0059603

W03982 Sample Data Summary **1**

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- Raw Sample Data 25
- Standards Data 44
- Raw QC Data 110
- Miscellaneous Data 135

Sample Receipt Documentation **143**

Total Number of Pages **144**

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FEB 2003
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SEVERN TRENT STL

CERTIFICATE OF ANALYSIS

Flour Hanford, Inc.
P. O. Box 1000 T6-03
Richland, WA 99352

February 12, 2003

Attention: Steve Trent

FEB 2003 RECEIVED

SAF Number	:	F02-002
Date Samples Received	:	January 30, 2003
Number of Samples	:	Two (2)
Sample Type	:	Air
Data Deliverable	:	45 Day Data Package

I. Introduction

Two (2) air samples were received on January 30, 2003 by the STL Knoxville Laboratory for analysis. Upon receipt, the samples were assigned the following laboratory ID number to correspond with the Fluro Hanford, Inc. (FHI) specific ID:

STLKL ID#	FHI ID#	MATRIX	DATE OF RECEIPT
FGVP2	B167D6	Air	01/30/03
FGVP5	B167D7	Air	01/30/03

II. Analytical Results/Methodology

The analytical results for this report are presented by laboratory sample ID. Each set of data includes sample identification information and analytical results.

The requested analysis was:

Volatile Organics by TO-14

III. Quality Control

The analytical results for the analysis performed includes a minimum of one Laboratory Control Sample (LCS).

Quality control sample results are reported in the same units as sample results.

IV. Comments

The original chain of custody documentation is included with this report.

Unless otherwise noted, all holding times and QC criteria were met. The test results shown in this report meet all applicable NELAC requirements. Any exceptions are noted below.

I certify that this Certificate of Analysis is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or a designee, as verified by the following signature.

Reviewed and approved:

Jamie McKinney
Project Manager

Sample Data Summary

FLUOR HANFORD IC

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

Matrix: (soil/water) AIR Lab Sample ID: H3A300116 001
Method: EPA-19 TO-14
Volatile Organics, (GCMS-TO14 Low Level) ppb(v/v)

Sample WT/Vol: / mL
Work Order: FGVP21AA
Dilution factor: 1.72

Date Received: 01/30/03
Date Extracted: 02/04/03
Date Analyzed: 02/04/03

QC Batch: 3036230

Client Sample Id: B167D6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
67-64-1	Acetone	8.6	U
56-23-5	**Carbon tetrachloride**	**51**	
67-66-3	Chloroform	0.34	U
75-09-2	Methylene chloride	0.86	U
127-18-4	Tetrachloroethene	0.34	U
79-01-6	Trichloroethene	0.34	U
78-93-3	2-Butanone (MEK)	0.86	U

FLUOR HANFORD IC

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

Matrix: (soil/water) AIR Lab Sample ID:H3A300116 002
Method: EPA-19 TO-14
Volatile Organics, (GCMS-TO14 Low Level) ppb(v/v)

Sample WT/Vol: / mL Date Received: 01/30/03
Work Order: FGVP51AA Date Extracted:02/04/03
Dilution factor: 8.95 Date Analyzed: 02/04/03

QC Batch: 3036230

Client Sample Id: B167D7

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
67-64-1	Acetone	45	U
56-23-5	Carbon tetrachloride	210	
67-66-3	Chloroform	3.9	
75-09-2	Methylene chloride	4.5	U
127-18-4	Tetrachloroethene	1.8	U
79-01-6	Trichloroethene	1.8	U
78-93-3	2-Butanone (MEK)	4.5	U

FLUOR HANFORD IC
METHOD BLANK COMPOUNDS

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

Matrix: (soil/water) AIR Lab Sample ID:H3B050000 230
Method: EPA-19 TO-14
Volatile Organics, (GCMS-TO14 Low Level) ppb(v/v)

Sample WT/Vol: / mL Date Received: 01/30/03
Work Order: FG5081AA Date Extracted:02/04/03
Dilution factor: 1 Date Analyzed: 02/04/03

QC Batch: 3036230

Client Sample Id: INTRA-LAB BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
67-64-1	Acetone	5.0	U
56-23-5	Carbon tetrachloride	0.20	U
67-66-3	Chloroform	0.20	U
75-09-2	Methylene chloride	0.50	U
127-18-4	Tetrachloroethene	0.20	U
79-01-6	Trichloroethene	0.20	U
78-93-3	2-Butanone (MEK)	0.50	U

FLUOR HANFORD IC
CHECK SAMPLE COMPOUNDS

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

Matrix: (soil/water) AIR Lab Sample ID:H3B050000 230
Method: EPA-19 TO-14
Volatile Organics, (GCMS-TO14 Low Level) ppb(v/v)

Sample WT/Vol: 100 / mL Date Received: 01/30/03
Work Order: FG5081AC Date Extracted:02/04/03
Dilution factor: 1 Date Analyzed: 02/04/03

QC Batch: 3036230

Client Sample Id: CHECK SAMPLE

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
67-64-1	Acetone	18	
56-23-5	Carbon tetrachloride	9.5	
67-66-3	Chloroform	9.7	
75-09-2	Methylene chloride	9.4	
127-18-4	Tetrachloroethene	9.9	
79-01-6	Trichloroethene	10	
75-71-8	Dichlorodifluoromethane	9.5	
74-87-3	Chloromethane	9.3	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafl	9.6	
75-01-4	Vinyl chloride	9.4	
74-83-9	Bromomethane	9.6	
75-00-3	Chloroethane	9.6	
75-69-4	Trichlorofluoromethane	9.3	
75-35-4	1,1-Dichloroethene	9.8	
76-13-1	1,1,2-Trichloro-1,2,2-triflu	9.5	
75-34-3	1,1-Dichloroethane	9.4	
156-59-2	cis-1,2-Dichloroethene	9.5	
71-55-6	1,1,1-Trichloroethane	9.6	
107-06-2	1,2-Dichloroethane	9.6	
71-43-2	Benzene	9.8	
78-87-5	1,2-Dichloropropane	9.6	
10061-01-5	cis-1,3-Dichloropropene	9.4	
10061-02-6	trans-1,3-Dichloropropene	9.6	
108-88-3	Toluene	9.8	
79-00-5	1,1,2-Trichloroethane	9.5	
106-93-4	1,2-Dibromoethane (EDB)	9.8	
108-90-7	Chlorobenzene	9.8	
100-41-4	Ethylbenzene	9.8	

FLUOR HANFORD IC
CHECK SAMPLE COMPOUNDS

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

Matrix: (soil/water) AIR Lab Sample ID: H3B050000 230
Method: EPA-19 TO-14
Volatile Organics, (GCMS-TO14 Low Level) ppb(v/v)

Sample WT/Vol: 100 / mL Date Received: 01/30/03
Work Order: FG5081AC Date Extracted: 02/04/03
Dilution factor: 1 Date Analyzed: 02/04/03

QC Batch: 3036230

Client Sample Id: CHECK SAMPLE

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
136777-61-2	m-Xylene & p-Xylene	9.9	
100-42-5	Styrene	9.6	
95-47-6	o-Xylene	9.7	
79-34-5	1,1,2,2-Tetrachloroethane	9.7	
108-67-8	1,3,5-Trimethylbenzene	9.7	
95-63-6	1,2,4-Trimethylbenzene	9.8	
541-73-1	1,3-Dichlorobenzene	9.8	
100-44-7	Benzyl chloride	9.9	
106-46-7	1,4-Dichlorobenzene	9.7	
95-50-1	1,2-Dichlorobenzene	9.8	
120-82-1	1,2,4-Trichlorobenzene	10	
87-68-3	Hexachlorobutadiene	10	

FLUOR HANFORD IC

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

Matrix: (soil/water) AIR Lab Sample ID:H3A300116 002
Method: EPA-19 TO-14
Volatile Organics, (GCMS-TO14 Low Level) ppb(v/v)

Sample WT/Vol: / mL Date Received: 01/30/03
Work Order: FGVP51AC Date Extracted:02/04/03
Dilution factor: 8.95 Date Analyzed: 02/04/03

QC Batch: 3036230

Client Sample Id: B167D7 DUP

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
67-64-1	Acetone	45	U
56-23-5	Carbon tetrachloride	200	
67-66-3	Chloroform	3.8	
75-09-2	Methylene chloride	4.5	U
127-18-4	Tetrachloroethene	1.8	U
79-01-6	Trichloroethene	1.8	U
78-93-3	2-Butanone (MEK)	4.5	U

EPA-19 TO-14 SURROGATE RECOVERY

Lab Name: Severn Trent Laboratories, Inc. Client: FLUOR HANFORD IC

Lab Code: STLKNX SDG No:

Lot #: H3A300116

Extraction: XXS88JY01

	CLIENT ID.	SRG01	SRG02	SRG03	TOT OUT
01	B167D6	100	103	103	00
02	B167D7	96	101	101	00
03	METHOD BLK. FG5081AA	98	101	102	00
04	LCS FG5081AC	96	99	96	00
05	B167D7 DUP	97	101	101	00

SURROGATES		QC LIMITS
SRG01	= 1,2-Dichloroethane-d4	(70-130)
SRG02	= Toluene-d8	(70-130)
SRG03	= 4-Bromofluorobenzene	(70-130)

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

FORM II

EPA-19 TO-14 CHECK SAMPLE RECOVERY

Lab Name: Severn Trent Laboratories, Inc. Client: FLUOR HANFORD IC

Lab Code: STLKNX SDG No:

Lot #: H3B050000 WO #: FG5081AC
BATCH: 3036230

COMPOUND	SPIKE ADDED (ppb(v)	SAMPLE CONCENT. (ppb(v)	% REC	QC LIMITS REC	QUAL
Dichlorodifluoromethane	10	9.5	95	70 - 130	
Chloromethane	10	9.3	93	70 - 130	
1,2-Dichloro-1,1,2,2-tetr	10	9.6	96	70 - 130	
Vinyl chloride	10	9.4	94	70 - 130	
Bromomethane	10	9.6	96	70 - 130	
Chloroethane	10	9.6	96	70 - 130	
Trichlorofluoromethane	10	9.3	93	70 - 130	
Acetone	20	18	90	70 - 130	
1,1-Dichloroethene	10	9.8	98	70 - 130	
1,1,2-Trichloro-1,2,2-tri	10	9.5	95	70 - 130	
Methylene chloride	10	9.4	94	70 - 130	
1,1-Dichloroethane	10	9.4	94	70 - 130	
cis-1,2-Dichloroethene	10	9.5	95	70 - 130	
Chloroform	10	9.7	97	70 - 130	
1,1,1-Trichloroethane	10	9.6	96	70 - 130	
1,2-Dichloroethane	10	9.6	96	70 - 130	
Benzene	10	9.8	98	70 - 130	
Carbon tetrachloride	10	9.5	95	70 - 130	
1,2-Dichloropropane	10	9.6	96	70 - 130	
Trichloroethene	10	10	100	70 - 130	
cis-1,3-Dichloropropene	10	9.4	94	70 - 130	
trans-1,3-Dichloropropene	10	9.6	96	70 - 130	
Toluene	10	9.8	98	70 - 130	
1,1,2-Trichloroethane	10	9.5	95	70 - 130	
1,2-Dibromoethane (EDB)	10	9.8	98	70 - 130	
Tetrachloroethene	10	9.9	99	70 - 130	
Chlorobenzene	10	9.8	98	70 - 130	
Ethylbenzene	10	9.8	98	70 - 130	
m-Xylene & p-Xylene	10	9.9	99	70 - 130	
Styrene	10	9.6	96	70 - 130	
o-Xylene	10	9.7	97	70 - 130	

(Continued on next page)

EPA-19 TO-14 CHECK SAMPLE RECOVERY

Lab Name: Severn Trent Laboratories, Inc. Client: FLUOR HANFORD IC

Lab Code: STLKNX SDG No:

Lot #: H3B050000 WO #: FG5081AC
BATCH: 3036230

COMPOUND	SPIKE ADDED (ppb(v)	SAMPLE CONCENT. (ppb(v)	% REC	QC LIMITS REC	QUAL
1,1,2,2-Tetrachloroethane	10	9.7	97	70- 130	
1,3,5-Trimethylbenzene	10	9.7	97	70- 130	
1,2,4-Trimethylbenzene	10	9.8	98	70- 130	
1,3-Dichlorobenzene	10	9.8	98	70- 130	
Benzyl chloride	10	9.9	99	70- 130	
1,4-Dichlorobenzene	10	9.7	97	70- 130	
1,2-Dichlorobenzene	10	9.8	98	70- 130	
1,2,4-Trichlorobenzene	10	10	104	70- 130	
Hexachlorobutadiene	10	10	102	70- 130	

NOTES(S):

* Values outside of QC limits

Spike Recovery: 0 out of 40 outside limits

COMMENTS:

FORM III

BLANK WORKORDER NO.

FG5081AA

EPA-19 TO-14 METHOD BLANK SUMMARY

Lab Name: Severn Trent Laboratories, Inc.

Lab Code: STLKNX

SDG Number:

Lab File ID: blk4328.d

Lot Number: H3A300116

Date Analyzed: 02/04/03

Time Analyzed: 10:27

Matrix: AIR

Date Extracted:02/04/03

GC Column: DB-5 ID: .32

Extraction Method: TO-14

Instrument ID: MT

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	B167D6	FGVP21AA	fgvp2.d	02/04/03	17:51
02	B167D7	FGVP51AA	fgvp5b.d	02/04/03	21:33
03	B167D7 DUP	FGVP51AC X	fgvp5c.d	02/04/03	22:11
04	CHECK SAMPLE	FG5081AC C	rf0204.d	02/04/03	09:13
05					
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30					

COMMENTS:

FORM IV

Sample Receipt Documentation

H3A300116

FH - Central Plateau Project	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	F02-002-003	Page 1 of 1
Collector: M. Baechler/T. Johansen	Company Contact: J. V. Borghese; Telephone No.: 373-3804	Project Coordinator: TRENT, SJ	Price Code: 9N; Data Turnaround: 45 Days
Project Designation: 200-ZP-1 Pump and Treat Operational Monitoring	Sampling Location: 200-ZP-1	SAF No.: F02-002	Air Quality ☐
Ice Chest No.: N/A	Field Logbook No.: HNF-N-295; COA: 117523ES10	Method of Shipment: Government Vehicle	
Shipped To: Severn Trent Incorporated, Richland	Offsite Property No.: N/A	Bill of Lading/Air Bill No.: N/A	

POSSIBLE SAMPLE HAZARDS/REMARKS

Special Handling and/or Storage

Preservation	None										
Type of Container	Summa Canister										
No. of Container(s)	1										
Volume	6L										
SAMPLE ANALYSIS	See item (1) in Special Instructions										

Sample No.	Matrix *	Sample Date	Sample Time										
B167D6	GASEOUS	1-29-03	1007	X									
B167D7	GASEOUS	1-29-03	1010	X									

CHAIN OF POSSESSION	Date/Time	Sign/Print Names: Received By/Stored In	Date/Time
Relinquished By/Removed From: Matthew F. Johnson	1/29/03 1445	Received By/Stored In: Greg Thomas / Greg Thomas	1/29/03 1445
Relinquished By/Removed From: Greg Thomas / Greg Thomas	1/29/03 1240	Received By/Stored In: STL / April Stuthard / Rhineheart	1/29/03 1240
Relinquished By/Removed From: STL / April Stuthard / Rhineheart	1/29/03 1300	Received By/Stored In	
Relinquished By/Removed From		Received By/Stored In	
Relinquished By/Removed From		Received By/Stored In	
Relinquished By/Removed From		Received By/Stored In	

SPECIAL INSTRUCTIONS

(1) VOA - T0-14 (2-Butanone, Acetone, Carbon tetrachloride, Chloroform, Methylenechloride, Tetrachloroethene, Trichloroethene)

Rec'd temp. Ambient
custody seals intact
1 Box Fedex#
7906 8654 9078
MFH-01-30-03

Matrix *: S=Soil; SE=Sediment; SO=Solid; SL=Sludge; W=Water; O=Oil; A=Air; DS=Drum Solids; DL=Drum Liquids; T=Tissue; WI=Wipe; L=Liquid; V=Vegetation; X=Other

LABORATORY SECTION	Received By	Title	Date/Time
	Matthew F. Johnson		01-30-03, 08:50
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

BHI-EE-011 (03/01/2002)

Volatiles

QC Summary

EPA-19 TO-14 SURROGATE RECOVERY

Lab Name: Severn Trent Laboratories, Inc. Client: FLUOR HANFORD IC

Lab Code: STLKNX SDG No:

Lot #: H3A300116

Extraction: XXS88JY01

	CLIENT ID.	SRG01	SRG02	SRG03	TOT OUT
01	B167D6	100	103	103	00
02	B167D7	96	101	101	00
03	METHOD BLK. FG5081AA	98	101	102	00
04	LCS FG5081AC	96	99	96	00
05	B167D7 DUP	97	101	101	00

SURROGATES		QC LIMITS
SRG01	= 1,2-Dichloroethane-d4	(70-130)
SRG02	= Toluene-d8	(70-130)
SRG03	= 4-Bromofluorobenzene	(70-130)

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

FORM II

EPA-19 TO-14 CHECK SAMPLE RECOVERY

Lab Name: Severn Trent Laboratories, Inc. Client: FLUOR HANFORD IC

Lab Code: STLKNX SDG No:

Lot #: H3B050000 WO #: FG5081AC
BATCH: 3036230

COMPOUND	SPIKE ADDED (ppb(v)	SAMPLE CONCENT. (ppb(v)	% REC	QC LIMITS REC	QUAL
Dichlorodifluoromethane	10	9.5	95	70- 130	
Chloromethane	10	9.3	93	70- 130	
1,2-Dichloro-1,1,2,2-tetr	10	9.6	96	70- 130	
Vinyl chloride	10	9.4	94	70- 130	
Bromomethane	10	9.6	96	70- 130	
Chloroethane	10	9.6	96	70- 130	
Trichlorofluoromethane	10	9.3	93	70- 130	
Acetone	20	18	90	70- 130	
1,1-Dichloroethene	10	9.8	98	70- 130	
1,1,2-Trichloro-1,2,2-tri	10	9.5	95	70- 130	
Methylene chloride	10	9.4	94	70- 130	
1,1-Dichloroethane	10	9.4	94	70- 130	
cis-1,2-Dichloroethene	10	9.5	95	70- 130	
Chloroform	10	9.7	97	70- 130	
1,1,1-Trichloroethane	10	9.6	96	70- 130	
1,2-Dichloroethane	10	9.6	96	70- 130	
Benzene	10	9.8	98	70- 130	
Carbon tetrachloride	10	9.5	95	70- 130	
1,2-Dichloropropane	10	9.6	96	70- 130	
Trichloroethene	10	10	100	70- 130	
cis-1,3-Dichloropropene	10	9.4	94	70- 130	
trans-1,3-Dichloropropene	10	9.6	96	70- 130	
Toluene	10	9.8	98	70- 130	
1,1,2-Trichloroethane	10	9.5	95	70- 130	
1,2-Dibromoethane (EDB)	10	9.8	98	70- 130	
Tetrachloroethene	10	9.9	99	70- 130	
Chlorobenzene	10	9.8	98	70- 130	
Ethylbenzene	10	9.8	98	70- 130	
m-Xylene & p-Xylene	10	9.9	99	70- 130	
Styrene	10	9.6	96	70- 130	
o-Xylene	10	9.7	97	70- 130	

(Continued on next page)

EPA-19 TO-14 CHECK SAMPLE RECOVERY

Lab Name: Severn Trent Laboratories, Inc. Client: FLUOR HANFORD IC

Lab Code: STLKNX SDG No:

Lot #: H3B050000 WO #: FG5081AC
BATCH: 3036230

COMPOUND	SPIKE ADDED (ppb(v)	SAMPLE CONCENT. (ppb(v)	% REC	QC LIMITS REC	QUAL
1,1,2,2-Tetrachloroethane	10	9.7	97	70- 130	
1,3,5-Trimethylbenzene	10	9.7	97	70- 130	
1,2,4-Trimethylbenzene	10	9.8	98	70- 130	
1,3-Dichlorobenzene	10	9.8	98	70- 130	
Benzyl chloride	10	9.9	99	70- 130	
1,4-Dichlorobenzene	10	9.7	97	70- 130	
1,2-Dichlorobenzene	10	9.8	98	70- 130	
1,2,4-Trichlorobenzene	10	10	104	70- 130	
Hexachlorobutadiene	10	10	102	70- 130	

NOTES(S):

* Values outside of QC limits

Spike Recovery: 0 out of 40 outside limits

COMMENTS:

FORM III

BLANK WORKORDER NO.

FG5081AA

EPA-19 TO-14 METHOD BLANK SUMMARY

Lab Name: Severn Trent Laboratories, Inc.

Lab Code: STLKNX

SDG Number:

Lab File ID: blk4328.d

Lot Number: H3A300116

Date Analyzed: 02/04/03

Time Analyzed: 10:27

Matrix: AIR

Date Extracted:02/04/03

GC Column: DB-5 ID: .32

Extraction Method: TO-14

Instrument ID: MT

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	B167D6	FGVP21AA	fgvp2.d	02/04/03	17:51
02	B167D7	FGVP51AA	fgvp5b.d	02/04/03	21:33
03	B167D7 DUP	FGVP51AC X	fgvp5c.d	02/04/03	22:11
04	CHECK SAMPLE	FG5081AC C	rf0204.d	02/04/03	09:13
05					
06					
07					
08					
09					
10					
11					
12					
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14					
15					
16					
17					
18					
19					
20					
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27					
28					
29					
30					

COMMENTS:

FORM 5
OTHER ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: T013003I

Lab File ID: BF0130 BFB Injection Date: 01/30/03

Instrument ID: MT BFB Injection Time: 1727

GC Column: DB-5 ID: 0.32 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.7
75	30.0 - 60.0% of mass 95	39.7
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 100.0% of mass 95	87.2
175	5.0 - 9.0% of mass 174	6.5 (7.4)1
176	95.0 - 101.0% of mass 174	86.8 (99.5)1
177	5.0 - 9.0% of mass 176	6.0 (6.9)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	30PPBV	IC5	IC50130	01/30/03	1804
02	15PPBV	IC4	IC40130	01/30/03	1841
03	10PPBV	IC3	IC30130	01/30/03	1918
04	10PPBV	IC2	IC20130	01/30/03	1955
05	1PPBV	IC1	IC10130	01/30/03	2032
06	0.5PPBV	IC7	IC70130	01/30/03	2223
07	0.2PPBV	IC6	IC60130	01/30/03	2300
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

FORM 5
OTHER ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: H3A300116

Lab File ID: BF0204 BFB Injection Date: 02/04/03

Instrument ID: MT BFB Injection Time: 0800

GC Column: DB-5 ID: 0.32 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.9
75	30.0 - 60.0% of mass 95	39.5
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 100.0% of mass 95	89.6
175	5.0 - 9.0% of mass 174	6.5 (7.2)1
176	95.0 - 101.0% of mass 174	89.3 (99.8)1
177	5.0 - 9.0% of mass 176	5.9 (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	10PPBV	CCV	MD0204	02/04/03	0836
02	LCS	FG5081AC	RF0204	02/04/03	0913
03	BLANK	FG5081AA	BLK4328	02/04/03	1027
04	B167D6	FGVP21AA	FGVP2	02/04/03	1751
05	B167D7	FGVP51AA	FGVP5B	02/04/03	2133
06	B167D7 DUP	FGVP51AC	FGVP5C	02/04/03	2211
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

FORM 8
OTHER INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: H3A300116

Lab File ID (Standard): MD0204 Date Analyzed: 02/04/03

Instrument ID: MT Time Analyzed: 0836

GC Column: DB-5 ID: 0.32 (mm) Heated Purge: (Y/N) N

		IS1(BCM) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(CBZ) AREA #	RT #
	12 HOUR STD	612998	9.76	2921862	11.88	2345250	16.43
	UPPER LIMIT	861262	10.26	4105216	12.38	3295076	16.93
	LOWER LIMIT	364734	9.26	1738508	11.38	1395424	15.93
	CLIENT SAMPLE NO.						
01	LCS	618786	9.76	2952226	11.88	2364690	16.44
02	BLANK	620875	9.76	2875450	11.87	2308184	16.43
03	B167D6	613108	9.75	2895277	11.88	2297743	16.43
04	B167D7	615673	9.76	2849696	11.87	2264081	16.43
05	B167D7 DUP	617504	9.76	2846472	11.88	2282233	16.43
06							
07							
08							
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17							
18							
19							
20							
21							
22							

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = + 40% of internal standard area
AREA LOWER LIMIT = - 40% 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 values outside QC limits with an asterisk.
* Values outside of QC limits.

Raw Sample Data

FLUOR HANFORD IC

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

Matrix: (soil/water) AIR Lab Sample ID:H3A300116 001
Method: EPA-19 TO-14
Volatile Organics, (GCMS-TO14 Low Level) ppb(v/v)

Sample WT/Vol: / mL Date Received: 01/30/03
Work Order: FGVP21AA Date Extracted:02/04/03
Dilution factor: 1.72 Date Analyzed: 02/04/03

QC Batch: 3036230

Client Sample Id: B167D6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
67-64-1	Acetone	8.6	U
56-23-5	**Carbon tetrachloride**	**51**	
67-66-3	Chloroform	0.34	U
75-09-2	Methylene chloride	0.86	U
127-18-4	Tetrachloroethene	0.34	U
79-01-6	Trichloroethene	0.34	U
78-93-3	2-Butanone (MEK)	0.86	U

Data File: /var/chem/gcms/mt.i/T020403.b/fgvp2.d
Report Date: 05-Feb-2003 11:10

STL Knoxville

Modified Method TO-14

Data file : /var/chem/gcms/mt.i/T020403.b/fgvp2.d
Lab Smp Id: FGVP21AA Client Smp ID: B167D6
Inj Date : 04-FEB-2003 17:51
Operator : 0691 Inst ID: mt.i
Smp Info : FGVP21AA,1.72,0,,
Misc Info : T020403,LA,,,500ML
Comment :
Method : /var/chem/gcms/mt.i/T020403.b/LA.m
Meth Date : 05-Feb-2003 11:10 jarmanc Quant Type: ISTD
Cal Date : 04-FEB-2003 08:36 Cal File: md0204.d
Als bottle: 3
Dil Factor: 1.72000
Integrator: HP RTE Compound Sublist: FLUOR.sub
Target Version: 3.50
Processing Host: qmidhp01

02/05/03

WJ 2/5/03

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	FINAL (ppb(v/v))
* 1 Bromochloromethane	128	9.754	9.765	(1.000)	613108	10.0000	
* 2 1,4-Difluorobenzene	114	11.880	11.882	(1.000)	2895277	10.0000	
* 3 Chlorobenzene-d5	117	16.435	16.428	(1.000)	2297743	10.0000	
$ 4 1,2-Dichloroethane-d4	67	10.761	10.763	(0.906)	479242	10.0183	10.02
$ 5 Toluene-d8	98	14.413	14.415	(0.877)	2389028	10.2766	10.28
$ 6 4-Bromofluorobenzene	95	18.023	18.025	(1.097)	1485513	10.3244	10.32
20 Acetone	58	6.136	6.086	(0.629)	58862	2.38727	4.106
26 Methylene Chloride	84	7.091	7.093	(0.727)	19514	0.32430	0.5578
33 2-Butanone	72	9.078	8.993	(0.931)	8300	0.26244	0.4514
36 Chloroform	83	9.763	9.774	(1.001)	6522	0.05676	0.09763
42 Carbon Tetrachloride	117	11.394	11.396	(1.168)	3072565	29.5461	50.82

Data File: /var/chem/gcms/mt.i/T020403.b/fgvp2.d
Report Date: 05-Feb-2003 11:10

STL Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mt.i
Lab File ID: fgvp2.d
Lab Smp Id: FGVP21AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 0691
Method File: /var/chem/gcms/mt.i/T020403.b/LA.m
Misc Info: T020403,LA,,,500ML

Calibration Date: 04-FEB-2003
Calibration Time: 08:36
Client Smp ID: B167D6
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	612998	364734	861262	613108	0.02
2 1,4-Difluorobenze	2921862	1738508	4105216	2895277	-0.91
3 Chlorobenzene-d5	2345250	1395424	3295076	2297743	-2.03

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.76	9.26	10.26	9.75	-0.11
2 1,4-Difluorobenze	11.88	11.38	12.38	11.88	-0.02
3 Chlorobenzene-d5	16.43	15.93	16.93	16.43	0.04

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /var/chem/gcms/mt.i/T020403.b/fgvp2.d
Report Date: 05-Feb-2003 11:10

STL Knoxville

RECOVERY REPORT

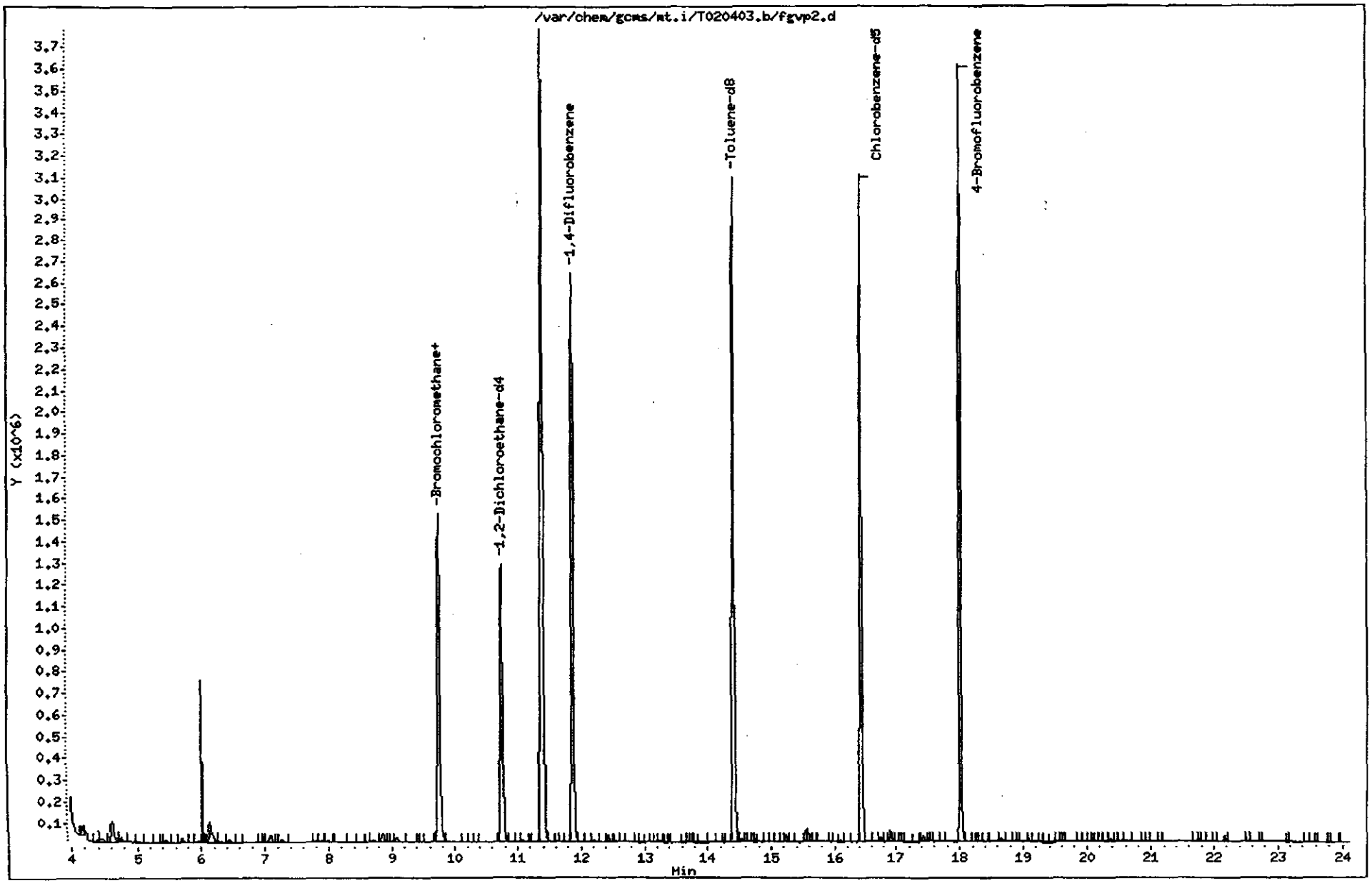
Client Name: FLUOR HANFORD IC
Sample Matrix: GAS
Lab Smp Id: FGVP21AA
Level: LOW
Data Type: MS DATA
SpikeList File: RTALL.spk
Sublist File: FLUOR.sub
Method File: /var/chem/gcms/mt.i/T020403.b/LA.m
Misc Info: T020403,LA,,,500ML

Client SDG: H3A300116
Fraction: OTHER
Client Smp ID: B167D6
Operator: 0691
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 4 1,2-Dichloroethane	10.00	10.02	100.18	70-130
$ 5 Toluene-d8	10.00	10.28	102.77	70-130
$ 6 4-Bromofluorobenze	10.00	10.32	103.24	70-130

Data File: /var/chem/gcms/mt.i/T020403.b/fgvp2.d
Date : 04-FEB-2003 17:51
Client ID: B167D6
Sample Info: FGVP21AA,1.72,0,,
Volume Injected (uL): 500.0
Column phase: DB-5

Instrument: mt.i
Operator: 0691
Column diameter: 0.32



Data File: /var/chem/gcms/mt.i/T020403.b/fgvp2.d

Date : 04-FEB-2003 17:51

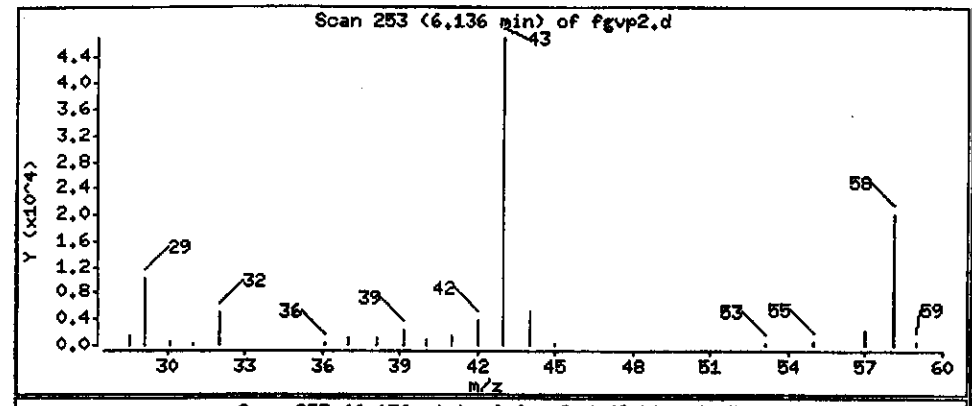
Client ID: B167D6 | Instrument: mt.i

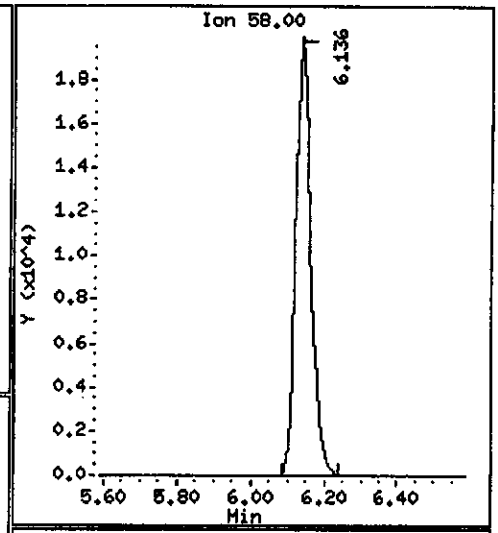
Sample Info: FGVP21AA,1.72,0,,

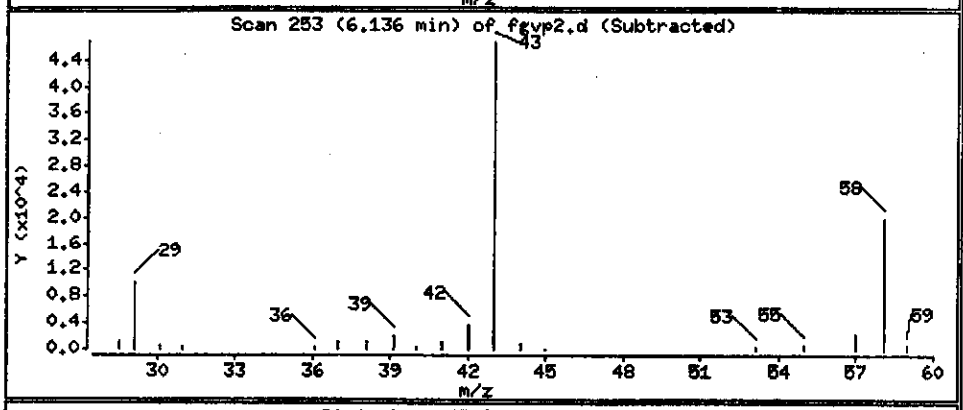
Volume Injected (uL): 500.0 | Operator: 0691

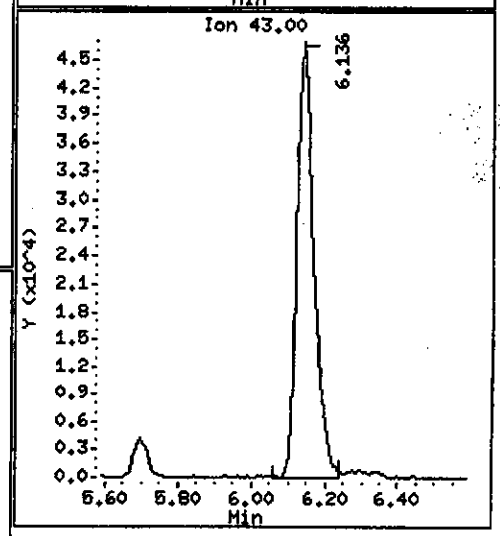
Column phase: DB-5 | Column diameter: 0.32

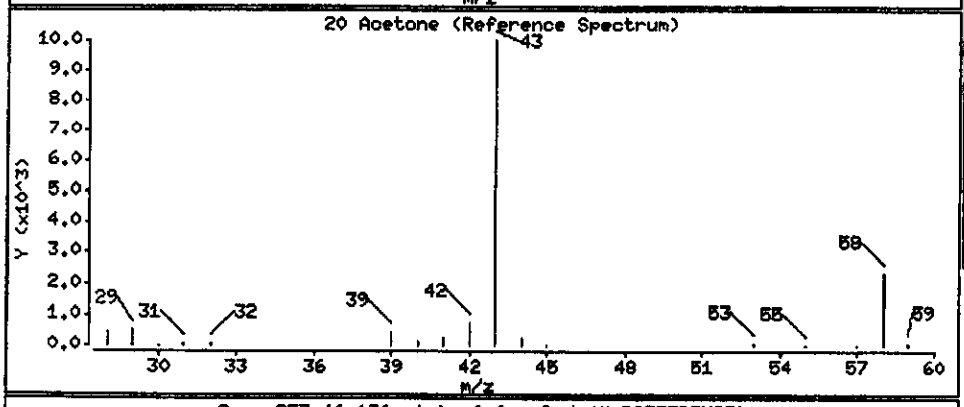
20 Acetone | Concentration: 4.106 ppb(v/v)

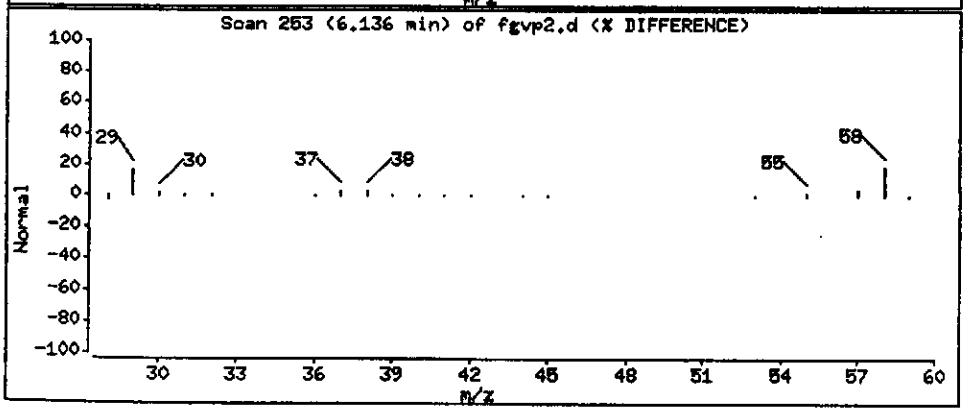












Data File: /var/chem/gcms/mt.i/T020403.b/fgvp2.d

Date : 04-FEB-2003 17:51

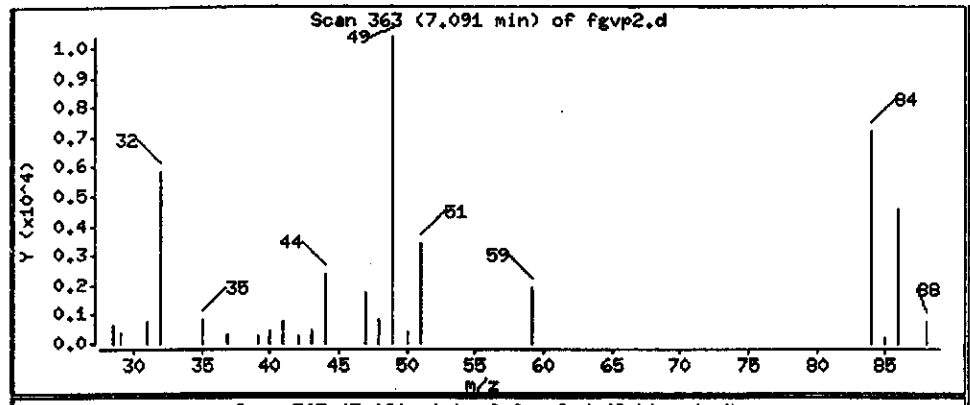
Client ID: B167D6 | Instrument: mt.i

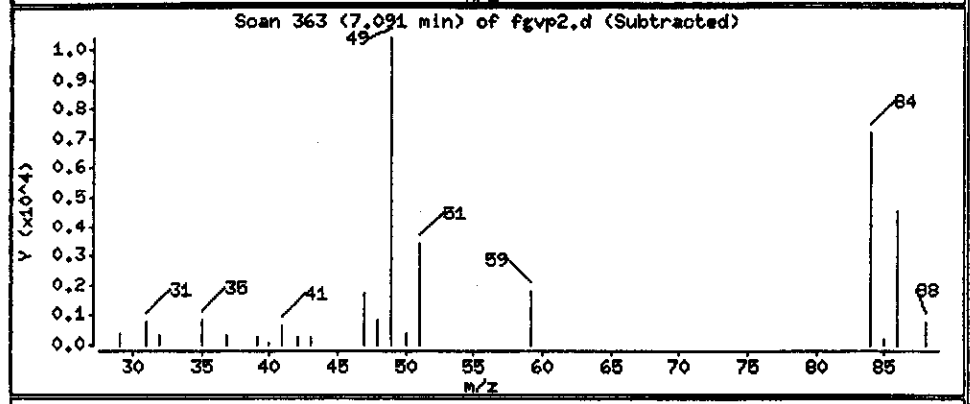
Sample Info: FGVP21AA,1.72,0,,

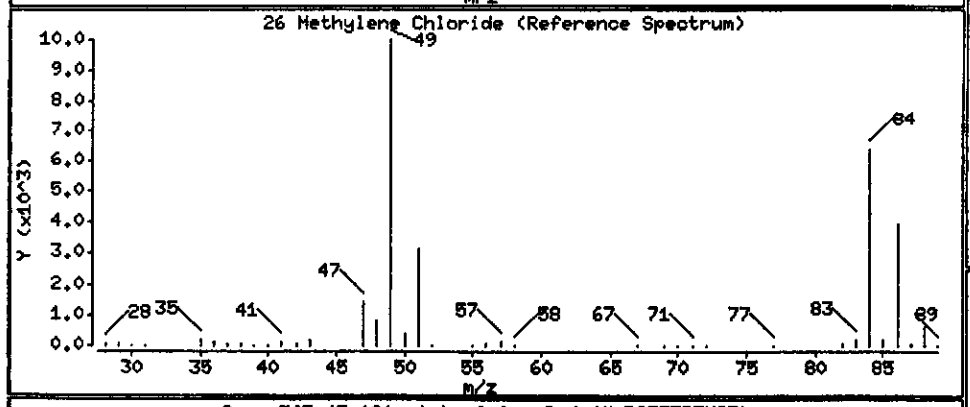
Volume Injected (uL): 500.0 | Operator: 0691

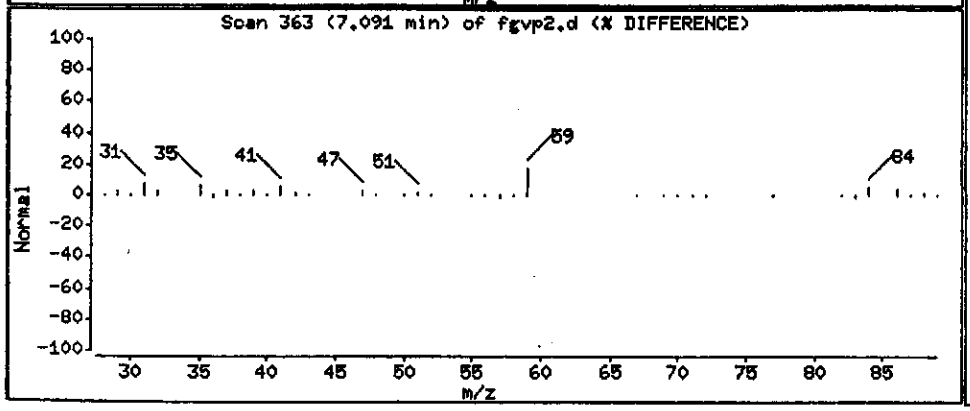
Column phase: DB-5 | Column diameter: 0.32

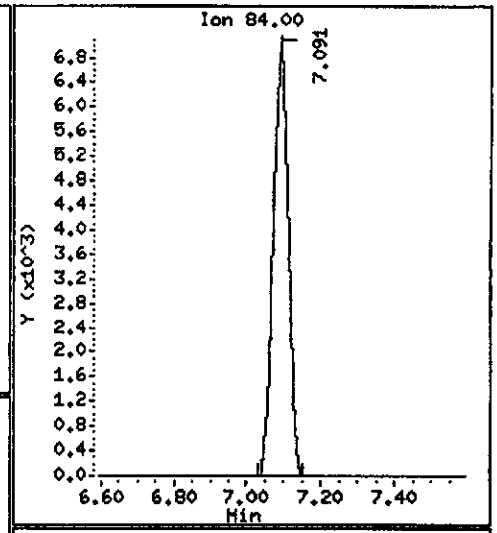
26 Methylene Chloride | Concentration: 0.5578 ppb(v/v)

