO #: DD6A411C
BATCH: 0139460

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENT. (mg/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	QUAL
Lindane	0.00250	0.00172	69	0.40	22	30 - 148	
Heptachlor	0.00250	0.00238	95	1.0	32	25 - 135	
Heptachlor epoxide	0.00250	0.00199	80	0.77	31	38 - 138	
Endrin	0.00250	0.00213	85	0.29	40	28 - 148	
Methoxychlor	0.00250	0.00291	117	0.78	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:

FORM III

4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PBLK

Lab Name: STL-PITTSBURGH Contract:

Lab Code: STLPIT Case No.: SAS No.: 40325 SDG No.: C0E130194

Lab Sample ID: DDE2E101 Lab File ID: C-A2372

Matrix (soil/water) WATER Extraction:(SepF/Cont/Sonc) SW1311

Sulfur Cleanup (Y/N) N Date Extracted: 05/18/00

Date Analyzed (1): 05/19/00 Date Analyzed (2): 05/19/00

Time Analyzed (1): 1318 Time Analyzed (2): 1318

Instrument ID (1): GC3 Instrument ID (2): GC3

GC Column (1): RTX-CLP ID: 0.53(mm) GC Column (2): RTX-CLP2 ID: 0.53(mm)

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

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	DF/S1/0133/S	DD6A4103	05/19/00	05/19/00
02	DF/S1/0133/S	DD6A411A	05/19/00	05/19/00
03	DF/S1/0133/S	DD6A411C	05/19/00	05/19/00
04	DF/S1/0133/S	DD6A5103	05/19/00	05/19/00
05	DF/S1/0133/S	DD6A6103	05/19/00	05/19/00
06	DF/S1/0133/S	DD6A7103	05/19/00	05/19/00
07	LCS	DDE2E102	05/19/00	05/19/00
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				

COMMENTS: _____

UXB INTERNATIONAL
METHOD BLANK COMPOUNDS

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

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

m 5/23/00

Lab Sample ID:C0E180000 460

Sample WT/Vol: 100 / mL
Work Order: DDE2E101
Dilution factor: 1

Date Received: 05/13/00
Date Extracted:05/18/00
Date Analyzed: 05/19/00

QC Batch: 0139460

Client Sample Id: INTRA-LAB BLANK

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

FORM I

HERBICIDE SUMMARY

UXB INTERNATIONAL

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

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

Lab Sample ID:C0E130194 001

Sample WT/Vol: 100 / mL
Work Order: DD6A4104
Dilution factor: 1
Moisture %:10

Date Received: 05/13/00
Date Extracted:05/18/00
Date Analyzed: 05/20/00

QC Batch: 0139489

Client Sample Id: DF/S1/0133/SDC/001 A

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

UXB INTERNATIONAL
MATRIX SPIKE COMPOUNDS

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

Matrix: (soil/water) ~~SOLID~~ WATER
Method: SW846 8151A um 5/22/00
Herbicides (8151A)

Lab Sample ID: C0E130194 001

Sample WT/Vol: 100 / mL
Work Order: DD6A411D
Dilution factor: 1
Moisture %: 10

Date Received: 05/13/00
Date Extracted: 05/18/00
Date Analyzed: 05/20/00

QC Batch: 0139489

Client Sample Id: DF/S1/0133/SDC/001 A

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) mg/L	Q
94-75-7	2,4-D	0.133	
93-72-1	2,4,5-TP (Silvex)	0.0322	

FORM I

UXB INTERNATIONAL
MATRIX SPIKE DUPLICATE COMPOUNDS

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

Matrix: (soil/water) ~~SOLID~~ WATER
Method: SW846 8151A um 5/22/00
Herbicides (8151A)

Lab Sample ID:C0E130194 001

Sample WT/Vol: 100 / mL
Work Order: DD6A411E
Dilution factor: 1
Moisture %:10

Date Received: 05/13/00
Date Extracted:05/18/00
Date Analyzed: 05/20/00

QC Batch: 0139489

Client Sample Id: DF/S1/0133/SDC/001 A

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) mg/L	Q
94-75-7	2,4-D	0.144	
93-72-1	2,4,5-TP (Silvex)	0.0339	

FORM I

657 62

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

Matrix: (soil/water) ~~SOLID~~ WATER um 5/22/00
Method: SW846 8151A
Herbicides (8151A)

Lab Sample ID:C0E130194 002

Sample WT/Vol: 100 / mL
Work Order: DD6A5104
Dilution factor: 1
Moisture %:8.6

Date Received: 05/13/00
Date Extracted:05/18/00
Date Analyzed: 05/20/00

QC Batch: 0139489

Client Sample Id: DF/S1/0133/SDC/001 B

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

UXB INTERNATIONAL

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

Matrix: (soil/water) ~~SOLID~~ WATER Lab Sample ID:C0E130194 003
Method: SW846 8151A unspiked
Herbicides (8151A)

Sample WT/Vol: 100 / mL Date Received: 05/13/00
Work Order: DD6A6104 Date Extracted:05/18/00
Dilution factor: 1 Date Analyzed: 05/20/00
Moisture %:10

QC Batch: 0139489

Client Sample Id: DF/S1/0133/SDC/001 C

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

UXB INTERNATIONAL

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

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

Lab Sample ID:C0E130194 004

Sample WT/Vol: 100 / mL
Work Order: DD6A7104
Dilution factor: 1
Moisture %:11

Date Received: 05/13/00
Date Extracted:05/18/00
Date Analyzed: 05/20/00

QC Batch: 0139489

Client Sample Id: DF/S1/0133/SDC/001 D

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

UXB INTERNATIONAL
CHECK SAMPLE COMPOUNDS

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

Matrix: (soil/water) ~~SOLID~~ WATER Lab Sample ID:C0E180000 489
Method: SW846 8151A
Herbicides (8151A) MS 5/22/00

Sample WT/Vol: 100 / mL
Work Order: DDE4W102
Dilution factor: 1
Moisture %:NA

Date Received: 05/13/00
Date Extracted:05/18/00
Date Analyzed: 05/20/00

QC Batch: 0139489

Client Sample Id: CHECK SAMPLE

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) mg/L	Q
94-75-7	2,4-D	0.133	
93-72-1	2,4,5-TP (Silvex)	0.0323	

FORM I

SW846 8151A SURROGATE RECOVERY

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

Lab Code: QESPIT QESSDG:

Lot #: C0E130194

	CLIENT ID.	SRG01	TOT OUT
01	DF/S1/0133/SDC/001 A	51	00
02	DF/S1/0133/SDC/001 B	57	00
03	DF/S1/0133/SDC/001 C	56	00
04	DF/S1/0133/SDC/001 D	66	00
05	METHOD BLK. DDE4W101	78	00
06	LCS DDE4W102	89	00
07	DF/S1/0133/SDC/001 A D	86	00
08	DF/S1/0133/SDC/001 A S	82	00

SURROGATES		QC LIMITS
SRG01	= DCAA	(42-125)

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

FORM II

SW846 8151A CHECK SAMPLE RECOVERY

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

Lab Code: QESPIT SDG No:

Lot #: C0E180000 WO #: DDE4W102
BATCH: 0139489

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	% REC	QC LIMITS REC	QUAL
2,4-D	0.160	0.133	83	28 - 136	
2,4,5-TP (Silvex)	0.0400	0.0323	81	50 - 128	

NOTES(S):

* Values outside of QC limits

Spike Recovery: 0 out of 2 outside limits

COMMENTS:

FORM III

657 68 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/S1/0133/SDC/001 A

Lot #: C0E130194 WO #: DD6A411D
BATCH: 0139489

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	MS CONCENT. (mg/L)	MS % REC	LIMITS REC	QUAL
2,4-D	0.160	ND	0.133	83	35- 133	
2,4,5-TP (Silvex)	0.0400	ND	0.0322	80	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

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

Lab Code: QESPIT SDG No:

Matrix Spike ID: DF/S1/0133/SDC/001 A

Lot #: C0E130194 WO #: DD6A411E
BATCH: 0139489

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENT. (mg/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	QUAL
2,4-D	0.160	0.144	90	8.4	20	35- 133	
2,4,5-TP (Silvex)	0.0400	0.0339	85	5.2	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

657 70 SW846 8151A METHOD BLANK SUMMARY

BLANK WORKORDER NO.: DDE4W101

Lab Name: Severn Trent Laboratories, Inc.

Lab Code: QESPIT

SDG Number:

Lab File ID: a-a20536.

Lot Number: C0E130194

Matrix: ~~SOLID~~ WATER
un filtered

Extraction Method:

Date Extracted: 05/18/00

Date Analyzed(1): 05/20/00

Date Analyzed(2): N/A

Time Analyzed(1): 14:27

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	DDE4W102 C	05/20/00	N/A
02	DF/S1/0133/SDC/001 A	DD6A4104	05/20/00	N/A
03	DF/S1/0133/SDC/001 A	DD6A411D S	05/20/00	N/A
04	DF/S1/0133/SDC/001 A	DD6A411E D	05/20/00	N/A
05	DF/S1/0133/SDC/001 B	DD6A5104	05/20/00	N/A
06	DF/S1/0133/SDC/001 C	DD6A6104	05/20/00	N/A
07	DF/S1/0133/SDC/001 D	DD6A7104	05/20/00	N/A
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

COMMENTS:

FORM IV

UXB INTERNATIONAL
METHOD BLANK COMPOUNDS

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

Matrix: (soil/water) ~~SOLID~~ WATER Lab Sample ID: C0E180000 489
Method: SW846 8151A
Herbicides (8151A) 5/22/00

Sample WT/Vol: 100 / mL
Work Order: DDE4W101
Dilution factor: 1
Moisture %: NA

Date Received: 05/13/00
Date Extracted: 05/18/00
Date Analyzed: 05/20/00

QC Batch: 0139489

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

FORM I

METALS SUMMARY

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: DD6A4 **Client ID:** DF/S1/0133/SDC/001 A

Matrix: Soil **Units:** mg/kg **Prep Date:** 5/16/00 **Prep Batch:** 0137277

Weight: 1.0 **Volume:** 100 **Percent Moisture:** 10.39

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Arsenic	189.04	0.29	1.1	7.7		1	ICPST	5/17/00	9:15

Comments: Lot #: C0E130194 Sample #: 1

Version 3.63.3

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: DD6A5 **Client ID:** DF/S1/0133/SDC/001 B

Matrix: Soil **Units:** mg/kg **Prep Date:** 5/16/00 **Prep Batch:** 0137277

Weight: 1.0 **Volume:** 100 **Percent Moisture:** 8.64

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Arsenic	189.04	0.28	1.1	7.2		1	ICPST	5/17/00	9:32

Comments: Lot #: C0E130194 Sample #: 2

Version 3.63.3

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: DD6A6 **Client ID:** DF/S1/0133/SDC/001 C

Matrix: Soil **Units:** mg/kg **Prep Date:** 5/16/00 **Prep Batch:** 0137277

Weight: 1.0 **Volume:** 100 **Percent Moisture:** 10.27

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Arsenic	189.04	0.29	1.1	8.1		1	ICPST	5/17/00	9:36

Comments: Lot #: C0E130194 Sample #: 3

Version 3.63.3

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: DD6A7 **Client ID:** DF/S1/0133/SDC/001 D

Matrix: Soil **Units:** mg/kg **Prep Date:** 5/16/00 **Prep Batch:** 0137277

Weight: 1.0 **Volume:** 100 **Percent Moisture:** 10.81

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Arsenic	189.04	0.29	1.1	7.7		1	ICPST	5/17/00	9:48

Comments: Lot #: C0E130194 Sample #: 4

Version 3.63.3

U Result is less than the MDL

B Result is between MDL and RL

Form 1 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Initial Calibration Blank Results

Instrument: ICPST **Units:** ug/L

Chart Number: T00517A.ARC

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	ICB1 5/17/00 8:52 AM Found	Q	Found	Q	Found	Q	Found	Q	Found	Q
Arsenic	189.042	10	2.6	U								

Version 3.63.3

U Result is less than the MDL

B Result is between MDL and RL

Form 3 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Continuing Calibration Blank Results

Instrument: ICPST **Units:** ug/L

Chart Number: T00517A.ARC

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	CCB1 5/17/00 9:44 AM Found	Q	CCB2 5/17/00 9:57 AM Found	Q	Found	Q	Found	Q	Found	Q
Arsenic	189.042	10	2.6	U	2.6	U						

Version 3.63.3

U Result is less than the MDL

B Result is between MDL and RL

Form 3 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Preparation Blank Results

Lab Sample ID: DD8AMB

Matrix: Soil **Units:** mg/kg **Prep Date:** 5/16/00 **Prep Batch:** 0137277

Weight: 1.0 **Volume:** 100 **Percent Moisture:** NA

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Arsenic	189.042	0.26	1.0	0.26	U	1	ICPST	5/17/00	9:07

Comments: Lot #: C0E130194

Version 3.63.3

U Result is less than the MDL

B Result is between MDL and RL

Form 3 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Matrix Spike Sample Results

Spike Sample ID: DD6A4S

Original Sample ID: DD6A4 **Client ID:** DF/S1/0133/SDC/001 AS

Matrix: Soil **Units:** mg/kg **Prep Date:** 5/16/00 **Prep Batch:** 0137277

Weight: 1.0 **Volume:** 100 **Percent Moisture:** 10.39

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	7.7		216		223.19	93.1	1	1	ICPST	5/17/00	9:15	5/17/00	9:24

Comments: Lot #: C0E130194 Sample #: 1

Version 3.63.3

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

STL-Pittsburgh

Metals Data Reporting Form

Matrix Spike Duplicate RPD Report

Matrix Spike Duplicate Sample ID: DD6A4D

Matrix Spike Sample ID: DD6A4S **Client ID:** DF/S1/0133/SDC/001 AD

Matrix: Soil **Units:** mg/kg **Prep Date:** 5/16/00 **Prep Batch:** 0137277

Weight: 1.0 **Volume:** 100 **Percent Moisture:** 10.39

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	216		217		0.6 %	1	1	ICPST	5/17/00	9:24	5/17/00	9:28

Comments: Lot #: C0E130194 Sample #: 1

Version 3.63.3

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

Form 6 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Laboratory Control Sample Results

Lab Sample ID: DD8AMC

Matrix: Soil **Units:** mg/kg **Prep Date:** 5/16/00 **Prep Batch:** 0137277

Weight: 1.0 **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	198	98.7		80-120	1	ICPST	5/17/00	9:11

Comments: Lot #: C0E130194

Version 3.63.3

U Result is less than the MDL

B Result is between MDL and RL

Form 7 Equivalent

TCLP METALS SUMMARY

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: DD6A4T **Client ID:** DF/S1/0133/SDC/001 A

Matrix: Water **Units:** mg/L **Prep Date:** 5/18/00 **Prep Batch:** 0139097

Weight: NA **Volume:** 100 **Percent Moisture:** NA

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.000045	0.00020	0.000045	U	1	CVAA	5/18/00	11:03

Comments:

Version 3 63.3

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: DD6A5T **Client ID:** DF/S1/0133/SDC/001 B

Matrix: Water **Units:** mg/L **Prep Date:** 5/18/00 **Prep Batch:** 0139097

Weight: NA **Volume:** 100 **Percent Moisture:** NA

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.000045	0.00020	0.000045	U	1	CVAA	5/18/00	11:09

Comments:

Version 3.63.3

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: DD6A6T **Client ID:** DF/S1/0133/SDC/001 C

Matrix: Water **Units:** mg/L **Prep Date:** 5/18/00 **Prep Batch:** 0139097

Weight: NA **Volume:** 100 **Percent Moisture:** NA

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0 000045	0.00020	0.000045	U	1	CVAA	5/18/00	11:10

Comments:

Version 3.63.3

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: DD6A7T **Client ID:** DF/S1/0133/SDC/001 D

Matrix: Water **Units:** mg/L **Prep Date:** 5/18/00 **Prep Batch:** 0139097

Weight: NA **Volume:** 100 **Percent Moisture:** NA

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.000045	0 00020	0.000045	U	1	CVAA	5/18/00	11:13

Comments

Version 3 63.3

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: DD6A4T **Client ID:** DF/S1/0133/SDC/001 A

Matrix: Water **Units:** mg/L **Prep Date:** 5/18/00 **Prep Batch:** 0139114

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**	**0.15**	**B**	**1**	**ICP**	**5/19/00**	**9:14**
Barium	**493.41**	**0.00041**	**10.0**	**1.2**	**BE**	**1**	**ICP**	**5/19/00**	**9:14**
Cadmium	228.80	0.0028	0.10	0.0028	U	1	ICP	5/19/00	9:14
Chromium	267.72	0.0038	0.50	0.0038	U	1	ICP	5/19/00	9:14
Lead	220.35	0.025	0.50	0.025	U	1	ICP	5/19/00	9:14
Selenium	196.03	0.067	0.25	0.067	U	1	ICP	5/19/00	15:29
Silver	328.07	0.0031	0.50	0.0031	U	1	ICP	5/19/00	9:14

Comments: C0E130194001

Version 3.63.3

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: DD6A5T **Client ID:** DF/S1/0133/SDC/001 B

Matrix: Water **Units:** mg/L **Prep Date:** 5/18/00 **Prep Batch:** 0139114

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**	**0.21**	**B**	**1**	**ICP**	**5/19/00**	**9:27**
Barium	**493.41**	**0.00041**	**10.0**	**1.2**	**BE**	**1**	**ICP**	**5/19/00**	**9:27**
Cadmium	228.80	0.0028	0.10	0.0028	U	1	ICP	5/19/00	9:27
Chromium	267.72	0.0038	0.50	0.0038	U	1	ICP	5/19/00	9:27
Lead	220.35	0.025	0.50	0.025	U	1	ICP	5/19/00	9:27
Selenium	196.03	0.067	0.25	0.067	U	1	ICP	5/19/00	15:42
Silver	328.07	0.0031	0.50	0.0031	U	1	ICP	5/19/00	9:27

Comments: C0E130194002

Version 3.63.3

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: DD6A6T **Client ID:** DF/S1/0133/SDC/001 C

Matrix: Water **Units:** mg/L **Prep Date:** 5/18/00 **Prep Batch:** 0139114

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**	**0.20**	**B**	**1**	**ICP**	**5/19/00**	**9:36**
Barium	**493.41**	**0.00041**	**10.0**	**1.3**	**BE**	**1**	**ICP**	**5/19/00**	**9:36**
Cadmium	228.80	0.0028	0.10	0.0028	U	1	ICP	5/19/00	9:36
Chromium	267.72	0.0038	0.50	0.0038	U	1	ICP	5/19/00	9:36
Lead	220.35	0.025	0.50	0.025	U	1	ICP	5/19/00	9:36
Selenium	196.03	0.067	0.25	0.067	U	1	ICP	5/19/00	15:51
Silver	328.07	0.0031	0.50	0.0031	U	1	ICP	5/19/00	9:36

Comments: C0E130194003

Version 3.63.3

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: DD6A7T **Client ID:** DF/S1/0133/SDC/001 D

Matrix: Water **Units:** mg/L **Prep Date:** 5/18/00 **Prep Batch:** 0139114

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**	**0.15**	**B**	**1**	**ICP**	**5/19/00**	**9:39**
Barium	**493.41**	**0.00041**	**10.0**	**1.2**	**BE**	**1**	**ICP**	**5/19/00**	**9:39**
Cadmium	228.80	0.0028	0.10	0.0028	U	1	ICP	5/19/00	9:39
Chromium	267.72	0.0038	0.50	0.0038	U	1	ICP	5/19/00	9:39
Lead	220.35	0.025	0.50	0.025	U	1	ICP	5/19/00	9:39
Selenium	196.03	0.067	0.25	0.067	U	1	ICP	5/19/00	15:55
Silver	328.07	0.0031	0.50	0 0031	U	1	ICP	5/19/00	9:39

Comments: C0E130194004

Version 3.63 3

U Result is less than the MDL

B Result is between MDL and RL

Form 1 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Initial Calibration Blank Results

Instrument: CVAA **Units:** ug/L

Chart Number: 0518HGA.PRN

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	ICB1 5/18/00 10:51 AM Found	Q	Found	Q	Found	Q	Found	Q	Found	Q
Mercury	253.7	0.2	0.0	B								

Version 3.63.3

U Result is less than the MDL

B Result is between MDL and RL

Form 3 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Initial Calibration Blank Results

Instrument: ICP **Units:** ug/L

Chart Number: J00519A.ARC

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	ICB1 5/19/00 8:53 AM 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								
Silver	328.068	500	3.1	U								

STL-Pittsburgh

Metals Data Reporting Form

Initial Calibration Blank Results

Instrument: ICP **Units:** ug/L

Chart Number: J00519B.ARC

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	ICB1 5/19/00 3:08 PM Found	Q	Found	Q	Found	Q	Found	Q	Found	Q
Selenium	196.026	250	67.4	U								

Version 3.63.3

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

Form 3 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Continuing Calibration Blank Results

Instrument: CVAA **Units:** ug/L

Chart Number: 0518HGA.PRN

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	CCB1 5/18/00 10:55 AM Found	Q	CCB2 5/18/00 11:18 AM Found	Q	Found	Q	Found	Q	Found	Q
Mercury	253.7	0.2	0.0	U	-0.1	B						

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

Version 3.63.3

Form 3 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Continuing Calibration Blank Results

Instrument: ICP **Units:** ug/L

Chart Number: J00519A.ARC

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	CCB1 5/19/00 9:33 AM Found	Q	CCB2 5/19/00 9:46 AM Found	Q	Found	Q	Found	Q	Found	Q
Arsenic	193.696	500	**32.7**	**B**	30.3	U						
Barium	493.409	10000	**0.8**	**B**	**0.6**	**B**						
Cadmium	228.802	100	2.8	U	2.8	U						
Chromium	267.716	500	**3.8**	**U**	**3.8**	**U**						
Lead	220.353	500	24.6	U	24.6	U						
Silver	328.068	500	3.1	U	3.1	U						

STL-Pittsburgh

Metals Data Reporting Form

Continuing Calibration Blank Results

Instrument: ICP **Units:** ug/L

Chart Number: J00519B.ARC

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	CCB1 5/19/00 3 48 PM Found	Q	CCB2 5/19/00 4:01 PM Found	Q	Found	Q	Found	Q	Found	Q
Selenium	196.026	250	67.4	U	67.4	U						

Version 3.63.3

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

Form 3 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Preparation Blank Results

Lab Sample ID: DDA9GBT

Matrix: Water **Units:** mg/L **Prep Date:** 5/18/00 **Prep Batch:** 0139097

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	0.000063	B	1	CVAA	5/18/00	11:01

Comments:

Version 3.63.3

U Result is less than the MDL

B Result is between MDL and RL

Form 3 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Preparation Blank Results

Lab Sample ID: DDC2GBT

Matrix: Water **Units:** mg/L **Prep Date:** 5/18/00 **Prep Batch:** 0139097

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	-0.000090	B	1	CVAA	5/18/00	10:57

Comments:

Version 3.63.3

U Result is less than the MDL

B Result is between MDL and RL

Form 3 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Preparation Blank Results

Lab Sample ID: DDA9GBT

Matrix: Water **Units:** mg/L **Prep Date:** 5/18/00 **Prep Batch:** 0139114

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	0.18	B	1	ICP	5/19/00	9:08
Barium	493.409	0.00041	10.0	0.037	B	1	ICP	5/19/00	9:08
Cadmium	228.802	0.0028	0 10	0.0028	U	1	ICP	5/19/00	9:08
Chromium	267.716	0.0038	0 50	0.0038	U	1	ICP	5/19/00	9:08
Lead	220.353	0.025	0 50	0.025	U	1	ICP	5/19/00	9:08
Selenium	196.026	0.067	0.25	0.067	U	1	ICP	5/19/00	15:23
Silver	328.068	0.0031	0 50	0.0031	U	1	ICP	5/19/00	9:08

Comments:

Version 3.63.3

U Result is less than the MDL

B Result is between MDL and RL

Form 3 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Preparation Blank Results

Lab Sample ID: DDC39BT

Matrix: Water **Units:** mg/L **Prep Date:** 5/18/00 **Prep Batch:** 0139114

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	5/19/00	9:05
Barium	493.409	0.00041	10.0	0.00041	U	1	ICP	5/19/00	9:05
Cadmium	228.802	0.0028	0.10	0.0028	U	1	ICP	5/19/00	9:05
Chromium	267.716	0.0038	0.50	0.0038	U	1	ICP	5/19/00	9:05
Lead	220.353	0.025	0.50	0.025	U	1	ICP	5/19/00	9:05
Selenium	196.026	0.067	0.25	0 067	U	1	ICP	5/19/00	15:20
Silver	328.068	0.0031	0.50	0.0031	U	1	ICP	5/19/00	9:05

Comments:

Version 3.63.3

U Result is less than the MDL

B Result is between MDL and RL

Form 3 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Matrix Spike Sample Results

Spike Sample ID: DD6A4ST

Original Sample ID: DD6A4T **Client ID:** DF/S1/0133/SDC/001 AS

Matrix: Water **Units:** mg/L **Prep Date:** 5/18/00 **Prep Batch:** 0139097

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	106.6	1	1	CVAA	5/18/00	11:03	5/18/00	11:04

Comments:

Version 3.63.3

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

Form 5A Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Matrix Spike Duplicate Sample Results

Spike Sample ID: DD6A4DT

Original Sample ID: DD6A4T **Client ID:** DF/S1/0133/SDC/001 AD

Matrix: Water **Units:** mg/L **Prep Date:** 5/18/00 **Prep Batch:** 0139097

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	104.8	1	1	CVAA	5/18/00	11:03	5/18/00	11:07

Comments:

Version 3.63.3

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

Form 5A Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Matrix Spike Sample Results

Spike Sample ID: DD6A4ST

Original Sample ID: DD6A4T **Client ID:** DF/S1/0133/SDC/001 AS

Matrix: Water **Units:** mg/L **Prep Date:** 5/18/00 **Prep Batch:** 0139114

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	0.15	B	4.9		5	94.8	1	1	ICP	5/19/00	9:14	5/19/00	9:20
Barium	493.4	1.2	B	43.3		50	84.1	1	1	ICP	5/19/00	9:14	5/19/00	9:20
Cadmium	228.8	0.0028	U	0.94		1	94.4	1	1	ICP	5/19/00	9:14	5/19/00	9:20
Chromium	267.7	0.0038	U	4.3		5	85 3	1	1	ICP	5/19/00	9:14	5/19/00	9:20
Lead	220.4	0.025	U	4.4		5	88.7	1	1	ICP	5/19/00	9:14	5/19/00	9:20
Selenium	196.0	0.067	U	1.1		1	104.8	1	1	ICP	5/19/00	15:29	5/19/00	15:36
Silver	328.1	0.0031	U	0.90		1	90.4	1	1	ICP	5/19/00	9:14	5/19/00	9:20

Comments:

Version 3.63.3

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

Form 5A Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Matrix Spike Duplicate Sample Results

Spike Sample ID: DD6A4DT

Original Sample ID: DD6A4T **Client ID:** DF/S1/0133/SDC/001 AD

Matrix: Water **Units:** mg/L **Prep Date:** 5/18/00 **Prep Batch:** 0139114

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	0.15	B	5 0		5	96.2	1	1	ICP	5/19/00	9:14	5/19/00	9:24
Barium	493.4	1.2	B	43.8		50	85.2	1	1	ICP	5/19/00	9:14	5/19/00	9:24
Cadmium	228.8	0.0028	U	0.96		1	95.5	1	1	ICP	5/19/00	9:14	5/19/00	9:24
Chromium	267.7	0.0038	U	4.3		5	86.3	1	1	ICP	5/19/00	9:14	5/19/00	9:24
Lead	220.4	0.025	U	4.5		5	89.8	1	1	ICP	5/19/00	9:14	5/19/00	9.24
Selenium	196.0	0.067	U	1.1		1	105.2	1	1	ICP	5/19/00	15:29	5/19/00	15:39
Silver	328.1	0.0031	U	0.91		1	91.2	1	1	ICP	5/19/00	9:14	5/19/00	9:24

Comments:

Version 3.63.3

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

Form 5A Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Matrix Spike Duplicate RPD Report

Matrix Spike Duplicate Sample ID: DD6A4DT

Matrix Spike Sample ID: DD6A4ST **Client ID:** DF/S1/0133/SDC/001 AD

Matrix: Water **Units:** mg/L **Prep Date:** 5/18/00 **Prep Batch:** 0139097

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	5/18/00	11:04	5/18/00	11:07

Comments:

Version 3.63.3

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

Form 6 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Matrix Spike Duplicate RPD Report

Matrix Spike Duplicate Sample ID: DD6A4DT

Matrix Spike Sample ID: DD6A4ST **Client ID:** DF/S1/0133/SDC/001 AD

Matrix: Water **Units:** mg/L **Prep Date:** 5/18/00 **Prep Batch:** 0139114

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	4.9		5.0		1.5 %	1	1	ICP	5/19/00	9:20	5/19/00	9:24
Barium	493.409	43.3		43.8		1.4 %	1	1	ICP	5/19/00	9:20	5/19/00	9:24
Cadmium	228.802	0.94		0.96		1.1 %	1	1	ICP	5/19/00	9:20	5/19/00	9:24
Chromium	267.716	4.3		4.3		1.2 %	1	1	ICP	5/19/00	9:20	5/19/00	9:24
Lead	220.353	4.4		4.5		1.2 %	1	1	ICP	5/19/00	9:20	5/19/00	9:24
Selenium	196.026	1.1		1 1		10.2 %	1	1	ICP	5/19/00	15:36	5/19/00	15:39
Silver	328.068	0 90		0.91		1.0 %	1	1	ICP	5/19/00	9:20	5/19/00	9:24

Comments:

Version 3.63.3

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

Form 6 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Laboratory Control Sample Results

Lab Sample ID: DDC2GCT

Matrix: Water **Units:** mg/L **Prep Date:** 5/18/00 **Prep Batch:** 0139097

Weight: 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	0.0028	110.0		80-120	1	CVAA	5/18/00	10:58

Comments:

Version 3.63.3

U Result is less than the MDL

B Result is between MDL and RL

Form 7 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Laboratory Control Sample Results

Lab Sample ID: DDC39CT

Matrix: Water **Units:** mg/L **Prep Date:** 5/18/00 **Prep Batch:** 0139114

Weight: 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	110.1		80-120	1	ICP	5/19/00	9:11
Barium	493 409	2.0	1.9	93.7	B	80-120	1	ICP	5/19/00	9:11
Cadmium	228.802	0.050	0.046	91.3	B	80-120	1	ICP	5/19/00	9:11
Chromium	267.716	0.20	0.19	94.7	B	80-120	1	ICP	5/19/00	9:11
Lead	220.353	0.50	0.47	94.5	B	80-120	1	ICP	5/19/00	9:11
Selenium	196.026	2.0	2.2	107.8		80-120	1	ICP	5/19/00	15:26
Silver	328.068	0.050	0 047	94.3	B	80-120	1	ICP	5/19/00	9:11

Comments:

Version 3.63.3

U Result is less than the MDL

B Result is between MDL and RL

Form 7 Equivalent

GENERAL CHEMISTRY SUMMARY

UXB INTERNATIONAL

Client Sample ID: DF/S1/0133/SDC/001 A

General Chemistry

Lot-Sample #...: C0E130194-001 Work Order #...: DD6A4 Matrix.....: SOLID
Date Sampled...: 05/12/00 Date Received..: 05/13/00
% Moisture.....: 10

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
pH	7.8		No Units	SW846 9045C	05/15/00	0136242
	Dilution Factor: 1		MS Run #.....: 0136107			
Ignitability	NO	--	No Units	SW846 SECTION 7.1	05/15/00	0136237
	Dilution Factor: 1		MS Run #.....: 0136105			
Percent Solids	89.6	1.0	%	MCAWW 160.3 MOD	05/19-05/20/00	0140168
	Dilution Factor: 1		MS Run #.....: 0140053			
Reactive Cyanide	ND	200	mg/kg	SW846 7.3.3	05/17/00	0138394
	Dilution Factor: 1		MS Run #.....: 0138162			
Reactive Sulfide	ND	200	mg/kg	SW846 7.3.4	05/17/00	0138393
	Dilution Factor: 1		MS Run #.....: 0138161			

UXB INTERNATIONAL

Client Sample ID: DF/S1/0133/SDC/001 B

General Chemistry

Lot-Sample #...: C0E130194-002 Work Order #...: DD6A5 Matrix.....: SOLID
Date Sampled...: 05/12/00 Date Received..: 05/13/00
% Moisture.....: 8.6

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
pH	8.1		No Units	SW846 9045C	05/15/00	0136242
	Dilution Factor: 1		MS Run #.....: 0136107			
Ignitability	NO	--	No Units	SW846 SECTION 7.1	05/15/00	0136237
	Dilution Factor: 1		MS Run #.....: 0136105			
Percent Solids	91.4	1.0	%	MCAWW 160.3 MOD	05/19-05/20/00	0140168
	Dilution Factor: 1		MS Run #.....: 0140053			
Reactive Cyanide	ND	200	mg/kg	SW846 7.3.3	05/17/00	0138394
	Dilution Factor: 1		MS Run #.....: 0138162			
Reactive Sulfide	ND	200	mg/kg	SW846 7.3.4	05/17/00	0138393
	Dilution Factor: 1		MS Run #.....: 0138161			

UXB INTERNATIONAL

Client Sample ID: DF/S1/0133/SDC/001 C

General Chemistry

Lot-Sample #...: C0E130194-003 **Work Order #...:** DD6A6 **Matrix.....:** SOLID
Date Sampled...: 05/12/00 **Date Received..:** 05/13/00
% Moisture.....: 10

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
pH	**8.1**		**No Units**	**SW846 9045C**	**05/15/00**	**0136242**
	Dilution Factor: 1		MS Run #.....: 0136107			
Ignitability	**NO**	--	**No Units**	**SW846 SECTION 7.1**	**05/15/00**	**0136237**
	Dilution Factor: 1		MS Run #.....: 0136105			
Percent Solids	**89.7**	**1.0**	**%**	**MCAWW 160.3 MOD**	**05/19-05/20/00**	**0140168**
	Dilution Factor: 1		MS Run #.....: 0140053			
Reactive Cyanide	ND	200	mg/kg	SW846 7.3.3	05/17/00	0138394
	Dilution Factor: 1		MS Run #.....: 0138162			
Reactive Sulfide	ND	200	mg/kg	SW846 7.3.4	05/17/00	0138393
	Dilution Factor: 1		MS Run #.....: 0138161			

UXB INTERNATIONAL

Client Sample ID: DF/S1/0133/SDC/001 D

General Chemistry

Lot-Sample #...: C0E130194-004 **Work Order #...:** DD6A7 **Matrix.....:** SOLID
Date Sampled...: 05/12/00 **Date Received..:** 05/13/00
% Moisture.....: 11

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
pH	**7.9**		**No Units**	**SW846 9045C**	**05/15/00**	**0136242**
	Dilution Factor: 1		MS Run #.....: 0136107			
Ignitability	**NO**	--	**No Units**	**SW846 SECTION 7.1**	**05/15/00**	**0136237**
	Dilution Factor: 1		MS Run #.....: 0136105			
Percent Solids	**89.2**	**1.0**	**%**	**MCAWW 160.3 MOD**	**05/19-05/20/00**	**0140168**
	Dilution Factor: 1		MS Run #.....: 0140053			
Reactive Cyanide	ND	200	mg/kg	SW846 7.3.3	05/17/00	0138394
	Dilution Factor: 1		MS Run #.....: 0138162			
Reactive Sulfide	ND	200	mg/kg	SW846 7.3.4	05/17/00	0138393
	Dilution Factor: 1		MS Run #.....: 0138161			

METHOD BLANK REPORT

General Chemistry

Client Lot #...: C0E130194 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Reactive Cyanide		Work Order #: DDARD101		MB Lot-Sample #:	A0E170000-394	
	ND	200	mg/kg	SW846 7.3.3	05/17/00	0138394
		Dilution Factor: 1				
Reactive Sulfide		Work Order #: DDARC101		MB Lot-Sample #:	A0E170000-393	
	ND	200	mg/kg	SW846 7.3.4	05/17/00	0138393
		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 #...: C0E130194 **Matrix.....:** SOLID

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
pH		Work Order #: DD70J101	LCS Lot-Sample#: C0E150000-242		
	100	(85 - 115)	SW846 9045C	05/15/00	0136242
		Dilution Factor: 1			

NOTE(S):

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

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SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: C0E130194 **Work Order #...:** DDAJ6-SMP DDAJ6-DUP **Matrix.....:** SOLID

Date Sampled...: 04/12/00 **Date Received..:** 05/17/00

% Moisture.....: 20

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Solids						SD Lot-Sample #: C0E170244-030		
	79.9	81.7	%	2.2	(0-20)	MCAWW 160.3 MOD	05/19-05/20/00	0140168

Dilution Factor: 1

Prep Date.....: 0140053 Analysis Date..: Prep Batch #...:

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: C0E130194 **Work Order #...:** DD6DM-SMP DD6DM-DUP **Matrix.....:** SOLID

Date Sampled...: 05/11/00 **Date Received..:** 05/13/00

% Moisture.....: 0.0

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Reactive Cyanide						SD Lot-Sample #: G0E130196-003		
	ND	ND	mg/kg	0	(0-20)	SW846 7.3.3	05/17/00	0138394
		Dilution Factor: 1						
		Prep Date.....: 0138162			Analysis Date..:		Prep Batch #...:	
Reactive Sulfide						SD Lot-Sample #: G0E130196-003		
	ND	ND	mg/kg	200	(0-20)	SW846 7.3.4	05/17/00	0138393
		Dilution Factor: 1						
		Prep Date.....: 0138161			Analysis Date..:		Prep Batch #...:	

GC/MS VOLATILE DATA

GC/MS VOLATILE
QC SUMMARY

SW846 8260B SURROGATE RECOVERY

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

Lab Code: QESPIT QESSDG:

Lot #: C0E130194

	CLIENT ID.	SRG01	SRG02	SRG03	SRG04	TOT OUT
01	DF/S1/0133/SDC/001 A	110	103	93	103	00
02	DF/S1/0133/SDC/001 B	108	99	89	104	00
03	DF/S1/0133/SDC/001 C	106	106	93	102	00
04	DF/S1/0133/SDC/001 D	119	96	91	107	00
05	METHOD BLK. DD95L101	104	100	90	98	00
06	LCS DDA08101	103	104	103	102	00
07	DF/S1/0133/SDC/001 A D	103	103	102	102	00
08	DF/S1/0133/SDC/001 A S	102	104	102	103	00

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

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

FORM II

SW846 8260B CHECK SAMPLE RECOVERY

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

Lab Code: QESPIT SDG No:

Lot #: C0E170000 WO #: DDA08101

BATCH: 0138262

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	% REC	QC LIMITS REC	QUAL
Benzene	0.500	0.546	109	79 - 116	
2-Butanone	0.500	0.503	101	35 - 156	
Carbon tetrachloride	0.500	0.567	113	72 - 133	
Chlorobenzene	0.500	0.543	109	81 - 115	
Chloroform	0.500	0.540	108	81 - 122	
1,2-Dichloroethane	0.500	0.552	110	73 - 127	
1,1-Dichloroethene	0.500	0.510	102	65 - 119	
Tetrachloroethene	0.500	0.566	113	78 - 131	
Trichloroethene	0.500	0.545	109	80 - 122	
Vinyl chloride	0.500	0.627	125	53 - 134	

NOTES(S):

* Values outside of QC limits

Spike Recovery: 0 out of 10 outside limits

COMMENTS:

FORM III

657 124 SW846 8260B MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

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

Lab Code: QESPIT SDG No:

Matrix Spike ID: DF/S1/0133/SDC/001 A Level: (low/med) LOW

Lot #: C0E130194 WO #: DD6A410P
BATCH: 0138262

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	MS CONCENT. (mg/L)	MS % REC	LIMITS REC	QUAL
Benzene	0.500	ND	0.544	109	73 - 123	
2-Butanone	0.500	0.027	0.532	101	10 - 151	
Carbon tetrachloride	0.500	ND	0.563	113	61 - 143	
Chlorobenzene	0.500	ND	0.546	109	70 - 122	
Chloroform	0.500	ND	0.536	107	65 - 131	
1,2-Dichloroethane	0.500	ND	0.552	110	67 - 132	
1,1-Dichloroethene	0.500	ND	0.518	104	57 - 138	
Tetrachloroethene	0.500	ND	0.555	111	70 - 130	
Trichloroethene	0.500	ND	0.545	109	58 - 141	
Vinyl chloride	0.500	ND	0.635	127	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:

FORM III

SW846 8260B MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

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

Lab Code: QESPIT SDG No:

Matrix Spike ID: DF/S1/0133/SDC/001 A Level: (low/med) LOW

Lot #: C0E130194 WO #: DD6A410Q
BATCH: 0138262

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENT. (mg/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	QUAL
Benzene	0.500	0.552	110	1.5	20	73 - 123	
2-Butanone	0.500	0.526	100	1.1	34	10 - 151	
Carbon tetrachloride	0.500	0.571	114	1.5	20	61 - 143	
Chlorobenzene	0.500	0.550	110	0.69	20	70 - 122	
Chloroform	0.500	0.541	108	0.79	20	65 - 131	
1,2-Dichloroethane	0.500	0.561	112	1.6	20	67 - 132	
1,1-Dichloroethene	0.500	0.522	104	0.78	20	57 - 138	
Tetrachloroethene	0.500	0.567	113	2.2	20	70 - 130	
Trichloroethene	0.500	0.551	110	1.1	20	58 - 141	
Vinyl chloride	0.500	0.638	128	0.50	20	51 - 133	

NOTES(S):

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

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

COMMENTS:

FORM III

657 126 SW846 8260B METHOD BLANK SUMMARY

BLANK WORKORDER NO.: DD95L101

Lab Name: Severn Trent Laboratories, Inc.

Lab Code: QESPIT

SDG Number:

Lab File ID: 4051703.d

Lot Number: C0E130194

Date Analyzed: 05/17/00

Time Analyzed: 14:39

Matrix: SOLID

Date Extracted:05/17/00

GC Column: RTX-624 ,ID: .18

Extraction Method: 1311/5030B

Instrument ID: HP4

Level:(low/med) LOW

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

	CLIENT ID.	SAMPLE WORK ORDER #	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	CHECK SAMPLE	DDA08101 C	4051707.d	05/17/00	17:04
02	DF/S1/0133/SDC/001 A	DD6A410P S	4051705.d	05/17/00	16:07
03	DF/S1/0133/SDC/001 A	DD6A410Q D	4051706.d	05/17/00	16:35
04	DF/S1/0133/SDC/001 A	DD6A4101	4051708.d	05/17/00	17:39
05	DF/S1/0133/SDC/001 B	DD6A5101	4051709.d	05/17/00	18:08
06	DF/S1/0133/SDC/001 C	DD6A6101	4051712.d	05/17/00	19:29
07	DF/S1/0133/SDC/001 D	DD6A7101	4051711.d	05/17/00	19:00
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

COMMENTS:

FORM IV

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: STL-PITTSBURGH Contract:

Lab Code: STLPIT Case No.: SAS No.: 40325 SDG No.: C0E130194

Lab File ID: BF40517 BFB Injection Date: 05/17/00

Instrument ID: HP4 BFB Injection Time: 1041

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	25.6
75	30.0 - 60.0% of mass 95	43.0
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	0.0 (0.0)1
174	50.0 - 100.0% of mass 95	56.6
175	5.0 - 9.0% of mass 174	4.2 (7.3)1
176	95.0 - 101.0% of mass 174	54.9 (97.1)1
177	5.0 - 9.0% of mass 176	3.6 (6.5)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	CC40517	05/17/00	1108
02	VSTD5	VSTD5	1A40517	05/17/00	1145
03	VSTD20	VSTD20	1B40517	05/17/00	1209
04	VSTD100	VSTD100	1D40517	05/17/00	1234
05	VSTD200	VSTD200	1E40517	05/17/00	1303
06	INTRA-LAB BL	DD95L101	4051703	05/17/00	1439
DF/S1/0133/SDC/001A MS 07	~~DF-001~~	DD6A410P	4051705	05/17/00	1607
A MSD 08	~~DF-001~~	DD6A410Q	4051706	05/17/00	1635
09	INTRA-LAB CH	DDA08101	4051707	05/17/00	1704
DF/S1/0133/SDC/001A 10	~~DF-001~~	DD6A4101	4051708	05/17/00	1739
B 11	~~S1-001~~	DD6A5101	4051709	05/17/00	1808
D 12	~~SDC/001~~	DD6A7101	4051711	05/17/00	1900
C 13	~~0133/001~~	DD6A6101	4051712	05/17/00	1929
14					
DKD SPK100 15					
16					
17					
18					
19					
20					
21					
22					

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: STL-PITTSBURGH Contract:

Lab Code: STLPIT Case No.: SAS No.: 40325 SDG No.: C0E130194

Lab File ID (Standard): CC40517 Date Analyzed: 05/17/00

Instrument ID: HP4 Time Analyzed: 1108

GC Column: DB 624 ID: 0.18 (mm) Heated Purge: (Y/N) N

	EPA SAMPLE NO.	IS1 (CBZ) AREA #	RT #	IS2 (DCB) AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	149779	10.12	227254	12.46	660677	6.99
	UPPER LIMIT	299558	10.32	454508	12.66	1321354	7.19
	LOWER LIMIT	74890	9.92	113627	12.26	330338	6.79
01	INTRA-LAB BL	154881	10.12	210752	12.46	792190	7.01
02	DF-001 A MS	159002	10.12	229690	12.46	736767	7.00
03	DF-001 A MSD	161550	10.13	232577	12.46	739353	7.00
04	INTRA-LAB CH	163960	10.13	229414	12.46	743134	7.00
05	~~DF-001~~ A	131368	10.13	173160	12.46	666337	7.01
06	~~S1-001~~ B	135805	10.13	180580	12.46	677588	7.01
07	~~SDC/001~~ D	123751	10.13	170776	12.46	585666	7.01
08	~~0133/001~~ C	142009	10.13	196867	12.46	736808	7.01
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

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

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

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

GC/MS VOLATILE
SAMPLE DATA

UXB INTERNATIONAL

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

Matrix: (soil/water) SOLID Lab Sample ID: C0E130194 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/13/00
Work Order: DD6A4101 Date Extracted: 05/17/00
Dilution factor: 1 Date Analyzed: 05/17/00
Moisture %: 10

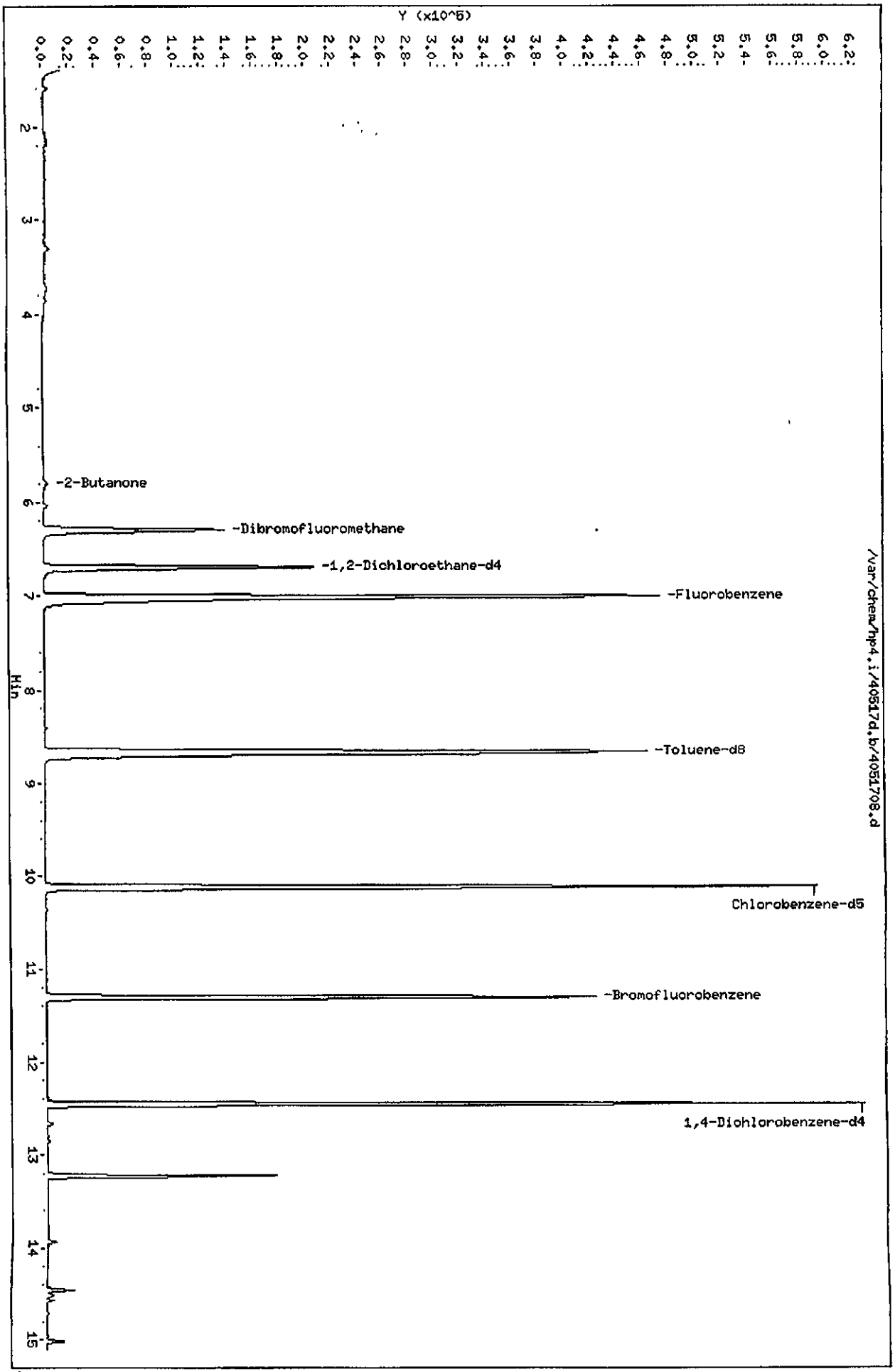
QC Batch: 0138262

Client Sample Id: DF/S1/0133/SDC/001 A

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**	**0.027**	**J**
56-23-5	Carbon tetrachloride	0.050	U
108-90-7	Chlorobenzene	0.050	U
67-66-3	Chloroform	0.050	U
107-06-2	1,2-Dichloroethane	0.050	U
75-35-4	1,1-Dichloroethene	0.050	U
127-18-4	Tetrachloroethene	0.050	U
79-01-6	Trichloroethene	0.050	U
75-01-4	Vinyl chloride	0.050	U

Data File: /var/chem/hp4.i/40517d.b/4051708.d
Date : 17-MAY-2000 17:39
Client ID: DF-001
Sample Info: c0e130194-001 (1ml/10ml)/ 5ml
Volume Injected (uL): 5.0
Column phase: DB 624

Instrument: hp4.i
Operator: 034635
Column diameter: 0.18



STL-PITTSBURGH

VOLATILE REPORT SW-846 Method

Data file : /var/chem/hp4.i/40517d.b/4051708.d
Lab Smp Id: DD6A4101 Client Smp ID: DF-001
Inj Date : 17-MAY-2000 17:39
Operator : 034635 Inst ID: hp4.i
Smp Info : c0e130194-001 (1ml/10ml)/ 5ml
Misc Info : dd6a4101,40517d.b,med1000.m
Comment :
Method : /var/chem/hp4.i/40517d.b/8260bh2o.m
Meth Date : 17-May-2000 14:06 dudeckk Quant Type: ISTD
Cal Date : 17-MAY-2000 13:03 Cal File: 1e40517.d
Als bottle: 14
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: tclp.sub
Target Version: 3.40
Processing Host: hpuxcs21

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

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

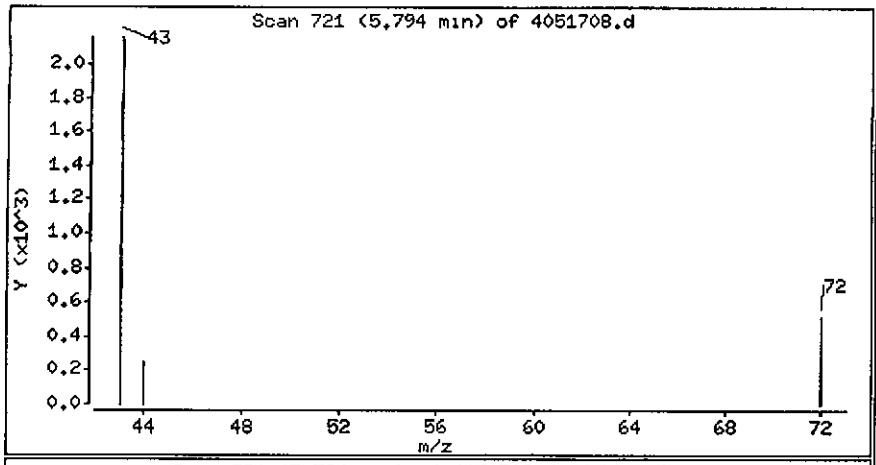
5/17/00

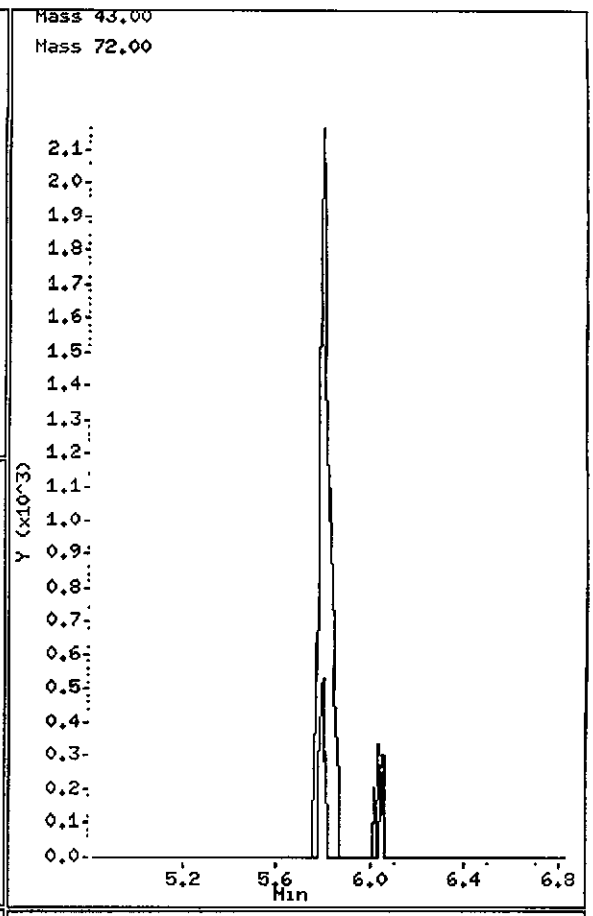
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (UG/L)
* 46 Fluorobenzene	96	7.011	6.994	(1.000)	666337		
* 69 Chlorobenzene-d5	119	10.129	10.124	(1 000)	131368		
* 92 1,4-Dichlorobenzene-d4	152	12 458	12.460	(1 000)	173160		
$ 43 1,2-Dichloroethane-d4	65	6 693	6.683	(0 955)	171017	273.909	54.78
$ 39 Dibromofluoromethane	113	6.296	6.285	(0.898)	117491	257.714	51.54
$ 59 Toluene-d8	98	8 662	8 645	(0.855)	568613	257.668	51.53
$ 80 Bromofluorobenzene	95	11 309	11 310	(1 116)	198266	232.569	46.51
3 Vinyl Chloride	62.00	Compound Not Detected					
12 1,1-Dichloroethene	96.00	Compound Not Detected.					
31 2-Butanone	43	5.794	5 821	(0 826)	6420	13.5520	2.710
37 Chloroform	83.00	Compound Not Detected.					
41 Carbon Tetrachloride	117 00	Compound Not Detected.					
42 Benzene	78 00	Compound Not Detected.					
45 1,2-Dichloroethane	62 00	Compound Not Detected.					
47 Trichloroethene	130.00	Compound Not Detected.					

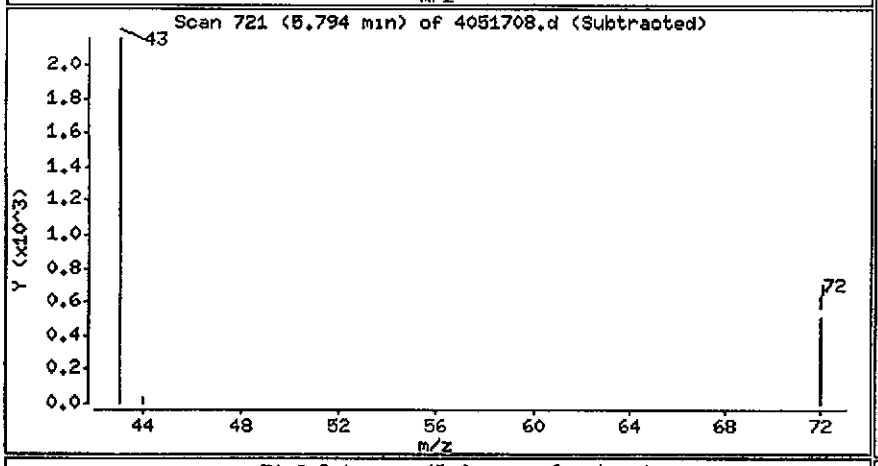
Data File: /var/chem/hp4.i/40517d.b/4051708.d
Report Date: 17-May-2000 19:09

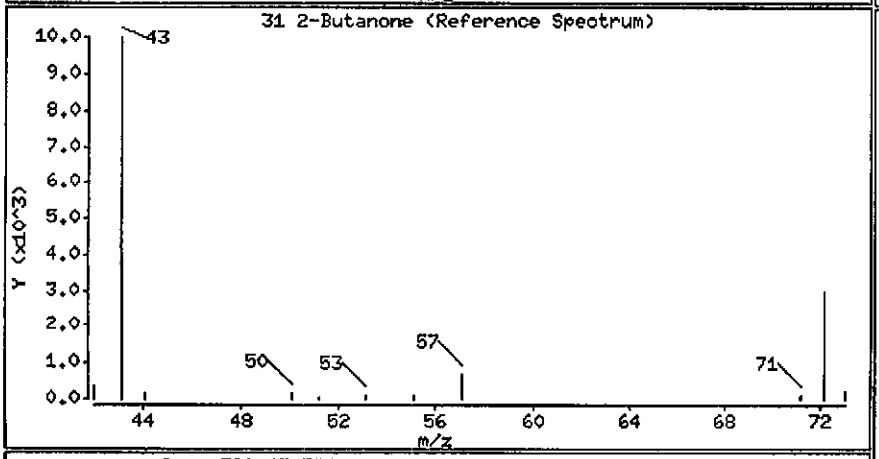
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (UG/L)
65 Tetrachloroethene	164.00	Compound Not Detected					
70 Chlorobenzene	112 00	Compound Not Detected					

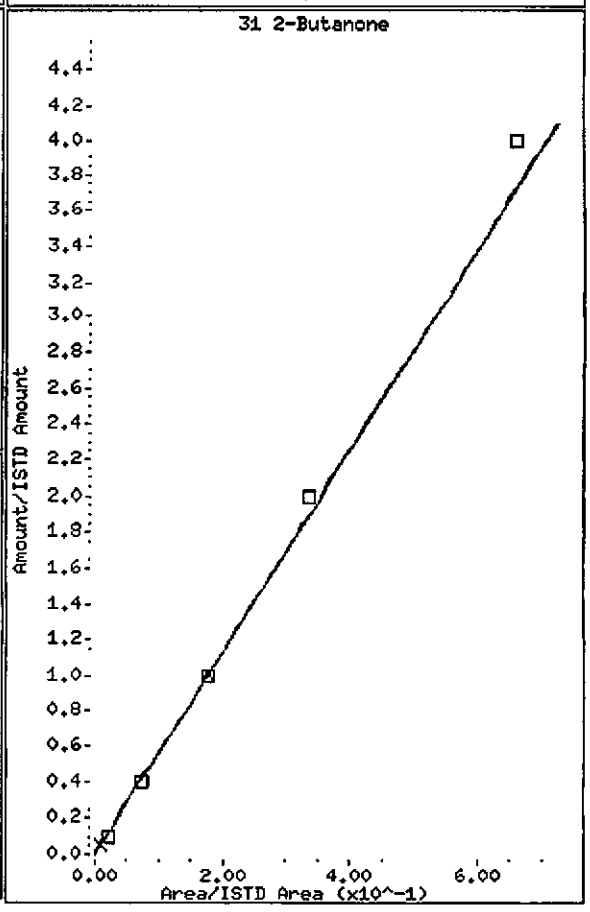
31 2-Butanone

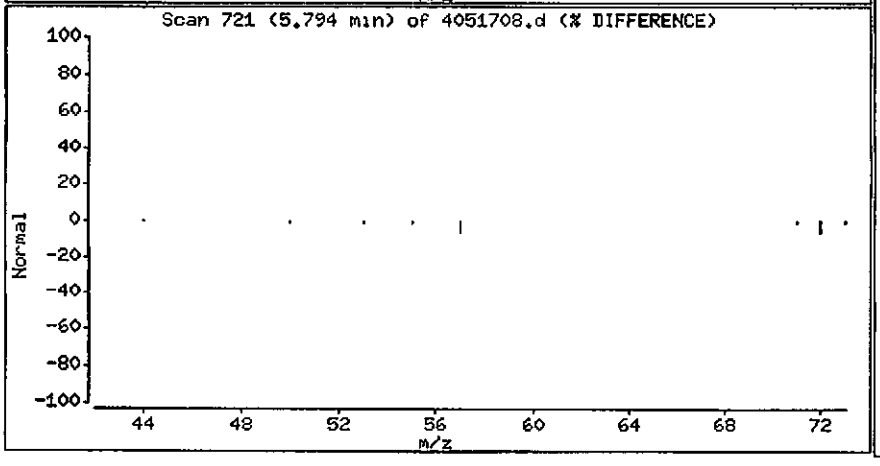












Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SOLID Lab Sample ID:C0E130194 002
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/13/00
Work Order: DD6A5101 Date Extracted:05/17/00
Dilution factor: 1 Date Analyzed: 05/17/00
Moisture %:8.6

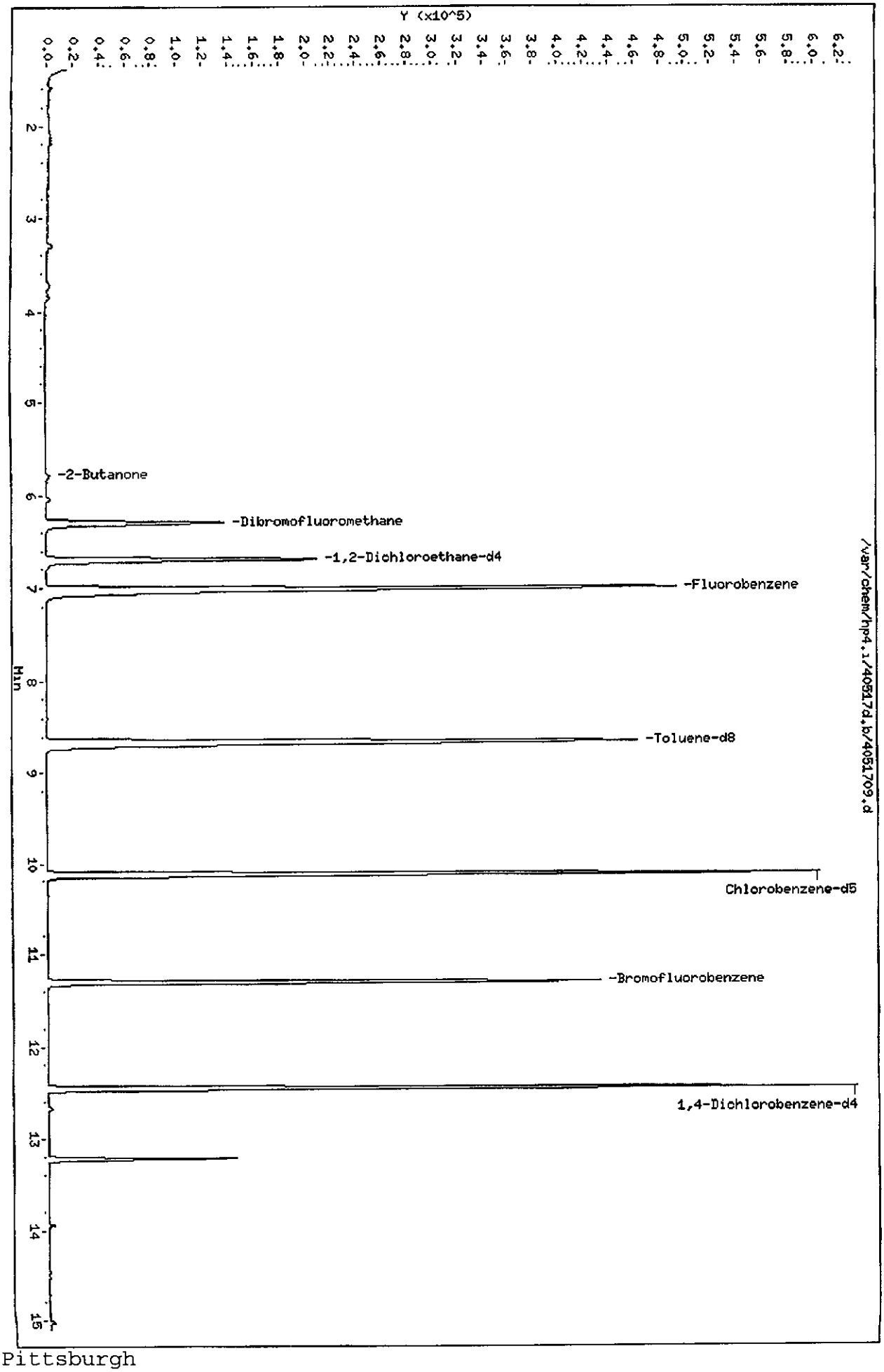
QC Batch: 0138262

Client Sample Id: DF/S1/0133/SDC/001 B

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**	**0.027**	J
56-23-5	Carbon tetrachloride	0.050	U
108-90-7	Chlorobenzene	0.050	U
67-66-3	Chloroform	0.050	U
107-06-2	1,2-Dichloroethane	0.050	U
75-35-4	1,1-Dichloroethene	0.050	U
127-18-4	Tetrachloroethene	0.050	U
79-01-6	Trichloroethene	0.050	U
75-01-4	Vinyl chloride	0.050	U

Data File: /var/chem/hp4.i/40517d.b/4051709.d
Date : 17-MAY-2000 18:08
Client ID: S1-001
Sample Info: c0e130194-002 (1ml/10ml)/ 5ml
Volume Injected (uL): 5.0
Column phase: DB 624

Instrument: hp4.i
Operator: 034635
Column diameter: 0.18



Data File: /var/chem/hp4.i/40517d.b/4051709.d
Report Date: 17-May-2000 19:09

STL-PITTSBURGH

VOLATILE REPORT SW-846 Method

Data file : /var/chem/hp4.i/40517d.b/4051709.d
Lab Smp Id: DD6A5101 Client Smp ID: S1-001
Inj Date : 17-MAY-2000 18:08
Operator : 034635 Inst ID: hp4.i
Smp Info : c0e130194-002 (1ml/10ml)/ 5ml
Misc Info : dd6a5101,40517d.b,med1000.m
Comment :
Method : /var/chem/hp4.i/40517d.b/8260bh2o.m
Meth Date : 17-May-2000 14:06 dudeckk Quant Type: ISTD
Cal Date : 17-MAY-2000 13:03 Cal File: 1e40517.d
Als bottle: 15
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: tclp.sub
Target Version: 3.40
Processing Host: hpuxcs21

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

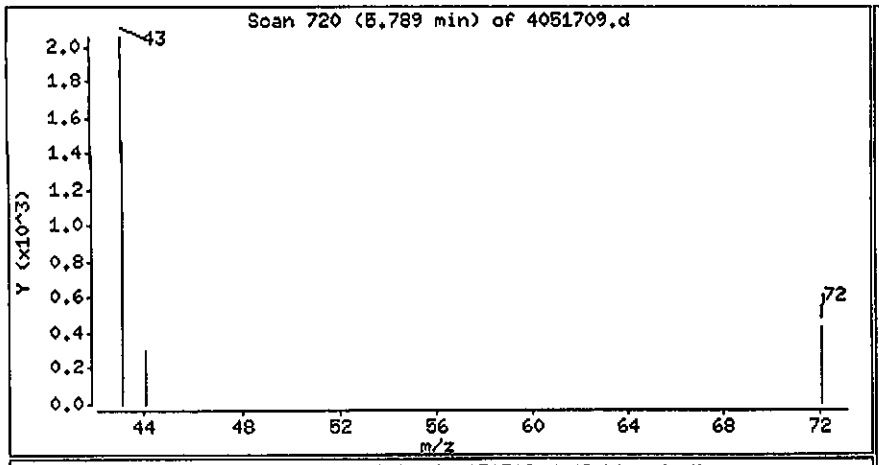
Name	Value	Description
DF	1.000	Dilution Factor
Vf	5.000	FinalVolume
Vo	5.000	Sample Volume
Vi	5.000	Purge Volume

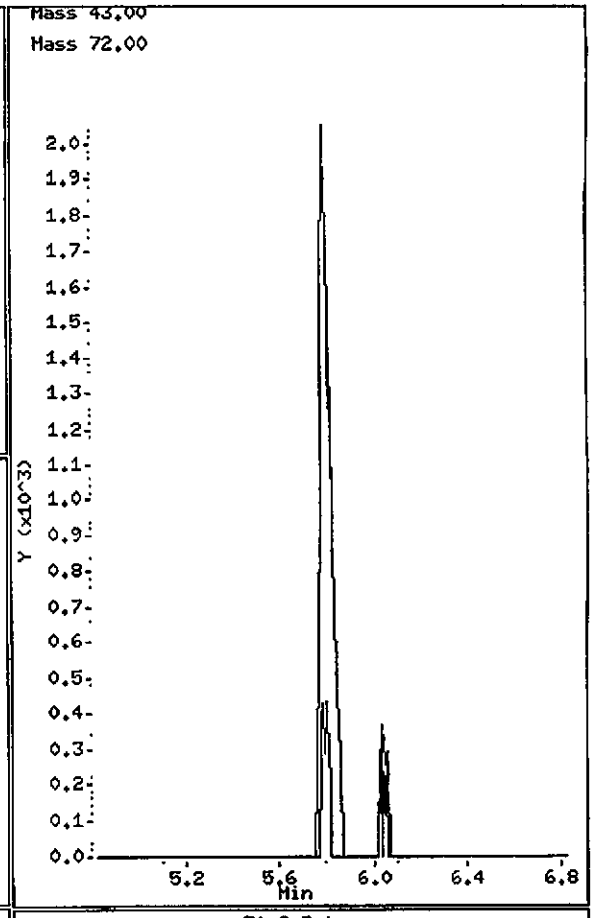
5/17/00

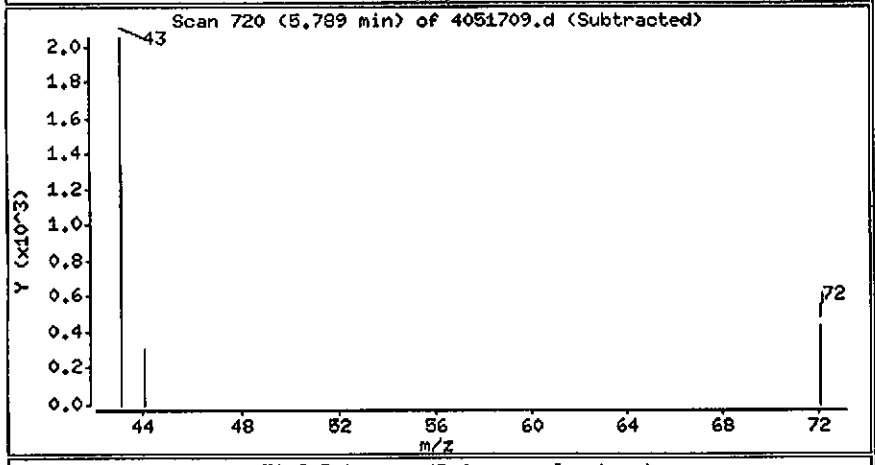
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (UG/L)
* 46 Fluorobenzene	96	7.012	6 994	(1.000)	677588		
* 69 Chlorobenzene-d5	119	10.130	10.124	(1 000)	135805		
* 92 1,4-Dichlorobenzene-d4	152	12.459	12 460	(1.000)	180580		
$ 43 1,2-Dichloroethane-d4	65	6 694	6.683	(0 955)	170681	268 832	53.77
$ 39 Dibromofluoromethane	113	6 297	6.285	(0.898)	120533	259.997	52 00
$ 59 Toluene-d8	98	8 663	8.645	(0 855)	563521	247.017	49.40
$ 80 Bromofluorobenzene	95	11.310	11.310	(1.116)	196647	223 133	44.63
3 Vinyl Chloride	62.00	Compound Not Detected.					
12 1,1-Dichloroethene	96 00	Compound Not Detected					
31 2-Butanone	43	5.789	5.821	(0.826)	6520	13.5346	2 707
37 Chloroform	83.00	Compound Not Detected					
41 Carbon Tetrachloride	117.00	Compound Not Detected					
42 Benzene	78.00	Compound Not Detected.					
45 1,2-Dichloroethane	62 00	Compound Not Detected					
47 Trichloroethene	130 00	Compound Not Detected.					

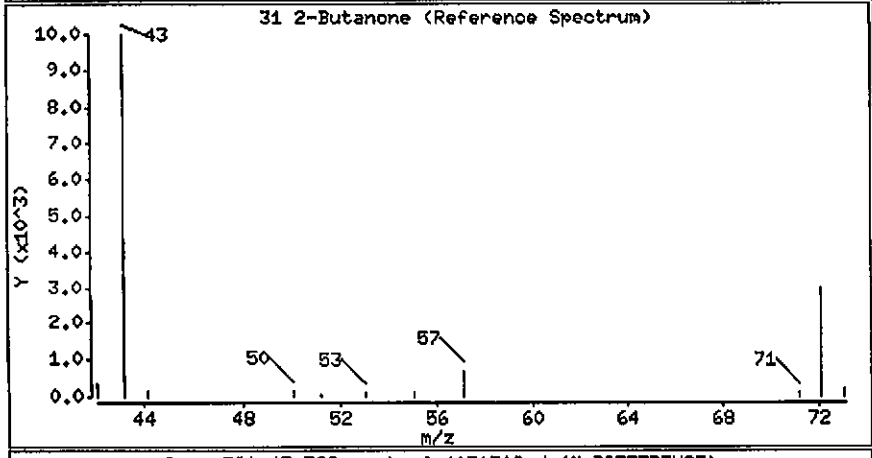
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (UG/L)
65 Tetrachloroethene	164.00	Compound Not Detected					
70 Chlorobenzene	112.00	Compound Not Detected					

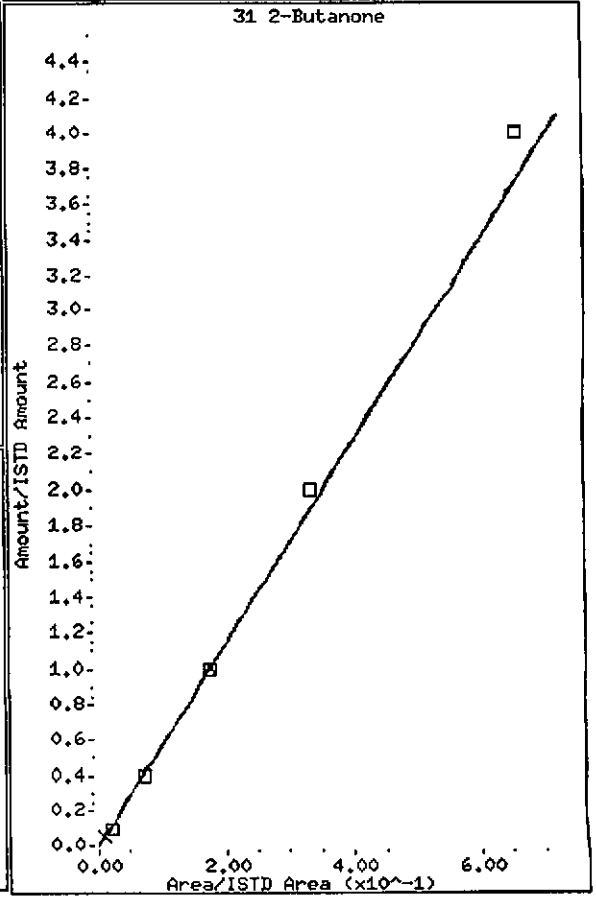
31 2-Butanone

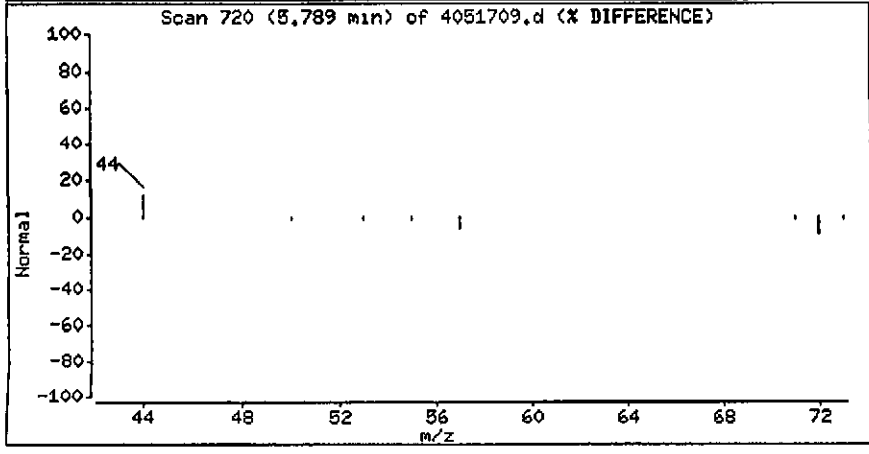












UXB INTERNATIONAL

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

Matrix: (soil/water) SOLID Lab Sample ID:C0E130194 003
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/13/00
Work Order: DD6A6101 Date Extracted:05/17/00
Dilution factor: 1 Date Analyzed: 05/17/00
Moisture %:10

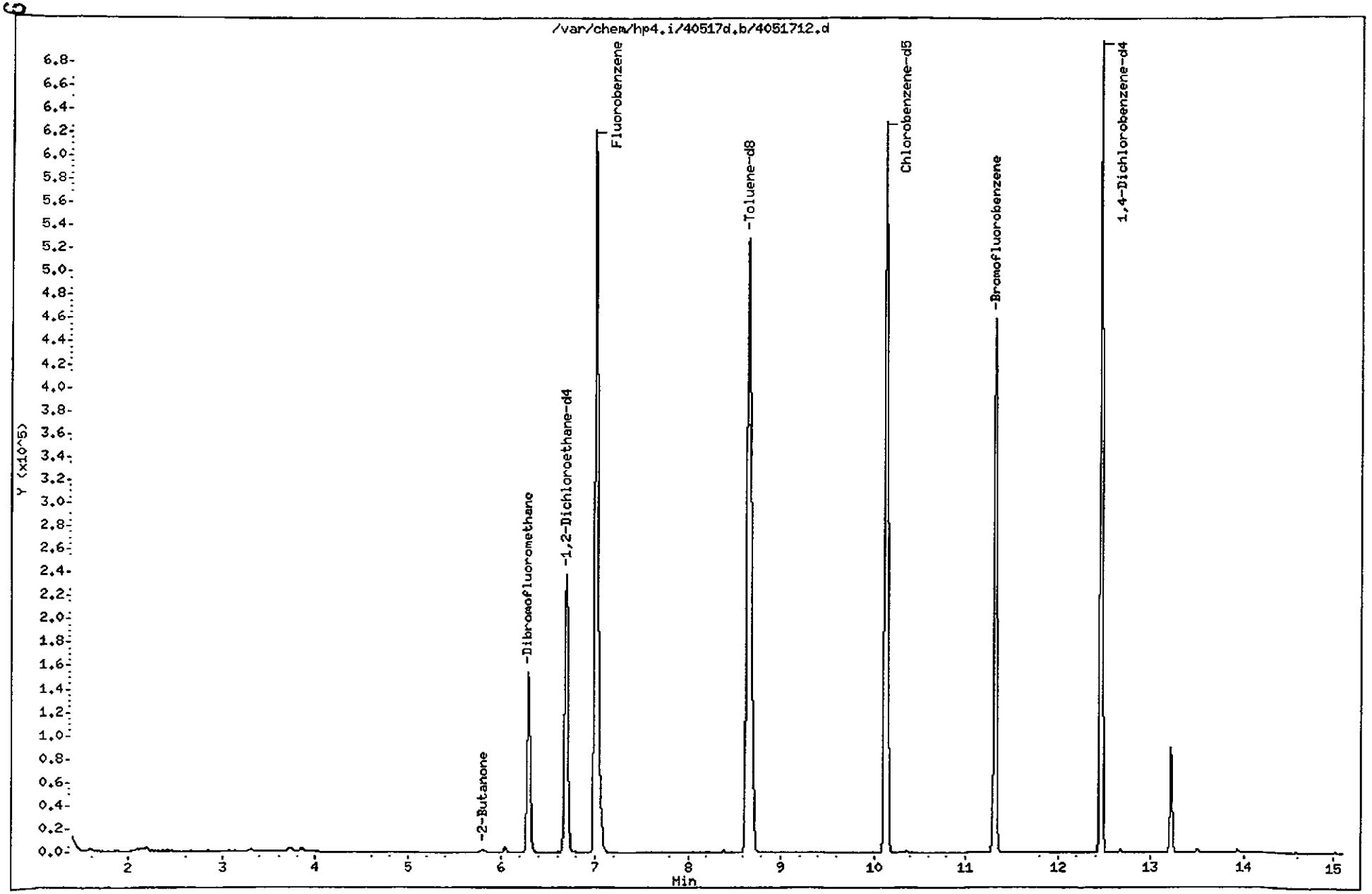
QC Batch: 0138262

Client Sample Id: DF/S1/0133/SDC/001 C

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	0.023	J
56-23-5	Carbon tetrachloride	0.050	U
108-90-7	Chlorobenzene	0.050	U
67-66-3	Chloroform	0.050	U
107-06-2	1,2-Dichloroethane	0.050	U
75-35-4	1,1-Dichloroethene	0.050	U
127-18-4	Tetrachloroethene	0.050	U
79-01-6	Trichloroethene	0.050	U
75-01-4	Vinyl chloride	0.050	U

Data File: /var/chem/hp4.i/40517d.b/4051712.d
Date : 17-MAY-2000 19:29
Client ID: 0133/001
Sample Info: c0e130194-003 (1ml/10ml)/ 5ml
Volume Injected (uL): 5.0
Column phase: DB 624

Instrument: hp4.i
Operator: 034635
Column diameter: 0.18



Data File: /var/chem/hp4.i/40517d.b/4051712.d
Report Date: 17-May-2000 19:47

STL-PITTSBURGH

VOLATILE REPORT SW-846 Method

Data file : /var/chem/hp4.i/40517d.b/4051712.d
Lab Smp Id: DD6A6101 Client Smp ID: 0133/001
Inj Date : 17-MAY-2000 19:29
Operator : 034635 Inst ID: hp4.i
Smp Info : c0e130194-003 (1ml/10ml)/ 5ml
Misc Info : dd6a6101,40517d.b,med1000.m
Comment :
Method : /var/chem/hp4.i/40517d.b/8260bh2o.m
Meth Date : 17-May-2000 14:06 dudeckk Quant Type: ISTD
Cal Date : 17-MAY-2000 13:03 Cal File: 1e40517.d
Als bottle: 18
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: tclp.sub
Target Version: 3.40
Processing Host: hpuxcs21

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

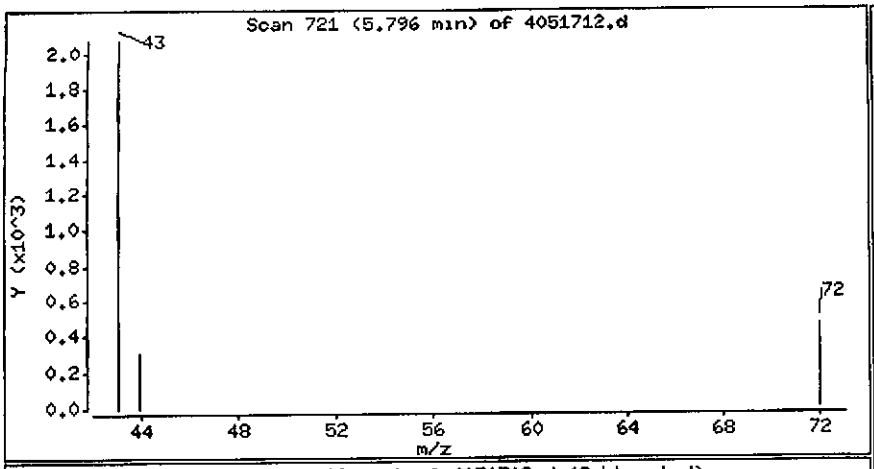
Name	Value	Description
DF	1.000	Dilution Factor
Vf	5.000	FinalVolume
Vo	5.000	Sample Volume
Vi	5.000	Purge Volume

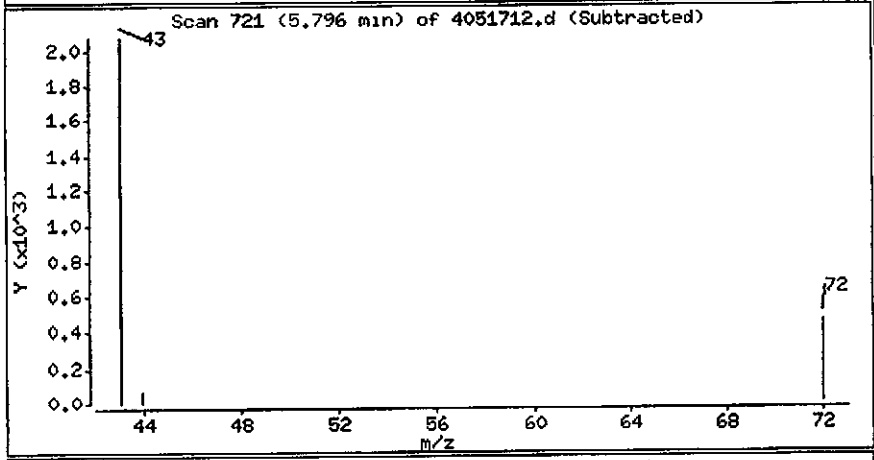
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (UG/L)
* 46 Fluorobenzene	96	7 007	6 994	(1 000)	736808		
* 69 Chlorobenzene-d5	119	10.131	10 124	(1.000)	142009		
* 92 1,4-Dichlorobenzene-d4	152	12.460	12 460	(1 000)	196867		
$ 43 1,2-Dichloroethane-d4	65	6.689	6 683	(0 955)	182429	264.241	52.85
$ 39 Dibromofluoromethane	113	6.292	6 285	(0.898)	128727	255 354	51 07
$ 59 Toluene-d8	98	8.658	8.645	(0.855)	633276	265.467	53.09
$ 80 Bromofluorobenzene	95	11.311	11 310	(1.116)	214408	232 658	46 53
3 Vinyl Chloride	62.00	Compound Not Detected.					
12 1,1-Dichloroethene	96.00	Compound Not Detected					
31 2-Butanone	43	5.796	5 821	(0.827)	6050	11 5495	2.310
37 Chloroform	83.00	Compound Not Detected					
41 Carbon Tetrachloride	117.00	Compound Not Detected					
42 Benzene	78 00	Compound Not Detected					
45 1,2-Dichloroethane	62 00	Compound Not Detected.					
47 Trichloroethene	130 00	Compound Not Detected					

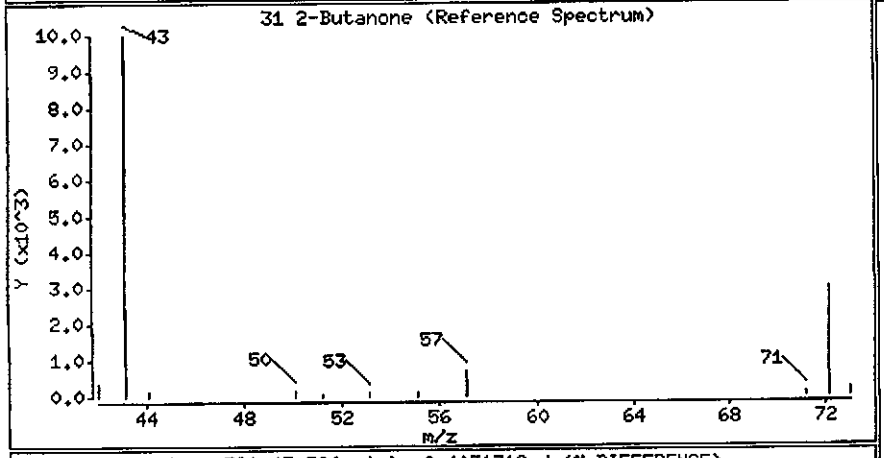
Data File: /var/chem/hp4.i/40517d.b/4051712.d
Report Date: 17-May-2000 19:47

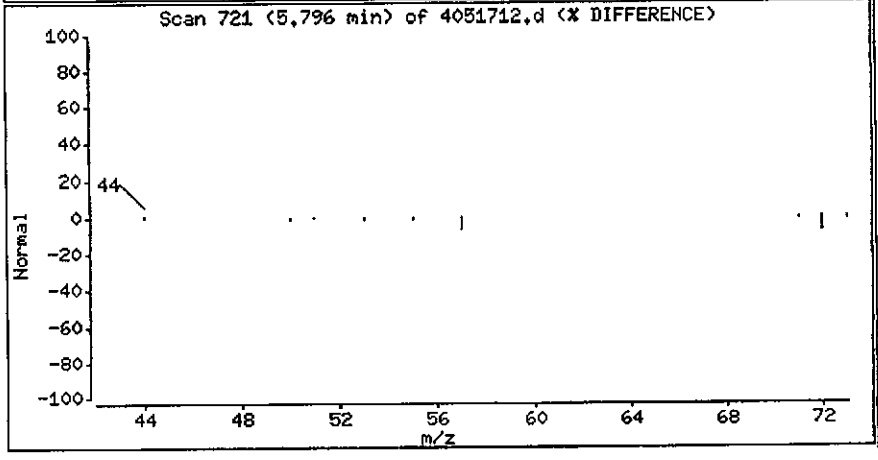
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (UG/L)
65 Tetrachloroethene	164 00	Compound Not Detected					
70 Chlorobenzene	112 00	Compound Not Detected					

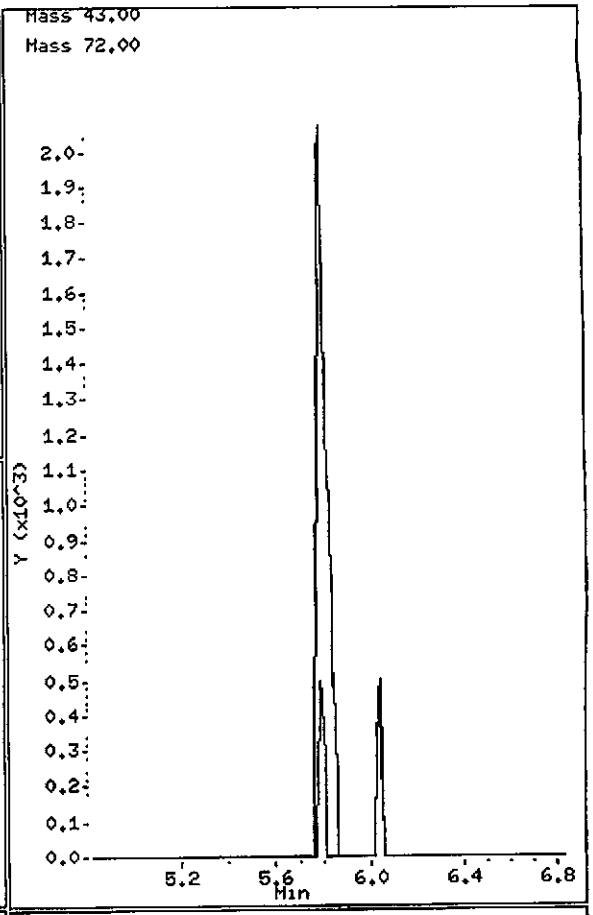
31 2-Butanone

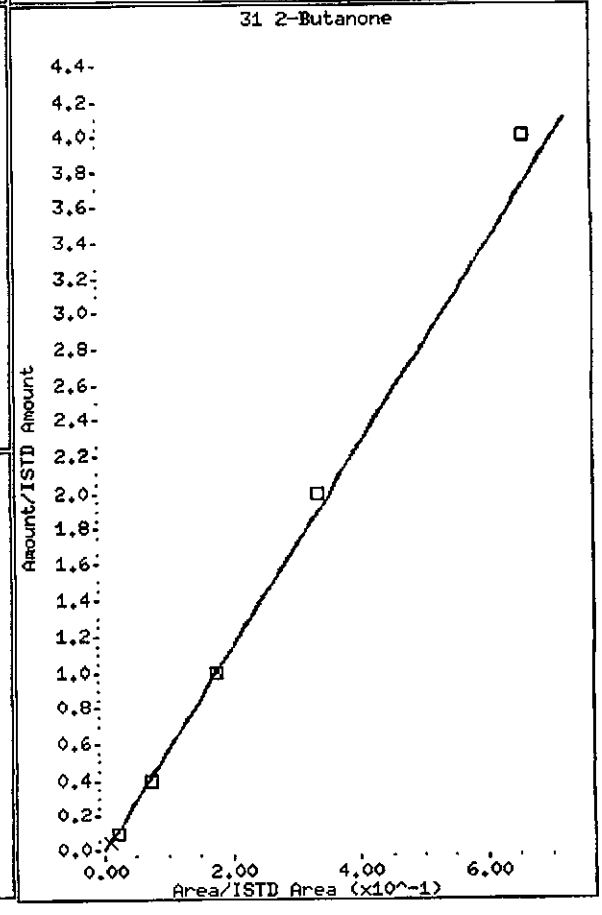












Lab Name:Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) SOLID Lab Sample ID:C0E130194 004
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/13/00
Work Order: DD6A7101 Date Extracted:05/17/00
Dilution factor: 1 Date Analyzed: 05/17/00
Moisture %:11

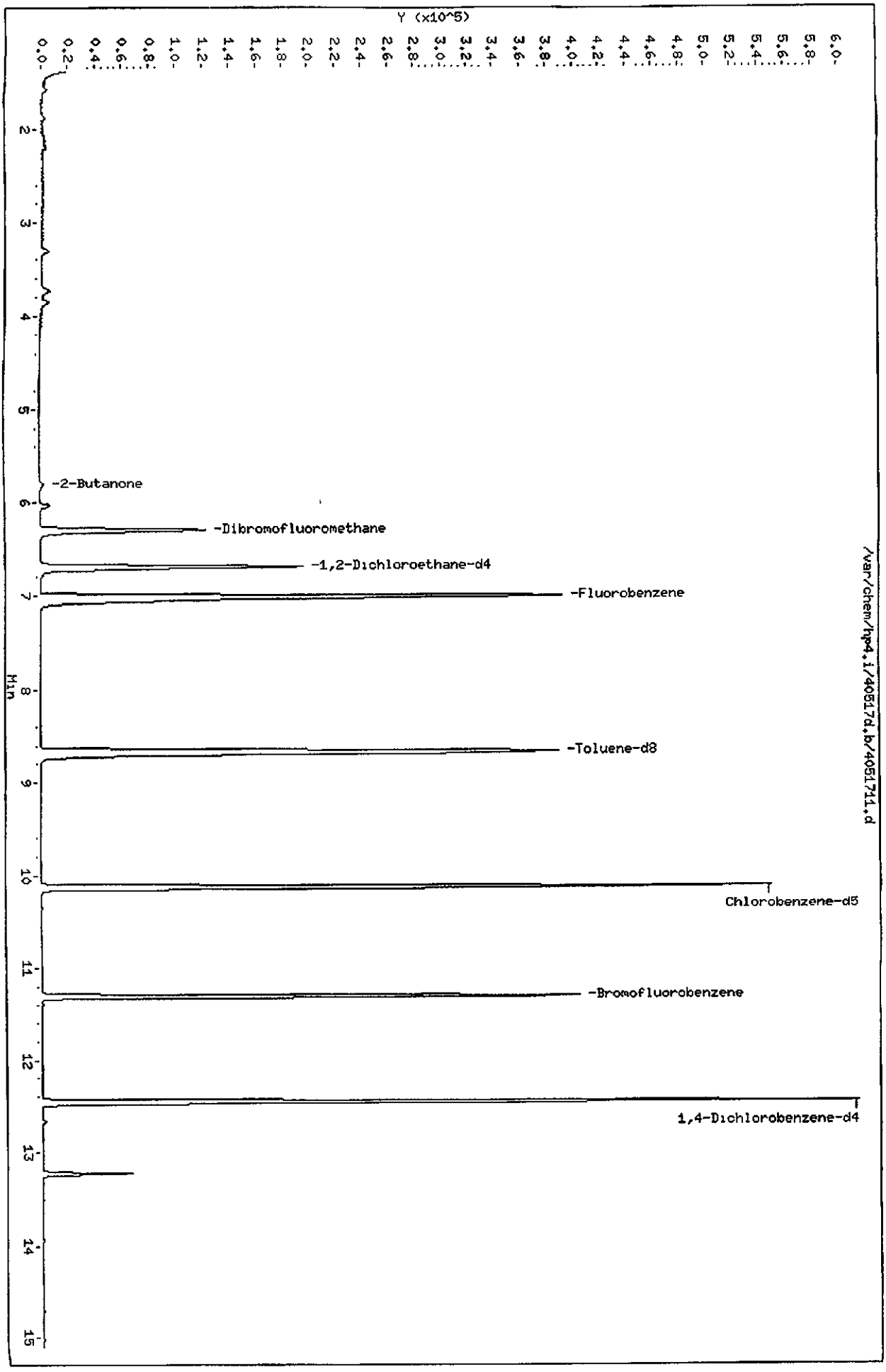
QC Batch: 0138262

Client Sample Id: DF/S1/0133/SDC/001 D

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**	**0.039**	**J**
56-23-5	Carbon tetrachloride	0.050	U
108-90-7	Chlorobenzene	0.050	U
67-66-3	Chloroform	0.050	U
107-06-2	1,2-Dichloroethane	0.050	U
75-35-4	1,1-Dichloroethene	0.050	U
127-18-4	Tetrachloroethene	0.050	U
79-01-6	Trichloroethene	0.050	U
75-01-4	Vinyl chloride	0.050	U

Data File: /var/chem/hp4.i/405l7d.b/4051711.d
Date : 17-MAY-2000 19:00
Client ID: SDC/001
Sample Info: c0e130194-004 (1ml/10ml)/ 5ml
Volume Injected (uL): 5.0
Column phase: DB 624

Instrument: hp4.i
Operator: 034635
Column diameter: 0.18



Data File: /var/chem/hp4.i/40517d.b/4051711.d
Report Date: 17-May-2000 19:19

STL-PITTSBURGH

VOLATILE REPORT SW-846 Method

Data file : /var/chem/hp4.i/40517d.b/4051711.d
Lab Smp Id: DD6A7101 Client Smp ID: SDC/001
Inj Date : 17-MAY-2000 19:00
Operator : 034635 Inst ID: hp4.i
Smp Info : c0e130194-004 (1ml/10ml)/ 5ml
Misc Info : dd6a7101,40517d.b,med1000.m
Comment :
Method : /var/chem/hp4.i/40517d.b/8260bh2o.m
Meth Date : 17-May-2000 14:06 dudeckk Quant Type: ISTD
Cal Date : 17-MAY-2000 13:03 Cal File: 1e40517.d
Als bottle: 17
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: tclp.sub
Target Version: 3.40
Processing Host: hpuxcs21

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

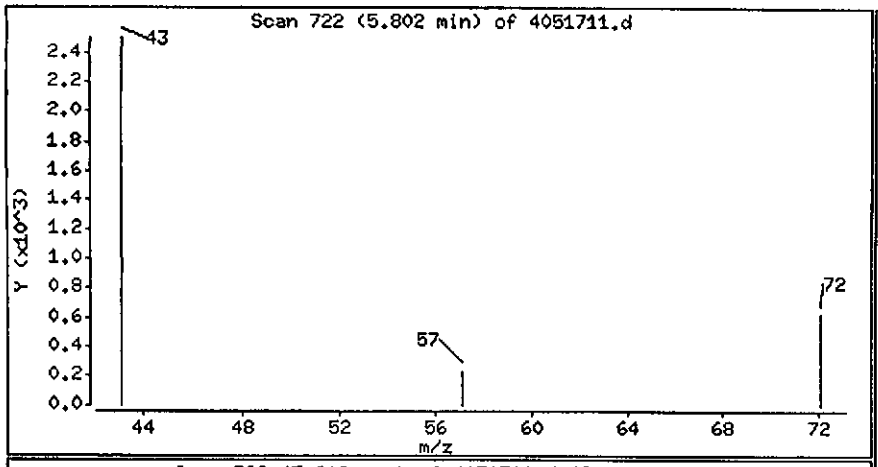
Name	Value	Description
DF	1.000	Dilution Factor
Vf	5.000	FinalVolume
Vo	5.000	Sample Volume
Vi	5.000	Purge Volume

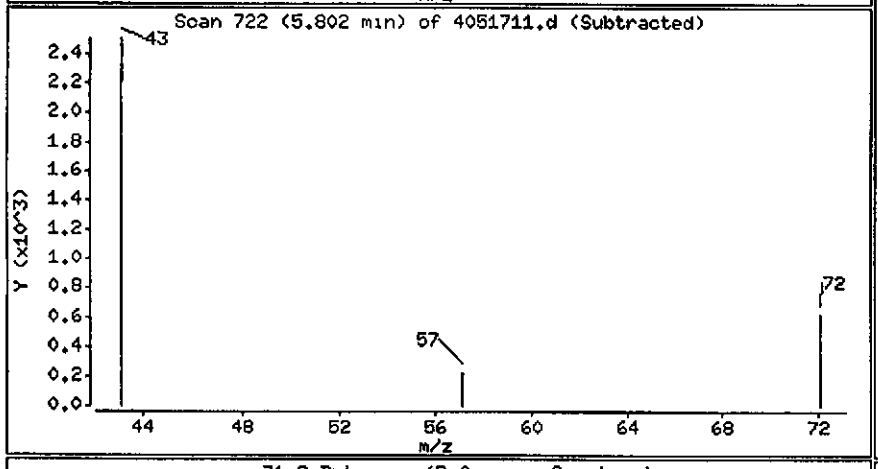
pll 5/17/a

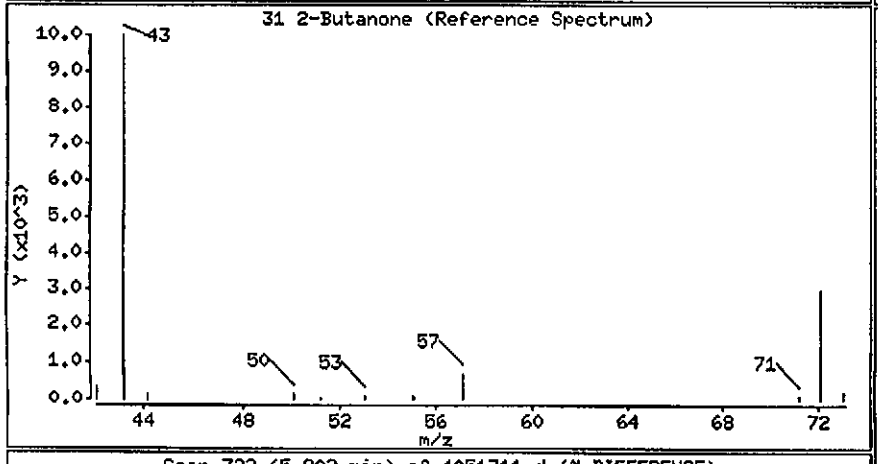
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (UG/L)
* 46 Fluorobenzene	96	7.012	6.994	(1.000)	585666		
* 69 Chlorobenzene-d5	119	10 130	10.124	(1.000)	123751		
* 92 1,4-Dichlorobenzene-d4	152	12 459	12 460	(1 000)	170776		
$ 43 1,2-Dichloroethane-d4	65	6.694	6.683	(0.955)	163186	297.368	59.47
$ 39 Dibromofluoromethane	113	6 297	6 285	(0 898)	107644	268.638	53 73
$ 59 Toluene-d8	98	8 663	8 645	(0 855)	499737	240 395	48 08
$ 80 Bromofluorobenzene	95	11 310	11 310	(1 116)	182591	227.365	45 47
3 Vinyl Chloride	62 00	Compound Not Detected					
12 1,1-Dichloroethene	96 00	Compound Not Detected					
31 2-Butanone	43	5 802	5.821	(0 827)	8176	19.6360	3 927
37 Chloroform	83 00	Compound Not Detected.					
41 Carbon Tetrachloride	117.00	Compound Not Detected					
42 Benzene	78.00	Compound Not Detected.					
45 1,2-Dichloroethane	62.00	Compound Not Detected					
47 Trichloroethene	130 00	Compound Not Detected.					

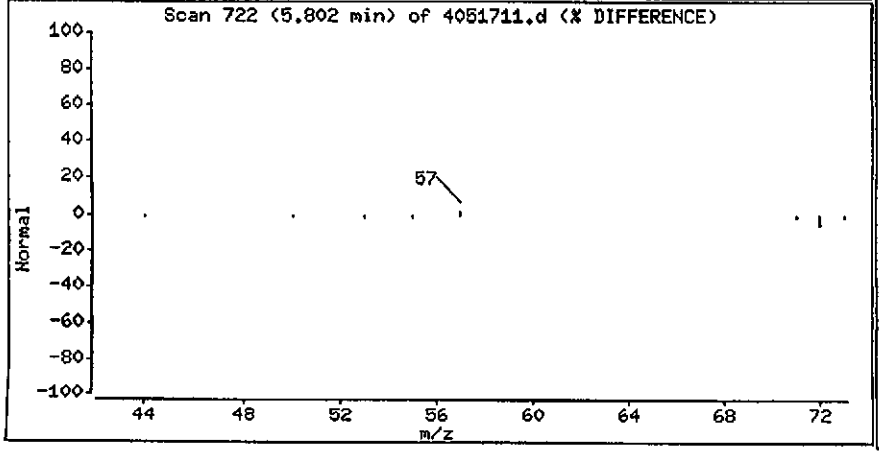
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (UG/L)
65 Tetrachloroethene	164.00	Compound Not Detected					
70 Chlorobenzene	112 00	Compound Not Detected					

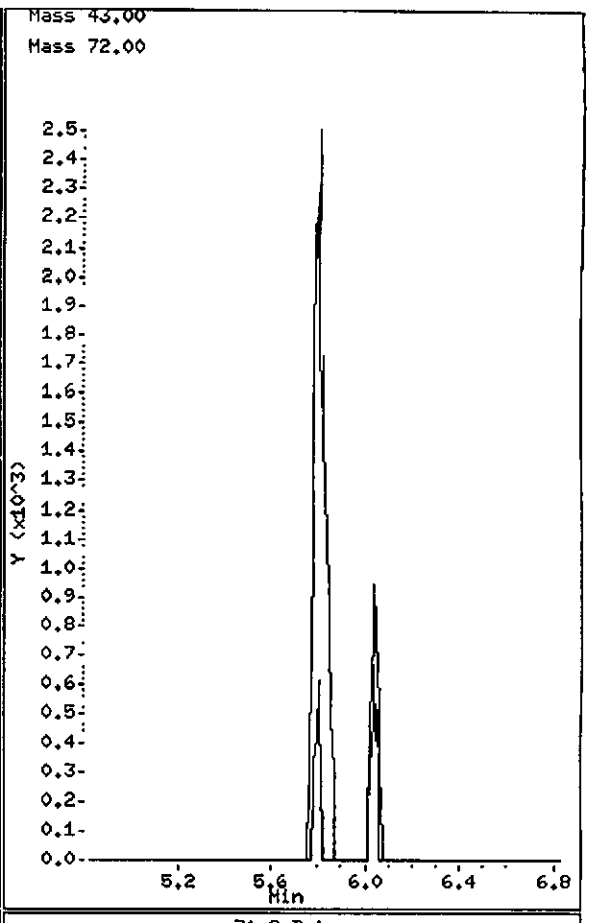
31 2-Butanone

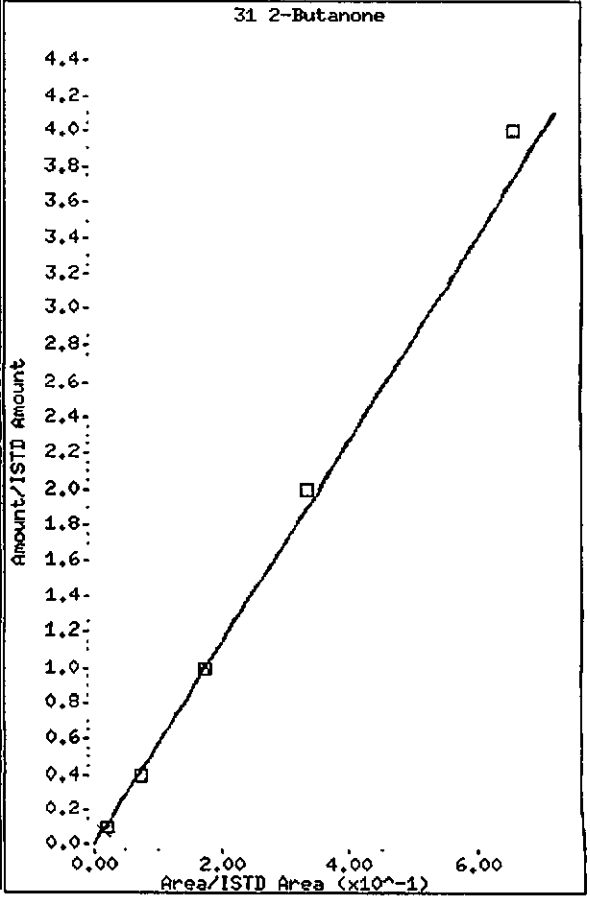












GC/MS VOLATILE
CALIBRATION DATA

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: STL-PITTSBURGH Contract:

Lab Code: STLPIT Case No.: SAS No.: 40325 SDG No.: 40826D

Instrument ID: HP4 Calibration Date(s): 05/17/00 05/17/00

Heated Purge: (Y/N) N Calibration Time(s): 1108 1303

GC Column: DB 624 ID: 0.18 (mm)

LAB FILE ID: RRF5 =1A40517 RRF20 =1B40517
RRF50 =CC40517 RRF100=1D40517 RRF200=1E40517

COMPOUND		RRF5	RRF20	RRF50	RRF100	RRF200	$\overline{RRF}$	% RSD
Dichlorodifluoromethane		0.114	0.118	0.127	0.129	0.121	0.122	5.1
Chloromethane	*	0.265	0.267	0.287	0.287	0.268	0.275	4.0*
Vinyl Chloride		0.254	0.247	0.262	0.276	0.261	0.260	4.1
Bromomethane		0.036	0.036	0.040	0.040	0.036	0.038	6.7
Chloroethane		0.041	0.044	0.049	0.046	0.040	0.044	8.7
Trichlorofluoromethane		0.061	0.057	0.083	0.080	0.068	0.070	16.3
1,1-Dichloroethene		0.157	0.160	0.180	0.170	0.144	0.162	8.4
Methylene Chloride		0.208	0.183	0.223	0.210	0.174	0.200	10.1
trans-1,2-Dichloroethene		0.171	0.192	0.216	0.204	0.186	0.194	8.8
1,1-Dichloroethane	*	0.360	0.387	0.424	0.416	0.399	0.397	6.4*
cis-1,2-dichloroethene		0.201	0.218	0.241	0.237	0:222	0.224	7.2
Chloroform		0.284	0.303	0.332	0.324	0.311	0.311	6.1
Bromochloromethane		0.076	0.088	0.094	0.094	0.090	0.088	8.2
1,1,1-Trichloroethane		0.192	0.224	0.246	0.247	0.240	0.230	9.9
Carbon Tetrachloride		0.111	0.133	0.159	0.162	0.158	0.145	15.3
1,2-Dichloroethane		0.226	0.247	0.274	0.268	0.256	0.254	7.6
Benzene		0.827	0.894	0.979	0.958	0.908	0.913	6.5
Trichloroethene		0.164	0.186	0.206	0.206	0.197	0.192	9.2
1,2-Dichloropropane		0.226	0.244	0.272	0.269	0.255	0.253	7.5
Bromodichloromethane		0.160	0.189	0.230	0.234	0.230	0.209	15.8
cis-1,3-Dichloropropene		0.253	0.299	0.356	0.358	0.348	0.323	14.1
Toluene		4.135	4.446	4.800	4.708	4.325	4.483	6.1
trans-1,3-Dichloropropene		0.985	1.213	1.380	1.418	1.353	1.270	13.9
1,1,2-Trichloroethane		0.759	0.873	0.920	0.913	0.859	0.865	7.5
Tetrachloroethene		0.524	0.571	0.631	0.636	0.603	0.593	7.9
Dibromochloromethane		0.406	0.512	0.633	0.674	0.667	0.578	20.1
Chlorobenzene	*	2.534	2.729	2.956	2.920	2.728	2.773	6.1*
Ethylbenzene		1.477	1.552	1.687	1.636	1.493	1.569	5.8
Styrene		2.631	3.130	3.468	3.459	3.030	3.144	11.0
Bromoform	*	0.185	0.240	0.335	0.377	0.376	0.303	28.5*
1,1,2,2-Tetrachloroethane	*	0.710	0.788	0.865	0.857	0.807	0.805	7.7*
1,3-Dichlorobenzene		1.201	1.257	1.393	1.376	1.191	1.284	7.4
1,4-Dichlorobenzene		1.230	1.291	1.377	1.364	1.282	1.309	4.7
1,2-Dichlorobenzene		1.112	1.167	1.278	1.267	1.215	1.208	5.8
Dibromomethane		0.094	0.102	0.118	0.113	0.106	0.107	8.7
1,2-Dibromoethane		0.650	0.746	0.811	0.816	0.752	0.755	8.9
1,1,1,2-Tetrachloroethane		0.543	0.641	0.753	0.762	0.704	0.681	13.3

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

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VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: STL-PITTSBURGH Contract:

Lab Code: STLPIT Case No.: SAS No.: 40325 SDG No.: 40826D

Instrument ID: HP4 Calibration Date(s): 05/17/00 05/17/00

Heated Purge: (Y/N) N Calibration Time(s): 1108 1303

GC Column: DB 624 ID: 0.18 (mm)

LAB FILE ID: RRF5 =1A40517 RRF20 =1B40517
RRF50 =CC40517 RRF100=1D40517 RRF200=1E40517

COMPOUND	RRF5	RRF20	RRF50	RRF100	RRF200	$\overline{RRF}$	% RSD
1,2,3-Trichloropropane	0.199	0.218	0.237	0.231	0.212	0.219	6.9
1,2-Dibromo-3-chloropropane	0.056	0.064	0.081	0.094	0.108	0.081	26.1
2,2-Dichloropropane	0.198	0.227	0.254	0.261	0.258	0.240	11.3
1,1-Dichloropropene	0.225	0.249	0.275	0.274	0.255	0.256	8.0
1,3-Dichloropropane	1.359	1.502	1.608	1.589	1.481	1.508	6.6
n-Propylbenzene	0.801	0.862	0.930	0.925	0.872	0.878	6.0
Bromobenzene	0.571	0.608	0.674	0.683	0.682	0.644	8.0
1,3,5-Trimethylbenzene	2.281	2.460	2.670	2.680	2.494	2.517	6.6
2-Chlorotoluene	0.698	0.720	0.791	0.777	0.741	0.745	5.2
4-Chlorotoluene	0.718	0.758	0.827	0.809	0.741	0.771	5.9
tert-Butylbenzene	1.919	2.078	2.296	2.308	2.152	2.151	7.5
1,2,4-Trimethylbenzene	2.282	2.543	2.742	2.744	2.536	2.569	7.4
sec-Butylbenzene	3.229	3.420	3.736	3.725	3.426	3.507	6.2
4-Isopropyltoluene	2.432	2.591	2.881	2.806	2.364	2.615	8.7
n-Butylbenzene	2.754	2.876	3.137	3.201	3.005	2.995	6.1
1,2,4-Trichlorobenzene	0.606	0.500	0.516	0.568	0.598	0.558	8.6
Hexachlorobutadiene	0.292	0.240	0.243	0.276	0.299	0.270	10.2
Naphthalene	1.521	1.100	1.061	1.222	1.336	1.248	15.0
1,2,3-Trichlorobenzene	0.682	0.373	0.357	0.379	0.417	0.442	30.8
Acetone	0.114	0.102	0.098	0.088	0.114	0.103	10.8
Carbon Disulfide	0.450	0.486	0.548	0.534	0.453	0.494	9.2
2-Butanone	0.199	0.181	0.176	0.167	0.166	0.178	7.6
4-Methyl-2-Pentanone	1.561	1.490	1.562	1.542	1.490	1.529	2.4
2-Hexanone	1.230	1.063	1.089	1.104	1.043	1.106	6.6
Methyl tert-butyl ether	0.401	0.474	0.506	0.500	0.493	0.475	9.1
Isopropylbenzene	3.890	4.473	4.947	4.903	4.413	4.525	9.5
1,2-Dichloroethene (total)	0.186	0.205	0.228	0.220	0.204	0.209	7.8
Xylenes (total)	1.645	1.809	2.004	2.029	1.857	1.869	8.4
Dibromofluoromethane	0.192	0.182	0.170	0.167	0.145	0.171	10.2
1,2-Dichloroethane-d4	0.265	0.245	0.235	0.227	0.199	0.234	10.3
Toluene-d8	4.746	4.524	4.201	4.068	3.458	4.199	11.7
Bromofluorobenzene	1.763	1.721	1.643	1.610	1.375	1.622	9.3

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

INITIAL CALIBRATION REPORT

Instrument ID: hp4.i
Lab File ID: 1a40517.d
Analysis Type: WATER

Injection Date: 17-MAY-2000 11:45
Lab Sample ID: vstd5
Method File: /var/chem/hp4.i/40517d.b/8260bh2

COMPOUND	%RSD
Xylenes (total)	8 4
1,2-Dichloroethene (total)	7 8
Dichlorodifluoromethane	5 1
Chloromethane	4.0
Vinyl Chloride	4 1
Bromomethane	6 7
Chloroethane	8 7
Trichlorofluoromethane	16 3
1,1-Dichloroethene	8 4
Carbon Disulfide	9 2
Acetone	10.8
Methylene Chloride	10 1
trans 1,2-Dichloroethene	8 8
Methyl tert-butyl ether	9.1
1,1-Dichloroethane	6.4
2,2 Dichloropropane	11 3
cis-1,2-dichloroethene	7 2
2-Butanone	7 6
Bromochloromethane	8 2
Chloroform	6 1
1,1,1-Trichloroethane	9 9
Dibromofluoromethane	10.2
Carbon Tetrachloride	15 3
1,1-Dichloropropene	8 0
Benzene	6 5
1,2-Dichloroethane-d4	10 3
1,2-Dichloroethane	7 6
Trichloroethene	9 2
1,2-Dichloropropane	7.5
Dibromomethane	8 7
Bromodichloromethane	15 8
cis-1,3-Dichloropropene	14.1
4-Methyl-2-Pentanone	2.4
Toluene-d8	11 7
Toluene	6 1
trans-1,3-Dichloropropene	13 9
1,1,2-Trichloroethane	7.5
Tetrachloroethene	7 9
1,3-Dichloropropane	6 6

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INITIAL CALIBRATION REPORT

Instrument ID: hp4.i
Lab File ID: 1a40517.d
Analysis Type: WATER

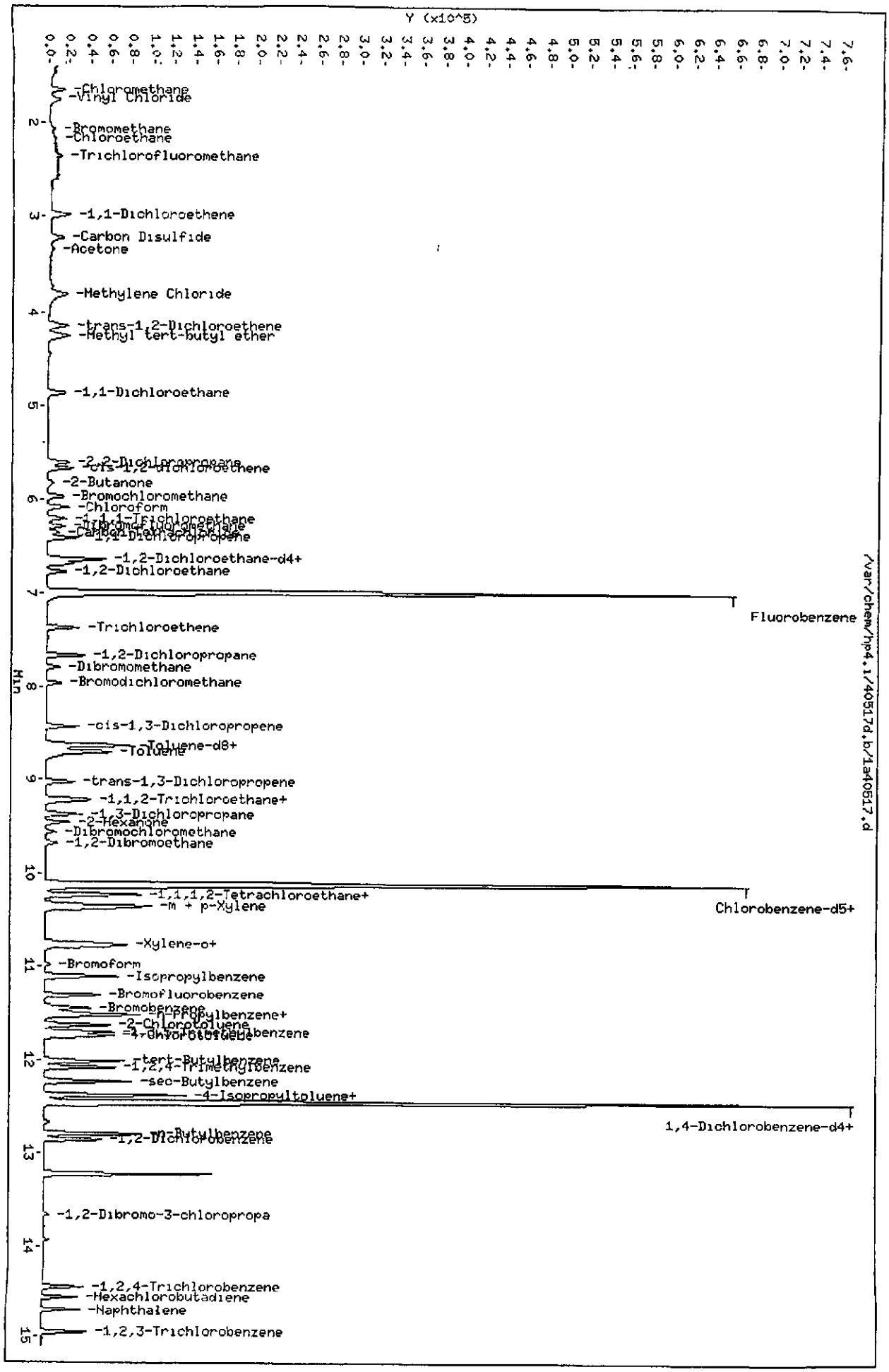
Injection Date: 17-MAY-2000 11:45
Lab Sample ID: vstd5
Method File: /var/chem/hp4.i/40517d.b/8260bh2

COMPOUND	%RSD
2-Hexanone	6 6
Dibromochloromethane	20 1
1,2-Dibromoethane	8 9
Chlorobenzene	6 1
Ethylbenzene	5 8
1,1,1,2-Tetrachloroethane	13 3
m + p-Xylene	8 0
Xylene o	8 4
Styrene	11 0
Bromoform	28 5
Isopropylbenzene	9 5
Bromofluorobenzene	9 3
Bromobenzene	8 0
1,1,2,2-Tetrachloroethane	7 7
n-Propylbenzene	6 0
1,2,3-Trichloropropane	6 9
2-Chlorotoluene	5 2
1,3,5 Trimethylbenzene	6 6
4-Chlorotoluene	5 9
tert-Butylbenzene	7 5
1,2,4-Trimethylbenzene	7 4
sec-Butylbenzene	6 2
4 Isopropyltoluene	8 7
1,3-Dichlorobenzene	7 4
1,4-Dichlorobenzene	4 7
n-Butylbenzene	6 1
1,2 Dichlorobenzene	5 8
1,2-Dibromo-3-chloropropane	26 1
1,2,4-Trichlorobenzene	8 6
Hexachlorobutadiene	10 2
Naphthalene	15 0
1,2,3-Trichlorobenzene	30 8

The average of all %RSD's in the initial calibration is 9 4

Data File: /var/chem/hp4.i/40517d.b/1a40517.d
Date : 17-MAY-2000 11:45
Client ID: vstd5
Sample Info: vstd5 5ml
Volume Injected (uL): 5.0
Column phase: DB 624

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



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VOLATILE REPORT SW-846 Method

Data file : /var/chem/hp4.i/40517d.b/1a40517.d
Lab Smp Id: vstd5 Client Smp ID: vstd5
Inj Date : 17-MAY-2000 11:45
Operator : 16328 Inst ID: hp4.i
Smp Info : vstd5 5ml
Misc Info : ,40517d.b,med1000.m
Comment :
Method : /var/chem/hp4.i/40517d.b/8260bh2o.m
Meth Date : 17-May-2000 13:43 dudeckk Quant Type: ISTD
Cal Date : 17-MAY-2000 13:03 Cal File: 1e40517.d
Als bottle: 5 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2-padep.sub
Target Version: 3.40
Processing Host: hpuxcs21

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

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

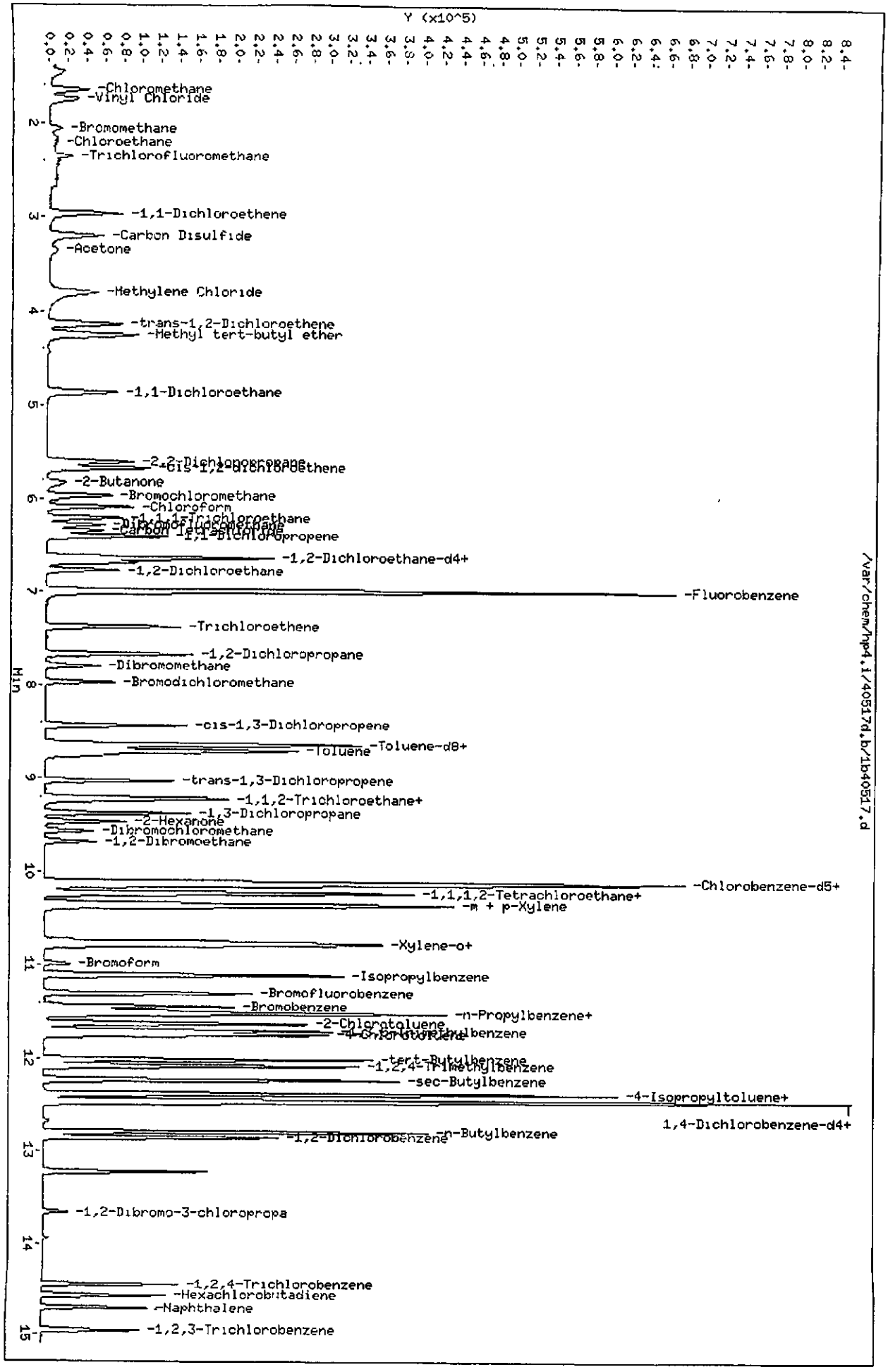
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
*	46 Fluorobenzene	96	6 994	6 996	(1 000)	695137		
*	69 Chlorobenzene-d5	119	10 124	10 126	(1 000)	149448		
*	92 1,4 Dichlorobenzene-d4	152	12 459	12.462	(1 000)	215803		
$	39 Dibromofluoromethane	113	6 285	6 287	(0 899)	13325	25 0000	28 02
$	43 1,2-Dichloroethane-d4	65	6 682	6 684	(0 955)	18405	25 0000	28.26
$	59 Toluene-d8	98	8 645	8 647	(0.854)	70926	25.0000	28.25
$	80 Bromofluorobenzene	95	11 304	11 312	(1.117)	26349	25 0000	27 17
	1 Dichlorodifluoromethane	85	1 455	1 488	(0 208)	7900	25 0000	23 31
	2 Chloromethane	50	1.645	1 647	(0 235)	18434	25 0000	24 13
	3 Vinyl Chloride	62	1 743	1 769	(0.249)	17657	25 0000	24.41
	4 Bromomethane	94	2.055	2 069	(0.294)	2501	25 0000	23 85
	5 Chloroethane	64	2.158	2 203	(0 309)	2879	25 0000	23 58
	6 Trichlorofluoromethane	101	2 360	2.350	(0 337)	4237	25 0000	21.85
	12 1,1-Dichloroethene	96	2 984	2 943	(0.427)	10943	25 0000	24 25
	13 Acetone	43	3 351	3 377	(0 479)	7965	25 0000	27 72

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
15	Carbon Disulfide	76	3 222	3 182	(0 461)	31285	25 0000	22 76
18	Methylene Chloride	84	3 815	3 799	(0 545)	14444	25 0000	26 02
19	trans 1,2-Dichloroethene	96	4 151	4.129	(0 594)	11915	25 0000	22 08
20	Methyl tert butyl ether	73	4 255	4 270	(0 608)	27866	25 0000	21 11
24	1,1-Dichloroethane	63	4 873	4 857	(0 697)	25017	25 0000	22 64
27	2,2-Dichloropropane	77	5.613	5 609	(0 802)	13751	25 0000	20 62
28	cis-1,2-dichloroetnene	96	5.674	5 670	(0 811)	13950	25 0000	22.44
M 29	1,2-Dichloroethene (total)	100				25865	50 0000	44 54
30	Bromochloromethane	128	5 979	5 975	(0 855)	5304	25 0000	21 55
31	2-Butanone	43	5.826	5 847	(0.833)	13827	25 0000	27 98
37	Chloroform	83	6 089	6 091	(0 871)	19719	25 0000	22.82
38	1,1,1-Trichloroethane	97	6 212	6 202	(0 888)	13364	25 0000	20 91
40	1,1-Dichloropropene	75	6 407	6 403	(0 916)	15669	25 0000	22 04
41	Carbon Tetrachloride	117	6.352	6 342	(0 908)	7703	25 0000	19.19
42	Benzene	78	6 640	6 636	(0 949)	57472	25 0000	22 64
45	1,2-Dichloroethane	62	6 774	6 770	(0 969)	15678	25 0000	22 18
47	Trichloroethene	130	7 385	7 381	(1 056)	11390	25 0000	21.35
49	1,2-Dichloropropane	63	7 673	7 675	(1 097)	15727	25 0000	22 32
50	Dibromomethane	93	7 801	7 797	(1 115)	6559	25 0000	22 07
53	Bromodichloromethane	83	7 966	7 974	(1 139)	11111	25 0000	19 12
57	cis-1,3-Dichloropropene	75	8 437	8 439	(1 206)	17617	25 0000	19 62
58	4-Methyl-2-Pentanone	43	8 626	8 635	(0 852)	23331	25 0000	25 52
60	Toluene	91	8 712	8 714	(0 861)	61794	25 0000	23 06
61	trans-1,3-Dichloropropene	75	9 030	9 032	(0 892)	14723	25 0000	19 40
63	1,3-Dichloropropane	76	9 378	9.380	(0 926)	20309	25 0000	22 53
64	1,1,2-Trichloroethane	97	9 207	9.215	(0 909)	11338	25 0000	21 93
65	Tetrachloroethene	164	9 232	9 234	(0.912)	7824	25.0000	22 07
66	2-Hexanone	43	9 458	9 466	(0 934)	18386	25 0000	27 81
67	Dibromochloromethane	129	9 568	9.570	(0 945)	6062	25 0000	17 53
68	1,2 Dibromoethane	107	9 684	9 686	(0 957)	9720	25 0000	21 53
70	Chlorobenzene	112	10 149	10 157	(1.002)	37868	25.0000	22 84
71	1,1,1,2-Tetrachloroethane	131	10.240	10 249	(1.011)	8120	25.0000	19 95
72	Ethylbenzene	106	10 228	10 236	(1 010)	22068	25 0000	23 53
73	m + p-Xylene	106	10 350	10 359	(1 022)	50538	50 0000	45.09
74	Xylene-o	106	10 754	10 756	(1 062)	24591	25.0000	22 01
M 75	Xylenes (total)	106				75129	25.0000	67 24
76	Styrene	104	10 784	10 787	(1 065)	39318	25 0000	20 92
77	Bromoform	173	10 986	10 988	(1 085)	2766	25 0000	15.28
78	Isopropylbenzene	105	11 108	11 111	(1.097)	58142	25 0000	21 49
79	Bromobenzene	156	11.445	11 453	(0 919)	12324	25 0000	22 17
81	n-Propylbenzene	120	11 518	11 526	(0 924)	17289	25 0000	22 81
82	2-Chlorotoluene	126	11 628	11 636	(0 933)	15069	25 0000	23 42
83	1,1,2,2-Tetrachloroethane	83	11 487	11 490	(0 922)	15320	25 0000	22 04
84	1,2,3-Trichloropropane	110	11 530	11 538	(0 925)	4305	25 0000	22 73
85	4-Chlorotoluene	126	11.750	11 752	(0 943)	15507	25.0000	23 30
86	1,3,5-Trimethylbenzene	105	11 707	11 710	(0 940)	49224	25.0000	22 65
87	tert-Butylbenzene	119	12 013	12 015	(0.964)	41419	25 0000	22 31

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
88 1,2,4-Trimethylbenzene	105	12 080	12 083	(0.970)	49237	25 0000	22 20
89 sec Butylbenzene	105	12 239	12 242	(0 982)	69676	25 0000	23 01
90 4-Isopropyltoluene	119	12 386	12 388	(0 994)	52479	25 0000	23.25
91 1,3-Dichlorobenzene	146	12 386	12 382	(0 994)	25919	25 0000	23 39
93 1,4-Dichlorobenzene	146	12.484	12 486	(1.002)	26544	25 0000	23.49
94 n-Butylbenzene	91	12 796	12 798	(1 027)	59437	25 0000	22.99
95 1,2-Dichlorobenzene	146	12.857	12 859	(1 032)	23998	25 0000	23 01
96 1,2-Dibromo-3-chloropropane	157	13.664	13 660	(1.097)	1220	25 0000	17 55
97 1,2,4-Trichlorobenzene	180	14 459	14 461	(1 160)	13080	25 0000	27 17
98 Hexachlorobutadiene	225	14 581	14 583	(1 170)	6293	25.0000	27 02
99 Naphthalene	128	14 715	14 711	(1 181)	32822	25 0000	30 47
100 1,2,3 Trichlorobenzene	180	14 966	14.962	(1 201)	14724	25 0000	38 61

Data File: /var/chem/hp4.i/405170.b/1b40517.d
Date : 17-MAY-2000 12:09
Client ID: vstd20
Sample Info: vstd20 5ml
Volume Injected (uL): 5.0
Column phase: DB 624

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



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VOLATILE REPORT SW-846 Method

Data file : /var/chem/hp4.i/40517d.b/1b40517.d
Lab Smp Id: vstd20 Client Smp ID: vstd20
Inj Date : 17-MAY-2000 12:09
Operator : 16328 Inst ID: hp4.i
Smp Info : vstd20 5ml
Misc Info : ,40517d.b,med1000.m
Comment :
Method : /var/chem/hp4.i/40517d.b/8260bh2o.m
Meth Date : 17-May-2000 13:44 dudeckk Quant Type: ISTD
Cal Date : 17-MAY-2000 13:03 Cal File: 1e40517.d
Als bottle: 6 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2-padep.sub
Target Version: 3.40
Processing Host: hpuxcs21

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

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

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL AMT (ng)	ON-COL (ng)
* 46 Fluorobenzene	96	6 993	6 996	(1.000)	693290		
* 69 Chlorobenzene-d5	119	10.123	10 126	(1 000)	149250		
* 92 1,4-Dichlorobenzene-d4	152	12 459	12 462	(1 000)	227595		
$ 39 Dibromofluoromethane	113	6 284	6 287	(0.899)	50380	100 000	106.2
$ 43 1,2-Dichloroethane-d4	65	6.688	6 684	(0.956)	67909	100.000	104.5
$ 59 Toluene d8	98	8.644	8 647	(0 854)	270089	100 000	107 7
$ 80 Bromofluorobenzene	95	11 309	11 312	(1.117)	102751	100 000	106 1
1 Dichlorodifluoromethane	85	1 455	1 488	(0.208)	32883	100 000	97 29
2 Chloromethane	50	1.644	1 647	(0 235)	74057	100.000	97 19
3 Vinyl Chloride	62	1.742	1.769	(0 249)	68569	100 000	95 06
4 Bromomethane	94	2 066	2 069	(0 295)	10004	100 000	95.66
5 Chloroethane	64	2 152	2 203	(0.308)	12103	100.000	99 37
6 Trichlorofluoromethane	101	2.353	2 350	(0 337)	15824	100 000	81 81
12 1,1-Dichloroethene	96	2 965	2 943	(0 424)	44309	100 000	98.45
13 Acetone	43	3 344	3 377	(0.478)	28419	100 000	99 17

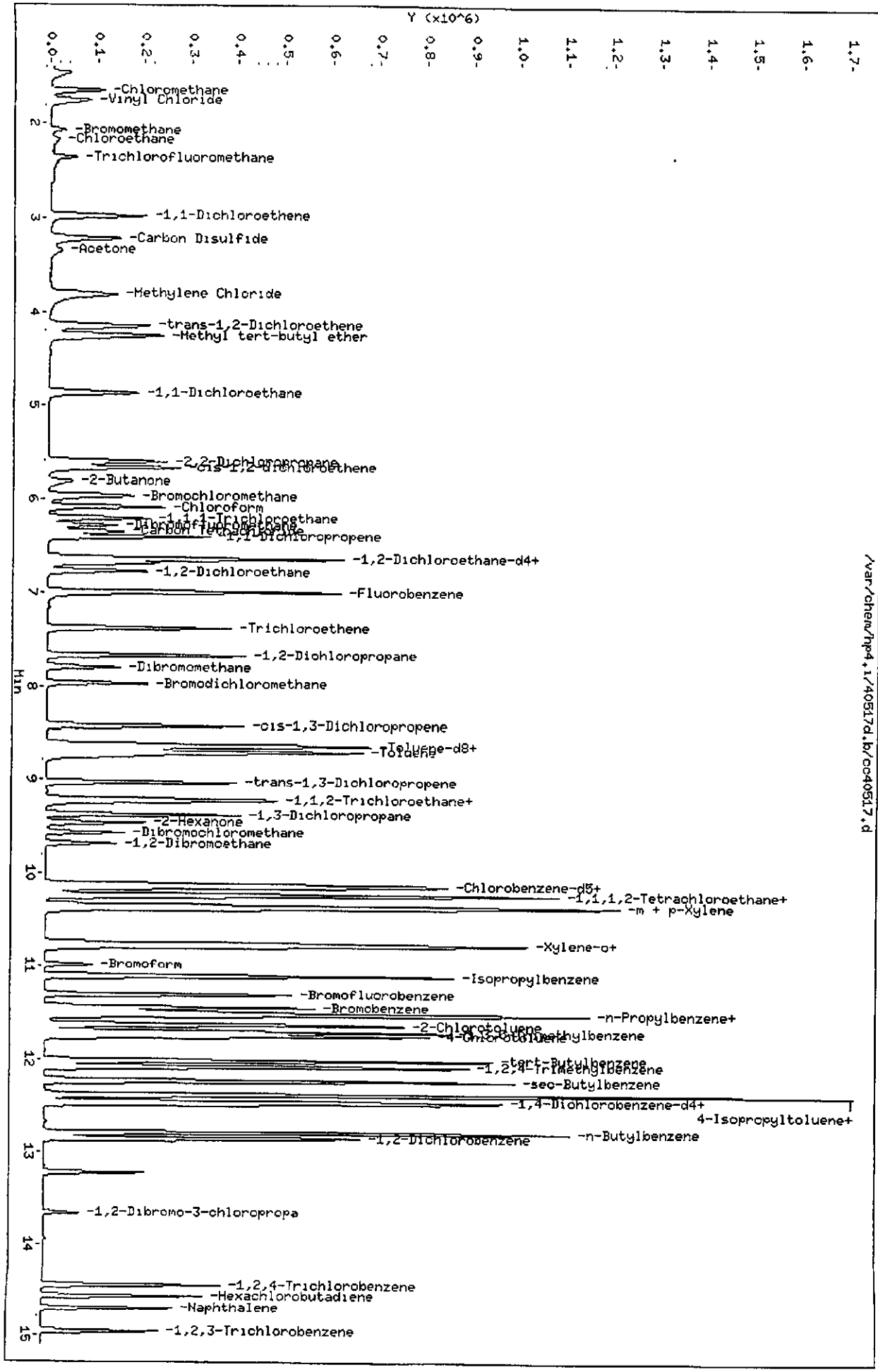
Data File: /var/chem/hp4.i/40517d.b/1b40517.d
Report Date: 17-May-2000 13:44

	Compounds	QUANT SIG MASS	RT	EXP RT REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
	15 Carbon Disulfide	76	3 203	3 182 (0 458)	134764	100 000	98 30
	18 Methylene Chloride	84	3 808	3.799 (0 545)	50878	100 000	91 91
	19 trans-1,2-Dichloroethene	96	4 145	4.129 (0 593)	53357	100 000	99 13
	20 Methyl tert-butyl ether	73	4 261	4 270 (0.609)	131582	100 000	99 93
	24 1,1-Dichloroethane	63	4 866	4 857 (0 696)	107347	100 000	97 41
	27 2,2-Dichloropropane	77	5 612	5.609 (0 802)	63081	100 000	94 84
	28 cis-1,2-dichloroethene	96	5 673	5 670 (0 811)	60464	100 000	97.51
M	29 1,2-Dichloroethene (total)	100			113821	200 000	196 5
	30 Bromochloromethane	128	5 979	5.975 (0 855)	24435	100 000	99 53
	31 2-Butanone	43	5 826	5 847 (0 833)	50305	100 000	102 1
	37 Chloroform	83	6 089	6 091 (0 871)	84073	100 000	97 56
	38 1,1,1-Trichloroethane	97	6 205	6.202 (0 887)	62265	100.000	97.67
	40 1,1-Dichloropropene	75	6 407	6.403 (0 916)	68985	100 000	97 27
	41 Carbon Tetrachloride	117	6 345	6 342 (0 907)	36778	100 000	91 86
	42 Benzene	78	6.639	6 636 (0.949)	247867	100 000	97 88
	45 1,2-Dichloroethane	62	6 773	6 770 (0 969)	68487	100 000	97 17
	47 Trichloroethene	130	7 379	7.381 (1 055)	51621	100 000	97 01
	49 1,2 Dichloropropane	63	7 672	7 675 (1.097)	67722	100.000	96.38
	50 Dibromomethane	93	7 800	7 797 (1 115)	28403	100.000	95 82
	53 Bromodichloromethane	83	7 972	7.974 (1 140)	52518	100 000	90 64
	57 cis-1,3 Dichloropropene	75	8 436	8 439 (1 206)	82958	100 000	92 65
	58 4-Methyl 2-Pentanone	43	8 626	8 635 (0.852)	88960	100 000	97 43
	60 Toluene	91	8 711	8 714 (0 861)	265444	100 000	99 18
	61 trans-1,3-Dichloropropene	75	9 029	9.032 (0 892)	72424	100 000	95 54
	63 1,3-Dichloropropane	76	9 378	9 380 (0 926)	89640	100 000	99 59
	64 1,1,2-Trichloroethane	97	9 213	9 215 (0.910)	52125	100.000	101.0
	65 Tetrachloroethene	164	9 231	9 234 (0 912)	34098	100 000	96.32
	66 2-Hexanone	43	9 463	9.466 (0 935)	63481	100 000	96 16
	67 Dibromochloromethane	129	9 567	9 570 (0.945)	30569	100.000	88 52
	68 1,2-Dibromoethane	107	9 683	9 686 (0 957)	44571	100 000	98 86
	70 Chlorobenzene	112	10 148	10.157 (1 002)	162934	100 000	98 41
	71 1,1,1,2-Tetrachloroethane	131	10 240	10 249 (1.011)	38253	100 000	94 12
	72 Ethylbenzene	106	10 233	10 236 (1 011)	92680	100.000	98 95
	73 m + p-Xylene	106	10 356	10 359 (1 023)	226334	200 000	202 2
	74 Xylene-o	106	10 753	10.756 (1 062)	108012	100 000	96 80
M	75 Xylenes (total)	106			334346	100.000	299 6
	76 Styrene	104	10 784	10 787 (1.065)	186878	100.000	99 58
	77 Bromoform	173	10 985	10 988 (1 085)	14349	100 000	79 36
	78 Isopropylbenzene	105	11 108	11.111 (1 097)	267060	100 000	98 85
	79 Bromobenzene	156	11 444	11 453 (0.919)	55402	100.000	94 51
	81 n-Propylbenzene	120	11.523	11.526 (0.925)	78527	100.000	98 22
	82 2 Chlorotoluene	126	11 627	11 636 (0 933)	65547	100 000	96 58
	83 1,1,2,2-Tetrachloroethane	83	11 487	11.490 (0 922)	71746	100 000	97.86
	84 1,2,3-Trichloropropane	110	11 536	11 538 (0.926)	19847	100 000	99 36
	85 4-Chlorotoluene	126	11 750	11 752 (0 943)	69049	100 000	98 39
	86 1,3,5-Trimethylbenzene	105	11 707	11 710 (0 940)	223987	100 000	97.74
	87 tert-Butylbenzene	119	12 019	12 015 (0 965)	189222	100 000	96.65

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON COL (ng)
88 1,2,4 Trimethylbenzene	105	12 080	12 083	(0 970)	231554	100 000	98 99
89 sec-Butylbenzene	105	12 239	12 242	(0 982)	311341	100 000	97 51
90 4-Isopropyltoluene	119	12 385	12 388	(0 994)	235892	100 000	99.10
91 1,3-Dichlorobenzene	146	12 385	12.382	(0 994)	114443	100 000	97 93
93 1,4-Dichlorobenzene	146	12 483	12 486	(1 002)	117558	100 000	98 66
94 n-Butylbenzene	91	12 795	12 798	(1 027)	261868	100 000	96 05
95 1,2-Dichlorobenzene	146	12 856	12 859	(1 032)	106285	100 000	96 65
96 1,2 Dibromo-3-chloropropane	157	13 663	13 660	(1 097)	5822	100 000	79 40
97 1,2,4 Trichlorobenzene	180	14 458	14 461	(1 160)	45531	100 000	89 68
98 Hexachlorobutadiene	225	14 580	14 583	(1 170)	21823	100 000	88 84
99 Naphthalene	128	14 715	14 711	(1 181)	100135	100 000	88 14
100 1,2,3 Trichlorobenzene	180	14 959	14 962	(1 201)	34001	100 000	84 54

Data File: /var/chem/hp4.i/405170.b/cc40517.d
Date : 17-MAY-2000 11:08
Client ID: vstd50
Sample Info: vstd50 5ml
Volume Injected (uL): 5.0
Column phase: DB 624

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



Data File: /var/chem/hp4.i/40517d.b/cc40517.d
Report Date: 17-May-2000 13:55

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VOLATILE REPORT SW-846 Method

Data file : /var/chem/hp4.i/40517d.b/cc40517.d
Lab Smp Id: vstd50 Client Smp ID: vstd50
Inj Date : 17-MAY-2000 11:08
Operator : 16328 Inst ID: hp4.i
Smp Info : vstd50 5ml
Misc Info : ,40517d.b,med1000.m
Comment :
Method : /var/chem/hp4.i/40517d.b/8260bh2o.m
Meth Date : 17-May-2000 13:55 h Quant Type: ISTD
Cal Date : 17-MAY-2000 13:03 Cal File: 1e40517.d
Als bottle: 4 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2-padep.sub
Target Version: 3.40
Processing Host: hpuxcs21

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

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

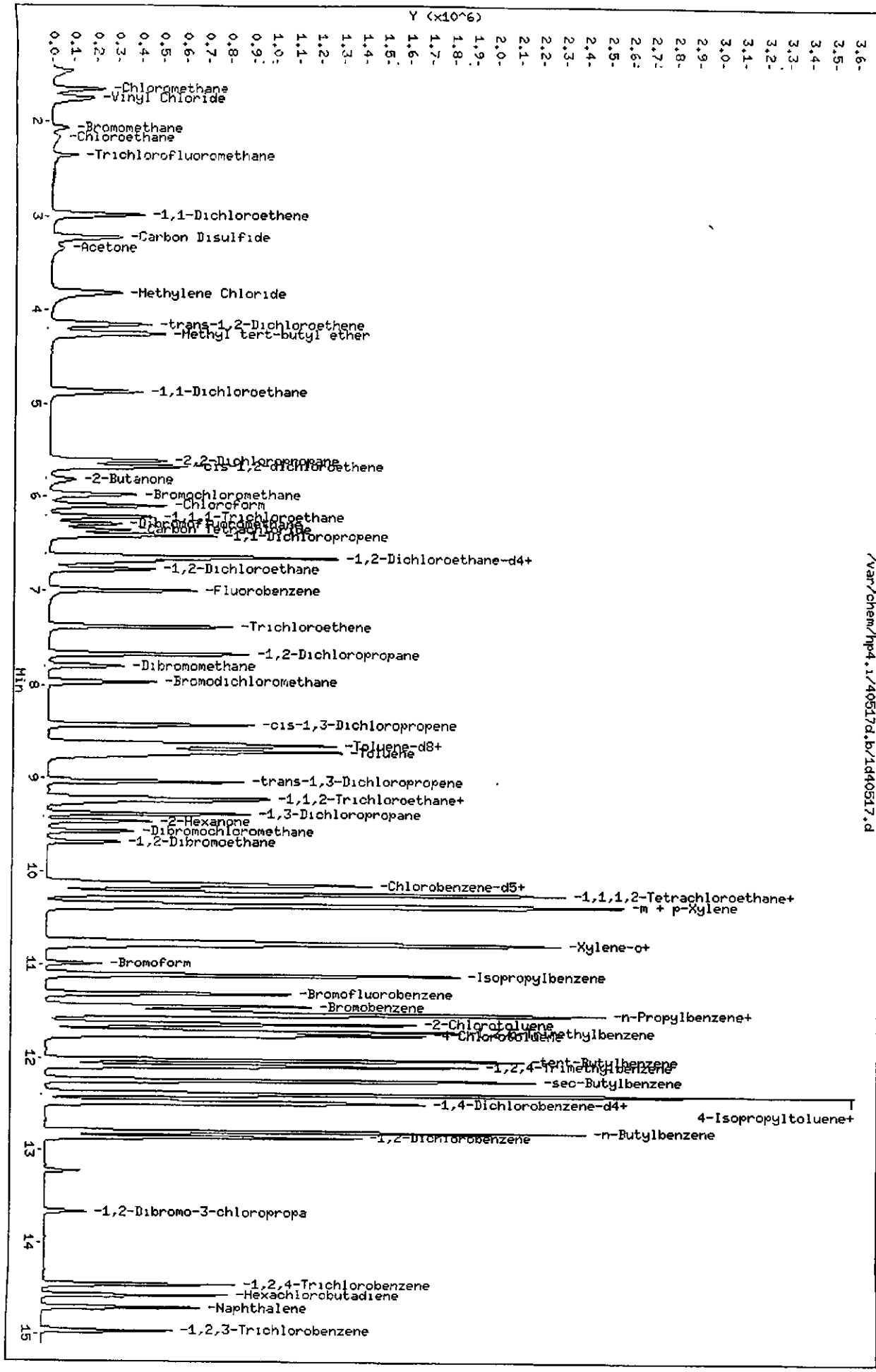
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
* 46 Fluorobenzene	96	6.994	6.994	(1 000)	660677		
* 69 Chlorobenzene-d5	119	10 124	10 124	(1 000)	149779		
* 92 1,4-Dichlorobenzene-d4	152	12 460	12 460	(1 000)	227254		
$ 39 Dibromofluoromethane	113	6.285	6 285	(0 899)	112189	250 000	248 2
$ 43 1,2 Dichloroethane-d4	65	6 683	6 683	(0 955)	155579	250 000	251 3
$ 59 Toluene-d8	98	8 645	8 645	(0 854)	629253	250 000	250 1
$ 80 Bromofluorobenzene	95	11.310	11 310	(1 117)	246086	250 000	253 2
1 Dichlorodifluoromethane	85	1 450	1.450	(0 207)	84060	250 000	261 0
2 Chloromethane	50	1 645	1 645	(0.235)	189504	250 000	261 0
3 Vinyl Chloride	62	1.743	1 743	(0 249)	173382	250 000	252 2
4 Bromomethane	94	2.061	2 061	(0 295)	26679	250 000	267 7
5 Chloroethane	64	2 165	2 165	(0.309)	32667	250 000	281.4
6 Trichlorofluoromethane	101	2 354	2 354	(0.337)	54753	250 000	297 0
12 1,1-Dichloroethene	96	2 978	2 978	(0 426)	118932	250 000	277 3
13 Acetone	43	3 351	3 351	(0 479)	64935	250 000	237.8

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
	15 Carbon Disulfide	76	3 216	3 216	(0 460)	362443	250 000	277 4
	18 Methylene Chloride	84	3 815	3 815	(0 545)	147271	250 000	279 2
	19 trans-1,2-Dichloroetnene	96	4.152	4 152	(0 594)	142814	250 000	278 4
	20 Methyl tert-butyl ether	73	4 249	4 249	(0 608)	334257	250 000	266 4
	24 1,1-Dicnloroethane	63	4 867	4 867	(0.696)	280382	250 000	267 0
	27 2,2-Dichloropropane	77	5.613	5 613	(0 802)	167972	250 000	265 0
	28 cis-1,2-dichloroethene	96	5.674	5 674	(0 811)	158989	250 000	269.1
M	29 1,2-Dichloroethene (total)	100				301803	500 000	546 8
	30 Bromochloromethane	128	5.973	5 973	(0 854)	62236	250 000	266 0
	31 2 Butanone	43	5 821	5.821	(0 832)	116124	250 000	247 2
	37 Chloroform	83	6 090	6 090	(0 871)	219279	250 000	267 0
	38 1,1,1-Trichloroethane	97	6 212	6 212	(0 888)	162494	250.000	267 5
	40 1,1-Dichloropropene	75	6 407	6.407	(0 916)	181812	250.000	269 0
	41 Carbon Tetrachloride	117	6 352	6 352	(0 908)	105078	250 000	275 4
	42 Benzene	78	6 640	6 640	(0 949)	646947	250 000	268 1
	45 1,2-Dichloroethane	62	6 774	6 774	(0.969)	181162	250 000	269 7
	47 Trichloroethene	130	7 379	7 379	(1 055)	136342	250 000	268 9
	49 1,2-Dichloropropane	63	7 673	7 673	(1 097)	179887	250 000	268 6
	50 Dibromomethane	93	7 795	7 795	(1 114)	78170	250 000	276 7
	53 Bromodichloromethane	83	7.972	7 972	(1 140)	152326	250 000	275 9
	57 cis-1,3-Dichloropropene	75	8 437	8 437	(1 206)	234977	250 000	275 4
	58 4 Methyl-2-Pentanone	43	8 627	8 627	(0 852)	234014	250.000	255 4
	60 Toluene	91	8.712	8 712	(0 861)	718952	250 000	267 7
	61 trans 1,3-Dichloropropene	75	9 030	9 030	(0 892)	206628	250 000	271 6
	63 1,3-Dicnloropropane	76	9 379	9 379	(0 926)	240837	250 000	266 6
	64 1,1,2-Trichloroethane	97	9 207	9 207	(0 909)	137716	250 000	265.8
	65 Tetrachloroethene	164	9.232	9.232	(0 912)	94563	250 000	266 2
	66 2-Hexanone	43	9 458	9 458	(0 934)	163100	250 000	246 2
	67 Dibromochloromethane	129	9 568	9 568	(0 945)	94873	250 000	273 8
	68 1,2-Dibromoethane	107	9 678	9 678	(0.956)	121424	250 000	268 4
	70 Chlorobenzene	112	10 149	10 149	(1 002)	442746	250 000	266 5
	71 1,1,1,2-Tetrachloroethane	131	10 247	10 247	(1 012)	112857	250 000	276.7
	72 Ethylbenzene	106	10 234	10 234	(1.011)	252651	250 000	268 8
	73 m + p-Xylene	106	10 363	10 363	(1 024)	611718	500 000	544 6
	74 Xylene-o	106	10 754	10 754	(1 062)	300199	250 000	268 1
M	75 Xylenes (total)	106				911917	250 000	814 4
	76 Styrene	104	10 785	10 785	(1 065)	519441	250.000	275 8
	77 Bromoform	173	10 986	10 986	(1 085)	50250	250 000	277 0
	78 Isopropylbenzene	105	11 109	11.109	(1 097)	740920	250 000	273 3
	79 Bromobenzene	156	11 445	11 445	(0 919)	153219	250.000	261 8
	81 n-Propylbenzene	120	11 524	11 524	(0 925)	211369	250.000	264.8
	82 2-Chlorotoluene	126	11 634	11.634	(0 934)	179841	250 000	265 4
	83 1,1,2,2-Tetrachloroethane	83	11 488	11 488	(0 922)	196523	250 000	268 4
	84 1,2,3-Trichloropropane	110	11 537	11 537	(0.926)	53924	250 000	270.4
	85 4-Chlorotoluene	126	11 750	11 750	(0 943)	188006	250 000	268 3
	86 1,3,5-Trimetnylbenzene	105	11 708	11.708	(0 940)	606790	250 000	265 2
	87 tert-Butylbenzene	119	12 013	12 013	(0 964)	521697	250 000	266.9

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
88 1,2,4-Trimethylbenzene	105	12 081	12 081	(0 970)	623203	250 000	266 8
89 sec-Butylbenzene	105	12 233	12 233	(0.982)	849111	250 000	266 3
90 4-Isopropyltoluene	119	12 386	12 386	(0 994)	654793	250 000	275 5
91 1,3 Dichlorobenzene	146	12 386	12.386	(0 994)	316567	250.000	271 3
93 1,4-Dichlorobenzene	146	12.484	12.484	(1 002)	312890	250 000	263 0
94 n Butylbenzene	91	12 796	12 796	(1 027)	713004	250 000	261 9
95 1,2-Dichlorobenzene	146	12 857	12 857	(1 032)	290497	250.000	264 6
96 1,2-Dibromo 3-chloropropane	157	13 664	13.664	(1 097)	18343	250 000	250 5
97 1,2,4-Trichlorobenzene	180	14 459	14.459	(1 160)	117260	250 000	231 3
98 Hexachlorobutadiene	225	14 581	14 581	(1.170)	55149	250.000	224 8
99 Naphthalene	128	14.709	14 709	(1 181)	241145	250.000	212.6
100 1,2,3-Trichlorobenzene	180	14 960	14 960	(1 201)	81058	250 000	201 8

Data File: /var/chem/hp4.i/40517d.b/1d40517.d
Date : 17-MAY-2000 12:34
Client ID: vstd100
Sample Info: vstd100 5ml
Volume Injected (uL): 5.0
Column phase: DB 624

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



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VOLATILE REPORT SW-846 Method

Data file : /var/chem/hp4.i/40517d.b/1d40517.d
Lab Smp Id: vstd100 Client Smp ID: vstd100
Inj Date : 17-MAY-2000 12:34
Operator : 16328 Inst ID: hp4.i
Smp Info : vstd100 5ml
Misc Info : ,40517d.b,med1000.m
Comment :
Method : /var/chem/hp4.i/40517d.b/8260bh2o.m
Meth Date : 17-May-2000 13:44 dudeckk Quant Type: ISTD
Cal Date : 17-MAY-2000 13:03 Cal File: 1e40517.d
Als bottle: 7 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2-padep.sub
Target Version: 3.40
Processing Host: hpuxcs21

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

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

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
* 46 Fluorobenzene	96	6.997	6.996	(1 000)	723860		
* 69 Chlorobenzene-d5	119	10 127	10 126	(1 000)	161827		
* 92 1,4-Dichlorobenzene-d4	152	12 456	12 462	(1 000)	244057		
$ 39 Dibromofluoromethane	113	6 288	6 287	(0.899)	241358	500.000	487 3
$ 43 1,2-Dichloroethane-d4	65	6 685	6.684	(0 955)	328172	500 000	483.8
$ 59 Toluene-d8	98	8 648	8.647	(0 854)	1316738	500 000	484 4
$ 80 Bromofluorobenzene	95	11 307	11 312	(1 117)	520956	500 000	496 1
1 Dichlorodifluoromethane	85	1.452	1 488	(0.208)	186389	500 000	528.2
2 Chloromethane	50	1.648	1 647	(0 235)	414921	500 000	521 5
3 Vinyl Chloride	62	1 746	1 769	(0 249)	399176	500 000	530 0
4 Bromomethane	94	2 064	2 069	(0.295)	58716	500 000	537.8
5 Chloroethane	64	2 167	2 203	(0 310)	65977	500 000	518 8
6 Trichlorofluoromethane	101	2 357	2 350	(0 337)	115846	500 000	573 6
12 1 1 Dichloroethene	96	2 987	2 943	(0 427)	246289	500 000	524.1
13 Acetone	43	3 341	3 377	(0 478)	126974	500 000	424.4

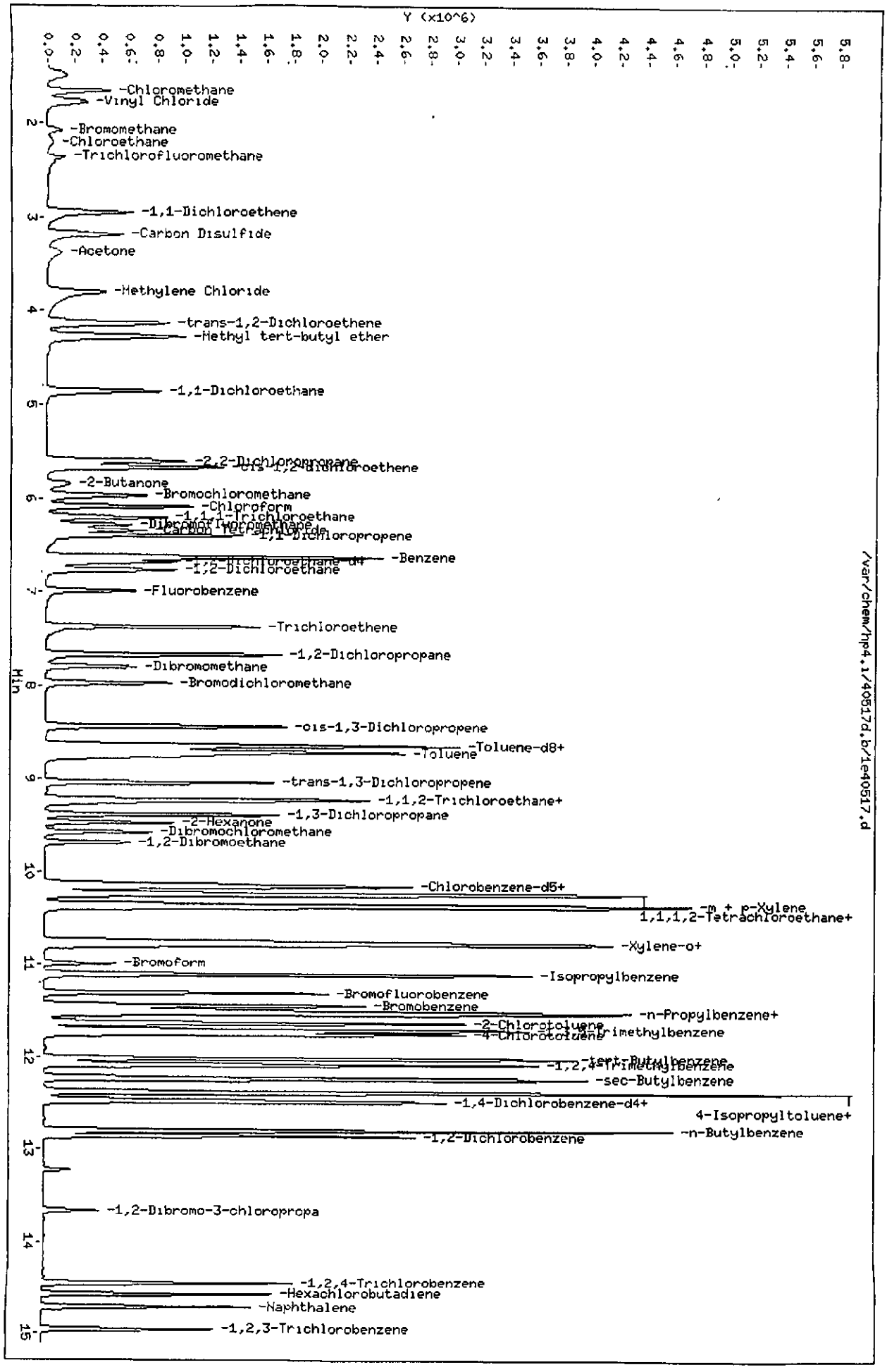
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	15 Carbon Disulfide	76	3 225	3 182	(0.461)	773680	500 000	540 5
	18 Methylene Chloride	84	3 818	3 799	(0 546)	303463	500.000	525 0
	19 trans-1,2-Dichloroethene	96	4 154	4 129	(0 594)	295490	500 000	525 8
	20 Methyl tert butyl ether	73	4 252	4 270	(0 608)	724089	500 000	526 7
	24 1,1-Dichloroethane	63	4 870	4 857	(0 696)	602338	500 000	523 5
	27 2,2-Dichloropropane	77	5 615	5 609	(0 803)	378464	500.000	545 0
	28 cis 1,2-dichloroethene	96	5 677	5 670	(0 811)	342945	500 000	529 7
M	29 1,2-Dichloroethene (total)	100				638435	1000 00	1056
	30 Bromochloromethane	128	5 976	5 975	(0 854)	135466	500.000	528 5
	31 2-Butanone	43	5 817	5.847	(0 831)	241800	500 000	469 8
	37 Chloroform	83	6 086	6 091	(0 870)	469507	500 000	521 8
	38 1,1,1-Trichloroethane	97	6 208	6 202	(0 887)	357218	500 000	536 7
	40 1,1-Dichloropropene	75	6.410	6 403	(0 916)	396743	500 000	535 8
	41 Carbon Tetrachloride	117	6 349	6 342	(0 907)	234217	500 000	560 3
	42 Benzene	78	6 642	6 636	(0 949)	1386243	500 000	524 3
	45 1,2-Dichloroethane	62	6 771	6 770	(0 968)	388818	500 000	528.4
	47 Trichloroethene	130	7.382	7 381	(1 055)	298384	500 000	537 1
	49 1,2-Dichloropropane	63	7 669	7 675	(1 096)	389801	500 000	531 3
	50 Dibromomethane	93	7 798	7 797	(1.114)	163499	500.000	528 3
	53 Bromodichloromethane	83	7 969	7 974	(1 139)	339420	500.000	561 0
	57 cis-1,3-Dichloropropene	75	8 434	8 439	(1 205)	518893	500 000	555 0
	58 4-Methyl-2-Pentanone	43	8 623	8 635	(0 851)	499267	500 000	504 3
	60 Toluene	91	8.715	8 714	(0 861)	1523920	500 000	525 2
	61 trans-1,3-Dichloropropene	75	9.033	9 032	(0 892)	458964	500 000	558 4
	63 1,3-Dichloropropane	76	9 375	9 380	(0 926)	514213	500 000	526 9
	64 1,1,2-Trichloroethane	97	9 210	9 215	(0 909)	295592	500 000	528.0
	65 Tetrachloroethene	164	9 234	9 234	(0 912)	205773	500 000	536.1
	66 2 Hexanone	43	9 461	9.466	(0 934)	357162	500 000	499 0
	67 Dibromochloromethane	129	9 565	9 570	(0.944)	218270	500 000	582 9
	68 1,2-Dibromoethane	107	9 681	9 686	(0 956)	264181	500 000	540.4
	70 Chlorobenzene	112	10 151	10.157	(1 002)	944941	500 000	526 4
	71 1,1,1,2-Tetrachloroethane	131	10 243	10 249	(1 011)	246692	500 000	559 8
	72 Ethylbenzene	106	10 237	10 236	(1.011)	529388	500 000	521.3
	73 m + p Xylene	106	10 365	10 359	(1 024)	1288852	1000 00	1062
	74 Xylene-o	106	10 757	10 756	(1 062)	656796	500 000	542 9
M	75 Xylenes (total)	106				1945648	500 000	1608
	76 Styrene	104	10 787	10 787	(1 065)	1119514	500 000	550 2
	77 Bromoform	173	10 983	10 988	(1 085)	122056	500 000	622 6
	78 Isopropylbenzene	105	11.111	11 111	(1 097)	1586989	500 000	541 8
	79 Bromobenzene	156	11.448	11 453	(0 919)	333534	500 000	530 6
	81 n-Propylbenzene	120	11 521	11 526	(0.925)	451688	500.000	526 9
	82 2-Chlorotoluene	126	11 631	11 636	(0.934)	379255	500 000	521 1
	83 1,1,2,2-Tetrachloroethane	83	11.490	11.490	(0 922)	418120	500 000	531 8
	84 1,2,3-Trichloropropane	110	11 533	11 538	(0 926)	112580	500 000	525.6
	85 4-Chlorotoluene	126	11 753	11 752	(0 944)	394786	500 000	524.6
	86 1,3,5-Trimethylbenzene	105	11.710	11 710	(0 940)	1308416	500 000	532 4
	87 tert-Butylbenzene	119	12 016	12 015	(0 965)	1126398	500 000	536 5

657 170

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
88 1,2,4 Trimethylbenzene	105	12 083	12 083	(0 970,	1339260	500 000	533 9
89 sec-Butylbenzene	105	12 236	12 242	(0 982)	1818067	500 000	531 0
90 4-Isopropyltoluene	119	12 383	12 388	(0.994)	1369572	500 000	536 5
91 1,3-Dichlorobenzene	146	12.383	12 382	(0 994)	671612	500 000	535 9
93 1,4-Dichlorobenzene	146	12.481	12.486	(1 002)	665773	500 000	521 0
94 n Butylbenzene	91	12 792	12 798	(1 027)	1562308	500 000	534 4
95 1,2-Dichlorobenzene	146	12 854	12 859	(1 032)	618380	500 000	524 4
96 1,2-Dibromo-3-chloropropane	157	13 661	13 660	(1 097)	45746	500.000	581 8
97 1,2,4-Trichlorobenzene	180	14 461	14 461	(1 161)	277052	500 000	508 9
98 Hexachlorobutadiene	225	14 578	14 583	(1 170)	134819	500 000	511.8
99 Naphthalene	128	14 712	14 711	(1 181)	596388	500.000	489.5
100 1,2,3-Trichlorobenzene	180	14.957	14.962	(1 201)	185090	500 000	429 2

Data File: /var/chem/hp4.i/405170.b/1e40517.d
Date : 17-MAY-2000 13:03
Client ID: vstd200
Sample Info: vstd200 5ml
Volume Injected (uL): 5.0
Column phase: DB 624

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



Data File: /var/chem/hp4.i/40517d.b/1e40517.d
Report Date: 17-May-2000 13:44

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VOLATILE REPORT SW-846 Method

Data file : /var/chem/hp4.i/40517d.b/1e40517.d
Lab Smp Id: vstd200 Client Smp ID: vstd200
Inj Date : 17-MAY-2000 13:03
Operator : 16328 Inst ID: hp4.i
Smp Info : vstd200 5ml
Misc Info : ,40517d.b,med1000.m
Comment :
Method : /var/chem/hp4.i/40517d.b/8260bh2o.m
Meth Date : 17-May-2000 13:44 dudeckk Quant Type: ISTD
Cal Date : 17-MAY-2000 13:03 Cal File: 1e40517.d
Als bottle: 8 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2-padep.sub
Target Version: 3.40
Processing Host: hpuxcs21

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

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

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL AMT (ng)	ON-COL (ng)
* 46 Fluorobenzene	96	6 996	6 996	(1 000)	771765		
* 69 Chlorobenzene-d5	119	10 126	10 126	(1 000)	174678		
* 92 1,4-Dichlorobenzene-d4	152	12.462	12.462	(1 000)	245636		
$ 39 Dibromofluoromethane	113	6 287	6 287	(0 899)	448691	1000 00	849 7
$ 43 1,2 Dichloroethane d4	65	6 684	6 684	(0.955)	615666	1000 00	851 4
$ 59 Toluene-d8	98	8.647	8 647	(0.854)	2416455	1000.00	823 5
$ 80 Bromofluorobenzene	95	11.312	11 312	(1 117)	960718	1000 00	847 5
1 Dichlorodifluoromethane	85	1 488	1.488	(0 213)	374065	1000 00	994 2
2 Chloromethane	50	1 647	1.647	(0.235)	827841	1000 00	976 0
3 Vinyl Chloride	62	1 769	1 769	(0.253)	806063	1000 00	1004
4 Bromomethane	94	2 069	2.069	(0 296)	109766	1000 00	942 9
5 Chloroethane	64	2 203	2 203	(0 315)	121983	1000 00	899 7
6 Trichlorofluoromethane	101	2 350	2 350	(0 336)	209443	1000 00	972 7
12 1,1 Dichloroethene	96	2 943	2 943	(0 421)	444848	1000 00	887 9
13 Acetone	43	3 377	3 377	(0 483)	350752	1000 00	1100

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	15 Carbon Disulfide	76	3 182	3 182	(0 455)	1397397	1000 00	915 7
	18 Methylene Chloride	84	3 799	3.799	(0 543)	538099	1000 00	873 2
	19 trans-1,2 Dichloroethene	96	4 129	4.129	(0 590)	575254	1000 00	960 1
	20 Methyl tert-butyl ether	73	4 270	4 270	(0 610)	1520929	1000 00	1038
	24 1,1-Dichloroethane	63	4 857	4 857	(0 694)	1233229	1000 00	1005
	27 2,2-Dichloropropane	77	5 609	5 609	(0 802)	797232	1000 00	1077
	28 cis-1,2-dichloroethene	96	5 670	5 670	(0 810)	684419	1000 00	991 6
M	29 1,2 Dichloroethene (total)	100				1259673	2000 00	1954
	30 Bromochloromethane	128	5 975	5.975	(0 854)	279197	1000 00	1022
	31 2-Butanone	43	5 847	5 847	(0 836)	511183	1000 00	931 6
	37 Chloroform	83	6 091	6 091	(0 871)	959258	1000 00	999 9
	38 1,1,1-Trichloroethane	97	6 202	6 202	(0 886)	740791	1000 00	1044
	40 1,1 Dichloropropene	75	6 403	6 403	(0 915)	788065	1000 00	998.2
	41 Carbon Tetrachloride	117	6 342	6 342	(0 906)	486506	1000 00	1092
	42 Benzene	78	6 636	6.636	(0 948)	2803750	1000 00	994 6
	45 1,2-Dichloroethane	62	6 770	6 770	(0 968)	788825	1000 00	1005
	47 Trichloroethene	130	7 381	7 381	(1.055)	607870	1000 00	1026
	49 1,2 Dichloropropane	63	7 675	7 675	(1.097)	787044	1000 00	1006
	50 Dibromomethane	93	7 797	7 797	(1 114)	328434	1000.00	995 4
	53 Bromodichloromethane	83	7 974	7 974	(1 140)	711520	1000 00	1103
	57 cis-1,3-Dichloropropene	75	8 439	8 439	(1.206)	1073632	1000 00	1077
	58 4 Methyl-2-Pentanone	43	8.635	8 635	(0 853)	1041451	1000.00	974 6
	60 Toluene	91	8 714	8 714	(0 861)	3022024	1000 00	964 8
	61 trans-1,3-Dichloropropene	75	9 032	9 032	(0 892)	945299	1000 00	1065
	63 1,3 Dichloropropane	76	9.380	9 380	(0 926)	1034970	1000 00	982 5
	64 1,1,2-Trichloroethane	97	9.215	9 215	(0 910)	600359	1000 00	993 6
	65 Tetrachloroethene	164	9 234	9 234	(0 912)	421277	1000 00	1017
	66 2-Hexanone	43	9.466	9 466	(0 935)	728700	1000 00	943 1
	67 Dibromochloromethane	129	9.570	9 570	(0 945)	465815	1000 00	1152
	68 1,2-Dibromoethane	107	9 686	9 686	(0 957)	525393	1000 00	995 7
	70 Chlorobenzene	112	10 157	10 157	(1 003)	1905796	1000.00	983 5
	71 1,1,1,2-Tetrachloroethane	131	10.249	10 249	(1 012)	491937	1000 00	1034
	72 Ethylbenzene	106	10 236	10.236	(1 011)	1042947	1000 00	951.4
	73 m + p-Xylene	106	10 359	10 359	(1.023)	2451464	2000 00	1871
	74 Xylene-o	106	10 756	10 756	(1 062)	1297590	1000 00	993 6
M	75 Xylenes (total)	106				3749054	1000 00	2871
	76 Styrene	104	10 787	10 787	(1 065)	2116848	1000 00	963 8
	77 Bromoform	173	10 988	10 988	(1 085)	262915	1000 00	1242
	78 Isopropylbenzene	105	11 111	11 111	(1.097)	3083472	1000 00	975 2
	79 Bromobenzene	156	11 453	11 453	(0 919)	670508	1000 00	1060
	81 n-Propylbenzene	120	11 526	11 526	(0 925)	856544	1000 00	992 7
	82 2-Chlorotoluene	126	11 636	11.636	(0 934)	727962	1000 00	993 8
	83 1,1,2,2 Tetrachloroethane	83	11 490	11 490	(0 922)	793112	1000 00	1002
	84 1,2,3-Trichloropropane	110	11 538	11 538	(0 926)	207925	1000 00	964 4
	85 4-Chlorotoluene	126	11 752	11 752	(0 943)	728366	1000 00	961 6
	86 1,3,5-Trimethylbenzene	105	11 710	11 710	(0 940)	2450711	1000 00	990 9
	87 tert-Butylbenzene	119	12 015	12 015	(0 964)	2114182	1000 00	1000

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Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
88 1,2,4 Trimethylbenzene	105	12 083	12 083	(0 970)	2491491	1000 00	986 9
89 sec-Butylbenzene	105	12 242	12 242	(0.982)	3366610	1000 00	977 0
90 4-Isopropyltoluene	119	12.388	12 388	(0 994)	2322311	1000 00	903 9
91 1,3-Dichlorobenzene	146	12 382	12 382	(0 994)	1170519	1000 00	928 0
93 1,4-Dichlorobenzene	146	12.486	12 486	(1 002)	1259741	1000 00	979 6
94 n-Butylbenzene	91	12.798	12 798	(1 027)	2952832	1000 00	1003
95 1,2-Dichlorobenzene	146	12 859	12 859	(1 032)	1193890	1000 00	1006
96 1,2-Dibromo-3-chloropropane	157	13 660	13 660	(1 096)	105902	1000 00	1338
97 1,2,4-Trichlorobenzene	180	14 461	14 461	(1 160)	588023	1000 00	1073
98 Hexachlorobutadiene	225	14.583	14 583	(1 170)	293669	1000 00	1108
99 Naphthalene	128	14 711	14 711	(1 181)	1312547	1000 00	1070
100 1,2,3-Trichlorobenzene	180	14 962	14 962	(1 201)	410033	1000 00	944 6

FORM 7
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: STL-PITTSBURGH Contract:

Lab Code: STLPIT Case No.: SAS No.: 40325 SDG No.: 40826D

Instrument ID: HP4 Calibration Date: 05/17/00 Time: 1108

Lab File ID: CC40517 Init. Calib. Date(s): 05/17/00 05/17/00

Heated Purge: (Y/N) N Init. Calib. Times: 1108 1303

GC Column: DB 624 ID: 0.18 (mm)

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	0.122	0.127	0.01	4.1	50.0
Chloromethane	0.275	0.287	0.1	4.4	50.0
Vinyl Chloride	0.260	0.262	0.01	0.8	20.0
Bromomethane	0.038	0.040	0.01	5.3	50.0
Chloroethane	0.044	0.049	0.01	11.4	50.0
Trichlorofluoromethane	0.070	0.083	0.01	18.6	50.0
1,1-Dichloroethene	0.162	0.180	0.01	11.1	20.0
Methylene Chloride	0.200	0.223	0.01	11.5	50.0
trans-1,2-Dichloroethene	0.194	0.216	0.01	11.3	50.0
1,1-Dichloroethane	0.397	0.424	0.1	6.8	50.0
cis-1,2-dichloroethene	0.224	0.241	0.01	7.6	50.0
Chloroform	0.311	0.332	0.01	6.8	20.0
Bromochloromethane	0.088	0.094	0.01	6.8	50.0
1,1,1-Trichloroethane	0.230	0.246	0.01	7.0	50.0
Carbon Tetrachloride	0.145	0.159	0.01	9.6	50.0
1,2-Dichloroethane	0.254	0.274	0.01	7.9	50.0
Benzene	0.913	0.979	0.01	7.2	50.0
Trichloroethene	0.192	0.206	0.01	7.3	50.0
1,2-Dichloropropane	0.253	0.272	0.01	7.5	20.0
Bromodichloromethane	0.209	0.230	0.01	10.0	50.0
cis-1,3-Dichloropropene	0.323	0.356	0.01	10.2	50.0
Toluene	4.483	4.800	0.01	7.1	20.0
trans-1,3-Dichloropropene	1.270	1.380	0.01	8.7	50.0
1,1,2-Trichloroethane	0.865	0.919	0.01	6.2	50.0
Tetrachloroethene	0.593	0.631	0.01	6.4	50.0
Dibromochloromethane	0.578	0.633	0.01	9.5	50.0
Chlorobenzene	2.773	2.956	0.3	6.6	50.0
Ethylbenzene	1.569	1.687	0.01	7.5	20.0
Styrene	3.144	3.468	0.01	10.3	50.0
Bromoform	0.303	0.335	0.1	10.6	50.0
1,1,2,2-Tetrachloroethane	0.805	0.865	0.3	7.4	50.0
1,3-Dichlorobenzene	1.284	1.393	0.01	8.5	50.0
1,4-Dichlorobenzene	1.309	1.377	0.01	5.2	50.0
1,2-Dichlorobenzene	1.208	1.278	0.01	5.8	50.0
Dibromomethane	0.107	0.118	0.01	10.3	50.0
1,2-Dibromoethane	0.755	0.811	0.01	7.4	50.0
1,1,1,2-Tetrachloroethane	0.681	0.753	0.01	10.6	50.0

FORM 7
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: STL-PITTSBURGH Contract:

Lab Code: STLPIT Case No.: SAS No.: 40325 SDG No.: 40826D

Instrument ID: HP4 Calibration Date: 05/17/00 Time: 1108

Lab File ID: CC40517 Init. Calib. Date(s): 05/17/00 05/17/00

Heated Purge: (Y/N) N Init. Calib. Times: 1108 1303

GC Column: DB 624 ID: 0.18 (mm)

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
1,2,3-Trichloropropane	0.219	0.237	0.01	8.2	50.0
1,2-Dibromo-3-chloropropane	0.081	0.081	0.01	0.0	50.0
2,2-Dichloropropane	0.240	0.254	0.01	5.8	50.0
1,1-Dichloropropene	0.256	0.275	0.01	7.4	50.0
1,3-Dichloropropane	1.508	1.608	0.01	6.6	50.0
n-Propylbenzene	0.878	0.930	0.01	5.9	50.0
Bromobenzene	0.644	0.674	0.01	4.6	50.0
1,3,5-Trimethylbenzene	2.517	2.670	0.01	6.1	50.0
2-Chlorotoluene	0.745	0.791	0.01	6.2	50.0
4-Chlorotoluene	0.771	0.827	0.01	7.3	50.0
tert-Butylbenzene	2.151	2.296	0.01	6.7	50.0
1,2,4-Trimethylbenzene	2.569	2.742	0.01	6.7	50.0
sec-Butylbenzene	3.507	3.736	0.01	6.5	50.0
4-Isopropyltoluene	2.615	2.881	0.01	10.2	50.0
n-Butylbenzene	2.995	3.137	0.01	4.7	50.0
1,2,4-Trichlorobenzene	0.558	0.516	0.01	7.5	50.0
Hexachlorobutadiene	0.270	0.243	0.01	10.0	50.0
Naphthalene	1.248	1.061	0.01	15.0	50.0
1,2,3-Trichlorobenzene	0.442	0.357	0.01	19.2	50.0
Acetone	0.103	0.098	0.01	4.8	50.0
Carbon Disulfide	0.494	0.548	0.01	10.9	50.0
2-Butanone	0.178	0.176	0.01	1.1	50.0
4-Methyl-2-Pentanone	1.529	1.562	0.01	2.2	50.0
2-Hexanone	1.106	1.089	0.01	1.5	50.0
Methyl tert-butyl ether	0.475	0.506	0.01	6.5	50.0
Isopropylbenzene	4.525	4.947	0.01	9.3	50.0
1,2-Dichloroethene (total)	0.209	0.228	0.01	9.1	50.0
Xylenes (total)	1.869	2.004	0.01	7.2	50.0
Dibromofluoromethane	0.171	0.170	0.01	0.6	50.0
1,2-Dichloroethane-d4	0.234	0.235	0.01	0.4	50.0
Toluene-d8	4.199	4.201	0.01	0.0	50.0
Bromofluorobenzene	1.622	1.643	0.01	1.3	50.0

FORM VII VOA

CONTINUING CALIBRATION COMPOUNDS
PERCENT DRIFT REPORT

Instrument ID: hp4.i
Lab File ID: cc40517.d
Analysis Type: WATER

Injection Date: 17-MAY-2000 11:08
Lab Sample ID: vstd50
Method File: /var/chem/hp4.i/40517d.b/8260bh2o.m

	COMPOUND	EXPECTED CONC.	MEASURED CONC	%D	MAX %D
0	Xylene-o	250.0000	268 0833	7 2	50 0
0	m + p-Xylene	500.0000	544 6182	8.9	50.0
1	Dichlorodifluoromethane	250 0000	260 9914	4.4	50.0
2	Chloromethane	250.0000	260 9784	4 4	50 0
3	Vinyl Chloride	250.0000	252 2334	0 9	20.0
4	Bromomethane	250.0000	267 7116	7 1	50 0
5	Chloroethane	250.0000	281 4583	12 6	50 0
6	Trichlorofluoromethane	250.0000	297 0377	18 8	50 0
9	1,1-Dichloroethene	250 0000	277 3090	10 9	20.0
10	Methylene Chloride	250 0000	279 1715	11 7	50 0
13	trans-1,2-Dichloroethene	250.0000	278 4390	11.4	50.0
15	1,1-Dichloroethane	250 0000	266 9890	6.8	50.0
17	cis-1,2-dichloroethene	250 0000	269 0701	7 6	50.0
18	Chloroform	250.0000	267.0103	6 8	20.0
19	Bromochloromethane	250 0000	266 0261	6.4	50 0
20	1,1,1-Trichloroethane	250.0000	267 4681	7 0	50.0
21	Carbon Tetrachloride	250.0000	275 4105	10.2	50.0
23	1,2-Dichloroethane	250.0000	269.7169	7 9	50 0
24	Benzene	250 0000	268 0992	7.2	50.0
26	Trichloroethene	250 0000	268 8808	7.6	50.0
27	1,2-Dichloropropane	250 0000	268.6392	7.5	20 0
28	Bromodichloromethane	250.0000	275 8652	10.3	50.0
31	cis-1,3-Dichloropropene	250.0000	275 3741	10 1	50.0
33	Toluene	250 0000	267 6848	7 1	20 0
34	trans-1,3-Dichloropropene	250.0000	271.6155	8 6	50.0
36	1,1,2-Trichloroethane	250 0000	265 8106	6.3	50.0
37	Tetrachloroethene	250 0000	266.1906	6 5	50 0
38	Dibromochloromethane	250.0000	273.7660	9 5	50 0
40	Chlorobenzene	250.0000	266 4739	6 6	50 0
41	Ethylbenzene	250.0000	268.8007	7 5	20 0
44	Styrene	250 0000	275.8051	10 3	50.0
45	Bromoform	250.0000	276.9511	10.8	50.0
46	1,1,2,2-Tetrachloroethane	250.0000	268 4579	7 4	50 0
48	1,3-Dichlorobenzene	250.0000	271 2924	8 5	50 0
49	1,4-Dichlorobenzene	250.0000	262 9850	5.2	50.0
50	1,2-Dichlorobenzene	250.0000	264 5568	5 8	50.0
60	Dibromomethane	250 0000	276.7437	10.7	50 0
63	1,2-Dibromoethane	250 0000	268 3789	7.4	50.0
64	1,1,1,2-Tetrachloroethane	250 0000	276 7052	10.7	50 0

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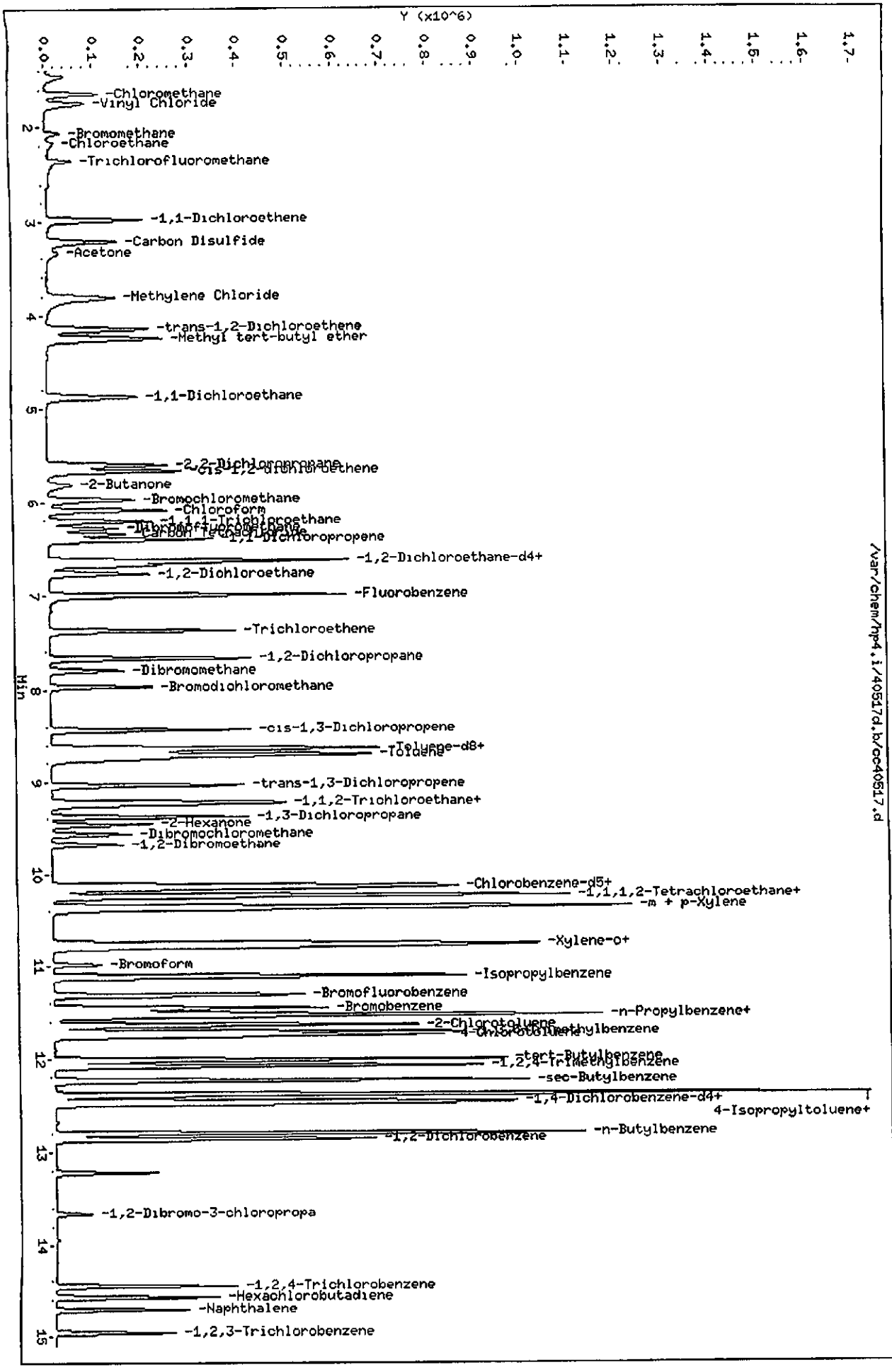
CONTINUING CALIBRATION COMPOUNDS
PERCENT DRIFT REPORT

Instrument ID: hp4.i
Lab File ID: cc40517.d
Analysis Type: WATER

Injection Date: 17-MAY-2000 11:08
Lab Sample ID: vstd50
Method File: /var/chem/hp4.i/40517d.b/8260bh2

	COMPOUND	EXPECTED CONC.	MEASURED CONC	%D	MAX %D
65	1,2,3-Trichloropropane	250.0000	270.3583	8.1	50 0
69	1,2-Dibromo-3-chloropropane	250 0000	250 5436	0 2	50 0
74	2,2-Dichloropropane	250 0000	265.0125	6 0	50.0
75	1,1-Dichloropropene	250 0000	269 0169	7 6	50.0
77	1,3-Dichloropropane	250 0000	266 6257	6.7	50 0
83	n-Propylbenzene	250 0000	264 7772	5.9	50 0
84	Bromobenzene	250 0000	261 7646	4.7	50 0
85	1,3,5-Trimethylbenzene	250.0000	265 1801	6.1	50.0
86	2-Chlorotoluene	250 0000	265 3799	6.2	50 0
87	4-Chlorotoluene	250 0000	268.2931	7.3	50.0
88	tert-Butylbenzene	250.0000	266 8661	6.7	50 0
89	1,2,4-Trimethylbenzene	250.0000	266 8274	6.7	50 0
90	sec-Butylbenzene	250.0000	266 3363	6.5	50 0
91	4-Isopropyltoluene	250.0000	275 4893	10.2	50.0
94	n-Butylbenzene	250 0000	261 9074	4 8	50.0
95	1,2,4-Trichlorobenzene	250.0000	231 3182	7 5	50.0
96	Hexachlorobutadiene	250.0000	224 8516	10.1	50.0
97	Naphthalene	250 0000	212 5767	15 0	50 0
98	1,2,3-Trichlorobenzene	250 0000	201 8390	19 3	50 0
101	Chlorobenzene-d5	250 0000	250.0000	0.0	50.0
102	1,4-Dichlorobenzene-d4	250.0000	250 0000	0.0	50.0
106	Acetone	250.0000	237 7850	4.9	50.0
107	Carbon Disulfide	250.0000	277.4393	11 0	50.0
108	2-Butanone	250.0000	247 2264	1.1	50.0
110	4-Methyl-2-Pentanone	250.0000	255 4008	2.2	50 0
111	2-Hexanone	250.0000	246 1886	1.5	50.0
134	Methyl tert-butyl ether	250 0000	266.3779	6.6	50 0
137	Fluorobenzene	250.0000	250.0000	0.0	50.0
144	Isopropylbenzene	250 0000	273.2772	9.3	50 0
153	1,2-Dichloroethene (total)	500 0000	546.8472	9.4	50 0
154	Xylenes (total)	750.0000	814.3590	8 5	50 0
149	Dibromofluoromethane	250 0000	248 1923	0 7	50 0
150	1,2-Dichloroethane-d4	250.0000	251 3176	0.5	50 0
151	Toluene-d8	250.0000	250.0962	0.0	50.0
152	Bromofluorobenzene	250 0000	253 1797	1 3	50 0



Data File: /var/chem/hp4.i/40517d.b/cc40517.d
Date : 17-MAY-2000 11:08
Client ID: vstd50
Sample Info: vstd50 5ml
Volume Injected (uL): 5.0
Column phase: DB 624

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

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STL-PITTSBURGH

VOLATILE REPORT SW-846 Method

Data file : /var/chem/hp4.i/40517d.b/cc40517.d
Lab Smp Id: vstd50 Client Smp ID: vstd50
Inj Date : 17-MAY-2000 11:08
Operator : 16328 Inst ID: hp4.i
Smp Info : vstd50 5ml
Misc Info : ,40517d.b,med1000.m
Comment :
Method : /var/chem/hp4.i/40517d.b/8260bh2o.m
Meth Date : 17-May-2000 14:06 dudeckk Quant Type: ISTD
Cal Date : 17-MAY-2000 13:03 Cal File: 1e40517.d
Als bottle: 4 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2-padep.sub
Target Version: 3.40
Processing Host: hpuxcs21

K s/n/a

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

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

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
* 46 Fluorobenzene	96	6 994	6.994	(1 000)	660677		
* 69 Chlorobenzene-d5	119	10 124	10.124	(1 000)	149779		
* 92 1,4-Dichlorobenzene-d4	152	12.460	12 460	(1 000)	227254		
$ 39 Dibromofluoromethane	113	6 285	6 285	(0 899)	112189	250.000	248.2
$ 43 1,2-Dichloroethane-d4	65	6 683	6 683	(0 955)	155579	250.000	251 3
$ 59 Toluene-d8	98	8.645	8 645	(0.854)	629253	250 000	250.1
$ 80 Bromofluorobenzene	95	11 310	11 310	(1 117)	246086	250.000	253.2
1 Dichlorodifluoromethane	85	1 450	1.450	(0.207)	84060	250.000	261.0
2 Chloromethane	50	1.645	1.645	(0.235)	189504	250.000	261 0
3 Vinyl Chloride	62	1 743	1 743	(0 249)	173382	250.000	252 2
4 Bromomethane	94	2.061	2 061	(0 295)	26679	250.000	267.7
5 Chloroethane	64	2.165	2.165	(0.309)	32667	250 000	281 4
6 Trichlorofluoromethane	101	2 354	2.354	(0 337)	54753	250 000	297 0
12 1,1-Dichloroethene	96	2 978	2 978	(0.426)	118932	250.000	277 3
13 Acetone	43	3 351	3 351	(0 479)	64935	250 000	237 8

