0059305

SAF-B03-013
618-4 Burial Ground - Suma Sampling
FINAL DATA PACKAGE

FAX RESULTS TO:

Jeff Lerch 373-5373 _____N/A_____
INITIAL/DATE

VERIFICATION OF CLIENT RECEIPT:

Phone or CC:Mail to Jeff Lerch _____N/A_____
INITIAL/DATE

MAIL COMPLETE COPY OF DATA PACKAGE TO:

Jeff Lerch L6-06 _____N/A_____
INITIAL/DATE

Doug Bowers H9-09 _____N/A_____
INITIAL/DATE

COMMENTS: (PLEASE INCLUDE THE FOLLOWING ON THE FAX COVER SHEET)

SDG _____W03982____ SAF-B03-013

Rad only X Chem only Rad & Chem

X Complete Partial

RECEIVED
MAY 13 2003
EDMC

Original Chain of Custody Documentation

FEB 2003

Bechtel Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	B03-013	Page 1 of 2

Collector: D. Bowers / Fahlberg	Company Contact: J. Larch	Telephone No.: 373-5904	Project Coordinator:
Project Designation: 300 IFF1	Sampling Location: 618-4	SAF No.: B03-013	Price Code: Air Quality ☐ 3 X days
Ice Chest No.:	Field Logbook No.:	COA: BG6184 2600	Method of Shipment: Gov Vehicle
Shipped To: STL Richland	Offsite Property No.: N/A		Bill of Lading/Air Bill No.: N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

Special Handling and/or Storage
Cool to 4 degrees C.

Preservation	None										
Type of Container	Suma										
No. of Container(s)	1										
Volume	6L										
SAMPLE ANALYSIS	VOA TO-14 Addon										

Sample No.	Matrix *	Sample Date	Sample Time										
J00208	Air	2-12-03	1345					#11413					
J00209	Air												
J00210	Air												
J00211	Air	2-12-03											
~~J00212~~													

CHAIN OF POSSESSION	Sign/Print Names	SPECIAL INSTRUCTIONS
Relinquished By: R. Fahlberg / R. Fahlberg 2-12-03 Date/Time 1545	Received By: J B 3728 2-12-03 Date/Time 1645	Rec'd temp Ambient Custody Seal intact 1 Box Fedex # 7906 9715 6057 MF# 02-14-03
Relinquished By: J B 3728 2-13-03 Date/Time 0730	Received By: R. Fahlberg / R. Fahlberg 2-13-03 Date/Time 0730	
Relinquished By: ER C / R. Fahlberg / R. Fahlberg 2-13-03 Date/Time 0800	Received By: T. Heidelberg Date/Time 2-13-03 0805	
Relinquished By: T. Heidelberg Date/Time 2-13-03	Received By: Date/Time	
Relinquished By: Date/Time	Received By: Date/Time	
Relinquished By: Date/Time	Received By: Date/Time	

Matrix *
S=Soil
SE=Sediment
SO=Solid
S=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 T. Hand	Title	Date/Time: 02-14-03, 09:30
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

BHI-EE-011 (10/99)

W03984 Sample Data Summary **1**

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- Raw Sample Data 29
- Standards Data 116
- Raw QC Data 182
- Miscellaneous Data 205

Sample Receipt Documentation **211**

Total Number of Pages **212**

SEVERN TRENT STL

CERTIFICATE OF ANALYSIS

Bechtel Hanford, Inc.
3350 George Washington Way
Richland, WA 99352

February 19, 2003

Attention: Joan Kessner

SAF Number	:	B03-013
Date Samples Received	:	February 14, 2003
Number of Samples	:	One (1)
Sample Type	:	Air
Data Deliverable	:	45 Day Data Package

I. Introduction

One (1) air samples were received on February 14, 2003 by the STL Knoxville Laboratory for analysis. Upon receipt, the samples were assigned the following laboratory ID number to correspond with the Becthel Hanford, Inc. (BHI) specific ID:

STLKL ID#	BHI ID#	MATRIX	DATE OF RECEIPT
FHLV0	J00208	Air	02/14/03

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

BECHTEL HANFORD, INC.

Lab Name:Severn Trent Laboratories, Inc. SDG Number:W03984

Matrix: (soil/water) AIR Lab Sample ID:H3B140158 001
Method: EPA-19 TO-14
Volatile Organics, (GCMS-TO14 Low Level) ppb(v/v)

Sample WT/Vol: / mL Date Received: 02/14/03
Work Order: FHLV01AA Date Extracted:02/17/03
Dilution factor: 1.74 Date Analyzed: 02/18/03

QC Batch: 3048279

Client Sample Id: J00208

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
75-71-8	**Dichlorodifluoromethane**	**0.64**	
75-45-6	Chlorodifluoromethane	0.35	U
76-14-2	1,2-Dichloro-1,1,2,2-tetrafl	0.35	U
74-87-3	Chloromethane	0.87	U
75-01-4	Vinyl chloride	0.35	U
106-97-8	**n-Butane**	**0.86**	
106-99-0	1,3-Butadiene	0.35	U
74-83-9	Bromomethane	0.35	U
75-00-3	Chloroethane	0.35	U
75-69-4	Trichlorofluoromethane	0.35	U
109-66-0	Pentane	0.87	U
75-35-4	1,1-Dichloroethene	0.35	U
76-13-1	1,1,2-Trichloro-1,2,2-triflu	0.35	U
75-15-0	Carbon disulfide	0.35	U
107-05-1	3-Chloropropene	0.35	U
75-09-2	Methylene chloride	0.87	U
156-60-5	trans-1,2-Dichloroethene	0.35	U
110-54-3	**n-Hexane**	**1.3**	
75-34-3	1,1-Dichloroethane	0.35	U
156-59-2	cis-1,2-Dichloroethene	0.35	U
67-66-3	Chloroform	0.35	U
71-55-6	1,1,1-Trichloroethane	0.35	U
110-82-7	**Cyclohexane**	**2.5**	
56-23-5	Carbon tetrachloride	0.35	U
71-43-2	Benzene	0.35	U
107-06-2	1,2-Dichloroethane	0.35	U
142-82-5	**n-Heptane**	**1.8**	
79-01-6	Trichloroethene	0.35	U

BECHTEL HANFORD, INC.

Lab Name:Severn Trent Laboratories, Inc. SDG Number:W03984

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Volatile Organics, (GCMS-TO14 Low Level) ppb(v/v)

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Date Received: 02/14/03
Date Extracted:02/17/03
Date Analyzed: 02/18/03

QC Batch: 3048279

Client Sample Id: J00208

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
78-87-5	1,2-Dichloropropane	0.35	U
74-95-3	Dibromomethane	0.35	U
75-27-4	Bromodichloromethane	0.35	U
10061-01-5	cis-1,3-Dichloropropene	0.35	U
108-88-3	**Toluene**	**0.39**	
111-65-9	**n-Octane**	**4.3**	
10061-02-6	trans-1,3-Dichloropropene	0.35	U
79-00-5	1,1,2-Trichloroethane	0.35	U
127-18-4	**Tetrachloroethene**	**42**	
124-48-1	Dibromochloromethane	0.35	U
106-93-4	1,2-Dibromoethane (EDB)	0.35	U
108-90-7	Chlorobenzene	0.35	U
100-41-4	Ethylbenzene	0.35	U
136777-61-2	**m-Xylene & p-Xylene**	**0.71**	
111-84-2	**Nonane**	**1.1**	
95-47-6	o-Xylene	0.35	U
100-42-5	Styrene	0.35	U
75-25-2	Bromoform	0.35	U
98-82-8	Cumene	0.35	U
79-34-5	1,1,2,2-Tetrachloroethane	0.35	U
103-65-1	n-Propylbenzene	0.35	U
108-67-8	1,3,5-Trimethylbenzene	0.35	U
124-18-5	**n-Decane**	**8.5**	
98-83-9	alpha-Methylstyrene	0.35	U
95-63-6	1,2,4-Trimethylbenzene	0.35	U
541-73-1	1,3-Dichlorobenzene	0.35	U
106-46-7	1,4-Dichlorobenzene	0.35	U
100-44-7	Benzyl chloride	0.35	U

BECHTEL HANFORD, INC.

Lab Name:Severn Trent Laboratories, Inc. SDG Number:W03984

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QC Batch: 3048279

Client Sample Id: J00208

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
95-50-1	1,2-Dichlorobenzene	0.35	U
1120-21-4	**n-Undecane**	**0.37**	
112-40-3	**n-Dodecane**	**1.3**	
120-82-1	1,2,4-Trichlorobenzene	0.35	U
87-68-3	Hexachlorobutadiene	0.35	U
91-20-3	Naphthalene	0.35	U
67-56-1	Methanol	17	U
60-29-7	Ethyl ether	0.87	U
67-64-1	**Acetone**	**29**	
107-13-1	Acrylonitrile	0.87	U
108-05-4	Vinyl acetate	0.87	U
78-93-3	**2-Butanone (MEK)**	**6.1**	
71-36-3	1-Butanol	0.87	U
108-10-1	4-Methyl-2-pentanone (MIBK)	0.87	U
591-78-6	2-Hexanone	0.87	U
1634-04-4	Methyl tert-butyl ether	0.87	U
107-02-8	Acrolein	0.87	U
75-05-8	Acetonitrile	1.7	U

BECHTEL HANFORD, INC.
METHOD BLANK COMPOUNDS

Lab Name:Severn Trent Laboratories, Inc. SDG Number:W03984

Matrix: (soil/water) AIR Lab Sample ID:H3B170000 279
Method: EPA-19 TO-14
Volatile Organics, (GCMS-TO14 Low Level) ppb(v/v)

Sample WT/Vol: / mL Date Received: 02/15/03
Work Order: FHQC31AA Date Extracted:02/17/03
Dilution factor: 1 Date Analyzed: 02/17/03

QC Batch: 3048279

Client Sample Id: INTRA-LAB BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
75-71-8	Dichlorodifluoromethane	0.20	U
75-45-6	Chlorodifluoromethane	0.20	U
76-14-2	1,2-Dichloro-1,1,2,2-tetrafl	0.20	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl chloride	0.20	U
106-97-8	n-Butane	0.20	U
106-99-0	1,3-Butadiene	0.20	U
74-83-9	Bromomethane	0.20	U
75-00-3	Chloroethane	0.20	U
75-69-4	Trichlorofluoromethane	0.20	U
109-66-0	Pentane	0.50	U
75-35-4	1,1-Dichloroethene	0.20	U
76-13-1	1,1,2-Trichloro-1,2,2-triflu	0.20	U
75-15-0	Carbon disulfide	0.20	U
107-05-1	3-Chloropropene	0.20	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.20	U
110-54-3	n-Hexane	0.20	U
75-34-3	1,1-Dichloroethane	0.20	U
156-59-2	cis-1,2-Dichloroethene	0.20	U
67-66-3	Chloroform	0.20	U
71-55-6	1,1,1-Trichloroethane	0.20	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.20	U
71-43-2	Benzene	0.20	U
107-06-2	1,2-Dichloroethane	0.20	U
142-82-5	n-Heptane	0.20	U
79-01-6	Trichloroethene	0.20	U

BECHTEL HANFORD, INC.
METHOD BLANK COMPOUNDS

Lab Name:Severn Trent Laboratories, Inc. SDG Number:W03984

Matrix: (soil/water) AIR Lab Sample ID:H3B170000 279
Method: EPA-19 TO-14
Volatile Organics, (GCMS-TO14 Low Level) ppb(v/v)

Sample WT/Vol: / mL Date Received: 02/15/03
Work Order: FHQC31AA Date Extracted:02/17/03
Dilution factor: 1 Date Analyzed: 02/17/03

QC Batch: 3048279

Client Sample Id: INTRA-LAB BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
78-87-5	1,2-Dichloropropane	0.20	U
74-95-3	Dibromomethane	0.20	U
75-27-4	Bromodichloromethane	0.20	U
10061-01-5	cis-1,3-Dichloropropene	0.20	U
108-88-3	Toluene	0.20	U
111-65-9	n-Octane	0.20	U
10061-02-6	trans-1,3-Dichloropropene	0.20	U
79-00-5	1,1,2-Trichloroethane	0.20	U
127-18-4	Tetrachloroethene	0.20	U
124-48-1	Dibromochloromethane	0.20	U
106-93-4	1,2-Dibromoethane (EDB)	0.20	U
108-90-7	Chlorobenzene	0.20	U
100-41-4	Ethylbenzene	0.20	U
136777-61-2	m-Xylene & p-Xylene	0.20	U
111-84-2	Nonane	0.20	U
95-47-6	o-Xylene	0.20	U
100-42-5	Styrene	0.20	U
75-25-2	Bromoform	0.20	U
98-82-8	Cumene	0.20	U
79-34-5	1,1,2,2-Tetrachloroethane	0.20	U
103-65-1	n-Propylbenzene	0.20	U
108-67-8	1,3,5-Trimethylbenzene	0.20	U
124-18-5	n-Decane	0.20	U
98-83-9	alpha-Methylstyrene	0.20	U
95-63-6	1,2,4-Trimethylbenzene	0.20	U
541-73-1	1,3-Dichlorobenzene	0.20	U
106-46-7	1,4-Dichlorobenzene	0.20	U
100-44-7	Benzyl chloride	0.20	U

BECHTEL HANFORD, INC.
METHOD BLANK COMPOUNDS

Lab Name:Severn Trent Laboratories, Inc. SDG Number:W03984

Matrix: (soil/water) AIR Lab Sample ID:H3B170000 279
Method: EPA-19 TO-14
Volatile Organics, (GCMS-TO14 Low Level) ppb(v/v)

Sample WT/Vol: / mL Date Received: 02/15/03
Work Order: FHQC31AA Date Extracted:02/17/03
Dilution factor: 1 Date Analyzed: 02/17/03

QC Batch: 3048279

Client Sample Id: INTRA-LAB BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
95-50-1	1,2-Dichlorobenzene	0.20	U
1120-21-4	n-Undecane	0.20	U
112-40-3	n-Dodecane	0.20	U
120-82-1	1,2,4-Trichlorobenzene	0.20	U
87-68-3	Hexachlorobutadiene	0.20	U
91-20-3	Naphthalene	0.20	U
67-56-1	Methanol	10	U
60-29-7	Ethyl ether	0.50	U
67-64-1	Acetone	5.0	U
107-13-1	Acrylonitrile	0.50	U
108-05-4	Vinyl acetate	0.50	U
78-93-3	2-Butanone (MEK)	0.50	U
71-36-3	1-Butanol	0.50	U
108-10-1	4-Methyl-2-pentanone (MIBK)	0.50	U
591-78-6	2-Hexanone	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
107-02-8	Acrolein	0.50	U
75-05-8	Acetonitrile	1.0	U

BECHTEL HANFORD, INC.
CHECK SAMPLE COMPOUNDS

Lab Name:Severn Trent Laboratories, Inc. SDG Number:W03984

Matrix: (soil/water) AIR Lab Sample ID:H3B170000 279
Method: EPA-19 TO-14
Volatile Organics, (GCMS-TO14 Low Level) ppb(v/v)

Sample WT/Vol: 100 / mL Date Received: 02/15/03
Work Order: FHQC31AC Date Extracted:02/17/03
Dilution factor: 1 Date Analyzed: 02/17/03

QC Batch: 3048279

Client Sample Id: CHECK SAMPLE

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
75-71-8	Dichlorodifluoromethane	10.2	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafl	10.1	
74-87-3	Chloromethane	10.1	
75-01-4	Vinyl chloride	10.2	
74-83-9	Bromomethane	10.1	
75-00-3	Chloroethane	10.0	
75-69-4	Trichlorofluoromethane	10.1	
75-35-4	1,1-Dichloroethene	10.2	
76-13-1	1,1,2-Trichloro-1,2,2-triflu	10.1	
75-09-2	Methylene chloride	10.2	
75-34-3	1,1-Dichloroethane	10.2	
156-59-2	cis-1,2-Dichloroethene	10.0	
67-66-3	Chloroform	10.2	
71-55-6	1,1,1-Trichloroethane	10.2	
56-23-5	Carbon tetrachloride	9.97	
71-43-2	Benzene	10.3	
107-06-2	1,2-Dichloroethane	10.3	
79-01-6	Trichloroethene	10.4	
78-87-5	1,2-Dichloropropane	10.4	
10061-01-5	cis-1,3-Dichloropropene	10.4	
108-88-3	Toluene	10.3	
10061-02-6	trans-1,3-Dichloropropene	10.2	
79-00-5	1,1,2-Trichloroethane	10.3	
127-18-4	Tetrachloroethene	10.5	
106-93-4	1,2-Dibromoethane (EDB)	10.2	
108-90-7	Chlorobenzene	10.4	
100-41-4	Ethylbenzene	10.3	
136777-61-2	m-Xylene & p-Xylene	10.4	

BECHTEL HANFORD, INC.
CHECK SAMPLE COMPOUNDS

Lab Name:Severn Trent Laboratories, Inc. SDG Number:W03984

Matrix: (soil/water) AIR Lab Sample ID:H3B170000 279
Method: EPA-19 TO-14
Volatile Organics, (GCMS-TO14 Low Level) ppb(v/v)

Sample WT/Vol: 100 / mL Date Received: 02/15/03
Work Order: FHQC31AC Date Extracted:02/17/03
Dilution factor: 1 Date Analyzed: 02/17/03

QC Batch: 3048279

Client Sample Id: CHECK SAMPLE

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
95-47-6	o-Xylene	10.3	
100-42-5	Styrene	10.3	
79-34-5	1,1,2,2-Tetrachloroethane	10.3	
108-67-8	1,3,5-Trimethylbenzene	10.7	
95-63-6	1,2,4-Trimethylbenzene	10.3	
541-73-1	1,3-Dichlorobenzene	10.2	
106-46-7	1,4-Dichlorobenzene	10.2	
100-44-7	Benzyl chloride	10.4	
95-50-1	1,2-Dichlorobenzene	10.3	
120-82-1	1,2,4-Trichlorobenzene	10.6	
87-68-3	Hexachlorobutadiene	9.36	
67-64-1	Acetone	20.8	

BECHTEL HANFORD, INC.