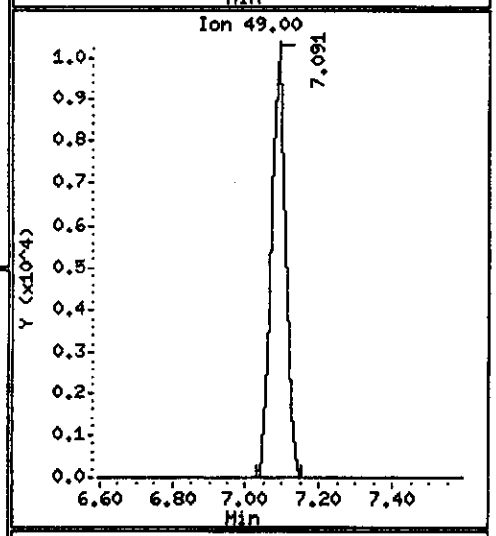


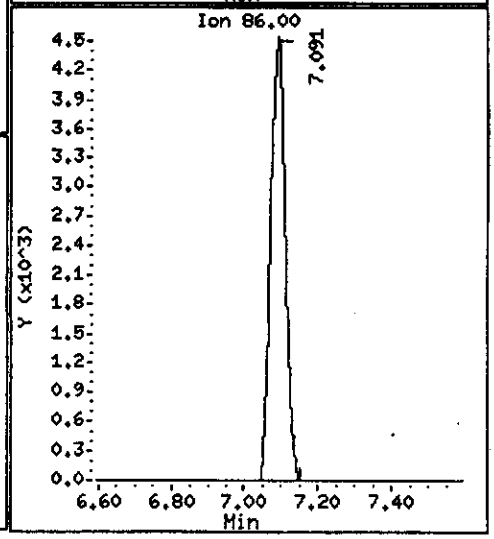












Data File: /var/chem/gcms/mt.i/T020403.b/fgvp2.d

Date : 04-FEB-2003 17:51

Client ID: B167D6

Instrument: mt.i

Sample Info: FGVP21AA,1.72,0,,

Volume Injected (uL): 500.0

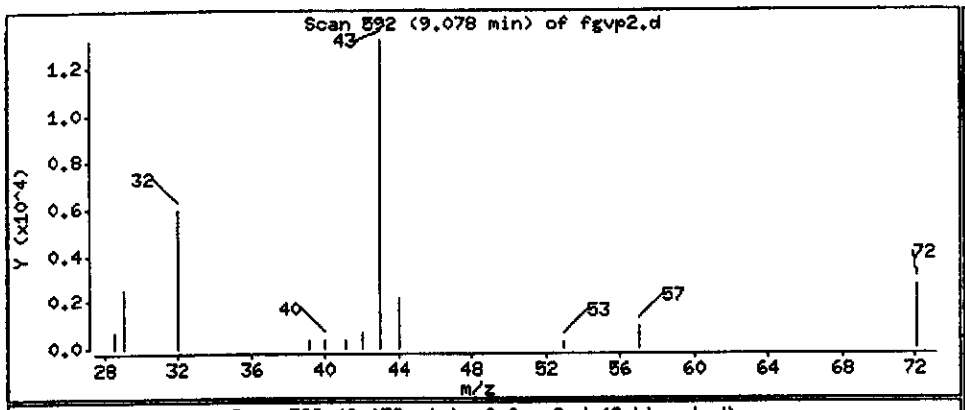
Operator: 0691

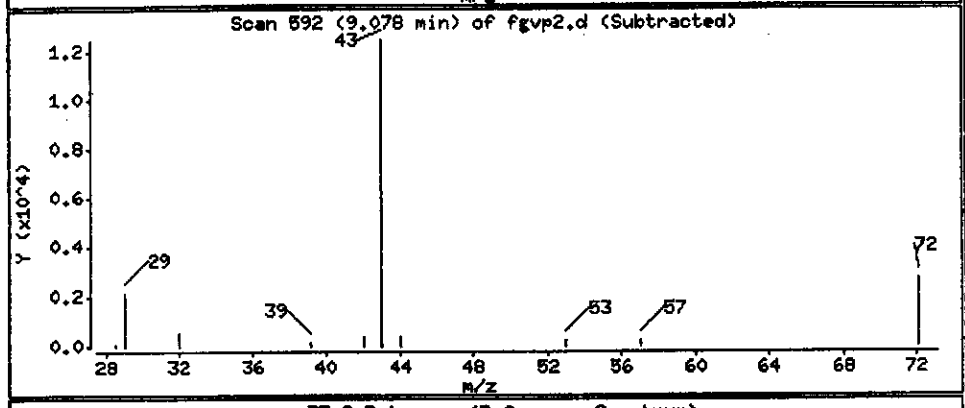
Column phase: DB-5

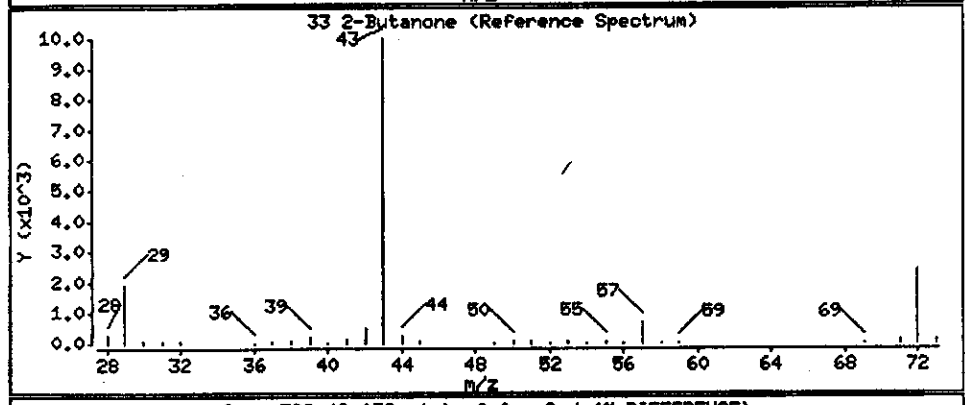
Column diameter: 0.32

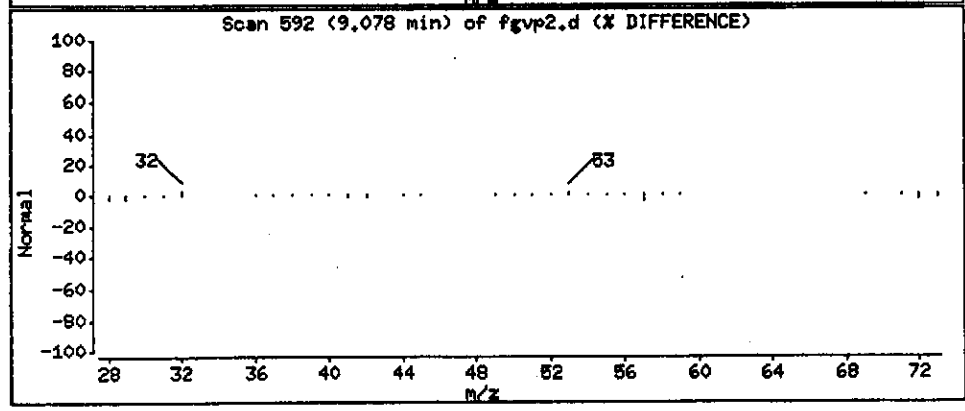
33 2-Butanone

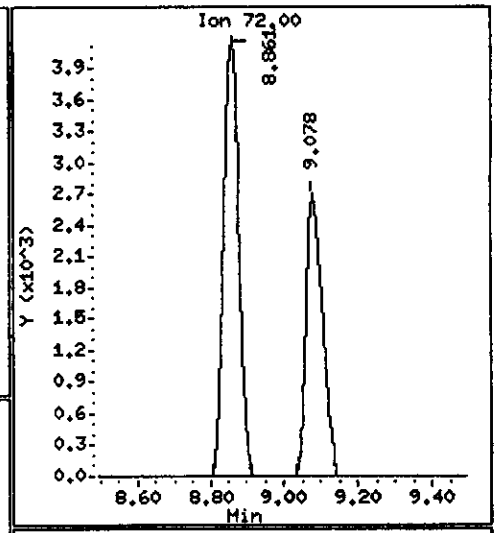
Concentration: 0.4514 ppb(v/v)

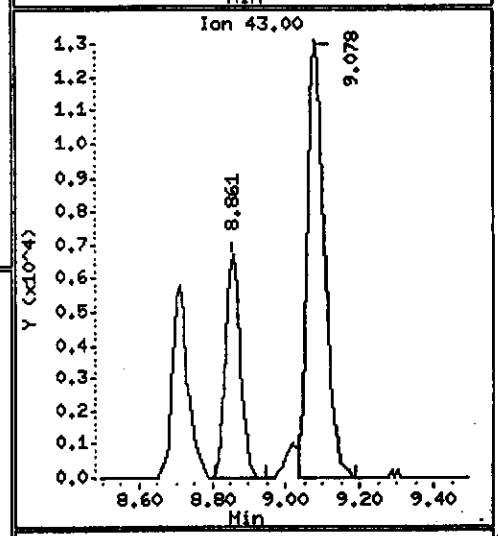


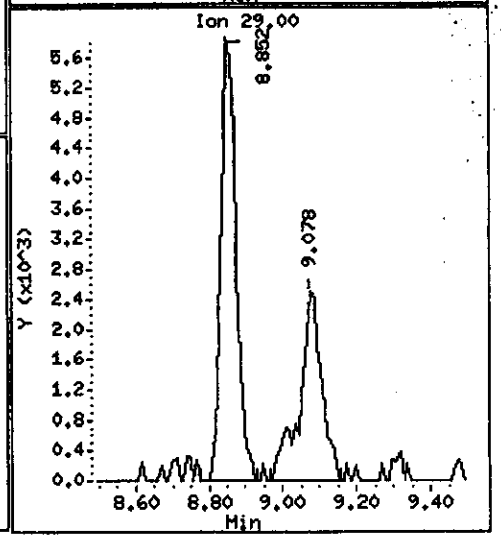












Data File: /var/chem/gcms/mt.i/T020403.b/fgvp2.d

Date : 04-FEB-2003 17:51

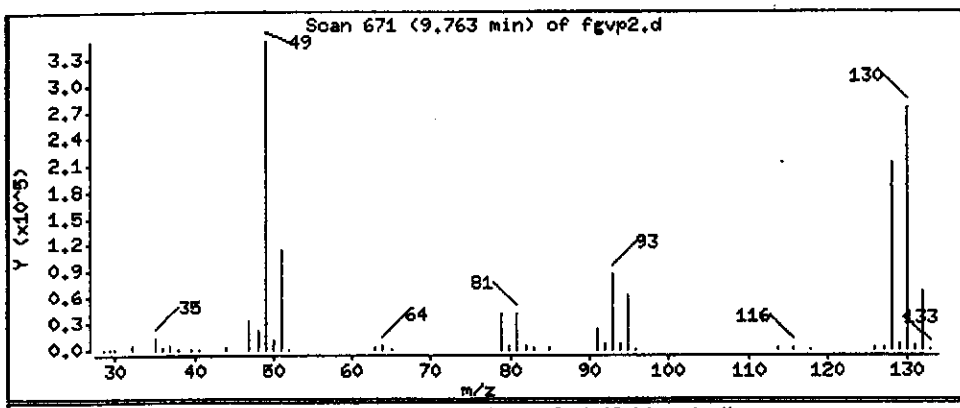
Client ID: B167D6 | Instrument: mt.i

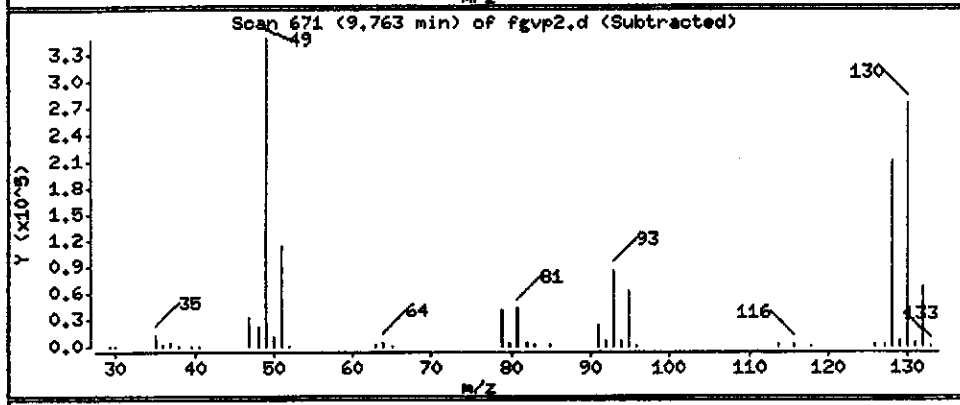
Sample Info: FGVP21AA,1.72,0,,

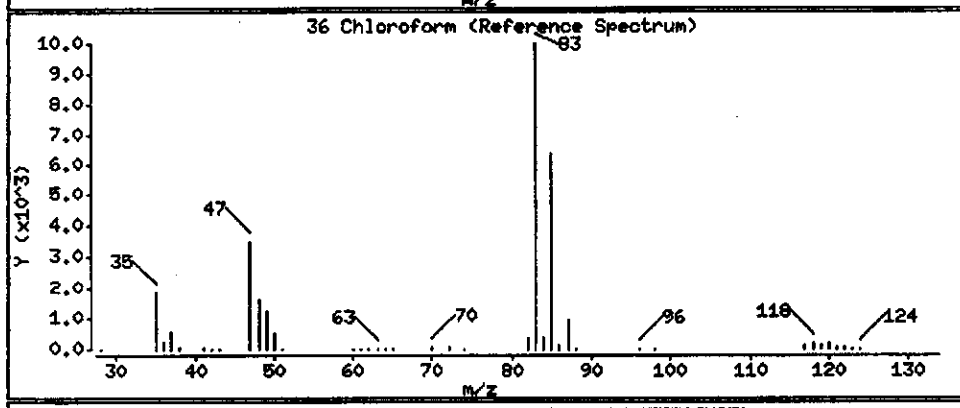
Volume Injected (uL): 500.0 | Operator: 0691

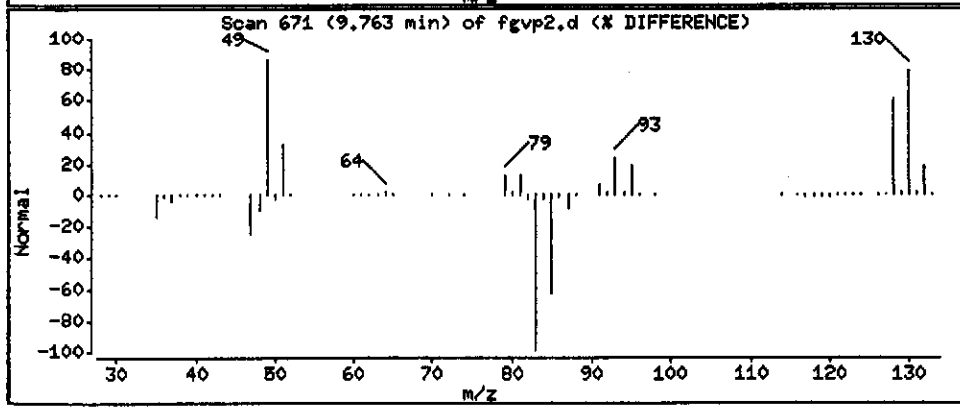
Column phase: DB-5 | Column diameter: 0.32

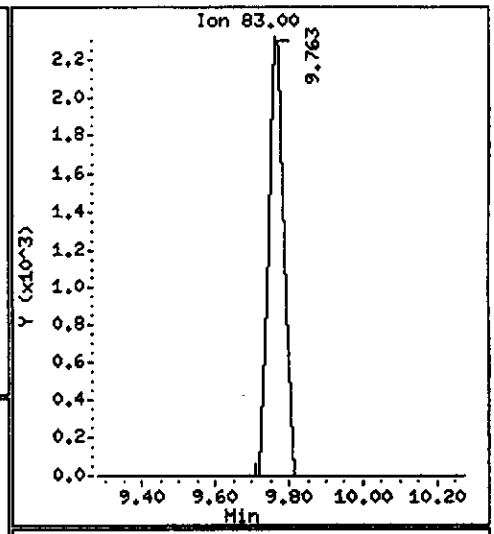
36 Chloroform | Concentration: 0.09763 ppb(v/v)

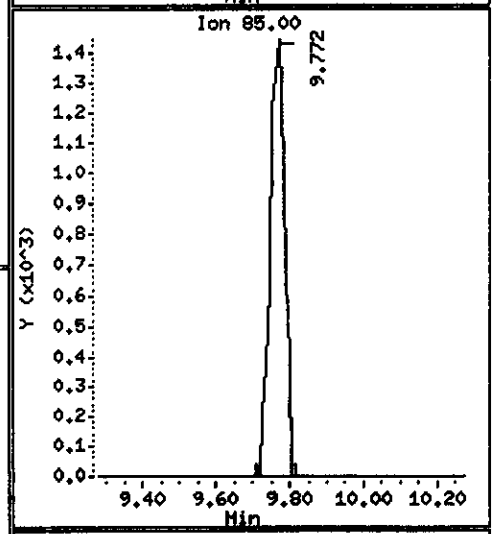


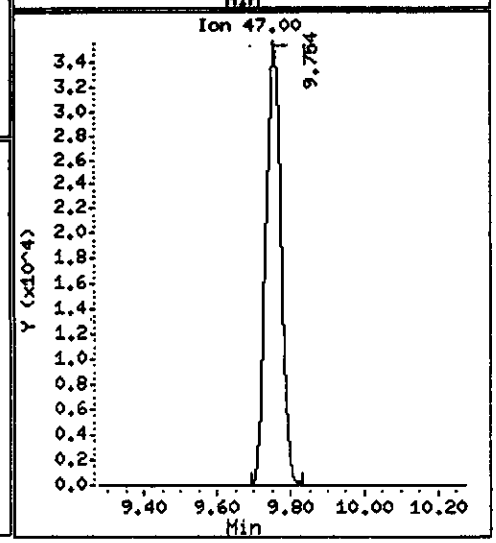












Data File: /var/chem/gcms/mt.i/T020403.b/fgvp2.d

Date : 04-FEB-2003 17:51

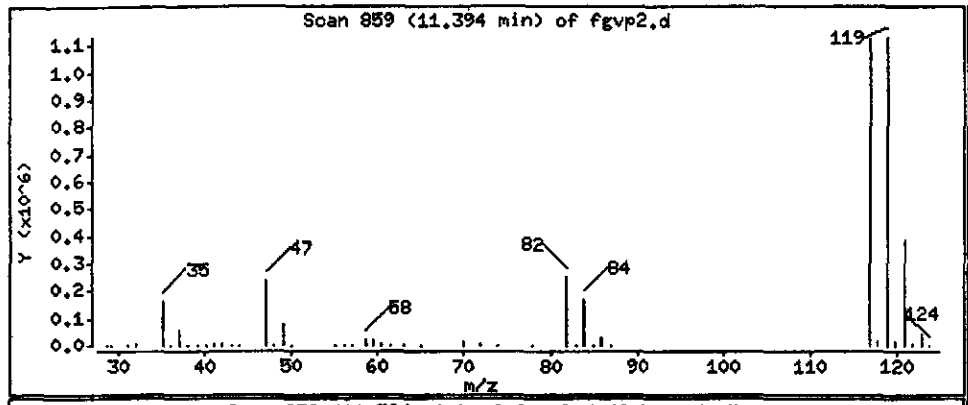
Client ID: B167D6 Instrument: mt.i

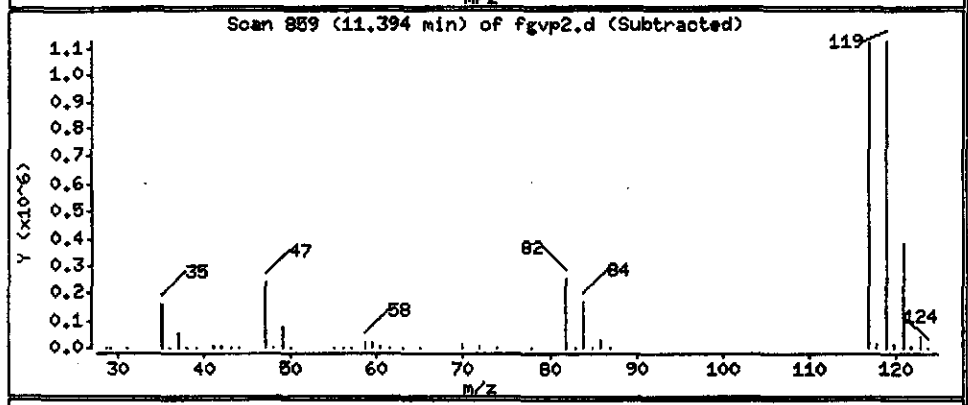
Sample Info: FGVP21AA,1.72,0,,

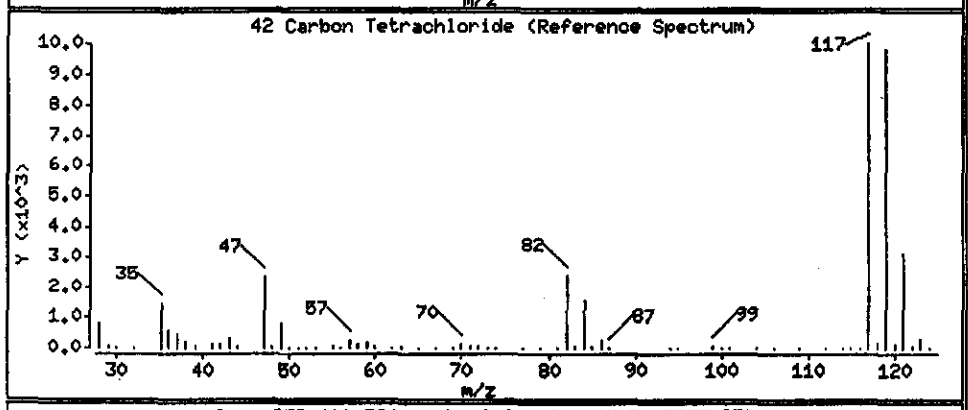
Volume Injected (uL): 500.0 Operator: 0691

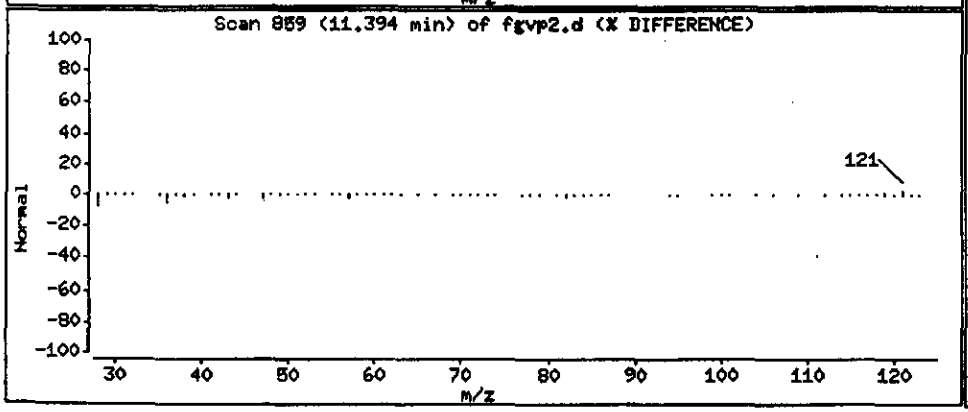
Column phase: DB-5 Column diameter: 0.32

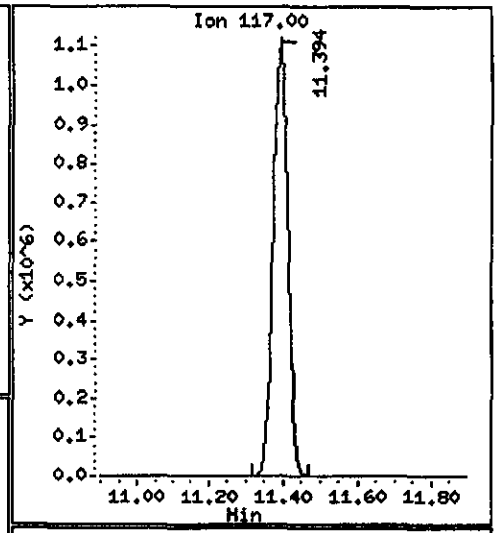
42 Carbon Tetrachloride Concentration: 50.82 ppb(v/v)

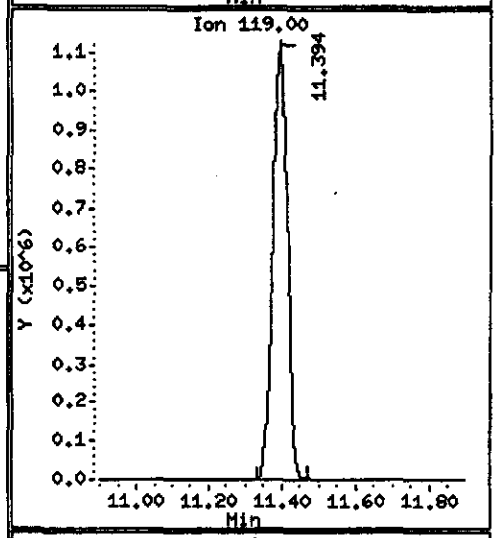


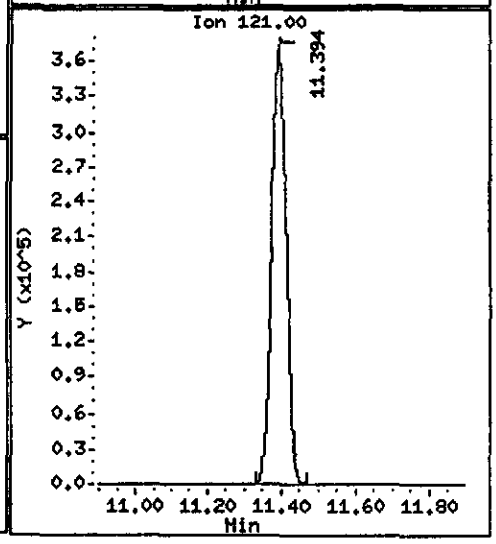












FLUOR HANFORD IC

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

Matrix: (soil/water) AIR Lab Sample ID:H3A300116 002
Method: EPA-19 TO-14
Volatile Organics, (GCMS-TO14 Low Level) ppb(v/v)

Sample WT/Vol: / mL Date Received: 01/30/03
Work Order: FGVP51AA Date Extracted:02/04/03
Dilution factor: 8.95 Date Analyzed: 02/04/03

QC Batch: 3036230

Client Sample Id: B167D7

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
67-64-1	Acetone	45	U
56-23-5	**Carbon tetrachloride**	**210**	
67-66-3	**Chloroform**	**3.9**	
75-09-2	Methylene chloride	4.5	U
127-18-4	Tetrachloroethene	1.8	U
79-01-6	Trichloroethene	1.8	U
78-93-3	2-Butanone (MEK)	4.5	U

Data File: /var/chem/gcms/mt.i/T020403.b/fgvp5b.d
Report Date: 05-Feb-2003 11:11

STL Knoxville

Modified Method TO-14

Data file : /var/chem/gcms/mt.i/T020403.b/fgvp5b.d
Lab Smp Id: FGVP51AA Client Smp ID: B167D7
Inj Date : 04-FEB-2003 21:33
Operator : 0691 Inst ID: mt.i
Smp Info : FGVP51AA,8.95,0,,
Misc Info : T020403,LA,,,100ML
Comment :
Method : /var/chem/gcms/mt.i/T020403.b/LA.m
Meth Date : 05-Feb-2003 11:10 jarmanc Quant Type: ISTD
Cal Date : 04-FEB-2003 08:36 Cal File: md0204.d
Als bottle: 4
Dil Factor: 8.95000
Integrator: HP RTE Compound Sublist: FLUOR.sub
Target Version: 3.50
Processing Host: qmidhp01

03/2003

WJ 2/5/03

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	FINAL (ppb(v/v))
* 1 Bromochloromethane	128	9.758	9.765	(1.000)	615673	10.0000	
* 2 1,4-Difluorobenzene	114	11.875	11.882	(1.000)	2849696	10.0000	
* 3 Chlorobenzene-d5	117	16.430	16.428	(1.000)	2264081	10.0000	
$ 4 1,2-Dichloroethane-d4	67	10.756	10.763	(0.906)	453265	9.62679	9.627
$ 5 Toluene-d8	98	14.417	14.415	(0.877)	2313968	10.1017	10.10
$ 6 4-Bromofluorobenzene	95	18.018	18.025	(1.097)	1438322	10.1451	10.14
36 Chloroform	83	9.767	9.774	(1.001)	50583	0.43835	3.923
42 Carbon Tetrachloride	117	11.398	11.396	(1.168)	2426252	23.2338	207.9
45 Trichloroethene	130	12.552	12.559	(1.057)	13332	0.16235	1.453

Data File: /var/chem/gcms/mt.i/T020403.b/fgvp5b.d
Report Date: 05-Feb-2003 11:11

STL Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mt.i
Lab File ID: fgvp5b.d
Lab Smp Id: FGVP51AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 0691
Method File: /var/chem/gcms/mt.i/T020403.b/LA.m
Misc Info: T020403,LA,,,100ML

Calibration Date: 04-FEB-2003
Calibration Time: 08:36
Client Smp ID: B167D7
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	612998	364734	861262	615673	0.44
2 1,4-Difluorobenze	2921862	1738508	4105216	2849696	-2.47
3 Chlorobenzene-d5	2345250	1395424	3295076	2264081	-3.46

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.76	9.26	10.26	9.76	-0.07
2 1,4-Difluorobenze	11.88	11.38	12.38	11.87	-0.06
3 Chlorobenzene-d5	16.43	15.93	16.93	16.43	0.01

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /var/chem/gcms/mt.i/T020403.b/fgvp5b.d
Report Date: 05-Feb-2003 11:11

STL Knoxville

RECOVERY REPORT

Client Name: FLUOR HANFORD IC
Sample Matrix: GAS
Lab Smp Id: FGVP51AA
Level: LOW
Data Type: MS DATA
SpikeList File: RTALL.spk
Sublist File: FLUOR.sub
Method File: /var/chem/gcms/mt.i/T020403.b/LA.m
Misc Info: T020403,LA,,,100ML

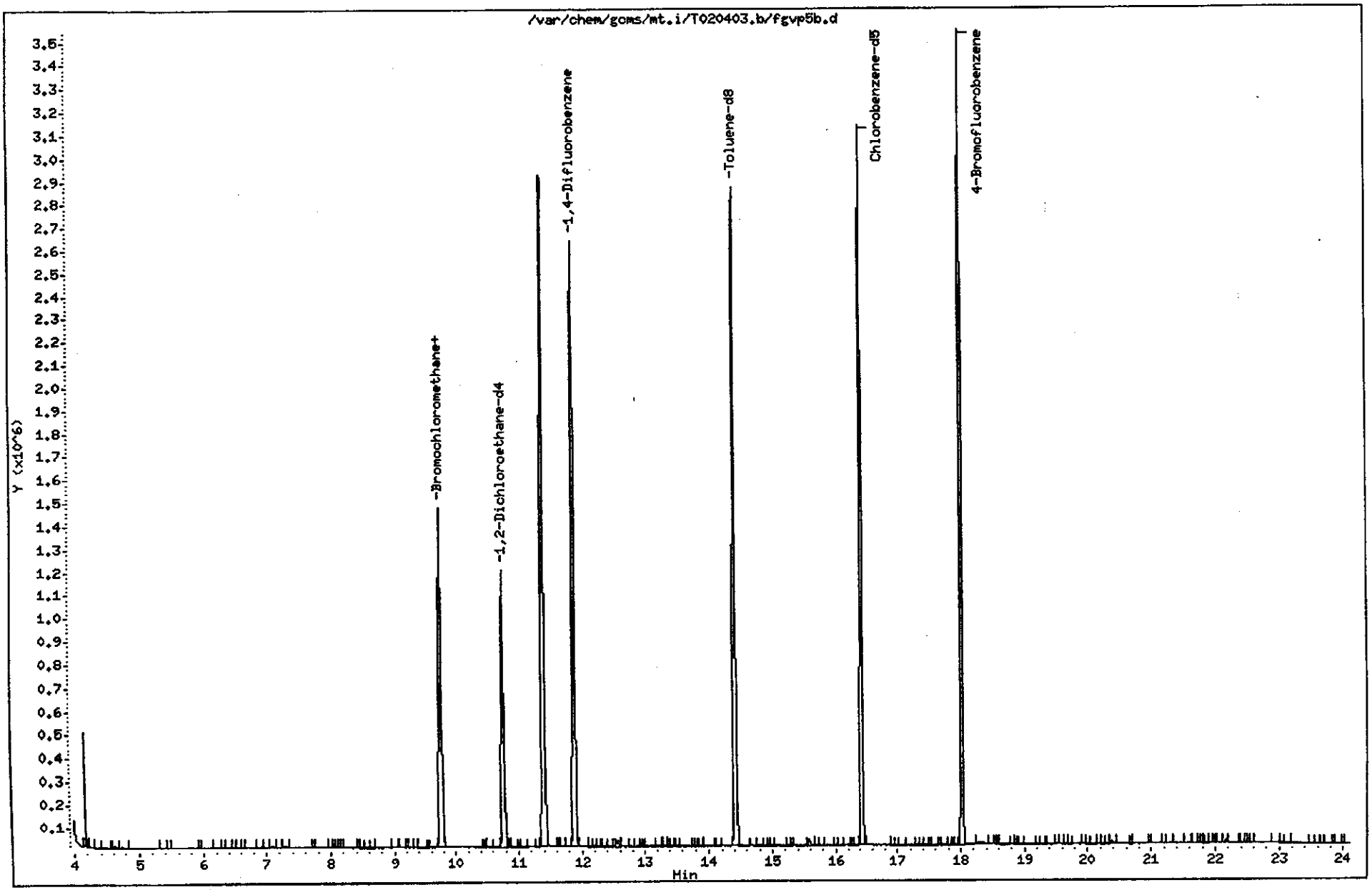
Client SDG: H3A300116
Fraction: OTHER
Client Smp ID: B167D7
Operator: 0691
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 4 1,2-Dichloroethane	10.00	9.627	96.27	70-130
$ 5 Toluene-d8	10.00	10.10	101.02	70-130
$ 6 4-Bromofluorobenze	10.00	10.14	101.45	70-130

Data File: /var/chem/gcms/mt.i/T020403.b/fgvp5b.d
Date : 04-FEB-2003 21:33
Client ID: B167D7
Sample Info: FGVP51AA,8.95,0,,
Volume Injected (uL): 500.0
Column phase: DB-5

Instrument: mt.i

Operator: 0691
Column diameter: 0.32



Data File: /var/chem/goms/mt.i/T020403.b/fgvp5b.d

Date : 04-FEB-2003 21:33

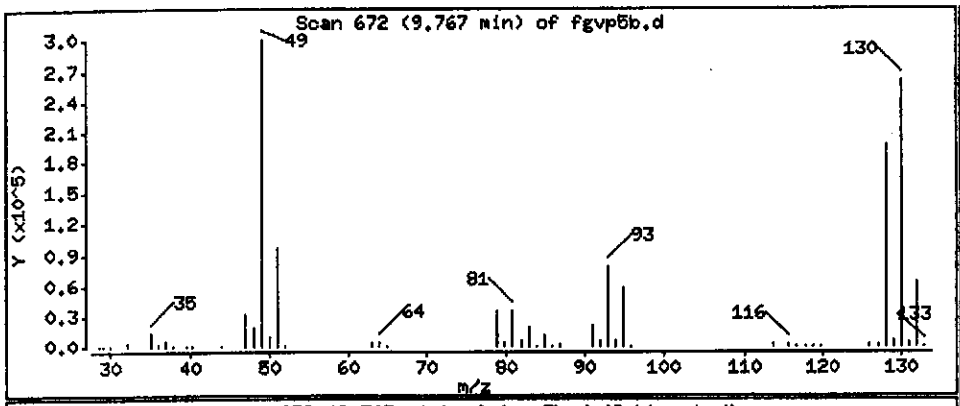
Client ID: B167D7 Instrument: mt.i

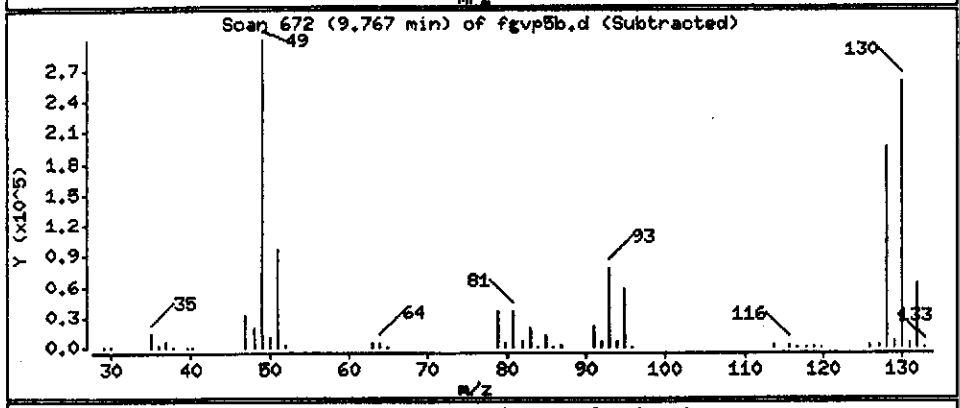
Sample Info: FGVP51AA,8.95,0,,

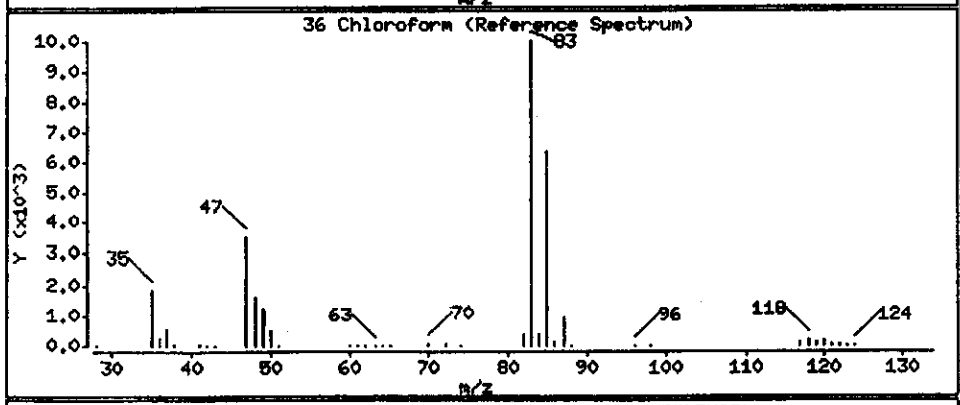
Volume Injected (uL): 500.0 Operator: 0691

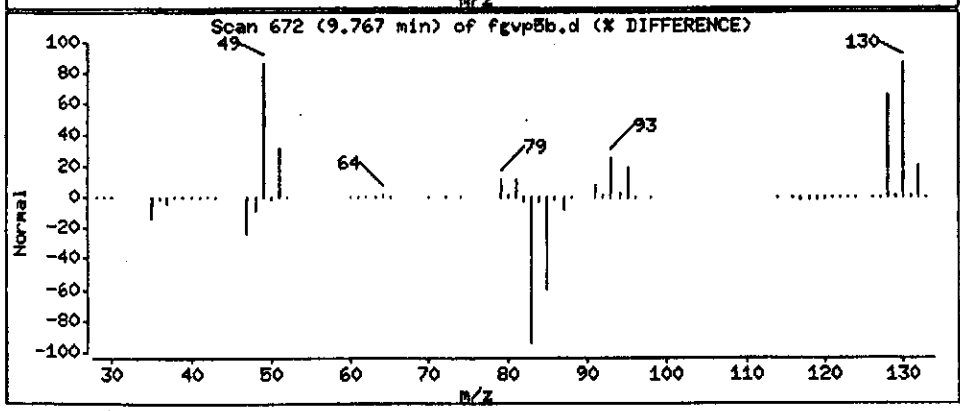
Column phase: DB-5 Column diameter: 0.32

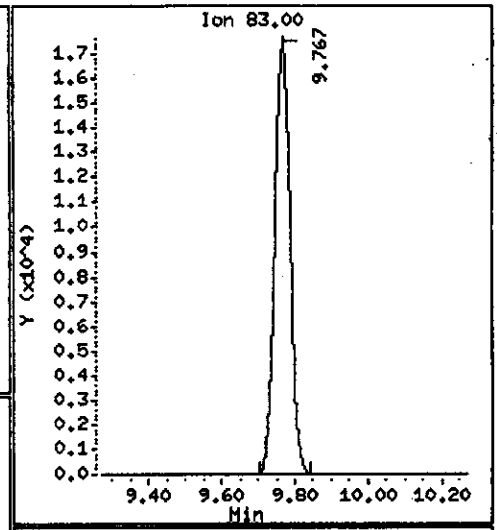
36 Chloroform Concentration: 3.923 ppb(v/v)

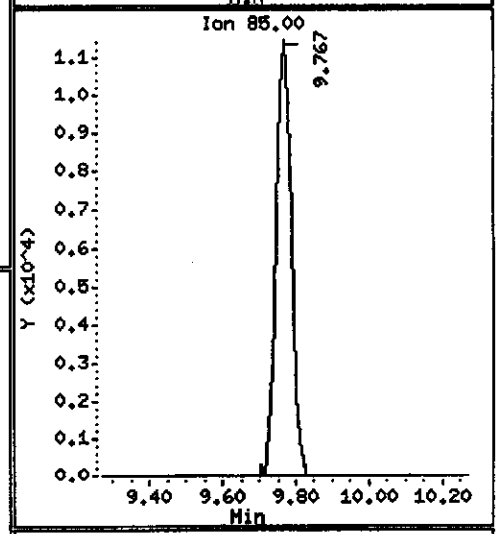


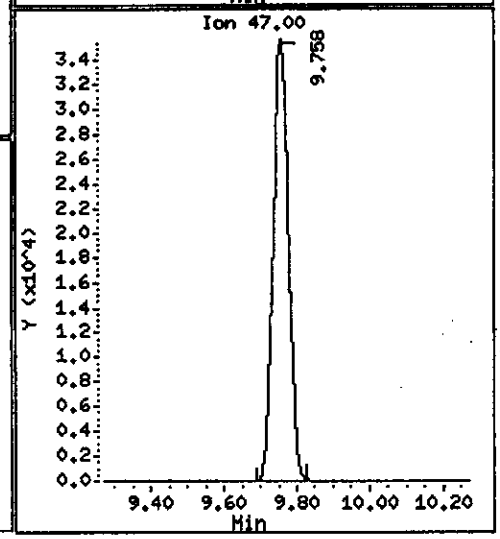












Data File: /var/chem/gcms/mt.i/T020403.b/fgvp5b.d

Date : 04-FEB-2003 21:33

Client ID: B167D7

Instrument: mt.i

Sample Info: FGVP51AA,8.95,0,,

Volume Injected (uL): 500.0

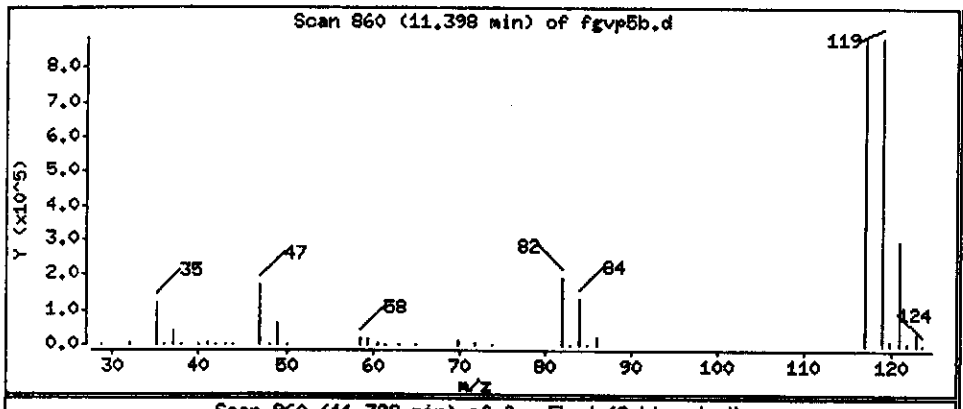
Operator: 0691

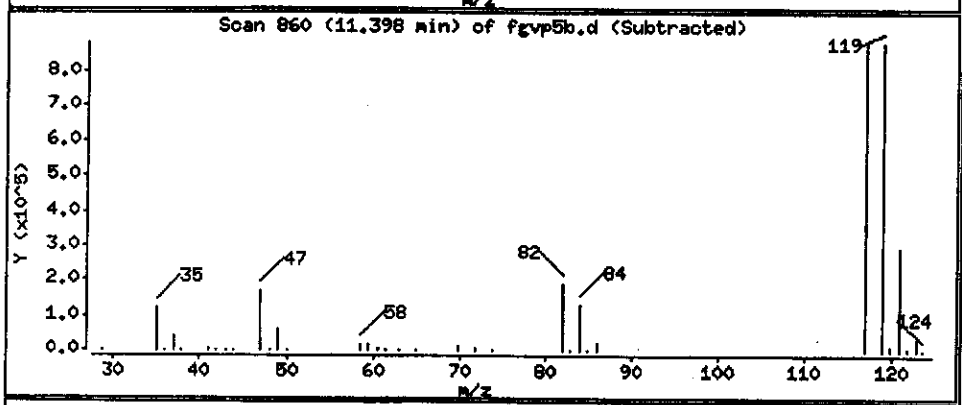
Column phase: DB-5

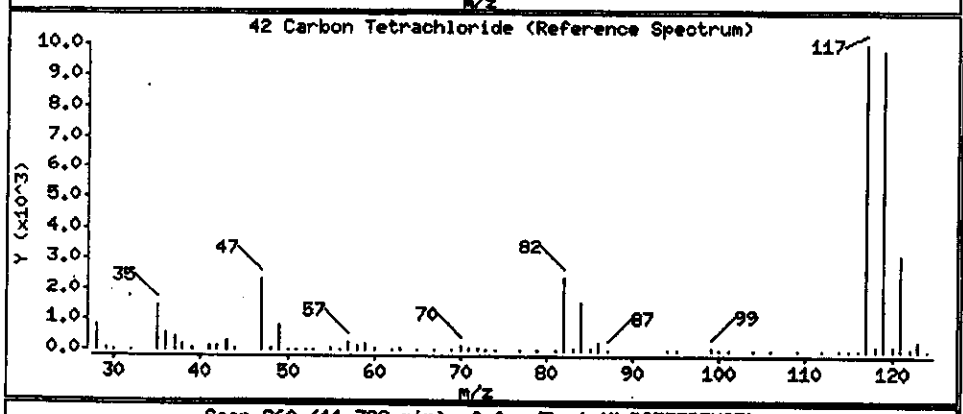
Column diameter: 0.32

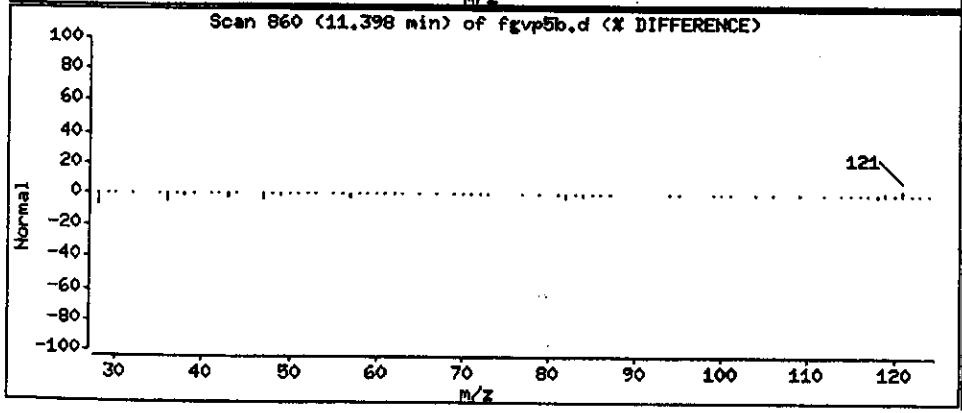
42 Carbon Tetrachloride

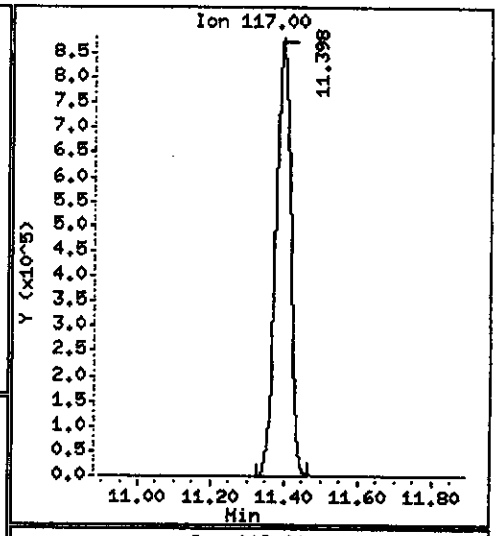
Concentration: 207.9 ppb(v/v)

