



THE MEMPHIS DEPOT TENNESSEE

ADMINISTRATIVE RECORD COVER SHEET

AR File Number 659

**SEVERN
TRENT
SERVICES**

STL Pittsburgh
450 William Pitt Way
Pittsburgh, PA 15238

Tel 412 820 8380
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www.stl-inc.com

ANALYTICAL REPORT

PROJECT NO. UXB 7512-060

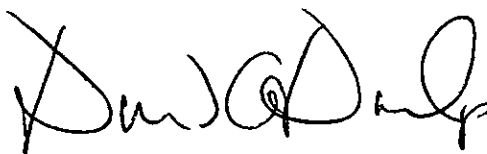
Dunn Field, Def Depot Memphis

Lot #: C0K260147

Randy Reed

UXB International

SEVERN TRENT LABORATORIES, INC.



Dave Dunlap
Project Manager

June 7, 2000

CASE NARRATIVE
UXB International Inc.
Dunn Field

LOT # C0E260147

Sample Receiving:

One sample was received on May 26, 2000.

Volatiles:

There were no problems associated with the analyses.

Semivolatiles:

There were no problems associated with the analyses.

Pesticides:

The initial calibration on DB608 column had tetrachloro-m-xylene outside the 20% RSD criteria. The average RSD of the compounds in the calibration mixes was 11% therefore the average response factor was used to calculate results.

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

Column: DB608			
Calibration Verification Date & Times	Affected Compound	% Difference	Average % Difference of All Compounds in Standard
6/3/00 @ 13:32/14:00	tetrachloro-m- xylene	-17.1	14
	alpha-BHC	-19.3	
	gamma-BHC	-18.5	
	heptachlor	-15.3	
	dieldrin	-16.4	
	endrin	-17.7	
	4,4-DDT	-15.4	
	4,4-DDD	-17.7	

Herbicides:

There were no problems associated with the analyses.

Metals:

There were no problems associated with the analyses.

CASE NARRATIVE
UXB International Inc.
Dunn Field

LOT # C0E260147

TCLP Metals:

There were no problems associated with the analyses.

General Chemistry:

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

METHODS SUMMARY

C0E260147

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

References:

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

SAMPLE SUMMARY**C0K260147**

<u>WO #</u>	<u>SAMPLE#</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
DDRMP	001	DF/S1/0146/SDC/004	05/25/00	07:31

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.

[illegible]

Cooler Receipt Form

STL Pittsburgh

Client: UXB Project: _____ Quote: _____
Cooler Rec'd & Opened for Temp. Check on: 5/26/00
Coolers Opened and Unpacked on: 5/26/00 By: [Signature]
(Signature)

STL Pittsburgh Lot Number: COL 760147

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

Explain any discrepancies: _____

Level 2 Review _____
Was contacted on _____ by _____ to resolve discrepancies.

P: Preserved
UP: Unpreserved

[illegible]

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

Comments: _____

[illegible][illegible]

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

FedEx Express Mail **821738762754**

1 From **5/5/00** **821738762754**

Date **5/5/00**

Sender's Name **Jim Moore** Phone **901 745-4999**

Company **UXB Int'l. Inc.**

Address **6141 Old Polar Ave**

Memphis, TN 38118

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

Company **Severn Trent**

Address **450 William Pitt Way**

City **Pittsburgh** State **PA** Zip **15238**



0200

4a Express Package Service

☒ **FedEx Priority Overnight**

☐ **FedEx 2Day[®]**

☐ **FedEx Standard Overnight**

Packages up to 150 lbs. Delivery commitment may be later in some areas. FedEx First Overnight delivery is subject to location.

4b Express Freight Service

☐ **FedEx 1Day Freight[®]**

☐ **FedEx 2Day Freight**

☐ **FedEx 3Day Freight**

Call for conditions.

5 Packaging

☐ **FedEx Letter[®]**

☒ **Other Pkg**

6 Special Handling

☐ **Signature Required**

☐ **Sunday Delivery**

☐ **HOLD Location**

☐ **HOLD Saturday**

☒ **No**

☐ **Yes**

☐ **Dry Ice**

☐ **Cargo Aircraft Only**

7 Payment

☐ **Bill Me**

☐ **Rec'd**

☐ **Credit Card**

8 Release Signature

☒ **Signature Required**

☐ **Signature Not Required**

☐ **Signature Not Required**

☐ **Signature Not Required**

By signing you authorize us to deliver this shipment without obtaining a signature. No signature is required and held in transit from any existing claims. Call 1-800-FedEx (1-800-433-3338) for more information. ©2000 FedEx Corp.

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SBCCOM
Monitoring Branch Laboratory

CLEARANCE REPORT

May-25, 2000
Dunn Field, Memphis Defense Depot
Results for CWM Soil Sample Analysis
Analyst: CHRIS DRUYOR

Sample#		1,4- Thioxane	1,4- Dithiane	TDG	Mustard	Lewisite
DF/S1/01 46/SDC/ 004		ND	ND	N/A	ND	ND

ND= Not detected at or above the method detection limit (MDL)
MDL= 200 ppb
BDL= Below detection limit, results > 100ppb, but < 200 ppb
MS= matrix spike
MSD= matrix spike duplicate
DUP= duplicate

DATA SUMMARY PACKAGE

GC/MS VOLATILE SUMMARY

UXB INTERNATIONAL

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: COE260147 001

Method: SW846 8260B

Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL

Date Received: 05/26/00

Work Order: DDRMP102

Date Extracted: 06/02/00

Dilution factor: 1

Date Analyzed: 06/02/00

Moisture %: 13

QC Batch: 0151138

Client Sample Id: DF/S1/0146/SDC/004

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/kg) mg/L	Q
71-43-2	Benzene	0.050	U
78-93-3	2-Butanone	0.015	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

FORM I

UXB INTERNATIONAL
MATRIX SPIKE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0E260147 001

Method: SW846 8260B

Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL

Date Received: 05/26/00

Work Order: DDRMP11A

Date Extracted: 06/02/00

Dilution factor: 1

Date Analyzed: 06/02/00

Moisture %: 13

QC Batch: 0151138

Client Sample Id: DF/S1/0146/SDC/004

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
71-43-2	Benzene	0.495	
78-93-3	2-Butanone	0.421	
56-23-5	Carbon tetrachloride	0.459	
108-90-7	Chlorobenzene	0.517	
67-66-3	Chloroform	0.471	
107-06-2	1,2-Dichloroethane	0.463	
75-35-4	1,1-Dichloroethene	0.467	
127-18-4	Tetrachloroethene	0.550	
79-01-6	Trichloroethene	0.488	
75-01-4	Vinyl chloride	0.547	

UXB INTERNATIONAL
MATRIX SPIKE DUPLICATE COMPOUNDS

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

Matrix: (soil/water) SOLID Lab Sample ID: C0E260147 001

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

Sample WT/Vol: 5 / mL Date Received: 05/26/00

Work Order: DDRMP11C Date Extracted: 06/02/00

Dilution factor: 1 Date Analyzed: 06/02/00

Moisture %: 13 QC Batch: 0151138

Client Sample Id: DF/S1/0146/SDC/004 (

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
71-43-2	Benzene	0.528	
78-93-3	2-Butanone	0.512	
56-23-5	Carbon tetrachloride	0.511	
108-90-7	Chlorobenzene	0.533	
67-66-3	Chloroform	0.519	
107-06-2	1,2-Dichloroethane	0.505	
75-35-4	1,1-Dichloroethene	0.537	
127-18-4	Tetrachloroethene	0.559	
79-01-6	Trichloroethene	0.520	
75-01-4	Vinyl chloride	0.606	

UXB INTERNATIONAL
CHECK SAMPLE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0E300000 138

Method: SW846 8260B

Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL

Date Received: 05/26/00

Work Order: DDWCP102

Date Extracted: 06/02/00

Dilution factor: 1

Date Analyzed: 06/02/00

Moisture %: NA

QC Batch: 0151138

Client Sample Id: CHECK SAMPLE

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
71-43-2	Benzene	0.456	
78-93-3	2-Butanone	0.475	
56-23-5	Carbon tetrachloride	0.435	
108-90-7	Chlorobenzene	0.457	
67-66-3	Chloroform	0.445	
107-06-2	1,2-Dichloroethane	0.442	
75-35-4	1,1-Dichloroethene	0.455	
127-18-4	Tetrachloroethene	0.467	
79-01-6	Trichloroethene	0.450	
75-01-4	Vinyl chloride	0.490	

SW846 8260B SURROGATE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

QESSDG:

Lot #: C0E260147

	CLIENT ID.	SRG01	SRG02	SRG03	SRG04	TOT OUT
	=====	=====	=====	=====	=====	=====
01	DF/S1/0146/SDC/004	95	101	93	98	00
02	METHOD BLK. DE38P101	92	104	95	95	00
03	LCS DDWCP102	92	100	101	99	00
04	DF/S1/0146/SDC/004 D	97	107	108	103	00
05	DF/S1/0146/SDC/004 S	87	104	102	94	00

SURROGATES

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

QC LIMITS

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

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

FORM II

SW846 8260B CHECK SAMPLE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Lot #: C0E300000

WO #: DDWCP102

BATCH: 0151138

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	% REC	QC LIMITS REC	QUAL
=====	=====	=====	=====	=====	=====
Benzene	0.500	0.456	91	79- 116	
2-Butanone	0.500	0.475	95	35- 156	
Chloroform	0.500	0.445	89	81- 122	
1,2-Dichloroethane	0.500	0.442	88	73- 127	
Carbon tetrachloride	0.500	0.435	87	72- 133	
Chlorobenzene	0.500	0.457	91	81- 115	
1,1-Dichloroethene	0.500	0.455	91	65- 119	
Tetrachloroethene	0.500	0.467	93	78- 131	
Trichloroethene	0.500	0.450	90	80- 122	
Vinyl chloride	0.500	0.490	98	53- 134	

NOTES (S) :

* Values outside of QC limits

Spike Recovery: 0 out of 10 outside limits

COMMENTS:

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/S1/0146/SDC/004

Level: (low/med) LOW

Lot #: C0E260147

WO #: DDRMP11A

BATCH: 0151138

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	MS CONCENT. (mg/L)	MS % REC	LIMITS REC	QUAL
=====	=====	=====	=====	=====	=====	=====
Benzene	0.500	ND	0.495	99	73 - 123	
2-Butanone	0.500	0.015	0.421	81	10 - 151	
Carbon tetrachloride	0.500	ND	0.459	92	61 - 143	
Chlorobenzene	0.500	ND	0.517	103	70 - 122	
Chloroform	0.500	ND	0.471	94	65 - 131	
1,2-Dichloroethane	0.500	ND	0.463	93	67 - 132	
1,1-Dichloroethene	0.500	ND	0.467	93	57 - 138	
Tetrachloroethene	0.500	ND	0.550	110	70 - 130	
Trichloroethene	0.500	ND	0.488	98	58 - 141	
Vinyl chloride	0.500	ND	0.547	109	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:

659 20

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/S1/0146/SDC/004

Level: (low/med) LOW

Lot #: C0E260147

WO #: DDRMP11C

BATCH: 0151138

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENT. (mg/L)	MSD % REC	% RPD	QC LIMITS		QUAL
					RPD	REC	
=====	=====	=====	=====	=====	=====	=====	=====
Benzene	0.500	0.528	106	6.6	20	73 - 123	
2-Butanone	0.500	0.512	100	20	34	10 - 151	
Carbon tetrachloride	0.500	0.511	102	11	20	61 - 143	
Chlorobenzene	0.500	0.533	107	2.9	20	70 - 122	
Chloroform	0.500	0.519	104	9.6	20	65 - 131	
1,2-Dichloroethane	0.500	0.505	101	8.8	20	67 - 132	
1,1-Dichloroethene	0.500	0.537	107	14	20	57 - 138	
Tetrachloroethene	0.500	0.559	112	1.7	20	70 - 130	
Trichloroethene	0.500	0.520	104	6.4	20	58 - 141	
Vinyl chloride	0.500	0.606	121	10	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:

BLANK WORKORDER NO.

SW846 8260B METHOD BLANK SUMMARY

DE38P101

Lab Name: Severn Trent Laboratories, Inc.

Lab Code: QESPTT

SDG Number:

Lab File ID: pb50602.d

Lot Number: C0E260147

Date Analyzed: 06/02/00

Time Analyzed: 08:18

Matrix: SOLID

Date Extracted: 06/02/00

GC Column: HP624 ID: .20

Extraction Method: 1311/5030B

Instrument ID: HP5

Level: (low/med) LOW

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

	CLIENT ID.	SAMPLE WORK ORDER #	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	DF/S1/0146/SDC/004	DDRMP102	5060203.d	06/02/00	10:00
02	DF/S1/0146/SDC/004	DDRMP11A S	5060205.d	06/02/00	10:49
03	DF/S1/0146/SDC/004	DDRMP11C D	5060206.d	06/02/00	11:17
04	CHECK SAMPLE	DDWCP102 C	5060201.d	06/02/00	09:07
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
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21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

COMMENTS:

FORM IV

UXB INTERNATIONAL
METHOD BLANK COMPOUNDS

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

Matrix: (soil/water) SOLID Lab Sample ID: C0F020000 109

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

Sample WT/Vol: 5 / mL Date Received: 05/26/00
Work Order: DE38P101 Date Extracted: 06/02/00
Dilution factor: 1 Date Analyzed: 06/02/00
Moisture %: NA

QC Batch: 0151138

Client Sample Id: INTRA-LAB BLANK

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

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: STL-PITTSBURGH

Contract:

Lab Code: STLPIT Case No.:

SAS No.: 40325

SDG No.: C0E260147

Lab File ID (Standard): CC50602

Date Analyzed: 06/02/00

Instrument ID: HP5

Time Analyzed: 0744

GC Column: DB 624 ID: 0.20 (mm)

Heated Purge: (Y/N) N

	IS1 (CBZ)	RT #	IS2 (DCB)	RT #	IS3	RT #
	AREA #		AREA #		AREA #	
=====	=====	=====	=====	=====	=====	=====
12 HOUR STD	135516	9.98	214521	12.28	581044	6.87
UPPER LIMIT	271032	10.18	429042	12.48	1162088	7.07
LOWER LIMIT	67758	9.78	107260	12.08	290522	6.67
=====	=====	=====	=====	=====	=====	=====
EPA SAMPLE NO.						
=====	=====	=====	=====	=====	=====	=====
01 INTRA-LAB BL	127868	9.97	182932	12.28	574524	6.88
02 INTRA-LAB CH	135681	9.99	203783	12.28	564358	6.88
03 DF/S1/0146/S	125488	9.97	176222	12.28	540195	6.89
04 DF/S1/0146/S	132869	9.97	197217	12.28	584995	6.88
05 DF/S1/0146/S	134921	9.98	208791	12.28	572847	6.88
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						

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

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

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

GC/MS SEMIVOLATILE SUMMARY

UXB INTERNATIONAL

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: COE260147 001

Method: SW846 8270C

Base/Neutrals and Acids (8270C)

Sample WT/Vol: 200 / mL

Date Received: 05/26/00

Work Order: DDRMP103

Date Extracted: 05/31/00

Dilution factor: 1

Date Analyzed: 06/02/00

Moisture %: 13

QC Batch: 0152240

Client Sample Id: DF/S1/0146/SDC/004

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

UXB INTERNATIONAL
CHECK SAMPLE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0E310000 240

Method: SW846 8270C

Base/Neutrals and Acids (8270C)

Sample WT/Vol: 200 / mL

Date Received: 05/26/00

Work Order: DE047102

Date Extracted: 05/31/00

Dilution factor: 1

Date Analyzed: 06/02/00

Moisture %: NA

QC Batch: 0152240

Client Sample Id: CHECK SAMPLE

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
106-46-7	1,4-Dichlorobenzene	0.152	
121-14-2	2,4-Dinitrotoluene	0.161	
118-74-1	Hexachlorobenzene	0.207	
87-68-3	Hexachlorobutadiene	0.148	
67-72-1	Hexachloroethane	0.152	
98-95-3	Nitrobenzene	0.157	
87-86-5	Pentachlorophenol	0.189	
110-86-1	Pyridine	0.151	
95-95-4	2,4,5-Trichlorophenol	0.159	
88-06-2	2,4,6-Trichlorophenol	0.156	
1319-77-3	Cresols (total)	0.510	

1

SW846 8270C SURROGATE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

QESSDG:

Lot #: C0E260147

	CLIENT ID.	SRG01	SRG02	SRG03	SRG04	SRG05	SRG06	TOT OUT
	=====	=====	=====	=====	=====	=====	=====	=====
01	DF/S1/0146/SDC/004	76	72	88	65	78	80	00
02	INTRA-LAB QC	73	66	81	54	59	86	00
03	METHOD BLK. DE047101	73	70	88	66	78	74	00
04	LCS DE047102	62	63	86	58	67	67	00
05	LAB MS/MSD D	74	62	77	54	59	85	00
06	LAB MS/MSD S	72	60	77	51	58	83	00

SURROGATES

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

QC LIMITS

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

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

FORM II

659 28

SW846 8270C CHECK SAMPLE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Lot #: C0E310000

WO #: DE047102

BATCH: 0152240

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	% REC	QC LIMITS REC	QUAL
=====	=====	=====	=====	=====	=====
1,4-Dichlorobenzene	0.250	0.152	61	28 - 110	
2,4-Dinitrotoluene	0.250	0.161	65	47 - 131	
Hexachlorobenzene	0.250	0.207	83	57 - 128	
Hexachlorobutadiene	0.250	0.148	59	36 - 116	
Hexachloroethane	0.250	0.152	61	30 - 110	
Nitrobenzene	0.250	0.157	63	45 - 130	
Pentachlorophenol	0.250	0.189	76	10 - 140	
Pyridine	0.250	0.151	60	10 - 148	
2,4,5-Trichlorophenol	0.250	0.159	64	41 - 125	
2,4,6-Trichlorophenol	0.250	0.156	62	46 - 135	
Cresols (total)	0.750	0.510	68	29 - 144	

NOTES (S) :

* Values outside of QC limits

Spike Recovery: 0 out of 11 outside limits

COMMENTS:

FORM III

SW846 8270C MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Matrix Spike ID: LAB MS/MSD

Level: (low/med) LOW

Lot #: C0E270126

WO #: DDVK910E

BATCH: 0152240

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	MS CONCENT. (mg/L)	MS % REC	LIMITS REC	QUAL
1,4-Dichlorobenzene	0.250	ND	0.139	56	18 - 110	
2,4-Dinitrotoluene	0.250	ND	0.232	93	31 - 131	
Hexachlorobenzene	0.250	ND	0.185	74	36 - 132	
Hexachlorobutadiene	0.250	ND	0.125	50	18 - 116	
Hexachloroethane	0.250	ND	0.192	77	18 - 110	
Nitrobenzene	0.250	ND	0.187	75	10 - 211	
Pentachlorophenol	0.250	ND	0.277	111	10 - 140	
Pyridine	0.250	ND	0.142	57	10 - 148	
2,4,5-Trichlorophenol	0.250	ND	0.198	79	24 - 143	
2,4,6-Trichlorophenol	0.250	ND	0.187	75	36 - 135	
Cresols (total)	0.750	2.2	2.57	45	25 - 144	

NOTES (S) :

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

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

COMMENTS:

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Matrix Spike ID: LAB MS/MSD

Level: (low/med) LOW

Lot #: C0E270126

WO #: DDVK910F

BATCH: 0152240

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENT. (mg/L)	MSD		QC LIMITS		QUAL
			% REC	% RPD	RPD	REC	
1,4-Dichlorobenzene	0.250	0.144	58	3.2	36	18 - 110	
2,4-Dinitrotoluene	0.250	0.236	95	2.0	32	31 - 131	
Hexachlorobenzene	0.250	0.193	77	3.9	22	36 - 132	
Hexachlorobutadiene	0.250	0.128	51	2.6	32	18 - 116	
Hexachloroethane	0.250	0.187	75	2.3	33	18 - 110	
Nitrobenzene	0.250	0.195	78	4.1	50	10 - 211	
Pentachlorophenol	0.250	0.297	119	7.0	56	10 - 140	
Pyridine	0.250	0.148	59	4.1	65	10 - 148	
2,4,5-Trichlorophenol	0.250	0.205	82	3.5	22	24 - 143	
2,4,6-Trichlorophenol	0.250	0.193	77	3.5	27	36 - 135	
Cresols (total)	0.750	2.63	52	2.2	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 limitsSpike Recovery: 0 out of 11 outside limits

COMMENTS:

BLANK WORKORDER NO.

SW846 8270C METHOD BLANK SUMMARY

DE047101

Lab Name: Severn Trent Laboratories, Inc.

Lab Code: QESPIT

SDG Number:

Lab File ID: S0602001.

Lot Number: C0E260147

Date Analyzed: 06/02/00

Time Analyzed: 09:02

Matrix: SOLID

Date Extracted: 05/31/00

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	DF/S1/0146/SDC/004	DDRMP103	S0602007.	06/02/00	10:16
02	LAB MS/MSD	DDVK910E S	S0602004.	06/02/00	11:21
03	LAB MS/MSD	DDVK910F D	S0602005.	06/02/00	11:55
04	INTRA-LAB QC	DDVK9102	S0602003.	06/02/00	10:48
05	CHECK SAMPLE	DE047102 C	S0602002.	06/02/00	09:35
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

COMMENTS:

FORM IV

UXB INTERNATIONAL
METHOD BLANK COMPOUNDS

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

Matrix: (soil/water) SOLID Lab Sample ID: C0E310000 240

Method: SW846 8270C

Base/Neutrals and Acids (8270C)

Sample WT/Vol: 200 / mL Date Received: 05/26/00

Work Order: DE047101 Date Extracted: 05/31/00

Dilution factor: 1 Date Analyzed: 06/02/00

Moisture %: NA

QC Batch: 0152240

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

659 33

Lab Name: STL-PITTSBURGH

Contract:

Lab Code: STLPIT

Case No.:

SAS No.:

SDG No.: COE260147

Lab File ID (Standard): S0602CCC

Date Analyzed: 06/02/00

Instrument ID: 71

Time Analyzed: 0829

	IS1 (DCB)		IS2 (NPT)		IS3 (ANT)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
=====	=====	=====	=====	=====	=====	=====
12 HOUR STD	102069	4.94	392842	6.45	202821	9.45
UPPER LIMIT	204138	5.44	785684	6.95	405642	9.95
LOWER LIMIT	51035	4.44	196421	5.95	101411	8.95
=====	=====	=====	=====	=====	=====	=====
CLIENT						
SAMPLE NO.						
=====	=====	=====	=====	=====	=====	=====
01 INTRA-LAB BL	121921	4.95	491672	6.45	268796	9.44
02 INTRA-LAB CH	114764	4.95	459341	6.47	239567	9.47
03 DF/S1/0146/S	115250	4.94	462869	6.45	244579	9.45
04						
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						

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

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = - 50% of internal standard area

RT UPPER LIMIT = + 0.50 minutes of internal standard RT

RT LOWER LIMIT = - 0.50 minutes of internal standard RT

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

* Values outside of QC limits.

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: STL-PITTSBURGH

Contract:

Lab Code: STLPIT

Case No.:

SAS No.:

SDG No.: C0E260147

Lab File ID (Standard): S0602CCC

Date Analyzed: 06/02/00

Instrument ID: 71

Time Analyzed: 0829

	IS4 (PHN)	RT #	IS5 (CRY)	RT #	IS6 (PRY)	RT #
	AREA #		AREA #		AREA #	
=====	=====	=====	=====	=====	=====	=====
12 HOUR STD	340333	12.73	347550	19.35	461775	22.71
UPPER LIMIT	680666	13.23	695100	19.85	923550	23.21
LOWER LIMIT	170167	12.23	173775	18.85	230888	22.21
=====	=====	=====	=====	=====	=====	=====
CLIENT						
SAMPLE NO.						
=====	=====	=====	=====	=====	=====	=====
01 INTRA-LAB BL	452319	12.73	351019	19.34	463161	22.70
02 INTRA-LAB CH	384814	12.75	332339	19.37	448790	22.73
03 DF/S1/0146/S	389015	12.74	352509	19.35	446320	22.71
04						
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						

IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = - 50% of internal standard area

RT UPPER LIMIT = + 0.50 minutes of internal standard RT

RT LOWER LIMIT = - 0.50 minutes of internal standard RT

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

* Values outside of QC limits.

PESTICIDE SUMMARY

UXB INTERNATIONAL

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

Matrix: (soil/water) SOLID

Lab Sample ID: C0E260147 001

Method: SW846 8081A

Pesticides (8081A)

Sample WT/Vol: 100 / mL

Date Received: 05/26/00

Work Order: DDRMP104

Date Extracted: 05/31/00

Dilution factor: 1

Date Analyzed: 06/03/00

Moisture %: 13

QC Batch: 0152460

Client Sample Id: DF/S1/0146/SDC/004

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

UXB INTERNATIONAL
MATRIX SPIKE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0E260147 001

Method: SW846 8081A

Pesticides (8081A)

Sample WT/Vol: 100 / mL

Date Received: 05/26/00

Work Order: DDRMP10M

Date Extracted: 05/31/00

Dilution factor: 1

Date Analyzed: 06/03/00

Moisture %: 13

QC Batch: 0152460

Client Sample Id: DF/S1/0146/SDC/004

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
72-20-8	Endrin	0.00220	
76-44-8	Heptachlor	0.00209	
1024-57-3	Heptachlor epoxide	0.00212	
58-89-9	Lindane	0.00181	
72-43-5	Methoxychlor	0.00241	

UXB INTERNATIONAL
MATRIX SPIKE DUPLICATE COMPOUNDS

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

Matrix: (soil/water) SOLID Lab Sample ID: C0E260147 001
 Method: SW846 8081A
 Pesticides (8081A)

Sample WT/Vol: 100 / mL Date Received: 05/26/00
 Work Order: DDRMP10N Date Extracted: 05/31/00
 Dilution factor: 1 Date Analyzed: 06/03/00
 Moisture %: 13

Client Sample Id: DF/S1/0146/SDC/004 QC Batch: 0152460

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
72-20-8	Endrin	0.00229	
76-44-8	Heptachlor	0.00223	
1024-57-3	Heptachlor epoxide	0.00222	
58-89-9	Lindane	0.00194	
72-43-5	Methoxychlor	0.00252	

UXB INTERNATIONAL
CHECK SAMPLE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0E310000 460

Method: SW846 8081A

Pesticides (8081A)

Sample WT/Vol: 100 / mL

Date Received: 05/26/00

Work Order: DE187102

Date Extracted: 05/31/00

Dilution factor: 1

Date Analyzed: 06/03/00

Moisture %: NA

QC Batch: 0152460

Client Sample Id: CHECK SAMPLE

		CONCENTRATION UNITS:	
CAS NO.	COMPOUND	(ug/L or ug/kg) mg/L	Q
72-20-8	Endrin	0.00240	
76-44-8	Heptachlor	0.00236	
1024-57-3	Heptachlor epoxide	0.00236	
58-89-9	Lindane	0.00205	
72-43-5	Methoxychlor	0.00266	

SW846 8081A SURROGATE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT QESSDG:

Lot #: C0E260147

	CLIENT ID.	SRG01	SRG02	TOT OUT
	=====	=====	=====	=====
01	DF/S1/0146/SDC/004	99	95	00
02	METHOD BLK. DE187101	101	100	00
03	LCS DE187102	101	101	00
04	DF/S1/0146/SDC/004 D	99	93	00
05	DF/S1/0146/SDC/004 S	93	82	00

SURROGATES

SRG01 = Decachlorobiphenyl
 SRG02 = Tetrachloro-m-xylene

QC LIMITS

(10-147)
 (39-130)

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

FORM II

SW846 8081A CHECK SAMPLE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Lot #: C0E310000

WO #: DE187102

BATCH: 0152460

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	% REC	QC LIMITS REC	QUAL
=====	=====	=====	=====	=====	=====
Lindane	0.00250	0.00205	82	49 - 137	
Heptachlor	0.00250	0.00236	94	57 - 124	
Heptachlor epoxide	0.00250	0.00236	94	53 - 135	
Endrin	0.00250	0.00240	96	46 - 137	
Methoxychlor	0.00250	0.00266	106	12 - 154	

NOTES (S) :

* Values outside of QC limits

Spike Recovery: 0 out of 5 outside limits

COMMENTS:

FORM III

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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/S1/0146/SDC/004

Level: (low/med) LOW

Lot #: C0E260147

WO #: DDRMP10M

BATCH: 0152460

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	MS CONCENT. (mg/L)	MS % REC	LIMITS REC	QUAL
=====	=====	=====	=====	=====	=====	=====
Lindane	0.00250	ND	0.00181	73	30 - 148	
Heptachlor	0.00250	ND	0.00209	83	25 - 135	
Heptachlor epoxide	0.00250	ND	0.00212	85	38 - 138	
Endrin	0.00250	ND	0.00220	88	28 - 148	
Methoxychlor	0.00250	ND	0.00241	96	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/S1/0146/SDC/004

Level: (low/med) LOW

Lot #: C0E260147

WO #: DDRMP10N

BATCH: 0152460

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENT. (mg/L)	MSD % REC	% RPD	QC LIMITS RPD	REC	QUAL
=====	=====	=====	=====	=====	=====	=====	=====
Lindane	0.00250	0.00194	77	6.5	22	30 - 148	
Heptachlor	0.00250	0.00223	89	6.8	32	25 - 135	
Heptachlor epoxide	0.00250	0.00222	89	4.6	31	38 - 138	
Endrin	0.00250	0.00229	92	4.1	40	28 - 148	
Methoxychlor	0.00250	0.00252	101	4.8	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:

659 44

SW846 8081A METHOD BLANK SUMMARY

BLANK WORKORDER NO.

DE187101

Lab Name: Severn Trent Laboratories, Inc.

Lab Code: QESPIT

SDG Number:

Lab File ID: c-b3082.d

Lot Number: C0E260147

Matrix: SOLID

Extraction Method: 1311/3510

Date Analyzed(1): 06/03/00

Date Extracted: 05/31/00

Date Analyzed(2): N/A

Time Analyzed(1): 05:39

Time Analyzed(2): N/A

Instrument ID(1): E/F

Instrument ID(2): N/A

GC Column(1): DB608 1701 ID: 053

GC Column(2): N/A

ID: N/A

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

	CLIENT ID.	SAMPLE WORK ORDER #	DATE ANALYZED (1)	DATE ANALYZED (2)
01	DF/S1/0146/SDC/004	DDRMP10M S	06/03/00	N/A
02	DF/S1/0146/SDC/004	DDRMP10N D	06/03/00	N/A
03	DF/S1/0146/SDC/004	DDRMP104	06/03/00	N/A
04	CHECK SAMPLE	DE187102 C	06/03/00	N/A
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

COMMENTS:

FORM IV

UXB INTERNATIONAL
METHOD BLANK COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0E310000 460

Method: SW846 8081A

Pesticides (8081A)

Sample WT/Vol: 100 / mL

Date Received: 05/26/00

Work Order: DE187101

Date Extracted: 05/31/00

Dilution factor: 1

Date Analyzed: 06/03/00

Moisture %: NA

QC Batch: 0152460

Client Sample Id: INTRA-LAB BLANK

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

HERBICIDE SUMMARY

UXB INTERNATIONAL

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: COE260147 001

Method: SW846 8151A

Herbicides (8151A)

Sample WT/Vol: 100 / mL

Date Received: 05/26/00

Work Order: DDRMP105

Date Extracted: 05/31/00

Dilution factor: 1

Date Analyzed: 06/01/00

Moisture %: 13

QC Batch: 0152463

Client Sample Id: DF/S1/0146/SDC/004

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

UXB INTERNATIONAL
MATRIX SPIKE COMPOUNDS

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

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

Lab Sample ID: C0E260147 001

Sample WT/Vol: 100 / mL
Work Order: DDRMP10P
Dilution factor: 1
Moisture %: 13Date Received: 05/26/00
Date Extracted: 05/31/00
Date Analyzed: 06/01/00

QC Batch: 0152463

Client Sample Id: DF/S1/0146/SDC/004

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
94-75-7	2,4-D	0.161	
93-72-1	2,4,5-TP (Silvex)	0.0402	

UXB INTERNATIONAL
MATRIX SPIKE DUPLICATE COMPOUNDS

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

Matrix: (soil/water) SOLID Lab Sample ID: COE260147 001
Method: SW846 8151A
Herbicides (8151A)

Sample WT/Vol: 100 / mL Date Received: 05/26/00
Work Order: DDRMP10Q Date Extracted: 05/31/00
Dilution factor: 1 Date Analyzed: 06/01/00
Moisture %: 13

QC Batch: 0152463

Client Sample Id: DF/S1/0146/SDC/004

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
94-75-7	2,4-D	0.169	
93-72-1	2,4,5-TP (Silvex)	0.0416	

UXB INTERNATIONAL
CHECK SAMPLE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc. SDG Number:
Matrix: (soil/water) SOLID Lab Sample ID: C0E310000 463
Method: SW846 8151A
Herbicides (8151A)
Sample WT/Vol: 100 / mL Date Received: 05/26/00
Work Order: DE18E102 Date Extracted: 05/31/00
Dilution factor: 1 Date Analyzed: 06/01/00
Moisture %: NA
QC Batch: 0152463
Client Sample Id: CHECK SAMPLE

CAS NO.	COMPOUND	CONCENTRATION UNITS:		
		(ug/L or ug/kg)	mg/L	Q
94-75-7	2,4-D	0.160		
93-72-1	2,4,5-TP (Silvex)	0.0378		

SW846 8151A SURROGATE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT QESSDG:

Lot #: C0E260147

	CLIENT ID.	SRG01	TOT OUT
	=====	=====	=====
01	DF/S1/0146/SDC/004	83	00
02	METHOD BLK. DE18E101	68	00
03	LCS DE18E102	104	00
04	DF/S1/0146/SDC/004 D	99	00
05	DF/S1/0146/SDC/004 S	88	00

SURROGATES

SRG01 = DCAA

QC LIMITS

(42-125)

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

FORM II

659 52

SW846 8151A CHECK SAMPLE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Lot #: C0E310000

WO #: DE18E102

BATCH: 0152463

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	% REC	QC LIMITS REC	QUAL
=====	=====	=====	=====	=====	=====
2,4-D	0.160	0.160	100	28 - 136	
2,4,5-TP (Silvex)	0.0400	0.0378	94	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/S1/0146/SDC/004

Lot #: C0E260147

WO #: DDRMP10P

BATCH: 0152463

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	MS CONCENT. (mg/L)	MS % REC	LIMITS REC	QUAL
=====	=====	=====	=====	=====	=====	=====
2,4-D	0.160	ND	0.161	101	35 - 133	
2,4,5-TP (Silvex)	0.0400	ND	0.0402	100	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 limitsSpike 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/S1/0146/SDC/004

Lot #: C0E260147

WO #: DDRMP10Q

BATCH: 0152463

COMPOUND	SPIKE	MSD	MSD		QC LIMITS	QUAL
	ADDED (mg/L)	CONCENT. (mg/L)	% REC	% RPD	RPD REC	
2,4-D	0.160	0.169	106	4.8	20 35 - 133	
2,4,5-TP (Silvex)	0.0400	0.0416	104	3.4	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 limitsSpike Recovery: 0 out of 2 outside limits

COMMENTS:

BLANK WORKORDER NO.

SW846 8151A METHOD BLANK SUMMARY

DE18E101

Lab Name: Severn Trent Laboratories, Inc.

Lab Code: QESPIT

SDG Number:

Lab File ID: a-a30120.

Lot Number: C0E260147

Matrix: SOLID

Extraction Method:

Date Extracted: 05/31/00

Date Analyzed(1): 06/01/00

Date Analyzed(2): N/A

Time Analyzed(1): 16:16

Time Analyzed(2): N/A

Instrument ID(1): A/B

Instrument ID(2): N/A

GC Column(1): DB5/DB1701 ID: 053 GC Column(2): N/A ID: N/A

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

	CLIENT ID.	SAMPLE WORK ORDER #	DATE ANALYZED (1)	DATE ANALYZED (2)
01	DF/S1/0146/SDC/004	DDRMP10P S	06/01/00	N/A
02	DF/S1/0146/SDC/004	DDRMP10Q D	06/01/00	N/A
03	DF/S1/0146/SDC/004	DDRMP105	06/01/00	N/A
04	CHECK SAMPLE	DE18E102 C	06/01/00	N/A
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

COMMENTS:

FORM IV

UXB INTERNATIONAL
METHOD BLANK COMPOUNDS

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

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

Lab Sample ID: C0E310000 463

Sample WT/Vol: 100 / mL
Work Order: DE18E101
Dilution factor: 1
Moisture %: NADate Received: 05/26/00
Date Extracted: 05/31/00
Date Analyzed: 06/01/00

QC Batch: 0152463

Client Sample Id: INTRA-LAB BLANK

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

METALS SUMMARY

STL-Pittsburgh
Metals Data Reporting Form

Sample Results

Lab Sample ID: DDRMP **Client ID:** DF/S1/0146/SDC/004
Matrix: Soil **Units:** mg/kg **Prep Date:** 5/30/00 **Prep Batch:** 0151223
Weight: 1.00 **Volume:** 100 **Percent Moisture:** 13.13

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Arsenic	189.04	0.30	1.2	9.1		1	ICPST	5/30/00	20:46

Comments: Lot#: C0E260147 Sample#: 1

Version 3.63.4

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

Form 1 Equivalent

STL-Pittsburgh
Metals Data Reporting Form

Initial Calibration Blank Results

Instrument: ICPST

Units: ug/L

Chart Number: T00530C.ARC

Standard Source: _____

Standard ID: _____

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

STL-Pittsburgh

Metals Data Reporting Form

Continuing Calibration Blank Results

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

Standard Source: _____

Standard ID: _____

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

STL-Pittsburgh

Metals Data Reporting Form

Preparation Blank Results

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

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

Comments: _____

Version 3.63.4

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

Form 3 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Laboratory Control Sample Results

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

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

Comments: _____

Version 3.63.4

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

Form 7 Equivalent

TCLP METALS SUMMARY

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STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: DDRMPT Client ID: DF/S1/0146/SDC/004
Matrix: Water Units: mg/L Prep Date: 6/1/00 Prep Batch: 0153093
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	6/1/00	11:45

Comments: Lot#: C0E260147 Sample#: 1

Version 3.63.4

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

Form 1 Equivalent

STL-Pittsburgh
Metals Data Reporting Form

Sample Results

Lab Sample ID: DDRMPT **Client ID:** DF/S1/0146/SDC/004
Matrix: Water **Units:** mg/L **Prep Date:** 6/1/00 **Prep Batch:** 0153180
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	0.12	B	1	ICP	6/1/00	18:55
Barium	493.41	0.00041	10.0	1.3	B	1	ICP	6/1/00	18:55
Cadmium	228.80	0.0028	0.10	0.0030	B	1	ICP	6/1/00	18:55
Chromium	267.72	0.0038	0.50	0.0038	U	1	ICP	6/1/00	18:55
Lead	220.35	0.025	0.50	0.025	U	1	ICP	6/1/00	18:55
Selenium	196.03	0.067	0.25	0.067	U	1	ICP	6/1/00	18:55
Silver	328.07	0.0031	0.50	0.0031	U	1	ICP	6/1/00	18:55

Comments: Lot#: C0E260147 Sample#: 1

Version 3.63.4

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

Form 1 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Initial Calibration Blank Results

Instrument: CVAAUnits: ug/LChart Number: 0601HGA.PRN

Standard Source: _____

Standard ID: _____

Element	WL/ Mass	Report Limit	ICBI 6/1/00 10:14 AM							
			Found	Q	Found	Q	Found	Q	Found	Q
Mercury	253.7	0.2	0 0	U						

STL-Pittsburgh

Metals Data Reporting Form

Initial Calibration Blank Results

Instrument: ICPUnits: ug/LChart Number: J00601C.ARC

Standard Source: _____

Standard ID: _____

Element	WL/ Mass	Report Limit	ICB1 6/1/00 6:06 PM							
			Found	Q	Found	Q	Found	Q	Found	Q
Arsenic	193.696	500	30.3	U						
Barium	493.409	10000	0.4	U						
Cadmium	228.802	100	2.8	U						
Chromium	267.716	500	3.8	U						
Lead	220.353	500	24.6	U						
Selenium	196.026	250	67.4	U						
Silver	328.068	500	3.1	U						

STL-Pittsburgh

Metals Data Reporting Form

Continuing Calibration Blank Results

Instrument: CVAAUnits: ug/LChart Number: 0601HGA.PRN

Standard Source: _____

Standard ID: _____

Element	WL/ Mass	Report Limit	CCB1 6/1/00 10:20 AM		CCB2 6/1/00 10:44 AM		CCB3 6/1/00 11:10 AM		CCB4 6/1/00 11:36 AM		CCB5 6/1/00 12:00 PM	
			Found	Q	Found	Q	Found	Q	Found	Q	Found	Q
Mercury	253.7	0.2	-0.1	B	0.0	U	-0.1	B	-0.1	B	-0.1	B

STL-Pittsburgh

Metals Data Reporting Form

Continuing Calibration Blank Results

Instrument: ICPUnits: ug/LChart Number: J00601C.ARC

Standard Source: _____

Standard ID: _____

Element	WL/ Mass	Report Limit	CCB1 6/1/00 6:39 PM		CCB2 6/1/00 7:17 PM					
			Found	Q	Found	Q	Found	Q	Found	Q
Arsenic	193.696	500	30.3	U	31.7	B				
Barium	493.409	10000	0.5	B	0.4	U				
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				
Selenium	196.026	250	67.4	U	67.4	U				
Silver	328.068	500	3.1	U	3.1	U				

STL-Pittsburgh

Metals Data Reporting Form

Preparation Blank Results

Lab Sample ID: DE07ABTMatrix: Water Units: mg/L Prep Date: 6/1/00 Prep Batch: 0153093Weight: 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	0.000062	B	1	CVAA	6/1/00	11:43

Comments: _____

Version 3.63.4

U Result is less than the MDL

B Result is between MDL and RL

Form 3 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Preparation Blank Results

Lab Sample ID: DE1ELBTMatrix: Water Units: mg/L Prep Date: 6/1/00 Prep Batch: 0153093Weight: 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	6/1/00	11:38

Comments: _____

Metals Data Reporting Form

Preparation Blank Results

Lab Sample ID: DE07ABTMatrix: Water Units: mg/L Prep Date: 6/1/00 Prep Batch: 0153180Weight: 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	0.094	B	1	ICP	6/1/00	18:46
Barium	493.409	0.00041	10.0	0.0086	B	1	ICP	6/1/00	18:46
Cadmium	228.802	0.0028	0.10	0.0028	U	1	ICP	6/1/00	18:46
Chromium	267.716	0.0038	0.50	0.0038	U	1	ICP	6/1/00	18:46
Lead	220.353	0.025	0.50	0.025	U	1	ICP	6/1/00	18:46
Selenium	196.026	0.067	0.25	0.067	U	1	ICP	6/1/00	18:46
Silver	328.068	0.0031	0.50	0.0031	U	1	ICP	6/1/00	18:46

Comments: _____

Version 3.63.4

U Result is less than the MDL

B Result is between MDL and RL

Form 3 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Preparation Blank Results

Lab Sample ID: DEIPMBTMatrix: Water Units: mg/L Prep Date: 6/1/00 Prep Batch: 0153180Weight: 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	6/1/00	18:43
Barium	493.409	0.00041	10.0	0.00041	U	1	ICP	6/1/00	18:43
Cadmium	228.802	0.0028	0.10	0.0028	U	1	ICP	6/1/00	18:43
Chromium	267.716	0.0038	0.50	0.0038	U	1	ICP	6/1/00	18:43
Lead	220.353	0.025	0.50	0.025	U	1	ICP	6/1/00	18:43
Selenium	196.026	0.067	0.25	0.067	U	1	ICP	6/1/00	18:43
Silver	328.068	0.0031	0.50	0.0031	U	1	ICP	6/1/00	18:43

Comments: _____

Version 3.63.4

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

Form 3 Equivalent

Metals Data Reporting Form

Matrix Spike Sample Results

Spike Sample ID: DDRMPST
 Original Sample ID: DDRMPT Client ID: DF/S1/0146/SDC/004S
 Matrix: Water Units: mg/L Prep Date: 6/1/00 Prep Batch: 0153093
 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	0.0048		0.005	95.4	1	1	CVAA	6/1/00	11:45	6/1/00	11:47

Comments: _____

Version 3.63.4

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

Form SA Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Matrix Spike Duplicate Sample Results

Spike Sample ID: DDRMPDT

Original Sample ID: DDRMPT Client ID: DF/S1/0146/SDC/004D

Matrix: Water Units: mg/L Prep Date: 6/1/00 Prep Batch: 0153093

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	0.0048		0.005	96.4	1	1	CVAA	6/1/00	11:45	6/1/00	11:50

Comments:

Version 3.63.4

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

Form 5A Equivalent

Metals Data Reporting Form

Matrix Spike Sample Results

Spike Sample ID: DDRMPTOriginal Sample ID: DDRMPT Client ID: DF/S1/0146/SDC/004SMatrix: Water Units: mg/L Prep Date: 6/1/00 Prep Batch: 0153180Weight: 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	0.12	B	4.8		5	92.7	1	1	ICP	6/1/00	18:55	6/1/00	19:01
Barium	493.4	1.3	B	43.6		50	84.6	1	1	ICP	6/1/00	18:55	6/1/00	19:01
Cadmium	228.8	0.0030	B	0.95		1	94.9	1	1	ICP	6/1/00	18:55	6/1/00	19:01
Chromium	267.7	0.0038	U	4.2		5	84.2	1	1	ICP	6/1/00	18:55	6/1/00	19:01
Lead	220.4	0.025	U	4.4		5	87.4	1	1	ICP	6/1/00	18:55	6/1/00	19:01
Selenium	196.0	0.067	U	0.97		1	97.2	1	1	ICP	6/1/00	18:55	6/1/00	19:01
Silver	328.1	0.0031	U	0.91		1	91.1	1	1	ICP	6/1/00	18:55	6/1/00	19:01

Comments: _____

Version 3.63.4

U Result is less than the MDL

B Result is between MDL and RL

N Spike recovery failed

NC Percent recovery was not calculated

* Duplicate analysis RPD was not within limits

Form 5A Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Matrix Spike Duplicate Sample Results

Spike Sample ID: DDRMPDT
 Original Sample ID: DDRMPT Client ID: DF/S1/0146/SDC/004D
 Matrix: Water Units: mg/L Prep Date: 6/1/00 Prep Batch: 0153180
 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	0.12	B	4.8		5	93.0	1	1	ICP	6/1/00	18:55	6/1/00	19:04
Barium	493.4	1.3	B	43.3		50	84.0	1	1	ICP	6/1/00	18:55	6/1/00	19:04
Cadmium	228.8	0.0030	B	0.94		1	93.7	1	1	ICP	6/1/00	18:55	6/1/00	19:04
Chromium	267.7	0.0038	U	4.2		5	83.0	1	1	ICP	6/1/00	18:55	6/1/00	19:04
Lead	220.4	0.025	U	4.3		5	86.2	1	1	ICP	6/1/00	18:55	6/1/00	19:04
Selenium	196.0	0.067	U	0.98		1	97.8	1	1	ICP	6/1/00	18:55	6/1/00	19:04
Silver	328.1	0.0031	U	0.90		1	90.0	1	1	ICP	6/1/00	18:55	6/1/00	19:04

Comments: _____

Version 3 63.4

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

Form 5A Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Matrix Spike Duplicate RPD Report

Matrix Spike Duplicate Sample ID: DDRMPDTMatrix Spike Sample ID: DDRMPST Client ID: DF/S1/0146/SDC/004DMatrix: Water Units: mg/L Prep Date: 6/1/00 Prep Batch: 0153093Weight: 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	0.0048		0.0048		1.0 %	1	1	CVAA	6/1/00	11:47	6/1/00	11:50

Comments: _____

Version 3 63.4

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

Form 6 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Matrix Spike Duplicate RPD Report

Matrix Spike Duplicate Sample ID: DDRMPDTMatrix Spike Sample ID: DDRMPST Client ID: DF/S1/0146/SDC/004DMatrix: Water Units: mg/L Prep Date: 6/1/00 Prep Batch: 0153180Weight: 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	4.8		4.8		0.3 %	1	1	ICP	6/1/00	19:01	6/1/00	19:04
Barium	493.409	43.6		43.3		0.7 %	1	1	ICP	6/1/00	19:01	6/1/00	19:04
Cadmium	228.802	0.95		0.94		1.4 %	1	1	ICP	6/1/00	19:01	6/1/00	19:04
Chromium	267.716	4.2		4.2		1.5 %	1	1	ICP	6/1/00	19:01	6/1/00	19:04
Lead	220.353	4.4		4.3		1.3 %	1	1	ICP	6/1/00	19:01	6/1/00	19:04
Selenium	196.026	0.97		0.98		0.6 %	1	1	ICP	6/1/00	19:01	6/1/00	19:04
Silver	328.068	0.91		0.90		1.2 %	1	1	ICP	6/1/00	19:01	6/1/00	19:04

Comments: _____

Version 3.63.4

U Result is less than the MDL

B Result is between MDL and RL

N Spike recovery failed

NC Percent recovery was not calculated

* Duplicate analysis RPD was not within limits

Form 6 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Laboratory Control Sample Results

Lab Sample ID: DE1ELCTMatrix: Water Units: mg/L Prep Date: 6/1/00 Prep Batch: 0153093Weight: 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	0.0026	103.6		80-120	1	CVAA	6/1/00	11:41

Comments: _____

Version 3.63.4

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: DE1PMCTMatrix: Water Units: mg/L Prep Date: 6/1/00 Prep Batch: 0153180Weight: 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	2.1	105.1		80-120	1	ICP	6/1/00	18:49
Barium	493.409	2.0	1.8	90.4	B	80-120	1	ICP	6/1/00	18:49
Cadmium	228.802	0.050	0.048	95.4	B	80-120	1	ICP	6/1/00	18:49
Chromium	267.716	0.20	0.19	93.0	B	80-120	1	ICP	6/1/00	18:49
Lead	220.353	0.50	0.45	89.9	B	80-120	1	ICP	6/1/00	18:49
Selenium	196.026	2.0	2.1	106.4		80-120	1	ICP	6/1/00	18:49
Silver	328.068	0.050	0.045	90.3	B	80-120	1	ICP	6/1/00	18:49

Comments: _____

Version 3.63.4

U Result is less than the MDL

B Result is between MDL and RL

Form 7 Equivalent

GENERAL CHEMISTRY SUMMARY

Client Sample ID: DF/S1/0146/SDC/004

General Chemistry

Lot-Sample #....: C0E260147-001 Work Order #....: DDRMP Matrix.....: SOLID
 Date Sampled...: 05/25/00 Date Received...: 05/26/00
 % Moisture.....: 13

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
pH	7.8		No Units	SW846 9045C	05/27/00	0148092
	Dilution Factor: 1		MS Run #.....: 0148005			
Ignitability	NO	--	No Units	SW846 SECTION 7.1	05/31/00	0152101
	Dilution Factor: 1		MS Run #.....: 0152010			
Percent Solids	86.9		%	MCAWW 160.3 MOD	05/30-05/31/00	0151234
	Dilution Factor: 1		MS Run #.....: 0151091			
Reactive Cyanide	ND	200	mg/kg	SW846 7.3.3	05/31/00	0152403
	Dilution Factor: 1		MS Run #.....: 0157035			
Reactive Sulfide	ND	200	mg/kg	SW846 7.3.4	05/31/00	0152401
	Dilution Factor: 1		MS Run #.....: 0157030			

METHOD BLANK REPORT

General Chemistry

Client Lot #...: C0E260147

Matrix.....: SOLID

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>PREP</u> <u>BATCH #</u>
Reactive Cyanide	ND	Work Order #: DE1JW102 200	mg/kg	MB Lot-Sample #: SW846 7.3.3	A0E310000-403 05/31/00	0152403
		Dilution Factor: 1				
Reactive Sulfide	ND	Work Order #: DE1JN101 200	mg/kg	MB Lot-Sample #: SW846 7.3.4	A0E310000-401 05/31/00	0152401
		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 #...: C0E260147

Matrix.....: SOLID

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
pH	101	Work Order #: DDVA3101 (85 - 115)	LCS Lot-Sample#: C0E270000-092 SW846 9045C	05/27/00	0148092
Dilution Factor: 1					

NOTE(S) :

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

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: C0E260147

Work Order #...: DDRMP-SMP

Matrix.....: SOLID

DDRMP-DUP

Date Sampled...: 05/25/00

Date Received...: 05/26/00

% Moisture.....: 13

<u>PARAM</u>	<u>RESULT</u>	<u>DUPLICATE</u> <u>RESULT</u>	<u>UNITS</u>	<u>RPD</u>	<u>RPD</u> <u>LIMIT</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>PREP</u> <u>BATCH #</u>
pH	7.8	7.9	No Units	0.64	(0-20)	SD Lot-Sample #: C0E260147-001 SW846 9045C	05/27/00	0148092
Dilution Factor: 1								
Prep Date.....: 0148005			Analysis Date...:			Prep Batch #....:		

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #....: C0E260147

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

Matrix.....: SOLID

Date Sampled....: 05/25/00

Date Received...: 05/26/00

% Moisture.....: 100

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Reactive Cyanide	ND	ND	mg/kg	0.0	(0-20)	SD Lot-Sample #: A0E270103-003 SW846 7.3.3	05/31/00	0152403
Dilution Factor: 1								
Prep Date.....: 0157035			Analysis Date...:			Prep Batch #...:		
Reactive Sulfide	ND	ND	mg/kg	0.0	(0-20)	SD Lot-Sample #: A0E270103-003 SW846 7.3.4	05/31/00	0152401
Dilution Factor: 1								
Prep Date.....: 0157030			Analysis Date...:			Prep Batch #...:		

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #....: C0E260147

Work Order #....: DDVK3-SMP
DDVK3-DUP

Matrix.....: SOLID

Date Sampled....: 05/26/00

Date Received...: 05/26/00

% Moisture.....: 18

<u>PARAM</u>	<u>RESULT</u>	<u>DUPLICATE</u>	<u>UNITS</u>	<u>RPD</u>	<u>RPD</u>	<u>METHOD</u>	<u>PREPARATION-</u>	<u>PREP</u>
		<u>RESULT</u>		<u>RPD</u>	<u>LIMIT</u>		<u>ANALYSIS DATE</u>	<u>BATCH #</u>
Percent Solids	82.4	83.8	%	1.6	(0-20)	MCAWW 160.3 MOD	SD Lot-Sample #: C0E270126-001 05/30-05/31/00	0151234
Dilution Factor: 1								
Prep Date.....: 0151091			Analysis Date...:			Prep Batch #....:		

GC/MS VOLATILE DATA

659 90

**GC/MS VOLATILE
QC SUMMARY**

SW846 8260B SURROGATE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

QESSDG:

Lot #: C0E260147

	CLIENT ID.	SRG01	SRG02	SRG03	SRG04	TOT OUT
	=====	=====	=====	=====	=====	=====
01	DF/S1/0146/SDC/004	95	101	93	98	00
02	METHOD BLK. DE38P101	92	104	95	95	00
03	LCS DDWCP102	92	100	101	99	00
04	DF/S1/0146/SDC/004 D	97	107	108	103	00
05	DF/S1/0146/SDC/004 S	87	104	102	94	00

<u>SURROGATES</u>	<u>QC LIMITS</u>
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

659 92 SW846 8260B CHECK SAMPLE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Lot #: C0E300000

WO #: DDWCP102

BATCH: 0151138

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	% REC	QC LIMITS REC	QUAL
=====	=====	=====	=====	=====	=====
Benzene	0.500	0.456	91	79- 116	
2-Butanone	0.500	0.475	95	35- 156	
Chloroform	0.500	0.445	89	81- 122	
1,2-Dichloroethane	0.500	0.442	88	73- 127	
Carbon tetrachloride	0.500	0.435	87	72- 133	
Chlorobenzene	0.500	0.457	91	81- 115	
1,1-Dichloroethene	0.500	0.455	91	65- 119	
Tetrachloroethene	0.500	0.467	93	78- 131	
Trichloroethene	0.500	0.450	90	80- 122	
Vinyl chloride	0.500	0.490	98	53- 134	

NOTES (S) :

* Values outside of QC limits

Spike Recovery: 0 out of 10 outside limits

COMMENTS:

FORM III

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Matrix Spike ID: DF/S1/0146/SDC/004

Level: (low/med) LOW

Lot #: C0E260147

WO #: DDRMP11A

BATCH: 0151138

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	MS CONCENT. (mg/L)	MS % REC	LIMITS REC	QUAL
=====	=====	=====	=====	=====	=====	=====
Benzene	0.500	ND	0.495	99	73 - 123	
2-Butanone	0.500	0.015	0.421	81	10 - 151	
Carbon tetrachloride	0.500	ND	0.459	92	61 - 143	
Chlorobenzene	0.500	ND	0.517	103	70 - 122	
Chloroform	0.500	ND	0.471	94	65 - 131	
1,2-Dichloroethane	0.500	ND	0.463	93	67 - 132	
1,1-Dichloroethene	0.500	ND	0.467	93	57 - 138	
Tetrachloroethene	0.500	ND	0.550	110	70 - 130	
Trichloroethene	0.500	ND	0.488	98	58 - 141	
Vinyl chloride	0.500	ND	0.547	109	51 - 133	

NOTES (S) :

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

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

COMMENTS:

659 94 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/S1/0146/SDC/004

Level: (low/med) LOW

Lot #: C0E260147

WO #: DDRMP11C

BATCH: 0151138

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENT. (mg/L)	MSD % REC	% RPD	QC LIMITS RPD	REC	QUAL
Benzene	0.500	0.528	106	6.6	20	73 - 123	
2-Butanone	0.500	0.512	100	20	34	10 - 151	
Carbon tetrachloride	0.500	0.511	102	11	20	61 - 143	
Chlorobenzene	0.500	0.533	107	2.9	20	70 - 122	
Chloroform	0.500	0.519	104	9.6	20	65 - 131	
1,2-Dichloroethane	0.500	0.505	101	8.8	20	67 - 132	
1,1-Dichloroethene	0.500	0.537	107	14	20	57 - 138	
Tetrachloroethene	0.500	0.559	112	1.7	20	70 - 130	
Trichloroethene	0.500	0.520	104	6.4	20	58 - 141	
Vinyl chloride	0.500	0.606	121	10	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.

DE38P101

Lab Name: Severn Trent Laboratories, Inc.

Lab Code: QESPIT

SDG Number:

Lab File ID: pb50602.d

Lot Number: C0E260147

Date Analyzed: 06/02/00

Time Analyzed: 08:18

Matrix: SOLID

Date Extracted: 06/02/00

GC Column: HP624 ID: .20

Extraction Method: 1311/5030B

Instrument ID: HP5

Level: (low/med) LOW

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

	CLIENT ID.	SAMPLE WORK ORDER #	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	DF/S1/0146/SDC/004	DDRMP102	5060203.d	06/02/00	10:00
02	DF/S1/0146/SDC/004	DDRMP11A S	5060205.d	06/02/00	10:49
03	DF/S1/0146/SDC/004	DDRMP11C D	5060206.d	06/02/00	11:17
04	CHECK SAMPLE	DDWCP102 C	5060201.d	06/02/00	09:07
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
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22					
23					
24					
25					
26					
27					
28					
29					
30					

COMMENTS:

FORM IV

659 96 5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: STL-PITTSBURGH

Contract:

Lab Code: STLPIT

Case No.:

SAS No.: 40325

SDG No.: 50515D

Lab File ID: BF50515

BFB Injection Date: 05/15/00

Instrument ID: HP5

BFB Injection Time: 0523

GC Column: DB624 20M ID: 0.20 (mm)

Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	20.3
75	30.0 - 60.0% of mass 95	48.7
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.5 (0.6)1
174	50.0 - 100.0% of mass 95	70.0
175	5.0 - 9.0% of mass 174	4.9 (7.0)1
176	95.0 - 101.0% of mass 174	67.0 (95.7)1
177	5.0 - 9.0% of mass 176	4.4 (6.6)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	3C50515	05/15/00	0809
02	VSTD5	VSTD5	1A50515	05/15/00	0845
03	VSTD20	VSTD20	1B50515	05/15/00	0909
04	VSTD100	VSTD100	1D50515	05/15/00	0934
05	VSTD200	VSTD200	1E50515	05/15/00	0959
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

659 97

Lab Name: STL-PITTSBURGH Contract:
Lab Code: STLPIT Case No.: SAS No.: 40325 SDG No.: C0E260147
Lab File ID: BF50602 BFB Injection Date: 06/02/00
Instrument ID: HP5 BFB Injection Time: 0711
GC Column: DB624 20M ID: 0.20 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.3
75	30.0 - 60.0% of mass 95	47.0
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	78.8
175	5.0 - 9.0% of mass 174	5.9 (7.5)1
176	95.0 - 101.0% of mass 174	75.1 (95.3)1
177	5.0 - 9.0% of mass 176	4.9 (6.6)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	CC50602	06/02/00	0744
02	INTRA-LAB BL	DE38P101	PB50602	06/02/00	0818
03	INTRA-LAB CH	DDWCP102	5060201	06/02/00	0907
04	DF/S1/0146/S	DDRMP102	5060203	06/02/00	1000
05	DF/S1/0146/S	DDRMP11A	5060205	06/02/00	1049
06	DF/S1/0146/S	DDRMP11C	5060206	06/02/00	1117
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: STL-PITTSBURGH

Contract:

Lab Code: STL PIT

Case No.:

SAS No.: 40325

SDG No.: C0E260147

Lab File ID (Standard): CC50602

Date Analyzed: 06/02/00

Instrument ID: HP5

Time Analyzed: 0744

GC Column: DB 624 ID: 0.20 (mm)

Heated Purge: (Y/N) N

	IS1 (CBZ)		IS2 (DCB)		IS3	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
=====	=====	=====	=====	=====	=====	=====
12 HOUR STD	135516	9.98	214521	12.28	581044	6.87
UPPER LIMIT	271032	10.18	429042	12.48	1162088	7.07
LOWER LIMIT	67758	9.78	107260	12.08	290522	6.67
=====	=====	=====	=====	=====	=====	=====
EPA SAMPLE NO.						
=====	=====	=====	=====	=====	=====	=====
01 INTRA-LAB BL	127868	9.97	182932	12.28	574524	6.88
02 INTRA-LAB CH	135681	9.99	203783	12.28	564358	6.88
03 DF/S1/0146/S	125488	9.97	176222	12.28	540195	6.89
04 DF/S1/0146/S	132869	9.97	197217	12.28	584995	6.88
05 DF/S1/0146/S	134921	9.98	208791	12.28	572847	6.88
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						

IS1 (CBZ) = Chlorobenzene-d5

IS2 (DCB) = 1,4-Dichlorobenzene-d4

IS3 = Fluorobenzene

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = - 50% of internal standard area

RT UPPER LIMIT = + 0.20 minutes of internal standard RT

RT LOWER LIMIT = - 0.20 minutes of internal standard RT

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

* Values outside of QC limits.

**GC/MS VOLATILE
SAMPLE DATA**

UXB INTERNATIONAL

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0E260147 001

Method: SW846 8260B

Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL

Date Received: 05/26/00

Work Order: DDRMP102

Date Extracted: 06/02/00

Dilution factor: 1

Date Analyzed: 06/02/00

Moisture %: 13

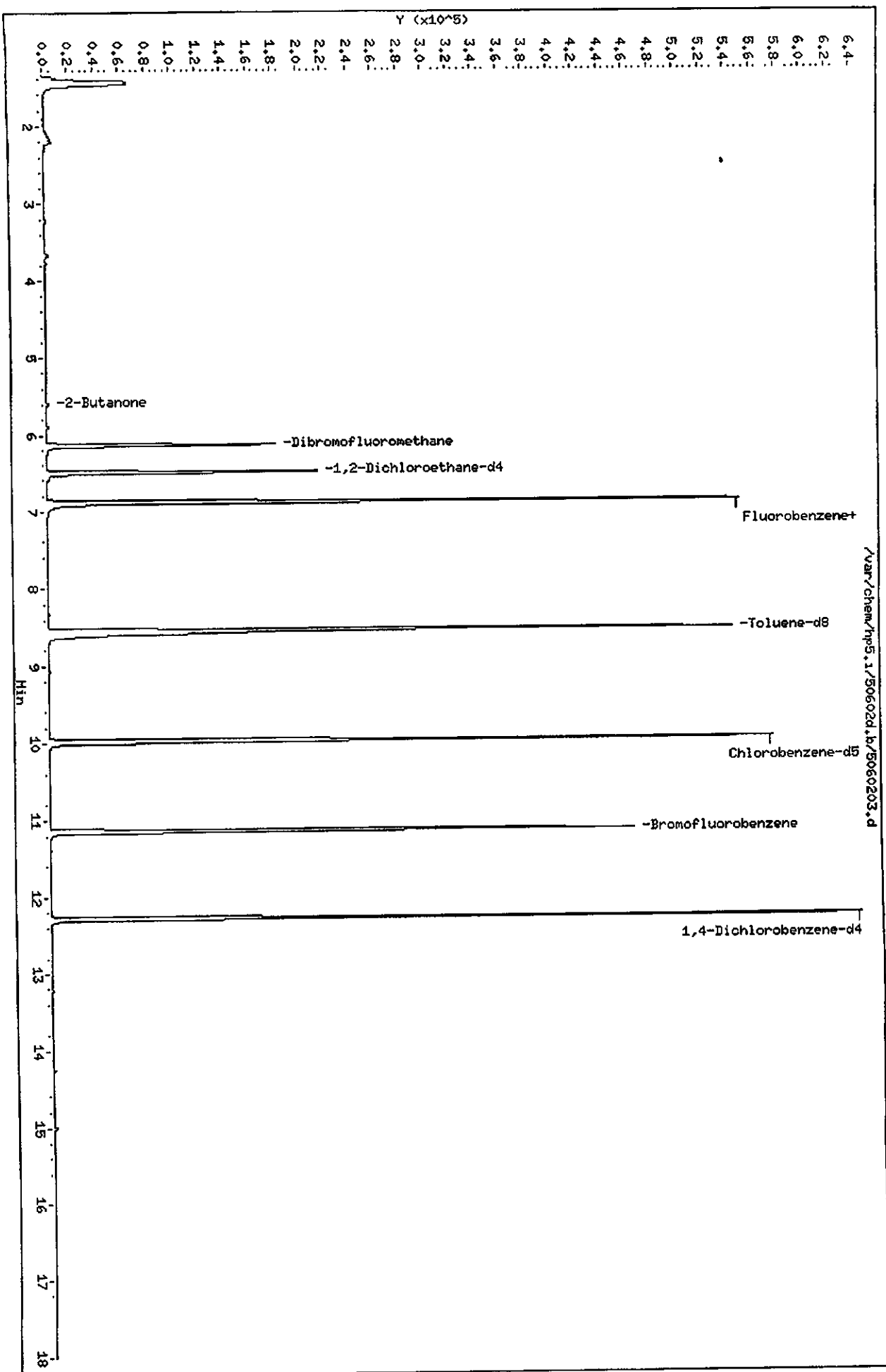
QC Batch: 0151138

Client Sample Id: DF/S1/0146/SDC/004

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
71-43-2	Benzene	0.050	U
78-93-3	2-Butanone	0.015	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/hp5.1/50602d.b/5060203.d
Date: 02-JUN-2000 10:00
Client ID: DF/SL/0146/SDC/004
Sample Info: c0e260147-001 (1ml/10ml) 5M
Purge Volume: 5.0
Column phase: DB 624

Instrument: hp5.1
Operator: 007062
Column diameter: 0.20



Data File: /var/chem/hp5.i/50602d.b/5060203.d
Report Date: 02-Jun-2000 10:23

STL-PITTSBURGH

VOLATILE REPORT SW-846 Method

Data file : /var/chem/hp5.i/50602d.b/5060203.d
Lab Smp Id: DDRMP102 Client Smp ID: DF/S1/0146/SDC/004
Inj Date : 02-JUN-2000 10:00
Operator : 034635 Inst ID: hp5.i
Smp Info : c0e260147-001 (1ml/10ml) 5ML
Misc Info : ddrmp102,50602d.b,8260bh2o.m,tclp.sub
Comment :
Method : /var/chem/hp5.i/50602d.b/8260bh2o.m
Meth Date : 02-Jun-2000 08:36 journetp Quant Type: ISTD
Cal Date : 15-MAY-2000 08:45 Cal File: 1a50515.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: tclp.sub
Target Version: 3.40
Processing Host: hpuxcs21

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

Handwritten: 011 6/2/00

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

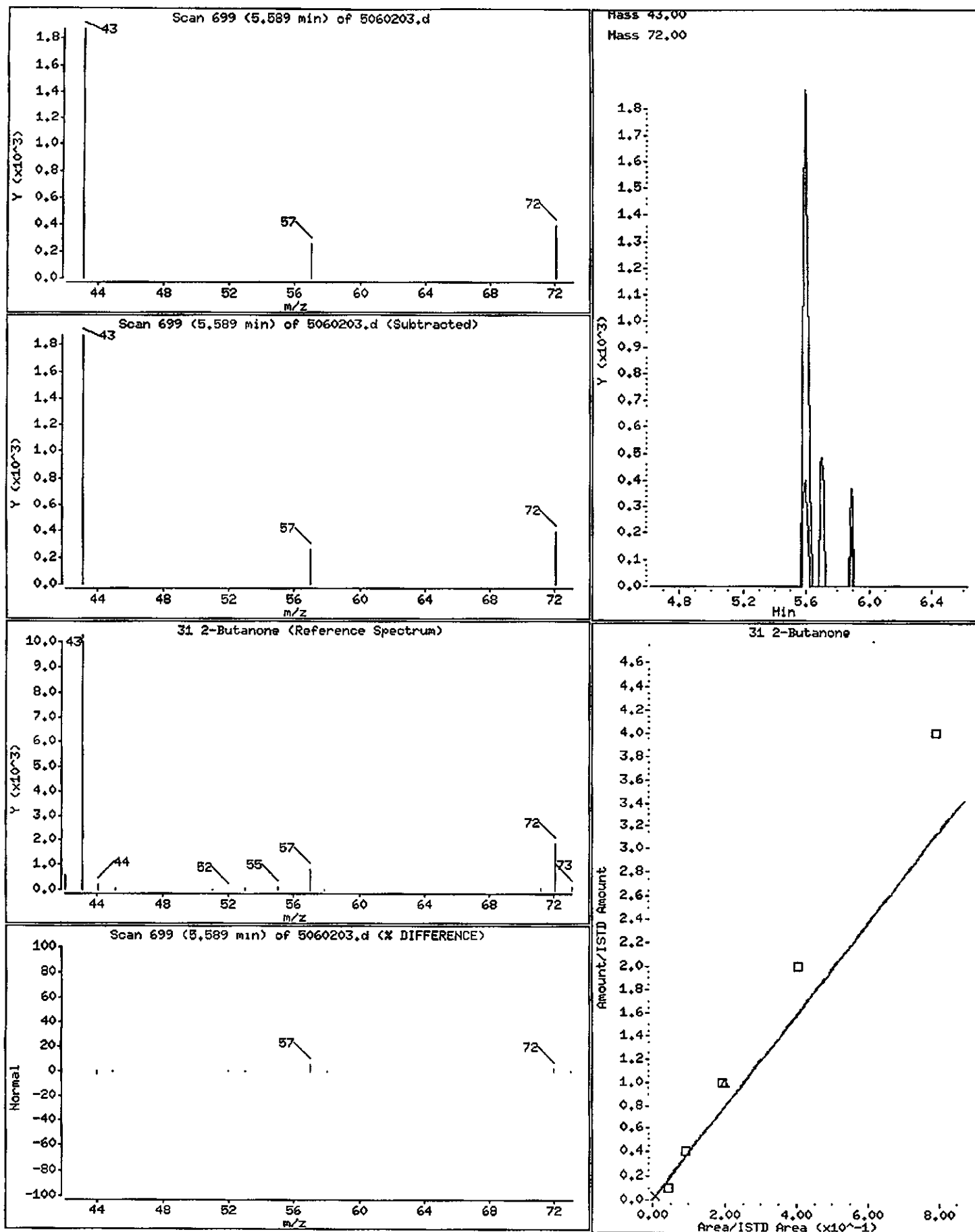
Compounds	QUANT SIG	CONCENTRATIONS						
		MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng)	FINAL (UG/L)
*****	***							
* 46 Fluorobenzene	96	6.891	6.873	(1.000)	540195			
* 69 Chlorobenzene-d5	119	9.970	9.981	(1.000)	125488			
* 92 1,4-Dichlorobenzene-d4	152	12.275	12.281	(1.000)	176222			
\$ 39 Dibromofluoromethane	113	6.137	6.124	(0.891)	115133	244.620	48.92	
\$ 43 1,2-Dichloroethane-d4	65	6.496	6.489	(0.943)	149426	238.041	47.61	
\$ 59 Toluene-d8	98	8.540	8.533	(0.857)	513984	252.643	50.53	
\$ 80 Bromofluorobenzene	95	11.131	11.143	(1.117)	177468	231.928	46.38	
3 Vinyl Chloride	62.00	Compound Not Detected.						
12 1,1-Dichloroethene	96.00	Compound Not Detected.						
31 2-Butanone	43	5.589	5.613	(0.811)	4065	7.39783	1.480	
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.						
65 Tetrachloroethene	164.00	Compound Not Detected.						

Data File: /var/chem/hp5.i/50602d.b/5060203.d
Report Date: 02-Jun-2000 10:23

Page 2

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng)	FINAL (UG/L)
=====	=====	==	=====	=====	=====	=====	=====
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.: 50515D

Instrument ID: HP5

Calibration Date(s): 05/15/00 05/15/00

Heated Purge: (Y/N) N

Calibration Time(s): 0809 0959

GC Column: DB 624 ID: 0.18 (mm)

LAB FILE ID: RRF5 =1A50515 RRF20 =1B50515 RRF50 =3C50515 RRF100=1D50515 RRF200=1E50515							
COMPOUND	RRF5	RRF20	RRF50	RRF100	RRF200	RRF	% RSD
Dichlorodifluoromethane	0.163	0.170	0.170	0.208	0.203	0.183	11.6
Chloromethane	* 0.210	0.208	0.215	0.255	0.253	0.228	10.3*
Vinyl Chloride	0.207	0.218	0.222	0.269	0.262	0.236	11.9
Bromomethane	0.039	0.033	0.027	0.041	0.041	0.036	16.9
Chloroethane	0.023	0.038	0.034	0.042	0.037	0.035	21.2
Trichlorofluoromethane	0.057	0.064	0.058	0.074	0.052	0.061	13.6
1,1-Dichloroethene	0.219	0.215	0.220	0.268	0.261	0.237	10.9
Methylene Chloride	0.260	0.229	0.240	0.269	0.282	0.256	8.4
trans-1,2-Dichloroethene	0.224	0.227	0.224	0.281	0.270	0.245	11.4
1,1-Dichloroethane	* 0.373	0.379	0.383	0.472	0.441	0.410	10.8*
cis-1,2-dichloroethene	0.227	0.232	0.232	0.291	0.279	0.252	12.1
Chloroform	0.353	0.370	0.366	0.453	0.446	0.398	12.0
Bromochloromethane	0.115	0.108	0.107	0.133	0.128	0.118	9.8
1,1,1-Trichloroethane	0.328	0.339	0.341	0.436	0.428	0.374	14.1
Carbon Tetrachloride	0.257	0.280	0.288	0.373	0.366	0.313	17.0
1,2-Dichloroethane	0.305	0.322	0.318	0.396	0.393	0.347	12.7
Benzene	0.893	0.911	0.908	1.106	1.044	0.972	9.9
Trichloroethene	0.226	0.229	0.233	0.286	0.272	0.249	11.1
1,2-Dichloropropane	0.210	0.213	0.215	0.262	0.260	0.232	11.3
Bromodichloromethane	0.223	0.256	0.267	0.336	0.334	0.283	17.6
cis-1,3-Dichloropropene	0.312	0.356	0.364	0.448	0.440	0.384	15.1
Toluene	4.245	4.358	4.244	5.167	5.056	4.614	9.9
trans-1,3-Dichloropropene	1.261	1.458	1.480	1.847	1.848	1.579	16.4
1,1,2-Trichloroethane	0.861	0.858	0.848	1.034	1.019	0.924	10.2
Tetrachloroethene	0.802	0.810	0.817	0.998	0.974	0.880	11.0
Dibromochloromethane	0.680	0.782	0.840	1.085	1.088	0.895	20.5
Chlorobenzene	* 2.756	2.768	2.760	3.332	3.225	2.968	9.6*
Ethylbenzene	1.675	1.600	1.584	1.902	1.862	1.725	8.6
Styrene	2.751	2.822	2.944	3.603	3.694	3.163	14.2
Bromoform	* 0.396	0.475	0.537	0.721	0.722	0.570	25.8*
1,1,2,2-Tetrachloroethane	* 0.738	0.829	0.774	0.958	0.912	0.842	10.9*
1,3-Dichlorobenzene	1.313	1.372	1.342	1.604	1.539	1.434	9.0
1,4-Dichlorobenzene	1.379	1.369	1.340	1.604	1.561	1.451	8.4
1,2-Dichlorobenzene	1.273	1.295	1.280	1.525	1.485	1.372	9.0
Dibromomethane	0.125	0.128	0.129	0.160	0.156	0.140	12.2
1,2-Dibromoethane	0.830	0.874	0.871	1.075	1.061	0.942	12.3
1,1,1,2-Tetrachloroethane	0.808	0.874	0.892	1.117	1.081	0.954	14.3

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

6A
VOLATILE ORGANICS INITIAL CALIBRATION DATA

659 107

Lab Name: STL-PITTSBURGH

Contract:

Lab Code: STLPIT

Case No.:

SAS No.: 40325

SDG No.: 50515D

Instrument ID: HP5

Calibration Date(s): 05/15/00

05/15/00

Heated Purge: (Y/N) N

Calibration Time(s): 0809

0959

GC Column: DB 624

ID: 0.18 (mm)

LAB FILE ID:		RRF5 =1A50515		RRF20 =1B50515			
RRF50 =3C50515		RRF100=1D50515		RRF200=1E50515			
COMPOUND	RRF5	RRF20	RRF50	RRF100	RRF200	RRF	% RSD
1,2,3-Trichloropropane	0.248	0.278	0.264	0.320	0.296	0.281	10.0
1,2-Dibromo-3-chloropropane	0.093	0.113	0.120	0.156	0.161	0.129	22.7
2,2-Dichloropropane	0.324	0.340	0.346	0.441	0.437	0.378	14.9
1,1-Dichloropropene	0.299	0.304	0.300	0.378	0.365	0.329	11.8
1,3-Dichloropropane	1.495	1.558	1.528	1.884	1.843	1.662	11.2
n-Propylbenzene	0.815	0.841	0.816	0.988	0.939	0.880	9.0
Bromobenzene	0.732	0.787	0.760	0.908	0.835	0.804	8.6
1,3,5-Trimethylbenzene	2.132	2.251	2.186	2.754	2.678	2.400	12.2
2-Chlorotoluene	0.671	0.725	0.690	0.838	0.789	0.743	9.4
4-Chlorotoluene	0.708	0.722	0.687	0.842	0.824	0.757	9.4
tert-Butylbenzene	2.106	2.112	2.067	2.451	2.357	2.219	7.8
1,2,4-Trimethylbenzene	2.129	2.176	2.092	2.626	2.578	2.320	11.2
sec-Butylbenzene	3.126	3.125	3.036	3.603	3.471	3.272	7.6
4-Isopropyltoluene	2.349	2.328	2.306	2.776	2.752	2.502	9.6
n-Butylbenzene	2.227	2.185	2.179	2.738	2.718	2.409	12.1
1,2,4-Trichlorobenzene	0.750	0.541	0.576	0.667	0.730	0.653	14.1
Hexachlorobutadiene	0.664	0.462	0.483	0.558	0.574	0.548	14.6
Naphthalene	1.490	1.136	1.178	1.304	1.458	1.313	12.1
1,2,3-Trichlorobenzene	0.816	0.414	0.449	0.474	0.542	0.539	30.0
Acetone	0.223	0.146	0.131	0.142	0.141	0.157	23.9
Carbon Disulfide	0.470	0.625	0.792	0.798	0.804	0.698	21.2
2-Butanone	0.450	0.230	0.193	0.201	0.198	0.254	43.3
4-Methyl-2-Pentanone	1.307	1.240	1.211	1.408	1.429	1.319	7.4
2-Hexanone	0.900	0.890	0.852	1.004	0.982	0.926	7.0
Methyl tert-butyl ether	0.435	0.641	0.691	0.815	0.814	0.679	23.0
Isopropylbenzene	4.579	4.517	4.547	5.493	5.369	4.901	9.9
1,2-Dichloroethene (total)	0.226	0.230	0.228	0.286	0.275	0.249	11.7
Xylenes (total)	1.774	1.716	1.765	2.126	2.199	1.916	11.9
Dibromofluoromethane	0.213	0.217	0.217	0.218	0.223	0.218	1.6
1,2-Dichloroethane-d4	0.304	0.288	0.279	0.287	0.295	0.291	3.2
Toluene-d8	4.193	4.068	3.971	3.940	4.093	4.053	2.5
Bromofluorobenzene	1.609	1.479	1.494	1.498	1.541	1.524	3.5

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

INITIAL CALIBRATION REPORT

Instrument ID: hp5.i
Lab File ID: 1e50515.d
Analysis Type: WATERInjection Date: 15-MAY-2000 09:59
Lab Sample ID: vstd200
Method File: /var/chem/hp5.i/50515d.b/8260bh2

COMPOUND	%RSD
Xylenes (total)	11.9
1,2-Dichloroethene (total)	11.7
Dichlorodifluoromethane	11.6
Chloromethane	10.3
Vinyl Chloride	11.9
Bromomethane	16.9
Chloroethane	21.2
Trichlorofluoromethane	13.6
1,1-Dichloroethene	10.9
Acetone	23.9
Carbon Disulfide	21.2
Methylene Chloride	8.4
trans-1,2-Dichloroethene	11.4
Methyl tert-butyl ether	23.0
1,1-Dichloroethane	10.8
2,2-Dichloropropane	14.9
cis-1,2-dichloroethene	12.1
2-Butanone	43.3
Bromochloromethane	9.8
Chloroform	12.0
1,1,1-Trichloroethane	14.1
Dibromofluoromethane	1.6
Carbon Tetrachloride	17.0
1,1 Dichloropropene	11.8
1,2-Dichloroethane d4	3.2
Benzene	9.9
1,2-Dichloroethane	12.7
Trichloroethene	11.1
1,2-Dichloropropane	11.3
Dibromomethane	12.2
Bromodichloromethane	17.6
cis-1,3-Dichloropropene	15.1
4-Methyl-2-Pentanone	7.4
Toluene-d8	2.5
Toluene	9.9
trans-1,3-Dichloropropene	16.4
1,1,2-Trichloroethane	10.2
Tetrachloroethene	11.0
1,3-Dichloropropane	11.2

Data File: /var/chem/hp5.i/50515d.b/1e50515.d
Report Date: 05/15/2000

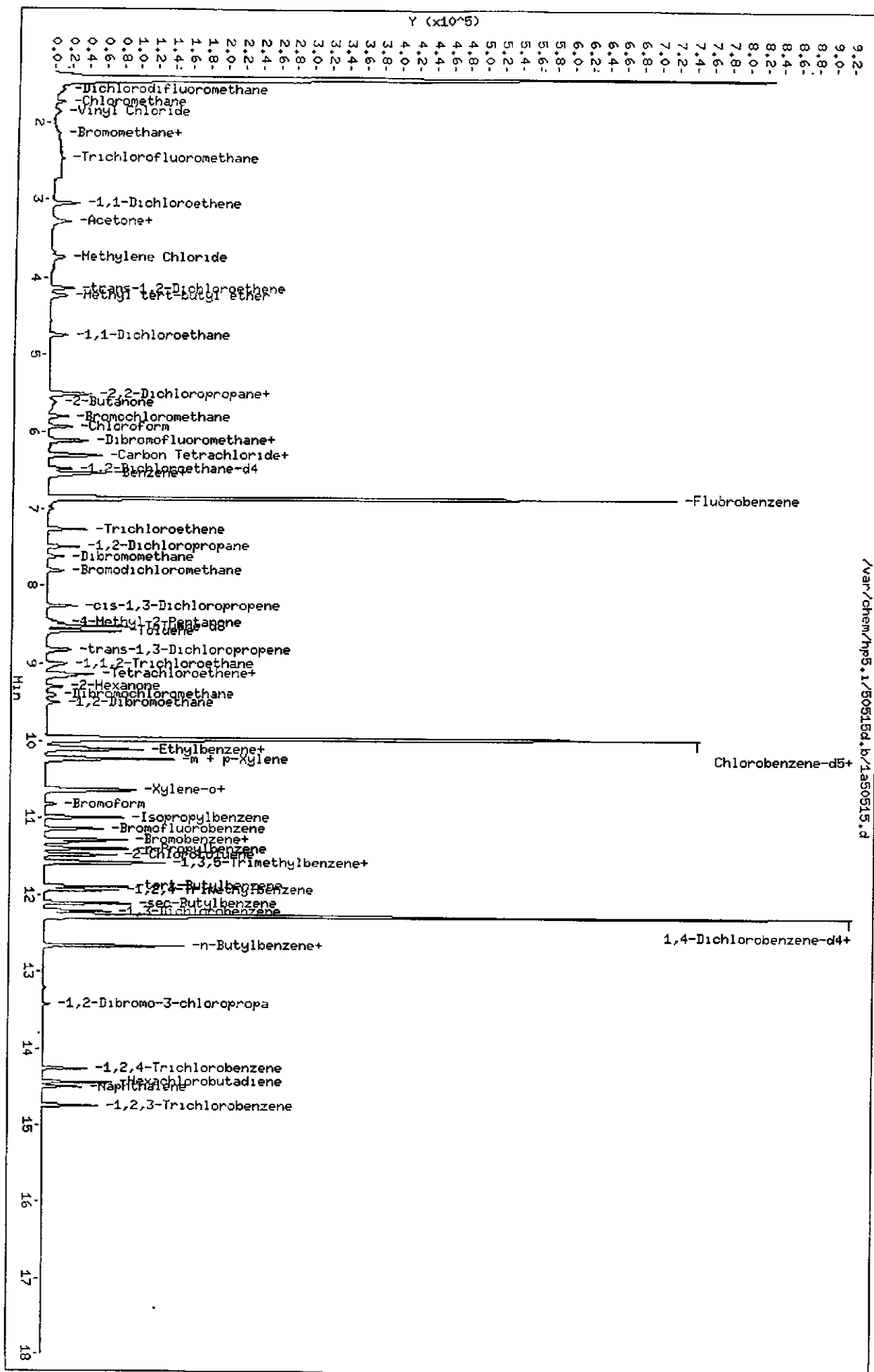
INITIAL CALIBRATION REPORT

Instrument ID: hp5.i
Lab File ID: 1e50515.d
Analysis Type: WATER

Injection Date: 15-MAY-2000 09:59
Lab Sample ID: vstd200
Method File: /var/chem/hp5.i/50515d.b/8260bh2

COMPOUND	%RSD
2-Hexanone	7.0
Dibromochloromethane	20.5
1,2-Dibromoethane	12.3
Chlorobenzene	9.6
Ethylbenzene	8.6
1,1,1,2-Tetrachloroethane	14.3
m + p-Xylene	10.4
Xylene-o	11.9
Styrene	14.2
Bromoform	25.8
Isopropylbenzene	9.9
Bromofluorobenzene	3.5
Bromobenzene	8.6
1,1,2,2-Tetrachloroethane	10.9
1,2,3-Trichloropropane	10.0
n-Propylbenzene	9.0
2-Chlorotoluene	9.4
1,3,5-Trimethylbenzene	12.2
4-Chlorotoluene	9.4
tert-Butylbenzene	7.8
1,2,4-Trimethylbenzene	11.2
sec-Butylbenzene	7.6
1,3-Dichlorobenzene	9.0
4-Isopropyltoluene	9.6
1,4-Dichlorobenzene	8.4
n-Butylbenzene	12.1
1,2-Dichlorobenzene	9.0
1,2-Dibromo-3-chloropropane	22.7
1,2,4-Trichlorobenzene	14.1
Hexachlorobutadiene	14.6
Naphthalene	12.1
1,2,3-Trichlorobenzene	30.0

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



Data File: /var/chem/hp5.1/50515d.b/150515.d
 Date: 15-MAY-2000 08:45
 Client ID: vstd5
 Sample Info: VSTD5 SHL
 Purge Volume: 5.0
 Column phase: DB 624

Instrument: hp5.1
 Operator: 10099
 Column diameter: 0.18

Data File: /var/chem/hp5.1/50515d.b/1a50515.d
Report Date: 15-May-2000 09:52

Page 1

STL-PITTSBURGH

VOLATILE REPORT SW-846 Method

Data file : /var/chem/hp5.1/50515d.b/1a50515.d
Lab Smp Id: vstd5 Client Smp ID: vstd5
Inj Date : 15-MAY-2000 08:45
Operator : 10099 Inst ID: hp5.i
Smp Info : VSTD5 5ML
Misc Info : vstd5,50515d.b,8260bh2o.m,3-dwlist.sub
Comment :
Method : /var/chem/hp5.1/50515d.b/8260bh2o.m
Meth Date : 15-May-2000 09:51 h Quant Type: ISTD
Cal Date : 15-MAY-2000 08:45 Cal File: 1a50515.d
Als bottle: 6 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 3-dwlist.sub
Target Version: 3.40
Processing Host: hpuxcs21

YLG
5/15/00

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

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

Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT (ng)	ON-COL (ng)
* 46 Fluorobenzene	96	6 861	6.861	(1.000)	650562			
* 69 Chlorobenzene-d5	119	9 963	9.963	(1.000)	151194			
* 92 1,4-Dichlorobenzene-d4	152	12 275	12.275	(1.000)	228984			
\$ 39 Dibromofluoromethane	113	6 119	6.119	(0.892)	13879	25.0000	24.77	
\$ 43 1,2-Dichloroethane-d4	65	6 478	6.478	(0.944)	19749	25.0000	26.04	
\$ 59 Toluene-d8	98	8 522	8.522	(0.855)	63398	25.0000	25.68	
\$ 80 Bromofluorobenzene	95	11 138	11.138	(1.118)	24332	25.0000	25.92	
1 Dichlorodifluoromethane	85	1 580	1.580	(0.230)	10583	25.0000	24.48	
2 Chloromethane	50	1 733	1.733	(0.253)	13690	25.0000	24.72	
3 Vinyl Chloride	62	1 860	1.860	(0.271)	13481	25.0000	24.12	
4 Bromomethane	94	2.140	2.140	(0.312)	2534	25.0000	29.48	
5 Chloroethane	64	2.274	2.274	(0.331)	1478	25.0000	19.94	
6 Trichlorofluoromethane	101	2.469	2.469	(0.360)	3693	25.0000	24.72	
12 1,1-Dichloroethene	96	3.047	3.047	(0.444)	14236	25.0000	24.94	
13 Acetone	43	3.266	3.266	(0.476)	14501	25.0000	31.47	
15 Carbon Disulfide	76	3.284	3.284	(0.479)	30578	25.0000	18.61	

Compounds	QUANT SIG			RESPONSE	AMOUNTS	
	MASS	RT	EXP RT REL RT		CAL-AMT (ng)	ON COL (ng)
18 Methylene Chloride	84	3.740	3.740 (0.545)	16946	25.0000	26.02
19 trans-1,2-Dichloroethene	96	4.142	4.142 (0.604)	14599	25.0000	25.04
20 Methyl tert-butyl ether	73	4.233	4.233 (0.617)	28297	25.0000	19.32
24 1,1-Dichloroethane	63	4.750	4.750 (0.692)	24258	25.0000	24.66
27 2,2-Dichloropropane	77	5.504	5.504 (0.802)	21114	25.0000	24.20
28 cis-1,2-dichloroethene	96	5.516	5.516 (0.804)	14754	25.0000	24.71
31 2-Butanone	43	5.626	5.626 (0.820)	29243	25.0000	34.96
30 Bromochloromethane	128	5.808	5.808 (0.847)	7479	25.0000	25.87
37 Chloroform	83	5.936	5.936 (0.865)	22993	25.0000	24.56
38 1,1,1-Trichloroethane	97	6.107	6.107 (0.890)	21371	25.0000	24.52
41 Carbon Tetrachloride	117	6.301	6.301 (0.918)	16745	25.0000	23.58
40 1,1-Dichloropropene	75	6.307	6.307 (0.919)	19482	25.0000	24.98
42 Benzene	78	6.532	6.532 (0.952)	58126	25.0000	24.80
45 1,2-Dichloroethane	62	6.569	6.569 (0.957)	19874	25.0000	24.51
47 Trichloroethene	130	7.262	7.262 (1.059)	14733	25.0000	24.65
49 1,2-Dichloropropane	63	7.494	7.494 (1.092)	13689	25.0000	24.74
50 Dibromomethane	93	7.609	7.609 (1.109)	8163	25.0000	24.69
53 Bromodichloromethane	83	7.798	7.798 (1.137)	14519	25.0000	22.76
57 cis-1,3-Dichloropropene	75	8.260	8.260 (1.204)	20305	25.0000	23.08
58 4-Methyl 2-Pentanone	43	8.479	8.479 (0.851)	19766	25.0000	25.96
60 Toluene	91	8.589	8.589 (0.862)	64189	25.0000	25.00
61 trans-1,3-Dichloropropene	75	8.826	8.826 (0.886)	19071	25.0000	23.01
64 1,1,2-Trichloroethane	97	9.014	9.014 (0.905)	13018	25.0000	25.20
65 Tetrachloroethene	164	9.136	9.136 (0.917)	12130	25.0000	24.78
67 Dibromochloromethane	129	9.404	9.404 (0.944)	10287	25.0000	22.38
63 1,3-Dichloropropane	76	9.167	9.167 (0.920)	22608	25.0000	24.73
66 2-Hexanone	43	9.294	9.294 (0.933)	13605	25.0000	25.68
68 1,2-Dibromoethane	107	9.495	9.495 (0.953)	12551	25.0000	24.40
70 Chlorobenzene	112	9.988	9.988 (1.002)	41673	25.0000	24.98
72 Ethylbenzene	106	10.103	10.103 (1.014)	25325	25.0000	25.69
71 1,1,1,2-Tetrachloroethane	131	10.085	10.085 (1.012)	12209	25.0000	23.76
73 m + p-Xylene	106	10.219	10.219 (1.026)	57697	50.0000	51.43
74 Xylene-o	106	10.614	10.614 (1.065)	26824	25.0000	25.06
76 Styrene	104	10.633	10.633 (1.067)	41599	25.0000	24.16
77 Bromoform	173	10.815	10.815 (1.085)	5982	25.0000	21.21
78 Isopropylbenzene	105	10.985	10.985 (1.103)	69238	25.0000	25.09
79 Bromobenzene	156	11.277	11.277 (0.919)	16756	25.0000	24.53
83 1,1,2,2-Tetrachloroethane	83	11.277	11.277 (0.919)	16908	25.0000	24.40
84 1,2,3-Trichloropropane	110	11.314	11.314 (0.922)	5674	25.0000	24.20
81 n-Propylbenzene	120	11.393	11.393 (0.928)	18663	25.0000	24.99
82 2-Chlorotoluene	126	11.472	11.472 (0.935)	15364	25.0000	24.65
86 1,3,5-Trimethylbenzene	105	11.569	11.569 (0.943)	48814	25.0000	24.68
85 4-Chlorotoluene	126	11.582	11.582 (0.944)	16224	25.0000	25.38
87 tert-Butylbenzene	119	11.892	11.892 (0.969)	46217	25.0000	25.23
88 1,2,4-Trimethylbenzene	105	11.934	11.934 (0.972)	48760	25.0000	25.22
89 sec-Butylbenzene	105	12.111	12.111 (0.987)	71587	25.0000	25.37
91 1,3-Dichlorobenzene	146	12.208	12.208 (0.995)	30073	25.0000	24.73

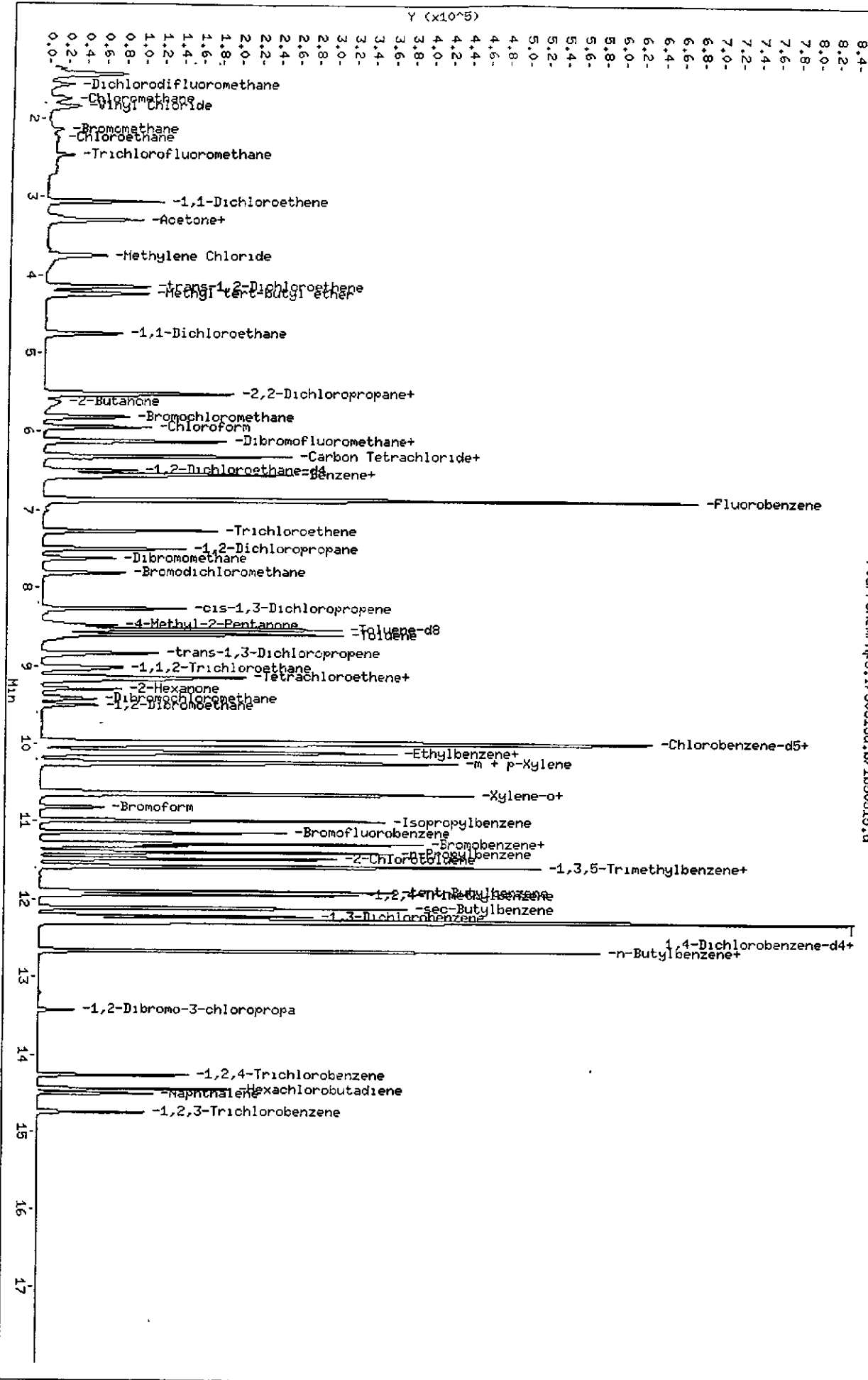
Data File: /var/chem/hp5.1/50515d.b/1a50515.d
 Report Date: 15-May-2000 09:52

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						AMOUNTS	
QUANT SIG						CAL-AMT	ON-COL
Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ng)	(ng)
=====	=====	==	=====	=====	=====	=====	=====
90 4-Isopropyltoluene	119	12.251	12.251	(0.998)	53790	25.0000	25.23
93 1,4-Dichlorobenzene	146	12.300	12.300	(1.002)	31579	25.0000	25.36
94 n-Butylbenzene	91	12.658	12.658	(1.031)	51000	25.0000	25.27
95 1,2-Dichlorobenzene	146	12.665	12.665	(1.032)	29151	25.0000	24.93
96 1,2-Dibromo-3-chloropropane	157	13.431	13.431	(1.094)	2122	25.0000	21.78
97 1,2,4-Trichlorobenzene	180	14.264	14.264	(1.162)	17165	25.0000	28.28
98 Hexachlorobutadiene	225	14.441	14.441	(1.176)	15197	25.0000	28.93
99 Naphthalene	128	14.502	14.502	(1.181)	34108	25.0000	27.92
100 1,2,3-Trichlorobenzene	180	14.745	14.745	(1.201)	18692	25.0000	32.24
M 29 1,2-Dichloroethene (total)	96				29353	50.0000	49.75
M 75 Xylenes (total)	106				84521	25.0000	78.97

Data File: /var/chem/hp5.1/50515d.b/1b50515.d
 Date: 15-MAY-2000 09:09
 Client ID: vstd20
 Sample Info: VSTD20 SML
 Purge Volume: 5.0
 Column Phase: DB 624

Instrument: hp5.1
 Operator: 10099
 Column diameter: 0.18



Data File: /var/chem/hp5.i/50515d.b/1b50515.d
 Report Date: 15-May-2000 09:52

STL-PITTSBURGH

VOLATILE REPORT SW-846 Method

Data file : /var/chem/hp5.i/50515d.b/1b50515.d
 Lab Smp Id: vstd20 Client Smp ID: vstd20
 Inj Date : 15-MAY-2000 09:09
 Operator : 10099 Inst ID: hp5.i
 Smp Info : VSTD20 5ML
 Misc Info : vstd20,50515d.b,8260bh2o.m,3-dwlist.sub
 Comment :
 Method : /var/chem/hp5.i/50515d.b/8260bh2o.m
 Meth Date : 15-May-2000 09:52 h Quant Type: ISTD
 Cal Date : 15-MAY-2000 09:09 Cal File: 1b50515.d
 Als bottle: 7 Calibration Sample, Level: 2
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 3-dwlist.sub
 Target Version: 3.40
 Processing Host: hpuxcs21

*KL6
5/15/00*

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

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

Compounds	QUANT SIG				AMOUNTS		
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
*****	----	--	-----	-----	-----	-----	-----
* 46 Fluorobenzene	96	6.870	6.870	(1.000)	634680		
* 69 Chlorobenzene-d5	119	9.973	9.973	(1.000)	149941		
* 92 1,4-Dichlorobenzene-d4	152	12.279	12.279	(1.000)	205692		
\$ 39 Dibromofluoromethane	113	6.128	6.128	(0.892)	55106	100.000	100.5
\$ 43 1,2-Dichloroethane-d4	65	6.487	6.487	(0.944)	73063	100.000	99.16
\$ 59 Toluene-d8	98	8.525	8.525	(0.855)	243981	100.000	99.77
\$ 80 Bromofluorobenzene	95	11.135	11.135	(1.117)	88711	100.000	96.82
1 Dichlorodifluoromethane	85	1.566	1.566	(0.228)	43165	100.000	101.5
2 Chloromethane	50	1.748	1.748	(0.254)	52924	100.000	98.64
3 Vinyl Chloride	62	1.845	1.845	(0.269)	55301	100.000	100.9
4 Bromomethane	94	2.138	2.138	(0.311)	8399	100.000	100.1
5 Chloroethane	64	2.241	2.241	(0.326)	9627	100.000	119.9
6 Trichlorofluoromethane	101	2.472	2.472	(0.360)	16280	100.000	107.5
12 1,1-Dichloroethene	96	3.062	3.062	(0.446)	54490	100.000	98.56
13 Acetone	43	3.257	3.257	(0.474)	37001	100.000	87.46
15 Carbon Disulfide	76	3.299	3.299	(0.480)	158762	100.000	99.37

Compounds	QUANT SIG			RESPONSE	AMOUNTS	
	MASS	RT	EXP RT REL RT		CAL-AMT (ng)	ON COL (ng)
=====	=====	==	=====	=====	=====	=====
18 Methylene Chloride	84	3.744	3.744 (0.545)	58243	100.000	94.30
19 trans-1,2-Dichloroethene	96	4.151	4.151 (0.604)	57729	100.000	101.0
20 Methyl tert-butyl ether	73	4.248	4.248 (0.618)	162656	100.000	108.8
24 1,1-Dichloroethane	63	4.753	4.753 (0.692)	96258	100.000	100.2
27 2,2-Dichloropropane	77	5.508	5.508 (0.802)	86414	100.000	101.0
28 cis-1,2-dichloroethene	96	5.526	5.526 (0.804)	58940	100.000	100.8
31 2-Butanone	43	5.617	5.617 (0.818)	58274	100.000	78.94
30 Bromochloromethane	128	5.812	5.812 (0.846)	27483	100.000	98.27
37 Chloroform	83	5.946	5.946 (0.865)	93977	100.000	101.9
38 1,1,1-Trichloroethane	97	6.116	6.116 (0.890)	86010	100.000	100.8
41 Carbon Tetrachloride	117	6.311	6.311 (0.919)	70988	100.000	101.6
40 1,1-Dichloropropene	75	6.317	6.317 (0.919)	77169	100.000	101.0
42 Benzene	78	6.542	6.542 (0.952)	231221	100.000	100.7
45 1,2-Dichloroethane	62	6.572	6.572 (0.957)	81644	100.000	102.1
47 Trichloroethene	130	7.266	7.266 (1.058)	58041	100.000	99.69
49 1,2-Dichloropropane	63	7.497	7.497 (1.091)	54176	100.000	100.2
50 Dibromomethane	93	7.619	7.619 (1.109)	32413	100.000	100.3
53 Bromodichloromethane	83	7.807	7.807 (1.136)	65108	100.000	103.0
57 cis-1,3-Dichloropropene	75	8.264	8.264 (1.203)	90526	100.000	103.6
58 4-Methyl-2-Pentanone	43	8.483	8.483 (0.851)	74361	100.000	98.97
60 Toluene	91	8.592	8.592 (0.862)	261386	100.000	101.8
61 trans 1,3-Dichloropropene	75	8.835	8.835 (0.886)	87453	100.000	104.2
64 1,1,2-Trichloroethane	97	9.012	9.012 (0.904)	51474	100.000	100.3
65 Tetrachloroethene	164	9.140	9.140 (0.916)	48600	100.000	100.1
67 Dibromochloromethane	129	9.419	9.419 (0.944)	46922	100.000	101.9
63 1,3-Dichloropropane	76	9.170	9.170 (0.919)	93438	100.000	102.0
66 2-Hexanone	43	9.298	9.298 (0.932)	53403	100.000	101.1
68 1,2-Dibromoethane	107	9.498	9.498 (0.952)	52404	100.000	101.8
70 Chlorobenzene	112	9.997	9.997 (1.002)	166005	100.000	100.2
72 Ethylbenzene	106	10.107	10.107 (1.013)	95986	100.000	98.79
71 1,1,1,2-Tetrachloroethane	131	10.089	10.089 (1.012)	52449	100.000	101.9
73 m + p-Xylene	106	10.229	10.229 (1.026)	211353	200.000	193.2
74 Xylene-o	106	10.624	10.624 (1.065)	102943	100.000	97.97
76 Styrene	104	10.642	10.642 (1.067)	169285	100.000	99.41
77 Bromoform	173	10.819	10.819 (1.085)	28475	100.000	101.2
78 Isopropylbenzene	105	10.989	10.989 (1.102)	270922	100.000	99.32
79 Bromobenzene	156	11.281	11.281 (0.919)	64721	100.000	103.6
83 1,1,2,2-Tetrachloroethane	83	11.281	11.281 (0.919)	68223	100.000	106.2
84 1,2,3-Trichloropropane	110	11.317	11.317 (0.922)	22853	100.000	105.5
81 n Propylbenzene	120	11.397	11.397 (0.928)	69215	100.000	102.1
82 2-Chlorotoluene	126	11.476	11.476 (0.935)	59648	100.000	104.2
86 1,3,5-Trimethylbenzene	105	11.573	11.573 (0.943)	185182	100.000	102.8
85 4-Chlorotoluene	126	11.585	11.585 (0.944)	59439	100.000	102.3
87 tert-Butylbenzene	119	11.889	11.889 (0.968)	173738	100.000	100.8
88 1,2,4-Trimethylbenzene	105	11.938	11.938 (0.972)	179083	100.000	102.1
89 sec-Butylbenzene	105	12.108	12.108 (0.986)	257143	100.000	101.0
91 1,3-Dichlorobenzene	146	12.212	12.212 (0.995)	112931	100.000	102.2

Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL AMT (ng)	ON-COL (ng)
=====	====	==	=====	=====	=====	=====	=====
90 4-Isopropyltoluene	119	12 254	12.254	(0 998)	191579	100.000	100.0
93 1,4 Dichlorobenzene	146	12 303	12 303	(1 002)	112673	100 000	100 5
94 n-Butylbenzene	91	12 662	12 662	(1 031)	179780	100 000	99 45
95 1,2-Dichlorobenzene	146	12 668	12 668	(1 032)	106538	100.000	100 9
96 1,2-Dibromo-3-chloropropane	157	13 434	13 434	(1 094)	9316	100.000	104 2
97 1,2,4-Trichlorobenzene	180	14 262	14 262	(1 162)	44550	100 000	87 02
98 Hexachlorobutadiene	225	14 444	14 444	(1 176)	38019	100 000	86 14
99 Naphthalene	128	14 505	14 505	(1 181)	93485	100.000	89 62
100 1,2,3-Trichlorobenzene	180	14 749	14 749	(1 201)	34032	100.000	73.89
M 29 1,2-Dichloroethene (total)	96				116669	200 000	201 8
M 75 Xylenes (total)	106				314296	100 000	299 1

Data File: /var/chem/hp5.i/50515d.b/3c50515.d
Report Date: 15-May-2000 08:27

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VOLATILE REPORT SW-846 Method

Data file : /var/chem/hp5.i/50515d.b/3c50515.d
Lab Smp Id: vstd50 Client Smp ID: vstd50
Inj Date : 15-MAY-2000 08:09
Operator : 10099 Inst ID: hp5.i
Smp Info : VSTD50 5ML
Misc Info : vstd50,50515d.b,8260bh2o.m,3-dwlist.sub
Comment :
Method : /var/chem/hp5.i/50515d.b/8260bh2o.m
Meth Date : 15-May-2000 08:27 h Quant Type: ISTD
Cal Date : 24-APR-2000 15:00 Cal File: 1a50424n.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 3-dwlist.sub
Target Version: 3.40
Processing Host: hpuxcs21

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

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

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ng)	ON-COL (ng)
* 46 Fluorobenzene	96	6.862	6.862	(1.000)	656862		
* 69 Chlorobenzene-d5	119	9.971	9.971	(1.000)	155636		
* 92 1,4-Dichlorobenzene-d4	152	12.276	12.276	(1.000)	226296		
\$ 39 Dibromofluoromethane	113	6.120	6.120	(0.892)	142778	250.000	219.0
\$ 43 1,2-Dichloroethane-d4	65	6.485	6.485	(0.945)	183495	250.000	205.5
\$ 59 Toluene-d8	98	8.523	8.523	(0.855)	618043	250.000	222.2
\$ 80 Bromofluorobenzene	95	11.139	11.139	(1.117)	232609	250.000	212.5
1 Dichlorodifluoromethane	85	1.581	1.581	(0.230)	111433	250.000	335.5
2 Chloromethane	50	1.734	1.734	(0.253)	141315	250.000	258.3
3 Vinyl Chloride	62	1.855	1.855	(0.270)	146017	250.000	239.2
4 Bromomethane	94	2.135	2.135	(0.311)	17814	250.000	161.3
5 Chloroethane	64	2.257	2.257	(0.329)	22506	250.000	243.9
6 Trichlorofluoromethane	101	2.464	2.464	(0.359)	38118	250.000	54.03
12 1,1-Dichloroethene	96	3.048	3.048	(0.444)	144418	250.000	214.6
13 Acetone	43	3.260	3.260	(0.475)	86229	250.000	244.6
15 Carbon Disulfide	76	3.279	3.279	(0.478)	520567	250.000	264.4

Compounds	QUANT SIG				RESPONSE	AMOUNTS	
	MASS	RT	EXP RT	REL RT		CAL-AMT (ng)	ON-COL (ng)
-----	----	==	=====	=====	-----	-----	-----
18 Methylene Chloride	84	3.741	3.741	{0.545}	157612	250.000	208.0
19 trans-1,2-Dichloroethene	96	4.136	4.136	{0.603}	146920	250.000	201.0
20 Methyl tert-butyl ether	73	4.246	4.246	{0.619}	453706	250.000	200.5
24 1,1-Dichloroethane	63	4.745	4.745	{0.691}	251573	250.000	202.6
27 2,2-Dichloropropane	77	5.499	5.499	{0.801}	227228	250.000	209.5
28 cis-1,2-dichloroethene	96	5.524	5.524	{0.805}	152478	250.000	191.1
31 2-Butanone	43	5.621	5.621	{0.819}	126985	250.000	228.4
30 Bromochloromethane	128	5.809	5.809	{0.847}	70454	250.000	175.5
37 Chloroform	83	5.937	5.937	{0.865}	240374	250.000	192.9
38 1,1,1-Trichloroethane	97	6.108	6.108	{0.890}	224214	250.000	206.8
41 Carbon Tetrachloride	117	6.302	6.302	{0.918}	189418	250.000	211.6
40 1,1-Dichloropropene	75	6.308	6.308	{0.919}	196960	250.000	209.5
42 Benzene	78	6.539	6.539	{0.953}	596350	250.000	193.4
45 1,2-Dichloroethane	62	6.570	6.570	{0.957}	208667	250.000	189.4
47 Trichloroethene	130	7.263	7.263	{1.058}	152988	250.000	197.9
49 1,2-Dichloropropane	63	7.495	7.495	{1.092}	141176	250.000	193.2
50 Dibromomethane	93	7.616	7.616	{1.110}	84483	250.000	187.0
53 Bromodichloromethane	83	7.805	7.805	{1.137}	175399	250.000	191.1
57 cis-1,3-Dichloropropene	75	8.261	8.261	{1.204}	239133	250.000	192.4
58 4-Methyl-2-Pentanone	43	8.486	8.486	{0.851}	188490	250.000	224.7
60 Toluene	91	8.590	8.590	{0.861}	660544	250.000	196.4
61 trans-1,3-Dichloropropene	75	8.827	8.827	{0.885}	230335	250.000	200.0
64 1,1,2-Trichloroethane	97	9.015	9.015	{0.904}	131912	250.000	193.8
65 Tetrachloroethene	164	9.137	9.137	{0.916}	127115	250.000	216.1
67 Dibromochloromethane	129	9.423	9.423	{0.945}	130710	250.000	194.0
63 1,3-Dichloropropane	76	9.168	9.168	{0.919}	237743	250.000	198.4
66 2-Hexanone	43	9.295	9.295	{0.932}	132636	250.000	227.9
68 1,2-Dibromoethane	107	9.496	9.496	{0.952}	135555	250.000	198.8
70 Chlorobenzene	112	9.995	9.995	{1.002}	429532	250.000	194.0
72 Ethylbenzene	106	10.110	10.110	{1.014}	246620	250.000	210.8
71 1,1,1,2-Tetrachloroethane	131	10.092	10.092	{1.012}	138755	250.000	199.5
73 m + p-Xylene	106	10.226	10.226	{1.026}	560869	500.000	417.6
74 Xylene-o	106	10.621	10.621	{1.065}	274769	250.000	203.5
76 Styrene	104	10.640	10.640	{1.067}	458150	250.000	199.1
77 Bromoform	173	10.816	10.816	{1.085}	83591	250.000	202.7
78 Isopropylbenzene	105	10.986	10.986	{1.102}	707653	250.000	216.1
79 Bromobenzene	156	11.278	11.278	{0.919}	171878	250.000	203.2
83 1,1,2,2-Tetrachloroethane	83	11.278	11.278	{0.919}	175243	250.000	212.8
84 1,2,3-Trichloropropane	110	11.321	11.321	{0.922}	59779	250.000	210.0
81 n-Propylbenzene	120	11.394	11.394	{0.928}	184606	250.000	215.1
82 2-Chlorotoluene	126	11.473	11.473	{0.935}	156193	250.000	204.0
86 1,3,5-Trimethylbenzene	105	11.570	11.570	{0.943}	494791	250.000	213.7
85 4-Chlorotoluene	126	11.583	11.583	{0.944}	155575	250.000	201.7
87 tert-Butylbenzene	119	11.893	11.893	{0.969}	467712	250.000	223.4
88 1,2,4-Trimethylbenzene	105	11.935	11.935	{0.972}	473359	250.000	212.3
89 sec-Butylbenzene	105	12.106	12.106	{0.986}	686995	250.000	231.9
91 1,3-Dichlorobenzene	146	12.209	12.209	{0.995}	303607	250.000	208.2

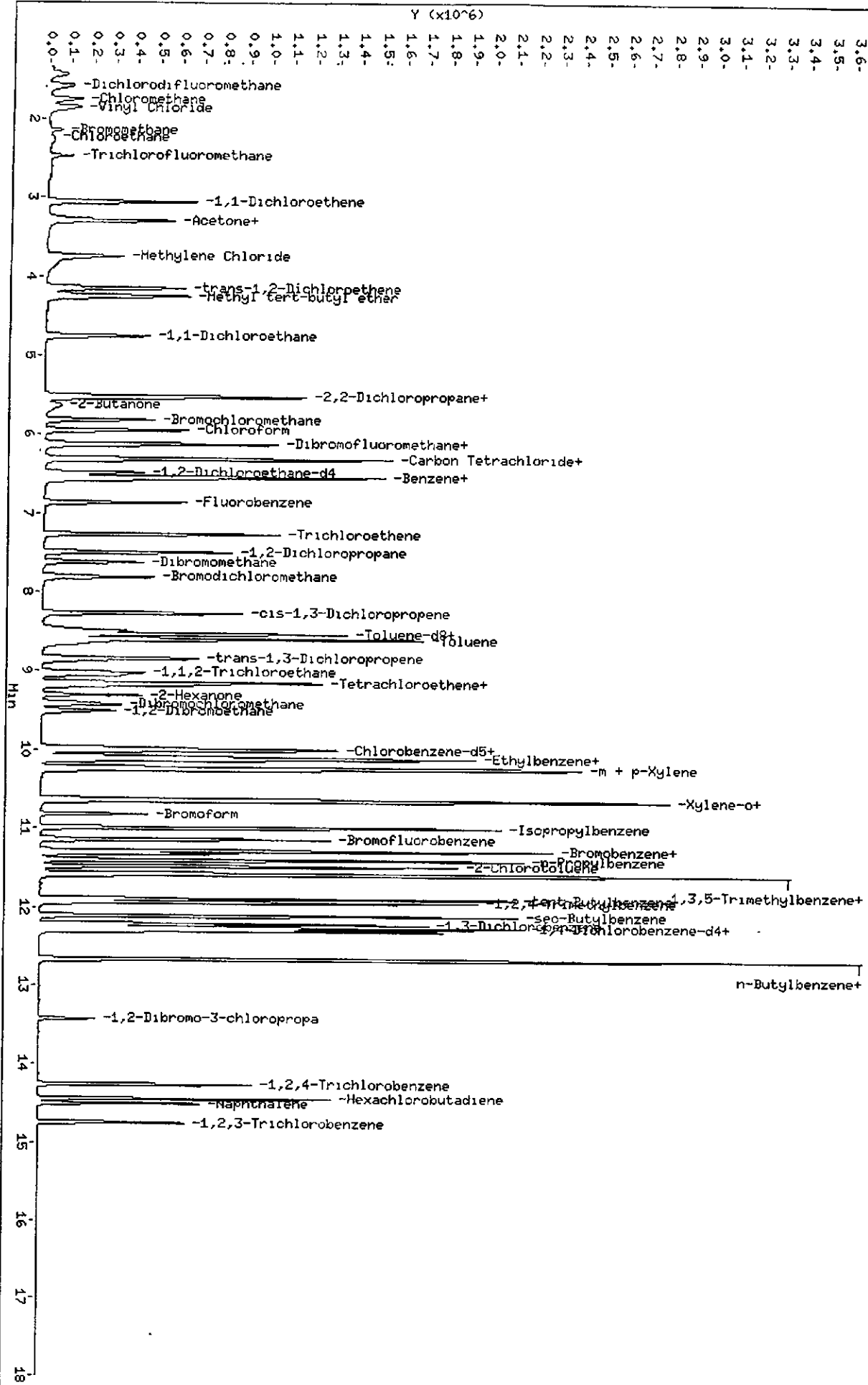
Data File: /var/chem/hp5.i/50515d.b/3c50515.d
 Report Date: 15-May-2000 08:27

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Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL AMT (ng)	ON- COL (ng)
=====	====	==	=====	=====	=====	=====	=====
90 4-Isopropyltoluene	119	12 252	12.252	(0 998)	521926	250.000	231 2
93 1,4-Dichlorobenzene	146	12 300	12 300	(1 002)	303193	250 000	206 7
94 n-Butylbenzene	91	12 659	12 659	(1 031)	493131	250.000	247 8
95 1,2-Dichlorobenzene	146	12 665	12 665	(1 032)	289716	250 000	207 8
96 1,2-Dibromo-3-chloropropane	157	13 432	13 432	(1 094)	27179	250 000	232 7
97 1,2,4 Trichlorobenzene	180	14 265	14 265	(1 162)	130242	250 000	242 0
98 Hexachlorobutadiene	225	14 442	14 442	(1 176)	109401	250.000	290 1
99 Naphthalene	128	14 503	14 503	(1.181)	266486	250 000	221 4
100 1,2,3-Trichlorobenzene	180	14 746	14.746	(1 201)	101711	250 000	228 5
M 29 1,2-Dichloroethene (total)	96				299398	500 000	391 7
M 75 Xylenes (total)	106				835638	250 000	619 0

Data File: /var/chem/hp5.1/50515d.b/1d50515.d
 Date : 15-MAY-2000 09:34
 Client ID: vstd100
 Sample Info: VSTD100 SHL
 Purge Volume: 5.0
 Column phase: DB 624