Lab Name:Severn Trent Laboratories, Inc. SDG Number:W03984

Matrix: (soil/water) AIR Lab Sample ID:H3B140158 001
Method: EPA-19 TO-14
Volatile Organics, (GCMS-TO14 Low Level) ppb(v/v)

Sample WT/Vol: / mL
Work Order: FHLV01AC
Dilution factor: 1.74

Date Received: 02/14/03
Date Extracted:02/17/03
Date Analyzed: 02/18/03

QC Batch: 3048279

Client Sample Id: J00208 DUP

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
75-71-8	Dichlorodifluoromethane	0.60	
75-45-6	Chlorodifluoromethane	0.35	U
76-14-2	1,2-Dichloro-1,1,2,2-tetrafl	0.35	U
74-87-3	Chloromethane	0.87	U
75-01-4	Vinyl chloride	0.35	U
106-97-8	n-Butane	0.75	
106-99-0	1,3-Butadiene	0.35	U
74-83-9	Bromomethane	0.35	U
75-00-3	Chloroethane	0.35	U
75-69-4	Trichlorofluoromethane	0.35	U
109-66-0	Pentane	0.87	U
75-35-4	1,1-Dichloroethene	0.35	U
76-13-1	1,1,2-Trichloro-1,2,2-triflu	0.35	U
75-15-0	Carbon disulfide	0.35	U
107-05-1	3-Chloropropene	0.35	U
75-09-2	Methylene chloride	0.87	U
156-60-5	trans-1,2-Dichloroethene	0.35	U
110-54-3	n-Hexane	1.3	
75-34-3	1,1-Dichloroethane	0.35	U
156-59-2	cis-1,2-Dichloroethene	0.35	U
67-66-3	Chloroform	0.35	U
71-55-6	1,1,1-Trichloroethane	0.35	U
110-82-7	Cyclohexane	2.4	
56-23-5	Carbon tetrachloride	0.35	U
71-43-2	Benzene	0.35	U
107-06-2	1,2-Dichloroethane	0.35	U
142-82-5	n-Heptane	1.7	
79-01-6	Trichloroethene	0.35	U

BECHTEL HANFORD, INC.

Lab Name:Severn Trent Laboratories, Inc. SDG Number:W03984

Matrix: (soil/water) AIR Lab Sample ID:H3B140158 001
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Volatile Organics, (GCMS-TO14 Low Level) ppb(v/v)

Sample WT/Vol: / mL Date Received: 02/14/03
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Dilution factor: 1.74 Date Analyzed: 02/18/03

QC Batch: 3048279

Client Sample Id: J00208 DUP

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
78-87-5	1,2-Dichloropropane	0.35	U
74-95-3	Dibromomethane	0.35	U
75-27-4	Bromodichloromethane	0.35	U
10061-01-5	cis-1,3-Dichloropropene	0.35	U
108-88-3	Toluene	0.38	
111-65-9	n-Octane	4.2	
10061-02-6	trans-1,3-Dichloropropene	0.35	U
79-00-5	1,1,2-Trichloroethane	0.35	U
127-18-4	Tetrachloroethene	41	
124-48-1	Dibromochloromethane	0.35	U
106-93-4	1,2-Dibromoethane (EDB)	0.35	U
108-90-7	Chlorobenzene	0.35	U
100-41-4	Ethylbenzene	0.35	U
136777-61-2	m-Xylene & p-Xylene	0.71	
111-84-2	Nonane	1.0	
95-47-6	o-Xylene	0.35	U
100-42-5	Styrene	0.35	U
75-25-2	Bromoform	0.35	U
98-82-8	Cumene	0.35	U
79-34-5	1,1,2,2-Tetrachloroethane	0.35	U
103-65-1	n-Propylbenzene	0.35	U
108-67-8	1,3,5-Trimethylbenzene	0.35	U
124-18-5	n-Decane	8.2	
98-83-9	alpha-Methylstyrene	0.35	U
95-63-6	1,2,4-Trimethylbenzene	0.35	U
541-73-1	1,3-Dichlorobenzene	0.35	U
106-46-7	1,4-Dichlorobenzene	0.35	U
100-44-7	Benzyl chloride	0.35	U

BECHTEL HANFORD, INC.

Lab Name:Severn Trent Laboratories, Inc. SDG Number:W03984

Matrix: (soil/water) AIR Lab Sample ID:H3B140158 001
Method: EPA-19 TO-14
Volatile Organics, (GCMS-TO14 Low Level) ppb(v/v)

Sample WT/Vol: / mL Date Received: 02/14/03
Work Order: FHLV01AC Date Extracted:02/17/03
Dilution factor: 1.74 Date Analyzed: 02/18/03

QC Batch: 3048279

Client Sample Id: J00208 DUP

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
95-50-1	1,2-Dichlorobenzene	0.35	U
1120-21-4	n-Undecane	0.38	
112-40-3	n-Dodecane	1.2	
120-82-1	1,2,4-Trichlorobenzene	0.35	U
87-68-3	Hexachlorobutadiene	0.35	U
91-20-3	Naphthalene	0.35	U
67-56-1	Methanol	17	U
60-29-7	Ethyl ether	0.87	U
67-64-1	Acetone	27	
107-13-1	Acrylonitrile	0.87	U
108-05-4	Vinyl acetate	0.87	U
78-93-3	2-Butanone (MEK)	5.8	
71-36-3	1-Butanol	0.87	U
108-10-1	4-Methyl-2-pentanone (MIBK)	0.87	U
591-78-6	2-Hexanone	0.87	U
1634-04-4	Methyl tert-butyl ether	0.87	U
107-02-8	Acrolein	0.87	U
75-05-8	Acetonitrile	1.7	U

EPA-19 TO-14 SURROGATE RECOVERY

Lab Name: Severn Trent Laboratories, Inc. Client: BECHTEL HANFORD, INC.

Lab Code: STLKNX SDG No: W03984

Lot #: H3B140158

Extraction: XXS88JY01

	CLIENT ID.	SRG01	SRG02	SRG03	TOT OUT
01	J00208	105	101	105	00
02	METHOD BLK. FHQC31AA	102	102	105	00
03	LCS FHQC31AC	100	100	100	00
04	J00208 DUP	101	100	104	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: BECHTEL HANFORD, INC.

Lab Code: STLKNX SDG No: W03984

Lot #: H3B170000 WO #: FHQC31AC
BATCH: 3048279

COMPOUND	SPIKE ADDED (ppb(v)	SAMPLE CONCENT. (ppb(v)	% REC	QC LIMITS REC	QUAL
Dichlorodifluoromethane	10.0	10.2	102	70- 130	
Chloromethane	10.0	10.1	101	70- 130	
1,2-Dichloro-1,1,2,2-tetr	10.0	10.1	101	70- 130	
Vinyl chloride	10.0	10.2	102	70- 130	
Bromomethane	10.0	10.1	101	70- 130	
Chloroethane	10.0	10.0	100	70- 130	
Trichlorofluoromethane	10.0	10.1	101	70- 130	
Acetone	20.0	20.8	104	70- 130	
1,1-Dichloroethene	10.0	10.2	102	70- 130	
1,1,2-Trichloro-1,2,2-tri	10.0	10.1	101	70- 130	
Methylene chloride	10.0	10.2	102	70- 130	
1,1-Dichloroethane	10.0	10.2	102	70- 130	
cis-1,2-Dichloroethene	10.0	10.0	100	70- 130	
Chloroform	10.0	10.2	102	70- 130	
1,1,1-Trichloroethane	10.0	10.2	102	70- 130	
1,2-Dichloroethane	10.0	10.3	103	70- 130	
Benzene	10.0	10.3	103	70- 130	
Carbon tetrachloride	10.0	9.97	100	70- 130	
1,2-Dichloropropane	10.0	10.4	104	70- 130	
Trichloroethene	10.0	10.4	104	70- 130	
cis-1,3-Dichloropropene	10.0	10.4	104	70- 130	
trans-1,3-Dichloropropene	10.0	10.2	102	70- 130	
Toluene	10.0	10.3	103	70- 130	
1,1,2-Trichloroethane	10.0	10.3	103	70- 130	
1,2-Dibromoethane (EDB)	10.0	10.2	102	70- 130	
Tetrachloroethene	10.0	10.5	105	70- 130	
Chlorobenzene	10.0	10.4	104	70- 130	
Ethylbenzene	10.0	10.3	103	70- 130	
m-Xylene & p-Xylene	10.0	10.4	104	70- 130	
Styrene	10.0	10.3	103	70- 130	
o-Xylene	10.0	10.3	103	70- 130	

(Continued on next page)

EPA-19 TO-14 CHECK SAMPLE RECOVERY

Lab Name: Severn Trent Laboratories, Inc. Client: BECHTEL HANFORD, INC.

Lab Code: STLKNX SDG No: W03984

Lot #: H3B170000 WO #: FHQC31AC
BATCH: 3048279

COMPOUND	SPIKE ADDED (ppb(v)	SAMPLE CONCENT. (ppb(v)	% REC	QC LIMITS REC	QUAL
1,1,2,2-Tetrachloroethane	10.0	10.3	103	70- 130	
1,3,5-Trimethylbenzene	10.0	10.7	107	70- 130	
1,2,4-Trimethylbenzene	10.0	10.3	103	70- 130	
1,3-Dichlorobenzene	10.0	10.2	102	70- 130	
Benzyl chloride	10.0	10.4	104	70- 130	
1,4-Dichlorobenzene	10.0	10.2	102	70- 130	
1,2-Dichlorobenzene	10.0	10.3	103	70- 130	
1,2,4-Trichlorobenzene	10.0	10.6	106	70- 130	
Hexachlorobutadiene	10.0	9.36	94	70- 130	

NOTES(S):

* Values outside of QC limits

Spike Recovery: 0 out of 40 outside limits

COMMENTS:

FORM III

BLANK WORKORDER NO.

FHQC31AA

EPA-19 TO-14 METHOD BLANK SUMMARY

Lab Name: Severn Trent Laboratories, Inc.

Lab Code: STLKNX

SDG Number:W03984

Lab File ID: bk0217b.d

Lot Number: H3B140158

Date Analyzed: 02/17/03

Time Analyzed: 11:02

Matrix: AIR

Date Extracted:02/17/03

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	J00208	FHLV01AA	fhlv0.d	02/18/03	02:46
02	J00208 DUP	FHLV01AC X	fhlv0dup.	02/18/03	03:25
03	CHECK SAMPLE	FHQC31AC C	rf0217.d	02/17/03	09:46
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COMMENTS:

FORM IV

Sample Receipt Documentation

M3514158

Bechtel Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	B03-013	Page 2 of 2

Collector: D. Bowers / Fahlberg	Company Contact: J. Lerch	Telephone No.: 373-5904	Project Coordinator:
Project Designation: 300 IFF1	Sampling Location: 618-4	SAF No.: B03-013	Price Code: Air Quality ☐ Data Turnaround: X 3 days
Ice Chest No.:	Field Logbook No.:	COA: BG61842600	Method of Shipment: Gov Vehicle
Shipped To: STL Richland	Offsite Property No.: N/A		Bill of Lading/Air Bill No.: N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

Special Handling and/or Storage
Cool to 4 degrees C.

Preservation	None											
Type of Container	Suma											
No. of Container(s)	1											
Volume	6L											
SAMPLE ANALYSIS	VOA TO-14 Addon											
Sample No.	Matrix *	Sample Date	Sample Time									
J00208	Air	2-12-03	1345	X				#1143				
J00209	Air											
J00210	Air											
J00211	Air 2-12-03											
~~J00212~~												

CHAIN OF POSSESSION	Date/Time	Sign/Print Names	Date/Time
Relinquished By: R. Fahlberg R. Fahlberg 2-12-03	1545	Received By: IB 3728 2-12-03	1645
Relinquished By: IB 3728 2-13-03	0730	Received By: R. Fahlberg R. Fahlberg 2-13-03	0730
Relinquished By: ERC R. Fahlberg R. Fahlberg 2-13-03	0800	Received By: T. Heidelberg	2-13-03 0805
Relinquished By: T. Heidelberg	2-13-03	Received By:	
Relinquished By:		Received By:	
Relinquished By:		Received By:	

SPECIAL INSTRUCTIONS

Rec'd temp. Ambient
Custody Seal(s) intact
1 Box Fedex #
7906 9715 6057
MT# 02-14-03

Matrix *
S=Soil
SE=Sediment
SO=Solid
S=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 T. Hand	Title	Date/Time: 02-14-03, 09:30
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

BHI-EE-011 (10/99)

Volatiles

QC Summary

EPA-19 TO-14 SURROGATE RECOVERY

Lab Name: Severn Trent Laboratories, Inc. Client: BECHTEL HANFORD, INC.

Lab Code: STLKNX SDG No: W03984

Lot #: H3B140158

Extraction: XXS88JY01

	CLIENT ID.	SRG01	SRG02	SRG03	TOT OUT
01	J00208	105	101	105	00
02	METHOD BLK. FHQC31AA	102	102	105	00
03	LCS FHQC31AC	100	100	100	00
04	J00208 DUP	101	100	104	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: BECHTEL HANFORD, INC.

Lab Code: STLKNX SDG No: W03984

Lot #: H3B170000 WO #: FHQC31AC
BATCH: 3048279

COMPOUND	SPIKE ADDED (ppb(v)	SAMPLE CONCENT. (ppb(v)	% REC	QC LIMITS REC	QUAL
1,1,2,2-Tetrachloroethane	10.0	10.3	103	70- 130	
1,3,5-Trimethylbenzene	10.0	10.7	107	70- 130	
1,2,4-Trimethylbenzene	10.0	10.3	103	70- 130	
1,3-Dichlorobenzene	10.0	10.2	102	70- 130	
Benzyl chloride	10.0	10.4	104	70- 130	
1,4-Dichlorobenzene	10.0	10.2	102	70- 130	
1,2-Dichlorobenzene	10.0	10.3	103	70- 130	
1,2,4-Trichlorobenzene	10.0	10.6	106	70- 130	
Hexachlorobutadiene	10.0	9.36	94	70- 130	

NOTES(S):

* Values outside of QC limits

Spike Recovery: 0 out of 40 outside limits

COMMENTS:

FORM III

EPA-19 TO-14 METHOD BLANK SUMMARY

BLANK WORKORDER NO.
FHQC31AA

Lab Name: Severn Trent Laboratories, Inc.