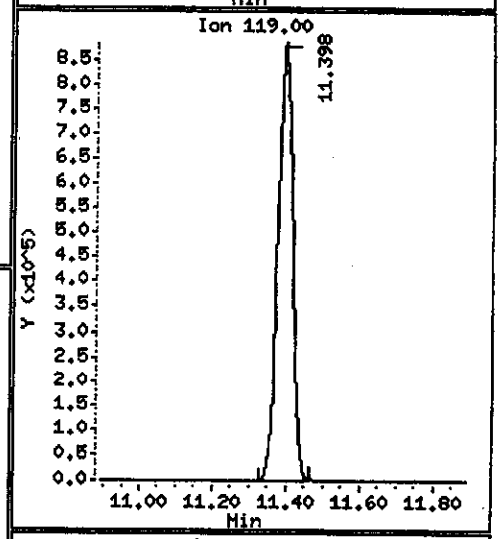


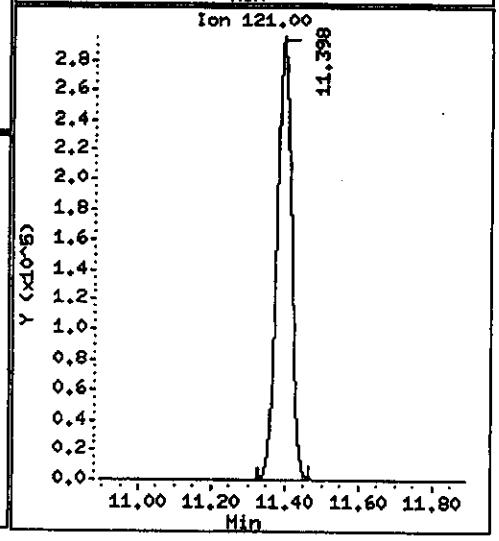












Data File: /var/chem/gcms/mt.i/T020403.b/fgvp5b.d

Date : 04-FEB-2003 21:33

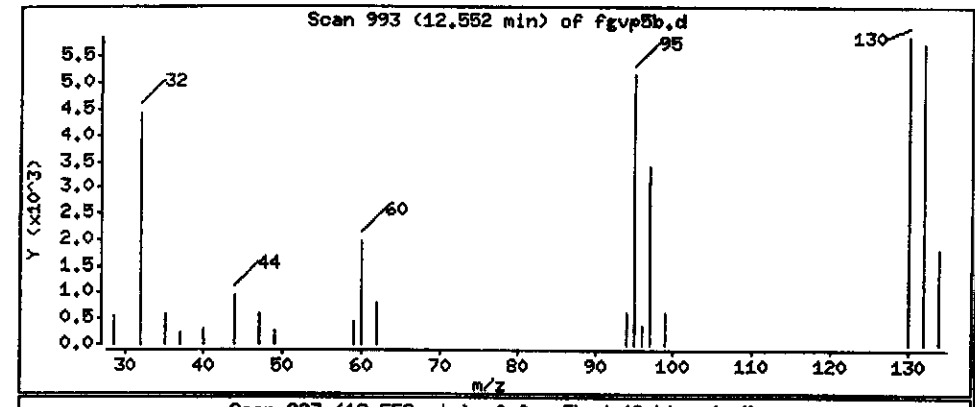
Client ID: B167D7 Instrument: mt.i

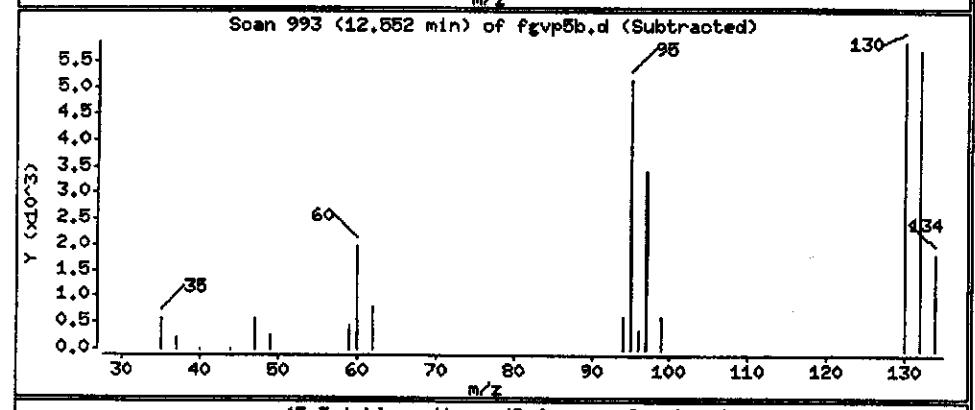
Sample Info: FGVP51AA,8.95,0,,

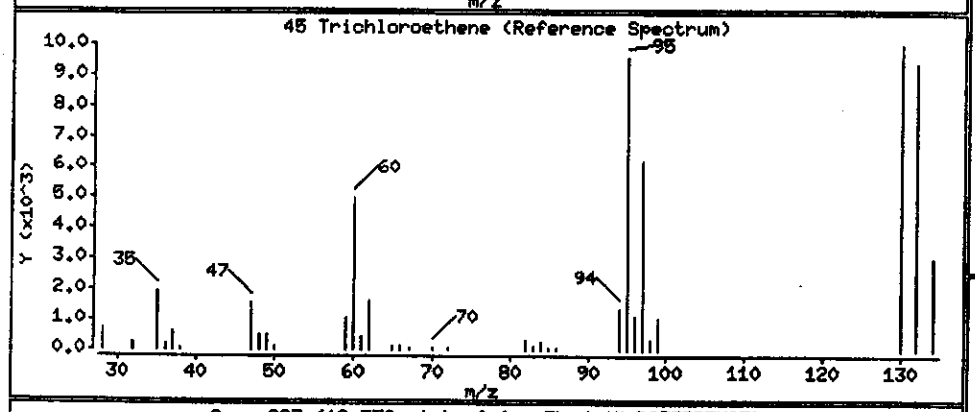
Volume Injected (uL): 500.0 Operator: 0691

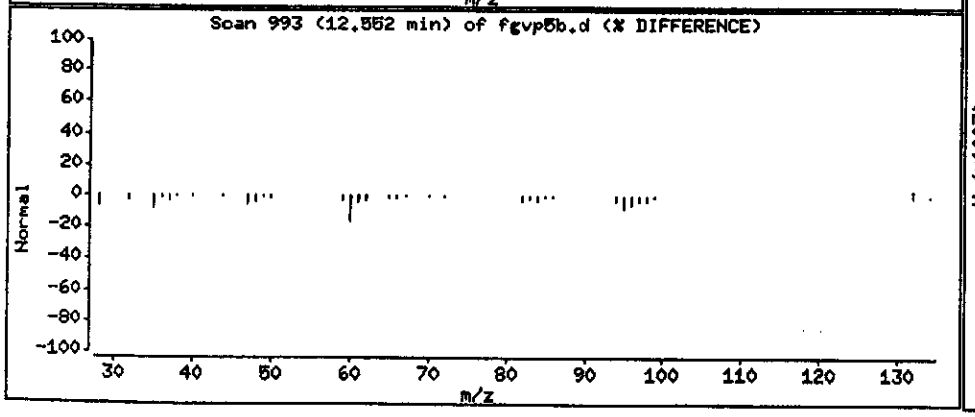
Column phase: DB-5 Column diameter: 0.32

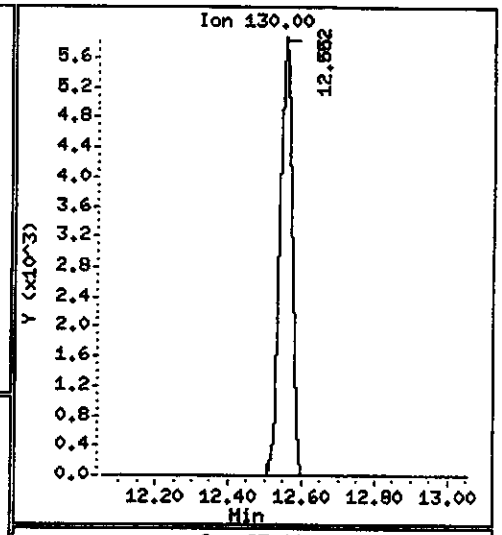
45 Trichloroethene Concentration: 1.453 ppb(v/v)

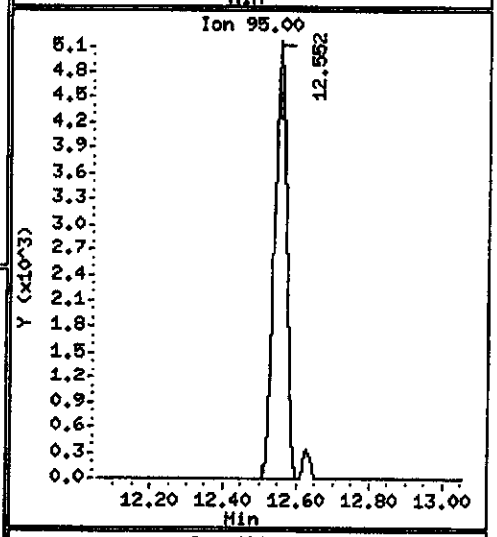


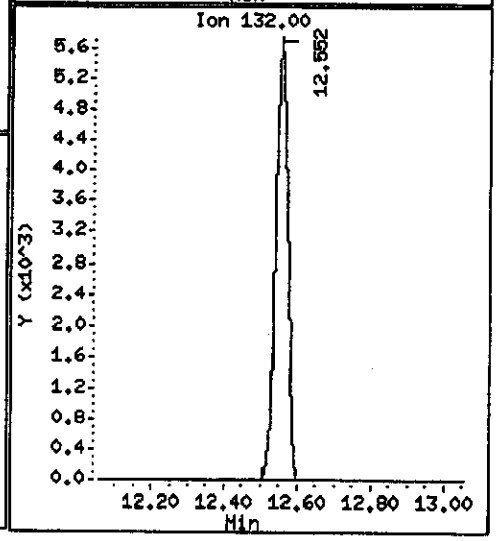












Standards Data

STL Knoxville GC/MS Air Initial Calibration Data Review / Narrative Checklist
Method: TO-14 and TO-15 - KNOX-MS-0001, Rev 3

Analysis Date:	1/30/03	Instrument::	MT	ICAL Batch/Scan Name:	T0130031	Scanned ☐

Review Items	N/A	Yes	No	If No, why is data reportable?	2nd ✓
1. Did BFB meet tune criteria?		✓			✓
2. Were all standards injected within 24 hr of BFB?		✓			✓
3. Is the second source analysis of a reference standard within limits? (65-135% R; 20-180% for benzyl alcohol)		✓			✓
4. Was date/time of analysis verified between analysis header and logbook as correct?		✓			✓
5. Were at least 5 levels of each compound analyzed?		✓			✓
6. Is %RSD for all target analytes ≤ 30%? (with up to 2 compounds with RSD ≤ 40%)		✓			✓
7. If manual integrations were performed, are they clearly identified, initialed, dated and reason given?	✓			Reasons: 1)Corrected split peak; 2)Unresolved peak; 3)tailing; 4)RT shift; 5)wrong peak selected; 6)other	✓
8. Have alternate hits/manual integrations been verified as correct and are correct RFs listed in ICAL summary?		✓			✓
9. Was ICAL summary form processed using correct result files? (Analyst and 2nd reviewer should compare 2-3 RFs from each standard quan report to ICAL summary.)		✓			✓
10. Are the ICAL start and end dates/times correct on ICAL summary?		✓			✓
11. Elution order checked on isomeric pairs?					
• cis- and trans- isomers		✓			✓
• ethyl benzene / m/p-xylene / o-xylene		✓			✓
• 1,3,5-trimethylbenzene / 1,2,4-trimethylbenzene / 4-ethyl toluene		✓			✓
• 1,3-, 1,4-, and 1,2-dichlorobenzene		✓			✓
• vinyl acetate / hexane		✓			✓
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane • dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane		✓			✓
12. If criteria were not met, was a NCM generated, approved by supervisor, and copy included in folder?	✓				✓
13. Does the ICAL folder contain complete data in the following order? Data review checklist, a complete runlog, Entech report, ICAL summary, followed by [Quan reports, chromatograms, manual integrations] in increasing sample order, leak check report.		✓			✓

Analyst: CWJ	Date: 2/3/03	2nd Level Reviewer: [illegible]	Date: 2/3/03
Comments:		Comments:	
1) Upper limit for Decane is 15 ppbv			
2) No leak check.			

Note: The upper level for Decane is 15ppbv.

STL Knoxville

TO-14/15 RUN LOG

GCMS Analysis: TO-14/15 Inst: MT

Analyst: cwj Preventive Maintenance Performed ✓

Date: 1/30/03 System Date/Time ok (y/n): Y Batch: ICAL cwj 2/3/03

BFB Time: 17:27 Surr/IS ID: CX-929 IS #1 Area: 608683 ICAL Batch: ~~F010~~ T013003

Time	Lot No.	File ID	Can #	Comments	I/S	Vol* (ml)	Pos	Use	DUI
17:27	BFB	BF0130	—	TUNE	—	100	15	✓	—
18:04	IC5	IC50130	04318	CX-997		300	STD	✓	—
18:41	IC4	IC40130				150	STD	✓	—
19:18	IC3	IC30130				100	STD	✓	—
19:55	IC2	IC20130				50	STD	✓	—
20:32	IC1	IC10130				10	STD	✓	—
21:09	IC1B	IC10130B	2839	CX-999		500	2	N	—
21:46	IC1C	IC10130C				500	2	N	—
22:23	IC7	IC70130				250	2	✓	—
23:00	IC6	IC60130				100	2	✓	—
12:26	ICV	ICV0130	053520	CX-955	✓	100	3	✓	—

cwj 2/3/03

* Entech programmed volume. If the Entech report amount differs from the programmed amount by >5%. the Entech report amount is used for calulations.

Analyst: cwj Date: 2/3/03

030130
STL-Knoxville
TO-14 Autosampler Log
'MT'

Sample	Volume	Position	Date	Time
BFB	101ml	15	1/30/2003	5:26:57 PM
IC5	301ml	STD	1/30/2003	6:03:55 PM
IC4	151ml	STD	1/30/2003	6:41:08 PM
IC3	100ml	STD	1/30/2003	7:18:07 PM
IC2	49ml	STD	1/30/2003	7:55:19 PM
IC1	9ml	STD	1/30/2003	8:32:32 PM
IC1B	502ml	2	1/30/2003	9:09:32 PM
IC1C	502ml	2	1/30/2003	9:46:22 PM
IC7	251ml	2	1/30/2003	10:23:12 PM
IC6	102ml	2	1/30/2003	11:00:07 PM
ICV	101ml	3	1/31/2003	12:25:33 PM

Data File: /var/chem/gcms/mt.i/T013003i.b/bf0130.d

Date : 30-JAN-2003 17:27

Client ID:

Instrument: mt.i

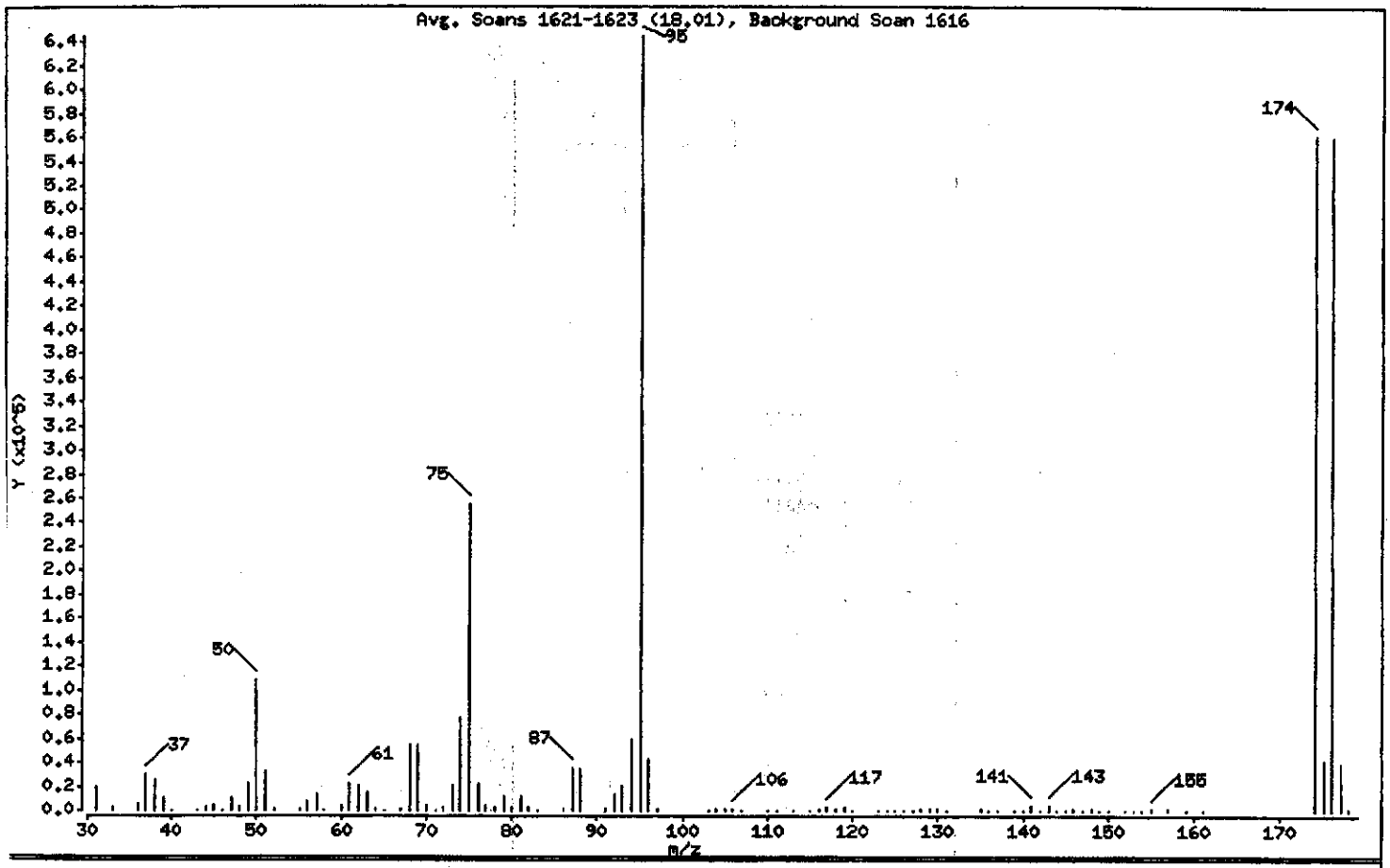
Sample Info: BFB,,3,,BFB,

Operator: 0691

Column phase: DB-5

Column diameter: 0.32

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	16.74
75	30.00 - 60.00% of mass 95	39.74
96	5.00 - 9.00% of mass 95	6.77
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 100.00% of mass 95	87.18
175	5.00 - 9.00% of mass 174	6.47 (7.43)
176	95.00 - 101.00% of mass 174	86.77 (99.53)
177	5.00 - 9.00% of mass 176	5.96 (6.87)

OK
cwf
1/31/03

Data File: /var/chem/gcms/mt.i/T013003i.b/bf0130.d

Date : 30-JAN-2003 17:27

Client ID:

Instrument: mt.i

Sample Info: BFB,,3,,BFB,

Operator: 0691

Column phase: DB-5

Column diameter: 0.32

Data File: bf0130.d

Spectrum: Avg. Scans 1621-1623 (18.01), Background Scan 1616

Location of Maximum: 95.00

Number of points: 104

m/z	Y	m/z	Y	m/z	Y	m/z	Y
31.00	19296	67.00	1468	103.00	163	140.00	202
33.00	2614	68.00	55568	104.00	1849	141.00	3782
36.00	6040	69.00	54440	105.00	1263	142.00	500
37.00	29480	70.00	3919	106.00	2091	143.00	4019
38.00	25320	71.00	83	107.00	480	144.00	243
39.00	10232	72.00	2634	110.00	84	145.00	193
40.00	311	73.00	20880	111.00	225	146.00	839
43.00	239	74.00	77632	113.00	262	147.00	449
44.00	2704	75.00	256256	115.00	496	148.00	1250
45.00	5045	76.00	21816	116.00	1521	149.00	365
46.00	139	77.00	3936	117.00	2770	150.00	460
47.00	10012	78.00	2945	118.00	1702	152.00	181
48.00	3415	79.00	12437	119.00	2352	153.00	453
49.00	22728	80.00	3059	120.00	132	154.00	225
50.00	107936	81.00	12475	123.00	141	155.00	1321
51.00	32552	82.00	2405	124.00	301	157.00	906
52.00	1279	83.00	76	125.00	87	159.00	515
55.00	1208	86.00	787	126.00	149	161.00	465
56.00	7305	87.00	35512	127.00	70	174.00	562112
57.00	13602	88.00	33680	128.00	1821	175.00	41736
58.00	644	91.00	1471	129.00	814	176.00	559488
60.00	4636	92.00	12650	130.00	2085	177.00	38416
61.00	22728	93.00	20400	131.00	668	178.00	1121
62.00	21440	94.00	58768	135.00	834		
63.00	15517	95.00	644800	136.00	67		
64.00	1368	96.00	43672	137.00	646		
65.00	67	97.00	1209	139.00	71		

Data File: /var/chem/gcms/mt.i/T013003i.b/bf0130.d

Date : 30-JAN-2003 17:27

Client ID:

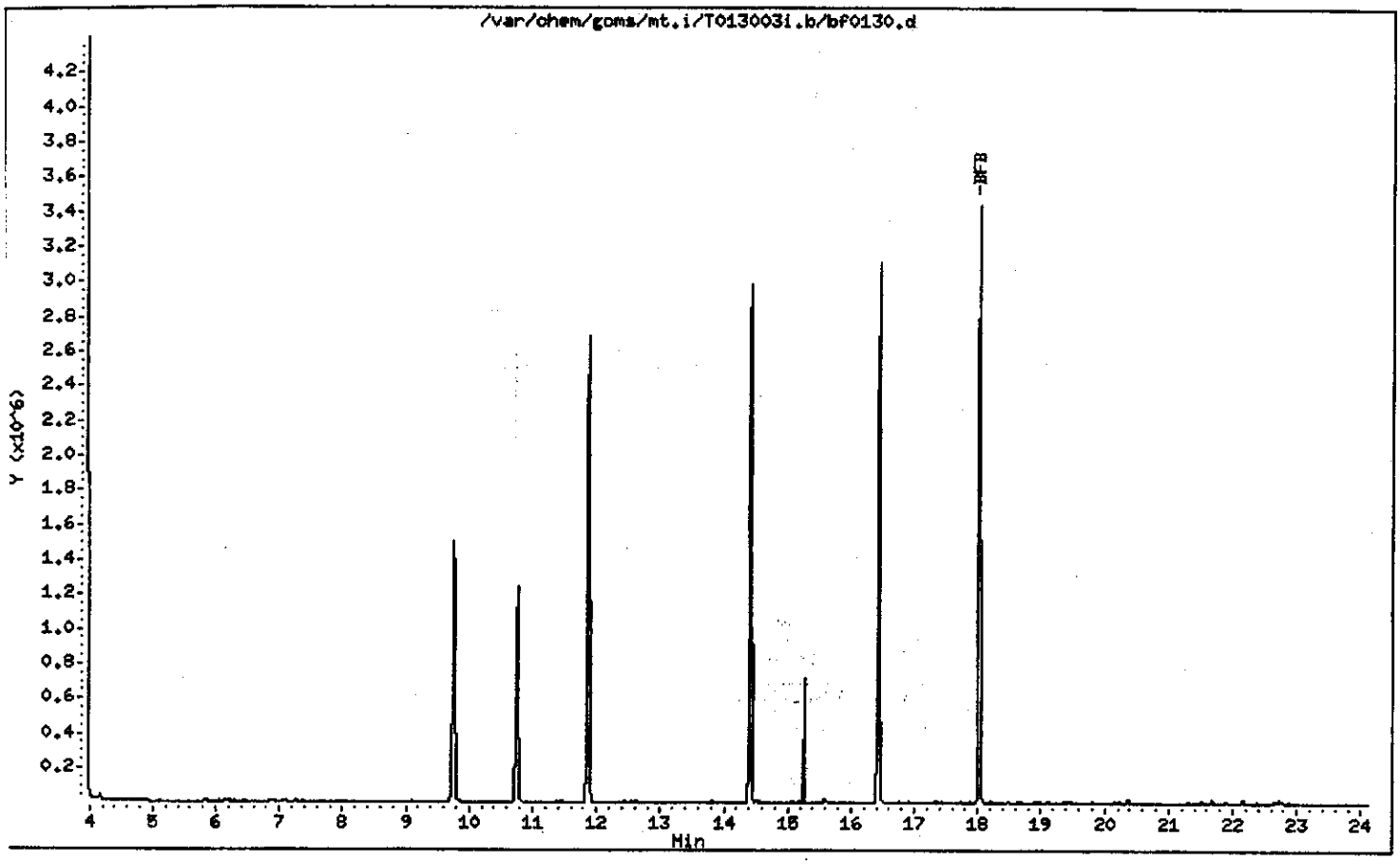
Instrument: mt.i

Sample Info: BFB,,3,,BFB,

Operator: 0691

Column phase: DB-5

Column diameter: 0.32



Report Date : 31-Jan-2003 12:05

Note: The upper limit for Decane is 15ppbv
cwj
1/31/03

STL Knoxville

INITIAL CALIBRATION DATA

Start Cal Date : 30-JAN-2003 18:04
End Cal Date : 30-JAN-2003 23:00
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/gcms/mt.i/T013003i.b/LA.m
Cal Date : 31-Jan-2003 12:05 jarmanc
Curve Type : Average

Calibration File Names:
Level 1: /var/chem/gcms/mt.i/T013003i.b/ic10130.d
Level 2: /var/chem/gcms/mt.i/T013003i.b/ic20130.d
Level 3: /var/chem/gcms/mt.i/T013003i.b/ic30130.d
Level 4: /var/chem/gcms/mt.i/T013003i.b/ic40130.d
Level 5: /var/chem/gcms/mt.i/T013003i.b/ic50130.d
Level 6: /var/chem/gcms/mt.i/T013003i.b/ic60130.d
Level 7: /var/chem/gcms/mt.i/T013003i.b/ic70130.d

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	15.000 Level 4	30.000 Level 5	0.20000 Level 6	RRF	% RSD
	0.50000 Level 7							
7 Chlorodifluoromethane	2.29236	1.75297	1.82129	1.67682	1.71852	1.67537		
	1.66023						1.79965	12.466
8 Dichlorodifluoromethane	2.70659	2.06482	2.14261	1.95190	1.95670	2.10672		
	2.02147						2.13583	12.250
9 Chloromethane	0.35352	0.25701	0.26212	0.23771	0.22799	+++++		
	0.26632						0.26745	16.712
10 1,2-Dichlorotetrafluoroethane	2.17547	1.60799	1.59764	1.44866	1.42347	1.58978		
	1.56494						1.62971	15.451
11 Vinyl Chloride	1.13735	0.85866	0.88035	0.81914	0.86260	0.83319		
	0.75673						0.87829	13.793
12 Methanol	0.47488	0.39278	0.37941	0.34791	0.36830	+++++		
	+++++						0.39266	12.432

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Cal Date : 31-Jan-2003 12:05 jarmanc
Curve Type : Average

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	15.000 Level 4	30.000 Level 5	0.20000 Level 6	RRF	% RSD
	0.50000 Level 7							
13 1,3-Butadiene	0.83944	0.64923	0.64188	0.58398	0.57896	0.60406		
	0.60843						0.64371	14.027
14 n-Butane	1.91975	1.44862	1.43111	1.28908	1.25931	1.51570		
	1.42709						1.47009	14.833
15 Bromomethane	1.25548	0.94648	0.95940	0.87143	0.91460	0.94098		
	0.89974						0.96973	13.361
16 Chloroethane	0.60745	0.47573	0.48009	0.43864	0.47012	0.44407		
	0.43693						0.47901	12.412
17 Trichlorofluoromethane	2.30113	1.77831	1.74142	1.60122	1.54973	1.68113		
	1.66882						1.76025	14.249
18 Acrolein	0.43240	0.34092	0.32422	0.29221	0.27377	0.37279		
	0.35543						0.34168	15.464
19 Acetonitrile	0.50723	0.41151	0.42083	0.39093	0.38989	+++++		
	0.42152						0.42365	10.210
20 Acetone	0.51230	0.38883	0.38554	0.35432	0.35221	+++++		
	+++++						0.39864	16.500
21 Pentane	0.33619	0.24504	0.25574	0.23607	0.23937	+++++		
	0.23029						0.25712	15.438

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Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	15.000 Level 4	30.000 Level 5	0.20000 Level 6	___ RRF	% RSD
	0.50000 Level 7							
22 Ethyl Ether	1.97229	1.50808	1.42907	1.28243	1.20969	1.56936		
	1.46892						1.49141	16.538
23 1,1-Dichloroethene	1.34107	1.05177	1.04039	0.97088	0.97774	0.99367		
	0.93750						1.04471	13.074
24 Acrylonitrile	1.08237	0.87708	0.87424	0.81571	0.82315	0.83473		
	0.81340						0.87438	10.912
25 1,1,2-Trichlorotrifluoroethan	2.92441	2.19844	2.11955	1.90418	1.81406	2.18460		
	2.11238						2.17966	16.464
26 Methylene Chloride	1.31885	0.99694	0.97903	0.91266	0.89988	+++++		
	1.06895						1.02938	15.008
27 3-Chloropropene	1.09739	0.87764	0.85452	0.79050	0.77267	0.92639		
	0.82226						0.87734	12.562
28 Carbon Disulfide	4.66010	3.42640	3.43388	3.18851	3.20543	4.37448		
	3.62218						3.70157	15.732
29 trans-1,2-Dichloroethene	1.38125	1.08006	1.07849	1.00906	1.00046	1.06118		
	1.00940						1.08856	12.264
30 Methyl-t-Butyl Ether	3.24936	2.52401	2.46973	2.25333	2.17305	2.50325		
	2.37581						2.50694	14.064

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Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	15.000 Level 4	30.000 Level 5	0.20000 Level 6	$\overline{RRF}$	% RSD
	0.50000 Level 7							
31 1,1-Dichloroethane	2.53070	1.98837	1.95270	1.82709	1.83263	1.88035		
	1.82074						1.97608	12.808
32 Vinyl Acetate	3.86000	3.02450	2.97555	2.72726	2.61910	2.95725		
	2.85704						3.00296	13.475
33 2-Butanone	0.65788	0.52777	0.51797	0.47239	0.46481	+++++		
	0.64853						0.54822	15.505
34 Hexane	1.12677	0.85559	0.81818	0.75149	0.71195	0.80774		
	0.82546						0.84245	15.955
35 cis 1,2-Dichloroethene	1.48164	1.18444	1.17686	1.10115	1.09489	1.09344		
	1.07734						1.17282	12.166
36 Chloroform	2.35805	1.86649	1.84424	1.73667	1.71078	1.86462		
	1.72579						1.87238	11.998
37 1,1,1-Trichloroethane	2.10569	1.65519	1.63876	1.54032	1.51638	1.60453		
	1.52215						1.65472	12.482
38 1,2-Dichloroethane	0.33086	0.25956	0.25504	0.24115	0.23182	0.26610		
	0.25860						0.26331	12.168
39 Benzene	0.87785	0.63106	0.59216	0.52787	0.42591	0.68538		
	0.66899						0.62989	22.409

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Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	15.000 Level 4	30.000 Level 5	0.20000 Level 6	RRF	% RSD
	0.50000 Level 7							
40 1-Butanol	0.19505	0.14952	0.14837	0.13498	0.12624	0.18620		
	0.17346						0.15912	16.432
41 Cyclohexane	0.13540	0.09623	0.09010	0.08014	0.06475	0.10269		
	0.09887						0.09546	22.898
42 Carbon Tetrachloride	2.23989	1.73092	1.67962	1.54724	1.40547	1.66540		
	1.58562						1.69345	15.566
43 Heptane	0.64649	0.47906	0.45072	0.41312	0.36102	0.52673		
	0.51780						0.48499	18.943
44 1,2-Dichloropropane	0.34560	0.26134	0.24275	0.22341	0.19152	0.26156		
	0.26586						0.25600	18.583
45 Trichloroethene	0.42039	0.31740	0.30332	0.28243	0.24459	0.32903		
	0.31777						0.31642	17.048
46 Dibromomethane	0.36615	0.27996	0.26748	0.25027	0.22024	0.29190		
	0.28375						0.27997	16.098
47 Bromodichloromethane	0.57178	0.45031	0.43144	0.40668	0.36801	0.43365		
	0.42859						0.44150	14.323
48 4-Methyl-2-pentanone	0.79877	0.57042	0.52819	0.46735	0.39045	0.61325		
	0.59670						0.56645	22.717

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Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	15.000 Level 4	30.000 Level 5	0.20000 Level 6	RRF	% RSD
	0.50000 Level 7							
49 cis-1,3-Dichloropropene	0.62534	0.45869	0.44462	0.41853	0.37569	0.46611		
	0.46605						0.46500	16.727
50 trans-1,3-Dichloropropene	0.47368	0.37858	0.36248	0.33699	0.32311	0.37624		
	0.34645						0.37108	13.363
51 Toluene	1.23456	0.95298	0.89920	0.82619	0.73142	1.00490		
	0.97233						0.94594	16.719
52 1,1,2-Trichloroethane	0.47304	0.36571	0.34193	0.31644	0.28755	0.37437		
	0.35521						0.35918	16.277
53 2-Hexanone	0.53197	0.40071	0.37803	0.33900	0.30488	0.39765		
	0.40290						0.39359	18.084
54 Octane	0.39840	0.30512	0.27937	0.25773	0.22788	0.32262		
	0.30618						0.29961	18.114
55 Dibromochloromethane	0.86370	0.67448	0.64156	0.58886	0.53092	0.65408		
	0.64326						0.65670	15.728
56 1,2-Dibromoethane	0.77975	0.60497	0.56196	0.51797	0.45795	0.63256		
	0.60782						0.59471	17.039
57 Tetrachloroethene	0.45864	0.34351	0.32271	0.29525	0.25352	0.36561		
	0.37086						0.34430	18.877

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Curve Type : Average

Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	15.000 Level 4	30.000 Level 5	0.20000 Level 6	RRF	% RSD
	0.50000 Level 7							
58 Chlorobenzene	1.06451	0.81389	0.72187	0.70435	0.63031	0.90352		
	0.84631						0.81211	17.847
59 Ethylbenzene	1.62372	1.21460	1.12232	1.01379	0.88310	1.37802		
	1.31570						1.22161	20.126
60 m-Xylene (For p-)	1.23767	0.91913	0.84978	0.76669	0.67562	1.08606		
	1.02966						0.93780	20.716
61 Bromoform	0.77463	0.59835	0.55535	0.50124	0.41564	0.65045		
	0.61661						0.58747	19.403
62 Nonane	0.90683	0.65263	0.58850	0.51969	0.42054	0.83724		
	0.78940						0.67355	26.420
63 Styrene	0.94227	0.69995	0.64135	0.57134	0.46430	0.78099		
	0.74818						0.69263	22.269
64 o-Xylene	1.22682	0.92967	0.86268	0.78489	0.68247	1.14456		
	1.05992						0.95586	20.625
65 1,1,2,2-Tetrachloroethane	1.11128	0.81493	0.75538	0.67757	0.57751	0.94440		
	0.92973						0.83011	21.713
66 1,2,3-Trichloropropane	0.25991	0.19375	0.18737	0.17451	0.15804	+++++		
	0.19118						0.19413	17.947

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Compound	1.000 Level 1	5.000 Level 2	10.000 Level 3	15.000 Level 4	30.000 Level 5	0.20000 Level 6	$\overline{RRF}$	% RSD
	0.50000 Level 7							
67 Cumene	1.69581	1.27218	1.14916	1.02993	0.85151	1.46655		
	1.36294						1.26115	22.320
68 n-Propylbenzene	2.30871	1.69852	1.52018	1.33972	1.10093	2.05623		
	2.01378						1.71972	25.058
69 4-Ethyltoluene	1.82896	1.40854	1.27250	1.13222	0.93843	1.70708		
	1.64104						1.41839	22.938
70 1,3,5-Trimethylbenzene	0.73775	0.55199	0.50705	0.45732	0.38687	0.73807		
	0.68702						0.58087	24.324
71 Alpha-Methylstyrene	0.71462	0.54410	0.50973	0.46458	0.40627	0.63481		
	0.62028						0.55634	19.214
72 Decane	1.22150	0.86633	0.76193	0.66083	+++++	1.18709		
	1.15584						0.97559	24.871
73 1,2,4-Trimethylbenzene	1.45191	1.07398	0.97480	0.87352	0.71547	1.44443		
	1.38290						1.13100	26.310
74 1,3-Dichlorobenzene	1.18625	0.87806	0.80463	0.72790	0.59874	1.10072		
	1.02880						0.90359	23.419
75 Benzyl Chloride	1.21484	0.91369	0.83203	0.71858	0.56578	1.11892		
	1.10218						0.92372	25.520

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Compound	1.000 Level 1 / 0.50000 Level 7	5.000 Level 2	10.000 Level 3	15.000 Level 4	30.000 Level 5	0.20000 Level 6	RRF	% RSD	
76 1,4-Dichlorobenzene	1.17098	0.84719	0.76465	0.66633	0.51836	1.07557			
	1.03748						0.86865	27.309	
77 1,2-Dichlorobenzene	1.12444	0.83186	0.76860	0.68672	0.57259	1.07009			
	1.01621						0.86721	23.998	
78 Undecane	1.25927	0.89176	0.77462	0.67354	0.51882	1.29616			
	1.24399						0.95116	33.202	<-
79 Dodecane	1.06752	0.77390	0.72616	0.62306	0.48689	1.20798			
	1.16421						0.86425	32.633	<-
80 1,2,4-Trichlorobenzene	0.85527	0.64369	0.59104	0.54262	0.46247	0.94475			
	0.88142						0.70304	26.806	
81 Napthalene	2.09832	1.59197	1.49360	1.36237	1.16575	1.82894			
	1.68520						1.60374	19.123	
82 Hexachlorobutadiene	0.82338	0.59625	0.51916	0.45747	0.34376	0.70407			
	0.65818						0.58604	27.450	
133 2,3-Dimethyl butane	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++						+++++	+++++	
134 a-Pinene	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++						+++++	+++++	

<40% OK awf 1/31/03

NA

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Compound	1.000 Level 1 / 0.50000 Level 7	5.000 Level 2	10.000 Level 3	15.000 Level 4	30.000 Level 5	0.20000 Level 6	RRF	% RSD
135 Camphene	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
136 b-Pinene	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
137 p-Cymene	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
138 d-Limonene	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
139 4-tert-Butyltoluene	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
140 Camphor	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 4 1,2-Dichloroethane-d4	0.15645 / 0.15972	0.15489	0.15386	0.15473	0.15222	0.15751	0.15563	1.597
$ 5 Toluene-d8	1.01498 / 1.01903	1.02464	1.00261	0.99640	0.97303	1.01524	1.00656	1.755
$ 6 4-Bromofluorobenzene	0.61244 / 0.61421	0.60570	0.59011	0.59383	0.57374	0.61815	0.60117	2.660

NA

Data File: /var/chem/gcms/mt.i/T013003i.b/ic60130.d
Report Date: 31-Jan-2003 12:05

STL Knoxville

Modified Method TO-14

Data file : /var/chem/gcms/mt.i/T013003i.b/ic60130.d
Lab Smp Id: IC6 Client Smp ID: 0.2PPBV
Inj Date : 30-JAN-2003 23:00
Operator : 0691 Inst ID: mt.i
Smp Info : IC6,,1,6,,0.2PPBV
Misc Info : T013003i,LA,,,100ML
Comment :
Method : /var/chem/gcms/mt.i/T013003i.b/LA.m
Meth Date : 31-Jan-2003 12:05 jarmanc Quant Type: ISTD
Cal Date : 30-JAN-2003 19:18 Cal File: ic30130.d
Als bottle: 2 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICRLX.sub
Target Version: 3.50
Processing Host: qmidhp01

ok wf 1/31/03

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	ON-COL (ppb(v/v))
1 Bromochloromethane	128	9.758	9.762	(1.000)	616908	10.0000	
2 1,4-Difluorobenzene	114	11.875	11.879	(1.000)	2841205	10.0000	
3 Chlorobenzene-d5	117	16.430	16.434	(1.000)	2244445	10.0000	
4 1,2-Dichloroethane-d4	67	10.756	10.760	(0.906)	447532	10.0000	10.16
5 Toluene-d8	98	14.417	14.421	(0.877)	2278660	10.0000	10.11
6 4-Bromofluorobenzene	95	18.018	18.022	(1.097)	1387402	10.0000	10.32
7 Chlorodifluoromethane	51	4.144	4.140	(0.425)	20671	0.20000	0.1838
8 Dichlorodifluoromethane	85	4.223	4.218	(0.433)	25993	0.20000	0.1955
10 1,2-Dichlorotetrafluoroethane	135	4.448	4.444	(0.456)	19615	0.20000	0.1938
11 Vinyl Chloride	62	4.639	4.635	(0.475)	10280	0.20000	0.1854
13 1,3-Butadiene	54	4.743	4.739	(0.486)	7453	0.20000	0.1860
14 n-Butane	43	4.743	4.739	(0.486)	18701	0.20000	0.2052
15 Bromomethane	94	5.125	5.121	(0.525)	11610	0.20000	0.1918
16 Chloroethane	64	5.290	5.285	(0.542)	5479	0.20000	0.1827
17 Trichlorofluoromethane	101	5.940	5.936	(0.609)	20742	0.20000	0.1894
18 Acrolein	56	5.958	5.945	(0.611)	9199	0.40000	0.4394
22 Ethyl Ether	31	6.409	6.379	(0.657)	38726	0.40000	0.4198
23 1,1-Dichloroethene	96	6.721	6.717	(0.689)	12260	0.20000	0.1870
24 Acrylonitrile	53	6.834	6.838	(0.700)	20598	0.40000	0.3775
25 1,1,2-Trichlorotrifluoroethane	101	6.921	6.925	(0.709)	26954	0.20000	0.1994
27 3-Chloropropene	39	7.112	7.116	(0.729)	11430	0.20000	0.2090

Data File: /var/chem/gcms/mt.i/T013003i.b/ic60130.d
Report Date: 31-Jan-2003 12:05