Instrument: hp5.1
 Operator: 10099
 Column diameter: 0.18



Data File: /var/chem/hp5.i/50515d.b/1d50515.d
Report Date: 15-May-2000 09:52

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STL-PITTSBURGH

VOLATILE REPORT SW-846 Method

Data file : /var/chem/hp5.i/50515d.b/1d50515.d
Lab Smp Id: vstd100 Client Smp ID: vstd100
Inj Date : 15-MAY-2000 09:34
Operator : 10099 Inst ID: hp5.i
Smp Info : VSTD100 5ML
Misc Info : vstd100,50515d.b,8260bh2o.m,3-dwlist.sub
Comment :
Method : /var/chem/hp5.i/50515d.b/8260bh2o.m
Meth Date : 15-May-2000 09:52 h Quant Type: ISTD
Cal Date : 15-MAY-2000 09:34 Cal File: 1d50515.d
Als bottle: 8 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 3-dwlist.sub
Target Version: 3.40
Processing Host: hpuxcs21

KLG
S/KS/W

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

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

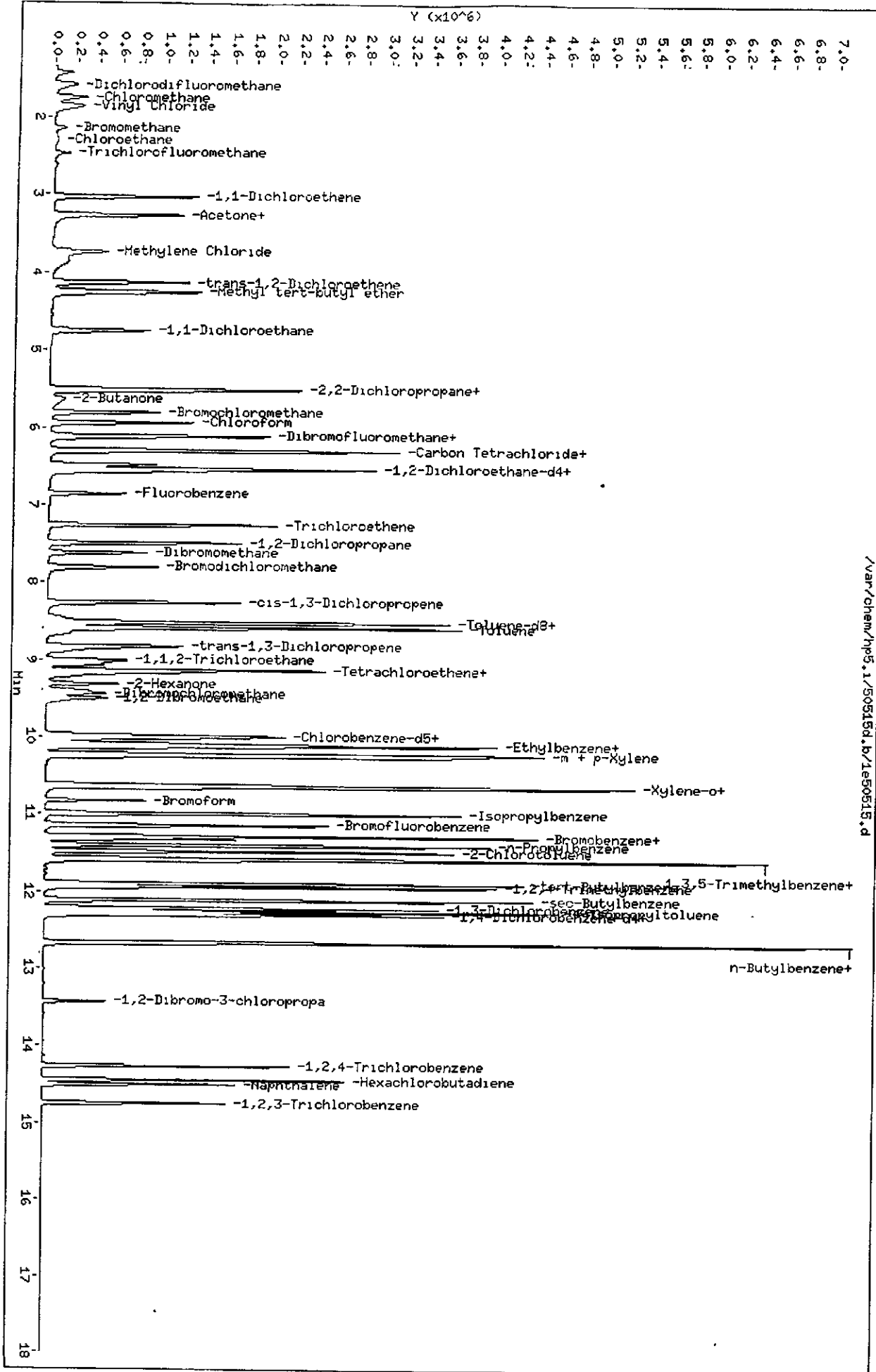
Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT (ng)	ON-COL (ng)
* 46 Fluorobenzene	96		6 870	6 870	(1 000)	598557		
* 69 Chlorobenzene-d5	119		9 985	9 985	(1 000)	142167		
* 92 1,4-Dichlorobenzene-d4	152		12 278	12 278	(1 000)	208871		
\$ 39 Dibromofluoromethane	113		6 128	6 128	(0 892)	261065	500 000	503.7
\$ 43 1,2-Dichloroethane-d4	65		6.487	6 487	(0.944)	343350	500 000	495 6
\$ 59 Toluene-d8	98		8 531	8.531	(0.854)	1120300	500 000	487.3
\$ 80 Bromofluorobenzene	95		11 140	11.140	(2 116)	426056	500.000	492.8
1 Dichlorodifluoromethane	85		1 571	1 571	(0 229)	249210	500.000	586 0
2 Chloromethane	50		1 748	1 748	(0 254)	305254	500 000	573.6
3 Vinyl Chloride	62		1 857	1 857	(0 270)	322329	500.000	587.5
4 Bromomethane	94		2 143	2 143	(0 312)	49217	500 000	586.2
5 Chloroethane	64		2 234	2 234	(0 325)	50736	500 000	617 4
6 Trichlorofluoromethane	101		2 471	2 471	(0 360)	88576	500 000	585 1
12 1,1-Dichloroethene	96		3 062	3 062	(0.446)	321202	500 000	582 2
13 Acetone	43		3 256	3 256	(0.474)	170574	500 000	443 6
15 Carbon Disulfide	76		3 299	3 299	(0 480)	955033	500 000	594 1

Compounds	QUANT SIG				RESPONSE	AMOUNTS	
	MASS	RT	EXP RT	REL RT		CAL-AMT (ng)	ON-COL (ng)
=====	=====	==	=====	=====	=====	=====	=====
18 Methylene Chloride	84	3.749	3.749	{0.546}	321896	500.000	538.5
19 trans-1,2-Dichloroethene	96	4.150	4.150	{0.604}	336689	500.000	587.9
20 Methyl tert-butyl ether	73	4.248	4.248	{0.618}	976036	500.000	631.6
24 1,1-Dichloroethane	63	4.759	4.759	{0.693}	564809	500.000	587.2
27 2,2-Dichloropropane	77	5.513	5.513	{0.803}	528131	500.000	607.6
28 cis-1,2-dichloroethene	96	5.531	5.531	{0.805}	348816	500.000	593.2
31 2-Butanone	43	5.629	5.629	{0.819}	241097	500.000	375.1
30 Bromochloromethane	128	5.811	5.811	{0.846}	158950	500.000	573.2
37 Chloroform	83	5.945	5.945	{0.865}	541844	500.000	587.0
38 1,1,1-Trichloroethane	97	6.122	6.122	{0.891}	522322	500.000	603.9
41 Carbon Tetrachloride	117	6.310	6.310	{0.919}	446757	500.000	622.7
40 1,1 Dichloropropene	75	6.316	6.316	{0.919}	451956	500.000	589.5
42 Benzene	78	6.547	6.547	{0.953}	1324240	500.000	579.4
45 1,2-Dichloroethane	62	6.578	6.578	{0.957}	474228	500.000	590.9
47 Trichloroethene	130	7.271	7.271	{1.058}	341897	500.000	586.7
49 1,2-Dichloropropane	63	7.496	7.496	{1.091}	313445	500.000	581.5
50 Dibromomethane	93	7.618	7.618	{1.109}	191358	500.000	590.3
53 Bromodichloromethane	83	7.807	7.807	{1.136}	402454	500.000	620.9
57 cis-1,3-Dichloropropene	75	8.263	8.263	{1.203}	536432	500.000	605.2
58 4-Methyl-2-Pentanone	43	8.488	8.488	{0.850}	400404	500.000	545.1
60 Toluene	91	8.598	8.598	{0.861}	1469165	500.000	573.6
61 trans-1,3-Dichloropropene	75	8.835	8.835	{0.885}	525148	500.000	610.9
64 1,1,2-Trichloroethane	97	9.017	9.017	{0.903}	293999	500.000	574.3
65 Tetrachloroethene	164	9.145	9.145	{0.916}	283638	500.000	582.2
67 Dibromochloromethane	129	9.431	9.431	{0.945}	308416	500.000	640.4
63 1,3-Dichloropropane	76	9.175	9.175	{0.919}	535848	500.000	583.0
66 2 Hexanone	43	9.303	9.303	{0.932}	285485	500.000	550.7
68 1,2-Dibromoethane	107	9.498	9.498	{0.951}	305751	500.000	589.2
70 Chlorobenzene	112	10.009	10.009	{1.002}	947324	500.000	573.7
72 Ethylbenzene	106	10.112	10.112	{1.013}	540792	500.000	562.5
71 1,1,1,2-Tetrachloroethane	131	10.094	10.094	{1.011}	317697	500.000	605.4
73 m + p-Xylene	106	10.234	10.234	{1.025}	1240401	1000.00	1140
74 Xylene-o	106	10.629	10.629	{1.065}	604625	500.000	576.1
76 Styrene	104	10.642	10.642	{1.066}	1024547	500.000	594.6
77 Bromoform	173	10.818	10.818	{1.083}	204982	500.000	677.4
78 Isopropylbenzene	105	10.994	10.994	{1.101}	1561822	500.000	574.1
79 Bromobenzene	156	11.286	11.286	{0.919}	379178	500.000	569.9
83 1,1,2,2-Tetrachloroethane	83	11.280	11.280	{0.919}	400206	500.000	580.6
84 1,2,3 Trichloropropane	110	11.323	11.323	{0.922}	133667	500.000	576.7
81 n-Propylbenzene	120	11.396	11.396	{0.928}	412539	500.000	570.9
82 2-Chlorotoluene	126	11.481	11.481	{0.935}	350254	500.000	573.4
86 1,3,5-Trimethylbenzene	105	11.572	11.572	{0.943}	1150272	500.000	590.7
85 4-Chlorotoluene	126	11.584	11.584	{0.944}	351861	500.000	569.0
87 tert Butylbenzene	119	11.895	11.895	{0.969}	1023921	500.000	561.2
88 1,2,4-Trimethylbenzene	105	11.937	11.937	{0.972}	1097232	500.000	582.1
89 sec-Butylbenzene	105	12.114	12.114	{0.987}	1505235	500.000	559.0
91 1,3-Dichlorobenzene	146	12.211	12.211	{0.995}	670258	500.000	569.8

Data File: /var/chem/hp5.i/50515d.b/1d50515.d
 Report Date: 15-May-2000 09:52

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Compounds	QUANT SIG						AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT	ON COL	
						(ng)	(ng)	
=====	=====	==	=====	=====	=====	=====	=====	=====
90 4-Isopropyltoluene	119	12.254	12 254	(0.998)	1159767	500.000	568.9	
93 1,4-Dichlorobenzene	146	12.302	12 302	(1.002)	669870	500.000	563.4	
94 n-Butylbenzene	91	12.661	12 661	(1.031)	1144016	500.000	587.0	
95 1,2-Dichlorobenzene	146	12.667	12 667	(1.032)	637132	500.000	567.7	
96 1,2-Dibromo-3-chloropropane	157	13.434	13 434	(1.094)	65217	500.000	647.6	
97 1,2,4-Trichlorobenzene	180	14.261	14 261	(1.162)	278515	500.000	526.4	
98 Hexachlorobutadiene	225	14.444	14 444	(1.176)	233212	500.000	515.1	
99 Naphthalene	128	14.505	14 505	(1.181)	544974	500.000	510.8	
100 1,2,3-Trichlorobenzene	180	14.748	14 748	(1.201)	198001	500.000	440.2	
M 29 1,2-Dichloroethene (total)	96				685505	1000.00	1181	
M 75 Xylenes (total)	106				1845026	500.000	1758	



Data File: /var/chem/hp5.1/S0515d.b/1e50515.d
 Date: 15-MAY-2000 09:59
 Client ID: vstd200
 Sample Info: VSTD200 SHL
 Purge Volume: 5.0
 Column phase: DB 624

Instrument: hp5.1
 Operator: 10099
 Column diameter: 0.18

Data File: /var/chem/hp5.i/50515d.b/1e50515.d
 Report Date: 15-May-2000 10:17

Page 1

STL-PITTSBURGH

VOLATILE REPORT SW-846 Method

Data file : /var/chem/hp5.i/50515d.b/1e50515.d
 Lab Smp Id: vstd200 Client Smp ID: vstd200
 Inj Date : 15-MAY-2000 09:59
 Operator : 10099 Inst ID: hp5.i
 Smp Info : VSTD200 5ML
 Misc Info : vstd200,50515d.b,8260bh2o.m,3-dwlist.sub
 Comment :
 Method : /var/chem/hp5.i/50515d.b/8260bh2o.m
 Meth Date : 15-May-2000 10:17 h Quant Type: ISTD
 Cal Date : 15-MAY-2000 09:59 Cal File: 1e50515.d
 Als bottle: 9 Calibration Sample, Level: 5
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 3-dwlist.sub
 Target Version: 3.40
 Processing Host: hpuxcs21

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

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

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT (ng)	ON-COL (ng)
* 46 Fluorobenzene	96		6.867	6.867	(1.000)	616507		
* 69 Chlorobenzene-d5	119		9.970	9.970	(1.000)	143792		
* 92 1,4 Dichlorobenzene-d4	152		12.282	12.282	(1.000)	219331		
\$ 39 Dibromofluoromethane	113		6.131	6.131	(0.893)	550556	1000.00	1025
\$ 43 1,2-Dichloroethane-d4	65		6.490	6.490	(0.945)	727558	1000.00	1016
\$ 59 Toluene-d8	98		8.528	8.528	(0.855)	2354095	1000.00	1010
\$ 80 Bromofluorobenzene	95		11.144	11.144	(1.118)	886152	1000.00	1011
1 Dichlorodifluoromethane	85		1.587	1.587	(0.231)	500203	1000.00	1110
2 Chloromethane	50		1.745	1.745	(0.254)	623348	1000.00	1107
3 Vinyl Chloride	62		1.861	1.861	(0.271)	645907	1000.00	1111
4 Bromomethane	94		2.140	2.140	(0.312)	102219	1000.00	1140
5 Chloroethane	64		2.299	2.299	(0.335)	92306	1000.00	1071
6 Trichlorofluoromethane	101		2.469	2.469	(0.360)	129699	1000.00	860.8
12 1,1 Dichloroethene	96		3.035	3.035	(0.442)	643699	1000.00	1104
13 Acetone	43		3.272	3.272	(0.476)	347479	1000.00	899.4
15 Carbon Disulfide	76		3.272	3.272	(0.476)	1982676	1000.00	1152

Compounds	QUANT SIG			RESPONSE	AMOUNTS	
	MASS	RT	EXP RT REL RT		CAL-AMT (ng)	ON-COL (ng)
*****	----	--	-----	-----	-----	-----
18 Methylene Chloride	84	3 740	3 740 (0 545)	696870	1000 00	1103
19 trans-1,2-Dichloroethene	96	4 142	4.142 (0.603)	665252	1000 00	1100
20 Methyl tert-butyl ether	73	4 258	4 258 (0 620)	2007762	1000 00	1199
24 1,1-Dichloroethane	63	4 756	4 756 (0 693)	1087929	1000 00	1077
27 2,2-Dichloropropane	77	5 511	5 511 (0 802)	1077092	1000 00	1156
28 cis-1,2-dichloroethene	96	5.529	5 529 (0 805)	689232	1000 00	1107
31 2-Butanone	43	5 638	5.638 (0 821)	487618	1000 00	777 6
30 Bromochloromethane	128	5 815	5 815 (0 847)	315522	1000 00	1082
37 Chloroform	83	5.943	5 943 (0 865)	1100507	1000.00	1122
38 1,1,1-Trichloroethane	97	6.113	6 113 (0.890)	1056296	1000 00	1143
41 Carbon Tetrachloride	117	6 308	6 308 (0.918)	903950	1000.00	1171
40 1,1-Dichloropropene	75	6 314	6 314 (0 919)	900865	1000.00	1110
42 Benzene	78	6 545	6 545 (0 953)	2573689	1000 00	1073
45 1,2 Dichloroethane	62	6.575	6 575 (0 957)	970100	1000 00	1134
47 Trichloroethene	130	7 269	7 269 (1 058)	670348	1000 00	1091
49 1,2-Dichloropropane	63	7 500	7 500 (1 092)	640758	1000.00	1120
50 Dibromomethane	93	7 622	7 622 (1.110)	385659	1000 00	1120
53 Bromodichloromethane	83	7.810	7 810 (1 137)	823706	1000 00	1179
57 cis-1,3-Dichloropropene	75	8.260	8.260 (1.203)	1083881	1000 00	1144
58 4-Methyl-2-Pentanone	43	8 516	8.516 (0 854)	821956	1000.00	1083
60 Toluene	91	8 595	8 595 (0 862)	2908272	1000.00	1096
61 trans 1,3-Dichloropropene	75	8 832	8 832 (0 886)	1062835	1000 00	1170
64 1,1,2-Trichloroethane	97	9 015	9 015 (0 904)	586330	1000 00	1103
65 Tetrachloroethene	164	9.143	9 143 (0 917)	560323	1000 00	1107
67 Dibromochloromethane	129	9 447	9 447 (0 948)	625553	1000 00	1215
63 1,3-Dichloropropane	76	9 173	9 173 (0 920)	1059831	1000.00	1109
66 2-Hexanone	43	9 319	9 319 (0 935)	564915	1000 00	1061
68 1,2-Dibromoethane	107	9.502	9 502 (0 953)	610243	1000 00	1126
70 Chlorobenzene	112	10.000	10 000 (1 003)	1854731	1000 00	1086
72 Ethylbenzene	106	10 110	10.110 (1 014)	1070870	1000 00	1079
71 1,1,1,2-Tetrachloroethane	131	10 110	10 110 (1.014)	621534	1000 00	1132
73 m + p-Xylene	106	10 232	10 232 (1 026)	2516383	2000 00	2223
74 Xylene-o	106	10.633	10 633 (1.067)	1264733	1000 00	1147
76 Styrene	104	10 651	10 651 (1 068)	2124828	1000.00	1168
77 Bromoform	173	10 828	10.828 (1 086)	414984	1000 00	1266
78 Isopropylbenzene	105	10 998	10 998 (1 103)	3088349	1000 00	1096
79 Bromobenzene	156	11 290	11 290 (0 919)	732268	1000 00	1038
83 1,1,2,2-Tetrachloroethane	83	11.290	11 290 (0.919)	800538	1000.00	1083
84 1,2,3-Trichloropropane	110	11 327	11.327 (0 922)	259538	1000 00	1052
81 n-Propylbenzene	120	11 406	11.406 (0 929)	823600	1000.00	1067
82 2-Chlorotoluene	126	11 485	11 485 (0 935)	692491	1000 00	1063
86 1,3,5-Trimethylbenzene	105	11.576	11 576 (0 943)	2349656	1000.00	1116
85 4-Chlorotoluene	126	11.588	11 588 (0.944)	722494	1000.00	1088
87 tert-Butylbenzene	119	11 898	11 898 (0 969)	2067690	1000 00	1062
88 1,2,4-Trimethylbenzene	105	11 941	11.941 (0 972)	2262072	1000 00	1111
89 sec Butylbenzene	105	12 111	12 111 (0 986)	3045485	1000.00	1061
91 1,3-Dichlorobenzene	146	12 215	12 215 (0 995)	1350625	1000 00	1073

Data File: /var/chem/hp5.i/50515d b/1e50515.d
Report Date: 15-May-2000 10:17

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Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
=====	====	==	=====	=====	=====	=====	=====
90 4-Isopropyltoluene	119	12 257	12 257	(0.998)	2414169	1000.00	1100
93 1,4-Dichlorobenzene	146	12.306	12 306	(1.002)	1369535	1000.00	1076
94 n-Butylbenzene	91	12 665	12 665	(1.031)	2384352	1000.00	1128
95 1,2-Dichlorobenzene	146	12 671	12 671	(1.032)	1302667	1000.00	1082
96 1,2-Dibromo 3-chloropropane	157	13 438	13 438	(1.094)	141543	1000.00	1254
97 1,2,4-Trichlorobenzene	180	14 265	14 265	(1.161)	640013	1000.00	1118
98 Hexachlorocyclopentadiene	225	14 447	14 447	(1.176)	503417	1000.00	1047
99 Naphthalene	128	14 502	14 502	(1.181)	1278732	1000.00	1110
100 1,2,3-Trichlorobenzene	180	14 745	14.745	(1.201)	475528	1000.00	1005
M 29 1,2-Dichloroethene (total)	96				1354484	2000.00	2207
M 75 Xylenes (total)	106				3781116	1000.00	3430

FORM 7
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: STL-PITTSBURGH

Contract:

Lab Code: STLPIT

Case No.:

SAS No.: 40325

SDG No.: 50602D

Instrument ID: HP5

Calibration Date: 06/02/00 Time: 0744

Lab File ID: CC50602

Init. Calib. Date(s): 05/15/00 05/15/00

Heated Purge: (Y/N) N

Init. Calib. Times: 0809

0959

GC Column: DB 624 ID: 0.20 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Chloromethane	0.228	0.218	0.1	4.4	50.0
Vinyl Chloride	0.236	0.230	0.01	2.5	20.0
Bromomethane	0.036	0.050	0.01	38.9	50.0
Chloroethane	0.035	0.049	0.01	40.0	50.0
1,1-Dichloroethene	0.237	0.250	0.01	5.5	20.0
Methylene Chloride	0.256	0.250	0.01	2.3	50.0
trans-1,2-Dichloroethene	0.245	0.257	0.01	4.9	50.0
1,1-Dichloroethane	0.410	0.442	0.1	7.8	50.0
cis-1,2-dichloroethene	0.252	0.269	0.01	6.7	50.0
Chloroform	0.398	0.411	0.01	3.3	20.0
1,1,1-Trichloroethane	0.374	0.377	0.01	0.8	50.0
Carbon Tetrachloride	0.313	0.320	0.01	2.2	50.0
1,2-Dichloroethane	0.347	0.347	0.01	0.0	50.0
Benzene	0.972	1.020	0.01	4.9	50.0
Trichloroethene	0.249	0.262	0.01	5.2	50.0
1,2-Dichloropropane	0.232	0.239	0.01	3.0	20.0
Bromodichloromethane	0.283	0.296	0.01	4.6	50.0
cis-1,3-Dichloropropene	0.384	0.390	0.01	1.6	50.0
Toluene	4.614	4.865	0.01	5.4	20.0
trans-1,3-Dichloropropene	1.579	1.649	0.01	4.4	50.0
1,1,2-Trichloroethane	0.924	0.947	0.01	2.5	50.0
Tetrachloroethene	0.880	0.935	0.01	6.2	50.0
Dibromochloromethane	0.895	0.958	0.01	7.0	50.0
Chlorobenzene	2.968	3.146	0.3	6.0	50.0
Ethylbenzene	1.725	1.782	0.01	3.3	20.0
Styrene	3.163	3.599	0.01	13.8	50.0
Bromoform	0.570	0.642	0.1	12.6	50.0
1,1,2,2-Tetrachloroethane	0.842	0.811	0.3	3.7	50.0
Acetone	0.157	0.113	0.01	28.0	50.0
Carbon Disulfide	0.698	0.893	0.01	27.9	50.0
2-Butanone	0.254	0.201	0.01	20.9	50.0
4-Methyl-2-Pentanone	1.319	1.202	0.01	8.9	50.0
2-Hexanone	0.926	0.856	0.01	7.6	50.0
1,2-Dichloroethene (total)	0.249	0.263	0.01	5.6	50.0
Xylenes (total)	1.916	2.093	0.01	9.2	50.0

FORM 7
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: STL-PITTSBURGH

Contract:

Lab Code: STLPIT

Case No.:

SAS No.: 40325

SDG No.: 50602D

Instrument ID: HP5

Calibration Date: 06/02/00

Time: 0744

Lab File ID: CC50602

Init. Calib. Date(s): 05/15/00 05/15/00

Heated Purge: (Y/N) N

Init. Calib. Times: 0809

0959

GC Column: DB 624 ID: 0.20 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Dibromofluoromethane	0.218	0.222	0.01	1.8	50.0
1,2-Dichloroethane-d4	0.291	0.275	0.01	5.5	50.0
Toluene-d8	4.053	4.140	0.01	2.1	50.0
Bromofluorobenzene	1.524	1.607	0.01	5.4	50.0

CONTINUING CALIBRATION COMPOUNDS
PERCENT DRIFT REPORTInstrument ID: hp5.i
Lab File ID: cc50602.d
Analysis Type: WATERInjection Date: 02-JUN-2000 07:44
Lab Sample ID: vstd50
Method File: /var/chem/hp5.i/50602d.b/8260bh2o.m

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
0 Xylene-o	250.0000	273.1191	9.2	50.0
0 m + p-Xylene	500.0000	530.1763	6.0	50.0
2 Chloromethane	250.0000	238.6565	4.5	50.0
3 Vinyl Chloride	250.0000	243.5421	2.6	20.0
4 Bromomethane	250.0000	347.5829	39.0	50.0
5 Chloroethane	250.0000	348.5858	39.4	50.0
9 1,1-Dichloroethene	250.0000	263.9923	5.6	20.0
10 Methylene Chloride	250.0000	244.1694	2.3	50.0
13 trans-1,2-Dichloroethene	250.0000	262.2176	4.9	50.0
15 1,1-Dichloroethane	250.0000	270.0148	8.0	50.0
17 cis-1,2-dichloroethene	250.0000	266.2814	6.5	50.0
18 Chloroform	250.0000	258.4328	3.4	20.0
20 1,1,1-Trichloroethane	250.0000	251.5619	0.6	50.0
21 Carbon Tetrachloride	250.0000	255.6797	2.3	50.0
23 1,2-Dichloroethane	250.0000	250.3358	0.1	50.0
24 Benzene	250.0000	262.2039	4.9	50.0
26 Trichloroethene	250.0000	263.2333	5.3	50.0
27 1,2-Dichloropropane	250.0000	257.6310	3.1	20.0
28 Bromodichloromethane	250.0000	261.5701	4.6	50.0
31 cis-1,3-Dichloropropene	250.0000	254.1472	1.7	50.0
33 Toluene	250.0000	263.5724	5.4	20.0
34 trans-1,3-Dichloropropene	250.0000	261.1639	4.5	50.0
36 1,1,2-Trichloroethane	250.0000	256.1777	2.5	50.0
37 Tetrachloroethene	250.0000	265.4767	6.2	50.0
38 Dibromochloromethane	250.0000	267.5680	7.0	50.0
40 Chlorobenzene	250.0000	264.9513	6.0	50.0
41 Ethylbenzene	250.0000	258.2655	3.3	20.0
44 Styrene	250.0000	284.4687	13.8	50.0
45 Bromoform	250.0000	281.6105	12.6	50.0
46 1,1,2,2-Tetrachloroethane	250.0000	240.7972	3.7	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	180.7246	27.7	50.0
107 Carbon Disulfide	250.0000	319.8992	28.0	50.0
108 2-Butanone	250.0000	197.5646	21.0	50.0
110 4-Methyl-2-Pentanone	250.0000	227.7545	8.9	50.0
111 2-Hexanone	250.0000	231.2179	7.5	50.0
121 Isobutanol	10000.0000	17896.8760	79.0	50.0
137 Fluorobenzene	250.0000	250.0000	0.0	50.0

Data File: /var/chem/hp5.i/50602d.b/cc50602.d
Report Date: 06/02/2000

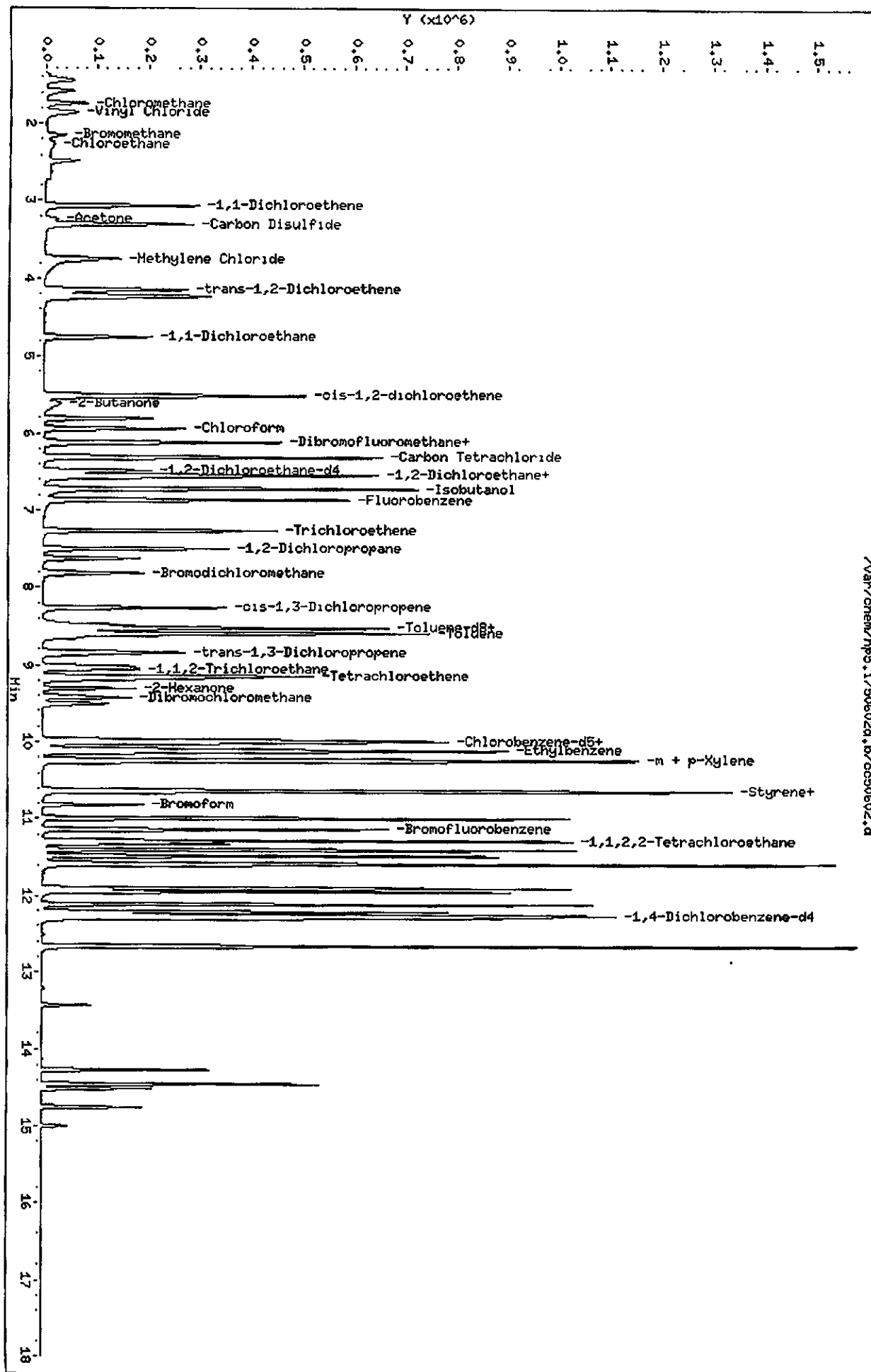
659 133
Pag

CONTINUING CALIBRATION COMPOUNDS
PERCENT DRIFT REPORT

Instrument ID: hp5.i
Lab File ID: cc50602.d
Analysis Type: WATER

Injection Date: 02-JUN-2000 07:44
Lab Sample ID: vstd50
Method File: /var/chem/hp5.i/50602d.b/8260bh2

COMPOUND	EXPECTED	MEASURED		MAX
	CONC.	CONC.	%D	%D
153 1,2-Dichloroethene (total)	500.0000	528.5570	5.7	50.0
154 Xylenes (total)	750.0000	817.6428	9.0	50.0
150 1,2-Dichloroethane-d4	250.0000	236.3398	5.5	50.0
151 Toluene-d8	250.0000	255.3457	2.1	50.0
152 Bromofluorobenzene	250.0000	263.5640	5.4	50.0



Data File: /var/chem/hp5.1/50602d.b/cc50602.d
 Date: 02-JUN-2000 07:44
 Client ID: vstd60
 Sample Info: VSTD50 GHL
 Purge Volume: 5.0
 Column phase: DB 624

/var/chem/hp5.1/50602d.b/cc50602.d

Instrument: hp5.1
 Operator: 034635
 Column diameter: 0.20

Data File: /var/chem/hp5.i/50602d.b/cc50602.d
Report Date: 02-Jun-2000 08:36

Page 1

STL-PITTSBURGH

VOLATILE REPORT SW-846 Method

Data file : /var/chem/hp5.i/50602d.b/cc50602.d
Lab Smp Id: vstd50 Client Smp ID: vstd50
Inj Date : 02-JUN-2000 07:44
Operator : 034635 Inst ID: hp5.i
Smp Info : VSTD50 SML
Misc Info : vstd50,50602d.b,8260bh2o.m,2-br.sub
Comment :
Method : /var/chem/hp5.i/50602d.b/8260bh2o.m
Meth Date : 02-Jun-2000 08:36 journetp Quant Type: ISTD
Cal Date : 15-MAY-2000 08:45 Cal File: 1a50515.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2-br.sub
Target Version: 3.40
Processing Host: hpuxcs21

Concentration Formula: $\text{Amt} * \text{DF} * 1/\text{Vo} * \text{Vt}$

RW 6/2/00

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

Compounds	QUANT SIG				RESPONSE	AMOUNTS	
	MASS	RT	EXP RT	REL RT		CAL-AMT (ng)	ON-COL (ng)
* 46 Fluorobenzene	96	6.873	6.873	(1.000)	581044		
* 69 Chlorobenzene-d5	119	9.981	9.981	(1.000)	135516		
* 92 1,4-Dichlorobenzene-d4	152	12.281	12.281	(1.000)	214521		
\$ 39 Dibromofluoromethane	113	6.124	6.124	(0.891)	129141	250.000	255.1
\$ 43 1,2-Dichloroethane-d4	65	6.489	6.489	(0.944)	159577	250.000	236.3
\$ 59 Toluene-d8	98	8.533	8.533	(0.855)	560995	250.000	255.3
\$ 80 Bromofluorobenzene	95	11.143	11.143	(1.116)	217792	250.000	263.6
2 Chloromethane	50	1.744	1.744	(0.254)	126667	250.000	238.6
4 Bromomethane	94	2.152	2.152	(0.313)	29360	250.000	347.6
3 Vinyl Chloride	62	1.860	1.860	(0.271)	133417	250.000	243.5
5 Chloroethane	64	2.261	2.261	(0.329)	28310	250.000	348.6
18 Methylene Chloride	84	3.752	3.752	(0.546)	145429	250.000	244.2
13 Acetone	43	3.241	3.241	(0.472)	65804	250.000	180.7
15 Carbon Disulfide	76	3.308	3.308	(0.481)	518915	250.000	319.9
12 1,1-Dichloroethene	96	3.070	3.070	(0.447)	145128	250.000	264.0
24 1,1-Dichloroethane	63	4.756	4.756	(0.692)	257050	250.000	270.0

Compounds	QUANT SIG			REL RT	RESPONSE	AMOUNTS	
	MASS	RT	EXP RT			CAL-AMT (ng)	ON-COL (ng)
-----	----	--	-----	-----	-----	-----	-----
19 trans-1,2-Dichloroethene	96	4.153	4 153	(0.604)	149494	250.000	262.2
28 cis-1,2-dichloroethene	96	5.528	5 528	(0.804)	156201	250.000	266.3
37 Chloroform	83	5.942	5.942	(0.865)	238869	250.000	258.4
45 1,2-Dichloroethane	62	6.574	6.574	(0.957)	201810	250.000	250.3
31 2-Butanone	43	5.613	5.613	(0.817)	116768	250.000	197.6
38 1,1,1-Trichloroethane	97	6.118	6.118	(0.890)	219053	250.000	251.6
41 Carbon Tetrachloride	117	6.313	6.313	(0.919)	186015	250.000	255.7
53 Bromodichloromethane	83	7.809	7.809	(1.136)	172273	250.000	261.6
49 1,2-Dichloropropane	63	7.499	7.499	(1.091)	138966	250.000	257.6
57 cis-1,3-Dichloropropene	75	8.266	8.266	(1.203)	226867	250.000	254.1
47 Trichloroethene	130	7.268	7.268	(1.058)	152391	250.000	263.2
67 Dibromochloromethane	129	9.434	9.434	(0.945)	129806	250.000	267.6
64 1,1,2-Trichloroethane	97	9.050	9.050	(0.907)	128317	250.000	256.2
42 Benzene	78	6.544	6.544	(0.952)	592586	250.000	262.2
61 trans-1,3-Dichloropropene	75	8.838	8.838	(0.885)	223514	250.000	261.2
77 Bromoform	173	10.821	10.821	(1.084)	87009	250.000	281.6
58 4-Methyl-2-Pentanone	43	8.491	8.491	(0.851)	162854	250.000	227.8
66 2-Hexanone	43	9.306	9.306	(0.932)	116027	250.000	231.2
65 Tetrachloroethene	164	9.148	9.148	(0.916)	126668	250.000	265.5
83 1,1,2,2-Tetrachloroethane	83	11.289	11.289	(0.919)	174080	250.000	240.8
60 Toluene	91	8.600	8.600	(0.862)	659251	250.000	263.6
70 Chlorobenzene	112	10.006	10.006	(1.002)	426276	250.000	265.0
72 Ethylbenzene	106	10.115	10.115	(1.013)	241460	250.000	258.3
76 Styrene	104	10.644	10.644	(1.066)	487742	250.000	284.5
M 75 Xylenes (total)	106				849319	250.000	817.6
73 m + p-Xylene	106	10.237	10.237	(1.026)	565619	500.000	530.2
74 Xylene-o	106	10.632	10.632	(1.065)	283700	250.000	273.1
M 29 1,2-Dichloroethene (total)	96				305695	500.000	528.6
44 Isobutanol	41	6.727	6.727	(0.979)	348965	10000.0	17900

**GC/MS VOLATILE
QC DATA**

Data File: /var/chem/hp5.1/50515d.b/bf50515.d

Page 2

Date : 15-MAY-2000 05:23

Client ID: 50NGBFB

Instrument: hp5.1

Sample Info: BFB 192-180-11 50NG

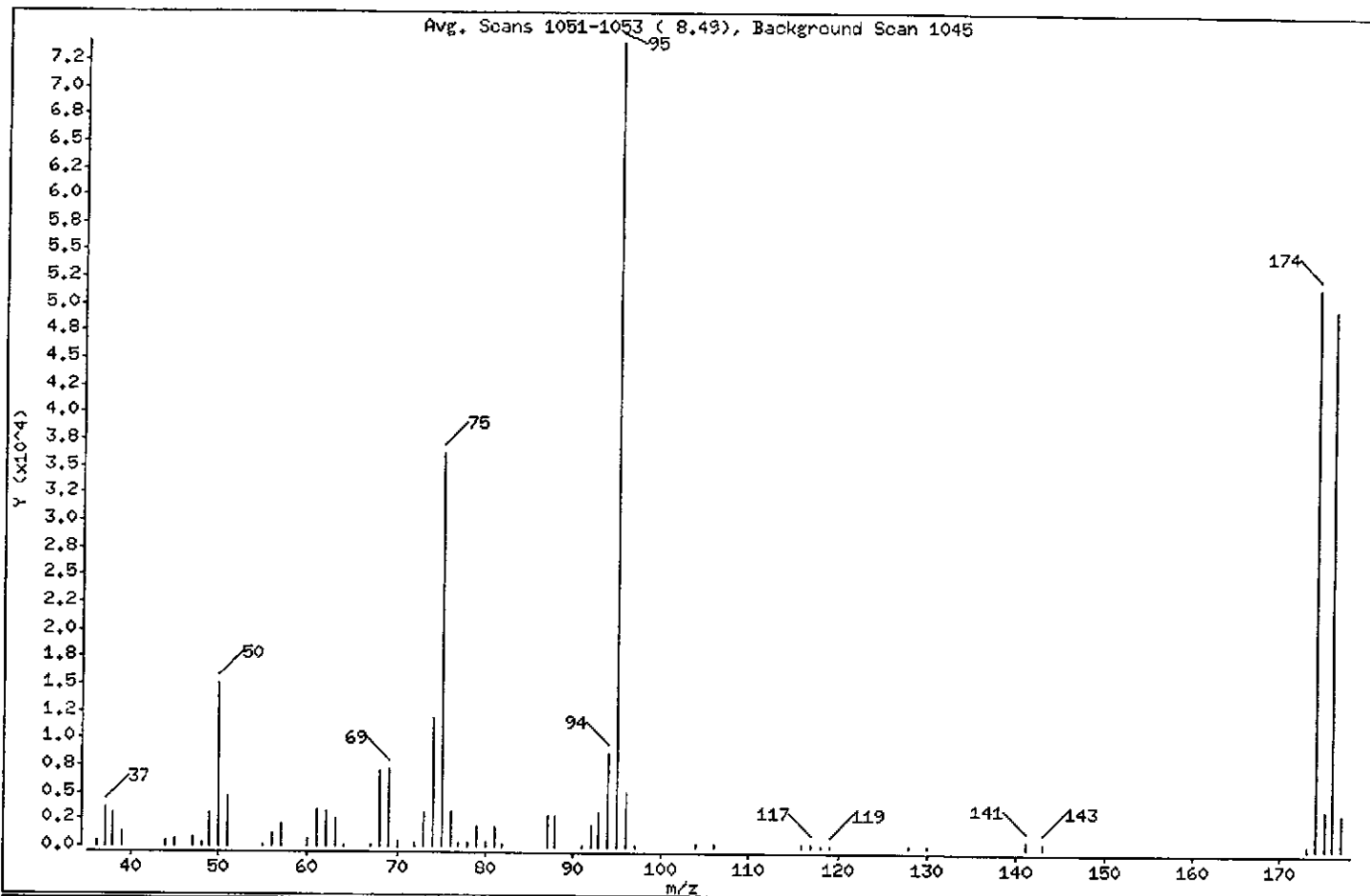
Volume Injected (uL): 1.0

Operator: 10099

Column phase: DB624 20m

Column diameter: 0.20

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	20.28
75	30.00 - 60.00% of mass 95	48.72
96	5.00 - 9.00% of mass 95	6.92
173	Less than 2.00% of mass 174	0.45 (0.65)
174	50.00 - 100.00% of mass 95	70.00
175	5.00 - 9.00% of mass 174	4.93 (7.05)
176	95.00 - 101.00% of mass 174	67.01 (95.73)
177	5.00 - 9.00% of mass 176	4.40 (6.57)

Data File: /var/chem/hp5.1/50515d.b/bf50515.d

Page 3

Date : 15-MAY-2000 05:23

Client ID: 50NCBFB

Instrument: hp5.1

Sample Info: BFB 192-180-11 50NC

Volume Injected (uL): 1.0

Operator: 10099

Column phase: DB624 20m

Column diameter: 0.20

Data File: bf50515.d

Spectrum: Avg. Scans 1051-1053 (8.49), Background Scan 1045

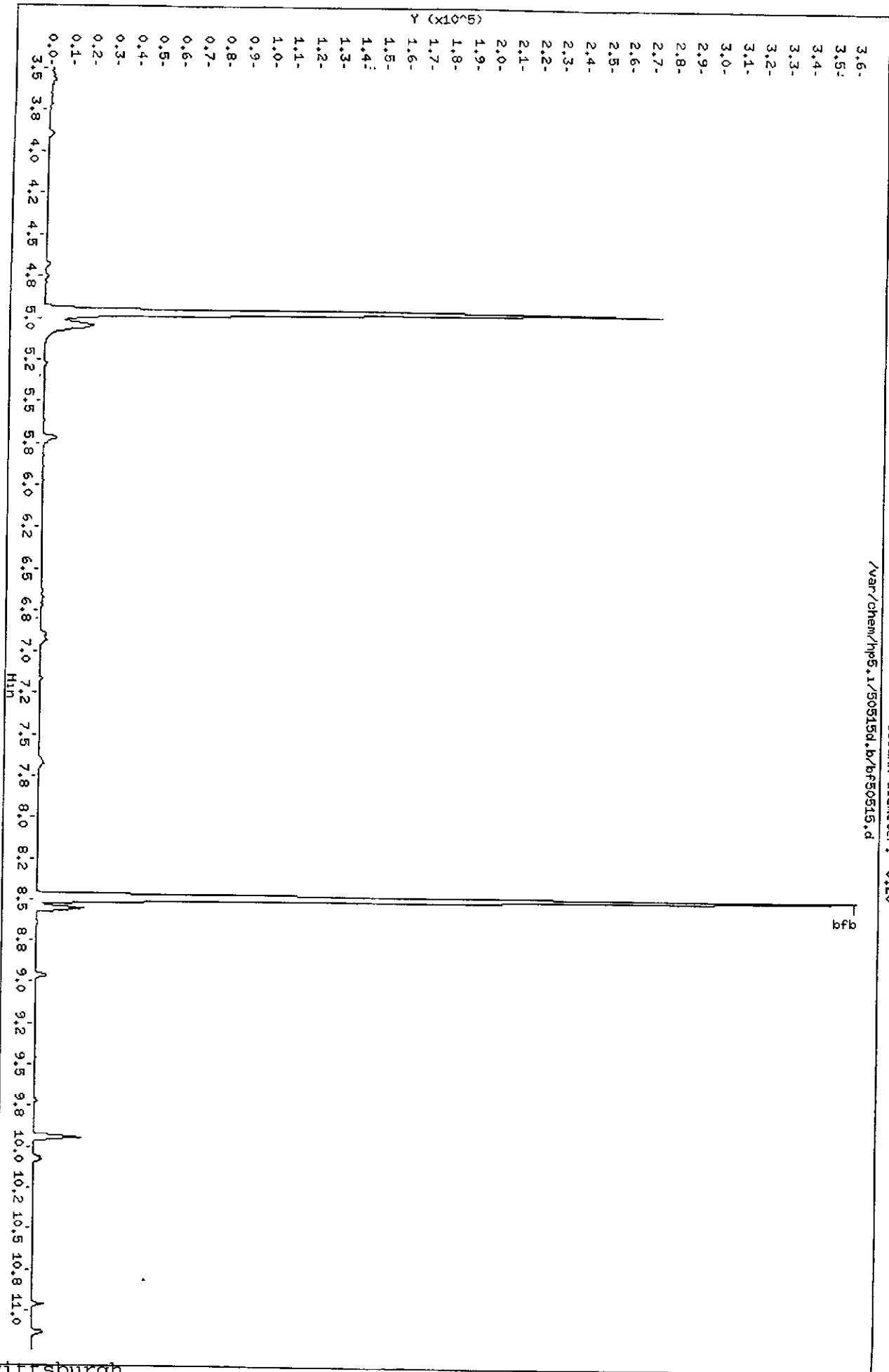
Location of Maximum: 95.00

Number of points: 59

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	594	60.00	629	78.00	346	106.00	277
37.00	3589	61.00	3360	79.00	1877	116.00	301
38.00	3098	62.00	3231	80.00	479	117.00	377
39.00	1289	63.00	2624	81.00	1884	118.00	146
44.00	493	64.00	247	82.00	392	119.00	254
45.00	662	67.00	144	87.00	2916	128.00	224
47.00	894	68.00	6984	88.00	2823	130.00	233
48.00	368	69.00	7201	91.00	240	141.00	610
49.00	3085	70.00	537	92.00	1996	143.00	538
50.00	15046	72.00	390	93.00	3162	173.00	336
51.00	4568	73.00	3047	94.00	8621	174.00	51928
52.00	67	74.00	11940	95.00	74184	175.00	3659
55.00	157	75.00	36144	96.00	5135	176.00	49712
56.00	1228	76.00	3272	97.00	145	177.00	3264
57.00	2055	77.00	330	104.00	275		

Data File: /var/chem/hp5.1/50515d.b/bf50515.d
Date : 15-MAY-2000 05:23
Client ID: 50NGBF8
Sample Info: BFB 192-180-11 50NG
Volume Injected (uL): 1.0
Column phase: DB624 20m

Instrument: hp5.1
Operator: 10099
Column diameter: 0.20



Data File: /var/chem/hp5.i/50602d.b/bf50602.d

Page 2

Date : 02-JUN-2000 07:11

Client ID: 50NGBFB

Instrument: hp5.1

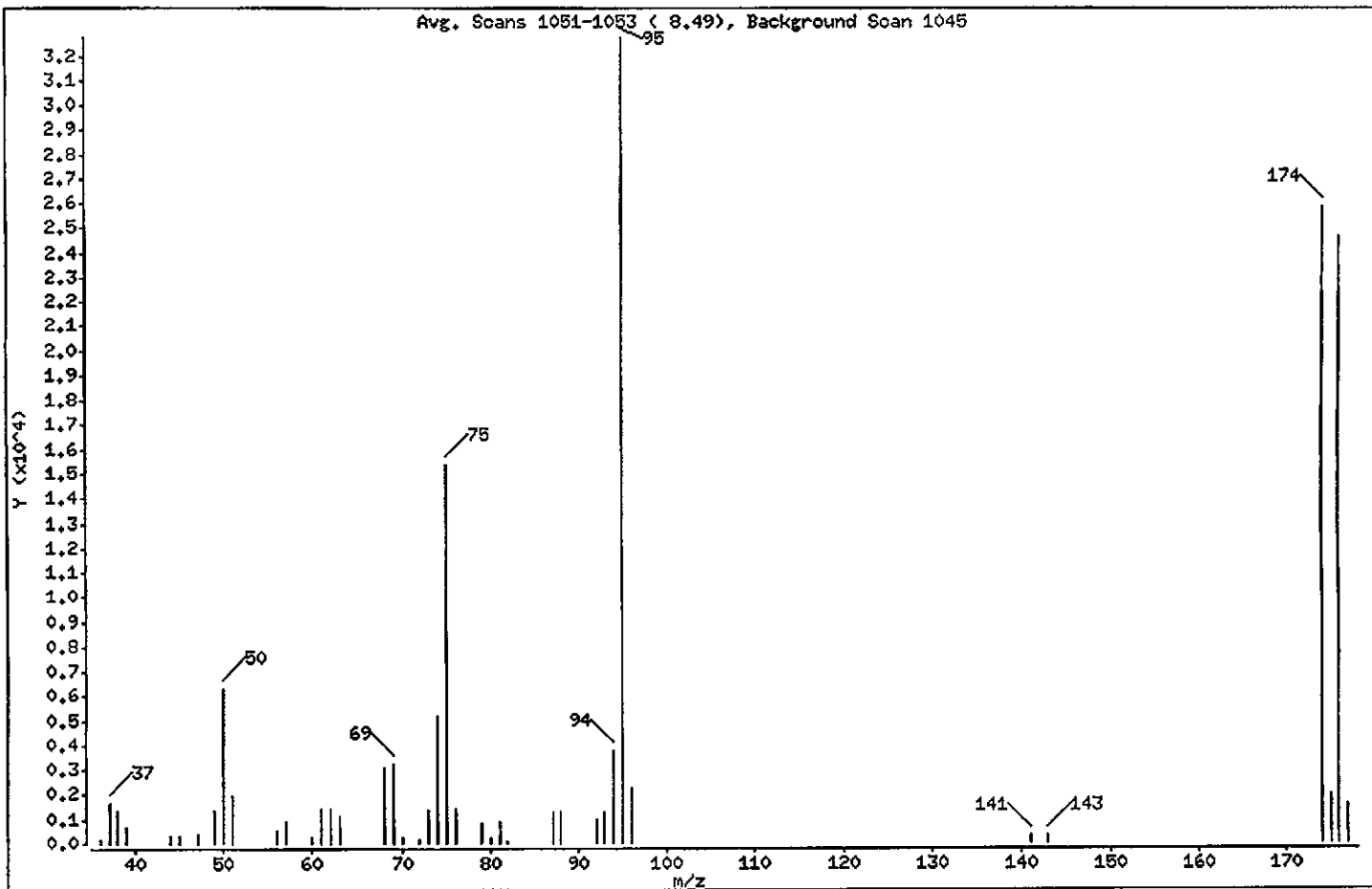
Sample Info: BFB 192-180-11 50NG

Operator: 0346354

Column phase: DB624 20m

Column diameter: 0.20

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	19.33
75	30.00 - 60.00% of mass 95	47.00
96	5.00 - 9.00% of mass 95	6.89
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 100.00% of mass 95	78.84
175	5.00 - 9.00% of mass 174	5.94 (7.54)
176	95.00 - 101.00% of mass 174	75.12 (95.28)
177	5.00 - 9.00% of mass 176	4.94 (6.58)

Data File: /var/chem/hp5.i/50602d.b/bf50602.d

Page 3

Date : 02-JUN-2000 07:11

Client ID: 50NGBFB

Instrument: hp5.1

Sample Info: BFB 192-180-11 50NG

Operator: 0346354

Column phase: DB624 20m

Column diameter: 0.20

Data File: bf50602.d

Spectrum: Avg. Scans 1051-1053 (8.49), Background Scan 1045

Location of Maximum: 95.00

Number of points: 41

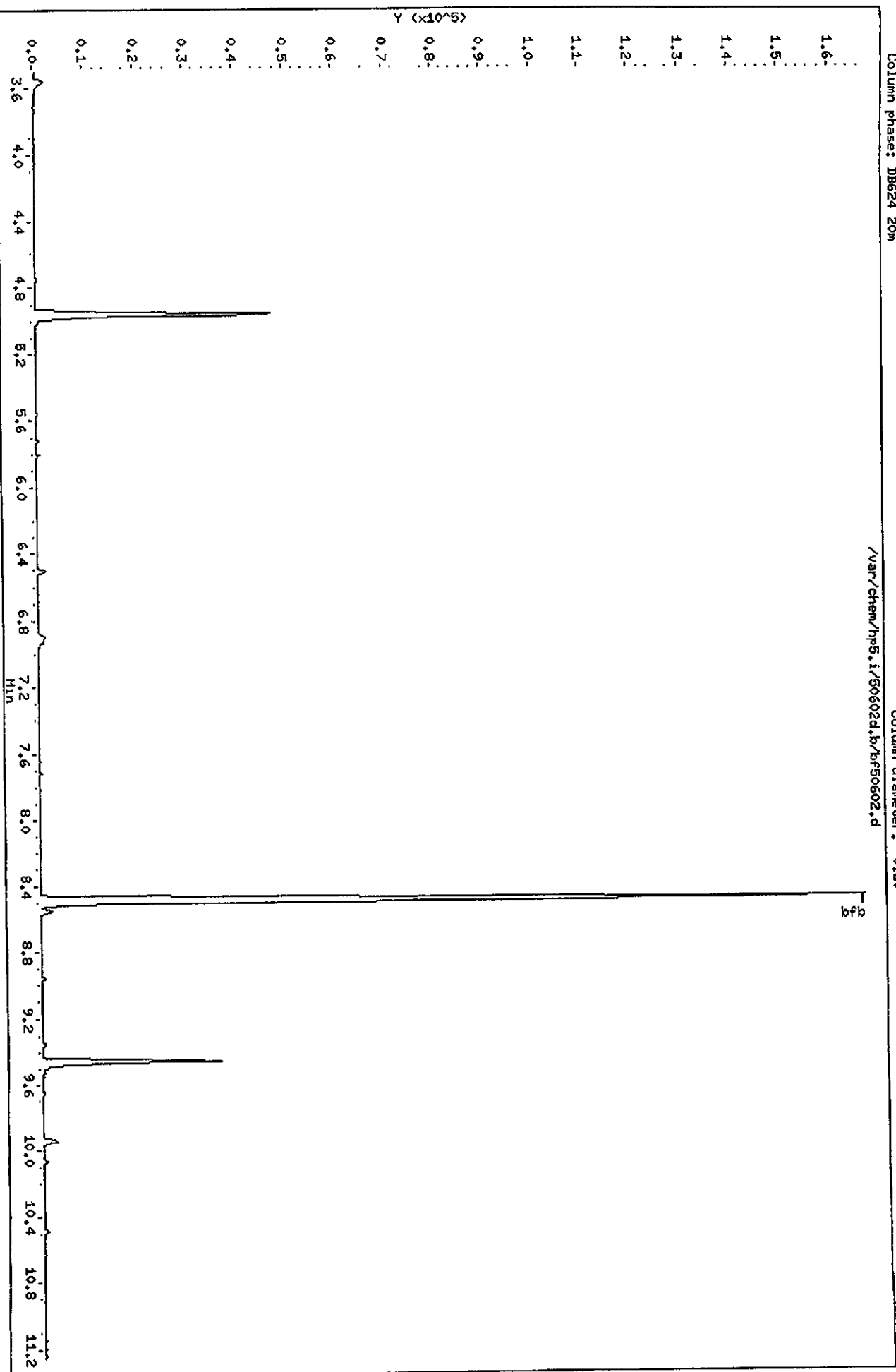
m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	163	57.00	874	75.00	15411	95.00	32792
37.00	1657	60.00	222	76.00	1416	96.00	2261
38.00	1388	61.00	1401	79.00	820	141.00	287
39.00	643	62.00	1422	80.00	237	143.00	314
44.00	274	63.00	1102	81.00	874	174.00	25848
45.00	267	68.00	3061	82.00	66	175.00	1949
47.00	404	69.00	3276	87.00	1261	176.00	24632
49.00	1350	70.00	246	88.00	1291	177.00	1620
50.00	6339	72.00	151	92.00	958		
51.00	1979	73.00	1331	93.00	1250		
56.00	509	74.00	5217	94.00	3751		

Data File: /var/chem/hp5.i/50602d.b/bf50602.d
Date : 02-JUN-2000 07:11
Client ID: SONGBFB
Sample Info: BFB 192-180-11 SONG

Column phase: DB624 20m

Instrument: hp5.i
Operator: 0346354
Column diameter: 0.20

/var/chem/hp5.i/50602d.b/bf50602.d



UXB INTERNATIONAL
METHOD BLANK COMPOUNDS

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

Matrix: (soil/water) SOLID Lab Sample ID: C0F020000 109

Method: SW846 8260B

Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL

Date Received: 05/26/00

Work Order: DE38P101

Date Extracted: 06/02/00

Dilution factor: 1

Date Analyzed: 06/02/00

Moisture %: NA

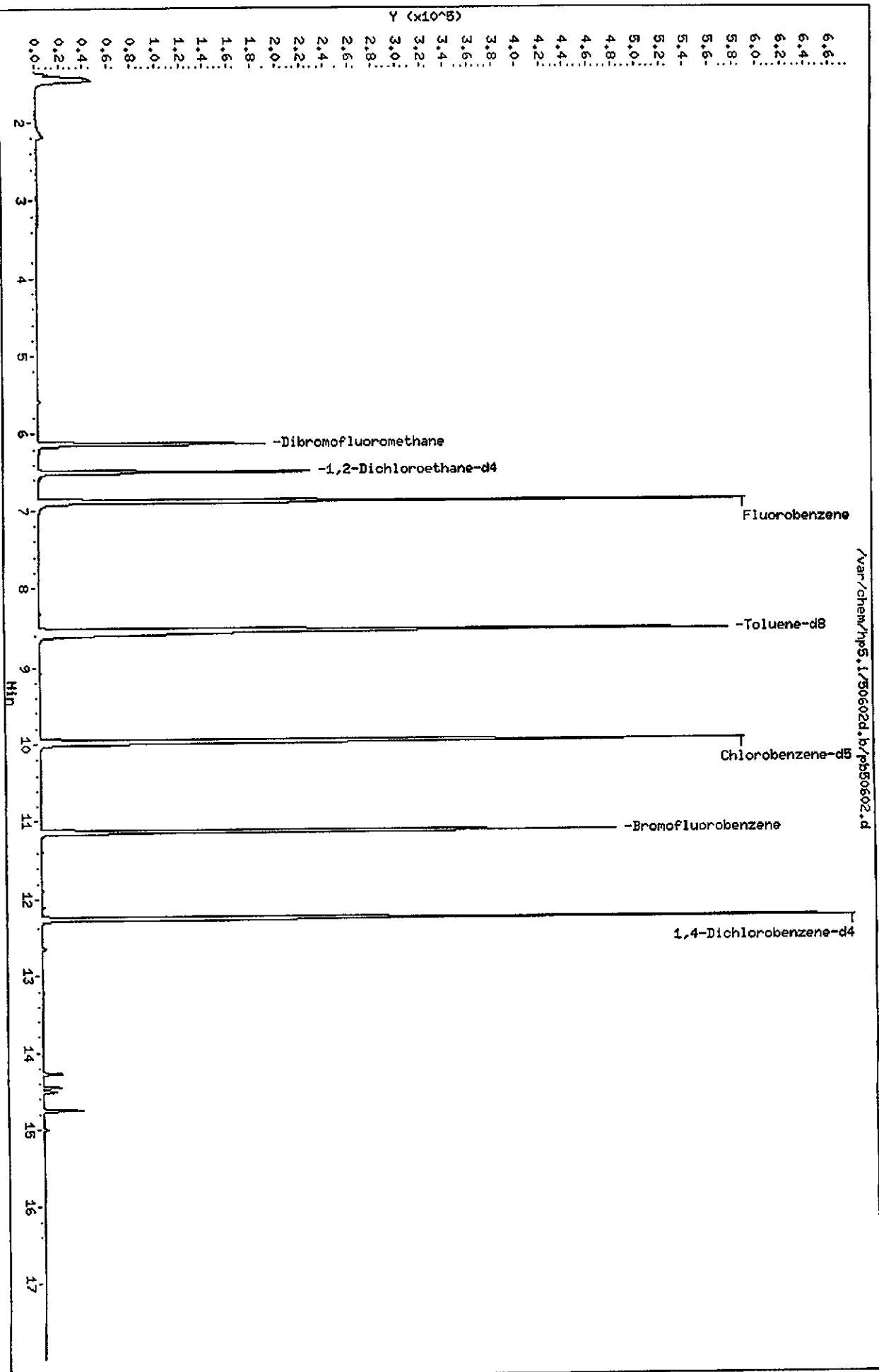
QC Batch: 0151138

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/hp5.i/50602d.b/pb50602.d
Date: 02-JUN-2000 08:18
Client ID: INTRA-LAB BLANK
Sample Info: Bulk (4ml/10ml) 5HL
Purge Volume: 5.0
Column phase: DB 624

Instrument: hp5.i
Operator: 034635
Column diameter: 0.20



Data File: /var/chem/hp5.i/50602d.b/pb50602.d
Report Date: 02-Jun-2000 08:43

STL-PITTSBURGH

VOLATILE REPORT SW-846 Method

Data file : /var/chem/hp5.i/50602d.b/pb50602.d
Lab Smp Id: de38p101 Client Smp ID: INTRA-LAB BLANK
Inj Date : 02-JUN-2000 08:18
Operator : 034635 Inst ID: hp5.i
Smp Info : Vblk (1ml/10ml) 5ML
Misc Info : vblk,50602d.b,8260bh2o.m,tclp.sub
Comment :
Method : /var/chem/hp5.i/50602d.b/8260bh2o.m
Meth Date : 02-Jun-2000 08:36 journetp Quant Type: ISTD
Cal Date : 15-MAY-2000 08:45 Cal File: 1a50515.d
Als bottle: 1 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: tclp.sub
Target Version: 3.40
Processing Host: hpuxcs21

Concentration Formula: $\text{Amt} * \text{DF} * 1/\text{Vo} * \text{Vt}$

DU 6/2/00

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

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng)	FINAL (UG/L)
* 46 Fluorobenzene	96	6.882	6.873	(1.000)	574524		
* 69 Chlorobenzene-d5	119	9.966	9.981	(1.000)	127868		
* 92 1,4-Dichlorobenzene-d4	152	12.278	12.281	(1.000)	182932		
\$ 39 Dibromofluoromethane	113	6.134	6.124	(0.891)	119372	238.472	47.69
\$ 43 1,2-Dichloroethane-d4	65	6.492	6.489	(0.943)	152897	229.016	45.80
\$ 59 Toluene-d8	98	8.537	8.533	(0.857)	536491	258.798	51.76
\$ 80 Bromofluorobenzene	95	11.134	11.143	(1.117)	185798	238.294	47.66
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.		
65 Tetrachloroethene	164.00				Compound Not Detected.		

Data File: /var/chem/hp5.i/50602d.b/pb50602.d
Report Date: 02-Jun-2000 08:43

Page 2

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN	FINAL
	MASS					(ng)	(UG/L)
*****	***	**	*****	*****	*****	*****	*****
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: C0E300000 138

Method: SW846 8260B

Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL

Date Received: 05/26/00

Work Order: DDWCP102

Date Extracted: 06/02/00

Dilution factor: 1

Date Analyzed: 06/02/00

Moisture %: NA

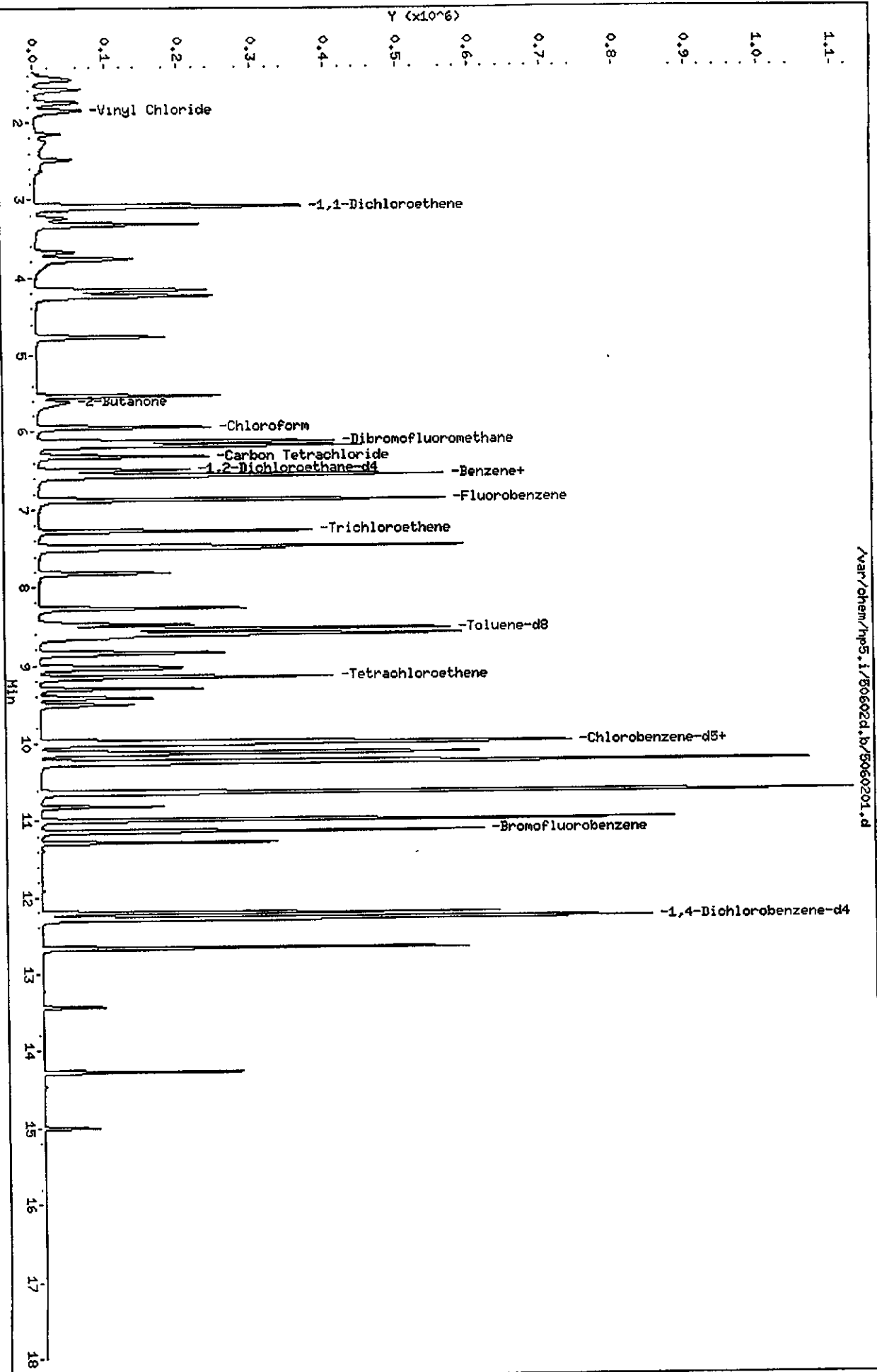
QC Batch: 0151138

Client Sample Id: CHECK SAMPLE

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
71-43-2	Benzene	0.456	
78-93-3	2-Butanone	0.475	
56-23-5	Carbon tetrachloride	0.435	
108-90-7	Chlorobenzene	0.457	
67-66-3	Chloroform	0.445	
107-06-2	1,2-Dichloroethane	0.442	
75-35-4	1,1-Dichloroethene	0.455	
127-18-4	Tetrachloroethene	0.467	
79-01-6	Trichloroethene	0.450	
75-01-4	Vinyl chloride	0.490	

Data File: /var/chem/hp5.i/50602d.b/5060201.d
Date : 02-JUN-2000 09:07
Client ID: INTRA-LAB CHECK
Sample Info: bikas (1ml/10ml) 5HL
Purge Volume: 5.0
Column phase: DB 624

Instrument: hp5.i
Operator: 007062
Column diameter: 0.20



659 150

Data File: /var/chem/hp5.i/50602d.b/5060201.d
Report Date: 02-Jun-2000 09:42

Page 1

STL-PITTSBURGH

VOLATILE REPORT SW-846 Method

Data file : /var/chem/hp5.i/50602d.b/5060201.d
 Lab Smp Id: DDWCP102 Client Smp ID: INTRA-LAB CHECK
 Inj Date : 02-JUN-2000 09:07
 Operator : 034635 Inst ID: hp5.i
 Smp Info : blkms (1ml/10ml) 5ML
 Misc Info : ddwcp102,50602d.b,8260bh2o.m,tclp.sub
 Comment :
 Method : /var/chem/hp5.i/50602d.b/8260bh2o.m
 Meth Date : 02-Jun-2000 08:36 journetp Quant Type: ISTD
 Cal Date : 15-MAY-2000 08:45 Cal File: 1a50515.d
 Als bottle: 1 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 * 1/Vo*Vt

D) 6/2(h)

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

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng)	FINAL (UG/L)
* 46 Fluorobenzene	96	6.880	6.873	(1.000)	564358		
* 69 Chlorobenzene-d5	119	9.989	9.981	(1.000)	135681		
* 92 1,4-Dichlorobenzene-d4	152	12.282	12.281	(1.000)	203783		
\$ 39 Dibromofluoromethane	113	6.138	6.124	(0.892)	121513	247.122	49.42
\$ 43 1,2-Dichloroethane-d4	65	6.497	6.489	(0.944)	151258	230.642	46.13
\$ 59 Toluene-d8	98	8.541	8.533	(0.855)	548887	249.531	49.91
\$ 80 Bromofluorobenzene	95	11.145	11.143	(1.116)	208912	252.510	50.50
3 Vinyl Chloride	62	1.855	1.860	(0.270)	130498	245.257	49.05
12 1,1-Dichloroethene	96	3.084	3.070	(0.448)	121430	227.416	45.48
31 2-Butanone	43	5.615	5.613	(0.816)	136422	237.642	47.53
37 Chloroform	83	5.949	5.942	(0.865)	199888	222.653	44.53
41 Carbon Tetrachloride	117	6.320	6.313	(0.919)	153696	217.503	43.50
42 Benzene	78	6.558	6.544	(0.953)	500399	227.960	45.59
45 1,2-Dichloroethane	62	6.582	6.574	(0.957)	172964	220.897	44.18
47 Trichloroethene	130	7.275	7.268	(1.057)	126513	224.994	45.00
65 Tetrachloroethene	164	9.155	9.148	(0.917)	111654	233.725	46.74

Data File: /var/chem/hp5.i/50602d.b/5060201.d
Report Date: 02-Jun-2000 09:42

Page 2

Compounds	QUANT MASS	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng)	FINAL (UG/L)
-----	----	---	--	-----	-----	-----	-----	-----
70 Chlorobenzene	112		10.013	10.006	(1.002)	368283	228 627	45.72

659 152

UXB INTERNATIONAL
MATRIX SPIKE COMPOUNDS

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

Matrix: (soil/water) SOLID Lab Sample ID: C0E260147 001
Method: SW846 8260B
Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL Date Received: 05/26/00
Work Order: DDRMP11A Date Extracted: 06/02/00
Dilution factor: 1 Date Analyzed: 06/02/00
Moisture %: 13

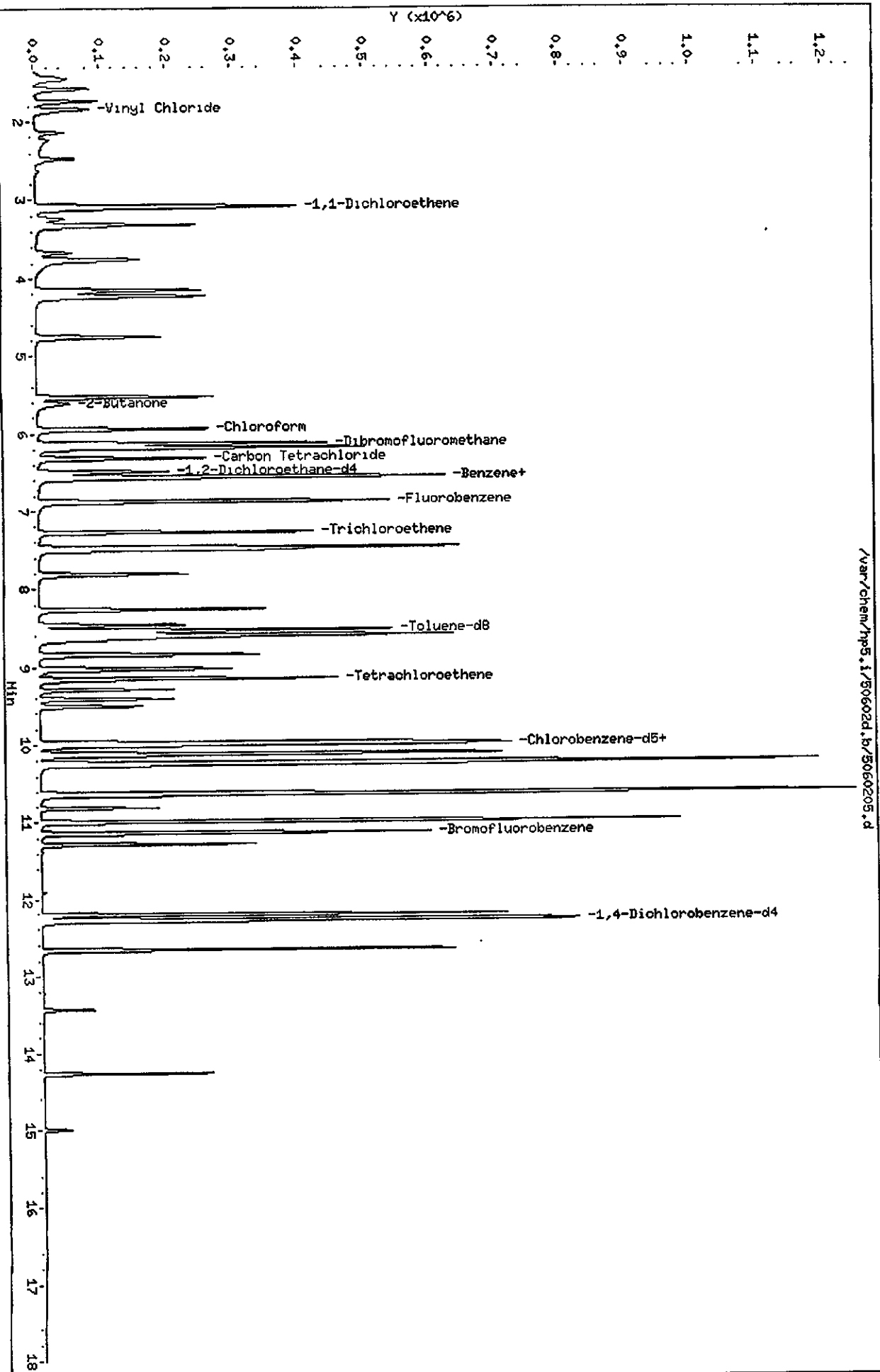
QC Batch: 0151138

Client Sample Id: DF/S1/0146/SDC/004

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
71-43-2	Benzene	0.495	
78-93-3	2-Butanone	0.421	
56-23-5	Carbon tetrachloride	0.459	
108-90-7	Chlorobenzene	0.517	
67-66-3	Chloroform	0.471	
107-06-2	1,2-Dichloroethane	0.463	
75-35-4	1,1-Dichloroethene	0.467	
127-18-4	Tetrachloroethene	0.550	
79-01-6	Trichloroethene	0.488	
75-01-4	Vinyl chloride	0.547	

Data File: /var/chem/hp5.1/50602d.b/5060205.d
Date : 02-JUN-2000 10:49
Client ID: DF/SL/0146/SDC/004
Sample Info: 00260147-001ms (1ml/10ml) 5HL
Purge Volume: 5.0
Column phase: DB 624

Instrument: hp5.1
Operator: 007062
Column diameter: 0.20



Data File: /var/chem/hp5.i/50602d.b/5060205.d
 Report Date: 02-Jun-2000 11:08

Page 1

STL-PITTSBURGH

VOLATILE REPORT SW-846 Method

Data file : /var/chem/hp5.i/50602d.b/5060205.d
 Lab Smp Id: DDRMP11A Client Smp ID: DF/S1/0146/SDC/004
 Inj Date : 02-JUN-2000 10:49
 Operator : 034635 Inst ID: hp5.i
 Smp Info : c0e260147-001ms (1ml/10ml) 5ML
 Misc Info : ddrmp11a,50602d.b,8260bh2o.m,tclp.sub
 Comment :
 Method : /var/chem/hp5.i/50602d.b/8260bh2o.m
 Meth Date : 02-Jun-2000 08:36 journetp Quant Type: ISTD
 Cal Date : 15-MAY-2000 08:45 Cal File: 1a50515.d
 Als bottle: 1 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 * 1/Vo*Vt

J/11 6/2/4

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

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng)	FINAL (UG/L)
* 46 Fluorobenzene	96	6.879	6.873	(1.000)	584995		
* 69 Chlorobenzene-d5	119	9.975	9.981	(1.000)	132869		
* 92 1,4-Dichlorobenzene-d4	152	12.281	12.281	(1.000)	197217		
\$ 39 Dibromofluoromethane	113	6.131	6.124	(0.891)	119543	234.539	46.91
\$ 43 1,2-Dichloroethane-d4	65	6.490	6.489	(0.943)	148360	218.243	43.65
\$ 59 Toluene-d8	98	8.534	8.533	(0.855)	557850	258.973	51.79
\$ 80 Bromofluorobenzene	95	11.137	11.143	(1.116)	207613	256.251	51.25
3 Vinyl Chloride	62	1.842	1.860	(0.268)	150962	273.708	54.74
12 1,1-Dichloroethene	96	3.083	3.070	(0.448)	129116	233.280	46.66
31 2-Butanone	43	5.614	5.613	(0.816)	125137	210.295	42.06
37 Chloroform	83	5.942	5.942	(0.864)	219282	235.639	47.13
41 Carbon Tetrachloride	117	6.313	6.313	(0.918)	168013	229.376	45.88
42 Benzene	78	6.557	6.544	(0.953)	563069	247.461	49.49
45 1,2-Dichloroethane	62	6.575	6.574	(0.956)	187780	231.359	46.27
47 Trichloroethene	130	7.274	7.268	(1.057)	142267	244.086	48.82
65 Tetrachloroethene	164	9.148	9.148	(0.917)	128658	275.019	55.00

Data File: /var/chem/hp5.i/50602d.b/5060205.d
Report Date: 02-Jun-2000 11:08

Page 2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng)	FINAL (UG/L)
*****	****	**	*****	*****	*****	*****	*****
70 Chlorobenzene	112	10.006	10.006	(1 003)	408011	258.651	51 73

UXB INTERNATIONAL
MATRIX SPIKE DUPLICATE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0E260147 001

Method: SW846 8260B

Volatile Organics, GC/MS (8260B)

Sample WT/Vol: 5 / mL

Date Received: 05/26/00

Work Order: DDRMP11C

Date Extracted: 06/02/00

Dilution factor: 1

Date Analyzed: 06/02/00

Moisture %: 13

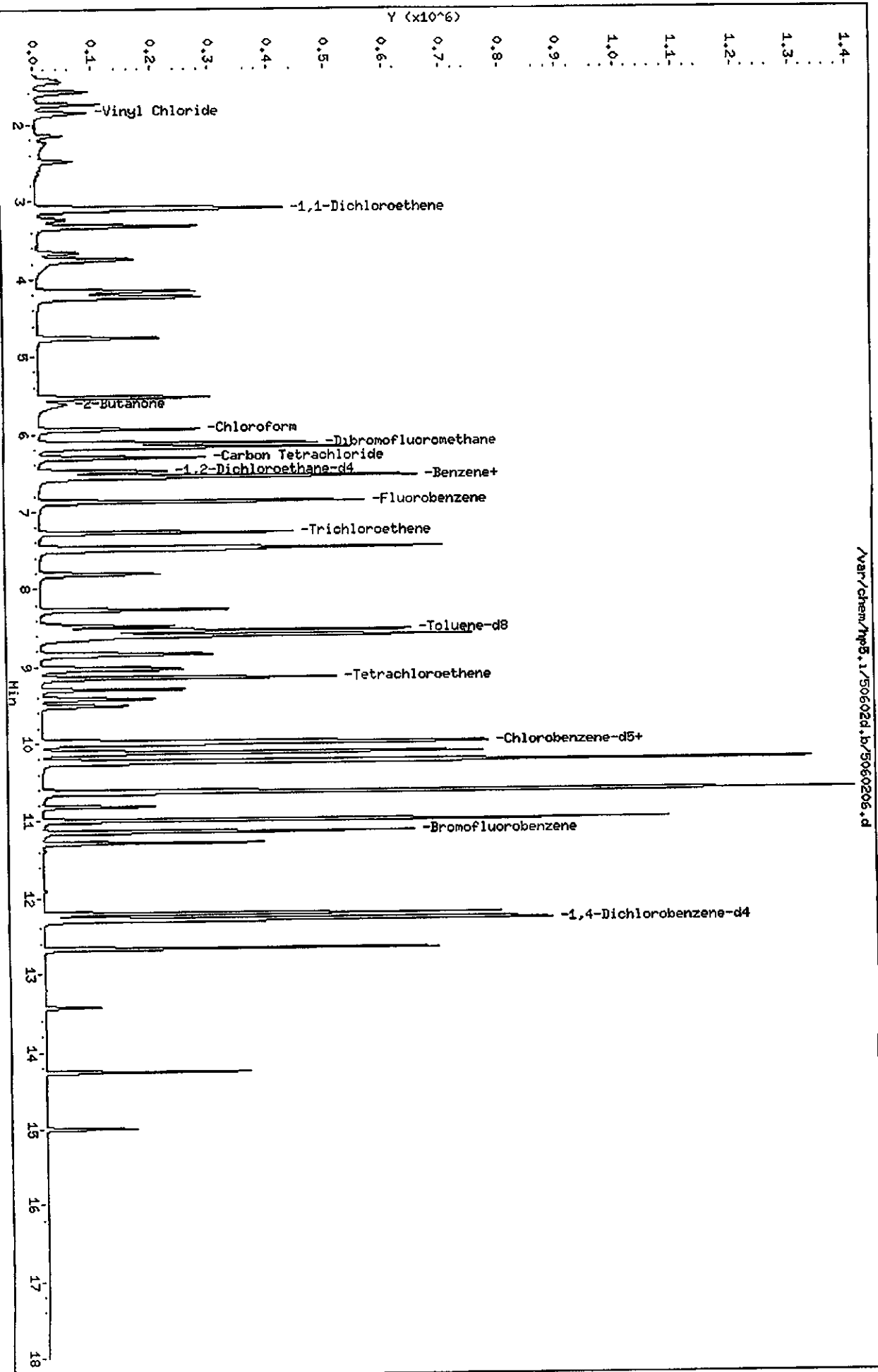
QC Batch: 0151138

Client Sample Id: DF/S1/0146/SDC/004

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
71-43-2	Benzene	0.528	
78-93-3	2-Butanone	0.512	
56-23-5	Carbon tetrachloride	0.511	
108-90-7	Chlorobenzene	0.533	
67-66-3	Chloroform	0.519	
107-06-2	1,2-Dichloroethane	0.505	
75-35-4	1,1-Dichloroethene	0.537	
127-18-4	Tetrachloroethene	0.559	
79-01-6	Trichloroethene	0.520	
75-01-4	Vinyl chloride	0.606	

Data File: /var/chem/hp5.1/50602d.b/5060206.d
Date: 02-JUN-2000 11:17
Client ID: DF/S1/0146/SDC/004
Sample Info: c0e260147-001msd (1ml/10ml) 5HL
Purge Volume: 5.0
Column phase: DB 624

Instrument: hp5.1
Operator: 007062
Column diameter: 0.20



Data File: /var/chem/hp5.i/50602d.b/5060206.d
Report Date: 02-Jun-2000 11:35

STL-PITTSBURGH

VOLATILE REPORT SW-846 Method

Data file : /var/chem/hp5.i/50602d.b/5060206.d
Lab Smp Id: DDRMP11C Client Smp ID: DF/S1/0146/SDC/004
Inj Date : 02-JUN-2000 11:17
Operator : 034635 Inst ID: hp5.i
Smp Info : c0e260147-001msd (1ml/10ml) 5ML
Misc Info : ddrmp11c,50602d.b,8260bh2o.m,tclp.sub
Comment :
Method : /var/chem/hp5.i/50602d.b/8260bh2o.m
Meth Date : 02-Jun-2000 08:36 journetp Quant Type: ISTD
Cal Date : 15-MAY-2000 08:45 Cal File: 1a50515.d
Als bottle: 1 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 * 1/Vo*Vt

DF 1.000
Vo 5.000
Vt 1.000

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

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng)	FINAL (UG/L)
* 46 Fluorobenzene	96	6.879	6.873	(1.000)	572847		
* 69 Chlorobenzene-d5	119	9.982	9.981	(1.000)	134921		
* 92 1,4-Dichlorobenzene-d4	152	12.281	12.281	(1.000)	208791		
\$ 39 Dibromofluoromethane	113	6.131	6.124	(0.891)	128406	257.270	51.45
\$ 43 1,2-Dichloroethane-d4	65	6.490	6.489	(0.943)	161851	243.138	48.63
\$ 59 Toluene-d8	98	8.534	8.533	(0.855)	585039	267.830	53.56
\$ 80 Bromofluorobenzene	95	11.137	11.143	(1.116)	222086	269.946	53.99
3 Vinyl Chloride	62	1.848	1.860	(0.269)	163704	303.105	60.62
12 1,1-Dichloroethene	96	3.083	3.070	(0.448)	145514	268.482	53.70
31 2-Butanone	43	5.614	5.613	(0.816)	149295	256.213	51.24
37 Chloroform	83	5.942	5.942	(0.864)	236526	259.560	51.91
41 Carbon Tetrachloride	117	6.313	6.313	(0.918)	183242	255.472	51.09
42 Benzene	78	6.551	6.544	(0.952)	588795	264.254	52.85
45 1,2-Dichloroethane	62	6.575	6.574	(0.956)	200824	252.677	50.54
47 Trichloroethene	130	7.274	7.268	(1.057)	148532	260.239	52.05
65 Tetrachloroethene	164	9.148	9.148	(0.916)	132873	279.710	55.94

Data File: /var/chem/hp5.i/50602d.b/5060206.d
Report Date: 02-Jun-2000 11:35

Page 2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng)	FINAL (UG/L)
=====	----	--	=====	=====	=====	=====	=====
70 Chlorobenzene	112	10.012	10.006	(1 003)	426583	266.311	53.26

659 160

**GC/MS VOLATILE
MISCELLANEOUS**

GCMS Volatile

Run Log

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



Method: 8260B

Inst. ID #PS

Analyst KLG

Reviewed by:

Date:

Std: 192-180-11BFB Std: 192-178-802k Std: 192-180-7NOA Std: 192-180-8 Ketones
Std: 192-1759MS Std: 192-179-6 CS2 Std: 192-179-7MTBE Std:

Date	File ID	Lot No./Sample No.	Vol./Wt.	pH	Port#	Comments
5/5/00	1. B50515	BFB	50ng			0523
	2. R50515	V50150 Bonus	5ml			
	3. 3030515	V90150	5ml			
	4. 1A30515	V5015	5ml			
	5. 1B30515	V50120	5ml			
	6. 1D30515	V50100	5ml			
	7. 1E30515	V501200	5ml			7959
	8.					
	9.					
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	22.					

GCMS Volatile

Run Log

Method: 8210B.H

Inst. ID: HP05



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

Analyst: Patrick J. Shaw

Method: 8210B.H

Reviewed by: HP05

Date: 07-11

Std: 199-182-11.H

Std: 199-182-11.H

Std: 199-182-11.H

Std: 199-182-11.H

Std: 199-182-11.H

Std: 199-182-11.H

Std: 199-182-11.H

Std: 199-182-11.H

Date	File ID	Lot No./Sample No.	Vol./Wt.	pH	Port#	Comments
6/2/2010	1. 8250602	8250602	50mg			07-11
	2. 8250602	8250602	50mg			
	3. 8250602	8250602	50mg			
	4. 8250602	8250602	50mg			
	5. 8250602	8250602	50mg			
	6. 8250602	8250602	50mg			
	7. 8250602	8250602	50mg			
	8. 8250602	8250602	50mg			
	9. 8250602	8250602	50mg			
	10. 8250602	8250602	50mg			
	11. 8250602	8250602	50mg			
	12. 8250602	8250602	50mg			
	13. 8250602	8250602	50mg			
	14. 8250602	8250602	50mg			
	15. 8250602	8250602	50mg			
	16. 8250602	8250602	50mg			
	17. 8250602	8250602	50mg			
	18. 8250602	8250602	50mg			
	19. 8250602	8250602	50mg			
	20. 8250602	8250602	50mg			
	21. 8250602	8250602	50mg			
	22. 8250602	8250602	50mg			

Quanterra
Dischburg

Dischord

Team: 22

Lab Sample ID #	Client ID #	Weight (gm)	Vessel	Extraction Fluid No. / Volume	On		Off			
					Date	Time	Date	Time		
1 COE260142	BIK	4.90	E	TELP #1	6/1/2000	10:10	WT	6/2/2000	06:25	WT
2. ↓	001	4.96	XX	↓	↓	↓	↓	↓	↓	↓
3. COE260147	001	6.30	F	↓	↓	↓	↓	↓	↓	↓
4. COE270126	007	5.28	G	↓	↓	↓	↓	↓	↓	↓
5. ↓	008	5.43	JT	↓	↓	↓	↓	↓	↓	↓
6. COE310132	001	5.31	AA	↓	↓	↓	↓	↓	↓	↓
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Extract(s)

(Record line number from above)

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B. Trout

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B. Trout

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SAMPLE CUSTODIAN REMOVAL REQUEST

PAGE 001

REQUESTED BY: TROUTB

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

<u>STORAGE LOCATION</u>	<u>WORK ORDER #</u>	<u>PICKED</u> <u>CNTR#</u>	<u>CONTROL #</u>	<u>CLIENT #</u>	<u>ANALYSIS</u>	<u>LOTID</u>	<u>SMP#</u>	<u>SFX</u>	<u>MATRIX</u> <u>DESCRIPTION</u>	<u>QTY</u> <u>RCVD</u>	<u>QTY</u> <u>REQD</u>
6E CLP1	DDRLV-1-02	___	237516	375241	A-58-QK	COE260142	001		SOLID	0	5
6E CLP1	DDRMP-1-02	___	237517	399411	A-58-QK	COE260147	001		SOLID	0	3
7A CLP1	DDVK9-1-01	___	237513	039984	A-58-QK	COE270126	007		SOLID	0	2
7A CLP1	DDVKA-1-01	___	237514	039984	A-58-QK	COE270126	008		SOLID	0	2
7E CLP1	DE022-1-02	___	237515	399411	A-58-QK	COE310132	001		SOLID	0	3

RELINQUISHED BY

RECEIVED BY

DATE/TIME

*William A. Hyle**B Trout**6/1/2000**02:15**B Trout**William A. Hyle**6/1/2000**10:00*

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

GC/MS SEMIVOLATILE DATA

659 166

**GC/MS SEMIVOLATILE
QC SUMMARY**

SW846 8270C SURROGATE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT QESSDG:

Lot #: C0E260147

	CLIENT ID.	SRG01	SRG02	SRG03	SRG04	SRG05	SRG06	TOT OUT
	=====	=====	=====	=====	=====	=====	=====	=====
01	DF/S1/0146/SDC/004	76	72	88	65	78	80	00
02	INTRA-LAB QC	73	66	81	54	59	86	00
03	METHOD BLK. DE047101	73	70	88	66	78	74	00
04	LCS DE047102	62	63	86	58	67	67	00
05	LAB MS/MSD D	74	62	77	54	59	85	00
06	LAB MS/MSD S	72	60	77	51	58	83	00

<u>SURROGATES</u>	<u>QC LIMITS</u>
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

659 168

SW846 8270C CHECK SAMPLE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Lot #: COE310000

WO #: DE047102

BATCH: 0152240

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	% REC	QC LIMITS REC	QUAL
1,4-Dichlorobenzene	0.250	0.152	61	28- 110	
2,4-Dinitrotoluene	0.250	0.161	65	47- 131	
Hexachlorobenzene	0.250	0.207	83	57- 128	
Hexachlorobutadiene	0.250	0.148	59	36- 116	
Hexachloroethane	0.250	0.152	61	30- 110	
Nitrobenzene	0.250	0.157	63	45- 130	
Pentachlorophenol	0.250	0.189	76	10- 140	
Pyridine	0.250	0.151	60	10- 148	
2,4,5-Trichlorophenol	0.250	0.159	64	41- 125	
2,4,6-Trichlorophenol	0.250	0.156	62	46- 135	
Cresols (total)	0.750	0.510	68	29- 144	

NOTES (S) :

* Values outside of QC limits

Spike Recovery: 0 out of 11 outside limits

COMMENTS:

FORM III

SW846 8270C MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Matrix Spike ID: LAB MS/MSD

Level: (low/med) LOW

Lot #: C0E270126

WO #: DDVK910E

BATCH: 0152240

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	MS CONCENT. (mg/L)	MS % REC	LIMITS REC	QUAL
=====	=====	=====	=====	=====	=====	=====
1,4-Dichlorobenzene	0.250	ND	0.139	56	18 - 110	
2,4-Dinitrotoluene	0.250	ND	0.232	93	31 - 131	
Hexachlorobenzene	0.250	ND	0.185	74	36 - 132	
Hexachlorobutadiene	0.250	ND	0.125	50	18 - 116	
Hexachloroethane	0.250	ND	0.192	77	18 - 110	
Nitrobenzene	0.250	ND	0.187	75	10 - 211	
2,4,6-Trichlorophenol	0.250	ND	0.187	75	36 - 135	
Cresols (total)	0.750	2.2	2.57	45	25 - 144	
Pentachlorophenol	0.250	ND	0.277	111	10 - 140	
Pyridine	0.250	ND	0.142	57	10 - 148	
2,4,5-Trichlorophenol	0.250	ND	0.198	79	24 - 143	

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:

659 170 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: LAB MS/MSD

Level: (low/med) LOW

Lot #: COE270126

WO #: DDVK910F

BATCH: 0152240

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENT. (mg/L)	MSD % REC	% RPD	QC LIMITS RPD	REC	QUAL
1,4-Dichlorobenzene	0.250	0.144	58	3.2	36	18 - 110	
2,4-Dinitrotoluene	0.250	0.236	95	2.0	32	31 - 131	
Hexachlorobenzene	0.250	0.193	77	3.9	22	36 - 132	
Hexachlorobutadiene	0.250	0.128	51	2.6	32	18 - 116	
Hexachloroethane	0.250	0.187	75	2.3	33	18 - 110	
Nitrobenzene	0.250	0.195	78	4.1	50	10 - 211	
Pentachlorophenol	0.250	0.297	119	7.0	56	10 - 140	
Pyridine	0.250	0.148	59	4.1	65	10 - 148	
2,4,5-Trichlorophenol	0.250	0.205	82	3.5	22	24 - 143	
2,4,6-Trichlorophenol	0.250	0.193	77	3.5	27	36 - 135	
Cresols (total)	0.750	2.63	52	2.2	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

BLANK WORKORDER NO.

SW846 8270C METHOD BLANK SUMMARY

DE047101

Lab Name: Severn Trent Laboratories, Inc.

Lab Code: QESPIT

SDG Number:

Lab File ID. S0602001.

Lot Number: C0E260147

Date Analyzed: 06/02/00

Time Analyzed: 09:02

Matrix: SOLID

Date Extracted: 05/31/00

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	DF/S1/0146/SDC/004	DDRMP103	S0602007.	06/02/00	10:16
02	LAB MS/MSD	DDVK910E S	S0602004.	06/02/00	11:21
03	LAB MS/MSD	DDVK910F D	S0602005.	06/02/00	11:55
04	INTRA-LAB QC	DDVK9102	S0602003.	06/02/00	10:48
05	CHECK SAMPLE	DE047102 C	S0602002.	06/02/00	09:35
06					
07					
08					
09					
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21					
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26					
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28					
29					
30					

COMMENTS:

FORM IV

659 172

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

Lab Name: STL-PITTSBURGH

Contract:

Lab Code: STL PIT

Case No.:

SAS No.:

SDG No.:

Lab File ID: S0601DF3

DFTPP Injection Date: 06/01/00

Instrument ID: 71

DFTPP Injection Time: 0830

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	41.0
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	42.9
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	49.6
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 - 9.0% of mass 198	6.8
275	10.0 - 30.0% of mass 198	23.1
365	Greater than 1.0% of mass 198	3.5
441	Present, but less than mass 443	12.9
442	Greater than 40.0% of mass 198	77.9
443	17.0 - 23.0% of mass 442	15.4 (19.8)2

1-Value is % of mass 69

2-Value is % of mass 442

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD050	SSTD50	S0601CCC	06/01/00	0938
02	SSTD20	SSTD20	S0601CC2	06/01/00	1037
03	SSTD80	SSTD80	S0601CC3	06/01/00	1110
04	SSTD120	SSTD120	S0601CC4	06/01/00	1143
05	SSTD160	SSTD160	S0601CC5	06/01/00	1215
06					
07					
08					
09					
10					
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14					
15					
16					
17					
18					
19					
20					
21					
22					

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

659 173

Lab Name: STL-PITTSBURGH

Contract:

Lab Code: STLPIT

Case No.:

SAS No.:

SDG No.: C0E260147

Lab File ID: S0602DF2

DFTPP Injection Date: 06/02/00

Instrument ID: 71

DFTPP Injection Time: 0809

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	41.9
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	41.9
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	50.1
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.5
275	10.0 - 30.0% of mass 198	23.6
365	Greater than 1.0% of mass 198	3.64
441	Present, but less than mass 443	13.3
442	Greater than 40.0% of mass 198	80.9
443	17.0 - 23.0% of mass 442	16.2 (20.0)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	S0602CCC	06/02/00	0829
02	INTRA-LAB BL	DE047101	S0602001	06/02/00	0902
03	INTRA-LAB CH	DE047102	S0602002	06/02/00	0935
04	DF/S1/0146/S	DDRMP103	S0602007	06/02/00	1016
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

Lab Name: STL-PITTSBURGH

Contract:

Lab Code: STLPIT

Case No.:

SAS No.:

SDG No.: C0E260147

Lab File ID (Standard): S0602CCC

Date Analyzed: 06/02/00

Instrument ID: 71

Time Analyzed: 0829

	IS1 (DCB)	RT #	IS2 (NPT)	RT #	IS3 (ANT)	RT #
	AREA #		AREA #		AREA #	
=====	=====	=====	=====	=====	=====	=====
12 HOUR STD	102069	4.94	392842	6.45	202821	9.45
UPPER LIMIT	204138	5.44	785684	6.95	405642	9.95
LOWER LIMIT	51035	4.44	196421	5.95	101411	8.95
=====	=====	=====	=====	=====	=====	=====
CLIENT						
SAMPLE NO.						
=====	=====	=====	=====	=====	=====	=====
01 INTRA-LAB BL	121921	4.95	491672	6.45	268796	9.44
02 INTRA-LAB CH	114764	4.95	459341	6.47	239567	9.47
03 DF/S1/0146/S	115250	4.94	462869	6.45	244579	9.45
04						
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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

659 175

Lab Name: STL-PITTSBURGH

Contract:

Lab Code: STLPIT

Case No.:

SAS No.:

SDG No.: C0E260147

Lab File ID (Standard): S0602CCC

Date Analyzed: 06/02/00

Instrument ID: 71

Time Analyzed: 0829

	IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
=====	=====	=====	=====	=====	=====	=====
12 HOUR STD	340333	12.73	347550	19.35	461775	22.71
UPPER LIMIT	680666	13.23	695100	19.85	923550	23.21
LOWER LIMIT	170167	12.23	173775	18.85	230888	22.21
=====	=====	=====	=====	=====	=====	=====
CLIENT SAMPLE NO.						
=====	=====	=====	=====	=====	=====	=====
01 INTRA-LAB BL	452319	12.73	351019	19.34	463161	22.70
02 INTRA-LAB CH	384814	12.75	332339	19.37	448790	22.73
03 DF/S1/0146/S	389015	12.74	352509	19.35	446320	22.71
04						
05						
06						
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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: COE260147 001

Method: SW846 8270C

Base/Neutrals and Acids (8270C)

Sample WT/Vol: 200 / mL

Date Received: 05/26/00

Work Order: DDRMP103

Date Extracted: 05/31/00

Dilution factor: 1

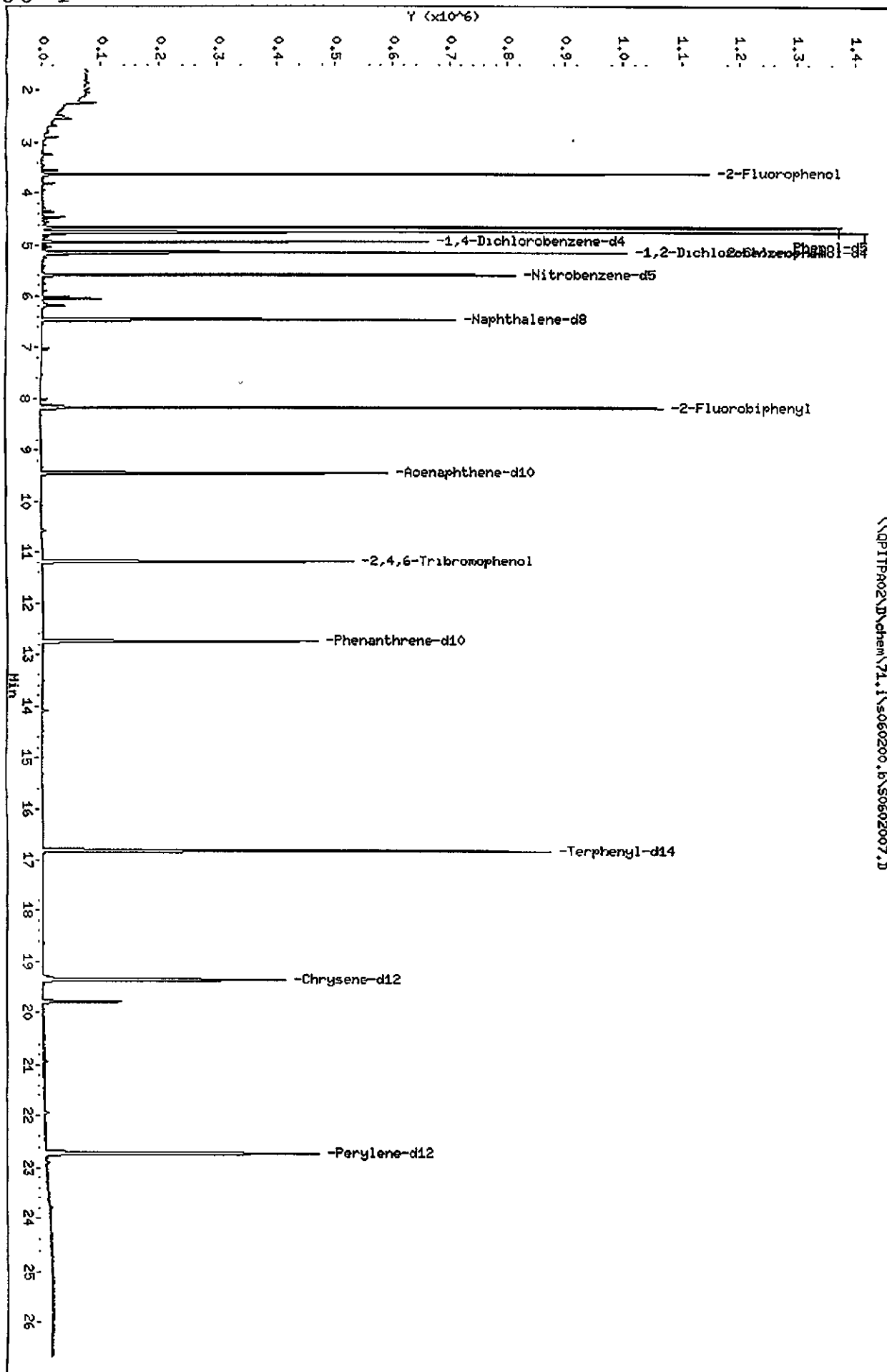
Date Analyzed: 06/02/00

Moisture %: 13

QC Batch: 0152240

Client Sample Id: DF/S1/0146/SDC/004

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



Data File: \\QPIITPA02\JD\chem\71.i\5060200.b\50602007.D
Date: 02-JUN-2000 10:16
Client ID: DF/S1/0146/SDC/004
Sample Info: 00260147-001 5/31/00 8270c1p
Volume Injected (uL): 2.0
Column phase: HPS-MS

Instrument: 71.1
Operator: 045183
Column diameter: 0.25

\\QPIITPA02\JD\chem\71.i\5060200.b\50602007.D

Data File: \\QPITPA02\D\chem\71.i\s060200.b\S0602007.D
 Report Date: 02-Jun-2000 10:46

Page 1

STL Pittsburgh

Semivolatile REPORT SW-846 Method 8270

Data file : \\QPITPA02\D\chem\71.i\s060200.b\S0602007.D
 Lab Smp Id: DDRMP103 Client Smp ID: DF/S1/0146/SDC/004
 Inj Date : 02-JUN-2000 10:16
 Operator : 045183 Inst ID: 71.i
 Smp Info : c0e260147-001 5/31/00 8270tclp
 Misc Info : ddrmp103,s060200.b,8270clp.m,1-tclp.sub
 Comment :
 Method : \\QPITPA02\D\chem\71.i\s060200.b\8270clp.m
 Meth Date : 02-Jun-2000 08:57 bachas Quant Type: ISTD
 Cal Date : 01-JUN-2000 12:15 Cal File: S0601CC5.D
 Als bottle: 9
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 1-tclp.sub
 Target Version: 4.04
 Processing Host: PITPC050

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

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

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng)	FINAL (mg/L)
* 1 1,4-Dichlorobenzene-d4	152	4.939	4.940	(1.000)	115250	40.0000	(a)
* 2 Naphthalene-d8	136	6.451	6.452	(1.000)	462869	40.0000	(a)
* 3 Acenaphthene-d10	164	9.448	9.449	(1.000)	244579	40.0000	(a)
* 4 Phenanthrene-d10	188	12.739	12.734	(1.000)	389015	40.0000	(a)
* 5 Chrysene-d12	240	19.352	19.353	(1.000)	352509	40.0000	(a)
* 6 Perylene-d12	264	22.713	22.708	(1.000)	446320	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	5.591	5.592	(0.867)	356078	76.0782	0.19020(a)
\$ 173 2-Fluorobiphenyl	172	8.177	8.172	(0.865)	554084	71.5047	0.17876(a)
\$ 174 Terphenyl-d14	244	16.809	16.799	(0.869)	667916	88.3129	0.22078(a)
\$ 175 Phenol-d5	99	4.651	4.651	(0.942)	577425	117.107	0.29277(a)
\$ 176 2-Fluorophenol	112	3.636	3.631	(0.736)	385953	97.9433	0.24486(a)
\$ 177 2,4,6-Tribromophenol	330	11.184	11.185	(0.878)	119837	119.565	0.29891(a)
\$ 178 2-Chlorophenol-d4	132	4.747	4.748	(0.961)	426219	118.085	0.29521(a)
\$ 179 1,2-Dichlorobenzene-d4	152	5.148	5.148	(1.042)	176005	72.1186	0.18030(a)

QC Flag Legend

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

**GC/MS SEMIVOLATILE
CALIBRATION DATA**

FORM 7
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: STL-PITTSBURGH

Contract:

Lab Code: STLPIT

Case No.:

SAS No.:

SDG No.: COE260147

Instrument ID: 71

Calibration Date: 06/02/00 Time: 0829

Lab File ID: S0602CCC

Init. Calib. Date(s): 06/01/00 06/01/00

Init. Calib. Times: 0938

1215

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

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Phenol	1.979	2.069	0.01	4.5	20.0
bis(2-Chloroethyl) ether	1.579	1.611	0.01	2.0	50.0
2-Chlorophenol	1.389	1.437	0.01	3.4	50.0
1,3-Dichlorobenzene	1.532	1.584	0.01	3.4	50.0
1,4-Dichlorobenzene	1.541	1.614	0.01	4.7	20.0
1,2-Dichlorobenzene	1.405	1.480	0.01	5.3	50.0
2-Methylphenol	1.276	1.342	0.01	5.2	50.0
2,2'-oxybis(1-Chloropropane)	1.999	2.170	0.01	8.6	50.0
4-Methylphenol	1.346	1.411	0.01	4.8	50.0
Hexachloroethane	0.609	0.620	0.01	1.8	50.0
Nitrobenzene	0.437	0.451	0.01	3.2	50.0
Isophorone	0.689	0.707	0.01	2.6	50.0
2-Nitrophenol	0.197	0.197	0.01	0.0	20.0
2,4-Dimethylphenol	0.349	0.364	0.01	4.3	50.0
bis(2-Chloroethoxy)methane	0.448	0.461	0.01	2.9	50.0
N-Nitroso-di-n-propylamine	1.070	1.116	0.05	4.3	50.0
2,4-Dichlorophenol	0.270	0.276	0.01	2.2	20.0
1,2,4-Trichlorobenzene	0.290	0.300	0.01	3.4	50.0
Naphthalene	1.038	1.088	0.01	4.8	50.0
4-Chloroaniline	0.409	0.419	0.01	2.4	50.0
Hexachlorobutadiene	0.152	0.158	0.01	3.9	20.0
4-Chloro-3-Methylphenol	0.297	0.302	0.01	1.7	20.0
2-Methylnaphthalene	0.662	0.687	0.01	3.8	50.0
Hexachlorocyclopentadiene	0.329	0.316	0.05	4.0	50.0
2,4,6-Trichlorophenol	0.342	0.342	0.01	0.0	20.0
2,4,5-Trichlorophenol	0.361	0.360	0.01	0.3	50.0
2-Chloronaphthalene	1.096	1.133	0.01	3.4	50.0
2-Nitroaniline	0.391	0.395	0.01	1.0	50.0
Dimethylphthalate	1.206	1.238	0.01	2.6	50.0
Acenaphthylene	1.817	1.845	0.01	1.5	50.0
2,6-Dinitrotoluene	0.279	0.279	0.01	0.0	50.0
3-Nitroaniline	0.334	0.332	0.01	0.6	50.0
Acenaphthene	1.129	1.147	0.01	1.6	20.0
2,4-Dinitrophenol	0.129	0.123	0.05	4.6	50.0
4-Nitrophenol	0.166	0.166	0.05	0.0	50.0
Dibenzofuran	1.561	1.596	0.01	2.2	50.0
2,4-Dinitrotoluene	0.371	0.376	0.01	1.3	50.0

FORM 7
SEMIVOLATILE CONTINUING CALIBRATION CHECK

659 183

Lab Name: STL-PITTSBURGH

Contract:

Lab Code: STLPIT

Case No.:

SAS No.:

SDG No.: COE260147

Instrument ID: 71

Calibration Date: 06/02/00 Time: 0829

Lab File ID: S0602CCC

Init. Calib. Date(s): 06/01/00 06/01/00

Init. Calib. Times: 0938 1215

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

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Diethylphthalate	1.168	1.217	0.01	4.2	50.0
4-Chlorophenyl-phenylether	0.567	0.580	0.01	2.3	50.0
Fluorene	1.230	1.278	0.01	3.9	50.0
4-Nitroaniline	0.333	0.338	0.01	1.5	50.0
4,6-Dinitro-2-methylphenol	0.125	0.126	0.01	0.8	50.0
N-Nitrosodiphenylamine (1)	0.536	0.545	0.01	1.7	20.0
4-Bromophenyl-phenylether	0.186	0.185	0.01	0.5	50.0
Hexachlorobenzene	0.194	0.197	0.01	1.5	50.0
Pentachlorophenol	0.101	0.103	0.01	2.0	20.0
Phenanthrene	1.005	1.044	0.01	3.9	50.0
Anthracene	1.033	1.078	0.01	4.4	50.0
Carbazole	0.970	1.020	0.01	5.2	50.0
Di-n-Butylphthalate	1.200	1.280	0.01	6.7	50.0
Fluoranthene	1.021	1.085	0.01	6.3	20.0
Pyrene	1.132	1.107	0.01	2.2	50.0
Butylbenzylphthalate	0.677	0.668	0.01	1.3	50.0
3,3'-Dichlorobenzidine	0.465	0.473	0.01	1.7	50.0
Benzo(a) Anthracene	1.140	1.129	0.01	1.0	50.0
Chrysene	1.076	1.077	0.01	0.1	50.0
bis(2-ethylhexyl) Phthalate	1.141	1.103	0.01	3.3	50.0
Di-n-octylphthalate	1.672	1.621	0.01	3.0	20.0
Benzo(b) fluoranthene	1.075	1.066	0.01	0.8	50.0
Benzo(k) fluoranthene	0.993	1.088	0.01	9.6	50.0
Benzo(a) pyrene	1.022	1.055	0.01	3.2	20.0
Indeno(1,2,3-cd)pyrene	1.483	1.527	0.01	3.0	50.0
Dibenz(a,h) anthracene	1.270	1.337	0.01	5.3	50.0
Benzo(g,h,i) perylene	1.294	1.338	0.01	3.4	50.0
Pyridine	1.623	1.633	0.01	0.6	50.0
N-Nitrosodimethylamine	0.895	0.922	0.01	3.0	50.0
Aniline	2.403	2.480	0.01	3.2	50.0
Benzyl Alcohol	1.002	1.037	0.01	3.5	50.0
Benzoic Acid	0.152	0.162	0.01	6.6	50.0
1-Methylnaphthalene	0.619	0.651	0.01	5.2	50.0
2,3,4,6-Tetrachlorophenol	0.247	0.262	0.01	6.1	50.0
2,3,5,6-Tetrachlorophenol	0.247	0.260	0.01	5.3	50.0
1,2-Diphenylhydrazine	0.928	0.945	0.01	1.8	50.0
Benzidine	0.612	0.608	0.01	0.6	50.0

659 184

FORM 7
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: STL-PITTSBURGH

Contract:

Lab Code: STLPIT Case No.:

SAS No.:

SDG No.: C0E260147

Instrument ID: 71

Calibration Date: 06/02/00 Time: 0829

Lab File ID: S0602CCC

Init. Calib. Date(s): 06/01/00 06/01/00

Init. Calib. Times: 0938 1215

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

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Methyl methanesulfonate	0.811	0.759	0.01	6.4	50.0
2-Naphthylamine	1.024	1.168	0.01	14.1	50.0
7,12-dimethylbenz[a]anthracene	0.439	0.478	0.01	8.9	50.0
Nitrobenzene-d5	0.404	0.417	0.01	3.2	50.0
2-Fluorobiphenyl	1.267	1.285	0.01	1.4	50.0
Terphenyl-d14	0.858	0.844	0.01	1.6	50.0
Phenol-d5	1.711	1.820	0.01	6.4	50.0
2-Fluorophenol	1.368	1.400	0.01	2.3	50.0
2,4,6-Tribromophenol	0.103	0.105	0.01	1.9	50.0
2-Chlorophenol-d4	1.253	1.302	0.01	3.9	50.0
1,2-Dichlorobenzene-d4	0.847	0.903	0.01	6.6	50.0

CONTINUING CALIBRATION COMPOUNDS
PERCENT DRIFT REPORT

Instrument ID: 71.i
Lab File ID: S0602CCC.D
Analysis Type: NONE

Injection Date: 02-JUN-2000 08:29
Lab Sample ID: sstd50
Method File: \\QPITPA02\D\chem\71.i\s060200.b\8270clp

COMPOUND	EXPECTED CONC	MEASURED CONC.	%D	MAX %D
67 N-Nitrosodimethylamine	50.0000	51.5295	3.1	50.0
66 Pyridine	50.0000	50.3039	0.6	50.0
87 Methyl methanesulfonate	50.0000	46.8031	6.4	50.0
185 2-Fluorophenol	50.0000	51.1827	2.4	50.0
68 Aniline	50.0000	51.6038	3.2	50.0
184 Phenol-d5	50.0000	53.1628	6.3	50.0
1 Phenol	50.0000	52.2819	4.6	20.0
2 bis(2-Chloroethyl)ether	50.0000	50.9891	2.0	50.0
187 2-Chlorophenol-d4	50.0000	51.9536	3.9	50.0
3 2-Chlorophenol	50.0000	51.7124	3.4	50.0
4 1,3-Dichlorobenzene	50.0000	51.7017	3.4	50.0
11 1,4-Dichlorobenzene-d4	40.0000	40.0000	0.0	50.0
5 1,4-Dichlorobenzene	50.0000	52.3924	4.8	20.0
69 Benzyl Alcohol	50.0000	51.7178	3.4	50.0
188 1,2-Dichlorobenzene-d4	50.0000	53.3034	6.6	50.0
6 1,2-Dichlorobenzene	50.0000	52.6438	5.3	50.0
7 2-Methylphenol	50.0000	52.5882	5.2	50.0
8 2,2'-oxybis(1-Chloropropane)	50.0000	54.2936	8.6	50.0
9 4-Methylphenol	50.0000	52.3912	4.8	50.0
18 N-Nitroso-di-n-propylamine	50.0000	52.1175	4.2	50.0
12 Hexachloroethane	50.0000	50.9181	1.8	50.0
181 Nitrobenzene-d5	50.0000	51.5105	3.0	50.0
13 Nitrobenzene	50.0000	51.5113	3.0	50.0
14 Isophorone	50.0000	51.2725	2.5	50.0
15 2-Nitrophenol	50.0000	50.1013	0.2	20.0
16 2,4-Dimethylphenol	50.0000	52.1128	4.2	50.0
17 bis(2-Chloroethoxy)methane	50.0000	51.3715	2.7	50.0
71 Benzoic Acid	50.0000	53.1794	6.4	50.0
18 2,4-Dichlorophenol	50.0000	51.2350	2.5	20.0
19 1,2,4-Trichlorobenzene	50.0000	51.7937	3.6	50.0
32 Naphthalene-d8	40.0000	40.0000	0.0	50.0
20 Naphthalene	50.0000	52.4072	4.8	50.0
21 4-Chloroaniline	50.0000	51.1924	2.4	50.0
22 Hexachlorobutadiene	50.0000	52.2532	4.5	20.0
23 4-Chloro-3-Methylphenol	50.0000	50.9812	2.0	20.0
24 2-Methylnaphthalene	50.0000	51.8791	3.8	50.0
72 1-Methylnaphthalene	50.0000	52.6105	5.2	50.0
25 Hexachlorocyclopentadiene	50.0000	47.9245	4.2	50.0
26 2,4,6-Trichlorophenol	50.0000	49.9666	0.1	20.0

Data File: \\QPITPA02\D\chem\71.i\s060200.b/S0602CCC.D
Report Date: 06/02/2000

CONTINUING CALIBRATION COMPOUNDS
PERCENT DRIFT REPORT

Instrument ID: 71.i
Lab File ID: S0602CCC.D
Analysis Type: NONE

Injection Date: 02-JUN-2000 08:29
Lab Sample ID: sstd50
Method File: \\QPITPA02\D\chem\71.i\s060200.b\

COMPOUND	EXPECTED CONC.	MEASURED CONC	%D	MAX %D
27 2,4,5-Trichlorophenol	50.0000	49.8412	0.3	50.0
182 2-Fluorobiphenyl	50.0000	50.7164	1.4	50.0
28 2-Chloronaphthalene	50.0000	51.7016	3.4	50.0
29 2-Nitroaniline	50.0000	50.5582	1.1	50.0
30 Dimethylphthalate	50.0000	51.3104	2.6	50.0
31 Acenaphthylene	50.0000	50.7785	1.6	50.0
32 2,6-Dinitrotoluene	50.0000	50.0263	0.1	50.0
33 3-Nitroaniline	50.0000	49.7589	0.5	50.0
52 Acenaphthene-d10	40.0000	40.0000	0.0	50.0
34 Acenaphthene	50.0000	50.7999	1.6	20.0
35 2,4-Dinitrophenol	50.0000	47.5788	4.8	50.0
37 Dibenzofuran	50.0000	51.1255	2.3	50.0
36 4-Nitrophenol	50.0000	50.0931	0.2	50.0
38 2,4-Dinitrotoluene	50.0000	50.6755	1.4	50.0
77 2,3,5,6-Tetrachlorophenol	50.0000	52.6744	5.3	50.0
114 2-Naphthylamine	50.0000	57.0362	14.1	50.0
76 2,3,4,6-Tetrachlorophenol	50.0000	53.0366	6.1	50.0
39 Diethylphthalate	50.0000	52.1255	4.3	50.0
41 Fluorene	50.0000	51.9363	3.9	50.0
40 4-Chlorophenyl-phenylether	50.0000	51.2029	2.4	50.0
42 4-Nitroaniline	50.0000	50.8493	1.7	50.0
43 4,6-Dinitro-2-methylphenol	50.0000	50.8165	1.6	50.0
44 N-Nitrosodiphenylamine (1)	50.0000	50.8575	1.7	20.0
78 1,2-Diphenylhydrazine	50.0000	50.9525	1.9	50.0
186 2,4,6-Tribromophenol	50.0000	50.9312	1.9	50.0
45 4-Bromophenyl-phenylether	50.0000	49.8451	0.3	50.0
46 Hexachlorobenzene	50.0000	50.7623	1.5	50.0
47 Pentachlorophenol	50.0000	51.2950	2.6	20.0
78 Phenanthrene-d10	40.0000	40.0000	0.0	50.0
48 Phenanthrene	50.0000	51.9056	3.8	50.0
49 Anthracene	50.0000	52.1531	4.3	50.0
50 Carbazole	50.0000	52.5798	5.2	50.0
51 Di-n-Butylphthalate	50.0000	53.3394	6.7	50.0
52 Fluoranthene	50.0000	53.1171	6.2	20.0
79 Benzidine	50.0000	49.7257	0.5	50.0
53 Pyrene	50.0000	48.8939	2.2	50.0
183 Terphenyl-d14	50.0000	49.2062	1.6	50.0
54 Butylbenzylphthalate	50.0000	49.3076	1.4	50.0
56 Benzo(a)Anthracene	50.0000	49.5396	0.9	50.0