Lab Code: STLKNX

SDG Number: W03984

Lab File ID: bk0217b.d

Lot Number: H3B140158

Date Analyzed: 02/17/03

Time Analyzed: 11:02

Matrix: AIR

Date Extracted: 02/17/03

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	J00208	FHLV01AA	fhlv0.d	02/18/03	02:46
02	J00208 DUP	FHLV01AC X	fhlv0dup.	02/18/03	03:25
03	CHECK SAMPLE	FHQC31AC C	rf0217.d	02/17/03	09:46
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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
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FORM 5
OTHER ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: W03984

Lab File ID: BF0217 BFB Injection Date: 02/17/03

Instrument ID: MT BFB Injection Time: 0833

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	16.6
75	30.0 - 60.0% of mass 95	39.2
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	92.6
175	5.0 - 9.0% of mass 174	6.7 (7.2)1
176	95.0 - 101.0% of mass 174	92.6 (100.0)1
177	5.0 - 9.0% of mass 176	6.2 (6.7)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	MD0217	02/17/03	0909
02	INTRA-LAB CH	FHQC31AC	RF0217	02/17/03	0946
03	INTRA-LAB BL	FHQC31AA	BK0217B	02/17/03	1102
04	J00208	FHLV01AA	FHLV0	02/18/03	0246
05	J00208 DUP	FHLV01AC	FHLV0DUP	02/18/03	0325
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FORM 8
OTHER INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: W03984

Lab File ID (Standard): MD0217 Date Analyzed: 02/17/03

Instrument ID: MT Time Analyzed: 0909

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	609839	9.76	2915257	11.87	2372264	16.43
	UPPER LIMIT	856824	10.26	4095936	12.37	3333031	16.93
	LOWER LIMIT	362854	9.26	1734578	11.37	1411497	15.93
	CLIENT SAMPLE NO.						
01	INTRA-LAB CH	611150	9.77	2866236	11.87	2349723	16.43
02	INTRA-LAB BL	621837	9.76	2812810	11.87	2299708	16.43
03	J00208	594573	9.76	2784355	11.87	2285993	16.43
04	J00208 DUP	601818	9.76	2788911	11.87	2282906	16.43
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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

BECHTEL HANFORD, INC.

Lab Name:Severn Trent Laboratories, Inc. SDG Number:W03984

Matrix: (soil/water) AIR Lab Sample ID:H3B140158 001
Method: EPA-19 TO-14
Volatile Organics, (GCMS-TO14 Low Level) ppb(v/v)

Sample WT/Vol: / mL
Work Order: FHLV01AA
Dilution factor: 1.74

Date Received: 02/14/03
Date Extracted:02/17/03
Date Analyzed: 02/18/03

QC Batch: 3048279

Client Sample Id: J00208

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
75-71-8	**Dichlorodifluoromethane**	**0.64**	
75-45-6	Chlorodifluoromethane	0.35	U
76-14-2	1,2-Dichloro-1,1,2,2-tetrafl	0.35	U
74-87-3	Chloromethane	0.87	U
75-01-4	Vinyl chloride	0.35	U
106-97-8	**n-Butane**	**0.86**	
106-99-0	1,3-Butadiene	0.35	U
74-83-9	Bromomethane	0.35	U
75-00-3	Chloroethane	0.35	U
75-69-4	Trichlorofluoromethane	0.35	U
109-66-0	Pentane	0.87	U
75-35-4	1,1-Dichloroethene	0.35	U
76-13-1	1,1,2-Trichloro-1,2,2-triflu	0.35	U
75-15-0	Carbon disulfide	0.35	U
107-05-1	3-Chloropropene	0.35	U
75-09-2	Methylene chloride	0.87	U
156-60-5	trans-1,2-Dichloroethene	0.35	U
110-54-3	**n-Hexane**	**1.3**	
75-34-3	1,1-Dichloroethane	0.35	U
156-59-2	cis-1,2-Dichloroethene	0.35	U
67-66-3	Chloroform	0.35	U
71-55-6	1,1,1-Trichloroethane	0.35	U
110-82-7	**Cyclohexane**	**2.5**	
56-23-5	Carbon tetrachloride	0.35	U
71-43-2	Benzene	0.35	U
107-06-2	1,2-Dichloroethane	0.35	U
142-82-5	**n-Heptane**	**1.8**	
79-01-6	Trichloroethene	0.35	U

BECHTEL HANFORD, INC.

Lab Name:Severn Trent Laboratories, Inc. SDG Number:W03984

Matrix: (soil/water) AIR Lab Sample ID:H3B140158 001
Method: EPA-19 TO-14
Volatile Organics, (GCMS-TO14 Low Level) ppb(v/v)

Sample WT/Vol: / mL Date Received: 02/14/03
Work Order: FHLV01AA Date Extracted:02/17/03
Dilution factor: 1.74 Date Analyzed: 02/18/03

QC Batch: 3048279

Client Sample Id: J00208

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
78-87-5	1,2-Dichloropropane	0.35	U
74-95-3	Dibromomethane	0.35	U
75-27-4	Bromodichloromethane	0.35	U
10061-01-5	cis-1,3-Dichloropropene	0.35	U
108-88-3	**Toluene**	**0.39**	
111-65-9	**n-Octane**	**4.3**	
10061-02-6	trans-1,3-Dichloropropene	0.35	U
79-00-5	1,1,2-Trichloroethane	0.35	U
127-18-4	**Tetrachloroethene**	**42**	
124-48-1	Dibromochloromethane	0.35	U
106-93-4	1,2-Dibromoethane (EDB)	0.35	U
108-90-7	Chlorobenzene	0.35	U
100-41-4	Ethylbenzene	0.35	U
136777-61-2	**m-Xylene & p-Xylene**	**0.71**	
111-84-2	**Nonane**	**1.1**	
95-47-6	o-Xylene	0.35	U
100-42-5	Styrene	0.35	U
75-25-2	Bromoform	0.35	U
98-82-8	Cumene	0.35	U
79-34-5	1,1,2,2-Tetrachloroethane	0.35	U
103-65-1	n-Propylbenzene	0.35	U
108-67-8	1,3,5-Trimethylbenzene	0.35	U
124-18-5	**n-Decane**	**8.5**	
98-83-9	alpha-Methylstyrene	0.35	U
95-63-6	1,2,4-Trimethylbenzene	0.35	U
541-73-1	1,3-Dichlorobenzene	0.35	U
106-46-7	1,4-Dichlorobenzene	0.35	U
100-44-7	Benzyl chloride	0.35	U

BECHTEL HANFORD, INC.

Lab Name:Severn Trent Laboratories, Inc. SDG Number:W03984

Matrix: (soil/water) AIR Lab Sample ID:H3B140158 001
Method: EPA-19 TO-14
Volatile Organics, (GCMS-TO14 Low Level) ppb(v/v)

Sample WT/Vol: / mL Date Received: 02/14/03
Work Order: FHLV01AA Date Extracted:02/17/03
Dilution factor: 1.74 Date Analyzed: 02/18/03

QC Batch: 3048279

Client Sample Id: J00208

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
95-50-1	1,2-Dichlorobenzene	0.35	U
1120-21-4	**n-Undecane**	**0.37**	
112-40-3	**n-Dodecane**	**1.3**	
120-82-1	1,2,4-Trichlorobenzene	0.35	U
87-68-3	Hexachlorobutadiene	0.35	U
91-20-3	Naphthalene	0.35	U
67-56-1	Methanol	17	U
60-29-7	Ethyl ether	0.87	U
67-64-1	**Acetone**	**29**	
107-13-1	Acrylonitrile	0.87	U
108-05-4	Vinyl acetate	0.87	U
78-93-3	**2-Butanone (MEK)**	**6.1**	
71-36-3	1-Butanol	0.87	U
108-10-1	4-Methyl-2-pentanone (MIBK)	0.87	U
591-78-6	2-Hexanone	0.87	U
1634-04-4	Methyl tert-butyl ether	0.87	U
107-02-8	Acrolein	0.87	U
75-05-8	Acetonitrile	1.7	U

Data File: /var/chem/gcms/mt.i/T021703.b/fhlv0.d
Report Date: 18-Feb-2003 09:45

STL Knoxville

Modified Method TO-14

Data file : /var/chem/gcms/mt.i/T021703.b/fhlv0.d
Lab Smp Id: FHLV01AA Client Smp ID: J00208
Inj Date : 18-FEB-2003 02:46
Operator : 0691 Inst ID: mt.i
Smp Info : FHLV01AA,1.74,0,,
Misc Info : T021703,LA,AllNoJs.sub,,500ML
Comment :
Method : /var/chem/gcms/mt.i/T021703.b/LA.m
Meth Date : 18-Feb-2003 09:21 wilesd Quant Type: ISTD
Cal Date : 17-FEB-2003 09:09 Cal File: md0217.d
Als bottle: 8
Dil Factor: 1.74000
Integrator: HP RTE Compound Sublist: AllNoJs.sub
Target Version: 3.50
Processing Host: qmidhp01

02/18/03

WW 2/18/03

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	9.757	(1.000)	594573	10.0000	
* 2 1,4-Difluorobenzene	114	11.874	11.874	(1.000)	2784355	10.0000	
* 3 Chlorobenzene-d5	117	16.429	16.429	(1.000)	2285993	10.0000	
$ 4 1,2-Dichloroethane-d4	67	10.754	10.763	(0.906)	459216	10.4600	10.46
$ 5 Toluene-d8	98	14.416	14.416	(0.877)	2277850	10.1431	10.14
$ 6 4-Bromofluorobenzene	95	18.016	18.017	(1.097)	1451798	10.4623	10.46
7 Chlorodifluoromethane	51	4.143	4.144	(0.425)	11144	0.11121	0.1935 <RL
8 Dichlorodifluoromethane	85	4.221	4.222	(0.433)	44539	0.36752	0.6395
14 n-Butane	43	4.751	4.742	(0.487)	38684	0.49523	0.8617
20 Acetone	58	6.113	6.087	(0.626)	356679	16.6093	28.90
33 2-Butanone	72	9.037	8.993	(0.926)	99211	3.49969	6.089
34 Hexane	56	9.019	9.020	(0.924)	34064	0.76937	1.339
41 Cyclohexane	69	11.379	11.379	(0.958)	32991	1.41780	2.467
43 Heptane	43	12.446	12.447	(1.048)	123677	1.01464	1.765
51 Toluene	91	14.520	14.520	(0.884)	42783	0.22323	0.3884
54 Octane	85	15.179	15.180	(0.924)	142035	2.44581	4.256
57 Tetrachloroethene	129	15.630	15.622	(0.951)	1606378	24.0192	41.79
60 m-Xylene (For p-)	91	16.915	16.906	(1.030)	73724	0.40576	0.7060
62 Nonane	57	17.314	17.314	(1.054)	81197	0.64876	1.129
72 Decane	57	18.971	18.971	(1.155)	816075	4.88929	8.507
78 Undecane	57	20.220	20.220	(1.231)	37454	0.21343	0.3714

Data File: /var/chem/gcms/mt.i/T021703.b/fhlv0.d
Report Date: 18-Feb-2003 09:45

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	CONCENTRATIONS FINAL (ppb(v/v))
79 Dodecane	57	21.305	21.305	(1.297)	129131	0.76087	1.324

Data File: /var/chem/gcms/mt.i/T021703.b/fhlv0.d
Report Date: 18-Feb-2003 09:29

STL Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mt.i
Lab File ID: fhlv0.d
Lab Smp Id: FHLV01AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 0691
Method File: /var/chem/gcms/mt.i/T021703.b/LA.m
Misc Info: T021703,LA,AllNoJs.sub,,500ML

Calibration Date: 17-FEB-2003
Calibration Time: 09:09
Client Smp ID: J00208
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	609839	362854	856824	594573	-2.50
2 1,4-Difluorobenze	2915257	1734578	4095936	2784355	-4.49
3 Chlorobenzene-d5	2372264	1411497	3333031	2285993	-3.64

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.76	9.26	10.26	9.76	0.00
2 1,4-Difluorobenze	11.87	11.37	12.37	11.87	0.00
3 Chlorobenzene-d5	16.43	15.93	16.93	16.43	0.00

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/T021703.b/fhlv0.d
Report Date: 18-Feb-2003 09:29

STL Knoxville

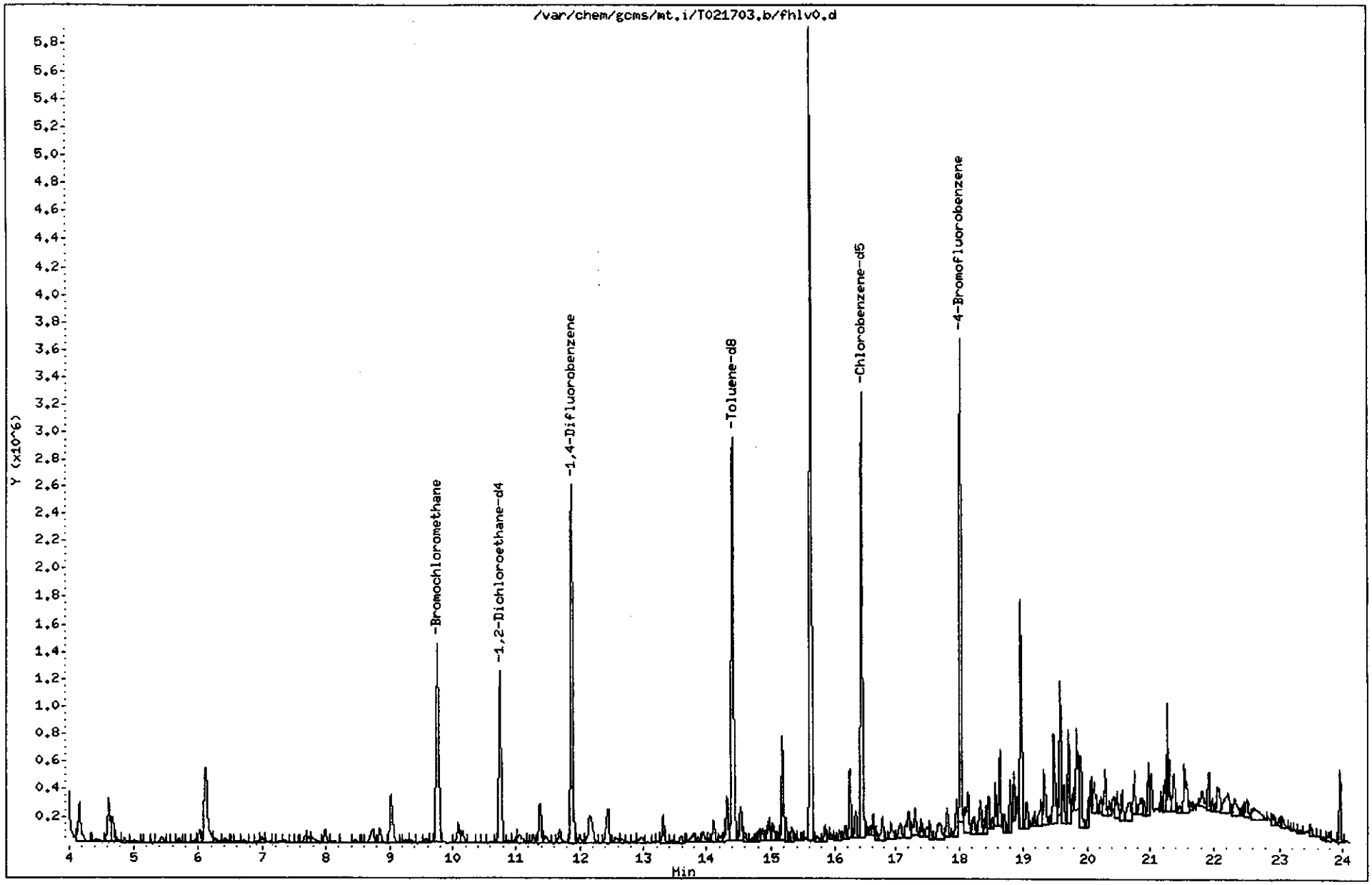
RECOVERY REPORT

Client Name: BECHTEL HANFORD, INC14-FEB-2003 00:00 Client SDG: W03984
Sample Matrix: GAS Fraction: OTHER
Lab Smp Id: FHLV01AA Client Smp ID: J00208
Level: LOW Operator: 0691
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: RTALL.spk Quant Type: ISTD
Sublist File: AllNoJs.sub
Method File: /var/chem/gcms/mt.i/T021703.b/LA.m
Misc Info: T021703,LA,AllNoJs.sub,,500ML