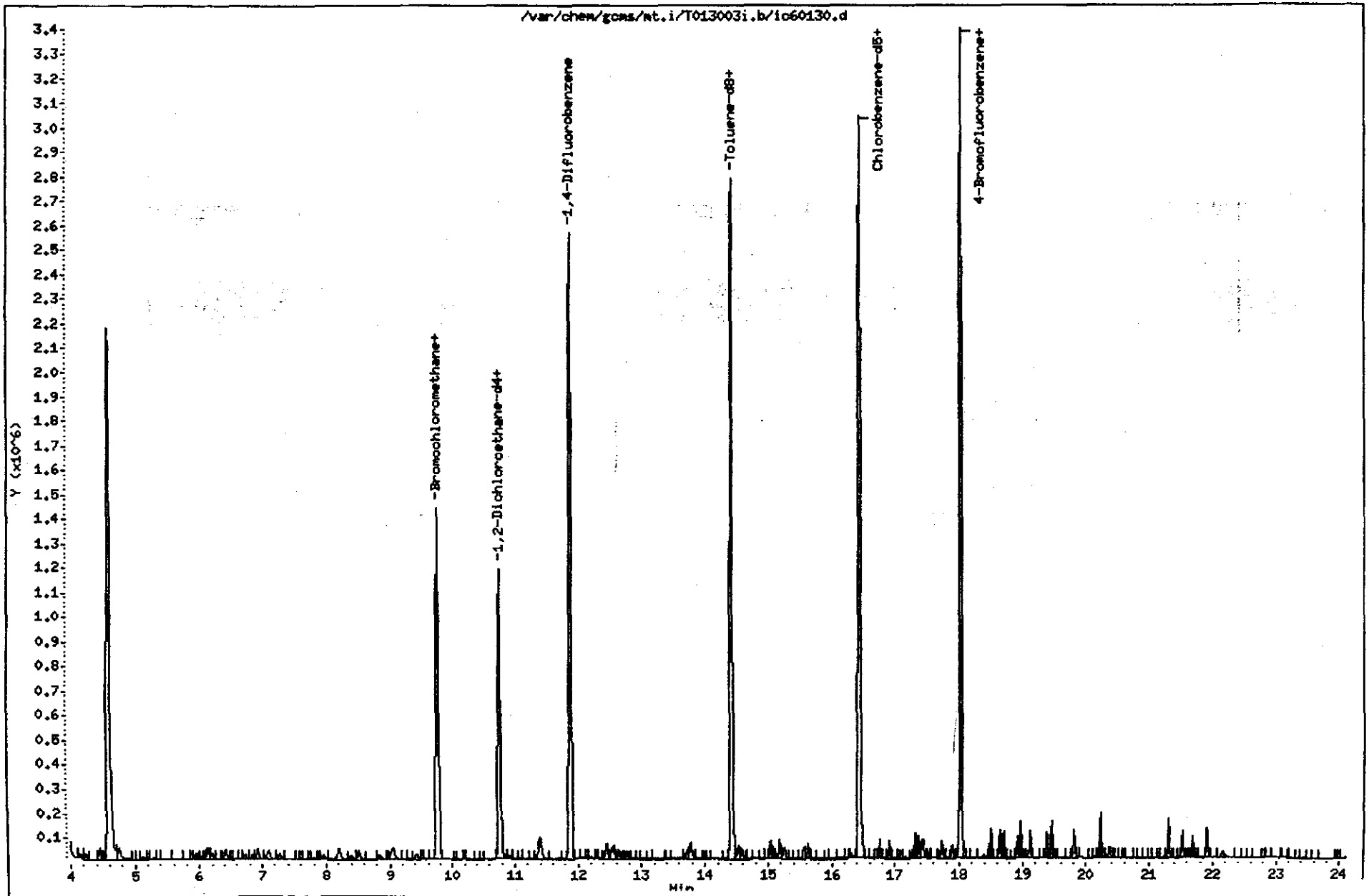
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
28 Carbon Disulfide	76	7.277	7.272	(0.746)	53973	0.20000	0.2355
29 trans-1,2-Dichloroethene	96	7.962	7.958	(0.816)	13093	0.20000	0.1926
30 Methyl-t-Butyl Ether	73	8.214	8.122	(0.842)	61771	0.40000	0.3960
31 1,1-Dichloroethane	63	8.404	8.409	(0.861)	23200	0.20000	0.1878
32 Vinyl Acetate	43	8.517	8.513	(0.873)	72974	0.40000	0.3907
34 Hexane	56	9.020	9.025	(0.924)	9966	0.20000	0.1911
35 cis 1,2-Dichloroethene	96	9.428	9.424	(0.966)	13491	0.20000	0.1840
36 Chloroform	83	9.767	9.771	(1.001)	23006	0.20000	0.1966
37 1,1,1-Trichloroethane	97	10.808	10.812	(1.108)	19797	0.20000	0.1914
38 1,2-Dichloroethane	62	10.903	10.908	(0.918)	15121	0.20000	0.2015
39 Benzene	78	11.372	11.376	(0.958)	38946	0.20000	0.2199
40 1-Butanol	31	11.406	11.307	(0.961)	21161	0.40000	0.4752
41 Cyclohexane	69	11.372	11.385	(0.958)	5835	0.20000	0.2164
42 Carbon Tetrachloride	117	11.398	11.402	(1.168)	20548	0.20000	0.1946
43 Heptane	43	12.448	12.452	(1.048)	29931	0.20000	0.2197
44 1,2-Dichloropropane	63	12.526	12.530	(1.055)	14863	0.20000	0.2057
45 Trichloroethene	130	12.552	12.556	(1.057)	18697	0.20000	0.2081
46 Dibromomethane	93	12.630	12.634	(1.064)	16587	0.20000	0.2090
47 Bromodichloromethane	83	12.769	12.764	(1.075)	24642	0.20000	0.1955
48 4-Methyl-2-pentanone	43	13.775	13.684	(1.160)	69695	0.40000	0.4369
49 cis-1,3-Dichloropropene	75	13.723	13.727	(1.156)	26486	0.20000	0.2005
50 trans-1,3-Dichloropropene	75	14.382	14.387	(0.875)	16889	0.20000	0.2006
51 Toluene	91	14.521	14.525	(0.884)	45109	0.20000	0.2134
52 1,1,2-Trichloroethane	97	14.582	14.586	(0.888)	16805	0.20000	0.2081
53 2-Hexanone	58	15.042	14.977	(0.916)	35700	0.40000	0.4057
54 Octane	85	15.181	15.185	(0.924)	14482	0.20000	0.2161
55 Dibromochloromethane	129	15.267	15.272	(0.929)	29361	0.20000	0.1985
56 1,2-Dibromoethane	107	15.554	15.558	(0.947)	28395	0.20000	0.2135
57 Tetrachloroethene	129	15.632	15.627	(0.951)	16412	0.20000	0.2151
58 Chlorobenzene	112	16.482	16.478	(1.003)	40558	0.20000	0.2241
59 Ethylbenzene	91	16.760	16.764	(1.020)	61858	0.20000	0.2285
60 m-Xylene (For p-)	91	16.907	16.911	(1.029)	48752	0.20000	0.2355
62 Nonane	57	17.315	17.319	(1.054)	37583	0.20000	0.2559
63 Styrene	104	17.367	17.371	(1.057)	35058	0.20000	0.2286
61 Bromoform	173	17.350	17.354	(1.056)	29198	0.20000	0.2233
64 o-Xylene	91	17.428	17.432	(1.061)	51378	0.20000	0.2439
65 1,1,2,2-Tetrachloroethane	83	17.731	17.736	(1.079)	42393	0.20000	0.2322
67 Cumene	105	17.992	17.996	(1.095)	65832	0.20000	0.2357
68 n-Propylbenzene	91	18.495	18.499	(1.126)	92302	0.20000	0.2462
69 4-Ethyltoluene	105	18.634	18.638	(1.134)	76629	0.20000	0.2472
70 1,3,5-Trimethylbenzene	120	18.703	18.707	(1.138)	33131	0.20000	0.2621
71 Alpha-Methylstyrene	118	18.911	18.916	(1.151)	28496	0.20000	0.2327
72 Decane	57	18.963	18.968	(1.154)	53287	0.20000	0.2527
73 1,2,4-Trimethylbenzene	105	19.119	19.124	(1.164)	64839	0.20000	0.2653
74 1,3-Dichlorobenzene	146	19.380	19.375	(1.180)	49410	0.20000	0.2494
75 Benzyl Chloride	91	19.441	19.445	(1.183)	50227	0.20000	0.2503
76 1,4-Dichlorobenzene	146	19.458	19.462	(1.184)	48281	0.20000	0.2559

Data File: /var/chem/gcms/mt.i/T013003i.b/ic60130.d
Report Date: 31-Jan-2003 12:05

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
77 1,2-Dichlorobenzene	146	19.805	19.801	(1.205)	48035	0.20000	0.2541
78 Undecane	57	20.221	20.226	(1.231)	58183	0.20000	0.2873
79 Dodecane	57	21.306	21.310	(1.297)	54225	0.20000	0.2967
80 1,2,4-Trichlorobenzene	180	21.523	21.527	(1.310)	42409	0.20000	0.2806
81 Napthalene	128	21.679	21.683	(1.319)	82099	0.20000	0.2300
82 Hexachlorobutadiene	225	21.913	21.909	(1.334)	31605	0.20000	0.2453

Data File: /var/chem/gcms/mt.i/T013003i.b/ic60130.d
Date : 30-JAN-2003 23:00
Client ID: 0.2PPBV
Sample Info: IC6,,1,6,,0.2PPBV
Volume Injected (uL): 500.0
Column phase: DB-5

Instrument: mt.i
Operator: 0691
Column diameter: 0.32



Data File: /var/chem/gcms/mt.i/T013003i.b/ic70130.d
Report Date: 31-Jan-2003 12:05

STL Knoxville

Modified Method TO-14

Data file : /var/chem/gcms/mt.i/T013003i.b/ic70130.d
Lab Smp Id: IC7 Client Smp ID: 0.5PPBV
Inj Date : 30-JAN-2003 22:23
Operator : 0691 Inst ID: mt.i
Smp Info : IC7,,1,7,,0.5PPBV
Misc Info : T013003i,LA,,,250ML
Comment :
Method : /var/chem/gcms/mt.i/T013003i.b/LA.m
Meth Date : 31-Jan-2003 12:05 jarmanc Quant Type: ISTD
Cal Date : 30-JAN-2003 19:18 Cal File: ic30130.d
Als bottle: 2 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: RTall.sub
Target Version: 3.50
Processing Host: qmidhp01

cwf 1/31/03

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	ON-COL (ppb(v/v))
1 Bromochloromethane	128	9.758	9.762	(1.000)	612266	10.0000	
2 1,4-Difluorobenzene	114	11.875	11.879	(1.000)	2746479	10.0000	
3 Chlorobenzene-d5	117	16.430	16.434	(1.000)	2212481	10.0000	
4 1,2-Dichloroethane-d4	67	10.756	10.760	(0.906)	438668	10.0000	10.26
5 Toluene-d8	98	14.417	14.421	(0.877)	2254581	10.0000	10.12
6 4-Bromofluorobenzene	95	18.018	18.022	(1.097)	1358936	10.0000	10.22
7 Chlorodifluoromethane	51	4.145	4.140	(0.425)	50825	0.50000	0.4613
8 Dichlorodifluoromethane	85	4.223	4.218	(0.433)	61884	0.50000	0.4732
9 Chloromethane	52	4.440	4.426	(0.455)	8153	0.50000	0.4979
10 1,2-Dichlorotetrafluoroethane	135	4.448	4.444	(0.456)	47908	0.50000	0.4801
11 Vinyl Chloride	62	4.639	4.635	(0.475)	23166	0.50000	0.4308
12 Methanol	31	4.596	4.583	(0.471)	5857452	2.00000	243.6(A)-not used in curve
13 1,3-Butadiene	54	4.743	4.739	(0.486)	18626	0.50000	0.4726
14 n-Butane	43	4.743	4.739	(0.486)	43688	0.50000	0.4854
15 Bromomethane	94	5.125	5.121	(0.525)	27544	0.50000	0.4639
16 Chloroethane	64	5.290	5.285	(0.542)	13376	0.50000	0.4561
17 Trichlorofluoromethane	101	5.941	5.936	(0.609)	51088	0.50000	0.4740
18 Acrolein	56	5.958	5.945	(0.611)	21762	1.00000	1.040
19 Acetonitrile	40	6.027	6.023	(0.618)	25808	1.00000	0.9950
20 Acetone	58	6.105	6.084	(0.626)	81079	1.00000	3.322
21 Pentane	57	6.192	6.196	(0.635)	7050	0.50000	0.4478

cwf 1/31/03

Data File: /var/chem/gcms/mt.i/T013003i.b/ic70130.d
Report Date: 31-Jan-2003 12:05

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
22 Ethyl Ether	31	6.400	6.379	(0.656)	89937	1.00000	0.9849
23 1,1-Dichloroethene	96	6.721	6.717	(0.689)	28700	0.50000	0.4487
24 Acrylonitrile	53	6.834	6.838	(0.700)	49802	1.00000	0.9303
25 1,1,2-Trichlorotrifluoroethane	101	6.930	6.925	(0.710)	64667	0.50000	0.4846
26 Methylene Chloride	84	7.095	7.090	(0.727)	32724	0.50000	0.5192
27 3-Chloropropene	39	7.121	7.116	(0.730)	25172	0.50000	0.4686
28 Carbon Disulfide	76	7.277	7.272	(0.746)	110887	0.50000	0.4893
29 trans-1,2-Dichloroethene	96	7.962	7.958	(0.816)	30901	0.50000	0.4636
30 Methyl-t-Butyl Ether	73	8.179	8.122	(0.838)	145463	1.00000	0.9477
31 1,1-Dichloroethane	63	8.405	8.409	(0.861)	55739	0.50000	0.4607
32 Vinyl Acetate	43	8.517	8.513	(0.873)	174927	1.00000	0.9514
33 2-Butanone	72	9.038	8.999	(0.926)	39707	1.00000	1.183
34 Hexane	56	9.029	9.025	(0.925)	25270	0.50000	0.4899
35 cis 1,2-Dichloroethene	96	9.420	9.424	(0.965)	32981	0.50000	0.4593
36 Chloroform	83	9.767	9.771	(1.001)	52832	0.50000	0.4608
37 1,1,1-Trichloroethane	97	10.808	10.812	(1.108)	46598	0.50000	0.4599
38 1,2-Dichloroethane	62	10.903	10.908	(0.918)	35512	0.50000	0.4911
39 Benzene	78	11.372	11.376	(0.958)	91868	0.50000	0.5310
40 1-Butanol	31	11.389	11.307	(0.959)	47641	1.00000	1.090(H) cwf 1/31/03
41 Cyclohexane	69	11.381	11.385	(0.958)	13577	0.50000	0.5179
42 Carbon Tetrachloride	117	11.398	11.402	(1.168)	48541	0.50000	0.4682
43 Heptane	43	12.448	12.452	(1.048)	71107	0.50000	0.5338
44 1,2-Dichloropropane	63	12.526	12.530	(1.055)	36509	0.50000	0.5192
45 Trichloroethene	130	12.552	12.556	(1.057)	43638	0.50000	0.5021
46 Dibromomethane	93	12.630	12.634	(1.064)	38966	0.50000	0.5068
47 Bromodichloromethane	83	12.769	12.764	(1.075)	58856	0.50000	0.4854
48 4-Methyl-2-pentanone	43	13.758	13.684	(1.159)	163883	1.00000	1.053(H) cwf 1/31/03
49 cis-1,3-Dichloropropene	75	13.723	13.727	(1.156)	64000	0.50000	0.5011
50 trans-1,3-Dichloropropene	75	14.382	14.387	(0.875)	38326	0.50000	0.4668
51 Toluene	91	14.521	14.525	(0.884)	107563	0.50000	0.5139
52 1,1,2-Trichloroethane	97	14.582	14.586	(0.888)	39295	0.50000	0.4945
53 2-Hexanone	58	15.025	14.977	(0.914)	89140	1.00000	1.024
54 Octane	85	15.181	15.185	(0.924)	33871	0.50000	0.5110
55 Dibromochloromethane	129	15.267	15.272	(0.929)	71160	0.50000	0.4898
56 1,2-Dibromoethane	107	15.554	15.558	(0.947)	67239	0.50000	0.5110
57 Tetrachloroethene	129	15.632	15.627	(0.951)	41026	0.50000	0.5386
58 Chlorobenzene	112	16.482	16.478	(1.003)	93622	0.50000	0.5210
59 Ethylbenzene	91	16.760	16.764	(1.020)	145548	0.50000	0.5385
60 m-Xylene (For p-)	91	16.907	16.911	(1.029)	113905	0.50000	0.5490
61 Bromoform	173	17.358	17.354	(1.056)	68212	0.50000	0.5248
62 Nonane	57	17.315	17.319	(1.054)	87327	0.50000	0.5860
63 Styrene	104	17.367	17.371	(1.057)	82767	0.50000	0.5401
64 o-Xylene	91	17.428	17.432	(1.061)	117253	0.50000	0.5544
65 1,1,2,2-Tetrachloroethane	83	17.731	17.736	(1.079)	102850	0.50000	0.5600
66 1,2,3-Trichloropropane	110	17.888	17.892	(1.089)	21149	0.50000	0.4924
67 Cumene	105	17.992	17.996	(1.095)	150774	0.50000	0.5404
68 n-Propylbenzene	91	18.495	18.499	(1.126)	222773	0.50000	0.5855

Data File: /var/chem/gcms/mt.i/T013003i.b/ic70130.d
Report Date: 31-Jan-2003 12:05

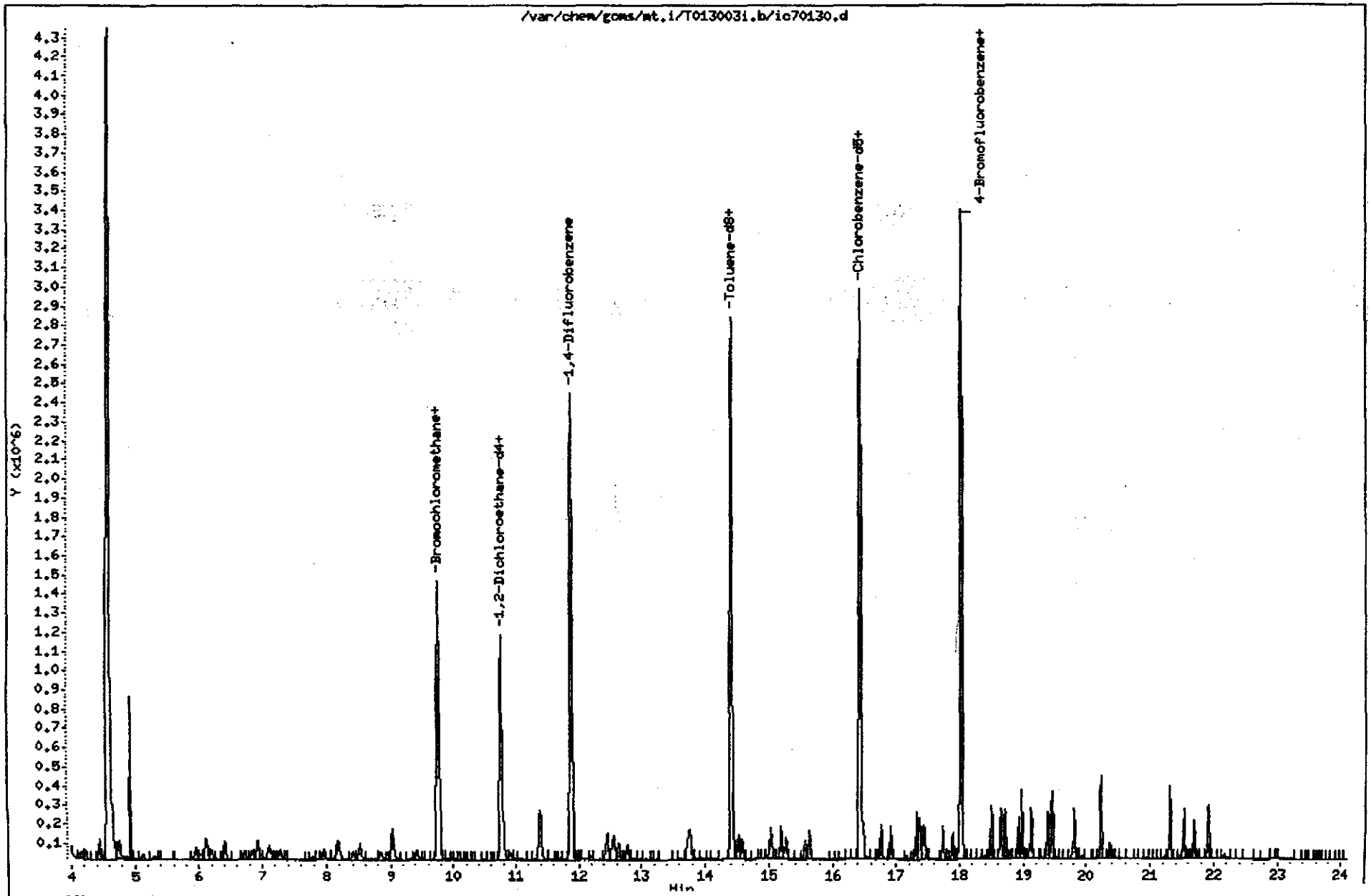
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
69 4-Ethyltoluene	105	18.634	18.638	(1.134)	181538	0.50000	0.5785
70 1,3,5-Trimethylbenzene	120	18.703	18.707	(1.138)	76001	0.50000	0.5914
71 Alpha-Methylstyrene	118	18.911	18.916	(1.151)	68618	0.50000	0.5575
72 Decane	57	18.963	18.968	(1.154)	127864	0.50000	0.5924
73 1,2,4-Trimethylbenzene	105	19.120	19.124	(1.164)	152982	0.50000	0.6114
74 1,3-Dichlorobenzene	146	19.380	19.375	(1.180)	113810	0.50000	0.5693
75 Benzyl Chloride	91	19.441	19.445	(1.183)	121928	0.50000	0.5966
76 1,4-Dichlorobenzene	146	19.458	19.462	(1.184)	114770	0.50000	0.5972
77 1,2-Dichlorobenzene	146	19.805	19.801	(1.205)	112417	0.50000	0.5859
78 Undecane	57	20.222	20.226	(1.231)	137615	0.50000	0.6539
79 Dodecane	57	21.306	21.310	(1.297)	128790	0.50000	0.6735
80 1,2,4-Trichlorobenzene	180	21.523	21.527	(1.310)	97506	0.50000	0.6269
81 Napthalene	128	21.679	21.683	(1.319)	186424	0.50000	0.5254
82 Hexachlorobutadiene	225	21.913	21.909	(1.334)	72810	0.50000	0.5615

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
H - Operator selected an alternate compound hit.

Data File: /var/chem/gcms/mt.i/T013003i.b/ic70130.d
Date : 30-JAN-2003 22:23
Client ID: 0.5PPBV
Sample Info: IC7,,1,7,,0.5PPBV
Volume Injected (uL): 500.0
Column phase: DB-5

Instrument: mt.i
Operator: 0691
Column diameter: 0.32



Data File: /var/chem/gcms/mt.i/T013003i.b/ic10130.d
Report Date: 31-Jan-2003 12:04

STL Knoxville

Modified Method TO-14

Data file : /var/chem/gcms/mt.i/T013003i.b/ic10130.d
Lab Smp Id: IC1 Client Smp ID: 1PPBV
Inj Date : 30-JAN-2003 20:32
Operator : 0691 Inst ID: mt.i
Smp Info : IC1,,1,1,,1PPBV
Misc Info : T013003i,LA,,,10ML
Comment :
Method : /var/chem/gcms/mt.i/T013003i.b/LA.m
Meth Date : 31-Jan-2003 12:04 jarmanc Quant Type: ISTD
Cal Date : 30-JAN-2003 20:32 Cal File: ic10130.d ✓
Als bottle: 99 Calibration Sample, Level: 1 ✓
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: RTall.sub ✓
Target Version: 3.50
Processing Host: qmidhp01

wf 1/31/03

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
1 Bromochloromethane	128	9.758	9.762	(1.000)	607658	10.0000	
2 1,4-Difluorobenzene	114	11.875	11.879	(1.000)	2789495	10.0000	
3 Chlorobenzene-d5	117	16.430	16.434	(1.000)	2220116	10.0000	
4 1,2-Dichloroethane-d4	67	10.756	10.760	(0.906)	436418	10.0000	10.00
5 Toluene-d8	98	14.417	14.421	(0.877)	2253372	10.0000	10.00
6 4-Bromofluorobenzene	95	18.018	18.022	(1.097)	1359683	10.0000	10.00
7 Chlorodifluoromethane	51	4.144	4.140	(0.425)	139297	1.00000	1.000
8 Dichlorodifluoromethane	85	4.223	4.218	(0.433)	164468	1.00000	1.000
9 Chloromethane	52	4.439	4.426	(0.455)	21482	1.00000	1.000
10 1,2-Dichlorotetrafluoroethane	135	4.448	4.444	(0.456)	132194	1.00000	1.000
11 Vinyl Chloride	62	4.639	4.635	(0.475)	69112	1.00000	1.000
12 Methanol	31	4.596	4.583	(0.471)	115426	4.00000	4.000
13 1,3-Butadiene	54	4.743	4.739	(0.486)	51009	1.00000	1.000
14 n-Butane	43	4.743	4.739	(0.486)	116655	1.00000	1.000
15 Bromomethane	94	5.125	5.121	(0.525)	76290	1.00000	1.000
16 Chloroethane	64	5.290	5.285	(0.542)	36912	1.00000	1.000
17 Trichlorofluoromethane	101	5.940	5.936	(0.609)	139830	1.00000	1.000
18 Acrolein	56	5.958	5.945	(0.611)	52550	2.00000	2.000
19 Acetonitrile	40	6.036	6.023	(0.619)	61644	2.00000	2.000
20 Acetone	58	6.123	6.084	(0.627)	62261	2.00000	2.000
21 Pentane	57	6.192	6.196	(0.635)	20429	1.00000	1.000

Data File: /var/chem/gcms/mt.i/T013003i.b/ic10130.d
Report Date: 31-Jan-2003 12:04

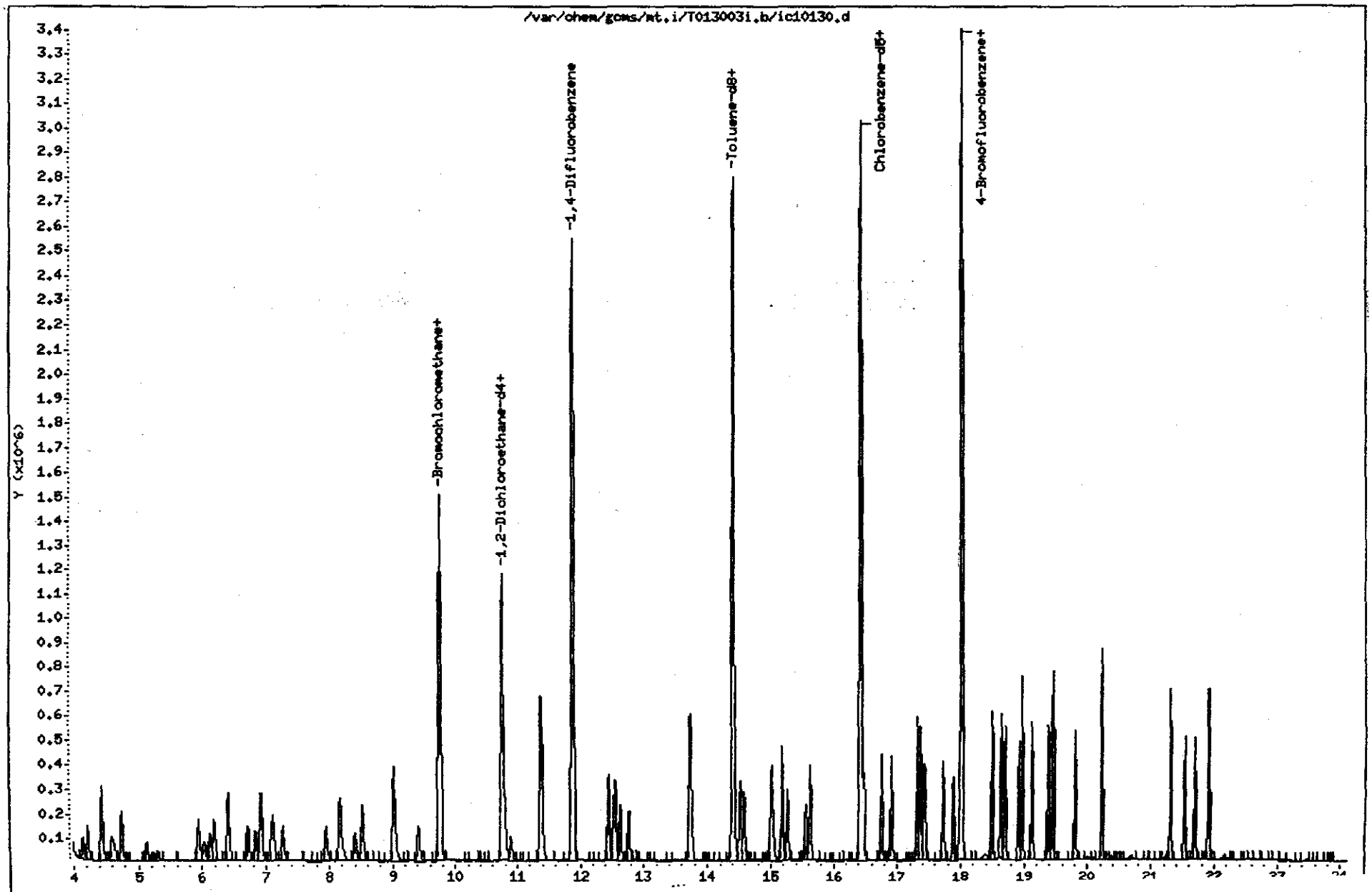
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
22 Ethyl Ether	31	6.409	6.379	(0.657)	239695	2.00000	2.000
23 1,1-Dichloroethene	96	6.721	6.717	(0.689)	81491	1.00000	1.000
24 Acrylonitrile	53	6.834	6.838	(0.700)	131542	2.00000	2.000
25 1,1,2-Trichlorotrifluoroethane	101	6.921	6.925	(0.709)	177704	1.00000	1.000
26 Methylene Chloride	84	7.094	7.090	(0.727)	80141	1.00000	1.000
27 3-Chloropropene	39	7.112	7.116	(0.729)	66684	1.00000	1.000
28 Carbon Disulfide	76	7.277	7.272	(0.746)	283175	1.00000	1.000
29 trans-1,2-Dichloroethene	96	7.962	7.958	(0.816)	83933	1.00000	1.000
30 Methyl-t-Butyl Ether	73	8.170	8.122	(0.837)	394900	2.00000	2.000
31 1,1-Dichloroethane	63	8.404	8.409	(0.861)	153780	1.00000	1.000
32 Vinyl Acetate	43	8.517	8.513	(0.873)	469112	2.00000	2.000
33 2-Butanone	72	9.029	8.999	(0.925)	79953	2.00000	2.000
34 Hexane	56	9.020	9.025	(0.924)	68469	1.00000	1.000
35 cis 1,2-Dichloroethene	96	9.420	9.424	(0.965)	90033	1.00000	1.000
36 Chloroform	83	9.767	9.771	(1.001)	143289	1.00000	1.000
37 1,1,1-Trichloroethane	97	10.808	10.812	(1.108)	127954	1.00000	1.000
38 1,2-Dichloroethane	62	10.903	10.908	(0.918)	92294	1.00000	1.000
39 Benzene	78	11.372	11.376	(0.958)	244877	1.00000	1.000
40 1-Butanol	31	11.363	11.307	(0.957)	108819	2.00000	2.000
41 Cyclohexane	69	11.380	11.385	(0.958)	37771	1.00000	1.000
42 Carbon Tetrachloride	117	11.398	11.402	(1.168)	136109	1.00000	1.000
43 Heptane	43	12.448	12.452	(1.048)	180337	1.00000	1.000
44 1,2-Dichloropropane	63	12.526	12.530	(1.055)	96404	1.00000	1.000
45 Trichloroethene	130	12.552	12.556	(1.057)	117267	1.00000	1.000
46 Dibromomethane	93	12.630	12.634	(1.064)	102136	1.00000	1.000
47 Bromodichloromethane	83	12.760	12.764	(1.075)	159499	1.00000	1.000
48 4-Methyl-2-pentanone	43	13.732	13.684	(1.156)	445631	2.00000	2.000
49 cis-1,3-Dichloropropene	75	13.723	13.727	(1.156)	174438	1.00000	1.000
50 trans-1,3-Dichloropropene	75	14.382	14.387	(0.875)	105162	1.00000	1.000
51 Toluene	91	14.521	14.525	(0.884)	274086	1.00000	1.000
52 1,1,2-Trichloroethane	97	14.582	14.586	(0.888)	105020	1.00000	1.000
53 2-Hexanone	58	15.016	14.977	(0.914)	236209	2.00000	2.000
54 Octane	85	15.181	15.185	(0.924)	88450	1.00000	1.000
55 Dibromochloromethane	129	15.267	15.272	(0.929)	191752	1.00000	1.000
56 1,2-Dibromoethane	107	15.554	15.558	(0.947)	173113	1.00000	1.000
57 Tetrachloroethene	129	15.623	15.627	(0.951)	101823	1.00000	1.000
58 Chlorobenzene	112	16.482	16.478	(1.003)	236333	1.00000	1.000
59 Ethylbenzene	91	16.760	16.764	(1.020)	360485	1.00000	1.000
60 m-Xylene (For p-)	91	16.907	16.911	(1.029)	274777	1.00000	1.000
61 Bromoform	173	17.350	17.354	(1.056)	171976	1.00000	1.000
62 Nonane	57	17.315	17.319	(1.054)	201327	1.00000	1.000
63 Styrene	104	17.367	17.371	(1.057)	209194	1.00000	1.000
64 o-Xylene	91	17.428	17.432	(1.061)	272368	1.00000	1.000
65 1,1,2,2-Tetrachloroethane	83	17.731	17.736	(1.079)	246718	1.00000	1.000
66 1,2,3-Trichloropropane	110	17.887	17.892	(1.089)	57703	1.00000	1.000
67 Cumene	105	17.992	17.996	(1.095)	376490	1.00000	1.000
68 n-Propylbenzene	91	18.495	18.499	(1.126)	512560	1.00000	1.000

)ata File: /var/chem/gcms/mt.i/T013003i.b/ic10130.d
Report Date: 31-Jan-2003 12:04

ompounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
69 4-Ethyltoluene	105	18.634	18.638	(1.134)	406050	1.00000	1.000
70 1,3,5-Trimethylbenzene	120	18.703	18.707	(1.138)	163788	1.00000	1.000
71 Alpha-Methylstyrene	118	18.911	18.916	(1.151)	158654	1.00000	1.000
72 Decane	57	18.963	18.968	(1.154)	271187	1.00000	1.000
73 1,2,4-Trimethylbenzene	105	19.120	19.124	(1.164)	322340	1.00000	1.000
74 1,3-Dichlorobenzene	146	19.371	19.375	(1.179)	263362	1.00000	1.000
75 Benzyl Chloride	91	19.441	19.445	(1.183)	269708	1.00000	1.000
76 1,4-Dichlorobenzene	146	19.458	19.462	(1.184)	259972	1.00000	1.000
77 1,2-Dichlorobenzene	146	19.805	19.801	(1.205)	249638	1.00000	1.000
78 Undecane	57	20.221	20.226	(1.231)	279572	1.00000	1.000
79 Dodecane	57	21.306	21.310	(1.297)	237001	1.00000	1.000
80 1,2,4-Trichlorobenzene	180	21.523	21.527	(1.310)	189880	1.00000	1.000
81 Napthalene	128	21.679	21.683	(1.319)	465851	1.00000	1.000
82 Hexachlorobutadiene	225	21.913	21.909	(1.334)	182799	1.00000	1.000

Data File: /var/chem/gcms/mt.i/T013003i.b/ic10130.d
Date : 30-JAN-2003 20:32
Client ID: 1PPBV
Sample Info: IC1,,1,1,,1PPBV
Volume Injected (uL): 500.0
Column phase: DB-5

Instrument: mt.i
Operator: 0691
Column diameter: 0.32



Data File: /var/chem/gcms/mt.i/T013003i.b/ic20130.d
Report Date: 31-Jan-2003 12:04

STL Knoxville

Modified Method TO-14

Data file : /var/chem/gcms/mt.i/T013003i.b/ic20130.d
Lab Smp Id: IC2 Client Smp ID: 10PPBV
Inj Date : 30-JAN-2003 19:55
Operator : 0691 Inst ID: mt.i
Smp Info : IC2,,1,2,,10PPBV
Misc Info : T013003i,LA,,,50ML
Comment :
Method : /var/chem/gcms/mt.i/T013003i.b/LA.m
Meth Date : 31-Jan-2003 12:04 jarmanc Quant Type: ISTD
Cal Date : 30-JAN-2003 19:55 Cal File: ic20130.d ✓
Als bottle: 99 Calibration Sample, Level: 2 ✓
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: RTall.sub ✓
Target Version: 3.50
Processing Host: qmidhp01

cwt 1/31/02

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
1 Bromochloromethane	128	9.757	9.762	(1.000)	615979	10.0000	
2 1,4-Difluorobenzene	114	11.882	11.879	(1.000)	2913196	10.0000	
3 Chlorobenzene-d5	117	16.437	16.434	(1.000)	2281233	10.0000	
4 1,2-Dichloroethane-d4	67	10.763	10.760	(0.906)	451212	10.0000	9.950
5 Toluene-d8	98	14.416	14.421	(0.877)	2337450	10.0000	10.05
6 4-Bromofluorobenzene	95	18.025	18.022	(1.097)	1381741	10.0000	9.945
7 Chlorodifluoromethane	51	4.143	4.140	(0.425)	539895	5.00000	4.333
8 Dichlorodifluoromethane	85	4.221	4.218	(0.433)	635944	5.00000	4.327
9 Chloromethane	52	4.429	4.426	(0.454)	79155	5.00000	4.210
10 1,2-Dichlorotetrafluoroethane	135	4.447	4.444	(0.456)	495243	5.00000	4.250
11 Vinyl Chloride	62	4.638	4.635	(0.475)	264459	5.00000	4.302
12 Methanol	31	4.586	4.583	(0.470)	483883	20.0000	18.11
13 1,3-Butadiene	54	4.742	4.739	(0.486)	199957	5.00000	4.361
14 n-Butane	43	4.742	4.739	(0.486)	446159	5.00000	4.301
15 Bromomethane	94	5.124	5.121	(0.525)	291507	5.00000	4.298
16 Chloroethane	64	5.288	5.285	(0.542)	146521	5.00000	4.392
17 Trichlorofluoromethane	101	5.939	5.936	(0.609)	547701	5.00000	4.359
18 Acrolein	56	5.948	5.945	(0.610)	209997	10.0000	8.817
19 Acetonitrile	40	6.026	6.023	(0.618)	253479	10.0000	8.958
20 Acetone	58	6.095	6.084	(0.625)	239513	10.0000	8.630
21 Pentane	57	6.191	6.196	(0.634)	75469	5.00000	4.216

Data File: /var/chem/gcms/mt.i/T013003i.b/ic20130.d
Report Date: 31-Jan-2003 12:04

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
22 Ethyl Ether	31	6.382	6.379	(0.654)	928946	10.0000	8.666
23 1,1-Dichloroethene	96	6.720	6.717	(0.689)	323933	5.00000	4.395
24 Acrylonitrile	53	6.833	6.838	(0.700)	540264	10.0000	8.952
25 1,1,2-Trichlorotrifluoroethane	101	6.920	6.925	(0.709)	677097	5.00000	4.291
26 Methylene Chloride	84	7.093	7.090	(0.727)	307046	5.00000	4.305
27 3-Chloropropene	39	7.119	7.116	(0.730)	270304	5.00000	4.444
28 Carbon Disulfide	76	7.275	7.272	(0.746)	1055296	5.00000	4.237
29 trans-1,2-Dichloroethene	96	7.961	7.958	(0.816)	332648	5.00000	4.388
30 Methyl-t-Butyl Ether	73	8.134	8.122	(0.834)	1554737	10.0000	8.744
31 1,1-Dichloroethane	63	8.403	8.409	(0.861)	612397	5.00000	4.400
32 Vinyl Acetate	43	8.516	8.513	(0.873)	1863029	10.0000	8.786
33 2-Butanone	72	9.002	8.999	(0.923)	325093	10.0000	8.903
34 Hexane	56	9.019	9.025	(0.924)	263512	5.00000	4.316
35 cis 1,2-Dichloroethene	96	9.427	9.424	(0.966)	364795	5.00000	4.443
36 Chloroform	83	9.774	9.771	(1.002)	574859	5.00000	4.418
37 1,1,1-Trichloroethane	97	10.806	10.812	(1.108)	509781	5.00000	4.401
38 1,2-Dichloroethane	62	10.902	10.908	(0.917)	378079	5.00000	4.396
39 Benzene	78	11.370	11.376	(0.957)	919196	5.00000	4.182
40 1-Butanol	31	11.318	11.307	(0.953)	435591	10.0000	8.679
41 Cyclohexane	69	11.379	11.385	(0.958)	140174	5.00000	4.154
42 Carbon Tetrachloride	117	11.396	11.402	(1.168)	533106	5.00000	4.359
43 Heptane	43	12.446	12.452	(1.047)	697802	5.00000	4.256
44 1,2-Dichloropropane	63	12.524	12.530	(1.054)	380662	5.00000	4.306
45 Trichloroethene	130	12.559	12.556	(1.057)	462319	5.00000	4.302
46 Dibromomethane	93	12.628	12.634	(1.063)	407794	5.00000	4.333
47 Bromodichloromethane	83	12.767	12.764	(1.074)	655923	5.00000	4.406
48 4-Methyl-2-pentanone	43	13.696	13.684	(1.153)	1661749	10.0000	8.332
49 cis-1,3-Dichloropropene	75	13.722	13.727	(1.155)	668133	5.00000	4.231
50 trans-1,3-Dichloropropene	75	14.390	14.387	(0.875)	431816	5.00000	4.442
51 Toluene	91	14.529	14.525	(0.884)	1086986	5.00000	4.356
52 1,1,2-Trichloroethane	97	14.581	14.586	(0.887)	417140	5.00000	4.360
53 2-Hexanone	58	14.988	14.977	(0.912)	914105	10.0000	8.592
54 Octane	85	15.179	15.185	(0.923)	348025	5.00000	4.337
55 Dibromochloromethane	129	15.266	15.272	(0.929)	769324	5.00000	4.385
56 1,2-Dibromoethane	107	15.561	15.558	(0.947)	690038	5.00000	4.369
57 Tetrachloroethene	129	15.630	15.627	(0.951)	391810	5.00000	4.282
58 Chlorobenzene	112	16.481	16.478	(1.003)	928337	5.00000	4.333
59 Ethylbenzene	91	16.758	16.764	(1.020)	1385396	5.00000	4.279
60 m-Xylene (For p-)	91	16.914	16.911	(1.029)	1048376	5.00000	4.262
61 Bromoform	173	17.357	17.354	(1.056)	682483	5.00000	4.358
62 Nonane	57	17.314	17.319	(1.053)	744405	5.00000	4.185
63 Styrene	104	17.366	17.371	(1.056)	798369	5.00000	4.262
64 o-Xylene	91	17.435	17.432	(1.061)	1060401	5.00000	4.311
65 1,1,2,2-Tetrachloroethane	83	17.730	17.736	(1.079)	929522	5.00000	4.231
66 1,2,3-Trichloropropane	110	17.886	17.892	(1.088)	220990	5.00000	4.271
67 Cumene	105	17.999	17.996	(1.095)	1451069	5.00000	4.286
68 n-Propylbenzene	91	18.494	18.499	(1.125)	1937355	5.00000	4.239

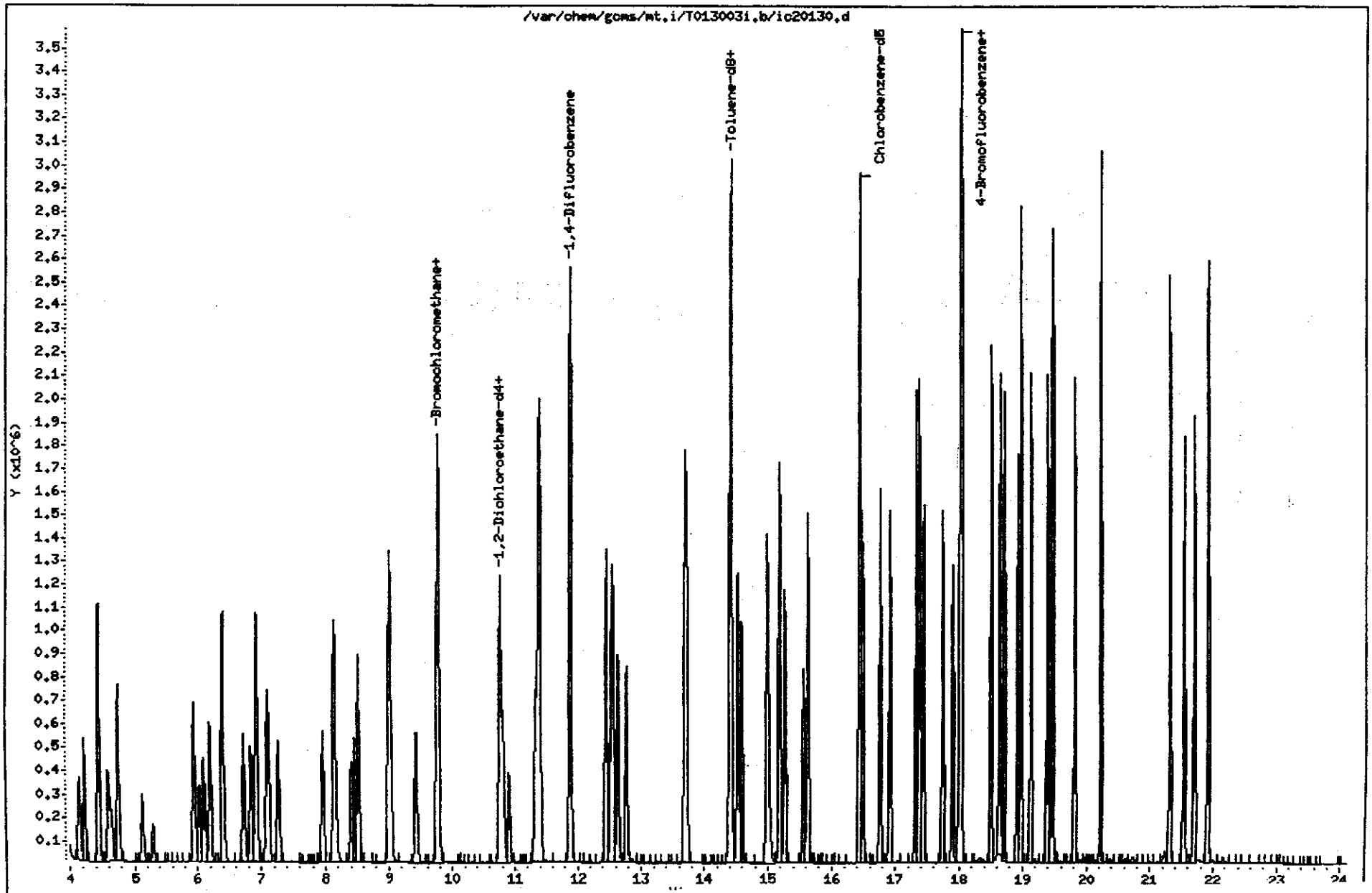
Data File: /var/chem/gcms/mt.i/T013003i.b/ic20130.d
Report Date: 31-Jan-2003 12:04

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
69 4-Ethyltoluene	105	18.632	18.638	(1.134)	1606599	5.00000	4.351
70 1,3,5-Trimethylbenzene	120	18.702	18.707	(1.138)	629607	5.00000	4.280
71 Alpha-Methylstyrene	118	18.919	18.916	(1.151)	620604	5.00000	4.323
72 Decane	57	18.971	18.968	(1.154)	988148	5.00000	4.149
73 1,2,4-Trimethylbenzene	105	19.118	19.124	(1.163)	1225003	5.00000	4.252
74 1,3-Dichlorobenzene	146	19.378	19.375	(1.179)	1001532	5.00000	4.254
75 Benzyl Chloride	91	19.439	19.445	(1.183)	1042167	5.00000	4.292
76 1,4-Dichlorobenzene	146	19.457	19.462	(1.184)	966323	5.00000	4.198
77 1,2-Dichlorobenzene	146	19.804	19.801	(1.205)	948836	5.00000	4.252
78 Undecane	57	20.220	20.226	(1.230)	1017152	5.00000	4.146
79 Dodecane	57	21.305	21.310	(1.296)	882725	5.00000	4.203
80 1,2,4-Trichlorobenzene	180	21.530	21.527	(1.310)	734204	5.00000	4.294
81 Napthalene	128	21.686	21.683	(1.319)	1815825	5.00000	4.314
82 Hexachlorobutadiene	225	21.912	21.909	(1.333)	680088	5.00000	4.200