CONTINUING CALIBRATION COMPOUNDS
PERCENT DRIFT REPORT

Instrument ID: 71.i
Lab File ID: S0602CCC.D
Analysis Type: NONE

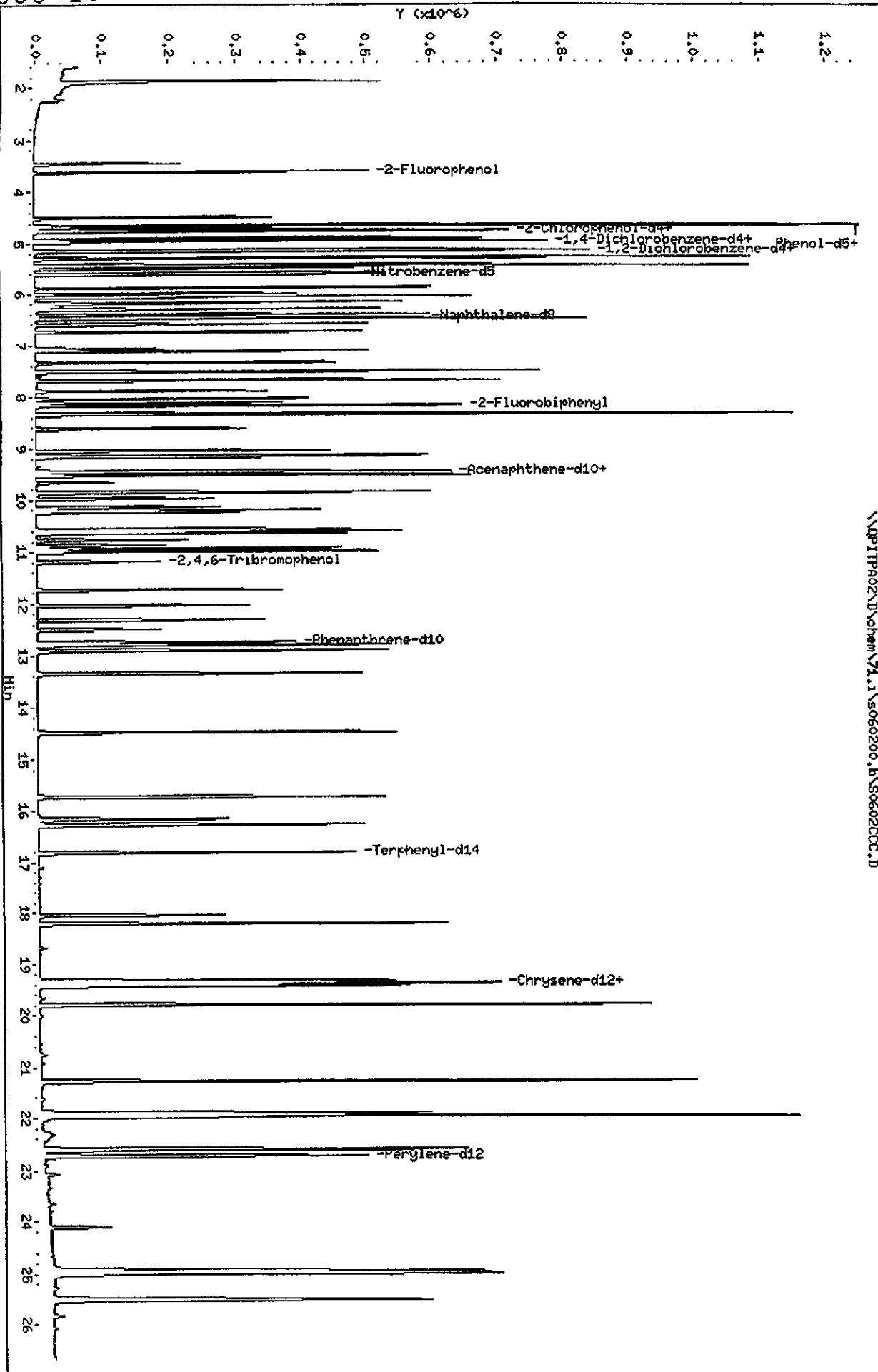
Injection Date: 02-JUN-2000 08:29
Lab Sample ID: sstd50
Method File: \\QPITPA02\D\chem\71.i\s060200.b\

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
90 Chrysene-d12	40.0000	40.0000	0.0	50.0
55 3,3'-Dichlorobenzidine	50.0000	50.8148	1.6	50.0
57 Chrysene	50.0000	50.0518	0.1	50.0
58 bis(2-ethylhexyl)Phthalate	50.0000	48.3470	3.3	50.0
59 Di-n-octylphthalate	50.0000	48.5006	3.0	20.0
60 Benzo(b)fluoranthene	50.0000	49.5552	0.9	50.0
61 Benzo(k)fluoranthene	50.0000	54.7723	9.5	50.0
143 7,12-dimethylbenz[a]anthracene	50.0000	54.5492	9.1	50.0
62 Benzo(a)pyrene	50.0000	51.6156	3.2	20.0
101 Perylene-d12	40.0000	40.0000	0.0	50.0
63 Indeno(1,2,3-cd)pyrene	50.0000	51.4845	3.0	50.0
64 Dibenzo(a,h)anthracene	50.0000	52.6294	5.3	50.0
65 Benzo(g,h,i)perylene	50.0000	51.7201	3.4	50.0

Data File: \\QP1TPA02\chem\71.1\5060200.b\5060200C.D
Date : 02-JUN-2000 08:29
Client ID: sstd050
Sample Info: sstd50(25 ug/ml) 194-177-4 8270
Column Phase: Hp5-MS

Instrument: 71.1
Operator: 045183
Column diameter: 0.25

\\QP1TPA02\chem\71.1\5060200.b\5060200C.D



STL Pittsburgh

Semivolat'ile REPORT SW-846 Method 8270

Data file : \\QPITPA02\D\chem\71.i\s060200.b\S0602CCC.D
Lab Smp Id: sstd50 Client Smp ID: sstd050
Inj Date : 02-JUN-2000 08:29
Operator : 045183 Inst ID: 71.i
Smp Info : sstd50(25 ug/ml) 194-177-4 8270
Misc Info : sstd50,s060200.b,8270clp.m,1-82701.sub,2,2
Comment :
Method : \\QPITPA02\D\chem\71.i\s060200.b\8270clp.m
Meth Date : 02-Jun-2000 08:57 bachas Quant Type: ISTD
Cal Date : 01-JUN-2000 12:15 Cal File: S0601CC5.D
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 1-82701.sub
Target Version: 4.04
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	4.940	4.940	(1.000)	102069	40.0000	
* 2 Naphthalene-d8	136	6.452	6.452	(1.000)	392842	40.0000	
* 3 Acenaphthene-d10	164	9.449	9.449	(1.000)	202821	40.0000	
* 4 Phenanthrene-d10	188	12.734	12.734	(1.000)	340333	40.0000	
* 5 Chrysene-d12	240	19.353	19.353	(1.000)	347550	40.0000	
* 6 Perylene-d12	264	22.708	22.708	(1.000)	461775	40.0000	
13 N-Nitrosodimethylamine	74	1.879	1.879	(0.380)	117651	50.0000	51.529
10 Pyridine	79	1.879	1.879	(0.380)	208394	50.0000	50.304 (M)
19 Methyl methanesulfonate	80	3.455	3.455	(0.699)	96894	50.0000	46.803
22 Aniline	93	4.646	4.646	(0.941)	316445	50.0000	51.604
23 Phenol	94	4.662	4.662	(0.944)	264007	50.0000	52.282
24 bis(2-Chloroethyl)ether	93	4.716	4.716	(0.955)	205496	50.0000	50.989
25 2-Chlorophenol	128	4.764	4.764	(0.964)	183330	50.0000	51.712
27 1,3-Dichlorobenzene	146	4.902	4.902	(0.992)	202168	50.0000	51.702
28 1,4-Dichlorobenzene	146	4.956	4.956	(1.003)	205982	50.0000	52.392
29 1,2-Dichlorobenzene	146	5.159	5.159	(1.044)	188777	50.0000	52.644
30 Benzyl Alcohol	108	5.127	5.127	(1.038)	132257	50.0000	51.718 (M)
31 2-Methylphenol	108	5.287	5.287	(1.070)	171260	50.0000	52.588
32 2,2'-oxybis(1-Chloropropane)	45	5.292	5.292	(1.071)	276886	50.0000	54.294
33 N-Nitroso-di-n-propylamine	70	5.447	5.447	(1.103)	142365	50.0000	52.117
35 4-Methylphenol	108	5.442	5.442	(1.102)	179990	50.0000	52.391
38 Hexachloroethane	117	5.501	5.501	(1.114)	79146	50.0000	50.918
39 Nitrobenzene	77	5.613	5.613	(0.870)	221269	50.0000	51.511
44 Isophorone	82	5.880	5.880	(0.911)	347055	50.0000	51.272
45 2-Nitrophenol	139	5.992	5.992	(0.929)	96805	50.0000	50.101
46 2,4-Dimethylphenol	107	6.056	6.056	(0.939)	178580	50.0000	52.113

Compounds	QUANT SIG				RESPONSE	AMOUNTS	
	MASS	RT	EXP RT	REL RT		CAL-AMT (ng)	ON-COL (ng)
47 bis (2-Chloroethoxy)methane	93	6.169	6.169	(0.956)	226342	50.0000	51.372
51 2,4-Dichlorophenol	162	6.297	6.297	(0.976)	135783	50.0000	51.235
52 Benzoic Acid	122	6.195	6.195	(0.960)	79555	50.0000	53.179 (MH)
53 1,2,4-Trichlorobenzene	180	6.398	6.398	(0.992)	147519	50.0000	51.794
54 Naphthalene	128	6.478	6.478	(1.004)	534316	50.0000	52.407
55 4-Chloroaniline	127	6.591	6.591	(1.022)	205687	50.0000	51.192
59 Hexachlorobutadiene	225	6.730	6.730	(1.043)	77816	50.0000	52.253
62 4-Chloro-3-Methylphenol	107	7.328	7.328	(1.136)	148458	50.0000	50.981
65 2-Methylnaphthalene	142	7.504	7.504	(1.163)	337406	50.0000	51.879
66 1-Methylnaphthalene	142	7.680	7.680	(1.190)	319585	50.0000	52.610
67 Hexachlorocyclopentadiene	237	7.883	7.883	(0.834)	79989	50.0000	47.924
69 2,4,6-Trichlorophenol	196	8.038	8.038	(0.851)	86671	50.0000	49.966
70 2,4,5-Trichlorophenol	196	8.118	8.118	(0.859)	91244	50.0000	49.841
73 2-Chloronaphthalene	162	8.337	8.337	(0.882)	287295	50.0000	51.702
77 2-Nitroaniline	65	8.605	8.605	(0.911)	100147	50.0000	50.558
80 Dimethylphthalate	163	9.037	9.037	(0.956)	313780	50.0000	51.310
82 2,6-Dinitrotoluene	165	9.166	9.166	(0.970)	70660	50.0000	50.026
83 Acenaphthylene	152	9.133	9.133	(0.967)	467852	50.0000	50.778
85 3-Nitroaniline	138	9.433	9.433	(0.998)	84272	50.0000	49.759
86 Acenaphthene	153	9.513	9.513	(1.007)	290898	50.0000	50.800
87 2,4-Dinitrophenol	184	9.646	9.646	(1.021)	31241	50.0000	47.579
89 4-Nitrophenol	109	9.865	9.865	(1.044)	42042	50.0000	50.093
90 Dibenzofuran	168	9.844	9.844	(1.042)	404703	50.0000	51.125
91 2,4-Dinitrotoluene	165	9.972	9.972	(1.055)	95327	50.0000	50.675
95 2,3,5,6-Tetrachlorophenol	232	10.132	10.132	(1.072)	66028	50.0000	52.674
92 2,3,4,6-Tetrachlorophenol	232	10.234	10.234	(1.083)	66493	50.0000	53.037
96 2-Naphthylamine	143	10.197	10.197	(1.079)	296143	50.0000	57.036
97 Diethylphthalate	149	10.560	10.560	(1.118)	308645	50.0000	52.126
98 Fluorene	166	10.592	10.592	(1.121)	323951	50.0000	51.936
99 4-Chlorophenyl-phenylether	204	10.635	10.635	(1.125)	147122	50.0000	51.203
100 4-Nitroaniline	138	10.763	10.763	(1.139)	85823	50.0000	50.849
102 4,6-Dinitro-2-methylphenol	198	10.859	10.859	(0.853)	53808	50.0000	50.816
103 N-Nitrosodiphenylamine (1)	169	10.923	10.923	(0.858)	231792	50.0000	50.857
104 1,2-Diphenylhydrazine	77	10.982	10.982	(0.862)	402063	50.0000	50.952
112 4-Bromophenyl-phenylether	248	11.735	11.735	(0.922)	78762	50.0000	49.845
113 Hexachlorobenzene	284	12.034	12.034	(0.945)	83876	50.0000	50.762
117 Pentachlorophenol	266	12.483	12.483	(0.980)	43998	50.0000	51.295
122 Phenanthrene	178	12.793	12.793	(1.005)	443995	50.0000	51.906
123 Anthracene	178	12.894	12.894	(1.013)	458507	50.0000	52.153
126 Carbazole	167	13.348	13.348	(1.048)	434080	50.0000	52.580
130 Di-n-Butylphthalate	149	14.486	14.486	(1.138)	544594	50.0000	53.339
135 Fluoranthene	202	15.720	15.720	(1.234)	461495	50.0000	53.117
136 Benzidine	184	16.158	16.158	(0.835)	264332	50.0000	49.726
137 Pyrene	202	16.260	16.260	(0.840)	480877	50.0000	48.894
144 Butylbenzylphthalate	149	18.215	18.215	(0.941)	290208	50.0000	49.308
149 3,3'-Dichlorobenzidine	252	19.374	19.374	(1.001)	205384	50.0000	50.815
150 Benzo(a)Anthracene	228	19.316	19.316	(0.998)	490582	50.0000	49.540

Compounds	QUANT SIG			AMOUNTS			
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
*****	----	--	-----	-----	-----	-----	-----
151 Chrysene	228	19.417	19.417	(1.003)	467876	50.0000	50.052
153 bis(2-ethylhexyl)Phthalate	149	19.791	19.791	(1.023)	479201	50.0000	48.347
155 Di-n-octylphthalate	149	21.255	21.255	(0.936)	935864	50.0000	48.501
157 Benzo(b)fluoranthene	252	21.896	21.896	(0.964)	615262	50.0000	49.555
158 Benzo(k)fluoranthene	252	21.955	21.955	(0.967)	628025	50.0000	54.772
159 7,12-dimethylbenz[a]anthracen	256	21.955	21.955	(0.967)	276134	50.0000	54.549
167 Benzo(a)pyrene	252	22.585	22.585	(0.995)	608908	50.0000	51.616
169 Indeno(1,2,3-cd)pyrene	276	24.935	24.935	(1.098)	881566	50.0000	51.484
170 Dibenz(a,h)anthracene	278	24.989	24.989	(1.100)	771732	50.0000	52.629
171 Benzo(g,h,i)perylene	276	25.507	25.507	(1.123)	772392	50.0000	51.720
\$ 172 Nitrobenzene-d5	82	5.592	5.592	(0.867)	204616	50.0000	51.510
\$ 173 2-Fluorobiphenyl	172	8.172	8.172	(0.865)	325899	50.0000	50.716
\$ 174 Terphenyl-d14	244	16.799	16.799	(0.868)	366914	50.0000	49.206
\$ 175 Phenol-d5	99	4.651	4.651	(0.942)	232153	50.0000	53.163
\$ 176 2-Fluorophenol	112	3.631	3.631	(0.735)	178622	50.0000	51.183
\$ 177 2,4,6-Tribromophenol	330	11.185	11.185	(0.878)	44659	50.0000	50.931
\$ 178 2-Chlorophenol-d4	132	4.748	4.748	(0.961)	166076	50.0000	51.954
\$ 179 1,2-Dichlorobenzene-d4	152	5.148	5.148	(1.042)	115209	50.0000	53.303

QC Flag Legend

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

659 192

Data File: \\QIPITPA02\D\chem\71.1\s060200.b\S0602CCCC.D

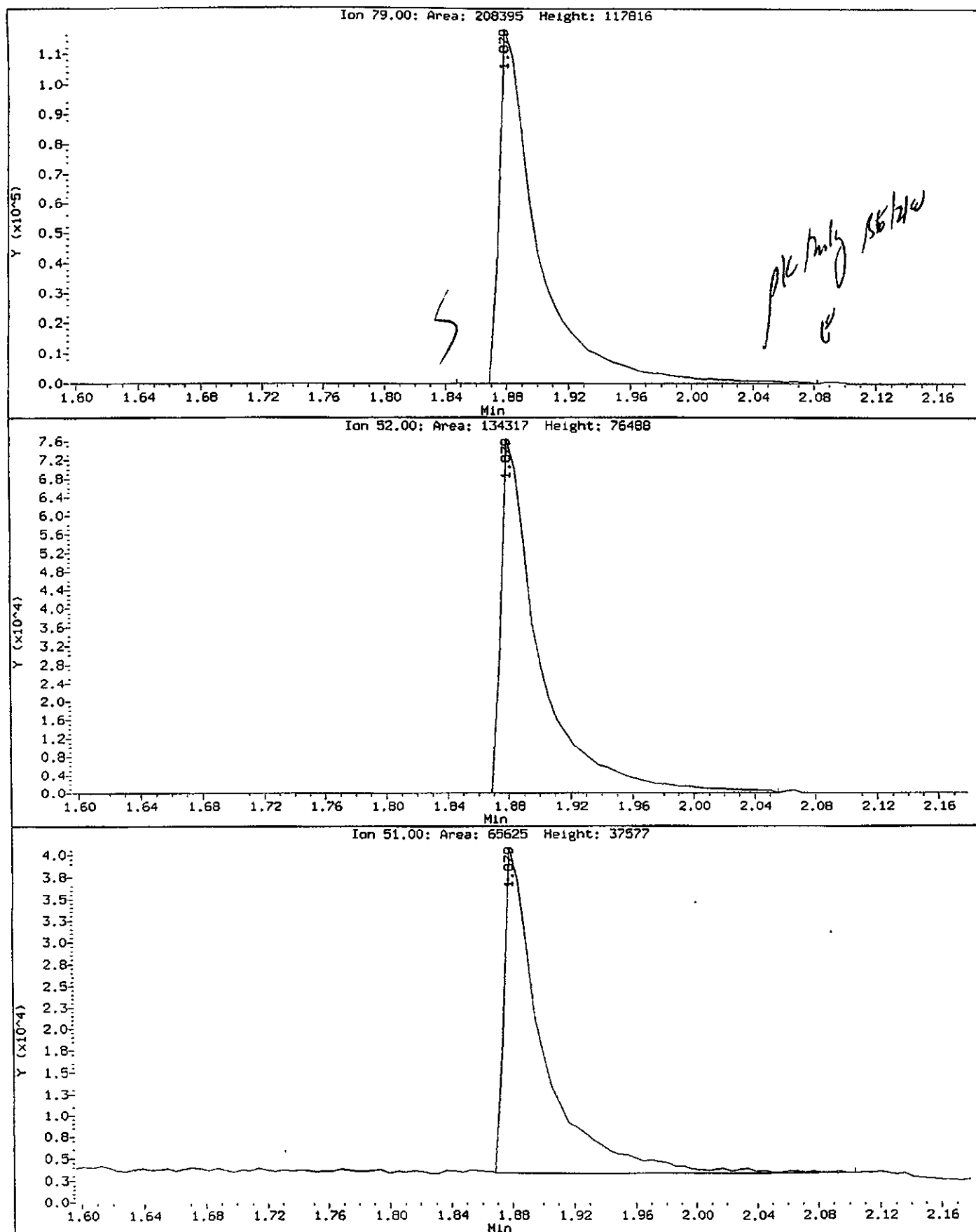
Injection Date: 02-JUN-2000 08:29

Instrument: 71.1

Client Sample ID: sstd050

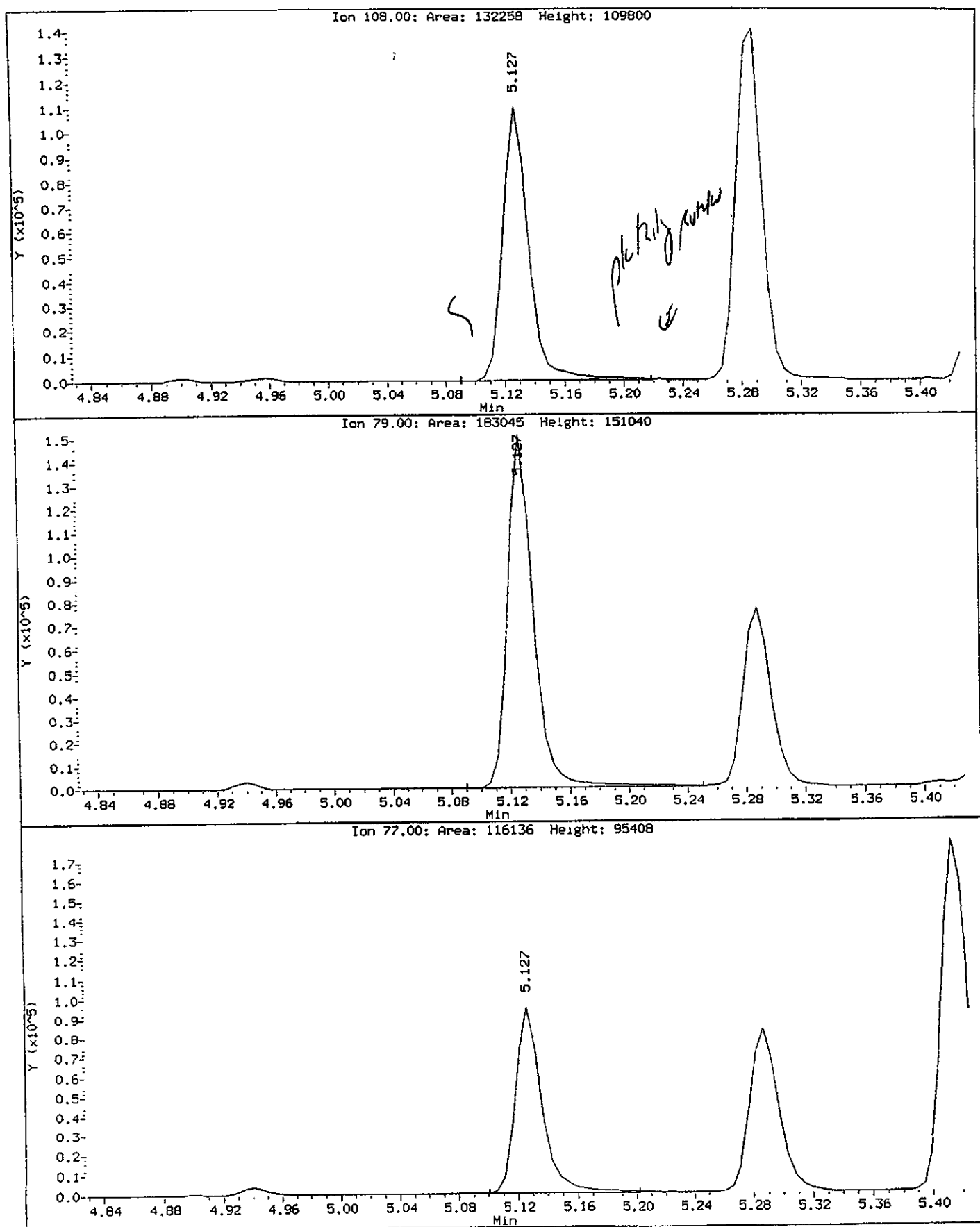
Compound: Pyridine

CAS Number: 110-86-1



Data File: \\QPITPA02\D\chem\71.1\s060200.b\S0602CCC.D
Injection Date: 02-JUN-2000 08:29
Instrument: 71.1
Client Sample ID: sstd050

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



659 194

Data File: \\QPITPA02\B\chem\71.1\s060200.b\S0602CCC.D

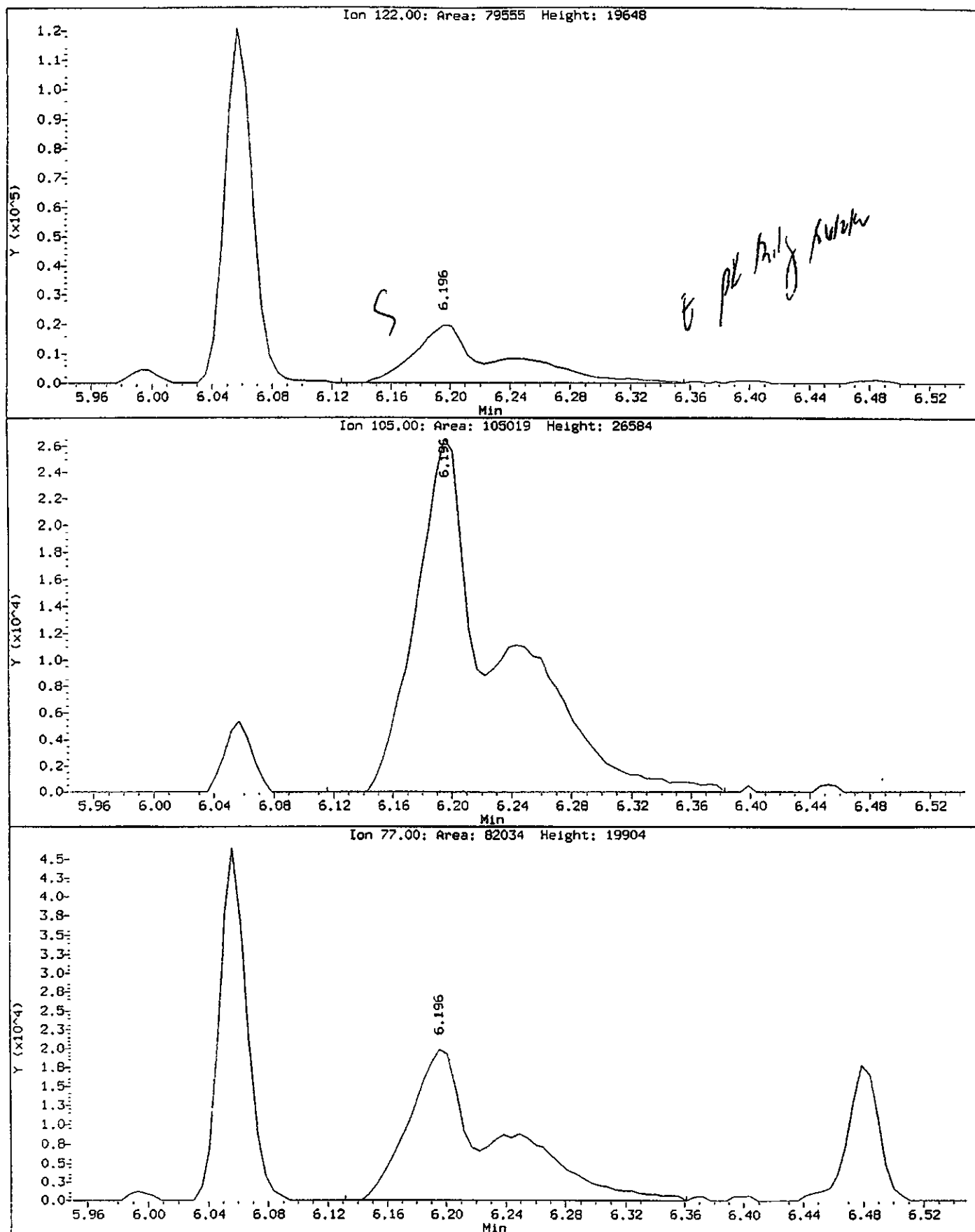
Injection Date: 02-JUN-2000 08:29

Instrument: 71.1

Client Sample ID: sstd050

Compound: Benzoic Acid

CAS Number: 65-85-0



**GC/MS SEMIVOLATILE
QC DATA**

Date : 01-JUN-2000 08:30

Client ID: DFTPF02

Instrument: 71.1

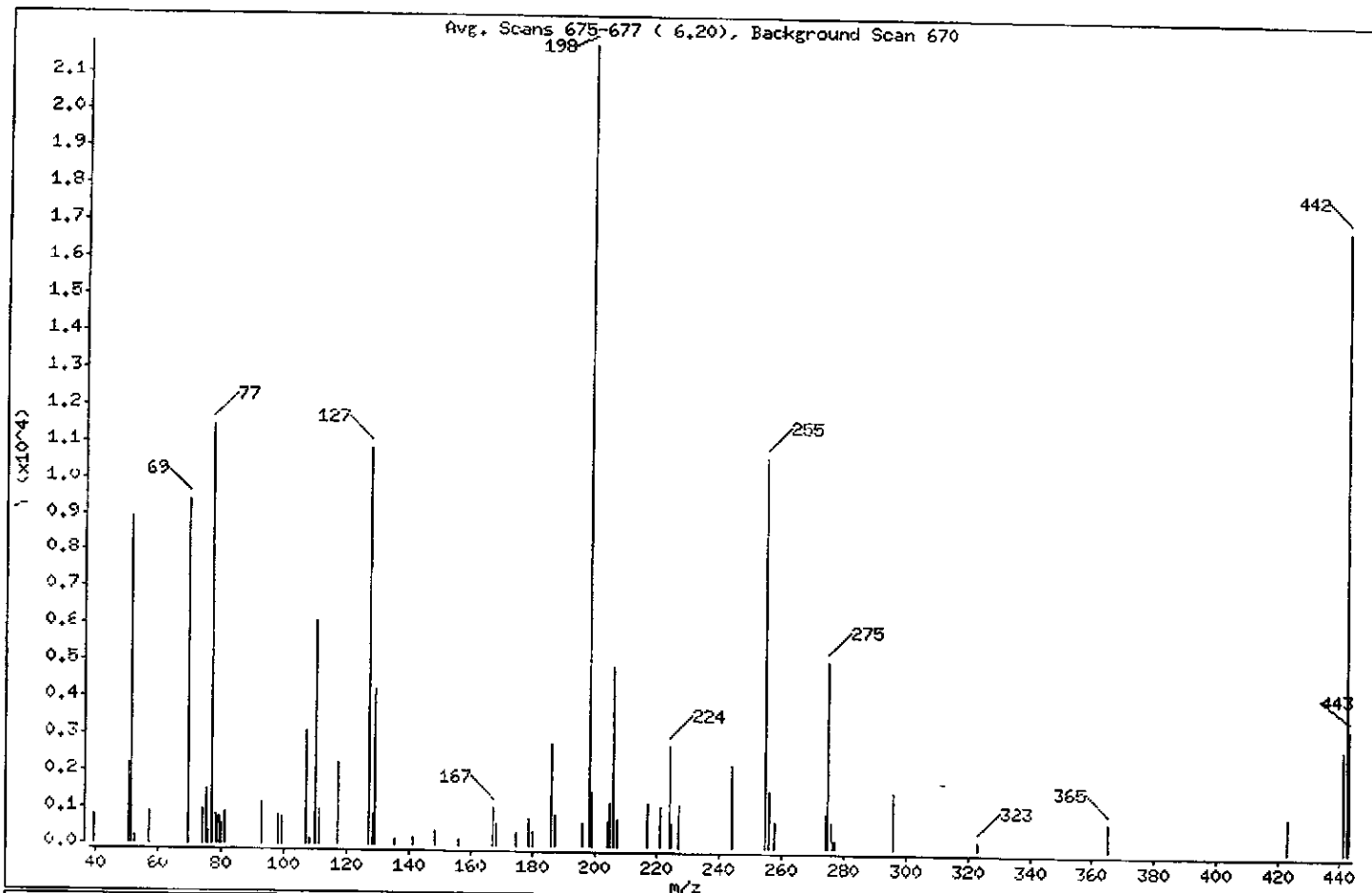
Sample Info: DFTPP050 (25ppb) 194-158-6

Operator: 048183

Column phase:

Column diameter: 2.00

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	40.99
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	42.90
70	Less than 2.00% of mass 69	0.00 (0.00)
127	40.00 - 60.00% of mass 198	49.59
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.84
275	10.00 - 30.00% of mass 198	23.11
365	Greater than 1.00% of mass 198	3.48
441	Present, but less than mass 443	12.92
442	Greater than 40.00% of mass 198	77.94
443	17.00 - 23.00% of mass 442	15.40 (19.77)

Data File: \\QPITFA02\N\chem\71.1\5060100.b\50601DF3.D

Date : 01-JUN-2000 08:30

Client ID: DFTPP02

Instrument: 71.1

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

Operator: 045183

Column phase:

Column diameter: 2.00

Data File: S0601DF3.D

Spectrum: Avg. Scans 675-677 (6.20), Background Scan 670

Location of Maximum: 195.00

Number of points: 63

m/z	Y	m/z	Y	m/z	Y	m/z	Y
39.00	790	99.00	742	179.00	733	244.00	2269
50.00	2203	107.00	3115	180.00	398	255.00	10619
51.00	8943	108.00	175	186.00	2820	256.00	1564
52.00	196	110.00	6058	187.00	852	258.00	696
57.00	875	111.00	951	196.00	648	274.00	937
69.00	9359	117.00	2265	198.00	21816	275.00	5044
74.00	936	127.00	10819	199.00	1492	276.00	680
75.00	1502	128.00	862	204.00	693	277.00	185
76.00	372	129.00	4233	205.00	1216	296.00	1569
77.00	11458	135.00	170	206.00	4933	323.00	194
78.00	927	141.00	214	207.00	752	365.00	759
79.00	739	148.00	410	217.00	1206	423.00	959
80.00	571	156.00	173	221.00	1081	441.00	2818
81.00	914	167.00	1045	224.00	2758	442.00	17000
93.00	1155	168.00	594	225.00	656	443.00	3361
98.00	811	175.00	368	227.00	1146		

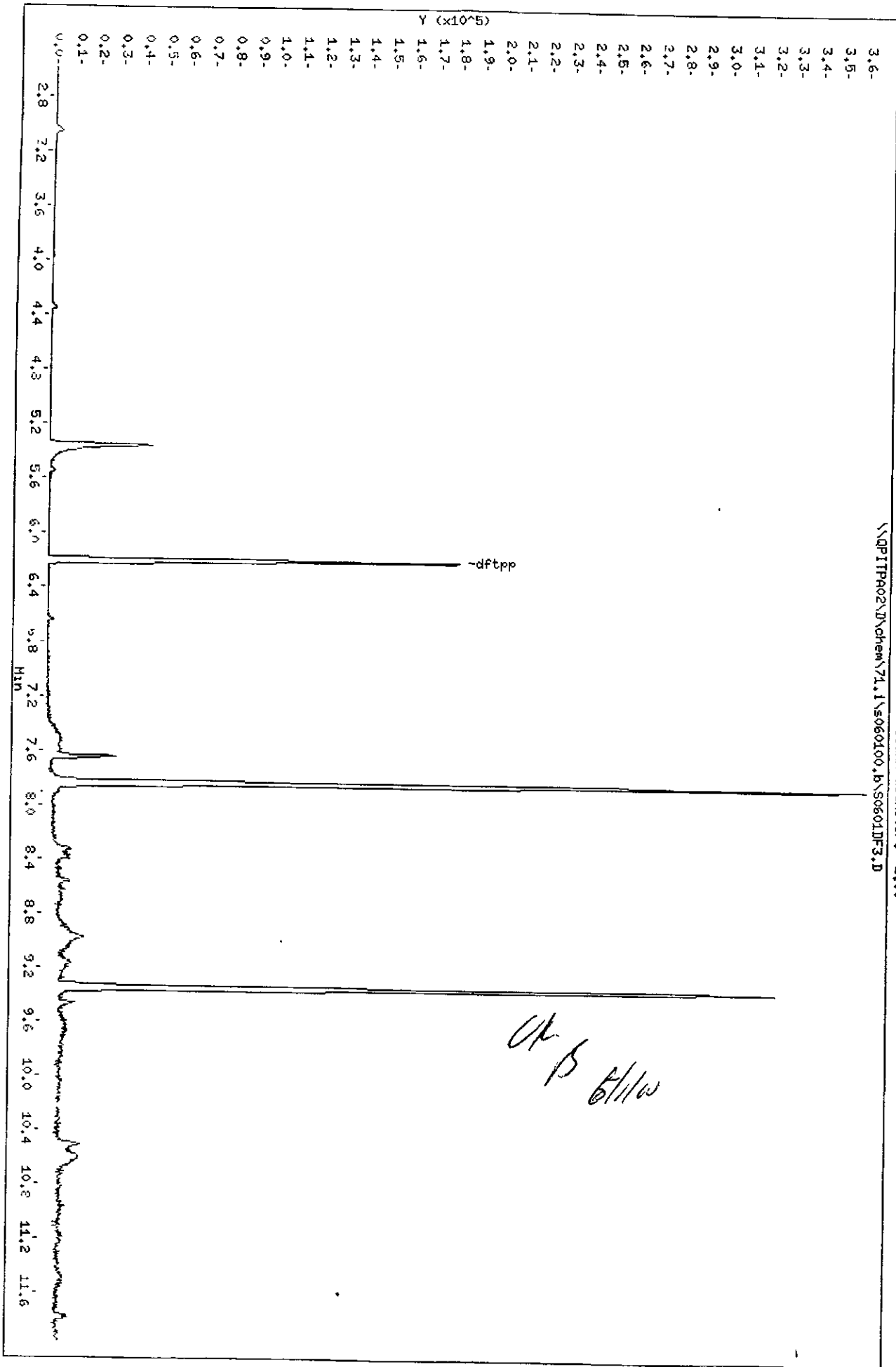
Data File: \QPIPP02\chem\71.1\5060100.b\50601DF3.D
 Date: 01-JUN-2000 08:30
 Client ID: DFTPP02
 Sample Info: DFTPP050 (25ppb) 194-158-6

Instrument: 71.1

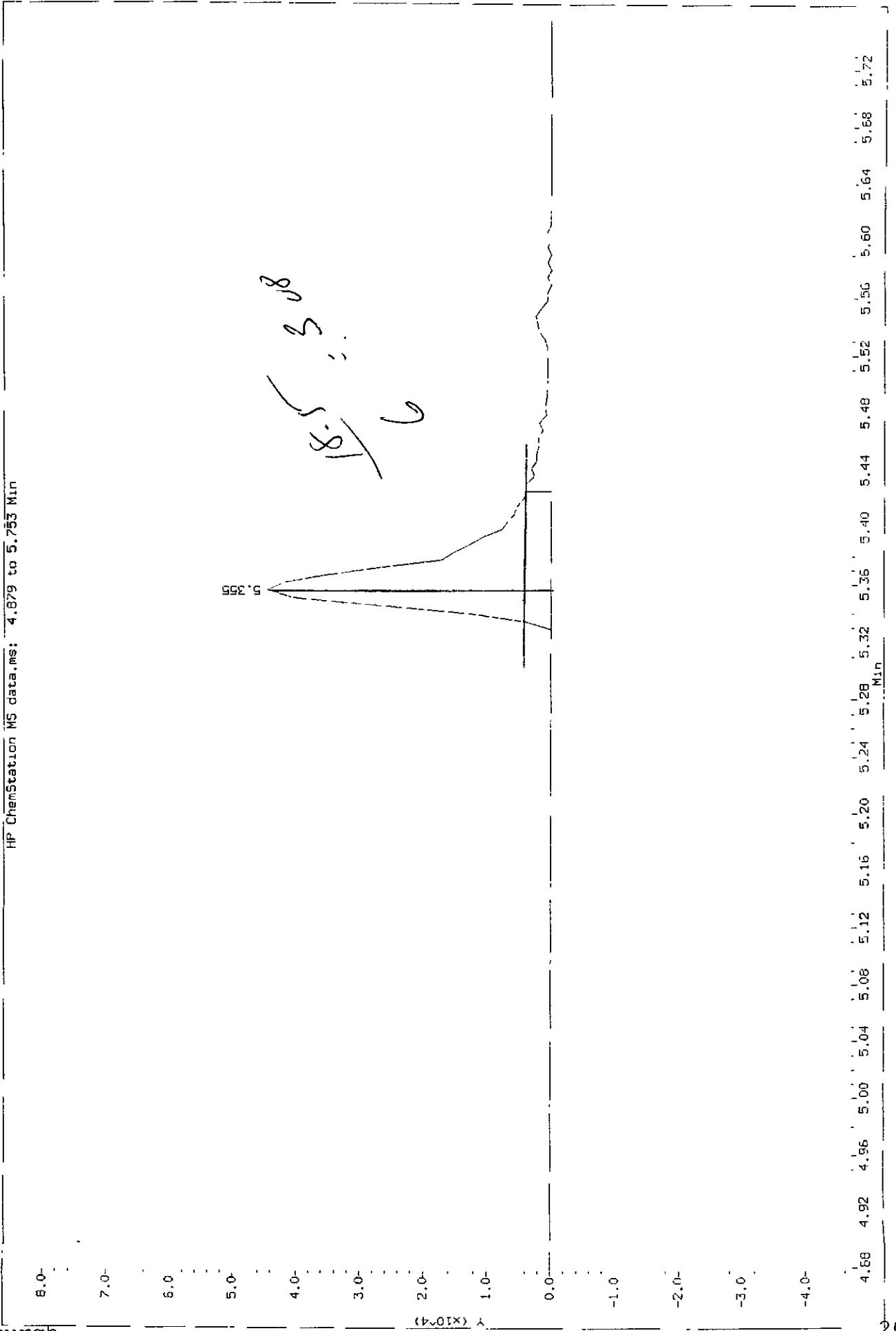
Column phase:

Operator: 045183
 Column diameter: 2.00

\QPIPP02\chem\71.1\5060100.b\50601DF3.D

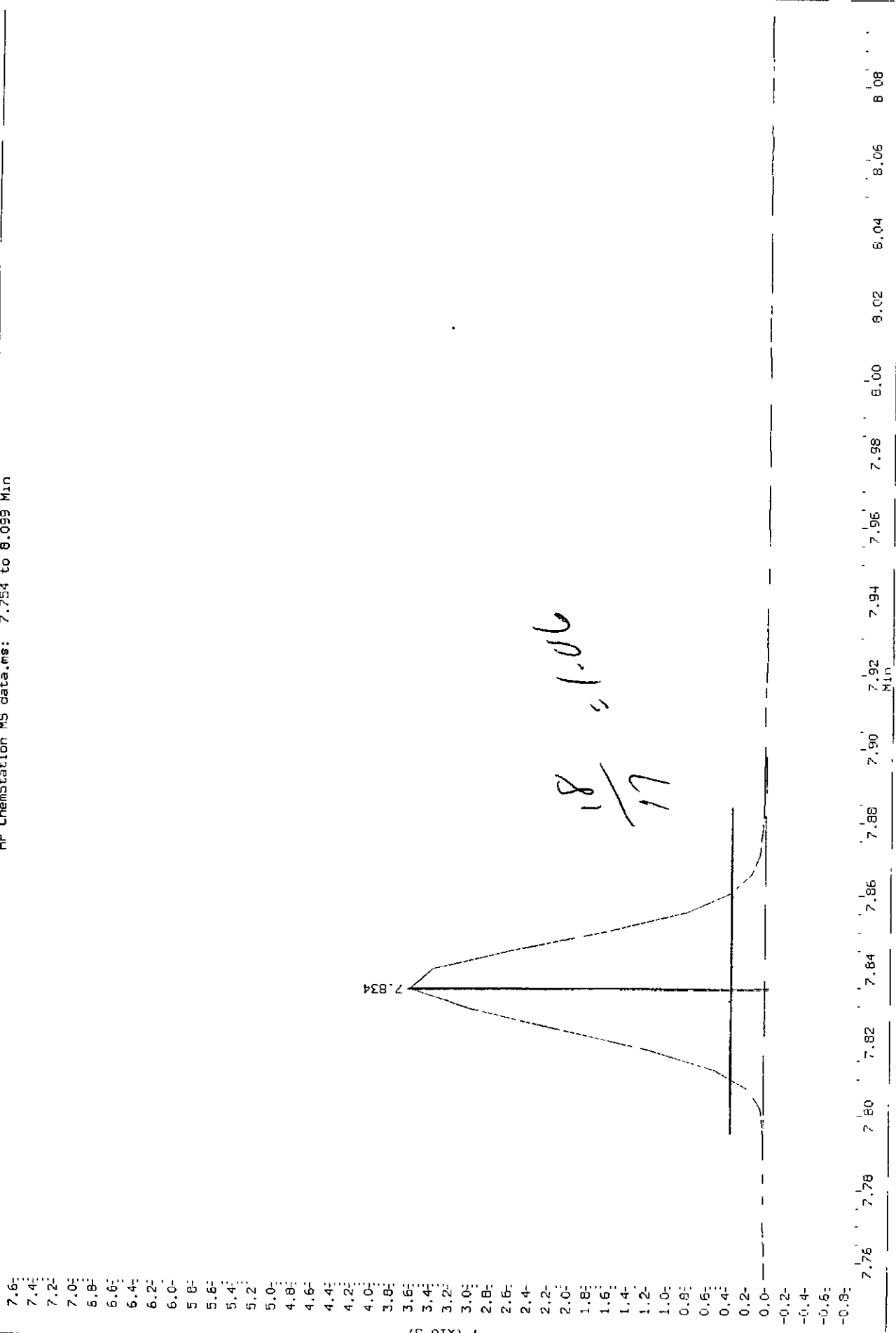


Data File: \\QPIITPA02\DI\chem\71.1\5060100.b\50601DF3.D
Injection Date: 01-JUN-2000 08:30
Instrument: 71.1
Client Sample ID: DFTPP02



Data File: \\QPIITPA02\Nchem\71.1\060100.b\0601DF3.D
 Injection Date: 01-JUN-2000 08:30
 Instrument: 71.1
 Client Sample ID: DFTPP02

HP ChemStation MS data.ms: 7.754 to 8.099 Min



Data File: \\QPITPA02\chem\71.i\s060200.b\S0602DF2.D

Date : 02-JUN-2000 08:09

Client ID: DFTPP02

Instrument: 71.i

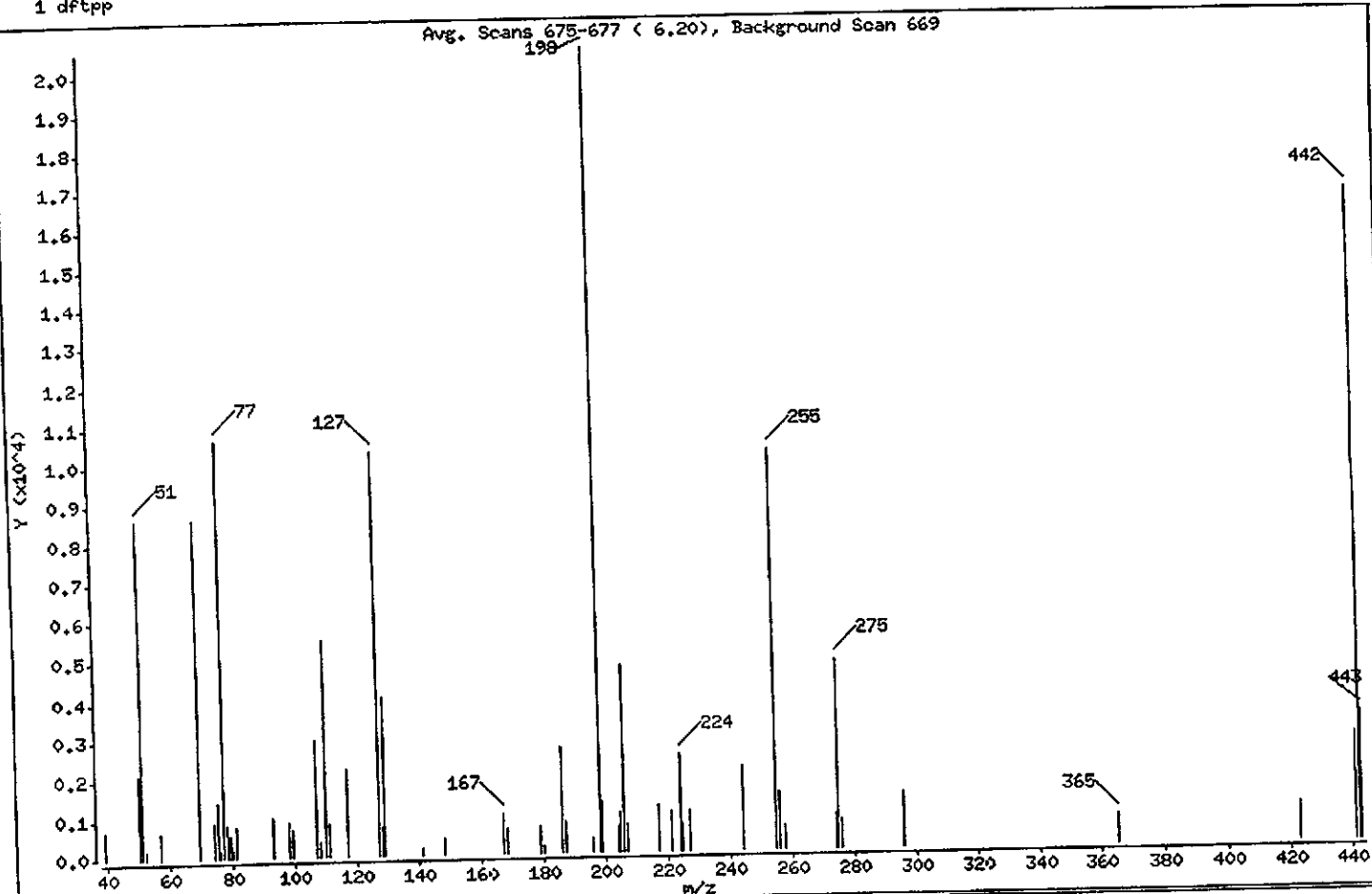
Sample Info: DFTPP050 (25ppb) 194-158-6

Operator: 045183

Column phase:

Column diameter: 2.00

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	41.86
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	41.86
70	Less than 2.00% of mass 69	0.00 (0.00)
127	40.00 - 60.00% of mass 198	50.08
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.47
275	10.00 - 30.00% of mass 198	23.56
365	Greater than 1.00% of mass 198	3.64
441	Present, but less than mass 443	13.33
442	Greater than 40.00% of mass 198	80.88
443	17.00 - 23.00% of mass 442	16.16 (19.98)

Data File: \\QPITPA02\J\chem\71.i\s060200.b\S0602DF2.D

Page 4

Date : 02-JUN-2000 08:09

Client ID: DFTPP02

Instrument: 71.i

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

Operator: 045183

Column phase:

Column diameter: 2.00

Data File: S0602DF2.D

Spectrum: Avg. Scans 675-677 (6.20), Background Scan 669

Location of Maximum: 198.00

Number of points: 58

m/z	Y	m/z	Y	m/z	Y	m/z	Y
39.00	705	98.00	886	180.00	204	244.00	2111
50.00	2107	99.00	726	186.00	2717	255.00	10216
51.00	8620	107.00	2973	187.00	822	256.00	1458
52.00	174	108.00	370	196.00	380	258.00	619
57.00	640	110.00	5545	198.00	20592	274.00	898
69.00	8620	111.00	875	199.00	1333	275.00	4852
74.00	893	117.00	2209	204.00	673	276.00	765
75.00	1436	127.00	10313	205.00	1063	296.00	1418
76.00	196	128.00	769	206.00	4792	365.00	750
77.00	10667	129.00	4055	207.00	733	423.00	1016
78.00	844	141.00	171	217.00	1183	441.00	2745
79.00	576	148.00	422	221.00	1046	442.00	16648
80.00	186	167.00	1018	224.00	2482	443.00	3328
81.00	810	168.00	661	225.00	724		
93.00	1060	179.00	694	227.00	1022		

Data File: \\QP1TP002\chem\71.1\5060200.b\50602DF2.D

Date: 02-JUN-2000 08:09

Client ID: DFTPP02

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

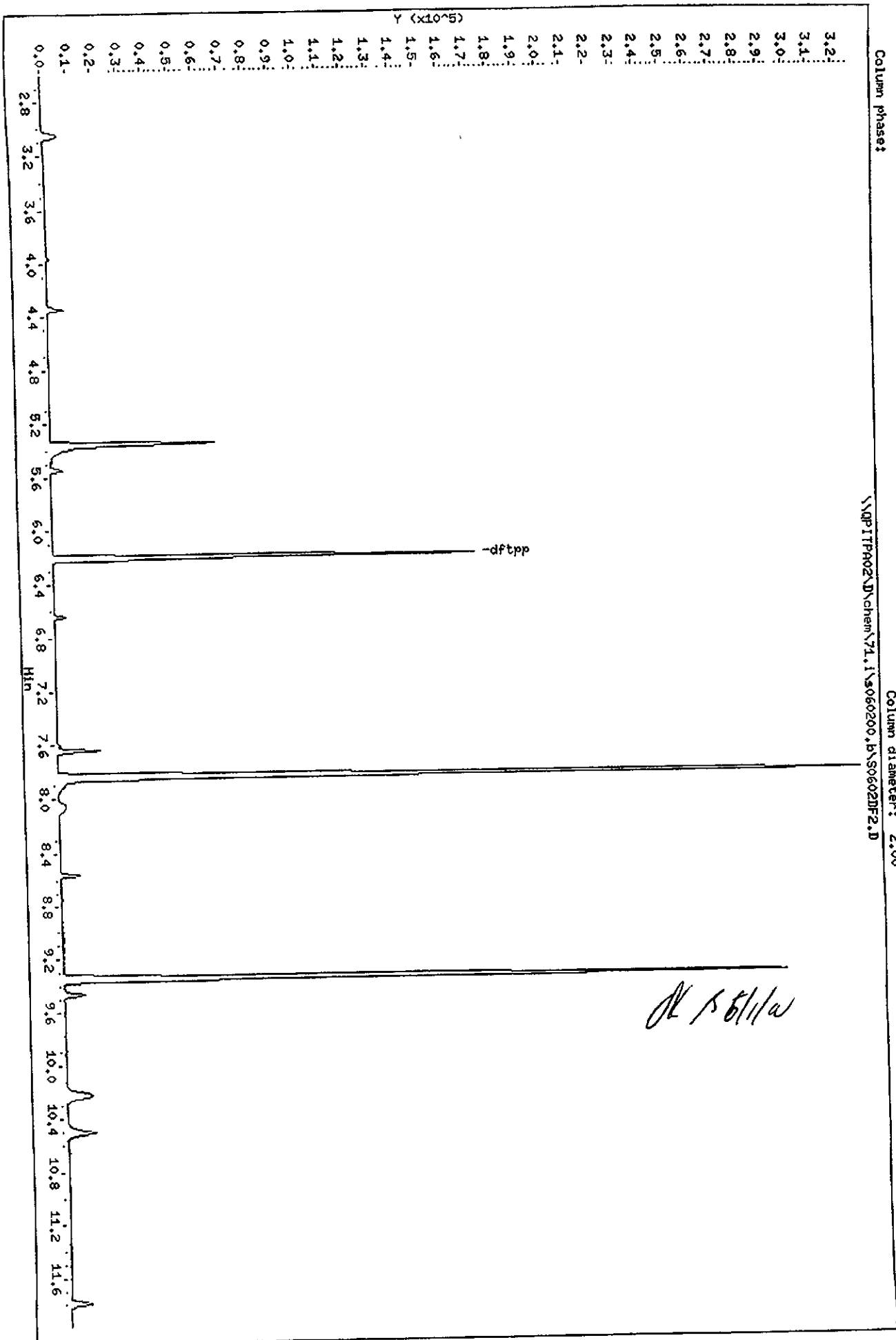
Instrument: 71.1

Operator: 045183

Column diameter: 2.00

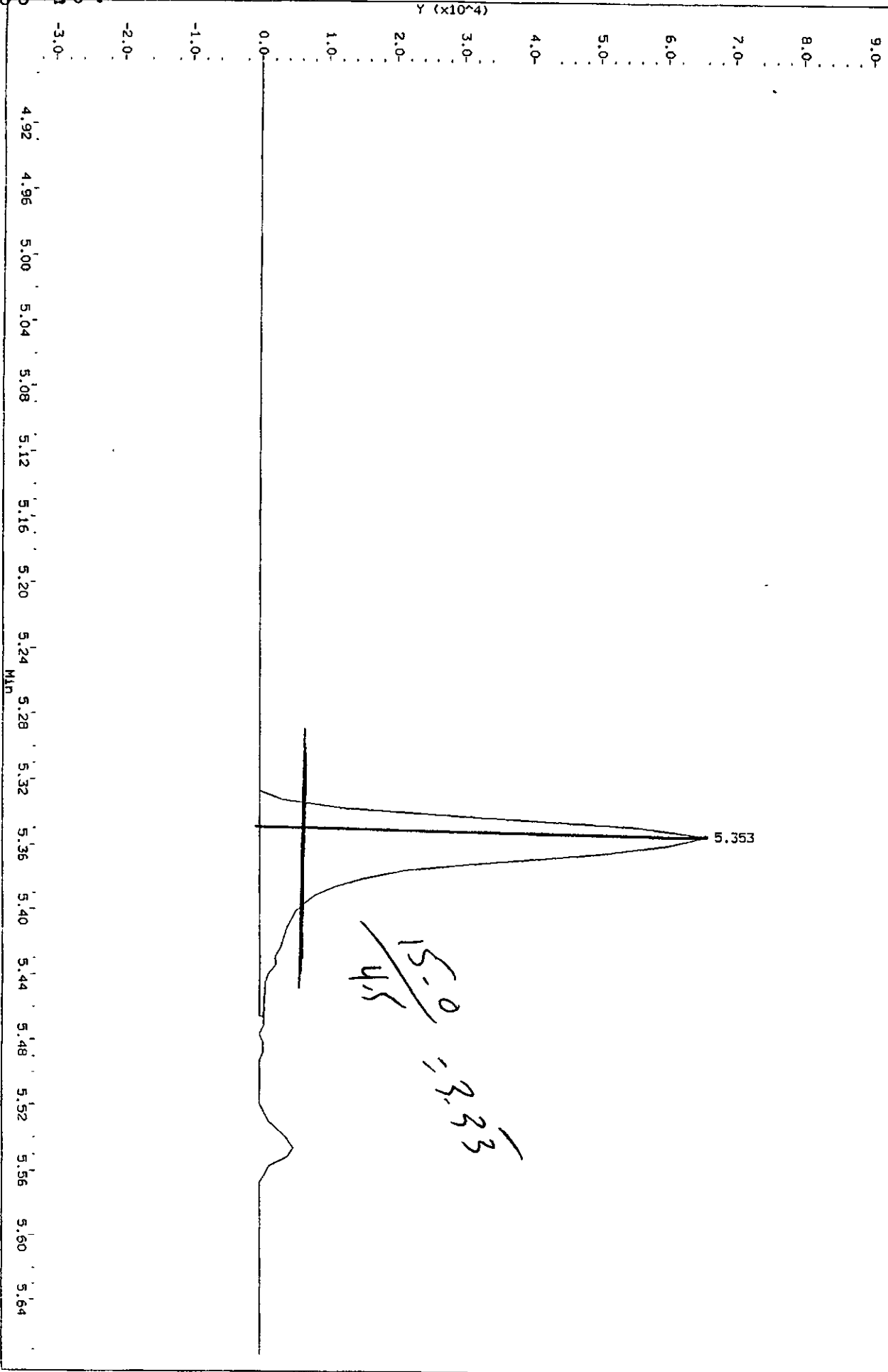
Column phase:

\\QP1TP002\chem\71.1\5060200.b\50602DF2.D



Data File: \OPITP02\chem\71.1\5060200.b\5060202.D
Injection Date: 02-JUN-2000 08:09
Instrument: 71.1
Client Sample ID: DFTFP02

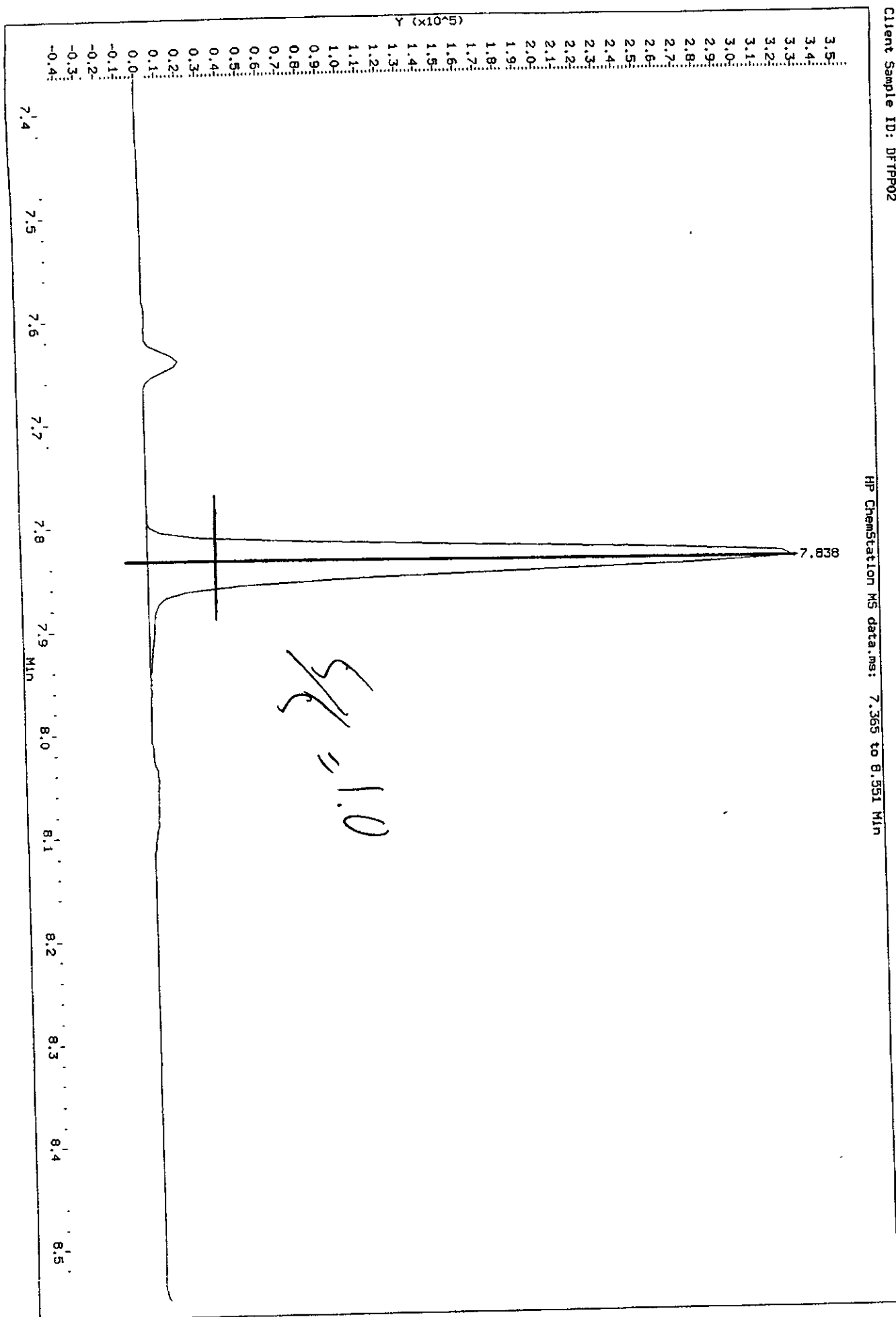
HP ChemStation MS data.ms: 4.882 to 5.672 Min



659 204

Data File: \\DPTPA02\J\chem\71.1\5060200.b\506020F2.D
 Injection Date: 02-JUN-2000 08:05
 Instrument: 71.1
 Client Sample ID: DFTFP02

HP ChemStation MS data.ms: 7.365 to 8.561 Min



UXB INTERNATIONAL
METHOD BLANK COMPOUNDS

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

Matrix: (soil/water) SOLID Lab Sample ID: COE310000 240

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

Sample WT/Vol: 200 / mL Date Received: 05/26/00

Work Order: DE047101 Date Extracted: 05/31/00

Dilution factor: 1 Date Analyzed: 06/02/00

Moisture %: NA QC Batch: 0152240

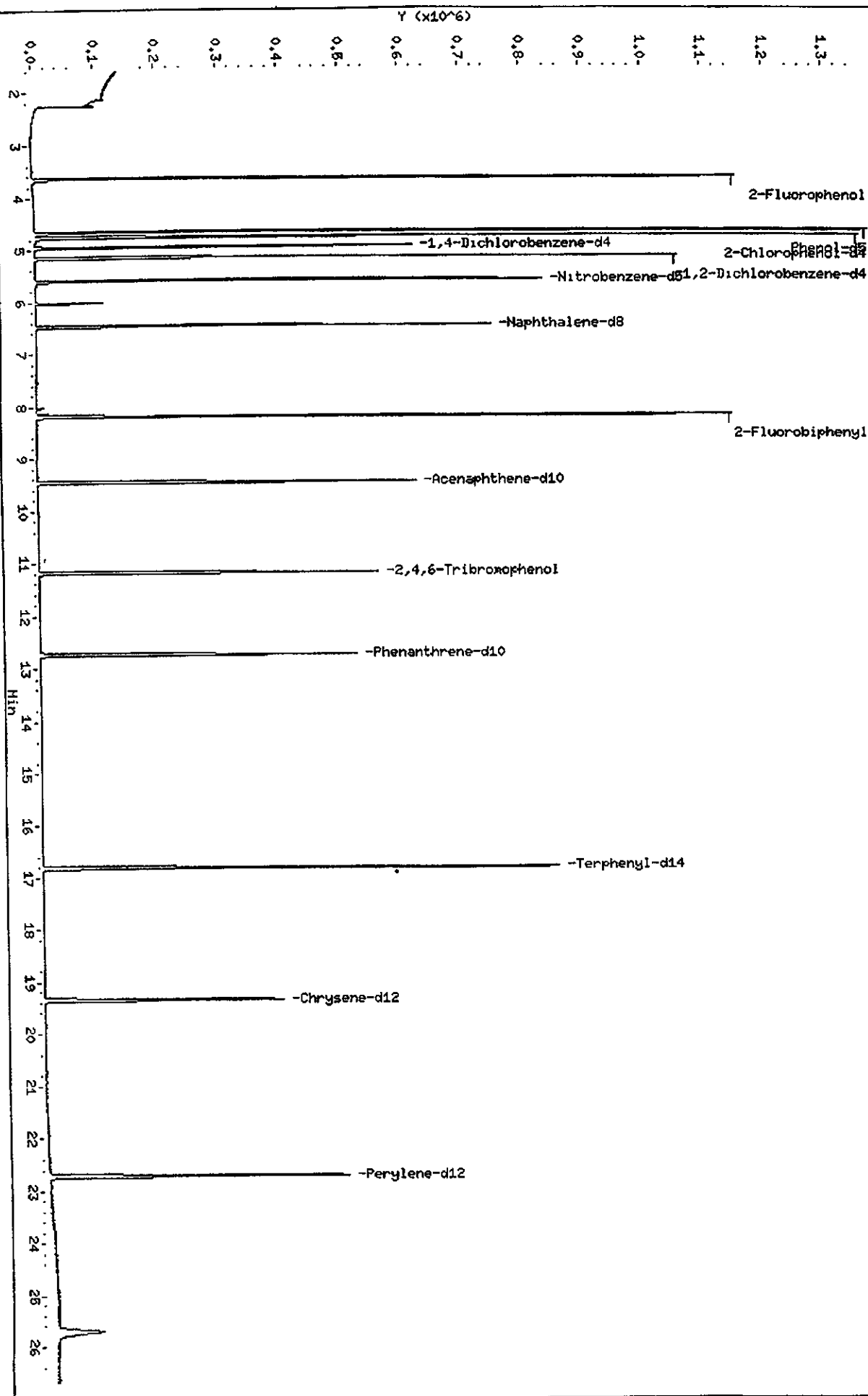
Client Sample Id: INTRA-LAB BLANK

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

Data File: \\NPITPA02\Jchem\71.1\5060200.b\50602001.D
 Date: 02-JUN-2000 09:02
 Client ID: INTRA-LAB BLANK
 Sample Info: c0e270126-sblk 5/31/00 8270101P
 Volume Injected (uL): 2.0
 Column phase: HP5-MS

Instrument: 71.1
 Operator: 045183
 Column diameter: 0.25

\\NPITPA02\Jchem\71.1\5060200.b\50602001.D



Data File: \\QPITPA02\D\chem\71.i\s060200.b\S0602001.D
Report Date: 02-Jun-2000 09:43

STL Pittsburgh

Semivolatile REPORT SW-846 Method 8270

Data file : \\QPITPA02\D\chem\71.i\s060200.b\S0602001.D
Lab Smp Id: DE047101 Client Smp ID: INTRA-LAB BLANK
Inj Date : 02-JUN-2000 09:02
Operator : 045183 Inst ID: 71.i
Smp Info : c0e270126-sblk 5/31/00 8270tclp
Misc Info : de047101,s060200.b,8270clp.m,1-tclp.sub
Comment :
Method : \\QPITPA02\D\chem\71.i\s060200.b\8270clp.m
Meth Date : 02-Jun-2000 08:57 bachas Quant Type: ISTD
Cal Date : 01-JUN-2000 12:15 Cal File: S0601CC5.D
Als bottle: 3 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 1-tclp.sub
Target Version: 4.04
Processing Host: PITPC050

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

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

						CONCENTRATIONS		
		QUANT SIG					ON-COLUMN	FINAL
Compounds		MASS	RT	EXP RT	REL RT	RESPONSE	(ng)	(mg/L)
=====		=====	==	=====	=====	=====	=====	=====
*	1 1,4-Dichlorobenzene-d4	152	4.945	4.940	(1.000)	121921	40.0000	(a)
*	2 Naphthalene-d8	136	6.451	6.452	(1.000)	491672	40.0000	(a)
*	3 Acenaphthene-d10	164	9.443	9.449	(1.000)	268796	40.0000	(a)
*	4 Phenanthrene-d10	188	12.734	12.734	(1.000)	452319	40.0000	(a)
*	5 Chrysene-d12	240	19.342	19.353	(1.000)	351019	40.0000	(a)
*	6 Perylene-d12	264	22.702	22.708	(1.000)	463161	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.					

Data File: \\QPITPA02\D\chem\71.i\s060200.b\S0602001.D
Report Date: 02-Jun-2000 09:43

Page 2

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	5.591	5.592	(0.867)	364802	73.3763	0.18344(a)
\$ 173 2-Fluorobiphenyl	172	8.172	8.172	(0.865)	593889	69.7367	0.17434(a)
\$ 174 Terphenyl-d14	244	16.799	16.799	(0.869)	663074	88.0447	0.22011(a)
\$ 175 Phenol-d5	99	4.656	4.651	(0.942)	606788	116.328	0.29082(a)
\$ 176 2-Fluorophenol	112	3.636	3.631	(0.735)	411652	98.7487	0.24687(a)
\$ 177 2,4,6-Tribromophenol	330	11.179	11.185	(0.878)	129194	110.861	0.27715(a)
\$ 178 2-Chlorophenol-d4	132	4.747	4.748	(0.960)	441786	115.700	0.28925(a)
\$ 179 1,2-Dichlorobenzene-d4	152	5.148	5.148	(1.041)	192587	74.5952	0.18649(a)

QC Flag Legend

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

659 210

UXB INTERNATIONAL
CHECK SAMPLE COMPOUNDS

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

Matrix: (soil/water) SOLID Lab Sample ID: C0E310000 240
Method: SW846 8270C
Base/Neutrals and Acids (8270C)

Sample WT/Vol: 200 / mL Date Received: 05/26/00
Work Order: DE047102 Date Extracted: 05/31/00
Dilution factor: 1 Date Analyzed: 06/02/00
Moisture %: NA

QC Batch: 0152240

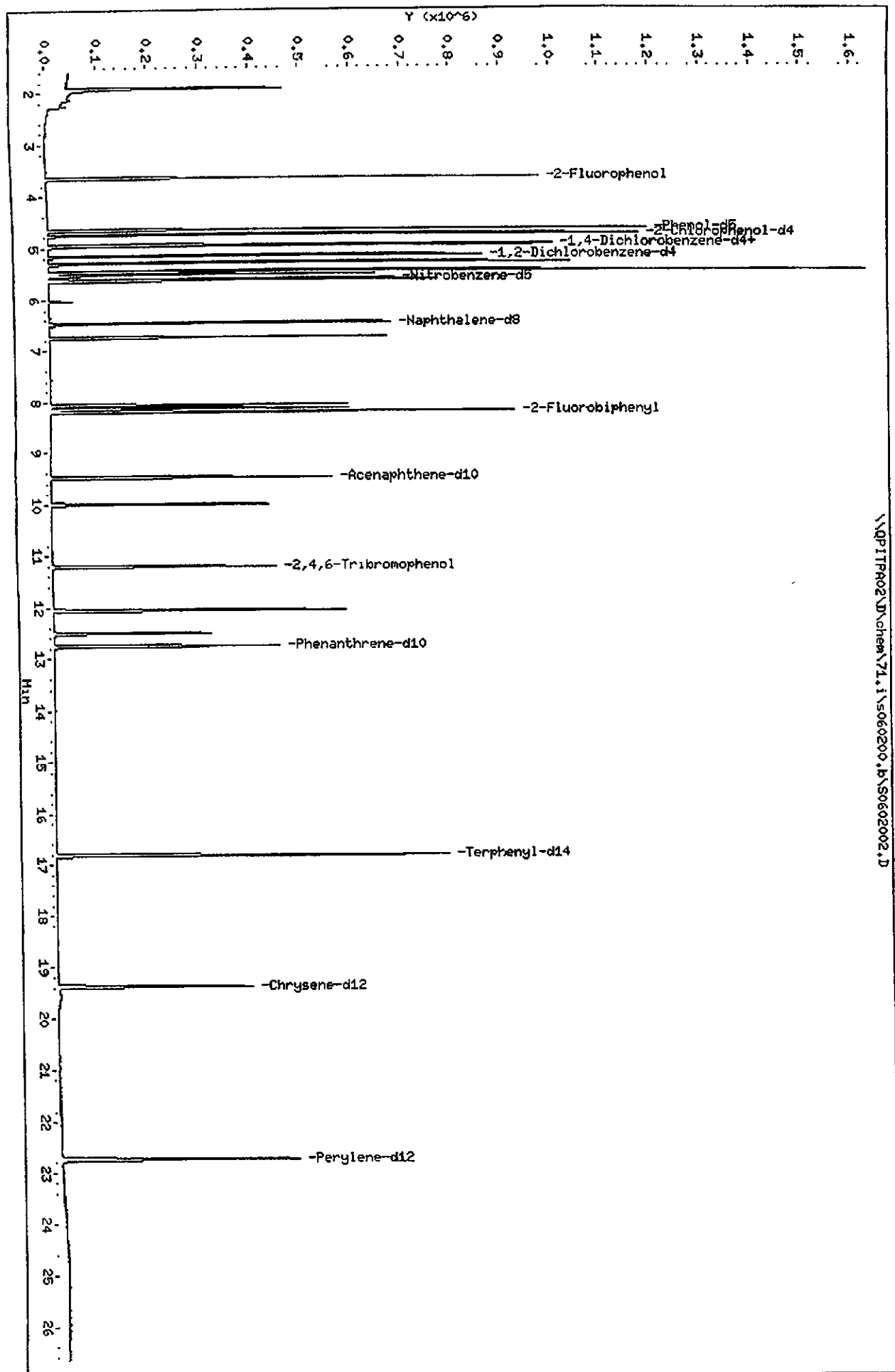
Client Sample Id: CHECK SAMPLE

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
106-46-7	1,4-Dichlorobenzene	0.152	
121-14-2	2,4-Dinitrotoluene	0.161	
118-74-1	Hexachlorobenzene	0.207	
87-68-3	Hexachlorobutadiene	0.148	
67-72-1	Hexachloroethane	0.152	
98-95-3	Nitrobenzene	0.157	
87-86-5	Pentachlorophenol	0.189	
110-86-1	Pyridine	0.151	
95-95-4	2,4,5-Trichlorophenol	0.159	
88-06-2	2,4,6-Trichlorophenol	0.156	
1319-77-3	Cresols (total)	0.510	

Data File: \\QPI\PRO2\chem\71.1\5060200.b\50602002.D
 Date: 02-JUN-2000 09:35
 Client ID: INTRA-LAB CHECK
 Sample Info: 00270126-105 E/31/00 8270101P
 Volume Injected (uL): 2.0
 Column Phase: He5-MS

Instrument: 71.1
 Operator: 045183
 Column diameter: 0.25

\\QPI\PRO2\chem\71.1\5060200.b\50602002.D



STL Pittsburgh

Semivolatile REPORT SW-846 Method 8270

Data file : \\QPITPA02\D\chem\71.i\s060200.b\S0602002.D
 Lab Smp Id: DE047102 Client Smp ID: INTRA-LAB CHECK
 Inj Date : 02-JUN-2000 09:35
 Operator : 045183 Inst ID: 71.i
 Smp Info : c0e270126-lcs 5/31/00 8270tclp
 Misc Info : de047102,s060200.b,8270clp.m,1-tclp.sub
 Comment :
 Method : \\QPITPA02\D\chem\71.i\s060200.b\8270clp.m
 Meth Date : 02-Jun-2000 08:57 bachas Quant Type: ISTD
 Cal Date : 01-JUN-2000 12:15 Cal File: S0601CC5.D
 Als bottle: 4 QC Sample: LCS
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 1-tclp.sub
 Target Version: 4.04
 Processing Host: PITPC050

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

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

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng)	FINAL (mg/L)
* 1 1,4-Dichlorobenzene-d4	152	4.954	4.940	(1.000)	114764	40.0000	(a)
* 2 Naphthalene-d8	136	6.471	6.452	(1.000)	459341	40.0000	(a)
* 3 Acenaphthene-d10	164	9.468	9.449	(1.000)	239567	40.0000	(a)
* 4 Phenanthrene-d10	188	12.753	12.734	(1.000)	384814	40.0000	(a)
* 5 Chrysene-d12	240	19.367	19.353	(1.000)	332339	40.0000	(a)
* 6 Perylene-d12	264	22.727	22.708	(1.000)	448790	40.0000	(a)
10 Pyridine	79	1.903	1.879	(0.384)	281020	60.3311	0.15083 (aM)
28 1,4-Dichlorobenzene	146	4.975	4.956	(1.004)	268768	60.8001	0.15200 (a)
M 34 Cresols, total	100				774273	204.035	0.51009 (a)
31 2-Methylphenol	108	5.296	5.287	(1.069)	252587	68.9813	0.17245 (a)
35 4-Methylphenol	108	5.461	5.442	(1.102)	521686	135.054	0.33764 (a)
38 Hexachloroethane	117	5.515	5.501	(1.113)	106132	60.7265	0.15182 (a)
39 Nitrobenzene	77	5.627	5.613	(0.870)	316000	62.9147	0.15729 (a)
59 Hexachlorobutadiene	225	6.749	6.730	(1.043)	103056	59.1834	0.14796 (a)

Data File: \\QPITPA02\D\chem\71.i\s060200.b\S0602002.D
 Report Date: 02-Jun-2000 10:26

Page 2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng)	FINAL (mg/L)
69 2,4,6-Trichlorophenol	196	8.058	8.038	(0.851)	127728	62.3416	0.15585(a)
70 2,4,5-Trichlorophenol	196	8.127	8.118	(0.858)	137887	63.7666	0.15942(a)
91 2,4-Dinitrotoluene	165	9.991	9.972	(1.055)	143339	64.5107	0.16128(a)
113 Hexachlorobenzene	284	12.054	12.034	(0.945)	154680	82.7925	0.20698(a)
117 Pentachlorophenol	266	12.502	12.483	(0.980)	73437	75.7199	0.18930(a)
\$ 172 Nitrobenzene-d5	82	5.606	5.592	(0.866)	289159	62.2551	0.15564(a)
\$ 173 2-Fluorobiphenyl	172	8.191	8.172	(0.865)	475761	62.6816	0.15670(a)
\$ 174 Terphenyl-d14	244	16.819	16.799	(0.868)	611556	85.7685	0.21442(a)
\$ 175 Phenol-d5	99	4.665	4.651	(0.942)	493172	100.443	0.25111(a)
\$ 176 2-Fluorophenol	112	3.650	3.631	(0.737)	339729	86.5782	0.21644(a)
\$ 177 2,4,6-Tribromophenol	330	11.199	11.185	(0.878)	100143	101.006	0.25252(a)
\$ 178 2-Chlorophenol-d4	132	4.762	4.748	(0.961)	360821	100.390	0.25097(a)
\$ 179 1,2-Dichlorobenzene-d4	152	5.162	5.148	(1.042)	153017	62.9646	0.15741(a)

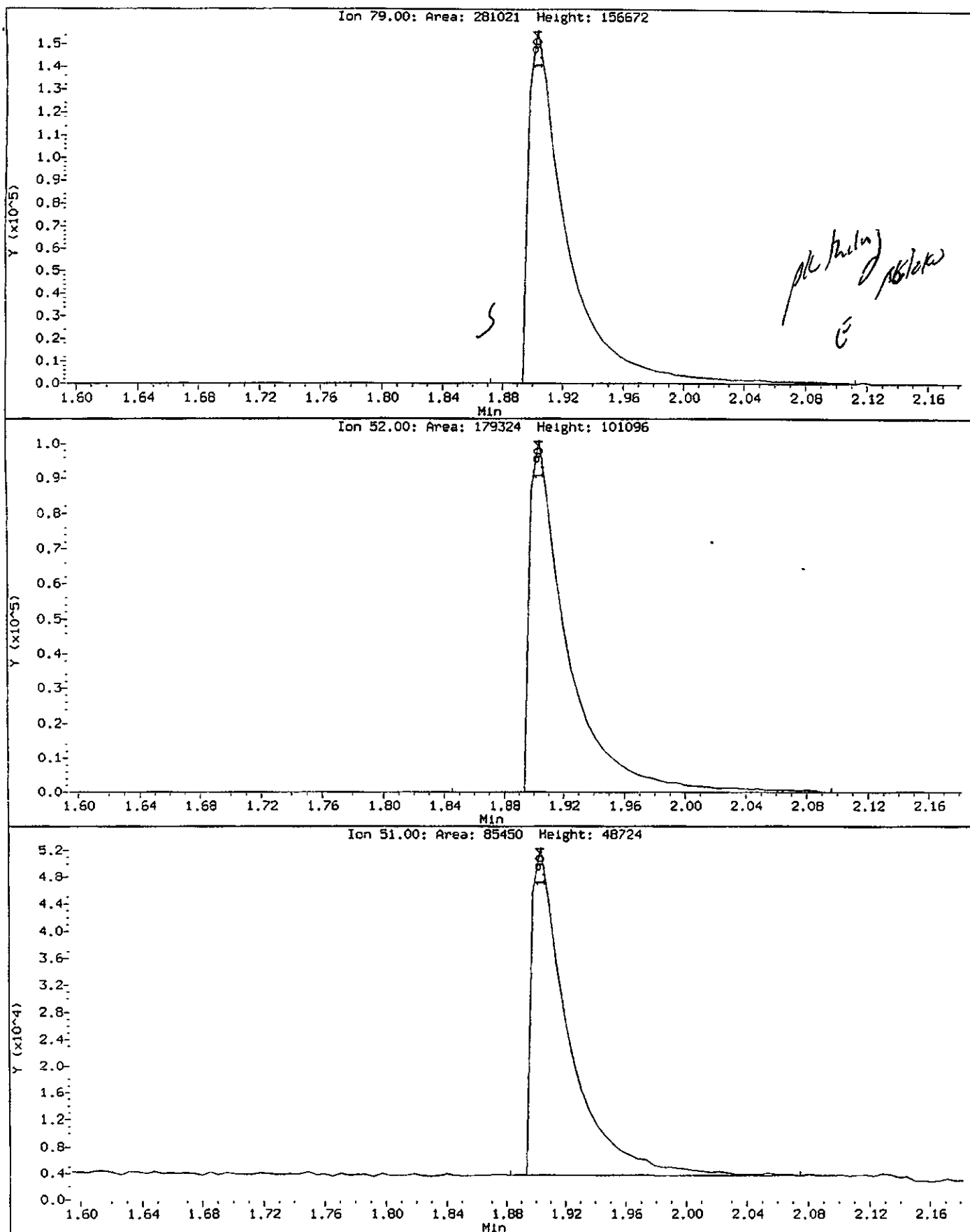
QC Flag Legend

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

659 214

Data File: \\QPITPA02\D\chem\71.1\s060200.b\S0602002.D
Injection Date: 02-JUN-2000 09:35
Instrument: 71.1
Client Sample ID: INTRA-LAB CHECK

Compound: Pyridine
CAS Number: 110-86-1



**GC/MS SEMIVOLATILE
MISCELLANEOUS**

Continuous L-L Extraction Worksheet



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

Began	5/31/2000	Time	14:05	Tel P	
Change over	6-1-00	Time	10:30	Prep Meth	#3520C
Completed	6-2-00	Time	08:50	Analysis	8270
Lot Number	6-2-00	Sample ID	05746	Client ID	
		NaOH	9299.07	H2SO4	186-15-12
		Extract Vol (mL)	200	Solvent	MeC12
		Final Volume mL	1.0	Solvent Mfg.	Baker
		pH	5/2/11	Surrogate	Loi #
		Surrogate	194-176-5	NaSO4	Loi Number
		Surrogate	0.5	Matrix Spike	Loi #
		Matrix Spike	194-165-6	MS Vol (mL)	0.5
		MS Vol (mL)	0.5	Cleanup	Method
		Cleanup	W/A		

Extraction(s)	Date	Time	Anlyst	Location	Extraction(s) Received		Extraction(s) Relinquished		Date	Time	Anlyst	Location
					WT	KG	BP	BP				
(Record line number from above)	6-2-00	0830	JK	2nd	WT	KG	BP	BP	6-2-00	0840	JK	Ref 61.34A
All Above	6/2/00	0830	JK	2nd	WT	KG	BP	BP	6-2-00	0840	JK	Ref 61.34A
Batch Number: 0152240												
Reviewed By												

Log Book Number OP-00-0037

Page 26 of 100

C:\Quantum N\QAL\LOGBOOKS_PDFC\L.L\EXT\DOC May-00

Filter lot # 83207014

Serial Number 044 Log Book Number 96-MT-526

By Jeffrey D. Grant Date 5-30-00 Checked by William A. Nye

Project Number 22E60147 Lot Number 22E60147 Client Codes 399411, 39984

Date 5-31-00 pH Instrument Accumet AP25 Probe SN9002335 Balance C94817
 Solution Number 1 - Log Book Number 995404-12 Solution Number 2 - Log Book Number

Fluid Determination

TCLP Extraction

Sample ID	Wgt/Vol	Init. pH	Final pH	Extract Fluid #1, or #2	Conc. HNO ₃ to Acidity (for Metals)	Sample ID	Wgt (g) Weigh	Fluid Vol.	Final pH After Tumbling
DDKMP	5.00g/96.61	8.98	1.56	50/41	5m1	1. PB-TCLP 5-30-00	100.00g	200ml Glass	4.94
DDVK9	↓	11.20	2.82	↓	6m1	2. DDKMP	↓	↓	6.28
DDVKA	↓	8.60	1.56	↓	5m1	3. DDKMP	↓	↓	10.01
						4. DDVK9	↓	↓	5.28
						5. DDVKA			
						6.			
						7.			
						8.			
						9.			
						10.			
						11.			
						12.			
						13.			

Extract(s)

Extract(s) Received

Extract(s) Relinquished

(Record line number from above) Date Time Analyst Location Date Time Analyst Location

All Above 5-31-00 1435 Jeffrey D. Grant Metals Bldg 5-31-00 1440 Jeffrey D. Grant 30E

* = 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 22°

Date/Time On	Date/Time Off	Agitation Apparatus RPMs
5-30-00 1200	5-31-00 0715	30 ± 2
Date 5-30-00	pH Calibration	(4.0) (7.0) (10.0)
Date 5-31-00		4.00 7.02 10.05
Comments		4.00 7.01 10.05

659 218

Sequence Name: D:\HPCHEM\1\SEQUENCE\S060100.S
 Comment: STL PITT HP597371A LOG 2ul inj (100ul+1ul IS)
 Operator: 045183
 Data Path: D:\HPCHEM\1\DATA\s060100.b\
 Pre-Seq Cmd:
 Post-Seq Cmd:

Method Sections To Run
 (X) Full Method
 () Reprocessing Only

On A Barcode Mismatch
 (X) Inject Anyway
 () Don't Inject

John A. Beck
 IS 144-174-1.
 8270

Line	Type	Vial	DataFile	Method	Sample Name
1	Sample	1	S0601DF1	DFTPP1	DFTPP050 (25ppb) 194-158-6
2	Sample	1	S0601DF2	DFTPP1	DFTPP050 (25ppb) 194-158-6
3	Sample	1	S0601DF3	DFTPP1	DFTPP050 (25ppb) 194-158-6
4	Sample	2	S0601CCC	EARLY	sstd50(25 ug/ml) 194-177-4 82
5	Sample	3	S0601CC2	EARLY	sstd20(10 ug/ml) 194-175-10 8
6	Sample	4	S0601CC3	EARLY	sstd80(40 ug/ml) 194-175-12 8
7	Sample	5	S0601CC4	EARLY	sstd120(60 ug/ml) 194-175-13
8	Sample	6	S0601CC5	EARLY	sstd160(80 ug/ml) 194-175-14
9	Sample	7	S0601VER	EARLY	sstd50(25 ug/ml) 194-175-7 ul

Sequence Name: D:\HPCHEM\1\SEQUENCE\S060200.S

Comment: STL PITT HP597371A LOG 2ul inj (100ul+1ul IS)

659 219

Operator: 045183

Data Path: D:\HPCHEM\1\DATA\s060200.b\

Pre-Seq Cmd:

Post-Seq Cmd:

Method Sections To Run

(X) Full Method

() Reprocessing Only

On A Barcode Mismatch

(X) Inject Anyway

() Don't Inject

8/2/00

Line	Type	Vial	DataFile	Method	Sample Name
1	Sample	1	S0602DF1	DFTPP1	DFTPP050 (25ppb) 194-158-6
2	Sample	1	S0602DF2	DFTPP1	DFTPP050 (25ppb) 194-158-6
3	Sample	2	S0602CCC	EARLY	sstd50(25 ug/ml) 194-177-4 82
4	Sample	3	S0602001	EARLY	c0e270126-sblk 5/31/00 8270tc
5	Sample	4	S0602002	EARLY	c0e270126-lcs 5/31/00 8270tcl
6	Sample	9	S0602007	EARLY	c0e260147-001 5/31/00 8270tcl
7	Sample	5	S0602003	EARLY	c0e270126-007 5/31/00 8270tcl
8	Sample	6	S0602004	EARLY	c0e270126-007ms 5/31/00 8270t
9	Sample	7	S0602005	EARLY	c0e270126-007msd 5/31/00 8270
10	Sample	22	S0602020	EARLY	c0e270126-007 x5 5/31/00 8270
11	Sample	8	S0602006	EARLY	c0e270126-008 5/31/00 8270tcl
12	Sample	10	S0602008	LATE	c0e270126-sblk 5/31/00 8270sp
13	Sample	11	S0602009	LATE	c0e270126-lcs 5/31/00 8270spl
14	Sample	12	S0602010	LATE	c0e270126-lcsd 5/31/00 8270sp
15	Sample	13	S0602011	LATE	c0e270126-001 5/31/00 8270spl
16	Sample	14	S0602012	LATE	c0e270126-002 5/31/00 8270spl
17	Sample	15	S0602013	LATE	c0e270126-003 5/31/00 8270spl
18	Sample	16	S0602014	LATE	c0e270126-004 5/31/00 8270spl
19	Sample	17	S0602015	LATE	c0e270126-005 5/31/00 8270spl
20	Sample	18	S0602016	LATE	c0e270126-006 5/31/00 8270spl
21	Sample	19	S0602017	LATE	c0e270126-009 5/31/00 8270spl
22	Sample	20	S0602018	LATE	c0e270126-010 5/31/00 8270spl
23	Sample	21	S0602019	LATE	c0e270126-011 5/31/00 8270spl

Handwritten notes: C [8270] AOC, 194-174-1, 8270

Last Modified: Fri Jun 02 11:44:31 2000

Page: 1

659 220

PSR024 5/31/00 10:46:24 MT

SAMPLE CUSTODIAN REMOVAL REQUEST

PAGE 001

REQUESTED BY: TROUTB

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

<u>STORAGE LOCATION</u>	<u>WORK ORDER #</u>	<u>PICKED</u> <u>CNTR#</u>	<u>CONTROL #</u>	<u>CLIENT #</u>	<u>ANALYSIS</u>	<u>LOTID</u>	<u>SMP#</u>	<u>SFX</u>	<u>MATRIX</u> <u>DESCRIPTION</u>	<u>QTY</u> <u>RCVD</u>	<u>QTY</u> <u>REQD</u>
6E CLP1	DDRMP-1-03	___	237427	399411	A-59-QL	COE260147	001		SOLID	0	3
7A CLP1	DDVK9-1-02	___	237425	039984	A-59-QL	COE270126	007		SOLID	0	2
7A CLP1	DDVKA-1-02	___	237426	039984	A-59-QL	COE270126	008		SOLID	0	2

RELINQUISHED BY

[Signature]
B Trout

RECEIVED BY

B Trout
[Signature]

DATE/TIME

5/31/2000 13:20

5/31/2000 14:10

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

PESTICIDE DATA

659 222

**PESTICIDE
QC SUMMARY**

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT QESSDG:

Lot #: C0E260147

	CLIENT ID.	SRG01	SRG02	TOT OUT
	=====	=====	=====	=====
01	DF/S1/0146/SDC/004	99	95	00
02	METHOD BLK. DE187101	101	100	00
03	LCS DE187102	101	101	00
04	DF/S1/0146/SDC/004 D	99	93	00
05	DF/S1/0146/SDC/004 S	93	82	00

SURROGATES

SRG01 = Decachlorobiphenyl
SRG02 = Tetrachloro-m-xylene

QC LIMITS

(10-147)
(39-130)

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

FORM II

659 224 SW846 8081A CHECK SAMPLE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Lot #: C0E310000

WO #: DE187102

BATCH: 0152460

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	% REC	QC LIMITS REC	QUAL
=====	=====	=====	=====	=====	=====
Lindane	0.00250	0.00205	82	49 - 137	
Heptachlor	0.00250	0.00236	94	57 - 124	
Heptachlor epoxide	0.00250	0.00236	94	53 - 135	
Endrin	0.00250	0.00240	96	46 - 137	
Methoxychlor	0.00250	0.00266	106	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/S1/0146/SDC/004

Level: (low/med) LOW

Lot #: C0E260147

WO #: DDRMP10M

BATCH: 0152460

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	MS CONCENT. (mg/L)	MS % REC	LIMITS REC	QUAL
=====	=====	=====	=====	=====	=====	=====
Lindane	0.00250	ND	0.00181	73	30 - 148	
Heptachlor	0.00250	ND	0.00209	83	25 - 135	
Heptachlor epoxide	0.00250	ND	0.00212	85	38 - 138	
Endrin	0.00250	ND	0.00220	88	28 - 148	
Methoxychlor	0.00250	ND	0.00241	96	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:

659 226 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/S1/0146/SDC/004

Level: (low/med) LOW

Lot #: C0E260147

WO #: DDRMP10N

BATCH: 0152460

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENT. (mg/L)	MSD % REC	% RPD	QC LIMITS RPD	REC	QUAL
Lindane	0.00250	0.00194	77	6.5	22	30 - 148	
Heptachlor	0.00250	0.00223	89	6.8	32	25 - 135	
Heptachlor epoxide	0.00250	0.00222	89	4.6	31	38 - 138	
Endrin	0.00250	0.00229	92	4.1	40	28 - 148	
Methoxychlor	0.00250	0.00252	101	4.8	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

SW846 8081A METHOD BLANK SUMMARY

DE187101

Lab Name: Severn Trent Laboratories, Inc.

Lab Code: QESPIT

SDG Number:

Lab File ID: c-b3082.d

Lot Number: C0E260147

Matrix: SOLID

Extraction Method: 1311/3510

Date Extracted: 05/31/00

Date Analyzed(1): 06/03/00

Date Analyzed(2): N/A

Time Analyzed(1): 05:39

Time Analyzed(2): N/A

Instrument ID(1): E/F

Instrument ID(2): N/A

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

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

	CLIENT ID.	SAMPLE WORK ORDER #	DATE ANALYZED (1)	DATE ANALYZED (2)
01	DF/S1/0146/SDC/004	DDRMP10M S	06/03/00	N/A
02	DF/S1/0146/SDC/004	DDRMP10N D	06/03/00	N/A
03	DF/S1/0146/SDC/004	DDRMP104	06/03/00	N/A
04	CHECK SAMPLE	DE187102 C	06/03/00	N/A
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

COMMENTS:

FORM IV

659 228

**PESTICIDE
SAMPLE DATA**

UXB INTERNATIONAL

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0E260147 001

Method: SW846 8081A

Pesticides (8081A)

Sample WT/Vol: 100 / mL

Date Received: 05/26/00

Work Order: DDRMP104

Date Extracted: 05/31/00

Dilution factor: 1

Date Analyzed: 06/03/00

Moisture %: 13

QC Batch: 0152460

Client Sample Id: DF/S1/0146/SDC/004

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

659 230

Data File: /var/chem/gc3.i/3020-E.b/c-a3077.d
 Report Date: 05-Jun-2000 12:02

STL-PITTSBURGH

Data file : /var/chem/gc3.i/3020-E.b/c-a3077.d
 Lab Smp Id: DDRMP104 Client Smp ID: DF/S1/0146/SDC/004
 Inj Date : 03-JUN-2000 03:21
 Operator : 1891 Inst ID: gc3.i
 Smp Info : DDRMP104,3020-E.b,,all.sub,,,
 Misc Info : E260147001
 Comment :
 Method : /var/chem/gc3.i/3020-E.b/PESTA.m
 Meth Date : 05-Jun-2000 11:43 g Quant Type: ESTD
 Cal Date : 03-JUN-2000 01:30 Cal File: c-a3073.d
 Als bottle: 1
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: all.sub
 Target Version: 3.40

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

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

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ng)	FINAL (ug/L)
\$ 1 Tetrachloro-m-xylene	3.875	3.892	-0.017	95918	0.01904	1.90433 (R)
2 Diallylate A	4.950	4.967	-0.017	3245	0.02342	2.34231 (a)
3 Diallylate B				Compound Not Detected.		
4 MIREX				Compound Not Detected.		
5 alpha-BHC				Compound Not Detected.		
6 gamma-BHC (Lindane)				Compound Not Detected.		
7 beta-BHC				Compound Not Detected.		
8 delta-BHC				Compound Not Detected.		
9 Chlordane				Compound Not Detected.		
10 Heptachlor				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'-DDB				Compound Not Detected.		

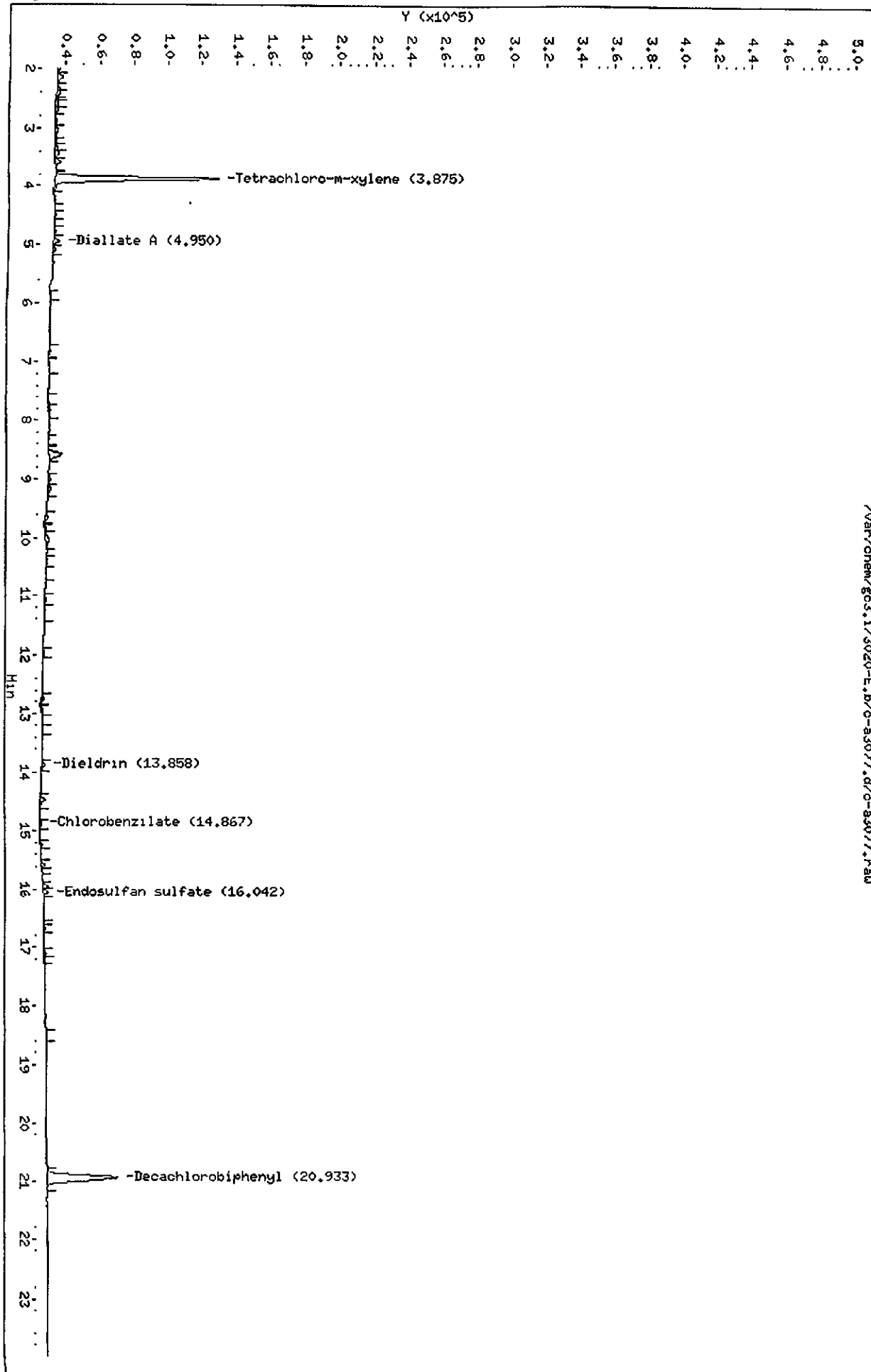
Data File: /var/chem/gc3.i/3020-E.b/c-a3077.d
 Report Date: 05-Jun-2000 12:02

Compounds	RT	EXP RT	DLT	RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng)	FINAL (ug/L)
=====	==	=====	=====	=====	=====	=====	=====
17 Dieldrin	13.858	13.867	-0.009		2065	0.000574	0.0573699
18 Toxaphene					Compound Not Detected.		
19 Isodrin					Compound Not Detected.		
20 Endrin					Compound Not Detected.		
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.		
25 Methoxychlor					Compound Not Detected.		
26 Endosulfan sulfate	16.042	16.025	0.017		2680	0.00089	0.0889667
27 Endrin ketone					Compound Not Detected.		
28 Chlorobenzilate	14.867	14.875	-0.008		717	0.000335	0.0334760(a)
29 Kepone					Compound Not Detected.		
\$ 30 Decachlorobiphenyl	20.933	20.942	-0.009		41431	0.01984	1.98380(R)

QC Flag Legend

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

659 232



Data File: /var/chem/gc3.1/3020-E.b/c-a3077.d
 Date: 03-JUN-2000 03:21
 Client ID: DF/S1/0146/SDC/004
 Sample Info: DDRHP104,3020-E.b,,all,sub,,
 Volume Injected (ul): 1.0
 Column phase: DB608

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

/var/chem/gc3.1/3020-E.b/c-a3077.d/c-a3077.raw

**PESTICIDE
CALIBRATION DATA**

659 234

Report Date : 05-Jun-2000 10:32

HP50903E

DBACE

STL-PITTSBURGH

COMPOUND LISTING

Method file : /var/chem/gc3.i/3020-E.b/PESTA.m

Quant Method : ESTD

Target Version : 3.40

Last Update : 05-Jun-2000 10:32

Number of Cpnds : 30

Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events

Values

```

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

```

Compound	RT	RT Window	RF
\$ 1 Tetrachloro-m-xylene	3.892	3.842-3.942	5.037e+06
2 Diallate A	4.967	4.917-5.017	1.385e+05
3 Diallate B	5.217	5.167-5.267	4.138e+04
4 MIREX	17.525	17.475-17.575	2.107e+06
5 alpha-BHC	5.883	5.833-5.933	6.014e+06
6 gamma-BHC (Lindane)	7.192	7.142-7.242	5.338e+06
7 beta-BHC	7.458	7.408-7.508	2.863e+06
8 delta-BHC	8.750	8.700-8.800	4.974e+06
9 Chlordane	7.742	7.692-7.792	1.561e+05
	8.283	8.233-8.333	2.512e+05
	12.208	12.158-12.258	3.411e+05
	12.775	12.725-12.825	2.445e+05
10 Heptachlor	8.292	8.242-8.342	4.513e+06
11 Aldrin	9.450	9.400-9.500	3.800e+06
12 Heptachlor epoxide	11.642	11.592-11.692	3.704e+06
13 gamma-Chlordane	12.200	12.150-12.250	3.720e+06
14 alpha-Chlordane	12.775	12.725-12.825	3.450e+06
15 Endosulfan I	12.842	12.792-12.892	3.024e+06
16 4,4'-DDE	13.758	13.708-13.808	3.725e+06
17 Dieldrin	13.867	13.817-13.917	3.599e+06
18 Toxaphene	15.017	14.967-15.067	1.708e+04
	15.217	15.167-15.267	4.716e+04
	15.667	15.617-15.717	4.009e+04
	16.758	16.708-16.808	5.029e+04

Report Date : 05-Jun-2000 10:32

601 HPCRO3E

DB00

STL-PITTSBURGH

COMPOUND LISTING

Method file : /var/chem/gc3.i/3020-E.b/PESTA.m

Compound	RT	RT Window	RF
19 Isodrin	11.167	11.117-11.217	3.077e+06
20 Endrin	14.775	14.725-14.825	3.494e+06
21 4,4'-DDD	15.100	15.050-15.150	3.112e+06
22 Endosulfan II	15.175	15.125-15.225	3.506e+06
23 4,4'-DDT	15.658	15.608-15.708	3.257e+06
24 Endrin aldehyde	15.800	15.750-15.850	2.879e+06
25 Methoxychlor	17.342	17.292-17.392	1.480e+06
26 Endosulfan sulfate	16.025	15.975-16.075	3.012e+06
27 Endrin ketone	17.608	17.558-17.658	2.805e+06
28 Chlorobenzilate	14.875	14.825-14.925	2.142e+06
29 Kepone	14.642	14.592-14.692	4.149e+04
\$ 30 Decachlorobiphenyl	20.942	20.892-20.992	2.088e+06

659 236

Report Date : 05-Jun-2000 10:32

STL-PITTSBURGH

INITIAL CALIBRATION DATA

Start Cal Date : 02-JUN-2000 15:06
 End Cal Date : 03-JUN-2000 01:30
 Quant Method : ESTD
 Origin : Disabled
 Target Version : 3.40
 Integrator : Falcon
 Method file : /var/chem/gc3.i/3020-E.b/PESTA.m
 Cal Date : 05-Jun-2000 10:32 g
 Curve Type : Average

Calibration File Names:

Level 1: /var/chem/gc3.i/3020-E.b/c-a3069.d
 Level 2: /var/chem/gc3.i/3020-E.b/c-a3070.d
 Level 3: /var/chem/gc3.i/3020-E.b/c-a3071.d
 Level 4: /var/chem/gc3.i/3020-E.b/c-a3072.d
 Level 5: /var/chem/gc3.i/3020-E.b/c-a3073.d

Compound	0.00500	0.01000	0.02500	0.05000	0.10000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5		
2 Diallylate A	191190	150148	133690	110628	107037	138539	24.748 <-
3 Diallylate B	54600	44992	40960	33943	32316	41970	21.871 <-
4 MIREX	2354600	2432000	2148520	1860360	1738630	2106822	14.342
5 alpha-BHC	6804600	6588000	6143640	5667320	4866740	6014060	12.900
6 gamma-BHC (Lindane)	6187400	5886800	5396920	4940340	4279560	5338204	14.219
7 beta-BHC	3418000	3297200	2772400	2566940	2260910	2863090	17.066
8 delta-BHC	5294000	5476100	4979400	4759700	4358680	4973576	8.873
9 Chlordane(1)	++++	++++	156072	++++	++++	156072	0.000
(2)	++++	++++	251184	++++	++++	251184	0.000
(3)	++++	++++	341108	++++	++++	341108	0.000
(4)	++++	++++	244460	++++	++++	244460	0.000
10 Heptachlor	5331400	4980100	4478520	4157380	3617710	4513022	14.935
11 Aldrin	4116400	4145500	3745600	3673160	3320560	3800244	9.005
12 Heptachlor epoxide	4138600	4100600	3625040	3494400	3158900	3703508	11.243
13 gamma-Chlordane	4171200	4083600	3597120	3503560	3243860	3719868	10.622
14 alpha-Chlordane	3968400	3841500	3332880	3207960	2899140	3449976	12.945
15 Endosulfan I	3508800	3281200	2952240	2811940	2565630	3023962	12.389
16 4,4'-DDE	3880800	3931900	3737240	3671600	3403800	3725068	5.587
17 Dieldrin	3935000	3803600	3584040	3484560	3190040	3599448	8.044
18 Toxaphene(1)	++++	++++	17084	++++	++++	17084	0.000
(2)	++++	++++	47155	++++	++++	47155	0.000
(3)	++++	++++	40090	++++	++++	40090	0.000
(4)	++++	++++	50286	++++	++++	50286	0.000
19 Isodrin	3543000	3132600	3168720	2768440	3723840	3073320	10.477
20 Endrin	3793000	3664200	3489920	3346960	3177780	3494372	7.010
21 4,4'-DDD	3335400	3267900	3090440	3025780	2842900	3112484	6.315

Report Date : 05-Jun-2000 10:32

STL-PITTSBURGH

INITIAL CALIBRATION DATA

Start Cal Date : 02-JUN-2000 15:06
 End Cal Date : 03-JUN-2000 01:30
 Quant Method : ESTD
 Origin : Disabled
 Target Version : 3.40
 Integrator : Falcon
 Method file : /var/chem/gc3.i/3020-E.b/PESTA.m
 Cal Date : 05-Jun-2000 10:32 g
 Curve Type : Average

Compound	0.00500	0.01000	0.02500	0.05000	0.10000	RRF	% RSD
Level 1	Level 2	Level 3	Level 4	Level 5			
22 Endosulfan II	3739000	3794200	3459360	3355700	3182200	3506092	7.368
23 4,4'-DDT	3443200	3423800	3227960	3173220	3015370	3256710	5.509
24 Endrin aldehyde	3160400	3103400	2840560	2716080	2574430	2878974	8.689
25 Methoxychlor	1697600	1590700	1455640	1369240	1285615	1479759	11.219
26 Endosulfan sulfate	3152800	3217400	2973000	2902220	2816390	3012362	5.601
27 Endrin ketone	2888800	2985900	2765240	2744500	2642670	2805422	4.760
28 Chlorobenzilate	1930700	2035320	2097720	2280760	2364680	2141836	8.314
29 Kepone	51700	42956	42026	35777	34981	41488	16.244
\$ 1 Tetrachloro-m-xylene	6514200	5939100	5001240	4402780	3326800	5036824	24.964
\$ 30 Decachlorobiphenyl	2569400	2356400	2027000	1836060	1653460	2088464	17.913

659 238

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: STL-PITTSBURGH

Contract:

Lab Code: STLPIT

Case No.:

SAS No.: 40325

SDG No.: TR

GC Column: DB608

ID: 0.53 (mm) Init. Calib. Date(s): 06/02/00 06/03/00

EPA Sample No. (PIBLK): _____

Date Analyzed : _____

Lab Sample ID (PIBLK): _____

Time Analyzed : _____

EPA Sample No. (PEM): EVALB

Date Analyzed : 06/02/00

Lab Sample ID (PEM): EVALB

Time Analyzed : 1435

PEM COMPOUND	RT	RT WINDOW FROM TO		CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
=====	=====	=====	=====	=====	=====	=====
Endrin	14.78	14.72	14.82	0.023646	0.025000	-5.4
4,4'-DDT	15.66	15.61	15.71	0.024846	0.025000	-0.6

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

²²
~~2.11~~

Endrin % breakdown (1):

^{3.1}
~~3.74~~

Combined % breakdown (1):

~~5.85~~ 5.3*Off to law*

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: STL-PITTSBURGH

Contract:

Lab Code: STLPIT

Case No.:

SAS No.: 40325

SDG No.: TR

GC Column: DB608

ID: 0.53

(mm) Init. Calib. Date(s): 06/02/00 06/03/00

EPA Sample No. (PIBLK): _____

Date Analyzed : _____

Lab Sample ID (PIBLK): _____

Time Analyzed : _____

EPA Sample No. (PEM): EVALB

Date Analyzed : 06/03/00

Lab Sample ID (PEM): EVALB

Time Analyzed : 0253

PEM COMPOUND	RT	RT WINDOW FROM TO		CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
=====	=====	=====	=====	=====	=====	=====
Endrin	14.77	14.72	14.82	0.025100	0.025000	0.4
4,4'-DDT	15.65	15.61	15.71	0.026105	0.025000	4.4

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

~~2.7~~
2.51

Endrin % breakdown (1):

~~2.4~~
3.50

Combined % breakdown (1):

~~6.01~~
5.1

86/90

659 240

Data File: /var/chem/gc3.i/3020-E.b/c-a3099.d
Report Date: 05-Jun-2000 11:35

7E HPS8903E
DB608

STL-PITTSBURGH

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc3.i Injection Date: 03-JUN-2000 13:32
Lab File ID: c-a3099.d Init. Calibration Date(s): 06/02/00 06/03/00
Analysis Type: Init. Calibration Times: 15:06 01:30
Lab Sample ID: MEDA Method File: /var/chem/gc3.i/3020-E.b/PESTA.m
Quant Type: ESTD

COMPOUND	RRF	RFO	MIN	MAX
1 Tetrachloro-m-xylene	5036824.000	5897520.000	0.000	-17.1 15.0 <-
5 alpha-BHC	6014060.000	7174160.000	0.010	-19.3 15.0 <-
6 gamma-BHC (Lindane)	5338204.000	6325480.000	0.010	-18.5 15.0 <-
10 Heptachlor	4513022.000	5204040.000	0.010	-15.3 15.0 <-
15 Endosulfan I	3023962.000	3468560.000	0.010	-14.7 15.0
17 Dieldrin	3599448.000	4190240.000	0.010	-16.4 15.0 <-
20 Endrin	3494372.000	4112000.000	0.010	-17.7 15.0 <-
21 4,4'-DDD	3112484.000	3663960.000	0.010	-17.7 15.0 <-
23 4,4'-DDT	3256710.000	3756880.000	0.010	-15.4 15.0 <-
25 Methoxychlor	1479759.000	1657800.000	0.010	-12.0 15.0
30 Decachlorobiphenyl	2088464.000	2290360.000	0.010	-9.7 15.0

Data File: /var/chem/gc3.i/3020-E.b/c-a3100.d
Report Date: 05-Jun-2000 11:36

7E HP58903E 659 241
DB608

STL-PITTSBURGH

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc3.i
Lab File ID: c-a3100.d
Analysis Type:
Lab Sample ID: MEDB
Quant Type: ESTD

Injection Date: 03-JUN-2000 14:00
Init. Calibration Date(s): 06/02/0 06/03/0
Init. Calibration Times: 15:06 01:30
Method File: /var/chem/gc3.i/3020-E.b/PESTA.m

COMPOUND	RRF	RFO	MIN	MAX
11 Aldrin	3800244.000	4361640.000	0.010	-14.8 15.0
7 beta-BHC	2863090.000	3188560.000	0.010	-11.4 15.0
8 delta-BHC	4973576.000	5698560.000	0.010	-14.6 15.0
12 Heptachlor epoxide	3703508.000	4133680.000	0.010	-11.6 15.0
13 gamma-Chlordane	3719868.000	4191360.000	0.010	-12.7 15.0
14 alpha-Chlordane	3449976.000	3828200.000	0.010	-11.0 15.0
16 4,4'-DDE	3725068.000	4238400.000	0.010	-13.8 15.0
22 Endosulfan II	3506092.000	3826480.000	0.010	-9.1 15.0
24 Endrin aldehyde	2878974.000	3186320.000	0.010	-10.7 15.0
26 Endosulfan sulfate	3012362.000	3330840.000	0.010	-10.6 15.0
27 Endrin ketone	2805422.000	3134640.000	0.010	-11.7 15.0

92-139

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: STL-PITTSBURGH

Contract:

Lab Code: STLPIT

Case No.:

SAS No.: 40325

SDG No.: C0E260147

GC Column: DB608

ID: 0.53

(mm)

Init. Calib. Date(s): 06/02/00 06/03/00

Instrument ID: GC3

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

MEAN SURROGATE RT FROM INITIAL CALIBRATION					
TCX: 3.89			DCB: 20.94		
EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01 EVALB	EVALB	06/02/00	1435	3.88	20.96
02 MEDTOX	MEDTOX	06/02/00	1506	3.88	20.96
03 MEDCHLOR	MEDCHLOR	06/02/00	1534	3.88	20.96
04 LOWA	LOWA	06/02/00	2113	3.88	20.95
05 MLOWA	MLOWA	06/02/00	2141	3.88	20.96
06 MEDA	MEDA	06/02/00	2210	3.88	20.95
07 MHIGHA	MHIGHA	06/02/00	2239	3.88	20.95
08 HIGHA	HIGHA	06/02/00	2308	3.89	20.94
09 LOWB	LOWB	06/02/00	2337		
10 MLOWB	MLOWB	06/03/00	0005		
11 MEDB	MEDB	06/03/00	0034		
12 MHIGHB	MHIGHB	06/03/00	0102		
13 HIGHB	HIGHB	06/03/00	0130		
14 2ND A	2ND A	06/03/00	0157	3.87	20.93
15 2ND B	2ND B	06/03/00	0225		
16 EVALB	EVALB	06/03/00	0253	3.88	20.93
17 DF/S1/0146/S	DDRMP104	06/03/00	0321	3.88	20.93
18 DF/S1/0146/S	DDRMP10M	06/03/00	0348	3.88	20.93
19 DF/S1/0146/S	DDRMP10N	06/03/00	0416	3.87	20.93
20 PBLK	DE187101	06/03/00	0539	3.88	20.93
21 LCS	DE187102	06/03/00	0607	3.87	20.92
22 MEDA	MEDA	06/03/00	1332	3.86	20.92
23 MEDB	MEDB	06/03/00	1400		
24					
25					
26					
27					
28					
29					
30					
31					
32					

QC LIMITS

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

DCB = Decachlorobiphenyl (+/- 0.05 MINUTES)

Column used to flag retention time values with an asterisk.

* Values outside of QC limits.