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
	15 Carbon Disulfide	76	3 216	3 216	(0 460)	362443	250 000	277.4
	18 Methylene Chloride	84	3.815	3 815	(0 545)	147271	250.000	279.2
	19 trans-1,2-Dichloroethene	96	4.152	4 152	(0.594)	142814	250.000	278 4
	20 Methyl tert-butyl ether	73	4.249	4 249	(0 608)	334257	250 000	266 4
	24 1,1-Dichloroethane	63	4.867	4 867	(0 696)	280382	250 000	267.0
	27 2,2-Dichloropropane	77	5.613	5 613	(0 802)	167972	250 000	265.0
	28 cis-1,2-dichloroethene	96	5 674	5.674	(0 811)	158989	250 000	269.1
M	29 1,2-Dichloroethene (total)	100				301803	500.000	546.8
	30 Bromochloromethane	128	5.973	5 973	(0 854)	62236	250.000	266.0
	31 2-Butanone	43	5 821	5.821	(0 832)	116124	250 000	247.2
	37 Chloroform	83	6 090	6.090	(0 871)	219279	250 000	267.0
	38 1,1,1-Trichloroethane	97	6 212	6 212	(0.888)	162494	250.000	267.5
	40 1,1-Dichloropropene	75	6.407	6.407	(0.916)	181812	250.000	269.0
	41 Carbon Tetrachloride	117	6.352	6.352	(0 908)	105078	250.000	275.4
	42 Benzene	78	6.640	6.640	(0 949)	646947	250.000	268 1
	45 1,2-Dichloroethane	62	6.774	6 774	(0.969)	181162	250.000	269 7
	47 Trichloroethene	130	7.379	7 379	(1.055)	136342	250 000	268 9
	49 1,2-Dichloropropane	63	7.673	7.673	(1.097)	179887	250.000	268 6
	50 Dibromomethane	93	7 795	7.795	(1.114)	78170	250 000	276 7
	53 Bromodichloromethane	83	7 972	7 972	(1.140)	152326	250 000	275 9
	57 cis-1,3-Dichloropropene	75	8.437	8 437	(1 206)	234977	250 000	275 4
	58 4-Methyl-2-Pentanone	43	8.627	8.627	(0 852)	234014	250.000	255 4
	60 Toluene	91	8 712	8.712	(0.861)	718952	250 000	267 7
	61 trans-1,3-Dichloropropene	75	9.030	9.030	(0.892)	206628	250.000	271 6
	63 1,3-Dichloropropane	76	9.379	9 379	(0.926)	240837	250 000	266 6
	64 1,1,2-Trichloroethane	97	9 207	9 207	(0.909)	137716	250 000	265 8
	65 Tetrachloroethene	164	9 232	9 232	(0.912)	94563	250.000	266.2
	66 2-Hexanone	43	9.458	9.458	(0.934)	163100	250.000	246 2
	67 Dibromochloromethane	129	9.568	9 568	(0.945)	94873	250 000	273 8
	68 1,2-Dibromoethane	107	9 678	9.678	(0 956)	121424	250.000	268 4
	70 Chlorobenzene	112	10 149	10 149	(1 002)	442746	250.000	266.5
	71 1,1,1,2-Tetrachloroethane	131	10 247	10 247	(1.012)	112857	250.000	276.7
	72 Ethylbenzene	106	10 234	10.234	(1 011)	252651	250 000	268 8
	73 m + p-Xylene	106	10.363	10 363	(1 024)	611718	500.000	544.6
	74 Xylene-o	106	10.754	10 754	(1 062)	300199	250.000	268.1
M	75 Xylenes (total)	106				911917	250.000	814.4
	76 Styrene	104	10 785	10 785	(1.065)	519441	250 000	275 8
	77 Bromoform	173	10 986	10.986	(1 085)	50250	250.000	277.0
	78 Isopropylbenzene	105	11 109	11 109	(1.097)	740920	250.000	273 3
	79 Bromobenzene	156	11.445	11.445	(0 919)	153219	250 000	261.8
	81 n-Propylbenzene	120	11.524	11.524	(0.925)	211369	250.000	264 8
	82 2-Chlorotoluene	126	11 634	11 634	(0 934)	179841	250.000	265.4
	83 1,1,2,2-Tetrachloroethane	83	11.488	11 488	(0 922)	196523	250 000	268.4
	84 1,2,3-Trichloropropane	110	11.537	11 537	(0 926)	53924	250 000	270.4
	85 4-Chlorotoluene	126	11 750	11 750	(0 943)	188006	250.000	268 3
	86 1,3,5-Trimethylbenzene	105	11.708	11.708	(0 940)	606790	250 000	265.2
	87 tert-Butylbenzene	119	12 013	12 013	(0 964)	521697	250 000	266 9

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	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
88	1,2,4-Trimethylbenzene	105	12 081	12.081	(0 970)	623203	250 000	266.8
89	sec-Butylbenzene	105	12.233	12.233	(0 982)	849111	250 000	266.3
90	4-Isopropyltoluene	119	12 386	12.386	(0.994)	654793	250.000	275.5
91	1,3-Dichlorobenzene	146	12 386	12 386	(0.994)	316567	250.000	271.3
93	1,4-Dichlorobenzene	146	12 484	12.484	(1 002)	312890	250.000	263.0
94	n-Butylbenzene	91	12 796	12 796	(1 027)	713004	250.000	261 9
95	1,2-Dichlorobenzene	146	12 857	12.857	(1.032)	290497	250.000	264 6
96	1,2-Dibromo-3-chloropropane	157	13.664	13 664	(1 097)	18343	250 000	250 5
97	1,2,4-Trichlorobenzene	180	14 459	14 459	(1 160)	117260	250.000	231 3
98	Hexachlorobutadiene	225	14.581	14 581	(1 170)	55149	250 000	224 8
99	Naphthalene	128	14.709	14 709	(1 181)	241145	250 000	212.6
100	1,2,3-Trichlorobenzene	180	14.960	14.960	(1 201)	81058	250 000	201.8

GC/MS VOLATILE
QC DATA

Data File: /var/chem/hp4.1/40517d.b/bf40517.d

Date : 17-MAY-2000 10:41

Client ID: 50NGBFB

Instrument: hp4.1

Sample Info: bfb 1ul

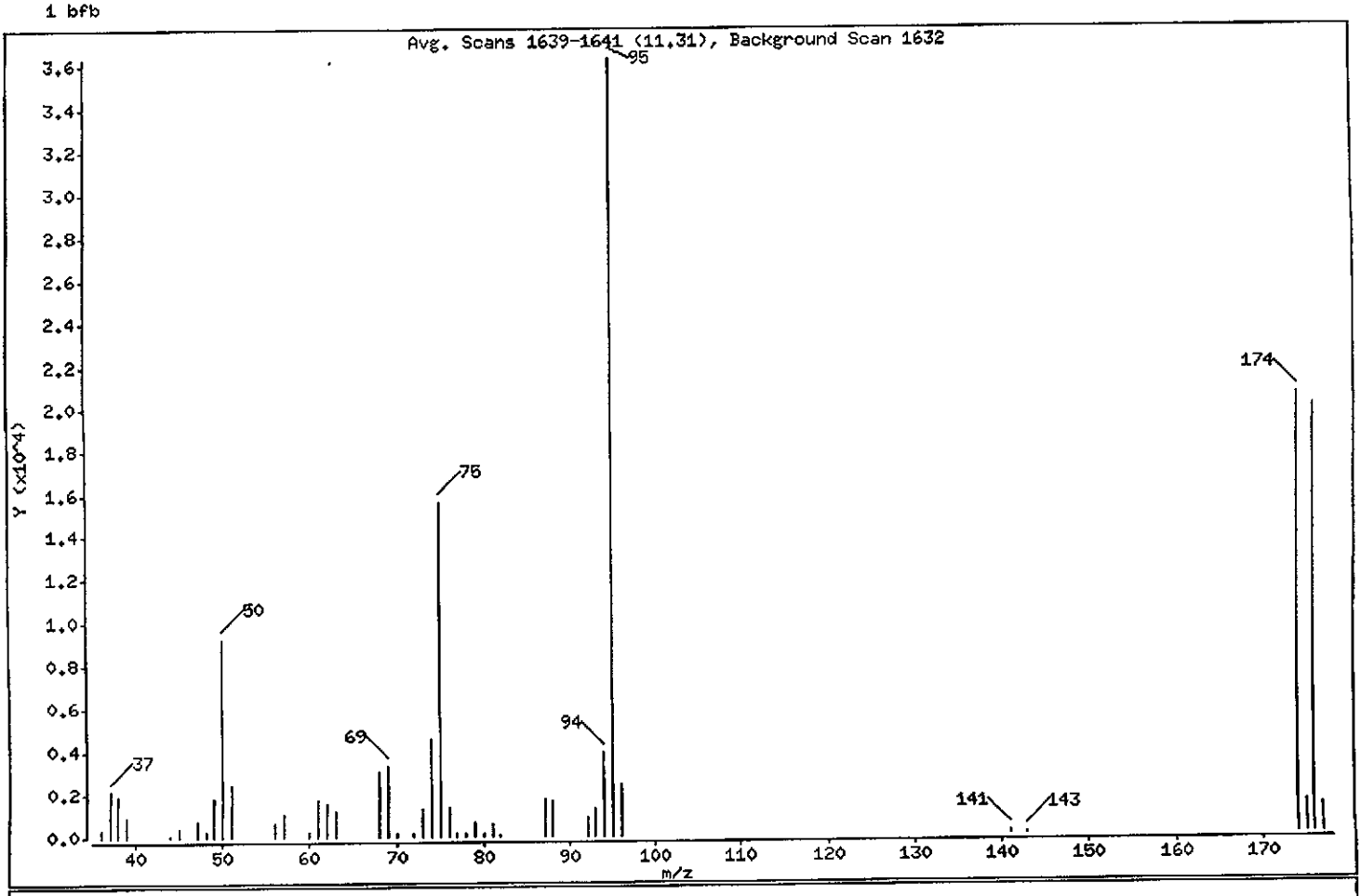
Volume Injected (uL): 1.0

Operator: 16328

Column phase: DB624 20m

Column diameter: 0.18

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	25.62
75	30.00 - 60.00% of mass 95	43.03
96	5.00 - 9.00% of mass 95	6.95
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 100.00% of mass 95	56.55
175	5.00 - 9.00% of mass 174	4.15 (7.34)
176	95.00 - 101.00% of mass 174	54.91 (97.11)
177	5.00 - 9.00% of mass 176	3.59 (6.55)

Data File: /var/chem/hp4.1/40517d.b/bf40517.d

Date : 17-MAY-2000 10:41

Client ID: 50NGBFB

Instrument: hp4.1

Sample Info: bfb 1ul

Volume Injected (uL): 1.0

Operator: 16328

Column phase: DB624 20m

Column diameter: 0.18

Data File: bf40517.d

Spectrum: Avg. Scans 1639-1641 (11.31), Background Scan 1632

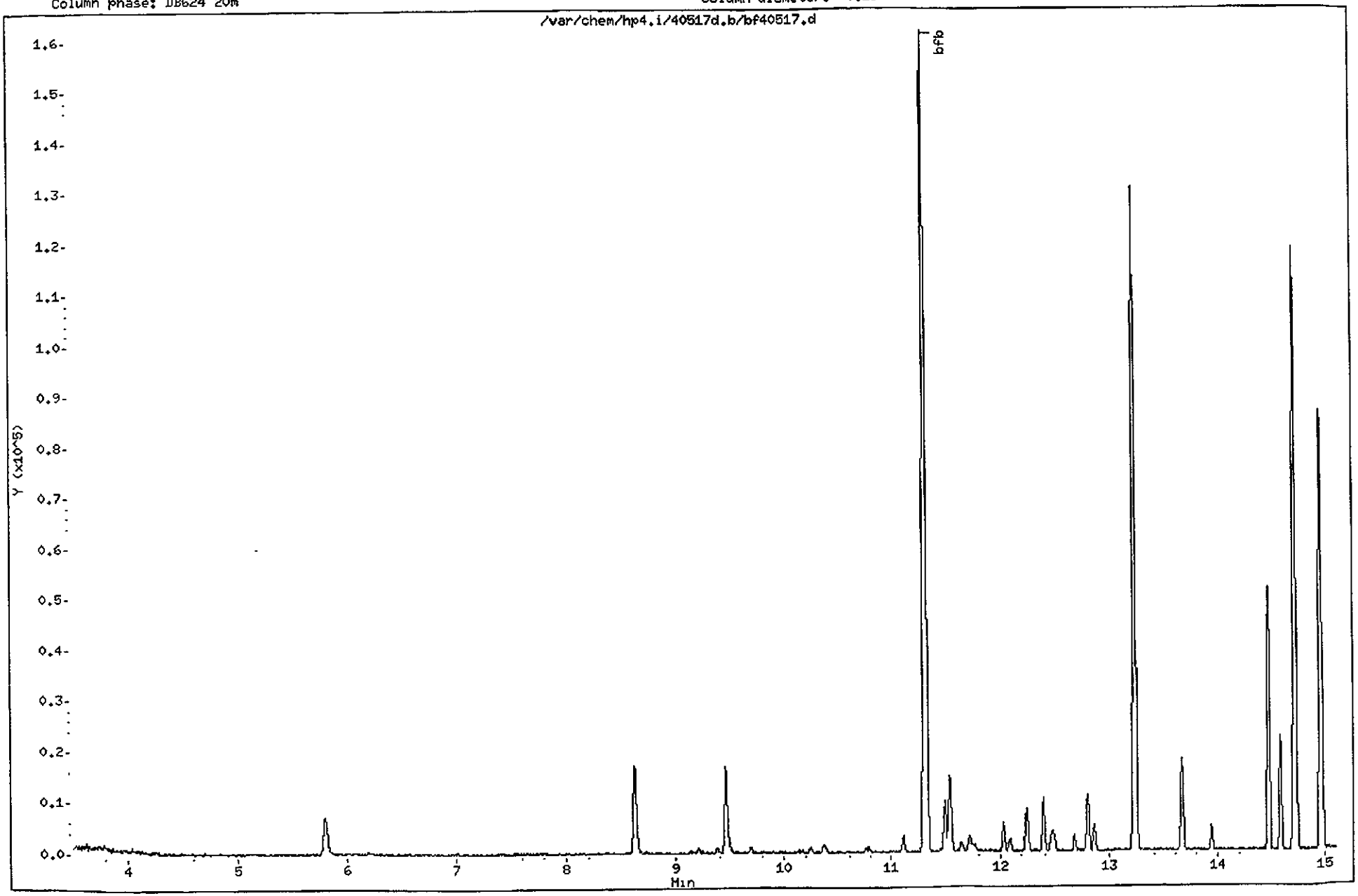
Location of Maximum: 95.00

Number of points: 44

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	370	57.00	1123	76.00	1413	95.00	36352
37.00	2167	60.00	247	77.00	173	96.00	2526
38.00	1907	61.00	1740	78.00	147	141.00	158
39.00	887	62.00	1593	79.00	638	143.00	85
44.00	93	63.00	1219	80.00	141	174.00	20560
45.00	386	68.00	3087	81.00	618	175.00	1509
47.00	760	69.00	3325	82.00	83	176.00	19960
48.00	251	70.00	208	87.00	1752	177.00	1307
49.00	1854	72.00	145	88.00	1691		
50.00	9314	73.00	1351	92.00	911		
51.00	2548	74.00	4618	93.00	1356		
56.00	627	75.00	15644	94.00	3961		

Data File: /var/chem/hp4.i/40517d.b/bf40517.d
Date : 17-MAY-2000 10:41
Client ID: 50NGBFB
Sample Info: bfb 1ul
Volume Injected (uL): 1.0
Column phase: DB624 20m

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



UXB INTERNATIONAL
METHOD BLANK COMPOUNDS

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

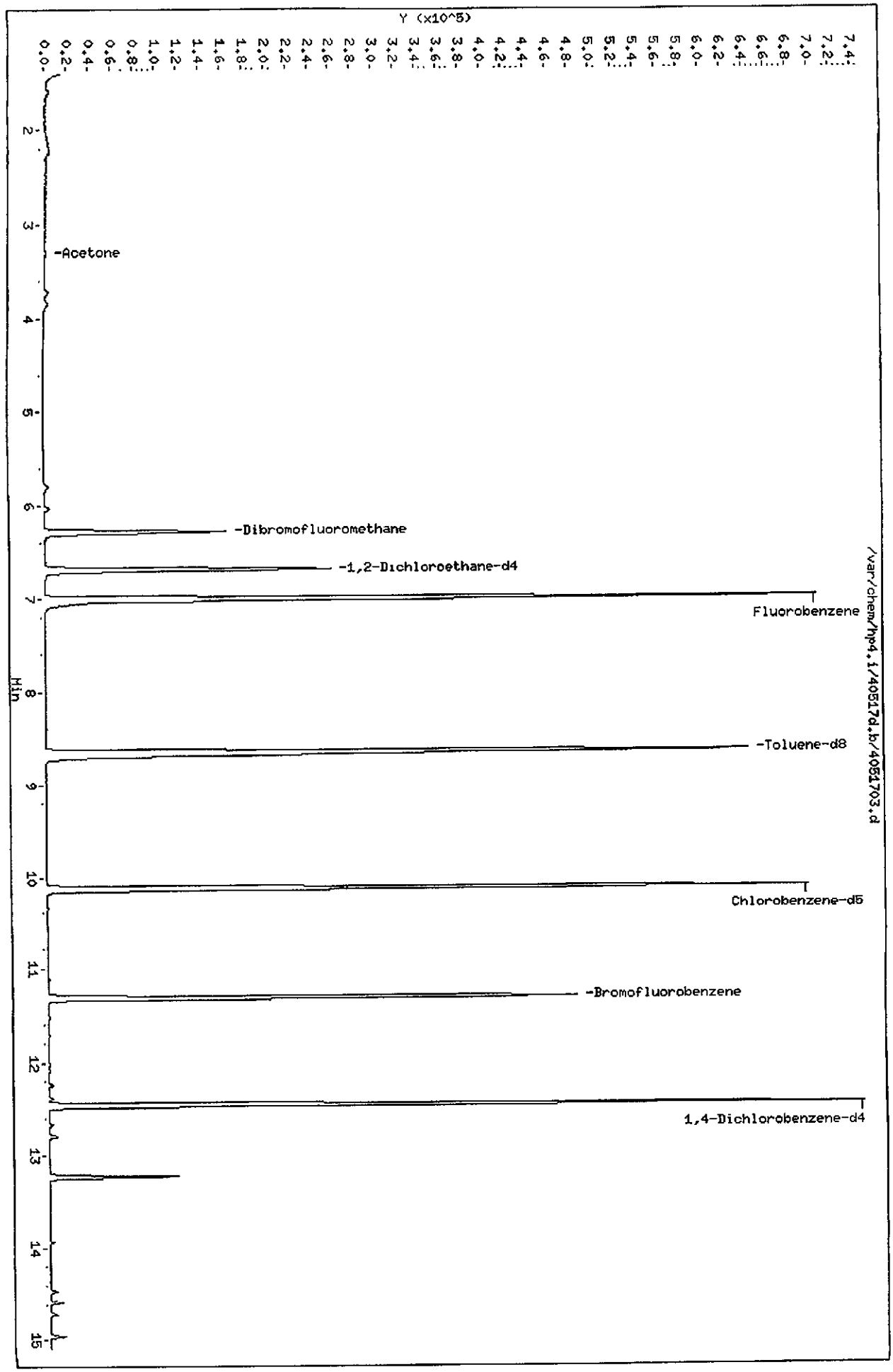
Matrix: (soil/water) SOLID Lab Sample ID:C0E170000 101
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/13/00
Work Order: DD95L101 Date Extracted:05/17/00
Dilution factor: 1 Date Analyzed: 05/17/00
Moisture %:NA

QC Batch: 0138262

Client Sample Id: INTRA-LAB BLANK

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



Data File: /var/chem/hp4.i/40517d.b/4051703.d
Date : 17-MAY-2000 14:39
Client ID: INTRA-LAB BLANK
Sample Info: pb blk (1ml/10ml)/ 5ml
Volume Injected (uL): 5.0
Column phase: DB 624

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

STL-PITTSBURGH

VOLATILE REPORT SW-846 Method

Data file : /var/chem/hp4.i/40517d.b/4051703.d
Lab Smp Id: DD95L101 Client Smp ID: INTRA-LAB BLANK
Inj Date : 17-MAY-2000 14:39
Operator : 16328 Inst ID: hp4.i
Smp Info : pb blk (1ml/10ml)/ 5ml
Misc Info : dd95l101,40517d.b,med1000.m
Comment :
Method : /var/chem/hp4.i/40517d.b/8260bh2o.m
Meth Date : 17-May-2000 14:06 dudeckk Quant Type: ISTD
Cal Date : 17-MAY-2000 13:03 Cal File: 1e40517.d
Als bottle: 11 QC Sample: METHOD BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: tclp.sub
Target Version: 3.40
Processing Host: hpuxcs21

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

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

5/17/00

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (UG/L)
* 46 Fluorobenzene	96	7.006	6.994	(1 000)	792190		
* 69 Chlorobenzene-d5	119	10 124	10 124	(1 000)	154881		
* 92 1,4-Dichlorobenzene-d4	152	12.459	12 460	(1 000)	210752		
$ 43 1,2-Dichloroethane-d4	65	6.688	6 683	(0 955)	192994	260 001	52.00
$ 39 Dibromofluoromethane	113	6 285	6 285	(0 897)	133376	246.080	49.22
$ 59 Toluene-d8	98	8 651	8 645	(0 854)	650896	250.176	50 04
$ 80 Bromofluorobenzene	95	11 304	11 310	(1.117)	225309	224 168	44.83
3 Vinyl Chloride	62.00	Compound Not Detected.					
12 1,1-Dichloroethene	96 00	Compound Not Detected.					
31 2-Butanone	43 00	Compound Not Detected					
37 Chloroform	83.00	Compound Not Detected.					
41 Carbon Tetrachloride	117.00	Compound Not Detected.					
42 Benzene	78.00	Compound Not Detected.					
45 1,2-Dichloroethane	62.00	Compound Not Detected					
47 Trichloroethene	130.00	Compound Not Detected					

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

UXB INTERNATIONAL
CHECK SAMPLE COMPOUNDS

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

Matrix: (soil/water) SOLID Lab Sample ID: C0E170000 262
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

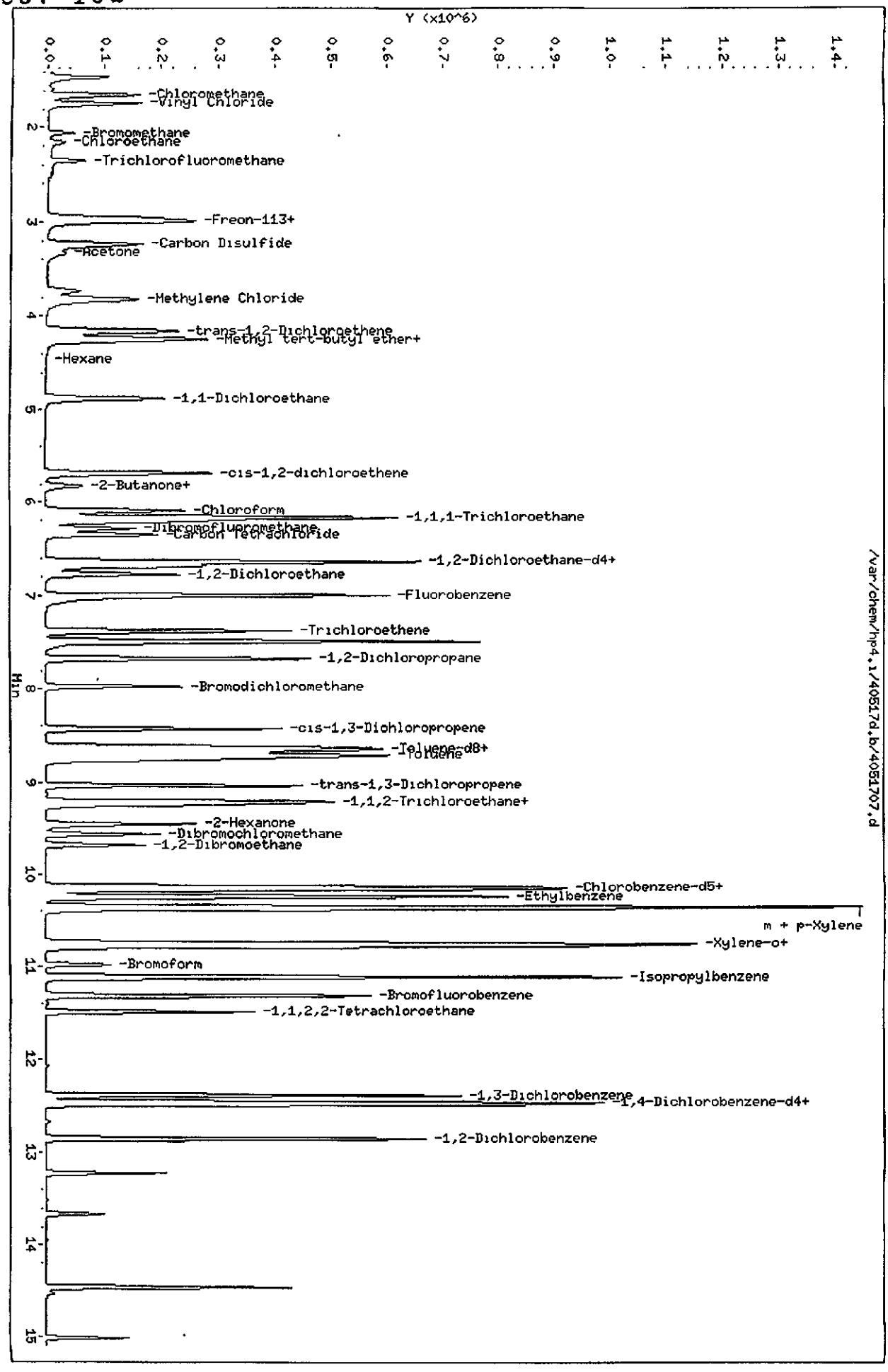
Sample WT/Vol: 5 / mL
Work Order: DDA08101
Dilution factor: 1
Moisture %: NA

Date Received: 05/13/00
Date Extracted: 05/17/00
Date Analyzed: 05/17/00

QC Batch: 0138262

Client Sample Id: CHECK SAMPLE

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) mg/L	Q
71-43-2	Benzene	0.546	
78-93-3	2-Butanone	0.503	
56-23-5	Carbon tetrachloride	0.567	
108-90-7	Chlorobenzene	0.543	
67-66-3	Chloroform	0.540	
107-06-2	1,2-Dichloroethane	0.552	
75-35-4	1,1-Dichloroethene	0.510	
127-18-4	Tetrachloroethene	0.566	
79-01-6	Trichloroethene	0.545	
75-01-4	Vinyl chloride	0.627	



Data File: /var/chem/hp4.i/40517d.b/4051707.d
Date : 17-MAY-2000 17:04
Client ID: INTRA-LAB CHECK
Sample Info: blkms (1ml/10ml)/ 5ml
Volume Injected (uL): 5.0
Column phase: DB 624

Instrument: hp4.i
Operator: 034635
Column diameter: 0.18

Data File: /var/chem/hp4.i/40517d.b/4051707.d
Report Date: 17-May-2000 17:22

STL-PITTSBURGH

VOLATILE REPORT SW-846 Method

Data file : /var/chem/hp4.i/40517d.b/4051707.d
Lab Smp Id: DDA08101 Client Smp ID: INTRA-LAB CHECK
Inj Date : 17-MAY-2000 17:04
Operator : 034635 Inst ID: hp4.i
Smp Info : blkms (1ml/10ml)/ 5ml
Misc Info : dda08101,40517d.b,med1000.m
Comment :
Method : /var/chem/hp4.i/40517d.b/8260bh2o.m
Meth Date : 17-May-2000 14:06 dudeckk Quant Type: ISTD
Cal Date : 17-MAY-2000 13:03 Cal File: 1e40517.d
Als bottle: 12 QC Sample: METHOD SPIKE
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: tclp.sub
Target Version: 3.40
Processing Host: hpuxcs21

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

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

pjl 5/17/00

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (UG/L)
* 46 Fluorobenzene	96	7 002	6 994	(1.000)	743134		
* 69 Chlorobenzene-d5	119	10.126	10.124	(1.000)	163960		
* 92 1,4-Dichlorobenzene-d4	152	12 455	12 460	(1 000)	229414		
$ 43 1,2-Dichloroethane-d4	65	6.684	6 683	(0 955)	179634	257.978	51.60
$ 39 Dibromofluoromethane	113	6.293	6.285	(0.899)	129802	255.295	51.06
$ 59 Toluene-d8	98	8.653	8.645	(0.855)	718005	260 689	52 14
$ 80 Bromofluorobenzene	95	11 312	11 310	(1.117)	273445	256 995	51 40
3 Vinyl Chloride	62	1.738	1.743	(0.248)	242371	313.474	62.69
12 1,1-Dichloroethene	96	2 998	2 978	(0 428)	122965	254 899	50.98
31 2-Butanone	43	5 816	5 821	(0.831)	132801	251 360	50 27
37 Chloroform	83	6.091	6 090	(0.870)	249445	270.040	54 01
41 Carbon Tetrachloride	117	6.354	6 352	(0.907)	121574	283 290	56.66
42 Benzene	78	6 641	6.640	(0.948)	740709	272 896	54.58
45 1,2-Dichloroethane	62	6 776	6.774	(0 968)	208627	276 143	55 23
47 Trichloroethene	130	7 381	7.379	(1.054)	155412	272 481	54 50

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (UG/L)
65 Tetrachloroethene	164	9 239	9.232	(0 912)	109969	282.784	56 56
70 Chlorobenzene	112	10 156	10.149	(1.003)	493927	271 566	54 31

UXB INTERNATIONAL
MATRIX SPIKE COMPOUNDS

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

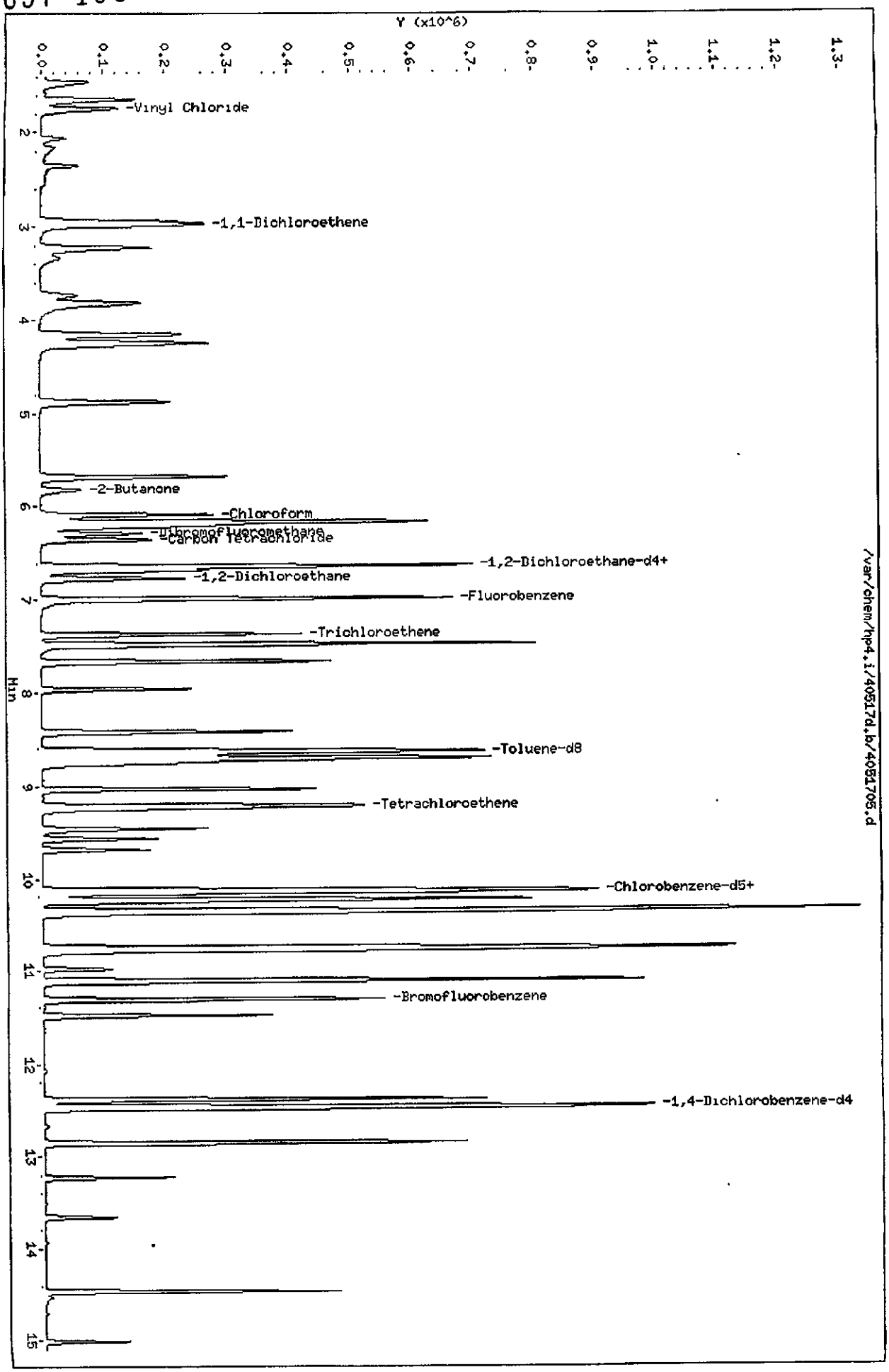
Matrix: (soil/water) SOLID Lab Sample ID:C0E130194 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/13/00
Work Order: DD6A410P Date Extracted:05/17/00
Dilution factor: 1 Date Analyzed: 05/17/00
Moisture %:10

QC Batch: 0138262

Client Sample Id: DF/S1/0133/SDC/001 A

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) mg/L	Q
71-43-2	Benzene	0.544	
78-93-3	2-Butanone	0.532	
56-23-5	Carbon tetrachloride	0.563	
108-90-7	Chlorobenzene	0.546	
67-66-3	Chloroform	0.536	
107-06-2	1,2-Dichloroethane	0.552	
75-35-4	1,1-Dichloroethene	0.518	
127-18-4	Tetrachloroethene	0.555	
79-01-6	Trichloroethene	0.545	
75-01-4	Vinyl chloride	0.635	



Data File: /var/chem/hp4.i/40517d.b/4051705.d
Date : 17-MAY-2000 16:07
Client ID: DF-001
Sample Info: c0e130194-001ms (1ml/10ml)/ 5ml
Volume Injected (uL): 5.0
Column phase: DB 624

Instrument: hp4.i
Operator: 034635
Column diameter: 0.18

Data File: /var/chem/hp4.i/40517d.b/4051705.d
Report Date: 17-May-2000 16:52

STL-PITTSBURGH

VOLATILE REPORT SW-846 Method

Data file : /var/chem/hp4.i/40517d.b/4051705.d
Lab Smp Id: DD6A410P Client Smp ID: DF-001
Inj Date : 17-MAY-2000 16:07
Operator : 034635 Inst ID: hp4.i
Smp Info : c0e130194-001ms (1ml/10ml)/ 5ml
Misc Info : dd6a410p,40517d.b,med1000.m
Comment :
Method : /var/chem/hp4.i/40517d.b/8260bh2o.m
Meth Date : 17-May-2000 14:06 dudeckk Quant Type: ISTD
Cal Date : 17-MAY-2000 13:03 Cal File: 1e40517.d
Als bottle: 13 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: tclp.sub
Target Version: 3.40
Processing Host: hpuxcs21

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

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

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (UG/L)
* 46 Fluorobenzene	96	6.995	6.994	(1.000)	736767		
* 69 Chlorobenzene-d5	119	10.125	10.124	(1.000)	159002		
* 92 1,4-Dichlorobenzene-d4	152	12 460	12 460	(1 000)	229690		
$ 43 1,2-Dichloroethane-d4	65	6 683	6 683	(0 955)	176693	255 947	51 19
$ 39 Dibromofluoromethane	113	6.286	6.285	(0.899)	129740	257.378	51.48
$ 59 Toluene-d8	98	8.645	8.645	(0.854)	696789	260.874	52.17
$ 80 Bromofluorobenzene	95	11.311	11.310	(1 117)	264207	256.056	51.21
3 Vinyl Chloride	62	1.743	1.743	(0.249)	243216	317.285	63.46
12 1,1-Dichloroethene	96	2 991	2.978	(0.428)	123871	258.997	51.80
31 2-Butanone	43	5 815	5 821	(0.831)	139356	266.046	53.21
37 Chloroform	83	6.090	6.090	(0 871)	245577	268.150	53 63
41 Carbon Tetrachloride	117	6 353	6.352	(0.908)	119678	281.282	56.26
42 Benzene	78	6.640	6.640	(0.949)	731722	271 914	54.38
45 1,2-Dichloroethane	62	6 775	6.774	(0.969)	206618	275 847	55 17
47 Trichloroethene	130	7 380	7 379	(1 055)	153999	272 337	54 47

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (UG/L)
65 Tetrachloroethene	164	9.232	9.232	(0 912)	104638	277.466	55.49
70 Chlorobenzene	112	10.149	10 149	(1 002)	481292	272 871	54.57

UXB INTERNATIONAL
MATRIX SPIKE DUPLICATE COMPOUNDS

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

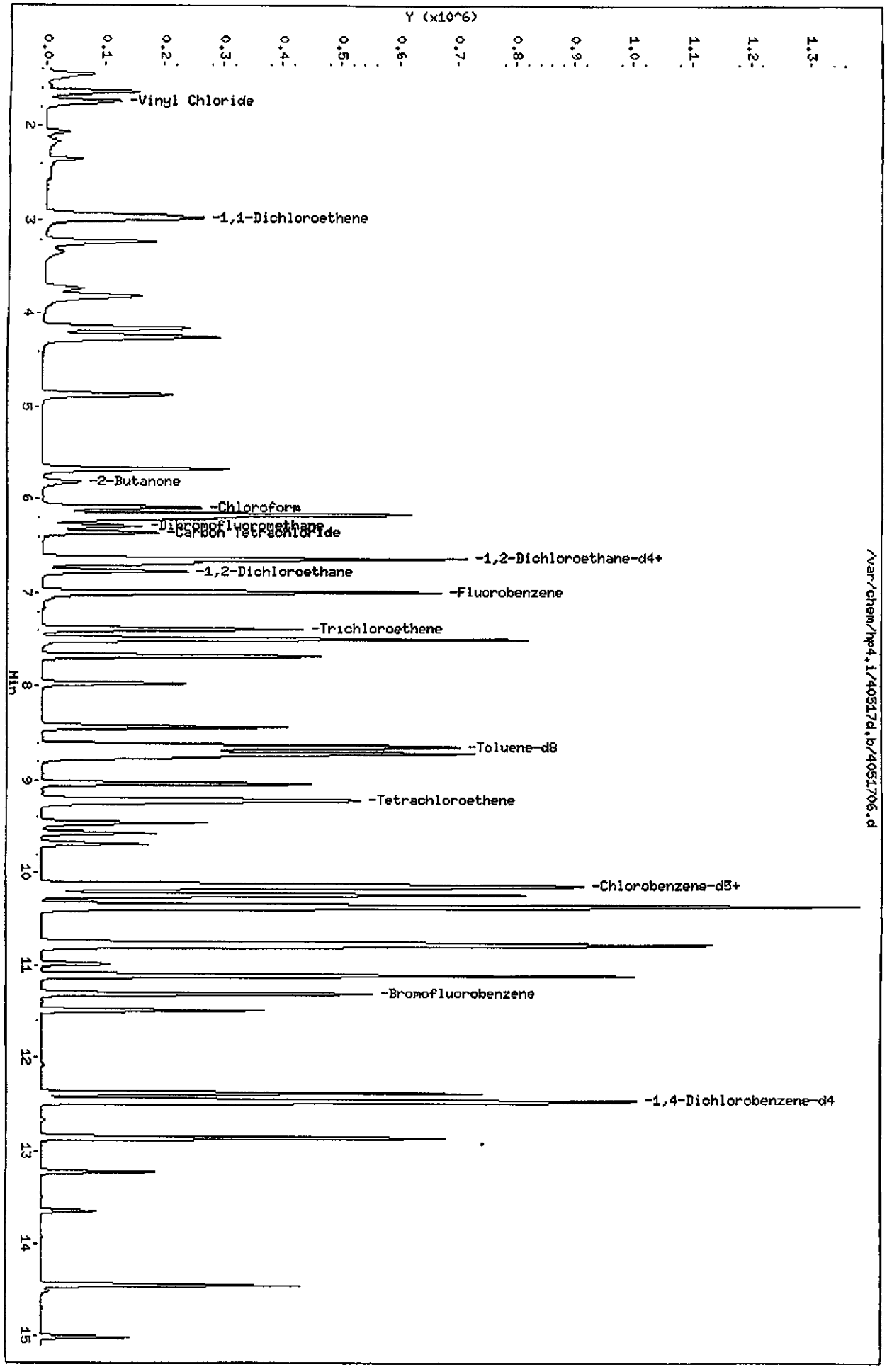
Matrix: (soil/water) SOLID Lab Sample ID: C0E130194 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/13/00
Work Order: DD6A410Q Date Extracted: 05/17/00
Dilution factor: 1 Date Analyzed: 05/17/00
Moisture %: 10

QC Batch: 0138262

Client Sample Id: DF/S1/0133/SDC/001 A

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) mg/L	Q
71-43-2	Benzene	0.552	
78-93-3	2-Butanone	0.526	
56-23-5	Carbon tetrachloride	0.571	
108-90-7	Chlorobenzene	0.550	
67-66-3	Chloroform	0.541	
107-06-2	1,2-Dichloroethane	0.561	
75-35-4	1,1-Dichloroethene	0.522	
127-18-4	Tetrachloroethene	0.567	
79-01-6	Trichloroethene	0.551	
75-01-4	Vinyl chloride	0.638	



Data File: /var/chem/hp4.i/40517d.b/4051706.d
Date : 17-MAY-2000 16:35
Client ID: DF-001
Sample Info: c0e130194-001msd (1ml/10ml)/ 5ml
Volume Injected (uL): 5.0
Column phase: DB 624

Instrument: hp4.i
Operator: 034635
Column diameter: 0.18

Data File: /var/chem/hp4.i/40517d.b/4051706.d
Report Date: 17-May-2000 16:52

STL-PITTSBURGH

VOLATILE REPORT SW-846 Method

Data file : /var/chem/hp4.i/40517d.b/4051706.d
Lab Smp Id: DD6A410Q Client Smp ID: DF-001
Inj Date : 17-MAY-2000 16:35
Operator : 034635 Inst ID: hp4.i
Smp Info : c0e130194-001msd (1ml/10ml)/ 5ml
Misc Info : dd6a410q,40517d.b,med1000.m
Comment :
Method : /var/chem/hp4.i/40517d.b/8260bh2o.m
Meth Date : 17-May-2000 14:06 dudeckk Quant Type: ISTD
Cal Date : 17-MAY-2000 13:03 Cal File: 1e40517.d
Als bottle: 14 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: tclp.sub
Target Version: 3.40
Processing Host: hpuxcs21

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

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

5/17/00

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (UG/L)
* 46 Fluorobenzene	96	6.996	6.994	(1 000)	739353		
* 69 Chlorobenzene-d5	119	10 126	10 124	(1.000)	161550		
* 92 1,4-Dichlorobenzene-d4	152	12.461	12.460	(1.000)	232577		
$ 43 1,2-Dichloroethane-d4	65	6.684	6.683	(0.955)	178328	257 412	51 48
$ 39 Dibromofluoromethane	113	6 286	6.285	(0.899)	129037	255.088	51.02
$ 59 Toluene-d8	98	8.646	8.645	(0.854)	696313	256.584	51 32
$ 80 Bromofluorobenzene	95	11.312	11.310	(1 117)	266398	254.107	50.82
3 Vinyl Chloride	62	1.744	1.743	(0.249)	245302	318.887	63.78
12 1,1-Dichloroethene	96	2 985	2.978	(0.427)	125297	261.062	52.21
31 2-Butanone	43	5 816	5 821	(0 831)	138346	263.194	52 64
37 Chloroform	83	6.091	6.090	(0.871)	248439	270.326	54.06
41 Carbon Tetrachloride	117	6.354	6.352	(0.908)	121909	285.524	57.10
42 Benzene	78	6.641	6.640	(0.949)	745179	275 946	55.19
45 1,2-Dichloroethane	62	6.775	6.774	(0.969)	210766	280 401	56 08
47 Trichloroethene	130	7.381	7.379	(1.055)	156296	275 433	55 09

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (UG/L)
65 Tetrachloroethene	164	9.233	9.232	(0 912)	108643	283 542	56.71
70 Chlorobenzene	112	10 150	10.149	(1.002)	492380	274.754	54 95

GC/MS VOLATILE
MISCELLANEOUS

Quanterra
Environmental Services

Quanterra Environmental Services, Pittsburgh
GC/MS Logsheet

Log Book No.: MS060011

Analyst: K & PJ Reviewed by: _____ Date: _____
Method No.: 8260B-MS Instrument ID: HP-4 Methanol Lot No.: _____
Std.: 192-180-11 BFB Std.: 192-178-8 DFT / 192-180-4 MS Std.: 192-180-10 SMV / 192-181-3 VOA Std.: 192-177-8 VOC / 192-181-8 MDB Std.: 192-183-8 Ketone / 192-181-9 CJ

Date	Run No.	Lot No./ Sample No.	Vol./Wt	pH	Port No.	Comments
5/17/00	1. BF40517	BFB	1µl			1041
	2. CC40517	VSTD50	5ml			
	3. IA40517	VSTD5	5ml			
	4. IB40517	VSTD20	5ml			
	5. ID40517	VSTD100	5ml			
	6. IE40517	VSTD200	5ml			
	7. 4051701	VBLK	5ml			
	8. 4051702	PB BLK	(1ml/10ml)/5ml	5		
	9. 4051703	PB BLK	(1ml/10ml)/5ml	5		
	10. 4051704	BLKMS	(1ml/10ml)/5ml	5		
	11. 4051705	COE130194-001 MS	(1ml/10ml)/5ml Prt	5		
	12. 4051706	COE130194-001 MS	(1ml/10ml)/5ml Prt	5		
	13. 4051707	BLKMS	(1ml/10ml)/5ml Prt	5		
	14. 4051708	COE130194-001	(1ml/10ml)/5ml Prt	5		
	15. 4051709	COE130194-002	(1ml/10ml)/5ml Prt	5		
	16. 4051710	COE130194-003	(1ml/10ml)/5ml Prt	5		@ 1A
	17. 4051711	COE130194-004	(1ml/10ml)/5ml Prt	5		
	18. 4051712	COE130194-003	(1ml/10ml)/5ml Prt	5		9:29
	19.					
	20.					
	21.					
	22.					

657 205

ZHE Leachate Worksheet

(Method 1311)

Quanterra Incorporated
450 William Pitt Way
Pittsburgh, PA 15238

Ph Buffer 4 4.00
Ph Buffer 7 7.00
Ph Buffer 10 10.01

P013801

Quanterra Pittsburgh

TCLP ph: 4.94

Temp: 22

Lab Sample ID #	Client ID	Weight (gm)	Vessel	Extraction Fluid No. / Volume	On Date	On Time	On Initials	Off Date	Off Time	Off Initials
1 COE130194	BIK 4.92	—	JJ	TCLP #1	5/16/2000	09:45	WT	5/17/2000	06:30	WT
2	001 6.74	25.0	ZZ							
3	002 6.60		N							
4.	003 6.61		L							
5	004 6.62		B							
6.										
7										
8.										
9										
10.										
11										
12										
13.										
14				WT 5/17/2000						
15										
16										
17.										
18.										
19.										
20										
21.										
22										

Extract(s) (Record line number from above)	Extract(s) Received Date	Time	Analyst	Location	Extract(s) Relinquished Date	Time	Analyst	Location
All Above	5/17/2000	07:15	B Trout	Org Prep	5/17/2000	07:20	B Trout	CLP-01
All above	5/17/2000	08:00	K Dahl	CVOA	5/17/2000	08:00	K Dahl	VOA
All Above	5/17/2000	14:00	[signature]	KWD. (VOA)	5/17/2000	20:20	[signature]	MJ01

Reviewed by: James Miller

Date: 5-17-00

C000067

STL Pittsburgh

657 206

PSRQ24 5/16/00 4:52:05 MT SAMPLE CUSTODIAN REMOVAL REQUEST PAGE 001

REQUESTED BY: **TROUTB**

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

STORAGE LOCATION	WORK ORDER #	PICKED CNTR#	CONTROL #	CLIENT #	ANALYSIS	LOTID	SMP#	SFX	MATRIX DESCRIPTION	QTY RCVD	QTY REQD
2F CLP1	DD6A4-1-01	___ ___ ___	233721	399411	A-58-QK	COE130194	001		SOLID	0	3 1
2F CLP1	DD6A5-1-01	___ ___ ___	233722	399411	A-58-QK	COE130194	002		SOLID	0	3 1
2F CLP1	DD6A6-1-01	___ ___ ___	233723	399411	A-58-QK	COE130194	003		SOLID	0	3 1
2F CLP1	DD6A7-1-01	___ ___ ___	233724	399411	A-58-QK	COE130194	004		SOLID	0	3 1

RELINQUISHED BY	RECEIVED BY	DATE/TIME
Ken Deely	B Trout	5/16/2000 07:20
B Trout	Ken Deely	5/16/2000 10:05

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

GC/MS SEMIVOLATILE DATA

GC/MS SEMIVOLATILE
QC SUMMARY

SW846 8270C SURROGATE RECOVERY

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

Lab Code: QESPIT QESSDG:

Lot #: C0E130194

	CLIENT ID.	SRG01	SRG02	SRG03	SRG04	SRG05	SRG06	TOT OUT
01	DF/S1/0133/SDC/001 A	51	56	78	45	47	56	00
02	DF/S1/0133/SDC/001 B	55	57	75	49	51	59	00
03	DF/S1/0133/SDC/001 C	47	46	66	42	45	50	00
04	DF/S1/0133/SDC/001 D	53	54	67	48	51	59	00
05	METHOD BLK. DDF2D101	64	68	67	63	66	66	00
06	LCS DDF2D102	65	72	69	61	63	67	00
07	DF/S1/0133/SDC/001 A D	54	58	73	47	51	63	00
08	DF/S1/0133/SDC/001 A S	52	57	71	46	49	60	00

SURROGATES		QC LIMITS
SRG01	= Nitrobenzene-d5	(32-112)
SRG02	= 2-Fluorobiphenyl	(30-110)
SRG03	= Terphenyl-d14	(10-144)
SRG04	= 2-Fluorophenol	(13-110)
SRG05	= Phenol-d5	(10-113)
SRG06	= 2,4,6-Tribromophenol	(21-122)

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

FORM II

657 210 SW846 8270C MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

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

Lab Code: QESPIT SDG No:

Matrix Spike ID: DF/S1/0133/SDC/001 A Level: (low/med) LOW

Lot #: C0E130194 WO #: DD6A411G
BATCH: 0140269

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	MS CONCENT. (mg/L)	MS % REC	LIMITS REC	QUAL
1,4-Dichlorobenzene	0.250	ND	0.127	51	18 - 110	
2,4-Dinitrotoluene	0.250	ND	0.118	47	31 - 131	
Hexachlorobenzene	0.250	ND	0.174	70	36 - 132	
Hexachlorobutadiene	0.250	ND	0.130	52	18 - 116	
Hexachloroethane	0.250	ND	0.118	47	18 - 110	
Nitrobenzene	0.250	ND	0.131	52	10 - 211	
Pentachlorophenol	0.250	ND	0.138	55	10 - 140	
Pyridine	0.250	ND	0.157	63	10 - 148	
2,4,5-Trichlorophenol	0.250	ND	0.142	57	24 - 143	
2,4,6-Trichlorophenol	0.250	ND	0.140	56	36 - 135	
Cresols (total)	0.750	ND	0.375	50	25 - 144	

NOTES(S):

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

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

COMMENTS:

FORM III

SW846 8270C MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

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

Lab Code: QESPIT SDG No:

Matrix Spike ID: DF/S1/0133/SDC/001 A Level:(low/med) LOW

Lot #: C0E130194 WO #: DD6A411H
BATCH: 0140269

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENT. (mg/L)	MSD % REC	% RPD		QC LIMITS RPD	QC LIMITS REC	QUAL
1,4-Dichlorobenzene	0.250	0.131	53	3.2		36	18- 110	
2,4-Dinitrotoluene	0.250	0.120	48	1.4		32	31- 131	
Hexachlorobenzene	0.250	0.181	72	4.1		22	36- 132	
Hexachlorobutadiene	0.250	0.135	54	3.6		32	18- 116	
Hexachloroethane	0.250	0.122	49	3.4		33	18- 110	
Nitrobenzene	0.250	0.136	54	3.8		50	10- 211	
Pentachlorophenol	0.250	0.143	57	3.6		56	10- 140	
Pyridine	0.250	0.164	66	4.5		65	10- 148	
2,4,5-Trichlorophenol	0.250	0.146	58	2.4		22	24- 143	
2,4,6-Trichlorophenol	0.250	0.143	57	1.7		27	36- 135	
Cresols (total)	0.750	0.391	52	4.2		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:

FORM III

657 212 SW846 8270C CHECK SAMPLE RECOVERY

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

Lab Code: QESPIT SDG No:

Lot #: C0E190000 WO #: DDF2D102
BATCH: 0140269

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	% REC	QC LIMITS REC	QUAL
1,4-Dichlorobenzene	0.250	0.173	69	28 - 110	
2,4-Dinitrotoluene	0.250	0.136	54	47 - 131	
Hexachlorobenzene	0.250	0.191	77	57 - 128	
Hexachlorobutadiene	0.250	0.179	72	36 - 116	
Hexachloroethane	0.250	0.170	68	30 - 110	
Nitrobenzene	0.250	0.168	67	45 - 130	
Pentachlorophenol	0.250	0.162	65	10 - 140	
Pyridine	0.250	0.272	109	10 - 148	
2,4,5-Trichlorophenol	0.250	0.171	69	41 - 125	
2,4,6-Trichlorophenol	0.250	0.173	69	46 - 135	
Cresols (total)	0.750	0.489	65	29 - 144	

NOTES(S):

* Values outside of QC limits

Spike Recovery: 0 out of 11 outside limits

COMMENTS:

FORM III

SW846 8270C METHOD BLANK SUMMARY

BLANK WORKORDER NO.: DDF2D101

Lab Name: Severn Trent Laboratories, Inc.

Lab Code: QESPIT

SDG Number:

Lab File ID: S0522006.

Lot Number: C0E130194

Date Analyzed: 05/22/00

Time Analyzed: 12:05

Matrix: SOLID

Date Extracted: 05/18/00

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	DDF2D102 C	S0522007.	05/22/00	12:41
02	DF/S1/0133/SDC/001 A	DD6A4102	S0522008.	05/22/00	13:17
03	DF/S1/0133/SDC/001 A	DD6A411G S	S0522009.	05/22/00	13:53
04	DF/S1/0133/SDC/001 A	DD6A411H D	S0522010.	05/22/00	14:29
05	DF/S1/0133/SDC/001 B	DD6A5102	S0522011.	05/22/00	15:05
06	DF/S1/0133/SDC/001 C	DD6A6102	S0522012.	05/22/00	15:41
07	DF/S1/0133/SDC/001 D	DD6A7102	S0522013.	05/22/00	16:17
08					
09					
10					
11					
12					
13					
14					
15					
16					
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26					
27					
28					
29					
30					

COMMENTS:

FORM IV

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
657 214 DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Contract:

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

Lab File ID: S0519DF2 DFTPP Injection Date: 05/19/00

Instrument ID: 71 DFTPP Injection Time: 1144

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	39.6
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	39.6
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	49.8
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	23.3
365	Greater than 1.0% of mass 198	3.83
441	Present, but less than mass 443	14.4
442	Greater than 40.0% of mass 198	88.3
443	17.0 - 23.0% of mass 442	16.3 (18.4)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	S0519CC3	05/19/00	1320
02	SSTD020	SSTD20	S0519CC2	05/19/00	1356
03	SSTD080	SSTD80	S0519CC4	05/19/00	1432
04	SSTD120	SSTD120	S0519CC5	05/19/00	1508
05	SSTD160	SSTD160	S0519CC6	05/19/00	1544
06					
07					
08					
09					
10					
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21					
22					

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: C0E130194

Lab File ID: S0522DF1 DFTPP Injection Date: 05/22/00

Instrument ID: 71 DFTPP Injection Time: 1109

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	36.7
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	38.0
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	47.9
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	23.1
365	Greater than 1.0% of mass 198	3.59
441	Present, but less than mass 443	13.7
442	Greater than 40.0% of mass 198	84.8
443	17.0 - 23.0% of mass 442	16.7 (19.7)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD050	SSTD50	S0522CCC	05/22/00	1127
02	INTRA-LAB BL	DDF2D101	S0522006	05/22/00	1205
03	INTRA-LAB CH	DDF2D102	S0522007	05/22/00	1241
04	DF/S1/0133/S	DD6A4102	S0522008	05/22/00	1317
MS 05	DF/S1/0133/S	DD6A411G	S0522009	05/22/00	1353
MSD 06	DF/S1/0133/S	DD6A411H	S0522010	05/22/00	1429
07	DF/S1/0133/S	DD6A5102	S0522011	05/22/00	1505
08	DF/S1/0133/S	DD6A6102	S0522012	05/22/00	1541
09	DF/S1/0133/S	DD6A7102	S0522013	05/22/00	1617
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

657 216

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: C0E130194

Lab File ID (Standard): S0522CCC Date Analyzed: 05/22/00

Instrument ID: 71 Time Analyzed: 1127

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
	12 HOUR STD	145518	5.03	535078	6.56	265064	9.60
	UPPER LIMIT	291036	5.53	1070156	7.06	530128	10.10
	LOWER LIMIT	72759	4.53	267539	6.06	132532	9.10
	CLIENT SAMPLE NO.						
01	INTRA-LAB BL	161868	5.03	630828	6.57	338411	9.60
02	INTRA-LAB CH	161298	5.04	635000	6.56	326610	9.60
03	DF/S1/0133/S	171047	5.03	654778	6.56	330853	9.60
04	DF/S1/0133/S MS	165477	5.03	633807	6.57	317069	9.60
05	DF/S1/0133/S MSD	165720	5.03	635621	6.57	322693	9.60
06	DF/S1/0133/S	162741	5.03	618658	6.56	312452	9.60
07	DF/S1/0133/S	171377	5.03	653524	6.56	328496	9.59
08	DF/S1/0133/S	155705	5.03	593533	6.56	302566	9.59
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

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: C0E130194

Lab File ID (Standard): S0522CCC Date Analyzed: 05/22/00

Instrument ID: 71 Time Analyzed: 1127

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	427212	12.90	446724	19.53	599590	22.89
	UPPER LIMIT	854424	13.40	893448	20.03	1199180	23.39
	LOWER LIMIT	213606	12.40	223362	19.03	299795	22.39
	CLIENT SAMPLE NO.						
01	INTRA-LAB BL	564305	12.90	527745	19.53	648566	22.89
02	INTRA-LAB CH	529319	12.90	491727	19.52	616566	22.89
03	DF/S1/0133/S	540847	12.90	508153	19.53	598482	22.89
04	DF/S1/0133/S MS	528651	12.90	549885	19.53	656369	22.90
05	DF/S1/0133/S MSD	522771	12.90	519636	19.53	634789	22.90
06	DF/S1/0133/S	506789	12.89	498685	19.52	606512	22.88
07	DF/S1/0133/S	524299	12.89	498960	19.52	611014	22.88
08	DF/S1/0133/S	486337	12.89	495522	19.52	603824	22.88
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

UXB INTERNATIONAL

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

Matrix: (soil/water) SOLID Lab Sample ID: C0E130194 001
Method: SW846 8270C
Base/Neutrals and Acids (8270C)

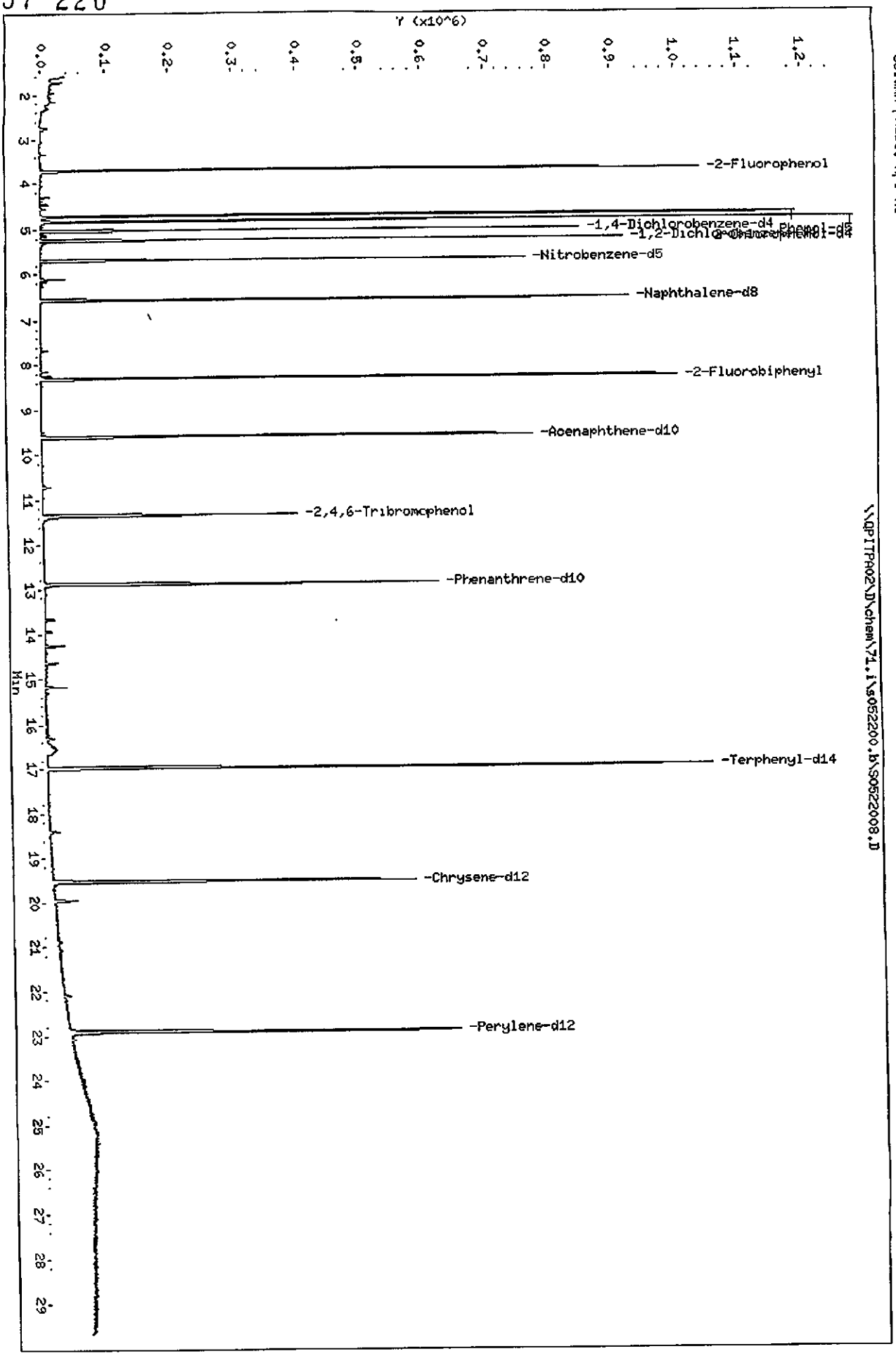
Sample WT/Vol: 200 / mL
Work Order: DD6A4102
Dilution factor: 1
Moisture %: 10

Date Received: 05/13/00
Date Extracted: 05/18/00
Date Analyzed: 05/22/00

QC Batch: 0140269

Client Sample Id: DF/S1/0133/SDC/001 A

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: \\QPITPA02\D\chem\71.i\s052200.b\S0522008.D
Date : 22-MAY-2000 13:17
Client ID: DF/SL/0133/SDC/001
Sample Info: c0e130194-001 5/18/00 8270tclp
Volume Injected (uL): 2.0
Column phase: Hp5-MS

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

STL Pittsburgh

Semivolatile REPORT SW-846 Method 8270

Data file : \\QPITPA02\D\chem\71.i\s052200.b\S0522008.D
Lab Smp Id: DD6A4102 Client Smp ID: DF/S1/0133/SDC/001
Inj Date : 22-MAY-2000 13:17
Operator : 045183 Inst ID: 71.i
Smp Info : c0e130194-001 5/18/00 8270tclp
Misc Info : dd6a4102,s052200.b,8270clp.m,1-tclp.sub
Comment :
Method : \\QPITPA02\D\chem\71.i\s052200.b\8270clp.m
Meth Date : 22-May-2000 12:37 bachas Quant Type: ISTD
Cal Date : 19-MAY-2000 15:44 Cal File: S0519CC6.D
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 1-tclp.sub
Target Version: 4.03
Processing Host: PITPC050

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

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

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (mg/L)	
*	1 1,4-Dichlorobenzene-d4	152	5.035	5.029	(1.000)	171047	40.0000		(a)
*	2 Naphthalene-d8	136	6.563	6 562	(1.000)	654778	40.0000		(a)
*	3 Acenaphthene-d10	164	9.597	9 596	(1 000)	330853	40.0000		(a)
*	4 Phenanthrene-d10	188	12.898	12.898	(1.000)	540847	40.0000		(a)
*	5 Chrysene-d12	240	19 528	19.533	(1 000)	508153	40 0000		(a)
*	6 Perylene-d12	264	22.888	22.893	(1.000)	598482	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.						
	59 Hexachlorobutadiene	224	Compound Not Detected						

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Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (mg/L)
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	5 686	5.686	(0.866)	340374	51 4051	0 12851(a)
$ 173 2-Fluorobiphenyl	172	8 309	8.309	(0 866)	559981	55 7967	0 13949(a)
$ 174 Terphenyl-d14	244	16 974	16.969	(0.869)	886750	78 0351	0.19509(a)
$ 175 Phenol-d5	99	4 714	4.719	(0 936)	534844	70 0950	0.17524(a)
$ 176 2-Fluorophenol	112	3 704	3.709	(0 736)	381427	66.8026	0 16701(a)
$ 177 2,4,6-Tribromophenol	330	11 344	11.338	(0 879)	112909	84.0900	0 21022(a)
$ 178 2-Chlorophenol-d4	132	4.832	4 831	(0 960)	444824	83.2135	0.20803(a)
$ 179 1,2-Dichlorobenzene-d4	152	5.243	5.237	(1 041)	183143	48.7647	0.12191(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:

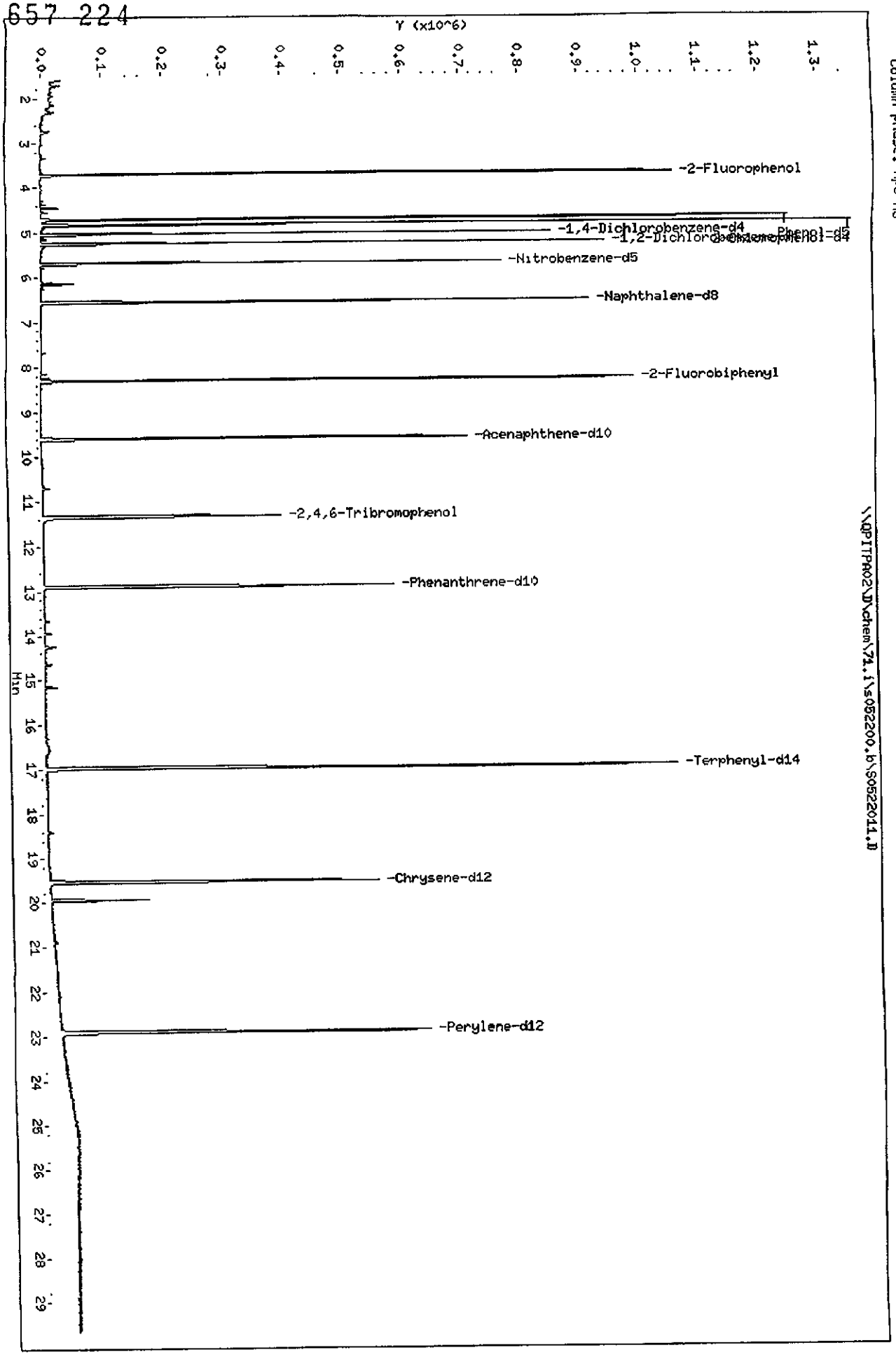
Matrix: (soil/water) SOLID Lab Sample ID:C0E130194 002
Method: SW846 8270C
Base/Neutrals and Acids (8270C)

Sample WT/Vol: 200 / mL Date Received: 05/13/00
Work Order: DD6A5102 Date Extracted:05/18/00
Dilution factor: 1 Date Analyzed: 05/22/00
Moisture %:8.6

QC Batch: 0140269

Client Sample Id: DF/S1/0133/SDC/001 B

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: \\QPITPA02\D\chem\71.i\s052200.b\S0522011.D
Date : 22-MAY-2000 15:05
Client ID: DF/S1/0133/SDC/001
Sample Info: c0e130194-002 5/18/00 8270tclp
Volume Injected (uL): 2.0
Column phase: Hp5-MS

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

Data File: \\QPITPA02\D\chem\71.i\s052200.b\S0522011.D
Report Date: 22-May-2000 15:36

STL Pittsburgh

Semivolatile REPORT SW-846 Method 8270

Data file : \\QPITPA02\D\chem\71.i\s052200.b\S0522011.D
Lab Smp Id: DD6A5102 Client Smp ID: DF/S1/0133/SDC/001
Inj Date : 22-MAY-2000 15:05
Operator : 045183 Inst ID: 71.i
Smp Info : c0e130194-002 5/18/00 8270tclp
Misc Info : dd6a5102,s052200.b,8270clp.m,1-tclp.sub
Comment :
Method : \\QPITPA02\D\chem\71.i\s052200.b\8270clp.m
Meth Date : 22-May-2000 12:37 bachas Quant Type: ISTD
Cal Date : 19-MAY-2000 15:44 Cal File: S0519CC6.D
Als bottle: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 1-tclp.sub
Target Version: 4.03
Processing Host: PITPC050

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

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

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (mg/L)	
*	1 1,4-Dichlorobenzene-d4	152	5.031	5 029	(1 000)	162741	40.0000		(a)
*	2 Naphthalene-d8	136	6.564	6 562	(1.000)	618658	40.0000		(a)
*	3 Acenaphthene-d10	164	9 598	9.596	(1 000)	312452	40 0000		(a)
*	4 Phenanthrene-d10	188	12.894	12.898	(1 000)	506789	40.0000		(a)
*	5 Chrysene-d12	240	19 524	19.533	(1.000)	498685	40 0000		(a)
*	6 Perylene-d12	264	22.884	22.893	(1.000)	606512	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.						
	59 Hexachlorobutadiene	224	Compound Not Detected.						

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (mg/L)
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	5.688	5 686	(0.867)	342698	54.7779	0.13694(a)
$ 173	2-Fluorobiphenyl	172	8.306	8.309	(0.865)	536732	56.6298	0.14157(a)
$ 174	Terphenyl-d14	244	16 971	16 969	(0 869)	839715	75.2988	0 18825(a)
$ 175	Phenol-d5	99	4.716	4 719	(0 937)	555209	76.4778	0.19119(a)
$ 176	2-Fluorophenol	112	3 706	3.709	(0.737)	396107	72.9145	0 18229(a)
$ 177	2,4,6-Tribromophenol	330	11.340	11 338	(0.879)	111632	88.7260	0 22182(a)
$ 178	2-Chlorophenol-d4	132	4 828	4.831	(0.960)	449351	88.3507	0.22088(a)
$ 179	1,2-Dichlorobenzene-d4	152	5 239	5.237	(1.041)	178822	50.0442	0 12511(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:

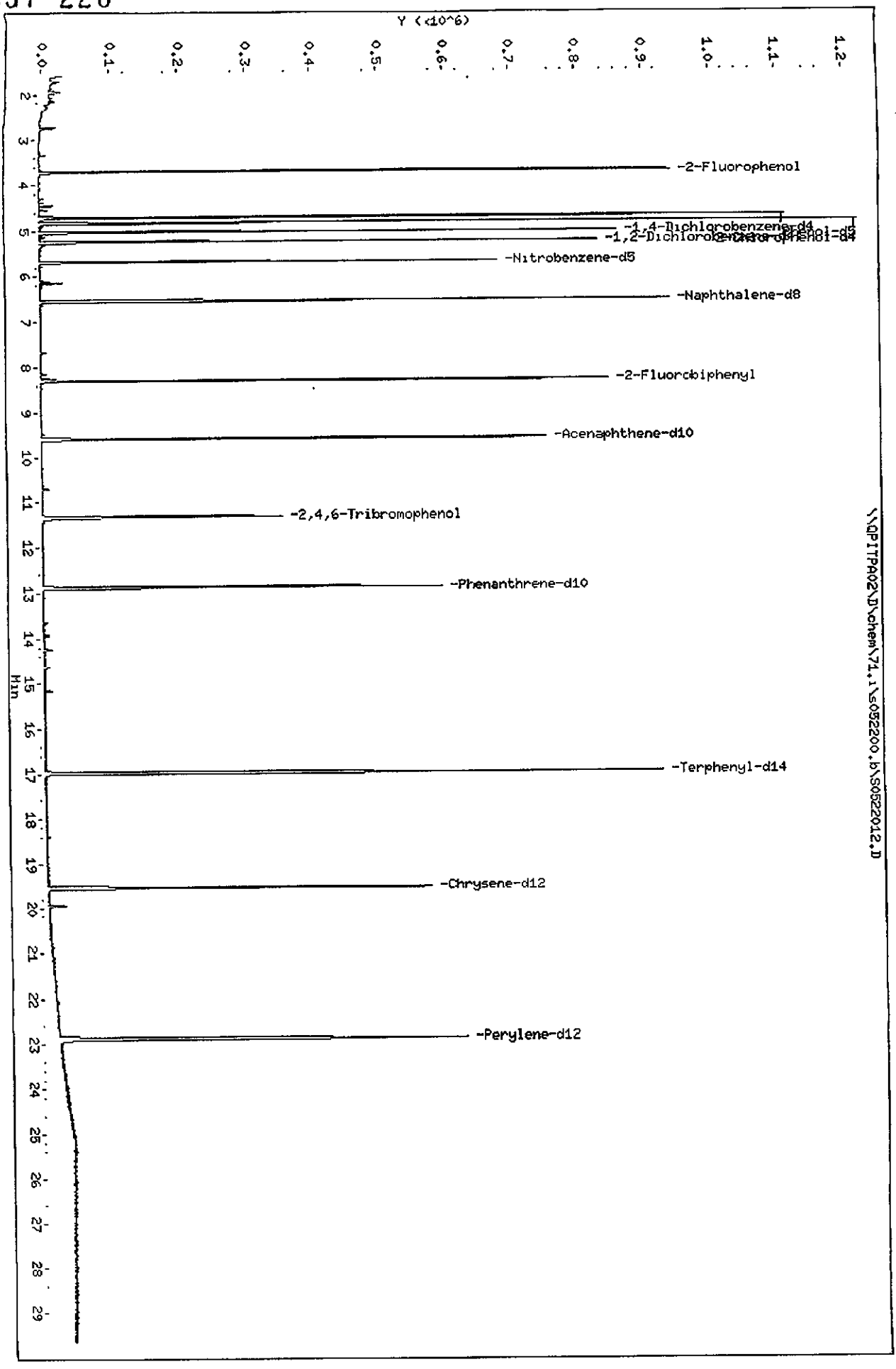
Matrix: (soil/water) SOLID Lab Sample ID:C0E130194 003
Method: SW846 8270C
Base/Neutrals and Acids (8270C)

Sample WT/Vol: 200 / mL Date Received: 05/13/00
Work Order: DD6A6102 Date Extracted:05/18/00
Dilution factor: 1 Date Analyzed: 05/22/00
Moisture %:10

QC Batch: 0140269

Client Sample Id: DF/S1/0133/SDC/001 C

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: \\QPITPA02\D\chem\71.i\s052200.b\S0522012.D
Date : 22-MAY-2000 15:41
Client ID: DF/S1/0133/SDC/001
Sample Info: c0e130194-003 5/18/00 8270tclp
Volume Injected (uL): 2.0
Column phase: Hp5-MS

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

Data File: \\QPITPA02\D\chem\71.i\s052200.b\S0522012.D
Report Date: 22-May-2000 16:43

STL Pittsburgh

Semivolatile REPORT SW-846 Method 8270

Data file : \\QPITPA02\D\chem\71.i\s052200.b\S0522012.D
Lab Smp Id: DD6A6102 Client Smp ID: DF/S1/0133/SDC/001
Inj Date : 22-MAY-2000 15:41
Operator : 045183 Inst ID: 71.i
Smp Info : c0e130194-003 5/18/00 8270tclp
Misc Info : dd6a6102,s052200.b,8270clp.m,1-tclp.sub
Comment :
Method : \\QPITPA02\D\chem\71.i\s052200.b\8270clp.m
Meth Date : 22-May-2000 12:37 bachas Quant Type: ISTD
Cal Date : 19-MAY-2000 15:44 Cal File: S0519CC6.D
Als bottle: 14
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 1-tclp.sub
Target Version: 4.03
Processing Host: PITPC050

lwl 5/22/00

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

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

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (mg/L)	
*	1 1,4-Dichlorobenzene-d4	152	5.029	5.029	(1.000)	171377	40.0000		(a)
*	2 Naphthalene-d8	136	6.557	6.562	(1.000)	653524	40.0000		(a)
*	3 Acenaphthene-d10	164	9.592	9.596	(1.000)	328496	40.0000		(a)
*	4 Phenanthrene-d10	188	12.893	12.898	(1.000)	524299	40.0000		(a)
*	5 Chrysene-d12	240	19.517	19.533	(1.000)	498960	40.0000		(a)
*	6 Perylene-d12	264	22.877	22.893	(1.000)	611014	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.						
	59 Hexachlorobutadiene	224	Compound Not Detected						

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (mg/L)
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	5.681	5.686	(0.866)	312190	47 2390	0 11810(a)
$ 173 2-Fluorobiphenyl	172	8.304	8 309	(0.866)	460044	46.1679	0.11542(a)
$ 174 Terphenyl-d14	244	16 964	16.969	(0.869)	736170	65 9774	0.16494(a)
$ 175 Phenol-d5	99	4 714	4.719	(0.937)	515789	67 4677	0 16867(a)
$ 176 2-Fluorophenol	112	3 705	3 709	(0 737)	360711	63.0529	0.15763(a)
$ 177 2,4,6-Tribromophenol	330	11.333	11.338	(0 879)	98392	75.5909	0.18898(a)
$ 178 2-Chlorophenol-d4	132	4 826	4.831	(0.960)	410905	76.7204	0.19180(a)
$ 179 1,2-Dichlorobenzene-d4	152	5.238	5.237	(1.041)	157506	41.8576	0.10464(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:C0E130194 004
Method: SW846 8270C
Base/Neutrals and Acids (8270C)

Sample WT/Vol: 200 / mL Date Received: 05/13/00
Work Order: DD6A7102 Date Extracted:05/18/00
Dilution factor: 1 Date Analyzed: 05/22/00
Moisture %:11

QC Batch: 0140269

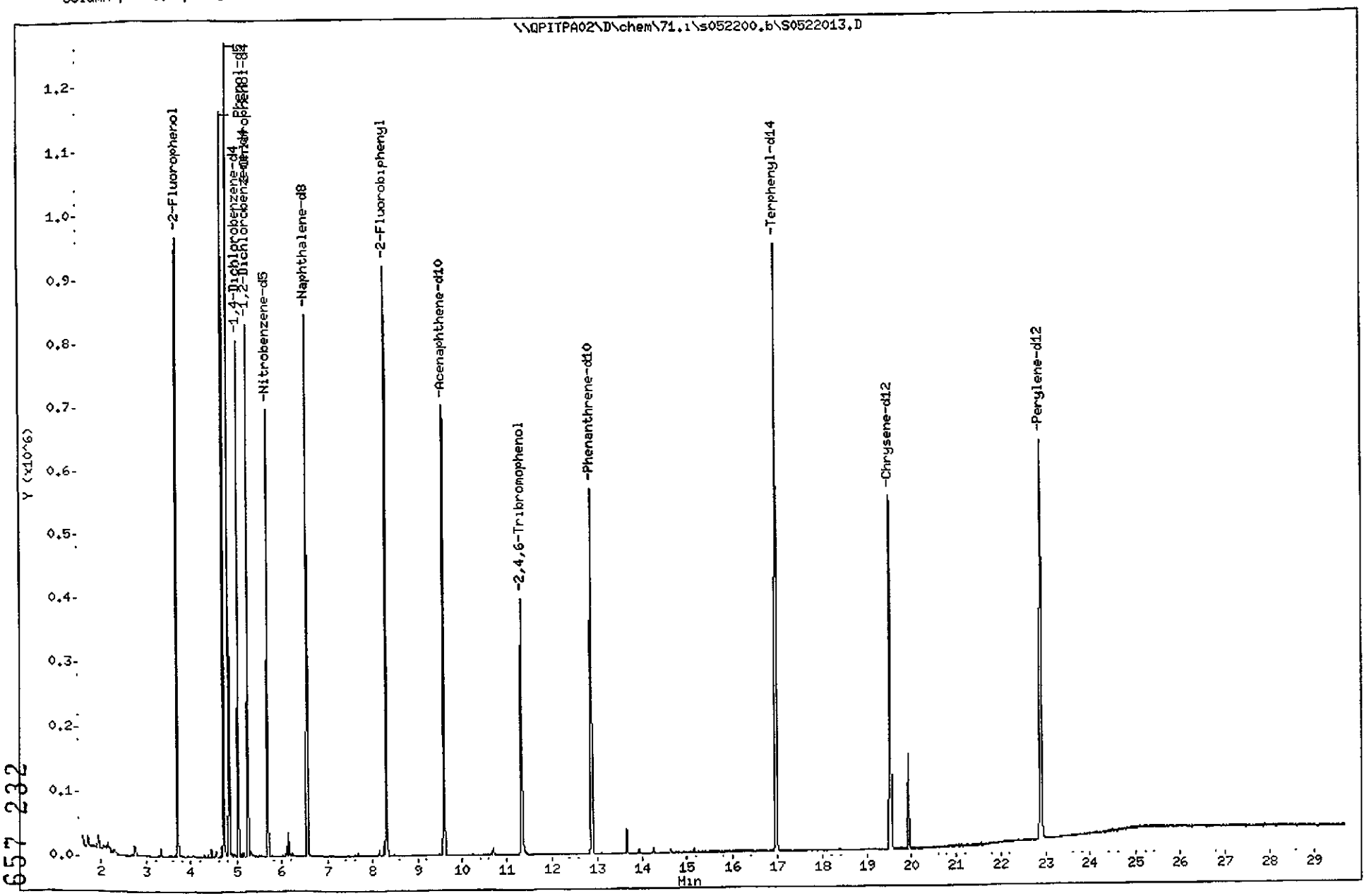
Client Sample Id: DF/S1/0133/SDC/001 D

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: \\QPITPA02\D\chem\71.i\s052200.b\S0522013.D
Date : 22-MAY-2000 16:17
Client ID: DF/S1/0133/SDC/001
Sample Info: c0e130194-004 5/18/00 8270tclp
Volume Injected (uL): 2.0
Column phase: Hp5-MS

Instrument: 71.i

Operator: 045183
Column diameter: 0.25



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STL Pittsburgh

Semivolatile REPORT SW-846 Method 8270

Data file : \\QPITPA02\D\chem\71.i\s052200.b\S0522013.D
Lab Smp Id: DD6A7102 Client Smp ID: DF/S1/0133/SDC/001
Inj Date : 22-MAY-2000 16:17
Operator : 045183 Inst ID: 71.i
Smp Info : c0e130194-004 5/18/00 8270tclp
Misc Info : dd6a7102,s052200.b,8270clp.m,1-tclp.sub
Comment :
Method : \\QPITPA02\D\chem\71.i\s052200.b\8270clp.m
Meth Date : 22-May-2000 12:37 bachas Quant Type: ISTD
Cal Date : 19-MAY-2000 15:44 Cal File: S0519CC6.D
Als bottle: 15
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 1-tclp.sub
Target Version: 4.03
Processing Host: PITPC050

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

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

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (mg/L)	
*	1 1,4-Dichlorobenzene-d4	152	5.029	5.029	(1.000)	155705	40 0000		(a)
*	2 Naphthalene-d8	136	6 563	6.562	(1 000)	593533	40 0000		(a)
*	3 Acenaphthene-d10	164	9 592	9 596	(1 000)	302566	40 0000		(a)
*	4 Phenanthrene-d10	188	12.893	12 898	(1.000)	486337	40.0000		(a)
*	5 Chrysene-d12	240	19.517	19.533	(1 000)	495522	40.0000		(a)
*	6 Perylene-d12	264	22.883	22 893	(1 000)	603824	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.						
	59 Hexachlorobutadiene	224	Compound Not Detected.						

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (mg/L)
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	5 686	5 686	(0.867)	318009	52.9832	0 13246(a)
$ 173 2-Fluorobiphenyl	172	8.304	8 309	(0 866)	498621	54 3277	0 13582(a)
$ 174 Terphenyl-d14	244	16 964	16 969	(0 869)	747900	67.4938	0 16873(a)
$ 175 Phenol-d5	99	4 714	4.719	(0 937)	529317	76 2060	0.19052(a)
$ 176 2-Fluorophenol	112	3 705	3 709	(0 737)	370832	71 3466	0.17837(a)
$ 177 2,4,6-Tribromophenol	330	11 333	11 338	(0.879)	106910	88.5462	0 22136(a)
$ 178 2-Chlorophenol-d4	132	4 826	4 831	(0.960)	419058	86.1179	0 21529(a)
$ 179 1,2-Dichlorobenzene-d4	152	5 238	5.237	(1 041)	158520	46 3672	0 11592(a)

QC Flag Legend

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

GC/MS SEMIVOLATILE
CALIBRATION DATA

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

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Lab Name: Contract:

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

Instrument ID: 71 Calibration Date(s): 05/19/00

Min $\overline{RRF}$ for SPCC(#) = 0.050 Max %RSD for CCC(*) = 30.0%

LAB FILE ID: RRF1 =S0519CC2.D RRF2 =S0519CC3.D
RRF3 =S0519CC4.D RRF4 =S0519CC5.D RRF5 =S0519CC6.D

COMPOUND		RRF1	RRF2	RRF3	RRF4	RRF5	$\overline{RRF}$	% RSD
Phenol	*	2.092	2.099	2.050	1.918	1.891	2.010	4.9*
bis(2-Chloroethyl)ether		1.638	1.667	1.636	1.593	1.589	1.625	2.0
2-Chlorophenol		1.405	1.430	1.420	1.360	1.347	1.392	2.6
1,3-Dichlorobenzene		1.571	1.609	1.567	1.488	1.473	1.542	3.8
1,4-Dichlorobenzene	*	1.612	1.626	1.589	1.509	1.486	1.564	4.0*
1,2-Dichlorobenzene		1.511	1.511	1.466	1.376	1.343	1.441	5.4
2-Methylphenol		1.365	1.395	1.386	1.326	1.319	1.358	2.5
2,2'-oxybis(1-Chloropropane		2.103	2.119	2.067	1.967	1.934	2.038	4.1
4-Methylphenol		1.442	1.466	1.452	1.380	1.356	1.419	3.4
Hexachloroethane		0.610	0.624	0.617	0.596	0.595	0.608	2.1
Nitrobenzene		0.432	0.448	0.444	0.430	0.431	0.437	1.9
Isophorone		0.715	0.741	0.734	0.718	0.720	0.726	1.5
2-Nitrophenol	*	0.176	0.190	0.196	0.193	0.194	0.190	4.2*
2,4-Dimethylphenol		0.337	0.355	0.358	0.350	0.349	0.350	2.3
bis(2-Chloroethoxy)methane		0.466	0.473	0.473	0.456	0.455	0.465	1.9
N-Nitroso-di-n-propylamine	#	1.122	1.157	1.155	1.143	1.140	1.143	1.3#
2,4-Dichlorophenol	*	0.267	0.283	0.280	0.271	0.270	0.274	2.5*
1,2,4-Trichlorobenzene		0.296	0.299	0.294	0.281	0.278	0.290	3.3
Naphthalene		1.103	1.110	1.085	1.017	1.003	1.064	4.7
4-Chloroaniline		0.421	0.441	0.439	0.429	0.423	0.431	2.1
Hexachlorobutadiene	*	0.151	0.154	0.152	0.142	0.140	0.148	4.1*
4-Chloro-3-Methylphenol	*	0.302	0.324	0.323	0.322	0.323	0.319	2.9*
2-Methylnaphthalene		0.720	0.730	0.716	0.680	0.670	0.703	3.7
Hexachlorocyclopentadiene	#	0.273	0.308	0.316	0.311	0.313	0.304	5.8#
2,4,6-Trichlorophenol	*	0.316	0.330	0.331	0.327	0.326	0.326	1.8*
2,4,5-Trichlorophenol		0.330	0.352	0.356	0.353	0.348	0.348	3.0
2-Chloronaphthalene		1.116	1.118	1.091	1.027	1.007	1.072	4.8
2-Nitroaniline		0.353	0.390	0.398	0.401	0.405	0.389	5.4
Dimethylphthalate		1.284	1.324	1.320	1.287	1.282	1.299	1.6
Acenaphthylene		1.828	1.878	1.861	1.784	1.758	1.822	2.8
2,6-Dinitrotoluene		0.265	0.294	0.298	0.296	0.298	0.290	4.9
3-Nitroaniline		0.331	0.367	0.374	0.372	0.374	0.364	5.0
Acenaphthene	*	1.162	1.180	1.158	1.114	1.103	1.143	2.9*
2,4-Dinitrophenol	#	0.094	0.140	0.158	0.175	0.187	0.151	24.0#
4-Nitrophenol	#	0.156	0.189	0.195	0.202	0.208	0.190	10.6#
Dibenzofuran		1.643	1.656	1.630	1.554	1.525	1.602	3.6
2,4-Dinitrotoluene		0.373	0.410	0.414	0.421	0.420	0.408	4.9

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Contract: 657 237

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

Instrument ID: 71 Calibration Date(s): 05/19/00

Min $\overline{RRF}$ for SPCC(#) = 0.050 Max %RSD for CCC(*) = 30.0%

LAB FILE ID: RRF1 =S0519CC2.D RRF2 =S0519CC3.D
RRF3 =S0519CC4.D RRF4 =S0519CC5.D RRF5 =S0519CC6.D

COMPOUND	RRF1	RRF2	RRF3	RRF4	RRF5	$\overline{RRF}$	% RSD
Diethylphthalate	1.301	1.362	1.340	1.310	1.307	1.324	2.0
4-Chlorophenyl-phenylether	0.598	0.604	0.598	0.571	0.560	0.586	3.3
Fluorene	1.342	1.361	1.331	1.274	1.247	1.311	3.7
4-Nitroaniline	0.349	0.391	0.391	0.398	0.399	0.386	5.3
4,6-Dinitro-2-methylphenol	0.090	0.116	0.123	0.128	0.132	0.118	14.2
N-Nitrosodiphenylamine (1) *	0.551	0.528	0.529	0.512	0.509	0.526	3.2*
4-Bromophenyl-phenylether	0.181	0.182	0.180	0.172	0.171	0.177	2.9
Hexachlorobenzene	0.194	0.194	0.193	0.184	0.183	0.190	3.0
Pentachlorophenol *	0.080	0.108	0.115	0.121	0.123	0.109	16.1*
Phenanthrene	1.075	1.064	1.045	0.985	0.976	1.029	4.5
Anthracene	1.088	1.096	1.083	1.016	1.005	1.058	4.1
Carbazole	1.030	1.058	1.045	1.004	0.996	1.027	2.6
Di-n-Butylphthalate	1.204	1.299	1.294	1.243	1.230	1.254	3.3
Fluoranthene *	1.097	1.142	1.118	1.068	1.050	1.095	3.4*
Pyrene	1.180	1.188	1.201	1.184	1.184	1.187	0.7
Butylbenzylphthalate	0.577	0.638	0.648	0.658	0.667	0.638	5.6
3,3'-Dichlorobenzidine	0.373	0.422	0.423	0.440	0.443	0.420	6.7
Benzo(a)Anthracene	1.089	1.143	1.135	1.131	1.145	1.129	2.0
Chrysene	1.078	1.103	1.094	1.075	1.080	1.086	1.1
bis(2-ethylhexyl)Phthalate	0.813	0.903	0.909	0.919	0.932	0.895	5.3
Di-n-octylphthalate *	1.227	1.350	1.337	1.276	1.253	1.289	4.1*
Benzo(b)fluoranthene	1.039	1.086	1.037	1.035	1.108	1.061	3.2
Benzo(k)fluoranthene	1.254	1.156	1.144	0.928	0.958	1.088	12.8
Benzo(a)pyrene *	1.031	1.068	1.044	0.998	0.990	1.026	3.1*
Indeno(1,2,3-cd)pyrene	1.415	1.442	1.442	1.379	1.394	1.414	2.0
Dibenz(a,h)anthracene	1.210	1.229	1.228	1.184	1.184	1.207	1.9
Benzo(g,h,i)perylene	1.232	1.282	1.289	1.241	1.252	1.259	2.0
Pyridine	0.961	0.961	0.962	0.972	0.766	0.924	9.6
N-Nitrosodimethylamine	0.504	0.533	0.515	0.514	0.406	0.494	10.3
Aniline	2.615	2.523	2.512	2.399	2.347	2.479	4.3
Benzyl Alcohol	0.996	1.020	1.034	1.023	1.017	1.018	1.3
Benzoic Acid	0.109	0.165	0.188	0.208	0.214	0.177	23.8
1-Methylnaphthalene	0.690	0.674	0.662	0.640	0.628	0.659	3.8
2,3,4,6-Tetrachlorophenol	0.265	0.267	0.272	0.270	0.261	0.267	1.7
2,3,5,6-Tetrachlorophenol	0.249	0.265	0.271	0.275	0.272	0.266	3.9

6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Contract:

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

Instrument ID: 71 Calibration Date(s): 05/19/00

Min $\overline{RRF}$ for SPCC(#) = 0.050 Max %RSD for CCC(*) = 30.0%

LAB FILE ID: RRF1 =S0519CC2.D RRF2 =S0519CC3.D
RRF3 =S0519CC4.D RRF4 =S0519CC5.D RRF5 =S0519CC6.D

COMPOUND	RRF1	RRF2	RRF3	RRF4	RRF5	$\overline{RRF}$	% RSD
1,2-Diphenylhydrazine	0.888	0.897	0.904	0.865	0.869	0.885	1.9
Benzidine	0.409	0.539	0.537	0.554	0.559	0.520	12.0
Methyl methanesulfonate	0.862	0.848	0.853	0.851	0.848	0.852	0.7
2-Naphthylamine	1.262	1.153	1.167	1.102	1.068	1.150	6.4
7,12-dimethylbenz[a]anthrac	0.490	0.468	0.465	0.436	0.425	0.457	5.7
Nitrobenzene-d5	0.389	0.416	0.412	0.403	0.403	0.405	2.5
2-Fluorobiphenyl	1.224	1.257	1.239	1.178	1.169	1.213	3.2
Terphenyl-d14	0.870	0.900	0.901	0.898	0.903	0.894	1.5
Phenol-d5	1.855	1.810	1.806	1.744	1.708	1.785	3.3
2-Fluorophenol	1.346	1.346	1.342	1.326	1.315	1.335	1.1
2,4,6-Tribromophenol	0.095	0.098	0.102	0.101	0.101	0.099	3.1
2-Chlorophenol-d4	1.290	1.267	1.258	1.226	1.210	1.250	2.6
1,2-Dichlorobenzene-d4	0.902	0.920	0.899	0.841	0.829	0.878	4.6

FORM VI SV-3 1/87 Rev.

Data File: \\QPITPA02\D\chem\71.i\s051900.b/S0519CC3.D
Report Date: 05/22/2000

INITIAL CALIBRATION REPORT

Instrument ID: 71.i
Lab File ID: S0519CC3.D
Analysis Type: NONE

Injection Date: 19-MAY-2000 13:20
Lab Sample ID: sstd50
Method File: \\QPITPA02\D\chem\71.i\s051900.b\

COMPOUND	%RSD
Benzo(b)fluoranthene	3.2
7,12-dimethylbenz(a)anthracen	5.7
Benzo(k)fluoranthene	12.8
Benzo(a)pyrene	3.1
Indeno(1,2,3-cd)pyrene	2.0
Dibenz(a,h)anthracene	1.9
Benzo(g,h,i)perylene	2.0

The average of all %RSD's in the initial calibration is 4.5

P

657 240

INITIAL CALIBRATION REPORT

Instrument ID: 71.i
Lab File ID: S0519CC3.D
Analysis Type: NONE

Injection Date: 19-MAY-2000 13:20
Lab Sample ID: sstd50
Method File: \\QPITPA02\D\chem\71.i\s051900.b\8270clp

COMPOUND	%RSD
N-Nitrosodimethylamine	10 3
Pyridine	9 6
Methyl methanesulfonate	0 7
2 Fluorophenol	1 1
Phenol d5	3 3
Phenol	4 9
Aniline	4 3
bis(2-Chloroethyl)ether	2 0
2-Chlorophenol-d4	2 6
2-Chlorophenol	2.6
1,3-Dichlorobenzene	3 8
1,4-Dichlorobenzene	4 0
Benzyl Alcohol	1 3
1,2-Dichlorobenzene-d4	4 6
1,2 Dichlorobenzene	5 4
2-Methylphenol	2 5
2,2'-oxybis(1-Chloropropane)	4 1
4-Methylphenol	3 4
N-Nitroso-di n-propylamine	1 3
Hexachloroethane	2 1
Nitrobenzene-d5	2.5
Nitrobenzene	1 9
Isophorone	1 5
2-Nitrophenol	4 2
2,4-Dimethylphenol	2 3
bis(2-Chloroethoxy)methane	1 9
Benzoic Acid	23 8
2,4-Dichlorophenol	2 5
1,2,4-Trichlorobenzene	3 3
Naphthalene	4 7
4-Chloroaniline	2 1
Hexachlorobutadiene	4 1
4-Chloro-3-Methylphenol	2 9
2 Methylnaphthalene	3 7
1-Methylnaphthalene	3 8
Hexachlorocyclopentadiene	5 8
2,4,6 Trichlorophenol	1 8
2,4,5-Trichlorophenol	3 0
2-Fluorobiphenyl	3 2

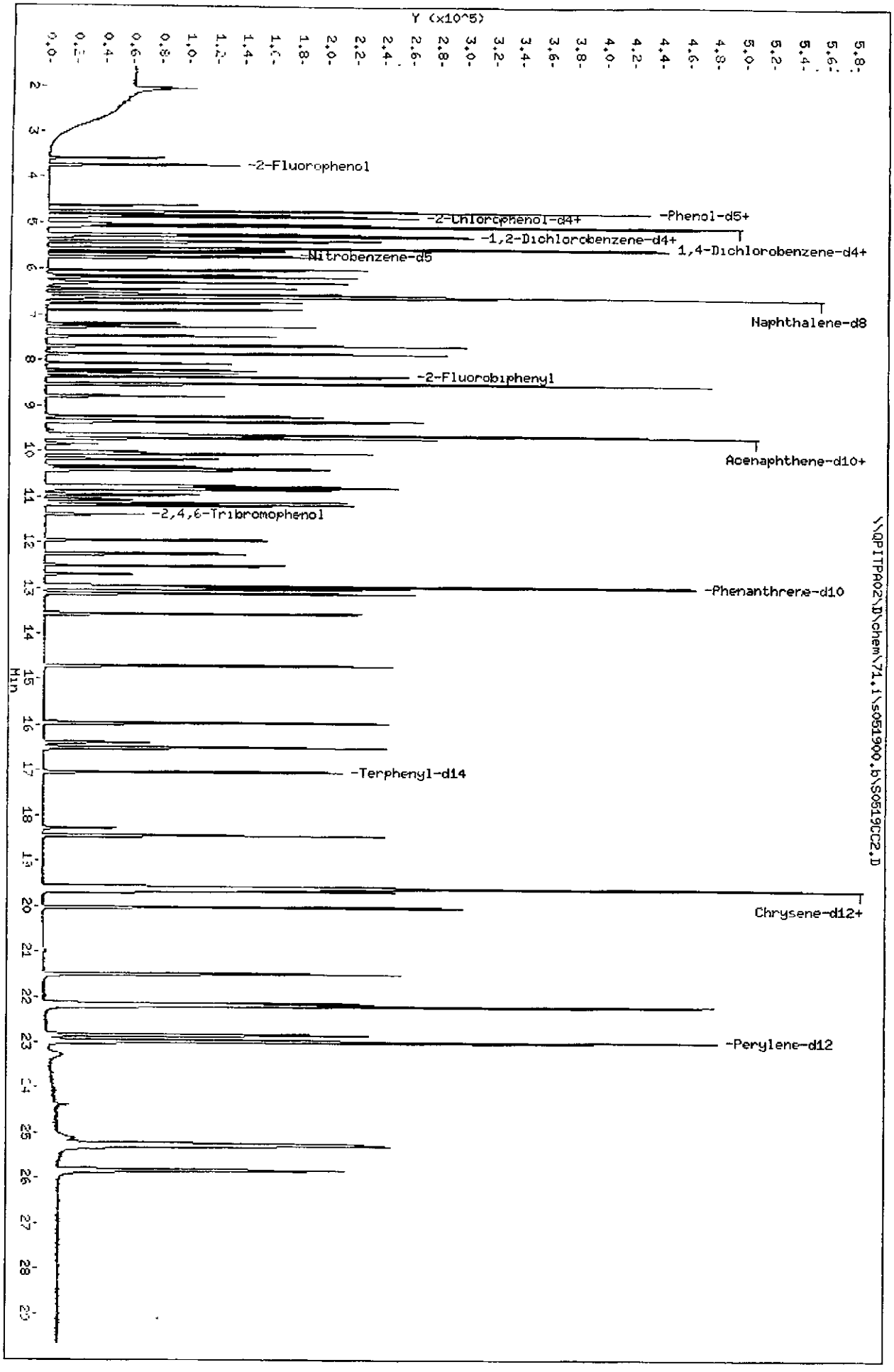
Data File: \\QPITPA02\D\chem\71.i\s051900.b/S0519CC3.D
Report Date: 05/22/2000

INITIAL CALIBRATION REPORT

Instrument ID: 71.i
Lab File ID: S0519CC3.D
Analysis Type: NONE

Injection Date: 19-MAY-2000 13:20
Lab Sample ID: sstd50
Method File: \\QPITPA02\D\chem\71.i\s051900.b\

COMPOUND	%RSD
2-Chloronaphthalene	4 8
2-Nitroaniline	5 4
Dimethylphthalate	1 6
Acenaphthylene	2 8
2,6-Dinitrotoluene	4 9
3-Nitroaniline	5.0
Acenaphthene	2 9
2,4-Dinitrophenol	24 0
4-Nitrophenol	10 6
Dibenzofuran	3 6
2,4 Dinitrotoluene	4 9
2,3,5,6 Tetrachlorophenol	3.9
2-Naphthylamine	6.4
2,3,4,6-Tetrachlorophenol	1 7
Diethylphthalate	2 0
Fluorene	3.7
4-Chlorophenyl-phenylether	3.3
4-Nitroaniline	5 3
4,6-Dinitro-2-methylphenol	14.2
N Nitrosodiphenylamine (1)	3.2
1,2-Diphenylhydrazine	1 9
2,4,6-Tribromophenol	3 1
4-Bromophenyl-phenylether	2 9
Hexachlorobenzene	3 0
Pentachlorophenol	16 1
Phenanthrene	4 5
Anthracene	4 1
Carbazole	2 6
Di-n-Butylphthalate	3 3
Fluoranthene	3 4
Benzidine	12 0
Pyrene	0 7
Terphenyl-d14	1 5
Butylbenzylphthalate	5 6
Benzo(a)Anthracene	2 0
3,3'-Dichlorobenzidine	6 7
Chrysene	1.1
bis(2-ethylhexyl)Phthalate	5 3
Di-n-octylphthalate	4 1



Data File: \\QPITPA02\D\chem\71.i\s051900.b\S0519CC2.D
Date : 19-MAY-2000 13:56
Client ID: std020
Sample Info: std20(10.0ug/ml) 194-175-10 8270/clp

Column phase: Hp5-MS

Instrument: 71.i

Operator: SAB: 2ul inj (100ul+1ul) int
Column diameter: 0.25

STL Pittsburgh

Semivolatile REPORT SW-846 Method 8270

Data file : \\QPITPA02\D\chem\71.i\s051900.b\S0519CC2.D
Lab Smp Id: sstd20 Client Smp ID: sstd020
Inj Date : 19-MAY-2000 13:56
Operator : SAB: 2ul inj (100ul+1ul) int Inst ID: 71.i
Smp Info : sstd20(10.0ug/ml) 194-175-10 8270/clp
Misc Info : sstd20,s051900.b,8270clp.m,1-8270l.sub,1,1
Comment :
Method : \\QPITPA02\D\chem\71.i\s051900.b\8270clp.m
Meth Date : 19-May-2000 14:28 bachas Quant Type: ISTD
Cal Date : 19-MAY-2000 13:56 Cal File: S0519CC2.D
Als bottle: 3 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 1-8270l.sub
Target Version: 4.03
Processing Host: PITPC050

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
*	1 1,4-Dichlorobenzene-d4	152	5 072	5 072	(1 000)	95582	40 0000	
*	2 Naphthalene-d8	136	6 616	6.616	(1 000)	387208	40 0000	
*	3 Acenaphthene-d10	164	9 661	9 661	(1.000)	222841	40.0000	
*	4 Phenanthrene d10	188	12 973	12 973	(1 000)	408296	40 0000	
*	5 Chrysene d12	240	19 608	19 608	(1 000)	403670	40 0000	
*	6 Perylene-d12	264	22.979	22 979	(1 000)	459326	40 0000	
	13 N-Nitrosodimethylamine	74	2 048	2 048	(0 404)	24090	20 0000	19 435
	10 Pyridine	79	2 070	2 070	(0 408)	45943	20 0000	20 004
	19 Methyl methanesulfonate	80	3 582	3 582	(0 706)	41196	20 0000	20 164
	22 Aniline	93	4 768	4 768	(0 940)	124962	20.0000	20 357
	23 Phenol	94	4.762	4.762	(0 939)	99994	20 0000	19 969
	24 bis(2 Chloroethyl)ether	93	4.837	4 837	(0 954)	78305	20 0000	19.830
	25 2 Chlorophenol	128	4.880	4 880	(0 962)	67155	20 0000	19 825
	27 1,3 Dichlorobenzene	146	5.029	5 029	(0 992)	75082	20.0000	19 761
	28 1,4-Dichlorobenzene	146	5.088	5.088	(1 003)	77046	20 0000	19 913
	29 1,2-Dichlorobenzene	146	5 296	5 296	(1 044)	72217	20 0000	19 999
	30 Benzyl Alcohol	108	5 254	5 254	(1 036)	47626	20 0000	19 767
	31 2 Methylphenol	108	5 403	5 403	(1 065)	65219	20.0000	19 781
	32 2,2'-oxybis(1-Chloropropane)	45	5 430	5 430	(1 071)	100506	20 0000	19.922
	33 N-Nitroso-di-n-propylamine	70	5 585	5.585	(1 101)	53598	20 0000	19.688
	34 4-Methylphenol	108	5 558	5 558	(1 096)	68891	20.0000	19 833
	38 Hexachloroethane	117	5 644	5 644	(1 113)	29139	20.0000	19 772
	39 Nitrobenzene	77	5 750	5.750	(0.869)	83564	20 0000	19 638
	44 Isophorone	82	6 028	6.028	(0 911)	138454	20 0000	19.643
	45 2-Nitrophenol	139	6 146	6 146	(0 929)	34128	20 0000	19 242
	46 2,4 Dimethylphenol	107	6 194	6 194	(0 936)	65287	20.0000	19 486

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
47 bis(2-Chloroethoxy)methane	93	6.317	6.317	(0.955)	90172	20.0000	19.849
51 2,4-Dichlorophenol	162	6.445	6.445	(0.974)	51708	20.0000	19.432
52 Benzoic Acid	122	6.295	6.295	(0.952)	21194	20.0000	15.930 (H)
53 1,2,4-Trichlorobenzene	180	6.557	6.557	(0.991)	57333	20.0000	19.904
54 Naphthalene	128	6.643	6.643	(1.004)	213576	20.0000	19.936
55 4-Chloroaniline	127	6.750	6.750	(1.020)	81495	20.0000	19.534
59 Hexachlorobutadiene	225	6.899	6.899	(1.043)	29278	20.0000	19.840
62 4-Chloro-3-Methylphenol	107	7.476	7.476	(1.130)	58580	20.0000	19.320
65 2-Methylnaphthalene	142	7.684	7.684	(1.161)	139480	20.0000	19.873
66 1-Methylnaphthalene	142	7.866	7.866	(1.189)	133562	20.0000	20.229
67 Hexachlorocyclopentadiene	237	8.074	8.074	(0.836)	30461	20.0000	18.821
69 2,4,6-Trichlorophenol	196	8.224	8.224	(0.851)	35177	20.0000	19.572
70 2,4,5-Trichlorophenol	196	8.288	8.288	(0.858)	36750	20.0000	19.360
73 2-Chloronaphthalene	162	8.534	8.534	(0.883)	124387	20.0000	19.980
77 2-Nitroaniline	65	8.796	8.796	(0.910)	39306	20.0000	19.004
80 Dimethylphthalate	163	9.239	9.239	(0.956)	143039	20.0000	19.690
82 2,6-Dinitrotoluene	165	9.362	9.362	(0.969)	29521	20.0000	18.969
83 Acenaphthylene	152	9.340	9.340	(0.967)	203685	20.0000	19.727
85 3-Nitroaniline	138	9.629	9.629	(0.997)	36916	20.0000	18.987
86 Acenaphthene	153	9.725	9.725	(1.007)	129485	20.0000	19.850
87 2,4-Dinitrophenol	184	9.848	9.848	(1.019)	10524	20.0000	16.078
89 4-Nitrophenol	109	10.014	10.014	(1.036)	17446	20.0000	18.123
90 Dibenzofuran	168	10.062	10.062	(1.041)	183068	20.0000	19.922
91 2,4-Dinitrotoluene	165	10.179	10.179	(1.054)	41582	20.0000	19.059
95 2,3,5,6-Tetrachlorophenol	232	10.339	10.339	(1.070)	27769	20.0000	19.379
92 2,3,4,6-Tetrachlorophenol	232	10.436	10.436	(1.080)	29522	20.0000	19.907
96 2-Naphthylamine	143	10.404	10.404	(1.077)	140631	20.0000	20.904
97 Diethylphthalate	149	10.772	10.772	(1.115)	144938	20.0000	19.538
98 Fluorene	166	10.810	10.810	(1.119)	149566	20.0000	19.860
99 4-Chlorophenyl-phenylether	204	10.852	10.852	(1.123)	66595	20.0000	19.888
100 4-Nitroaniline	138	10.959	10.959	(1.134)	38927	20.0000	18.883
102 4,6-Dinitro-2-methylphenol	198	11.071	11.071	(0.853)	18357	20.0000	17.503
103 N-Nitrosodiphenylamine (1)	169	11.135	11.135	(0.858)	112441	20.0000	20.429
104 1,2-Diphenylhydrazine	77	11.199	11.199	(0.863)	181300	20.0000	19.897
112 4-Bromophenyl-phenylether	248	11.958	11.958	(0.922)	36896	20.0000	19.945
113 Hexachlorobenzene	284	12.263	12.263	(0.945)	39662	20.0000	19.996
117 Pentachlorophenol	266	12.706	12.706	(0.979)	16299	20.0000	17.037
122 Phenanthrene	178	13.021	13.021	(1.004)	219499	20.0000	20.102
123 Anthracene	178	13.128	13.128	(1.012)	222028	20.0000	19.919
126 Carbazole	167	13.566	13.566	(1.046)	210285	20.0000	19.737
130 Di-n-butylphthalate	149	14.709	14.709	(1.134)	245902	20.0000	19.245
135 Fluoranthene	202	15.965	15.965	(1.231)	224015	20.0000	19.604
136 Benzidine	184	16.392	16.392	(0.836)	82643	20.0000	17.263
137 Pyrene	202	16.510	16.510	(0.842)	238065	20.0000	19.924
144 Butylbenzylphthalate	149	18.454	18.454	(0.941)	116471	20.0000	18.988
149 3,3'-Dichlorobenzidine	252	19.624	19.624	(1.001)	75267	20.0000	18.770
150 Benzo(a)Anthracene	228	19.571	19.571	(0.998)	219875	20.0000	19.517

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	151 Chrysene	228	19 672	19 672	(1 003)	217527	20 0000	19 768
	153 bis(2 ethylhexyl)Phthalate	149	20 030	20 030	(1 022)	164169	20 0000	18 958
	155 Di-n-octylphthalate	149	21 499	21 499	(0 936)	281772	20 0000	19 046
	157 Benzo(b)fluoranthene	252	22 151	22.151	(0 964)	238605	20 0000	19 560
	158 Benzo(k)fluoranthene	252	22 204	22 204	(0 966)	287901	20 0000	20 812
	159 7,12-dimethylbenz[a]anthracen	256	22 204	22 204	(0 966)	112535	20 0000	20 460
	167 Benzo(a)pyrene	252	22 845	22 845	(0 994)	236893	20 0000	19 649
	169 Indeno(1,2,3-cd)pyrene	276	25 255	25 255	(1 099)	325005	20 0000	19 810
	170 Dibenz(a,h)anthracene	278	25 303	25 303	(1 101)	277991	20 0000	19 848
	171 Benzo(g,h,i)perylene	276	25 842	25 842	(1 125)	283066	20 0000	19 604
$	172 Nitrobenzene-d5	82	5.729	5 729	(0.866)	75344	20 0000	19 345
$	173 2-Fluorobiphenyl	172	8 363	8.363	(0 866)	136348	20 0000	19 732
$	174 Terphenyl-d14	244	17 038	17 038	(0 869)	175629	20 0000	19 656
$	175 Phenol-d5	99	4 746	4 746	(0 936)	88640	20 0000	20 242
$	176 2-Fluorophenol	112	3 742	3.742	(0 738)	64347	20 0000	20 001
$	177 2,4,6-Tribromophenol	330	11 402	11 402	(0 879)	19339	20 0000	19.695
$	178 2 Chlorophenol-d4	132	4 869	4 869	(0 960)	61637	20 0000	20 178
$	179 1,2-Dichlorobenzene-d4	152	5 280	5 280	(1 041)	43125	20 0000	19 809

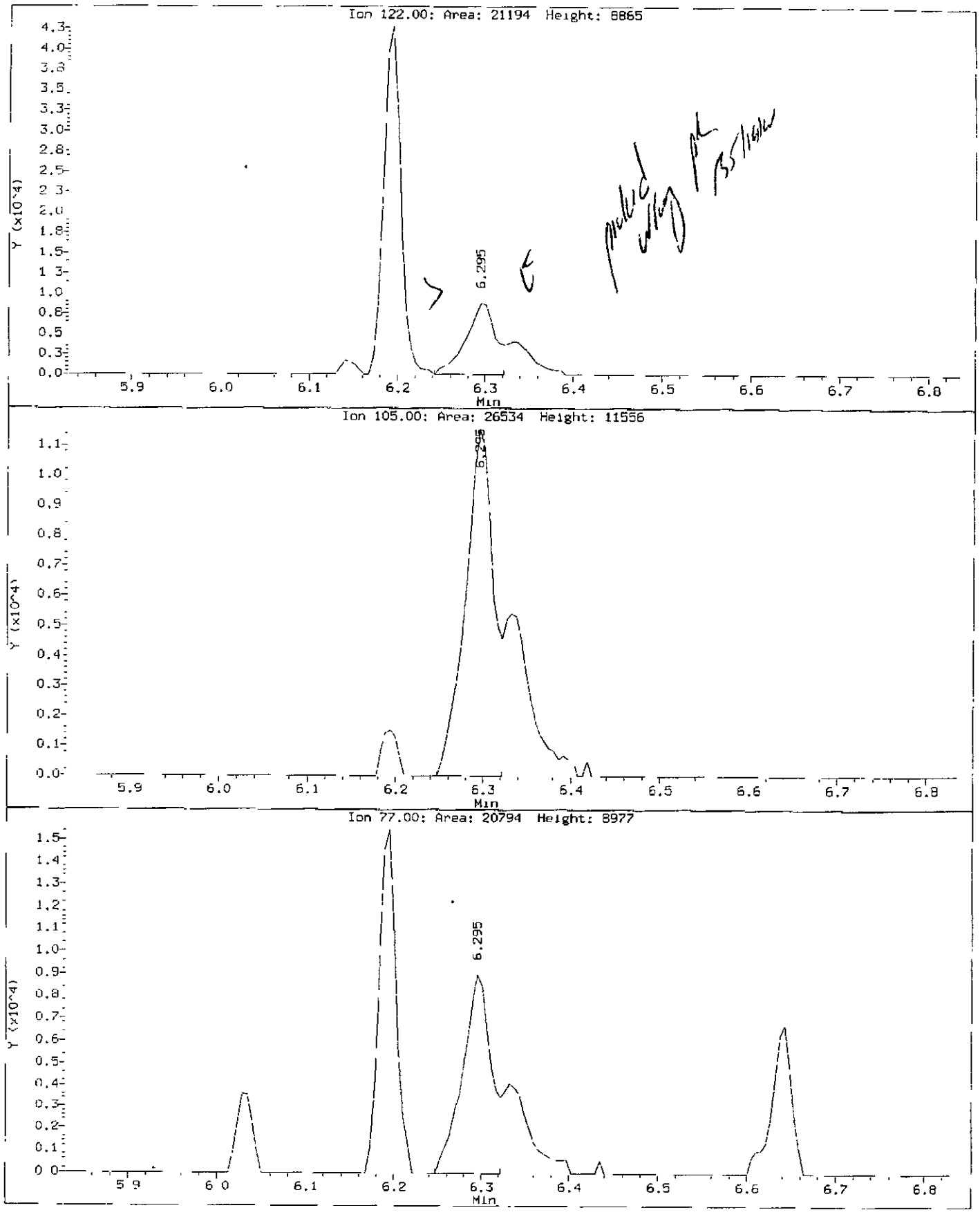
QC Flag Legend

H - Operator selected an alternate compound hit.

657 246

Data File: \\QPITPA02\D\chem\71.1\s051900.b\S0519CC2.D
Injection Date: 19-MAr-2000 13:56
Instrument: 71.1
Client Sample ID: sstd020

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

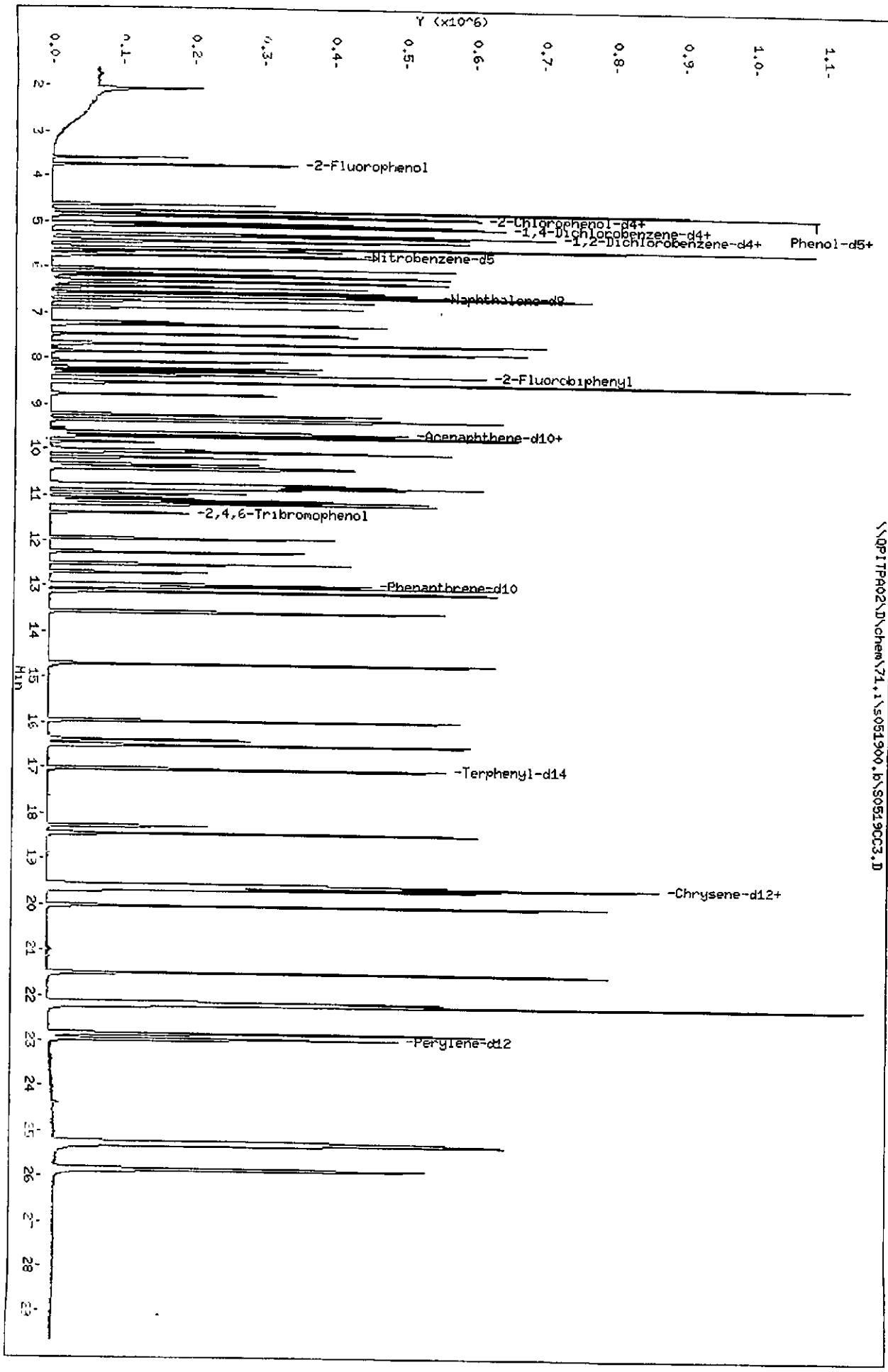


Data File: \\QPITPA02\D\chem\71.1\s051900.b\S0519CC3.D
Date : 19-MAY-2000 13:20
Client ID: sstd050
Sample Info: sstd50(25.0ug/ml) 194-176-9 8270/clp

Column phase: Hp5-MS

Instrument: 71.1

Operator: SAB: 2ul inj (100ul+1ul) int
Column diameter: 0.25



STL Pittsburgh

Semivolatile REPORT SW-846 Method 8270

Data file : \\QPITPA02\D\chem\71.i\s051900.b\S0519CC3.D
Lab Smp Id: sstd50 Client Smp ID: sstd050
Inj Date : 19-MAY-2000 13:20
Operator : SAB: 2ul inj (100ul+1ul) int Inst ID: 71.i
Smp Info : sstd50(25.0ug/ml) 194-176-9 8270/clp
Misc Info : sstd50,s051900.b,8270clp.m,1-8270l.sub,1,2
Comment :
Method : \\QPITPA02\D\chem\71.i\s051900.b\8270clp.m
Meth Date : 19-May-2000 13:56 bachas Quant Type: ISTD
Cal Date : 19-MAY-2000 13:20 Cal File: S0519CC3.D
Als bottle: 4 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 1-8270l.sub
Target Version: 4.03
Processing Host: PITPC050

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
*	1 1,4-Dichlorobenzene-d4	152	5.064	5.064	(1.000)	90711	40.0000	
*	2 Naphthalene-d8	136	6.608	6.608	(1.000)	365257	40.0000	
*	3 Acenaphthene-d10	164	9.648	9.648	(1.000)	211027	40.0000	
*	4 Phenanthrene-d10	188	12.960	12.960	(1.000)	395064	40.0000	
*	5 Chrysene-d12	240	19.600	19.600	(1.000)	396681	40.0000	
*	6 Perylene-d12	264	22.965	22.965	(1.000)	476712	40.0000	
	13 N-Nitrosodimethylamine	74	2.046	2.046	(0.404)	60479	50.0000	38.914
	10 Pyridine	79	2.051	2.051	(0.405)	108964	50.0000	40.778(M)
	19 Methyl methanesulfonate	80	3.579	3.579	(0.707)	96149	50.0000	90.420
	22 Aniline	93	4.765	4.765	(0.941)	286086	50.0000	97.333
	23 Phenol	94	4.760	4.760	(0.940)	237977	50.0000	62.195
	24 bis(2-Chloroethyl)ether	93	4.829	4.829	(0.954)	188978	50.0000	61.781
	25 2-Chlorophenol	128	4.877	4.877	(0.963)	162137	50.0000	58.599
	27 1,3-Dichlorobenzene	146	5.027	5.027	(0.993)	182454	50.0000	59.318
	28 1,4-Dichlorobenzene	146	5.085	5.085	(1.004)	184390	50.0000	59.389
	29 1,2-Dichlorobenzene	146	5.288	5.288	(1.044)	171362	50.0000	60.083
	30 Benzyl Alcohol	108	5.246	5.246	(1.036)	115661	50.0000	58.782(M)
	31 2-Methylphenol	108	5.395	5.395	(1.065)	158169	50.0000	58.616
	32 2,2'-oxybis(1-Chloropropane)	45	5.422	5.422	(1.071)	240324	50.0000	63.171
	33 N-Nitroso-di-n propylamine	70	5.577	5.577	(1.101)	131200	50.0000	60.868
	35 4-Methylphenol	108	5.556	5.556	(1.097)	166203	50.0000	60.879
	38 Hexachloroethane	117	5.636	5.636	(1.113)	70729	50.0000	59.768
	39 Nitrobenzene	77	5.748	5.748	(0.870)	204339	50.0000	63.049
	44 Isophorone	82	6.026	6.026	(0.912)	338383	50.0000	63.958
	45 2-Nitrophenol	139	6.138	6.138	(0.929)	86819	50.0000	57.466
	46 2,4-Dimethylphenol	107	6.186	6.186	(0.936)	162083	50.0000	58.358

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
47 bis(2 Chloroethoxy)methane	93	6 309	6 309	(0 955)	215890	50 0000	62 215
51 2,4-Dichlorophenol	162	6 437	6 437	(0 974)	129066	50 0000	58 934
52 Benzoic Acid	122	6 330	6 330	(0 958)	75522	50 0000	51 964 (H)
53 1,2,4 Trichlorobenzene	180	6 549	6 549	(0 991)	136509	50 0000	59 056
54 Naphthalene	128	6 635	6 635	(1.004)	506904	50 0000	61 464
55 4-Chloroaniline	127	6 736	6 736	(1 019)	201350	50 0000	66 461
59 Hexachlorobutadiene	225	6 891	6 891	(1 043)	70160	50 0000	59 670
62 4-Chloro-3-Methylphenol	107	7.473	7 473	(1 131)	147871	50 0000	59.252
65 2-Methylnaphthalene	142	7 676	7 676	(1 162)	333144	50 0000	61 897
66 1-Methylnaphthalene	142	7 858	7 858	(1 189)	307834	50 0000	59 252
67 Hexachlorocyclopentadiene	237	8 066	8 066	(0 836)	81147	50 0000	64.899
69 2,4,6-Trichlorophenol	196	8 210	8 210	(0 851)	86921	50 0000	59 217
70 2,4,5-Trichlorophenol	196	8 280	8 280	(0 858)	92756	50 0000	56 466
73 2-Chloronaphthalene	162	8 520	8 520	(0 883)	295057	50 0000	62 580
77 2 Nitroaniline	65	8 787	8 787	(0 911)	102811	50 0000	62.476
80 Dimethylphthalate	163	9 231	9 231	(0 957)	349292	50 0000	61 676
82 2,6-Dinitrotoluene	165	9 359	9.359	(0 970)	77490	50 0000	59 393
83 Acenaphthylene	152	9 332	9 332	(0 967)	495539	50 0000	61 478
85 3-Nitroaniline	138	9 621	9 621	(0 997)	96720	50 0000	58 882
86 Acenaphthene	153	9 717	9 717	(1 007)	311190	50 0000	61 143
87 2,4 Dinitrophenol	184	9 840	9 840	(1 020)	37072	50 0000	51 380
89 4-Nitrophenol	109	10 011	10 011	(1 038)	49859	50 0000	60 101
90 Dibenzofuran	168	10.048	10 048	(1 042)	436788	50 0000	61 637
91 2,4 Dinitrotoluene	165	10 171	10 171	(1 054)	108161	50 0000	58 791
95 2,3,5,6-Tetrachlorophenol	232	10 331	10 331	(1 071)	69954	50 0000	56 640
92 2,3,4,6-Tetrachlorophenol	232	10 427	10 427	(1 081)	70544	50 0000	57 647
96 2-Naphthylamine	143	10.395	10.395	(1 078)	304128	50 0000	61 776
97 Diethylphthalate	149	10 764	10 764	(1 116)	359343	50 0000	61 954
98 Fluorene	166	10 801	10 801	(1 120)	359063	50 0000	61 234
99 4-Chlorophenyl-phenylether	204	10 839	10 839	(1 123)	159438	50 0000	61 175
100 4 Nitroaniline	138	10 962	10 962	(1.136)	103061	50 0000	59 607
102 4,6-Dinitro-2-methylphenol	198	11 063	11 063	(0 854)	57074	50 0000	54 750
103 N-Nitrosodiphenylamine (1)	169	11 127	11 127	(0 859)	260564	50 0000	65 236
104 1,2-Diphenylhydrazine	77	11 186	11 186	(0 863)	443090	50 0000	68 648
112 4-Bromophenyl-phenylether	248	11 945	11.945	(0 922)	89743	50 0000	60 742
113 Hexachlorobenzene	284	12 249	12 249	(0 945)	95977	50 0000	60 065
117 Pentachlorophenol	266	12 693	12 693	(0 979)	53140	50 0000	49 791
122 Phenanthrene	178	13 013	13 013	(1 004)	525579	50 0000	62 316
123 Anthracene	178	13 120	13.120	(1 012)	541431	50 0000	64 977
126 Carbazole	167	13 558	13 558	(1 046)	522242	50 0000	62 257
130 Di-n-Butylphthalate	149	14 701	14 701	(1 134)	611526	50 0000	62 782
135 Fluoranthene	202	15 957	15 957	(1 231)	563796	50.0000	61 445
136 Benzidine	184	16.379	16 379	(0.836)	267421	50.0000	66 685
137 Pyrene	202	16 496	16 496	(0 842)	589294	50 0000	59 349
144 Butylbenzylphthalate	149	18 441	18 441	(0 941)	316631	50 0000	59 024
149 3,3' Dichlorobenzidine	252	19 611	19 611	(1 001)	209147	50.0000	58 329
150 Benzo(a)Anthracene	228	19 563	19 563	(0.998)	566912	50.0000	57 901

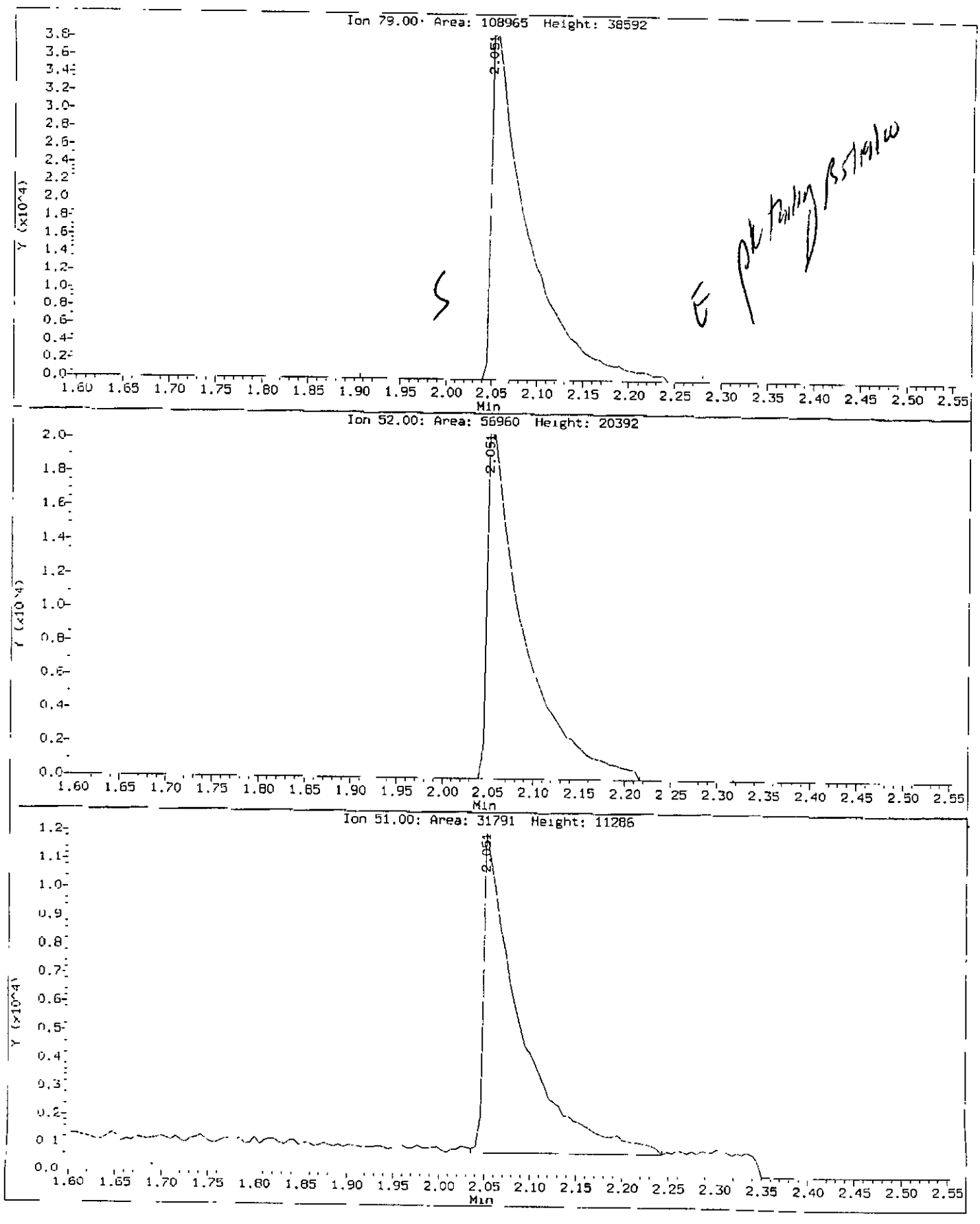
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
151 Chrysene	228	19 664	19 664	(1 003)	546969	50 0000	57 235
153 bis(2-ethylhexyl)Phthalate	149	20 017	20 017	(1 021)	447632	50 0000	57 473
155 Di-n-octylphthalate	149	21.491	21.491	(0 936)	804314	50 0000	60 277
157 Benzo(b)fluoranthene	252	22 148	22.148	(0 964)	646950	50 0000	59 036
158 Benzo(k)fluoranthene	252	22 207	22 207	(0 967)	688682	50 0000	67 644
159 7,12-dimethylbenz(a)anthracen	256	22 202	22 202	(0 967)	278848	50 0000	65 952
167 Benzo(a)pyrene	252	22 843	22 843	(0 995)	636581	50 0000	63 178
169 Indeno(1,2,3-cd)pyrene	276	25 247	25 247	(1 099)	859402	50 0000	60 321
170 Dibenz(a,h)anthracene	278	25 295	25 295	(1 101)	732361	50 0000	61 072
171 Benzo(g,h,i)perylene	276	25.845	25 845	(1 125)	764160	50 0000	59 681
$ 172 Nitrobenzene-d5	82	5.726	5 726	(0 867)	189711	50 0000	62 779
$ 173 2-Fluorobiphenyl	172	8 355	8 355	(0 866)	331548	50 0000	60 980
$ 174 Terphenyl-d14	244	17 030	17 030	(0.869)	446559	50 0000	61 330
$ 175 Phenol-d5	99	4 744	4.744	(0 937)	205269	50 0000	62 855
$ 176 2-Fluorophenol	112	3 734	3.734	(0 737)	152654	50.0000	57 140
$ 177 2,4,6-Tribromophenol	330	11 389	11 389	(0 879)	48231	50 0000	57 752
$ 178 2 Chlorophenol-d4	132	4 861	4 861	(0 960)	143652	50 0000	54 259
$ 179 1,2 Dichlorobenzene-d4	152	5 272	5.272	(1 041)	104290	50 0000	59 318

QC Flag Legend

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

Data File: .\QPITPA02\D\chem\71.1\s051900.b\S0519CC3.D
Injection Date: 19-MAY-2000 13:20
Instrument: 71.1
Client Sample ID: sstd050

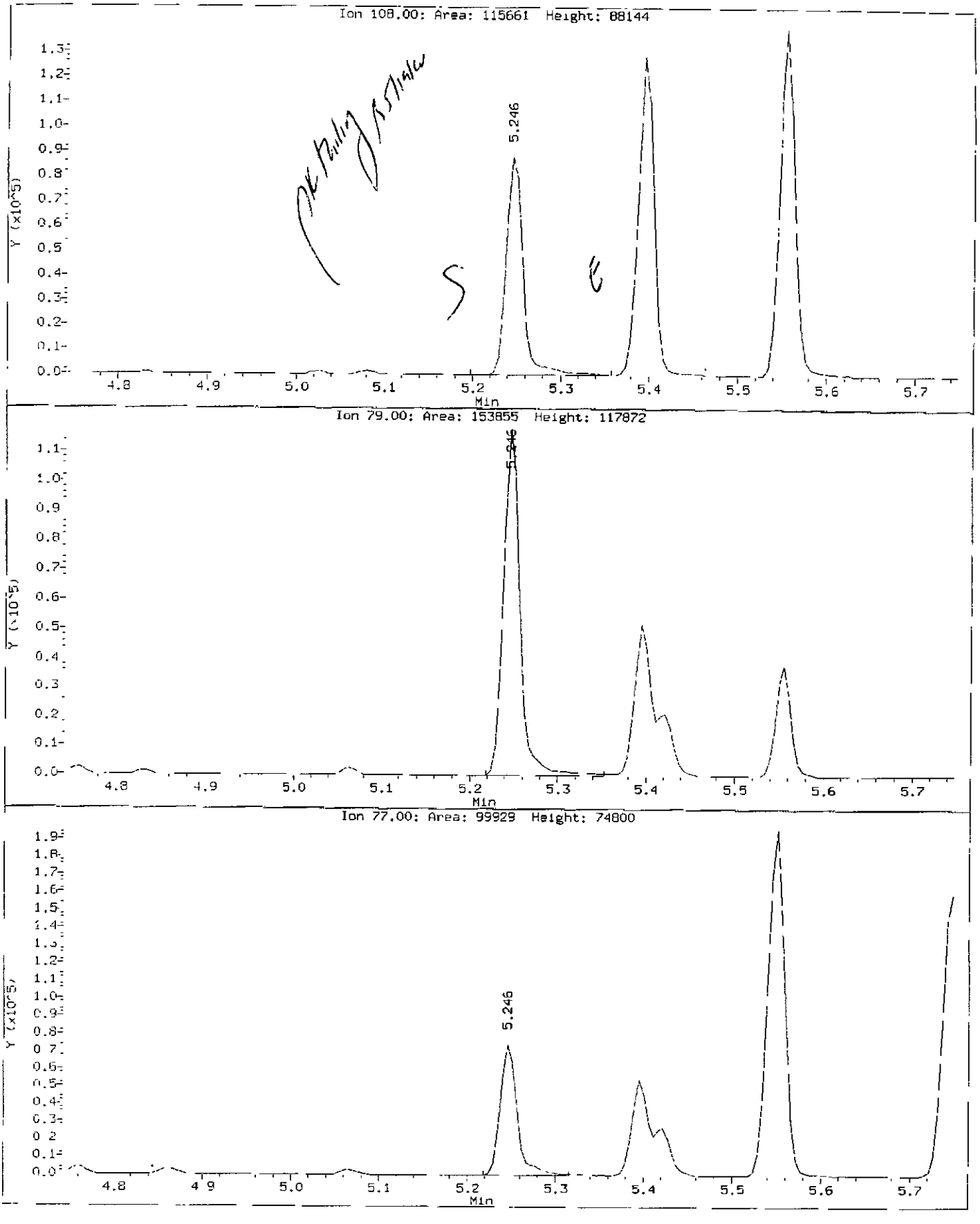
Compound: Pyridine
CAS Number: 110-86-1



657 252

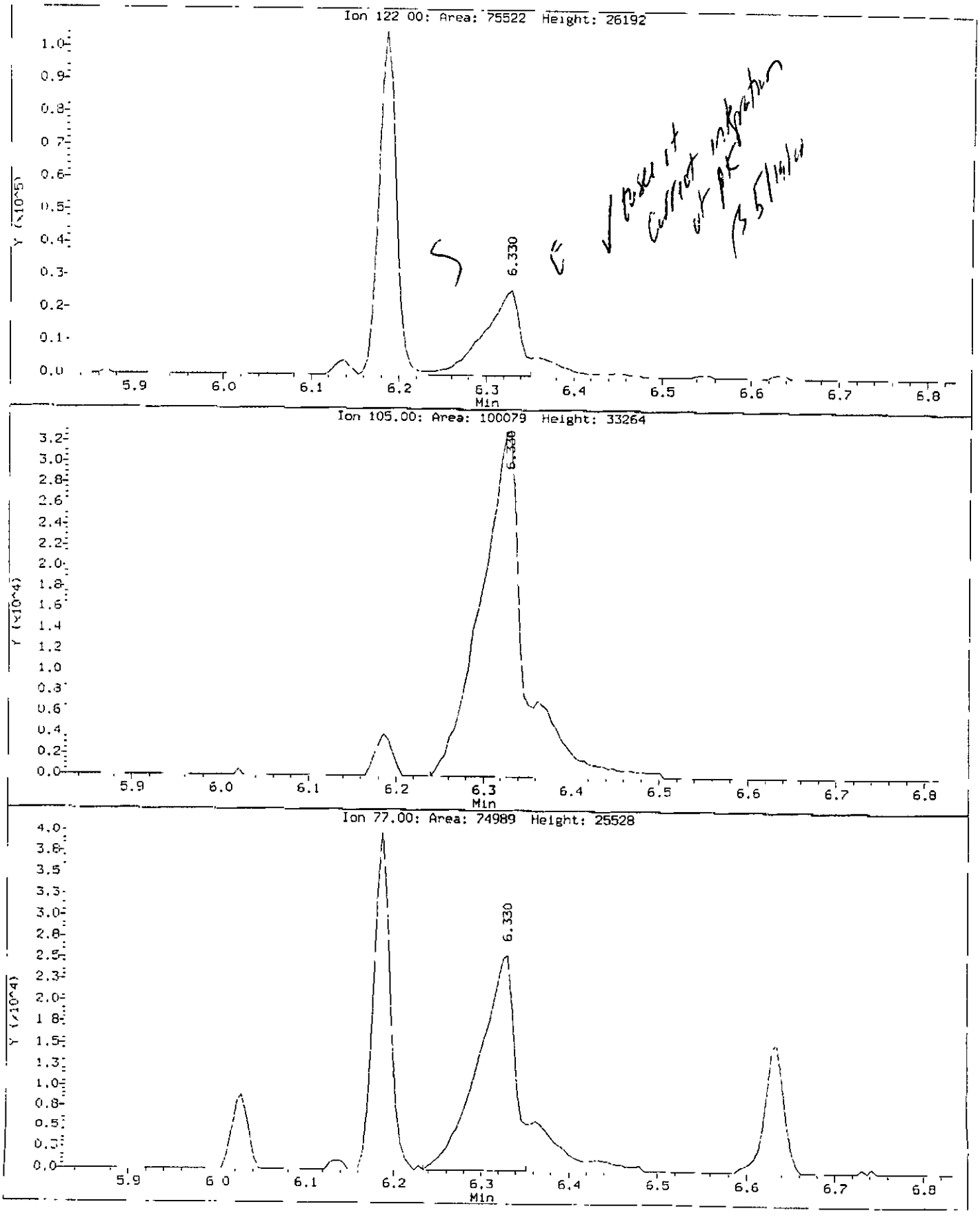
Data File: \\QPITPA02\D\chem\71.1\s051900 b\S0519CC3.D
Injection Date: 19-MAr-2000 13:20
Instrument: 71.1
Client Sample ID: sstd050

Compound: Benzyl Alcohol
CAS Number: 100-51-6



Data File: \\QPITPA02\D\chem\71.i\s051900.b\S0519CC3.D
Injection Date: 19-MAY-2000 13:20
Instrument: 71.i
Client Sample ID: sstd050

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

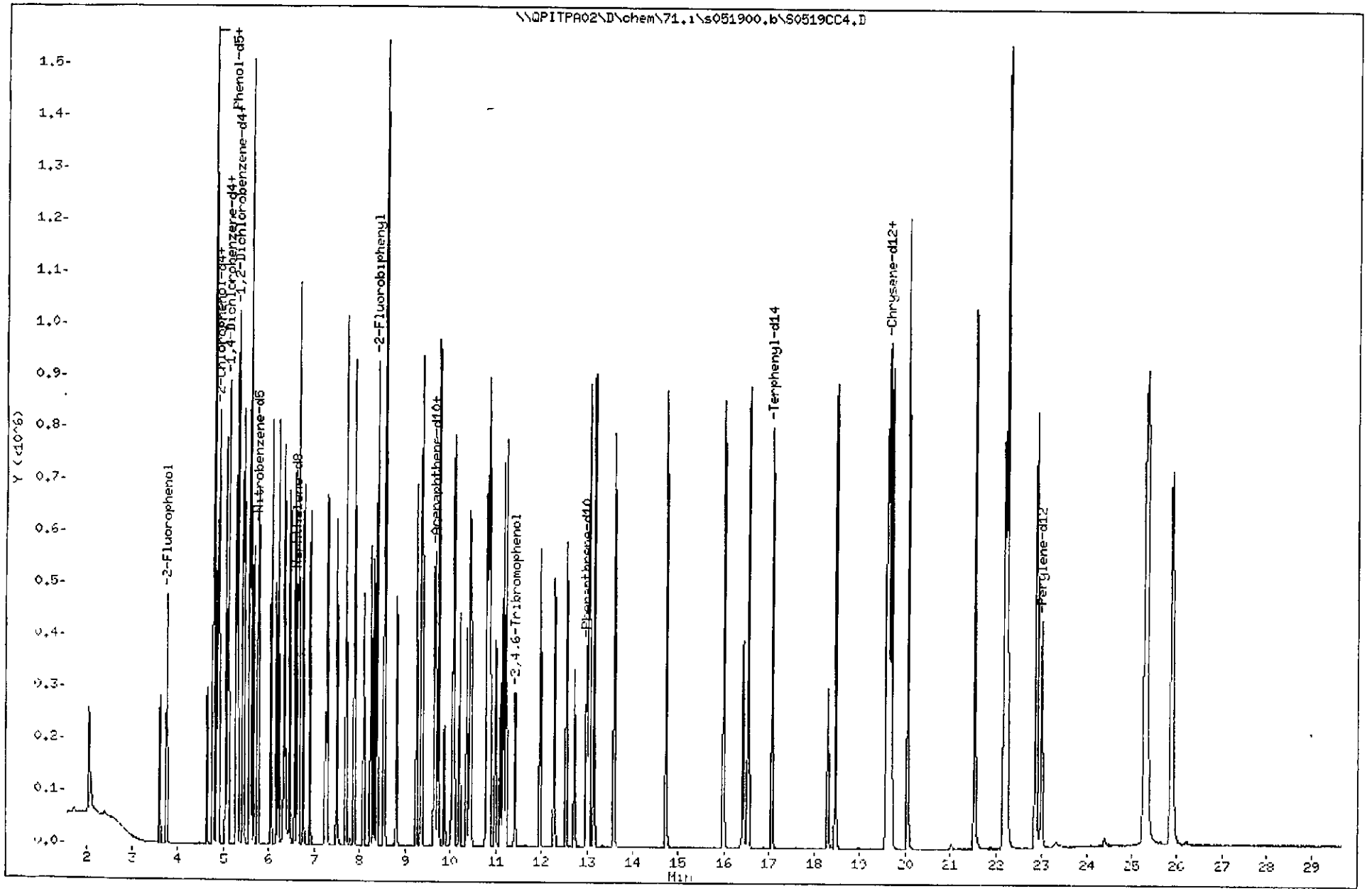


Data File: \\QPITPA02\D\chem\71.1\s051900.b\S0519CC4.D
Date : 19-MAY-2000 14:32
Client ID: SSTD080
Sample Info: sstd80(40.0ug/ml) 194-175-6 8270/clp

Instrument: 71.1

Operator: 45183
Column diameter: 0.25

Column phase: Hp5-MS



STL Pittsburgh

Semivolatile REPORT SW-846 Method 8270

Data file : \\QPITPA02\D\chem\71.i\s051900.b\S0519CC4.D
Lab Smp Id: sstd80 Client Smp ID: SSTD080
Inj Date : 19-MAY-2000 14:32
Operator : 45183 Inst ID: 71.i
Smp Info : sstd80(40.0ug/ml) 194-175-6 8270/clp
Misc Info : sstd80,s051900.b,8270clp.m,1-8270l.sub,1,3
Comment :
Method : \\QPITPA02\D\chem\71.i\s051900.b\8270clp.m
Meth Date : 22-May-2000 07:54 bachas Quant Type: ISTD
Cal Date : 19-MAY-2000 15:44 Cal File: S0519CC6.D
Als bottle: 5 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 1-8270l.sub
Target Version: 4.03
Processing Host: PITPC050

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
* 1	1,4-Dichlorobenzene-d4	152	5.079	5 079	(1 000)	83213	40 0000	
* 2	Naphthalene-d8	136	6.623	6 623	(1 000)	335457	40 0000	
* 3	Acenaphthene d10	164	9 674	9 674	(1 000)	192142	40 0000	
* 4	Phenanthrene-d10	188	12 986	12 986	(1 000)	355838	40 0000	
* 5	Chrysene-d12	240	19 631	19 631	(1 000)	348071	40 0000	
* 6	Perylene-d12	264	22 992	22.992	(1 000)	426270	40 0000	
13	N Nitrosodimethylamine	74	2 051	2.051	(0 404)	85691	80 0000	80 000
10	Pyridine	79	2 056	2 056	(0 405)	160040	80 0000	80 000(M)
19	Methyl methanesulfonate	80	3 589	3 589	(0 707)	141969	80 0000	80 000
22	Aniline	93	4 775	4 775	(0 940)	418139	80 0000	80 000
23	Phenol	94	4 775	4 775	(0 940)	341209	80 0000	80 000
24	bis(2 Chloroethyl)ether	93	4 844	4 844	(0 954)	272240	80 0000	80 000
25	2-Chlorophenol	128	4 893	4 893	(0 963)	236318	80 0000	80 000
27	1,3-Dichlorobenzene	146	5 037	5 037	(0 992)	260823	80 0000	80 000
28	1,4 Dichlorobenzene	146	5 096	5 096	(1 003)	264477	80.0000	80 000
29	1,2-Dichlorobenzene	146	5 304	5 304	(1 044)	243921	80 0000	80 000
30	Benzyl Alcohol	108	5 261	5 261	(1.036)	172092	80.0000	80.000
31	2-Methylphenol	108	5 411	5 411	(1.065)	230744	80 0000	80.000
32	2,2 -oxybis(1-Chloropropane)	45	5 437	5.437	(1 070)	344031	80 0000	80 000
33	N-Nitroso-di-n propylamine	70	5 598	5 598	(1 102)	192276	80 0000	80 000
35	4-Methylphenol	108	5 571	5 571	(1.097)	241650	80 0000	80 000
38	Hexachloroethane	117	5.651	5 651	(1.113)	102708	80 0000	80.000
39	Nitrobenzene	77	5 763	5 763	(0 870)	297844	80 0000	80 000
44	Isophorone	82	6 041	6 041	(0 912)	492451	80 0000	80 000
45	2-Nitrophenol	139	6 153	6 153	(0 929)	131199	80 0000	80 000
46	2,4-Dimethylphenol	107	6 201	6.201	(0 936)	240196	80 0000	80 000

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
47 bis(2-Chloroethoxy)methane	93	6 330	6 330	(0 956)	317418	80 0000	80 000
51 2,4 Dichlorophenol	162	6 452	6 452	(0 974)	187968	80 0000	80 000
52 Benzoic Acid	122	6 367	6 367	(0 961)	126174	80 0000	80 000(M)
53 1,2,4-Trichlorobenzene	180	6 570	6 570	(0 992)	197612	80 0000	80 000
54 Naphthalene	128	6 650	6 650	(1 004)	728025	80 0000	80 000
55 4-Chloroaniline	127	6 757	6 757	(1 020)	294298	80 0000	80 000
59 Hexachlorobutadiene	225	6 907	6.907	(1 043)	301668	80.0000	80 000
62 4-Chloro-3-Methylphenol	107	7 494	7 494	(1 131)	216692	80 0000	80 000
65 2-Methylnaphthalene	142	7.697	7 697	(1 162)	480114	80 0000	80 000
66 1 Methylnaphthalene	142	7 879	7 879	(1 190)	444206	80 0000	80 000
67 Hexachlorocyclopentadiene	237	8 087	8.087	(0 836)	121425	80.0000	80 000
69 2,4,6-Trichlorophenol	196	8 237	8 237	(0 851)	127047	80 0000	80 000
70 2,4,5-Trichlorophenol	196	8 306	8 306	(0 859)	136886	80 0000	80 000
73 2-Chloronaphthalene	162	8 547	8 547	(0 883)	419213	80 0000	80 000
77 2-Nitroaniline	65	8 814	8.814	(0 911)	153125	80 0000	80 000
80 Dimethylphthalate	163	9 257	9 257	(0 957)	507295	80 0000	80 000
82 2,6-Dinitrotoluene	165	9 380	9 380	(0 970)	114569	80 0000	80 000
83 Acenaphthylene	152	9 358	9 358	(0 967)	725193	80 0000	80 000
85 3-Nitroaniline	138	9 652	9.652	(0 998)	143558	80 0000	80 000
86 Acenaphthene	153	9 738	9 738	(1 007)	445208	80 0000	80 000
87 2,4-Dinitrophenol	184	9 866	9 866	(1 020)	60669	80 0000	80 000
89 4 Nitrophenol	109	10 042	10.042	(1.038)	74944	80.0000	80 000
90 Dibenzofuran	168	10 074	10.074	(1 041)	626236	80 0000	80 000
91 2,4-Dinitrotoluene	165	10 203	10 203	(1 055)	159148	80 0000	80 000
95 2,3,5,6-Tetrachlorophenol	232	10 357	10 357	(1 071)	104207	80 0000	80.000
92 2,3,4,6-Tetrachlorophenol	232	10.459	10.459	(1 081)	104594	80.0000	80.000
96 2 Naphthylamine	143	10 427	10.427	(1 078)	448558	80 0000	80 000
97 Diethylphthalate	149	10 790	10 790	(1 115)	515007	80 0000	80 000
98 Fluorene	166	10 828	10 828	(1 119)	511605	80.0000	80 000
99 4-Chlorophenyl phenylether	204	10 865	10.865	(1 123)	229949	80 0000	80 000
101 4-Nitroaniline	138	10 993	10 993	(1 136)	150312	80 0000	80 000
102 4,6-Dinitro-2-methylphenol	198	11 095	11 095	(0 854)	87275	80 0000	80 000
103 N-Nitrosodiphenylamine (1)	169	11 159	11 159	(0 859)	376808	80 0000	80 000
104 1,2 Diphenylhydrazine	77	11.218	11 218	(0 864)	643013	80 0000	80 000
112 4-Bromophenyl phenylether	248	11 976	11 976	(0 922)	127898	80.0000	80 000
113 Hexachlorobenzene	284	12 281	12 281	(0 946)	137387	80.0000	80 000
117 Pentachlorophenol	266	12 724	12 724	(0 980)	81986	80.0000	80 000
122 Phenanthrene	178	13 045	13 045	(1 005)	743676	80 0000	80 000
123 Anthracene	178	13 151	13 151	(1 013)	770576	80 0000	80 000
125 Carbazole	167	13 589	13 589	(1 046)	743910	80 0000	80 000
130 Di-n Butylphthalate	149	14.727	14 727	(1 134)	920830	80.0000	80 000
135 Fluoranthene	202	15 983	15 983	(1 231)	795806	80 0000	80 000
136 Benzidine	184	16.410	16 410	(0 836)	373875	80.0000	80 000
137 Pyrene	202	16.528	16.528	(0 842)	836365	80 0000	80 000
144 Butylbenzylphthalate	149	18 472	18 472	(0 941)	451147	80 0000	80 000
149 3,3'-Dichlorobenzidine	252	19 642	19 642	(1 001)	294463	80.0000	80 000
150 Benzo(a)Anthracene	228	19 589	19 589	(0 998)	790186	80 0000	80 000

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
151 Chrysene	228	19 696	19 696	(1 003)	761847	80 0000	80 000
153 Bis(2-ethylhexyl)Phthalate	149	20.048	20 048	(1 021)	632878	80 0000	80 000
155 Di n-octylphthalate	149	21 517	21 517	(0 936)	1139934	80 0000	80 000
157 Benzo(b)fluoranthene	252	22 180	22 180	(0 965)	884166	80 0000	80 000
158 Benzo(k)fluoranthene	252	22 244	22 244	(0 967)	975293	80 0000	80 000
159 7,12 dimethylbenz[a]anthracen	256	22 238	22 238	(0 967)	396831	80 0000	80 000
167 Benzo(a)pyrene	252	22 874	22.874	(0 995)	889772	80 0000	80 000
169 Indeno(1,2,3-cd)pyrene	276	25 294	25 294	(1 100)	1229271	80 0000	80 000
170 Dibenz(a,h)anthracene	278	25 337	25 337	(1.102)	1047029	80 0000	80 000
171 Benzo(g,h,i)perylene	276	25 892	25 892	(1.126)	1098690	80 0000	80 000
$ 172 Nitrobenzene-d5	82	5 742	5.742	(0 867)	276632	80 0000	80 000
$ 173 2-Fluorobiphenyl	172	8 376	8 376	(0.866)	476261	80 0000	80 000
$ 174 Terphenyl-d14	244	17 057	17 057	(0 869)	627118	80 0000	80 000
$ 175 Phenol-d5	99	4 759	4.759	(0 937)	300485	80 0000	80 000
$ 176 2-Fluorophenol	112	3 749	3 749	(0.738)	223421	80 0000	80 000
$ 177 2,4,6-Tribromophenol	330	11 421	11 421	(0.879)	72637	80 0000	80 000
$ 178 2-Chlorophenol-d4	132	4 877	4 877	(0 960)	209317	80 0000	80 000
$ 179 1,2-Dichlorobenzene-d4	152	5 288	5.288	(1 041)	149614	80 0000	80 000

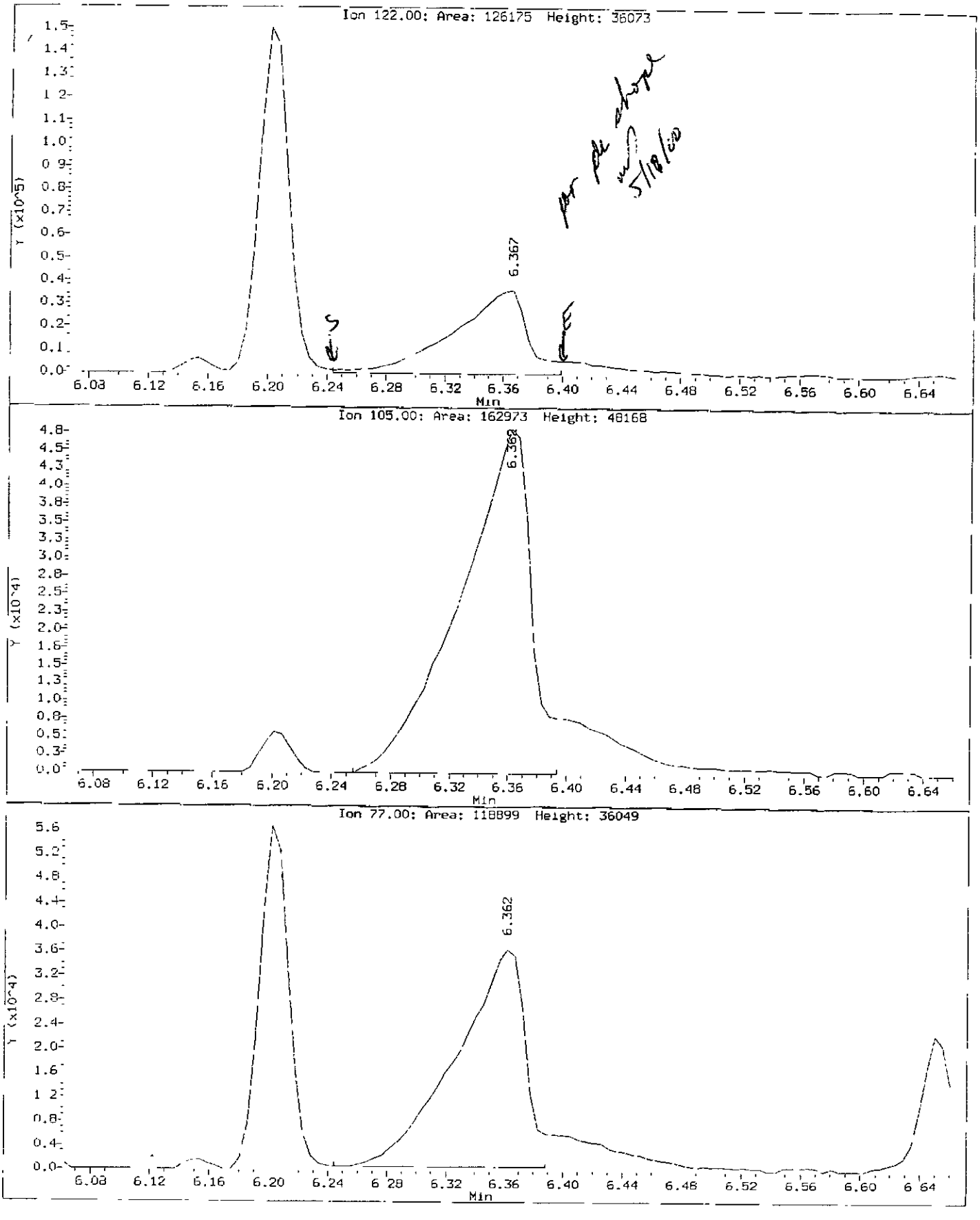
QC Flag Legend

M - Compound response manually integrated.

657 258

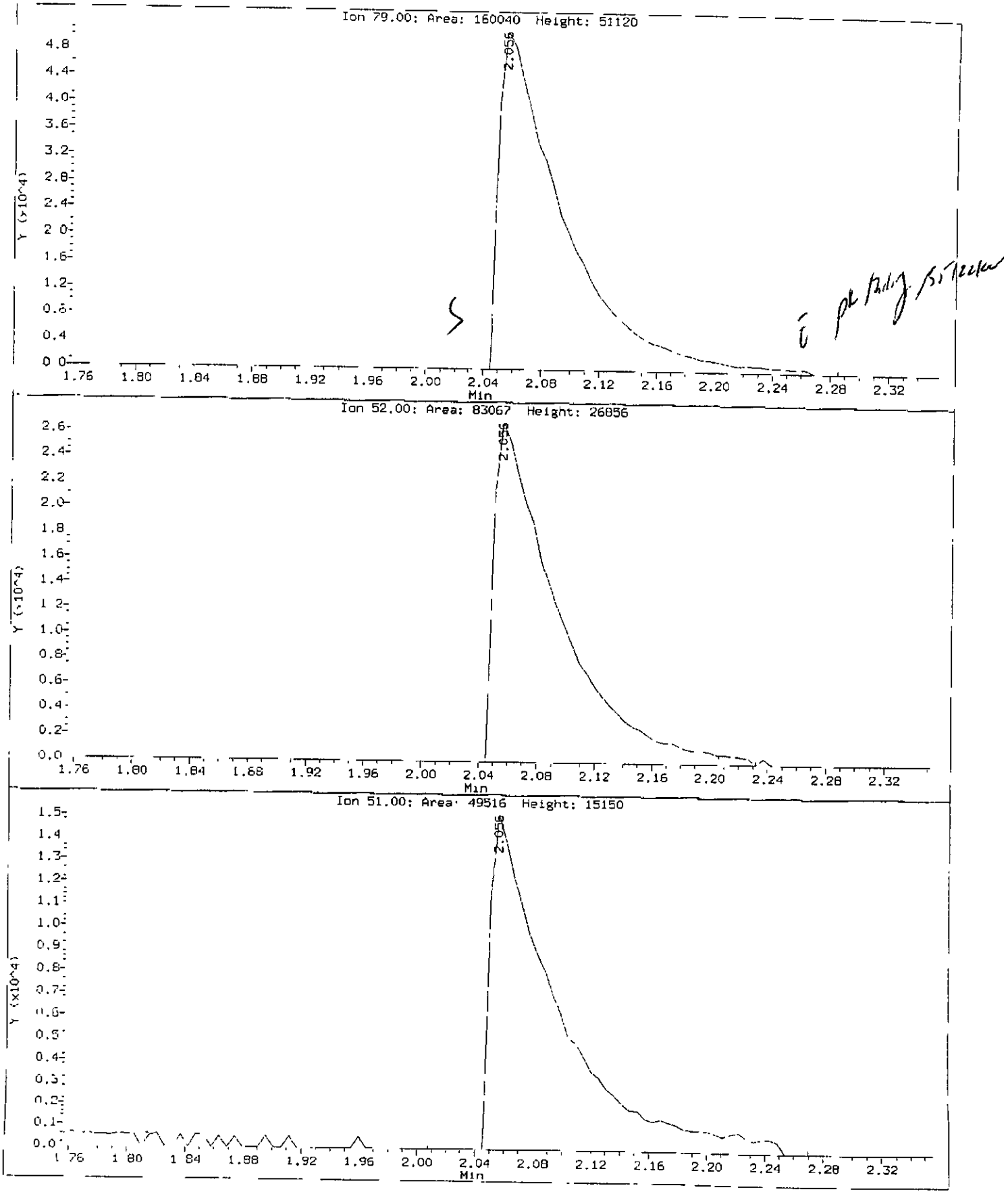
Data File: \\QPITPA02\D\chem\71.1\s051900.b\S0519CC4.D
Injection Date: 19-MAY-2000 14:32
Instrument: 71.1
Client Sample ID:

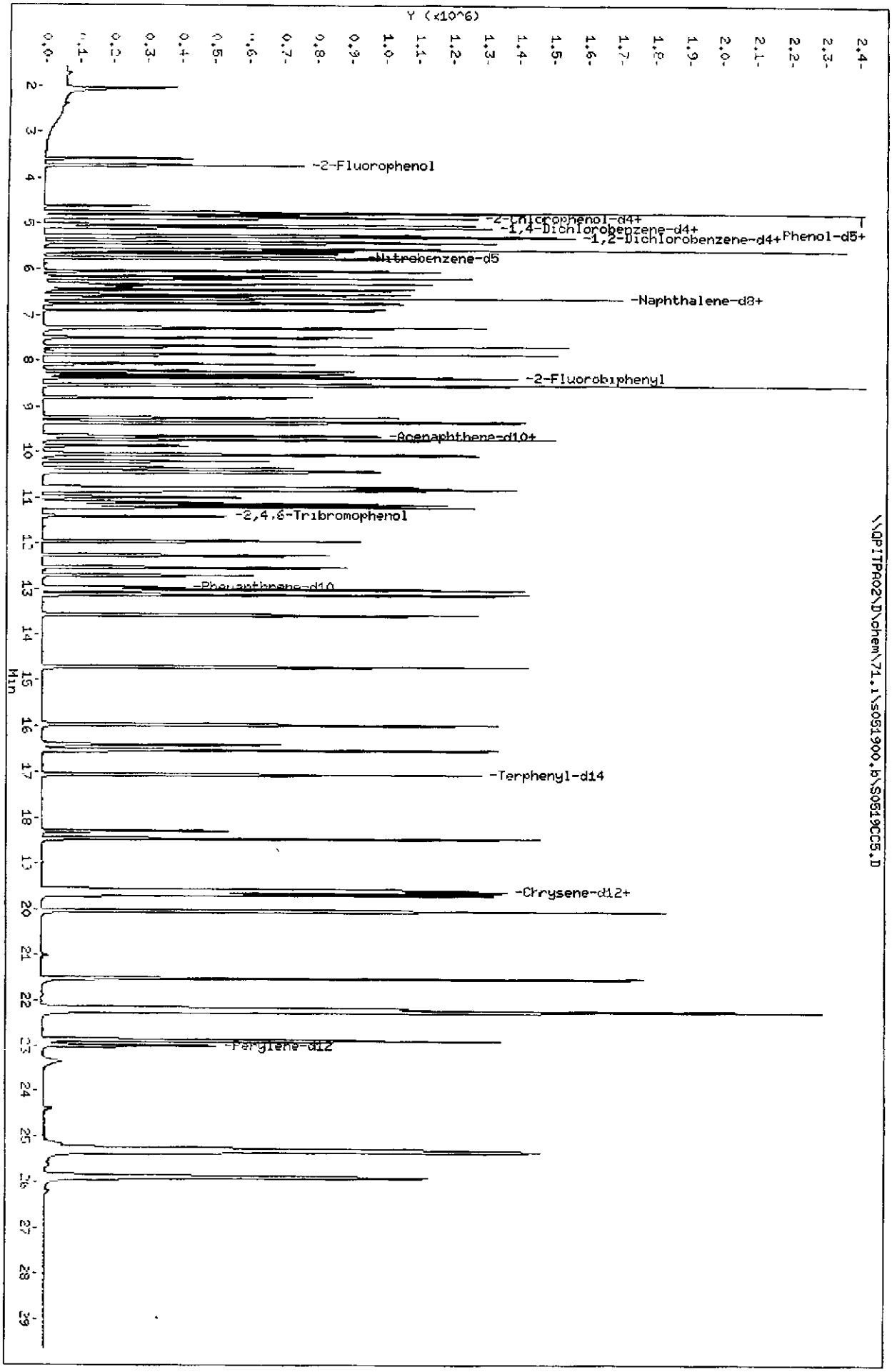
Compound: Benzoic Acid
CAS Number: 65-85-0



Data File: \\QPITPA02\D\chem\71.1\s051900.b\S0519CC4.D
Injection Date: 19-MAY-2000 14:32
Instrument: 71.1
Client Sample ID: SSTD080

Compound: Pyridine
CAS Number: 110-86-1





Data File: \\QPITPA02\D\chem\71.1\s051900.b\S0519CC5.D
Date : 19-MAY-2000 15:08
Client ID: SSTD120
Sample Info: sstd120(60.0ug/ml) 194-175-13 8270/clp

Column phase: Hp5-MS

Instrument: 71.1
Operator: 45183
Column diameter: 0.25

STL Pittsburgh

Semivolatile REPORT SW-846 Method 8270

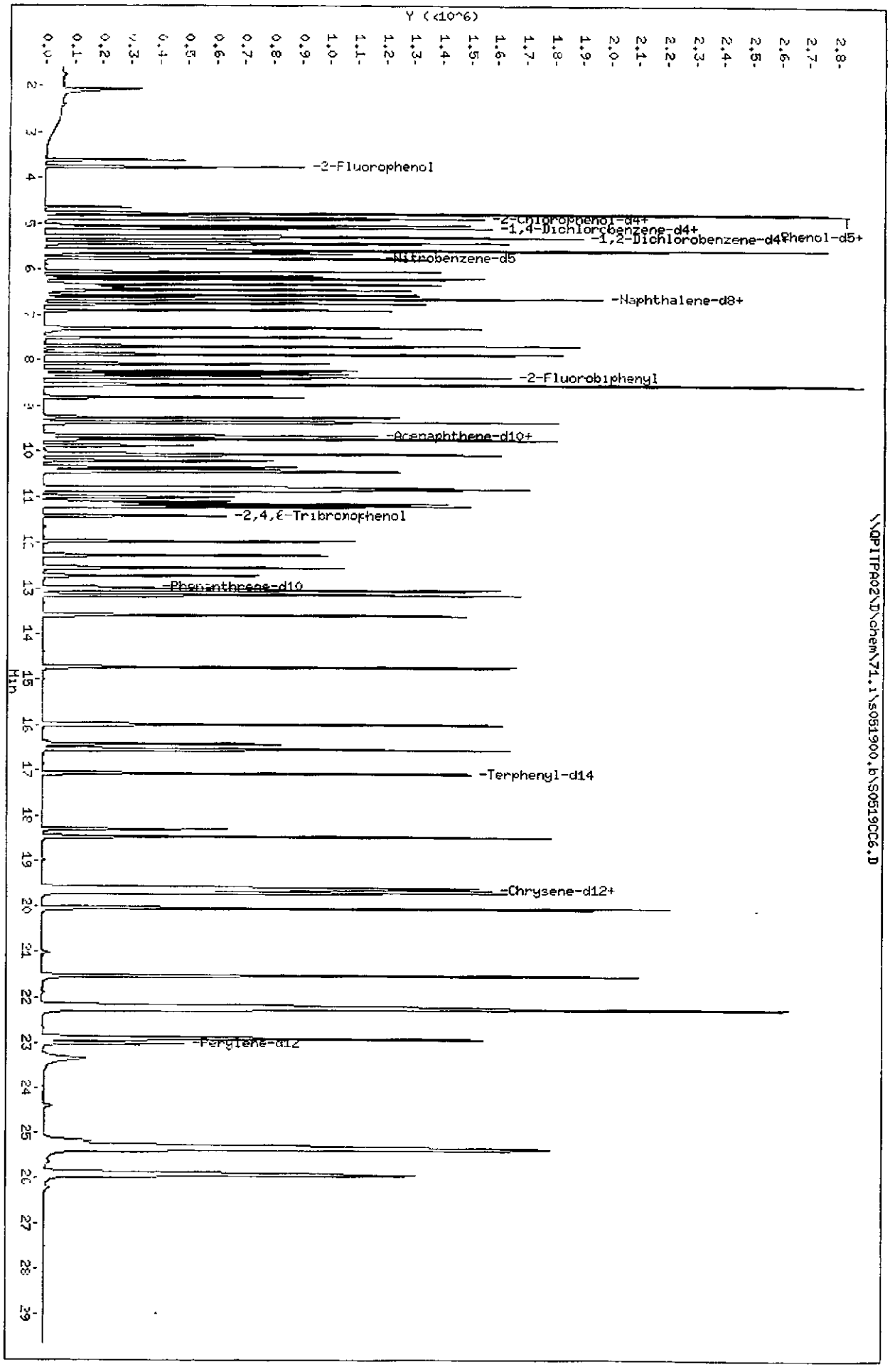
Data file : \\QPITPA02\D\chem\71.i\s051900.b\S0519CC5.D
Lab Smp Id: sstd120 Client Smp ID: SSTD120
Inj Date : 19-MAY-2000 15:08
Operator : 45183 Inst ID: 71.i
Smp Info : sstd120(60.0ug/ml) 194-175-13 8270/clp
Misc Info : sstd120,s051900.b,8270clp.m,1-8270l.sub,1,4
Comment :
Method : \\QPITPA02\D\chem\71.i\s051900.b\8270clp.m
Meth Date : 19-May-2000 16:29 bachas Quant Type: ISTD
Cal Date : 19-MAY-2000 15:44 Cal File: S0519CC6.D
Als bottle: 6 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 1-8270l.sub
Target Version: 4.03
Processing Host: PITPC050

5/19/00

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL AMT (ng)	ON-COL (ng)
* 1 1,4-Dichlorobenzene-d4	152	5 071	5 071	(1 000)	91018	40 0000	
* 2 Naphthalene-d8	136	6 620	6 620	(1 000)	368841	40.0000	
* 3 Acenaphthene-d10	164	9 665	9.665	(1 000)	212670	40 0000	
* 4 Phenanthrene-d10	188	12 982	12 982	(1 000)	404163	40 0000	
* 5 Chrysene-d12	240	19 628	19 628	(1.000)	376940	40.0000	
* 6 Perylene-d12	264	22.988	22 988	(1 000)	495736	40 0000	
13 N-Nitrosodimethylamine	74	2 047	2 047	(0 404)	140465	120 000	119 47
10 Pyridine	79	2 047	2 047	(0 404)	265319	120.000	121 40
19 Methyl methanesulfonate	80	3 586	3 586	(0 707)	232437	120 000	119.67
22 Aniline	93	4.772	4 772	(0 941)	654969	120 000	114 58
23 Phenol	94	4 772	4 772	(0 941)	523648	120 000	112 82
24 bis(2-Chloroethyl)ether	93	4.846	4 846	(0 956)	434951	120 000	117.02
25 2-Chlorophenol	128	4 889	4 889	(0 964)	371416	120 000	116 27
27 1,3-Dichlorobenzene	146	5 033	5 033	(0 993)	406256	120 000	114 54
28 1,4 Dichlorobenzene	146	5 092	5 092	(1 004)	411941	120 000	114.29
29 1,2-Dichlorobenzene	146	5 301	5 301	(1 045)	375651	120.000	112 62
30 Benzyl Alcohol	108	5 258	5 258	(1 037)	279444	120 000	120 59
31 2 Methylphenol	108	5 413	5 413	(1 067)	361956	120 000	116.29
32 2,2' oxybis(1-Chloropropane)	45	5 429	5 429	(1 071)	537103	120.000	114.35
33 N-Nitroso-di-n-propylamine	70	5.600	5 600	(1 104)	312034	120 000	119 85
35 4-Methylphenol	108	5 573	5.573	(1 099)	376899	120 000	115 43
38 Hexachloroethane	117	5 642	5 642	(1 113)	162638	120.000	116 87
39 Nitrobenzene	77	5 760	5 760	(0 870)	476429	120.000	117.85
44 Isophorone	82	6.038	6.038	(0 912)	795086	120 000	118 57
45 2 Nitrophenol	139	6 150	6 150	(0 929)	213687	120 000	122 76
46 2,4-Dimethylphenol	107	6 198	6 198	(0 936)	386804	120 000	119 87

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
47	bis(2-Chloroethoxy)methane	93	6 326	6 326	(0 956)	504646	120 000	117 20
51	2,4-Dichlorophenol	162	6.449	6 449	(0 974)	299590	120 000	118 07
52	Benzoic Acid	122	6 390	6 390	(0 965)	229616	120 000	147 96
53	1,2,4-Trichlorobenzene	180	6 561	6 561	(0 991)	310565	120 000	115 11
54	Naphthalene	128	6 647	6 647	(1 004)	1125211	120 000	113 11
55	4-Chloroaniline	127	6 754	6 754	(1 020)	474328	120 000	118 99
59	Hexachlorobutadiene	225	6 903	6 903	(1 043)	156918	120 000	113 78
62	4-Chloro 3-Methylphenol	107	7 491	7 491	(1 132)	356498	120 000	121 61
65	2-Methylnapathalene	142	7 688	7 688	(1 161)	752903	120 000	114 75
66	1-Methylnaphthalene	142	7 870	7 870	(1 189)	708225	120 000	115 23
67	Hexachlorocyclopentadiene	237	8 078	8.078	(0 836)	198479	120 000	123 60
69	2,4,6-Trichlorophenol	196	8 228	8 228	(0 851)	208719	120 000	120 51
70	2,4,5-Trichlorophenol	196	8 303	8 303	(0 859)	225056	120 000	121 77
73	2-Chloronaphthalene	162	8.543	8 543	(0 884)	654994	120.000	113 22
77	2-Nitroaniline	65	8 810	8.810	(0 912)	255998	120 000	124.88
80	Dimethylphthalate	163	9 254	9 254	(0 957)	821238	120 000	118 47
82	2,6-Dinitrotoluene	165	9 377	9 377	(0 970)	189150	120 000	123 39
83	Acenaphthylene	152	9.350	9 350	(0 967)	1138422	120 000	116 49
85	3-Nitroaniline	138	9 649	9.649	(0 998)	237519	120 000	123 76
86	Acenaphthene	153	9 735	9 735	(1 007)	710547	120 000	115 86
87	2,4-Dinitrophenol	184	9 863	9 863	(1 020)	111904	120 000	148 15
89	4 Nitrophenol	109	10.044	10 044	(1 039)	128908	120 000	130 59
90	Dibenzofuran	168	10 071	10 071	(1 042)	991648	120 000	115 08
91	2,4-Dinitrotoluene	165	10 205	10 205	(1 056)	268722	120 000	174 91
95	2 3,5,6-Tetrachlorophenol	232	10 354	10 354	(1 071)	175722	120 000	124.60
92	2,3,4,6-Tetrachlorophenol	232	10.456	10 456	(1 082)	172017	120 000	120.48
96	2-Naphthylamine	143	10 424	10 424	(1 078)	703413	120 000	112 96
97	Diethylphthalate	149	10 787	10.787	(1 116)	836129	120 000	118 38
98	Fluorene	166	10 824	10 824	(1 120)	813051	120 000	115 21
99	4-Chlorophenyl-phenylether	204	10 856	10 856	(1 123)	364585	120 000	115 64
100	4 Nitroaniline	138	11 001	11 001	(1 138)	253630	120 000	124 82
102	4,6-Dinitro-2-methylphenol	198	11 102	11 102	(0 855)	155763	120 000	135 05
103	N-Nitrosodiphenylamine (1)	169	11 155	11 155	(0 859)	620978	120 000	115 96
104	1,2-Diphenylhydrazine	77	11 214	11 214	(0 864)	1049055	120 000	116 85
112	4-Bromophenyl-phenylether	248	11 967	11 967	(0 922)	208810	120 000	115 71
113	Hexachlorobenzene	284	12 272	12.272	(0 945)	223372	120 000	115 46
117	Pentachlorophenol	266	12 721	12.721	(0 980)	147159	120 000	137 39
122	Phenanthrene	178	13 036	13 036	(1 004)	1193957	120 000	113.37
123	Anthracene	178	13 148	13 148	(1 013)	1231447	120 000	113.84
126	Carbazole	167	13 586	13.586	(1 046)	1218038	120 000	116 54
130	Di n-Butylphthalate	149	14 724	14.724	(1 134)	1507329	120 000	118 38
135	Fluoranthene	202	15 979	15.979	(1 231)	1295419	120 000	115 88
136	Benzidine	184	16 401	16 401	(0 836)	626658	120 000	130 40
137	Pyrene	202	16 524	16 524	(0 842)	1338555	120 000	119 54
144	Butylbenzylphthalate	149	18 469	18.469	(0 941)	744600	120 000	125 31
149	3,3' Dichlorobenzidine	252	19 639	19.639	(1 001)	497656	120 000	127 42
150	Benzo(a)Anthracene	228	19 585	19 585	(0 998)	1278544	120 000	120 64

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
156 Chrysene	228	19 698	19 698	(1 004)	1215822	120 000	118 63
153 bis(2-ethylhexyl)Phthalate	149	20 039	20 039	(1 021)	1039131	120 000	124.45
155 Di-n-octylphthalate	149	21.514	21 514	(0 936)	1898233	120 000	118 04
157 Benzo(b)fluoranthene	252	22 187	22 187	(0 965)	1539369	120 000	118 38
158 Benzo(k)fluoranthene	252	22 251	22 251	(0 968)	1379772	120 000	106 08
159 7,12-dimethylbenz[a]anthracen	256	22 246	22 246	(0 968)	649032	120 000	112 63
167 Benzo[a]pyrene	252	22 881	22 881	(0 995)	1485055	120 000	115 72
169 Indeno(1,2,3-cd)pyrene	276	25 296	25 296	(1 100)	2051034	120 000	116.58
170 Dibenz(a,h)anthracene	278	25 344	25 344	(1 102)	1761245	120 000	117 16
171 Benzo(g,h,i)perylene	276	25 910	25 910	(1 127)	1846045	120 000	118 10
$ 172 Nitrobenzene-d5	82	5 739	5 739	(0 867)	445718	120 000	119 36
$ 173 2 Fluorobiphenyl	172	8 372	8 372	(0.866)	751389	120 000	115 42
$ 174 Terphenyl-d14	244	17 053	17 053	(0 869)	1015026	120 000	120 71
$ 175 Phenol-d5	99	4 761	4 761	(0 939)	476073	120 000	116 01
$ 176 2 Fluorophenol	112	3 746	3 746	(0 739)	362026	120 000	118 71
$ 177 2,4,6 Tribromophenol	330	11 417	11 417	(0 879)	122400	120.000	122 54
$ 178 2-Chlorophenol-d4	132	4 873	4 873	(0 961)	334707	120 000	116 74
$ 179 1,2-Dichlorobenzene-d4	152	5 285	5 285	(1 042)	229760	120 000	113 37



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Date : 19-MAY-2000 15:44
Client ID: SSTD160
Sample Info: sstd160(80,0ug/ml) 194-175-14 8270/clp

Instrument: 71.i
Operator: 45183
Column diameter: 0.25

Column phase: Hp5-MS

STL Pittsburgh

Semivolatile REPORT SW-846 Method 8270

Data file : \\QPITPA02\D\chem\71.i\s051900.b\S0519CC6.D
Lab Smp Id: sstd160 Client Smp ID: SSTD160
Inj Date : 19-MAY-2000 15:44
Operator : 45183 Inst ID: 71.i
Smp Info : sstd160(80.0ug/ml) 194-175-14 8270/clp
Misc Info : sstd160,s051900.b,8270clp.m,1-8270l.sub,1,5
Comment :
Method : \\QPITPA02\D\chem\71.i\s051900.b\8270clp.m
Meth Date : 22-May-2000 07:54 bachas Quant Type: ISTD
Cal Date : 19-MAY-2000 15:44 Cal File: S0519CC6.D
Als bottle: 7 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 1-8270l.sub
Target Version: 4.03
Processing Host: PITPC050

	Compounds	QUANT STG MASS	RT	EXP RT	RFL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
* 1	1,4-Dichlorobenzene-d4	152	5 085	5 085	(1 000)	84332	40 0000	
* 2	Naphthalene-d8	136	6 629	6 629	(1 000)	342337	40 0000	
* 3	Acenaphthene-d10	164	9.679	9 679	(1 000)	196197	40.0000	
* 4	Phenanthrene-d10	188	12.991	12 991	(1 000)	372498	40 0000	
* 5	Chrysene-d12	240	19 637	19 637	(1.000)	342183	40 0000	
* 6	Perylene d12	264	23 003	23 003	(1 000)	464496	40.0000	
13	N-Nitrosodimethylamine	74	2 061	2 061	(0 405)	136800	160 000	140 99
10	Pyridine	79	2 056	2 056	(0 404)	258244	160 000	141.84 (M)
19	Methyl methanesulfonate	80	3 595	3 595	(0 707)	286226	160.000	159.57
22	Aniline	93	4 781	4 781	(0 940)	791706	160 000	154 55
23	Phenol	94	4 781	4 781	(0 940)	637759	160 000	153 52
24	bis(2-Chloroethyl)ether	93	4 855	4 855	(0.955)	535994	160 000	157.67
25	2-Chlorophenol	128	4 898	4.898	(0 963)	454329	160 000	155.77
27	1,3-Dichlorobenzene	146	5 042	5.042	(0 992)	496776	160 000	155 02
28	1,4 Dichlorobenzene	146	5 101	5 101	(1 003)	501146	160 000	154 61
29	1,2-Dichlorobenzene	146	5 309	5 309	(1 044)	453120	160 000	153 03
30	Benzyl Alcohol	108	5 272	5.272	(1 037)	343171	160 000	158.73
31	2-Methylphenol	108	5 422	5 422	(1 066)	444907	160 000	156 00
32	2,2'-oxybis(1-Chloropropane)	45	5 443	5 443	(1 070)	652440	160 000	154 68
33	N-Nitroso-di-n-propylamine	70	5 609	5 609	(1 103)	384578	160 000	158 94
35	4-Methylphenol	108	5.582	5.582	(1 098)	457296	160 000	154 51
38	Hexachloroethane	117	5 651	5.651	(1 111)	200617	160 000	157 04
39	Nitrobenzene	77	5 769	5.769	(0 870)	590453	160 000	157 67
44	Isophorone	82	6 052	6 052	(0 913)	986481	160 000	158 50
45	2-Nitrophenol	139	6 159	6 159	(0 929)	206358	160 000	159 57
46	2,4-Dimethylphenol	107	6 212	6 212	(0 937)	478492	160 000	158 06

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON COL (ng)
47 Bis(2-Chloroethoxy)methane	93	6 335	6 335	(0 956)	623042	160 000	156 88
51 2,4-Dichlorophenol	162	6 463	6 463	(0 975)	369166	160 000	156 92
52 Benzoic Acid	122	6 415	6 415	(0 968)	292754	160 000	170 24(A)
54 1,2,4-Trichlorobenzene	180	6 575	6 575	(0 992)	380572	160 000	155 35
54 Naphthalene	128	6 656	6 656	(1.004)	1373563	160 000	153 71
55 4 Chloroaniline	127	6 763	6 763	(1 020)	578694	160 000	157 02
59 Hexachlorobutadiene	225	6 912	6 912	(1 043)	192320	160 000	153 92
62 4-Chloro-3-Methylphenol	107	7 505	7 505	(1 132)	442396	160 000	160 02(A)
65 2 Methylnaphthalene	142	7 703	7 703	(1.162)	918080	160 000	154 79
66 1-Methylnaphthalene	142	7 884	7.884	(1 189)	860697	160 000	155 84
67 Hexachlorocyclopentadiene	237	8 087	8 087	(0 836)	245794	160 000	159 29
69 2,4,6-Trichlorophenol	196	8 242	8 242	(0 852)	256192	160 000	158 99
70 2,4,5 Trichlorophenol	196	8 317	8 317	(0 859)	272800	160 000	158 04
73 2 Chloronaphthalene	162	8 557	8.557	(0 884)	790346	160 000	153 61
77 2 Nitroaniline	65	8 825	8 825	(0 912)	317545	160 000	161 23(A)
80 Dimethylphthalate	163	9 263	9 263	(0 957)	1006062	160 000	157 65
82 2,6 Dinitrotoluene	165	9 391	9.391	(0 970)	234010	160 000	160 01(A)
83 Acenaphthylene	152	9 364	9 364	(0 967)	1379297	160 000	155 42
85 3-Nitroaniline	138	9 663	9 663	(0 998)	293952	160 000	160 21(A)
86 Acenaphthene	153	9 749	9.749	(1 007)	865826	160 000	156 09
87 2,4 Dinitrophenol	184	9 882	9 882	(1 021)	146949	160 000	173 67(A)
89 4-Nitrophenol	109	10 064	10 064	(1 040)	163553	160 000	165 31(A)
90 Dibenzofuran	168	10.085	10 085	(1 042)	1197125	160 000	154 72
91 2,4-Dinitrotoluene	165	10.219	10 219	(1 056)	329538	160 000	161 11(A)
95 2,3,5,6-Tetrachlorophenol	232	10 363	10 363	(1 071)	213723	160 000	160 34(A)
92 2,3,4,6 Tetrachlorophenol	232	10 470	10 470	(1 082)	204574	160 000	156 54
96 2-Naphthylamine	143	10.443	10 443	(1 079)	838532	160 000	152 93
97 Diethylphthalate	149	10 801	10 801	(1 116)	1025661	160 000	157 99
98 Fluorene	166	10 839	10 839	(1 120)	978880	160 000	154 79
99 4-Chlorophenyl-phenylether	204	10.871	10 871	(1 123)	439916	160 000	154 78
100 4-Nitroaniline	138	11.020	11 020	(1.139)	313278	160 000	161 63(A)
102 4,6 Dinitro-2-methylphenol	198	11 116	11 116	(0 856)	196078	160 000	165 64(A)
103 N-Nitrosodiphenylamine (1)	169	11 175	11 175	(0 860)	758125	160 000	156 82
104 1,2 Diphenylhydrazine	77	11.228	11 228	(0 864)	1294965	160 000	156.89
112 4-Bromophenyl-phenylether	248	11 976	11 976	(0 922)	254204	160 000	155 84
113 Hexachlorobenzene	284	12 286	12 286	(0 946)	272560	160 000	155 69
117 Pentachlorophenol	266	12 730	12 730	(0 980)	183247	160 000	165 23(A)
122 Phenanthrene	178	13 050	13 050	(1 005)	1453970	160 000	154.52
123 Anthracene	178	13 162	13 162	(1 013)	1496932	160 000	154 01
126 Carbazole	167	13 600	13.600	(1 047)	1483447	160 000	156 10
130 Di-n-Butylphthalate	149	14 733	14 733	(1 134)	1832482	160 000	155 94
135 Fluoranthene	202	15 994	15 994	(1 231)	1565039	160.000	154 99
136 Benzidine	184	16 416	16 416	(0 836)	764670	160 000	163 15(A)
137 Pyrene	202	16 539	16 539	(0 842)	1620466	160 000	158 82
144 Butylbenzylphthalate	149	18 478	18 478	(0 941)	913162	160 000	162 32(A)
149 3,3'-Dichlorobenzidine	252	19 653	19 653	(1 001)	606162	160 000	163 67(A)
150 Benzo(a)Anthracene	228	19 605	19 605	(0 998)	1567751	160 000	160 72(A)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL AMT (ng)	ON-COL (ng)
151 Chrysene	228	19 712	19 712	(1 004)	1478824	160 000	158 97
153 bis(2 ethylhexyl)Phthalate	149	20 048	20 048	(1 021)	1275518	160 000	161.98(A)
155 Di-n-octylphthalate	149	21.528	21.528	(0 936)	2328181	160 000	154 81
157 Benzo(b)fluoranthene	252	22 207	22 207	(0 965)	2058443	160 000	165 28(A)
158 benzo(k)fluoranthene	252	22 276	22 276	(0 968)	1779718	160 000	145 83(M)
159 7,12-dimethylbenz[a]anthracen	256	22 265	22 265	(0 958)	789180	160 000	152.68
167 Benzo(a)pyrene	252	22 901	22 901	(0 996)	1840120	160 000	155 81
169 Indeno(1,2,3-cd)pyrene	276	25 316	25 316	(1 101)	2590118	160 000	157 30
170 Dibenz(a,h)anthracene	278	25 374	25 374	(1 103)	2199257	160 000	157 05
171 Benzo(g,h,i)perylene	276	25 935	25 935	(1 127)	2325283	160 000	157 66
$ 172 Nitrobenzene-d5	82	5 747	5 747	(0 867)	551411	160 000	158 11
$ 173 2-Fluorobiphenyl	172	8 381	8 381	(0.866)	917510	160 000	155 33
$ 174 Terphenyl-d14	244	17 067	17 067	(0 869)	1236326	160 000	160 21(A)
$ 175 Phenol-d5	99	4 770	4 770	(0 938)	576070	160 000	155.55
$ 176 2-Fluorophenol	112	3 755	3 755	(0 738)	443659	160 000	158.36
$ 177 2,4,6 Tribromophenol	330	11 426	11 426	(0 880)	150658	160 000	159 25
$ 178 2 Chlorophenol-d4	132	4 882	4 882	(0 960)	408261	160 000	156 92
$ 179 1,2-Dichlorobenzene-d4	152	5 293	5 293	(1 041)	279585	160 000	153.50

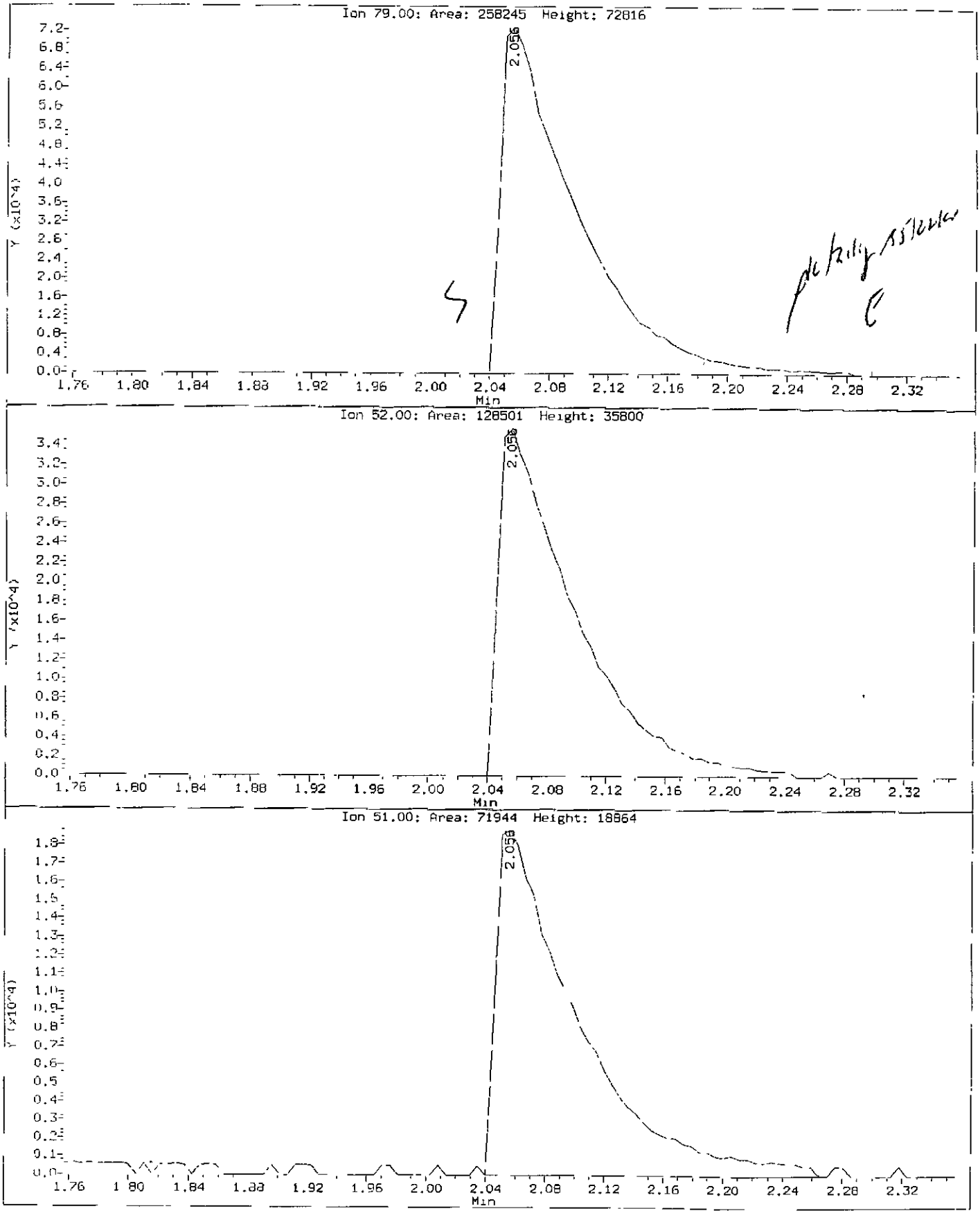
QC Flag Legend

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

657 268

Data File: \\QPITPA02\D\chem\71.1\s051900.b\S0519CC6.D
Injection Date: 19-MAY-2000 15:44
Instrument: 71.1
Client Sample ID: SSTD160