Data File: /var/chem/gcms/mt.i/T013003i.b/ic20130.d
Date : 30-JAN-2003 19:55
Client ID: 10PPBV
Sample Info: IC2,,1,2,,10PPBV
Volume Injected (uL): 500.0
Column phase: DB-5

Instrument: mt.i

Operator: 0691
Column diameter: 0.32



Data File: /var/chem/gcms/mt.i/T013003i.b/ic30130.d
Report Date: 31-Jan-2003 12:04

STL Knoxville

Modified Method TO-14

Data file : /var/chem/gcms/mt.i/T013003i.b/ic30130.d
Lab Smp Id: IC3 Client Smp ID: 10PPBV
Inj Date : 30-JAN-2003 19:18
Operator : 0691 Inst ID: mt.i
Smp Info : IC3,,1,3,,10PPBV
Misc Info : T013003i,LA,,,100ML
Comment :
Method : /var/chem/gcms/mt.i/T013003i.b/LA.m
Meth Date : 31-Jan-2003 12:04 jarmanc Quant Type: ISTD
Cal Date : 30-JAN-2003 19:18 Cal File: ic30130.d
Als bottle: 99 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: RTall.sub
Target Version: 3.50
Processing Host: qmidhp01

ok wd 1/31/03

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	ON-COL (ppb(v/v))
1 Bromochloromethane	128	9.762	9.762	(1.000)	608683	10.0000	
2 1,4-Difluorobenzene	114	11.879	11.879	(1.000)	2911016	10.0000	
3 Chlorobenzene-d5	117	16.434	16.434	(1.000)	2325575	10.0000	
4 1,2-Dichloroethane-d4	67	10.760	10.760	(0.906)	447886	10.0000	9.922
5 Toluene-d8	98	14.421	14.421	(0.878)	2331634	10.0000	9.887
6 4-Bromofluorobenzene	95	18.022	18.022	(1.097)	1372338	10.0000	9.790
7 Chlorodifluoromethane	51	4.140	4.140	(0.424)	1108589	10.0000	9.314
8 Dichlorodifluoromethane	85	4.218	4.218	(0.432)	1304168	10.0000	9.297
9 Chloromethane	52	4.426	4.426	(0.453)	159551	10.0000	9.011
10 1,2-Dichlorotetrafluoroethane	135	4.444	4.444	(0.455)	972458	10.0000	8.907
11 Vinyl Chloride	62	4.635	4.635	(0.475)	535855	10.0000	9.182
12 Methanol	31	4.583	4.583	(0.469)	923771	40.0000	36.51
13 1,3-Butadiene	54	4.739	4.739	(0.485)	390699	10.0000	9.038
14 n-Butane	43	4.739	4.739	(0.485)	871090	10.0000	8.945
15 Bromomethane	94	5.121	5.121	(0.525)	583968	10.0000	9.104
16 Chloroethane	64	5.285	5.285	(0.541)	292225	10.0000	9.213
17 Trichlorofluoromethane	101	5.936	5.936	(0.608)	1059975	10.0000	8.975
18 Acrolein	56	5.945	5.945	(0.609)	394699	20.0000	17.72
19 Acetonitrile	40	6.023	6.023	(0.617)	512301	20.0000	18.85
20 Acetone	58	6.084	6.084	(0.623)	469344	20.0000	17.98
21 Pentane	57	6.196	6.196	(0.635)	155666	10.0000	9.167

Data File: /var/chem/gcms/mt.i/T013003i.b/ic30130.d
Report Date: 31-Jan-2003 12:04

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
22 Ethyl Ether	31	6.379	6.379	(0.653)	1739707	20.0000	17.46
23 1,1-Dichloroethene	96	6.717	6.717	(0.688)	633267	10.0000	9.091
24 Acrylonitrile	53	6.838	6.838	(0.700)	1064275	20.0000	18.51
25 1,1,2-Trichlorotrifluoroethane	101	6.925	6.925	(0.709)	1290137	10.0000	8.780
26 Methylene Chloride	84	7.090	7.090	(0.726)	595918	10.0000	8.914
27 3-Chloropropene	39	7.116	7.116	(0.729)	520129	10.0000	9.060
28 Carbon Disulfide	76	7.272	7.272	(0.745)	2090146	10.0000	8.942
29 trans-1,2-Dichloroethene	96	7.958	7.958	(0.815)	656458	10.0000	9.140
30 Methyl-t-Butyl Ether	73	8.122	8.122	(0.832)	3006569	20.0000	17.98
31 1,1-Dichloroethane	63	8.409	8.409	(0.861)	1188573	10.0000	9.052
32 Vinyl Acetate	43	8.513	8.513	(0.872)	3622331	20.0000	18.11
33 2-Butanone	72	8.999	8.999	(0.922)	630564	20.0000	18.24
34 Hexane	56	9.025	9.025	(0.924)	498014	10.0000	8.764
35 cis 1,2-Dichloroethene	96	9.424	9.424	(0.965)	716336	10.0000	9.187
36 Chloroform	83	9.771	9.771	(1.001)	1122556	10.0000	9.117
37 1,1,1-Trichloroethane	97	10.812	10.812	(1.108)	997484	10.0000	9.105
38 1,2-Dichloroethane	62	10.908	10.908	(0.918)	742432	10.0000	9.050
39 Benzene	78	11.376	11.376	(0.958)	1723779	10.0000	8.455
40 1-Butanol	31	11.307	11.307	(0.952)	863842	20.0000	18.06
41 Cyclohexane	69	11.385	11.385	(0.958)	262291	10.0000	8.401
42 Carbon Tetrachloride	117	11.402	11.402	(1.168)	1022358	10.0000	8.918
43 Heptane	43	12.452	12.452	(1.048)	1312046	10.0000	8.578
44 1,2-Dichloropropane	63	12.530	12.530	(1.055)	706643	10.0000	8.571
45 Trichloroethene	130	12.556	12.556	(1.057)	882973	10.0000	8.740
46 Dibromomethane	93	12.634	12.634	(1.064)	778644	10.0000	8.783
47 Bromodichloromethane	83	12.764	12.764	(1.074)	1255939	10.0000	8.905
48 4-Methyl-2-pentanone	43	13.684	13.684	(1.152)	3075164	20.0000	16.70
49 cis-1,3-Dichloropropene	75	13.727	13.727	(1.156)	1294291	10.0000	8.726
50 trans-1,3-Dichloropropene	75	14.387	14.387	(0.875)	842970	10.0000	8.952
51 Toluene	91	14.525	14.525	(0.884)	2091159	10.0000	8.739
52 1,1,2-Trichloroethane	97	14.586	14.586	(0.888)	795174	10.0000	8.688
53 2-Hexanone	58	14.977	14.977	(0.911)	1758259	20.0000	17.30
54 Octane	85	15.185	15.185	(0.924)	649695	10.0000	8.527
55 Dibromochloromethane	129	15.272	15.272	(0.929)	1492003	10.0000	8.830
56 1,2-Dibromoethane	107	15.558	15.558	(0.947)	1306877	10.0000	8.660
57 Tetrachloroethene	129	15.627	15.627	(0.951)	750491	10.0000	8.607
58 Chlorobenzene	112	16.478	16.478	(1.003)	1678760	10.0000	8.328
59 Ethylbenzene	91	16.764	16.764	(1.020)	2610038	10.0000	8.501
60 m-Xylene (For p-)	91	16.911	16.911	(1.029)	1976226	10.0000	8.479
61 Bromoform	173	17.354	17.354	(1.056)	1291513	10.0000	8.640
62 Nonane	57	17.319	17.319	(1.054)	1368597	10.0000	8.219
63 Styrene	104	17.371	17.371	(1.057)	1491502	10.0000	8.426
64 o-Xylene	91	17.432	17.432	(1.061)	2006231	10.0000	8.572
65 1,1,2,2-Tetrachloroethane	83	17.736	17.736	(1.079)	1756701	10.0000	8.451
66 1,2,3-Trichloropropane	110	17.892	17.892	(1.089)	435740	10.0000	8.769
67 Cumene	105	17.996	17.996	(1.095)	2672456	10.0000	8.373
68 n-Propylbenzene	91	18.499	18.499	(1.126)	3535288	10.0000	8.251

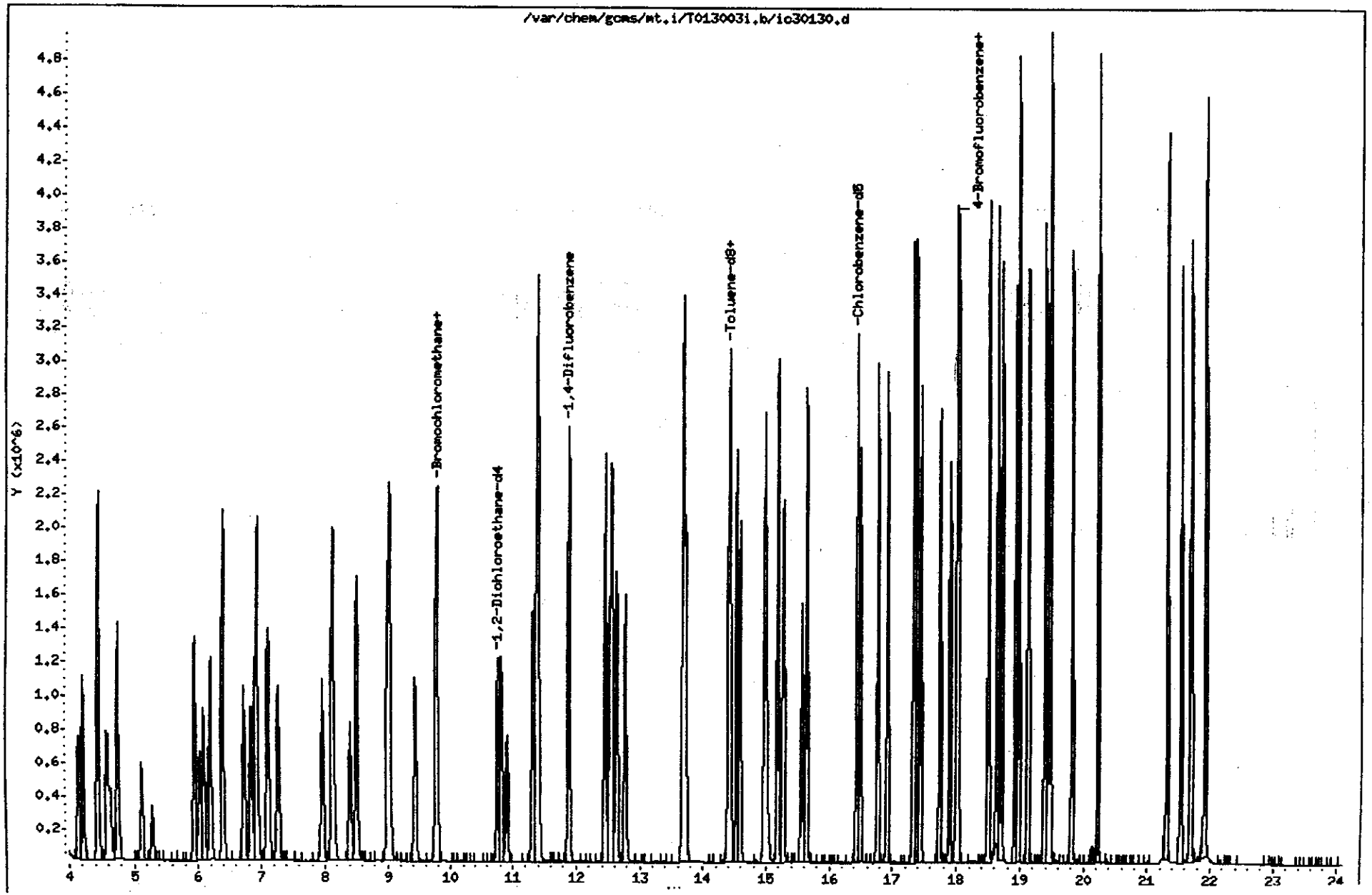
Data File: /var/chem/gcms/mt.i/T013003i.b/ic30130.d
Report Date: 31-Jan-2003 12:04

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
69 4-Ethyltoluene	105	18.638	18.638	(1.134)	2959286	10.0000	8.464
70 1,3,5-Trimethylbenzene	120	18.707	18.707	(1.138)	1179175	10.0000	8.466
71 Alpha-Methylstyrene	118	18.916	18.916	(1.151)	1185423	10.0000	8.647
72 Decane	57	18.968	18.968	(1.154)	1771932	10.0000	8.021
73 1,2,4-Trimethylbenzene	105	19.124	19.124	(1.164)	2266978	10.0000	8.354
74 1,3-Dichlorobenzene	146	19.375	19.375	(1.179)	1871227	10.0000	8.414
75 Benzyl Chloride	91	19.445	19.445	(1.183)	1934941	10.0000	8.431
76 1,4-Dichlorobenzene	146	19.462	19.462	(1.184)	1778246	10.0000	8.243
77 1,2-Dichlorobenzene	146	19.801	19.801	(1.205)	1787439	10.0000	8.462
78 Undecane	57	20.226	20.226	(1.231)	1801443	10.0000	7.943
79 Dodecane	57	21.310	21.310	(1.297)	1688730	10.0000	8.484
80 1,2,4-Trichlorobenzene	180	21.527	21.527	(1.310)	1374497	10.0000	8.484
81 Napthalene	128	21.683	21.683	(1.319)	3473470	10.0000	8.644
82 Hexachlorobutadiene	225	21.909	21.909	(1.333)	1207351	10.0000	8.033

Data File: /var/chem/gcms/mt.i/T013003i.b/ic30130.d
Date : 30-JAN-2003 19:18
Client ID: 10PPBV
Sample Info: IC3,,1,3,,10PPBV
Volume Injected (uL): 500.0
Column phase: DB-5

Instrument: mt.i

Operator: 0691
Column diameter: 0.32



Data File: /var/chem/gcms/mt.i/T013003i.b/ic40130.d
Report Date: 31-Jan-2003 12:04

STL Knoxville

Modified Method TO-14

Data file : /var/chem/gcms/mt.i/T013003i.b/ic40130.d
Lab Smp Id: IC4 Client Smp ID: 15PPBV
Inj Date : 30-JAN-2003 18:41
Operator : 0691 Inst ID: mt.i
Smp Info : IC4,,1,4,,15PPBV
Misc Info : T013003i,LA,,,150ML
Comment :
Method : /var/chem/gcms/mt.i/T013003i.b/LA.m
Meth Date : 31-Jan-2003 12:04 jarmanc Quant Type: ISTD
Cal Date : 30-JAN-2003 19:18 Cal File: ic30130.d
Als bottle: 99 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: RTall.sub
Target Version: 3.50
Processing Host: qmidhp01

cwf 1/31/03

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	ON-COL (ppb(v/v))
1 Bromochloromethane	128	9.763	9.762	(1.000)	613620	10.0000	
2 1,4-Difluorobenzene	114	11.880	11.879	(1.000)	2901481	10.0000	
3 Chlorobenzene-d5	117	16.434	16.434	(1.000)	2333810	10.0000	
4 1,2-Dichloroethane-d4	67	10.760	10.760	(0.906)	448945	10.0000	9.984
5 Toluene-d8	98	14.422	14.421	(0.878)	2325419	10.0000	9.869
6 4-Bromofluorobenzene	95	18.022	18.022	(1.097)	1385879	10.0000	9.888
7 Chlorodifluoromethane	51	4.140	4.140	(0.424)	1543395	15.0000	13.34
8 Dichlorodifluoromethane	85	4.218	4.218	(0.432)	1796583	15.0000	13.21
9 Chloromethane	52	4.427	4.426	(0.453)	218793	15.0000	12.84
10 1,2-Dichlorotetrafluoroethane	135	4.444	4.444	(0.455)	1333394	15.0000	12.73
11 Vinyl Chloride	62	4.635	4.635	(0.475)	753959	15.0000	13.30
12 Methanol	31	4.583	4.583	(0.469)	1280895	60.0000	52.35
13 1,3-Butadiene	54	4.739	4.739	(0.485)	537510	15.0000	12.91
14 n-Butane	43	4.748	4.739	(0.486)	1186510	15.0000	12.70
15 Bromomethane	94	5.121	5.121	(0.525)	802092	15.0000	12.96
16 Chloroethane	64	5.286	5.285	(0.541)	403739	15.0000	13.15
17 Trichlorofluoromethane	101	5.945	5.936	(0.609)	1473808	15.0000	12.94
18 Acrolein	56	5.945	5.945	(0.609)	537914	30.0000	25.23
19 Acetonitrile	40	6.023	6.023	(0.617)	719653	30.0000	27.11
20 Acetone	58	6.084	6.084	(0.623)	652262	30.0000	25.91
21 Pentane	57	6.197	6.196	(0.635)	217283	15.0000	13.20

Data File: /var/chem/gcms/mt.i/T013003i.b/ic40130.d
Report Date: 31-Jan-2003 12:04

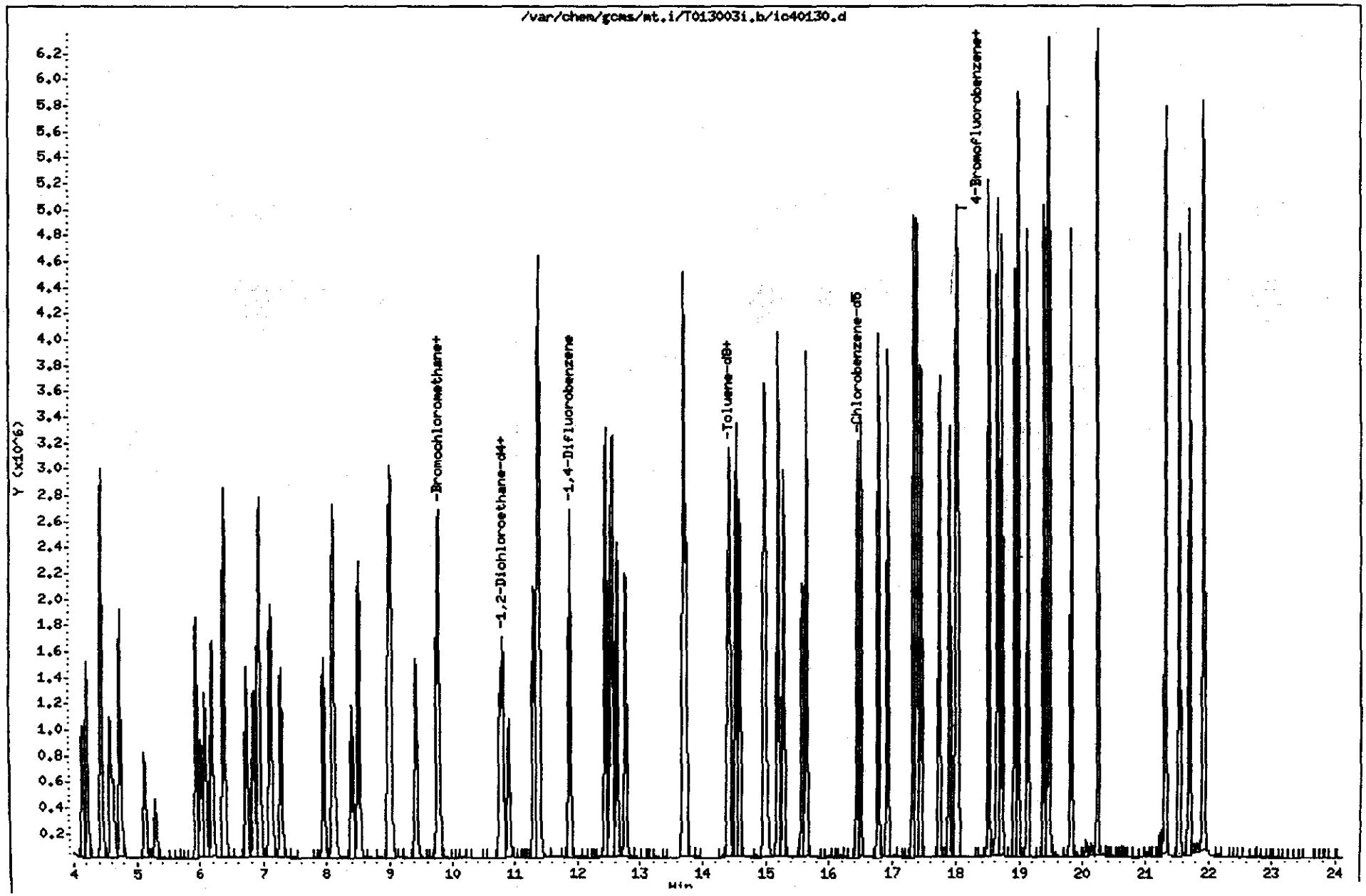
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
22 Ethyl Ether	31	6.379	6.379	(0.653)	2360776	30.0000	24.85
23 1,1-Dichloroethene	96	6.726	6.717	(0.689)	893626	15.0000	13.23
24 Acrylonitrile	53	6.839	6.838	(0.700)	1501599	30.0000	26.82
25 1,1,2-Trichlorotrifluoroethane	101	6.925	6.925	(0.709)	1752666	15.0000	12.49
26 Methylene Chloride	84	7.090	7.090	(0.726)	840038	15.0000	13.01
27 3-Chloropropene	39	7.116	7.116	(0.729)	727597	15.0000	13.10
28 Carbon Disulfide	76	7.272	7.272	(0.745)	2934799	15.0000	13.01
29 trans-1,2-Dichloroethene	96	7.958	7.958	(0.815)	928767	15.0000	13.31
30 Methyl-t-Butyl Ether	73	8.114	8.122	(0.831)	4148065	30.0000	25.76
31 1,1-Dichloroethane	63	8.409	8.409	(0.861)	1681710	15.0000	13.21
32 Vinyl Acetate	43	8.513	8.513	(0.872)	5020512	30.0000	26.00
33 2-Butanone	72	8.990	8.999	(0.921)	869611	30.0000	26.05
34 Hexane	56	9.025	9.025	(0.924)	691693	15.0000	12.69
35 cis 1,2-Dichloroethene	96	9.424	9.424	(0.965)	1013531	15.0000	13.36
36 Chloroform	83	9.771	9.771	(1.001)	1598485	15.0000	13.35
37 1,1,1-Trichloroethane	97	10.812	10.812	(1.108)	1417758	15.0000	13.32
38 1,2-Dichloroethane	62	10.908	10.908	(0.918)	1049518	15.0000	13.32
39 Benzene	78	11.376	11.376	(0.958)	2297390	15.0000	12.05
40 1-Butanol	31	11.307	11.307	(0.952)	1174891	30.0000	25.79
41 Cyclohexane	69	11.385	11.385	(0.958)	348791	15.0000	11.96
42 Carbon Tetrachloride	117	11.402	11.402	(1.168)	1424128	15.0000	12.90
43 Heptane	43	12.452	12.452	(1.048)	1797994	15.0000	12.46
44 1,2-Dichloropropane	63	12.530	12.530	(1.055)	972344	15.0000	12.49
45 Trichloroethene	130	12.556	12.556	(1.057)	1229204	15.0000	12.80
46 Dibromomethane	93	12.634	12.634	(1.064)	1089251	15.0000	12.90
47 Bromodichloromethane	83	12.764	12.764	(1.074)	1769973	15.0000	13.12
48 4-Methyl-2-pentanone	43	13.684	13.684	(1.152)	4068030	30.0000	23.72
49 cis-1,3-Dichloropropene	75	13.728	13.727	(1.156)	1821531	15.0000	12.90
50 trans-1,3-Dichloropropene	75	14.387	14.387	(0.875)	1179720	15.0000	13.03
51 Toluene	91	14.526	14.525	(0.884)	2892252	15.0000	12.67
52 1,1,2-Trichloroethane	97	14.586	14.586	(0.888)	1107776	15.0000	12.68
53 2-Hexanone	58	14.968	14.977	(0.911)	2373485	30.0000	24.66
54 Octane	85	15.185	15.185	(0.924)	902237	15.0000	12.46
55 Dibromochloromethane	129	15.272	15.272	(0.929)	2061441	15.0000	12.76
56 1,2-Dibromoethane	107	15.558	15.558	(0.947)	1813277	15.0000	12.61
57 Tetrachloroethene	129	15.628	15.627	(0.951)	1033598	15.0000	12.47
58 Chlorobenzene	112	16.487	16.478	(1.003)	2465733	15.0000	12.79
59 Ethylbenzene	91	16.764	16.764	(1.020)	3548991	15.0000	12.23
60 m-Xylene (For p-)	91	16.912	16.911	(1.029)	2683958	15.0000	12.19
61 Bromoform	173	17.354	17.354	(1.056)	1754687	15.0000	12.38
62 Nonane	57	17.319	17.319	(1.054)	1819270	15.0000	11.69
63 Styrene	104	17.372	17.371	(1.057)	2000108	15.0000	12.01
64 o-Xylene	91	17.432	17.432	(1.061)	2747660	15.0000	12.38
65 1,1,2,2-Tetrachloroethane	83	17.736	17.736	(1.079)	2371979	15.0000	12.10
66 1,2,3-Trichloropropane	110	17.892	17.892	(1.089)	610911	15.0000	12.84
67 Cumene	105	17.996	17.996	(1.095)	3605490	15.0000	12.00
68 n-Propylbenzene	91	18.499	18.499	(1.126)	4689978	15.0000	11.70

Data File: /var/chem/gcms/mt.i/T013003i.b/ic40130.d
Report Date: 31-Jan-2003 12:04

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
69 4-Ethyltoluene	105	18.638	18.638	(1.134)	3963582	15.0000	12.04
70 1,3,5-Trimethylbenzene	120	18.708	18.707	(1.138)	1600949	15.0000	12.17
71 Alpha-Methylstyrene	118	18.916	18.916	(1.151)	1626373	15.0000	12.48
72 Decane	57	18.968	18.968	(1.154)	2313369	15.0000	11.29
73 1,2,4-Trimethylbenzene	105	19.124	19.124	(1.164)	3057939	15.0000	11.98
74 1,3-Dichlorobenzene	146	19.376	19.375	(1.179)	2548183	15.0000	12.14
75 Benzyl Chloride	91	19.445	19.445	(1.183)	2515528	15.0000	11.72
76 1,4-Dichlorobenzene	146	19.462	19.462	(1.184)	2332619	15.0000	11.59
77 1,2-Dichlorobenzene	146	19.810	19.801	(1.205)	2403997	15.0000	12.08
78 Undecane	57	20.226	20.226	(1.231)	2357879	15.0000	11.23
79 Dodecane	57	21.310	21.310	(1.297)	2181170	15.0000	11.72
80 1,2,4-Trichlorobenzene	180	21.527	21.527	(1.310)	1899574	15.0000	12.37
81 Napthalene	128	21.684	21.683	(1.319)	4769284	15.0000	12.49
82 Hexachlorobutadiene	225	21.909	21.909	(1.333)	1601467	15.0000	11.45

Data File: /var/chem/gcms/mt.i/T013003i.b/ic40130.d
Date : 30-JAN-2003 18:41
Client ID: 15PPBV
Sample Info: IC4,,1,4,,15PPBV
Volume Injected (uL): 500.0
Column phase: DB-5

Instrument: mt.i
Operator: 0691
Column diameter: 0.32



Data File: /var/chem/gcms/mt.i/T013003i.b/ic50130.d
Report Date: 31-Jan-2003 12:04

STL Knoxville

Modified Method TO-14

Data file : /var/chem/gcms/mt.i/T013003i.b/ic50130.d
Lab Smp Id: IC5 Client Smp ID: 30PPBV
Inj Date : 30-JAN-2003 18:04
Operator : 0691 Inst ID: mt.i
Smp Info : IC5,,1,5,,30PPBV
Misc Info : T013003i,LA,,,300ML
Comment :
Method : /var/chem/gcms/mt.i/T013003i.b/LA.m
Meth Date : 31-Jan-2003 12:04 jarmanc Quant Type: ISTD
Cal Date : 30-JAN-2003 19:18 Cal File: ic30130.d
Als bottle: 99 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: RTall.sub
Target Version: 3.50
Processing Host: qmidhp01

OK wd 1/30/03

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	ON-COL (ppb(v/v))
1 Bromochloromethane	128	9.766	9.762	(1.000)	598803	10.0000	
2 1,4-Difluorobenzene	114	11.883	11.879	(1.000)	2974857	10.0000	
3 Chlorobenzene-d5	117	16.438	16.434	(1.000)	2346489	10.0000	
4 1,2-Dichloroethane-d4	67	10.773	10.760	(0.907)	452833	10.0000	9.857
5 Toluene-d8	98	14.425	14.421	(0.878)	2283195	10.0000	9.708
6 4-Bromofluorobenzene	95	18.026	18.022	(1.097)	1346266	10.0000	9.640
7 Chlorodifluoromethane	51	4.144	4.140	(0.424)	3087160	30.0000	27.83
8 Dichlorodifluoromethane	85	4.222	4.218	(0.432)	3515036	30.0000	27.12
9 Chloromethane	52	4.430	4.426	(0.454)	409568	30.0000	25.55
10 1,2-Dichlorotetrafluoroethane	135	4.448	4.444	(0.455)	2557130	30.0000	25.87
11 Vinyl Chloride	62	4.639	4.635	(0.475)	1549575	30.0000	28.39
12 Methanol	31	4.587	4.583	(0.470)	2646465	120.000	112.6
13 1,3-Butadiene	54	4.743	4.739	(0.486)	1040048	30.0000	26.37
14 n-Butane	43	4.743	4.739	(0.486)	2262235	30.0000	25.71
15 Bromomethane	94	5.124	5.121	(0.525)	1642988	30.0000	27.73
16 Chloroethane	64	5.289	5.285	(0.542)	844524	30.0000	28.53
17 Trichlorofluoromethane	101	5.940	5.936	(0.608)	2783950	30.0000	25.91
18 Acrolein	56	5.949	5.945	(0.609)	983607	60.0000	49.37
19 Acetonitrile	40	6.027	6.023	(0.617)	1400802	60.0000	55.16
20 Acetone	58	6.079	6.084	(0.622)	1265419	60.0000	53.01
21 Pentane	57	6.192	6.196	(0.634)	430004	30.0000	27.36

Data File: /var/chem/gcms/mt.i/T013003i.b/ic50130.d
Report Date: 31-Jan-2003 12:04

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
22 Ethyl Ether	31	6.374	6.379	(0.653)	4346202	60.0000	49.03
23 1,1-Dichloroethene	96	6.721	6.717	(0.688)	1756413	30.0000	27.25
24 Acrylonitrile	53	6.842	6.838	(0.701)	2957429	60.0000	55.21
25 1,1,2-Trichlorotrifluoroethane	101	6.929	6.925	(0.709)	3258794	30.0000	24.83
26 Methylene Chloride	84	7.094	7.090	(0.726)	1616554	30.0000	26.43
27 3-Chloropropene	39	7.120	7.116	(0.729)	1388036	30.0000	26.38
28 Carbon Disulfide	76	7.276	7.272	(0.745)	5758263	30.0000	26.84
29 trans-1,2-Dichloroethene	96	7.962	7.958	(0.815)	1797227	30.0000	27.04
30 Methyl-t-Butyl Ether	73	8.109	8.122	(0.830)	7807380	60.0000	51.46
31 1,1-Dichloroethane	63	8.413	8.409	(0.861)	3292160	30.0000	27.13
32 Vinyl Acetate	43	8.517	8.513	(0.872)	9409942	60.0000	51.67
33 2-Butanone	72	8.994	8.999	(0.921)	1669969	60.0000	52.80
34 Hexane	56	9.029	9.025	(0.924)	1278947	30.0000	25.04
35 cis 1,2-Dichloroethene	96	9.428	9.424	(0.965)	1966869	30.0000	27.20
36 Chloroform	83	9.784	9.771	(1.002)	3073259	30.0000	26.97
37 1,1,1-Trichloroethane	97	10.816	10.812	(1.107)	2724032	30.0000	26.90
38 1,2-Dichloroethane	62	10.911	10.908	(0.918)	2068916	30.0000	26.37
39 Benzene	78	11.380	11.376	(0.958)	3801032	30.0000	20.91
40 1-Butanol	31	11.311	11.307	(0.952)	2253201	60.0000	50.22
41 Cyclohexane	69	11.380	11.385	(0.958)	577866	30.0000	20.81
42 Carbon Tetrachloride	117	11.406	11.402	(1.168)	2524798	30.0000	24.50
43 Heptane	43	12.456	12.452	(1.048)	3221990	30.0000	23.04
44 1,2-Dichloropropane	63	12.534	12.530	(1.055)	1709196	30.0000	22.72
45 Trichloroethene	130	12.569	12.556	(1.058)	2182821	30.0000	23.40
46 Dibromomethane	93	12.638	12.634	(1.064)	1965576	30.0000	23.87
47 Bromodichloromethane	83	12.768	12.764	(1.074)	3284367	30.0000	24.77
48 4-Methyl-2-pentanone	43	13.688	13.684	(1.152)	6969156	60.0000	42.51
49 cis-1,3-Dichloropropene	75	13.731	13.727	(1.155)	3352894	30.0000	24.26
50 trans-1,3-Dichloropropene	75	14.391	14.387	(0.875)	2274508	30.0000	25.85
51 Toluene	91	14.529	14.525	(0.884)	5148801	30.0000	23.62
52 1,1,2-Trichloroethane	97	14.590	14.586	(0.888)	2024200	30.0000	24.17
53 2-Hexanone	58	14.972	14.977	(0.911)	4292357	60.0000	46.79
54 Octane	85	15.189	15.185	(0.924)	1604136	30.0000	23.28
55 Dibromochloromethane	129	15.276	15.272	(0.929)	3737374	30.0000	24.14
56 1,2-Dibromoethane	107	15.562	15.558	(0.947)	3223726	30.0000	23.50
57 Tetrachloroethene	129	15.631	15.627	(0.951)	1784655	30.0000	22.72
58 Chlorobenzene	112	16.490	16.478	(1.003)	4437027	30.0000	24.03
59 Ethylbenzene	91	16.768	16.764	(1.020)	6216547	30.0000	22.61
60 m-Xylene (For p-)	91	16.915	16.911	(1.029)	4756038	30.0000	22.78
61 Bromoform	173	17.358	17.354	(1.056)	2925861	30.0000	21.91
62 Nonane	57	17.323	17.319	(1.054)	2960398	30.0000	20.43
63 Styrene	104	17.384	17.371	(1.058)	3268434	30.0000	20.98
64 o-Xylene	91	17.445	17.432	(1.061)	4804252	30.0000	22.82
65 1,1,2,2-Tetrachloroethane	83	17.740	17.736	(1.079)	4065377	30.0000	22.00
66 1,2,3-Trichloropropane	110	17.896	17.892	(1.089)	1112533	30.0000	24.35
67 Cumene	105	18.000	17.996	(1.095)	5994156	30.0000	21.29
68 n-Propylbenzene	91	18.503	18.499	(1.126)	7749985	30.0000	20.72

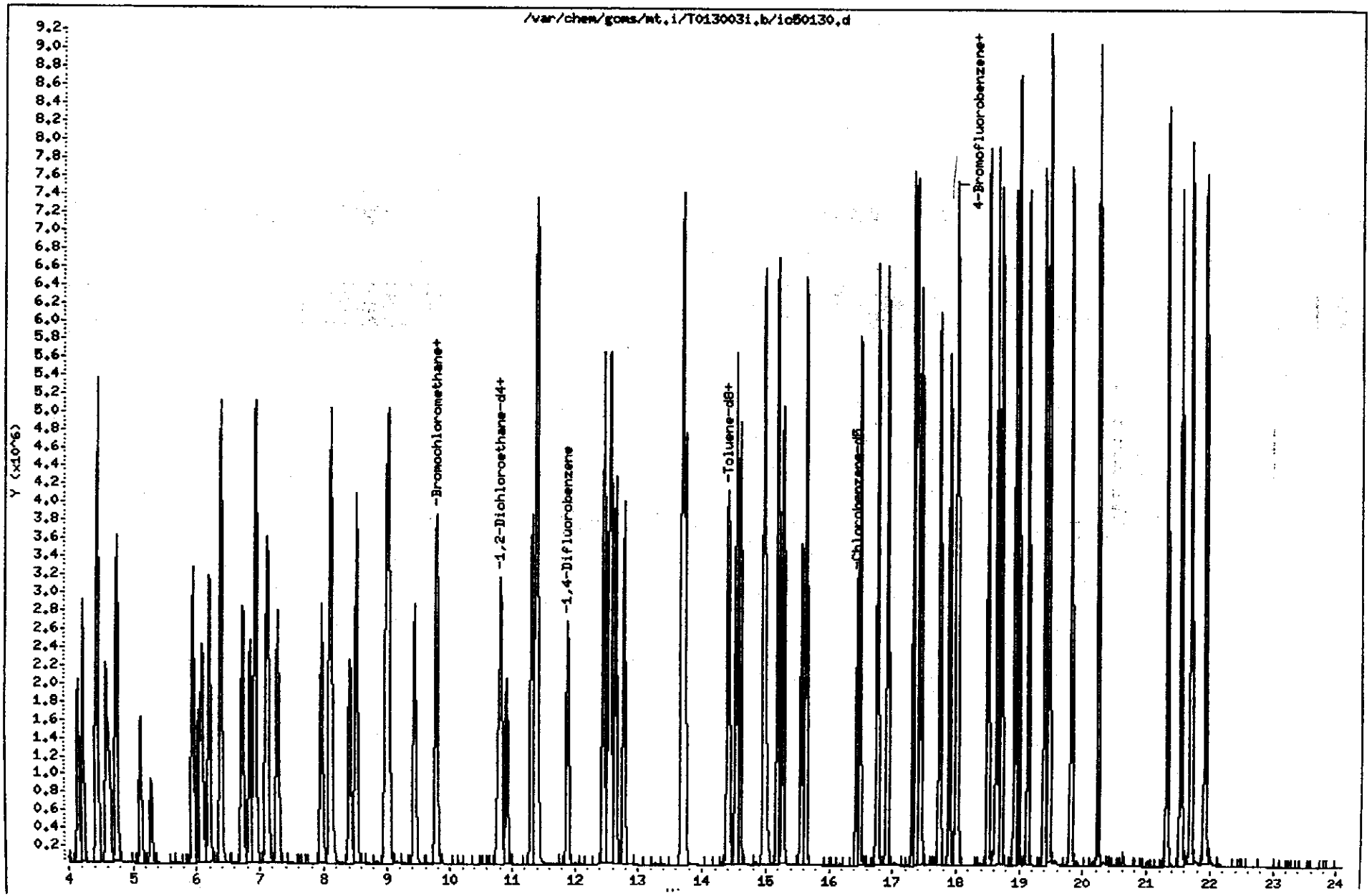
Data File: /var/chem/gcms/mt.i/T013003i.b/ic50130.d
Report Date: 31-Jan-2003 12:04

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
69 4-Ethyltoluene	105	18.642	18.638	(1.134)	6606038	30.0000	21.39
70 1,3,5-Trimethylbenzene	120	18.711	18.707	(1.138)	2723352	30.0000	21.97
71 Alpha-Methylstyrene	118	18.920	18.916	(1.151)	2859900	30.0000	23.09
72 Decane	57	18.980	18.968	(1.155)	3646360	30.0000	17.71
73 1,2,4-Trimethylbenzene	105	19.128	19.124	(1.164)	5036527	30.0000	21.08
74 1,3-Dichlorobenzene	146	19.388	19.375	(1.179)	4214806	30.0000	21.41
75 Benzyl Chloride	91	19.449	19.445	(1.183)	3982783	30.0000	19.99
76 1,4-Dichlorobenzene	146	19.466	19.462	(1.184)	3648969	30.0000	19.60
77 1,2-Dichlorobenzene	146	19.813	19.801	(1.205)	4030755	30.0000	21.56
78 Undecane	57	20.230	20.226	(1.231)	3652211	30.0000	18.90
79 Dodecane	57	21.314	21.310	(1.297)	3427413	30.0000	19.86
80 1,2,4-Trichlorobenzene	180	21.531	21.527	(1.310)	3255544	30.0000	22.41
81 Napthalene	128	21.687	21.683	(1.319)	8206258	30.0000	22.67
82 Hexachlorobutadiene	225	21.913	21.909	(1.333)	2419864	30.0000	18.82

Data File: /var/chem/gcms/mt.i/T013003i.b/ic50130.d
Date : 30-JAN-2003 18:04
Client ID: 30PPBV
Sample Info: IC5,,1,5,,30PPBV
Volume Injected (uL): 500.0
Column phase: DB-5

Instrument: mt.i

Operator: 0691
Column diameter: 0.32



Data File: /var/chem/gcms/mt.i/T013003i.b/icv0130.d
Report Date: 31-Jan-2003 12:55

STL Knoxville

Modified Method TO-14

Data file : /var/chem/gcms/mt.i/T013003i.b/icv0130.d
Lab Smp Id: LCS Client Smp ID: 2ND SOURCE
Inj Date : 31-JAN-2003 12:26
Operator : 0691 Inst ID: mt.i
Smp Info : LCS,,3,,LCS
Misc Info : T013003i,LA,,,100ML 2ND SOURCE
Comment :
Method : /var/chem/gcms/mt.i/T013003i.b/LA.m
Meth Date : 31-Jan-2003 12:54 jarmanc Quant Type: ISTD
Cal Date : 30-JAN-2003 19:18 Cal File: ic30130.d
Als bottle: 3 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TO14.sub
Target Version: 3.50
Processing Host: qmidhp01

Concentration Formula: Amt * DF * CpndVariable

OK wf 2/3/03

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	FINAL (ppb(v/v))
1 Bromochloromethane	128	9.758	9.762	(1.000)	620329	10.0000	
2 1,4-Difluorobenzene	114	11.875	11.879	(1.000)	2935448	10.0000	
3 Chlorobenzene-d5	117	16.430	16.434	(1.000)	2335035	10.0000	
4 1,2-Dichloroethane-d4	67	10.756	10.760	(0.906)	452672	10.0228	10.02
5 Toluene-d8	98	14.417	14.421	(0.877)	2309107	9.86327	9.863
6 4-Bromofluorobenzene	95	18.018	18.022	(1.097)	1449049	10.5162	10.52
8 Dichlorodifluoromethane	85	4.223	4.218	(0.433)	1451883	10.9236	10.92
9 Chloromethane	52	4.431	4.426	(0.454)	182014	11.1937	11.19
10 1,2-Dichlorotetrafluoroethane	135	4.448	4.444	(0.456)	1134983	11.4522	11.45
11 Vinyl Chloride	62	4.639	4.635	(0.475)	641975	11.7555	11.76
15 Bromomethane	94	5.125	5.121	(0.525)	600241	10.0857	10.08
16 Chloroethane	64	5.290	5.285	(0.542)	319433	10.7259	10.72
17 Trichlorofluoromethane	101	5.941	5.936	(0.609)	1154054	10.6831	10.68
23 1,1-Dichloroethene	96	6.722	6.717	(0.689)	709977	11.0009	11.00
25 1,1,2-Trichlorotrifluoroethane	101	6.921	6.925	(0.709)	1512369	11.5025	11.50
26 Methylene Chloride	84	7.095	7.090	(0.727)	668487	11.0072	11.01
31 1,1-Dichloroethane	63	8.405	8.409	(0.861)	1309229	10.8083	10.81
35 cis 1,2-Dichloroethene	96	9.420	9.424	(0.965)	767317	10.5106	10.51
36 Chloroform	83	9.767	9.771	(1.001)	1242968	10.8648	10.86
37 1,1,1-Trichloroethane	97	10.808	10.812	(1.108)	1109968	10.9188	10.92
38 1,2-Dichloroethane	62	10.903	10.908	(0.918)	813344	10.8640	10.86

Data File: /var/chem/gcms/mt.i/T013003i.b/icv0130.d
Report Date: 31-Jan-2003 12:55

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	FINAL (ppb(v/v))
39 Benzene	78	11.372	11.376	(0.958)	1993509	11.4685	11.47
42 Carbon Tetrachloride	117	11.389	11.402	(1.167)	1095157	10.5110	10.51
44 1,2-Dichloropropane	63	12.526	12.530	(1.055)	785428	11.0224	11.02
45 Trichloroethene	130	12.552	12.556	(1.057)	989795	11.1165	11.12
49 cis-1,3-Dichloropropene	75	13.723	13.727	(1.156)	1258305	9.64105	9.641
50 trans-1,3-Dichloropropene	75	14.383	14.387	(0.875)	871194	10.2930	10.29
51 Toluene	91	14.521	14.525	(0.884)	2375387	11.3132	11.31
52 1,1,2-Trichloroethane	97	14.582	14.586	(0.888)	897368	11.2395	11.24
56 1,2-Dibromoethane	107	15.554	15.558	(0.947)	1416880	10.7978	10.80
57 Tetrachloroethene	129	15.623	15.627	(0.951)	839141	11.1359	11.14
58 Chlorobenzene	112	16.482	16.478	(1.003)	1996961	11.8473	11.85
59 Ethylbenzene	91	16.760	16.764	(1.020)	2919421	11.1400	11.14
60 m-Xylene (For p-)	91	16.916	16.911	(1.030)	3903736	19.6735	19.67
63 Styrene	104	17.367	17.371	(1.057)	1787935	11.9389	11.94
64 o-Xylene	91	17.428	17.432	(1.061)	2186321	10.8535	10.85
65 1,1,2,2-Tetrachloroethane	83	17.732	17.736	(1.079)	1932870	10.9583	10.96
70 1,3,5-Trimethylbenzene	120	18.703	18.707	(1.138)	1218031	10.2877	10.29
73 1,2,4-Trimethylbenzene	105	19.120	19.124	(1.164)	2354423	10.3437	10.34
74 1,3-Dichlorobenzene	146	19.380	19.375	(1.180)	2014340	10.7212	10.72
75 Benzyl Chloride	91	19.441	19.445	(1.183)	694151	3.57292	3.573
76 1,4-Dichlorobenzene	146	19.458	19.462	(1.184)	1961425	10.9854	10.98
77 1,2-Dichlorobenzene	146	19.805	19.801	(1.205)	1946859	10.8478	10.85
80 1,2,4-Trichlorobenzene	180	21.523	21.527	(1.310)	1627644	11.7938	11.79
82 Hexachlorobutadiene	225	21.913	21.909	(1.334)	1231897	10.1620	10.16

Data File: /var/chem/gcms/mt.i/T013003i.b/icv0130.d
Report Date: 31-Jan-2003 12:55

STL Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mt.i
Lab File ID: icv0130.d
Lab Smp Id: LCS
Analysis Type: OTHER
Quant Type: ISTD
Operator: 0691
Method File: /var/chem/gcms/mt.i/T013003i.b/LA.m
Misc Info: T013003i,LA,,,100ML 2ND SOURCE