Data File: /var/chem/gc3.i/3020-E.b/c-a3051.d
Report Date: 05-Jun-2000 11:34

STL-PITTSBURGH

Data file : /var/chem/gc3.i/3020-E.b/c-a3051.d
Lab Smp Id: EVALB Client Smp ID: EVALB
Inj Date : 02-JUN-2000 14:35
Operator : 1891 Inst ID: gc3.i
Smp Info : EVALB,3020-E.b,,EVALBR.sub,,3,1
Misc Info : 190-88-8
Comment :
Method : /var/chem/gc3.i/3020-E.b/PESTA.m
Meth Date : 05-Jun-2000 11:20 g Quant Type: ESTD
Cal Date : 03-JUN-2000 01:30 Cal File: c-a3073.d
Als bottle: 1 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: EVALBR.sub
Target Version: 3.40

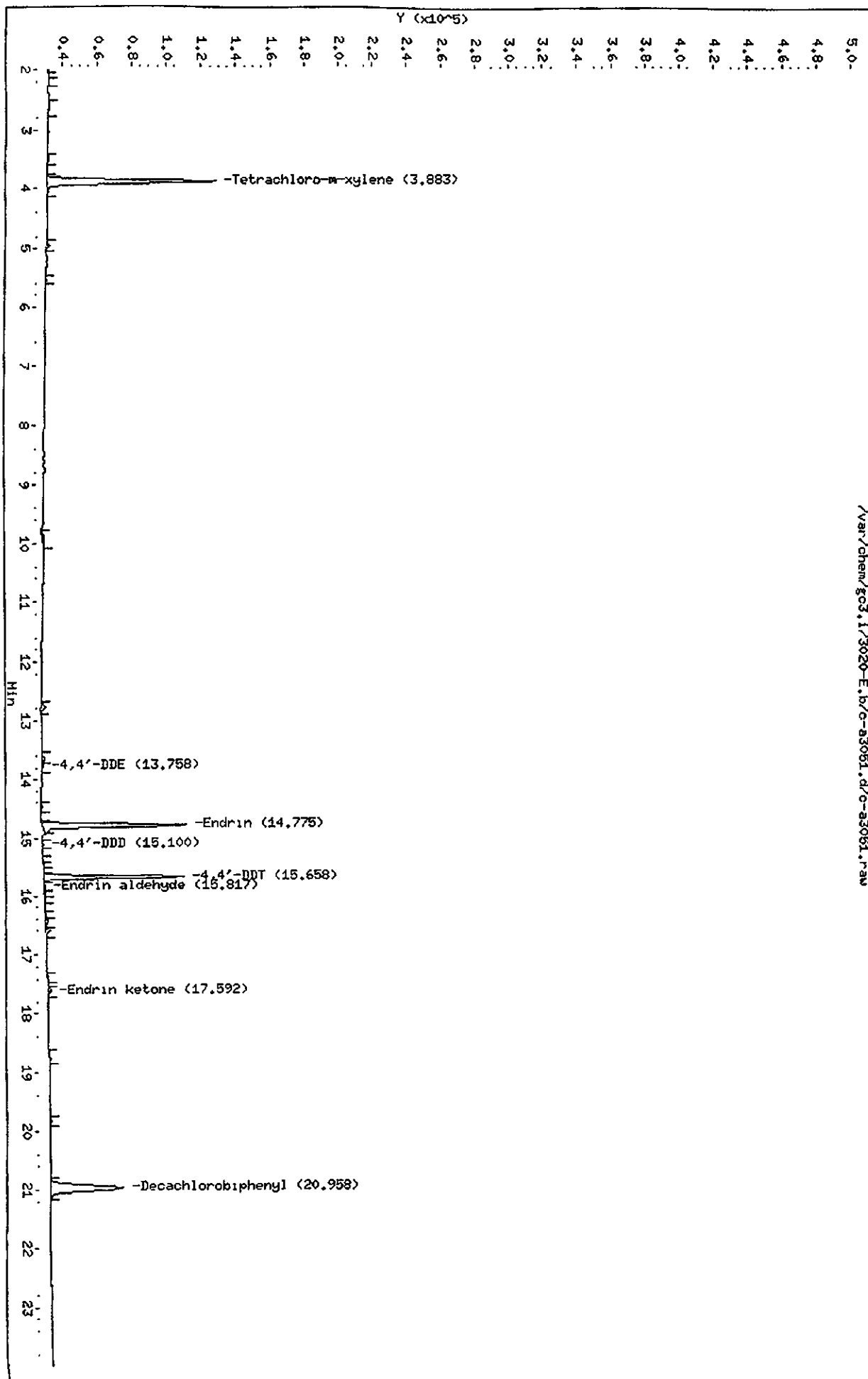
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ng)	FINAL (ng)
=====	==	=====	=====	=====	=====	=====
\$ 1 Tetrachloro-m-xylene	3.883	3.892	-0.009	97752	0.01941	0.0194075 (R)
16 4,4'-DDE	13.758	13.758	0.000	951	0.000255	0.000255297
20 Endrin	14.775	14.775	0.000	82627	0.02365	0.0236457
21 4,4'-DDD	15.100	15.100	0.000	847	0.000272	0.000272130 (M)
23 4,4'-DDT	15.658	15.658	0.000	80915	0.02485	0.0248456
24 Endrin aldehyde	15.817	15.800	0.017	870	0.000302	0.000302191 (M)
27 Endrin ketone	17.592	17.608	-0.016	1775	0.000633	0.000632703
\$ 30 Decachlorobiphenyl	20.958	20.942	0.016	41376	0.01981	0.0198117 (R)

QC Flag Legend

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

Endrin Breakdown: $\frac{(970 + 1775)}{(970 + 1775 + 82627)} \times 100 = 3.10\%$

DDT Breakdown: $\frac{(957 + 847)}{(957 + 847 + 80915)} \times 100 = 2.20\%$



Data File: /var/chem/gc3.1/3020-E.b/c-33061.d
Date: 02-JUN-2000 14:35
Client ID: EVALB
Sample Info: EVALB,3020-E.b,EVALBR,sub,,3,1
Column phase: DB608

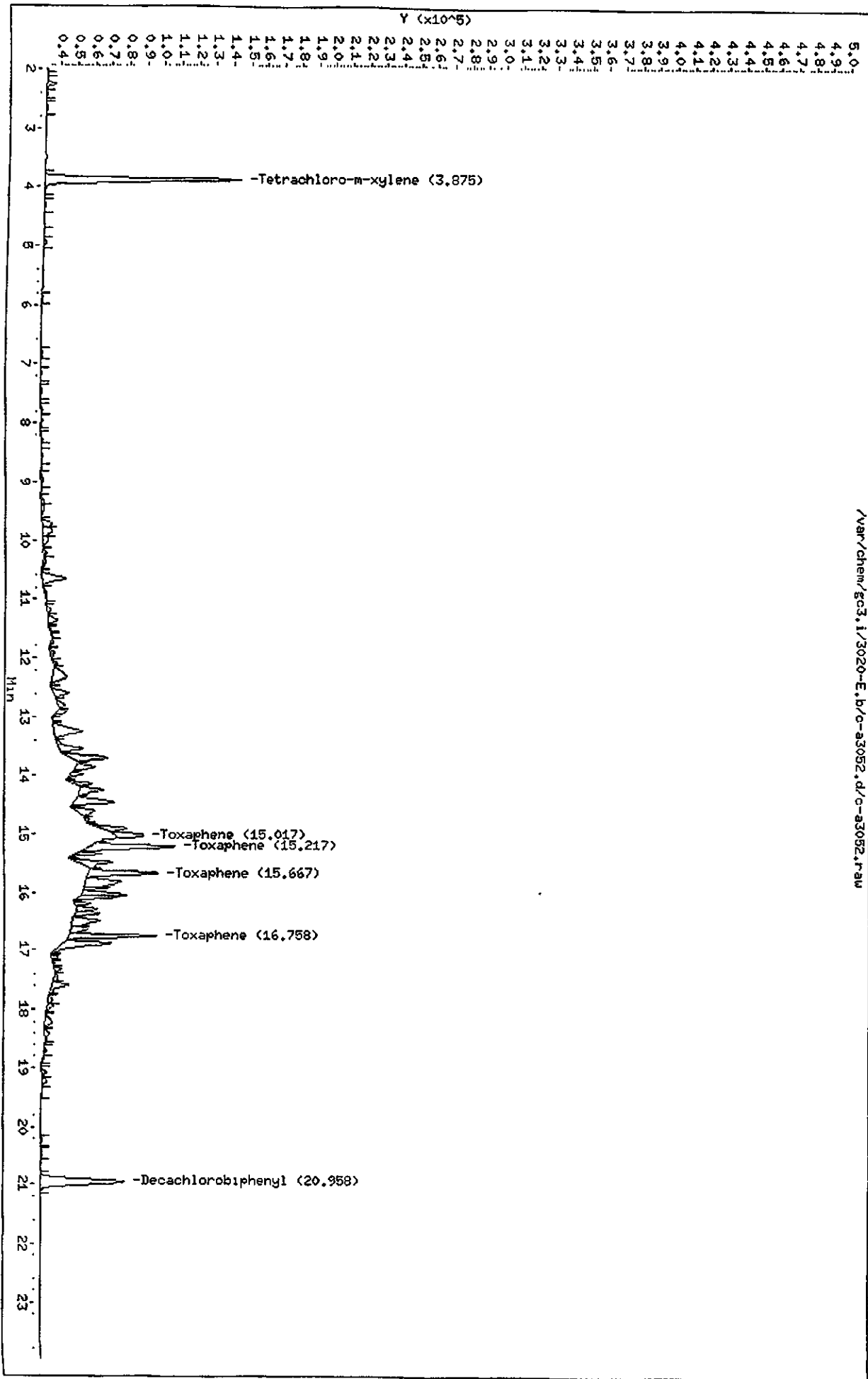
Instrument: gc3.1
Operator: 1891
Column diameter: 0.53

Data File: /var/chem/gc3.i/3020-E.b/c-a3052.d
 Report Date: 05-Jun-2000 11:34

STL-PITTSBURGH

Data file : /var/chem/gc3.i/3020-E.b/c-a3052.d
 Lab Smp Id: MEDTOX Client Smp ID: MEDTOX
 Inj Date : 02-JUN-2000 15:06
 Operator : 1891 Inst ID: gc3.i
 Smp Info : MEDTOX,3020-E.b,,1-TOX.sub,,1,3
 Misc Info : 190-84-13
 Comment :
 Method : /var/chem/gc3.i/3020-E.b/PESTA.m
 Meth Date : 05-Jun-2000 11:20 g Quant Type: ESTD
 Cal Date : 02-JUN-2000 15:06 Cal File: c-a3052.d
 Als bottle: 1 Calibration Sample, Level: 3
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: 1-TOX.sub
 Target Version: 3.40

Compounds					AMOUNTS	
	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
=====	==	=====	=====	=====	=====	=====
18 Toxaphene	15.017	15.017	0.000	17084	1.00000	1.00000
\$ 1 Tetrachloro-m-xylene	3.875	3.892	-0.017	113116	0.02500	0.0250000
\$ 30 Decachlorobiphenyl	20.958	20.942	0.016	47977	0.02500	0.0250000



Data File: /var/chem/gc3.i/3020-E.b/c-a3052.d
Date : 02-JUN-2000 15:06
Client ID: HEDTOX
Sample Info: HEDTOX,3020-E.b,1-TOX.sub,1,3
Column Phase: DB608

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

Data File: /var/chem/gc3.i/3020-E.b/c-a3053.d
 Report Date: 05-Jun-2000 11:34

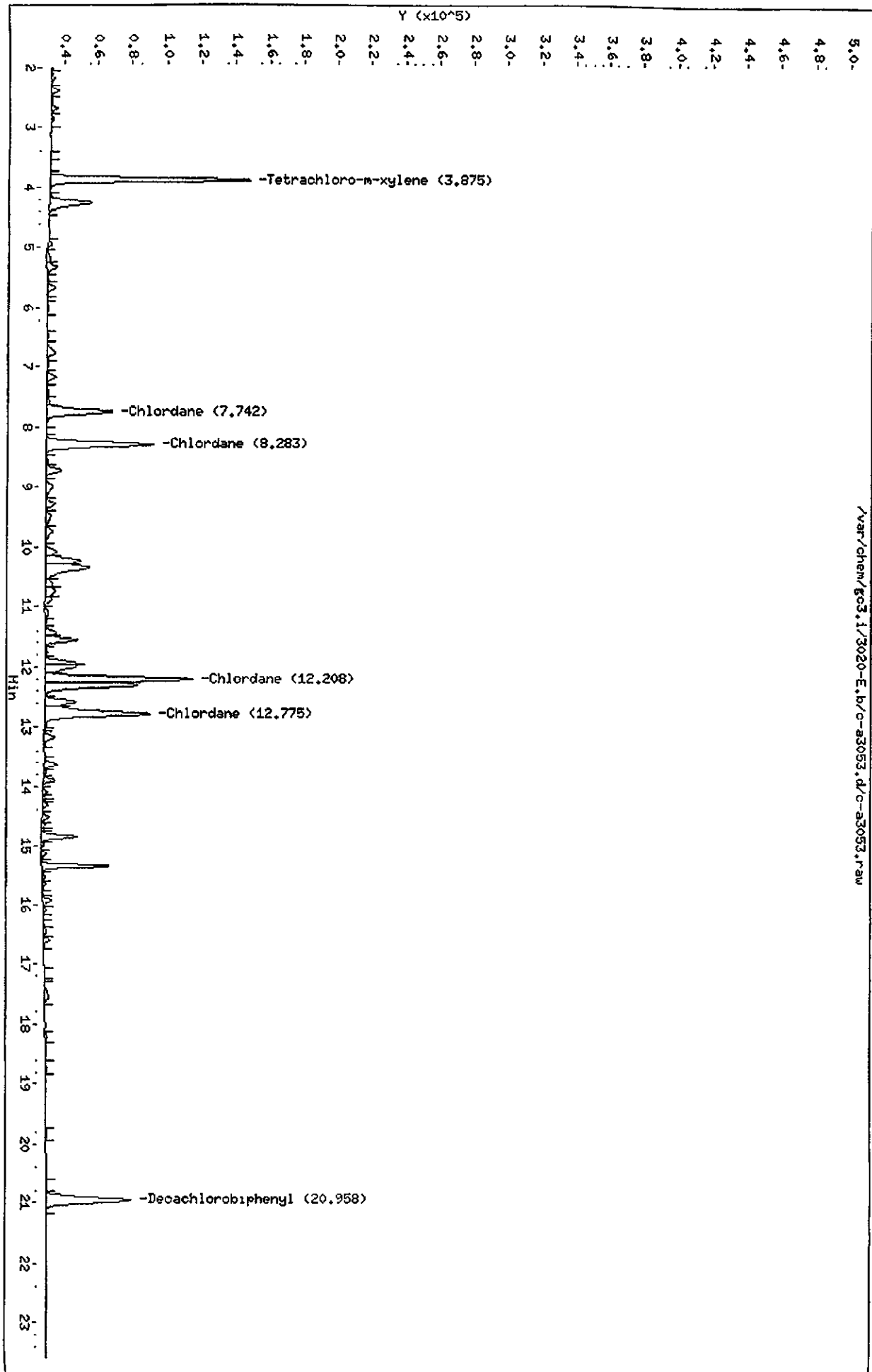
STL-PITTSBURGH

Data file : /var/chem/gc3.i/3020-E.b/c-a3053.d
 Lab Smp Id: MEDCHLOR Client Smp ID: MEDCHLOR
 Inj Date : 02-JUN-2000 15:34
 Operator : 1891 Inst ID: gc3.i
 Smp Info : MEDCHLOR,3020-E.b,,2-CHLO.sub,,1,3
 Misc Info : 190-85-10
 Comment :
 Method : /var/chem/gc3.i/3020-E.b/PESTA.m
 Meth Date : 05-Jun-2000 11:20 g Quant Type: ESTD
 Cal Date : 02-JUN-2000 15:34 Cal File: c-a3053.d
 Als bottle: 1 Calibration Sample, Level: 3
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: 2-CHLO.sub
 Target Version: 3.40

Compounds	AMOUNTS					
	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
=====	==	=====	=====	=====	=====	=====
9 Chlordane	7.742	7.742	0.000	39018	0.25000	0.250000
\$ 1 Tetrachloro-m-xylene	3.875	3.892	-0.017	116596	0.02500	0.0250000
\$ 30 Decachlorobiphenyl	20.958	20.942	0.016	49334	0.02500	0.0250000

Data File: /var/chem/gc3.1/3020-E,b/c-a3053.d
Date : 02-JUN-2000 15:34
Client ID: MEDCHLOR
Sample Info: MEDCHLOR,3020-E,b,,2-CHL0,sub,,1,3
Column phase: DB608

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



Data File: /var/chem/gc3.i/3020-E.b/c-a3064.d
 Report Date: 05-Jun-2000 11:35

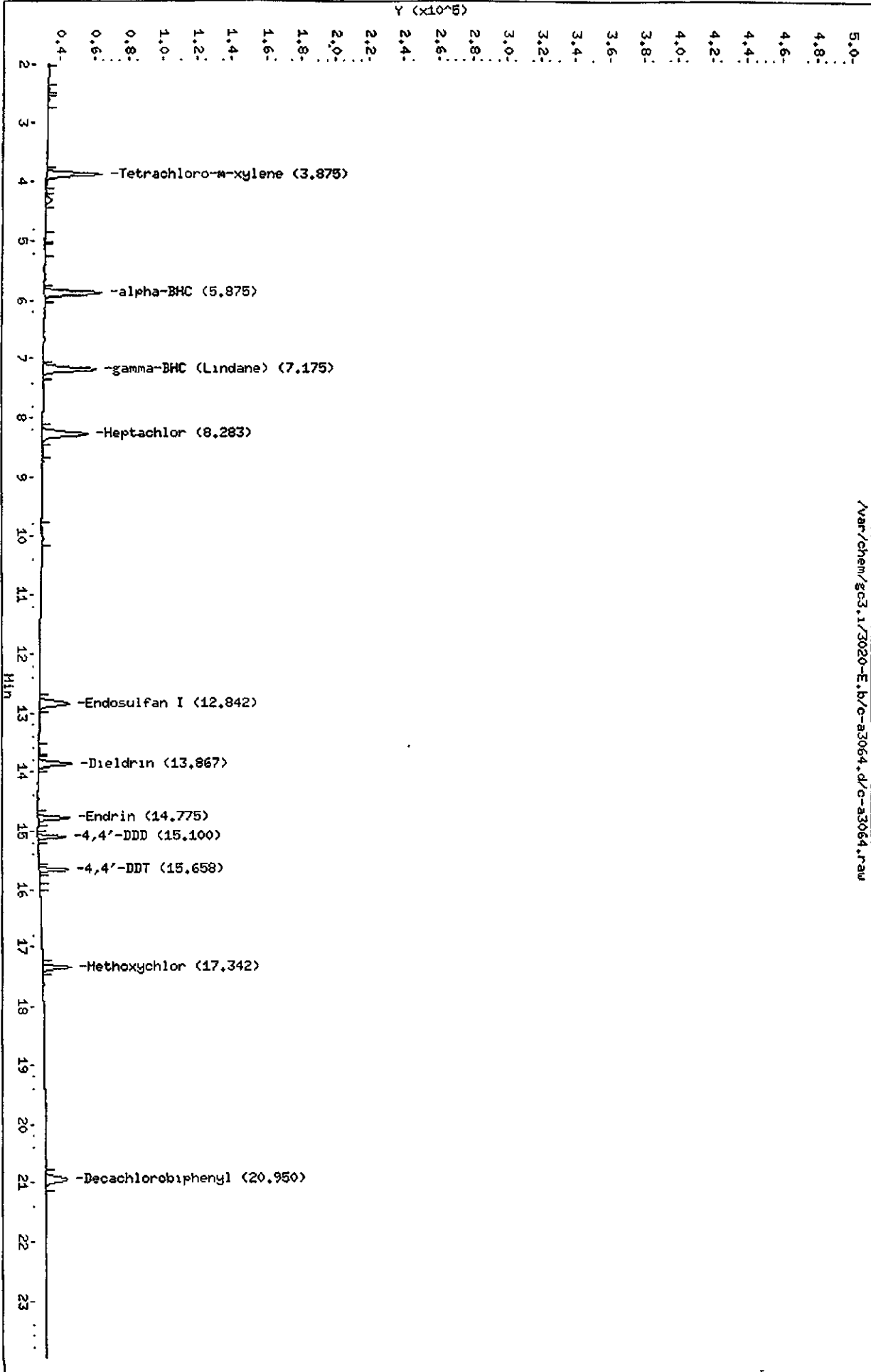
STL-PITTSBURGH

Data file : /var/chem/gc3.i/3020-E.b/c-a3064.d
 Lab Smp Id: LOWA Client Smp ID: LOWA
 Inj Date : 02-JUN-2000 21:13
 Operator : 1891 Inst ID: gc3.i
 Smp Info : LOWA,3020-E.b,,3-INDA.sub,,1,1
 Misc Info : 190-84-1
 Comment :
 Method : /var/chem/gc3.i/3020-E.b/PESTA.m
 Meth Date : 05-Jun-2000 11:20 g Quant Type: ESTD
 Cal Date : 02-JUN-2000 21:13 Cal File: c-a3064.d
 Als bottle: 1 Calibration Sample, Level: 1
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: 3-INDA.sub
 Target Version: 3.40

Compounds	AMOUNTS					
	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
*****	xx	*****	*****	*****	*****	*****
\$ 1 Tetrachloro-m-xylene	3.875	3.892	-0.017	32571	0.00500	0.00582768
5 alpha-BHC	5.875	5.883	-0.008	34023	0.00500	0.00500000
6 gamma-BHC (Lindane)	7.175	7.192	-0.017	30937	0.00500	0.00500000
10 Heptachlor	8.283	8.292	-0.009	26657	0.00500	0.00500000
15 Endosulfan I	12.842	12.842	0.000	17544	0.00500	0.00500000
17 Dieldrin	13.867	13.867	0.000	19675	0.00500	0.00500000
20 Endrin	14.775	14.775	0.000	18965	0.00500	0.00500000
21 4,4'-DDD	15.100	15.100	0.000	16677	0.00500	0.00500000
23 4,4'-DDT	15.658	15.658	0.000	17216	0.00500	0.00500000
25 Methoxychlor	17.342	17.342	0.000	16976	0.01000	0.0100000
\$ 30 Decachlorobiphenyl	20.950	20.942	0.008	12847	0.00500	0.00565603

Data File: /var/chem/gc3.1/3020-E.b/c-a3064.d
Date: 02-JUN-2000 21:13
Client ID: LOMA
Sample Info: LOMA,3020-E.b,3-INDA.sub,1,1
Column phase: DB608

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

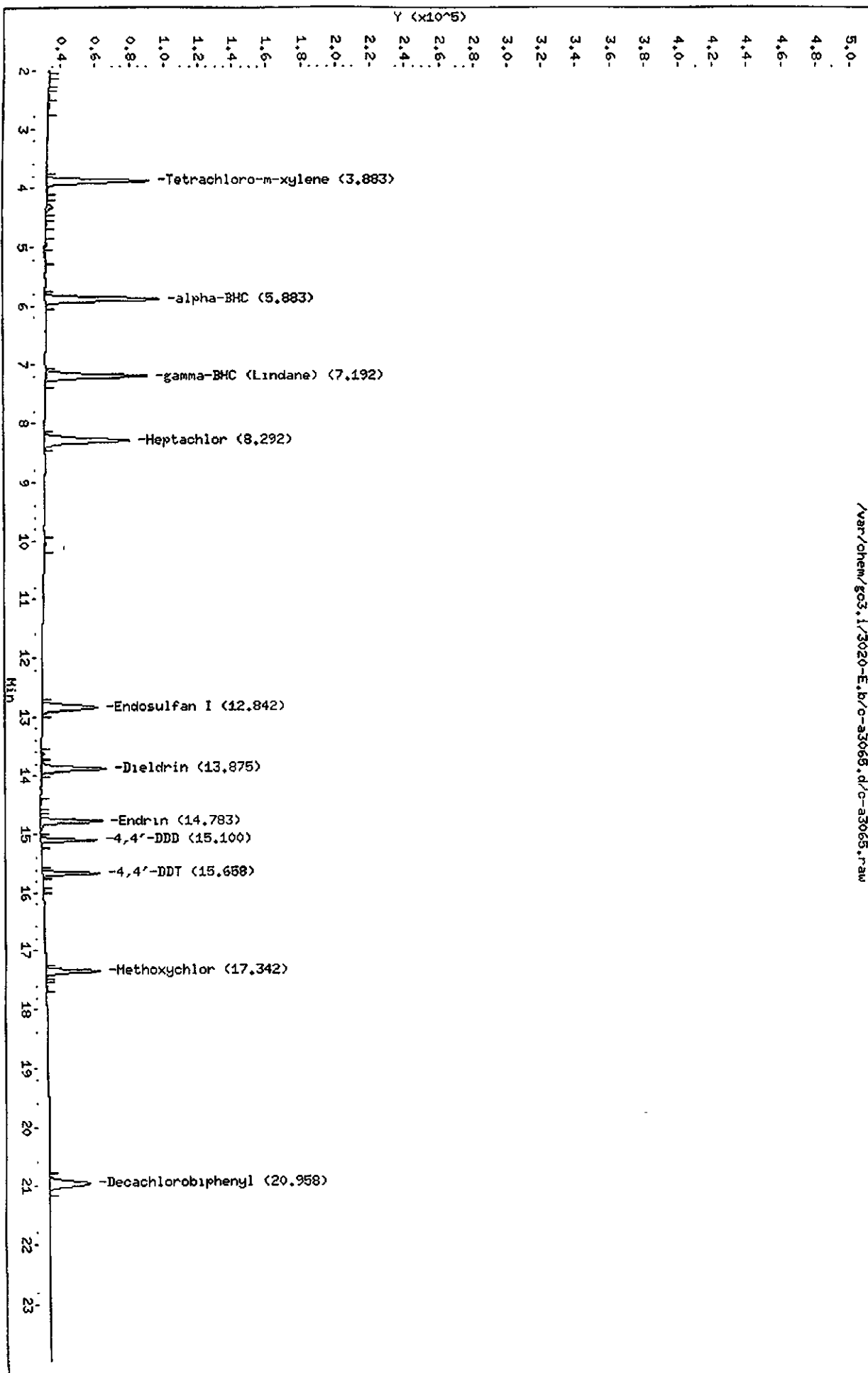


Data File: /var/chem/gc3.i/3020-E.b/c-a3065.d
 Report Date: 05-Jun-2000 11:35

STL-PITTSBURGH

Data file : /var/chem/gc3.i/3020-E.b/c-a3065.d
 Lab Smp Id: MLOWA Client Smp ID: MLOWA
 Inj Date : 02-JUN-2000 21:41
 Operator : 1891 Inst ID: gc3.i
 Smp Info : MLOWA,3020-E.b,,3-INDA.sub,,1,2
 Misc Info : 190-84-2
 Comment :
 Method : /var/chem/gc3.i/3020-E.b/PESTA.m
 Meth Date : 05-Jun-2000 11:20 g Quant Type: ESTD
 Cal Date : 02-JUN-2000 21:41 Cal File: c-a3065.d
 Als bottle: 1 Calibration Sample, Level: 2
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: 3-INDA.sub
 Target Version: 3.40

Compounds	AMOUNTS					
	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
=====	==	=====	=====	=====	=====	=====
\$ 1 Tetrachloro-m-xylene	3.883	3.892	-0.009	59391	0.01000	0.0104090
5 alpha-BHC	5.883	5.883	0.000	65860	0.01000	0.00983827
6 gamma-BHC (Lindane)	7.192	7.192	0.000	58868	0.01000	0.00975104
10 Heptachlor	8.292	8.292	0.000	49801	0.01000	0.00965931
15 Endosulfan I	12.842	12.842	0.000	32812	0.01000	0.00966480
17 Dieldrin	13.875	13.867	0.008	38036	0.01000	0.00983020
20 Endrin	14.783	14.775	0.008	36642	0.01000	0.00982728
21 4,4'-DDD	15.100	15.100	0.000	32679	0.01000	0.00989778
23 4,4'-DDT	15.658	15.658	0.000	34238	0.01000	0.00997175
25 Methoxychlor	17.342	17.342	0.000	31814	0.02000	0.0193498
\$ 30 Decachlorobiphenyl	20.958	20.942	0.016	23564	0.01000	0.0102465



Data File: Var/chem/gc3.i/3020-E.b/c-a3065.d
Date: 02-JUN-2000 21:41
Client ID: MLOMA
Sample Info: MLOMA,3020-E.b,,3-INDA.sub,,1,2
Column phase: DB608

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

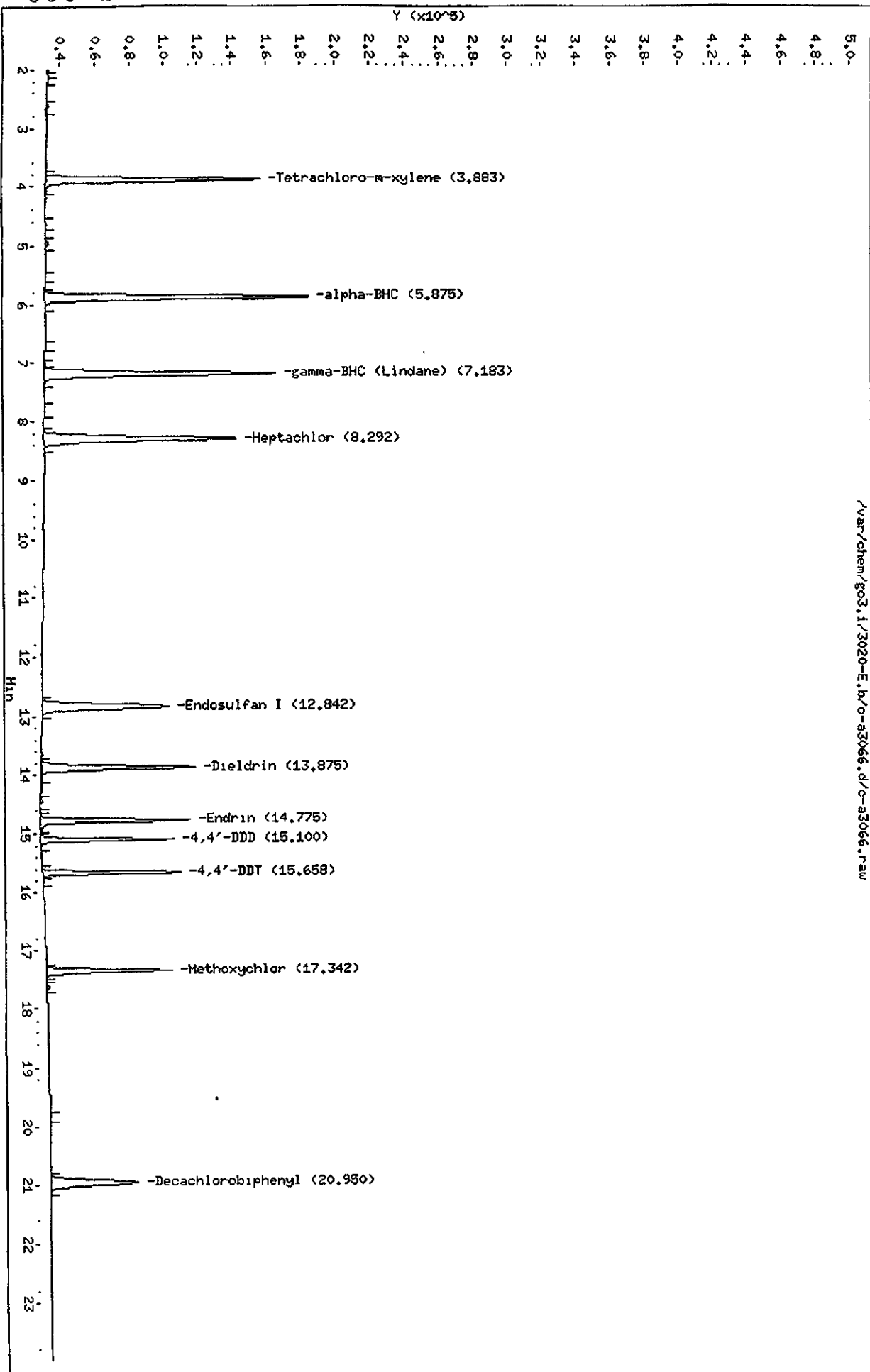
Data File: /var/chem/gc3.i/3020-E.b/c-a3066.d
 Report Date: 05-Jun-2000 11:35

STL-PITTSBURGH

Data file : /var/chem/gc3.i/3020-E.b/c-a3066.d
 Lab Smp Id: MEDA Client Smp ID: MEDA
 Inj Date : 02-JUN-2000 22:10
 Operator : 1891 Inst ID: gc3.i
 Smp Info : MEDA,3020-E.b,,3-INDA.sub,,1,3
 Misc Info : 190-84-3
 Comment :
 Method : /var/chem/gc3.i/3020-E.b/PESTA.m
 Meth Date : 05-Jun-2000 11:20 g Quant Type: ESTD
 Cal Date : 02-JUN-2000 22:10 Cal File: c-a3066.d
 Als bottle: 1 Calibration Sample, Level: 3
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: 3-INDA.sub
 Target Version: 3.40

Compounds	AMOUNTS					
	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
=====	==	=====	=====	=====	=====	=====
\$ 1 Tetrachloro-m-xylene	3.883	3.892	-0.009	125031	0.02500	0.0214897
5 alpha-BHC	5.875	5.883	-0.008	153591	0.02500	0.0235856
6 gamma-BHC (Lindane)	7.183	7.192	-0.009	134923	0.02500	0.0231679
10 Heptachlor	8.292	8.292	0.000	111963	0.02500	0.0227105
15 Endosulfan I	12.842	12.842	0.000	73806	0.02500	0.0227276
17 Dieldrin	13.875	13.867	0.008	89601	0.02500	0.0237403
20 Endrin	14.775	14.775	0.000	87248	0.02500	0.0239098
21 4,4'-DDD	15.100	15.100	0.000	77261	0.02500	0.0239106
23 4,4'-DDT	15.658	15.658	0.000	80699	0.02500	0.0239820
25 Methoxychlor	17.342	17.342	0.000	72782	0.05000	0.0460263
\$ 30 Decachlorobiphenyl	20.950	20.942	0.008	50675	0.02500	0.0218653

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Data File: /var/chem/803.1/3020-E.b/c-a3066.d
Date: 02-JUN-2000 22:10
Client ID: MEDA
Sample Info: MEDA,3020-E.b,,3-INDA.sub,,1,3
Column Phase: DB608

Instrument: 803.1
Operator: 1891
Column diameter: 0.53

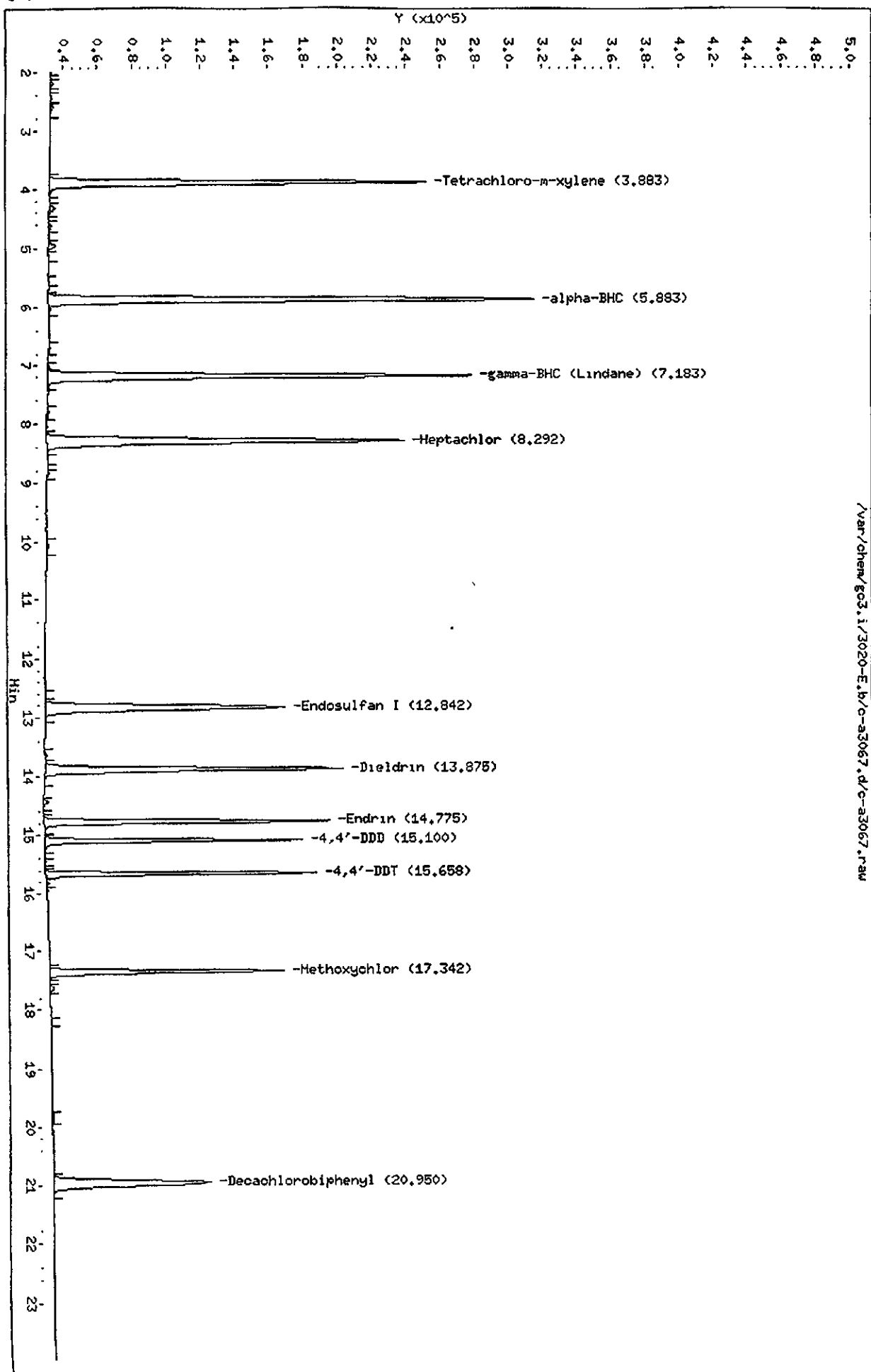
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Data File: /var/chem/gc3.i/3020-E.b/c-a3067.d
 Report Date: 05-Jun-2000 11:35

STL-PITTSBURGH

Data file : /var/chem/gc3.i/3020-E.b/c-a3067.d
 Lab Smp Id: MHIGHA Client Smp ID: MHIGHA
 Inj Date : 02-JUN-2000 22:39
 Operator : 1891 Inst ID: gc3.i
 Smp Info : MHIGHA,3020-E.b,,3-INDA.sub,,1,4
 Misc Info : 190-84-4
 Comment :
 Method : /var/chem/gc3.i/3020-E.b/PESTA.m
 Meth Date : 05-Jun-2000 11:20 g Quant Type: ESTD
 Cal Date : 02-JUN-2000 22:39 Cal File: c-a3067.d
 Als bottle: 1 Calibration Sample, Level: 4
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: 3-INDA.sub
 Target Version: 3.40

Compounds	AMOUNTS					
	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
=====	==	=====	=====	=====	=====	=====
\$ 1 Tetrachloro-m-xylene	3.883	3.892	-0.009	220139	0.05000	0.0402865
5 alpha-BHC	5.883	5.883	0.000	283366	0.05000	0.0449724
6 gamma-BHC (Lindane)	7.183	7.192	-0.009	247017	0.05000	0.0440876
10 Heptachlor	8.292	8.292	0.000	207869	0.05000	0.0438834
15 Endosulfan I	12.842	12.842	0.000	140597	0.05000	0.0447969
17 Dieldrin	13.875	13.867	0.008	174228	0.05000	0.0470658
20 Endrin	14.775	14.775	0.000	167348	0.05000	0.0468300
21 4,4'-DDD	15.100	15.100	0.000	151289	0.05000	0.0475770
23 4,4'-DDT	15.658	15.658	0.000	158661	0.05000	0.0478320
25 Methoxychlor	17.342	17.342	0.000	136924	0.10000	0.0895926
\$ 30 Decachlorobiphenyl	20.950	20.942	0.008	91803	0.05000	0.0417815



/var/chem/gc3.i/3020-E.b/c-a3067.d/c-a3067.raw

Data File: /var/chem/gc3.i/3020-E.b/c-a3067.d
Date: 02-JUN-2000 22:39
Client ID: MHICHA
Sample Info: MHICHA,3020-E.b,3-INDR,sub,1,4
Column phase: DB608

Instrument: gc3.i
Operator: 1894
Column diameter: 0.53

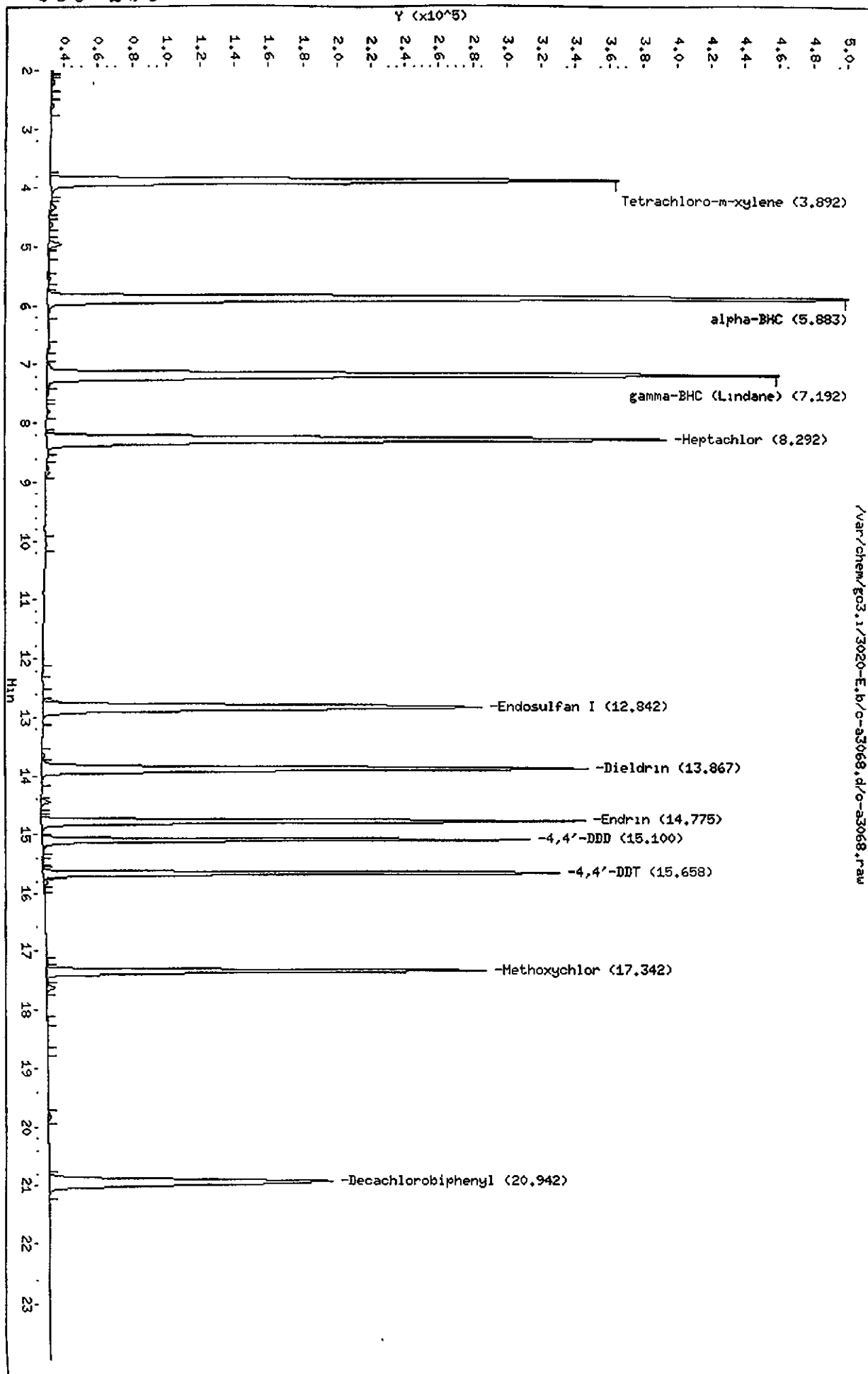
Data File: /var/chem/gc3.i/3020-E.b/c-a3068.d
 Report Date: 05-Jun-2000 11:35

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Data file : /var/chem/gc3.i/3020-E.b/c-a3068.d
 Lab Smp Id: HIGHA Client Smp ID: HIGHA
 Inj Date : 02-JUN-2000 23:08
 Operator : 1891 Inst ID: gc3.i
 Smp Info : HIGHA,3020-E.b,,3-INDA.sub,,1,5
 Misc Info : 190-84-5
 Comment :
 Method : /var/chem/gc3.i/3020-E.b/PESTA.m
 Meth Date : 05-Jun-2000 11:20 g Quant Type: ESTD
 Cal Date : 02-JUN-2000 23:08 Cal File: c-a3068.d
 Als bottle: 1 Calibration Sample, Level: 5
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: 3-INDA.sub
 Target Version: 3.40

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (ng)	ON-COL (ng)
=====	==	=====	=====	=====	=====	=====
\$ 1 Tetrachloro-m-xylene	3.892	3.892	0.000	332680	0.10000	0.0660496
5 alpha-BHC	5.883	5.883	0.000	486674	0.10000	0.0809227
6 gamma-BHC (Lindane)	7.192	7.192	0.000	427956	0.10000	0.0801685
10 Heptachlor	8.292	8.292	0.000	361771	0.10000	0.0801616
15 Endosulfan I	12.842	12.842	0.000	256563	0.10000	0.0848433
17 Dieldrin	13.867	13.867	0.000	319004	0.10000	0.0886258
20 Endrin	14.775	14.775	0.000	317778	0.10000	0.0909399
21 4,4'-DDD	15.100	15.100	0.000	284290	0.10000	0.0913386
23 4,4'-DDT	15.658	15.658	0.000	301537	0.10000	0.0925894
25 Methoxychlor	17.342	17.342	0.000	257123	0.20000	0.173760
\$ 30 Decachlorobiphenyl	20.942	20.942	0.000	165346	0.10000	0.0791711

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Data File: /var/chem/gc3.1/3020-E.b/c-a3068.d
Date : 02-JUN-2000 23:08
Client ID: HICHA
Sample Info: HICHA,3020-E.b,,3-INDA,sub,,1,5
Column phase: DB608

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

Data File: /var/chem/gc3.i/3020-E.b/c-a3069.d
Report Date: 05-Jun-2000 11:35

659 259

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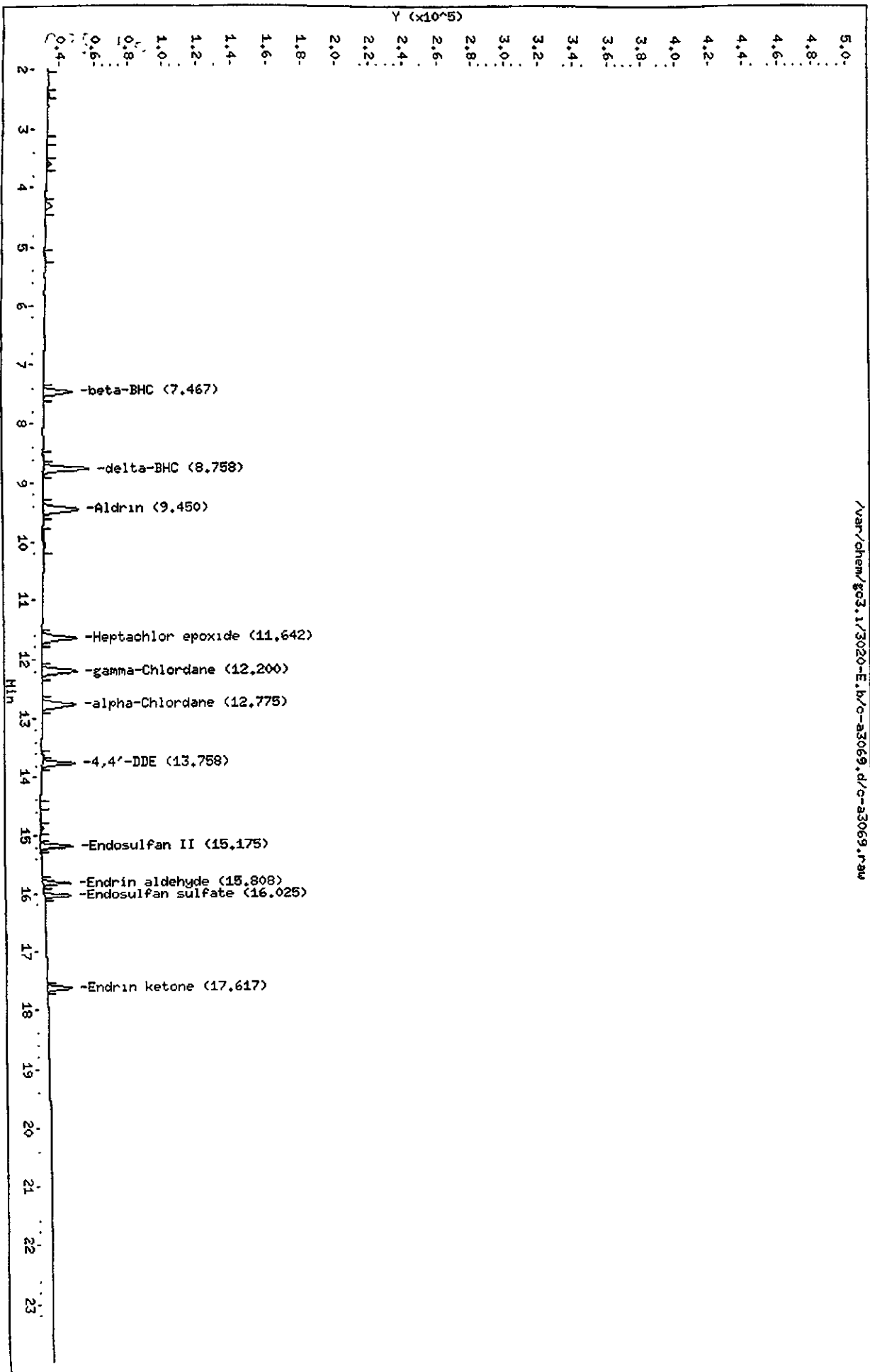
Data file : /var/chem/gc3.i/3020-E.b/c-a3069.d
Lab Smp Id: LOWB Client Smp ID: LOWB
Inj Date : 02-JUN-2000 23:37
Operator : 1891 Inst ID: gc3.i
Smp Info : LOWB,3020-E.b,,4-INDB.sub,,1,1
Misc Info : 190-84-7
Comment :
Method : /var/chem/gc3.i/3020-E.b/PESTA.m
Meth Date : 05-Jun-2000 11:20 g Quant Type: ESTD
Cal Date : 02-JUN-2000 23:37 Cal File: c-a3069.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 4-INDB.sub
Target Version: 3.40

Compounds	AMOUNTS					
	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
=====	==	=====	=====	=====	=====	=====
11 Aldrin	9.450	9.450	0.000	20582	0.00500	0.00500000
7 beta-BHC	7.467	7.458	0.009	17090	0.00500	0.00500000
8 delta-BHC	8.758	8.750	0.008	26470	0.00500	0.00500000
12 Heptachlor epoxide	11.642	11.642	0.000	20693	0.00500	0.00500000
13 gamma-Chlordane	12.200	12.200	0.000	20856	0.00500	0.00500000
14 alpha-Chlordane	12.775	12.775	0.000	19842	0.00500	0.00500000
16 4,4'-DDE	13.758	13.758	0.000	19404	0.00500	0.00500000
22 Endosulfan II	15.175	15.175	0.000	18695	0.00500	0.00500000
24 Endrin aldehyde	15.808	15.800	0.008	15802	0.00500	0.00500000
26 Endosulfan sulfate	16.025	16.025	0.000	15764	0.00500	0.00500000
27 Endrin ketone	17.617	17.608	0.009	14444	0.00500	0.00500000

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Data File: /var/chem/gc3.1/3020-E.b/c-a3069.d
 Date: 02-JUN-2000 23:37
 Client ID: LOWB
 Sample Info: LOWB,3020-E.b,4-INDB.sub,1,1
 Column phase: DB608

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



Data File: /var/chem/gc3.i/3020-E.b/c-a3070.d
 Report Date: 05-Jun-2000 11:35

STL-PITTSBURGH

Data file : /var/chem/gc3.i/3020-E.b/c-a3070.d
 Lab Smp Id: MLOWB Client Smp ID: MLOWB
 Inj Date : 03-JUN-2000 00:05
 Operator : 1891 Inst ID: gc3.i
 Smp Info : MLOWB,3020-E.b,,4-INDB.sub,,1,2
 Misc Info : 190-84-8
 Comment :
 Method : /var/chem/gc3.i/3020-E.b/PESTA.m
 Meth Date : 05-Jun-2000 11:20 g Quant Type: ESTD
 Cal Date : 03-JUN-2000 00:05 Cal File: c-a3070.d
 Als bottle: 1 Calibration Sample, Level: 2
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: 4-INDB.sub
 Target Version: 3.40

Compounds	AMOUNTS					
	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
=====	==	=====	=====	=====	=====	=====
11 Aldrin	9.450	9.450	0.000	41455	0.01000	0.0100352
7 beta-BHC	7.458	7.458	0.000	32972	0.01000	0.00982011
8 delta-BHC	8.750	8.750	0.000	54761	0.01000	0.0101691
12 Heptachlor epoxide	11.642	11.642	0.000	41006	0.01000	0.00995388
13 gamma-Chlordane	12.200	12.200	0.000	40836	0.01000	0.00989388
14 alpha-Chlordane	12.775	12.775	0.000	38415	0.01000	0.00983751
16 4,4'-DDE	13.750	13.758	-0.008	39319	0.01000	0.0100654
22 Endosulfan II	15.175	15.175	0.000	37942	0.01000	0.0100733
24 Endrin aldehyde	15.800	15.800	0.000	31034	0.01000	0.00990900
26 Endosulfan sulfate	16.025	16.025	0.000	32174	0.01000	0.0101014
27 Endrin ketone	17.617	17.608	0.009	29859	0.01000	0.0101653

Data File: /var/chem/603.i/3020-E.b/o-a3070.d

Date: 03-JUN-2000 00:05

Client ID: HLOMB

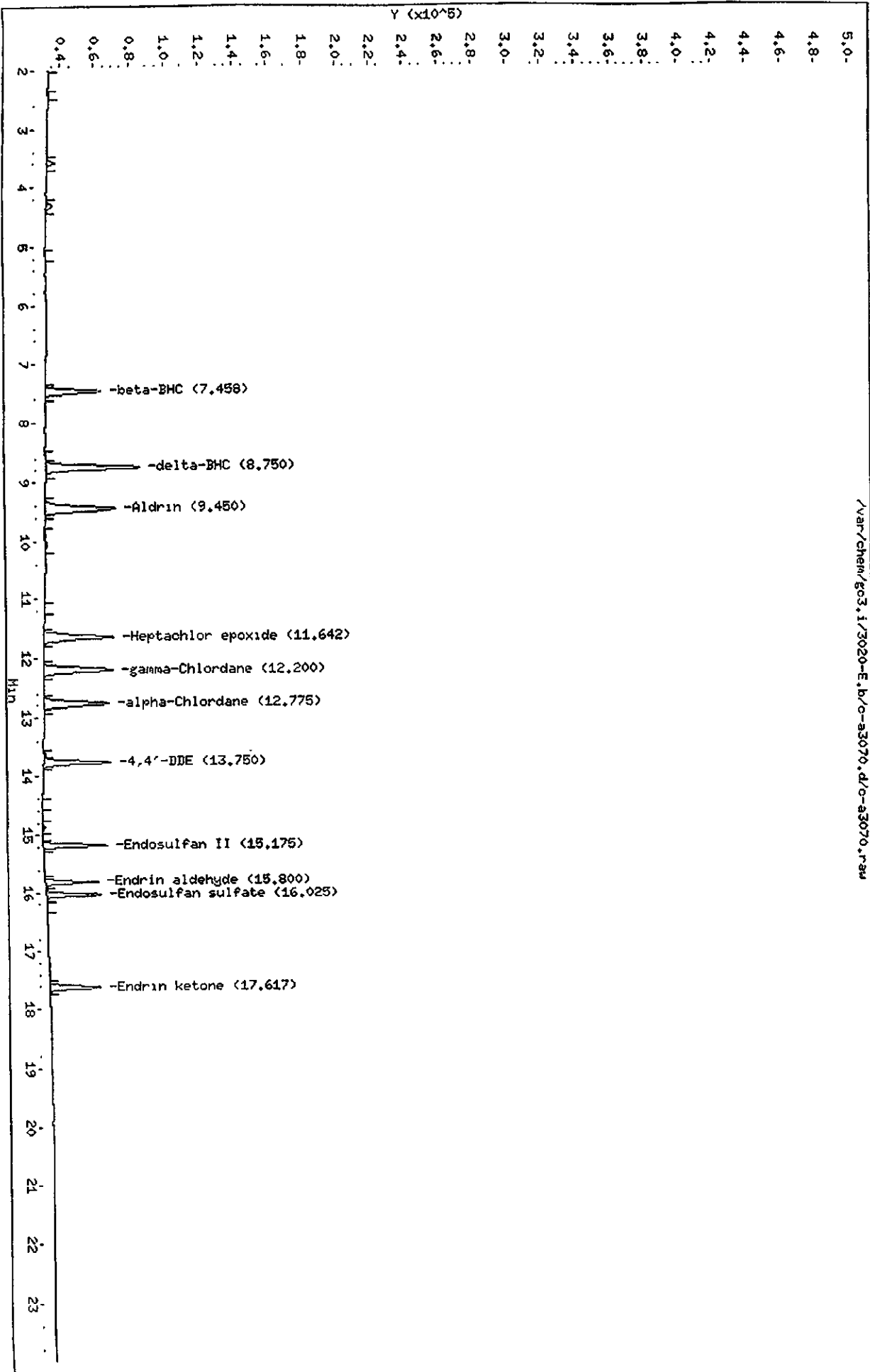
Sample Info: HLOMB, 3020-E.b, /4-INDB.sub, /1,2

Column Phase: DB608

Instrument: 603.i

Operator: 1891

Column diameter: 0.53

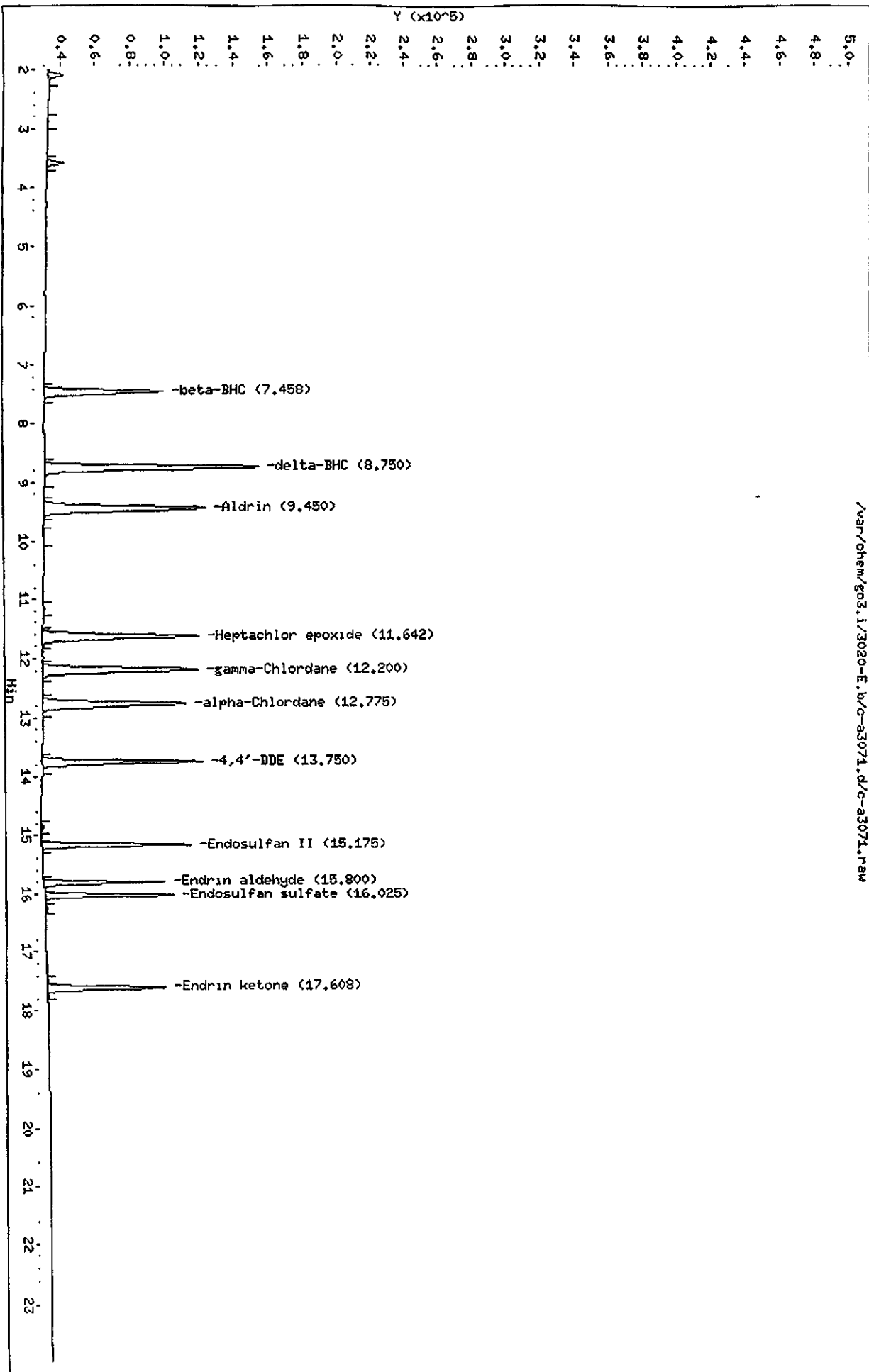


Data File: /var/chem/gc3.i/3020-E.b/c-a3071.d
 Report Date: 05-Jun-2000 11:35

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Data file : /var/chem/gc3.i/3020-E.b/c-a3071.d
 Lab Smp Id: MEDB Client Smp ID: MEDB
 Inj Date : 03-JUN-2000 00:34
 Operator : 1891 Inst ID: gc3.i
 Smp Info : MEDB,3020-E.b,,4-INDB.sub,,1,3
 Misc Info : 190-84-9
 Comment :
 Method : /var/chem/gc3.i/3020-E.b/PESTA.m
 Meth Date : 05-Jun-2000 11:20 g Quant Type: ESTD
 Cal Date : 03-JUN-2000 00:34 Cal File: c-a3071.d
 Als bottle: 1 Calibration Sample, Level: 3
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: 4-INDB.sub
 Target Version: 3.40

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (ng)	ON-COL (ng)
=====	==	=====	=====	=====	=====	=====
11 Aldrin	9.450	9.450	0.000	93640	0.02500	0.0233954
7 beta-BHC	7.458	7.458	0.000	69310	0.02500	0.0219160
8 delta-BHC	8.750	8.750	0.000	124485	0.02500	0.0237122
12 Heptachlor epoxide	11.642	11.642	0.000	90626	0.02500	0.0229158
13 gamma-Chlordane	12.200	12.200	0.000	89928	0.02500	0.0227629
14 alpha-Chlordane	12.775	12.775	0.000	83322	0.02500	0.0224330
16 4,4'-DDE	13.750	13.758	-0.008	93431	0.02500	0.0242679
22 Endosulfan II	15.175	15.175	0.000	86484	0.02500	0.0236025
24 Endrin aldehyde	15.800	15.800	0.000	71014	0.02500	0.0234000
26 Endosulfan sulfate	16.025	16.025	0.000	74325	0.02500	0.0238649
27 Endrin ketone	17.608	17.608	0.000	69131	0.02500	0.0240040



Data File: /var/chem/gc3.i/3020-E.b/c-a3071.d
Date : 03-JUN-2000 00:34
Client ID: HEDB
Sample Info: HEDB,3020-E.b,4-INDB,sub,1,3
Column phase: DB608

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

/var/chem/gc3.i/3020-E.b/c-a3071.d/c-a3071.raw

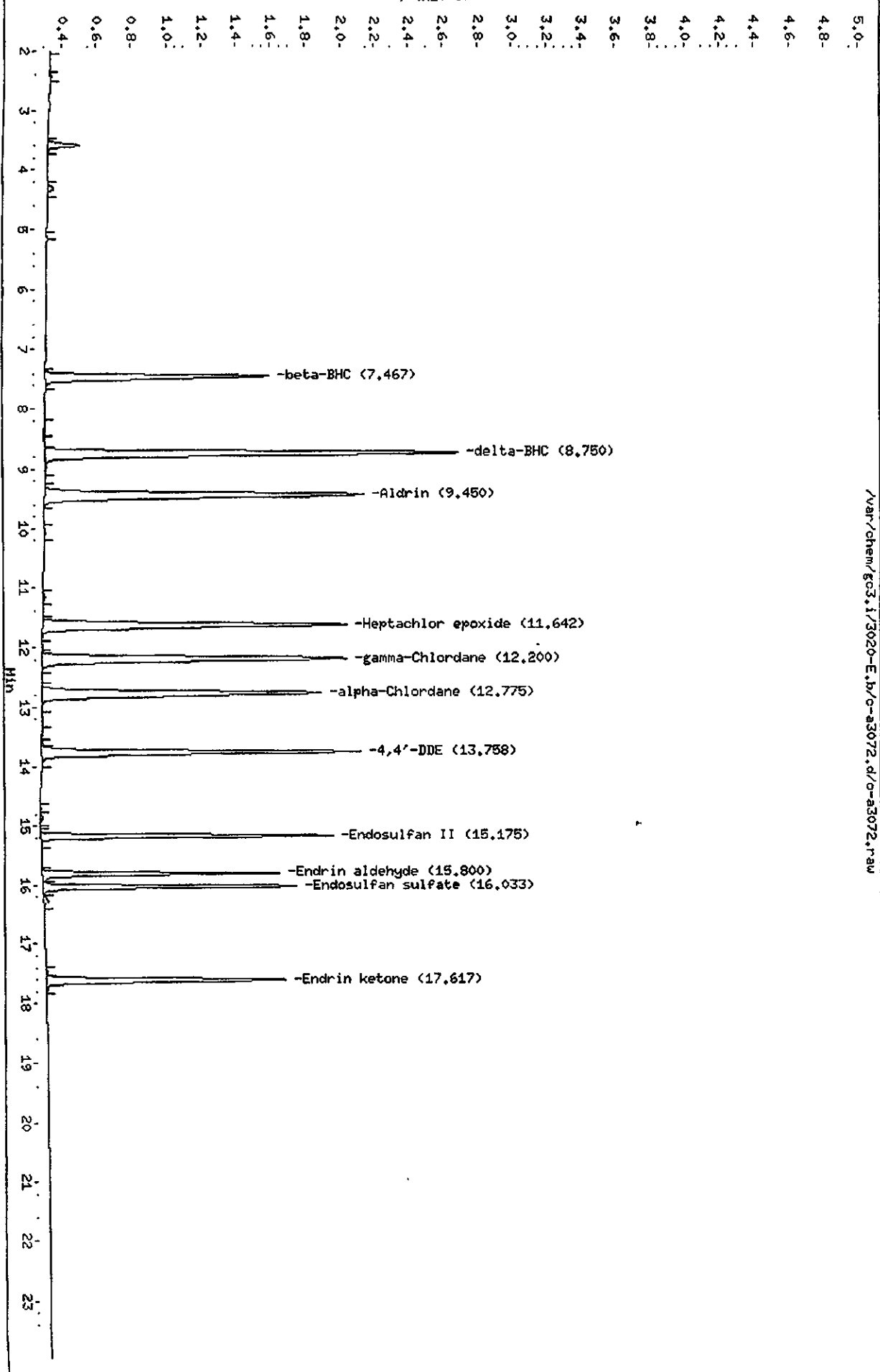
Data File: /var/chem/gc3.i/3020-E.b/c-a3072.d
 Report Date: 05-Jun-2000 11:35

STL-PITTSBURGH

Data file : /var/chem/gc3.i/3020-E.b/c-a3072.d
 Lab Smp Id: MHIGHB Client Smp ID: MHIGHB
 Inj Date : 03-JUN-2000 01:02
 Operator : 1891 Inst ID: gc3.i
 Smp Info : MHIGHB,3020-E.b,,4-INDB.sub,,1,4
 Misc Info : 190-84-10
 Comment :
 Method : /var/chem/gc3.i/3020-E.b/PESTA.m
 Meth Date : 05-Jun-2000 11:20 g Quant Type: ESTD
 Cal Date : 03-JUN-2000 01:02 Cal File: c-a3072.d
 Als bottle: 1 Calibration Sample, Level: 4
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: 4-INDB.sub
 Target Version: 3.40

Compounds					AMOUNTS	
	RT	EXP RT	DLT RT	RT	CAL-AMT (ng)	ON-COL (ng)
=====	==	=====	=====	=====	=====	=====
11 Aldrin	9.450	9.450	0.000	183658	0.05000	0.0468496
7 beta-BHC	7.467	7.458	0.009	128347	0.05000	0.0425888
8 delta-BHC	8.750	8.750	0.000	237985	0.05000	0.0464153
12 Heptachlor epoxide	11.642	11.642	0.000	174720	0.05000	0.0455040
13 gamma-Chlordane	12.200	12.200	0.000	175178	0.05000	0.0456327
14 alpha-Chlordane	12.775	12.775	0.000	160398	0.05000	0.0447079
16 4,4'-DDE	13.758	13.758	0.000	183580	0.05000	0.0482422
22 Endosulfan II	15.175	15.175	0.000	167785	0.05000	0.0467750
24 Endrin aldehyde	15.800	15.800	0.000	135804	0.05000	0.0459556
26 Endosulfan sulfate	16.033	16.025	0.008	145111	0.05000	0.0474009
27 Endrin ketone	17.617	17.608	0.009	137225	0.05000	0.0482149

659 266

Y (x10⁵)

Data File: /var/chem/gc3.i/3020-E.b/c-a3072.d
Date: 03-JUN-2000 01:02
Client ID: HHICHB
Sample Info: HHICHB,3020-E.b.,4-INDB,sub.,4.4
Column Phase: DB608

/var/chem/gc3.i/3020-E.b/c-a3072.d/o-a3072.raw

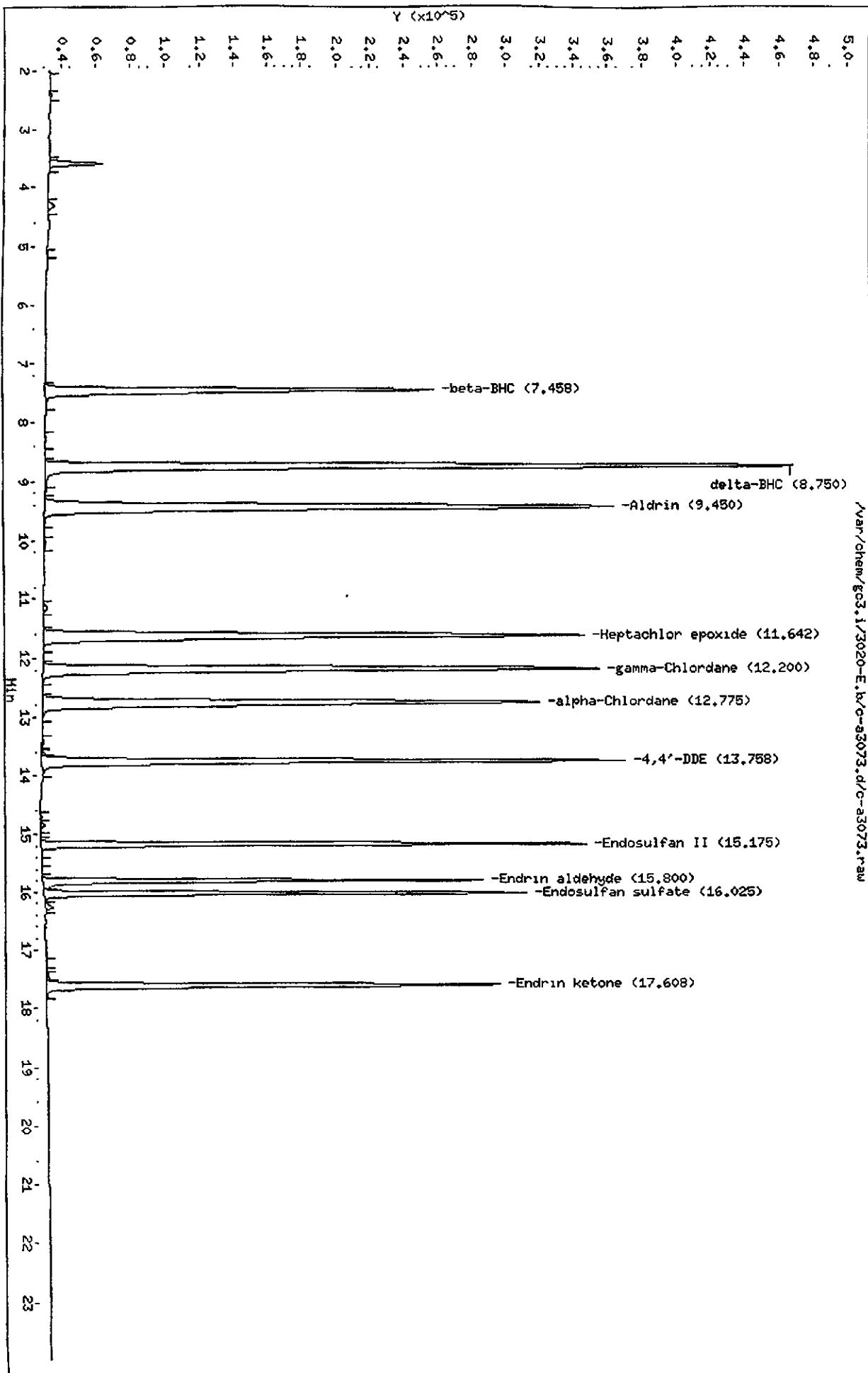
Instrument: gc3.i
Operator: 1891
Column diameter: 0.53

Data File: /var/chem/gc3.i/3020-E.b/c-a3073.d
 Report Date: 05-Jun-2000 11:35

STL-PITTSBURGH

Data file : /var/chem/gc3.i/3020-E.b/c-a3073.d
 Lab Smp Id: HIGHB Client Smp ID: HIGHB
 Inj Date : 03-JUN-2000 01:30
 Operator : 1891 Inst ID: gc3.i
 Smp Info : HIGHB,3020-E.b,,4-INDB.sub,,1,5
 Misc Info : 190-84-11
 Comment :
 Method : /var/chem/gc3.i/3020-E.b/PESTA.m
 Meth Date : 05-Jun-2000 11:20 g Quant Type: ESTD
 Cal Date : 03-JUN-2000 01:30 Cal File: c-a3073.d
 Als bottle: 1 Calibration Sample, Level: 5
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: 4-INDB.sub
 Target Version: 3.40

Compounds	AMOUNTS					
	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
=====	==	=====	=====	=====	=====	=====
11 Aldrin	9.450	9.450	0.000	332056	0.10000	0.0873775
7 beta-BHC	7.458	7.458	0.000	226091	0.10000	0.0789675
8 delta-BHC	8.750	8.750	0.000	435868	0.10000	0.0876367
12 Heptachlor epoxide	11.642	11.642	0.000	315890	0.10000	0.0852948
13 gamma-Chlordane	12.200	12.200	0.000	324386	0.10000	0.0872036
14 alpha-Chlordane	12.775	12.775	0.000	289914	0.10000	0.0840336
16 4,4'-DDE	13.758	13.758	0.000	340380	0.10000	0.0913755
22 Endosulfan II	15.175	15.175	0.000	318220	0.10000	0.0907620
24 Endrin aldehyde	15.800	15.800	0.000	257443	0.10000	0.0894218
26 Endosulfan sulfate	16.025	16.025	0.000	281639	0.10000	0.0934944
27 Endrin ketone	17.608	17.608	0.000	264267	0.10000	0.0941987



Data File: /var/chem/gc3.1/3020-E.b/c-a3073.d
Date : 03-JUN-2000 04:30
Client ID: HICHB
Sample Info: HICHB,3020-E.b,,4-INDB.sub,,1,5
Column phase: DB608

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

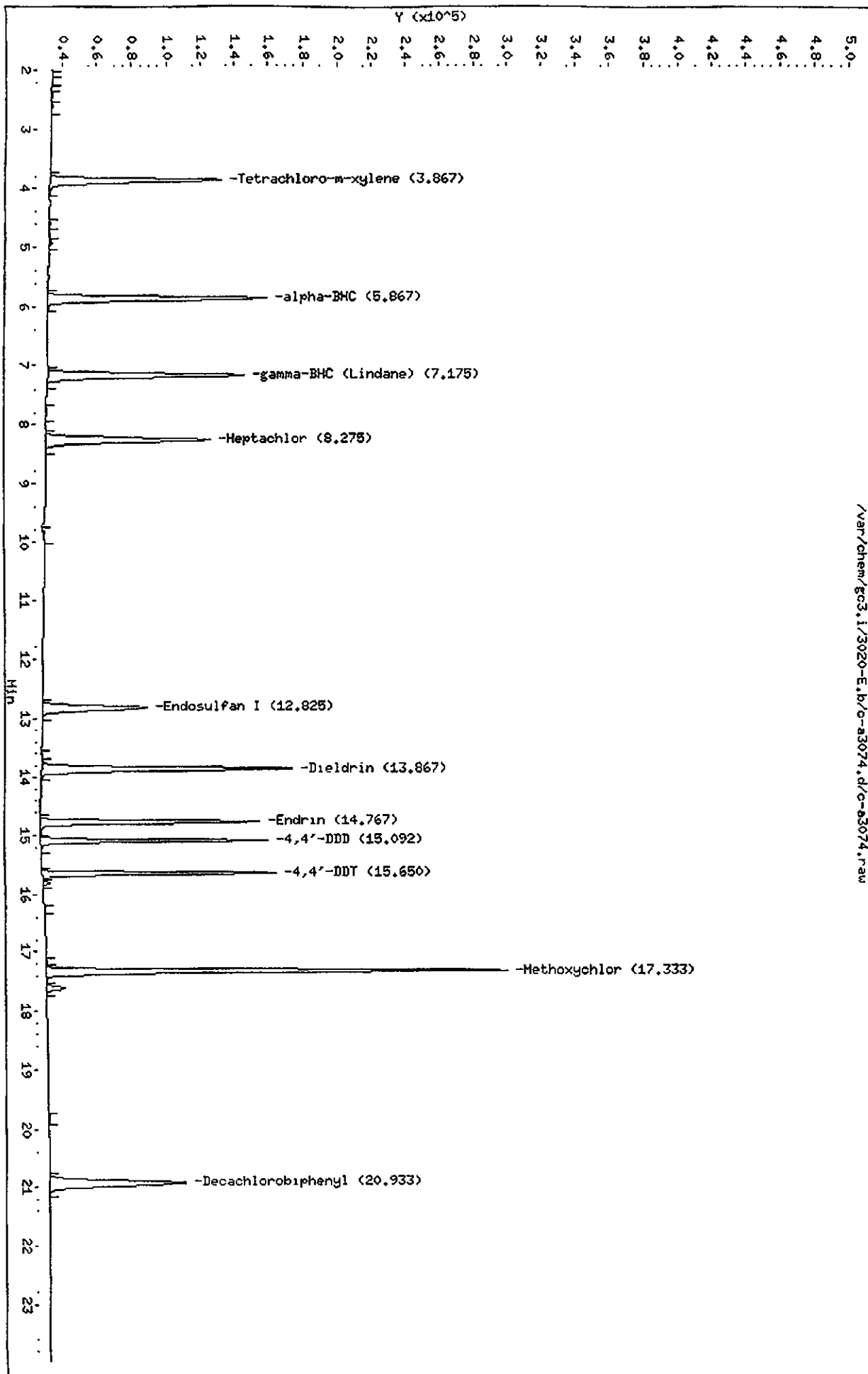
/var/chem/gc3.1/3020-E.b/c-a3073.d/c-a3073.raw

Data File: /var/chem/gc3.i/3020-E.b/c-a3074.d
 Report Date: 05-Jun-2000 11:35

STL-PITTSBURGH

Data file : /var/chem/gc3.i/3020-E.b/c-a3074.d
 Lab Smp Id: 2ND A Client Smp ID: 2ND A
 Inj Date : 03-JUN-2000 01:57
 Operator : 1891 Inst ID: gc3.i
 Smp Info : 2ND A, 3020-E.b, , INDA.sub, , 2, 3
 Misc Info : 190-82-2
 Comment :
 Method : /var/chem/gc3.i/3020-E.b/PESTA.m
 Meth Date : 05-Jun-2000 11:20 g Quant Type: ESTD
 Cal Date : 03-JUN-2000 01:30 Cal File: c-a3073.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	3.867	3.892	-0.025	99402	0.02500	0.0197350
5 alpha-BHC	5.867	5.883	-0.016	127190	0.02500	0.0211488
6 gamma-BHC (Lindane)	7.175	7.192	-0.017	114044	0.02500	0.0213637
10 Heptachlor	8.275	8.292	-0.017	95166	0.02500	0.0210870
15 Endosulfan I	12.825	12.842	-0.017	60069	0.02500	0.0198643
17 Dieldrin	13.867	13.867	0.000	145868	0.02500	0.0405251
20 Endrin	14.767	14.775	-0.008	127402	0.02500	0.0364592
21 4,4'-DDD	15.092	15.100	-0.008	132067	0.02500	0.0424314
23 4,4'-DDT	15.650	15.658	-0.008	135834	0.02500	0.0417090
25 Methoxychlor	17.333	17.342	-0.009	268606	0.05000	0.181520
\$ 30 Decachlorobiphenyl	20.933	20.942	-0.009	78960	0.02500	0.0378077



/var/chem/gc3.i/3020-E.b/c-a3074.d

Data File: /var/chem/gc3.i/3020-E.b/c-a3074.d

Date: 03-JUN-2000 01:57

Client ID: 2ND A

Sample Info: 2ND A, 3020-E.b, INDA, sub, 2, 3

Column phase: DB608

Instrument: gc3.i

Operator: 1891

Column diameter: 0.53

Data File: /var/chem/gc3.i/3020-E.b/c-a3075.d
 Report Date: 05-Jun-2000 11:35

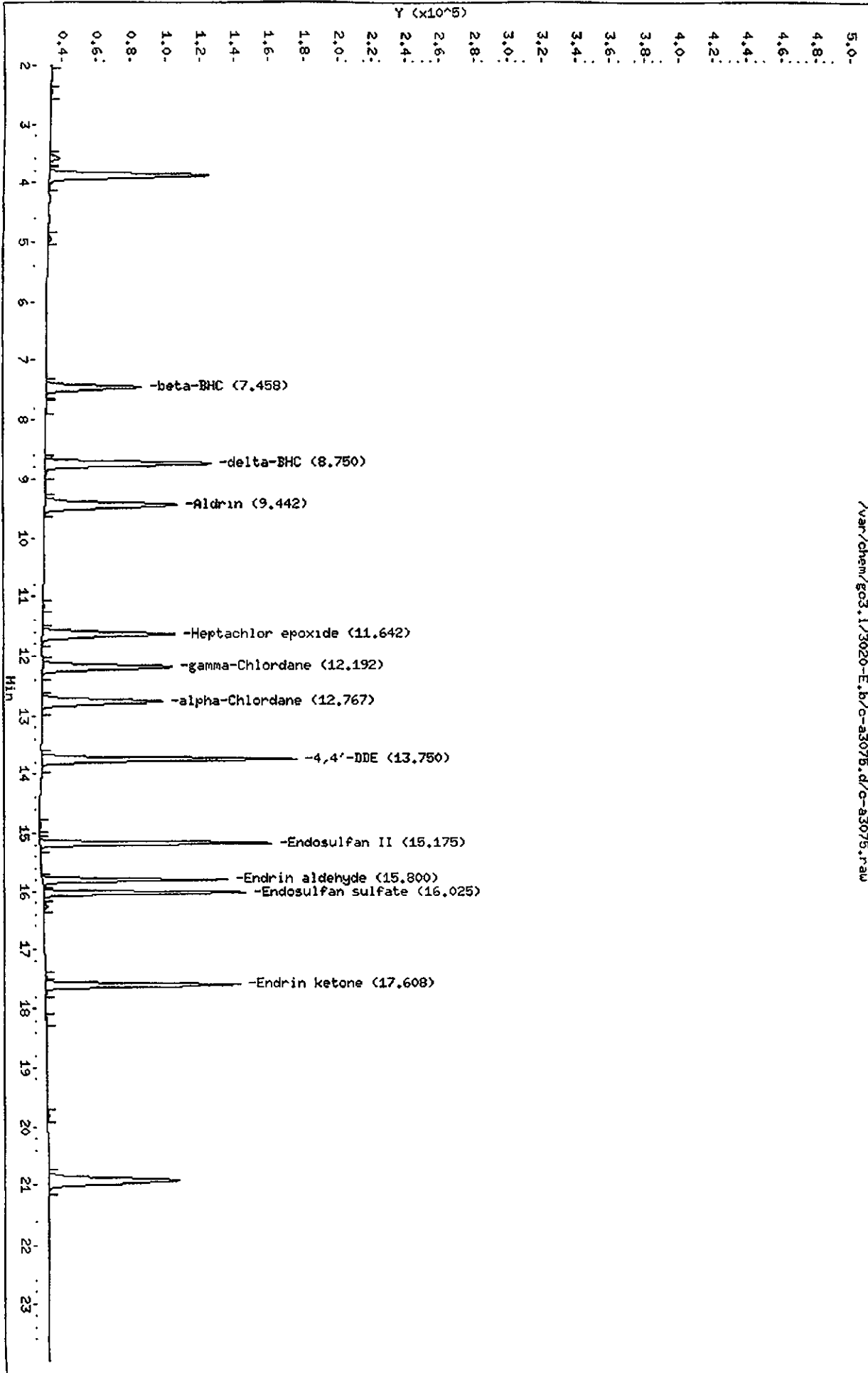
STL-PITTSBURGH

Data file : /var/chem/gc3.i/3020-E.b/c-a3075.d
 Lab Smp Id: 2ND B Client Smp ID: 2ND B
 Inj Date : 03-JUN-2000 02:25
 Operator : 1891 Inst ID: gc3.i
 Smp Info : 2ND B,3020-E.b,,INDB.sub,,2,3
 Misc Info : 190-82-5
 Comment :
 Method : /var/chem/gc3.i/3020-E.b/PESTA.m
 Meth Date : 05-Jun-2000 11:20 g Quant Type: ESTD
 Cal Date : 03-JUN-2000 01:30 Cal File: c-a3073.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	9.442	9.450	-0.008	76349	0.02500	0.0200906
7 beta-BHC	7.458	7.458	0.000	54716	0.02500	0.0191108
8 delta-BHC	8.750	8.750	0.000	96193	0.02500	0.0193408
12 Heptachlor epoxide	11.642	11.642	0.000	76538	0.02500	0.0206664
13 gamma-Chlordane	12.192	12.200	-0.008	74900	0.02500	0.0201351
14 alpha-Chlordane	12.767	12.775	-0.008	69539	0.02500	0.0201564
16 4,4'-DDE	13.750	13.758	-0.008	147451	0.02500	0.0395834
22 Endosulfan II	15.175	15.175	0.000	133797	0.02500	0.0381613
24 Endrin aldehyde	15.800	15.800	0.000	106910	0.02500	0.0371348
26 Endosulfan sulfate	16.025	16.025	0.000	116329	0.02500	0.0386172
27 Endrin ketone	17.608	17.608	0.000	112702	0.02500	0.0401729

Data File: /var/chem/g03.1/3020-E.b/c-a3075.d
Date : 03-JUN-2000 02:25
Client ID: 2ND B
Sample Info: 2ND B, 3020-E.b, INDB.sub, 2,3
Column phase: DB608

Instrument: g03.1
Operator: 1891
Column diameter: 0.53



Data File: /var/chem/gc3.i/3020-E.b/c-a3076.d
 Report Date: 05-Jun-2000 11:35

STL-PITTSBURGH

Data file : /var/chem/gc3.i/3020-E.b/c-a3076.d
 Lab Smp Id: EVALB Client Smp ID: EVALB
 Inj Date : 03-JUN-2000 02:53
 Operator : 1891 Inst ID: gc3.i
 Smp Info : EVALB,3020-E.b,,EVALBR.sub,,3,1
 Misc Info : 190-88-8
 Comment :
 Method : /var/chem/gc3.i/3020-E.b/PESTA.m
 Meth Date : 05-Jun-2000 11:20 g Quant Type: ESTD
 Cal Date : 03-JUN-2000 01:30 Cal File: c-a3073.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	3.883	3.892	-0.009	98311	0.01952	0.0195184 (R)
16 4,4'-DDE	13.750	13.758	-0.008	1020	0.000274	0.000273820
20 Endrin	14.767	14.775	-0.008	87710	0.02510	0.0251004
21 4,4'-DDD	15.092	15.100	-0.008	1103	0.000354	0.000354379 (M)
23 4,4'-DDT	15.650	15.658	-0.008	85015	0.02610	0.0261046
24 Endrin aldehyde	15.800	15.800	0.000	914	0.000317	0.000317474
27 Endrin ketone	17.608	17.608	0.000	1564	0.000557	0.000557492
\$ 30 Decachlorobiphenyl	20.933	20.942	-0.009	43292	0.02073	0.0207291 (R)

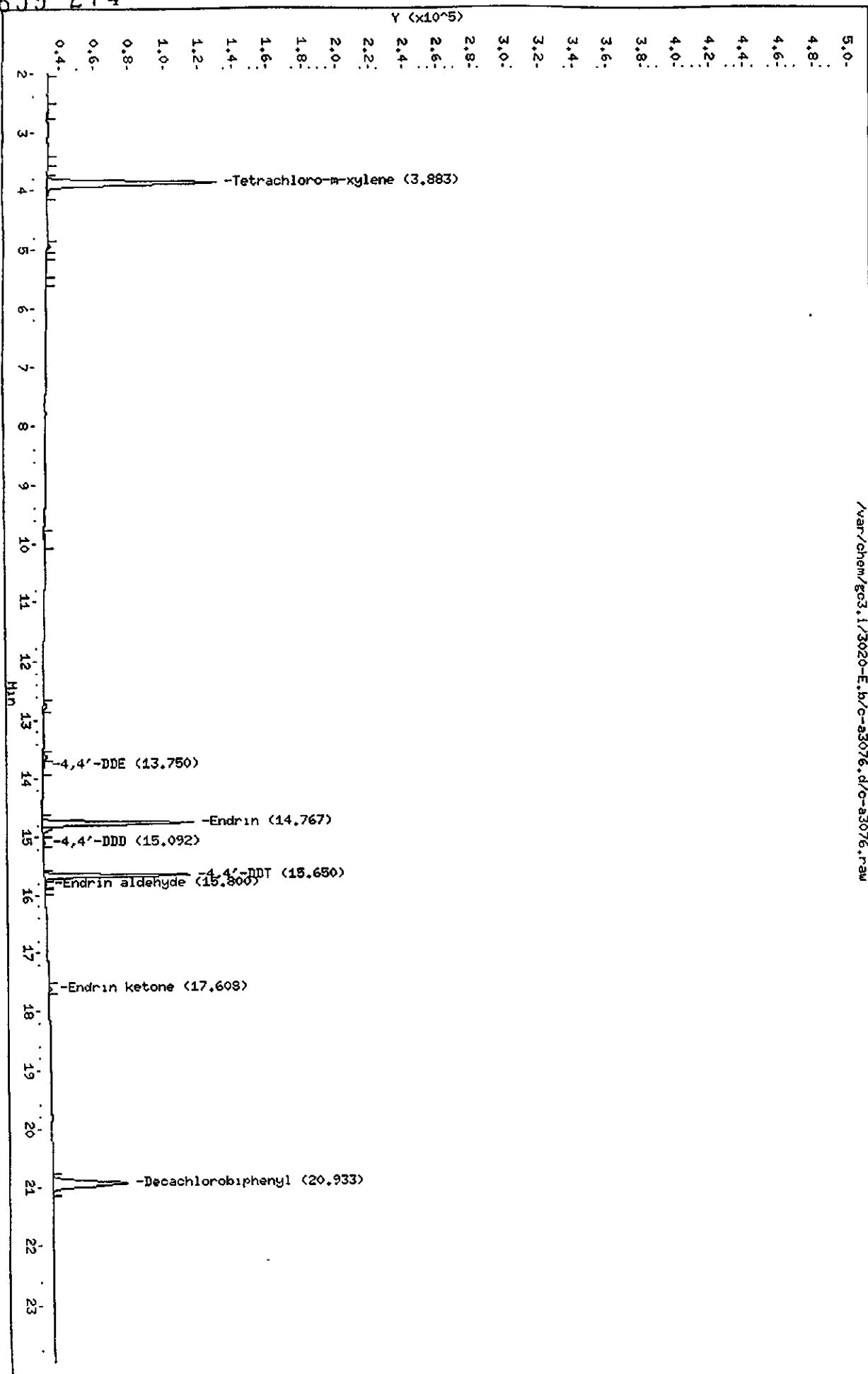
QC Flag Legend

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

$$\text{Endrin Breakdown} = \frac{(914 + 1564)}{(914 + 1564 + 87710)} \times 100 = 2.7\%$$

$$\text{DDT Breakdown} = \frac{(1020 + 1103)}{(1020 + 1103 + 85015)} \times 100 = 2.4\%$$

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/var/chem/gc3.i/3020-E.b/c-a3076.d/c-a3076.r3u

Column phase: DB608

Data File: /var/chem/gc3.i/3020-E.b/c-a3076.d
 Date: 03-JUN-2000 02:53
 Client ID: EVALB
 Sample Info: EVALB,3020-E.b,,EVALBR,sub,,3.1

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

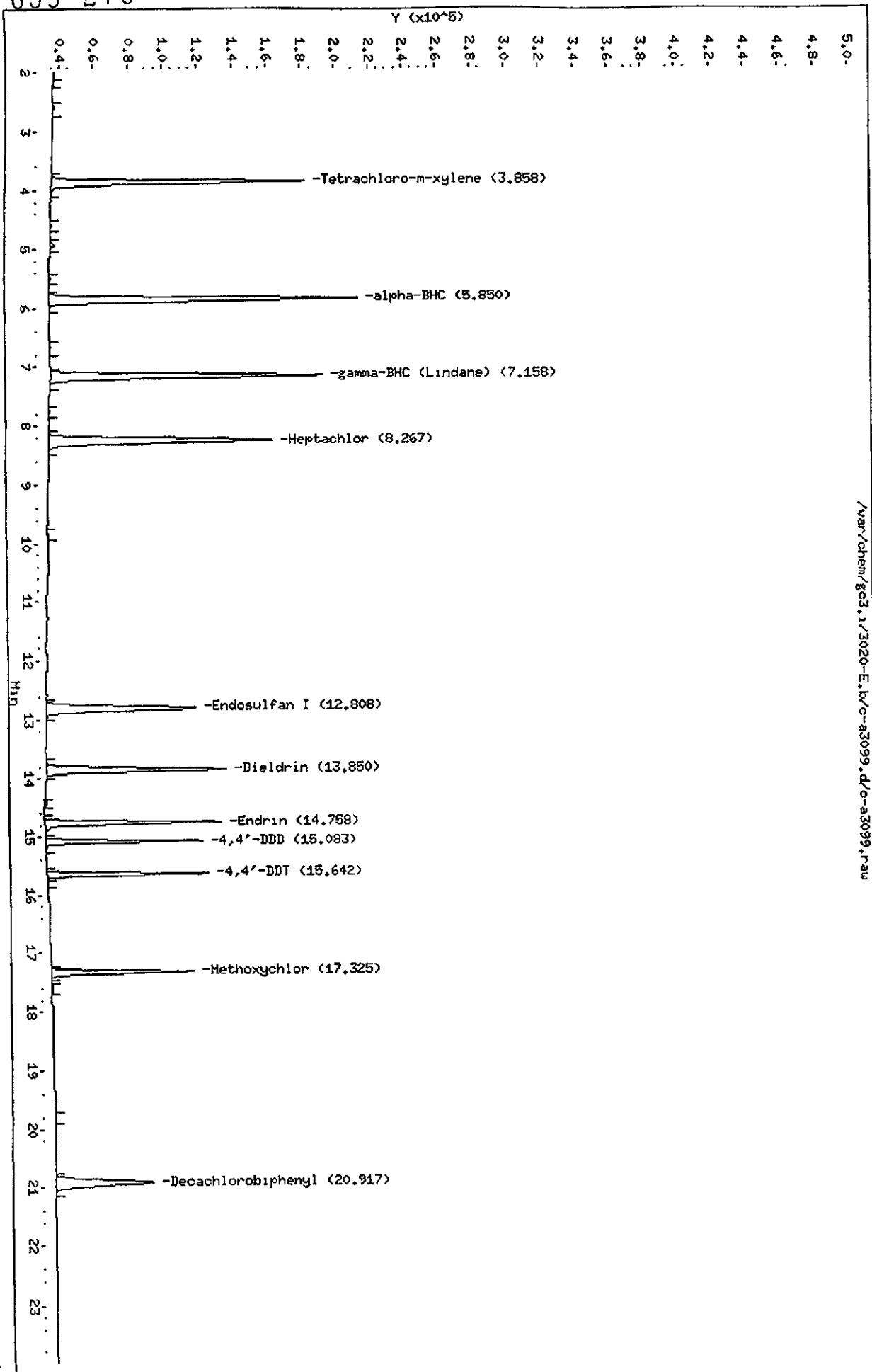
Data File: /var/chem/gc3.i/3020-E.b/c-a3099.d
 Report Date: 05-Jun-2000 11:35

STL-PITTSBURGH

Data file : /var/chem/gc3.i/3020-E.b/c-a3099.d
 Lab Smp Id: MEDA Client Smp ID: MEDA
 Inj Date : 03-JUN-2000 13:32
 Operator : 1891 Inst ID: gc3.i
 Smp Info : MEDA,3020-E.b,,INDA.sub,,2,3
 Misc Info : 190-84-3
 Comment :
 Method : /var/chem/gc3.i/3020-E.b/PESTA.m
 Meth Date : 05-Jun-2000 11:20 g Quant Type: ESTD
 Cal Date : 03-JUN-2000 01:30 Cal File: c-a3073.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	3.858	3.892	-0.034	147438	0.02500	0.0292720
5 alpha-BHC	5.850	5.883	-0.033	179354	0.02500	0.0298224
6 gamma-BHC (Lindane)	7.158	7.192	-0.034	158137	0.02500	0.0296236
10 Heptachlor	8.267	8.292	-0.025	130101	0.02500	0.0288279
15 Endosulfan I	12.808	12.842	-0.034	86714	0.02500	0.0286756
17 Dieldrin	13.850	13.867	-0.017	104756	0.02500	0.0291034
20 Endrin	14.758	14.775	-0.017	102800	0.02500	0.0294187
21 4,4'-DDD	15.083	15.100	-0.017	91599	0.02500	0.0294295
23 4,4'-DDT	15.642	15.658	-0.016	93922	0.02500	0.0288395
25 Methoxychlor	17.325	17.342	-0.017	82890	0.05000	0.0560159
\$ 30 Decachlorobiphenyl	20.917	20.942	-0.025	57259	0.02500	0.0274168

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Data File: /var/chem/gc3.1/3020-E.b/c-a3099.d
Date: 03-JUN-2000 13:32
Client ID: MEDA
Sample Info: MEDA,3020-E.b,,INDA.sub,,2,3
Column phase: DB608

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

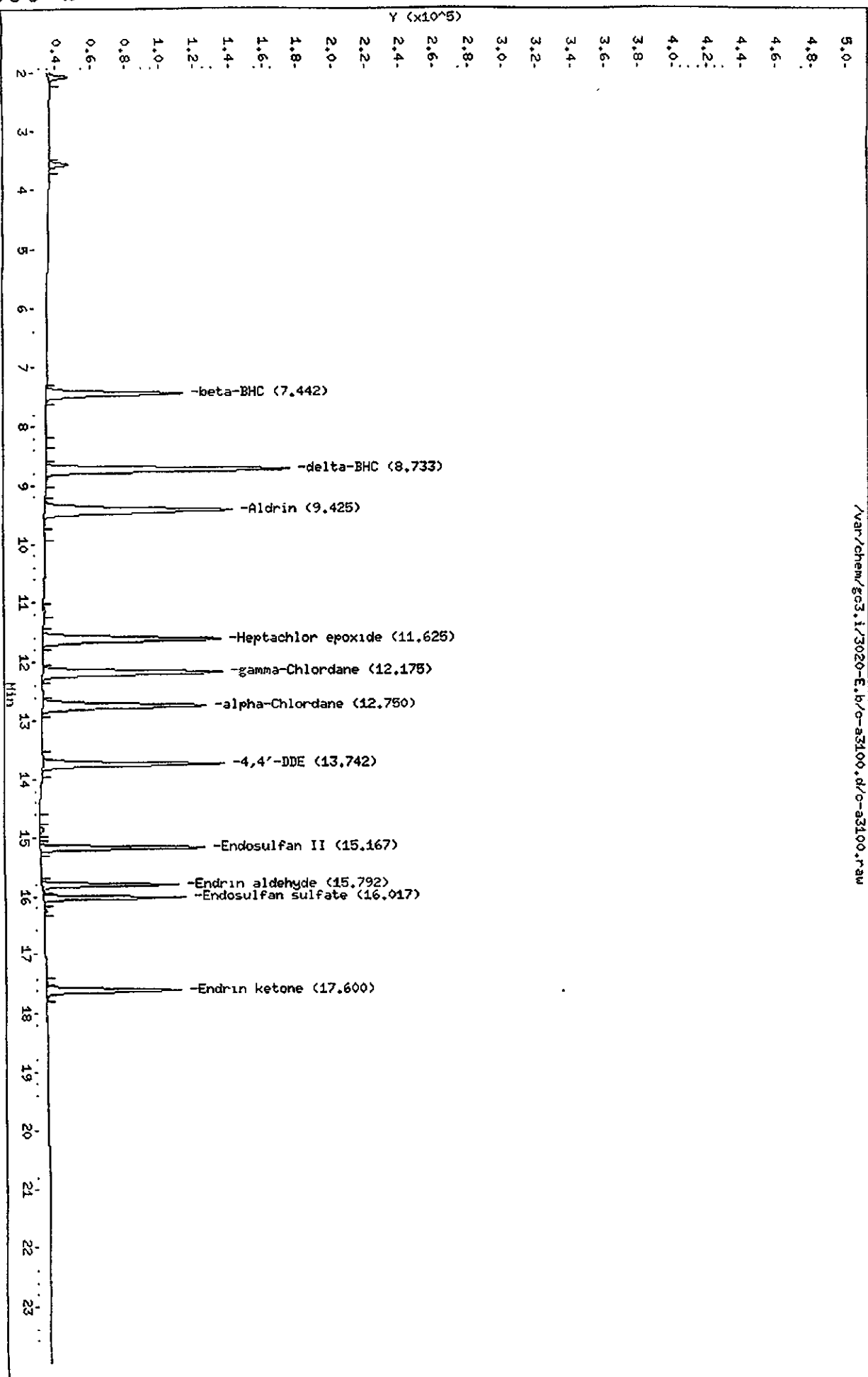
/var/chem/gc3.1/3020-E.b/c-a3099.d/c-a3099.raw

Data File: /var/chem/gc3.i/3020-E.b/c-a3100.d
 Report Date: 05-Jun-2000 11:36

STL-PITTSBURGH

Data file : /var/chem/gc3.i/3020-E.b/c-a3100.d
 Lab Smp Id: MEDB Client Smp ID: MEDB
 Inj Date : 03-JUN-2000 14:00
 Operator : 1891 Inst ID: gc3.i
 Smp Info : MEDB,3020-E.b,,INDB.sub,,2,3
 Misc Info : 190-84-9
 Comment :
 Method : /var/chem/gc3.i/3020-E.b/PESTA.m
 Meth Date : 05-Jun-2000 11:20 g Quant Type: ESTD
 Cal Date : 03-JUN-2000 01:30 Cal File: c-a3073.d
 Als bottle: 1 Continuing Calibration Sample
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: INDB.sub
 Target Version: 3.40

Compounds	AMOUNTS					
	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
=====	==	=====	=====	=====	=====	=====
11 Aldrin	9.425	9.450	-0.025	109041	0.02500	0.0286932
7 beta-BHC	7.442	7.458	-0.016	79714	0.02500	0.0278419
8 delta-BHC	8.733	8.750	-0.017	142464	0.02500	0.0286442
12 Heptachlor epoxide	11.625	11.642	-0.017	103342	0.02500	0.0279038
13 gamma-Chlordane	12.175	12.200	-0.025	104784	0.02500	0.0281687
14 alpha-Chlordane	12.750	12.775	-0.025	95705	0.02500	0.0277408
16 4,4'-DDE	13.742	13.758	-0.016	105960	0.02500	0.0284451
22 Endosulfan II	15.167	15.175	-0.008	95662	0.02500	0.0272845
24 Endrin aldehyde	15.792	15.800	-0.008	79658	0.02500	0.0276689
26 Endosulfan sulfate	16.017	16.025	-0.008	83271	0.02500	0.0276431
27 Endrin ketone	17.600	17.608	-0.008	78366	0.02500	0.0279338



Data File: /var/chem/gc3.i/3020-E.b/c-a3100.d
Date : 03-JUN-2000 14:00
Client ID: HEDB
Sample Info: HEDB,3020-E.b,IND,sub,,2,3
Column phase: DB608

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

/var/chem/gc3.i/3020-E.b/c-a3100.d/c-a3100.raw

**PESTICIDE
QC DATA**

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UXB INTERNATIONAL
METHOD BLANK COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix (soil/water) SOLID

Lab Sample ID: C0E310000 460

Method: SW846 8081A

Pesticides (8081A)

Sample WT/Vol: 100 / mL

Date Received: 05/26/00

Work Order: DE187101

Date Extracted: 05/31/00

Dilution factor: 1

Date Analyzed: 06/03/00

Moisture %: NA

QC Batch: 0152460

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/3020-E.b/c-a3082.d
 Report Date: 05-Jun-2000 12:03

STL-PITTSBURGH

Data file : /var/chem/gc3.i/3020-E.b/c-a3082.d
 Lab Smp Id: DE187101 Client Smp ID: PBLK
 Inj Date : 03-JUN-2000 05:39
 Operator : 1891 Inst ID: gc3.i
 Smp Info : DE187101,3020-E.b,,all.sub,,3,
 Misc Info : E260147BLK
 Comment :
 Method : /var/chem/gc3.i/3020-E.b/PESTA.m
 Meth Date : 05-Jun-2000 11:43 g Quant Type: ESTD
 Cal Date : 03-JUN-2000 01:30 Cal File: c-a3073.d
 Als bottle: 1 QC Sample: BLANK
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: all.sub
 Target Version: 3.40

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

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

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ng)	FINAL (ug/L)
1 Tetrachloro-m-xylene	3.875	3.892	-0.017	101009	0.02005	2.00541(R)
2 Diallyl A	4.942	4.967	-0.025	1742	0.01257	1.25741(a)
3 Diallyl B	5.258	5.217	0.041	661	0.01597	1.59746(a)
4 MIREX						
5 alpha-BHC						
6 gamma-BHC (Lindane)						
7 beta-BHC						
8 delta-BHC						
9 Chlordane						
10 Heptachlor						
11 Aldrin						
12 Heptachlor epoxide						
13 gamma-Chlordane						
14 alpha-Chlordane						
15 Endosulfan I						
16 4,4'-DDE						

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Data File: /var/chem/gc3.i/3020-E.b/c-a3082.d

Report Date: 05-Jun-2000 12:03

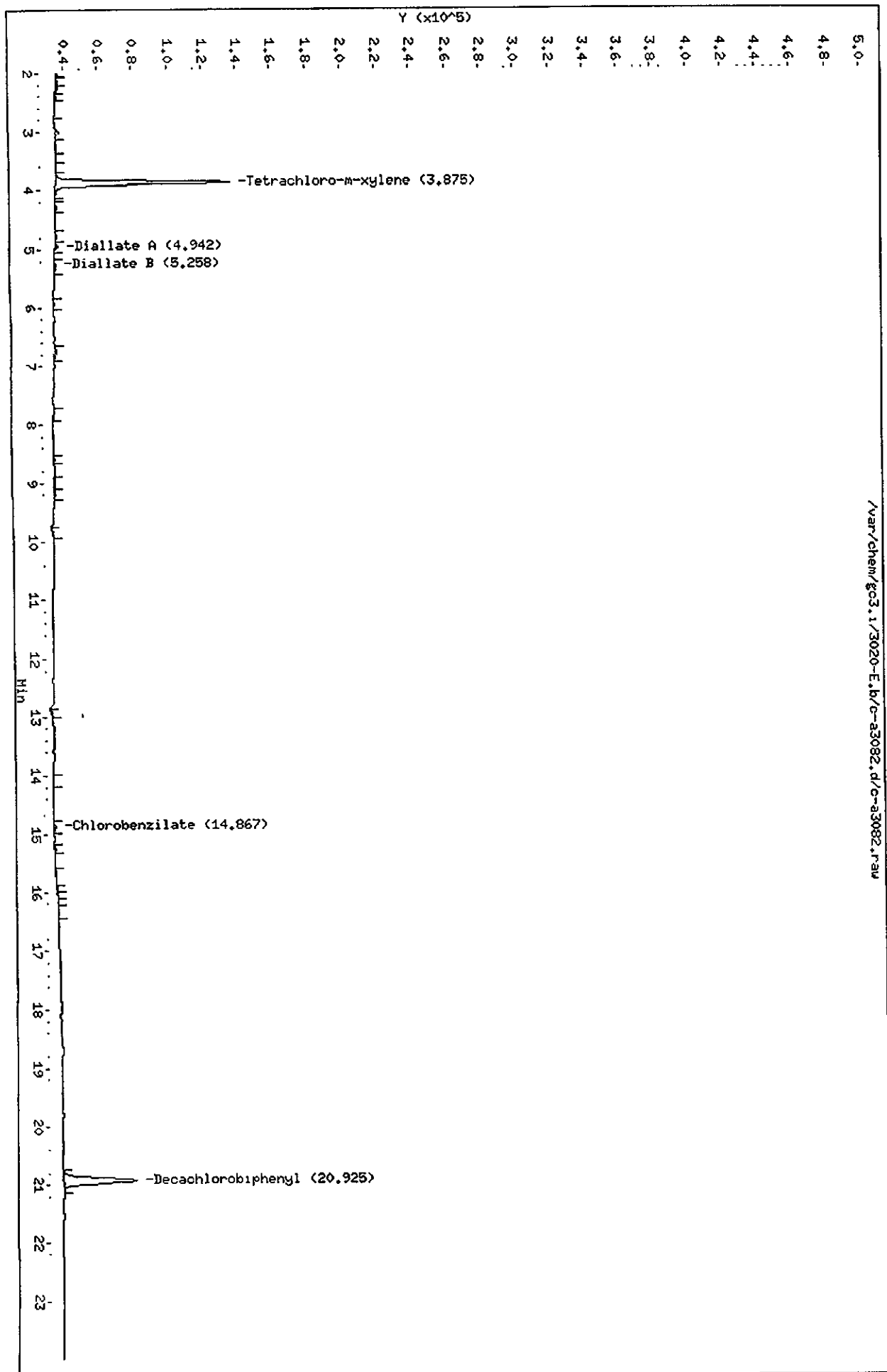
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ng)	FINAL (ug/L)
*****	==	*****	*****	*****	*****	*****
17 Dieldrin				Compound Not Detected		
18 Toxaphene				Compound Not Detected		
19 Isodrin				Compound Not Detected.		
20 Endrin				Compound Not Detected.		
21 4,4'-DDD				Compound Not Detected.		
22 Endosulfan II				Compound Not Detected.		
23 4,4'-DDT				Compound Not Detected.		
24 Endrin aldehyde				Compound Not Detected.		
25 Methoxychlor				Compound Not Detected.		
26 Endosulfan sulfate				Compound Not Detected.		
27 Endrin ketone				Compound Not Detected.		
28 Chlorobenzilate	14.867	14.875	-0.008	1349	0.00063	0.0629833 (a)
29 Kepone				Compound Not Detected		
\$ 30 Decachlorobiphenyl	20.925	20.942	-0.017	42096	0.02016	2.01564 (R)

QC Flag Legend

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

Data File: /var/chem/gc3.1/3020-E.b/c-a3082.d
Date : 03-JUN-2000 05:39
Client ID: PRLK
Sample Info: DE187101,3020-E.b,a11,sub,,3,
Volume Injected (uL): 1.0
Column Phase: DB608

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



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UXB INTERNATIONAL
CHECK SAMPLE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0E310000 460

Method: SW846 8081A

Pesticides (8081A)

Sample WT/Vol: 100 / mL

Date Received: 05/26/00

Work Order: DE187102

Date Extracted: 05/31/00

Dilution factor: 1

Date Analyzed: 06/03/00

Moisture %: NA

QC Batch: 0152460

Client Sample Id: CHECK SAMPLE

		CONCENTRATION UNITS:	
CAS NO.	COMPOUND	(ug/L or ug/kg) mg/L	Q
72-20-8	Endrin	0.00240	
76-44-8	Heptachlor	0.00236	
1024-57-3	Heptachlor epoxide	0.00236	
58-89-9	Lindane	0.00205	
72-43-5	Methoxychlor	0.00266	

Data File: /var/chem/gc3.i/3020-E.b/c-a3083.d
 Report Date: 05-Jun-2000 12:03

STL-PITTSBURGH

Data file : /var/chem/gc3.i/3020-E.b/c-a3083.d
 Lab Smp Id: DE187102 Client Smp ID: LCS
 Inj Date : 03-JUN-2000 06:07
 Operator : 1891 Inst ID: gc3.i
 Smp Info : DE187102,3020-E.b,,all.sub,,3,
 Misc Info : E260147LCS
 Comment :
 Method : /var/chem/gc3.i/3020-E.b/PESTA.m
 Meth Date : 05-Jun-2000 11:43 g Quant Type: ESTD
 Cal Date : 03-JUN-2000 01:30 Cal File: c-a3073.d
 Als bottle: 1 QC Sample: LCS
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: all.sub
 Target Version: 3.40

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

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

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ng)	FINAL (ug/L)
1 Tetrachloro-m-xylene	3.867	3.892	-0.025	101597	0.02017	2.01708(R)
2 Diallylate A	4.933	4.967	-0.034	1917	0.01384	1.38373(a)
3 Diallylate B	Compound Not Detected.					
4 MIREX	Compound Not Detected.					
5 alpha-BHC	5.858	5.883	-0.025	108145	0.01798	1.79820
6 gamma-BHC (Lindane)	7.158	7.192	-0.034	109326	0.02048	2.04799(R)
7 beta-BHC	7.442	7.458	-0.016	63887	0.02231	2.23140
8 delta-BHC	8.733	8.750	-0.017	11193	0.00225	0.225049
9 Chlordane	Compound Not Detected.					
10 Heptachlor	8.267	8.292	-0.025	106336	0.02356	2.35620(R)
11 Aldrin	9.433	9.450	-0.017	87183	0.02294	2.29414(R)
12 Heptachlor epoxide	11.625	11.642	-0.017	87499	0.02363	2.36260
13 gamma-Chlordane	12.183	12.200	-0.017	89521	0.02407	2.40656
14 alpha-Chlordane	12.775	12.775	0.000	105204	0.03049	3.04941
15 Endosulfan I	Compound Not Detected.					
16 4,4'-DDE	13.742	13.758	-0.016	93625	0.02513	2.51338

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Data File: /var/chem/gc3.i/3020-E.b/c-a3083.d

Report Date: 05-Jun-2000 12:03

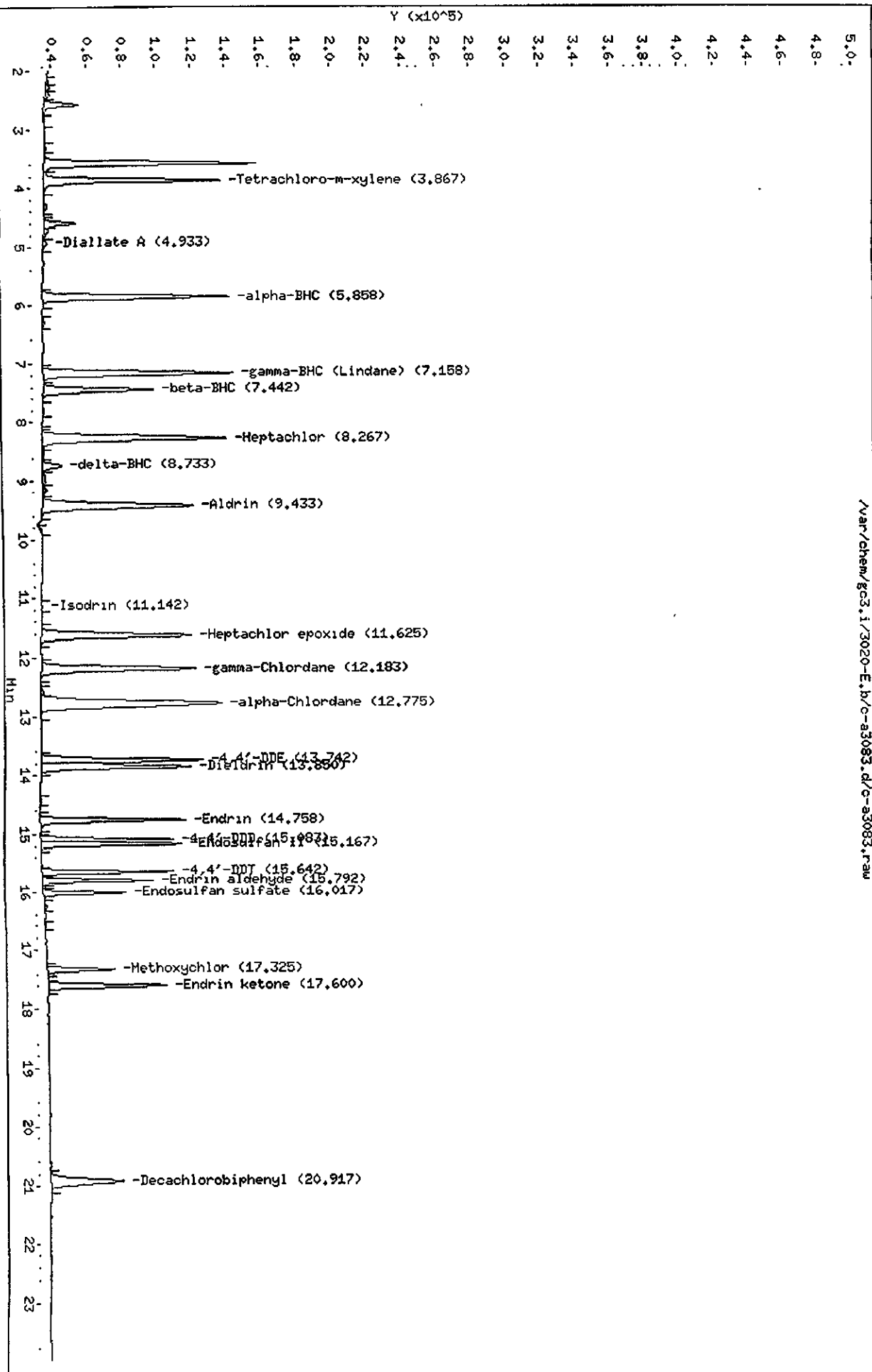
Compounds	CONCENTRATIONS					
	RT	EXP RT	DLT RT	RESPONSE	ON-COLUMN	FINAL
					(ng)	(ug/L)
=====	==	=====	=====	=====	=====	=====
17 Dieldrin	13.850	13.867	-0.017	86718	0.02409	2.40920(R)
18 Toxaphene	Compound Not Detected					
19 Inodrin	11.142	11.167	-0.025	547	0.000178	0.0177752(a)
20 Endrin	14.758	14.775	-0.017	84002	0.02404	2.40392(R)
21 4,4'-DDD	15.083	15.100	-0.017	77072	0.02476	2.47622
22 Endosulfan II	15.167	15.175	-0.008	81631	0.02328	2.32826
23 4,4'-DDT	15.642	15.658	-0.016	76132	0.02338	2.33770(R)
24 Endrin aldehyde	15.792	15.800	-0.008	63752	0.02214	2.21440
25 Methoxychlor	17.325	17.342	-0.017	39306	0.02656	2.65624
26 Endosulfan sulfate	16.017	16.025	-0.008	47686	0.01583	1.58301
27 Endrin ketone	17.600	17.608	-0.008	68784	0.02452	2.45182
28 Chlorobenzilate	Compound Not Detected					
29 Kepone	Compound Not Detected.					
\$ 30 Decachlorobiphenyl	20.917	20.942	-0.025	42291	0.02025	2.02498(R)

QC Flag Legend

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

Data File: /var/chem/gc3.i/3020-E.b/c-a3083.d
 Date : 03-JUN-2000 06:07
 Client ID: LCS
 Sample Info: DE187102,3020-E.b,,all.sub,,3,
 Volume Injected (uL): 1.0
 Column phase: DB608

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



659 288

UXB INTERNATIONAL
MATRIX SPIKE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: COE260147 001

Method: SW846 8081A

Pesticides (8081A)

Sample WT/Vol: 100 / mL

Date Received: 05/26/00

Work Order: DDRMP10M

Date Extracted: 05/31/00

Dilution factor: 1

Date Analyzed: 06/03/00

Moisture %: 13

QC Batch: 0152460

Client Sample Id: DF/S1/0146/SDC/004

		CONCENTRATION UNITS:	
CAS NO.	COMPOUND	(ug/L or ug/kg) mg/L	Q
72-20-8	Endrin	0.00220	
76-44-8	Heptachlor	0.00209	
1024-57-3	Heptachlor epoxide	0.00212	
58-89-9	Lindane	0.00181	
72-43-5	Methoxychlor	0.00241	

Data File: /var/chem/gc3.i/3020-E.b/c-a3078.d
 Report Date: 05-Jun-2000 12:02

STL-PITTSBURGH

Data file : /var/chem/gc3.i/3020-E.b/c-a3078.d
 Lab Smp Id: DDRMP10M Client Smp ID: DF/S1/0146/SDC/004
 Inj Date : 03-JUN-2000 03:48
 Operator : 1891 Inst ID: gc3.i
 Smp Info : DDRMP10M,3020-E.b,,all.sub,,3,
 Misc Info : 260147001S
 Comment :
 Method : /var/chem/gc3.i/3020-E.b/PESTA.m
 Meth Date : 05-Jun-2000 11:43 g Quant Type: ESTD
 Cal Date : 03-JUN-2000 01:30 Cal File: c-a3073.d
 Als bottle: 1 QC Sample: MS
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: all.sub
 Target Version: 3.40

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

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

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ng)	FINAL (ug/L)
1 Tetrachloro-m-xylene	3.875	3.892	-0.017	82214	0.01632	1.63226(R)
2 Diallylate A	4.950	4.967	-0.017	2461	0.01776	1.77640(a)
3 Diallylate B	5.267	5.217	0.050	1084	0.02620	2.61974(a)
4 MIREX	Compound Not Detected.					
5 alpha-BHC	5.875	5.883	-0.008	91790	0.01526	1.52626
6 gamma-BHC (Lindane)	7.175	7.192	-0.017	96878	0.01815	1.81480(R)
7 beta-BHC	7.458	7.458	0.000	56796	0.01984	1.98373
8 delta-BHC	8.750	8.750	0.000	10453	0.00210	0.210171
9 Chlordane	Compound Not Detected.					
10 Heptachlor	8.283	8.292	-0.009	94149	0.02086	2.08616(R)
11 Aldrin	9.442	9.450	-0.008	78568	0.02067	2.06745(R)
12 Heptachlor epoxide	11.642	11.642	0.000	78535	0.02121	2.12056
13 gamma-Chlordane	12.192	12.200	-0.008	81843	0.02200	2.20016
14 alpha-Chlordane	12.792	12.775	0.017	97969	0.02840	2.83970
15 Endosulfan I	Compound Not Detected.					
16 4,4'-DDE	13.750	13.758	-0.008	86024	0.02309	2.30933