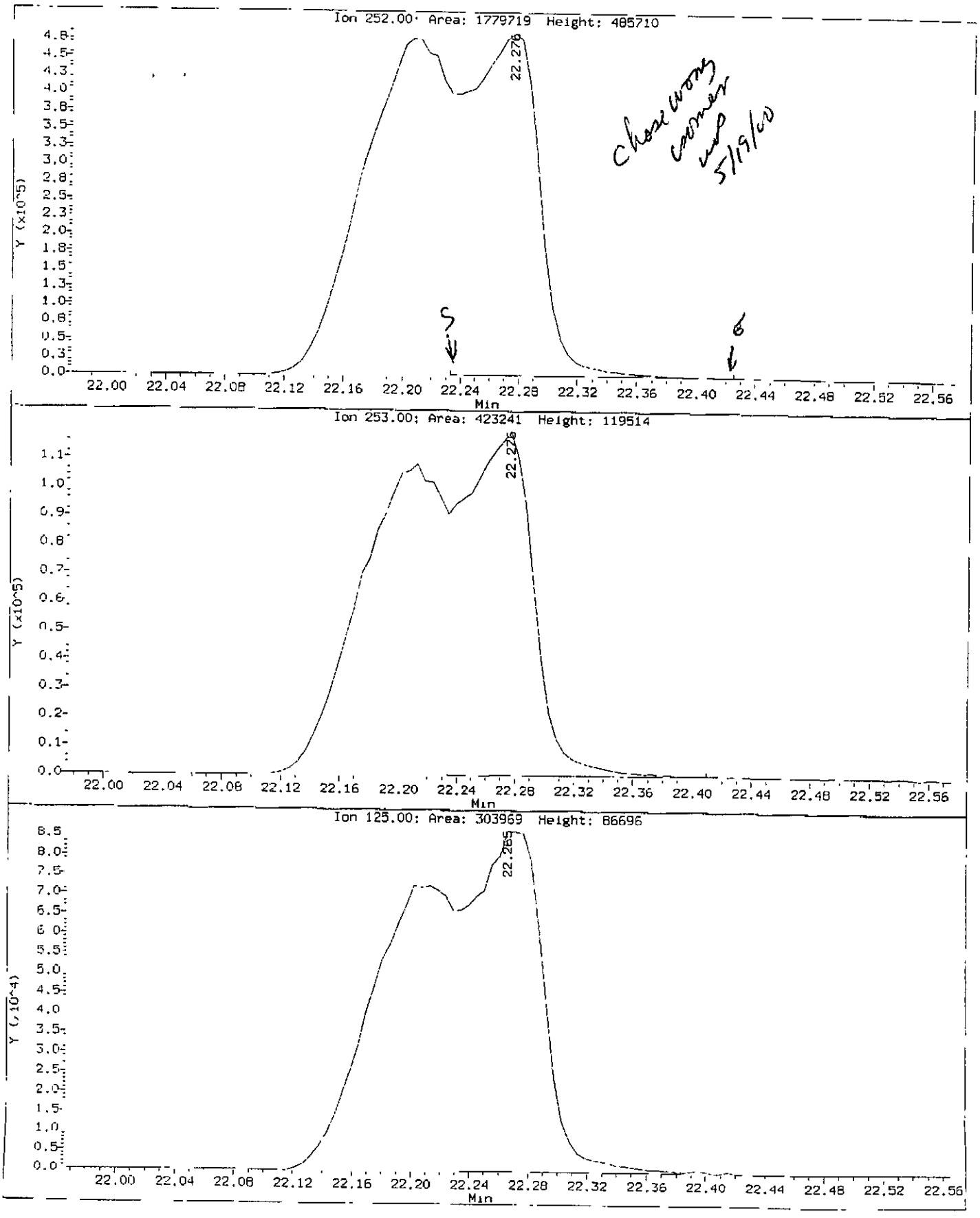
Compound: Pyridine
CAS Number: 110-86-1



Data File: \\QPITPA02\D\chem\71.1\s051900.b\S0519CC6.D
Injection Date: 19-MAY-2000 15:44
Instrument: 71.1
Client Sample ID:

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

657 269



chromatograms 5/19/00

FORM 7
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: C0E130194

Instrument ID: 71 Calibration Date: 05/22/00 Time: 1127

Lab File ID: S0522CCC Init. Calib. Date(s): 05/19/00 05/19/00

Init. Calib. Times: 1320 1544

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

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Phenol	2.010	1.933	0.01	3.8	20.0
bis(2-Chloroethyl)ether	1.625	1.567	0.01	3.6	50.0
2-Chlorophenol	1.392	1.398	0.01	0.4	50.0
1,3-Dichlorobenzene	1.542	1.590	0.01	3.1	50.0
1,4-Dichlorobenzene	1.564	1.608	0.01	2.8	20.0
1,2-Dichlorobenzene	1.441	1.477	0.01	2.5	50.0
2-Methylphenol	1.358	1.279	0.01	5.8	50.0
2,2'-oxybis(1-Chloropropane)	2.038	1.977	0.01	3.0	50.0
4-Methylphenol	1.419	1.319	0.01	7.0	50.0
Hexachloroethane	0.608	0.599	0.01	1.5	50.0
Nitrobenzene	0.437	0.424	0.01	3.0	50.0
Isophorone	0.726	0.658	0.01	9.4	50.0
2-Nitrophenol	0.190	0.192	0.01	1.0	20.0
2,4-Dimethylphenol	0.350	0.339	0.01	3.1	50.0
bis(2-Chloroethoxy)methane	0.465	0.449	0.01	3.4	50.0
N-Nitroso-di-n-propylamine	1.143	0.996	0.05	12.9	50.0
2,4-Dichlorophenol	0.274	0.278	0.01	1.4	20.0
1,2,4-Trichlorobenzene	0.290	0.307	0.01	5.9	50.0
Naphthalene	1.064	1.091	0.01	2.5	50.0
4-Chloroaniline	0.431	0.410	0.01	4.9	50.0
Hexachlorobutadiene	0.148	0.162	0.01	9.4	20.0
4-Chloro-3-Methylphenol	0.319	0.270	0.01	15.4	20.0
2-Methylnaphthalene	0.703	0.687	0.01	2.3	50.0
Hexachlorocyclopentadiene	0.304	0.183	0.05	39.8	50.0
2,4,6-Trichlorophenol	0.326	0.342	0.01	4.9	20.0
2,4,5-Trichlorophenol	0.348	0.350	0.01	0.6	50.0
2-Chloronaphthalene	1.072	1.158	0.01	8.0	50.0
2-Nitroaniline	0.389	0.346	0.01	11.0	50.0
Dimethylphthalate	1.299	1.221	0.01	6.0	50.0
Acenaphthylene	1.822	1.846	0.01	1.3	50.0
2,6-Dinitrotoluene	0.290	0.263	0.01	9.3	50.0
3-Nitroaniline	0.364	0.320	0.01	12.1	50.0
Acenaphthene	1.143	1.156	0.01	1.1	20.0
2,4-Dinitrophenol	0.151	0.105	0.05	30.5	50.0
4-Nitrophenol	0.190	0.136	0.05	28.4	50.0
Dibenzofuran	1.602	1.619	0.01	1.1	50.0
2,4-Dinitrotoluene	0.408	0.349	0.01	14.5	50.0

FORM VII SV

FORM 7
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: C0E130194

Instrument ID: 71 Calibration Date: 05/22/00 Time: 1127

Lab File ID: S0522CCC Init. Calib. Date(s): 05/19/00 05/19/00

Init. Calib. Times: 1320 1544

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

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D	
Diethylphthalate	1.324	1.176	0.01	11.2	50.0	
4-Chlorophenyl-phenylether	0.586	0.589	0.01	0.5	50.0	
Fluorene	1.311	1.275	0.01	2.7	50.0	
4-Nitroaniline	0.386	0.316	0.01	18.1	50.0	
4,6-Dinitro-2-methylphenol	0.118	0.103	0.01	12.7	50.0	
N-Nitrosodiphenylamine (1)	0.526	0.544	0.01	3.4	20.0	
4-Bromophenyl-phenylether	0.177	0.194	0.01	9.6	50.0	
Hexachlorobenzene	0.190	0.205	0.01	7.9	50.0	
Pentachlorophenol	0.109	0.109	0.01	0.0	20.0	
Phenanthrene	1.029	1.059	0.01	2.9	50.0	
Anthracene	1.058	1.077	0.01	1.8	50.0	
Carbazole	1.027	1.001	0.01	2.5	50.0	
Di-n-Butylphthalate	1.254	1.195	0.01	4.7	50.0	
Fluoranthene	1.095	1.090	0.01	0.4	20.0	
Pyrene	1.187	1.086	0.01	8.5	50.0	
Butylbenzylphthalate	0.638	0.581	0.01	8.9	50.0	
3,3'-Dichlorobenzidine	0.420	0.453	0.01	7.8	50.0	
Benzo(a)Anthracene	1.129	1.152	0.01	2.0	50.0	
Chrysene	1.086	1.111	0.01	2.3	50.0	
bis(2-ethylhexyl)Phthalate	0.895	0.834	0.01	6.8	50.0	
Di-n-octylphthalate	1.289	1.217	0.01	5.6	20.0	
Benzo(b)fluoranthene	1.061	1.082	0.01	2.0	50.0	
Benzo(k)fluoranthene	1.088	1.101	0.01	1.2	50.0	
Benzo(a)pyrene	1.026	1.066	0.01	3.9	20.0	
Indeno(1,2,3-cd)pyrene	1.414	1.512	0.01	6.9	50.0	
Dibenz(a,h)anthracene	1.207	1.296	0.01	7.4	50.0	
Benzo(g,h,i)perylene	1.259	1.339	0.01	6.4	50.0	
Pyridine	0.924	1.539	0.01	66.6	50.0	<-
N-Nitrosodimethylamine	0.494	0.877	0.01	77.5	50.0	<-
Aniline	2.479	2.304	0.01	7.0	50.0	
Benzyl Alcohol	1.018	0.934	0.01	8.2	50.0	
Benzoic Acid	0.177	0.100	0.01	43.5	50.0	
1-Methylnaphthalene	0.659	0.627	0.01	4.8	50.0	
2,3,4,6-Tetrachlorophenol	0.267	0.257	0.01	3.7	50.0	
2,3,5,6-Tetrachlorophenol	0.266	0.252	0.01	5.3	50.0	
1,2-Diphenylhydrazine	0.885	0.901	0.01	1.8	50.0	
Benzidine	0.520	0.650	0.01	25.0	50.0	

FORM 7
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: C0E130194

Instrument ID: 71 Calibration Date: 05/22/00 Time: 1127

Lab File ID: S0522CCC Init. Calib. Date(s): 05/19/00 05/19/00

Init. Calib. Times: 1320 1544

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

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Methyl methanesulfonate	0.852	0.759	0.01	10.9	50.0
2-Naphthylamine	1.150	0.945	0.01	17.8	50.0
7,12-dimethylbenz[a]anthrace	0.457	0.444	0.01	2.8	50.0
Nitrobenzene-d5	0.405	0.394	0.01	2.7	50.0
2-Fluorobiphenyl	1.213	1.340	0.01	10.5	50.0
Terphenyl-d14	0.894	0.837	0.01	6.4	50.0
Phenol-d5	1.785	1.688	0.01	5.4	50.0
2-Fluorophenol	1.335	1.355	0.01	1.5	50.0
2,4,6-Tribromophenol	0.099	0.100	0.01	1.0	50.0
2-Chlorophenol-d4	1.250	1.235	0.01	1.2	50.0
1,2-Dichlorobenzene-d4	0.878	0.902	0.01	2.7	50.0

P

CONTINUING CALIBRATION COMPOUNDS
PERCENT DRIFT REPORT

657 273

Instrument ID: 71.i
Lab File ID: S0522CCC.D
Analysis Type: NONE

Injection Date: 22-MAY-2000 11:27
Lab Sample ID: sstd50
Method File: \\QPITPA02\D\chem\71.i\s052200.b\8270clp

	COMPOUND	EXPECTED CONC	MEASURED CONC	%D	MAX %D
1	Phenol	50.0000	48.8894	2.2	20 0
2	bis(2-Chloroethyl)ether	50.0000	48.8254	2 3	50.0
3	2-Chlorophenol	50.0000	50.4420	0.9	50 0
4	1,3-Dichlorobenzene	50.0000	51.6951	3.4	50 0
5	1,4-Dichlorobenzene	50.0000	51 5161	3.0	20 0
6	1,2-Dichlorobenzene	50.0000	51 4915	3 0	50 0
7	2-Methylphenol	50.0000	47.9111	4 2	50.0
8	2,2'-oxybis(1-Chloropropane)	50.0000	49.1843	1 6	50 0
9	4-Methylphenol	50.0000	47.4454	5.1	50.0
11	1,4-Dichlorobenzene-d4	40.0000	40.0000	0.0	50 0
12	Hexachloroethane	50.0000	49.6800	0 6	50 0
13	Nitrobenzene	50.0000	49.0017	2.0	50.0
14	Isophorone	50.0000	46 3839	7.2	50 0
15	2-Nitrophenol	50 0000	50.5185	1.0	20 0
16	2,4-Dimethylphenol	50.0000	48 8957	2.2	50 0
17	bis(2-Chloroethoxy)methane	50.0000	48.8324	2.3	50 0
18	N-Nitroso-di-n-propylamine	50 0000	44.8180	10.4	50.0
18	2,4-Dichlorophenol	50.0000	50 8884	1 8	20.0
19	1,2,4-Trichlorobenzene	50.0000	52 7620	5.5	50 0
20	Naphthalene	50.0000	51.4723	2.9	50.0
21	4-Chloroaniline	50.0000	48 3655	3.3	50.0
22	Hexachlorobutadiene	50.0000	54.3722	8 7	20 0
23	4-Chloro-3-Methylphenol	50.0000	43.7665	12.5	20.0
24	2-Methylnaphthalene	50.0000	49.4468	1.1	50.0
25	Hexachlorocyclopentadiene	50.0000	32 8036	34 4	50.0
26	2,4,6-Trichlorophenol	50 0000	52.1118	4 2	20.0
27	2,4,5-Trichlorophenol	50 0000	50.4151	0 8	50.0
28	2-Chloronaphthalene	50.0000	53.6168	7.2	50.0
29	2-Nitroaniline	50 0000	45.4736	9 1	50.0
30	Dimethylphthalate	50.0000	47 7428	4 5	50.0
31	Acenaphthylene	50 0000	50.8376	1 7	50.0
32	2,6-Dinitrotoluene	50.0000	46.2888	7.4	50.0
32	Naphthalene-d8	40 0000	40.0000	0 0	50.0
33	3-Nitroaniline	50 0000	45 2084	9.6	50.0
34	Acenaphthene	50.0000	50 7712	1.5	20 0
35	2,4-Dinitrophenol	50.0000	36.5147	27.0	50.0
36	4-Nitrophenol	50.0000	37.7721	24.5	50.0
37	Dibenzofuran	50.0000	50.7751	1 6	50.0
38	2,4-Dinitrotoluene	50 0000	44 1237	11.8	50.0

Data File: \\QPITPA02\D\chem\71.i\s052200.b/S0522CCC.D
Report Date: 05/22/2000

657 274

CONTINUING CALIBRATION COMPOUNDS
PERCENT DRIFT REPORT

Instrument ID: 71.i
Lab File ID: S0522CCC.D
Analysis Type: NONE

Injection Date: 22-MAY-2000 11:27
Lab Sample ID: sstd50
Method File: \\QPITPA02\D\chem\71.i\s052200.b\

COMPOUND	EXPECTED CONC	MEASURED CONC.	%D	MAX %D	
39 Diethylphthalate	50 0000	45.6782	8.6	50 0	
40 4-Chlorophenyl-phenylether	50 0000	50 4630	0.9	50.0	
41 Fluorene	50.0000	49 2542	1 5	50.0	
42 4-Nitroaniline	50.0000	42.5780	14.8	50 0	
43 4,6-Dinitro-2-methylphenol	50.0000	44.8612	10 3	50 0	
44 N-Nitrosodiphenylamine (1)	50.0000	51 4102	2.8	20 0	
45 4-Bromophenyl-phenylether	50 0000	54.1355	8.3	50.0	
46 Hexachlorobenzene	50.0000	53.4779	7 0	50 0	
47 Pentachlorophenol	50.0000	49.6633	0.7	20 0	
48 Phenanthrene	50 0000	51 5293	3.1	50.0	
49 Anthracene	50 0000	51.1209	2 2	50 0	
50 Carbazole	50.0000	49 3025	1.4	50.0	
51 Di-n-Butylphthalate	50.0000	48.4588	3 1	50.0	
52 Fluoranthene	50.0000	50 2521	0 5	20 0	
52 Acenaphthene-d10	40.0000	40 0000	0.0	50.0	
53 Pyrene	50.0000	46 5459	6 9	50 0	
54 Butylbenzylphthalate	50 0000	46 3629	7.3	50 0	
55 3,3'-Dichlorobenzidine	50.0000	53.1632	6 3	50.0	
56 Benzo(a)Anthracene	50.0000	50 9682	1.9	50.0	
57 Chrysene	50 0000	51.0834	2 2	50.0	
58 bis(2-ethylhexyl)Phthalate	50 0000	47.2990	5.4	50.0	
59 Di-n-octylphthalate	50.0000	48.2218	3.6	20 0	
60 Benzo(b)fluoranthene	50 0000	51 0118	2.0	50.0	
61 Benzo(k)fluoranthene	50 0000	51 1174	2.2	50 0	
62 Benzo(a)pyrene	50 0000	51 9372	3 9	20 0	
63 Indeno(1,2,3-cd)pyrene	50.0000	52 9159	5 8	50.0	
64 Dibenz(a,h)anthracene	50 0000	53 0955	6 2	50.0	
65 Benzo(g,h,i)perylene	50.0000	52 6871	5 4	50 0	
66 Pyridine	50.0000	73 9924	48.0	50 0	
67 N-Nitrosodimethylamine	50.0000	77.8410	55.7	50 0	<-
68 Aniline	50.0000	47 3099	5.4	50 0	
69 Benzyl Alcohol	50.0000	46 6409	6.7	50 0	
71 Benzoic Acid	50.0000	30.5833	38.8	50.0	
72 1-Methylnaphthalene	50.0000	48.2430	3.5	50.0	
76 2,3,4,6-Tetrachlorophenol	50.0000	48.5322	2.9	50.0	
77 2,3,5,6-Tetrachlorophenol	50.0000	47 6907	4.6	50.0	
78 1,2-Diphenylhydrazine	50 0000	50 8954	1.8	50.0	
78 Phenanthrene-d10	40.0000	40 0000	0 0	50 0	
79 Benzidine	50.0000	60.0099	20 0	50.0	

Data File: \\QPITPA02\D\chem\71.i\s052200.b/S0522CCC.D
Report Date: 05/22/2000

CONTINUING CALIBRATION COMPOUNDS
PERCENT DRIFT REPORT

Instrument ID: 71.i
Lab File ID: S0522CCC.D
Analysis Type: NONE

Injection Date: 22-MAY-2000 11:27
Lab Sample ID: sstd50
Method File: \\QPITPA02\D\chem\71.i\s052200.b\

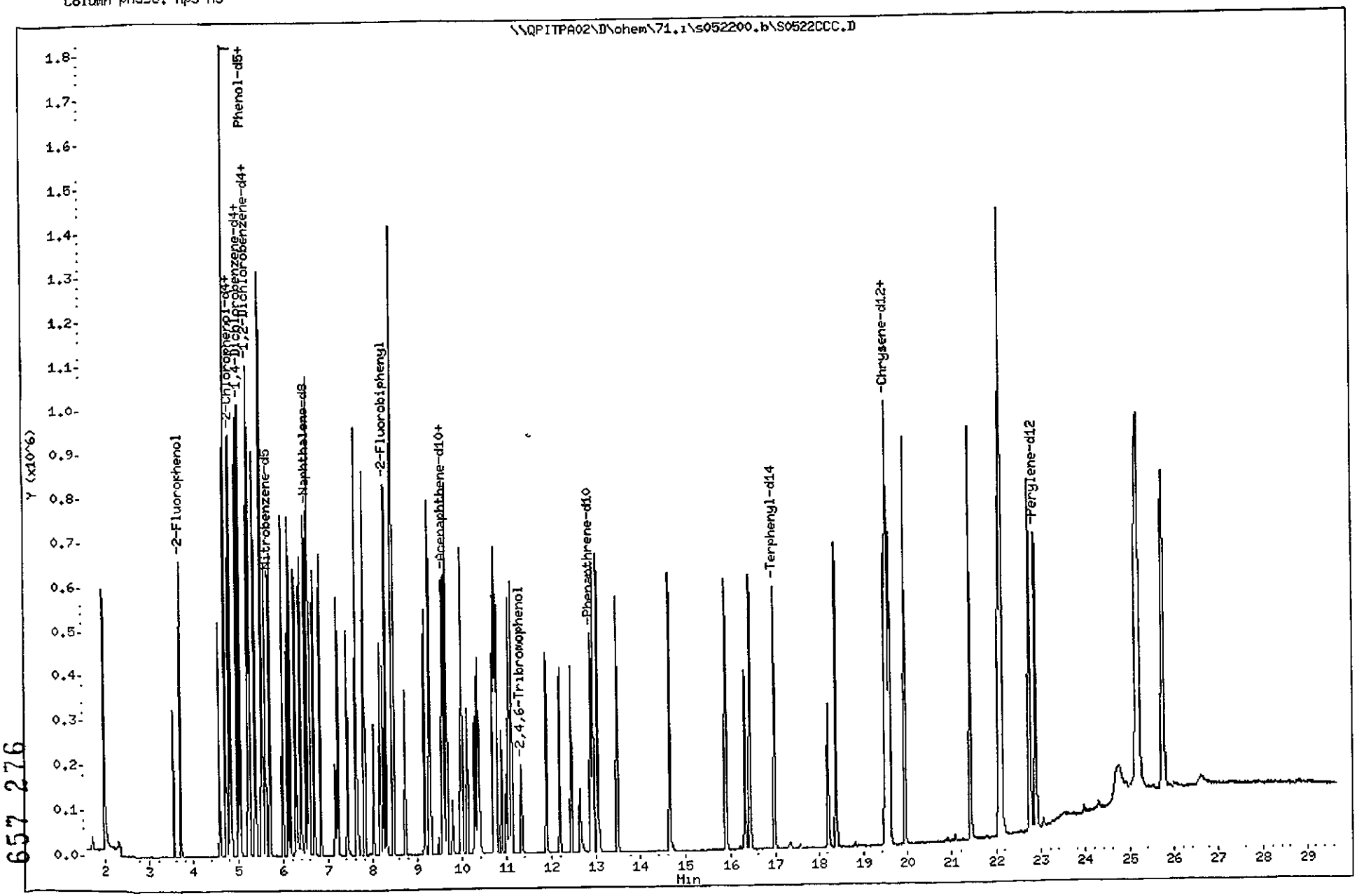
	COMPOUND	EXPECTED CONC.	MEASURED CONC	%D	MAX %D
87	Methyl methanesulfonate	50 0000	45 4607	9.1	50.0
90	Chrysene-d12	40 0000	40 0000	0.0	50.0
101	Perylene-d12	40 0000	40 0000	0.0	50.0
114	2-Naphthylamine	50.0000	42 6206	14.8	50 0
143	7,12-dimethylbenz(a)anthracen	50.0000	49.0668	1 9	50 0
181	Nitrobenzene-d5	50 0000	49 2210	1.6	50.0
182	2-Fluorobiphenyl	50.0000	54 4698	8.9	50.0
183	Terphenyl-d14	50.0000	47.4612	5.1	50.0
184	Phenol-d5	50.0000	47.9495	4.1	50.0
185	2-Fluorophenol	50 0000	50.6878	1 4	50 0
186	2,4,6-Tribromophenol	50 0000	50.0751	0.2	50.0
187	2-Chlorophenol-d4	50.0000	49 6478	0 7	50.0
188	1,2-Dichlorobenzene-d4	50 0000	51.5543	3.1	50 0

Data File: \\QPITPA02\D\chem\71.i\s052200.b\S0522CCC.D
Date : 22-MAY-2000 11:27
Client ID: sstd050
Sample Info: sstd50(25.0ug/ml) 194-176-9 8270/clp

Instrument: 71.i

Operator: SAB: 2ul inj (100ul+1ul) int
Column diameter: 0.25

Column phase: Hp5-MS



657 276

STL Pittsburgh

Semivolatile REPORT SW-846 Method 8270

Data file : \\QPITPA02\D\chem\71.i\s052200.b\S0522CCC.D
Lab Smp Id: sstd50 Client Smp ID: sstd050
Inj Date : 22-MAY-2000 11:27
Operator : SAB: 2ul inj (100ul+1ul) int Inst ID: 71.i
Smp Info : sstd50(25.0ug/ml) 194-176-9 8270/clp
Misc Info : sstd50,s052200.b,8270clp.m,1-8270l.sub,2,2
Comment :
Method : \\QPITPA02\D\chem\71.i\s052200.b\8270clp.m
Meth Date : 22-May-2000 11:59 bachas Quant Type: ISTD
Cal Date : 19-MAY-2000 15:44 Cal File: S0519CC6.D
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 1-8270l.sub
Target Version: 4.03
Processing Host: PITPC050

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
* 1 1,4-Dichlorobenzene-d4	152	5.029	5.029	(1.000)	145518	40 0000	
* 2 Naphthalene-d8	136	6 562	6.562	(1.000)	535078	40 0000	
* 3 Acenaphthene-d10	164	9.596	9.596	(1.000)	265064	40.0000	
* 4 Phenanthrene-d10	188	12.898	12 898	(1.000)	427212	40.0000	
* 5 Chrysene-d12	240	19.533	19 533	(1.000)	446724	40.0000	
* 6 Perylene-d12	264	22.893	22.893	(1.000)	599590	40.0000	
13 N-Nitrosodimethylamine	74	1 989	1.989	(0.396)	159465	50 0000	88 650
10 Pyridine	79	2.000	2.000	(0.398)	279889	50.0000	83 243(M)
19 Methyl methanesulfonate	80	3 544	3 544	(0 705)	138055	50.0000	44.512
22 Aniline	93	4.730	4.730	(0.941)	419170	50.0000	46.475
23 Phenol	94	4.730	4 730	(0.941)	351579	50.0000	48 082
24 bis(2-Chloroethyl)ether	93	4 799	4 799	(0.954)	285018	50.0000	48.226
25 2-Chlorophenol	128	4.847	4.847	(0 964)	254360	50.0000	50.213
27 1,3-Dichlorobenzene	146	4.992	4.992	(0 993)	289190	50.0000	51.566
28 1,4-Dichlorobenzene	146	5 050	5.050	(1 004)	292500	50.0000	51.397
29 1,2-Dichlorobenzene	146	5 253	5 253	(1.045)	268741	50 0000	51.250
30 Benzyl Alcohol	108	5 216	5.216	(1.037)	169832	50.0000	45 850
31 2-Methylphenol	108	5 365	5 365	(1.067)	232682	50 0000	47 094
32 2,2'-oxybis(1-Chloropropane)	45	5.387	5.387	(1.071)	359586	50.0000	48.496
33 N-Nitroso-di-n-propylamine	70	5.542	5.542	(1.102)	181164	50 0000	43 555
35 4-Methylphenol	108	5.526	5.526	(1.099)	239853	50 0000	46 461
38 Hexachloroethane	117	5.601	5.601	(1.114)	109043	50 0000	49.283
39 Nitrobenzene	77	5.707	5.707	(0 870)	283286	50.0000	48 463
44 Isophorone	82	5.985	5.985	(0.912)	440040	50.0000	45.320
45 2-Nitrophenol	139	6.097	6.097	(0.929)	128641	50.0000	50.634
46 2,4-Dimethylphenol	107	6.151	6.151	(0.937)	226731	50.0000	48 448

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
47 bis(2-Chloroethoxy)methane	93	6.268	6.268	(0.955)	300352	50.0000	48 332
51 2,4-Dichlorophenol	162	6.396	6 396	(0 975)	185915	50.0000	50 713
52 Benzoic Acid	122	6 306	6 306	(0 961)	67015	50.0000	28 328
53 1,2,4-Trichlorobenzene	180	6 509	6.509	(0.992)	205626	50.0000	53.070
54 Naphthalene	128	6 594	6.594	(1.005)	729762	50.0000	51 287
55 4-Chloroaniline	127	6.696	6.696	(1.020)	274481	50.0000	47.677
59 Hexachlorobutadiene	225	6 845	6 845	(1.043)	108754	50 0000	55.030
62 4-Chloro-3-Methylphenol	107	7.433	7.433	(1.133)	180380	50 0000	42 279
65 2-Methylnaphthalene	142	7.630	7 630	(1.163)	459580	50.0000	48.849
66 1-Methylnaphthalene	142	7.812	7.812	(1.190)	419108	50 0000	47.546
67 Hexachlorocyclopentadiene	237	8.021	8.021	(0 836)	60733	50.0000	30.123
69 2,4,6-Trichlorophenol	196	8.170	8.170	(0 851)	113420	50.0000	52.521
70 2,4,5-Trichlorophenol	196	8.239	8.239	(0.859)	116033	50.0000	50.374
73 2-Chloronaphthalene	162	8 475	8 475	(0 883)	383639	50 0000	54.010
77 2-Nitroaniline	65	8.736	8.736	(0.910)	114707	50.0000	44.456
80 Dimethylphthalate	163	9.180	9 180	(0 957)	404584	50.0000	46.985
82 2,6-Dinitrotoluene	165	9.303	9 303	(0 969)	87163	50.0000	45.310
83 Acenaphthylene	152	9 281	9 281	(0 967)	611562	50 0000	50.654
85 3-Nitroaniline	138	9 570	9 570	(0 997)	106185	50 0000	44.060
86 Acenaphthene	153	9 661	9 661	(1.007)	383137	50 0000	50.564
87 2,4-Dinitrophenol	184	9 789	9.789	(1.020)	34851	50 0000	34.806
89 4-Nitrophenol	109	9.965	9.965	(1.038)	44938	50 0000	35.652
90 Dibenzofuran	168	9 997	9 997	(1.042)	536417	50 0000	50 541
91 2,4-Dinitrotoluene	165	10 115	10.115	(1.054)	115637	50 0000	42.803
95 2,3,5,6-Tetrachlorophenol	232	10 280	10.280	(1.071)	83428	50.0000	47.211
92 2,3,4,6-Tetrachlorophenol	232	10 376	10.376	(1.081)	85197	50.0000	48.158
96 2-Naphthylamine	143	10.344	10.344	(1.078)	313265	50.0000	41 084
97 Diethylphthalate	149	10.708	10.708	(1 116)	389505	50.0000	44 390
98 Fluorene	166	10.745	10.745	(1.120)	422350	50.0000	48.604
99 4-Chlorophenyl-phenylether	204	10.782	10 782	(1.124)	195077	50.0000	50 194
100 4-Nitroaniline	138	10.900	10 900	(1.136)	104552	50.0000	40.918
102 4,6-Dinitro-2-methylphenol	198	11 007	11.007	(0 853)	55193	50 0000	43.929
103 N-Nitrosodiphenylamine (1)	169	11.071	11 071	(0 858)	290432	50.0000	51.721
104 1,2-Diphenylhydrazine	77	11 135	11 135	(0 863)	481308	50.0000	50 942
112 4-Bromophenyl-phenylether	248	11.888	11 888	(0.922)	103801	50.0000	54.909
113 Hexachlorobenzene	284	12 193	12 193	(0 945)	109639	50.0000	54.096
117 Pentachlorophenol	266	12 647	12 647	(0.981)	58168	50.0000	49 783 (M)
122 Phenanthrene	178	12.951	12.951	(1 004)	565778	50.0000	51.481
123 Anthracene	178	13.058	13.058	(1.012)	575232	50 0000	50.935
126 Carbazole	167	13.496	13.496	(1 046)	534645	50.0000	48.761
130 Di-n-Butylphthalate	149	14 639	14.639	(1 135)	638330	50.0000	47.657
135 Fluoranthene	202	15 889	15.889	(1 232)	582296	50 0000	49.782
136 Benzidine	184	16.317	16.317	(0 835)	363229	50.0000	62.577
137 Pyrene	202	16.434	16.434	(0 841)	606633	50.0000	45.746
144 Butylbenzylphthalate	149	18 379	18.379	(0 941)	324288	50.0000	45.522
149 3,3'-Dichlorobenzidine	252	19.543	19.543	(1 001)	253202	50.0000	53.964
150 Benzo(a)Anthracene	228	19 490	19 490	(0 998)	643559	50.0000	51.051

Data File: \\QPITPA02\D\chem\71.i\s052200.b\S0522CCC.D
Report Date: 22-May-2000 12:04

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
151 Chrysene	228	19 597	19.597	(1 003)	620609	50 0000	51 161
153 bis(2-ethylhexyl)Phthalate	149	19 949	19.949	(1 021)	465605	50 0000	46.570
155 Di-n-octylphthalate	149	21 419	21.419	(0.936)	912315	50 0000	47.230
157 Benzo(b)fluoranthene	252	22.076	22.076	(0 964)	810619	50 0000	50 972
158 Benzo(k)fluoranthene	252	22 134	22 134	(0.967)	825097	50.0000	50.602
159 7,12-dimethylbenz(a)anthracen	256	22.134	22.134	(0.967)	332481	50.0000	48 544
167 Benzo(a)pyrene	252	22.770	22 770	(0.995)	798737	50 0000	51 911
169 Indeno(1,2,3-cd)pyrene	276	25 158	25 158	(1.099)	1132982	50.0000	53.436
170 Dibenz(a,h)anthracene	278	25 206	25.206	(1 101)	971394	50.0000	53 685
171 Benzo(g,h,i)perylene	276	25 746	25.746	(1 125)	1003463	50.0000	53 160
$ 172 Nitrobenzene-d5	82	5 686	5.686	(0.866)	263493	50.0000	48.696
$ 173 2-Fluorobiphenyl	172	8 309	8 309	(0.866)	443954	50.0000	55 215
$ 174 Terphenyl-d14	244	16 969	16 969	(0 869)	467386	50.0000	46 786
$ 175 Phenol-d5	99	4.719	4.719	(0 938)	306982	50.0000	47.290
$ 176 2-Fluorophenol	112	3 709	3.709	(0 738)	246558	50 0000	50.758
$ 177 2,4,6-Tribromophenol	330	11 338	11.338	(0.879)	53349	50 0000	50.300
$ 178 2-Chlorophenol-d4	132	4.831	4.831	(0 961)	224630	50.0000	49 394
$ 179 1,2-Dichlorobenzene-d4	152	5 237	5.237	(1.041)	164052	50.0000	51.344

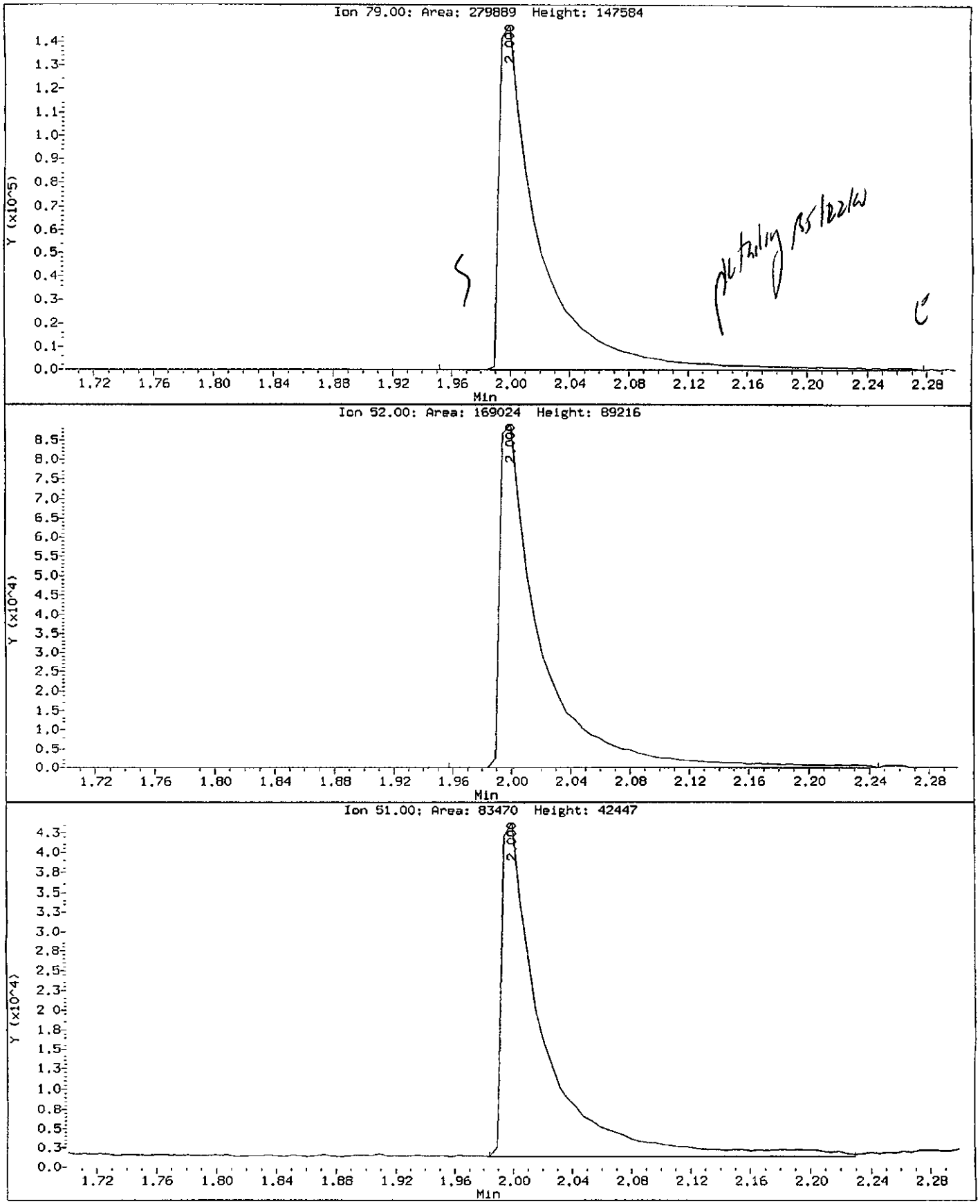
QC Flag Legend

M - Compound response manually integrated.

657 280

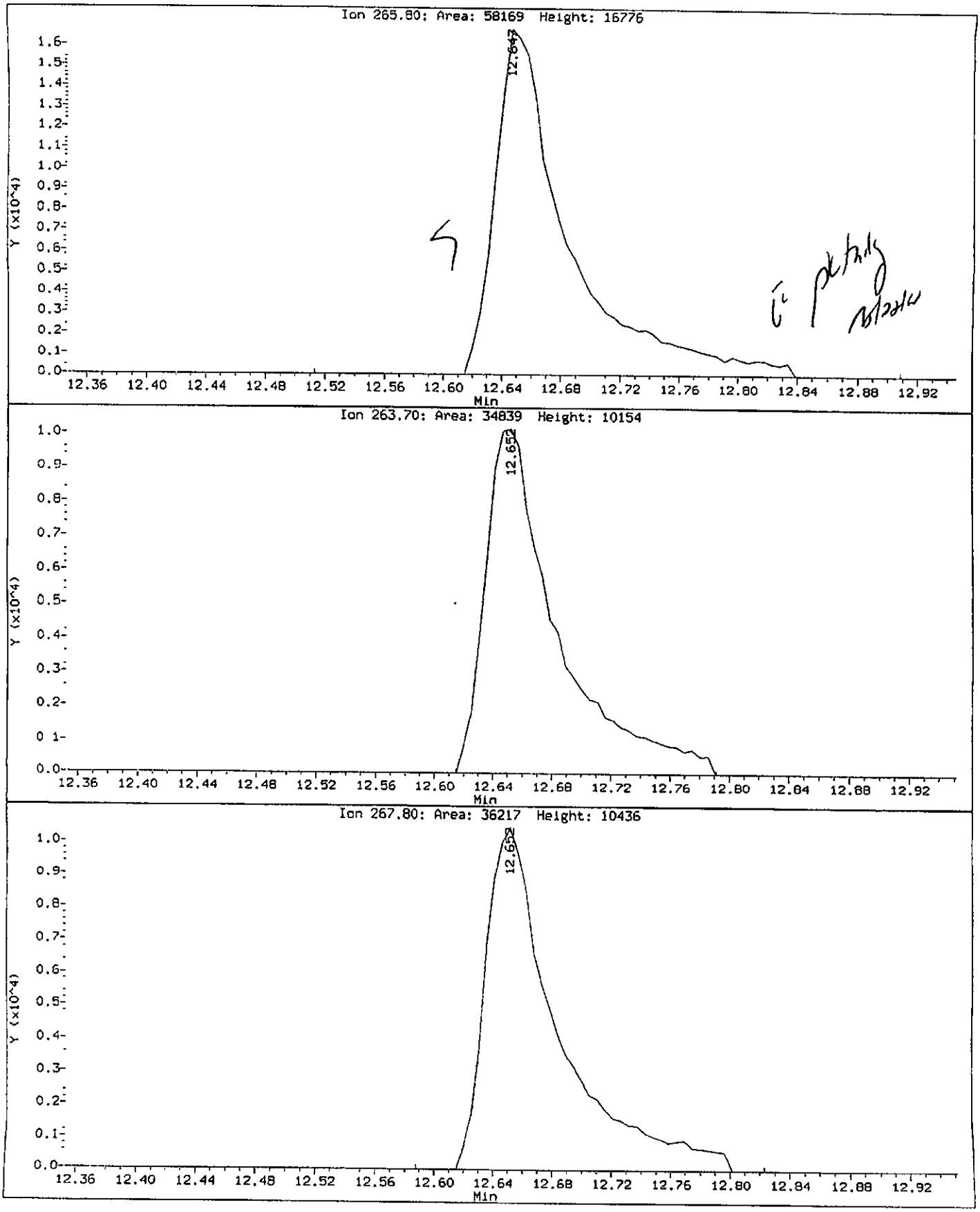
Data File: \\QPITPA02\D\chem\71.i\s052200.b\S0522CCC.D
Injection Date: 22-MAY-2000 11:27
Instrument: 71.i
Client Sample ID: sstd050

Compound: Pyridine
CAS Number: 110-86-1



Data File: \\QPITPA02\D\chem\71.i\s052200.b\S0522CCC.D
Injection Date: 22-MAY-2000 11:27
Instrument: 71.i
Client Sample ID: sstd050

Compound: Pentachlorophenol
CAS Number: 87-86-5



GC/MS SEMIVOLATILE
QC DATA

Data File: \\QPITPA02\D\chem\71.1\s051900.b\S0519DF2.D

Date : 19-MAY-2000 11:44

Client ID: DFTPP02

Instrument: 71.1

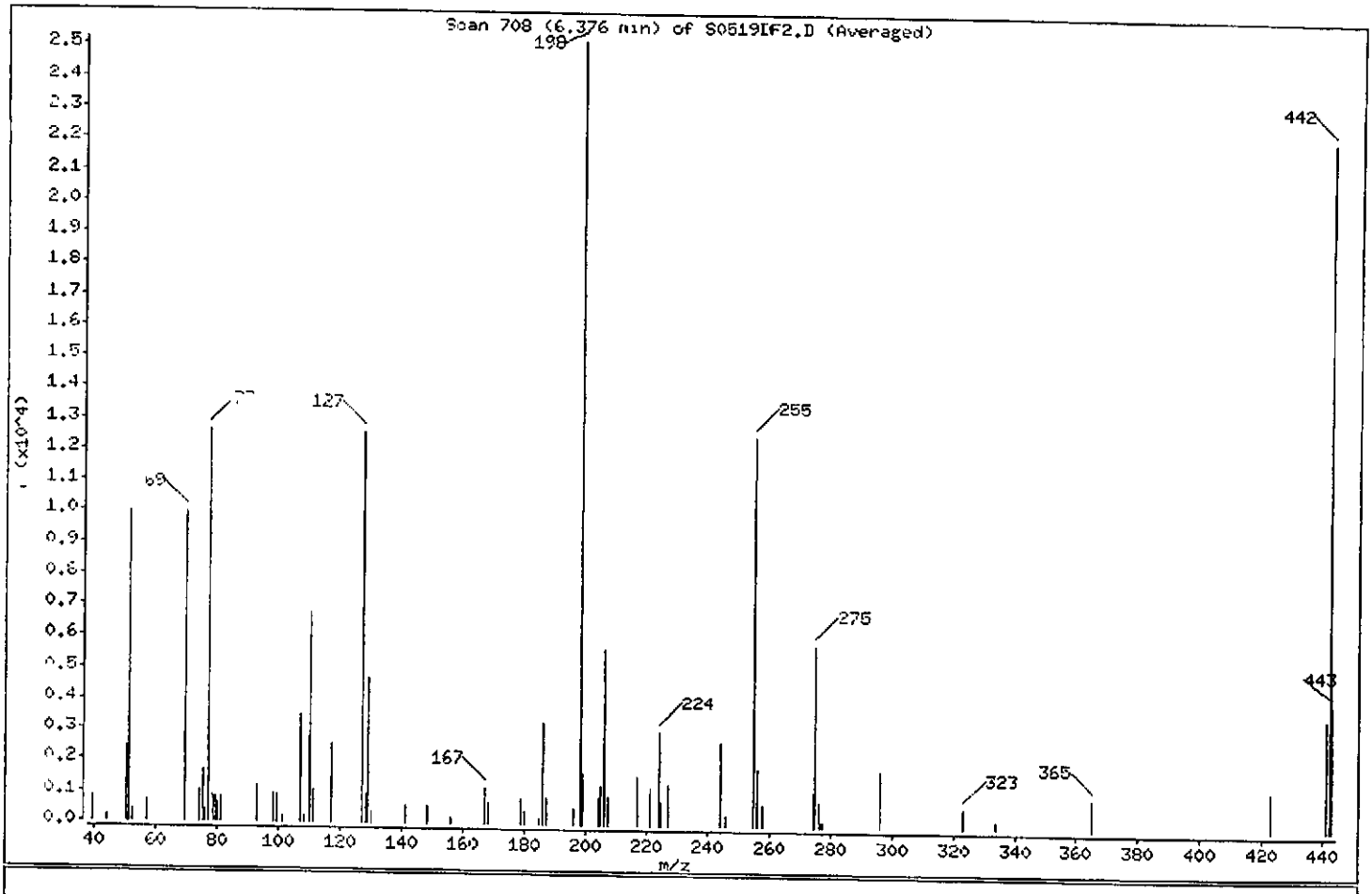
Sample Info: DFTPP050 (25ph) 194-158-6

Operator: SAB: 2ul inj (100ul+1ul) int

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	39.61
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	39.64
70	Less than 2.00% of mass 69	0.00 (0.00)
127	40.00 - 60.00% of mass 198	49.82
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.71
275	10.00 - 30.00% of mass 198	23.27
365	Greater than 1.00% of mass 198	3.87
441	Present, but less than mass 443	14.44
442	Greater than 40.00% of mass 198	88.27
443	17.00 - 23.00% of mass 442	16.26 (18.42)

Data File: \\QPITPA02\D\chem\71.1\s051900.b\S0519DF2.D

Date : 19-MAY-2009 11:44

Client ID: DFTPP02

Instrument: 71.1

Sample Info: DFTPPv50 (25ppb) 194-158-6

Operator: SAB: 2ul inj (100ul+1ul) int

Column phase:

Column diameter: 2.00

Data File: S0519DF2.D

Spectrum: Scan 709 (6.376 min) of S0519DF2.D (Averaged)

Location of Maximum: 198.00

Number of points: 67

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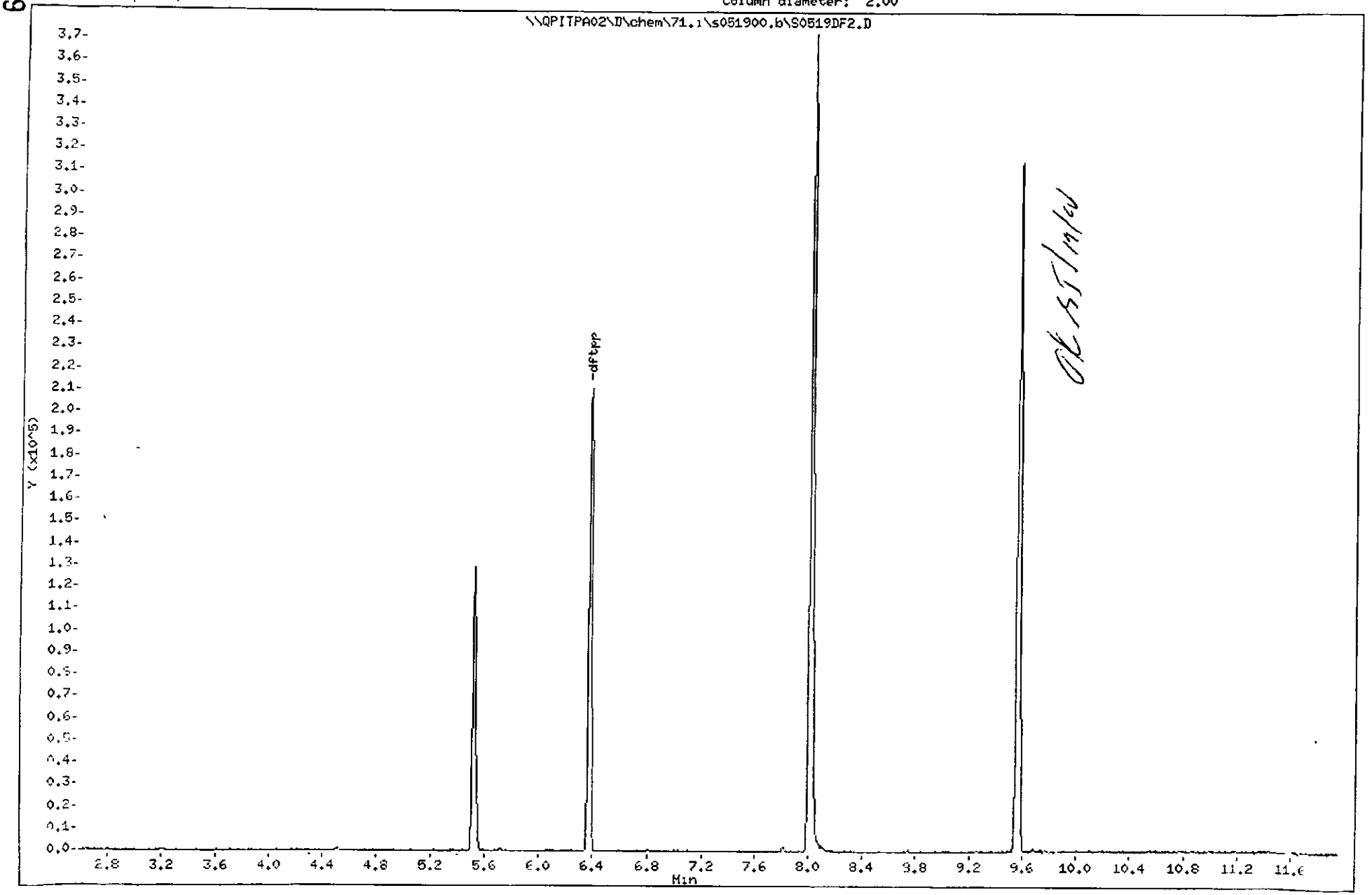
39.00	611	99.00	850	180.00	413	246.00	347
44.00	167	101.00	193	185.00	189	255.00	12521
50.00	2417	107.00	3462	186.00	3323	256.00	1846
51.00	9981	108.00	188	187.00	854	258.00	676
52.00	400	110.00	6758	196.00	512	274.00	1112
57.00	697	111.00	1025	198.00	25200	275.00	5865
69.00	9989	117.00	2547	199.00	1692	276.00	799
74.00	1019	127.00	12555	204.00	890	277.00	178
75.00	1653	128.00	899	205.00	1258	296.00	1789
76.00	384	129.00	4713	206.00	5689	323.00	664
77.00	12639	130.00	346	207.00	917	334.00	208
78.00	876	141.00	577	217.00	1552	365.00	966
79.00	793	148.00	596	221.00	1189	423.00	1286
80.00	620	156.00	190	224.00	3011	441.00	3638
81.00	830	167.00	1136	225.00	779	442.00	22245
93.00	1235	168.00	690	227.00	1333	443.00	4098
98.00	922	179.00	836	244.00	2715		

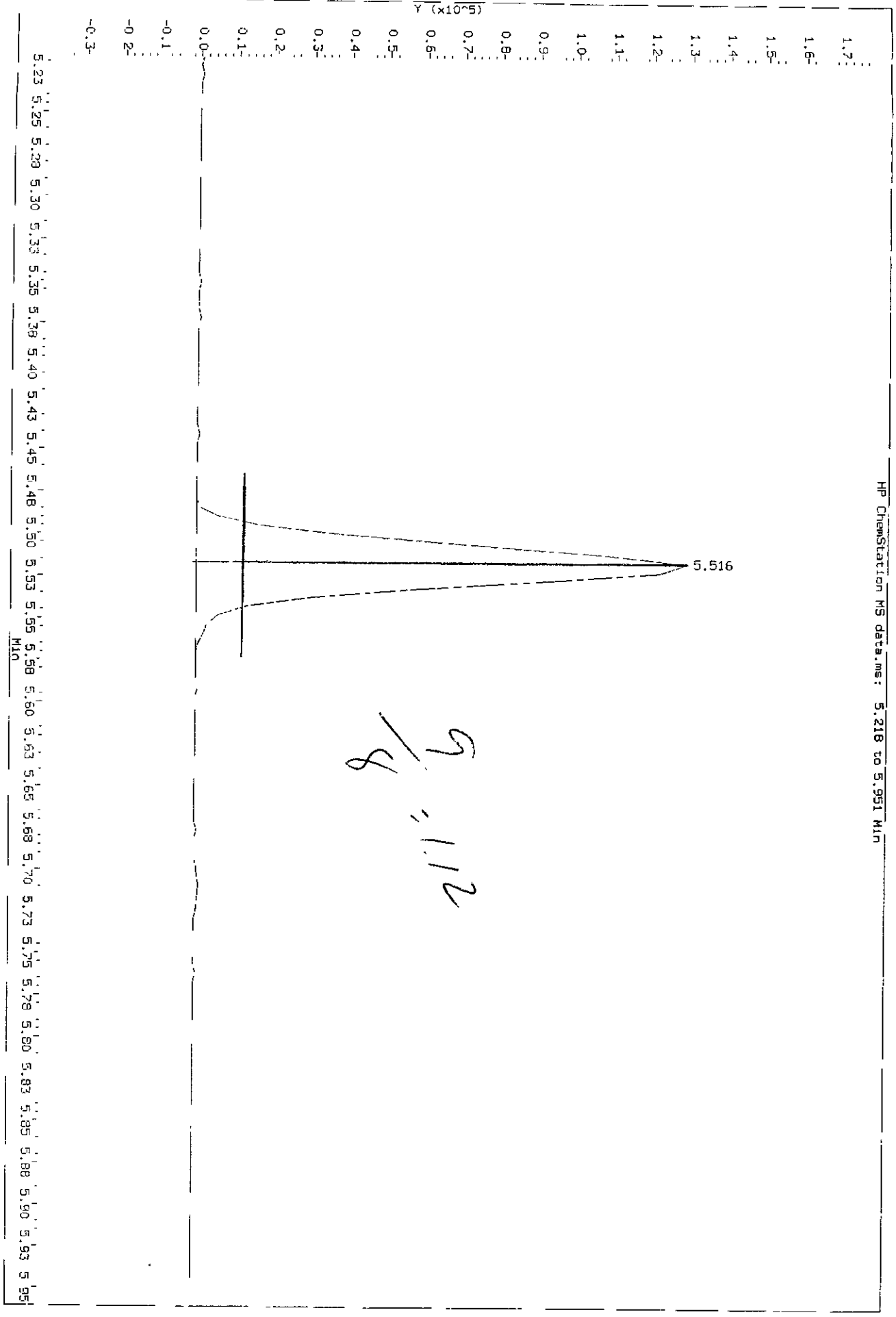
Data File: \\QPITPA02\D\chem\71.1\s051900.b\S0519DF2.D
Date : 19-MAY-2000 11:44
Client ID: DFTPP02
Sample Info: DFTPP050 (25ppb) 194-158-6

Column phase:

Instrument: 71.1

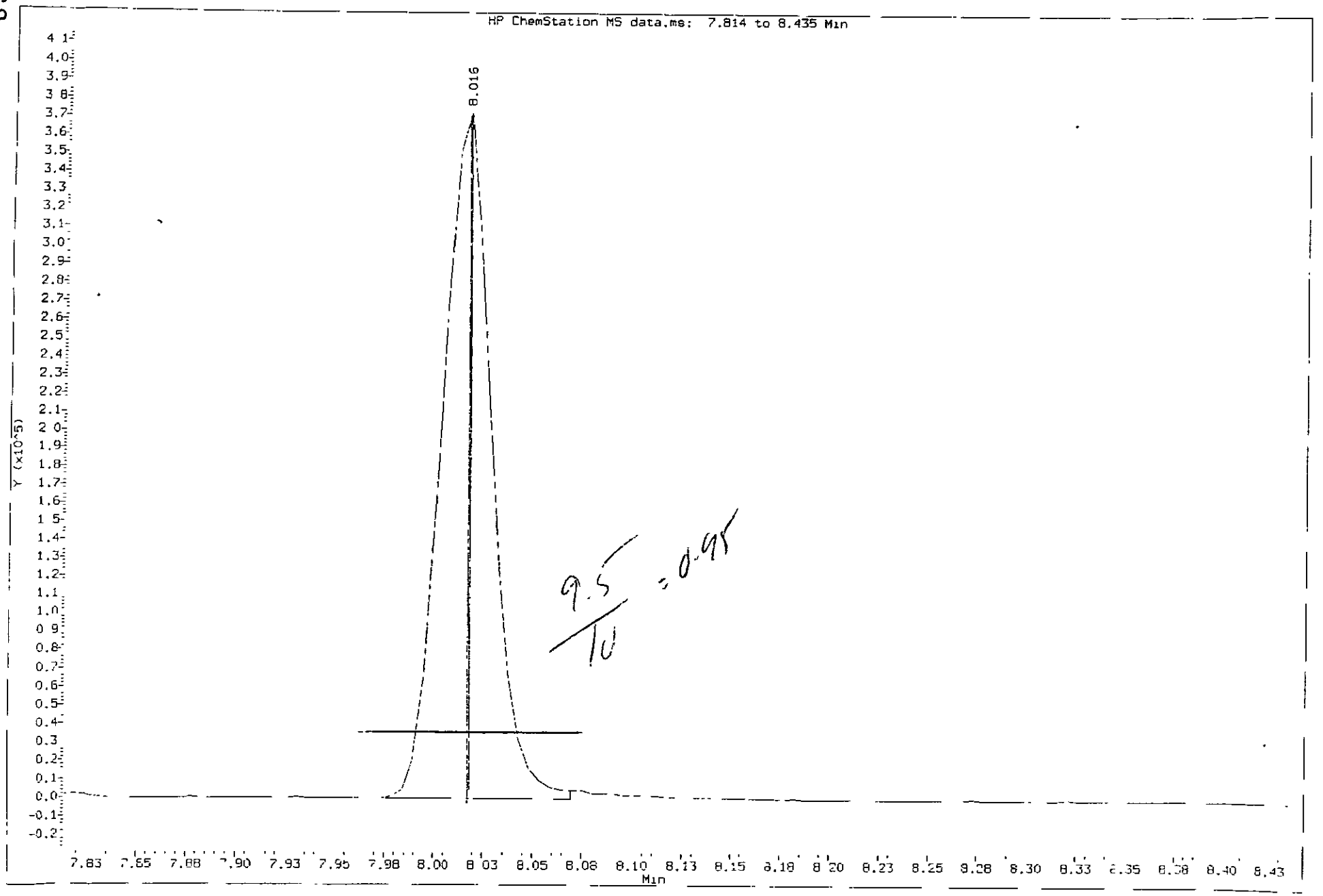
Operator: SAB: 2ul inj (100ul+1ul) int
Column diameter: 2.00




Data File: \\QPITPA02\D\chem\71.1\s051900.b\S0519DF2.D
Injection Date: 19-MAY-2000 11:44
Instrument: 71.1
Client Sample ID: DFTPP02
HP ChemStation MS data.ms: 5.218 to 5.951 Min
Y (x10^5)
5.516
Min

657 287

Data File: \\QPITPA02\D\chem\71.1\s051900.b\S0519DF2.D
Injection Date: 19-MAY-2000 11:44
Instrument: 71.1
Client Sample ID: DFTPP02



2081

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Data File: \\QPITPA02\D\chem\71.1\s052200.b\S0522DF1.D

Date : 22-MAY-2000 11:09

Client ID: DFTPP02

Instrument: 71.1

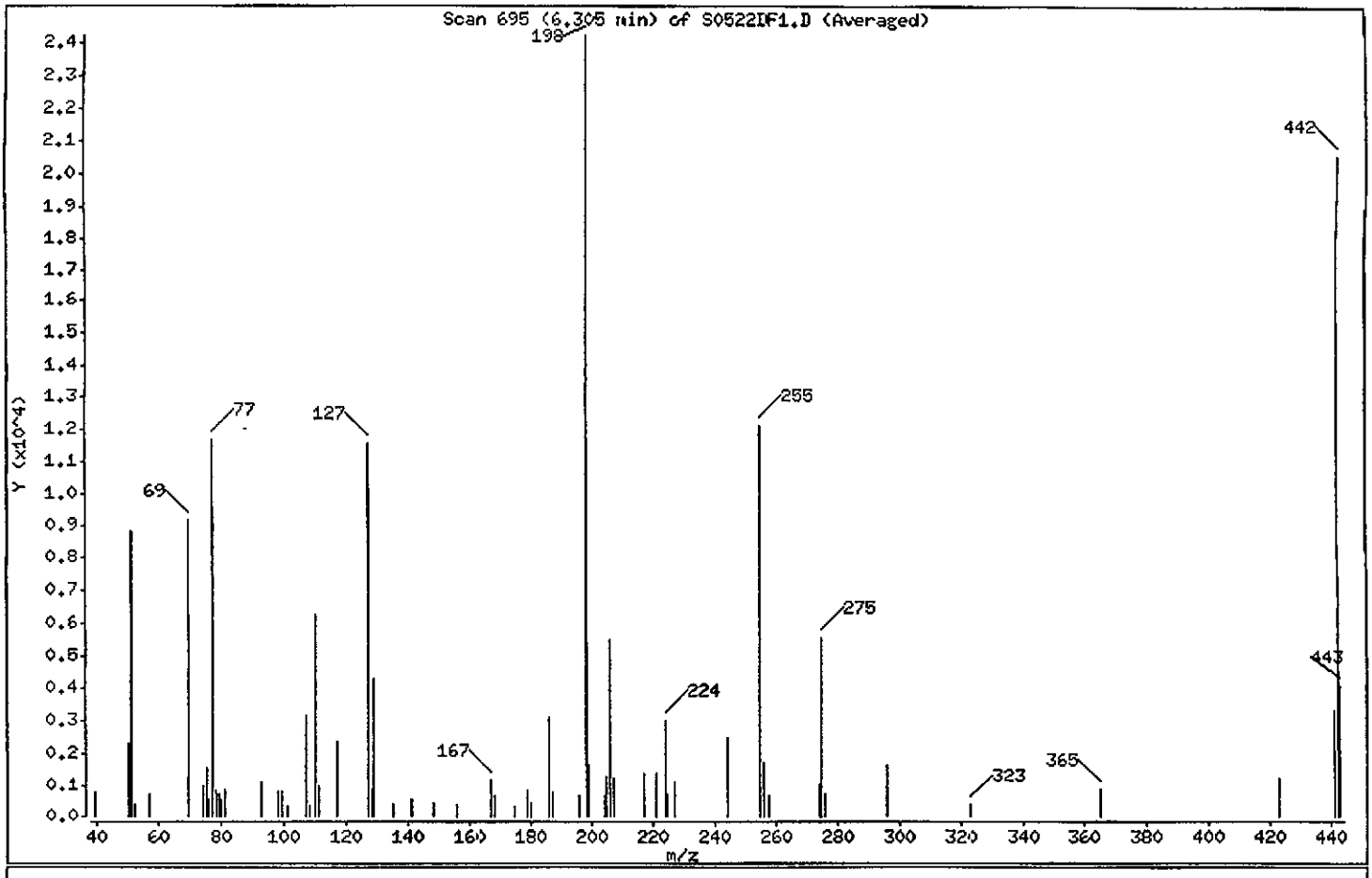
Sample Info: DFTPP050 (25ppb) 194-158-6

Operator: SAB: 2ul inj (100ul+1ul) int

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	36.66
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	37.95
70	Less than 2.00% of mass 69	0.00 (0.00)
127	40.00 - 60.00% of mass 198	47.86
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.87
275	10.00 - 30.00% of mass 198	23.09
365	Greater than 1.00% of mass 198	3.59
441	Present, but less than mass 443	13.73
442	Greater than 40.00% of mass 198	84.84
443	17.00 - 23.00% of mass 442	16.72 (19.70)

Data File: \\QPITPA02\D\chem\71.1\s052200.b\S0522DF1.D

Date : 22-MAY-2000 11:09

Client ID: DFTPP02

Instrument: 71.1

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

Operator: SAB: 2ul inj (100ul+1ul) int

Column phase:

Column diameter: 2.00

Data File: S0522DF1.D

Spectrum: Scan 696 (6.305 min) of S0522DF1.D (Averaged)

Location of Maximum: 198.00

Number of points: 63

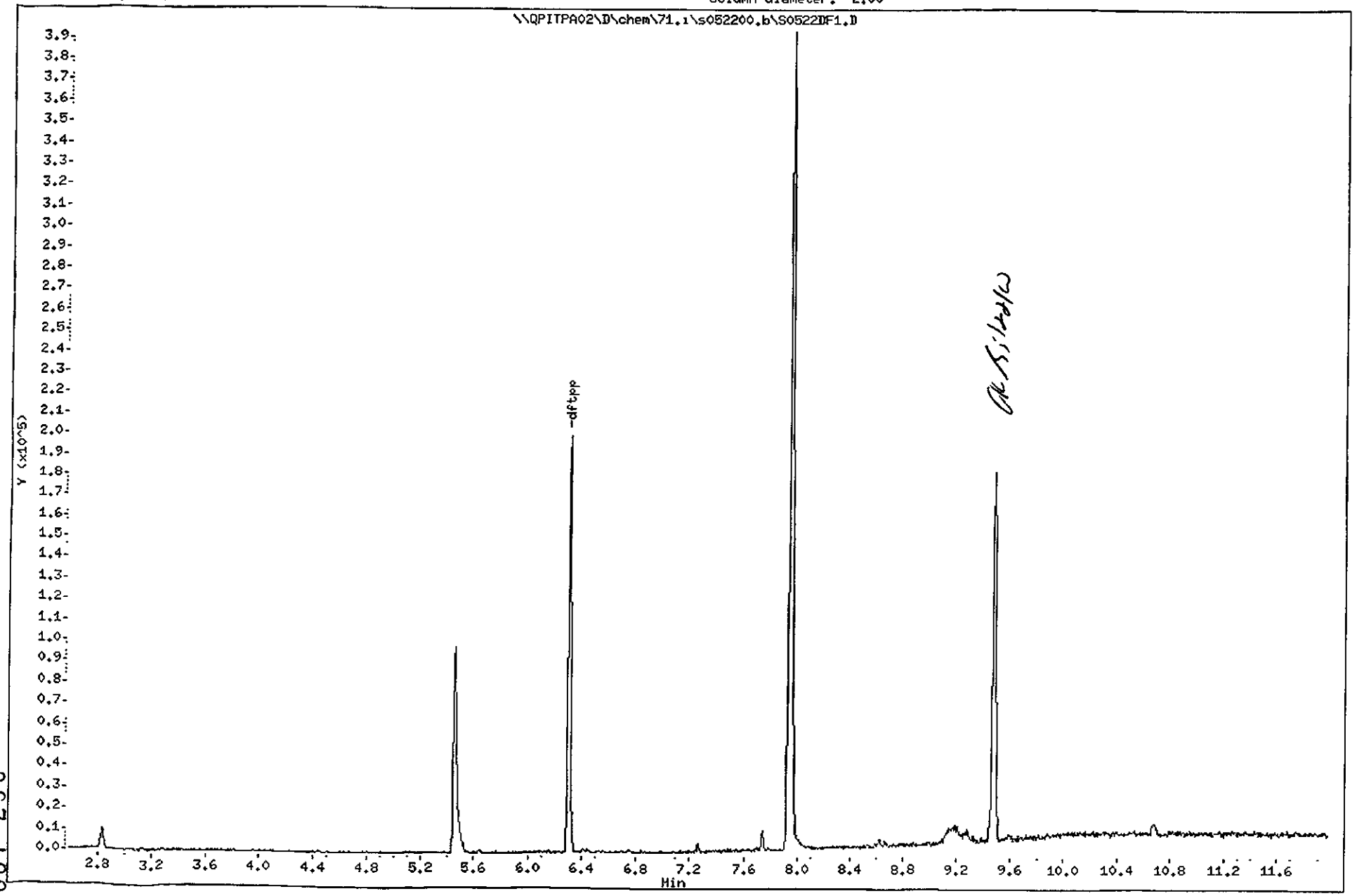
m/z	Y	m/z	Y	m/z	Y	m/z	Y
39.00	796	99.00	815	175.00	342	227.00	1125
50.00	2334	101.00	336	179.00	828	244.00	2523
51.00	8874	107.00	3152	189.00	433	255.00	12128
52.00	383	108.00	350	186.00	3092	256.00	1738
57.00	748	110.00	6265	187.00	791	258.00	689
69.00	9187	111.00	979	196.00	678	274.00	1035
74.00	1006	117.00	2406	198.00	24208	275.00	5590
75.00	1577	127.00	11585	199.00	1664	276.00	707
76.00	579	128.00	892	204.00	692	296.00	1680
77.00	11702	129.00	4287	205.00	1270	323.00	400
78.00	848	135.00	416	206.00	5515	365.00	868
79.00	735	141.00	545	207.00	1250	423.00	1223
80.00	584	148.00	455	217.00	1383	441.00	3324
81.00	917	156.00	377	221.00	1365	442.00	20538
93.00	1133	167.00	1146	224.00	2998	443.00	4047
98.00	845	168.00	676	225.00	739		

Data File: \\QPITPA02\D\chem\71.i\s052200.b\S0522DF1.D
Date : 22-MAY-2000 11:09
Client ID: DFTPP02
Sample Info: DFTPP050 (25ppb) 194-158-6

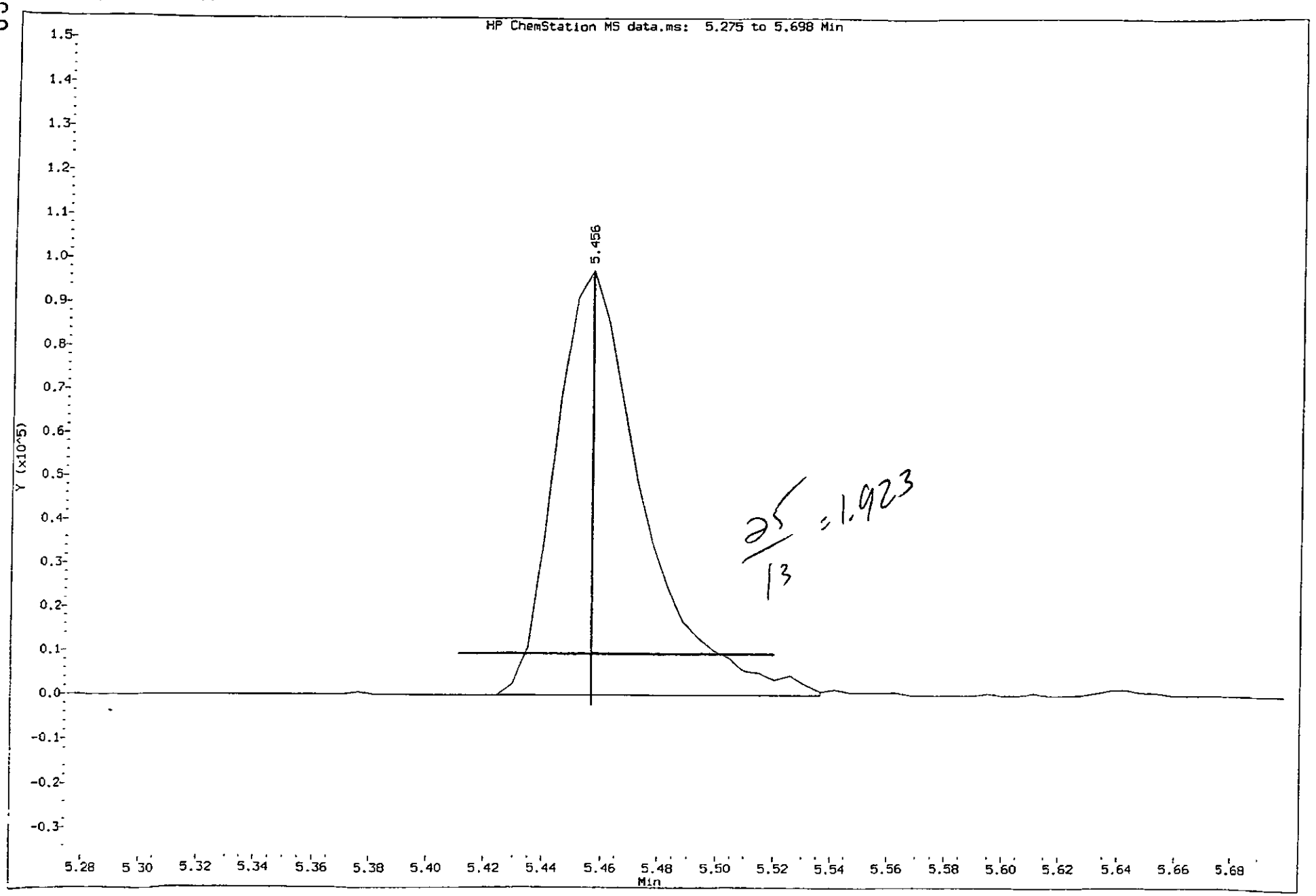
Instrument: 71.i

Operator: SAB: 2ul inj (100ul+1ul) int
Column diameter: 2.00

Column phase:

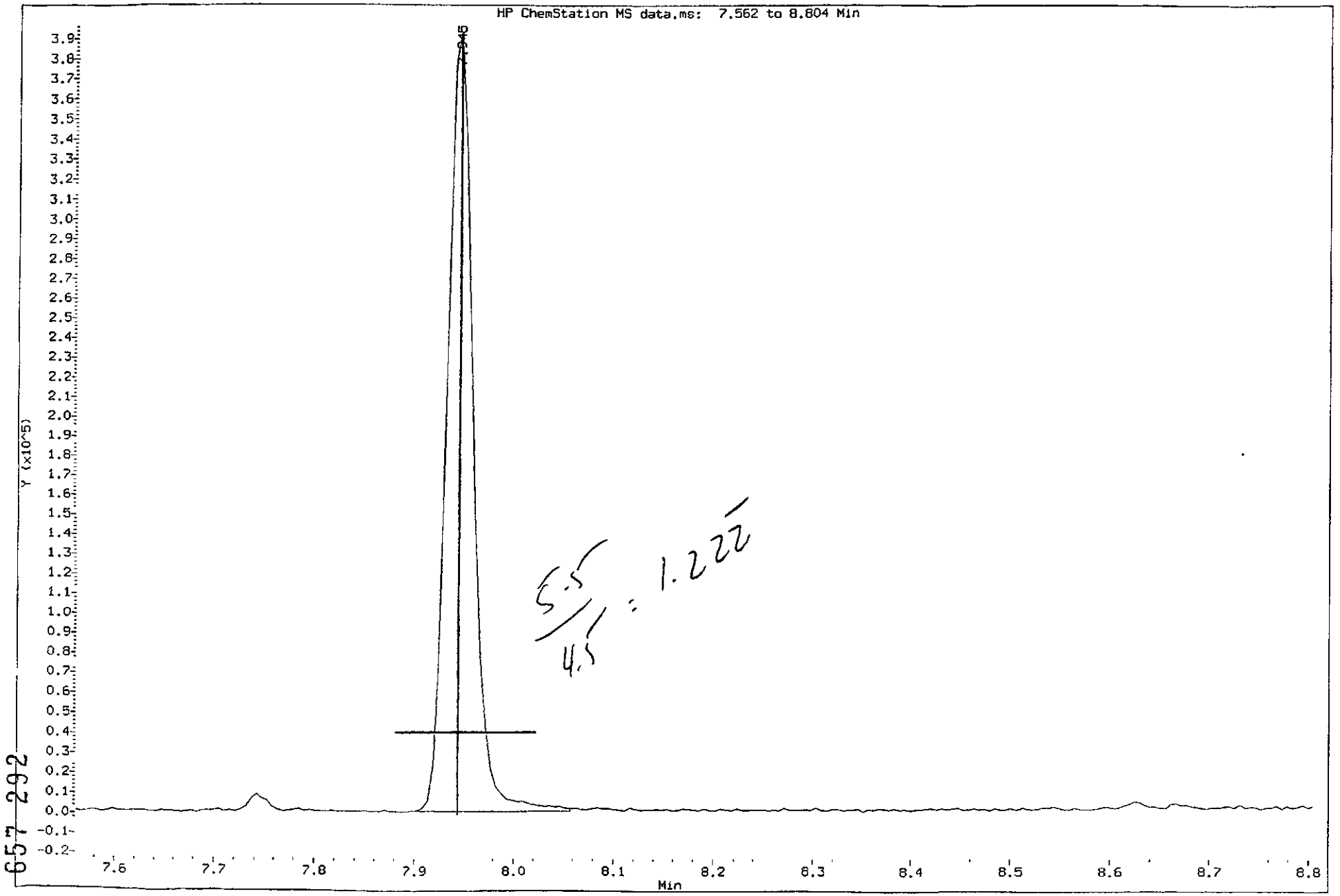


Data File: \\QPITPA02\D\chem\71.1\s052200.b\50522DFI.D
Injection Date: 22-MAY-2000 11:09
Instrument: 71.1
Client Sample ID: DFTPP02



$\frac{25}{13} = 1.923$

Data File: \\QPITPA02\D\chem\71.i\s052200.b\S0522DF1.D
Injection Date: 22-MAY-2000 11:09
Instrument: 71.i
Client Sample ID: DFTPP02



657 292

UXB INTERNATIONAL
METHOD BLANK COMPOUNDS

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

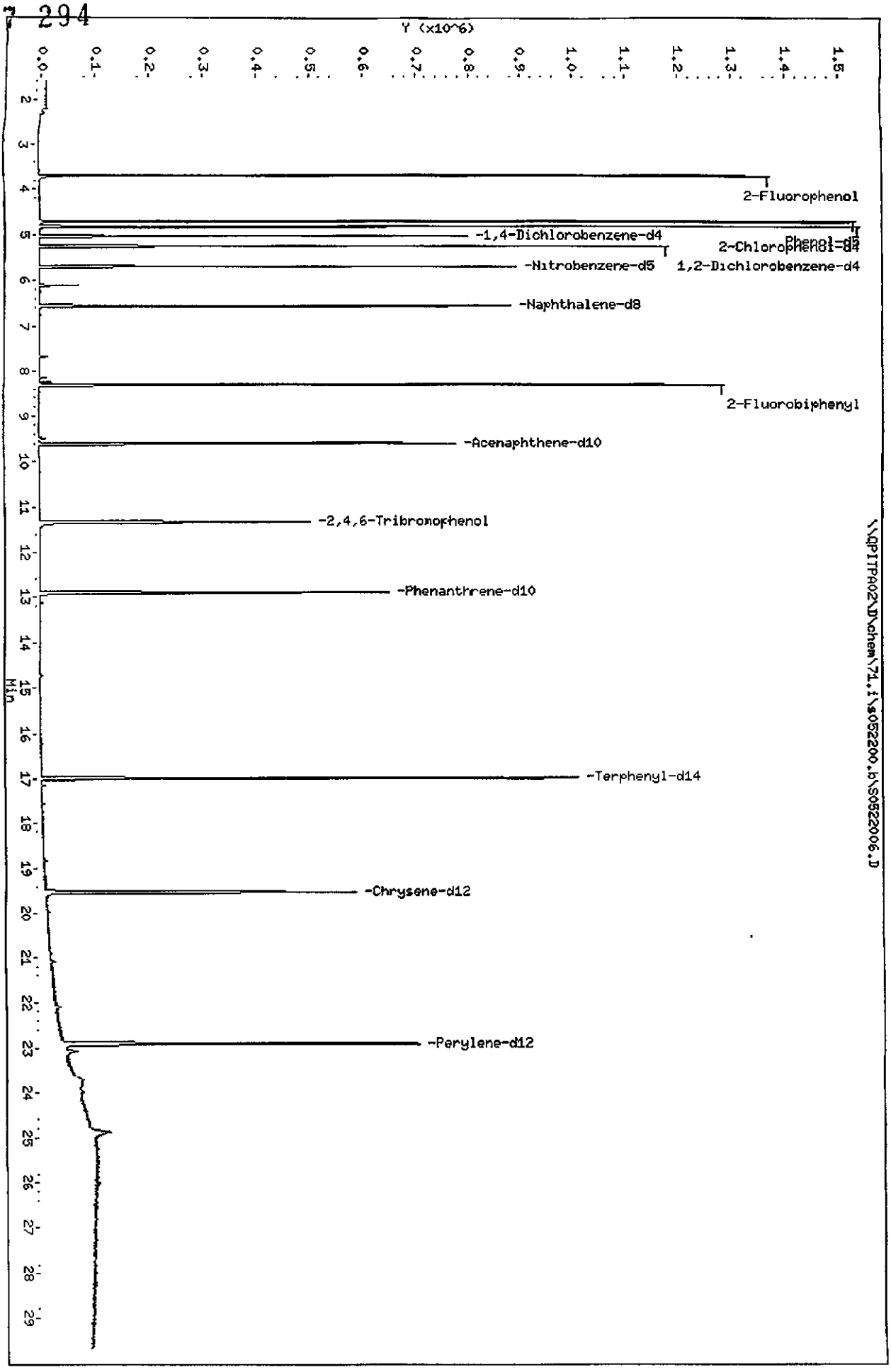
Matrix: (soil/water) SOLID Lab Sample ID:C0E190000 269
Method: SW846 8270C
Base/Neutrals and Acids (8270C)

Sample WT/Vol: 200 / mL Date Received: 05/13/00
Work Order: DDF2D101 Date Extracted:05/18/00
Dilution factor: 1 Date Analyzed: 05/22/00
Moisture %:NA

QC Batch: 0140269

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: \\QPITPA02\D\chem\71.i\s052200.b\S0522006.D
Date : 22-MAY-2000 12:05
Client ID: INTRA-LAB BLANK
Sample Info: c0e130194-sblk 5/18/00 8270tclp
Volume Injected (uL): 2.0
Column phase: Hp5-MS

Instrument: 71.i
Operator: SAB: 2ul inj (100ul+1ul) int
Column diameter: 0.25

Data File: \\QPITPA02\D\chem\71.i\s052200.b\S0522006.D
Report Date: 22-May-2000 12:45

STL Pittsburgh

Semivolatile REPORT SW-846 Method 8270

Data file : \\QPITPA02\D\chem\71.i\s052200.b\S0522006.D
Lab Smp Id: DDF2D101 Client Smp ID: INTRA-LAB BLANK
Inj Date : 22-MAY-2000 12:05
Operator : SAB: 2ul inj (100ul+1ul) int Inst ID: 71.i
Smp Info : c0e130194-sblk 5/18/00 8270tclp
Misc Info : ddf2d101,s052200.b,8270clp.m,1-tclp.sub
Comment :
Method : \\QPITPA02\D\chem\71.i\s052200.b\8270clp.m
Meth Date : 22-May-2000 12:37 bachas Quant Type: ISTD
Cal Date : 19-MAY-2000 15:44 Cal File: S0519CC6.D
Als bottle: 8 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 1-tclp.sub
Target Version: 4.03
Processing Host: PITPC050

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

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

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (mg/L)	
* 1	1,4-Dichlorobenzene-d4	152	5.030	5 029	(1.000)	161868	40.0000		(a)
* 2	Naphthalene-d8	136	6.569	6.562	(1 000)	630828	40.0000		(a)
* 3	Acenaphthene-d10	164	9.603	9.596	(1.000)	338411	40 0000		(a)
* 4	Phenanthrene-d10	188	12.904	12.898	(1 000)	564305	40 0000		(a)
* 5	Chrysene-d12	240	19 534	19.533	(1.000)	527745	40.0000		(a)
* 6	Perylene-d12	264	22 894	22.893	(1.000)	648566	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.						
59	Hexachlorobutadiene	224	Compound Not Detected.						

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (mg/L)
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	5 687	5.686	(0.866)	407907	63.9433	0.15986(a)
$ 173 2-Fluorobiphenyl	172	8.310	8.309	(0.865)	699615	68 1531	0.17038(a)
$ 174 Terphenyl-d14	244	16.975	16 969	(0 869)	796415	67.4836	0.16871(a)
$ 175 Phenol-d5	99	4.715	4.719	(0 937)	711350	98 5136	0 24628(a)
$ 176 2-Fluorophenol	112	3.705	3.709	(0.737)	513293	94 9950	0.23749(a)
$ 177 2,4,6-Tribromophenol	330	11.345	11.338	(0.879)	138807	99.0802	0.24770(a)
$ 178 2-Chlorophenol-d4	132	4 832	4 831	(0.961)	546795	108 089	0.27022(a)
$ 179 1,2-Dichlorobenzene-d4	152	5.244	5 237	(1 042)	239430	67.3668	0 16842(a)

QC Flag Legend

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

UXB INTERNATIONAL
CHECK SAMPLE COMPOUNDS

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

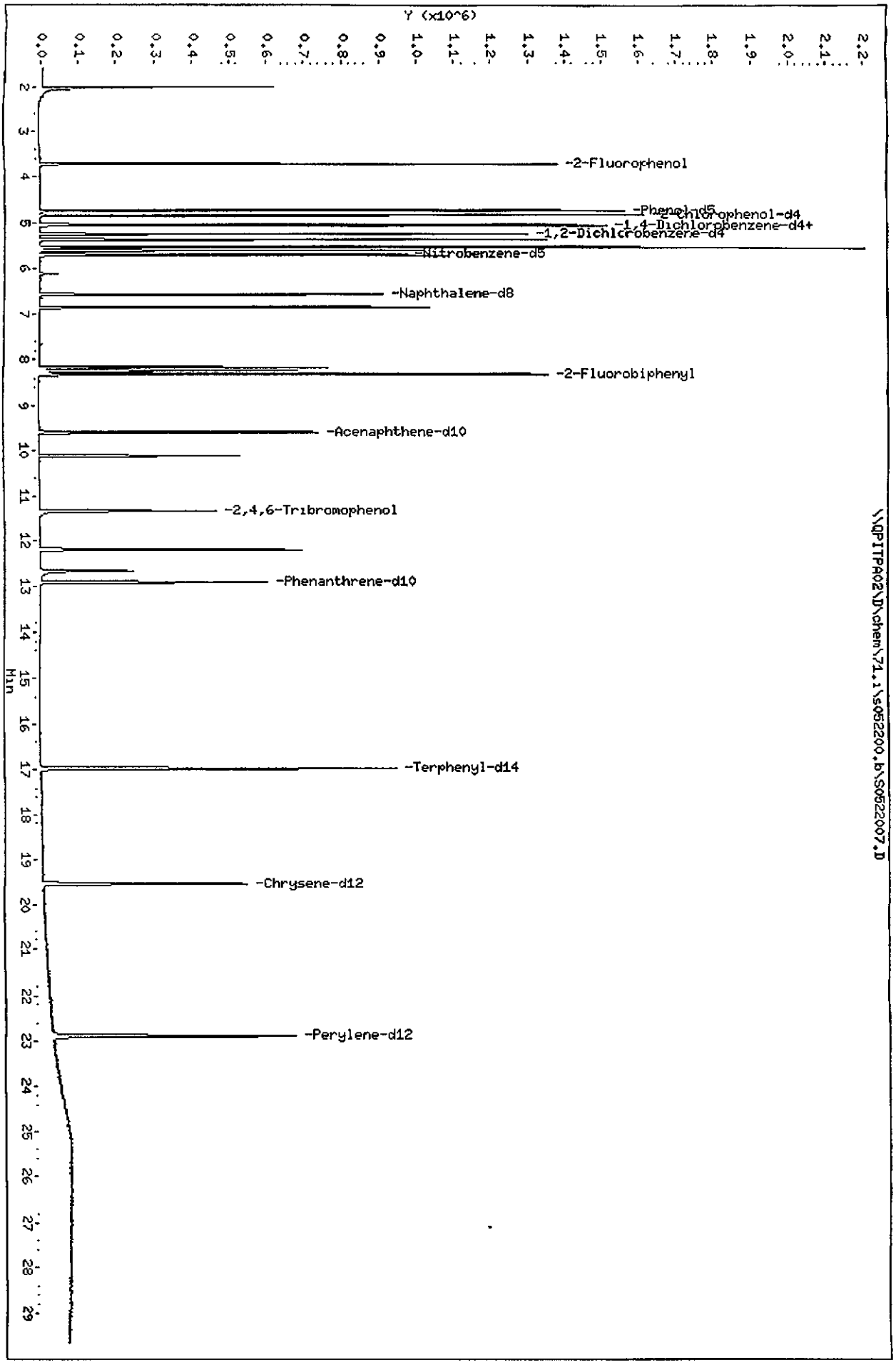
Matrix: (soil/water) SOLID Lab Sample ID:C0E190000 269
Method: SW846 8270C
Base/Neutrals and Acids (8270C)

Sample WT/Vol: 200 / mL Date Received: 05/13/00
Work Order: DDF2D102 Date Extracted:05/18/00
Dilution factor: 1 Date Analyzed: 05/22/00
Moisture %:NA

QC Batch: 0140269

Client Sample Id: CHECK SAMPLE

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) mg/L	Q
106-46-7	1,4-Dichlorobenzene	0.173	
121-14-2	2,4-Dinitrotoluene	0.136	
118-74-1	Hexachlorobenzene	0.191	
87-68-3	Hexachlorobutadiene	0.179	
67-72-1	Hexachloroethane	0.170	
98-95-3	Nitrobenzene	0.168	
87-86-5	Pentachlorophenol	0.162	
110-86-1	Pyridine	0.272	
95-95-4	2,4,5-Trichlorophenol	0.171	
88-06-2	2,4,6-Trichlorophenol	0.173	
1319-77-3	Cresols (total)	0.489	



Data File: \\QPITPA02\D\chem\71.i\s052200.b\S0522007.D
Date : 22-MAY-2000 12:41
Client ID: INTRA-LAB CHECK
Sample Info: c0e130194-ics 5/18/00 8270tclp
Volume Injected (uL): 2.0
Column phase: Hp5-MS

Instrument: 71.i
Operator: SAB: 2ul inj (100ul+1ul) int
Column diameter: 0.25

STL Pittsburgh

Semivolatile REPORT SW-846 Method 8270

Data file : \\QPITPA02\D\chem\71.i\s052200.b\S0522007.D
Lab Smp Id: DDF2D102 Client Smp ID: INTRA-LAB CHECK
Inj Date : 22-MAY-2000 12:41
Operator : 045183 Inst ID: 71.i
Smp Info : c0e130194-lcs 5/18/00 8270tclp
Misc Info : ddf2d102,s052200.b,8270clp.m,1-tclp.sub
Comment :
Method : \\QPITPA02\D\chem\71.i\s052200.b\8270clp.m
Meth Date : 22-May-2000 12:37 bachas Quant Type: ISTD
Cal Date : 19-MAY-2000 15:44 Cal File: S0519CC6.D
Als bottle: 9 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 1-tclp.sub
Target Version: 4.03
Processing Host: PITPC050

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

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

5/18/W

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (mg/L)	
*	1 1,4-Dichlorobenzene-d4	152	5.035	5 029	(1 000)	161298	40 0000		(a)
*	2 Naphthalene-d8	136	6.563	6.562	(1 000)	635000	40.0000		(a)
*	3 Acenaphthene-d10	164	9.597	9 596	(1 000)	326610	40.0000		(a)
*	4 Phenanthrene-d10	188	12.899	12 898	(1.000)	529319	40.0000		(a)
*	5 Chrysene-d12	240	19 523	19.533	(1 000)	491727	40 0000		(a)
*	6 Perylene-d12	264	22 888	22 893	(1 000)	616566	40.0000		(a)
	10 Pyridine	79	2.011	2.000	(0.399)	405446	108 788	0 27197	(aM)
	28 1,4-Dichlorobenzene	146	5.051	5 050	(1.003)	437236	69 3127	0 17328	(a)
M	34 Cresols, total	100				1101657	195.409	0 48852	(a)
	31 2-Methylphenol	108	5 366	5 365	(1 066)	368204	67.2332	0 16808	(a)
	35 4-Methylphenol	108	5.532	5.526	(1.099)	733453	128 176	0 32044	(a)
	38 Hexachloroethane	117	5.601	5.601	(1.112)	167245	68.1931	0 17048	(a)
	39 Nitrobenzene	77	5 713	5.707	(0.871)	465607	67.1198	0.16780	(a)
	59 Hexachlorobutadiene	225	6.851	6.845	(1.044)	168139	71.6908	0 17923	(a)

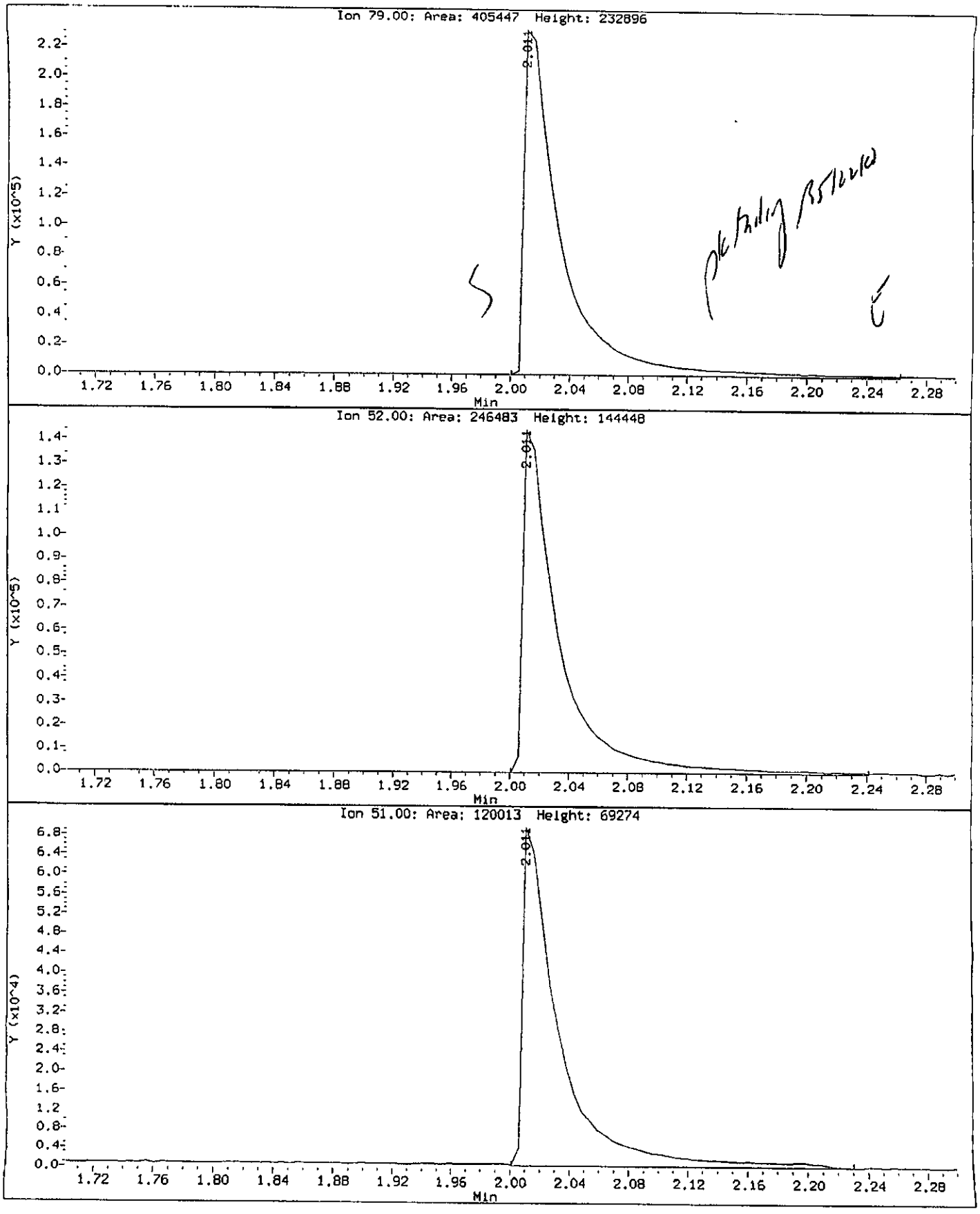
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (mg/L)
69 2,4,6-Trichlorophenol	196	8.171	8 170	(0 851)	184505	69.3385	0.17335(a)
70 2,4,5-Trichlorophenol	196	8 235	8 239	(0.858)	194645	68.5781	0.17144(a)
91 2,4-Dinitrotoluene	165	10 115	10 115	(1.054)	181220	54.4380	0 13609(a)
113 Hexachlorobenzene	284	12.199	12 193	(0 946)	192275	76 5677	0 19142(a)
117 Pentachlorophenol	266	12.642	12 647	(0.980)	94061	64 9729	0.16243(aM)
$ 172 Nitrobenzene-d5	82	5.692	5.686	(0.867)	418081	65 1074	0 16277(a)
$ 173 2-Fluorobiphenyl	172	8 310	8 309	(0.866)	715260	72.1947	0.18049(a)
$ 174 Terphenyl-d14	244	16 969	16 969	(0 869)	763089	69.3960	0.17349(a)
$ 175 Phenol-d5	99	4 720	4 719	(0.937)	682355	94.8326	0 23708(a)
$ 176 2-Fluorophenol	112	3.710	3 709	(0.737)	492894	91.5425	0.22886(a)
$ 177 2,4,6-Tribromophenol	330	11.339	11.338	(0.879)	131989	100.441	0 25110(a)
$ 178 2-Chlorophenol-d4	132	4 832	4.831	(0.960)	531455	105.429	0 26357(a)
$ 179 1,2-Dichlorobenzene-d4	152	5 243	5 237	(1 041)	246938	69.7250	0 17431(a)

QC Flag Legend

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

Data File: \\QPITPA02\D\chem\71.i\s052200.b\S0522007.D
Injection Date: 22-MAY-2000 12:41
Instrument: 71.i
Client Sample ID: INTRA-LAB CHECK

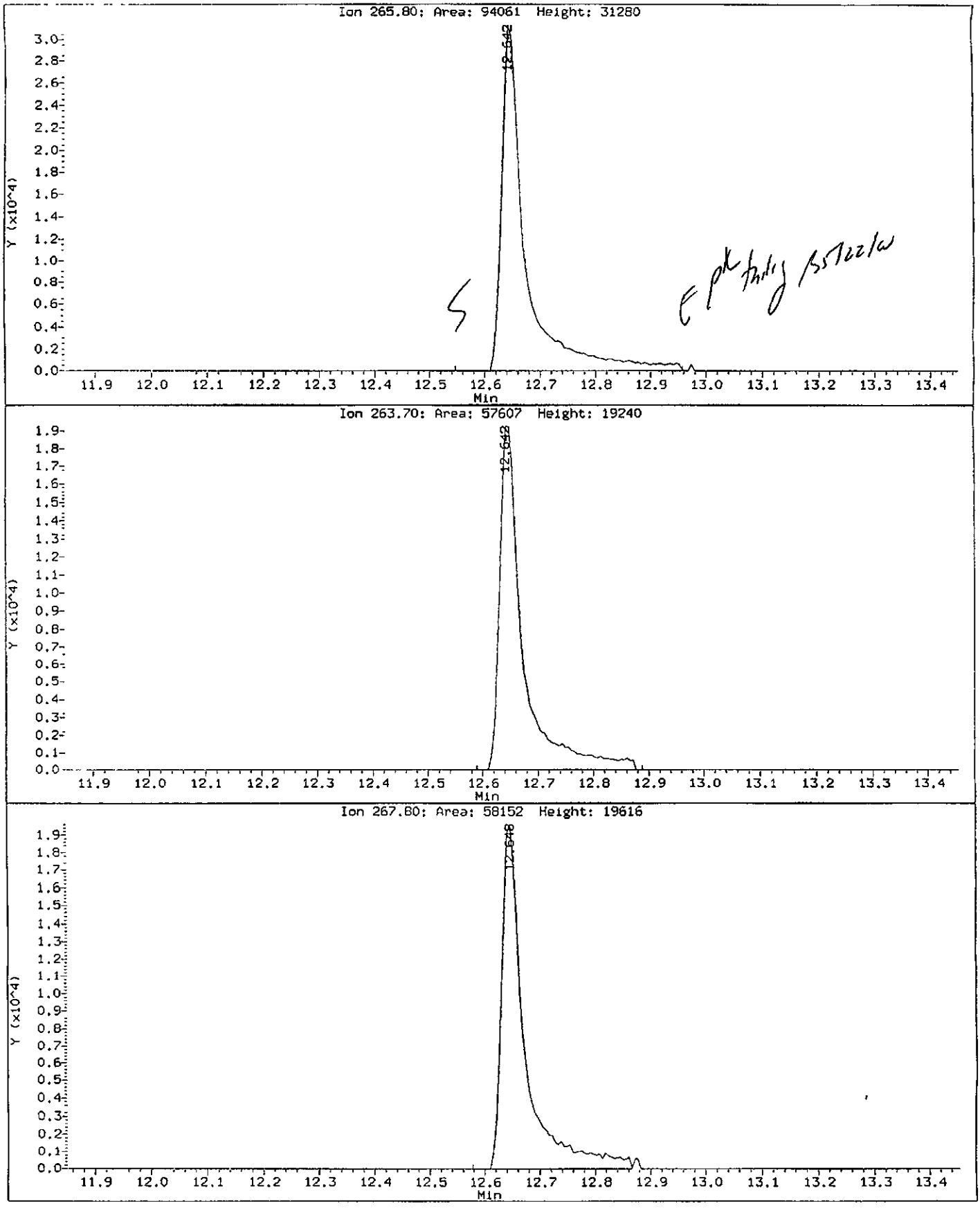
Compound: Pyridine
CAS Number: 110-86-1



657 302

Data File: \\QPITPA02\D\chem\71.i\s052200.b\S0522007.D
Injection Date: 22-MAY-2000 12:41
Instrument: 71.i
Client Sample ID: INTRA-LAB CHECK

Compound: Pentachlorophenol
CAS Number: 87-86-5



UXB INTERNATIONAL
MATRIX SPIKE COMPOUNDS

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

Matrix: (soil/water) SOLID
Method: SW846 8270C
Base/Neutrals and Acids (8270C)

Lab Sample ID: C0E130194 001

Sample WT/Vol: 200 / mL
Work Order: DD6A411G
Dilution factor: 1
Moisture %: 10

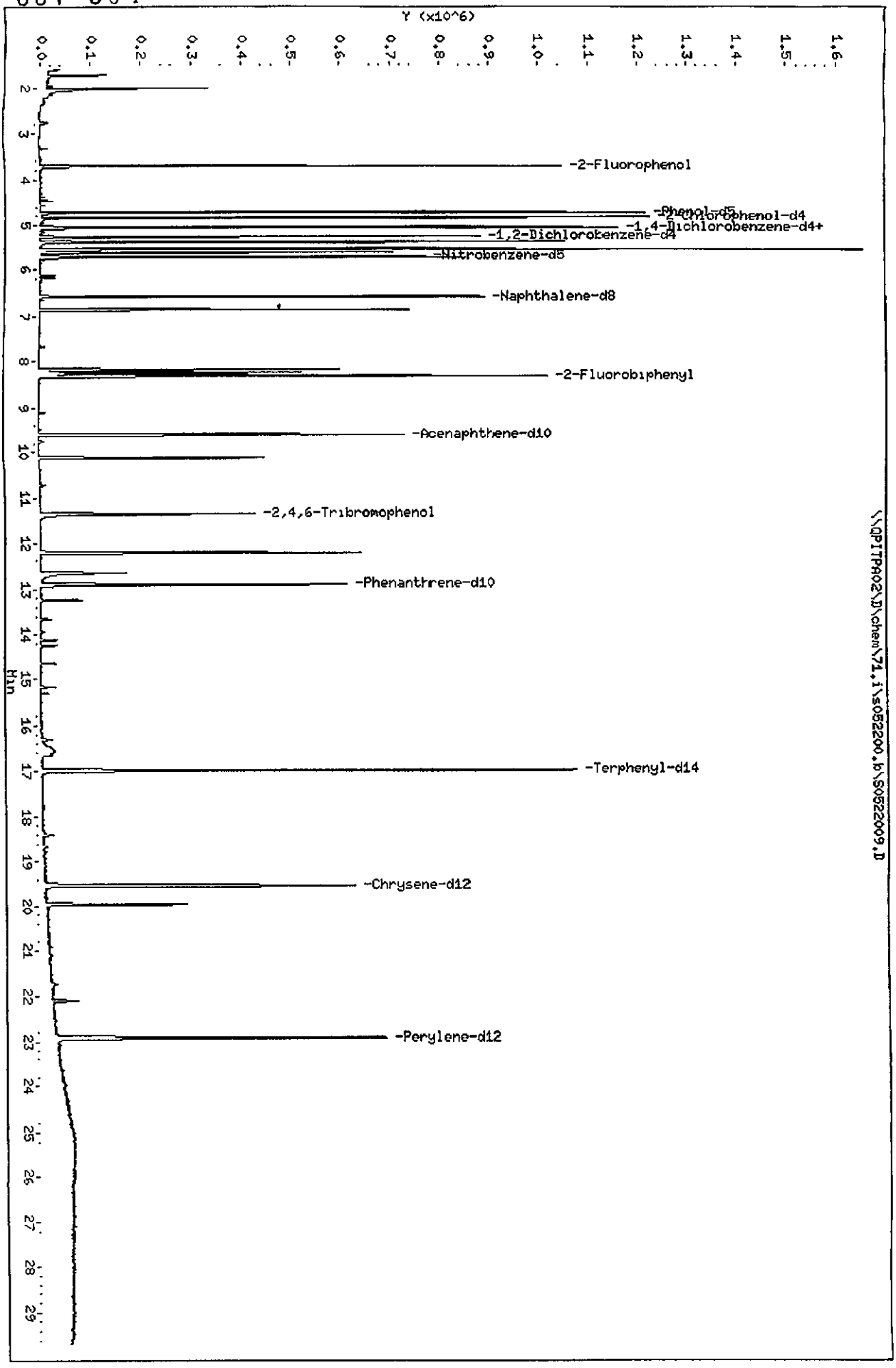
Date Received: 05/13/00
Date Extracted: 05/18/00
Date Analyzed: 05/22/00

QC Batch: 0140269

Client Sample Id: DF/S1/0133/SDC/001 A

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) mg/L	Q
106-46-7	1,4-Dichlorobenzene	0.127	
121-14-2	2,4-Dinitrotoluene	0.118	
118-74-1	Hexachlorobenzene	0.174	
87-68-3	Hexachlorobutadiene	0.130	
67-72-1	Hexachloroethane	0.118	
98-95-3	Nitrobenzene	0.131	
87-86-5	Pentachlorophenol	0.138	
110-86-1	Pyridine	0.157	
95-95-4	2,4,5-Trichlorophenol	0.142	
88-06-2	2,4,6-Trichlorophenol	0.140	
1319-77-3	Cresols (total)	0.375	

FORM I



Data File: \\QPITPA02\D\chem\71.i\s052200.b\S0522009.D
Date : 22-MAY-2000 13:53
Client ID: DF/SL/0133/SDC/001
Sample Info: c0e130194-001ms 5/18/00 8270tclp
Volume Injected (uL): 2.0
Column phase: Hp5-MS

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

STL Pittsburgh

Semivolatile REPORT SW-846 Method 8270

Data file : \\QPITPA02\D\chem\71.i\s052200.b\S0522009.D
Lab Smp Id: DD6A411G Client Smp ID: DF/S1/0133/SDC/001
Inj Date : 22-MAY-2000 13:53
Operator : 045183 Inst ID: 71.i
Smp Info : c0e130194-001ms 5/18/00 8270tclp
Misc Info : dd6a411g,s052200.b,8270clp.m,1-tclp.sub
Comment :
Method : \\QPITPA02\D\chem\71.i\s052200.b\8270clp.m
Meth Date : 22-May-2000 12:37 bachas Quant Type: ISTD
Cal Date : 19-MAY-2000 15:44 Cal File: S0519CC6.D
Als bottle: 11 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 1-tclp.sub
Target Version: 4.03
Processing Host: PITPC050

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

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

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (mg/L)	
* 1	1,4-Dichlorobenzene-d4	152	5 034	5.029	(1.000)	165477	40.0000		(a)
* 2	Naphthalene-d8	136	6 572	6.562	(1.000)	633807	40.0000		(a)
* 3	Acenaphthene-d10	164	9 601	9.596	(1.000)	317069	40.0000		(a)
* 4	Phenanthrene-d10	188	12.902	12 898	(1 000)	528651	40 0000		(a)
* 5	Chrysene-d12	240	19 532	19 533	(1 000)	549885	40 0000		(a)
* 6	Perylene-d12	264	22 898	22.893	(1.000)	656369	40 0000		(a)
10	Pyridine	79	2.015	2 000	(0 400)	240197	62 8217	0 15705	(aM)
28	1,4-Dichlorobenzene	146	5.055	5.050	(1 004)	329410	50.9008	0.12725	(a)
M 34	Cresols, total	100				868515	150.162	0 37540	(a)
31	2-Methylphenol	108	5.365	5 365	(1.066)	289982	51.6128	0.12903	(a)
35	4-Methylphenol	108	5.536	5.526	(1 100)	578533	98 5493	0.24637	(a)
38	Hexachloroethane	117	5 605	5.601	(1.114)	119108	47.3391	0.11835	(a)
39	Nitrobenzene	77	5.712	5 707	(0 869)	362252	52.3189	0.13080	(a)
59	Hexachlorobutadiene	225	6 855	6.845	(1.043)	121827	52.0422	0 13010	(a)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (mg/L)
69 2,4,6-Trichlorophenol	196	8 175	8 170	(0.851)	145057	56.1540	0.14038(a)
70 2,4,5-Trichlorophenol	196	8.239	8 239	(0.858)	156600	56 8342	0 14208(a)
91 2,4-Dinitrotoluene	165	10 125	10 115	(1 055)	152278	47.1204	0 11780(a)
113 Hexachlorobenzene	284	12 203	12.193	(0.946)	174333	69.5105	0.17378(a)
117 Pentachlorophenol	266	12.657	12 647	(0.981)	79905	55 2649	0.13816(aM)
$ 172 Nitrobenzene-d5	82	5 696	5 686	(0.867)	332132	51.8200	0.12955(a)
$ 173 2-Fluorobiphenyl	172	8 314	8.309	(0.866)	544048	56.5659	0.14141(a)
$ 174 Terphenyl-d14	244	16 979	16 969	(0 869)	871902	70 9053	0.17726(a)
$ 175 Phenol-d5	99	4 718	4 719	(0 937)	540144	73 1725	0.18293(a)
$ 176 2-Fluorophenol	112	3.709	3 709	(0.737)	380537	68 8902	0.17222(a)
$ 177 2,4,6-Tribromophenol	330	11.348	11 338	(0.880)	118400	90 2135	0.22553(a)
$ 178 2-Chlorophenol-d4	132	4.836	4 831	(0 961)	433921	83 9063	0.20976(a)
$ 179 1,2-Dichlorobenzene-d4	152	5.247	5.237	(1 042)	176201	48.4954	0.12124(a)

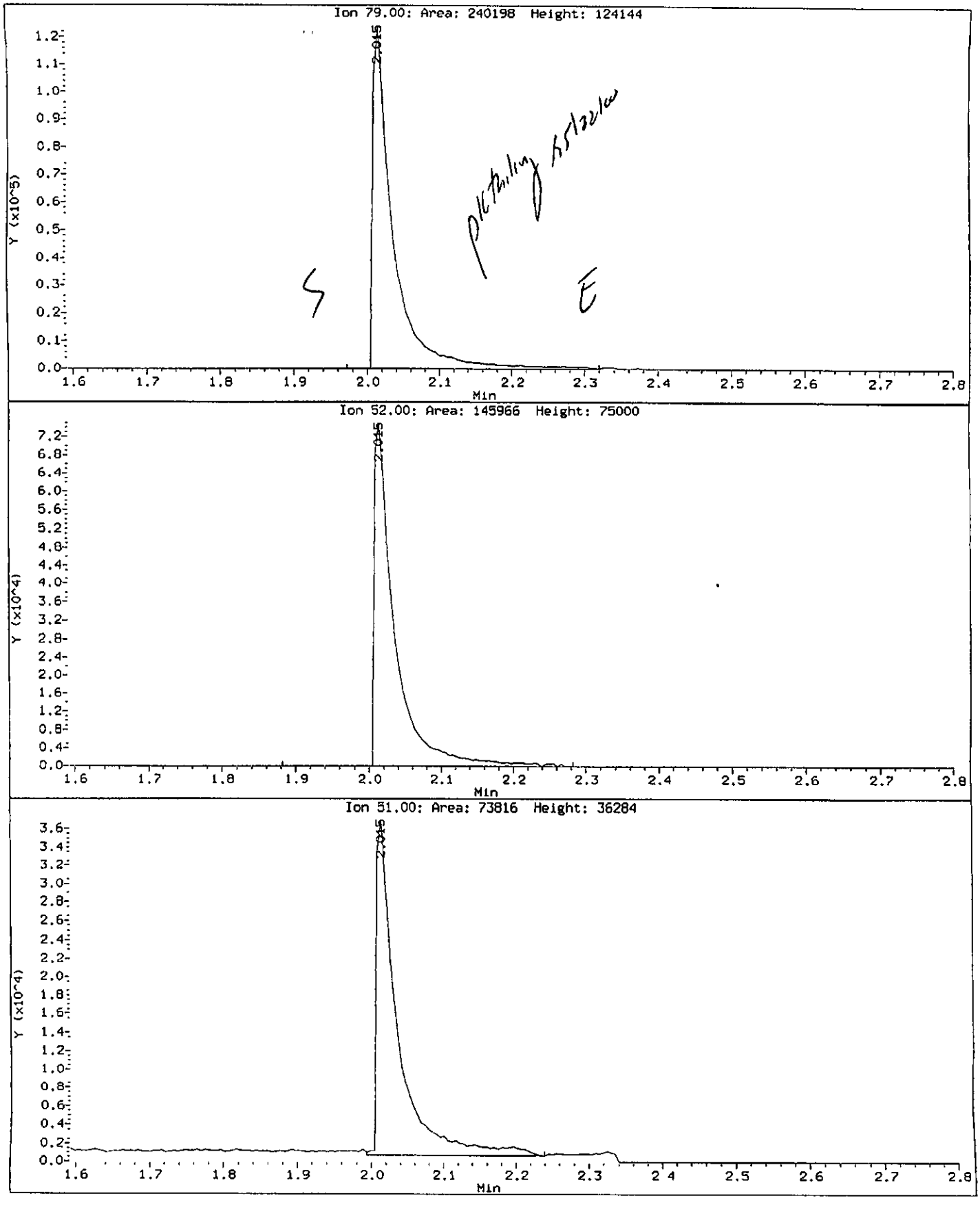
QC Flag Legend

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

Data File: \\DPITPA02\D\chem\71.i\s052200.b\S0522009.D
Injection Date: 22-MAY-2000 13:53
Instrument: 71.i
Client Sample ID: DF/S1/0133/SDC/001

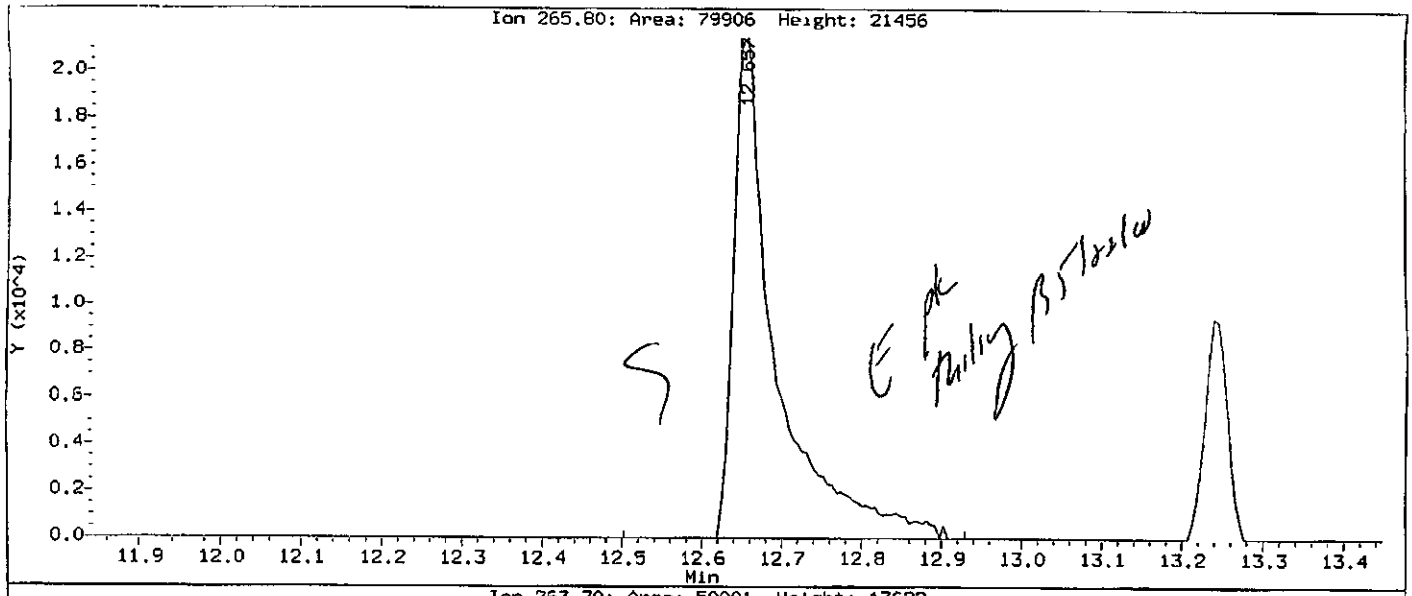
657 307

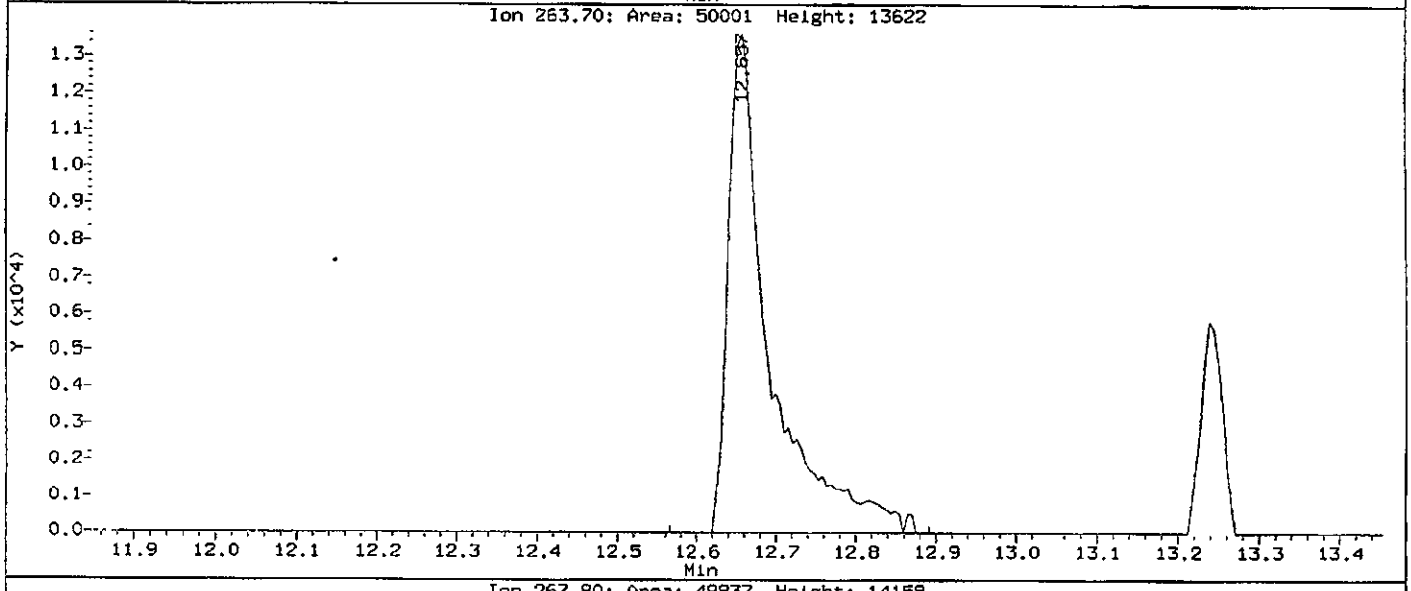
Compound: Pyridine
CAS Number: 110-86-1

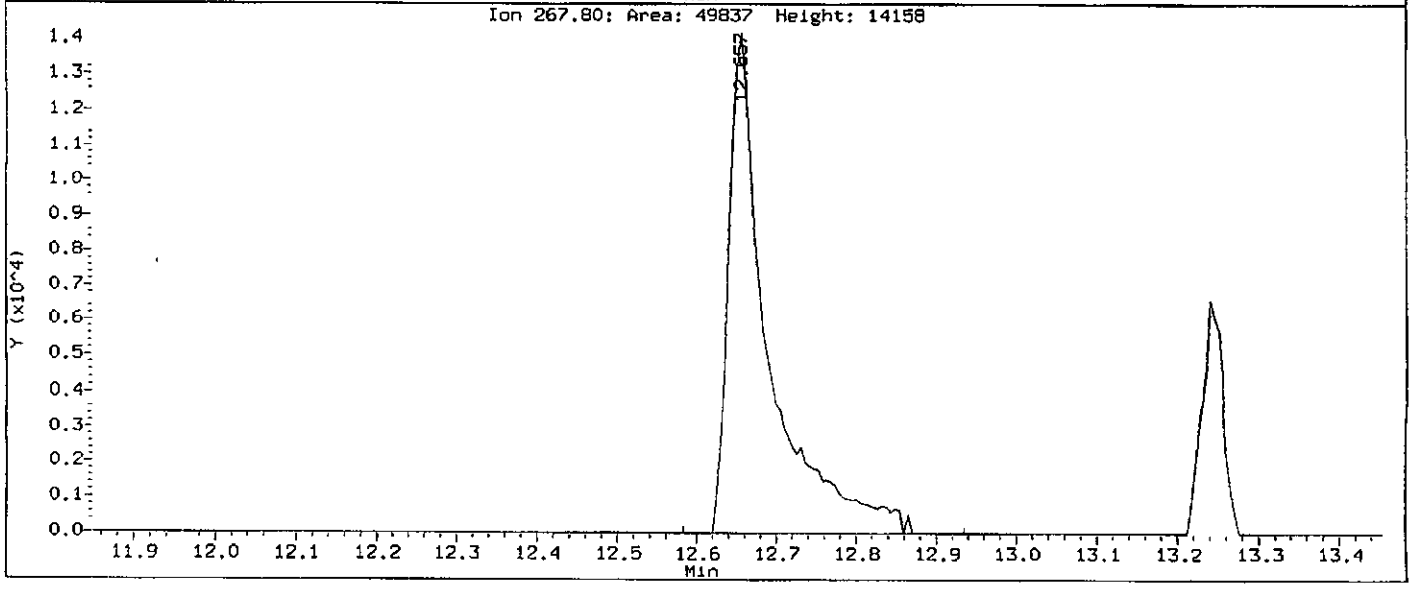


Data File: \\QPITPA02\D\chem\71.i\s052200.b\S0522009.D
Injection Date: 22-MAY-2000 13:53
Instrument: 71.i
Client Sample ID: DF/S1/0133/SDC/001

Compound: Pentachlorophenol
CAS Number: 87-86-5







UXB INTERNATIONAL
MATRIX SPIKE DUPLICATE COMPOUNDS

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

Matrix: (soil/water) SOLID
Method: SW846 8270C
Base/Neutrals and Acids (8270C)

Lab Sample ID: C0E130194 001

Sample WT/Vol: 200 / mL
Work Order: DD6A411H
Dilution factor: 1
Moisture %: 10

Date Received: 05/13/00
Date Extracted: 05/18/00
Date Analyzed: 05/22/00

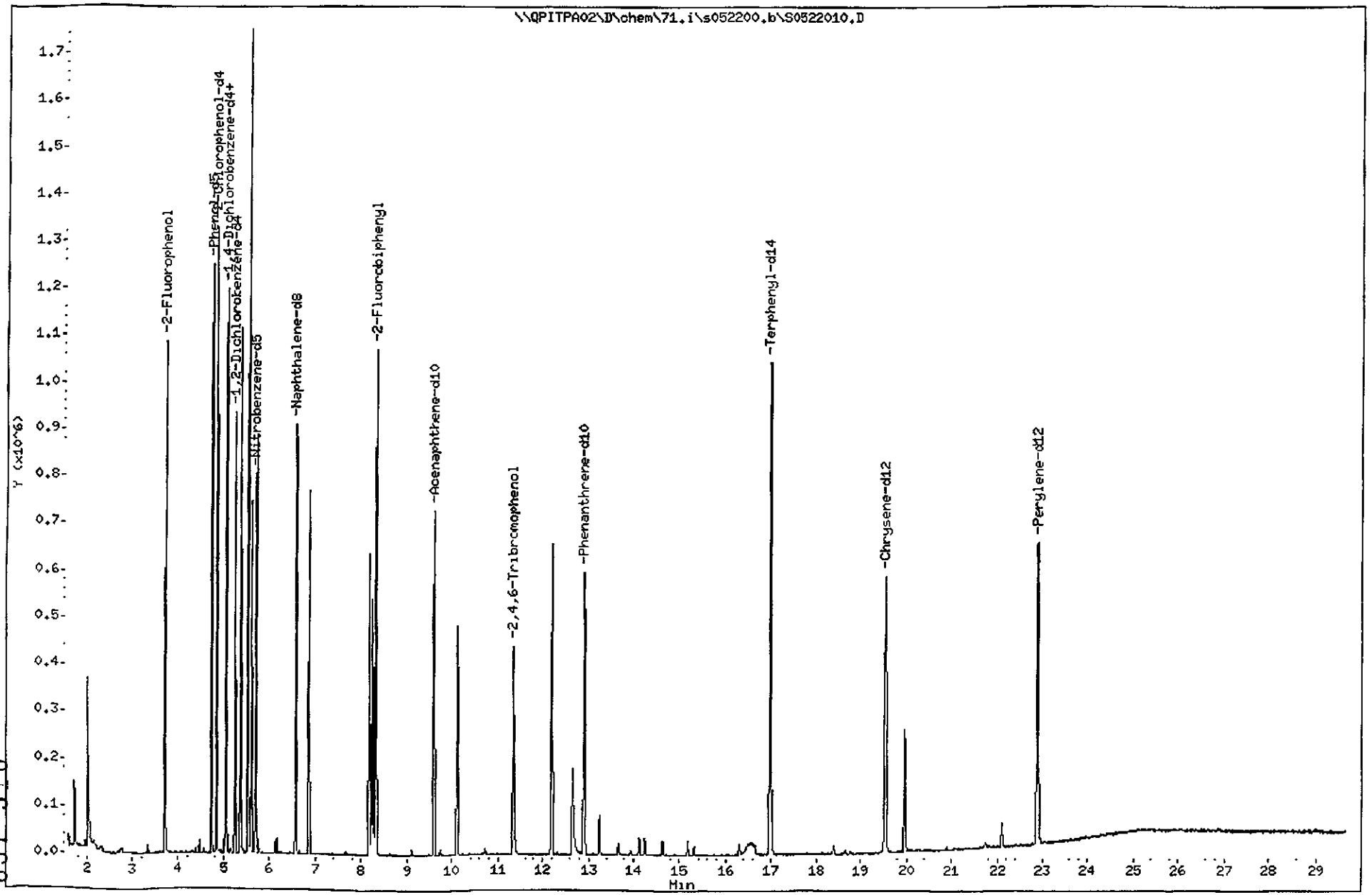
QC Batch: 0140269

Client Sample Id: DF/S1/0133/SDC/001 A

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) mg/L	Q
106-46-7	1,4-Dichlorobenzene	0.131	
121-14-2	2,4-Dinitrotoluene	0.120	
118-74-1	Hexachlorobenzene	0.181	
87-68-3	Hexachlorobutadiene	0.135	
67-72-1	Hexachloroethane	0.122	
98-95-3	Nitrobenzene	0.136	
87-86-5	Pentachlorophenol	0.143	
110-86-1	Pyridine	0.164	
95-95-4	2,4,5-Trichlorophenol	0.146	
88-06-2	2,4,6-Trichlorophenol	0.143	
1319-77-3	Cresols (total)	0.391	

Data File: \\QPITPA02\D\chem\71.i\s052200.b\S0522010.D
Date : 22-MAY-2000 14:29
Client ID: DF/S1/0133/SDC/001
Sample Info: c0e130194-001msd 5/18/00 8270tclp
Volume Injected (uL): 2.0
Column phase: Hp5-MS

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



652 310

Data File: \\QPITPA02\D\chem\71.i\s052200.b\S0522010.D
Report Date: 22-May-2000 15:14

STL Pittsburgh

Semivolatile REPORT SW-846 Method 8270

Data file : \\QPITPA02\D\chem\71.i\s052200.b\S0522010.D
Lab Smp Id: DD6A411H Client Smp ID: DF/S1/0133/SDC/001
Inj Date : 22-MAY-2000 14:29
Operator : 045183 Inst ID: 71.i
Smp Info : c0e130194-001msd 5/18/00 8270tclp
Misc Info : dd6a411h,s052200.b,8270clp.m,1-tclp.sub
Comment :
Method : \\QPITPA02\D\chem\71.i\s052200.b\8270clp.m
Meth Date : 22-May-2000 12:37 bachas Quant Type: ISTD
Cal Date : 19-MAY-2000 15:44 Cal File: S0519CC6.D
Als bottle: 12 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 1-tclp.sub
Target Version: 4.03
Processing Host: PITPC050

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

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

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (mg/L)	
*	1 1,4-Dichlorobenzene-d4	152	5.035	5 029	(1 000)	165720	40.0000		(a)
*	2 Naphthalene-d8	136	6.568	6 562	(1 000)	635621	40.0000		(a)
*	3 Acenaphthene-d10	164	9.602	9 596	(1 000)	322693	40 0000		(a)
*	4 Phenanthrene-d10	188	12.904	12 898	(1 000)	522771	40.0000		(a)
*	5 Chrysene-d12	240	19 533	19 533	(1 000)	519636	40 0000		(a)
*	6 Perylene-d12	264	22 899	22.893	(1 000)	634789	40.0000		(a)
	10 Pyridine	79	2 016	2.000	(0.400)	251726	65.7404	0.16435	(aM)
	28 1,4-Dichlorobenzene	146	5.056	5.050	(1 004)	340560	52.5466	0 13137	(a)
M	34 Cresols, total	100				907164	156.588	0.39147	(a)
	31 2-Methylphenol	108	5.366	5.365	(1.066)	299454	53.2206	0.13305	(a)
	35 4-Methylphenol	108	5 531	5.526	(1.099)	607710	103.368	0.25842	(a)
	38 Hexachloroethane	117	5.606	5.601	(1.114)	123443	48 9901	0.12248	(a)
	39 Nitrobenzene	77	5.713	5 707	(0 870)	377412	54 3528	0.13588	(a)
	59 Hexachlorobutadiene	225	6 856	6.845	(1 044)	126637	53.9425	0 13486	(a)

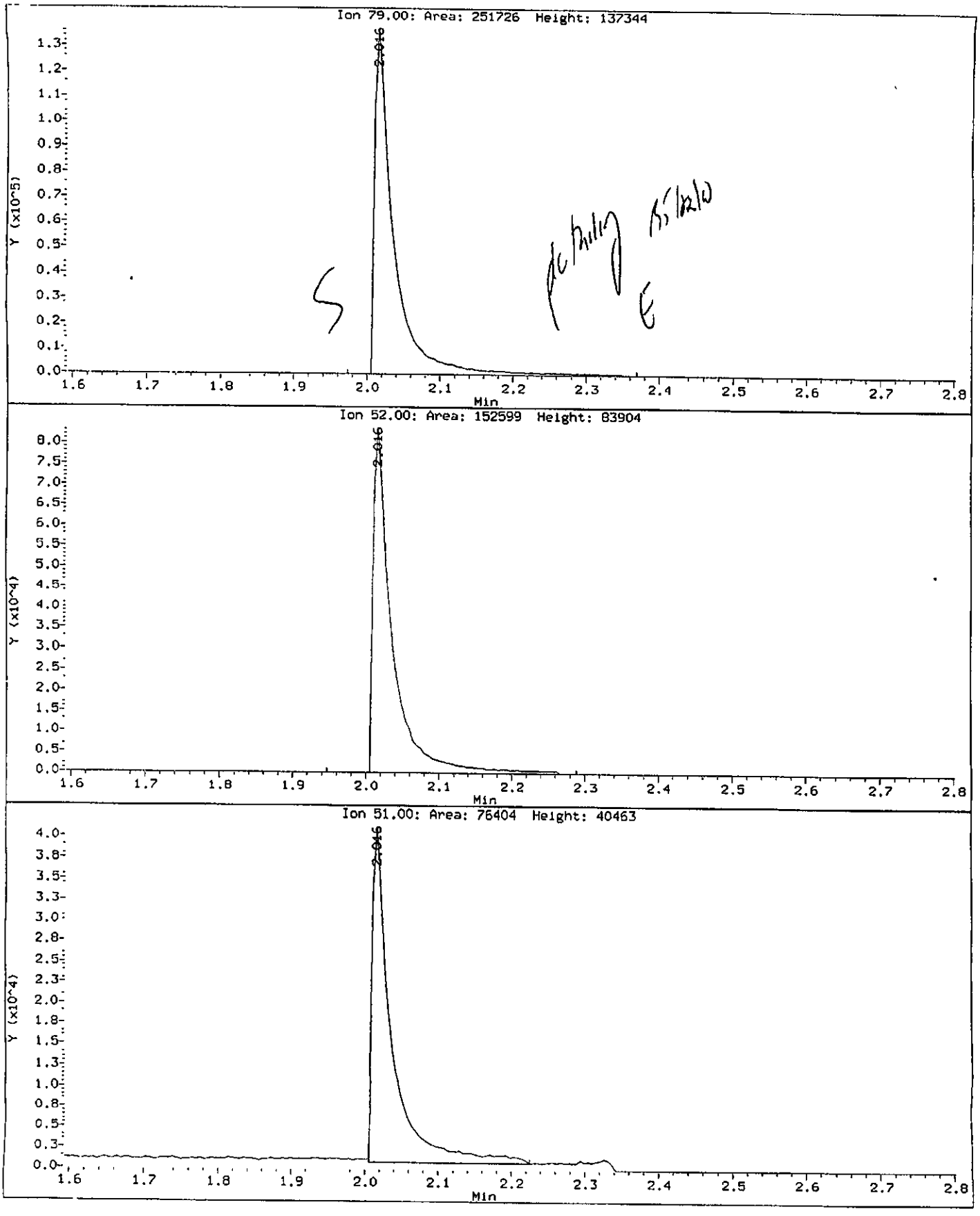
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (mg/L)
69 2,4,6-Trichlorophenol	196	8.176	8 170	(0 851)	150179	57 1236	0.14281(a)
70 2,4,5-Trichlorophenol	196	8.240	8 239	(0.858)	163265	58 2204	0 14555(a)
91 2,4-Dinitrotoluene	165	10.120	10.115	(1.054)	157233	47 8057	0 11951(a)
113 Hexachlorobenzene	284	12.204	12.193	(0 946)	179626	72.4266	0.18107(a)
117 Pentachlorophenol	266	12 652	12.647	(0 981)	81897	57 2795	0.14320(aM)
$ 172 Nitrobenzene-d5	82	5.692	5 686	(0 867)	348101	54 1565	0.13539(a)
$ 173 2-Fluorobiphenyl	172	8.315	8.309	(0.866)	565813	57 8035	0.14451(a)
$ 174 Terphenyl-d14	244	16.980	16 969	(0.869)	851843	73 3066	0.18327(a)
$ 175 Phenol-d5	99	4.719	4.719	(0.937)	562512	76.0909	0.19023(a)
$ 176 2-Fluorophenol	112	3 710	3 709	(0.737)	393249	71 0872	0.17772(a)
$ 177 2,4,6-Tribromophenol	330	11 344	11 338	(0 879)	122166	94.1300	0.23532(a)
$ 178 2-Chlorophenol-d4	132	4.832	4 831	(0 960)	449750	86 8396	0.21710(a)
$ 179 1,2-Dichlorobenzene-d4	152	5.243	5.237	(1.041)	182631	50 1914	0.12548(a)

QC Flag Legend

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

Data File: \\QPITPA02\D\chem\71.1\s052200.b\S0522010.D
Injection Date: 22-MAY-2000 14:29
Instrument: 71.1
Client Sample ID: DF/S1/0133/SDC/001

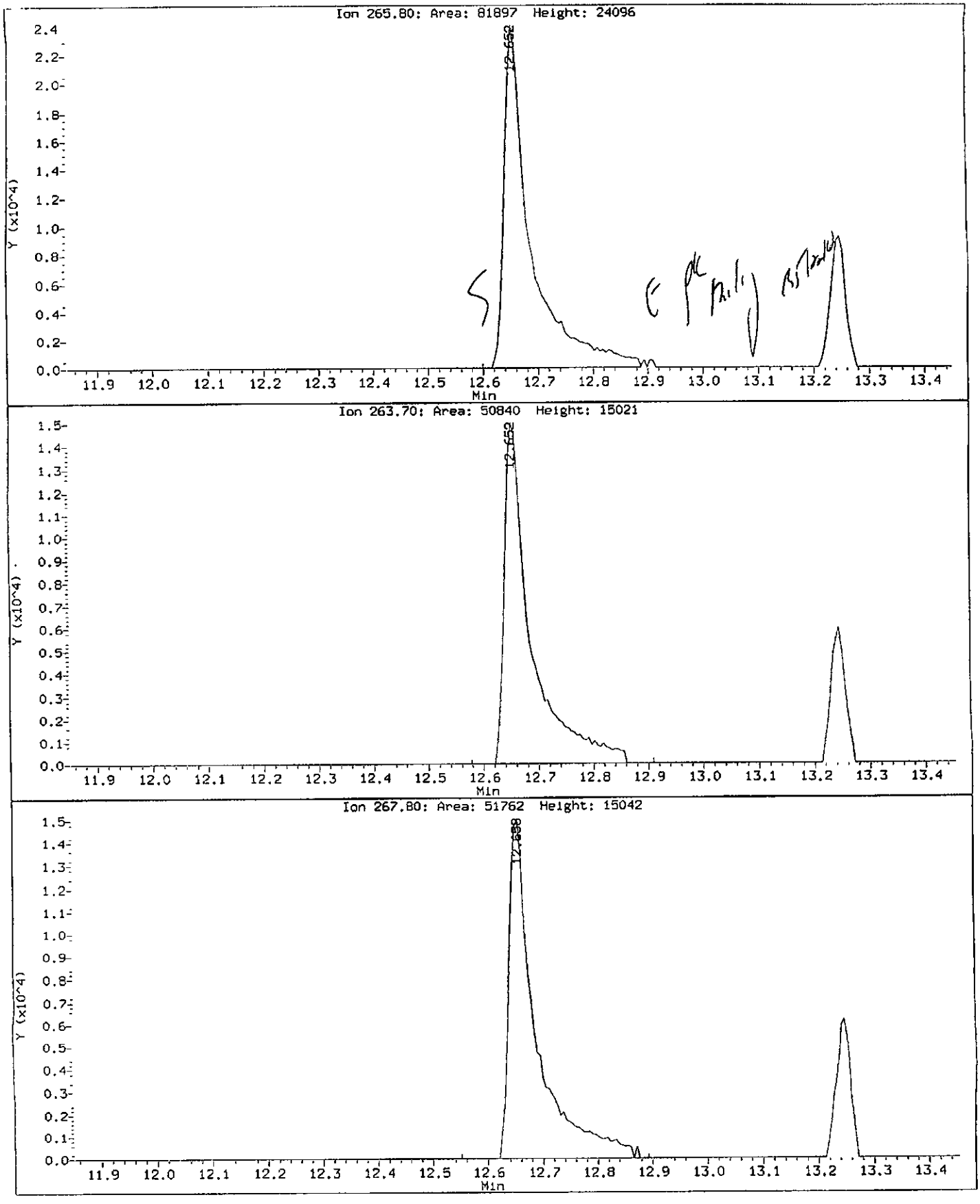
Compound: Pyridine
CAS Number: 110-86-1



657 314

Data File: \\QPITPA02\D\chem\71.i\s052200.b\S0522010.D
Injection Date: 22-MAY-2000 14:29
Instrument: 71.i
Client Sample ID: DF/S1/0133/SDC/001

Compound: Pentachlorophenol
CAS Number: 87-86-5



GC/MS SEMIVOLATILE
MISCELLANEOUS

Continuous L-L Extraction Worksheet

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

Committed To Your Success

TCLP

Began 5/18/2000	Time 15:10	Prep Meth # 3520C	H2SO4 86-15-12	Solvent MeCl2	Solvent Lot T08286	NaSO4 Lot Number N18593	Clean up Method NA	
Change over 5/19/2000	Time 11:20	Analysis 8270	NaOH. 9299-07	Solvent Mfg. Baker				
Completed 5/20/2000	Time 10:10							

	Lot Number	Sample ID	Client ID	Extract Vol (mL)	Final Volume mL	pH	Surrogate Lot #.	Surr Vol (mL)	Matrix Spike Lot #.	MS Vol. (mL)	Cleanup Init/date
1.	LOE130194	BIK	NA	200	1.0	5/2/11	194-176-5	0.5	NA	NA	NA
2.		LCS				5/2/11			194-177 (MT 5/18/00) 191-8	0.5	
3.		MS (001)				8/2/11			↓	↓	
4.		MSD (001)				8/2/11			194-159-8	0.5	
5.		001				8/2/11			NA	NA	
6.		002				7/2/11					
7.		003				7/2/11					
8.		004				7/2/11					
9.											
10.											
11.											
12.											
13.											
14.											
15.											
16.											
17.			WT 5/18/2000								
18.											
19.											
20.											
21.											
22.											
23.											
Prep Analyst:	WT	WT	WT	WT	KG/JM	WT	JM / WT	JM/WT	JM / WT	JM/WT	WT

Extract(s) (Record line number from above)	Extract(s) Received Date	Time	Analyst	Location	Extract(s) Relinquished Date	Time	Analyst	Location
A bulk A Blank	5-20-00 / 5/22/00	10:10 / 0730		ORG-Prep / Walkin	5-20-00 / 5/22/00	10:15 / 0930		R-01-BNA / Fed Exp

Batch Number: 0140269

Reviewed By

Date 5-20-00

TCLP (Method 1311)

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

Quanterra Environmental Services

657 317

QUA-4171

Filter lot # 8320701W

By	Date	Checked by	Date	pH Instrument	Probe	Balance	Serial Number	Log Book Number
[redacted] D. Grant	5-16-00	[redacted] Faust	5-17-00	Accumet AR25	SN9087030	C94817	038	96-MT-526

Project Number	Lot Number	Client Codes	Solution Number 1 - Log Book Number	Solution Number 2 - Log Book Number
	E0E130194	399411	995404-12	

Fluid Determination

Sample ID	Wgt/Vol	Init pH	Final pH	Extract Fluid #1, or #2	Conc : HNO_3 to Acidity (for Metals)
DD6A4	5.00g / 96.5ml	9.61	1.83	Sol #1	5ml
DD6A5	↓ / ↓	9.44	1.73	↓	7ml
DD6A6	↓ / ↓	9.39	1.79	↓	4ml
DD6A7	↓ / ↓	9.36	1.76	↓	4ml
					4ml

G.F. 5-16-00

TCLP Extraction

	Sample ID	Wgt (g) Wet/Dry	Fluid Vol.		Final pH After Tumbling
1.	PB-TCLP 5-16-00	—	2000ml	Glass	4.93
2.	DD6A4	100.00g	↓	↓	6.26
3.	DD6A5	↓	↓	↓	6.31
4.	DD6A6	↓	↓	↓	6.32
5	DD6A7	↓	↓	↓	6.31
6.	DD6A4	↓	↓	↓	6.30
7.					
8.					
9					
10					
11					
12.					
13.					

G.F. 5-16-00

Extract(s) (Record line number from above)	Extract(s) Received: Date	Time	Analyst	Location	Extract(s) Relinquished: Date	Time	Analyst	Location
ALL ABOVE	5-16-00	12:15	[redacted]	MOTHER	5-16-00	12:20	[redacted]	5D

* = Sample determined to have free-liquid, % solid determination was performed.

<5 = Extraction Fluid No 1 5.7 mL Glacial Acetic Acid dil 500 mL + 64.3 mL of 1N Na OH dil to 1L (pH 4.93 ± 0.05)

>5 = Extraction Fluid No. 2 5.7 mL Glacial Acetic Acid dil to 1L (pH 2.88 ± 0.05)

ROOM TEMP – 23°C

Date/Time On	Date/Time Off	Agitation Apparatus RPMs.
5-16-00 15:45	5-17-00 9:30	30 ± 2

Date	pH Calibration	(4.0)	(7.0)	(10.0)
5-16-00		4.00	7.01	10.03
5-17-00		4.00	7.01	10.03

Comments

STL Pittsburgh

657 318

Sequence Name: D:\HPCHEM\1\SEQUENCE\S051900.S
Comment: STL PITTSBURGH-RUN LOGBOOK hp597371-A
Operator: SAB: 2ul inj (100ul+1ul) int
Data Path: D:\HPCHEM\1\DATA\s051900.b\
Pre-Seq Cmd:
Post-Seq Cmd:

8270
E270
IS: 194-159-7

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line	Type	Vial	DataFile	Method	Sample Name
1	Sample	C 1144	1 S0519DF2	DFTPP1	DFTPP050 (25ppb) 194-158-6
2	Sample		2 S0519CC1	EARLY	sstd50(25.0ug/ml) 194-176-9 8270
3	Sample	AQC	4 S0519CC3	EARLY	sstd50(25.0ug/ml) 194-176-9 8270
4	Sample	AQC	3 S0519CC2	EARLY	sstd20(10.0ug/ml) 194-175-10 8270
5	Sample	AQC	5 S0519CC4	EARLY	sstd80(40.0ug/ml) 194-175-6 8270
6	Sample	AQC	6 S0519CC5	EARLY	sstd120(60.0ug/ml) 194-175-13 E270
7	Sample	AQC	7 S0519CC6	EARLY	sstd160(80.0ug/ml) 194-175-14 E270
8	Sample	AQC	8 S0519VER	EARLY	ver050(25.0ug/ml) 194-175-7 8270
9	Sample		1 S0519DF3	DFTPP1	dftpp050(25.0ug/ml) 194-158-6
10	Sample	1708	1 S0519DF4	DFTPP1	dftpp050(25.0ug/ml) 194-158-6
11	Sample	AQC	2 S0519CC7	EARLY	sstd50(25.0ug/ml) 194-176-9 8270
12	Sample	AQC	9 S0519001	LATE	c0e120206-sblk 5/17/00 8270w
13	Sample	AQC	10 S0519002	LATE	c0e120206-lcs 5/17/00 8270w
14	Sample	AQC	11 S0519003	LATE	c0e120206-lcsd 5/17/00 8270w
15	Sample	AQC	12 S0519004	LATE	c0e120206-001 5/17/00 8270w
16	Sample	QCS	13 S0519005	LATE	c0e120206-002 5/17/00 8270w
17	Sample	QCS	14 S0519006	LATE	c0e120206-003 5/17/00 8270w
18	Sample	screen	15 S0519007	LATE	c0e120206-004 5/17/00 8270w run last
19	Sample	screen	16 S0519008	LATE	c0e120206-005 5/17/00 8270w
20	Sample		17 S0519009	LATE	c0e120206-006 5/17/00 8270w
21	Sample		18 S0519010	LATE	c0e120206-007 5/17/00 8270w
22	Sample	screen	19 S0519011	LATE	c0e120206-008 5/17/00 8270w
23	Sample		20 S0519012	LATE	c0e120206-009 5/17/00 8270w
24	Sample	screen	21 S0519013	LATE	c0e120236-001 x50 5/17/00 8270
25	Sample	screen	22 S0519014	LATE	c0e120236-002 x50 5/17/00 8270
26	Sample	screen	23 S0519015	LATE	c0e120236-003 x50 5/17/00 8270
27	Sample	screen	24 S0519016	LATE	c0e120236-004 x50 5/17/00 8270
28	Sample		25 S0519017	LATE	c0e120236-005 5/17/00 8270w
29	Sample		26 S0519018	LATE	c0e120236-006 5/17/00 8270w
30					

5/14/00

Last Modified: Fri May 19 13:50:50 2000 Page: 1

Sequence Name: D:\HPCHEM\1\SEQUENCE\S052200.S
Comment: STL PITT HP597371A LOG 2ul inj (100ul+1ul IS)
Operator: SAB: 2ul inj (100ul+1ul) int
Data Path: D:\HPCHEM\1\DATA\s052200.b\
Pre-Seq Cmd:
Post-Seq Cmd:

657 319

PB-194-155-7
E270

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line	Type	Vial	DataFile	Method	Sample Name
1	Sample	1	S0522DF1	DFTPP1	DFTPP050 (25ppb) 194-158-6
2	Sample	2	S0522CCC	EARLY	sstd50(25.0ug/ml) 194-176-9 8
3	Sample	8	S0522006	EARLY	c0e130194-sblk 5/18/00 8270tc
4	Sample	9	S0522007	EARLY	c0e130194-lcs 5/18/00 8270tcl
5	Sample	10	S0522008	EARLY	c0e130194-001 5/18/00 8270tcl
6	Sample	11	S0522009	EARLY	c0e130194-001ms 5/18/00 8270t
7	Sample	12	S0522010	EARLY	c0e130194-001msd 5/18/00 8270
8	Sample	13	S0522011	EARLY	c0e130194-002 5/18/00 8270tcl
9	Sample	14	S0522012	EARLY	c0e130194-003 5/18/00 8270tcl
10	Sample	15	S0522013	EARLY	c0e130194-004 5/18/00 8270tcl
11	Sample	3	S0522001	LATE	c0e170161-sblk 5/19/00 hlev82
12	Sample	4	S0522002	LATE	c0e170161-lcs 5/19/00 hlev827
13	Sample	5	S0522003	LATE	c0e170161-001 5/19/00 hlev827
14	Sample	6	S0522004	LATE	c0e170161-001ms 5/19/00 hlev8
15	Sample	7	S0522005	LATE	c0e170161-001msd 5/19/00 hlev
16	Sample	16	S0522014	LATE	c0e120236-001 x250 5/17/00 82
17	Sample	17	S0522015	LATE	c0e120236-002 x1500 5/17/00 8
18	Sample	18	S0522016	LATE	c0e120236-003 x500 5/17/00 82
19	Sample	19	S0522017	LATE	c0e120236-004 x1000 5/17/00 8
20	Sample	20	S0522018	LATE	c0e120236-005 x10 5/17/00 827
21	Sample	21	S0522019	LATE	c0e120236-006 x5 5/17/00 8270

Last Modified: Mon May 22 11:24:21 2000

657 320

PSR024 5/18/00 1:46:35 MT SAMPLE CUSTODIAN REMOVAL REQUEST

REQUESTED BY: **GEEHRINK**

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

STORAGE LOCATION	WORK ORDER #	PICKED CNTR#	CONTROL #	CLIENT #	ANALYSIS	LOTID	SMP#	SFX	MATRIX DESCRIPTION	QTY RCVD	QTY REQD
2F CLP1	DD6A4-1-02	___ ___ ___	234412	399411	A-59-QL	COE130194	001		SOLID	0 3	1
2F CLP1	DD6A5-1-02	___ ___ ___	234413	399411	A-59-QL	COE130194	002		SOLID	0 3	1
2F CLP1	DD6A6-1-02	___ ___ ___	234414	399411	A-59-QL	COE130194	003		SOLID	0 3	1
2F CLP1	DD6A7-1-02	___ ___ ___	234415	399411	A-59-QL	COE130194	004		SOLID	0 3	1

RELINQUISHED BY	RECEIVED BY	DATE/TIME
Ken Seeley	B Trout	5/18/2000 09:45
B Trout	Ken Seeley	5/18/2000 15:10

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

PESTICIDE DATA

PESTICIDE
QC SUMMARY

SW846 8081A SURROGATE RECOVERY

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

Lab Code: QESPIT QESSDG:

Lot #: C0E130194

	CLIENT ID.	SRG01	SRG02	TOT OUT
01	DF/S1/0133/SDC/001 A	92	80	00
02	DF/S1/0133/SDC/001 B	93	82	00
03	DF/S1/0133/SDC/001 C	93	82	00
04	DF/S1/0133/SDC/001 D	97	80	00
05	METHOD BLK DDE2E101	95	58	00
06	LCS DDE2E102	97	91	00
07	DF/S1/0133/SDC/001 A D	95	70	00
08	DF/S1/0133/SDC/001 A S	97	69	00

SURROGATES		QC LIMITS
SRG01	= Decachlorobiphenyl	(10-147)
SRG02	= Tetrachloro-m-xylene	(39-130)

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

FORM II

657 324 SW846 8081A CHECK SAMPLE RECOVERY

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

Lab Code: QESPIT SDG No:

Lot #: C0E180000 WO #: DDE2E102
BATCH: 0139460

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	% REC	QC LIMITS REC	QUAL
Lindane	0.00250	0.00189	75	49- 137	
Heptachlor	0.00250	0.00212	85	57- 124	
Heptachlor epoxide	0.00250	0.00219	88	53- 135	
Endrin	0.00250	0 00219	88	46- 137	
Methoxychlor	0.00250	0.00277	111	12- 154	

NOTES(S):

* Values outside of QC limits

Spike Recovery: 0 out of 5 outside limits

COMMENTS:

FORM III

SW846 8081A MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

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

Lab Code: QESPIT SDG No:

Matrix Spike ID: DF/S1/0133/SDC/001 A Level: (low/med) LOW

Lot #: C0E130194 WO #: DD6A411A
BATCH: 0139460

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	MS CONCENT. (mg/L)	MS % REC	LIMITS REC	QUAL
Lindane	0.00250	ND	0.00172	69	30- 148	
Heptachlor	0.00250	ND	0.00236	94	25- 135	
Heptachlor epoxide	0.00250	ND	0.00201	80	38- 138	
Endrin	0.00250	ND	0.00212	85	28- 148	
Methoxychlor	0.00250	ND	0.00289	116	13- 154	

NOTES(S):

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

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

COMMENTS:

FORM III

657 326

SW846 8081A MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

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

Lab Code: QESPIT SDG No:

Matrix Spike ID: DF/S1/0133/SDC/001 A Level:(low/med) LOW

Lot #: C0E130194 WO #: DD6A411C
BATCH: 0139460

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENT. (mg/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	QUAL
Lindane	0.00250	0.00172	69	0.40	22	30 - 148	
Heptachlor	0.00250	0.00238	95	1.0	32	25 - 135	
Heptachlor epoxide	0.00250	0.00199	80	0.77	31	38 - 138	
Endrin	0.00250	0.00213	85	0.29	40	28 - 148	
Methoxychlor	0.00250	0.00291	117	0.78	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:

FORM III

4C
PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.: PBLK

Lab Name: STL-PITTSBURGH Contract:

Lab Code: STLPIT Case No.: SAS No.: 40325 SDG No.: C0E130194

Lab Sample ID: DDE2E101 Lab File ID: C-A2372

Matrix (soil/water) WATER Extraction: (SepF/Cont/Sonc) SW1311

Sulfur Cleanup (Y/N) N Date Extracted: 05/18/00

Date Analyzed (1): 05/19/00 Date Analyzed (2): 05/19/00

Time Analyzed (1): 1318 Time Analyzed (2): 1318

Instrument ID (1): GC3 Instrument ID (2): GC3

GC Column (1): RTX-CLP ID: 0.53 (mm) GC Column (2): RTX-CLP2 ID: 0.53 (mm)

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

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	DF/S1/0133/S	DD6A4103	05/19/00	05/19/00
02	DF/S1/0133/S	DD6A411A	05/19/00	05/19/00
03	DF/S1/0133/S	DD6A411C	05/19/00	05/19/00
04	DF/S1/0133/S	DD6A5103	05/19/00	05/19/00
05	DF/S1/0133/S	DD6A6103	05/19/00	05/19/00
06	DF/S1/0133/S	DD6A7103	05/19/00	05/19/00
07	LCS	DDE2E102	05/19/00	05/19/00
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				

COMMENTS: _____

PESTICIDE
SAMPLE DATA

UXB INTERNATIONAL

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

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

um 5/23/00

Lab Sample ID:C0E130194 001

Sample WT/Vol: 100 / mL
Work Order: DD6A4103
Dilution factor: 1

Date Received: 05/13/00
Date Extracted:05/18/00
Date Analyzed: 05/19/00

QC Batch: 0139460

Client Sample Id: DF/S1/0133/SDC/001 A

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

Data File: /var/chem/gc3.i/2170-E.b/c-a2366.d
Report Date: 19-May-2000 11:16

657 330

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2170-E.b/c-a2366.d
Lab Smp Id: DD6A4103 Client Smp ID: DF/S1/0133/SDC/001
Inj Date : 19-MAY-2000 10:42
Operator : 1891 Inst ID: gc3.i
Smp Info : DD6A4103,2170-E.b,,PEST.sub,,,
Misc Info : 130194001
Comment :
Method : /var/chem/gc3.i/2170-E.b/PESTA.m
Meth Date : 19-May-2000 11:01 eppinged Quant Type: ESTD
Cal Date : 18-MAY-2000 01:57 Cal File: c-a2300.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)	CONCENTRATIONS FINAL (mg/L)
5 alpha-BHC	Compound Not Detected					
4 HEXACHLOROBENZENE	Compound Not Detected					
6 gamma-BHC (Lindane)	Compound Not Detected					
7 beta-BHC	Compound Not Detected.					
9 Chlordane	Compound Not Detected.					
10 Heptachlor	7.667	7.675	-0.008	32294	0.00674	0.000673765(a)
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	10.942	10.942	0 000	7486	0 00185	0 000184645(a)
20 Endrin	Compound Not Detected.					
18 Toxaphene	Compound Not Detected.					

Data File: /var/chem/gc3.i/2170-E.b/c-a2366.d
Report Date: 19-May-2000 11:16

657 331

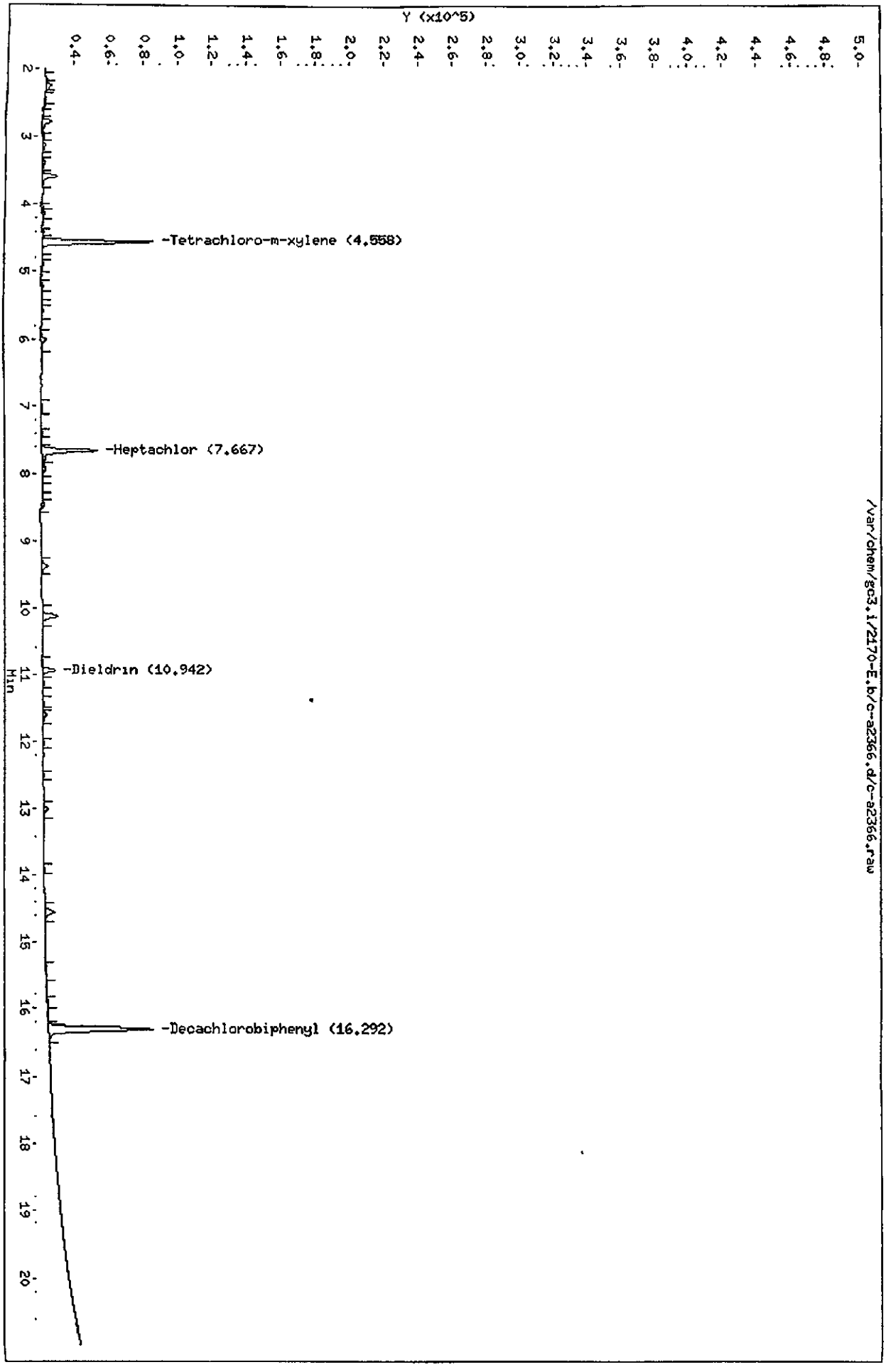
	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (mg/L)
	21 4,4'-DDD	Compound Not Detected.					
	22 Endosulfan II	Compound Not Detected.					
	23 4,4'-DDT	Compound Not Detected.					
	24 Endrin aldehyde	Compound Not Detected.					
	26 Endosulfan sulfate	Compound Not Detected					
	25 Methoxychlor	Compound Not Detected					
	27 Endrin ketone	Compound Not Detected.					
$	1 Tetrachloro-m-xylene	4.558	4.558	0.000	64522	0.01590	0.00159352(aR)
$	30 Decachlorobiphenyl	16.292	16.300	-0.008	60661	0.01841	0.00184138(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/gc3.i/2170-E.b/c-a2366.d
Date : 19-MAY-2000 10:42
Client ID: DF/SL/0133/SDC/001
Sample Info: DD6A4103,2170-E,b,,PEST,sub,,,
Volume Injected (uL): 1.0
Column phase: RTX-CLP

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



Data File: /var/chem/gc3.i/2170-E.b/c-b2366.d
Report Date: 19-May-2000 12:46

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2170-E.b/c-b2366.d
Lab Smp Id: DD6A4103 Client Smp ID: DF/S1/0133/SDC/001
Inj Date : 19-MAY-2000 10:42
Operator : 1891 Inst ID: gc3.i
Smp Info : DD6A4103,2170-E.b,,PEST.sub,,,
Misc Info : 130194001
Comment :
Method : /var/chem/gc3.i/2170-E.b/PESTB.m
Meth Date : 19-May-2000 11:24 eppinged Quant Type: ESTD
Cal Date : 18-MAY-2000 01:57 Cal File: c-b2300.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

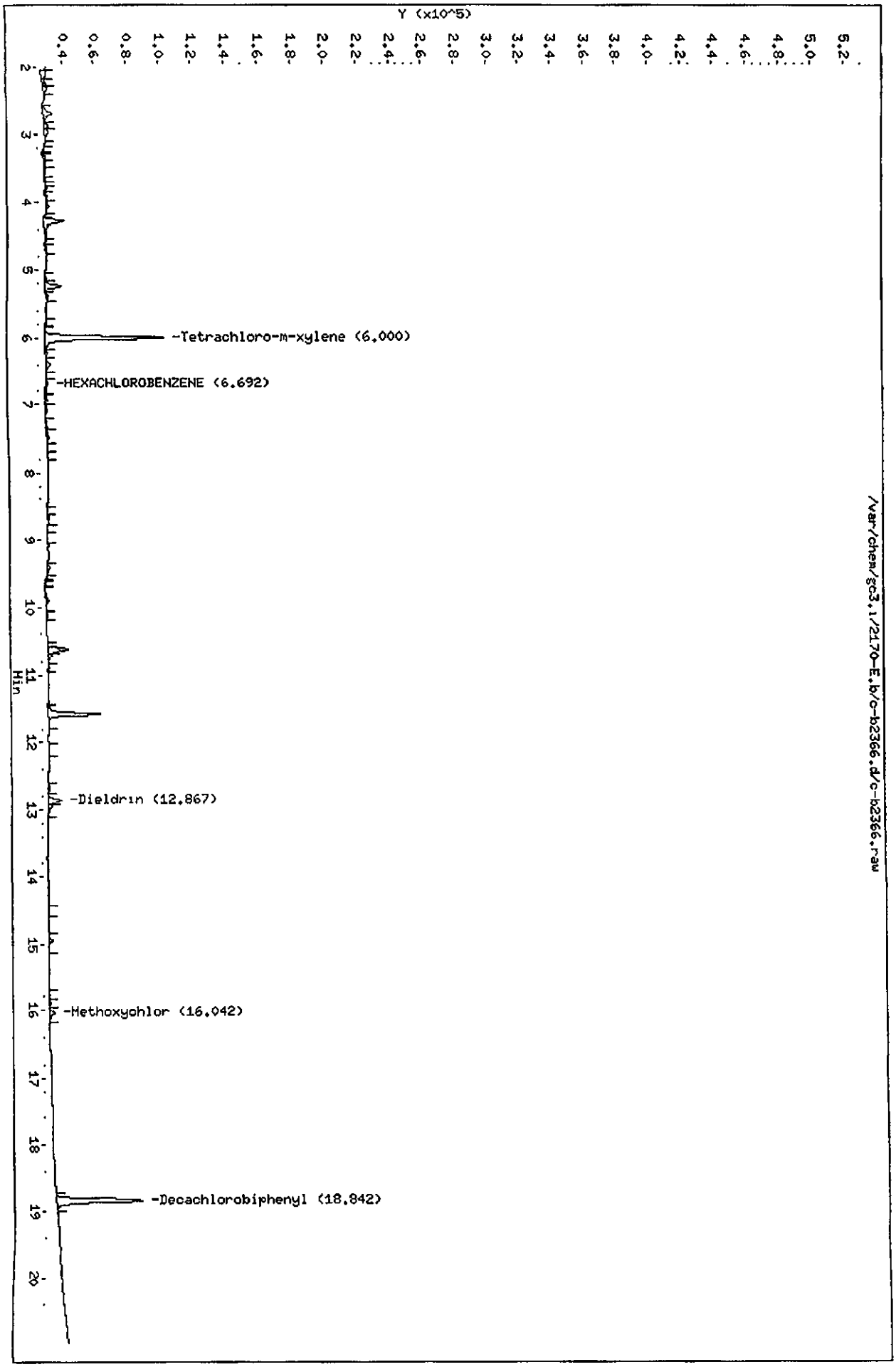
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (mg/L)
5 alpha-BHC	Compound Not Detected.					
4 HEXACHLOROBENZENE	6 692	6 650	0.042	900		(a)
6 gamma-BHC (Lindane)	Compound Not Detected.					
7 beta-BHC	Compound Not Detected.					
9 Chlordane	Compound Not Detected					
10 Heptachlor	Compound Not Detected.					
8 delta-BHC	Compound Not Detected.					
11 Aldrin	Compound Not Detected.					
12 Heptachlor epoxide	Compound Not Detected.					
13 gamma-Chlordane	Compound Not Detected.					
14 alpha-Chlordane	Compound Not Detected.					
15 Endosulfan I	Compound Not Detected.					
16 4,4'-DDE	Compound Not Detected.					
17 Dieldrin	12 867	12.867	0.000	7830	0.00189	0.000188602(a)
20 Endrin	Compound Not Detected.					
18 Toxaphene	Compound Not Detected					

Data File: /var/chem/gc3.i/2170-E.b/c-b2366.d
Report Date: 19-May-2000 12:46

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (mg/L)
	21 4,4'-DDD	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	16.042	16.017	0.025	3144	0.00252	0.000251517(a)
	27 Endrin ketone	Compound Not Detected.					
$	1 Tetrachloro-m-xylene	6.000	6.000	0.000	72974	0 01776	0.00177571(aR)
$	30 Decachlorobiphenyl	18.842	18.842	0.000	53208	0 01962	0.00196700(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/gc3.i/2170-E.b/c-b2366.d
Date : 19-MAY-2000 10:42
Client ID: DF/SL/0133/SDC/001
Sample Info: DD6A4103,2170-E.b,,PEST.sub,,,
Volume Injected (uL): 1.0
Column phase: RTX-CLP2
Instrument: gc3.i
Operator: 1891
Column diameter: 0.53
/var/chem/gc3.i/2170-E.b/c-b2366.d/c-b2366.raw
Y (x10^5)
Min
-Tetrachloro-m-xylene (6.000)
-HEXACHLOROBENZENE (6.692)
-Dieldrin (12.867)
-Methoxychlor (16.042)
-Decachlorobiphenyl (18.842)

UXB INTERNATIONAL

Lab Name Severn Trent Laboratories, Inc SDG Number:

Matrix: (soil/water) ~~SOLID~~ WATER Lab Sample ID:C0E130194 002
Method: SW846 8081A LMS/23/00
Pesticides (8081A)

Sample WT/Vol: 100 / mL Date Received: 05/13/00
Work Order: DD6A5103 Date Extracted 05/18/00
Dilution factor: 1 Date Analyzed: 05/19/00

QC Batch: 0139460

Client Sample Id: DF/S1/0133/SDC/001 B

CAS NO.	COMPOUND	CONCENTRATION UNITS. (ug/L or ug/kg) mg/L	Q
57-74-9	Chlordane (technical)	0.0050	U
72-20-8	Endrin	0.00050	U
76-44-8	Heptachlor	0 00050	U
1024-57-3	Heptachlor epoxide	0.00050	U
58-89-9	Lindane	0.00050	U
72-43-5	Methoxychlor	0.0010	U
8001-35-2	Toxaphene	0.020	U

Data File: /var/chem/gc3.i/2170-E.b/c-a2369.d
Report Date: 19-May-2000 12:40

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2170-E.b/c-a2369.d
Lab Smp Id: DD6A5103 Client Smp ID: DF/S1/0133/SDC/001
Inj Date : 19-MAY-2000 12:00
Operator : 1891 Inst ID: gc3.i
Smp Info : DD6A5103,2170-E.b,,PEST.sub,,,
Misc Info : 130194002
Comment :
Method : /var/chem/gc3.i/2170-E.b/PESTA.m
Meth Date : 19-May-2000 11:01 eppinged Quant Type: ESTD
Cal Date : 18-MAY-2000 01:57 Cal File: c-a2300.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)
5 alpha-BHC	Compound Not Detected.					
4 HEXACHLOROBENZENE	Compound Not Detected.					
6 gamma-BHC (Lindane)	Compound Not Detected.					
7 beta-BHC	Compound Not Detected.					
9 Chlordane	Compound Not Detected.					
10 Heptachlor	7.667	7 675	-0 008	35494	0.00742	0.000740528(a)
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	10 942	10.942	0.000	7967	0 00197	0 000196509(a)
20 Endrin	Compound Not Detected.					
18 Toxaphene	Compound Not Detected.					

Data File: /var/chem/gc3.i/2170-E.b/c-a2369.d
Report Date: 19-May-2000 12:40

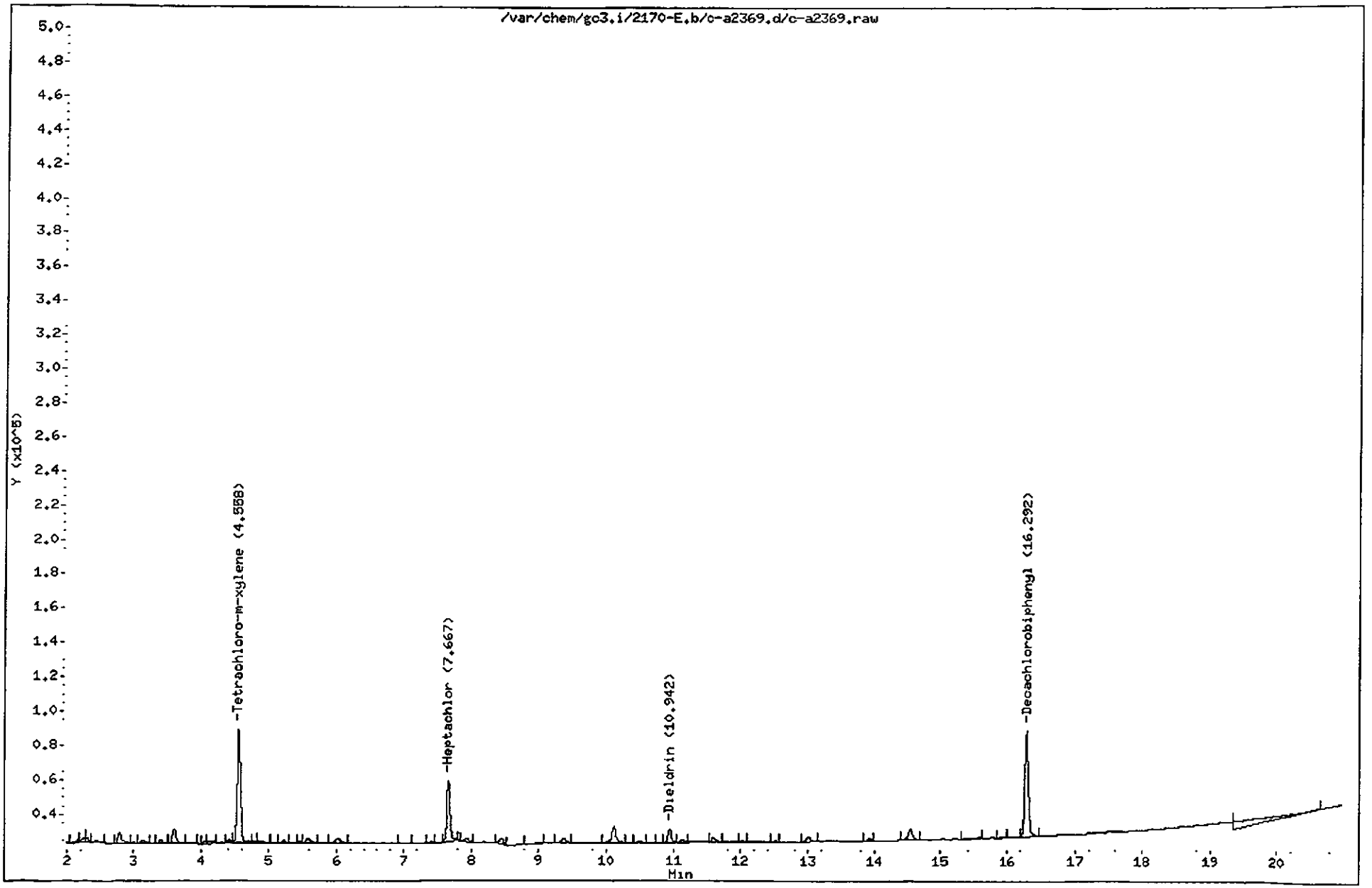
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (mg/L)
21 4,4'-DDD	Compound Not Detected.					
22 Endosulfan II	Compound Not Detected.					
23 4,4'-DDT	Compound Not Detected.					
24 Endrin aldehyde	Compound Not Detected.					
26 Endosulfan sulfate	Compound Not Detected.					
25 Methoxychlor	Compound Not Detected.					
27 Endrin ketone	Compound Not Detected.					
$ 1 Tetrachloro-m-xylene	4.558	4.558	0.000	66099	0.01638	0.00163247(aR)
$ 30 Decachlorobiphenyl	16.292	16.300	-0.008	61079	0.01854	0.00185406(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/gc3.i/2170-E.b/c-a2369.d
Date : 19-MAY-2000 12:00
Client ID: DF/S1/0133/SDC/001
Sample Info: DD6A5103,2170-E.b,,PEST.sub,,,
Volume Injected (uL): 1.0
Column phase: RTX-CLP

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



Data File: /var/chem/gc3.i/2170-E.b/c-b2369.d
Report Date: 19-May-2000 12:46

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2170-E.b/c-b2369.d
Lab Smp Id: DD6A5103 Client Smp ID: DF/S1/0133/SDC/001
Inj Date : 19-MAY-2000 12:00
Operator : 1891 Inst ID: gc3.i
Smp Info : DD6A5103,2170-E.b,,PEST.sub,,,
Misc Info : 130194002
Comment :
Method : /var/chem/gc3.i/2170-E.b/PESTB.m
Meth Date : 19-May-2000 11:24 eppinged Quant Type: ESTD
Cal Date : 18-MAY-2000 01:57 Cal File: c-b2300.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

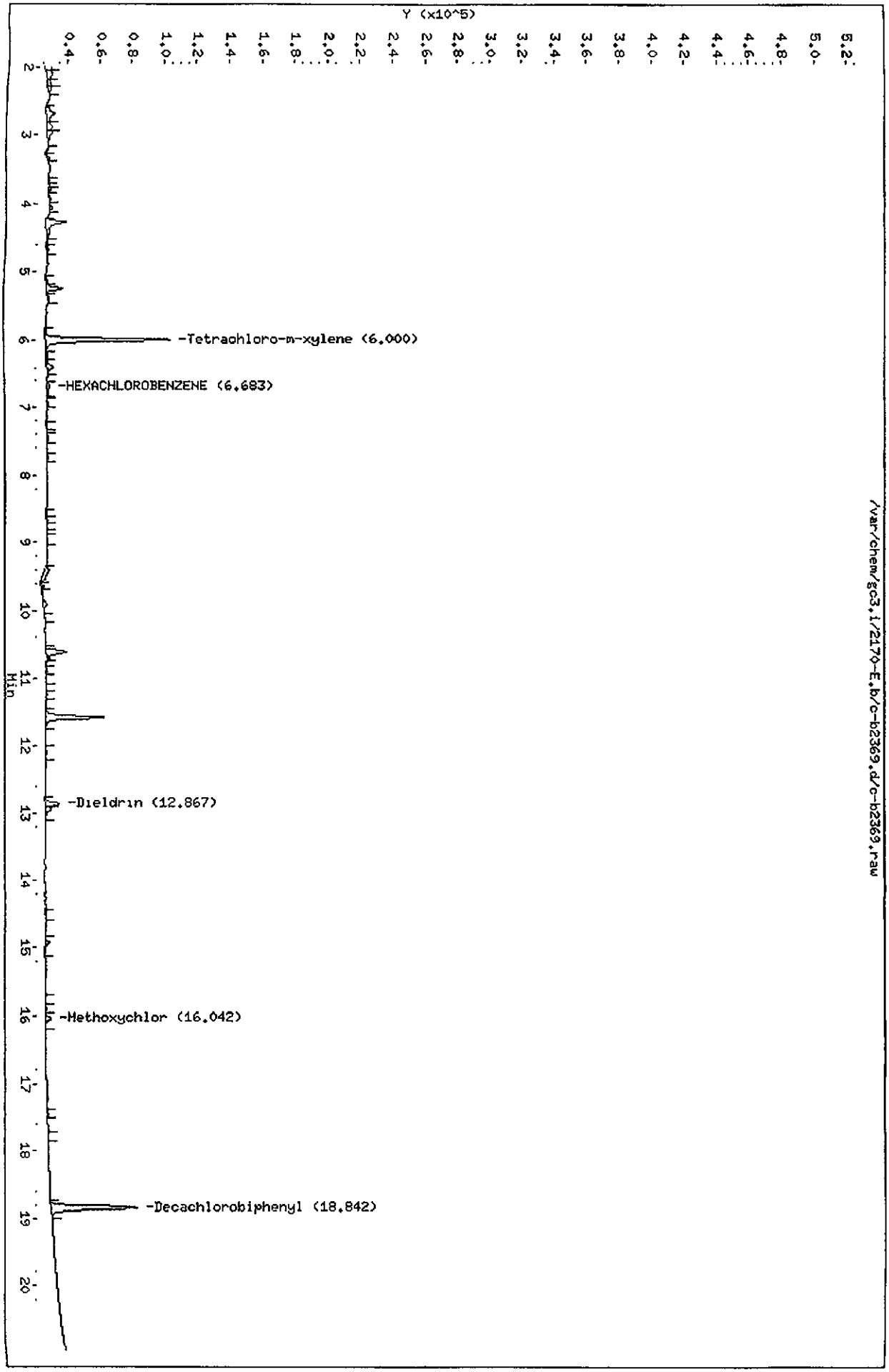
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (mg/L)	
5 alpha-BHC	Compound Not Detected.						
4 HEXACHLOROBENZENE	6.683	6.650	0.033	1730			(a)
6 gamma-BHC (Lindane)	Compound Not Detected						
7 beta-BHC	Compound Not Detected.						
9 Chlordane	Compound Not Detected						
10 Heptachlor	Compound Not Detected						
8 delta-BHC	Compound Not Detected						
11 Aldrin	Compound Not Detected						
12 Heptachlor epoxide	Compound Not Detected.						
13 gamma-Chlordane	Compound Not Detected.						
14 alpha-Chlordane	Compound Not Detected						
15 Endosulfan I	Compound Not Detected.						
16 4,4'-DDE	Compound Not Detected						
17 Dieldrin	12 867	12 867	0.000	8488	0 00204	0.000204452	(a)
20 Endrin	Compound Not Detected.						
18 Toxaphene	Compound Not Detected.						

Data File: /var/chem/gc3.i/2170-E.b/c-b2369.d
Report Date: 19-May-2000 12:46

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (mg/L)
21 4,4'-DDD	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	16.042	16.017	0.025	3517	0.00281	0.000281357(a)
27 Endrin ketone	Compound Not Detected					
$ 1 Tetrachloro-m-xylene	6.000	6.000	0.000	75446	0.0183	0.00183586(aR)
$ 30 Decachlorobiphenyl	18.842	18.842	0.000	52438	0.01938	0.00193854(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/gc3.i/2170-E.b/c-b2369.d
Date : 19-MAY-2000 12:00
Client ID: DF/S1/0133/SDC/001
Sample Info: BB6A5103,2170-E.b,,PEST,sub,,
Volume Injected (uL): 1.0
Column phase: RTX-CLP2
Instrument: gc3.i
Operator: 1891
Column diameter: 0.53
/var/chem/gc3.i/2170-E.b/c-b2369.d/c-b2369.raw
Y (x10^5)
Min
-Tetrachloro-m-xylene (6.000)
-HEXACHLOROBENZENE (6.683)
-Dieldrin (12.867)
-Methoxychlor (16.042)
-Decachlorobiphenyl (18.842)

UXB INTERNATIONAL

Lab Name: Severn Trent Laboratories, Inc. SDG Number

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

Lab Sample ID C0E130194 003

Sample WT/Vol: 100 / mL
Work Order: DD6A6103
Dilution factor: 1

Date Received: 05/13/00
Date Extracted: 05/18/00
Date Analyzed: 05/19/00

QC Batch: 0139460

Client Sample Id: DF/S1/0133/SDC/001 C

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

Data File: /var/chem/gc3.i/2170-E.b/c-a2370.d
Report Date: 19-May-2000 12:53

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2170-E.b/c-a2370.d
Lab Smp Id: DD6A6103 Client Smp ID: DF/S1/0133/SDC/001
Inj Date : 19-MAY-2000 12:26
Operator : 1891 Inst ID: gc3.i
Smp Info : DD6A6103,2170-E.b,,PEST.sub,,,
Misc Info : 130194003
Comment :
Method : /var/chem/gc3.i/2170-E.b/PESTA.m
Meth Date : 19-May-2000 11:01 eppinged Quant Type: ESTD
Cal Date : 18-MAY-2000 01:57 Cal File: c-a2300.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)	CONCENTRATIONS FINAL (mg/L)
5 alpha-BHC	Compound Not Detected.					
4 HEXACHLOROBENZENE	Compound Not Detected					
6 gamma-BHC (Lindane)	Compound Not Detected.					
7 beta-BHC	Compound Not Detected					
9 Chlordane	Compound Not Detected.					
10 Heptachlor	7.667	7 675	-0.008	36811	0 00768	0.000768005(a)
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	10.933	10.942	-0.009	10116	0.00250	0.000249515(a)
20 Endrin	Compound Not Detected.					
18 Toxaphene	Compound Not Detected.					

Data File: /var/chem/gc3.i/2170-E.b/c-a2370.d
Report Date: 19-May-2000 12:53

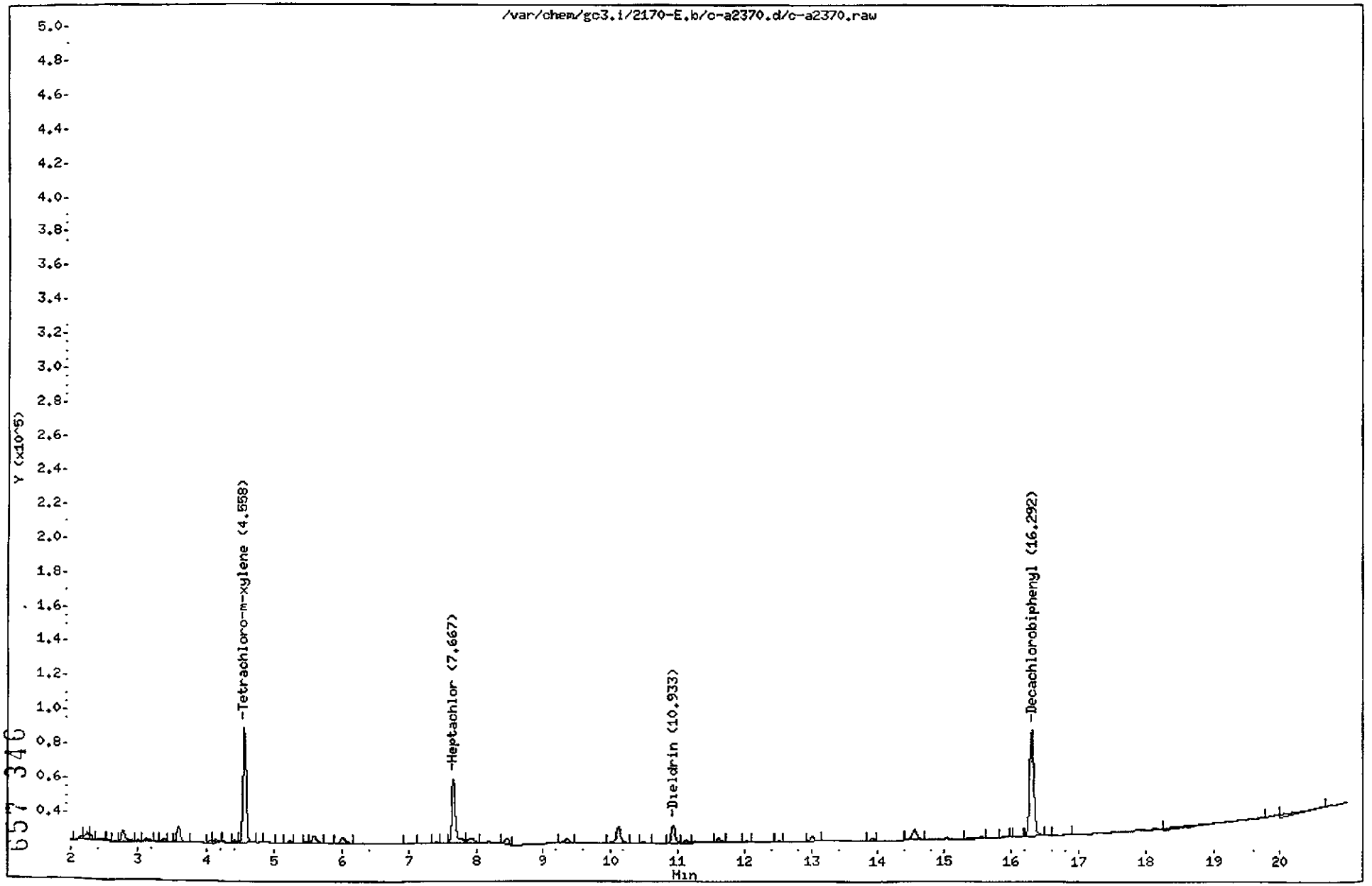
	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (mg/L)
21	4,4'-DDD	Compound Not Detected					
22	Endosulfan II	Compound Not Detected.					
23	4,4'-DDT	Compound Not Detected.					
24	Endrin aldehyde	Compound Not Detected.					
26	Endosulfan sulfate	Compound Not Detected.					
25	Methoxychlor	Compound Not Detected.					
27	Endrin ketone	Compound Not Detected.					
$ 1	Tetrachloro-m-xylene	4 558	4.558	0 000	66158	0.01634	0.00163392(aR)
$ 30	Decachlorobiphenyl	16 292	16.300	-0 008	61506	0.01867	0.00186703(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/gc3.1/2170-E.b/c-a2370.d
Date : 19-MAY-2000 12:26
Client ID: DF/S1/0133/SDC/001
Sample Info: DD6A6103,2170-E.b,,PEST.sub,,,
Volume Injected (uL): 1.0
Column phase: RTX-CLP

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



Data File: /var/chem/gc3.i/2170-E.b/c-b2370.d
Report Date: 19-May-2000 12:54

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2170-E.b/c-b2370.d
Lab Smp Id: DD6A6103 Client Smp ID: DF/S1/0133/SDC/001
Inj Date : 19-MAY-2000 12:26
Operator : 1891 Inst ID: gc3.i
Smp Info : DD6A6103,2170-E.b,,PEST.sub,,,
Misc Info : 130194003
Comment :
Method : /var/chem/gc3.i/2170-E.b/PESTB.m
Meth Date : 19-May-2000 11:24 eppinged Quant Type: ESTD
Cal Date : 18-MAY-2000 01:57 Cal File: c-b2300.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)	CONCENTRATIONS FINAL (mg/L)	
5 alpha-BHC	Compound Not Detected.						
4 HEXACHLOROBENZENE	6.667	6.650	0.017	2731			(a)
6 gamma-BHC (Lindane)	Compound Not Detected						
7 beta-BHC	Compound Not Detected						
9 Chlordane	Compound Not Detected.						
10 Heptachlor	Compound Not Detected.						
8 delta-BHC	Compound Not Detected						
11 Aldrin	Compound Not Detected.						
12 Heptachlor epoxide	Compound Not Detected						
13 gamma-Chlordane	Compound Not Detected.						
14 alpha-Chlordane	Compound Not Detected						
15 Endosulfan I	Compound Not Detected.						
16 4,4'-DDE	Compound Not Detected.						
17 Dieldrin	12.867	12 867	0 000	10703	0 00258	0 000257805	(a)
20 Endrin	Compound Not Detected.						
18 Toxaphene	Compound Not Detected.						

657 348
Data File: /var/chem/gc3.i/2170-E.b/c-b2370.d
Report Date: 19-May-2000 12:54

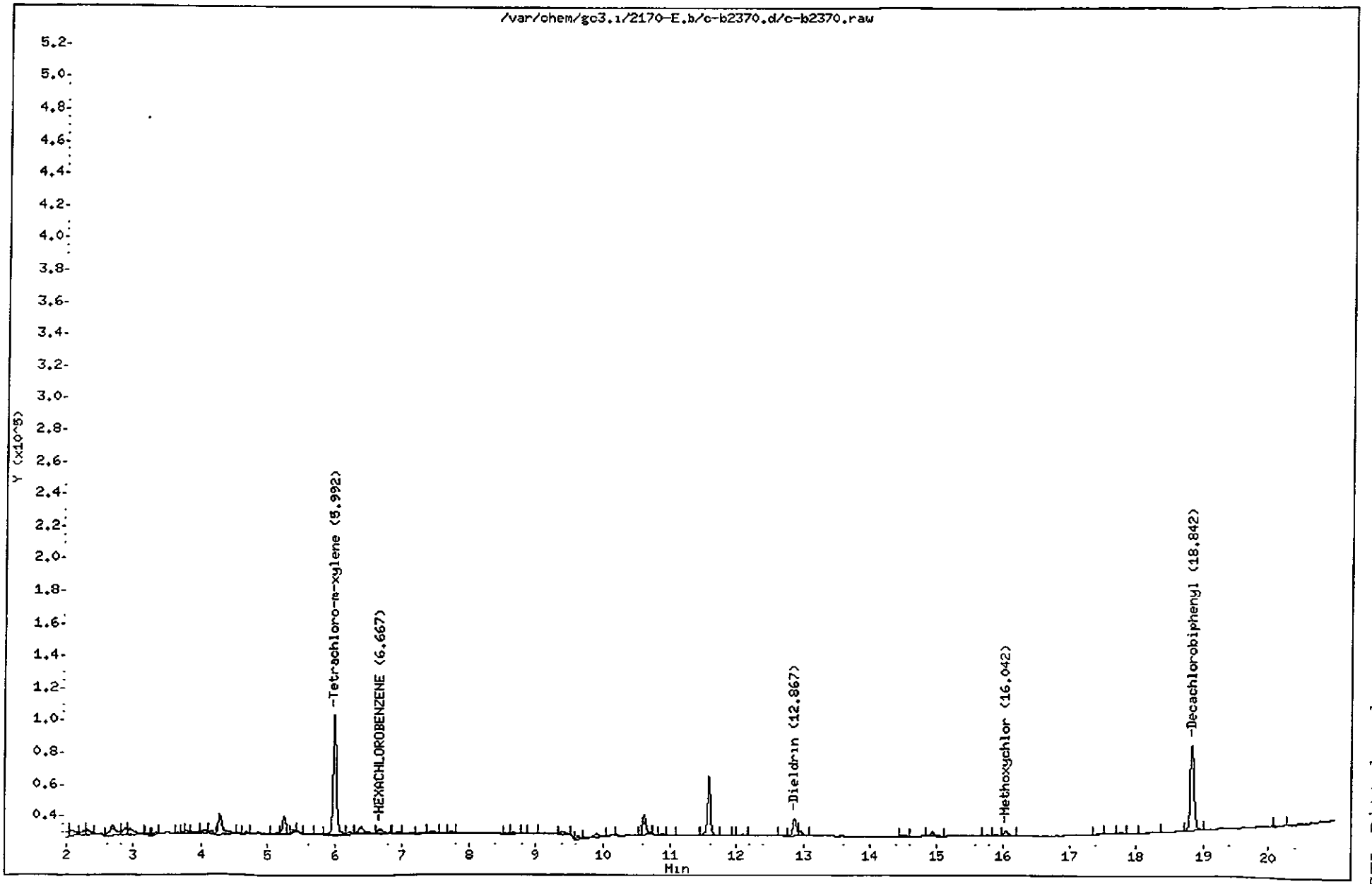
	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (mg/L)
	21 4,4'-DDD	Compound Not Detected					
	22 Endosulfan II	Compound Not Detected					
	23 4,4'-DDT	Compound Not Detected.					
	24 Endrin aldehyde	Compound Not Detected.					
	26 Endosulfan sulfate	Compound Not Detected					
	25 Methoxychlor	16 042	16.017	0.025	3165	0.00253	0.000253197(a)
	27 Endrin ketone	Compound Not Detected					
$	1 Tetrachloro-m-xylene	5.992	6 000	-0.008	74388	0 01810	0.00181012(aR)
$	30 Decachlorobiphenyl	18.842	18 842	0.000	53240	0.01968	0.00196819(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/gc3.i/2170-E.b/c-b2370.d
Date : 19-MAY-2000 12:26
Client ID: DF/S1/0133/SDC/001
Sample Info: DD6A6103,2170-E.b,,PEST.sub,,,
Volume Injected (uL): 1.0
Column phase: RTX-CLP2

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



UXB INTERNATIONAL

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

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

Lab Sample ID·C0E130194 004

Sample WT/Vol: 100 / mL
Work Order: DD6A7103
Dilution factor: 1

Date Received· 05/13/00
Date Extracted:05/18/00
Date Analyzed: 05/19/00

QC Batch· 0139460

Client Sample Id: DF/S1/0133/SDC/001 D

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

Data File: /var/chem/gc3.i/2170-E.b/c-a2371.d
Report Date: 19-May-2000 13:55

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2170-E.b/c-a2371.d
Lab Smp Id: DD6A7103 Client Smp ID: DF/S1/0133/SDC/001
Inj Date : 19-MAY-2000 12:52
Operator : 1891 Inst ID: gc3.i
Smp Info : DD6A7103,2170-E.b,,PEST.sub,,,
Misc Info : 130192004
Comment : 4DE5x400
Method : /var/chem/gc3.i/2170-E.b/PESTA.m
Meth Date : 19-May-2000 11:01 eppinged Quant Type: ESTD
Cal Date : 18-MAY-2000 01:57 Cal File: c-a2300.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)
5 alpha-BHC	Compound Not Detected.					
4 HEXACHLOROBENZENE	Compound Not Detected					
6 gamma-BHC (Lindane)	Compound Not Detected.					
7 beta-BHC	Compound Not Detected.					
9 Chlordane	Compound Not Detected					
10 Heptachlor	7.667	7.675	-0.008	36639	0 00764	0.000764417(a)
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	10.942	10 942	0.000	8565	0.00211	0.000211259(a)
20 Endrin	Compound Not Detected.					
18 Toxaphene	Compound Not Detected.					