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 4 1,2-Dichloroethane	10.00	10.46	104.60	70-130
$ 5 Toluene-d8	10.00	10.14	101.43	70-130
$ 6 4-Bromofluorobenze	10.00	10.46	104.62	70-130

Data File: /var/chem/gcms/mt.i/T021703.b/fhlv0.d
Date : 18-FEB-2003 02:46
Client ID: J00208
Sample Info: FHLV01AA,1.74,0,,
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/T021703.b/fhlv0.d

Date : 18-FEB-2003 02:46

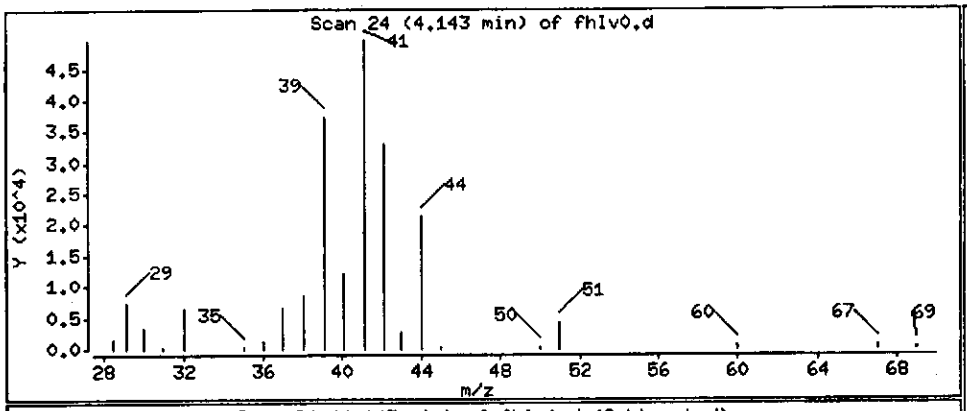
Client ID: J00208 Instrument: mt.i

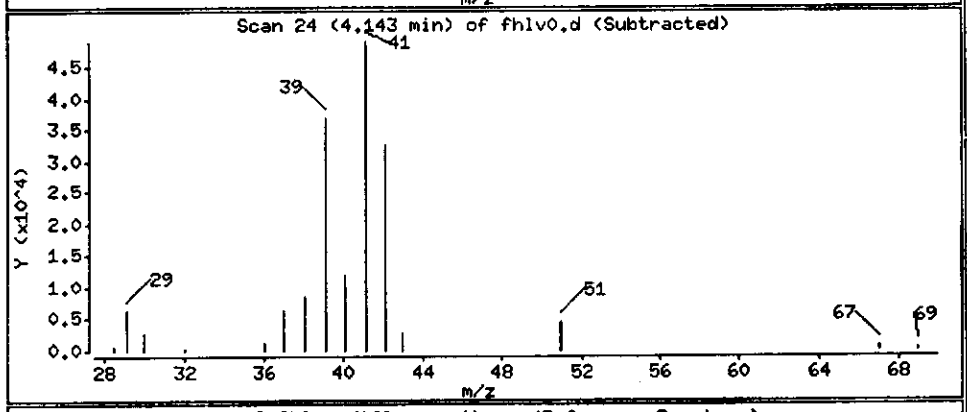
Sample Info: FHLV01AA,1.74,0,,

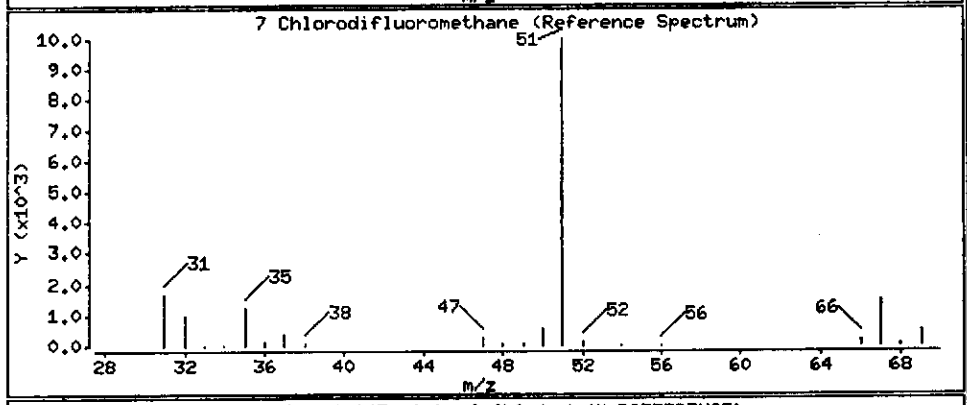
Volume Injected (uL): 500.0 Operator: 0691

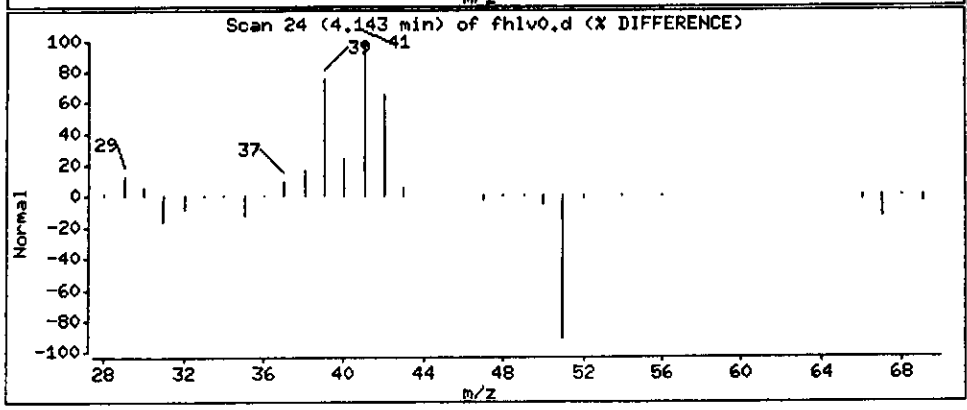
Column phase: DB-5 Column diameter: 0.32

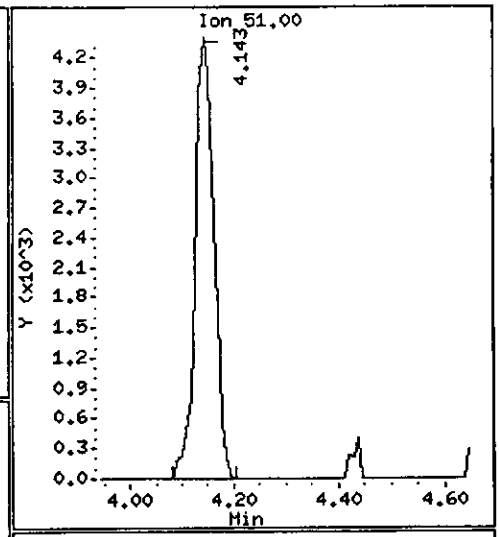
7 Chlorodifluoromethane Concentration: 0.1935 ppb(v/v)

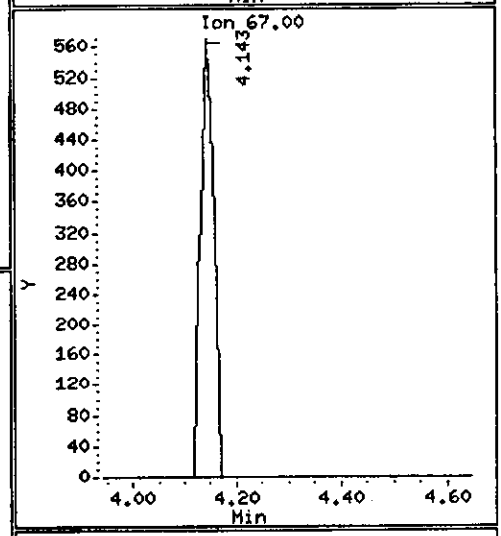


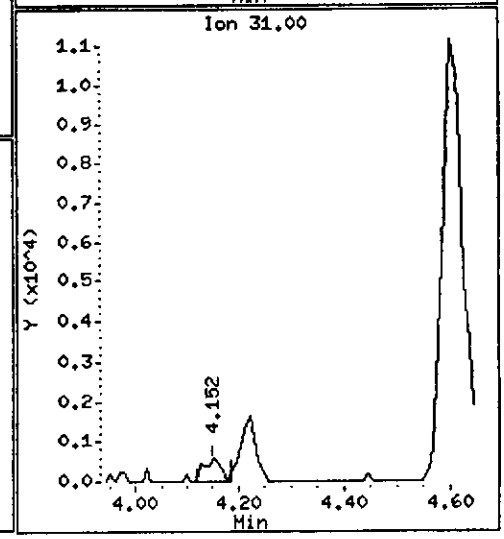












Data File: /var/chem/gcms/mt.i/T021703.b/fhlv0.d

Date : 18-FEB-2003 02:46

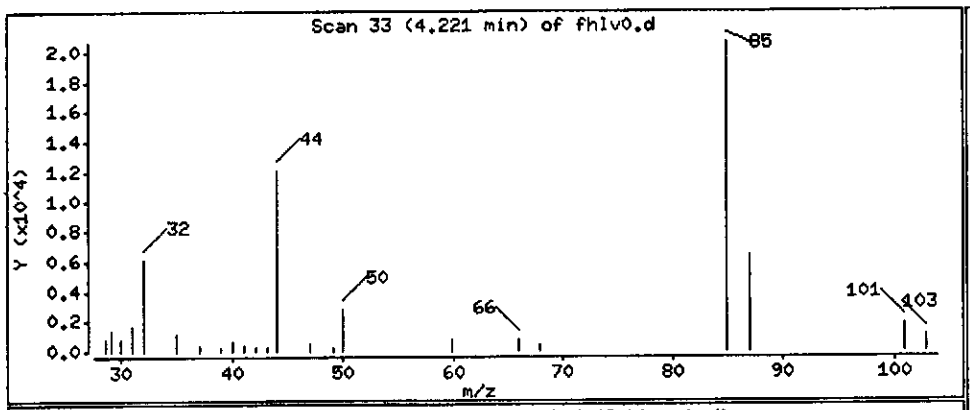
Client ID: J00208 Instrument: mt.i

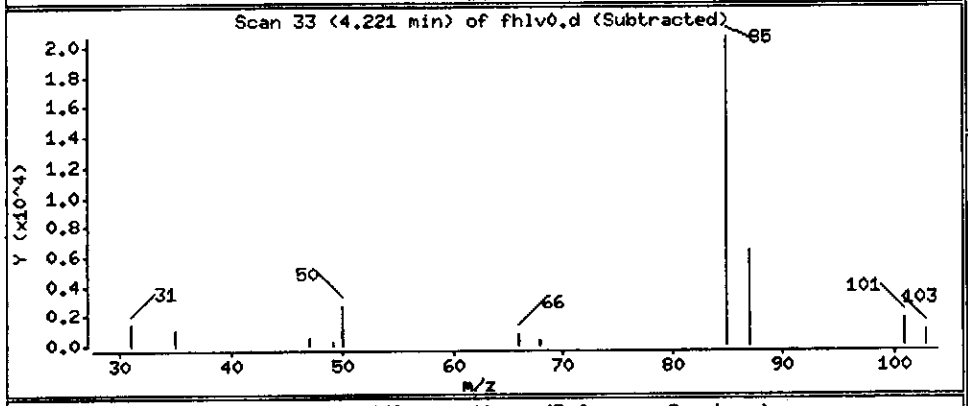
Sample Info: FHLV01AA,1.74,0,,

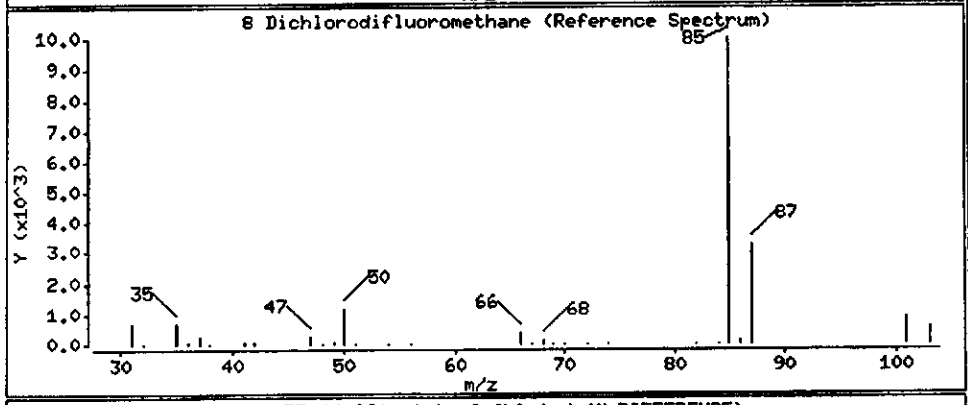
Volume Injected (uL): 500.0 Operator: 0691

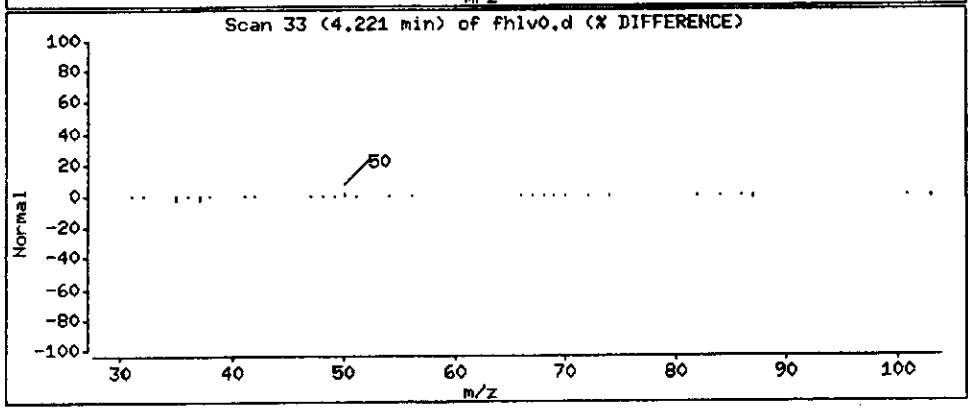
Column phase: DB-5 Column diameter: 0.32

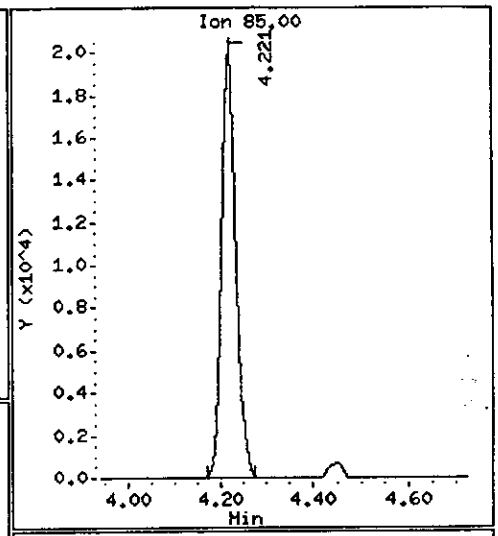
8 Dichlorodifluoromethane Concentration: 0.6395 ppb(v/v)