659' 290

Data File: /var/chem/gc3.i/3020-E.b/c-a3078.d

Report Date: 05-Jun-2000 12:02

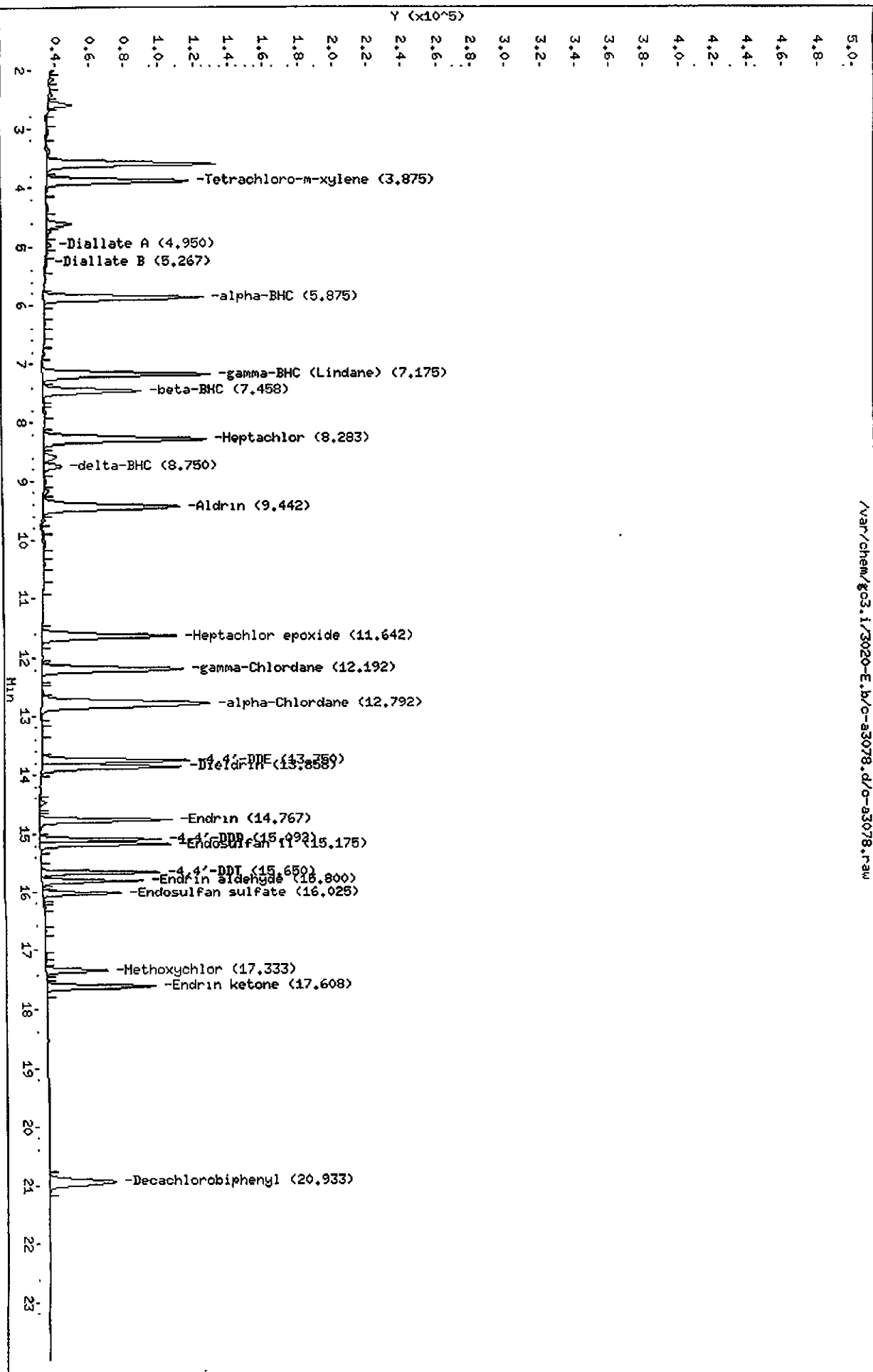
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ng)	FINAL (ug/L)
=====	==	=====	=====	=====	=====	=====
17 Dieldrin	13.858	13.867	-0.009	80880	0.02247	2.24701(R)
18 Toxaphene	Compound Not Detected.					
19 Isodrin	Compound Not Detected.					
20 Endrin	14.767	14.775	-0.008	76930	0.02202	2.20154(R)
21 4,4'-DDD	15.092	15.100	-0.008	70079	0.02252	2.25154
22 Endosulfan II	15.175	15.175	0.000	75286	0.02147	2.14729
23 4,4'-DDT	15.650	15.658	-0.008	68845	0.02114	2.11394(R)
24 Endrin aldehyde	15.800	15.800	0.000	58958	0.02048	2.04788
25 Methoxychlor	17.333	17.342	-0.009	35614	0.02407	2.40674
26 Endosulfan sulfate	16.025	16.025	0.000	45838	0.01522	1.52166
27 Endrin ketone	17.608	17.608	0.000	63159	0.02251	2.25132
28 Chlorobenzilate	Compound Not Detected.					
29 Kepone	Compound Not Detected.					
\$ 30 Decachlorobiphenyl	20.933	20.942	-0.009	38979	0.01866	1.86640(R)

QC Flag Legend

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

Data File: /var/chem/gc3.i/3020-E.b/c-a3078.d
 Date: 03-JUN-2000 03:48
 Client ID: DF/S1/0146/SDC/004
 Sample Info: DDEP10M,3020-E.b,all,sub,,3,
 Volume Injected (uL): 1.0
 Column phase: DB608

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



659 292

UXB INTERNATIONAL
MATRIX SPIKE DUPLICATE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0E260147 001

Method: SW846 8081A

Pesticides (8081A)

Sample WT/Vol: 100 / mL

Date Received: 05/26/00

Work Order: DDRMP10N

Date Extracted: 05/31/00

Dilution factor: 1

Date Analyzed: 06/03/00

Moisture %: 13

QC Batch: 0152460

Client Sample Id: DF/S1/0146/SDC/004

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
72-20-8	Endrin	0.00229	
76-44-8	Heptachlor	0.00223	
1024-57-3	Heptachlor epoxide	0.00222	
58-89-9	Lindane	0.00194	
72-43-5	Methoxychlor	0.00252	

Data File: /var/chem/gc3.i/3020-E.b/c-a3079.d
 Report Date: 05-Jun-2000 12:03

STL-PITTSBURGH

Data file : /var/chem/gc3.i/3020-E.b/c-a3079.d
 Lab Smp Id: DDRMP10N Client Smp ID: DF/S1/0146/SDC/004
 Inj Date : 03-JUN-2000 04:16
 Operator : 1891 Inst ID: gc3.i
 Smp Info : DDRMP10N,3020-E.b,,all.sub,,3,
 Misc Info : 260147001D
 Comment :
 Method : /var/chem/gc3.i/3020-E.b/PESTA.m
 Meth Date : 05-Jun-2000 11:43 g Quant Type: ESTD
 Cal Date : 03-JUN-2000 01:30 Cal File: c-a3073.d
 Als bottle: 1 QC Sample: MSD
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: all.sub
 Target Version: 3.40

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

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

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ng)	FINAL (ug/L)
\$ 1 Tetrachloro-m-xylene	3.867	3.892	-0.025	93922	0.01865	1.86471 (R)
2 Diallylate A	4.950	4.967	-0.017	3719	0.02684	2.68445 (a)
3 Diallylate B	5.250	5.217	0.033	1692	0.04089	4.08912 (a)
4 MIREX	Compound Not Detected					
5 alpha-BHC	5.867	5.883	-0.016	100061	0.01664	1.66378
6 gamma-BHC (Lindane)	7.167	7.192	-0.025	103394	0.01937	1.93687 (R)
7 beta-BHC	7.458	7.458	0.000	60422	0.02110	2.11038
8 delta-BHC	8.742	8.750	-0.008	11066	0.00222	0.222496
9 Chlordane	Compound Not Detected.					
10 Heptachlor	8.275	8.292	-0.017	100752	0.02232	2.23247 (R)
11 Aldrin	9.442	9.450	-0.008	82433	0.02169	2.16915 (R)
12 Heptachlor epoxide	11.633	11.642	-0.009	82226	0.02220	2.22022
13 gamma-Chlordane	12.192	12.200	-0.008	85128	0.02288	2.28847
14 alpha-Chlordane	12.783	12.775	0.008	101431	0.02940	2.94005
15 Endosulfan I	Compound Not Detected					
16 4,4'-DDE	13.750	13.758	-0.008	89853	0.02412	2.41212

659 294

Data File: /var/chem/gc3.i/3020-E.b/c-a3079.d

Report Date: 05-Jun-2000 12:03

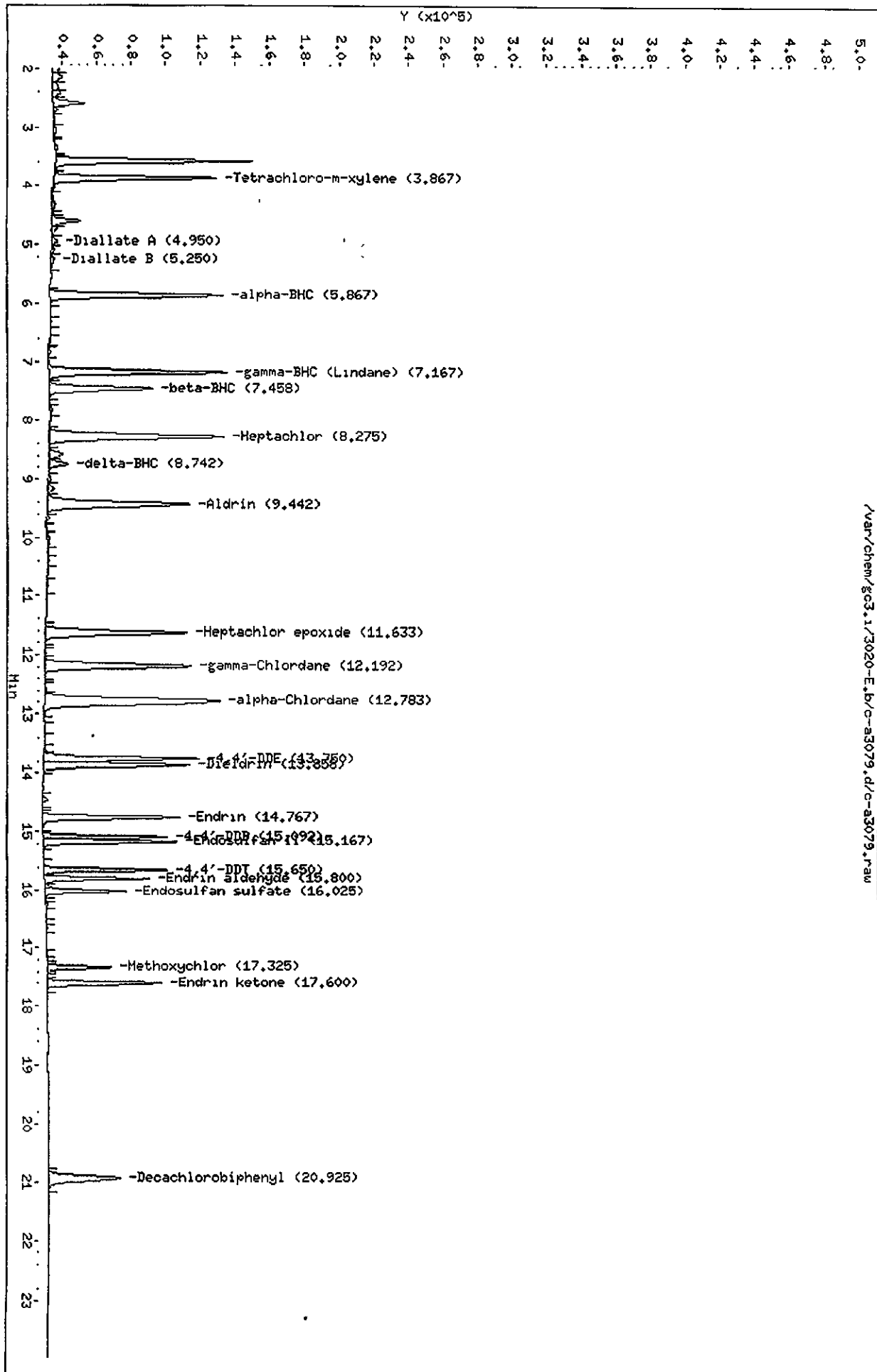
Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ng)	FINAL (ug/L)
*****	==	=====	=====	=====	=====	=====
17 Dieldrin	13.858	13.867	-0.009	83876	0.02330	2.33025 (R)
18 Toxaphene	Compound Not Detected					
19 Isodrin	Compound Not Detected.					
20 Endrin	14.767	14.775	-0.008	80124	0.02293	2.29294 (R)
21 4,4'-DDD	15.092	15.100	-0.008	72718	0.02336	2.33633
22 Endosulfan II	15.167	15.175	-0.008	77978	0.02224	2.22407
23 4,4'-DDT	15.650	15.658	-0.008	71898	0.02208	2.20769 (R)
24 Endrin aldehyde	15.800	15.800	0.000	60972	0.02118	2.11784
25 Methoxychlor	17.325	17.342	-0.017	37364	0.02525	2.52500
26 Endosulfan sulfate	16.025	16.025	0.000	47317	0.01571	1.57076
27 Endrin ketone	17.600	17.608	-0.008	66501	0.02370	2.37044
28 Chlorobenzilate	Compound Not Detected.					
29 Kepone	Compound Not Detected.					
\$ 30 Decachlorobiphenyl	20.925	20.942	-0.017	41555	0.01990	1.98974 (R)

QC Flag Legend

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

Data File: /var/chem/gc3.1/3020-E.b/c-a3079.d
 Date : 03-JUN-2000 04:16
 Client ID: DF/S4/0146/SDC/004
 Sample Info: DUREP10N.3020-E.b.,all.sub.,3,
 Volume Injected (uL): 1.0
 Column phase: DB608

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



659 296

**PESTICIDE
MISCELLANEOUS**

Separatory Funnel Extraction Worksheet

TECP

B#0152460



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

3077

Date Extraction Began	Date Completed	Parameter	Method	Solvent	Heavens	Solvent Lot	Solvent Mfg.	Clean up Method			
3-31-00	6-1-00	Red	35100	MEL	Heavens	TO 8286	3000	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. PDE 260 147	828	NA	5	100	10.0	190-90-8	1.0	NA	1.0	NA	
2.	495		5					NA			
3.	001 M5		7					NA			
4.	001 M50		7					NA			
5.	001		7					NA			
6. PDE 270 126	007		1017								
7.	008		517		1010						
8.											
9.											
10.											
11.											
12.											
13.											
14.											
15.											
16.											
17.											
18.											
19.											
20.											
21.											
22.											
23.											
24.											
Analyst	Extract(s)	Date	Time	Analyst	Extract(s) Received	Location	Date	Time	Analyst	Extract(s) Relinquished	Location
APR 4/20/00	5-31-00	1740	5-31-00	1750	5-31-00	1750	5-31-00	1750	5-31-00	1750	5-31-00
APR 4/20/00	6-1-00	0800	6-1-00	1100	6-1-00	1100	6-1-00	1100	6-1-00	1100	6-1-00
APR 4/20/00	6-1-00	0800	6-1-00	1100	6-1-00	1100	6-1-00	1100	6-1-00	1100	6-1-00
Sodium Sulfate Mfg.	3000										
Lot Number	NA 8523										
Reviewed By	3000										
Date	6-1-00										

5-31-00

Turbochrom Sequence File : H:\ACQUIRE\MET_SEQ\3020-E.SEQ
 Created by : DE11/02/98 on : 6/2/00 16:09
 Edited by : JC06/02/00 on : 6/5/00 07:29
 Description : STL PGH 8081 RUN ON GC#3 608/1701 COLUMNS
 REVIEWED BY:

Number of Times Edited : 3

Sequence File Header Information:

Number of Rows : 51
 Instrument Type : 760 / 900 Series Intelligent Interface
 Injection Type : SINGLE

Row	Type	Sample Name	Sample Number	Sequence Sample Descriptions - Channel A	Study Name	Sample Amount	ISTD Amount	Sample Volume	Dil. Factor	Mult	Divisor	Aggnd	Norm factor
1	Std Check	EVALB,3020-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,3020-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,3020-E	190-85-10			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
4	Cal:Replace	LAPPX9,3020-E.b	190-80-6			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
5	Cal:Replace	MLAPPX9,3020-E.	190-80-7			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
6	Cal:Replace	MAPPX9,3020-E.b	190-80-8			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
7	Cal:Replace	M4APPX9,3020-E.	190-80-9			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
8	Cal:Replace	HAPPX9,3020-E.b	190-80-10			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
9	Cal:Replace	L8081F,3020-E.b	190-74-1			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
10	Cal:Replace	ML8081F,3020-E.	190-74-2			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
11	Cal:Replace	M8081F,3020-E.b	190-74-3			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
12	Cal:Replace	MH8081F,3020-E.	190-74-4			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
13	Cal:Replace	H8081F,3020-E.b	190-74-5			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
14	Cal:Replace	LOWA,3020-E.b,,	190-84-1			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
15	Cal:Replace	MLOWA,3020-E.b,,	190-84-2			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
16	Cal:Replace	MEDA,3020-E.b,,	190-84-3			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
17	Cal:Replace	MHIGHA,3020-E.b	190-84-4			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
18	Cal:Replace	HIGHA,3020-E.b,	190-84-5			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
19	Cal:Replace	LOWB,3020-E.b,,	190-84-7			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
20	Cal:Replace	MLOWB,3020-E.b,	190-84-8			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
21	Cal:Replace	MEDB,3020-E.b,,	190-84-9			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
22	Cal:Replace	MHIGHB,3020-E.b	190-84-10			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
23	Cal:Replace	HIGHB,3020-E.b,	190-84-11			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
24	Std Check	2ND A,3020-E.b,	190-82-2			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
25	Std Check	2ND B,3020-E.b,	190-82-5			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
26	Std Check	EVALB,3020-E.b,	190-88-8			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
27	Sample	DDRMF104,3020-E	E260147001			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
28	Sample	DDRMF10M,3020-E	260147001S			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
29	Sample	DDRMF10N,3020-E	260147001D			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
30	Sample	DDVK9103,3020-E	E270126007			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
31	Sample	DDVKF103,3020-E	E270126008			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
32	Sample	DE187101,3020-E	E260147BLK			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
33	Sample	DE187102,3020-E	E260147LCS			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
34	Sample	DDTP6101,3020-E	E250156BLK			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
35	Sample	DDTP6102,3020-E	E250156LCS			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
36	Sample	DDTP6103,3020-E	E250156LCD			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
37	Sample	DDXAE101,3020-E	E240137BLK			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
38	Sample	DDXAE102,3020-E	E240137LCS			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
39	Sample	DDXAE103,3020-E	E240137LCD			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
40	Sample	DDN21101,3020-E	E230195BLK			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
41	Sample	DDN21102,3020-E	E230195LCS			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
42	Sample	DDN21103,3020-E	E230195LCD			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
43	Sample	DDNWK10Q,3020-E	E250167001			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
44	Sample	DDNVQ10Q,3020-E	E250159001			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
45	Sample	DDNV3104,3020-E	E250156001			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
46	Sample	,3020-E o,,ail	HEXANE			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
47	Std Check	MAPPX9,3020-E.b	190-80-8			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
48	Std Check	M8081F,3020-E.b	190-74-3			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
49	Std Check	MEDA,3020-E.b,,	190-84-3			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
50	Std Check	MEDB,3020-E.b,,	190-84-9			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000
51	Std Check	EVALB,3020-E.b,	190-88-8			1.000	1.000	1.000	1.000	1.000	1.000	0.000	100.000

Row	Site	Rack	Vial	Inst	Process	Calib	Report	Raw	Result	Baseline	Modified	Cal	Level	Update	Out
				Method	Method	Method	Format	File	File	File	Raw File	Rpt	Name	RT	De
STL	Pittsburgh			GEN3C	GEN3A	122190A	EVAL	C-A3051	C-A3051		C-A3051	-	-	-	3078

2	-	1	2	GEN3C	GEN3A	122190A	TOX	C-A3052	C-A3052	C-A3052	N	MED	N	LPT1	LPT1
3	-	1	2	GEN3C	GEN3A	122190A	TOX	C-A3053	C-A3053	C-A3053	N	MED	N	LPT1	LPT1
4	-	1	4	GEN3C	GEN3A	122190A	INDA	C-A3054	C-A3054	C-A3054	N	LOW	N	LPT1	LPT1
5	-	1	5	GEN3C	GEN3A	122190A	INDA	C-A3055	C-A3055	C-A3055	N	MLOW	N	LPT1	LPT1
6	-	1	6	GEN3C	GEN3A	122190A	INDA	C-A3056	C-A3056	C-A3056	N	MLOW	N	LPT1	LPT1
7	-	1	7	GEN3C	GEN3A	122190A	INDA	C-A3057	C-A3057	C-A3057	N	MLOW	N	LPT1	LPT1
8	-	1	8	GEN3C	GEN3A	122190A	INDA	C-A3058	C-A3058	C-A3058	N	MLOW	N	LPT1	LPT1
9	-	1	9	GEN3C	GEN3A	122190A	INDA	C-A3059	C-A3059	C-A3059	N	LOW	N	LPT1	LPT1
10	-	1	10	GEN3C	GEN3A	122190A	INDA	C-A3060	C-A3060	C-A3060	N	MLOW	N	LPT1	LPT1
11	-	1	11	GEN3C	GEN3A	122190A	INDA	C-A3061	C-A3061	C-A3061	N	MLOW	N	LPT1	LPT1
12	-	1	12	GEN3C	GEN3A	122190A	INDA	C-A3062	C-A3062	C-A3062	N	MLOW	N	LPT1	LPT1
13	-	1	13	GEN3C	GEN3A	122190A	INDA	C-A3063	C-A3063	C-A3063	N	MLOW	N	LPT1	LPT1
14	-	1	4	GEN3C	GEN3A	122190A	INDA	C-A3064	C-A3064	C-A3064	N	LOW	N	LPT1	LPT1
15	-	1	5	GEN3C	GEN3A	122190A	INDA	C-A3065	C-A3065	C-A3065	N	MLOW	N	LPT1	LPT1
16	-	1	6	GEN3C	GEN3A	122190A	INDA	C-A3066	C-A3066	C-A3066	N	MLOW	N	LPT1	LPT1
17	-	1	7	GEN3C	GEN3A	122190A	INDA	C-A3067	C-A3067	C-A3067	N	MLOW	N	LPT1	LPT1
18	-	1	8	GEN3C	GEN3A	122190A	INDA	C-A3068	C-A3068	C-A3068	N	MLOW	N	LPT1	LPT1
19	-	1	9	GEN3C	GEN3A	122190A	INDA	C-A3069	C-A3069	C-A3069	N	LOW	N	LPT1	LPT1
20	-	1	10	GEN3C	GEN3A	122190A	INDA	C-A3070	C-A3070	C-A3070	N	MLOW	N	LPT1	LPT1
21	-	1	11	GEN3C	GEN3A	122190A	INDA	C-A3071	C-A3071	C-A3071	N	MLOW	N	LPT1	LPT1
22	-	1	12	GEN3C	GEN3A	122190A	INDA	C-A3072	C-A3072	C-A3072	N	MLOW	N	LPT1	LPT1
23	-	1	13	GEN3C	GEN3A	122190A	INDA	C-A3073	C-A3073	C-A3073	N	MLOW	N	LPT1	LPT1
24	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A3074	C-A3074	C-A3074	-	-	-	LPT1	LPT1
25	-	1	24	GEN3C	GEN3A	122190A	INDA	C-A3075	C-A3075	C-A3075	-	-	-	LPT1	LPT1
26	-	1	1	GEN3C	GEN3A	122190A	EVAL	C-A3076	C-A3076	C-A3076	-	-	-	LPT1	LPT1
27	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A3077	C-A3077	C-A3077	-	-	-	LPT1	LPT1
28	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A3078	C-A3078	C-A3078	-	-	-	LPT1	LPT1
29	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A3079	C-A3079	C-A3079	-	-	-	LPT1	LPT1
30	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A3080	C-A3080	C-A3080	-	-	-	LPT1	LPT1
31	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A3081	C-A3081	C-A3081	-	-	-	LPT1	LPT1
32	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A3082	C-A3082	C-A3082	-	-	-	LPT1	LPT1
33	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A3083	C-A3083	C-A3083	-	-	-	LPT1	LPT1
34	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A3084	C-A3084	C-A3084	-	-	-	LPT1	LPT1
35	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A3085	C-A3085	C-A3085	-	-	-	LPT1	LPT1
36	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A3086	C-A3086	C-A3086	-	-	-	LPT1	LPT1
37	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A3087	C-A3087	C-A3087	-	-	-	LPT1	LPT1
38	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A3088	C-A3088	C-A3088	-	-	-	LPT1	LPT1
39	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A3089	C-A3089	C-A3089	-	-	-	LPT1	LPT1
40	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A3090	C-A3090	C-A3090	-	-	-	LPT1	LPT1
41	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A3091	C-A3091	C-A3091	-	-	-	LPT1	LPT1
42	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A3092	C-A3092	C-A3092	-	-	-	LPT1	LPT1
43	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A3093	C-A3093	C-A3093	-	-	-	LPT1	LPT1
44	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A3094	C-A3094	C-A3094	-	-	-	LPT1	LPT1
45	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A3095	C-A3095	C-A3095	-	-	-	LPT1	LPT1
46	-	1	23	GEN3C	GEN3A	122190A	INDA	C-A3096	C-A3096	C-A3096	-	-	-	LPT1	LPT1
47	-	1	6	GEN3C	GEN3A	122190A	INDA	C-A2097	C-A2097	C-A2097	-	-	-	LPT1	LPT1
48	-	1	11	GEN3C	GEN3A	122190A	INDA	C-A2098	C-A2098	C-A2098	-	-	-	LPT1	LPT1
49	-	1	6	GEN3C	GEN3A	122190A	INDA	C-A2099	C-A2099	C-A2099	-	-	-	LPT1	LPT1
50	-	1	11	GEN3C	GEN3A	122190A	INDA	C-A2100	C-A2100	C-A2100	-	-	-	LPT1	LPT1
51	-	1	1	GEN3C	GEN3A	122190A	EVAL	C-A3101	C-A3101	C-A3101	-	-	-	LPT1	LPT1

659 239

659 300

PSR024 5/31/00 13:39:40 MT

SAMPLE CUSTODIAN REMOVAL REQUEST

PAGE 001

REQUESTED BY: PINOB

METHOD: QJ Pesticides (8081A)

<u>STORAGE LOCATION</u>	<u>WORK ORDER #</u>	<u>PICKED</u> <u>CNTR#</u>	<u>CONTROL #</u>	<u>CLIENT #</u>	<u>ANALYSIS</u>	<u>LOTID</u>	<u>SMP#</u>	<u>SFX</u>	<u>MATRIX</u> <u>DESCRIPTION</u>	<u>QTY</u> <u>RCVD</u>	<u>QTY</u> <u>REQD</u>
6E CLP1	DDRMP-1-04	___	237476	399411	A-36-QJ	COE260147	001	0	SOLID	0	3 1
7A CLP1	DDVK9-1-03	___	237477	039984	A-36-QJ	COE270126	007		SOLID	0	2 1
7A CLP1	DDVKA-1-03	___	237478	039984	A-36-QJ	COE270126	008		SOLID	0	2 1

RELINQUISHED BY

RECEIVED BY

DATE/TIME

P. Yushinski
P. Yushinski

P. Yushinski
P. Yushinski

5-31-00 1530
5-31-00 2030

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

HERBICIDE DATA

659 302

**HERBICIDE
QC SUMMARY**

SW846 8151A SURROGATE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

QESSDG:

Lot #: C0E260147

	CLIENT ID.	SRG01	TOT OUT
	=====	=====	=====
01	DF/S1/0146/SDC/004	83	00
02	METHOD BLK. DE18E101	68	00
03	LCS DE18E102	104	00
04	DF/S1/0146/SDC/004 D	99	00
05	DF/S1/0146/SDC/004 S	88	00

SURROGATES

SRG01 = DCAA

QC LIMITS

(42-125)

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

FORM II

659 304

SW846 8151A CHECK SAMPLE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Lot #: C0E310000

WO #: DE18E102

BATCH: 0152463

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	% REC	QC LIMITS REC	QUAL
=====	=====	=====	=====	=====	=====
2,4-D	0.160	0.160	100	28 - 136	
2,4,5-TP (Silvex)	0.0400	0.0378	94	50 - 128	

NOTES (S) :

* Values outside of QC limits

Spike Recovery: 0 out of 2 outside limits

COMMENTS:

FORM III

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: QESPIT

SDG No:

Matrix Spike ID: DF/S1/0146/SDC/004

Lot #: C0E260147

WO #: DDRMP10P

BATCH: 0152463

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENT. (mg/L)	MS CONCENT. (mg/L)	MS % REC	LIMITS REC	QUAL
2,4-D	0.160	ND	0.161	101	35- 133	
2,4,5-TP (Silvex)	0.0400	ND	0.0402	100	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 limitsSpike Recovery: 0 out of 2 outside limits

COMMENTS:

659 306

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/S1/0146/SDC/004

Lot #: C0E260147

WO #: DDRMP10Q

BATCH: 0152463

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENT. (mg/L)	MSD		QC LIMITS		QUAL
			% REC	% RPD	RPD	REC	
2,4-D	0.160	0.169	106	4.8	20	35- 133	
2,4,5-TP (Silvex)	0.0400	0.0416	104	3.4	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

SW846 8151A METHOD BLANK SUMMARY

BLANK WORKORDER NO.

DE18E101

Lab Name: Severn Trent Laboratories, Inc.

Lab Code: QESPIT

SDG Number:

Lab File ID: a-a30120.

Lot Number: C0E260147

Matrix: SOLID

Extraction Method:

Date Extracted: 05/31/00

Date Analyzed(1): 06/01/00

Date Analyzed(2): N/A

Time Analyzed(1): 16:16

Time Analyzed(2): N/A

Instrument ID(1): A/B

Instrument ID(2): N/A

GC Column(1): DB5/DB1701 ID: 053 GC Column(2): N/A ID: N/A

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

	CLIENT ID.	SAMPLE WORK ORDER #	DATE ANALYZED (1)	DATE ANALYZED (2)
01	DF/S1/0146/SDC/004	DDRMP10P S	06/01/00	N/A
02	DF/S1/0146/SDC/004	DDRMP10Q D	06/01/00	N/A
03	DF/S1/0146/SDC/004	DDRMP105	06/01/00	N/A
04	CHECK SAMPLE	DE18E102 C	06/01/00	N/A
05				
06				
07				
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

Lab Sample ID: C0E260147 001

Method: SW846 8151A

Herbicides (8151A)

Sample WT/Vol: 100 / mL

Date Received: 05/26/00

Work Order: DDRMP105

Date Extracted: 05/31/00

Dilution factor: 1

Date Analyzed: 06/01/00

Moisture %: 13

QC Batch: 0152463

Client Sample Id: DF/S1/0146/SDC/004

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

FORM I

Data File: /var/chem/gc1.i/3020.b/a-a30115.d
 Report Date: 02-Jun-2000 07:53

STL-PITTSBURGH

Data file : /var/chem/gc1.i/3020.b/a-a30115.d
 Lab Smp Id: DDRMP105 Client Smp ID: DF/S1/0146/SDC/004
 Inj Date : 01-JUN-2000 13:51
 Operator : 01797 Inst ID: gc1.i
 Smp Info : DDRMP105,3020.b
 Misc Info : 260147-1
 Comment :
 Method : /var/chem/gc1.i/3020.b/LONGH.m
 Meth Date : 02-Jun-2000 07:52 g Quant Type: ESTD
 Cal Date : 31-MAY-2000 17:35 Cal File: a-a30099.d
 Als bottle: 61
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: all.sub
 Target Version: 3.40

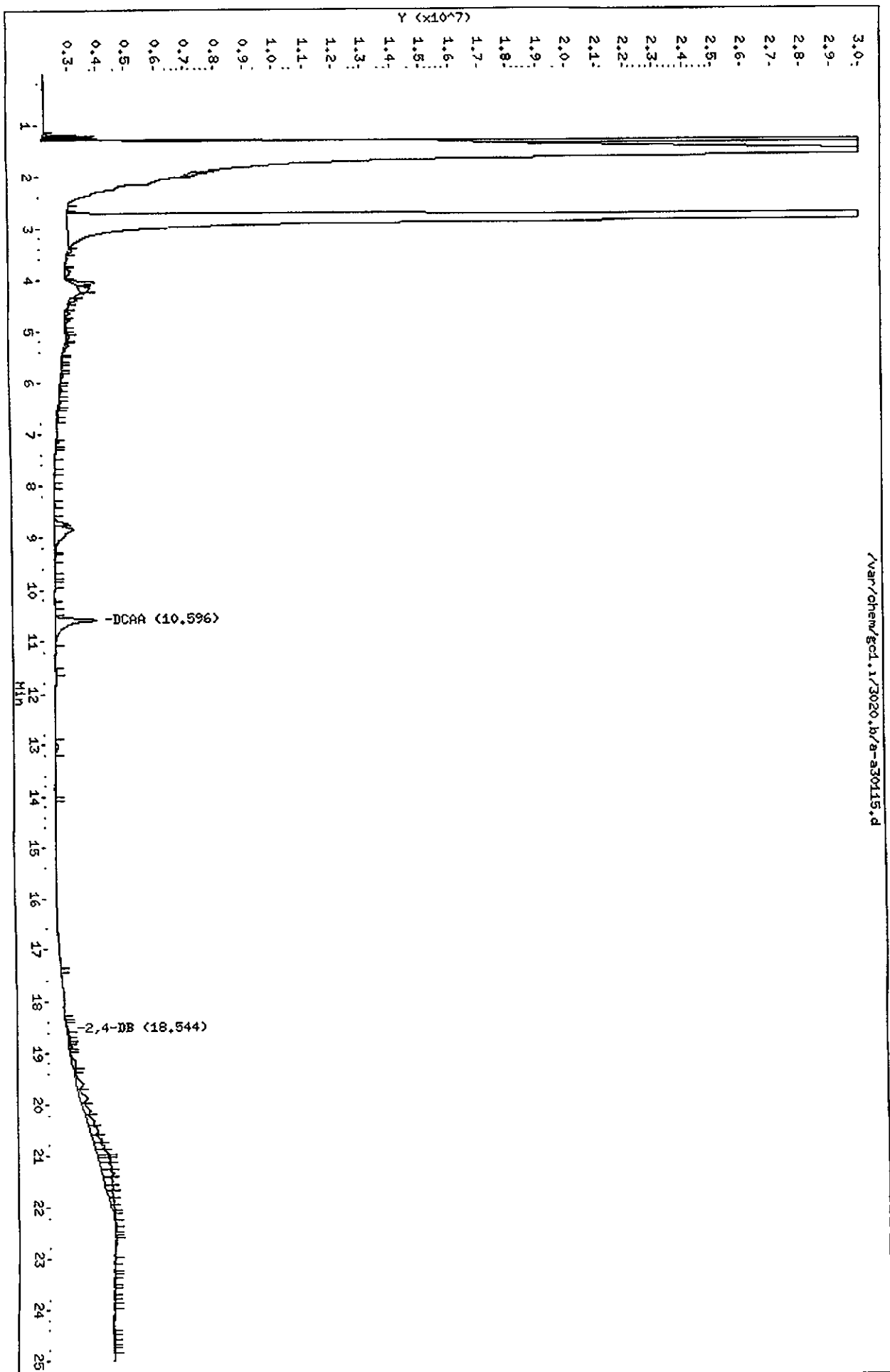
Concentration Formula: $\text{Amt} * \text{DF} * 20 * \text{Vt} / \text{Vo} / \text{Vi}$

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

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ng)	FINAL (ug/L)
1 DALAPON				Compound Not Detected		
\$ 2 DCAA	10.596	10.596	0.000	10983667	0.04154	83.09
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	18.544	18.578	-0.034	234914	0.00148	2.954

Data File: /var/chem/gc1.i/3020.b/a-a30115.d
Date : 01-JUN-2000 13:51
Client ID: DF/S1/0146/SDC/004
Sample Info: DDPH105,3020.b
Volume Injected (uL): 1.0
Column phase: DB608

Instrument: gc1.i
Operator: 01797
Column diameter: 0.53



659 312

**HERBICIDE
CALIBRATION DATA**

6D
68901A
03608

Report Date : 01-Jun-2000 09:40

STL-PITTSBURGH

COMPOUND LISTING

Method file : /var/chem/gcl.i/3010c.b/LONGH.m
 Quant Method : ESTD Target Version : 3.40
 Last Update : 01-Jun-2000 09:40 Number of Cpnds : 12
 Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
-----	-----
Initial:Start Threshold	3608.000000
Initial:End Threshold	1804.000000
Initial:Area Threshold	36080.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	10.000000
Initial:Negative Peaks	ON
Initial:Tension	0.200000

Compound	RT	RT Window	RF
1 DALAPON	3.740	3.670-3.810	8.113e+07
\$ 2 DCAA	10.596	10.526-10.666	2.644e+08
3 MCPP	11.036	10.966-11.106	3.795e+05
4 DICAMBA	11.212	11.142-11.282	1.923e+08
5 MCPA	12.001	11.931-12.071	4.459e+05
6 DICHLOROPROP	12.834	12.764-12.904	4.918e+07
7 2,4-D	14.347	14.277-14.417	3.176e+08
8 PENTACHLOROPHENOL	15.577	15.507-15.647	4.766e+08
9 2,4,5-TP (SILVEX)	16.795	16.725-16.865	1.450e+09
10 2,4,5-T	17.907	17.837-17.977	1.161e+09
11 DINOSEB	18.079	18.009-18.149	1.143e+09
12 2,4-DB	18.578	18.508-18.648	1.591e+08

659 314

Report Date : 01-Jun-2000 09:40

68
68901A
D8608

STL-PITTSBURGH

INITIAL CALIBRATION DATA

Start Cal Date : 31-MAY-2000 15:39
 End Cal Date : 31-MAY-2000 17:35
 Quant Method : ESTD
 Origin : Disabled
 Target Version : 3.40
 Integrator : Falcon
 Method file : /var/chem/gc1.i/3010c.b/LONGH.m
 Cal Date : 01-Jun-2000 09:40 g
 Curve Type : Average

Calibration File Names:

Level 1: /var/chem/gc1.i/3010c.b/a-a30095.d
 Level 2: /var/chem/gc1.i/3010c.b/a-a30096.d
 Level 3: /var/chem/gc1.i/3010c.b/a-a30097.d
 Level 4: /var/chem/gc1.i/3010c.b/a-a30098.d
 Level 5: /var/chem/gc1.i/3010c.b/a-a30099.d

Compound	0.00500	0.01000	0.02500	0.05000	0.10000	RRF	% RSD
Level 1	Level 2	Level 3	Level 4	Level 5			
1 DALAPON	75123545	73457045	87657927	84486800	84919523	81128968	7.873
3 MCPP	478740	439600	420373	317835	240994	379508	25.722 <-
4 DICAMBA	165590849	167983099	212810941	206767098	208554000	192341197	12.190
5 MCPA	557498	513916	485004	371683	301577	445936	23.771 <-
6 DICHLOROPROP	43086745	44208538	54945153	53150694	50505395	49179305	10.789
7 2,4-D	286698910	290203906	351534771	338129788	321405621	317594599	9.034
8 PENTACHLOROPHENOL	379116541	390910714	507677162	547355921	557836052	476579278	17.994
9 2,4,5-TP(SILVEX)	1.258e+09	1.248e+09	1.566e+09	1.578e+09	1.602e+09	1.450e+09	12.450
10 2,4,5-T	955456926	1.035e+09	1.237e+09	1.281e+09	1.297e+09	1.161e+09	13.396
11 DINOSBB	1.035e+09	1.075e+09	1.244e+09	1.183e+09	1.178e+09	1.143e+09	7.470
12 2,4-DB	189281991	154931517	156059302	150202692	144834186	159061938	10.981
\$ 2 DCAA	252824554	245658612	291601269	273605135	258217200	264381354	6.944

Ave = 13.2

Data File: /var/chem/gc1.i/3020.b/a-a30108.d
 Report Date: 01-Jun-2000 12:57

7E
 68901A
 Dble08

STL-PITTSBURGH

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc1.i Injection Date: 01-JUN-2000 10:27
 Lab File ID: a-a30108.d Init. Calibration Date(s): 05/31/0 05/31/0
 Analysis Type: Init. Calibration Times: 15:39 17:35
 Lab Sample ID: Mherb Method File: /var/chem/gc1.i/3020.b/LONGH.m
 Quant Type: ESTD

COMPOUND	RRF	RPO	MIN	MAX
=====	=====	=====	=====	=====
1 DALAPON	81128968 058	87491867.882	0.010	-7.8 15 0
2 DCAA	264381354.029	299009165.687	0.010	-13 1 15 0
3 MCPP	379508.258	428925.117	0.010	-13 0 15 0
4 DICAMBA	192341197 271	217575976.471	0.010	-13.1 15.0
5 MCPA	445935.512	494616 706	0 010	-10.9 15.0
6 DICHLOROPROP	49179305.144	55580966.981	0.010	-13 0 15.0
7 2,4-D	317594599.103	355967837.838	0 010	-12 1 15 0
8 PENTACHLOROPHENOL	476579278.010	529398214.286	0 010	-11.1 15 0
9 2,4,5-TP(SILVEX)	1450398976.265	1616905497.630	0.010	-11.5 15 0
10 2,4,5-T	1160890209.212	1264645497 630	0 010	-8.9 15 0
11 DINOSB	1142854655 953	1320066771.654	0.010	-15.5 15.0
12 2,4-DB	159061937.516	161326994.083	0 010	-1.4 15.0

NA

659 316

Data File: /var/chem/gc1.i/3020.b/a-a30126.d

Report Date: 02-Jun-2000 07:52

7E
68701A
DB608

STL-PITTSBURGH

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc1.i

Lab File ID: a-a30126.d

Analysis Type:

Lab Sample ID: Mherb

Quant Type: ESTD

Injection Date: 01-JUN-2000 19:11

Init. Calibration Date(s): 05/31/00 05/31/00

Init. Calibration Times: 15:39 17:35

Method File: /var/chem/gc1.i/3020.b/LONGH.m

COMPOUND	RRF	RFO	MIN	MAX
1 DALAPON	81128968.058	82864441.913	0.010	-2.1 15.0
2 DCAA	264381354.029	278333772.033	0.010	-5.3 15.0
3 MCPP	379508.258	402397.887	0.010	-6.0 15.0
4 DICAMBA	192341197.271	198522611.765	0.010	-3.2 15.0
5 MCPA	445935.512	461792.991	0.010	-3.6 15.0
6 DICHLOROPROP	49179305.144	51149988.208	0.010	-4.0 15.0
7 2,4-D	317594599.103	332337285.546	0.010	-4.6 15.0
8 PENTACHLOROPHENOL	476579278.010	487163251.880	0.010	-2.2 15.0
9 2,4,5-TP(SILVEX)	1450398976.265	1492940663.507	0.010	-2.9 15.0
10 2,4,5-T	1160890209.212	1161819383.886	0.010	-0.1 15.0
11 DINOSEB	1142854655.953	1222576771.654	0.010	-7.0 15.0
12 2,4-DB	159061937.516	145232639.053	0.010	8.7 15.0

659 318

Data File: /var/chem/gc1.i/3010c.b/a-a30095.d
Report Date: 01-Jun-2000 12:38

STL-PITTSBURGH

Data file : /var/chem/gc1.i/3010c.b/a-a30095.d
Lab Smp Id: Lherb
Inj Date : 31-MAY-2000 15:39
Operator : 01797
Smp Info : Lherb,3010c.b
Misc Info : 190-80-1
Comment :
Method : /var/chem/gc1.i/3010c.b/LONGH.m
Meth Date : 01-Jun-2000 11:27 derubeij
Cal Date : 31-MAY-2000 15:39
Als bottle: 2
Dil Factor: 1.00000
Integrator: Falcon
Target Version: 3.40

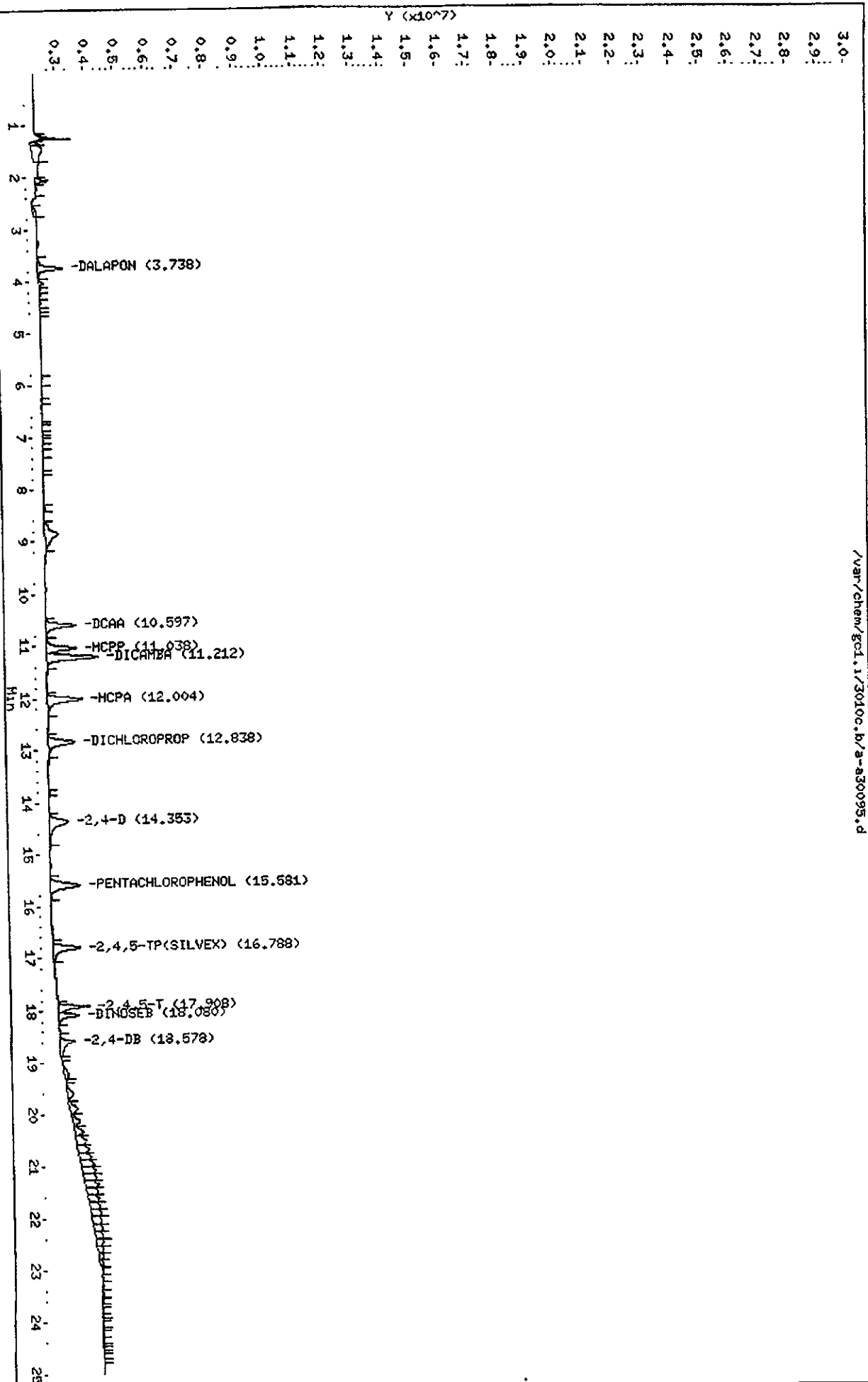
Inst ID: gc1.i
Quant Type: ESTD
Cal File: a-a30095.d
Calibration Sample, Level: 1
Compound Sublist: all.sub

Compounds	AMOUNTS					
	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
1 DALAPON	3.738	3.740	-0.002	826359	0.01100	0.01015
2 DCAA	10.597	10.596	0.001	5385163	0.02130	0.01978
3 MCPP	11.038	11.036	0.002	1014928	2.12000	2.258
4 DICAMBA	11.212	11.212	0.000	1755263	0.01060	0.009277
5 MCPA	12.004	12.001	0.003	1193046	2.14000	2.289
6 DICHLOROPROP	12.838	12.834	0.004	913439	0.02120	0.01864
7 2,4-D	14.353	14.347	0.006	6049347	0.02110	0.01896
8 PENTACHLOROPHENOL	15.581	15.577	0.004	1008450	0.00266	0.002274
9 2,4,5-TP(SILVEX)	16.788	16.795	-0.007	6603587	0.00525	0.004677
10 2,4,5-T	17.908	17.907	0.001	5035258	0.00527	0.004594
11 DINOSEB	18.080	18.079	0.001	3282480	0.00317	0.002880
12 2,4-DB	18.578	18.578	0.000	3993850	0.02110	0.02313

Data File: /var/chem/ec1.1/3010c.b/a-a30095.d
 Date: 31-MAY-2000 15:39
 Client ID:
 Sample Info: lherb,3010c.b

Column phase: DB608

Instrument: ec1.i
 Operator: 01797
 Column diameter: 0.53



659 320

Data File: /var/chem/gc1.i/3010c.b/a-a30096.d
 Report Date: 01-Jun-2000 12:38

STL-PITTSBURGH

Data file : /var/chem/gc1.i/3010c.b/a-a30096.d
 Lab Smp Id: MLherb
 Inj Date : 31-MAY-2000 16:08
 Operator : 01797
 Smp Info : MLherb,3010c.b
 Misc Info : 190-80-2
 Comment :
 Method : /var/chem/gc1.i/3010c.b/LONGH.m
 Meth Date : 01-Jun-2000 11:27 derubeij
 Cal Date : 31-MAY-2000 15:39
 Als bottle: 3
 Dil Factor: 1.00000
 Integrator: Falcon
 Target Version: 3.40

Inst ID: gc1.i
 Quant Type: ESTD
 Cal File: a-a30095.d
 Calibration Sample, Level: 2
 Compound Sublist: all.sub

						AMOUNTS	
						CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RT	RESPONSE	(ng)	(ng)
=====	==	=====	=====		=====	=====	=====
1 DALAPON	3.741	3.740	0.001		1616055	0.02200	0.02052
\$ 2 DCAA	10.596	10.596	0.000		10440491	0.04250	0.03964
3 MCPP	11.037	11.036	0.001		1872698	4.26000	4.197
4 DICAMBA	11.212	11.212	0.000		3578040	0.02130	0.01964
5 MCPA	12.002	12.001	0.001		2199559	4.28000	4.240
6 DICHLOROPROP	12.836	12.834	0.002		1874442	0.04240	0.03953
7 2,4-D	14.347	14.347	0.000		12333666	0.04250	0.03985
8 PENTACHLOROPHENOL	15.576	15.577	-0.001		2079645	0.00532	0.004883
9 2,4,5-TP(SILVEX)	16.788	16.795	-0.007		13108624	0.01050	0.009657
10 2,4,5-T	17.905	17.907	-0.002		10864238	0.01050	0.01010
11 DINOSEB	18.082	18.079	0.003		6824911	0.00635	0.006104
12 2,4-DB	18.582	18.578	0.004		6538110	0.04220	0.03921

Data File: /var/chem/gcl.1/3010c.b/a-a30096.d

Date: 31-HY-2000 16:08

Client ID:

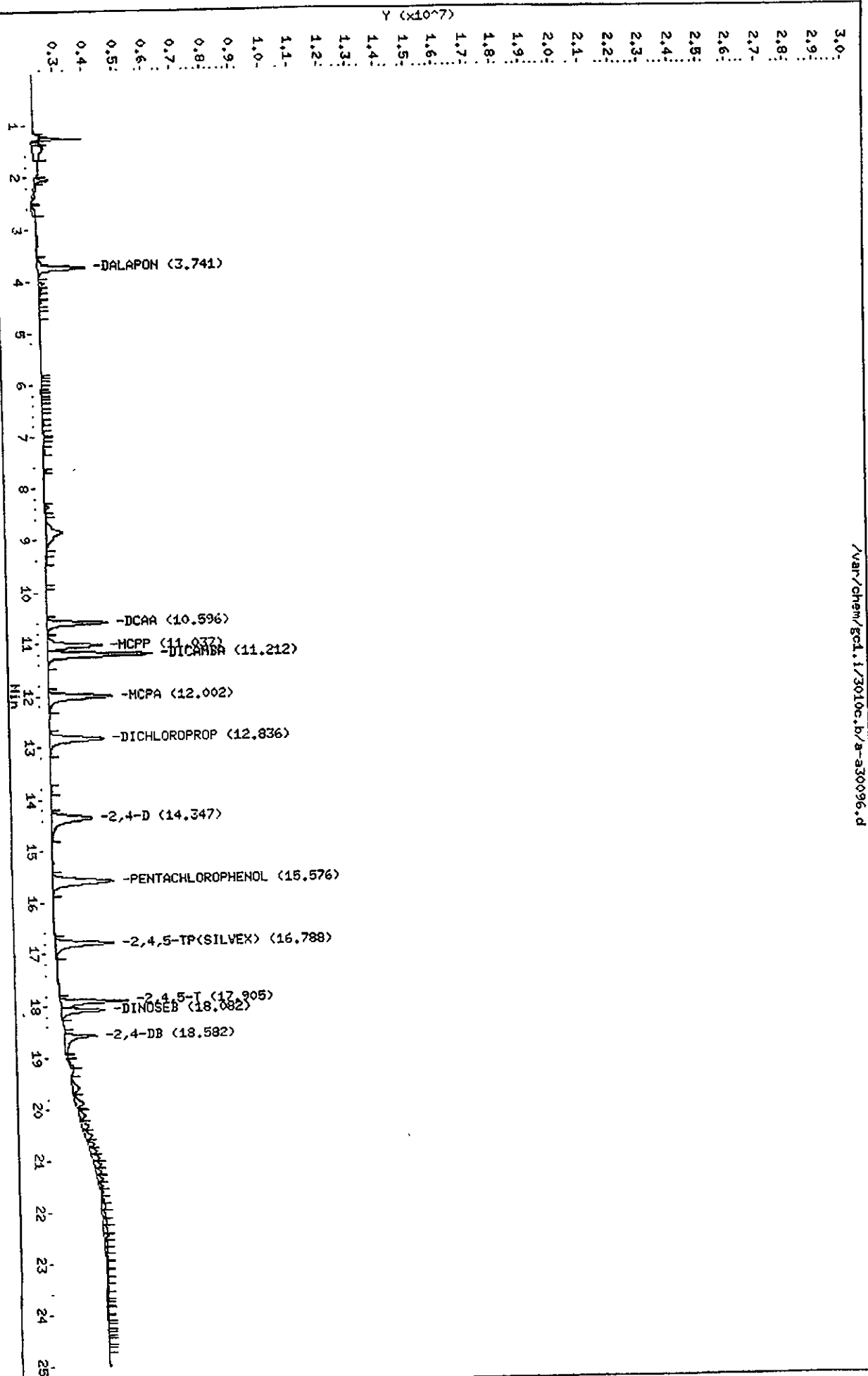
Sample Info: MLherb, 3010c.b

Column phase: DB608

Instrument: gcl.1

Operator: 01797

Column diameter: 0.53



659 322

Data File: /var/chem/gc1.i/3010c.b/a-a30097.d
Report Date: 01-Jun-2000 12:38

STL-PITTSBURGH

Data file : /var/chem/gc1.i/3010c.b/a-a30097.d
Lab Smp Id: Mherb
Inj Date : 31-MAY-2000 16:37
Operator : 01797
Smp Info : Mherb,3010c.b
Misc Info : 190-80-3
Comment :
Method : /var/chem/gc1.i/3010c.b/LONGH.m
Meth Date : 01-Jun-2000 11:27 derubeij
Cal Date : 31-MAY-2000 16:37
Als bottle: 4
Dil Factor: 1.00000
Integrator: Falcon
Target Version: 3.40

Inst ID: gc1.i
Quant Type: ESTD
Cal File: a-a30097.d
Calibration Sample, Level: 3
Compound Sublist: all.sub

Compounds	AMOUNTS					
	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
=====	==	=====	=====	=====	=====	=====
1 DALAPON	3.740	3.740	0.000	3848183	0.04390	0.04390
\$ 2 DCAA	10.596	10.596	0.000	24815268	0.08510	0.08510
3 MCPP	11.036	11.036	0.000	3581575	8.52000	8.520
4 DICAMBA	11.212	11.212	0.000	9044465	0.04250	0.04250
5 MCPA	12.001	12.001	0.000	4151638	8.56000	8.560
6 DICHLOROPROP	12.834	12.834	0.000	4659349	0.08480	0.08480
7 2,4-D	14.347	14.347	0.000	29915609	0.08510	0.08510
8 PENTACHLOROPHENOL	15.577	15.577	0.000	5401685	0.01064	0.01064
9 2,4,5-TP(SILVEX)	16.795	16.795	0.000	33043773	0.02110	0.02110
10 2,4,5-T	17.907	17.907	0.000	26092633	0.02110	0.02110
11 DINOSEB	18.079	18.079	0.000	15797723	0.01270	0.01270
12 2,4-DB	18.578	18.578	0.000	13187011	0.08450	0.08450

Data File: /var/chem/gc1.i/3010c.b/a-a30097.d

Date: 31-MAY-2000 16:37

Client ID:

Sample Info: Herb, 3010c.b

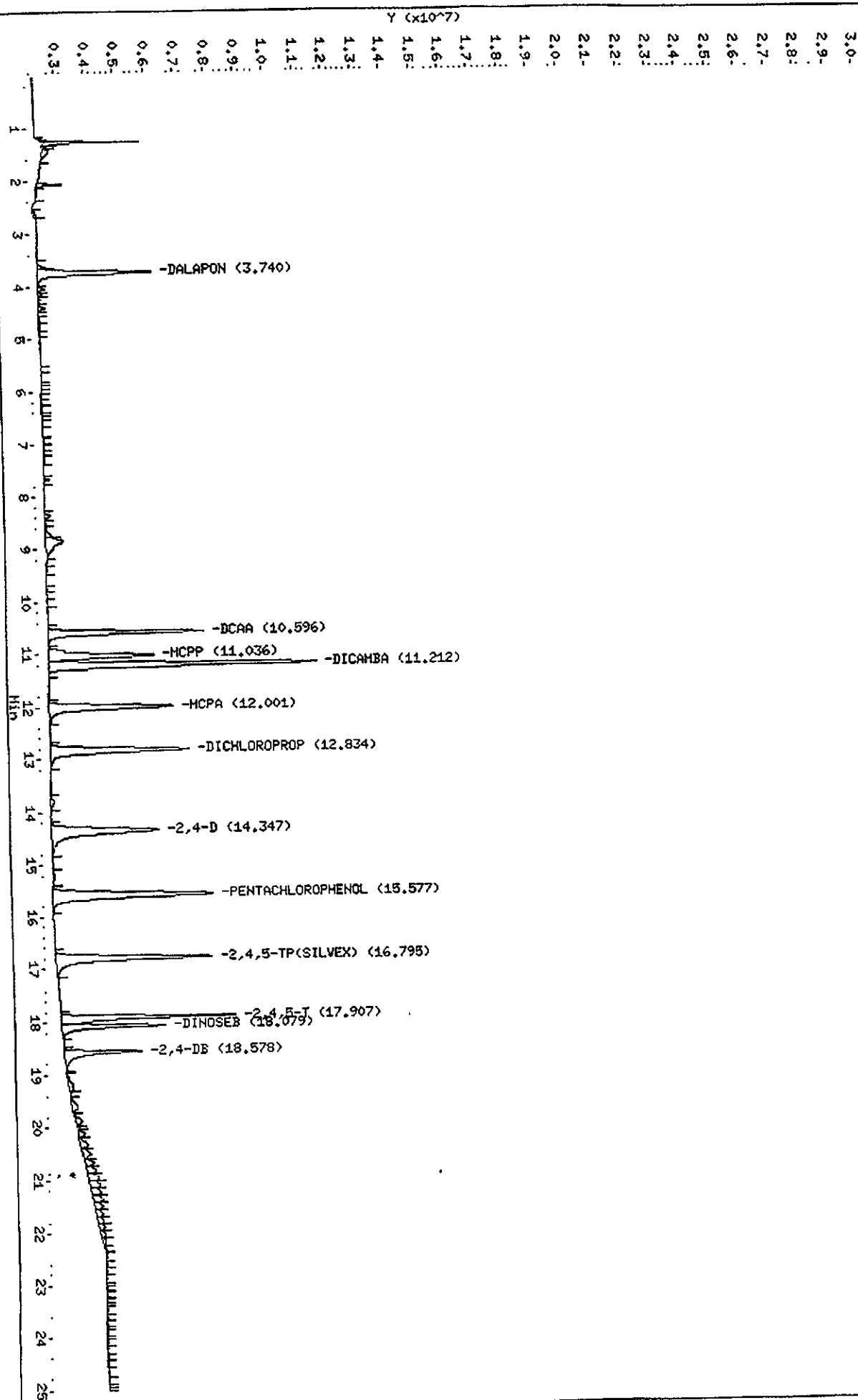
Column phase: DB608

Instrument: gc1.i

Operator: 01797

Column diameter: 0.53

/var/chem/gc1.i/3010c.b/a-a30097.d



659 324

Data File: /var/chem/gc1.i/3010c.b/a-a30098.d
 Report Date: 01-Jun-2000 12:38

STL-PITTSBURGH

Data file : /var/chem/gc1.i/3010c.b/a-a30098.d
 Lab Smp Id: MHherb
 Inj Date : 31-MAY-2000 17:06
 Operator : 01797
 Smp Info : MHherb,3010c.b
 Misc Info : 190-80-4
 Comment :
 Method : /var/chem/gc1.i/3010c.b/LONGH.m
 Meth Date : 01-Jun-2000 11:27 derubeij
 Cal Date : 31-MAY-2000 17:06
 Als bottle: 5
 Dil Factor: 1.00000
 Integrator: Falcon
 Target Version: 3.40

Inst ID: gc1.i
 Quant Type: ESTD
 Cal File: a-a30098.d
 Calibration Sample, Level: 4
 Compound Sublist: all.sub

Compounds	AMOUNTS					
	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
1 DALAPON	3.738	3.740	-0.002	7417941	0.08780	0.09251
2 DCAA	10.594	10.596	-0.002	46512873	0.17000	0.1749
3 MCPP	11.035	11.036	-0.001	5403191	17.0000	13.05
4 DICAMBA	11.210	11.212	-0.002	17595880	0.08510	0.09345
5 MCPA	12.003	12.001	0.002	6355776	17.1000	13.18
6 DICHLOROPROP	12.834	12.834	0.000	9035618	0.17000	0.1850
7 2,4-D	14.345	14.347	-0.002	57482064	0.17000	0.1815
8 PENTACHLOROPHENOL	15.577	15.577	0.000	11647734	0.02128	0.02553
9 2,4,5-TP(SILVEX)	16.795	16.795	0.000	66414167	0.04210	0.04702
10 2,4,5-T	17.905	17.907	-0.002	54059197	0.04220	0.04797
11 DINOSEB	18.080	18.079	0.001	30036981	0.02540	0.02648
12 2,4-DB	18.576	18.578	-0.002	25384255	0.16900	0.1561

Data File: /var/chem/gc1.1/3010c.b/a-a30098.d

Date: 31-MAY-2000 17:06

Client ID:

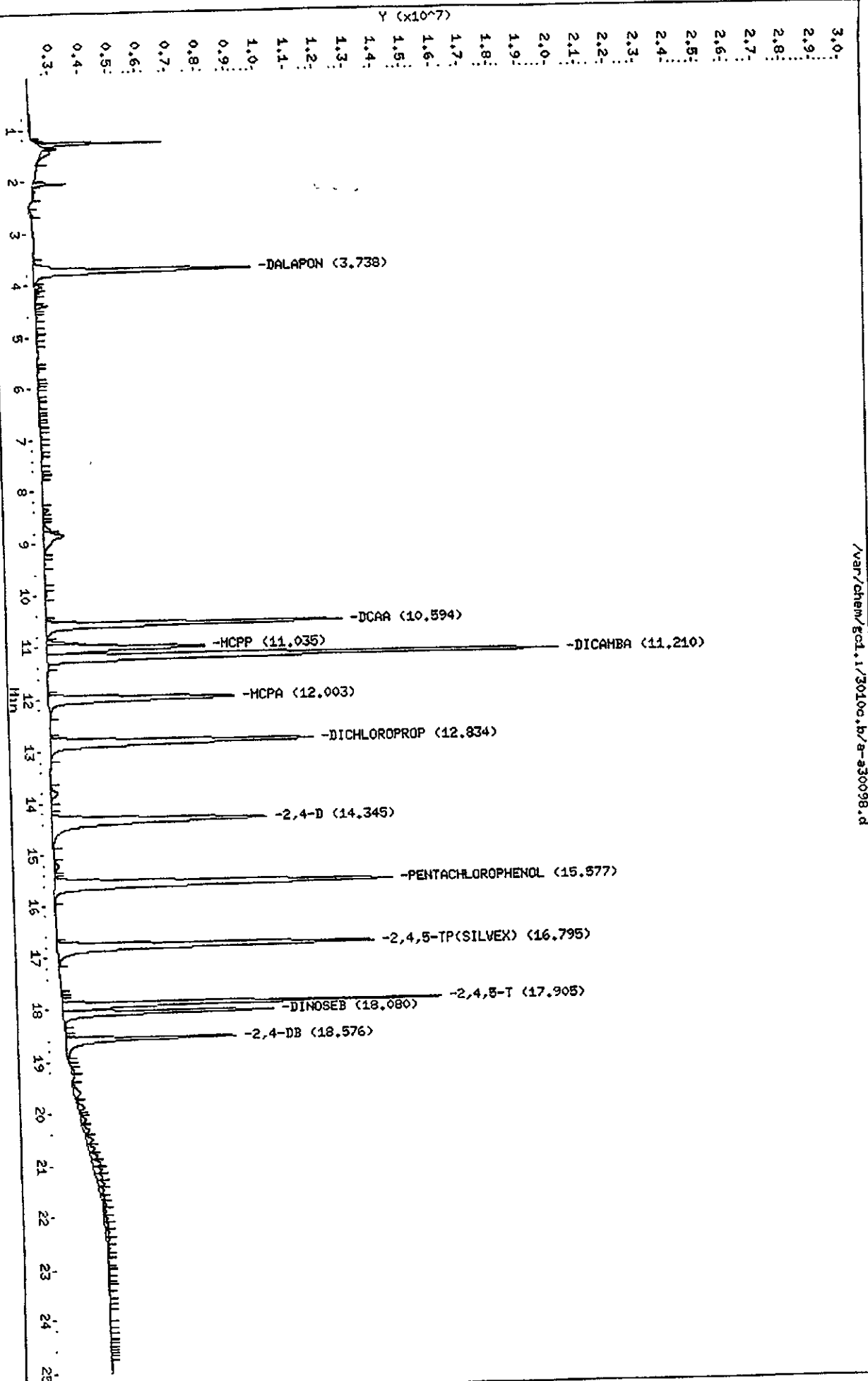
Sample Info: Hlherb, 3010c.b

Column phase: DB608

Instrument: gc1.i

Operator: Q1797

Column diameter: 0.53



659 326

Data File: /var/chem/gc1.i/3010c.b/a-a30099.d
Report Date: 01-Jun-2000 12:38

STL-PITTSBURGH

Data file : /var/chem/gc1.i/3010c.b/a-a30099.d
Lab Smp Id: Hherb
Inj Date : 31-MAY-2000 17:35
Operator : 01797
Smp Info : Hherb,3010c.b
Misc Info : 190-80-5
Comment :
Method : /var/chem/gc1.i/3010c.b/LONGH.m
Meth Date : 01-Jun-2000 11:27 derubeij
Cal Date : 31-MAY-2000 17:35
Als bottle: 6
Dil Factor: 1.00000
Integrator: Falcon
Target Version: 3.40

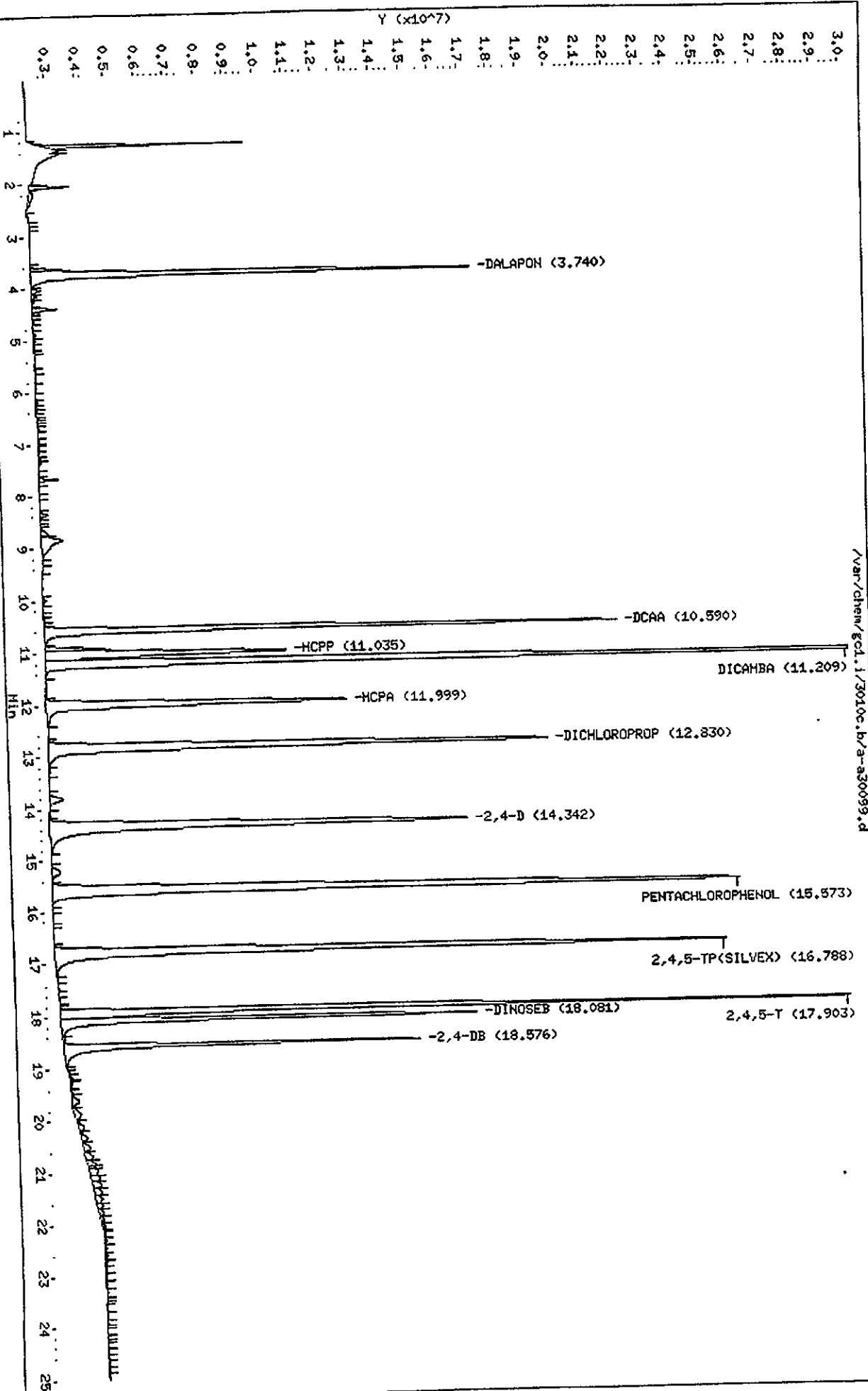
Inst ID: gc1.i
Quant Type: ESTD
Cal File: a-a30099.d
Calibration Sample, Level: 5
Compound Sublist: all.sub

Compounds	AMOUNTS					
	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
=====	==	=====	=====	=====	=====	=====
1 DALAPON	3.740	3.740	0.000	14945836	0.17600	0.1842
\$ 2 DCAA	10.590	10.596	-0.006	87793848	0.34000	0.3321
3 MCPP	11.035	11.036	-0.001	8217888	34.1000	21.65
4 DICAMBA	11.209	11.212	-0.003	35454180	0.17000	0.1843
5 MCPA	11.999	12.001	-0.002	10253602	34.0000	22.99
6 DICHLOROPROP	12.830	12.834	-0.004	17121329	0.33900	0.3481
7 2,4-D	14.342	14.347	-0.005	109277911	0.34000	0.3441
8 PENTACHLOROPHENOL	15.573	15.577	-0.004	23735924	0.04255	0.04980
9 2,4,5-TP(SILVEX)	16.788	16.795	-0.007	134579689	0.08400	0.09279
10 2,4,5-T	17.903	17.907	-0.004	109438398	0.08440	0.09427
11 DINOSEB	18.081	18.079	0.002	59818422	0.05080	0.05234
12 2,4-DB	18.576	18.578	-0.002	48953955	0.33800	0.3078

Data File: /var/chem/gc1.1/3010c.b/a-a30099.d
Date: 31-MAY-2000 17:35
Client ID:
Sample Info: Herb, 3010c.b

Column phase: DB608

Instrument: gc1.1
Operator: 04797
Column diameter: 0.53



659 328

Data File: /var/chem/gc1.i/3020.b/a-a30108.d

Report Date: 01-Jun-2000 12:57

STL-PITTSBURGH

Data file : /var/chem/gc1.i/3020.b/a-a30108.d

Lab Smp Id: Mherb

Inj Date : 01-JUN-2000 10:27

Operator : 01797

Inst ID: gc1.i

Smp Info : Mherb, 3020.b

Misc Info :

Comment :

Method : /var/chem/gc1.i/3020.b/LONGH.m

Meth Date : 01-Jun-2000 11:28 g

Quant Type: ESTD

Cal Date : 31-MAY-2000 17:35

Cal File: a-a30099.d

Als bottle: 4

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: all.sub

Target Version: 3.40

Compounds	AMOUNTS					
	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
1 DALAPON	3.735	3.740	-0.005	3840893	0.04390	0.04734
2 DCAA	10.589	10.596	-0.007	25445680	0.08510	0.09625
3 MCPP	11.031	11.036	-0.005	3654442	8.52000	9.629
4 DICAMBA	11.202	11.212	-0.010	9246979	0.04250	0.04808
5 MCPA	11.992	12.001	-0.009	4233919	8.56000	9.494
6 DICHLOROPROP	12.828	12.834	-0.006	4713266	0.08480	0.09584
7 2,4-D	14.339	14.347	-0.008	30292863	0.08510	0.09538
8 PENTACHLOROPHENOL	15.569	15.577	-0.008	5632797	0.01064	0.01182
9 2,4,5-TP(SILVEX)	16.788	16.795	-0.007	34116706	0.02110	0.02352
10 2,4,5-T	17.904	17.907	-0.003	26684020	0.02110	0.02298
11 DINOSEB	18.077	18.079	-0.002	16764848	0.01270	0.01467
12 2,4-DB	18.574	18.578	-0.004	13632131	0.08450	0.08570

Data File: /var/chem/gc1.i/3020.b/a-a30108.d

Date: 01-JUN-2000 10:27

Client ID:

Sample Info: Hherb,3020.b

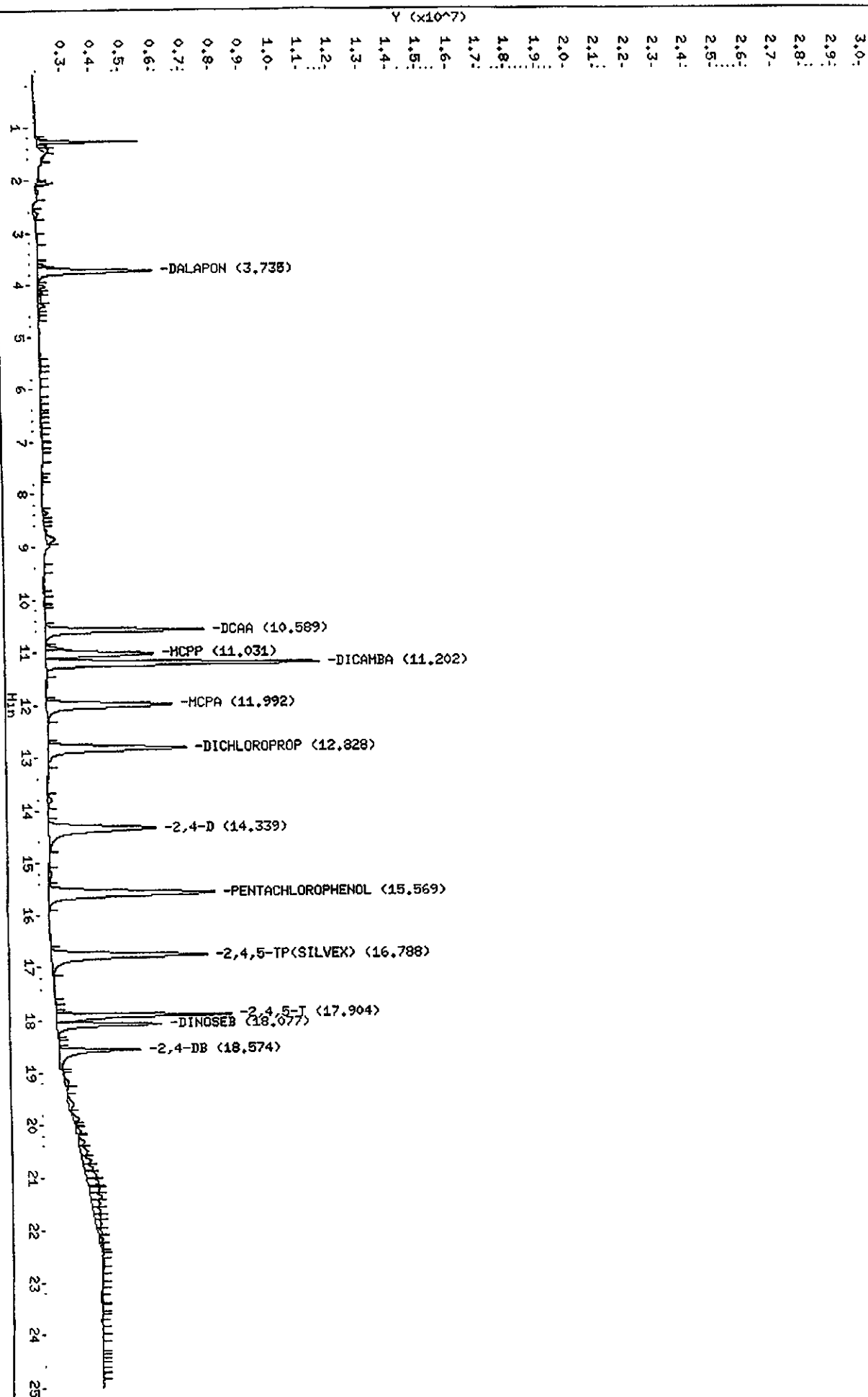
Column phase: DB608

Instrument: gc1.1

Operator: 01797

Column diameter: 0.53

/var/chem/gc1.i/3020.b/a-a30108.d



659 330

Data File: /var/chem/gc1.i/3020.b/a-a30126.d
Report Date: 02-Jun-2000 07:54

STL-PITTSBURGH

Data file : /var/chem/gc1.i/3020.b/a-a30126.d
Lab Smp Id: Mherb
Inj Date : 01-JUN-2000 19:11
Operator : 01797
Smp Info : Mherb,3020.b
Misc Info : 190-80-3
Comment :
Method : /var/chem/gc1.i/3020.b/LONGH.m
Meth Date : 02-Jun-2000 07:52 g
Cal Date : 31-MAY-2000 17:35
Als bottle: 4
Dil Factor: 1.00000
Integrator: Falcon
Target Version: 3.40

Inst ID: gc1.i
Quant Type: ESTD
Cal File: a-a30099.d
Continuing Calibration Sample
Compound Sublist: all.sub

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (ng)	ON-COL (ng)
=====	==	=====	=====	=====	=====	=====
1 DALAPON	3.740	3.740	0.000	3637749	0.04390	0.04484
\$ 2 DCAA	10.591	10.596	-0.005	23686204	0.08510	0.08959
3 MCPP	11.031	11.036	-0.005	3428430	8.52000	9.034
4 DICAMBA	11.207	11.212	-0.005	8437211	0.04250	0.04386
5 MCPA	12.000	12.001	-0.001	3952948	8.56000	8.864
6 DICHLOROPROP	12.830	12.834	-0.004	4337519	0.08480	0.08820
7 2,4-D	14.344	14.347	-0.003	28281903	0.08510	0.08905
8 PENTACHLOROPHENOL	15.574	15.577	-0.003	5183417	0.01064	0.01088
9 2,4,5-TP(SILVEX)	16.788	16.795	-0.007	31501048	0.02110	0.02172
10 2,4,5-T	17.903	17.907	-0.004	24514389	0.02110	0.02112
11 DINOSEB	18.080	18.079	0.001	15526725	0.01270	0.01358
12 2,4-DB	18.575	18.578	-0.003	12272158	0.08450	0.07715

Data File: /var/chem/gc1.i/3020.b/a-a30126.d

Date: 01-JUN-2000 19:11

Client ID:

Sample Info: Mherb,3020.b

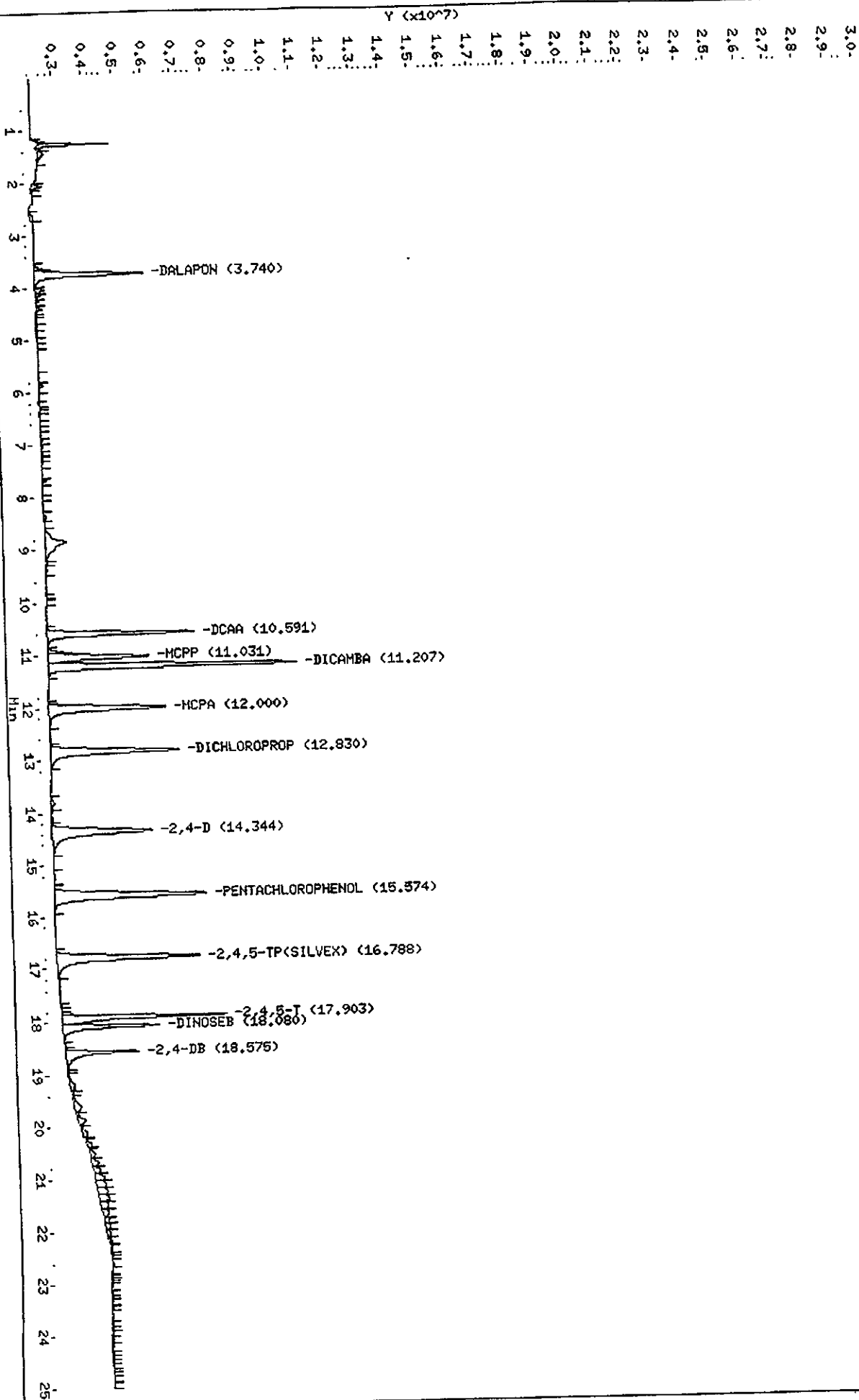
Column phase: DB608

Instrument: gc1.i

Operator: 01797

Column diameter: 0.53

/var/chem/gc1.i/3020.b/a-a30126.d



659 332

**HERBICIDE
QC DATA**

UXB INTERNATIONAL
METHOD BLANK COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0E310000 463

Method: SW846 8151A

Herbicides (8151A)

Sample WT/Vol: 100 / mL

Date Received: 05/26/00

Work Order: DE18E101

Date Extracted: 05/31/00

Dilution factor: 1

Date Analyzed: 06/01/00

Moisture %: NA

QC Batch: 0152463

Client Sample Id: INTRA-LAB BLANK

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

659 334

Data File: /var/chem/gc1.i/3020.b/a-a30120.d

Report Date: 02-Jun-2000 07:54

STL-PITTSBURGH

Data file : /var/chem/gc1.i/3020.b/a-a30120.d
 Lab Smp Id: DE18E101 Client Smp ID: PBLK1
 Inj Date : 01-JUN-2000 16:16
 Operator : 01797 Inst ID: gc1.i
 Smp Info : DE18E101,3020.b
 Misc Info : 260147BLK
 Comment :
 Method : /var/chem/gc1.i/3020.b/LONGH.m
 Meth Date : 02-Jun-2000 07:52 g Quant Type: ESTD
 Cal Date : 31-MAY-2000 17:35 Cal File: a-a30099.d
 Als bottle: 66 QC Sample: BLANK
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: all.sub
 Target Version: 3.40

Concentration Formula: Amt * DF * 20*Vt/Vo/Vi

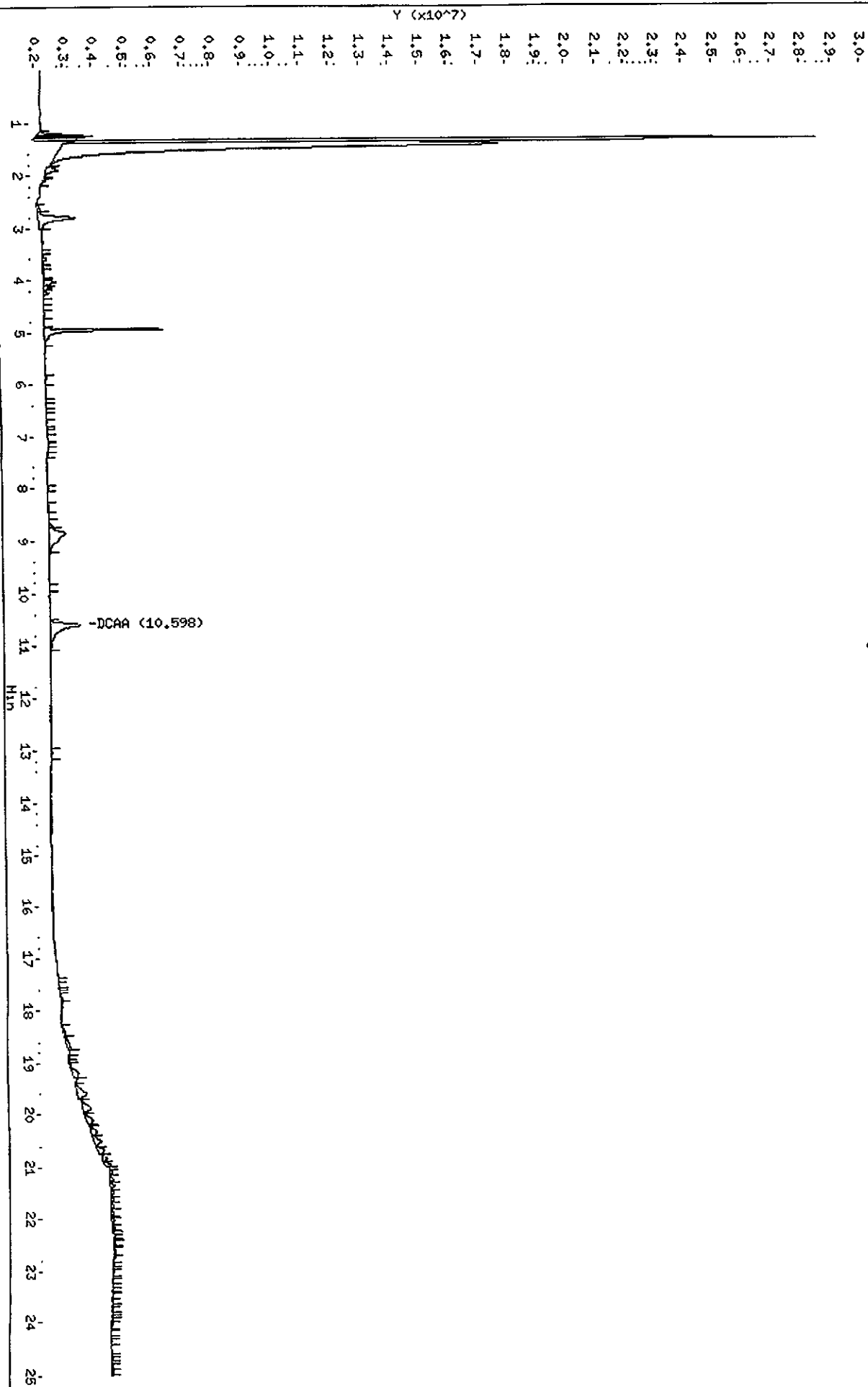
Name	Value	Description
DF	1.000	Dilution Factor
Vt	10000.000	Volume of final extract (uL)
Vo	100.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected

Compounds	RT	EXP RT	DLT RT	RT	RSPONSE	CONCENTRATIONS	
						ON-COLUMN (ng)	FINAL (ug/L)
=====	==	=====	=====	=====	=====	=====	=====
1 DALAPON					Compound Not Detected		
\$ 2 DCAA	10 598	10 596	0 002		8968917	0.03392	67.85
3 MCPP					Compound Not Detected.		
4 DICAMBA					Compound Not Detected.		
5 MCPA					Compound Not Detected		
6 DICHLOROPROP					Compound Not Detected		
7 2,4-D					Compound Not Detected.		
8 PENTACHLOROPHENOL					Compound Not Detected.		
9 2,4,5-TP(SILVEX)					Compound Not Detected.		
10 2,4,5-T					Compound Not Detected		
11 DINOSEB					Compound Not Detected.		
12 2,4-DB					Compound Not Detected		

Data File: /var/chem/gcl.1/3020.b/a-a30120.d
 Date : 01-JUN-2000 16:16
 Client ID: PELK1
 Sample Info: DE18E101.3020.b
 Volume Injected (uL): 1.0
 Column phase: DB608

Instrument: gcl.i
 Operator: 01797
 Column diameter: 0.53

/var/chem/gcl.1/3020.b/a-a30120.d



659 336

UXB INTERNATIONAL
CHECK SAMPLE COMPOUNDS

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

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

Lab Sample ID: C0E310000 463

Sample WT/Vol: 100 / mL
Work Order: DE18E102
Dilution factor: 1
Moisture %: NADate Received: 05/26/00
Date Extracted: 05/31/00
Date Analyzed: 06/01/00

Client Sample Id: CHECK SAMPLE

QC Batch: 0152463

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
94-75-7	2,4-D	0.160	
93-72-1	2,4,5-TP (Silvex)	0.0378	

Data File: /var/chem/gc1.i/3020.b/a-a30121.d
 Report Date: 02-Jun-2000 07:54

STL-PITTSBURGH

Data file : /var/chem/gc1.i/3020.b/a-a30121.d
 Lab Smp Id: DE18E102 Client Smp ID: LCS1
 Inj Date : 01-JUN-2000 16:45
 Operator : 01797 Inst ID: gc1.i
 Smp Info : DE18E102,3020.b
 Misc Info : 260147LCS
 Comment :
 Method : /var/chem/gc1.i/3020.b/LONGH.m
 Meth Date : 02-Jun-2000 07:52 g Quant Type: ESTD
 Cal Date : 31-MAY-2000 17:35 Cal File: a-a30099.d
 Als bottle: 67 QC Sample: LCS
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: all.sub
 Target Version: 3.40

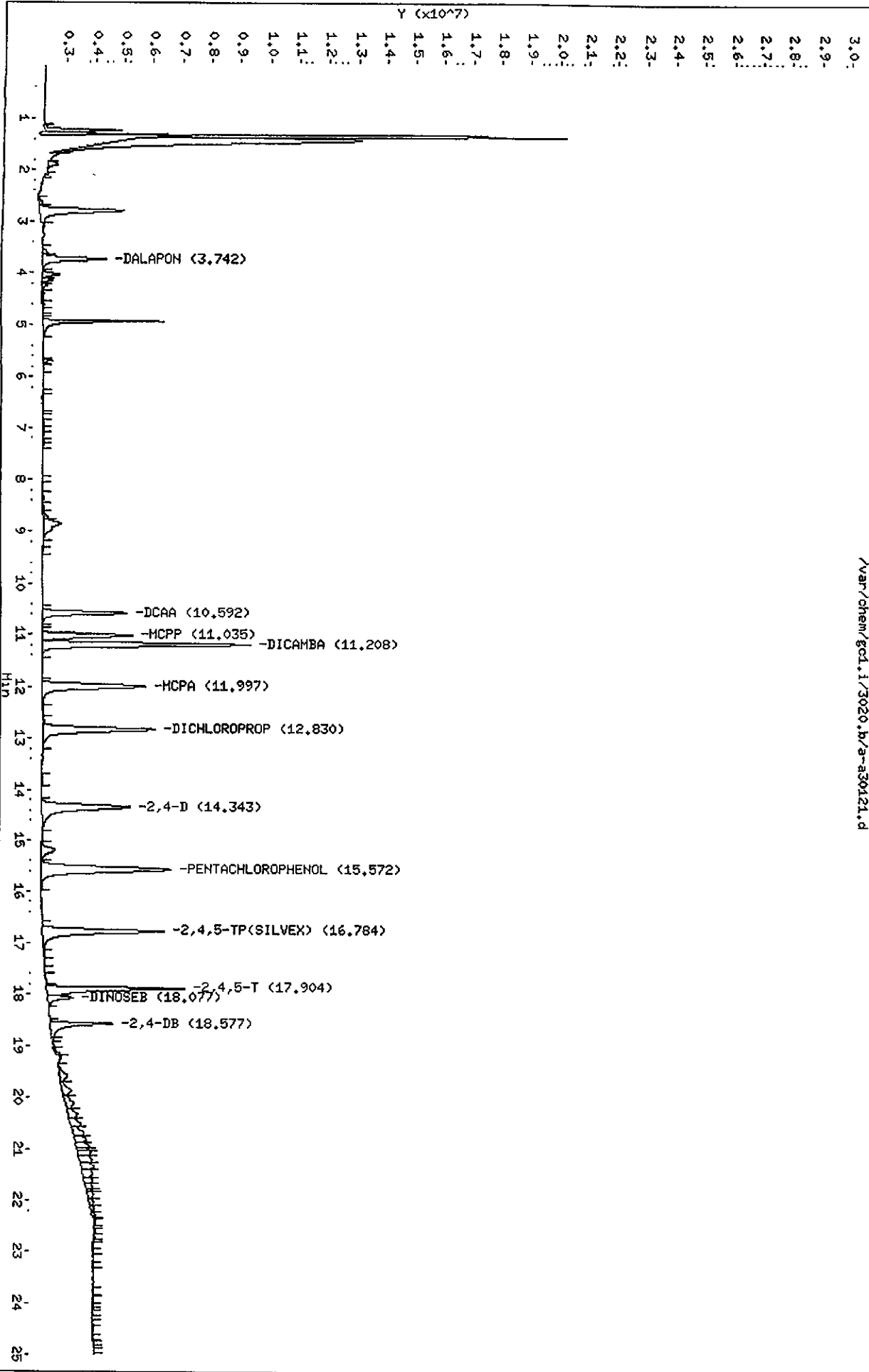
Concentration Formula: Amt * DF * 20*Vt/Vo/Vi

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

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ng)	FINAL (ug/L)
1 DALAPON	3.742	3.740	0.002	2214744	0.02730	54.60
2 DCAA	10.592	10.596	-0.004	13751926	0.05202	104.0
3 MCPP	11.035	11.036	-0.001	3091855	8.14700	16290
4 DICAMBA	11.208	11.212	-0.004	7124671	0.03704	74.08
5 MCPA	11.997	12.001	-0.004	3559010	7.98100	15960
6 DICHLOROPROP	12.830	12.834	-0.004	3876505	0.07882	157.6
7 2,4-D	14.343	14.347	-0.004	25444580	0.08012	160.2
8 PENTACHLOROPHENOL	15.572	15.577	-0.005	4423559	0.00928	18.56
9 2,4,5-TP(SILVEX)	16.784	16.795	-0.011	27401455	0.01889	37.78
10 2,4,5-T	17.904	17.907	-0.003	21648116	0.01865	37.30
11 DINOSB	18.077	18.079	-0.002	4163382	0.00364	7.286
12 2,4-DB	18.577	18.578	-0.001	11051719	0.06948	139.0

650 338

Y (x10⁷)



Data File: /var/chem/gol.i/3020.b/a-a30121.d
 Date : 01-JUN-2000 16:45
 Client ID: LCS1
 Sample Info: DE18E102.3020.b
 Volume Injected (uL): 1.0
 Column phase: DB608

Instrument: gol.i
 Operator: 01797
 Column diameter: 0.53

/var/chem/gol.i/3020.b/a-a30121.d

UXB INTERNATIONAL
MATRIX SPIKE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) SOLID

Lab Sample ID: C0E260147 001

Method: SW846 8151A

Herbicides (8151A)

Sample WT/Vol: 100 / mL

Date Received: 05/26/00

Work Order: DDRMP10P

Date Extracted: 05/31/00

Dilution factor: 1

Date Analyzed: 06/01/00

Moisture %: 13

QC Batch: 0152463

Client Sample Id: DF/S1/0146/SDC/004

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
94-75-7	2,4-D	0.161	
93-72-1	2,4,5-TP (Silvex)	0.0402	

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Data File: /var/chem/gc1.i/3020.b/a-a30116.d
 Report Date: 02-Jun-2000 07:53

STL-PITTSBURGH

Data file : /var/chem/gc1.i/3020.b/a-a30116.d
 Lab Smp Id: DDRMP10P Client Smp ID: DF/S1/0146/SDC/004S
 Inj Date : 01-JUN-2000 14:20
 Operator : 01797 Inst ID: gc1.i
 Smp Info : DDRMP10P,3020.b
 Misc Info : 260147-1s
 Comment :
 Method : /var/chem/gc1.i/3020.b/LONGH.m
 Meth Date : 02-Jun-2000 07:52 g Quant Type: ESTD
 Cal Date : 31-MAY-2000 17:35 Cal File: a-a30099.d
 Als bottle: 62 QC Sample: MS
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: all.sub
 Target Version: 3.40

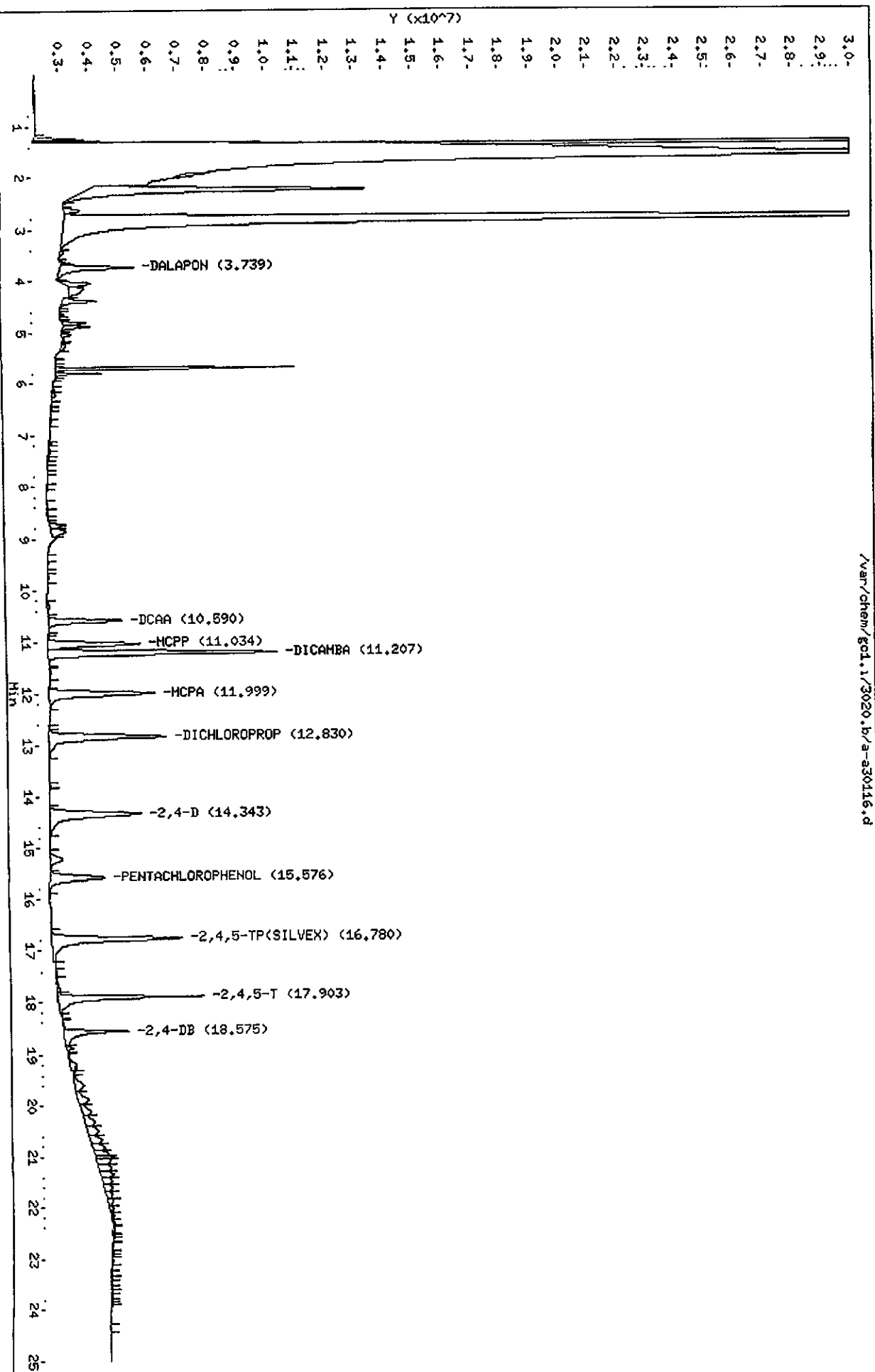
Concentration Formula: Amt * DF * 20*Vt/Vo/Vi

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

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ng)	FINAL (ug/L)
1 DALAPON	3.739	3.740	-0.001	2537397	0.03128	62.55
2 DCAA	10.590	10.596	-0.006	11692305	0.04423	88.45
3 MCPP	11.034	11.036	-0.002	3157137	8.31902	16640
4 DICAMBA	11.207	11.212	-0.005	7837136	0.04075	81.49
5 MCPA	11.999	12.001	-0.002	3622846	8.12415	16250
6 DICHLOROPROP	12.830	12.834	-0.004	3976318	0.08085	161.7
7 2,4-D	14.343	14.347	-0.004	25602417	0.08061	161.2
8 PENTACHLOROPHENOL	15.576	15.577	-0.001	1892548	0.00397	7.942
9 2,4,5-TP(SILVRX)	16.780	16.795	-0.015	29144420	0.02009	40.19
10 2,4,5-T	17.903	17.907	-0.004	24607398	0.02120	42.39
11 DINOSEB	Compound Not Detected					
12 2,4-DB	18.575	18.578	-0.003	11474695	0.07214	144.3

Data File: /var/chem/gc1.i/3020.b/a-a30116.d
Date: 01-JUN-2000 14:20
Client ID: DF/S1/0146/SLC/004S
Sample Info: DDRHP10P,3020.b
Volume Injected (ul): 1.0
Column phase: DB608

Instrument: gc1.1
Operator: 01797
Column diameter: 0.53



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UXB INTERNATIONAL
MATRIX SPIKE DUPLICATE COMPOUNDS

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

Matrix: (soil/water) SOLID

Lab Sample ID: C0E260147 001

Method: SW846 8151A

Herbicides (8151A)

Sample WT/Vol: 100 / mL

Date Received: 05/26/00

Work Order: DDRMP10Q

Date Extracted: 05/31/00

Dilution factor: 1

Date Analyzed: 06/01/00

Moisture %: 13

QC Batch: 0152463

Client Sample Id: DF/S1/0146/SDC/004

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) mg/L	Q
94-75-7	2,4-D	0.169	
93-72-1	2,4,5-TP (Silvex)	0.0416	

FORM I

Data File: /var/chem/gc1.i/3020.b/a-a30117.d
 Report Date: 02-Jun-2000 07:53

STL-PITTSBURGH

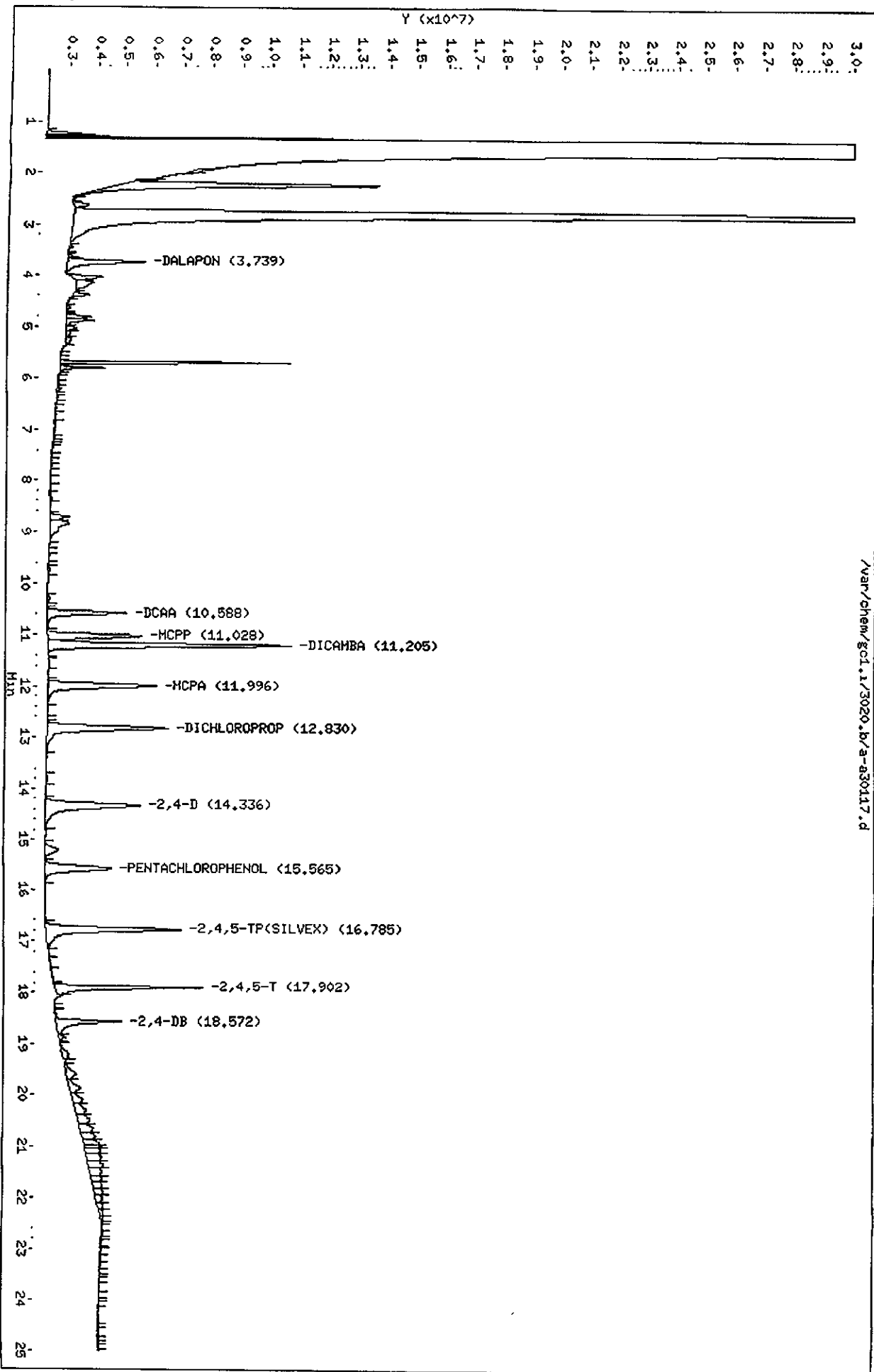
Data file : /var/chem/gc1.i/3020.b/a-a30117.d
 Lab Smp Id: DDRMP10Q Client Smp ID: DF/S1/0146/SDC/004D
 Inj Date : 01-JUN-2000 14:49
 Operator : 01797 Inst ID: gc1.i
 Smp Info : DDRMP10Q,3020.b
 Misc Info : 260147-1D
 Comment :
 Method : /var/chem/gc1.i/3020.b/LONGH.m
 Meth Date : 02-Jun-2000 07:52 g Quant Type: ESTD
 Cal Date : 31-MAY-2000 17:35 Cal File: a-a30099.d
 Als bottle: 63 QC Sample: MSD
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: all.sub
 Target Version: 3.40

Concentration Formula: Amt * DF * 20*Vt/Vo/Vi

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

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ng)	FINAL (ug/L)
1 DALAPON	3.739	3.740	-0.001	2660428	0.03279	65.58
2 DCAA	10.588	10.596	-0.008	13059442	0.04940	98.79
3 MCPP	11.028	11.036	-0.008	3254649	8.57596	17150
4 DICAMBA	11.205	11.212	-0.007	8348647	0.04341	86.81
5 MCPA	11.996	12.001	-0.005	3768864	8.45159	16900
6 DICHLOROPROP	12.830	12.834	-0.004	4169333	0.08478	169.6
7 2,4-D	14.336	14.347	-0.011	26849305	0.08454	169.1
8 PENTACHLOROPHENOL	15.565	15.577	-0.012	2283958	0.00479	9.585
9 2,4,5-TP(SILVEX)	16.785	16.795	-0.010	30155184	0.02079	41.58
10 2,4,5-T	17.902	17.907	-0.005	22381562	0.01928	38.56
11 DINOSEB	Compound Not Detected.					
12 2,4-DB	18.572	18.578	-0.006	11944323	0.07509	150.2

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Data File: /var/chem/gc1.1/3020.b/a-a30117.d
Date: 01-JUN-2000 14:49
Client ID: DF/S1/0146/SDC/004D
Sample Info: MDRFP10Q,3020.b
Volume Injected (uL): 1.0
Column phase: DB608

Instrument: gc1.1
Operator: 01797
Column diameter: 0.53

**HERBICIDE
MISCELLANEOUS**

TCLP (Method 1311)

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



QUA-4181

Filter lot # 85207014

Serial Number 044 Log Book Number 96-MT-526

By Jeffrey O. Snavett Date 5-30-00

Checked by William A. Hylleberg
Client Codes 399411, 399874

Date 5-31-00

pH Instrument Accumet AP25

Probe SN9682635

Balance C94817

Solution Number 1 - Log Book Number 995404-12

Solution Number 2 - Log Book Number

Fluid Determination

TCLP Extraction

Sample ID	Wgt/Vol	Init pH	Final pH	Extract Fluid #1, or #2	Conc. HNO3 to Acidity (for Metals)	Sample ID	Wgt (g) Wet/Dry	Fluid Vol	Final pH After Tumbling
DDKMP	5.00g/96.5ml	8.98	1.56	561#1	5ml	1. DDKMP	100.00g	2000ml Glass	4.94
DDVK9	↓	11.20	2.82	↓	5ml	2. DDKMP	↓	↓	6.28
DDVKA	↓	8.60	1.56	↓	5ml	3. DDKMP	↓	↓	10.04
						4. DDVK9	↓	↓	5.28
						5. DDVKA	↓	↓	
						6.			
						7.			
						8.			
						9.			
						10.			
						11.			
						12.			
						13.			