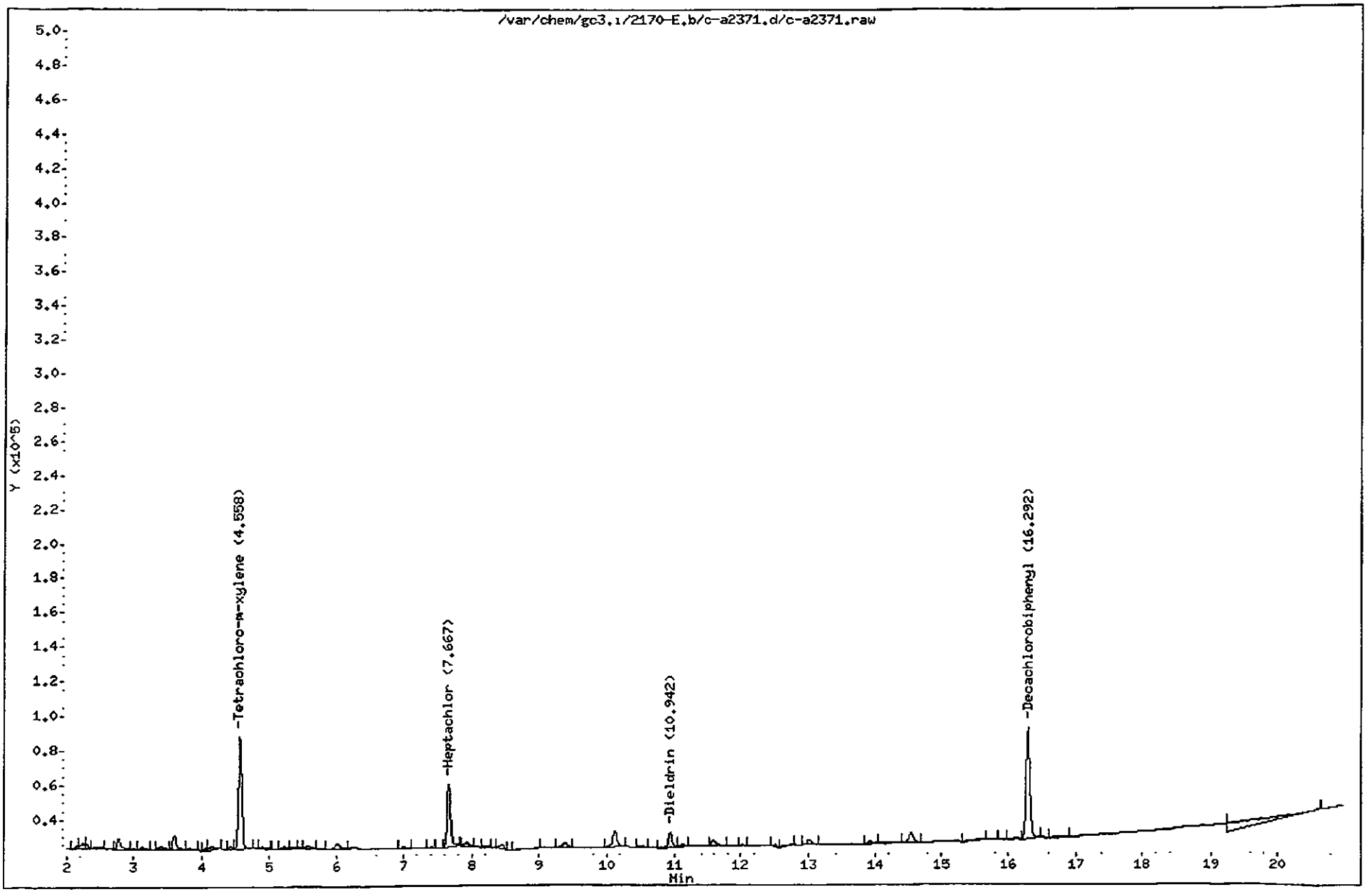
Data File: /var/chem/gc3.i/2170-E.b/c-a2371.d
Report Date: 19-May-2000 13:55

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (mg/L)
	21 4,4'-DDD	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.					
$	1 Tetrachloro-m-xylene	4.558	4 558	0 000	64866	0 01602	0.00160202(aR)
$	30 Decachlorobiphenyl	16.292	16.300	-0.008	64175	0 01948	0.00194804(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/gc3.1/2170-E.b/c-a2371.d
Date : 19-MAY-2000 12:52
Client ID: DF/S1/0133/SDC/001
Instrument: gc3.1
Sample Info: DD6A7103,2170-E.b,,PEST.sub,,,
Volume Injected (uL): 1.0
Operator: 1891
Column phase: RTX-CLP
Column diameter: 0.53



Data File: /var/chem/gc3.i/2170-E.b/c-b2371.d
Report Date: 19-May-2000 13:58

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2170-E.b/c-b2371.d
Lab Smp Id: DD6A7103 Client Smp ID: DF/S1/0133/SDC/001
Inj Date : 19-MAY-2000 12:52
Operator : 1891 Inst ID: gc3.i
Smp Info : DD6A7103,2170-E.b,,PEST.sub,,,
Misc Info : 13019/4 2004 DF 5-19-00
Comment :
Method : /var/chem/gc3.i/2170-E.b/PESTB.m
Meth Date : 19-May-2000 11:24 eppinged Quant Type: ESTD
Cal Date : 18-MAY-2000 01:57 Cal File: c-b2300.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)	CONCENTRATIONS FINAL (mg/L)	
5 alpha-BHC	Compound Not Detected.						
4 HEXACHLOROBENZENE	6.675	6.650	0.025	782			(a)
6 gamma-BHC (Lindane)	Compound Not Detected.						
7 beta-BHC	Compound Not Detected.						
9 Chlordane	Compound Not Detected						
10 Heptachlor	Compound Not Detected.						
8 delta-BHC	Compound Not Detected						
11 Aldrin	Compound Not Detected.						
12 Heptachlor epoxide	Compound Not Detected						
13 gamma-Chlordane	Compound Not Detected.						
14 alpha-Chlordane	Compound Not Detected						
15 Endosulfan I	Compound Not Detected.						
16 4,4'-DDE	Compound Not Detected.						
17 Dieldrin	12.867	12.867	0 000	8880	0.00214	0 000213894	(a)
20 Endrin	Compound Not Detected.						
18 Toxaphene	Compound Not Detected.						

Data File: /var/chem/gc3.i/2170-E.b/c-b2371.d
Report Date: 19-May-2000 13:58

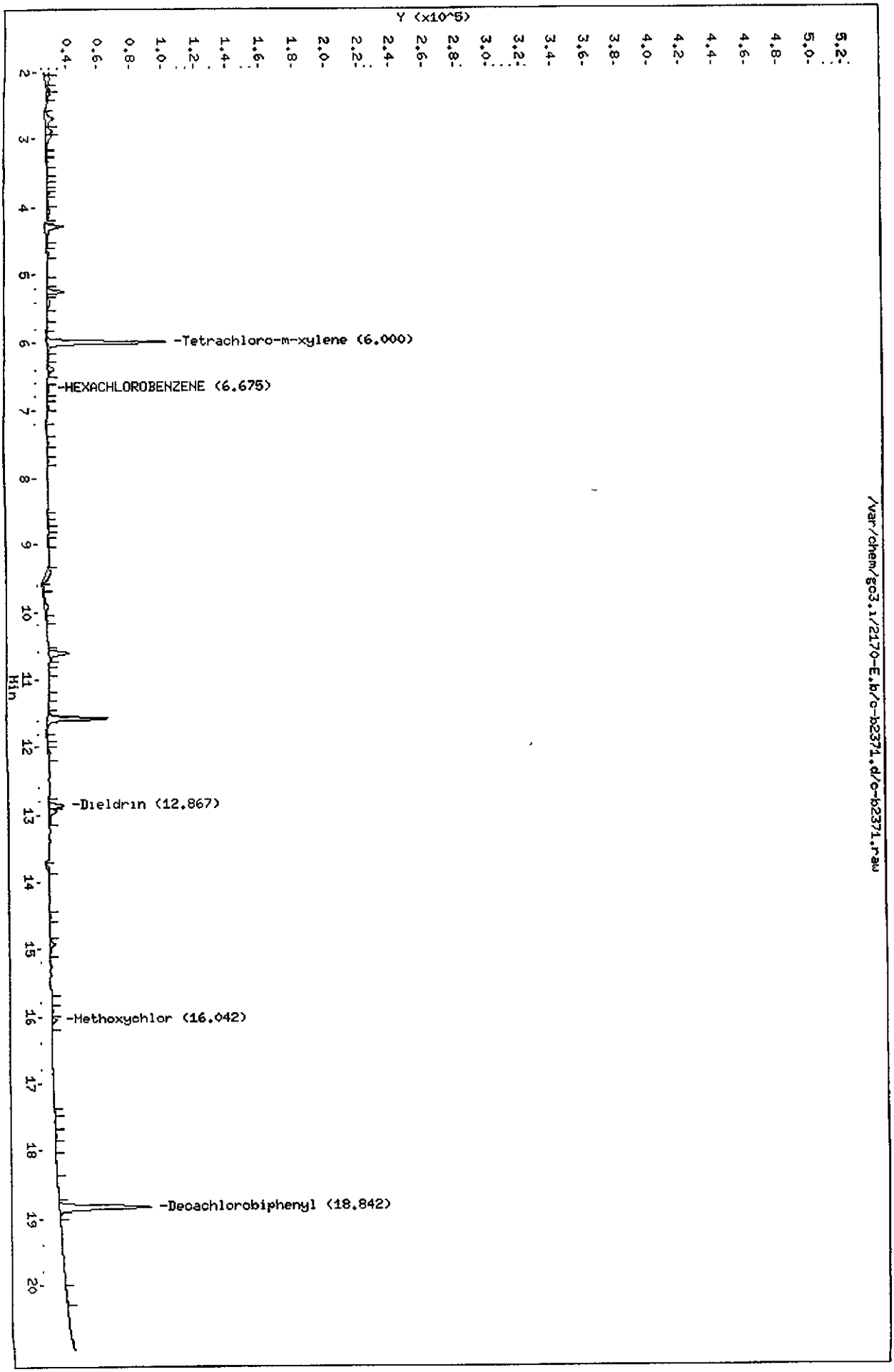
	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (mg/L)
21	4,4'-DDD	Compound Not Detected					
22	Endosulfan II	Compound Not Detected					
23	4,4'-DDT	Compound Not Detected.					
24	Endrin aldehyde	Compound Not Detected.					
26	Endosulfan sulfate	Compound Not Detected.					
25	Methoxychlor	16.042	16 017	0.025	3201	0.00256	0.000256077(a)
27	Endrin ketone	Compound Not Detected.					
$ 1	Tetrachloro-m-xylene	6.000	6.000	0 000	73353	0.01785	0.00178493(aR)
$ 30	Decachlorobiphenyl	18.842	18.842	0 000	56461	0 02087	0.00208726(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/gc3.i/2170-E.b/c-b2371.d
Date : 19-MAY-2000 12:52
Client ID: DF/SI/0133/SDC/001
Sample Info: DD6A703,2170-E.b,,PEST.sub,,,
Volume Injected (uL): 1.0
Column phase: RTX-CLP2

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



PESTICIDE
CALIBRATION DATA

657 358
Report Date : 19-May-2000 11:01

6D
HP589032
RT7-LLP

STL-PITTSBURGH

COMPOUND LISTING

Method file : /var/chem/gc3.i/2170-E.b/PESTA.m
Quant Method : ESTD
Last Update : 19-May-2000 11:00
Data Type : GC MULTI COMP
Target Version : 3.40
Number of Cpnds : 30

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	4.558	4.508-4.608	4.049e+06
	2 Diallate A	5.725	5.675-5.775	1.305e+05
	3 Diallate B	6.033	5.983-6.083	3.835e+04
	4 HEXACHLOROBENZENE	6.650	6.600-6.700	
	5 alpha-BHC	5.883	5.833-5.933	5.563e+06
	6 gamma-BHC (Lindane)	6.625	6.575-6.675	5.103e+06
	7 beta-BHC	6.908	6.858-6.958	2.423e+06
	8 delta-BHC	7.258	7.208-7.308	4.700e+06
	9 Chlordane	7.492	7.442-7.542	1.521e+05
		7.675	7.625-7.725	2.832e+05
		9.925	9.875-9.975	4.148e+05
		10.200	10.150-10.250	5.833e+05
	10 Heptachlor	7.675	7.625-7.725	4.793e+06
	11 Aldrin	8.300	8.250-8.350	4.458e+06
	12 Heptachlor epoxide	9.650	9.600-9.700	4.174e+06
	13 gamma-Chlordane	9.925	9.875-9.975	4.337e+06
	14 alpha-Chlordane	10.200	10.150-10.250	4.289e+06
	15 Endosulfan I	10.425	10.375-10.475	3.858e+06
	16 4,4'-DDE	10.550	10.500-10.600	3.642e+06
	17 Dieldrin	10.942	10.892-10.992	4.054e+06
	18 Toxaphene	11.458	11.408-11.508	5.625e+04
		11.833	11.783-11.883	6.398e+04
		12.575	12.525-12.625	7.043e+04
		13.333	13.283-13.383	7.309e+04

6D
HP589032
RTX-CLP

Report Date : 19-May-2000 11:01

STL-PITTSBURGH

COMPOUND LISTING

Method file : /var/chem/gc3.i/2170-E.b/PESTA.m

	Compound	RT	RT Window	RF
	19 Isodrin	8.975	8.925-9.025	3.602e+06
	20 Endrin	11.375	11.325-11.425	3.529e+06
	21 4,4'-DDD	11.767	11.717-11.817	2.918e+06
	22 Endosulfan II	11.850	11.800-11.900	3.542e+06
	23 4,4'-DDT	12.317	12.267-12.367	2.772e+06
	24 Endrin aldehyde	12.717	12.667-12.767	2.938e+06
	25 Methoxychlor	13.450	13.400-13.500	1.393e+06
	26 Endosulfan sulfate	13.583	13.533-13.633	3.064e+06
	27 Endrin ketone	14.083	14.033-14.133	3.451e+06
	28 Chlorobenzilate	11.425	11.375-11.475	2.041e+06
	29 Kepone	11.867	11.817-11.917	3.543e+04
$	30 Decachlorobiphenyl	16.300	16.250-16.350	3.294e+06

Report Date : 18-May-2000 10:47

6E
HP589032
RTX-CLP

STL-PITTSBURGH

INITIAL CALIBRATION DATA

Start Cal Date : 17-MAY-2000 17:15
End Cal Date : 18-MAY-2000 01:57
Quant Method : ESTD
Origin : Disabled
Target Version : 3.40
Integrator : Falcon
Method file : /var/chem/gc3.i/2170-E.b/PESTA.m
Cal Date : 18-May-2000 10:47 eppinged
Curve Type : Average

Calibration File Names:
Level 1: /var/chem/gc3.i/2170-E.b/c-a2296.d
Level 2: /var/chem/gc3.i/2170-E.b/c-a2297.d
Level 3: /var/chem/gc3.i/2170-E.b/c-a2298.d
Level 4: /var/chem/gc3.i/2170-E.b/c-a2299.d
Level 5: /var/chem/gc3.i/2170-E.b/c-a2300.d

Compound	0.00500 Level 1	0 01000 Level 2	0.02500 Level 3	0.05000 Level 4	0.10000 Level 5	RRF	% RSD	
2 Diallate A	180370	138568	123042	106619	104129	130546	23.837	<-
3 Diallate B	50940	41328	36832	31827	30832	38352	21.373	<-
4 HEXACHLOROBENZENE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
5 alpha-BHC	6201600	5940500	5497520	5292360	4883520	5563100	9.382	
6 gamma-BHC (Lindane)	5748800	5480200	5068640	4821620	4394410	5102734	10.470	
7 beta-BHC	2788800	2670100	2413960	2249220	1991370	2422690	13.238	
8 delta-BHC	4790400	5047700	4731720	4637920	4291070	4699762	5.838	
9 Chlordane(1)	+++++	+++++	152132	+++++	+++++	152132	0.000	
(2)	+++++	+++++	283184	+++++	+++++	283184	0.000	
(3)	+++++	+++++	414792	+++++	+++++	414792	0.000	
(4)	+++++	+++++	583336	+++++	+++++	583336	0.000	
10 Heptachlor	5807600	5321900	4677120	4312460	3846250	4793066	16.328	
11 Aldrin	4870200	4937500	4453960	4230020	3797330	4457802	10.571	
12 Heptachlor epoxide	4770200	4701500	4116600	3865260	3414080	4173528	13.711	
13 gamma-Chlordane	4875800	4838500	4287960	4051200	3630790	4336850	12 226	
14 alpha-Chlordane	4880800	4841000	4217680	3948900	3558280	4289332	13 340	
15 Endosulfan I	4606400	4316300	3744800	3517560	3106900	3858392	15.674	
16 4,4'-DDE	3849800	3936500	3610960	3544360	3267940	3641912	7 269	
17 Dieldrin	4622600	4444200	4014280	3785980	3404230	4054258	12 154	
18 Toxaphene(1)	+++++	+++++	56250	+++++	+++++	56250	0.000	
(2)	+++++	+++++	63978	+++++	+++++	63978	0.000	
(3)	+++++	+++++	70425	+++++	+++++	70425	0.000	
(4)	+++++	+++++	73090	+++++	+++++	73090	0.000	
19 Isodrin	4271900	3746920	3640820	3194413	3155760	3601963	12 696	
20 Endrin	4185800	3758000	3460640	3294520	2947770	3529346	13.300	
21 4,4'-DDD	3119600	3110600	2854360	2853120	2651800	2917896	6.787	

Report Date : 18-May-2000 10:47

6E
HP589035
RTX-CLP

STL-PITTSBURGH

INITIAL CALIBRATION DATA

Start Cal Date : 17-MAY-2000 17:15
End Cal Date : 18-MAY-2000 01:57
Quant Method : ESTD
Origin : Disabled
Target Version : 3.40
Integrator : Falcon
Method file : /var/chem/gc3.i/2170-E.b/PESTA.m
Cal Date : 18-May-2000 10:47 eppinged
Curve Type : Average

Compound	0.00500 Level 1	0.01000 Level 2	0.02500 Level 3	0.05000 Level 4	0.10000 Level 5	RRF	% RSD	
22 Endosulfan II	3946200	3968400	3487600	3316420	2991890	3542102	11.824	
23 4,4'-DDT	2949600	2925300	2746560	2717480	2519290	2771646	6.315	
24 Endrin aldehyde	3352600	3295100	2877080	2726800	2438460	2938008	13.152	
25 Methoxychlor	1666900	1563400	1329900	1281770	1121910	1392776	15.808	
26 Endosulfan sulfate	3413800	3386800	2994040	2882520	2641020	3063636	10.866	
27 Endrin ketone	3784000	3813300	3439400	3278340	2938130	3450634	10.600	
28 Chlorobenzilate	1264800	2168120	1616060	2304987	2852540	2041301	30.273	<-
29 Kepone	42040	38388	35702	31049	29991	35434	14.201	
$ 1 Tetrachloro-m-xylene	5067000	4562900	3935120	3569840	3110250	4049022	19.227	
$ 30 Decachlorobiphenyl	4141400	3727100	3140920	2898000	2564230	3294330	19.309	

Avg RSD 13.77%

657 362

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: STL-PITTSBURGH Contract:

Lab Code: STLPIT Case No.: SAS No.: 40325 SDG No.: SDGA18632

GC Column: RTX-CLP ID: 0.53 (mm) Init. Calib. Date(s): 05/17/00 05/18/00

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): Date Analyzed :05/17/00

Lab Sample ID (PEM): EVALB Time Analyzed :1649

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Endrin	11.37	11.32	11.43	0.024091	0.025000	-3.6
4,4'-DDT	12.31	12.27	12.37	0.024457	0.025000	-2.2

4,4'-DDT % breakdown (1): ~~11.80~~ 11.4 Endrin % breakdown (1): ~~7.14~~ 6.5

Combined % breakdown (1): ~~18.94~~ 17.9 DE 5-19-00

FORM VII PEST-1 OLM03.0

7D
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: STL-PITTSBURGH Contract:

Lab Code: STLPIT Case No.: SAS No.: 40325 SDG No.: SDGA18632

GC Column: RTX-CLP ID: 0.53 (mm) Init. Calib. Date(s): 05/17/00 05/18/00

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): Date Analyzed :05/18/00

Lab Sample ID (PEM): EVALB Time Analyzed :0315

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Endrin	11.37	11.32	11.43	0.024288	0.025000	-2.8
4,4'-DDT	12.31	12.27	12.37	0.024510	0.025000	-2.0

4,4'-DDT % breakdown (1): ~~11.54~~ 11.2

Endrin % breakdown (1): ~~9.17~~ 8.1

Combined % breakdown (1): ~~20.72~~ 19.3 DE 5-19-00

FORM VII PEST-1 OLM03.0

657 364

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: STL-PITTSBURGH Contract:

Lab Code: STLPIT Case No.: SAS No.: 40325 SDG No.: SDGA18632

GC Column: RTX-CLP ID: 0.53 (mm) Init. Calib. Date(s): 05/17/00 05/18/00

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): Date Analyzed :05/19/00

Lab Sample ID (PEM): EVALB Time Analyzed :0832

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Endrin	11.38	11.32	11.43	0.023883	0.025000	-4.5
4,4'-DDT	12.32	12.27	12.37	0.024332	0.025000	-2.7

4,4'-DDT % breakdown (1): ~~10.01~~ 9.9 Endrin % breakdown (1): ~~6.15~~ 5.7

Combined % breakdown (1): ~~16.16~~ 15.6 OE 5-19-00

FE HP588503E
RTX-CLP

657 365

Data File: /var/chem/gc3.i/2170-E.b/c-a2362.d
Report Date: 19-May-2000 10:12

STL-PITTSBURGH

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc3.i
Lab File ID: c-a2362.d
Analysis Type:
Lab Sample ID: MEDTOX
Quant Type: ESTD

Injection Date: 19-MAY-2000 08:58
Init. Calibration Date(s): 05/17/0 05/18/0
Init. Calibration Times: 17:15 01:57
Method File: /var/chem/gc3.i/2170-E.b/PESTA.m

COMPOUND	RRF	RF0	MIN RRF	%D	MAX %D
18 Toxaphene(1)	56250.000	57622 000	0 010	-2 4	15 0
(2)	63978 000	65656 000	0 010	-2.6	15.0
(3)	70425.000	71716 000	0 010	-1.8	15.0
(4)	73090 000	75594 000	0 010	-3.4	15.0
$ 1 Tetrachloro-m-xylene	4049022 000	3869640.000	0.000	4.4	15.0
$ 30 Decachlorobiphenyl	3294330.000	3097480 000	0.010	6.0	15.0

657 366

7E HP588503E
RTX-CLP

Data File: /var/chem/gc3.i/2170-E.b/c-a2363.d
Report Date: 19-May-2000 10:12

STL-PITTSBURGH

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc3.i
Lab File ID: c-a2363.d
Analysis Type:
Lab Sample ID: MEDCHLOR
Quant Type: ESTD

Injection Date: 19-MAY-2000 09:24
Init. Calibration Date(s): 05/17/0 05/18/0
Init. Calibration Times: 17:15 01:57
Method File: /var/chem/gc3.i/2170-E.b/PESTA.m

	COMPOUND	RRF	RF0	MIN RRF	%D	MAX %D
	9 Chlordane(1)	152132 000	156056.000	0.010	-2.6	15.0
	(2)	283184.000	288544.000	0.010	-1.9	15.0
	(3)	414792.000	404980.000	0.010	2.4	15.0
	(4)	583336.000	573588 000	0.010	1.7	15.0
$	1 Tetrachloro-m-xylene	4049022.000	3956600 000	0.000	2.3	15.0
$	30 Decachlorobiphenyl	3294330.000	3209280.000	0 010	2.6	15.0

FE HP589032
RT-CLP

Data File: /var/chem/gc3.i/2170-E.b/c-a2364.d
Report Date: 19-May-2000 10:12

STL-PITTSBURGH

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc3.i
Lab File ID: c-a2364.d
Analysis Type:
Lab Sample ID: MEDA
Quant Type: ESTD

Injection Date: 19-MAY-2000 09:50
Init. Calibration Date(s): 05/17/0 05/18/0
Init. Calibration Times: 17:15 01:57
Method File: /var/chem/gc3.i/2170-E.b/PESTA.m

COMPOUND	RRF	RF0	MIN RRF	%D	MAX %D
$ 1 Tetrachloro-m-xylene	4049022.000	4129800.000	0.000	-2.0	15.0
5 alpha-BHC	5563100.000	5822840.000	0 010	-4 7	15.0
6 gamma-BHC (Lindane)	5102734.000	5249360.000	0.010	-2.9	15.0
10 Heptachlor	4793066.000	4849720.000	0.010	-1.2	15.0
15 Endosulfan I	3858392 000	3853200.000	0.010	0.1	15.0
17 Dieldrin	4054258.000	4045560.000	0.010	0.2	15.0
20 Endrin	3529346 000	3574560.000	0.010	-1.3	15.0
21 4,4'-DDD	2917896.000	2946240.000	0.010	-1.0	15.0
23 4,4'-DDT	2771646.000	2747880 000	0 010	0 9	15.0
25 Methoxychlor	1392776.000	1341360.000	0.010	3 7	15.0
$ 30 Decachlorobiphenyl	3294330 000	3125680 000	0.010	5 1	15.0

657 368

FE HP589038
RT7-CLP

Data File: /var/chem/gc3.i/2170-E.b/c-a2365.d
Report Date: 19-May-2000 11:00

STL-PITTSBURGH

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc3.i
Lab File ID: c-a2365.d
Analysis Type:
Lab Sample ID: MEDB
Quant Type: ESTD

Injection Date: 19-MAY-2000 10:16
Init. Calibration Date(s): 05/17/0 05/18/0
Init. Calibration Times: 17:15 01:57
Method File: /var/chem/gc3.i/2170-E.b/PESTA.m

COMPOUND	RRF	RF0	MIN RRF	%D	MAX %D
11 Aldrin	4457802 000	4491000.000	0.010	-0 7	15 0
7 beta-BHC	2422690.000	2373680 000	0 010	2 0	15 0
8 delta-BHC	4699762.000	4727200 000	0.010	-0.6	15 0
12 Heptachlor epoxide	4173528.000	4187720.000	0.010	-0.3	15.0
13 gamma-Chlordane	4336850 000	4266360.000	0.010	1.6	15.0
14 alpha-Chlordane	4289332 000	4193800.000	0.010	2 2	15.0
16 4,4'-DDE	3641912 000	3647520.000	0.010	-0 2	15.0
22 Endosulfan II	3542102.000	3533280.000	0 010	0 2	15.0
24 Endrin aldehyde	2938008.000	2911280 000	0 010	0 9	15 0
26 Endosulfan sulfate	3063636.000	3071920.000	0 010	-0 3	15 0
27 Endrin ketone	3450634.000	3486840 000	0.010	-1.0	15.0

FE HP5890SE
RTX-CLP

Data File: /var/chem/gc3.i/2170-E.b/c-a2374.d
Report Date: 19-May-2000 14:32

STL-PITTSBURGH

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc3.i
Lab File ID: c-a2374.d
Analysis Type:
Lab Sample ID: MEDA
Quant Type: ESTD

Injection Date: 19-MAY-2000 14:10
Init. Calibration Date(s): 05/17/0 05/18/0
Init. Calibration Times: 17:15 01:57
Method File: /var/chem/gc3.i/2170-E.b/PESTA.m

	COMPOUND	RRF	RF0	MIN RRF	%D	MAX %D
$	1 Tetrachloro-m-xylene	4049022.000	4176840 000	0.000	-3.2	15.0
	5 alpha-BHC	5563100.000	5999760 000	0.010	-7.8	15.0
	6 gamma-BHC (Lindane)	5102734.000	5376040.000	0 010	-5.4	15.0
	10 Heptachlor	4793066 000	4985280.000	0 010	-4.0	15.0
	15 Endosulfan I	3858392.000	3947720.000	0.010	-2 3	15.0
	17 Dieldrin	4054258.000	4134760.000	0.010	-2 0	15.0
	20 Endrin	3529346.000	3659160 000	0 010	-3.7	15.0
	21 4,4'-DDD	2917896 000	2880880.000	0 010	1 3	15.0
	23 4,4'-DDT	2771646.000	2867800.000	0 010	-3.5	15 0
	25 Methoxychlor	1392776.000	1400940.000	0.010	-0 6	15.0
$	30 Decachlorobiphenyl	3294330.000	3223680.000	0 010	2.1	15.0

7E HP5890 3E
RT-CLP

Data File: /var/chem/gc3.i/2170-E.b/c-a2375.d
Report Date: 19-May-2000 15:20

STL-PITTSBURGH

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc3.i
Lab File ID: c-a2375.d
Analysis Type:
Lab Sample ID: MEDB
Quant Type: ESTD

Injection Date: 19-MAY-2000 14:36
Init. Calibration Date(s): 05/17/0 05/18/0
Init. Calibration Times: 17:15 01:57
Method File: /var/chem/gc3.i/2170-E.b/PESTA.m

COMPOUND	RRF	RF0	MIN RRF	%D	MAX %D
11 Aldrin	4457802.000	4539520.000	0 010	-1 8	15.0
7 beta-BHC	2422690.000	2397400.000	0.010	1.0	15.0
8 delta-BHC	4699762 000	4854040.000	0.010	-3.3	15.0
12 Heptachlor epoxide	4173528.000	4259040.000	0.010	-2.0	15.0
13 gamma-Chlordane	4336850.000	4360040.000	0.010	-0.5	15.0
14 alpha-Chlordane	4289332.000	4314960.000	0.010	-0.6	15.0
16 4,4'-DDE	3641912 000	3672480.000	0.010	-0.8	15.0
22 Endosulfan II	3542102.000	3537920 000	0.010	0.1	15.0
24 Endrin aldehyde	2938008 000	2979720.000	0.010	-1 4	15.0
26 Endosulfan sulfate	3063636.000	3094680 000	0.010	-1 0	15.0
27 Endrin ketone	3450634 000	3532360 000	0 010	-2.4	15.0

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: STL-PITTSBURGH Contract:

Lab Code: STLPIT Case No.: SAS No.: 40325 SDG No.: C0E130194

GC Column: RTX-CLP ID: 0.53 (mm) Init. Calib. Date(s): 05/17/00 05/18/00

Instrument ID: GC3

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

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 4.54 DCB: 16.27

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01		EVALB	05/17/00	1649	4.55	16.28
02		MEDTOX	05/17/00	1715	4.55	16.28
03		MEDCHLOR	05/17/00	1741	4.55	16.28
04		~~LOWAPPX9~~	05/17/00	1807		
05		MLOWA~~PPX9~~	05/17/00	1833		
06		~~MEDAPPX9~~	05/17/00	1859		
07		MHIGHAPPX9	05/17/00	1925		
08		~~HIGHAPPX9~~	05/17/00	1951		
09		LOWA	05/17/00	2017	4.55	16.28
10		MLOWA	05/17/00	2230	4.56	16.29
11		MEDA	05/17/00	2256	4.56	16.28
12		MHIGHA	05/17/00	2322	4.56	16.28
13		HIGHA	05/17/00	2348	4.55	16.28
14		LOWB	05/18/00	0014		
15		MLOWB	05/18/00	0040		
16		MEDB	05/18/00	0106		
17		MHIGHB	05/18/00	0132		
18		HIGHB	05/18/00	0157		
19		2ND A	05/18/00	0223	4.56	16.28
20		2ND B	05/18/00	0249		
21		EVALB	05/18/00	0315	4.56	16.28
22		EVALB	05/19/00	0832	4.56	16.29
23		MEDTOX	05/19/00	0858	4.56	16.29
24		MEDCHLOR	05/19/00	0924	4.56	16.29
25		MEDA	05/19/00	0950	4.56	16.30
26		MEDB	05/19/00	1016		
27	DF/S1/0133/S	DD6A4103	05/19/00	1042	4.56	16.29
28	DF/S1/0133/S	DD6A411A	05/19/00	1108	4.57	16.29
29	DF/S1/0133/S	DD6A411C	05/19/00	1134	4.56	16.29
30	DF/S1/0133/S	DD6A5103	05/19/00	1200	4.56	16.29
31	DF/S1/0133/S	DD6A6103	05/19/00	1226	4.56	16.29
32	DF/S1/0133/S	DD6A7103	05/19/00	1252	4.56	16.29

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.

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: STL-PITTSBURGH Contract:

Lab Code: STLPIT Case No.: SAS No.: 40325 SDG No.: C0E130194

GC Column: RTX-CLP ID: 0.53 (mm) Init. Calib. Date(s): 05/17/00 05/18/00

Instrument ID: GC3

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

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 4.54 DCB: 16.27

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01	PBLK	DDE2E101	05/19/00	1318	4.56	16.29
02	LCS	DDE2E102	05/19/00	1344	4.56	16.29
03		MEDA	05/19/00	1410	4.56	16.29
04		MEDB	05/19/00	1436		
05						
06						
07						
08						
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11						
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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.

Data File: /var/chem/gc3.i/2170-E.b/c-a2281.d
Report Date: 18-May-2000 10:59

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2170-E.b/c-a2281.d
Lab Smp Id: EVALB
Inj Date : 17-MAY-2000 16:49
Operator : 1891 Inst ID: gc3.i
Smp Info : EVALB,2170-E.b,,EVALBR.sub,,3,1
Misc Info : 190-88-8
Comment :
Method : /var/chem/gc3.i/2170-E.b/PESTA.m
Meth Date : 18-May-2000 10:58 g Quant Type: ESTD
Cal Date : 18-MAY-2000 01:57 Cal File: c-a2300.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	4.550	4.558	-0.008	82259	0.02032	0.0203158(R)
16 4,4'-DDE	10.542	10.542	0.000	717	0 000197	0.000196875
20 Endrin	11 367	11.367	0.000	85027	0.02409	0.0240914
21 4,4'-DDD	11 758	11.758	0.000	8031	0 00275	0.00275232
23 4,4'-DDT	12.308	12.308	0.000	67787	0.02446	0.0244573
24 Endrin aldehyde	12.708	12 708	0.000	1187	0 000404	0.000404015
27 Endrin ketone	14 075	14 075	0.000	4767	0.00138	0.00138148
$ 30 Decachlorobiphenyl	16.283	16.283	0.000	66957	0.02032	0.0203249(R)

QC Flag Legend

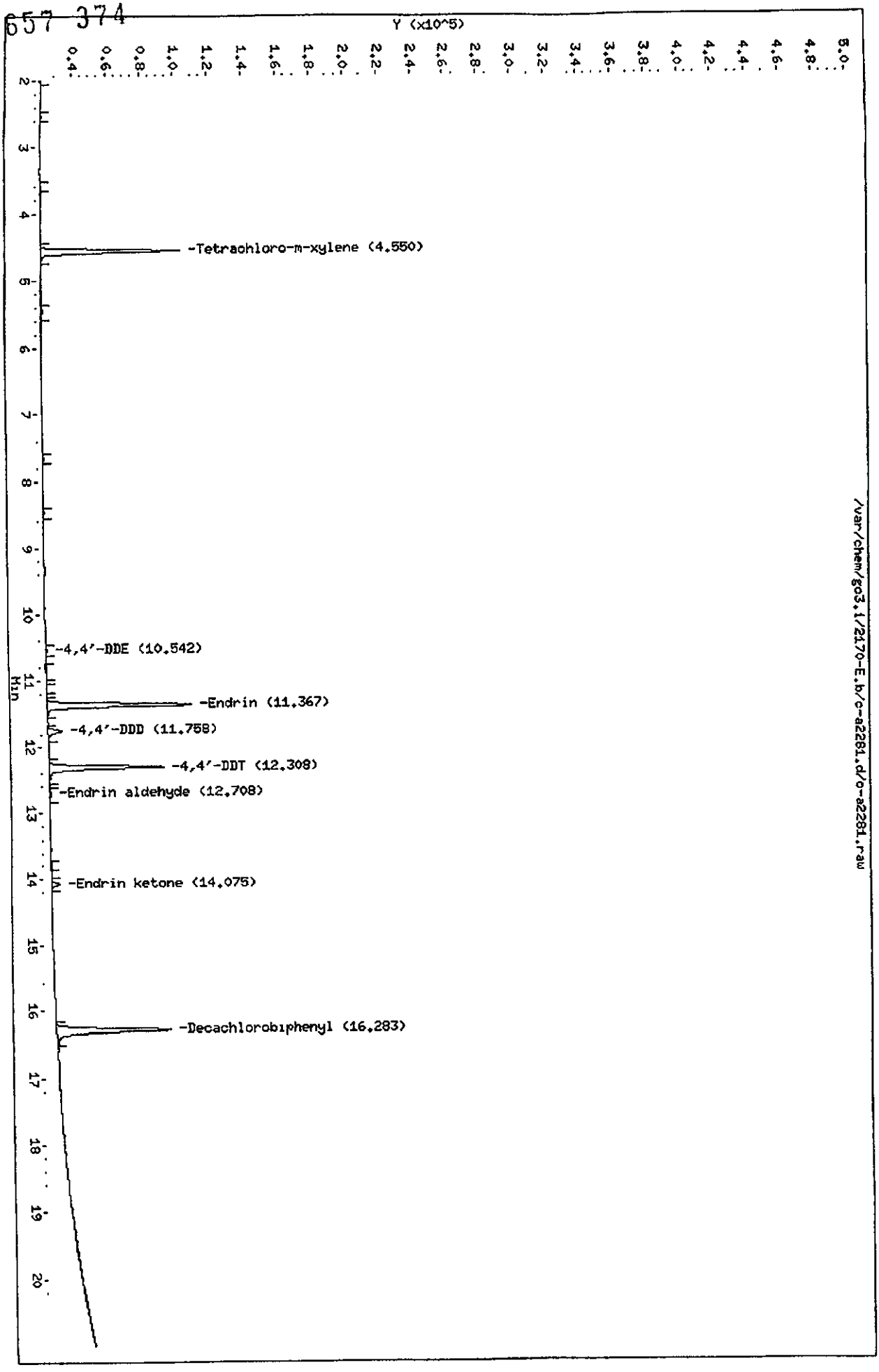
R - Spike/Surrogate failed recovery limits.

DDT 11.4%

ENDRIN 6.5%

Endrin Breakdown $\frac{(1187+4767)}{(1187+4767+85027)} \times 100 = 6.5\%$

DDT Breakdown $\frac{(717+9031)}{(717+9031+67787)} \times 100 = 11.4\%$


Data File: /var/chem/gc3.i/2170-E.b/c-a2281.d
Date : 17-MAY-2000 16:49
Client ID:
Sample Info: EVALB,2170-E,b,,EVALBR.sub,,3,1
Column phase: RTX-CLP
Instrument: gc3.i
Operator: 1891
Column diameter: 0.53
/var/chem/gc3.i/2170-E.b/c-a2281.d/c-a2281.raw
Y (x10^5)
Min
-Tetrachloro-m-xylene (4.550)
-4,4'-DDE (10.542)
-Endrin (11.367)
-4,4'-DDD (11.758)
-4,4'-DDT (12.308)
-Endrin aldehyde (12.708)
-Endrin ketone (14.075)
-Decachlorobiphenyl (16.283)

Data File: /var/chem/gc3.i/2170-E.b/c-a2282.d
Report Date: 18-May-2000 10:48

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2170-E.b/c-a2282.d
Lab Smp Id: MEDTOX
Inj Date : 17-MAY-2000 17:15
Operator : 1891 Inst ID: gc3.i
Smp Info : MEDTOX,2170-E.b,,1-TOX.sub,,1,3
Misc Info : 190-84-13
Comment :
Method : /var/chem/gc3.i/2170-E.b/PESTA.m
Meth Date : 18-May-2000 10:48 eppinged Quant Type: ESTD
Cal Date : 17-MAY-2000 17:15 Cal File: c-a2282.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 1-TOX.sub
Target Version: 3.40

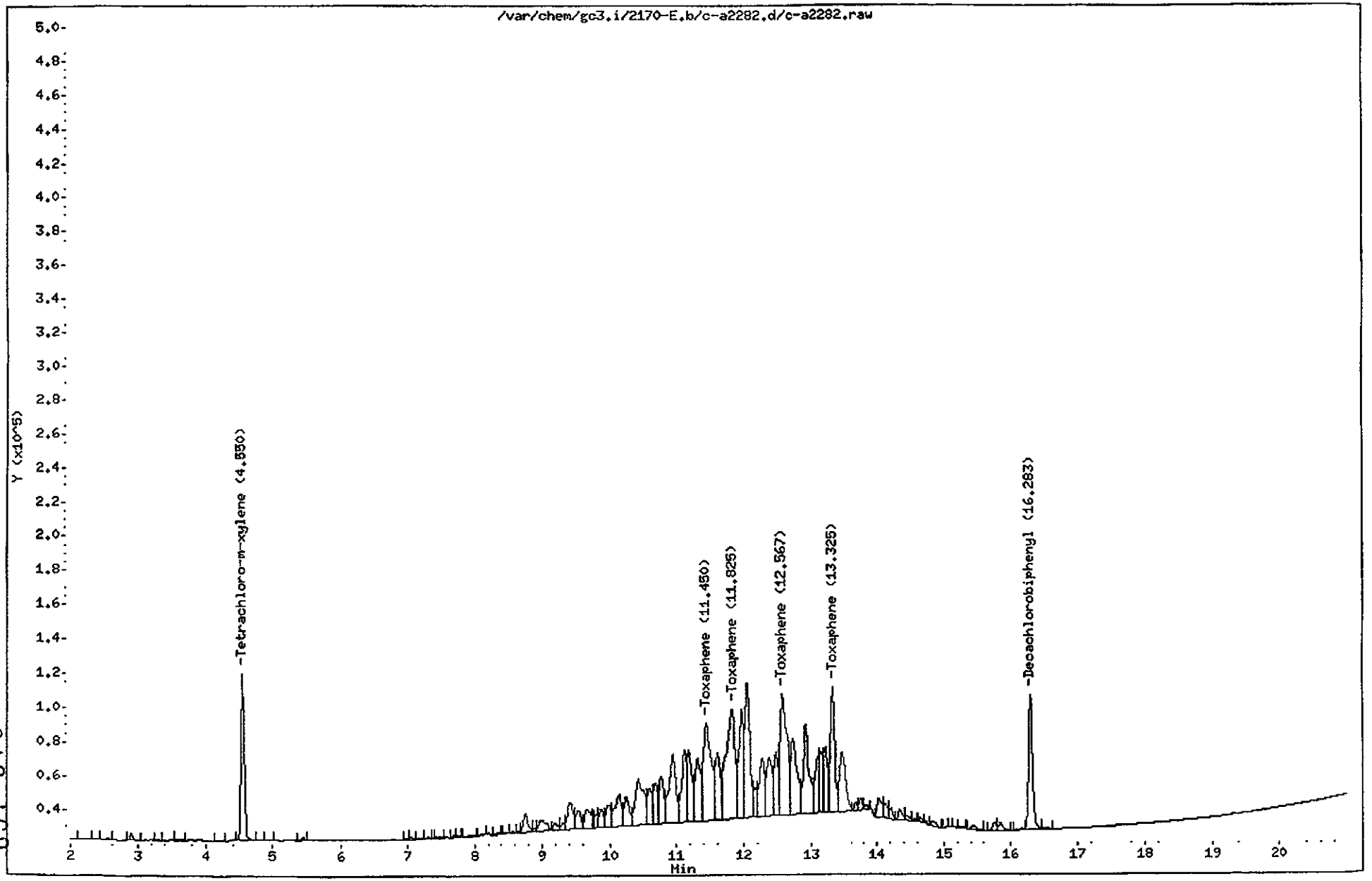
					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ng)	(ng)
18 Toxaphene	11.450	11.450	0.000	56250	1.00000	1.00000
$ 1 Tetrachloro-m-xylene	4.550	4.558	-0.008	97585	0.02500	0.0250000
$ 30 Decachlorobiphenyl	16.283	16.283	0.000	78886	0.02500	0.0250000

Data File: /var/chem/gc3.i/2170-E.b/c-a2282.d
Date : 17-MAY-2000 17:15
Client ID:
Sample Info: MEDTOX,2170-E.b,,1-TOX.sub,,1,3

Instrument: gc3.i

Operator: 1891
Column diameter: 0.53

Column phase: RTX-CLP

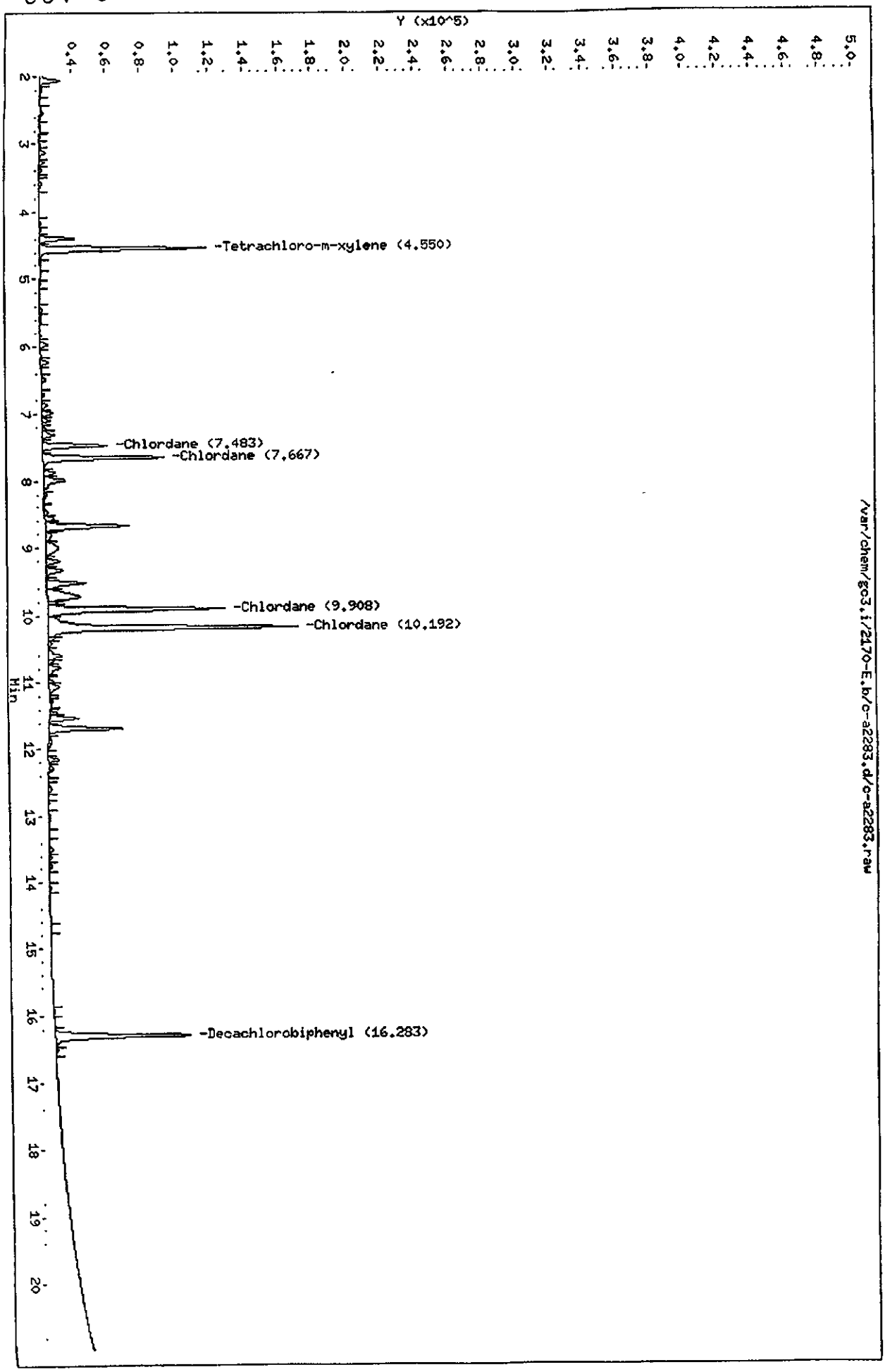


Data File: /var/chem/gc3.i/2170-E.b/c-a2283.d
Report Date: 18-May-2000 10:48

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2170-E.b/c-a2283.d
Lab Smp Id: MEDCHLOR
Inj Date : 17-MAY-2000 17:41
Operator : 1891 Inst ID: gc3.i
Smp Info : MEDCHLOR,2170-E.b,,2-CHLO.sub,,1,3
Misc Info : 190-85-10
Comment :
Method : /var/chem/gc3.i/2170-E.b/PESTA.m
Meth Date : 18-May-2000 10:48 eppinged Quant Type: ESTD
Cal Date : 17-MAY-2000 17:41 Cal File: c-a2283.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 2-CHLO.sub
Target Version: 3.40

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ng)	(ng)
9 Chlordane	7.483	7 483	0.000	38033	0.25000	0.250000
$ 1 Tetrachloro-m-xylene	4.550	4.558	-0.008	97514	0.02500	0.0250000
$ 30 Decachlorobiphenyl	16.283	16.283	0.000	79795	0.02500	0 0250000

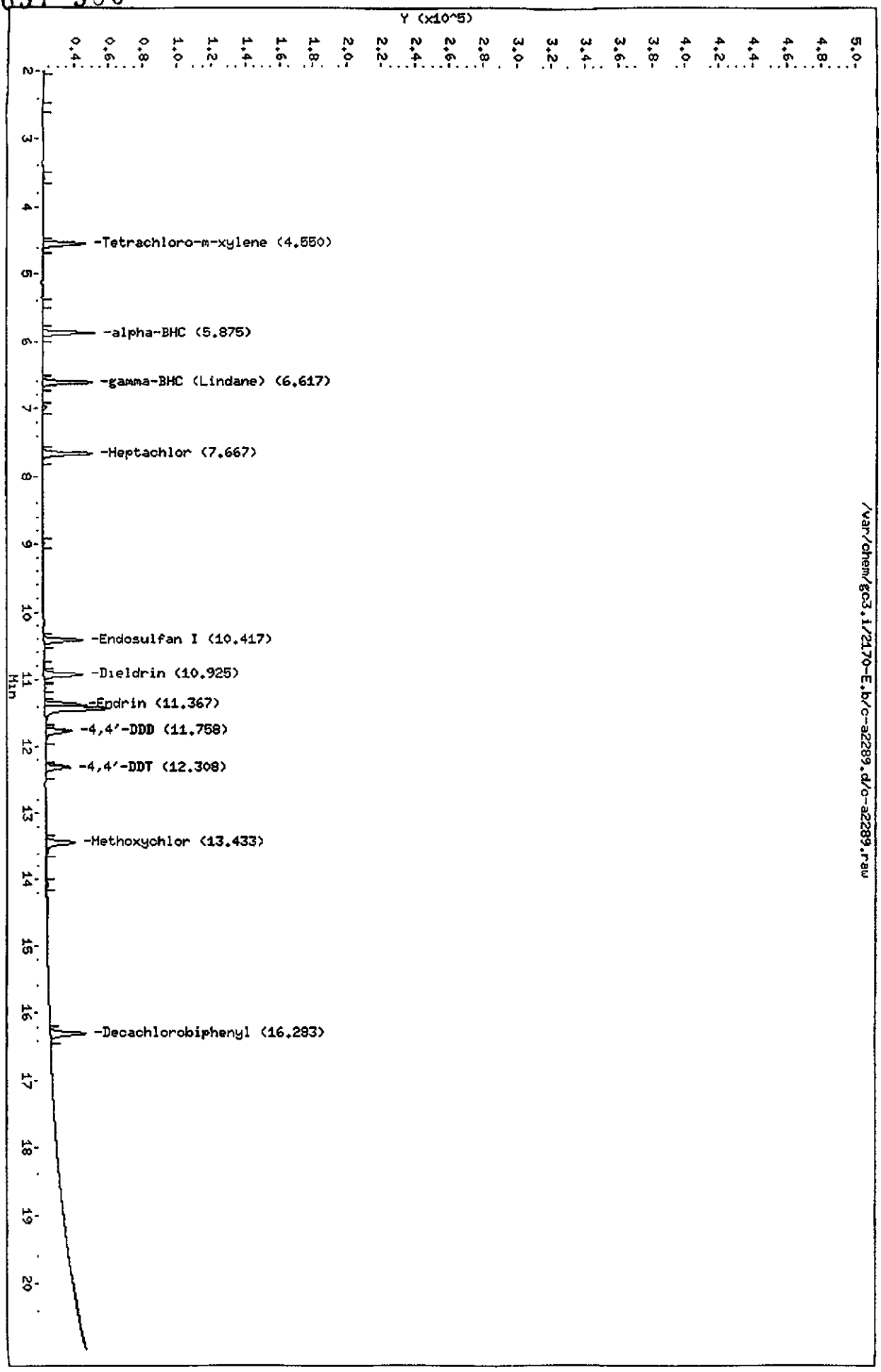

Data File: /var/chem/go3.i/2170-E,b/c-a2283.d
Date : 17-MAY-2000 17:41
Client ID:
Sample Info: HEXCHLOR,2170-E,b,,2-CHLO,sub,,1,3
Instrument: go3.i
Operator: 1891
Column diameter: 0.53
Column phase: RTX-CLP
/var/chem/go3.i/2170-E,b/c-a2283.d/c-a2283.raw
Y (x10^5)
Min
-Tetrachloro-m-xylene (4.550)
-Chlordane (7.483)
-Chlordane (7.667)
-Chlordane (9.908)
-Chlordane (10.192)
-Decachlorobiphenyl (16.283)

Data File: /var/chem/gc3.i/2170-E.b/c-a2289.d
Report Date: 18-May-2000 10:49

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2170-E.b/c-a2289.d
Lab Smp Id: LOWA
Inj Date : 17-MAY-2000 20:17
Operator : 1891 Inst ID: gc3.i
Smp Info : LOWA,2170-E.b,,3-INDA.sub,,1,1
Misc Info : 190-84-1
Comment :
Method : /var/chem/gc3.i/2170-E.b/PESTA.m
Meth Date : 18-May-2000 10:48 eppinged Quant Type: ESTD
Cal Date : 17-MAY-2000 20:17 Cal File: c-a2289.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 3-INDA.sub
Target Version: 3.40

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ng)	(ng)
$ 1 Tetrachloro-m-xylene	4.550	4.558	-0.008	25335	0.00500	0 00565037
5 alpha-BHC	5.875	5.883	-0.008	31008	0.00500	0 00500000
6 gamma-BHC (Lindane)	6.617	6.617	0 000	28744	0.00500	0.00500000
10 Heptachlor	7.667	7.675	-0.008	29038	0.00500	0 00500000
15 Endosulfan I	10.417	10 425	-0.008	23032	0.00500	0.00500000
17 Dieldrin	10.925	10.933	-0.008	23113	0.00500	0.00500000
20 Endrin	11 367	11 367	0.000	20929	0 00500	0 00500000
21 4,4'-DDD	11 758	11.758	0 000	15598	0.00500	0.00500000
23 4,4'-DDT	12 308	12.308	0 000	14748	0.00500	0.00500000
25 Methoxychlor	13.433	13.442	-0.009	16669	0.01000	0 0100000
$ 30 Decachlorobiphenyl	16 283	16.283	0.000	20707	0.00500	0.00564747



Data File: /var/chem/gc3.i/2170-E.b/c-a2289.d
Date : 17-MAY-2000 20:17
Client ID:
Sample Info: LCWA,2170-E.b,3-INDA.sub,1,1

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

Column phase: RTX-CLP

Data File: /var/chem/gc3.i/2170-E.b/c-a2292.d
Report Date: 18-May-2000 10:49

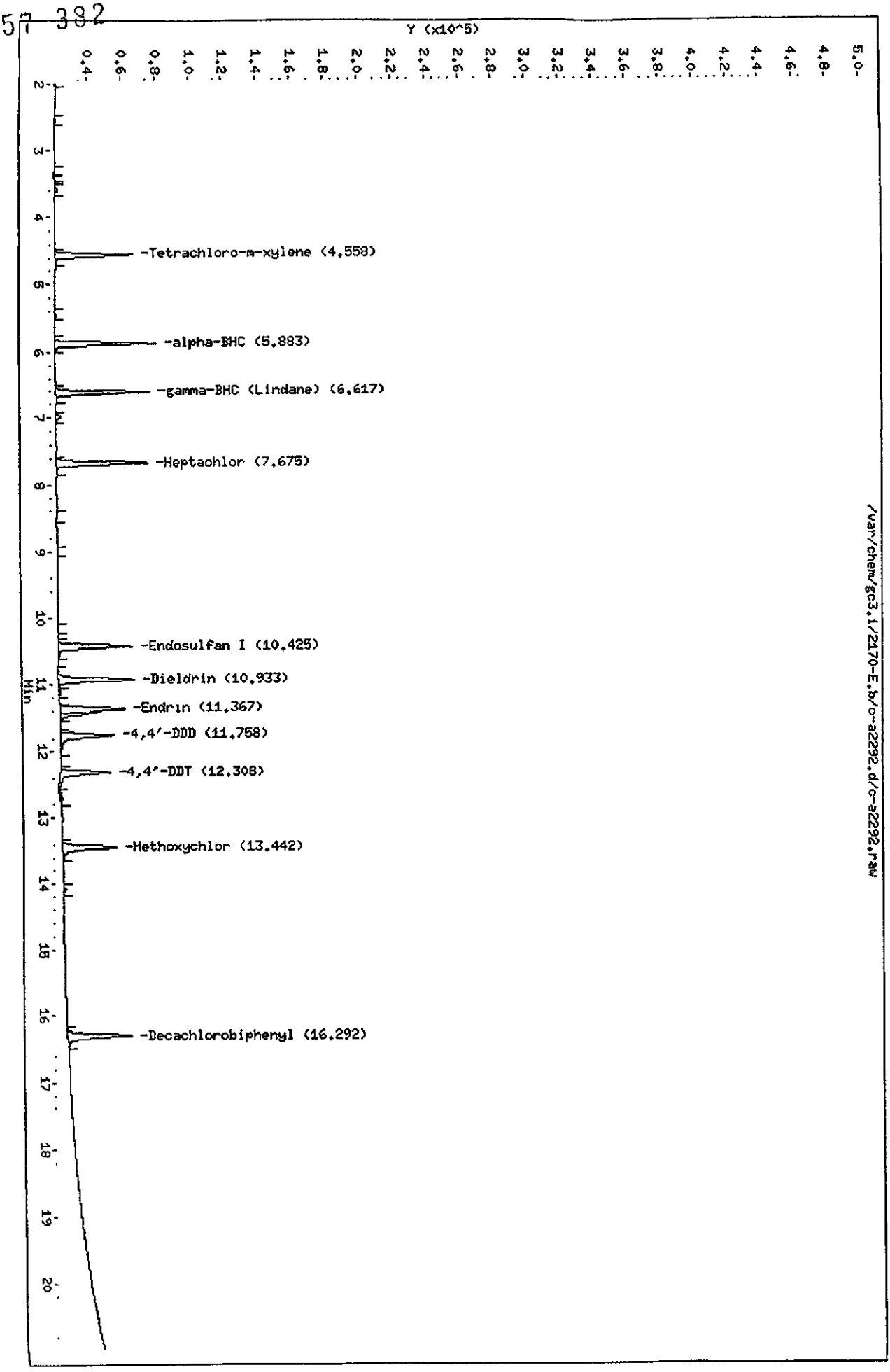
STL-PITTSBURGH

Data file : /var/chem/gc3.i/2170-E.b/c-a2292.d
Lab Smp Id: MLOWA
Inj Date : 17-MAY-2000 22:30
Operator : 1891 Inst ID: gc3.i
Smp Info : MLOWA,2170-E.b,,3-INDA.sub,,1,2
Misc Info : 190-84-2
Comment :
Method : /var/chem/gc3.i/2170-E.b/PESTA.m
Meth Date : 18-May-2000 10:48 eppinged Quant Type: ESTD
Cal Date : 17-MAY-2000 22:30 Cal File: c-a2292.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	4.558	4.558	0.000	45629	0.01000	0 0101170
5 alpha-BHC	5.883	5.883	0.000	59405	0.01000	0.00978496
6 gamma-BHC (Lindane)	6.617	6.617	0 000	54802	0.01000	0.00976080
10 Heptachlor	7.675	7.675	0 000	53219	0.01000	0.00956359
15 Endosulfan I	10.425	10.425	0 000	43163	0.01000	0.00967487
17 Dieldrin	10.933	10.933	0 000	44442	0 01000	0 00980324
20 Endrin	11.367	11.367	0 000	37580	0.01000	0.00946147(M)
21 4,4'-DDD	11.758	11.758	0.000	31106	0.01000	0.00998555
23 4,4'-DDT	12.308	12 308	0 000	29253	0.01000	0.00995864
25 Methoxychlor	13 442	13.442	0.000	31268	0.02000	0 0193592
$ 30 Decachlorobiphenyl	16.292	16.283	0.009	37271	0.01000	0.0101094

QC Flag Legend

M - Compound response manually integrated.

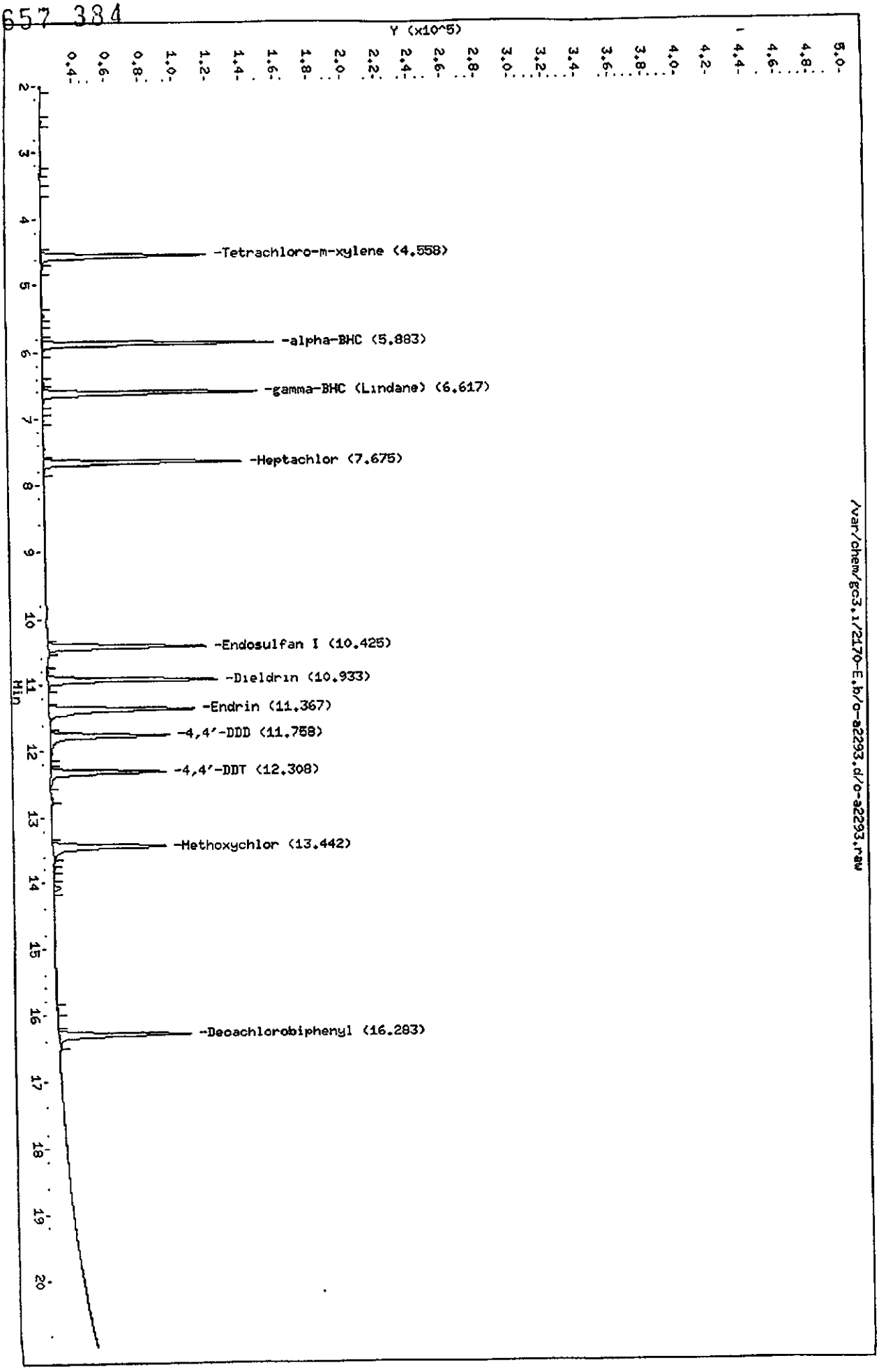

Data File: /var/chem/gc3.i/2170-E.b/c-a2292.d
Date : 17-MAY-2000 22:30
Client ID:
Sample Info: MLOW0,2170-E.b,3-INDA.sub,1,2
Instrument: gc3.i
Operator: 1891
Column diameter: 0.53
Column phase: RTX-CLP
/var/chem/gc3.i/2170-E.b/c-a2292.d/c-a2292.raw
Y (x10^5)
Min
-Tetrachloro-m-xylene (4.558)
-alpha-BHC (5.883)
-gamma-BHC (Lindane) (6.617)
-Heptachlor (7.675)
-Endosulfan I (10.425)
-Dieldrin (10.933)
-Endrin (11.367)
-4,4'-DDD (11.758)
-4,4'-DDT (12.308)
-Methoxychlor (13.442)
-Decachlorobiphenyl (16.292)

Data File: /var/chem/gc3.i/2170-E.b/c-a2293.d
Report Date: 18-May-2000 10:49

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2170-E.b/c-a2293.d
Lab Smp Id: MEDA
Inj Date : 17-MAY-2000 22:56
Operator : 1891 Inst ID: gc3.i
Smp Info : MEDA,2170-E.b,,3-INDA.sub,,1,3
Misc Info : 190-84-3
Comment :
Method : /var/chem/gc3.i/2170-E.b/PESTA.m
Meth Date : 18-May-2000 10:48 eppinged Quant Type: ESTD
Cal Date : 17-MAY-2000 22:56 Cal File: c-a2293.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 3-INDA.sub
Target Version: 3.40

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ng)	(ng)
$ 1 Tetrachloro-m-xylene	4.558	4.558	0 000	98378	0.02500	0 0217570
5 alpha-BHC	5.883	5.883	0.000	137438	0.02500	0 0233743
6 gamma-BHC (Lindane)	6.617	6.617	0.000	126716	0.02500	0 0233253
10 Heptachlor	7.675	7.675	0.000	116928	0.02500	0 0221922
15 Endosulfan I	10.425	10.425	0.000	93620	0.02500	0.0221717
17 Dieldrin	10.933	10.933	0 000	100357	0 02500	0.0230158
20 Endrin	11.367	11.367	0.000	86516	0 02500	0 0227585
21 4,4'-DDD	11.758	11.758	0.000	71359	0.02500	0.0235649
23 4,4'-DDT	12.308	12 308	0 000	68664	0 02500	0.0238929
25 Methoxychlor	13 442	13.442	0 000	66495	0.05000	0.0437448
$ 30 Decachlorobiphenyl	16.283	16.283	0.000	78523	0.02500	0.0213970

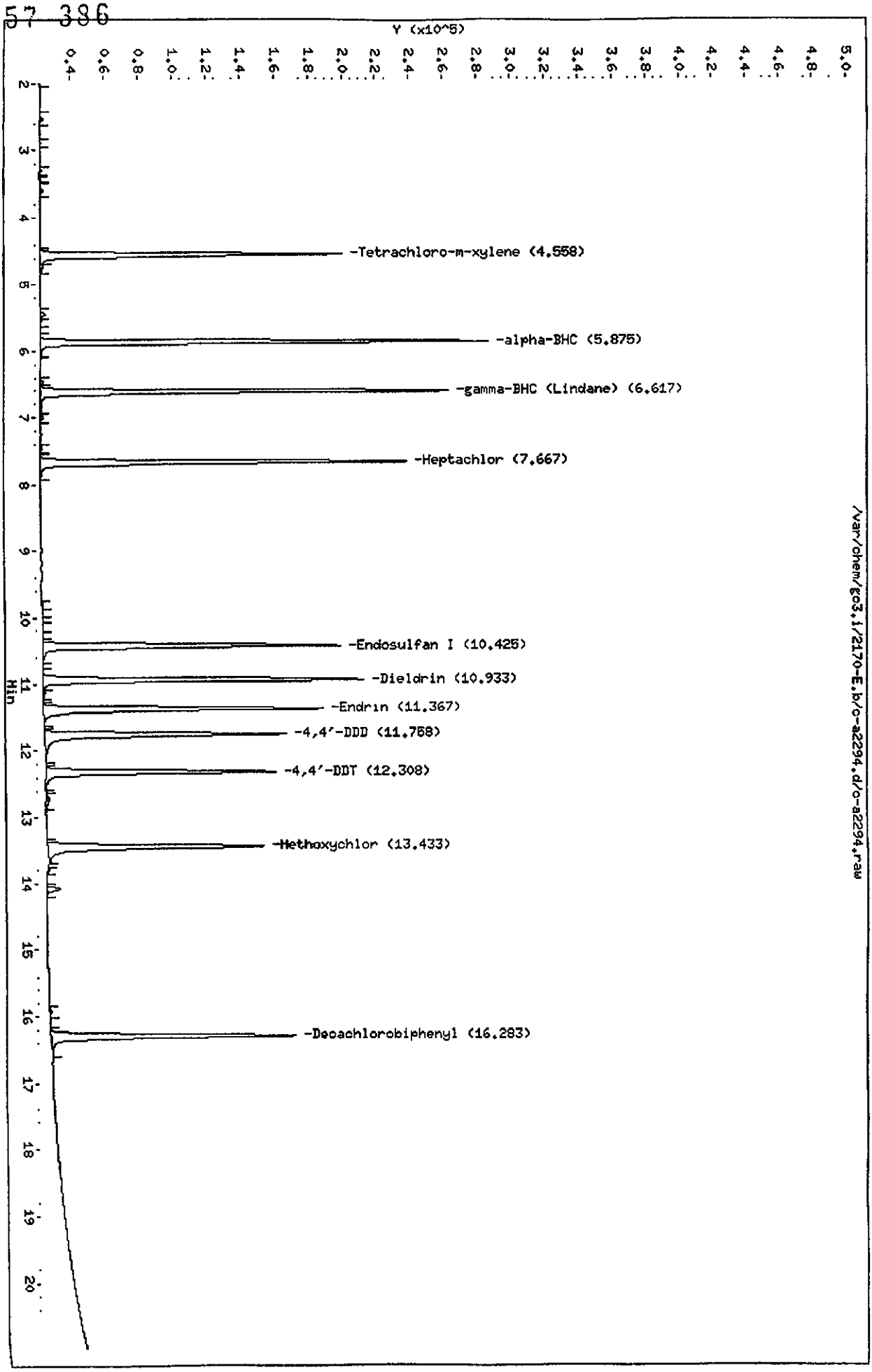

Data File: /var/chem/gc3.i/2170-E.b/c-a2293.d
Date : 17-MAY-2000 22:56
Client ID:
Sample Info: MEDA,2170-E.b,,3-INDA,sub,,1,3
Column phase: RTX-CLP
Instrument: gc3.i
Operator: 1891
Column diameter: 0.53
Y (x10^5)
/var/chem/gc3.i/2170-E.b/c-a2293.d/c-a2293.raw
-Tetrachloro-m-xylene (4.558)
-alpha-BHC (5.883)
-gamma-BHC (Lindane) (6.617)
-Heptachlor (7.675)
-Endosulfan I (10.425)
-Dieldrin (10.933)
-Endrin (11.367)
-4,4'-DDD (11.758)
-4,4'-DDT (12.308)
-Methoxychlor (13.442)
-Decachlorobiphenyl (16.283)
Min

Data File: /var/chem/gc3.i/2170-E.b/c-a2294.d
Report Date: 18-May-2000 10:49

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2170-E.b/c-a2294.d
Lab Smp Id: MHIGHA
Inj Date : 17-MAY-2000 23:22
Operator : 1891 Inst ID: gc3.i
Smp Info : MHIGHA,2170-E.b,,3-INDA.sub,,1,4
Misc Info : 190-84-4
Comment :
Method : /var/chem/gc3.i/2170-E.b/PESTA.m
Meth Date : 18-May-2000 10:48 eppinged Quant Type: ESTD
Cal Date : 17-MAY-2000 23:22 Cal File: c-a2294.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)	AMOUNTS ON-COL (ng)
$ 1	Tetrachloro-m-xylene	4.558	4.558	0.000	178492	0.05000	0.0416676
5	alpha-BHC	5.875	5 883	-0 008	264618	0.05000	0.0461570
6	gamma-BHC (Lindane)	6 617	6.617	0.000	241081	0 05000	0.0456609
10	Heptachlor	7.667	7.675	-0.008	215623	0 05000	0.0428694
15	Endosulfan I	10.425	10.425	0.000	175878	0 05000	0.0434668
17	Dieldrin	10 933	10.933	0.000	189299	0.05000	0.0448920
20	Endrin	11.367	11.367	0 000	164726	0.05000	0 0448266
21	4,4'-DDD	11.758	11 758	0.000	142656	0.05000	0.0478002
23	4,4'-DDT	12.308	12.308	0.000	135874	0.05000	0.0479318
25	Methoxychlor	13.433	13.442	-0.009	128177	0.10000	0.0877629
$ 30	Decachlorobiphenyl	16.283	16.283	0.000	144900	0 05000	0.0416756

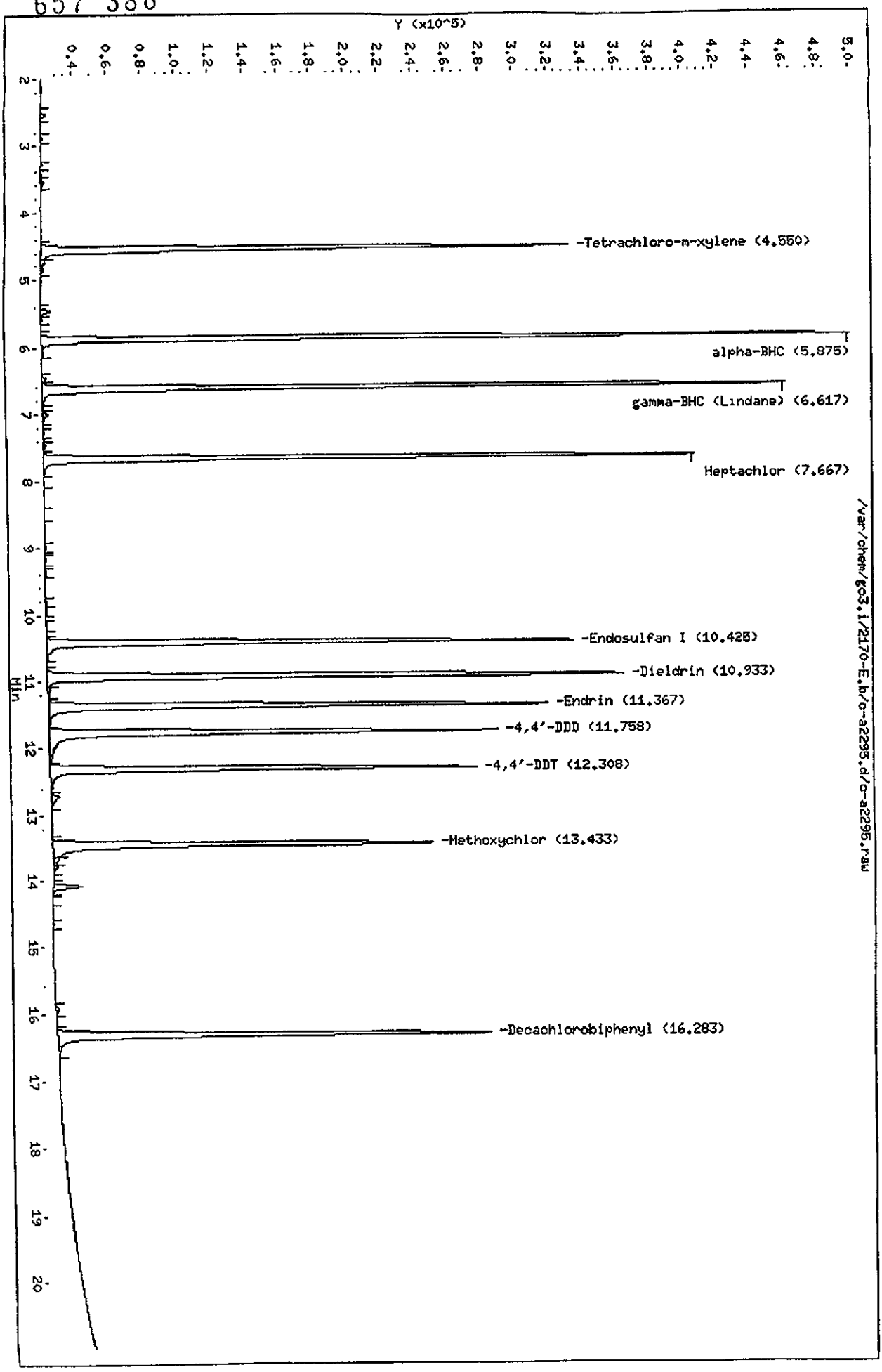

Data File: /var/chem/gc3.i/2170-E.b/c-a2294.d
Date : 17-MAY-2000 23:22
Client ID:
Sample Info: MHIGHA,2170-E.b,,3-INDA.sub,,1,4
Column phase: RTX-CLP
Instrument: gc3.i
Operator: 1891
Column diameter: 0.53
Y (x10^5)
/var/chem/gc3.i/2170-E.b/c-a2294.d/c-a2294.raw
-Tetrachloro-m-xylene (4.558)
-alpha-BHC (5.875)
-gamma-BHC (Lindane) (6.617)
-Heptachlor (7.667)
-Endosulfan I (10.425)
-Dieldrin (10.933)
-Endrin (11.367)
-4,4'-DDD (11.758)
-4,4'-DDT (12.308)
-Methoxychlor (13.433)
-Decachlorobiphenyl (16.283)
Min

Data File: /var/chem/gc3.i/2170-E.b/c-a2295.d
Report Date: 18-May-2000 10:49

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2170-E.b/c-a2295.d
Lab Smp Id: HIGHA
Inj Date : 17-MAY-2000 23:48
Operator : 1891 Inst ID: gc3.i
Smp Info : HIGHA,2170-E.b,,3-INDA.sub,,1,5
Misc Info : 190-84-5
Comment :
Method : /var/chem/gc3.i/2170-E.b/PESTA.m
Meth Date : 18-May-2000 10:48 eppinged Quant Type: ESTD
Cal Date : 17-MAY-2000 23:48 Cal File: c-a2295.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)	AMOUNTS ON-COL (ng)
$ 1	Tetrachloro-m-xylene	4.550	4.558	-0.008	311025	0.10000	0.0768148
5	alpha-BHC	5 875	5 883	-0.008	488352	0.10000	0.0877841
6	gamma-BHC (Lindane)	6.617	6.617	0.000	439441	0.10000	0.0861187
10	Heptachlor	7.667	7 675	-0 008	384625	0.10000	0.0802461
15	Endosulfan I	10.425	10.425	0.000	310690	0.10000	0 0805232
17	Dieldrin	10.933	10 933	0.000	340423	0.10000	0.0839668
20	Endrin	11.367	11 367	0 000	294777	0.10000	0 0835217
21	4,4'-DDD	11 758	11.758	0.000	265180	0.10000	0.0908806
23	4,4'-DDT	12.308	12.308	0.000	251929	0 10000	0.0908951
25	Methoxychlor	13.433	13.442	-0 009	224382	0.20000	0.161104
$ 30	Decachlorobiphenyl	16.283	16 283	0 000	256423	0 10000	0.0778377



Data File: /var/chem/gc3.i/2170-E.b/c-a2295.d
Date : 17-MAY-2000 23:48
Client ID:
Sample Info: HICHA,2170-E,b,,3-INDA,sub,,1,5

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

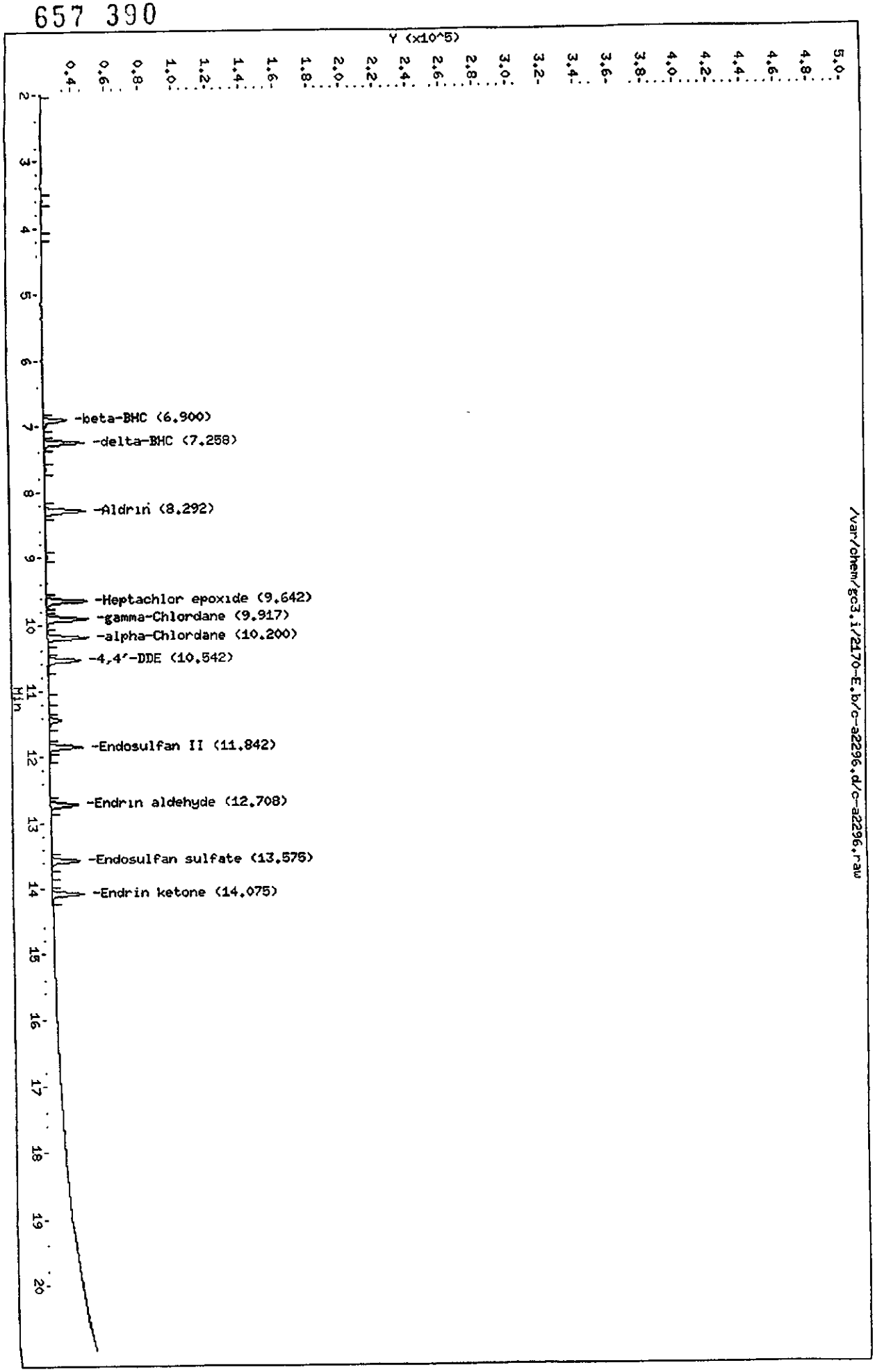
Column phase: RTX-CLP

Data File: /var/chem/gc3.i/2170-E.b/c-a2296.d
Report Date: 18-May-2000 10:49

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2170-E.b/c-a2296.d
Lab Smp Id: LOWB
Inj Date : 18-MAY-2000 00:14
Operator : 1891 Inst ID: gc3.i
Smp Info : LOWB,2170-E.b,,4-INDB.sub,,1,1
Misc Info : 190-84-7
Comment :
Method : /var/chem/gc3.i/2170-E.b/PESTA.m
Meth Date : 18-May-2000 10:48 eppinged Quant Type: ESTD
Cal Date : 18-MAY-2000 00:14 Cal File: c-a2296.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 4-INDB.sub
Target Version: 3.40

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
11 Aldrin	8.292	8.292	0.000	24351	0.00500	0.00500000
7 beta-BHC	6 900	6.900	0.000	13944	0 00500	0.00500000
8 delta-BHC	7.258	7.258	0 000	23952	0.00500	0.00500000
12 Heptachlor epoxide	9.642	9 642	0.000	23851	0 00500	0.00500000
13 gamma-Chlordane	9.917	9.917	0.000	24379	0 00500	0.00500000
14 alpha-Chlordane	10.200	10.200	0.000	24404	0.00500	0.00500000
16 4,4'-DDE	10 542	10.542	0.000	19249	0.00500	0.00500000
22 Endosulfan II	11.842	11.842	0.000	19731	0.00500	0.00500000
24 Endrin aldehyde	12.708	12.708	0.000	16763	0.00500	0.00500000
26 Endosulfan sulfate	13 575	13.575	0 000	17069	0.00500	0.00500000
27 Endrin ketone	14.075	14.075	0.000	18920	0 00500	0.00500000

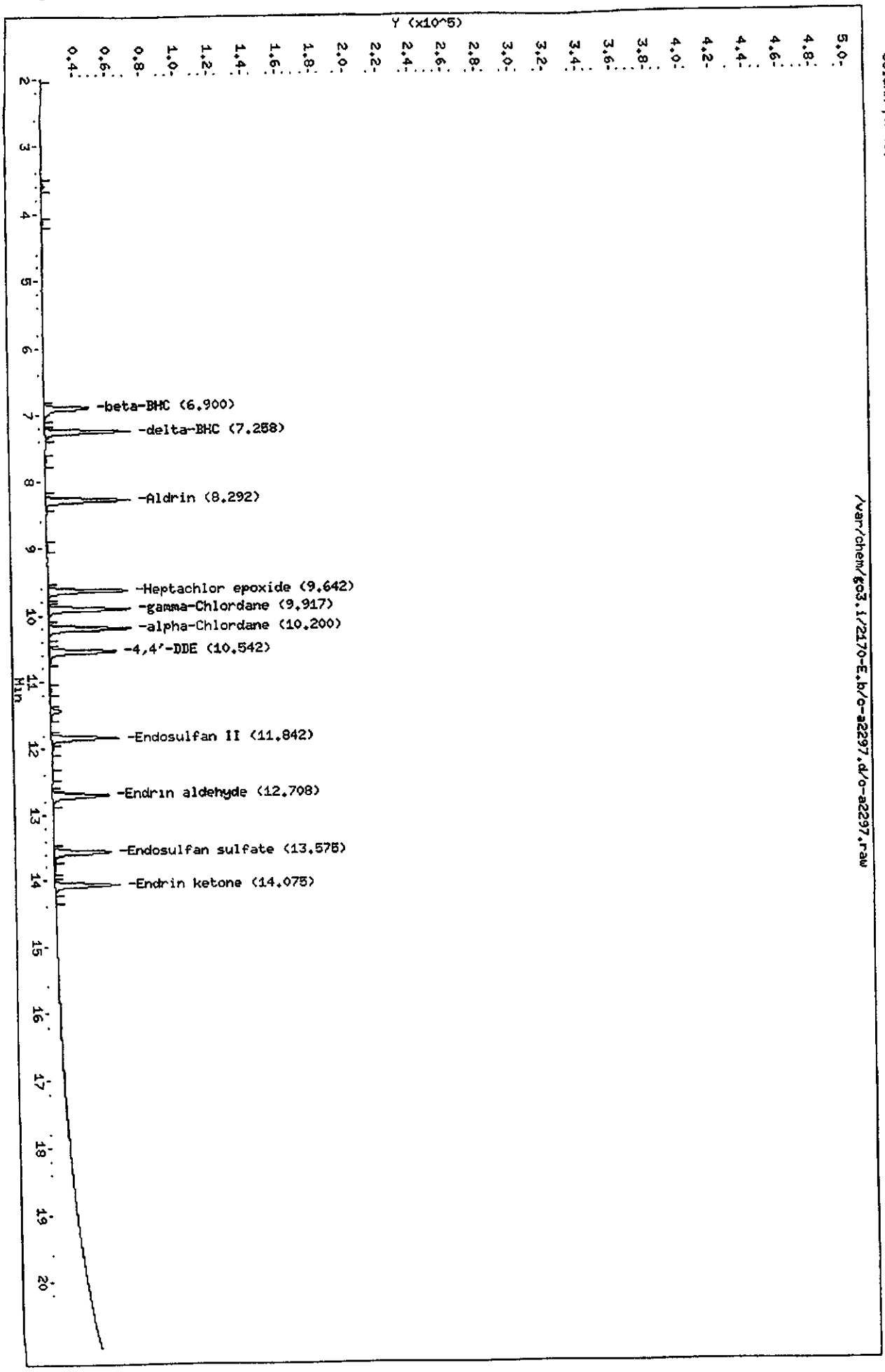

Data File: /var/chem/gc3.i/2170-E.b/c-a2296.d
Date : 18-MAY-2000 00:14
Client ID:
Sample Info: LCWB,2170-E.b,,4-INDB.sub,,1.1
Column phase: RTX-CLP
Instrument: gc3.i
Operator: 1891
Column diameter: 0.53
/var/chem/gc3.i/2170-E.b/c-a2296.d/c-a2296.raw
Y (x10^5)
Min
-beta-BHC (6.900)
-delta-BHC (7.258)
-Aldrin (8.292)
-Heptachlor epoxide (9.642)
-gamma-Chlordane (9.917)
-alpha-Chlordane (10.200)
-4,4'-DDE (10.542)
-Endosulfan II (11.842)
-Endrin aldehyde (12.708)
-Endosulfan sulfate (13.575)
-Endrin ketone (14.075)

Data File: /var/chem/gc3.i/2170-E.b/c-a2297.d
Report Date: 18-May-2000 10:49

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2170-E.b/c-a2297.d
Lab Smp Id: MLOWB
Inj Date : 18-MAY-2000 00:40
Operator : 1891 Inst ID: gc3.i
Smp Info : MLOWB,2170-E.b,,4-INDB.sub,,1,2
Misc Info : 190-84-8
Comment :
Method : /var/chem/gc3.i/2170-E.b/PESTA.m
Meth Date : 18-May-2000 10:48 eppinged Quant Type: ESTD
Cal Date : 18-MAY-2000 00:40 Cal File: c-a2297.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)	AMOUNTS ON-COL (ng)
11 Aldrin	8.292	8.292	0.000	49375	0.01000	0.0100686
7 beta-BHC	6.900	6.900	0.000	26701	0.01000	0.00978256
8 delta-BHC	7.258	7.258	0 000	50477	0.01000	0 0102615
12 Heptachlor epoxide	9 642	9.642	0.000	47015	0.01000	0.00992747
13 gamma-Chlordane	9 917	9 917	0.000	48385	0.01000	0.00996160
14 alpha-Chlordane	10.200	10.200	0.000	48410	0 01000	0 00995906
16 4,4'-DDE	10 542	10.542	0.000	39365	0.01000	0.0101113
22 Endosulfan II	11.842	11.842	0 000	39684	0.01000	0 0100280
24 Endrin aldehyde	12.708	12.708	0.000	32951	0.01000	0 00991350
26 Endosulfan sulfate	13.575	13.575	0.000	33868	0.01000	0.00996030
27 Endrin ketone	14.075	14 075	0.000	38133	0 01000	0.0100386

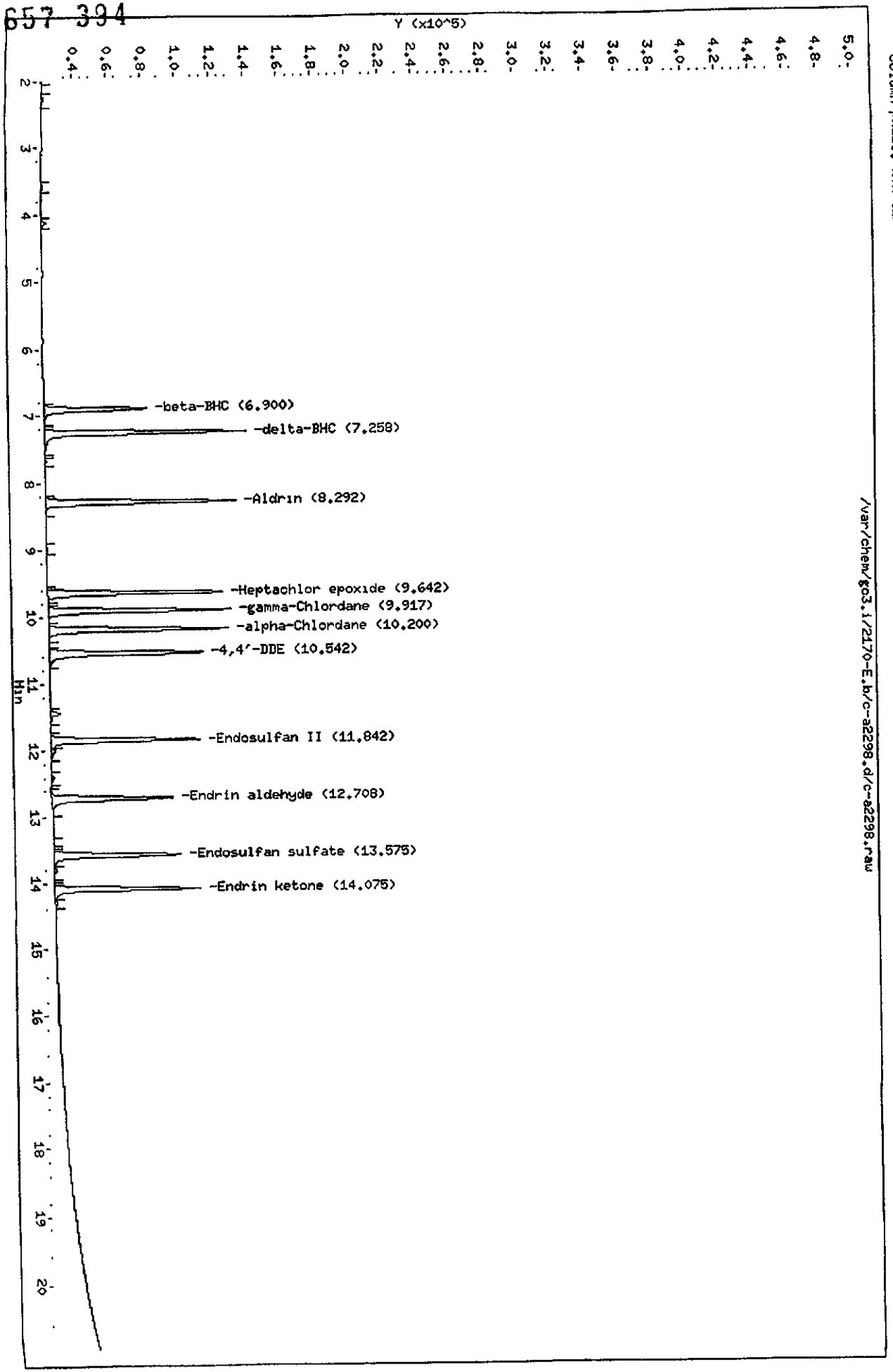

Data File: /var/chem/gc3.i/2170-E.b/c-a2297.d
Date : 18-MAY-2000 00:40
Client ID:
Sample Info: MLDWB,2170-E.b,4-INDB.sub,1,2
Column phase: RTX-CLP
Instrument: gc3.i
Operator: 1891
Column diameter: 0.53
/var/chem/gc3.i/2170-E.b/c-a2297.d/c-a2297.raw
Y (x10^5)
Min
-beta-BHC (6.900)
-delta-BHC (7.258)
-Aldrin (8.292)
-Heptachlor epoxide (9.642)
-gamma-Chlordane (9.917)
-alpha-Chlordane (10.200)
-4,4'-DDE (10.542)
-Endosulfan II (11.842)
-Endrin aldehyde (12.708)
-Endosulfan sulfate (13.575)
-Endrin ketone (14.075)

Data File: /var/chem/gc3.i/2170-E.b/c-a2298.d
Report Date: 18-May-2000 10:49

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2170-E.b/c-a2298.d
Lab Smp Id: MEDB
Inj Date : 18-MAY-2000 01:06
Operator : 1891 Inst ID: gc3.i
Smp Info : MEDB,2170-E.b,,4-INDB.sub,,1,3
Misc Info : 190-84-9
Comment :
Method : /var/chem/gc3.i/2170-E.b/PESTA.m
Meth Date : 18-May-2000 10:48 eppinged Quant Type: ESTD
Cal Date : 18-MAY-2000 01:06 Cal File: c-a2298.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 4-INDB.sub
Target Version: 3.40

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
11 Aldrin	8.292	8.292	0 000	111349	0.02500	0.0234227
7 beta-BHC	6 900	6.900	0.000	60349	0.02500	0.0229963
8 delta-BHC	7.258	7.258	0.000	118293	0.02500	0.0243571
12 Heptachlor epoxide	9.642	9.642	0.000	102915	0.02500	0.0227214
13 gamma-Chlordane	9.917	9.917	0.000	107199	0.02500	0.0229675
14 alpha-Chlordane	10.200	10.200	0.000	105442	0.02500	0.0226928
16 4,4'-DDE	10 542	10 542	0.000	90274	0.02500	0.0237620
22 Endosulfan II	11.842	11.842	0.000	87190	0.02500	0.0229403
24 Endrin aldehyde	12.708	12 708	0.000	71927	0.02500	0.0226547
26 Endosulfan sulfate	13.575	13.575	0.000	74851	0.02500	0.0229261
27 Endrin ketone	14.075	14.075	0.000	85985	0.02500	0.0233725

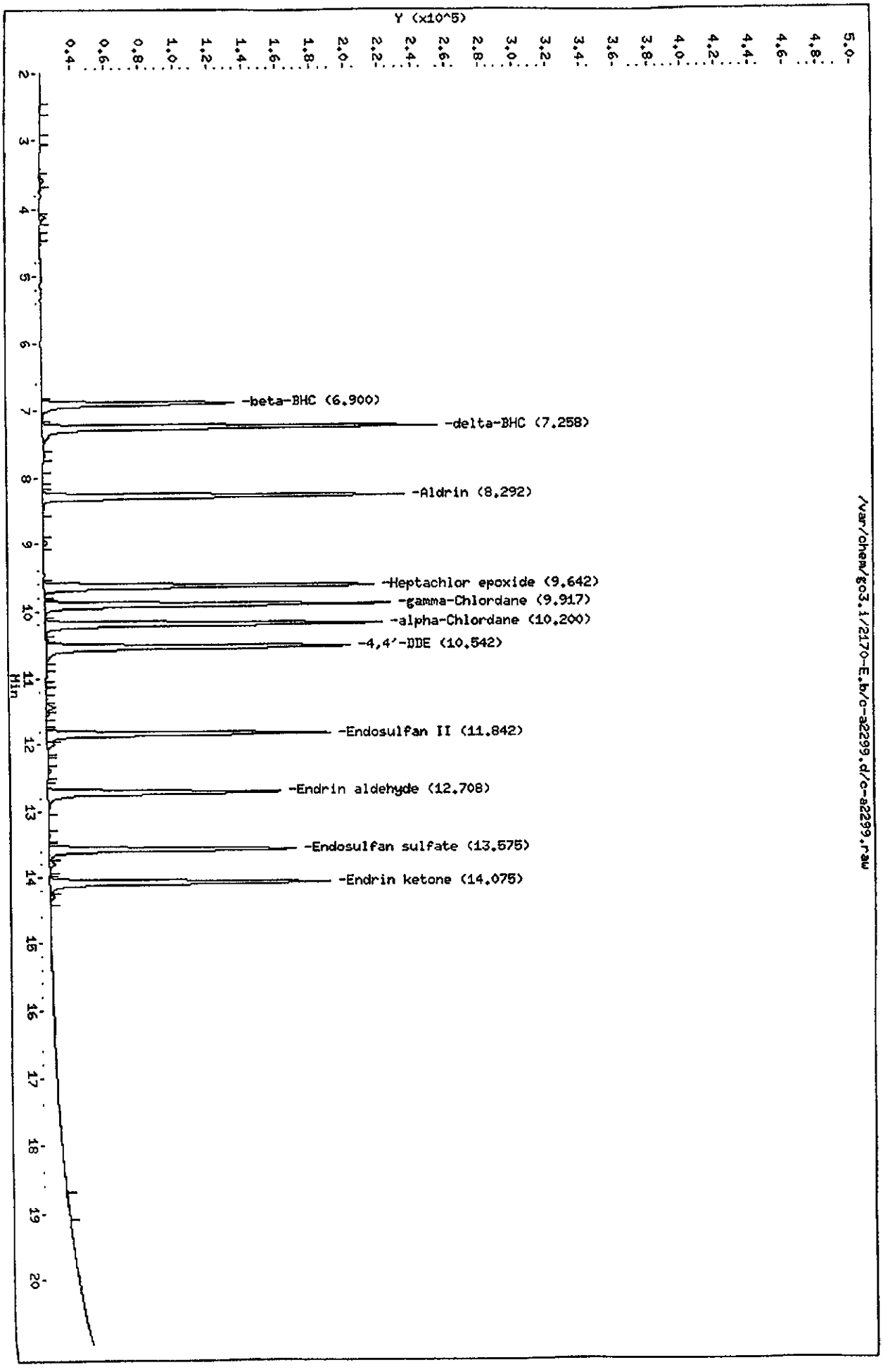

Data File: /var/chem/gc3.i/2170-E.b/c-a2298.d
Date : 18-MAY-2000 01:06
Client ID:
Sample Info: MEDB,2170-E.b,,4-INDB,sub,,1,3
Column phase: RTX-CLP
Instrument: gc3.i
Operator: 1891
Column diameter: 0.53
/var/chem/gc3.i/2170-E.b/c-a2298.d/c-a2298.raw
Y (x10^5)
Min
-beta-BHC (6.900)
-delta-BHC (7.258)
-Aldrin (8.292)
-Heptachlor epoxide (9.642)
-gamma-Chlordane (9.917)
-alpha-Chlordane (10.200)
-4,4'-DDE (10.542)
-Endosulfan II (11.842)
-Endrin aldehyde (12.708)
-Endosulfan sulfate (13.575)
-Endrin ketone (14.075)

Data File: /var/chem/gc3.i/2170-E.b/c-a2299.d
Report Date: 18-May-2000 10:49

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2170-E.b/c-a2299.d
Lab Smp Id: MHIGHB
Inj Date : 18-MAY-2000 01:32
Operator : 1891 Inst ID: gc3.i
Smp Info : MHIGHB,2170-E.b,,4-INDB.sub,,1,4
Misc Info : 190-84-10
Comment :
Method : /var/chem/gc3.i/2170-E.b/PESTA.m
Meth Date : 18-May-2000 10:48 eppinged Quant Type: ESTD
Cal Date : 18-MAY-2000 01:32 Cal File: c-a2299.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)	AMOUNTS ON-COL (ng)
11 Aldrin	8.292	8.292	0.000	211501	0.05000	0.0457505
7 beta-BHC	6.900	6 900	0.000	112461	0.05000	0 0444418
8 delta-BHC	7.258	7 258	0.000	231896	0.05000	0.0482922
12 Heptachlor epoxide	9.642	9.642	0.000	193263	0.05000	0.0442919
13 gamma-Chlordane	9.917	9.917	0.000	202560	0.05000	0.0448800
14 alpha-Chlordane	10.200	10.200	0.000	197445	0.05000	0 0441504
16 4,4'-DDE	10.542	10.542	0.000	177218	0.05000	0.0474428
22 Endosulfan II	11.842	11.842	0.000	165821	0.05000	0.0450643
24 Endrin aldehyde	12.708	12.708	0.000	136340	0.05000	0.0445134
26 Endosulfan sulfate	13.575	13.575	0.000	144126	0 05000	0.0454758
27 Endrin ketone	14.075	14.075	0.000	163917	0.05000	0.0458027

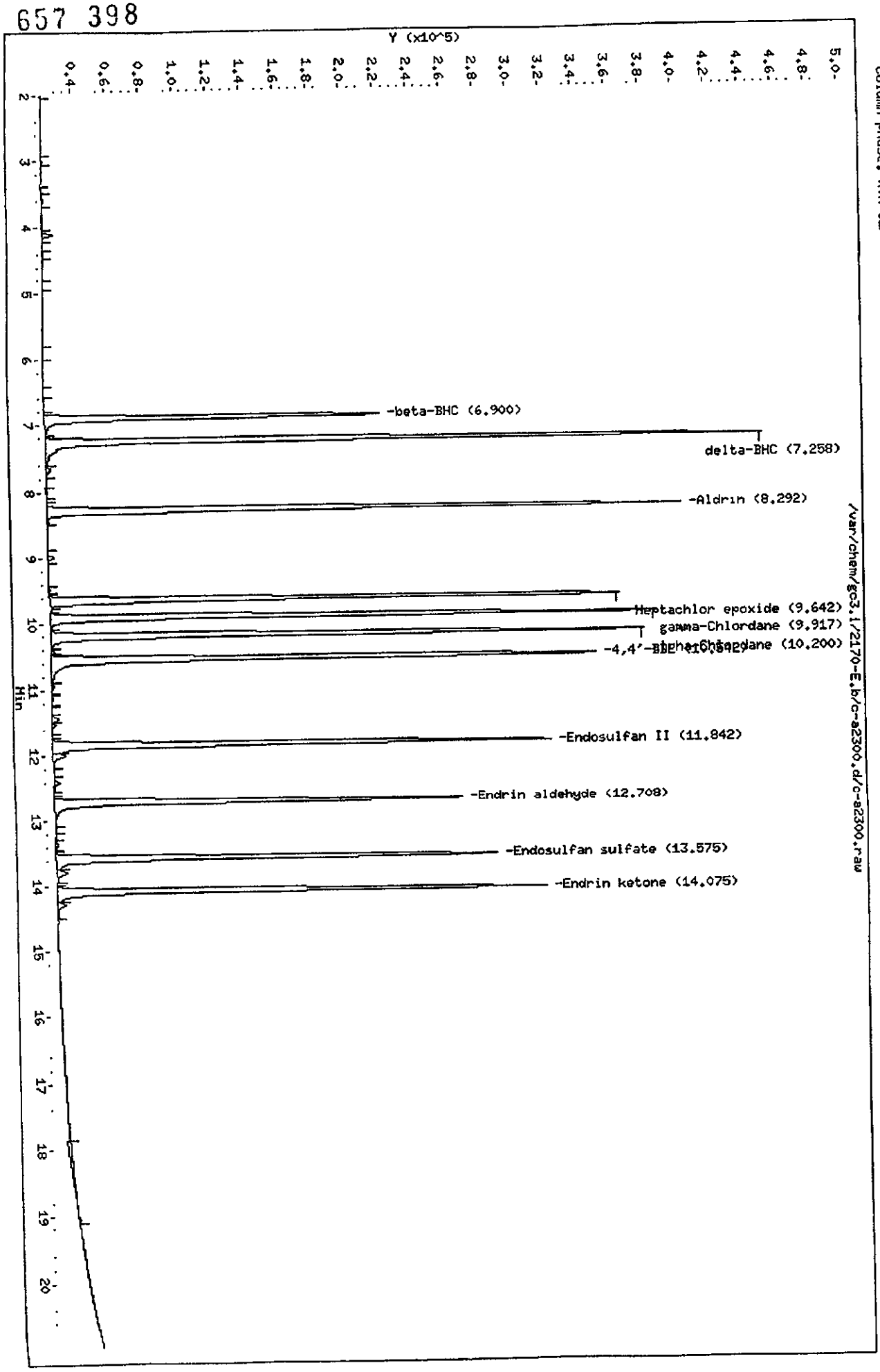

Data File: /var/chem/gc3.i/2170-E.b/c-a2299.d
Date : 18-MAY-2000 01:32
Client ID:
Sample Info: MHIGHB,2170-E.b,,4-INDB.sub,1.4
Column phase: RTX-CLP
Instrument: gc3.i
Operator: 1891
Column diameter: 0.53
/var/chem/gc3.i/2170-E.b/c-a2299.d/c-a2299.raw
Y (x10^5)
Min
-beta-BHC (6.900)
-delta-BHC (7.258)
-Aldrin (8.292)
-Heptachlor epoxide (9.642)
-gamma-Chlordane (9.917)
-alpha-Chlordane (10.200)
-4,4'-DDE (10.542)
-Endosulfan II (11.842)
-Endrin aldehyde (12.708)
-Endosulfan sulfate (13.575)
-Endrin ketone (14.075)

Data File: /var/chem/gc3.i/2170-E.b/c-a2300.d
Report Date: 18-May-2000 10:49

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2170-E.b/c-a2300.d
Lab Smp Id: HIGHB
Inj Date : 18-MAY-2000 01:57
Operator : 1891 Inst ID: gc3.i
Smp Info : HIGHB,2170-E.b,,4-INDB.sub,,1,5
Misc Info : 190-84-11
Comment :
Method : /var/chem/gc3.i/2170-E.b/PESTA.m
Meth Date : 18-May-2000 10:48 eppinged Quant Type: ESTD
Cal Date : 18-MAY-2000 01:57 Cal File: c-a2300.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 4-INDB.sub
Target Version: 3.40

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ng)	(ng)
11 Aldrin	8.292	8.292	0 000	379733	0 10000	0 0851839
7 beta-BHC	6.900	6.900	0.000	199137	0.10000	0.0821966
8 delta-BHC	7.258	7.258	0.000	429107	0.10000	0 0913040
12 Heptachlor epoxide	9.642	9.642	0 000	341408	0 10000	0 0818032
13 gamma-Chlordane	9.917	9.917	0 000	363079	0 10000	0 0837195
14 alpha-Chlordane	10.200	10.200	0.000	355828	0.10000	0.0829565
16 4,4'-DDE	10.542	10.542	0.000	326794	0.10000	0 0897314
22 Endosulfan II	11.842	11 842	0.000	299189	0.10000	0.0844665
24 Endrin aldehyde	12 708	12.708	0 000	243846	0.10000	0.0829970
26 Endosulfan sulfate	13.575	13.575	0.000	264102	0.10000	0.0862054
27 Endrin ketone	14.075	14 075	0.000	293813	0.10000	0.0851475

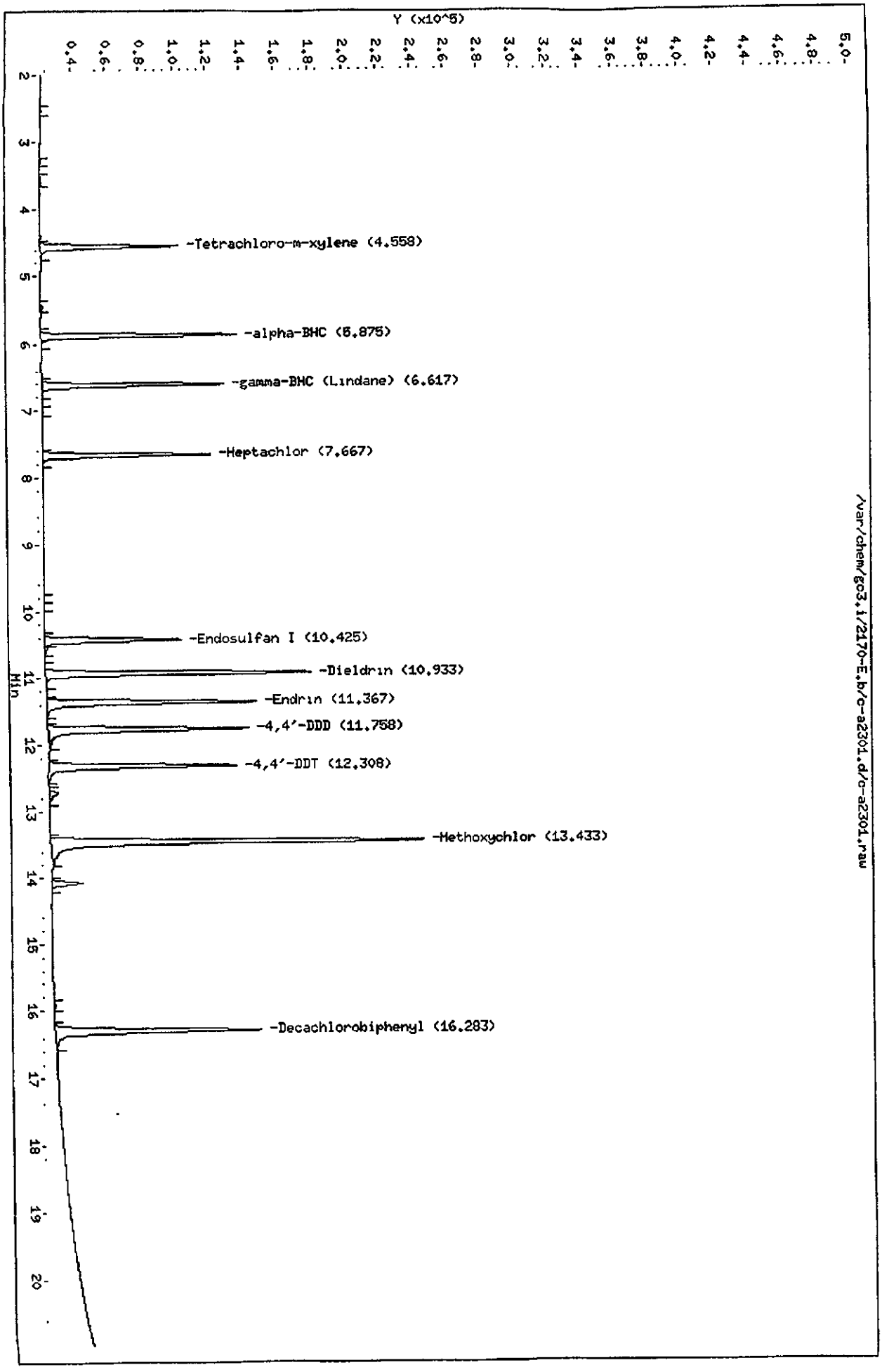

Data File: /var/chem/gc3.i/2170-E.b/c-a2300.d
Date : 18-MAY-2000 01:57
Client ID:
Sample Info: HIGHB,2170-E,b,,4-INDB,sub,,1,5
Column phase: RTX-CLP
Instrument: gc3.i
Operator: 1891
Column diameter: 0.53
Y (x10^5)
-beta-BHC (6.900)
delta-BHC (7.258)
-Aldrin (8.292)
Heptachlor epoxide (9.642)
gamma-Chlordane (9.917)
-4,4'-DDE (10.342)
-Endosulfan II (11.842)
-Endrin aldehyde (12.708)
-Endosulfan sulfate (13.575)
-Endrin ketone (14.075)
Min
/var/chem/gc3.i/2170-E.b/c-a2300.d/c-a2300.raw

Data File: /var/chem/gc3.i/2170-E.b/c-a2301.d
Report Date: 18-May-2000 10:59

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2170-E.b/c-a2301.d
Lab Smp Id: 2ND A
Inj Date : 18-MAY-2000 02:23
Operator : 1891 Inst ID: gc3.i
Smp Info : 2ND A,2170-E.b,,INDA.sub,,2,3
Misc Info : 190-82-2
Comment :
Method : /var/chem/gc3.i/2170-E.b/PESTA.m
Meth Date : 18-May-2000 10:58 g Quant Type: ESTD
Cal Date : 18-MAY-2000 01:57 Cal File: c-a2300.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)	AMOUNTS ON-COL (ng)
$ 1	Tetrachloro-m-xylene	4.558	4.558	0.000	81097	0.02500	0 0200288
5	alpha-BHC	5.875	5.883	-0.008	114953	0.02500	0 0206635
6	gamma-BHC (Lindane)	6.617	6 617	0.000	107249	0.02500	0.0210179
10	Heptachlor	7.667	7 675	-0.008	98867	0.02500	0.0206271
15	Endosulfan I	10.425	10 425	0.000	80119	0 02500	0.0207649
17	Dieldrin	10.933	10.933	0 000	155908	0.02500	0.0384554
20	Endrin	11.367	11 367	0.000	123356	0 02500	0.0349515
21	4,4'-DDD	11.758	11.758	0.000	117992	0.02500	0.0404374
23	4,4'-DDT	12.308	12.308	0.000	110738	0.02500	0.0399539
25	Methoxychlor	13.433	13.442	-0.009	219957	0 05000	0 157927
$ 30	Decachlorobiphenyl	16.283	16.283	0.000	120967	0 02500	0.0367198

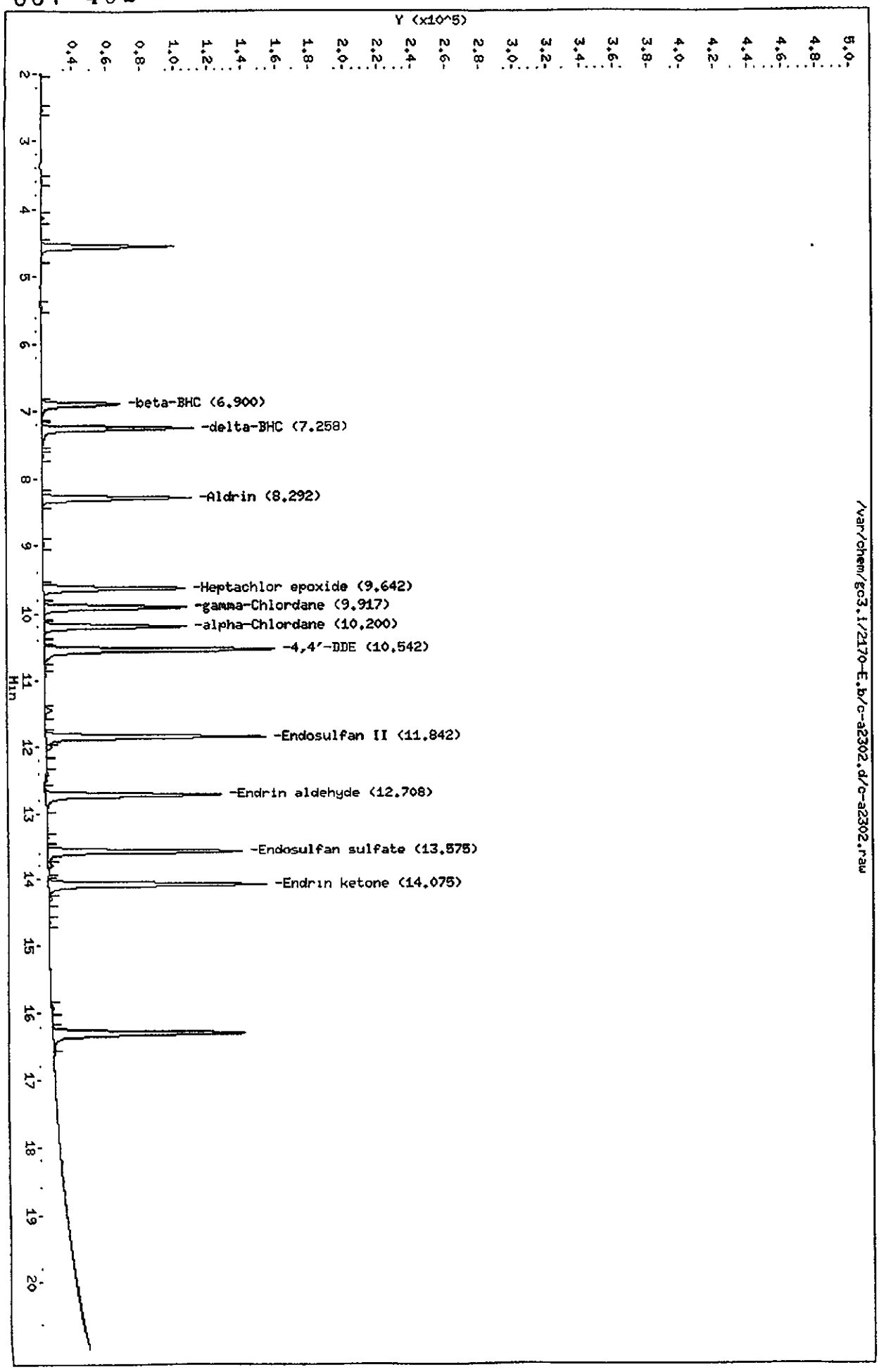

Data File: /var/chem/go3.i/2170-E.b/c-a2301.d
Date : 18-MAY-2000 02:23
Client ID:
Sample Info: 2ND A,2170-E.b,,INDA,sub,,2,3
Column phase: RTX-CLP
Instrument: go3.i
Operator: 1891
Column diameter: 0.53
/var/chem/go3.i/2170-E.b/c-a2301.d/c-a2301.raw
Y (x10^5)
Min
-Tetrachloro-m-xylene (4.558)
-alpha-BHC (5.875)
-gamma-BHC (Lindane) (6.617)
-Heptachlor (7.667)
-Endosulfan I (10.425)
-Dieldrin (10.933)
-Endrin (11.367)
-4,4'-DDD (11.758)
-4,4'-DDT (12.308)
-Methoxychlor (13.433)
-Decachlorobiphenyl (16.283)

Data File: /var/chem/gc3.i/2170-E.b/c-a2302.d
Report Date: 18-May-2000 10:59

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2170-E.b/c-a2302.d
Lab Smp Id: 2ND B
Inj Date : 18-MAY-2000 02:49
Operator : 1891 Inst ID: gc3.i
Smp Info : 2ND B,2170-E.b,,INDB.sub,,2,3
Misc Info : 190-82-5
Comment :
Method : /var/chem/gc3.i/2170-E.b/PESTA.m
Meth Date : 18-May-2000 10:58 g Quant Type: ESTD
Cal Date : 18-MAY-2000 01:57 Cal File: c-a2300.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)	AMOUNTS ON-COL (ng)
11 Aldrin	8.292	8.292	0.000	87079	0.02500	0.0195341
7 beta-BHC	6.900	6.900	0.000	45737	0 02500	0.0188786
8 delta-BHC	7.258	7 258	0.000	88859	0 02500	0 0189071
12 Heptachlor epoxide	9.642	9.642	0.000	83488	0.02500	0.0200042
13 gamma-Chlordane	9 917	9.917	0.000	83894	0.02500	0.0193444
14 alpha-Chlordane	10 200	10 200	0.000	84129	0 02500	0.0196135
16 4,4'-DDE	10.542	10.542	0.000	135583	0.02500	0 0372285
22 Endosulfan II	11 842	11 842	0.000	129381	0.02500	0.0365266
24 Endrin aldehyde	12.708	12.708	0 000	104257	0 02500	0 0354856
26 Endosulfan sulfate	13.575	13.575	0.000	114472	0 02500	0.0373648
27 Endrin ketone	14.075	14.075	0.000	128548	0.02500	0 0372534


Data File: /var/chem/gc3.i/2170-E.b/c-a2302.d
Date : 18-MAY-2000 02:49
Client ID:
Sample Info: 2ND B,2170-E.b,,INDB.sub,,2,3
Column phase: RTX-CLP
Instrument: gc3.i
Operator: 1891
Column diameter: 0.53
Y (x10^5)
Min
/var/chem/gc3.i/2170-E.b/c-a2302.d/c-a2302.raw
-beta-BHC (6.900)
-delta-BHC (7.258)
-Aldrin (8.292)
-Heptachlor epoxide (9.642)
-gamma-Chlordane (9.917)
-alpha-Chlordane (10.200)
-4,4'-DDE (10.542)
-Endosulfan II (11.842)
-Endrin aldehyde (12.708)
-Endosulfan sulfate (13.575)
-Endrin ketone (14.075)

Data File: /var/chem/gc3.i/2170-E.b/c-a2303.d
Report Date: 18-May-2000 10:59

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2170-E.b/c-a2303.d
Lab Smp Id: EVALB
Inj Date : 18-MAY-2000 03:15
Operator : 1891 Inst ID: gc3.i
Smp Info : EVALB,2170-E.b,,EVALBR.sub,,3,1
Misc Info : 190-88-8
Comment :
Method : /var/chem/gc3.i/2170-E.b/PESTA.m
Meth Date : 18-May-2000 10:58 g Quant Type: ESTD
Cal Date : 18-MAY-2000 01:57 Cal File: c-a2300.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	4.558	4.558	0.000	82955	0.02049	0.0204877(R)
16 4,4'-DDE	10.542	10 542	0.000	729	0.00020	0.000200170
20 Endrin	11.367	11.367	0.000	85719	0.02429	0.0242875
21 4,4'-DDD	11.758	11.758	0.000	7838	0.00269	0.00268618
23 4,4'-DDT	12.308	12.308	0.000	67934	0.02451	0.0245103
24 Endrin aldehyde	12.717	12.708	0.009	2199	0.000748	0.000748466
27 Endrin ketone	14.075	14.075	0.000	5329	0.00154	0 00154435
$ 30 Decachlorobiphenyl	16.283	16.283	0 000	67410	0.02046	0.0204624(R)

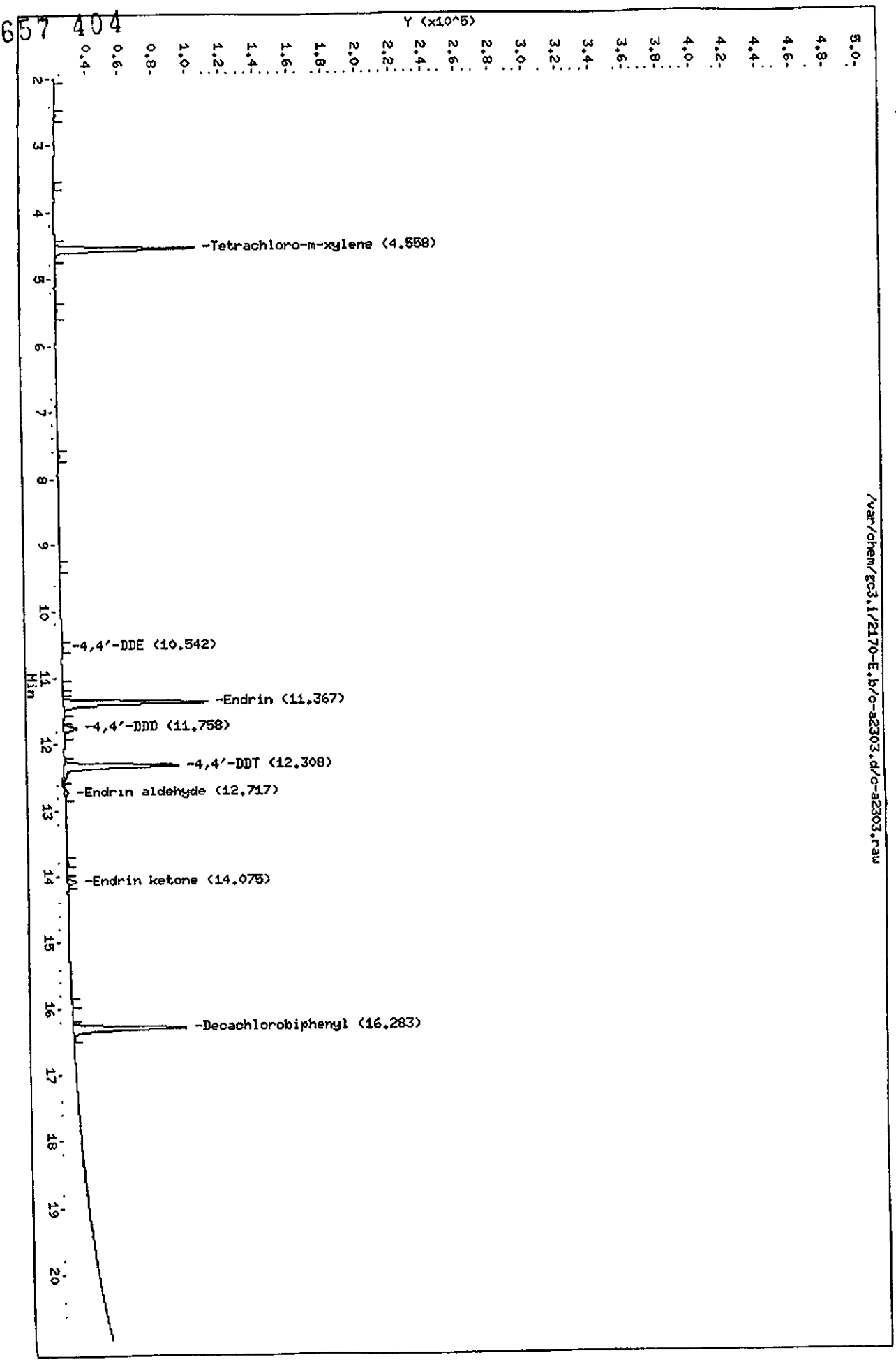
QC Flag Legend

R - Spike/Surrogate failed recovery limits.

DDT 11.2%
ENDRIN 8.1%

Endrin Breakdown = $\frac{(2199 + 5329) \times 100}{(2199 + 5329 + 85719)} = 9.1\%$

DDT Breakdown = $\frac{(738 + 7838) \times 100}{(738 + 7838 + 67934)} = 11.8\%$


Data File: /var/chem/gc3.i/2170-E.b/c-a2303.d
Date : 18-MAY-2000 03:15
Client ID:
Sample Info: EVALB,2170-E.b,,EVALBR.sub,,3,1
Column phase: RTX-CLP
Instrument: gc3.i
Operator: 1891
Column diameter: 0.53
/var/chem/gc3.i/2170-E.b/c-a2303.d/c-a2303.raw
Y (x10^5)
Min
-Tetrachloro-m-xylene (4.558)
-4,4'-DDE (10.542)
-Endrin (11.367)
-4,4'-DDD (11.758)
-4,4'-DDT (12.308)
-Endrin aldehyde (12.717)
-Endrin ketone (14.075)
-Decachlorobiphenyl (16.283)

Data File: /var/chem/gc3.i/2170-E.b/c-a2361.d
Report Date: 19-May-2000 14:21

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2170-E.b/c-a2361.d
Lab Smp Id: EVALB
Inj Date : 19-MAY-2000 08:32
Operator : 1891 Inst ID: gc3.i
Smp Info : EVALB,2170-E.b,,EVALBR.sub,,3,1
Misc Info : 190-88-8
Comment :
Method : /var/chem/gc3.i/2170-E.b/PESTA.m
Meth Date : 19-May-2000 11:01 eppinged Quant Type: ESTD
Cal Date : 18-MAY-2000 01:57 Cal File: c-a2300.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	4.558	4.558	0.000	80031	0.01977	0.0197655(R)
16 4,4'-DDE	10.550	10.550	0.000	653	0.000179	0.000179301(M)
20 Endrin	11.375	11 375	0.000	84290	0 02388	0.0238826
21 4,4'-DDD	11.767	11.767	0 000	6776	0 00232	0.00232222
23 4,4'-DDT	12.317	12.317	0.000	67440	0.02433	0.0243321
24 Endrin aldehyde	12 717	12.717	0 000	1257	0 000428	0.000427841
27 Endrin ketone	14.083	14 083	0.000	3829	0 00111	0.0011096S
$ 30 Decachlorobiphenyl	16.292	16.300	-0.008	64670	0.01963	0.0196307(R)

QC Flag Legend

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

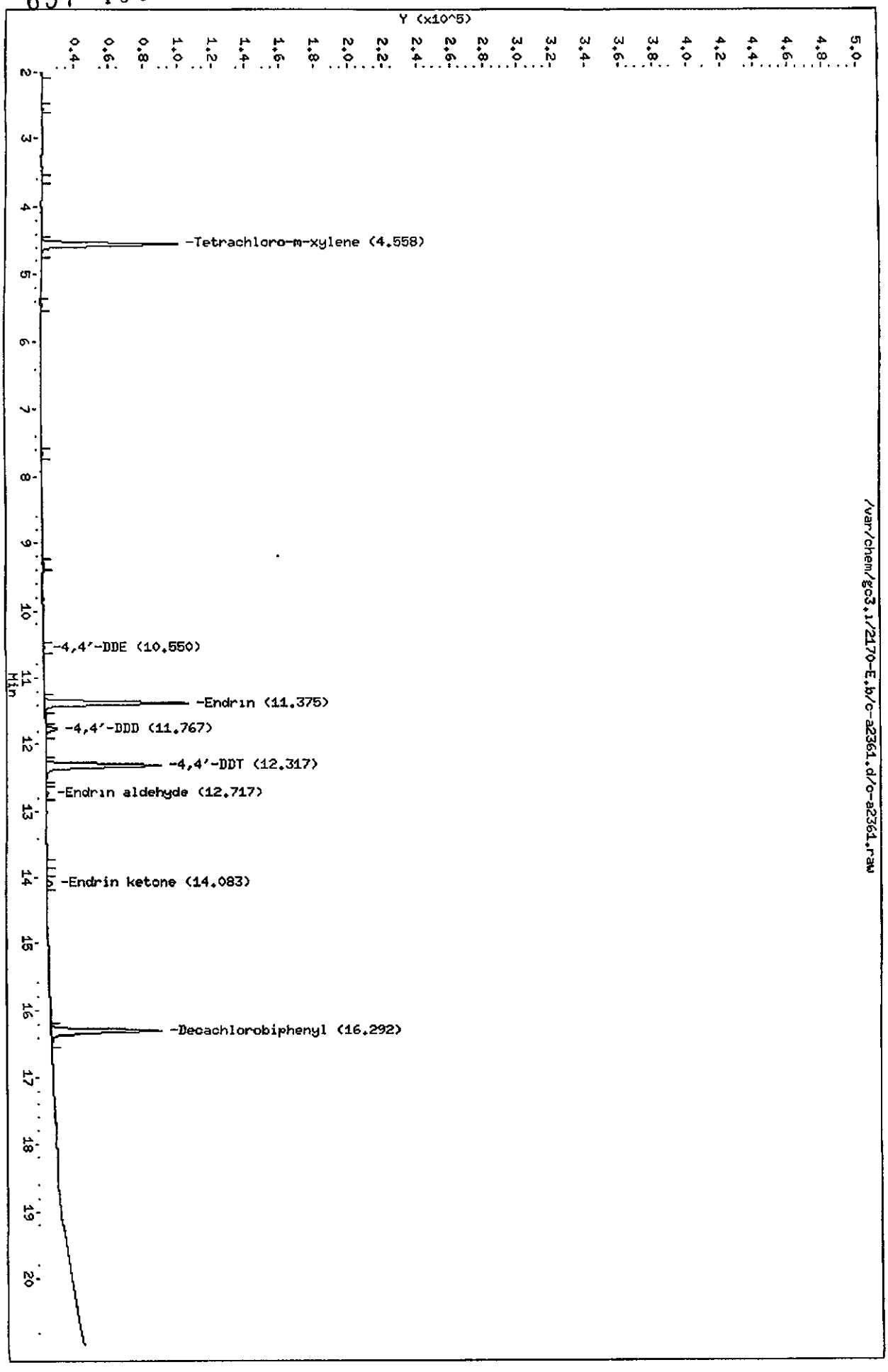
DDT 9.9%

ENDRIN 5.7%

Endrin Breakdown = $\frac{(1257+328)}{(1257+328+6440)} \times 100 = 5.7\%$

DDT Breakdown $\frac{(653+6776)}{(653+6776+67440)} \times 100 = 9.9\%$

657 406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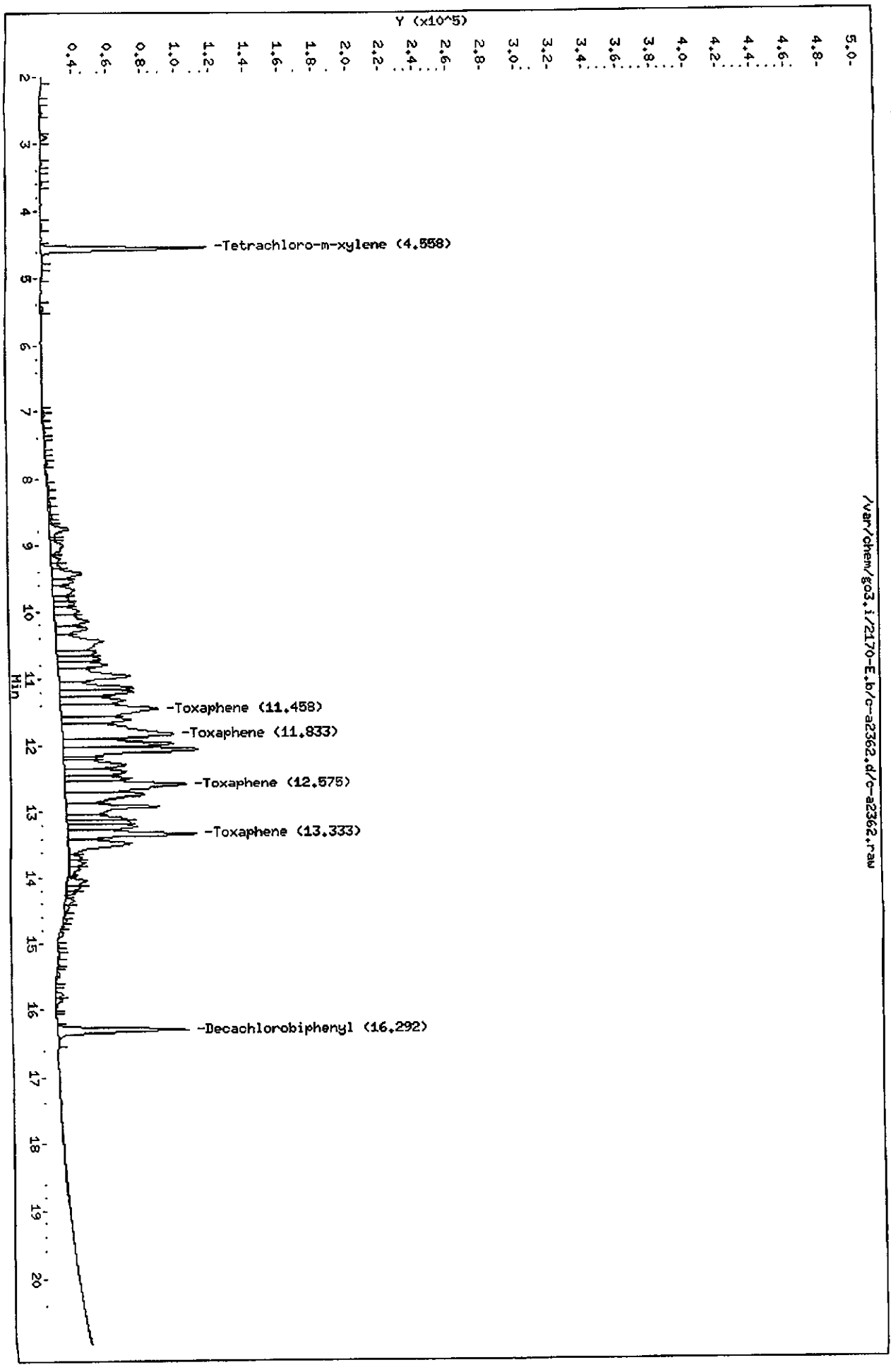
Date : 19-MAY-2000 08:32
Client ID:
Sample Info: EVALB,2170-E.b,,EVALBR.sub,,3,1
Column phase: RTX-CLP
Instrument: gc3.i
Operator: 1891
Column diameter: 0.53
/var/chem/gc3.i/2170-E.b/c-a2361.d/c-a2361.raw
Y (x10^5)
Min
-Tetrachloro-m-xylene (4.558)
-4,4'-DDE (10.550)
-Endrin (11.375)
-4,4'-DDD (11.767)
-4,4'-DDT (12.317)
-Endrin aldehyde (12.717)
-Endrin ketone (14.083)
-Decachlorobiphenyl (16.292)

Data File: /var/chem/gc3.i/2170-E.b/c-a2362.d
Report Date: 19-May-2000 10:12

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2170-E.b/c-a2362.d
Lab Smp Id: MEDTOX
Inj Date : 19-MAY-2000 08:58
Operator : 1891 Inst ID: gc3.i
Smp Info : MEDTOX,2170-E.b,,1-TOX.sub,,2,3
Misc Info : 190-84-13
Comment :
Method : /var/chem/gc3.i/2170-E.b/PESTA.m
Meth Date : 19-May-2000 10:12 g Quant Type: ESTD
Cal Date : 18-MAY-2000 01:57 Cal File: c-a2300.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 1-TOX.sub
Target Version: 3.40

						AMOUNTS	
						CAL-AMT	ON-COL
	Compounds	RT	EXP RT	DLT RT	RESPONSE	(ng)	(ng)
	18 Toxaphene	11.458	11.458	0.000	57622	1.00000	1.02439
$	1 Tetrachloro-m-xylene	4.558	4.558	0.000	96741	0.02500	0.0238924
$	30 Decachlorobiphenyl	16.292	16.300	-0.008	77437	0.02500	0.0235061


Data File: /var/chem/gc3.i/2170-E.b/c-a2362.d
Date : 19-MAY-2000 08:58
Client ID:
Sample Info: MEDTOX,2170-E.b,,1-TOX.sub,,2,3
Column phase: RTX-CLP
Instrument: gc3.i
Operator: 1891
Column diameter: 0.53
/var/chem/gc3.i/2170-E.b/c-a2362.d/c-a2362.raw
Y (x10^5)
Min
-Tetrachloro-m-xylene (4.558)
-Toxaphene (11.458)
-Toxaphene (11.833)
-Toxaphene (12.575)
-Toxaphene (13.333)
-Decachlorobiphenyl (16.292)

Data File: /var/chem/gc3.i/2170-E.b/c-a2363.d
Report Date: 19-May-2000 10:13

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2170-E.b/c-a2363.d
Lab Smp Id: MEDCHLOR
Inj Date : 19-MAY-2000 09:24
Operator : 1891 Inst ID: gc3.i
Smp Info : MEDCHLOR,2170-E.b,,2-CHLO.sub,,2,3
Misc Info : 190-85-10
Comment :
Method : /var/chem/gc3.i/2170-E.b/PESTA.m
Meth Date : 19-May-2000 10:12 g Quant Type: ESTD
Cal Date : 18-MAY-2000 01:57 Cal File: c-a2300.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 2-CHLO.sub
Target Version: 3.40

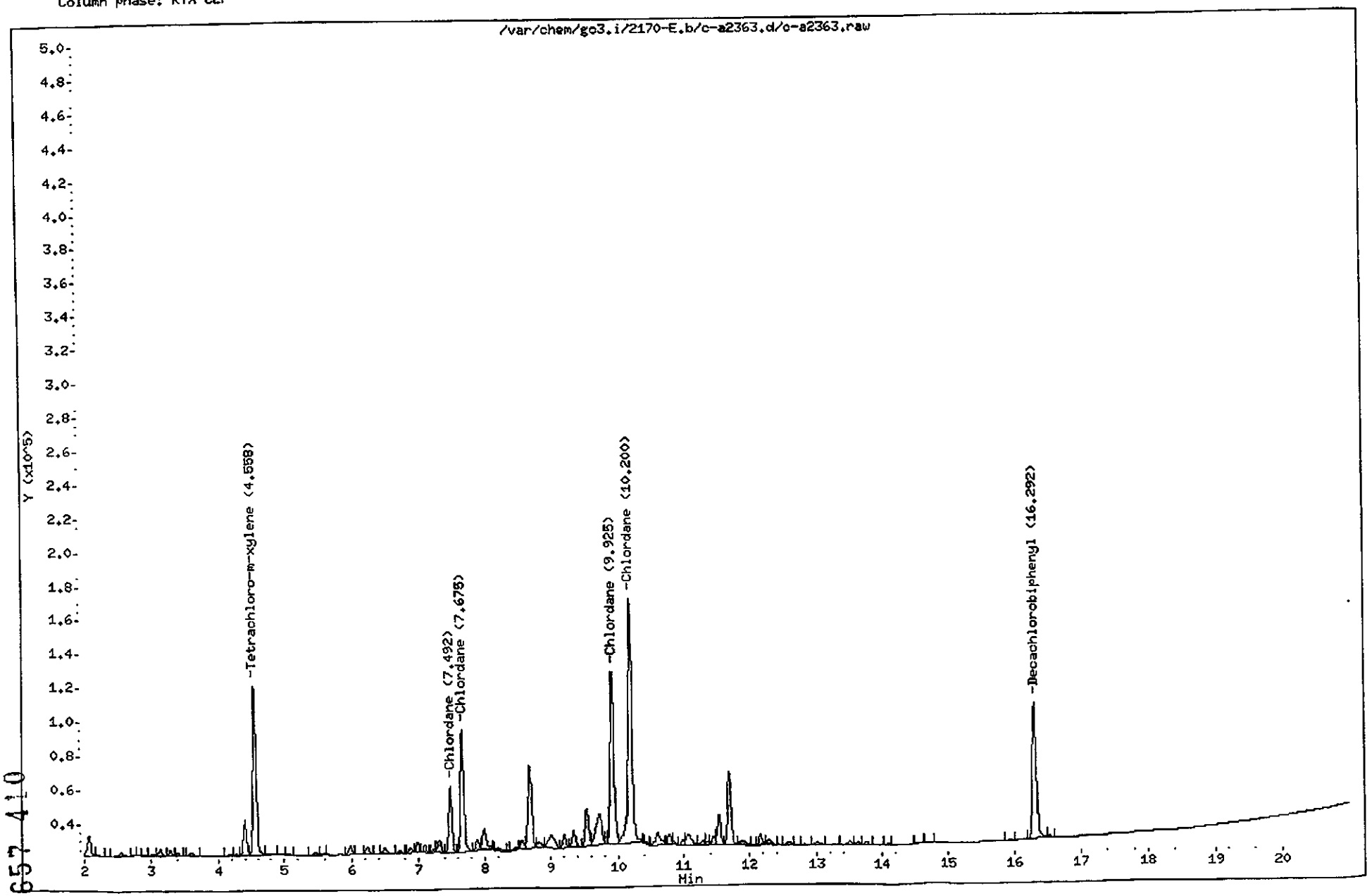
					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ng)	(ng)
9 Chlordane	7.492	7.492	0 000	39014	0.25000	0.256448
$ 1 Tetrachloro-m-xylene	4.558	4.558	0.000	98915	0 02500	0.0244294
$ 30 Decachlorobiphenyl	16.292	16.300	-0.008	80232	0.02500	0.0243546

Data File: /var/chem/gc3.i/2170-E.b/c-a2363.d
Date : 19-MAY-2000 09:24
Client ID:
Sample Info: MEDCHLOR,2170-E.b,,2-CHLO.sub,,2,3

Instrument: gc3.i

Operator: 1891
Column diameter: 0.53

Column phase: RTX-CLP



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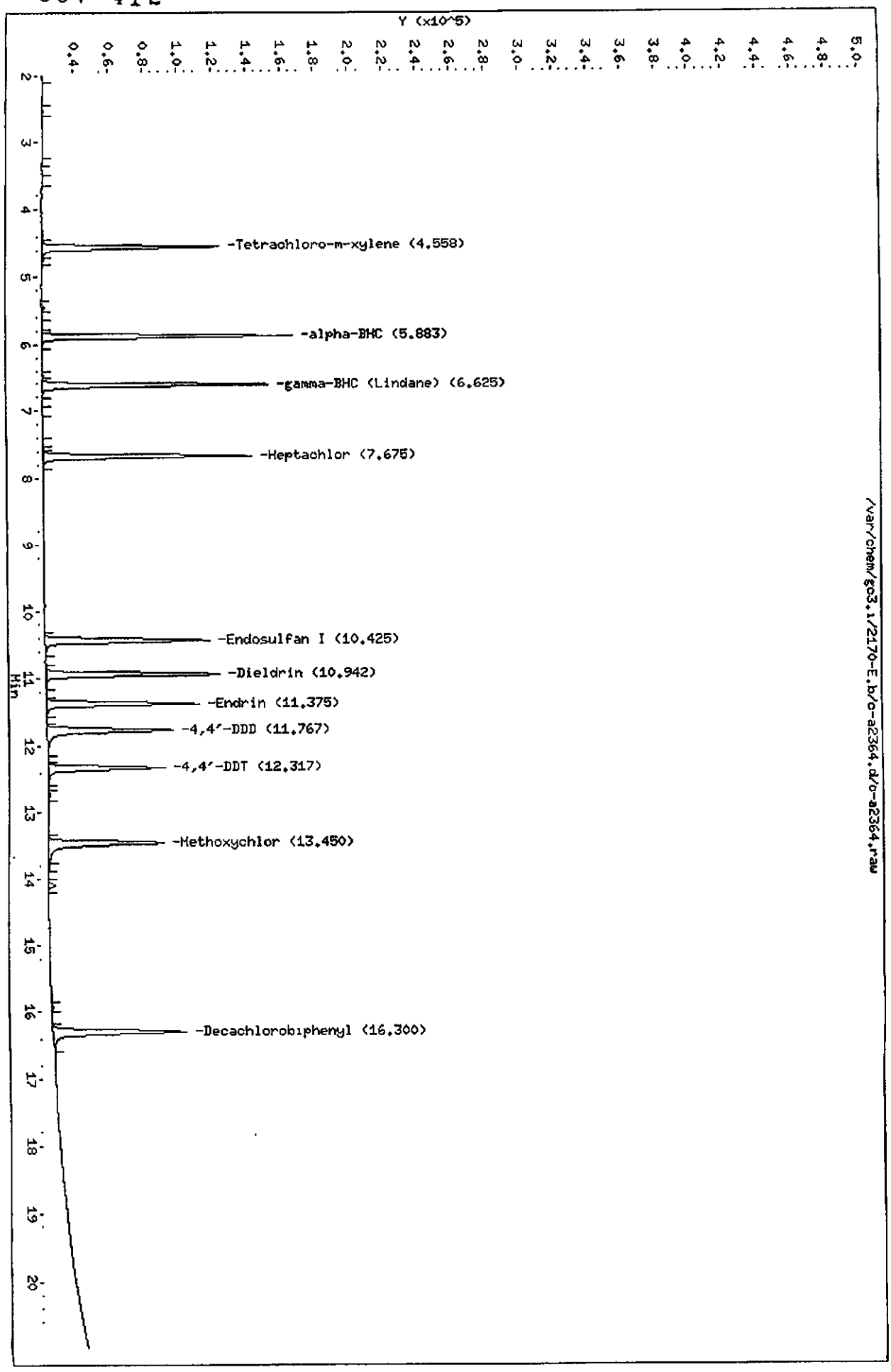
STL Pittsburgh

Data File: /var/chem/gc3.i/2170-E.b/c-a2364.d
Report Date: 19-May-2000 10:13

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2170-E.b/c-a2364.d
Lab Smp Id: MEDA
Inj Date : 19-MAY-2000 09:50
Operator : 1891 Inst ID: gc3.i
Smp Info : MEDA,2170-E.b,,INDA.sub,,2,3
Misc Info : 190-84-3
Comment :
Method : /var/chem/gc3.i/2170-E.b/PESTA.m
Meth Date : 19-May-2000 10:12 g Quant Type: ESTD
Cal Date : 18-MAY-2000 01:57 Cal File: c-a2300.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	4.558	4 558	0 000	103245	0.02500	0.0254988
5	alpha-BHC	5 883	5.883	0.000	145571	0.02500	0.0261672
6	gamma-BHC (Lindane)	6.625	6.625	0 000	131234	0.02500	0.0257184
10	Heptachlor	7.675	7.675	0.000	121243	0.02500	0.0252955
15	Endosulfan I	10.425	10.425	0.000	96330	0 02500	0.0249664
17	Dieldrin	10.942	10.942	0.000	101139	0 02500	0.0249464
20	Endrin	11.375	11.375	0.000	89364	0 02500	0.0253203
21	4,4'-DDD	11.767	11.767	0.000	73656	0.02500	0.0252428
23	4,4'-DDT	12.317	12.317	0.000	68697	0 02500	0.0247856
25	Methoxychlor	13.450	13.450	0 000	67068	0.05000	0.0481542
$ 30	Decachlorobiphenyl	16.300	16.300	0.000	78142	0.02500	0.0237201

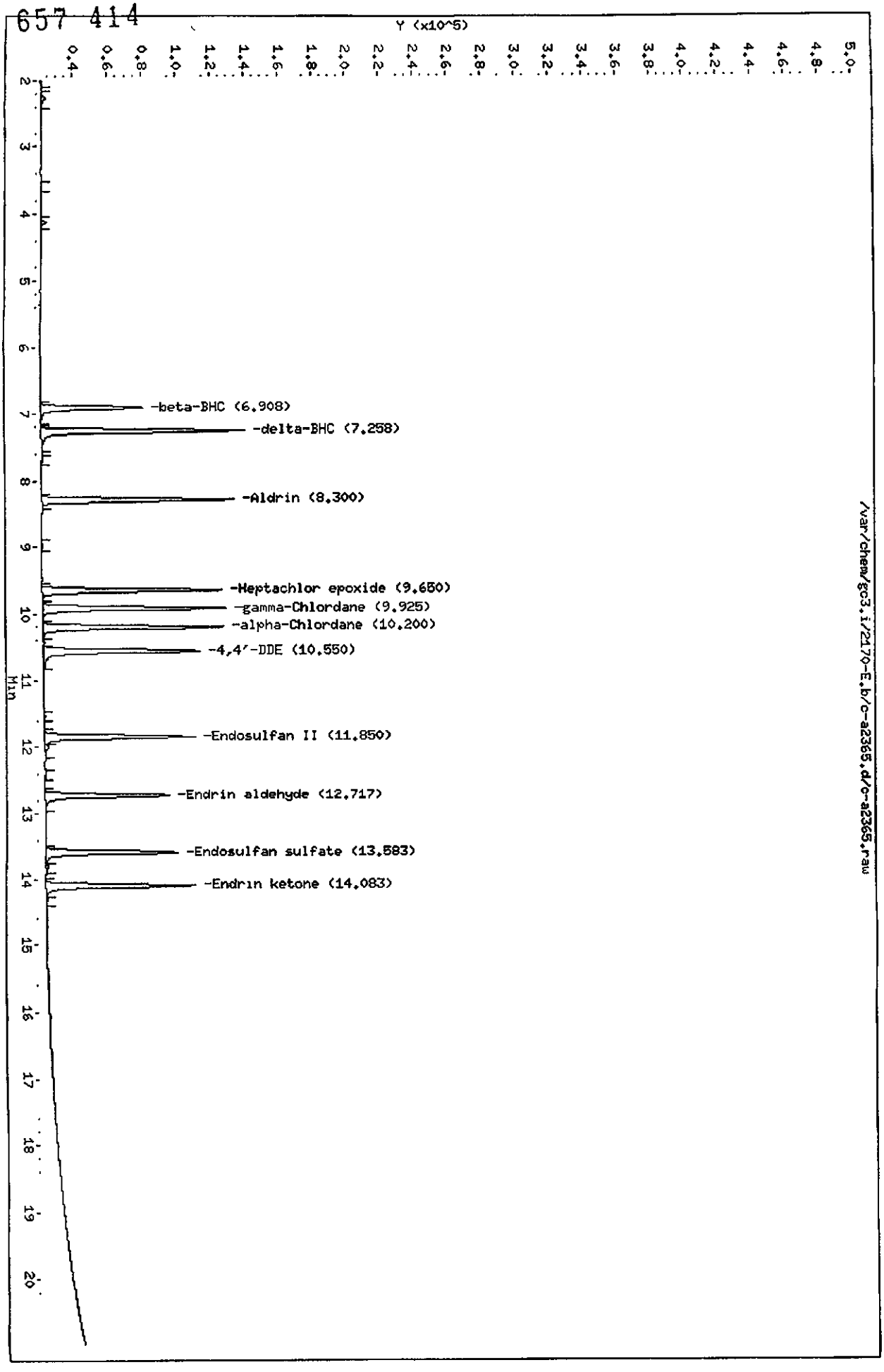

Data File: /var/chem/gc3.i/2170-E.b/c-a2364.d
Date : 19-MAY-2000 09:50
Client ID:
Sample Info: MEDA,2170-E,b,,INDR,sub,,2,3
Column phase: RTX-CLP
Instrument: gc3.i
Operator: 1891
Column diameter: 0.53
/var/chem/gc3.i/2170-E.b/c-a2364.d/c-a2364.raw
Y (x10^5)
Min
-Tetrachloro-m-xylene (4.558)
-alpha-BHC (5.883)
-gamma-BHC (Lindane) (6.625)
-Heptachlor (7.675)
-Endosulfan I (10.425)
-Dieldrin (10.942)
-Endrin (11.375)
-4,4'-DDD (11.767)
-4,4'-DDT (12.317)
-Methoxychlor (13.450)
-Decachlorobiphenyl (16.300)

Data File: /var/chem/gc3.i/2170-E.b/c-a2365.d
Report Date: 19-May-2000 11:00

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2170-E.b/c-a2365.d
Lab Smp Id: MEDB
Inj Date : 19-MAY-2000 10:16
Operator : 1891 Inst ID: gc3.i
Smp Info : MEDB,2170-E.b,,INDB.sub,,2,3
Misc Info : 190-84-9
Comment :
Method : /var/chem/gc3.i/2170-E.b/PESTA.m
Meth Date : 19-May-2000 11:00 g Quant Type: ESTD
Cal Date : 18-MAY-2000 01:57 Cal File: c-a2300.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDB.sub
Target Version: 3.40

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ng)	(ng)
11 Aldrin	8.300	8.300	0.000	112275	0.02500	0.0251862
7 beta-BHC	6.908	6.908	0.000	59342	0.02500	0.0244943
8 delta-BHC	7.258	7.258	0.000	118180	0.02500	0.0251460
12 Heptachlor epoxide	9.650	9.650	0.000	104693	0.02500	0.0250850
13 gamma-Chlordane	9.925	9.925	0.000	106659	0.02500	0.0245936
14 alpha-Chlordane	10.200	10.200	0.000	104845	0.02500	0.0244432
16 4,4'-DDE	10.550	10.550	0.000	91188	0.02500	0.0250385
22 Endosulfan II	11.850	11.850	0.000	88332	0.02500	0.0249377
24 Endrin aldehyde	12.717	12.717	0.000	72782	0.02500	0.0247726
26 Endosulfan sulfate	13.583	13.583	0.000	76798	0.02500	0.0250676
27 Endrin ketone	14.083	14.083	0.000	87171	0.02500	0.0252623

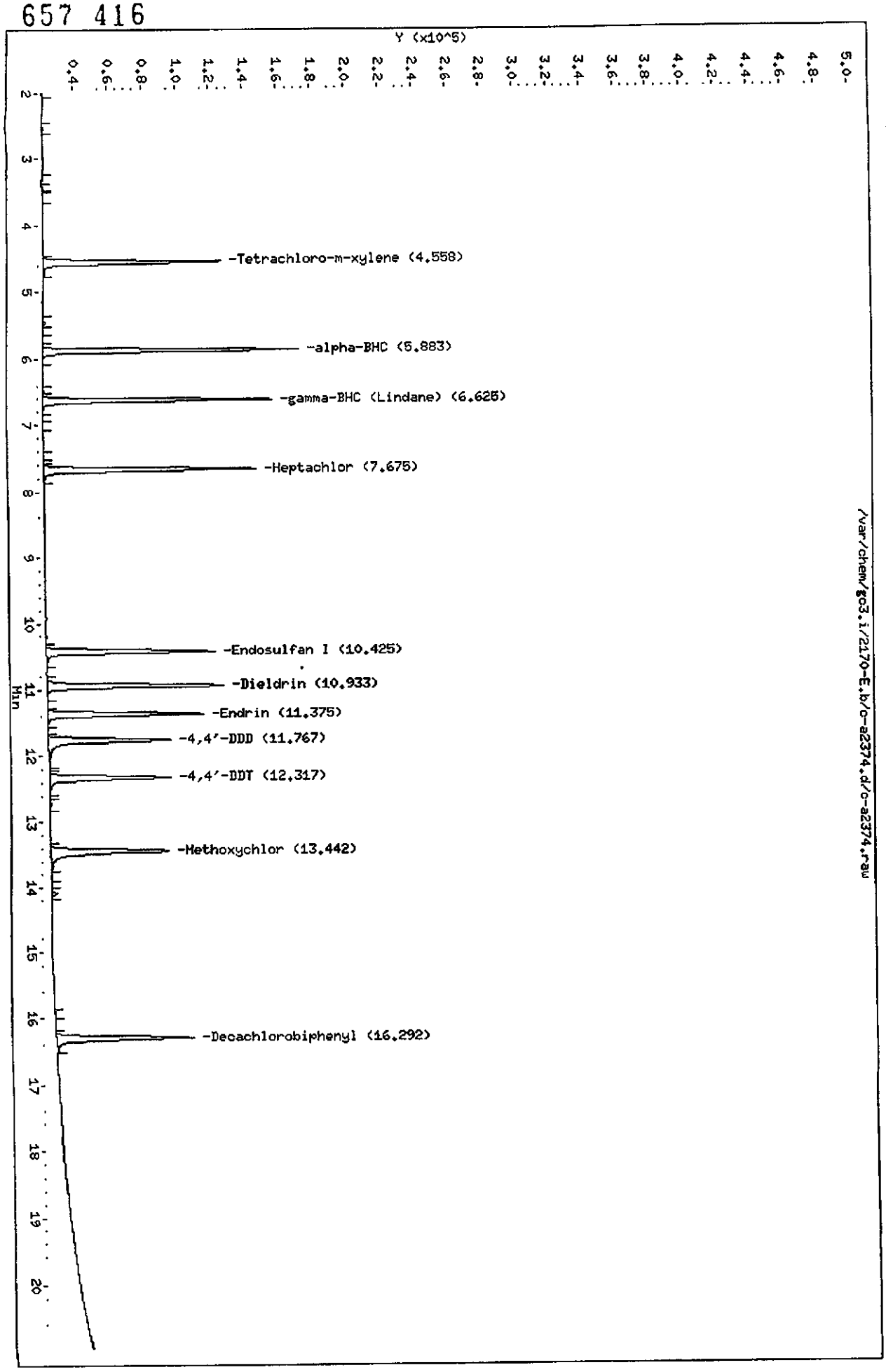

Data File: /var/chem/gc3.i/2170-E.b/c-a2365.d
Date : 19-MAY-2000 10:16
Client ID:
Sample Info: MEDB,2170-E.b,,IND8.sub,,2,3
Instrument: gc3.i
Operator: 1891
Column diameter: 0.53
Column phase: RTX-CLP
/var/chem/gc3.i/2170-E.b/c-a2365.d/c-a2365.raw
Y (x10^5)
Min
-beta-BHC (6.908)
-delta-BHC (7.258)
-Aldrin (8.300)
-Heptachlor epoxide (9.650)
-gamma-Chlordane (9.925)
-alpha-Chlordane (10.200)
-4,4'-DDE (10.550)
-Endosulfan II (11.850)
-Endrin aldehyde (12.717)
-Endosulfan sulfate (13.583)
-Endrin ketone (14.083)

Data File: /var/chem/gc3.i/2170-E.b/c-a2374.d
Report Date: 19-May-2000 14:32

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2170-E.b/c-a2374.d
Lab Smp Id: MEDA
Inj Date : 19-MAY-2000 14:10
Operator : 1891 Inst ID: gc3.i
Smp Info : MEDA,2170-E.b,,INDA.sub,,2,3
Misc Info : 190-84-3
Comment :
Method : /var/chem/gc3.i/2170-E.b/PESTA.m
Meth Date : 19-May-2000 14:32 g Quant Type: ESTD
Cal Date : 18-MAY-2000 01:57 Cal File: c-a2300.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDA.sub
Target Version: 3.40

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ng)	(ng)
$ 1 Tetrachloro-m-xylene	4.558	4.558	0 000	104421	0.02500	0.0257892
5 alpha-BHC	5.883	5.883	0.000	149994	0.02500	0.0269623
6 gamma-BHC (Lindane)	6.625	6 625	0.000	134401	0.02500	0.0263390
10 Heptachlor	7.675	7.675	0.000	124632	0.02500	0.0260026
15 Endosulfan I	10 425	10.425	0 000	98693	0.02500	0.0255788
17 Dieldrin	10.933	10.942	-0.009	103369	0.02500	0.0254964
20 Endrin	11.375	11.375	0.000	91479	0 02500	0.0259195
21 4,4'-DDD	11.767	11 767	0.000	72022	0.02500	0.0246828
23 4,4'-DDT	12.317	12 317	0.000	71695	0.02500	0 0258673
25 Methoxychlor	13.442	13 450	-0 008	70047	0.05000	0 0502931
$ 30 Decachlorobiphenyl	16.292	16.300	-0.008	80592	0.02500	0.0244638


Data File: /var/chem/gc3.i/2170-E.b/c-a2374.d
Date : 19-MAY-2000 14:10
Client ID:
Sample Info: MEDA,2170-E.b,,INDA.sub,,2,3
Column phase: RTX-CLP
Instrument: gc3.i
Operator: 1891
Column diameter: 0.53
/var/chem/gc3.i/2170-E.b/c-a2374.d/c-a2374.raw
Y (x10^5)
Min
-Tetrachloro-m-xylene (4.558)
-alpha-BHC (5.883)
-gamma-BHC (Lindane) (6.626)
-Heptachlor (7.675)
-Endosulfan I (10.425)
-Dieldrin (10.933)
-Endrin (11.375)
-4,4'-DDD (11.767)
-4,4'-DDT (12.317)
-Methoxychlor (13.442)
-Decachlorobiphenyl (16.292)

Data File: /var/chem/gc3.i/2170-E.b/c-a2375.d
Report Date: 19-May-2000 15:20

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2170-E.b/c-a2375.d
Lab Smp Id: MEDB
Inj Date : 19-MAY-2000 14:36
Operator : 1891 Inst ID: gc3.i
Smp Info : MEDB,2170-E.b,,INDB.sub,,2,3
Misc Info : 190-84-9
Comment :
Method : /var/chem/gc3.i/2170-E.b/PESTA.m
Meth Date : 19-May-2000 15:20 g Quant Type: ESTD
Cal Date : 18-MAY-2000 01:57 Cal File: c-a2300.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)	AMOUNTS ON-COL (ng)
11 Aldrin	8.292	8.300	-0.008	113488	0.02500	0.0254583
7 beta-BHC	6.900	6.908	-0 008	59935	0.02500	0.0247390
8 delta-BHC	7 258	7.258	0.000	121351	0.02500	0 0258207
12 Heptachlor epoxide	9 650	9.650	0.000	106476	0.02500	0.0255122
13 gamma-Chlordane	9.917	9.925	-0.008	109001	0.02500	0.0251337
14 alpha-Chlordane	10.200	10.200	0 000	107874	0.02500	0.0251494
16 4,4'-DDE	10 550	10.550	0.000	91812	0.02500	0 0252098
22 Endosulfan II	11 842	11.850	-0.008	88448	0.02500	0 0249705
24 Endrin aldehyde	12.717	12.717	0.000	74493	0.02500	0.0253549
26 Endosulfan sulfate	13.583	13 583	0 000	77367	0.02500	0.0252533
27 Endrin ketone	14.083	14.083	0 000	88309	0.02500	0.0255921

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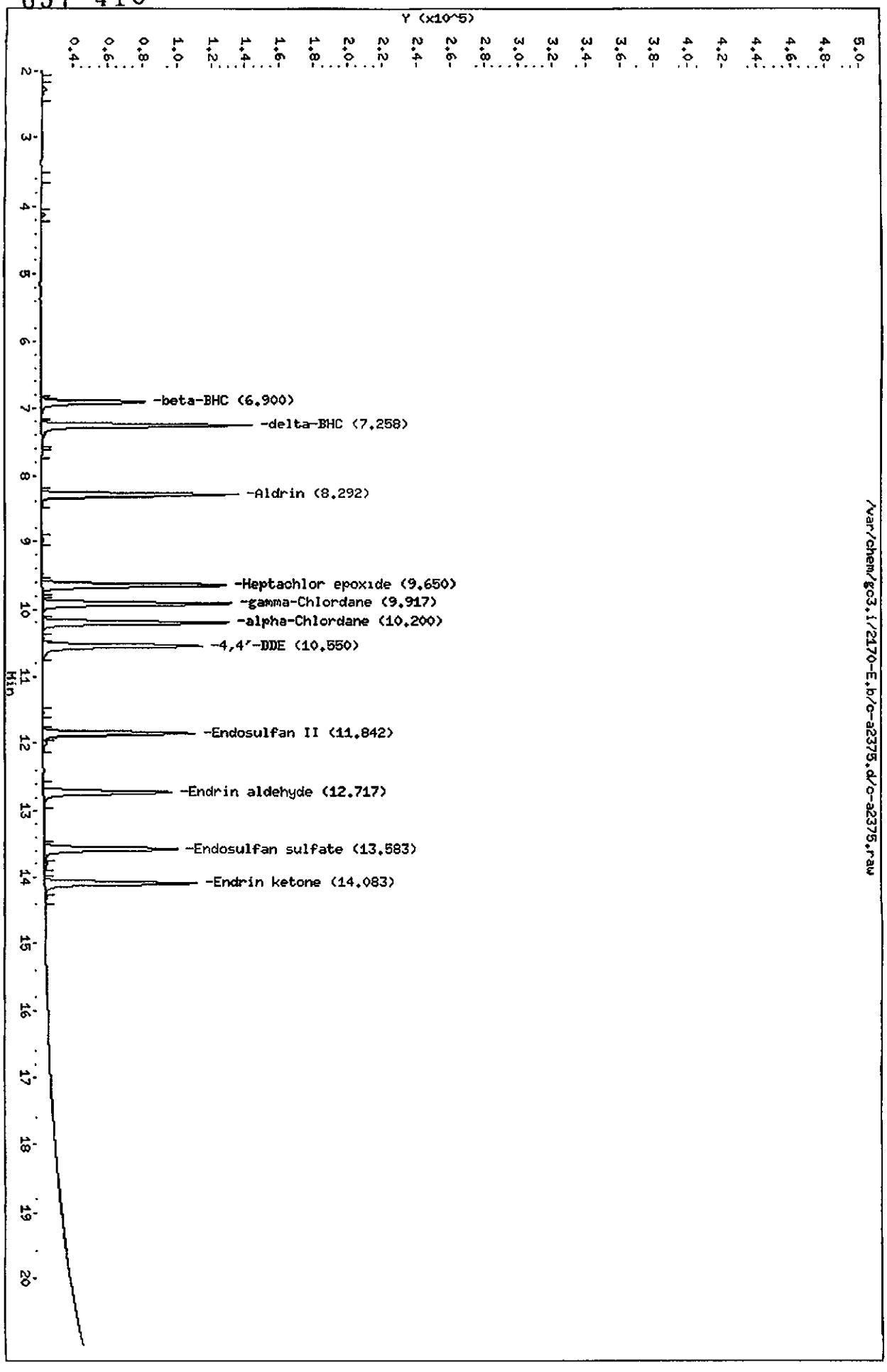
Data File: /var/chem/gc3.i/2170-E.b/c-a2375.d
Date : 19-MAY-2000 14:36
Client ID:
Sample Info: MEDB,2170-E.b,,INDB.sub,,2,3
Column phase: RTX-CLP
Instrument: gc3.i
Operator: 1891
Column diameter: 0.53
/var/chem/gc3.i/2170-E.b/c-a2375.d/c-a2375.raw
Y (x10^5)
Min
-beta-BHC (6.900)
-delta-BHC (7.258)
-Aldrin (8.292)
-Heptachlor epoxide (9.650)
-gamma-Chlordane (9.917)
-alpha-Chlordane (10.200)
-4,4'-DDE (10.550)
-Endosulfan II (11.842)
-Endrin aldehyde (12.717)
-Endosulfan sulfate (13.583)
-Endrin ketone (14.083)

6D
HP5890 3F
RT-CLP2

Report Date : 19-May-2000 11:24

STL-PITTSBURGH

COMPOUND LISTING

Method file : /var/chem/gc3.i/2170-E.b/PESTB.m
Quant Method : ESTD
Last Update : 19-May-2000 11:22
Data Type : GC MULTI COMP
Target Version : 3.40
Number of Cpnds : 30

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	6.000	5.950-6.050	4.110e+06
	2 Diallate A	7.225	7.175-7.275	1.093e+05
	3 Diallate B	7.475	7.425-7.525	2.882e+04
	4 HEXACHLOROBENZENE	6.650	6.600-6.700	
	5 alpha-BHC	7.633	7.583-7.683	6.370e+06
	6 gamma-BHC (Lindane)	8.508	8.458-8.558	5.386e+06
	7 beta-BHC	8.800	8.750-8.850	2.737e+06
	8 delta-BHC	9.467	9.417-9.517	5.546e+06
	9 Chlordane	9.142	9.092-9.192	1.572e+05
		9.475	9.425-9.525	2.993e+05
		11.892	11.842-11.942	4.311e+05
		12.208	12.158-12.258	3.540e+05
	10 Heptachlor	9.475	9.425-9.525	5.290e+06
	11 Aldrin	10.167	10.117-10.217	5.126e+06
	12 Heptachlor epoxide	11.483	11.433-11.533	4.383e+06
	13 gamma-Chlordane	11.892	11.842-11.942	4.594e+06
	14 alpha-Chlordane	12.208	12.158-12.258	4.478e+06
	15 Endosulfan I	12.283	12.233-12.333	4.037e+06
	16 4,4'-DDE	12.692	12.642-12.742	3.926e+06
	17 Dieldrin	12.867	12.817-12.917	4.152e+06
	18 Toxaphene	13.892	13.842-13.942	5.292e+04
		14.117	14.067-14.167	8.324e+04
		14.667	14.617-14.717	5.234e+04
		15.667	15.617-15.717	5.203e+04

6D
HP5890 3F
RTX-CLP2

Report Date : 19-May-2000 11:24

STL-PITTSBURGH

COMPOUND LISTING

Method file : /var/chem/gc3.i/2170-E.b/PESTB.m

	Compound	RT	RT Window	RF
	19 Isodrin	11.017	10.967-11.067	3.762e+06
	20 Endrin	13.475	13.425-13.525	3.540e+06
	21 4,4'-DDD	13.900	13.850-13.950	3.012e+06
	22 Endosulfan II	13.950	13.900-14.000	3.414e+06
	23 4,4'-DDT	14.517	14.467-14.567	2.620e+06
	24 Endrin aldehyde	14.667	14.617-14.717	2.781e+06
	25 Methoxychlor	16.017	15.967-16.067	1.250e+06
	26 Endosulfan sulfate	15.225	15.175-15.275	2.813e+06
	27 Endrin ketone	16.267	16.217-16.317	3.087e+06
	28 Chlorobenzilate	13.658	13.608-13.708	1.847e+06
	29 Kepone	16.258	16.208-16.308	5.494e+03
$	30 Decachlorobiphenyl	18.842	18.792-18.892	2.705e+06

Report Date : 18-May-2000 11:41

GC
HP5890 3F
RTX-CLP 2

STL-PITTSBURGH

INITIAL CALIBRATION DATA

Start Cal Date : 17-MAY-2000 17:15
End Cal Date : 18-MAY-2000 01:57
Quant Method : ESTD
Origin : Disabled
Target Version : 3.40
Integrator : Falcon
Method file : /var/chem/gc3.i/2170-E.b/PESTB.m
Cal Date : 18-May-2000 11:40 eppinged
Curve Type : Average

Calibration File Names:
Level 1: /var/chem/gc3.i/2170-E.b/c-b2296.d
Level 2: /var/chem/gc3.i/2170-E.b/c-b2297.d
Level 3: /var/chem/gc3.i/2170-E.b/c-b2298.d
Level 4: /var/chem/gc3.i/2170-E.b/c-b2299.d
Level 5: /var/chem/gc3.i/2170-E.b/c-b2300.d

Compound	0.00500 Level 1	0.01000 Level 2	0.02500 Level 3	0.05000 Level 4	0.10000 Level 5	___ RRF	% RSD	
2 Diallate A	151590	115224	102868	88984	87639	109261	23.984	<-
3 Diallate B	38910	30976	27444	23735	23034	28820	22.466	<-
4 HEXACHLOROBENZENE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
5 alpha-BHC	6723400	6978800	6426560	6131440	5591790	6370398	8.458	
6 gamma-BHC (Lindane)	5987400	5599200	5422400	5115020	4805370	5385878	8.402	
7 beta-BHC	3179200	3070400	2670720	2510600	2254170	2737018	14.097	
8 delta-BHC	5741200	5969100	5513440	5488780	5016420	5545788	6.387	
9 Chlordane(1)	+++++	+++++	157184	+++++	+++++	157184	0.000	
(2)	+++++	+++++	299340	+++++	+++++	299340	0.000	
(3)	+++++	+++++	431052	+++++	+++++	431052	0.000	
(4)	+++++	+++++	354008	+++++	+++++	354008	0.000	
10 Heptachlor	5942200	5881700	5329920	4951000	4346410	5290246	12.618	
11 Aldrin	5578800	5669700	5115080	4905880	4361710	5126234	10 384	
12 Heptachlor epoxide	4822000	4791600	4383000	4209560	3708950	4383022	10.481	
13 gamma-Chlordane	4952400	5009400	4555000	4446800	4005850	4593890	8.910	
14 alpha-Chlordane	4880000	4907000	4466440	4268740	3865800	4477596	9.763	
15 Endosulfan I	4496400	4477800	4025160	3834920	3348880	4036632	11.880	
16 4,4'-DDE	4011800	4222300	3940680	3897780	3558410	3926194	6.125	
17 Dieldrin	4389200	4541300	4181680	4047900	3597860	4151588	8 740	
18 Toxaphene(1)	+++++	+++++	52924	+++++	+++++	52924	0.000	
(2)	+++++	+++++	83240	+++++	+++++	83240	0.000	
(3)	+++++	+++++	52341	+++++	+++++	52341	0.000	
(4)	+++++	+++++	52025	+++++	+++++	52025	0.000	
19 Isodrin	4341000	3875800	3819980	3402227	3370460	3761893	10.585	
20 Endrin	3754800	3815000	3567880	3457840	3104170	3539938	7.981	
21 4,4'-DDD	3105200	3197300	2981520	2990380	2783470	3011574	5 161	

Report Date : 18-May-2000 11:41

657 422

GC
HP5890 3F
RTX-CLP2

STL-PITTSBURGH

INITIAL CALIBRATION DATA

Start Cal Date : 17-MAY-2000 17:15
End Cal Date : 18-MAY-2000 01:57
Quant Method : ESTD
Origin : Disabled
Target Version : 3.40
Integrator : Falcon
Method file : /var/chem/gc3.i/2170-E.b/PESTB.m
Cal Date : 18-May-2000 11:40 eppinged
Curve Type : Average

Compound	0.00500 Level 1	0.01000 Level 2	0.02500 Level 3	0.05000 Level 4	0.10000 Level 5	RRF	% RSD	
22 Endosulfan II	3621800	3674400	3396240	3337740	3037650	3413566	7.451	
23 4,4'-DDT	2584600	2703300	2613640	2696140	2503420	2620220	3.171	
24 Endrin aldehyde	3040400	3072200	2709440	2660020	2422400	2780892	9 855	
25 Methoxychlor	1340700	1346800	1220500	1216690	1125375	1250013	7.495	
26 Endosulfan sulfate	2918400	3006300	2766960	2787380	2585310	2812870	5.707	
27 Endrin ketone	3226000	3351700	3056760	3015000	2783910	3086674	7.011	
28 Chlorobenzilate	1251100	1949760	1471620	2048053	2513620	1846831	26.956	<-
29 Kepone	5650	5288	5726	5277	5530	5494	3.739	
$ 1 Tetrachloro-m-xylene	4960800	4686400	4007040	3672800	3220800	4109568	17.414	
$ 30 Decachlorobiphenyl	3138600	2973000	2634680	2493380	2285470	2705026	12.880	

A's RSD 10.77%

PESTICIDE CALIBRATION VERIFICATION SUMMARY

657 423

Lab Name: STL-PITTSBURGH Contract:

Lab Code: STLPIT Case No.: SAS No.: 40325 SDG No.: SDGA18632

GC Column: RTX-CLP2 ID: 0.53 (mm) Init. Calib. Date(s): 05/17/00 05/18/00

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): Date Analyzed :05/17/00

Lab Sample ID (PEM): EVALB Time Analyzed :1649

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Endrin	13.47	13.43	13.53	0.023922	0.025000	-4.3
4,4'-DDT	14.51	14.46	14.56	0.023365	0.025000	-6.5

4,4'-DDT % breakdown (1): ~~11.06~~ 12.2

Endrin % breakdown (1): ~~7.21~~ 6.0

Combined % breakdown (1): ~~18.27~~ 18.2

DE 5-19-00

657 424

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: STL-PITTSBURGH Contract:

Lab Code: STLPIT Case No.: SAS No.: 40325 SDG No.: SDGA18632

GC Column: RTX-CLP2 ID: 0.53 (mm) Init. Calib. Date(s): 05/17/00 05/18/00

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): Date Analyzed :05/18/00

Lab Sample ID (PEM): EVALB Time Analyzed :0315

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Endrin	13.47	13.43	13.53	0.024992	0.025000	-0.0
4,4'-DDT	14.51	14.46	14.56	0.024711	0.025000	-1.2

4,4'-DDT % breakdown (1): ~~11.58~~ 12.1

Endrin % breakdown (1): ~~8.68~~ 6.8

Combined % breakdown (1): ~~20.26~~ 18.9 OE 5-19-00

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: STL-PITTSBURGH Contract:

Lab Code: STLPIT Case No.: SAS No.: 40325 SDG No.: SDGA18632

GC Column: RTX-CLP2 ID: 0.53 (mm) Init. Calib. Date(s): 05/17/00 05/18/00

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): Date Analyzed :05/19/00

Lab Sample ID (PEM): EVALB Time Analyzed :0832

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Endrin	13.47	13.43	13.53	0.027357	0.025000	9.4
4,4'-DDT	14.52	14.47	14.57	0.027652	0.025000	10.6

4,4'-DDT % breakdown (1): ~~10.85~~ 10.3

Endrin % breakdown (1): ~~7.09~~ 5.2

Combined % breakdown (1): ~~17.94~~ 15.5 DF 5-19-00

657 426

7E HP5890 3F
RTX-CLP2

Data File: /var/chem/gc3.i/2170-E.b/c-b2362.d
Report Date: 19-May-2000 11:21

STL-PITTSBURGH

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc3.i
Lab File ID: c-b2362.d
Analysis Type:
Lab Sample ID: MEDTOX
Quant Type: ESTD

Injection Date: 19-MAY-2000 08:58
Init. Calibration Date(s): 05/17/0 05/18/0
Init. Calibration Times: 17:15 01:57
Method File: /var/chem/gc3.i/2170-E.b/PESTB.m

COMPOUND	RRF	RF0	MIN RRF	%D	MAX %D
18 Toxaphene(1)	52924.000	57579.000	0.010	-8.8	15.0
(2)	83240.000	90902.000	0.010	-9.2	15.0
(3)	52341.000	57794.000	0.010	-10.4	15.0
(4)	52025.000	56303.000	0.010	-8.2	15.0
$ 1 Tetrachloro-m-xylene	4109568 000	4440600.000	0.000	-8.1	15.0
$ 30 Decachlorobiphenyl	2705026 000	2739320 000	0.010	-1.3	15.0

7E HP5890 3F
RT-CLP2

657 421

Data File: /var/chem/gc3.i/2170-E.b/c-b2363.d
Report Date: 19-May-2000 11:22

STL-PITTSBURGH

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc3.i
Lab File ID: c-b2363.d
Analysis Type:
Lab Sample ID: MEDCHLOR
Quant Type: ESTD

Injection Date: 19-MAY-2000 09:24
Init. Calibration Date(s): 05/17/0 05/18/0
Init. Calibration Times: 17:15 01:57
Method File: /var/chem/gc3.i/2170-E.b/PESTB.m

COMPOUND	RRF	RF0	MIN RRF	%D	MAX %D	
9 Chlordane(1)	157184.000	188652.000	0.010	-20.0	15.0	<-
(2)	299340 000	354316.000	0.010	-18.4	15.0	<-
(3)	431052.000	497972.000	0.010	-15.5	15.0	<-
(4)	354008.000	410640.000	0.010	-16 0	15 0	<-
$ 1 Tetrachloro-m-xylene	4109568 000	4565520.000	0 000	-11 1	15.0	
$ 30 Decachlorobiphenyl	2705026.000	2848960.000	0.010	-5.3	15.0	

657 428

FE HP5890F
CLP2

Data File: /var/chem/gc3.i/2170-E.b/c-b2364.d
Report Date: 19-May-2000 11:22

STL-PITTSBURGH

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc3.i
Lab File ID: c-b2364.d
Analysis Type:
Lab Sample ID: MEDA
Quant Type: ESTD

Injection Date: 19-MAY-2000 09:50
Init. Calibration Date(s): 05/17/0 05/18/0
Init. Calibration Times: 17:15 01:57
Method File: /var/chem/gc3.i/2170-E.b/PESTB.m

	COMPOUND	RRF	RF0	MIN RRF	%D	MAX %D	
$	1 Tetrachloro-m-xylene	4109568.000	4682440.000	0.000	-13.9	15.0	
	5 alpha-BHC	6370398 000	7432920.000	0.010	-16.7	15.0	<-
	6 gamma-BHC (Lindane)	5385878 000	6451520.000	0.010	-19.8	15.0	<-
	10 Heptachlor	5290246 000	6020560.000	0.010	-13.8	15.0	
	15 Endosulfan I	4036632.000	4459520.000	0.010	-10.5	15.0	
	17 Dieldrin	4151588.000	4690120.000	0.010	-13.0	15.0	
	20 Endrin	3539938.000	3964920.000	0.010	-12.0	15.0	
	21 4,4'-DDD	3011574.000	3314080 000	0.010	-10.0	15.0	
	23 4,4'-DDT	2620220.000	2841320.000	0.010	-8.4	15.0	
	25 Methoxychlor	1250013.000	1333880.000	0 010	-6 7	15 0	
$	30 Decachlorobiphenyl	2705026.000	2868680.000	0.010	-6.0	15 0	

FE HP5890 3F
RT-CLP2

Data File: /var/chem/gc3.i/2170-E.b/c-b2365.d
Report Date: 19-May-2000 11:22

STL-PITTSBURGH

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc3.i
Lab File ID: c-b2365.d
Analysis Type:
Lab Sample ID: MEDB
Quant Type: ESTD

Injection Date: 19-MAY-2000 10:16
Init. Calibration Date(s): 05/17/0 05/18/0
Init. Calibration Times: 17:15 01:57
Method File: /var/chem/gc3.i/2170-E.b/PESTB.m

COMPOUND	RRF	RF0	MIN RRF	%D	MAX %D
11 Aldrin	5126234.000	5699320.000	0 010	-11.2	15.0
7 beta-BHC	2737018.000	3000920 000	0.010	-9.6	15.0
8 delta-BHC	5545788.000	6222240.000	0.010	-12.2	15.0
12 Heptachlor epoxide	4383022.000	4851240.000	0 010	-10 7	15 0
13 gamma-Chlordane	4593890.000	5067720 000	0 010	-10.3	15 0
14 alpha-Chlordane	4477596.000	4931960 000	0.010	-10.1	15.0
16 4,4'-DDE	3926194.000	4340120.000	0 010	-10.5	15 0
22 Endosulfan II	3413566.000	3693480.000	0.010	-8.2	15.0
24 Endrin aldehyde	2780892 000	2978880 000	0.010	-7.1	15.0
26 Endosulfan sulfate	2812870.000	3058640.000	0.010	-8.7	15.0
27 Endrin ketone	3086674 000	3281600.000	0.010	-6.3	15.0

Avg 10.7% D

657 430

7E HP5890 3F
RT7-CLP2

Data File: /var/chem/gc3.i/2170-E.b/c-b2374.d
Report Date: 19-May-2000 14:32

STL-PITTSBURGH

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc3.i
Lab File ID: c-b2374.d
Analysis Type:
Lab Sample ID: MEDA
Quant Type: ESTD

Injection Date: 19-MAY-2000 14:10
Init. Calibration Date(s): 05/17/0 05/18/0
Init. Calibration Times: 17:15 01:57
Method File: /var/chem/gc3.i/2170-E.b/PESTB.m

	COMPOUND	RRF	RF0	MIN RRF	%D	MAX %D	
$	1 Tetrachloro-m-xylene	4109568.000	4778800.000	0.000	-16.3	15.0	<-
	5 alpha-BHC	6370398 000	7537800.000	0.010	-18.3	15.0	<-
	6 gamma-BHC (Lindane)	5385878.000	6495720 000	0.010	-20 6	15.0	<-
	10 Heptachlor	5290246.000	6159640.000	0.010	-16.4	15.0	<-
	15 Endosulfan I	4036632.000	4520320.000	0.010	-12.0	15.0	
	17 Dieldrin	4151588.000	4736360.000	0.010	-14.1	15.0	
	20 Endrin	3539938.000	4072840.000	0 010	-15 1	15 0	<-
	21 4,4'-DDD	3011574 000	3298080.000	0 010	-9 5	15.0	
	23 4,4'-DDT	2620220.000	2967680.000	0.010	-13.3	15.0	
	25 Methoxychlor	1250013.000	1401320.000	0.010	-12 1	15.0	
$	30 Decachlorobiphenyl	2705026.000	2948880.000	0.010	-9.0	15 0	

FE HP5890 3F
RTX-CLP2

657 431

Data File: /var/chem/gc3.i/2170-E.b/c-b2375.d
Report Date: 19-May-2000 15:21

STL-PITTSBURGH

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc3.i
Lab File ID: c-b2375.d
Analysis Type:
Lab Sample ID: MEDB
Quant Type: ESTD

Injection Date: 19-MAY-2000 14:36
Init. Calibration Date(s): 05/17/0 05/18/0
Init. Calibration Times: 17:15 01:57
Method File: /var/chem/gc3.i/2170-E.b/PESTB.m

COMPOUND	RRF	RF0	MIN RRF	%D	MAX %D
11 Aldrin	5126234.000	5772680 000	0.010	-12.6	15.0
7 beta-BHC	2737018 000	3048720.000	0.010	-11.4	15.0
8 delta-BHC	5545788.000	6307880.000	0.010	-13.7	15 0
12 Heptachlor epoxide	4383022 000	4850080.000	0.010	-10.7	15.0
13 gamma-Chlordane	4593890.000	5110760 000	0.010	-11.3	15 0
14 alpha-Chlordane	4477596.000	5000800.000	0.010	-11 7	15 0
16 4,4'-DDE	3926194.000	4404560.000	0.010	-12.2	15.0
22 Endosulfan II	3413566 000	3766680 000	0.010	-10.3	15.0
24 Endrin aldehyde	2780892.000	3029920.000	0.010	-9 0	15.0
26 Endosulfan sulfate	2812870 000	3132240.000	0.010	-11.4	15.0
27 Endrin ketone	3086674.000	3405920.000	0.010	-10 3	15 0

Avg 12.87-D

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: STL-PITTSBURGH Contract:

Lab Code: STLPIT Case No.: SAS No.: 40325 SDG No.: C0E130194

GC Column: RTX-CLP2 ID: 0.53 (mm) Init. Calib. Date(s): 05/17/00 05/18/00

Instrument ID: GC3

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

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 5.97 DCB: 18.82

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01		EVALB	05/17/00	1649	5.98	18.83
02		MEDTOX	05/17/00	1715	5.98	18.83
03		MEDCHLOR	05/17/00	1741	5.99	18.83
04		~~LOWAPPX9~~	05/17/00	1807		
05		~~MLOWAPPX9~~	05/17/00	1833		
06		~~MEDAPPX9~~	05/17/00	1859		
07		~~MHIGHAPPX9~~	05/17/00	1925		
08		~~HIGHAPPX9~~	05/17/00	1951		
09		LOWA	05/17/00	2017	5.99	18.83
10		MLOWA	05/17/00	2230	5.99	18.84
11		MEDA	05/17/00	2256	5.99	18.84
12		MHIGHA	05/17/00	2322	5.99	18.84
13		HIGHA	05/17/00	2348	5.99	18.83
14		LOWB	05/18/00	0014		
15		MLOWB	05/18/00	0040		
16		MEDB	05/18/00	0106		
17		MHIGHB	05/18/00	0132		
18		HIGHB	05/18/00	0157		
19		2ND A	05/18/00	0223	5.99	18.83
20		2ND B	05/18/00	0249		
21		EVALB	05/18/00	0315	5.99	18.84
22		EVALB	05/19/00	0832	6.00	18.84
23		MEDTOX	05/19/00	0858	6.00	18.84
24		MEDCHLOR	05/19/00	0924	6.00	18.84
25		MEDA	05/19/00	0950	6.00	18.84
26		MEDB	05/19/00	1016		
27	DF/S1/0133/S	DD6A4103	05/19/00	1042	6.00	18.84
28	DF/S1/0133/S	DD6A411A	05/19/00	1108	6.00	18.84
29	DF/S1/0133/S	DD6A411C	05/19/00	1134	6.00	18.84
30	DF/S1/0133/S	DD6A5103	05/19/00	1200	6.00	18.84
31	DF/S1/0133/S	DD6A6103	05/19/00	1226	5.99	18.84
32	DF/S1/0133/S	DD6A7103	05/19/00	1252	6.00	18.84

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.

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: STL-PITTSBURGH Contract:

Lab Code: STLPIT Case No.: SAS No.: 40325 SDG No.: C0E130194

GC Column: RTX-CLP2 ID: 0.53 (mm) Init. Calib. Date(s): 05/17/00 05/18/00

Instrument ID: GC3

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

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 5.97 DCB: 18.82

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT	#	DCB RT	#
01	PBLK	DDE2E101	05/19/00	1318	6.00		18.84	
02	ZZZZZ	ZZZZZ	05/19/00	1344	6.00		18.84	
03		MEDA	05/19/00	1410	6.00		18.84	
04		MEDB	05/19/00	1436				
05								
06								
07								
08								
09								
10								
11								
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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.

657 434
Data File: /var/chem/gc3.i/2170-E.b/c-b2281.d
Report Date: 18-May-2000 11:44

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2170-E.b/c-b2281.d
Lab Smp Id: EVALB
Inj Date : 17-MAY-2000 16:49
Operator : 1891 Inst ID: gc3.i
Smp Info : EVALB,2170-E.b,,EVALBR.sub,,3,1
Misc Info : 190-88-8
Comment :
Method : /var/chem/gc3.i/2170-E.b/PESTB.m
Meth Date : 18-May-2000 11:42 g Quant Type: ESTD
Cal Date : 18-MAY-2000 01:57 Cal File: c-b2300.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	5.983	5.992	-0.009	79968	0 01946	0.0194590(R)
16 4,4'-DDE	12.683	12.692	-0.009	709	0.000181	0.000180582
20 Endrin	13.467	13.475	-0.008	84683	0 02392	0.0239222
21 4,4'-DDD	13.883	13.892	-0.009	7787	0 00259	0.00258569
23 4,4'-DDT	14.508	14.508	0.000	61222	0.02337	0.0233652
24 Endrin aldehyde	14.650	14 658	-0.008	1412	0.000508	0.000507751
27 Endrin ketone	16.258	16.267	-0.009	3996	0.00129	0.00129460
$ 30 Decachlorobiphenyl	18.833	18.842	-0.009	53341	0 01972	0.0197192(R)

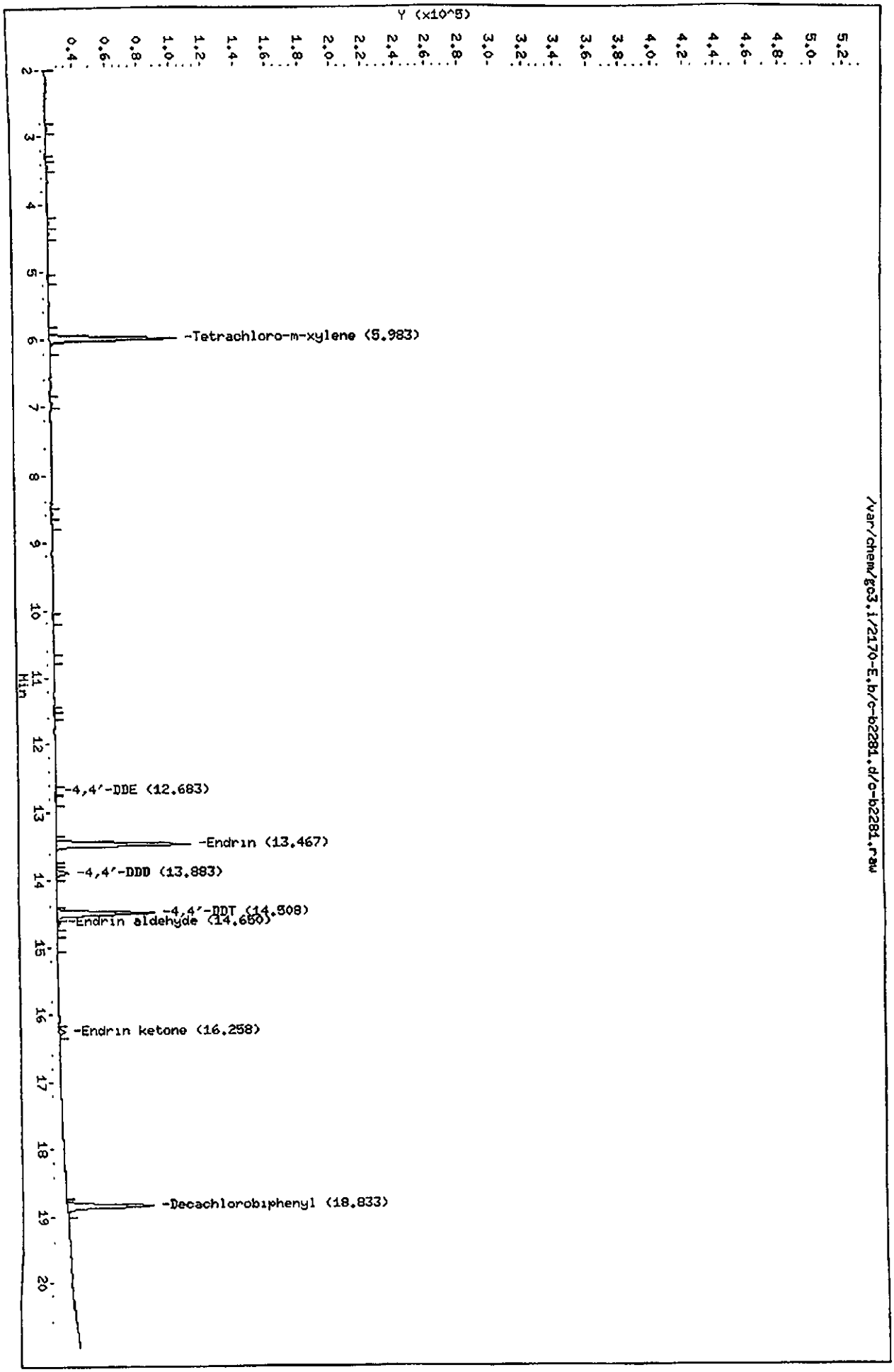
QC Flag Legend

R - Spike/Surrogate failed recovery limits.