Calibration Date: 30-JAN-2003
Calibration Time: 19:18
Client Smp ID: 2ND SOURCE
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	608683	362166	855200	620329	1.91
2 1,4-Difluorobenze	2911016	1732055	4089977	2935448	0.84
3 Chlorobenzene-d5	2325575	1383717	3267433	2335035	0.41

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.76	9.26	10.26	9.76	-0.04
2 1,4-Difluorobenze	11.88	11.38	12.38	11.88	-0.03
3 Chlorobenzene-d5	16.43	15.93	16.93	16.43	-0.02

REA UPPER LIMIT = + 40% of internal standard area.
REA LOWER LIMIT = - 40% of internal standard area.
T UPPER LIMIT = + 0.50 minutes of internal standard RT.
T LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /var/chem/gcms/mt.i/T013003i.b/icv0130.d
Report Date: 31-Jan-2003 12:55

STL Knoxville

RECOVERY REPORT

Client Name:
Sample Matrix: GAS
Lab Smp Id: LCS
Level: LOW
Data Type: MS DATA
SpikeList File: to14.spk
Sublist File: TO14.sub
Method File: /var/chem/gcms/mt.i/T013003i.b/LA.m
Misc Info: T013003i,LA,,,100ML 2ND SOURCE

Client SDG: T013003i
Fraction: OTHER
Client Smp ID: 2ND SOURCE
Operator: 0691
SampleType: LCS
Quant Type: ISTD

OK WJ 2/3/03

SPIKE	COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
8	Dichlorodifluorome	10.00	10.92	109.24	65-135
9	Chloromethane	10.00	11.19	111.94	65-135
10	1,2-Dichlorotetraf	10.00	11.45	114.52	65-135
11	Vinyl Chloride	10.00	11.76	117.55	65-135
15	Bromomethane	10.00	10.08	100.86	65-135
16	Chloroethane	10.00	10.72	107.26	65-135
17	Trichlorofluoromet	10.00	10.68	106.83	65-135
23	1,1-Dichloroethene	10.00	11.00	110.01	65-135
25	1,1,2-Trichlorotri	10.00	11.50	115.02	65-135
26	Methylene Chloride	10.00	11.01	110.07	65-135
31	1,1-Dichloroethane	10.00	10.81	108.08	65-135
35	cis 1,2-Dichloroet	10.00	10.51	105.11	65-135
36	Chloroform	10.00	10.86	108.65	65-135
37	1,1,1-Trichloroeth	10.00	10.92	109.19	65-135
38	1,2-Dichloroethane	10.00	10.86	108.64	65-135
39	Benzene	10.00	11.47	114.69	65-135
42	Carbon Tetrachlori	10.00	10.51	105.11	65-135
44	1,2-Dichloropropan	10.00	11.02	110.22	65-135
45	Trichloroethene	10.00	11.12	111.17	65-135
49	cis-1,3-Dichloropr	10.00	9.641	96.41	65-135
50	trans-1,3-Dichloro	10.00	10.29	102.93	65-135
51	Toluene	10.00	11.31	113.13	65-135
52	1,1,2-Trichloroeth	10.00	11.24	112.39	65-135
56	1,2-Dibromoethane	10.00	10.80	107.98	65-135
57	Tetrachloroethene	10.00	11.14	111.36	65-135
58	Chlorobenzene	10.00	11.85	118.47	65-135
59	Ethylbenzene	10.00	11.14	111.40	65-135
60	m-Xylene (For p-)	20.00	19.67	98.37	65-135
63	Styrene	10.00	11.94	119.39	65-135
64	o-Xylene	10.00	10.85	108.54	65-135
65	1,1,2,2-Tetrachlor	10.00	10.96	109.58	65-135
70	1,3,5-Trimethylben	10.00	10.29	102.88	65-135
73	1,2,4-Trimethylben	10.00	10.34	103.44	65-135

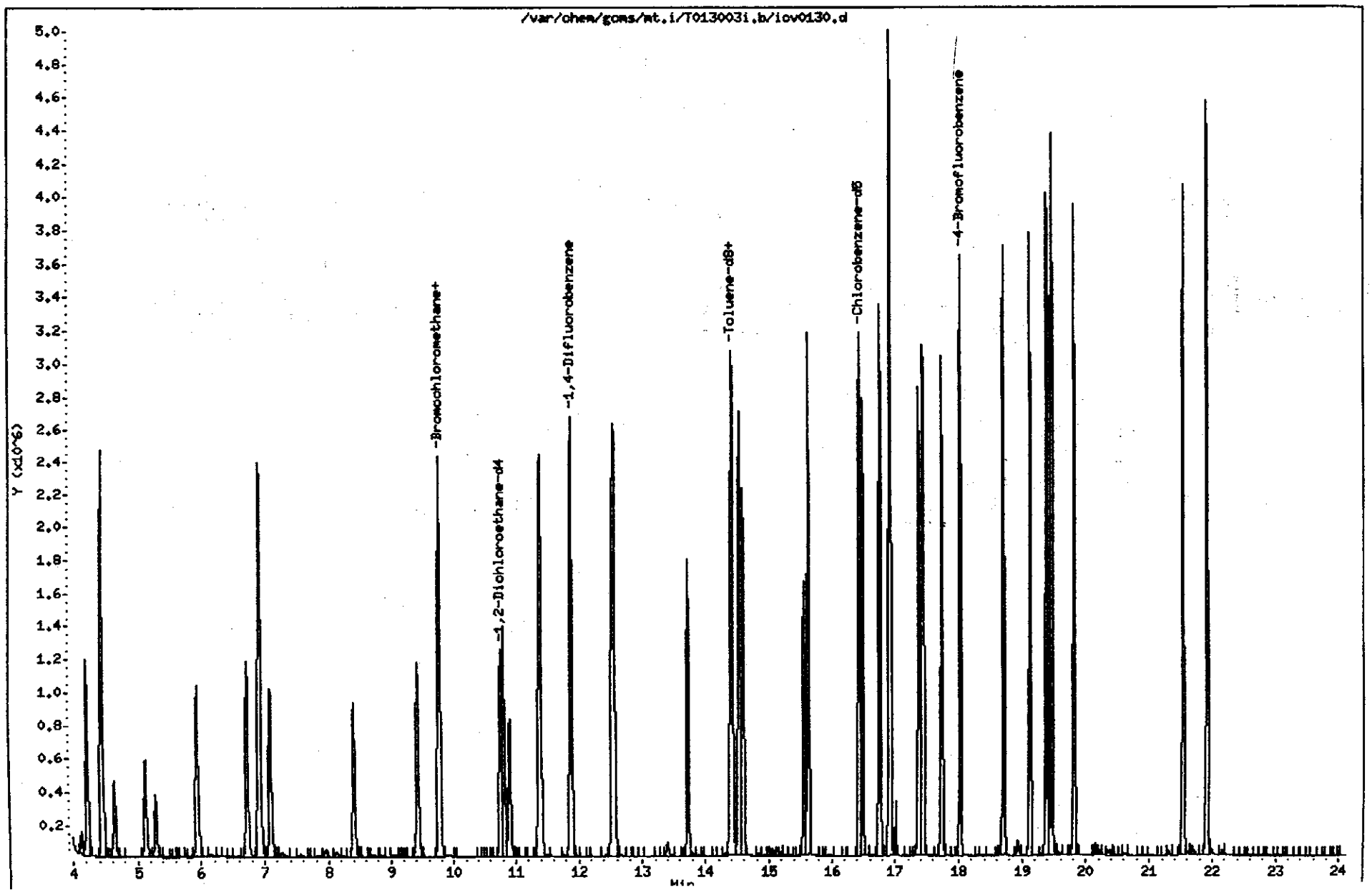
Data File: /var/chem/gcms/mt.i/T013003i.b/icv0130.d
Report Date: 31-Jan-2003 12:55

SPIKE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
74 1,3-Dichlorobenzen	10.00	10.72	107.21	65-135
75 Benzyl Chloride	10.00	3.573	35.73	30-170
76 1,4-Dichlorobenzen	10.00	10.98	109.85	65-135
77 1,2-Dichlorobenzen	10.00	10.85	108.48	65-135
80 1,2,4-Trichloroben	10.00	11.79	117.94	65-135
82 Hexachlorobutadien	10.00	10.16	101.62	65-135

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 4 1,2-Dichloroethane	10.00	10.02	100.23	70-130
$ 5 Toluene-d8	10.00	9.863	98.63	70-130
$ 6 4-Bromofluorobenze	10.00	10.52	105.16	70-130

Data File: /var/chem/gcms/mt.i/T013003i.b/icv0130.d
Date : 31-JAN-2003 12:26
Client ID: 2ND SOURCE
Sample Info: LCS,,3,,LCS
Volume Injected (uL): 500.0
Column phase: DB-5

Instrument: mt.i
Operator: 0691
Column diameter: 0.32



STL Knoxville GC/MS Air Continuing Calibration Review / Narrative Checklist
Method: TO-14 and TO-15 - KNOX-MS-0001, Rev 3

Analysis Date:	2/4/03	CCAL Batch/ Scan Name:	T020403	Instrument:	MT	ICAL Batch/ Scan Name:	T013003i	Scanned ☐

Review Items	N/A	Yes	No	If No, why is data reportable?	2nd ✓
1. Did BFB meet tune criteria?		✓			✓
2. Were all standards injected within 24 hr of BFB?		✓			✓
3. Did the LCS meet criteria (nonpolar target analytes 70-130%, with up to 2 nonpolars 60-140%; polar target analytes 60-140%, with up to 2 polars 45-155%)?		✓			✓
4. Was date/time of analysis verified between analysis header and logbook as correct?		✓			✓
5. Was the CCAL compared to the correct ICAL?		✓			✓
6. Was a mid-level standard used for CCAL?		✓			✓
7. Is the %D ≤ 30% for all target analytes? (up to 4 target analytes %D ≤ 40%)		✓			✓
8. If manual integrations were performed, are they clearly identified, initialed, dated and reason given?	✓			Reasons: 1)Corrected split peak; 2)Unresolved peak; 3)tailing; 4)RT shift; 5)wrong peak selected; 6)other	NA
9. Have alternate hits/manual integrations been verified as correct and are correct RFs listed in CCAL summary?	✓				NA
10. Is the first IS documented correctly on the log?		✓			✓
11. Is the ICAL date & time on the CCAL correct?		✓			✓
12. Elution order checked on isomeric pairs/coeluters?					
• cis- and trans- isomers		✓			✓
• ethyl benzene / m/p-xylene / o-xylene		✓			✓
• 1,3,5-trimethylbenzene / 1,2,4-trimethylbenzene / 4-ethyl toluene		✓			✓
• 1,3- , 1,4- , and 1,2-dichlorobenzene		✓			✓
• vinyl acetate / hexane		✓			✓
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane • dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane		✓			✓
13. If criteria were not met, was a NCM generated, approved by supervisor, and copy included in folder?	✓				NA
14. Does the CCAL folder contain **complete** data in the following order: data review checklist, a **complete** runlog, Entech report, tune pass/fail page, m/z list, tune chromatogram, Target CCAL summary, Quan report, chromatogram, manual integrations and leak check report.		✓			✓

Analyst: CWJ	Date: 2/5/03	2nd Level Reviewer : [signature]	Date: 2/5/03
Comments:		Comments:	
Note: The samples in positions 7-14 were removed before the leak check was performed.			

STL Knoxville
TO-14/15 RUN LOG

GCMS Analysis: TO-14/15 Inst: MT

Analyst: CWJ Preventive Maintenance Performed ✓

Date: 2/4/03 System Date/Time ok (y/n): Y Batch: 3036230

BFB Time: 8:00 Surr/IS ID: CX-929 IS #1 Area: 612998 ICAL Batch: T013003C

Time	Lot No.	File ID	Can #	Comments	I/S	Vol* (ml)	Pos	Use	DUP
8:00	BFB	BF0204		TUNE		100	15	✓	—
8:36	CCV	MD0204		CX-997			STD	✓	—
9:13	REF	RF0204		CX-998			16	✓	—
9:50	BLK	BK0204		not used		500	15	N	—
10:27	BLK-CK	BLK4328	12378	FG5Ø81AA			1	✓	—
16:36	H3A270151 ✓	FGN8X	1417-C	1.75 VC=88.7	—	500	1	RR 100	—
17:14		FGN84	1421-C	1.74		500	2	✓	12
17:57	H3A300116 ✓	FGVP2	12444	1.72			3	✓	13
18:28		FGVP5	04327	1.79			4	N	—
19:05		FGVP5D	04327	1.79 CCL4 75.6			4	N	Dup
19:42	H3A280130	FGQJD	2044	2.01			5	✓	14
20:19	✓	FGQJH	1787	2.17			6	✓	15
22:48	B040173 ✓	FG4HK	04402	1.83		500	7	✓	18
23:25		HM	12588				8	✓	19
00:02		HP	93103				9	✓	20
00:39		HQ	12212	2.26			10	✓	1
1:16		HR	11351				11	✓	2
1:54		HT	11206				12	✓	3
2:31		HV	12329	2.56			13	✓	4
3:08		HW	93022				14	✓	5
20:56	H3A270151	FGN8XB	1417-C	1.75 8.75	—	100	1	✓	16
21:33	H3A300116	FGVP5B	04327	1.79 8.95	—	100	4	✓	17
22:11		FGVP5C	04327	1.79 8.95	—	100	4	✓	Dup
3:45	H3A300113	FGVPJ	05357	1.74	—	500	5	RR 100ml	—
4:22		FGVPL	1778	1.77	—	500	6	✓	6

CWJ 2/5/03

* Entech programmed volume. If the Entech report amount differs from the programmed amount by >5%, the Entech report amount is used for calulations.

Analyst: CWJ Date: 2/5/03

030204
STL-Knoxville
TO-14 Autosampler Log
'MT'

Sample	Volume	Position	Date	Time
BFB	102ml	15	2/4/2003	7:59:50 AM
CCV	99ml	STD	2/4/2003	8:36:06 AM
REF	101ml	16	2/4/2003	9:12:40 AM
BLK	502ml	15	2/4/2003	9:49:50 AM
BLK4328	501ml	1	2/4/2003	10:26:58 AM
FGN8X	501ml	1	2/4/2003	4:35:51 PM
FGN84	502ml	2	2/4/2003	5:13:06 PM
FGVP2	502ml	3	2/4/2003	5:50:22 PM
FGVP5	500ml	4	2/4/2003	6:27:25 PM
FGVP5D	501ml	4	2/4/2003	7:04:31 PM
FGQJD	502ml	5	2/4/2003	7:41:37 PM
FGQJH	502ml	6	2/4/2003	8:18:45 PM
FGN8XB	101ml	1	2/4/2003	8:55:51 PM
FGVP5B	102ml	4	2/4/2003	9:33:02 PM
FGVP5C	101ml	4	2/4/2003	10:10:10 PM
FG4HK	502ml	7	2/4/2003	10:47:11 PM
FG4HM	500ml	8	2/4/2003	11:24:27 PM
FG4HP	501ml	9	2/5/2003	12:01:29 AM
FG4HQ	502ml	10	2/5/2003	12:38:37 AM
FG4HR	501ml	11	2/5/2003	1:15:48 AM
FG4HT	500ml	12	2/5/2003	1:53:04 AM
FG4HV	502ml	13	2/5/2003	2:30:22 AM
FG4HW	501ml	14	2/5/2003	3:07:28 AM
FGVPJ	502ml	5	2/5/2003	3:44:43 AM
FGVPL	502ml	6	2/5/2003	4:21:57 AM

OK MJ
2/5/03

Data File: /var/chem/goms/mt.i/T020403.b/bf0204.d

Date : 04-FEB-2003 08:00

Client ID:

Instrument: mt.i

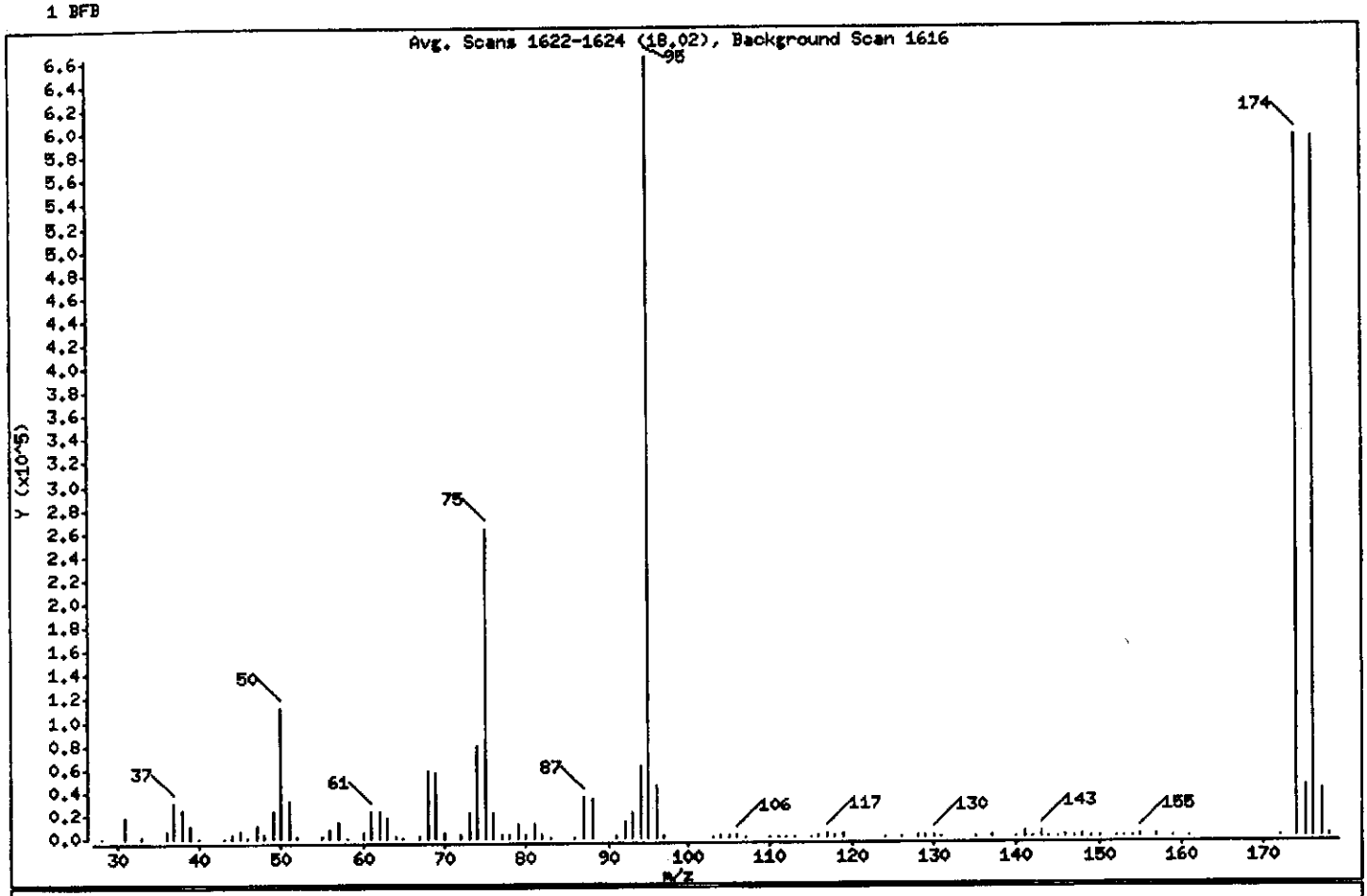
Sample Info: BFB,,3,,BFB,

Operator: 0691

Column phase: DB-5

Column diameter: 0.32

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	16.87
75	30.00 - 60.00% of mass 95	39.55
96	5.00 - 9.00% of mass 95	6.58
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 100.00% of mass 95	89.56
175	5.00 - 9.00% of mass 174	6.46 (7.21)
176	95.00 - 101.00% of mass 174	89.34 (99.76)
177	5.00 - 9.00% of mass 176	5.89 (6.59)

OK WJ 2/5/03

Data File: /var/chem/gcms/mt.i/T020403.b/bf0204.d

Date : 04-FEB-2003 08:00

Client ID:

Instrument: mt.i

Sample Info: BFB,,3,,BFB,

Operator: 0691

Column phase: DB-5

Column diameter: 0.32

Data File: bf0204.d

Spectrum: Avg. Scans 1622-1624 (18.02), Background Scan 1616

Location of Maximum: 95.00

Number of points: 100

m/z	Y	m/z	Y	m/z	Y	m/z	Y
28.00	82	64.00	1431	96.00	43616	142.00	520
31.00	18944	65.00	168	97.00	1139	143.00	4225
33.00	2282	67.00	1327	103.00	78	144.00	258
36.00	6022	68.00	57448	104.00	1858	145.00	340
37.00	30688	69.00	56208	105.00	810	146.00	893
38.00	25144	70.00	3841	106.00	2080	147.00	358
39.00	10193	72.00	2682	107.00	520	148.00	1301
40.00	73	73.00	21600	110.00	136	149.00	393
43.00	277	74.00	79384	111.00	306	150.00	498
44.00	2475	75.00	262144	112.00	230	152.00	162
45.00	5384	76.00	22112	113.00	285	153.00	467
46.00	200	77.00	3539	115.00	551	154.00	341
47.00	9991	78.00	2956	116.00	1668	155.00	1339
48.00	3301	79.00	12505	117.00	3129	157.00	938
49.00	22608	80.00	3234	118.00	1721	159.00	604
50.00	111800	81.00	12610	119.00	2293	161.00	571
51.00	32728	82.00	2492	124.00	331	172.00	253
52.00	1256	83.00	249	126.00	243	174.00	593600
55.00	1364	86.00	741	128.00	1986	175.00	42808
56.00	7879	87.00	34912	129.00	875	176.00	592192
57.00	14345	88.00	33384	130.00	1971	177.00	39016
58.00	496	91.00	1591	131.00	749	178.00	984
60.00	4988	92.00	13205	135.00	728		
61.00	22696	93.00	21224	137.00	840		
62.00	22620	94.00	61040	140.00	328		
63.00	16552	95.00	662848	141.00	4092		

Data File: /var/chem/gcms/mt.i/T020403.b/bf0204.d

Date : 04-FEB-2003 08:00

Client ID:

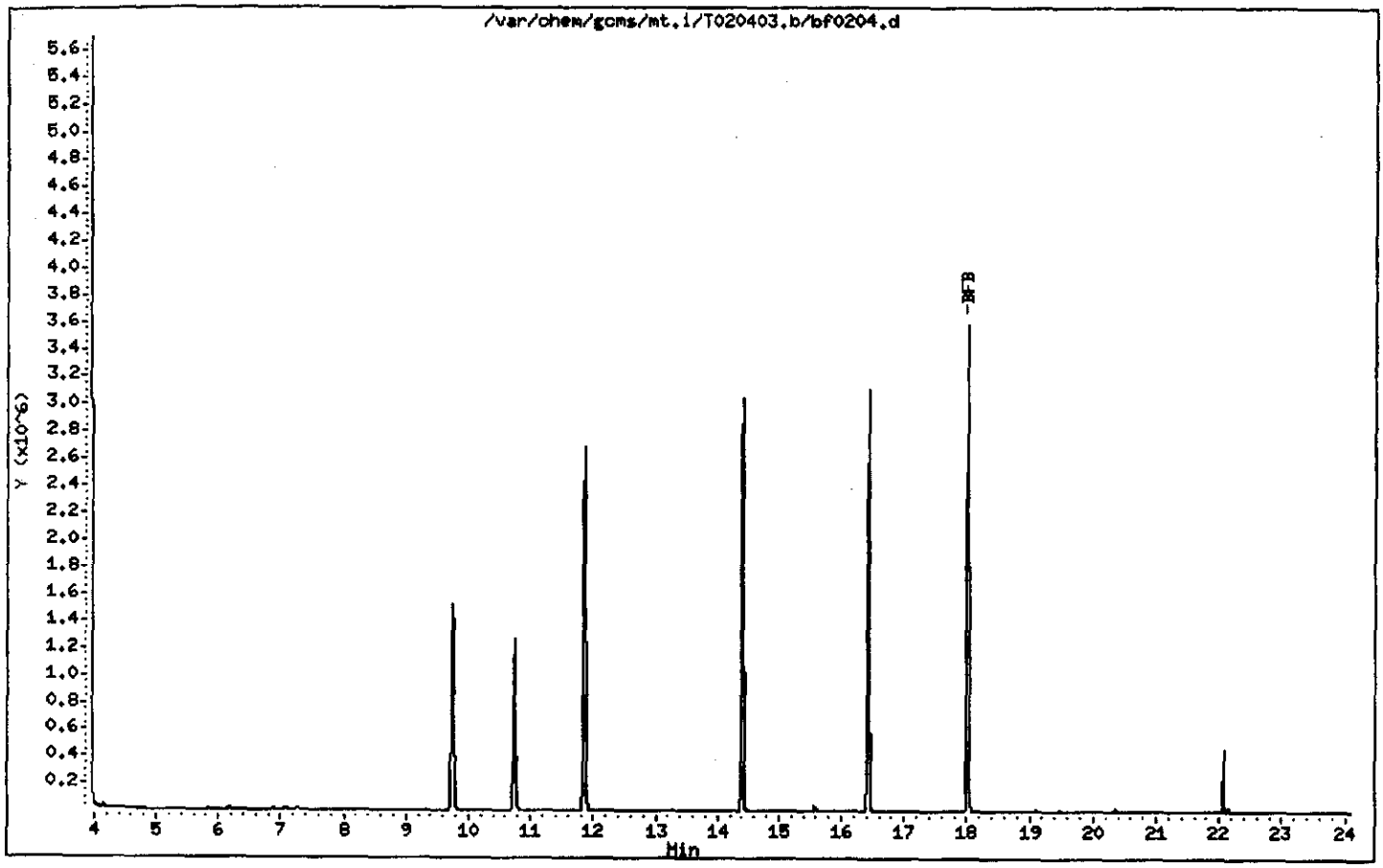
Instrument: mt.i

Sample Info: BFB,,3,,BFB,

Operator: 0691

Column phase: DB-5

Column diameter: 0.32



Data File: /var/chem/gcms/mt.i/T020403.b/md0204.d
Report Date: 04-Feb-2003 16:10

STL Knoxville

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: mt.i
Lab File ID: md0204.d
Analysis Type: AIR
Lab Sample ID: CCV
Method: /var/chem/gcms/mt.i/T020403.b/LA.m

Injection Date: 04-FEB-2003 08:36
Init. Cal. Date(s): 30-JAN-2003 30-JAN-2003
Init. Cal. Times: 18:04 23:00
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF10	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 4 1,2-Dichloroethane-d4	0.15563	0.16522	0.000	-6.16754	30.00000	Averaged
$ 5 Toluene-d8	1.00656	1.01174	0.000	-0.51482	30.00000	Averaged
$ 6 4-Bromofluorobenzene	0.60117	0.62619	0.000	-4.16314	30.00000	Averaged
7 Chlorodifluoromethane	1.79965	1.89197	0.000	-5.12973	30.00000	Averaged
8 Dichlorodifluoromethane	2.13583	2.18471	0.000	-2.28845	30.00000	Averaged
9 Chloromethane	0.26745	0.27628	0.000	-3.30496	30.00000	Averaged
10 1,2-Dichlorotetrafluoroetha	1.62971	1.57285	0.000	3.48878	30.00000	Averaged
11 Vinyl Chloride	0.87829	0.92523	0.000	-5.34479	30.00000	Averaged
12 Methanol	0.39266	0.39855	0.000	-1.50139	30.00000	Averaged
13 1,3-Butadiene	0.64371	0.67281	0.000	-4.52003	30.00000	Averaged
14 n-Butane	1.47009	1.49396	0.000	-1.62337	30.00000	Averaged
15 Bromomethane	0.96973	0.99725	0.000	-2.83811	30.00000	Averaged
16 Chloroethane	0.47901	0.49775	0.000	-3.91228	30.00000	Averaged
17 Trichlorofluoromethane	1.76025	1.85205	0.000	-5.21519	30.00000	Averaged
18 Acrolein	0.34168	0.33551	0.000	1.80519	30.00000	Averaged
19 Acetonitrile	0.42365	0.43927	0.000	-3.68765	30.00000	Averaged
20 Acetone	0.39864	0.40216	0.000	-0.88353	30.00000	Averaged
21 Pentane	0.25712	0.25215	0.000	1.93270	30.00000	Averaged
22 Ethyl Ether	1.49141	1.49201	0.000	-0.04082	30.00000	Averaged
23 1,1-Dichloroethene	1.04471	1.04458	0.000	0.01241	30.00000	Averaged
24 Acrylonitrile	0.87438	0.89532	0.000	-2.39405	30.00000	Averaged
25 1,1,2-Trichlorotrifluoroeth	2.17966	2.11785	0.000	2.83582	30.00000	Averaged
26 Methylene Chloride	1.02938	0.98145	0.000	4.65619	30.00000	Averaged
27 3-Chloropropene	0.87734	0.88650	0.000	-1.04445	30.00000	Averaged
28 Carbon Disulfide	3.70157	3.45934	0.000	6.54393	30.00000	Averaged
29 trans-1,2-Dichloroethene	1.08856	1.06823	0.000	1.86773	30.00000	Averaged
30 Methyl-t-Butyl Ether	2.50694	2.42113	0.000	3.42259	30.00000	Averaged
31 1,1-Dichloroethane	1.97608	2.00743	0.000	-1.58656	30.00000	Averaged
32 Vinyl Acetate	3.00296	3.03189	0.000	-0.96341	30.00000	Averaged
33 2-Butanone	0.54822	0.51588	0.000	5.90057	30.00000	Averaged
34 Hexane	0.84245	0.83290	0.000	1.13421	30.00000	Averaged
35 cis 1,2-Dichloroethene	1.17282	1.16525	0.000	0.64600	30.00000	Averaged
36 Chloroform	1.87238	1.87430	0.000	-0.10248	30.00000	Averaged
37 1,1,1-Trichloroethane	1.65472	1.67676	0.000	-1.33235	30.00000	Averaged
38 1,2-Dichloroethane	0.26331	0.26703	0.000	-1.41418	30.00000	Averaged

OK
cw
2/5/03

Data File: /var/chem/gcms/mt.i/T020403.b/md0204.d
Report Date: 04-Feb-2003 16:10

STL Knoxville

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: mt.i
Lab File ID: md0204.d
Analysis Type: AIR
Lab Sample ID: CCV
Method: /var/chem/gcms/mt.i/T020403.b/LA.m

Injection Date: 04-FEB-2003 08:36
Init. Cal. Date(s): 30-JAN-2003 30-JAN-2003
Init. Cal. Times: 18:04 23:00
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF10	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
39 Benzene	0.62989	0.59002	0.000	6.32982	30.00000	Averaged
40 1-Butanol	0.15912	0.14823	0.000	6.84031	30.00000	Averaged
41 Cyclohexane	0.09546	0.08796	0.000	7.85210	30.00000	Averaged
42 Carbon Tetrachloride	1.69345	1.69615	0.000	-0.15925	30.00000	Averaged
43 Heptane	0.48499	0.45506	0.000	6.17177	30.00000	Averaged
44 1,2-Dichloropropane	0.25600	0.24623	0.000	3.81664	30.00000	Averaged
45 Trichloroethene	0.31642	0.28817	0.000	8.92753	30.00000	Averaged
46 Dibromomethane	0.27997	0.26680	0.000	4.70106	30.00000	Averaged
47 Bromodichloromethane	0.44150	0.44421	0.000	-0.61434	30.00000	Averaged
48 4-Methyl-2-pentanone	0.56645	0.54334	0.000	4.07901	30.00000	Averaged
49 cis-1,3-Dichloropropene	0.46500	0.45251	0.000	2.68667	30.00000	Averaged
50 trans-1,3-Dichloropropene	0.37108	0.36214	0.000	2.40757	30.00000	Averaged
51 Toluene	0.94594	0.88125	0.000	6.83867	30.00000	Averaged
52 1,1,2-Trichloroethane	0.35918	0.34223	0.000	4.71859	30.00000	Averaged
53 2-Hexanone	0.39359	0.37468	0.000	4.80546	30.00000	Averaged
54 Octane	0.29961	0.28133	0.000	6.10306	30.00000	Averaged
55 Dibromochloromethane	0.65670	0.61828	0.000	5.84969	30.00000	Averaged
56 1,2-Dibromoethane	0.59471	0.55470	0.000	6.72761	30.00000	Averaged
57 Tetrachloroethene	0.34430	0.30541	0.000	11.29530	30.00000	Averaged
58 Chlorobenzene	0.81211	0.74677	0.000	8.04520	30.00000	Averaged
59 Ethylbenzene	1.22161	1.10628	0.000	9.44102	30.00000	Averaged
60 m-Xylene (For p-)	0.93780	0.83011	0.000	11.48386	30.00000	Averaged
61 Bromoform	0.58747	0.52872	0.000	10.00019	30.00000	Averaged
62 Nonane	0.67355	0.59033	0.000	12.35575	30.00000	Averaged
63 Styrene	0.69263	0.63028	0.000	9.00191	30.00000	Averaged
64 o-Xylene	0.95586	0.85120	0.000	10.94939	30.00000	Averaged
65 1,1,2,2-Tetrachloroethane	0.83011	0.74568	0.000	10.17143	30.00000	Averaged
66 1,2,3-Trichloropropane	0.19413	0.18759	0.000	3.36713	30.00000	Averaged
67 Cumene	1.26115	1.15006	0.000	8.80932	30.00000	Averaged
68 n-Propylbenzene	1.71972	1.49152	0.000	13.26992	30.00000	Averaged
69 4-Ethyltoluene	1.41839	1.26871	0.000	10.55275	30.00000	Averaged
70 1,3,5-Trimethylbenzene	0.58087	0.49929	0.000	14.04333	30.00000	Averaged
71 Alpha-Methylstyrene	0.55634	0.48676	0.000	12.50730	30.00000	Averaged
72 Decane	0.97559	0.76297	0.000	21.79326	30.00000	Averaged
73 1,2,4-Trimethylbenzene	1.13100	0.95987	0.000	15.13135	30.00000	Averaged

Data File: /var/chem/gcms/mt.i/T020403.b/md0204.d
Report Date: 04-Feb-2003 16:10

STL Knoxville

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: mt.i
Lab File ID: md0204.d
Analysis Type: AIR
Lab Sample ID: CCV
Method: /var/chem/gcms/mt.i/T020403.b/LA.m

Injection Date: 04-FEB-2003 08:36
Init. Cal. Date(s): 30-JAN-2003 30-JAN-2003
Init. Cal. Times: 18:04 23:00
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF10	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
74 1,3-Dichlorobenzene	0.90359	0.76426	0.000	15.41893	30.00000	Averaged
75 Benzyl Chloride	0.92372	0.81878	0.000	11.36002	30.00000	Averaged
76 1,4-Dichlorobenzene	0.86865	0.72836	0.000	16.14993	30.00000	Averaged
77 1,2-Dichlorobenzene	0.86721	0.73231	0.000	15.55610	30.00000	Averaged
78 Undecane	0.95116	0.77175	0.000	18.86310	30.00000	Averaged
79 Dodecane	0.86425	0.66944	0.000	22.54102	30.00000	Averaged
80 1,2,4-Trichlorobenzene	0.70304	0.57049	0.000	18.85381	30.00000	Averaged
81 Napthalene	1.60374	1.44282	0.000	10.03403	30.00000	Averaged
82 Hexachlorobutadiene	0.58604	0.50354	0.000	14.07739	30.00000	Averaged

Data File: /var/chem/gcms/mt.i/T020403.b/md0204.d
Report Date: 04-Feb-2003 16:10

STL Knoxville

Modified Method TO-14

Data file : /var/chem/gcms/mt.i/T020403.b/md0204.d
Lab Smp Id: CCV Client Smp ID: 10PPBV
Inj Date : 04-FEB-2003 08:36
Operator : 0691 Inst ID: mt.i
Smp Info : CCV,,2,3,,10PPBV
Misc Info : T020403,LA,OakParkCCV.sub,,100ML
Comment :
Method : /var/chem/gcms/mt.i/T020403.b/LA.m
Meth Date : 04-Feb-2003 16:10 jarmanc Quant Type: ISTD
Cal Date : 04-FEB-2003 08:36 Cal File: md0204.d
Als bottle: 99 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: RTall.sub
Target Version: 3.50
Processing Host: qmidhp01

WJ 2/5/03

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
* 1 Bromochloromethane	128	9.765	9.765	(1.000)	612998	10.0000	
* 2 1,4-Difluorobenzene	114	11.882	11.882	(1.000)	2921862	10.0000	
* 3 Chlorobenzene-d5	117	16.428	16.428	(1.000)	2345250	10.0000	
$ 4 1,2-Dichloroethane-d4	67	10.763	10.763	(0.906)	482761	10.0000	10.62
$ 5 Toluene-d8	98	14.415	14.415	(0.877)	2372791	10.0000	10.05
$ 6 4-Bromofluorobenzene	95	18.025	18.025	(1.097)	1468582	10.0000	10.42
7 Chlorodifluoromethane	51	4.143	4.143	(0.424)	1159773	10.0000	10.51
8 Dichlorodifluoromethane	85	4.221	4.221	(0.432)	1339222	10.0000	10.23
9 Chloromethane	52	4.429	4.429	(0.454)	169362	10.0000	10.33
10 1,2-Dichlorotetrafluoroethane	135	4.446	4.446	(0.455)	964155	10.0000	9.651
11 Vinyl Chloride	62	4.637	4.637	(0.475)	567165	10.0000	10.53
12 Methanol	31	4.585	4.585	(0.470)	977243	40.0000	40.60
13 1,3-Butadiene	54	4.741	4.741	(0.486)	412429	10.0000	10.45
14 n-Butane	43	4.741	4.741	(0.486)	915794	10.0000	10.16
15 Bromomethane	94	5.123	5.123	(0.525)	611313	10.0000	10.28
16 Chloroethane	64	5.288	5.288	(0.542)	305117	10.0000	10.39
17 Trichlorofluoromethane	101	5.939	5.939	(0.608)	1135304	10.0000	10.52
18 Acrolein	56	5.947	5.947	(0.609)	411332	20.0000	19.64
19 Acetonitrile	40	6.017	6.017	(0.616)	538546	20.0000	20.74
20 Acetone	58	6.086	6.086	(0.623)	493051	20.0000	20.18
21 Pentane	57	6.190	6.190	(0.634)	154565	10.0000	9.807

Data File: /var/chem/gcms/mt.i/T020403.b/md0204.d
Report Date: 04-Feb-2003 16:10

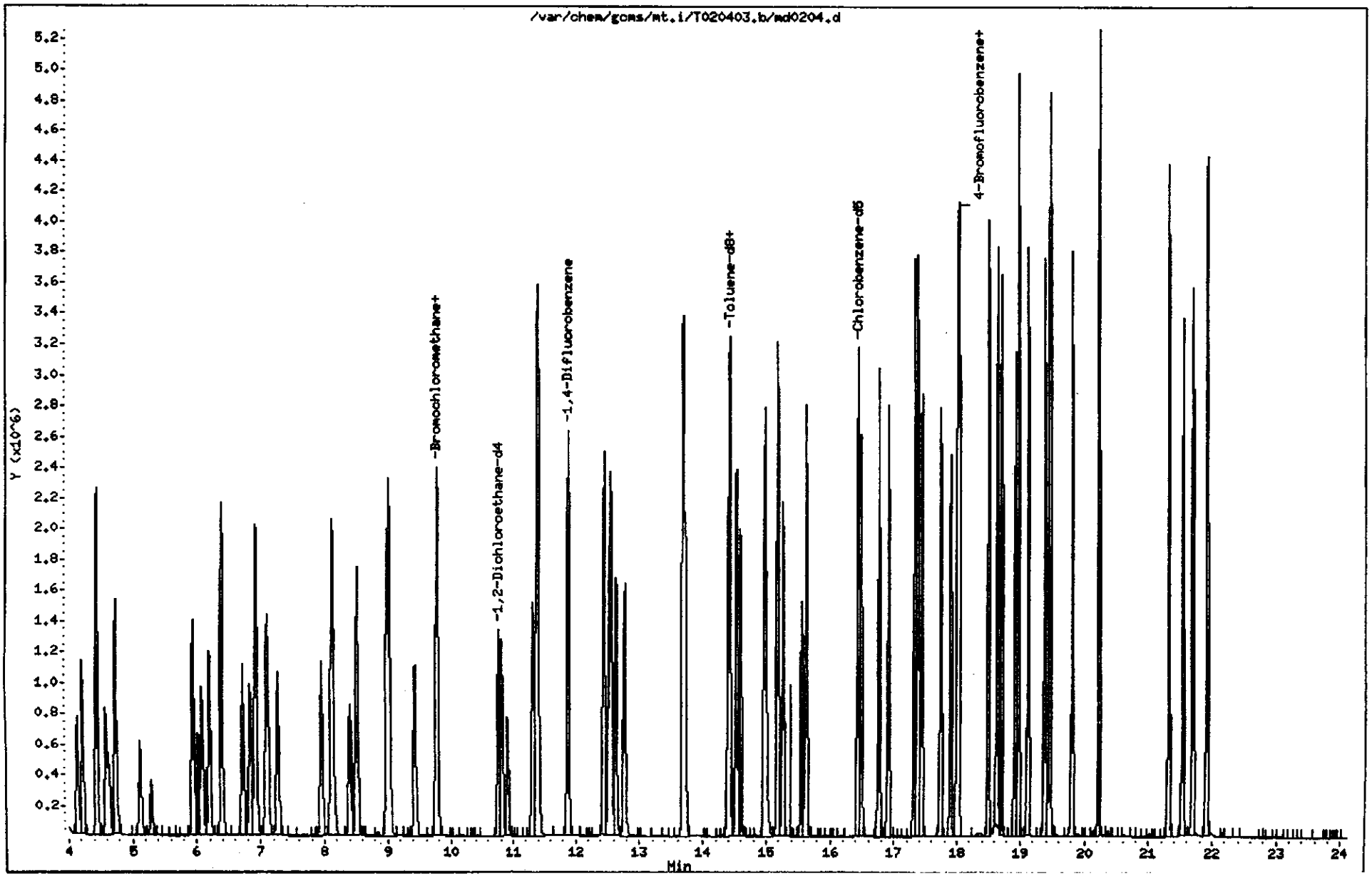
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
22 Ethyl Ether	31	6.381	6.381	(0.653)	1829206	20.0000	20.01
23 1,1-Dichloroethene	96	6.720	6.720	(0.688)	640329	10.0000	9.999
24 Acrylonitrile	53	6.832	6.832	(0.700)	1097655	20.0000	20.48
25 1,1,2-Trichlorotrifluoroethane	101	6.919	6.919	(0.709)	1298239	10.0000	9.716
26 Methylene Chloride	84	7.093	7.093	(0.726)	601629	10.0000	9.534
27 3-Chloropropene	39	7.119	7.119	(0.729)	543424	10.0000	10.10
28 Carbon Disulfide	76	7.275	7.275	(0.745)	2120571	10.0000	9.346
29 trans-1,2-Dichloroethene	96	7.960	7.960	(0.815)	654820	10.0000	9.813
30 Methyl-t-Butyl Ether	73	8.117	8.117	(0.831)	2968303	20.0000	19.32
31 1,1-Dichloroethane	63	8.403	8.403	(0.860)	1230554	10.0000	10.16
32 Vinyl Acetate	43	8.516	8.516	(0.872)	3717086	20.0000	20.19
33 2-Butanone	72	8.993	8.993	(0.921)	632462	20.0000	18.82
34 Hexane	56	9.019	9.019	(0.924)	510565	10.0000	9.886
35 cis 1,2-Dichloroethene	96	9.427	9.427	(0.965)	714294	10.0000	9.935
36 Chloroform	83	9.774	9.774	(1.001)	1148940	10.0000	10.01
37 1,1,1-Trichloroethane	97	10.806	10.806	(1.107)	1027853	10.0000	10.13
38 1,2-Dichloroethane	62	10.902	10.902	(0.917)	780222	10.0000	10.14
39 Benzene	78	11.370	11.370	(0.957)	1723945	10.0000	9.367
40 1-Butanol	31	11.309	11.309	(0.952)	866233	20.0000	18.63
41 Cyclohexane	69	11.379	11.379	(0.958)	257006	10.0000	9.215
42 Carbon Tetrachloride	117	11.396	11.396	(1.167)	1039737	10.0000	10.02
43 Heptane	43	12.446	12.446	(1.047)	1329622	10.0000	9.383
44 1,2-Dichloropropane	63	12.533	12.533	(1.055)	719461	10.0000	9.618
45 Trichloroethene	130	12.559	12.559	(1.057)	841993	10.0000	9.107
46 Dibromomethane	93	12.628	12.628	(1.063)	779566	10.0000	9.530
47 Bromodichloromethane	83	12.767	12.767	(1.074)	1297919	10.0000	10.06
48 4-Methyl-2-pentanone	43	13.687	13.687	(1.152)	3175143	20.0000	19.18
49 cis-1,3-Dichloropropene	75	13.721	13.721	(1.155)	1322174	10.0000	9.731
50 trans-1,3-Dichloropropene	75	14.389	14.389	(0.876)	849313	10.0000	9.759
51 Toluene	91	14.528	14.528	(0.884)	2066752	10.0000	9.316
52 1,1,2-Trichloroethane	97	14.580	14.580	(0.888)	802616	10.0000	9.528
53 2-Hexanone	58	14.971	14.971	(0.911)	1757418	20.0000	19.04
54 Octane	85	15.179	15.179	(0.924)	659785	10.0000	9.390
55 Dibromochloromethane	129	15.266	15.266	(0.929)	1450023	10.0000	9.415
56 1,2-Dibromoethane	107	15.561	15.561	(0.947)	1300912	10.0000	9.327
57 Tetrachloroethene	129	15.630	15.630	(0.951)	716265	10.0000	8.870
58 Chlorobenzene	112	16.480	16.480	(1.003)	1751366	10.0000	9.195
59 Ethylbenzene	91	16.758	16.758	(1.020)	2594493	10.0000	9.056
60 m-Xylene (For p-)	91	16.914	16.914	(1.030)	1946805	10.0000	8.852
61 Bromoform	173	17.357	17.357	(1.056)	1239975	10.0000	9.000
62 Nonane	57	17.313	17.313	(1.054)	1384463	10.0000	8.764
63 Styrene	104	17.374	17.374	(1.058)	1478155	10.0000	9.100
64 o-Xylene	91	17.435	17.435	(1.061)	1996273	10.0000	8.905
65 1,1,2,2-Tetrachloroethane	83	17.730	17.730	(1.079)	1748806	10.0000	8.983
66 1,2,3-Trichloropropane	110	17.886	17.886	(1.089)	439944	10.0000	9.663
67 Cumene	105	17.999	17.999	(1.096)	2697167	10.0000	9.119
68 n-Propylbenzene	91	18.493	18.493	(1.126)	3497984	10.0000	8.673