Extract(s)

Extract(s) Received

Extract(s) Relinquished

Record line number from above	Date	Time	Analyst	Location	Date	Time	Analyst	Location
All Above	5-31-00	1435	Jeffrey O. Snavett	Metals Rm	5-31-00	1440	Jeffrey O. Snavett	30E

* = 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 22°

Date/Time On 5-30-00 1200 Date/Time Off 5-31-00 0715 Agitation Apparatus RPMs 30 ± 2

Date 5-30-00 pH Calibration (4.0) 7.0 10.0

Date 5-31-00 4.00 7.01 10.05

Comments

Sequence Table (Front Injector):

Vial Information Part:

Line	Vial	Vial Information
====	====	=====
1	1	RINSE
2	2	190-80-1 95
3	3	190-80-2 96
4	4	190-80-3 97
5	5	190-80-4 98
6	6	190-80-5 99
7	7	~~C0E240180001~~
8	8	~~C0E240180002~~
9	9	~~C0E240180MS 001~~
10	10	~~C0E240180MSD 001~~
11	11	~~C0E240180LCS~~
12	12	~~C0E240180BLK~~
13	13	~~190-80-3~~

6/1/00

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
====	====	=====	=====	====	=====	=====	=====
1	1	HEXANE	HERB	1	Sample		
2	2	Lherb,3010c.b	HERB	1	Sample		
3	3	MLherb,3010c.b	HERB	1	Sample		
4	4	Mherb,3010c.b	HERB	1	Sample		
5	5	MHherb,3010c.b	HERB	1	Sample		
6	6	Hherb,3010c.b	HERB	1	Sample		
7	7	DDLX3105,3010c.b	HERB	1	Sample		
8	8	DDLX6105,3010c.b	HERB	1	Sample		
9	9	DDLX310P,3010c.b	HERB	1	Sample		
10	10	DDLX310Q,3010c.b	HERB	1	Sample		
11	11	DDTMQ102,3010c.b	HERB	1	Sample		
12	12	DDTMQ101,3010c.b	HERB	1	Sample		
13	13	Mherb,3010c.b	HERB	1	Sample		

Sequence Table (Back Injector):

Vial Information Part:

Sequence Table (Front Injector):

Vial Information Part:

A

Line	Vial	Vial Information
====	====	=====
1	1	RINSE
2	4	190-80-3 108
3	7	C0E240180001 109
4	8	C0E240180002 110
5	9	C0E240180MS 001 111
6	10	C0E240180MSD 001 112
7	11	C0E240180LCS 113
8	12	C0E240180BLK 114
9	61	C0E260147001 115
10	62	C0E260147MS 001 116
11	63	C0E260147MSD 001 117
12	64	C0E270126007 118
13	65	C0E270126008 119
14	66	C0E260147BLK 120
15	67	C0E260147LCS 121
16	68	C0E310127BLK 122
17	69	C0E310127LCS 123
18	70	C0E310127LCSD 124
19	71	C0E310127001 125
20	4	190-80-3 126

Method and Injection Info Part:

Line	Vial	SampleName	Method	Inj	SampleType	InjVolume	DataFile
====	====	=====	=====	===	=====	=====	=====
1	1	HEXANE	HERB	1	Sample		
2	4	Mherb,3020.b	HERB	1	Sample		
3	7	DDLX3105,3020.b	HERB	1	Sample		
4	8	DDLX6105,3020.b	HERB	1	Sample		
5	9	DDLX310P,3020.b	HERB	1	Sample		

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PSR024 5/31/00 13:38:56 MT

SAMPLE CUSTODIAN REMOVAL REQUEST

PAGE 001

REQUESTED BY: PINOB

METHOD: QS Herbicides (8151A)

<u>STORAGE LOCATION</u>	<u>WORK ORDER #</u>	<u>PICKED</u> <u>CNTR#</u>	<u>CONTROL #</u>	<u>CLIENT #</u>	<u>ANALYSIS</u>	<u>LOTID</u>	<u>SMP#</u>	<u>SFX</u>	<u>MATRIX</u> <u>DESCRIPTION</u>	<u>QTY</u> <u>RCVD</u>	<u>QTY</u> <u>REQD</u>
6E CLP1	DDRMP-1-05	___	237475	399411	A-64-QS	COE260147	001	*	SOLID	0	3
7A CLP1	DDVK9-1-04	___	237473	039984	A-64-QS	COE270126	007		SOLID	0	2
7A CLP1	DDVKA-1-04	___	237474	039984	A-64-QS	COE270126	008		SOLID	0	2

RELINQUISHED BY

RECEIVED BY

DATE/TIME

P. Gushinski
P. Gushinski

P. Gushinski
P. Gushinski

5-31-00 1535
5-31-00 2035

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

METALS DATA

STL-Pittsburgh**Cover Page - Inorganic Analysis Data Package**Client IDDF/S1/0146/SDC/004Lab Sample ID:DDRMP

Comments: UXB, DUNN FIELD
C0E260147
6010B

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than conditions detailed above. Release of the data combined in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: _____

Name: _____

Date: _____

Title: _____

REVIEWED BY: <u>QuF</u>
DATE: <u>6-1-00</u>

**METALS
RESULTS**

659 354

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: DDRMP Client ID: DF/S1/0146/SDC/004
Matrix: Soil Units: mg/kg Prep Date: 5/30/00 Prep Batch: 0151223
Weight: 1.00 Volume: 100 Percent Moisture: 13.13

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Arsenic	189.04	0.30	1.2	9.1		1	ICPST	5/30/00	20:46

Comments: Lot#: C0E260147 Sample#: 1

Version 3.63.4

U Result is less than the MDL

Form 1 Equivalent

B Result is between MDL and RL

Metals Data Reporting Form

Initial Calibration Verification Standard

Instrument: ICPSTUnits: ug/LChart Number: T00530C.ARCAcceptable Range: 90% - 110%Standard Source: Inorganic VenturesStandard ID: 0014-110-4

Element	WL/ Mass	True Conc	ICV3-1 5/30/00 7:24 PM									
			Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Arsenic	189.042	250.0	255.44	102.2								

STL-Pittsburgh

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Metals Data Reporting Form

Continuing Calibration Verification

Instrument: ICPST

Units: ug/L

Chart Number: T00530C.ARC

Acceptable Range: 90% - 110%

Standard Source: Inorganic Ventures

Standard ID: 0014-110-3

Element	WL/ Mass	True Conc	CCV3-1 5/30/00 8:17 PM		CCV3-2 5/30/00 9:07 PM							
			Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Arsenic	189.042	500.0	504.26	100.9	503.74	100.7						

STL-Pittsburgh

Metals Data Reporting Form

Initial Calibration Blank Results

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

Standard Source: _____

Standard ID: _____

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

Metals Data Reporting Form

Continuing Calibration Blank Results

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

Standard Source: _____

Standard ID: _____

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

STL-Pittsburgh
Metals Data Reporting Form

Preparation Blank Results**Lab Sample ID:** DDWJ9B**Matrix:** Soil **Units:** mg/kg **Prep Date:** 5/30/00 **Prep Batch:** 0151223**Weight:** 1.00 **Volume:** 100 **Percent Moisture:** NA

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

Comments: _____

STL-Pittsburgh

Metals Data Reporting Form

Interference Check Standard A

Instrument: ICPSTUnits: ug/LChart Number: T00530C.ARCAcceptable Range: 0% - 0%Standard Source: Inorganic VenturesStandard ID: 0014-088-12

				ICSA 5/30/00 7:32 PM				
Element	WL/ Mass	Reporting Limit	True Conc	Found	Found	Found	Found	Found
Arsenic	189.042	10		1				

Metals Data Reporting Form

Interference Check Standard AB

Instrument: ICPSTUnits: ug/LChart Number: T00530C.ARCAcceptable Range: 80% - 120%Standard Source: Inorganic VenturesStandard ID: 0014-075-12

Element	WL/ Mass	True Conc	ICSAB 5/30/00 7:37 PM									
			Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Arsenic	189.042	1000	1034.7	103.5								

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STL-Pittsburgh

Metals Data Reporting Form

Laboratory Control Sample Results

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

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

Comments: _____

STL-Pittsburgh
Metals Data Reporting Form

Instrument Detection Limits

Instrument: ICPST**Units:** ppb

Element	Wavelength /Mass	Reporting Limit	MDL	Date of MDL
Arsenic	189.04	10	2.6	4/1/00

Metals Data Reporting Form

Inter-Element Correction Factors

Instrument: ICPSTDate of IEC's: 5/30/00

Interfering Element	Wavelength /Mass	Correction Factor(s)
Aluminum	308.215	Pb(0.000457), Se(0.00001), Tl(-0.00002)
Aluminum	308.215	Pb(-0.000157), Se(0.000011)
Chromium	267.716	Sb(0.006664)
Chromium	267.716	As(-0.002441), Sb(0.010481)
Cobalt	228.616	Se(-0.000324)
Cobalt	228.616	Cd(-0.000111), Fe(0.08869), Ni(-0.00066), Se(0.000351), Tl(0.002179)
Iron	271.441	Cd(0.000111), Pb(0.000107), Sb(0.000019), Se(-0.000024), V(-0.000349), Zn(0.000127)
Iron	271.441	Pb(0.000054), Sb(0.000021), Se(-0.000313)
Magnesium	279.078	Fe(-0.000306)
Manganese	257.61	Tl(-0.006029)
Molybdenum	202.03	Pb(-0.00068), Sb(-0.009237)
Molybdenum	202.03	Al(0.011136), As(-0.002441), Cr(-0.000312), Pb(-0.000307), Sb(-0.002657)
Nickel	231.604	Pb(0.000247), Sb(-0.000886), Zn(0.004557)
Nickel	231.604	Pb(0.000124)
Vanadium	292.402	Al(0.02185), Be(-0.0083), Cr(-0.000183), Fe(0.007812), Sb(-0.007991), Se(0.000216), Tl(0.001386)
Vanadium	292.402	Pb(-0.000475), Se(0.000099)

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

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STL-Pittsburgh
Metals Data Reporting Form

Preparation Log

Preparation Batch: 0151223 **Instrument:** ICP **Matrix:** Soil

Sample ID	Prep Date	Weight (g)	Volume (ml)	% Moisture
DDWJ9B	5/30/00	1.00	100	NA
DDWJ9C	5/30/00	1.00	100	NA
DDRMP	5/30/00	1.00	100	13.13

Metals Data Reporting Form

Instrument Runlog

Instrument: ICPSTChart Number: T00530C.ARC

Sample Name	Date of Analysis	Time of Analysis
STD1	5/30/00	7:12 PM
STD6	5/30/00	7:16 PM
STD7	5/30/00	7:20 PM
ICV3-1	5/30/00	7:24 PM
ICB1	5/30/00	7:28 PM
ICSA	5/30/00	7:32 PM
ICSAB	5/30/00	7:37 PM
ZZZZZZ	5/30/00	7:43 PM
ZZZZZZ	5/30/00	7:47 PM
ZZZZZZ	5/30/00	7:51 PM
ZZZZZZ	5/30/00	7:55 PM
ZZZZZZ	5/30/00	8:00 PM
ZZZZZZ	5/30/00	8:04 PM
DDWJ9B	5/30/00	8:08 PM
DDWJ9C	5/30/00	8:13 PM
CCV3-1	5/30/00	8:17 PM
CCB1	5/30/00	8:21 PM
ZZZZZZ	5/30/00	8:25 PM
ZZZZZZ	5/30/00	8:29 PM
ZZZZZZ	5/30/00	8:33 PM
ZZZZZZ	5/30/00	8:38 PM
ZZZZZZ	5/30/00	8:42 PM
DDRMP	5/30/00	8:46 PM
ZZZZZZ	5/30/00	8:50 PM
ZZZZZZ	5/30/00	8:54 PM
ZZZZZZ	5/30/00	8:58 PM
ZZZZZZ	5/30/00	9:02 PM
CCV3-2	5/30/00	9:07 PM
CCB2	5/30/00	9:11 PM
ZZZZZZ	5/30/00	9:15 PM
ZZZZZZ	5/30/00	9:19 PM
ZZZZZZ	5/30/00	9:23 PM
ZZZZZZ	5/30/00	9:27 PM
ZZZZZZ	5/30/00	9:32 PM
ZZZZZZ	5/30/00	9:36 PM
ZZZZZZ	5/30/00	9:40 PM
ZZZZZZ	5/30/00	9:44 PM
ZZZZZZ	5/30/00	9:48 PM
ZZZZZZ	5/30/00	9:52 PM
ZZZZZZ	5/30/00	9:56 PM
ZZZZZZ	5/30/00	10:01 PM

STL-Pittsburgh

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Metals Data Reporting Form

Instrument Runlog

Instrument: ICPST

Chart Number: T00530C.ARC

Sample Name	Date of Analysis	Time of Analysis
ZZZZZZ	5/30/00	10:05 PM
ZZZZZZ	5/30/00	10:09 PM
ZZZZZZ	5/30/00	10:13 PM
ZZZZZZ	5/30/00	10:17 PM
ZZZZZZ	5/30/00	10:21 PM
ZZZZZZ	5/30/00	10:26 PM
ZZZZZZ	5/30/00	10:30 PM
ZZZZZZ	5/30/00	10:34 PM
ZZZZZZ	5/30/00	10:38 PM
ZZZZZZ	5/30/00	10:42 PM
ZZZZZZ	5/30/00	10:46 PM
ZZZZZZ	5/30/00	10:51 PM
ZZZZZZ	5/30/00	10:55 PM
ZZZZZZ	5/30/00	10:59 PM
ZZZZZZ	5/30/00	11:03 PM
ZZZZZZ	5/30/00	11:07 PM
ZZZZZZ	5/30/00	11:11 PM
ZZZZZZ	5/30/00	11:15 PM
ZZZZZZ	5/30/00	11:20 PM
ZZZZZZ	5/30/00	11:24 PM
ZZZZZZ	5/30/00	11:28 PM
ZZZZZZ	5/30/00	11:32 PM
ZZZZZZ	5/30/00	11:36 PM
ZZZZZZ	5/30/00	11:40 PM
ZZZZZZ	5/30/00	11:45 PM
ZZZZZZ	5/30/00	11:49 PM
ZZZZZZ	5/30/00	11:53 PM
ZZZZZZ	5/30/00	11:57 PM
ZZZZZZ	5/31/00	12:01 AM
ZZZZZZ	5/31/00	12:05 AM
ZZZZZZ	5/31/00	12:10 AM
ZZZZZZ	5/31/00	12:14 AM
ZZZZZZ	5/31/00	12:18 AM
ZZZZZZ	5/31/00	12:22 AM

**METALS
RAW DATA**

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COE260147
Analysis Report Averages

05/31/00 07:06:02 AM

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Pamukajud 53100
Sample Name AS

1	STD1	-.01503
2	STD6	5.96259
3	STD7	
4	ICV3-1 0014-110-4	.25544
5	ICB1	.00015
6	ICSA 0014-088-12	.00056
7	ICSAB 0014-075-12	1.0347
8	DDWJCB	.00053
9	DDWJCC	1.8594
10	DDNNA	.14301
11	DDNNAP5	.02960
12	DDNNAS	2.0347
13	DDNNAD	2.0228
14	DDWJ9B	.00161
15	DDWJ9C	1.8785
16	CCV3-1 0014-110-3	.50426
17	CCB1	-.00022
18	DDLX3	.07979
19	DDLX3P5	.01703
20	DDLX3S	2.0320
21	DDLX3D	1.9645
22	DDLX6	.08510
23	DDRMP	.07870
24	DD4TN	.00595
25	DD4TNF	.01241
26	DD4TN Raw Sample	.01638
27	DD4TNF Raw Sample	.02313
28	CCV3-2	.50374
29	CCB2	.00069
30	DDR9FB	.00003
31	DDR9FC	1.9767
32	DD7XD	.00453
33	DD7XDP5	.00122
34	DD7XDS	2.3984
35	DD7XDD	2.0179
36	DD7XE	.00703
37	DD7XF	.02402
38	DD7XG	.00063
39	DD7XH	.00082
40	CCV3-3	.50894
41	CCB3	.00159
42	DD7XJ	.00527
43	DD7XK	.02071
44	DD7XL	.01051
45	DD7XM	.00289
46	DD7XN	-.00037
47	DD7XP	.01421
48	DD7XQ	.00138
49	DD7XV	.00071
50	DD7XW	.00210
51	CCV3-4	.51225
52	CCB4	-.00001
53	DDRETBF	-.00031

#	Sample Name	AS
54	DDRETCF	1.9818
55	DD7XDF	.00120
56	DD7XDP5F	.00011
57	DD7XDSF	2.0842
58	DD7XDDF	2.4089
59	DD7XEF	.00482
60	DD7XFF	.02072
61	DD7XGF	.00145
62	DD7XHF	.00065
63	CCV3-5	.51416
64	CCB5	-.00033
65	DD7XJF	.00164
66	DD7XKF	.01124
67	DD7XLF	.00504
68	DD7XMF	.00109
69	DD7XNF	.00068
70	DD7XPF	.00633
71	DD7XQF	.00174
72	DD7XVF	-.00045
73	DD7XWF	.00055
74	CCV3-6	.52258
75	CCB6	.00050

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Analysis Report

Summary

05/31/00 07:06:02 AM

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R6 5310

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
1	STD1	T00530C	METTRA	05/30/00	19:12		X	IR
2	STD6	T00530C	METTRA	05/30/00	19:16		X	IR
3	STD7	T00530C	METTRA	05/30/00	19:20		X	IR
4	ICV3-1 0014-110-4	T00530C	METTRA	05/30/00	19:24	RJG	S	CONC
5	ICB1	T00530C	METTRA	05/30/00	19:28	RJG	S	CONC
6	ICSA 0014-088-12	T00530C	METTRA	05/30/00	19:32	RJG	Q	CONC
7	ICSAB 0014-075-12	T00530C	METTRA	05/30/00	19:37	RJG	Q	CONC
8	DDWJCB	T00530C	METTRA	05/30/00	19:43	RJG	S	CONC
9	DDWJCC	T00530C	METTRA	05/30/00	19:47	RJG	S	CONC
10	DDNNA	T00530C	METTRA	05/30/00	19:51	RJG	S	CONC
11	DDNNAP5	T00530C	METTRA	05/30/00	19:55	RJG	S	CONC
12	DDNNAS	T00530C	METTRA	05/30/00	20:00	RJG	S	CONC
13	DDNNAD	T00530C	METTRA	05/30/00	20:04	RJG	S	CONC
14	DDWJ9B	T00530C	METTRA	05/30/00	20:08	RJG	S	CONC
15	DDWJ9C	T00530C	METTRA	05/30/00	20:13	RJG	S	CONC
16	CCV3-1 0014-110-3	T00530C	METTRA	05/30/00	20:17	RJG	S	CONC
17	CCB1	T00530C	METTRA	05/30/00	20:21	RJG	S	CONC
18	DDLX3	T00530C	METTRA	05/30/00	20:25	RJG	S	CONC
19	DDLX3P5	T00530C	METTRA	05/30/00	20:29	RJG	S	CONC
20	DDLX3S	T00530C	METTRA	05/30/00	20:33	RJG	S	CONC
21	DDLX3D	T00530C	METTRA	05/30/00	20:38	RJG	S	CONC
22	DDLX6	T00530C	METTRA	05/30/00	20:42	RJG	S	CONC
23	DDRMP	T00530C	METTRA	05/30/00	20:46	RJG	S	CONC
24	DD4TN	T00530C	METTRA	05/30/00	20:50	RJG	S	CONC
25	DD4TNF	T00530C	METTRA	05/30/00	20:54	RJG	S	CONC
26	DD4TN Raw Sample	T00530C	METTRA	05/30/00	20:58	RJG	S	CONC
27	DD4TNF Raw Sample	T00530C	METTRA	05/30/00	21:02	RJG	S	CONC
28	CCV3-2	T00530C	METTRA	05/30/00	21:07	RJG	S	CONC
29	CCB2	T00530C	METTRA	05/30/00	21:11	RJG	S	CONC
30	DDR9FB	T00530C	METTRA	05/30/00	21:15	RJG	S	CONC
31	DDR9FC	T00530C	METTRA	05/30/00	21:19	RJG	S	CONC
32	DD7XD	T00530C	METTRA	05/30/00	21:23	RJG	S	CONC
33	DD7XDP5	T00530C	METTRA	05/30/00	21:27	RJG	S	CONC
34	DD7XDS	T00530C	METTRA	05/30/00	21:32	RJG	S	CONC
35	DD7XDD	T00530C	METTRA	05/30/00	21:36	RJG	S	CONC
36	DD7XE	T00530C	METTRA	05/30/00	21:40	RJG	S	CONC
37	DD7XF	T00530C	METTRA	05/30/00	21:44	RJG	S	CONC
38	DD7XG	T00530C	METTRA	05/30/00	21:48	RJG	S	CONC
39	DD7XH	T00530C	METTRA	05/30/00	21:52	RJG	S	CONC
40	CCV3-3	T00530C	METTRA	05/30/00	21:56	RJG	S	CONC
41	CCB3	T00530C	METTRA	05/30/00	22:01	RJG	S	CONC
42	DD7XJ	T00530C	METTRA	05/30/00	22:05	RJG	S	CONC
43	DD7XK	T00530C	METTRA	05/30/00	22:09	RJG	S	CONC
44	DD7XL	T00530C	METTRA	05/30/00	22:13	RJG	S	CONC
45	DD7XM	T00530C	METTRA	05/30/00	22:17	RJG	S	CONC
46	DD7XN	T00530C	METTRA	05/30/00	22:21	RJG	S	CONC
47	DD7XP	T00530C	METTRA	05/30/00	22:26	RJG	S	CONC
48	DD7XQ	T00530C	METTRA	05/30/00	22:30	RJG	S	CONC
49	DD7XV	T00530C	METTRA	05/30/00	22:34	RJG	S	CONC
50	DD7XW	T00530C	METTRA	05/30/00	22:38	RJG	S	CONC
51	CCV3-4	T00530C	METTRA	05/30/00	22:42	RJG	S	CONC
52	CCB4	T00530C	METTRA	05/30/00	22:46	RJG	S	CONC
53	DDRETBF	T00530C	METTRA	05/30/00	22:51	RJG	S	CONC

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
54	DDRETCF	T00530C	METTRA	05/30/00	22:55	RJG	S	CONC
55	DD7XDF	T00530C	METTRA	05/30/00	22:59	RJG	S	CONC
56	DD7XDP5F	T00530C	METTRA	05/30/00	23:03	RJG	S	CONC
57	DD7XDSF	T00530C	METTRA	05/30/00	23:07	RJG	S	CONC
58	DD7XDDF	T00530C	METTRA	05/30/00	23:11	RJG	S	CONC
59	DD7XEF	T00530C	METTRA	05/30/00	23:15	RJG	S	CONC
60	DD7XFF	T00530C	METTRA	05/30/00	23:20	RJG	S	CONC
61	DD7XGF	T00530C	METTRA	05/30/00	23:24	RJG	S	CONC
62	DD7XHF	T00530C	METTRA	05/30/00	23:28	RJG	S	CONC
63	CCV3-5	T00530C	METTRA	05/30/00	23:32	RJG	S	CONC
64	CCB5	T00530C	METTRA	05/30/00	23:36	RJG	S	CONC
65	DD7XJF	T00530C	METTRA	05/30/00	23:40	RJG	S	CONC
66	DD7XKF	T00530C	METTRA	05/30/00	23:45	RJG	S	CONC
67	DD7XLF	T00530C	METTRA	05/30/00	23:49	RJG	S	CONC
68	DD7XMF	T00530C	METTRA	05/30/00	23:53	RJG	S	CONC
69	DD7XNF	T00530C	METTRA	05/30/00	23:57	RJG	S	CONC
70	DD7XPF	T00530C	METTRA	05/31/00	00:01	RJG	S	CONC
71	DD7XQF	T00530C	METTRA	05/31/00	00:05	RJG	S	CONC
72	DD7XVF	T00530C	METTRA	05/31/00	00:10	RJG	S	CONC
73	DD7XWF	T00530C	METTRA	05/31/00	00:14	RJG	S	CONC
74	CCV3-6	T00530C	METTRA	05/31/00	00:18	RJG	S	CONC
75	CCB6	T00530C	METTRA	05/31/00	00:22	RJG	S	CONC

Method: METTRA Standard: STD1
Run Time: 05/30/00 19:12:31

Elem	AG	AL	AS	BA	BE	CA	CD
Avge	-.00280	.13993	-.01503	.00025	-.07329	.00307	.00147
SDev	.00069	.00002	.00279	.00003	.00032	.00002	.00037
%RSD	24.815	.01703	18.552	10.192	.44200	.78642	25.127

#1	-.00329	.13995	-.01306	.00024	-.07306	.00309	.00121
#2	-.00231	.13991	-.01701	.00027	-.07352	.00305	.00173

Elem	CO	CR	CU	FE	MG	MN	MO
Avge	-.00122	-.00162	.01173	-.00145	-.00125	.00088	.00105
SDev	.00020	.00113	.00016	.00051	.00032	.00009	.00025
%RSD	16.471	70.133	1.3781	35.459	26.014	10.115	23.557

#1	-.00107	-.00242	.01162	-.00181	-.00148	.00094	.00087
#2	-.00136	-.00081	.01185	-.00109	-.00102	.00081	.00122

Elem	NI	PB/1	PB/2	SB/1	SB/2	SE/1	SE/2
Avge	.00003	.02815	.00573	-.03982	.01317	-.15421	.10338
SDev	.00005	.00017	.00658	.01320	.00201	.00015	.00556
%RSD	141.42	.58889	114.91	33.141	15.264	.09916	5.3743

#1	.00000	.02827	.00107	-.03049	.01175	-.15432	.10731
#2	.00007	.02804	.01039	-.04915	.01460	-.15410	.09945

Elem	TL	V	ZN
Avge	-.04843	.00000	-.00064
SDev	.00340	.00000	.00010
%RSD	7.0200	.00000	15.645

#1	-.05084	.00000	-.00057
#2	-.04603	.00000	-.00071

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14811	--	--	--	--	--	--
SDev	113.7026	--	--	--	--	--	--
%RSD	.7677008	--	--	--	--	--	--
#1	14891	--	--	--	--	--	--
#2	14730	--	--	--	--	--	--

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Standardization Rpt.

05/30/00 07:20:51 PM

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Method: METTRA Standard: STD6
 Run Time: 05/30/00 19:16:45

00140878

Elem	AG	AS	CD	PB/1	PB/2	SB/1	SB/2
Avge	11.425	5.9626	13.628	5.5416	7.3338	10.415	6.9206
SDev	.060	.0324	.085	.0106	.0125	.025	.0149
%RSD	.52304	.54410	.62017	.19139	.17105	.23867	.21582

#1	11.467	5.9855	13.688	5.5491	7.3427	10.433	6.9311
#2	11.382	5.9397	13.568	5.5341	7.3250	10.397	6.9100

Elem	SE/1	SE/2	TL
Avge	5.7282	5.6608	4.3719
SDev	.0274	.0218	.0222
%RSD	.47753	.38567	.50824

#1	5.7475	5.6762	4.3876
#2	5.7088	5.6453	4.3562

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14785	--	--	--	--	--	--
SDev	99.24216	--	--	--	--	--	--
%RSD	.6712320	--	--	--	--	--	--

#1	14715	--	--	--	--	--	--
#2	14855	--	--	--	--	--	--

Standardization Rpt.

05/30/00 07:24:32 PM

659 377 V
page 1Method: METTRA Standard: STD7
Run Time: 05/30/00 19:20:56

0014087.9

Elem	AL	BA	BE	CA	CO	CR	CU
Avge	7.3243	13.719	12.244	4.7778	3.1539	12.299	3.7366
SDev	.0169	.052	.020	.0031	.0061	.022	.0103
%RSD	.23136	.38056	.16678	.06391	.19210	.17900	.27639
#1	7.3363	13.756	12.258	4.7799	3.1582	12.314	3.7439
#2	7.3123	13.682	12.230	4.7756	3.1497	12.283	3.7293
Elem	FE	MG	MN	MO	NI	V	ZN
Avge	4.1617	14.767	10.569	2.3728	2.5955	.85789	3.3020
SDev	.0093	.038	.027	.0065	.0041	.00094	.0035
%RSD	.22343	.25857	.25786	.27476	.15654	.10961	.10682
#1	4.1683	14.794	10.588	2.3682	2.5984	.85856	3.3045
#2	4.1551	14.740	10.550	2.3774	2.5927	.85723	3.2995
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14508	--	--	--	--	--	--
SDev	48.04804	--	--	--	--	--	--
%RSD	.3311779	--	--	--	--	--	--
#1	14474	--	--	--	--	--	--
#2	14542	--	--	--	--	--	--

Method: METTRA

Slope = Conc(SIR)/IR

Element	Wavelen	High std	Low std	Slope	Y-intercept	Date Standardized
AG	328.068	STD6	STD1	.175019	.000490	05/30/00 07:20:56
AL	308.215	STD7	STD1	6.97793	-.976433	05/30/00 07:20:56
AS	189.042	STD6	STD1	.167291	.002515	05/30/00 07:20:56
BA	493.409	STD7	STD1	.291568	-.000074	05/30/00 07:20:56
BE	313.042	STD7	STD1	.322051	.023604	05/30/00 07:20:56
CA	317.933	STD7	STD1	20.9437	-.064339	05/30/00 07:20:56
CD	226.502	STD6	STD1	.073386	-.000108	05/30/00 07:20:56
CO	228.616	STD7	STD1	1.26776	.001542	05/30/00 07:20:56
CR	267.716	STD7	STD1	.325039	.000525	05/30/00 07:20:56
CU	324.753	STD7	STD1	1.07386	-.012598	05/30/00 07:20:56
FE	271.441	STD7	STD1	12.0954	.017534	05/30/00 07:20:56
MG	279.078	STD7	STD1	6.77125	.008449	05/30/00 07:20:56
MN	257.610	STD7	STD1	.378493	-.000332	05/30/00 07:20:56
MO	202.030	STD7	STD1	1.68651	-.001767	05/30/00 07:20:56
NI	231.604	STD7	STD1	1.54011	-.000052	05/30/00 07:20:56
PB/1	220.351	STD6	STD1	.181374	-.005106	05/30/00 07:20:56
PB/2	220.352	STD6	STD1	.136461	-.000782	05/30/00 07:20:56
PB	220.353	NONE	NONE	.000000	.000000	*NOT STANDARDIZED
SB/1	206.831	STD6	STD1	.095649	.003809	05/30/00 07:20:56
SB/2	206.832	STD6	STD1	.144772	-.001907	05/30/00 07:20:56
SB	220.353	NONE	NONE	.000000	.000000	*NOT STANDARDIZED
SE/1	196.021	STD6	STD1	.169999	.026216	05/30/00 07:20:56
SE/2	196.022	STD6	STD1	.179940	-.018603	05/30/00 07:20:56
SE	220.353	NONE	NONE	.000000	.000000	*NOT STANDARDIZED
TL	190.864	STD6	STD1	.452457	.021913	05/30/00 07:20:56
V	292.402	STD7	STD1	4.64223	.000000	05/30/00 07:20:56
ZN	213.856	STD7	STD1	1.21861	.000782	05/30/00 07:20:56

Analysis Report

05/30/00 07:28:42 PM

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Method: METTRA Sample Name: ICV3-1 0014-110-4 Operator: RJG
 Run Time: 05/30/00 19:24:36
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Amended
 53100

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.51459	11.936	.25545	.99439	.99872	25.056	.25100
SDev	.00249	.063	.00159	.00253	.00967	.268	.00208
%RSD	.48321	.52666	.62277	.25480	.96804	1.0693	.82731

#1	.51635	11.981	.25657	.99619	1.0056	25.245	.25247
#2	.51283	11.892	.25432	.99260	.99189	24.867	.24953

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.55000	13.750	.27500	1.1000	1.1000	27.500	.27500
Low	.45000	11.250	.22500	.90000	.90000	22.500	.22500

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0125	1.0178	.96396	12.420	23.957	.99293	1.0230
SDev	.0068	.0076	.00446	.117	.162	.00668	.0069
%RSD	.67568	.75050	.46277	.94259	.67635	.67313	.67257

#1	1.0174	1.0232	.96711	12.503	24.071	.99766	1.0278
#2	1.0077	1.0124	.96080	12.338	23.842	.98820	1.0181

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	1.1000	1.1000	13.750	27.500	1.1000	1.1000
Low	.90000	.90000	.90000	11.250	22.500	.90000	.90000

Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0103	.26027	.25295	.25539	.25561	.25706	.25657
SDev	.0103	.00042	.00307	.00191	.00308	.00063	.00145
%RSD	1.0186	.16339	1.2153	.74741	1.2048	.24446	.56304

#1	1.0176	.25997	.25513	.25674	.25778	.25750	.25760
#2	1.0030	.26057	.25078	.25404	.25343	.25661	.25555

Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	1.1000			.27500			.27500
Low	.90000			.22500			.22500

Elem	SE/1	SE/2	SE	TL	V_	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.26258	.25909	.26025	.52030	1.0042	1.0388
SDev	.00327	.00135	.00019	.00349	.0111	.0098
%RSD	1.2470	.52251	.07203	.67114	1.1064	.94278

#1	.26027	.26005	.26012	.52276	1.0120	1.0458
#2	.26490	.25813	.26039	.51783	.99631	1.0319

Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High			.27500	.55000	1.1000	1.1000
Low			.22500	.45000	.90000	.90000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14661	--	--	--	--	--	--
SDev	86.79736	--	--	--	--	--	--
%RSD	.5920359	--	--	--	--	--	--
#1	14599	--	--	--	--	--	--
#2	14722	--	--	--	--	--	--

Analysis Report

05/30/00 07:32:52 PM

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Method: METTRA Sample Name: ICB1

Operator: RJG

Run Time: 05/30/00 19:28:46

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00057	-.02739	.00015	.00039	.00061	.01371	-.00015
SDev	.00030	.00817	.00036	.00024	.00018	.00258	.00004
%RSD	53.456	29.815	235.35	62.689	29.811	18.821	29.441
#1	.00078	-.02161	-.00010	.00022	.00048	.01188	-.00018
#2	.00035	-.03316	.00041	.00056	.00074	.01553	-.00012
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00014	.00067	.00074	.01112	.00979	.00045	.00530
SDev	.00010	.00008	.00006	.01017	.00001	.00009	.00090
%RSD	67.457	11.497	8.8814	91.498	.06145	18.659	16.926
#1	.00007	.00072	.00069	.00392	.00979	.00039	.00593
#2	.00021	.00061	.00078	.01831	.00979	.00051	.00467
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.02500	.10000	5.0000	.01500	.04000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00056	.00093	-.00034	.00008	.00012	.00044	.00033
SDev	.00072	.00540	.00021	.00194	.00017	.00078	.00058
%RSD	128.30	579.98	60.893	2359.5	142.24	178.25	173.81
#1	-.00107	.00475	-.00019	.00145	-.00000	-.00011	-.00008
#2	-.00005	-.00289	-.00049	-.00129	.00025	.00099	.00074
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.04000			.00300			.06000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00417	-.00298	-.00060	.00301	.00031	.00307	
SDev	.00040	.00080	.00040	.00243	.00044	.00027	
%RSD	9.6047	26.716	66.228	80.542	140.79	8.7629	
#1	.00389	-.00242	-.00032	.00473	.00000	.00288	
#2	.00445	-.00355	-.00088	.00130	.00062	.00326	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.00500	.01000	.05000	.02000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	15160	--	--	--	--	--	--
SDev	68.05903	--	--	--	--	--	--
%RSD	.4489300	--	--	--	--	--	--
.							
#1	15112	--	--	--	--	--	--
#2	15208	--	--	--	--	--	--

Analysis Report

QC Standard

05/30/00 07:37:02 PM

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Method: METTRA Sample Name: ICSA 0014-088-12 Operator: RJG
 Run Time: 05/30/00 19:32:56
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00087	519.50	.00056	.00205	-.00177	481.54	-.00176
SDev	.00042	9.01	.00063	.00013	.00047	7.14	.00021
%RSD	47.913	1.7346	111.19	6.0949	26.443	1.4823	12.076
#1	.00058	513.13	.00012	.00196	-.00144	476.49	-.00191
#2	.00117	525.87	.00101	.00214	-.00210	486.59	-.00161
Errors	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	QC Pass	NOCHECK
Value		500.00				500.00	
Range		20.000				20.000	
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00067	.00241	.00025	203.94	529.35	.00804	-.00000
SDev	.00027	.00023	.00013	3.52	8.49	.00024	.00057
%RSD	41.076	9.5791	52.321	1.7245	1.6030	2.9369	71307.
#1	.00086	.00225	.00016	201.45	523.35	.00787	.00041
#2	.00047	.00257	.00034	206.43	535.35	.00821	-.00041
Errors	NOCHECK	NOCHECK	NOCHECK	QC Pass	QC Pass	NOCHECK	NOCHECK
Value				200.00	500.00		
Range				20.000	20.000		
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00113	.00813	-.00108	.00198	-.00090	.00022	-.00015
SDev	.00136	.00409	.00294	.00060	.00104	.00009	.00040
%RSD	120.31	50.264	271.07	30.167	115.68	38.089	266.34
#1	.00017	.00524	.00099	.00241	-.00016	.00028	.00013
#2	.00209	.01102	-.00316	.00156	-.00164	.00016	-.00044
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value							
Range							
Elem	SE/1	SE/2	SE	TL	V	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.01065	-.00943	-.00274	.00706	.00734	.00062	
SDev	.00315	.00147	.00203	.00532	.00064	.00010	
%RSD	29.608	15.575	73.999	75.359	8.7306	16.234	
#1	.00842	-.01046	-.00418	.00330	.00689	.00055	
#2	.01287	-.00839	-.00131	.01082	.00780	.00069	
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	
Value							
Range							

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	13812	--	--	--	--	--	--
SDev	229.7393	--	--	--	--	--	--
%RSD	1.663373	--	--	--	--	--	--
#1	13974	--	--	--	--	--	--
#2	13649	--	--	--	--	--	--

Analysis Report

QC Standard

05/30/00 07:41:12 PM

Method: METTRA Sample Name: ICSAB 0014-075-12 Operator: RJG
Run Time: 05/30/00 19:37:06
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.1425	531.08	1.0347	.53945	.49858	493.34	.94674
SDev	.0113	5.96	.0133	.00623	.00406	3.75	.00945
%RSD	.99278	1.1219	1.2830	1.1554	.81486	.75954	.99769
#1	1.1345	526.86	1.0253	.53505	.49571	490.69	.94006
#2	1.1505	535.29	1.0441	.54386	.50145	495.99	.95342
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	500.00	1.0000	.50000	.50000	500.00	1.0000
Range	20.000	20.000	20.000	20.000	20.000	20.000	20.000
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50178	.51279	.56046	209.35	540.31	.52008	.99915
SDev	.00551	.00485	.00625	2.13	5.37	.00502	.01613
%RSD	1.0984	.94492	1.1145	1.0187	.99342	.96460	1.6148
#1	.49788	.50936	.55604	207.84	536.52	.51654	.98774
#2	.50568	.51622	.56488	210.86	544.11	.52363	1.0106
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	.50000	.50000	200.00	500.00	.50000	1.0000
Range	20.000	20.000	20.000	20.000	20.000	20.000	20.000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0120	1.0751	1.0317	1.0462	1.0643	1.0597	1.0612
SDev	.0082	.0069	.0055	.0060	.0117	.0070	.0086
%RSD	.80751	.64262	.53116	.56930	1.1025	.66443	.81073
#1	1.0062	1.0702	1.0279	1.0420	1.0560	1.0547	1.0551
#2	1.0178	1.0800	1.0356	1.0504	1.0726	1.0647	1.0673
Errors	QC Pass	NOCHECK	NOCHECK	QC Pass	NOCHECK	NOCHECK	QC Pass
Value	1.0000			1.0000			1.0000
Range	20.000			20.000			20.000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	1.0337	1.0586	1.0503	1.0894	.52699	1.0691	
SDev	.0030	.0080	.0063	.0124	.00688	.0099	
%RSD	.28602	.75810	.60339	1.1400	1.3045	.92615	
#1	1.0316	1.0530	1.0458	1.0806	.52213	1.0621	
#2	1.0358	1.0643	1.0548	1.0982	.53185	1.0761	
Errors	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass	QC Pass	
Value			1.0000	1.0000	.50000	1.0000	
Range			20.000	20.000	20.000	20.000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	13685	--	--	--	--	--	--
SDev	83.58016	--	--	--	--	--	--
%RSD	.6107384	--	--	--	--	--	--
#1	13744	--	--	--	--	--	--
#2	13626	--	--	--	--	--	--

Analysis Report

05/30/00 07:47:38 PM

Method: METTRA Sample Name: DDWJCB
Run Time: 05/30/00 19:43:32
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Operator: RJG

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00077	.02170	.00053	.00127	-.00091	.22933	.00016
SDev	.00028	.00516	.00030	.00001	.00014	.00282	.00008
%RSD	35.748	23.798	56.763	1.0176	15.927	1.2310	51.744
#1	.00057	.02535	.00032	.00126	-.00080	.23132	.00010
#2	.00096	.01805	.00075	.00128	-.00101	.22733	.00022
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00034	.00083	.00246	.03553	.06808	.00113	.00202
SDev	.00030	.00024	.00059	.00170	.00140	.00001	.00072
%RSD	88.574	28.766	23.961	4.7867	2.0505	.55876	35.929
#1	-.00055	.00066	.00204	.03673	.06907	.00113	.00253
#2	-.00013	.00100	.00288	.03433	.06709	.00114	.00151
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.02500	.10000	5.0000	.01500	.04000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00016	.00410	-.00221	-.00011	-.00141	.00023	-.00032
SDev	.00030	.00138	.00110	.00119	.00041	.00011	.00021
%RSD	187.81	33.673	49.704	1097.6	28.969	50.589	66.391
#1	.00037	.00312	-.00298	-.00095	-.00170	.00014	-.00047
#2	-.00005	.00507	-.00143	.00073	-.00112	.00031	-.00017
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.04000			.00300			.06000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	-.00100	-.00266	-.00211	-.00541	.00193	.00981	
SDev	.00024	.00153	.00110	.00110	.00271	.00055	
%RSD	24.221	57.522	52.272	20.341	140.54	5.5734	
#1	-.00083	-.00158	-.00133	-.00619	.00385	.00942	
#2	-.00117	-.00374	-.00289	-.00463	.00001	.01019	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.00500	.01000	.05000	.02000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14477	--	--	--	--	--	--
SDev	62.54373	--	--	--	--	--	--
%RSD	.4320132	--	--	--	--	--	--
#1	14522	--	--	--	--	--	--
#2	14433	--	--	--	--	--	--

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Analysis Report

Method: METTRA Sample Name: DDWJCC

Operator: RJG

Run Time: 05/30/00 19:47:41

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04879	1.9855	1.8594	1.8539	.04590	46.837	.04538
SDev	.00049	.0007	.0040	.0052	.00026	.097	.00001
%RSD	1.0037	.03633	.21314	.28220	.56399	.20651	.02173
#1	.04844	1.9850	1.8622	1.8576	.04608	46.906	.04538
#2	.04913	1.9860	1.8566	1.8502	.04571	46.769	.04539
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.06000	2.4000	2.4000	2.4000	.06000	60.000	.06000
Low	.04000	1.6000	1.6000	1.6000	.04000	40.000	.04000
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.46719	.18742	.23272	.87980	45.246	.46254	.93147
SDev	.00093	.00037	.00002	.00007	.064	.00036	.00501
%RSD	.19972	.19740	.00653	.00854	.14214	.07724	.53785
#1	.46785	.18716	.23271	.87985	45.292	.46280	.92793
#2	.46653	.18769	.23273	.87975	45.201	.46229	.93502
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.60000	.24000	.30000	1.2000	60.000	.60000	1.2000
Low	.40000	.16000	.20000	.80000	40.000	.40000	.80000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.46446	.48455	.47227	.47636	.45107	.45817	.45581
SDev	.00372	.00481	.00144	.00064	.00387	.00460	.00435
%RSD	.80139	.99349	.30404	.13547	.85701	1.0034	.95519
#1	.46710	.48114	.47329	.47590	.44834	.45492	.45273
#2	.46183	.48795	.47126	.47681	.45381	.46142	.45888
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.60000			.60000			.60000
Low	.40000			.40000			.40000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	1.8728	1.9023	1.8925	1.9597	.45908	.49761	
SDev	.0137	.0123	.0128	.0053	.00051	.00027	
%RSD	.73129	.64807	.67549	.27227	.11132	.05497	
#1	1.8631	1.8936	1.8834	1.9635	.45944	.49741	
#2	1.8825	1.9110	1.9015	1.9559	.45872	.49780	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			2.4000	2.4000	.60000	.60000	
Low			1.6000	1.6000	.40000	.40000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14784	--	--	--	--	--	--
SDev	55.08320	--	--	--	--	--	--
%RSD	.3725979	--	--	--	--	--	--
#1	14822	--	--	--	--	--	--
#2	14745	--	--	--	--	--	--

Analysis Report

Method: METTRA Sample Name: DDNNA

Operator: RJG

Run Time: 05/30/00 19:51:50

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00100	36.562	.14301	.60351	.00295	96.128	.00194
SDev	.00017	.392	.00076	.00551	.00036	.698	.00058
%RSD	16.747	1.0729	.52909	.91375	12.383	.72637	29.694
#1	.00088	36.284	.14248	.59961	.00320	95.634	.00154
#2	.00112	36.839	.14355	.60741	.00269	96.621	.00235
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04469	.16639	.57247	153.81	28.448	1.7681	.01104
SDev	.00024	.00114	.00541	1.56	.264	.0154	.00029
%RSD	.53477	.68821	.94568	1.0129	.92653	.87310	2.5916
#1	.04452	.16558	.56864	152.71	28.262	1.7572	.01125
#2	.04486	.16720	.57630	154.91	28.634	1.7790	.01084
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.09909	3.3883	3.3206	3.3431	.01608	.01452	.01504
SDev	.00140	.0244	.0504	.0418	.00129	.00113	.00118
%RSD	1.4133	.72024	1.5188	1.2493	8.0133	7.7930	7.8715
#1	.10008	3.3710	3.2849	3.3136	.01517	.01372	.01420
#2	.09810	3.4055	3.3563	3.3727	.01699	.01532	.01587
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.01606	.00308	.00740	.00608	.21004	1.4071	
SDev	.00266	.00009	.00095	.00040	.00184	.0115	
%RSD	16.553	2.9859	12.789	6.5348	.87464	.81878	
#1	.01418	.00301	.00673	.00637	.20874	1.3990	
#2	.01793	.00314	.00807	.00580	.21134	1.4153	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

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Analysis Report

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IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	15204	--	--	--	--	--	--
SDev	125.7593	--	--	--	--	--	--
%RSD	.8271478	--	--	--	--	--	--
#1	15293	--	--	--	--	--	--
#2	15115	--	--	--	--	--	--

Analysis Report

05/30/00 08:00:05 PM

Method: METTRA Sample Name: DDNNAP5

Operator: RJG

Run Time: 05/30/00 19:55:59

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00063	7.2540	.02960	.12476	-.00005	20.296	.00038
SDev	.00040	.3109	.00109	.00491	.00056	.781	.00006
%RSD	63.934	4.2855	3.6774	3.9342	1215.3	3.8497	16.774
#1	.00034	7.4738	.03037	.12823	-.00044	20.848	.00033
#2	.00091	7.0342	.02883	.12129	.00035	19.743	.00042
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01079	.03557	.11546	32.197	5.8014	.37131	.00317
SDev	.00004	.00093	.00477	1.222	.2216	.01381	.00034
%RSD	.39026	2.6119	4.1317	3.7961	3.8200	3.7206	10.552
#1	.01082	.03623	.11883	33.061	5.9581	.38108	.00294
#2	.01076	.03491	.11209	31.333	5.6447	.36154	.00341
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02024	.70178	.70057	.70097	.00335	.00236	.00269
SDev	.00078	.01900	.02255	.02137	.00218	.00077	.00124
%RSD	3.8395	2.7070	3.2195	3.0487	64.987	32.543	46.023
#1	.02079	.71522	.71652	.71609	.00490	.00290	.00356
#2	.01969	.68835	.68462	.68586	.00181	.00181	.00181
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00299	.00141	.00193	.00246	.04497	.30394	
SDev	.00145	.00192	.00080	.00006	.00170	.01142	
%RSD	48.507	136.63	41.370	2.5802	3.7706	3.7575	
#1	.00401	.00005	.00137	.00241	.04617	.31202	
#2	.00196	.00277	.00250	.00250	.04378	.29587	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14665	--	--	--	--	--	--
SDev	454.3865	--	--	--	--	--	--
%RSD	3.098505	--	--	--	--	--	--
#1	14343	--	--	--	--	--	--
#2	14986	--	--	--	--	--	--

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Analysis Report

Method: METTRA Sample Name: DDNNAS

Operator: RJG

Run Time: 05/30/00 20:00:08

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04986	99.162	2.0347	2.7289	.05002	161.45	.04536
SDev	.00013	.361	.0095	.0064	.00007	.79	.00058
%RSD	.25300	.36439	.46695	.23418	.13187	.48640	1.2746
#1	.04977	98.907	2.0280	2.7244	.04997	160.90	.04495
#2	.04995	99.418	2.0415	2.7334	.05007	162.01	.04577
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.51839	.42677	.75977	184.13	68.713	2.2817	.90957
SDev	.00290	.00230	.00233	1.01	.293	.0117	.01008
%RSD	.55865	.53904	.30702	.54965	.42706	.51481	1.1077
#1	.51634	.42514	.75812	183.41	68.506	2.2734	.90244
#2	.52044	.42839	.76142	184.84	68.921	2.2900	.91669
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.59665	3.7335	3.6331	3.6665	.29243	.29494	.29410
SDev	.00040	.0204	.0052	.0103	.00253	.00227	.00235
%RSD	.06635	.54769	.14368	.28067	.86461	.76811	.80006
#1	.59637	3.7191	3.6294	3.6593	.29064	.29334	.29244
#2	.59693	3.7480	3.6368	3.6738	.29421	.29654	.29577
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	1.8526	1.8931	1.8796	1.8966	.76342	2.2237	
SDev	.0072	.0013	.0015	.0078	.00160	.0100	
%RSD	.38914	.07032	.08048	.40981	.20890	.44768	
#1	1.8475	1.8940	1.8786	1.8911	.76230	2.2166	
#2	1.8577	1.8922	1.8807	1.9021	.76455	2.2307	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	15212	--	--	--	--	--	--
SDev	73.96310	--	--	--	--	--	--
%RSD	.4862075	--	--	--	--	--	--
#1	15265	--	--	--	--	--	--
#2	15160	--	--	--	--	--	--

Analysis Report

05/30/00 08:08:51 PM

Method: METTRA Sample Name: DDNNAD Operator: RJG
Run Time: 05/30/00 20:04:46
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04965	104.21	2.0228	2.7599	.05215	136.43	.04360
SDev	.00019	.21	.0336	.0061	.00178	2.85	.00165
%RSD	.39268	.20314	1.6633	.22185	3.4104	2.0896	3.7843
#1	.04952	104.06	2.0466	2.7556	.05341	138.45	.04244
#2	.04979	104.36	1.9990	2.7642	.05089	134.41	.04477
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51864	.44141	.70463	194.29	70.405	2.4449	.91727
SDev	.00198	.00273	.00196	.61	.595	.0117	.00370
%RSD	.38136	.61854	.27828	.31524	.84450	.47861	.40301
#1	.52003	.44335	.70602	194.72	70.826	2.4532	.91989
#2	.51724	.43948	.70325	193.86	69.985	2.4366	.91466
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.59737	3.8035	3.7239	3.7504	.27622	.27663	.27649
SDev	.02235	.0255	.0694	.0548	.00991	.00296	.00528
%RSD	3.7422	.67039	1.8643	1.4611	3.5892	1.0699	1.9080
#1	.61317	3.8215	3.7730	3.7891	.28323	.27872	.28022
#2	.58156	3.7854	3.6748	3.7116	.26921	.27454	.27276
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	1.8132	1.8717	1.8522	1.9344	.75052	2.0327	
SDev	.0009	.0326	.0221	.0472	.01639	.0362	
%RSD	.04761	1.7438	1.1909	2.4382	2.1845	1.7791	
#1	1.8138	1.8948	1.8678	1.9678	.76212	2.0583	
#2	1.8125	1.8486	1.8366	1.9010	.73893	2.0072	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

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Analysis Report

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IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	15307	--	--	--	--	--	--
SDev	55.08320	--	--	--	--	--	--
%RSD	.3598481	--	--	--	--	--	--
#1	15268	--	--	--	--	--	--
#2	15346	--	--	--	--	--	--

Analysis Report

05/30/00 08:13:00 PM

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Method: METTRA Sample Name: DDWJ9B

Operator: RJG

Run Time: 05/30/00 20:08:54

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00034	.00615	.00161	.00288	-.00030	.32782	.00002
SDev	.00007	.02547	.00248	.00104	.00019	.05389	.00002
%RSD	19.577	413.93	153.40	36.239	63.928	16.439	87.235
#1	.00038	-.01186	-.00014	.00214	-.00043	.28972	.00004
#2	.00029	.02417	.00337	.00362	-.00016	.36593	.00001
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00038	.00100	.00350	H.12212	.08383	.00223	.00401
SDev	.00019	.00042	.00020	.07328	.02305	.00103	.00029
%RSD	50.367	41.716	5.6772	60.011	27.494	46.236	7.2671
#1	.00025	.00070	.00336	.07030	.06753	.00150	.00421
#2	.00052	.00129	.00364	H.17394	.10012	.00296	.00380
Errors	LC Pass	LC Pass	LC Pass	LC High	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.02500	.10000	5.0000	.01500	.04000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00162	.00553	-.00054	.00148	.00237	.00363	.00321
SDev	.00001	.00019	.00072	.00055	.00203	.00131	.00155
%RSD	.86255	3.3632	133.32	36.795	85.389	36.000	48.155
#1	.00163	.00540	-.00105	.00110	.00094	.00270	.00212
#2	.00161	.00566	-.00003	.00187	.00380	.00455	.00430
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.04000			.00300			.06000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00460	-.00150	.00053	.00201	.00067	.01425	
SDev	.00115	.00126	.00046	.00538	.00047	.00145	
%RSD	25.035	83.872	85.643	268.14	69.436	10.197	
#1	.00542	-.00239	.00021	-.00180	.00034	.01323	
#2	.00379	-.00061	.00085	.00581	.00100	.01528	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.00500	.01000	.05000	.02000	
Low			-.00500	-.01000	-.05000	-.02000	

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Analysis Report

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IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14758	--	--	--	--	--	--
SDev	124.4508	--	--	--	--	--	--
%RSD	.8432682	--	--	--	--	--	--
#1	14670	--	--	--	--	--	--
#2	14846	--	--	--	--	--	--

05/30/00 08:17:09 PM

Analysis Report

Method: METTRA Sample Name: DDWJ9C

Operator: RJG

Run Time: 05/30/00 20:13:03

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04675	1.6497	1.8785	1.7987	.04659	L.32765	.04659
SDev	.00023	.0408	.0211	.0300	.00016	.01481	.00025
%RSD	.49888	2.4754	1.1237	1.6704	.33860	4.5211	.53967
#1	.04658	1.6209	1.8636	1.7774	.04648	L.31718	.04642
#2	.04691	1.6786	1.8935	1.8199	.04671	L.33813	.04677
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass
High	.06000	2.4000	2.4000	2.4000	.06000	60.000	.06000
Low	.04000	1.6000	1.6000	1.6000	.04000	40.000	.04000
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.47208	.18905	.21770	.95783	L.05341	.45962	L.00064
SDev	.00526	.00206	.00384	.00823	.00607	.00551	.00038
%RSD	1.1145	1.0911	1.7641	.85898	11.357	1.2000	59.098
#1	.46836	.18759	.21498	.95201	L.04912	.45572	L.00090
#2	.47580	.19051	.22042	.96365	L.05770	.46352	L.00037
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Low
High	.60000	.24000	.30000	1.2000	60.000	.60000	1.2000
Low	.40000	.16000	.20000	.80000	40.000	.40000	.80000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.46923	.46849	.46720	.46763	.00119	.00083	L.00095
SDev	.00383	.00355	.00303	.00320	.00161	.00080	.00000
%RSD	.81701	.75793	.64806	.68472	134.77	96.740	.01095
#1	.46652	.46598	.46506	.46537	.00233	.00026	L.00095
#2	.47194	.47101	.46934	.46989	.00006	.00140	L.00095
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Low
High	.60000			.60000			.60000
Low	.40000			.40000			.40000
Elem	SE/1	SE/2	SE	TL	V	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	1.8976	1.9200	1.9125	1.8655	.45505	.50156	
SDev	.0199	.0108	.0138	.0239	.00481	.00503	
%RSD	1.0482	.56337	.72355	1.2819	1.0578	1.0028	
#1	1.8835	1.9123	1.9028	1.8486	.45165	.49800	
#2	1.9117	1.9276	1.9223	1.8824	.45846	.50512	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			2.4000	2.4000	.60000	.60000	
Low			1.6000	1.6000	.40000	.40000	

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Analysis Report

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IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	15069	--	--	--	--	--	--
SDev	116.1071	--	--	--	--	--	--
%RSD	.7704952	--	--	--	--	--	--
#1	15151	--	--	--	--	--	--
#2	14987	--	--	--	--	--	--

Analysis Report

05/30/00 08:21:18 PM

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page 1

Method: METTRA Sample Name: CCV3-1 0014-110-3 Operator: RJG
 Run Time: 05/30/00 20:17:13
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0281	23.793	.50427	1.9580	1.9923	49.723	.49148
SDev	.0058	.020	.00027	.0009	.0145	.438	.00427
%RSD	.56275	.08312	.05395	.04520	.72955	.88007	.86879
#1	1.0322	23.807	.50407	1.9586	2.0026	50.032	.49450
#2	1.0240	23.779	.50446	1.9574	1.9821	49.413	.48846
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	27.500	.55000	2.2000	2.2000	55.000	.55000
Low	.90000	22.500	.45000	1.8000	1.8000	45.000	.45000
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9987	1.9968	1.9149	24.675	48.009	1.9638	2.0016
SDev	.0144	.0153	.0034	.099	.263	.0122	.0018
%RSD	.71970	.76484	.17996	.40105	.54819	.61934	.08823
#1	2.0089	2.0076	1.9173	24.745	48.195	1.9724	2.0029
#2	1.9886	1.9860	1.9125	24.605	47.823	1.9552	2.0004
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.2000	2.2000	2.2000	27.500	55.000	2.2000	2.2000
Low	1.8000	1.8000	1.8000	22.500	45.000	1.8000	1.8000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9834	.52479	.50851	.51393	.50374	.51210	.50931
SDev	.0200	.01291	.00409	.00703	.00234	.00771	.00592
%RSD	1.0081	2.4600	.80505	1.3678	.46428	1.5063	1.1631
#1	1.9975	.53392	.51141	.51890	.50539	.51755	.51350
#2	1.9692	.51566	.50562	.50896	.50208	.50664	.50512
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	2.2000			.55000			.55000
Low	1.8000			.45000			.45000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.52160	.51328	.51605	1.0295	1.9771	2.0256	
SDev	.00788	.00476	.00580	.0091	.0163	.0124	
%RSD	1.5117	.92693	1.1237	.88716	.82522	.61119	
#1	.52718	.51665	.52015	1.0360	1.9887	2.0344	
#2	.51603	.50992	.51195	1.0230	1.9656	2.0169	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.55000	1.1000	2.2000	2.2000	
Low			.45000	.90000	1.8000	1.8000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14721	--	--	--	--	--	--
SDev	195.1262	--	--	--	--	--	--
%RSD	1.325494	--	--	--	--	--	--
#1	14583	--	--	--	--	--	--
#2	14859	--	--	--	--	--	--

Analysis Report

05/30/00 08:25:27 PM

Method: METTRA Sample Name: CCB1

Operator: RJG

Run Time: 05/30/00 20:21:22

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00075	-.04225	-.00023	.00063	.00006	.01606	.00003
SDev	.00078	.00669	.00039	.00001	.00003	.00293	.00008
%RSD	104.25	15.842	172.86	1.0334	46.795	18.220	233.77
#1	.00131	-.03752	.00005	.00063	.00004	.01399	.00009
#2	.00020	-.04698	-.00050	.00064	.00008	.01813	-.00002
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00108	.00106	.00169	.00088	.01568	.00054	.00673
SDev	.00006	.00008	.00058	.00286	.00128	.00005	.00295
%RSD	5.5827	7.3552	34.151	324.14	8.1303	9.8517	43.802
#1	.00103	.00111	.00128	-.00114	.01478	.00050	.00882
#2	.00112	.00100	.00209	.00290	.01658	.00058	.00465
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.02500	.10000	5.0000	.01500	.04000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00046	.00085	-.00062	-.00013	-.00021	.00164	.00102
SDev	.00073	.00020	.00103	.00062	.00086	.00114	.00047
%RSD	157.20	24.081	164.69	461.27	405.52	69.362	46.048
#1	-.00005	.00070	.00010	.00030	-.00082	.00244	.00135
#2	.00098	.00099	-.00135	-.00057	.00040	.00083	.00069
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.04000			.00300			.06000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00487	-.00095	.00098	.00339	.00093	.00314	
SDev	.00137	.00002	.00044	.00069	.00000	.00034	
%RSD	28.253	2.6015	44.849	20.407	.05728	10.841	
#1	.00389	-.00094	.00067	.00291	.00093	.00290	
#2	.00584	-.00097	.00130	.00388	.00093	.00338	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.00500	.01000	.05000	.02000	
Low			-.00500	-.01000	-.05000	-.02000	

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Analysis Report

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IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14979	--	--	--	--	--	--
SDev	7.495056	--	--	--	--	--	--
%RSD	.0500381	--	--	--	--	--	--
#1	14973	--	--	--	--	--	--
#2	14984	--	--	--	--	--	--

Analysis Report

Method: METTRA Sample Name: DDLX3

Operator: RJG

Run Time: 05/30/00 20:25:31

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00192	191.27	.07980	2.4472	.00618	H893.48	-.00147
SDev	.00007	.55	.00000	.0049	.00003	.37	.00036
%RSD	3.8437	.28544	.00541	.20117	.56091	.04114	24.785
#1	.00187	190.88	.07980	2.4437	.00616	H893.22	-.00173
#2	.00197	191.65	.07980	2.4506	.00621	H893.74	-.00121
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05116	.18463	.18721	149.12	24.137	3.1949	.00712
SDev	.00057	.00017	.00006	.36	.044	.0060	.00015
%RSD	1.1138	.09021	.03051	.24452	.18075	.18910	2.0661
#1	.05076	.18451	.18717	148.86	24.106	3.1907	.00723
#2	.05157	.18474	.18725	149.38	24.167	3.1992	.00702
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.12586	.27123	.25972	.26355	.01573	.00520	.00870
SDev	.00059	.00116	.00075	.00011	.00166	.00238	.00103
%RSD	.47233	.42893	.28741	.04191	10.564	45.768	11.867
#1	.12628	.27205	.25919	.26347	.01455	.00688	.00943
#2	.12544	.27041	.26024	.26363	.01690	.00351	.00797
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.01176	-.00320	.00178	.00804	.31896	.52516	
SDev	.00154	.00668	.00394	.00263	.00101	.00165	
%RSD	13.067	208.57	221.57	32.747	.31648	.31490	
#1	.01285	-.00793	-.00101	.00990	.31825	.52399	
#2	.01068	.00152	.00457	.00618	.31968	.52633	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

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Analysis Report

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IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	15367	--	--	--	--	--	--
SDev	13.89492	--	--	--	--	--	--
%RSD	.0904198	--	--	--	--	--	--
#1	15377	--	--	--	--	--	--
#2	15357	--	--	--	--	--	--

Analysis Report

05/30/00 08:33:46 PM

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page 1

Method: METTRA Sample Name: DDLX3P5

Operator: RJG

Run Time: 05/30/00 20:29:41

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00071	37.328	.01703	.50191	.00118	200.07	-.00030
SDev	.00057	.157	.00069	.00147	.00023	1.06	.00006
%RSD	80.245	.41931	4.0254	.29294	19.971	.53185	19.857
#1	.00031	37.217	.01655	.50087	.00134	199.32	-.00034
#2	.00111	37.438	.01752	.50295	.00101	200.82	-.00026
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00951	.03891	.03744	30.358	4.8392	.65738	.00225
SDev	.00006	.00065	.00016	.165	.0262	.00387	.00003
%RSD	.59424	1.6682	.43483	.54413	.54239	.58857	1.3909
#1	.00955	.03845	.03756	30.241	4.8206	.65464	.00223
#2	.00947	.03937	.03733	30.475	4.8577	.66011	.00227
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02570	.05785	.05139	.05354	.00179	.00137	.00151
SDev	.00099	.00051	.00091	.00044	.00307	.00098	.00037
%RSD	3.8663	.87929	1.7652	.81376	171.95	71.748	24.484
#1	.02500	.05749	.05203	.05385	.00396	.00067	.00177
#2	.02640	.05821	.05075	.05323	-.00039	.00206	.00125
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00452	-.00079	.00098	.00513	.06683	.11281	
SDev	.00006	.00056	.00039	.00376	.00050	.00085	
%RSD	1.3561	70.441	40.014	73.384	.74218	.75370	
#1	.00447	-.00118	.00070	.00779	.06648	.11221	
#2	.00456	-.00040	.00125	.00247	.06718	.11341	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	15108	--	--	--	--	--	--
SDev	117.7685	--	--	--	--	--	--
%RSD	.7795147	--	--	--	--	--	--
#1	15191	--	--	--	--	--	--
#2	15025	--	--	--	--	--	--

Analysis Report

05/30/00 08:37:56 PM

Method: METTRA Sample Name: DDLX3S Operator: RJG
Run Time: 05/30/00 20:33:50
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05468	208.71	2.0320	4.4420	.05319	H822.46	.04363
SDev	.00026	.41	.0119	.0102	.00042	5.31	.00003
%RSD	.48254	.19811	.58626	.22898	.79051	.64519	.07460
#1	.05487	209.00	2.0404	4.4492	.05349	H826.21	.04365
#2	.05450	208.41	2.0235	4.4348	.05289	H818.71	.04360
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.52405	.38280	.44456	146.32	26.612	3.4835	.00569
SDev	.00355	.00267	.00114	.59	.105	.0147	.00125
%RSD	.67751	.69728	.25584	.40600	.39315	.42171	21.945
#1	.52656	.38469	.44536	146.74	26.686	3.4939	.00658
#2	.52154	.38091	.44376	145.90	26.538	3.4732	.00481
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.59525	.74312	.70819	.71982	.01330	.00463	.00752
SDev	.00156	.00903	.00332	.00522	.00273	.00179	.00028
%RSD	.26166	1.2150	.46847	.72512	20.492	38.626	3.7940
#1	.59636	.74951	.71053	.72351	.01138	.00590	.00772
#2	.59415	.73674	.70584	.71613	.01523	.00337	.00732
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	1.9802	2.0197	2.0066	2.0697	.80588	1.0181	
SDev	.0226	.0022	.0090	.0037	.00394	.0064	
%RSD	1.1395	.10796	.44696	.17834	.48893	.63085	
#1	1.9961	2.0213	2.0129	2.0671	.80867	1.0226	
#2	1.9642	2.0182	2.0002	2.0723	.80309	1.0135	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	15607	--	--	--	--	--	--
SDev	55.43745	--	--	--	--	--	--
%RSD	.3552157	--	--	--	--	--	--
#1	15568	--	--	--	--	--	--
#2	15646	--	--	--	--	--	--

Analysis Report

05/30/00 08:42:06 PM

Method: METTRA Sample Name: DDLX3D
Run Time: 05/30/00 20:38:00
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Operator: RJG

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05282	217.14	1.9645	4.8281	.05175	H820.95	.04239
SDev	.00014	.32	.0041	.0050	.00007	1.74	.00036
%RSD	.25636	.14636	.20623	.10349	.13134	.21210	.84800
#1	.05272	216.92	1.9616	4.8245	.05170	H819.72	.04214
#2	.05292	217.37	1.9673	4.8316	.05179	H822.19	.04265
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.51290	.37961	.42772	152.18	27.415	4.0063	.00618
SDev	.00120	.00093	.00038	.33	.039	.0083	.00027
%RSD	.23447	.24502	.08778	.21733	.14250	.20804	4.3115
#1	.51205	.37895	.42746	151.95	27.387	4.0004	.00637
#2	.51375	.38026	.42799	152.42	27.442	4.0122	.00599
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.58256	.79565	.74759	.76359	.01022	.00700	.00807
SDev	.00184	.00233	.00359	.00162	.00261	.00170	.00027
%RSD	.31608	.29236	.47986	.21191	25.523	24.307	3.2966
#1	.58386	.79400	.75012	.76473	.00837	.00820	.00826
#2	.58125	.79729	.74505	.76244	.01206	.00579	.00788
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	1.9194	1.9295	1.9261	1.9948	.80270	1.0351	
SDev	.0007	.0125	.0086	.0067	.00222	.0013	
%RSD	.03411	.64938	.44521	.33344	.27616	.12613	
#1	1.9199	1.9383	1.9322	1.9901	.80426	1.0342	
#2	1.9190	1.9206	1.9201	1.9995	.80113	1.0360	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	15706	--	--	--	--	--	--
SDev	73.75110	--	--	--	--	--	--
%RSD	.4695727	--	--	--	--	--	--
#1	15758	--	--	--	--	--	--
#2	15654	--	--	--	--	--	--

Analysis Report

05/30/00 08:46:16 PM

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Method: METTRA Sample Name: DDLX6

Operator: RJG

Run Time: 05/30/00 20:42:10

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00178	161.36	.08511	1.4264	.00639	224.81	-.00095
SDev	.00019	.29	.00022	.0014	.00007	.81	.00021
%RSD	10.908	.18244	.26435	.09780	1.1538	.35929	22.190
#1	.00192	161.57	.08527	1.4274	.00644	225.38	-.00109
#2	.00165	161.15	.08495	1.4254	.00634	224.23	-.00080
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05914	.19666	.21286	168.65	22.970	3.3065	.00613
SDev	.00006	.00044	.00011	.32	.037	.0064	.00038
%RSD	.09922	.22424	.05184	.19244	.16115	.19400	6.1072
#1	.05910	.19697	.21294	168.87	22.997	3.3111	.00640
#2	.05918	.19634	.21278	168.42	22.944	3.3020	.00587
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.13988	.29274	.27046	.27788	.00883	.00523	.00643
SDev	.00116	.00015	.00245	.00169	.00669	.00185	.00100
%RSD	.82824	.04983	.90707	.60635	75.755	35.334	15.478
#1	.14070	.29284	.27220	.27907	.00410	.00653	.00572
#2	.13906	.29263	.26873	.27669	.01356	.00392	.00713
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.00866	.00352	.00523	.01443	.34774	.54479	
SDev	.00025	.00176	.00125	.00545	.00361	.00017	
%RSD	2.8507	49.867	23.949	37.782	1.0384	.03204	
#1	.00884	.00476	.00612	.01829	.35029	.54491	
#2	.00849	.00228	.00435	.01058	.34518	.54467	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	15903	--	--	--	--	--	--
SDev	.6359818	--	--	--	--	--	--
%RSD	.0039992	--	--	--	--	--	--
#1	15903	--	--	--	--	--	--
#2	15902	--	--	--	--	--	--

Analysis Report

05/30/00 08:50:25 PM

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Method: METTRA Sample Name: DDRMP

Operator: RJG

Run Time: 05/30/00 20:46:19

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00196	172.70	.07871	1.9603	.00612	392.29	-.00041
SDev	.00008	.90	.00010	.0100	.00002	2.08	.00039
%RSD	4.0966	.52201	.12643	.50912	.38761	.52978	95.971
#1	.00190	172.07	.07864	1.9532	.00611	390.82	-.00069
#2	.00202	173.34	.07878	1.9673	.00614	393.76	-.00013
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.06081	.23353	.25014	164.71	23.719	3.1790	.00631
SDev	.00035	.00221	.00130	.92	.123	.0197	.00003
%RSD	.57232	.94653	.51919	.55576	.51950	.61812	.46324
#1	.06056	.23197	.24922	164.06	23.632	3.1651	.00633
#2	.06105	.23510	.25106	165.36	23.807	3.1929	.00629
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.14541	.44474	.41715	.42633	.00999	.00881	.00921
SDev	.00118	.00173	.00022	.00072	.00059	.00150	.00080
%RSD	.80912	.38807	.05226	.16891	5.8798	17.011	8.7376
#1	.14624	.44352	.41699	.42582	.01041	.00775	.00864
#2	.14458	.44596	.41730	.42684	.00958	.00987	.00978
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00730	.00361	.00484	.01013	.32541	.63935	
SDev	.00281	.00110	.00167	.00311	.00126	.00343	
%RSD	38.483	30.412	34.469	30.684	.38707	.53697	
#1	.00532	.00283	.00366	.01233	.32452	.63692	
#2	.00929	.00438	.00602	.00793	.32630	.64178	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	15552	--	--	--	--	--	--
SDev	91.32312	--	--	--	--	--	--
%RSD	.5872086	--	--	--	--	--	--
#1	15617	--	--	--	--	--	--
#2	15488	--	--	--	--	--	--

Analysis Report

05/30/00 08:54:34 PM

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Method: METTRA Sample Name: DD4TN

Operator: RJG

Run Time: 05/30/00 20:50:29

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00044	1.3753	.00596	.20463	-.00063	37.070	-.00021
SDev	.00027	.0244	.00018	.00104	.00009	.245	.00020
%RSD	60.648	1.7734	2.9833	.50906	14.770	.66174	94.723
#1	.00025	1.3925	.00583	.20537	-.00070	37.243	-.00035
#2	.00063	1.3580	.00609	.20390	-.00057	36.896	-.00007
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00022	.00174	.00339	1.2625	16.940	.08466	.00599
SDev	.00001	.00016	.00010	.0029	.090	.00022	.00020
%RSD	4.1768	9.3100	2.8814	.22754	.53114	.25780	3.3565
#1	-.00022	.00185	.00332	1.2605	17.004	.08481	.00613
#2	-.00021	.00162	.00346	1.2646	16.877	.08450	.00585
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00208	.00340	.00052	.00148	-.00101	-.00101	-.00101
SDev	.00139	.00052	.00129	.00069	.00069	.00050	.00010
%RSD	66.777	15.225	249.71	46.527	68.587	49.079	9.8822
#1	.00110	.00304	.00143	.00196	-.00150	-.00066	-.00094
#2	.00306	.00377	-.00040	.00099	-.00052	-.00136	-.00108
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00328	-.00100	.00042	-.00180	.00044	.01138	
SDev	.00030	.00170	.00103	.00252	.00000	.00003	
%RSD	9.2830	169.91	243.99	139.62	.22754	.22409	
#1	.00307	.00020	.00116	-.00002	.00044	.01137	
#2	.00350	-.00221	-.00031	-.00358	.00044	.01140	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14790	--	--	--	--	--	--
SDev	75.76677	--	--	--	--	--	--
%RSD	.5122898	--	--	--	--	--	--
#1	14736	--	--	--	--	--	--
#2	14843	--	--	--	--	--	--

Analysis Report

05/30/00 08:58:43 PM

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Method: METTRA Sample Name: DD4TNF

Operator: RJG

Run Time: 05/30/00 20:54:38

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00032	-.06580	.01241	.15716	-.00078	37.603	-.00006
SDev	.00041	.00099	.00110	.00001	.00009	.053	.00020
%RSD	128.25	1.5033	8.8442	.00905	11.191	.14075	345.49
#1	.00061	-.06650	.01163	.15717	-.00084	37.641	.00008
#2	.00003	-.06510	.01319	.15715	-.00072	37.566	-.00020
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00022	.00091	.01834	-.02159	17.321	.07442	.00528
SDev	.00030	.00029	.00022	.00067	.006	.00007	.00033
%RSD	137.43	32.256	1.2214	3.1003	.03703	.09771	6.2832
#1	.00001	.00112	.01818	-.02111	17.326	.07437	.00504
#2	.00043	.00070	.01850	-.02206	17.317	.07447	.00551
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00098	.00052	-.00297	-.00181	.00125	-.00085	-.00015
SDev	.00044	.00225	.00071	.00027	.00160	.00287	.00138
%RSD	44.512	436.21	23.943	15.066	128.16	338.69	929.96
#1	.00129	.00210	-.00348	-.00162	.00012	.00118	.00083
#2	.00067	-.00107	-.00247	-.00201	.00239	-.00288	-.00112
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.00337	-.00421	-.00169	.00482	-.00001	.02364	
SDev	.00074	.00086	.00082	.00081	.00000	.00056	
%RSD	21.866	20.453	48.574	16.902	3.1003	2.3611	
#1	.00285	-.00482	-.00227	.00424	-.00001	.02325	
#2	.00389	-.00360	-.00111	.00540	-.00001	.02404	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14846	--	--	--	--	--	--
SDev	21.60197	--	--	--	--	--	--
%RSD	.1455117	--	--	--	--	--	--
#1	14861	--	--	--	--	--	--
#2	14830	--	--	--	--	--	--

Analysis Report

05/30/00 09:02:53 PM

Method: METTRA Sample Name: DD4TN Raw Sample Operator: RJG
Run Time: 05/30/00 20:58:47
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00039	1.3337	.01638	.18998	.00062	35.399	-.00014
SDev	.00020	.0347	.00046	.00032	.00004	.209	.00005
%RSD	52.020	2.5985	2.8037	.16946	6.1957	.59124	32.935
#1	.00053	1.3582	.01606	.19020	.00065	35.547	-.00011
#2	.00025	1.3092	.01671	.18975	.00059	35.251	-.00018
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00122	.00134	.00209	1.1041	16.082	.07934	.00345
SDev	.00045	.00016	.00001	.0138	.057	.00046	.00015
%RSD	37.058	11.886	.58945	1.2542	.35449	.57416	4.4892
#1	.00154	.00122	.00209	1.1139	16.122	.07966	.00356
#2	.00090	.00145	.00208	1.0944	16.042	.07901	.00334
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00009	.00475	.00175	.00275	.01372	-.00282	.00269
SDev	.00021	.00059	.00018	.00031	.00101	.00147	.00132
%RSD	218.74	12.450	10.073	11.441	7.3590	52.169	48.899
#1	.00024	.00433	.00162	.00253	.01444	-.00178	.00362
#2	-.00005	.00517	.00187	.00297	.01301	-.00386	.00176
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.06352	.00506	.02453	.03460	.00039	.00572	
SDev	.00564	.00260	.00015	.00336	.00001	.00027	
%RSD	8.8826	51.305	.59957	9.7164	1.2542	4.7297	
#1	.06751	.00322	.02463	.03222	.00039	.00553	
#2	.05953	.00690	.02442	.03698	.00038	.00591	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	15832	--	--	--	--	--	--
SDev	13.25825	--	--	--	--	--	--
%RSD	.0837424	--	--	--	--	--	--
#1	15823	--	--	--	--	--	--
#2	15842	--	--	--	--	--	--

Analysis Report

05/30/00 09:07:02 PM

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Method: METTRA Sample Name: DD4TNF Raw Sample Operator: RJG
 Run Time: 05/30/00 21:02:56
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00024	-.08088	.02313	.15492	-.00057	37.549	-.00025
SDev	.00042	.00255	.00027	.00016	.00001	.124	.00001
%RSD	178.51	3.1543	1.1825	.10624	2.3913	.33123	2.3487
#1	-.00006	-.07908	.02332	.15504	-.00057	37.637	-.00026
#2	.00054	-.08269	.02294	.15481	-.00058	37.461	-.00025
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00029	.00030	.00213	-.05471	17.141	.07317	.00427
SDev	.00071	.00002	.00002	.00620	.040	.00021	.00070
%RSD	241.93	4.8696	.70985	11.339	.23380	.28341	16.413
#1	-.00021	.00031	.00212	-.05032	17.169	.07332	.00377
#2	.00079	.00029	.00214	-.05909	17.112	.07302	.00477
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00035	.00385	-.00069	.00082	.01449	-.00244	.00320
SDev	.00100	.00275	.00172	.00023	.00214	.00104	.00141
%RSD	284.37	71.371	247.41	27.987	14.776	42.720	44.018
#1	-.00036	.00191	.00052	.00098	.01600	-.00170	.00419
#2	.00106	.00580	-.00191	.00066	.01298	-.00318	.00220
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.05973	.00504	.02325	.03593	-.00002	.00239	
SDev	.00005	.00111	.00076	.00121	.00000	.00045	
%RSD	.08082	22.052	3.2557	3.3588	11.339	18.757	
#1	.05970	.00425	.02271	.03508	-.00002	.00207	
#2	.05976	.00582	.02379	.03679	-.00002	.00270	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	15224	--	--	--	--	--	--
SDev	10.18192	--	--	--	--	--	--
%RSD	.0668792	--	--	--	--	--	--
#1	15217	--	--	--	--	--	--
#2	15232	--	--	--	--	--	--

Method: METTRA Sample Name: CCV3-2 Operator: RJG
 Run Time: 05/30/00 21:07:05
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0276	23.898	.50375	1.9796	1.9951	49.542	.49138
SDev	.0013	.082	.00037	.0056	.0011	.003	.00027
%RSD	.13091	.34521	.07361	.28453	.05395	.00595	.05569
#1	1.0266	23.839	.50349	1.9756	1.9958	49.540	.49119
#2	1.0285	23.956	.50401	1.9836	1.9943	49.544	.49157
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	27.500	.55000	2.2000	2.2000	55.000	.55000
Low	.90000	22.500	.45000	1.8000	1.8000	45.000	.45000
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9994	1.9940	1.9189	24.657	47.980	1.9612	1.9998
SDev	.0003	.0034	.0041	.042	.086	.0034	.0155
%RSD	.01334	.17088	.21303	.16988	.17928	.17245	.77700
#1	1.9996	1.9916	1.9160	24.628	47.920	1.9588	1.9889
#2	1.9992	1.9964	1.9218	24.687	48.041	1.9636	2.0108
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.2000	2.2000	2.2000	27.500	55.000	2.2000	2.2000
Low	1.8000	1.8000	1.8000	22.500	45.000	1.8000	1.8000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9741	.51591	.50334	.50752	.50413	.50404	.50407
SDev	.0073	.00269	.00422	.00371	.00025	.00293	.00187
%RSD	.37199	.52192	.83938	.73192	.04994	.58178	.37139
#1	1.9793	.51401	.50035	.50490	.50431	.50197	.50275
#2	1.9689	.51781	.50632	.51015	.50396	.50611	.50540
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	2.2000			.55000			.55000
Low	1.8000			.45000			.45000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.51082	.50805	.50897	1.0168	1.9743	2.0244	
SDev	.00499	.00098	.00101	.0049	.0001	.0010	
%RSD	.97654	.19315	.19777	.48057	.00555	.05136	
#1	.51434	.50736	.50968	1.0133	1.9744	2.0251	
#2	.50729	.50874	.50826	1.0202	1.9743	2.0236	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.55000	1.1000	2.2000	2.2000	
Low			.45000	.90000	1.8000	1.8000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14841	--	--	--	--	--	--
SDev	25.98617	--	--	--	--	--	--
%RSD	.1750922	--	--	--	--	--	--
#1	14823	--	--	--	--	--	--
#2	14860	--	--	--	--	--	--

Analysis Report

05/30/00 09:15:20 PM

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Method: METTRA Sample Name: CCB2

Operator: RJG

Run Time: 05/30/00 21:11:15

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00084	-.08203	.00070	.00054	-.00056	.01708	-.00006
SDev	.00006	.00732	.00047	.00018	.00010	.00580	.00012
%RSD	7.0254	8.9191	67.152	32.951	18.518	33.954	186.05
#1	.00088	-.07686	.00103	.00042	-.00064	.01298	-.00015
#2	.00079	-.08721	.00037	.00067	-.00049	.02118	.00002
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00101	.00078	.00360	.01744	.01594	.00052	.00813
SDev	.00009	.00032	.00058	.00229	.00223	.00020	.00250
%RSD	9.0208	41.394	16.112	13.128	14.006	37.806	30.726
#1	.00095	.00055	.00319	.01582	.01436	.00038	.00989
#2	.00107	.00101	.00401	.01906	.01751	.00066	.00636
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.02500	.10000	5.0000	.01500	.04000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00052	.00240	-.00201	-.00054	-.00133	.00016	-.00034
SDev	.00022	.00269	.00052	.00125	.00114	.00109	.00035
%RSD	42.610	112.32	26.099	230.03	85.647	701.09	102.78
#1	.00067	.00430	-.00164	.00034	-.00052	-.00061	-.00058
#2	.00036	.00049	-.00238	-.00142	-.00213	.00093	-.00009
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.04000			.00300			.06000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00282	-.00137	.00002	.00387	.00125	.00315	
SDev	.00018	.00051	.00040	.00249	.00044	.00028	
%RSD	6.3799	37.163	1623.0	64.475	35.300	9.0563	
#1	.00295	-.00101	.00031	.00563	.00156	.00294	
#2	.00270	-.00173	-.00026	.00210	.00094	.00335	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.00500	.01000	.05000	.02000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14919	--	--	--	--	--	--
SDev	28.88504	--	--	--	--	--	--
%RSD	.1936108	--	--	--	--	--	--
#1	14899	--	--	--	--	--	--
#2	14940	--	--	--	--	--	--

05/30/00 09:19:29 PM

Analysis Report

Method: METTRA Sample Name: DDR9FB
Run Time: 05/30/00 21:15:24
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Operator: RJG

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00012	-.06022	.00004	.00018	-.00132	.03935	-.00002
SDev	.00065	.01619	.00021	.00001	.00010	.00375	.00011
%RSD	559.43	26.876	552.56	3.4553	7.6907	9.5193	580.36
#1	-.00034	-.04878	.00019	.00018	-.00139	.03670	.00006
#2	.00057	-.07167	-.00011	.00019	-.00124	.04200	-.00010
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00068	.00006	.00309	.00511	.00169	.00077	.00206
SDev	.00038	.00051	.00037	.00119	.00298	.00002	.00018
%RSD	55.271	904.83	11.903	23.314	176.27	1.9260	8.5456
#1	-.00095	-.00030	.00283	.00595	-.00042	.00076	.00219
#2	-.00042	.00042	.00335	.00426	.00380	.00078	.00194
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.02500	.10000	5.0000	.01500	.04000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00005	.00127	-.00177	-.00076	.00066	.00076	.00073
SDev	.00000	.00020	.00209	.00146	.00420	.00033	.00162
%RSD	.47194	15.685	117.97	192.27	640.77	43.404	222.49
#1	-.00005	.00113	-.00325	-.00179	-.00231	.00053	-.00042
#2	-.00005	.00141	-.00029	.00027	.00362	.00100	.00187
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.04000			.00300			.06000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00040	-.00100	-.00053	.00170	.00191	.00765	
SDev	.00104	.00427	.00250	.00334	.00270	.00004	
%RSD	257.90	427.78	470.65	196.06	141.27	.49237	
#1	-.00033	.00202	.00124	-.00066	.00000	.00763	
#2	.00114	-.00402	-.00230	.00406	.00382	.00768	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.00500	.01000	.05000	.02000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14542	--	--	--	--	--	--
SDev	45.96194	--	--	--	--	--	--
%RSD	.3160569	--	--	--	--	--	--
#1	14510	--	--	--	--	--	--
#2	14575	--	--	--	--	--	--

Analysis Report

05/30/00 09:23:38 PM

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page 1

Method: METTRA Sample Name: DDR9FC Operator: RJG
 Run Time: 05/30/00 21:19:33
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04988	1.7351	1.9767	1.9263	.04873	L.10296	.04968
SDev	.00058	.0400	.0239	.0206	.00057	.00185	.00105
%RSD	1.1637	2.3081	1.2068	1.0701	1.1658	1.7990	2.1144
#1	.05030	1.7634	1.9936	1.9409	.04914	L.10165	.05042
#2	.04947	1.7067	1.9598	1.9118	.04833	L.10427	.04894
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass
High	.06000	2.4000	2.4000	2.4000	.06000	60.000	.06000
Low	.04000	1.6000	1.6000	1.6000	.04000	40.000	.04000
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50315	.19936	.23418	.98725	L.00614	.48750	L.00139
SDev	.00539	.00159	.00234	.01823	.00327	.00548	.00059
%RSD	1.0716	.79848	1.0004	1.8463	53.312	1.1242	42.457
#1	.50697	.20049	.23583	1.0001	L.00382	.49138	L.00181
#2	.49934	.19824	.23252	.97436	L.00845	.48362	L.00097
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Low
High	.60000	.24000	.30000	1.2000	60.000	.60000	1.2000
Low	.40000	.16000	.20000	.80000	40.000	.40000	.80000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.49520	.49704	.49342	.49462	-.00040	-.00004	L-.00016
SDev	.00635	.00052	.00419	.00297	.00070	.00073	.00025
%RSD	1.2817	.10433	.84913	.59990	173.98	1734.7	157.74
#1	.49969	.49740	.49638	.49672	.00009	-.00056	L-.00034
#2	.49071	.49667	.49046	.49253	-.00089	.00047	L.00002
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Low
High	.60000			.60000			.60000
Low	.40000			.40000			.40000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	1.9748	1.9777	1.9768	1.9420	.48309	.52814	
SDev	.0133	.0041	.0072	.0254	.00405	.00616	
%RSD	.67158	.20815	.36233	1.3080	.83769	1.1659	
#1	1.9842	1.9806	1.9818	1.9599	.48595	.53250	
#2	1.9654	1.9748	1.9717	1.9240	.48023	.52379	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			2.4000	2.4000	.60000	.60000	
Low			1.6000	1.6000	.40000	.40000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14709	--	--	--	--	--	--
SDev	102.7073	--	--	--	--	--	--
%RSD	.6982768	--	--	--	--	--	--
#1	14636	--	--	--	--	--	--
#2	14781	--	--	--	--	--	--

Analysis Report

05/30/00 09:27:48 PM

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Method: METTRA Sample Name: DD7XD

Operator: RJG

Run Time: 05/30/00 21:23:42

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00100	4.8669	.00453	2.0882	-.00059	266.79	-.00034
SDev	.00038	.1304	.00000	.0508	.00045	5.71	.00032
%RSD	38.242	2.6790	.00280	2.4309	75.609	2.1392	95.666
#1	.00073	4.7747	.00453	2.0523	-.00028	262.75	-.00056
#2	.00127	4.9591	.00453	2.1241	-.00091	270.82	-.00011
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00497	.02027	.03079	12.030	120.45	.38419	.00905
SDev	.00029	.00068	.00118	.305	2.72	.00868	.00080
%RSD	5.9127	3.3397	3.8445	2.5378	2.2545	2.2593	8.8701
#1	.00518	.01979	.02995	11.814	118.53	.37805	.00848
#2	.00476	.02074	.03163	12.246	122.37	.39033	.00961
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01970	.00345	-.00005	.00112	-.00056	-.00054	-.00055
SDev	.00117	.00488	.00117	.00084	.00299	.00143	.00004
%RSD	5.9152	141.22	2229.1	75.614	534.07	264.02	7.8083
#1	.01887	.00001	.00078	.00052	.00156	-.00155	-.00052
#2	.02052	.00690	-.00088	.00171	-.00268	.00047	-.00058
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.01168	-.00520	.00042	.00717	.01012	.06270	
SDev	.00289	.00018	.00084	.00006	.00041	.00205	
%RSD	24.734	3.4497	199.51	.90072	4.0730	3.2776	
#1	.00964	-.00507	-.00017	.00721	.00983	.06124	
#2	.01372	-.00533	.00102	.00712	.01041	.06415	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14513	--	--	--	--	--	--
SDev	194.6663	--	--	--	--	--	--
%RSD	1.341361	--	--	--	--	--	--
#1	14650	--	--	--	--	--	--
#2	14375	--	--	--	--	--	--

Analysis Report

05/30/00 09:31:57 PM

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page 1

Method: METTRA Sample Name: DD7XDP5

Operator: RJG

Run Time: 05/30/00 21:27:51

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00062	.79805	.00122	.42022	-.00065	54.365	-.00007
SDev	.00003	.00249	.00103	.00032	.00010	.027	.00008
%RSD	5.4621	.31268	84.408	.07628	16.055	.05028	120.46

#1	.00059	.79628	.00195	.42000	-.00057	54.346	-.00001
#2	.00064	.79981	.00049	.42045	-.00072	54.385	-.00013

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00082	.00430	.00899	2.3165	23.276	.07572	.00218
SDev	.00006	.00061	.00001	.0105	.029	.00017	.00050
%RSD	6.8388	14.202	.14441	.45141	.12322	.22568	22.882

#1	.00078	.00473	.00898	2.3091	23.255	.07560	.00183
#2	.00086	.00387	.00900	2.3239	23.296	.07584	.00254

Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00448	.00102	-.00201	-.00100	.00056	.00054	.00054
SDev	.00061	.00148	.00003	.00048	.00128	.00045	.00013
%RSD	13.538	145.93	1.2720	47.729	229.80	83.657	23.043

#1	.00405	.00207	-.00203	-.00066	-.00035	.00086	.00046
#2	.00491	-.00003	-.00199	-.00134	.00146	.00022	.00063

Elem	SE/1	SE/2	SE	TL	V_	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00690	-.00400	-.00037	.00255	.00376	.01592
SDev	.00081	.00066	.00017	.00126	.00064	.00014
%RSD	11.732	16.609	47.036	49.393	17.019	.85163

#1	.00748	-.00447	-.00049	.00344	.00421	.01582
#2	.00633	-.00353	-.00025	.00166	.00331	.01601

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IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14948	--	--	--	--	--	--
SDev	79.33752	--	--	--	--	--	--
%RSD	.5307532	--	--	--	--	--	--
#1	15004	--	--	--	--	--	--
#2	14892	--	--	--	--	--	--

Analysis Report

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Method: METTRA Sample Name: DD7XDS

Operator: RJG

Run Time: 05/30/00 21:32:01

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.06732	7.2645	2.3984	4.3726	.05622	269.71	.05466
SDev	.00104	.1057	.0294	.0526	.00029	3.44	.00085
%RSD	1.5462	1.4551	1.2239	1.2034	.51432	1.2760	1.5450
#1	.06806	7.3393	2.4192	4.4098	.05642	272.14	.05526
#2	.06658	7.1898	2.3777	4.3354	.05601	267.28	.05407
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.58836	.24940	.34096	13.145	121.07	.97435	.00929
SDev	.00680	.00306	.00465	.162	1.49	.01089	.00094
%RSD	1.1559	1.2270	1.3648	1.2342	1.2289	1.1179	10.096
#1	.59317	.25156	.34425	13.260	122.12	.98205	.00863
#2	.58355	.24723	.33767	13.030	120.02	.96665	.00995
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.59918	.65410	.60505	.62139	-.00229	.00143	.00019
SDev	.00983	.00841	.00381	.00534	.00224	.00011	.00067
%RSD	1.6402	1.2862	.62974	.85986	97.630	7.7421	356.79
#1	.60613	.66005	.60775	.62517	-.00388	.00151	-.00029
#2	.59223	.64815	.60236	.61761	-.00071	.00135	.00066
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	2.4237	2.4825	2.4629	2.6821	.59599	.68894	
SDev	.0295	.0257	.0270	.0295	.00653	.00852	
%RSD	1.2173	1.0367	1.0959	1.1004	1.0960	1.2374	
#1	2.4445	2.5007	2.4820	2.7030	.60061	.69497	
#2	2.4028	2.4643	2.4438	2.6613	.59137	.68291	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14405	--	--	--	--	--	--
SDev	179.9235	--	--	--	--	--	--
%RSD	1.249041	--	--	--	--	--	--
#1	14278	--	--	--	--	--	--
#2	14532	--	--	--	--	--	--

Analysis Report

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Method: METTRA Sample Name: DD7XDD

Operator: RJG

Run Time: 05/30/00 21:36:10

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05676	6.9697	2.0179	4.0049	.04731	271.58	.04555
SDev	.00000	.0047	.0009	.0015	.00004	.55	.00013
%RSD	.00343	.06755	.04597	.03711	.08896	.20261	.29192
#1	.05676	6.9664	2.0172	4.0059	.04728	271.19	.04546
#2	.05676	6.9730	2.0185	4.0038	.04734	271.97	.04565
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.49578	.21209	.29016	13.046	121.52	.88216	.00909
SDev	.00125	.00083	.00065	.033	.11	.00248	.00002
%RSD	.25129	.39043	.22552	.25570	.09361	.28100	.26852
#1	.49490	.21150	.29062	13.023	121.44	.88041	.00910
#2	.49666	.21267	.28970	13.070	121.60	.88392	.00907
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50665	.54989	.51239	.52488	.00154	-.00089	-.00008
SDev	.00022	.00085	.00291	.00222	.00145	.00041	.00075
%RSD	.04318	.15420	.56813	.42372	94.196	45.726	937.28
#1	.50650	.54929	.51033	.52330	.00051	-.00117	-.00061
#2	.50681	.55049	.51444	.52645	.00256	-.00060	.00045
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	2.0431	2.0971	2.0791	2.2674	.49824	.59506	
SDev	.0032	.0035	.0034	.0000	.00292	.00118	
%RSD	.15547	.16878	.16443	.00188	.58509	.19893	
#1	2.0409	2.0946	2.0767	2.2674	.50030	.59422	
#2	2.0454	2.0996	2.0815	2.2673	.49618	.59589	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14453	--	--	--	--	--	--
SDev	32.49169	--	--	--	--	--	--
%RSD	.2248113	--	--	--	--	--	--
#1	14430	--	--	--	--	--	--
#2	14476	--	--	--	--	--	--

Analysis Report

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Method: METTRA Sample Name: DD7XE

Operator: RJG

Run Time: 05/30/00 21:40:20

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00026	-.00079	.00704	.61348	-.00130	135.18	-.00021
SDev	.00020	.00643	.00053	.00410	.00009	.65	.00013
%RSD	78.566	811.53	7.5506	.66765	6.5590	.47962	61.399
#1	.00012	.00376	.00666	.61638	-.00124	135.63	-.00030
#2	.00041	-.00534	.00741	.61059	-.00136	134.72	-.00012
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00042	.00231	.00386	2.9530	66.862	.03037	.00523
SDev	.00016	.00053	.00008	.0056	.371	.00007	.00052
%RSD	37.365	22.897	2.0366	.18935	.55429	.22631	9.8849
#1	.00054	.00194	.00381	2.9569	67.124	.03042	.00486
#2	.00031	.00269	.00392	2.9490	66.600	.03032	.00559
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00144	.00024	-.00282	-.00180	.00158	.00105	.00123
SDev	.00031	.00263	.00061	.00128	.00183	.00004	.00058
%RSD	21.249	1111.2	21.761	71.289	115.76	3.6758	47.458
#1	.00122	.00210	-.00239	-.00089	.00029	.00108	.00082
#2	.00166	-.00162	-.00325	-.00271	.00287	.00102	.00164
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.00416	-.00152	.00037	.00897	.00408	.01080	
SDev	.00270	.00169	.00022	.00059	.00067	.00039	
%RSD	64.998	110.96	60.124	6.6227	16.500	3.6085	
#1	.00607	-.00271	.00021	.00939	.00455	.01053	
#2	.00225	-.00033	.00053	.00855	.00360	.01108	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14466	--	--	--	--	--	--
SDev	46.06759	--	--	--	--	--	--
%RSD	.3184438	--	--	--	--	--	--
#1	14499	--	--	--	--	--	--
#2	14434	--	--	--	--	--	--

Analysis Report

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Method: METTRA Sample Name: DD7XF

Operator: RJG

Run Time: 05/30/00 21:44:30

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00038	2.5573	.02403	.23713	-.00096	58.237	-.00025
SDev	.00024	.0104	.00094	.00096	.00007	.154	.00001
%RSD	65.214	.40852	3.9031	.40440	7.4368	.26494	4.6292
#1	.00055	2.5499	.02469	.23645	-.00091	58.127	-.00024
#2	.00020	2.5646	.02337	.23781	-.00101	58.346	-.00026
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00327	.00636	.00654	4.7032	31.676	.13645	.00742
SDev	.00001	.00051	.00016	.0152	.142	.00036	.00026
%RSD	.34179	8.0235	2.4541	.32227	.44709	.26117	3.5766
#1	.00326	.00672	.00666	4.6924	31.576	.13620	.00761
#2	.00328	.00600	.00643	4.7139	31.776	.13670	.00723
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00714	.00582	.00103	.00262	-.00051	-.00001	-.00018
SDev	.00027	.00138	.00048	.00014	.00107	.00016	.00046
%RSD	3.7698	23.817	46.871	5.3330	209.38	1367.8	260.28
#1	.00695	.00484	.00137	.00252	.00025	.00010	.00015
#2	.00733	.00679	.00069	.00272	-.00127	-.00013	-.00051
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00650	-.00326	-.00001	-.00166	.00780	.01868	
SDev	.00018	.00202	.00128	.00202	.00063	.00050	
%RSD	2.8471	61.971	15659.	121.99	8.0139	2.6668	
#1	.00663	-.00468	-.00092	-.00309	.00825	.01833	
#2	.00637	-.00183	.00090	-.00023	.00736	.01903	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

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Analysis Report

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IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14684	--	--	--	--	--	--
SDev	94.99952	--	--	--	--	--	--
%RSD	.6469583	--	--	--	--	--	--
#1	14751	--	--	--	--	--	--
#2	14617	--	--	--	--	--	--

Analysis Report

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659.447
page 1

Method: METTRA Sample Name: DD7XG

Operator: RJG

Run Time: 05/30/00 21:48:39

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00048	-.02259	.00064	3.4242	-.00118	338.62	-.00022
SDev	.00012	.00376	.00015	.0218	.00015	1.89	.00005
%RSD	25.664	16.641	23.924	.63787	12.748	.55805	23.631

#1	.00039	-.01993	.00053	3.4088	-.00108	337.28	-.00018
#2	.00056	-.02524	.00075	3.4397	-.00129	339.96	-.00025

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00129	.00634	.00657	1.1865	165.14	.23386	.00187
SDev	.00024	.00001	.00048	.0188	1.03	.00178	.00057
%RSD	18.608	.21485	7.2482	1.5870	.62525	.76341	30.525

#1	-.00145	.00633	.00623	1.1731	164.41	.23260	.00228
#2	-.00112	.00635	.00690	1.1998	165.87	.23512	.00147

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000

Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00949	.00503	-.00452	-.00134	.00051	.00274	.00200
SDev	.00074	.00109	.00160	.00070	.00157	.00098	.00118
%RSD	7.8364	21.638	35.404	52.607	305.48	35.916	59.044

#1	.00897	.00426	-.00339	-.00084	-.00060	.00204	.00116
#2	.01002	.00580	-.00565	-.00184	.00163	.00343	.00283

Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000

Elem	SE/1	SE/2	SE	TL	V_	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01172	-.01220	-.00424	.00735	.00485	.08363
SDev	.00105	.00030	.00015	.00270	.00067	.00076
%RSD	8.9517	2.4262	3.5846	36.713	13.766	.91029

#1	.01097	-.01199	-.00434	.00926	.00532	.08309
#2	.01246	-.01241	-.00413	.00545	.00438	.08417

Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High			10.000	10.000	50.000	5.0000
Low			-.00500	-.01000	-.05000	-.02000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14121	--	--	--	--	--	--
SDev	73.36233	--	--	--	--	--	--
%RSD	.5195384	--	--	--	--	--	--
#1	14173	--	--	--	--	--	--
#2	14069	--	--	--	--	--	--

Analysis Report

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page 1

Method: METTRA Sample Name: DD7XH

Operator: RJG

Run Time: 05/30/00 21:52:49

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00033	-.06991	.00083	.00095	-.00127	.29022	-.00015
SDev	.00001	.00271	.00002	.00047	.00002	.05697	.00024
%RSD	2.6043	3.8739	1.8417	49.848	1.7291	19.630	162.61

#1	.00033	-.06800	.00081	.00062	-.00129	.24994	.00002
#2	.00032	-.07183	.00084	.00129	-.00126	.33051	-.00031

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00024	.00050	.00312	.01715	.03699	.00071	.00014
SDev	.00025	.00019	.00025	.00999	.02331	.00007	.00008
%RSD	102.87	37.575	8.1665	58.259	63.008	10.454	58.615

#1	-.00007	.00064	.00329	.01009	.02051	.00065	.00008
#2	-.00041	.00037	.00294	.02422	.05348	.00076	.00020

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000

Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00079	.00007	-.00092	-.00059	-.00039	-.00075	-.00063
SDev	.00030	.00033	.00001	.00012	.00370	.00082	.00178
%RSD	37.680	475.49	.81864	19.564	943.44	108.60	280.69

#1	.00100	.00030	-.00091	-.00051	.00222	-.00017	.00062
#2	.00058	-.00016	-.00093	-.00067	-.00301	-.00133	-.00189

Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000

Elem	SE/1	SE/2	SE	TL	V_	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00056	.00153	.00121	.00129	.00001	.01207
SDev	.00114	.00275	.00221	.00110	.00000	.00015
%RSD	204.62	179.58	183.42	85.217	58.259	1.2584

#1	-.00025	-.00041	-.00036	.00207	.00000	.01197
#2	.00136	.00347	.00277	.00051	.00001	.01218

Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High			10.000	10.000	50.000	5.0000
Low			-.00500	-.01000	-.05000	-.02000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14591	--	--	--	--	--	--
SDev	5.409643	--	--	--	--	--	--
%RSD	.0370763	--	--	--	--	--	--
#1	14594	--	--	--	--	--	--
#2	14587	--	--	--	--	--	--

Analysis Report

05/30/00 10:01:04 PM

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Method: METTRA Sample Name: CCV3-3

Operator: RJG

Run Time: 05/30/00 21:56:58

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0320	24.089	.50895	1.9815	2.0044	49.865	.49324
SDev	.0071	.183	.00061	.0134	.0110	.254	.00237
%RSD	.68408	.76042	.11961	.67809	.54879	.50883	.48126
#1	1.0270	23.959	.50938	1.9720	1.9966	49.686	.49156
#2	1.0370	24.218	.50852	1.9910	2.0122	50.045	.49492
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	27.500	.55000	2.2000	2.2000	55.000	.55000
Low	.90000	22.500	.45000	1.8000	1.8000	45.000	.45000
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0056	1.9941	1.9251	24.661	48.054	1.9646	2.0098
SDev	.0123	.0121	.0121	.190	.331	.0127	.0297
%RSD	.61374	.60776	.62877	.77164	.68912	.64872	1.4792
#1	1.9969	1.9856	1.9166	24.526	47.820	1.9556	1.9887
#2	2.0143	2.0027	1.9337	24.796	48.288	1.9736	2.0308
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.2000	2.2000	2.2000	27.500	55.000	2.2000	2.2000
Low	1.8000	1.8000	1.8000	22.500	45.000	1.8000	1.8000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9909	.51749	.50923	.51198	.50376	.50611	.50532
SDev	.0042	.00050	.00552	.00385	.00623	.00461	.00515
%RSD	.21054	.09726	1.0846	.75224	1.2373	.91155	1.0197
#1	1.9880	.51713	.50533	.50926	.49935	.50284	.50168
#2	1.9939	.51785	.51314	.51471	.50816	.50937	.50897
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	2.2000			.55000			.55000
Low	1.8000			.45000			.45000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.50836	.51248	.51111	1.0302	1.9881	2.0442	
SDev	.00382	.00402	.00395	.0134	.0120	.0124	
%RSD	.75177	.78341	.77292	1.3012	.60272	.60901	
#1	.50565	.50964	.50831	1.0207	1.9796	2.0354	
#2	.51106	.51532	.51390	1.0396	1.9966	2.0530	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.55000	1.1000	2.2000	2.2000	
Low			.45000	.90000	1.8000	1.8000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14859	--	--	--	--	--	--
SDev	125.9354	--	--	--	--	--	--
%RSD	.8475108	--	--	--	--	--	--
#1	14948	--	--	--	--	--	--
#2	14770	--	--	--	--	--	--

Analysis Report

05/30/00 10:05:13 PM

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Method: METTRA Sample Name: CCB3 Operator: RJG
 Run Time: 05/30/00 22:01:07
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00035	-.08933	.00159	.00060	-.00052	.02837	-.00003
SDev	.00020	.01544	.00076	.00022	.00024	.00637	.00016
%RSD	58.096	17.284	47.667	36.667	46.590	22.441	621.74
#1	.00020	-.07841	.00106	.00044	-.00069	.02386	-.00014
#2	.00049	-.10025	.00213	.00075	-.00035	.03287	.00009
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00047	.00057	.00350	.02441	.01552	.00060	.00645
SDev	.00011	.00015	.00043	.00286	.00610	.00023	.00264
%RSD	24.160	26.974	12.229	11.712	39.299	38.061	40.871
#1	.00055	.00046	.00319	.02238	.01121	.00044	.00831
#2	.00039	.00068	.00380	.02643	.01984	.00076	.00459
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.02500	.10000	5.0000	.01500	.04000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00062	.00063	-.00080	-.00032	.00136	-.00094	-.00017
SDev	.00081	.00009	.00169	.00116	.00112	.00041	.00065
%RSD	129.44	15.011	211.99	358.81	82.772	44.073	377.47
#1	.00005	.00070	.00040	.00050	.00215	-.00064	.00029
#2	.00119	.00056	-.00200	-.00114	.00056	-.00123	-.00063
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.04000			.00300			.06000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00593	-.00276	.00013	-.00460	.00409	.00450	
SDev	.00212	.00167	.00040	.00285	.00047	.00029	
%RSD	35.824	60.367	301.56	61.826	11.518	6.4526	
#1	.00443	-.00158	.00042	-.00661	.00442	.00430	
#2	.00743	-.00394	-.00015	-.00259	.00376	.00471	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.00500	.01000	.05000	.02000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14794	--	--	--	--	--	--
SDev	102.3889	--	--	--	--	--	--
%RSD	.6920930	--	--	--	--	--	--
#1	14722	--	--	--	--	--	--
#2	14866	--	--	--	--	--	--

Analysis Report

05/30/00 10:09:23 PM

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Method: METTRA Sample Name: DD7XJ

Operator: RJG

Run Time: 05/30/00 22:05:17

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00059	11.998	.00528	.09051	-.00083	67.414	-.00027
SDev	.00011	.093	.00085	.00057	.00027	.342	.00001
%RSD	18.800	.77175	16.045	.63268	32.951	.50676	3.6968
#1	.00051	11.933	.00468	.09010	-.00063	67.173	-.00028
#2	.00067	12.064	.00588	.09091	-.00102	67.656	-.00026
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00609	.01868	.01440	14.159	42.554	.33107	.00742
SDev	.00010	.00035	.00059	.090	.254	.00221	.00012
%RSD	1.6290	1.8795	4.0981	.63744	.59765	.66673	1.5504
#1	.00616	.01843	.01398	14.095	42.374	.32951	.00750
#2	.00602	.01893	.01482	14.223	42.734	.33263	.00733
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01821	.00856	.00370	.00532	-.00012	.00113	.00071
SDev	.00050	.00083	.00008	.00022	.00063	.00238	.00137
%RSD	2.7587	9.7413	2.1867	4.2045	514.07	210.60	193.17
#1	.01856	.00915	.00364	.00548	.00032	-.00055	-.00026
#2	.01785	.00797	.00376	.00516	-.00057	.00281	.00168
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00377	-.00386	-.00132	-.00094	.02638	.06233	
SDev	.00011	.00251	.00171	.00524	.00015	.00102	
%RSD	2.9509	65.030	129.71	555.03	.55667	1.6285	
#1	.00369	-.00564	-.00253	-.00465	.02628	.06162	
#2	.00385	-.00209	-.00011	.00276	.02649	.06305	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14509	--	--	--	--	--	--
SDev	78.06417	--	--	--	--	--	--
%RSD	.5380452	--	--	--	--	--	--
#1	14564	--	--	--	--	--	--
#2	14454	--	--	--	--	--	--

05/30/00 10:13:32 PM

Analysis Report

Method: METTRA Sample Name: DD7XK

Operator: RJG

Run Time: 05/30/00 22:09:26

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00004	17.625	.02071	.60749	-.00018	286.02	-.00045
SDev	.00001	.814	.00111	.02522	.00080	11.95	.00004
%RSD	28.215	4.6163	5.3554	4.1510	450.53	4.1772	9.6034
#1	-.00003	17.050	.01993	.58966	.00039	277.57	-.00048
#2	-.00004	18.201	.02150	.62532	-.00074	294.47	-.00042
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01004	.06593	.06070	21.712	96.727	.76173	.01300
SDev	.00003	.00289	.00363	.957	4.118	.03241	.00108
%RSD	.26442	4.3849	5.9797	4.4073	4.2571	4.2550	8.3327
#1	.01002	.06389	.05813	21.035	93.815	.73881	.01223
#2	.01005	.06797	.06326	22.388	99.639	.78465	.01376
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05718	.01994	.02098	.02064	.00828	.00521	.00623
SDev	.00290	.00252	.00050	.00051	.00211	.00191	.00057
%RSD	5.0637	12.643	2.3683	2.4619	25.428	36.631	9.1692
#1	.05514	.01816	.02133	.02028	.00679	.00656	.00663
#2	.05923	.02172	.02063	.02099	.00977	.00386	.00583
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.00706	-.00227	.00084	.00491	.05165	.11822	
SDev	.00139	.00010	.00053	.00348	.00255	.00535	
%RSD	19.731	4.2894	62.986	70.832	4.9359	4.5286	
#1	.00805	-.00220	.00121	.00737	.04984	.11443	
#2	.00608	-.00234	.00047	.00245	.05345	.12200	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14814	--	--	--	--	--	--
SDev	521.2088	--	--	--	--	--	--
%RSD	3.518270	--	--	--	--	--	--
#1	15183	--	--	--	--	--	--
#2	14446	--	--	--	--	--	--

Analysis Report

05/30/00 10:17:41 PM

Method: METTRA Sample Name: DD7XL

Operator: RJG

Run Time: 05/30/00 22:13:36

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	.00026	.19918	.01051	.66797	-.00183	211.39	-.00030
SDev	.00046	.00811	.00112	.00411	.00008	.79	.00012
%RSD	176.50	4.0730	10.640	.61565	4.5949	.37205	40.469
#1	.00059	.20492	.00972	.66506	-.00189	210.83	-.00021
#2	-.00006	.19345	.01130	.67088	-.00177	211.94	-.00038
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00254	.00406	.00593	3.8240	77.732	.48327	.00506
SDev	.00129	.00040	.00006	.0038	.373	.00223	.00108
%RSD	50.762	9.8221	.96537	.09835	.48048	.46125	21.352
#1	.00346	.00434	.00589	3.8266	77.468	.48169	.00582
#2	.00163	.00378	.00597	3.8213	77.996	.48484	.00429
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01133	.00236	-.00154	-.00024	-.00049	.00072	.00031
SDev	.00044	.00051	.00122	.00099	.00138	.00220	.00193
%RSD	3.9006	21.485	79.473	405.25	283.24	307.22	612.07
#1	.01164	.00272	-.00068	.00045	.00049	.00227	.00168
#2	.01102	.00200	-.00241	-.00094	-.00147	-.00084	-.00105
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00550	-.00222	.00035	-.00322	.00411	.02633	
SDev	.00273	.00181	.00212	.00347	.00023	.00044	
%RSD	49.691	81.541	611.05	107.98	5.5385	1.6696	
#1	.00357	-.00351	-.00115	-.00076	.00427	.02602	
#2	.00743	-.00094	.00185	-.00567	.00395	.02664	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

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Analysis Report

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IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14211	--	--	--	--	--	--
SDev	23.44087	--	--	--	--	--	--
%RSD	.1649508	--	--	--	--	--	--
#1	14227	--	--	--	--	--	--
#2	14194	--	--	--	--	--	--

Analysis Report

05/30/00 10:21:51 PM

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Method: METTRA Sample Name: DD7XM

Operator: RJG

Run Time: 05/30/00 22:17:45

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00094	.04291	.00290	1.8844	-.00137	215.41	.00007
SDev	.00009	.01224	.00085	.0002	.00004	1.31	.00023
%RSD	9.9928	28.524	29.409	.01195	2.7166	.60712	344.04
#1	.00101	.05156	.00350	1.8843	-.00140	214.49	-.00009
#2	.00088	.03425	.00230	1.8846	-.00135	216.34	.00023
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00132	.00822	.03491	9.4828	82.602	.15739	.02266
SDev	.00062	.00006	.00023	.0526	.216	.00072	.00048
%RSD	46.743	.70631	.65745	.55451	.26137	.45954	2.1045
#1	.00089	.00818	.03475	9.4456	82.449	.15688	.02232
#2	.00176	.00826	.03507	9.5200	82.755	.15790	.02300
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04594	.00489	-.00261	-.00011	.00603	.01010	.00874
SDev	.00108	.00444	.00239	.00012	.00040	.00262	.00162
%RSD	2.3560	90.847	91.783	105.49	6.5810	25.989	18.509
#1	.04670	.00802	-.00430	-.00019	.00575	.01195	.00989
#2	.04517	.00175	-.00091	-.00003	.00631	.00824	.00760
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00947	-.00658	-.00123	.00525	.00651	.07664	
SDev	.00174	.00066	.00014	.00064	.00134	.00084	
%RSD	18.324	10.034	11.183	12.287	20.607	1.0922	
#1	.01070	-.00705	-.00114	.00571	.00746	.07605	
#2	.00825	-.00611	-.00133	.00480	.00556	.07723	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

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Analysis Report

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IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14500	--	--	--	--	--	--
SDev	9.864278	--	--	--	--	--	--
%RSD	.0680289	--	--	--	--	--	--
#1	14493	--	--	--	--	--	--
#2	14507	--	--	--	--	--	--

Analysis Report

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page 1

Method: METTRA Sample Name: DD7XN

Operator: RJG

Run Time: 05/30/00 22:21:55

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00050	-.02638	-.00038	.22810	-.00090	49.045	-.00029
SDev	.00064	.01112	.00179	.00057	.00005	.152	.00002
%RSD	128.76	42.155	478.00	.24983	5.7632	.30980	7.6193
#1	.00004	-.01852	-.00164	.22850	-.00086	48.937	-.00031
#2	.00095	-.03425	.00089	.22770	-.00094	49.152	-.00028
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00090	.00198	.00496	1.2397	22.413	.06520	.00650
SDev	.00078	.00048	.00037	.0015	.036	.00051	.00019
%RSD	86.243	24.436	7.4627	.12205	.16226	.78140	2.9292
#1	.00035	.00164	.00470	1.2387	22.388	.06484	.00637
#2	.00146	.00232	.00522	1.2408	22.439	.06556	.00664
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00269	.00221	-.00250	-.00093	-.00045	.00243	.00147
SDev	.00081	.00128	.00036	.00066	.00029	.00023	.00025
%RSD	30.291	57.890	14.189	71.040	63.548	9.6378	17.132
#1	.00211	.00131	-.00276	-.00140	-.00066	.00227	.00129
#2	.00327	.00312	-.00225	-.00046	-.00025	.00260	.00165
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00378	-.00583	-.00263	.00249	.00511	.01606	
SDev	.00145	.00134	.00138	.00037	.00090	.00031	
%RSD	38.370	23.077	52.529	15.016	17.598	1.9493	
#1	.00276	-.00678	-.00360	.00275	.00447	.01584	
#2	.00481	-.00488	-.00165	.00222	.00575	.01628	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

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Analysis Report

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IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14892	--	--	--	--	--	--
SDev	54.51835	--	--	--	--	--	--
%RSD	.3660903	--	--	--	--	--	--
#1	14931	--	--	--	--	--	--
#2	14854	--	--	--	--	--	--

Analysis Report

Method: METTRA Sample Name: DD7XP

Operator: RJG

Run Time: 05/30/00 22:26:04

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00043	.02691	.01421	.58870	-.00163	189.50	-.00033
SDev	.00045	.00837	.00026	.00228	.00003	1.25	.00007
%RSD	104.18	31.089	1.8128	.38708	2.0065	.66138	22.043
#1	.00011	.03283	.01403	.59031	-.00161	190.39	-.00028
#2	.00074	.02100	.01439	.58709	-.00166	188.62	-.00038
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00033	.00102	.00536	6.6136	71.803	.28512	.00081
SDev	.00041	.00038	.00017	.0331	.369	.00135	.00084
%RSD	122.87	37.213	3.1024	.50050	.51370	.47164	103.69
#1	.00004	.00075	.00524	6.6370	72.063	.28607	.00140
#2	.00062	.00129	.00548	6.5902	71.542	.28417	.00022
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00480	.00223	-.00309	-.00131	-.00076	.00023	-.00010
SDev	.00081	.00279	.00078	.00041	.00082	.00103	.00096
%RSD	16.894	124.93	25.378	30.936	107.32	443.06	974.59
#1	.00423	.00421	-.00364	-.00103	-.00134	-.00050	-.00078
#2	.00538	.00026	-.00253	-.00160	-.00018	.00096	.00058
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00582	-.00119	.00114	-.00223	.00408	.01172	
SDev	.00026	.00011	.00016	.00161	.00070	.00064	
%RSD	4.4945	8.8583	13.793	72.393	17.183	5.4687	
#1	.00600	-.00112	.00125	-.00109	.00458	.01127	
#2	.00563	-.00127	.00103	-.00337	.00358	.01217	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

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Analysis Report

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IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14426	--	--	--	--	--	--
SDev	56.71010	--	--	--	--	--	--
%RSD	.3931022	--	--	--	--	--	--
#1	14386	--	--	--	--	--	--
#2	14466	--	--	--	--	--	--

Analysis Report

05/30/00 10:34:19 PM

659.467
page 1

Method: METTRA Sample Name: DD7XQ

Operator: RJG

Run Time: 05/30/00 22:30:13

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00117	.46017	.00139	.03635	-.00132	246.45	.00006
SDev	.00123	.03238	.00042	.00075	.00037	4.78	.00016
%RSD	105.14	7.0354	30.042	2.0574	28.213	1.9394	243.15
#1	.00203	.48306	.00168	.03688	-.00158	249.83	.00017
#2	.00030	.43728	.00109	.03582	-.00105	243.07	-.00005
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00182	.00512	.00727	.52930	169.57	.07615	.00214
SDev	.00106	.00149	.00068	.00928	3.10	.00160	.00033
%RSD	58.260	29.157	9.3199	1.7528	1.8301	2.1014	15.380
#1	.00256	.00618	.00775	.53586	171.76	.07728	.00237
#2	.00107	.00406	.00679	.52274	167.37	.07502	.00190
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04307	.00647	-.00251	.00048	-.00429	.00228	.00009
SDev	.00128	.00793	.00385	.00008	.00414	.00531	.00216
%RSD	2.9691	122.66	153.44	15.735	96.503	232.88	2351.6
#1	.04397	.01208	-.00523	.00053	-.00722	.00603	.00162
#2	.04216	.00086	.00021	.00043	-.00136	-.00147	-.00144
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00876	-.00805	-.00245	.00470	.00839	.02922	
SDev	.00240	.00124	.00003	.00522	.00312	.00015	
%RSD	27.363	15.381	1.1261	111.21	37.199	.51310	
#1	.01045	-.00892	-.00247	.00100	.01059	.02911	
#2	.00706	-.00717	-.00243	.00839	.00618	.02933	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14488	--	--	--	--	--	--
SDev	303.1368	--	--	--	--	--	--
%RSD	2.092323	--	--	--	--	--	--
#1	14274	--	--	--	--	--	--
#2	14702	--	--	--	--	--	--

Analysis Report

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page 1

Method: METTRA Sample Name: DD7XV

Operator: RJG

Run Time: 05/30/00 22:34:23

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00014	.09559	.00072	.52929	-.00121	125.85	-.00027
SDev	.00060	.00983	.00077	.00156	.00011	.69	.00003
%RSD	437.46	10.280	106.67	.29577	8.9308	.54905	13.116
#1	.00056	.10254	.00126	.53039	-.00129	126.34	-.00024
#2	-.00029	.08864	.00018	.52818	-.00114	125.36	-.00029
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00067	.00175	.00461	.61158	57.490	.08469	.00205
SDev	.00018	.00063	.00011	.00305	.185	.00038	.00017
%RSD	26.925	36.163	2.3162	.49806	.32235	.44951	8.5800
#1	.00080	.00220	.00469	.61373	57.621	.08496	.00217
#2	.00055	.00130	.00454	.60942	57.359	.08442	.00192
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00807	.00251	-.00177	-.00035	.00066	.00046	.00053
SDev	.00161	.00233	.00180	.00042	.00308	.00065	.00059
%RSD	20.017	92.954	101.49	121.99	466.31	141.88	112.80
#1	.00693	.00415	-.00304	-.00065	-.00152	.00092	.00011
#2	.00921	.00086	-.00050	-.00005	.00284	-.00000	.00094
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00826	-.00559	-.00098	.00196	.00482	.01350	
SDev	.00132	.00227	.00107	.00504	.00024	.00051	
%RSD	15.949	40.534	109.51	257.40	4.9867	3.7990	
#1	.00919	-.00720	-.00174	.00552	.00499	.01314	
#2	.00733	-.00399	-.00022	-.00161	.00465	.01386	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

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Analysis Report

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IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14602	--	--	--	--	--	--
SDev	46.49227	--	--	--	--	--	--
%RSD	.3184037	--	--	--	--	--	--
#1	14569	--	--	--	--	--	--
#2	14635	--	--	--	--	--	--

Analysis Report

05/30/00 10:42:39 PM

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page 1

Method: METTRA Sample Name: DD7XW

Operator: RJG

Run Time: 05/30/00 22:38:33

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00436	4.3383	.00211	.09347	-.00145	412.06	.00058
SDev	.00021	.0684	.00034	.00112	.00025	4.03	.00003
%RSD	4.7180	1.5777	16.335	1.1925	17.358	.97758	5.5023
#1	.00422	4.3867	.00235	.09426	-.00163	414.91	.00060
#2	.00451	4.2899	.00186	.09268	-.00127	409.21	.00055
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02993	.02045	.01361	43.192	108.32	H31.876	.02297
SDev	.00079	.00006	.00073	.427	1.11	.290	.00096
%RSD	2.6520	.29553	5.3766	.98887	1.0277	.90834	4.1940
#1	.03049	.02040	.01309	43.494	109.11	H32.081	.02229
#2	.02937	.02049	.01413	42.890	107.53	H31.672	.02365
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.21728	.01128	.00721	.00856	-.00654	.00193	-.00090
SDev	.00378	.00036	.00112	.00063	.00047	.00138	.00108
%RSD	1.7397	3.1877	15.535	7.3220	7.1263	71.877	120.45
#1	.21995	.01103	.00800	.00901	-.00687	.00095	-.00166
#2	.21460	.01153	.00641	.00812	-.00621	.00290	-.00013
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.01530	.00539	.00869	.02757	.01832	H25.554	
SDev	.00009	.00130	.00084	.00666	.00064	.276	
%RSD	.61138	24.096	9.6140	24.146	3.5141	1.0785	
#1	.01524	.00631	.00929	.02286	.01877	H25.748	
#2	.01537	.00448	.00810	.03228	.01786	H25.359	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC High	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14349	--	--	--	--	--	--
SDev	164.3671	--	--	--	--	--	--
%RSD	1.145465	--	--	--	--	--	--
#1	14233	--	--	--	--	--	--
#2	14466	--	--	--	--	--	--

Analysis Report

05/30/00 10:46:48 PM

659 473
page 1

Method: METTRA Sample Name: CCV3-4

Operator: RJG

Run Time: 05/30/00 22:42:42

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0417	24.372	.51226	2.0063	2.0191	50.365	.49777
SDev	.0036	.077	.00278	.0051	.0096	.183	.00213
%RSD	.34242	.31458	.54232	.25312	.47496	.36283	.42683
#1	1.0442	24.426	.51422	2.0099	2.0259	50.494	.49928
#2	1.0392	24.317	.51029	2.0027	2.0123	50.236	.49627
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	27.500	.55000	2.2000	2.2000	55.000	.55000
Low	.90000	22.500	.45000	1.8000	1.8000	45.000	.45000
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0221	2.0103	1.9424	24.845	48.358	1.9680	2.0252
SDev	.0097	.0073	.0057	.087	.166	.0037	.0071
%RSD	.47917	.36397	.29226	.34978	.34280	.18843	.35205
#1	2.0289	2.0155	1.9464	24.906	48.475	1.9707	2.0201
#2	2.0152	2.0051	1.9384	24.783	48.241	1.9654	2.0302
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.2000	2.2000	2.2000	27.500	55.000	2.2000	2.2000
Low	1.8000	1.8000	1.8000	22.500	45.000	1.8000	1.8000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0218	.52159	.51281	.51574	.50787	.50583	.50651
SDev	.0084	.00037	.00468	.00324	.00369	.00144	.00219
%RSD	.41539	.07143	.91173	.62873	.72616	.28438	.43188
#1	2.0277	.52185	.51612	.51803	.51048	.50685	.50805
#2	2.0159	.52132	.50951	.51344	.50526	.50481	.50496
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	2.2000			.55000			.55000
Low	1.8000			.45000			.45000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.51082	.51550	.51394	1.0344	2.0097	2.0698	
SDev	.00031	.00127	.00095	.0040	.0108	.0059	
%RSD	.06154	.24577	.18480	.38340	.53803	.28498	
#1	.51104	.51640	.51461	1.0372	2.0173	2.0740	
#2	.51059	.51460	.51327	1.0316	2.0020	2.0656	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.55000	1.1000	2.2000	2.2000	
Low			.45000	.90000	1.8000	1.8000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14706	--	--	--	--	--	--
SDev	52.99710	--	--	--	--	--	--
%RSD	.3603694	--	--	--	--	--	--
#1	14669	--	--	--	--	--	--
#2	14744	--	--	--	--	--	--

Analysis Report

05/30/00 10:50:58 PM

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Method: METTRA Sample Name: CCB4 Operator: RJG
 Run Time: 05/30/00 22:46:52
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00036	-.11046	-.00001	.00054	-.00117	.03324	.00001
SDev	.00008	.01303	.00082	.00005	.00001	.00974	.00008
%RSD	23.526	11.797	5472.0	8.6775	.54335	29.312	1548.4
#1	.00042	-.10124	.00056	.00051	-.00117	.02635	.00006
#2	.00030	-.11967	-.00059	.00057	-.00117	.04013	-.00005
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00035	.00062	.00431	.01213	.01772	.00140	.00743
SDev	.00034	.00006	.00032	.00294	.00259	.00051	.00306
%RSD	98.979	10.003	7.4281	24.226	14.592	36.045	41.222
#1	.00010	.00057	.00408	.01420	.01590	.00105	.00959
#2	.00059	.00066	.00454	.01005	.01955	.00176	.00526
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.02500	.10000	5.0000	.01500	.04000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00064	.00090	-.00098	-.00036	.00143	.00049	.00080
SDev	.00067	.00084	.00119	.00107	.00135	.00104	.00114
%RSD	106.12	93.888	120.59	299.54	94.245	214.26	142.94
#1	.00111	.00030	-.00182	-.00112	.00048	-.00025	-.00001
#2	.00016	.00149	-.00015	.00040	.00238	.00122	.00161
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.04000			.00300			.06000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.00565	-.00202	.00053	.00379	.00000	.00462	
SDev	.00166	.00102	.00013	.00277	.00000	.00111	
%RSD	29.420	50.518	23.929	73.218	24.226	24.031	
#1	.00682	-.00274	.00044	.00183	.00000	.00383	
#2	.00447	-.00130	.00062	.00575	.00000	.00540	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.00500	.01000	.05000	.02000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14592	--	--	--	--	--	--
SDev	60.59919	--	--	--	--	--	--
%RSD	.4152948	--	--	--	--	--	--
#1	14549	--	--	--	--	--	--
#2	14635	--	--	--	--	--	--

Analysis Report

05/30/00 10:55:08 PM

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Method: METTRA Sample Name: DDRETFB Operator: RJG
 Run Time: 05/30/00 22:51:02
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00021	-.10300	-.00031	.00026	-.00170	.04282	-.00013
SDev	.00044	.00015	.00153	.00009	.00008	.00232	.00003
%RSD	209.35	.14943	492.54	35.433	4.6218	5.4232	19.130
#1	-.00010	-.10289	-.00140	.00020	-.00164	.04118	-.00016
#2	.00053	-.10311	.00077	.00033	-.00176	.04446	-.00020
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00019	.00017	.00561	.01714	.00962	.00095	.00220
SDev	.00083	.00032	.00007	.00170	.00232	.00000	.00032
%RSD	441.95	189.89	1.2985	9.9086	24.112	.34538	14.546
#1	-.00078	-.00006	.00556	.01594	.00798	.00095	.00242
#2	.00040	.00039	.00566	.01834	.01126	.00095	.00197
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.02500	.10000	5.0000	.01500	.04000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00043	.00078	-.00170	-.00087	-.00051	.00069	.00029
SDev	.00022	.00071	.00064	.00019	.00037	.00052	.00047
%RSD	52.548	91.089	37.969	22.107	72.013	75.129	160.45
#1	.00058	.00129	-.00215	-.00101	-.00077	.00032	-.00004
#2	.00027	.00028	-.00124	-.00074	-.00025	.00106	.00062
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.04000			.00300			.06000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.00377	-.00157	.00021	-.00256	.00017	.00569	
SDev	.00188	.00251	.00230	.00133	.00023	.00010	
%RSD	49.790	159.86	1093.9	51.719	136.70	1.8068	
#1	.00510	.00020	.00183	-.00163	.00001	.00561	
#2	.00244	-.00334	-.00141	-.00350	.00033	.00576	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.00500	.01000	.05000	.02000	
Low			-.00500	-.01000	-.05000	-.02000	