DDT 12.2%
ENDRIN 6.0%

Endrin Breakdown $= \frac{(1412 + 3996)}{(1412 + 3996 + 84683)} \times 100 = 6.0\%$

DDT Breakdown $= \frac{(709 + 7787)}{(709 + 7787 + 61222)} \times 100 = 12.8\%$

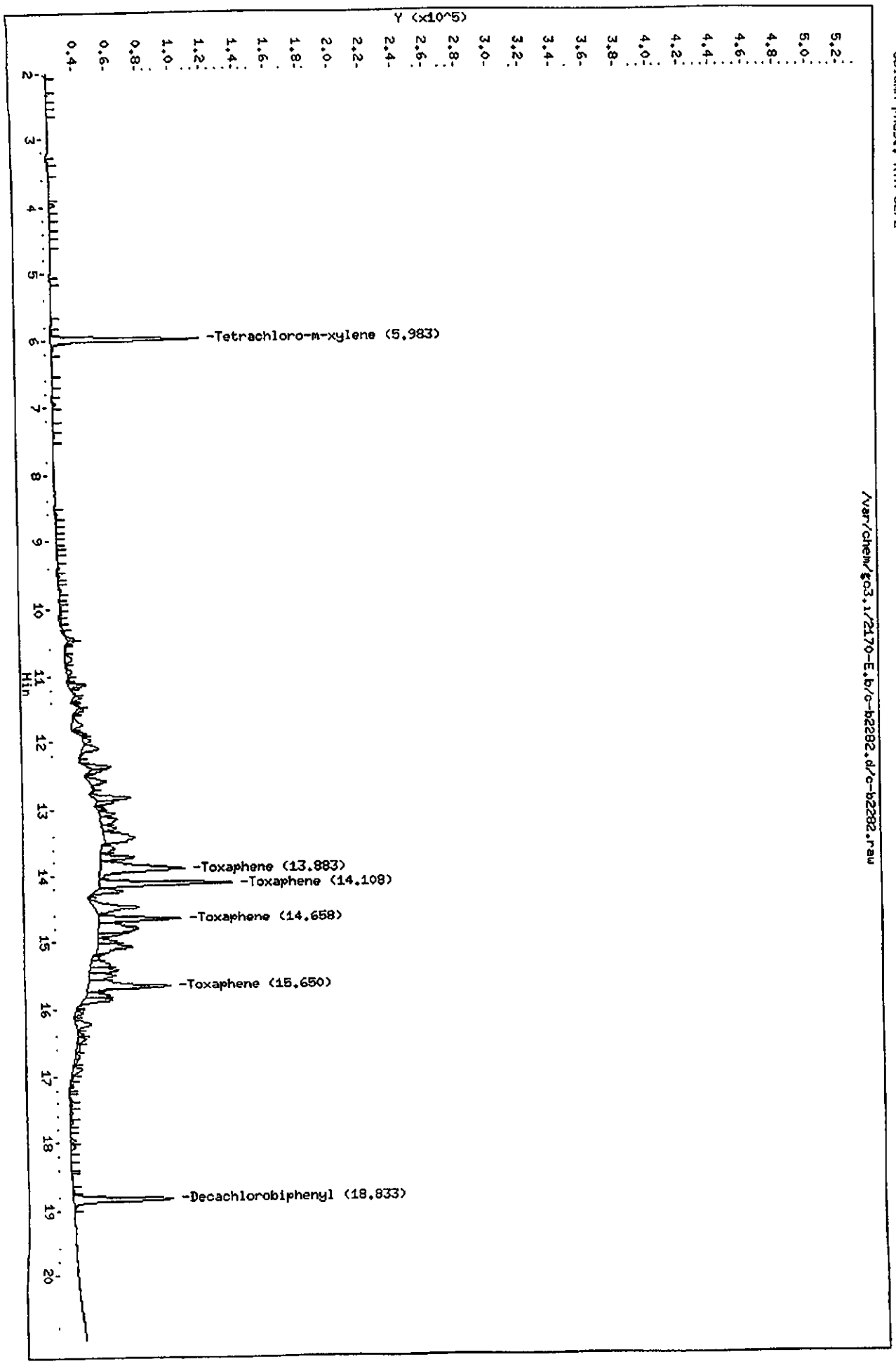

Data File: /var/chem/gc3.i/2170-E.b/c-b2281.d
Date : 17-MAY-2000 16:49
Client ID:
Sample Info: EVALB,2170-E.b,,EVALBR,sub,,3,1
Column phase: RTX-CLP2
Instrument: gc3.i
Operator: 1891
Column diameter: 0.53
/var/chem/gc3.i/2170-E.b/c-b2281.d/c-b2281.raw
Y (x10^5)
Min
-Tetrachloro-m-xylene (5.983)
-4,4'-DDE (12.683)
-Endrin (13.467)
-4,4'-DDD (13.883)
-4,4'-DDT (14.508)
-Endrin aldehyde (14.650)
-Endrin ketone (16.258)
-Decachlorobiphenyl (18.833)

Data File: /var/chem/gc3.i/2170-E.b/c-b2282.d
Report Date: 18-May-2000 11:44

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2170-E.b/c-b2282.d
Lab Smp Id: MEDTOX
Inj Date : 17-MAY-2000 17:15
Operator : 1891 Inst ID: gc3.i
Smp Info : MEDTOX,2170-E.b,,1-TOX.sub,,1,3
Misc Info : 190-84-13
Comment :
Method : /var/chem/gc3.i/2170-E.b/PESTB.m
Meth Date : 18-May-2000 11:42 g Quant Type: ESTD
Cal Date : 17-MAY-2000 17:15 Cal File: c-b2282.d
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)	AMOUNTS ON-COL (ng)
18 Toxaphene	13.883	13.883	0.000	52924	1.00000	1.00000
$ 1 Tetrachloro-m-xylene	5.983	5.992	-0.009	93378	0.02500	0.0250000
$ 30 Decachlorobiphenyl	18.833	18.842	-0.009	62869	0.02500	0.0250000


Data File: /var/chem/gc3.i/2170-E.b/c-b2282.d
Date : 17-MAY-2000 17:15
Client ID:
Sample Info: MEDTOX,2170-E,b,,1-TOX,sub,,1,3
Column phase: RTX-CLP2
Instrument: gc3.i
Operator: 1891
Column diameter: 0.53
/var/chem/gc3.i/2170-E.b/c-b2282.d/c-b2282.raw
Y (x10^5)
Min
-Tetrachloro-m-xylene (5.983)
-Toxaphene (13.883)
-Toxaphene (14.108)
-Toxaphene (14.658)
-Toxaphene (15.650)
-Decachlorobiphenyl (18.833)

Data File: /var/chem/gc3.i/2170-E.b/c-b2283.d
Report Date: 18-May-2000 11:44

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2170-E.b/c-b2283.d
Lab Smp Id: MEDCHLOR
Inj Date : 17-MAY-2000 17:41
Operator : 1891 Inst ID: gc3.i
Smp Info : MEDCHLOR,2170-E.b,,2-CHLO.sub,,1,3
Misc Info : 190-85-10
Comment :
Method : /var/chem/gc3.i/2170-E.b/PESTB.m
Meth Date : 18-May-2000 11:42 g Quant Type: ESTD
Cal Date : 17-MAY-2000 17:41 Cal File: c-b2283.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 2-CHLO.sub
Target Version: 3.40

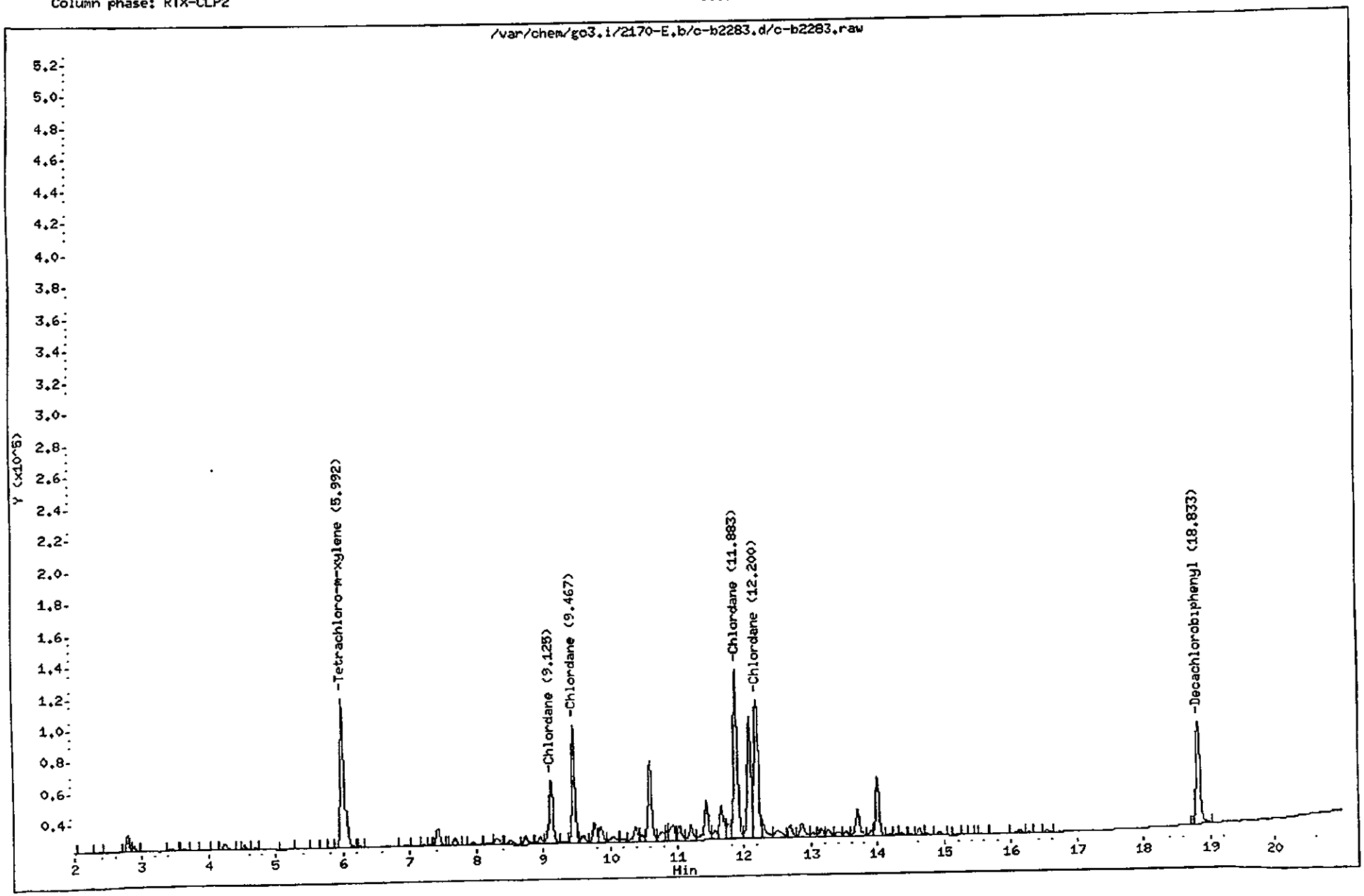
					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ng)	(ng)
9 Chlordane	9.125	9.125	0.000	39296	0.25000	0.250000
$ 1 Tetrachloro-m-xylene	5.992	5.992	0.000	94430	0.02500	0.0250000
$ 30 Decachlorobiphenyl	18.833	18.842	-0.009	64237	0.02500	0.0250000

Data File: /var/chem/gc3.i/2170-E.b/c-b2283.d
Date : 17-MAY-2000 17:41
Client ID:
Sample Info: HEDCHLOR,2170-E.b,,2-CHLO.sub,,1,3

Column phase: RTX-CLP2

Instrument: gc3.i

Operator: 1891
Column diameter: 0.53



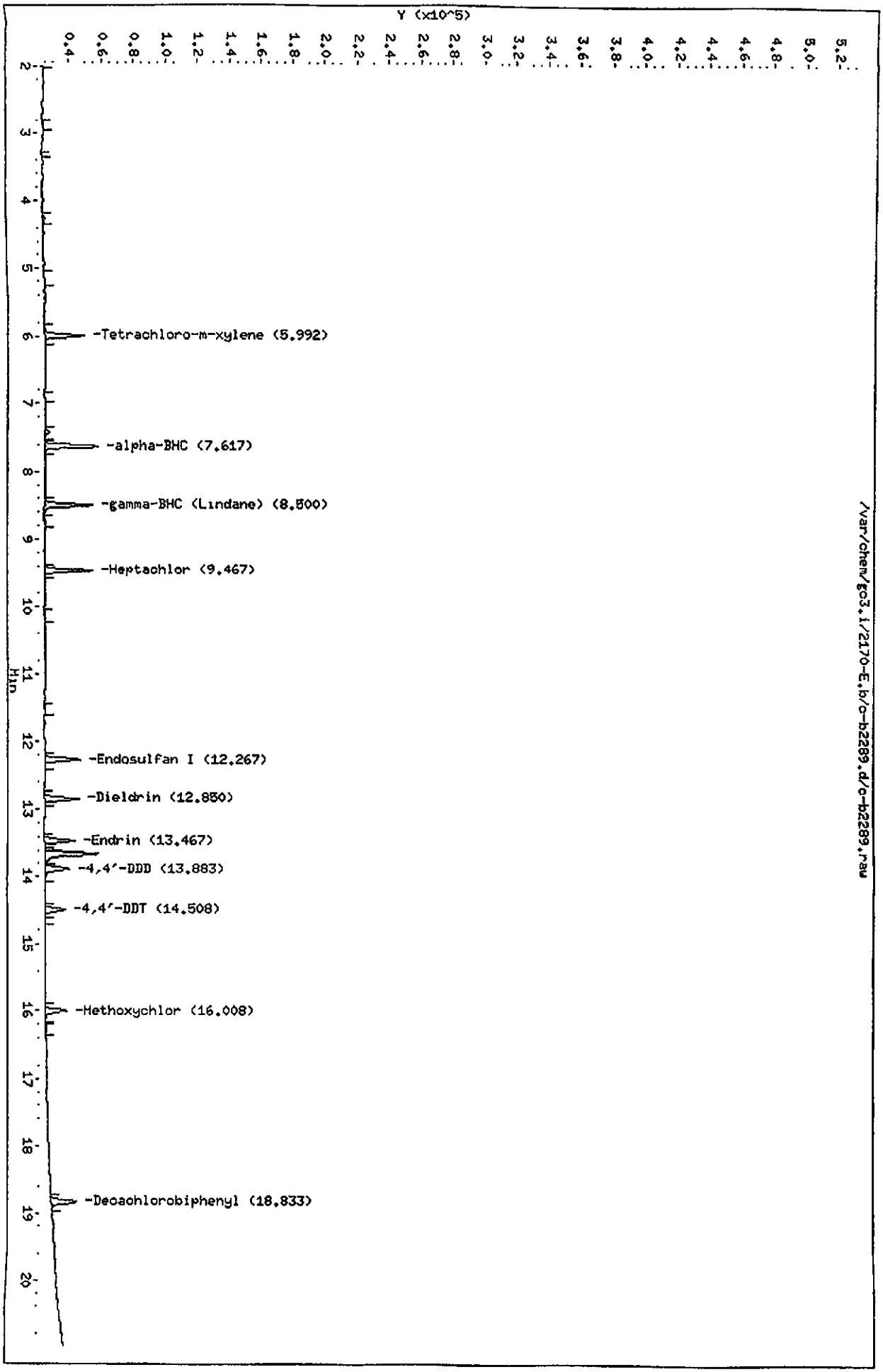
657 440

Data File: /var/chem/gc3.i/2170-E.b/c-b2289.d
Report Date: 18-May-2000 11:44

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2170-E.b/c-b2289.d
Lab Smp Id: LOWA
Inj Date : 17-MAY-2000 20:17
Operator : 1891 Inst ID: gc3.i
Smp Info : LOWA,2170-E.b,,3-INDA.sub,,1,1
Misc Info : 190-84-1
Comment :
Method : /var/chem/gc3.i/2170-E.b/PESTB.m
Meth Date : 18-May-2000 11:42 g Quant Type: ESTD
Cal Date : 17-MAY-2000 20:17 Cal File: c-b2289.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 3-INDA.sub
Target Version: 3.40

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
$	1 Tetrachloro-m-xylene	5.992	5 992	0 000	24804	0.00500	0.00567727
	5 alpha-BHC	7 617	7 625	-0.008	33617	0.00500	0.00500000
	6 gamma-BHC (Lindane)	8.500	8.508	-0.008	29937	0.00500	0.00500000
	10 Heptachlor	9.467	9.475	-0 008	29711	0.00500	0.00500000
	15 Endosulfan I	12 267	12.275	-0 008	22482	0 00500	0.00500000
	17 Dieldrin	12.850	12 858	-0.008	21946	0.00500	0.00500000
	20 Endrin	13 467	13 475	-0.008	18774	0.00500	0.00500000
	21 4,4'-DDD	13.883	13.892	-0 009	15526	0.00500	0.00500000
	23 4,4'-DDT	14.508	14.508	0 000	12923	0.00500	0.00500000
	25 Methoxychlor	16.008	16.008	0.000	13407	0.01000	0 0100000
$	30 Decachlorobiphenyl	18.833	18.842	-0 009	15693	0.00500	0.00549852


Data File: /var/chem/gc3.i/2170-E.b/c-b2289.d
Date : 17-MAY-2000 20:17
Client ID:
Sample Info: LCWA,2170-E.b,,3-INDA,sub,,1,1
Column phase: RTX-CLP2
Instrument: gc3.i
Operator: 1891
Column diameter: 0.53
/var/chem/gc3.i/2170-E.b/c-b2289.d/c-b2289.raw
Y (x10^5)
Min
-Tetrachloro-m-xylene (5.992)
-alpha-BHC (7.617)
-gamma-BHC (Lindane) (8.500)
-Heptachlor (9.467)
-Endosulfan I (12.267)
-Dieldrin (12.850)
-Endrin (13.467)
-4,4'-DDD (13.883)
-4,4'-DDT (14.508)
-Methoxychlor (16.008)
-Decachlorobiphenyl (18.833)

657 442

Data File: /var/chem/gc3.i/2170-E.b/c-b2292.d
Report Date: 18-May-2000 11:44

STL-PITTSBURGH

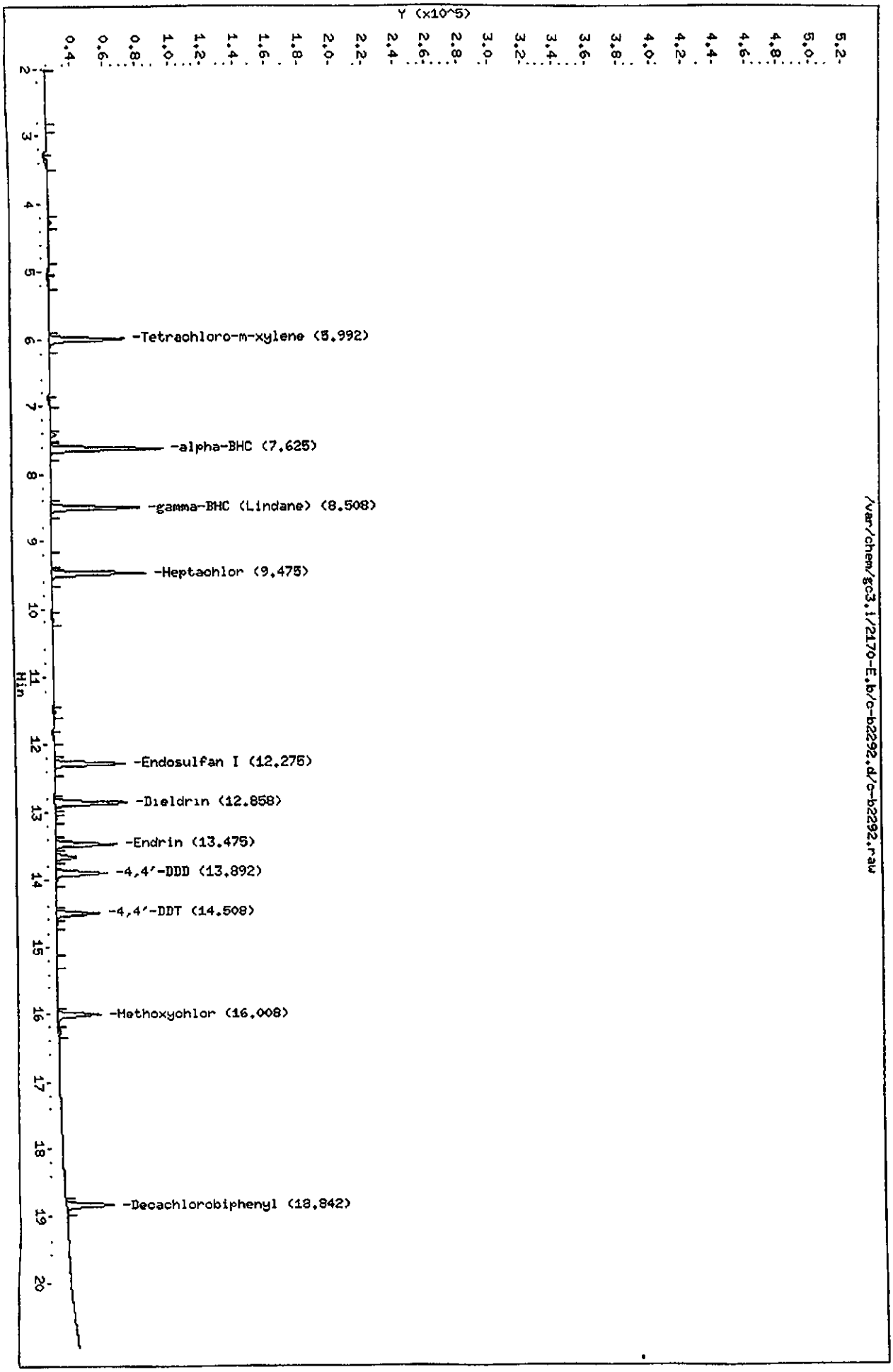
Data file : /var/chem/gc3.i/2170-E.b/c-b2292.d
Lab Smp Id: MLOWA
Inj Date : 17-MAY-2000 22:30
Operator : 1891 Inst ID: gc3.i
Smp Info : MLOWA,2170-E.b,,3-INDA.sub,,1,2
Misc Info : 190-84-2
Comment :
Method : /var/chem/gc3.i/2170-E.b/PESTB.m
Meth Date : 18-May-2000 11:42 g Quant Type: ESTD
Cal Date : 17-MAY-2000 22:30 Cal File: c-b2292.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)	AMOUNTS ON-COL (ng)
$	1 Tetrachloro-m-xylene	5.992	5.992	0.000	46864	0.01000	0.0104729
	5 alpha-BHC	7.625	7.625	0.000	69788	0.01000	0.0101864
	6 gamma-BHC (Lindane)	8.508	8.508	0.000	55992	0.01000	0.00966496
	10 Heptachlor	9.475	9.475	0.000	58817	0.01000	0.00994883
	15 Endosulfan I	12.275	12.275	0.000	44778	0.01000	0.00997927
	17 Dieldrin	12.858	12.858	0.000	45413	0.01000	0.0101703
	20 Endrin	13.475	13.475	0.000	38150	0.01000	0.0100795
	21 4,4'-DDD	13.892	13.892	0.000	31973	0.01000	0.0101461
	23 4,4'-DDT	14.508	14.508	0.000	27033	0.01000	0.0102245
	25 Methoxychlor	16.008	16.008	0.000	26936	0.02000	0.0200454
$	30 Decachlorobiphenyl	18.842	18.842	0.000	29730	0.01000	0.0102741

Data File: /var/chem/gc3.i/2170-E.b/c-b2292.d
Date : 17-MAY-2000 22:30
Client ID:
Sample Info: MLOWA,2170-E,b,,3-INDA,sub,,1,2

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

Column phase: RTX-CLP2



657 444

Data File: /var/chem/gc3.i/2170-E.b/c-b2293.d
Report Date: 18-May-2000 11:44

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2170-E.b/c-b2293.d
Lab Smp Id: MEDA
Inj Date : 17-MAY-2000 22:56
Operator : 1891 Inst ID: gc3.i
Smp Info : MEDA,2170-E.b,,3-INDA.sub,,1,3
Misc Info : 190-84-3
Comment :
Method : /var/chem/gc3.i/2170-E.b/PESTB.m
Meth Date : 18-May-2000 11:42 g Quant Type: ESTD
Cal Date : 17-MAY-2000 22:56 Cal File: c-b2293.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 3-INDA.sub
Target Version: 3.40

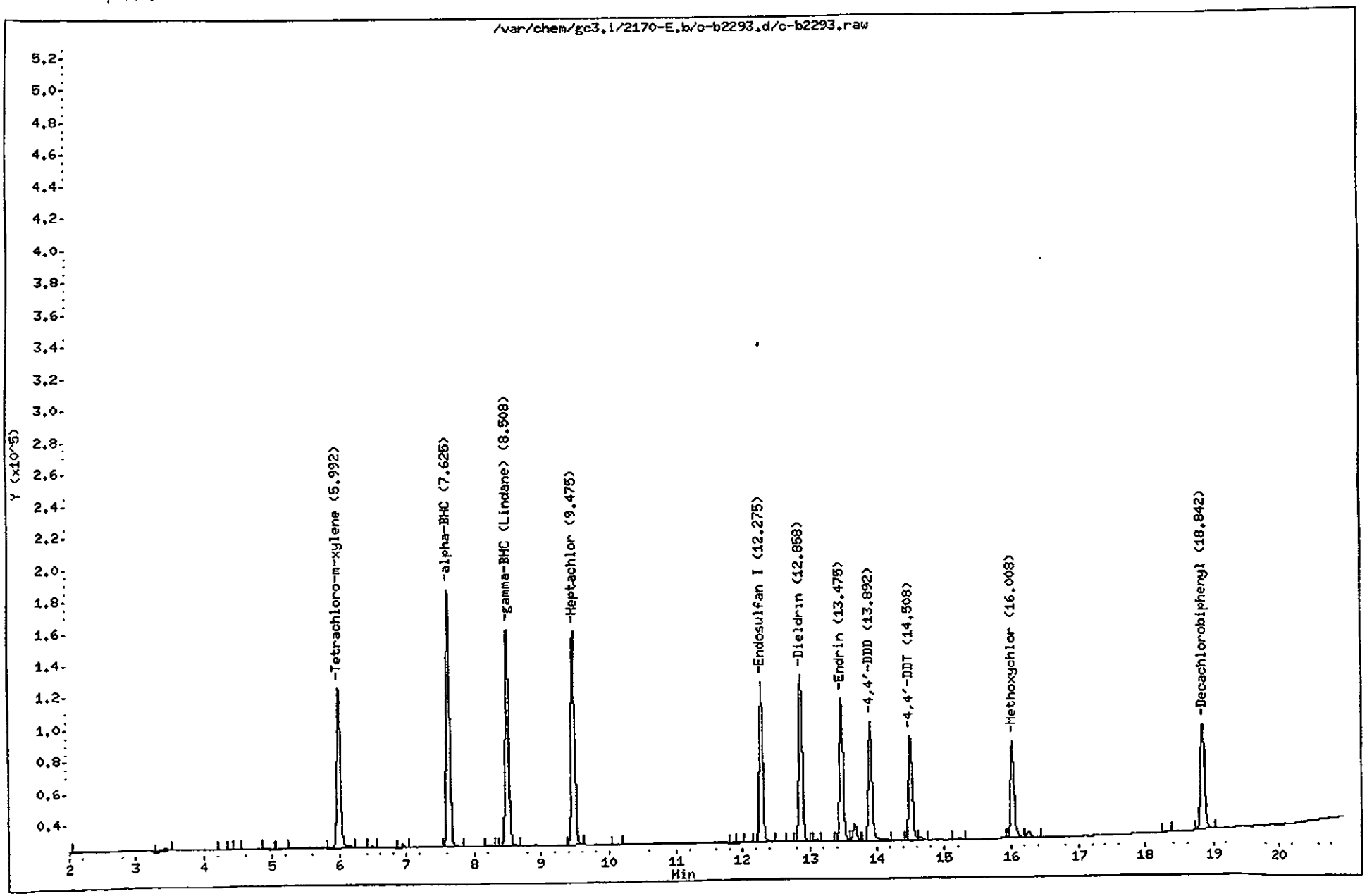
	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
$ 1	Tetrachloro-m-xylene	5 992	5.992	0.000	100176	0.02500	0.0220099
5	alpha-BHC	7 625	7.625	0.000	160664	0.02500	0.0239454
6	gamma-BHC (Lindane)	8.508	8.508	0.000	135560	0.02500	0.0239097
10	Heptachlor	9 475	9.475	0.000	133248	0.02500	0.0233035
15	Endosulfan I	12.275	12.275	0.000	100629	0.02500	0.0232232
17	Dieldrin	12.858	12.858	0.000	104542	0.02500	0.0239187
20	Endrin	13 475	13.475	0.000	89197	0.02500	0.0240257
21	4,4'-DDD	13.892	13.892	0.000	74538	0.02500	0.0240859
23	4,4'-DDT	14.508	14.508	0.000	65341	0.02500	0.0248082
25	Methoxychlor	16.008	16.008	0 000	61025	0.05000	0.0468462
$ 30	Decachlorobiphenyl	18.842	18.842	0 000	65867	0.02500	0 0225926

Data File: /var/chem/gc3.i/2170-E.b/c-b2293.d
Date : 17-MAY-2000 22:56
Client ID:
Sample Info: MEDA,2170-E.b,,3-INDA,sub,,1,3

Instrument: gc3.i

Operator: 1891
Column diameter: 0.53

Column phase: RTX-CLP2

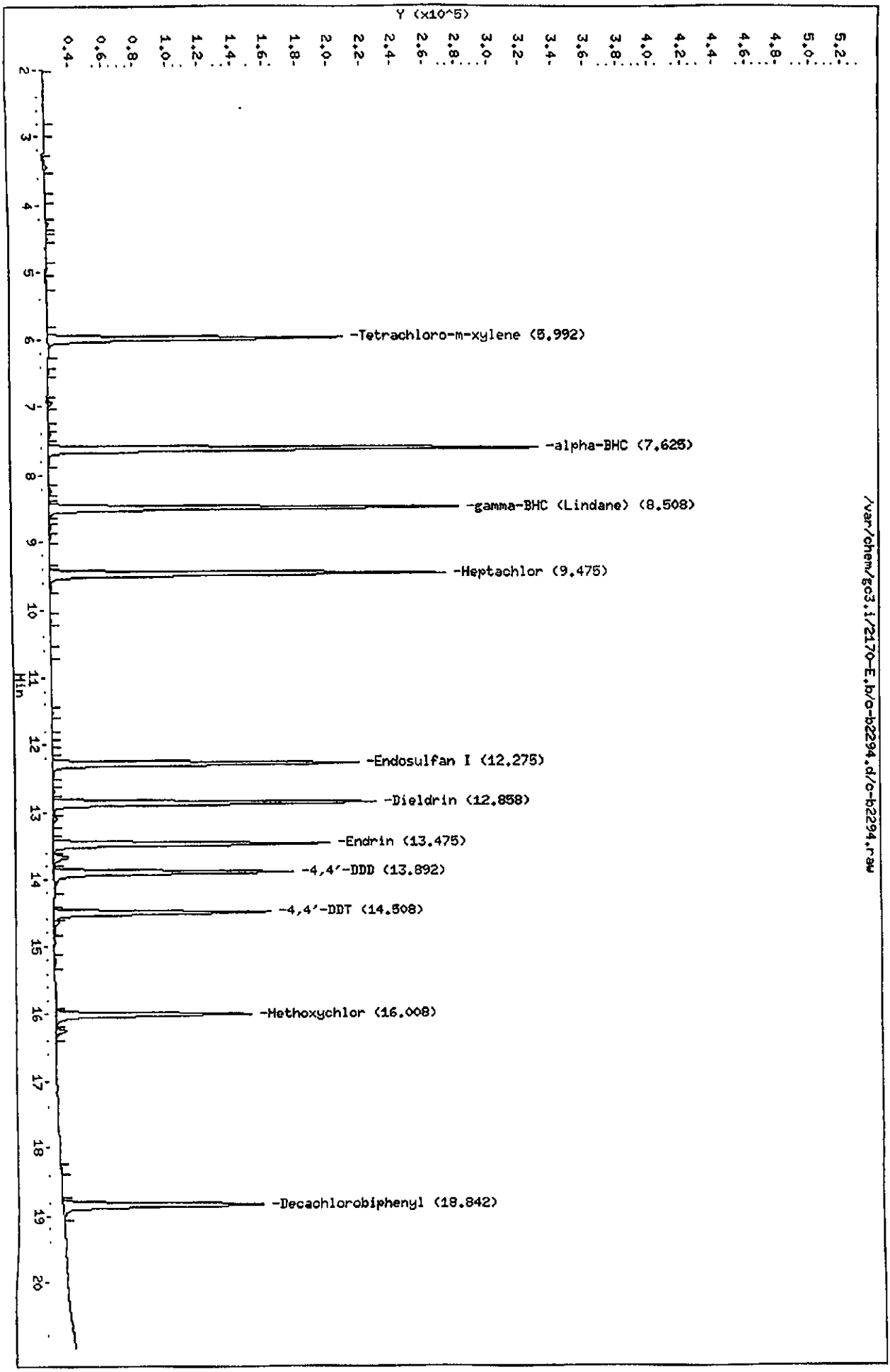


Data File: /var/chem/gc3.i/2170-E.b/c-b2294.d
Report Date: 18-May-2000 11:44

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2170-E.b/c-b2294.d
Lab Smp Id: MHIGHA
Inj Date : 17-MAY-2000 23:22
Operator : 1891 Inst ID: gc3.i
Smp Info : MHIGHA,2170-E.b,,3-INDA.sub,,1,4
Misc Info : 190-84-4
Comment :
Method : /var/chem/gc3.i/2170-E.b/PESTB.m
Meth Date : 18-May-2000 11:42 g Quant Type: ESTD
Cal Date : 17-MAY-2000 23:22 Cal File: c-b2294.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	5.992	5 992	0.000	183640	0.05000	0.0423938
	5 alpha-BHC	7.625	7.625	0.000	306572	0.05000	0.0466976
	6 gamma-BHC (Lindane)	8.508	8.508	0.000	255751	0.05000	0.0462395
	10 Heptachlor	9.475	9.475	0.000	247550	0.05000	0.0447956
	15 Endosulfan I	12.275	12.275	0 000	191746	0.05000	0.0455608
	17 Dieldrin	12.858	12.858	0.000	202395	0.05000	0.0471781
	20 Endrin	13.475	13.475	0.000	172892	0 05000	0 0473822
	21 4,4'-DDD	13.892	13.892	0.000	149519	0.05000	0.0487255
	23 4,4'-DDT	14.508	14.508	0.000	134807	0.05000	0.0508817
	25 Methoxychlor	16.008	16.008	0.000	121669	0.10000	0.0949669
$	30 Decachlorobiphenyl	18 842	18.842	0.000	124669	0.05000	0.0443675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Date : 17-MAY-2000 23:22
Client ID:
Sample Info: MHIGHA,2170-E,b,,3-INDA,sub,1,4
Column phase: RTX-CLP2
Instrument: gc3.i
Operator: 1891
Column diameter: 0.53
/var/chem/gc3.i/2170-E,b/c-b2294.d/c-b2294.raw
Y (x10^5)
Min
-Tetrachloro-m-xylene (5.992)
-alpha-BHC (7.625)
-gamma-BHC (Lindane) (8.508)
-Heptachlor (9.475)
-Endosulfan I (12.275)
-Dieldrin (12.858)
-Endrin (13.475)
-4,4'-DDD (13.892)
-4,4'-DDT (14.508)
-Methoxychlor (16.008)
-Decachlorobiphenyl (18.842)

657 448
Data File: /var/chem/gc3.i/2170-E.b/c-b2295.d
Report Date: 18-May-2000 11:44

STL-PITTSBURGH

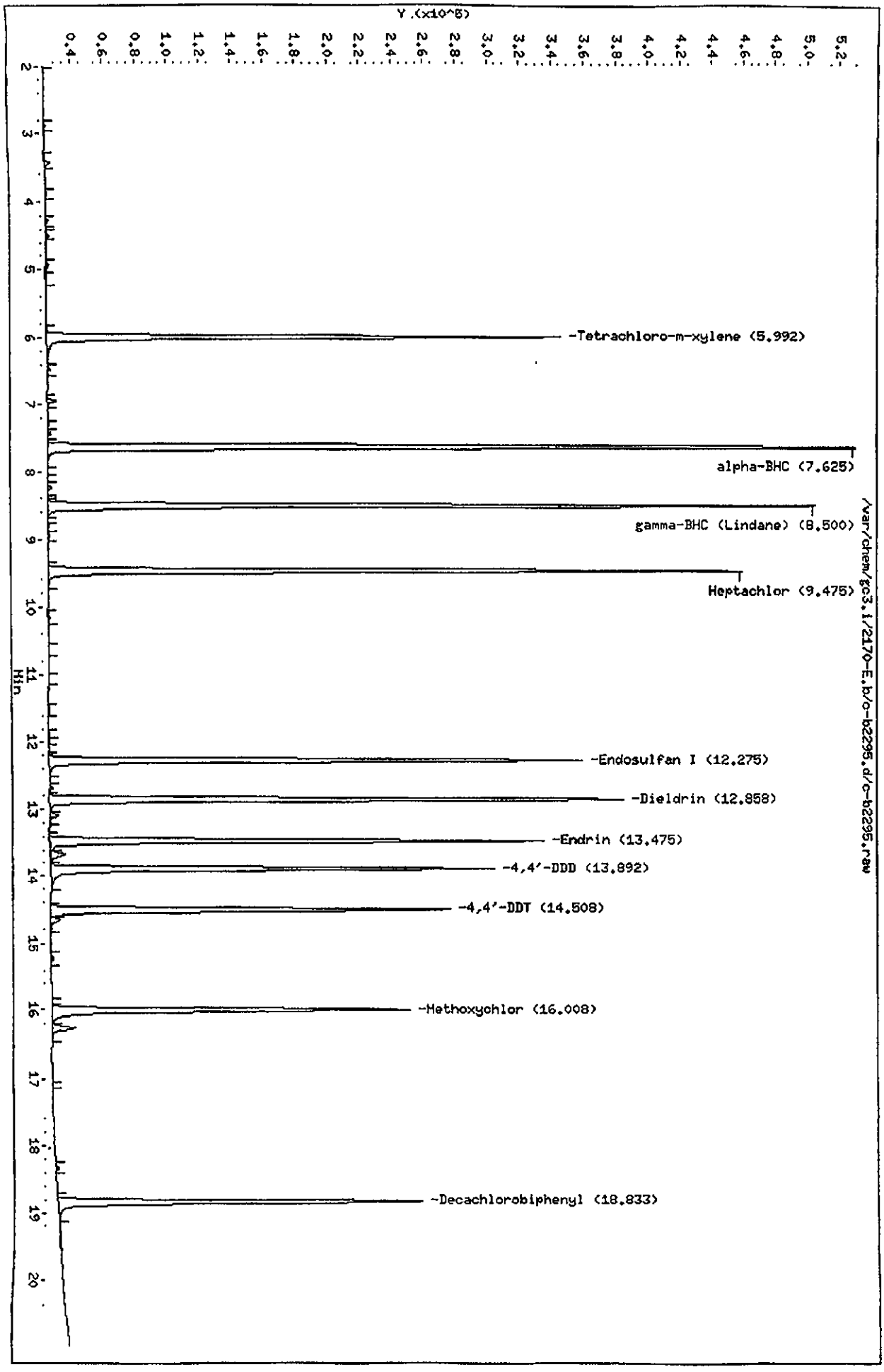
Data file : /var/chem/gc3.i/2170-E.b/c-b2295.d
Lab Smp Id: HIGHA
Inj Date : 17-MAY-2000 23:48
Operator : 1891 Inst ID: gc3.i
Smp Info : HIGHA,2170-E.b,,3-INDA.sub,,1,5
Misc Info : 190-84-5
Comment :
Method : /var/chem/gc3.i/2170-E.b/PESTB.m
Meth Date : 18-May-2000 11:42 g Quant Type: ESTD
Cal Date : 17-MAY-2000 23:48 Cal File: c-b2295.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)	AMOUNTS ON-COL (ng)
$	1 Tetrachloro-m-xylene	5.992	5.992	0.000	322080	0.10000	0.0783732
	5 alpha-BHC	7.625	7.625	0.000	559179	0.10000	0.0877777
	6 gamma-BHC (Lindane)	8.500	8.508	-0.008	480537	0.10000	0.0892217
	10 Heptachlor	9.475	9.475	0 000	434641	0 10000	0.0821589
	15 Endosulfan I	12.275	12.275	0.000	334888	0 10000	0.0829622
	17 Dieldrin	12.858	12.858	0 000	359786	0.10000	0.0866623
	20 Endrin	13.475	13.475	0.000	310417	0 10000	0.0876900
	21 4,4'-DDD	13.892	13.892	0.000	278347	0.10000	0 0924258
	23 4,4'-DDT	14.508	14.508	0.000	250342	0.10000	0.0955424
	25 Methoxychlor	16.008	16.008	0.000	225075	0.20000	0.180058
$	30 Decachlorobiphenyl	18.833	18.842	-0.009	228547	0.10000	0.0844898

Data File: /var/chem/gc3.i/2170-E.b/c-b2295.d
Date : 17-MAY-2000 23:48
Client ID:
Sample Info: HIGHA,2170-E.b,J-INDA.sub,1,5

Column phase: RTX-CLP2

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

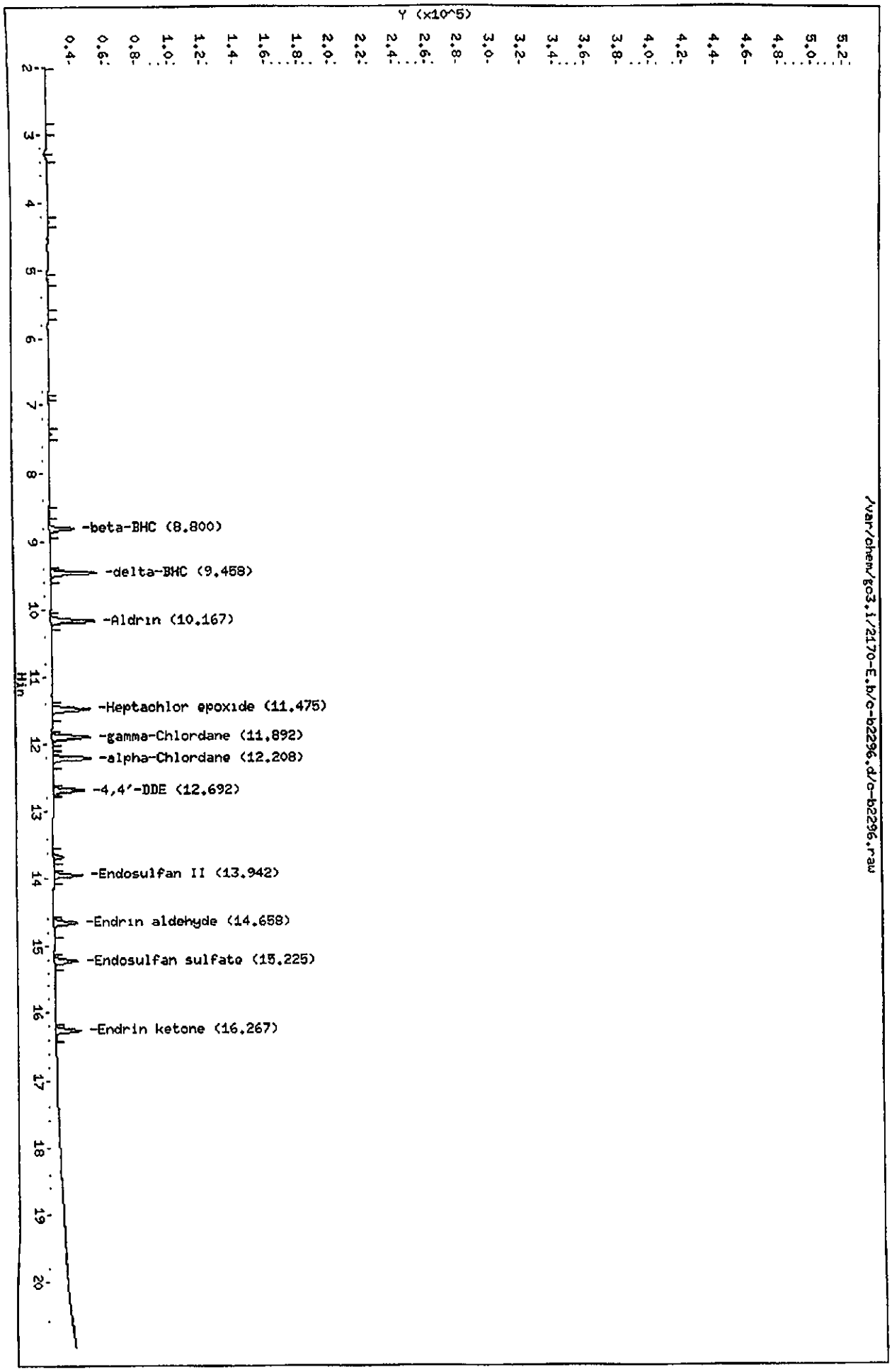


Data File: /var/chem/gc3.i/2170-E.b/c-b2296.d
Report Date: 18-May-2000 11:44

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2170-E.b/c-b2296.d
Lab Smp Id: LOWB
Inj Date : 18-MAY-2000 00:14
Operator : 1891 Inst ID: gc3.i
Smp Info : LOWB,2170-E.b,,4-INDB.sub,,1,1
Misc Info : 190-84-7
Comment :
Method : /var/chem/gc3.i/2170-E.b/PESTB.m
Meth Date : 18-May-2000 11:42 g Quant Type: ESTD
Cal Date : 18-MAY-2000 00:14 Cal File: c-b2296.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 4-INDB.sub
Target Version: 3.40

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
11 Aldrin	10.167	10.167	0.000	27894	0.00500	0.00500000
7 beta-BHC	8.800	8.800	0.000	15896	0.00500	0.00500000
8 delta-BHC	9.458	9.458	0.000	28706	0.00500	0.00500000
12 Heptachlor epoxide	11.475	11.475	0.000	24110	0.00500	0.00500000
13 gamma-Chlordane	11.892	11.892	0.000	24762	0.00500	0.00500000
14 alpha-Chlordane	12.208	12.208	0.000	24400	0.00500	0.00500000
16 4,4'-DDE	12.692	12.692	0.000	20059	0.00500	0.00500000
22 Endosulfan II	13.942	13.942	0.000	18109	0.00500	0.00500000
24 Endrin aldehyde	14.658	14.658	0.000	15202	0.00500	0.00500000
26 Endosulfan sulfate	15.225	15.225	0.000	14592	0.00500	0.00500000
27 Endrin ketone	16.267	16.267	0.000	16130	0.00500	0.00500000


Data File: /var/chem/gc3.i/2170-E.b/c-b2296.d
Date : 18-MAY-2000 00:14
Client ID:
Sample Info: LCMB,2170-E,b,,4-INDB.sub,,1,1
Instrument: gc3.i
Operator: 1891
Column diameter: 0.53
Column phase: RTX-CLP2
Y (x10^5)
/var/chem/gc3.i/2170-E.b/c-b2296.d/c-b2296.raw
Min
-beta-BHC (8.800)
-delta-BHC (9.458)
-Aldrin (10.167)
-Heptachlor epoxide (11.475)
-gamma-Chlordane (11.892)
-alpha-Chlordane (12.208)
-4,4'-DDE (12.692)
-Endosulfan II (13.942)
-Endrin aldehyde (14.658)
-Endosulfan sulfate (15.225)
-Endrin ketone (16.267)

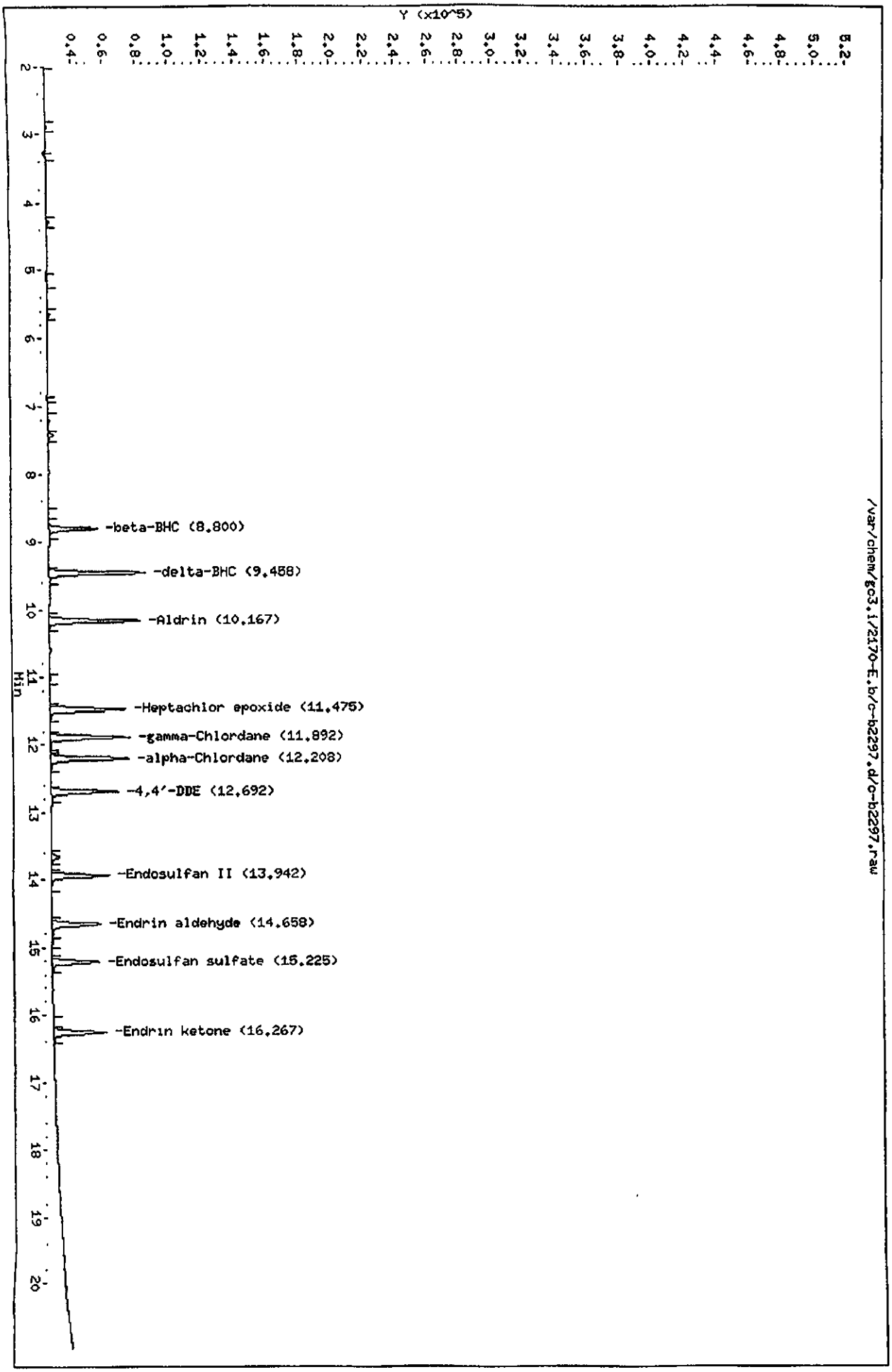
657 452

Data File: /var/chem/gc3.i/2170-E.b/c-b2297.d
Report Date: 18-May-2000 11:45

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2170-E.b/c-b2297.d
Lab Smp Id: MLOWB
Inj Date : 18-MAY-2000 00:40
Operator : 1891 Inst ID: gc3.i
Smp Info : MLOWB,2170-E.b,,4-INDB.sub,,1,2
Misc Info : 190-84-8
Comment :
Method : /var/chem/gc3.i/2170-E.b/PESTB.m
Meth Date : 18-May-2000 11:42 g Quant Type: ESTD
Cal Date : 18-MAY-2000 00:40 Cal File: c-b2297.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)	AMOUNTS ON-COL (ng)
11 Aldrin	10.167	10.167	0.000	56697	0.01000	0.0100808
7 beta-BHC	8.800	8.800	0.000	30704	0.01000	0.00982591
8 delta-BHC	9.458	9.458	0.000	59691	0.01000	0.0101946
12 Heptachlor epoxide	11.475	11.475	0.000	47916	0.01000	0.00996838
13 gamma-Chlordane	11.892	11.892	0.000	50094	0.01000	0.0100572
14 alpha-Chlordane	12.208	12.208	0.000	49070	0.01000	0.0100276
16 4,4'-DDE	12.692	12.692	0.000	42223	0.01000	0.0102556
22 Endosulfan II	13.942	13.942	0.000	36744	0.01000	0.0100721
24 Endrin aldehyde	14.658	14.658	0.000	30722	0.01000	0.0100520
26 Endosulfan sulfate	15.225	15.225	0.000	30063	0.01000	0.0101484
27 Endrin ketone	16.267	16.267	0.000	33517	0.01000	0.0101911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Date : 18-MAY-2000 00:40
Client ID:
Sample Info: MLOWB,2170-E.b,,4-INDB.sub,,1,2
Column phase: RTX-CLP2
Instrument: gc3.i
Operator: 1891
Column diameter: 0.53
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Y (x10^5)
Min
-beta-BHC (8.800)
-delta-BHC (9.458)
-Aldrin (10.167)
-Heptachlor epoxide (11.475)
-gamma-Chlordane (11.892)
-alpha-Chlordane (12.208)
-4,4'-DDE (12.692)
-Endosulfan II (13.942)
-Endrin aldehyde (14.658)
-Endosulfan sulfate (15.225)
-Endrin ketone (16.267)

Data File: /var/chem/gc3.i/2170-E.b/c-b2298.d
Report Date: 18-May-2000 11:45

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2170-E.b/c-b2298.d
Lab Smp Id: MEDB
Inj Date : 18-MAY-2000 01:06 Inst ID: gc3.i
Operator : 1891
Smp Info : MEDB,2170-E.b,,4-INDB.sub,,1,3
Misc Info : 190-84-9
Comment :
Method : /var/chem/gc3.i/2170-E.b/PESTB.m
Meth Date : 18-May-2000 11:42 g Quant Type: ESTD
Cal Date : 18-MAY-2000 01:06 Cal File: c-b2298.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 4-INDB.sub
Target Version: 3.40

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
11 Aldrin	10.167	10.167	0.000	127877	0.02500	0.0234442
7 beta-BHC	8.800	8.800	0.000	66768	0.02500	0.0224548
8 delta-BHC	9.458	9.458	0.000	137836	0.02500	0.0240080
12 Heptachlor epoxide	11.475	11.475	0.000	109575	0.02500	0.0234861
13 gamma-Chlordane	11 892	11.892	0.000	113875	0 02500	0.0235331
14 alpha-Chlordane	12.208	12.208	0.000	111661	0 02500	0.0235019
16 4,4'-DDE	12.692	12.692	0.000	98517	0.02500	0.0242757
22 Endosulfan II	13.942	13.942	0.000	84906	0 02500	0.0238222
24 Endrin aldehyde	14.658	14.658	0 000	67736	0.02500	0.0230341
26 Endosulfan sulfate	15 225	15.225	0.000	69174	0.02500	0 0238760
27 Endrin ketone	16.267	16.267	0.000	76419	0.02500	0.0237955

Data File: /var/chem/gc3.i/2170-E.b/c-b2298.d
Date : 18-MAY-2000 01:06
Client ID:
Sample Info: MEDB,2170-E.b,,4-INDB,sub,1,3

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

Column phase: RTX-CLP2

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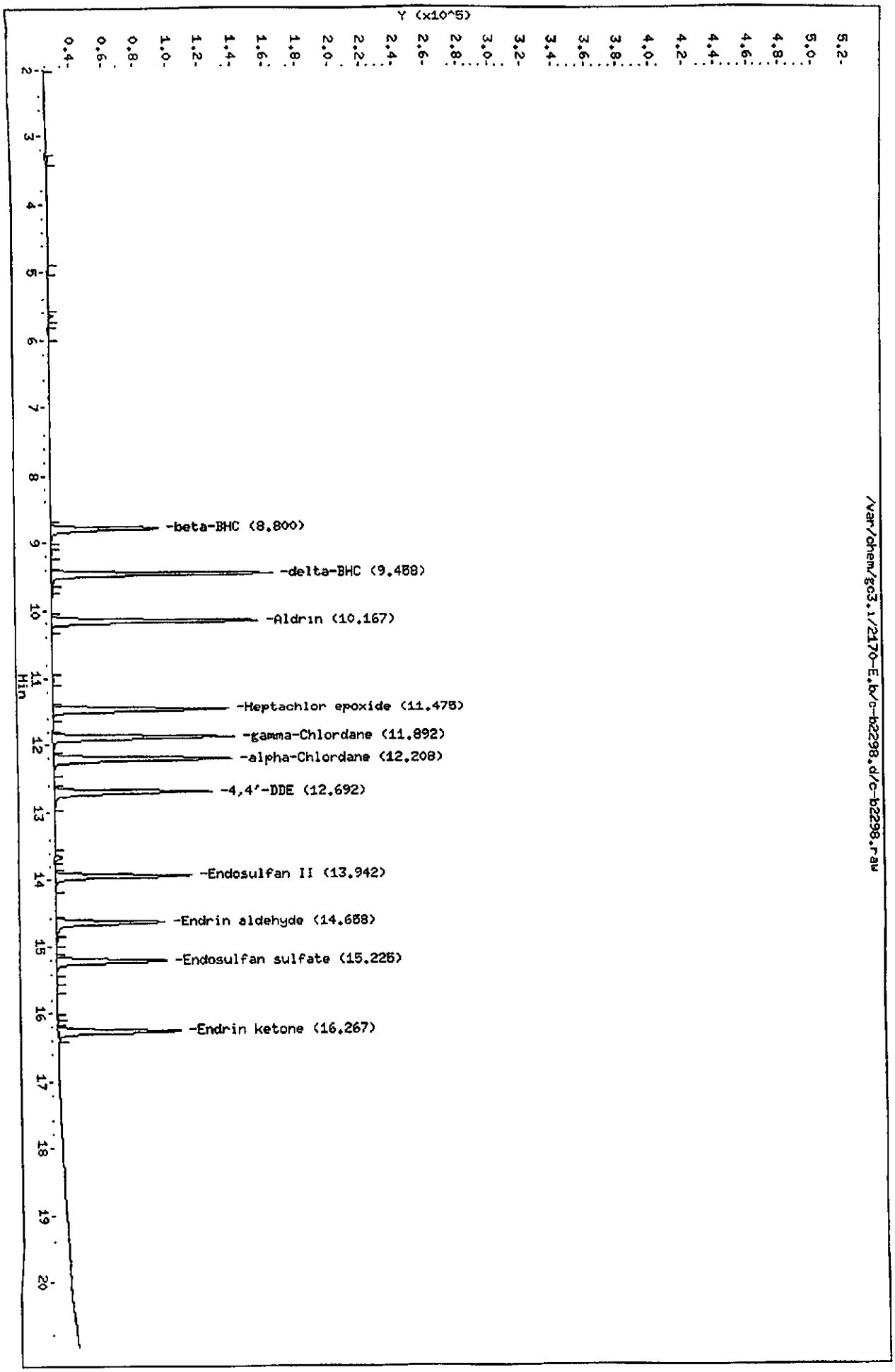
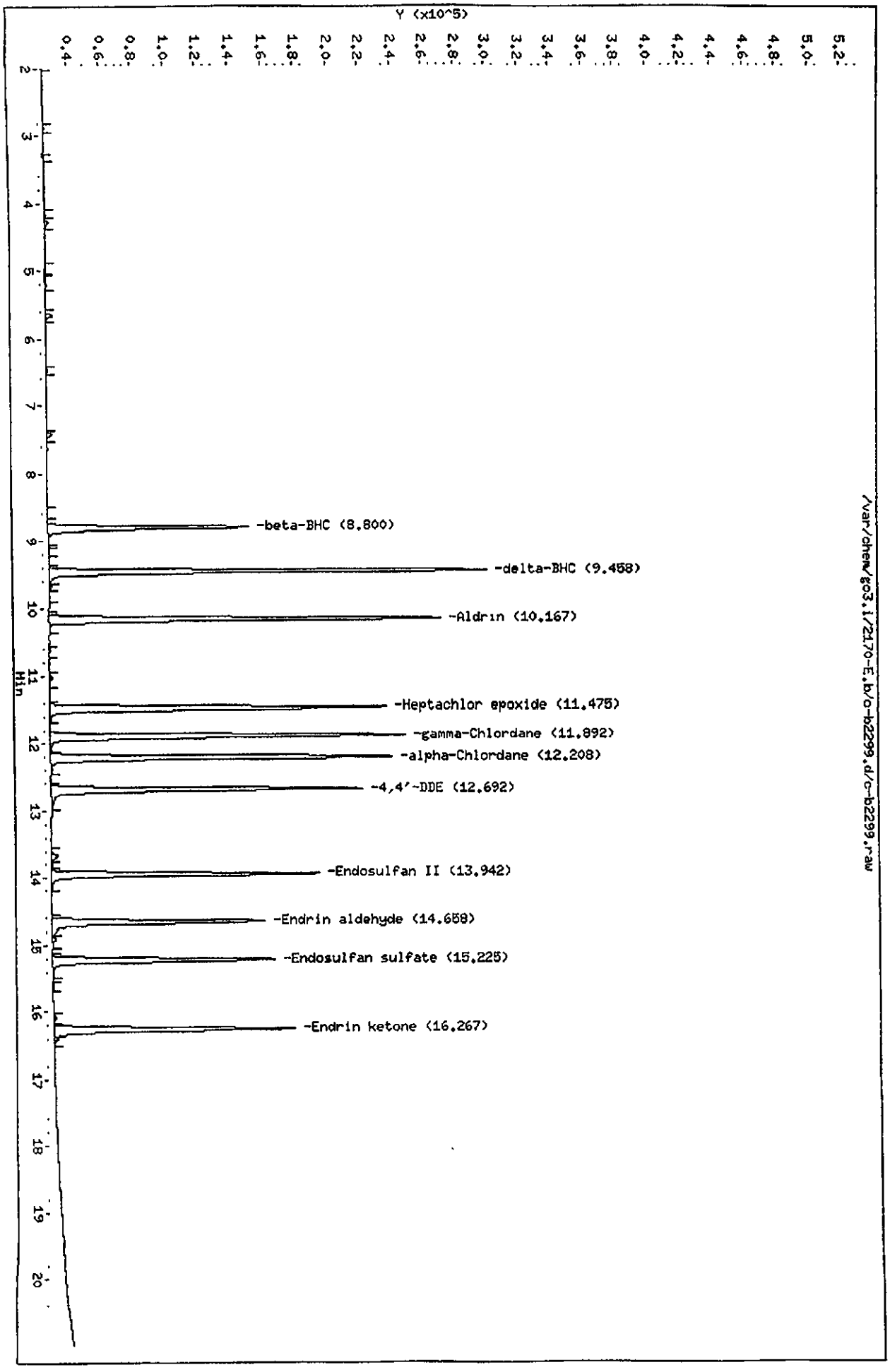


Data File: /var/chem/gc3.i/2170-E.b/c-b2299.d
Report Date: 18-May-2000 11:45

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2170-E.b/c-b2299.d
Lab Smp Id: MHIGHB
Inj Date : 18-MAY-2000 01:32
Operator : 1891 Inst ID: gc3.i
Smp Info : MHIGHB,2170-E.b,,4-INDB.sub,,1,4
Misc Info : 190-84-10
Comment :
Method : /var/chem/gc3.i/2170-E.b/PESTB.m
Meth Date : 18-May-2000 11:42 g Quant Type: ESTD
Cal Date : 18-MAY-2000 01:32 Cal File: c-b2299.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	10.167	10.167	0.000	245294	0.05000	0 0461307
7 beta-BHC	8.800	8.800	0.000	125530	0.05000	0.0439265
8 delta-BHC	9.458	9 458	0.000	274439	0.05000	0.0483326
12 Heptachlor epoxide	11 475	11.475	0.000	210478	0.05000	0.0462432
13 gamma-Chlordane	11.892	11.892	0.000	222340	0.05000	0 0468983
14 alpha-Chlordane	12 208	12.208	0.000	213437	0.05000	0.0460933
16 4,4'-DDE	12 692	12.692	0.000	194889	0.05000	0.0485023
22 Endosulfan II	13.942	13.942	0.000	166887	0.05000	0 0475794
24 Endrin aldehyde	14.658	14.658	0.000	133001	0.05000	0.0463335
26 Endosulfan sulfate	15.225	15.225	0.000	139369	0.05000	0.0485647
27 Endrin ketone	16.267	16.267	0.000	150750	0.05000	0.0476700


Data File: /var/chem/gc3.i/2170-E.b/c-b2299.d
Date : 18-MAY-2000 01:32
Client ID:
Sample Info: MHIGHB,2170-E.b,,4-INDB.sub,1,4
Column phase: RTX-CLP2
Instrument: gc3.i
Operator: 1891
Column diameter: 0.53
Y (x10^5)
/var/chem/gc3.i/2170-E.b/c-b2299.d/c-b2299.raw
Min
-beta-BHC (8.800)
-delta-BHC (9.458)
-Aldrin (10.167)
-Heptachlor epoxide (11.475)
-gamma-Chlordane (11.892)
-alpha-Chlordane (12.208)
-4,4'-DDE (12.692)
-Endosulfan II (13.942)
-Endrin aldehyde (14.658)
-Endosulfan sulfate (15.225)
-Endrin ketone (16.267)

Data File: /var/chem/gc3.i/2170-E.b/c-b2300.d
Report Date: 18-May-2000 11:45

STL-PITTSBURGH

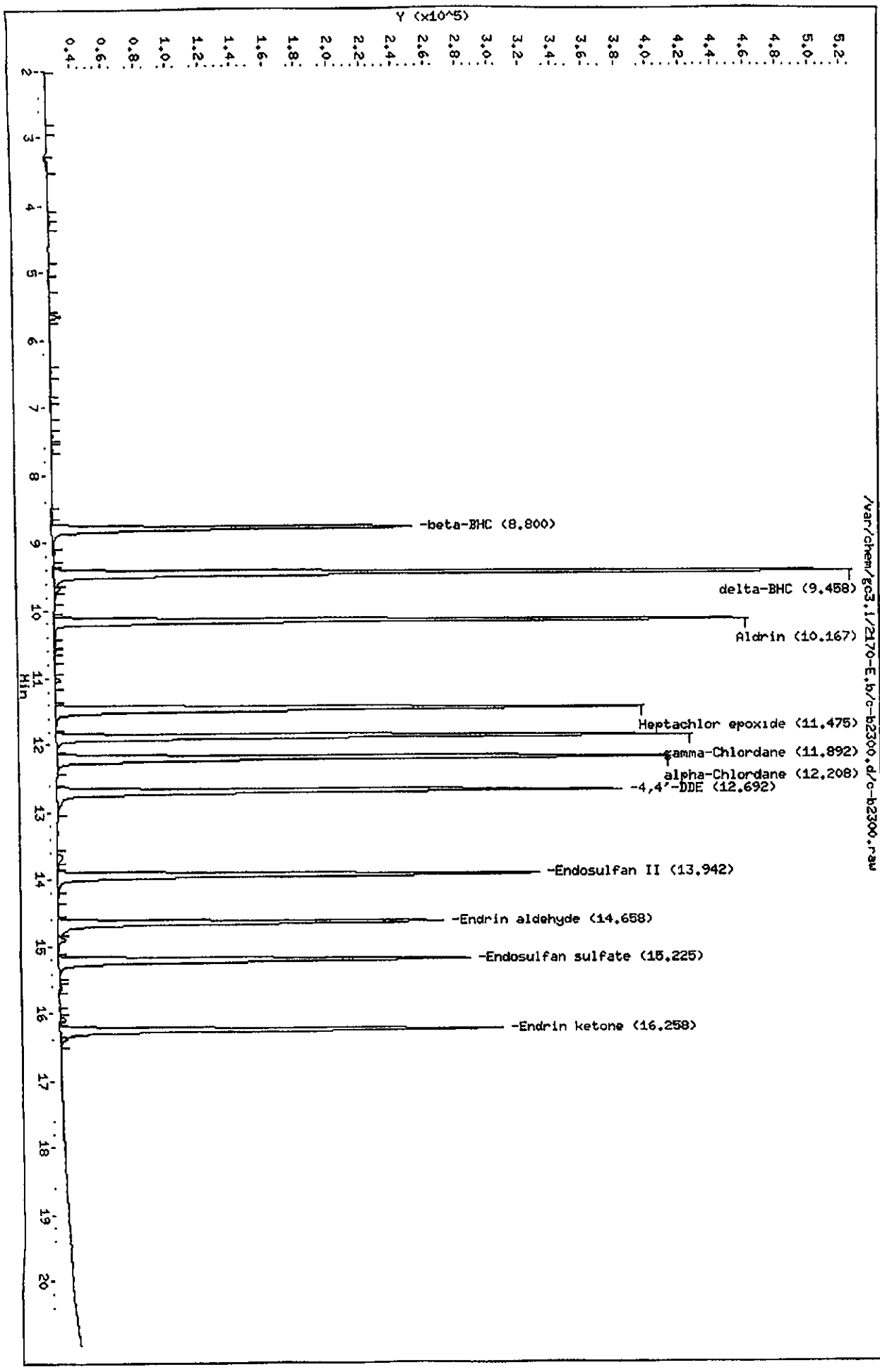
Data file : /var/chem/gc3.i/2170-E.b/c-b2300.d
Lab Smp Id: HIGHB
Inj Date : 18-MAY-2000 01:57
Operator : 1891 Inst ID: gc3.i
Smp Info : HIGHB,2170-E.b,,4-INDB.sub,,1,5
Misc Info : 190-84-11
Comment :
Method : /var/chem/gc3.i/2170-E.b/PESTB.m
Meth Date : 18-May-2000 11:42 g Quant Type: ESTD
Cal Date : 18-MAY-2000 01:57 Cal File: c-b2300.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 4-INDB.sub
Target Version: 3.40

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
11 Aldrin	10.167	10.167	0.000	436171	0.10000	0.0850860
7 beta-BHC	8.800	8.800	0.000	225417	0.10000	0.0823586
8 delta-BHC	9.458	9.458	0.000	501642	0.10000	0.0904546
12 Heptachlor epoxide	11.475	11.475	0.000	370895	0.10000	0.0846208
13 gamma-Chlordane	11.892	11.892	0.000	400585	0.10000	0.0871995
14 alpha-Chlordane	12.208	12.208	0.000	386580	0.10000	0.0863365
16 4,4'-DDE	12.692	12.692	0.000	355841	0.10000	0.0906326
22 Endosulfan II	13.942	13.942	0.000	303765	0.10000	0.0889876
24 Endrin aldehyde	14.658	14.658	0.000	242240	0.10000	0.0871087
26 Endosulfan sulfate	15.225	15.225	0.000	258531	0.10000	0.0919100
27 Endrin ketone	16.258	16.267	-0.009	278391	0.10000	0.0901912

Data File: /var/chem/gc3.i/2170-E.b/c-b2300.d
Date : 18-MAY-2000 01:57
Client ID:
Sample Info: HIGHB,2170-E.b,,4-INDB,sub,,1,5

Column phase: RTX-CLP2

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

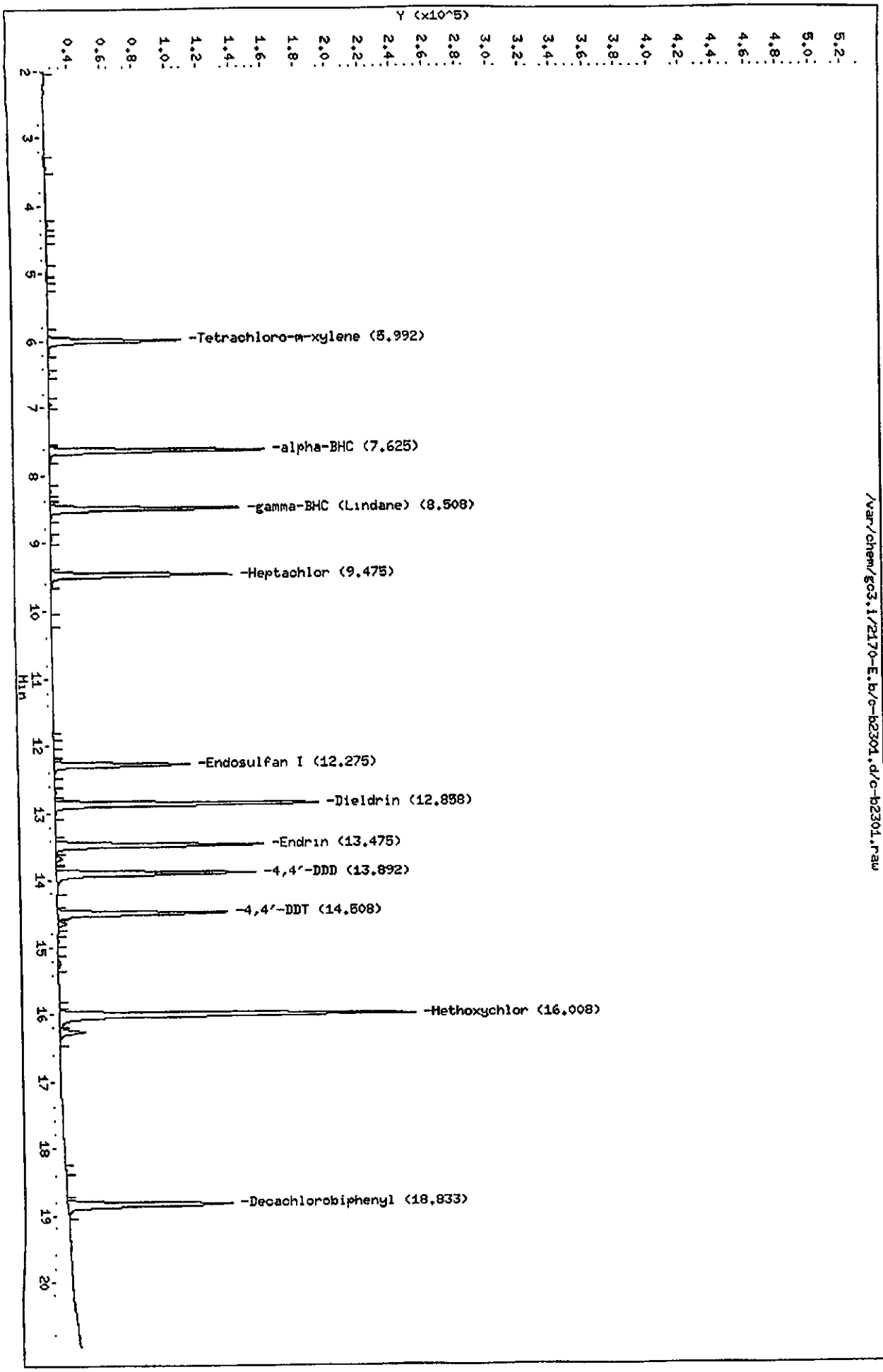


657 460
Data File: /var/chem/gc3.i/2170-E.b/c-b2301.d
Report Date: 18-May-2000 11:45

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2170-E.b/c-b2301.d
Lab Smp Id: 2ND A
Inj Date : 18-MAY-2000 02:23
Operator : 1891 Inst ID: gc3.i
Smp Info : 2ND A,2170-E.b,,INDA.sub,,2,3
Misc Info : 190-82-2
Comment :
Method : /var/chem/gc3.i/2170-E.b/PESTB.m
Meth Date : 18-May-2000 11:42 g Quant Type: ESTD
Cal Date : 18-MAY-2000 01:57 Cal File: c-b2300.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	5.992	5.992	0.000	83284	0 02500	0.0202659
	5 alpha-BHC	7.625	7.625	0.000	133894	0 02500	0.0210182
	6 gamma-BHC (Lindane)	8.508	8.508	0.000	117671	0 02500	0.0218481
	10 Heptachlor	9.475	9.475	0.000	112288	0.02500	0.0212255
	15 Endosulfan I	12.275	12.275	0 000	84670	0.02500	0 0209754
	17 Dieldrin	12.858	12.858	0.000	164637	0.02500	0.0396564
	20 Endrin	13.475	13.475	0.000	129700	0.02500	0 0366390
	21 4,4'-DDD	13.892	13.892	0.000	124532	0.02500	0.0413511
	23 4,4'-DDT	14.508	14.508	0.000	106368	0.02500	0.0405951
	25 Methoxychlor	16.008	16 008	0 000	222949	0.05000	0 178357
$	30 Decachlorobiphenyl	18.833	18.842	-0.009	103128	0.02500	0.0381246

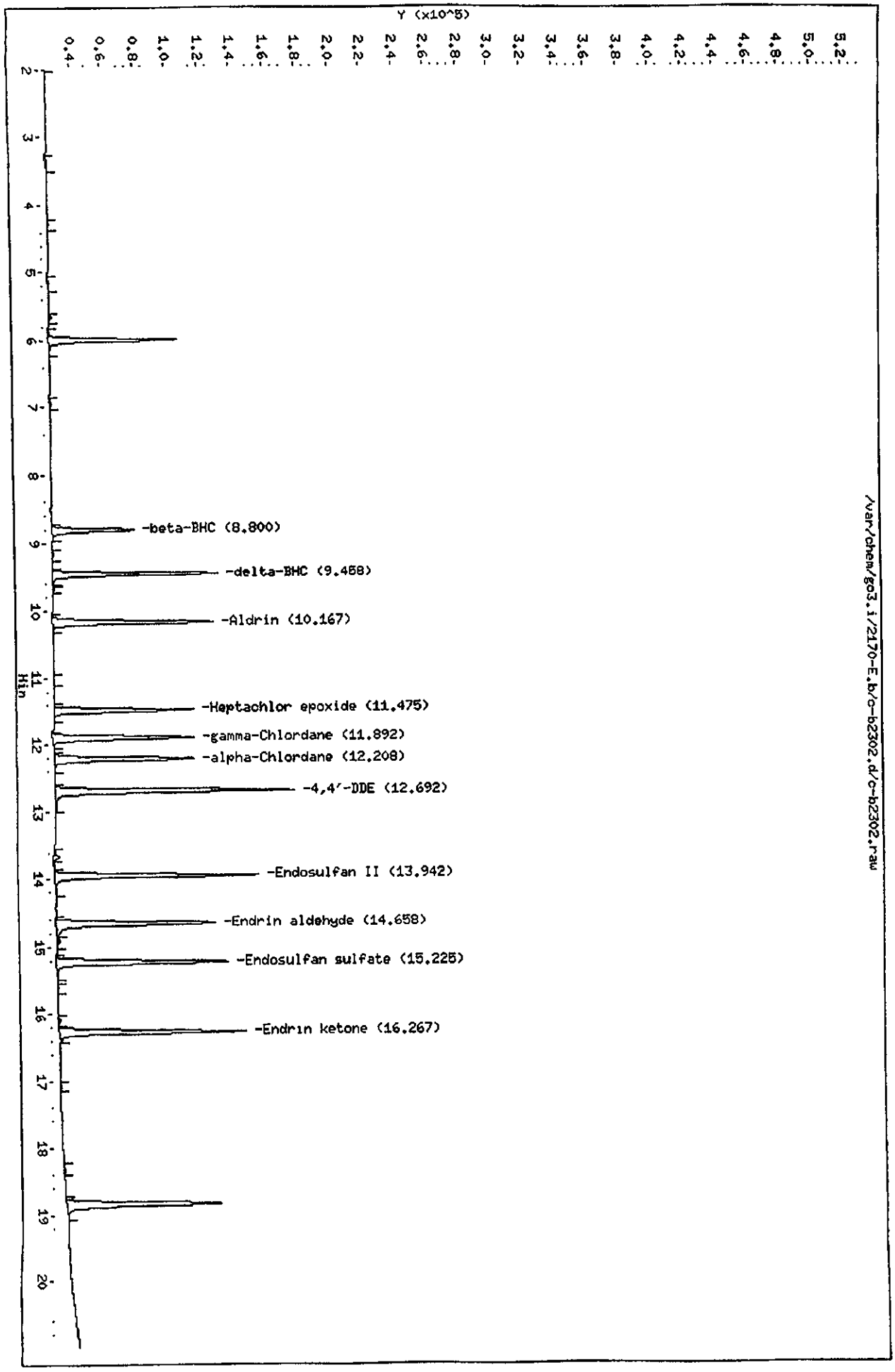

Data File: /var/chem/gc3.i/2170-E.b/c-b2304.d
Date : 18-MAY-2000 02:23
Client ID:
Sample Info: 2ND A,2170-E.b,,INDA.sub,,2,3
Column phase: RTX-CLP2
Instrument: gc3.i
Operator: 1891
Column diameter: 0.53
/var/chem/gc3.i/2170-E.b/c-b2304.d/c-b2304.raw
Y (x10^5)
Min
-Tetrachloro-m-xylene (5.992)
-alpha-BHC (7.625)
-gamma-BHC (Lindane) (8.508)
-Heptachlor (9.475)
-Endosulfan I (12.275)
-Dieldrin (12.858)
-Endrin (13.475)
-4,4'-DDD (13.892)
-4,4'-DDT (14.508)
-Methoxychlor (16.008)
-Decachlorobiphenyl (18.833)

Data File: /var/chem/gc3.i/2170-E.b/c-b2302.d
Report Date: 18-May-2000 11:45

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2170-E.b/c-b2302.d
Lab Smp Id: 2ND B
Inj Date : 18-MAY-2000 02:49
Operator : 1891 Inst ID: gc3.i
Smp Info : 2ND B,2170-E.b,,INDB.sub,,2,3
Misc Info : 190-82-5
Comment :
Method : /var/chem/gc3.i/2170-E.b/PESTB.m
Meth Date : 18-May-2000 11:42 g Quant Type: ESTD
Cal Date : 18-MAY-2000 01:57 Cal File: c-b2300.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)	AMOUNTS ON-COL (ng)
11 Aldrin	10.167	10 167	0 000	100971	0.02500	0.0196969
7 beta-BHC	8.800	8.800	0.000	51862	0.02500	0.0189484
8 delta-BHC	9.458	9.458	0.000	104007	0.02500	0.0187542
12 Heptachlor epoxide	11.475	11.475	0 000	87730	0.02500	0.0200159
13 gamma-Chlordane	11.892	11.892	0.000	88875	0.02500	0.0193463
14 alpha-Chlordane	12.208	12.208	0 000	87649	0.02500	0.0195750
16 4,4'-DDE	12.692	12.692	0.000	150009	0.02500	0.0382072
22 Endosulfan II	13.942	13.942	0.000	127424	0.02500	0.0373287
24 Endrin aldehyde	14.658	14.658	0.000	99733	0.02500	0.0358637
26 Endosulfan sulfate	15.225	15.225	0.000	107047	0.02500	0.0380561
27 Endrin ketone	16.267	16.267	0 000	116990	0.02500	0.0379016


Data File: /var/chem/gc3.i/2170-E.b/c-b2302.d
Date : 18-MAY-2000 02:49
Client ID:
Sample Info: 2ND B,2170-E.b,,INDB,sub,,2,3
Column phase: RTX-CLP2
Instrument: gc3.i
Operator: 1091
Column diameter: 0.53
/var/chem/gc3.i/2170-E.b/c-b2302.d/c-b2302.raw
Y (x10^5)
Min
-beta-BHC (8.800)
-delta-BHC (9.458)
-Aldrin (10.167)
-Heptachlor epoxide (11.475)
-gamma-Chlordane (11.892)
-alpha-Chlordane (12.208)
-4,4'-DDE (12.692)
-Endosulfan II (13.942)
-Endrin aldehyde (14.658)
-Endosulfan sulfate (15.225)
-Endrin ketone (16.267)

657 464

Data File: /var/chem/gc3.i/2170-E.b/c-b2303.d
Report Date: 18-May-2000 11:45

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2170-E.b/c-b2303.d
Lab Smp Id: EVALB
Inj Date : 18-MAY-2000 03:15
Operator : 1891 Inst ID: gc3.i
Smp Info : EVALB,2170-E.b,,EVALBR.sub,,3,1
Misc Info : 190-88-8
Comment :
Method : /var/chem/gc3.i/2170-E.b/PESTB.m
Meth Date : 18-May-2000 11:42 g Quant Type: ESTD
Cal Date : 18-MAY-2000 01:57 Cal File: c-b2300.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	5.992	5.992	0 000	84240	0.02050	0.0204985(R)
16 4,4'-DDE	12.692	12.692	0.000	715	0.000182	0.000182110
20 Endrin	13.475	13.475	0.000	88469	0 02499	0.0249917
21 4,4'-DDD	13.892	13.892	0 000	8171	0.00271	0 00271320
23 4,4'-DDT	14.508	14.508	0.000	64749	0.02471	0.0247113
24 Endrin aldehyde	14.658	14 658	0.000	2023	0.000727	0.000727464
27 Endrin ketone	16.267	16.267	0 000	4449	0 00144	0.00144136
$ 30 Decachlorobiphenyl	18.842	18.842	0.000	56206	0.02078	0.0207784(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

DDT 12.1%

ENDRIN 6.8%

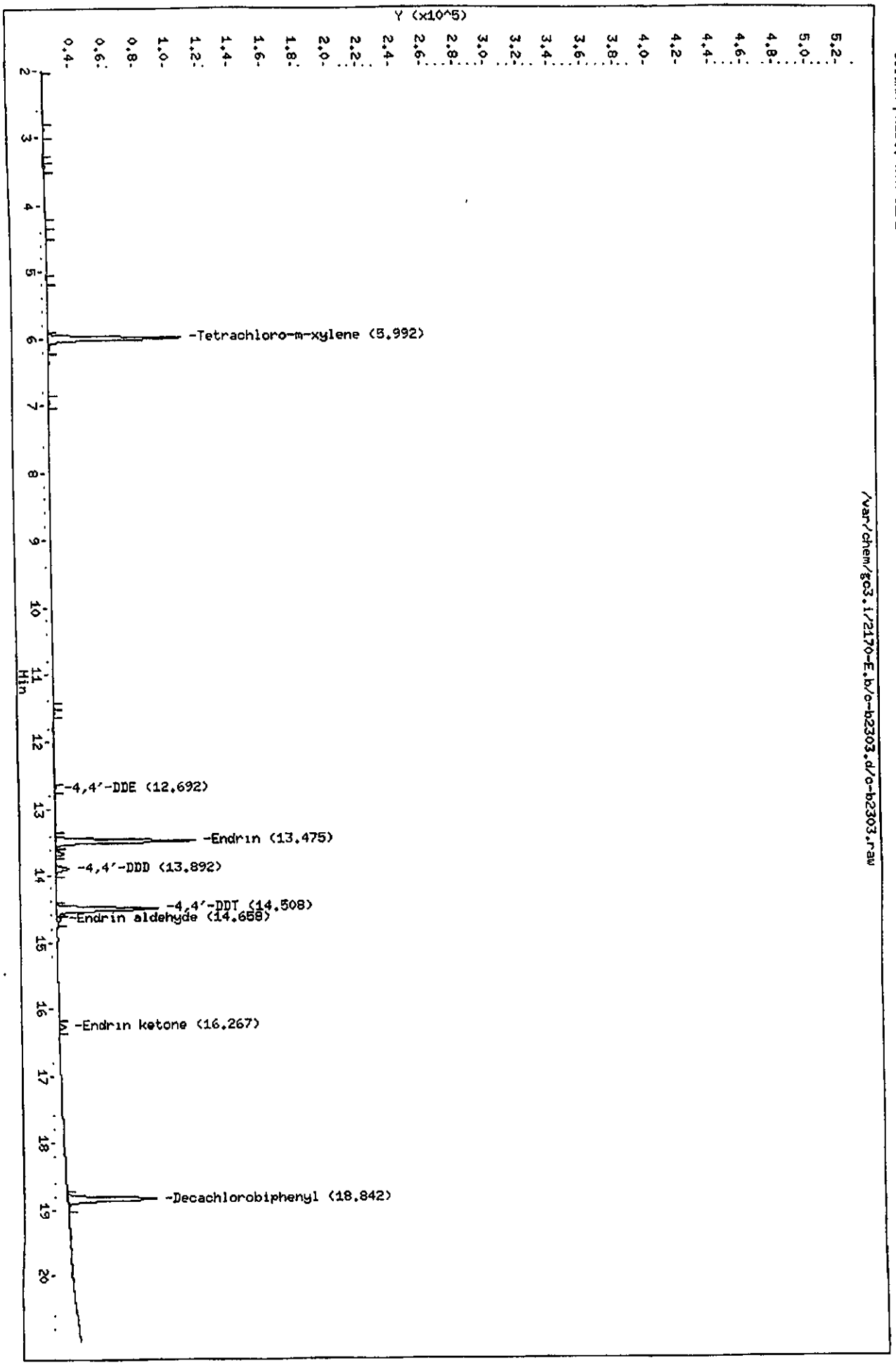
Endrin Breakdown = $\frac{(2023+4449)}{(2023+4449+92469)} \times 100 = 6.8\%$

DDT Breakdown = $\frac{(715+8171)}{(715+8171+64749)} \times 100 = 12.1\%$

Data File: /var/chem/gc3.i/2170-E.b/c-b2303.d
Date : 18-MAY-2000 03:15
Client ID:
Sample Info: EVALB,2170-E.b,,EVALBR.sub,,3,1

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

Column phase: RTX-CLP2



657 466

Data File: /var/chem/gc3.i/2170-E.b/c-b2361.d
Report Date: 19-May-2000 11:25

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2170-E.b/c-b2361.d
Lab Smp Id: EVALB
Inj Date : 19-MAY-2000 08:32
Operator : 1891 Inst ID: gc3.i
Smp Info : EVALB,2170-E.b,,EVALBR.sub,,3,1
Misc Info : 190-88-8
Comment :
Method : /var/chem/gc3.i/2170-E.b/PESTB.m
Meth Date : 19-May-2000 11:24 eppinged Quant Type: ESTD
Cal Date : 18-MAY-2000 01:57 Cal File: c-b2300.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)	CONCENTRATIONS FINAL (ng)
$ 1 Tetrachloro-m-xylene	6.000	6.000	0.000	93867	0.02284	0.0228411(R)
16 4,4'-DDE	12.692	12 692	0.000	769	0.000196	0.000195864
20 Endrin	13.475	13.475	0.000	96844	0.02736	0.0273575
21 4,4'-DDD	13.892	13.900	-0.008	7577	0.00252	0.00251596
23 4,4'-DDT	14.517	14.517	0 000	72454	0.02765	0 0276519
24 Endrin aldehyde	14.667	14.667	0.000	1660	0.000597	0.000596931
27 Endrin ketone	16.267	16.267	0 000	3630	0.00118	0.00117602
$ 30 Decachlorobiphenyl	18.842	18.842	0 000	59349	0.02194	0.0219403(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

DDT 10.3%.

ENDRIN 5.2%.

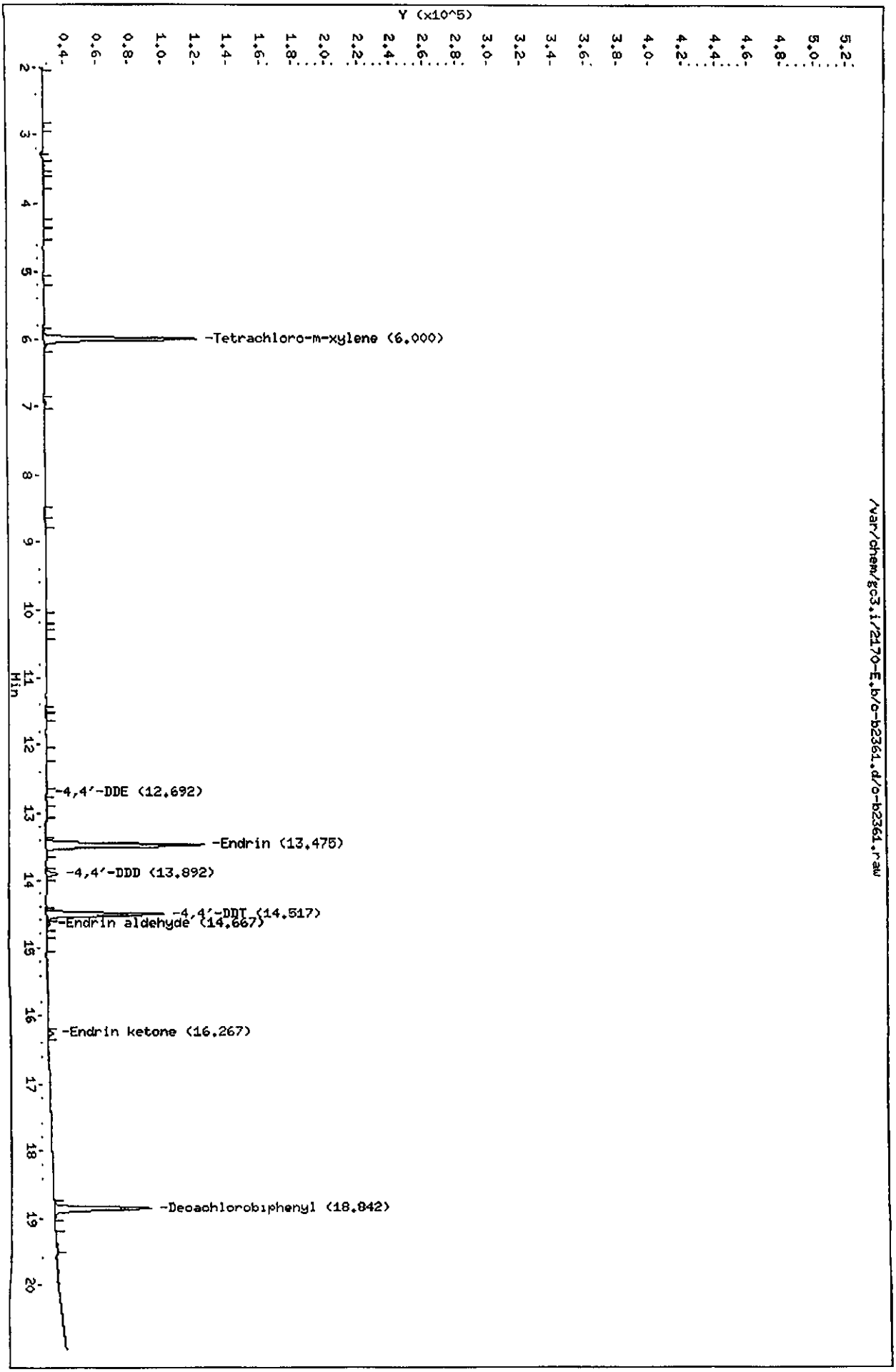
Endrin Breakdown $= \frac{(1660 + 3630)}{(16600 + 3630 + 92644)} \times 100 = 5.2\%$

DDT Breakdown $= \frac{(769 + 7577)}{(769 + 7577 + 72454)} \times 100 = 10.3\%$

Data File: /var/chem/gc3.i/2170-E.b/c-b2364.d
Date : 19-MAY-2000 08:32
Client ID:
Sample Info: EVALB,2170-E.b,,EVALBR,sub,,3,1

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

Column phase: RTX-CLP2



Data File: /var/chem/gc3.i/2170-E.b/c-b2362.d
Report Date: 19-May-2000 11:23

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2170-E.b/c-b2362.d
Lab Smp Id: MEDTOX
Inj Date : 19-MAY-2000 08:58
Operator : 1891 Inst ID: gc3.i
Smp Info : MEDTOX,2170-E.b,,1-TOX.sub,,2,3
Misc Info : 190-84-13
Comment :
Method : /var/chem/gc3.i/2170-E.b/PESTB.m
Meth Date : 19-May-2000 11:22 g Quant Type: ESTD
Cal Date : 18-MAY-2000 01:57 Cal File: c-b2300.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 1-TOX.sub
Target Version: 3.40

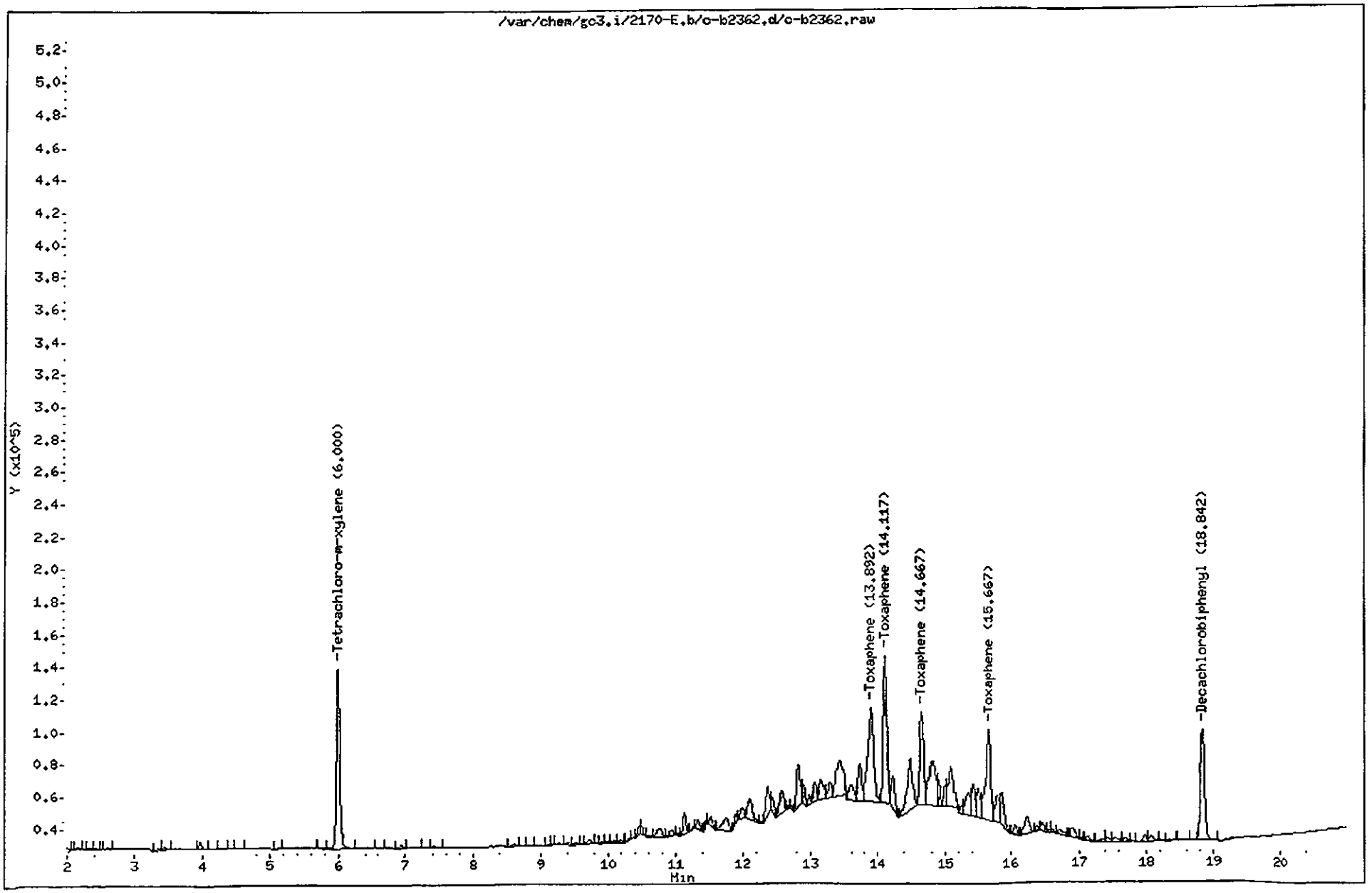
					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ng)	(ng)
==========	==	======	======	========	=======	=======
18 Toxaphene	13.892	13.892	0.000	57579	1.00000	1.08796
$ 1 Tetrachloro-m-xylene	6.000	6.000	0.000	111015	0.02500	0.0270138
$ 30 Decachlorobiphenyl	18.842	18.842	0.000	68483	0.02500	0.0253169

Data File: /var/chem/gc3.i/2170-E.b/c-b2362.d
Date : 19-MAY-2000 08:58
Client ID:
Sample Info: MEDTOX,2170-E.b,,1-TOX.sub,,2,3

Instrument: gc3.i

Operator: 1891
Column diameter: 0.53

Column phase: RTX-CLP2



Data File: /var/chem/gc3.i/2170-E.b/c-b2363.d
Report Date: 19-May-2000 11:23

STL-PITTSBURGH

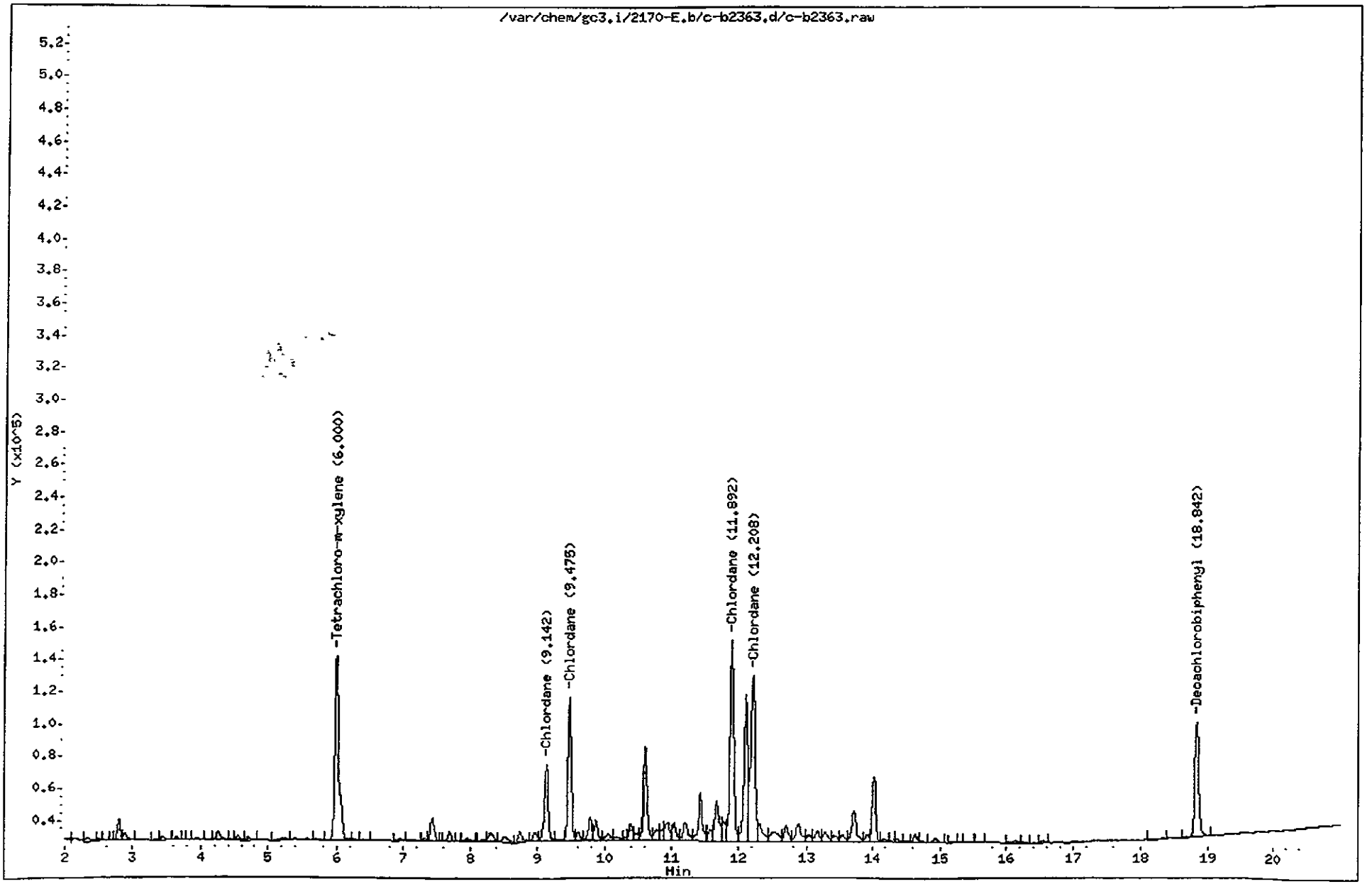
Data file : /var/chem/gc3.i/2170-E.b/c-b2363.d
Lab Smp Id: MEDCHLOR
Inj Date : 19-MAY-2000 09:24
Operator : 1891 Inst ID: gc3.i
Smp Info : MEDCHLOR,2170-E.b,,2-CHLO.sub,,2,3
Misc Info : 190-85-10
Comment :
Method : /var/chem/gc3.i/2170-E.b/PESTB.m
Meth Date : 19-May-2000 11:22 g Quant Type: ESTD
Cal Date : 18-MAY-2000 01:57 Cal File: c-b2300.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 2-CHLO.sub
Target Version: 3.40

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ng)	(ng)
9 Chlordane	9.142	9.142	0.000	47163	0.25000	0.300050
$ 1 Tetrachloro-m-xylene	6.000	6.000	0.000	114138	0.02500	0.0277737
$ 30 Decachlorobiphenyl	18.842	18.842	0.000	71224	0.02500	0.0263302

Data File: /var/chem/gc3.i/2170-E.b/c-b2363.d
Date : 19-MAY-2000 09:24
Client ID:
Sample Info: MEDCHLOR,2170-E.b,,2-CHLO.sub,,2,3

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

Column phase: RTX-CLP2



Data File: /var/chem/gc3.i/2170-E.b/c-b2364.d
Report Date: 19-May-2000 11:24

STL-PITTSBURGH

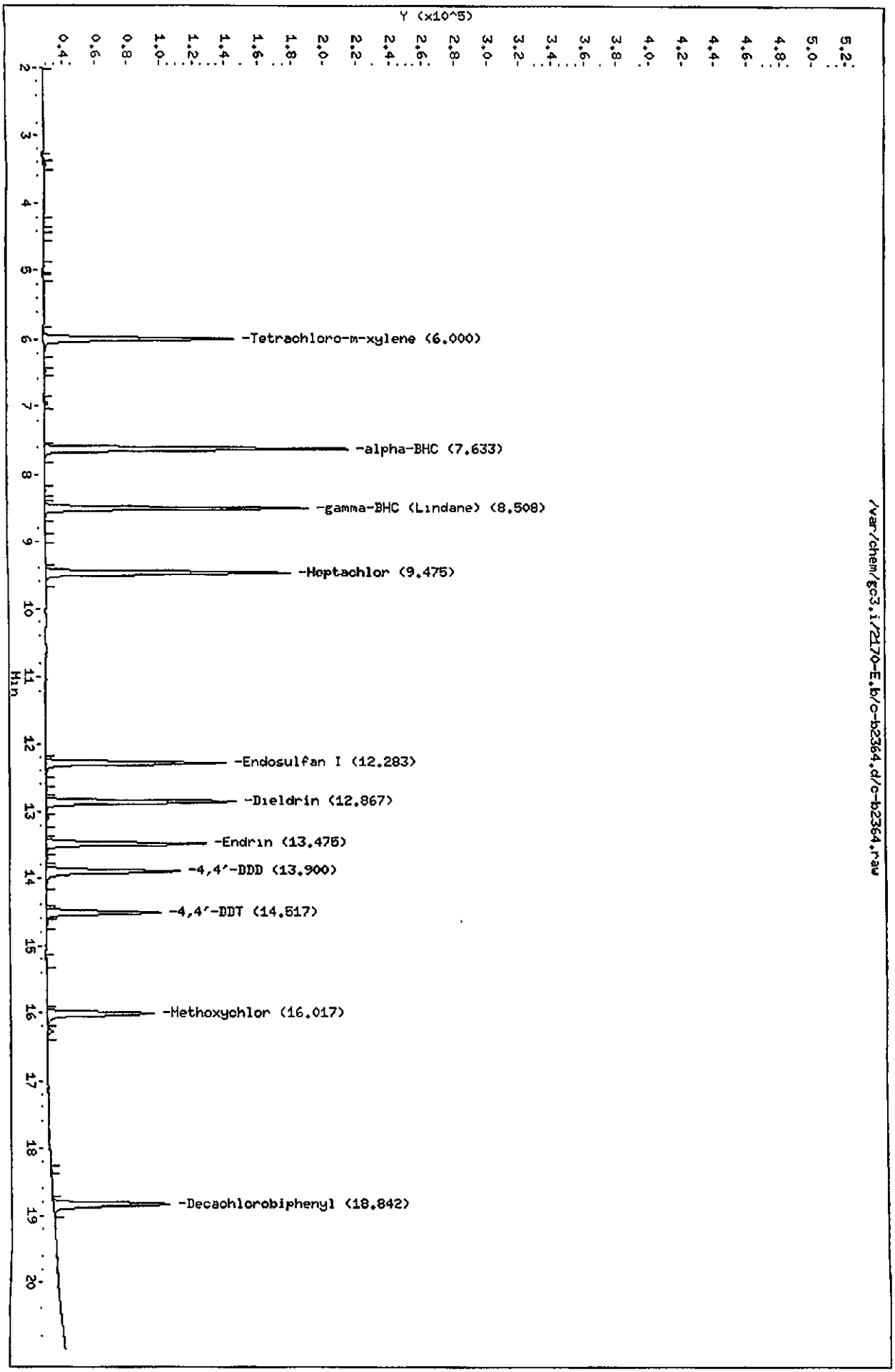
Data file : /var/chem/gc3.i/2170-E.b/c-b2364.d
Lab Smp Id: MEDA
Inj Date : 19-MAY-2000 09:50
Operator : 1891 Inst ID: gc3.i
Smp Info : MEDA,2170-E.b,,INDA.sub,,2,3
Misc Info : 190-84-3
Comment :
Method : /var/chem/gc3.i/2170-E.b/PESTB.m
Meth Date : 19-May-2000 11:22 g Quant Type: ESTD
Cal Date : 18-MAY-2000 01:57 Cal File: c-b2300.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	6.000	6.000	0.000	117061	0 02500	0.0284850
	5 alpha-BHC	7.633	7.633	0.000	185823	0.02500	0.0291698
	6 gamma-BHC (Lindane)	8.508	8.508	0.000	161288	0.02500	0.0299465
	10 Heptachlor	9.475	9.475	0.000	150514	0.02500	0.0284512
	15 Endosulfan I	12.283	12 283	0.000	111488	0.02500	0.0276191
	17 Dieldrin	12.867	12.867	0.000	117253	0.02500	0.0282429
	20 Endrin	13.475	13.475	0.000	99123	0.02500	0.0280013
	21 4,4'-DDD	13.900	13.900	0.000	82852	0.02500	0.0275112
	23 4,4'-DDT	14.517	14.517	0.000	71033	0.02500	0.0271096
	25 Methoxychlor	16.017	16.017	0.000	66694	0.05000	0.0533546
$	30 Decachlorobiphenyl	18.842	18.842	0.000	71717	0.02500	0.0265125

Data File: /var/chem/gc3.i/2170-E.b/c-b2364.d
Date : 19-MAY-2000 09:50
Client ID:
Sample Info: MEDA,2170-E.b,,INDA,sub,,2,3

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

Column phase: RTX-CLP2



Data File: /var/chem/gc3.i/2170-E.b/c-b2365.d
Report Date: 19-May-2000 11:24

STL-PITTSBURGH

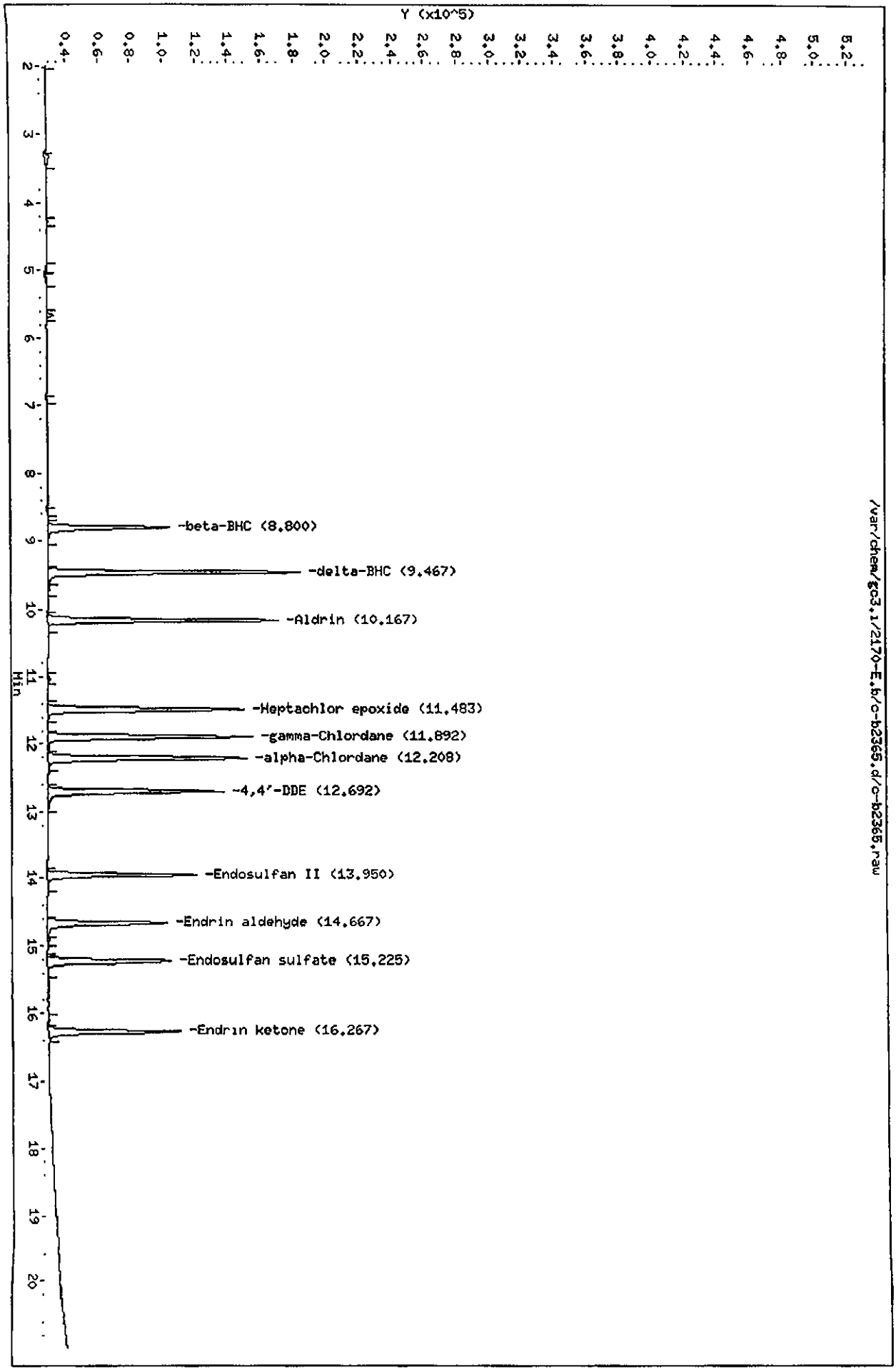
Data file : /var/chem/gc3.i/2170-E.b/c-b2365.d
Lab Smp Id: MEDB
Inj Date : 19-MAY-2000 10:16
Operator : 1891 Inst ID: gc3.i
Smp Info : MEDB,2170-E.b,,INDB.sub,,2,3
Misc Info : 190-84-9
Comment :
Method : /var/chem/gc3.i/2170-E.b/PESTB.m
Meth Date : 19-May-2000 11:22 g Quant Type: ESTD
Cal Date : 18-MAY-2000 01:57 Cal File: c-b2300.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	10.167	10.167	0.000	142483	0 02500	0 0277949
7 beta-BHC	8.800	8.800	0.000	75023	0.02500	0 0274105
8 delta-BHC	9.467	9.467	0.000	155556	0.02500	0.0280494
12 Heptachlor epoxide	11.483	11.483	0.000	121281	0.02500	0.0276706
13 gamma-Chlordane	11.892	11.892	0.000	126693	0.02500	0.0275786
14 alpha-Chlordane	12.208	12.208	0.000	123299	0.02500	0.0275369
16 4,4'-DDE	12.692	12.692	0.000	108503	0.02500	0.0276357
22 Endosulfan II	13.950	13.950	0 000	92337	0.02500	0.0270500
24 Endrin aldehyde	14.667	14.667	0.000	74472	0.02500	0.0267799
26 Endosulfan sulfate	15.225	15.225	0.000	76466	0.02500	0.0271843
27 Endrin ketone	16.267	16.267	0.000	82040	0.02500	0.0265788

Data File: /var/chem/gc3.i/2170-E.b/c-b2365.d
Date : 19-MAY-2000 10:16
Client ID:
Sample Info: HEDB,2170-E.b,,INDB,sub,,2,3

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

Column phase: RTX-CLP2



Data File: /var/chem/gc3.i/2170-E.b/c-b2374.d
Report Date: 19-May-2000 14:33

STL-PITTSBURGH

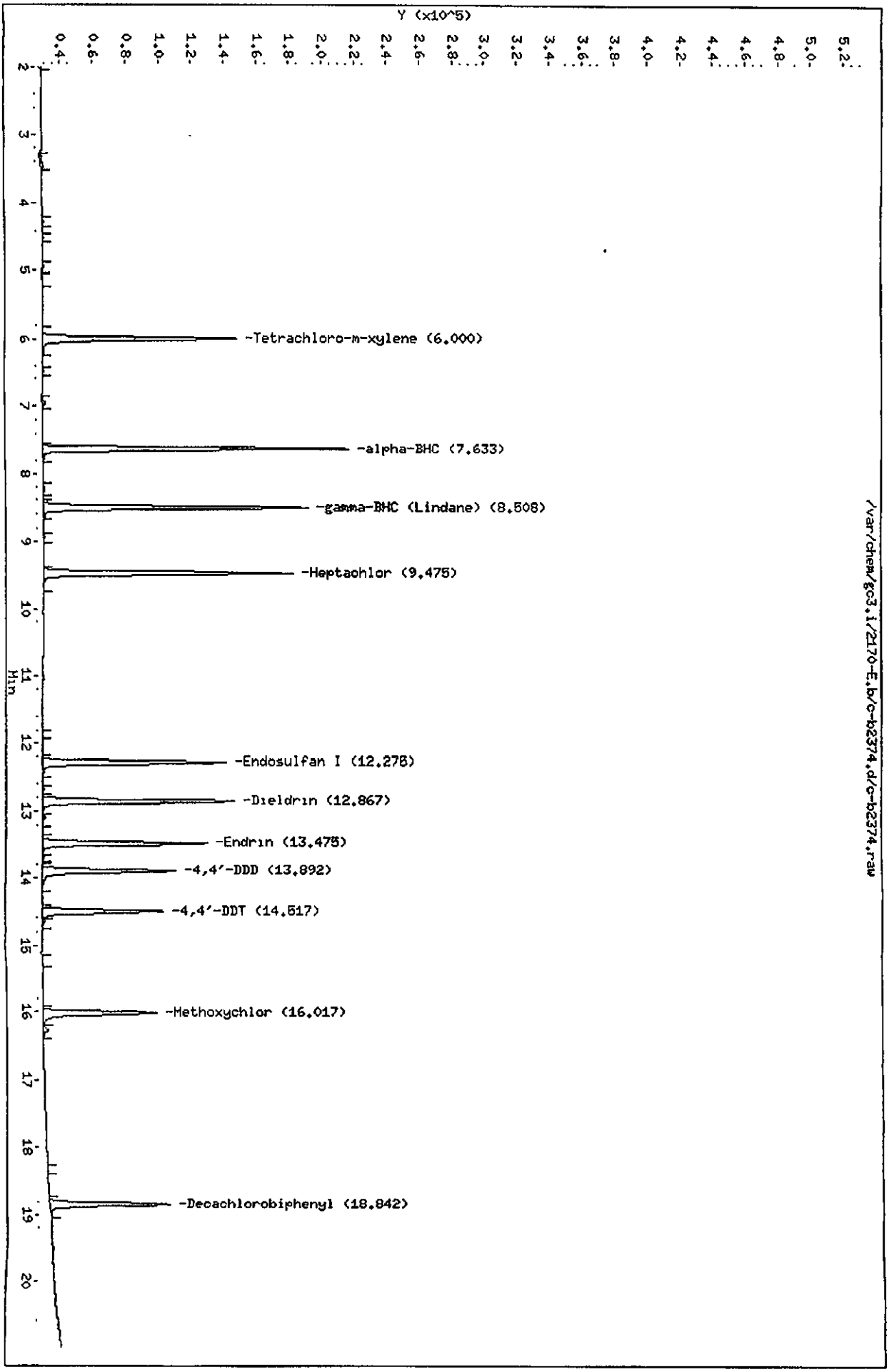
Data file : /var/chem/gc3.i/2170-E.b/c-b2374.d
Lab Smp Id: MEDA
Inj Date : 19-MAY-2000 14:10
Operator : 1891 Inst ID: gc3.i
Smp Info : MEDA,2170-E.b,,INDA.sub,,2,3
Misc Info : 190-84-3
Comment :
Method : /var/chem/gc3.i/2170-E.b/PESTB.m
Meth Date : 19-May-2000 14:32 g Quant Type: ESTD
Cal Date : 18-MAY-2000 01:57 Cal File: c-b2300.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	6.000	6.000	0.000	119470	0 02500	0.0290712
5	alpha-BHC	7.633	7.633	0.000	188445	0 02500	0.0295814
6	gamma-BHC (Lindane)	8.508	8.508	0.000	162393	0.02500	0.0301516
10	Heptachlor	9.475	9.475	0.000	153991	0.02500	0.0291085
15	Endosulfan I	12.275	12.283	-0.008	113008	0.02500	0 0279956
17	Dieldrin	12.867	12.867	0.000	118409	0.02500	0 0285214
20	Endrin	13.475	13.475	0 000	101821	0.02500	0 0287635
21	4,4'-DDD	13 892	13.900	-0 008	82452	0 02500	0.0273784
23	4,4'-DDT	14.517	14.517	0.000	74192	0 02500	0.0283152
25	Methoxychlor	16.017	16.017	0.000	70066	0.05000	0.0560522
$ 30	Decachlorobiphenyl	18.842	18.842	0 000	73722	0 02500	0.0272537

Data File: /var/chem/gc3.i/2170-E.b/c-b2374.d
Date : 19-MAY-2000 14:10
Client ID:
Sample Info: MEDA,2170-E.b,,INDA.sub,,2,3

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

Column phase: RTX-CLP2



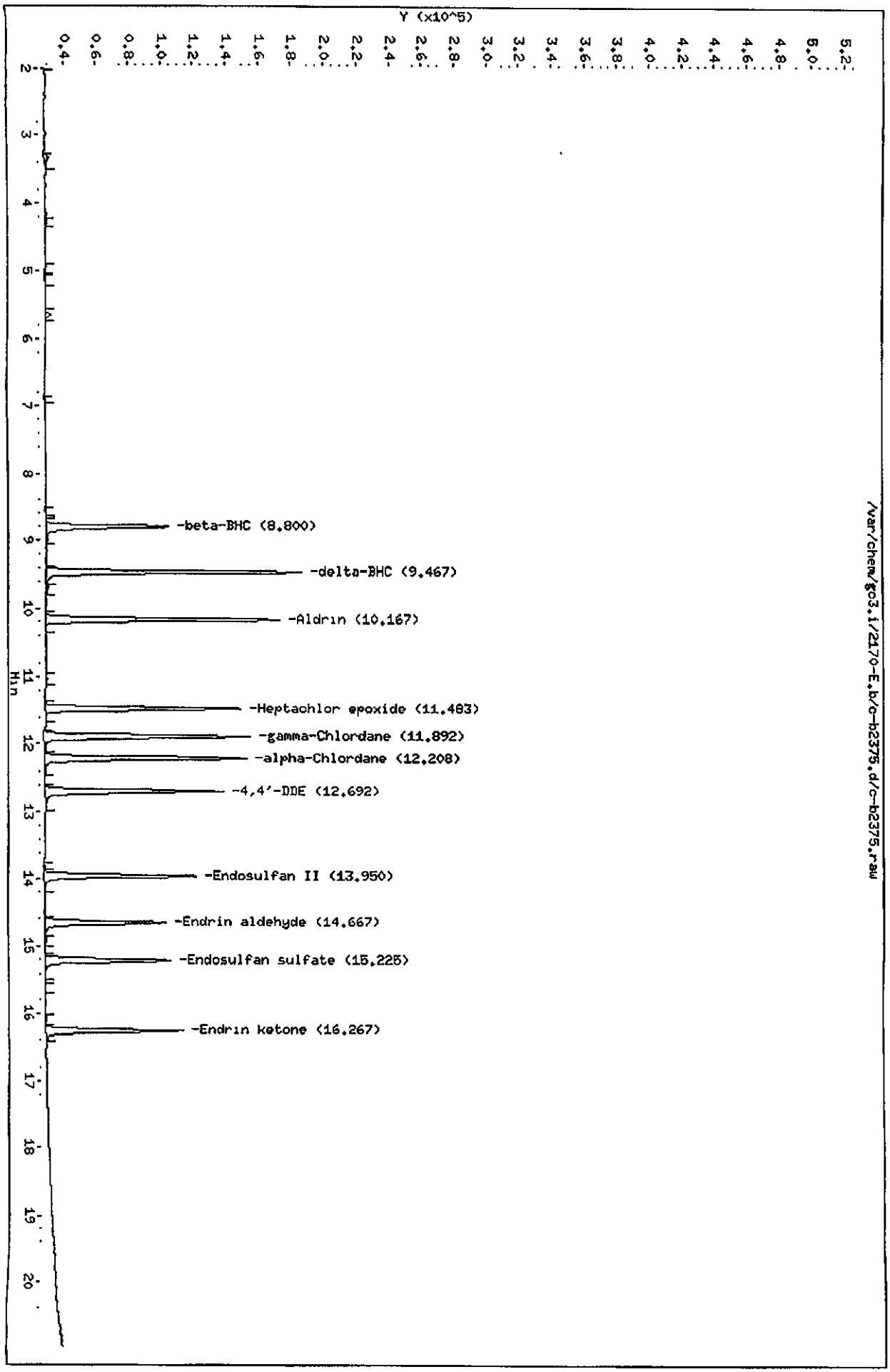
657 478

Data File: /var/chem/gc3.i/2170-E.b/c-b2375.d
Report Date: 19-May-2000 15:21

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2170-E.b/c-b2375.d
Lab Smp Id: MEDB
Inj Date : 19-MAY-2000 14:36
Operator : 1891 Inst ID: gc3.i
Smp Info : MEDB,2170-E.b,,INDB.sub,,2,3
Misc Info : 190-84-9
Comment :
Method : /var/chem/gc3.i/2170-E.b/PESTB.m
Meth Date : 19-May-2000 15:21 g Quant Type: ESTD
Cal Date : 18-MAY-2000 01:57 Cal File: c-b2300.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	10.167	10.167	0.000	144317	0.02500	0 0281526
7 beta-BHC	8.800	8.800	0.000	76218	0.02500	0 0278471
8 delta-BHC	9.467	9.467	0.000	157697	0.02500	0.0284354
12 Heptachlor epoxide	11 483	11.483	0.000	121252	0.02500	0.0276640
13 gamma-Chlordane	11 892	11 892	0.000	127769	0.02500	0.0278128
14 alpha-Chlordane	12.208	12.208	0.000	125020	0.02500	0 0279212
16 4,4'-DDE	12 692	12 692	0.000	110114	0 02500	0.0280460
22 Endosulfan II	13.950	13.950	0.000	94167	0.02500	0.0275861
24 Endrin aldehyde	14.667	14.667	0.000	75748	0 02500	0.0272387
26 Endosulfan sulfate	15.225	15.225	0.000	78306	0.02500	0.0278385
27 Endrin ketone	16.267	16.267	0.000	85148	0.02500	0.0275857


Data File: /var/chem/gc3.i/2170-E.b/c-b2375.d
Date : 19-MAY-2000 14:36
Client ID:
Sample Info: MEDB,2170-E.b,,INDB,sub,,2,3
Column phase: RTX-CLP2
Instrument: gc3.i
Operator: 1891
Column diameter: 0.53
Y (x10^5)
/var/chem/gc3.i/2170-E.b/c-b2375.d/c-b2375.raw
Min
-beta-BHC (8.800)
-delta-BHC (9.467)
-Aldrin (10.167)
-Heptachlor epoxide (11.483)
-gamma-Chlordane (11.892)
-alpha-Chlordane (12.208)
-4,4'-DDE (12.692)
-Endosulfan II (13.950)
-Endrin aldehyde (14.667)
-Endosulfan sulfate (15.225)
-Endrin ketone (16.267)

PESTICIDE
QC DATA

UXB INTERNATIONAL
METHOD BLANK COMPOUNDS

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

Matrix: (soil/water) ~~SOLID WATER~~ Lab Sample ID: C0E180000 460
Method: SW846 8081A um 5/23/00
Pesticides (8081A)

Sample WT/Vol: 100 / mL Date Received: 05/13/00
Work Order: DDE2E101 Date Extracted: 05/18/00
Dilution factor. 1 Date Analyzed: 05/19/00

QC Batch: 0139460

Client Sample Id: INTRA-LAB BLANK

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

Data File: /var/chem/gc3.i/2170-E.b/c-a2372.d
Report Date: 19-May-2000 13:56

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2170-E.b/c-a2372.d
Lab Smp Id: DDE2E101 Client Smp ID: PBLK
Inj Date : 19-MAY-2000 13:18
Operator : 1891 Inst ID: gc3.i
Smp Info : DDE2E101,2170-E.b,,PEST.sub,,3,
Misc Info : 130192BLK
Comment : 4 DE5-19-00
Method : /var/chem/gc3.i/2170-E.b/PESTA.m
Meth Date : 19-May-2000 11:01 eppinged Quant Type: ESTD
Cal Date : 18-MAY-2000 01:57 Cal File: c-a2300.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

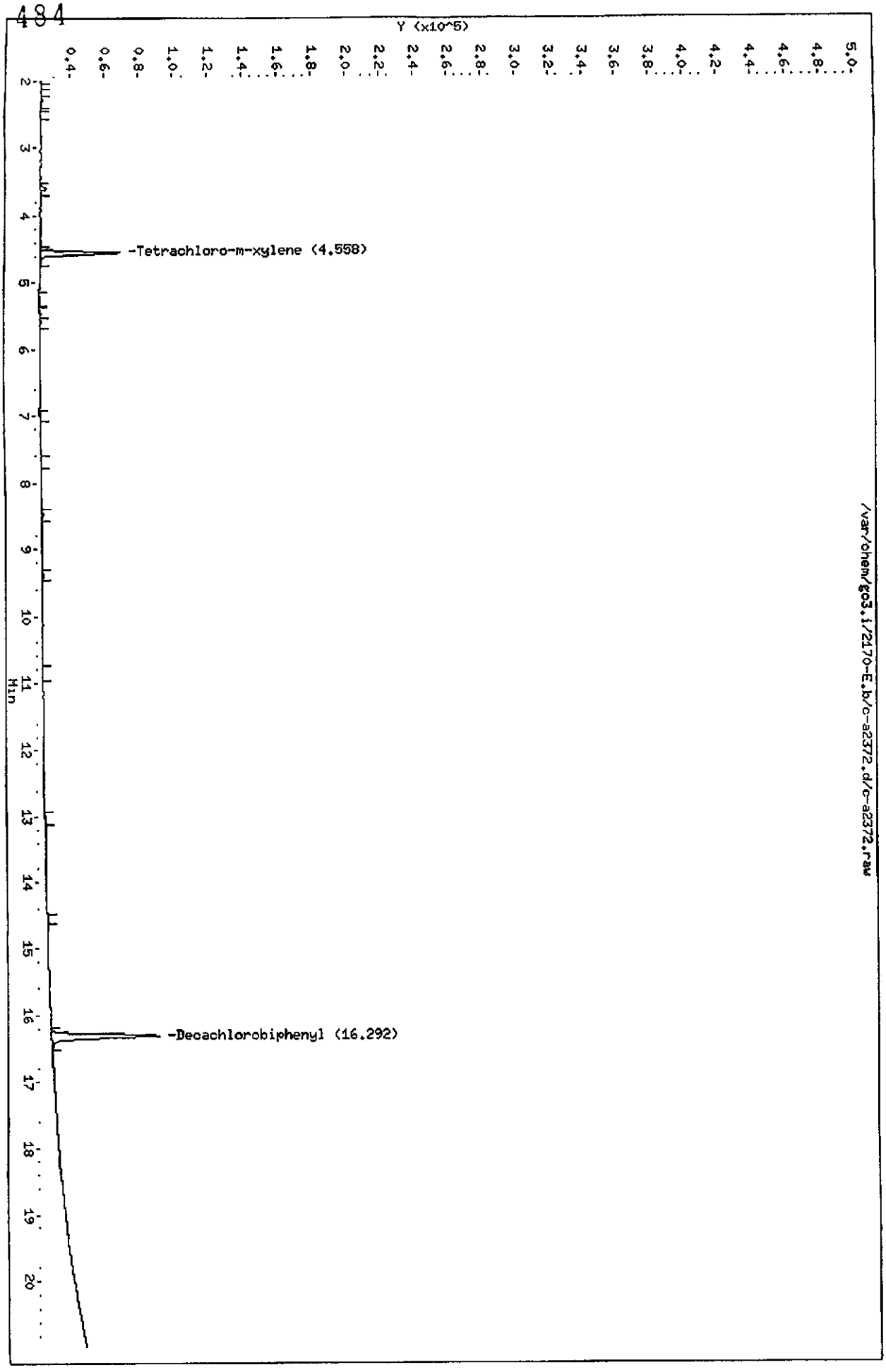
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (mg/L)
5 alpha-BHC	Compound Not Detected.					
4 HEXACHLOROBENZENE	Compound Not Detected.					
6 gamma-BHC (Lindane)	Compound Not Detected					
7 beta-BHC	Compound Not Detected.					
9 Chlordane	Compound Not Detected.					
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	Compound Not Detected					
18 Toxaphene	Compound Not Detected.					

Data File: /var/chem/gc3.i/2170-E.b/c-a2372.d
Report Date: 19-May-2000 13:56

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (mg/L)
21	4,4'-DDD	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.					
$ 1	Tetrachloro-m-xylene	4.558	4.558	0.000	46643	0 01152	0.00115196(aR)
$ 30	Decachlorobiphenyl	16.292	16.300	-0 008	62757	0 01905	0.00190500(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/gc3.i/2170-E.b/c-a2372.d
Date : 19-MAY-2000 13:18
Client ID: PBLK
Sample Info: DDE2E101,2170-E.b,,PEST,sub,,3,
Volume Injected (uL): 1.0
Column phase: RTX-CLP
Instrument: gc3.i
Operator: 1891
Column diameter: 0.53
/var/chem/gc3.i/2170-E.b/c-a2372.d/c-a2372.raw
Y (x10^5)
Min
-Tetrachloro-m-xylene (4.558)
-Decachlorobiphenyl (16.292)

Data File: /var/chem/gc3.i/2170-E.b/c-b2372.d
Report Date: 19-May-2000 13:58

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2170-E.b/c-b2372.d
Lab Smp Id: DDE2E101 Client Smp ID: PBLK
Inj Date : 19-MAY-2000 13:18
Operator : 1891 Inst ID: gc3.i
Smp Info : DDE2E101,2170-E.b,,PEST.sub,,3,
Misc Info : 130194BLK
Comment :
Method : /var/chem/gc3.i/2170-E.b/PESTB.m
Meth Date : 19-May-2000 11:24 eppinged Quant Type: ESTD
Cal Date : 18-MAY-2000 01:57 Cal File: c-b2300.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

					CONCENTRATIONS		
					ON-COLUMN	FINAL	
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ng)	(mg/L)	
5 alpha-BHC	Compound Not Detected.						
4 HEXACHLOROBENZENE	6.667	6.650	0.017	458			(a)
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	Compound Not Detected.						
18 Toxaphene	Compound Not Detected						

657 486

Data File: /var/chem/gc3.i/2170-E.b/c-b2372.d
Report Date: 19-May-2000 13:58

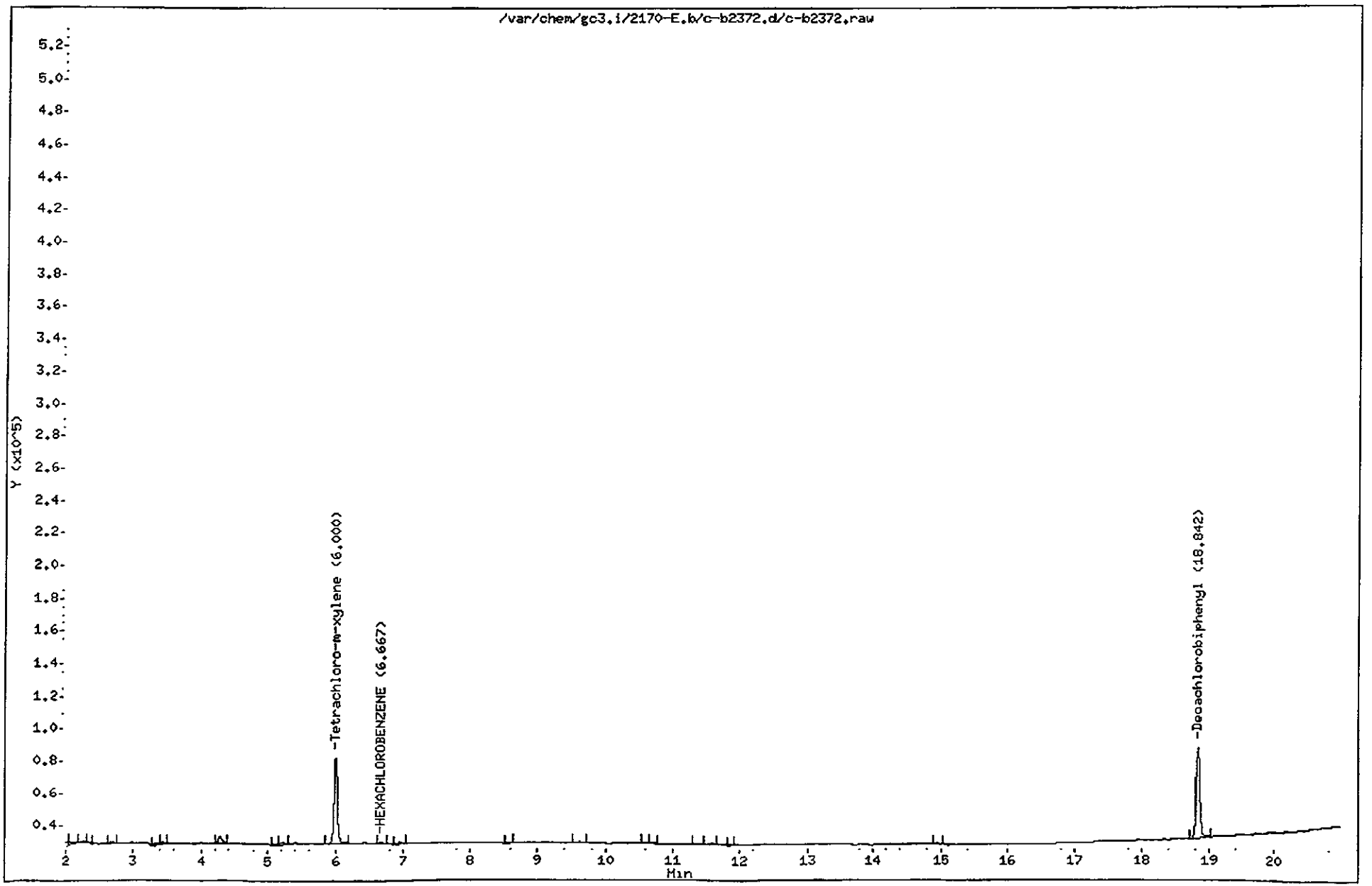
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (mg/L)
21 4,4'-DDD	Compound Not Detected					
22 Endosulfan II	Compound Not Detected.					
23 4,4'-DDT	Compound Not Detected.					
24 Endrin aldehyde	Compound Not Detected.					
26 Endosulfan sulfate	Compound Not Detected.					
25 Methoxychlor	Compound Not Detected					
27 Endrin ketone	Compound Not Detected.					
$ 1 Tetrachloro-m-xylene	6.000	6.000	0.000	53518	0.01382	0.00130228(aR)
$ 30 Decachlorobiphenyl	18.842	18.842	0.000	55627	0.02086	0.00205643(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/gc3.i/2170-E.b/c-b2372.d
Date : 19-MAY-2000 13:18
Client ID: PBLK
Sample Info: DDE2E101,2170-E.b,,PEST.sub,,3,
Volume Injected (uL): 1.0
Column phase: RTX-CLP2

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



UXB INTERNATIONAL
CHECK SAMPLE COMPOUNDS

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

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

Lab Sample ID: C0E180000 460

Sample WT/Vol: 100 / mL
Work Order: DDE2E102
Dilution factor: 1

Date Received: 05/13/00
Date Extracted: 05/18/00
Date Analyzed: 05/19/00

QC Batch: 0139460

Client Sample Id: CHECK SAMPLE

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) mg/L	Q
72-20-8	Endrin	0.00219	
76-44-8	Heptachlor	0.00212	
1024-57-3	Heptachlor epoxide	0.00219	
58-89-9	Lindane	0.00189	
72-43-5	Methoxychlor	0.00277	

Data File: /var/chem/gc3.i/2170-E.b/c-a2373.d
Report Date: 19-May-2000 14:13

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2170-E.b/c-a2373.d
Lab Smp Id: DDE2E102 Client Smp ID: LCS
Inj Date : 19-MAY-2000 13:44
Operator : 1891 Inst ID: gc3.i
Smp Info : DDE2E102,2170-E.b,,PEST.sub,,3,
Misc Info : 130192LCS
Comment :
Method : /var/chem/gc3.i/2170-E.b/PESTA.m
Meth Date : 19-May-2000 11:01 eppinged Quant Type: ESTD
Cal Date : 18-MAY-2000 01:57 Cal File: c-a2300.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)	CONCENTRATIONS FINAL (mg/L)
5 alpha-BHC	5 883	5.883	0 000	92466	0.01662	0 00166213(a)
4 HEXACHLOROBENZENE	Compound Not Detected.					
6 gamma-BHC (Lindane)	6.625	6.625	0.000	96274	0.01887	0 00188671(aR)
7 beta-BHC	6.900	6.908	-0.008	48715	0.02011	0 00201078(a)
9 Chlordane	Compound Not Detected.					
10 Heptachlor	7.675	7 675	0.000	101376	0.02115	0 00211506(aR)
8 delta-BHC	7 258	7 258	0.000	11524	0.00245	0 00024520 4(a)
11 Aldrin	8.300	8.300	0.000	88668	0.01989	0 00198905(aR)
12 Heptachlor epoxide	9.650	9.650	0.000	91362	0 02189	0.00218908(a)
13 gamma-Chlordane	9.917	9.925	-0.008	92010	0.02122	0.00212158(a)
14 alpha-Chlordane	10.200	10.200	0.000	91125	0.02124	0.00212446(a)
15 Endosulfan I	10.425	10.425	0.000	84658	0.02194	0.00219413(a)
16 4,4'-DDE	10.550	10.550	0.000	81621	0.02241	0 00224116(a)
17 Dieldrin	10.933	10 942	-0.009	89238	0 02201	0.00220109(aR)
20 Endrin	11.375	11.375	0.000	77463	0 02195	0.00219482(aR)
18 Toxaphene	Compound Not Detected.					

Data File: /var/chem/gc3.i/2170-E.b/c-a2373.d
Report Date: 19-May-2000 14:13

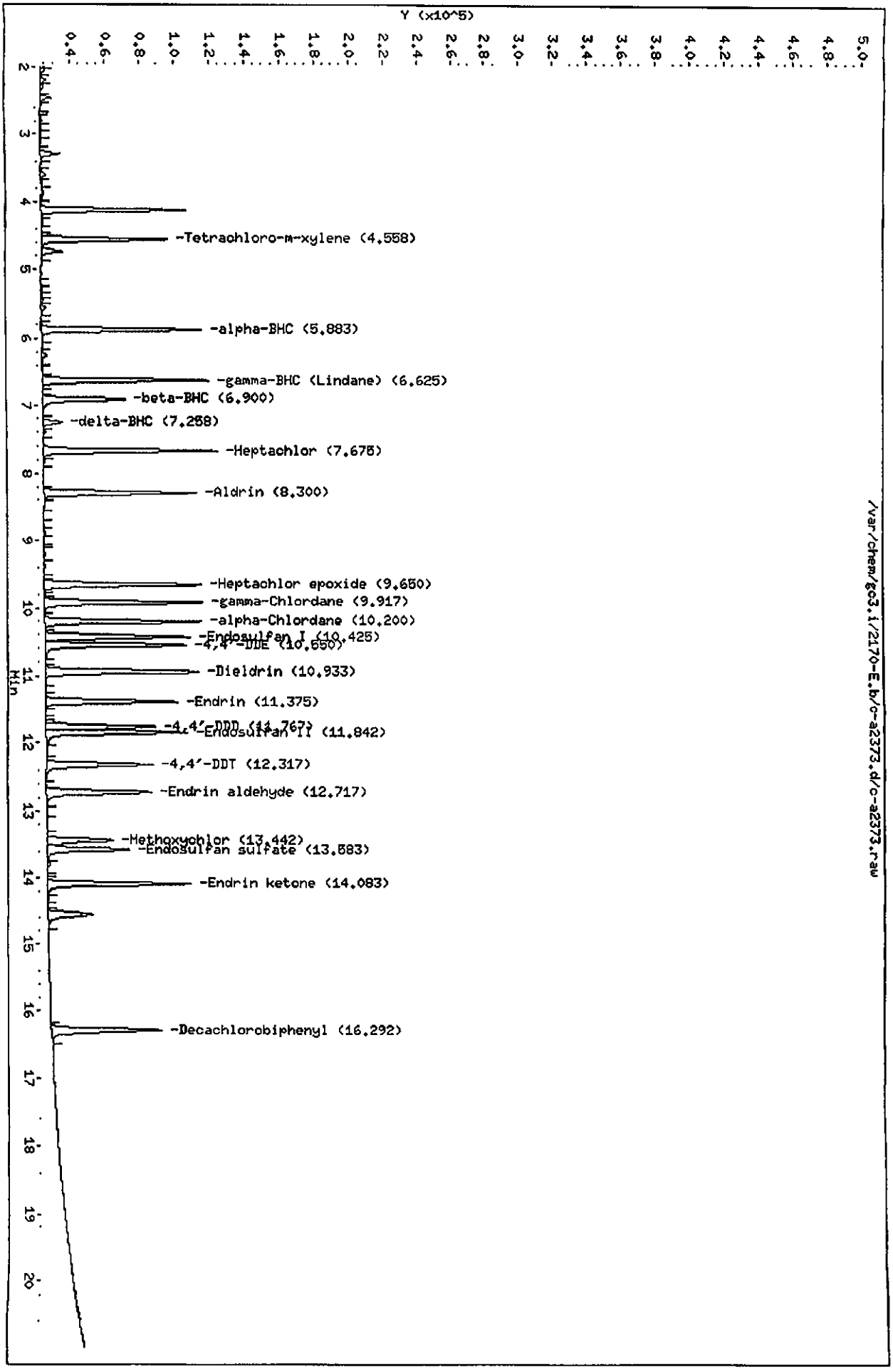
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (mg/L)
21 4,4'-DDD	11.767	11.767	0.000	63681	0.02182	0 00218243(a)
22 Endosulfan II	11.842	11.850	-0.008	81978	0 02314	0 00231439(a)
23 4,4'-DDT	12.317	12.317	0.000	62411	0.02252	0 00225177(aR)
24 Endrin aldehyde	12 717	12 717	0 000	61310	0 02087	0.00208679(a)
26 Endosulfan sulfate	13.583	13.583	0.000	48290	0.01576	0.00157623(a)
25 Methoxychlor	13.442	13.450	-0.008	38614	0.02772	0.00277245(a)
27 Endrin ketone	14.083	14.083	0 000	83156	0 02410	0.00240988(a)
$ 1 Tetrachloro-m-xylene	4.558	4 558	0 000	73519	0 01816	0.00181572(aR)
$ 30 Decachlorobiphenyl	16.292	16.300	-0.008	64216	0.01949	0 00194929(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/gc3.i/2170-E.b/c-a2373.d
Date : 19-MAY-2000 13:44
Client ID: LCS
Sample Info: DDE2E102,2170-E.b,,PEST.sub,,3,
Volume Injected (uL): 1.0
Column phase: RTX-CLP

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



657 492
Data File: /var/chem/gc3.i/2170-E.b/c-b2373.d
Report Date: 19-May-2000 14:14

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2170-E.b/c-b2373.d
Lab Smp Id: DDE2E102 Client Smp ID: LCS
Inj Date : 19-MAY-2000 13:44
Operator : 1891 Inst ID: gc3.i
Smp Info : DDE2E102,2170-E.b,,PEST.sub,,3,
Misc Info : 130192LCS
Comment :
Method : /var/chem/gc3.i/2170-E.b/PESTB.m
Meth Date : 19-May-2000 11:24 eppinged Quant Type: ESTD
Cal Date : 18-MAY-2000 01:57 Cal File: c-b2300.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

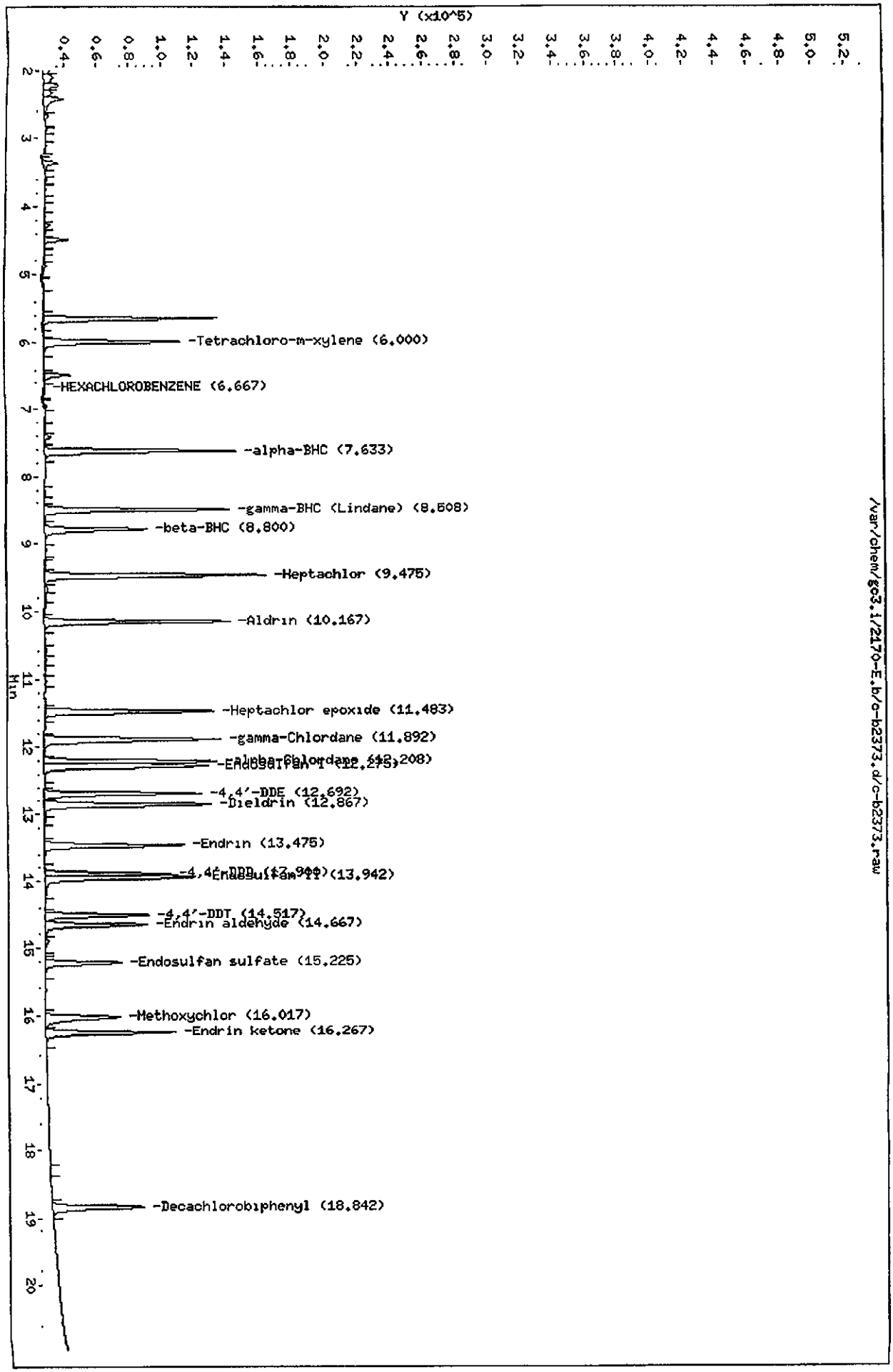
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (mg/L)
5 alpha-BHC	7.633	7.633	0.000	117972	0.01852	0.00185188(a)
4 HEXACHLOROBENZENE	6.667	6.650	0.017	810		(a)
6 gamma-BHC (Lindane)	8.508	8.508	0.000	114032	0.02117	0.00211724(aR)
7 beta-BHC	8.800	8.800	0.000	62664	0.02289	0.00228950(a)
9 Chlordane	Compound Not Detected.					
10 Heptachlor	9.475	9.475	0.000	135791	0.02567	0.00256682(aR)
8 delta-BHC	Compound Not Detected.					
11 Aldrin	10.167	10.167	0.000	114348	0.02231	0.00223064(aR)
12 Heptachlor epoxide	11.483	11.483	0.000	103705	0.02366	0.00236606(a)
13 gamma-Chlordane	11.892	11.892	0.000	109170	0.02376	0.00237642(a)
14 alpha-Chlordane	12.208	12.208	0.000	106404	0.02376	0.00237636(a)
15 Endosulfan I	12.275	12.283	-0.008	100824	0.02498	0.00249772(a)
16 4,4'-DDE	12.692	12.692	0.000	97024	0.02471	0.00247120(a)
17 Dieldrin	12.867	12.867	0.000	102946	0.02480	0.00247968(aR)
20 Endrin	13.475	13.475	0.000	86094	0.02432	0.00243208(aR)
18 Toxaphene	Compound Not Detected.					

Data File: /var/chem/gc3.i/2170-E.b/c-b2373.d
Report Date: 19-May-2000 14:14

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/L)
	21 4,4'-DDD	13 900	13.900	0.000	77540	0.02575	0.00257473(a)
	22 Endosulfan II	13.942	13.950	-0 008	92357	0 02706	0.00270559(a)
	23 4,4'-DDT	14.517	14.517	0.000	64247	0.02452	0.00245197(aR)
	24 Endrin aldehyde	14.667	14 667	0.000	62861	0.02260	0.00226046(a)
	26 Endosulfan sulfate	15.225	15.225	0 000	47106	0.01675	0.00167466(a)
	25 Methoxychlor	16.017	16.017	0.000	46356	0 03708	0.00370844(a)
	27 Endrin ketone	16.267	16.267	0 000	80005	0.02592	0.00259195(a)
$	1 Tetrachloro-m-xylene	6.000	6.000	0.000	83297	0.02027	0.00202690(aR)
$	30 Decachlorobiphenyl	18.842	18.842	0 000	56252	0 02080	0.00207954(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/gc3.i/2170-E.b/c-b2373.d
Date : 19-MAY-2000 13:44
Client ID: LCS
Sample Info: DDE2E102,2170-E.b,PEST.sub,3,
Volume Injected (uL): 1.0
Column phase: RTX-CLP2

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

10A
PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

EPA SAMPLE NO.: LCS

Lab Name: STL-PITTSBURGH Contract:

Lab Code: STLPIT Case No.: SAS No.: 40325 SDG No.: C0E130194

Lab Sample ID: DDE2E102 Date(s) Analyzed: 05/19/00 05/19/00

Instrument ID (1): GC3 Instrument ID (2): GC3

GC Column(1): RTX-CLP ID: 0.53(mm) GC Column(2): RTX-CLP2 ID: 0.53(mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%D
alpha-BHC	1	5.88	5.81	5.91	0.00166213	
	2	7.63	7.56	7.66	0.00185188	11.4
beta-BHC	1	6.90	6.86	6.96	0.00201078	
	2	8.80	8.75	8.85	0.00228950	13.9
gamma-BHC (Lindane)	1	6.62	6.55	6.65	0.00188671	
	2	8.51	8.43	8.53	0.00211724	12.2
Heptachlor	1	7.67	7.60	7.70	0.00211506	
	2	9.47	9.40	9.50	0.00256682	21.4
Aldrin	1	8.30	8.25	8.35	0.00198905	
	2	10.17	10.12	10.22	0.00223064	12.1
Heptachlor epoxide	1	9.65	9.60	9.70	0.00218908	
	2	11.48	11.43	11.53	0.00236606	8.1
Endosulfan I	1	10.43	10.35	10.45	0.00219413	
	2	12.28	12.20	12.30	0.00249772	13.8
Dieldrin	1	10.93	10.86	10.96	0.00220109	
	2	12.87	12.79	12.89	0.00247968	12.6

10A
PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

EPA SAMPLE NO.

LCS

Lab Name: STL-PITTSBURGH Contract:

Lab Code: STLPIT Case No.: SAS No.: 40325 SDG No.: C0E130194

Lab Sample ID: DDE2E102 Date(s) Analyzed: 05/19/00 05/19/00

Instrument ID (1): GC3 Instrument ID (2): GC3

GC Column(1): RTX-CLP ID: 0.53(mm) GC Column(2): RTX-CLP2 ID: 0.53(mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%D
4,4'-DDE	1	10.55	10.50	10.60	0.00224116	
	2	12.69	12.64	12.74	0.00247120	10.3
Endrin	1	11.38	11.30	11.40	0.00219482	
	2	13.47	13.40	13.50	0.00243208	10.8
Endosulfan II	1	11.84	11.80	11.90	0.00231439	
	2	13.94	13.90	14.00	0.00270559	16.9
4,4'-DDD	1	11.77	11.69	11.79	0.00218243	
	2	13.90	13.82	13.93	0.00257473	18.0
Endosulfan sulfate	1	13.58	13.53	13.63	0.00157623	
	2	15.22	15.18	15.28	0.00167466	6.2
4,4'-DDT	1	12.32	12.24	12.34	0.00225177	
	2	14.52	14.44	14.54	0.00245197	8.9
Methoxychlor	1	13.44	13.38	13.47	0.00277245	
	2	16.02	15.94	16.04	0.00370844	33.8
Endrin ketone	1	14.08	14.03	14.13	0.00240988	
	2	16.27	16.22	16.32	0.00259195	7.6

10A
PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

EPA SAMPLE NO.

LCS

Lab Name: STL-PITTSBURGH Contract:

Lab Code: STLPIT Case No.: SAS No.: 40325 SDG No.: C0E130194

Lab Sample ID: DDE2E102 Date(s) Analyzed: 05/19/00 05/19/00

Instrument ID (1): GC3 Instrument ID (2): GC3

GC Column(1): RTX-CLP ID: 0.53(mm) GC Column(2): RTX-CLP2 ID: 0.53(mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%D
Endrin aldehyde	1	12.72	12.67	12.77	0.00208679	
	2	14.67	14.62	14.72	0.00226046	8.3
alpha-Chlordane	1	10.20	10.15	10.25	0.00212446	
	2	12.21	12.16	12.26	0.00237636	11.8
gamma-Chlordane	1	9.92	9.88	9.97	0.00212158	
	2	11.89	11.84	11.94	0.00237642	12.0
	1					
	2					
	1					
	2					
	1					
	2					
	1					
	2					
	1					
	2					

UXB INTERNATIONAL
MATRIX SPIKE COMPOUNDS

657 498

Lab Name.Severn Trent Laboratories, Inc SDG Number:

Matrix: (soil/water) ~~SOLID~~ WATER Lab Sample ID:C0E130194 001
Method: SW846 8081A um 5/23/00
Pesticides (8081A)

Sample WT/Vol: 100 / mL Date Received: 05/13/00
Work Order: DD6A411A Date Extracted:05/18/00
Dilution factor: 1 Date Analyzed: 05/19/00

QC Batch: 0139460

Client Sample Id: DF/S1/0133/SDC/001 A

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) mg/L	Q
72-20-8	Endrin	0.00212	
76-44-8	Heptachlor	0.00236	
1024-57-3	Heptachlor epoxide	0.00201	
58-89-9	Lindane	0.00172	
72-43-5	Methoxychlor	0.00289	

Data File: /var/chem/gc3.i/2170-E.b/c-a2367.d
Report Date: 19-May-2000 12:39

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2170-E.b/c-a2367.d
Lab Smp Id: DD6A411A Client Smp ID: DF/S1/0133/SDC/MS
Inj Date : 19-MAY-2000 11:08
Operator : 1891 Inst ID: gc3.i
Smp Info : DD6A411A,2170-E.b,,PEST.sub,,3,
Misc Info : 130194001S
Comment :
Method : /var/chem/gc3.i/2170-E.b/PESTA.m
Meth Date : 19-May-2000 11:01 eppinged Quant Type: ESTD
Cal Date : 18-MAY-2000 01:57 Cal File: c-a2300.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)	CONCENTRATIONS FINAL (mg/L)
5 alpha-BHC	5.883	5 883	0.000	78343	0.01408	0.00140826(a)
4 HEXACHLOROBENZENE	Compound Not Detected.					
6 gamma-BHC (Lindane)	6.625	6.625	0.000	87566	0.01716	0.00171606(aR)
7 beta-BHC	6.908	6 908	0.000	47433	0 01958	0.00195786(a)
9 Chlordane	Compound Not Detected.					
10 Heptachlor	7.675	7.675	0.000	113894	0 02376	0.00237622(aR)
8 delta-BHC	7 258	7 258	0 000	11036	0 00235	0.000234820(a)
11 Aldrin	8.300	8.300	0.000	84159	0.01888	0.00188790(aR)
12 Heptachlor epoxide	9 650	9 650	0.000	83884	0.02010	0.00200991(a)
13 gamma-Chlordane	9 925	9 925	0 000	87619	0.02020	0.00202034(a)
14 alpha-Chlordane	10.200	10.200	0.000	87109	0.02031	0.00203083(a)
15 Endosulfan I	10.425	10.425	0.000	78573	0.02036	0.00203642(a)
16 4,4'-DDE	10 550	10.550	0 000	81784	0.02246	0.00224563(a)
17 Dieldrin	10.942	10.942	0.000	90402	0.02230	0 00222980(aR)
20 Endrin	11.375	11.375	0.000	74965	0.02124	0.00212405(aR)
18 Toxaphene	Compound Not Detected.					

657 500

Data File: /var/chem/gc3.i/2170-E.b/c-a2367.d
Report Date: 19-May-2000 12:39

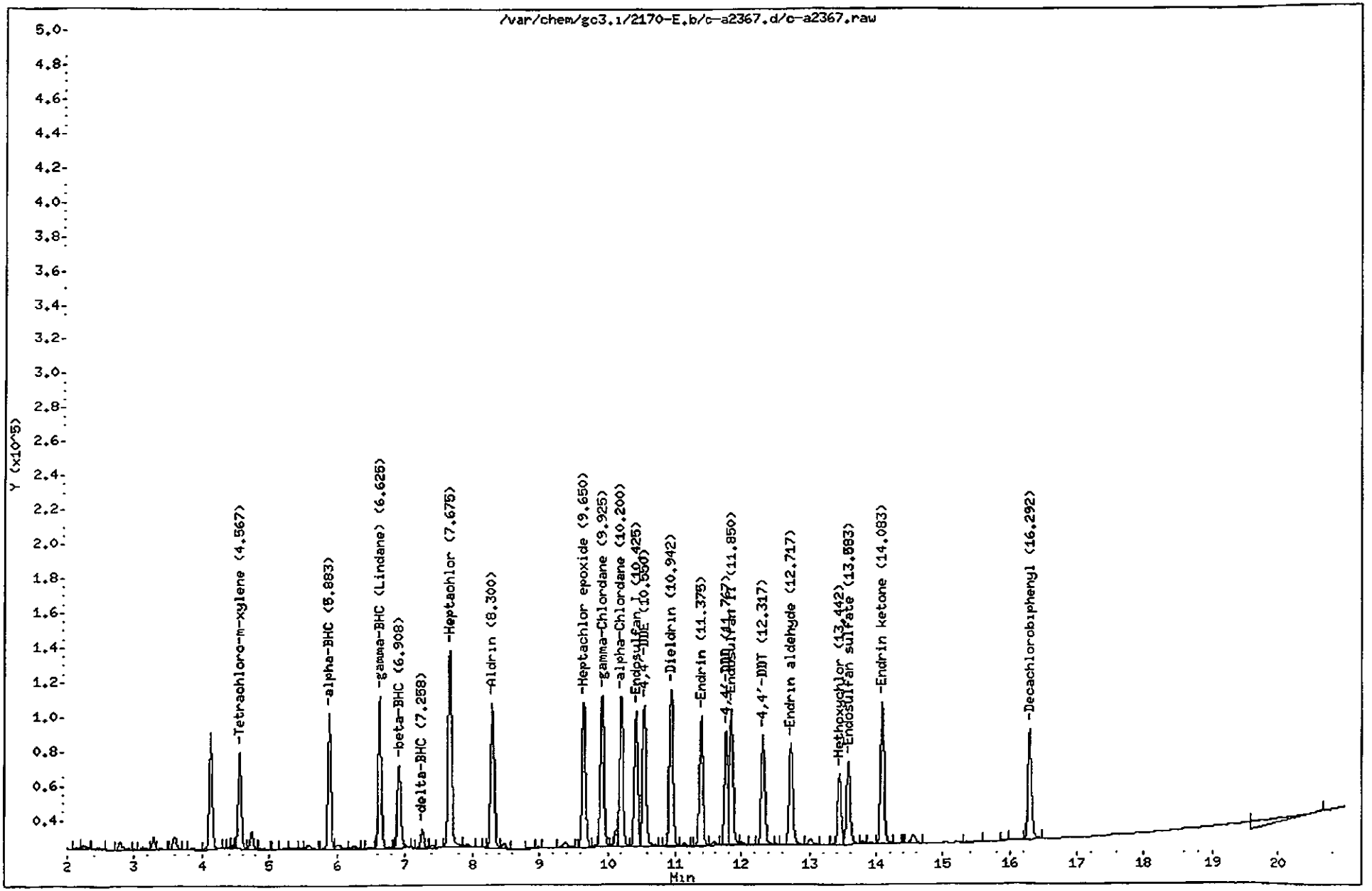
	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (mg/L)
21	4,4'-DDD	11.767	11 767	0 000	65696	0.02251	0.00225148(a)
22	Endosulfan II	11 850	11 850	0.000	78500	0.02216	0.00221620(a)
23	4,4'-DDT	12 317	12.317	0.000	63119	0.02277	0.00227731(aR)
24	Endrin aldehyde	12.717	12.717	0 000	58410	0.01988	0.00198808(a)
26	Endosulfan sulfate	13.583	13 583	0 000	47876	0.01563	0 00156272(a)
25	Methoxychlor	13 442	13.450	-0.008	40276	0.02892	0.00289178(a)
27	Endrin ketone	14 083	14.083	0 000	82062	0.02378	0.00237817(a)
$ 1	Tetrachloro-m-xylene	4 567	4.558	0 009	56113	0.01386	0 00138584(aR)
$ 30	Decachlorobiphenyl	16.292	16 300	-0.008	63785	0.01936	0.00193620(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/gc3.i/2170-E.b/c-a2367.d
Date : 19-MAY-2000 11:08
Client ID: DF/S1/0133/SDC/MS
Sample Info: DD6A411A,2170-E.b,,PEST.sub,,3,
Volume Injected (uL): 1.0
Column phase: RTX-CLP

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



657 502

Data File: /var/chem/gc3.i/2170-E.b/c-b2367.d
Report Date: 19-May-2000 12:46

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2170-E.b/c-b2367.d
Lab Smp Id: DD6A411A Client Smp ID: DF/S1/0133/SDC/MS
Inj Date : 19-MAY-2000 11:08
Operator : 1891 Inst ID: gc3.i
Smp Info : DD6A411A,2170-E.b,,PEST.sub,,3,
Misc Info : 130194001S
Comment :
Method : /var/chem/gc3.i/2170-E.b/PESTB.m
Meth Date : 19-May-2000 11:24 eppinged Quant Type: ESTD
Cal Date : 18-MAY-2000 01:57 Cal File: c-b2300.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)	CONCENTRATIONS FINAL (mg/L)
5 alpha-BHC	7.633	7.633	0.000	103590	0.01626	0.00162612(a)
4 HEXACHLOROBENZENE	6.692	6 650	0.042	1327		(a)
6 gamma-BHC (Lindane)	8.508	8.508	0.000	104134	0.01932	0.00193346(aR)
7 beta-BHC	8.800	8.800	0.000	59026	0 02157	0.00215658(a)
9 Chlordane	Compound Not Detected.					
10 Heptachlor	9.475	9.475	0.000	124703	0.02357	0 00235722(aR)
8 delta-BHC	Compound Not Detected					
11 Aldrin	10 175	10.167	0.008	99958	0 01950	0.00194993(aR)
12 Heptachlor epoxide	11 483	11.483	0.000	97087	0.02215	0.00221507(a)
13 gamma-Chlordane	11 892	11 892	0 000	101932	0.02219	0.00221886(a)
14 alpha-Chlordane	12 208	12 208	0.000	100679	0.02249	0.00224850(a)
15 Endosulfan I	12.283	12.283	0 000	93033	0.02305	0.00230472(a)
16 4,4'-DDE	12.692	12.692	0.000	96677	0.02462	0.00246236(a)
17 Dieldrin	12.867	12.867	0 000	103941	0.02504	0 00250364(aR)
20 Endrin	13.475	13.475	0 000	83874	0.02369	0.00236936(aR)
18 Toxaphene	Compound Not Detected.					

Data File: /var/chem/gc3.i/2170-E.b/c-b2367.d
Report Date: 19-May-2000 12:46

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (mg/L)
	21 4,4'-DDD	13 900	13.900	0 000	77880	0.02586	0.00258602(a)
	22 Endosulfan II	13.942	13.950	-0 008	87922	0.02576	0 00257566(a)
	23 4,4'-DDT	14.517	14.517	0.000	65556	0 02502	0.00250193(aR)
	24 Endrin aldehyde	14.667	14.667	0.000	59377	0 02135	0.00213518(a)
	26 Endosulfan sulfate	15.225	15.225	0.000	46000	0.01635	0.00163534(a)
	25 Methoxychlor	16.017	16.017	0.000	38052	0.03044	0.00304413(a)
	27 Endrin ketone	16.267	16 267	0 000	78718	0.02550	0.00255025(a)
$	1 Tetrachloro-m-xylene	6.000	6.000	0 000	65108	0 01584	0.00158430(aR)
$	30 Decachlorobiphenyl	18 842	18.842	0 000	54644	0.0202	0 00202009(aR)

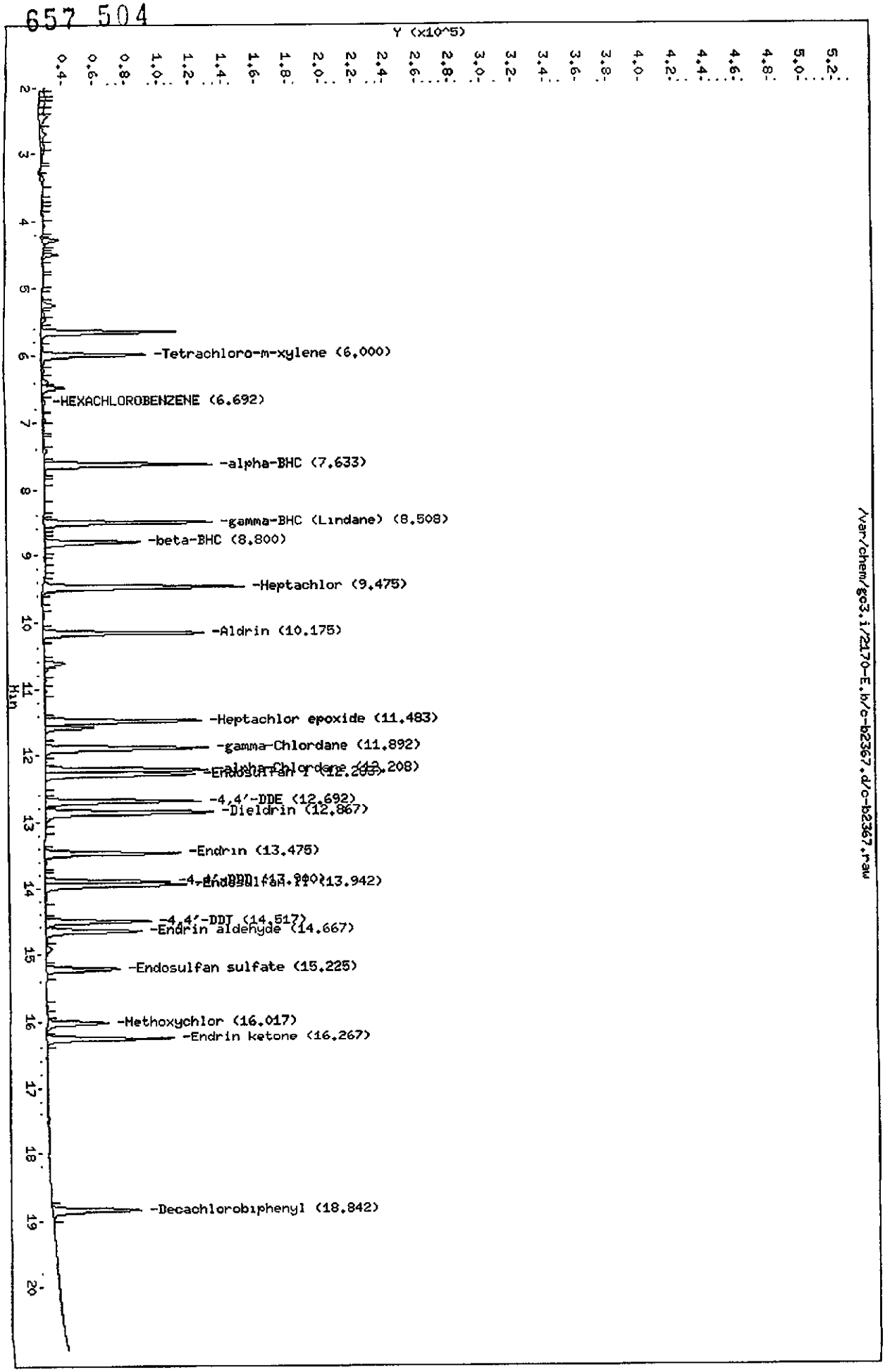
QC Flag Legend

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

Data File: /var/chem/gc3.i/2170-E.b/c-b2367.d
Date : 19-MAY-2000 11:08
Client ID: DF/SL/0133/SDC/MS
Sample Info: DB6A41A,2170-E.b,,PEST.sub,,3,
Volume Injected (uL): 1.0
Column phase: RTX-CLP2

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

/var/chem/gc3.i/2170-E.b/c-b2367.d/c-b2367.raw



10A

PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

EPA SAMPLE NO

DF/S1/01
33/SDC/MS

Lab Name: STL-PITTSBURGH Contract:

Lab Code: STLPIT Case No.: SAS No.: 40325 SDG No.: C0E130194

Lab Sample ID: DD6A411A Date(s) Analyzed: 05/19/00 05/19/00

Instrument ID (1): GC3 Instrument ID (2): GC3

GC Column(1): RTX-CLP ID: 0.53(mm) GC Column(2): RTX-CLP2 ID: 0.53(mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%D
alpha-BHC	1	5.88	5.81	5.91	0.00140826	
	2	7.63	7.56	7.66	0.00162612	15.5
beta-BHC	1	6.91	6.86	6.96	0.00195786	
	2	8.80	8.75	8.85	0.00215658	10.1
gamma-BHC (Lindane)	1	6.62	6.55	6.65	0.00171606	
	2	8.51	8.43	8.53	0.00193346	12.7
Heptachlor	1	7.67	7.60	7.70	0.00237622	
	2	9.47	9.40	9.50	0.00235722	0.8
Aldrin	1	8.30	8.25	8.35	0.00188790	
	2	10.18	10.12	10.22	0.00194993	3.3
Heptachlor epoxide	1	9.65	9.60	9.70	0.00200991	
	2	11.48	11.43	11.53	0.00221507	10.2
Endosulfan I	1	10.43	10.35	10.45	0.00203642	
	2	12.28	12.20	12.30	0.00230472	13.2
Dieldrin	1	10.94	10.86	10.96	0.00222980	
	2	12.87	12.79	12.89	0.00250364	12.3

10A
PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

EPA SAMPLE NO.

DF/S1/01
33/SDC/MS

Lab Name: STL-PITTSBURGH Contract:

Lab Code: STLPIT Case No.: SAS No.: 40325 SDG No.: C0E130194

Lab Sample ID: DD6A411A Date(s) Analyzed: 05/19/00 05/19/00

Instrument ID (1): GC3 Instrument ID (2): GC3

GC Column(1): RTX-CLP ID: 0.53(mm) GC Column(2): RTX-CLP2 ID: 0.53(mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%D
4,4'-DDE	1	10.55	10.50	10.60	0.00224563	
	2	12.69	12.64	12.74	0.00246236	9.6
Endrin	1	11.38	11.30	11.40	0.00212405	
	2	13.47	13.40	13.50	0.00236936	11.5
Endosulfan II	1	11.85	11.80	11.90	0.00221620	
	2	13.94	13.90	14.00	0.00257566	16.2
4,4'-DDD	1	11.77	11.69	11.79	0.00225148	
	2	13.90	13.82	13.93	0.00258602	14.8
Endosulfan sulfate	1	13.58	13.53	13.63	0.00156272	
	2	15.22	15.18	15.28	0.00163534	4.6
4,4'-DDT	1	12.32	12.24	12.34	0.00227731	
	2	14.52	14.44	14.54	0.00250193	9.9
Methoxychlor	1	13.44	13.38	13.47	0.00289178	
	2	16.02	15.94	16.04	0.00304413	5.3
Endrin ketone	1	14.08	14.03	14.13	0.00237817	
	2	16.27	16.22	16.32	0.00255025	7.2

10A
PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

EPA SAMPLE NO.

DF/S1/01
33/SDC/MS

Lab Name: STL-PITTSBURGH Contract:

Lab Code: STLPIT Case No.: SAS No.: 40325 SDG No.: C0E130194

Lab Sample ID: DD6A411A Date(s) Analyzed: 05/19/00 05/19/00

Instrument ID (1): GC3 Instrument ID (2): GC3

GC Column(1): RTX-CLP ID: 0.53(mm) GC Column(2): RTX-CLP2 ID: 0.53(mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%D
Endrin aldehyde	1	12.72	12.67	12.77	0.00198808	
	2	14.67	14.62	14.72	0.00213518	7.4
alpha-Chlordane	1	10.20	10.15	10.25	0.00203083	
	2	12.21	12.16	12.26	0.00224850	10.7
gamma-Chlordane	1	9.93	9.88	9.97	0.00202034	
	2	11.89	11.84	11.94	0.00221886	9.8
	1					
	2					
	1					
	2					
	1					
	2					
	1					
	2					
	1					
	2					

657 508

UXB INTERNATIONAL
MATRIX SPIKE DUPLICATE COMPOUNDS

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

Matrix: (soil/water) ~~SOLID~~ WATER Lab Sample ID: C0E130194 001
Method: SW846 8081A LM5/23/00
Pesticides (8081A)

Sample WT/Vol: 100 / mL Date Received: 05/13/00
Work Order: DD6A411C Date Extracted: 05/18/00
Dilution factor: 1 Date Analyzed: 05/19/00

QC Batch: 0139460

Client Sample Id: DF/S1/0133/SDC/001 A

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) mg/L	Q
72-20-8	Endrin	0 00213	
76-44-8	Heptachlor	0.00238	
1024-57-3	Heptachlor epoxide	0.00199	
58-89-9	Lindane	0.00172	
72-43-5	Methoxychlor	0.00291	

Data File: /var/chem/gc3.i/2170-E.b/c-a2368.d
Report Date: 19-May-2000 12:40

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2170-E.b/c-a2368.d
Lab Smp Id: DD6A411C Client Smp ID: DF/S1/0133/SDC/MSD
Inj Date : 19-MAY-2000 11:34
Operator : 1891 Inst ID: gc3.i
Smp Info : DD6A411C,2170-E.b,,PEST.sub,,3,
Misc Info : 130194001D
Comment :
Method : /var/chem/gc3.i/2170-E.b/PESTA.m
Meth Date : 19-May-2000 11:01 eppinged Quant Type: ESTD
Cal Date : 18-MAY-2000 01:57 Cal File: c-a2300.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)	CONCENTRATIONS FINAL (mg/L)
5 alpha-BHC	5.883	5.883	0.000	79047	0 01421	0.00142092(a)
4 HEXACHLOROBENZENE	Compound Not Detected.					
6 gamma-BHC (Lindane)	6.625	6 625	0.000	87919	0.01723	0.00172298(aR)
7 beta-BHC	6.908	6.908	0 000	46766	0.01930	0.00193033(a)
9 Chlordane	Compound Not Detected.					
10 Heptachlor	7.675	7 675	0.000	114171	0.02382	0.00238200(aR)
8 delta-BHC	7.258	7.258	0 000	11043	0.00235	0.000234969(a)
11 Aldrin	8.300	8.300	0.000	84375	0.01893	0.00189275(aR)
12 Heptachlor epoxide	9.650	9.650	0.000	83234	0.01994	0.00199433(a)
13 gamma-Chlordane	9.925	9.925	0.000	87283	0.02013	0 00201259(a)
14 alpha-Chlordane	10.200	10.200	0.000	87566	0.02041	0.00204148(a)
15 Endosulfan I	10 425	10 425	0.000	79279	0 02055	0.00205472(a)
16 4,4'-DDE	10 550	10.550	0.000	81886	0 02248	0.00224843(a)
17 Dieldrin	10 942	10 942	0.000	88925	0 02193	0.00219337(aR)
20 Endrin	11.375	11.375	0.000	75188	0 02130	0.00213037(aR)
18 Toxaphene	Compound Not Detected					

657 510
Data File: /var/chem/gc3.i/2170-E.b/c-a2368.d
Report Date: 19-May-2000 12:40

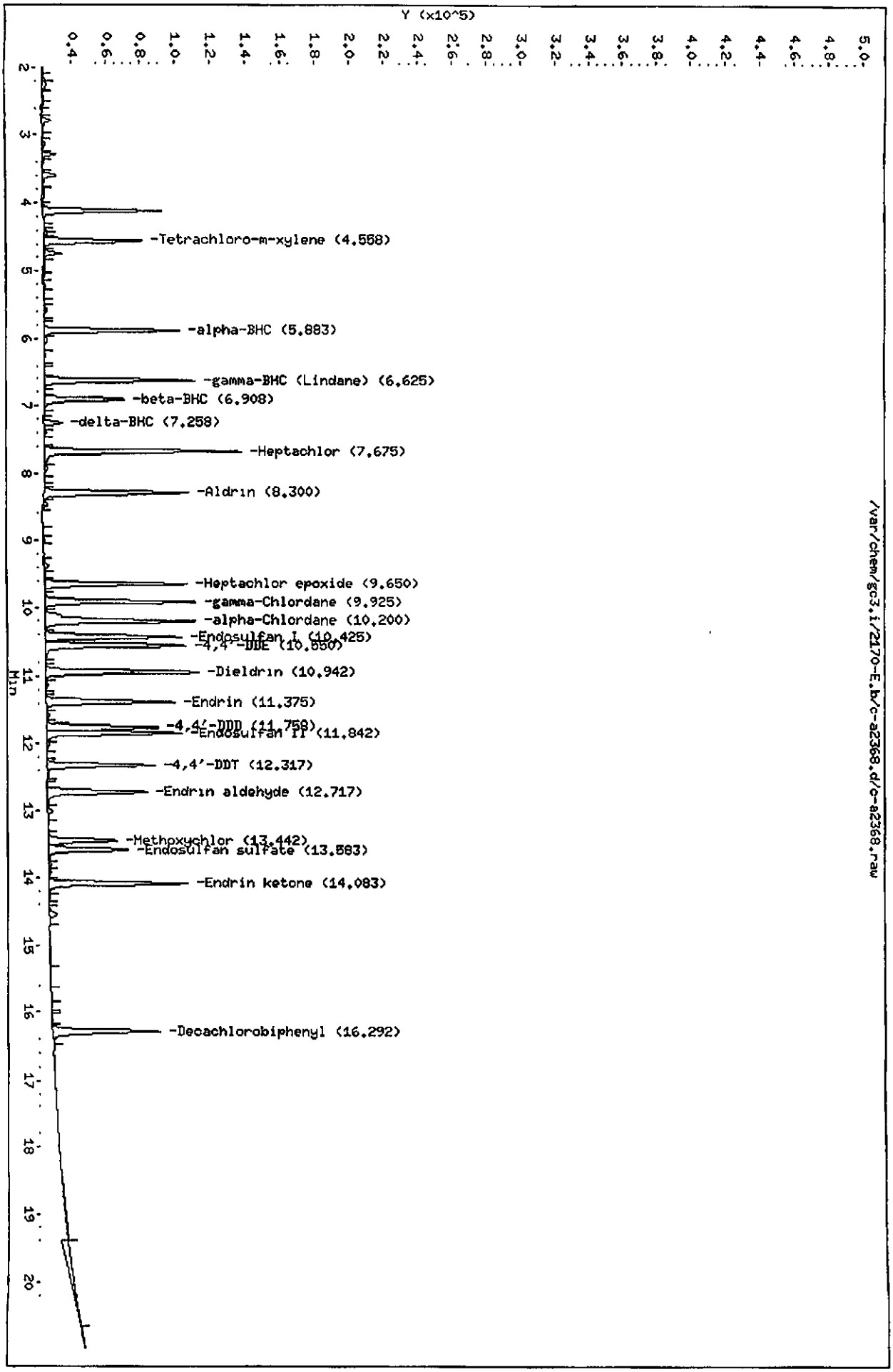
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (mg/L)
21 4,4'-DDD	11 758	11 767	-0 009	65055	0 02230	0.00222952(a)
22 Endosulfan II	11.842	11 850	-0 008	78371	0.02213	0.00221256(a)
23 4,4'-DDT	12 317	12 317	0.000	62682	0.02262	0.00226154(aR)
24 Endrin aldehyde	12.717	12.717	0.000	58199	0.01981	0.00198090(a)
26 Endosulfan sulfate	13 583	13 583	0.000	47034	0.01535	0.00153523(a)
25 Methoxychlor	13 442	13 450	-0 008	40595	0.02915	0.00291468(a)
27 Endrin ketone	14 083	14.083	0.000	80634	0.02337	0.00233679(a)
$ 1 Tetrachloro-m-xylene	4 558	4.558	0.000	57052	0.01409	0.00140903(aR)
$ 30 Decachlorobiphenyl	16.292	16.300	-0.008	62801	0.01908	0.00190634(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/gc3.i/2170-E.b/c-a2368.d
Date : 19-MAY-2000 11:34
Client ID: BF/S1/0133/SDC/MSD
Sample Info: DD6A41C,2170-E.b,,PEST,sub,,3,
Volume Injected (uL): 1.0
Column phase: RTX-CLP

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



657 512

Data File: /var/chem/gc3.i/2170-E.b/c-b2368.d
Report Date: 19-May-2000 12:46

STL-PITTSBURGH

Data file : /var/chem/gc3.i/2170-E.b/c-b2368.d
Lab Smp Id: DD6A411C Client Smp ID: DF/S1/0133/SDC/MSD
Inj Date : 19-MAY-2000 11:34
Operator : 1891 Inst ID: gc3.i
Smp Info : DD6A411C,2170-E.b,,PEST.sub,,3,
Misc Info : 130194001D
Comment :
Method : /var/chem/gc3.i/2170-E.b/PESTB.m
Meth Date : 19-May-2000 11:24 eppinged Quant Type: ESTD
Cal Date : 18-MAY-2000 01:57 Cal File: c-b2300.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)	CONCENTRATIONS FINAL (mg/L)
5 alpha-BHC	7.633	7.633	0 000	104056	0.01633	0.00163343(a)
4 HEXACHLOROBENZENE	6 692	6 650	0 042	1580		(a)
6 gamma-BHC (Lindane)	8.508	8.508	0.000	103697	0.01925	0.00192535(aR)
7 beta-BHC	8.800	8.800	0.000	59482	0.02173	0.00217324(a)
9 Chlordane	Compound Not Detected.					
10 Heptachlor	9.475	9.475	0.000	126057	0.02383	0.00238282(aR)
8 delta-BHC	Compound Not Detected.					
11 Aldrin	10 167	10 167	0.000	99731	0.01946	0.00194550(aR)
12 Heptachlor epoxide	11 483	11.483	0.000	96301	0 02197	0.00219714(a)
13 gamma-Chlordane	11 892	11 892	0.000	101686	0.02214	0.00221350(a)
14 alpha-Chlordane	12 208	12 208	0 000	100700	0 02249	0 00224897(a)
15 Endosulfan I	12.275	12 283	-0.008	93587	0.02318	0 00231844(a)
16 4,4'-DDE	12.692	12.692	0 000	97818	0.02491	0.00249142(a)
17 Dieldrin	12.867	12.867	0 000	103369	0.02490	0.00248987(aR)
20 Endrin	13.475	13.475	0.000	83511	0.02359	0.00235911(aR)
18 Toxaphene	Compound Not Detected.					

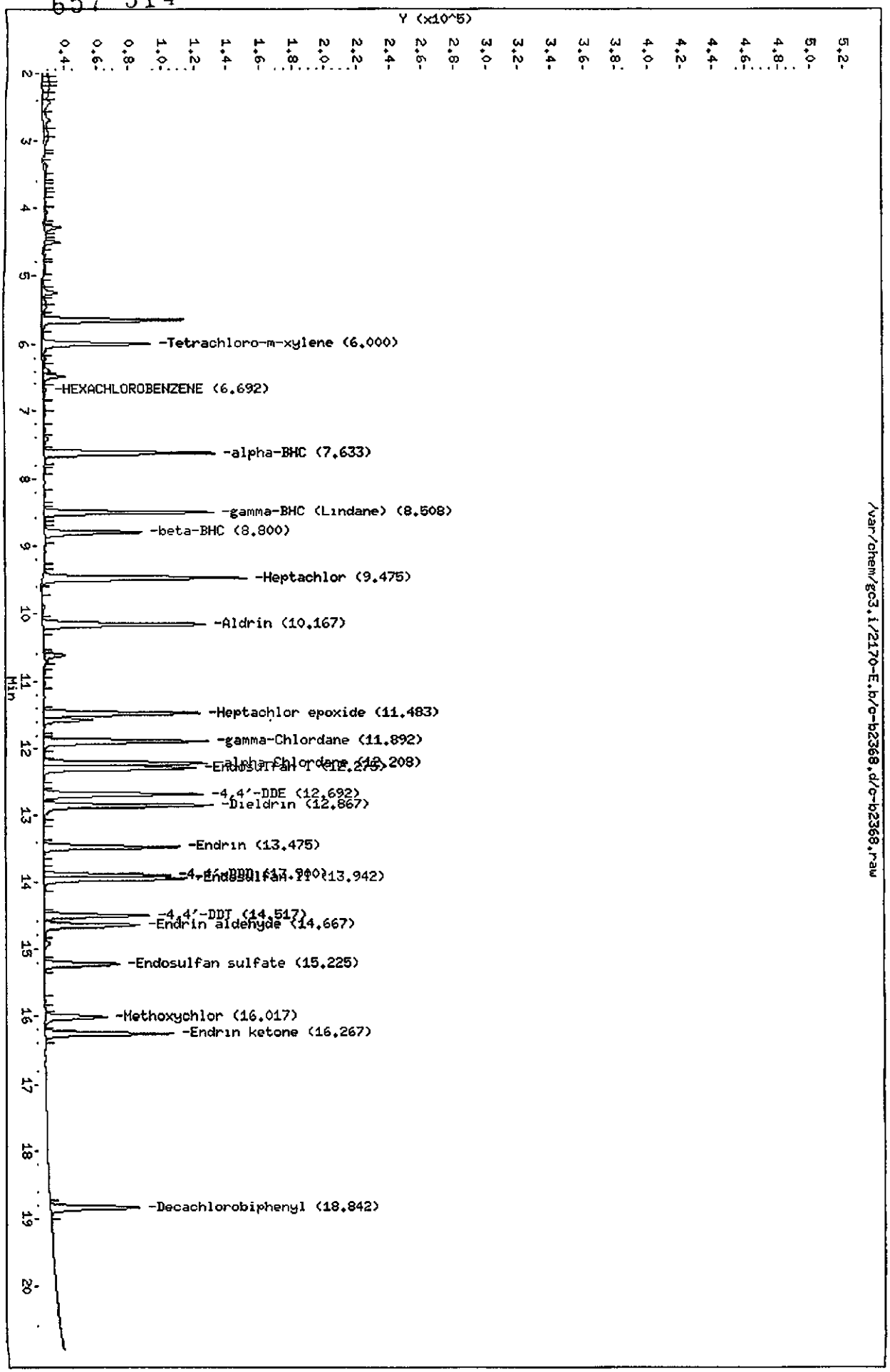
Data File: /var/chem/gc3.i/2170-E.b/c-b2368.d
Report Date: 19-May-2000 12:46

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (mg/L)
21	4,4'-DDD	13.900	13.900	0.000	77560	0.02575	0 00257540(a)
22	Endosulfan II	13.942	13.950	-0 008	87926	0.02576	0 00257578(a)
23	4,4'-DDT	14.517	14.517	0 000	65441	0.02498	0.00249754(aR)
24	Endrin aldehyde	14.667	14.667	0.000	58983	0.02121	0.00212101(a)
26	Endosulfan sulfate	15.225	15.225	0.000	46383	0.01649	0.00164896(a)
25	Methoxychlor	16 017	16.017	0.000	38247	0.03060	0.00305973(a)
27	Endrin ketone	16 267	16.267	0.000	79066	0.02562	0.00256153(a)
$ 1	Tetrachloro-m-xylene	6.000	6.000	0.000	66649	0.01622	0 00162180(aR)
$ 30	Decachlorobiphenyl	18 842	18.842	0.000	55151	0.02039	0.00203883(aR)

QC Flag Legend

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

657 514



Data File: /var/chem/gc3.i/2170-E.b/c-b2368.d
Date : 19-MAY-2000 11:34
Client ID: DF/S1/0133/SDC/HSD
Sample Info: DB6A11C,2170-E.b,,PEST.sub,3,
Volume Injected (uL): 1.0
Column phase: RTX-CLP2

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

10A
PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

EPA SAMPLE NO.

DF/S1/013
3/SDC/MSD

Lab Name: STL-PITTSBURGH Contract:

Lab Code: STLPIT Case No.: SAS No.: 40325 SDG No.: C0E130194

Lab Sample ID: DD6A411C Date(s) Analyzed: 05/19/00 05/19/00

Instrument ID (1): GC3 Instrument ID (2): GC3

GC Column(1): RTX-CLP ID: 0.53(mm) GC Column(2): RTX-CLP2 ID: 0.53(mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%D
alpha-BHC	1	5.88	5.81	5.91	0.00142092	
	2	7.63	7.56	7.66	0.00163343	15.0
beta-BHC	1	6.91	6.86	6.96	0.00193033	
	2	8.80	8.75	8.85	0.00217324	12.6
gamma-BHC (Lindane)	1	6.62	6.55	6.65	0.00172298	
	2	8.51	8.43	8.53	0.00192535	11.7
Heptachlor	1	7.67	7.60	7.70	0.00238200	
	2	9.47	9.40	9.50	0.00238282	0.0
Aldrin	1	8.30	8.25	8.35	0.00189275	
	2	10.17	10.12	10.22	0.00194550	2.8
Heptachlor epoxide	1	9.65	9.60	9.70	0.00199433	
	2	11.48	11.43	11.53	0.00219714	10.2
Endosulfan I	1	10.43	10.35	10.45	0.00205472	
	2	12.28	12.20	12.30	0.00231844	12.8
Dieldrin	1	10.94	10.86	10.96	0.00219337	
	2	12.87	12.79	12.89	0.00248987	13.5

10A
PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

EPA SAMPLE NO.
DF/S1/013
3/SDC/MSD

Lab Name: STL-PITTSBURGH Contract:

Lab Code: STLPIT Case No.: SAS No.: 40325 SDG No.: C0E130194

Lab Sample ID: DD6A411C Date(s) Analyzed: 05/19/00 05/19/00

Instrument ID (1): GC3 Instrument ID (2): GC3

GC Column(1): RTX-CLP ID: 0.53(mm) GC Column(2): RTX-CLP2 ID: 0.53(mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%D
4,4'-DDE	1	10.55	10.50	10.60	0.00224843	
	2	12.69	12.64	12.74	0.00249142	10.8
Endrin	1	11.38	11.30	11.40	0.00213037	
	2	13.47	13.40	13.50	0.00235911	10.7
Endosulfan II	1	11.84	11.80	11.90	0.00221256	
	2	13.94	13.90	14.00	0.00257578	16.4
4,4'-DDD	1	11.76	11.69	11.79	0.00222952	
	2	13.90	13.82	13.93	0.00257540	15.5
Endosulfan sulfate	1	13.58	13.53	13.63	0.00153523	
	2	15.22	15.18	15.28	0.00164896	7.4
4,4'-DDT	1	12.32	12.24	12.34	0.00226154	
	2	14.52	14.44	14.54	0.00249754	10.4
Methoxychlor	1	13.44	13.38	13.47	0.00291468	
	2	16.02	15.94	16.04	0.00305973	5.0
Endrin ketone	1	14.08	14.03	14.13	0.00233679	
	2	16.27	16.22	16.32	0.00256153	9.6

10A
PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

EPA SAMPLE NO.