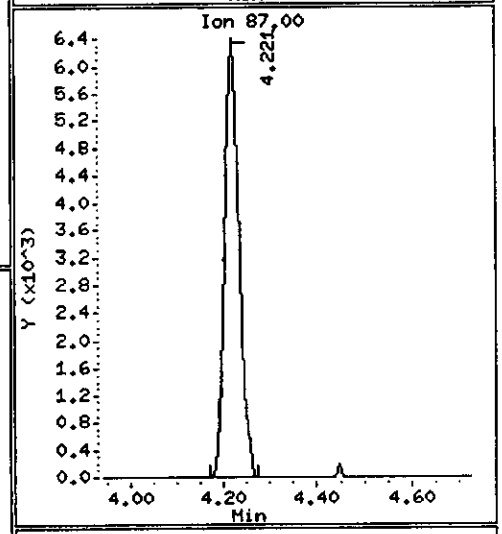


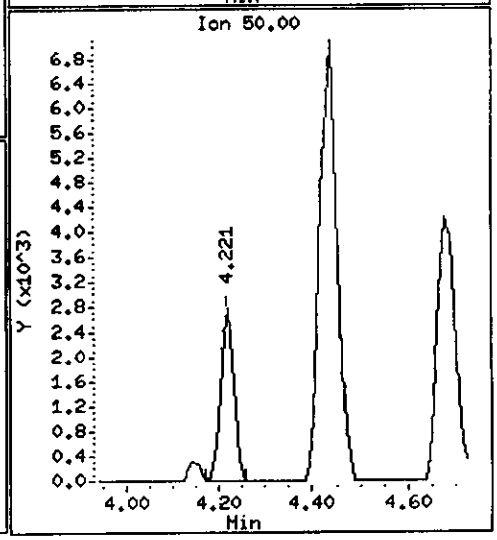












Data File: /var/chem/gcms/mt.i/T021703.b/fhlv0.d

Date : 18-FEB-2003 02:46

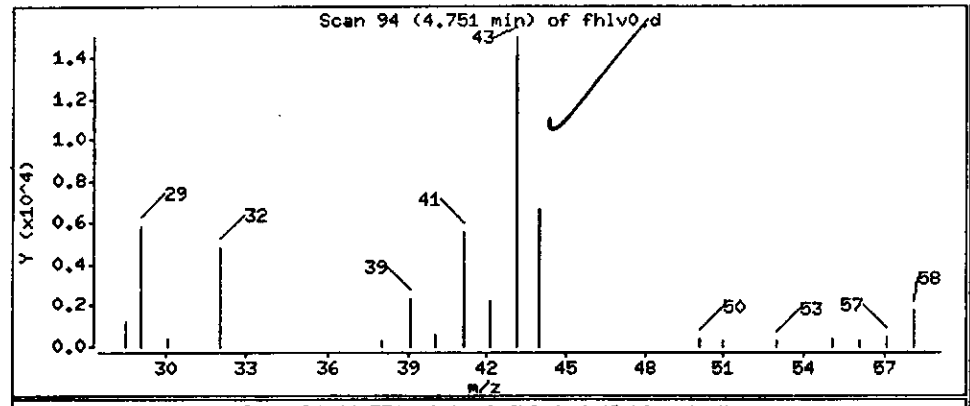
Client ID: J00208 Instrument: mt.i

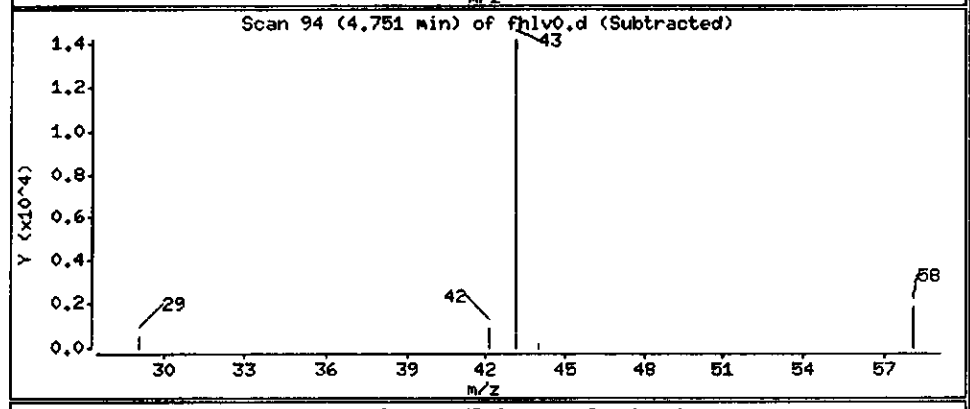
Sample Info: FHLV01AA,1.74,0,,

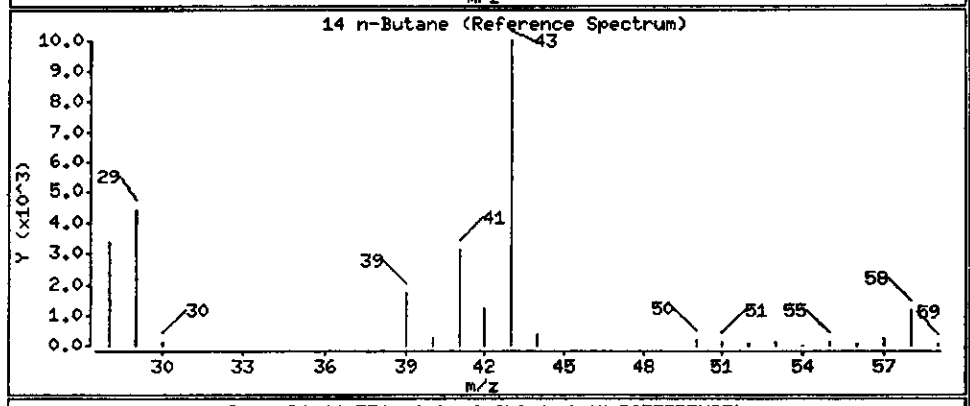
Volume Injected (uL): 500.0 Operator: 0691

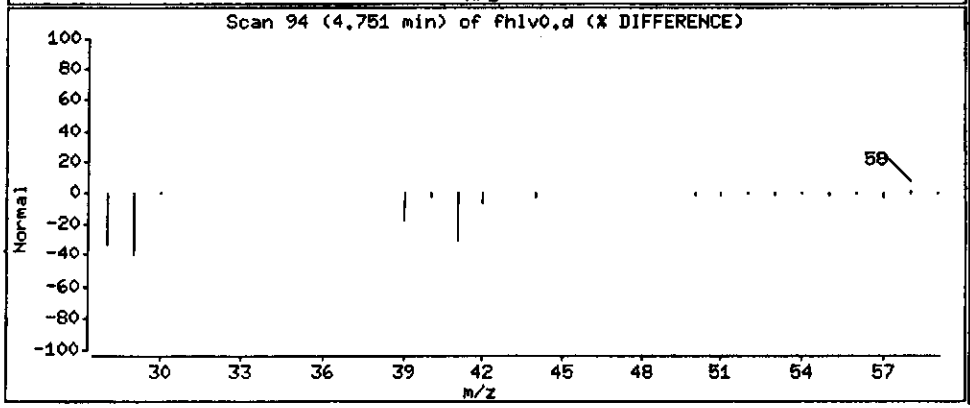
Column phase: DB-5 Column diameter: 0.32

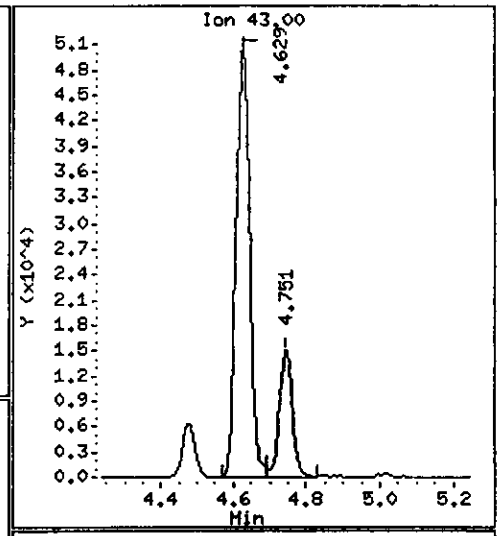
14 n-Butane Concentration: 0.8617 ppb(v/v)

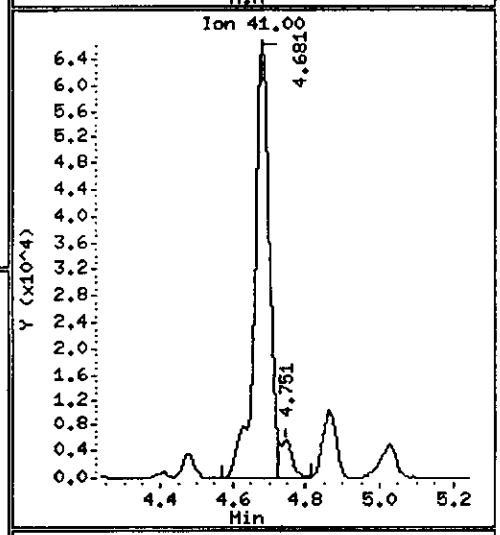


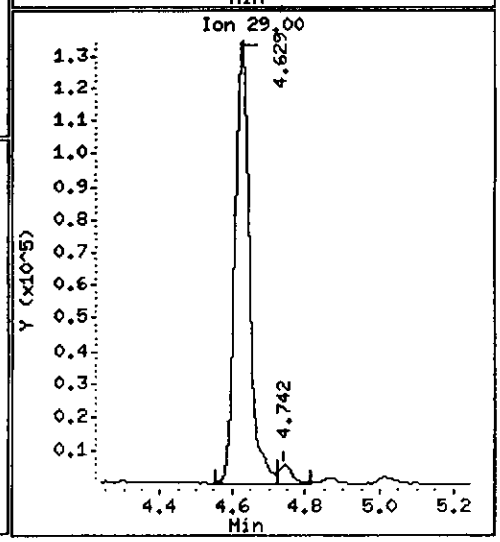












Data File: /var/chem/gcms/mt.i/T021703.b/fhlv0.d

Date : 18-FEB-2003 02:46

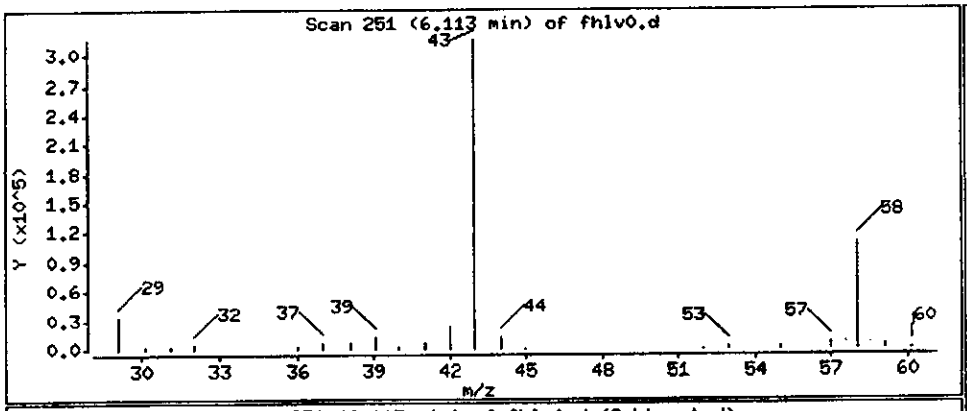
Client ID: J00208 Instrument: mt.i

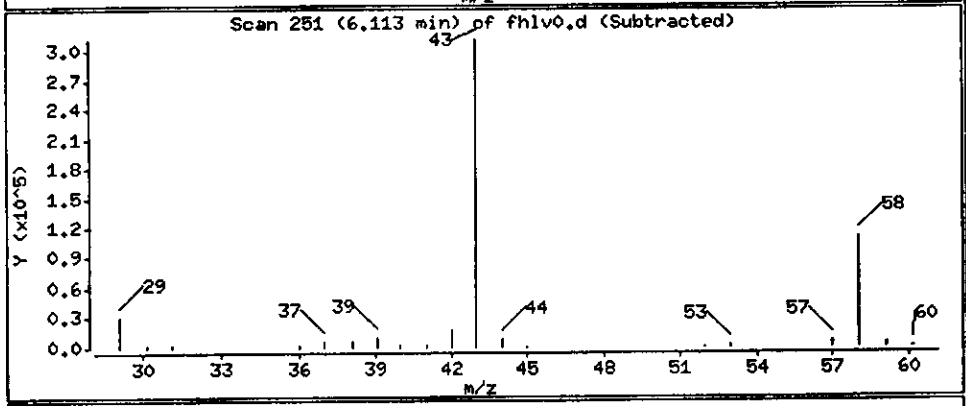
Sample Info: FHLV01AA,1.74,0,,

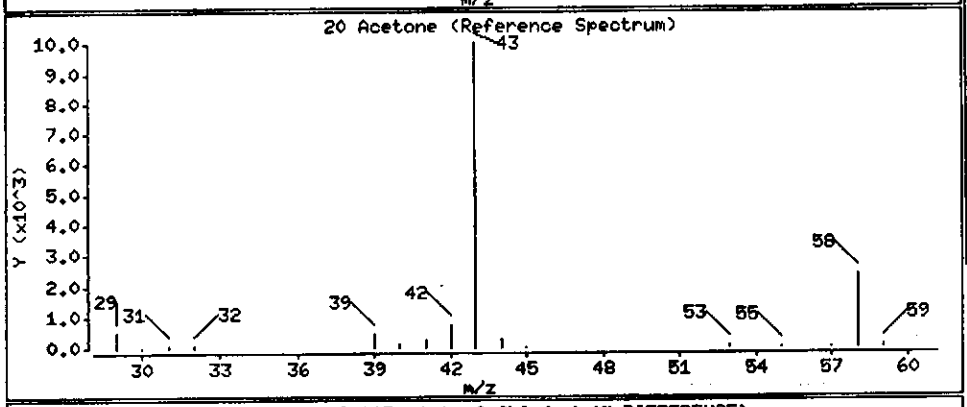
Volume Injected (uL): 500.0 Operator: 0691

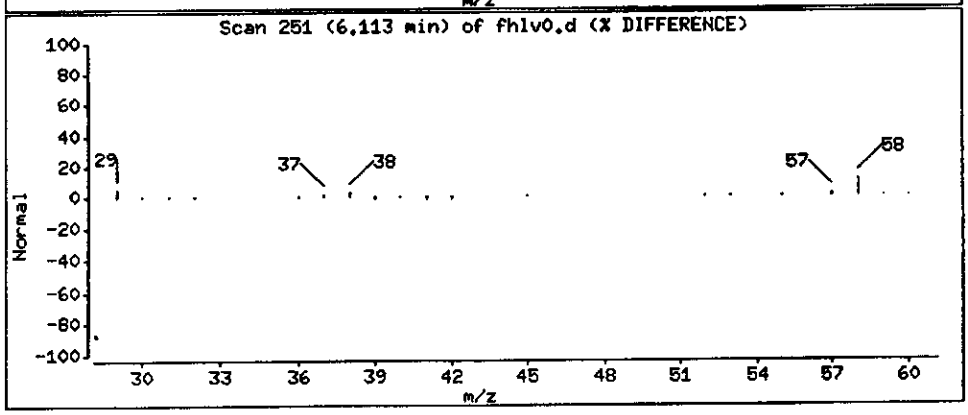
Column phase: DB-5 Column diameter: 0.32

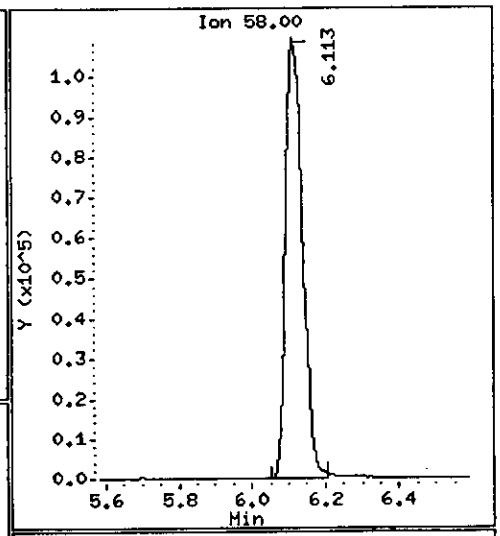
20 Acetone Concentration: 28.90 ppb(v/v)