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Analysis Report

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IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14464	--	--	--	--	--	--
SDev	37.01746	--	--	--	--	--	--
%RSD	.2559330	--	--	--	--	--	--
#1	14490	--	--	--	--	--	--
#2	14438	--	--	--	--	--	--

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Analysis Report

Method: METTRA Sample Name: DDRETCF

Operator: RJG

Run Time: 05/30/00 22:55:11

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05043	1.7300	1.9818	1.9464	.04792	L.13766	.04973
SDev	.00011	.0104	.0034	.0012	.00009	.00010	.00040
%RSD	.22505	.59966	.17352	.06191	.17752	.07161	.80702
#1	.05035	1.7374	1.9842	1.9473	.04786	L.13759	.05001
#2	.05051	1.7227	1.9794	1.9456	.04798	L.13773	.04944
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass
High	.06000	2.4000	2.4000	2.4000	.06000	60.000	.06000
Low	.04000	1.6000	1.6000	1.6000	.04000	40.000	.04000
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50309	.19892	.23867	1.0007	L.01244	.48417	L.00150
SDev	.00118	.00053	.00014	.0123	.00300	.00105	.00032
%RSD	.23493	.26502	.05666	1.2290	24.105	.21763	21.024
#1	.50392	.19929	.23857	1.0094	L.01456	.48491	L.00127
#2	.50225	.19854	.23876	.99197	L.01032	.48342	L.00172
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Low
High	.60000	.24000	.30000	1.2000	60.000	.60000	1.2000
Low	.40000	.16000	.20000	.80000	40.000	.40000	.80000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50309	.49850	.49247	.49447	-.00158	-.00029	L-.00072
SDev	.00261	.00186	.00291	.00256	.00012	.00070	.00043
%RSD	.51786	.37342	.59143	.51824	7.4396	245.67	59.792
#1	.50493	.49981	.49452	.49629	-.00166	.00021	L-.00041
#2	.50125	.49718	.49041	.49266	-.00150	-.00078	L-.00102
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Low
High	.60000			.60000			.60000
Low	.40000			.40000			.40000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	1.9416	1.9701	1.9606	1.9552	.48821	.52668	
SDev	.0116	.0180	.0159	.0050	.00133	.00157	
%RSD	.59790	.91530	.81063	.25480	.27269	.29859	
#1	1.9498	1.9828	1.9718	1.9588	.48915	.52779	
#2	1.9334	1.9573	1.9494	1.9517	.48727	.52557	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			2.4000	2.4000	.60000	.60000	
Low			1.6000	1.6000	.40000	.40000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14464	--	--	--	--	--	--
SDev	66.25604	--	--	--	--	--	--
%RSD	.4580866	--	--	--	--	--	--
#1	14417	--	--	--	--	--	--
#2	14510	--	--	--	--	--	--

Analysis Report

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Method: METTRA Sample Name: DD7XDF

Operator: RJG

Run Time: 05/30/00 22:59:21

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	.00074	-.11252	.00120	2.1285	-.00164	269.47	-.00014
SDev	.00013	.00819	.00006	.0060	.00018	.09	.00023
%RSD	17.734	7.2797	4.9606	.28082	11.218	.03289	162.55
#1	.00084	-.10673	.00124	2.1327	-.00177	269.53	-.00030
#2	.00065	-.11831	.00116	2.1243	-.00151	269.41	.00002
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00080	.00135	.00663	.06013	123.80	.07677	.00814
SDev	.00074	.00009	.00003	.01248	.25	.00001	.00138
%RSD	91.724	6.9474	.42650	20.758	.20122	.00972	17.008
#1	-.00132	.00129	.00665	.05131	123.98	.07677	.00716
#2	-.00028	.00142	.00661	.06896	123.63	.07676	.00912
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00374	.00301	-.00460	-.00206	-.00403	.00224	.00015
SDev	.00075	.00178	.00123	.00142	.00023	.00125	.00091
%RSD	20.079	59.208	26.858	68.671	5.6740	55.666	614.15
#1	.00321	.00427	-.00372	-.00106	-.00387	.00312	.00079
#2	.00427	.00175	-.00547	L-.00307	-.00420	.00136	-.00049
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00989	-.00700	-.00137	.00819	.00231	.03219	
SDev	.00108	.00333	.00186	.00298	.00047	.00138	
%RSD	10.881	47.618	135.80	36.377	20.243	4.2798	
#1	.00913	-.00464	-.00005	.01030	.00264	.03121	
#2	.01065	-.00935	-.00269	.00609	.00198	.03316	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14210	--	--	--	--	--	--
SDev	60.38720	--	--	--	--	--	--
%RSD	.4249716	--	--	--	--	--	--
#1	14167	--	--	--	--	--	--
#2	14252	--	--	--	--	--	--

Analysis Report

05/30/00 11:07:36 PM

Method: METTRA Sample Name: DD7XDP5F Operator: RJG
Run Time: 05/30/00 23:03:31
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00043	-.14787	.00011	.42018	-.00094	53.424	-.00008
SDev	.00009	.00592	.00043	.00037	.00019	.241	.00002
%RSD	21.432	4.0030	377.74	.08903	20.377	.45180	31.354
#1	.00036	-.15205	.00042	.41991	-.00080	53.254	-.00006
#2	.00049	-.14368	-.00019	.42044	-.00107	53.595	-.00010
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00035	.00029	.00435	-.01239	23.386	.01495	.00164
SDev	.00047	.00037	.00037	.00606	.078	.00017	.00051
%RSD	136.06	128.78	8.5092	48.878	.33200	1.1736	30.764
#1	.00001	.00003	.00409	-.01668	23.331	.01483	.00128
#2	.00068	.00055	.00461	-.00811	23.441	.01508	.00200
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00119	.00248	-.00218	-.00063	-.00103	.00019	-.00021
SDev	.00060	.00234	.00015	.00068	.00084	.00259	.00201
%RSD	49.849	94.485	7.0635	107.51	81.654	1345.3	936.61
#1	.00077	.00414	-.00229	-.00015	-.00043	.00202	.00120
#2	.00161	.00082	-.00207	-.00111	-.00162	-.00164	-.00163
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00707	-.00355	-.00001	.00456	.00453	.01085	
SDev	.00057	.00164	.00090	.00107	.00070	.00032	
%RSD	8.1190	46.342	8689.7	23.349	15.360	2.9960	
#1	.00666	-.00238	.00063	.00381	.00404	.01062	
#2	.00748	-.00471	-.00065	.00532	.00502	.01108	

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Analysis Report

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IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14858	--	--	--	--	--	--
SDev	100.5507	--	--	--	--	--	--
%RSD	.6767287	--	--	--	--	--	--
#1	14929	--	--	--	--	--	--
#2	14787	--	--	--	--	--	--

Analysis Report

05/30/00 11:11:46 PM

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page 1

Method: METTRA Sample Name: DD7XDSF

Operator: RJG

Run Time: 05/30/00 23:07:40

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05736	2.4233	2.0842	4.1269	.04763	271.10	.04764
SDev	.00012	.0036	.0006	.0008	.00003	.33	.00027
%RSD	.21588	.14721	.02734	.01937	.06272	.12248	.57487
#1	.05745	2.4259	2.0846	4.1275	.04761	270.86	.04745
#2	.05727	2.4208	2.0838	4.1264	.04765	271.33	.04783
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50851	.20249	.27547	1.1051	124.07	.58438	.00790
SDev	.00174	.00047	.00043	.0052	.12	.00067	.00043
%RSD	.34284	.22942	.15521	.47110	.09513	.11500	5.4868
#1	.50728	.20216	.27517	1.1088	123.98	.58391	.00759
#2	.50974	.20282	.27577	1.1015	124.15	.58486	.00821
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.51671	.56799	.52742	.54093	.00021	.00193	.00136
SDev	.00092	.00231	.00239	.00236	.00210	.00048	.00038
%RSD	.17779	.40708	.45312	.43702	1017.6	24.985	27.830
#1	.51736	.56636	.52574	.53926	-.00128	.00227	.00109
#2	.51606	.56963	.52911	.54261	.00169	.00159	.00162
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	2.0816	2.1470	2.1252	2.3152	.51662	.58158	
SDev	.0006	.0153	.0104	.0151	.00141	.00229	
%RSD	.02967	.71179	.48930	.65090	.27265	.39385	
#1	2.0812	2.1362	2.1179	2.3045	.51562	.57996	
#2	2.0821	2.1578	2.1326	2.3259	.51762	.58320	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14046	--	--	--	--	--	--
SDev	12.93992	--	--	--	--	--	--
%RSD	.0921233	--	--	--	--	--	--
#1	14055	--	--	--	--	--	--
#2	14037	--	--	--	--	--	--

Analysis Report

05/30/00 11:15:55 PM

Method: METTRA Sample Name: DD7XDDF Operator: RJG
Run Time: 05/30/00 23:11:49
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.06615	2.7692	2.4089	4.3698	.05645	264.22	.05514
SDev	.00199	.1067	.0757	.1387	.00126	8.03	.00153
%RSD	3.0032	3.8544	3.1408	3.1740	2.2319	3.0407	2.7719
#1	.06474	2.6937	2.3554	4.2717	.05555	258.54	.05406
#2	.06755	2.8447	2.4624	4.4679	.05734	269.90	.05622
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.58678	.23376	.31562	1.2723	120.75	.66147	.00758
SDev	.01954	.00695	.00998	.0614	3.78	.02018	.00003
%RSD	3.3296	2.9729	3.1623	4.8286	3.1267	3.0513	.46544
#1	.57296	.22885	.30856	1.2288	118.08	.64720	.00755
#2	.60059	.23867	.32268	1.3157	123.42	.67575	.00760
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.59748	.65611	.61296	.62733	.00206	-.00041	.00041
SDev	.01746	.00889	.01281	.01150	.00119	.00116	.00038
%RSD	2.9220	1.3551	2.0896	1.8338	57.570	280.49	92.382
#1	.58514	.64983	.60391	.61920	.00122	.00041	.00068
#2	.60983	.66240	.62202	.63547	.00290	-.00123	.00014
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	2.3997	2.4957	2.4637	2.6640	.59747	.66282	
SDev	.0502	.0535	.0524	.0780	.01853	.02084	
%RSD	2.0938	2.1441	2.1278	2.9285	3.1022	3.1437	
#1	2.3641	2.4579	2.4267	2.6089	.58436	.64809	
#2	2.4352	2.5336	2.5008	2.7192	.61057	.67756	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

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Analysis Report

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IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14623	--	--	--	--	--	--
SDev	310.4903	--	--	--	--	--	--
%RSD	2.123301	--	--	--	--	--	--
#1	14843	--	--	--	--	--	--
#2	14403	--	--	--	--	--	--

Analysis Report

05/30/00 11:20:05 PM

page 1

Method: METTRA Sample Name: DD7XEF Operator: RJG
 Run Time: 05/30/00 23:15:59
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00064	-.14774	.00482	.55599	-.00125	136.37	-.00027
SDev	.00027	.00507	.00155	.00251	.00006	.86	.00015
%RSD	41.526	3.4334	32.109	.45116	4.6098	.62917	56.643
#1	.00083	-.14415	.00373	.55776	-.00121	136.98	-.00038
#2	.00045	-.15133	.00592	.55422	-.00129	135.77	-.00016
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00045	.00069	.00452	-.04033	67.369	.02682	.00570
SDev	.00027	.00042	.00035	.01239	.375	.00026	.00010
%RSD	59.957	60.559	7.6889	30.717	.55617	.97786	1.7192
#1	.00026	.00040	.00427	-.04909	67.634	.02700	.00563
#2	.00064	.00099	.00477	-.03157	67.104	.02663	.00576
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00120	.00206	-.00300	-.00132	-.00258	-.00149	-.00185
SDev	.00029	.00211	.00171	.00044	.00098	.00019	.00020
%RSD	24.344	101.99	56.862	33.295	38.049	13.106	10.629
#1	.00140	.00355	-.00421	-.00163	-.00327	-.00135	-.00199
#2	.00099	.00058	-.00180	-.00101	-.00188	-.00162	-.00171
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00911	-.00320	.00090	.00582	.00344	.00895	
SDev	.00387	.00099	.00063	.00011	.00001	.00051	
%RSD	42.485	31.106	69.330	1.8017	.35947	5.7360	
#1	.01185	-.00390	.00135	.00590	.00343	.00859	
#2	.00638	-.00249	.00046	.00575	.00344	.00932	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

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Analysis Report

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IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14805	--	--	--	--	--	--
SDev	34.43555	--	--	--	--	--	--
%RSD	.2325987	--	--	--	--	--	--
#1	14829	--	--	--	--	--	--
#2	14780	--	--	--	--	--	--

Analysis Report

05/30/00 11:24:14 PM

page 1

Method: METTRA Sample Name: DD7XFF Operator: RJG
 Run Time: 05/30/00 23:20:08
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00063	-.13842	.02072	.18061	-.00172	55.420	-.00025
SDev	.00003	.00630	.00032	.00007	.00004	.150	.00017
%RSD	5.3773	4.5494	1.5446	.04043	2.5473	.26985	67.816
#1	.00061	-.13397	.02095	.18056	-.00169	55.314	-.00013
#2	.00066	-.14287	.02050	.18066	-.00175	55.526	-.00036
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00006	.00064	.00501	.25159	30.518	.05966	.00849
SDev	.00030	.00013	.00002	.00271	.040	.00019	.00047
%RSD	505.35	19.647	.42806	1.0774	.13000	.32708	5.5507
#1	-.00027	.00055	.00502	.24967	30.490	.05952	.00882
#2	.00015	.00073	.00499	.25351	30.546	.05980	.00815
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00121	.00359	-.00246	-.00044	.00078	.00077	.00078
SDev	.00060	.00126	.00050	.00008	.00267	.00049	.00056
%RSD	49.354	35.136	20.491	19.134	341.58	63.243	72.691
#1	.00079	.00448	-.00281	-.00038	.00267	.00043	.00117
#2	.00163	.00270	-.00210	-.00050	-.00111	.00112	.00038
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.00320	-.00070	.00060	-.00199	.00231	.00761	
SDev	.00144	.00118	.00127	.00197	.00001	.00036	
%RSD	44.934	168.82	212.89	98.833	.20735	4.7551	
#1	.00421	.00014	.00149	-.00338	.00230	.00736	
#2	.00218	-.00154	-.00030	-.00060	.00231	.00787	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14640	--	--	--	--	--	--
SDev	25.31429	--	--	--	--	--	--
%RSD	.1729118	--	--	--	--	--	--
#1	14658	--	--	--	--	--	--
#2	14622	--	--	--	--	--	--

Analysis Report

05/30/00 11:28:24 PM

page 1

Method: METTRA Sample Name: DD7XGF Operator: RJG
 Run Time: 05/30/00 23:24:18
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00058	-.14052	.00146	3.4879	-.00188	344.14	-.00005
SDev	.00012	.00403	.00057	.0432	.00014	2.25	.00020
%RSD	21.325	2.8658	38.897	1.2384	7.5415	.65405	389.66

#1	.00066	-.13768	.00106	3.4573	-.00178	342.55	-.00019
#2	.00049	-.14337	.00186	3.5184	-.00198	345.73	.00009

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00085	.00073	.00641	L-.18071	166.57	.23290	.00142
SDev	.00005	.00016	.00078	.00948	1.60	.00234	.00010
%RSD	5.8846	22.119	12.251	5.2465	.96004	1.0068	7.2698

#1	-.00089	.00085	.00586	L-.17401	165.44	.23124	.00135
#2	-.00082	.00062	.00697	L-.18742	167.70	.23456	.00149

Errors	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000

Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00681	-.00006	-.00376	-.00253	.00060	.00026	.00037
SDev	.00105	.00026	.00027	.00027	.00078	.00002	.00025
%RSD	15.392	440.99	7.2120	10.598	130.61	5.5581	66.838

#1	.00607	.00013	-.00357	-.00234	.00115	.00025	.00055
#2	.00755	-.00024	-.00396	-.00272	.00005	.00027	.00020

Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000

Elem	SE/1	SE/2	SE	TL	V_	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00736	-.00519	-.00101	.00613	.00590	.07162
SDev	.00260	.00215	.00230	.00556	.00050	.00086
%RSD	35.340	41.417	228.08	90.690	8.4606	1.2040

#1	.00920	-.00367	.00062	.01006	.00554	.07101
#2	.00552	-.00671	-.00263	.00220	.00625	.07223

Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High			10.000	10.000	50.000	5.0000
Low			-.00500	-.01000	-.05000	-.02000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14026	--	--	--	--	--	--
SDev	80.18619	--	--	--	--	--	--
%RSD	.5717090	--	--	--	--	--	--
#1	14082	--	--	--	--	--	--
#2	13969	--	--	--	--	--	--

Analysis Report

05/30/00 11:32:34 PM

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page 1

Method: METTRA Sample Name: DD7XHF

Operator: RJG

Run Time: 05/30/00 23:28:28

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00032	-.14640	.00065	.00034	-.00191	.09002	-.00011
SDev	.00007	.01712	.00100	.00004	.00000	.00652	.00000
%RSD	21.089	11.692	152.55	10.670	.19567	7.2454	2.9783
#1	.00037	-.13430	-.00005	.00037	-.00191	.09463	-.00011
#2	.00027	-.15851	.00136	.00032	-.00190	.08541	-.00011
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00036	.00037	.00573	.01595	.01825	.00072	.00096
SDev	.00046	.00019	.00040	.03530	.00332	.00002	.00007
%RSD	128.38	51.347	6.9305	221.30	18.212	2.1670	7.7901
#1	-.00003	.00050	.00544	.04091	.02060	.00071	.00091
#2	-.00068	.00024	.00601	-.00901	.01590	.00073	.00102
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00053	.00243	-.00158	-.00024	.00015	-.00093	-.00057
SDev	.00037	.00481	.00132	.00072	.00276	.00283	.00097
%RSD	70.362	197.85	83.686	294.53	1784.9	303.20	169.27
#1	.00027	-.00097	-.00064	-.00075	.00211	-.00293	-.00125
#2	.00079	.00583	-.00251	.00026	-.00180	.00107	.00011
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	-.00131	.00107	.00028	-.00250	.00001	.00632	
SDev	.00096	.00161	.00139	.00229	.00001	.00028	
%RSD	73.012	149.35	494.31	91.443	221.30	4.5135	
#1	-.00063	.00221	.00126	-.00412	.00001	.00612	
#2	-.00198	-.00006	-.00070	-.00089	-.00000	.00652	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14519	--	--	--	--	--	--
SDev	37.83021	--	--	--	--	--	--
%RSD	.2605602	--	--	--	--	--	--
#1	14492	--	--	--	--	--	--
#2	14546	--	--	--	--	--	--

Analysis Report

05/30/00 11:36:43 PM

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page 1 ✓

Method: METTRA Sample Name: CCV3-5

Operator: RJG

Run Time: 05/30/00 23:32:37

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0496	24.693	.51417	2.0460	2.0227	50.404	.49580
SDev	.0007	.014	.00090	.0012	.0047	.091	.00049
%RSD	.07135	.05784	.17461	.06025	.23199	.17995	.09856
#1	1.0501	24.703	.51353	2.0468	2.0260	50.468	.49545
#2	1.0490	24.683	.51480	2.0451	2.0194	50.340	.49615
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	27.500	.55000	2.2000	2.2000	55.000	.55000
Low	.90000	22.500	.45000	1.8000	1.8000	45.000	.45000
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0209	2.0069	1.9730	24.794	48.528	1.9742	2.0212
SDev	.0021	.0038	.0040	.015	.076	.0027	.0093
%RSD	.10616	.18803	.20354	.06169	.15575	.13707	.46150
#1	2.0224	2.0095	1.9758	24.805	48.581	1.9761	2.0146
#2	2.0194	2.0042	1.9701	24.783	48.474	1.9723	2.0278
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.2000	2.2000	2.2000	27.500	55.000	2.2000	2.2000
Low	1.8000	1.8000	1.8000	22.500	45.000	1.8000	1.8000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0423	.51545	.51039	.51208	.50954	.50983	.50973
SDev	.0084	.00430	.00172	.00029	.00225	.00114	.00151
%RSD	.41091	.83493	.33659	.05610	.44057	.22292	.29536
#1	2.0483	.51850	.50917	.51228	.50795	.50902	.50867
#2	2.0364	.51241	.51160	.51187	.51113	.51063	.51080
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	2.2000			.55000			.55000
Low	1.8000			.45000			.45000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.51166	.51575	.51439	1.0290	2.0291	2.0794	
SDev	.00223	.00298	.00124	.0052	.0095	.0047	
%RSD	.43647	.57725	.24147	.50059	.46749	.22786	
#1	.51324	.51365	.51351	1.0254	2.0358	2.0827	
#2	.51008	.51786	.51527	1.0327	2.0224	2.0760	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.55000	1.1000	2.2000	2.2000	
Low			.45000	.90000	1.8000	1.8000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14678	--	--	--	--	--	--
SDev	33.12768	--	--	--	--	--	--
%RSD	.2257034	--	--	--	--	--	--
#1	14654	--	--	--	--	--	--
#2	14701	--	--	--	--	--	--

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Analysis Report

Method: METTRA Sample Name: CCB5

Operator: RJG

Run Time: 05/30/00 23:36:47

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00046	-.14911	-.00033	.00068	-.00119	.02672	.00000
SDev	.00028	.00974	.00032	.00037	.00004	.01288	.00009
%RSD	60.027	6.5297	95.956	54.506	2.9739	48.195	2414.4
#1	.00027	-.15600	-.00011	.00042	-.00116	.01761	-.00006
#2	.00066	-.14223	-.00056	.00094	-.00121	.03582	.00007
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00049	.00054	.00528	.00888	.01721	.00059	.00744
SDev	.00010	.00048	.00039	.00052	.00593	.00015	.00178
%RSD	20.677	89.361	7.4069	5.7970	34.451	25.875	23.918
#1	.00056	.00020	.00501	.00851	.01302	.00049	.00870
#2	.00042	.00088	.00556	.00924	.02140	.00070	.00618
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.02500	.10000	5.0000	.01500	.04000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00052	-.00091	-.00020	-.00043	.00209	-.00005	.00066
SDev	.00007	.00266	.00070	.00042	.00189	.00122	.00018
%RSD	13.175	293.59	358.01	96.850	90.209	2263.6	27.893
#1	.00057	.00097	-.00069	-.00014	.00076	.00081	.00079
#2	.00047	-.00279	.00030	-.00073	.00343	-.00092	.00053
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.04000			.00300			.06000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00320	-.00209	-.00033	.00222	.00000	.00318	
SDev	.00176	.00009	.00053	.00411	.00000	.00037	
%RSD	54.925	4.1505	160.54	184.92	5.7970	11.720	
#1	.00444	-.00215	.00004	.00512	.00000	.00292	
#2	.00196	-.00203	-.00070	-.00068	.00000	.00344	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.00500	.01000	.05000	.02000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14730	--	--	--	--	--	--
SDev	131.2387	--	--	--	--	--	--
%RSD	.8909683	--	--	--	--	--	--
#1	14823	--	--	--	--	--	--
#2	14637	--	--	--	--	--	--

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Analysis Report

Method: METTRA Sample Name: DD7XJF

Operator: RJG

Run Time: 05/30/00 23:40:57

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00093	-.13173	.00164	.02933	-.00231	68.398	-.00000
SDev	.00044	.01335	.00035	.00003	.00004	.070	.00004
%RSD	46.844	10.131	21.151	.10336	1.5593	.10296	853.59
#1	.00062	-.12229	.00140	.02936	-.00234	68.448	.00002
#2	.00124	-.14116	.00189	.02931	-.00229	68.348	-.00003
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00033	.00104	.00617	-.06523	46.831	.12085	.00644
SDev	.00010	.00008	.00011	.00089	.016	.00022	.00036
%RSD	29.451	7.5423	1.8364	1.3699	.03383	.18457	5.5601
#1	.00026	.00098	.00625	-.06586	46.843	.12070	.00669
#2	.00040	.00109	.00609	-.06460	46.820	.12101	.00618
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00075	.00450	-.00453	-.00152	-.00329	.00096	-.00046
SDev	.00174	.00243	.00158	.00025	.00006	.00194	.00131
%RSD	232.42	53.843	34.849	16.145	1.6876	201.67	287.18
#1	-.00048	.00279	-.00342	-.00135	-.00333	-.00041	-.00138
#2	.00198	.00622	-.00565	-.00170	-.00325	.00233	.00047
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00130	-.00122	-.00038	.00128	.00062	.00997	
SDev	.00161	.00058	.00092	.00496	.00000	.00062	
%RSD	124.00	47.601	241.73	386.00	.28394	6.2264	
#1	.00016	-.00163	-.00103	-.00222	.00062	.00953	
#2	.00243	-.00081	.00027	.00479	.00062	.01041	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14393	--	--	--	--	--	--
SDev	46.38662	--	--	--	--	--	--
%RSD	.3222792	--	--	--	--	--	--
#1	14360	--	--	--	--	--	--
#2	14426	--	--	--	--	--	--

Analysis Report

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Method: METTRA Sample Name: DD7XKF Operator: RJG
 Run Time: 05/30/00 23:45:07
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00060	-.15264	.01125	.37305	-.00215	218.33	-.00009
SDev	.00014	.00329	.00066	.00054	.00006	.22	.00018
%RSD	22.875	2.1535	5.9049	.14373	2.7457	.10294	192.48
#1	.00050	-.15032	.01172	.37267	-.00219	218.17	.00003
#2	.00070	-.15497	.01078	.37343	-.00211	218.49	-.00022
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00018	.00100	.00629	.23226	82.539	.18172	.01078
SDev	.00037	.00044	.00008	.00766	.102	.00045	.00025
%RSD	203.97	44.448	1.2057	3.2998	.12321	.25004	2.3150
#1	-.00008	.00069	.00634	.23768	82.467	.18139	.01060
#2	.00045	.00132	.00624	.22684	82.610	.18204	.01095
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00714	.00238	-.00156	-.00024	-.00013	.00037	.00020
SDev	.00008	.00009	.00083	.00058	.00237	.00055	.00042
%RSD	1.0744	3.5781	53.230	237.41	1761.2	147.54	205.82
#1	.00709	.00244	-.00097	.00017	.00154	-.00002	.00050
#2	.00719	.00232	-.00214	-.00066	-.00181	.00076	-.00009
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.00473	-.00314	-.00052	-.00073	.00586	.01290	
SDev	.00034	.00232	.00166	.00146	.00000	.00036	
%RSD	7.1025	73.934	319.84	200.49	.03021	2.7919	
#1	.00497	-.00150	.00066	.00030	.00586	.01265	
#2	.00450	-.00479	-.00169	-.00176	.00586	.01316	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

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Analysis Report

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IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14455	--	--	--	--	--	--
SDev	2.262880	--	--	--	--	--	--
%RSD	.0156548	--	--	--	--	--	--
#1	14456	--	--	--	--	--	--
#2	14453	--	--	--	--	--	--

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Analysis Report

Method: METTRA Sample Name: DD7XLF

Operator: RJG

Run Time: 05/30/00 23:49:16

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00054	-.16188	.00505	.63903	-.00205	211.74	-.00017
SDev	.00033	.01186	.00063	.00020	.00006	.56	.00018
%RSD	60.545	7.3270	12.559	.03106	3.0841	.26370	106.78
#1	.00077	-.15349	.00549	.63917	-.00201	212.13	-.00030
#2	.00031	-.17026	.00460	.63889	-.00210	211.34	-.00004
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00209	.00066	.00636	.73976	77.331	.46901	.00490
SDev	.00009	.00026	.00001	.00349	.006	.00016	.00017
%RSD	4.4341	38.506	.14629	.47227	.00816	.03438	3.4982
#1	.00216	.00084	.00637	.74223	77.335	.46889	.00478
#2	.00203	.00048	.00636	.73729	77.327	.46912	.00502
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00838	.00266	-.00262	-.00086	.00174	.00057	.00096
SDev	.00031	.00007	.00022	.00017	.00414	.00167	.00249
%RSD	3.6915	2.4864	8.5018	19.767	238.23	293.53	260.11
#1	.00816	.00261	-.00278	-.00098	-.00119	-.00061	-.00080
#2	.00860	.00270	-.00246	-.00074	.00466	.00175	.00272
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00542	-.00242	.00019	.00095	.00557	.01680	
SDev	.00073	.00380	.00277	.00192	.00295	.00070	
%RSD	13.403	156.93	1454.7	202.00	53.076	4.1679	
#1	.00593	.00027	.00215	.00231	.00766	.01631	
#2	.00490	-.00510	-.00177	-.00041	.00348	.01730	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

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Analysis Report

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IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14427	--	--	--	--	--	--
SDev	12.93992	--	--	--	--	--	--
%RSD	.0896914	--	--	--	--	--	--
#1	14436	--	--	--	--	--	--
#2	14418	--	--	--	--	--	--

Analysis Report

05/30/00 11:57:32 PM

Method: METTRA Sample Name: DD7XMF Operator: RJG
Run Time: 05/30/00 23:53:26
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00102	-.17899	.00110	1.8740	-.00199	216.48	-.00023
SDev	.00027	.00321	.00151	.0084	.00004	1.02	.00006
%RSD	26.192	1.7961	137.08	.44609	2.0598	.47269	26.662
#1	.00121	-.17672	.00003	1.8681	-.00202	215.75	-.00028
#2	.00083	-.18126	.00216	1.8800	-.00196	217.20	-.00019
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00009	.00105	.01053	L-.11621	82.968	.10914	.02294
SDev	.00013	.00048	.00079	.01328	.431	.00074	.00041
%RSD	145.18	45.589	7.4843	11.427	.51914	.68103	1.7888
#1	.00017	.00139	.00998	L-.12560	82.664	.10862	.02265
#2	-.00000	.00071	.01109	L-.10682	83.273	.10967	.02323
Errors	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02723	.00435	-.00465	-.00165	.00618	.00876	.00790
SDev	.00022	.00537	.00250	.00012	.00153	.00220	.00096
%RSD	.81608	123.39	53.834	7.0556	24.671	25.065	12.116
#1	.02707	.00814	-.00642	-.00157	.00510	.01032	.00858
#2	.02739	.00055	-.00288	-.00174	.00726	.00721	.00723
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.00996	-.01032	-.00357	.00583	.00190	.00947	
SDev	.00293	.00500	.00236	.00030	.00137	.00021	
%RSD	29.374	48.419	66.112	5.1353	71.992	2.1701	
#1	.01202	-.01386	L-.00524	.00561	.00286	.00933	
#2	.00789	-.00679	-.00190	.00604	.00093	.00962	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14367	--	--	--	--	--	--
SDev	2.686868	--	--	--	--	--	--
%RSD	.0187015	--	--	--	--	--	--
#1	14365	--	--	--	--	--	--
#2	14369	--	--	--	--	--	--

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Analysis Report

Method: METTRA Sample Name: DD7XNF

Operator: RJG

Run Time: 05/30/00 23:57:36

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00033	-.17437	.00068	.19731	-.00168	50.851	-.00030
SDev	.00019	.01125	.00027	.00027	.00002	.090	.00013
%RSD	58.767	6.4498	40.231	.13556	1.1688	.17654	44.350
#1	.00019	-.16641	.00087	.19712	-.00166	50.788	-.00040
#2	.00047	-.18232	.00049	.19750	-.00169	50.914	-.00021
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00053	.00069	.00582	.06477	23.107	.06369	.00647
SDev	.00045	.00027	.00024	.00814	.072	.00023	.00067
%RSD	85.414	38.373	4.1091	12.573	.31115	.35744	10.305
#1	.00085	.00088	.00565	.07052	23.056	.06353	.00695
#2	.00021	.00051	.00599	.05901	23.158	.06385	.00600
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00073	.00148	-.00274	-.00133	-.00037	.00040	.00014
SDev	.00008	.00170	.00041	.00029	.00059	.00003	.00022
%RSD	10.394	114.92	15.005	22.054	162.08	8.0854	154.19
#1	.00079	.00028	-.00245	-.00154	-.00079	.00037	-.00001
#2	.00068	.00269	-.00303	-.00112	.00005	.00042	.00030
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.00797	-.00310	.00058	.00081	.00318	.01065	
SDev	.00076	.00054	.00011	.00044	.00224	.00074	
%RSD	9.4765	17.369	18.527	54.637	70.475	6.9268	
#1	.00850	-.00348	.00051	.00112	.00476	.01013	
#2	.00743	-.00272	.00066	.00050	.00159	.01117	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14735	--	--	--	--	--	--
SDev	35.39125	--	--	--	--	--	--
%RSD	.2401796	--	--	--	--	--	--
#1	14710	--	--	--	--	--	--
#2	14760	--	--	--	--	--	--

05/31/00 00:05:51 AM

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Analysis Report

Method: METTRA Sample Name: DD7XPF

Operator: RJG

Run Time: 05/31/00 00:01:45

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00057	-.16725	.00633	.55885	-.00199	189.75	-.00031
SDev	.00056	.01431	.00024	.00477	.00043	2.62	.00034
%RSD	98.424	8.5535	3.7859	.85423	21.747	1.3790	109.88
#1	.00096	-.15713	.00650	.56222	-.00229	191.60	-.00007
#2	.00017	-.17737	.00617	.55547	-.00168	187.90	-.00055
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00036	.00072	.00553	4.0145	70.943	.27705	.00196
SDev	.00013	.00033	.00011	.0420	.755	.00289	.00002
%RSD	37.634	46.200	2.0194	1.0471	1.0642	1.0424	1.2462
#1	.00045	.00095	.00545	4.0443	71.477	.27909	.00194
#2	.00026	.00048	.00561	3.9848	70.409	.27501	.00198
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00378	.00096	-.00270	-.00148	-.00218	.00130	.00014
SDev	.00117	.00230	.00113	.00152	.00121	.00088	.00018
%RSD	30.934	239.49	41.766	102.43	55.366	67.635	130.79
#1	.00461	.00259	-.00191	-.00041	-.00133	.00068	.00001
#2	.00295	-.00067	-.00350	-.00256	-.00303	.00192	.00027
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	-.00013	-.00452	-.00306	-.00025	.00362	.00949	
SDev	.00421	.00365	.00384	.00159	.00049	.00016	
%RSD	3356.1	80.732	125.48	643.06	13.687	1.7195	
#1	-.00310	-.00711	L-.00577	.00088	.00397	.00938	
#2	.00285	-.00194	-.00034	-.00137	.00327	.00961	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14703	--	--	--	--	--	--
SDev	223.5169	--	--	--	--	--	--
%RSD	1.520202	--	--	--	--	--	--
#1	14545	--	--	--	--	--	--
#2	14861	--	--	--	--	--	--

Analysis Report

05/31/00 00:10:01 AM

Method: METTRA Sample Name: DD7XQF
Run Time: 05/31/00 00:05:55
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
Mode: CONC Corr. Factor: 1

Operator: RJG

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00066	-.18011	.00174	.03249	-.00133	251.35	-.00011
SDev	.00001	.00930	.00163	.00013	.00018	1.78	.00013
%RSD	1.3786	5.1634	93.462	.39592	13.585	.70893	116.86
#1	.00065	-.17353	.00059	.03240	-.00120	250.09	-.00002
#2	.00067	-.18668	.00289	.03258	-.00146	252.61	-.00020
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00097	.00120	.00657	L-.17565	170.44	.07033	.00213
SDev	.00003	.00006	.00029	.00604	1.04	.00059	.00038
%RSD	3.3783	4.9175	4.4020	3.4391	.60999	.83851	17.891
#1	.00099	.00124	.00677	L-.17992	169.71	.06991	.00239
#2	.00095	.00116	.00636	L-.17138	171.18	.07074	.00186
Errors	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03746	.00316	-.00370	-.00142	-.00310	.00070	-.00056
SDev	.00018	.00404	.00165	.00025	.00282	.00044	.00064
%RSD	.48036	128.09	44.540	17.415	90.887	62.990	114.08
#1	.03733	.00601	-.00487	-.00124	-.00510	.00102	-.00102
#2	.03759	.00030	-.00253	-.00159	-.00111	.00039	-.00011
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.00662	-.00447	-.00078	-.00073	.00723	.01413	
SDev	.00360	.00125	.00037	.00167	.00370	.00070	
%RSD	54.416	27.858	47.280	229.88	51.136	4.9354	
#1	.00916	-.00535	-.00052	-.00191	.00984	.01364	
#2	.00407	-.00359	-.00104	.00046	.00462	.01462	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	14945	--	--	--	--	--	--
SDev	71.70091	--	--	--	--	--	--
%RSD	.4797571	--	--	--	--	--	--
#1	14996	--	--	--	--	--	--
#2	14895	--	--	--	--	--	--

Analysis Report

05/31/00 00:14:11 AM

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Method: METTRA Sample Name: DD7XVF Operator: RJG
 Run Time: 05/31/00 00:10:05
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00017	-.18416	-.00046	.54534	-.00099	131.50	-.00017
SDev	.00015	.02336	.00030	.00284	.00021	.30	.00000
%RSD	87.158	12.685	65.319	.52095	21.542	.22992	.33728
#1	.00027	-.16764	-.00025	.54735	-.00114	131.71	-.00018
#2	.00006	L-.20068	-.00067	.54334	-.00084	131.29	-.00017
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00129	.00290	.00590	.45985	58.470	.08728	.00201
SDev	.00030	.00026	.00029	.01028	.191	.00012	.00109
%RSD	22.808	9.1114	4.9464	2.2352	.32702	.13794	54.042
#1	.00150	.00272	.00610	.45258	58.605	.08737	.00124
#2	.00108	.00309	.00569	.46712	58.335	.08720	.00278
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00985	.00286	-.00114	.00019	-.00038	.00125	.00071
SDev	.00040	.00074	.00046	.00055	.00162	.00018	.00042
%RSD	4.0076	25.763	40.388	286.10	428.68	14.286	59.102
#1	.01013	.00338	-.00081	.00058	-.00152	.00138	.00041
#2	.00957	.00234	-.00146	-.00020	.00077	.00112	.00101
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00642	-.00410	-.00060	.00682	.00368	.00937	
SDev	.00253	.00043	.00055	.00427	.00064	.00005	
%RSD	39.369	10.577	92.265	62.640	17.401	.58119	
#1	.00463	-.00380	-.00099	.00380	.00323	.00934	
#2	.00821	-.00441	-.00021	.00984	.00413	.00941	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	15170	--	--	--	--	--	--
SDev	54.44722	--	--	--	--	--	--
%RSD	.3589185	--	--	--	--	--	--
#1	15131	--	--	--	--	--	--
#2	15208	--	--	--	--	--	--

Analysis Report

05/31/00 00:18:21 AM

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Method: METTRA Sample Name: DD7XWF

Operator: RJG

Run Time: 05/31/00 00:14:15

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00539	-.18781	.00056	.04126	-.00116	432.12	.00099
SDev	.00050	.02505	.00042	.00022	.00012	2.19	.00013
%RSD	9.2174	13.338	74.598	.53311	10.530	.50770	13.340
#1	.00504	-.17010	.00085	.04141	-.00125	433.67	.00090
#2	.00574	L-.20553	.00026	.04110	-.00108	430.57	.00108
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.03211	.01007	.00916	22.474	109.99	H38.989	.02806
SDev	.00002	.00052	.00038	.069	.56	.119	.00092
%RSD	.05202	5.1991	4.2096	.30856	.50963	.30606	3.2854
#1	.03210	.00970	.00888	22.523	110.39	H39.073	.02871
#2	.03212	.01044	.00943	22.425	109.59	H38.905	.02741
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.26252	.00368	.00130	.00209	-.00538	.00090	-.00119
SDev	.00140	.00202	.00155	.00036	.00004	.00042	.00029
%RSD	.53245	54.849	119.15	17.313	.79826	46.444	24.652
#1	.26153	.00510	.00020	.00184	-.00535	.00120	-.00098
#2	.26351	.00225	.00240	.00235	-.00541	.00061	-.00140
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.01872	.00646	.01054	.04057	.00692	H21.099	
SDev	.00189	.00053	.00099	.00432	.00002	.115	
%RSD	10.124	8.2848	9.3725	10.651	.29196	.54269	
#1	.01738	.00608	.00984	.03751	.00694	H21.180	
#2	.02006	.00684	.01124	.04362	.00691	H21.018	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC High	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	15043	--	--	--	--	--	--
SDev	65.08904	--	--	--	--	--	--
%RSD	.4326830	--	--	--	--	--	--
#1	14997	--	--	--	--	--	--
#2	15089	--	--	--	--	--	--

Analysis Report

05/31/00 00:22:31 AM

page 1

Method: METTRA Sample Name: CCV3-6

Operator: RJG

Run Time: 05/31/00 00:18:25

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0437	24.656	.52258	2.0736	2.0767	52.290	.51493
SDev	.0048	.123	.00431	.0099	.0160	.387	.00447
%RSD	.45527	.49721	.82539	.47954	.77004	.74005	.86726
#1	1.0470	24.742	.52563	2.0806	2.0881	52.564	.51809
#2	1.0403	24.569	.51953	2.0665	2.0654	52.017	.51177
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	27.500	.55000	2.2000	2.2000	55.000	.55000
Low	.90000	22.500	.45000	1.8000	1.8000	45.000	.45000
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0753	2.0665	1.9592	25.552	49.065	2.0176	2.0531
SDev	.0120	.0114	.0116	.114	.272	.0064	.0025
%RSD	.57895	.55107	.58997	.44491	.55462	.31552	.12364
#1	2.0838	2.0745	1.9674	25.632	49.258	2.0221	2.0513
#2	2.0668	2.0584	1.9510	25.471	48.873	2.0131	2.0549
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.2000	2.2000	2.2000	27.500	55.000	2.2000	2.2000
Low	1.8000	1.8000	1.8000	22.500	45.000	1.8000	1.8000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.1284	.53194	.53151	.53165	.51743	.51676	.51698
SDev	.0191	.00086	.00340	.00255	.00502	.00173	.00282
%RSD	.89925	.16201	.63969	.48053	.97031	.33396	.54606
#1	2.1419	.53255	.53391	.53346	.52098	.51798	.51898
#2	2.1148	.53134	.52910	.52985	.51388	.51554	.51499
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	2.2000			.55000			.55000
Low	1.8000			.45000			.45000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.52098	.52785	.52556	1.0527	2.0814	2.1056	
SDev	.00090	.00525	.00320	.0106	.0171	.0127	
%RSD	.17342	.99510	.60939	1.0070	.82050	.60532	
#1	.52035	.53157	.52783	1.0602	2.0935	2.1146	
#2	.52162	.52414	.52330	1.0452	2.0694	2.0966	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.55000	1.1000	2.2000	2.2000	
Low			.45000	.90000	1.8000	1.8000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	15259	--	--	--	--	--	--
SDev	41.50661	--	--	--	--	--	--
%RSD	.2720060	--	--	--	--	--	--
#1	15230	--	--	--	--	--	--
#2	15289	--	--	--	--	--	--

Analysis Report

05/31/00 00:26:41 AM

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Method: METTRA Sample Name: CCB6

Operator: RJG

Run Time: 05/31/00 00:22:35

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00051	L-.23635	.00051	.00051	-.00034	.03945	.00005
SDev	.00012	.02174	.00126	.00002	.00005	.00733	.00001
%RSD	23.577	9.2000	246.48	4.2052	15.528	18.588	18.449
#1	.00059	L-.22098	-.00038	.00053	-.00038	.03427	.00006
#2	.00042	L-.25173	.00140	.00050	-.00030	.04464	.00004
Errors	LC Pass	LC Low	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00077	.00064	.00537	.00070	.01368	.00165	.00643
SDev	.00029	.00019	.00024	.00613	.00245	.00049	.00286
%RSD	37.335	30.086	4.5158	881.72	17.920	29.889	44.506
#1	.00097	.00078	.00520	-.00364	.01194	.00130	.00846
#2	.00056	.00051	.00554	.00503	.01541	.00200	.00441
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.02500	.10000	5.0000	.01500	.04000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00020	.00109	-.00294	-.00160	-.00242	.00076	-.00030
SDev	.00077	.00325	.00066	.00064	.00020	.00085	.00050
%RSD	386.61	297.55	22.410	40.127	8.2079	112.06	167.36
#1	.00035	.00338	-.00341	-.00114	-.00256	.00136	.00005
#2	-.00074	-.00120	-.00247	-.00205	-.00228	.00016	-.00065
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.04000			.00300			.06000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00677	-.00330	.00005	-.00018	.00359	.00435	
SDev	.00072	.00065	.00019	.00160	.00001	.00049	
%RSD	10.643	19.615	351.63	909.78	.22203	11.304	
#1	.00626	-.00284	.00019	.00096	.00359	.00400	
#2	.00728	-.00376	-.00008	-.00131	.00358	.00470	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.00500	.01000	.05000	.02000	
Low			-.00500	-.01000	-.05000	-.02000	

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Analysis Report

05/31/00 00:26:41 AM

page 2

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	15536	--	--	--	--	--	--
SDev	43.76950	--	--	--	--	--	--
%RSD	.2817322	--	--	--	--	--	--
#1	15505	--	--	--	--	--	--
#2	15567	--	--	--	--	--	--

Metals Preparation Log



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

Method: 3050B	Matrix: Soil	Start Time: 0835	SDG: —	Balance# 6131	Reagents: 10ml 1:1 HNO ₃ 5ml conc. HNO ₃ 10ml 30% H ₂ O ₂ 10ml conc. HCl
Analyst: <i>Shirley Greene</i>	Date: 5/30/00	Lot Number: COE240180	Lab Lot No. (book, page, line): 6014-089-1	MS	0014-110-5 0623V35058 Mallinckrodt 3240V19407 Mallinckrodt 3381N-11047 Mallinckrodt
Reviewed By: <i>Shirley</i>	Date: 5-30-00	COE260147	MS-BIREV		

Sample ID	Init Wt/Vol g/mL	Final Vol mL	Comments	Color		Clarity		Texture		Artifacts	Artifact Codes
				Pre	Post	Pre	Post	Pre	Post		
1. DD4X3	1.00g	100mL	SK S/GALV								S=Stones
2. DD4X33			+10ml MS-BIREV								O=Organic
3. DD4X3D			+10ml MS-BIREV								(plant mat)
4. DD4X6			EX S/GALV								W=free H ₂ O
5. DD4X6P											G=Glass
6. DD4X98											M=Metal Fragments
7. DD4X9C			+10ml MS-BIREV								R=Rubber/Plastic
8.											C=Cloth
9.											P=Paper
10.											I=Insects
11.											
12.											
13.											
14.			SK 5/30/00								
15.											
16.											
17.											
18.											
19.											
20.											
21.											
22.											
23.											
24.											

Digestate(s)	Date	Time	Digestate(s) Received		Location	Date	Time	Digestate(s) Relinquished		Location	Hot Plate /Block Temp	Correction	Color
			Analyst	Analyst				Analyst	Analyst				
All Above	5/30/00	1446	Shirley Greene	Shirley Greene	Met 103	5/30/00	1445	Shirley Greene	Shirley Greene	Met 103	175°C	-0.7°	R=Red BL=Blue BR=Brown BLK=Black Y=Yellow O=Orange
All Above	5/30/00	1845	Shirley Greene	Shirley Greene	Met 103	5/30/00	1945	Shirley Greene	Shirley Greene	Met 103			V=Violet P=Pink W=White GY=Gray GN=Green C=Colorless

Texture	Clarity
F=Fine	C=Clear
M=Medium	CL=Cloudy
C=Coarse	O=Opaque

659 524

PSR024 5/30/00 6:07:43 MT

SAMPLE CUSTODIAN REMOVAL REQUEST

PAGE 001

REQUESTED BY: KRANCES

METHOD: QM Inductively Coupled Plasma (6010B Trace)

<u>STORAGE LOCATION</u>	<u>WORK ORDER #</u>	<u>PICKED</u> <u>CNTR#</u>	<u>CONTROL #</u>	<u>CLIENT #</u>	<u>ANALYSIS</u>	<u>LOTID</u>	<u>SMP#</u>	<u>SFX</u>	<u>MATRIX</u> <u>DESCRIPTION</u>	<u>QTY</u> <u>RCVD</u>	<u>QTY</u> <u>REQD</u>
6A CLP1	DDLX3	___	237130	399411	A-46-QM	COE240180	001		SOLID	0	3 1
6A CLP1	DDLX6	___	237131	399411	A-46-QM	COE240180	002		SOLID	0	3 1
6E CLP1	DDRMP	___	237132	399411	A-46-QM	COE260147	001		SOLID	0	3 1

RELINQUISHED BYRECEIVED BYDATE/TIME

Ed M Faust
Suzanne Krance

Suzanne Krance
Ed M Faust

5/30/00 0835
5/30/00 1125

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

**TCLP
METALS DATA**

STL-Pittsburgh**Cover Page - Inorganic Analysis Data Package**

<u>Client ID</u>	<u>Lab Sample ID:</u>
<u>DF/S1/0146/SDC/004</u>	<u>DDRMPT</u>
<u>DF/S1/0146/SDC/004D</u>	<u>DDRMPDT</u>
<u>DF/S1/0146/SDC/004S</u>	<u>DDRMPST</u>

Comments: UXB, DUNN FIELD TCLP'S
C0E260147
6010B,7470A

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than conditions detailed above. Release of the data combined in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: _____

Name: _____

Date: _____

Title: _____

REVIEWED BY: <u>MTW</u>
DATE: <u>6-5-00</u>

**TCLP
METALS
RESULTS**

STL-Pittsburgh
Metals Data Reporting Form

Sample Results

Lab Sample ID: DDRMPT **Client ID:** DF/S1/0146/SDC/004
Matrix: Water **Units:** mg/L **Prep Date:** 6/1/00 **Prep Batch:** 0153093
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	6/1/00	11:45

Comments: Lot#: C0E260147 Sample#: 1

Version 3.63.4

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

Form 1 Equivalent

STL-Pittsburgh
Metals Data Reporting Form

Sample Results

Lab Sample ID: DDRMPT Client ID: DF/S1/0146/SDC/004
 Matrix: Water Units: mg/L Prep Date: 6/1/00 Prep Batch: 0153180
 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	0.12	B	1	ICP	6/1/00	18:55
Barium	493.41	0.00041	10.0	1.3	B	1	ICP	6/1/00	18:55
Cadmium	228.80	0.0028	0.10	0.0030	B	1	ICP	6/1/00	18:55
Chromium	267.72	0.0038	0.50	0.0038	U	1	ICP	6/1/00	18:55
Lead	220.35	0.025	0.50	0.025	U	1	ICP	6/1/00	18:55
Selenium	196.03	0.067	0.25	0.067	U	1	ICP	6/1/00	18:55
Silver	328.07	0.0031	0.50	0.0031	U	1	ICP	6/1/00	18:55

Comments: Lot#: C0E260147 Sample#: 1

Version 3.63.4

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

Form 1 Equivalent

659 530

STL-Pittsburgh

Metals Data Reporting Form

Initial Calibration Verification Standard

Instrument: CVAAUnits: ug/LChart Number: 0601HGA.PRNAcceptable Range: 90% - 110%Standard Source: UltraStandard ID: 0014-118-10

Element	WL/ Mass	True Conc	ICV5-1 6/1/00 10:12 AM									
			Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Mercury	253.7	2.5	2.52	100.8								

Metals Data Reporting Form

Initial Calibration Verification Standard

Instrument: ICPUnits: ug/LChart Number: J00601C.ARCAcceptable Range: 90% - 110%Standard Source: Inorganic VenturesStandard ID: 0014-119-2

Element	WL/ Mass	True Conc	ICV2-1 6/1/00 6:03 PM									
			Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Arsenic	193.696	1000.0	993.87	99.4								
Barium	493.409	1000.0	996.70	99.7								
Cadmium	228.802	1000.0	1013.62	101.4								
Chromium	267.716	1000.0	1010.55	101.1								
Lead	220.353	1000.0	991.60	99.2								
Selenium	196.026	1000.0	1001.56	100.2								
Silver	328.068	500.0	504.02	100.8								

Metals Data Reporting Form

Continuing Calibration Verification

Instrument: CVAAUnits: ug/LChart Number: 0601HGA.PRNAcceptable Range: 80% - 120%Standard Source: Inorganic VenturesStandard ID: 0014-118-12

Element	WL/ Mass	True Conc	CCV5-1 6/1/00 10:18 AM		CCV5-2 6/1/00 10:42 AM		CCV5-3 6/1/00 11:08 AM		CCV5-4 6/1/00 11:34 AM		CCV5-5 6/1/00 11:58 AM	
			Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Mercury	253.7	5.0	4.99	99.8	5.05	101.0	5.06	101.2	4.99	99.8	4.96	99.2

Metals Data Reporting Form

Continuing Calibration Verification

Instrument: ICPUnits: ug/LChart Number: J00601C.ARCAcceptable Range: 90% - 110%Standard Source: Inorganic VenturesStandard ID: 0014-087-7

Element	WL/ Mass	True Conc	CCV2-1 6/1/00 6:36 PM		CCV2-2 6/1/00 7:14 PM							
			Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Arsenic	193.696	5000.0	5036.32	100.7	4916.52	98.3						
Barium	493.409	5000.0	4907.07	98.1	4871.01	97.4						
Cadmium	228.802	5000.0	5019.54	100.4	4951.18	99.0						
Chromium	267.716	5000.0	4918.07	98.4	4838.16	96.8						
Lead	220.353	5000.0	4963.23	99.3	4866.41	97.3						
Selenium	196.026	5000.0	5071.20	101.4	5073.76	101.5						
Silver	328.068	1000.0	995.08	99.5	978.97	97.9						

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STL-Pittsburgh

Metals Data Reporting Form

Initial Calibration Blank Results

Instrument: CVAAUnits: ug/LChart Number: 0601HGA.PRN

Standard Source: _____

Standard ID: _____

Element	WL/ Mass	Report Limit	ICB1 6/1/00 10.14 AM							
			Found	Q	Found	Q	Found	Q	Found	Q
Mercury	253.7	0.2	0.0	U						

STL-Pittsburgh

Metals Data Reporting Form

Initial Calibration Blank Results

Instrument: ICPUnits: ug/LChart Number: J00601C.ARC

Standard Source: _____

Standard ID: _____

Element	WL/ Mass	Report Limit	ICB1 6/1/00 6:06 PM							
			Found	Q	Found	Q	Found	Q	Found	Q
Arsenic	193.696	500	30.3	U						
Barium	493.409	10000	0.4	U						
Cadmium	228.802	100	2.8	U						
Chromium	267.716	500	3.8	U						
Lead	220.353	500	24.6	U						
Selenium	196.026	250	67.4	U						
Silver	328.068	500	3.1	U						

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STL-Pittsburgh

Metals Data Reporting Form

Continuing Calibration Blank Results

Instrument: CVAAUnits: ug/LChart Number: 0601HGA.PRN

Standard Source: _____

Standard ID: _____

Element	WL/ Mass	Report Limit	CCB1 6/1/00 10:20 AM	CCB2 6/1/00 10:44 AM	CCB3 6/1/00 11:10 AM	CCB4 6/1/00 11:36 AM	CCB5 6/1/00 12:00 PM
			Found Q	Found Q	Found Q	Found Q	Found Q
Mercury	253.7	0.2	-0.1 B	0.0 U	-0.1 B	-0.1 B	-0.1 B

STL-Pittsburgh

Metals Data Reporting Form

Continuing Calibration Blank Results

Instrument: ICPUnits: ug/LChart Number: J00601C.ARC

Standard Source: _____

Standard ID: _____

Element	WL/ Mass	Report Limit	CCB1 6/1/00 6:39 PM	CCB2 6/1/00 7:17 PM	Found	Q	Found	Q	Found	Q
			Found	Q						
Arsenic	193.696	500	30.3	U	31.7	B				
Barium	493.409	10000	0.5	B	0.4	U				
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				
Selenium	196.026	250	67.4	U	67.4	U				
Silver	328.068	500	3.1	U	3.1	U				

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STL-Pittsburgh

Metals Data Reporting Form

Preparation Blank Results

Lab Sample ID: DE07ABTMatrix: Water Units: mg/L Prep Date: 6/1/00 Prep Batch: 0153093Weight: 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	0.000062	B	1	CVAA	6/1/00	11:43

Comments: _____

Version 3.63.4

U Result is less than the MDL

B Result is between MDL and RL

Form 3 Equivalent

STL-Pittsburgh
Metals Data Reporting Form

Preparation Blank Results**Lab Sample ID:** DE1ELBT**Matrix:** Water **Units:** mg/L **Prep Date:** 6/1/00 **Prep Batch:** 0153093**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	6/1/00	11:38

Comments: _____

659 540

STL-Pittsburgh

Metals Data Reporting Form

Preparation Blank Results

Lab Sample ID: DE07ABTMatrix: Water Units: mg/L Prep Date: 6/1/00 Prep Batch: 0153180Weight: 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	0.094	B	1	ICP	6/1/00	18:46
Barium	493.409	0.00041	10.0	0.0086	B	1	ICP	6/1/00	18:46
Cadmium	228.802	0.0028	0.10	0.0028	U	1	ICP	6/1/00	18:46
Chromium	267.716	0.0038	0.50	0.0038	U	1	ICP	6/1/00	18:46
Lead	220.353	0.025	0.50	0.025	U	1	ICP	6/1/00	18:46
Selenium	196.026	0.067	0.25	0.067	U	1	ICP	6/1/00	18:46
Silver	328.068	0.0031	0.50	0.0031	U	1	ICP	6/1/00	18:46

Comments: _____

Version 3.63.4

U Result is less than the MDL

B Result is between MDL and RL

Form 3 Equivalent

STL-Pittsburgh
Metals Data Reporting Form

Preparation Blank Results
Lab Sample ID: DE1PMBT
Matrix: Water **Units:** mg/L **Prep Date:** 6/1/00 **Prep Batch:** 0153180
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	6/1/00	18:43
Barium	493.409	0.00041	10.0	0.00041	U	1	ICP	6/1/00	18:43
Cadmium	228.802	0.0028	0.10	0.0028	U	1	ICP	6/1/00	18:43
Chromium	267.716	0.0038	0.50	0.0038	U	1	ICP	6/1/00	18:43
Lead	220.353	0.025	0.50	0.025	U	1	ICP	6/1/00	18:43
Selenium	196.026	0.067	0.25	0.067	U	1	ICP	6/1/00	18:43
Silver	328.068	0.0031	0.50	0.0031	U	1	ICP	6/1/00	18:43

Comments: _____

Version 3.63.4

U Result is less than the MDL

B Result is between MDL and RL

Form 3 Equivalent

659 542

STL-Pittsburgh

Metals Data Reporting Form

Interference Check Standard A

Instrument: ICPUnits: ug/LChart Number: J00601C.ARCAcceptable Range: 0% - 0%Standard Source: Inorganic VenturesStandard ID: 0014-088-12

Element	WL/ Mass	Reporting Limit	True Conc	ICSA 6/1/00 6:09 PM	Found	Found	Found	Found	Found
				Found					
Arsenic	193.696	500		-87					
Barium	493.409	10000		2					
Cadmium	228.802	100		-3					
Chromium	267.716	500		0					
Lead	220.353	500		100					
Selenium	196.026	250		93					
Silver	328.068	500		-3					

Metals Data Reporting Form

Interference Check Standard AB

Instrument: ICPUnits: ug/LChart Number: J00601C.ARCAcceptable Range: 80% - 120%Standard Source: Inorganic VenturesStandard ID: 0014-104-1

Element	WL/ Mass	True Conc	ICSAB 6/1/00 6:12 PM									
			Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Arsenic	193.696	1000	873.1	87.3								
Barium	493.409	500	460.0	92.0								
Cadmium	228.802	1000	949.6	95.0								
Chromium	267.716	500	436.1	87.2								
Lead	220.353	1000	973.6	97.4								
Selenium	196.026	1000	1004.3	100.4								
Silver	328.068	1000	950.1	95.0								

659 544

STL-Pittsburgh
Metals Data Reporting Form

Matrix Spike Sample ResultsSpike Sample ID: DDRMPSTOriginal Sample ID: DDRMPTClient ID: DF/S1/0146/SDC/004SMatrix: WaterUnits: mg/LPrep Date: 6/1/00Prep Batch: 0153093Weight: NAVolume: 100Percent 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	0.0048		0.005	95.4	1	1	CVAA	6/1/00	11:45	6/1/00	11:47

Comments: _____

Version 3.63.4

U Result is less than the MDL

B Result is between MDL and RL

N Spike recovery failed

NC Percent recovery was not calculated

* Duplicate analysis RPD was not within limits

Form 5A Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Matrix Spike Duplicate Sample Results

Spike Sample ID: DDRMPDTOriginal Sample ID: DDRMPT Client ID: DF/S1/0146/SDC/004DMatrix: Water Units: mg/L Prep Date: 6/1/00 Prep Batch: 0153093Weight: 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	0.0048		0.005	96.4	1	1	CVAA	6/1/00	11:45	6/1/00	11.50

Comments: _____

Version 3.63.4

U Result is less than the MDL

B Result is between MDL and RL

N Spike recovery failed

NC Percent recovery was not calculated

* Duplicate analysis RPD was not within limits

Form 5A Equivalent

659 546

STL-Pittsburgh

Metals Data Reporting Form

Matrix Spike Sample Results

Spike Sample ID: DDRMPTOriginal Sample ID: DDRMPT Client ID: DF/S1/0146/SDC/004SMatrix: Water Units: mg/L Prep Date: 6/1/00 Prep Batch: 0153180Weight: 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	0.12	B	4.8		5	92.7	1	1	ICP	6/1/00	18:55	6/1/00	19:01
Barium	493.4	1.3	B	43.6		50	84.6	1	1	ICP	6/1/00	18:55	6/1/00	19:01
Cadmium	228.8	0.0030	B	0.95		1	94.9	1	1	ICP	6/1/00	18:55	6/1/00	19:01
Chromium	267.7	0.0038	U	4.2		5	84.2	1	1	ICP	6/1/00	18:55	6/1/00	19:01
Lead	220.4	0.025	U	4.4		5	87.4	1	1	ICP	6/1/00	18:55	6/1/00	19:01
Selenium	196.0	0.067	U	0.97		1	97.2	1	1	ICP	6/1/00	18:55	6/1/00	19:01
Silver	328.1	0.0031	U	0.91		1	91.1	1	1	ICP	6/1/00	18:55	6/1/00	19:01

Comments: _____

Version 3 63.4

U Result is less than the MDL

B Result is between MDL and RL

N Spike recovery failed

NC Percent recovery was not calculated

* Duplicate analysis RPD was not within limits

Form 5A Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Matrix Spike Duplicate Sample Results

Spike Sample ID: DDRMPDT

Original Sample ID: DDRMPT Client ID: DF/S1/0146/SDC/004D

Matrix: Water Units: mg/L Prep Date: 6/1/00 Prep Batch: 0153180

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	0.12	B	4.8		5	93.0	1	1	ICP	6/1/00	18:55	6/1/00	19:04
Barium	493.4	1.3	B	43.3		50	84.0	1	1	ICP	6/1/00	18:55	6/1/00	19:04
Cadmium	228.8	0.0030	B	0.94		1	93.7	1	1	ICP	6/1/00	18:55	6/1/00	19:04
Chromium	267.7	0.0038	U	4.2		5	83.0	1	1	ICP	6/1/00	18:55	6/1/00	19:04
Lead	220.4	0.025	U	4.3		5	86.2	1	1	ICP	6/1/00	18:55	6/1/00	19:04
Selenium	196.0	0.067	U	0.98		1	97.8	1	1	ICP	6/1/00	18:55	6/1/00	19:04
Silver	328.1	0.0031	U	0.90		1	90.0	1	1	ICP	6/1/00	18:55	6/1/00	19:04

Comments: _____

Version 3.63.4

U Result is less than the MDL

Form 5A Equivalent

B Result is between MDL and RL

N Spike recovery failed

NC Percent recovery was not calculated

* Duplicate analysis RPD was not within limits

659 548

STL-Pittsburgh

Metals Data Reporting Form

Matrix Spike Duplicate RPD Report

Matrix Spike Duplicate Sample ID: DDRMPDTMatrix Spike Sample ID: DDRMPST Client ID: DF/S1/0146/SDC/004DMatrix: Water Units: mg/L Prep Date: 6/1/00 Prep Batch: 0153093Weight: 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	0.0048		0.0048		1.0 %	1	1	CVAA	6/1/00	11:47	6/1/00	11:50

Comments: _____

Version 3.63.4

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

Form 6 Equivalent

STL-Pittsburgh

Metals Data Reporting Form

Matrix Spike Duplicate RPD Report

Matrix Spike Duplicate Sample ID: DDRMPDTMatrix Spike Sample ID: DDRMPST Client ID: DF/S1/0146/SDC/004DMatrix: Water Units: mg/L Prep Date: 6/1/00 Prep Batch: 0153180Weight: 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	4.8		4.8		0.3 %	1	1	ICP	6/1/00	19:01	6/1/00	19:04
Barium	493.409	43.6		43.3		0.7 %	1	1	ICP	6/1/00	19:01	6/1/00	19:04
Cadmium	228.802	0.95		0.94		1.4 %	1	1	ICP	6/1/00	19:01	6/1/00	19:04
Chromium	267.716	4.2		4.2		1.5 %	1	1	ICP	6/1/00	19:01	6/1/00	19:04
Lead	220.353	4.4		4.3		1.3 %	1	1	ICP	6/1/00	19:01	6/1/00	19:04
Selenium	196.026	0.97		0.98		0.6 %	1	1	ICP	6/1/00	19:01	6/1/00	19:04
Silver	328.068	0.91		0.90		1.2 %	1	1	ICP	6/1/00	19:01	6/1/00	19:04

Comments: _____

Version 3.63.4

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

Form 6 Equivalent

659 550

STL-Pittsburgh

Metals Data Reporting Form

Laboratory Control Sample Results

Lab Sample ID: DE1ELCTMatrix: Water Units: mg/L Prep Date: 6/1/00 Prep Batch: 0153093Weight: 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	0.0026	103.6		80-120	1	CVAA	6/1/00	11:41

Comments: _____

Version 3.63 4

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: DEIPMCTMatrix: Water Units: mg/L Prep Date: 6/1/00 Prep Batch: 0153180Weight: 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	2.1	105.1		80-120	1	ICP	6/1/00	18:49
Barium	493.409	2.0	1.8	90.4	B	80-120	1	ICP	6/1/00	18:49
Cadmium	228.802	0.050	0.048	95.4	B	80-120	1	ICP	6/1/00	18:49
Chromium	267.716	0.20	0.19	93.0	B	80-120	1	ICP	6/1/00	18:49
Lead	220.353	0.50	0.45	89.9	B	80-120	1	ICP	6/1/00	18:49
Selenium	196.026	2.0	2.1	106.4		80-120	1	ICP	6/1/00	18:49
Silver	328.068	0.050	0.045	90.3	B	80-120	1	ICP	6/1/00	18:49

Comments: _____

Version 3.63.4

U Result is less than the MDL

Form 7 Equivalent

B Result is between MDL and RL

659 552

STL-Pittsburgh

Metals Data Reporting Form

Serial Dilution RPD Report

Serial Dilution Sample ID: DDRMPPTOriginal Sample ID: DDRMPT Client ID: DF/S1/0146/SDC/004Matrix: Water Units: mg/L Prep Date: 6/1/00 Prep Batch: 0153180Weight: 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	0.12	B	0.15	U		1	5	ICP	6/1/00	18:55	6/1/00	18:58
Barium	493.409	1.3	B	1.3	B	5.2 %	1	5	ICP	6/1/00	18:55	6/1/00	18:58
Cadmium	228.802	0.0030	B	0.014	U		1	5	ICP	6/1/00	18:55	6/1/00	18:58
Chromium	267.716	0.0038	U	0.019	U		1	5	ICP	6/1/00	18:55	6/1/00	18:58
Lead	220.353	0.025	U	0.12	U		1	5	ICP	6/1/00	18:55	6/1/00	18:58
Selenium	196.026	0.067	U	0.34	U		1	5	ICP	6/1/00	18:55	6/1/00	18:58
Silver	328.068	0.0031	U	0.016	U		1	5	ICP	6/1/00	18:55	6/1/00	18:58

Comments: _____

Version 3.63.4

U Result is less than the MDL

B Result is between MDL and RL

E Serial dilution percent difference not within limits

Form 9 Equivalent

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

659 554

STL-Pittsburgh

Metals Data Reporting Form

Instrument Detection Limits

Instrument: ICPUnits: ppb

Element	Wavelength /Mass	Reporting Limit	MDL	Date of MDL
Arsenic	193.70	500	30.3	4/1/00
Barium	493.41	10000	0.41	4/1/00
Cadmium	228.80	100	2.8	4/1/00
Chromium	267.72	500	3.8	4/1/00
Lead	220.35	500	24.6	4/1/00
Selenium	196.03	250	67.4	4/1/00
Silver	328.07	500	3.1	4/1/00

STL-Pittsburgh

Metals Data Reporting Form

Inter-Element Correction Factors

Instrument: ICPDate of IEC's: 3/27/00

Interfering Element	Wavelength /Mass	Correction Factor(s)
Aluminum	308.215	As(0.008365), Mn(0.00002), Pb(0.000527)
Antimony	206.838	Ni(-0.000449), Pb(-0.001338), Sn(-0.004668)
Arsenic	193.696	Cd(0.011196)
Barium	493.409	Co(0.000506)
Beryllium	313.042	Cd(0.008625)
Cadmium	228.802	Co(0.002633)
Chromium	267.716	Pb(-0.000686), Sb(0.008213), V(-0.001979)
Cobalt	228.616	Al(-0.014067), B(0.00201), Cd(-0.004523), Cu(-0.00091), Pb(-0.027395), Sb(-0.003935), Tl(0.007862)
Copper	324.754	Zn(0.00466)
Iron	259.94	Ag(-0.000239), As(0.001314), B(-0.001921), Cd(-0.000034), Cu(-0.00008), Mn(-0.000288), Mo(-0.00015), Pb(0.000225), Se(-0.003656), Sn(-0.00019), Tl(0.010326), Zn(0.000098)
Manganese	257.61	Ag(0.000201), Tl(-0.005634)
Molybdenum	202.03	Al(0.008699), Cr(-0.000292), Mn(-0.00033), Sb(0.005808), V(-0.019318)
Nickel	231.604	Cd(-0.000409), Sb(-0.009092), Zn(0.003263)
Tin	189.989	Sb(0.002262)
Titanium	334.941	Co(0.001637), Fe(-0.003475), Sb(0.001696), Sn(0.003624)
Vanadium	292.402	Ag(-0.005069), Al(0.012877), As(0.017242), Be(0.00265), Cd(0.000094), Cr(0.000568), Sb(-0.003793), Si(-0.012762), Tl(0.007148), Zn(-0.004494)

659 556

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

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STL-Pittsburgh

Metals Data Reporting Form

Preparation Log

Preparation Batch: 0153093

Instrument: CVAA

Matrix: Water

Sample ID	Prep Date	Weight (g)	Volume (ml)	% Moisture
DE07ABT	6/1/00	NA	100	NA
DE1ELBT	6/1/00	NA	100	NA
DE1ELCT	6/1/00	NA	100	NA
DDRMPDT	6/1/00	NA	100	NA
DDRMPST	6/1/00	NA	100	NA
DDRMPPT	6/1/00	NA	100	NA

Metals Data Reporting Form

Preparation LogPreparation Batch: 0153180 Instrument: ICP Matrix: Water

Sample ID	Prep Date	Weight (g)	Volume (ml)	% Moisture
DE07ABT	6/1/00	NA	50	NA
DE1PMBT	6/1/00	NA	50	NA
DE1PMCT	6/1/00	NA	50	NA
DDRMPDT	6/1/00	NA	50	NA
DDRMPST	6/1/00	NA	50	NA
DDRMPPT	6/1/00	NA	50	NA

STL-Pittsburgh

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Metals Data Reporting Form

Instrument Runlog

Instrument: CVAA

Chart Number: 0601HGA.PRN

Sample Name	Date of Analysis	Time of Analysis
Std1Rep1	6/1/00	9:59 AM
Std2Rep1	6/1/00	10:01 AM
Std3Rep1	6/1/00	10:03 AM
Std4Rep1	6/1/00	10:05 AM
Std5Rep1	6/1/00	10:07 AM
Std6Rep1	6/1/00	10:09 AM
ICV5-1	6/1/00	10:12 AM
ICB1	6/1/00	10:14 AM
ZZZZZZ	6/1/00	10:16 AM
CCV5-1	6/1/00	10:18 AM
CCB1	6/1/00	10:20 AM
ZZZZZZ	6/1/00	10:22 AM
ZZZZZZ	6/1/00	10:24 AM
ZZZZZZ	6/1/00	10:26 AM
ZZZZZZ	6/1/00	10:28 AM
ZZZZZZ	6/1/00	10:30 AM
ZZZZZZ	6/1/00	10:32 AM
ZZZZZZ	6/1/00	10:34 AM
ZZZZZZ	6/1/00	10:36 AM
ZZZZZZ	6/1/00	10:39 AM
ZZZZZZ	6/1/00	10:40 AM
CCV5-2	6/1/00	10:42 AM
CCB2	6/1/00	10:44 AM
ZZZZZZ	6/1/00	10:47 AM
ZZZZZZ	6/1/00	10:49 AM
ZZZZZZ	6/1/00	10:51 AM
ZZZZZZ	6/1/00	10:53 AM
ZZZZZZ	6/1/00	10:56 AM
ZZZZZZ	6/1/00	10:58 AM
ZZZZZZ	6/1/00	11:00 AM
ZZZZZZ	6/1/00	11:02 AM
ZZZZZZ	6/1/00	11:05 AM
ZZZZZZ	6/1/00	11:06 AM
CCV5-3	6/1/00	11:08 AM
CCB3	6/1/00	11:10 AM
ZZZZZZ	6/1/00	11:13 AM
ZZZZZZ	6/1/00	11:15 AM
ZZZZZZ	6/1/00	11:17 AM
ZZZZZZ	6/1/00	11:19 AM
ZZZZZZ	6/1/00	11:21 AM
ZZZZZZ	6/1/00	11:23 AM

Metals Data Reporting Form

Instrument Runlog

Instrument: CVAAChart Number: 0601HGA.PRN

Sample Name	Date of Analysis	Time of Analysis
ZZZZZZ	6/1/00	11:26 AM
ZZZZZZ	6/1/00	11:28 AM
ZZZZZZ	6/1/00	11:30 AM
ZZZZZZ	6/1/00	11:32 AM
CCV5-4	6/1/00	11:34 AM
CCB4	6/1/00	11:36 AM
DE1ELBT	6/1/00	11:38 AM
DE1ELCT	6/1/00	11:41 AM
DE07ABT	6/1/00	11:43 AM
DDRMPT	6/1/00	11:45 AM
DDRMPST	6/1/00	11:47 AM
DDRMPDT	6/1/00	11 50 AM
ZZZZZZ	6/1/00	11:52 AM
ZZZZZZ	6/1/00	11:53 AM
ZZZZZZ	6/1/00	11:56 AM
CCV5-5	6/1/00	11:58 AM
CCB5	6/1/00	12:00 PM

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STL-Pittsburgh
Metals Data Reporting Form

Instrument Runlog

Instrument: ICPChart Number: J00601C.ARC

Sample Name	Date of Analysis	Time of Analysis
ZZZZZZ	6/1/00	5:17 PM
ZZZZZZ	6/1/00	5:20 PM
ZZZZZZ	6/1/00	5:23 PM
ZZZZZZ	6/1/00	5:27 PM
ZZZZZZ	6/1/00	5:34 PM
ZZZZZZ	6/1/00	5:37 PM
ZZZZZZ	6/1/00	5:40 PM
ZZZZZZ	6/1/00	5:43 PM
STD1	6/1/00	5:53 PM
STD5A	6/1/00	5:56 PM
STD5B	6/1/00	6:00 PM
ICV2-1	6/1/00	6:03 PM
ICB1	6/1/00	6:06 PM
ICSA	6/1/00	6:09 PM
ICSAB	6/1/00	6:12 PM
ZZZZZZ	6/1/00	6:18 PM
ZZZZZZ	6/1/00	6:21 PM
ZZZZZZ	6/1/00	6:24 PM
ZZZZZZ	6/1/00	6:27 PM
ZZZZZZ	6/1/00	6:30 PM
ZZZZZZ	6/1/00	6:33 PM
CCV2-1	6/1/00	6:36 PM
CCB1	6/1/00	6:39 PM
DE1PMBT	6/1/00	6:43 PM
DE07ABT	6/1/00	6:46 PM
DE1PMCT	6/1/00	6:49 PM
ZZZZZZ	6/1/00	6:52 PM
DDRMPT	6/1/00	6:55 PM
DDRMPPT	6/1/00	6:58 PM
DDRMPST	6/1/00	7:01 PM
DDRMPDT	6/1/00	7:04 PM
ZZZZZZ	6/1/00	7:08 PM
ZZZZZZ	6/1/00	7:11 PM
CCV2-2	6/1/00	7:14 PM
CCB2	6/1/00	7:17 PM
ZZZZZZ	6/1/00	7:20 PM
ZZZZZZ	6/1/00	7:23 PM
ZZZZZZ	6/1/00	7:26 PM
ZZZZZZ	6/1/00	7:29 PM
ZZZZZZ	6/1/00	7:33 PM
ZZZZZZ	6/1/00	7:36 PM

Metals Data Reporting Form

Instrument Runlog

Instrument: ICPChart Number: J00601C.ARC

Sample Name	Date of Analysis	Time of Analysis
ZZZZZZ	6/1/00	7:39 PM
ZZZZZZ	6/1/00	7:42 PM
ZZZZZZ	6/1/00	7:45 PM
ZZZZZZ	6/1/00	7:48 PM
ZZZZZZ	6/1/00	7:51 PM
ZZZZZZ	6/1/00	7:54 PM
ZZZZZZ	6/1/00	7:58 PM
ZZZZZZ	6/1/00	8:01 PM
ZZZZZZ	6/1/00	8:05 PM
ZZZZZZ	6/1/00	8:08 PM

659 564

**TCLP
METALS
RAW DATA**

Re-run 6/1/00

#	Sample Name	AG	AS	BA	CD	CR	PB
1	STD1	-.00039	-.00054	.00007	-.0001	.00069	.00034
2	STD5A	.28044	.59135	4.4416	.94655	3.96189	.27625
3	STD5B						
4	ICV2-1 0014-119-2	.50402	.99387	.99670	1.0136	1.0106	.99160
5	ICB1	.00068	.02314	-.00001	.00263	-.00012	-.00705
6	ICSA 0014-088-12	-.00291	-.08689	.00189	-.00249	.00024	.10007
7	ICSAB 0014-104-1	.95010	.87312	.45998	.94960	.43610	.97357
8	DE00VB	-.00174	.00596	.00000	.00260	.00012	-.00530
9	DE00VC	.04605	1.9678	1.9929	.04984	.19420	.51772
10	DDGW6	.00203	.24533	.50397	.05102	.05580	.26664
11	DDGW6P5	-.00119	.06142	.10127	.01164	.01186	.04908
12	DDGW6S	.05051	2.1798	2.4824	.09277	.24875	.75428
13	DDGW6D	.05085	2.1970	2.4688	.09486	.24723	.74547
14	CCV2-1 0014-087-7	.99508	5.0363	4.9071	5.0195	4.9181	4.9632
15	CCB1	-.00104	-.02154	.00045	.00247	.00025	-.00350
16	DE1PMBT	-.00243	.00683	.00017	.00015	.00063	-.00170
17	DE07ABT	-.00209	.09444	.00862	.00001	.00277	.01057
18	DE1PMCT	.04515	2.1027	1.8081	.04769	.18597	.44942
19	DDLFR	-.00243	.06858	.00310	.00147	.00012	-.00178
20	DDRMPT	-.00378	.12313	1.2728	.00301	.00088	.01579
21	DDRMPP5T	-.00173	.02115	.26774	-.00035	-.00176	-.00175
22	DDRMPT	.91085	4.7584	43.579	.95243	4.2104	4.3703
23	DDRMPT	.90008	4.7721	43.284	.93963	4.1494	4.3123
24	DDVK9T	-.00583	.09838	.16749	-.00056	.00075	.02464
25	DDVKAT	~~-.00454~~	~~.09378~~	~~.44348~~	~~.00122~~	~~.00227~~	~~.26387~~
26	CCV2-2	.97897	4.9165	4.8710	4.9512	4.8382	4.8664
27	CCB2	.00000	.03166	.00040	.00229	.00088	-.00523
28	DE215B	-.00313	.01031	.00024	.00262	-.00176	-.01584
29	DE215C	.04421	1.8924	1.9686	.04916	.18937	.47452
30	DDXEG	-.00261	.01731	1.8671	-.00004	.19051	.35750
31	DDXEGP5	-.00377	-.00879	.40497	.00143	.04011	.04894
32	DDXEGS	.04344	1.6206	3.5173	.04921	.29434	.62779
33	DDXEGD	.04065	1.6462	3.4764	.04768	.86993	.72061
34	DDXEH	-.00129	-.04590	1.9686	.00379	.06152	.26569
35	DDXEK	.00030	.14174	2.0132	.00697	.13446	3.7868
36	DDXEM	-.00183	.10623	1.3641	.00227	.18892	.67174
37	DDXEP	-.00323	.14381	1.2272	-.00233	.12329	.52813
38	CCV2-3	.99343	4.9900	4.8752	5.0553	4.8927	4.9646
39	CCB3	-.00104	.00855	.00017	.00084	-.00125	-.01587
40	DDVKAT Rerun	-.00414	.08400	.44370	.00309	.00429	.28323
41	DDXEP/2 Fe	-.00256	.04957	.64240	.00058	.06277	.26615
42	CCV2-4	.99143	4.9610	4.9445	5.0211	4.8760	4.9518
43	CCB4	-.00347	.01711	.00045	.00203	.00025	-.00530

*Used
Printer
jam - raw
data pages
illegible.
see rerun
PB 6/1/00*

#	Sample Name	SE
1	STD1	-.00025
2	STD5A	.57054
3	STD5B	
4	ICV2-1 0014-119-2	1.0016
5	ICB1	.00351
6	ICSA 0014-088-12	.09271

#	Sample Name	SE
7	ICSAB 0014-104-1	1.0043
8	DE00VB	.01584
9	DE00VC	2.0002
10	DDGW6	.00224
11	DDGW6P5	.00396
12	DDGW6S	1.9232
13	DDGW6D	1.9818
14	CCV2-1 0014-087-7	5.0712
15	CCB1	.02453
16	DE1PMBT	.00527
17	DE07ABT	-.02972
18	DE1PMCT	2.1278
19	DDLFR	.00005
20	DDRMPT	.00657
21	DDRMPP5T	.02023
22	DDRMPS	.97186
23	DDRMPT	.97799
24	DDVK9T	.02106
25	DDVKAT	~~.04079~~
26	CCV2-2	5.0738
27	CCB2	.01753
28	DE215B	-.00173
29	DE215C	1.9326
30	DDXEG	.05695
31	DDXEGP5	.00339
32	DDXEGS	1.8176
33	DDXEGD	1.6752
34	DDXEH	.09502
35	DDXEK	.11309
36	DDXEM	.08721
37	DDXEP	.10437
38	CCV2-3	4.9782
39	CCB3	.00264
40	DDVKAT Rerun	.00738
41	DDXEP/2 Fe	.07074
42	CCV2-4	5.0908
43	CCB4	.01052

VOID: printer jam - raw data
pages illegible - see rerun
PB 6-1-00

RB 6100

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
1	STD1	J00601C	QUANMET	06/01/00	17:53		X	IR
2	STD5A	J00601C	QUANMET	06/01/00	17:56		X	IR
3	STD5B	J00601C	QUANMET	06/01/00	18:00		X	IR
4	ICV2-1 0014-119-2	J00601C	QUANMET	06/01/00	18:03	RJG	S	CONC
5	ICB1	J00601C	QUANMET	06/01/00	18:06	RJG	S	CONC
6	ICSA 0014-088-12	J00601C	QUANMET	06/01/00	18:09	RJG	Q	CONC
7	ICSAB 0014-104-1	J00601C	QUANMET	06/01/00	18:12	RJG	Q	CONC
8	DE00VB	J00601C	QUANMET	06/01/00	18:18	RJG	S	CONC
9	DE00VC	J00601C	QUANMET	06/01/00	18:21	RJG	S	CONC
10	DDGW6	J00601C	QUANMET	06/01/00	18:24	RJG	S	CONC
11	DDGW6P5	J00601C	QUANMET	06/01/00	18:27	RJG	S	CONC
12	DDGW6S	J00601C	QUANMET	06/01/00	18:30	RJG	S	CONC
13	DDGW6D	J00601C	QUANMET	06/01/00	18:33	RJG	S	CONC
14	CCV2-1 0014-087-7	J00601C	QUANMET	06/01/00	18:36	RJG	S	CONC
15	CCB1	J00601C	QUANMET	06/01/00	18:39	RJG	S	CONC
16	DE1PMBT	J00601C	QUANMET	06/01/00	18:43	RJG	S	CONC
17	DE07ABT	J00601C	QUANMET	06/01/00	18:46	RJG	S	CONC
18	DE1PMCT	J00601C	QUANMET	06/01/00	18:49	RJG	S	CONC
19	DDLFR	J00601C	QUANMET	06/01/00	18:52	RJG	S	CONC
20	DDRMPT	J00601C	QUANMET	06/01/00	18:55	RJG	S	CONC
21	DDRMPP5T	J00601C	QUANMET	06/01/00	18:58	RJG	S	CONC
22	DDRMPS	J00601C	QUANMET	06/01/00	19:01	RJG	S	CONC
23	DDRMPDT	J00601C	QUANMET	06/01/00	19:04	RJG	S	CONC
24	DDVK9T	J00601C	QUANMET	06/01/00	19:08	RJG	S	CONC
25	DDVKAT	J00601C	QUANMET	06/01/00	19:11	RJG	S	CONC
26	CCV2-2	J00601C	QUANMET	06/01/00	19:14	RJG	S	CONC
27	CCB2	J00601C	QUANMET	06/01/00	19:17	RJG	S	CONC
28	DE215B	J00601C	QUANMET	06/01/00	19:20	RJG	S	CONC
29	DE215C	J00601C	QUANMET	06/01/00	19:23	RJG	S	CONC
30	DDXEG	J00601C	QUANMET	06/01/00	19:26	RJG	S	CONC
31	DDXEGP5	J00601C	QUANMET	06/01/00	19:29	RJG	S	CONC
32	DDXEGS	J00601C	QUANMET	06/01/00	19:33	RJG	S	CONC
33	DDXEGD	J00601C	QUANMET	06/01/00	19:36	RJG	S	CONC
34	DDXEH	J00601C	QUANMET	06/01/00	19:39	RJG	S	CONC
35	DDXEK	J00601C	QUANMET	06/01/00	19:42	RJG	S	CONC
36	DDXEM	J00601C	QUANMET	06/01/00	19:45	RJG	S	CONC
37	DDXEP	J00601C	QUANMET	06/01/00	19:48	RJG	S	CONC
38	CCV2-3	J00601C	QUANMET	06/01/00	19:51	RJG	S	CONC
39	CCB3	J00601C	QUANMET	06/01/00	19:54	RJG	S	CONC
40	DDVKAT Rerun	J00601C	QUANMET	06/01/00	19:58	RJG	S	CONC
41	DDXEP/2 Fe	J00601C	QUANMET	06/01/00	20:01	RJG	S	CONC
42	CCV2-4	J00601C	QUANMET	06/01/00	20:05	RJG	S	CONC
43	CCB4	J00601C	QUANMET	06/01/00	20:08	RJG	S	CONC

Method: QUANMET Standard: STD1
Run Time: 06/01/00 17:53:49

Elem	AG	AL	AS	B	BA	BE	CA
Avge	-.00040	.01205	-.00055	.00185	.00007	.00340	-.00132
SDev	.00016	.00096	.00171	.00010	.00010	.00000	.00027
%RSD	40.825	7.9455	310.51	5.4054	134.03	.00000	20.534

#1	-.00020	.01180	-.00160	.00200	.00020	.00340	-.00125
#2	-.00060	.01280	.00200	.00180	.00008	.00340	-.00109
#3	-.00040	.01280	-.00120	.00180	.00000	.00340	-.00172
#4	-.00040	.01080	-.00140	.00180	.00000	.00340	-.00124

Elem	CD	CO	CR	CU	FE	K	LI
Avge	-.00011	.00005	.00070	.00065	.00070	-.01850	-.00016
SDev	.00010	.00019	.00020	.00019	.00012	.00416	.00029
%RSD	89.747	382.97	28.571	29.459	16.496	22.496	180.38

#1	.00000	.00020	.00080	.00060	.00080	-.01420	.00016
#2	-.00012	.00000	.00040	.00080	.00060	-.01780	.00000
#3	-.00024	-.00020	.00080	.00040	.00060	-.02420	-.00040
#4	-.00008	.00020	.00080	.00080	.00080	-.01780	-.00040

Elem	MG	MN	MO	NA	NI	PB	SB
Avge	.00035	.00015	.00015	.06065	.00057	.00035	.00000
SDev	.00034	.00010	.00025	.00111	.00061	.00025	.00000
%RSD	97.590	66.667	167.77	1.8336	106.98	71.903	.00000

#1	.00040	.00000	.00020	.06060	.00035	.00040	.00000
#2	.00080	.00020	.00040	.05960	.00142	.00060	.00000
#3	.00020	.00020	.00020	.06020	.00049	.00040	.00000
#4	.00000	.00020	-.00020	.06220	.00000	.00000	.00000

Elem	SE	SI	SN	SR	TI	TL	V
Avge	-.00025	.00215	.00055	.00000	.00190	-.00010	.00025
SDev	.00254	.00121	.00304	.00000	.00020	.00012	.00038
%RSD	1014.8	56.520	552.58	.00000	10.526	115.47	151.44

#1	-.00040	.00320	.00380	.00000	.00200	.00000	.00080
#2	.00000	.00120	-.00260	.00000	.00160	.00000	.00000
#3	.00280	.00320	-.00140	.00000	.00200	-.00020	.00020
#4	-.00340	.00100	.00240	.00000	.00200	-.00020	.00000

Elem	ZN
Avge	.00035
SDev	.00021
%RSD	60.227

#1	.00060
#2	.00044
#3	.00020
#4	.00015

Standardization Rpt.

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Method: QUANMET Standard: STD5A
Run Time: 06/01/00 17:56:57

00140722

Elem	AG	AS	B _u	BA	BE	CD	CO
Avg	.28045	.59135	.64512	4.4416	16.663	.94655	1.5669
SDev	.00089	.00560	.00392	.0412	.071	.00564	.0067
%RSD	.31559	.94754	.60679	.92668	.42343	.59606	.42634

#1	.28100	.59840	.64596	4.4557	16.703	.95328	1.5696
#2	.27980	.58560	.64559	4.4333	16.645	.94372	1.5636
#3	.27960	.59300	.64916	4.4877	16.731	.94045	1.5596
#4	.28140	.58840	.63976	4.3898	16.571	.94876	1.5748

Elem	CR	CU	LI	MN	MO	NI	PB
Avg	3.9619	2.4735	4.3700	2.1339	.44535	1.9082	.27625
SDev	.0163	.0248	.0971	.0066	.00145	.0139	.00114
%RSD	.41185	1.0044	2.2230	.31146	.32668	.73062	.41114

#1	3.9732	2.4820	4.3947	2.1396	.44600	1.9140	.27700
#2	3.9516	2.4676	4.3213	2.1310	.44340	1.9008	.27560
#3	3.9446	2.5016	4.4938	2.1258	.44520	1.8933	.27500
#4	3.9782	2.4426	4.2700	2.1390	.44680	1.9247	.27740

Elem	SB	SE	SI	SN	SR	TI	TL
Avg	.21215	.57055	.36590	1.0579	8.6629	6.5061	.38145
SDev	.00030	.00510	.00257	.0078	.0662	.0225	.00246
%RSD	.14141	.89433	.70354	.73876	.76429	.34547	.64411

#1	.21200	.57100	.36260	1.0684	8.6883	6.5256	.37940
#2	.21240	.57700	.36560	1.0582	8.6499	6.4950	.38040
#3	.21180	.56460	.36660	1.0498	8.7351	6.5240	.38500
#4	.21240	.56960	.36880	1.0552	8.5785	6.4798	.38100

Elem	V _u	ZN
Avg	1.7384	1.6148
SDev	.0033	.0063
%RSD	.19168	.38813

#1	1.7432	1.6230
#2	1.7356	1.6106
#3	1.7372	1.6092
#4	1.7374	1.6164

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Standardization Rpt.

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Method: QUANMET Standard: STD5B
Run Time: 06/01/00 18:00:06

0014.0723

Elem	AL	CA	FE	K	MG	NA
Avge	11.943	26.029	31.514	2.3086	7.9546	52.460
SDev	.031	.123	.049	.0270	.0127	.449
%RSD	.25624	.47379	.15536	1.1688	.15987	.85512
#1	11.954	26.142	31.565	2.3356	7.9562	52.822
#2	11.954	25.858	31.448	2.2824	7.9590	52.444
#3	11.966	26.027	31.527	2.3278	7.9664	52.740
#4	11.898	26.088	31.515	2.2886	7.9366	51.833

Standardization

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Method: QUANMET

Slope = Conc(SIR)/IR

Element	Wavelen	High std	Low std	Slope	Y-intercept	Date Standardized
AG	328.068	STD5A	STD1	6.94792	.002779	06/01/00 06:00:06
AL	308.215	STD5B	STD1	8.38163	-.100999	06/01/00 06:00:06
AS	193.696	STD5A	STD1	17.1861	.009452	06/01/00 06:00:06
B	249.600	STD5A	STD1	15.5768	-.028817	06/01/00 06:00:06
B _A	493.409	STD5A	STD1	2.25148	-.000159	06/01/00 06:00:06
BE	313.042	STD5A	STD1	.601862	-.002046	06/01/00 06:00:06
CA	317.933	STD5B	STD1	3.84174	.005085	06/01/00 06:00:06
CD	228.802	STD5A	STD1	10.7217	.001167	06/01/00 06:00:06
CO	228.616	STD5A	STD1	6.41271	-.000321	06/01/00 06:00:06
CR	267.716	STD5A	STD1	2.52519	-.001768	06/01/00 06:00:06
CU	324.754	STD5A	STD1	4.04032	-.002626	06/01/00 06:00:06
FE	259.940	STD5B	STD1	3.17328	-.002221	06/01/00 06:00:06
K	766.491	STD5B	STD1	42.9719	.794981	06/01/00 06:00:06
L _I	670.789	STD5A	STD1	2.28826	.000363	06/01/00 06:00:06
MG	279.079	STD5B	STD1	12.5720	-.004400	06/01/00 06:00:06
MN	257.610	STD5A	STD1	4.68515	-.000703	06/01/00 06:00:06
MO	202.030	STD5A	STD1	22.4618	-.003369	06/01/00 06:00:06
NA	588.995	STD5B	STD1	1.90842	-.115746	06/01/00 06:00:06
NI	231.604	STD5A	STD1	5.23977	-.002974	06/01/00 06:00:06
PB	220.353	STD5A	STD1	35.1787	-.012313	06/01/00 06:00:06
SB	206.838	STD5A	STD1	47.1911	.000000	06/01/00 06:00:06
SE	196.026	STD5A	STD1	17.5193	.004380	06/01/00 06:00:06
SI	288.158	STD5A	STD1	27.1406	-.058352	06/01/00 06:00:06
SN	189.989	STD5A	STD1	9.44774	-.005196	06/01/00 06:00:06
SR	409.552	STD5A	STD1	1.15434	.000000	06/01/00 06:00:06
TI	334.941	STD5A	STD1	1.53747	-.002921	06/01/00 06:00:06
TL	190.864	STD5A	STD1	52.6635	.005266	06/01/00 06:00:06
V	292.402	STD5A	STD1	5.63088	-.001408	06/01/00 06:00:06
Z _N	213.856	STD5A	STD1	6.21522	-.002157	06/01/00 06:00:06

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Analysis Report

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Method: QUANMET Sample Name: ICV2-1 0014-119-2 Operator: RJG
 Run Time: 06/01/00 18:03:15
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50402	25.320	.99388	.98941	.99671	.97959	25.472
SDev	.00137	.179	.04652	.00428	.00561	.00171	.090
%RSD	.27159	.70736	4.6811	.43260	.56295	.17432	.35515
#1	.50438	25.326	1.0213	.99220	.99605	.97901	25.503
#2	.50581	25.568	1.0019	.99248	1.0043	.98189	25.566
#3	.50293	25.157	1.0264	.98327	.99083	.97783	25.351
#4	.50297	25.229	.92591	.98968	.99560	.97962	25.470
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	1.0136	.99528	1.0106	.98924	26.210	25.203	1.0038
SDev	.0085	.00499	.0026	.00570	.093	.844	.0242
%RSD	.84060	.50163	.26108	.57629	.35611	3.3505	2.4135
#1	1.0152	.99785	1.0111	.98702	26.189	25.409	1.0055
#2	1.0222	1.0004	1.0141	.99754	26.335	26.303	1.0373
#3	1.0018	.98891	1.0085	.98458	26.110	24.421	.98281
#4	1.0153	.99400	1.0085	.98783	26.208	24.679	.98975
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	25.526	1.0037	.98775	25.432	.99618	.99160	1.0440
SDev	.118	.0035	.01572	.593	.01131	.04615	.0141
%RSD	.46325	.35167	1.5919	2.3332	1.1351	4.6538	1.3535
#1	25.539	1.0037	1.0068	25.479	1.0098	1.0603	1.0559
#2	25.680	1.0084	.97990	26.253	1.0006	.96870	1.0276
#3	25.399	.99988	.97089	24.970	.98449	.97572	1.0558
#4	25.484	1.0027	.99336	25.024	.98978	.96170	1.0369
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	1.0016	1.0005	.99688	.99099	.98598	4.9812	.98931
SDev	.0180	.0082	.01390	.00518	.00399	.0367	.00456
%RSD	1.7925	.81749	1.3941	.52264	.40502	.73630	.46121
#1	1.0146	.99650	.98559	.98984	.98536	4.9603	.99193
#2	.97661	1.0128	.99869	.99821	.99151	5.0115	.99367

Analysis Report

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#3	1.0003	.99639	1.0158	.98588	.98198	4.9402	.98335
#4	1.0147	.99646	.98740	.99003	.98506	5.0128	.98829
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 .99965
SDev .00178
%RSD .17771

#1 .99952
#2 1.0022
#3 .99834
#4 .99854

Errors LC Pass
High 1.1000
Low .90000

Method: QUANMET Sample Name: ICB1

Operator: RJG

Run Time: 06/01/00 18:06:23

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00069	.00962	.02314	-.00691	-.00002	.00000	.00160
SDev	.00179	.00921	.02884	.00825	.00030	.00000	.00255
%RSD	260.60	95.707	124.61	119.28	1494.2	3.8404	158.97
#1	-.00140	.00288	.03695	.00546	-.00042	.00000	.00034
#2	.00277	.02307	-.01822	-.01103	.00003	.00000	.00418
#3	.00138	.00794	.02659	-.01104	.00029	.00000	.00323
#4	-.00001	.00460	.04725	-.01104	.00003	.00000	-.00133
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	.00264	-.00033	-.00012	-.00040	.00222	.00430	-.00013
SDev	.00311	.00148	.00112	.00040	.00226	.12805	.00066
%RSD	117.66	448.88	899.76	100.19	101.65	2979.9	487.03
#1	.00289	-.00161	.00076	-.00101	.00032	-.13321	.00074
#2	H.00655	.00094	-.00177	-.00020	.00540	-.00430	-.00071
#3	.00213	.00096	.00025	-.00020	.00222	.17618	-.00001
#4	-.00101	-.00160	.00025	-.00020	.00095	-.02149	-.00055
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.05000	.01000	.02500	.10000	5.0000	.05000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00314	.00000	.00337	.00401	-.00499	-.00705	-.00006
SDev	.00481	.00047	.00259	.00505	.00316	.01053	.00006
%RSD	153.19	30025.	76.968	125.96	63.276	149.40	96.320
#1	-.00691	-.00070	.00562	-.00010	-.00254	.00875	-.00005
#2	-.00691	.00024	.00112	-.00048	-.00378	-.01230	-.00001
#3	.00314	.00024	.00562	.00716	-.00402	-.01229	-.00003
#4	-.00189	.00023	.00112	.00945	-.00963	-.01236	-.00014
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	.00351	-.01087	-.00567	.00000	.00054	.04475	-.00134
SDev	.04730	.02636	.01374	.00000	.00046	.02773	.00005
%RSD	1346.8	242.43	242.38	.00000	85.714	61.964	3.8404
#1	.00088	.02848	-.01087	.00000	.00015	.05794	-.00130
#2	.00790	-.02037	-.00709	.00000	.00108	.00521	-.00139

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#3	-.05518	-.02580	-.01842	.00000	.00015	.04738	-.00130
#4	.06044	-.02580	.01370	.00000	.00077	.06848	-.00139

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	.00151
SDev	.00173
%RSD	114.60

#1	-.00018
#2	.00231
#3	.00355
#4	.00036

Errors	LC Pass
High	.02000
Low	-.02000

Method: QUANMET Sample Name: ICSA 0014-088-12 Operator: RJG
Run Time: 06/01/00 18:09:31
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00292	499.83	-.08690	-.05320	.00189	.00005	482.90
SDev	.00239	1.37	.08840	.00786	.00035	.00007	.85
%RSD	81.807	.27467	101.73	14.776	18.289	152.04	.17686
#1	-.00051	498.77	-.14582	-.04655	.00201	.00010	483.46
#2	-.00323	500.25	.00986	-.04702	.00209	.00011	482.66
#3	-.00185	498.70	-.03549	-.06283	.00209	-.00002	483.68
#4	-.00609	501.59	-.17615	-.05641	.00138	-.00001	481.80
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	-.00250	.01094	.00025	-.00828	184.23	-.09454	.00073
SDev	.00254	.00436	.00286	.00040	.16	.11960	.00040
%RSD	101.83	39.856	1144.6	4.8252	.08760	126.51	54.893
#1	-.00156	.01126	-.00177	-.00809	184.09	.05586	.00036
#2	-.00402	.01512	.00429	-.00806	184.43	-.09024	.00052
#3	.00063	.01254	-.00177	-.00888	184.30	-.10743	.00128
#4	-.00503	.00486	.00025	-.00809	184.11	-.23635	.00074
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass	NOCHECK	NOCHECK
Value					200.00		
Range					20.000		

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	488.12	.00721	.00060	.00592	-.01875	.10007	.05663
SDev	.76	.00095	.00223	.00274	.00702	.01716	.06718
%RSD	.15640	13.193	374.02	46.337	37.470	17.145	118.62
#1	487.14	.00579	.00170	.00639	-.02572	.11290	-.00006
#2	488.66	.00772	-.00274	.00296	-.01045	.11228	.09448
#3	487.90	.00772	.00173	.00945	-.01555	.09886	.00004
#4	488.80	.00761	.00170	.00487	-.02326	.07624	.13207
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	.09271	.04892	-.03504	.01382	-.02214	.38051	.00536
SDev	.09509	.00682	.00849	.00023	.00040	.07915	.00262
%RSD	102.56	13.946	24.223	1.6708	1.7931	20.801	48.893
#1	.12724	.03945	-.02683	.01393	-.02168	.36876	.00763
#2	.10043	.05025	-.04332	.01347	-.02229	.39692	.00305

#3	-.04017	.05574	-.02867	.01393	-.02199	.28232	.00763
#4	.18336	.05025	-.04132	.01393	-.02260	.47403	.00313

Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value							
Range							

Elem	ZN
Units	ppm
Avge	-.00176
SDev	.00125
%RSD	70.682

#1	-.00073
#2	-.00332
#3	-.00078
#4	-.00222

Errors	NOCHECK
Value	
Range	

Method: QUANMET Sample Name: ICSAB 0014-104-1 Operator: RJG
 Run Time: 06/01/00 18:12:39
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.95010	494.29	.87312	.88043	.45998	.44925	472.84
SDev	.00165	1.44	.11429	.00182	.00150	.00160	1.83
%RSD	.17408	.29080	13.089	.20710	.32546	.35518	.38628
#1	.94880	492.15	Q.71604	.88146	.45774	.45081	474.31
#2	.94854	495.26	.89772	.87822	.46078	.44709	470.23
#3	.95153	494.97	.88873	.87974	.46070	.44997	472.98
#4	.95153	494.78	.99000	.88231	.46070	.44912	473.85
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	.94961	.44440	.43610	.48077	181.51	9.7095	.98388
SDev	.01617	.00545	.00194	.00200	.45	.2245	.01502
%RSD	1.7027	1.2259	.44377	.41544	.24950	2.3120	1.5263
#1	.96129	.44950	.43458	.47778	181.88	9.4152	.96407
#2	.94834	.43799	.43460	.48173	180.85	9.7675	1.0005
#3	.92719	.44831	.43863	.48180	181.65	9.6988	.98650
#4	.96160	.44180	.43661	.48179	181.65	9.9566	.98442
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	480.23	.45028	.88181	10.013	.85361	.97357	.94532
SDev	.51	.00189	.01594	.120	.01766	.03299	.02246
%RSD	.10703	.42076	1.8075	1.1962	2.0682	3.3883	2.3760
#1	479.92	.45065	.85941	9.8443	.85807	1.0029	.96185
#2	479.68	.44749	.89519	10.128	.83056	.94485	.91437
#3	480.74	.45148	.89082	10.041	.87318	.94517	.96197
#4	480.59	.45148	.88183	10.040	.85264	1.0014	.94307
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	1.0043	1.0140	.83311	.92580	.87643	9.1862	.44782
SDev	.0542	.0031	.05946	.00114	.00111	.1450	.00210
%RSD	5.3959	.30776	7.1375	.12312	.12609	1.5783	.46851
#1	.95308	1.0113	.91498	.92417	.87743	9.0664	.44851
#2	1.0684	1.0167	.81631	.92625	.87497	9.1194	.44469

#3	.96624	1.0167	.82802	.92680	.87713	9.3954	.44912
#4	1.0293	1.0113	Q.77314	.92597	.87620	9.1637	.44894

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	.92404
SDev	.00262
%RSD	.28312

#1	.92041
#2	.92451
#3	.92461
#4	.92665

Errors	QC Pass
Value	1.0000
Range	20.000

Method: QUANMET Sample Name: DE00VB

Operator: RJG

Run Time: 06/01/00 18:18:02

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00175	.00799	.00597	-.00285	.00000	.00001	.02598
SDev	.00330	.01188	.01866	.00646	.00021	.00009	.00513
%RSD	189.34	148.79	312.86	226.98	4258e6	1338.5	19.744
#1	-.00419	.00130	-.00079	-.01228	-.00016	.00002	.02108
#2	.00280	.02469	.02978	-.00074	.00029	.00011	.03288
#3	-.00140	.00796	.00940	.00238	.00003	.00001	.02660
#4	-.00419	-.00201	-.01453	-.00074	-.00016	-.00011	.02334
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	-.00065	.00013	-.00040	.01999	-.08809	-.00092
SDev	.00192	.00123	.00167	.00121	.00214	.58131	.00155
%RSD	73.717	189.26	1305.1	301.04	10.697	659.88	169.15
#1	-.00009	-.00160	-.00176	-.00101	.01872	-.36526	-.00201
#2	.00298	.00095	.00227	.00142	.02317	.66607	.00090
#3	.00446	-.00162	.00025	-.00101	.01872	.03008	-.00017
#4	.00309	-.00033	-.00025	-.00101	.01935	-.68325	-.00238
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	-.00880	.00024	.00000	.00363	-.00504	-.00530	-.00004
SDev	.01528	.00076	.00225	.00730	.00697	.00572	.00009
%RSD	173.60	318.95	75136.	201.45	138.36	107.87	240.06
#1	-.02200	-.00070	.00113	-.00429	-.00612	.00171	-.00001
#2	.01320	.00024	.00113	.01021	.00411	-.01230	.00006
#3	-.01446	.00118	.00113	.00945	-.00532	-.00533	-.00006
#4	-.01194	.00024	-.00337	-.00086	-.01284	-.00529	-.00014
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	.01584	-.01225	-.00992	.00000	-.00015	.01825	-.00253
SDev	.01227	.02755	.01829	.00000	.00079	.01988	.00403
%RSD	77.450	224.95	184.43	.00000	516.40	108.94	158.97
#1	.01146	-.02043	-.02976	.00000	-.00046	.00512	-.00589
#2	.02899	.02854	-.01653	.00000	.00077	.04713	.00312

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#3	.02197	-.02582	-.00708	.00000	.00015	.01564	-.00251
#4	.00095	-.03127	.01371	.00000	-.00108	.00511	-.00485

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	.00715
SDev	.00127
%RSD	17.713

#1	.00749
#2	.00580
#3	.00875
#4	.00657

Errors	LC Pass
High	.02000
Low	-.02000

Method: QUANMET Sample Name: DE00VC Operator: RJG
 Run Time: 06/01/00 18:21:10
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04605	2.0171	1.9678	.94843	1.9929	.04947	49.581
SDev	.00135	.0060	.0446	.01880	.0024	.00017	.275
%RSD	2.9337	.29644	2.2663	1.9822	.12164	.34612	.55409
#1	.04711	2.0116	2.0073	.95979	1.9961	.04962	49.606
#2	.04572	2.0250	1.9866	.92057	1.9918	.04962	49.870
#3	.04428	2.0134	1.9043	.95357	1.9932	.04928	49.208
#4	.04711	2.0182	1.9729	.95979	1.9905	.04938	49.639
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	.04985	.48753	.19420	.24860	1.0506	50.978	1.0276
SDev	.00144	.00398	.00286	.00102	.0024	.545	.0075
%RSD	2.8965	.81713	1.4718	.40994	.22900	1.0692	.73009
#1	.05143	.48944	.19824	.25002	1.0502	51.425	1.0295
#2	.05041	.49073	.19420	.24840	1.0540	51.425	1.0249
#3	.04952	.48176	.19218	.24759	1.0490	50.316	1.0368
#4	.04802	.48817	.19218	.24840	1.0490	50.746	1.0190
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	50.758	.49229	.97725	51.425	.48113	.51772	.53523
SDev	.125	.00195	.01123	.234	.00577	.02606	.06334
%RSD	.24690	.39687	1.1492	.45419	1.1994	5.0340	11.834
#1	50.932	.49182	.97612	51.519	.48710	.55648	.54229
#2	50.759	.49464	.98062	51.431	.48422	.50733	.59901
#3	50.698	.48994	.96265	51.649	.47921	.50703	.55179
#4	50.643	.49276	.98960	51.102	.47398	.50003	.44781
Errors	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	60.000	.60000		60.000	.60000	.60000	.60000
Low	40.000	.40000		40.000	.40000	.40000	.40000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0002	9.7212	1.9204	.99748	.96968	1.9858	.48860
SDev	.0237	.0378	.0187	.00144	.00168	.0959	.00470
%RSD	1.1834	.38842	.97237	.14472	.17369	4.8294	.96123
#1	2.0229	9.6859	1.9440	.99931	.97091	1.9384	.49084
#2	1.9669	9.7239	1.8989	.99761	.97060	2.1174	.49091

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#3	2.0054	9.7021	1.9157	.99719	.96722	1.8964	.48155
#4	2.0054	9.7728	1.9228	.99581	.96999	1.9911	.49108

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	.49673
SDev	.00257
%RSD	.51698

#1	.49368
#2	.49640
#3	.49689
#4	.49995

Errors	LC Pass
High	.60000
Low	.40000

Method: QUANMET Sample Name: DDGW6

Operator: RJG

Run Time: 06/01/00 18:24:17

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00204	.11233	.24533	-.02326	.50398	.00000	1.2215
SDev	.00069	.00720	.03847	.00459	.00095	.00000	.0161
%RSD	33.946	6.4056	15.680	19.748	.18815	3.1814	1.3201
#1	.00238	.11363	.22300	-.02004	.50303	.00000	1.2066
#2	.00238	.10680	.21961	-.02809	.50367	.00000	1.2087
#3	.00100	.10689	.23676	-.01869	.50528	.00000	1.2327
#4	.00239	.12200	.30195	-.02622	.50393	.00000	1.2380
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	.05102	.00185	.05581	.04902	4.2071	.08594	-.00087
SDev	.00053	.00277	.00261	.00105	.0153	.49123	.00072
%RSD	1.0436	149.40	4.6723	2.1331	.36259	571.58	82.102
#1	.05119	.00442	.05682	.04862	4.1935	.31370	-.00147
#2	.05158	-.00199	.05278	.04781	4.1948	-.54574	-.00147
#3	.05102	.00185	.05480	.04943	4.2233	-.02149	-.00055
#4	.05030	.00314	.05884	.05024	4.2170	.59731	-.00001
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	10.077	.00168	.00288	.03893	.02322	.26664	.15080
SDev	.037	.00047	.00225	.00376	.00541	.00882	.00005
%RSD	.36586	27.819	78.077	9.6516	23.304	3.3087	.03302
#1	10.056	.00144	.00175	.03464	.02502	.25440	.15084
#2	10.041	.00238	.00624	.03693	.01879	.26830	.15075
#3	10.124	.00145	.00175	.04189	.01898	.26840	.15076
#4	10.088	.00145	.00175	.04227	.03007	.27547	.15084
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	.00224	.02441	-.02070	.00092	.00023	.02239	-.00124
SDev	.04296	.00520	.00636	.00000	.00029	.05725	.00004
%RSD	1917.8	21.290	30.740	.00000	127.66	255.68	3.1815
#1	-.00832	.01763	-.02826	.00092	.00015	-.05912	-.00126
#2	-.05387	.02305	-.02259	.00092	-.00015	.06732	-.00118

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#3	.04084	.02848	-.01314	.00092	.00046	.02486	-.00127
#4	.03031	.02848	-.01881	.00092	.00046	.05651	-.00126

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	1.4701
SDev	.0069
%RSD	.46941

#1	1.4673
#2	1.4641
#3	1.4688
#4	1.4800

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DDGW6P5 Operator: RJG
Run Time: 06/01/00 18:27:24
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00119	.02598	.06142	-.02499	.10128	.00000	.24280
SDev	.00114	.00286	.02871	.00194	.00027	.00000	.00122
%RSD	95.051	11.002	46.745	7.7697	.26715	6.4442	.50444

#1	-.00119	.02301	.07692	-.02280	.10134	.00000	.24156
#2	.00020	.02973	.02530	-.02719	.10134	.00000	.24345
#3	-.00259	.02640	.05283	-.02408	.10089	.00000	.24418
#4	-.00119	.02479	.09065	-.02591	.10153	.00000	.24201

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01164	.00024	.01187	.00936	.84568	-.08594	-.00078
SDev	.00064	.00074	.00194	.00040	.00279	.15026	.00046
%RSD	5.5355	309.75	16.303	4.3103	.33000	174.83	58.621

#1	.01232	-.00040	.01440	.00956	.84441	-.01289	-.00055
#2	.01202	.00088	.01238	.00876	.84885	-.30510	-.00055
#3	.01133	-.00040	.01035	.00956	.84251	-.05586	-.00055
#4	.01090	.00088	.01035	.00956	.84695	.03008	-.00147

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0197	.00001	.00237	.00515	.00090	.04909	.02113
SDev	.0103	.00054	.00430	.00378	.00867	.01055	.04250
%RSD	.50824	5672.9	181.28	73.423	959.17	21.484	201.14

#1	2.0121	-.00046	.00574	-.00048	.00085	.04377	-.00014
#2	2.0096	-.00046	.00574	.00754	.01069	.04391	.08489
#3	2.0297	.00048	.00125	.00639	.00245	.04377	-.00006
#4	2.0272	.00048	-.00324	.00716	-.01037	.06491	-.00016

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00397	-.04208	-.00068	.00035	-.00023	.01497	-.00134
SDev	.02234	.00627	.00697	.00023	.00015	.06340	.00009
%RSD	562.99	14.894	1017.6	66.667	66.667	423.37	6.4443

#1	.02499	-.03666	-.00503	.00046	-.00046	.01762	-.00127
#2	-.02756	-.04751	.00859	.00000	-.00015	.10183	-.00127
#3	.01096	-.03666	-.00693	.00046	-.00015	-.01395	-.00136
#4	.00748	-.04751	.00063	.00046	-.00015	-.04560	-.00145

Elem	ZN
Units	ppm
Avge	.30055
SDev	.00207
%RSD	.68875

#1	.30174
#2	.29747
#3	.30122

#4 .30178

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Method: QUANMET Sample Name: DDGW6S

Operator: RJG

Run Time: 06/01/00 18:30:32

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05051	2.1100	2.1798	.95680	2.4824	.04959	51.483
SDev	.00287	.0111	.0386	.01996	.0168	.00018	.396
%RSD	5.6827	.52610	1.7717	2.0856	.67745	.35540	.76996
#1	.04809	2.1070	2.1695	.96457	2.4959	.04950	51.222
#2	.04806	2.1121	2.1352	.97080	2.4848	.04951	51.112
#3	.05223	2.0971	2.2281	.92719	2.4581	.04951	51.616
#4	.05366	2.1237	2.1865	.96463	2.4907	.04986	51.981
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	.09278	.48650	.24875	.29560	5.1681	51.549	1.0177
SDev	.00223	.00419	.00165	.00114	.0199	.759	.0185
%RSD	2.3997	.86065	.66374	.38617	.38485	1.4733	1.8194
#1	.09529	.48649	.24875	.29641	5.1622	52.310	1.0406
#2	.09389	.48137	.24673	.29640	5.1521	51.588	1.0222
#3	.09162	.48653	.24875	.29398	5.1609	50.505	.99678
#4	.09033	.49163	.25078	.29560	5.1971	51.794	1.0110
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	61.207	.49348	.99134	51.761	.51700	.75428	.58919
SDev	.225	.00224	.00996	.737	.01068	.02335	.02031
%RSD	.36787	.45363	1.0051	1.4245	2.0651	3.0953	3.4465
#1	61.339	.49207	.99471	52.591	.50480	.73139	.57021
#2	61.136	.49207	.98123	51.996	.51553	.73831	.58941
#3	60.924	.49301	.98572	50.830	.53082	.76659	.57986
#4	61.430	.49677	1.0037	51.626	.51684	.78083	.61729
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	1.9232	9.8243	1.9530	.99324	.98221	1.9828	.48898
SDev	.0362	.0617	.0608	.00581	.00420	.0496	.00278
%RSD	1.8800	.62771	3.1146	.58511	.42725	2.5034	.56847
#1	1.8768	9.7837	1.9449	.99765	.98198	2.0539	.49129
#2	1.9398	9.8162	1.8732	.99350	.98137	1.9488	.48652

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#3	1.9153	9.7836	1.9771	.98495	.97768	1.9487	.48662
#4	1.9610	9.9139	2.0169	.99686	.98782	1.9798	.49147

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	1.9679
SDev	.0076
%RSD	.38853

#1	1.9647
#2	1.9604
#3	1.9681
#4	1.9783

Errors	LC Pass
High	100.00
Low	-.02000

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Method: QUANMET Sample Name: DDGW6D

Operator: RJG

Run Time: 06/01/00 18:33:39

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem Units	AG ppm	AL ppm	AS ppm	B_ ppm	BA ppm	BE ppm	CA ppm
Avge	.05085	2.1126	2.1970	.96116	2.4688	.04932	51.052
SDev	.00253	.0133	.0440	.00484	.0088	.00012	.260
%RSD	4.9774	.62911	2.0024	.50349	.35834	.24679	.50871
#1	.04947	2.1240	2.1316	.96449	2.4734	.04938	51.007
#2	.04808	2.1037	2.2108	.95424	2.4752	.04938	50.722
#3	.05362	2.1239	2.2245	.96141	2.4710	.04938	51.342
#4	.05225	2.0987	2.2212	.96452	2.4558	.04914	51.137
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 Units	CD ppm	CO ppm	CR ppm	CU ppm	FE ppm	K_ ppm	LI ppm
Avge	.09486	.48653	.24723	.29418	5.1287	50.731	1.0103
SDev	.00122	.00686	.00101	.00138	.0068	.802	.0168
%RSD	1.2891	1.4099	.40789	.47036	.13272	1.5815	1.6614
#1	.09663	.49422	.24673	.29398	5.1260	51.012	1.0171
#2	.09395	.48653	.24673	.29559	5.1266	50.969	1.0148
#3	.09468	.48781	.24673	.29479	5.1387	51.382	1.0235
#4	.09418	.47756	.24875	.29235	5.1235	49.560	.98572
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 Units	MG ppm	MN ppm	MO ppm	NA ppm	NI ppm	PB ppm	SB ppm
Avge	60.403	.49346	.97898	50.922	.52007	.74548	.57522
SDev	.224	.00223	.00449	.702	.00631	.02375	.06656
%RSD	.37126	.45250	.45893	1.3781	1.2131	3.1862	11.572
#1	60.522	.49300	.98122	51.174	.51801	.73870	.61778
#2	60.512	.49206	.98122	51.149	.51357	.73128	.47606
#3	60.512	.49675	.98123	51.473	.52010	.78071	.59872
#4	60.067	.49205	.97224	49.893	.52861	.73121	.60834
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 Units	SE ppm	SI ppm	SN ppm	SR ppm	TI ppm	TL ppm	V_ ppm
Avge	1.9818	9.7036	1.9322	.99024	.96791	1.9305	.49014
SDev	.0344	.0341	.0309	.00307	.00121	.0751	.00166
%RSD	1.7376	.35174	1.5980	.31023	.12541	3.8890	.33927
#1	1.9502	9.6697	1.8960	.99165	.96845	1.9700	.49103
#2	2.0098	9.6968	1.9313	.99211	.96691	1.8963	.49103

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#3	1.9538	9.7510	1.9715	.99155	.96937	2.0121	.48765
#4	2.0133	9.6968	1.9300	.98565	.96691	1.8438	.49086

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	1.9570
SDev	.0040
%RSD	.20266