Data File: /var/chem/gcms/mt.i/T020403.b/md0204.d
Report Date: 04-Feb-2003 16:10

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
69 4-Ethyltoluene	105	18.632	18.632	(1.134)	2975452	10.0000	8.945
70 1,3,5-Trimethylbenzene	120	18.701	18.701	(1.138)	1170965	10.0000	8.596
71 Alpha-Methylstyrene	118	18.918	18.918	(1.152)	1141570	10.0000	8.749
72 Decane	57	18.970	18.970	(1.155)	1789365	10.0000	7.821
73 1,2,4-Trimethylbenzene	105	19.118	19.118	(1.164)	2251126	10.0000	8.487
74 1,3-Dichlorobenzene	146	19.378	19.378	(1.180)	1792388	10.0000	8.458
75 Benzyl Chloride	91	19.439	19.439	(1.183)	1920246	10.0000	8.864
76 1,4-Dichlorobenzene	146	19.456	19.456	(1.184)	1708196	10.0000	8.385
77 1,2-Dichlorobenzene	146	19.803	19.803	(1.205)	1717450	10.0000	8.444
78 Undecane	57	20.220	20.220	(1.231)	1809936	10.0000	8.114
79 Dodecane	57	21.304	21.304	(1.297)	1569994	10.0000	7.746
80 1,2,4-Trichlorobenzene	180	21.530	21.530	(1.311)	1337937	10.0000	8.115
81 Napthalene	128	21.686	21.686	(1.320)	3383764	10.0000	8.996
82 Hexachlorobutadiene	225	21.912	21.912	(1.334)	1180922	10.0000	8.592

Data File: /var/chem/gcms/mt.i/T020403.b/md0204.d
Date : 04-FEB-2003 08:36
Client ID: 10PPBV
Sample Info: CCV,,2,3,,10PPBV
Volume Injected (uL): 500.0
Column phase: DB-5

Instrument: mt.i
Operator: 0691
Column diameter: 0.32



---------- Leak Check Report ----------

2/4/2003 3:57:25 PM
Leak Check for C:\Smart\T020403.SEQ
Report File: C:\Smart\T020403.LCR
Leak Check Method: Evacuation
Pressurize/Evacuate time(sec) 15
Equilibration time(sec) 12
Maintanance time(sec) 15

Sample Inlet	Auto1	Auto2	Auto3	Start	End	Rate(psi/min)
1	1	---	---	0.9	0.9	0.00
1	2	---	---	0.5	0.6	0.40
1	3	---	---	0.5	0.6	0.40
1	4	---	---	0.5	0.6	0.40
1	5	---	---	0.5	0.5	0.00
1	6	---	---	0.5	0.6	0.40

OK
WJ
2/5/03

---------- Leak Check Report ----------

2/5/2003 9:04:50 AM
Leak Check for C:\Smart\T020403.SEQ
Report File: C:\Smart\T020403.LCR
Leak Check Method: Evacuation
Pressurize/Evacuate time(sec) 15
Equilibration time(sec) 12
Maintanance time(sec) 15

Sample Inlet	Auto1	Auto2	Auto3	Start	End	Rate(psi/min)
1	5	---	---	0.7	0.7	0.00
1	6	—	—	0.4	0.5	0.40

OK wJ
2/5/03

Raw QC Data

FLUOR HANFORD IC
METHOD BLANK COMPOUNDS

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

Matrix: (soil/water) AIR Lab Sample ID:H3B050000 230
Method: EPA-19 TO-14
Volatile Organics, (GCMS-TO14 Low Level) ppb(v/v)

Sample WT/Vol: / mL Date Received: 01/30/03
Work Order: FG5081AA Date Extracted:02/04/03
Dilution factor: 1 Date Analyzed: 02/04/03

QC Batch: 3036230

Client Sample Id: INTRA-LAB BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
67-64-1	Acetone	5.0	U
56-23-5	Carbon tetrachloride	0.20	U
67-66-3	Chloroform	0.20	U
75-09-2	Methylene chloride	0.50	U
127-18-4	Tetrachloroethene	0.20	U
79-01-6	Trichloroethene	0.20	U
78-93-3	2-Butanone (MEK)	0.50	U

Data File: /var/chem/gcms/mt.i/T020403.b/blk4328.d
Report Date: 05-Feb-2003 13:15

STL Knoxville

Modified Method TO-14

Data file : /var/chem/gcms/mt.i/T020403.b/blk4328.d
Lab Smp Id: FG5081AA Client Smp ID: BLANK
Inj Date : 04-FEB-2003 10:27
Operator : 0691 Inst ID: mt.i
Smp Info : FG5081AA,,3,,BLANK
Misc Info : T020403,LA,OakPark.sub,,500ML(BLANK CHECK)
Comment :
Method : /var/chem/gcms/mt.i/T020403.b/LA.m
Meth Date : 05-Feb-2003 11:10 jarmanc Quant Type: ISTD
Cal Date : 04-FEB-2003 08:36 Cal File: md0204.d
Als bottle: 1 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: RTall.sub
Target Version: 3.50
Processing Host: qmidhp01

cw 2/5/03

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	FINAL (ppb(v/v))
* 1 Bromochloromethane	128	9.757	9.765	(1.000)	620875	10.0000	
* 2 1,4-Difluorobenzene	114	11.874	11.882	(1.000)	2875450	10.0000	
* 3 Chlorobenzene-d5	117	16.429	16.428	(1.000)	2308184	10.0000	
$ 4 1,2-Dichloroethane-d4	67	10.755	10.763	(0.906)	463624	9.75860	9.758
$ 5 Toluene-d8	98	14.416	14.415	(0.877)	2361309	10.1114	10.11
$ 6 4-Bromofluorobenzene	95	18.017	18.025	(1.097)	1470461	10.1736	10.17
12 Methanol	31	4.612	4.585	(0.473)	6496	0.26253	0.2625 <10
14 n-Butane	43	4.630	4.741	(0.474)	5624	0.06064	0.06064
20 Acetone	58	6.165	6.086	(0.632)	9602	0.38457	0.3846 <5
28 Carbon Disulfide	76	7.267	7.275	(0.745)	20698	0.09637	0.09637 <0.2

Data File: /var/chem/gcms/mt.i/T020403.b/blk4328.d
Report Date: 05-Feb-2003 13:15

STL Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mt.i
Lab File ID: blk4328.d
Lab Smp Id: FG5081AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 0691
Method File: /var/chem/gcms/mt.i/T020403.b/LA.m
Misc Info: T020403,LA,OakPark.sub,,500ML(BLANK CHECK)

Calibration Date: 04-FEB-2003
Calibration Time: 08:36
Client Smp ID: BLANK
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	612998	364734	861262	620875	1.28
2 1,4-Difluorobenze	2921862	1738508	4105216	2875450	-1.59
3 Chlorobenzene-d5	2345250	1395424	3295076	2308184	-1.58

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.76	9.26	10.26	9.76	-0.08
2 1,4-Difluorobenze	11.88	11.38	12.38	11.87	-0.06
3 Chlorobenzene-d5	16.43	15.93	16.93	16.43	0.01

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /var/chem/gcms/mt.i/T020403.b/blk4328.d
Report Date: 05-Feb-2003 13:15

STL Knoxville

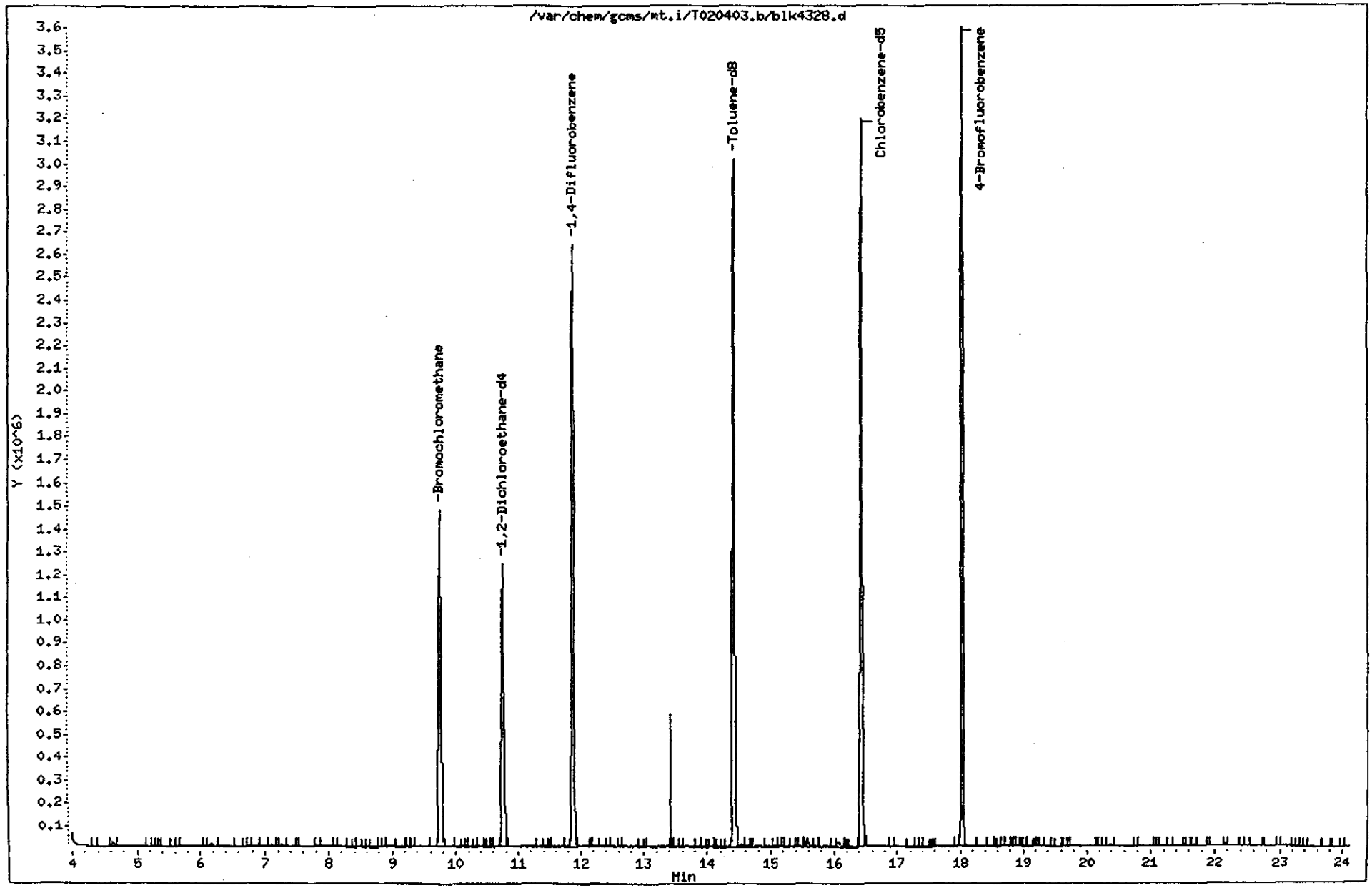
RECOVERY REPORT

Client Name:
Sample Matrix: GAS
Lab Smp Id: FG5081AA
Level: LOW
Data Type: MS DATA
SpikeList File: RTALL.spk
Sublist File: RTall.sub
Client SDG: T020403
Fraction: OTHER
Client Smp ID: BLANK
Operator: 0691
SampleType: BLANK
Quant Type: ISTD
Method File: /var/chem/gcms/mt.i/T020403.b/LA.m
Misc Info: T020403,LA,OakPark.sub,,500ML(BLANK CHECK)

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 4 1,2-Dichloroethane	10.00	9.758	97.59	70-130
$ 5 Toluene-d8	10.00	10.11	101.11	70-130
$ 6 4-Bromofluorobenze	10.00	10.17	101.74	70-130

Data File: /var/chem/gcms/mt.i/T020403.b/blk4328.d
Date : 04-FEB-2003 10:27
Client ID: BLANK
Sample Info: FC5081AA,,3,,BLANK
Volume Injected (uL): 500.0
Column phase: DB-5

Instrument: mt.i
Operator: 0691
Column diameter: 0.32



Data File: /var/chem/gcms/mt.i/T020403.b/blk4328.d

Date : 04-FEB-2003 10:27

Client ID: BLANK

Instrument: mt.i

Sample Info: FG5081AA,,3,,BLANK

Volume Injected (uL): 500.0

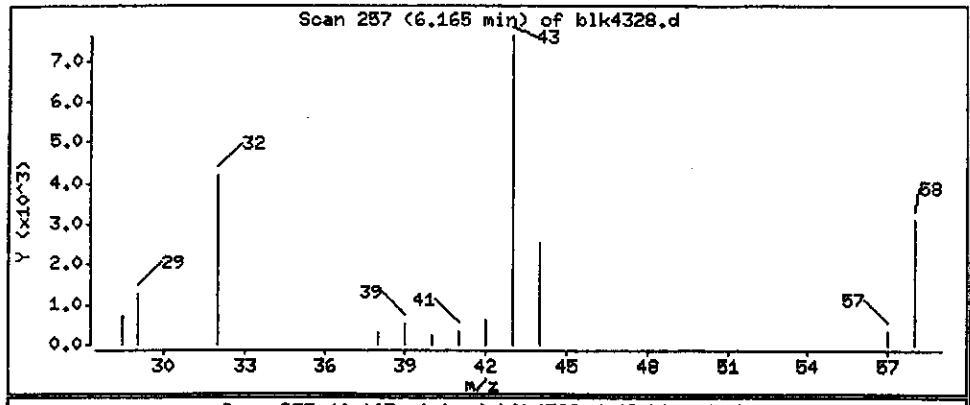
Operator: 0691

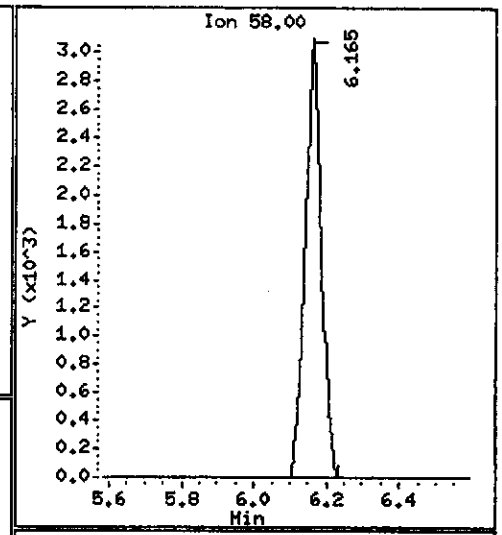
Column phase: DB-5

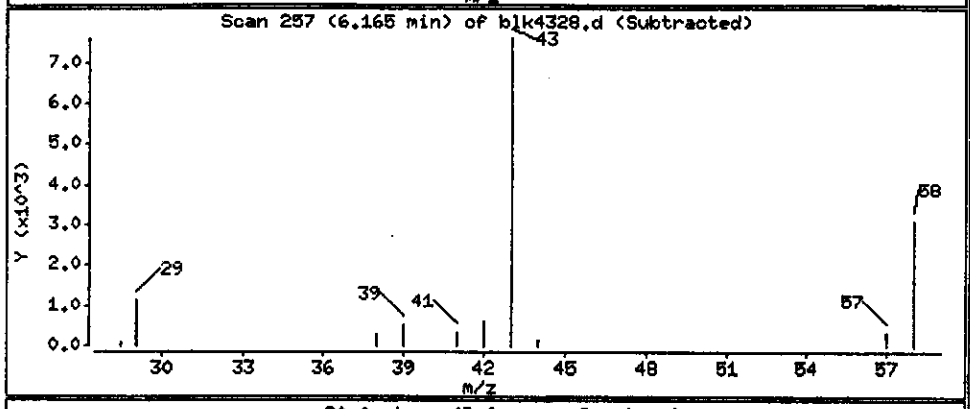
Column diameter: 0.32

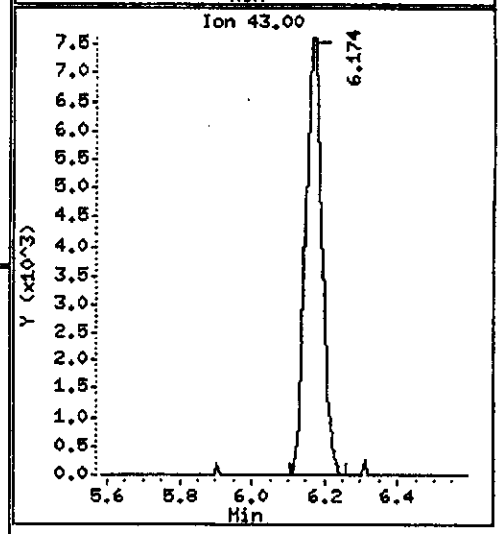
20 Acetone

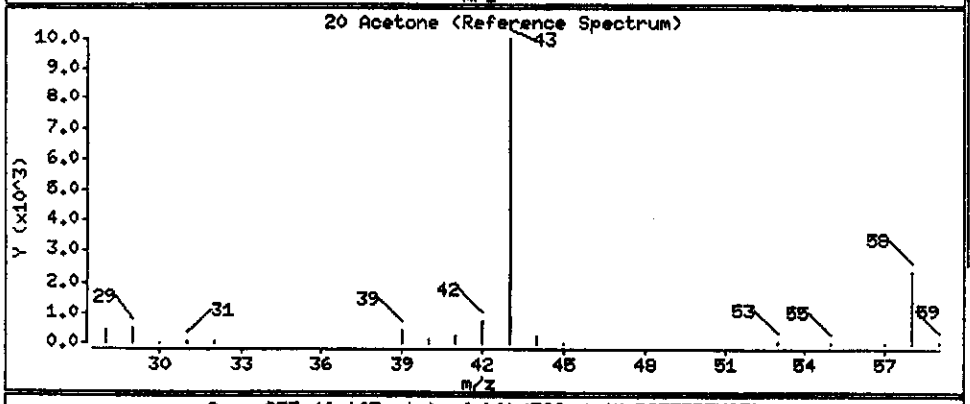
Concentration: 0.3846 ppb(v/v)

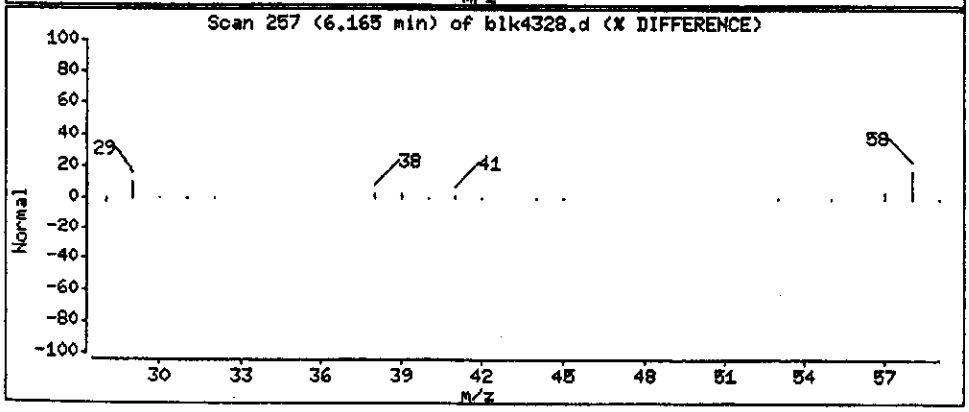












FLUOR HANFORD IC
CHECK SAMPLE COMPOUNDS

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

Matrix: (soil/water) AIR Lab Sample ID: H3B050000 230
Method: EPA-19 TO-14
Volatile Organics, (GCMS-TO14 Low Level) ppb(v/v)

Sample WT/Vol: 100 / mL Date Received: 01/30/03
Work Order: FG5081AC Date Extracted: 02/04/03
Dilution factor: 1 Date Analyzed: 02/04/03

QC Batch: 3036230

Client Sample Id: CHECK SAMPLE

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
67-64-1	Acetone	18	
56-23-5	Carbon tetrachloride	9.5	
67-66-3	Chloroform	9.7	
75-09-2	Methylene chloride	9.4	
127-18-4	Tetrachloroethene	9.9	
79-01-6	Trichloroethene	10	
75-71-8	Dichlorodifluoromethane	9.5	
74-87-3	Chloromethane	9.3	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafl	9.6	
75-01-4	Vinyl chloride	9.4	
74-83-9	Bromomethane	9.6	
75-00-3	Chloroethane	9.6	
75-69-4	Trichlorofluoromethane	9.3	
75-35-4	1,1-Dichloroethene	9.8	
76-13-1	1,1,2-Trichloro-1,2,2-triflu	9.5	
75-34-3	1,1-Dichloroethane	9.4	
156-59-2	cis-1,2-Dichloroethene	9.5	
71-55-6	1,1,1-Trichloroethane	9.6	
107-06-2	1,2-Dichloroethane	9.6	
71-43-2	Benzene	9.8	
78-87-5	1,2-Dichloropropane	9.6	
10061-01-5	cis-1,3-Dichloropropene	9.4	
10061-02-6	trans-1,3-Dichloropropene	9.6	
108-88-3	Toluene	9.8	
79-00-5	1,1,2-Trichloroethane	9.5	
106-93-4	1,2-Dibromoethane (EDB)	9.8	
108-90-7	Chlorobenzene	9.8	
100-41-4	Ethylbenzene	9.8	

FLUOR HANFORD IC
CHECK SAMPLE COMPOUNDS

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

Matrix: (soil/water) AIR Lab Sample ID: H3B050000 230
Method: EPA-19 TO-14
Volatile Organics, (GCMS-TO14 Low Level) ppb(v/v)

Sample WT/Vol: 100 / mL Date Received: 01/30/03
Work Order: FG5081AC Date Extracted: 02/04/03
Dilution factor: 1 Date Analyzed: 02/04/03

QC Batch: 3036230

Client Sample Id: CHECK SAMPLE

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
136777-61-2	m-Xylene & p-Xylene	9.9	
100-42-5	Styrene	9.6	
95-47-6	o-Xylene	9.7	
79-34-5	1,1,2,2-Tetrachloroethane	9.7	
108-67-8	1,3,5-Trimethylbenzene	9.7	
95-63-6	1,2,4-Trimethylbenzene	9.8	
541-73-1	1,3-Dichlorobenzene	9.8	
100-44-7	Benzyl chloride	9.9	
106-46-7	1,4-Dichlorobenzene	9.7	
95-50-1	1,2-Dichlorobenzene	9.8	
120-82-1	1,2,4-Trichlorobenzene	10	
87-68-3	Hexachlorobutadiene	10	

Data File: /var/chem/gcms/mt.i/T020403.b/rf0204.d
Report Date: 05-Feb-2003 13:15

STL Knoxville

Modified Method TO-14

Data file : /var/chem/gcms/mt.i/T020403.b/rf0204.d
Lab Smp Id: FG5081AC Client Smp ID: LCS
Inj Date : 04-FEB-2003 09:13
Operator : 0691 Inst ID: mt.i
Smp Info : FG5081AC,,3,,LCS
Misc Info : T020403,LA,OakParkCCV.sub,,100ML
Comment :
Method : /var/chem/gcms/mt.i/T020403.b/LA.m
Meth Date : 05-Feb-2003 11:10 jarmanc Quant Type: ISTD
Cal Date : 04-FEB-2003 08:36 Cal File: md0204.d
Als bottle: 16 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: RTall.sub
Target Version: 3.50
Processing Host: qmidhp01

WJ 2/5/03

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	FINAL (ppb(v/v))
* 1 Bromochloromethane	128	9.757	9.765	(1.000)	618786	10.0000	
* 2 1,4-Difluorobenzene	114	11.883	11.882	(1.000)	2952226	10.0000	
* 3 Chlorobenzene-d5	117	16.438	16.428	(1.000)	2364690	10.0000	
$ 4 1,2-Dichloroethane-d4	67	10.763	10.763	(0.906)	468599	9.60680	9.607
$ 5 Toluene-d8	98	14.416	14.415	(0.877)	2372310	9.91578	9.916
$ 6 4-Bromofluorobenzene	95	18.025	18.025	(1.097)	1428150	9.64473	9.645
7 Chlorodifluoromethane	51	4.144	4.143	(0.425)	1064255	9.09059	9.090
8 Dichlorodifluoromethane	85	4.222	4.221	(0.433)	1277973	9.45340	9.453
9 Chloromethane	52	4.439	4.429	(0.455)	159487	9.32890	9.329
10 1,2-Dichlorotetrafluoroethane	135	4.447	4.446	(0.456)	935686	9.61395	9.614
11 Vinyl Chloride	62	4.638	4.637	(0.475)	537691	9.39166	9.392
12 Methanol	31	4.586	4.585	(0.470)	886127	35.9312	35.93
13 1,3-Butadiene	54	4.742	4.741	(0.486)	393920	9.46190	9.462
14 n-Butane	43	4.742	4.741	(0.486)	852892	9.22604	9.226
15 Bromomethane	94	5.124	5.123	(0.525)	590164	9.56375	9.564
16 Chloroethane	64	5.289	5.288	(0.542)	294239	9.55330	9.553
17 Trichlorofluoromethane	101	5.940	5.939	(0.609)	1060726	9.25571	9.256
18 Acrolein	56	5.948	5.947	(0.610)	368820	17.7652	17.76
19 Acetonitrile	40	6.026	6.017	(0.618)	477929	17.5829	17.58
20 Acetone	58	6.087	6.086	(0.624)	447840	17.9961	18.00
21 Pentane	57	6.191	6.190	(0.635)	147798	9.47271	9.473

Data File: /var/chem/gcms/mt.i/T020403.b/rf0204.d
Report Date: 05-Feb-2003 13:15

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	CONCENTRATIONS FINAL (ppb(v/v))
22 Ethyl Ether	31	6.382	6.381	(0.654)	1622436	17.5733	17.57
23 1,1-Dichloroethene	96	6.720	6.720	(0.689)	632242	9.78136	9.781
24 Acrylonitrile	53	6.833	6.832	(0.700)	990385	17.8767	17.88
25 1,1,2-Trichlorotrifluoroethane	101	6.920	6.919	(0.709)	1239033	9.45469	9.455
26 Methylene Chloride	84	7.093	7.093	(0.727)	568790	9.36574	9.366
27 3-Chloropropene	39	7.120	7.119	(0.730)	516506	9.41575	9.416
28 Carbon Disulfide	76	7.276	7.275	(0.746)	2068341	9.66247	9.662
29 trans-1,2-Dichloroethene	96	7.961	7.960	(0.816)	647990	9.80314	9.803
30 Methyl-t-Butyl Ether	73	8.117	8.117	(0.832)	2748557	18.3462	18.35
31 1,1-Dichloroethane	63	8.412	8.403	(0.862)	1162148	9.35577	9.356
32 Vinyl Acetate	43	8.516	8.516	(0.873)	3347677	17.8439	17.84
33 2-Butanone	72	8.994	8.993	(0.922)	568319	17.8035	17.80
34 Hexane	56	9.020	9.019	(0.924)	485338	9.41700	9.417
35 cis 1,2-Dichloroethene	96	9.427	9.427	(0.966)	688417	9.54758	9.548
36 Chloroform	83	9.774	9.774	(1.002)	1120644	9.66249	9.662
37 1,1,1-Trichloroethane	97	10.807	10.806	(1.108)	997484	9.61377	9.614
38 1,2-Dichloroethane	62	10.902	10.902	(0.917)	753172	9.55403	9.554
39 Benzene	78	11.371	11.370	(0.957)	1705706	9.79244	9.792
40 1-Butanol	31	11.310	11.309	(0.952)	816955	18.6682	18.67
41 Cyclohexane	69	11.379	11.379	(0.958)	254282	9.79223	9.792
42 Carbon Tetrachloride	117	11.397	11.396	(1.168)	996623	9.49568	9.496
43 Heptane	43	12.447	12.446	(1.047)	1310188	9.75249	9.752
44 1,2-Dichloropropane	63	12.533	12.533	(1.055)	700841	9.64101	9.641
45 Trichloroethene	130	12.559	12.559	(1.057)	850990	10.0029	10.00
46 Dibromomethane	93	12.629	12.628	(1.063)	753619	9.56774	9.568
47 Bromodichloromethane	83	12.768	12.767	(1.074)	1221049	9.31098	9.311
48 4-Methyl-2-pentanone	43	13.687	13.687	(1.152)	2938644	18.3199	18.32
49 cis-1,3-Dichloropropene	75	13.722	13.721	(1.155)	1255534	9.39831	9.398
50 trans-1,3-Dichloropropene	75	14.390	14.389	(0.875)	822029	9.59918	9.599
51 Toluene	91	14.529	14.528	(0.884)	2043517	9.80629	9.806
52 1,1,2-Trichloroethane	97	14.581	14.580	(0.887)	767228	9.48050	9.480
53 2-Hexanone	58	14.980	14.971	(0.911)	1647340	18.5931	18.59
54 Octane	85	15.180	15.179	(0.923)	635368	9.55075	9.551
55 Dibromochloromethane	129	15.266	15.266	(0.929)	1406678	9.62132	9.621
56 1,2-Dibromoethane	107	15.561	15.561	(0.947)	1291169	9.84350	9.844
57 Tetrachloroethene	129	15.631	15.630	(0.951)	715445	9.90644	9.906
58 Chlorobenzene	112	16.481	16.480	(1.003)	1728466	9.78811	9.788
59 Ethylbenzene	91	16.759	16.758	(1.020)	2567700	9.81537	9.815
60 m-Xylene (For p-)	91	16.915	16.914	(1.029)	1943015	9.89848	9.898
61 Bromoform	173	17.357	17.357	(1.056)	1259032	10.0702	10.07
62 Nonane	57	17.314	17.313	(1.053)	1363235	9.76572	9.766
63 Styrene	104	17.375	17.374	(1.057)	1431731	9.60630	9.606
64 o-Xylene	91	17.435	17.435	(1.061)	1961254	9.74381	9.744
65 1,1,2,2-Tetrachloroethane	83	17.730	17.730	(1.079)	1707400	9.68297	9.683
66 1,2,3-Trichloropropane	110	17.887	17.886	(1.088)	396695	8.94282	8.943
67 Cumene	105	17.999	17.999	(1.095)	2608819	9.59292	9.593
68 n-Propylbenzene	91	18.494	18.493	(1.125)	3556802	10.0846	10.08

Data File: /var/chem/gcms/mt.i/T020403.b/rf0204.d
Report Date: 05-Feb-2003 13:15

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	FINAL (ppb(v/v))
69 4-Ethyltoluene	105	18.633	18.632	(1.134)	2983286	9.94390	9.944
70 1,3,5-Trimethylbenzene	120	18.702	18.701	(1.138)	1150765	9.74669	9.747
71 Alpha-Methylstyrene	118	18.919	18.918	(1.151)	1177867	10.2331	10.23
72 Decane	57	18.971	18.970	(1.154)	1778192	9.85586	9.856
73 1,2,4-Trimethylbenzene	105	19.119	19.118	(1.163)	2221158	9.78576	9.786
74 1,3-Dichlorobenzene	146	19.379	19.378	(1.179)	1772921	9.81007	9.810
75 Benzyl Chloride	91	19.440	19.439	(1.183)	1918389	9.90820	9.908
76 1,4-Dichlorobenzene	146	19.457	19.456	(1.184)	1665091	9.66752	9.668
77 1,2-Dichlorobenzene	146	19.804	19.803	(1.205)	1693689	9.78058	9.780
78 Undecane	57	20.220	20.220	(1.230)	1898960	10.4056	10.40
79 Dodecane	57	21.305	21.304	(1.296)	1885576	11.9113	11.91
80 1,2,4-Trichlorobenzene	180	21.531	21.530	(1.310)	1403674	10.4051	10.40
81 Napthalene	128	21.687	21.686	(1.319)	3732348	10.9395	10.94
82 Hexachlorobutadiene	225	21.912	21.912	(1.333)	1213236	10.1892	10.19

Data File: /var/chem/gcms/mt.i/T020403.b/rf0204.d
Report Date: 05-Feb-2003 13:15

STL Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mt.i
Lab File ID: rf0204.d
Lab Smp Id: FG5081AC
Analysis Type: OTHER
Quant Type: ISTD
Operator: 0691
Method File: /var/chem/gcms/mt.i/T020403.b/LA.m
Misc Info: T020403,LA,OakParkCCV.sub,,100ML

Calibration Date: 04-FEB-2003
Calibration Time: 08:36
Client Smp ID: LCS
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	612998	364734	861262	618786	0.94
2 1,4-Difluorobenze	2921862	1738508	4105216	2952226	1.04
3 Chlorobenzene-d5	2345250	1395424	3295076	2364690	0.83

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.76	9.26	10.26	9.76	-0.08
2 1,4-Difluorobenze	11.88	11.38	12.38	11.88	0.01
3 Chlorobenzene-d5	16.43	15.93	16.93	16.44	0.06

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /var/chem/gcms/mt.i/T020403.b/rf0204.d
Report Date: 05-Feb-2003 13:15

STL Knoxville

RECOVERY REPORT

Client Name:
Sample Matrix: GAS
Lab Smp Id: FG5081AC
Level: LOW
Data Type: MS DATA
SpikeList File: RTALL.spk
Sublist File: RTall.sub
Method File: /var/chem/gcms/mt.i/T020403.b/LA.m
Misc Info: T020403,LA,OakParkCCV.sub,,100ML

Client SDG: T020403
Fraction: OTHER
Client Smp ID: LCS
Operator: 0691
SampleType: LCS
Quant Type: ISTD

OK WJ 2/5/03

SPIKE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
7 Chlorodifluorometh	10.00	9.090	90.91	70-130
8 Dichlorodifluorome	10.00	9.453	94.53	70-130
9 Chloromethane	10.00	9.329	93.29	70-130
10 1,2-Dichlorotetraf	10.00	9.614	96.14	70-130
11 Vinyl Chloride	10.00	9.392	93.92	70-130
12 Methanol	40.00	35.93	89.83	60-140
13 1,3-Butadiene	10.00	9.462	94.62	70-130
14 n-Butane	10.00	9.226	92.26	70-130
15 Bromomethane	10.00	9.564	95.64	70-130
16 Chloroethane	10.00	9.553	95.53	70-130
17 Trichlorofluoromet	10.00	9.256	92.56	70-130
18 Acrolein	20.00	17.76	88.83	60-140
19 Acetonitrile	20.00	17.58	87.91	60-140
20 Acetone	20.00	18.00	89.98	60-140
21 Pentane	10.00	9.473	94.73	70-130
22 Ethyl Ether	20.00	17.57	87.87	60-140
23 1,1-Dichloroethene	10.00	9.781	97.81	70-130
24 Acrylonitrile	20.00	17.88	89.38	60-140
25 1,1,2-Trichlorotri	10.00	9.455	94.55	70-130
26 Methylene Chloride	10.00	9.366	93.66	70-130
27 3-Chloropropene	10.00	9.416	94.16	70-130
28 Carbon Disulfide	10.00	9.662	96.62	70-130
29 trans-1,2-Dichloro	10.00	9.803	98.03	70-130
30 Methyl-t-Butyl Eth	20.00	18.35	91.73	60-140
31 1,1-Dichloroethane	10.00	9.356	93.56	70-130
32 Vinyl Acetate	20.00	17.84	89.22	60-140
33 2-Butanone	20.00	17.80	89.02	60-140
34 Hexane	10.00	9.417	94.17	70-130
35 cis 1,2-Dichloroet	10.00	9.548	95.48	70-130
36 Chloroform	10.00	9.662	96.62	70-130
37 1,1,1-Trichloroeth	10.00	9.614	96.14	70-130
38 1,2-Dichloroethane	10.00	9.554	95.54	70-130
39 Benzene	10.00	9.792	97.92	70-130

Data File: /var/chem/gcms/mt.i/T020403.b/rf0204.d
Report Date: 05-Feb-2003 13:15

SPIKE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
40 1-Butanol	20.00	18.67	93.34	60-140
41 Cyclohexane	10.00	9.792	97.92	70-130
42 Carbon Tetrachlori	10.00	9.496	94.96	70-130
43 Heptane	10.00	9.752	97.52	70-130
44 1,2-Dichloropropan	10.00	9.641	96.41	70-130
45 Trichloroethene	10.00	10.00	100.03	70-130
46 Dibromomethane	10.00	9.568	95.68	70-130
47 Bromodichlorometha	10.00	9.311	93.11	70-130
48 4-Methyl-2-pentano	20.00	18.32	91.60	60-140
49 cis-1,3-Dichloropr	10.00	9.398	93.98	70-130
50 trans-1,3-Dichloro	10.00	9.599	95.99	70-130
51 Toluene	10.00	9.806	98.06	70-130
52 1,1,2-Trichloroeth	10.00	9.480	94.80	70-130
53 2-Hexanone	20.00	18.59	92.97	60-140
54 Octane	10.00	9.551	95.51	70-130
55 Dibromochlorometha	10.00	9.621	96.21	70-130
56 1,2-Dibromoethane	10.00	9.844	98.44	70-130
57 Tetrachloroethene	10.00	9.906	99.06	70-130
58 Chlorobenzene	10.00	9.788	97.88	70-130
59 Ethylbenzene	10.00	9.815	98.15	70-130
60 m-Xylene (For p-)	10.00	9.898	98.98	70-130
61 Bromoform	10.00	10.07	100.70	70-130
62 Nonane	10.00	9.766	97.66	70-130
63 Styrene	10.00	9.606	96.06	70-130
64 o-Xylene	10.00	9.744	97.44	70-130
65 1,1,2,2-Tetrachlor	10.00	9.683	96.83	70-130
66 1,2,3-Trichloropro	10.00	8.943	89.43	70-130
67 Cumene	10.00	9.593	95.93	70-130
68 n-Propylbenzene	10.00	10.08	100.85	70-130
69 4-Ethyltoluene	10.00	9.944	99.44	70-130
70 1,3,5-Trimethylben	10.00	9.747	97.47	70-130
71 Alpha-Methylstyren	10.00	10.23	102.33	70-130
72 Decane	10.00	9.856	98.56	70-130
73 1,2,4-Trimethylben	10.00	9.786	97.86	70-130
74 1,3-Dichlorobenzen	10.00	9.810	98.10	70-130
75 Benzyl Chloride	10.00	9.908	99.08	70-130
76 1,4-Dichlorobenzen	10.00	9.668	96.68	70-130
77 1,2-Dichlorobenzen	10.00	9.780	97.81	70-130
78 Undecane	10.00	10.40	104.06	70-130
79 Dodecane	10.00	11.91	119.11	70-130
80 1,2,4-Trichloroben	10.00	10.40	104.05	70-130
81 Napthalene	10.00	10.94	109.39	70-130
82 Hexachlorobutadien	10.00	10.19	101.89	70-130

Data File: /var/chem/gcms/mt.i/T020403.b/rf0204.d
Report Date: 05-Feb-2003 13:15

STL Knoxville

RECOVERY REPORT

Client Name:
Sample Matrix: GAS
Lab Smp Id: FG5081AC
Level: LOW
Data Type: MS DATA
SpikeList File: RTALL.spk
Sublist File: RTall.sub
Method File: /var/chem/gcms/mt.i/T020403.b/LA.m
Misc Info: T020403,LA,OakParkCCV.sub,,100ML

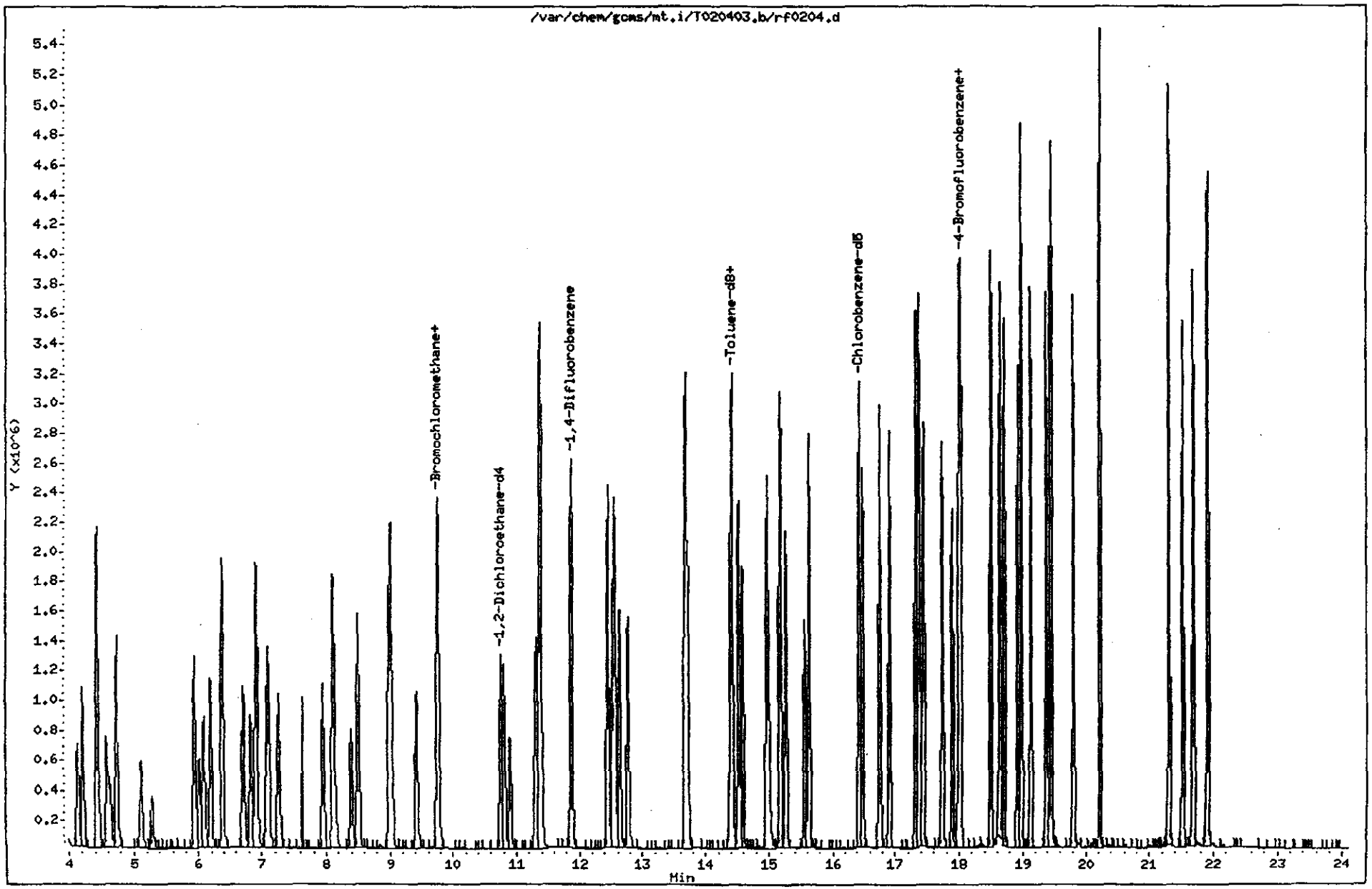
Client SDG: T020403
Fraction: OTHER
Client Smp ID: LCS
Operator: 0691
SampleType: LCS
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 4 1,2-Dichloroethane	10.00	9.607	96.07	70-130
$ 5 Toluene-d8	10.00	9.916	99.16	70-130
$ 6 4-Bromofluorobenze	10.00	9.645	96.45	70-130

Data File: /var/chem/gcms/mt.i/T020403.b/rf0204.d
Date : 04-FEB-2003 09:13
Client ID: LCS
Sample Info: FG5081AC,,3,,LCS
Volume Injected (uL): 500.0
Column phase: DB-5

Instrument: mt.i

Operator: 0691
Column diameter: 0.32



FLUOR HANFORD IC

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

Matrix: (soil/water) AIR Lab Sample ID:H3A300116 002
Method: EPA-19 TO-14
Volatile Organics, (GCMS-TO14 Low Level) ppb(v/v)

Sample WT/Vol: / mL Date Received: 01/30/03
Work Order: FGVP51AC Date Extracted:02/04/03
Dilution factor: 8.95 Date Analyzed: 02/04/03

QC Batch: 3036230

Client Sample Id: B167D7 DUP

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
67-64-1	Acetone	45	U
56-23-5	Carbon tetrachloride	200	
67-66-3	Chloroform	3.8	
75-09-2	Methylene chloride	4.5	U
127-18-4	Tetrachloroethene	1.8	U
79-01-6	Trichloroethene	1.8	U
78-93-3	2-Butanone (MEK)	4.5	U

Data File: /var/chem/gcms/mt.i/T020403.b/fgvp5c.d
Report Date: 05-Feb-2003 17:03

STL Knoxville

Modified Method TO-14

Data file : /var/chem/gcms/mt.i/T020403.b/fgvp5c.d
Lab Smp Id: FGVP51AC
Client Smp ID: B167D7 DUP
Inj Date : 04-FEB-2003 22:11
Operator : 0691
Inst ID: mt.i
Smp Info : FGVP51AC,8.95,0,,
Misc Info : T020403,LA,,,100ML DUP
Comment :
Method : /var/chem/gcms/mt.i/T020403.b/LA.m
Meth Date : 05-Feb-2003 13:19 jarmanc
Quant Type: ISTD
Cal Date : 04-FEB-2003 08:36
Cal File: md0204.d
Als bottle: 4
QC Sample: SAMPLE DUPLICATE
Dil Factor: 8.95000
Integrator: HP RTE
Compound Sublist: FLUOR.sub
Target Version: 3.50
Processing Host: qmidhp01

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable
Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	FINAL (ppb(v/v))
* 1 Bromochloromethane	128	9.759	9.765	(1.000)	617504	10.0000	
* 2 1,4-Difluorobenzene	114	11.876	11.882	(1.000)	2846472	10.0000	
* 3 Chlorobenzene-d5	117	16.431	16.428	(1.000)	2282233	10.0000	
$ 4 1,2-Dichloroethane-d4	67	10.757	10.763	(0.906)	454517	9.66431	9.664
$ 5 Toluene-d8	98	14.418	14.415	(0.877)	2327292	10.0791	10.08
$ 6 4-Bromofluorobenzene	95	18.019	18.025	(1.097)	1448198	10.1335	10.13
36 Chloroform	83	9.768	9.774	(1.001)	49508	0.42776	3.828
42 Carbon Tetrachloride	117	11.390	11.396	(1.167)	2383955	22.7611	203.7
45 Trichloroethene	130	12.553	12.559	(1.057)	13938	0.16992	1.521

Data File: /var/chem/gcms/mt.i/T020403.b/fgvp5c.d
Report Date: 05-Feb-2003 17:03

STL Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mt.i
Lab File ID: fgvp5c.d
Lab Smp Id: FGVP51AC
Analysis Type: OTHER
Quant Type: ISTD
Operator: 0691
Method File: /var/chem/gcms/mt.i/T020403.b/LA.m
Misc Info: T020403,LA,,,100ML DUP