DF/S1/013
3/SDC/MSD

Lab Name: STL-PITTSBURGH Contract:

Lab Code: STLPIT Case No.: SAS No.: 40325 SDG No.: C0E130194

Lab Sample ID: DD6A411C Date(s) Analyzed: 05/19/00 05/19/00

Instrument ID (1): GC3 Instrument ID (2): GC3

GC Column(1): RTX-CLP ID: 0.53(mm) GC Column(2): RTX-CLP2 ID: 0.53(mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%D
Endrin aldehyde	1	12.72	12.67	12.77	0.00198090	
	2	14.67	14.62	14.72	0.00212101	7.1
alpha-Chlordane	1	10.20	10.15	10.25	0.00204148	
	2	12.21	12.16	12.26	0.00224897	10.2
gamma-Chlordane	1	9.93	9.88	9.97	0.00201259	
	2	11.89	11.84	11.94	0.00221350	10.0
	1					
	2					
	1					
	2					
	1					
	2					
	1					
	2					
	1					
	2					

PESTICIDE
MISCELLANEOUS

TCLP (Method 1311)

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

Quanterra Environmental Services

Filter lot # 832070IW

Serial Number	Log Book Number
038	96-MT-526

By	Date	Checked by	Date	pH Instrument	Probe	Balance
D. Grant	5-16-00		5-17-00	Accumet AR25	SN9087030	C94817

Project Number	Lot Number	Client Codes	Solution Number 1 - Log Book Number	Solution Number 2 - Log Book Number
	00E130194	39411	995404-12	

Fluid Determination

Sample ID	Wgt/Vol	Init. pH	Final pH	Extract Fluid #1, or #2	Conc. HNO_3 to Acidity (for Metals)
DD6A4	5.00g/96.5ml	9.61	1.83	#1	5 ml
DD6A5	↓ / ↓	9.49	1.73	↓	7 ml
DD6A6		9.39	1.79		4 ml
DD6A7		9.36	1.70		4 ml

G.F. 5-16-00

TCLP Extraction

Sample ID	Wgt (g) Wet/Dry	Fluid Vol		Final pH After Tumbling
1. PB-TCLP 5-16-00	—	2000 ml	Glass	4.93
2. DD6A4	100.00g	↓	↓	6.26
3 DD6A5	↓			6.31
4. DD6A6				6.32
5. DD6A7				6.31
6 DD6A4	↓	↓	↓	6.30
7.				
8.				
9.				
10.				
11.				
12				
13				

G.F. 5-16-00

Extract(s)

(Record line number from above)

ALL ABOVE

Extract(s) Received

Date	Time	Analyst	Location
5-16-00	12:15		Motfloh

Extract(s) Relinquished

Date	Time	Analyst	Location
5-16-00	12:20		SD

* = Sample determined to have free-liquid, % solid determination was performed

<5 = Extraction Fluid No. 1 5.7 mL Glacial Acetic Acid dil 500 mL + 64.3 mL of 1N Na OH dil to 1L (pH 4.93 ± 0.05)

>5 = Extraction Fluid No. 2 5.7 mL Glacial Acetic Acid dil to 1L (pH 2.88 ± 0.05)

ROOM TEMP – 23°C

Date/Time On	Date/Time Off	Agitation Apparatus RPMs:
5-16-00 15:45	5-17-00 9:30	30 ± 2

pH Calibration	(4.0)	(7.0)	(10.0)
Date 5-16-00	4.00	7.01	10.05
Date 5-17-00	4.00	7.01	10.0

Comments

STL Pittsburgh

Separatory Funnel Extraction Worksheet

TCLP B# 0139460

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

3200

Date Extraction Began	Date Completed	Parameter	Method	Solvent	Solvent Lot	Solvent Mfg.	Clean up Method
5-18-00	5.19.00	8081A	3510C	MeCl/HEXANE	T03281	Baker	NA

	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)	Cleanup Date
1.	COE130194	BLK	NA	5	100ml	10.0	190-90-8	1.0ml	NA	NA	NA
2.		LCS		↓					190-85-8	1.0ml	
3		001MS		6					↓	↓	
4.		001MSD							NA	NA	
5		001									
6		002									
7		003									
8.	↓	004	↓	↓	↓	10.0	↓	↓	↓	↓	↓
9.											
10											
11											
12											
13.											
14											
15.											
16											
17			B.P. 5-18-00								
18											
19											
20											
21											
22											
23.											
24.											
Analyst	B.P	B.P	B.P	B.P.	B.P.	KG	B.P.	B.P.	B.P.	B.P.	B.P

Extract(s) (Record line number from above)	Extract(s) Received Date	Time	Analyst	Location	Extract(s) Relinquished Date	Time	Analyst	Location
All Above	5-18-00	1619	Bryan Q. Pipp	Ref. Prep	5-18-00	2100	Bryan Q. Pipp	REFRIG EXT.
All Above	5-19-00	0400	Ken Dubay	Ref 2. GC	5-19-00	0730	Ken Dubay	Ref 1. GC
All Above	5-19-00	0800	DO Ephraim	Ref 2. GC	5-19-00	0810	DO Ephraim	Ref 1. GC

Sodium Sulfate Mfg. Baker | Lot Number N40624 | Reviewed By Ken Dubay | Date 5-19-00

520
657

Turbochrom Sequence File : H:\ACQUIRE\MET_SEQ\2170-E.SEQ 657 521
Created by : DE11/02/98 on : 5/17/00 16:37
Edited by : DE05/17/00 on : 5/17/00 22:34
Description : QUANTERRA PGH 8081 RUN ON GC#3 CLP1/CLP2 COLUMNS
REVIEWED BY:

E

Number of Times Edited : 2

Sequence File Header Information:

Number of Rows : 77 1 cont. req'd
Instrument Type : 760 / 900 Series Intelligent Interface
Injection Type : SINGLE

Sequence Sample Descriptions - Channel A

Row	Type	Sample Name	Sample Number	Study Name	Sample Amount	ISTD Amount	Sample Volume	Dil. Factor	Mult	Divisor	Addend	Norm. factor
1	Std Check	EVALB,2170-E.b,	190-88-8		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
2	Cal·Replace	MEDTOX,2170-E.b	190-84-13		1.000	1.000	1.000	1.000	1.000	1 000	0.000	100.000
3	Cal·Replace	MEDCHLOR,2170-E	190-85-10		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
4	Cal Replace	LOWAPPX9,2170-E	190-80-6		1.000	1 000	1.000	1.000	1.000	1.000	0.000	100.000
5	Cal.Replace	MLOWAPPX9,2170-	190-80-7		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
6	Cal.Replace	MEDAPPX9,2170-E	190-80-8		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
7	Cal:Replace	MHIGHAPPX9,2170	190-80-9		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
8	Cal·Replace	HIGHAPPX9,2170-	190-80-10		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
9	Cal:Replace	LOWA,2170-E.b,,	190-84-1		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
10	Cal·Replace	MLOWA,2170-E.b,	190-84-2	Power outage	1.000	1.000	1.000	1 000	1.000	1.000	0.000	100.000
11	Cal.Replace	MEDA,2170-E.b,,	190-84-3		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
12	Cal:Replace	MHIGHA,2170-E.b	190-84-4		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
13	Cal:Replace	HIGHA,2170-E.b,	190-84-5		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
14	Cal:Replace	LOWB,2170-E.b,,	190-84-7		1 000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
15	Cal·Replace	MLOWB,2170-E b,	190-84-8		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
16	Cal:Replace	MEDB,2170-E.b,,	190-84-9		1.000	1.000	1.000	1.000	1.000	1.000	0 000	100.000
17	Cal:Replace	MHIGHB,2170-E.b	190-84-10		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
18	Cal:Replace	HIGHB,2170-E.b,	190-84-11		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
19	Std Check	2ND A,2170-E.b,	190-82-2		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
20	Std Check	2ND B,2170-E.b,	190-82-5		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100 000
21	Std Check	EVALB,2170-E.b,	190-88-8		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100 000
22	Sample	DD3QT10P,2170-E	110261005		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
23	Sample	DD3QV10P,2170-E	110126006		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100 000
24	Sample	DD3QX124,2170-E	110261007		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
25	Sample	DD3QX125,2170-E	110261007S		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
26	Sample	DD3QX126,2170-E	110261007D		1 000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
27	Sample	DD3R010P,2170-E	110261008		1 000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
28	Sample	DD5GR101,2170-E	110261BLK		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
29	Sample	DD5GR102,2170-E	110261LCS		1.000	1.000	1.000	1.000	1.000	1 000	0.000	100.000
30	Sample	DD11N10A,2170-E	100168001		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
31	Sample	DD11V10A,2170-E	100168002		1.000	1.000	1.000	1.000	1.000	1 000	0.000	100 000
32	Sample	DD11X10A,2170-E	100168003		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
33	Sample	DD12310A,2170-E	100168004		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100 000
34	Sample	DD12410A,2170-E	100168005		1.000	1.000	1.000	1.000	1.000	1 000	0.000	100 000
35	Sample	DD12510A,2170-E	100168006		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100 000
36	Sample	DD12810A,2170-E	100168008		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
37	Sample	DD12C10A,2170-E	100168009		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
38	Sample	DD12D10A,2170-E	100168010		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
39	Sample	DD1R5101,2170-E	100168BLK		1.000	1.000	1.000	1.000	1.000	1 000	0.000	100.000
40	Sample	DD1R5102,2170-E	100168LCS		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
41	Sample	DD1R5103,2170-E	100168LCD		1.000	1.000	1.000	1.000	1.000	1 000	0.000	100 000
42	Std Check	MEDAPPX9,2170-E	190-80-8		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
43	Std Check	MEDA,2170-E.b,,	190-84-3		1.000	1.000	1.000	1.000	1.000	1.000	0 000	100.000
44	Std Check	MEDB,2170-E.b,,	190-84-9		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
45	Std Check	EVALB,2170-E.b,	190-88-8		1.000	1.000	1.000	1 000	1.000	1.000	0.000	100.000
46	Sample	DD36010A,2170-E	110206001		1.000	1.000	1.000	1.000	1.000	1.000	0 000	100.000
47	Sample	DD36810A,2170-E	110206002		1.000	1.000	1.000	1.000	1.000	1.000	0 000	100.000
48	Sample	DD36910A,2170-E	110206003		1.000	1 000	1.000	1.000	1.000	1.000	0 000	100.000
49	Sample	DD36A10A,2170-E	110206004		1.000	1 000	1.000	1.000	1.000	1.000	0.000	100 000
50	Sample	DD36C10A,2170-E	110206005		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
51	Sample	DD36D10A,2170-E	110206006		1.000	1 000	1.000	1.000	1.000	1.000	0.000	100 000
52	Sample	DD36F10A,2170-E	110206007		1.000	1.000	1 000	1.000	1.000	1.000	0 000	100.000
53	Sample	DD36G10A,2170-E	110206008		1 000	1.000	1 000	1.000	1.000	1.000	0 000	100.000
54	Sample	DD36L10A,2170-E	110206009		1.000	1.000	1.000	1.000	1 000	1 000	0.000	100.000
55	Sample	DD36N10A,2170-E	110206010		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
56	Sample	DD36V10A,2170-E	110206011		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
57	Sample	DD36W10A,2170-E	110206012		1.000	1.000	1 000	1.000	1.000	1.000	0.000	100.000
58	Sample	DD5Q310A,2170-E	130132001		1.000	1.000	1.000	1.000	1 000	1.000	0.000	100 000
59	Sample	DD5Q410A,2170-E	130132002		1.000	1 000	1 000	1.000	1.000	1 000	0.000	100 000

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60	Sample	DD5Q510A,2170-E	130132003	1.000	1.000	1 000	1.000	1.000	1.000	0.000	100.000
61	Sample	DD5Q710A,2170-E	130132004	1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
62	Sample	DD5Q810A,2170-E	130132005	1.000	1.000	1.000	1.000	1.000	1.000	0.000	100 000
63	Sample	DD91V101,2170-E	130132BLK	1.000	1.000	1.000	1 000	1.000	1.000	0.000	100.000
64	Sample	DD91V102,2170-E	130132LCS	1 000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
65	Sample	DD91V103,2170-E	130132LCD	1 000	1.000	1.000	1.000	1 000	1.000	0.000	100 000
66	Std Check	MEDA,2170-E.b,,	190-84-3	1.000	1.000	1.000	1.000	1.000	1.000	0.000	100 000
67	Std Check	MEDB,2170-E b,,	190-84-9	1.000	1.000	1.000	1.000	1.000	1.000	0.000	100 000
68	Std Check	EVALB,2170-E b,	190-88-8	1 000	1.000	1.000	1.000	1.000	1 000	0.000	100.000
69	Sample	DD5QA10A,2170-E	130132006	1.000	1.000	1.000	1.000	1.000	1.000	0.000	100 000
70	Sample	DD5QC10A,2170-E	130132007	1.000	1.000	1.000	1.000	1 000	1.000	0 000	100.000
71	Sample	DD5QE10A,2170-E	130132008	1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
72	Sample	DD5QF10A,2170-E	130132009	1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
73	Sample	DD5QH10A,2170-E	130132010	1 000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
74	Sample	DD5QK10A,2170-E	130132011	1 000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
75	Sample	DD5QM10A,2170-E	130132012	1.000	1.000	1 000	1.000	1.000	1.000	0.000	100.000
76	Std Check	MEDA,2170-E.b,,	190-84-3	1.000	1.000	1.000	1 000	1.000	1.000	0.000	100.000
77	Std Check	MEDB,2170-E.b,,	190-84-9	1.000	1.000	1.000	1.000	1.000	1.000	0.000	100 000

Sequence Process Information - Channel A

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	1	GEN3C	GEN3A	122190A	EVAL	C-A2281	C-A2281		C-A2281	-	-	-	LPT1·
2	-	1	2	GEN3C	GEN3A	122190A	TOX	C-A2282	C-A2282		C-A2282	N	MED	N	LPT1·,LP
3	-	1	2	GEN3C	GEN3A	122190A	TOX	C-A2283	C-A2283		C-A2283	N	MED	N	LPT1:,LP
4	-	1	4	GEN3C	GEN3A	122190A	INDA	C-A2284	C-A2284		C-A2284	N	LOW	N	LPT1:
5	-	1	5	GEN3C	GEN3A	122190A	INDA	C-A2285	C-A2285		C-A2285	N	MLOW	N	LPT1:
6	-	1	6	GEN3C	GEN3A	122190A	INDA	C-A2286	C-A2286		C-A2286	N	MLOW	N	LPT1:
7	-	1	7	GEN3C	GEN3A	122190A	INDA	C-A2287	C-A2287		C-A2287	N	MLOW	N	LPT1:
8	-	1	8	GEN3C	GEN3A	122190A	INDA	C-A2288	C-A2288		C-A2288	N	MLOW	N	LPT1:
9	-	1	4	GEN3C	GEN3A	122190A	INDA	C-A2289	C-A2289		C-A2289	N	LOW	N	LPT1:
10	-	1	5	GEN3C	GEN3A	122190A	INDA	C-A2292	C-A2292		C-A2292	N	MLOW	N	LPT1:
11	-	1	6	GEN3C	GEN3A	122190A	INDA	C-A2293	C-A2293		C-A2293	N	MLOW	N	LPT1:
12	-	1	7	GEN3C	GEN3A	122190A	INDA	C-A2294	C-A2294		C-A2294	N	MLOW	N	LPT1:
13	-	1	8	GEN3C	GEN3A	122190A	INDA	C-A2295	C-A2295		C-A2295	N	MLOW	N	LPT1:
14	-	1	9	GEN3C	GEN3A	122190A	INDA	C-A2296	C-A2296		C-A2296	N	LOW	N	LPT1:
15	-	1	10	GEN3C	GEN3A	122190A	INDA	C-A2297	C-A2297		C-A2297	N	MLOW	N	LPT1:
16	-	1	11	GEN3C	GEN3A	122190A	INDA	C-A2298	C-A2298		C-A2298	N	MLOW	N	LPT1:
17	-	1	12	GEN3C	GEN3A	122190A	INDA	C-A2299	C-A2299		C-A2299	N	MLOW	N	LPT1:
18	-	1	13	GEN3C	GEN3A	122190A	INDA	C-A2300	C-A2300		C-A2300	N	MLOW	N	LPT1:
19	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A2301	C-A2301		C-A2301	-	-	-	LPT1:
20	-	1	24	GEN3C	GEN3A	122190A	INDA	C-A2302	C-A2302		C-A2302	-	-	-	LPT1:
21	-	1	1	GEN3C	GEN3A	122190A	EVAL	C-A2303	C-A2303		C-A2303	-	-	-	LPT1:
22	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A2304	C-A2304		C-A2304	-	-	-	LPT1:
23	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A2305	C-A2305		C-A2305	-	-	-	LPT1:
24	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A2306	C-A2306		C-A2306	-	-	-	LPT1:
25	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A2307	C-A2307		C-A2307	-	-	-	LPT1:
26	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A2308	C-A2308		C-A2308	-	-	-	LPT1:
27	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A2309	C-A2309		C-A2309	-	-	-	LPT1:
28	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A2310	C-A2310		C-A2310	-	-	-	LPT1:
29	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A2311	C-A2311		C-A2311	-	-	-	LPT1:
30	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A2312	C-A2312		C-A2312	-	-	-	LPT1:
31	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A2313	C-A2313		C-A2313	-	-	-	LPT1:
32	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A2314	C-A2314		C-A2314	-	-	-	LPT1·
33	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A2315	C-A2315		C-A2315	-	-	-	LPT1:
34	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A2316	C-A2316		C-A2316	-	-	-	LPT1:
35	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A2317	C-A2317		C-A2317	-	-	-	LPT1:
36	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A2318	C-A2318		C-A2318	-	-	-	LPT1:
37	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A2319	C-A2319		C-A2319	-	-	-	LPT1·
38	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A2320	C-A2320		C-A2320	-	-	-	LPT1.
39	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A2321	C-A2321		C-A2321	-	-	-	LPT1.
40	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A2322	C-A2322		C-A2322	-	-	-	LPT1:
41	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A2323	C-A2323		C-A2323	-	-	-	LPT1:
42	-	1	6	GEN3C	GEN3A	122190A	INDA	C-A2324	C-A2324		C-A2324	-	-	-	LPT1:
43	-	1	6	GEN3C	GEN3A	122190A	INDA	C-A2325	C-A2325		C-A2325	-	-	-	LPT1:
44	-	1	11	GEN3C	GEN3A	122190A	INDA	C-A2326	C-A2326		C-A2326	-	-	-	LPT1:
45	-	1	1	GEN3C	GEN3A	122190A	EVAL	C-A2327	C-A2327		C-A2327	-	-	-	LPT1·
46	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A2328	C-A2328		C-A2328	-	-	-	LPT1
47	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A2329	C-A2329		C-A2329	-	-	-	LPT1·
48	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A2330	C-A2330		C-A2330	-	-	-	LPT1:
49	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A2331	C-A2331		C-A2331	-	-	-	LPT1:
50	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A2332	C-A2332		C-A2332	-	-	-	LPT1:
51	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A2333	C-A2333		C-A2333	-	-	-	LPT1:
52	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A2334	C-A2334		C-A2334	-	-	-	LPT1
53	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A2335	C-A2335		C-A2335	-	-	-	LPT1:
54	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A2336	C-A2336		C-A2336	-	-	-	LPT1:
55	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A2337	C-A2337		C-A2337	-	-	-	LPT1·
56	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A2338	C-A2338		C-A2338	-	-	-	LPT1:
57	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A2339	C-A2339		C-A2339	-	-	-	LPT1:
58	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A2340	C-A2340		C-A2340	-	-	-	LPT1:
59	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A2341	C-A2341		C-A2341	-	-	-	LPT1:
60	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A2342	C-A2342		C-A2342	-	-	-	LPT1:
61	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A2343	C-A2343		C-A2343	-	-	-	LPT1.
62	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A2344	C-A2344		C-A2344	-	-	-	LPT1:

63	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A2345	C-A2345	C-A2345	-	-	- LPT1:
64	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A2346	C-A2346	C-A2346	-	-	- LPT1:
65	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A2347	C-A2347	C-A2347	-	-	- LPT1:
66	-	1	6	GEN3C	GEN3A	122190A	INDA	C-A2348	C-A2348	C-A2348	-	-	- LPT1:
67	-	1	11	GEN3C	GEN3A	122190A	INDA	C-A2349	C-A2349	C-A2349	-	-	- LPT1:
68	-	1	1	GEN3C	GEN3A	122190A	EVAL	C-A2350	C-A2350	C-A2350	-	-	- LPT1:
69	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A2351	C-A2351	C-A2351	-	-	- LPT1:
70	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A2352	C-A2352	C-A2352	-	-	- LPT1.
71	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A2353	C-A2353	C-A2353	-	-	- LPT1.
72	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A2354	C-A2354	C-A2354	-	-	- LPT1:
73	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A2355	C-A2355	C-A2355	-	-	- LPT1:
74	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A2356	C-A2356	C-A2356	-	-	- LPT1:
75	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A2357	C-A2357	C-A2357	-	-	- LPT1:
76	-	1	6	GEN3C	GEN3A	122190A	INDA	C-A2358	C-A2358	C-A2358	-	-	- LPT1.
77	-	1	11	GEN3C	GEN3A	122190A	INDA	C-A2359	C-A2359	C-A2359	-	-	- LPT1:

657 524

Turbochrom Sequence File : H:\ACQUIRE\MET_SEQ\2190-E.SEQ
Created by : DE11/02/98 on : 5/19/00 10:00
Edited by : DE05/19/00 on : 5/19/00 10:07
Description : QUANTERRA PGH 8081 RUN ON GC#3 CLP1/CLP2 COLUMNS
REVIEWED BY:

Number of Times Edited : 1

Sequence File Header Information:

Number of Rows : 15
Instrument Type : 760 / 900 Series Intelligent Interface
Injection Type : SINGLE

Sequence Sample Descriptions - Channel A

Row	Type	Sample Name	Sample Number	Study Name	Sample Amount	ISTD Amount	Sample Volume	Dil. Factor	Mult	Divisor	Addend	Norm. factor
1	Std Check	EVALB,2170-E.b,	190-88-8		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100 000
2	Std Check	MEDTOX,2170-E.b	190-84-13		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100 000
3	Std Check	MEDCHLOR,2170-E	190-85-10		1.000	1.000	1.000	1.000	1.000	1.000	0 000	100.000
4	Std Check	MEDA,2170-E.b,,	190-84-3		1.000	1.000	1.000	1.000	1 000	1.000	0.000	100.000
5	Std Check	MEDB,2170-E.b,,	190-84-9		1.000	1.000	1.000	1.000	1.000	1.000	0 000	100.000
6	Sample	DD6A4103,2170-E	130194001		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
7	Sample	DD6A411A,2170-E	130194001S		1.000	1.000	1.000	1 000	1.000	1.000	0 000	100.000
8	Sample	DD6A411C,2170-E	130194001D		1 000	1.000	1.000	1 000	1.000	1.000	0.000	100.000
9	Sample	DD6A5103,2170-E	130194002		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
10	Sample	DD6A6103,2170-E	130194003		1.000	1 000	1.000	1.000	1.000	1 000	0.000	100.000
11	Sample	DD6A7103,2170-E	130192004		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100 000
12	Sample	DDE2E101,2170-E	130192BLK		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100 000
13	Sample	DDE2E102,2170-E	130192LCS		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100 000
14	Std Check	MEDA,2170-E.b,,	190-84-3		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
15	Std Check	MEDB,2170-E b,,	190-84-9		1.000	1.000	1 000	1.000	1.000	1.000	0.000	100.000

Sequence Process Information - Channel A

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	1	GEN3C	GEN3A	122190A	EVAL	C-A2361	C-A2361		C-A2361	-	-	-	LPT1:
2	-	1	2	GEN3C	GEN3A	122190A	TOX	C-A2362	C-A2362		C-A2362	-	-	-	LPT1:,LP
3	-	1	2	GEN3C	GEN3A	122190A	TOX	C-A2363	C-A2363		C-A2363	-	-	-	LPT1:,LP
4	-	1	6	GEN3C	GEN3A	122190A	INDA	C-A2364	C-A2364		C-A2364	-	-	-	LPT1:
5	-	1	11	GEN3C	GEN3A	122190A	INDA	C-A2365	C-A2365		C-A2365	-	-	-	LPT1:
6	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A2366	C-A2366		C-A2366	-	-	-	LPT1:
7	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A2367	C-A2367		C-A2367	-	-	-	LPT1:
8	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A2368	C-A2368		C-A2368	-	-	-	LPT1:
9	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A2369	C-A2369		C-A2369	-	-	-	LPT1.
10	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A2370	C-A2370		C-A2370	-	-	-	LPT1:
11	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A2371	C-A2371		C-A2371	-	-	-	LPT1:
12	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A2372	C-A2372		C-A2372	-	-	-	LPT1:
13	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A2373	C-A2373		C-A2373	-	-	-	LPT1:
14	-	1	6	GEN3C	GEN3A	122190A	INDA	C-A2374	C-A2374		C-A2374	-	-	-	LPT1:
15	-	1	11	GEN3C	GEN3A	122190A	INDA	C-A2375	C-A2375		C-A2375	-	-	-	LPT1:

657 525

Turbochrom Sequence File : H:\ACQUIRE\MET_SEQ\2170-E.SEQ
Created by : DE11/02/98 on : 5/17/00 16:37
Edited by : DE05/17/00 on : 5/17/00 22:34
Description : QUANTERRA PGH 8081 RUN ON GC#3 CLP1/CLP2 COLUMNS
REVIEWED BY:

F

Number of Times Edited : 2

110673

Sequence File Header Information:

Number of Rows : 77
Instrument Type : 760 / 900 Series Intelligent Interface
Injection Type : SINGLE

Sequence Sample Descriptions - Channel B

Row	Type	Sample Name	Sample Number	Study Name	Sample Amount	ISTD Amount	Sample Volume	Dil. Factor	Mult	Divisor	Addend	Norm. factor
1	Std Check	EVALB,2170-E.b,	190-88-8		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
2	Cal·Replace	MEDTOX,2170-E.b	190-84-13		1.000	1.000	1.000	1 000	333.000	1.000	0.000	100.000
3	Cal:Replace	MEDCHLOR,2170-E	190-85-10		1.000	1.000	1.000	1 000	333.000	1.000	0.000	100.000
4	Cal:Replace	LOWAPPX9,2170-E	190-80-6		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
5	Cal:Replace	MLOWAPPX9,2170-	190-80-7		1.000	1.000	1.000	1.000	1 000	1.000	0.000	100 000
6	Cal:Replace	MEDAPPX9,2170-E	190-80-8		1.000	1 000	1.000	1.000	1.000	1.000	0 000	100 000
7	Cal·Replace	MHIGHAPPX9,2170	190-80-9		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
8	Cal:Replace	HIGHAPPX9,2170-	190-80-10		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
9	Cal:Replace	LOWA,2170-E.b,,	190-84-1	Poor charge	1.000	1.000	1.000	1.000	1.000	1.000	0.000	100 000
10	Cal:Replace	MLOWA,2170-E.b,	190-84-2		1.000	1 000	1.000	1.000	1.000	1.000	0.000	100.000
11	Cal:Replace	MEDA,2170-E.b,,	190-84-3		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
12	Cal:Replace	MHIGHA,2170-E.b	190-84-4		1.000	1.000	1.000	1.000	1.000	1.000	0 000	100.000
13	Cal.Replace	HIGHA,2170-E.b,	190-84-5		1.000	1.000	1.000	1 000	1.000	1.000	0.000	100.000
14	Cal:Replace	LOWB,2170-E.b,,	190-84-7		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
15	Cal:Replace	MLOWB,2170-E.b,	190-84-8		1.000	1.000	1.000	1.000	1 000	1.000	0.000	100.000
16	Cal:Replace	MEDB,2170-E.b,,	190-84-9		1 000	1.000	1.000	1.000	1.000	1.000	0 000	100 000
17	Cal Replace	MHIGHB,2170-E.b	190-84-10		1 000	1 000	1.000	1.000	1.000	1.000	0 000	100 000
18	Cal:Replace	HIGHB,2170-E b,	190-84-11		1 000	1.000	1.000	1.000	1.000	1.000	0.000	100 000
19	Std Check	2ND A,2170-E.b,	190-82-2		1.000	1.000	1.000	1 000	1.000	1.000	0.000	100 000
20	Std Check	2ND B,2170-E.b,	190-82-5		1.000	1.000	1.000	1.000	1.000	1.000	0 000	100 000
21	Std Check	EVALB,2170-E.b,	190-88-8		1.000	1 000	1.000	1.000	1.000	1.000	0.000	100 000
22	Sample	DD3QT10P,2170-E	110261005		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
23	Sample	DD3QV10P,2170-E	110126006		1.000	1.000	1 000	1.000	1.000	1.000	0 000	100.000
24	Sample	DD3QX124,2170-E	110261007		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
25	Sample	DD3QX125,2170-E	110261007S		1.000	1.000	1.000	1.000	1.000	1.000	0 000	100.000
26	Sample	DD3QX126,2170-E	110261007D		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
27	Sample	DD3R010P,2170-E	110261008		1 000	1.000	1.000	1 000	1.000	1.000	0.000	100 000
28	Sample	DD5GR101,2170-E	110261BLK		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100 000
29	Sample	DD5GR102,2170-E	110261LCS		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
30	Sample	DD11N10A,2170-E	100168001		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100 000
31	Sample	DD11V10A,2170-E	100168002		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
32	Sample	DD11X10A,2170-E	100168003		1.000	1.000	1.000	1.000	1.000	1.000	0 000	100.000
33	Sample	DD12310A,2170-E	100168004		1.000	1.000	1.000	1.000	1.000	1.000	0 000	100.000
34	Sample	DD12410A,2170-E	100168005		1 000	1.000	1.000	1.000	1.000	1 000	0 000	100.000
35	Sample	DD12510A,2170-E	100168006		1.000	1.000	1.000	1 000	1.000	1.000	0 000	100.000
36	Sample	DD12810A,2170-E	100168008		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
37	Sample	DD12C10A,2170-E	100168009		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100 000
38	Sample	DD12D10A,2170-E	100168010		1 000	1.000	1.000	1.000	1.000	1.000	0.000	100 000
39	Sample	DD1R5101,2170-E	100168BLK		1 000	1.000	1.000	1.000	1.000	1.000	0.000	100 000
40	Sample	DD1R5102,2170-E	100168LCS		1.000	1.000	1.000	1.000	1.000	1.000	0 000	100 000
41	Sample	DD1R5103,2170-E	100168LCD		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100 000
42	Std Check	MEDAPPX9,2170-E	190-80-8		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
43	Std Check	MEDA,2170-E.b,,	190-84-3		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
44	Std Check	MEDB,2170-E.b,,	190-84-9		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
45	Std Check	EVALB,2170-E.b,	190-88-8		1.000	1.000	1.000	1 000	1.000	1.000	0.000	100.000
46	Sample	DD36010A,2170-E	110206001		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100 000
47	Sample	DD36810A,2170-E	110206002		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
48	Sample	DD36910A,2170-E	110206003		1.000	1.000	1.000	1.000	1.000	1.000	0 000	100.000
49	Sample	DD36A10A,2170-E	110206004		1.000	1.000	1.000	1.000	1 000	1.000	0.000	100.000
50	Sample	DD36C10A,2170-E	110206005		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100 000
51	Sample	DD36D10A,2170-E	110206006		1 000	1.000	1.000	1.000	1 000	1.000	0.000	100 000
52	Sample	DD36F10A,2170-E	110206007		1.000	1.000	1.000	1 000	1.000	1.000	0 000	100.000
53	Sample	DD36G10A,2170-E	110206008		1 000	1.000	1.000	1.000	1.000	1.000	0 000	100.000
54	Sample	DD36L10A,2170-E	110206009		1.000	1.000	1.000	1.000	1.000	1.000	0 000	100.000
55	Sample	DD36N10A,2170-E	110206010		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100 000
56	Sample	DD36V10A,2170-E	110206011		1.000	1.000	1.000	1.000	1.000	1.000	0 000	100.000
57	Sample	DD36W10A,2170-E	110206012		1.000	1.000	1.000	1.000	1 000	1.000	0 000	100.000
58	Sample	DD5Q310A,2170-E	130132001		1.000	1.000	1.000	1.000	1.000	1.000	0 000	100 000
59	Sample	DD5Q410A,2170-E	130132002		1.000	1.000	1.000	1.000	1 000	1.000	0 000	100 000

60	Sample	DD5Q510A,2170-E	130132003	1 000	1.000	1.000	1 000	1.000	1.000	0 000	100 000
61	Sample	DD5Q710A,2170-E	130132004	1.000	1.000	1.000	1 000	1.000	1.000	0.000	100 000
62	Sample	DD5Q810A,2170-E	130132005	1.000	1.000	1.000	1.000	1.000	1.000	0.000	100 000
63	Sample	DD91V101,2170-E	130132BLK	1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
64	Sample	DD91V102,2170-E	130132LCS	1.000	1.000	1 000	1.000	1.000	1.000	0 000	100 000
65	Sample	DD91V103,2170-E	130132LCD	1.000	1.000	1.000	1.000	1 000	1.000	0.000	100.000
66	Std Check	MEDA,2170-E.b,,	190-84-3	1 000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
67	Std Check	MEDB,2170-E.b,,	190-84-9	1.000	1.000	1.000	1 000	1.000	1.000	0 000	100 000
68	Std Check	EVALB,2170-E b,	190-88-8	1.000	1.000	1.000	1.000	1 000	1.000	0 000	100.000
69	Sample	DD5QA10A,2170-E	130132006	1.000	1.000	1.000	1.000	1.000	1.000	0 000	100.000
70	Sample	DD5QC10A,2170-E	130132007	1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
71	Sample	DD5QE10A,2170-E	130132008	1.000	1.000	1.000	1.000	1 000	1.000	0.000	100.000
72	Sample	DD5QF10A,2170-E	130132009	1.000	1.000	1.000	1.000	1 000	1.000	0.000	100.000
73	Sample	DD5QH10A,2170-E	130132010	1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
74	Sample	DD5QK10A,2170-E	130132011	1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
75	Sample	DD5QM10A,2170-E	130132012	1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
76	Std Check	MEDA,2170-E.b,,	190-84-3	1.000	1.000	1.000	1.000	1.000	1.000	0.000	100 000
77	Std Check	MEDB,2170-E.b,,	190-84-9	1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000

Sequence Process Information - Channel B

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	1	GEN3C	GEN3B	122190A	EVAL	C-B2281	C-B2281		C-B2281	-	-	-	LPT1
2	-	1	2	GEN3C	GEN3B	122190A	TOX	C-B2282	C-B2282		C-B2282	N	MED	N	LPT1.,LP
3	-	1	2	GEN3C	GEN3B	122190A	TOX	C-B2283	C-B2283		C-B2283	N	MED	N	LPT1:,LP
4	-	1	4	GEN3C	GEN3B	122190A	INDA	C-B2284	C-B2284		C-B2284	N	LOW	N	LPT1·
5	-	1	5	GEN3C	GEN3B	122190A	INDA	C-B2285	C-B2285		C-B2285	N	MLOW	N	LPT1.
6	-	1	6	GEN3C	GEN3B	122190A	INDA	C-B2286	C-B2286		C-B2286	N	MLOW	N	LPT1:
7	-	1	7	GEN3C	GEN3B	122190A	INDA	C-B2287	C-B2287		C-B2287	N	MLOW	N	LPT1·
8	-	1	8	GEN3C	GEN3B	122190A	INDA	C-B2288	C-B2288		C-B2288	N	MLOW	N	LPT1:
9	-	1	4	GEN3C	GEN3B	122190A	INDA	C-B2289	C-B2289		C-B2289	N	LOW	N	LPT1:
10	-	1	5	GEN3C	GEN3B	122190A	INDA	C-B2292	C-B2292		C-B2292	N	MLOW	N	LPT1:
11	-	1	6	GEN3C	GEN3B	122190A	INDA	C-B2293	C-B2293		C-B2293	N	MLOW	N	LPT1:
12	-	1	7	GEN3C	GEN3B	122190A	INDA	C-B2294	C-B2294		C-B2294	N	MLOW	N	LPT1:
13	-	1	8	GEN3C	GEN3B	122190A	INDA	C-B2295	C-B2295		C-B2295	N	MLOW	N	LPT1:
14	-	1	9	GEN3C	GEN3B	122190A	INDA	C-B2296	C-B2296		C-B2296	N	LOW	N	LPT1:
15	-	1	10	GEN3C	GEN3B	122190A	INDA	C-B2297	C-B2297		C-B2297	N	MLOW	N	LPT1:
16	-	1	11	GEN3C	GEN3B	122190A	INDA	C-B2298	C-B2298		C-B2298	N	MLOW	N	LPT1:
17	-	1	12	GEN3C	GEN3B	122190A	INDA	C-B2299	C-B2299		C-B2299	N	MLOW	N	LPT1:
18	-	1	13	GEN3C	GEN3B	122190A	INDA	C-B2300	C-B2300		C-B2300	N	MLOW	N	LPT1:
19	-	1	23	GEN3C	GEN3B	122190A	INDA	C-B2301	C-B2301		C-B2301	-	-	-	LPT1:
20	-	1	24	GEN3C	GEN3B	122190A	INDA	C-B2302	C-B2302		C-B2302	-	-	-	LPT1:
21	-	1	1	GEN3C	GEN3B	122190A	EVAL	C-B2303	C-B2303		C-B2303	-	-	-	LPT1:
22	-	1	23	GEN3C	GEN3B	122190A	INDA	C-B2304	C-B2304		C-B2304	-	-	-	LPT1:
23	-	1	23	GEN3C	GEN3B	122190A	INDA	C-B2305	C-B2305		C-B2305	-	-	-	LPT1.
24	-	1	23	GEN3C	GEN3B	122190A	INDA	C-B2306	C-B2306		C-B2306	-	-	-	LPT1:
25	-	1	23	GEN3C	GEN3B	122190A	INDA	C-B2307	C-B2307		C-B2307	-	-	-	LPT1:
26	-	1	23	GEN3C	GEN3B	122190A	INDA	C-B2308	C-B2308		C-B2308	-	-	-	LPT1:
27	-	1	23	GEN3C	GEN3B	122190A	INDA	C-B2309	C-B2309		C-B2309	-	-	-	LPT1:
28	-	1	23	GEN3C	GEN3B	122190A	INDA	C-B2310	C-B2310		C-B2310	-	-	-	LPT1:
29	-	1	23	GEN3C	GEN3B	122190A	INDA	C-B2311	C-B2311		C-B2311	-	-	-	LPT1.
30	-	1	23	GEN3C	GEN3B	122190A	INDA	C-B2312	C-B2312		C-B2312	-	-	-	LPT1:
31	-	1	23	GEN3C	GEN3B	122190A	INDA	C-B2313	C-B2313		C-B2313	-	-	-	LPT1:
32	-	1	23	GEN3C	GEN3B	122190A	INDA	C-B2314	C-B2314		C-B2314	-	-	-	LPT1.
33	-	1	23	GEN3C	GEN3B	122190A	INDA	C-B2315	C-B2315		C-B2315	-	-	-	LPT1.
34	-	1	23	GEN3C	GEN3B	122190A	INDA	C-B2316	C-B2316		C-B2316	-	-	-	LPT1
35	-	1	23	GEN3C	GEN3B	122190A	INDA	C-B2317	C-B2317		C-B2317	-	-	-	LPT1:
36	-	1	23	GEN3C	GEN3B	122190A	INDA	C-B2318	C-B2318		C-B2318	-	-	-	LPT1:
37	-	1	23	GEN3C	GEN3B	122190A	INDA	C-B2319	C-B2319		C-B2319	-	-	-	LPT1:
38	-	1	23	GEN3C	GEN3B	122190A	INDA	C-B2320	C-B2320		C-B2320	-	-	-	LPT1:
39	-	1	23	GEN3C	GEN3B	122190A	INDA	C-B2321	C-B2321		C-B2321	-	-	-	LPT1:
40	-	1	23	GEN3C	GEN3B	122190A	INDA	C-B2322	C-B2322		C-B2322	-	-	-	LPT1:
41	-	1	23	GEN3C	GEN3B	122190A	INDA	C-B2323	C-B2323		C-B2323	-	-	-	LPT1:
42	-	1	6	GEN3C	GEN3B	122190A	INDA	C-B2324	C-B2324		C-B2324	-	-	-	LPT1:
43	-	1	6	GEN3C	GEN3B	122190A	INDA	C-B2325	C-B2325		C-B2325	-	-	-	LPT1:
44	-	1	11	GEN3C	GEN3B	122190A	INDA	C-B2326	C-B2326		C-B2326	-	-	-	LPT1:
45	-	1	1	GEN3C	GEN3B	122190A	EVAL	C-B2327	C-B2327		C-B2327	-	-	-	LPT1:
46	-	1	23	GEN3C	GEN3B	122190A	INDA	C-B2328	C-B2328		C-B2328	-	-	-	LPT1:
47	-	1	23	GEN3C	GEN3B	122190A	INDA	C-B2329	C-B2329		C-B2329	-	-	-	LPT1:
48	-	1	23	GEN3C	GEN3B	122190A	INDA	C-B2330	C-B2330		C-B2330	-	-	-	LPT1:
49	-	1	23	GEN3C	GEN3B	122190A	INDA	C-B2331	C-B2331		C-B2331	-	-	-	LPT1:
50	-	1	23	GEN3C	GEN3B	122190A	INDA	C-B2332	C-B2332		C-B2332	-	-	-	LPT1:
51	-	1	23	GEN3C	GEN3B	122190A	INDA	C-B2333	C-B2333		C-B2333	-	-	-	LPT1:
52	-	1	23	GEN3C	GEN3B	122190A	INDA	C-B2334	C-B2334		C-B2334	-	-	-	LPT1:
53	-	1	23	GEN3C	GEN3B	122190A	INDA	C-B2335	C-B2335		C-B2335	-	-	-	LPT1:
54	-	1	23	GEN3C	GEN3B	122190A	INDA	C-B2336	C-B2336		C-B2336	-	-	-	LPT1
55	-	1	23	GEN3C	GEN3B	122190A	INDA	C-B2337	C-B2337		C-B2337	-	-	-	LPT1
56	-	1	23	GEN3C	GEN3B	122190A	INDA	C-B2338	C-B2338		C-B2338	-	-	-	LPT1
57	-	1	23	GEN3C	GEN3B	122190A	INDA	C-B2339	C-B2339		C-B2339	-	-	-	LPT1:
58	-	1	23	GEN3C	GEN3B	122190A	INDA	C-B2340	C-B2340		C-B2340	-	-	-	LPT1·
59	-	1	23	GEN3C	GEN3B	122190A	INDA	C-B2341	C-B2341		C-B2341	-	-	-	LPT1
60	-	1	23	GEN3C	GEN3B	122190A	INDA	C-B2342	C-B2342		C-B2342	-	-	-	LPT1:
61	-	1	23	GEN3C	GEN3B	122190A	INDA	C-B2343	C-B2343		C-B2343	-	-	-	LPT1·
62	-	1	23	GEN3C	GEN3B	122190A	INDA	C-B2344	C-B2344		C-B2344	-	-	-	LPT1.

63	-	1	23	GEN3C	GEN3B	122190A	INDA	C-B2345	C-B2345	C-B2345	-	-	-	LPT1:
64	-	1	23	GEN3C	GEN3B	122190A	INDA	C-B2346	C-B2346	C-B2346	-	-	-	LPT1:
65	-	1	23	GEN3C	GEN3B	122190A	INDA	C-B2347	C-B2347	C-B2347	-	-	-	LPT1:
66	-	1	6	GEN3C	GEN3B	122190A	INDA	C-B2348	C-B2348	C-B2348	-	-	-	LPT1:
67	-	1	11	GEN3C	GEN3B	122190A	INDA	C-B2349	C-B2349	C-B2349	-	-	-	LPT1:
68	-	1	1	GEN3C	GEN3B	122190A	EVAL	C-B2350	C-B2350	C-B2350	-	-	-	LPT1:
69	-	1	23	GEN3C	GEN3B	122190A	INDA	C-B2351	C-B2351	C-B2351	-	-	-	LPT1:
70	-	1	23	GEN3C	GEN3B	122190A	INDA	C-B2352	C-B2352	C-B2352	-	-	-	LPT1:
71	-	1	23	GEN3C	GEN3B	122190A	INDA	C-B2353	C-B2353	C-B2353	-	-	-	LPT1:
72	-	1	23	GEN3C	GEN3B	122190A	INDA	C-B2354	C-B2354	C-B2354	-	-	-	LPT1:
73	-	1	23	GEN3C	GEN3B	122190A	INDA	C-B2355	C-B2355	C-B2355	-	-	-	LPT1:
74	-	1	23	GEN3C	GEN3B	122190A	INDA	C-B2356	C-B2356	C-B2356	-	-	-	LPT1:
75	-	1	23	GEN3C	GEN3B	122190A	INDA	C-B2357	C-B2357	C-B2357	-	-	-	LPT1:
76	-	1	6	GEN3C	GEN3B	122190A	INDA	C-B2358	C-B2358	C-B2358	-	-	-	LPT1:
77	-	1	11	GEN3C	GEN3B	122190A	INDA	C-B2359	C-B2359	C-B2359	-	-	-	LPT1:

657 527

657 528

Turbochrom Sequence File : H:\ACQUIRE\MET_SEQ\2190-E.SEQ
Created by : DE11/02/98 on : 5/19/00 10:00
Edited by : DE05/19/00 on : 5/19/00 10:07
Description : QUANTERRA PGH 8081 RUN ON GC#3 CLP1/CLP2 COLUMNS
REVIEWED BY:

Number of Times Edited : 1

Sequence File Header Information:

Number of Rows : 15
Instrument Type : 760 / 900 Series Intelligent Interface
Injection Type : SINGLE

Sequence Sample Descriptions - Channel B

Row	Type	Sample Name	Sample Number	Study Name	Sample Amount	ISTD Amount	Sample Volume	Dil. Factor	Mult	Divisor	Addend	Norm. factor
1	Std Check	EVALB,2170-E.b,	190-88-8		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
2	Std Check	MEDTOX,2170-E b	190-84-13		1.000	1.000	1.000	1.000	333.000	1 000	0.000	100 000
3	Std Check	MEDCHLOR,2170-E	190-85-10	FAILS ↑	1.000	1.000	1.000	1 000	333.000	1.000	0.000	100.000
4	Std Check	MEDA,2170-E b,,	190-84-3		1.000	1.000	1.000	1 000	1.000	1.000	0.000	100.000
5	Std Check	MEDB,2170-E b,,	190-84-9		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
6	Sample	DD6A4103,2170-E	130194001		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
7	Sample	DD6A411A,2170-E	130194001S		1.000	1.000	1.000	1.000	1.000	1.000	0 000	100 000
8	Sample	DD6A411C,2170-E	130194001D		1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
9	Sample	DD6A5103,2170-E	130194002		1 000	1.000	1.000	1.000	1.000	1.000	0.000	100 000
10	Sample	DD6A6103,2170-E	130194003		1.000	1 000	1.000	1.000	1.000	1.000	0.000	100 000
11	Sample	DD6A7103,2170-E	130192004		1.000	1 000	1.000	1.000	1.000	1.000	0.000	100.000
12	Sample	DDE2E101,2170-E	130192BLK		1.000	1.000	1.000	1 000	1.000	1.000	0.000	100.000
13	Sample	DDE2E102,2170-E	130192LCS		1.000	1.000	1.000	1.000	1 000	1.000	0.000	100.000
14	Std Check	MEDA,2170-E b,,	190-84-3		1.000	1.000	1.000	1.000	1.000	1.000	0 000	100.000
15	Std Check	MEDB,2170-E.b,,	190-84-9		1 000	1 000	1.000	1.000	1.000	1.000	0.000	100.000

Sequence Process Information - Channel B

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	1	GEN3C	GEN3B	122190A	EVAL	C-B2361	C-B2361		C-B2361	-	-	-	LPT1:
2	-	1	2	GEN3C	GEN3B	122190A	TOX	C-B2362	C-B2362		C-B2362	-	-	-	LPT1·,LP
3	-	1	2	GEN3C	GEN3B	122190A	TOX	C-B2363	C-B2363		C-B2363	-	-	-	LPT1.,LP
4	-	1	6	GEN3C	GEN3B	122190A	INDA	C-B2364	C-B2364		C-B2364	-	-	-	LPT1:
5	-	1	11	GEN3C	GEN3B	122190A	INDA	C-B2365	C-B2365		C-B2365	-	-	-	LPT1.
6	-	1	23	GEN3C	GEN3B	122190A	INDA	C-B2366	C-B2366		C-B2366	-	-	-	LPT1·
7	-	1	23	GEN3C	GEN3B	122190A	INDA	C-B2367	C-B2367		C-B2367	-	-	-	LPT1.
8	-	1	23	GEN3C	GEN3B	122190A	INDA	C-B2368	C-B2368		C-B2368	-	-	-	LPT1
9	-	1	23	GEN3C	GEN3B	122190A	INDA	C-B2369	C-B2369		C-B2369	-	-	-	LPT1
10	-	1	23	GEN3C	GEN3B	122190A	INDA	C-B2370	C-B2370		C-B2370	-	-	-	LPT1:
11	-	1	23	GEN3C	GEN3B	122190A	INDA	C-B2371	C-B2371		C-B2371	-	-	-	LPT1
12	-	1	23	GEN3C	GEN3B	122190A	INDA	C-B2372	C-B2372		C-B2372	-	-	-	LPT1:
13	-	1	23	GEN3C	GEN3B	122190A	INDA	C-B2373	C-B2373		C-B2373	-	-	-	LPT1:
14	-	1	6	GEN3C	GEN3B	122190A	INDA	C-B2374	C-B2374		C-B2374	-	-	-	LPT1.
15	-	1	11	GEN3C	GEN3B	122190A	INDA	C-B2375	C-B2375		C-B2375	-	-	-	LPT1:

PSR024 5/18/00 11:43:53 MT SAMPLE CUSTODIAN REMOVAL REQUEST

REQUESTED BY: PINOB

METHOD: QJ Pesticides (8081A)

STORAGE LOCATION	WORK ORDER #	PICKED CNTR#	CONTROL #	CLIENT #	ANALYSIS	LOTID	SMP#	SFX	MATRIX DESCRIPTION	QTY RCVD	QTY REQD
2F CLP1 SD	DD6A4-1-03	___ ___ ___	234746	399411	A-36-QJ	COE130194	001	QC	SOLID	0	3 1
2F CLP1	DD6A5-1-03	___ ___ ___	234747	399411	A-36-QJ	COE130194	002		SOLID	0	3 1
2F CLP1	DD6A6-1-03	___ ___ ___	234748	399411	A-36-QJ	COE130194	003		SOLID	0	3 1
2F CLP1	DD6A7-1-03	___ ___ ___	234749	399411	A-36-QJ	COE130194	004		SOLID	0	3 1

RELINQUISHED BY	RECEIVED BY	DATE/TIME
Brian A. Pino	Brian A. Pino	5-18-00 1500
Brian A. Pino	Brian A. Pino	5-18-00 1800

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

HERBICIDE DATA

HERBICIDE
QC SUMMARY

657 532

SW846 8151A SURROGATE RECOVERY

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

Lab Code: QESPIT QESSDG:

Lot #: C0E130194

	CLIENT ID.	SRG01	TOT OUT
01	DF/S1/0133/SDC/001 A	51	00
02	DF/S1/0133/SDC/001 B	57	00
03	DF/S1/0133/SDC/001 C	56	00
04	DF/S1/0133/SDC/001 D	66	00
05	METHOD BLK. DDE4W101	78	00
06	LCS DDE4W102	89	00
07	DF/S1/0133/SDC/001 A D	86	00
08	DF/S1/0133/SDC/001 A S	82	00

SURROGATES	QC LIMITS
SRG01 = DCAA	(42-125)

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

FORM II

SW846 8151A CHECK SAMPLE RECOVERY

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

Lab Code: QESPIT SDG No:

Lot #: C0E180000 WO #: DDE4W102
BATCH: 0139489

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	% REC	QC LIMITS REC	QUAL
2,4-D	0.160	0.133	83	28- 136	
2,4,5-TP (Silvex)	0.0400	0.0323	81	50- 128	

NOTES(S):

* Values outside of QC limits

Spike Recovery: 0 out of 2 outside limits

COMMENTS:

FORM III

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/S1/0133/SDC/001 A

Lot #: C0E130194 WO #: DD6A411D
BATCH: 0139489

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	MS CONCENT. (mg/L)	MS % REC	LIMITS REC	QUAL
2,4-D	0.160	ND	0.133	83	35- 133	
2,4,5-TP (Silvex)	0.0400	ND	0.0322	80	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

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

Lab Code: QESPIT SDG No:

Matrix Spike ID: DF/S1/0133/SDC/001 A

Lot #: C0E130194 WO #: DD6A411E
BATCH: 0139489

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENT. (mg/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	QUAL
2,4-D	0.160	0.144	90	8.4	20	35- 133	
2,4,5-TP (Silvex)	0.0400	0.0339	85	5.2	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

657 536

SW846 8151A METHOD BLANK SUMMARY

BLANK WORKORDER NO.: DDE4W101

Lab Name: Severn Trent Laboratories, Inc.

Lab Code: QESPIT

SDG Number:

Lab File ID: a-a20536.

Lot Number: C0E130194

Matrix: ~~SOLID~~ WATER

Extraction Method:

Date Extracted: 05/18/00

Date Analyzed(1): 05/20/00

Date Analyzed(2): N/A

Time Analyzed(1): 14:27

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	DDE4W102 C	05/20/00	N/A
02	DF/S1/0133/SDC/001 A	DD6A4104	05/20/00	N/A
03	DF/S1/0133/SDC/001 A	DD6A411D S	05/20/00	N/A
04	DF/S1/0133/SDC/001 A	DD6A411E D	05/20/00	N/A
05	DF/S1/0133/SDC/001 B	DD6A5104	05/20/00	N/A
06	DF/S1/0133/SDC/001 C	DD6A6104	05/20/00	N/A
07	DF/S1/0133/SDC/001 D	DD6A7104	05/20/00	N/A
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

COMMENTS:

FORM IV

HERBICIDE
SAMPLE DATA

UXB INTERNATIONAL

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

Matrix: (soil/water) ~~SOLID~~ WATER
Method: SW846 8151A un 5/22/00
Herbicides (8151A)

Lab Sample ID:C0E130194 001

Sample WT/Vol: 100 / mL
Work Order: DD6A4104
Dilution factor: 1
Moisture %:10

Date Received: 05/13/00
Date Extracted:05/18/00
Date Analyzed: 05/20/00

QC Batch: 0139489

Client Sample Id: DF/S1/0133/SDC/001 A

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

STL-PITTSBURGH

Data file : /var/chem/gc1.i/2180.b/a-a20530.d
Lab Smp Id: DD6A4104 Client Smp ID: DF/S1/0133/SDC/001
Inj Date : 20-MAY-2000 11:33
Operator : 01797 Inst ID: gc1.i
Smp Info : DD6A4104,2180.b
Misc Info : 130194001
Comment :
Method : /var/chem/gc1.i/2180.b/LONGH.m
Meth Date : 22-May-2000 08:08 g Quant Type: ESTD
Cal Date : 18-MAY-2000 12:08 Cal File: a-a20468.d
Als bottle: 3
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	Compound Not Detected.					
$	2 DCAA	10.600	10.594	0.006	7760966	0 02558	0 05116(a)
	3 MCPP	Compound Not Detected.					
	4 DICAMBA	Compound Not Detected.					
	5 MCPA	Compound Not Detected.					
	6 DICHLOROPROP	Compound Not Detected.					
	7 2,4-D	Compound Not Detected.					
	8 PENTACHLOROPHENOL	Compound Not Detected.					
	9 2,4,5-TP(SILVEX)	Compound Not Detected.					
	10 2,4,5-T	Compound Not Detected.					
	11 DINOSEB	Compound Not Detected.					
	12 2,4-DB	18 551	18 579	-0.028	52472	0 00133	0.002662(a)

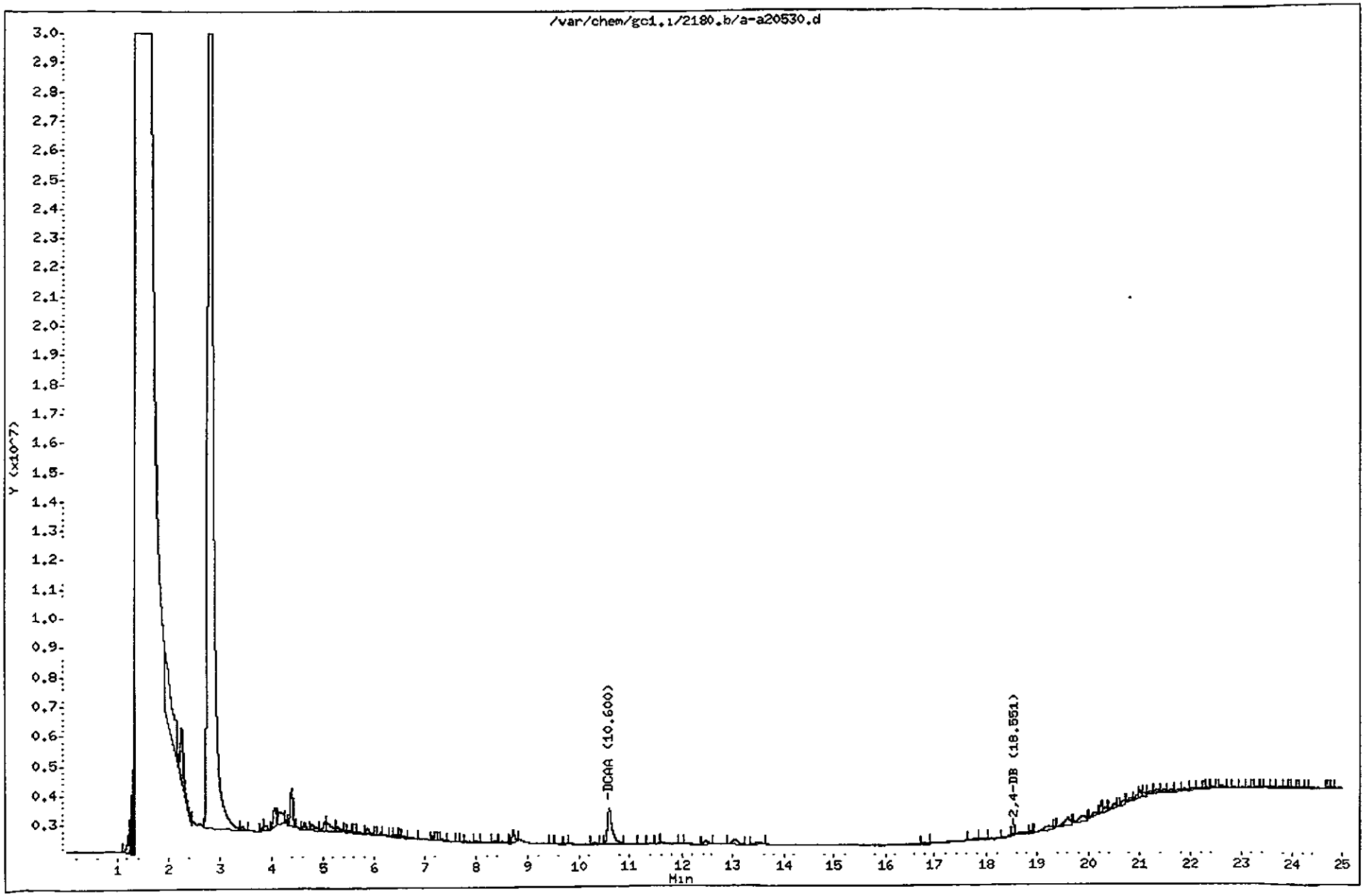
Data File: /var/chem/gc1.i/2180.b/a-a20530.d
Report Date: 22-May-2000 08:54

QC Flag Legend

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

Data File: /var/chem/gc1.i/2180.b/a-a20530.d
Date : 20-MAY-2000 11:33
Client ID: DF/S1/0133/SDC/001
Sample Info: BD6A4104,2180.b
Volume Injected (uL): 1.0
Column phase: DB608

Instrument: gc1.i
Operator: 01797
Column diameter: 0.53



UXB INTERNATIONAL

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

Matrix: (soil/water) ~~SOLID~~ WATER Lab Sample ID:C0E130194 002
Method: SW846 8151A LM 5/22/00
Herbicides (8151A)

Sample WT/Vol: 100 / mL Date Received: 05/13/00
Work Order: DD6A5104 Date Extracted:05/18/00
Dilution factor: 1 Date Analyzed: 05/20/00
Moisture %:8.6

QC Batch: 0139489

Client Sample Id: DF/S1/0133/SDC/001 B

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/2180.b/a-a20533.d
Report Date: 22-May-2000 08:55

STL-PITTSBURGH

Data file : /var/chem/gc1.i/2180.b/a-a20533.d
Lab Smp Id: DD6A5104 Client Smp ID: DF/S1/0133/SDC/001
Inj Date : 20-MAY-2000 13:00
Operator : 01797 Inst ID: gc1.i
Smp Info : DD6A5104,2180.b
Misc Info : 130194002
Comment :
Method : /var/chem/gc1.i/2180.b/LONGH.m
Meth Date : 22-May-2000 08:08 g Quant Type: ESTD
Cal Date : 18-MAY-2000 12:08 Cal File: a-a20468.d
Als bottle: 6
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	Compound Not Detected.					
$	2 DCAA	10 603	10.594	0.009	8702403	0.02868	0 05737(a)
	3 MCPP	Compound Not Detected.					
	4 DICAMBA	Compound Not Detected.					
	5 MCPA	Compound Not Detected.					
	6 DICHLOROPROP	Compound Not Detected.					
	7 2,4-D	Compound Not Detected.					
	8 PENTACHLOROPHENOL	Compound Not Detected.					
	9 2,4,5-TP(SILVEX)	Compound Not Detected					
	10 2,4,5-T	Compound Not Detected					
	11 DINOSEB	Compound Not Detected.					
	12 2,4-DB	18 556	18 579	-0 023	108784	0.00276	0 005519(a)

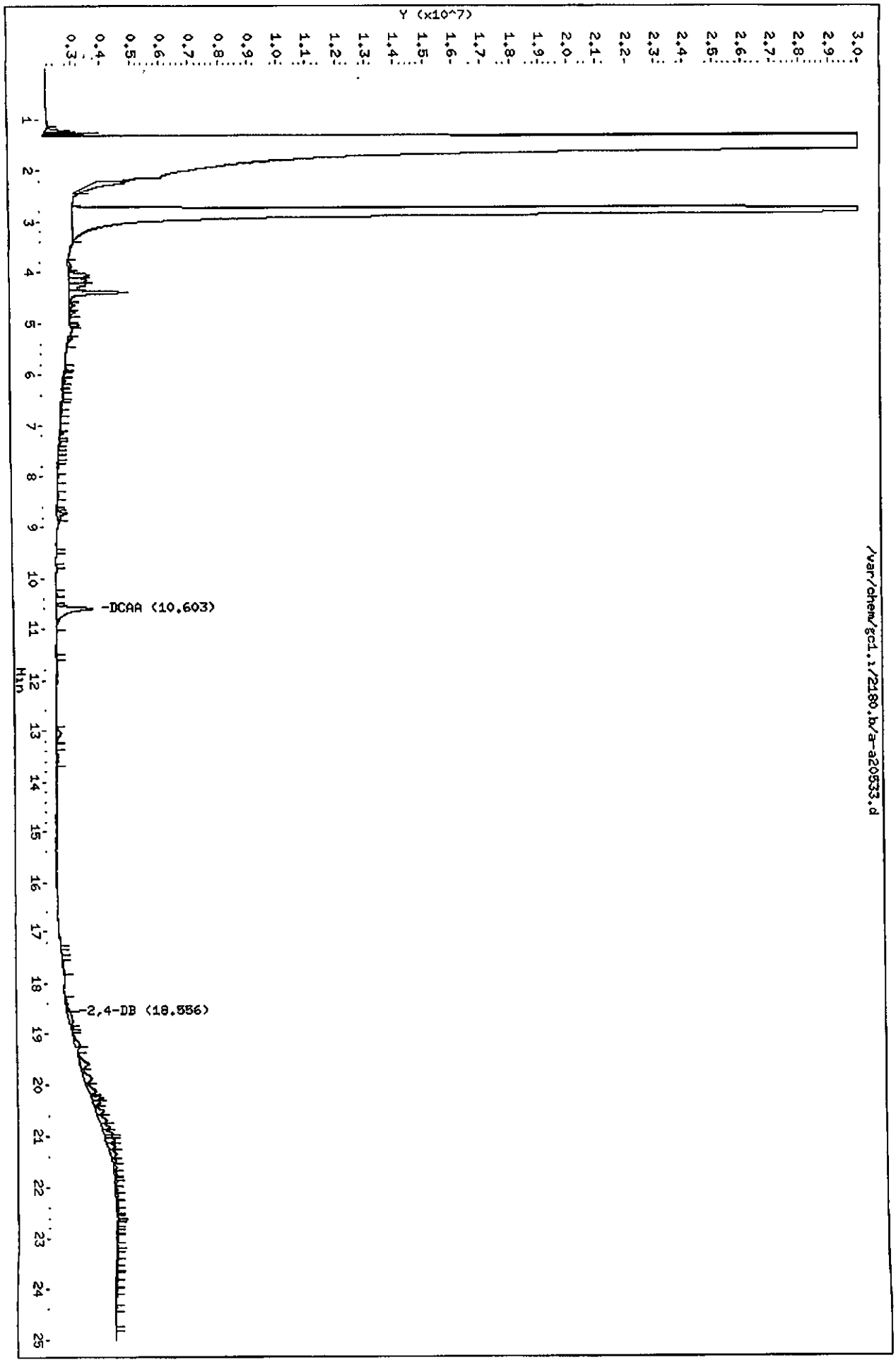
657 544
Data File: /var/chem/gc1.i/2180.b/a-a20533.d
Report Date: 22-May-2000 08:55

QC Flag Legend

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

Data File: /var/chem/gc1.i/2180.b/a-a20533.d
Date : 20-MAY-2000 13:00
Client ID: DF/SL/0133/SDC/001
Sample Info: DD605104,2180.b
Volume Injected (uL): 1.0
Column phase: DB608

Instrument: gc1.i
Operator: 01797
Column diameter: 0.53



UXB INTERNATIONAL

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

Matrix: (soil/water) ~~SOLID~~ WATER Lab Sample ID:C0E130194 003
Method: SW846 8151A
Herbicides (8151A) uw 5/22/00

Sample WT/Vol: 100 / mL Date Received: 05/13/00
Work Order: DD6A6104 Date Extracted:05/18/00
Dilution factor: 1 Date Analyzed: 05/20/00
Moisture %:10

QC Batch: 0139489

Client Sample Id: DF/S1/0133/SDC/001 C

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/2180.b/a-a20534.d
Report Date: 22-May-2000 08:55

STL-PITTSBURGH

Data file : /var/chem/gc1.i/2180.b/a-a20534.d
Lab Smp Id: DD6A6104 Client Smp ID: DF/S1/0133/SDC/001
Inj Date : 20-MAY-2000 13:29
Operator : 01797 Inst ID: gc1.i
Smp Info : DD6A6104,2180.b
Misc Info : 130194003
Comment :
Method : /var/chem/gc1.i/2180.b/LONGH.m
Meth Date : 22-May-2000 08:08 g Quant Type: ESTD
Cal Date : 18-MAY-2000 12:08 Cal File: a-a20468.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

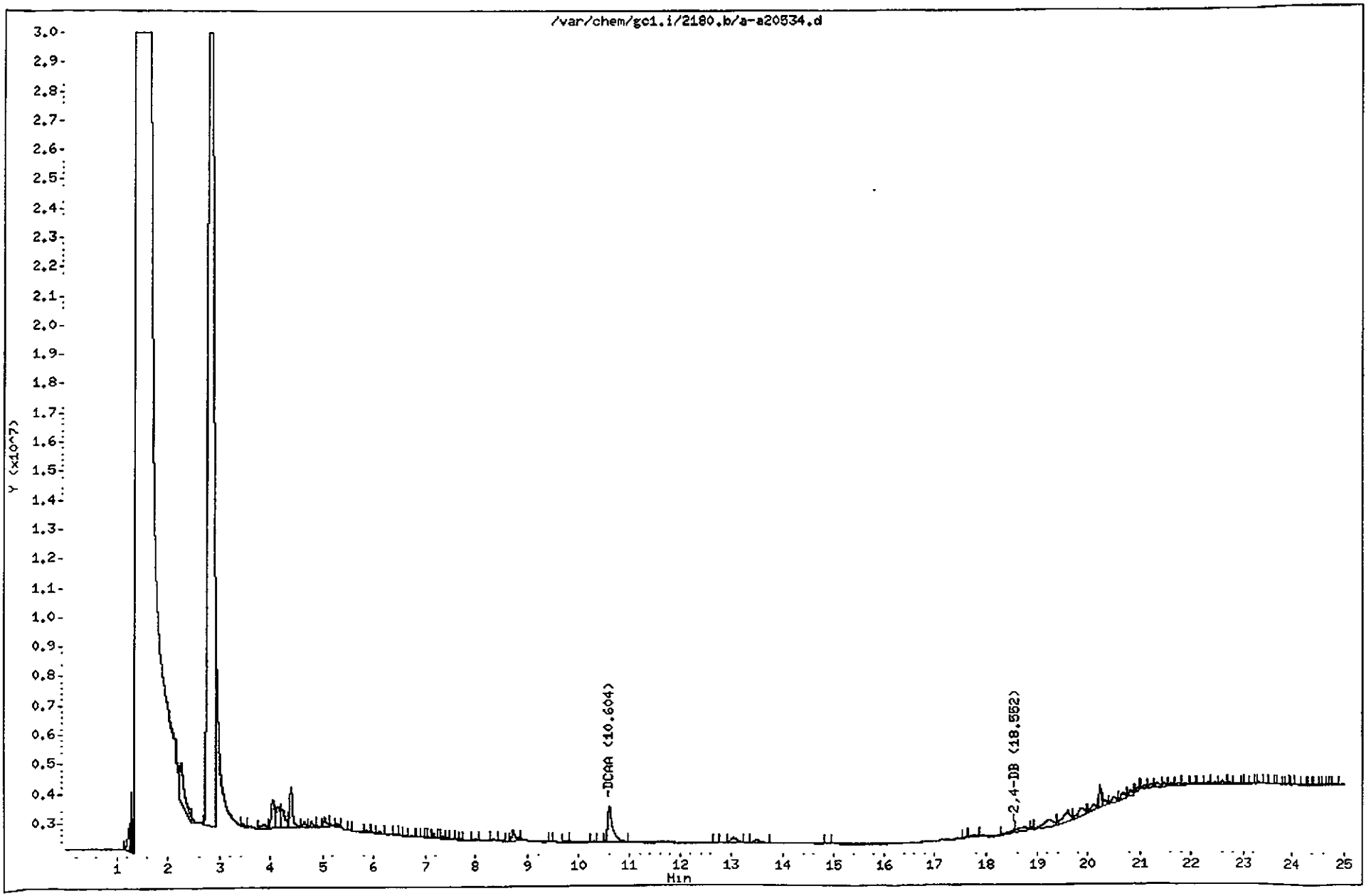
	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (mg/L)
1	DALAPON	Compound Not Detected					
$ 2	DCAA	10 604	10 594	0 010	8513361	0 02806	0.05612(a)
3	MCPP	Compound Not Detected.					
4	DICAMBA	Compound Not Detected.					
5	MCPA	Compound Not Detected.					
6	DICHLOROPROP	Compound Not Detected					
7	2,4-D	Compound Not Detected.					
8	PENTACHLOROPHENOL	Compound Not Detected					
9	2,4,5-TP(SILVEX)	Compound Not Detected.					
10	2,4,5-T	Compound Not Detected.					
11	DINOSEB	Compound Not Detected					
12	2,4-DB	18.552	18.579	-0.027	108134	0.00274	0.005486(a)

Data File: /var/chem/gc1.i/2180.b/a-a20534.d
Report Date: 22-May-2000 08:55

QC Flag Legend

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

Data File: /var/chem/gc1.i/2180.b/a-a20534.d
Date : 20-MAY-2000 13:29
Client ID: DF/S1/0133/SDC/001
Instrument: gc1.i
Sample Info: DD6A6104,2180,b
Volume Injected (uL): 1.0
Operator: 01797
Column phase: DB608
Column diameter: 0.53



UXB INTERNATIONAL

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

Matrix: (soil/water) ~~SOLID~~ WATER Lab Sample ID:C0E130194 004
Method: SW846 8151A ums/22/00
Herbicides (8151A)

Sample WT/Vol: 100 / mL Date Received: 05/13/00
Work Order: DD6A7104 Date Extracted:05/18/00
Dilution factor: 1 Date Analyzed: 05/20/00
Moisture %:11

QC Batch: 0139489

Client Sample Id: DF/S1/0133/SDC/001 D

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

Data File: /var/chem/gc1.i/2180.b/a-a20535.d
Report Date: 22-May-2000 08:55

STL-PITTSBURGH

Data file : /var/chem/gc1.i/2180.b/a-a20535.d
Lab Smp Id: DD6A7104 Client Smp ID: DF/S1/0133/SDC/001
Inj Date : 20-MAY-2000 13:58
Operator : 01797 Inst ID: gc1.i
Smp Info : DD6A7104,2180.b
Misc Info : 130194004
Comment :
Method : /var/chem/gc1.i/2180.b/LONGH.m
Meth Date : 22-May-2000 08:08 g Quant Type: ESTD
Cal Date : 18-MAY-2000 12:08 Cal File: a-a20468.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	Compound Not Detected.					
$	2 DCAA	10.604	10.594	0.010	9970107	0.03286	0.06572(a)
	3 MCPP	Compound Not Detected					
	4 DICAMBA	Compound Not Detected					
	5 MCPA	Compound Not Detected					
	6 DICHLOROPROP	Compound Not Detected.					
	7 2,4-D	Compound Not Detected.					
	8 PENTACHLOROPHENOL	Compound Not Detected.					
	9 2,4,5-TP(SILVEX)	Compound Not Detected					
	10 2,4,5-T	Compound Not Detected					
	11 DINOSEB	Compound Not Detected.					
	12 2,4-DB	18.555	18.579	-0 024	77324	0.00196	0.003923(a)

657 552
Data File: /var/chem/gc1.i/2180.b/a-a20535.d
Report Date: 22-May-2000 08:55

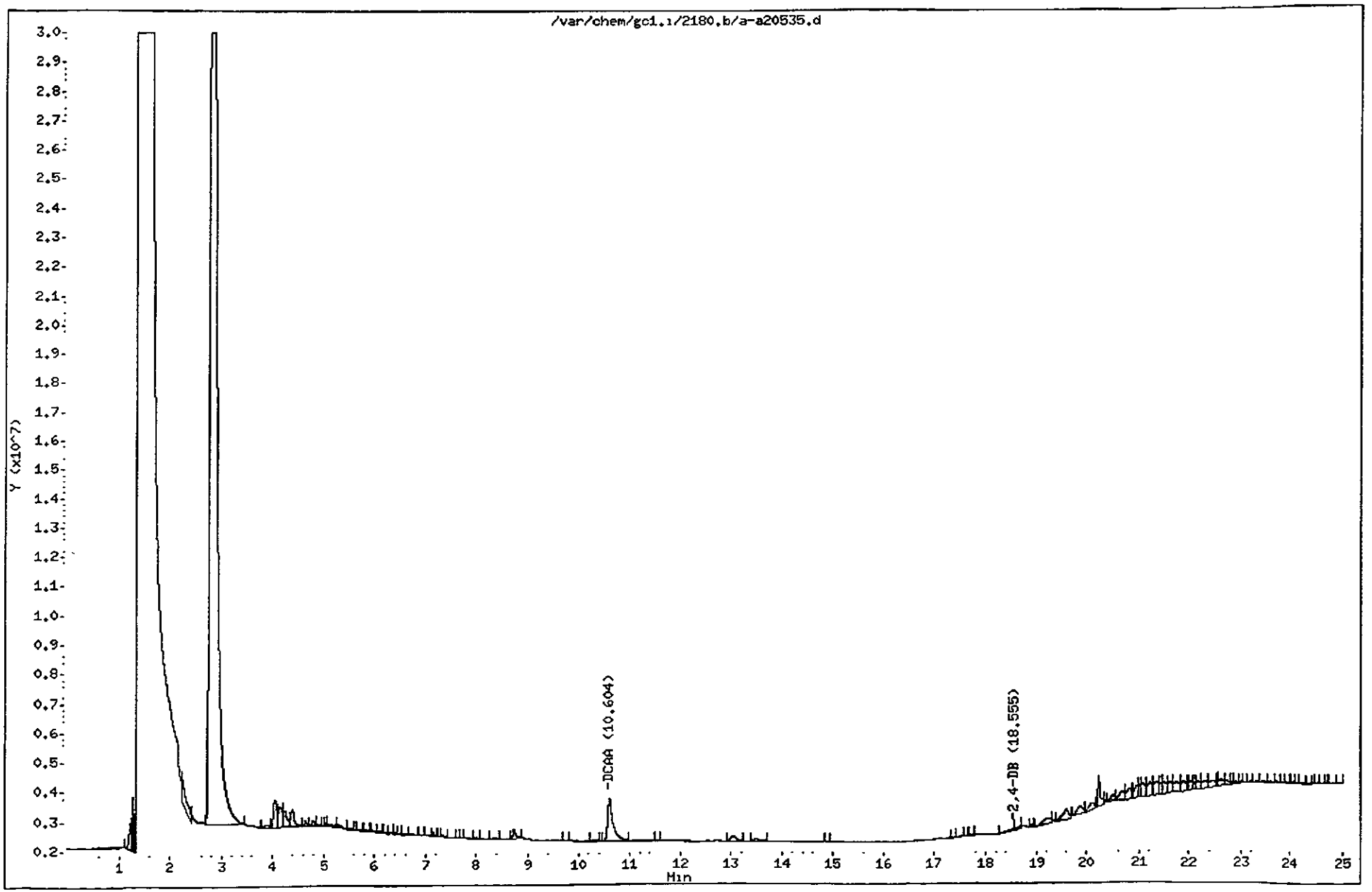
QC Flag Legend

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

657 553

Data File: /var/chem/gc1.1/2180.b/a-a20535.d
Date : 20-MAY-2000 13:58
Client ID: DF/S1/0133/SDC/001
Sample Info: DD6A7104,2180.b
Volume Injected (uL): 1.0
Column phase: DB608

Instrument: gc1.1
Operator: 01797
Column diameter: 0.53



4024

STL Pittsburgh

HERBICIDE
CALIBRATION DATA

Report Date : 20-May-2000 11:44

6D
HP6890 1A
DB608

STL-PITTSBURGH

COMPOUND LISTING

Method file : /var/chem/gc1.i/2180.b/LONGH.m
Quant Method : ESTD
Last Update : 20-May-2000 11:44
Data Type : GC MULTI COMP
Target Version : 3.40
Number of Cpnds : 12

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	3608.000000
Initial:End Threshold	1804.000000
Initial:Area Threshold	36080.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	10.000000
Initial:Negative Peaks	ON
Initial:Tension	0.200000

	Compound	RT	RT Window	RF
	1 DALAPON	3.739	3.669-3.809	8.910e+07
$	2 DCAA	10.594	10.524-10.664	3.034e+08
	3 MCPP	11.036	10.966-11.106	4.747e+05
	4 DICAMBA	11.212	11.142-11.282	2.235e+08
	5 MCPA	12.001	11.931-12.071	5.619e+05
	6 DICHLOROPROP	12.836	12.766-12.906	5.838e+07
	7 2,4-D	14.348	14.278-14.418	4.745e+07
	8 PENTACHLOROPHENOL	15.580	15.510-15.650	5.548e+08
	9 2,4,5-TP(SILVEX)	16.791	16.721-16.861	2.818e+08
	10 2,4,5-T	17.910	17.840-17.980	3.299e+08
	11 DINOSEB	18.079	18.009-18.149	3.108e+08
	12 2,4-DB	18.579	18.509-18.649	3.942e+07

6E
HP6890/A
DB608

Report Date : 18-May-2000 12:35

STL-PITTSBURGH

INITIAL CALIBRATION DATA

Start Cal Date : 18-MAY-2000 10:12
End Cal Date : 18-MAY-2000 12:08
Quant Method : ESTD
Origin : Disabled
Target Version : 3.40
Integrator : Falcon
Method file : /var/chem/gc1.i/2180.b/LONGH.m
Cal Date : 18-May-2000 12:35 eppinged
Curve Type : Average

Calibration File Names:
Level 1: /var/chem/gc1.i/2180.b/a-a20464.d
Level 2: /var/chem/gc1.i/2180.b/a-a20465.d
Level 3: /var/chem/gc1.i/2180.b/a-a20466.d
Level 4: /var/chem/gc1.i/2180.b/a-a20467.d
Level 5: /var/chem/gc1.i/2180.b/a-a20468.d

Compound	0.00500 Level 1	0.01000 Level 2	0.02500 Level 3	0.05000 Level 4	0.10000 Level 5	___ RRF	% RSD	
1 DALAPON	97526909	93756364	88997745	84915137	80323597	89103950	7.678	
3 MCPP	733073	602461	459102	336442	242328	474681	41.661	<-
4 DICAMBA	234920660	235337042	226609318	217237039	203396688	223500149	6.018	
5 MCPA	858727	706855	536318	400145	307218	561852	39.878	<-
6 DICHLOROPROP	63745425	63305024	59528962	55609335	49694201	58376589	10.043	
7 2,4-D	50964502	49591482	47935899	46137829	42601471	47446237	6.862	
8 PENTACHLOROPHENOL	539095489	560034962	561179229	563046476	550711234	554813478	1.801	
9 2,4,5-TP(SILVEX)	279252190	278903524	289785118	285421971	275867702	281846101	1 999	
10 2,4,5-T	321856546	326051333	331775403	337201422	332789230	329934787	1.823	
11 DINOSEB	322590852	321486772	312358346	305429094	291994311	310771875	4.064	
12 2,4-DB	40756825	38703104	39707172	38988556	38961695	39423470	2.115	
$ 2 DCAA	348787512	331743765	305258919	281785053	249384444	303391938	13 031	

Avg 11.4%
RSD

FE HP6890 1A
DB608

Data File: /var/chem/gc1.i/2180.b/a-a20529.d
Report Date: 20-May-2000 11:44

STL-PITTSBURGH

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc1.i
Lab File ID: a-a20529.d
Analysis Type:
Lab Sample ID: Mherb
Quant Type: ESTD

Injection Date: 20-MAY-2000 11:04
Init. Calibration Date(s): 05/18/0 05/18/0
Init. Calibration Times: 10:12 12:08
Method File: /var/chem/gc1.i/2180.b/LONGH.m

	COMPOUND	RRF	RF0	MIN RRF	%D	MAX %D
	1 DALAPON	89103950.173	87265056.948	0 010	2.1	15 0
$	2 DCAA	303391938.484	298872079 906	0 010	1.5	15 0
	3 MCPP	474681.118	438552.230	0.010	7.6	15.0
	4 DICAMBA	223500149.458	221525505 882	0 010	0 9	15.0
	5 MCPA	561852.495	514815.537	0 010	8.4	15.0
	6 DICHLOROPROP	58376589.252	57607653.302	0.010	1.3	15.0
	7 2,4-D	47446236.733	45952173.913	0.010	3.1	15 0
	8 PENTACHLOROPHENOL	554813477.972	553803383.459	0.010	0.2	15.0
	9 2,4,5-TP(SILVEX)	281846101.329	270810900 474	0.010	3.9	15.0
	10 2,4,5-T	329934786.865	319319194 313	0 010	3.2	15.0
	11 DINOSEB	310771875.071	309435984.252	0.010	0.4	15.0
	12 2,4-DB	39423470.397	37884142.012	0.010	3 9	15 0

657 558

7E HP6890 1A
DBLock

Data File: /var/chem/gc1.i/2180.b/a-a20550.d
Report Date: 22-May-2000 08:07

STL-PITTSBURGH

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc1.i
Lab File ID: a-a20550.d
Analysis Type:
Lab Sample ID: Mherb
Quant Type: ESTD

Injection Date: 20-MAY-2000 21:15
Init. Calibration Date(s): 05/18/0 05/18/0
Init. Calibration Times: 10:12 12:08
Method File: /var/chem/gc1.i/2180.b/LONGH.m

	COMPOUND	RRF	RF0	MIN RRF	%D	MAX %D
	1 DALAPON	89103950.173	92052095.672	0 010	-3.3	15.0
$	2 DCAA	303391938 484	324467027 027	0.010	-6 9	15.0
	3 MCPP	474681 118	455284.624	0.010	4.1	15.0
	4 DICAMBA	223500149.458	241676047.059	0.010	-8.1	15.0
	5 MCPA	561852.495	533000.701	0.010	5.1	15 0
	6 DICHLOROPROP	58376589.252	62090188.679	0 010	-6.4	15.0
	7 2,4-D	47446236.733	49971974.148	0.010	-5.3	15 0
	8 PENTACHLOROPHENOL	554813477.972	586348590 226	0.010	-5.7	15 0
	9 2,4,5-TP(SILVEX)	281846101.329	290724549.763	0.010	-3.2	15 0
	10 2,4,5-T	329934786.865	345724312 796	0.010	-4.8	15.0
	11 DINOSEB	310771875.071	327346535 433	0 010	-5.3	15.0
	12 2,4-DB	39423470.397	39901372.781	0 010	-1.2	15.0

PESTICIDE ANALYTICAL SEQUENCE

Lab Name: STL-PITTSBURGH Contract:

Lab Code: STLPIT Case No.: SAS No.: 40325 SDG No.: C0E130194

GC Column: DB608 ID: 0.53 (mm) Init. Calib. Date(s): 05/18/00 05/18/00

Instrument ID: GC1

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

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 10.59

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	RT #
01		LHERB	05/18/00	1012	10.60	
02		MLHERB	05/18/00	1041	10.60	
03		MHERB	05/18/00	1110	10.60	
04		MHHERB	05/18/00	1139	10.60	
05		HHERB	05/18/00	1208	10.60	
06		MHERB	05/20/00	1104	10.59	
07	DF/S1/0133/S	DD6A4104	05/20/00	1133	10.60	
08	DF/S1/0133/S	DD6A411D	05/20/00	1202	10.59	
09	DF/S1/0133/S	DD6A411E	05/20/00	1231	10.60	
10	DF/S1/0133/S	DD6A5104	05/20/00	1300	10.60	
11	DF/S1/0133/S	DD6A6104	05/20/00	1329	10.60	
12	DF/S1/0133/S	DD6A7104	05/20/00	1358	10.60	
13	PBLK	DDE4W101	05/20/00	1427	10.61	
14	LCS	DDE4W102	05/20/00	1456	10.60	
15		MHERB	05/20/00	2115	10.60	
16						
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31						
32						

S1 = DCAA

QC LIMITS
(+/- 0.07 MINUTES)

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

Data File: /var/chem/gc1.i/2180.b/a-a20464.d
Report Date: 18-May-2000 12:35

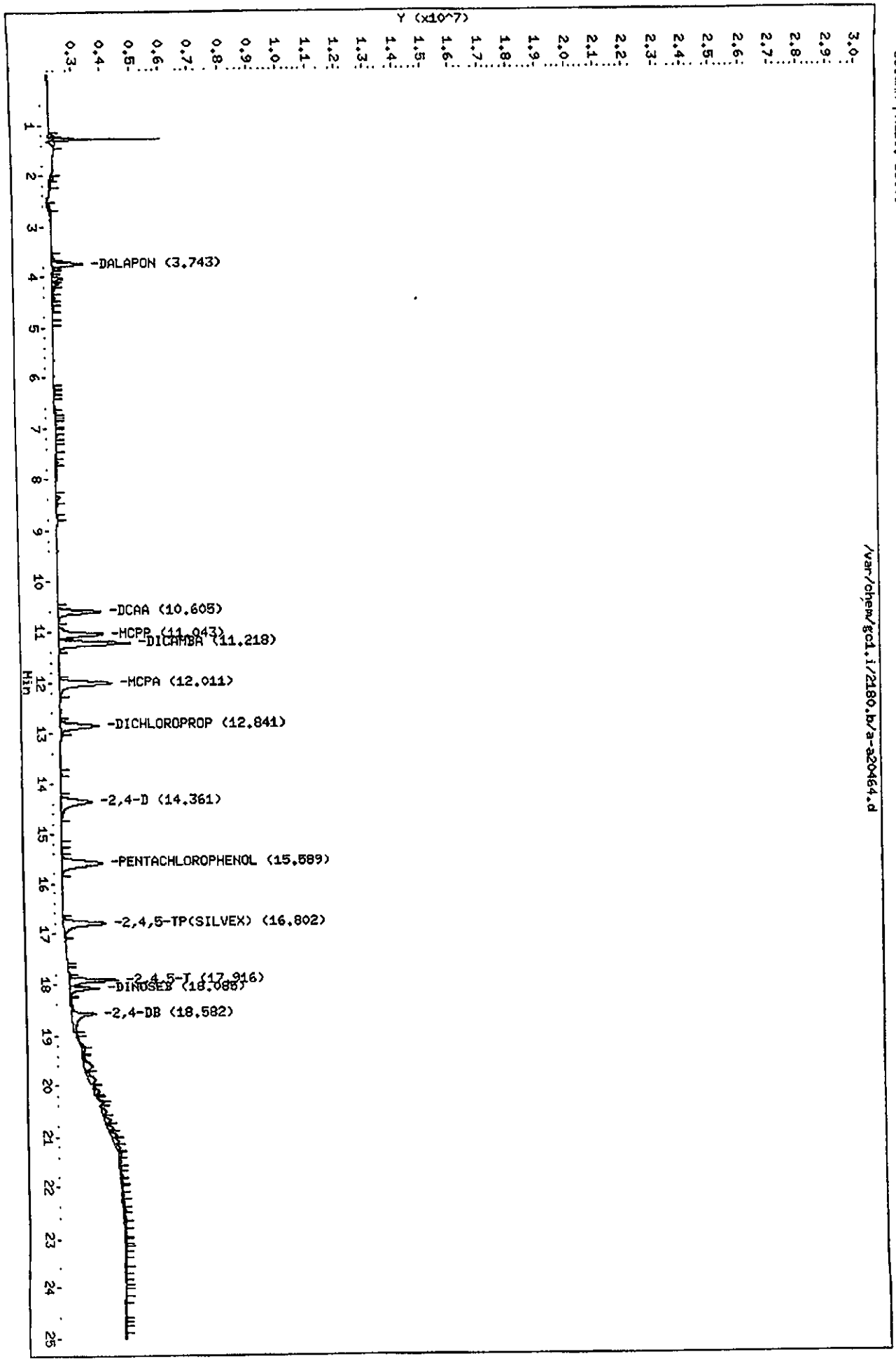
STL-PITTSBURGH

Data file : /var/chem/gc1.i/2180.b/a-a20464.d
Lab Smp Id: Lherb
Inj Date : 18-MAY-2000 10:12 Inst ID: gc1.i
Operator : 01797
Smp Info : Lherb,2180.b
Misc Info : 190-80-1
Comment :
Method : /var/chem/gc1.i/2180.b/LONGH.m
Meth Date : 18-May-2000 12:35 eppinged Quant Type: ESTD
Cal Date : 18-MAY-2000 10:12 Cal File: a-a20464.d
Als bottle: 2 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 1-all.sub
Target Version: 3.40

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	1 DALAPON	3.743	3.742	0.001	1072796	0 01100	0.01100
$	2 DCAA	10.605	10.600	0.005	7429174	0.02130	0.02130
	3 MCPP	11 043	11 040	0.003	1554114	2.12000	2.120
	4 DICAMBA	11.218	11 218	0.000	2490159	0.01060	0 01060
	5 MCPA	12.011	12.006	0.005	1837675	2.14000	2.140
	6 DICHLOROPROP	12.841	12.837	0.004	1351403	0.02120	0.02120
	7 2,4-D	14.361	14.351	0.010	1075351	0 02110	0 02110
	8 PENTACHLOROPHENOL	15.589	15.586	0.003	1433994	0.00266	0.002660
	9 2,4,5-TP(SILVEX)	16.802	16 798	0.004	1466074	0.00525	0.005250
	10 2,4,5-T	17.916	17.910	0.006	1696184	0 00527	0.005270
	11 DINOSEB	18.085	18.085	0.000	1022613	0 00317	0.003170
	12 2,4-DB	18 582	18.580	0.002	859969	0.02110	0 02110

Data File: /var/chem/gc1.i/2180.b/a-a20464.d
Date : 18-MAY-2000 10:12
Client ID:
Sample Info: Lherb,2180.b
Column phase: DB608

Instrument: gc1.i
Operator: 01797
Column diameter: 0.53



Data File: /var/chem/gc1.i/2180.b/a-a20465.d
Report Date: 18-May-2000 12:35

STL-PITTSBURGH

Data file : /var/chem/gc1.i/2180.b/a-a20465.d
Lab Smp Id: MLherb
Inj Date : 18-MAY-2000 10:41
Operator : 01797 Inst ID: gc1.i
Smp Info : MLherb,2180.b
Misc Info : 190-80-2
Comment :
Method : /var/chem/gc1.i/2180.b/LONGH.m
Meth Date : 18-May-2000 12:35 eppinged Quant Type: ESTD
Cal Date : 18-MAY-2000 10:41 Cal File: a-a20465.d
Als bottle: 3 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 1-all.sub
Target Version: 3.40

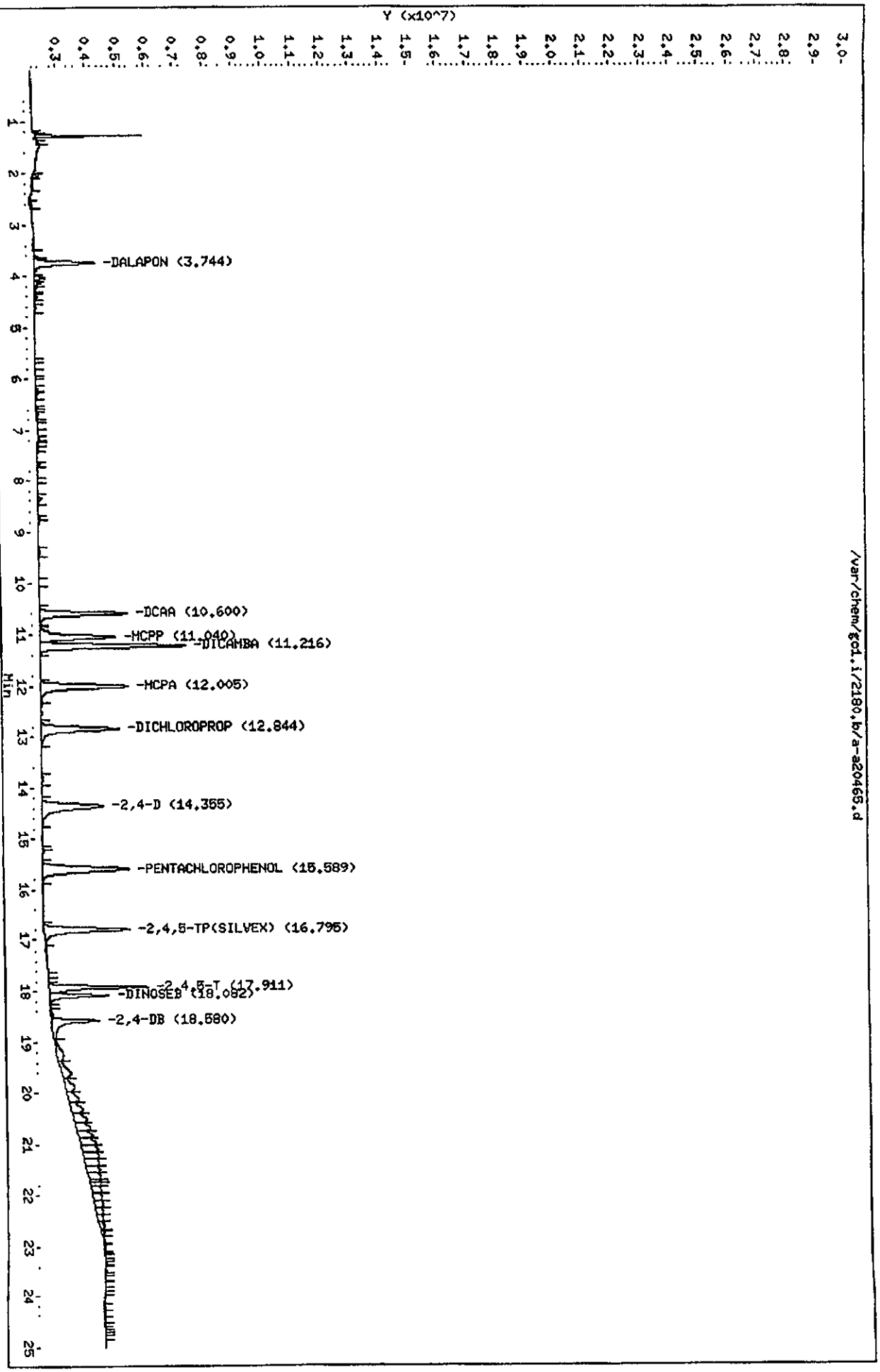
	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	1 DALAPON	3.744	3 742	0.002	2062640	0.02200	0.02157
$	2 DCAA	10.600	10.600	0.000	14099110	0.04250	0 04144
	3 MCPP	11.040	11 040	0.000	2566482	4.26000	3.843
	4 DICAMBA	11.216	11.218	-0.002	5012679	0.02130	0.02132
	5 MCPA	12 005	12.006	-0.001	3025338	4.28000	3 865
	6 DICHLOROPROP	12 844	12.837	0.007	2684133	0.04240	0.04225
	7 2,4-D	14.355	14 351	0.004	2107638	0 04250	0.04192
	8 PENTACHLOROPHENOL	15.589	15 586	0 003	2979386	0 00532	0.005421
	9 2,4,5-TP(SILVEX)	16.795	16.798	-0.003	2928487	0.01050	0.01049
	10 2,4,5-T	17.911	17.910	0 001	3423539	0.01050	0.01057
	11 DINOSEB	18.082	18.085	-0 003	2041441	0.00635	0 006339
	12 2,4-DB	18 580	18.580	0 000	1633271	0.04220	0 04111

Data File: /var/chem/gc1.i/2180.b/a-a20465.d
Date : 18-MAY-2000 10:41
Client ID:
Sample Info: MLherb,2180.b

Column phase: DB608

Instrument: gc1.i

Operator: 01797
Column diameter: 0.53



Data File: /var/chem/gc1.i/2180.b/a-a20466.d
Report Date: 18-May-2000 12:35

STL-PITTSBURGH

Data file : /var/chem/gc1.i/2180.b/a-a20466.d
Lab Smp Id: Mherb
Inj Date : 18-MAY-2000 11:10
Operator : 01797 Inst ID: gc1.i
Smp Info : Mherb,2180.b
Misc Info : 190-80-3
Comment :
Method : /var/chem/gc1.i/2180.b/LONGH.m
Meth Date : 18-May-2000 12:35 eppinged Quant Type: ESTD
Cal Date : 18-MAY-2000 11:10 Cal File: a-a20466.d
Als bottle: 4 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 1-all.sub
Target Version: 3.40

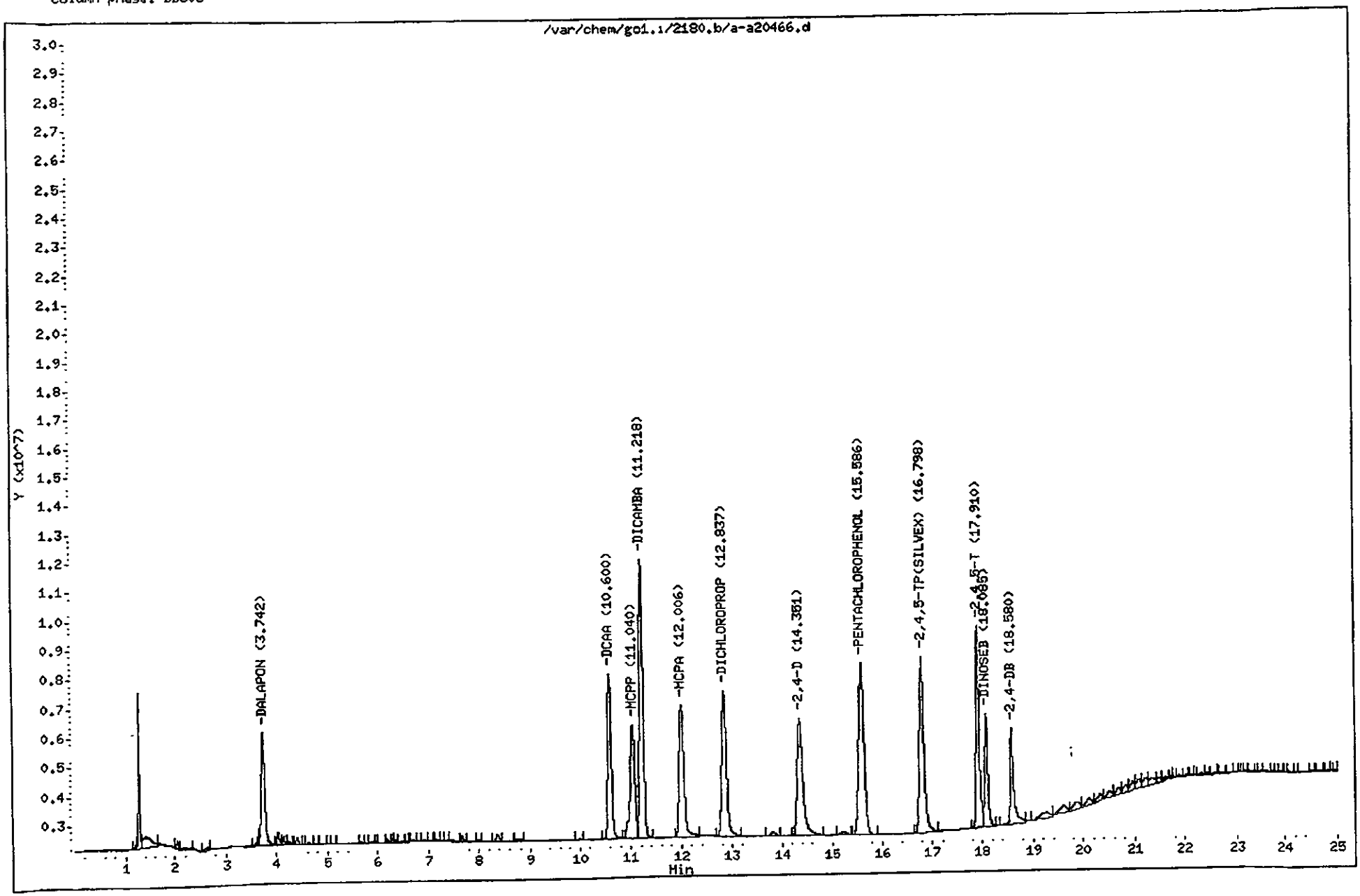
	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	1 DALAPON	3 742	3.742	0.000	3907001	0.04390	0.04182
$	2 DCAA	10 600	10.600	0.000	25977534	0.08510	0.07906
	3 MCPP	11.040	11.040	0 000	3911550	8 52000	6.539
	4 DICAMBA	11.218	11.218	0.000	9630896	0.04250	0.04146
	5 MCPA	12.006	12.006	0.000	4590884	8 56000	6.552
	6 DICHLOROPROP	12.837	12.837	0.000	5048056	0 08480	0.08117
	7 2,4-D	14 351	14.351	0.000	4079345	0.08510	0.08242
	8 PENTACHLOROPHENOL	15 586	15.586	0.000	5970947	0.01064	0.01079
	9 2,4,5-TP(SILVEX)	16.798	16.798	0.000	6114466	0.02110	0.02163
	10 2,4,5-T	17 910	17 910	0.000	7000461	0 02110	0.02144
	11 DINOSEB	18 085	18 085	0.000	3966951	0.01270	0.01244
	12 2,4-DB	18 580	18.580	0.000	3355256	0.08450	0 08447

Data File: /var/chem/gc1.i/2180.b/a-a20466.d
Date : 18-MAY-2000 11:10
Client ID:
Sample Info: Mherb,2180.b

Column phase: DB608

Instrument: gc1.i

Operator: 01797
Column diameter: 0.53



Data File: /var/chem/gc1.i/2180.b/a-a20467.d
Report Date: 18-May-2000 12:35

STL-PITTSBURGH

Data file : /var/chem/gc1.i/2180.b/a-a20467.d
Lab Smp Id: MHherb
Inj Date : 18-MAY-2000 11:39
Operator : 01797 Inst ID: gc1.i
Smp Info : MHherb,2180.b
Misc Info : 190-80-4
Comment :
Method : /var/chem/gc1.i/2180.b/LONGH.m
Meth Date : 18-May-2000 12:35 eppinged Quant Type: ESTD
Cal Date : 18-MAY-2000 11:39 Cal File: a-a20467.d
Als bottle: 5 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 1-all.sub
Target Version: 3.40

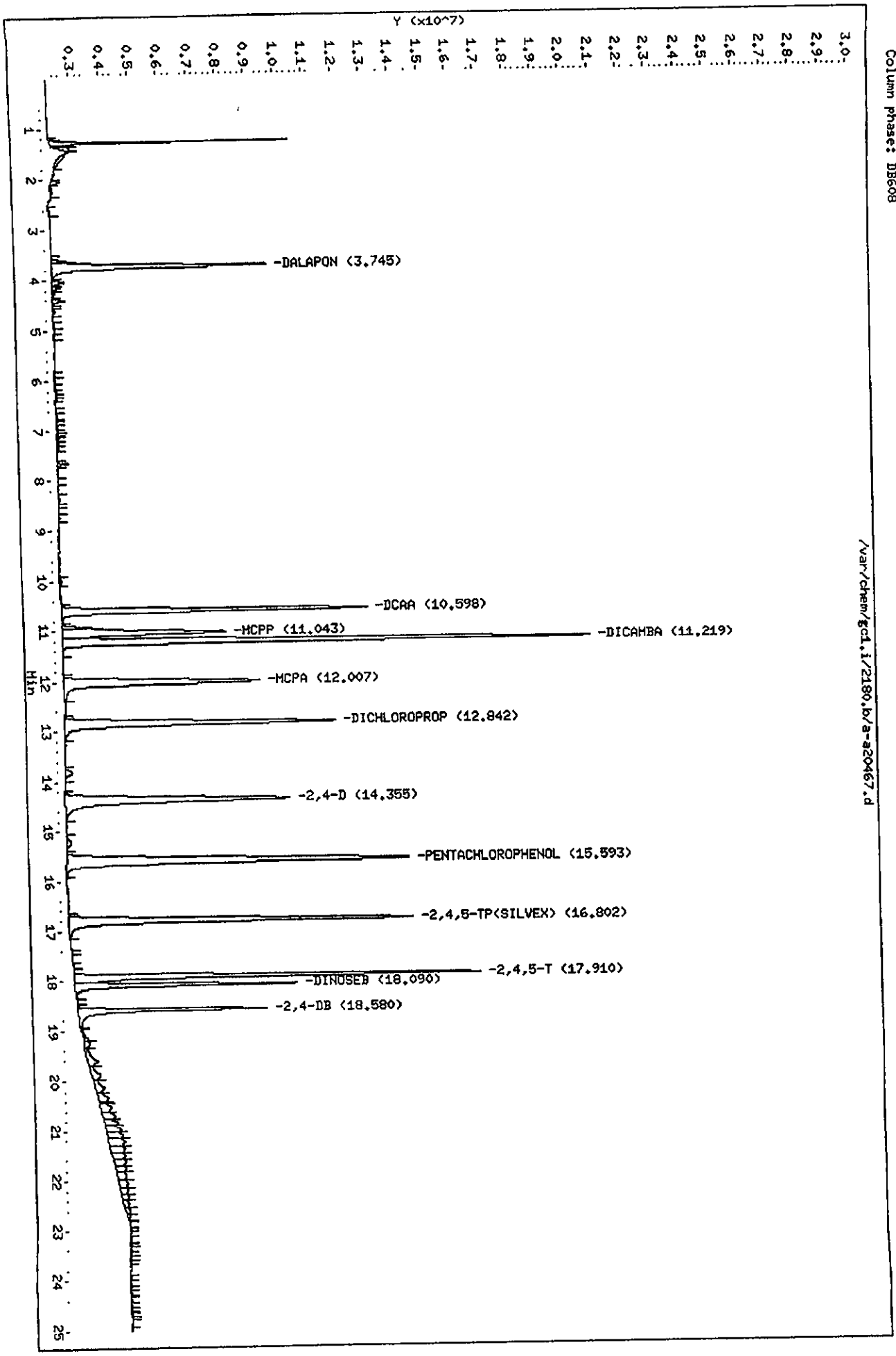
	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	1 DALAPON	3 745	3 742	0.003	7455549	0.08780	0.08166
$	2 DCAA	10.598	10.600	-0.002	47903459	0.17000	0.1512
	3 MCPP	11.043	11.040	0.003	5719515	17.0000	10 74
	4 DICAMBA	11 219	11 218	0.001	18486872	0.08510	0.08090
	5 MCPA	12.007	12.006	0.001	6842481	17.1000	10.94
	6 DICHLOROPROP	12.842	12.837	0.005	9453587	0.17000	0 1561
	7 2,4-D	14.355	14.351	0.004	7843431	0.17000	0.1612
	8 PENTACHLOROPHENOL	15.593	15.586	0.007	11981629	0.02128	0.02156
	9 2,4,5-TP(SILVEX)	16.802	16.798	0.004	12016265	0.04210	0.04241
	10 2,4,5-T	17.910	17.910	0.000	14229900	0.04220	0.04322
	11 DINOSEB	18.090	18.085	0.005	7757899	0.02540	0 02459
	12 2,4-DB	18.580	18.580	0.000	6589066	0 16900	0 1666

Data File: /var/chem/gc1.i/2180.b/a-a20467.d
Date : 18-MAY-2000 11:39
Client ID:
Sample Info: MHherb,2180.b

Column phase: DB608

Instrument: gc1.i

Operator: 01797
Column diameter: 0.53



Data File: /var/chem/gc1.i/2180.b/a-a20468.d
Report Date: 18-May-2000 12:35

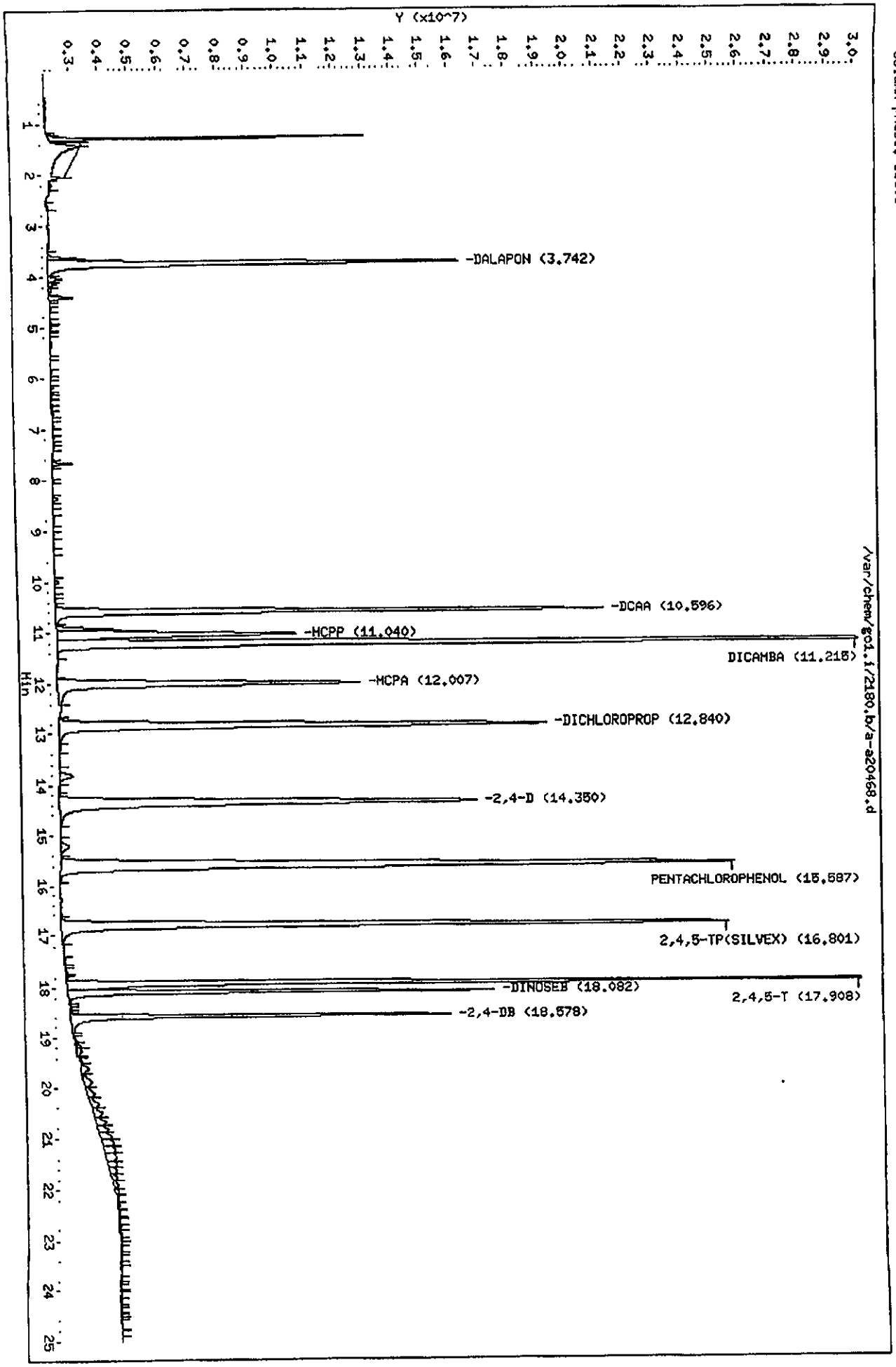
STL-PITTSBURGH

Data file : /var/chem/gc1.i/2180.b/a-a20468.d
Lab Smp Id: Hherb
Inj Date : 18-MAY-2000 12:08 Inst ID: gc1.i
Operator : 01797
Smp Info : Hherb,2180.b
Misc Info : 190-80-5
Comment :
Method : /var/chem/gc1.i/2180.b/LONGH.m
Meth Date : 18-May-2000 12:35 eppinged Quant Type: ESTD
Cal Date : 18-MAY-2000 12:08 Cal File: a-a20468.d
Als bottle: 6 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 1-all.sub
Target Version: 3.40

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	1 DALAPON	3.742	3.742	0.000	14136953	0.17600	0.1586
$	2 DCAA	10.596	10.600	-0.004	84790711	0.34000	0 2795
	3 MCPP	11.040	11 040	0 000	8263392	34.1000	17.41
	4 DICAMBA	11.215	11.218	-0.003	34577437	0.17000	0.1547
	5 MCPA	12.007	12.006	0 001	10445407	34.0000	18.59
	6 DICHLOROPROP	12.840	12.837	0.003	16846334	0.33900	0.2886
	7 2,4-D	14.350	14 351	-0.001	14484500	0.34000	0.3053
	8 PENTACHLOROPHENOL	15.587	15.586	0.001	23432763	0.04255	0.04224
	9 2,4,5-TP(SILVEX)	16.801	16 798	0 003	23172887	0.08400	0.08222
	10 2,4,5-T	17 908	17 910	-0 002	28087411	0 08440	0 08513
	11 DINOSEB	18.082	18.085	-0.003	14833311	0.05080	0.04773
	12 2,4-DB	18.578	18.580	-0.002	13169053	0.33800	0.3340

Data File: /var/chem/gc1.i/2180.b/a-a20468.d
Date : 18-MAY-2000 12:08
Client ID:
Sample Info: Hherb,2180.b
Column phase: DB608

Instrument: gc1.i
Operator: 01797
Column diameter: 0.53



Data File: /var/chem/gc1.i/2180.b/a-a20529.d
Report Date: 20-May-2000 11:44

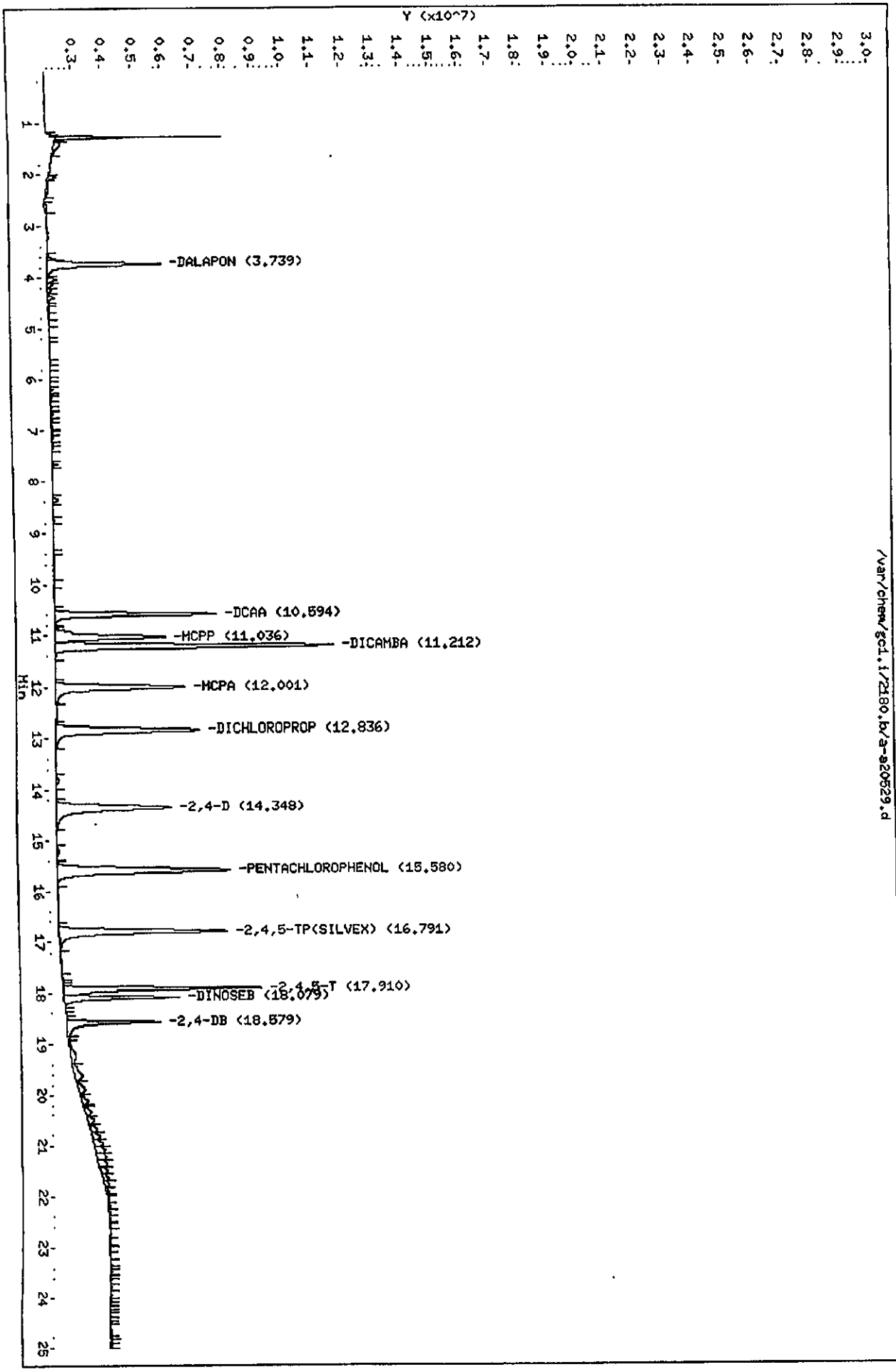
STL-PITTSBURGH

Data file : /var/chem/gc1.i/2180.b/a-a20529.d
Lab Smp Id: Mherb
Inj Date : 20-MAY-2000 11:04
Operator : 01797 Inst ID: gc1.i
Smp Info : Mherb,2180.b
Misc Info : 190-80-3
Comment :
Method : /var/chem/gc1.i/2180.b/LONGH.m
Meth Date : 20-May-2000 11:44 g Quant Type: ESTD
Cal Date : 18-MAY-2000 12:08 Cal File: a-a20468.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.40

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	1 DALAPON	3 739	3.739	0.000	3830936	0 04390	0.04299
$	2 DCAA	10 594	10.594	0 000	25434014	0 08510	0 08383
	3 MCPP	11.036	11.036	0.000	3736465	8 52000	7.872
	4 DICAMBA	11.212	11.212	0.000	9414834	0.04250	0.04212
	5 MCPA	12.001	12.001	0 000	4406821	8.56000	7 843
	6 DICHLOROPROP	12 836	12.836	0 000	4885129	0 08480	0.08368
	7 2,4-D	14.348	14.348	0 000	3910530	0.08510	0.08242
	8 PENTACHLOROPHENOL	15 580	15.580	0.000	5892468	0 01064	0.01062
	9 2,4,5-TP(SILVEX)	16.791	16.791	0 000	5714110	0.02110	0 02027
	10 2,4,5-T	17.910	17.910	0.000	6737635	0 02110	0 02042
	11 DINOSEB	18.079	18 079	0 000	3929837	0.01270	0 01264
	12 2,4-DB	18 579	18.579	0 000	3201210	0.08450	0 08120

Data File: /var/chem/gc1.i/2180.b/a-a20529.d
Date : 20-MAY-2000 11:04
Client ID:
Sample Info: Nherb,2180.b
Column phase: DB608

Instrument: gc1.i
Operator: 01797
Column diameter: 0.53



Data File: /var/chem/gc1.i/2180.b/a-a20550.d
Report Date: 22-May-2000 08:09

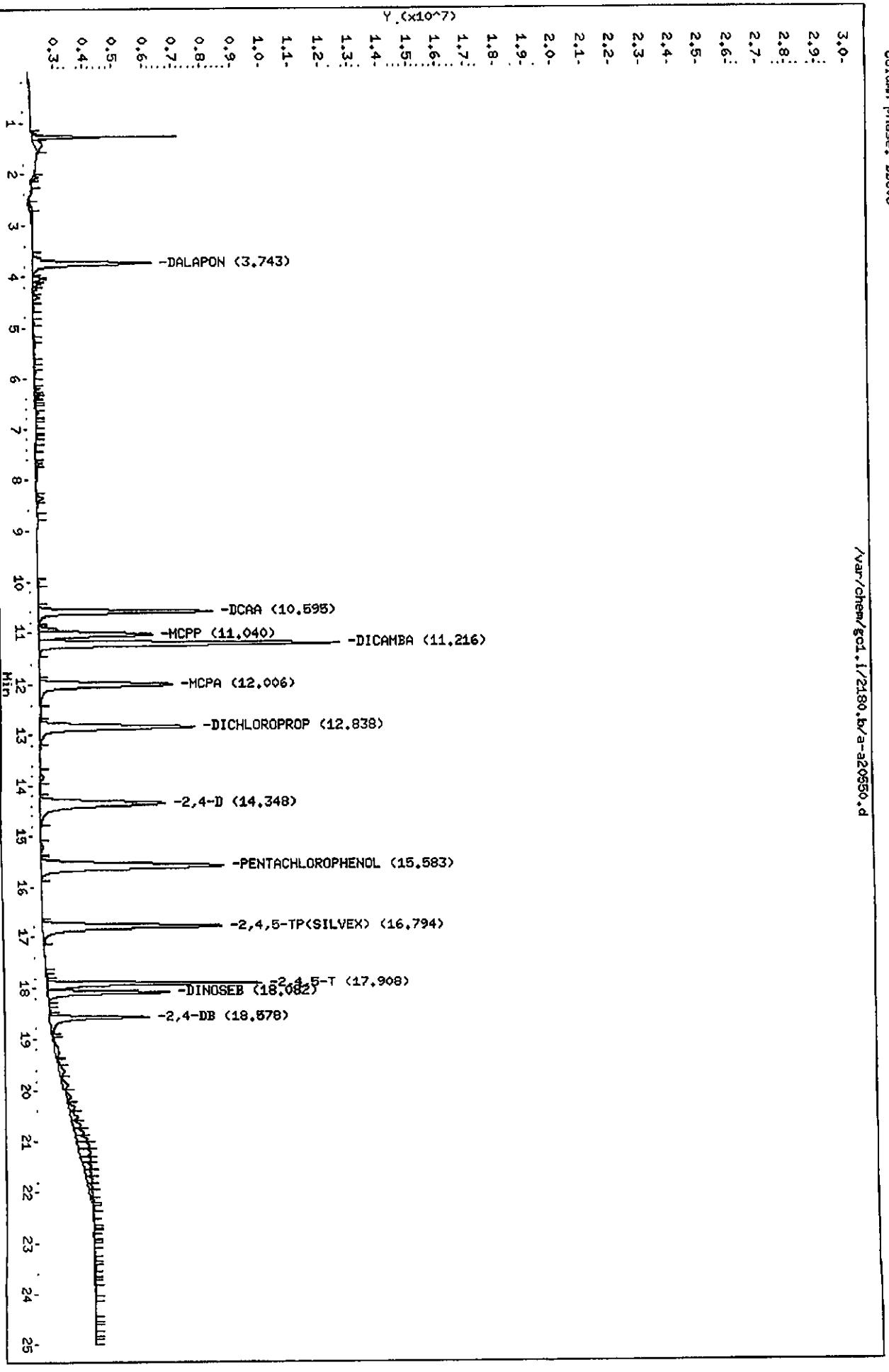
STL-PITTSBURGH

Data file : /var/chem/gc1.i/2180.b/a-a20550.d
Lab Smp Id: Mherb
Inj Date : 20-MAY-2000 21:15
Operator : 01797 Inst ID: gc1.i
Smp Info : Mherb,2180.b
Misc Info : 190-80-3
Comment :
Method : /var/chem/gc1.i/2180.b/LONGH.m
Meth Date : 22-May-2000 08:08 g Quant Type: ESTD
Cal Date : 18-MAY-2000 12:08 Cal File: a-a20468.d
Als bottle: 23 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.40

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
	1 DALAPON	3.743	3 739	0.004	4041087	0.04390	0.04535
$	2 DCAA	10.595	10 594	0.001	27612144	0.08510	0.09101
	3 MCPP	11.040	11.036	0.004	3879025	8 52000	8 172
	4 DICAMBA	11 216	11.212	0.004	10271232	0.04250	0 04596
	5 MCPA	12.006	12.001	0.005	4562486	8 56000	8.120
	6 DICHLOROPROP	12.838	12.836	0 002	5265248	0.08480	0.09019
	7 2,4-D	14.348	14.348	0.000	4252615	0 08510	0.08963
	8 PENTACHLOROPHENOL	15 583	15 580	0.003	6238749	0 01064	0.01124
	9 2,4,5-TP(SILVEX)	16 794	16 791	0.003	6134288	0 02110	0.02176
	10 2,4,5-T	17 908	17.910	-0 002	7294783	0.02110	0 02211
	11 DINOSEB	18 082	18.079	0.003	4157301	0.01270	0.01338
	12 2,4-DB	18.578	18.579	-0.001	3371666	0.08450	0 08552

Data File: /var/chem/gc1.i/2180.b/a-a20550.d
Date : 20-MAY-2000 21:15
Client ID:
Sample Info: Mherb,2180.b
Column phase: DB608

Instrument: gc1.i
Operator: 01797
Column diameter: 0.53



657 574

HERBICIDE
QC DATA

UXB INTERNATIONAL
METHOD BLANK COMPOUNDS

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

Matrix: (soil/water) ~~SOLID~~ WATER Lab Sample ID:C0E180000 489
Method: SW846 8151A ums/22/00
Herbicides (8151A)

Sample WT/Vol: 100 / mL
Work Order: DDE4W101
Dilution factor: 1
Moisture %:NA

Date Received: 05/13/00
Date Extracted:05/18/00
Date Analyzed: 05/20/00

QC Batch: 0139489

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

FORM I

657 576
Data File: /var/chem/gc1.i/2180.b/a-a20536.d
Report Date: 22-May-2000 08:55

STL-PITTSBURGH

Data file : /var/chem/gc1.i/2180.b/a-a20536.d
Lab Smp Id: DDE4W101 Client Smp ID: PBLK
Inj Date : 20-MAY-2000 14:27
Operator : 01797 Inst ID: gc1.i
Smp Info : DDE4W101,2180.b
Misc Info : 130194BLK
Comment :
Method : /var/chem/gc1.i/2180.b/LONGH.m
Meth Date : 22-May-2000 08:08 g Quant Type: ESTD
Cal Date : 18-MAY-2000 12:08 Cal File: a-a20468.d
Als bottle: 9 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

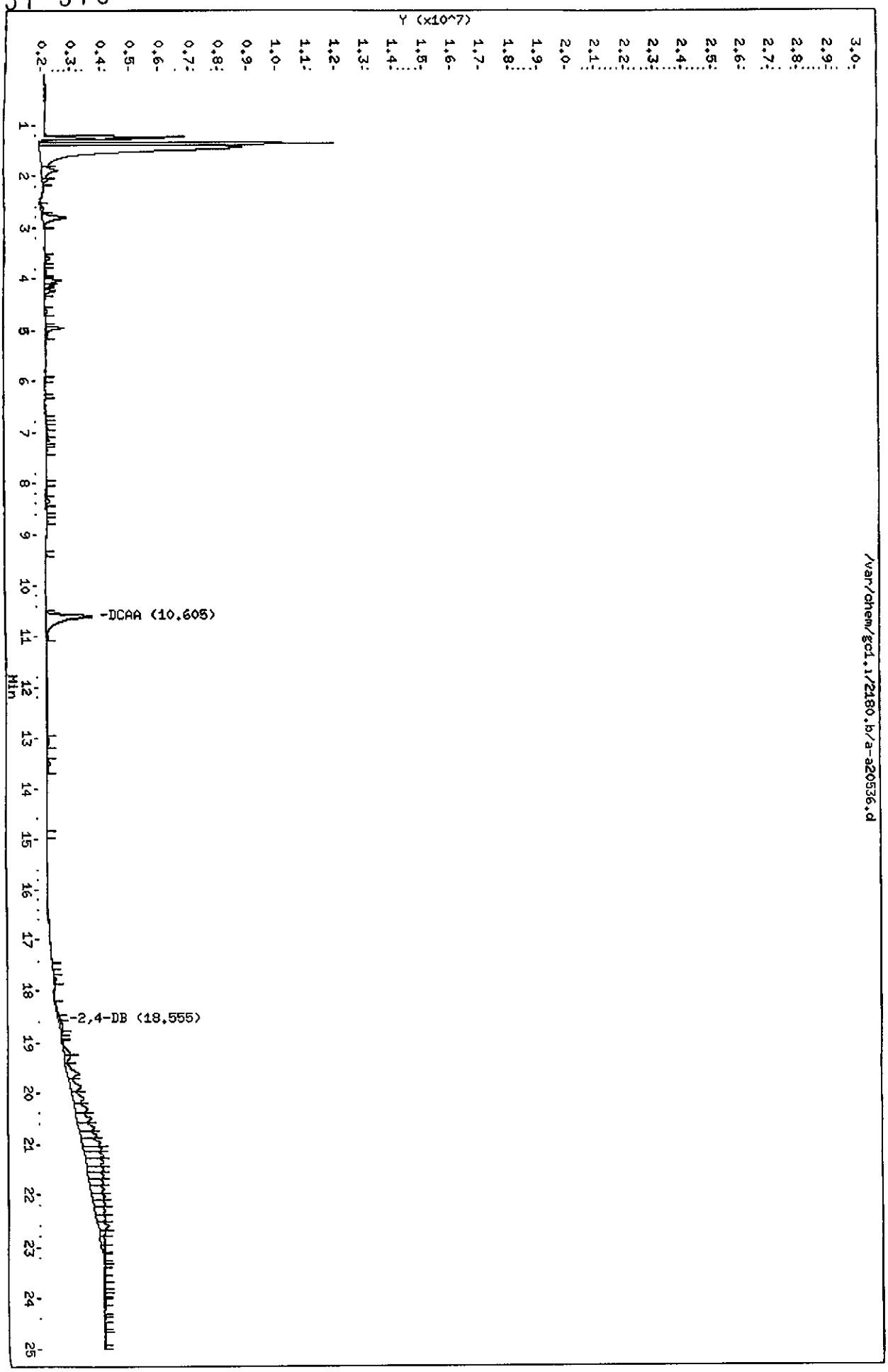
Name	Value	Description
DF	1.000	Dilution Factor
Vt	10.000	Volume of final extract (uL)
Vo	100.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (mg/L)
1	DALAPON	Compound Not Detected					
$ 2	DCAA	10.605	10 594	0.011	11821468	0.03896	0.07793(a)
3	MCPP	Compound Not Detected.					
4	DICAMBA	Compound Not Detected.					
5	MCPA	Compound Not Detected.					
6	DICHLOROPROP	Compound Not Detected.					
7	2,4-D	Compound Not Detected.					
8	PENTACHLOROPHENOL	Compound Not Detected					
9	2,4,5-TP(SILVEX)	Compound Not Detected					
10	2,4,5-T	Compound Not Detected					
11	DINOSEB	Compound Not Detected.					
12	2,4-DB	18.555	18.579	-0 024	83111	0 00211	0.004216(a)

Data File: /var/chem/gc1.i/2180.b/a-a20536.d
Report Date: 22-May-2000 08:55

QC Flag Legend

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


Data File: /var/chem/gc1.i/2180.b/a-a20536.d
Date : 20-MAY-2000 14:27
Client ID: PBLK
Sample Info: DDE44101,2180,b
Volume Injected (uL): 1.0
Column phase: DB608
Instrument: gc1.i
Operator: 01797
Column diameter: 0.53
/var/chem/gc1.i/2180.b/a-a20536.d
Y (x10^7)
-DCAA (10.605)
-2,4-DB (18.555)
Min

UXB INTERNATIONAL
CHECK SAMPLE COMPOUNDS

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

Matrix: (soil/water) ~~SOLID~~ ~~WATER~~ Lab Sample ID:C0E180000 489
Method: SW846 8151A
Herbicides (8151A) W 5/22/00

Sample WT/Vol: 100 / mL
Work Order: DDE4W102
Dilution factor: 1
Moisture %:NA

Date Received: 05/13/00
Date Extracted:05/18/00
Date Analyzed: 05/20/00

QC Batch: 0139489

Client Sample Id: CHECK SAMPLE

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) mg/L	Q
94-75-7	2,4-D	0.133	
93-72-1	2,4,5-TP (Silvex)	0.0323	

FORM I

Data File: /var/chem/gc1.i/2180.b/a-a20537.d
Report Date: 22-May-2000 08:55

STL-PITTSBURGH

Data file : /var/chem/gc1.i/2180.b/a-a20537.d
Lab Smp Id: DDE4W102 Client Smp ID: LCS
Inj Date : 20-MAY-2000 14:56
Operator : 01797 Inst ID: gc1.i
Smp Info : DDE4W102,2180.b
Misc Info : 130194LCS
Comment :
Method : /var/chem/gc1.i/2180.b/LONGH.m
Meth Date : 22-May-2000 08:08 g Quant Type: ESTD
Cal Date : 18-MAY-2000 12:08 Cal File: a-a20468.d
Als bottle: 10 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

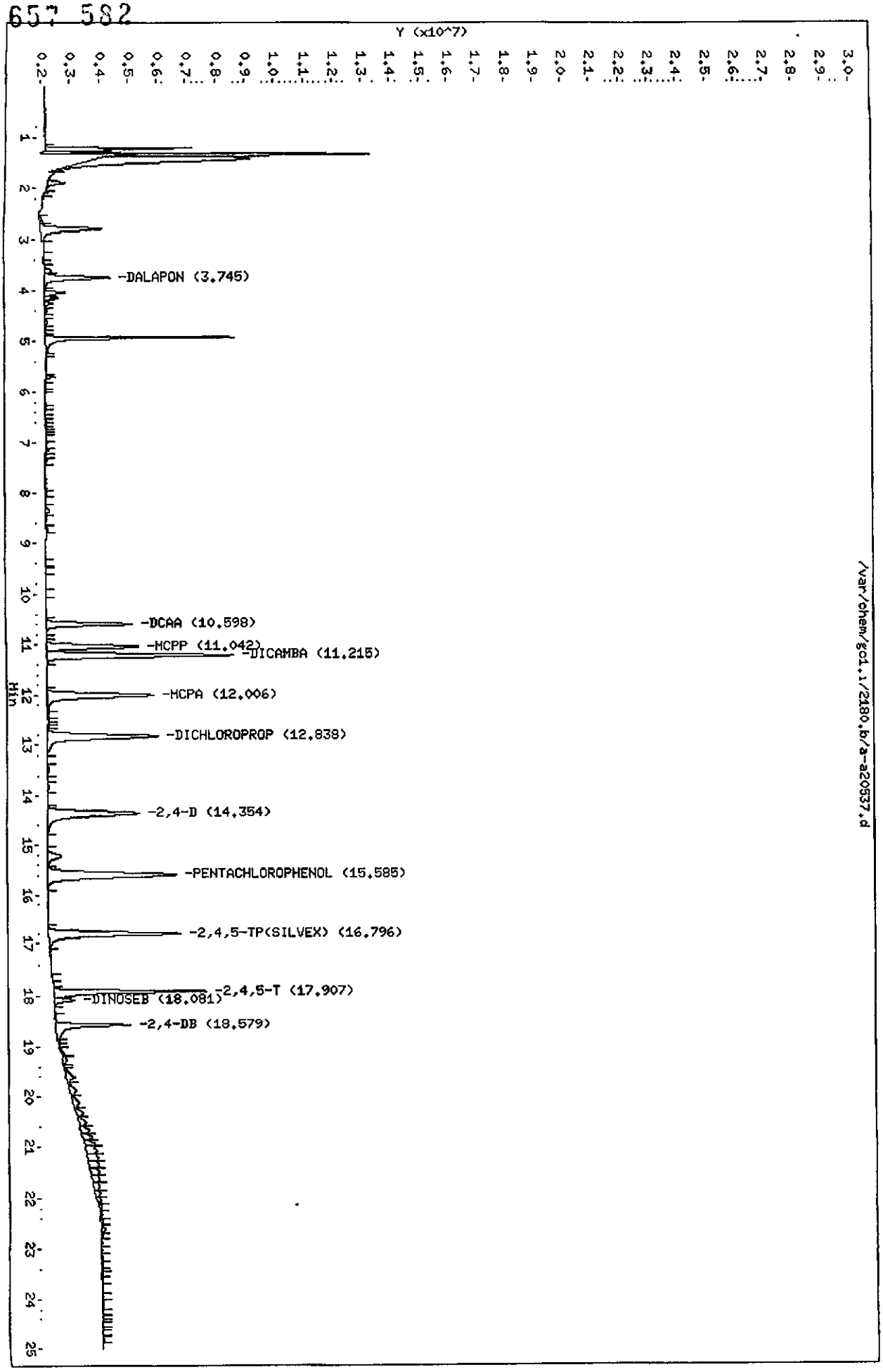
Name	Value	Description
DF	1.000	Dilution Factor
Vt	10.000	Volume of final extract (uL)
Vo	100.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (mg/L)
	1 DALAPON	3.745	3.739	0 006	2276647	0.02555	0 05110(aR)
$	2 DCAA	10.598	10.594	0 004	13509516	0.04453	0.08906(a)
	3 MCPP	11.042	11.036	0.006	3165066	6 66777	13 34
	4 DICAMBA	11.215	11.212	0 003	6402544	0.02865	0.05729(a)
	5 MCPA	12 006	12.001	0.005	3658101	6.51079	13 02
	6 DICHLOROPROP	12 838	12.836	0.002	3790550	0.06493	0.1299(a)
	7 2,4-D	14.354	14.348	0.006	3159564	0.06659	0 1332(aR)
	8 PENTACHLOROPHENOL	15.585	15.580	0 005	4402096	0 00793	0.01587(a)
	9 2,4,5-TP(SILVEX)	16 796	16 791	0.005	4553679	0 01616	0.03231(aR)
	10 2,4,5-T	17.907	17.910	-0 003	5233112	0 01586	0.03172(aR)
	11 DINOSEB	18 081	18 079	0.002	693827	0 00223	0.004465(a)
	12 2,4-DB	18.579	18.579	0.000	2599680	0.06594	0.1319(a)

Data File: /var/chem/gc1.i/2180.b/a-a20537.d
Report Date: 22-May-2000 08:55

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/gc1.i/2180.b/a-a20537.d
Date : 20-MAY-2000 14:56
Client ID: LCS
Sample Info: DDE4W102,2180,b
Volume Injected (uL): 1.0
Column phase: DB608
Instrument: gc1.i
Operator: 01797
Column diameter: 0.53
Y (x10^7)
/var/chem/gc1.i/2180.b/a-a20537.d
Min
-DALAPON (3.745)
-DCAA (10.598)
-MCPP (11.042)
-DICAMBA (11.215)
-MCPA (12.006)
-DICHLOROPROP (12.838)
-2,4-D (14.354)
-PENTACHLOROPHENOL (15.585)
-2,4,5-TP(SILVEX) (16.796)
-2,4,5-T (17.907)
-DINOSEB (18.081)
-2,4-DB (18.579)

UXB INTERNATIONAL
MATRIX SPIKE COMPOUNDS

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

Matrix: (soil/water) ~~SOLID~~ WATER Lab Sample ID:C0E130194 001
Method: SW846 8151A ms 5/22/00
Herbicides (8151A)

Sample WT/Vol: 100 / mL Date Received: 05/13/00
Work Order: DD6A411D Date Extracted:05/18/00
Dilution factor: 1 Date Analyzed: 05/20/00
Moisture %:10

QC Batch: 0139489

Client Sample Id: DF/S1/0133/SDC/001 A

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) mg/L	Q
94-75-7	2,4-D	0.133	
93-72-1	2,4,5-TP (Silvex)	0.0322	

657 584

Data File: /var/chem/gc1.i/2180.b/a-a20531.d
Report Date: 22-May-2000 08:55

STL-PITTSBURGH

Data file : /var/chem/gc1.i/2180.b/a-a20531.d
Lab Smp Id: DD6A411D Client Smp ID: DF/S1/0133/SDC/MS
Inj Date : 20-MAY-2000 12:02
Operator : 01797 Inst ID: gc1.i
Smp Info : DD6A411D,2180.b
Misc Info : 130194001S
Comment :
Method : /var/chem/gc1.i/2180.b/LONGH.m
Meth Date : 22-May-2000 08:08 g Quant Type: ESTD
Cal Date : 18-MAY-2000 12:08 Cal File: a-a20468.d
Als bottle: 4 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	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (mg/L)
	1 DALAPON	3.742	3.739	0.003	2236189	0.02510	0.05019(aR)
$	2 DCAA	10.595	10.594	0.001	12391207	0 04084	0.08168(a)
	3 MCPP	11 042	11.036	0.006	3180908	6.70115	13.40
	4 DICAMBA	11.213	11.212	0.001	7895838	0 03533	0 07066(a)
	5 MCPA	12.003	12.001	0.002	3732991	6 64408	13.29
	6 DICHLOROPROP	12.838	12.836	0.002	3944797	0 06757	0.1351(a)
	7 2,4-D	14.347	14.348	-0 001	3150651	0.06640	0 1328(aR)
	8 PENTACHLOROPHENOL	15 582	15.580	0.002	2896901	0 00522	0 01044(a)
	9 2,4,5-TP(SILVEX)	16.790	16.791	-0.001	4532904	0.01608	0.03216(aR)
	10 2,4,5-T	17.907	17.910	-0.003	5292004	0 01604	0 03208(aR)
	11 DINOSEB	18.077	18.079	-0.002	324719	0.00104	0.002090(a)
	12 2,4-DB	18 578	18.579	-0.001	2494486	0 06327	0.1265(a)

Data File: /var/chem/gc1.i/2180.b/a-a20531.d
Report Date: 22-May-2000 08:55

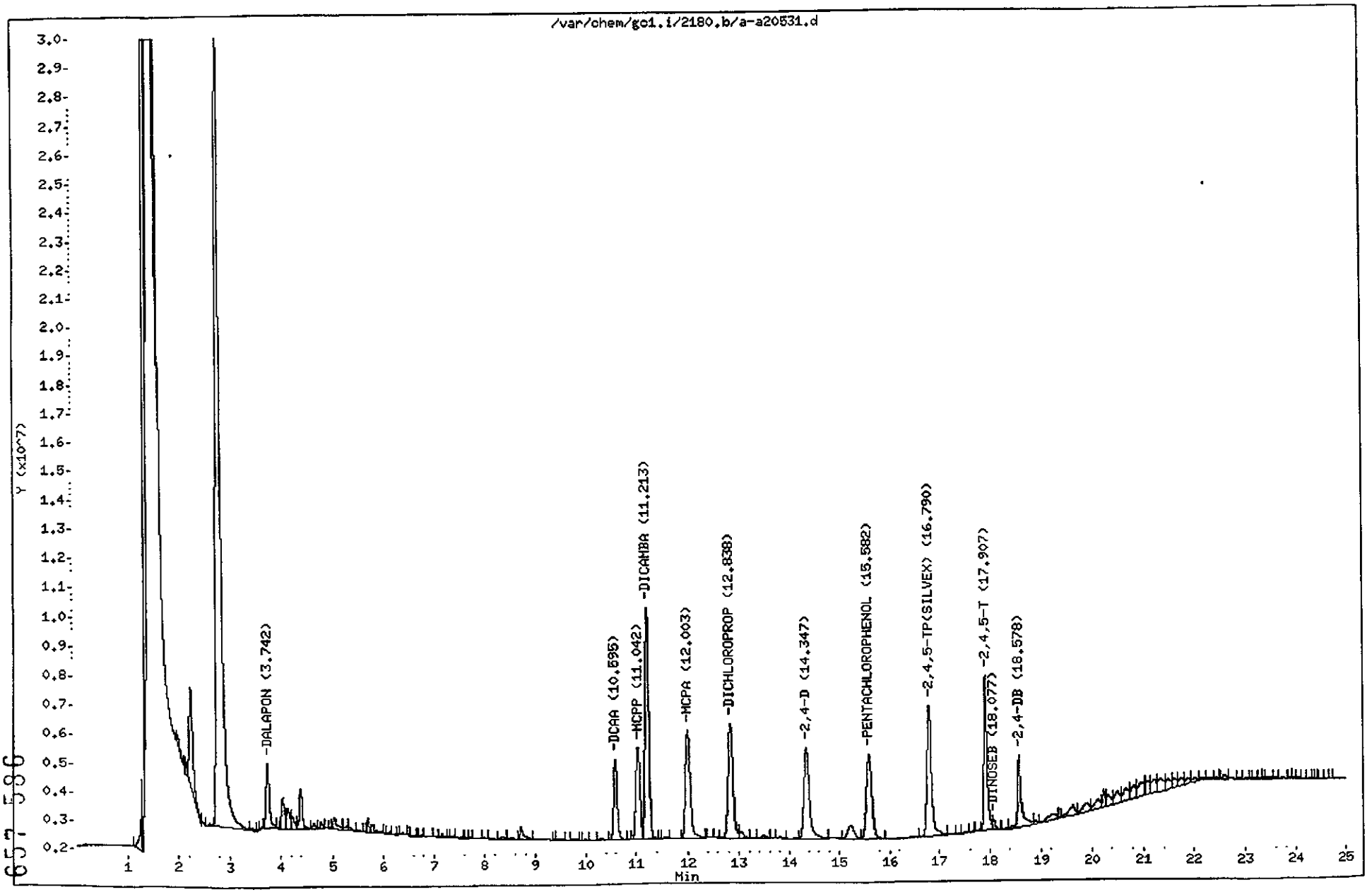
QC Flag Legend

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

Data File: /var/chem/gc1.i/2180.b/a-a20531.d
Date : 20-MAY-2000 12:02
Client ID: DF/S1/0133/SDC/MS
Sample Info: DD6A411D,2180.b
Volume Injected (uL): 1.0
Column phase: DB608

Instrument: gc1.i

Operator: 01797
Column diameter: 0.53



UXB INTERNATIONAL
MATRIX SPIKE DUPLICATE COMPOUNDS

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

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

Lab Sample ID:C0E130194 001

Sample WT/Vol: 100 / mL
Work Order: DD6A411E
Dilution factor: 1
Moisture %:10

Date Received: 05/13/00
Date Extracted:05/18/00
Date Analyzed: 05/20/00

QC Batch: 0139489

Client Sample Id: DF/S1/0133/SDC/001 A

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) mg/L	Q
94-75-7	2,4-D	0.144	
93-72-1	2,4,5-TP (Silvex)	0.0339	

657 588
Data File: /var/chem/gc1.i/2180.b/a-a20532.d
Report Date: 22-May-2000 08:55

STL-PITTSBURGH

Data file : /var/chem/gc1.i/2180.b/a-a20532.d
Lab Smp Id: DD6A411E Client Smp ID: DF/S1/0133/SDC/MSD
Inj Date : 20-MAY-2000 12:31
Operator : 01797 Inst ID: gc1.i
Smp Info : DD6A411E,2180.b
Misc Info : 130194001D
Comment :
Method : /var/chem/gc1.i/2180.b/LONGH.m
Meth Date : 22-May-2000 08:08 g Quant Type: ESTD
Cal Date : 18-MAY-2000 12:08 Cal File: a-a20468.d
Als bottle: 5 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.40

Concentration Formula: Amt * DF * 20*Vt/Vo/Vi

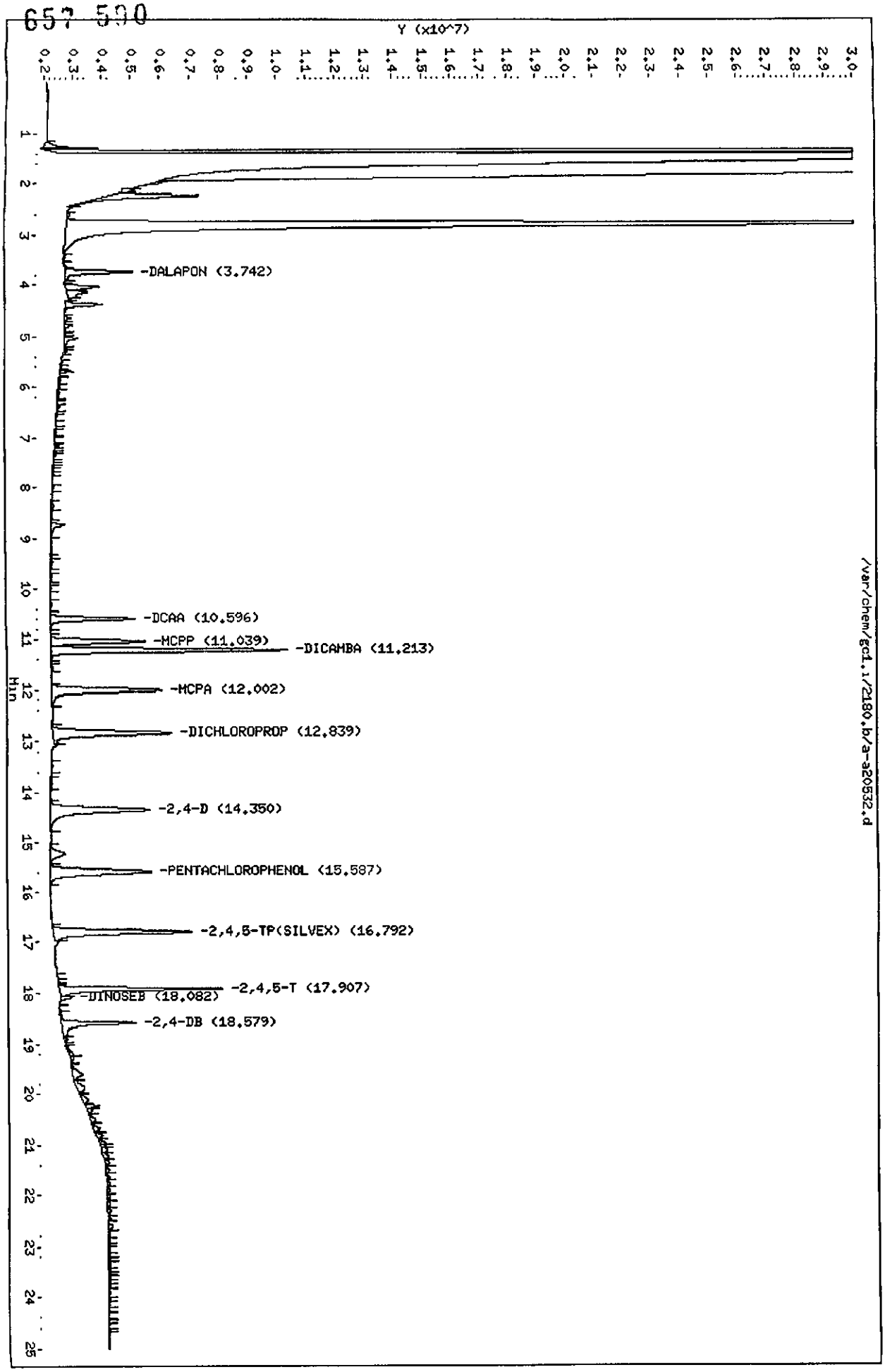
Name	Value	Description
DF	1.000	Dilution Factor
Vt	10.000	Volume of final extract (uL)
Vo	100.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (mg/L)
	1 DALAPON	3.742	3.739	0.003	2308136	0 02590	0.05181(aR)
$	2 DCAA	10.596	10 594	0.002	13014217	0 04290	0.08579(a)
	3 MCPP	11.039	11 036	0.003	3251457	6 84977	13 70
	4 DICAMBA	11.213	11.212	0.001	8123697	0.03635	0 07270(a)
	5 MCPA	12.002	12 001	0.001	3820491	6 79981	13 60
	6 DICHLOROPROP	12.839	12 836	0 003	4104129	0.07030	0.1406(a)
	7 2,4-D	14.350	14.348	0 002	3427686	0.07224	0 1445(aR)
	8 PENTACHLOROPHENOL	15 587	15.580	0 007	3454777	0.00623	0 01245(a)
	9 2,4,5-TP(SILVEX)	16 792	16.791	0.001	4774343	0.01694	0 03388(aR)
	10 2,4,5-T	17.907	17.910	-0.003	5612984	0.01701	0.03402(aR)
	11 DINOSEB	18.082	18 079	0 003	413389	0.00133	0.002660(a)
	12 2,4-DB	18 579	18.579	0 000	2589940	0.06570	0.1314(a)

Data File: /var/chem/gc1.i/2180.b/a-a20532.d
Report Date: 22-May-2000 08:55

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/gc1.i/2180.b/a-a20532.d
Date : 20-MAY-2000 12:34
Client ID: DF/S1/0133/SDC/HSD
Sample Info: DD6A41E,2180.b
Volume Injected (uL): 1.0
Column phase: DB608

Instrument: gc1.i
Operator: 01797
Column diameter: 0.53

HERBICIDE
MISCELLANEOUS

Separatory Funnel Extraction Worksheet

WT Grow TCLP

B# 0139489 HEX-N4429-BAKER

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

4063

Date Extraction Began	Date Completed	Parameter	Method	Solvent	Solvent Lot	Solvent Mfg.	Clean up Method
5-18-00	5-19-00	Herb (8151A)	3510C	MeCl2/Ether	T08286/BX276	Baker/BFI	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)	Cleanup Date
1	TOF 130 194	BLK	NA	5/2/2	100	10.0	190-89-3	1.0	NA	NA	NA
2		LCS		5					190-79-14	1.0	
3		~~BOSTON~~ 5-18	001MS	6							
4			001MSD	6							
5		001		6					NA	NA	
6		002		6							
7		003		6							
8		004		6							
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											
21											
22											
23											
24											
Analyst		FY	FY	FY	FY	JM	FY	FY	FY	FY	FY

F. Yurshinski 5-18-00

Extract(s) (Record line number from above)	Extract(s) Received Date	Time	Analyst	Location	Extract(s) Relinquished Date	Time	Analyst	Location
592 All Above	5-18-00	2218	F. Yurshinski	Org Prep	5-18-00	2228	F. Yurshinski	Ref to Ext
All Above	5-19-00	0500	James Miller	REFRIG-EXT.	5-19-00	1000	James Miller	REFRIG
All Above	5-20-00	0800	[illegible]	REFRIG	5-20-00	1000	[illegible]	REFRIG

Sodium Sulfate Mfg. Baker Lot Number N40624 Reviewed By James Miller Date 5-19-00

TCLP (Method 1311)

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

Quanterra Environmental Services

657593

Filter lot # 832070IW

QUA-411									
By: D. Grant	Date: 5-16-00	Checked by: [illegible]	Date: 5-17-00	pH Instrument: Accumet AR25	Probe: SN90820030	Serial Number: 038	Log Book Number: 96-MT-526
Project Number	Lot Number: E0E130194	Client Codes: 389411		Solution Number 1 - Log Book Number: 995404-12	Solution Number 2 - Log Book Number	Balance: C94817	

Fluid Determination

Sample ID	Wgt/Vol	Init pH	Final pH	Extract Fluid #1, or #2	Conc : HNO_3 to Acidity (for Metals)
DD6A4	5.00g / 96.5ml	9.61	1.83	50 #1	5ml
DD6A5	↓ / ↓	9.44	1.73	↓	7ml
DD6A6		9.39	1.79		4ml
DD6A7		9.36	1.70		4ml

GF 5-16-00

TCLP Extraction

	Sample ID	Wgt (g) Wet/Dry	Fluid Vol.		Final pH After Tumbling
1.	PB-TCLP 5-16-00	—	2000ml	Glass	4.93
2.	DD6A4	100.00g	↓	↓	6.26
3.	DD6A5	↓			6.31
4.	DD6A6				6.32
5.	DD6A7				6.31
6.	DD6A4				6.30
7.					
8.					
9					
10					
11					
12					
13					

GF 5-16-00

Extract(s)

(Record line number from above)

ALL ABOVE

Extract(s) Received

Date	Time	Analyst	Location
5-16-00	12:15	[signature]	MOTFLOW

Extract(s) Relinquished

Date	Time	Analyst	Location
5-16-00	12:20	[signature]	SD

* = Sample determined to have free-liquid, % solid determination was performed.

<5 = Extraction Fluid No. 1 5.7 mL Glacial Acetic Acid dil 500 mL + 64 3 mL of 1N Na OH dil to 1L (pH 4.93 ± 0.05)

>5 = Extraction Fluid No. 2 5 7 mL Glacial Acetic Acid dil to 1L (pH 2.88 ± 0 05)

ROOM TEMP - 23°C

Date/Time On: 5-16-00 15:45 | Date/Time Off: 5-17-00 9:30 | Agitation Apparatus RPMs.: 30 ± 2

pH Calibration	(4.0)	(7.0)	(10.0)
Date 5-16-00	4.00	7.01	10.03
Date 5-17-00	4.00	7.01	10.0

Comments

STL Pittsburgh

657 594
Sequence: C:\HPCHEM\2\SEQUENCE\2200.S

Created: DE 5-20-00

Sequence Table (Front Injector):

A

Vial Information Part:

Line	Vial	Vial Information
1	1	RINSE
2	2	190-80-3 529
3	3	130194001
4	4	130194001S
5	5	130194001D
6	6	130194002
7	7	130194003
8	8	130194004 535
9	9	130194BLK
10	10	130194LCS
11	11	~~100126003~~
12	12	~~100126004~~
13	13	~~100126005~~ 540
14	14	~~100126006~~
15	15	100126BLK
16	16	100126LCS
17	17	100126LCD
18	18	090125001 545
19	19	090125002
20	20	090125BLK
21	21	090125LCS
22	22	090125LCD
23	23	190-80-3 550
24	24	100183001
25	25	100183001S

√ED

MM 5/22/00

conf. req'd

100X

Line	Vial	Vial Information
26	26	100183001D
27	27	100183002
28	28	100183BLK 555
29	29	100183LCS
30	30	110158001
31	31	110158001S
32	32	110158001D
33	33	110158BLK 560
34	34	110158LCS
35	35	110226001
36	36	110226002
37	37	110226003
38	38	110226004 565
39	39	110226005
40	40	110226006
41	41	110226006S
42	42	110226006D
43	43	110226BLK 570
44	44	190-80-3
45	45	110226LCS
46	46	110226007
47	47	110226008
48	48	110226009 575
49	49	110226010
50	50	110226011
51	51	110226012
52	52	120236010
53	53	120166002 580

Line	Vial	Vial Information
54	54	120166003
55	55	120166005
56	56	120166006
57	57	120166007
58	58	120137001 585
59	59	130190001
60	60	130190002
61	61	160131001
62	62	120137BLK
63	63	120137LCS 590
64	64	120137LCD
65	65	190-80-3

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	HEXANE	HERB	1	Sample		
2	2	Mherb,2180.b	HERB	1	Sample		
3	3	DD6A4104,2180.b	HERB	1	Sample		
4	4	DD6A411D,2180.b	HERB	1	Sample		
5	5	DD6A411E,2180.b	HERB	1	Sample		
6	6	DD6A5104,2180.b	HERB	1	Sample		
7	7	DD6A6104,2180.b	HERB	1	Sample		
8	8	DD6A7104,2180.b	HERB	1	Sample		
9	9	DDE4W101,2180.b	HERB	1	Sample		
10	10	DDE4W102,2180.b	HERB	1	Sample		
11	11	DD0LQ101,2180.b	HERB	1	Sample		
12	12	DD0LR101,2180.b	HERB	1	Sample		
13	13	DD0LT101,2180.b	HERB	1	Sample		
14	14	DD0LV101,2180.b	HERB	1	Sample		
15	15	DD1RV101,2180.b	HERB	1	Sample		
16	16	DD1RV102,2180.b	HERB	1	Sample		
17	17	DD1RV103,2180.b	HERB	1	Sample		
18	18	DCX46102,2180.b	HERB	1	Sample		
19	19	DCX4H102,2180.b	HERB	1	Sample		
20	20	DD05F101,2180.b	HERB	1	Sample		
21	21	DD05F102,2180.b	HERB	1	Sample		
22	22	DD05F103,2180.b	HERB	1	Sample		
23	23	Mherb,2180.b	HERB	1	Sample		
24	24	DD16N102,2180.b	HERB	1	Sample		
25	25	DD16N106,2180.b	HERB	1	Sample		
26	26	DD16N107,2180.b	HERB	1	Sample		
27	27	DD17C102,2180.b	HERB	1	Sample		

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
28	28	DD1T5101,2180.b	HERB	1	Sample		
29	29	DD1T5102,2180.b	HERB	1	Sample		
30	30	DD2LG101,2180.b	HERB	1	Sample		
31	31	DD2LG102,2180.b	HERB	1	Sample		
32	32	DD2LG103,2180.b	HERB	1	Sample		
33	33	DDE53101,2180.b	HERB	1	Sample		
34	34	DDE53102,2180.b	HERB	1	Sample		
35	35	DD3CP102,2180.b	HERB	1	Sample		
36	36	DD3CQ102,2180.b	HERB	1	Sample		
37	37	DD3CR101,2180.b	HERB	1	Sample		
38	38	DD3CT101,2180.b	HERB	1	Sample		
39	39	DD3CW101,2180.b	HERB	1	Sample		
40	40	DD3D1101,2180.b	HERB	1	Sample		
41	41	DD3D1102,2180.b	HERB	1	Sample		
42	42	DD3D1103,2180.b	HERB	1	Sample		
43	43	DD931101,2180.b	HERB	1	Sample		
44	44	Mherb,2180.b	HERB	1	Sample		
45	45	DD931102,2180.b	HERB	1	Sample		
46	46	DD3DD101,2180.b	HERB	1	Sample		
47	47	DD3DK101,2180.b	HERB	1	Sample		
48	48	DD3DM101,2180.b	HERB	1	Sample		
49	49	DD3DP101,2180.b	HERB	1	Sample		
50	50	DD3DQ101,2180.b	HERB	1	Sample		
51	51	DD3DR101,2180.b	HERB	1	Sample		
52	52	DD59M101,2180.b	HERB	1	Sample		
53	53	DD4JG102,2180.b	HERB	1	Sample		
54	54	DD4JT102,2180.b	HERB	1	Sample		
55	55	DD4K0102,2180.b	HERB	1	Sample		
56	56	DD4K3102,2180.b	HERB	1	Sample		
57	57	DD4K5102,2180.b	HERB	1	Sample		
58	58	DD4A6102,2180.b	HERB	1	Sample		
59	59	DD693102,2180.b	HERB	1	Sample		
60	60	DD694102,2180.b	HERB	1	Sample		
61	61	DD7VM102,2180.b	HERB	1	Sample		
62	62	DDE54101,2180.b	HERB	1	Sample		
63	63	DDE54102,2180.b	HERB	1	Sample		
64	64	DDE54103,2180.b	HERB	1	Sample		
65	65	Mherb,2180.b	HERB	1	Sample		

Sequence Table (Back Injector):

Vial Information Part:

Line	Vial	Vial Information
1	100	RINSE
2	1	RINSE
3	2	190-80-3
4	3	130194001
5	4	130194001S

OK 5/20/00

Sequence: C:\HPCHEM\2\SEQUENCE\2180.S

657 598
Created: DE 5-19-00

Sequence Table (Front Injector):

A

Vial Information Part:

Line	Vial	Vial Information
1	1	RINSE
2	2	190-80-1 464
3	3	190-80-2
4	4	190-80-3
5	5	190-80-4
6	6	190-80-5
7	7	060132015
8	8	060132015S 470
9	9	060132015D
10	10	060132BLK
11	11	060132LCS
12	12	050196001
13	13	050196001S 475
14	14	050196001D
15	15	050196002
16	16	050196003
17	17	050196004
18	18	050196005 480
19	19	050196006
20	20	050196007
21	21	050196008
22	22	050196009
23	23	050196010 485
24	24	050196011
25	25	050196BLK

Line	Vial	Vial Information
26	26	050196LCS
27	27	190-80-3
28	28	050196012 490
29	29	050196013
30	30	050196014
31	31	050196015
32	32	050196016
33	33	050196017 495
34	34	050196018
35	35	050196019
36	36	060132001
37	37	060132001S
38	38	060132001D 500
39	39	060132002
40	40	060132003
41	41	060132004
42	42	060132005
43	43	060132006 505
44	44	060132007
45	45	060132008
46	46	060132BLK
47	47	060132LCS
48	48	190-80-3 510
49	49	060132009
50	50	060132010
51	51	060132011
52	52	060132012
53	53	060132013 515

Sequence: C:\HPCHEM\2\SEQUENCE\2180.S

657 600

Line	Vial	Vial Information
54	54	060132014
55	55	160130001
56	56	160130001S
57	57	160130001D
58	58	160130002 570
59	59	160130BLK
60	60	160130LCS
61	61	180156001
62	62	180156BLK
63	63	180156LCS 575
64	64	180156LCD
65	65	190-80-3

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	1	HEXANE	HERB	1	Sample		
2	2	Lherb,2180.b	HERB	1	Sample		
3	3	MLherb,2180.b	HERB	1	Sample		
4	4	Mherb,2180.b	HERB	1	Sample		
5	5	MHherb,2180.b	HERB	1	Sample		
6	6	Hherb,2180.b	HERB	1	Sample		
7	7	DCVJ3101,2180.b	HERB	1	Sample		
8	8	DCVJ3102,2180.b	HERB	1	Sample		
9	9	DCVJ3103,2180.b	HERB	1	Sample		
10	10	DD92W101,2180.b	HERB	1	Sample		
11	11	DD92W102,2180.b	HERB	1	Sample		
12	12	DCT88101,2180.b	HERB	1	Sample		
13	13	DCT88102,2180.b	HERB	1	Sample		
14	14	DCT88103,2180.b	HERB	1	Sample		
15	15	DCT8H101,2180.b	HERB	1	Sample		
16	16	DCT8J101,2180.b	HERB	1	Sample		
17	17	DCT8N101,2180.b	HERB	1	Sample		
18	18	DCT8V101,2180.b	HERB	1	Sample		
19	19	DCT90101,2180.b	HERB	1	Sample		
20	20	DCT91101,2180.b	HERB	1	Sample		
21	21	DCT93101,2180.b	HERB	1	Sample		
22	22	DCT94101,2180.b	HERB	1	Sample		
23	23	DCT9A101,2180.b	HERB	1	Sample		
24	24	DCT9C101,2180.b	HERB	1	Sample		
25	25	DDAVX101,2180.b	HERB	1	Sample		
26	26	DDAVX102,2180.b	HERB	1	Sample		
27	27	Mherb,2180.b	HERB	1	Sample		

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
28	28	DCT9E101,2180.b	HERB	1	Sample		
29	29	DCT9J101,2180.b	HERB	1	Sample		
30	30	DCT9K101,2180.b	HERB	1	Sample		
31	31	DCT9L101,2180.b	HERB	1	Sample		
32	32	DCT9M101,2180.b	HERB	1	Sample		
33	33	DCT9Q101,2180.b	HERB	1	Sample		
34	34	DCT9R101,2180.b	HERB	1	Sample		
35	35	DCT9T101,2180.b	HERB	1	Sample		
36	36	DCVHK101,2180.b	HERB	1	Sample		
37	37	DCVHK102,2180.b	HERB	1	Sample		
38	38	DCVHK103,2180.b	HERB	1	Sample		
39	39	DCVHL101,2180.b	HERB	1	Sample		
40	40	DCVHM101,2180.b	HERB	1	Sample		
41	41	DCVHP101,2180.b	HERB	1	Sample		
42	42	DCVHQ101,2180.b	HERB	1	Sample		
43	43	DCVHR101,2180.b	HERB	1	Sample		
44	44	DCVHT101,2180.b	HERB	1	Sample		
45	45	DCVHV101,2180.b	HERB	1	Sample		
46	46	DDAW7101,2180.b	HERB	1	Sample		
47	47	DDAW7102,2180.b	HERB	1	Sample		
48	48	Mherb,2180.b	HERB	1	Sample		
49	49	DCVHV101,2180.b	HERB	1	Sample		
50	50	DCVHW101,2180.b	HERB	1	Sample		
51	51	DCVHX101,2180.b	HERB	1	Sample		
52	52	DCVJ0101,2180.b	HERB	1	Sample		
53	53	DCVJ1101,2180.b	HERB	1	Sample		
54	54	DCVJ2101,2180.b	HERB	1	Sample		
55	55	DD7V9102,2180.b	HERB	1	Sample		
56	56	DD7V9104,2180.b	HERB	1	Sample		
57	57	DD7V9105,2180.b	HERB	1	Sample		
58	58	DD7VJ102,2180.b	HERB	1	Sample		
59	59	DD98R101,2180.b	HERB	1	Sample		
60	60	DD98R102,2180.b	HERB	1	Sample		
61	61	DDCHQ102,2180.b	HERB	1	Sample		
62	62	DDE86101,2180.b	HERB	1	Sample		
63	63	DDE86102,2180.b	HERB	1	Sample		
64	64	DDE86103,2180.b	HERB	1	Sample		
65	65	Mherb,2180.b	HERB	1	Sample		

Sequence Table (Back Injector):

Vial Information Part:

Line	Vial	Vial Information
1	100	RINSE
2	1	RINSE
3	2	190-80-1
4	3	190-80-2
5	4	190-80-3

DE 5-19-00

657 602

PSR024 5/18/00 13:49:54 MT SAMPLE CUSTODIAN REMOVAL REQUEST PAGE 001

REQUESTED BY: **YUSHINSC**

METHOD: QS Herbicides (8151A)

STORAGE LOCATION	WORK ORDER #	PICKED CNTR#	CONTROL #	CLIENT #	ANALYSIS	LOTID	SMP#	SFX	MATRIX DESCRIPTION	QTY RCVD	QTY REQD
2F CLP1	DD6A4-1-04	___ ___ ___	234894	399411	A-64-QS	C0E130194	001		SOLID	0 3	1
2F CLP1	DD6A5-1-04	___ ___ ___	234895	399411	A-64-QS	C0E130194	002		SOLID	0 3	1
2F CLP1	DD6A6-1-04	___ ___ ___	234896	399411	A-64-QS	C0E130194	003		SOLID	0 3	1
2F CLP1	DD6A7-1-04	___ ___ ___	234897	399411	A-64-QS	C0E130194	004		SOLID	0 3	1

RELINQUISHED BY	RECEIVED BY	DATE/TIME
T Yushinski	T Yushinski	5-18-00 1540
T Yushinski	T Yushinski	5-18-00 22

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

METALS DATA

STL-Pittsburgh

Cover Page - Inorganic Analysis Data Package

Client ID	Lab Sample ID:
DF/S1/0133/SDC/001 A	DD6A4
DF/S1/0133/SDC/001 AD	DD6A4D
DF/S1/0133/SDC/001 AS	DD6A4S
DF/S1/0133/SDC/001 B	DD6A5
DF/S1/0133/SDC/001 C	DD6A6
DF/S1/0133/SDC/001 D	DD6A7

Comments: UXB DUNN FIELD
C0E130194 - TOTALS
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: 5-21-00

Version 3.63.3

Cover Page Equivalent

METALS
RESULTS

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: DD6A4 **Client ID:** DF/S1/0133/SDC/001 A

Matrix: Soil **Units:** mg/kg **Prep Date:** 5/16/00 **Prep Batch:** 0137277

Weight: 1.0 **Volume:** 100 **Percent Moisture:** 10.39

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Arsenic	189.04	0.29	1.1	7.7		1	ICPST	5/17/00	9:15

Comments: Lot #. C0E130194 Sample #: 1

Version 3.63.3

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: DD6A5 **Client ID:** DF/S1/0133/SDC/001 B

Matrix: Soil **Units:** mg/kg **Prep Date:** 5/16/00 **Prep Batch:** 0137277

Weight: 1.0 **Volume:** 100 **Percent Moisture:** 8.64

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Arsenic	189.04	0.28	1.1	7.2		1	ICPST	5/17/00	9:32

Comments. Lot #: C0E130194 Sample #: 2

Version 3.63.3

U Result is less than the MDL

B Result is between MDL and RL

Form I Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: DD6A6 **Client ID:** DF/S1/0133/SDC/001 C

Matrix: Soil **Units:** mg/kg **Prep Date:** 5/16/00 **Prep Batch:** 0137277

Weight: 1.0 **Volume:** 100 **Percent Moisture:** 10.27

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Arsenic	**189.04**	**0.29**	**1.1**	**8.1**		**1**	**ICPST**	**5/17/00**	**9:36**

Comments: Lot #: C0E130194 Sample #: 3

Version 3.63.3

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: DD6A7 **Client ID:** DF/S1/0133/SDC/001 D

Matrix: Soil **Units:** mg/kg **Prep Date:** 5/16/00 **Prep Batch:** 0137277

Weight: 1.0 **Volume:** 100 **Percent Moisture:** 10.81

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Arsenic	189.04	0.29	1.1	7.7		1	ICPST	5/17/00	9:48

Comments: Lot #: C0E130194 Sample #: 4

Version 3.63.3

U Result is less than the MDL

B Result is between MDL and RL

Form 1 Equivalent

657 610

Metals Data Reporting Form

Initial Calibration Verification Standard

Instrument: ICPST

Units: ug/L

Chart Number: T00517A.ARC

Acceptable Range: 90% - 110%

Standard Source: Inorganic Ventures

Standard ID: 0014-079-6

Element	WL/ Mass	True Conc	ICV3-1 5/17/00 8:48 AM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Arsenic	189.042	250.0	261.47	104.6								

Version 3.63 3

Form 2A Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Continuing Calibration Verification

Instrument: ICPST **Units:** ug/L

Chart Number: T00517A.ARC **Acceptable Range:** 90% - 110%

Standard Source: Inorganic Ventures **Standard ID:** 0014-084-5

Element	WL/ Mass	True Conc	CCV3-1 5/17/00 9:40 AM Found	% Rec	CCV3-2 5/17/00 9:53 AM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Arsenic	189.042	500.0	507.31	101.5	517.33	103.5						

657 612

STL-Pittsburgh

Metals Data Reporting Form

Initial Calibration Blank Results

Instrument: ICPST **Units:** ug/L

Chart Number: T00517A.ARC

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	ICB1 5/17/00 8:52 AM Found	Q	Found	Q	Found	Q	Found	Q	Found	Q
Arsenic	189.042	10	2.6	U								

Version 3.63.3

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

Form 3 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Continuing Calibration Blank Results

Instrument: ICPST **Units:** ug/L

Chart Number: T00517A.ARC

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	CCB1 5/17/00 9:44 AM Found	Q	CCB2 5/17/00 9:57 AM Found	Q	Found	Q	Found	Q	Found	Q
Arsenic	189.042	10	2.6	U	2.6	U						

STL-Pittsburgh

Metals Data Reporting Form

Preparation Blank Results

Lab Sample ID: DD8AMB

Matrix: Soil **Units:** mg/kg **Prep Date:** 5/16/00 **Prep Batch:** 0137277

Weight: 1.0 **Volume:** 100 **Percent Moisture:** NA

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Arsenic	189.042	0.26	1.0	0.26	U	1	ICPST	5/17/00	9:07

Comments: Lot #: C0E130194

Version 3.63.3

U Result is less than the MDL

B Result is between MDL and RL

Form 3 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Interference Check Standard A

Instrument: ICPST **Units:** ug/L

Chart Number: T00517A.ARC **Acceptable Range:** 0% - 0%

Standard Source: Inorganic Ventures **Standard ID:** 0014-088-12

Element	WL/ Mass	Reporting Limit	True Conc	ICSA 5/17/00 8:56 AM Found	Found	Found	Found	Found
Arsenic	189.042	10		3(U)				

MRW 5-22-00

Version 3.63.3

U Result is less than the MDL

B Result is between MDL and RL

Form 4 Equivalent

657 616

Metals Data Reporting Form

Interference Check Standard AB

Instrument: ICPST **Units:** ug/L

Chart Number: T00517A.ARC **Acceptable Range:** 80% - 120%

Standard Source: Inorganic Ventures **Standard ID:** 0014-075-12

Element	WL/ Mass	True Conc	ICSAB 5/17/00 9:01 AM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Arsenic	189.042	1000	1051.0	**105.1**								

Version 3.63.3

U Result is less than the MDL
B Result is between MDL and RL
N Spike recovery failed

Form 4 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Matrix Spike Sample Results

Spike Sample ID: DD6A4S

Original Sample ID: DD6A4 **Client ID:** DF/S1/0133/SDC/001 AS

Matrix: Soil **Units:** mg/kg **Prep Date:** 5/16/00 **Prep Batch:** 0137277

Weight: 1.0 **Volume:** 100 **Percent Moisture:** 10.39

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	7.7		216		223.19	93.1	1	1	ICPST	5/17/00	9:15	5/17/00	9:24

Comments: Lot #: C0E130194 Sample #: 1

Version 3.63 3

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

657 618

Metals Data Reporting Form

Matrix Spike Duplicate Sample Results

Spike Sample ID: DD6A4D

Original Sample ID: DD6A4 **Client ID:** DF/S1/0133/SDC/001 AD

Matrix: Soil **Units:** mg/kg **Prep Date:** 5/16/00 **Prep Batch:** 0137277

Weight: 1.0 **Volume:** 100 **Percent Moisture:** 10.39

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	7.7		217		223.19	93.7	1	1	ICPST	5/17/00	9:15	5/17/00	9:28

Comments: Lot #: C0E130194 Sample #: 1

Version 3.63.3

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

Form 5A Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Matrix Spike Duplicate RPD Report

Matrix Spike Duplicate Sample ID: DD6A4D

Matrix Spike Sample ID: DD6A4S **Client ID:** DF/S1/0133/SDC/001 AD

Matrix: Soil **Units:** mg/kg **Prep Date:** 5/16/00 **Prep Batch:** 0137277

Weight: 1.0 **Volume:** 100 **Percent Moisture:** 10.39

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	216		217		0.6 %	1	1	ICPST	5/17/00	9:24	5/17/00	9:28

Comments: Lot #: C0E130194 Sample #: 1

Version 3.63.3

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

Form 6 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Laboratory Control Sample Results

Lab Sample ID: DD8AMC

Matrix: Soil **Units:** mg/kg **Prep Date:** 5/16/00 **Prep Batch:** 0137277

Weight: 1.0 **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	198	98.7		80-120	1	ICPST	5/17/00	9:11

Comments: Lot #: C0E130194

Version 3.63.3

U Result is less than the MDL

B Result is between MDL and RL

Form 7 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Serial Dilution RPD Report

Serial Dilution Sample ID: DD6A4P

Original Sample ID: DD6A4 **Client ID:** DF/S1/0133/SDC/001 A

Matrix: Soil **Units:** mg/kg **Prep Date:** 5/16/00 **Prep Batch:** 0137277

Weight: 1.0 **Volume:** 100 **Percent Moisture:** 10.39

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	7.7		7.8			1	5	ICPST	5/17/00	9:15	5/17/00	9:19

Comments:

Version 3.63.3

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

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

STL-Pittsburgh

Metals Data Reporting Form

Inter-Element Correction Factors

Instrument: ICPST **Date of IEC's:** 3/23/00

Interfering Element	Wavelength /Mass	Correction Factor(s)
Aluminum	308.215	Pb(0.000521), Tl(-0.000024)
Aluminum	308.215	Pb(-0.00021)
Chromium	267.716	Sb(0.006657)
Chromium	267.716	As(-0.002866), Sb(0.011574)
Cobalt	228.616	Pb(0.000021), Se(-0.000486)
Cobalt	228.616	Cd(-0.000119), Fe(0.078354), Ni(-0.000459), Pb(-0.000632), Se(0.000542), Tl(0.002839)
Iron	271.441	Pb(0.000053), Sb(0.000025), Se(-0.000357)
Iron	271.441	Cd(0.000097), Cr(-0.00001), Pb(0.00011), Sb(0.000021), Se(0.000012), V(-0.000261), Zn(0.000116)
Magnesium	279.078	Fe(-0.00063)
Manganese	257.61	Se(0.000566)
Manganese	257.61	Se(0.000509), Tl(-0.00542)
Molybdenum	202.03	As(-0.000973), Pb(-0.000443), Sb(-0.002114), Se(0.000412)
Molybdenum	202.03	Pb(-0.00095), Sb(-0.009783)
Nickel	231.604	Pb(0.000115)
Nickel	231.604	Pb(0.00033), Sb(-0.001031), Zn(0.004462)
Vanadium	292.402	Pb(-0.000387)
Vanadium	292.402	Al(0.024171), Be(-0.008664), Cr(-0.000104), Fe(0.013874), Pb(0.00004), Sb(-0.007914), Se(0.000373), Tl(0.001639)

STL-Pittsburgh

Metals Data Reporting Form

Linear Dynamic Ranges

Instrument: ICPST **Units:** ppb

Element	Wavelength /Mass	Linear Range	Date of Linear Range
Arsenic	189.04	10000	3/15/00

STL-Pittsburgh

Metals Data Reporting Form

Preparation Log

Preparation Batch: 0137277 **Instrument:** ICP **Matrix:** Soil

Sample ID	Prep Date	Weight (g)	Volume (ml)	% Moisture
DD8AMB	5/16/00	1.0	100	NA
DD8AMC	5/16/00	1.0	100	NA
DD6A4	5/16/00	1.0	100	10.39
DD6A4D	5/16/00	1.0	100	10.39
DD6A4S	5/16/00	1.0	100	10.39
DD6A5	5/16/00	1.0	100	8.64
DD6A6	5/16/00	1.0	100	10.27
DD6A7	5/16/00	1.0	100	10.81

STL-Pittsburgh

Metals Data Reporting Form

Instrument Runlog

Instrument: ICPST **Chart Number:** T00517A.ARC

Sample Name	Date of Analysis	Time of Analysis
ZZZZZZ	5/17/00	8:09 AM
ZZZZZZ	5/17/00	8:13 AM
ZZZZZZ	5/17/00	8:17 AM
ZZZZZZ	5/17/00	8:21 AM
STD1	5/17/00	8:36 AM
STD6	5/17/00	8:40 AM
STD7	5/17/00	8:44 AM
ICV3-1	5/17/00	8:48 AM
ICB1	5/17/00	8:52 AM
ICSA	5/17/00	8:56 AM
ICSAB	5/17/00	9:01 AM
DD8AMB	5/17/00	9:07 AM
DD8AMC	5/17/00	9:11 AM
DD6A4	5/17/00	9:15 AM
DD6A4P	5/17/00	9:19 AM
DD6A4S	5/17/00	9:24 AM
DD6A4D	5/17/00	9:28 AM
DD6A5	5/17/00	9:32 AM
DD6A6	5/17/00	9:36 AM
CCV3-1	5/17/00	9:40 AM
CCB1	5/17/00	9:44 AM
DD6A7	5/17/00	9:48 AM
CCV3-2	5/17/00	9:53 AM
CCB2	5/17/00	9:57 AM
ZZZZZZ	5/17/00	10:01 AM
ZZZZZZ	5/17/00	10:05 AM
ZZZZZZ	5/17/00	10:09 AM
ZZZZZZ	5/17/00	10:13 AM
ZZZZZZ	5/17/00	10:18 AM
ZZZZZZ	5/17/00	10:22 AM
ZZZZZZ	5/17/00	10:26 AM
ZZZZZZ	5/17/00	10:30 AM
ZZZZZZ	5/17/00	10:34 AM
ZZZZZZ	5/17/00	10:38 AM
ZZZZZZ	5/17/00	10:42 AM
ZZZZZZ	5/17/00	10:47 AM
ZZZZZZ	5/17/00	10:51 AM
ZZZZZZ	5/17/00	10:55 AM
ZZZZZZ	5/17/00	10:59 AM
ZZZZZZ	5/17/00	11:03 AM
ZZZZZZ	5/17/00	11:07 AM

STL-Pittsburgh

Metals Data Reporting Form

Instrument Runlog

Instrument: ICPST **Chart Number:** T00517A.ARC

Sample Name	Date of Analysis	Time of Analysis
ZZZZZZ	5/17/00	11:12 AM
ZZZZZZ	5/17/00	11:16 AM
ZZZZZZ	5/17/00	11:20 AM
ZZZZZZ	5/17/00	11:24 AM
ZZZZZZ	5/17/00	11:28 AM
ZZZZZZ	5/17/00	11:32 AM
ZZZZZZ	5/17/00	11:36 AM
ZZZZZZ	5/17/00	11:41 AM
ZZZZZZ	5/17/00	11:45 AM
ZZZZZZ	5/17/00	11:49 AM
ZZZZZZ	5/17/00	11:53 AM
ZZZZZZ	5/17/00	11:57 AM
ZZZZZZ	5/17/00	12:01 PM
ZZZZZZ	5/17/00	12:06 PM
ZZZZZZ	5/17/00	12:10 PM
ZZZZZZ	5/17/00	12:14 PM
ZZZZZZ	5/17/00	12:18 PM
ZZZZZZ	5/17/00	12:22 PM
ZZZZZZ	5/17/00	12:26 PM
ZZZZZZ	5/17/00	12:31 PM
ZZZZZZ	5/17/00	12:35 PM
ZZZZZZ	5/17/00	12:39 PM
ZZZZZZ	5/17/00	12:43 PM
ZZZZZZ	5/17/00	12:47 PM
ZZZZZZ	5/17/00	12:51 PM
ZZZZZZ	5/17/00	12:56 PM
ZZZZZZ	5/17/00	1:00 PM
ZZZZZZ	5/17/00	1:04 PM
ZZZZZZ	5/17/00	1:08 PM
ZZZZZZ	5/17/00	1:12 PM
ZZZZZZ	5/17/00	1:16 PM
ZZZZZZ	5/17/00	1:20 PM
ZZZZZZ	5/17/00	1:25 PM
ZZZZZZ	5/17/00	1:29 PM
ZZZZZZ	5/17/00	1:33 PM
ZZZZZZ	5/17/00	1:37 PM
ZZZZZZ	5/17/00	1:41 PM
ZZZZZZ	5/17/00	1:45 PM
ZZZZZZ	5/17/00	1:50 PM
ZZZZZZ	5/17/00	1:54 PM
ZZZZZZ	5/17/00	1:58 PM

STL-Pittsburgh

Metals Data Reporting Form

Instrument Runlog

Instrument: ICPST **Chart Number:** T00517A.ARC

Sample Name	Date of Analysis	Time of Analysis
ZZZZZZ	5/17/00	2:02 PM
ZZZZZZ	5/17/00	2:06 PM

METALS
RAW DATA

COE130194 657 630

Returned 5.17.00

#	Sample Name	AS
1	STD1	-.00331
2	STD6	5.34553
3	STD7	
4	ICV3-1 0014-079-6	.26147
5	ICB1	-.00053
6	ICSA 0014-088-12	-.00138
7	ICSAB 0014-075-12	1.0510
8	DD8AMB	.00018
9	DD8AMC	1.9749
10	DD6A4	.06865
11	DD6A4P5	.01392
12	DD6A4S	1.9310
13	DD6A4D	1.9422
14	DD6A5	.06566
15	DD6A6	.07272
16	CCV3-1 0014-084-5	.50731
17	CCB1	-.00043
18	DD6A7	.06883
19	CCV3-2	.51733
20	CCB2	.00027
21	DD0L6B	-.00040
22	DD0L6C	1.9427
23	DCQF8	.00149
24	DCQFL	.00090
25	DCQFR	.00157
26	DCQFX	.00099
27	DCQG5	.00182
28	DCQGK	-.00083
29	DCQGM	.01887
30	DCQGN	.00481
31	CCV3-3	.51603
32	CCB3	-.00182
33	DCQGQ	.00260
34	DCQGV	.01129
35	DCVMD	.00052
36	DCVME	.00121
37	DCVMF	.00005
38	DCVMG	.00003
39	DCVMH	.00021
40	DCVMHP5	-.00001
41	DCVMHS	2.0957
42	DCVMHD	2.1676
43	CCV3-4	.50734
44	CCB4	-.00006
45	DCVMK	.00057
46	DCVML	.00151
47	DCVMM	.00106
48	DCVMN	.00108
49	DCVMP	.00039
50	DD8DGBF	.00019
51	DD8DGCF	2.0111
52	DCQF8F	.00063
53	DCQFLF	.00130

#	Sample Name	AS
54	DCQFRF	-.00057
55	CCV3-5	.52236
56	CCB5	-.00031
57	DCQFXF	-.00026
58	DCQG5F	.00201
59	DCQGKF	.00072
60	DCQGMF	.01650
61	DCQGNF	.00446
62	DCQGQF	.00337
63	DCQGVF	.00743
64	DCVMDF	-.00067
65	DCVMEF	.00055
66	DCVMFF	-.00029
67	CCV3-6	.50773
68	CCB6	.00003
69	DCVMGF	-.00042
70	DCVMHF	.00068
71	DCVMHP5F	-.00057
72	DCVMHSF	2.1854
73	DCVMHDF	2.1046
74	DCVMKF	.00066
75	DCVMLF	.00034
76	DCVMMF	.00055
77	DCVMNF	.00074
78	DCVMPF	.00123
79	CCV3-7	.51537
80	CCB7	-.00069

657 632

Analysis Report Summary 05/17/00 02:11:48 PM

RBS 5/17/00

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
1	STD1	T00517A	METTRA	05/17/00	08:36		X	IR
2	STD6	T00517A	METTRA	05/17/00	08:40		X	IR
3	STD7	T00517A	METTRA	05/17/00	08:44		X	IR
4	ICV3-1 0014-079-6	T00517A	METTRA	05/17/00	08:48	RJG	S	CONC
5	ICB1	T00517A	METTRA	05/17/00	08:52	RJG	S	CONC
6	ICSA 0014-088-12	T00517A	METTRA	05/17/00	08:56	RJG	Q	CONC
7	ICSAB 0014-075-12	T00517A	METTRA	05/17/00	09:01	RJG	Q	CONC
8	DD8AMB	T00517A	METTRA	05/17/00	09:07	RJG	S	CONC
9	DD8AMC	T00517A	METTRA	05/17/00	09:11	RJG	S	CONC
10	DD6A4	T00517A	METTRA	05/17/00	09:15	RJG	S	CONC
11	DD6A4P5	T00517A	METTRA	05/17/00	09:19	RJG	S	CONC
12	DD6A4S	T00517A	METTRA	05/17/00	09:24	RJG	S	CONC
13	DD6A4D	T00517A	METTRA	05/17/00	09:28	RJG	S	CONC
14	DD6A5	T00517A	METTRA	05/17/00	09:32	RJG	S	CONC
15	DD6A6	T00517A	METTRA	05/17/00	09:36	RJG	S	CONC
16	CCV3-1 0014-084-5	T00517A	METTRA	05/17/00	09:40	RJG	S	CONC
17	CCB1	T00517A	METTRA	05/17/00	09:44	RJG	S	CONC
18	DD6A7	T00517A	METTRA	05/17/00	09:48	RJG	S	CONC
19	CCV3-2	T00517A	METTRA	05/17/00	09:53	RJG	S	CONC
20	CCB2	T00517A	METTRA	05/17/00	09:57	RJG	S	CONC
21	DD0L6B	T00517A	METTRA	05/17/00	10:01	RJG	S	CONC
22	DD0L6C	T00517A	METTRA	05/17/00	10:05	RJG	S	CONC
23	DCQF8	T00517A	METTRA	05/17/00	10:09	RJG	S	CONC
24	DCQFL	T00517A	METTRA	05/17/00	10:13	RJG	S	CONC
25	DCQFR	T00517A	METTRA	05/17/00	10:18	RJG	S	CONC
26	DCQFX	T00517A	METTRA	05/17/00	10:22	RJG	S	CONC
27	DCQG5	T00517A	METTRA	05/17/00	10:26	RJG	S	CONC
28	DCQGK	T00517A	METTRA	05/17/00	10:30	RJG	S	CONC
29	DCQGM	T00517A	METTRA	05/17/00	10:34	RJG	S	CONC
30	DCQGN	T00517A	METTRA	05/17/00	10:38	RJG	S	CONC
31	CCV3-3	T00517A	METTRA	05/17/00	10:42	RJG	S	CONC
32	CCB3	T00517A	METTRA	05/17/00	10:47	RJG	S	CONC
33	DCQGQ	T00517A	METTRA	05/17/00	10:51	RJG	S	CONC
34	DCQGV	T00517A	METTRA	05/17/00	10:55	RJG	S	CONC
35	DCVMD	T00517A	METTRA	05/17/00	10:59	RJG	S	CONC
36	DCVME	T00517A	METTRA	05/17/00	11:03	RJG	S	CONC
37	DCVMF	T00517A	METTRA	05/17/00	11:07	RJG	S	CONC
38	DCVMG	T00517A	METTRA	05/17/00	11:12	RJG	S	CONC
39	DCVMH	T00517A	METTRA	05/17/00	11:16	RJG	S	CONC
40	DCVMHP5	T00517A	METTRA	05/17/00	11:20	RJG	S	CONC
41	DCVMHS	T00517A	METTRA	05/17/00	11:24	RJG	S	CONC
42	DCVMHD	T00517A	METTRA	05/17/00	11:28	RJG	S	CONC
43	CCV3-4	T00517A	METTRA	05/17/00	11:32	RJG	S	CONC
44	CCB4	T00517A	METTRA	05/17/00	11:36	RJG	S	CONC
45	DCVMK	T00517A	METTRA	05/17/00	11:41	RJG	S	CONC
46	DCVML	T00517A	METTRA	05/17/00	11:45	RJG	S	CONC
47	DCVMM	T00517A	METTRA	05/17/00	11:49	RJG	S	CONC
48	DCVMN	T00517A	METTRA	05/17/00	11:53	RJG	S	CONC
49	DCVMP	T00517A	METTRA	05/17/00	11:57	RJG	S	CONC
50	DD8DGBF	T00517A	METTRA	05/17/00	12:01	RJG	S	CONC
51	DD8DGCF	T00517A	METTRA	05/17/00	12:06	RJG	S	CONC
52	DCQF8F	T00517A	METTRA	05/17/00	12:10	RJG	S	CONC
53	DCQFLF	T00517A	METTRA	05/17/00	12:14	RJG	S	CONC

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
54	DCQFRF	T00517A	METTRA	05/17/00	12:18	RJG	S	CONC
55	CCV3-5	T00517A	METTRA	05/17/00	12:22	RJG	S	CONC
56	CCB5	T00517A	METTRA	05/17/00	12:26	RJG	S	CONC
57	DCQFXF	T00517A	METTRA	05/17/00	12:31	RJG	S	CONC
58	DCQG5F	T00517A	METTRA	05/17/00	12:35	RJG	S	CONC
59	DCQGKF	T00517A	METTRA	05/17/00	12:39	RJG	S	CONC
60	DCQGMF	T00517A	METTRA	05/17/00	12:43	RJG	S	CONC
61	DCQGNF	T00517A	METTRA	05/17/00	12:47	RJG	S	CONC
62	DCQGQF	T00517A	METTRA	05/17/00	12:51	RJG	S	CONC
63	DCQGVF	T00517A	METTRA	05/17/00	12:56	RJG	S	CONC
64	DCVMDF	T00517A	METTRA	05/17/00	13:00	RJG	S	CONC
65	DCVMEF	T00517A	METTRA	05/17/00	13:04	RJG	S	CONC
66	DCVMFF	T00517A	METTRA	05/17/00	13:08	RJG	S	CONC
67	CCV3-6	T00517A	METTRA	05/17/00	13:12	RJG	S	CONC
68	CCB6	T00517A	METTRA	05/17/00	13:16	RJG	S	CONC
69	DCVMGF	T00517A	METTRA	05/17/00	13:20	RJG	S	CONC
70	DCVMHF	T00517A	METTRA	05/17/00	13:25	RJG	S	CONC
71	DCVMHP5F	T00517A	METTRA	05/17/00	13:29	RJG	S	CONC
72	DCVMHSF	T00517A	METTRA	05/17/00	13:33	RJG	S	CONC
73	DCVMHDF	T00517A	METTRA	05/17/00	13:37	RJG	S	CONC
74	DCVMKF	T00517A	METTRA	05/17/00	13:41	RJG	S	CONC
75	DCVMLF	T00517A	METTRA	05/17/00	13:45	RJG	S	CONC
76	DCVMMF	T00517A	METTRA	05/17/00	13:50	RJG	S	CONC
77	DCVMNF	T00517A	METTRA	05/17/00	13:54	RJG	S	CONC
78	DCVMPF	T00517A	METTRA	05/17/00	13:58	RJG	S	CONC
79	CCV3-7	T00517A	METTRA	05/17/00	14:02	RJG	S	CONC
80	CCB7	T00517A	METTRA	05/17/00	14:06	RJG	S	CONC

Method: METTRA Standard: STD1
Run Time: 05/17/00 08:36:32

Elem	AG	AL	AS	BA	BE	CA	CD
Avge	.00072	.07210	-.00331	.00088	-.03461	.00345	.00163
SDev	.00053	.00156	.00132	.00023	.00006	.00001	.00074
%RSD	74.177	2.1635	39.822	26.526	.17853	.29131	45.448
#1	.00109	.07321	-.00425	.00072	-.03465	.00344	.00215
#2	.00034	.07100	-.00238	.00105	-.03456	.00346	.00110

Elem	CO	CR	CU	FE	MG	MN	MO
Avge	-.00011	.00168	.00526	-.00063	.00054	.00234	.00157
SDev	.00016	.00083	.00034	.00001	.00045	.00014	.00019
%RSD	141.42	49.568	6.4064	.87747	82.457	6.0229	11.986
#1	-.00023	.00109	.00502	-.00063	.00086	.00224	.00143
#2	.00000	.00227	.00550	-.00062	.00023	.00244	.00170

Elem	NI	PB/1	PB/2	SB/1	SB/2	SE/1	SE/2
Avge	.00023	.04316	-.00680	-.02575	.01080	-.07401	.06504
SDev	.00016	.00566	.00905	.00389	.00164	.00081	.00432
%RSD	70.051	13.115	133.07	15.090	15.178	1.0954	6.6418
#1	.00011	.04716	-.00040	-.02301	.00964	-.07458	.06810
#2	.00034	.03915	-.01320	-.02850	.01196	-.07344	.06199

Elem	TL	V	ZN
Avge	-.04198	.00000	-.00014
SDev	.01073	.00000	.00008
%RSD	25.558	.00000	55.830
#1	-.04957	.00000	-.00009
#2	-.03439	.00000	-.00020

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17539	--	--	--	--	--	--
SDev	153.9021	--	--	--	--	--	--
%RSD	.8774785	--	--	--	--	--	--
#1	17430	--	--	--	--	--	--
#2	17648	--	--	--	--	--	--

Method: METTRA Standard: STD6 0014-087-8
Run Time: 05/17/00 08:40:43

Elem	AG	AS	CD	PB/1	PB/2	SB/1	SB/2
Avge	10.572	5.3455	15.432	6.5911	8.4785	9.9025	6.3469
SDev	.060	.0010	.000	.0020	.0097	.0099	.0002
%RSD	.56931	.01836	.00313	.03057	.11386	.09966	.00354
#1	10.529	5.3462	15.432	6.5897	8.4853	9.9095	6.3468
#2	10.614	5.3448	15.433	6.5926	8.4717	9.8955	6.3471

Elem	SE/1	SE/2	TL
Avge	4.8374	4.9331	4.6925
SDev	.0067	.0058	.0131
%RSD	.13852	.11688	.27858
#1	4.8421	4.9372	4.7018
#2	4.8326	4.9290	4.6833

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17569	--	--	--	--	--	--
SDev	13.08147	--	--	--	--	--	--
%RSD	.0744569	--	--	--	--	--	--
#1	17560	--	--	--	--	--	--
#2	17578	--	--	--	--	--	--

Standardization Rpt. 05/17/00 08:48:29 AM

Method: METTRA Standard: STD7 004-087-9
Run Time: 05/17/00 08:44:53

Elem	AL	BA	BE	CA	CO	CR	CU
Avge	6.7609	12.752	12.996	5.8933	3.4503	14.061	3.0190
SDev	.0134	.010	.009	.0006	.0003	.004	.0040
%RSD	.19878	.07526	.06836	.01066	.00977	.03162	.13282
#1	6.7704	12.759	12.990	5.8928	3.4501	14.058	3.0218
#2	6.7514	12.745	13.002	5.8937	3.4506	14.065	3.0162

Elem	FE	MG	MN	MO	NI	V	ZN
Avge	4.6489	15.174	11.767	2.2912	2.8219	.92300	3.1068
SDev	.0010	.002	.003	.0125	.0008	.00027	.0013
%RSD	.02237	.01527	.02263	.54468	.02681	.02967	.04121
#1	4.6482	15.176	11.769	2.2824	2.8224	.92281	3.1077
#2	4.6497	15.172	11.765	2.3000	2.8213	.92320	3.1059

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17237	--	--	--	--	--	--
SDev	20.43566	--	--	--	--	--	--
%RSD	.1185556	--	--	--	--	--	--
#1	17252	--	--	--	--	--	--
#2	17223	--	--	--	--	--	--

Standardization Report 05/17/00 08:48:30 AM page 1

Method: METTRA Slope = Conc(SIR)/IR

Element	Wavelen	High std	Low std	Slope	Y-intercept	Date Standardized
AG	328.068	STD6	STD1	.189197	-.000135	05/17/00 08:44:53
AL	308.215	STD7	STD1	7.48962	-.540022	05/17/00 08:44:53
AS	189.042	STD6	STD1	.186956	.000619	05/17/00 08:44:53
BA	493.409	STD7	STD1	.313691	-.000277	05/17/00 08:44:53
BE	313.042	STD7	STD1	.304307	.010532	05/17/00 08:44:53
CA	317.933	STD7	STD1	16.9784	-.058565	05/17/00 08:44:53
CD	226.502	STD6	STD1	.064805	-.000106	05/17/00 08:44:53
CO	228.616	STD7	STD1	1.15927	.000133	05/17/00 08:44:53
CR	267.716	STD7	STD1	.284435	-.000477	05/17/00 08:44:53
CU	324.753	STD7	STD1	1.32726	-.006979	05/17/00 08:44:53
FE	271.441	STD7	STD1	10.8195	.006786	05/17/00 08:44:53
MG	279.078	STD7	STD1	6.59043	-.003583	05/17/00 08:44:53
MN	257.610	STD7	STD1	.340002	-.000795	05/17/00 08:44:53
MO	202.030	STD7	STD1	1.74699	-.002738	05/17/00 08:44:53
NI	231.604	STD7	STD1	1.41697	-.000322	05/17/00 08:44:53
PB/1	220.351	STD6	STD1	.152719	-.006591	05/17/00 08:44:53
PB/2	220.352	STD6	STD1	.117851	.000802	05/17/00 08:44:53
PB	220.353	NONE	NONE	.000000	.000000	*NOT STANDARDIZED
SB/1	206.831	STD6	STD1	.100723	.002594	05/17/00 08:44:53
SB/2	206.832	STD6	STD1	.157825	-.001704	05/17/00 08:44:53
SB	220.353	NONE	NONE	.000000	.000000	*NOT STANDARDIZED
SE/1	196.021	STD6	STD1	.203609	.015069	05/17/00 08:44:53
SE/2	196.022	STD6	STD1	.205420	-.013362	05/17/00 08:44:53
SE	220.353	NONE	NONE	.000000	.000000	*NOT STANDARDIZED
TL	190.864	STD6	STD1	.422430	.017734	05/17/00 08:44:53
V	292.402	STD7	STD1	4.31954	.000000	05/17/00 08:44:53
ZN	213.856	STD7	STD1	1.29505	.000184	05/17/00 08:44:53

Method: METTRA Sample Name: ICV3-1 0014-079-6 Operator: RJG
Run Time: 05/17/00 08:48:34
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Reanalyzed 5/17/00

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50563	12.321	.26148	1.0206	1.0055	25.700	.25295
SDev	.00007	.007	.00202	.0014	.0018	.050	.00099
%RSD	.01405	.06047	.77420	.13641	.17922	.19522	.39071
#1	.50568	12.316	.26005	1.0196	1.0068	25.735	.25365
#2	.50557	12.327	.26291	1.0216	1.0042	25.664	.25225
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.55000	13.750	.27500	1.1000	1.1000	27.500	.27500
Low	.45000	11.250	.22500	.90000	.90000	22.500	.22500

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0313	1.0380	1.0007	12.806	24.875	1.0083	1.0242
SDev	.0014	.0012	.0005	.011	.028	.0002	.0015
%RSD	.13537	.11452	.05429	.08878	.11316	.01640	.14606
#1	1.0322	1.0388	1.0011	12.814	24.895	1.0081	1.0253
#2	1.0303	1.0372	1.0003	12.798	24.855	1.0084	1.0232
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	1.1000	1.1000	13.750	27.500	1.1000	1.1000
Low	.90000	.90000	.90000	11.250	22.500	.90000	.90000

Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0322	.25330	.25395	.25374	.26198	.25680	.25852
SDev	.0054	.00203	.00373	.00181	.00357	.00036	.00143
%RSD	.51870	.80332	1.4700	.71428	1.3626	.14162	.55364
#1	1.0360	.25186	.25659	.25502	.26450	.25705	.25953
#2	1.0284	.25474	.25131	.25245	.25945	.25654	.25751
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	1.1000			.27500			.27500
Low	.90000			.22500			.22500