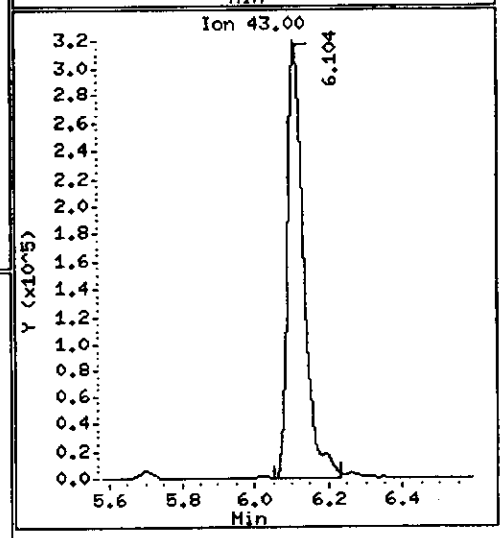












Data File: /var/chem/gcms/mt.i/T021703.b/fhlv0.d

Date : 18-FEB-2003 02:46

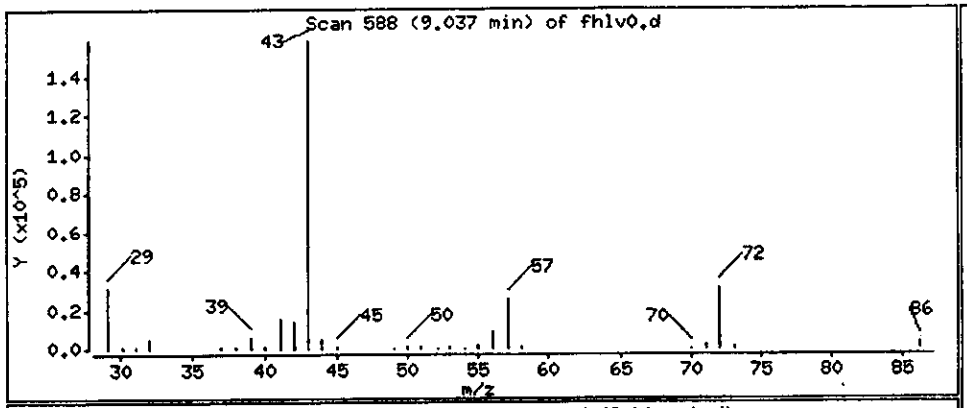
Client ID: J00208 Instrument: mt.i

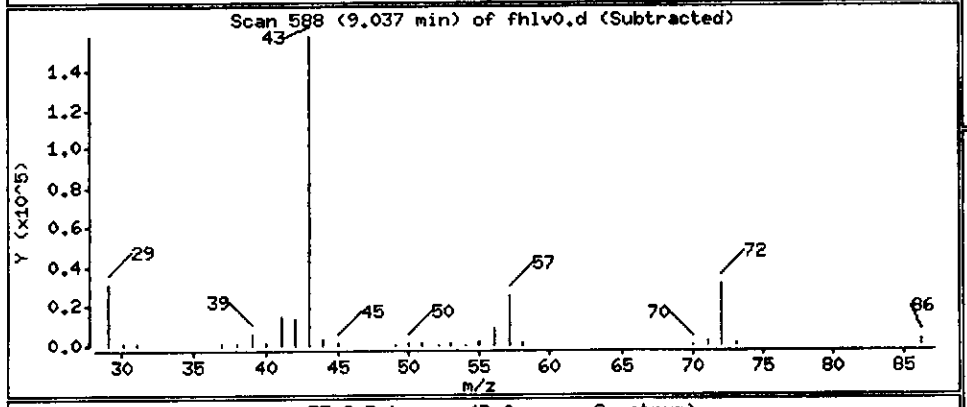
Sample Info: FHLV01AA,1.74,0,,

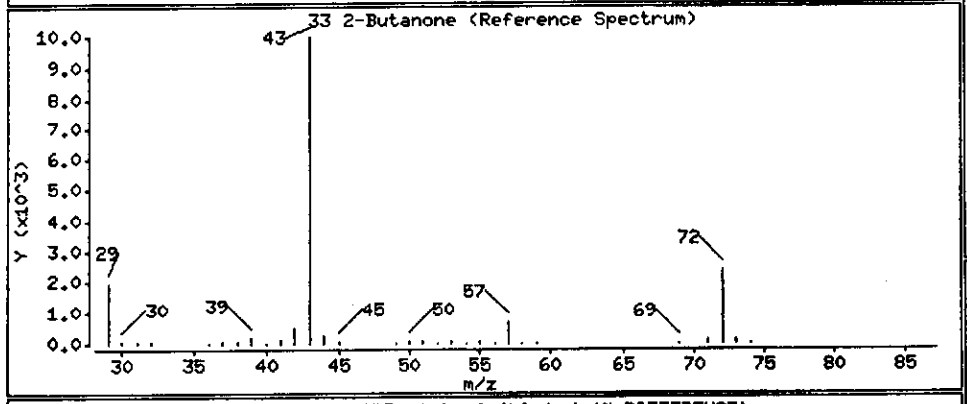
Volume Injected (uL): 500.0 Operator: 0691

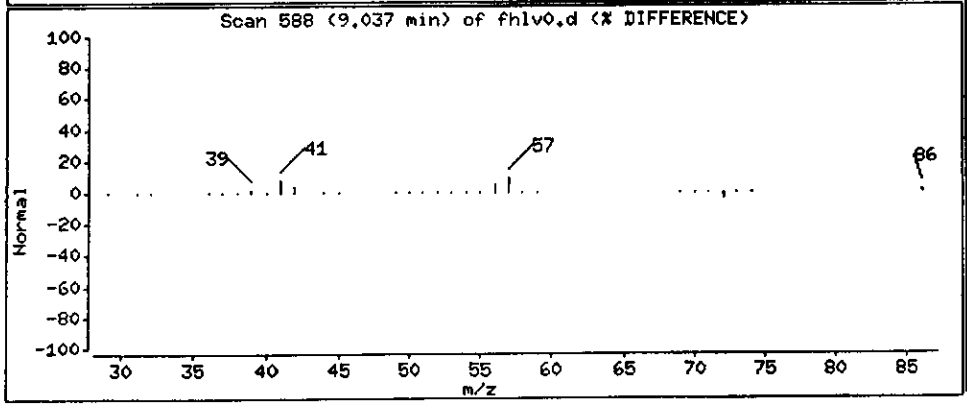
Column phase: DB-5 Column diameter: 0.32

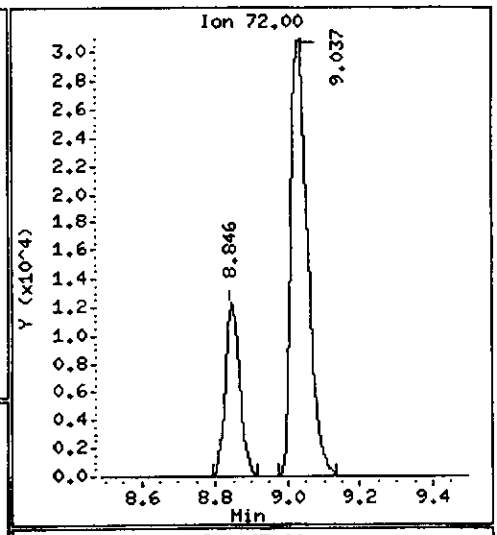
33 2-Butanone Concentration: 6.089 ppb(v/v)

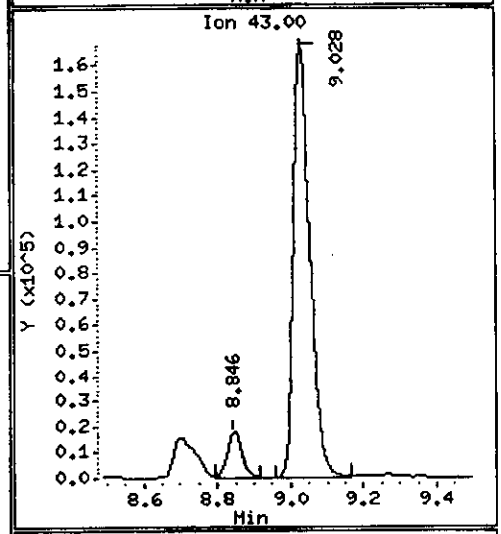


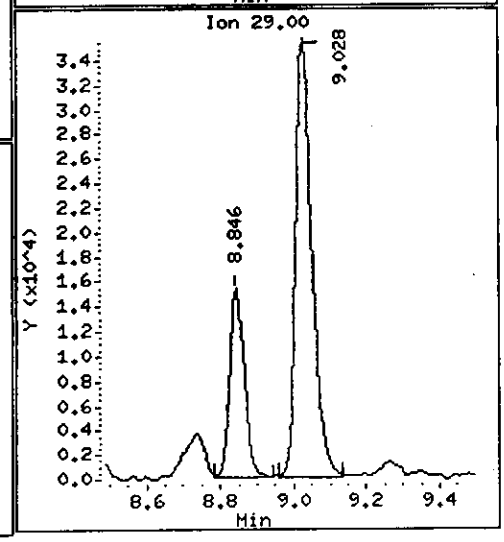












Data File: /var/chem/gcms/mt.i/T021703.b/fhlv0.d

Date : 18-FEB-2003 02:46

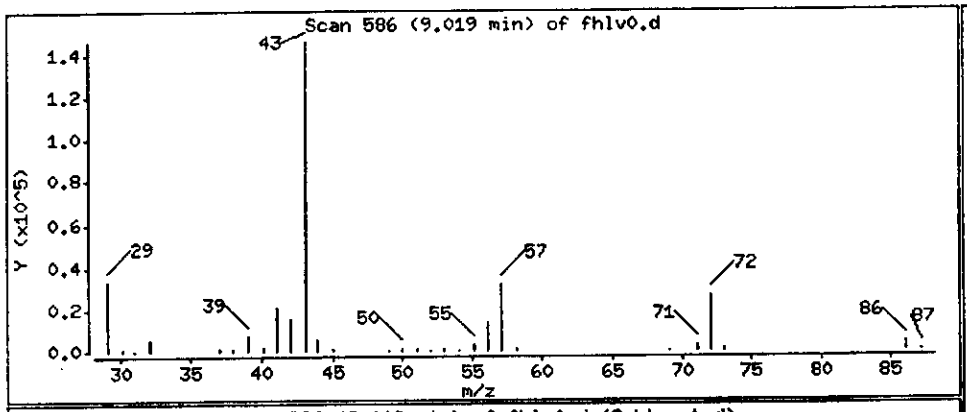
Client ID: J00208 | Instrument: mt.i

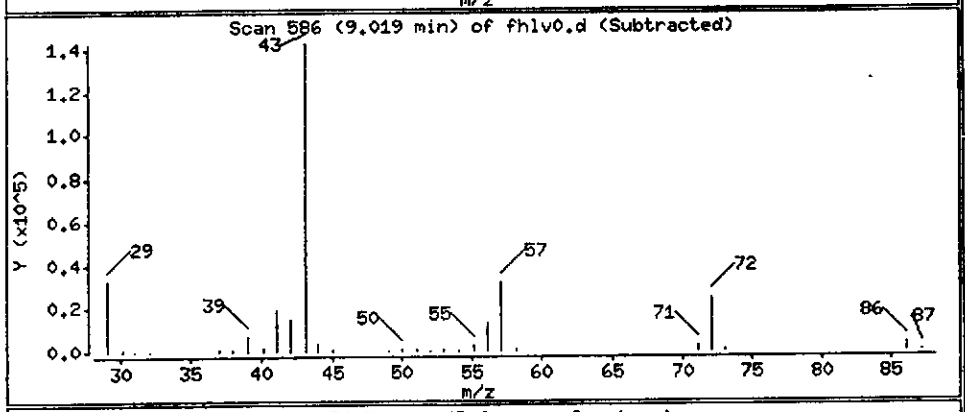
Sample Info: FHLV01AA,1.74,0,,

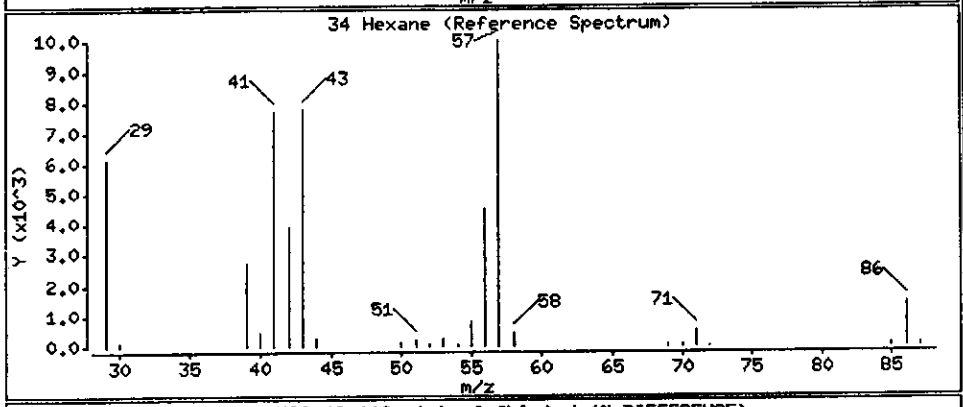
Volume Injected (uL): 500.0 | Operator: 0691

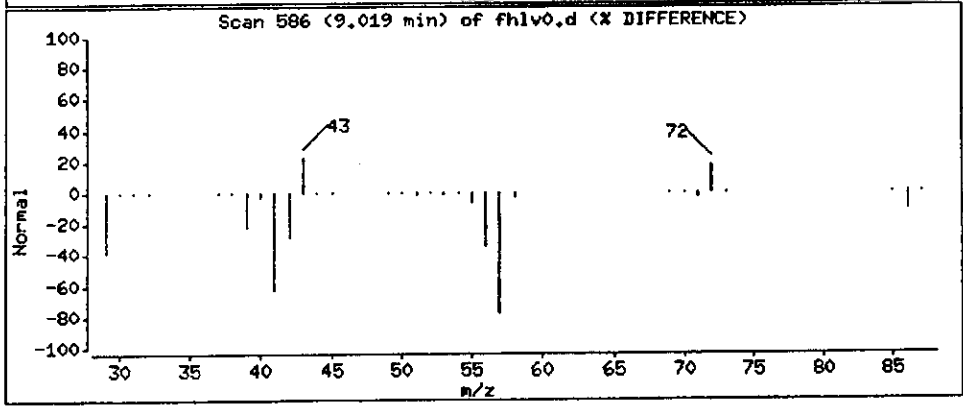
Column phase: DB-5 | Column diameter: 0.32

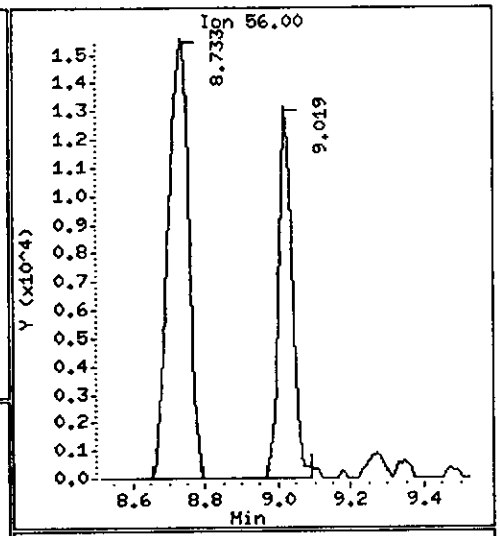
34 Hexane | Concentration: 1.339 ppb(v/v)