#1	1.9547
#2	1.9530
#3	1.9619
#4	1.9582

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: CCV2-1 0014-087-7 Operator: RJG
Run Time: 06/01/00 18:36:46
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.99509	50.278	5.0363	4.9503	4.9071	4.9133	50.620
SDev	.00306	.122	.0828	.0175	.0222	.0150	.338
%RSD	.30745	.24345	1.6435	.35450	.45227	.30552	.66768
#1	.99797	50.373	5.0686	4.9241	4.9177	4.9153	50.866
#2	.99507	50.139	4.9920	4.9570	4.8847	4.9069	50.782
#3	.99645	50.211	5.1358	4.9611	4.8930	4.8978	50.710
#4	.99085	50.388	4.9489	4.9589	4.9329	4.9331	50.122
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	5.0195	4.9199	4.9181	4.9158	51.587	50.490	4.9397
SDev	.0116	.0153	.0206	.0326	.098	.514	.0495
%RSD	.23111	.31123	.41966	.66363	.19049	1.0183	1.0012
#1	5.0259	4.9304	4.9392	4.9174	51.720	51.055	4.9469
#2	5.0225	4.9253	4.9215	4.8875	51.589	49.835	4.8678
#3	5.0274	4.9266	4.9220	4.8972	51.551	50.677	4.9683
#4	5.0024	4.8971	4.8897	4.9610	51.487	50.393	4.9758
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	50.323	4.9227	4.9212	50.578	4.8960	4.9632	5.0507
SDev	.117	.0177	.0299	.392	.0228	.0333	.0487
%RSD	.23234	.35883	.60786	.77543	.46505	.67092	.96406
#1	50.382	4.9436	4.9460	50.689	4.9138	4.9987	5.0813
#2	50.188	4.9276	4.8786	49.997	4.9092	4.9352	4.9780
#3	50.271	4.9182	4.9235	50.794	4.8974	4.9846	5.0719
#4	50.452	4.9014	4.9369	50.832	4.8634	4.9344	5.0718
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	5.0712	4.9698	4.8864	4.9046	4.8931	9.7274	4.9231
SDev	.0750	.0300	.0359	.0186	.0084	.1531	.0106
%RSD	1.4782	.60336	.73489	.37896	.17183	1.5735	.21482
#1	5.1059	5.0148	4.9121	4.9150	4.9031	9.9156	4.9386
#2	4.9897	4.9549	4.8644	4.8875	4.8853	9.5484	4.9204

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#3	5.0317	4.9549	4.9215	4.8903	4.8871	9.6856	4.9190
#4	5.1576	4.9548	4.8478	4.9254	4.8970	9.7602	4.9147

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	4.9810
SDev	.0067
%RSD	.13440

#1	4.9876
#2	4.9797
#3	4.9846
#4	4.9722

Errors	LC Pass
High	5.5000
Low	4.5000

Method: QUANMET Sample Name: CCB1

Operator: RJG

Run Time: 06/01/00 18:39:53

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00105	.00913	-.02154	.01013	.00045	.00033	.00547
SDev	.00133	.00345	.03123	.00539	.00021	.00018	.00278
%RSD	127.05	37.745	144.95	53.259	47.303	54.084	50.823
#1	-.00278	.00956	-.04217	.00857	.00029	.00024	.00486
#2	-.00000	.00948	-.01467	.01792	.00074	.00024	.00323
#3	-.00001	.01291	.01967	.00546	.00048	.00024	.00427
#4	-.00139	.00455	-.04901	.00858	.00029	.00061	.00951
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	.00248	.00063	.00026	.00000	.00349	-.00859	-.00065
SDev	.00117	.00123	.00000	.00040	.00179	.07574	.00060
%RSD	47.185	193.34	.46945	47122.	51.403	881.29	93.386
#1	.00379	.00223	.00026	-.00020	.00222	-.07305	-.00147
#2	.00259	-.00033	.00026	-.00020	.00222	-.07305	-.00055
#3	.00094	-.00032	.00026	-.00020	.00349	.07305	-.00001
#4	.00260	.00095	.00026	.00061	.00603	.03867	-.00055
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.05000	.01000	.02500	.10000	5.0000	.05000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00063	.00024	.01348	.00076	-.00348	-.00351	-.00012
SDev	.00356	.00000	.00430	.00154	.00184	.00885	.00004
%RSD	565.69	.46276	31.912	201.56	52.947	252.33	31.177
#1	.00314	.00024	.01460	.00296	-.00606	-.00522	-.00017
#2	.00063	.00024	.01909	.00067	-.00297	.00878	-.00010
#3	-.00440	.00024	.01011	-.00010	-.00322	-.01233	-.00012
#4	.00314	.00024	.01011	-.00048	-.00168	-.00525	-.00009
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	.02454	-.02716	.00142	.00075	.00031	.01840	-.00115
SDev	.01653	.00271	.01622	.00012	.00018	.03143	.00008
%RSD	67.355	9.9939	1145.0	15.385	57.735	170.83	7.2447
#1	.03592	-.03123	.01370	.00069	.00015	.02630	-.00113
#2	.02541	-.02580	-.02220	.00069	.00046	-.02634	-.00104

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#3	.00089	-.02580	.00992	.00069	.00046	.02631	-.00121
#4	.03594	-.02580	.00425	.00092	.00015	.04734	-.00121

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	.00257
SDev	.00079
%RSD	30.710

#1	.00334
#2	.00158
#3	.00231
#4	.00303

Errors	LC Pass
High	.02000
Low	-.02000

Method: QUANMET Sample Name: DE1PMBT
Run Time: 06/01/00 18:43:01
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP
Mode: CONC Corr. Factor: 1

Operator: RJG

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00243	.00460	.00683	.00156	.00018	.00000	.04401
SDev	.00175	.00836	.00859	.00298	.00022	.00010	.00473
%RSD	71.870	181.59	125.75	190.54	125.93	19181.	10.759
#1	-.00278	.01139	-.00438	-.00078	.00029	.00000	.04761
#2	-.00417	-.00716	.00609	.00235	.00029	-.00012	.03713
#3	-.00276	.00456	.00935	-.00077	-.00016	-.00001	.04477
#4	-.00000	.00963	.01626	.00545	.00029	.00012	.04653
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	.00015	.00224	.00063	.00020	.00555	.11602	-.00028
SDev	.00166	.00296	.00112	.00104	.00109	.25926	.00072
%RSD	1081.5	131.81	176.94	510.73	19.548	223.45	254.13
#1	.00250	.00480	.00227	-.00020	.00666	.14181	.00036
#2	-.00142	-.00032	-.00025	-.00101	.00412	-.25353	-.00131
#3	-.00020	-.00032	.00025	.00061	.00603	.33948	-.00001
#4	-.00026	.00481	.00026	.00142	.00539	.23635	-.00017
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	-.00251	-.00070	.00449	.04294	-.00243	-.00170	-.00007
SDev	.01186	.00000	.00430	.00387	.00121	.00901	.00003
%RSD	471.70	.17999	95.723	9.0176	49.540	529.92	43.354
#1	.00063	-.00070	.00112	.04456	-.00378	-.01219	-.00011
#2	-.01949	-.00070	.00562	.03922	-.00088	.00175	-.00007
#3	.00063	-.00070	.00112	.04036	-.00279	.00878	-.00004
#4	.00817	-.00070	.01011	.04762	-.00230	-.00515	-.00006
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	.00528	-.01222	.01134	.00000	-.00038	-.01061	-.00019
SDev	.01469	.02749	.01285	.00000	.00046	.04343	.00221
%RSD	278.50	225.04	113.33	.00000	120.00	409.32	1141.9
#1	.02543	.02848	.02882	.00000	-.00015	-.00537	-.00138
#2	.00439	-.03123	.01181	.00000	-.00108	-.00530	-.00130

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#3	-.00961	-.02574	.00614	.00000	-.00015	.03678	.00312
#4	.00090	-.02037	-.00142	.00000	-.00015	-.06855	-.00121

Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	.25000						
Low	-.25000						

Elem	ZN
Units	ppm
Avge	.00734
SDev	.00110
%RSD	15.013

#1	.00604
#2	.00728
#3	.00730
#4	.00873

Errors	NOCHECK
High	
Low	

Method: QUANMET Sample Name: DE07ABT Operator: RJG
 Run Time: 06/01/00 18:46:08
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00209	.01179	.09444	.01716	.00862	.00007	.18585
SDev	.00139	.01243	.03550	.00155	.00019	.00007	.00183
%RSD	66.568	105.47	37.593	9.0595	2.1651	101.22	.98174
#1	-.00000	.02481	.13299	.01794	.00885	.00012	.18687
#2	-.00278	-.00373	.06792	.01794	.00866	.00012	.18723
#3	-.00278	.01805	.06086	.01483	.00840	.00000	.18610
#4	-.00280	.00803	.11600	.01794	.00858	.00001	.18321
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	.00002	.00096	.00278	.00121	.01682	.09239	-.00055
SDev	.00178	.00181	.00193	.00121	.00073	.47044	.00044
%RSD	8995.4	189.54	69.569	99.908	4.3575	509.19	79.658
#1	-.00195	.00224	.00227	.00223	.01745	.11602	-.00109
#2	.00168	.00224	.00429	.00223	.01745	.65747	-.00001
#3	.00136	-.00161	.00429	.00061	.01618	.09024	-.00055
#4	-.00101	.00096	.00026	-.00020	.01618	-.49418	-.00055
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	.10000		.50000				
Low	-.10000		-.50000				
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05469	.00000	-.00112	S-.11575	.00102	.01057	.00002
SDev	.01400	.00047	.00259	.00000	.00135	.02774	.00005
%RSD	25.599	11071.	231.46	.00000	132.82	262.43	222.86
#1	.05595	-.00070	-.00337	S-.11575	.00054	-.01227	.00008
#2	.07355	.00024	.00113	S-.11575	-.00020	.02293	.00002
#3	.04840	.00024	-.00337	S-.11575	.00079	.04392	.00002
#4	.04086	.00024	.00113	S-.11575	.00294	-.01229	-.00003
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	-.02972	.09089	-.01464	.00277	-.00015	.01300	-.00227
SDev	.04739	.00312	.02132	.00000	.00036	.06165	.00166
%RSD	159.45	3.4343	145.64	.00000	230.94	474.22	73.361
#1	-.03760	.08819	-.03354	.00277	.00015	-.05812	-.00147
#2	.03948	.08819	-.02409	.00277	-.00046	.04721	-.00138

#3	-.05863	.09362	-.01653	.00277	-.00046	-.01594	-.00146
#4	-.06213	.09357	.01559	.00277	.00015	.07886	-.00476

Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	.25000						
Low	-.25000						

Elem	ZN
Units	ppm
Avge	.01137
SDev	.00104
%RSD	9.1794

#1	.01274
#2	.01099
#3	.01026
#4	.01148

Errors	NOCHECK
High	
Low	

Method: QUANMET Sample Name: DE1PMCT Operator: RJG
Run Time: 06/01/00 18:49:16
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04516	1.8982	2.1027	.89978	1.8081	.04479	.25932
SDev	.00134	.0240	.0339	.02040	.0185	.00026	.00407
%RSD	2.9675	1.2666	1.6130	2.2674	1.0259	.57243	1.5690

#1	.04690	1.8961	2.1328	.90363	1.8104	.04478	.25611
#2	.04552	1.9296	2.1118	.91811	1.8244	.04502	.26076
#3	.04411	1.8961	2.1122	.90674	1.8158	.04491	.25597
#4	.04410	1.8710	2.0540	.87064	1.7816	.04443	.26442

Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK
High	.06000		2.4000		2.4000		
Low	.04000		1.6000		1.6000		

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04769	.45747	.18598	.23544	.97531	.25998	.92055
SDev	.00520	.00066	.00167	.00330	.00222	.10202	.01923
%RSD	10.905	.14352	.89691	1.4011	.22775	39.242	2.0895

#1	.04134	.45781	.18635	.23625	.97642	.27932	.92275
#2	.05317	.45648	.18585	.23786	.97769	.15040	.93747
#3	.04585	.45779	.18383	.23706	.97451	.21916	.92883
#4	.05042	.45780	.18787	.23059	.97261	.39104	.89316

Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	.06000		.24000				
Low	.04000		.16000				

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04149	.46032	-.00210	S-.11575	.45538	.44942	.00612
SDev	.00518	.00118	.00225	.00000	.00332	.00003	.00003
%RSD	12.494	.25602	106.94	.00000	.72986	.00676	.56661

#1	.04086	.46056	-.00322	S-.11575	.45874	.44943	.00617
#2	.04086	.46149	-.00322	S-.11575	.45079	.44938	.00609
#3	.03583	.45868	.00127	S-.11575	.45597	.44943	.00612
#4	.04840	.46056	-.00322	S-.11575	.45603	.44945	.00611

Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	NOCHECK
High						.60000	
Low						.40000	

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.1278	.06547	.00730	.91085	-.00000	1.7868	.45136
SDev	.0287	.03020	.00244	.00860	.00018	.1129	.00230
%RSD	1.3510	46.129	33.408	.94433	813e6	6.3213	.50903

#1	2.0927	.04513	.00447	.91231	-.00015	1.8868	.45275
#2	2.1313	.11028	.01013	.91831	.00015	1.7710	.45387

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#3	2.1243	.05052	.00636	.91425	-.00015	1.6341	.44945
#4	2.1628	.05594	.00824	.89850	.00015	1.8553	.44937
Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	2.4000						
Low	1.6000						
Elem	ZN						
Units	ppm						
Avge	.48876						
SDev	.00229						
%RSD	.46778						
#1	.48943						
#2	.49121						
#3	.48869						
#4	.48572						
Errors	NOCHECK						
High							
Low							

Method: QUANMET Sample Name: DDLFRT

Operator: RJG

Run Time: 06/01/00 18:52:23

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00243	.01889	.06859	.06756	.00311	.00003	.65783
SDev	.00132	.00990	.03306	.01932	.00022	.00005	.00539
%RSD	54.317	52.415	48.197	28.594	7.2495	161.70	.81989
#1	-.00280	.02649	.05741	.07090	.00299	.00001	.65267
#2	-.00415	.01298	.11239	.04103	.00299	-.00001	.66166
#3	-.00142	.00805	.03353	.07090	.00299	.00002	.65375
#4	-.00137	.02804	.07101	.08740	.00344	.00011	.66324
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	.00147	-.00033	.00013	7.0003	.01571	.17833	-.00132
SDev	.00317	.00105	.00025	.0595	.00182	.34487	.00055
%RSD	215.55	322.23	201.42	.84937	11.613	193.39	41.808
#1	.00519	-.00034	.00025	7.0558	.01555	-.03867	-.00201
#2	-.00047	-.00032	-.00026	7.0170	.01555	.21916	-.00147
#3	.00293	-.00161	.00025	7.0122	.01364	-.11602	-.00109
#4	-.00176	.00096	.00025	6.9160	.01809	.64888	-.00071
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	.10435	.00258	-.00224	4.2506	.00472	-.00178	.00005
SDev	.01569	.00054	.00225	.0400	.00884	.01675	.00009
%RSD	15.032	20.937	100.12	.94081	187.38	940.11	171.68
#1	.08360	.00305	-.00337	4.2969	-.00193	.02284	-.00005
#2	.10372	.00211	-.00337	4.2706	-.00297	-.00530	.00002
#3	.10875	.00305	-.00337	4.2118	.00812	-.01236	.00007
#4	.12132	.00211	.00113	4.2232	.01564	-.01230	.00017
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	.00006	19.243	-.00189	.00358	.00015	.00250	-.00117
SDev	.04130	.138	.00931	.00013	.00044	.04248	.00492
%RSD	71920.	.71617	493.09	3.7248	282.84	1701.6	421.02
#1	.05699	19.103	.01181	.00346	.00015	.04729	-.00485
#2	-.01308	19.190	-.00519	.00346	-.00015	.02616	.00303

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#3	-.04112	19.249	-.00519	.00369	-.00015	-.01587	-.00598
#4	-.00256	19.429	-.00897	.00369	.00077	-.04760	.00312
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	.07676
SDev	.00244
%RSD	3.1779

#1	.07360
#2	.07653
#3	.07947
#4	.07745

Errors	LC Pass
High	100.00
Low	-.02000

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Method: QUANMET Sample Name: DDRMPT Operator: RJG
 Run Time: 06/01/00 18:55:31
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00379	.14493	.12313	.02547	1.2728	.00020	H739.58
SDev	.00133	.00420	.01810	.00224	.0161	.00006	2.32
%RSD	35.249	2.8965	14.700	8.7884	1.2687	28.734	.31329
#1	-.00412	.14030	.13861	.02436	1.2518	.00022	H738.27
#2	-.00273	.14534	.09731	.02822	1.2704	.00022	H737.45
#3	-.00553	.14368	.12490	.02621	1.2902	.00011	H742.70
#4	-.00276	.15038	.13172	.02309	1.2787	.00023	H739.90
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	.00302	.00166	.00088	.01011	.12044	2.2281	.00118
SDev	.00295	.00210	.00126	.00040	.00210	.1655	.00060
%RSD	97.827	126.59	143.34	3.9817	1.7473	7.4288	50.938
#1	.00481	.00423	.00025	.00951	.11758	2.4709	.00128
#2	.00009	.00167	.00025	.01031	.12203	2.1271	.00128
#3	.00620	-.00092	.00025	.01031	.12202	2.1185	.00182
#4	.00096	.00166	.00278	.01031	.12012	2.1959	.00036
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	16.105	.10498	.00339	S-.11575	.00540	.01580	.01902
SDev	.147	.00090	.00259	.00000	.00387	.01414	.01718
%RSD	.91292	.85459	76.563	.00000	71.559	89.483	90.340
#1	15.899	.10428	.00563	S-.11575	.00339	.03700	.03784
#2	16.118	.10428	.00114	S-.11575	.01096	.00874	.00022
#3	16.244	.10615	.00114	S-.11575	.00228	.00870	.02844
#4	16.161	.10522	.00563	S-.11575	.00498	.00875	.00958
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	.00657	3.9355	-.01013	1.5598	-.04182	.06249	.00542
SDev	.04739	.0849	.01573	.0190	.00053	.03896	.00260
%RSD	721.13	2.1564	155.33	1.2178	1.2736	62.341	47.999
#1	.07489	4.0237	.01027	1.5353	-.04167	.04668	.00771
#2	.00132	3.9911	-.00880	1.5571	-.04136	.03612	.00762

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#3	-.03021	3.8771	-.01433	1.5806	-.04259	.12045	.00312
#4	-.01971	3.8499	-.02765	1.5663	-.04167	.04671	.00321
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	.04408
SDev	.00180
%RSD	4.0817

#1	.04527
#2	.04575
#3	.04181
#4	.04348

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DDRMPP5T Operator: RJG
Run Time: 06/01/00 18:58:39
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00173	.03311	.02115	-.01333	.26774	.00006	152.98
SDev	.00174	.00765	.05807	.00208	.00286	.00007	.30
%RSD	100.85	23.097	274.52	15.586	1.0683	120.34	.19305

#1	-.00139	.04323	.08812	-.01320	.26562	.00012	153.05
#2	-.00415	.02473	.01604	-.01631	.26716	.00011	152.55
#3	-.00139	.03308	.03321	-.01190	.26626	.00000	153.09
#4	.00001	.03143	-.05275	-.01191	.27193	-.00001	153.23

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00036	.00084	-.00177	.00041	.02425	.16329	-.00096
SDev	.00152	.00181	.00165	.00077	.00175	.12124	.00041
%RSD	422.46	215.55	93.307	190.41	7.2125	74.246	42.782

#1	-.00069	.00213	-.00177	-.00020	.02250	.02149	-.00109
#2	.00187	.00084	-.00379	.00061	.02313	.31370	-.00071
#3	-.00136	-.00172	-.00177	-.00020	.02631	.18478	-.00055
#4	-.00126	.00212	.00025	.00142	.02504	.13321	-.00147

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.3831	.02249	-.00112	261.39	.00008	-.00176	.00004
SDev	.0492	.00047	.00259	4.38	.00469	.02604	.00004
%RSD	1.4544	2.0871	231.71	1.6774	6090.4	1479.6	86.357

#1	3.3372	.02179	-.00337	256.36	-.00094	-.01228	.00002
#2	3.3699	.02273	-.00337	261.99	-.00156	-.01231	.00009
#3	3.3724	.02273	.00113	260.28	-.00402	-.01942	.00001
#4	3.4529	.02273	.00113	266.94	.00683	.03697	.00006

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02024	1.1223	.00003	.32776	-.00830	.02093	.00110
SDev	.02092	.0369	.01266	.00321	.00053	.05472	.00168
%RSD	103.39	3.2916	36286.	.97835	6.4150	261.48	152.54

#1	.01497	1.1575	.01184	.32528	-.00815	-.00539	-.00035
#2	.04301	1.1359	-.00894	.32713	-.00907	.08939	.00302
#3	-.00604	1.1250	-.01272	.32620	-.00784	-.03699	-.00026
#4	.02900	1.0707	.00995	.33244	-.00815	.03670	.00199

Elem	ZN
Units	ppm
Avg	.01243
SDev	.00138
%RSD	11.127

#1	.01101
#2	.01175
#3	.01277

#4 .01420

Method: QUANMET Sample Name: DDRMPST Operator: RJG
 Run Time: 06/01/00 19:01:47
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.91085	.13366	4.7584	.02221	43.579	.00008	H694.36
SDev	.00526	.00919	.0351	.00064	.262	.00006	5.14
%RSD	.57761	6.8750	.73802	2.8935	.60220	71.471	.73981
#1	.90321	.12362	4.7069	.02253	43.692	-.00001	H686.88
#2	.91432	.14373	4.7686	.02125	43.495	.00011	H698.59
#3	.91155	.13870	4.7721	.02253	43.259	.00011	H696.03
#4	.91432	.12859	4.7859	.02254	43.870	.00011	H695.95
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	.95243	.00053	4.2104	.00809	.11426	1.6480	.00065
SDev	.00695	.00397	.0250	.00078	.00240	.3305	.00077
%RSD	.72940	745.08	.59394	9.5926	2.0972	20.056	119.29
#1	.94774	-.00047	4.1734	.00708	.11125	1.3536	-.00017
#2	.94668	.00219	4.2279	.00870	.11506	1.9123	.00166
#3	.95346	.00486	4.2224	.00870	.11696	1.9552	.00074
#4	.96184	-.00445	4.2178	.00788	.11378	1.3708	.00036
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	15.113	.09842	.00002	S-.11575	.00984	4.3703	.06233
SDev	.042	.00090	.00430	.00000	.00203	.0312	.01189
%RSD	.27620	.91144	25174.	.00000	20.670	.71475	19.078
#1	15.079	.09771	-.00335	S-.11575	.00735	4.3245	.06022
#2	15.142	.09959	.00114	S-.11575	.01227	4.3950	.05038
#3	15.074	.09772	.00563	S-.11575	.01025	4.3810	.07880
#4	15.155	.09865	-.00335	S-.11575	.00950	4.3808	.05993
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	.97186	2.9881	.00045	1.4587	-.03913	.00989	.00242
SDev	.03014	.0538	.02152	.0078	.00063	.10693	.00012
%RSD	3.1012	1.8006	4735.4	.53240	1.6201	1081.6	4.9111
#1	.96835	2.9922	.02170	1.4599	-.03921	-.05854	.00228
#2	.93683	3.0573	.01409	1.4563	-.03828	.00460	.00248

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#3	.97187	2.9270	-.02545	1.4500	-.03921	-.06918	.00255
#4	1.0104	2.9759	-.00853	1.4686	-.03982	.16266	.00237
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	.04163
SDev	.00025
%RSD	.59807

#1	.04151
#2	.04200
#3	.04149
#4	.04150

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DDRMPDT Operator: RJG
 Run Time: 06/01/00 19:04:54
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.90008	.13327	4.7721	.02280	43.284	.00011	H681.62
SDev	.00399	.00933	.0899	.00032	.271	.00009	4.19
%RSD	.44362	7.0000	1.8839	1.4011	.62583	78.850	.61499
#1	.89904	.12366	4.8891	.02308	43.570	.00011	H680.52
#2	.90319	.14218	4.7962	.02252	43.409	.00000	H681.06
#3	.89487	.12694	4.6966	.02308	43.220	.00011	H677.47
#4	.90323	.14029	4.7067	.02253	42.939	.00022	H687.45
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	.93964	.00232	4.1494	.00890	.11395	1.7124	.00036
SDev	.00205	.00205	.0189	.00040	.00150	.5628	.00044
%RSD	.21781	88.639	.45437	4.5416	1.3158	32.866	120.96
#1	.94016	.00217	4.1390	.00870	.11506	1.9466	.00036
#2	.94159	.00481	4.1517	.00870	.11379	1.6630	.00036
#3	.93675	-.00021	4.1320	.00870	.11188	.95827	-.00017
#4	.94005	.00249	4.1749	.00951	.11506	2.2818	.00090
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	14.914	.09654	.00002	S-.11575	.00667	4.3123	.06281
SDev	.061	.00090	.00430	.00000	.00416	.0396	.00468
%RSD	.40883	.93024	25242.	.00000	62.331	.91824	7.4447
#1	14.961	.09584	-.00335	S-.11575	.00987	4.2894	.06048
#2	14.921	.09678	-.00335	S-.11575	.00261	4.3458	.06981
#3	14.826	.09584	.00114	S-.11575	.01061	4.2682	.06071
#4	14.946	.09772	.00563	S-.11575	.00359	4.3457	.06022
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	.97799	2.8660	.00093	1.4462	-.03821	.07043	.00258
SDev	.02205	.0330	.03710	.0076	.00039	.05255	.00333
%RSD	2.2545	1.1497	4007.7	.52536	1.0127	74.622	129.10
#1	.98938	2.8945	.04438	1.4545	-.03859	.10991	.00221
#2	.95784	2.8944	.01418	1.4501	-.03767	.09940	-.00114

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#3	.96134	2.8402	-.04254	1.4429	-.03828	-.00590	.00229
#4	1.0034	2.8348	-.01231	1.4374	-.03828	.07829	.00696
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	.04026
SDev	.00198
%RSD	4.9092

#1	.04296
#2	.03829
#3	.03952
#4	.04029

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DDVK9T
Run Time: 06/01/00 19:08:02
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP
Mode: CONC Corr. Factor: 1

Operator: RJG

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00583	.02204	.09839	92.396	.16750	.00008	H807.73
SDev	.00133	.01257	.03513	.217	.00026	.00001	4.12
%RSD	22.717	57.046	35.706	.23499	.15522	6.5419	.50981
#1	-.00688	.01787	.12594	92.079	.16727	.00009	H802.01
#2	-.00686	.00612	.05722	92.436	.16727	.00008	H810.43
#3	-.00549	.03290	.12923	92.505	.16772	.00009	H807.45
#4	-.00410	.03128	.08115	92.561	.16772	.00009	H811.02
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	-.00056	.00096	.00075	.00101	.01220	13.770	.02010
SDev	.00123	.00000	.00101	.00047	.00172	.080	.00041
%RSD	219.49	.34815	134.71	46.112	14.093	.57962	2.0345
#1	.00102	.00096	.00025	.00061	.01283	13.815	.01996
#2	-.00199	.00097	.00024	.00061	.00966	13.669	.02050
#3	-.00066	.00096	.00025	.00142	.01284	13.747	.01958
#4	-.00062	.00096	.00227	.00142	.01347	13.850	.02034
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.7000	.00117	.00112	S-.11575	.00245	.02465	.00723
SDev	.0098	.00000	.00367	.00000	.00499	.00351	.00911
%RSD	.20948	.11832	326.09	.00000	203.22	14.252	125.90
#1	4.6875	.00117	.00113	S-.11575	.00097	.02992	.00015
#2	4.6975	.00117	-.00337	S-.11575	.00986	.02291	.01915
#3	4.7101	.00118	.00562	S-.11575	-.00032	.02287	.00008
#4	4.7051	.00117	.00113	S-.11575	-.00069	.02289	.00956
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	.02107	17.822	-.00167	1.1289	L-.05051	.07087	.01354
SDev	.03229	.030	.00790	.0023	.00058	.03786	.00209
%RSD	153.24	.17061	472.89	.20544	1.1525	53.418	15.408
#1	.05698	17.784	-.00501	1.1260	L-.05089	.12091	.01213
#2	.03945	17.849	-.00492	1.1315	L-.05089	.07878	.01655

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#3	-.00258	17.844	.01010	1.1285	-.04966	.04717	.01334
#4	-.00959	17.811	-.00686	1.1297	L-.05058	.03664	.01213

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	.00489
SDev	.00093
%RSD	18.953

#1	.00608
#2	.00483
#3	.00484
#4	.00381

Errors	LC Pass
High	100.00
Low	-.02000

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Method: QUANMET Sample Name: DDVKAT

Operator: RJG

Run Time: 06/01/00 19:11:09

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Note: printer jam
data sheet illegible
sample will be re-analyzed
RJB 6-1-00

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00455	9.1256	.09378	1.0385	.44348	.00349	219.50
SDev	.00115	.0360	.05911	.0326	.00239	.00001	.47
%RSD	25.214	.39410	63.032	3.1372	.53967	.17096	.21622

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#1	-.00451	9.1533	.17414	1.0722	.44539	.00348	220.04
#2	-.00455	9.1366	.10229	1.0440	.44449	.00349	219.59
#3	-.00316	9.1399	.05069	1.0440	.44404	.00349	219.48
#4	-.00597	9.0728	.04800	.99388	.43999	.00349	218.89

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	.00123	.06521	.00227	.00049	25.537	8.5858	.00700
SDev	.00278	.00302	.00165	.00040	.090	.1143	.00027
%RSD	226.51	4.6348	72.609	83.261	.35243	1.3317	3.8908

#1	.00170	.06745	.00227	.00029	25.634	8.7018	.00677
#2	.00426	.06744	.00429	.00029	25.545	8.5471	.00715
#3	.00143	.06489	.00025	.00109	25.553	8.4440	.00677
#4	-.00248	.06105	.00227	.00027	25.416	8.6503	.00731

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	13.852	4.5342	-.00403	S-.11575	.15810	.27445	.00179
SDev	13.868	4.5295	-.00404	S-.11575	.14991	.26746	.01102
%RSD	13.835	4.5248	-.00404	S-.11575	.16519	.23922	.00174
#1	13.702	4.5024	-.00406	S-.11575	.15083	.27436	.00163
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	-.02500	-.01000	-.02500	-.02500	-.02500	-.02500

Elem	SE	ST	SR	TI	TH	TL
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04080	.0328	.00128	.26770	-.01376	.07199
SDev	.03631	.0275	.01882	.00128	.00046	.07816
%RSD	88.998	.55749	272.17	.47953	3.3520	108.58
#1	.06305	4.9464	-.01916	.26857	-.01399	-.02378
#2	.08024	4.9518	.02054	.26811	-.01307	.00824

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Method: QUANMET Sample Name: CCV2-2

Operator: RJG

Run Time: 06/01/00 19:14:17

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61E1CP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.97897	50.053	4.9165	4.9354	4.8710	4.8429	49.865
SDev	.00272	.189	.0921	.0191	.0271	.0230	.131
%RSD	.27782	.37747	1.8743	.38700	.55653	.47504	.26338
#1	.98075	49.958	5.0160	4.9475	4.8572	4.8444	50.061
#2	.98076	50.119	4.9355	4.9296	4.8900	4.8527	49.815
#3	.97937	50.283	4.7932	4.9533	4.8970	4.8639	49.803
#4	.97501	49.851	4.9214	4.9110	4.8398	4.8105	49.782
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	4.9512	4.8499	4.8382	4.8851	50.851	51.566	5.0958
SDev	.0322	.0095	.0100	.0285	.124	.282	.0378
%RSD	.65030	.19632	.20721	.58368	.24413	.54645	.74271
#1	4.9747	4.8627	4.8462	4.8753	50.893	51.536	5.0574
#2	4.9791	4.8498	4.8442	4.8971	50.918	51.270	5.0856
#3	4.9405	4.8474	4.8382	4.9173	50.928	51.949	5.1478
#4	4.9104	4.8398	4.8240	4.8510	50.666	51.510	5.0925
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	49.756	4.8452	4.8335	50.902	4.8219	4.8664	4.9399
SDev	.232	.0094	.0127	.304	.0319	.0261	.0755
%RSD	.46686	.19297	.26292	.59801	.66055	.53659	1.5286
#1	49.665	4.8534	4.8245	50.651	4.8211	4.8774	4.9777
#2	49.750	4.8468	4.8246	50.822	4.8663	4.8840	4.9780
#3	50.077	4.8487	4.8515	51.345	4.7925	4.8276	4.9772
#4	49.532	4.8318	4.8335	50.790	4.8075	4.8767	4.8266
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	5.0738	5.2527	4.8869	4.8725	4.8396	9.6382	4.8596
SDev	.0606	.0449	.0272	.0245	.0143	.1547	.0128
%RSD	1.1934	.85388	.55666	.50327	.29600	1.6054	.26309
#1	5.0503	5.2147	4.8871	4.8623	4.8364	9.4401	4.8662
#2	5.0959	5.2799	4.9097	4.8904	4.8484	9.7665	4.8662

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#3	5.1450	5.3016	4.9022	4.8946	4.8527	9.7559	4.8656
#4	5.0039	5.2144	4.8486	4.8426	4.8207	9.5902	4.8405
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	4.8993						
SDev	.0056						
%RSD	.11463						
#1	4.8918						
#2	4.9040						
#3	4.9032						
#4	4.8981						
Errors	LC Pass						
High	5.5000						
Low	4.5000						

Method: QUANMET Sample Name: CCB2 Operator: RJG
Run Time: 06/01/00 19:17:24
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00000	.01670	.03167	.04829	.00040	.00027	.00394
SDev	.00227	.01682	.01880	.01000	.00031	.00006	.00528
%RSD	46463.	100.73	59.376	20.707	77.287	21.939	133.94
#1	-.00000	.01790	.00932	.05530	.00056	.00024	.00395
#2	.00278	.03975	.02631	.03881	.00074	.00036	.01114
#3	-.00001	.00127	.05414	.05842	.00029	.00024	.00206
#4	-.00279	.00787	.03690	.04064	.00003	.00024	-.00138
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	.00230	.00192	.00089	.00000	.00413	.17189	-.00023
SDev	.00300	.00242	.00252	.00077	.00315	.33978	.00114
%RSD	130.46	126.28	283.94	37309.	76.422	197.67	499.13
#1	.00359	.00223	.00076	.00061	.00349	.42542	-.00017
#2	.00214	.00352	.00430	.00061	.00794	.50277	.00128
#3	H.00524	.00351	.00025	-.00101	.00476	-.09024	-.00147
#4	-.00178	-.00160	-.00176	-.00020	.00032	-.15040	-.00055
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.05000	.01000	.02500	.10000	5.0000	.05000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00314	-.00023	.01235	.01584	-.00291	-.00523	-.00011
SDev	.00941	.00054	.00580	.00847	.00301	.00993	.00010
%RSD	299.33	236.76	46.944	53.498	103.44	189.82	87.393
#1	.00314	.00024	.01909	.00907	-.00106	.00885	-.00013
#2	.01320	.00024	.01460	.02700	-.00563	-.01224	-.00024
#3	.00566	-.00070	.00562	.01784	.00035	-.01222	-.00004
#4	-.00943	-.00070	.01011	.00945	-.00532	-.00533	-.00004
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	.01753	.17097	.00378	.00069	.00077	.03155	-.00117
SDev	.01818	.03611	.02629	.00019	.00083	.05801	.00011
%RSD	103.70	21.119	696.06	27.217	108.32	183.87	9.7720
#1	.00439	.20218	.00425	.00069	.00046	-.00531	-.00104
#2	.01842	.20218	.03448	.00092	.00200	.09996	-.00112

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#3	.04294	.14247	.00614	.00069	.00046	-.02640	-.00130
#4	.00438	.13704	-.02976	.00046	.00015	.05794	-.00122

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	.00311
SDev	.00084
%RSD	26.961

#1	.00303
#2	.00429
#3	.00281
#4	.00232

Errors	LC Pass
High	.02000
Low	-.02000

Method: QUANMET Sample Name: DE215B Operator: RJG
Run Time: 06/01/00 19:20:31
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00314	.00380	.01032	.02104	.00025	.00001	.07138
SDev	.00209	.01080	.01321	.00000	.00030	.00001	.00338
%RSD	66.561	284.14	127.98	.00805	121.15	88.411	4.7417
#1	-.00557	-.00538	.01983	.02104	-.00016	.00000	.06908
#2	-.00140	.00631	.00254	.02103	.00056	.00000	.07252
#3	-.00139	.01802	.02306	.02104	.00029	.00000	.07564
#4	-.00420	-.00375	-.00417	.02104	.00029	.00002	.06827
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	.00263	-.00033	-.00177	-.00081	.00333	-.20197	-.00110
SDev	.00125	.00234	.00233	.00078	.00197	.38754	.00120
%RSD	47.619	713.75	132.09	96.006	58.998	191.88	108.45
#1	.00131	-.00161	-.00379	-.00101	.00222	-.26213	-.00131
#2	.00240	.00096	.00025	-.00020	.00349	.06446	-.00093
#3	.00433	.00223	.00025	-.00020	.00603	.11602	.00036
#4	.00246	-.00289	-.00378	-.00182	.00159	-.72623	-.00254
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	-.00754	-.00023	.00000	.03197	-.00347	-.01584	-.00007
SDev	.00805	.00054	.00565	.00446	.00455	.04319	.00004
%RSD	106.72	231.23	1133700.	13.959	131.20	272.63	67.573
#1	-.00440	.00023	-.00786	.02548	-.00846	.03689	-.00001
#2	-.00440	.00024	.00112	.03273	-.00032	-.01229	-.00006
#3	-.00189	-.00070	.00562	.03426	.00103	-.01930	-.00007
#4	-.01949	-.00070	.00112	.03540	-.00612	-.06868	-.00012
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	-.00174	.18995	.01701	.00000	-.00000	.01315	-.00254
SDev	.03645	.02482	.01116	.00000	.00053	.05253	.00224
%RSD	2095.4	13.064	65.644	.00000	1830e6	399.44	88.412
#1	.04643	.19675	.00048	.00000	-.00077	.02633	-.00157
#2	-.03765	.20761	.02126	.00000	.00015	.01577	-.00139

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#3	.00440	.15333	.02126	.00000	.00046	.06839	-.00130
#4	-.02014	.20212	.02504	.00000	.00015	-.05789	-.00590

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	.00933
SDev	.00089
%RSD	9.5244

#1	.00832
#2	.01049
#3	.00924
#4	.00925

Errors	LC Pass
High	.02000
Low	-.02000

Method: QUANMET Sample Name: DE215C

Operator: RJG

Run Time: 06/01/00 19:23:39

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04421	1.9297	1.8924	.92019	1.9686	.04811	L.05437
SDev	.00301	.0059	.0575	.00570	.0237	.00026	.00364
%RSD	6.8050	.30698	3.0400	.61926	1.2021	.54445	6.6965
#1	.04421	1.9247	1.9432	.92422	1.9635	.04811	L.05453
#2	.04559	1.9265	1.9294	.91174	1.9514	.04787	L.05864
#3	.04701	1.9297	1.8812	.92239	1.9563	.04798	L.05458
#4	.04004	1.9380	1.8159	.92240	2.0033	.04848	L.04974
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	.04917	.47566	.18937	.24253	1.0269	L-.21271	1.0402
SDev	.00391	.00433	.00101	.00191	.0033	.30615	.0289
%RSD	7.9507	.91099	.53315	.78583	.32111	143.93	2.7737
#1	.04743	.47439	.18786	.24273	1.0272	L-.20197	1.0193
#2	.04459	.48081	.18988	.24112	1.0221	L.14181	1.0416
#3	.05330	.47694	.18988	.24112	1.0291	L-.18478	1.0196
#4	.05136	.47051	.18988	.24515	1.0291	L-.60590	1.0806
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-.00880	.48025	-.00322	L.01555	.48702	.47452	L.00650
SDev	.01863	.00230	.00000	.00686	.01073	.02844	.00011
%RSD	211.73	.47809	.01533	44.081	2.2028	5.9925	1.7315
#1	L.00063	.48025	-.00322	L.01097	.48710	.49911	L.00651
#2	L.00817	.47744	-.00322	L.01937	.49795	.45004	L.00664
#3	L-.00943	.48306	-.00322	L.02319	.47243	.49918	L.00636
#4	L-.03457	.48025	-.00322	L.00868	.49061	.44975	L.00648
Errors	LC Low	LC Pass	NOCHECK	LC Low	LC Pass	LC Pass	LC Low
High	60.000	.60000		60.000	.60000	.60000	.60000
Low	40.000	.40000		40.000	.40000	.40000	.40000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9326	.06026	.01912	.98261	-.00031	1.9573	.46852
SDev	.0287	.00522	.01016	.00937	.00064	.0315	.00225
%RSD	1.4837	8.6658	53.141	.95324	208.17	1.6076	.48088
#1	1.9318	.06160	.01582	.98115	-.00046	1.9704	.46739
#2	1.8932	.05617	.00637	.97465	-.00015	1.9178	.46740

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#3	1.9598	.06709	.02526	.97857	.00046	1.9493	.47190
#4	1.9458	.05617	.02905	.99608	-.00108	1.9915	.46740
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	.47658						
SDev	.00110						
%RSD	.23071						
#1	.47496						
#2	.47691						
#3	.47701						
#4	.47743						
Errors	LC Pass						
High	.60000						
Low	.40000						

Method: QUANMET Sample Name: DDXEG

Operator: RJG

Run Time: 06/01/00 19:26:46

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00261	319.63	.01732	.60210	1.8671	.02951	H1209.6
SDev	.00138	2.01	.09367	.00851	.0132	.00007	5.6
%RSD	52.649	.62845	540.86	1.4138	.70746	.22371	.46232
#1	-.00246	316.68	-.05398	.59422	1.8476	.02945	H1210.5
#2	-.00354	320.15	.00792	.61061	1.8715	.02957	H1210.8
#3	-.00374	321.14	-.03693	.59536	1.8771	.02945	H1201.8
#4	-.00073	320.55	.15226	.60821	1.8721	.02956	H1215.2
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	-.00004	.06593	.19052	.24056	258.80	24.836	.27366
SDev	.00388	.00220	.00254	.00225	.71	.069	.00385
%RSD	9445.2	3.3378	1.3333	.93399	.27383	.27738	1.4058
#1	.00489	.06407	.19405	.23786	257.96	24.851	.26876
#2	.00085	.06783	.19001	.24202	259.34	24.902	.27684
#3	-.00171	.06785	.18799	.24275	258.46	24.739	.27662
#4	-.00419	.06398	.19001	.23960	259.43	24.851	.27242
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	56.822	20.415	.01287	8.0491	.10114	.35750	.01997
SDev	.242	.066	.00825	.0977	.01322	.03718	.05423
%RSD	.42641	.32353	64.121	1.2132	13.075	10.401	271.54
#1	56.459	20.354	.00376	7.9107	.11988	.38378	-.01279
#2	56.924	20.451	.02193	8.1237	.09567	.38176	.00574
#3	56.942	20.364	.01731	8.1115	.08925	.30402	-.01329
#4	56.962	20.489	.00847	8.0504	.09977	.36045	.10022
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	.05695	2.7755	.04609	3.2106	7.9152	.52914	.24416
SDev	.05437	.0321	.03145	.0197	.0286	.10940	.00189
%RSD	95.468	1.1578	68.230	.61328	.36164	20.674	.77437
#1	.02586	2.7511	.03790	3.1812	7.8735	.50851	.24343
#2	.13253	2.7945	.02671	3.2189	7.9286	.67380	.24377

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#3	.05923	2.7456	.09262	3.2234	7.9209	.40857	.24255
#4	.01020	2.8108	.02713	3.2188	7.9378	.52570	.24689
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	.56192
SDev	.00262
%RSD	.46564

#1	.55935
#2	.56549
#3	.56084
#4	.56199

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DDXEGP5 Operator: RJG
 Run Time: 06/01/00 19:29:53
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00378	66.052	-.00879	.14548	.40497	.00641	265.45
SDev	.00181	.154	.04865	.00581	.00177	.00007	1.53
%RSD	47.995	.23294	553.23	3.9963	.43684	1.0930	.57654

#1	-.00309	65.919	.05252	.14530	.40378	.00647	265.78
#2	-.00166	65.929	.00065	.14948	.40315	.00635	267.48
#3	-.00588	66.233	-.06350	.13732	.40667	.00648	264.12
#4	-.00448	66.127	-.02484	.14982	.40630	.00636	264.43

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00144	.01461	.04012	.04761	59.637	4.7505	.05560
SDev	.00293	.00105	.00214	.00041	.072	.3865	.00069
%RSD	203.95	7.1890	5.3380	.85990	.12067	8.1369	1.2501

#1	-.00114	.01590	.04264	.04741	59.569	4.8172	.05534
#2	.00071	.01461	.03861	.04823	59.738	5.2211	.05480
#3	.00053	.01333	.03810	.04741	59.610	4.2843	.05587
#4	.00565	.01459	.04113	.04741	59.631	4.6796	.05641

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	12.412	4.5513	.00106	1.6855	.02480	.04894	.00194
SDev	.026	.0136	.00636	.0182	.00924	.03182	.00548
%RSD	.21011	.29927	602.43	1.0807	37.279	65.020	281.92

#1	12.394	4.5513	-.00345	1.6644	.01928	.06666	.00661
#2	12.394	4.5701	.01006	1.6885	.03833	.07362	.00677
#3	12.412	4.5382	-.00344	1.7083	.01848	.00308	-.00284
#4	12.449	4.5457	.00106	1.6808	.02310	.05242	-.00277

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00340	.62358	.00463	.69782	1.7223	.06499	.05500
SDev	.04170	.00944	.01555	.00206	.0014	.06408	.00265
%RSD	1227.5	1.5131	336.04	.29579	.08051	98.603	4.8261

#1	.01892	.63175	.01503	.69596	1.7215	.00510	.05717
#2	-.04003	.63175	-.00005	.69619	1.7212	.12986	.05742
#3	.05411	.61540	.01877	.70012	1.7221	.10998	.05266
#4	-.01940	.61540	-.01524	.69900	1.7243	.01500	.05275

Elem	ZN
Units	ppm
Avge	.12168
SDev	.00144
%RSD	1.1800

#1	.12077
#2	.12369
#3	.12053

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#4 .12175

Method: QUANMET Sample Name: DDXEGS

Operator: RJG

Run Time: 06/01/00 19:33:01

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04344	333.31	1.6206	1.5964	3.5173	.07352	S-1222.7
SDev	.00126	2.51	.0255	.0051	.0252	.00023	1798.5
%RSD	2.9060	.75215	1.5744	.31639	.71667	.31944	147.10

#1	.04362	331.10	1.6255	1.5993	3.4921	.07317	H1475.1
#2	.04516	331.20	1.5997	1.5893	3.4993	.07364	S-2119.5
#3	.04254	335.29	1.6024	1.6006	3.5362	.07362	S-2123.1
#4	.04244	335.67	1.6547	1.5963	3.5416	.07365	S-2123.2

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Low
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	.04921	.44170	.29435	.36396	165.82	27.143	1.1947
SDev	.00134	.00323	.00193	.00279	.55	.208	.0215
%RSD	2.7130	.73187	.65608	.76570	.33377	.76534	1.8024

#1	.04728	.44083	.29283	.36168	165.09	27.068	1.1833
#2	.04937	.44590	.29486	.36174	165.72	26.888	1.1716
#3	.05020	.43811	.29687	.36744	166.36	27.352	1.2041
#4	.05000	.44197	.29284	.36500	166.10	27.266	1.2200

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	58.906	21.757	.00233	8.6371	.45142	.62779	-.00506
SDev	.275	.070	.00766	.1288	.02226	.04146	.00945
%RSD	.46668	.32036	328.07	1.4908	4.9299	6.6044	186.87

#1	58.541	21.657	-.00114	8.5359	.47563	.63261	-.00938
#2	58.848	21.767	.01243	8.5233	.46473	.67480	.00911
#3	59.109	21.818	-.00545	8.7035	.42958	.57376	-.01009
#4	59.127	21.786	.00350	8.7859	.43575	.63000	-.00988

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	1.8176	2.7258	.01693	4.3490	9.0993	1.8231	.60160
SDev	.0255	.0054	.04368	.0261	.0361	.0677	.00408
%RSD	1.4029	.19743	258.00	.59918	.39656	3.7145	.67808

#1	1.8027	2.7285	-.01991	4.3219	9.0537	1.8696	.59828
#2	1.8435	2.7285	.05387	4.3314	9.0875	1.8426	.60305

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#3	1.7898	2.7177	.05562	4.3710	9.1327	1.8573	.60673
#4	1.8344	2.7285	-.02186	4.3716	9.1232	1.7229	.59837
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	.71699
SDev	.00846
%RSD	1.1800

#1	.70895
#2	.71070
#3	.72215
#4	.72615

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DDXEGD

Operator: RJG

Run Time: 06/01/00 19:36:08

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04065	304.67	1.6462	1.4291	3.4764	.07006	S516.58
SDev	.00227	.74	.1304	.0142	.0072	.00012	1800.0
%RSD	5.5940	.24311	7.9188	.99697	.20766	.16892	348.44

#1	.04013	303.93	1.6096	1.4230	3.4728	.06996	H1413.0
#2	.04287	304.19	1.5079	1.4247	3.4681	.06997	H1412.9
#3	.03770	305.05	1.6463	1.4501	3.4811	.07017	S-2183.3
#4	.04190	305.52	1.8209	1.4186	3.4836	.07016	H1423.7

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	.04769	.44061	.86994	.83030	275.44	24.939	1.1747
SDev	.00188	.00320	.00283	.00007	.89	.215	.0026
%RSD	3.9453	.72707	.32484	.00860	.32208	.86286	.22285

#1	.04573	.44418	.86589	.83024	274.70	25.048	1.1731
#2	.05023	.43648	.87045	.83023	274.64	24.696	1.1782
#3	.04712	.44154	.87094	.83036	276.15	24.833	1.1753
#4	.04768	.44023	.87245	.83036	276.26	25.177	1.1724

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	85.033	46.533	.01311	7.7060	.45801	.72061	-.00116
SDev	.229	.155	.00864	.0090	.01350	.03348	.01872
%RSD	.26960	.33379	65.877	.11730	2.9466	4.6459	1607.1

#1	84.839	46.393	.00177	7.7004	.45985	.70014	-.01040
#2	84.831	46.406	.01973	7.7195	.44705	.75615	.02691
#3	85.251	46.652	.01996	7.7012	.47637	.68508	-.01039
#4	85.211	46.683	.01099	7.7031	.44876	.74107	-.01078

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	1.6752	3.0827	.02869	3.9674	9.3909	1.9863	1.7698
SDev	.0585	.0095	.04051	.0093	.0311	.1002	.0082
%RSD	3.4899	.30824	141.20	.23507	.33069	5.0440	.46514

#1	1.6007	3.0745	.00733	3.9607	9.3673	2.0484	1.7651
#2	1.7407	3.0744	.06987	3.9582	9.3624	1.9439	1.7609

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#3	1.6936	3.0909	-.01710	3.9736	9.4079	1.8663	1.7744
#4	1.6660	3.0909	.05465	3.9771	9.4261	2.0866	1.7788
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 .90433
 SDev .00313
 %RSD .34644

#1 .90238
 #2 .90241
 #3 .90895
 #4 .90357

Errors LC Pass
 High 100.00
 Low -.02000

Method: QUANMET Sample Name: DDXEH

Operator: RJG

Run Time: 06/01/00 19:39:16

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00129	350.16	-.04590	.77630	1.9686	.03449	S1155.4
SDev	.00175	2.44	.11135	.00275	.0155	.00012	2154.6
%RSD	135.51	.69770	242.57	.35385	.78873	.35242	186.47
#1	-.00370	351.30	.06306	.78037	1.9750	.03446	H1580.9
#2	-.00104	352.04	-.20022	.77439	1.9826	.03459	S2523.9
#3	-.00092	350.72	-.03872	.77543	1.9700	.03459	S2523.8
#4	.00050	346.59	-.00773	.77502	1.9466	.03434	S-2006.9
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	.00379	.03691	.06152	.37488	208.35	17.348	.23140
SDev	.00400	.00286	.00422	.00467	.28	.186	.00434
%RSD	105.52	7.7439	6.8526	1.2464	.13236	1.0702	1.8774
#1	.00507	.03337	.05723	.37690	208.39	17.588	.23468
#2	.00853	.03593	.05925	.37848	207.95	17.142	.23398
#3	.00247	.03979	.06279	.37610	208.49	17.365	.23177
#4	-.00091	.03856	.06682	.36803	208.56	17.296	.22515
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	52.466	21.162	.00757	6.9074	.04789	.26569	.02205
SDev	.188	.052	.00263	.1238	.01315	.00479	.03548
%RSD	.35904	.24666	34.670	1.7919	27.453	1.8030	160.88
#1	52.549	21.159	.00533	7.0004	.03336	.26327	.05730
#2	52.549	21.095	.00527	6.9950	.06297	.26294	-.02729
#3	52.582	21.172	.00984	6.8985	.05394	.26369	.02912
#4	52.184	21.222	.00985	6.7355	.04130	.27286	.02908
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	.09503	2.7243	.03323	3.5234	5.4323	.33357	.16779
SDev	.04171	.0027	.02110	.0215	.0099	.14121	.00260
%RSD	43.890	.09891	63.506	.60968	.18192	42.332	1.5514
#1	.04087	2.7230	.05275	3.5324	5.4376	.28838	.16999
#2	.14087	2.7284	.00883	3.5416	5.4339	.39790	.16549

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#3	.10782	2.7229	.04885	3.5273	5.4397	.48748	.16558
#4	.09056	2.7230	.02249	3.4924	5.4179	.16051	.17009
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 .35619
SDev .00145
%RSD .40558

#1 .35488
#2 .35729
#3 .35501
#4 .35758

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DDXEK Operator: RJG
Run Time: 06/01/00 19:42:24
Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP
Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00030	233.91	.14175	.52259	2.0132	.02563	H1066.8
SDev	.00162	.85	.06460	.01295	.0068	.00010	1.9
%RSD	534.30	.36148	45.574	2.4777	.33737	.38321	.17524
#1	.00187	233.03	.17505	.53307	2.0074	.02563	H1065.0
#2	.00046	233.38	.08627	.50909	2.0074	.02551	H1065.2
#3	-.00196	234.42	.21642	.51395	2.0175	.02575	H1068.3
#4	.00084	234.82	.08924	.53427	2.0204	.02563	H1068.4
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00697	.06627	.13446	.42085	368.56	19.251	.20332
SDev	.00610	.00267	.00261	.00108	.91	.331	.00144
%RSD	87.460	4.0292	1.9387	.25563	.24757	1.7169	.70876
#1	.01609	.06563	.13547	.42119	367.81	19.410	.20135
#2	.00385	.06696	.13749	.41957	367.74	19.496	.20410
#3	.00457	.06305	.13345	.42212	369.31	19.333	.20318
#4	.00338	.06946	.13144	.42052	369.40	18.766	.20464
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	47.558	18.396	.01468	5.5493	.09296	3.7868	.03046
SDev	.140	.049	.00443	.0484	.01013	.0188	.00466
%RSD	.29516	.26580	30.151	.87156	10.896	.49671	15.310
#1	47.467	18.355	.01120	5.4840	.08383	3.7804	.02807
#2	47.410	18.352	.01119	5.5416	.08458	3.7802	.03746
#3	47.691	18.432	.01592	5.5885	.10245	3.8144	.02820
#4	47.663	18.443	.02042	5.5832	.10097	3.7721	.02812
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.11309	2.5786	.05851	2.5365	6.0841	.57458	.23339
SDev	.07094	.0330	.01740	.0090	.0174	.08829	.00008
%RSD	62.733	1.2790	29.744	.35518	.28615	15.366	.03456
#1	.20320	2.6044	.04848	2.5291	6.0738	.58474	.23332
#2	.10481	2.6098	.07499	2.5284	6.0652	.45913	.23333

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#3	.02997	2.5501	.03924	2.5425	6.0956	.58029	.23341
#4	.11438	2.5501	.07135	2.5459	6.1017	.67418	.23349
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
 Units ppm
 Avge 2.4128
 SDev .0108
 %RSD .44612

#1 2.4123
 #2 2.4039
 #3 2.4069
 #4 2.4281

Errors LC Pass
 High 100.00
 Low -.02000

Method: QUANMET Sample Name: DDXEM

Operator: RJG

Run Time: 06/01/00 19:45:31

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00184	197.68	.10624	.33603	1.3641	.02086	H906.07
SDev	.00139	1.86	.03786	.00542	.0163	.00015	4.40
%RSD	75.555	.94086	35.635	1.6133	1.1970	.72431	.48532
#1	-.00143	196.32	.10647	.34211	1.3541	.02066	H903.38
#2	-.00390	199.76	.13419	.32893	1.3836	.02102	H902.08
#3	-.00107	195.92	.13165	.33617	1.3476	.02090	H911.91
#4	-.00096	198.72	.05264	.33692	1.3710	.02089	H906.91
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	.00227	.07008	.18892	.41019	328.66	16.200	.16177
SDev	.00092	.00399	.00202	.00454	.90	.255	.00231
%RSD	40.501	5.6896	1.0692	1.1057	.27505	1.5770	1.4309
#1	.00304	.06823	.18792	.40584	327.36	16.231	.16049
#2	.00112	.06553	.18791	.41484	328.80	16.145	.16415
#3	.00194	.07206	.19195	.40678	329.04	16.523	.15920
#4	.00298	.07452	.18791	.41328	329.43	15.904	.16323
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	38.898	25.208	.01321	4.4983	.12140	.67175	.01150
SDev	.255	.086	.00995	.0799	.00927	.01268	.04248
%RSD	.65637	.34008	75.333	1.7763	7.6382	1.8880	369.24
#1	38.634	25.084	.01863	4.4813	.12833	.66388	-.00977
#2	39.140	25.227	.00087	4.5946	.10959	.66871	-.00973
#3	38.725	25.245	.00990	4.4019	.11844	.66394	.07522
#4	39.092	25.278	.02343	4.5152	.12925	.69047	-.00971
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	.08721	6.0939	.09961	2.1275	6.3155	.46308	.38325
SDev	.06070	.0489	.04629	.0202	.0380	.08597	.00239
%RSD	69.600	.80185	46.472	.94972	.60134	18.564	.62278
#1	.13590	6.0260	.16081	2.1115	6.2755	.58639	.38222
#2	.03254	6.1346	.04934	2.1497	6.3493	.45653	.38188

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#3	.03694	6.0911	.10101	2.1093	6.2906	.41190	.38206
#4	.14348	6.1238	.08726	2.1395	6.3465	.39748	.38682
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 1.1997
SDev .0103
%RSD .85617

#1 1.1861
#2 1.2076
#3 1.1976
#4 1.2077

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DDXEP

Operator: RJG

Run Time: 06/01/00 19:48:39

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00324	182.39	.14382	.30966	1.2272	.02023	H804.54
SDev	.00160	.64	.03293	.00131	.0045	.00006	2.21
%RSD	49.551	.34862	22.899	.42296	.36939	.29724	.27423
#1	-.00472	181.66	.15396	.30881	1.2229	.02020	H804.10
#2	-.00201	182.20	.14977	.30829	1.2252	.02020	H803.42
#3	-.00170	182.52	.09713	.31098	1.2272	.02020	H807.76
#4	-.00452	183.18	.17441	.31057	1.2335	.02032	H802.88
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	-.00234	.07621	.12330	.33751	H432.80	15.792	.16585
SDev	.00269	.00378	.00286	.00136	.68	.510	.00151
%RSD	115.13	4.9657	2.3171	.40229	.15787	3.2285	.90844
#1	-.00306	.07625	.12532	.33748	H432.35	16.162	.16361
#2	.00164	.07493	.12532	.33584	H432.08	15.552	.16652
#3	-.00375	.08134	.12329	.33757	H433.49	16.265	.16636
#4	-.00417	.07233	.11926	.33916	H433.26	15.191	.16689
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC High	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	32.262	26.485	.00520	3.9102	.08965	.52813	.03789
SDev	.093	.053	.00574	.0114	.00868	.00613	.06580
%RSD	.28737	.19845	110.41	.29147	9.6808	1.1617	173.69
#1	32.187	26.432	.00288	3.8946	.08611	.53562	.00952
#2	32.195	26.453	.01183	3.9091	.10163	.52828	-.01878
#3	32.280	26.548	-.00144	3.9164	.08957	.52803	.02863
#4	32.386	26.506	.00751	3.9206	.08129	.52059	.13217
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	.10438	5.0415	.08564	1.8585	6.1478	.70925	.32778
SDev	.05268	.0299	.04335	.0072	.0177	.06642	.00011
%RSD	50.471	.59221	50.622	.38936	.28768	9.3655	.03383
#1	.16933	5.0157	.10770	1.8512	6.1276	.76355	.32774
#2	.10527	5.0645	.12636	1.8551	6.1411	.70329	.32791

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#3	.04033	5.0157	.02666	1.8599	6.1534	.75247	.32765
#4	.10258	5.0700	.08184	1.8680	6.1691	.61768	.32782
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	.78514
SDev	.00502
%RSD	.63889

#1	.78673
#2	.78774
#3	.77769
#4	.78840

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: CCV2-3

Operator: RJG

Run Time: 06/01/00 19:51:47

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.99343	50.099	4.9900	4.9036	4.8752	4.8680	50.853
SDev	.00115	.346	.0726	.0230	.0392	.0225	.198
%RSD	.11580	.69023	1.4556	.46993	.80482	.46265	.38986
#1	.99491	50.197	5.0473	4.9093	4.8833	4.8722	51.080
#2	.99336	49.960	4.9021	4.9052	4.8563	4.8556	50.792
#3	.99335	49.713	5.0520	4.8723	4.8352	4.8464	50.927
#4	.99210	50.524	4.9587	4.9277	4.9261	4.8977	50.614
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	5.0553	4.9038	4.8927	4.8715	51.070	51.046	4.9963
SDev	.0220	.0134	.0181	.0450	.120	.755	.1026
%RSD	.43472	.27320	.37030	.92459	.23538	1.4798	2.0527
#1	5.0852	4.9227	4.9185	4.8761	51.164	51.846	5.0471
#2	5.0551	4.9035	4.8791	4.8543	50.954	50.617	4.9761
#3	5.0329	4.8921	4.8922	4.8244	50.979	50.221	4.8625
#4	5.0481	4.8971	4.8811	4.9311	51.183	51.502	5.0996
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	50.028	4.8792	4.8830	50.427	4.8693	4.9646	4.9729
SDev	.308	.0100	.0246	.839	.0182	.0306	.0095
%RSD	.61661	.20546	.50422	1.6638	.37351	.61692	.19113
#1	50.077	4.8919	4.9144	50.908	4.8949	4.9915	4.9776
#2	49.886	4.8703	4.8560	50.217	4.8698	4.9419	4.9778
#3	49.715	4.8722	4.8740	49.342	4.8550	4.9346	4.9586
#4	50.434	4.8825	4.8875	51.240	4.8578	4.9906	4.9775
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	4.9782	5.0156	4.9220	4.8708	4.8482	9.7618	4.8936
SDev	.0529	.0157	.0310	.0344	.0192	.0908	.0122
%RSD	1.0628	.31389	.63034	.70591	.39586	.93063	.24999
#1	4.9847	5.0361	4.8852	4.8784	4.8546	9.8792	4.9075
#2	5.0505	5.0033	4.9514	4.8568	4.8386	9.7025	4.8849

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#3	4.9350	5.0032	4.9078	4.8336	4.8278	9.7866	4.8819
#4	4.9427	5.0198	4.9437	4.9145	4.8718	9.6791	4.9002

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	4.9635
SDev	.0128
%RSD	.25844

#1	4.9809
#2	4.9538
#3	4.9539
#4	4.9653

Errors	LC Pass
High	5.5000
Low	4.5000

Method: QUANMET Sample Name: CCB3

Operator: RJG

Run Time: 06/01/00 19:54:54

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00105	.00619	.00855	.01403	.00018	.00015	.00085
SDev	.00208	.01494	.02286	.00156	.00013	.00012	.00497
%RSD	199.19	241.28	267.29	11.114	74.933	75.008	586.80
#1	-.00278	-.00552	-.01112	.01480	.00011	.00024	-.00314
#2	-.00278	-.00728	.03015	.01481	.00003	.00012	-.00337
#3	.00139	.02291	.02646	.01482	.00029	.00000	.00680
#4	-.00001	.01465	-.01128	.01169	.00029	.00024	.00310
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	.00084	-.00129	-.00126	-.00121	.00429	-.10098	-.00055
SDev	.00197	.00161	.00193	.00040	.00321	.31181	.00053
%RSD	234.00	125.11	153.58	33.394	74.971	308.77	96.581
#1	.00040	-.00160	-.00177	-.00101	.00032	-.05586	-.00131
#2	-.00133	-.00288	-.00378	-.00182	.00349	-.54574	-.00055
#3	.00086	-.00161	.00026	-.00101	.00794	.17618	-.00017
#4	.00344	.00095	.00025	-.00101	.00540	.02149	-.00017
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	-.00880	.00047	.01011	.00429	-.00237	-.01587	-.00007
SDev	.01034	.00047	.00519	.00493	.00082	.00704	.00007
%RSD	117.51	99.371	51.319	114.87	34.352	44.340	95.081
#1	-.00943	.00024	.00562	-.00277	-.00297	-.02643	-.00003
#2	-.02200	.00024	.01460	.00525	-.00230	-.01239	-.00001
#3	-.00691	.00118	.01460	.00868	-.00125	-.01237	-.00015
#4	.00314	.00024	.00562	.00601	-.00297	-.01230	-.00009
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	.00264	-.02851	-.00425	.00028	.00031	.03421	-.00093
SDev	.01089	.00701	.02499	.00034	.00073	.05260	.00051
%RSD	412.06	24.600	587.81	122.15	238.05	153.78	54.731
#1	.00788	-.02036	-.00897	.00000	-.00046	.08954	-.00018
#2	.00439	-.02580	-.03732	.00000	-.00015	.04740	-.00113

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#3	.01142	-.03123	.01936	.00069	.00108	.03681	-.00113
#4	-.01312	-.03666	.00992	.00042	.00077	-.03692	-.00130

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	.00335
SDev	.00075
%RSD	22.213

#1	.00254
#2	.00356
#3	.00428
#4	.00304

Errors	LC Pass
High	.02000
Low	-.02000

Method: QUANMET Sample Name: DDVKAT Rerun Operator: RJG
 Run Time: 06/01/00 19:58:49
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00415	9.1264	.08401	.89481	.44371	.00358	225.05
SDev	.00133	.0615	.04122	.00111	.00250	.00006	.80
%RSD	32.069	.67378	49.070	.12360	.56429	1.7448	.35547
#1	-.00451	9.1700	.07770	.89478	.44539	.00361	224.09
#2	-.00311	9.0695	.05101	.89344	.44134	.00360	225.30
#3	-.00587	9.1884	.06368	.89614	.44630	.00360	224.82
#4	-.00309	9.0779	.14364	.89486	.44179	.00348	225.99
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	.00309	.06745	.00429	.00151	25.743	8.9167	.00746
SDev	.00300	.00419	.00233	.00081	.036	.2137	.00098
%RSD	96.974	6.2197	54.317	53.468	.13931	2.3961	13.148
#1	-.00012	.06746	.00227	.00192	25.731	8.8565	.00769
#2	.00396	.06744	.00631	.00192	25.698	9.1659	.00860
#3	.00683	.06231	.00227	.00030	25.767	8.6588	.00623
#4	.00170	.07258	.00631	.00193	25.777	8.9854	.00731
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	13.907	4.5666	.00048	S-.11575	.16380	.28323	.00175
SDev	.042	.0076	.00367	.00000	.00650	.02656	.00007
%RSD	.30303	.16648	764.10	.00000	3.9678	9.3785	4.2113
#1	13.956	4.5596	.00497	S-.11575	.16285	.26035	.00170
#2	13.855	4.5605	-.00402	S-.11575	.15934	.26041	.00172
#3	13.920	4.5727	.00048	S-.11575	.15977	.30240	.00172
#4	13.898	4.5736	.00049	S-.11575	.17327	.30978	.00186
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	.00739	4.7646	-.00072	.26776	-.01345	.06218	.00199
SDev	.02436	.0327	.00624	.00121	.00053	.04326	.00220
%RSD	329.78	.68655	866.00	.45352	3.9036	69.574	110.51
#1	-.01368	4.7781	.00731	.26857	-.01399	.07018	-.00131
#2	.04226	4.7673	-.00026	.26672	-.01276	.05997	.00303

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#3	-.00304	4.7944	-.00213	.26903	-.01368	.00670	.00311
#4	.00401	4.7184	-.00780	.26672	-.01338	.11185	.00312
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	.96170
SDev	.00439
%RSD	.45625

#1	.96034
#2	.96235
#3	.96732
#4	.95681

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DDXEP/2 Fe Operator: RJG
 Run Time: 06/01/00 20:01:57
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00256	93.869	.04957	.17174	.64241	.01050	424.48
SDev	.00273	.506	.07146	.01414	.00332	.00010	2.67
%RSD	106.45	.53859	144.15	8.2352	.51658	.94351	.62893
#1	-.00569	93.148	-.01195	.16258	.63812	.01037	421.21
#2	-.00105	94.273	.06182	.19282	.64525	.01061	425.01
#3	.00036	93.898	.00290	.16516	.64146	.01050	427.68
#4	-.00388	94.158	.14552	.16638	.64480	.01050	424.03
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	.00058	.03960	.06278	.17166	236.21	7.9906	.08537
SDev	.00180	.00220	.00165	.00044	1.07	.2202	.00087
%RSD	309.66	5.5624	2.6266	.25593	.45405	2.7553	1.0201
#1	.00237	.03642	.06278	.17132	234.61	7.7908	.08409
#2	.00037	.04022	.06076	.17230	236.71	8.2979	.08554
#3	.00142	.04152	.06278	.17151	236.91	7.8854	.08592
#4	-.00183	.04023	.06480	.17149	236.60	7.9885	.08592
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	17.113	14.018	.00163	2.0399	.03901	.26616	.01867
SDev	.101	.068	.00568	.0144	.00400	.02438	.02933
%RSD	.58862	.48641	348.56	.70646	10.241	9.1607	157.05
#1	16.990	13.918	.00027	2.0232	.04048	.27380	-.01430
#2	17.237	14.053	.00957	2.0576	.04221	.27286	.00448
#3	17.119	14.069	.00061	2.0354	.03317	.23090	.05173
#4	17.106	14.032	-.00393	2.0434	.04019	.28706	.03278
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	.07074	2.5656	.03894	.97557	3.2264	.12143	.17218
SDev	.04962	.0044	.02554	.00494	.0139	.11189	.00267
%RSD	70.139	.17279	65.587	.50661	.43222	92.148	1.5525
#1	.07717	2.5602	.03336	.96892	3.2061	-.02326	.17441
#2	.13390	2.5711	.05264	.97954	3.2365	.09269	.17458

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#3	.05755	2.5656	.00568	.97473	3.2285	.22767	.16991
#4	.01434	2.5656	.06409	.97912	3.2344	.18862	.16982

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	.40865
SDev	.00142
%RSD	.34618

#1	.40994
#2	.40673
#3	.40848
#4	.40944

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: CCV2-4

Operator: RJG

Run Time: 06/01/00 20:05:04

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.99144	50.543	4.9610	4.9450	4.9445	4.9076	50.499
SDev	.00277	.329	.0829	.0465	.0400	.0236	.199
%RSD	.27894	.65147	1.6715	.94121	.80873	.48119	.39478
#1	.98915	50.087	4.8772	4.8761	4.8887	4.8725	50.476
#2	.99217	50.568	4.9031	4.9719	4.9493	4.9149	50.551
#3	.98938	50.868	5.0415	4.9744	4.9835	4.9211	50.243
#4	.99504	50.650	5.0223	4.9578	4.9566	4.9220	50.724
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	5.0211	4.8926	4.8760	4.9460	51.203	51.717	5.1069
SDev	.0206	.0130	.0118	.0393	.202	.810	.1009
%RSD	.41082	.26634	.24195	.79519	.39394	1.5667	1.9763
#1	5.0062	4.8806	4.8669	4.8939	50.929	51.029	5.0264
#2	5.0386	4.8893	4.8760	4.9480	51.219	51.390	5.0593
#3	5.0006	4.8894	4.8685	4.9893	51.249	52.886	5.2534
#4	5.0391	4.9111	4.8927	4.9529	51.414	51.562	5.0885
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	50.473	4.8785	4.8729	51.271	4.8883	4.9518	5.0039
SDev	.287	.0158	.0215	.871	.0417	.0348	.0523
%RSD	.56844	.32427	.44194	1.6993	.85394	.70378	1.0458
#1	50.047	4.8590	4.8425	50.441	4.8373	4.9130	4.9776
#2	50.573	4.8806	4.8740	50.975	4.9387	4.9905	5.0824
#3	50.673	4.8769	4.8830	52.493	4.8821	4.9339	4.9778
#4	50.598	4.8976	4.8920	51.175	4.8953	4.9698	4.9778
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	5.0908	4.9886	4.9226	4.9318	4.8808	9.7789	4.9047
SDev	.1006	.0434	.0511	.0362	.0234	.2018	.0186
%RSD	1.9753	.87087	1.0384	.73444	.47962	2.0638	.37941
#1	4.9733	4.9489	4.9494	4.8808	4.8459	9.9557	4.8779
#2	5.1636	4.9548	4.8459	4.9380	4.8890	9.6260	4.9123

Analysis Report

06/01/00 08:08:09 PM

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#3	5.1847	5.0144	4.9474	4.9662	4.8951	9.5835	4.9079
#4	5.0417	5.0363	4.9475	4.9423	4.8933	9.9503	4.9206

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	4.9478
SDev	.0160
%RSD	.32271

#1	4.9263
#2	4.9636
#3	4.9464
#4	4.9550

Errors	LC Pass
High	5.5000
Low	4.5000

Method: QUANMET Sample Name: CCB4

Operator: RJG

Run Time: 06/01/00 20:08:12

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00347	.00699	.01712	.00157	.00045	.00045	.00461
SDev	.00081	.00425	.03544	.00834	.00021	.00025	.00256
%RSD	23.361	60.827	207.04	531.38	47.303	54.720	55.560
#1	-.00278	.00613	-.00779	.00857	.00029	.00024	.00273
#2	-.00417	.00623	.05410	-.00297	.00029	.00024	.00210
#3	-.00417	.01288	.04029	-.00790	.00048	.00073	.00644
#4	-.00276	.00272	-.01813	.00858	.00074	.00059	.00716
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	.00204	-.00097	.00026	-.00061	.00476	-.04727	-.00097
SDev	.00389	.00165	.00165	.00081	.00214	.28261	.00069
%RSD	191.02	170.36	643.55	133.28	44.897	597.88	70.765
#1	H.00554	.00095	.00026	-.00101	.00349	-.09024	-.00093
#2	-.00285	-.00160	.00025	-.00101	.00349	-.15900	-.00147
#3	.00070	-.00289	-.00176	-.00101	.00793	-.29651	-.00147
#4	.00477	-.00033	.00228	.00061	.00413	.35667	-.00001
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	-.00503	.00047	.01348	.00506	-.00207	-.00531	-.00008
SDev	.01054	.00047	.00674	.00566	.00087	.01282	.00006
%RSD	209.66	98.389	49.997	111.86	42.030	241.61	76.487
#1	-.00189	.00024	.01909	.00181	-.00156	-.01229	-.00010
#2	-.01949	.00117	.00562	-.00124	-.00113	-.01940	.00001
#3	-.00440	.00024	.01011	.00945	-.00297	.00871	-.00009
#4	.00566	.00024	.01909	.01021	-.00260	.00175	-.00014
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	.01053	-.01357	-.00850	.00069	.00015	.03682	.00026
SDev	.01906	.02884	.01383	.00027	.00025	.04551	.00223
%RSD	181.00	212.60	162.67	38.490	163.30	123.58	855.56
#1	.01140	.02850	-.00897	.00046	-.00015	-.00531	.00009
#2	-.00962	-.02037	-.02787	.00046	.00015	.03686	-.00130

Analysis Report

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page 2

#3	.00441	-.02580	.00236	.00092	.00046	.10001	-.00122
#4	.03593	-.03660	.00047	.00092	.00015	.01574	.00347

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	.00021
SDev	.00065
%RSD	308.07

#1	-.00039
#2	-.00018
#3	.00107
#4	.00035

Errors	LC Pass
High	.02000
Low	-.02000

Metals Preparation Log

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

Submitted To Your Success

Method: 2010A Matrix: Water Start Time: 0935 SDG: MS-BIREV TELPSpike Balance# MS

Analyst: James Date: 6/1/00 Lot Number: COE 270126 Lab Lot No. (book, page, line): 0014-084-1 9836-114-3 Reagents: Small conc HNO3 Small 1:1 HCl 4623NCS05H Mallock 0014-098-3

Reviewed By: James Date: 6-1-00 Date: COE 240144 COE 260147

Sample ID	Init Wt/Vol g/mL	Final Vol mL	Comments	Color		Clarity		Texture		Artifacts	Artifact Codes
				Pre	Post	Pre	Post	Pre	Post		
1. DDLEF	50ml	50ml									S-Stones
2. DDEMP											O-Organic
3. DDEMP5											(plant mat)
4. DDEMPD											W-Free H2O
5. DDVKA											G-Glass
6. DDVKA											M-Metal Fingis
7. DEIPM B											R-Rubber/Plastic
8. DEIPM C											O-Cloth
9. DENZA PB and C											P-Paper
10. DENZA PB and C											I-Insects
11.											
12.											
13.											
14.											
15.											
16.											
17.											
18.											
19.											
20.											
21.											
22.											
23.											
24.											

Digestate(s)	Digestate(s) Received			Digestate(s) Returned			Hot plate /Block Temp	Correction Factor	Color	
	Date	Time	Analyst	Date	Time	Analyst			Texture	Clarity
1. All Phase	6/1/00	10:00	James	6/1/00	10:00	James	11/450C	-0.85C	R=Red BL=Blue BR=Brown Y=Yellow O=Orange	V=Violet P=Pink W=White GY=Gray GN=Green C=Colorless
2. All Phase	6/1/00	10:00	James	6/1/00	10:00	James	11/450C	-0.85C	BL=Black BR=Brown Y=Yellow O=Orange	GY=Gray GN=Green C=Colorless
3.										
4.										
5.										
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22.										
23.										
24.										

PSR024 6/01/00 6:07:01 MT

SAMPLE CUSTODIAN REMOVAL REQUEST

PAGE 001

REQUESTED BY: KRANCES

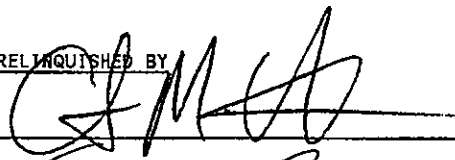
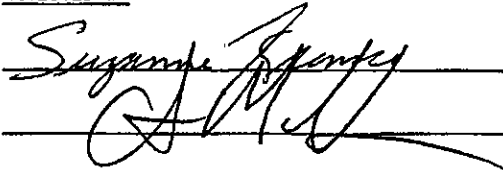
METHOD: QO Inductively Coupled Plasma (6010B)

<u>STORAGE LOCATION</u>	<u>WORK ORDER #</u>	<u>PICKED</u> <u>CNTR#</u>	<u>CONTROL #</u>	<u>CLIENT #</u>	<u>ANALYSIS</u>	<u>LOTID</u>	<u>SMP#</u>	<u>SFX</u>	<u>MATRIX</u> <u>DESCRIPTION</u>	<u>QTY</u> <u>RCVD</u>	<u>QTY</u> <u>REQD</u>
6B CLP1	DDLFR	___	237547	416241	I-05-QO	COE240144	001		WATER	0	20
6E CLP1	DDRMP	___	237544	399411	A-34-QO	COE260147	001		SOLID	0	3
7A CLP1	DDVK9	___	237545	039984	A-34-QO	COE270126	007		SOLID	0	2
7A CLP1	DDVKA	___	237546	039984	A-34-QO	COE270126	008		SOLID	0	2

RELINQUISHED BY

RECEIVED BY

DATE/TIME


Suzanne Brown6/1/00 0930
6/1/00 1050 430 6/1/00

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

STL-Pittsburgh Atomic Absorption Data for Mercury

Instrument: PS200HG

Analyst Name: William a. NyeDate of Analysis: 6-1-00File ID: 0601HGAMatrix: WATER

Lot Number/SDG

Method

<u>COE310118</u>	<u>ILM04.0</u>
<u>COE100159</u> <u>2-046</u>	
<u>COE110201</u>	
<u>COE120143</u>	
<u>COE150150</u>	
<u>COE260147</u>	<u>7470A</u>
<u>COE270126</u>	
<u>COE240144</u>	

09:59:04 01 Jun 2000

Folder: 0601HGA
Protocol: HGMET

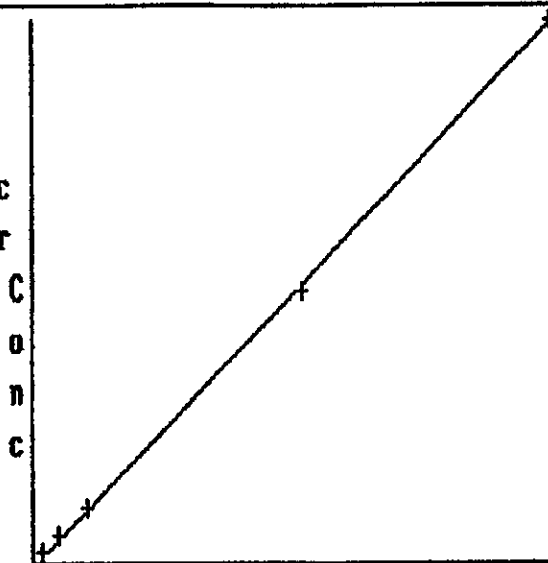
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Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Standard: 1 Rep: 1				Seq: 0		09:59:04 01 Jun 2000 HG		
Hg	.000	ppb	35311					
*** Standard: 2 Rep: 1				Seq: 1		10:01:24 01 Jun 2000 HG		
Hg	.200	ppb	46425			0014-118-5		
*** Standard: 3 Rep: 1				Seq: 2		10:03:20 01 Jun 2000 HG		
Hg	.500	ppb	117189			0014-118-6		
*** Standard: 4 Rep: 1				Seq: 3		10:05:17 01 Jun 2000 HG		
Hg	1.00	ppb	244680			0014-118-7		
*** Standard: 5 Rep: 1				Seq: 4		10:07:14 01 Jun 2000 HG		
Hg	5.00	ppb	1190812			0014-118-8		
*** Standard: 6 Rep: 1				Seq: 5		10:09:28 01 Jun 2000 HG		
Hg	10.0	ppb	2294284			0014-118-9		

RunProt: HGMET STL-PITTSBURGH METALS ANALYSIS
 RunFold: 0601HGA Seq: 6 Batch:
 Prnt: R/T On Pump: On
 Rev: 4.2 10:09:57 01 Jun 2000 Xmit: Off Gas: 0.30 LPM
 State: Idle User: WWH A/S: On

CALIBRATION: Line proto: HGMET

	Hg	Accepted
	Conc.	Calc. Dev. ->linear
S1	.000	.079 .079 Quadratic
S2	.200	.120 -.072 Wtdlinear
S3	.500	.437 -.063
S4	1.00	.993 -.007 Accept
S5	5.00	5.12 .123
S6	10.0	9.94 -.060
A	.0000000	r .999785
B	4.36530e-6	C -7.49930e-2



	Mean	SD
S1	35311	35311
S2	46425	46425
S3	117189	117189
S4	244600	244600
S5	1190012	1190012
S6	2294284	2294284

New cal coefficients stored

10:12:42 01 Jun 2000

Folder: 0601HGA
Protocol: HGMET

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Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: ICV5-1				Seq: 6		10:12:42 01 Jun 2000 HG		
Hg	2.52	ppb	594730		0014-118-10			
*** Sample ID: ICB1				Seq: 7		10:14:33 01 Jun 2000 HG		
Hg	-.017	ppb	13322					
*** Sample ID: CRA-1				Seq: 8		10:16:31 01 Jun 2000 HG		
Hg	.154	ppb	52459		0014-118-11			
*** Sample ID: CCV5-1				Seq: 9		10:18:33 01 Jun 2000 HG		
Hg	4.99	ppb	1161071		0014-118-12			
*** Sample ID: CCB1				Seq: 10		10:20:25 01 Jun 2000 HG		
Hg	-.065	ppb	2366					
*** Sample ID: DE1EGB				Seq: 11		10:22:25 01 Jun 2000 HG		
Hg	-.054	ppb	4859					
*** Sample ID: DE1EGC				Seq: 12		10:24:15 01 Jun 2000 HG		
Hg	2.52	ppb	593607		0014-118-13			
*** Sample ID: DE1EGL				Seq: 13		10:26:14 01 Jun 2000 HG		
Hg	2.44	ppb	576102		0014-118-14			
*** Sample ID: DDXXL				Seq: 14		10:28:13 01 Jun 2000 HG		
Hg	-.066	ppb	1965					
*** Sample ID: DE1EJB				Seq: 15		10:30:12 01 Jun 2000 HG		
Hg	-.023	ppb	11901					
*** Sample ID: DE1EJC				Seq: 16		10:32:33 01 Jun 2000 HG		
Hg	2.52	ppb	595173		0014-118-15			
*** Sample ID: DD10J				Seq: 17		10:34:43 01 Jun 2000 HG		
Hg	-.076	ppb	-325					

10:36:34 01 Jun 2000

Folder: 0601HGA
Protocol: HGMET

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Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: DD34R				Seq: 18		10:36:34 01 Jun 2000 HG		
Hg	.844	ppb	210440					
*** Sample ID: DD355				Seq: 19		10:39:01 01 Jun 2000 HG		
Hg	-.022	ppb	12230					
*** Sample ID: DD359				Seq: 20		10:40:50 01 Jun 2000 HG		
Hg	-.012	ppb	14529					
*** Sample ID: CCV5-2				Seq: 21		10:42:58 01 Jun 2000 HG		
Hg	5.05	ppb	1174050					
*** Sample ID: CCB2				Seq: 22		10:44:49 01 Jun 2000 HG		
Hg	-.036	ppb	9027					
*** Sample ID: DD35D				Seq: 23		10:47:39 01 Jun 2000 HG		
Hg	-.041	ppb	7755					
*** Sample ID: DD4AN				Seq: 24		10:49:27 01 Jun 2000 HG		
Hg	-.023	ppb	11915					
*** Sample ID: DD783				Seq: 25		10:51:21 01 Jun 2000 HG		
Hg	.012	ppb	19970					
*** Sample ID: DD788				Seq: 26		10:53:30 01 Jun 2000 HG		
Hg	-.005	ppb	16099					
*** Sample ID: DD789				Seq: 27		10:56:31 01 Jun 2000 HG		
Hg	-.008	ppb	15331					
*** Sample ID: DD78A				Seq: 28		10:58:42 01 Jun 2000 HG		
Hg	.020	ppb	21772					
*** Sample ID: DD78AX				Seq: 29		11:00:35 01 Jun 2000 HG		
Hg	.033	ppb	24711					

11:02:24 01 Jun 2000

Folder: 0601HGA
Protocol: HGMET

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Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: DD7BAS				Seq: 30	11:02:24 01 Jun 2000 HG			
Hg	1.08	ppb	265216					
*** Sample ID: DD78L				Seq: 31	11:05:03 01 Jun 2000 HG			
Hg	.009	ppb	19280					
*** Sample ID: DD10JF				Seq: 32	11:06:53 01 Jun 2000 HG			
Hg	-.038	ppb	8467					
*** Sample ID: CCV5-3				Seq: 33	11:08:57 01 Jun 2000 HG			
Hg	5.06	ppb	1175329					
*** Sample ID: CCB3				Seq: 34	11:10:58 01 Jun 2000 HG			
Hg	-.071	ppb	1009					
*** Sample ID: DD34RF				Seq: 35	11:13:03 01 Jun 2000 HG			
Hg	-.087	ppb	-2860					
*** Sample ID: DD35DF				Seq: 36	11:15:12 01 Jun 2000 HG			
Hg	-.004	ppb	16195					
*** Sample ID: DD4ANF				Seq: 37	11:17:27 01 Jun 2000 HG			
Hg	-.022	ppb	12054					
*** Sample ID: DD783F				Seq: 38	11:19:30 01 Jun 2000 HG			
Hg	-.057	ppb	4165					
*** Sample ID: DD788F				Seq: 39	11:21:20 01 Jun 2000 HG			
Hg	-.041	ppb	7702					
*** Sample ID: DD789F				Seq: 40	11:23:35 01 Jun 2000 HG			
Hg	-.014	ppb	13942					
*** Sample ID: DD78AF				Seq: 41	11:26:10 01 Jun 2000 HG			
Hg	-.027	ppb	11047					

SP. REC
108%

Folder: 0601HGA
Protocol: HGMET

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11:28:31 01 Jun 2000

Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: DD78AXF				Seq: 42		11:28:31 01 Jun 2000 HG		
Hg	-.067	ppb	1845					
*** Sample ID: DD78ASF				Seq: 43		11:30:26 01 Jun 2000 HG		
Hg	1.05	ppb	257983					SP. REC. 105%
*** Sample ID: DD78LF				Seq: 44		11:32:17 01 Jun 2000 HG		
Hg	.027	ppb	23306					
*** Sample ID: CCV5-4				Seq: 45		11:34:22 01 Jun 2000 HG		
Hg	4.99	ppb	1160000					
*** Sample ID: CCB4				Seq: 46		11:36:24 01 Jun 2000 HG		
Hg	-.124	ppb	-11272					
*** Sample ID: DE1ELBT				Seq: 47		11:38:49 01 Jun 2000 HG		
Hg	-.044	ppb	7078					
*** Sample ID: DE1ELCT				Seq: 48		11:41:00 01 Jun 2000 HG		
Hg	2.59	ppb	609731		0014-118-16			
*** Sample ID: DE07ABT				Seq: 49		11:43:25 01 Jun 2000 HG		
Hg	.062	ppb	31495					
*** Sample ID: DDRMPT				Seq: 50		11:45:20 01 Jun 2000 HG		
Hg	-.057	ppb	4106					
*** Sample ID: DDRMPST				Seq: 51		11:47:17 01 Jun 2000 HG		
Hg	4.77	ppb	1109658					SP. REC. 95%
*** Sample ID: DDRMPDT				Seq: 52		11:50:11 01 Jun 2000 HG		
Hg	4.82	ppb	1121813					SP. REC. 96%
*** Sample ID: DDVK9T				Seq: 53		11:52:03 01 Jun 2000 HG		
Hg	-.040	ppb	8035					

11:53:56 01 Jun 2000

Folder: 0601HGA
Protocol: HGMET

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Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: DDVKAT				Seq: 54	11:53:56 01 Jun 2000 HG			
Hg	-.050	ppb	5732					
*** Sample ID: DDLFRT				Seq: 55	11:56:29 01 Jun 2000 HG			
Hg	-.083	ppb	-1824					
*** Sample ID: CCV5-5				Seq: 56	11:58:21 01 Jun 2000 HG			
Hg	4.96	ppb	1153898					
*** Sample ID: CCB5				Seq: 57	12:00:18 01 Jun 2000 HG			
Hg	-.106	ppb	-7102					

END OF ANALYSIS

WAH

6-1-00

RunProt: HGMET	STL-PITTSBURGH METALS ANALYSIS		
RunFold: 0601HGA	Seq: 0	Batch:	
	Prnt: R/T On	Pump: Off	
State: Idle	Rev: 4.2	09:10:39 01 Jun 2000	Xmit: Off Gas: LPM
		User: WAH	A/S: On

AUTOSAMPLER: Rack Edit		rack: RACK1		
cup ID	Extended id	Weight	Volume	Macro check macros
1	ICV5-1	1.0000	1.0000	
2	ICB1	1.0000	1.0000	
3	CRA-1	1.0000	1.0000	
4	CCV5-1	1.0000	1.0000	
5	CCB1	1.0000	1.0000	
6	DE1EGB	1.0000	1.0000	
7	DE1EGC	1.0000	1.0000	
8	DE1EGL	1.0000	1.0000	
9	DDXXL	1.0000	1.0000	
10	DE1EJB	1.0000	1.0000	
11	DE1EJC	1.0000	1.0000	
12	DD10J	1.0000	1.0000	
13	DD34R	1.0000	1.0000	
14	DD355	1.0000	1.0000	
15	DD359	1.0000	1.0000	

PgDn

Cup 1 ID: ICV5-1

Cell down mode Ins to switch

RunProt: HGMET	STL-PITTSBURGH METALS ANALYSIS		
RunFold: 0601HGA	Seq: 0	Batch:	
	Prnt: R/T On	Pump: Off	
Rev: 4.2	09:10:41 01 Jun 2000	Xmit: Off Gas:	LPM
State: Idle	User: WAH	A/S: On	

AUTOSAMPLER: Rack Edit		rack: RACK1		PgUp
cup ID	Extended id	Weight	Volume Macro	check macros
16	CCV5-2	1.0000	1.0000	
17	CCB2	1.0000	1.0000	
18	DD35D	1.0000	1.0000	
19	DD4AN	1.0000	1.0000	
20	DD783	1.0000	1.0000	
21	DD788	1.0000	1.0000	
22	DD789	1.0000	1.0000	
23	DD78A	1.0000	1.0000	
24	DD78AX	1.0000	1.0000	
25	DD78AS	1.0000	1.0000	
26	DD78L	1.0000	1.0000	
27	DD10JF	1.0000	1.0000	
28	CCV5-3	1.0000	1.0000	
29	CCB3	1.0000	1.0000	
30	DD34RF	1.0000	1.0000	

PgDn

Cup 16 ID: CCV5-2

Cell down mode Ins to switch

RunProt: HGMET	STL-PITTSBURGH METALS ANALYSIS		
RunFold: 0601HGA	Seq: 0	Batch:	
	Prnt: R/T On	Pump: Off	
State: Idle	Rev: 4.2	09:15:19 01 Jun 2000	Xmit: Off Gas: LPM
		User: WAH	A/S: On

AUTOSAMPLER: Rack Edit		rack: RACK1	PgUp
cup ID	Extended id	Weight Volume Macro	check macros
31 DD35DF		1.0000 1.0000	
32 DD4ANF		1.0000 1.0000	
33 DD783F		1.0000 1.0000	
34 DD788F		1.0000 1.0000	
35 DD789F		1.0000 1.0000	
36 DD78AF		1.0000 1.0000	
37 DD78AXF		1.0000 1.0000	
38 DD78ASF		1.0000 1.0000	
39 DD78LF		1.0000 1.0000	
40 CCV5-4		1.0000 1.0000	
41 CCB4		1.0000 1.0000	
42 DE1ELBT		1.0000 1.0000	
43 DE1ELCT		1.0000 1.0000	
44 DE07ABT		1.0000 1.0000	

PgDn

Cup 44 ID: DE07ABT

Cell down mode Ins to switch

RunProt: HGMET	STL-PITTSBURGH METALS ANALYSIS		
RunFold: 0601HGA	Seq: 0	Batch:	
	Prnt: R/T On	Pump: Off	
	Rev: 4.2	09:17:49 01 Jun 2000	Xmit: Off Gas: LPM
State: Idle		User: WAH	A/S: On

AUTOSAMPLER: Rack Edit		rack: RACK2	Range 1-44	Clear seQ	Undo eXit
cup ID	Extended.id.	Weight	Volume	Macro	check macros
1	DDRMP	1.0000	1.0000		
2	DDRMPST	1.0000	1.0000		
3	DDRMPDT	1.0000	1.0000		
4	DDVK9T	1.0000	1.0000		
5	DDVKAT	1.0000	1.0000		
6	DDLFR	1.0000	1.0000		
7	CCV5-5	1.0000	1.0000		
8	CCB5	1.0000	1.0000		
9		1.0000	1.0000		
10		1.0000	1.0000		
11		1.0000	1.0000		
12		1.0000	1.0000		
13		1.0000	1.0000		
14		1.0000	1.0000		
15		1.0000	1.0000		

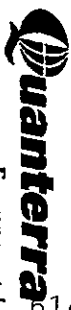
PgDn

Cup 12 ID:

Cell down mode Ins to switch

Hg Digestion Log

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



PAPER H31609

Serial Number 084 Log Book Number 96-MT-576 Start Time 08:20-2083

Sample ID	Date Rec'd	Prep Date	Prepared By	Wt/Vol	Sample Type	Run Date	Comments
1. STD0	N/A	6-1-00	WAH	100%1	WATER	6-1-00	N/A
2. STD1							0014-118-5
3. STD2							0014-118-6
4. STD3							0014-118-7
5. STD4							0014-118-8
6. STD5							0014-118-9
7. IGV							0014-118-10
8. CCB							N/A
9. CRA							0014-118-11
10. CCV							0014-118-12
11. CCB							N/A
12. DEIEGB							0014-118-13 WAH
13. DEIEGC							0014-118-14 WAH
14. DEIEGL							0014-118-15
15. DDXYL	5-31-00						N/A
16. DEIEJB	N/A						N/A
17. DEIEJC							0014-118-15
18. DDIOJ	5-10-00						N/A
19. DD34R	5-11-00						
20. DD355							
21. DD359							
22. DD35D							
23. DD4AM	5-13-00						
24. DD193	5-15-00						
25. DD788							
Reagents		Vol (mL)				Ref. Number	Method
HNO3	2.5 mL					MAIL/ACKRODT 6693 A35058	ITMOY.0/7470A AUTOCALVE 1551 130°C
H2SO4	5.0 mL					MAIL/ACKRODT 5557 A37A02	5HCL = 0014-094-10
KMNO4	15.0 mL					0014-110-1	WACL-WH-0H = 0014-097-7
K2S2O4	8.0 mL					0014-110-2	WAH 6-1-00
Extract(s)			Extract(s) Received				Extract(s) Relinquished
(Record line number from above)	Date	Time	Analyst	Location	Date	Time	Analyst
			WAH 6-1-00				

CHg Digestion Log

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

Serial Number	Log Book Number	Start Time
	220	

085 96-MT-576 08:20-08:35

PIPER H31609

Sample ID		Date Rec'd	Prep Date	Prepared By	Wt/Vol	Sample Type	Run Date	Comments
1.	DD78Y	5-15-00	6-1-00	WAA	100 ml	WATER	6-1-00	N/A
2.	DD78A							
3.	DD78AX							+1 ml 0014-118-3
4.	DD78AS							N/A
5.	DD78L							
6.	DD10JF	5-10-00						
7.	DD348F	5-11-00						
8.	DD35DF							
9.	DD4ANF	5-12-00						
10.	DD783F	5-15-00						
11.	DD788F							
12.	DD789F							
13.	DD78AF							
14.	DD78AXF							+1 ml 0014-118-3
15.	DD789SF							N/A
16.	DD8LF							
17.	DE1ELRT	N/A						0014-118-16
18.	DE1ELCT							N/A
19.	DE07ABT							
20.	DDRmPT	5-26-00						+5 ml 0014-118-3
21.	DDRmPST							+5 ml 0014-118-3
22.	DDRmPDT							N/A
23.	DDVKYT	5-27-00						
24.	DDVKAT							
25.	DDLFRF	5-24-00						
Reagents		Vol (ml)		Ref. Number		Method		
HNO3		2.5 ml		MAILBACKR00T 6623 N35058		ILM040/74708 Autoclave 158T 120°C		
H2SO4		5.0 ml		MAILBACKR00T 6557 N37A02		SCALE = 0014-054-10		
KMNO4		15.0 ml		0014-110-1		AGCL-NH2OH = 0014-097-7		
K2S2O4		8.0 ml		0014-110-2		WASH 6-7-00		
Extract(s)		Extract(s) Received		Location		Date		Time
(Record line number from above)		Analyst		WAA 6-1-00				
Extract(s) Refiniquished		Analyst		Location		Date		Time

659 668

SR024 5/31/00 12:40:33 MT

SAMPLE CUSTODIAN REMOVAL REQUEST

PAGE 001

EQUESTED BY: HOYLEW

ETHOD: 08 Mercury (7470A, Cold Vapor) - Liquid

<u>TORAGE LOCATION</u>	<u>WORK ORDER #</u>	<u>PICKED</u> <u>CNTR#</u>	<u>CONTROL #</u>	<u>CLIENT #</u>	<u>ANALYSIS</u>	<u>LOTID</u>	<u>SMP#</u>	<u>SFX</u>	<u>MATRIX</u> <u>DESCRIPTION</u>	<u>QTY</u> <u>RCVD</u>	<u>QTY</u> <u>REQD</u>	
E CLP1	DDRMP	— — —	237462	399411	A-OM-08	COE260147	001		SOLID	0	3	1
A CLP1	DDVK9	— — —	237463	039984	A-OM-08	COE270126	007		SOLID	0	2	1
A CLP1	DDVKA	— — —	237464	039984	A-OM-08	COE270126	008		SOLID	0	2	1

DE07AB

TCLP
LEACHATE

RELINQUISHED BYRECEIVED BYDATE/TIMEWilliam A Hoyle William A Hoyle 6-1-00 06:25William A Hoyle William A Hoyle 6-1-00 07:30

659 670

PSR024 5/29/00 20:56:11 MT

SAMPLE CUSTODIAN REMOVAL REQUEST

PAGE 001

REQUESTED BY: FAUSTG

METHOD: Q0 Inductively Coupled Plasma (6010B)

<u>STORAGE LOCATION</u>	<u>WORK ORDER #</u>	<u>PICKED</u> <u>CNTR#</u>	<u>CONTROL #</u>	<u>CLIENT #</u>	<u>ANALYSIS</u>	<u>LOTID</u>	<u>SMP#</u>	<u>SFX</u>	<u>MATRIX</u> <u>DESCRIPTION</u>	<u>QTY</u> <u>RCVD</u>	<u>QTY</u> <u>REQD</u>
6E CLP1	DDRMP	— — —	237038	399411	A-34-Q0	C0E260147	001		SOLID	0	3 1

RELINQUISHED BY

Geoffrey O. Faust
Geoffrey O. Faust

RECEIVED BY

Geoffrey O. Faust
Geoffrey O. Faust

DATE/TIME

5-30-00 0010
5-30-00 0100

GENERAL CHEMISTRY DATA

UXB INTERNATIONAL

659 672

Client Sample ID: DF/S1/0146/SDC/004

General Chemistry

Lot-Sample #...: C0E260147-001 Work Order #...: DDRMP Matrix.....: SOLID
 Date Sampled...: 05/25/00 Date Received...: 05/26/00
 ‡ Moisture.....: 13

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
pH	7.8		No Units	SW846 9045C	05/27/00	0148092
		Dilution Factor: 1		MS Run #.....: 0148005		
Ignitability	NO	--	No Units	SW846 SECTION 7.1	05/31/00	0152101
		Dilution Factor: 1		MS Run #.....: 0152010		
Percent Solids	86.9		‡	MCAWW 160.3 MOD	05/30-05/31/00	0151234
		Dilution Factor: 1		MS Run #.....: 0151091		
Reactive Cyanide	ND	200	mg/kg	SW846 7.3.3	05/31/00	0152403
		Dilution Factor: 1		MS Run #.....: 0157035		
Reactive Sulfide	ND	200	mg/kg	SW846 7.3.4	05/31/00	0152401
		Dilution Factor: 1		MS Run #.....: 0157030		

METHOD BLANK REPORT

General Chemistry

Client Lot #...: C0E260147

Matrix.....: SOLID

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>PREP</u> <u>BATCH #</u>
Reactive Cyanide	ND	Work Order #: DE1JW102 200	mg/kg	MB Lot-Sample #: A0E310000-403 SW846 7.3.3	05/31/00	0152403
		Dilution Factor: 1				
Reactive Sulfide	ND	Work Order #: DE1JN101 200	mg/kg	MB Lot-Sample #: A0E310000-401 SW846 7.3.4	05/31/00	0152401
		Dilution Factor: 1				

NOTE(S) :

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

659 674

LABORATORY CONTROL SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: C0E260147

Matrix.....: SOLID

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
pH	101	Work Order #: DDVA3101 (85 - 115)	LCS Lot-Sample#: C0E270000-092 SW846 9045C	05/27/00	0148092
		Dilution Factor: 1			

NOTE(S) :

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

Client Lot #...: C0E260147

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

Matrix.....: SOLID

Date Sampled...: 05/25/00

Date Received..: 05/26/00

* Moisture.....: 13

DUPLICATE

PARAM	RESULT	RESULT	UNITS	RPD	LIMIT	METHOD	ANALYSIS DATE	BATCH #
pH	7.8	7.9	No Units	0.64	(0-20)	SD Lot-Sample #: C0E260147-001 SW846 9045C	05/27/00	0148092
Dilution Factor: 1								
Prep Date.....: 0148005 Analysis Date...: Prep Batch #....:								

659 676

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #....: C0E260147

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

Matrix.....: SOLID

Date Sampled....: 05/25/00

Date Received...: 05/26/00

% Moisture.....: 100

<u>PARAM</u>	<u>RESULT</u>	<u>DUPLICATE</u> <u>RESULT</u>	<u>UNITS</u>	<u>RPD</u> <u>RPD</u>	<u>RPD</u> <u>LIMIT</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>PREP</u> <u>BATCH #</u>
Reactive Cyanide	ND	ND	mg/kg	0.0	(0-20)	SD Lot-Sample #: A0E270103-003 SW846 7.3.3	05/31/00	0152403
Dilution Factor: 1								
Prep Date.....: 0157035 Analysis Date...: Prep Batch #...:								
Reactive Sulfide	ND	ND	mg/kg	0.0	(0-20)	SD Lot-Sample #: A0E270103-003 SW846 7.3.4	05/31/00	0152401
Dilution Factor: 1								
Prep Date.....: 0157030 Analysis Date...: Prep Batch #...:								

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #....: COE260147

Work Order #....: DDVK3-SMP

Matrix.....: SOLID

DDVK3-DUP

Date Sampled....: 05/26/00

Date Received...: 05/26/00

% Moisture.....: 18

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Percent Solids	82.4	83.8	%	1.6	(0-20)	SD Lot-Sample #: COE270126-001 MCAWW 160.3 MOD	05/30-05/31/00	0151234
Dilution Factor: 1								
Prep Date.....: 0151091			Analysis Date...:			Prep Batch #...:		

659 678 Method: *Levability*



ANALYST: *ERIC L. WESOLOSKI* DATE: *5-31-00*
BATCH: *0152101* TIME: *06:45*

SAMPLE ID	RESULT
<i>COE280147-001</i>	<i>NO</i>
<i>COE250165-001</i>	<i>YES</i>
<i>COE250172-001</i>	<i>YES</i>
<i>↓ -001 Dup</i>	<i>YES</i>
<i>CHW</i> <i>5-31-00</i>	

Reviewed by *P. Johnson* Date *5-31-00*

Quanterra Environmental Services pH LOG SHEET

Lot No. C6E260147 Batch No. 0148092 SDG No. _____

Includes attachment(s) Balance 676393 Page _____ of _____
 Analyst: P. Johnson
 Date: 5.27.00
 Start Time: 0625

pH Meter Calibration

Reading	Buffer	Manf. Lot No.	Rec'd	Expire
<u>7.01</u>	7.0	<u>Labchem 9291.13</u>	<u>2.24.00</u>	<u>11.12.01</u>
<u>4.00</u>	4.0	<u>916708</u>	<u>2.24.00</u>	<u>11.12.01</u>
<u>10.03</u>	10.0	<u>2010.07</u>	<u>2.24.00</u>	<u>11.12.01</u>

LCS ID No.: 342.155.10

Relative Percent Difference =

Range = ± .05 pH units

$$\frac{|X_1 - X_2|}{\left(\frac{X_1 + X_2}{2}\right)} \times 100$$

X₁ = Original Result

X₂ = Duplicate

Sample ID	pH Reading
LCS	<u>7.04</u>
<u>C6E260147.001</u>	<u>7.01</u>
<u>001</u>	<u>7.06</u>
<u>665</u>	<u>7.04</u>
<u>P. Johnson</u> <u>5.27.00</u>	

0.49.RP3

5019

COE260138 } 96.015722
COE270128 } 0151230
COE260147 } TS
COE270126 } 0151234
COE240192 }
COE260142 }

QUANTERRA ENVIRONMENTAL SERVICES
TOTAL SOLIDS/PERCENT MOISTURE LOG SHEET

COE240223 } TS
0151237

Oven Temperature: 103°C

Calculations:

1. A - C = D
2. B - C = E
3. $\frac{D}{E} \times 100 = F$
4. 100 - F = G

Balance ID: C94817 Page ____ of ____
Includes attachment(s):

Analyst: CLLOTTEUR

Date: 5-31-00 Time in: 1215

Date: 5-31-00 Time out: 0415

Batch No(s):

SAMPLE ID	TARE NO.	(A) DRIED SAMPLE + TARE	(B) SAMPLE + TARE	(C) TARE	(D) WEIGHT OF DRY SAMPLE IN GRAMS	(E) WEIGHT OF SAMPLE IN GRAMS	(F) PERCENT SOLIDS	(G) PERCENT MOISTURE
COE260138-001	1551	5.85	6.38	1.12				
COE270128-001	111	4.35	6.08	1.15				
-001D	42	5.02	6.25	1.13				
-002	96	6.59	6.97	1.12				
-003	150	6.22	6.73	1.17				
COE260147-001	158	5.54	6.20	1.17				
COE270126-001	157	5.55	6.49	1.14				
-001D	46	5.99	6.93	1.14				
-002	48	5.83	6.72	1.16				
-003	82	6.09	7.28	1.12				
-004	108	5.78	6.68	1.14				
-005	80	5.51	6.18	1.15				
-006	141	5.16	6.00	1.16				
-014	A	5.71	6.33	1.13				
COE240192-001	118	6.33	6.70	1.14				
-002	1108	7.12	7.70	1.16				
-003	B	6.64	7.01	1.17				
COE260142-001	47	6.22	7.18	1.14				
COE240223-001	115	5.38	6.19	1.14				
-001D	AA	5.69	6.47	1.14				
-002	154	5.25	6.37	1.13				
-003	152	5.42	6.23	1.14				
-004	C	6.55	7.40	1.14				
-005	38	6.45	7.31	1.18				
-006	1166	5.78	6.85	1.12				
-007	1051	5.17	6.01	1.14				
-008	147	7.60	6.03	1.15				
-009	123	5.91	6.63	1.14				
-010	51	5.98	6.46	1.13				
-011	105	6.27	6.74	1.16				

STL - Pittsburgh WATER CONTENT SHEET

SHEET NUM 0005019
 TESTED: CLL 5/30/00
 CHECKED: FLW 5/31/00

CREATED: 5/31/00 7:57:06 AM

REVISED: 5/31/00 8:09:19 AM

COMMENTS:

C0E260138 C0E270128 C0E260147 C0E270126 C0E240192 C0E260142 C0E240223

CLIENT SAMPLE IDENTIFICATION	LAB SAMP IDENT.		TARE NO.	WEIGHT TARE	WEIGHT TARE + WET SMP	WEIGHT TARE + DRY SAMP	TIME IN	TIME OUT	WEIGHT WATER	WATER CONTENT CALC.	SOLIDS CONTENT CALC.
C0E260138	001	SMP	1551	1.12	6.38	5.85	12:15	4:15	0.53	10.076	89.924
C0E270128	001	SMP	111	1.15	6.08	4.35	12:15	4:15	1.73	35.091 <i>PPD 1370</i>	64.909
C0E270128	001D	SMP	42	1.13	6.75	5.02	12:15	4:15	1.73	30.783	69.217
C0E270128	002	SMP	96	1.12	6.97	6.59	12:15	4:15	0.38	6.496	93.504
C0E270128	003	SMP	150	1.17	6.73	6.22	12:15	4:15	0.51	9.173	90.827
C0E260147	001	SMP	158	1.17	6.2	5.54	12:15	4:15	0.66	13.121	86.879
C0E270126	001	SMP	157	1.14	6.49	5.55	12:15	4:15	0.94	17.57	82.43 <i>PPD 1370</i>
C0E270126	001D	SMP	46	1.14	6.93	5.99	12:15	4:15	0.94	16.235	83.755
C0E270126	002	SMP	48	1.16	6.72	5.83	12:15	4:15	0.89	16.007	83.993
C0E270126	003	SMP	82	1.12	7.28	6.09	12:15	4:15	1.19	19.318	80.682
C0E270126	004	SMP	108	1.14	6.68	5.78	12:15	4:15	0.9	16.245	83.755
C0E270126	005	SMP	80	1.15	6.18	5.51	12:15	4:15	0.67	13.32	86.68
C0E270126	006	SMP	141	1.16	6	5.16	12:15	4:15	0.84	17.355	82.645
C0E270126	014	SMP	A	1.13	6.33	5.71	12:15	4:15	0.62	11.923	88.077
C0E240192	001	SMP	118	1.14	6.7	6.33	12:15	4:15	0.37	6.655	93.345
C0E240192	002	SMP	1108	1.16	7.7	7.12	12:15	4:15	0.58	8.868	91.132
C0E240192	003	SMP	B	1.17	7.01	6.64	12:15	4:15	0.37	6.336	93.664
C0E260142	001	SMP	47	1.14	7.18	6.22	12:15	4:15	0.96	15.894	84.106

659 682

STL - Pittsburgh WATER CONTENT SHEET

SHEET NUM: 0005019
 TESTED: CLL 5/30/00
 CHECKED: FLW 5/31/00

CREATED: 5/31/00 7:57:06 AM

REVISED: 5/31/00 7:57:55 AM

COMMENTS:

C0E260138 C0E270128 C0E260147 C0E270126 C0E240192 C0E260142 C0E240223

CLIENT SAMPLE IDENTIFICATION	LAB SAMP IDENT.	TARE NO.	WEIGHT TARE	WEIGHT TARE + WET SMP	WEIGHT TARE + DRY SAMP	TIME IN	TIME OUT	WEIGHT WATER	WATER CONTENT CALC.	SOLIDS CONTENT CALC.	
C0E240223	001	SMP	115	1.14	6.19	5.38	12:15	4:15	0.81	16.04	83.96
C0E240223	001D	SMP	AA	1.14	6.47	5.69	12:15	4:15	0.78	14.634	85.366
C0E240223	002	SMP	154	1.13	6.37	5.75	12:15	4:15	0.62	11.832	88.168
C0E240223	003	SMP	152	1.14	6.23	5.42	12:15	4:15	0.81	15.914	84.086
C0E240223	004	SMP	C	1.14	7.4	6.55	12:15	4:15	0.85	13.578	86.422
C0E240223	005	SMP	38	1.18	7.31	6.45	12:15	4:15	0.86	14.029	85.971
C0E240223	006	SMP	166	1.12	6.85	5.78	12:15	4:15	1.07	18.674	81.326
C0E240223	007	SMP	1051	1.14	6.01	5.17	12:15	4:15	0.84	17.248	82.752
C0E240223	008	SMP	177	1.15	6.03	4.6	12:15	4:15	1.43	29.303	70.697
C0E240223	009	SMP	123	1.14	6.63	5.91	12:15	4:15	0.72	13.115	86.885
C0E240223	010	SMP	51	1.13	6.46	5.98	12:15	4:15	0.48	9.006	90.994
C0E240223	011	SMP	105	1.16	6.74	6.27	12:15	4:15	0.47	8.423	91.577

PSR024 5/31/00 4:03:38 MT

SAMPLE CUSTODIAN REMOVAL REQUEST

PAGE 001

REQUESTED BY: MESOLOSE

METHOD: IQ Ignitability (SW7.1.2)

<u>STORAGE LOCATION</u>	<u>WORK ORDER #</u>	<u>PICKED</u> <u>CNTR#</u>	<u>CONTROL #</u>	<u>CLIENT #</u>	<u>ANALYSIS</u>	<u>LOTID</u>	<u>SMP#</u>	<u>SFX</u>	<u>MATRIX</u> <u>DESCRIPTION</u>	<u>QTY</u> <u>RCVD</u>	<u>QTY</u> <u>REQD</u>
6D,E CLP1	DDNW-1-15	___	237259	416241	A-88-IQ	C0E250172	001		SOLID	8	1
6D,E CLP1	DDNW7-1-15	___	237260	416241	A-88-IQ	C0E250165	001		SOLID	8	1
6E CLP1	DDRMP-1-0G	___	237261	399411	A-88-IQ	C0E260147	001		SOLID	3	1

RELINQUISHED BY

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DATE/TIME

Eric L. Whittle
Eric L. Whittle

Eric L. Whittle
Eric L. Whittle

5/31/00 (06:05)
5/31/00 (07:15)

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

659 684

PSR024 5/27/00 4:24:27 MT

SAMPLE CUSTODIAN REMOVAL REQUEST

PAGE 001

REQUESTED BY: JOHNSONP

METHOD: OZ pH (9045C) - Non-Aqueous

<u>STORAGE LOCATION</u>	<u>WORK ORDER #</u>	<u>PICKED</u> <u>CNTR#</u>	<u>CONTROL #</u>	<u>CLIENT #</u>	<u>ANALYSIS</u>	<u>LOTID</u>	<u>SMP#</u>	<u>SFX</u>	<u>MATRIX</u> <u>DESCRIPTION</u>	<u>QTY</u> <u>RCVD</u>	<u>QTY</u> <u>REQD</u>
6E CLP1	DDRMP-1-OF	_____	236989	399411	A-88-OZ	COE260147	001		SOLID	3	1

RELINQUISHED BY

C. Bahayde
P. Johnson

RECEIVED BY

P. Johnson
C. Bahayde

DATE/TIME

5-27-00/0625
5-27-00/0640

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

PSR024 5/30/00 4:48:22 MT

SAMPLE CUSTODIAN REMOVAL REQUEST

REQUESTED BY: LOHEYDEC

METHOD: SM Solids, Percent (as TS - 160.3 MOD) - Solids

STORAGE LOCATION	WORK ORDER #	PICKED CNTR#	CONTROL #	CLIENT #	ANALYSIS	LOTID	SMP#	SFX	MATRIX DESCRIPTION	QTY RCVD	QTY REQD
6A	DDMO6-1-0D	___	237100	393318	A-88-SM	COE240192	001		SOLID	1	1
6A	DDM4G-1-0D	___	237101	393318	A-88-SM	COE240192	002		SOLID	1	1
6A	DDM4K-1-0D	___	237102	393318	A-88-SM	COE240192	003		SOLID	1	1
6B CLP1	DDMCE-1-01	___	237089	131369	A-88-SM	COE240223	001		SOLID	4	1
6B CLP1	DDMCK-1-01	___	237090	131369	A-88-SM	COE240223	002		SOLID	4	1
6B CLP1	DDMCP-1-01	___	237091	131369	A-88-SM	COE240223	003		SOLID	4	1
6B CLP1	DDMCQ-1-01	___	237092	131369	A-88-SM	COE240223	004		SOLID	4	1
6B CLP1	DDMCR-1-01	___	237093	131369	A-88-SM	COE240223	005		SOLID	4	1
6B CLP1	DDMCT-1-01	___	237094	131369	A-88-SM	COE240223	006		SOLID	4	1
6B CLP1	DDMCW-1-01	___	237095	131369	A-88-SM	COE240223	007		SOLID	4	1
6B CLP1	DDMD0-1-01	___	237096	131369	A-88-SM	COE240223	008		SOLID	4	1
6B CLP1	DDMD3-1-01	___	237097	131369	A-88-SM	COE240223	009		SOLID	4	1
6B CLP1	DDMD5-1-01	___	237098	131369	A-88-SM	COE240223	010		SOLID	4	1
6B CLP1	DDMD9-1-01	___	237099	131369	A-88-SM	COE240223	011		SOLID	4	1
6E CLP1	DDR LV-1-01	___	237103	375241	A-88-SM	COE260142	001		SOLID	5	1
6E CLP1	DDRMP-1-01	___	237104	399411	A-88-SM	COE260147	001		SOLID	3	1
7A CLP1	DDVK3-1-0U	___	237105	039984	A-88-SM	COE270126	001		SOLID	5	1
7A CLP1	DDVK4-1-0U	___	237106	039984	A-88-SM	COE270126	002		SOLID	5	1
7A CLP1	DDVK5-1-0U	___	237107	039984	A-88-SM	COE270126	003		SOLID	5	1
7A CLP1	DDVK6-1-0U	___	237108	039984	A-88-SM	COE270126	004		SOLID	5	1
7A CLP1	DDVK7-1-0U	___	237109	039984	A-88-SM	COE270126	005		SOLID	5	1
7A CLP1	DDVK8-1-0U	___	237110	039984	A-88-SM	COE270126	006		SOLID	5	1
7A CLP1	DDVQC-1-0U	___	237111	039984	A-88-SM	COE270126	014		SOLID	5	1

659 686

PSR024 5/30/00 4:48:22 MT

SAMPLE CUSTODIAN REMOVAL REQUEST

PAGE 002

REQUESTED BY: LONEYDEC

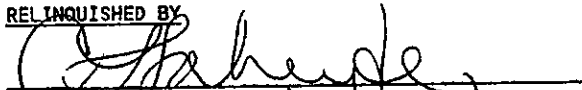
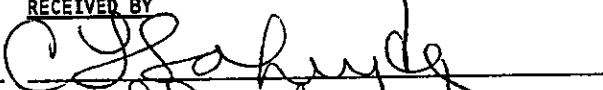
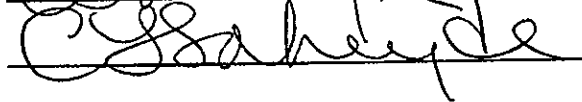
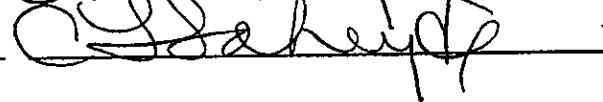
METHOD: SM Solids, Percent (as TS - 160.3 MOD) - Solids

<u>STORAGE LOCATION</u>	<u>WORK ORDER #</u>	<u>PICKED</u> <u>CNTR#</u>	<u>CONTROL #</u>	<u>CLIENT #</u>	<u>ANALYSIS</u>	<u>LOTID</u>	<u>SMP#</u>	<u>SFX</u>	<u>MATRIX</u> <u>DESCRIPTION</u>	<u>QTY</u> <u>RCVD</u>	<u>QTY</u> <u>REQD</u>

RELINQUISHED BY

RECEIVED BY

DATE/TIME

		5-30-00 0600
		5-30-00 1230

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

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Batch Number 0152401
LCS Number
LCS Prep Date
RL 200

Titrant Standardization Date/ Initials 5/8/00 , TAR

Sample Number	Sample Volume	Dil.	Titrant Vol (mL)	Final Conc.	Units	QC Calculations and Comments
BUK	100 mL	—	22.2	9.896		—
DDVAK	I	—	22.1	19.828		—
DDVAK-X	I	—	22.1	19.828		—
DDRMP	I	—	22.0	27.76		—
USE DDVAK						

7017

659 688

Batch Number 0152403
LCS Number
LCS Prep Date
RL 200

Titrant Normality 0.0192

Titrant Standardization Date/ Initials _____ / _____

Physiological

7018

FINAL PAGE

PART I

ADMINISTRATIVE RECORD

PART I

FINAL PAGE