Elem	SE/1	SE/2	SE	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.25932	.26259	.26150	.51692	1.0215	1.0359
SDev	.00230	.00214	.00219	.00409	.0050	.0039
%RSD	.88528	.81395	.83750	.79134	.49062	.37943
#1	.26094	.26410	.26305	.51981	1.0251	1.0387
#2	.25770	.26108	.25995	.51403	1.0180	1.0331
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High			.27500	.55000	1.1000	1.1000
Low			.22500	.45000	.90000	.90000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17515	--	--	--	--	--	--
SDev	47.16485	--	--	--	--	--	--
%RSD	.2692849	--	--	--	--	--	--
#1	17482	--	--	--	--	--	--
#2	17548	--	--	--	--	--	--

Method: METTRA Sample Name: ICB1 Operator: RJG
Run Time: 05/17/00 08:52:44
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	-.00004	.01184	-.00054	.00047	.00059	.00819	.00012
SDev	.00036	.01314	.00013	.00005	.00002	.00102	.00003
%RSD	840.14	110.93	23.235	10.251	2.5674	12.458	25.758
#1	.00021	.02113	-.00063	.00050	.00058	.00747	.00010
#2	-.00030	.00255	-.00045	.00044	.00060	.00891	.00015
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	.00018	-.00019	.00618	.00788	.00037	.00374
SDev	.00000	.00015	.00015	.00436	.00139	.00003	.00116
%RSD	.00000	84.927	79.295	70.560	17.619	9.0935	31.050
#1	.00013	.00029	-.00030	.00926	.00886	.00039	.00456
#2	.00013	.00007	-.00008	.00309	.00689	.00034	.00292
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	-.00016	-.00038	.00107	.00059	.00119	.00051	.00074
SDev	.00023	.00102	.00081	.00088	.00141	.00142	.00048
%RSD	143.25	270.73	75.137	148.19	118.07	279.75	65.015
#1	.00000	.00034	.00165	.00121	.00219	-.00050	.00040
#2	-.00032	-.00109	.00050	-.00003	.00020	.00151	.00108
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	-.00290	.00082	-.00042	.00283	.00000	.00070
SDev	.00375	.00042	.00097	.00226	.00000	.00005
%RSD	129.26	50.415	233.30	79.711	70.560	7.2821
#1	-.00555	.00112	-.00110	.00123	.00000	.00066
#2	-.00025	.00053	.00027	.00443	.00000	.00074
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	17549	--	--	--	--	--	--
SDev	91.49989	--	--	--	--	--	--
%RSD	.5213981	--	--	--	--	--	--
#1	17484	--	--	--	--	--	--
#2	17614	--	--	--	--	--	--

Analysis Report QC Standard 05/17/00 09:00:59 AM page 1

Method: METTRA Sample Name: ICSA 0014-088-12 Operator: RJG
Run Time: 05/17/00 08:56:53
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	-.00035	520:05	-.00138	.00172	-.00076	491.09	-.00204
SDev	.00018	2.05	.00142	.00003	.00008	.90	.00043
%RSD	52.634	.39335	102.93	1.8192	9.9415	.18227	21.013
#1	-.00022	518.60	-.00239	.00174	-.00071	491.72	-.00234
#2	-.00048	521.49	-.00038	.00170	-.00081	490.46	-.00173
Errors	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	QC Pass	NOCHECK
Value		500.00				500.00	
Range		20.000				20.000	

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00048	.00303	-.00290	201.49	526.39	.00733	-.00030
SDev	.00030	.00001	.00034	.27	.24	.00006	.00023
%RSD	63.564	.41888	11.816	.13390	.04546	.81924	76.431
#1	-.00026	.00304	-.00314	201.30	526.22	.00737	-.00045
#2	-.00069	.00302	-.00265	201.68	526.56	.00729	-.00014
Errors	NOCHECK	NOCHECK	NOCHECK	QC Pass	QC Pass	NOCHECK	NOCHECK
Value				200.00	500.00		
Range				20.000	20.000		

Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00148	-.00238	-.00201	-.00214	.00269	.00051	.00123
SDev	.00106	.00411	.00233	.00018	.00078	.00765	.00485
%RSD	71.578	172.61	115.86	8.6090	29.063	1499.5	392.42
#1	.00223	.00053	-.00366	-.00227	.00213	.00592	.00466
#2	.00073	-.00529	-.00036	-.00201	.00324	-.00490	-.00219
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value							
Range							

Elem	SE/1	SE/2	SE	TL	V_	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00112	.00160	.00069	.00438	-.00043	.00099
SDev	.00031	.00352	.00224	.00131	.00192	.00010
%RSD	27.397	219.92	324.03	29.924	440.95	9.9890
#1	-.00091	-.00089	-.00089	.00530	.00092	.00092
#2	-.00134	.00408	.00228	.00345	-.00179	.00106
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value						
Range						

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	16092	--	--	--	--	--	--
SDev	30.15838	--	--	--	--	--	--
%RSD	.1874079	--	--	--	--	--	--
#1	16071	--	--	--	--	--	--
#2	16114	--	--	--	--	--	--

Analysis Report QC Standard 05/17/00 09:05:09 AM

Method: METTRA Sample Name: ICSAB 0014-075-12 Operator: RJG
Run Time: 05/17/00 09:01:03
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0755	517.96	1.0510	.52058	.49396	489.21	.93824
SDev	.0010	.14	.0022	.00082	.00112	1.13	.00271
%RSD	.08839	.02665	.21325	.15804	.22683	.23186	.28936
#1	1.0761	518.05	1.0526	.52116	.49475	490.01	.94016
#2	1.0748	517.86	1.0495	.52000	.49317	488.41	.93632
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	.49381	.50610	.52961	201.42	523.27	.50548	1.0099
SDev	.00192	.00106	.00155	.23	.60	.00065	.0029
%RSD	.38893	.21007	.29184	.11363	.11461	.12945	.29065
#1	.49517	.50686	.53070	201.58	523.70	.50595	1.0078
#2	.49245	.50535	.52851	201.25	522.85	.50502	1.0120
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	.98333	.99402	.97830	.98353	1.0660	1.0444	1.0515
SDev	.00576	.00131	.00457	.00348	.0137	.0021	.0059
%RSD	.58603	.13153	.46742	.35437	1.2825	.20002	.56543
#1	.98740	.99494	.98153	.98600	1.0756	1.0459	1.0557
#2	.97925	.99309	.97507	.98107	1.0563	1.0430	1.0473
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	1.0388	1.0655	1.0566	1.0453	.50972	1.0499
SDev	.0033	.0111	.0063	.0049	.00029	.0042
%RSD	.31640	1.0404	.59619	.47298	.05646	.39710
#1	1.0364	1.0733	1.0611	1.0488	.50992	1.0529
#2	1.0411	1.0577	1.0521	1.0418	.50952	1.0470
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

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	16157	--	--	--	--	--	--
SDev	8.060603	--	--	--	--	--	--
%RSD	.0498891	--	--	--	--	--	--
#1	16151	--	--	--	--	--	--
#2	16163	--	--	--	--	--	--

Method: METTRA Sample Name: DD8AMB Operator: RJG
Run Time: 05/17/00 09:07:29
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	.00015	.02040	.00018	.00036	.00027	.11647	.00004
SDev	.00032	.00451	.00092	.00002	.00006	.00082	.00021
%RSD	219.51	22.102	503.44	4.0687	22.920	.70217	586.10
#1	.00037	.02358	.00083	.00037	.00032	.11705	-.00011
#2	-.00008	.01721	-.00047	.00035	.00023	.11590	.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
Avge	-.00186	.00013	.00032	.03921	.02477	.00136	.00032
SDev	.00011	.00031	.00030	.00152	.00890	.00000	.00047
%RSD	5.8149	228.02	91.747	3.8807	35.914	.11819	147.94
#1	-.00179	.00035	.00011	.04029	.03107	.00136	.00066
#2	-.00194	-.00008	.00053	.03814	.01848	.00136	-.00001
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	-.00017	.00318	.00071	.00154	.00012	.00195	.00134
SDev	.00173	.00121	.00177	.00078	.00148	.00466	.00262
%RSD	1036.8	38.061	248.58	50.786	1262.9	239.41	195.62
#1	.00105	.00404	-.00054	.00098	-.00093	.00524	.00319
#2	-.00139	.00233	.00197	.00209	.00116	-.00135	-.00051
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	-.00264	.00205	.00049	-.00106	.00311	.00474
SDev	.00052	.00265	.00194	.00072	.00015	.00004
%RSD	19.683	129.35	398.25	67.444	4.9398	.81214
#1	-.00300	.00017	-.00088	-.00056	.00322	.00476
#2	-.00227	.00392	.00186	-.00157	.00300	.00471
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High			.00500	.01000	.05000	.02000
Low			-.00500	-.01000	-.05000	-.02000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17411	--	--	--	--	--	--
SDev	124.4149	--	--	--	--	--	--
%RSD	.7145815	--	--	--	--	--	--
#1	17499	--	--	--	--	--	--
#2	17323	--	--	--	--	--	--

Method: METTRA Sample Name: DD8AMC Operator: RJG
Run Time: 05/17/00 09:11:38
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04755	1.8435	1.9749	1.9793	.04989	L.15359	.04887
SDev	.00048	.0228	.0189	.0175	.00032	.00003	.00021
%RSD	1.0158	1.2389	.95519	.88179	.65038	.02095	.42930
#1	.04789	1.8596	1.9883	1.9917	.05012	L.15357	.04902
#2	.04721	1.8273	1.9616	1.9670	.04966	L.15361	.04872
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	.50055	.20240	.24155	1.0032	L.01035	.48996	L-.00087
SDev	.00389	.00163	.00292	.0076	.00467	.00411	.00020
%RSD	.77676	.80793	1.2087	.75884	45.149	.83930	23.303
#1	.50330	.20356	.24362	1.0086	L.01365	.49287	L-.00101
#2	.49781	.20124	.23949	.99781	L.00704	.48705	L-.00073
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	.50351	.48250	.48294	.48279	.00085	.00037	L.00053
SDev	.00490	.00475	.00732	.00646	.00009	.00023	.00018
%RSD	.97387	.98494	1.5155	1.3390	10.562	62.184	34.551
#1	.50698	.48586	.48812	.48736	.00091	.00053	L.00066
#2	.50005	.47914	.47776	.47822	.00078	.00021	L.00040
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	1.9493	1.9559	1.9538	1.9770	.49343	.50515
SDev	.0103	.0175	.0151	.0203	.00581	.00481
%RSD	.52985	.89354	.77271	1.0245	1.1768	.95243
#1	1.9566	1.9683	1.9644	1.9913	.49753	.50855
#2	1.9420	1.9436	1.9431	1.9627	.48932	.50174
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	17286	--	--	--	--	--	--
SDev	110.5559	--	--	--	--	--	--
%RSD	.6395624	--	--	--	--	--	--
#1	17208	--	--	--	--	--	--
#2	17364	--	--	--	--	--	--

Method: METTRA Sample Name: DD6A4 Operator: RJG
Run Time: 05/17/00 09:15:47
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00120	140.16	.06866	2.9092	.00487	H1287.8	-.00065
SDev	.00050	.25	.00308	.0089	.00006	6.9	.00024
%RSD	41.657	.17969	4.4842	.30657	1.2570	.53274	37.092
#1	.00155	140.34	.07083	2.9155	.00482	H1292.7	-.00081
#2	.00085	139.98	.06648	2.9029	.00491	H1283.0	-.00048
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.03398	.12943	.14369	86.045	15.632	2.0709	.00766
SDev	.00009	.00096	.00080	.343	.063	.0078	.00078
%RSD	.27102	.74200	.55317	.39830	.40145	.37855	10.143
#1	.03405	.13011	.14425	86.288	15.677	2.0764	.00711
#2	.03392	.12875	.14313	85.803	15.588	2.0653	.00821
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000

Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.07758	.25495	.25136	.25256	.01560	.01043	.01215
SDev	.00111	.00629	.00285	.00400	.00185	.00136	.00152
%RSD	1.4302	2.4673	1.1342	1.5823	11.885	13.002	12.524
#1	.07836	.25940	.25338	.25538	.01429	.00947	.01108
#2	.07679	.25050	.24935	.24973	.01691	.01139	.01323
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	.00286	.00475	.00412	.00776	.19260	.39674
SDev	.00117	.00047	.00070	.00224	.00161	.00197
%RSD	40.706	9.8567	16.993	28.869	.83583	.49612
#1	.00204	.00442	.00363	.00934	.19374	.39813
#2	.00369	.00508	.00462	.00617	.19147	.39534
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	17466	--	--	--	--	--	--
SDev	120.1736	--	--	--	--	--	--
%RSD	.6880245	--	--	--	--	--	--
#1	17382	--	--	--	--	--	--
#2	17551	--	--	--	--	--	--

Analysis Report 05/17/00 09:24:01 AM

Method: METTRA Sample Name: DD6A4P5 Operator: RJG
Run Time: 05/17/00 09:19:56
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00032	28.700	.01392	.62452	.00120	304.53	-.00021
SDev	.00007	.159	.00228	.00300	.00009	.84	.00007
%RSD	20.907	.55375	16.396	.48094	7.4890	.27519	34.454
#1	.00037	28.588	.01554	.62239	.00127	303.94	-.00027
#2	.00027	28.813	.01231	.62664	.00114	305.12	-.00016

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00608	.02783	.02889	18.648	3.4105	.44267	.00365
SDev	.00004	.00004	.00051	.092	.0154	.00188	.00018
%RSD	.63536	.15640	1.7484	.49231	.45214	.42395	5.0674
#1	.00606	.02779	.02853	18.583	3.3996	.44134	.00352
#2	.00611	.02786	.02925	18.713	3.4214	.44400	.00378

Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01608	.05540	.05667	.05624	.00357	.00323	.00334
SDev	.00133	.00182	.00164	.00049	.00005	.00169	.00111
%RSD	8.2517	3.2777	2.8926	.86876	1.3217	52.484	33.333
#1	.01514	.05668	.05551	.05590	.00354	.00442	.00413
#2	.01702	.05412	.05782	.05659	.00360	.00203	.00255

Elem	SE/1	SE/2	SE	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00001	.00122	.00082	.00380	.04382	.08486
SDev	.00283	.00287	.00097	.00410	.00025	.00033
%RSD	24794.	234.75	118.54	107.71	.58063	.38684
#1	.00202	-.00081	.00013	.00670	.04400	.08510
#2	-.00199	.00326	.00151	.00091	.04364	.08463

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	17243	--	--	--	--	--	--
SDev	112.0046	--	--	--	--	--	--
%RSD	.6495600	--	--	--	--	--	--
#1	17322	--	--	--	--	--	--
#2	17164	--	--	--	--	--	--

Method: METTRA Sample Name: DD6A4S Operator: RJG
Run Time: 05/17/00 09:24:05
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
Avge	.05021	152.11	1.9310	5.1051	.04841	H1447.9	.04070
SDev	.00002	.39	.0095	.0119	.00023	4.9	.00006
%RSD	.03987	.25810	.49099	.23397	.47135	.33643	.13952
#1	.05019	152.38	1.9377	5.1136	.04857	H1451.3	.04066
#2	.05022	151.83	1.9243	5.0967	.04825	H1444.4	.04074
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.45670	.31688	.38190	90.334	14.941	2.4209	.00605
SDev	.00100	.00070	.00125	.287	.047	.0060	.00081
%RSD	.21861	.22161	.32799	.31817	.31216	.24787	13.470
#1	.45740	.31737	.38278	90.537	14.974	2.4252	.00548
#2	.45599	.31638	.38101	90.131	14.908	2.4167	.00663
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	.49771	.69388	.68255	.68632	.01570	.00952	.01157
SDev	.00200	.00321	.00510	.00447	.00007	.00104	.00072
%RSD	.40119	.46245	.74747	.65151	.44041	10.974	6.2171
#1	.49912	.69615	.68616	.68948	.01565	.00878	.01107
#2	.49630	.69161	.67894	.68316	.01574	.01026	.01208
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	1.8597	1.8806	1.8736	1.8837	.64130	.86654
SDev	.0105	.0096	.0099	.0139	.00256	.00381
%RSD	.56671	.51143	.52970	.74052	.39916	.44031
#1	1.8671	1.8874	1.8807	1.8936	.64311	.86924
#2	1.8522	1.8738	1.8666	1.8738	.63949	.86384
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	17884	--	--	--	--	--	--
SDev	27.43630	--	--	--	--	--	--
%RSD	.1534155	--	--	--	--	--	--
#1	17864	--	--	--	--	--	--
#2	17903	--	--	--	--	--	--

Method: METTRA Sample Name: DD6A4D Operator: RJG
Run Time: 05/17/00 09:28:13
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	.04889	137.63	1.9422	4.7988	.04909	H1436.9	.04080
SDev	.00018	.09	.0046	.0091	.00006	3.4	.00002
%RSD	.36322	.06573	.23601	.19007	.13224	.23870	.04242
#1	.04877	137.69	1.9455	4.8053	.04914	H1439.4	.04079
#2	.04902	137.56	1.9390	4.7924	.04904	H1434.5	.04081
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.46245	.30433	.37588	79.731	15.011	2.1200	.00536
SDev	.00216	.00049	.00069	.103	.025	.0034	.00110
%RSD	.46768	.15921	.18282	.12874	.16322	.15987	20.588
#1	.46398	.30467	.37637	79.803	15.028	2.1224	.00458
#2	.46092	.30398	.37540	79.658	14.993	2.1176	.00614
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	.50168	.68423	.67223	.67623	.01522	.01085	.01231
SDev	.00280	.00276	.00007	.00097	.00120	.00134	.00129
%RSD	.55847	.40371	.01036	.14290	7.8861	12.359	10.516
#1	.50366	.68618	.67228	.67691	.01438	.00990	.01139
#2	.49970	.68228	.67218	.67554	.01607	.01180	.01322
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	1.8877	1.8987	1.8951	1.9084	.62814	.85790
SDev	.0021	.0064	.0049	.0099	.00157	.00084
%RSD	.11134	.33457	.26052	.51718	.25035	.09808
#1	1.8892	1.9032	1.8985	1.9154	.62925	.85850
#2	1.8862	1.8942	1.8916	1.9014	.62703	.85731
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	17464	--	--	--	--	--	--
SDev	59.53784	--	--	--	--	--	--
%RSD	.3409127	--	--	--	--	--	--
#1	17422	--	--	--	--	--	--
#2	17506	--	--	--	--	--	--

Method: METTRA Sample Name: DD6A5 Operator: RJG
Run Time: 05/17/00 09:32:22
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
Avge	.00391	127.85	.06566	3.1142	.00491	H1435.3	-.00004
SDev	.00011	.36	.00140	.0074	.00007	3.3	.00003
%RSD	2.8931	.27846	2.1357	.23838	1.4359	.23297	71.273
#1	.00383	127.60	.06665	3.1090	.00496	H1433.0	-.00006
#2	.00399	128.10	.06467	3.1195	.00486	H1437.7	-.00002
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.03353	.12691	.14768	79.249	15.439	1.9048	.00612
SDev	.00069	.00025	.00126	.178	.052	.0063	.00017
%RSD	2.0538	.19393	.85207	.22437	.33440	.33259	2.7892
#1	.03305	.12673	.14679	79.123	15.402	1.9003	.00624
#2	.03402	.12708	.14857	79.374	15.475	1.9092	.00600
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000

Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.07419	.29287	.29205	.29232	.01797	.00858	.01171
SDev	.00079	.00255	.00024	.00069	.00130	.00230	.00110
%RSD	1.0662	.87192	.08306	.23555	7.2396	26.781	9.3893
#1	.07475	.29107	.29222	.29183	.01705	.01021	.01249
#2	.07363	.29468	.29187	.29281	.01889	.00696	.01093
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	.01259	.00682	.00874	.01430	.17856	.40338
SDev	.00092	.00130	.00056	.00372	.00030	.00012
%RSD	7.2938	19.013	6.3958	25.980	.16796	.03052
#1	.01194	.00774	.00914	.01168	.17835	.40330
#2	.01324	.00590	.00835	.01693	.17877	.40347
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	17250	--	--	--	--	--	--
SDev	85.73669	--	--	--	--	--	--
%RSD	.4970193	--	--	--	--	--	--
#1	17311	--	--	--	--	--	--
#2	17190	--	--	--	--	--	--

Analysis Report 05/17/00 09:40:36 AM

Method: METTRA Sample Name: DD6A6 Operator: RJG
Run Time: 05/17/00 09:36:31
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00172	191.83	.07272	3.0718	.00646	H1105.6	-.00042
SDev	.00022	1.62	.00101	.0325	.00013	15.6	.00024
%RSD	12.710	.84544	1.3884	1.0575	1.9832	1.4112	56.921
#1	.00156	192.98	.07201	3.0948	.00655	H1116.7	-.00059
#2	.00187	190.68	.07344	3.0489	.00637	H1094.6	-.00025
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04377	.25659	.19915	120.63	21.405	2.7404	.00629
SDev	.00072	.00331	.00219	1.43	.269	.0328	.00030
%RSD	1.6468	1.2887	1.0977	1.1884	1.2585	1.1951	4.8117
#1	.04428	.25893	.20070	121.64	21.595	2.7635	.00650
#2	.04326	.25426	.19761	119.61	21.214	2.7172	.00607
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	.10824	.36393	.36109	.36204	.01991	.00591	.01058
SDev	.00178	.01097	.00126	.00281	.00673	.00897	.00374
%RSD	1.6457	3.0143	.34791	.77757	33.802	151.74	35.405
#1	.10950	.37169	.36020	.36403	.01515	.01226	.01322
#2	.10698	.35617	.36198	.36004	.02467	-.00043	.00793
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	-.00538	.00329	.00040	.00877	.27507	.77073
SDev	.00595	.00447	.00100	.00047	.00388	.01041
%RSD	110.55	136.19	251.44	5.3899	1.4094	1.3505
#1	-.00118	.00012	-.00031	.00911	.27781	.77809
#2	-.00959	.00645	.00111	.00844	.27233	.76337
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	17521	--	--	--	--	--	--
SDev	176.7063	--	--	--	--	--	--
%RSD	1.008543	--	--	--	--	--	--
#1	17396	--	--	--	--	--	--
#2	17646	--	--	--	--	--	--

Analysis Report 05/17/00 09:44:45 AM

Method: METTRA Sample Name: CCV3-1 0014-084-5 Operator: RJG
Run Time: 05/17/00 09:40:40
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0140	24.095	.50732	1.9871	1.9848	49.665	.48360
SDev	.0264	.677	.01358	.0550	.0512	1.206	.01228
%RSD	2.6073	2.8081	2.6763	2.7666	2.5790	2.4290	2.5396
#1	.99535	23.617	.49772	1.9482	1.9486	48.812	.47492
#2	1.0327	24.574	.51692	2.0260	2.0210	50.518	.49228
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	1.9965	2.0006	1.9687	24.707	48.928	1.9647	1.9945
SDev	.0518	.0526	.0523	.651	1.246	.0517	.0669
%RSD	2.5934	2.6273	2.6590	2.6331	2.5476	2.6316	3.3554
#1	1.9599	1.9634	1.9317	24.247	48.046	1.9281	1.9471
#2	2.0331	2.0378	2.0057	25.167	49.809	2.0012	2.0418
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	1.9820	.49640	.49721	.49694	.51554	.51085	.51241
SDev	.0490	.01153	.01298	.01250	.01268	.01340	.01316
%RSD	2.4710	2.3227	2.6108	2.5150	2.4597	2.6238	2.5688
#1	1.9473	.48824	.48803	.48810	.50657	.50137	.50310
#2	2.0166	.50455	.50639	.50578	.52451	.52033	.52172
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	.51381	.51742	.51622	1.0107	1.9836	2.0066
SDev	.00917	.01395	.01236	.0275	.0501	.0524
%RSD	1.7855	2.6966	2.3946	2.7176	2.5242	2.6138
#1	.50732	.50756	.50748	.99129	1.9482	1.9695
#2	.52030	.52729	.52496	1.0301	2.0190	2.0437
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	17200	--	--	--	--	--	--
SDev	458.8073	--	--	--	--	--	--
%RSD	2.667558	--	--	--	--	--	--
#1	17524	--	--	--	--	--	--
#2	16875	--	--	--	--	--	--

Analysis Report 05/17/00 09:48:54 AM

Method: METTRA Sample Name: CCB1 Operator: RJG
Run Time: 05/17/00 09:44:49
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00056	.03680	-.00043	.00078	.00087	.08783	.00012
SDev	.00002	.00145	.00211	.00003	.00012	.01532	.00004
%RSD	3.0728	3.9466	485.70	4.4381	13.398	17.441	32.211
#1	.00057	.03577	-.00192	.00081	.00095	.07700	.00014
#2	.00055	.03782	.00106	.00076	.00078	.09867	.00009
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00013	.00063	.00025	.01283	.01374	.00072	.00712
SDev	.00000	.00000	.00013	.00499	.00024	.00005	.00214
%RSD	.00000	.36760	49.320	38.915	1.7614	6.3063	29.990
#1	.00013	.00063	.00016	.00930	.01357	.00075	.00863
#2	.00013	.00063	.00034	.01636	.01391	.00069	.00561
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	.00018	-.00009	.00107	.00069	.00359	-.00078	.00068
SDev	.00024	.00239	.00097	.00144	.00165	.00141	.00149
%RSD	131.84	2695.0	90.093	209.97	45.947	180.94	220.08
#1	.00035	.00160	.00176	.00171	.00242	-.00177	-.00038
#2	.00001	-.00178	.00039	-.00033	.00475	.00022	.00173
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	.00025	.00106	.00079	.00347	.00166	.00108
SDev	.00369	.00223	.00026	.00252	.00235	.00003
%RSD	1465.8	210.25	32.530	72.497	141.06	2.6176
#1	.00286	-.00052	.00061	.00169	.00332	.00110
#2	-.00236	.00264	.00097	.00526	.00000	.00106
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	16930	--	--	--	--	--	--
SDev	32.49101	--	--	--	--	--	--
%RSD	.1919095	--	--	--	--	--	--
#1	16907	--	--	--	--	--	--
#2	16953	--	--	--	--	--	--

Analysis Report 05/17/00 09:53:03 AM

Method: METTRA Sample Name: DD6A7 Operator: RJG
Run Time: 05/17/00 09:48:58
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	.00105	183.35	.06884	3.5965	.00609	H1326.3	.00102
SDev	.00010	.20	.00131	.0038	.00003	2.4	.00038
%RSD	9.6315	.10861	1.8970	.10528	.42101	.18408	37.736
#1	.00113	183.21	.06976	3.5939	.00611	H1328.0	.00075
#2	.00098	183.50	.06791	3.5992	.00608	H1324.6	.00129
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.03861	.16309	.16963	109.53	19.607	2.3656	.00632
SDev	.00031	.00007	.00002	.29	.024	.0002	.00064
%RSD	.80135	.04190	.01381	.26070	.12428	.00956	10.100
#1	.03883	.16304	.16962	109.73	19.624	2.3658	.00587
#2	.03839	.16313	.16965	109.33	19.590	2.3655	.00677
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	.09609	.30336	.29820	.29992	.01889	.00853	.01198
SDev	.00070	.00594	.00680	.00255	.00617	.00499	.00128
%RSD	.72840	1.9588	2.2791	.85170	32.635	58.526	10.666
#1	.09659	.29916	.30301	.30173	.02325	.00500	.01108
#2	.09560	.30756	.29340	.29811	.01453	.01206	.01289
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	.00296	-.00010	.00092	.01072	.25677	.55060
SDev	.00885	.00342	.00067	.00991	.00057	.00350
%RSD	298.51	3328.3	72.605	92.453	.22343	.63663
#1	-.00329	.00231	.00045	.01773	.25717	.55307
#2	.00922	-.00252	.00139	.00371	.25636	.54812
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	17264	--	--	--	--	--	--
SDev	10.99606	--	--	--	--	--	--
%RSD	.0636931	--	--	--	--	--	--
#1	17256	--	--	--	--	--	--
#2	17272	--	--	--	--	--	--

Method: METTRA Sample Name: CCV3-2 Operator: RJG
Run Time: 05/17/00 09:53:07
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	1.0389	24.678	.51733	2.0345	2.0210	50.391	.49066
SDev	.0015	.029	.00238	.0005	.0032	.093	.00161
%RSD	.14379	.11699	.45943	.02512	.15947	.18507	.32795
#1	1.0378	24.658	.51901	2.0341	2.0233	50.457	.49180
#2	1.0400	24.699	.51565	2.0348	2.0187	50.325	.48952
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	27.500	.55000	2.2000	2.2000	55.000	.55000
Low	.90000	22.500	.45000	1.8000	1.8000	45.000	.45000

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0283	2.0321	2.0229	25.080	49.793	1.9960	2.0408
SDev	.0008	.0003	.0005	.018	.001	.0004	.0126
%RSD	.04105	.01319	.02358	.07375	.00170	.01834	.61639
#1	2.0289	2.0323	2.0232	25.093	49.793	1.9962	2.0319
#2	2.0277	2.0320	2.0225	25.067	49.792	1.9957	2.0497
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.2000	2.2000	2.2000	27.500	55.000	2.2000	2.2000
Low	1.8000	1.8000	1.8000	22.500	45.000	1.8000	1.8000

Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0130	.50153	.50052	.50086	.52162	.51771	.51901
SDev	.0158	.00198	.00188	.00060	.00407	.00334	.00088
%RSD	.78667	.39562	.37635	.11894	.78055	.64592	.16852
#1	2.0242	.50013	.50185	.50128	.52450	.51535	.51840
#2	2.0018	.50293	.49919	.50043	.51874	.52008	.51963
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	.52221	.52508	.52412	1.0224	2.0215	2.0500
SDev	.00392	.00283	.00058	.0043	.0065	.0065
%RSD	.75119	.53814	.11035	.42159	.31992	.31807
#1	.51944	.52708	.52453	1.0255	2.0260	2.0546
#2	.52499	.52308	.52372	1.0194	2.0169	2.0454
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	16698	--	--	--	--	--	--
SDev	70.74659	--	--	--	--	--	--
%RSD	.4236912	--	--	--	--	--	--
#1	16748	--	--	--	--	--	--
#2	16648	--	--	--	--	--	--

Method: METTRA Sample Name: CCB2 Operator: RJG
Run Time: 05/17/00 09:57:17
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	.00025	.03783	.00028	.00063	.00080	.06431	.00013
SDev	.00062	.00434	.00030	.00009	.00025	.01381	.00016
%RSD	251.58	11.472	108.97	13.617	31.493	21.481	119.98
#1	-.00019	.04090	.00049	.00057	.00097	.05454	.00024
#2	.00068	.03476	.00006	.00069	.00062	.07408	.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	-.00025	.00017	.00023	.00942	.01022	.00054	.00655
SDev	.00010	.00053	.00081	.00550	.00289	.00008	.00230
%RSD	38.430	312.41	359.51	58.414	28.249	15.185	35.050
#1	-.00032	-.00021	-.00035	.00553	.00818	.00048	.00817
#2	-.00018	.00055	.00080	.01331	.01226	.00059	.00493
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	.00104	.00028	.00096	.00074	.00330	.00035	.00133
SDev	.00085	.00077	.00005	.00022	.00134	.00186	.00080
%RSD	81.888	271.45	5.4235	29.964	40.669	529.66	59.671
#1	.00044	-.00026	.00100	.00058	.00425	-.00097	.00077
#2	.00164	.00083	.00093	.00089	.00235	.00167	.00190
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	.00289	.00153	.00198	.00722	.00000	.00101
SDev	.00102	.00124	.00049	.00131	.00000	.00008
%RSD	35.221	80.946	24.597	18.141	58.414	7.9652
#1	.00361	.00065	.00164	.00814	.00000	.00107
#2	.00217	.00241	.00233	.00629	.00000	.00095
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	16726	--	--	--	--	--	--
SDev	121.8350	--	--	--	--	--	--
%RSD	.7284215	--	--	--	--	--	--
#1	16812	--	--	--	--	--	--
#2	16640	--	--	--	--	--	--

Method: METTRA Sample Name: DD0L6B Operator: RJG
Run Time: 05/17/00 10:01:26
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	-.00001	.09875	-.00041	.00157	.00044	.57004	.00007
SDev	.00070	.00263	.00037	.00000	.00009	.00195	.00012
%RSD	5167.5	2.6647	91.116	.20973	20.116	.34150	166.22
#1	-.00051	.10062	-.00067	.00157	.00050	.56867	-.00001
#2	.00048	.09689	-.00014	.00157	.00038	.57142	.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
Avge	-.00086	.00128	.00177	H.11812	.02006	.00173	.00153
SDev	.00037	.00022	.00076	.01394	.00015	.00004	.00025
%RSD	42.378	16.831	42.716	11.804	.76422	2.4671	16.119
#1	-.00112	.00113	.00123	H.10826	.02017	.00170	.00136
#2	-.00060	.00144	.00230	H.12798	.01995	.00176	.00170
Errors	LC Pass	LC Pass	LC Pass	LC High	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.02500	.10000	5.0000	.01500	.04000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000

Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00036	.00374	.00209	.00264	.00157	.00241	.00213
SDev	.00000	.00047	.00078	.00036	.00271	.00126	.00006
%RSD	1.0689	12.639	37.255	13.692	171.99	52.340	2.7793
#1	.00036	.00341	.00264	.00289	-.00034	.00330	.00209
#2	.00036	.00408	.00154	.00238	.00349	.00152	.00217
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	-.00236	.00200	.00055	.00219	.00120	.01858
SDev	.00140	.00093	.00015	.00176	.00056	.00013
%RSD	59.149	46.431	28.094	80.364	46.703	.67491
#1	-.00335	.00266	.00065	.00344	.00081	.01849
#2	-.00138	.00134	.00044	.00095	.00160	.01867
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	16584	--	--	--	--	--	--
SDev	89.55535	--	--	--	--	--	--
%RSD	.5400114	--	--	--	--	--	--
#1	16647	--	--	--	--	--	--
#2	16521	--	--	--	--	--	--

Method: METTRA Sample Name: DD0L6C Operator: RJG
Run Time: 05/17/00 10:05:36
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	.04749	1.7827	1.9427	1.9160	.04891	L.06471	.04693
SDev	.00005	.0030	.0070	.0011	.00010	.00259	.00038
%RSD	.09884	.16987	.35981	.05988	.20169	4.0017	.82099
#1	.04746	1.7849	1.9476	1.9168	.04898	L.06288	.04721
#2	.04753	1.7806	1.9377	1.9152	.04884	L.06654	.04666
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	.48230	.19437	.23408	.98738	L-.00225	.46940	L-.00067
SDev	.00138	.00004	.00027	.00394	.00027	.00069	.00035
%RSD	.28622	.02236	.11389	.39898	11.831	.14744	52.347
#1	.48327	.19434	.23426	.98459	L-.00244	.46989	L-.00092
#2	.48132	.19440	.23389	.99016	L-.00207	.46891	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	.48402	.46340	.46976	.46764	.00127	-.00030	L.00022
SDev	.00393	.00022	.00409	.00266	.00040	.00007	.00009
%RSD	.81241	.04717	.87183	.56857	31.915	22.917	40.299
#1	.48680	.46325	.47265	.46952	.00155	-.00035	L.00028
#2	.48124	.46356	.46686	.46576	.00098	-.00026	L.00016
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	1.9553	1.9501	1.9518	1.8958	.47568	.49323
SDev	.0071	.0086	.0034	.0026	.00139	.00083
%RSD	.36352	.44003	.17197	.13457	.29195	.16814
#1	1.9502	1.9562	1.9542	1.8976	.47666	.49381
#2	1.9603	1.9440	1.9494	1.8940	.47470	.49264
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	17354	--	--	--	--	--	--
SDev	25.03186	--	--	--	--	--	--
%RSD	.1442451	--	--	--	--	--	--
#1	17336	--	--	--	--	--	--
#2	17371	--	--	--	--	--	--

Analysis Report 05/17/00 10:13:51 AM

Method: METTRA Sample Name: DCQF8 Operator: RJG
Run Time: 05/17/00 10:09:45
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	-.00064	.13078	.00149	.03175	.00046	105.47	-.00023
SDev	.00033	.00916	.00025	.00022	.00008	.93	.00002
%RSD	51.111	7.0035	17.000	.70992	16.421	.88297	7.3091
#1	-.00087	.13726	.00131	.03191	.00051	106.13	-.00022
#2	-.00041	.12431	.00167	.03159	.00041	104.81	-.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
Avge	-.00060	.00049	-.00005	6.0703	4.2168	.19105	.00126
SDev	.00010	.00048	.00020	.0484	.0256	.00134	.00018
%RSD	17.355	97.328	429.44	.79797	.60638	.70313	14.171
#1	-.00067	.00015	-.00019	6.1046	4.2349	.19200	.00139
#2	-.00053	.00083	.00010	6.0361	4.1987	.19010	.00113
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	.00100	-.00127	.00274	.00141	.00162	-.00015	.00044
SDev	.00126	.00387	.00029	.00110	.00099	.00133	.00121
%RSD	126.31	305.43	10.479	77.966	61.204	871.03	277.33
#1	.00011	-.00400	.00294	.00063	.00232	.00079	.00130
#2	.00188	.00147	.00254	.00218	.00092	-.00109	-.00042
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	-.00321	.00253	.00062	.00314	.00067	.00848
SDev	.00078	.00157	.00131	.00239	.00055	.00001
%RSD	24.403	62.094	211.18	76.293	81.275	.14141
#1	-.00265	.00364	.00155	.00144	.00029	.00849
#2	-.00376	.00142	-.00031	.00483	.00106	.00847
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	16609	--	--	--	--	--	--
SDev	123.8141	--	--	--	--	--	--
%RSD	.7454842	--	--	--	--	--	--
#1	16521	--	--	--	--	--	--
#2	16696	--	--	--	--	--	--

Method: METTRA Sample Name: DCQFL Operator: RJG
Run Time: 05/17/00 10:13:54
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00025	.32454	.00091	.02168	.00053	85.463	-.00012
SDev	.00027	.00275	.00030	.00015	.00006	.310	.00004
%RSD	109.28	.84751	33.476	.68089	12.325	.36295	36.649
#1	-.00044	.32649	.00069	.02158	.00057	85.682	-.00015
#2	-.00006	.32260	.00112	.02179	.00048	85.244	-.00009
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00030	.00083	-.00075	3.3002	4.5531	.17389	.00221
SDev	.00017	.00012	.00014	.0029	.0142	.00041	.00007
%RSD	57.220	14.471	18.687	.08707	.31287	.23676	3.3589
#1	-.00042	.00091	-.00085	3.3022	4.5631	.17418	.00215
#2	-.00018	.00074	-.00065	3.2982	4.5430	.17360	.00226
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	.00052	.00055	.00139	.00111	.00211	.00038	.00096
SDev	.00012	.00335	.00044	.00082	.00039	.00019	.00001
%RSD	22.844	612.13	31.377	74.078	18.637	48.905	.57856
#1	.00061	-.00182	.00170	.00053	.00239	.00025	.00096
#2	.00044	.00291	.00108	.00169	.00183	.00052	.00096
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	.00051	.00110	.00090	.00242	.00163	.02040
SDev	.00169	.00392	.00318	.00138	.00000	.00016
%RSD	332.76	355.95	351.61	57.083	.04103	.78766
#1	.00170	.00387	.00315	.00145	.00163	.02051
#2	-.00069	-.00167	-.00134	.00340	.00163	.02029
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	16784	--	--	--	--	--	--
SDev	1.733240	--	--	--	--	--	--
%RSD	.0103268	--	--	--	--	--	--
#1	16785	--	--	--	--	--	--
#2	16783	--	--	--	--	--	--

Method: METTRA Sample Name: DCQFR Operator: RJG
Run Time: 05/17/00 10:18:03
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00027	.28597	.00157	.04296	.00030	121.92	-.00025
SDev	.00034	.00537	.00078	.00004	.00014	.27	.00012
%RSD	125.56	1.8785	49.305	.10077	47.020	.22258	47.635
#1	-.00052	.28977	.00102	.04299	.00040	122.12	-.00034
#2	-.00003	.28217	.00212	.04293	.00020	121.73	-.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
Avge	-.00108	.00116	-.00106	7.0520	5.0155	.10568	.00176
SDev	.00045	.00010	.00016	.0018	.0058	.00011	.00016
%RSD	42.288	8.1885	14.774	.02491	.11586	.10479	9.1506
#1	-.00075	.00123	-.00117	7.0532	5.0196	.10576	.00165
#2	-.00140	.00110	-.00095	7.0508	5.0114	.10561	.00187
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	.00089	.00007	.00079	.00055	.00216	.00063	.00114
SDev	.00012	.00179	.00009	.00065	.00082	.00089	.00087
%RSD	13.483	2501.8	10.944	118.30	38.116	142.68	76.549
#1	.00098	-.00119	.00073	.00009	.00275	.00126	.00176
#2	.00081	.00133	.00085	.00101	.00158	-.00001	.00052
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	-.00047	-.00033	-.00037	-.00142	.00184	.01101
SDev	.00186	.00397	.00327	.00014	.00000	.00012
%RSD	398.99	1208.4	872.08	9.9644	.02491	1.0409
#1	-.00179	-.00313	-.00268	-.00152	.00184	.01109
#2	.00085	.00248	.00194	-.00132	.00184	.01093
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	16312	--	--	--	--	--	--
SDev	34.96657	--	--	--	--	--	--
%RSD	.2143581	--	--	--	--	--	--
#1	16337	--	--	--	--	--	--
#2	16288	--	--	--	--	--	--

Method: METTRA Sample Name: DCQFX Operator: RJG
Run Time: 05/17/00 10:22:12
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00039	.43543	.00100	.06223	.00049	161.18	-.00043
SDev	.00014	.01030	.00086	.00030	.00002	1.61	.00001
%RSD	37.268	2.3666	86.250	.48075	4.7122	.99902	1.7692
#1	-.00028	.44271	.00160	.06244	.00051	162.32	-.00044
#2	-.00049	.42814	.00039	.06202	.00048	160.05	-.00043
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	-.00115	.00176	-.00023	12.517	9.1671	.05692	.00150
SDev	.00023	.00002	.00022	.067	.0838	.00048	.00048
%RSD	20.180	1.2453	95.632	.53906	.91407	.84963	31.868
#1	-.00131	.00175	-.00007	12.565	9.2264	.05727	.00183
#2	-.00099	.00178	-.00038	12.469	9.1079	.05658	.00116
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	.00041	-.00092	.00191	.00097	.00277	-.00232	-.00062
SDev	.00043	.00072	.00101	.00091	.00276	.00109	.00019
%RSD	105.21	78.024	52.904	94.241	99.561	47.053	30.616
#1	.00071	-.00041	.00262	.00161	.00082	-.00155	-.00076
#2	.00010	-.00142	.00119	.00032	.00472	-.00309	-.00049
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000

Elem	SE/1	SE/2	SE	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00308	.00362	.00139	-.00043	.00183	.00795
SDev	.00002	.00029	.00019	.00171	.00018	.00000
%RSD	.49502	8.0432	13.623	399.48	9.6868	.05355
#1	-.00310	.00383	.00152	.00078	.00170	.00794
#2	-.00307	.00342	.00126	-.00164	.00195	.00795
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	16509	--	--	--	--	--	--
SDev	109.1776	--	--	--	--	--	--
%RSD	.6613175	--	--	--	--	--	--
#1	16432	--	--	--	--	--	--
#2	16586	--	--	--	--	--	--

Analysis Report 05/17/00 10:30:26 AM

Method: METTRA Sample Name: DCQG5 Operator: RJG
Run Time: 05/17/00 10:26:21
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	-.00019	.57472	.00183	.14390	-.00008	H697.95	-.00015
SDev	.00057	.01282	.00021	.00018	.00024	.55	.00019
%RSD	297.94	2.2303	11.535	.12748	279.26	.07870	129.62
#1	-.00059	.58378	.00197	.14377	.00008	H698.34	-.00001
#2	.00021	.56565	.00168	.14403	-.00025	H697.56	-.00028
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00039	.00206	.00009	7.5649	43.934	.33511	.00102
SDev	.00053	.00029	.00084	.0063	.018	.00052	.00097
%RSD	134.89	14.254	951.59	.08288	.04145	.15426	95.722
#1	-.00077	.00186	-.00051	7.5605	43.921	.33474	.00033
#2	-.00002	.00227	.00068	7.5694	43.947	.33547	.00171
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	.00115	-.00002	.00042	.00027	.00301	.00090	.00161
SDev	.00053	.00328	.00183	.00013	.00437	.00004	.00143
%RSD	45.536	17747.	439.15	46.162	145.01	4.7954	88.839
#1	.00078	-.00234	.00171	.00036	.00610	.00087	.00261
#2	.00153	.00230	-.00088	.00018	-.00008	.00093	.00060
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	-.00200	-.00096	-.00131	.00401	.00422	.00892
SDev	.00272	.00189	.00217	.00337	.00001	.00010
%RSD	136.10	197.34	166.11	84.083	.16790	1.1107
#1	-.00008	.00038	.00023	.00162	.00422	.00899
#2	-.00393	-.00230	-.00284	.00639	.00423	.00885
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	15355	--	--	--	--	--	--
SDev	37.22876	--	--	--	--	--	--
%RSD	.2424588	--	--	--	--	--	--
#1	15381	--	--	--	--	--	--
#2	15328	--	--	--	--	--	--

Analysis Report 05/17/00 10:34:36 AM

Method: METTRA Sample Name: DCQGK Operator: RJG
Run Time: 05/17/00 10:30:30
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	.00003	.20708	-.00083	.06514	.00031	121.59	-.00032
SDev	.00021	.00734	.00112	.00033	.00001	.68	.00005
%RSD	752.13	3.5426	134.13	.51194	3.5520	.56332	16.704
#1	.00018	.21227	-.00162	.06538	.00030	122.07	-.00028
#2	-.00012	.20189	-.00004	.06491	.00032	121.10	-.00036
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00697	.00073	-.00028	10.734	9.0930	.32877	-.00047
SDev	.00003	.00056	.00019	.052	.0374	.00163	.00045
%RSD	.49339	76.957	67.878	.48401	.41169	.49554	95.955
#1	.00695	.00113	-.00041	10.771	9.1195	.32992	-.00079
#2	.00700	.00033	-.00014	10.697	9.0665	.32761	-.00015
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	.01076	-.00073	.00197	.00107	.00348	-.00144	.00020
SDev	.00021	.00151	.00122	.00131	.00262	.00099	.00153
%RSD	1.9710	205.52	61.894	123.11	75.236	68.654	779.38
#1	.01091	.00033	.00283	.00200	.00534	-.00074	.00128
#2	.01061	-.00180	.00111	.00014	.00163	-.00215	-.00089
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	-.00240	.00249	.00086	-.00106	-.00067	.02806
SDev	.00202	.00213	.00210	.00089	.00001	.00040
%RSD	84.192	85.776	243.08	83.490	.79584	1.4319
#1	-.00382	.00098	-.00062	-.00169	-.00066	.02834
#2	-.00097	.00400	.00234	-.00044	-.00067	.02777
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	16186	--	--	--	--	--	--
SDev	38.43167	--	--	--	--	--	--
%RSD	.2374425	--	--	--	--	--	--
#1	16158	--	--	--	--	--	--
#2	16213	--	--	--	--	--	--

Method: METTRA Sample Name: DCQGM Operator: RJG
Run Time: 05/17/00 10:34:39
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00035	.08882	.01887	.06891	.00024	149.35	-.00121
SDev	.00022	.00646	.00024	.00044	.00018	.66	.00045
%RSD	63.357	7.2707	1.2624	.64171	75.740	.44009	37.102
#1	-.00051	.09338	.01871	.06860	.00036	148.88	-.00153
#2	-.00019	.08425	.01904	.06923	.00011	149.81	-.00089
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	.04515	.00055	-.00276	86.645	19.977	.50791	-.00154
SDev	.00034	.00005	.00027	.611	.123	.00335	.00014
%RSD	.74999	8.1201	9.7110	.70486	.61430	.65978	9.3622
#1	.04491	.00052	-.00295	86.213	19.890	.50554	-.00144
#2	.04539	.00059	-.00257	87.077	20.064	.51028	-.00164
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	.07581	-.00384	-.00059	-.00167	.00195	.00124	.00148
SDev	.00099	.00076	.00017	.00037	.00158	.00151	.00153
%RSD	1.3065	19.741	28.628	21.835	80.681	121.83	103.74
#1	.07511	-.00330	-.00047	-.00141	.00084	.00017	.00039
#2	.07651	-.00438	-.00071	-.00193	.00306	.00231	.00256
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	-.00212	.00010	-.00064	-.00184	-.00094	.07293
SDev	.00203	.00342	.00295	.00569	.00022	.00028
%RSD	95.763	3394.1	462.53	309.92	23.491	.38862
#1	-.00068	.00252	.00145	.00219	-.00079	.07273
#2	-.00356	-.00232	-.00273	-.00586	-.00110	.07313
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	16049	--	--	--	--	--	--
SDev	129.8245	--	--	--	--	--	--
%RSD	.8089285	--	--	--	--	--	--
#1	16141	--	--	--	--	--	--
#2	15957	--	--	--	--	--	--

Method: METTRA Sample Name: DCQGN Operator: RJG
Run Time: 05/17/00 10:38:48
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	-.00043	.06261	.00481	.03103	.00063	101.36	-.00040
SDev	.00010	.00030	.00142	.00004	.00004	.06	.00006
%RSD	24.403	.47106	29.501	.12063	5.9483	.05628	14.779
#1	-.00050	.06282	.00581	.03101	.00066	101.40	-.00045
#2	-.00035	.06240	.00381	.03106	.00060	101.32	-.00036
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01836	.00047	-.00153	18.093	7.0432	.22740	-.00083
SDev	.00084	.00019	.00016	.030	.0054	.00015	.00031
%RSD	4.5712	41.268	10.671	.16395	.07660	.06450	36.950
#1	.01777	.00060	-.00164	18.072	7.0394	.22730	-.00105
#2	.01895	.00033	-.00141	18.114	7.0470	.22751	-.00061
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	.02452	-.00055	.00119	.00061	-.00041	.00088	.00045
SDev	.00003	.00105	.00040	.00008	.00085	.00264	.00148
%RSD	.11190	188.84	33.552	13.680	208.65	300.06	327.46
#1	.02454	.00019	.00090	.00067	-.00101	.00274	.00150
#2	.02450	-.00129	.00147	.00055	.00019	-.00099	-.00059
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	.00004	.00190	.00128	.00150	.00079	.04052
SDev	.00424	.00104	.00210	.00384	.00001	.00004
%RSD	11152.	54.653	164.34	255.61	.89395	.09167
#1	.00303	.00264	.00277	-.00121	.00080	.04054
#2	-.00296	.00117	-.00021	.00422	.00079	.04049
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	16492	--	--	--	--	--	--
SDev	62.22539	--	--	--	--	--	--
%RSD	.3773157	--	--	--	--	--	--
#1	16536	--	--	--	--	--	--
#2	16448	--	--	--	--	--	--

Method: METTRA Sample Name: CCV3-3 Operator: RJG
Run Time: 05/17/00 10:42:57
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0327	24.082	.51604	1.9899	2.0019	49.735	.48436
SDev	.0171	.431	.01154	.0335	.0354	.895	.00932
%RSD	1.6516	1.7887	2.2363	1.6838	1.7700	1.8004	1.9234
#1	1.0448	24.386	.52420	2.0136	2.0269	50.369	.49095
#2	1.0206	23.777	.50788	1.9662	1.9768	49.102	.47777
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	1.9922	2.0011	1.9979	24.376	49.199	1.9674	2.0243
SDev	.0331	.0345	.0357	.410	.873	.0330	.0168
%RSD	1.6633	1.7222	1.7852	1.6830	1.7749	1.6760	.83103
#1	2.0156	2.0255	2.0231	24.666	49.817	1.9907	2.0362
#2	1.9688	1.9768	1.9727	24.086	48.582	1.9441	2.0124
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.2000	2.2000	2.2000	27.500	55.000	2.2000	2.2000
Low	1.8000	1.8000	1.8000	22.500	45.000	1.8000	1.8000

Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0268	.49269	.49686	.49547	.51689	.51578	.51615
SDev	.0451	.00744	.00664	.00691	.00535	.00867	.00756
%RSD	2.2239	1.5096	1.3367	1.3940	1.0354	1.6799	1.4650
#1	2.0586	.49795	.50156	.50036	.52067	.52190	.52149
#2	1.9949	.48743	.49217	.49059	.51310	.50965	.51080
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	2.2000			.55000			.55000
Low	1.8000			.45000			.45000

Elem	SE/1	SE/2	SE	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.51966	.51506	.51659	1.0147	2.0018	2.0473
SDev	.00866	.00587	.00680	.0191	.0411	.0422
%RSD	1.6656	1.1399	1.3160	1.8837	2.0509	2.0630
#1	.52578	.51921	.52140	1.0282	2.0309	2.0772
#2	.51354	.51091	.51178	1.0012	1.9728	2.0175
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	16447	--	--	--	--	--	--
SDev	227.3003	--	--	--	--	--	--
%RSD	1.381998	--	--	--	--	--	--
#1	16286	--	--	--	--	--	--
#2	16608	--	--	--	--	--	--

Analysis Report 05/17/00 10:51:12 AM

Method: METTRA Sample Name: CCB3 Operator: RJG
Run Time: 05/17/00 10:47:06
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00023	.06514	-.00183	.00059	.00124	.02803	.00029
SDev	.00005	.00492	.00184	.00023	.00006	.01072	.00011
%RSD	20.386	7.5481	100.69	38.881	4.4752	38.221	38.081
#1	.00020	.06862	-.00313	.00042	.00120	.02046	.00021
#2	.00027	.06166	-.00053	.00075	.00128	.03561	.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
Avge	-.00049	.00055	-.00126	.00978	.01393	.00060	.00618
SDev	.00053	.00013	.00050	.00883	.00250	.00020	.00237
%RSD	108.27	23.019	39.363	90.294	17.980	33.679	38.346
#1	-.00086	.00064	-.00161	.00354	.01216	.00045	.00785
#2	-.00011	.00046	-.00091	.01603	.01570	.00074	.00450
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	.00076	.00074	.00145	.00121	.00203	-.00073	.00019
SDev	.00018	.00247	.00081	.00028	.00524	.00361	.00067
%RSD	23.740	332.06	55.929	23.224	258.50	497.87	349.27
#1	.00063	.00249	.00087	.00141	-.00168	.00183	.00066
#2	.00089	-.00100	.00202	.00101	.00573	-.00328	-.00028
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	.00216	.00131	.00159	.00130	.00066	.00107
SDev	.00134	.00120	.00124	.00192	.00019	.00002
%RSD	61.949	91.303	78.064	147.19	28.145	2.1679
#1	.00121	.00046	.00071	.00266	.00079	.00105
#2	.00310	.00216	.00247	-.00005	.00053	.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	16367	--	--	--	--	--	--
SDev	54.34088	--	--	--	--	--	--
%RSD	.3320083	--	--	--	--	--	--
#1	16329	--	--	--	--	--	--
#2	16406	--	--	--	--	--	--

Method: METTRA Sample Name: DCQGQ Operator: RJG
Run Time: 05/17/00 10:51:16
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
Avge	-.00157	2.5237	.00261	.01748	.00852	97.223	.00332
SDev	.00041	.0022	.00281	.00008	.00001	.325	.00009
%RSD	25.850	.08566	107.56	.45778	.08431	.33413	2.8443
#1	-.00128	2.5222	.00459	.01742	.00852	96.993	.00325
#2	-.00185	2.5252	.00062	.01754	.00851	97.452	.00338
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	.20464	.00589	-.00168	38.370	33.662	.35757	.00017
SDev	.00085	.00043	.00035	.175	.142	.00182	.00055
%RSD	.41469	7.3742	21.038	.45503	.42209	.50805	326.99
#1	.20404	.00620	-.00193	38.247	33.562	.35628	.00056
#2	.20524	.00558	-.00143	38.494	33.763	.35885	-.00022
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000

Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.27532	.00010	.00252	.00172	.00166	-.00045	.00025
SDev	.00126	.00300	.00164	.00010	.00514	.00356	.00067
%RSD	.45854	2975.8	65.170	5.6789	309.84	796.53	261.70
#1	.27443	.00222	.00136	.00165	-.00198	.00207	.00072
#2	.27622	-.00202	.00368	.00178	.00530	-.00297	-.00022
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	-.00263	-.00079	-.00141	.00138	.00235	.57395
SDev	.00270	.00304	.00292	.00039	.00006	.00027
%RSD	102.43	382.46	207.86	28.457	2.6194	.04709
#1	-.00073	.00135	.00066	.00110	.00230	.57376
#2	-.00454	-.00294	-.00348	.00166	.00239	.57414
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	18031	--	--	--	--	--	--
SDev	37.40622	--	--	--	--	--	--
%RSD	.2074510	--	--	--	--	--	--
#1	18005	--	--	--	--	--	--
#2	18058	--	--	--	--	--	--

Analysis Report 05/17/00 10:59:31 AM

Method: METTRA Sample Name: DCQGV Operator: RJG
Run Time: 05/17/00 10:55:25
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00010	.07433	.01129	.01995	.00059	84.026	-.00021
SDev	.00049	.00770	.00029	.00006	.00002	.320	.00000
%RSD	494.52	10.358	2.5467	.30461	3.8874	.38137	1.4924
#1	.00025	.07978	.01109	.01999	.00061	84.253	-.00021
#2	-.00045	.06889	.01150	.01990	.00057	83.800	-.00020
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00024	.00046	-.00150	9.8584	17.122	.52565	.00059
SDev	.00002	.00010	.00028	.0146	.040	.00070	.00047
%RSD	9.9913	21.984	18.411	.14766	.23366	.13240	79.057
#1	-.00022	.00053	-.00130	9.8687	17.151	.52615	.00092
#2	-.00026	.00039	-.00169	9.8481	17.094	.52516	.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
Avge	.00107	.00327	.00054	.00145	.00253	-.00111	.00010
SDev	.00000	.00325	.00020	.00121	.00168	.00074	.00006
%RSD	.39198	99.472	36.582	83.896	66.235	66.978	60.979
#1	.00107	.00557	.00068	.00230	.00371	-.00163	.00015
#2	.00107	.00097	.00040	.00059	.00134	-.00058	.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	-.00207	.00185	.00054	.00136	.00204	.00906
SDev	.00193	.00161	.00172	.00049	.00000	.00003
%RSD	93.406	87.149	316.80	36.274	.10797	.30736
#1	-.00344	.00071	-.00067	.00101	.00204	.00904
#2	-.00070	.00298	.00176	.00171	.00204	.00907
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	16286	--	--	--	--	--	--
SDev	48.93124	--	--	--	--	--	--
%RSD	.3004460	--	--	--	--	--	--
#1	16252	--	--	--	--	--	--
#2	16321	--	--	--	--	--	--

Analysis Report 05/17/00 11:03:40 AM

Method: METTRA Sample Name: DCVMD Operator: RJG
Run Time: 05/17/00 10:59:35
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00011	.73794	.00052	.21204	.00001	543.19	.00192
SDev	.00017	.00372	.00086	.00124	.00014	.82	.00002
%RSD	155.81	.50354	165.50	.58418	982.54	.15062	.93592
#1	.00022	.74057	.00113	.21116	.00012	542.61	.00194
#2	-.00001	.73532	-.00009	.21291	-.00009	543.77	.00191
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	.01582	.00208	.00027	1.3616	82.139	1.4969	-.00050
SDev	.00024	.00002	.00036	.0014	.278	.0074	.00072
%RSD	1.5156	1.0584	134.48	.10083	.33825	.49124	143.16
#1	.01599	.00207	.00001	1.3607	81.942	1.4917	.00001
#2	.01565	.00210	.00053	1.3626	82.335	1.5021	-.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
Avge	.01177	.00127	-.00002	.00041	.00325	-.00002	.00107
SDev	.00153	.00041	.00027	.00004	.00088	.00096	.00093
%RSD	13.041	32.183	1376.0	10.524	27.220	4074.3	87.689
#1	.01285	.00155	-.00021	.00038	.00387	.00066	.00173
#2	.01068	.00098	.00017	.00044	.00262	-.00070	.00041
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	.00043	-.00115	-.00063	.00136	.00517	.02823
SDev	.00375	.00374	.00125	.00185	.00239	.00011
%RSD	862.83	324.14	199.66	135.32	46.184	.38125
#1	-.00221	.00149	.00026	.00267	.00686	.02815
#2	.00308	-.00380	-.00151	.00006	.00348	.02830
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	15242	--	--	--	--	--	--
SDev	54.44722	--	--	--	--	--	--
%RSD	.3572231	--	--	--	--	--	--
#1	15280	--	--	--	--	--	--
#2	15203	--	--	--	--	--	--

Method: METTRA Sample Name: DCVME Operator: RJG
Run Time: 05/17/00 11:03:44
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	-.00006	1.6279	.00121	.10997	.00060	172.30	-.00044
SDev	.00008	.0036	.00079	.00030	.00019	.50	.00010
%RSD	127.76	.22361	65.282	.27290	31.855	.28811	23.791
#1	-.00012	1.6253	.00065	.10976	.00074	172.65	-.00036
#2	-.00001	1.6304	.00177	.11018	.00047	171.95	-.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	-.00059	.00495	-.00004	8.1960	5.3524	.07090	.00171
SDev	.00025	.00010	.00055	.0121	.0039	.00004	.00000
%RSD	43.278	1.9211	1266.7	.14808	.07226	.05653	.23372
#1	-.00041	.00488	-.00043	8.1875	5.3497	.07087	.00171
#2	-.00077	.00502	.00034	8.2046	5.3551	.07093	.00170
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	.00231	.00355	.00114	.00194	.00070	.00038	.00049
SDev	.00037	.00025	.00137	.00100	.00288	.00074	.00047
%RSD	16.006	6.9612	120.91	51.500	411.09	193.52	94.836
#1	.00205	.00337	.00016	.00123	-.00134	.00091	.00016
#2	.00258	.00372	.00211	.00265	.00274	-.00014	.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
Avge	.00012	.00016	.00015	-.00133	.00294	.01778
SDev	.00233	.00026	.00095	.00222	.00000	.00013
%RSD	1898.0	157.55	632.85	167.69	.08313	.74979
#1	.00177	.00035	.00082	.00025	.00294	.01787
#2	-.00153	-.00002	-.00052	-.00290	.00294	.01769
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	16122	--	--	--	--	--	--
SDev	14.46047	--	--	--	--	--	--
%RSD	.0896953	--	--	--	--	--	--
#1	16112	--	--	--	--	--	--
#2	16132	--	--	--	--	--	--

Method: METTRA Sample Name: DCVMF Operator: RJG
Run Time: 05/17/00 11:07:54
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00006	.40368	.00005	.08033	-.00025	586.52	.00005
SDev	.00011	.01698	.00150	.00020	.00030	4.88	.00015
%RSD	185.47	4.2052	2827.5	.24751	120.36	.83181	320.12
#1	-.00002	.41569	-.00101	.08047	-.00004	589.97	-.00006
#2	.00014	.39168	.00112	.08019	-.00047	583.07	.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	.00904	.00266	-.00089	.51918	298.21	3.4514	-.00070
SDev	.00029	.00004	.00087	.00499	1.41	.0101	.00086
%RSD	3.2401	1.5661	97.762	.96114	.47393	.29376	121.77
#1	.00925	.00269	-.00151	.51566	299.21	3.4586	-.00010
#2	.00884	.00263	-.00028	.52271	297.21	3.4442	-.00131
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	.00817	-.00054	.00062	.00023	.00100	-.00042	.00005
SDev	.00099	.00146	.00083	.00104	.00124	.00093	.00021
%RSD	12.124	269.96	134.87	451.82	123.57	221.22	401.49
#1	.00747	.00049	.00120	.00097	.00013	.00024	.00020
#2	.00887	-.00158	.00003	-.00051	.00187	-.00108	-.00010
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	.00426	-.00112	.00067	.00009	.00812	.01186
SDev	.00093	.00014	.00041	.00153	.00003	.00015
%RSD	21.908	12.769	60.261	1756.7	.43031	1.2858
#1	.00360	-.00122	.00039	.00117	.00815	.01197
#2	.00492	-.00102	.00096	-.00099	.00810	.01175
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	14605	--	--	--	--	--	--
SDev	66.29126	--	--	--	--	--	--
%RSD	.4539090	--	--	--	--	--	--
#1	14558	--	--	--	--	--	--
#2	14651	--	--	--	--	--	--

Method: METTRA Sample Name: DCVMG Operator: RJG
Run Time: 05/17/00 11:12:03
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00039	.10012	.00004	.07133	.00057	162.38	-.00023
SDev	.00015	.01145	.00146	.00017	.00003	.33	.00003
%RSD	37.443	11.433	3997.2	.24020	5.8401	.20377	11.856
#1	-.00029	.10821	.00107	.07121	.00059	162.62	-.00025
#2	-.00049	.09203	-.00100	.07146	.00055	162.15	-.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	-.00154	.00097	.00105	1.6086	6.1583	.08305	.00594
SDev	.00004	.00003	.00055	.0086	.0162	.00007	.00021
%RSD	2.5911	3.4798	52.628	.53299	.26311	.08046	3.4636
#1	-.00151	.00099	.00066	1.6147	6.1698	.08310	.00608
#2	-.00156	.00094	.00144	1.6025	6.1469	.08300	.00579
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	.00063	.00042	.00073	.00062	.00185	.00077	.00113
SDev	.00013	.00074	.00017	.00036	.00186	.00396	.00326
%RSD	20.354	175.48	22.945	57.361	100.67	515.39	288.91
#1	.00072	-.00010	.00061	.00037	.00317	.00357	.00343
#2	.00054	.00095	.00084	.00088	.00053	-.00203	-.00118
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	-.00226	-.00026	-.00093	.00003	.00095	.01365
SDev	.00068	.00379	.00230	.00355	.00038	.00020
%RSD	29.991	1440.9	248.36	13809.	39.978	1.4357
#1	-.00178	-.00294	-.00256	.00253	.00122	.01379
#2	-.00274	.00242	.00070	-.00248	.00068	.01351
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	16316	--	--	--	--	--	--
SDev	101.8945	--	--	--	--	--	--
%RSD	.6245066	--	--	--	--	--	--
#1	16244	--	--	--	--	--	--
#2	16388	--	--	--	--	--	--

Method: METTRA Sample Name: DCVMH Operator: RJG
Run Time: 05/17/00 11:16:12
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	.10930	.00021	.06884	-.00002	H639.20	-.00003
SDev	.00030	.01006	.00159	.00174	.00027	11.32	.00007
%RSD	148.76	9.2066	758.22	2.5249	1634.1	1.7705	289.12
#1	.00041	.11641	-.00092	.06761	.00018	H631.20	.00003
#2	-.00001	.10218	.00134	.07007	-.00021	H647.20	-.00008
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00310	.00105	-.00025	.10851	41.767	1.0215	-.00028
SDev	.00003	.00043	.00059	.01581	.785	.0198	.00022
%RSD	.97650	41.154	235.59	14.568	1.8803	1.9380	79.155
#1	.00308	.00136	-.00067	.09733	41.211	1.0075	-.00012
#2	.00312	.00075	.00017	.11969	42.322	1.0355	-.00043
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	.00442	.00007	-.00104	-.00067	.00178	.00071	.00107
SDev	.00097	.00113	.00203	.00097	.00072	.00096	.00088
%RSD	21.891	1684.2	194.43	144.81	40.216	136.40	82.745
#1	.00374	-.00073	.00039	.00002	.00229	.00139	.00169
#2	.00511	.00087	-.00248	-.00136	.00128	.00003	.00044
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	-.00276	.00125	-.00009	-.00031	.00131	.01005
SDev	.00182	.00253	.00229	.00065	.00062	.00015
%RSD	65.876	202.06	2670.7	208.01	47.320	1.5414
#1	-.00148	.00304	.00154	-.00077	.00087	.00994
#2	-.00405	-.00054	-.00171	.00015	.00174	.01016
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	15247	--	--	--	--	--	--
SDev	155.5635	--	--	--	--	--	--
%RSD	1.020302	--	--	--	--	--	--
#1	15357	--	--	--	--	--	--
#2	15137	--	--	--	--	--	--

Method: METTRA Sample Name: DCVMHP5 Operator: RJG
Run Time: 05/17/00 11:20:22
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
Avge	-.00026	.06249	-.00001	.01349	.00049	130.16	-.00013
SDev	.00035	.01120	.00048	.00005	.00016	.19	.00012
%RSD	131.08	17.928	4541.8	.39305	32.016	.14864	94.748
#1	-.00002	.07041	.00033	.01345	.00060	130.02	-.00004
#2	-.00051	.05457	-.00035	.01352	.00038	130.29	-.00022

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00004	-.00023	-.00178	.02389	8.1770	.19950	-.00065
SDev	.00010	.00005	.00027	.00843	.0270	.00050	.00022
%RSD	223.98	21.346	14.928	35.286	.33030	.24933	34.736
#1	-.00012	-.00027	-.00197	.02985	8.1579	.19915	-.00049
#2	.00003	-.00020	-.00160	.01793	8.1961	.19985	-.00081

Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00003	-.00026	.00101	.00058	.00227	.00083	.00131
SDev	.00025	.00037	.00200	.00121	.00065	.00125	.00105
%RSD	951.29	141.38	198.64	207.16	28.515	150.38	80.166
#1	-.00015	-.00000	-.00041	-.00027	.00273	.00172	.00205
#2	.00020	-.00052	.00242	.00144	.00181	-.00005	.00057

Elem	SE/1	SE/2	SE	TL	V_	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00082	-.00129	-.00113	.00076	.00014	.00239
SDev	.00228	.00063	.00118	.00055	.00018	.00003
%RSD	278.52	48.724	103.92	72.132	133.49	1.2996
#1	-.00243	-.00174	-.00197	.00037	.00001	.00237
#2	.00079	-.00085	-.00030	.00114	.00027	.00241

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	16290	--	--	--	--	--	--
SDev	22.45064	--	--	--	--	--	--
%RSD	.1378179	--	--	--	--	--	--
#1	16306	--	--	--	--	--	--
#2	16274	--	--	--	--	--	--

Method: METTRA Sample Name: DCVMHS Operator: RJG
Run Time: 05/17/00 11:24:31
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05159	2.1979	2.0957	2.0126	.04880	H610.94	.04616
SDev	.00024	.0079	.0160	.0119	.00008	1.21	.00011
%RSD	.46024	.36157	.76493	.59063	.16475	.19785	.23409
#1	.05176	2.2035	2.1071	2.0042	.04886	H610.08	.04623
#2	.05142	2.1923	2.0844	2.0210	.04875	H611.79	.04608
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.48727	.19566	.25610	1.0618	39.977	1.4600	.00032
SDev	.00053	.00028	.00059	.0003	.079	.0042	.00118
%RSD	.10948	.14288	.22892	.02784	.19657	.28892	367.85
#1	.48689	.19546	.25568	1.0620	39.921	1.4570	-.00051
#2	.48765	.19586	.25651	1.0616	40.032	1.4630	.00116
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	.49522	.48262	.47989	.48080	.00077	.00093	.00088
SDev	.00080	.00097	.00072	.00016	.00157	.00077	.00001
%RSD	.16182	.20074	.14964	.03252	204.20	82.986	.98500
#1	.49579	.48193	.48040	.48091	-.00034	.00147	.00087
#2	.49466	.48330	.47938	.48069	.00188	.00038	.00088
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000

Elem	SE/1	SE/2	SE	TL	V_	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.1003	2.1015	2.1011	2.1279	.49649	.53677
SDev	.0040	.0040	.0040	.0315	.00106	.00237
%RSD	.19187	.19139	.19156	1.4822	.21425	.44238
#1	2.0975	2.0987	2.0983	2.1502	.49574	.53845
#2	2.1032	2.1044	2.1040	2.1056	.49724	.53509
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	15708	--	--	--	--	--	--
SDev	2.898862	--	--	--	--	--	--
%RSD	.0184545	--	--	--	--	--	--
#1	15710	--	--	--	--	--	--
#2	15706	--	--	--	--	--	--

Method: METTRA Sample Name: DCVMHD Operator: RJG
Run Time: 05/17/00 11:28:40
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05300	2.2843	2.1676	2.0710	.05004	H627.73	.04749
SDev	.00055	.0280	.0189	.0074	.00042	3.37	.00043
%RSD	1.0279	1.2242	.87386	.35878	.83567	.53676	.89753
#1	.05262	2.3041	2.1810	2.0762	.05033	H630.11	.04779
#2	.05339	2.2645	2.1542	2.0657	.04974	H625.35	.04719
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50416	.20223	.26395	1.1039	41.048	1.4999	-.00011
SDev	.00404	.00079	.00074	.0115	.233	.0065	.00001
%RSD	.80212	.39023	.28143	1.0438	.56739	.43211	9.3290
#1	.50702	.20279	.26447	1.1120	41.213	1.5045	-.00010
#2	.50130	.20167	.26342	1.0957	40.884	1.4953	-.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	.51441	.49644	.49528	.49567	.00135	-.00060	.00005
SDev	.00456	.00035	.00104	.00058	.00063	.00156	.00083
%RSD	.88696	.07101	.21106	.11698	46.557	259.81	1687.6
#1	.51763	.49619	.49602	.49608	.00180	-.00170	-.00054
#2	.51118	.49669	.49454	.49526	.00091	.00050	.00064
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000

Elem	SE/1	SE/2	SE	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.1796	2.1775	2.1782	2.1975	.51248	.55067
SDev	.0016	.0002	.0004	.0214	.00213	.00521
%RSD	.07465	.00879	.01902	.97408	.41568	.94565
#1	2.1807	2.1774	2.1785	2.2126	.51399	.55435
#2	2.1784	2.1776	2.1779	2.1824	.51097	.54699
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	15269	--	--	--	--	--	--
SDev	57.45243	--	--	--	--	--	--
%RSD	.3762715	--	--	--	--	--	--
#1	15228	--	--	--	--	--	--
#2	15310	--	--	--	--	--	--

Analysis Report 05/17/00 11:36:55 AM

Method: METTRA Sample Name: CCV3-4 Operator: RJG
Run Time: 05/17/00 11:32:49
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0068	23.527	.50734	1.9302	1.9469	48.584	.47261
SDev	.0076	.212	.00819	.0085	.0196	.463	.00602
%RSD	.75848	.90247	1.6149	.44117	1.0050	.95291	1.2736
#1	1.0122	23.677	.51313	1.9362	1.9607	48.912	.47687
#2	1.0014	23.377	.50155	1.9241	1.9330	48.257	.46835
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	1.9396	1.9474	1.9478	23.754	47.802	1.9144	1.9687
SDev	.0204	.0203	.0174	.299	.494	.0177	.0087
%RSD	1.0523	1.0428	.89309	1.2575	1.0340	.92611	.44119
#1	1.9541	1.9618	1.9601	23.965	48.151	1.9269	1.9748
#2	1.9252	1.9331	1.9355	23.543	47.452	1.9018	1.9625
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.2000	2.2000	2.2000	27.500	55.000	2.2000	2.2000
Low	1.8000	1.8000	1.8000	22.500	45.000	1.8000	1.8000

Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9909	.47814	.48776	.48455	.50293	.50055	.50134
SDev	.0272	.00562	.00544	.00550	.00800	.00956	.00904
%RSD	1.3650	1.1761	1.1161	1.1358	1.5908	1.9106	1.8038
#1	2.0101	.48212	.49161	.48845	.50858	.50731	.50774
#2	1.9716	.47416	.48391	.48066	.49727	.49379	.49495
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	.50682	.51184	.51017	1.0060	1.9482	2.0046
SDev	.01011	.00533	.00692	.0183	.0200	.0273
%RSD	1.9949	1.0409	1.3565	1.8236	1.0266	1.3642
#1	.51397	.51561	.51506	1.0189	1.9623	2.0239
#2	.49967	.50807	.50528	.99298	1.9341	1.9852
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	16764	--	--	--	--	--	--
SDev	157.8257	--	--	--	--	--	--
%RSD	.9414532	--	--	--	--	--	--
#1	16652	--	--	--	--	--	--
#2	16876	--	--	--	--	--	--

Analysis Report 05/17/00 11:41:04 AM page 1

Method: METTRA Sample Name: CCB4 Operator: RJG
Run Time: 05/17/00 11:36:59
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	.00001	.04003	-.00006	.00055	.00135	.05749	-.00000
SDev	.00044	.00213	.00148	.00020	.00010	.02707	.00011
%RSD	4115.5	5.3298	2300.2	37.217	7.5159	47.083	170530.
#1	-.00030	.04154	-.00111	.00040	.00142	.03835	.00008
#2	.00033	.03852	.00098	.00069	.00128	.07663	-.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
Avge	-.00054	.00000	-.00148	.00457	.01346	.00051	.00599
SDev	.00012	.00008	.00008	.00593	.00415	.00016	.00191
%RSD	22.553	1815.6	5.5052	129.65	30.821	30.777	31.960
#1	-.00045	.00006	-.00153	.00038	.01052	.00040	.00734
#2	-.00062	-.00005	-.00142	.00877	.01639	.00062	.00463
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	-.00074	.00026	.00103	.00077	.00180	.00083	.00115
SDev	.00095	.00024	.00090	.00052	.00065	.00123	.00104
%RSD	128.18	91.914	87.328	67.129	36.045	149.22	90.206
#1	-.00007	.00009	.00167	.00114	.00226	.00170	.00189
#2	-.00142	.00043	.00039	.00041	.00134	-.00005	.00042
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	.00511	.00342	.00398	.00594	.00077	.00098
SDev	.00215	.00014	.00081	.00029	.00036	.00019
%RSD	42.124	4.1322	20.361	4.9010	46.905	19.851
#1	.00359	.00332	.00341	.00573	.00103	.00084
#2	.00663	.00352	.00456	.00614	.00052	.00111
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	16824	--	--	--	--	--	--
SDev	7.354186	--	--	--	--	--	--
%RSD	.0437131	--	--	--	--	--	--
#1	16819	--	--	--	--	--	--
#2	16829	--	--	--	--	--	--

Analysis Report 05/17/00 11:45:14 AM page 1

Method: METTRA Sample Name: DCVMK Operator: RJG
Run Time: 05/17/00 11:41:08
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00039	.68116	.00057	.08003	.00063	176.00	-.00009
SDev	.00038	.01246	.00042	.00045	.00008	1.46	.00003
%RSD	96.740	1.8295	73.428	.55839	12.480	.82775	35.376
#1	-.00066	.68997	.00087	.08035	.00068	177.03	-.00006
#2	-.00012	.67235	.00028	.07972	.00057	174.97	-.00011
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00070	.00204	.00012	7.1650	5.0511	.05463	.00347
SDev	.00018	.00011	.00038	.0413	.0373	.00040	.00011
%RSD	25.836	5.2248	328.60	.57637	.73762	.73869	3.1542
#1	-.00083	.00196	-.00015	7.1942	5.0774	.05492	.00339
#2	-.00057	.00211	.00039	7.1358	5.0247	.05435	.00355
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	-.00011	.00214	.00026	.00089	.00054	.00104	.00088
SDev	.00031	.00096	.00065	.00012	.00316	.00010	.00099
%RSD	287.20	44.722	248.31	13.089	581.62	9.6189	112.58
#1	-.00032	.00146	.00072	.00097	-.00169	.00111	.00018
#2	.00011	.00282	-.00020	.00081	.00278	.00097	.00157
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	-.00209	.00158	.00036	.00079	.00293	.01447
SDev	.00069	.00564	.00399	.00126	.00002	.00004
%RSD	32.949	357.66	1115.9	158.70	.61201	.29366
#1	-.00160	.00557	.00318	.00168	.00294	.01450
#2	-.00257	-.00241	-.00247	-.00010	.00292	.01444
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	16317	--	--	--	--	--	--
SDev	110.1319	--	--	--	--	--	--
%RSD	.6749404	--	--	--	--	--	--
#1	16239	--	--	--	--	--	--
#2	16395	--	--	--	--	--	--

Method: METTRA Sample Name: DCVML Operator: RJG
Run Time: 05/17/00 11:45:18
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
Avge	-.00024	.14363	.00152	.15260	.00004	402.42	.00001
SDev	.00022	.01289	.00007	.00005	.00021	2.33	.00002
%RSD	91.098	8.9711	4.4938	.03440	510.93	.57809	246.26
#1	-.00009	.15274	.00147	.15256	.00019	404.07	-.00001
#2	-.00040	.13451	.00157	.15264	-.00011	400.78	.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	.00082	.00224	-.00076	1.8869	38.876	1.0827	.00179
SDev	.00003	.00029	.00057	.0099	.103	.0019	.00023
%RSD	3.2463	13.116	74.408	.52256	.26616	.17171	13.127
#1	.00084	.00204	-.00116	1.8939	38.949	1.0841	.00162
#2	.00080	.00245	-.00036	1.8799	38.803	1.0814	.00195
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	.00199	-.00038	.00268	.00166	.00301	.00012	.00108
SDev	.00006	.00254	.00078	.00136	.00107	.00066	.00080
%RSD	3.1585	664.20	29.001	82.350	35.657	550.48	73.537
#1	.00194	.00142	.00322	.00262	.00225	-.00034	.00052
#2	.00203	-.00218	.00213	.00069	.00376	.00058	.00164
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000

Elem	SE/1	SE/2	SE	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00077	.00267	.00153	-.00042	.00312	.00863
SDev	.00262	.00057	.00049	.00527	.00059	.00003
%RSD	341.38	21.261	32.393	1268.8	18.929	.38331
#1	-.00262	.00308	.00118	.00331	.00353	.00866
#2	.00109	.00227	.00188	-.00414	.00270	.00861
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	15637	--	--	--	--	--	--
SDev	8.414847	--	--	--	--	--	--
%RSD	.0538132	--	--	--	--	--	--
#1	15631	--	--	--	--	--	--
#2	15643	--	--	--	--	--	--

Method: METTRA Sample Name: DCVMM Operator: RJG
Run Time: 05/17/00 11:49:27
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
Avge	-.00001	.78762	.00107	.06784	.00042	114.96	-.00029
SDev	.00022	.01692	.00066	.00047	.00004	1.38	.00001
%RSD	1993.3	2.1485	61.779	.69456	8.7969	1.2004	1.8596
#1	.00015	.79958	.00060	.06818	.00044	115.94	-.00029
#2	-.00017	.77565	.00153	.06751	.00039	113.98	-.00030
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	-.00091	.00264	.00060	3.3573	4.7846	.03918	.00245
SDev	.00036	.00001	.00019	.0296	.0537	.00038	.00005
%RSD	40.160	.18158	31.673	.88225	1.1232	.97303	2.0186
#1	-.00117	.00264	.00046	3.3783	4.8226	.03945	.00249
#2	-.00065	.00263	.00073	3.3364	4.7466	.03891	.00242
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	.00209	.00119	.00143	.00135	.00120	.00126	.00124
SDev	.00041	.00027	.00088	.00050	.00159	.00001	.00052
%RSD	19.705	22.659	61.403	36.721	132.93	.63550	42.281
#1	.00180	.00138	.00081	.00100	.00007	.00127	.00087
#2	.00238	.00100	.00205	.00170	.00232	.00126	.00161
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	-.00798	.00073	-.00217	-.00379	.00408	.02289
SDev	.00253	.00076	.00135	.00126	.00004	.00047
%RSD	31.659	103.28	62.045	33.103	.93837	2.0698
#1	-.00977	.00020	-.00312	-.00291	.00411	.02322
#2	-.00620	.00127	-.00122	-.00468	.00406	.02255
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	16160	--	--	--	--	--	--
SDev	154.1134	--	--	--	--	--	--
%RSD	.9536969	--	--	--	--	--	--
#1	16051	--	--	--	--	--	--
#2	16269	--	--	--	--	--	--

Method: METTRA Sample Name: DCVMN Operator: RJG
Run Time: 05/17/00 11:53:36
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	-.00010	.46389	.00108	.07426	.00002	354.44	.00005
SDev	.00007	.01720	.00169	.00006	.00019	1.57	.00001
%RSD	69.790	3.7069	156.66	.08517	859.62	.44357	26.966
#1	-.00005	.47605	-.00012	.07421	.00015	355.55	.00004
#2	-.00015	.45173	.00228	.07430	-.00011	353.33	.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
Avge	.00129	.00115	.00019	2.0278	47.936	.87434	.00192
SDev	.00010	.00031	.00022	.0065	.117	.00124	.00007
%RSD	7.9241	26.535	118.88	.31898	.24376	.14169	3.4331
#1	.00122	.00094	.00003	2.0233	48.019	.87522	.00187
#2	.00136	.00137	.00034	2.0324	47.854	.87346	.00197
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	.00195	-.00046	.00065	.00028	.00273	.00067	.00136
SDev	.00128	.00171	.00074	.00106	.00012	.00313	.00213
%RSD	65.603	369.86	115.03	385.28	4.3695	465.26	156.46
#1	.00105	.00075	.00117	.00103	.00265	-.00154	-.00014
#2	.00286	-.00167	.00012	-.00048	.00282	.00288	.00286
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	.00030	-.00047	-.00021	.00069	.00580	.01159
SDev	.00128	.00076	.00093	.00443	.00038	.00004
%RSD	420.34	162.88	445.16	639.51	6.5325	.34538
#1	-.00060	-.00100	-.00087	-.00244	.00553	.01162
#2	.00121	.00007	.00045	.00383	.00607	.01156
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	15561	--	--	--	--	--	--
SDev	44.83015	--	--	--	--	--	--
%RSD	.2881004	--	--	--	--	--	--
#1	15529	--	--	--	--	--	--
#2	15592	--	--	--	--	--	--

Analysis Report 05/17/00 12:01:51 PM

Method: METTRA Sample Name: DCVMP Operator: RJG
Run Time: 05/17/00 11:57:46
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	-.00046	.05453	.00039	.07369	.00042	93.203	-.00018
SDev	.00004	.00909	.00041	.00002	.00002	.654	.00021
%RSD	9.1752	16.662	104.64	.03088	3.9252	.70163	113.89
#1	-.00049	.06096	.00010	.07371	.00041	93.665	-.00004
#2	-.00043	.04811	.00068	.07368	.00043	92.740	-.00033
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	-.00114	.00167	-.00007	1.9055	3.5397	.05770	.00349
SDev	.00069	.00029	.00004	.0169	.0173	.00032	.00011
%RSD	60.912	17.634	58.199	.88893	.48779	.55899	3.1413
#1	-.00065	.00187	-.00004	1.9175	3.5519	.05793	.00357
#2	-.00163	.00146	-.00009	1.8935	3.5275	.05747	.00341
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	.00132	.00289	.00090	.00157	.00082	.00168	.00139
SDev	.00062	.00003	.00018	.00011	.00014	.00008	.00001
%RSD	46.982	1.0943	20.468	7.2004	17.005	4.6378	.38723
#1	.00176	.00287	.00103	.00165	.00092	.00162	.00139
#2	.00088	.00292	.00077	.00149	.00072	.00173	.00139
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	-.00528	.00197	-.00044	-.00260	.00050	.01175
SDev	.00080	.00089	.00086	.00237	.00000	.00017
%RSD	15.091	44.871	194.19	91.339	.88892	1.4625
#1	-.00584	.00135	-.00105	-.00427	.00050	.01187
#2	-.00472	.00260	.00016	-.00092	.00049	.01163
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	16415	--	--	--	--	--	--
SDev	90.50967	--	--	--	--	--	--
%RSD	.5513957	--	--	--	--	--	--
#1	16351	--	--	--	--	--	--
#2	16479	--	--	--	--	--	--

Method: METTRA Sample Name: DD8DGBF Operator: RJG
Run Time: 05/17/00 12:01:55
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
Avge	-.00016	.04059	.00020	.00004	.00030	.11829	-.00008
SDev	.00049	.01620	.00177	.00004	.00011	.00288	.00009
%RSD	312.94	39.916	909.35	96.579	35.062	2.4386	102.03
#1	.00019	.05205	.00145	.00001	.00037	.12033	-.00002
#2	-.00051	.02913	-.00106	.00007	.00023	.11625	-.00015
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	-.00094	.00007	-.00107	.02213	-.00034	.00001	.00005
SDev	.00000	.00004	.00021	.00464	.00116	.00001	.00029
%RSD	.43352	53.139	19.532	20.963	339.99	119.76	553.46
#1	-.00094	.00010	-.00121	.01885	.00048	.00000	-.00015
#2	-.00093	.00005	-.00092	.02541	-.00116	.00002	.00026
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	.00095	.00177	.00149	.00193	.00097	.00129
SDev	.00050	.00088	.00039	.00003	.00010	.00289	.00197
%RSD	44.757	92.654	21.903	2.2518	5.3801	297.51	152.08
#1	-.00146	.00157	.00149	.00152	.00201	.00302	.00268
#2	-.00076	.00033	.00204	.00147	.00186	-.00107	-.00010
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	-.00448	.00135	-.00059	-.00337	.00067	.00240
SDev	.00414	.00136	.00228	.00059	.00019	.00021
%RSD	92.364	100.21	388.19	17.616	27.860	8.6873
#1	-.00155	.00231	.00103	-.00379	.00054	.00254
#2	-.00740	.00039	-.00220	-.00295	.00080	.00225
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	16273	--	--	--	--	--	--
SDev	61.76550	--	--	--	--	--	--
%RSD	.3795553	--	--	--	--	--	--
#1	16229	--	--	--	--	--	--
#2	16317	--	--	--	--	--	--

Method: METTRA Sample Name: DD8DGCF Operator: RJG
Run Time: 05/17/00 12:06:05
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
Avge	.04877	2.0099	2.0111	1.9691	.04972	47.938	.04721
SDev	.00007	.0550	.0471	.0383	.00112	1.063	.00109
%RSD	.15257	2.7344	2.3412	1.9434	2.2561	2.2176	2.3109
#1	.04882	2.0488	2.0443	1.9962	.05051	48.690	.04798
#2	.04871	1.9710	1.9778	1.9421	.04892	47.186	.04644
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
Avge	.48628	.19764	.24638	.89662	47.285	.48257	.99408
SDev	.00988	.00354	.00398	.02694	.961	.00931	.01886
%RSD	2.0322	1.7937	1.6174	3.0049	2.0331	1.9288	1.8974
#1	.49327	.20014	.24919	.91567	47.965	.48915	1.0074
#2	.47929	.19513	.24356	.87757	46.605	.47599	.98074
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
Avge	.49350	.47724	.47510	.47581	.47762	.49181	.48708
SDev	.01322	.00549	.00108	.00110	.00419	.00909	.00467
%RSD	2.6796	1.1496	.22806	.23208	.87785	1.8489	.95853
#1	.50285	.48112	.47433	.47659	.47465	.49824	.49038
#2	.48415	.47336	.47587	.47503	.48058	.48538	.48378
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
Avge	2.0080	1.9429	1.9646	2.0319	.49279	.51023
SDev	.0208	.0219	.0077	.0509	.01131	.01120
%RSD	1.0366	1.1286	.39165	2.5066	2.2955	2.1955
#1	2.0228	1.9273	1.9591	2.0679	.50079	.51815
#2	1.9933	1.9584	1.9700	1.9959	.48479	.50231
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	16323	--	--	--	--	--	--
SDev	238.2239	--	--	--	--	--	--
%RSD	1.459423	--	--	--	--	--	--
#1	16155	--	--	--	--	--	--
#2	16492	--	--	--	--	--	--

Method: METTRA Sample Name: DCQF8F Operator: RJG
Run Time: 05/17/00 12:10:14
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	-.00005	.03836	.00063	.03030	.00023	104.85	-.00011
SDev	.00083	.01198	.00085	.00005	.00001	.40	.00029
%RSD	1640.5	31.229	134.62	.17506	3.6804	.38436	257.61
#1	.00053	.04683	.00124	.03034	.00023	105.14	.00009
#2	-.00064	.02989	.00003	.03026	.00024	104.57	-.00031
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00091	.00013	-.00043	4.1638	4.1692	.19935	.00472
SDev	.00020	.00013	.00008	.0139	.0147	.00040	.00189
%RSD	21.571	100.26	17.392	.33489	.35298	.20009	39.945
#1	-.00077	.00022	-.00038	4.1737	4.1796	.19964	.00606
#2	-.00104	.00004	-.00049	4.1540	4.1588	.19907	.00339
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	.00090	.00140	.00194	.00176	.00298	.00024	.00115
SDev	.00012	.00179	.00108	.00131	.00262	.00080	.00140
%RSD	12.737	128.09	55.427	74.648	88.081	336.02	122.23
#1	.00082	.00266	.00270	.00269	.00483	.00080	.00214
#2	.00098	.00013	.00118	.00083	.00112	-.00033	.00016
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	-.00387	.00479	.00191	.00055	.00069	.00510
SDev	.00278	.00076	.00042	.00137	.00057	.00009
%RSD	71.952	15.959	21.865	246.92	82.466	1.8420
#1	-.00190	.00425	.00220	.00152	.00109	.00517
#2	-.00584	.00533	.00161	-.00041	.00029	.00504
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	16175	--	--	--	--	--	--
SDev	115.1175	--	--	--	--	--	--
%RSD	.7117136	--	--	--	--	--	--
#1	16093	--	--	--	--	--	--
#2	16256	--	--	--	--	--	--

Analysis Report 05/17/00 12:18:29 PM

Method: METTRA Sample Name: DCQFLF Operator: RJG
Run Time: 05/17/00 12:14:24
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00021	.04111	.00131	.02204	.00010	89.989	-.00031
SDev	.00018	.00154	.00081	.00037	.00019	1.097	.00004
%RSD	82.691	3.7539	61.696	1.6775	195.65	1.2193	12.527
#1	-.00009	.04221	.00074	.02178	.00024	89.213	-.00033
#2	-.00034	.04002	.00188	.02230	-.00004	90.765	-.00028
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00081	-.00022	-.00064	1.9577	4.7103	.18299	.00255
SDev	.00030	.00024	.00019	.0319	.0628	.00265	.00014
%RSD	36.812	107.43	28.965	1.6303	1.3341	1.4477	5.3031
#1	-.00102	-.00005	-.00078	1.9351	4.6659	.18112	.00245
#2	-.00060	-.00039	-.00051	1.9803	4.7548	.18486	.00264
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	.00055	.00082	.00163	.00136	.00090	.00188	.00155
SDev	.00149	.00307	.00067	.00057	.00140	.00040	.00073
%RSD	269.41	372.77	41.278	42.041	155.45	21.536	47.422
#1	.00161	.00299	.00116	.00177	.00189	.00216	.00207
#2	-.00050	-.00135	.00211	.00096	-.00009	.00159	.00103
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	-.00447	.00153	-.00047	-.00129	.00105	.02417
SDev	.00025	.00004	.00006	.00218	.00001	.00007
%RSD	5.6214	2.6288	12.193	169.38	1.3574	.28579
#1	-.00429	.00150	-.00043	-.00283	.00104	.02412
#2	-.00465	.00156	-.00051	.00025	.00106	.02422
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	16032	--	--	--	--	--	--
SDev	176.1407	--	--	--	--	--	--
%RSD	1.098710	--	--	--	--	--	--
#1	16156	--	--	--	--	--	--
#2	15907	--	--	--	--	--	--

Analysis Report 05/17/00 12:22:39 PM page 1

Method: METTRA Sample Name: DCQFRF Operator: RJG
Run Time: 05/17/00 12:18:34
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	-.00030	.02713	-.00058	.04075	.00038	118.02	-.00019
SDev	.00005	.01577	.00195	.00136	.00022	4.00	.00004
%RSD	17.732	58.125	337.42	3.3317	58.341	3.3909	20.759
#1	-.00033	.03829	-.00195	.04171	.00022	120.85	-.00022
#2	-.00026	.01598	.00080	.03979	.00054	115.19	-.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	-.00106	-.00006	-.00037	5.5379	4.7809	.10579	.00223
SDev	.00027	.00016	.00019	.1605	.1462	.00342	.00018
%RSD	25.425	261.49	51.982	2.8987	3.0573	3.2307	7.9673
#1	-.00087	-.00017	-.00023	5.6514	4.8843	.10820	.00211
#2	-.00125	.00005	-.00050	5.4244	4.6776	.10337	.00236
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	-.00041	.00145	.00182	.00170	.00236	-.00082	.00024
SDev	.00012	.00042	.00034	.00009	.00138	.00122	.00036
%RSD	30.092	28.580	18.888	5.3701	58.544	149.35	147.67
#1	-.00050	.00116	.00207	.00177	.00334	-.00168	-.00001
#2	-.00032	.00175	.00158	.00164	.00139	.00005	.00049
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000

Elem	SE/1	SE/2	SE	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00717	.00265	-.00062	-.00035	.00066	.01010
SDev	.00156	.00338	.00174	.00223	.00002	.00030
%RSD	21.691	127.74	279.46	628.92	3.4423	2.9223
#1	-.00827	.00504	.00061	-.00193	.00068	.01030
#2	-.00607	.00026	-.00185	.00122	.00064	.00989
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	16512	--	--	--	--	--	--
SDev	403.1572	--	--	--	--	--	--
%RSD	2.441590	--	--	--	--	--	--
#1	16227	--	--	--	--	--	--
#2	16797	--	--	--	--	--	--

Method: METTRA Sample Name: CCV3-5 Operator: RJG
Run Time: 05/17/00 12:22:43
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0396	24.645	.52236	2.0086	1.9973	49.771	.48674
SDev	.0007	.027	.00241	.0011	.0063	.246	.00139
%RSD	.06807	.11070	.46211	.05590	.31323	.49360	.28517
#1	1.0391	24.626	.52407	2.0093	2.0017	49.945	.48772
#2	1.0401	24.664	.52066	2.0078	1.9928	49.597	.48576
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	1.9998	2.0101	2.0185	24.683	49.242	1.9802	2.0230
SDev	.0045	.0032	.0030	.018	.073	.0008	.0114
%RSD	.22637	.16164	.15079	.07482	.14799	.03844	.56274
#1	2.0030	2.0124	2.0206	24.670	49.294	1.9808	2.0149
#2	1.9966	2.0078	2.0163	24.696	49.191	1.9797	2.0310
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.2000	2.2000	2.2000	27.500	55.000	2.2000	2.2000
Low	1.8000	1.8000	1.8000	22.500	45.000	1.8000	1.8000

Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0367	.49350	.50180	.49904	.51536	.52015	.51856
SDev	.0234	.00331	.00096	.00047	.00136	.00324	.00171
%RSD	1.1492	.67110	.19037	.09331	.26386	.62275	.32933
#1	2.0532	.49116	.50248	.49871	.51633	.51786	.51735
#2	2.0201	.49584	.50113	.49937	.51440	.52244	.51977
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	.52855	.52893	.52880	1.0257	2.0012	2.0658
SDev	.00113	.00123	.00044	.0081	.0124	.0139
%RSD	.21321	.23258	.08421	.78617	.61800	.67203
#1	.52775	.52980	.52912	1.0314	2.0100	2.0756
#2	.52934	.52806	.52849	1.0200	1.9925	2.0559
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	16341	--	--	--	--	--	--
SDev	80.85808	--	--	--	--	--	--
%RSD	.4948104	--	--	--	--	--	--
#1	16398	--	--	--	--	--	--
#2	16284	--	--	--	--	--	--

Analysis Report 05/17/00 12:30:59 PM

Method: METTRA Sample Name: CCB5 Operator: RJG
Run Time: 05/17/00 12:26:53
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	-.00004	.03260	-.00031	.00036	.00064	.02959	.00008
SDev	.00011	.01196	.00192	.00007	.00018	.00349	.00005
%RSD	279.58	36.692	614.49	18.328	28.026	11.784	56.756
#1	-.00011	.04106	.00104	.00031	.00077	.02712	.00005
#2	.00004	.02414	-.00167	.00041	.00051	.03205	.00012
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00043	.00015	-.00043	.01109	.01163	.00042	.00644
SDev	.00010	.00006	.00007	.00324	.00342	.00006	.00249
%RSD	23.375	40.559	17.131	29.200	29.439	14.302	38.689
#1	-.00050	.00020	-.00048	.00880	.01405	.00047	.00820
#2	-.00036	.00011	-.00038	.01337	.00921	.00038	.00468
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	-.00075	-.00259	.00099	-.00021	.00123	.00050	.00074
SDev	.00049	.00325	.00042	.00080	.00191	.00169	.00176
%RSD	64.606	125.31	42.578	389.74	155.13	336.82	236.81
#1	-.00041	-.00030	.00069	.00036	.00258	.00170	.00199
#2	-.00110	-.00489	.00128	-.00077	-.00012	-.00069	-.00050
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	.00044	.00267	.00193	.00279	.00066	.00084
SDev	.00100	.00073	.00016	.00006	.00019	.00008
%RSD	224.84	27.438	8.1241	2.3035	28.204	9.9138
#1	-.00026	.00319	.00204	.00284	.00079	.00089
#2	.00115	.00215	.00182	.00275	.00053	.00078
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	16467	--	--	--	--	--	--
SDev	29.66258	--	--	--	--	--	--
%RSD	.1801343	--	--	--	--	--	--
#1	16446	--	--	--	--	--	--
#2	16488	--	--	--	--	--	--

Method: METTRA Sample Name: DCQFXF Operator: RJG
Run Time: 05/17/00 12:31:03
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00014	.04095	-.00027	.06033	.00009	158.01	-.00030
SDev	.00038	.00745	.00034	.00010	.00002	.56	.00009
%RSD	264.82	18.200	125.76	.16388	22.661	.35287	29.277
#1	-.00012	.04623	-.00050	.06026	.00011	158.40	-.00036
#2	.00041	.03568	-.00003	.06040	.00008	157.61	-.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
Avge	-.00102	-.00002	.00010	11.137	8.8984	.05492	.00347
SDev	.00005	.00014	.00045	.015	.0162	.00006	.00048
%RSD	5.3504	789.84	449.45	.13607	.18246	.11606	13.871
#1	-.00106	.00008	-.00022	11.148	8.9099	.05488	.00382
#2	-.00099	-.00012	.00041	11.126	8.8869	.05497	.00313
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	.00043	.00147	.00153	.00151	.00023	.00095	.00071
SDev	.00169	.00195	.00042	.00037	.00467	.00257	.00016
%RSD	395.57	132.76	27.571	24.396	2059.2	269.95	22.459
#1	-.00077	.00009	.00183	.00125	.00353	-.00087	.00060
#2	.00162	.00285	.00123	.00177	-.00307	.00277	.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
Avge	-.00415	.00387	.00120	-.00173	.00291	.00618
SDev	.00114	.00097	.00103	.00012	.00000	.00006
%RSD	27.549	25.091	85.615	7.1487	.13606	.91998
#1	-.00334	.00456	.00193	-.00164	.00291	.00614
#2	-.00496	.00319	.00047	-.00182	.00290	.00622
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	16031	--	--	--	--	--	--
SDev	50.69970	--	--	--	--	--	--
%RSD	.3162643	--	--	--	--	--	--
#1	15995	--	--	--	--	--	--
#2	16067	--	--	--	--	--	--

Method: METTRA Sample Name: DCQG5F Operator: RJG
Run Time: 05/17/00 12:35:12
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	.00068	.06391	.00201	.14392	-.00058	H691.20	-.00010
SDev	.00094	.00763	.00009	.00013	.00001	1.99	.00006
%RSD	138.49	11.931	4.3344	.09243	1.3227	.28724	65.347
#1	.00134	.06931	.00207	.14401	-.00059	H692.60	-.00015
#2	.00001	.05852	.00195	.14382	-.00058	H689.80	-.00005
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00046	.00096	.00130	6.9193	43.450	.33273	.00234
SDev	.00008	.00051	.00041	.0001	.084	.00030	.00100
%RSD	18.221	52.935	31.507	.00113	.19360	.09132	42.843
#1	-.00052	.00133	.00159	6.9193	43.509	.33294	.00304
#2	-.00040	.00060	.00101	6.9194	43.390	.33251	.00163
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	.00202	.00432	-.00184	.00021	-.00177	.00334	.00164
SDev	.00094	.00303	.00073	.00052	.00268	.00056	.00127
%RSD	46.408	70.191	39.807	247.87	151.11	16.753	77.416
#1	.00268	.00647	-.00236	.00058	-.00367	.00294	.00074
#2	.00136	.00218	-.00132	-.00016	.00012	.00373	.00253
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000

Elem	SE/1	SE/2	SE	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00337	-.00069	.00067	.00220	.00181	.01089
SDev	.00249	.00097	.00018	.00122	.00000	.00016
%RSD	73.965	141.34	27.651	55.506	.00113	1.5022
#1	.00513	-.00137	.00080	.00133	.00181	.01077
#2	.00161	-.00000	.00054	.00306	.00181	.01100
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	15155	--	--	--	--	--	--
SDev	68.58935	--	--	--	--	--	--
%RSD	.4525901	--	--	--	--	--	--
#1	15106	--	--	--	--	--	--
#2	15203	--	--	--	--	--	--

Analysis Report 05/17/00 12:43:27 PM

Method: METTRA Sample Name: DCQGKF Operator: RJG
Run Time: 05/17/00 12:39:22
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
Avge	.00005	.02371	.00072	.06587	-.00013	121.93	-.00020
SDev	.00045	.00337	.00153	.00050	.00008	.11	.00008
%RSD	850.60	14.196	210.88	.75766	64.001	.08975	38.376
#1	.00037	.02609	-.00036	.06552	-.00007	121.85	-.00026
#2	-.00026	.02133	.00180	.06622	-.00019	122.01	-.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
Avge	.00681	.00020	.00021	10.294	9.1114	.33014	-.00024
SDev	.00028	.00009	.00026	.026	.0153	.00075	.00000
%RSD	4.0955	43.440	122.85	.25189	.16819	.22815	.16498
#1	.00661	.00026	.00003	10.276	9.1005	.32960	-.00024
#2	.00701	.00014	.00040	10.313	9.1222	.33067	-.00024
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	.01094	.00183	.00190	.00188	.00119	.00032	.00061
SDev	.00000	.00342	.00028	.00095	.00006	.00036	.00026
%RSD	.01532	186.96	14.827	50.771	5.1021	111.35	42.504
#1	.01095	.00425	.00170	.00255	.00115	.00007	.00043
#2	.01094	-.00059	.00210	.00120	.00123	.00058	.00080
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	-.00534	.00385	.00079	-.00287	.00094	.03057
SDev	.00138	.00364	.00289	.00147	.00246	.00004
%RSD	25.870	94.609	365.17	51.266	260.82	.11941
#1	-.00631	.00127	-.00125	-.00183	.00268	.03059
#2	-.00436	.00642	.00283	-.00392	-.00080	.03054
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	16103	--	--	--	--	--	--
SDev	2.580525	--	--	--	--	--	--
%RSD	.0160254	--	--	--	--	--	--
#1	16101	--	--	--	--	--	--
#2	16104	--	--	--	--	--	--

Analysis Report 05/17/00 12:47:37 PM page 1

Method: METTRA Sample Name: DCQGMF Operator: RJG
Run Time: 05/17/00 12:43:31
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00018	.03499	.01650	.07071	-.00028	153.98	-.00120
SDev	.00030	.00866	.00090	.00089	.00006	1.44	.00016
%RSD	165.16	24.760	5.4853	1.2579	20.950	.93225	13.620
#1	.00003	.04111	.01714	.07008	-.00024	152.96	-.00132
#2	-.00040	.02886	.01586	.07134	-.00032	154.99	-.00109
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	.04378	.00051	-.00094	85.296	20.089	.51592	-.00065
SDev	.00054	.00000	.00012	.900	.210	.00539	.00045
%RSD	1.2307	.54994	13.200	1.0556	1.0471	1.0456	70.110
#1	.04340	.00051	-.00103	84.659	19.940	.51211	-.00033
#2	.04416	.00050	-.00085	85.933	20.238	.51973	-.00097
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	.07364	-.00021	.00017	.00004	.00020	.00025	.00023
SDev	.00075	.00208	.00055	.00032	.00042	.00040	.00013
%RSD	1.0151	980.43	328.70	782.57	208.14	159.91	54.296
#1	.07311	-.00168	.00056	-.00019	-.00009	.00053	.00032
#2	.07417	.00126	-.00022	.00027	.00049	-.00003	.00014
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000

Elem	SE/1	SE/2	SE	TL	V_	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00481	.00384	.00096	-.00084	-.00032	.07055
SDev	.00368	.00042	.00150	.00249	.00049	.00042
%RSD	76.422	10.864	157.16	294.52	151.05	.59593
#1	-.00741	.00354	-.00011	.00091	-.00067	.07025
#2	-.00221	.00413	.00202	-.00260	.00002	.07085
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	15877	--	--	--	--	--	--
SDev	92.70142	--	--	--	--	--	--
%RSD	.5838632	--	--	--	--	--	--
#1	15943	--	--	--	--	--	--
#2	15812	--	--	--	--	--	--

Analysis Report 05/17/00 12:51:46 PM

Method: METTRA Sample Name: DCQGNF Operator: RJG
Run Time: 05/17/00 12:47:41
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00002	.02054	.00446	.03214	.00006	104.00	-.00043
SDev	.00002	.00346	.00009	.00028	.00007	.68	.00015
%RSD	79.589	16.828	2.0091	.88367	109.97	.65630	33.695
#1	-.00001	.02298	.00440	.03194	.00011	103.52	-.00053
#2	-.00003	.01809	.00453	.03234	.00001	104.49	-.00033
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	.01891	.00047	-.00071	18.040	7.1990	.23436	.00012
SDev	.00094	.00001	.00044	.128	.0520	.00133	.00030
%RSD	4.9638	2.5736	63.089	.70793	.72191	.56613	250.98
#1	.01824	.00048	-.00102	17.949	7.1623	.23343	.00034
#2	.01957	.00046	-.00039	18.130	7.2358	.23530	-.00009
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	.02455	.00338	-.00022	.00098	-.00233	.00206	.00060
SDev	.00014	.00297	.00305	.00105	.00260	.00172	.00028
%RSD	.58112	87.967	1411.1	106.87	111.47	83.307	46.781
#1	.02445	.00548	-.00237	.00024	-.00417	.00328	.00080
#2	.02465	.00128	.00194	.00172	-.00049	.00085	.00040
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	-.00074	.00250	.00142	-.00247	.00039	.04233
SDev	.00286	.00191	.00032	.00183	.00052	.00025
%RSD	384.51	76.324	22.525	74.293	132.64	.58184
#1	.00128	.00115	.00119	-.00376	.00075	.04215
#2	-.00276	.00384	.00164	-.00117	.00002	.04250
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	16501	--	--	--	--	--	--
SDev	26.51650	--	--	--	--	--	--
%RSD	.1607002	--	--	--	--	--	--
#1	16482	--	--	--	--	--	--
#2	16519	--	--	--	--	--	--

Method: METTRA Sample Name: DCQGQF Operator: RJG
Run Time: 05/17/00 12:51:50
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00127	2.3885	.00338	.01780	.00741	99.061	.00335
SDev	.00019	.0826	.00123	.00042	.00006	2.513	.00011
%RSD	15.259	3.4602	36.555	2.3305	.80259	2.5372	3.1319
#1	-.00113	2.4469	.00250	.01810	.00737	100.84	.00328
#2	-.00141	2.3300	.00425	.01751	.00746	97.284	.00342
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	.20985	.00369	-.00087	37.930	34.426	.36830	-.00134
SDev	.00559	.00019	.00004	.936	.812	.00854	.00017
%RSD	2.6654	5.0454	4.6720	2.4670	2.3591	2.3193	12.997
#1	.21380	.00356	-.00090	38.591	35.000	.37434	-.00122
#2	.20589	.00382	-.00084	37.268	33.851	.36226	-.00146
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	.28048	.00010	.00187	.00128	.00139	-.00047	.00015
SDev	.00880	.00042	.00183	.00108	.00190	.00178	.00055
%RSD	3.1356	434.50	97.920	84.453	137.04	374.88	378.08
#1	.28670	-.00020	.00316	.00204	.00004	.00078	.00054
#2	.27426	.00040	.00057	.00052	.00273	-.00173	-.00024
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	-.00341	.00206	.00023	-.00040	.00153	.58684
SDev	.00186	.00208	.00077	.00086	.00039	.01602
%RSD	54.392	101.06	327.05	213.07	25.635	2.7305
#1	-.00472	.00352	.00078	.00020	.00180	.59817
#2	-.00210	.00059	-.00031	-.00101	.00125	.57551
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	17543	--	--	--	--	--	--
SDev	420.9757	--	--	--	--	--	--
%RSD	2.399717	--	--	--	--	--	--
#1	17245	--	--	--	--	--	--
#2	17840	--	--	--	--	--	--

Method: METTRA Sample Name: DCQGVF Operator: RJG
Run Time: 05/17/00 12:56:00
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
Avge	-.00035	.02025	.00743	.02114	-.00020	86.423	-.00012
SDev	.00011	.01042	.00060	.00001	.00003	.441	.00007
%RSD	30.873	51.458	8.1119	.03456	14.477	.50975	64.246
#1	-.00043	.02762	.00701	.02114	-.00022	86.735	-.00017
#2	-.00027	.01288	.00786	.02113	-.00018	86.112	-.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
Avge	-.00044	.00005	.00122	8.6577	17.622	.54538	.00038
SDev	.00020	.00027	.00047	.0331	.081	.00176	.00063
%RSD	45.344	568.98	38.226	.38287	.46204	.32294	165.36
#1	-.00030	-.00014	.00089	8.6812	17.680	.54663	.00082
#2	-.00058	.00024	.00155	8.6343	17.564	.54414	-.00006
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	.00038	.00147	.00061	.00090	-.00172	.00154	.00045
SDev	.00099	.00398	.00011	.00125	.00059	.00093	.00042
%RSD	262.11	269.88	17.929	138.83	34.431	60.539	93.409
#1	.00108	-.00134	.00069	.00002	-.00130	.00088	.00015
#2	-.00032	.00428	.00054	.00178	-.00214	.00220	.00075
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	-.00777	.00272	-.00077	-.00191	.00226	.01624
SDev	.00070	.00102	.00045	.00301	.00001	.00002
%RSD	9.0635	37.465	57.760	157.10	.38286	.10050
#1	-.00728	.00200	-.00109	.00021	.00227	.01625
#2	-.00827	.00345	-.00046	-.00404	.00225	.01623
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	16263	--	--	--	--	--	--
SDev	103.9447	--	--	--	--	--	--
%RSD	.6391503	--	--	--	--	--	--
#1	16189	--	--	--	--	--	--
#2	16336	--	--	--	--	--	--

Analysis Report 05/17/00 01:04:15 PM

Method: METTRA Sample Name: DCVMDF Operator: RJG
Run Time: 05/17/00 13:00:10
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00006	.08445	-.00067	.21981	-.00094	552.08	.00193
SDev	.00032	.01902	.00022	.00160	.00005	6.22	.00009
%RSD	546.43	22.518	32.510	.72861	5.3837	1.1258	4.8278
#1	.00017	.09790	-.00083	.22094	-.00097	556.48	.00186
#2	-.00028	.07101	-.00052	.21868	-.00090	547.69	.00199
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	.01571	.00073	.00205	.58627	83.280	1.5385	-.00077
SDev	.00045	.00012	.00019	.00449	.904	.0150	.00035
%RSD	2.8615	16.558	9.3602	.76655	1.0860	.97374	45.076
#1	.01602	.00065	.00192	.58309	83.919	1.5491	-.00052
#2	.01539	.00082	.00219	.58945	82.640	1.5279	-.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
Avge	.00978	-.00001	.00034	.00023	.00168	-.00117	-.00022
SDev	.00056	.00019	.00032	.00015	.00087	.00127	.00056
%RSD	5.7528	2861.6	93.271	66.642	51.587	108.20	251.02
#1	.01018	-.00014	.00057	.00033	.00107	-.00027	.00017
#2	.00938	.00013	.00012	.00012	.00229	-.00207	-.00062
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	.00006	-.00127	-.00083	.00208	.00244	.02854
SDev	.00238	.00171	.00035	.00595	.00043	.00049
%RSD	4149.8	134.74	42.257	285.50	17.416	1.7027
#1	.00174	-.00249	-.00108	-.00212	.00275	.02888
#2	-.00163	-.00006	-.00058	.00629	.00214	.02819
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	15095	--	--	--	--	--	--
SDev	146.1239	--	--	--	--	--	--
%RSD	.9680557	--	--	--	--	--	--
#1	14991	--	--	--	--	--	--
#2	15198	--	--	--	--	--	--

Method: METTRA Sample Name: DCVMEF Operator: RJG
Run Time: 05/17/00 13:04:19
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	-.00029	.13145	.00055	.10568	-.00014	166.05	-.00013
SDev	.00015	.00773	.00012	.00034	.00014	.09	.00023
%RSD	53.037	5.8831	21.107	.32655	103.63	.05548	175.94
#1	-.00040	.13692	.00064	.10543	-.00004	165.99	-.00029
#2	-.00018	.12598	.00047	.10592	-.00024	166.12	.00003
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00112	.00006	.00091	5.3524	4.8520	.06388	.00063
SDev	.00002	.00018	.00055	.0170	.0092	.00005	.00025
%RSD	1.4124	271.67	59.634	.31687	.18918	.07069	40.010
#1	-.00114	-.00006	.00053	5.3404	4.8455	.06385	.00045
#2	-.00111	.00019	.00130	5.3643	4.8585	.06392	.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
Avge	.00019	.00157	.00145	.00149	.00152	-.00121	-.00030
SDev	.00073	.00019	.00068	.00052	.00208	.00034	.00046
%RSD	376.13	12.168	46.914	34.714	136.74	28.345	155.03
#1	.00071	.00170	.00193	.00185	.00005	-.00097	-.00063
#2	-.00032	.00143	.00097	.00112	.00299	-.00145	.00003
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	-.00518	.00210	-.00032	-.00009	.00140	.01466
SDev	.00028	.00211	.00131	.00136	.00000	.00009
%RSD	5.4891	100.31	405.48	1525.7	.31687	.57673
#1	-.00538	.00359	.00060	.00087	.00139	.01472
#2	-.00498	.00061	-.00125	-.00105	.00140	.01461
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	16357	--	--	--	--	--	--
SDev	119.2179	--	--	--	--	--	--
%RSD	.7288629	--	--	--	--	--	--
#1	16441	--	--	--	--	--	--
#2	16272	--	--	--	--	--	--

Method: METTRA Sample Name: DCVMFF Operator: RJG
Run Time: 05/17/00 13:08:29
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	.00027	.07545	-.00030	.08150	-.00121	598.77	.00024
SDev	.00030	.00560	.00268	.00005	.00002	.38	.00010
%RSD	110.98	7.4218	895.51	.05678	1.3022	.06282	42.812
#1	.00048	.07941	.00160	.08153	-.00122	599.04	.00032
#2	.00006	.07149	-.00219	.08146	-.00119	598.50	.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
Avge	.00957	.00134	.00199	.14180	306.13	3.6181	-.00048
SDev	.00015	.00004	.00030	.00155	.15	.0027	.00000
%RSD	1.6059	3.2761	15.092	1.0922	.04774	.07381	.69497
#1	.00968	.00131	.00178	.14290	306.03	3.6162	-.00048
#2	.00946	.00137	.00221	.14071	306.24	3.6200	-.00047
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	.00846	-.00121	.00096	.00024	.00058	-.00045	-.00011
SDev	.00081	.00161	.00060	.00013	.00206	.00140	.00025
%RSD	9.5239	133.13	63.006	56.686	355.43	313.25	236.42
#1	.00903	-.00234	.00138	.00014	-.00088	.00054	.00007
#2	.00789	-.00007	.00053	.00033	.00204	-.00144	-.00028
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	-.00291	-.00104	-.00166	-.00132	.00886	.01380
SDev	.00322	.00062	.00149	.00246	.00043	.00004
%RSD	110.63	60.227	89.656	186.51	4.8357	.27928
#1	-.00063	-.00060	-.00061	.00042	.00856	.01383
#2	-.00519	-.00148	-.00271	-.00306	.00917	.01377
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	14683	--	--	--	--	--	--
SDev	21.53085	--	--	--	--	--	--
%RSD	.1466422	--	--	--	--	--	--
#1	14698	--	--	--	--	--	--
#2	14667	--	--	--	--	--	--

Method: METTRA Sample Name: CCV3-6 Operator: RJG
Run Time: 05/17/00 13:12:39
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
Avge	1.0217	24.493	.50774	1.9947	1.9549	48.689	.47818
SDev	.0031	.103	.00492	.0039	.0087	.259	.00181
%RSD	.30487	.42009	.96969	.19500	.44567	.53255	.37866
#1	1.0239	24.566	.51122	1.9975	1.9611	48.873	.47946
#2	1.0195	24.420	.50426	1.9920	1.9488	48.506	.47690
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	1.9645	1.9732	1.9876	24.429	48.165	1.9449	1.9825
SDev	.0112	.0081	.0107	.075	.186	.0060	.0031
%RSD	.56924	.41096	.53844	.30721	.38594	.30863	.15730
#1	1.9724	1.9790	1.9952	24.482	48.296	1.9491	1.9803
#2	1.9566	1.9675	1.9800	24.376	48.033	1.9406	1.9847
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	1.9854	.48421	.49073	.48856	.49983	.50753	.50497
SDev	.0159	.00048	.00321	.00230	.00270	.00032	.00111
%RSD	.80141	.09897	.65453	.47118	.54095	.06219	.22000
#1	1.9966	.48455	.49300	.49019	.50174	.50776	.50575
#2	1.9741	.48387	.48846	.48693	.49792	.50731	.50418
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	.51990	.51704	.51799	.99821	1.9511	2.0208
SDev	.00170	.00201	.00191	.01063	.0110	.0156
%RSD	.32733	.38915	.36848	1.0649	.56381	.77044
#1	.52110	.51847	.51934	1.0057	1.9588	2.0318
#2	.51870	.51562	.51664	.99069	1.9433	2.0098
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	16821	--	--	--	--	--	--
SDev	22.73376	--	--	--	--	--	--
%RSD	.1351492	--	--	--	--	--	--
#1	16805	--	--	--	--	--	--
#2	16837	--	--	--	--	--	--

Analysis Report 05/17/00 01:20:54 PM

Method: METTRA Sample Name: CCB6 Operator: RJG
Run Time: 05/17/00 13:16:49
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00003	.00085	.00003	.00045	.00067	.04271	.00002
SDev	.00006	.00980	.00081	.00006	.00014	.01214	.00015
%RSD	186.29	1149.0	2379.1	14.213	21.343	28.421	661.44
#1	-.00007	.00778	.00061	.00050	.00077	.03413	.00013
#2	.00001	-.00608	-.00054	.00041	.00057	.05129	-.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
Avge	-.00040	.00021	.00008	.00014	.01946	.00057	.00558
SDev	.00027	.00002	.00023	.00942	.00414	.00001	.00246
%RSD	67.243	10.948	289.83	6838.8	21.275	2.1190	44.050
#1	-.00021	.00022	-.00008	.00680	.01654	.00058	.00731
#2	-.00058	.00019	.00024	-.00653	.02239	.00057	.00384
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	.00097	-.00041	.00053	.00022	.00010	.00084	.00059
SDev	.00006	.00008	.00131	.00090	.00048	.00141	.00110
%RSD	5.9022	19.019	245.57	407.25	500.03	167.33	185.32
#1	.00101	-.00046	-.00039	-.00042	.00044	.00184	.00137
#2	.00093	-.00035	.00146	.00086	-.00024	-.00015	-.00018
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	-.00054	.00006	.00308	.00063	.00085
SDev	.00335	.00295	.00308	.00224	.00018	.00008
%RSD	269.27	547.15	5575.6	72.831	28.532	9.2727
#1	.00361	.00155	.00223	.00149	.00076	.00090
#2	-.00113	-.00262	-.00212	.00467	.00051	.00079
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	17018	--	--	--	--	--	--
SDev	24.43109	--	--	--	--	--	--
%RSD	.1435643	--	--	--	--	--	--
#1	17035	--	--	--	--	--	--
#2	17000	--	--	--	--	--	--

Method: METTRA Sample Name: DCVMGF Operator: RJG
Run Time: 05/17/00 13:20:58
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	.00018	.02272	-.00043	.07373	-.00026	161.27	-.00004
SDev	.00022	.00810	.00195	.00039	.00006	.06	.00004
%RSD	127.53	35.642	457.66	.52951	24.504	.03875	93.234
#1	.00002	.02844	.00095	.07345	-.00022	161.22	-.00001
#2	.00033	.01699	-.00180	.07400	-.00031	161.31	-.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
Avge	-.00057	.00442	.00180	1.7115	5.8384	.08000	.00815
SDev	.00028	.00004	.00003	.0069	.0096	.00027	.00053
%RSD	49.278	.88928	1.4210	.40362	.16362	.33300	6.5278
#1	-.00077	.00444	.00179	1.7067	5.8317	.07981	.00777
#2	-.00037	.00439	.00182	1.7164	5.8452	.08019	.00852
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	.00240	.01001	.00838	.00892	-.00005	.00149	.00098
SDev	.00037	.00035	.00011	.00019	.00123	.00081	.00013
%RSD	15.563	3.4531	1.3623	2.1430	2373.5	54.639	13.737
#1	.00267	.00976	.00830	.00879	.00082	.00091	.00088
#2	.00214	.01025	.00847	.00906	-.00092	.00206	.00107
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	-.00633	.00479	.00108	.00128	.00085	.01461
SDev	.00065	.00192	.00107	.00199	.00019	.00009
%RSD	10.278	40.178	98.304	155.97	22.127	.61635
#1	-.00679	.00614	.00184	.00269	.00098	.01467
#2	-.00587	.00343	.00033	-.00013	.00072	.01454
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	16130	--	--	--	--	--	--
SDev	6.328744	--	--	--	--	--	--
%RSD	.0392352	--	--	--	--	--	--
#1	16126	--	--	--	--	--	--
#2	16135	--	--	--	--	--	--

Analysis Report 05/17/00 01:29:14 PM

Method: METTRA Sample Name: DCVMHF Operator: RJG
Run Time: 05/17/00 13:25:08
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00038	.04047	.00068	.06850	-.00061	H630.64	-.00018
SDev	.00025	.00710	.00181	.00023	.00014	.68	.00003
%RSD	64.568	17.550	264.72	.33018	23.494	.10861	18.981
#1	-.00056	.04550	-.00060	.06834	-.00050	H631.13	-.00020
#2	-.00021	.03545	.00196	.06866	-.00071	H630.16	-.00015
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00293	.00022	.00041	.06685	41.856	1.0109	.00062
SDev	.00025	.00009	.00087	.00085	.007	.0008	.00030
%RSD	8.4383	41.401	210.51	1.2790	.01594	.07531	49.078
#1	.00276	.00016	-.00020	.06746	41.851	1.0104	.00083
#2	.00311	.00029	.00103	.06625	41.860	1.0114	.00040
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	.00381	-.00114	.00003	-.00036	.00133	.00194	.00174
SDev	.00072	.00139	.00196	.00177	.00014	.00039	.00030
%RSD	18.978	122.10	6406.2	494.78	10.364	19.979	17.525
#1	.00330	-.00212	-.00136	-.00161	.00143	.00222	.00196
#2	.00432	-.00016	.00142	.00089	.00124	.00167	.00153
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	-.00361	.00077	-.00069	-.00082	.00168	.00893
SDev	.00215	.00272	.00253	.00046	.00001	.00024
%RSD	59.667	352.80	367.52	55.985	.39383	2.6675
#1	-.00514	-.00115	-.00248	-.00114	.00167	.00876
#2	-.00209	.00269	.00110	-.00050	.00168	.00909
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	15623	--	--	--	--	--	--
SDev	64.27628	--	--	--	--	--	--
%RSD	.4114222	--	--	--	--	--	--
#1	15668	--	--	--	--	--	--
#2	15578	--	--	--	--	--	--

Analysis Report 05/17/00 01:33:23 PM

Method: METTRA Sample Name: DCVMHP5F Operator: RJG
Run Time: 05/17/00 13:29:18
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
Avge	-.00035	.00842	-.00058	.01344	-.00025	128.56	-.00007
SDev	.00030	.01163	.00151	.00016	.00008	2.75	.00025
%RSD	86.556	138.15	259.70	1.1802	31.405	2.1407	364.18
#1	-.00056	.01664	-.00164	.01355	-.00030	130.50	-.00025
#2	-.00014	.00019	.00048	.01333	-.00019	126.61	.00011

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00004	-.00020	-.00019	-.00175	8.2087	.19772	.00006
SDev	.00047	.00026	.00039	.00459	.1678	.00405	.00026
%RSD	1112.2	129.21	211.35	262.44	2.0442	2.0500	428.53
#1	-.00029	-.00039	-.00046	.00150	8.3273	.20059	.00024
#2	.00038	-.00002	.00009	-.00499	8.0900	.19485	-.00012

Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00105	-.00202	.00084	-.00011	.00201	.00105	.00137
SDev	.00002	.00069	.00045	.00053	.00287	.00038	.00121
%RSD	1.6829	34.139	53.373	476.36	142.93	36.524	88.495
#1	.00106	-.00251	.00053	-.00049	.00404	.00132	.00223
#2	.00104	-.00154	.00116	.00026	-.00002	.00078	.00051

Elem	SE/1	SE/2	SE	TL	V_	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00046	-.00101	-.00083	-.00022	.00065	.00206
SDev	.00012	.00085	.00060	.00337	.00017	.00008
%RSD	25.740	83.821	73.020	1506.6	26.866	3.8477
#1	-.00038	-.00041	-.00040	.00216	.00053	.00211
#2	-.00055	-.00161	-.00125	-.00260	.00077	.00200

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	16553	--	--	--	--	--	--
SDev	215.6676	--	--	--	--	--	--
%RSD	1.302879	--	--	--	--	--	--
#1	16401	--	--	--	--	--	--
#2	16706	--	--	--	--	--	--

Method: METTRA Sample Name: DCVMHSF Operator: RJG
Run Time: 05/17/00 13:33:27
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
Avge	.05448	2.3702	2.1854	2.1546	.04958	H682.93	.04793
SDev	.00018	.0008	.0123	.0016	.00030	2.92	.00040
%RSD	.32981	.03582	.56231	.07261	.59964	.42782	.82534
#1	.05435	2.3708	2.1941	2.1557	.04979	H685.00	.04821
#2	.05461	2.3696	2.1767	2.1535	.04937	H680.87	.04765
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.51271	.20534	.27171	1.0594	92.793	1.5364	1.0424
SDev	.00120	.00101	.00066	.0038	.254	.0041	.0006
%RSD	.23340	.49168	.24219	.35634	.27402	.26719	.05878
#1	.51355	.20606	.27217	1.0620	92.973	1.5393	1.0428
#2	.51186	.20463	.27124	1.0567	92.613	1.5335	1.0420
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	.50773	.51067	.50018	.50367	.51919	.53794	.53169
SDev	.00383	.00046	.00212	.00157	.00114	.00334	.00261
%RSD	.75401	.09085	.42451	.31186	.22048	.62085	.49067
#1	.51043	.51100	.50168	.50478	.52000	.54030	.53354
#2	.50502	.51034	.49868	.50256	.51838	.53557	.52985
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000

Elem	SE/1	SE/2	SE	TL	V_	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.2199	2.1720	2.1879	2.2130	.52005	.55649
SDev	.0110	.0031	.0057	.0008	.00232	.00166
%RSD	.49745	.14151	.26177	.03520	.44551	.29734
#1	2.2277	2.1742	2.1920	2.2135	.52169	.55766
#2	2.2121	2.1698	2.1839	2.2124	.51841	.55532
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	15308	--	--	--	--	--	--
SDev	91.71189	--	--	--	--	--	--
%RSD	.5991069	--	--	--	--	--	--
#1	15243	--	--	--	--	--	--
#2	15373	--	--	--	--	--	--

Analysis Report 05/17/00 01:41:43 PM

Method: METTRA Sample Name: DCVMHDF Operator: RJG
Run Time: 05/17/00 13:37:37
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
Avge	.05250	2.2651	2.1046	2.0759	.04787	H660.76	.04599
SDev	.00040	.0132	.0185	.0056	.00035	3.08	.00005
%RSD	.76543	.58230	.87721	.27082	.72318	.46639	.11666
#1	.05222	2.2745	2.1177	2.0799	.04812	H662.93	.04595
#2	.05278	2.2558	2.0916	2.0719	.04763	H658.58	.04602
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.49378	.19830	.26184	1.0092	89.557	1.4845	1.0089
SDev	.00194	.00003	.00038	.0057	.317	.0049	.0015
%RSD	.39283	.01464	.14490	.56844	.35434	.33276	.14602
#1	.49515	.19832	.26211	1.0051	89.781	1.4880	1.0100
#2	.49240	.19828	.26157	1.0133	89.332	1.4810	1.0079
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	.48815	.49174	.48323	.48606	.50533	.51927	.51463
SDev	.00267	.00158	.00061	.00012	.00127	.00078	.00010
%RSD	.54796	.32033	.12591	.02443	.25122	.15074	.01931
#1	.49004	.49285	.48280	.48614	.50623	.51872	.51456
#2	.48626	.49062	.48366	.48598	.50443	.51983	.51470
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000

Elem	SE/1	SE/2	SE	TL	V	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.1417	2.1075	2.1189	2.1320	.50222	.53412
SDev	.0018	.0089	.0066	.0161	.00357	.00367
%RSD	.08555	.42322	.30957	.75597	.71100	.68703
#1	2.1430	2.1138	2.1235	2.1433	.50474	.53671
#2	2.1404	2.1012	2.1142	2.1206	.49969	.53152
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	15701	--	--	--	--	--	--
SDev	32.63325	--	--	--	--	--	--
%RSD	.2078442	--	--	--	--	--	--
#1	15678	--	--	--	--	--	--
#2	15724	--	--	--	--	--	--

Method: METTRA Sample Name: DCVMKF Operator: RJG
Run Time: 05/17/00 13:41:47
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00038	.04836	.00067	.08458	-.00049	181.62	-.00021
SDev	.00006	.01891	.00153	.00022	.00001	.34	.00002
%RSD	15.791	39.104	229.42	.25526	1.4261	.18538	11.481
#1	-.00042	.06173	-.00042	.08443	-.00050	181.86	-.00019
#2	-.00033	.03499	.00175	.08473	-.00049	181.38	-.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
Avge	-.00102	.00002	.00087	6.5926	5.1506	.05611	.00458
SDev	.00045	.00059	.00019	.0106	.0095	.00008	.00119
%RSD	44.424	2486.8	21.636	.16027	.18451	.14098	25.941
#1	-.00070	.00044	.00100	6.5851	5.1573	.05617	.00542
#2	-.00134	-.00039	.00073	6.6000	5.1439	.05606	.00374
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	.00131	.00038	.00143	.00108	.00031	-.00017	-.00001
SDev	.00181	.00022	.00160	.00100	.00285	.00142	.00001
%RSD	138.44	57.854	112.16	92.198	931.96	821.99	44.162
#1	.00259	.00054	.00030	.00038	-.00171	.00083	-.00002
#2	.00003	.00022	.00256	.00178	.00232	-.00117	-.00001
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	-.00299	.00274	.00083	.00042	.00051	.03099
SDev	.00341	.00075	.00063	.00167	.00020	.00005
%RSD	114.05	27.360	75.884	397.81	38.685	.15348
#1	-.00058	.00221	.00128	.00160	.00037	.03103
#2	-.00539	.00327	.00039	-.00076	.00065	.03096
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	16116	--	--	--	--	--	--
SDev	85.77191	--	--	--	--	--	--
%RSD	.5322076	--	--	--	--	--	--
#1	16056	--	--	--	--	--	--
#2	16177	--	--	--	--	--	--

Method: METTRA Sample Name: DCVMLF Operator: RJG
Run Time: 05/17/00 13:45:57
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00002	.04216	.00035	.16156	-.00099	418.68	.00007
SDev	.00056	.00186	.00033	.00039	.00005	.80	.00007
%RSD	2792.9	4.4183	96.020	.24371	5.4415	.19180	100.98
#1	.00037	.04084	.00058	.16184	-.00103	419.25	.00002
#2	-.00041	.04347	.00011	.16128	-.00095	418.12	.00011
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00104	.03484	.00296	1.8539	40.448	1.1390	.00981
SDev	.00018	.00004	.00033	.0021	.057	.0015	.00015
%RSD	17.600	.11495	11.089	.11350	.14099	.13528	1.5738
#1	.00091	.03482	.00272	1.8554	40.488	1.1400	.00970
#2	.00117	.03487	.00319	1.8524	40.408	1.1379	.00992
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	.00449	.00141	.00177	.00165	-.00011	.00038	.00022
SDev	.00052	.00032	.00107	.00082	.00041	.00021	.00028
%RSD	11.470	22.788	60.624	49.840	373.32	56.206	128.62
#1	.00486	.00119	.00101	.00107	.00018	.00053	.00042
#2	.00413	.00164	.00253	.00224	-.00040	.00023	.00002
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	-.00102	.00015	-.00024	-.00016	.01004	.01112
SDev	.00445	.00201	.00282	.00042	.00059	.00006
%RSD	437.14	1304.8	1194.4	265.42	5.8887	.51846
#1	-.00416	-.00127	-.00223	.00014	.01046	.01108
#2	.00213	.00157	.00176	-.00046	.00962	.01116
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	15599	--	--	--	--	--	--
SDev	5.056090	--	--	--	--	--	--
%RSD	.0324139	--	--	--	--	--	--
#1	15595	--	--	--	--	--	--
#2	15602	--	--	--	--	--	--

Analysis Report 05/17/00 01:54:12 PM

Method: METTRA Sample Name: DCVMMF Operator: RJG
Run Time: 05/17/00 13:50:06
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00042	.08169	.00055	.06866	-.00024	114.40	-.00019
SDev	.00044	.00747	.00004	.00006	.00002	.42	.00001
%RSD	103.93	9.1376	6.7598	.09288	7.0284	.36686	6.2499
#1	-.00011	.08697	.00053	.06861	-.00023	114.70	-.00019
#2	-.00074	.07642	.00058	.06870	-.00025	114.10	-.00018
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00096	-.00016	.00130	2.4450	4.6361	.03725	.00236
SDev	.00012	.00053	.00021	.0006	.0092	.00008	.00114
%RSD	12.221	332.51	16.451	.02251	.19808	.22656	48.287
#1	-.00088	.00022	.00115	2.4446	4.6426	.03731	.00316
#2	-.00105	-.00054	.00145	2.4454	4.6296	.03719	.00155
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	.00023	-.00062	.00209	.00119	.00198	.00036	.00090
SDev	.00067	.00397	.00087	.00190	.00096	.00065	.00012
%RSD	285.96	640.99	41.682	160.12	48.454	180.49	12.984
#1	.00070	.00219	.00271	.00253	.00130	.00083	.00099
#2	-.00024	-.00342	.00147	-.00016	.00266	-.00010	.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
Avge	-.00637	.00161	-.00105	-.00046	.00129	.00982
SDev	.00324	.00146	.00010	.00228	.00055	.00012
%RSD	50.818	90.877	9.9188	490.51	42.983	1.2177
#1	-.00408	.00057	-.00098	.00115	.00168	.00974
#2	-.00865	.00264	-.00112	-.00208	.00090	.00991
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	16636	--	--	--	--	--	--
SDev	81.14050	--	--	--	--	--	--
%RSD	.4877309	--	--	--	--	--	--
#1	16579	--	--	--	--	--	--
#2	16694	--	--	--	--	--	--

Analysis Report 05/17/00 01:58:22 PM

Method: METTRA Sample Name: DCVMNF Operator: RJG
Run Time: 05/17/00 13:54:16
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
Avge	.00004	.03072	.00074	.07231	-.00082	338.08	-.00003
SDev	.00001	.00575	.00001	.00010	.00004	1.30	.00003
%RSD	23.801	18.729	1.7261	.14113	4.9990	.38506	101.94
#1	.00004	.03479	.00075	.07238	-.00085	339.00	-.00001
#2	.00003	.02665	.00073	.07223	-.00080	337.15	-.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
Avge	.00094	-.00014	.00225	1.3643	45.742	.84049	.00085
SDev	.00006	.00020	.00033	.0015	.138	.00228	.00040
%RSD	5.8287	144.72	14.660	.11122	.30227	.27090	47.325
#1	.00098	-.00028	.00249	1.3653	45.840	.84210	.00114
#2	.00090	.00000	.00202	1.3632	45.644	.83888	.00057
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	.00125	.00041	.00023	.00029	.00019	.00097	.00071
SDev	.00006	.00059	.00151	.00081	.00139	.00234	.00110
%RSD	4.6259	142.75	650.41	277.58	713.95	242.09	154.73
#1	.00121	.00083	-.00084	-.00028	-.00079	.00262	.00148
#2	.00129	-.00000	.00130	.00087	.00118	-.00069	-.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
Avge	-.00227	.00276	.00109	.00016	.00391	.01124
SDev	.00317	.00069	.00151	.00142	.00001	.00013
%RSD	139.72	24.865	139.25	905.73	.33986	1.1828
#1	-.00451	.00227	.00002	.00116	.00392	.01114
#2	-.00003	.00324	.00216	-.00085	.00390	.01133
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	15817	--	--	--	--	--	--
SDev	57.38130	--	--	--	--	--	--
%RSD	.3627842	--	--	--	--	--	--
#1	15776	--	--	--	--	--	--
#2	15858	--	--	--	--	--	--

Method: METTRA Sample Name: DCVMPF Operator: RJG
Run Time: 05/17/00 13:58:26
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	.00004	.00493	.00124	.07901	-.00049	98.562	.00001
SDev	.00030	.00682	.00081	.00008	.00006	.139	.00008
%RSD	686.55	138.20	65.450	.09610	12.920	.14081	872.04
#1	-.00017	.00976	.00066	.07906	-.00054	98.660	.00007
#2	.00026	.00011	.00181	.07896	-.00045	98.464	-.00005
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00127	-.00021	.00203	1.6326	3.7751	.05676	.00407
SDev	.00048	.00019	.00048	.0072	.0045	.00009	.00026
%RSD	37.994	89.995	23.766	.44297	.11834	.15279	6.2763
#1	-.00162	-.00008	.00169	1.6377	3.7782	.05670	.00426
#2	-.00093	-.00034	.00237	1.6275	3.7719	.05683	.00389
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	.00233	-.00028	.00115	.00068	-.00016	-.00057	-.00043
SDev	.00032	.00049	.00087	.00074	.00074	.00075	.00074
%RSD	13.655	177.00	75.256	109.86	462.72	131.43	172.26
#1	.00256	.00007	.00177	.00120	.00036	-.00004	.00009
#2	.00211	-.00063	.00054	.00015	-.00068	-.00109	-.00096
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	-.00331	.00267	.00068	-.00159	.00109	.01048
SDev	.00023	.00177	.00111	.00065	.00056	.00010
%RSD	6.8017	66.219	162.27	41.153	51.292	.92909
#1	-.00315	.00142	-.00010	-.00113	.00069	.01055
#2	-.00347	.00393	.00146	-.00205	.00148	.01041
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High			10.000	10.000	50.000	5.0000
Low			-.00500	-.01000	-.05000	-.02000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	16286	--	--	--	--	--	--
SDev	67.35192	--	--	--	--	--	--
%RSD	.4135654	--	--	--	--	--	--
#1	16238	--	--	--	--	--	--
#2	16333	--	--	--	--	--	--

Method: METTRA Sample Name: CCV3-7 Operator: RJG
Run Time: 05/17/00 14:02:36
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	1.0394	25.100	.51538	2.0368	1.9885	49.581	.48838
SDev	.0011	.014	.00175	.0009	.0040	.073	.00097
%RSD	.10351	.05729	.33941	.04504	.20330	.14712	.19855
#1	1.0402	25.110	.51661	2.0374	1.9913	49.632	.48907
#2	1.0386	25.089	.51414	2.0361	1.9856	49.529	.48769
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	27.500	.55000	2.2000	2.2000	55.000	.55000
Low	.90000	22.500	.45000	1.8000	1.8000	45.000	.45000

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0051	2.0123	2.0197	24.996	49.093	1.9851	2.0150
SDev	.0035	.0054	.0015	.031	.098	.0037	.0073
%RSD	.17547	.26855	.07653	.12402	.19923	.18484	.36295
#1	2.0076	2.0161	2.0207	25.018	49.162	1.9877	2.0098
#2	2.0026	2.0085	2.0186	24.974	49.024	1.9825	2.0202
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.2000	2.2000	2.2000	27.500	55.000	2.2000	2.2000
Low	1.8000	1.8000	1.8000	22.500	45.000	1.8000	1.8000

Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0144	.49696	.50074	.49948	.50787	.52012	.51604
SDev	.0032	.00161	.00663	.00496	.00747	.00027	.00267
%RSD	.15636	.32472	1.3237	.99270	1.4712	.05215	.51719
#1	2.0166	.49810	.50543	.50299	.51316	.52031	.51793
#2	2.0122	.49582	.49606	.49598	.50259	.51993	.51416
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	.53392	.52714	.52940	1.0150	1.9853	2.0566
SDev	.00120	.00803	.00575	.0001	.0034	.0051
%RSD	.22472	1.5231	1.0870	.00512	.17019	.24924
#1	.53476	.53282	.53347	1.0149	1.9876	2.0603
#2	.53307	.52146	.52533	1.0150	1.9829	2.0530
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High			.55000	1.1000	2.2000	2.2000
Low			.45000	.90000	1.8000	1.8000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	16572	--	--	--	--	--	--
SDev	48.29594	--	--	--	--	--	--
%RSD	.2914284	--	--	--	--	--	--
#1	16538	--	--	--	--	--	--
#2	16606	--	--	--	--	--	--

Analysis Report 05/17/00 02:10:52 PM

Method: METTRA Sample Name: CCB7 Operator: RJG
Run Time: 05/17/00 14:06:46
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	-.00004	.00733	-.00070	.00062	.00027	.04215	.00024
SDev	.00028	.00665	.00088	.00041	.00013	.01807	.00001
%RSD	765.31	90.725	125.58	66.231	47.819	42.859	5.8348
#1	-.00024	.00263	-.00132	.00033	.00018	.02938	.00025
#2	.00016	.01204	-.00008	.00090	.00037	.05493	.00023
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	-.00008	.00050	.00129	.00482	.01578	.00068	.00613
SDev	.00025	.00035	.00011	.00373	.00943	.00032	.00204
%RSD	321.96	68.728	8.4295	77.368	59.715	46.479	33.204
#1	-.00025	.00026	.00121	.00746	.00912	.00045	.00757
#2	.00010	.00075	.00137	.00218	.02245	.00090	.00469
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	-.00028	-.00036	.00168	.00100	.00070	.00012	.00032
SDev	.00006	.00089	.00051	.00005	.00107	.00160	.00071
%RSD	21.548	243.65	30.671	4.8241	151.95	1300.1	225.35
#1	-.00024	.00026	.00131	.00096	-.00005	.00126	.00082
#2	-.00032	-.00099	.00204	.00103	.00146	-.00101	-.00019
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	.00378	-.00037	.00101	.00334	.00052	.00099
SDev	.00199	.00226	.00085	.00127	.00000	.00037
%RSD	52.607	616.54	83.473	37.887	.44291	36.992
#1	.00518	-.00196	.00042	.00245	.00052	.00073
#2	.00237	.00123	.00161	.00424	.00053	.00125
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	16530	--	--	--	--	--	--
SDev	104.1574	--	--	--	--	--	--
%RSD	.6301245	--	--	--	--	--	--
#1	16603	--	--	--	--	--	--
#2	16456	--	--	--	--	--	--

Metals Preparation Log

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

Method: 3050B	Matrix: Soil	Start Time: 1050	SDG: N/A	Balance# C94817	Reagents: 10ml Lot HNO3 C014-080-7; 5ml Conc HNO3 Mallinckrodt 6623U3 5058; 10ml 30% H2O2 Mallinckrodt 5240N49A07; 10ml Conc HCl Mallinckrodt 5587N41A07
Analyst: [illegible]	Date: 5-16-00	Lot Number: QuF 5-16-00 COE1930194	Lab Lot No.(book,page,line): 99101-177-15	MS: MS-B1REV	
Reviewed By: [illegible]	Date: 5-16-00				

	Sample ID	Init Wt/Vol g/mL	Final Vol mL	Comments	Color Pre	Color Post	Clarity Pre	Clarity Post	Texture Pre	Texture Post	Artifacts	Artifact Codes
1.	DD6A4	1.00g	100mL	QuF 5-16-00								S=Stones
2	DD6A4S			+1 mL MS-B1REV								O=Organic
3	DD6A4D			+1 mL MS-B1REV								(plant mat'l)
4	DD6A5											W=free H2O
5	DD6A6			QuF 5-16-00								G=Glass
6	DD6A7											M=Metal Frgmts
7	DD8AMB											R=Rubber/Plastic
8	DD8AMC			+1 mL MS-B1REV								C=Cloth
9												P=Paper
10.												I=Insects
11												
12.												
13												
14												
15												
16.			QuF 5-16-00									
17.												
18												
19												
20												
21.												
22												
23												
24.												

QuF 5-16-00

Digestate(s)	Digestate(s) Received Date	Time	Analyst	Location	Digestate(s) Relinquished Date	Time	Analyst	Location
ALL of Digestate	5-16-00	16:45	[illegible]	Metals Prep	5-16-00	16:50	[illegible]	HP11C7
ALL of Digestate	5-19-00	09:40	[illegible]	METALS	5-19-00	10:05	[illegible]	METALS

Hot plate /Block Temp	Correction Factor
#5 195°C	-0.7°C

Texture	Clarity
F=Fine	C=Clear
M=Medium	CL=Cloudy
C=Coarse	O=Opaque

Color			
R=Red	V=Violet		
BL=Blue	P=Pink		
BR=Brown	W=White		
BLK=Black	GY=Gray		
Y=Yellow	GN=Green		
O=Orange	C=Colorless		

657 794

PSR024 5/16/00 8:40:23 MT SAMPLE CUSTODIAN REMOVAL REQUEST

REQUESTED BY: **FAUSTE**

METHOD: QM Inductively Coupled Plasma (6010B Trace)

STORAGE LOCATION	WORK ORDER #	PICKED CNTR#	CONTROL #	CLIENT #	ANALYSIS	LOTID	SMP#	SFX	MATRIX DESCRIPTION	QTY RCVD	QTY REQD
2F CLP1	DD6A4	___ ___ ___	233877	399411	A-46-QM	COE130194	001		SOLID	0 3	1
2F CLP1	DD6A5	___ ___ ___	233878	399411	A-46-QM	COE130194	002		SOLID	0 3	1
2F CLP1	DD6A6	___ ___ ___	233879	399411	A-46-QM	COE130194	003		SOLID	0 3	1
2F CLP1	DD6A7	___ ___ ___	233880	399411	A-46-QM	COE130194	004		SOLID	0 3	1

RELINQUISHED BY	RECEIVED BY	DATE/TIME
A Lee	Eileen M Fauste	5-16-00 1050
Eileen M Fauste	A Lee	5-16-00 1315

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

TCLP
METALS DATA

STL-Pittsburgh

Cover Page - Inorganic Analysis Data Package

Client ID	Lab Sample ID:
DF/S1/0133/SDC/001 A	DD6A4T
DF/S1/0133/SDC/001 AD	DD6A4DT
DF/S1/0133/SDC/001 AS	DD6A4ST
DF/S1/0133/SDC/001 B	DD6A5T
DF/S1/0133/SDC/001 C	DD6A6T
DF/S1/0133/SDC/001 D	DD6A7T

Comments: UXB DUNN FIELD
C0E130194-TCLP
6010B, 7470A

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than conditions detailed above. Release of the data combined in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: _____ Name: _____

Date: _____ Title: _____

REVIEWED BY: _____
DATE: _____

Version 3.63.3

Cover Page Equivalent

TCLP
METALS
RESULTS

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: DD6A4T **Client ID:** DF/SI/0133/SDC/001 A

Matrix: Water **Units:** mg/L **Prep Date:** 5/18/00 **Prep Batch:** 0139097

Weight: NA **Volume:** 100 **Percent Moisture:** NA

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.000045	0.00020	0 000045	U	1	CVAA	5/18/00	11:03

Comments:

Version 3.63.3

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: DD6A5T **Client ID:** DF/S1/0133/SDC/001 B

Matrix: Water **Units:** mg/L **Prep Date:** 5/18/00 **Prep Batch:** 0139097

Weight: NA **Volume:** 100 **Percent Moisture:** NA

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.000045	0.00020	0.000045	U	1	CVAA	5/18/00	11:09

Comments.

Version 3.63.3

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: DD6A6T **Client ID:** DF/S1/0133/SDC/001 C

Matrix: Water **Units:** mg/L **Prep Date:** 5/18/00 **Prep Batch:** 0139097

Weight: NA **Volume:** 100 **Percent Moisture:** NA

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.000045	0.00020	0.000045	U	1	CVAA	5/18/00	11:10

Comments:

Version 3 63 3

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: DD6A7T **Client ID:** DF/S1/0133/SDC/001 D

Matrix: Water **Units:** mg/L **Prep Date:** 5/18/00 **Prep Batch:** 0139097

Weight: NA **Volume:** 100 **Percent Moisture:** NA

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0 000045	0 00020	0.000045	U	1	CVAA	5/18/00	11:13

Comments:

Version 3.63.3

U Result is less than the MDL

B Result is between MDL and RL

Form 1 Equivalent

657 802

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: DD6A4T **Client ID:** DF/S1/0133/SDC/001 A

Matrix: Water **Units:** mg/L **Prep Date:** 5/18/00 **Prep Batch:** 0139114

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**	**0.15**	**B**	**1**	**ICP**	**5/19/00**	**9:14**
Barium	**493.41**	**0.00041**	**10.0**	**1.2**	**BE**	**1**	**ICP**	**5/19/00**	**9:14**
Cadmium	228.80	0.0028	0.10	0.0028	U	1	ICP	5/19/00	9:14
Chromium	267.72	0.0038	0.50	0.0038	U	1	ICP	5/19/00	9:14
Lead	220.35	0.025	0.50	0.025	U	1	ICP	5/19/00	9:14
Selenium	196.03	0.067	0.25	0.067	U	1	ICP	5/19/00	15:29
Silver	328.07	0.0031	0.50	0.0031	U	1	ICP	5/19/00	9:14

Comments: C0E130194001

Version 3.63.3

U Result is less than the MDL

B Result is between MDL and RL

Form I Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: DD6A5T **Client ID:** DF/S1/0133/SDC/001 B

Matrix: Water **Units:** mg/L **Prep Date:** 5/18/00 **Prep Batch:** 0139114

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**	**0.21**	**B**	**1**	**ICP**	**5/19/00**	**9:27**
Barium	**493.41**	**0.00041**	**10.0**	**1.2**	**BE**	**1**	**ICP**	**5/19/00**	**9:27**
Cadmium	228.80	0.0028	0.10	0.0028	U	1	ICP	5/19/00	9:27
Chromium	267.72	0.0038	0.50	0.0038	U	1	ICP	5/19/00	9:27
Lead	220.35	0.025	0 50	0.025	U	1	ICP	5/19/00	9:27
Selenium	196.03	0.067	0 25	0.067	U	1	ICP	5/19/00	15:42
Silver	328.07	0.0031	0.50	0.0031	U	1	ICP	5/19/00	9:27

Comments: C0E130194002

Version 3.63.3

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: DD6A6T **Client ID:** DF/S1/0133/SDC/001 C

Matrix: Water **Units:** mg/L **Prep Date:** 5/18/00 **Prep Batch:** 0139114

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**	**0.20**	**B**	**1**	**ICP**	**5/19/00**	**9:36**
Barium	**493.41**	**0.00041**	**10.0**	**1.3**	**BE**	**1**	**ICP**	**5/19/00**	**9:36**
Cadmium	228.80	0.0028	0.10	0.0028	U	1	ICP	5/19/00	9:36
Chromium	267.72	0.0038	0.50	0.0038	U	1	ICP	5/19/00	9:36
Lead	220.35	0.025	0.50	0.025	U	1	ICP	5/19/00	9:36
Selenium	196.03	0 067	0.25	0.067	U	1	ICP	5/19/00	15:51
Silver	328.07	0.0031	0.50	0.0031	U	1	ICP	5/19/00	9:36

Comments: C0E130194003

Version 3 63 3

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: DD6A7T **Client ID:** DF/S1/0133/SDC/001 D

Matrix: Water **Units:** mg/L **Prep Date:** 5/18/00 **Prep Batch:** 0139114

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**	**0.15**	**B**	**1**	**ICP**	**5/19/00**	**9:39**
Barium	**493.41**	**0.00041**	**10.0**	**1.2**	**BE**	**1**	**ICP**	**5/19/00**	**9:39**
Cadmium	228 80	0 0028	0.10	0.0028	U	1	ICP	5/19/00	9:39
Chromium	267 72	0 0038	0.50	0.0038	U	1	ICP	5/19/00	9:39
Lead	220.35	0.025	0.50	0.025	U	1	ICP	5/19/00	9:39
Selenium	196.03	0 067	0.25	0.067	U	1	ICP	5/19/00	15:55
Silver	328.07	0.0031	0.50	0.0031	U	1	ICP	5/19/00	9:39

Comments. C0E130194004

Version 3 63.3

U Result is less than the MDL

B Result is between MDL and RL

Form 1 Equivalent

STL-Pittsburgh

657 806

Metals Data Reporting Form

Initial Calibration Verification Standard

Instrument: CVAA **Units:** ug/L

Chart Number: 0518HGA.PRN **Acceptable Range:** 90% - 110%

Standard Source: Ultra **Standard ID:** 0014-094-5

Element	WL/ Mass	True Conc	ICV5-1 5/18/00 10:49 AM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Mercury	253.7	2.5	2 54	**101.6**								

Version 3.63.3 *Form 2A Equivalent*

STL-Pittsburgh

Metals Data Reporting Form

Initial Calibration Verification Standard

Instrument: ICP

Units: ug/L

Chart Number: J00519A.ARC

Acceptable Range: 90% - 110%

Standard Source: Inorganic Ventures

Standard ID: 0014-061-7

Element	WL/ Mass	True Conc	ICV2-1 5/19/00 8:50 AM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Arsenic	193.696	1000.0	1014.30	101.4								
Barium	493.409	1000.0	1019.97	102.0								
Cadmium	228.802	1000.0	1021.96	102.2								
Chromium	267.716	1000.0	1017.40	101.7								
Lead	220 353	1000.0	1044.87	104.5								
Silver	328.068	500.0	510.86	102.2								

657 808

Metals Data Reporting Form

Initial Calibration Verification Standard

Instrument: ICP

Units: ug/L

Chart Number: J00519B.ARC

Acceptable Range: 90% - 110%

Standard Source: Inorganic Ventures

Standard ID: 0014-061-7

Element	WL/ Mass	True Conc	ICV2-1 5/19/00 3:05 PM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Selenium	196.026	1000.0	1015.86	101.6								

Version 3.63.3

Form 2A Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Continuing Calibration Verification

Instrument: CVAA

Units: ug/L

Chart Number: 0518HGA.PRN

Acceptable Range: 80% - 120%

Standard Source: Inorganic Ventures

Standard ID: 0014-094-6

Element	WL/ Mass	True Conc	CCV5-1 5/18/00 10:53 AM Found	% Rec	CCV5-2 5/18/00 11:17 AM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Mercury	253.7	5.0	5.21	104.2	5.19	103.8						

Version 3.63.3

Form 2A Equivalent

STL-Pittsburgh

Metals Data Reporting Form

657 810

Continuing Calibration Verification

Instrument: ICP

Units: ug/L

Chart Number: J00519A.ARC

Acceptable Range: 90% - 110%

Standard Source: Inorganic Ventures

Standard ID: 0014-087-7

Element	WL/ Mass	True Conc	CCV2-1 5/19/00 9.30 AM Found	% Rec	CCV2-2 5/19/00 9:43 AM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Arsenic	193.696	5000.0	4996 70	99.9	5021.14	100.4						
Barium	493.409	5000.0	4763.98	95.3	4802.08	96.0						
Cadmium	228.802	5000.0	4980.88	99.6	5023.14	100.5						
Chromium	267.716	5000.0	4856.58	97.1	4902.29	98.0						
Lead	220.353	5000.0	4889.67	97.8	4941.05	98.8						
Silver	328.068	1000 0	977.94	97.8	984.69	98.5						

Version 3.63.3

Form 2A Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Continuing Calibration Verification

Instrument: ICP

Units: ug/L

Chart Number: J00519B.ARC

Acceptable Range: 90% - 110%

Standard Source: Inorganic Ventures

Standard ID: 0014-087-7

Element	WL/ Mass	True Conc	CCV2-1 5/19/00 3:45 PM Found	% Rec	CCV2-2 5/19/00 3:58 PM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Selenium	196.026	5000.0	5249.79	105.0	5218.77	104.4						

657 812

STL-Pittsburgh

Metals Data Reporting Form

Initial Calibration Blank Results

Instrument: CVAA **Units:** ug/L

Chart Number: 0518HGA.PRN

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	ICB1 5/18/00 10:51 AM Found	Q	Found	Q	Found	Q	Found	Q	Found	Q
Mercury	253.7	0.2	0.0	B								

Version 3.63.3

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

Form 3 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Initial Calibration Blank Results

Instrument: ICP **Units:** ug/L

Chart Number: J00519A.ARC

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	ICB1 5/19/00 8:53 AM 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								
Silver	328.068	500	3.1	U								

Version 3.63.3

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

Form 3 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Initial Calibration Blank Results

Instrument: ICP **Units:** ug/L

Chart Number: J00519B.ARC

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	ICB1 5/19/00 3:08 PM Found	Q	Found	Q	Found	Q	Found	Q	Found	Q
Selenium	196.026	250	67.4	U								

Version 3.63.3

U Result is less than the MDL

B Result is between MDL and RL

Form 3 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Continuing Calibration Blank Results

Instrument: CVAA **Units:** ug/L

Chart Number: 0518HGA.PRN

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	CCB1 5/18/00 10:55 AM Found	Q	CCB2 5/18/00 11:18 AM Found	Q	Found	Q	Found	Q	Found	Q
Mercury	253.7	0.2	0.0	U	-0.1	B						

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

STL-Pittsburgh

Metals Data Reporting Form

Continuing Calibration Blank Results

Instrument: ICP **Units:** ug/L

Chart Number: J00519A.ARC

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	CCB1 5/19/00 9:33 AM Found	Q	CCB2 5/19/00 9:46 AM Found	Q	Found	Q	Found	Q	Found	Q
Arsenic	193.696	500	**32.7**	**B**	30.3	U						
Barium	493.409	10000	**0.8**	**B**	**0.6**	**B**						
Cadmium	228.802	100	2.8	U	2.8	U						
Chromium	267.716	500	**3.8**	**U**	**3.8**	**U**						
Lead	220.353	500	24.6	U	24.6	U						
Silver	328.068	500	3.1	U	3.1	U						

U Result is less than the MDL

B Result is between MDL and RL

STL-Pittsburgh

Metals Data Reporting Form

Continuing Calibration Blank Results

Instrument: ICP **Units:** ug/L

Chart Number: J00519B.ARC

Standard Source: _____ **Standard ID:** _____

Element	WL/ Mass	Report Limit	CCB1 5/19/00 3:48 PM Found	Q	CCB2 5/19/00 4:01 PM Found	Q	Found	Q	Found	Q	Found	Q
Selenium	196.026	250	67.4	U	67.4	U						

Version 3.63.3

U Result is less than the MDL

B Result is between MDL and RL

Form 3 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Preparation Blank Results

Lab Sample ID: DDA9GBT

Matrix: Water **Units:** mg/L **Prep Date:** 5/18/00 **Prep Batch:** 0139097

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	0.000063	B	1	CVAA	5/18/00	11:01

Comments:

Version 3.63.3

U Result is less than the MDL

B Result is between MDL and RL

Form 3 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Preparation Blank Results

Lab Sample ID: DDC2GBT

Matrix: Water **Units:** mg/L **Prep Date:** 5/18/00 **Prep Batch:** 0139097

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	-0.000090	B	1	CVAA	5/18/00	10:57

Comments:

Version 3.63.3

U Result is less than the MDL

B Result is between MDL and RL

Form 3 Equivalent

657 820

STL-Pittsburgh

Metals Data Reporting Form

Preparation Blank Results

Lab Sample ID: DDA9GBT

Matrix: Water **Units:** mg/L **Prep Date:** 5/18/00 **Prep Batch:** 0139114

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**	**0.18**	**B**	**1**	**ICP**	**5/19/00**	**9:08**
Barium	**493.409**	**0.00041**	**10.0**	**0.037**	**B**	**1**	**ICP**	**5/19/00**	**9:08**
Cadmium	228.802	0.0028	0.10	0.0028	U	1	ICP	5/19/00	9:08
Chromium	267.716	0.0038	0.50	0.0038	U	1	ICP	5/19/00	9:08
Lead	220.353	0.025	0.50	0.025	U	1	ICP	5/19/00	9:08
Selenium	196.026	0.067	0.25	0.067	U	1	ICP	5/19/00	15:23
Silver	328.068	0.0031	0.50	0.0031	U	1	ICP	5/19/00	9.08

Comments:

Version 3 63.3

U Result is less than the MDL

B Result is between MDL and RL

Form 3 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Preparation Blank Results

Lab Sample ID: DDC39BT

Matrix: Water **Units:** mg/L **Prep Date:** 5/18/00 **Prep Batch:** 0139114

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	5/19/00	9:05
Barium	493.409	0.00041	10.0	0.00041	U	1	ICP	5/19/00	9:05
Cadmium	228.802	0.0028	0.10	0.0028	U	1	ICP	5/19/00	9:05
Chromium	267.716	0.0038	0.50	0.0038	U	1	ICP	5/19/00	9:05
Lead	220.353	0.025	0.50	0.025	U	1	ICP	5/19/00	9:05
Selenium	196.026	0.067	0.25	0.067	U	1	ICP	5/19/00	15:20
Silver	328.068	0.0031	0.50	0.0031	U	1	ICP	5/19/00	9:05

Comments:

Version 3.63.3

U Result is less than the MDL

B Result is between MDL and RL

Form 3 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

657 822

Interference Check Standard A

Instrument: ICP

Units: ug/L

Chart Number: J00519A.ARC

Acceptable Range: 0% - 0%

Standard Source: Inorganic Ventures

Standard ID: 0014-088-12

Element	WL/ Mass	Reporting Limit	True Conc	ICSA 5/19/00 8:56 AM Found	Found	Found	Found	Found
Arsenic	193.696	500		30				
Barium	493.409	10000		2				
Cadmium	228.802	100		3				
Chromium	267 716	500		4				
Lead	220.353	500		128				
Silver	328.068	500		3				

STL-Pittsburgh

Metals Data Reporting Form

Interference Check Standard A

Instrument: ICP **Units:** ug/L

Chart Number: J00519B.ARC **Acceptable Range:** 0% - 0%

Standard Source: Inorganic Ventures **Standard ID:** 0014-088-12

Element	WL/ Mass	Reporting Limit	True Conc	ICSA 5/19/00 3:11 PM Found	Found	Found	Found	Found
Selenium	196.026	250		89				

Version 3.63.3

U Result is less than the MDL

B Result is between MDL and RL

Form 4 Equivalent

STL-Pittsburgh

657 824

Metals Data Reporting Form

Interference Check Standard AB

Instrument: ICP **Units:** ug/L

Chart Number: J00519A.ARC **Acceptable Range:** 80% - 120%

Standard Source: Inorganic Ventures **Standard ID:** 0014-043-1

Element	WL/ Mass	True Conc	ICSAB 5/19/00 8:59 AM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Arsenic	193.696	1000	871.4	87.1								
Barium	493 409	500	456.1	91.2								
Cadmium	228.802	1000	949.9	95.0								
Chromium	267.716	500	434.8	87.0								
Lead	220.353	1000	1039.8	104.0								
Silver	328.068	1000	944 4	94.4								

Version 3.63.3

U Result is less than the MDL
B Result is between MDL and RL
N Spike recovery failed

Form 4 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Interference Check Standard AB

Instrument: ICP **Units:** ug/L

Chart Number: J00519B.ARC **Acceptable Range:** 80% - 120%

Standard Source: Inorganic Ventures **Standard ID:** 0014-043-1

Element	WL/ Mass	True Conc	ICSAB 5/19/00 3:14 PM Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Selenium	196.026	1000	1089.8	109.0								

Version 3.63.3

U Result is less than the MDL
B Result is between MDL and RL
N Spike recovery failed

Form 4 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Matrix Spike Sample Results

Spike Sample ID: DD6A4ST

Original Sample ID: DD6A4T **Client ID:** DF/S1/0133/SDC/001 AS

Matrix: Water **Units:** mg/L **Prep Date:** 5/18/00 **Prep Batch:** 0139097

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	106.6	1	1	CVAA	5/18/00	11:03	5/18/00	11:04

Comments:

Version 3.63 3

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

Form 5A Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Matrix Spike Duplicate Sample Results

Spike Sample ID: DD6A4DT

Original Sample ID: DD6A4T **Client ID:** DF/S1/0133/SDC/001 AD

Matrix: Water **Units:** mg/L **Prep Date:** 5/18/00 **Prep Batch:** 0139097

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	104.8	1	1	CVAA	5/18/00	11:03	5/18/00	11:07

Comments:

Version 3.63.3

Form 5A Equivalent

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

STL-Pittsburgh

Metals Data Reporting Form

Matrix Spike Sample Results

Spike Sample ID: DD6A4ST

Original Sample ID: DD6A4T **Client ID:** DF/S1/0133/SDC/001 AS

Matrix: Water **Units:** mg/L **Prep Date:** 5/18/00 **Prep Batch:** 0139114

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	0.15	B	4.9		5	94.8	1	1	ICP	5/19/00	9:14	5/19/00	9:20
Barium	493.4	1.2	B	43.3		50	84.1	1	1	ICP	5/19/00	9:14	5/19/00	9:20
Cadmium	228.8	0.0028	U	0.94		1	94.4	1	1	ICP	5/19/00	9:14	5/19/00	9:20
Chromium	267.7	0.0038	U	4.3		5	85.3	1	1	ICP	5/19/00	9:14	5/19/00	9:20
Lead	220.4	0.025	U	4.4		5	88.7	1	1	ICP	5/19/00	9:14	5/19/00	9:20
Selenium	196.0	0.067	U	1.1		1	104.8	1	1	ICP	5/19/00	15:29	5/19/00	15:36
Silver	328.1	0.0031	U	0.90		1	90.4	1	1	ICP	5/19/00	9:14	5/19/00	9:20

Comments:

Version 3.63.3

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

Form 5A Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Matrix Spike Duplicate Sample Results

Spike Sample ID: DD6A4DT

Original Sample ID: DD6A4T **Client ID:** DF/S1/0133/SDC/001 AD

Matrix: Water **Units:** mg/L **Prep Date:** 5/18/00 **Prep Batch:** 0139114

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	0.15	B	5.0		5	96.2	1	1	ICP	5/19/00	9:14	5/19/00	9:24
Barium	493.4	1.2	B	43.8		50	85.2	1	1	ICP	5/19/00	9:14	5/19/00	9:24
Cadmium	228.8	0.0028	U	0.96		1	95.5	1	1	ICP	5/19/00	9:14	5/19/00	9:24
Chromium	267.7	0.0038	U	4.3		5	86.3	1	1	ICP	5/19/00	9:14	5/19/00	9:24
Lead	220.4	0.025	U	4 5		5	89.8	1	1	ICP	5/19/00	9:14	5/19/00	9:24
Selenium	196.0	0.067	U	1.1		1	105 2	1	1	ICP	5/19/00	15:29	5/19/00	15:39
Silver	328.1	0.0031	U	0.91		1	91.2	1	1	ICP	5/19/00	9:14	5/19/00	9:24

Comments:

Version 3.63.3

Form 5A Equivalent

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

STL-Pittsburgh

Metals Data Reporting Form

Matrix Spike Duplicate RPD Report

Matrix Spike Duplicate Sample ID: DD6A4DT

Matrix Spike Sample ID: DD6A4ST **Client ID:** DF/S1/0133/SDC/001 AD

Matrix: Water **Units:** mg/L **Prep Date:** 5/18/00 **Prep Batch:** 0139097

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	5/18/00	11:04	5/18/00	11:07

Comments.