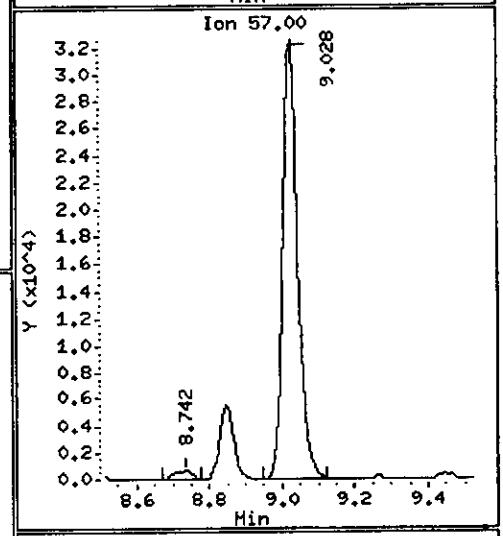


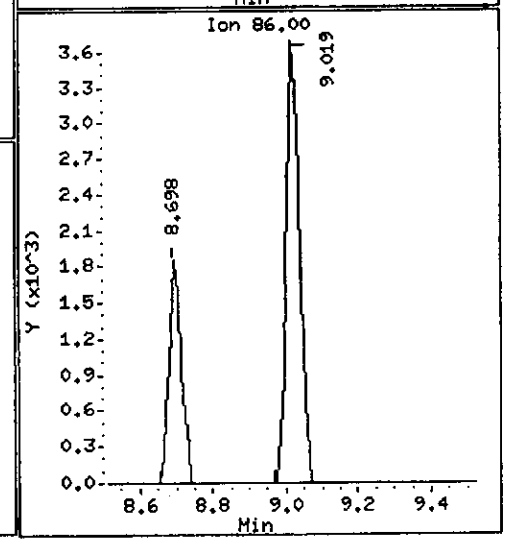












Data File: /var/chem/gcms/mt.i/T021703.b/fhlv0.d

Date : 18-FEB-2003 02:46

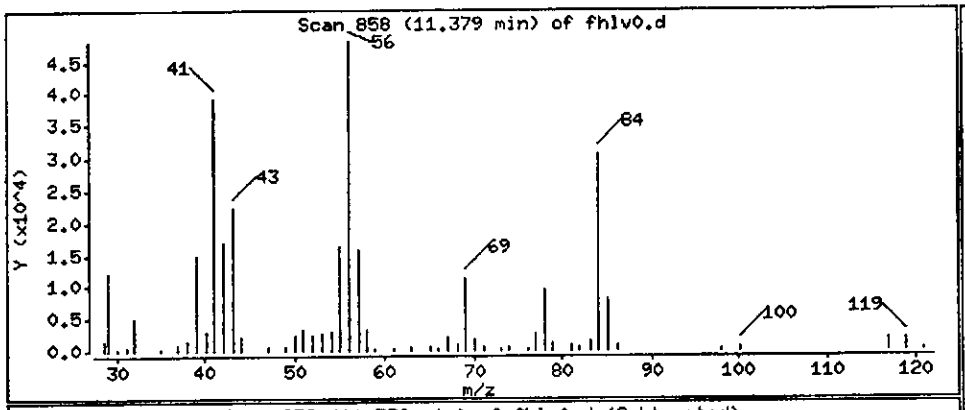
Client ID: J00208 Instrument: mt.i

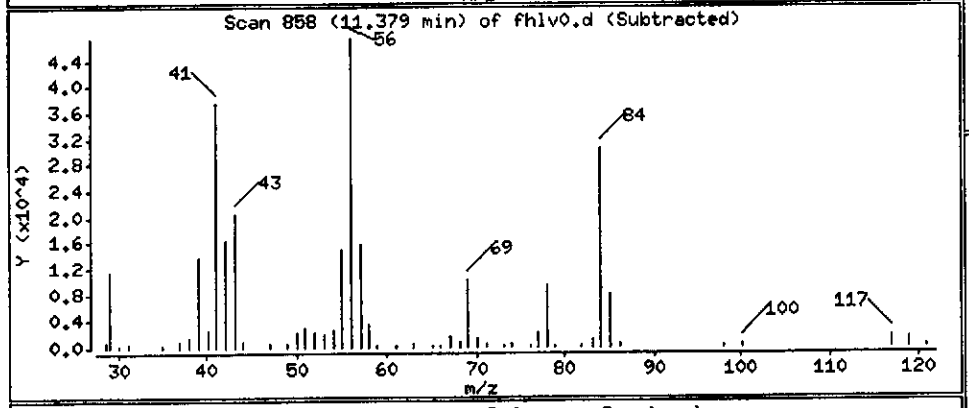
Sample Info: FHLV01AA,1.74,0,,

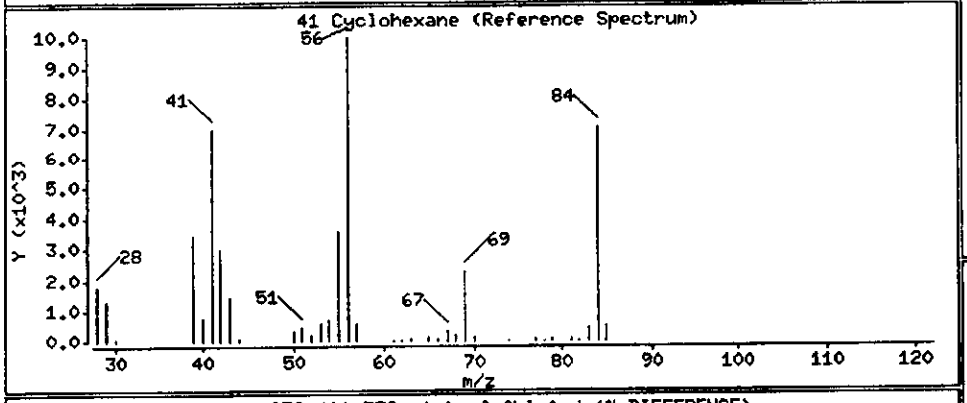
Volume Injected (uL): 500.0 Operator: 0691

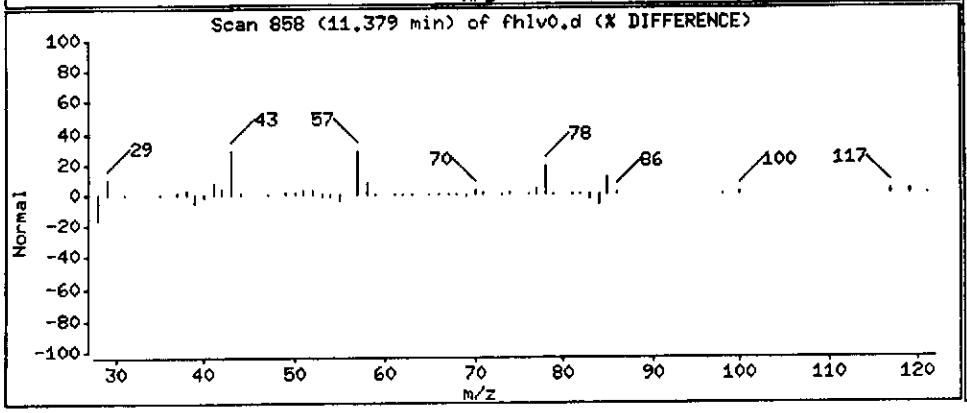
Column phase: DB-5 Column diameter: 0.32

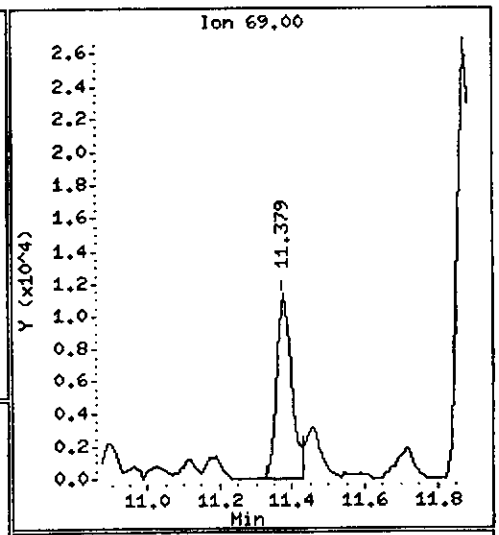
41 Cyclohexane Concentration: 2.467 ppb(v/v)

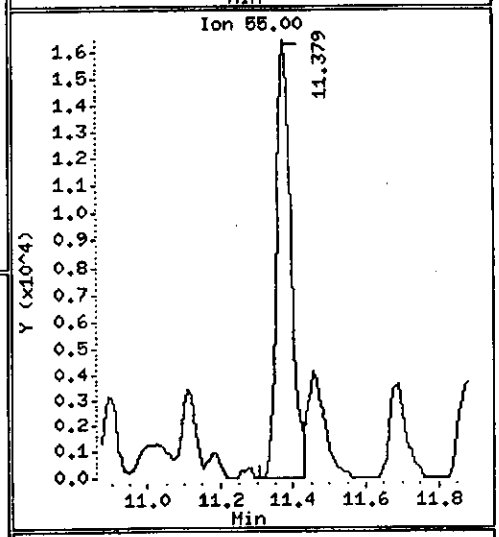


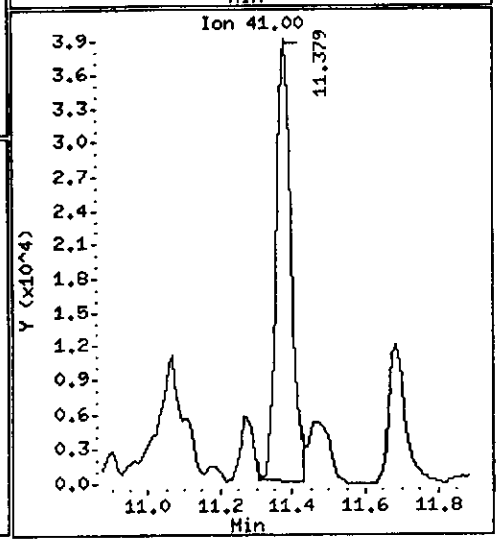












Data File: /var/chem/gcms/mt.i/T021703.b/fhlv0.d

Date : 18-FEB-2003 02:46

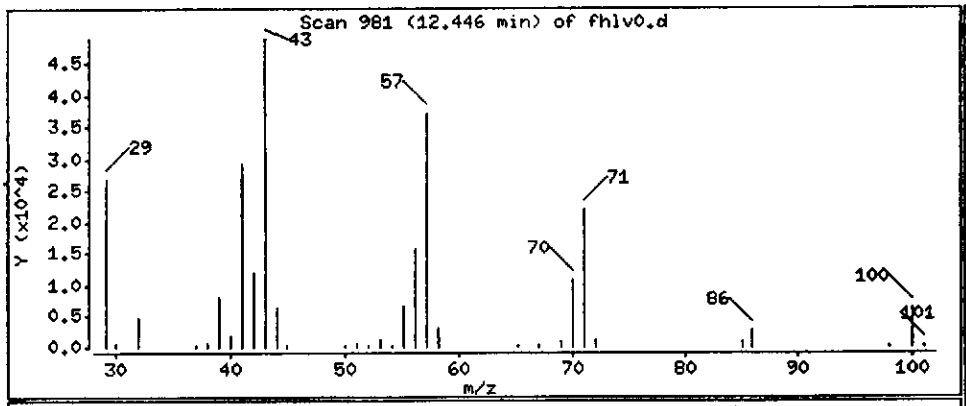
Client ID: J00208 Instrument: mt.i

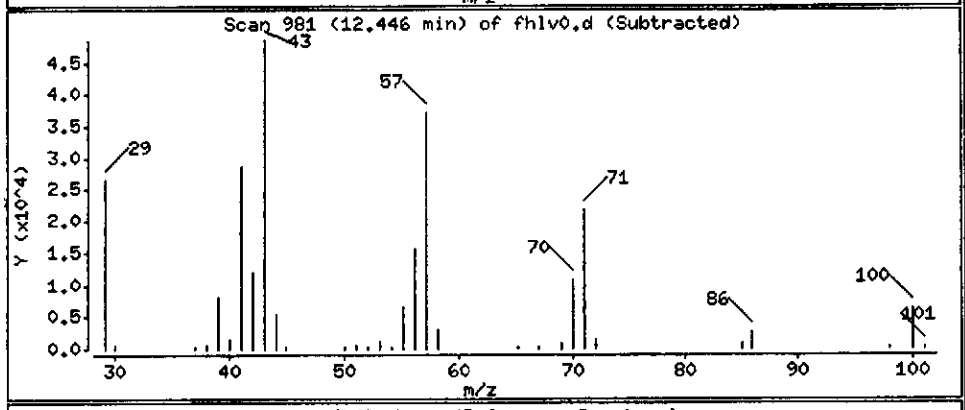
Sample Info: FHLV01AA,1.74,0,,

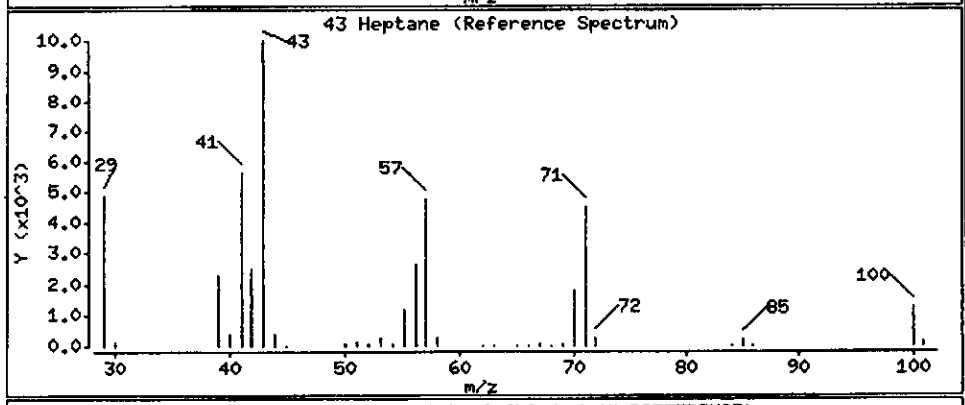
Volume Injected (uL): 500.0 Operator: 0691

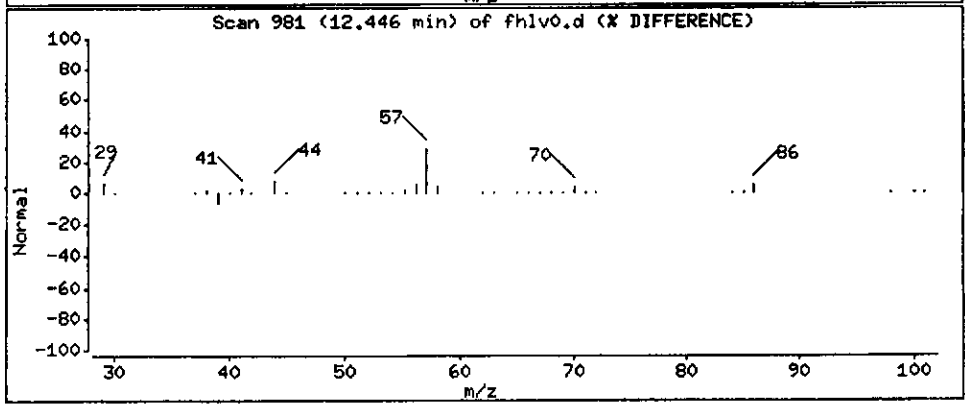
Column phase: DB-5 Column diameter: 0.32

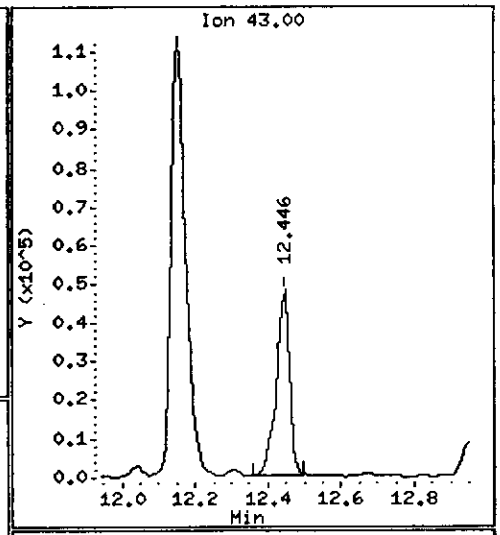
43 Heptane Concentration: 1.765 ppb(v/v)