Calibration Date: 04-FEB-2003
Calibration Time: 08:36
Client Smp ID: B167D7 DUP
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	612998	364734	861262	617504	0.74
2 1,4-Difluorobenze	2921862	1738508	4105216	2846472	-2.58
3 Chlorobenzene-d5	2345250	1395424	3295076	2282233	-2.69

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.76	9.26	10.26	9.76	-0.06
2 1,4-Difluorobenze	11.88	11.38	12.38	11.88	-0.05
3 Chlorobenzene-d5	16.43	15.93	16.93	16.43	0.02

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /var/chem/gcms/mt.i/T020403.b/fgvp5c.d
Report Date: 05-Feb-2003 17:03

STL Knoxville

RECOVERY REPORT

Client Name: FLUOR HANFORD IC
Sample Matrix: GAS
Lab Smp Id: FGVP51AC
Level: LOW
Data Type: MS DATA
SpikeList File: RTALL.spk
Sublist File: FLUOR.sub
Method File: /var/chem/gcms/mt.i/T020403.b/LA.m
Misc Info: T020403,LA,,,100ML DUP

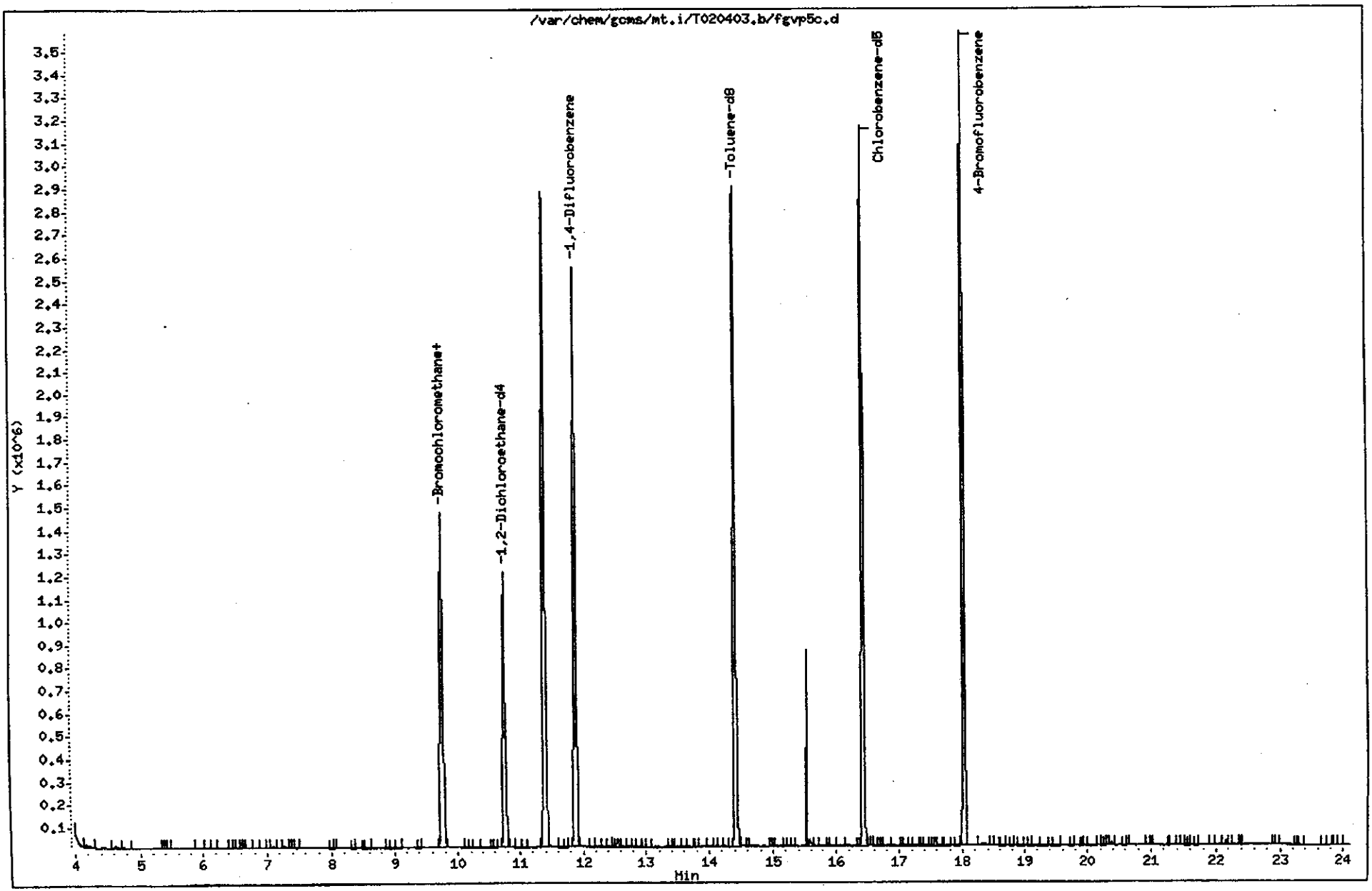
Client SDG: H3A300116
Fraction: OTHER
Client Smp ID: B167D7 DUP
Operator: 0691
SampleType: SAMPLE DUPLICATE{ú z*8 @
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 4 1,2-Dichloroethane	10.00	9.664	96.64	70-130
$ 5 Toluene-d8	10.00	10.08	100.79	70-130
$ 6 4-Bromofluorobenze	10.00	10.13	101.33	70-130

Data File: /var/chem/gcms/mt.i/T020403.b/fgvp5c.d
Date : 04-FEB-2003 22:11
Client ID: B167D7 DUP
Sample Info: FGVP51AC,8.95,0,,
Volume Injected (uL): 500.0
Column phase: DB-5

Instrument: mt.i

Operator: 0691
Column diameter: 0.32



Data File: /var/chem/gcms/mt.i/T020403.b/fgvp5o.d

Date : 04-FEB-2003 22:11

Client ID: B167D7 DUP

Instrument: mt.i

Sample Info: FGVP51AC,8.95,0,,

Volume Injected (uL): 500.0

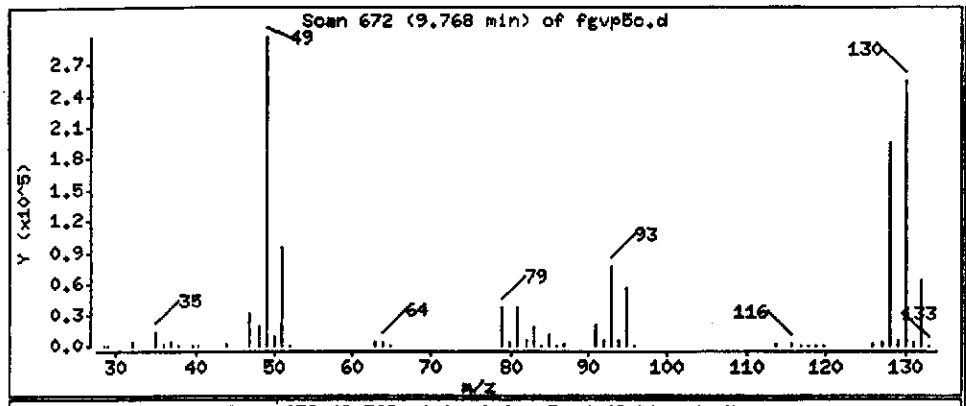
Operator: 0691

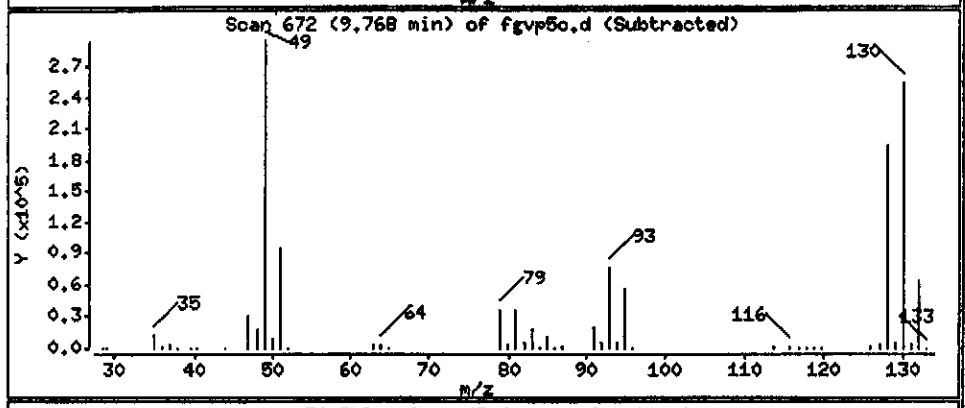
Column phase: DB-5

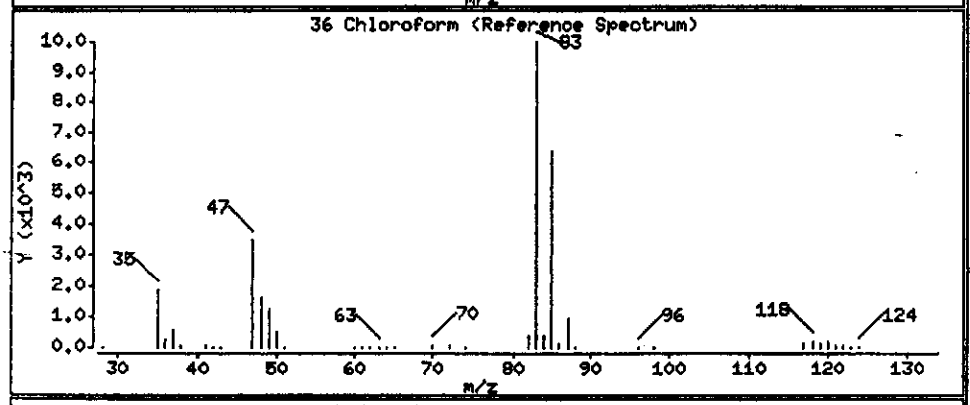
Column diameter: 0.32

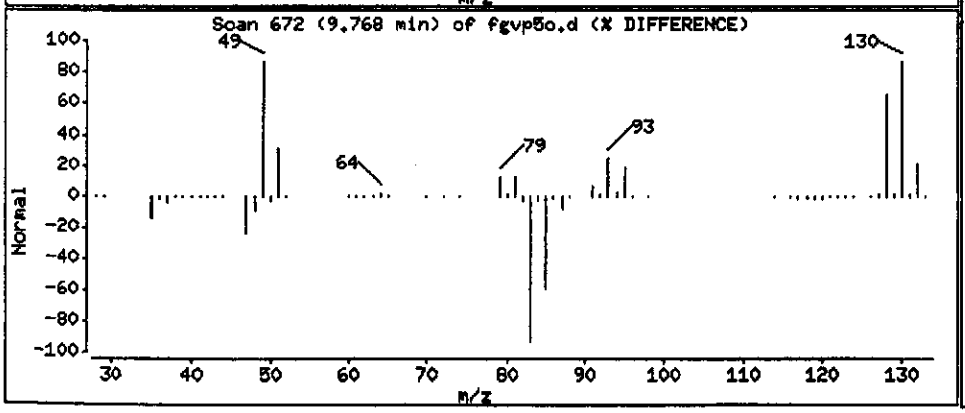
36 Chloroform

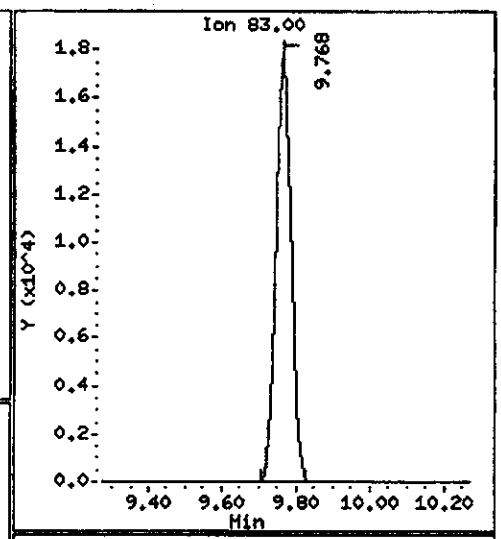
Concentration: 3.828 ppb(v/v)

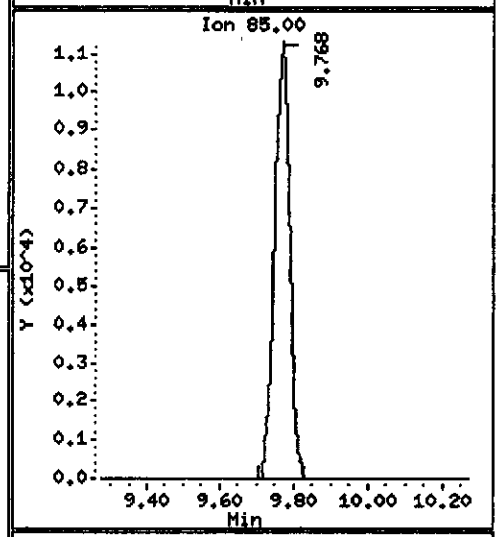


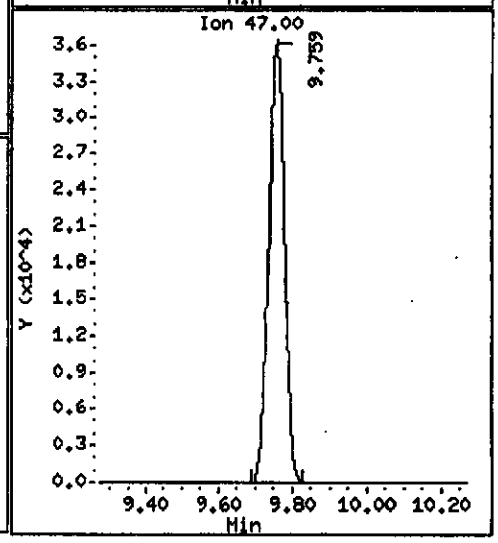












Data File: /var/chem/gcms/mt.i/T020403.b/fgvp5c.d

Date : 04-FEB-2003 22:11

Client ID: B167D7 DUP

Instrument: mt.i

Sample Info: FGVP51AC,8.95,0,,

Volume Injected (uL): 500.0

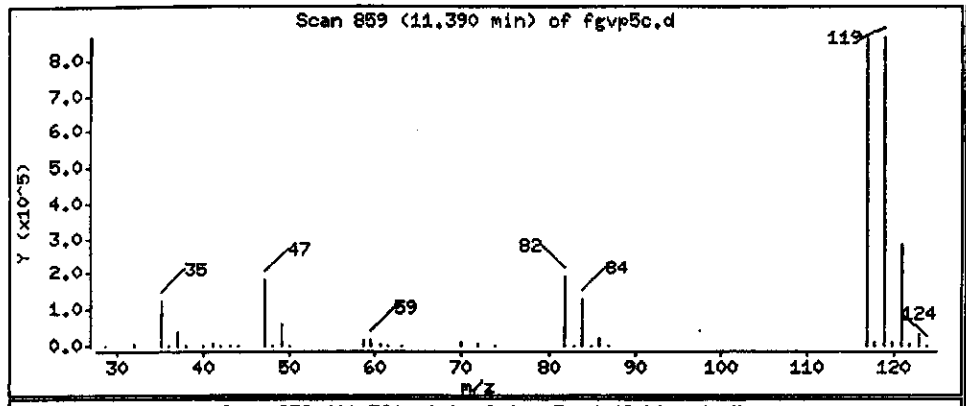
Operator: 0691

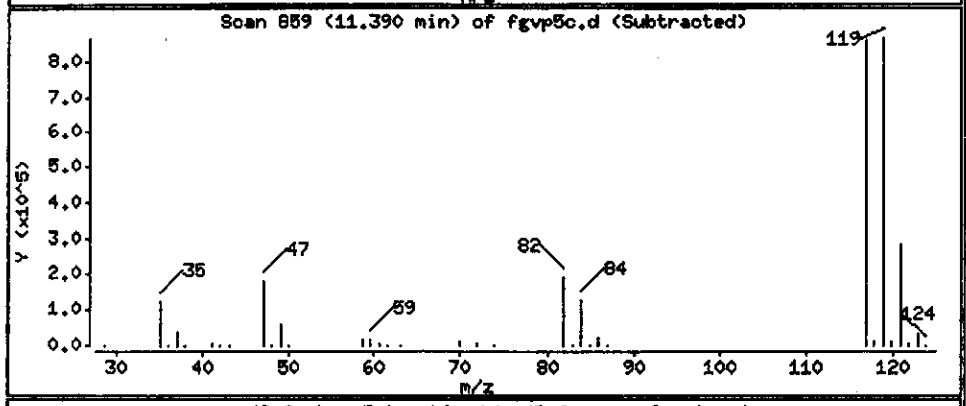
Column phase: DB-5

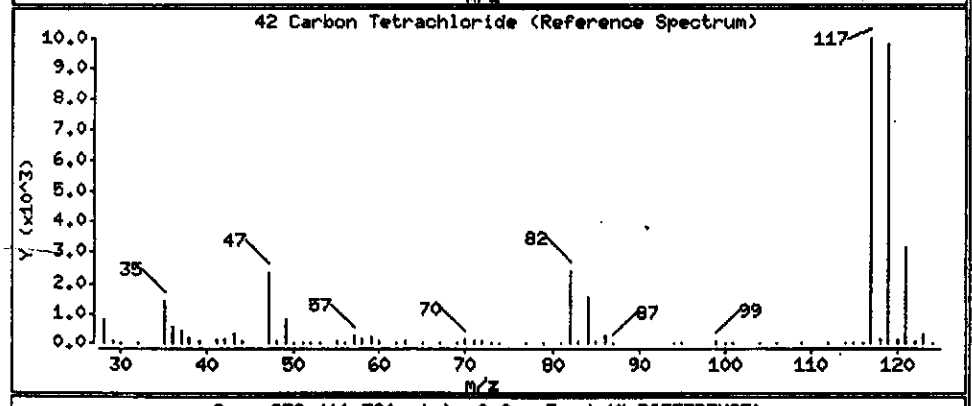
Column diameter: 0.32

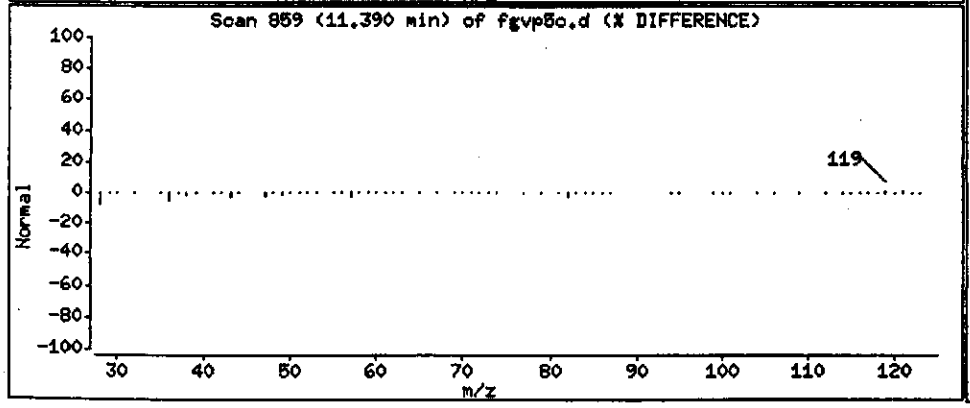
42 Carbon Tetrachloride

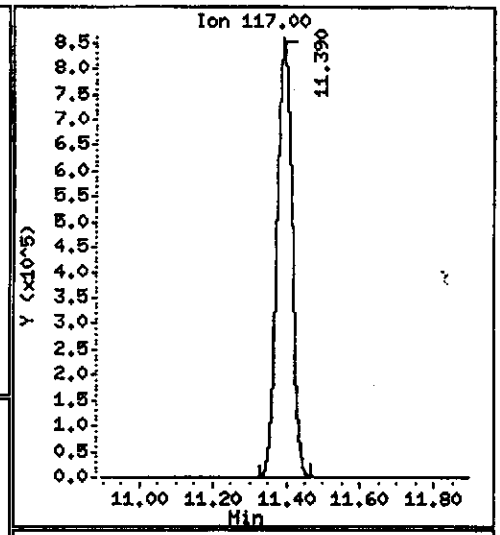
Concentration: 203.7 ppb(v/v)

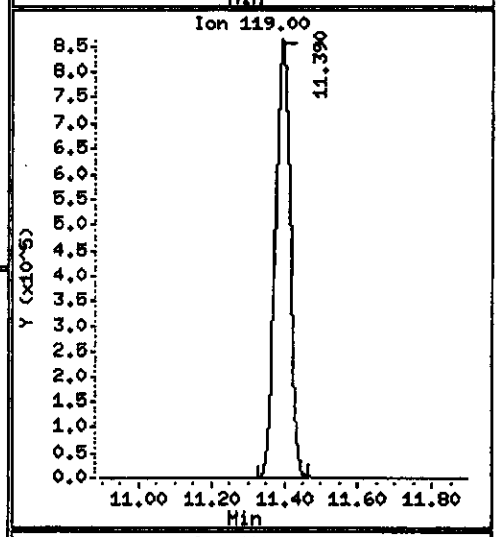


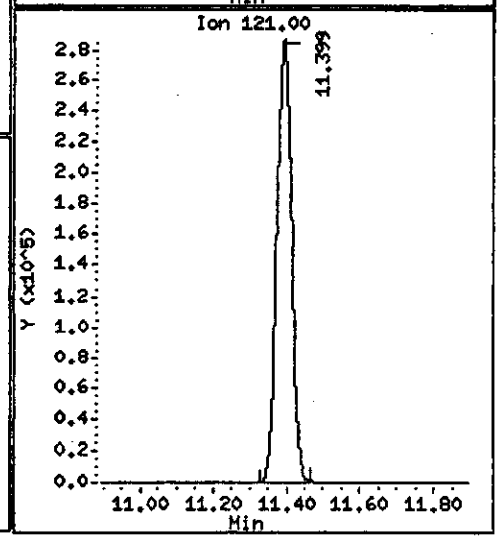












Data File: /var/chem/goms/mt.i/T020403.b/fgvp5c.d

Date : 04-FEB-2003 22:11

Client ID: B167D7 DUP

Instrument: mt.i

Sample Info: FGVP51AC,8.95,0,,

Volume Injected (uL): 500.0

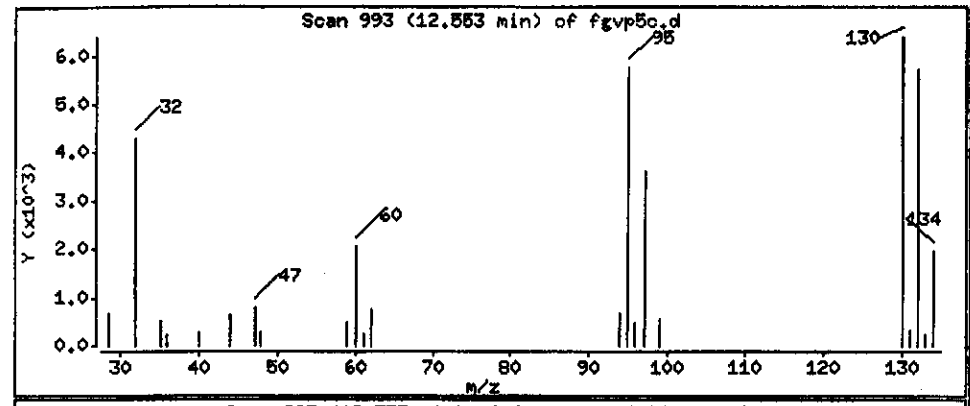
Operator: 0691

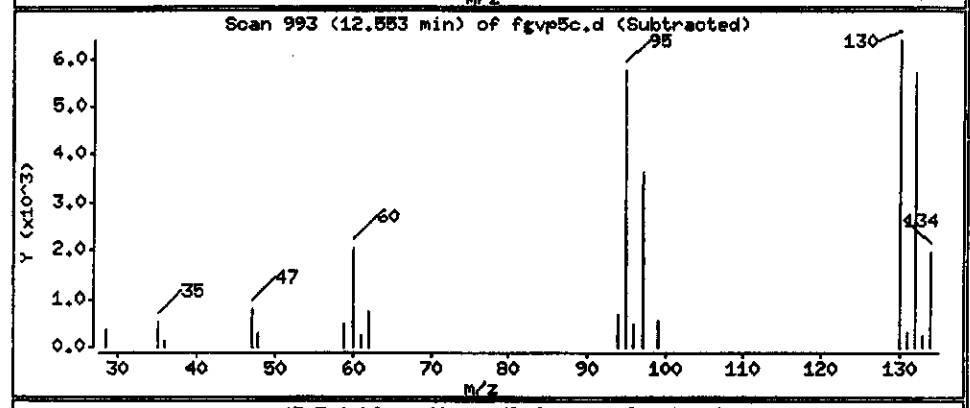
Column phase: DB-5

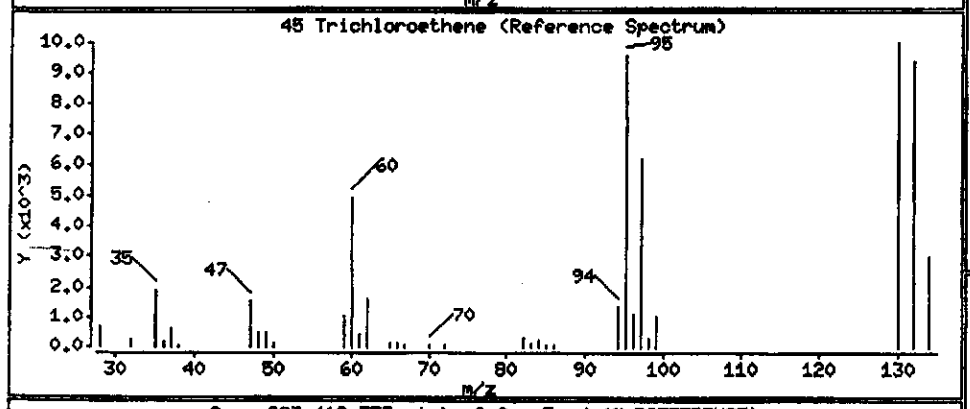
Column diameter: 0.32

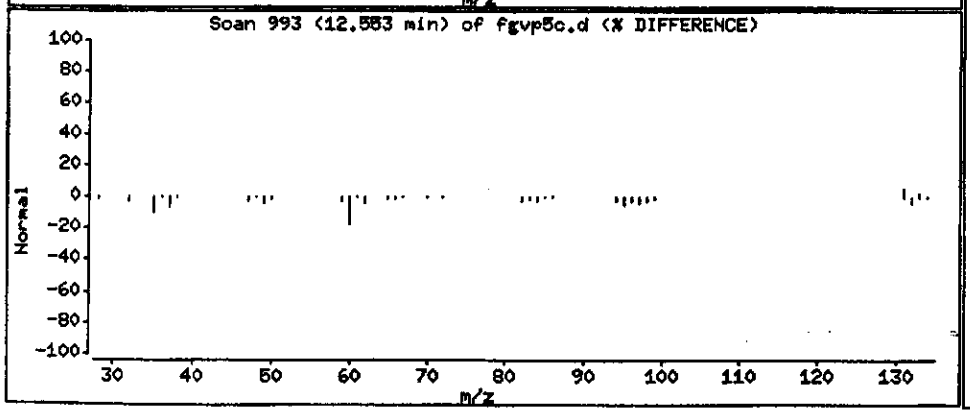
45 Trichloroethene

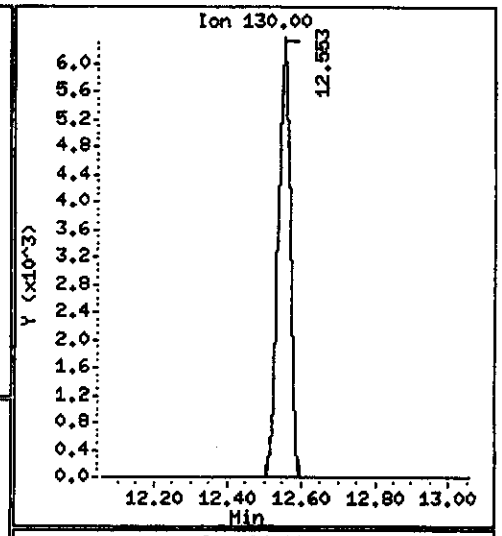
Concentration: 1.521 ppb(v/v)

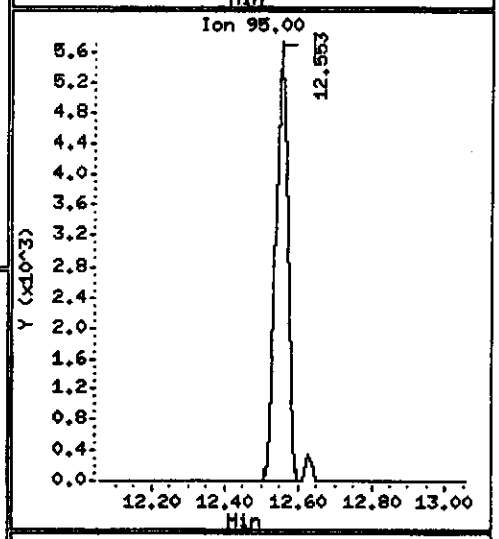


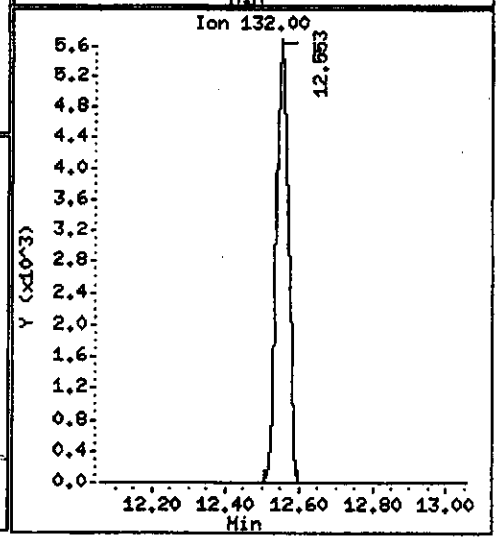












Miscellaneous Data

STL Knoxville GC/MS Air Data Review / Narrative Checklist **LOT/Project #** H3A 300116

Method: TO-14 and TO-15 - KNOX-MS-0001, Rev 3 **Page 1 of 1**

Instrument:	MT	
Scanned File Names:	T013003i	
	T020403	

Review Items **A. Tune / Continuing Calibration**	N/A	Yes	No	Why is data reportable?	2nd ✓
1. Were all samples injected within 24 hr of BFB?		✓			✓
2. Has a Continuing Calibration Checklist been completed for each analytical batch?		✓			✓
3. Was the correct CCAL used for quantitation?		✓			✓
B. CLIENT SAMPLE AND QC SAMPLE Results	N/A	Yes	No	Why is data reportable?	
1. Were all special project requirements met?		✓			✓
2. Were dilution factors/header information verified?		✓			✓
3. Are surrogates and internal standards within QC limits? (70-130% R for surr.; 60-140%R from CCAL for IS) *If no, list samples/reason (e.g.,* **sur1***):* Sample Reason Sample Reason		✓		☐[sur1] DUP surr. %R demonstrated same effect. ☐[sur2] Reanalysis demonstrated same effect. **☐[sur5] At client's request, data was flagged as estimated & released without further investigation.*** **☐[is1] Per client, reanalysis was not performed *** ☐[is2] Reanalysis confirmed a matrix effect.	✓
4. Were positive hits evaluated using qualitative identification criteria and technical judgement?		✓			✓
5. Are positive results within calibration range?		✓			✓
6. For dilutions, is highest concentration hit ≥ 5 ppb? *List samples and reason (e.g.,* elev1*):* Sample Reason Sample Reason		✓		☐[elev1] Elevated RL for (ANALYTE) due to sample matrix interferences. ☐[elev3] Elevated RLs for all analytes due to difficult sample matrix. ☐[elev5] Elevated RLs for all analytes due to presence of non-target compounds.	✓
7. If manual integrations were performed, are they clearly identified, initialed, dated and reason given?	✓			Reasons: 1)Corrected split peak; 2)Unresolved peak; 3)tailing; 4)RT shift; 5)wrong peak selected; 6)other	NA
8. Have alternate hits/manual integrations been verified as correct?	✓				NA
9. Final report acceptable? (Results correct, RLs calculated correctly, units correct, surrogate %R correct, appropriate flags used, dilution factor correct, analysis dates correct.)		✓			✓
10. Was a narrative prepared and all deviations noted?		✓			✓
C. Preparation QC					
1. System blank run every 24 hours prior to samples?		✓			✓
2. System blank surrogate recoveries within QC limits (70-130% R) ?		✓		**☐[mb1] All sample surrogates OK and there is no analyte >RL in samples associated with blank.***	✓
3. Are all analytes present in the system blank < RL? *If no, list blank ID:*		✓		**☐[mb3] No analyte > RL in associated samples.*** **☐[mb4] Sample results > 20x higher than blank.** ☐[mb6] Common lab contaminant (methylene chloride/Freon) ≤2x RL.*	✓
4. DUP done per 20 samples and are all RPDs within limits? (for analytes >5x RL, ≤30 RPD for nonpolars; ≤40 RPD for polars; no criteria for methanol and n-butanol) *If no, list DUP ID:*		✓			✓
D. Other					
1. Are all nonconformances documented appropriately and copy included with deliverable?	✓				NA

Analyst: CWJ	**Date:** 2/5/03	**2nd Level Reviewer:**	**Date:** 02/10/03
Comments:		**Comments:**	

* Such action must be taken in consultation with client.

MT 2/4/03

RQC058

Severn Trent Laboratories, Inc.
EXTRACTION BENCH WORKSHEET

Run Date: 2/05/03
Time: 15:30:00

LEV 1	LEV 2		LEV 1	LEV 2	
_	_	Blank	_	_	Weights/Volumes
_	_	Check	_	_	Spike & Surrogate Worksheet
_	_	MS/MSD	_	_	Vial contains correct volume
			_	_	Labels, greenbars, worksheets
			_	_	computer batch: correct & all match
			_	_	Anomalies to Extraction Method

_ Expanded Deliverable
_ COC Completed
_ Bench Sheet Copied
_ Package Submitted to AnalyticalGroup
_ Bench Sheet Copied per COC

Extractionist: _____

Concentrationist: _____

****
* QC BATCH: 3036230 *
****

PREP DATE: 2/04/03
COMP DATE: 2/04/03

Reviewer/Date: _____ / 0/00/00

Volatile Organics, (GCMS-TO14 Low Level) ppb(v/v)
NO SAMPLE PREPARATION PERFORMED / DIRECT INJECTION

EXTR EXPR	ANL DUE	LOT#,MSRUN#/ WORK ORDER	TEST FLGS	EXT	MTH	MATRIX	INIT/FIN WT/VOL	PH"S INIT	PH"S ADJ1	ADJ2	SOLVENTS EXTRACTION	VOL	EXCHANGE	VOL	SPIKE STANDARD/ SURROGATE ID
0/00/00	2/07/03	H3A270151-001 FGN8X-1-AA		88	JY	AIR	mL	NA	NA	NA		.0		.0	CX-929
COMMENTS:															
0/00/00	2/07/03	H3A270151-002 FGN84-1-AA		88	JY	AIR	mL	NA	NA	NA		.0		.0	CX-929
COMMENTS:															
0/00/00	2/14/03	H3A280130-001 FGQJD-1-AA	D	88	JY	AIR	mL	NA	NA	NA		.0		.0	CX-929
COMMENTS:															
0/00/00	2/14/03	H3A280130-002 FGQJH-1-AA	D	88	JY	AIR	mL	NA	NA	NA		.0		.0	CX-929
COMMENTS:															
0/00/00	2/17/03	H3A300113-003 FGVPL-1-AA		88	JY	AIR	mL	NA	NA	NA		.0		.0	CX-929
COMMENTS:															
0/00/00	2/13/03	H3A300116-001 FGVP2-1-AA		88	JY	AIR	mL	NA	NA	NA		.0		.0	CX-929
COMMENTS:															
0/00/00	2/13/03	H3A300116-002 FGVP5-1-AA		88	JY	AIR	mL	NA	NA	NA		.0		.0	CX-929
COMMENTS:															

RQC058

Severn Trent Laboratories, Inc.
EXTRACTION BENCH WORKSHEET

Run Date: 2/05/03
Time: 15:30:00

QC BATCH: 3036230

PREP DATE: 2/04/03
COMP DATE: 2/04/03

EXTR EXPR	ANL DUE	LOT#,MSRUN#/ WORK ORDER	TEST FLGS	EXT	MTH	MATRIX	INIT/FIN WT/VOL	INIT	PH"S ADJ1	ADJ2	SOLVENTS EXTRACTION	VOL	EXCHANGE	VOL	SPIKE STANDARD/ SURROGATE ID
0/00/00 COMMENTS:	2/13/03	H3A300116-002 FGVP5-1-ACX		88	JY	AIR	mL	NA	NA	NA		.0		.0	CX-929
0/00/00 COMMENTS:	2/10/03	H3B040173-006 FG4HK-1-AA	DR	88	JY	AIR	mL	NA	NA	NA		.0		.0	CX-929
0/00/00 COMMENTS:	2/10/03	H3B040173-007 FG4HM-1-AA	DR	88	JY	AIR	mL	NA	NA	NA		.0		.0	CX-929
0/00/00 COMMENTS:	2/10/03	H3B040173-008 FG4HP-1-AA	DR	88	JY	AIR	mL	NA	NA	NA		.0		.0	CX-929
0/00/00 COMMENTS:	2/10/03	H3B040173-009 FG4HQ-1-AA	DR	88	JY	AIR	mL	NA	NA	NA		.0		.0	CX-929
0/00/00 COMMENTS:	2/10/03	H3B040173-010 FG4HR-1-AA	DR	88	JY	AIR	mL	NA	NA	NA		.0		.0	CX-929
0/00/00 COMMENTS:	2/10/03	H3B040173-011 FG4HT-1-AA	DR	88	JY	AIR	mL	NA	NA	NA		.0		.0	CX-929
0/00/00 COMMENTS:	2/10/03	H3B040173-012 FG4HV-1-AA	DR	88	JY	AIR	mL	NA	NA	NA		.0		.0	CX-929
0/00/00 COMMENTS:	2/10/03	H3B040173-013 FG4HW-1-AA	DR	88	JY	AIR	mL	NA	NA	NA		.0		.0	CX-929
0/00/00 COMMENTS:	0/00/00	H3B050000-230 FG508-1-AAB		88	JY	AIR	mL	NA	NA	NA		.0		.0	CX-929

RQC058

Severn Trent Laboratories, Inc.
EXTRACTION BENCH WORKSHEET

Run Date: 2/05/03
Time: 15:30:00

****
* QC BATCH: 3036230 *
****

PREP DATE: 2/04/03
COMP DATE: 2/04/03

EXTR EXPR	ANL DUE	LOT#,MSRUN#/ WORK ORDER	TEST FLGS	EXT	MTH	MATRIX	INIT/FIN WT/VOL	INIT	PH"S ADJ1	ADJ2	SOLVENTS EXTRACTION	VOL	EXCHANGE	VOL	SPIKE STANDARD/ SURROGATE ID
0/00/00	0/00/00	H3B050000-230 FG508-1-ACC		88	JY	AIR	100mL 100.00mL	NA	NA	NA		.0		.0	CX-998 CX-929

COMMENTS:

R = RUSH C = CLP
E = EPA 600 D = EXP.DEL)
M = CLIENT REQ MS/MSD
‡

NUMBER OF WORK ORDERS IN BATCH: 18

STL-Knoxville Initial Canister Dilution

Analyst: DDF

Barometer: 30.17 inches Hg at sea level Date: 1/30/03
736.218 mm Hg at Knoxville

Lot #	W/O #	P init inches	P init Abs,mm	P final psig	P final Abs,mm	Dilution Factor	
H3A300116	FGV P2	0.0	736.2	10.2	1263.7	1.72	(P2)
	FGV P5	0.0	736.2	11.2	1315.4	1.79	(P5)

1 psig = 2.036 inch Hg
Pinit(Abs,mm)=(Pinit(inch)*25.4mm/inch)+Pbar(mm)
Pfinal(Abs,mm)=(Pfinal(psig)*2.036 (inch Hg/psig)*25.4 (mm/inch))+Pbar(mm)
dilution factor = Pfinal(Abs,mm)/Pinit(Abs,mm)
barometer: correction factor for 300 m altitude of Knoxville = 30.1 from Handbook of Chem and Physics
pressure in mm Hg = [(pressure at sea level in inches*25.4 mm/in) - 30.1]

cjcandil.xls
rev.03

141

STL-Knoxville

TO-14/TO-15 Canister Dilution Log

28

Initial Dilution								In-Can Dilution				Serial Dilution					
Analyst	Date	Pbarr (in.)	Lot #	Work Order #	Can #	Initial Pressure Pi (in.)	Final Pressure Pf (psig)	Analyst	Date	Pbarr (in.)	Final Pressure Pf (psig)	Analyst	Date	Pbarr (in.)	To Can #	Volume (ml)	Final Pressure Pf (psig)
DDF	1-30-03	30.17	A300141	FGVXL	1795	-9.9	12.0										
				XO	1832	-12.0	12.1										
				X2	1775	0	12.1										
				~~X4~~	~~04329~~	~~-19.6~~	~~11.4~~	DF 1-30-03									
				X9	1774	-12.9	10.6										
				OK	1914	-10.6	11.2										
				OL	0143	-12.2	11.8										
				OM	0077	0	11.8										
				OP	2045	-13.6	11.7										
				OR	1788	-12.1	11.3										
			A300165	FGVBH	1809	0	10.3										
				BJ	12829	0	10.3										
				BL	12880	0	10.3										
				BI	1791	0	10.5										
			A300116	FGVP2	12444	0	10.2										
				P5	04327	0	11.2										
			A300113	FGVPJ	05357	0	10.6										
				PL	1776	0	11.0										

Updated: **8:53 AM EST on January 30,** Observed at **Knoxville, Tennessee**	
Temperature	**37** °F / **3** °C
Windchill	**31** °F / **-1** °C
Humidity	**100%**
Dew Point	**37** °F / **3** °C
Wind	**North** at **8** mph / **12.9** km/h
Wind Gust	-
Pressure	**30.17** in

Sample Receipt Documentation

H3A300116

FH - Central Plateau Project	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	F02-002-003	Page 1 of 1

Collector M. Bacchler/T. Johansen THOMAS	**Company Contact** J. V. Borghese	**Telephone No.** 373-3804	**Project Coordinator** TRENT, SJ	**Price Code** 9N	**Data Turnaround** 45 Days
Project Designation 200-ZP-1 Pump and Treat Operational Monitoring	**Sampling Location** 200-ZP-1		**SAF No.** F02-002	**Air Quality** ☐	
Ice Chest No. N/A	**Field Logbook No.** HNF-N-295	**COA** 117523ES10	**Method of Shipment** Government Vehicle		
Shipped To Severn Trent Incorporated, Richland	**Offsite Property No.** N/A		**Bill of Lading/Air Bill No.** N/A		

POSSIBLE SAMPLE HAZARDS/REMARKS

Special Handling and/or Storage

Preservation	None										
Type of Container	Summa Canister										
No. of Container(s)	1										
Volume	6L										
SAMPLE ANALYSIS	See item (1) in Special Instructions										
Sample No.	Matrix *	Sample Date	Sample Time								
B167D6	GASEOUS	1-29-03	1007	X							
B167D7	GASEOUS	1-29-03	1010	X							

CHAIN OF POSSESSION		Sign/Print Names	
Relinquished By/Removed From	Date/Time 1445	Received By/Stored In	Date/Time 1445
Matthew Johansen 1/29/03		Greg Thomas 1/29/03	
Relinquished By/Removed From	Date/Time 1245	Received By/Stored In STL	Date/Time 12:40
Greg Thomas 1/29/03		Rhineheart 1/29/03	
Relinquished By/Removed From	Date/Time 1300	Received By/Stored In	Date/Time
Rhineheart 1/29/03			
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time

SPECIAL INSTRUCTIONS

(1) VOA - T0-14 (2-Butanone, Acetone, Carbon tetrachloride, Chloroform, Methylenechloride, Tetrachloroethene, Trichloroethene)

Rec'd temp. Ambient
custody seals intact
1 BOX Fedex#
790686549028
MFH 01-30-03

Matrix *
S=Soil
SE=Sediment
SO=Solid
SL=Sludge
W = Water
O=Oil
A=Air
DS=Drum Solids
DL=Drum Liquids
T=Tissue
WI=Wipe
L=Liquid
V=Vegetation
X=Other

LABORATORY SECTION	Received By Matthew F. Johansen	Title	Date/Time 01-30-03, 08:50
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

BHI-EE-011 (03/01/2002)

Original Chain of Custody Documentation

H3H3001116

FH - Central Plateau Project	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	F02-002-003	Page 1 of 1

Collector M. Baechler/T. Johansen	**Company Contact** J. V. Borghese	**Telephone No.** 373-3804	**Project Coordinator** TRENT, SJ	**Price Code** 9N	**Data Turnaround** 45 Days
Project Designation 200-ZP-1 Pump and Treat Operational Monitoring	**Sampling Location** 200-ZP-1		**SAF No.** F02-002	**Air Quality** ☐	
Ice Chest No. N/A	**Field Logbook No.** HNF-N-295	**COA** 117523ES10	**Method of Shipment** Government Vehicle		
Shipped To Severn Trent Incorporated, Richland	**Offsite Property No.** N/A		**Bill of Lading/Air Bill No.** N/A		

POSSIBLE SAMPLE HAZARDS/REMARKS

Special Handling and/or Storage

Preservation	None										
Type of Container	Summa Canister										
No. of Container(s)	1										
Volume	6L										
SAMPLE ANALYSIS	See item (1) in Special Instructions.										

Sample No.	Matrix *	Sample Date	Sample Time										
B167D6	GASEOUS	1-29-03	1007	X									
B167D7	GASEOUS	1-29-03	1010	X									

CHAIN OF POSSESSION

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Matthew Baechler	1/29/03 1445	Greg Thomas	1/29/03 1445
Greg Thomas	1/29/03 1240	STL	1/29/03 1240
STL	1/29/03 1300	Rhineheart	1/29/03

Sign/Print Names

SPECIAL INSTRUCTIONS

(1) VOA - T0-14 {2-Butanone, Acetone, Carbon tetrachloride, Chloroform, Methylenechloride, Tetrachloroethene, Trichloroethene}

Rec'd temp. Ambient
custody seals intact
1 Box Fedex#
7906 8654 9828
MFH 01-30-03

Matrix *

S=Soil
SE=Sediment
SO=Solid
SI=Sludge
W = Water
O=Oil
A=Air
DS=Drum Solids
DL=Drum Liquids
T=Tissue
WI=Wipe
L=Liquid
V=Vegetation
X=Other

LABORATORY SECTION	Received By Matthew F. Hensel	Title	Date/Time 01-30-03, 08:50
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

BHI-EE-011 (03/01/2002)