Version 3.63.3

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

Form 6 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Matrix Spike Duplicate RPD Report

Matrix Spike Duplicate Sample ID: DD6A4DT

Matrix Spike Sample ID: DD6A4ST **Client ID:** DF/S1/0133/SDC/001 AD

Matrix: Water **Units:** mg/L **Prep Date:** 5/18/00 **Prep Batch:** 0139114

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	4.9		5 0		1.5 %	1	1	ICP	5/19/00	9:20	5/19/00	9:24
Barium	493.409	43.3		43.8		1.4 %	1	1	ICP	5/19/00	9:20	5/19/00	9:24
Cadmium	228.802	0.94		0.96		1.1 %	1	1	ICP	5/19/00	9:20	5/19/00	9:24
Chromium	267.716	4.3		4.3		1.2 %	1	1	ICP	5/19/00	9:20	5/19/00	9:24
Lead	220.353	4.4		4.5		1.2 %	1	1	ICP	5/19/00	9:20	5/19/00	9:24
Selenium	196.026	1 1		1.1		10.2 %	1	1	ICP	5/19/00	15:36	5/19/00	15:39
Silver	328.068	0.90		0.91		1.0 %	1	1	ICP	5/19/00	9:20	5/19/00	9:24

Comments:

Version 3.63.3

Form 6 Equivalent

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

STL-Pittsburgh

Metals Data Reporting Form

Laboratory Control Sample Results

Lab Sample ID: DDC2GCT

Matrix: Water **Units:** mg/L **Prep Date:** 5/18/00 **Prep Batch:** 0139097

Weight: 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	0.0028	110.0		80-120	1	CVAA	5/18/00	10:58

Comments:

U Result is less than the MDL

B Result is between MDL and RL

Form 7 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Laboratory Control Sample Results

Lab Sample ID: DDC39CT

Matrix: Water **Units:** mg/L **Prep Date:** 5/18/00 **Prep Batch:** 0139114

Weight: 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	110.1		80-120	1	ICP	5/19/00	9:11
Barium	493.409	2.0	1.9	93.7	B	80-120	1	ICP	5/19/00	9:11
Cadmium	228.802	0.050	0.046	91.3	B	80-120	1	ICP	5/19/00	9:11
Chromium	267.716	0.20	0.19	94.7	B	80-120	1	ICP	5/19/00	9:11
Lead	220.353	0.50	0.47	94.5	B	80-120	1	ICP	5/19/00	9:11
Selenium	196.026	2.0	2.2	107.8		80-120	1	ICP	5/19/00	15:26
Silver	328.068	0.050	0.047	94.3	B	80-120	1	ICP	5/19/00	9:11

Comments:

U Result is less than the MDL

B Result is between MDL and RL

657 834

STL-Pittsburgh

Metals Data Reporting Form

Serial Dilution RPD Report

Serial Dilution Sample ID: DD6A4PT

Original Sample ID: DD6A4T **Client ID:** DF/S1/0133/SDC/001 A

Matrix: Water **Units:** mg/L **Prep Date:** 5/18/00 **Prep Batch:** 0139114

Weight: 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	0.15	B	0.17	B		1	5	ICP	5/19/00	9:14	5/19/00	9:17
Barium	493.409	1.2	B	1.4	B E	11.4 %	1	5	ICP	5/19/00	9:14	5/19/00	9:17
Cadmium	228.802	0.0028	U	0.014	U		1	5	ICP	5/19/00	9:14	5/19/00	9:17
Chromium	267.716	0.0038	U	0.019	U		1	5	ICP	5/19/00	9:14	5/19/00	9:17
Lead	220.353	0.025	U	0.13	B		1	5	ICP	5/19/00	9:14	5/19/00	9:17
Selenium	196.026	0.067	U	0.34	U		1	5	ICP	5/19/00	15:29	5/19/00	15:32
Silver	328.068	0.0031	U	0.016	U		1	5	ICP	5/19/00	9:14	5/19/00	9:17

Comments:

Version 3.63.3

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

STL-Pittsburgh

Metals Data Reporting Form

Instrument Detection Limits

Instrument: CVAA **Units:** ppb

Element	Wavelength /Mass	Reporting Limit	MDL	Date of MDL
Mercury	253.70	0.2	0.045	3/20/00

STL-Pittsburgh

Metals Data Reporting Form

Instrument Detection Limits

Instrument: ICP **Units:** ppb

Element	Wavelength /Mass	Reporting Limit	MDL	Date of MDL
Arsenic	193.70	500	30.3	4/1/00
Barium	493.41	10000	0.41	4/1/00
Cadmium	228.80	100	2.8	4/1/00
Chromium	267.72	500	3.8	4/1/00
Lead	220.35	500	24.6	4/1/00
Selenium	196.03	250	67.4	4/1/00
Silver	328.07	500	3.1	4/1/00

STL-Pittsburgh

Metals Data Reporting Form

Inter-Element Correction Factors

Instrument: ICP **Date of IEC's:** 3/27/00

Interfering Element	Wavelength /Mass	Correction Factor(s)
Aluminum	308.215	As(0.008365), Mn(0.00002), Pb(0.000527)
Antimony	206.838	Ni(-0.000449), Pb(-0.001338), Sn(-0.004668)
Arsenic	193.696	Cd(0.011196)
Barium	493.409	Co(0.000506)
Beryllium	313.042	Cd(0.008625)
Cadmium	228.802	Co(0.002633)
Chromium	267.716	Pb(-0.000686), Sb(0.008213), V(-0.001979)
Cobalt	228.616	Al(-0.014067), B(0.00201), Cd(-0.004523), Cu(-0.00091), Pb(-0.027395), Sb(-0.003935), Tl(0.007862)
Copper	324.754	Zn(0.00466)
Iron	259.94	Ag(-0.000239), As(0.001314), B(-0.001921), Cd(-0.000034), Cu(-0.00008), Mn(-0.000288), Mo(-0.00015), Pb(0.000225), Se(-0.003656), Sn(-0.00019), Tl(0.010326), Zn(0.000098)
Manganese	257.61	Ag(0.000201), Tl(-0.005634)
Molybdenum	202.03	Al(0.008699), Cr(-0.000292), Mn(-0.00033), Sb(0.005808), V(-0.019318)
Nickel	231.604	Cd(-0.000409), Sb(-0.009092), Zn(0.003263)
Tin	189.989	Sb(0.002262)
Titanium	334.941	Co(0.001637), Fe(-0.003475), Sb(0.001696), Sn(0.003624)
Vanadium	292.402	Ag(-0.005069), Al(0.012877), As(0.017242), Be(0.00265), Cd(0.000094), Cr(0.000568), Sb(-0.003793), Si(-0.012762), Tl(0.007148), Zn(-0.004494)

STL-Pittsburgh

Metals Data Reporting Form

Linear Dynamic Ranges

Instrument: CVAA **Units:** ppb

Element	Wavelength /Mass	Linear Range	Date of Linear Range
Mercury	253.70	10	1/15/00

STL-Pittsburgh

Metals Data Reporting Form

Linear Dynamic Ranges

Instrument: ICP **Units:** ppb

Element	Wavelength /Mass	Linear Range	Date of Linear Range
Arsenic	193 70	100000	4/5/00
Barium	493.41	100000	4/5/00
Cadmium	228.80	100000	4/5/00
Chromium	267.72	100000	4/5/00
Lead	220.35	100000	4/5/00
Selenium	196.03	100000	4/5/00
Silver	328.07	2000	4/5/00

STL-Pittsburgh

Metals Data Reporting Form

Preparation Log

Preparation Batch: 0139097 **Instrument:** CVAA **Matrix:** Water

Sample ID	Prep Date	Weight (g)	Volume (ml)	% Moisture
DDA9GBT	5/18/00	NA	100	NA
DDC2GBT	5/18/00	NA	100	NA
DDC2GCT	5/18/00	NA	100	NA
DD6A4DT	5/18/00	NA	100	NA
DD6A4ST	5/18/00	NA	100	NA
DD6A4T	5/18/00	NA	100	NA
DD6A5T	5/18/00	NA	100	NA
DD6A6T	5/18/00	NA	100	NA
DD6A7T	5/18/00	NA	100	NA

STL-Pittsburgh

Metals Data Reporting Form

Preparation Log

Preparation Batch: 0139114 **Instrument:** ICP **Matrix:** Water

Sample ID	Prep Date	Weight (g)	Volume (ml)	% Moisture
DDA9GBT	5/18/00	NA	50	NA
DDC39BT	5/18/00	NA	50	NA
DDC39CT	5/18/00	NA	50	NA
DD6A4DT	5/18/00	NA	50	NA
DD6A4ST	5/18/00	NA	50	NA
DD6A4T	5/18/00	NA	50	NA
DD6A5T	5/18/00	NA	50	NA
DD6A6T	5/18/00	NA	50	NA
DD6A7T	5/18/00	NA	50	NA

657 842

Metals Data Reporting Form

Instrument Runlog

Instrument: CVAA **Chart Number:** 0518HGA.PRN

Sample Name	Date of Analysis	Time of Analysis
Std1Rep1	5/18/00	10.34 AM
Std2Rep1	5/18/00	10:37 AM
Std3Rep1	5/18/00	10:39 AM
Std4Rep1	5/18/00	10:41 AM
Std5Rep1	5/18/00	10:43 AM
Std6Rep1	5/18/00	10:46 AM
ICV5-1	5/18/00	10:49 AM
ICB1	5/18/00	10:51 AM
CCV5-1	5/18/00	10:53 AM
CCB1	5/18/00	10:55 AM
DDC2GBT	5/18/00	10.57 AM
DDC2GCT	5/18/00	10:58 AM
DDA9GBT	5/18/00	11:01 AM
DD6A4T	5/18/00	11:03 AM
DD6A4ST	5/18/00	11:04 AM
DD6A4DT	5/18/00	11:07 AM
DD6A5T	5/18/00	11:09 AM
DD6A6T	5/18/00	11:10 AM
DD6A7T	5/18/00	11:13 AM
ZZZZZZ	5/18/00	11:15 AM
CCV5-2	5/18/00	11:17 AM
CCB2	5/18/00	11:18 AM
ZZZZZZ	5/18/00	11:21 AM
ZZZZZZ	5/18/00	11:23 AM
ZZZZZZ	5/18/00	11:25 AM
ZZZZZZ	5/18/00	11:27 AM
ZZZZZZ	5/18/00	11:28 AM
ZZZZZZ	5/18/00	11:30 AM
ZZZZZZ	5/18/00	11:32 AM
ZZZZZZ	5/18/00	11:34 AM
ZZZZZZ	5/18/00	11:36 AM
ZZZZZZ	5/18/00	11:38 AM
ZZZZZZ	5/18/00	11:40 AM
ZZZZZZ	5/18/00	11:42 AM
ZZZZZZ	5/18/00	11.44 AM
ZZZZZZ	5/18/00	11:46 AM
ZZZZZZ	5/18/00	11:48 AM
ZZZZZZ	5/18/00	11:50 AM
ZZZZZZ	5/18/00	11:52 AM
ZZZZZZ	5/18/00	11:54 AM
ZZZZZZ	5/18/00	11:56 AM

Form 14 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Instrument Runlog

Instrument: CVAA **Chart Number:** 0518HGA.PRN

Sample Name	Date of Analysis	Time of Analysis
ZZZZZZ	5/18/00	11:58 AM
ZZZZZZ	5/18/00	12:00 PM
ZZZZZZ	5/18/00	12:02 PM
ZZZZZZ	5/18/00	12:04 PM
ZZZZZZ	5/18/00	12:06 PM
ZZZZZZ	5/18/00	12:10 PM
ZZZZZZ	5/18/00	12:12 PM
ZZZZZZ	5/18/00	12:14 PM
ZZZZZZ	5/18/00	12:16 PM
ZZZZZZ	5/18/00	12:19 PM
ZZZZZZ	5/18/00	12:21 PM
ZZZZZZ	5/18/00	12:23 PM
ZZZZZZ	5/18/00	12:25 PM
ZZZZZZ	5/18/00	12:28 PM
ZZZZZZ	5/18/00	12:30 PM
ZZZZZZ	5/18/00	12:32 PM
ZZZZZZ	5/18/00	12:34 PM
ZZZZZZ	5/18/00	12:36 PM
ZZZZZZ	5/18/00	12:38 PM
ZZZZZZ	5/18/00	12:40 PM
ZZZZZZ	5/18/00	12:43 PM
ZZZZZZ	5/18/00	12:45 PM
ZZZZZZ	5/18/00	2:07 PM
ZZZZZZ	5/18/00	2:09 PM
ZZZZZZ	5/18/00	2:11 PM
ZZZZZZ	5/18/00	2:13 PM
ZZZZZZ	5/18/00	2:16 PM
ZZZZZZ	5/18/00	2:18 PM
ZZZZZZ	5/18/00	2:20 PM
ZZZZZZ	5/18/00	2:22 PM
ZZZZZZ	5/18/00	2:24 PM
ZZZZZZ	5/18/00	2:26 PM

STL-Pittsburgh

Metals Data Reporting Form

657 844

Instrument Runlog

Instrument: ICP **Chart Number:** J00519A.ARC

Sample Name	Date of Analysis	Time of Analysis
ZZZZZZ	5/19/00	7:48 AM
ZZZZZZ	5/19/00	7:52 AM
ZZZZZZ	5/19/00	7:55 AM
ZZZZZZ	5/19/00	7:58 AM
ZZZZZZ	5/19/00	8:11 AM
ZZZZZZ	5/19/00	8:14 AM
ZZZZZZ	5/19/00	8:17 AM
ZZZZZZ	5/19/00	8:20 AM
ZZZZZZ	5/19/00	8:25 AM
ZZZZZZ	5/19/00	8:28 AM
ZZZZZZ	5/19/00	8:32 AM
ZZZZZZ	5/19/00	8:35 AM
STD1	5/19/00	8:40 AM
STD5A	5/19/00	8:43 AM
STD5B	5/19/00	8:47 AM
ICV2-1	5/19/00	8:50 AM
ICB1	5/19/00	8:53 AM
ICSA	5/19/00	8:56 AM
ICSAB	5/19/00	8:59 AM
DDC39BT	5/19/00	9:05 AM
DDA9GBT	5/19/00	9:08 AM
DDC39CT	5/19/00	9:11 AM
DD6A4T	5/19/00	9:14 AM
DD6A4PT	5/19/00	9:17 AM
DD6A4ST	5/19/00	9:20 AM
DD6A4DT	5/19/00	9:24 AM
DD6A5T	5/19/00	9:27 AM
CCV2-1	5/19/00	9:30 AM
CCB1	5/19/00	9:33 AM
DD6A6T	5/19/00	9:36 AM
DD6A7T	5/19/00	9:39 AM
CCV2-2	5/19/00	9:43 AM
CCB2	5/19/00	9:46 AM
ZZZZZZ	5/19/00	9:49 AM
ZZZZZZ	5/19/00	9:52 AM
ZZZZZZ	5/19/00	9:55 AM
ZZZZZZ	5/19/00	9:58 AM
ZZZZZZ	5/19/00	10:02 AM
ZZZZZZ	5/19/00	10:05 AM
ZZZZZZ	5/19/00	10:08 AM
ZZZZZZ	5/19/00	10:11 AM

Form 14 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Instrument Runlog

Instrument: ICP **Chart Number:** J00519A.ARC

Sample Name	Date of Analysis	Time of Analysis
ZZZZZZ	5/19/00	10:14 AM
ZZZZZZ	5/19/00	10:17 AM
ZZZZZZ	5/19/00	10:20 AM
ZZZZZZ	5/19/00	10:23 AM
ZZZZZZ	5/19/00	10:27 AM
ZZZZZZ	5/19/00	10:30 AM
ZZZZZZ	5/19/00	10:33 AM
ZZZZZZ	5/19/00	10:36 AM
ZZZZZZ	5/19/00	10:39 AM
ZZZZZZ	5/19/00	10:42 AM
ZZZZZZ	5/19/00	10:46 AM
ZZZZZZ	5/19/00	10:49 AM
ZZZZZZ	5/19/00	10:52 AM
ZZZZZZ	5/19/00	10:59 AM
ZZZZZZ	5/19/00	11:02 AM
ZZZZZZ	5/19/00	11:05 AM
ZZZZZZ	5/19/00	11:08 AM
ZZZZZZ	5/19/00	11:11 AM
ZZZZZZ	5/19/00	11:15 AM
ZZZZZZ	5/19/00	11:18 AM
ZZZZZZ	5/19/00	11:21 AM
ZZZZZZ	5/19/00	11:24 AM
ZZZZZZ	5/19/00	11:32 AM
ZZZZZZ	5/19/00	11:35 AM
ZZZZZZ	5/19/00	11:38 AM
ZZZZZZ	5/19/00	11:41 AM
ZZZZZZ	5/19/00	11:44 AM
ZZZZZZ	5/19/00	11:48 AM
ZZZZZZ	5/19/00	11:54 AM
ZZZZZZ	5/19/00	11:57 AM
ZZZZZZ	5/19/00	12:00 PM
ZZZZZZ	5/19/00	12:03 PM
ZZZZZZ	5/19/00	12:06 PM
ZZZZZZ	5/19/00	12:10 PM
ZZZZZZ	5/19/00	12:13 PM
ZZZZZZ	5/19/00	12:16 PM
ZZZZZZ	5/19/00	12:19 PM
ZZZZZZ	5/19/00	12:22 PM
ZZZZZZ	5/19/00	12:26 PM
ZZZZZZ	5/19/00	12:29 PM
ZZZZZZ	5/19/00	12:32 PM

STL-Pittsburgh

Metals Data Reporting Form

657 846

Instrument Runlog

Instrument: ICP **Chart Number:** J00519A.ARC

Sample Name	Date of Analysis	Time of Analysis
ZZZZZZ	5/19/00	12:35 PM
ZZZZZZ	5/19/00	12:38 PM
ZZZZZZ	5/19/00	12:42 PM
ZZZZZZ	5/19/00	12:45 PM
ZZZZZZ	5/19/00	12:48 PM

STL-Pittsburgh

Metals Data Reporting Form

Instrument Runlog

Instrument: ICP **Chart Number:** J00519B.ARC

Sample Name	Date of Analysis	Time of Analysis
ZZZZZZ	5/19/00	2.41 PM
ZZZZZZ	5/19/00	2:44 PM
ZZZZZZ	5/19/00	2:47 PM
ZZZZZZ	5/19/00	2:51 PM
STD1	5/19/00	2:55 PM
STD5A	5/19/00	2:59 PM
STD5B	5/19/00	3:02 PM
ICV2-1	5/19/00	3:05 PM
ICB1	5/19/00	3.08 PM
ICSA	5/19/00	3:11 PM
ICSAB	5/19/00	3:14 PM
DDC39BT	5/19/00	3:20 PM
DDA9GBT	5/19/00	3:23 PM
DDC39CT	5/19/00	3:26 PM
DD6A4T	5/19/00	3:29 PM
DD6A4PT	5/19/00	3:32 PM
DD6A4ST	5/19/00	3:36 PM
DD6A4DT	5/19/00	3:39 PM
DD6A5T	5/19/00	3:42 PM
CCV2-1	5/19/00	3:45 PM
CCB1	5/19/00	3:48 PM
DD6A6T	5/19/00	3:51 PM
DD6A7T	5/19/00	3:55 PM
CCV2-2	5/19/00	3:58 PM
CCB2	5/19/00	4:01 PM
ZZZZZZ	5/19/00	4:06 PM
ZZZZZZ	5/19/00	4:09 PM
ZZZZZZ	5/19/00	4:12 PM
ZZZZZZ	5/19/00	4:15 PM
ZZZZZZ	5/19/00	4:18 PM
ZZZZZZ	5/19/00	4:22 PM
ZZZZZZ	5/19/00	4:25 PM
ZZZZZZ	5/19/00	4:28 PM
ZZZZZZ	5/19/00	4:31 PM
ZZZZZZ	5/19/00	4:34 PM
ZZZZZZ	5/19/00	4:37 PM
ZZZZZZ	5/19/00	4:40 PM
ZZZZZZ	5/19/00	4:44 PM
ZZZZZZ	5/19/00	4:47 PM
ZZZZZZ	5/19/00	4:50 PM

TCLP
METALS
RAW DATA

CO E130194 (TCLP's) - 6010B

Analysis Report Averages 05/19/00 12:56:24 PM

Michael Wenlock 5-19-00

#	Sample Name	AG	AS	BA	CD	CR	PB
1	STD1	-.001	-.00049	-.00007	.00002	.0013	.0006
2	STD5A	.25694	.5115	3.88785	.88959	3.51219	.25249
3	STD5B						
4	ICV2-1 0014-061-7	.51086	1.0143	1.0200	1.0220	1.0174	1.0449
5	ICB1	.00075	-.00799	.00025	-.00082	-.00341	-.01353
6	ICSA 0014-088-12	-.00032	-.11064	.00192	-.00251	-.00640	.12813
7	ICSAB 0014-043-1	.94437	.87142	.45609	.94991	.43477	1.0398
8	DDC39BT	.00038	-.00403	.00025	.00107	-.00128	.00189
9	DDA9GBT	.00263	.17865	.03691	-.00177	-.00213	-.01164
10	DDC39CT	.04714	2.2012	1.8741	.04566	.18933	.47228
11	DD6A4T	-.00265	.14949	1.2123	.00241	-.00427	.02117
12	DD6A4TP5	-.00039	.03471	.27021	-.00049	-.00384	.02501
13	DD6A4ST	.90355	4.8882	43.256	.94443	4.2631	4.4358
14	DD6A4DT	.91225	4.9588	43.834	.95485	4.3155	4.4898
15	DD6A5T	-.00302	.21029	1.2211	-.00302	-.00584	.01154
16	CCV2-1 0014-087-7	.97794	4.9967	4.7640	4.9809	4.8566	4.8897
17	CCB1	.00075	.03266	.00082	.00066	.00000	-.02124
18	DD6A6T	-.00266	.19637	1.2934	.00189	-.00484	-.01347
19	DD6A7T	-.00077	.15265	1.2356	-.00077	-.00555	.00759
20	CCV2-2	.98469	5.0211	4.8021	5.0231	4.9023	4.9410
21	CCB2	.00188	.02176	.00059	.00260	-.00241	-.00381
22	DDDFQBF	.00112	-.00198	.00025	-.00055	-.00284	-.01156
23	DDDFQCF	L-.00037	L.00888	L.00036	L-.00090	L-.00171	L.03080
24	DC7M7F	-.00056	-.00482	.09306	.00007	-.00199	.00365
25	DC7MAF	-.00177	-.00779	2.7981	-.00012	-.00327	.00253
26	DC7MAFP5	.00007	-.00499	.57709	.00109	-.00412	-.03232
27	DC7MASF	-.00074	-.00602	2.7628	-.00154	-.00398	.00258
28	DC7MADF	-.00151	-.04162	2.7513	.00123	-.00313	.02382
29	DC7MCF	-.00022	-.00804	.06016	-.00029	-.00327	-.00899
30	DC7MDF	.00010	.01866	.68327	-.00226	-.00469	-.01738
31	CCV2-3	.97412	4.9237	4.6919	5.0384	4.8757	4.9427
32	CCB3	.00150	-.00406	.00087	.00050	-.00156	-.01928
33	DDCAWB	.00113	.01586	.00012	.00075	-.00128	-.00772
34	DDCAWC	.04873	1.9425	1.8926	.04496	.19360	.47144
35	DD9PJ	.00113	.01064	.00488	-.00059	-.00099	.15791
36	DD9PJP5	.00000	-.00896	.00121	-.00175	-.00227	.04423
37	DD9PJS	.04912	1.9412	1.9181	.04715	.19389	.62546
38	DD9PJD	.04879	2.0281	1.9491	.04761	.19830	.65662
39	DD5V9	.00266	.01827	.02413	.00002	.00142	.04429
40	DD9NN	.00113	.03108	.00329	.00207	.00128	.72810
41	CCV2-4	.98042	5.0265	4.7074	5.0791	4.9195	4.9365
42	CCB4	.00150	.02173	.00069	-.00068	-.00241	.01924
43	DDCAEB	.00150	-.00303	.00023	-.00077	-.00170	-.01156
44	DDCAEC	.04987	1.9582	1.8438	.04594	.19389	.50239
45	DD7WE	.00616	.11347	.08185	.00042	.06296	.03259
46	DD7WEP5	.00166	.03949	.01636	.00014	.00968	.00146
47	DD7WES	.05936	2.0936	1.8400	.04515	.24988	.51465
48	DD7WED	.05817	2.0937	1.8105	.04334	.24617	.51863
49	DD7NT	.00120	.02757	.00239	-.00030	.06823	.00032
50	CCV2-5	.97243	4.9489	4.7232	5.0463	4.8989	4.9188
51	CCB5	.00188	-.00505	.00077	.00084	-.00070	-.01352
52	DD7WE/2 K	.00231	.02759	.04115	.00102	.03048	.01054
53	DD7WEP10 K	.00158	-.01566	.00874	.00008	.00612	.00167

#	Sample Name	AG	AS	BA	CD	CR	PB
54	DD7WES/2 K	.02968	1.0049	.92912	.02275	.12579	.24564
55	DD7WED/2 K	.02815	1.0190	.92526	.02317	.12322	.25734
56	CCV2-6	.97724	5.0282	4.7509	5.1080	4.9376	4.9445
57	CCB6	.00339	.04355	.00097	-.00083	-.00013	.00384
58	DDDCMB	.00038	-.04580	.00038	.00029	-.00270	-.01356
59	DDDCMC	.04599	1.8347	1.8753	.04242	.18733	.45749
60	DD5VC	.00465	.09241	.10077	.00149	.11396	.21142
61	DD5VE	.13956	.03916	1.5337	.02092	1.5403	.91382
62	DD9NT	.01888	.08065	.21910	.01033	.18276	.55759
63	DD9NTP5	.00505	.03770	.04491	.00212	.03590	.10873
64	DD9NTS	.06486	1.9511	2.0596	.04787	.36955	.96673
65	DD9NTD	.06827	1.9407	2.0672	.05225	.37353	.98456
66	DD9NW	.00359	.05674	2.1494	-.00028	.09913	.37483
67	DD9NWP5	.00123	.00381	.42976	-.00103	.01837	.07262
68	CCV2-7	.98883	5.1467	4.8056	5.1936	5.0340	4.9952
69	CCB7	.00036	-.00606	.00064	.00166	-.00127	-.01157
70	DD9NWS	.04629	1.7822	3.6160	.04038	.27378	.81275
71	DD9NWD	.04901	1.9057	3.7783	.04177	.29031	.85556
72	DD9PE	.02216	.02932	.17488	.00343	.07777	.08419
73	DD9PX	.01182	.09457	.23767	.00377	.41296	.38543
74	CCV2-8	.99225	5.1507	4.8167	5.2091	5.0374	5.0436
75	CCB8	.00150	.02667	.00051	.00117	.00114	.03275

#	Sample Name	SE
		VOID MTW 5-19-00
1	STD1	.00045
2	STD5A	.503
3	STD5B	
4	ICV2-1 0014-061-7	1.0340
5	ICB1	-.00695
6	ICSA 0014-088-12	.25834
7	ICSAB 0014-043-1	1.1776
8	DDC39BT	-.01481
9	DDA9GBT	-.03378
10	DDC39CT	2.1189
11	DD6A4T	-.03965
12	DD6A4TP5	.00600
13	DD6A4ST	.95027
14	DD6A4DT	.98310
15	DD6A5T	-.01684
16	CCV2-1 0014-087-7	5.0441
17	CCB1	-.01489
18	DD6A6T	-.00193
19	DD6A7T	-.03575
20	CCV2-2	5.0975
21	CCB2	-.02385
22	DDDFQBF	-.01490
23	DDDFQCF	L.00301
24	DC7M7F	-.00981
25	DC7MAF	.01257
26	DC7MAFP5	.00406
27	DC7MASF	.08425
28	DC7MADF	.00028

Se
VOID: The ICSA is out of Control Limits.
MTW 5-19-00 Samples for Se will need Reanalyzed
MTW 5-19-00

VOID: see previous page for explanation
mrw 5-19-00

#	Sample Name	SE
29	DC7MCF	.02103
30	DC7MDF	-.01276
31	CCV2-3	4.9863
32	CCB3	-.00494
33	DDCAWB	-.02384
34	DDCAWC	1.8783
35	DD9PJ	.01609
36	DD9PJP5	-.02085
37	DD9PJS	1.9450
38	DD9PJD	1.9481
39	DD5V9	.02199
40	DD9NN	-.02265
41	CCV2-4	5.0233
42	CCB4	.02192
43	DDCAEB	.00599
44	DDCAEC	1.9837
45	DD7WE	-.00602
46	DD7WEP5	.01150
47	DD7WES	2.0083
48	DD7WED	1.9720
49	DD7NT	-.01445
50	CCV2-5	5.0276
51	CCB5	-.03877
52	DD7WE/2 K	.02038
53	DD7WEP10 K	-.01556
54	DD7WES/2 K	.95343
55	DD7WED/2 K	.94928
56	CCV2-6	4.9660
57	CCB6	-.00494
58	DDDCMB	-.00889
59	DDDCMC	1.8294
60	DD5VC	.02195
61	DD5VE	.01929
62	DD9NT	.01592
63	DD9NTP5	-.01560
64	DD9NTS	1.9873
65	DD9NTD	1.9452
66	DD9NW	.02703
67	DD9NWP5	.01118
68	CCV2-7	5.0375
69	CCB7	-.04275
70	DD9NWS	1.8400
71	DD9NWD	1.8867
72	DD9PE	-.00477
73	DD9PX	-.01592
74	CCV2-8	5.0194
75	CCB8	-.01887

657 852

MTW 5-19-00

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
1	STD1	J00519A	QUANMET	05/19/00	08:40		X	IR
2	STD5A	J00519A	QUANMET	05/19/00	08:43		X	IR
3	STD5B	J00519A	QUANMET	05/19/00	08:47		X	IR
4	ICV2-1 0014-061-7	J00519A	QUANMET	05/19/00	08:50	MTW	S	CONC
5	ICB1	J00519A	QUANMET	05/19/00	08:53	MTW	S	CONC
6	ICSA 0014-088-12	J00519A	QUANMET	05/19/00	08:56	MTW	Q	CONC
7	ICSAB 0014-043-1	J00519A	QUANMET	05/19/00	08:59	MTW	Q	CONC
8	DDC39BT	J00519A	QUANMET	05/19/00	09:05	MTW	S	CONC
9	DDA9GBT	J00519A	QUANMET	05/19/00	09:08	MTW	S	CONC
10	DDC39CT	J00519A	QUANMET	05/19/00	09:11	MTW	S	CONC
11	DD6A4T	J00519A	QUANMET	05/19/00	09:14	MTW	S	CONC
12	DD6A4TP5	J00519A	QUANMET	05/19/00	09:17	MTW	S	CONC
13	DD6A4ST	J00519A	QUANMET	05/19/00	09:20	MTW	S	CONC
14	DD6A4DT	J00519A	QUANMET	05/19/00	09:24	MTW	S	CONC
15	DD6A5T	J00519A	QUANMET	05/19/00	09:27	MTW	S	CONC
16	CCV2-1 0014-087-7	J00519A	QUANMET	05/19/00	09:30	MTW	S	CONC
17	CCB1	J00519A	QUANMET	05/19/00	09:33	MTW	S	CONC
18	DD6A6T	J00519A	QUANMET	05/19/00	09:36	MTW	S	CONC
19	DD6A7T	J00519A	QUANMET	05/19/00	09:39	MTW	S	CONC
20	CCV2-2	J00519A	QUANMET	05/19/00	09:43	MTW	S	CONC
21	CCB2	J00519A	QUANMET	05/19/00	09:46	MTW	S	CONC
22	DDDFQBF	J00519A	QUANMET	05/19/00	09:49	MTW	S	CONC
23	DDDFQCF	J00519A	QUANMET	05/19/00	09:52	MTW	S	CONC
24	DC7M7F	J00519A	QUANMET	05/19/00	09:55	MTW	S	CONC
25	DC7MAF	J00519A	QUANMET	05/19/00	09:58	MTW	S	CONC
26	DC7MAFP5	J00519A	QUANMET	05/19/00	10:02	MTW	S	CONC
27	DC7MASF	J00519A	QUANMET	05/19/00	10:05	MTW	S	CONC
28	DC7MADF	J00519A	QUANMET	05/19/00	10:08	MTW	S	CONC
29	DC7MCF	J00519A	QUANMET	05/19/00	10:11	MTW	S	CONC
30	DC7MDF	J00519A	QUANMET	05/19/00	10:14	MTW	S	CONC
31	CCV2-3	J00519A	QUANMET	05/19/00	10:17	MTW	S	CONC
32	CCB3	J00519A	QUANMET	05/19/00	10:20	MTW	S	CONC
33	DDCAWB	J00519A	QUANMET	05/19/00	10:23	MTW	S	CONC
34	DDCAWC	J00519A	QUANMET	05/19/00	10:27	MTW	S	CONC
35	DD9PJ	J00519A	QUANMET	05/19/00	10:30	MTW	S	CONC
36	DD9PJP5	J00519A	QUANMET	05/19/00	10:33	MTW	S	CONC
37	DD9PJS	J00519A	QUANMET	05/19/00	10:36	MTW	S	CONC
38	DD9PJD	J00519A	QUANMET	05/19/00	10:39	MTW	S	CONC
39	DD5V9	J00519A	QUANMET	05/19/00	10:42	MTW	S	CONC
40	DD9NN	J00519A	QUANMET	05/19/00	10:46	MTW	S	CONC
41	CCV2-4	J00519A	QUANMET	05/19/00	10:49	MTW	S	CONC
42	CCB4	J00519A	QUANMET	05/19/00	10:52	MTW	S	CONC
43	DDCAEB	J00519A	QUANMET	05/19/00	10:59	MTW	S	CONC
44	DDCAEC	J00519A	QUANMET	05/19/00	11:02	MTW	S	CONC
45	DD7WE	J00519A	QUANMET	05/19/00	11:05	MTW	S	CONC
46	DD7WEP5	J00519A	QUANMET	05/19/00	11:08	MTW	S	CONC
47	DD7WES	J00519A	QUANMET	05/19/00	11:11	MTW	S	CONC
48	DD7WED	J00519A	QUANMET	05/19/00	11:15	MTW	S	CONC
49	DD7NT	J00519A	QUANMET	05/19/00	11:18	MTW	S	CONC
50	CCV2-5	J00519A	QUANMET	05/19/00	11:21	MTW	S	CONC
51	CCB5	J00519A	QUANMET	05/19/00	11:24	MTW	S	CONC
52	DD7WE/2 K	J00519A	QUANMET	05/19/00	11:32	MTW	S	CONC
53	DD7WEP10 K	J00519A	QUANMET	05/19/00	11:35	MTW	S	CONC

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
54	DD7WES/2 K	J00519A	QUANMET	05/19/00	11:38	MTW	S	CONC
55	DD7WED/2 K	J00519A	QUANMET	05/19/00	11:41	MTW	S	CONC
56	CCV2-6	J00519A	QUANMET	05/19/00	11:44	MTW	S	CONC
57	CCB6	J00519A	QUANMET	05/19/00	11:48	MTW	S	CONC
58	DDDCMB	J00519A	QUANMET	05/19/00	11:54	MTW	S	CONC
59	DDDCMC	J00519A	QUANMET	05/19/00	11:57	MTW	S	CONC
60	DD5VC	J00519A	QUANMET	05/19/00	12:00	MTW	S	CONC
61	DD5VE	J00519A	QUANMET	05/19/00	12:03	MTW	S	CONC
62	DD9NT	J00519A	QUANMET	05/19/00	12:06	MTW	S	CONC
63	DD9NTP5	J00519A	QUANMET	05/19/00	12:10	MTW	S	CONC
64	DD9NTS	J00519A	QUANMET	05/19/00	12:13	MTW	S	CONC
65	DD9NTD	J00519A	QUANMET	05/19/00	12:16	MTW	S	CONC
66	DD9NW	J00519A	QUANMET	05/19/00	12:19	MTW	S	CONC
67	DD9NWP5	J00519A	QUANMET	05/19/00	12:22	MTW	S	CONC
68	CCV2-7	J00519A	QUANMET	05/19/00	12:26	MTW	S	CONC
69	CCB7	J00519A	QUANMET	05/19/00	12:29	MTW	S	CONC
70	DD9NWS	J00519A	QUANMET	05/19/00	12:32	MTW	S	CONC
71	DD9NWD	J00519A	QUANMET	05/19/00	12:35	MTW	S	CONC
72	DD9PE	J00519A	QUANMET	05/19/00	12:38	MTW	S	CONC
73	DD9PX	J00519A	QUANMET	05/19/00	12:42	MTW	S	CONC
74	CCV2-8	J00519A	QUANMET	05/19/00	12:45	MTW	S	CONC
75	CCB8	J00519A	QUANMET	05/19/00	12:48	MTW	S	CONC

Method: QUANMET Standard: STD1
Run Time: 05/19/00 08:40:49

Elem	AG	AL	AS	B	BA	BE	CA
Avge	-.00100	.01005	-.00050	.00116	-.00008	.00295	-.00138
SDev	.00016	.00066	.00222	.00043	.00006	.00010	.00031
%RSD	16.330	6.5752	444.82	37.150	69.881	3.3898	22.386
#1	-.00120	.00960	.00160	.00180	-.00012	.00300	-.00169
#2	-.00100	.01100	.00040	.00094	-.00008	.00280	-.00156
#3	-.00080	.01000	-.00360	.00094	-.00012	.00300	-.00125
#4	-.00100	.00960	-.00040	.00094	.00000	.00300	-.00101

Elem	CD	CO	CR	CU	FE	K	LI
Avge	.00003	.00020	.00130	.00025	.00020	-.03490	.00086
SDev	.00009	.00023	.00105	.00010	.00016	.00342	.00054
%RSD	303.76	115.47	80.922	40.000	81.650	9.7870	62.445
#1	-.00008	.00000	.00120	.00040	.00020	-.03520	.00140
#2	.00000	.00040	.00040	.00020	.00040	-.03280	.00012
#3	.00008	.00000	.00080	.00020	.00000	-.03960	.00098
#4	.00012	.00040	.00280	.00020	.00020	-.03200	.00094

Elem	MG	MN	MO	NA	NI	PB	SB
Avge	.00035	.00025	.00005	.05555	.00094	.00060	-.00010
SDev	.00087	.00010	.00019	.00101	.00076	.00046	.00053
%RSD	248.53	40.000	382.97	1.8211	80.742	76.980	529.15
#1	-.00040	.00020	.00000	.05680	.00154	.00020	.00040
#2	.00160	.00020	.00020	.05440	.00164	.00020	.00020
#3	.00000	.00020	-.00020	.05580	.00026	.00100	-.00080
#4	.00020	.00040	.00020	.05520	.00031	.00100	-.00020

Elem	SE	SI	SN	SR	TI	TL	V
Avge	.00045	.00050	.00070	-.00005	.00210	.00000	.00040
SDev	.00222	.00020	.00202	.00010	.00020	.00036	.00046
%RSD	494.08	40.000	288.09	200.00	9.5238	.00000	115.47
#1	-.00260	.00040	.00280	.00000	.00180	-.00040	.00000
#2	.00020	.00040	-.00140	.00000	.00220	-.00020	.00080
#3	.00220	.00040	.00200	.00000	.00220	.00020	.00000
#4	.00200	.00080	-.00060	-.00020	.00220	.00040	.00080

Elem	ZN
Avge	.00029
SDev	.00015
%RSD	51.640
#1	.00012
#2	.00047
#3	.00035
#4	.00024

Method: QUANMET Standard: STD5A 0014-072-2
Run Time: 05/19/00 08:43:59

Elem	AG	AS	B_	BA	BE	CD	CO
Avge	.25695	.51150	.55832	3.8879	14.163	.88960	1.3870
SDev	.00082	.00527	.00210	.0190	.072	.00124	.0047
%RSD	.32014	1.0298	.37583	.48775	.50536	.13899	.34150
#1	.25680	.50880	.55780	3.8809	14.150	.88912	1.3878
#2	.25700	.50900	.55956	3.9024	14.200	.88908	1.3884
#3	.25800	.51940	.56032	3.9040	14.234	.89144	1.3916
#4	.25600	.50880	.55560	3.8642	14.069	.88875	1.3804

Elem	CR	CU	LI	MN	MO	NI	PB
Avge	3.5122	2.1644	4.5413	1.9358	.40270	1.6493	.25250
SDev	.0161	.0098	.0126	.0094	.00167	.0053	.00035
%RSD	.45792	.45306	.27677	.48548	.41454	.32253	.13719
#1	3.5198	2.1586	4.5304	1.9390	.40240	1.6499	.25220
#2	3.5146	2.1706	4.5518	1.9382	.40240	1.6489	.25280
#3	3.5254	2.1746	4.5525	1.9438	.40500	1.6556	.25280
#4	3.4890	2.1538	4.5304	1.9222	.40100	1.6426	.25220

Elem	SB	SE	SI	SN	SR	TI	TL
Avge	.18995	.50300	.32920	.96635	7.4043	5.7691	.34705
SDev	.00103	.00629	.00356	.00975	.0360	.0235	.00567
%RSD	.53945	1.2502	1.0800	1.0086	.48592	.40818	1.6350
#1	.19040	.50100	.32420	.96520	7.3922	5.7666	.34240
#2	.18980	.50960	.33020	.97400	7.4301	5.7800	.35080
#3	.19100	.50620	.33260	.97320	7.4362	5.7922	.35300
#4	.18860	.49520	.32980	.95300	7.3589	5.7374	.34200

Elem	V_	ZN
Avge	1.5190	1.4904
SDev	.0065	.0033
%RSD	.42638	.22302
#1	1.5208	1.4898
#2	1.5204	1.4928
#3	1.5250	1.4932
#4	1.5098	1.4860

Method: QUANMET Standard: STD5B 0014-072-3
Run Time: 05/19/00 08:47:08

Elem	AL	CA	FE	K	MG	NA
Avge	10.921	23.167	28.472	2.4135	7.2390	47.165
SDev	.013	.077	.051	.0233	.0125	.136
%RSD	.12282	.33241	.17992	.96439	.17232	.28904
#1	10.931	23.257	28.539	2.4236	7.2544	47.178
#2	10.902	23.078	28.414	2.3830	7.2266	46.984
#3	10.929	23.135	28.470	2.4100	7.2436	47.180
#4	10.923	23.196	28.467	2.4376	7.2316	47.316

Standardization Report 05/19/00 08:50:14 AM

Method: QUANMET Slope = Conc(SIR)/IR

Element	Wavelen	High std	Low std	Slope	Y-intercept	Date Standardized
AG	328.068	STD5A	STD1	7.56474	.007565	05/19/00 08:47:08
AL	308.215	STD5B	STD1	9.16502	-.092108	05/19/00 08:47:08
AS	193.696	STD5A	STD1	19.8680	.009934	05/19/00 08:47:08
B_	249.600	STD5A	STD1	17.9841	-.020787	05/19/00 08:47:08
BA	493.409	STD5A	STD1	2.57206	.000204	05/19/00 08:47:08
BE	313.042	STD5A	STD1	.708081	-.002089	05/19/00 08:47:08
CA	317.933	STD5B	STD1	4.31630	.005954	05/19/00 08:47:08
CD	228.802	STD5A	STD1	11.4098	-.000336	05/19/00 08:47:08
CO	228.616	STD5A	STD1	7.24502	-.001449	05/19/00 08:47:08
CR	267.716	STD5A	STD1	2.84906	-.003704	05/19/00 08:47:08
CU	324.754	STD5A	STD1	4.61654	-.001154	05/19/00 08:47:08
FE	259.940	STD5B	STD1	3.51221	-.000702	05/19/00 08:47:08
K_	766.491	STD5B	STD1	40.8422	1.42539	05/19/00 08:47:08
LI	670.789	STD5A	STD1	2.20244	-.001892	05/19/00 08:47:08
MG	279.079	STD5B	STD1	13.8146	-.004835	05/19/00 08:47:08
MN	257.610	STD5A	STD1	5.16479	-.001291	05/19/00 08:47:08
MO	202.030	STD5A	STD1	24.8355	-.001242	05/19/00 08:47:08
NA	588.995	STD5B	STD1	2.12273	-.117918	05/19/00 08:47:08
NI	231.604	STD5A	STD1	6.06401	-.005672	05/19/00 08:47:08
PB	220.353	STD5A	STD1	38.5304	-.023118	05/19/00 08:47:08
SB	206.838	STD5A	STD1	52.6787	.005268	05/19/00 08:47:08
SE	196.026	STD5A	STD1	19.8985	-.008954	05/19/00 08:47:08
SI	288.158	STD5A	STD1	30.0346	-.015017	05/19/00 08:47:08
SN	189.989	STD5A	STD1	10.3449	-.007241	05/19/00 08:47:08
SR	409.552	STD5A	STD1	1.35055	.000068	05/19/00 08:47:08
TI	334.941	STD5A	STD1	1.73402	-.003641	05/19/00 08:47:08
TL	190.864	STD5A	STD1	57.8987	.000000	05/19/00 08:47:08
V_	292.402	STD5A	STD1	6.44478	-.002578	05/19/00 08:47:08
ZN	213.856	STD5A	STD1	6.73386	-.001981	05/19/00 08:47:08

Michael Wenderlich 5-19-00

Analysis Report 05/19/00 08:53:22 AM

Method: QUANMET Sample Name: ICV2-1 0014-061-7 Operator: MTW
Run Time: 05/19/00 08:50:17
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.51087	25.708	1.0143	1.0200	1.0200	.99958	25.697
SDev	.00147	.113	.0427	.0018	.0041	.00260	.048
%RSD	.28795	.44140	4.2126	.17906	.40521	.26039	.18524
#1	.51201	25.599	.97944	1.0180	1.0170	.99944	25.724
#2	.51052	25.826	.97740	1.0188	1.0249	1.0027	25.735
#3	.50893	25.623	1.0629	1.0214	1.0162	.99634	25.629
#4	.51202	25.783	1.0375	1.0216	1.0218	.99986	25.700
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.55000	27.500	1.1000	1.1000	1.1000	1.1000	27.500
Low	.45000	22.500	.90000	.90000	.90000	.90000	22.500

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0220	1.0105	1.0174	1.0191	26.474	25.984	1.0438
SDev	.0039	.0025	.0010	.0043	.090	.446	.0124
%RSD	.38627	.24421	.09702	.42146	.34075	1.7183	1.1918
#1	1.0220	1.0080	1.0171	1.0138	26.463	25.367	1.0272
#2	1.0207	1.0095	1.0188	1.0231	26.573	26.429	1.0497
#3	1.0179	1.0109	1.0165	1.0175	26.357	26.021	1.0420
#4	1.0273	1.0138	1.0171	1.0221	26.501	26.119	1.0561
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	1.1000	1.1000	1.1000	27.500	27.500	1.1000
Low	.90000	.90000	.90000	.90000	22.500	22.500	.90000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	25.938	1.0159	.99614	26.232	1.0114	1.0449	1.0867
SDev	.096	.0018	.00407	.294	.0132	.0438	.0133
%RSD	.36967	.17802	.40846	1.1197	1.3036	4.1894	1.2230
#1	25.853	1.0174	.99613	25.831	1.0039	1.0892	1.0892
#2	26.027	1.0164	1.0011	26.468	1.0122	1.0197	1.0998
#3	25.856	1.0132	.99115	26.196	.99986	1.0738	1.0681
#4	26.014	1.0164	.99614	26.434	1.0296	.99676	1.0896
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	27.500	1.1000	1.1000	27.500	1.1000	1.1000	1.1000
Low	22.500	.90000	.90000	22.500	.90000	.90000	.90000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0340	1.0070	1.0146	1.0152	1.0052	4.9860	1.0073
SDev	.0369	.0290	.0266	.0045	.0031	.0997	.0026
%RSD	3.5710	2.8819	2.6186	.44403	.31242	1.9989	.26245
#1	1.0071	.99500	1.0358	1.0107	1.0038	5.0093	1.0086
#2	1.0553	.98299	1.0255	1.0200	1.0090	4.8808	1.0087

#3	.99875	1.0009	1.0212	1.0121	1.0017	4.9409	1.0033
#4	1.0749	1.0491	.97579	1.0180	1.0063	5.1131	1.0086
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	1.0152
SDev	.0047
%RSD	.46630
#1	1.0127
#2	1.0196
#3	1.0188
#4	1.0098
Errors	LC Pass
High	1.1000
Low	.90000

Analysis Report 05/19/00 08:56:30 AM

Method: QUANMET Sample Name: ICB1 Operator: MTW
Run Time: 05/19/00 08:53:25
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00076	.00496	-.00799	.01276	.00026	.00007	.00001
SDev	.00196	.00685	.05448	.00746	.00034	.00007	.00220
%RSD	258.64	137.87	681.43	58.476	131.84	106.95	17339.
#1	.00001	.00484	-.08552	.01519	.00020	.00003	.00022
#2	-.00152	.00308	.04174	.01878	.00020	.00018	-.00303
#3	.00304	.01418	.00182	.00186	-.00010	.00003	.00067
#4	.00150	-.00225	.00999	.01519	.00072	.00004	.00220
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	-.00083	-.00145	-.00342	-.00069	.00299	-.12661	-.00341
SDev	.00224	.00167	.00136	.00053	.00327	.02750	.00194
%RSD	270.98	115.50	39.678	76.849	109.33	21.719	56.862
#1	.00061	-.00290	-.00256	-.00116	.00070	-.11027	-.00334
#2	-.00310	-.00289	-.00484	-.00023	-.00000	-.16745	-.00352
#3	.00152	-.00000	-.00428	-.00023	.00421	-.11844	-.00101
#4	-.00233	.00000	-.00199	-.00115	.00703	-.11027	-.00575
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	-.00829	.00026	.00621	.00297	-.00355	-.01353	-.00270
SDev	.01018	.00059	.00860	.00658	.00427	.01927	.02337
%RSD	122.85	227.69	138.55	221.43	120.25	142.40	866.52
#1	.00345	-.00025	.01366	.00138	-.00046	-.02320	.00515
#2	-.02141	-.00025	.01366	-.00541	-.00010	-.02317	.02631
#3	-.00760	.00078	-.00124	.00987	-.00439	-.02315	-.01578
#4	-.00760	.00078	-.00124	.00605	-.00925	.01538	-.02646
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	-.00695	.00300	.00775	.00012	.00017	-.00581	.00011
SDev	.02017	.00694	.01901	.00006	.00049	.02756	.00298
%RSD	290.05	230.90	245.43	52.148	282.84	474.47	2633.9
#1	-.00099	.00905	.02589	.00018	.00017	.02315	.00284
#2	-.02089	.00898	-.01332	.00007	-.00017	-.02312	-.00232

#3	-.02486	-.00297	-.00318	.00007	-.00017	.01152	.00255
#4	.01893	-.00304	.02160	.00018	.00087	-.03479	-.00261
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	.00129
%RSD	298.35
#1	.00232
#2	-.00041
#3	-.00037
#4	.00018
Errors	LC Pass
High	.02000
Low	-.02000

Analysis Report QC Standard 05/19/00 08:59:38 AM page 1

Method: QUANMET Sample Name: ICSA 0014-088-12 Operator: MTW
Run Time: 05/19/00 08:56:33
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00032	484.33	-.11064	-.06151	.00193	-.00008	475.65
SDev	.00191	.44	.07303	.00257	.00024	.00007	.89
%RSD	590.92	.09133	66.001	4.1840	12.614	90.534	.18783
#1	-.00220	484.50	-.13200	-.06088	.00226	-.00011	474.79
#2	-.00073	484.58	-.10068	-.06118	.00196	-.00011	475.02
#3	.00234	483.67	-.19263	-.06507	.00175	-.00011	476.13
#4	-.00071	484.57	-.01726	-.05893	.00175	.00003	476.66
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	-.00252	.00874	-.00641	-.00676	180.90	-.23893	-.00189
SDev	.00510	.00264	.00544	.00088	.08	.12049	.00000
%RSD	202.72	30.202	84.839	13.043	.04426	50.430	.00000
#1	-.00176	.00584	-.01054	-.00791	180.95	-.38800	-.00189
#2	-.00571	.01020	-.00427	-.00607	180.80	-.22463	-.00189
#3	-.00698	.00730	.00029	-.00698	180.97	-.09394	-.00189
#4	.00437	.01162	-.01111	-.00606	180.87	-.24914	-.00189
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	479.64	.00264	.01587	.00732	-.02147	.12813	.00531
SDev	.35	.00053	.01073	.00173	.00916	.06087	.08259
%RSD	.07287	19.975	67.612	23.667	42.670	47.505	1556.5
#1	480.01	.00290	.00595	.00860	-.02935	.05862	.02624
#2	479.60	.00286	.01586	.00902	-.01413	.09713	-.07895
#3	479.76	.00293	.03079	.00563	-.02944	.19002	-.03694
#4	479.18	.00185	.01090	.00605	-.01297	.16676	.11087
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	.25834	.08112	-.08293	.01326	-.02358	.47109	.00287
SDev	.09659	.00000	.04883	.00016	.00020	.13384	.00022
%RSD	37.386	.00342	58.882	1.1758	.84904	28.411	7.5724
#1	.36997	.08112	-.02024	.01313	-.02341	.47057	.00267
#2	.25400	.08112	-.07248	.01340	-.02376	.53003	.00288

#3	.27453	.08113	-.13432	.01340	-.02376	.59772	.00317
#4	.13488	.08112	-.10469	.01313	-.02341	.28607	.00277
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value							
Range							

Elem	ZN
Units	ppm
Avge	.00172
SDev	.00123
%RSD	71.477
#1	.00158
#2	.00106
#3	.00348
#4	.00074
Errors	NOCHECK
Value	
Range	

Analysis Report QC Standard 05/19/00 09:02:47 AM

Method: QUANMET Sample Name: ICSAB 0014-043-1 Operator: MTW
Run Time: 05/19/00 08:59:41
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.94438	483.97	.87143	.86952	.45609	.43777	475.53
SDev	.00373	2.15	.02787	.02645	.00232	.00165	1.79
%RSD	.39501	.44493	3.1985	3.0417	.50912	.37669	.37651
#1	.93923	481.91	.88884	.83185	.45364	.43558	473.13
#2	.94711	485.66	.83992	.89377	.45797	.43897	475.32
#3	.94715	485.99	.85685	.87552	.45818	.43910	477.28
#4	.94401	482.31	.90009	.87696	.45458	.43742	476.39
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	500.00	1.0000	1.0000	.50000	.50000	500.00
Range	20.000	20.000	20.000	20.000	20.000	20.000	20.000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.94991	.44757	.43477	.47189	180.61	9.5407	.94304
SDev	.00509	.00138	.00569	.00319	.63	.1726	.00675
%RSD	.53631	.30777	1.3081	.67594	.34888	1.8088	.71610
#1	.94295	.44651	.42708	.46790	179.69	9.3161	.94254
#2	.95090	.44648	.43392	.47446	180.98	9.4958	.94635
#3	.95059	.44793	.43962	.47447	181.06	9.6592	.94943
#4	.95520	.44937	.43848	.47075	180.71	9.6918	.93383
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	.50000	.50000	.50000	200.00	10.000	1.0000
Range	20.000	20.000	20.000	20.000	20.000	20.000	20.000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	477.79	.45142	.90618	9.6803	.86395	1.0398	.95797
SDev	1.77	.00294	.00473	.0806	.01555	.0136	.00604
%RSD	.37148	.65162	.52163	.83287	1.7994	1.3089	.63080
#1	475.59	.44706	.90977	9.6216	.86098	1.0294	.95277
#2	479.00	.45252	.90500	9.7367	.86127	1.0426	.96327
#3	479.44	.45254	.90998	9.7617	.88538	1.0579	.95270
#4	477.13	.45354	.89999	9.6012	.84815	1.0291	.96313
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.00	.50000	1.0000	10.000	1.0000	1.0000	1.0000
Range	20.000	20.000	20.000	20.000	20.000	20.000	20.000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.1776	1.0480	.80581	.91091	.86987	9.2040	.45564
SDev	.1268	.0000	.04225	.00394	.00368	.2947	.00249
%RSD	10.765	.00304	5.2432	.43243	.42365	3.2015	.54756
#1	1.0180	1.0480	Q.78132	.90686	.86545	8.8284	.45409
#2	1.1859	1.0480	Q.77952	.91415	.87308	9.5099	.45530

#3	1.1782	1.0481	.86845	.91442	.87273	9.3469	.45927
#4	Q1.3282	1.0480	Q.79397	.90821	.86822	9.1306	.45392
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	.92490
SDev	.00270
%RSD	.29242
#1	.92392
#2	.92757
#3	.92156
#4	.92654
Errors	QC Pass
Value	1.0000
Range	20.000

Analysis Report 05/19/00 09:08:10 AM

Method: QUANMET Sample Name: DDC39BT Operator: MTW
Run Time: 05/19/00 09:05:04
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00039	.00273	-.00404	-.00417	.00026	-.00007	.01925
SDev	.00228	.00739	.04554	.01512	.00034	.00008	.00164
%RSD	590.99	270.70	1128.2	362.54	131.84	106.90	8.5290
#1	-.00303	-.00779	-.02576	-.00169	-.00010	-.00010	.01733
#2	.00153	.00679	.02966	.01524	.00020	-.00011	.01911
#3	.00151	.00877	-.05769	-.00952	.00072	.00004	.02134
#4	.00153	.00314	.03764	-.02072	.00020	-.00011	.01921
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK
High	.50000		.50000		10.000		
Low	-.50000		-.50000		-10.000		

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00108	-.00145	-.00128	.00000	.03056	-.12048	-.00001
SDev	.00271	.00205	.00150	.00138	.00167	.19789	.00127
%RSD	251.48	141.45	116.81	123380.	5.4788	164.25	19668.
#1	.00450	-.00291	-.00199	-.00115	.02809	-.18379	-.00189
#2	.00161	-.00145	-.00256	-.00115	.03161	-.36350	.00036
#3	-.00196	.00145	-.00142	.00070	.03161	-.02859	.00088
#4	.00017	-.00290	.00085	.00162	.03091	.09394	.00062
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	.10000		.50000				
Low	-.10000		-.50000				

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00691	-.00025	.00000	.01242	-.00349	.00190	.01317
SDev	.00913	.00084	.00248	.00400	.00261	.01826	.01582
%RSD	132.16	338.32	54356.	32.192	74.884	963.40	120.19
#1	-.01865	-.00025	-.00124	.00902	-.00459	-.00005	.02635
#2	-.00760	.00078	.00373	.00945	-.00667	.01537	.00525
#3	-.00484	-.00128	-.00124	.01751	-.00124	.01547	.02635
#4	.00345	-.00025	-.00124	.01369	-.00146	-.02321	-.00529
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	NOCHECK
High						.50000	
Low						-.50000	

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.01481	.00451	-.01028	.00003	-.00009	.00838	-.00000
SDev	.03640	.00903	.01172	.00016	.00059	.03046	.00301
%RSD	245.75	200.49	114.06	583.68	683.13	363.48	122760.
#1	-.02079	-.00904	-.02366	-.00020	-.00087	.01133	-.00261
#2	-.02078	.00904	-.01549	.00007	.00017	.03441	.00264

#3	-.05262	.00898	-.00505	.00007	.00052	-.03507	-.00260
#4	.03494	.00904	.00309	.00018	-.00017	.02284	.00256
Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	.25000						
Low	-.25000						

Elem	ZN
Units	ppm
Avge	.00260
SDev	.00097
%RSD	37.139
#1	.00341
#2	.00210
#3	.00149
#4	.00341
Errors	NOCHECK
High	
Low	

Analysis Report 05/19/00 09:11:17 AM

Method: QUANMET Sample Name: DDA9GBT Operator: MTW
Run Time: 05/19/00 09:08:12
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00264	.02150	.17866	.02727	.03692	-.00017	.38198
SDev	.00146	.00713	.05125	.01099	.00047	.00007	.00722
%RSD	55.286	33.173	28.688	40.299	1.2740	43.521	1.8892
#1	.00148	.01975	.22844	.03678	.03642	-.00023	.37203
#2	.00150	.01238	.11715	.01775	.03715	-.00024	.38137
#3	.00304	.02505	.15669	.03679	.03745	-.00011	.38655
#4	.00453	.02883	.21237	.01776	.03664	-.00010	.38797
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK
High	.50000		.50000		10.000		
Low	-.50000		-.50000		-10.000		

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00177	-.00255	-.00213	.00115	.01229	.24301	-.00125
SDev	.00274	.00073	.00134	.00053	.00240	.27768	.00057
%RSD	154.25	28.640	63.016	46.217	19.517	114.27	45.796
#1	-.00518	-.00145	-.00313	.00069	.00984	-.06126	-.00145
#2	-.00166	-.00291	-.00199	.00069	.01264	.08577	-.00197
#3	.00152	-.00292	-.00028	.00161	.01124	.53503	-.00083
#4	-.00178	-.00291	-.00313	.00161	.01546	.41251	-.00075
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	.10000		.50000				
Low	-.10000		-.50000				

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05319	.00026	.00373	S3373.6	.00023	-.01164	.00261
SDev	.01296	.00060	.00406	.2	.00782	.02037	.02337
%RSD	24.366	227.14	108.81	.00736	3353.6	174.95	896.34
#1	.05871	.00078	.00373	S3374.0	-.00325	-.02318	-.00535
#2	.03385	-.00026	-.00124	S3373.5	-.00668	.01529	-.02635
#3	.05871	-.00025	.00869	S3373.4	-.00045	-.00777	.02630
#4	.06148	.00078	.00373	S3373.5	.01131	-.03090	.01584
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	NOCHECK
High						.50000	
Low						-.50000	

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.03378	.09758	.00208	.00250	.00026	-.02614	-.00251
SDev	.04012	.00300	.01829	.00031	.00033	.04948	.00425
%RSD	118.76	3.0793	878.15	12.483	127.66	189.27	169.38
#1	-.06861	.09902	.01135	.00223	.00052	.01155	-.00767
#2	-.01687	.09307	-.01978	.00223	-.00017	-.09273	-.00261

#3	-.06463	.09915	-.00505	.00277	.00017	-.03485	.00275
#4	.01498	.09908	.02180	.00277	.00052	.01147	-.00251
Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	.25000						
Low	-.25000						

Elem	ZN
Units	ppm
Avge	.01293
SDev	.00090
%RSD	6.9569
#1	.01170
#2	.01284
#3	.01363
#4	.01357
Errors	NOCHECK
High	
Low	

Method: QUANMET Sample Name: DDC39CT Operator: MTW
Run Time: 05/19/00 09:11:20
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04714	1.8721	2.2012	.95340	1.8741	.04610	L.40736
SDev	.00151	.0073	.0697	.01106	.0081	.00016	.00439
%RSD	3.2098	.38756	3.1662	1.1601	.43239	.33800	1.0775
#1	.04636	1.8661	2.1665	.95790	1.8634	.04597	L.40275
#2	.04941	1.8808	2.2776	.93843	1.8777	.04624	L.41326
#3	.04641	1.8753	2.1226	.96446	1.8823	.04623	L.40605
#4	.04639	1.8661	2.2380	.95282	1.8728	.04596	L.40737
Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass	LC Low
High	.06000	2.4000	2.4000		2.4000	.06000	60.000
Low	.04000	1.6000	1.6000		1.6000	.04000	40.000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04566	.47131	.18934	.23526	1.0068	L.42680	.88747
SDev	.00108	.00426	.00333	.00177	.0040	.24654	.00410
%RSD	2.3562	.90381	1.7600	.75320	.39627	57.763	.46161
#1	.04496	.46842	.18578	.23387	1.0038	L.34716	.89067
#2	.04549	.47420	.19091	.23573	1.0073	L.78825	.88556
#3	.04723	.47565	.19318	.23757	1.0122	L.23280	.89106
#4	.04496	.46696	.18749	.23387	1.0038	L.33899	.88261
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	NOCHECK
High	.06000	.60000	.24000	.30000	1.2000	60.000	
Low	.04000	.40000	.16000	.20000	.80000	40.000	

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L.06355	.47309	.00139	S3373.6	.45987	.47228	L.01147
SDev	.00761	.00223	.00287	.3	.00593	.01156	.01926
%RSD	11.973	.47174	205.95	.00832	1.2889	2.4473	167.89
#1	L.06700	.46999	.00388	S3373.8	.45240	.48181	L-.00970
#2	L.07253	.47412	.00388	S3373.6	.46690	.45888	L.02206
#3	L.05595	.47516	-.00109	S3373.3	.46034	.48206	L.03253
#4	L.05871	.47309	-.00109	S3373.9	.45983	.46637	L.00100

Errors	LC Low	LC Pass	NOCHECK	LC High	LC Pass	LC Pass	LC Low
High	60.000	.60000		60.000	.60000	.60000	.60000
Low	40.000	.40000		40.000	.40000	.40000	.40000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.1189	.08855	.01628	.92346	.00026	1.8177	.46700
SDev	.0693	.00296	.01771	.00468	.00044	.1087	.00418
%RSD	3.2692	3.3427	108.77	.50719	167.77	5.9826	.89438
#1	2.0164	.09299	.02394	.91806	.00017	1.8149	.46189
#2	2.1517	.08705	.01374	.92481	.00087	1.9538	.46705

#3	2.1398	.08712	.03448	.92913	.00017	1.8147	.47212
#4	2.1676	.08705	-.00705	.92184	-.00017	1.6875	.46695
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	.50074
SDev	.00312
%RSD	.62199
#1	.49629
#2	.50275
#3	.50303
#4	.50089
Errors	LC Pass
High	.60000
Low	.40000

Method: QUANMET Sample Name: DD6A4T Operator: MTW
Run Time: 05/19/00 09:14:32
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00265	.05268	.14950	.14776	1.2123	-.00004	H733.71
SDev	.00189	.00543	.05011	.00478	.0167	.00008	3.96
%RSD	71.361	10.316	33.519	3.2359	1.3806	202.56	.53929
#1	-.00453	.04706	.09686	.15194	1.2305	.00003	H737.12
#2	-.00302	.05636	.11666	.14749	1.2210	.00003	H735.14
#3	-.00002	.05821	.19620	.14114	1.1929	-.00010	H728.00
#4	-.00303	.04908	.18827	.15045	1.2047	-.00011	H734.57
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00242	-.00054	-.00427	.00577	.03848	1.4356	-.00141
SDev	.00380	.00291	.00192	.00092	.00100	.1932	.00039
%RSD	157.27	534.35	44.924	15.978	2.5885	13.460	27.645
#1	.00674	-.00491	-.00484	.00623	.03847	1.3764	-.00101
#2	.00198	.00090	-.00371	.00439	.03777	1.3600	-.00153
#3	.00338	.00091	-.00199	.00624	.03989	1.7195	-.00189
#4	-.00244	.00092	-.00656	.00624	.03777	1.2865	-.00119
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	8.9443	.09143	.00001	S3374.8	-.00341	.02117	.02637
SDev	.0851	.00099	.00476	.2	.01080	.02466	.02582
%RSD	.95144	1.0825	82656.	.00504	316.50	116.49	97.898
#1	8.9968	.09272	.00373	S3374.7	-.01150	.03842	.04734
#2	8.9857	.09168	-.00124	S3374.6	-.01324	-.01544	-.00529
#3	8.8172	.09065	.00373	S3374.9	.00926	.03087	.04754
#4	8.9774	.09065	-.00620	S3374.9	.00183	.03083	.01590
Errors	LC Pass	LC Pass	LC Pass	LC High	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.03966	2.7121	.02099	2.1798	-.04552	.00012	.00096
SDev	.07434	.0416	.01436	.0284	.00091	.07852	.00241
%RSD	187.45	1.5354	68.429	1.3011	2.0038	68133.	251.43
#1	-.10831	2.7482	.02212	2.2117	-.04630	-.09249	.00264
#2	-.03667	2.7482	.01360	2.1928	-.04595	.04642	.00255

#3	-.07646	2.6761	.00763	2.1467	-.04422	-.03463	-.00251
#4	.06282	2.6761	.04059	2.1683	-.04560	.08116	.00116
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	.04088
SDev	.00204
%RSD	4.9964
#1	.04169
#2	.04218
#3	.04183
#4	.03783
Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DD6A4TP5 Operator: MTW
Run Time: 05/19/00 09:17:45
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00039	.01010	.03472	.00208	.27022	.00004	155.98
SDev	.00145	.00879	.02494	.00170	.00159	.00000	.42
%RSD	368.74	87.006	71.832	81.655	.58933	.31646	.26992
#1	.00150	.02158	.05349	.00229	.26803	.00004	156.17
#2	-.00001	.00321	.02186	.00442	.27163	.00004	156.39
#3	-.00153	.01237	.05754	.00082	.27009	.00004	155.93
#4	-.00153	.00323	.00597	.00081	.27112	.00004	155.41
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00050	-.00121	-.00384	.00115	.01015	.18379	-.00134
SDev	.00285	.00275	.00157	.00053	.00070	.38110	.00050
%RSD	574.68	227.84	40.827	46.302	6.9288	207.35	37.515
#1	-.00321	.00279	-.00199	.00162	.01051	.56771	-.00083
#2	.00169	-.00302	-.00541	.00161	.01050	-.32265	-.00163
#3	.00223	-.00303	-.00313	.00069	.01050	.35533	-.00101
#4	-.00270	-.00156	-.00484	.00069	.00910	.13478	-.00189
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9610	.01989	.00000	244.95	-.00392	.02502	.01318
SDev	.0058	.00060	.00248	2.18	.00905	.00382	.00520
%RSD	.29329	2.9966	163590.	.89030	231.02	15.278	39.475
#1	1.9624	.01937	.00373	242.27	-.00474	.02320	.01577
#2	1.9541	.02040	-.00124	245.09	-.00182	.02303	.00538
#3	1.9679	.01937	-.00124	244.82	.00639	.03075	.01587
#4	1.9596	.02040	-.00124	247.61	-.01551	.02309	.01569
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	.00601	.56161	-.00404	.48577	-.00945	.02898	-.00259
SDev	.04657	.00000	.02033	.00187	.00052	.06585	.00005
%RSD	775.28	.00000	503.18	.38586	5.5046	227.19	1.9516
#1	.07466	.56161	.00114	.48315	-.00884	-.00000	-.00251
#2	-.01290	.56161	-.03408	.48720	-.00988	-.01153	-.00261

#3	-.00892	.56161	.00942	.48569	-.00919	.12742	-.00261
#4	-.02882	.56161	.00735	.48704	-.00988	.00005	-.00261
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	.00978
SDev	.00039
%RSD	3.9996
#1	.00958
#2	.01036
#3	.00955
#4	.00962
Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DD6A4ST Operator: MTW
Run Time: 05/19/00 09:20:52
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.90356	.05542	4.8882	.13720	43.256	-.00004	H690.35
SDev	.00584	.00608	.1085	.00174	.579	.00008	5.31
%RSD	.64665	10.970	2.2188	1.2699	1.3392	218.73	.76959
#1	.89713	.05638	4.7302	.13896	42.674	-.00011	H686.28
#2	.90016	.05635	4.9726	.13479	43.038	-.00011	H685.42
#3	.90923	.04716	4.9409	.13748	44.044	.00003	H696.17
#4	.90772	.06181	4.9090	.13754	43.267	.00003	H693.51
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.94444	-.00110	4.2631	.00693	.03234	1.0251	-.00176
SDev	.00897	.00206	.0372	.00332	.00239	.1274	.00027
%RSD	.94993	186.65	.87221	47.912	7.3993	12.430	15.498
#1	.94984	.00062	4.2306	.00531	.03147	1.0333	-.00189
#2	.93705	-.00098	4.2346	.00439	.03568	.84543	-.00135
#3	.93661	-.00003	4.3081	.01177	.03005	1.0823	-.00189
#4	.95426	-.00403	4.2790	.00623	.03217	1.1395	-.00189
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	8.5347	.08626	.00000	S3375.4	.00465	4.4358	.03360
SDev	.0915	.00099	.00248	.2	.00918	.0611	.02606
%RSD	1.0722	1.1463	51347.	.00530	197.34	1.3770	77.558
#1	8.4580	.08548	-.00124	S3375.6	.00627	4.3569	.05498
#2	8.4884	.08549	-.00124	S3375.5	-.00065	4.4185	.05483
#3	8.6652	.08652	.00373	S3375.3	.01687	4.4802	.00178
#4	8.5271	.08755	-.00124	S3375.2	-.00388	4.4878	.02281
Errors	LC Pass	LC Pass	LC Pass	LC High	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.95027	2.5724	-.00693	2.0821	-.04188	-.02300	.00070
SDev	.04199	.0114	.01968	.0265	.00100	.05004	.00012
%RSD	4.4183	.44204	284.17	1.2732	2.3787	217.51	16.513
#1	.99007	2.5739	-.01304	2.0553	-.04110	-.06933	.00061
#2	.92243	2.5558	.00558	2.0714	-.04110	-.02304	.00062

#3	.98210	2.5799	-.03190	2.1178	-.04318	.04649	.00086
#4	.90650	2.5799	.01164	2.0838	-.04214	-.04613	.00071
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	.03883
SDev	.00087
%RSD	2.2294
#1	.03782
#2	.03943
#3	.03966
#4	.03841
Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DD6A4DT Operator: MTW
Run Time: 05/19/00 09:24:05
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.91226	.04577	4.9588	.13467	43.834	.00003	H696.82
SDev	.00710	.00461	.1008	.00556	.547	.00000	3.74
%RSD	.77787	10.078	2.0323	4.1296	1.2483	.29469	.53722
#1	.91831	.05086	5.0958	.13960	44.274	.00003	H700.87
#2	.91831	.04713	4.9687	.13182	44.336	.00003	H699.11
#3	.90469	.04529	4.9051	.12823	43.295	.00003	H693.28
#4	.90772	.03979	4.8654	.13902	43.431	.00003	H694.02
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.95485	-.00178	4.3155	.00877	.03199	1.4662	-.00172
SDev	.01219	.00115	.0223	.00409	.00067	.1773	.00012
%RSD	1.2767	64.353	.51601	46.586	2.1021	12.095	7.1201
#1	.94990	-.00018	4.3383	.01177	.03216	1.5806	-.00171
#2	.97280	-.00172	4.3303	.01270	.03146	1.5071	-.00163
#3	.95109	-.00259	4.2921	.00439	.03287	1.5724	-.00189
#4	.94562	-.00264	4.3012	.00623	.03146	1.2048	-.00163
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	8.6196	.08729	.00249	S3375.3	.00086	4.4898	.01726
SDev	.0817	.00052	.00248	.2	.00872	.0115	.02197
%RSD	.94744	.59115	99.807	.00567	1009.2	.25655	127.30
#1	8.6735	.08755	-.00124	S3375.2	-.01058	4.4802	.02226
#2	8.7039	.08755	.00373	S3375.2	.00331	4.4955	-.00920
#3	8.5354	.08652	.00373	S3375.6	.01039	4.5032	.01228
#4	8.5658	.08755	.00373	S3375.4	.00034	4.4801	.04369
Errors	LC Pass	LC Pass	LC Pass	LC High	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.98310	2.6069	.01834	2.1093	-.04257	.01754	.00085
SDev	.04460	.0312	.00746	.0240	.00017	.04486	.00004
%RSD	4.5363	1.1973	40.671	1.1362	.40733	255.75	4.3205
#1	1.0299	2.6339	.01992	2.1286	-.04283	.01174	.00083
#2	.99007	2.6339	.02184	2.1312	-.04248	.00018	.00091

#3	.92242	2.5799	.00746	2.0848	-.04248	-.02300	.00083
#4	.99007	2.5799	.02416	2.0927	-.04248	.08124	.00085
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	.04004
SDev	.00136
%RSD	3.3871

#1	.04189
#2	.03994
#3	.03972
#4	.03863

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DD6A5T Operator: MTW
Run Time: 05/19/00 09:27:18
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00302	.02789	.21030	-.00980	1.2211	-.00001	H758.93
SDev	.00002	.00620	.03456	.00509	.0090	.00006	3.20
%RSD	.72364	22.226	16.432	51.962	.73589	893.73	.42103
#1	-.00300	.03420	.23996	-.00637	1.2334	.00001	H763.47
#2	-.00302	.02700	.21626	-.00637	1.2164	.00003	H758.03
#3	-.00305	.01970	.22437	-.00932	1.2218	-.00010	H758.25
#4	-.00302	.03063	.16061	-.01715	1.2128	.00003	H755.97
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00303	-.00089	-.00584	.00439	.01845	1.1926	-.00130
SDev	.00192	.00299	.00126	.00131	.00091	.3631	.00029
%RSD	63.320	334.15	21.615	29.819	4.9121	30.449	22.242
#1	-.00074	.00091	-.00428	.00531	.01880	1.4662	-.00101
#2	-.00462	.00237	-.00541	.00531	.01950	1.3110	-.00145
#3	-.00460	-.00343	-.00712	.00254	.01740	.65756	-.00163
#4	-.00215	-.00343	-.00655	.00438	.01810	1.3355	-.00111
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	9.0279	.08006	.00249	S3374.0	.00030	.01154	.02384
SDev	.0608	.00052	.00476	.2	.00651	.01936	.01997
%RSD	.67394	.64627	191.28	.00529	2199.0	167.72	83.782
#1	9.1128	.08032	.00870	S3373.8	-.00787	.03087	.03691
#2	9.0299	.08032	.00373	S3374.1	.00625	-.01533	.02654
#3	8.9913	.08032	-.00124	S3374.2	.00476	.01535	.03709
#4	8.9774	.07928	-.00124	S3374.0	-.00196	.01529	-.00519
Errors	LC Pass	LC Pass	LC Pass	LC High	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.01685	2.1956	-.00437	2.3645	-.04769	.01762	.00261
SDev	.05965	.0001	.01822	.0159	.00028	.06303	.00429
%RSD	354.09	.00245	417.16	.67137	.59382	357.77	164.12
#1	-.05266	2.1956	-.00275	2.3865	-.04769	.02335	.00789
#2	.01897	2.1956	-.01108	2.3563	-.04803	.10443	.00264

#3	.04683	2.1955	-.02344	2.3651	-.04769	-.02284	-.00262
#4	-.08052	2.1956	.01981	2.3502	-.04734	-.03447	.00254
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	.05556
SDev	.00117
%RSD	2.1035
#1	.05541
#2	.05399
#3	.05668
#4	.05616
Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: CCV2-1 0014-087-7 Operator: MTW
Run Time: 05/19/00 09:30:30
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.97794	48.665	4.9967	4.8486	4.7640	4.8426	50.197
SDev	.00419	.392	.0537	.0422	.0445	.0419	.182
%RSD	.42847	.80609	1.0752	.87074	.93447	.86464	.36162
#1	.98159	49.095	5.0666	4.9004	4.8132	4.8945	50.380
#2	.98147	48.890	4.9774	4.8569	4.7887	4.8557	50.323
#3	.97515	48.413	4.9388	4.7988	4.7365	4.8217	50.020
#4	.97357	48.261	5.0039	4.8381	4.7175	4.7983	50.063
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	55.000	5.5000	5.5000	5.5000	5.5000	55.000
Low	.90000	45.000	4.5000	4.5000	4.5000	4.5000	45.000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.9809	4.8666	4.8566	4.7790	50.563	48.083	4.7086
SDev	.0106	.0225	.0231	.0466	.299	1.107	.0646
%RSD	.21265	.46230	.47640	.97552	.59121	2.3020	1.3720
#1	4.9823	4.8872	4.8851	4.8317	50.902	48.949	4.7720
#2	4.9881	4.8843	4.8657	4.8030	50.718	49.072	4.7561
#3	4.9655	4.8526	4.8395	4.7513	50.376	46.817	4.6597
#4	4.9876	4.8424	4.8361	4.7300	50.256	47.495	4.6465
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	55.000	55.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	45.000	45.000	4.5000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	48.845	4.8577	4.8554	47.680	4.8395	4.8897	4.8539
SDev	.421	.0262	.0131	.653	.0393	.0323	.0292
%RSD	.86235	.54003	.26988	1.3695	.81147	.66101	.60091
#1	49.302	4.8864	4.8642	48.332	4.8975	4.8996	4.8885
#2	49.090	4.8730	4.8691	48.151	4.8211	4.8920	4.8668
#3	48.587	4.8398	4.8442	47.149	4.8279	4.8451	4.8356
#4	48.402	4.8315	4.8442	47.089	4.8115	4.9220	4.8247
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55.000	5.5000	5.5000	55.000	5.5000	5.5000	5.5000
Low	45.000	4.5000	4.5000	45.000	4.5000	4.5000	4.5000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.0441	4.8677	4.8904	4.7900	4.8101	9.5297	4.8671
SDev	.0824	.0107	.0431	.0444	.0342	.1780	.0297
%RSD	1.6331	.21986	.88231	.92672	.71008	1.8677	.61098
#1	4.9607	4.8831	4.9070	4.8398	4.8485	9.7692	4.8998
#2	5.0317	4.8649	4.8987	4.8130	4.8284	9.5395	4.8844

#3	5.1578	4.8584	4.8283	4.7643	4.7881	9.4624	4.8452
#4	5.0260	4.8643	4.9276	4.7427	4.7753	9.3479	4.8388
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	4.8772
SDev	.0165
%RSD	.33817
#1	4.8866
#2	4.8872
#3	4.8824
#4	4.8527
Errors	LC Pass
High	5.5000
Low	4.5000

Analysis Report 05/19/00 09:36:43 AM

Method: QUANMET Sample Name: CCB1 Operator: MTW
Run Time: 05/19/00 09:33:38
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00076	.01173	.03267	-.00792	.00082	.00053	.01346
SDev	.00195	.00526	.05330	.00674	.00044	.00042	.01035
%RSD	256.99	44.834	163.15	85.160	53.053	79.847	76.875
#1	.00302	.01043	-.02191	-.00998	.00072	.00018	.00758
#2	.00153	.01951	.09713	-.00999	.00042	.00017	.00270
#3	-.00152	.00851	.05360	-.01357	.00072	.00075	.01773
#4	.00002	.00849	.00185	.00187	.00144	.00102	.02581
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	.00066	-.00181	.00000	.00046	.00720	-.10006	-.00096
SDev	.00348	.00183	.00257	.00088	.00210	.18172	.00074
%RSD	526.38	100.96	52681.	192.03	29.137	181.61	76.920
#1	-.00010	-.00145	.00200	.00069	.00632	-.02042	-.00101
#2	-.00371	.00001	-.00370	-.00023	.00492	-.23280	-.00117
#3	.00454	-.00436	.00143	-.00023	.00773	-.26547	.00005
#4	.00191	-.00146	.00029	.00162	.00984	.11844	-.00171
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	.00069	.00027	.01739	.02696	-.00301	-.02125	-.00009
SDev	.00597	.00060	.00248	.00906	.00321	.00386	.02015
%RSD	864.10	224.31	14.285	33.589	106.48	18.160	22101.
#1	-.00207	.00078	.01366	.02176	-.00211	-.02317	-.00535
#2	.00069	-.00025	.01863	.02006	-.00468	-.01546	-.02640
#3	.00898	-.00025	.01863	.02600	.00104	-.02322	.01573
#4	-.00484	.00078	.01863	.04001	-.00631	-.02314	.01565
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	-.01490	-.01501	-.01966	.00061	.00078	.01731	.00034
SDev	.03125	.00004	.01003	.00062	.00066	.07472	.00300
%RSD	209.76	.25508	51.014	102.64	84.132	431.71	893.43
#1	.00301	-.01505	-.02175	.00007	-.00017	.04629	-.00231
#2	.00698	-.01498	-.02392	.00007	.00087	-.01165	.00293

#3	-.06066	-.01505	-.02786	.00115	.00121	-.06951	-.00222
#4	-.00892	-.01498	-.00510	.00115	.00121	.10411	.00294
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	-.00017
SDev	.00053
%RSD	312.08
#1	-.00064
#2	-.00060
#3	.00038
#4	.00018
Errors	LC Pass
High	.02000
Low	-.02000

Analysis Report 05/19/00 09:39:51 AM

Method: QUANMET Sample Name: DD6A6T Operator: MTW
Run Time: 05/19/00 09:36:46
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00266	.03297	.19638	-.00008	1.2934	.00010	H837.50
SDev	.00144	.00969	.02943	.01890	.0228	.00008	7.82
%RSD	54.130	29.381	14.989	23901.	1.7647	75.927	.93428
#1	-.00155	.03259	.24016	-.01568	1.2660	.00004	H828.14
#2	-.00152	.03250	.18444	.01732	1.2848	.00017	H833.96
#3	-.00304	.04523	.17638	-.01716	1.3182	.00003	H843.72
#4	-.00455	.02154	.18453	.01521	1.3046	.00017	H844.20
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00189	-.00021	-.00484	.00808	.01369	1.5132	-.00079
SDev	.00108	.00322	.00242	.00377	.00120	.3503	.00191
%RSD	57.202	1528.9	49.917	46.631	8.7795	23.153	241.92
#1	.00289	.00089	-.00256	.00439	.01527	1.5234	.00207
#2	.00217	.00233	-.00427	.00531	.01246	1.5234	-.00163
#3	.00035	-.00493	-.00826	.01085	.01316	1.0741	-.00171
#4	.00217	.00087	-.00428	.01177	.01387	1.9318	-.00189
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	13.029	.13041	.00124	S843.06	-.00140	-.01348	.02908
SDev	.185	.00133	.00287	1686.4	.00409	.03414	.01006
%RSD	1.4225	1.0227	230.55	200.03	293.18	253.35	34.612
#1	12.782	.12886	-.00124	S-.11792	-.00323	.00776	.03695
#2	13.020	.12990	.00373	S-.11792	.00362	-.03844	.03700
#3	13.224	.13196	.00373	S-.11792	-.00587	-.04637	.02640
#4	13.091	.13093	-.00124	S3372.6	-.00010	.02315	.01596
Errors	LC Pass	LC Pass	LC Pass	LC High	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00194	3.0981	.00343	2.2265	L-.05263	.04690	.00130
SDev	.03429	.0492	.00778	.0389	.00077	.06820	.00261
%RSD	1767.9	1.5867	226.68	1.7486	1.4612	145.40	200.03
#1	.02692	3.0545	.00347	2.1794	L-.05150	.07006	-.00261
#2	.02691	3.0606	.01175	2.2116	L-.05289	.04688	.00264

#3	-.04074	3.1567	.00549	2.2671	L-.05323	.11643	.00263
#4	-.02084	3.1206	-.00697	2.2478	L-.05289	-.04575	.00255
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	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	.04895
SDev	.00121
%RSD	2.4764
#1	.04862
#2	.04838
#3	.04807
#4	.05074
Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DD6A7T Operator: MTW
Run Time: 05/19/00 09:39:58
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00077	.03662	.15265	.04098	1.2356	.00007	H779.96
SDev	.00261	.00829	.03094	.00180	.0069	.00007	3.29
%RSD	338.25	22.647	20.268	4.3867	.55987	94.038	.42131
#1	-.00303	.02697	.13680	.04188	1.2445	.00017	H782.66
#2	.00149	.04354	.17648	.04188	1.2341	.00004	H781.55
#3	-.00303	.03244	.11688	.04188	1.2362	.00003	H780.40
#4	.00149	.04354	.18046	.03828	1.2277	.00004	H775.23
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00078	-.00308	-.00556	.00508	.01792	1.3560	-.00104
SDev	.00298	.00073	.00164	.00116	.00120	.1450	.00057
%RSD	381.52	23.727	29.439	22.897	6.7048	10.692	55.264
#1	.00041	-.00345	-.00371	.00346	.01669	1.2212	-.00083
#2	.00278	-.00345	-.00541	.00531	.01950	1.3600	-.00135
#3	-.00393	-.00198	-.00541	.00623	.01739	1.5561	-.00034
#4	-.00237	-.00343	-.00769	.00531	.01810	1.2865	-.00163
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	12.426	.08961	.00000	S3374.0	.00874	.00759	.00020
SDev	.050	.00084	.00248	.2	.00823	.02086	.01049
%RSD	.40312	.94134	92681.	.00533	94.133	274.67	5323.2
#1	12.467	.08961	-.00124	S3374.0	.01730	.03841	-.00503
#2	12.431	.09065	-.00124	S3373.8	.01380	-.00013	-.00498
#3	12.450	.08961	.00373	S3374.2	.00431	-.00009	-.00513
#4	12.354	.08858	-.00124	S3373.8	-.00046	-.00781	.01593
Errors	LC Pass	LC Pass	LC Pass	LC High	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.03575	2.6100	-.00085	1.9074	-.04847	.00324	-.00001
SDev	.02352	.0351	.01502	.0105	.00059	.04669	.00301
%RSD	65.784	1.3434	1757.3	.55133	1.2221	1441.6	27485.
#1	-.03277	2.6341	.01360	1.9211	-.04873	-.02282	.00255
#2	-.01286	2.5799	-.02157	1.9055	-.04769	.05825	-.00261

#3	-.06859	2.6461	.00533	1.9076	-.04907	-.04600	.00264
#4	-.02879	2.5799	-.00078	1.8955	-.04838	.02352	-.00262
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	.03088
SDev	.00061
%RSD	1.9872
#1	.03107
#2	.03026
#3	.03055
#4	.03165
Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: CCV2-2 Operator: MTW
Run Time: 05/19/00 09:43:11
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.98469	48.905	5.0211	4.8656	4.8021	4.8903	50.775
SDev	.01026	.826	.0477	.0841	.0932	.0818	.441
%RSD	1.0420	1.6883	.94924	1.7283	1.9410	1.6736	.86936
#1	.98951	49.280	5.0596	4.8905	4.8448	4.9391	51.065
#2	.99410	49.538	5.0651	4.9159	4.8709	4.9425	51.128
#3	.97041	47.695	4.9775	4.7407	4.6648	4.7695	50.163
#4	.98475	49.106	4.9824	4.9152	4.8278	4.9103	50.744
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	55.000	5.5000	5.5000	5.5000	5.5000	55.000
Low	.90000	45.000	4.5000	4.5000	4.5000	4.5000	45.000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.0231	4.9183	4.9023	4.8040	51.039	48.179	4.6879
SDev	.0385	.0557	.0504	.0912	.663	1.290	.1285
%RSD	.76579	1.1317	1.0288	1.8978	1.2989	2.6771	2.7407
#1	5.0403	4.9507	4.9375	4.8475	51.411	48.557	4.7038
#2	5.0484	4.9608	4.9323	4.8678	51.521	49.382	4.8071
#3	4.9658	4.8382	4.8287	4.6690	50.072	46.352	4.5065
#4	5.0380	4.9233	4.9107	4.8317	51.150	48.427	4.7343
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	55.000	55.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	45.000	45.000	4.5000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	49.093	4.9097	4.9027	47.688	4.8828	4.9411	4.9117
SDev	.805	.0587	.0579	1.178	.0544	.0773	.0760
%RSD	1.6392	1.1954	1.1817	2.4708	1.1136	1.5650	1.5466
#1	49.521	4.9476	4.9189	47.723	4.9290	5.0245	4.8884
#2	49.617	4.9538	4.9537	48.795	4.9208	4.9554	4.9722
#3	47.899	4.8263	4.8194	46.048	4.8112	4.8374	4.8144
#4	49.336	4.9113	4.9189	48.188	4.8702	4.9469	4.9721
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55.000	5.5000	5.5000	55.000	5.5000	5.5000	5.5000
Low	45.000	4.5000	4.5000	45.000	4.5000	4.5000	4.5000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.0975	4.8982	4.9620	4.8247	4.8475	9.7618	4.9100
SDev	.1207	.0616	.0652	.0893	.0735	.1742	.0621
%RSD	2.3674	1.2574	1.3140	1.8504	1.5170	1.7844	1.2652
#1	5.1178	4.8777	4.9277	4.8657	4.8870	9.7634	4.9487
#2	5.1620	4.9619	5.0501	4.8916	4.9012	9.9591	4.9545

#3	4.9219	4.8220	4.9007	4.6935	4.7399	9.5352	4.8202
#4	5.1885	4.9314	4.9695	4.8478	4.8620	9.7895	4.9164
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	4.9054
SDev	.0394
%RSD	.80375
#1	4.9294
#2	4.9356
#3	4.8491
#4	4.9075
Errors	LC Pass
High	5.5000
Low	4.5000

Method: QUANMET Sample Name: CCB2 Operator: MTW
Run Time: 05/19/00 09:46:20
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00188	.01460	.02176	.01032	.00059	.00050	.01390
SDev	.00227	.01008	.04648	.00992	.00026	.00029	.01287
%RSD	120.71	69.047	213.54	96.076	43.590	58.163	92.560
#1	-.00152	.00133	.05367	.00397	.00020	.00018	.00011
#2	.00302	.01226	-.02193	.01879	.00072	.00047	.00819
#3	.00302	.02151	.06939	.01878	.00072	.00047	.01718
#4	.00302	.02328	-.01408	-.00024	.00072	.00089	.03013
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	.00261	.00144	-.00242	.00023	.00632	.10415	-.00080
SDev	.00343	.00205	.00126	.00119	.00385	.32065	.00037
%RSD	131.34	142.10	52.305	513.00	60.866	307.88	46.553
#1	-.00228	.00001	-.00313	-.00115	.00211	-.33082	-.00119
#2	.00353	.00144	-.00199	-.00023	.00703	.25731	-.00075
#3	.00346	.00434	-.00370	.00162	.00492	.41251	-.00093
#4	H.00572	-.00002	-.00085	.00069	.01124	.07760	-.00031
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	.00138	.00026	.01366	.02611	-.00984	-.00381	.00775
SDev	.00727	.00060	.00406	.01501	.00248	.01939	.00999
%RSD	525.99	225.82	29.691	57.494	25.198	508.35	128.86
#1	-.00207	-.00025	.00869	.01879	-.00831	-.02313	-.00531
#2	-.00484	-.00025	.01863	.01666	-.01216	-.00766	.01552
#3	.00069	.00078	.01366	.02048	-.01173	-.00760	.00519
#4	.01174	.00078	.01366	.04850	-.00716	.02312	.01562
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	-.02386	-.01054	-.00255	.00034	.00069	.02889	-.00232
SDev	.03072	.00300	.03307	.00038	.00060	.04867	.00008
%RSD	128.77	28.483	1296.3	113.14	86.603	168.45	3.4202
#1	-.03680	-.00904	-.02796	.00007	.00017	.01157	-.00242
#2	.01893	-.01505	.03628	.00034	.00052	-.02323	-.00222

#3	-.02486	-.00904	-.03205	.00007	.00052	.09257	-.00232
#4	-.05269	-.00904	.01352	.00088	.00156	.03464	-.00232
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	.00077
SDev	.00112
%RSD	145.47
#1	-.00037
#2	.00043
#3	.00073
#4	.00231
Errors	LC Pass
High	.02000
Low	-.02000

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Method: QUANMET Sample Name: DDDFQBF Operator: MTW
Run Time: 05/19/00 09:49:27
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00112	.00413	-.00198	-.00153	.00026	-.00006	.09511
SDev	.00076	.00528	.02404	.01623	.00034	.00007	.00046
%RSD	67.361	127.75	1212.6	1063.8	131.84	110.42	.48617
#1	.00150	.00321	.02981	-.00025	.00072	-.00010	.09563
#2	-.00001	.01052	.00194	-.00385	.00020	-.00010	.09507
#3	.00150	-.00227	-.02577	-.02078	-.00010	.00004	.09523
#4	.00150	.00506	-.01391	.01878	.00020	-.00010	.09451
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	-.00055	-.00036	-.00285	-.00023	.00386	-.12865	-.00135
SDev	.00291	.00139	.00151	.00075	.00146	.12031	.00156
%RSD	527.31	384.18	52.934	326.85	37.869	93.512	115.58
#1	.00067	-.00000	-.00370	.00069	.00562	.01225	-.00145
#2	.00191	-.00145	-.00427	-.00023	.00421	-.28181	-.00259
#3	-.00004	.00145	-.00256	-.00023	.00351	-.12661	.00088
#4	-.00475	-.00144	-.00085	-.00116	.00211	-.11844	-.00225
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	-.00760	-.00026	.00248	.01337	-.00833	-.01157	.00522
SDev	.00813	.00000	.00248	.00400	.00483	.03182	.02591
%RSD	107.05	.46618	99.984	29.935	57.961	275.12	496.36
#1	-.00760	-.00026	.00373	.01497	-.00902	-.01541	.00525
#2	-.01589	-.00026	.00373	.01199	-.01346	-.04632	-.02651
#3	.00345	-.00026	.00373	.01794	-.00902	.03087	.00518
#4	-.01036	-.00026	-.00124	.00860	-.00180	-.01541	.03697
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	-.01491	-.01205	-.01342	.00007	-.00017	.02024	-.00254
SDev	.01360	.00347	.03053	.00000	.00028	.02738	.00005
%RSD	91.199	28.793	227.47	.00000	163.30	135.22	1.7895
#1	.00301	-.00904	-.02791	.00007	.00017	.02312	-.00251
#2	-.01292	-.00904	.01953	.00007	-.00017	-.00002	-.00251

#3	-.02884	-.01505	.00313	.00007	-.00052	-.00003	-.00251
#4	-.02089	-.01505	-.04845	.00007	-.00017	.05791	-.00260
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	.00590
SDev	.00153
%RSD	25.880
#1	.00611
#2	.00368
#3	.00691
#4	.00689
Errors	LC Pass
High	.02000
Low	-.02000

Method: QUANMET Sample Name: DDDFQCF Operator: MTW
Run Time: 05/19/00 09:52:36
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L-.00038	L.00598	L.00888	-.02077	L.00036	L-.00007	50.021
SDev	.00077	.00486	.03303	.00001	.00011	.00008	.115
%RSD	203.15	81.258	371.84	.03214	29.167	107.25	.23067
#1	L-.00153	L.00884	L-.02586	-.02078	L.00042	L.00004	49.902
#2	L.00002	L.00495	L.00189	-.02077	L.00042	L-.00011	49.944
#3	L-.00001	L-.00041	L.05368	-.02077	L.00020	L-.00010	50.132
#4	L.00001	L.01054	L.00582	-.02077	L.00042	L-.00011	50.107
Errors	LC Low	LC Low	LC Low	NOCHECK	LC Low	LC Low	LC Pass
High	.06000	2.4000	2.4000		2.4000	.06000	60.000
Low	.04000	1.6000	1.6000		1.6000	.04000	40.000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L-.00091	L-.00072	L-.00171	L-.00023	L.00702	46.770	-.00084
SDev	.00357	.00250	.00136	.00075	.00099	.457	.00038
%RSD	392.71	348.16	79.269	326.23	14.168	.97662	45.316
#1	L.00399	L.00289	L-.00085	L-.00023	L.00561	47.356	-.00057
#2	L-.00171	L-.00144	L-.00370	L-.00115	L.00772	46.630	-.00083
#3	L-.00457	L-.00288	L-.00142	L.00069	L.00701	46.834	-.00137
#4	L-.00135	L-.00144	L-.00086	L-.00023	L.00772	46.262	-.00057
Errors	LC Low	LC Low	LC Low	LC Low	LC Low	LC Pass	NOCHECK
High	.06000	.60000	.24000	.30000	1.2000	60.000	
Low	.04000	.40000	.16000	.20000	.80000	40.000	

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	48.837	L-.00026	-.00372	46.816	L-.00635	L.03081	L.00526
SDev	.067	.00000	.00497	.160	.01028	.01991	.01491
%RSD	.13676	.70206	133.37	.34261	162.01	64.632	283.35
#1	48.822	L-.00026	-.00621	47.042	L.00117	L.03860	L-.00526
#2	48.802	L-.00025	.00373	46.808	L-.00853	L.02306	L-.00524
#3	48.788	L-.00026	-.00621	46.675	L.00197	L.05390	L.02637
#4	48.935	L-.00026	-.00621	46.737	L-.02001	L.00767	L.00517
Errors	LC Pass	LC Low	NOCHECK	LC Pass	LC Low	LC Low	LC Low
High	60.000	.60000		60.000	.60000	.60000	.60000
Low	40.000	.40000		40.000	.40000	.40000	.40000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L.00301	.01351	-.00617	.00185	-.00251	L.03467	L-.00008
SDev	.03747	.00579	.02633	.00018	.00033	.02502	.00303
%RSD	1244.7	42.811	426.56	9.9329	13.206	72.165	4024.7
#1	L.03882	.00898	.02171	.00201	-.00260	L-.00006	L-.00270
#2	L-.03678	.01505	-.03829	.00201	-.00225	L.03465	L.00264

#3	L.03087	.00898	.00738	.00169	-.00295	L.05787	L-.00270
#4	L-.02087	.02106	-.01548	.00169	-.00225	L.04623	L.00246

Errors	LC Low	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Low	LC Low
High	2.4000					2.4000	.60000
Low	1.6000					1.6000	.40000

Elem	ZN
Units	ppm
Avge	L.00355
SDev	.00157
%RSD	44.163

#1	L.00529
#2	L.00369
#3	L.00148
#4	L.00372

Errors	LC Low
High	.60000
Low	.40000

Method: QUANMET Sample Name: DC7M7F Operator: MTW
Run Time: 05/19/00 09:55:48
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00056	.18227	-.00482	.04343	.09306	.00022	20.800
SDev	.00124	.00239	.02458	.00073	.00034	.00007	.104
%RSD	219.56	1.3111	509.51	1.6874	.36438	32.268	.49809
#1	-.00056	.18129	.02798	.04453	.09301	.00018	20.690
#2	-.00057	.18323	.00012	.04307	.09301	.00018	20.925
#3	.00095	.17952	-.02366	.04303	.09271	.00033	20.747
#4	-.00208	.18504	-.02374	.04308	.09352	.00018	20.841
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	.00008	.02313	-.00199	.00029	3.3017	.14499	.00703
SDev	.00304	.00204	.00081	.00116	.0120	.04686	.00217
%RSD	3929.8	8.8357	40.413	406.55	.36495	32.323	30.863
#1	-.00137	.02024	-.00313	.00190	3.2924	.10211	.00516
#2	.00312	.02457	-.00142	-.00087	3.3106	.20830	.00516
#3	.00204	.02458	-.00199	.00005	3.2902	.11844	.00868
#4	-.00347	.02314	-.00142	.00006	3.3134	.15112	.00912
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	14.890	6.6480	.00174	24.905	.02060	.00365	.00292
SDev	.065	.0262	.00287	.216	.00752	.02630	.01010
%RSD	.43385	.39360	165.14	.86590	36.515	720.60	345.92
#1	14.840	6.6250	.00422	24.924	.02729	-.00028	.00561
#2	14.879	6.6746	-.00075	24.807	.02286	.03065	-.00497
#3	14.857	6.6261	.00422	24.693	.02244	-.03097	.01608
#4	14.984	6.6664	-.00075	25.196	.00981	.01520	-.00504
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00982	11.725	-.00609	.09330	.00173	-.01996	-.00255
SDev	.05846	.063	.01075	.00027	.00020	.05978	.00005
%RSD	595.34	.53649	176.53	.28952	11.547	299.46	2.1218
#1	.00308	11.716	-.01073	.09343	.00156	.04951	-.00250
#2	.06284	11.747	.00370	.09343	.00191	-.08939	-.00260

#3	-.07652	11.644	.00173	.09289	.00191	.00318	-.00250
#4	-.02868	11.795	-.01905	.09343	.00156	-.04314	-.00260
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	.01685
SDev	.00168
%RSD	9.9830
#1	.01779
#2	.01615
#3	.01861
#4	.01484
Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DC7MAF Operator: MTW
Run Time: 05/19/00 09:58:56
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00177	.01746	-.00779	.01255	2.7981	.00011	181.90
SDev	.00245	.01169	.02467	.00129	.0122	.00008	.42
%RSD	138.04	66.921	316.64	10.302	.43661	75.712	.22968
#1	-.00177	.00322	-.04439	.01320	2.7906	.00003	181.68
#2	-.00180	.02154	-.00074	.01315	2.7954	.00018	181.51
#3	-.00476	.01422	.00689	.01061	2.8162	.00017	182.46
#4	.00124	.03087	.00707	.01323	2.7904	.00004	181.96
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	-.00012	.00549	-.00328	.00143	32.289	2.5465	.01397
SDev	.00246	.00247	.00157	.00001	.101	.1463	.00203
%RSD	2006.8	45.092	47.887	.62676	.31249	5.7463	14.568
#1	.00182	.00440	-.00256	.00143	32.241	2.6425	.01220
#2	-.00055	.00295	-.00484	.00143	32.213	2.4056	.01220
#3	-.00344	.00585	-.00427	.00145	32.437	2.4383	.01573
#4	.00167	.00874	-.00142	.00143	32.264	2.6997	.01573
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	36.139	9.4895	.00359	43.943	-.00095	.00253	.01851
SDev	.150	.0256	.00405	.236	.00581	.02546	.03032
%RSD	.41376	.27003	112.99	.53605	608.37	1005.9	163.83
#1	36.038	9.4781	.00358	43.791	-.00618	-.01488	-.02637
#2	36.065	9.4688	.00854	44.062	.00697	.03910	.03702
#3	36.361	9.5267	.00361	44.213	-.00038	-.01482	.02650
#4	36.093	9.4843	-.00138	43.706	-.00423	.00072	.03689
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	.01257	19.171	-.01546	.54233	-.01058	.02398	-.00026
SDev	.02729	.055	.02439	.00195	.00049	.06761	.00266
%RSD	217.11	.28595	157.75	.36010	4.6368	281.94	1024.5
#1	.03727	19.105	.00708	.54161	-.01058	-.04797	.00135
#2	.02523	19.159	-.02988	.54199	-.01023	-.00137	-.00242

#3	-.02569	19.183	-.04229	.54512	-.01127	.11238	.00264
#4	.01348	19.237	.00324	.54059	-.01023	.03288	-.00261
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	.01863
SDev	.00150
%RSD	8.0691
#1	.01644
#2	.01987
#3	.01910
#4	.01911
Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DC7MAFP5 Operator: MTW
Run Time: 05/19/00 10:02:03
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00008	.00462	-.00499	-.00498	.57709	.00001	37.613
SDev	.00190	.00526	.01537	.00075	.00257	.00007	.076
%RSD	2421.4	113.83	308.00	15.033	.44495	1040.5	.20219
#1	-.00030	.00140	-.00696	-.00535	.57722	.00004	37.538
#2	-.00181	.00147	-.01094	-.00532	.57979	.00004	37.587
#3	-.00030	.00319	-.01889	-.00386	.57774	.00004	37.718
#4	.00272	.01240	.01683	-.00539	.57362	-.00010	37.611
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	.00110	.00080	-.00413	.00055	6.8272	.45539	.00303
SDev	.00185	.00138	.00118	.00088	.0152	.13544	.00156
%RSD	168.52	173.56	28.465	161.50	.22279	29.741	51.524
#1	.00361	.00260	-.00484	.00124	6.8312	.56771	.00472
#2	.00097	.00116	-.00541	-.00061	6.8404	.45335	.00264
#3	-.00084	-.00029	-.00313	.00032	6.8319	.26547	.00106
#4	.00065	-.00029	-.00313	.00124	6.8052	.53503	.00371
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	7.4440	2.0007	.00102	8.9498	-.00183	-.03233	.01314
SDev	.0232	.0023	.00475	.0403	.00949	.01257	.01005
%RSD	.31201	.11464	465.79	.45066	518.15	38.883	76.442
#1	7.4191	1.9994	.00475	8.9266	.00097	-.03226	.02632
#2	7.4578	2.0015	-.00519	9.0035	.00896	-.04774	.00540
#3	7.4689	2.0036	.00475	8.9568	-.01380	-.03235	.01564
#4	7.4302	1.9984	-.00022	8.9122	-.00346	-.01695	.00520
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	.00406	4.0021	.01689	.11193	-.00277	-.03895	-.00257
SDev	.02659	.0179	.00656	.00049	.00020	.07104	.00009
%RSD	654.20	.44820	38.822	.43836	7.2169	182.39	3.6226
#1	.02000	3.9796	.02109	.11224	-.00295	-.03612	-.00250
#2	.01605	4.0096	.00858	.11224	-.00295	-.12883	-.00269

#3	-.03572	4.0216	.01483	.11202	-.00260	.04498	-.00249
#4	.01592	3.9976	.02305	.11121	-.00260	-.03583	-.00259
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	.00487
SDev	.00110
%RSD	22.564
#1	.00407
#2	.00642
#3	.00412
#4	.00488
Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DC7MASF Operator: MTW
Run Time: 05/19/00 10:05:11
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00074	.01243	-.00602	.01190	2.7628	.00015	229.38
SDev	.00190	.00155	.01635	.00967	.0065	.00007	.13
%RSD	255.35	12.461	271.62	81.241	.23489	47.756	.05710
#1	-.00038	.01246	-.00795	.02637	2.7588	.00018	229.33
#2	-.00036	.01246	.01579	.00662	2.7671	.00004	229.28
#3	-.00339	.01429	-.00804	.00659	2.7693	.00018	229.57
#4	.00115	.01050	-.02387	.00803	2.7558	.00018	229.35
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	-.00155	.00370	-.00399	.00139	31.758	49.370	.01386
SDev	.00232	.00278	.00235	.00001	.033	.508	.00024
%RSD	150.35	75.003	58.914	.33504	.10303	1.0289	1.7199
#1	-.00049	.00297	-.00370	.00139	31.717	48.941	.01371
#2	-.00034	.00587	-.00142	.00139	31.792	49.693	.01397
#3	L-.00503	.00588	-.00370	.00139	31.775	49.913	.01415
#4	-.00032	.00008	-.00712	.00139	31.749	48.933	.01363
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	84.191	9.3375	.00351	90.461	-.00403	.00259	.00534
SDev	.163	.0061	.00406	.640	.01050	.02912	.00012
%RSD	.19305	.06522	115.69	.70767	260.57	1125.9	2.3308
#1	83.983	9.3334	-.00147	90.123	-.00959	.02377	.00529
#2	84.306	9.3417	.00351	90.946	-.01266	.03154	.00522
#3	84.334	9.3437	.00351	91.046	.01095	-.02240	.00551
#4	84.143	9.3313	.00847	89.727	-.00481	-.02256	.00532
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	.08426	19.132	-.02958	.53626	-.01275	.00547	-.00252
SDev	.01314	.056	.01211	.00089	.00017	.11379	.00008
%RSD	15.592	.29509	40.923	.16540	1.3605	2080.3	3.0071
#1	.07515	19.075	-.01977	.53578	-.01266	.15352	-.00261
#2	.07543	19.189	-.01975	.53659	-.01301	-.04409	-.00251

#3	.08332	19.171	-.04458	.53735	-.01266	.02558	-.00252
#4	.10313	19.093	-.03424	.53535	-.01266	-.11313	-.00243
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	.01442
SDev	.00131
%RSD	9.0715
#1	.01268
#2	.01459
#3	.01586
#4	.01457
Errors	LC Pass
High	100.00
Low	-.02000

Analysis Report 05/19/00 10:11:23 AM

Method: QUANMET Sample Name: DC7MADF Operator: MTW
Run Time: 05/19/00 10:08:18
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00152	.00789	-.04162	.00566	2.7513	.00011	229.41
SDev	.00074	.00441	.02441	.00430	.0083	.00008	.93
%RSD	48.815	55.865	58.650	76.073	.30349	71.275	.40566
#1	-.00189	.00515	-.05155	-.00079	2.7478	.00004	229.82
#2	-.00041	.00511	-.01958	.00763	2.7563	.00004	228.01
#3	-.00190	.01438	-.07144	.00782	2.7414	.00018	229.85
#4	-.00186	.00694	-.02391	.00799	2.7599	.00017	229.95
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	.00442	-.00313	.00138	31.649	50.030	.01375
SDev	.00263	.00264	.00147	.00001	.081	.677	.00038
%RSD	212.51	59.650	46.938	.62106	.25638	1.3530	2.7406
#1	.00459	.00731	-.00256	.00139	31.679	49.864	.01345
#2	-.00131	.00153	-.00484	.00137	31.540	50.191	.01363
#3	-.00032	.00298	-.00371	.00138	31.643	49.219	.01363
#4	.00199	.00587	-.00143	.00139	31.733	50.844	.01430
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	84.240	9.3057	-.00272	91.360	.00064	.02383	.00535
SDev	.191	.0235	.00625	1.210	.01355	.03565	.00008
%RSD	.22674	.25213	230.02	1.3247	2102.8	149.62	1.5080
#1	84.162	9.3137	.00350	90.719	.01894	.05472	.00546
#2	84.375	9.2724	-.00149	92.262	-.00139	-.00705	.00535
#3	84.007	9.3096	-.01141	89.979	-.01380	-.00704	.00526
#4	84.416	9.3272	-.00146	92.483	-.00117	.05467	.00534
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	.00028	19.147	-.00064	.53445	-.01318	.07878	-.00135
SDev	.04209	.078	.00947	.00135	.00020	.05999	.00260
%RSD	14853.	.40912	1484.2	.25215	1.5193	76.150	192.86
#1	-.03244	19.231	.01126	.53447	-.01301	.16535	-.00252
#2	.05859	19.069	-.01152	.53481	-.01335	.06238	-.00262

#3	-.02859	19.093	.00091	.53264	-.01301	.02678	-.00281
#4	.00358	19.195	-.00321	.53589	-.01335	.06063	.00255
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	.01347
SDev	.00199
%RSD	14.786
#1	.01204
#2	.01616
#3	.01381
#4	.01189
Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DC7MCF Operator: MTW
Run Time: 05/19/00 10:11:26
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00023	.01069	-.00804	.08469	.06016	.00001	91.355
SDev	.00227	.00790	.03065	.00201	.00045	.00007	.128
%RSD	1006.0	73.856	381.07	2.3680	.74203	1041.2	.13996
#1	.00166	-.00030	-.02680	.08413	.05957	-.00010	91.257
#2	-.00287	.01434	.02865	.08209	.06060	.00004	91.463
#3	-.00136	.01076	.00489	.08626	.06009	.00004	91.232
#4	.00167	.01796	-.03890	.08629	.06039	.00004	91.468
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	-.00030	.00904	-.00327	.00056	6.8439	.22872	.01540
SDev	.00228	.00139	.00108	.00088	.0177	.27096	.00214
%RSD	764.31	15.409	32.911	159.08	.25912	118.47	13.893
#1	.00118	.00867	-.00256	-.00060	6.8284	.28181	.01617
#2	-.00077	.01012	-.00484	.00033	6.8678	-.15928	.01661
#3	-.00333	.01013	-.00256	.00125	6.8326	.32265	.01661
#4	.00171	.00722	-.00313	.00125	6.8467	.46968	.01220
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	33.123	7.2890	.00102	27.168	.01511	-.00900	.00548
SDev	.090	.0081	.00476	.344	.00945	.01406	.00871
%RSD	.27235	.11069	464.88	1.2673	62.567	156.20	158.88
#1	33.045	7.2872	-.00022	26.788	.01352	-.01671	.00551
#2	33.253	7.3006	.00475	27.556	.02879	-.02438	.01616
#3	33.087	7.2820	-.00519	26.990	.00746	.00645	.00543
#4	33.106	7.2861	.00475	27.338	.01066	-.00136	-.00517
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	.02104	12.114	-.00848	.20530	-.00590	-.04413	-.00256
SDev	.02211	.036	.01748	.00055	.00020	.07657	.00009
%RSD	105.09	.30127	206.08	.26674	3.3962	173.50	3.5268
#1	.03591	12.083	-.02659	.20484	-.00572	-.02950	-.00259
#2	.00421	12.167	-.01825	.20592	-.00572	-.14564	-.00250

#3	.00010	12.107	-.00176	.20484	-.00607	.03989	-.00268
#4	.04393	12.101	.01268	.20561	-.00607	-.04127	-.00249
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	.02648
SDev	.00307
%RSD	11.586
#1	.02447
#2	.02687
#3	.03066
#4	.02392
Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DC7MDF Operator: MTW
Run Time: 05/19/00 10:14:34
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00010	.02236	.01867	-.01837	.68327	.00004	120.66
SDev	.00145	.00382	.07317	.00242	.00270	.00016	.30
%RSD	1388.9	17.089	391.96	13.192	.39541	391.90	.24898
#1	.00124	.01778	.08129	-.01921	.68700	-.00010	120.30
#2	-.00179	.02144	.07331	-.02070	.68186	.00018	121.02
#3	.00124	.02697	-.00621	-.01858	.68340	-.00010	120.75
#4	-.00027	.02324	-.07372	-.01499	.68083	.00018	120.58
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	-.00227	-.00214	-.00470	.00093	.04581	1.5255	.01720
SDev	.00246	.00138	.00215	.00116	.00202	.3438	.00143
%RSD	108.41	64.706	45.803	125.73	4.4043	22.538	8.2881
#1	L-.00583	-.00322	-.00655	.00069	.04634	1.3192	.01648
#2	-.00116	-.00033	-.00256	.00254	.04704	1.8828	.01925
#3	-.00027	-.00178	-.00313	.00069	.04704	1.1558	.01604
#4	-.00181	-.00323	-.00655	-.00023	.04282	1.7440	.01705
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	21.275	1.3558	.01118	17.742	-.00316	-.01739	.02626
SDev	.057	.0021	.00287	.099	.00739	.00737	.01489
%RSD	.26762	.15709	25.643	.55528	233.68	42.414	56.710
#1	21.267	1.3540	.00870	17.862	-.01380	-.02321	.01566
#2	21.237	1.3571	.01367	17.734	-.00087	-.01538	.04732
#3	21.358	1.3581	.00870	17.751	-.00131	-.02316	.02629
#4	21.239	1.3540	.01367	17.621	.00332	-.00780	.01579
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	-.01277	10.413	.00740	.45117	-.00711	.05641	-.00237
SDev	.04396	.008	.00453	.00162	.00028	.05297	.00006
%RSD	344.33	.08158	61.245	.35922	3.9829	93.904	2.3568
#1	-.04858	10.419	.00735	.45360	-.00711	.06509	-.00242
#2	.05091	10.413	.01371	.45036	-.00746	.04192	-.00232

#3	-.03266	10.401	.00533	.45036	-.00676	-.00438	-.00242
#4	-.02074	10.419	.00321	.45036	-.00711	.12303	-.00233
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	.00688
SDev	.00190
%RSD	27.566
#1	.00557
#2	.00552
#3	.00957
#4	.00687
Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: CCV2-3 Operator: MTW
Run Time: 05/19/00 10:17:41
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.97412	48.027	4.9237	4.8116	4.6919	4.8330	50.803
SDev	.00150	.106	.0986	.0253	.0095	.0059	.118
%RSD	.15398	.22066	2.0019	.52572	.20255	.12294	.23234
#1	.97529	47.895	4.9346	4.7991	4.6812	4.8376	50.883
#2	.97217	48.113	4.7822	4.7989	4.6981	4.8340	50.628
#3	.97372	47.988	4.9738	4.7989	4.6868	4.8244	50.855
#4	.97531	48.112	5.0042	4.8495	4.7014	4.8359	50.847
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	55.000	5.5000	5.5000	5.5000	5.5000	55.000
Low	.90000	45.000	4.5000	4.5000	4.5000	4.5000	45.000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.0384	4.8916	4.8757	4.7017	50.538	46.664	4.5347
SDev	.0212	.0094	.0066	.0123	.067	.545	.0502
%RSD	.42116	.19297	.13509	.26060	.13285	1.1675	1.1077
#1	5.0436	4.9003	4.8811	4.6885	50.569	45.862	L4.4654
#2	5.0182	4.8960	4.8703	4.7134	50.468	47.038	4.5813
#3	5.0259	4.8916	4.8697	4.6941	50.498	46.964	4.5331
#4	5.0660	4.8785	4.8817	4.7107	50.616	46.793	4.5591
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	55.000	55.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	45.000	45.000	4.5000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	48.449	4.8608	4.8679	46.769	4.8576	4.9427	4.8538
SDev	.074	.0072	.0117	.439	.0189	.0420	.0233
%RSD	.15305	.14908	.24130	.93797	.38826	.84936	.48066
#1	48.360	4.8647	4.8691	46.150	4.8837	4.9546	4.8460
#2	48.487	4.8512	4.8592	47.146	4.8466	4.8850	4.8247
#3	48.421	4.8595	4.8592	46.785	4.8414	4.9852	4.8670
#4	48.529	4.8678	4.8840	46.996	4.8586	4.9462	4.8773
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55.000	5.5000	5.5000	55.000	5.5000	5.5000	5.5000
Low	45.000	4.5000	4.5000	45.000	4.5000	4.5000	4.5000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.9863	5.0087	4.9903	4.7356	4.7738	9.5994	4.8609
SDev	.0949	.0383	.0400	.0091	.0052	.1424	.0076
%RSD	1.9040	.76448	.80077	.19260	.10798	1.4835	.15640
#1	4.9038	4.9547	5.0333	4.7276	4.7715	9.5874	4.8664
#2	5.1223	5.0146	5.0083	4.7412	4.7715	9.4379	4.8520

#3	4.9473	5.0207	4.9402	4.7282	4.7708	9.7851	4.8572
#4	4.9716	5.0449	4.9796	4.7456	4.7816	9.5871	4.8680
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	4.8641
SDev	.0137
%RSD	.28137
#1	4.8629
#2	4.8628
#3	4.8487
#4	4.8820
Errors	LC Pass
High	5.5000
Low	4.5000

Method: QUANMET Sample Name: CCB3 Operator: MTW
Run Time: 05/19/00 10:20:49
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00151	.01181	-.00407	-.00369	.00088	.00050	.00722
SDev	.00001	.00759	.02805	.00832	.00043	.00032	.00329
%RSD	.86833	64.294	689.71	225.88	49.362	63.545	45.494
#1	.00150	.01414	-.02194	.00758	.00072	.00018	.00372
#2	.00153	.00667	-.01800	-.00999	.00042	.00031	.00646
#3	.00150	.00493	.03773	-.00996	.00144	.00089	.01164
#4	.00150	.02149	-.01406	-.00236	.00093	.00061	.00707
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	.00051	-.00000	-.00156	.00069	.00913	-.03880	-.00137
SDev	.00111	.00205	.00205	.00000	.00470	.19288	.00062
%RSD	218.10	82180.	131.09	.24037	51.410	497.12	45.111
#1	-.00010	-.00145	-.00256	.00069	.00632	.02042	-.00137
#2	.00216	.00289	.00143	.00070	.00492	.20830	-.00145
#3	.00016	-.00145	-.00313	.00069	.01546	-.18379	-.00057
#4	-.00018	-.00000	-.00199	.00069	.00984	-.20013	-.00207
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	-.00553	-.00025	.01366	.01804	-.00810	-.01928	-.00538
SDev	.00913	.00000	.00702	.00504	.00436	.00440	.00861
%RSD	165.20	.95849	51.419	27.931	53.860	22.795	159.91
#1	-.01036	-.00025	.00869	.02091	-.01053	-.01547	-.00544
#2	.00345	-.00025	.02359	.01539	-.00631	-.02304	.00515
#3	.00069	-.00025	.01366	.02346	-.01267	-.01548	-.01593
#4	-.01589	-.00025	.00869	.01242	-.00289	-.02314	-.00531
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	-.00494	.08108	-.01347	.00063	.00043	.02018	-.00103
SDev	.02003	.00003	.02055	.00052	.00044	.02193	.00271
%RSD	405.27	.04266	152.50	81.893	100.66	108.67	263.60
#1	-.02485	.08106	.01549	.00050	.00052	.03470	-.00242
#2	.02290	.08113	-.02997	-.00004	-.00017	.03464	.00304

#3	-.00890	.08106	-.02594	.00104	.00052	.02303	-.00232
#4	-.00892	.08106	-.01347	.00104	.00087	-.01167	-.00241
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	.00192
SDev	.00161
%RSD	84.005
#1	-.00038
#2	.00233
#3	.00232
#4	.00340
Errors	LC Pass
High	.02000
Low	-.02000

Method: QUANMET Sample Name: DDCAWB Operator: MTW
Run Time: 05/19/00 10:23:57
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00113	.00415	.01586	-.00151	.00013	-.00003	.02879
SDev	.00259	.00953	.02717	.01648	.00052	.00008	.00352
%RSD	228.57	229.39	171.28	1088.5	405.50	241.34	12.230
#1	-.00152	-.00958	-.00585	-.02077	-.00031	-.00010	.02510
#2	.00153	.00683	.01777	.00188	.00072	.00003	.03358
#3	-.00001	.00690	-.00201	-.00596	.00042	.00004	.02840
#4	.00453	.01247	.05355	.01879	-.00031	-.00010	.02809
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	.00076	-.00036	-.00128	.00023	.01018	.06331	-.00148
SDev	.00161	.00139	.00256	.00092	.00070	.30733	.00035
%RSD	212.58	381.57	199.88	398.90	6.8992	485.47	23.407
#1	.00295	-.00001	-.00142	-.00023	.00983	-.09394	-.00119
#2	.00039	-.00145	.00199	.00162	.01124	.50236	-.00189
#3	.00062	-.00145	-.00427	-.00023	.00983	.03676	-.00119
#4	-.00093	.00145	-.00143	-.00023	.00983	-.19196	-.00163
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	-.00345	-.00077	-.00248	.01507	-.00533	-.00772	-.00265
SDev	.01696	.00060	.00248	.00717	.00265	.01661	.02172
%RSD	490.99	77.120	100.06	47.548	49.687	214.97	819.51
#1	-.01589	-.00129	-.00124	.00520	-.00297	-.01545	-.02631
#2	.02003	-.00026	-.00124	.01751	-.00875	.01535	-.01589
#3	-.01589	-.00129	-.00124	.02218	-.00609	-.00773	.01574
#4	-.00207	-.00026	-.00621	.01539	-.00352	-.02307	.01585
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	-.02384	.07057	-.00518	.00008	-.00026	.00569	-.00102
SDev	.01820	.00902	.01562	.00011	.00044	.03600	.00245
%RSD	76.339	12.788	301.51	139.88	167.77	632.61	240.77
#1	-.03280	.05703	-.02184	-.00004	-.00087	-.00009	-.00260
#2	-.03677	.07512	.00096	.00007	-.00017	-.01170	.00256

#3	-.02882	.07505	.01352	.00023	-.00017	-.02324	-.00261
#4	.00302	.07507	-.01337	.00007	.00017	.05779	-.00141
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	.01176
SDev	.00193
%RSD	16.426
#1	.01069
#2	.01366
#3	.01308
#4	.00959
Errors	LC Pass
High	.02000
Low	-.02000

Method: QUANMET Sample Name: DDCAWC Operator: MTW
Run Time: 05/19/00 10:27:05
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04873	1.8843	1.9425	.92837	1.8926	.04861	L.04054
SDev	.00151	.0070	.0422	.01858	.0134	.00012	.00178
%RSD	3.1060	.37398	2.1738	2.0015	.70864	.23724	4.3828
#1	.04646	1.8816	1.8919	.90101	1.8941	.04861	L.04186
#2	.04949	1.8925	1.9752	.94207	1.8930	.04861	L.04186
#3	.04949	1.8870	1.9236	.93341	1.9079	.04875	L.04033
#4	.04949	1.8761	1.9793	.93698	1.8752	.04847	L.03810
Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass	LC Low
High	.06000	2.4000	2.4000		2.4000	.06000	60.000
Low	.04000	1.6000	1.6000		1.6000	.04000	40.000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04497	.48895	.19361	.23713	1.0432	L.22463	.92576
SDev	.00333	.00342	.00296	.00220	.0078	.05698	.01997
%RSD	7.4005	.70016	1.5267	.92800	.74381	25.368	2.1571
#1	.04075	.49150	.19574	.23944	1.0401	L.24914	.93731
#2	.04529	.48424	.18947	.23574	1.0394	L.27364	.91005
#3	.04495	.49147	.19347	.23851	1.0549	L.14295	.94793
#4	.04889	.48859	.19574	.23482	1.0387	L.23280	.90774
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	NOCHECK
High	.06000	.60000	.24000	.30000	1.2000	60.000	
Low	.04000	.40000	.16000	.20000	.80000	40.000	

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L-.02418	.48917	.97867	L.02102	.49083	.47144	.47163
SDev	.00983	.00155	.00625	.00212	.01238	.00762	.03132
%RSD	40.675	.31718	.63874	10.084	2.5220	1.6171	6.6417
#1	L-.01865	.48995	.97743	L.02133	.50206	.47536	.46396
#2	L-.03246	.48995	.97743	L.01921	.49243	.47515	.46375
#3	L-.03246	.48996	.98737	L.01964	.47326	.46001	.51617
#4	L-.01312	.48685	.97246	L.02388	.49556	.47525	.44266
Errors	LC Low	LC Pass	NOCHECK	LC Low	LC Pass	LC Pass	LC Pass
High	60.000	.60000		60.000	.60000	.60000	.60000
Low	40.000	.40000		40.000	.40000	.40000	.40000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.8783	9.3409	1.9640	.95687	.94513	1.9533	.48073
SDev	.0099	.0388	.0370	.00574	.00365	.0768	.00012
%RSD	.52958	.41512	1.8857	.59993	.38645	3.9318	.02488
#1	1.8812	9.3139	1.9096	.95727	.94383	2.0343	.48072
#2	1.8653	9.3319	1.9738	.95673	.94521	1.9649	.48070

#3	1.8773	9.3980	1.9802	.96376	.95007	1.9647	.48090
#4	1.8892	9.3199	1.9923	.94971	.94140	1.8491	.48062
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	.48566
SDev	.00319
%RSD	.65594
#1	.48486
#2	.48332
#3	.49034
#4	.48411
Errors	LC Pass
High	.60000
Low	.40000

Method: QUANMET Sample Name: DD9PJ Operator: MTW
Run Time: 05/19/00 10:30:18
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00113	.03068	.01065	.17232	.00489	-.00003	1.0576
SDev	.00259	.00750	.04729	.00107	.00034	.00008	.0108
%RSD	228.12	24.452	444.13	.62239	6.9389	284.83	1.0200
#1	.00454	.03430	.01757	.17354	.00483	-.00010	1.0551
#2	.00151	.01964	.00975	.17143	.00483	-.00010	1.0449
#3	-.00000	.03618	-.05000	.17291	.00453	.00004	1.0594
#4	-.00152	.03258	.06527	.17142	.00535	.00004	1.0709
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	-.00059	-.00181	-.00099	.71372	.04952	.47377	.01288
SDev	.00300	.00182	.00349	.00641	.00186	.24673	.00058
%RSD	506.66	100.22	351.22	.89842	3.7545	52.077	4.4901
#1	.00081	-.00145	.00257	.70703	.05128	.69840	.01213
#2	L-.00502	-.00434	-.00370	.72087	.04917	.20013	.01275
#3	.00156	-.00146	-.00427	.71718	.05058	.33082	.01345
#4	.00028	-.00000	.00143	.70980	.04706	.66573	.01319
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	.10292	.00415	.00373	.80271	.00808	.15791	.01052
SDev	.00874	.00052	.00406	.03060	.00632	.03238	.01053
%RSD	8.4893	12.457	108.66	3.8120	78.200	20.509	100.07
#1	.10568	.00389	.00870	.75792	.00911	.20033	.02632
#2	.09463	.00492	.00373	.80844	.01481	.16169	.00530
#3	.11397	.00389	.00373	.82415	-.00046	.14635	.00520
#4	.09739	.00389	-.00123	.82033	.00888	.12328	.00527
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	.01610	13.295	.02489	.00669	-.00009	.01402	-.00251
SDev	.03222	.180	.01231	.00016	.00044	.03459	.00008
%RSD	200.16	1.3562	49.469	2.3327	503.32	246.76	3.1729
#1	-.00877	13.038	.00737	.00682	.00052	-.00048	-.00240
#2	.05888	13.326	.03624	.00655	-.00052	.02273	-.00251

#3	-.00877	13.458	.02797	.00682	-.00017	-.02363	-.00251
#4	.02306	13.356	.02797	.00655	-.00017	.05745	-.00260
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	.10978
SDev	.00350
%RSD	3.1919
#1	.10591
#2	.10772
#3	.11262
#4	.11287
Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DD9PJP5 Operator: MTW
Run Time: 05/19/00 10:33:26
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00001	.00594	-.00897	.00754	.00121	.00001	.21010
SDev	.00214	.00683	.02906	.00974	.00047	.00007	.00223
%RSD	24410.	114.98	324.11	129.23	38.857	1202.1	1.0602
#1	-.00303	.00130	.01391	.02198	.00072	.00004	.20725
#2	.00150	-.00050	-.00990	.00293	.00093	-.00010	.21268
#3	.00153	.00871	.00980	.00441	.00175	.00003	.21039
#4	-.00004	.01428	-.04967	.00082	.00144	.00006	.21009
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	-.00176	-.00217	-.00228	.14288	.01071	-.09598	-.00060
SDev	.00177	.00251	.00248	.00075	.00225	.22690	.00020
%RSD	100.73	115.76	109.07	.52716	21.011	236.40	32.729
#1	-.00280	-.00434	-.00370	.14380	.00843	-.03676	-.00083
#2	.00016	-.00290	.00143	.14288	.00913	-.06126	-.00067
#3	-.00366	.00146	-.00314	.14288	.01265	.12661	-.00049
#4	-.00074	-.00290	-.00370	.14196	.01264	-.41251	-.00039
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	.00760	.00000	.00124	.16494	-.00758	.04424	-.00533
SDev	.01286	.00052	.00287	.00331	.01052	.00742	.02280
%RSD	169.26	15291.	230.62	2.0090	138.68	16.771	428.20
#1	.02003	-.00025	.00373	.16695	-.00781	.03840	-.00529
#2	-.00484	-.00025	.00373	.16525	-.01596	.03840	-.03703
#3	.01727	-.00026	-.00124	.16016	.00731	.04627	.00535
#4	-.00207	.00078	-.00124	.16738	-.01387	.05387	.01567
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	-.02085	2.8533	-.00726	.00119	-.00009	-.03482	-.00224
SDev	.03484	.0783	.01939	.00016	.00052	.05007	.00426
%RSD	167.05	2.7431	266.99	13.665	600.00	143.80	190.69
#1	.01097	2.9524	-.02795	.00104	-.00052	.03469	-.00122
#2	.00700	2.8683	-.01776	.00115	-.00052	-.05795	-.00250

#3	-.04473	2.8263	.01554	.00115	.00052	-.08122	.00255
#4	-.05666	2.7661	.00111	.00142	.00017	-.03479	-.00777
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	.02442
SDev	.00111
%RSD	4.5358
#1	.02296
#2	.02457
#3	.02451
#4	.02565
Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DD9PJS Operator: MTW
Run Time: 05/19/00 10:36:34
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04912	1.9136	1.9412	1.1263	1.9181	.04885	.93042
SDev	.00191	.0100	.0652	.0055	.0122	.00021	.00735
%RSD	3.8811	.52381	3.3592	.49033	.63703	.42764	.79006
#1	.05101	1.9274	2.0107	1.1277	1.9197	.04875	.93213
#2	.04647	1.9128	1.9830	1.1277	1.9278	.04904	.92010
#3	.04949	1.9035	1.8837	1.1184	1.9005	.04861	.93751
#4	.04952	1.9107	1.8875	1.1313	1.9246	.04902	.93193
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	.04716	.48566	.19389	.92799	1.0714	.37779	.99055
SDev	.00142	.00290	.00313	.00546	.0037	.31477	.02394
%RSD	3.0005	.59665	1.6147	.58789	.34911	83.318	2.4164
#1	.04720	.49001	.19175	.92730	1.0717	.39617	.99667
#2	.04521	.48421	.19119	.93376	1.0668	.04493	1.0105
#3	.04766	.48422	.19460	.92083	1.0710	.79642	.95578
#4	.04856	.48420	.19802	.93007	1.0759	.27364	.99929
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	.06838	.49383	.97371	.77108	.50546	.62547	.48236
SDev	.01505	.00259	.00745	.01068	.01316	.02311	.03036
%RSD	22.007	.52351	.76523	1.3856	2.6045	3.6952	6.2930
#1	.06700	.49409	.97744	.77575	.48751	.60630	.47415
#2	.05319	.49098	.96253	.77406	.51913	.65243	.50636
#3	.08910	.49306	.97744	.75537	.50664	.63702	.50605
#4	.06424	.49719	.97744	.77915	.50854	.60611	.44287
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9450	13.166	1.9423	.97430	.95241	1.9327	.48193
SDev	.0444	.147	.0476	.00461	.00199	.1136	.00264
%RSD	2.2849	1.1195	2.4529	.47299	.20892	5.8769	.54675
#1	1.9251	13.170	2.0090	.97537	.95215	1.8835	.48071
#2	1.9569	13.339	1.8974	.97769	.95354	1.9531	.48042

#3	1.8973	13.176	1.9388	.96754	.94972	1.8141	.48071
#4	2.0007	12.978	1.9240	.97661	.95423	2.0803	.48588
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	.57734
SDev	.00307
%RSD	.53161
#1	.58001
#2	.57314
#3	.57918
#4	.57702
Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DD9PJD Operator: MTW
Run Time: 05/19/00 10:39:42
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04880	1.9556	2.0281	1.1493	1.9491	.04964	1.0304
SDev	.00087	.0096	.0705	.0208	.0052	.00008	.0049
%RSD	1.7901	.49333	3.4743	1.8071	.26607	.16471	.47152
#1	.04955	1.9456	1.9268	1.1313	1.9498	.04957	1.0352
#2	.04955	1.9491	2.0420	1.1673	1.9416	.04971	1.0242
#3	.04804	1.9639	2.0538	1.1313	1.9527	.04957	1.0332
#4	.04804	1.9639	2.0896	1.1673	1.9524	.04971	1.0288
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	.04762	.49902	.19831	.96009	1.0979	.34920	1.0013
SDev	.00469	.00477	.00177	.00350	.0034	.17575	.0095
%RSD	9.8450	.95676	.89292	.36444	.30643	50.329	.94879
#1	.05275	.50010	.20087	.95778	1.1027	.60855	.99905
#2	.04324	.49288	.19688	.95778	1.0949	.24914	.98936
#3	.05041	.50445	.19745	.96517	1.0978	.23280	1.0117
#4	.04407	.49867	.19802	.95963	1.0964	.30632	1.0051
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	.07529	.50262	.99731	.80112	.51762	.65663	.47697
SDev	.00504	.00176	.00405	.01121	.00781	.02053	.02769
%RSD	6.7000	.35101	.40663	1.3990	1.5083	3.1262	5.8060
#1	.08082	.50443	.99234	.79486	.52874	.66819	.45323
#2	.06976	.50030	.99731	.78934	.51119	.62946	.45334
#3	.07253	.50237	1.0023	.81439	.51342	.67606	.49527
#4	.07805	.50340	.99731	.80590	.51713	.65280	.50602
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9481	11.622	1.9960	.99017	.96689	1.9324	.49142
SDev	.0248	.020	.0619	.00280	.00131	.0555	.00008
%RSD	1.2739	.17078	3.1004	.28284	.13579	2.8700	.01539
#1	1.9213	11.633	2.0585	.98985	.96706	1.8599	.49132
#2	1.9809	11.603	1.9302	.98633	.96498	1.9758	.49141

#3	1.9491	11.645	2.0380	.99239	.96776	1.9757	.49151
#4	1.9411	11.609	1.9574	.99212	.96776	1.9179	.49142
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	.59545
SDev	.00254
%RSD	.42724
#1	.59594
#2	.59172
#3	.59706
#4	.59708
Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DD5V9 Operator: MTW
Run Time: 05/19/00 10:42:49
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00266	.06316	.01828	.05284	.02413	-.00000	.69764
SDev	.00077	.00479	.01755	.00148	.00011	.00007	.00399
%RSD	28.776	7.5797	95.988	2.8023	.43887	1579.4	.57240
#1	.00305	.06544	.03712	.05269	.02408	.00003	.69407
#2	.00305	.06365	.02918	.05121	.02408	-.00011	.69661
#3	.00151	.05632	.00150	.05268	.02429	.00004	.69651
#4	.00305	.06723	.00531	.05480	.02408	.00003	.70337
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	.00003	-.00001	.00143	1.1271	.02863	.93937	-.00280
SDev	.00151	.00167	.00140	.0070	.00176	.26058	.00264
%RSD	5229.7	12588.	97.963	.61673	6.1386	27.740	94.514
#1	-.00170	-.00146	.00142	1.1299	.02810	.89444	-.00189
#2	.00028	.00143	-.00029	1.1290	.03091	1.0006	-.00111
#3	.00193	.00143	.00143	1.1327	.02669	.61672	-.00674
#4	-.00040	-.00146	.00313	1.1170	.02880	1.2457	-.00145
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	.04559	.00182	.00621	2.2368	-.00531	.04430	.02090
SDev	.00993	.00084	.00287	.0274	.00602	.00387	.01365
%RSD	21.782	46.434	46.154	1.2244	113.46	8.7272	65.294
#1	.03937	.00182	.00373	2.2519	.00355	.03850	.03682
#2	.04766	.00182	.00373	2.2629	-.00780	.04626	.01569
#3	.03661	.00078	.00870	2.2319	-.00988	.04625	.00504
#4	.05871	.00285	.00870	2.2005	-.00709	.04619	.02605
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	.02199	H73.297	.03476	.00412	.00061	.01707	.00173
SDev	.03123	2.311	.02173	.00000	.00052	.06307	.00190
%RSD	142.01	3.1523	62.521	.00000	85.714	369.41	109.69
#1	-.02477	H76.033	.02397	.00412	.00017	-.03503	.00265
#2	.03892	H74.273	.01559	.00412	.00087	.02282	.00265

#3	.03492	H72.026	.03417	.00412	.00017	-.02343	-.00112
#4	.03891	H70.855	.06530	.00412	.00121	.10393	.00275
Errors	LC Pass	LC High	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	.17787
SDev	.00227
%RSD	1.2752
#1	.17480
#2	.17968
#3	.17751
#4	.17949
Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DD9NN Operator: MTW
Run Time: 05/19/00 10:46:02
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00114	.07925	.03109	.22842	.00329	-.00003	.50051
SDev	.00076	.00435	.02481	.00179	.00000	.00008	.00281
%RSD	66.569	5.4920	79.792	.78560	.00000	284.72	.56045
#1	.00151	.07845	.05693	.23111	.00329	.00004	.49893
#2	.00152	.08563	.03699	.22752	.00329	-.00010	.49928
#3	.00151	.07646	-.00267	.22751	.00329	.00004	.49913
#4	.00000	.07647	.03310	.22752	.00329	-.00010	.50471
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	.00207	-.00182	.00128	1.9964	.06234	4.2741	-.00170
SDev	.00127	.00182	.00126	.0106	.00120	.1844	.00073
%RSD	61.061	100.11	98.356	.53063	1.9240	4.3142	43.132
#1	.00360	-.00001	.00085	1.9978	.06111	4.3742	-.00145
#2	.00249	-.00146	.00200	1.9830	.06392	4.2762	-.00233
#3	.00064	-.00145	-.00028	1.9960	.06182	4.0148	-.00078
#4	.00157	-.00435	.00257	2.0089	.06252	4.4314	-.00225
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	.06009	.00312	.00373	2.1482	.02787	.72811	-.00792
SDev	.01070	.00052	.00702	.0344	.01044	.01833	.01008
%RSD	17.807	16.615	188.09	1.6026	37.443	2.5169	127.28
#1	.05871	.00285	-.00620	2.1470	.01744	.71659	-.01582
#2	.07529	.00389	.00870	2.1118	.04070	.70885	-.00523
#3	.05042	.00286	.00870	2.1394	.02165	.74740	.00521
#4	.05595	.00286	.00373	2.1946	.03170	.73959	-.01583
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	-.02266	H27.160	.09670	.00277	.00026	.07178	-.00250
SDev	.02630	.408	.01494	.00000	.00052	.05933	.00014
%RSD	116.10	1.5020	15.454	.00000	200.00	82.651	5.4221
#1	-.05649	H27.695	.08373	.00277	.00052	-.01218	-.00270
#2	.00720	H27.262	.11068	.00277	.00052	.12677	-.00241

#3	-.02465	H26.854	.08383	.00277	.00052	.08046	-.00241
#4	-.01669	H26.830	.10856	.00277	-.00052	.09206	-.00250

Errors	LC Pass	LC High	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	.21352
SDev	.00110
%RSD	.51588

#1	.21355
#2	.21219
#3	.21489
#4	.21345

Errors	LC Pass
High	100.00
Low	-.02000

Analysis Report 05/19/00 10:52:20 AM

Method: QUANMET Sample Name: CCV2-4 Operator: MTW
Run Time: 05/19/00 10:49:15
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.98043	48.201	5.0265	4.8616	4.7074	4.8848	51.380
SDev	.00388	.226	.0635	.0371	.0284	.0199	.123
%RSD	.39582	.46797	1.2626	.76268	.60248	.40750	.23919
#1	.97995	48.115	5.1111	4.8318	4.6950	4.8702	51.291
#2	.98473	48.521	5.0391	4.9150	4.7490	4.9102	51.449
#3	.98161	48.171	4.9828	4.8572	4.6998	4.8912	51.517
#4	.97542	47.997	4.9730	4.8424	4.6858	4.8678	51.263
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	55.000	5.5000	5.5000	5.5000	5.5000	55.000
Low	.90000	45.000	4.5000	4.5000	4.5000	4.5000	45.000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.0791	4.9432	4.9195	4.7170	50.880	47.695	4.5631
SDev	.0169	.0213	.0110	.0291	.162	.646	.0630
%RSD	.33231	.43151	.22395	.61595	.31808	1.3548	1.3809
#1	5.0730	4.9277	4.9096	4.7024	50.783	47.659	4.5648
#2	5.1042	4.9681	4.9267	4.7597	51.071	48.533	4.6515
#3	5.0716	4.9538	4.9312	4.7098	50.951	47.634	4.5232
#4	5.0676	4.9234	4.9107	4.6959	50.714	46.956	4.5131
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	55.000	55.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	45.000	45.000	4.5000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	48.732	4.9025	4.9089	47.453	4.9289	4.9365	4.9752
SDev	.247	.0167	.0091	.576	.0590	.0383	.0437
%RSD	.50754	.34041	.18493	1.2131	1.1970	.77595	.87907
#1	48.659	4.8916	4.8989	47.453	4.8605	4.9862	4.9616
#2	49.087	4.9206	4.9188	48.266	4.9825	4.9408	5.0048
#3	48.670	4.9123	4.9039	47.096	4.9736	4.8944	5.0150
#4	48.512	4.8854	4.9138	46.999	4.8991	4.9244	4.9196
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55.000	5.5000	5.5000	55.000	5.5000	5.5000	5.5000
Low	45.000	4.5000	4.5000	45.000	4.5000	4.5000	4.5000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.0233	H20.283	5.0106	4.7698	4.7940	9.6736	4.8956
SDev	.0700	.862	.0414	.0254	.0170	.0955	.0161
%RSD	1.3928	4.2508	.82584	.53242	.35545	.98688	.32789
#1	5.1036	H20.831	4.9717	4.7602	4.7829	9.5503	4.8799
#2	5.0091	H21.084	4.9863	4.8064	4.8152	9.7206	4.9151

#3	5.0445	H20.045	5.0650	4.7644	4.7999	9.6525	4.9020
#4	4.9362	H19.173	5.0191	4.7481	4.7777	9.7709	4.8854
Errors	LC Pass	LC High	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	4.8965
SDev	.0111
%RSD	.22714
#1	4.8883
#2	4.9052
#3	4.9068
#4	4.8855
Errors	LC Pass
High	5.5000
Low	4.5000

Analysis Report 05/19/00 10:55:33 AM

Method: QUANMET Sample Name: CCB4 Operator: MTW
Run Time: 05/19/00 10:52:27
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00150	.01683	.02174	-.00384	.00070	.00054	.00574
SDev	.00247	.00462	.01807	.00835	.00034	.00027	.00497
%RSD	164.34	27.414	83.119	217.38	49.238	50.468	86.682
#1	.00150	.01591	.04559	-.01209	.00072	.00032	.00215
#2	-.00152	.01226	.00589	.00334	.00020	.00032	.00093
#3	.00453	.01590	.02572	-.00998	.00093	.00061	.01113
#4	.00151	.02326	.00976	.00336	.00093	.00089	.00875
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	-.00069	.00000	-.00242	.00046	.01019	.14907	-.00141
SDev	.00175	.00265	.00126	.00046	.00475	.09465	.00067
%RSD	254.62	355130.	52.338	100.23	46.613	63.488	47.864
#1	.00007	-.00290	-.00199	-.00023	.00773	.04493	-.00091
#2	.00093	-.00145	-.00313	.00069	.00492	.09394	-.00207
#3	-.00062	.00290	-.00085	.00070	.01265	.24097	-.00075
#4	-.00313	.00146	-.00370	.00070	.01546	.21646	-.00189
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	.01036	-.00025	.01739	.02080	-.00630	.01925	-.00540
SDev	.00731	.00000	.00476	.00541	.00541	.01597	.01485
%RSD	70.553	1.0757	27.356	25.995	85.894	83.007	274.81
#1	.00898	-.00025	.01366	.02473	-.00796	.03843	-.00538
#2	.00069	-.00025	.01366	.01284	-.01323	.01537	.00506
#3	.01727	-.00025	.02360	.02218	-.00182	.00007	.00512
#4	.01451	-.00025	.01863	.02346	-.00219	.02310	-.02642
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	.02193	H3.2152	-.00468	.00073	.00043	-.02614	-.00225
SDev	.04227	.3363	.01226	.00023	.00059	.05781	.00009
%RSD	192.80	10.458	262.05	32.248	136.63	221.10	4.1473
#1	.05873	H3.6372	-.01968	.00050	.00017	-.01162	-.00232
#2	.05474	H3.3068	.00727	.00061	-.00017	-.02318	-.00232

#3	.00303	H3.0605	.00313	.00077	.00121	-.10436	-.00212
#4	-.02880	H2.8563	-.00943	.00104	.00052	.03458	-.00223

Errors	LC Pass	LC High	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	-.00098
SDev	.00082
%RSD	83.913

#1	-.00117
#2	.00019
#3	-.00175
#4	-.00120

Errors	LC Pass
High	.02000
Low	-.02000

Method: QUANMET Sample Name: DDCAEB Operator: MTW
Run Time: 05/19/00 10:59:12
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00151	.00823	-.00304	-.01411	.00023	.00007	.04425
SDev	.00125	.00642	.01361	.00385	.00024	.00007	.00218
%RSD	82.602	78.005	448.19	27.287	103.76	99.305	4.9366
#1	-.00001	.00504	-.00199	-.01358	.00042	.00004	.04516
#2	.00304	.01597	-.02204	-.00998	-.00010	.00003	.04688
#3	.00150	.01058	.00193	-.01929	.00042	.00018	.04206
#4	.00150	.00131	.00996	-.01358	.00020	.00004	.04292
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	-.00077	-.00036	-.00171	.00023	.00702	.17971	-.00156
SDev	.00076	.00072	.00118	.00053	.00057	.25567	.00031
%RSD	97.989	200.81	69.382	230.54	8.1650	142.27	19.562
#1	.00009	.00000	-.00199	-.00023	.00702	-.04493	-.00171
#2	-.00143	.00000	-.00142	.00069	.00773	.46152	-.00119
#3	-.00036	.00000	-.00028	-.00023	.00703	.33082	-.00145
#4	-.00140	-.00145	-.00313	.00069	.00632	-.02859	-.00189
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	-.00138	-.00051	.00373	.02420	-.00381	-.01157	.00787
SDev	.00794	.00052	.00406	.00568	.00677	.01602	.01007
%RSD	574.46	100.82	108.83	23.467	177.65	138.55	128.00
#1	-.00760	-.00026	.00373	.01666	-.00188	-.00769	.01580
#2	-.00760	-.00026	.00373	.02600	.00446	-.01543	-.00528
#3	.00069	-.00129	-.00124	.02388	-.01151	-.03081	.01573
#4	.00898	-.00025	.00869	.03025	-.00631	.00767	.00523
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	.00600	H1.1383	-.00720	.00032	.00000	.01152	-.00122
SDev	.03304	.0000	.02031	.00034	.00035	.03407	.00258
%RSD	551.05	.00289	281.96	104.60	414e6	295.89	211.37
#1	-.03679	H1.1383	-.01130	.00012	-.00052	-.02322	-.00251
#2	.00301	H1.1383	.02170	-.00004	.00017	.03464	.00265

#3	.01495	H1.1383	-.01337	.00061	.00017	.04626	-.00260
#4	.04280	H1.1383	-.02584	.00061	.00017	-.01162	-.00242

Errors	LC Pass	LC High	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	.00965
SDev	.00146
%RSD	15.125

#1	.00879
#2	.00958
#3	.00850
#4	.01173

Errors	LC Pass
High	.02000
Low	-.02000

Analysis Report 05/19/00 11:05:30 AM

Method: QUANMET Sample Name: DDCAEC Operator: MTW
Run Time: 05/19/00 11:02:25
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_ ✓	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm ✓
Avge	.04987	1.9099	1.9582	.90244	1.8438	.04907	52.333
SDev	.00145	.0106	.0372	.00100	.0042	.00013	.146
%RSD	2.9172	.55668	1.9016	.11071	.22612	.26955	.27905
#1	.05100	1.9090	1.9354	.90248	1.8393	.04903	52.551
#2	.04798	1.9217	2.0068	.90101	1.8430	.04918	52.242
#3	.05103	1.9127	1.9670	.90313	1.8494	.04916	52.283
#4	.04949	1.8961	1.9235	.90312	1.8434	.04889	52.256
Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass	LC Pass
High	.06000	2.4000	2.4000		2.4000	.06000	60.000
Low	.04000	1.6000	1.6000		1.6000	.04000	40.000

Elem	CD	CO	CR	CU	FE	K_ ✓	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04594	.49150	.19389	.23528	1.0401	47.299	.88571
SDev	.00460	.00117	.00320	.00053	.0043	.584	.00901
%RSD	10.019	.23769	1.6498	.22666	.40964	1.2339	1.0175
#1	.04939	.49149	.19460	.23482	1.0373	47.185	.87976
#2	L.03945	.49007	.19233	.23574	1.0387	48.075	.89639
#3	.04904	.49293	.19802	.23575	1.0464	47.275	.88979
#4	.04589	.49150	.19062	.23482	1.0380	46.662	.87691
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK
High	.06000	.60000	.24000	.30000	1.2000	60.000	
Low	.04000	.40000	.16000	.20000	.80000	40.000	

Elem	MG ✓	MN	MO ✓	NA ✓	NI ✓	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	49.757	.49228	.98985	46.828	.48785	.50239	.52405
SDev	.154	.00099	.00860	.384	.00286	.02226	.01003
%RSD	.30852	.20049	.86912	.81948	.58536	4.4302	1.9147
#1	49.700	.49305	.98240	46.535	.49003	.52165	.51616
#2	49.692	.49099	.99730	47.335	.49061	.48310	.53718
#3	49.985	.49305	.98240	46.916	.48525	.52169	.51626
#4	49.650	.49202	.99730	46.526	.48554	.48314	.52662
Errors	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	60.000	.60000		60.000	.60000	.60000	.60000
Low	40.000	.40000		40.000	.40000	.40000	.40000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9837	11.191	2.0377	.94122	.95302	1.9678	.48224
SDev	.0444	.046	.0316	.00161	.00229	.0884	.00249
%RSD	2.2365	.41483	1.5531	.17063	.24047	4.4919	.51654
#1	1.9887	11.158	2.0588	.94008	.95284	2.0228	.48081
#2	2.0245	11.146	2.0507	.94073	.95146	1.8491	.48109

#3	2.0006	11.242	1.9905	.94359	.95631	1.9532	.48597
#4	1.9210	11.218	2.0506	.94046	.95146	2.0459	.48109
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	.51680
SDev	.00516
%RSD	.99835
#1	.52104
#2	.52128
#3	.51379
#4	.51108
Errors	LC Pass
High	.60000
Low	.40000

Method: QUANMET Sample Name: DD7WE Operator: MTW
Run Time: 05/19/00 11:05:33
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00616	2.5839	.11348	.17005	.08185	-.00009	46.383
SDev	.00088	.0142	.06044	.01503	.00043	.00008	.104
%RSD	14.321	.54878	53.267	8.8353	.52921	87.438	.22338
#1	.00691	2.6036	.06663	.19249	.08190	-.00002	46.497
#2	.00694	2.5705	.05888	.16456	.08139	-.00003	46.401
#3	.00540	2.5834	.14628	.16159	.08169	-.00016	46.388
#4	.00539	2.5780	.18211	.16157	.08242	-.00016	46.245
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	.00043	-.00009	.06297	.04091	3.5237	H1260.8	.00055
SDev	.00330	.00119	.00271	.00046	.0073	13.9	.00029
%RSD	771.29	1325.9	4.3110	1.1272	.20807	1.1006	53.293
#1	-.00055	.00136	.06582	.04068	3.5313	H1260.2	.00057
#2	.00502	-.00155	.06011	.04068	3.5243	H1250.8	.00013
#3	-.00279	-.00008	.06468	.04068	3.5257	H1251.7	.00075
#4	.00003	-.00009	.06126	.04160	3.5137	H1280.7	.00075
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High	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	3.9779	.39169	.04399	72.875	.00265	.03259	.02295
SDev	.0129	.00060	.00406	.902	.00391	.02555	.01583
%RSD	.32330	.15187	9.2213	1.2378	147.71	78.381	68.982
#1	3.9655	.39221	.04399	72.594	.00726	.03651	.04669
#2	3.9876	.39118	.04399	72.305	-.00224	.05952	.01503
#3	3.9904	.39118	.04896	72.384	.00218	.03644	.01491
#4	3.9683	.39221	.03902	74.215	.00340	-.00209	.01516
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	-.00602	17.722	.01671	.21185	.02878	.03805	.02031
SDev	.02068	.052	.02766	.00053	.00035	.05304	.00258
%RSD	343.47	.29588	165.56	.25147	1.2048	139.40	12.681
#1	.00793	17.784	.00802	.21209	.02930	.00034	.01903
#2	-.03587	17.682	.01822	.21106	.02861	.01197	.02417

#3	.00791	17.748	.05339	.21214	.02861	.02356	.01912
#4	-.00407	17.676	-.01281	.21214	.02861	.11633	.01892
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	.27431
SDev	.00475
%RSD	1.7318
#1	.27364
#2	.26910
#3	.28062
#4	.27388
Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DD7WEP5 Operator: MTW
Run Time: 05/19/00 11:08:46
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00167	.51043	.03950	.00161	.01636	-.00000	8.9320
SDev	.00214	.00530	.04441	.00106	.00000	.00007	.0132
%RSD	128.02	1.0377	112.42	65.706	.00000	2552.1	.14806
#1	.00319	.51075	-.01120	.00002	.01636	.00003	8.9238
#2	-.00136	.50357	.02863	.00213	.01636	-.00011	8.9263
#3	.00316	.51649	.04448	.00214	.01636	.00004	8.9261
#4	.00168	.51091	.09609	.00214	.01636	.00003	8.9518
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	.00014	-.00110	.00969	.00790	.69789	257.27	-.00125
SDev	.00074	.00139	.00057	.00046	.00337	3.19	.00056
%RSD	509.55	125.81	5.8778	5.8320	.48279	1.2415	44.752
#1	.00114	-.00292	.00997	.00813	.69754	253.78	-.00117
#2	-.00063	-.00001	.00997	.00813	.69333	260.49	-.00163
#3	.00013	-.00002	.00883	.00721	.69965	259.42	-.00171
#4	-.00005	-.00147	.00997	.00813	.70106	255.41	-.00049
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	.77638	.07663	.00383	14.814	-.00562	.00147	-.00541
SDev	.01416	.00052	.00702	.176	.00225	.01820	.02276
%RSD	1.8233	.67290	183.42	1.1913	40.078	1238.7	420.92
#1	.76050	.07638	.01376	14.610	-.00575	.01488	-.02655
#2	.79089	.07637	.00383	14.974	-.00259	-.00038	.02618
#3	.76878	.07740	-.00114	14.949	-.00803	.01498	-.00539
#4	.78536	.07637	-.00114	14.724	-.00611	-.02360	-.01588
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	.01151	3.7994	-.00974	.04283	.00520	-.02993	.00106
SDev	.03639	.0350	.01614	.00027	.00020	.04226	.00251
%RSD	316.28	.92154	165.68	.63062	3.8490	141.18	236.95
#1	.00156	3.8294	-.00725	.04243	.00503	-.07625	.00286
#2	.06521	3.7634	.01162	.04297	.00503	-.05306	.00138

#3	-.00640	3.8294	-.01750	.04297	.00538	-.00677	-.00258
#4	-.01435	3.7754	-.02582	.04297	.00538	.01634	.00258
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	.05434
SDev	.00127
%RSD	2.3416
#1	.05451
#2	.05338
#3	.05608
#4	.05340
Errors	LC Pass
High	100.00
Low	-.02000

Analysis Report 05/19/00 11:14:59 AM page 1

Method: QUANMET Sample Name: DD7WES Operator: MTW
Run Time: 05/19/00 11:11:54
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05937	5.5857	2.0936	1.0772	1.8400	.04632	94.613
SDev	.00213	.0281	.0382	.0197	.0146	.00030	.067
%RSD	3.5804	.50224	1.8232	1.8281	.79224	.65015	.07042
#1	.06237	5.5638	2.1306	1.0592	1.8254	.04605	94.710
#2	.05787	5.6239	2.0585	1.0967	1.8588	.04674	94.589
#3	.05937	5.5894	2.1224	1.0915	1.8434	.04632	94.557
#4	.05786	5.5656	2.0630	1.0613	1.8324	.04618	94.599
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	.04515	.47341	.24988	.27132	4.5008	H1234.4	.85768
SDev	.00291	.00495	.00369	.00158	.0122	11.4	.01255
%RSD	6.4442	1.0455	1.4786	.58112	.27044	.91957	1.4634
#1	.04819	.47124	.24532	.27109	4.4926	H1227.8	.84773
#2	.04119	.46833	.25387	.27293	4.5186	H1250.3	.87463
#3	.04550	.47992	.25159	.27202	4.4989	H1234.4	.85973
#4	.04573	.47413	.24874	.26924	4.4933	H1224.9	.84861
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High	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	50.980	.84492	.98167	114.39	.47807	.51465	.53955
SDev	.280	.00230	.01174	1.21	.00608	.02396	.01812
%RSD	.54934	.27177	1.1958	1.0594	1.2721	4.6559	3.3583
#1	50.734	.84207	.97298	113.50	.48547	.54929	.54760
#2	51.341	.84725	.99782	116.05	.47212	.49520	.51563
#3	51.060	.84621	.98292	114.53	.48048	.50327	.53696
#4	50.786	.84414	.97298	113.47	.47421	.51086	.55802
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0083	H27.329	1.9407	1.1035	.94261	1.9196	.48993
SDev	.0304	.097	.0054	.0077	.00429	.0433	.00270
%RSD	1.5145	.35589	.27921	.69748	.45509	2.2544	.55180
#1	2.0013	H27.209	1.9376	1.0955	.93758	1.9197	.48588
#2	2.0531	H27.443	1.9478	1.1129	.94799	1.9311	.49154

#3	1.9894	H27.353	1.9355	1.1063	.94313	1.9659	.49124
#4	1.9894	H27.311	1.9418	1.0993	.94175	1.8618	.49105
Errors	LC Pass	LC High	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	.74289
SDev	.00215
%RSD	.28878
#1	.74335
#2	.74554
#3	.74227
#4	.74040
Errors	LC Pass
High	100.00
Low	-.02000

Analysis Report 05/19/00 11:18:12 AM

Method: QUANMET Sample Name: DD7WED Operator: MTW
Run Time: 05/19/00 11:15:07
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05817	5.4929	2.0937	1.0824	1.8105	.04598	93.804
SDev	.00191	.0195	.0630	.0157	.0117	.00029	.354
%RSD	3.2814	.35450	3.0076	1.4520	.64462	.63125	.37767
#1	.05629	5.5072	2.0796	1.0949	1.8159	.04591	94.026
#2	.05778	5.5052	2.0876	1.0801	1.8175	.04606	93.582
#3	.05777	5.4650	2.1794	1.0610	1.7931	.04564	93.431
#4	.06083	5.4943	2.0280	1.0935	1.8157	.04633	94.177
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	.04334	.47490	.24618	.26762	4.3817	H1214.1	.84760
SDev	.00168	.00597	.00109	.00158	.0164	13.6	.01218
%RSD	3.8852	1.2562	.44297	.59116	.37455	1.1223	1.4365
#1	.04329	.47997	.24646	.26924	4.3907	H1232.4	.86328
#2	.04220	.46838	.24532	.26738	4.3808	H1213.3	.84784
#3	.04214	.47130	.24760	.26554	4.3590	H1211.4	.84563
#4	.04574	.47996	.24532	.26832	4.3963	H1199.5	.83364
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High	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	50.507	.83584	.96179	112.61	.47153	.51863	.54759
SDev	.196	.00368	.00476	1.23	.00586	.03153	.01485
%RSD	.38885	.44041	.49461	1.0928	1.2430	6.0796	2.7120
#1	50.521	.83894	.95806	114.19	.46800	.52647	.54757
#2	50.651	.83377	.96303	112.65	.46757	.53387	.55812
#3	50.225	.83170	.95806	112.40	.48011	.47229	.52660
#4	50.631	.83895	.96800	111.20	.47043	.54190	.55808
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9720	H26.812	1.9222	1.0863	.92380	1.7761	.48309
SDev	.0571	.101	.0200	.0056	.00423	.0880	.00300
%RSD	2.8968	.37811	1.0412	.51723	.45812	4.9525	.62205
#1	2.0248	H26.896	1.9377	1.0893	.92614	1.8049	.48560
#2	1.9691	H26.818	1.8943	1.0896	.92545	1.8862	.48053

#3	2.0008	H26.668	1.9210	1.0779	.91747	1.7242	.48044
#4	1.8935	H26.866	1.9356	1.0885	.92614	1.6890	.48579
Errors	LC Pass	LC High	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	.73362
SDev	.00288
%RSD	.39299
#1	.73075
#2	.73232
#3	.73395
#4	.73748
Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DD7NT Operator: MTW
Run Time: 05/19/00 11:18:19
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00120	6.7612	.02758	.16649	.00239	.00012	1.9606
SDev	.00076	.0389	.04947	.00000	.00048	.00014	.0164
%RSD	62.973	.57590	179.38	.00091	20.104	113.01	.83634
#1	.00158	6.7851	-.02726	.16649	.00196	.00030	1.9405
#2	.00158	6.8016	.02823	.16649	.00226	.00001	1.9666
#3	.00158	6.7410	.01681	.16649	.00308	.00015	1.9792
#4	.00007	6.7172	.09252	.16649	.00226	.00001	1.9560
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	-.00031	-.00038	.06824	.02125	.12754	9.2936	.01220
SDev	.00142	.00072	.00164	.00046	.00135	.3035	.00000
%RSD	460.13	187.73	2.3982	2.1742	1.0555	3.2654	.00000
#1	-.00097	-.00002	.06923	.02102	.12719	8.9485	.01220
#2	-.00065	-.00002	.06866	.02102	.12860	9.4386	.01220
#3	.00177	-.00003	.06923	.02194	.12859	9.6347	.01220
#4	-.00138	-.00147	.06581	.02101	.12578	9.1527	.01220
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	2.5757	.02521	.01616	S-.11792	.00088	.00032	.02034
SDev	.0264	.00052	.00641	.00000	.01203	.03417	.01056
%RSD	1.0251	2.0521	39.676	.00000	1362.4	10525.	51.931
#1	2.5702	.02444	.01368	S-.11792	-.00923	.04270	.01500
#2	2.5730	.02547	.00871	S-.11792	.00455	-.03434	.03619
#3	2.6117	.02548	.02361	S-.11792	.01631	.01190	.01519
#4	2.5481	.02547	.01865	S-.11792	-.00809	-.01896	.01499
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	-.01446	1.4883	.03938	.00689	.01344	.10878	.00818
SDev	.02805	.0406	.00997	.00026	.00044	.03599	.00012
%RSD	194.02	2.7250	25.306	3.7546	3.2472	33.087	1.5094
#1	-.04033	1.5229	.03418	.00655	.01335	.09140	.00813
#2	.00345	1.4628	.05290	.00709	.01405	.16087	.00804

#3	.01539	1.5229	.03005	.00709	.01335	.10297	.00833
#4	-.03635	1.4448	.04039	.00682	.01301	.07986	.00822
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	.02696
SDev	.00064
%RSD	2.3680
#1	.02705
#2	.02621
#3	.02776
#4	.02681
Errors	LC Pass
High	100.00
Low	-.02000

Analysis Report 05/19/00 11:24:33 AM

Method: QUANMET Sample Name: CCV2-5 Operator: MTW
Run Time: 05/19/00 11:21:27
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.97243	48.126	4.9489	4.8270	4.7232	4.9037	51.209
SDev	.00130	.184	.0721	.0192	.0202	.0194	.161
%RSD	.13365	.38251	1.4564	.39837	.42835	.39553	.31462
#1	.97411	48.329	4.9853	4.8352	4.7484	4.9269	51.431
#2	.97094	48.186	4.8997	4.8424	4.7283	4.9112	51.183
#3	.97234	48.098	5.0320	4.7990	4.7152	4.8938	51.045
#4	.97235	47.889	4.8787	4.8315	4.7008	4.8828	51.179
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	55.000	5.5000	5.5000	5.5000	5.5000	55.000
Low	.90000	45.000	4.5000	4.5000	4.5000	4.5000	45.000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.0463	4.9303	4.8989	4.7333	50.692	47.040	4.5214
SDev	.0304	.0210	.0144	.0218	.171	.324	.0350
%RSD	.60330	.42642	.29297	.46003	.33659	.68884	.77384
#1	5.0471	4.9509	4.9192	4.7569	50.923	47.332	4.5310
#2	5.0723	4.9436	4.8976	4.7412	50.706	47.201	4.5210
#3	5.0033	4.9047	4.8925	4.7301	50.530	47.038	4.5589
#4	5.0622	4.9219	4.8862	4.7052	50.606	46.589	L4.4748
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	55.000	55.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	45.000	45.000	4.5000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	48.792	4.8831	4.8865	48.459	4.9332	4.9188	4.9124
SDev	.199	.0174	.0125	.272	.0375	.0343	.0945
%RSD	.40749	.35600	.25632	.56127	.76058	.69740	1.9236
#1	49.048	4.9061	4.9039	48.583	4.9838	4.9559	4.9941
#2	48.844	4.8843	4.8840	48.532	4.9145	4.8864	4.9942
#3	48.675	4.8647	4.8741	48.662	4.9374	4.8929	4.8254
#4	48.601	4.8771	4.8840	48.059	4.8972	4.9397	4.8359
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55.000	5.5000	5.5000	55.000	5.5000	5.5000	5.5000
Low	45.000	4.5000	4.5000	45.000	4.5000	4.5000	4.5000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.0276	5.3185	4.9689	4.7957	4.7877	9.6379	4.8942
SDev	.0759	.0159	.1056	.0213	.0158	.2150	.0161
%RSD	1.5090	.29881	2.1249	.44345	.33059	2.2303	.32937
#1	4.9568	5.3098	5.0835	4.8218	4.8083	9.4558	4.9161
#2	4.9680	5.3396	4.8704	4.8017	4.7920	9.8171	4.8964

#3	5.1026	5.3214	5.0331	4.7875	4.7767	9.8308	4.8820
#4	5.0830	5.3033	4.8884	4.7718	4.7739	9.4478	4.8822
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	4.8530
SDev	.0051
%RSD	.10564
#1	4.8485
#2	4.8592
#3	4.8491
#4	4.8553
Errors	LC Pass
High	5.5000
Low	4.5000

Analysis Report 05/19/00 11:27:41 AM

Method: QUANMET Sample Name: CCB5 Operator: MTW
Run Time: 05/19/00 11:24:35
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00188	.01411	-.00505	.00441	.00077	.00082	.00843
SDev	.00190	.00578	.02209	.01491	.00038	.00018	.00229
%RSD	101.21	40.980	436.98	338.29	49.332	22.295	27.215
#1	.00453	.01955	-.00609	.00124	.00093	.00061	.00788
#2	.00150	.01233	.02576	.00758	.00102	.00103	.01149
#3	-.00001	.00676	-.02585	-.01358	.00020	.00089	.00595
#4	.00150	.01778	-.01403	.02239	.00093	.00075	.00839
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	.00085	-.00145	-.00071	.00069	.00738	.22463	-.00197
SDev	.00206	.00205	.00261	.00075	.00091	.17108	.00071
%RSD	243.09	140.90	368.43	109.06	12.303	76.161	36.226
#1	-.00030	-.00435	.00257	.00069	.00773	.03676	-.00223
#2	.00393	-.00001	-.00028	.00069	.00843	.44518	-.00285
#3	-.00006	-.00145	-.00142	-.00023	.00632	.16745	-.00153
#4	-.00019	-.00000	-.00370	.00162	.00703	.24914	-.00127
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	.01243	-.00025	.01242	.06453	-.00374	-.01352	.01042
SDev	.01180	.00000	.00248	.01499	.00629	.03468	.01050
%RSD	94.933	.23709	19.997	23.238	168.25	256.48	100.80
#1	.01451	-.00025	.01366	.04978	-.00845	-.01553	.00507
#2	.02003	-.00025	.00869	.08544	.00475	.00770	.00520
#3	-.00484	-.00025	.01366	.06082	-.00858	.01540	.02616
#4	.02003	-.00025	.01366	.06209	-.00267	-.06166	.00523
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	-.03878	.28680	.00212	.00081	.00043	-.00005	-.00234
SDev	.01471	.02703	.01894	.00026	.00044	.04123	.00005
%RSD	37.949	9.4249	894.23	31.914	100.66	83357.	2.0385
#1	-.02484	.27329	-.00101	.00061	.00052	.05787	-.00231
#2	-.02882	.32735	.02382	.00088	.00052	-.03481	-.00241

#3	-.04475	.27329	.00737	.00061	-.00017	-.02320	-.00232
#4	-.05669	.27329	-.02170	.00115	.00087	-.00006	-.00232
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	.00117
SDev	.00156
%RSD	133.45
#1	.00287
#2	.00013
#3	.00208
#4	-.00041
Errors	LC Pass
High	.02000
Low	-.02000

Analysis Report 05/19/00 11:35:32 AM

Method: QUANMET Sample Name: DD7WE/2 K Operator: MTW
Run Time: 05/19/00 11:32:26
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00231	1.2760	.02760	.06501	.04115	.00005	23.118
SDev	.00145	.0068	.03496	.01798	.00025	.00007	.071
%RSD	62.507	.53259	126.67	27.653	.61042	143.96	.30523
#1	.00043	1.2695	.02068	.05605	.04136	.00001	23.182
#2	.00194	1.2787	.05241	.05602	.04105	.00001	23.139
#3	.00345	1.2842	.05635	.05600	.04084	.00016	23.017
#4	.00345	1.2714	-.01905	.09198	.04136	.00001	23.135
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	.00102	.00032	.03049	.01676	1.7651	633.64	.00009
SDev	.00212	.00217	.00298	.00692	.0086	6.07	.00229
%RSD	207.03	689.24	9.7719	41.312	.48558	.95773	2523.9
#1	.00175	-.00295	.03447	.02022	1.7772	642.12	-.00189
#2	-.00180	.00141	.02821	.02022	1.7646	633.94	.00207
#3	.00326	.00140	.03106	.02022	1.7576	629.15	-.00189
#4	.00088	.00140	.02821	.00637	1.7611	629.35	.00207
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9928	.19546	.01889	36.050	-.00522	.01054	.01807
SDev	.0108	.00084	.00000	.350	.00885	.02228	.03379
%RSD	.54291	.43195	.00679	.96999	169.54	211.28	187.02
#1	1.9983	.19546	.01889	36.529	-.01830	.01429	.00474
#2	1.9900	.19649	.01889	36.091	-.00296	-.01642	.00490
#3	2.0038	.19442	.01889	35.773	.00032	.00669	-.00559
#4	1.9789	.19546	.01889	35.807	.00007	.03761	.06821
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	.02038	8.4548	-.01256	.10680	.01422	.00887	.00816
SDev	.02983	.0591	.01188	.00079	.00035	.05781	.00001
%RSD	146.38	.69853	94.603	.74134	2.4390	651.87	.07246
#1	-.01042	8.5389	-.01521	.10790	.01370	-.02887	.00817
#2	.06117	8.4428	.00341	.10682	.01439	.06387	.00815

#3	.01737	8.4008	-.01319	.10628	.01439	-.05186	.00816
#4	.01340	8.4368	-.02526	.10617	.01439	.05233	.00815
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	.13686
SDev	.00138
%RSD	1.0100
#1	.13791
#2	.13596
#3	.13540
#4	.13816
Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DD7WEP10 K . Operator: MTW
Run Time: 05/19/00 11:35:35
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00159	.27400	-.01567	.00610	.00874	.00007	4.7229
SDev	.00175	.00489	.03104	.00843	.00025	.00007	.0139
%RSD	110.55	1.7848	198.10	138.13	2.8725	99.498	.29441
#1	.00309	.27080	-.02059	.00361	.00843	.00004	4.7384
#2	.00007	.27822	-.05244	-.00061	.00895	.00018	4.7307
#3	.00312	.27814	-.01279	.00298	.00895	.00003	4.7126
#4	.00007	.26884	.02314	.01844	.00865	.00004	4.7098
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	.00008	-.00037	.00613	.00372	.36791	137.72	-.00194
SDev	.00334	.00274	.00303	.00088	.00265	1.27	.00082
%RSD	4014.0	738.66	49.390	23.754	.72025	.92322	42.451
#1	-.00277	.00145	.00485	.00257	.36598	136.80	-.00277
#2	.00483	.00143	.00370	.00442	.37160	138.32	-.00189
#3	-.00018	-.00001	.01054	.00441	.36598	136.55	-.00083
#4	-.00154	-.00435	.00542	.00349	.36809	139.23	-.00225
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	.42480	.04065	.00502	7.7977	-.00509	.00168	-.01330
SDev	.01934	.00060	.00745	.0976	.00519	.02307	.00525
%RSD	4.5528	1.4668	148.35	1.2513	102.04	1376.9	39.481
#1	.41789	.04116	.00875	7.7281	-.00011	.03064	-.00543
#2	.43447	.04116	-.00119	7.8067	-.01174	-.00792	-.01592
#3	.44552	.04013	-.00119	7.7235	-.00197	.00746	-.01587
#4	.40132	.04013	.01371	7.9323	-.00653	-.02348	-.01601
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	-.01557	1.8441	-.00052	.02292	.00243	-.03830	-.00118
SDev	.03133	.0384	.01817	.00030	.00066	.04013	.00251
%RSD	201.22	2.0847	3505.9	1.3170	27.355	104.79	212.46
#1	.02024	1.8831	.02590	.02271	.00260	-.02670	-.00240
#2	-.05535	1.8711	-.01139	.02330	.00191	-.09624	-.00259

#3	-.00762	1.8111	-.01346	.02303	.00329	-.00357	.00258
#4	-.01955	1.8111	-.00312	.02265	.00191	-.02668	-.00230
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	.02840
SDev	.00161
%RSD	5.6764
#1	.02894
#2	.02651
#3	.03030
#4	.02784
Errors	LC Pass
High	100.00
Low	-.02000

Analysis Report 05/19/00 11:41:48 AM

Method: QUANMET Sample Name: DD7WES/2 K Operator: MTW
Run Time: 05/19/00 11:38:42
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02968	2.7582	1.0049	.53666	.92913	.02343	46.948
SDev	.00195	.0198	.0545	.00242	.00556	.00014	.092
%RSD	6.5769	.71936	5.4196	.45058	.59843	.57829	.19666
#1	.02892	2.7559	1.0287	.53381	.92869	.02360	46.905
#2	.03043	2.7376	1.0607	.53590	.92148	.02332	46.838
#3	.02741	2.7542	.99695	.53953	.93229	.02346	47.027
#4	.03195	2.7853	.93312	.53741	.93404	.02332	47.021
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	.02276	.23670	.12580	.13266	2.2570	624.03	.42936
SDev	.00180	.00321	.00205	.00119	.0116	9.22	.00563
%RSD	7.9071	1.3553	1.6280	.89953	.51249	1.4779	1.3105
#1	.02473	.23488	.12622	.13404	2.2551	630.34	.43041
#2	.02168	.23345	.12850	.13127	2.2417	610.50	.42170
#3	.02377	.24068	.12451	.13313	2.2684	625.84	.43007
#4	.02085	.23779	.12394	.13220	2.2628	629.43	.43525
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	25.596	.42298	.49208	57.032	.23971	.24564	.16304
SDev	.139	.00169	.00248	.831	.01196	.04643	.10156
%RSD	.54197	.39929	.50466	1.4562	4.9907	18.901	62.288
#1	25.583	.42298	.49580	57.568	.25113	.26692	.26583
#2	25.406	.42091	.49084	55.803	.23086	.28997	.23408
#3	25.677	.42298	.49084	57.257	.22800	.18204	.06555
#4	25.718	.42504	.49084	57.502	.24884	.24363	.08672
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	.95343	13.257	.99105	.55829	.47053	.92501	.24434
SDev	.06136	.080	.01636	.00306	.00156	.08067	.00005
%RSD	6.4352	.59996	1.6506	.54792	.33167	8.7213	.01993
#1	.99422	13.233	.99619	.55808	.47044	.95978	.24442
#2	.92253	13.155	.97948	.55403	.46836	.83254	.24433

#3	1.0142	13.317	.97662	.56051	.47148	1.0175	.24432
#4	.88281	13.323	1.0119	.56051	.47183	.89021	.24432
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	.36376
SDev	.00188
%RSD	.51688
#1	.36354
#2	.36251
#3	.36251
#4	.36648
Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DD7WED/2 K Operator: MTW
Run Time: 05/19/00 11:41:50
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02816	2.7419	1.0190	.53917	.92527	.02350	46.674
SDev	.00151	.0150	.0592	.01226	.00449	.00018	.218
%RSD	5.3760	.54565	5.8079	2.2733	.48563	.75909	.46811
#1	.02740	2.7323	1.1005	.52501	.92170	.02346	46.639
#2	.02740	2.7285	.97737	.55488	.92303	.02332	46.435
#3	.03043	2.7450	.97325	.53733	.92457	.02346	46.657
#4	.02740	2.7617	1.0248	.53944	.93177	.02375	46.965
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	.02318	.23924	.12323	.13243	2.2124	621.07	.42835
SDev	.00351	.00334	.00220	.00158	.0089	5.82	.00338
%RSD	15.133	1.3959	1.7861	1.1908	.40296	.93655	.78827
#1	.02168	.24215	.12109	.13035	2.2003	614.96	.42372
#2	.01940	.23636	.12451	.13312	2.2122	617.88	.42795
#3	.02401	.23634	.12166	.13219	2.2157	623.40	.43077
#4	.02762	.24212	.12565	.13405	2.2213	628.04	.43095
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	25.517	.42012	.47966	56.920	.23832	.25735	.20801
SDev	.150	.00130	.00476	.507	.00737	.03115	.09592
%RSD	.58646	.30942	.99150	.89029	3.0924	12.105	46.110
#1	25.450	.41986	.47593	56.400	.24855	.21293	.06589
#2	25.406	.41987	.48586	56.643	.23550	.25924	.23430
#3	25.475	.41883	.48090	57.088	.23801	.27468	.26603
#4	25.737	.42193	.47593	57.548	.23123	.28254	.26583
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	.94929	13.110	.94989	.55568	.46558	.87622	.24410
SDev	.06231	.079	.02975	.00271	.00165	.09140	.00009
%RSD	6.5635	.60032	3.1319	.48838	.35463	10.431	.03796
#1	.90646	13.059	.96629	.55376	.46454	.97186	.24402
#2	.92640	13.071	.93604	.55457	.46454	.89072	.24422

#3	.92244	13.083	.91551	.55468	.46524	.75172	.24412
#4	1.0418	13.227	.98171	.55970	.46801	.89059	.24403
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	.36262
SDev	.00377
%RSD	1.0389
#1	.36785
#2	.35900
#3	.36248
#4	.36115
Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: CCV2-6 Operator: MTW
Run Time: 05/19/00 11:44:58
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.97724	48.492	5.0282	4.8297	4.7509	4.9577	51.715
SDev	.00218	.099	.0905	.0207	.0176	.0192	.129
%RSD	.22333	.20465	1.7989	.42927	.37125	.38709	.24971
#1	.97414	48.450	5.0636	4.8319	4.7431	4.9427	51.610
#2	.97873	48.430	5.1073	4.7997	4.7449	4.9465	51.816
#3	.97881	48.640	4.8986	4.8441	4.7770	4.9851	51.596
#4	.97729	48.448	5.0433	4.8429	4.7384	4.9564	51.836
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	55.000	5.5000	5.5000	5.5000	5.5000	55.000
Low	.90000	45.000	4.5000	4.5000	4.5000	4.5000	45.000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.1080	4.9663	4.9376	4.7759	50.982	48.445	4.6146
SDev	.0117	.0128	.0053	.0251	.083	.487	.0287
%RSD	.22873	.25793	.10633	.52656	.16291	1.0057	.62132
#1	5.1009	4.9508	4.9380	4.7606	50.876	48.933	4.6355
#2	5.0973	4.9768	4.9301	4.7616	50.968	48.753	4.6111
#3	5.1106	4.9608	4.9415	4.8133	51.074	47.871	4.6365
#4	5.1234	4.9768	4.9409	4.7680	51.012	48.222	4.5754
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	55.000	55.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	45.000	45.000	4.5000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	49.277	4.9146	4.9077	48.229	4.9874	4.9445	4.9100
SDev	.191	.0081	.0227	.253	.0257	.0151	.0855
%RSD	.38701	.16451	.46308	.52407	.51539	.30588	1.7408
#1	49.023	4.9030	4.8791	48.478	4.9818	4.9327	4.9733
#2	49.266	4.9195	4.9039	48.258	4.9918	4.9486	4.8363
#3	49.479	4.9154	4.9139	48.302	5.0191	4.9326	4.8364
#4	49.338	4.9206	4.9337	47.878	4.9570	4.9642	4.9940
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55.000	5.5000	5.5000	55.000	5.5000	5.5000	5.5000
Low	45.000	4.5000	4.5000	45.000	4.5000	4.5000	4.5000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.9660	5.0382	4.9895	4.8405	4.8142	9.7242	4.9349
SDev	.0486	.0166	.0478	.0159	.0107	.1379	.0089
%RSD	.97819	.33045	.95754	.32855	.22188	1.4182	.17950
#1	4.9248	5.0216	4.9552	4.8300	4.8038	9.6531	4.9247
#2	5.0207	5.0276	5.0518	4.8362	4.8128	9.9183	4.9303

#3	4.9932	5.0578	5.0021	4.8641	4.8291	9.6046	4.9422
#4	4.9253	5.0458	4.9491	4.8319	4.8110	9.7209	4.9425
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	4.8868
SDev	.0171
%RSD	.34954
#1	4.8708
#2	4.8737
#3	4.8979
#4	4.9048
Errors	LC Pass
High	5.5000
Low	4.5000

Method: QUANMET Sample Name: CCB6 Operator: MTW
Run Time: 05/19/00 11:48:06
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00340	.02099	.04356	-.00368	.00098	.00071	.01077
SDev	.00227	.01186	.02635	.01755	.00030	.00037	.00603
%RSD	66.877	56.509	60.490	476.50	30.434	52.382	56.009
#1	.00454	.00673	.06155	-.00998	.00072	.00032	.00458
#2	-.00001	.01595	.06944	-.01147	.00072	.00047	.00666
#3	.00453	.02876	.02958	-.01568	.00123	.00103	.01515
#4	.00453	.03251	.01366	.02240	.00123	.00103	.01667
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	-.00083	-.00072	-.00014	.00092	.00896	.31653	-.00156
SDev	.00192	.00187	.00256	.00089	.00508	.10276	.00045
%RSD	229.83	258.70	1862.2	95.900	56.699	32.464	28.982
#1	.00124	-.00290	.00200	-.00023	.00492	.27364	-.00189
#2	-.00340	.00001	-.00370	.00069	.00422	.19196	-.00189
#3	-.00069	-.00145	.00143	.00162	.01335	.41251	-.00153
#4	-.00049	.00145	-.00028	.00162	.01335	.38800	-.00093
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	.00898	-.00025	.01242	.02377	-.00523	.00385	.02093
SDev	.01496	.00084	.00248	.00439	.00995	.02033	.01364
%RSD	166.65	334.75	19.994	18.464	190.02	528.45	65.195
#1	.00345	-.00129	.01366	.02218	-.00517	.02306	.01562
#2	-.00207	-.00025	.01366	.01836	-.00595	-.00000	.00516
#3	.00345	-.00025	.01366	.02813	-.01707	.01539	.02600
#4	.03108	.00078	.00869	.02643	.00726	-.02305	.03692
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	-.00494	.13663	.00682	.00071	.00061	-.00297	-.00202
SDev	.03083	.00301	.02064	.00057	.00059	.06371	.00066
%RSD	623.90	2.2044	302.57	79.201	97.590	2146.0	32.975
#1	-.00894	.14115	.01352	-.00004	-.00017	-.04635	-.00102
#2	-.01690	.13513	-.00308	.00061	.00052	.08103	-.00232

#3	-.03278	.13513	.03219	.00115	.00087	.01147	-.00231
#4	.03885	.13513	-.01535	.00115	.00121	-.05803	-.00241
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	.00123
SDev	.00162
%RSD	131.50
#1	.00152
#2	.00151
#3	.00289
#4	-.00099
Errors	LC Pass
High	.02000
Low	-.02000

Analysis Report 05/19/00 11:57:21 AM

Method: QUANMET Sample Name: DDDCMB Operator: MTW
Run Time: 05/19/00 11:54:15
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00038	.01003	-.04580	.00866	.00039	.00014	.30121
SDev	.00075	.00479	.03244	.00849	.00024	.00007	.00264
%RSD	195.58	47.775	70.827	98.081	63.071	47.075	.87463
#1	.00002	.00506	-.02196	.01521	.00020	.00017	.29809
#2	.00150	.01414	-.02990	.01162	.00072	.00018	.30154
#3	-.00001	.01412	-.09348	.01163	.00020	.00004	.30073
#4	.00002	.00679	-.03787	-.00383	.00042	.00017	.30449
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	.00029	-.00290	-.00271	.00092	.01686	.33899	-.00189
SDev	.00255	.00264	.00108	.00089	.00099	.03056	.00000
%RSD	868.40	91.200	39.824	96.119	5.8927	9.0160	.00000
#1	.00353	-.00001	-.00257	.00162	.01616	.37166	-.00189
#2	-.00043	-.00435	-.00427	.00069	.01616	.33899	-.00189
#3	.00068	-.00580	-.00199	-.00023	.01826	.29815	-.00189
#4	-.00261	-.00144	-.00199	.00162	.01686	.34716	-.00189
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	-.00069	.00001	.00124	.02770	-.00902	-.01356	.01039
SDev	.00529	.00052	.00497	.00350	.00358	.00738	.02505
%RSD	765.94	10206.	399.20	12.638	39.636	54.427	241.06
#1	.00069	-.00026	-.00621	.02388	-.00839	-.02315	-.01583
#2	-.00484	.00078	.00373	.03237	-.01386	-.00779	.03668
#3	-.00484	-.00025	.00373	.02728	-.00860	-.01559	-.00551
#4	.00622	-.00025	.00373	.02728	-.00523	-.00772	.02623
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	-.00889	.11263	.02954	.00015	-.00009	.00853	.00002
SDev	.02131	.02749	.02051	.00006	.00017	.05626	.00292
%RSD	239.63	24.411	69.445	36.842	200.00	659.30	15648.
#1	.01100	.09915	.00717	.00007	-.00017	-.02335	.00245
#2	-.03277	.10509	.02604	.00018	-.00017	.09253	-.00251

#3	.00703	.09308	.05688	.00018	-.00017	-.02329	-.00251
#4	-.02083	.15321	.02806	.00018	.00017	-.01176	.00265
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	.01918
SDev	.00053
%RSD	2.7725
#1	.01904
#2	.01960
#3	.01958
#4	.01848
Errors	LC Pass
High	.02000
Low	-.02000

Analysis Report 05/19/00 12:00:28 PM

Method: QUANMET Sample Name: DDDCMC Operator: MTW
Run Time: 05/19/00 11:57:23
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04600	1.8616	1.8347	.93770	1.8753	.04954	L.08879
SDev	.00145	.0071	.0315	.02523	.0178	.00031	.00381
%RSD	3.1486	.38298	1.7168	2.6901	.94894	.61678	4.2906
#1	.04484	1.8543	1.8488	.94564	1.8693	.04938	L.08812
#2	.04638	1.8579	1.7891	.94563	1.8788	.04964	L.08624
#3	.04789	1.8635	1.8407	.90098	1.8554	.04922	L.09436
#4	.04489	1.8707	1.8604	.95855	1.8978	.04991	L.08644
Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass	LC Low
High	.06000	2.4000	2.4000		2.4000	.06000	60.000
Low	.04000	1.6000	1.6000		1.6000	.04000	40.000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04243	.47232	.18734	.23388	1.0125	L.46356	.89760
SDev	.00299	.00479	.00248	.00075	.0048	.51044	.01107
%RSD	7.0390	1.0137	1.3222	.32247	.47640	110.11	1.2331
#1	.04566	.46544	.18834	.23387	1.0098	L.60038	.89453
#2	L.03857	.47269	.18378	.23388	1.0098	L.59221	.89388
#3	.04352	.47560	.18947	.23296	1.0105	L.92712	.88833
#4	.04195	.47556	.18777	.23480	1.0197	L-.26547	.91368
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	NOCHECK
High	.06000	.60000	.24000	.30000	1.2000	60.000	
Low	.04000	.40000	.16000	.20000	.80000	40.000	

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L-.01934	.47005	.95011	L.10401	.46906	.45750	.45859
SDev	.01852	.00259	.00951	.00638	.00954	.03118	.03897
%RSD	95.743	.55020	1.0011	6.1304	2.0327	6.8153	8.4973
#1	L-.00484	.46720	.93769	L.09818	.46665	.42065	.41111
#2	L-.03246	.47031	.95756	L.09903	.45663	.47490	.49556
#3	L-.00207	.46927	.94762	L.10794	.47544	.49032	.44288
#4	L-.03799	.47341	.95756	L.11091	.47753	.44413	.48480
Errors	LC Low	LC Pass	NOCHECK	LC Low	LC Pass	LC Pass	LC Pass
High	60.000	.60000		60.000	.60000	.60000	.60000
Low	40.000	.40000		40.000	.40000	.40000	.40000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.8294	4.6283	1.8703	.95511	.93360	1.7742	.46470
SDev	.0402	.0510	.0755	.00797	.00432	.0698	.00437
%RSD	2.1969	1.1023	4.0349	.83417	.46248	3.9352	.93972
#1	1.8015	4.5681	1.9012	.95157	.93169	1.8380	.45931
#2	1.8135	4.6042	1.7712	.95638	.93481	1.7800	.46484

#3	1.8891	4.6643	1.8599	.94693	.92891	1.6758	.46466
#4	1.8135	4.6764	1.9491	.96557	.93897	1.8031	.47000
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	.45852
SDev	.00323
%RSD	.70376
#1	.45472
#2	.45882
#3	.45797
#4	.46257
Errors	LC Pass
High	.60000
Low	.40000

Analysis Report 05/19/00 12:03:41 PM

Method: QUANMET Sample Name: DD5VC Operator: MTW
Run Time: 05/19/00 12:00:36
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00466	.74370	.09242	.00299	.10078	.00004	5.1485
SDev	.00123	.00537	.02482	.00188	.00011	.00000	.0216
%RSD	26.520	.72233	26.856	62.854	.10509	.77814	.41938
#1	.00466	.75098	.09832	.00547	.10073	.00004	5.1320
#2	.00466	.73820	.11830	.00124	.10073	.00004	5.1483
#3	.00315	.74187	.05866	.00188	.10094	.00004	5.1345
#4	.00617	.74376	.09440	.00336	.10073	.00004	5.1790
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	.00150	-.00189	.11397	.12654	.56218	11.846	.00014
SDev	.00243	.00139	.00099	.00088	.00239	.298	.00134
%RSD	162.07	73.476	.86661	.69873	.42534	2.5174	941.79
#1	-.00141	-.00007	.11482	.12631	.56130	11.987	.00194
#2	.00157	-.00298	.11254	.12723	.55990	11.595	-.00083
#3	.00130	-.00298	.11425	.12538	.56200	11.603	-.00093
#4	.00453	-.00154	.11425	.12723	.56552	12.200	.00039
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	.75773	.01487	.00505	56.550	.01616	.21143	.00169
SDev	.01105	.00060	.00625	.327	.00323	.03422	.01576
%RSD	1.4585	4.0170	123.73	.57798	19.962	16.184	930.85
#1	.75221	.01539	.01374	56.364	.01388	.23076	.01476
#2	.75221	.01538	.00381	56.614	.01566	.16901	-.00613
#3	.75221	.01435	.00381	56.240	.02086	.19982	-.01673
#4	.77431	.01435	-.00116	56.981	.01424	.24613	.01487
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	.02195	H27.228	.03575	.04610	.01509	.03773	-.00225
SDev	.03038	.102	.01960	.00000	.00049	.07159	.00012
%RSD	138.38	.37629	54.820	.00000	3.2511	189.71	5.3883
#1	.01300	H27.088	.04874	.04610	.01543	.02905	-.00209
#2	.01697	H27.238	.00726	.04610	.01509	-.04039	-.00228

#3	-.00690	H27.250	.04860	.04610	.01439	.02906	-.00228
#4	.06475	H27.334	.03840	.04610	.01543	.13323	-.00237

Errors	LC Pass	LC High	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	.41855
SDev	.00285
%RSD	.68184

#1	.41506
#2	.41774
#3	.42177
#4	.41965

Errors	LC Pass
High	100.00
Low	-.02000

Analysis Report 05/19/00 12:06:55 PM

Method: QUANMET Sample Name: DD5VE Operator: MTW
Run Time: 05/19/00 12:03:49
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.13957	17.779	.03917	.06517	1.5337	-.00048	43.521
SDev	.00000	.024	.06516	.00218	.0013	.00007	.077
%RSD	.00310	.13294	166.35	3.3480	.08461	14.645	.17726
#1	.13957	17.813	.11240	.06570	1.5356	-.00059	43.488
#2	.13956	17.776	.00147	.06208	1.5331	-.00045	43.506
#3	.13956	17.758	-.03017	.06568	1.5328	-.00045	43.457
#4	.13957	17.770	.07299	.06722	1.5333	-.00045	43.632
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	.02092	.02062	1.5403	1.6204	13.987	5.3401	.00937
SDev	.00624	.00218	.0056	.0018	.017	.2602	.00215
%RSD	29.832	10.569	.36670	.11413	.11940	4.8731	22.899
#1	.01319	.02173	1.5416	1.6213	13.990	5.2237	.01220
#2	.02462	.01735	1.5399	1.6176	13.973	5.1420	.00780
#3	.02714	.02169	1.5331	1.6213	13.976	5.7220	.00762
#4	.01874	.02172	1.5468	1.6213	14.009	5.2727	.00987
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	5.5652	.22008	.01451	23.913	.27071	.91383	-.00613
SDev	.0098	.00051	.00625	.081	.00551	.02183	.00008
%RSD	.17670	.23204	43.081	.33763	2.0374	2.3887	1.2273
#1	5.5569	.22034	.00582	24.011	.26257	.89843	-.00611
#2	5.5708	.22034	.01575	23.881	.27370	.89833	-.00609
#3	5.5763	.22034	.01575	23.822	.27206	.91387	-.00608
#4	5.5569	.21932	.02072	23.937	.27449	.94469	-.00624
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	.01929	16.240	.27482	.19958	.39380	-.03350	.02137
SDev	.03100	.045	.02186	.00014	.00040	.05553	.00012
%RSD	160.69	.27515	7.9532	.06767	.10169	165.77	.57672
#1	.02229	16.174	.25258	.19965	.39414	.01858	.02121
#2	.03815	16.264	.26293	.19965	.39345	-.09701	.02140

#3	.04214	16.252	.28155	.19938	.39414	.00714	.02138
#4	-.02540	16.270	.30224	.19965	.39345	-.06269	.02151
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	6.2305
SDev	.0026
%RSD	.04144
#1	6.2329
#2	6.2270
#3	6.2304
#4	6.2318
Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DD9NT Operator: MTW
Run Time: 05/19/00 12:06:57
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01888	8.6398	.08066	.05652	.21910	-.00033	14.453
SDev	.00124	.0257	.05739	.01619	.00151	.00008	.063
%RSD	6.5523	.29757	71.154	28.639	.68952	22.723	.43255
#1	.02041	8.6421	.07264	.04844	.21946	-.00027	14.408
#2	.01738	8.6677	.07641	.04846	.22028	-.00027	14.479
#3	.01888	8.6441	.01706	.08081	.21977	-.00040	14.529
#4	.01887	8.6054	.15651	.04839	.21689	-.00040	14.396
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	.01033	.00479	.18277	.41943	2.9966	14.060	.00286
SDev	.00128	.00145	.00135	.00276	.0147	.323	.00024
%RSD	12.401	30.186	.73565	.65749	.48892	2.2953	8.2447
#1	.00907	.00407	.18376	.42012	3.0025	13.833	.00295
#2	.00944	.00407	.18262	.42289	3.0082	14.528	.00303
#3	.01105	.00696	.18376	.41827	3.0004	14.021	.00295
#4	.01176	.00407	.18092	.41642	2.9751	13.858	.00251
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	2.4390	.07352	.00542	65.286	.07977	.55760	.01739
SDev	.0256	.00052	.00475	.551	.00918	.02522	.01583
%RSD	1.0485	.70641	87.807	.84463	11.508	4.5225	91.063
#1	2.4486	.07377	.00417	65.112	.08023	.52673	.00423
#2	2.4597	.07378	.00914	65.808	.09229	.55757	.02543
#3	2.4459	.07377	-.00079	64.589	.07567	.58850	.03577
#4	2.4017	.07274	.00914	65.637	.07088	.55758	.00412
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	.01593	H26.596	.06086	.13219	.08609	.01571	.00562
SDev	.07964	.047	.01607	.00068	.00052	.08080	.00236
%RSD	499.96	.17688	26.414	.51423	.60423	514.22	41.919
#1	.09753	H26.548	.06131	.13233	.08583	.11986	.00818
#2	.04980	H26.656	.04072	.13287	.08583	-.07705	.00698

#3	-.08952	H26.608	.08008	.13233	.08687	.00409	.00422
#4	.00590	H26.572	.06131	.13125	.08583	.01595	.00311
Errors	LC Pass	LC High	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	1.5865
SDev	.0100
%RSD	.63201
#1	1.5809
#2	1.5911
#3	1.5981
#4	1.5758
Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DD9NTP5 Operator: MTW
Run Time: 05/19/00 12:10:10
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00506	1.8096	.03770	.00042	.04491	-.00003	3.1414
SDev	.00145	.0157	.02165	.00106	.00030	.00008	.0088
%RSD	28.747	.86999	57.419	252.99	.66127	249.93	.27878
#1	.00316	1.7977	.03384	-.00011	.04517	-.00010	3.1405
#2	.00467	1.8014	.00998	-.00011	.04466	-.00010	3.1299
#3	.00619	1.8326	.06137	.00201	.04517	.00004	3.1444
#4	.00621	1.8068	.04562	-.00011	.04466	.00003	3.1508
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	.00212	-.00042	.03590	.08661	.63068	3.0489	-.00136
SDev	.00239	.00217	.00136	.00076	.00373	.2471	.00052
%RSD	112.57	518.23	3.7793	.87258	.59174	8.1038	38.111
#1	.00482	.00139	.03733	.08754	.63366	2.9447	-.00189
#2	.00225	-.00296	.03447	.08568	.62594	2.8549	-.00145
#3	-.00099	.00140	.03505	.08661	.63366	2.9856	-.00065
#4	.00240	-.00151	.03675	.08661	.62945	3.4103	-.00145
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	.50907	.01487	.00382	13.667	.01263	.10874	.00501
SDev	.01034	.00060	.00406	.179	.00378	.01153	.00859
%RSD	2.0307	4.0211	106.18	1.3118	29.950	10.606	171.40
#1	.50907	.01538	.00382	13.607	.01566	.09915	-.00549
#2	.49802	.01435	-.00115	13.462	.01081	.12216	.00506
#3	.50631	.01435	.00382	13.887	.00817	.11455	.00494
#4	.52288	.01538	.00879	13.712	.01588	.09909	.01556
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	-.01560	6.0279	.00629	.02697	.01777	.01385	-.00147
SDev	.01048	.0427	.01562	.00034	.00052	.05934	.00200
%RSD	67.137	.70894	248.53	1.2556	2.9268	428.48	136.33
#1	-.01062	6.0519	.00314	.02735	.01717	-.00645	-.00243
#2	-.03054	6.0279	-.00923	.02692	.01821	.00524	-.00253

#3	-.01460	6.0640	.02801	.02708	.01751	-.04120	-.00243
#4	-.00665	5.9679	.00323	.02654	.01821	.09781	.00153
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	.34333
SDev	.00143
%RSD	.41558
#1	.34464
#2	.34443
#3	.34174
#4	.34252
Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DD9NTS Operator: MTW
Run Time: 05/19/00 12:13:18
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.06486	10.403	1.9511	.96418	2.0596	.04977	14.424
SDev	.00077	.050	.0458	.00005	.0173	.00057	.079
%RSD	1.1832	.48056	2.3479	.00529	.84138	1.1435	.54535
#1	.06522	10.371	1.8889	.96412	2.0449	.04922	14.314
#2	.06371	10.353	1.9605	.96415	2.0446	.04936	14.423
#3	.06526	10.461	1.9992	.96422	2.0711	.05019	14.471
#4	.06526	10.428	1.9558	.96422	2.0778	.05033	14.489
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	.04788	.46796	.36956	.64521	3.9424	14.262	.91081
SDev	.00107	.00372	.00305	.00615	.0303	.313	.01195
%RSD	2.2295	.79445	.82506	.95277	.76869	2.1922	1.3116
#1	.04856	.46363	.36614	.63943	3.9080	14.470	.92523
#2	.04643	.46653	.36785	.64036	3.9262	14.340	.91544
#3	.04774	.46939	.37184	.65052	3.9642	14.438	.90419
#4	.04879	.47228	.37240	.65053	3.9712	13.801	.89836
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	2.3948	.53737	1.0375	66.299	.54793	.96674	.46971
SDev	.0269	.00362	.0122	.705	.00843	.00780	.03367
%RSD	1.1245	.67412	1.1728	1.0631	1.5376	.80642	7.1683
#1	2.3685	.53298	1.0424	67.185	.54856	.95504	.44077
#2	2.3768	.53608	1.0275	66.461	.54203	.97063	.50403
#3	2.4265	.53919	1.0524	66.029	.54152	.97063	.49321
#4	2.4072	.54125	1.0275	65.520	.55962	.97065	.44084
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9873	H33.917	2.0804	1.0760	1.0999	1.7473	.46901
SDev	.0782	.291	.0255	.0085	.0092	.1290	.00344
%RSD	3.9373	.85777	1.2272	.79362	.83701	7.3808	.73352
#1	1.9196	H33.588	2.0647	1.0684	1.0895	1.7505	.46555
#2	1.9793	H33.774	2.0526	1.0691	1.0950	1.9240	.46656

#3	2.0989	H34.068	2.1022	1.0816	1.1058	1.6920	.47220
#4	1.9516	H34.236	2.1019	1.0850	1.1093	1.6224	.47172

Errors	LC Pass	LC High	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	2.0207
SDev	.0173
%RSD	.85495

#1	1.9990
#2	2.0148
#3	2.0367
#4	2.0322

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DD9NTD Operator: MTW
Run Time: 05/19/00 12:16:31
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.06827	10.221	1.9407	.95236	2.0672	.05015	14.313
SDev	.00123	.085	.0701	.01275	.0214	.00058	.037
%RSD	1.8070	.82894	3.6105	1.3383	1.0361	1.1617	.25951
#1	.06978	10.180	1.8745	.96033	2.0541	.04976	14.315
#2	.06827	10.137	1.9464	.94952	2.0482	.04962	14.261
#3	.06676	10.233	1.9058	.93561	2.0706	.05032	14.345
#4	.06828	10.334	2.0361	.96399	2.0961	.05089	14.333
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	.05226	.48294	.37353	.63575	3.8366	14.270	.89802
SDev	.00250	.00447	.00395	.00687	.0222	.252	.01357
%RSD	4.7944	.92614	1.0567	1.0811	.57915	1.7677	1.5110
#1	.05149	.48260	.37011	.63206	3.8248	14.479	.90080
#2	.05522	.47680	.37011	.62928	3.8121	14.389	.88232
#3	.05303	.48692	.37695	.63668	3.8480	13.907	.89411
#4	.04928	.48546	.37695	.64499	3.8614	14.307	.91484
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	2.3713	.54558	.95798	65.737	.56142	.98456	.43652
SDev	.0248	.00285	.00405	.884	.00279	.02296	.02500
%RSD	1.0465	.52214	.42320	1.3450	.49678	2.3325	5.7270
#1	2.3464	.54429	.96295	65.776	.55862	.97881	.44176
#2	2.3547	.54222	.95798	64.704	.55948	1.0172	.45236
#3	2.3989	.54739	.95302	65.610	.56326	.97891	.45220
#4	2.3851	.54843	.95798	66.860	.56431	.96333	.39977
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9452	H20.164	1.9646	1.0815	1.0103	1.7511	.47554
SDev	.0571	.094	.0518	.0108	.0074	.0446	.00007
%RSD	2.9372	.46558	2.6376	1.0015	.73481	2.5460	.01536
#1	1.9710	H20.102	1.9698	1.0750	1.0059	1.7628	.47562
#2	1.8595	H20.102	1.9492	1.0712	1.0031	1.8093	.47553

#3	1.9751	H20.150	2.0319	1.0842	1.0125	1.7162	.47545
#4	1.9751	H20.300	1.9075	1.0956	1.0198	1.7161	.47554
Errors	LC Pass	LC High	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	2.0216
SDev	.0133
%RSD	.65972
#1	2.0206
#2	2.0039
#3	2.0265
#4	2.0355
Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DD9NW Operator: MTW
Run Time: 05/19/00 12:19:44
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00359	5.1141	.05675	.03770	2.1494	.00062	6.4637
SDev	.00214	.0234	.00874	.00319	.0118	.00007	.0237
%RSD	59.550	.45757	15.408	8.4677	.54944	11.473	.36674
#1	.00359	5.0966	.05987	.04145	2.1493	.00051	6.4565
#2	.00208	5.1479	.05944	.03364	2.1657	.00065	6.4474
#3	.00662	5.1114	.06372	.03786	2.1448	.00065	6.4988
#4	.00208	5.1003	.04395	.03784	2.1379	.00065	6.4521
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	-.00029	.00837	.09913	.27021	1.6811	3.9903	.00333
SDev	.00084	.00303	.00099	.00046	.0053	.1906	.00020
%RSD	290.30	36.150	.99435	.17106	.31510	4.7775	5.9096
#1	-.00050	.00765	.09999	.26952	1.6790	4.0066	.00314
#2	-.00091	.00474	.09828	.27044	1.6868	3.7207	.00339
#3	.00095	.00909	.09999	.27044	1.6839	4.0720	.00321
#4	-.00070	.01201	.09828	.27044	1.6748	4.1618	.00358
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9085	.03654	.02260	17.742	.05756	.37483	.00610
SDev	.0237	.00052	.00625	.170	.00441	.02182	.02332
%RSD	1.2426	1.4143	27.649	.95796	7.6664	5.8216	382.13
#1	1.8795	.03628	.02384	17.653	.05555	.34401	.01395
#2	1.9071	.03629	.02385	17.977	.05562	.37472	.01401
#3	1.9375	.03628	.01391	17.588	.06416	.39022	-.02808
#4	1.9099	.03732	.02881	17.749	.05491	.39037	.02453
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	.02704	17.889	.03395	.25081	.86198	.03465	.03415
SDev	.03321	.071	.01659	.00125	.00290	.04063	.00012
%RSD	122.81	.39967	48.856	.49700	.33661	117.27	.34967
#1	.00912	17.802	.04381	.25065	.86233	-.00586	.03417
#2	-.01075	17.916	.01691	.25254	.86441	.06356	.03417

#3	.05690	17.970	.05189	.25049	.86337	.07514	.03398
#4	.05288	17.868	.02319	.24957	.85782	.00574	.03426
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	.32510
SDev	.00126
%RSD	.38843
#1	.32328
#2	.32518
#3	.32594
#4	.32598
Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DD9NWP5 Operator: MTW
Run Time: 05/19/00 12:22:52
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00123	1.0269	.00381	-.00464	.42977	.00024	1.2983
SDev	.00287	.0117	.05817	.00752	.00349	.00008	.0083
%RSD	232.19	1.1409	1525.9	161.95	.81181	32.849	.64015
#1	-.00293	1.0095	-.03476	-.01084	.43388	.00017	1.2867
#2	.00312	1.0314	-.05482	.00187	.42771	.00031	1.3049
#3	.00163	1.0351	.06825	.00186	.43131	.00030	1.2980
#4	.00312	1.0314	.03658	-.01146	.42617	.00017	1.3037
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	-.00104	.00059	.01838	.05404	.33794	.91691	-.00163
SDev	.00204	.00182	.00256	.00089	.00202	.23146	.00078
%RSD	197.19	307.05	13.947	1.6375	.59753	25.243	48.186
#1	.00101	.00095	.01624	.05335	.33495	.58404	-.00244
#2	-.00199	.00096	.01852	.05520	.33917	1.0660	-.00057
#3	.00026	.00240	.02193	.05427	.33917	.93529	-.00189
#4	-.00343	-.00194	.01681	.05335	.33847	1.0823	-.00161
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	.38128	.00705	.00502	3.5747	.00533	.07262	.00222
SDev	.00523	.00000	.00248	.0311	.00414	.03695	.02168
%RSD	1.3717	.01476	49.499	.87039	77.670	50.876	978.58
#1	.37369	.00705	.00378	3.6138	.00716	.05335	-.01618
#2	.38474	.00705	.00874	3.5442	.00960	.10732	.01541
#3	.38197	.00705	.00378	3.5846	.00467	.03026	-.01621
#4	.38474	.00705	.00378	3.5561	-.00010	.09955	.02584
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	.01118	4.0682	.00618	.05026	.17115	.03705	.00400
SDev	.04496	.0296	.01093	.00038	.00057	.05865	.00257
%RSD	401.97	.72693	176.93	.76003	.33090	158.31	64.174
#1	-.05549	4.0577	.00661	.05080	.17045	-.04976	.00268
#2	.04004	4.1118	.00055	.05026	.17115	.06599	.00278

#3	.02412	4.0578	-.00374	.04999	.17184	.05436	.00785
#4	.03606	4.0457	.02129	.04999	.17115	.07760	.00268
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	.06553
SDev	.00077
%RSD	1.1792
#1	.06475
#2	.06505
#3	.06644
#4	.06588
Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: CCV2-7 Operator: MTW
Run Time: 05/19/00 12:26:01
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.98884	48.980	5.1467	4.8910	4.8056	5.0980	52.658
SDev	.00403	.194	.0529	.0218	.0287	.0234	.159
%RSD	.40775	.39664	1.0286	.44506	.59822	.45987	.30191
#1	.98852	49.065	5.1706	4.9014	4.8135	5.1124	52.756
#2	.98533	48.690	5.2102	4.8584	4.7631	5.0630	52.755
#3	.98694	49.065	5.1033	4.9013	4.8247	5.1097	52.423
#4	.99456	49.100	5.1028	4.9029	4.8212	5.1070	52.699
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	55.000	5.5000	5.5000	5.5000	5.5000	55.000
Low	.90000	45.000	4.5000	4.5000	4.5000	4.5000	45.000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.1936	5.0605	5.0340	4.8358	51.770	47.973	4.5111
SDev	.0159	.0145	.0115	.0319	.096	.384	.0378
%RSD	.30667	.28716	.22801	.65941	.18475	.80039	.83786
#1	5.1887	5.0735	5.0434	4.8384	51.849	48.141	4.5023
#2	5.2155	5.0402	5.0326	4.7903	51.640	48.059	L4.4648
#3	5.1776	5.0605	5.0184	4.8624	51.757	47.414	4.5220
#4	5.1928	5.0677	5.0417	4.8522	51.835	48.280	4.5552
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	55.000	55.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	45.000	45.000	4.5000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	49.952	5.0029	4.9773	47.949	5.1341	4.9952	5.0871
SDev	.203	.0108	.0238	.323	.0154	.0289	.0623
%RSD	.40651	.21551	.47800	.67414	.29977	.57851	1.2240
#1	50.048	5.0148	4.9885	47.900	5.1244	4.9743	5.0790
#2	49.653	4.9910	4.9487	47.577	5.1560	5.0198	5.0268
#3	50.007	4.9973	4.9686	47.951	5.1224	4.9663	5.1742
#4	50.101	5.0087	5.0034	48.365	5.1336	5.0203	5.0685
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55.000	5.5000	5.5000	55.000	5.5000	5.5000	5.5000
Low	45.000	4.5000	4.5000	45.000	4.5000	4.5000	4.5000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.0375	H7.3295	5.0285	4.9306	4.8840	9.7673	5.0244
SDev	.0448	.0919	.0245	.0252	.0159	.1374	.0105
%RSD	.88974	1.2536	.48703	.51139	.32563	1.4070	.20902
#1	4.9960	H7.2575	5.0486	4.9395	4.8960	9.7693	5.0327
#2	5.0152	H7.4495	5.0402	4.8930	4.8606	9.6328	5.0100

#3	5.0992	H7.3535	4.9932	4.9470	4.8887	9.9556	5.0233
#4	5.0398	H7.2575	5.0320	4.9427	4.8908	9.7116	5.0317
Errors	LC Pass	LC High	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	4.9623
SDev	.0099
%RSD	.19862
#1	4.9718
#2	4.9522
#3	4.9555
#4	4.9696
Errors	LC Pass
High	5.5000
Low	4.5000

Method: QUANMET Sample Name: CCB7 Operator: MTW
Run Time: 05/19/00 12:29:14
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00037	.01596	-.00606	-.01157	.00064	.00064	.00733
SDev	.00076	.00637	.02473	.00105	.00023	.00029	.00583
%RSD	205.53	39.894	407.94	9.1008	35.736	45.342	79.651
#1	.00150	.01785	-.04184	-.00999	.00042	.00033	.00514
#2	-.00001	.00677	.01389	-.01210	.00051	.00047	.00250
#3	-.00001	.01776	-.00211	-.01209	.00093	.00089	.00585
#4	-.00001	.02147	.00581	-.01210	.00072	.00089	.01581
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	.00167	-.00073	-.00128	.00069	.00650	.21646	-.00196
SDev	.00254	.00277	.00261	.00075	.00365	.15839	.00035
%RSD	152.13	379.39	204.04	108.76	56.106	73.173	17.721
#1	.00241	.00144	-.00256	-.00023	.00492	.20013	-.00161
#2	-.00186	-.00434	-.00313	.00069	.00211	.10211	-.00244
#3	.00195	-.00145	-.00199	.00162	.00983	.11844	-.00189
#4	.00416	.00144	.00257	.00069	.00913	.44518	-.00189
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	-.00069	-.00025	.01118	.01889	-.00868	-.01158	.00778
SDev	.00160	.00000	.00287	.00651	.00814	.04932	.01018
%RSD	230.94	.74070	25.662	34.443	93.739	425.94	130.83
#1	.00069	-.00025	.00869	.01751	-.00973	-.06160	.01571
#2	-.00207	-.00025	.00869	.01284	-.00267	.03071	.00519
#3	.00069	-.00025	.01366	.01709	-.01980	-.04630	-.00554
#4	-.00207	-.00025	.01366	.02813	-.00253	.03087	.01575
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	-.04276	H.65923	-.00927	.00042	.00017	.04338	-.00236
SDev	.01321	.04637	.01743	.00050	.00057	.05538	.00006
%RSD	30.895	7.0336	188.01	120.27	326.60	127.68	2.4997
#1	-.04077	H.72380	-.01337	.00007	.00017	.04627	-.00242
#2	-.06068	H.65773	.00106	-.00004	-.00052	-.03471	-.00242

#3	-.04076	H.63970	.00722	.00061	.00017	.09256	-.00232
#4	-.02882	H.61568	-.03200	.00104	.00087	.06939	-.00231

Errors	LC Pass	LC High	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	-.00076
SDev	.00109
%RSD	143.34

#1	.00018
#2	-.00143
#3	-.00193
#4	.00015

Errors	LC Pass
High	.02000
Low	-.02000

Analysis Report 05/19/00 12:35:32 PM

Method: QUANMET Sample Name: DD9NWS Operator: MTW
Run Time: 05/19/00 12:32:27
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04630	5.3364	1.7822	.84361	3.6160	.04717	5.2723
SDev	.00146	.0384	.0174	.00284	.0289	.00024	.0220
%RSD	3.1561	.71906	.97787	.33627	.79939	.51163	.41648
#1	.04515	5.2957	1.7905	.84231	3.6074	.04696	5.2475
#2	.04667	5.3121	1.7625	.84022	3.5791	.04696	5.2976
#3	.04821	5.3743	1.7738	.84596	3.6427	.04737	5.2817
#4	.04516	5.3635	1.8018	.84594	3.6350	.04738	5.2622
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	.04039	.45207	.27378	.47425	2.2870	4.0679	.83153
SDev	.00242	.00314	.00203	.00380	.0095	.2978	.00978
%RSD	5.9943	.69574	.74093	.80059	.41483	7.3204	1.1757
#1	.04271	.45208	.27378	.47310	2.2740	4.0393	.82579
#2	.04022	.45355	.27264	.46941	2.2860	4.4967	.82226
#3	.04153	.44770	.27207	.47771	2.2944	3.8432	.84429
#4	.03709	.45496	.27663	.47679	2.2937	3.8923	.83379
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.3393	.47547	.82736	18.640	.50417	.81276	.11307
SDev	.0144	.00155	.00625	.196	.00940	.02029	.01802
%RSD	1.0719	.32648	.75554	1.0516	1.8651	2.4958	15.933
#1	1.3241	.47366	.81867	18.481	.49898	.81086	.11576
#2	1.3435	.47470	.83357	18.481	.51603	.84170	.10517
#3	1.3573	.47676	.82861	18.883	.49469	.80296	.09458
#4	1.3324	.47676	.82861	18.714	.50698	.79551	.13678
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.8400	H35.444	1.7697	1.0915	1.4849	1.3328	.46379
SDev	.0916	.326	.0300	.0077	.0077	.0359	.00259
%RSD	4.9784	.91929	1.6945	.70684	.51782	2.6953	.55939
#1	1.7982	H35.065	1.7470	1.0881	1.4803	1.2808	.46233
#2	1.8340	H35.288	1.8132	1.0822	1.4765	1.3618	.46262

#3	1.9694	H35.648	1.7531	1.0985	1.4921	1.3385	.46768
#4	1.7585	H35.774	1.7657	1.0970	1.4907	1.3501	.46253
Errors	LC Pass	LC High	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	.75616
SDev	.00169
%RSD	.22360
#1	.75459
#2	.75828
#3	.75675
#4	.75502
Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DD9NWD Operator: MTW
Run Time: 05/19/00 12:35:40
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04901	6.2145	1.9057	.84313	3.7783	.04808	6.7328
SDev	.00151	.0181	.0196	.00344	.0162	.00013	.0295
%RSD	3.0886	.29123	1.0269	.40783	.42776	.27940	.43851
#1	.04977	6.2117	1.8978	.83863	3.7892	.04819	6.7218
#2	.04977	6.1899	1.8821	.84579	3.7557	.04791	6.7464
#3	.04978	6.2280	1.9254	.84225	3.7778	.04818	6.7654
#4	.04674	6.2282	1.9175	.84584	3.7907	.04805	6.6975
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	.04177	.48445	.29032	.49990	2.2646	4.1087	.83776
SDev	.00154	.00522	.00444	.00106	.0068	.2864	.00916
%RSD	3.6867	1.0785	1.5291	.21275	.29905	6.9715	1.0933
#1	.04300	.48335	.28519	.50082	2.2625	3.8514	.84107
#2	.03959	.49208	.29374	.49898	2.2561	4.3007	.82597
#3	.04268	.48191	.29431	.49898	2.2716	4.4069	.83628
#4	.04183	.48046	.28804	.50082	2.2681	3.8759	.84773
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9803	.50904	.90187	18.399	.54670	.85557	.10418
SDev	.0094	.00099	.01102	.192	.00864	.01708	.01720
%RSD	.47655	.19405	1.2213	1.0434	1.5807	1.9969	16.511
#1	1.9679	.50775	.89814	18.466	.54549	.88058	.10429
#2	1.9845	.50981	.89317	18.146	.53494	.85004	.12514
#3	1.9900	.50879	.91801	18.380	.55319	.84198	.08300
#4	1.9789	.50981	.89814	18.603	.55319	.84967	.10429
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.8867	H25.500	1.9806	1.1487	1.7909	1.2171	.47976
SDev	.0364	.103	.0269	.0042	.0042	.0609	.00086
%RSD	1.9293	.40555	1.3569	.36654	.23691	5.0023	.17895
#1	1.9056	H25.466	1.9506	1.1516	1.7945	1.2576	.47936
#2	1.8379	H25.370	2.0108	1.1427	1.7848	1.1650	.47928

#3	1.8817	H25.605	1.9940	1.1491	1.7928	1.2807	.48105
#4	1.9215	H25.557	1.9672	1.1516	1.7914	1.1650	.47937
Errors	LC Pass	LC High	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	.80040
SDev	.00829
%RSD	1.0352
#1	.79717
#2	.79048
#3	.80928
#4	.80467
Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DD9PE Operator: MTW
Run Time: 05/19/00 12:38:54
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02216	7.4960	.02933	.04749	.17488	-.00050	10.762
SDev	.00145	.0285	.01045	.00002	.00114	.00007	.029
%RSD	6.5411	.38024	35.621	.03863	.65222	14.080	.26865
#1	.02330	7.5220	.02313	.04752	.17553	-.00054	10.797
#2	.02178	7.4654	.03158	.04747	.17450	-.00054	10.770
#3	.02027	7.5184	.04305	.04750	.17604	-.00054	10.728
#4	.02330	7.4782	.01955	.04749	.17347	-.00040	10.752
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	.00344	.00054	.07778	.59643	2.5035	4.2333	.00119
SDev	.00258	.00187	.00203	.00226	.0083	.2069	.00076
%RSD	74.877	344.06	2.6070	.37899	.33077	4.8875	64.195
#1	.00596	-.00019	.07778	.59735	2.5149	4.1373	.00218
#2	.00533	.00271	.07892	.59458	2.4952	4.3660	.00119
#3	.00157	-.00163	.07493	.59920	2.5030	3.9903	.00031
#4	.00090	.00127	.07949	.59458	2.5009	4.4395	.00109
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.7393	.04680	.00534	6.6279	.04299	.08419	.01273
SDev	.0091	.00000	.00625	.0740	.00572	.00999	.02165
%RSD	.52487	.00854	117.03	1.1171	13.310	11.867	170.14
#1	1.7330	.04680	.01404	6.6787	.04790	.08798	-.00572
#2	1.7496	.04679	-.00087	6.5759	.03772	.08043	.02586
#3	1.7303	.04680	.00410	6.7033	.04797	.07253	-.00559
#4	1.7441	.04680	.00410	6.5538	.03836	.09581	.03635
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	-.00478	11.861	.04018	.05546	.05107	.00044	.00283
SDev	.06688	.123	.01641	.00026	.00066	.03039	.00012
%RSD	1399.9	1.0379	40.844	.46630	1.2856	6868.1	4.2411
#1	.07187	12.035	.03854	.05566	.05150	.03217	.00300
#2	.00017	11.843	.04903	.05539	.05011	-.02554	.00272

#3	-.09134	11.819	.01785	.05566	.05115	.02073	.00281
#4	.00019	11.747	.05529	.05512	.05150	-.02559	.00281
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	1.9912
SDev	.0065
%RSD	.32495
#1	1.9872
#2	1.9940
#3	1.9990
#4	1.9848
Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DD9PX Operator: MTW
Run Time: 05/19/00 12:42:02
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01183	9.2400	.09458	.12169	.23767	.00044	18.788
SDev	.00213	.0539	.03091	.01933	.00192	.00000	.078
%RSD	18.047	.58294	32.684	15.882	.80751	.03235	.41440
#1	.01031	9.2341	.08867	.13660	.23768	.00044	18.752
#2	.01485	9.1865	.10103	.14014	.23593	.00044	18.701
#3	.01032	9.3147	.13166	.10431	.24034	.00044	18.879
#4	.01183	9.2249	.05696	.10571	.23674	.00044	18.821
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	.00378	.00336	.41297	.70998	5.1706	6.3550	.03321
SDev	.00456	.00344	.00382	.00485	.0251	.1289	.00038
%RSD	120.76	102.45	.92485	.68288	.48508	2.0282	1.1578
#1	.00714	.00552	.41682	.71021	5.1717	6.2938	.03275
#2	.00472	.00553	.41568	.70559	5.1415	6.5388	.03304
#3	-.00290	-.00170	.40998	.71667	5.2026	6.3428	.03353
#4	.00615	.00408	.40941	.70744	5.1667	6.2448	.03353
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	12.158	.20790	.01071	8.2136	.20427	.38543	.00606
SDev	.065	.00052	.00248	.1455	.00807	.02225	.00530
%RSD	.53209	.25077	23.196	1.7720	3.9519	5.7716	87.447
#1	12.152	.20764	.01443	8.1654	.19252	.37972	.00326
#2	12.119	.20763	.00946	8.0843	.20693	.40287	.00351
#3	12.252	.20868	.00947	8.4223	.20671	.35635	.00346
#4	12.111	.20764	.00947	8.1824	.21093	.40281	.01400
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	-.01592	18.661	.06847	.11646	.08297	.04322	.00876
SDev	.03160	.080	.02399	.00074	.00033	.04956	.00005
%RSD	198.49	.42786	35.043	.63871	.40018	114.66	.60910
#1	-.06168	18.625	.07415	.11693	.08271	-.01760	.00884
#2	-.00210	18.577	.03690	.11558	.08341	.06377	.00874

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PART I

ADMINISTRATIVE RECORD

PART I

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