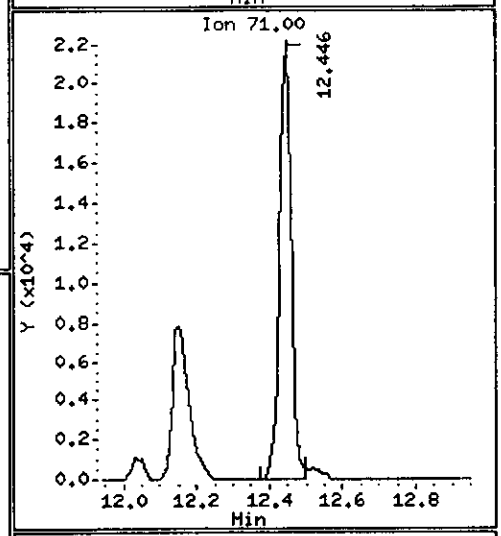


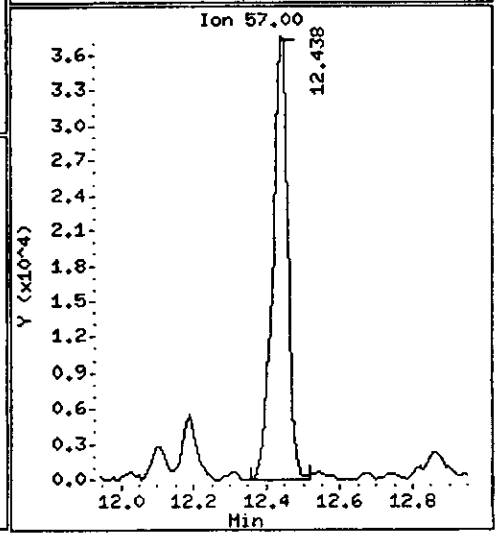












Data File: /var/chem/gcms/mt.i/T021703.b/fhlv0.d

Date : 18-FEB-2003 02:46

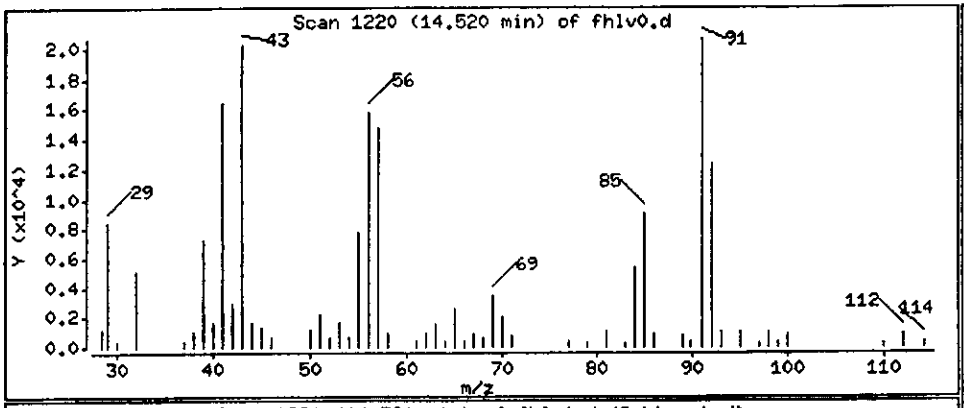
Client ID: J00208 Instrument: mt.i

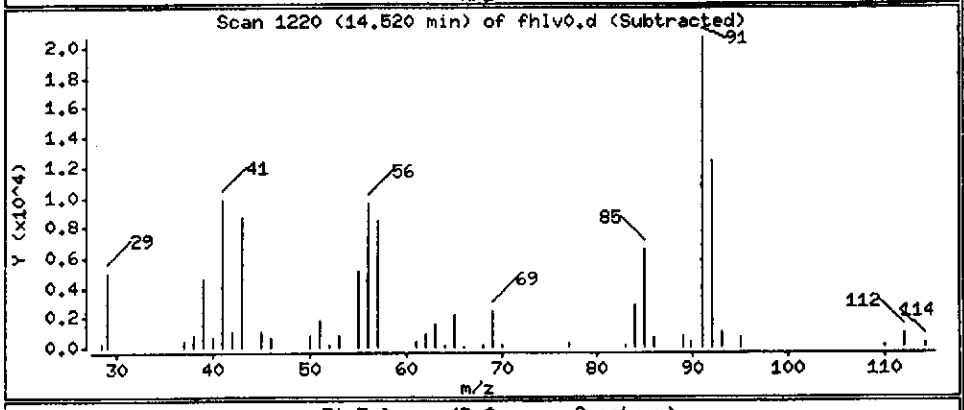
Sample Info: FHLV01AA,1.74,0,,

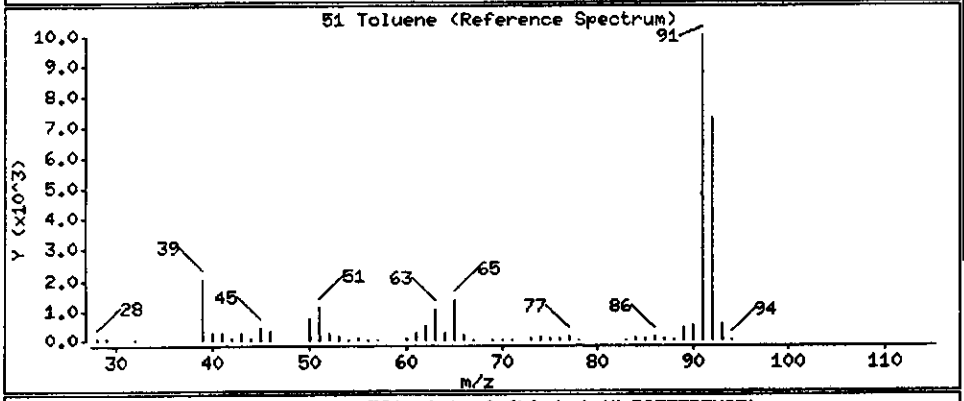
Volume Injected (uL): 500.0 Operator: 0691

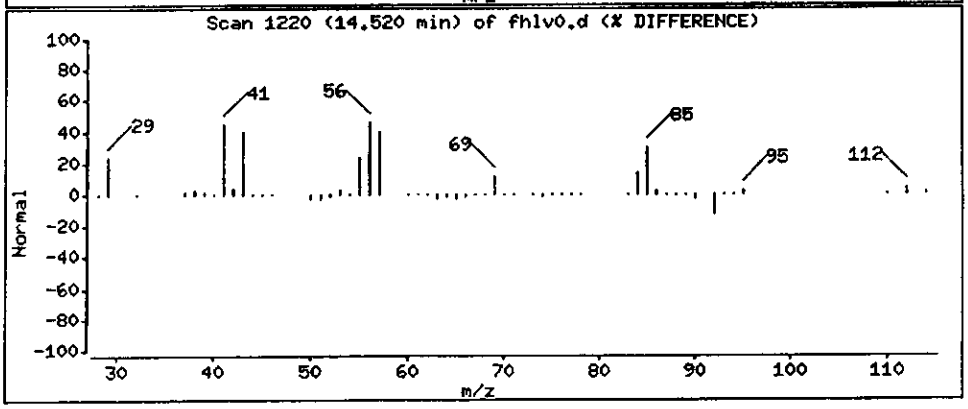
Column phase: DB-5 Column diameter: 0.32

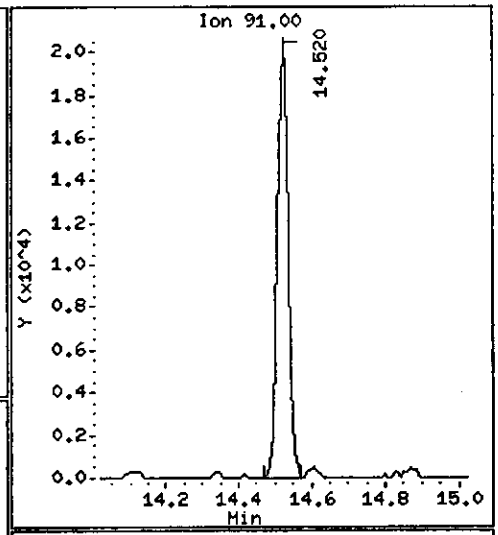
51 Toluene Concentration: 0.3884 ppb(v/v)

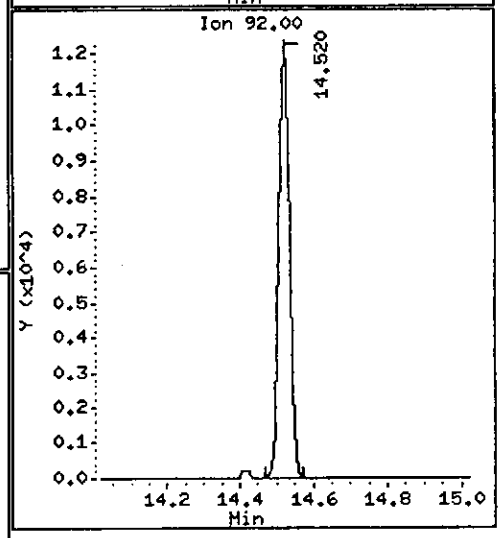












Data File: /var/chem/gcms/mt.i/T021703.b/fhlv0.d

Date : 18-FEB-2003 02:46

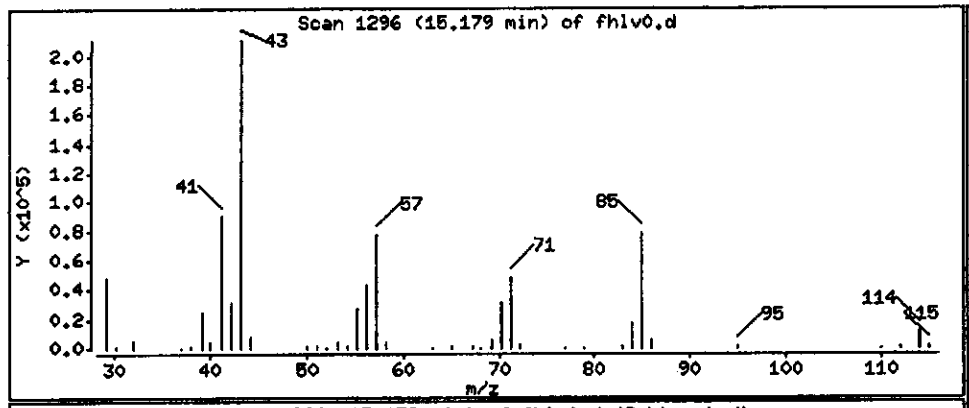
Client ID: J00208 Instrument: mt.i

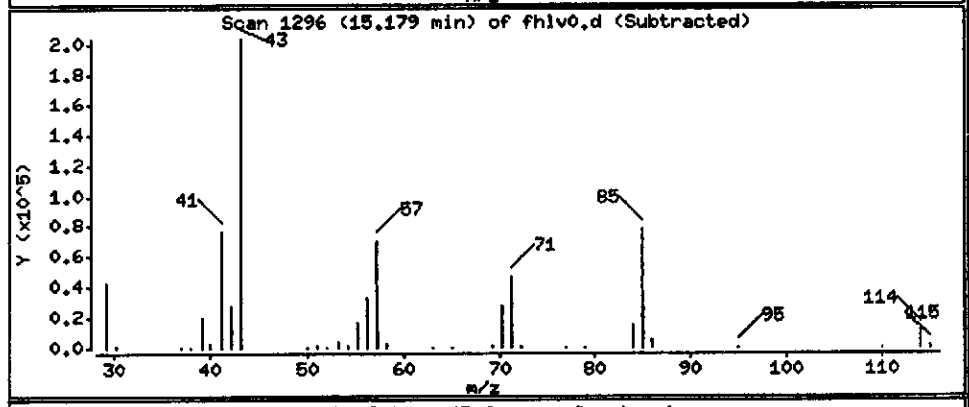
Sample Info: FHLV01AA,1.74,0,,

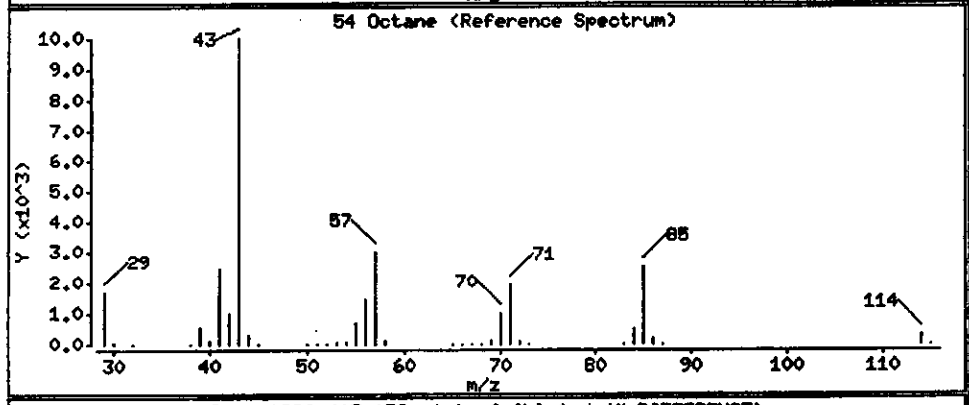
Volume Injected (uL): 500.0 Operator: 0691

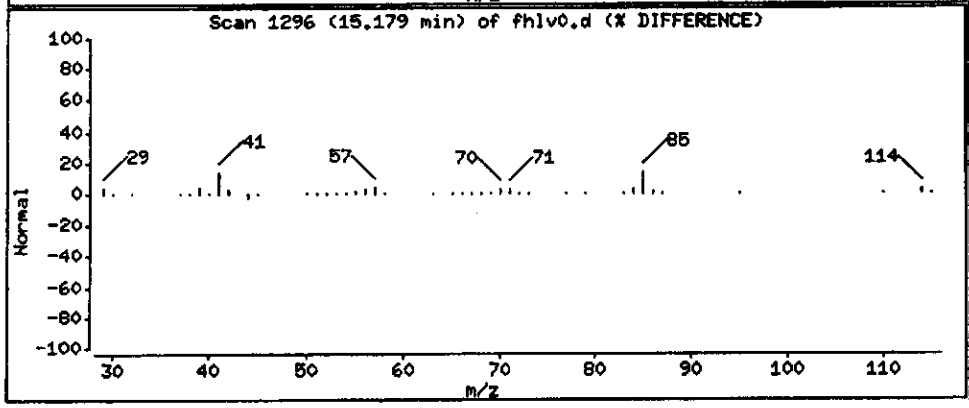
Column phase: DB-5 Column diameter: 0.32

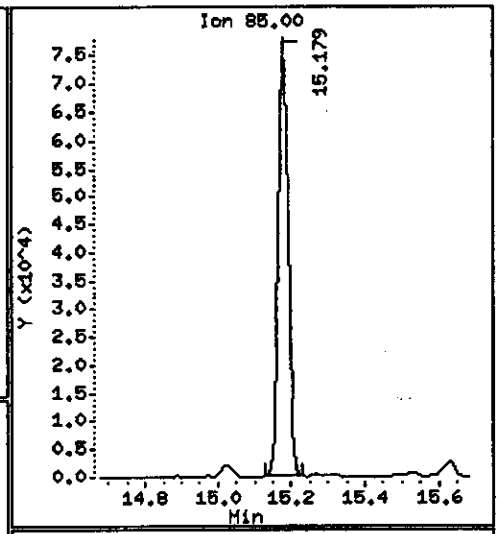
54 Octane Concentration: 4.256 ppb(v/v)

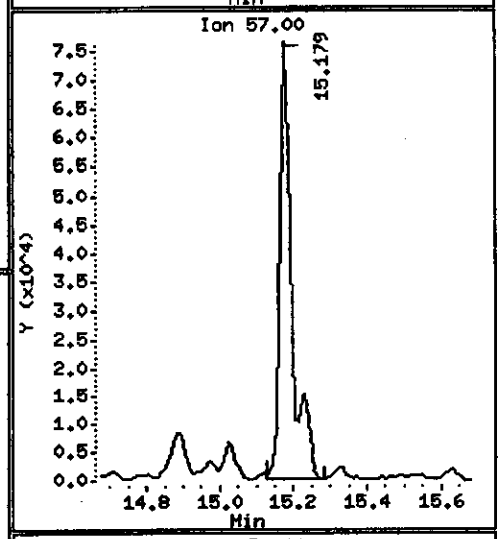


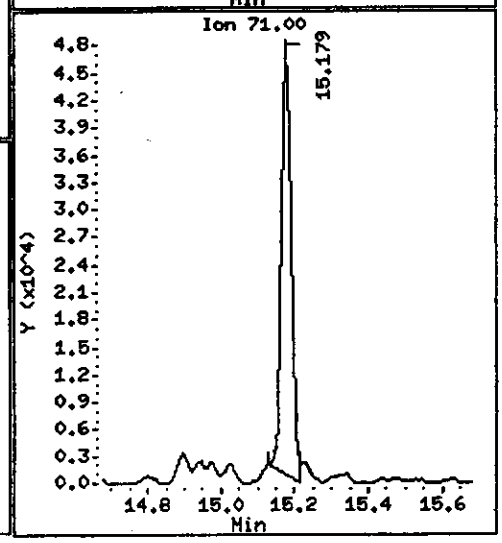












Data File: /var/chem/gcms/mt.i/T021703.b/fhlv0.d

Date : 18-FEB-2003 02:46

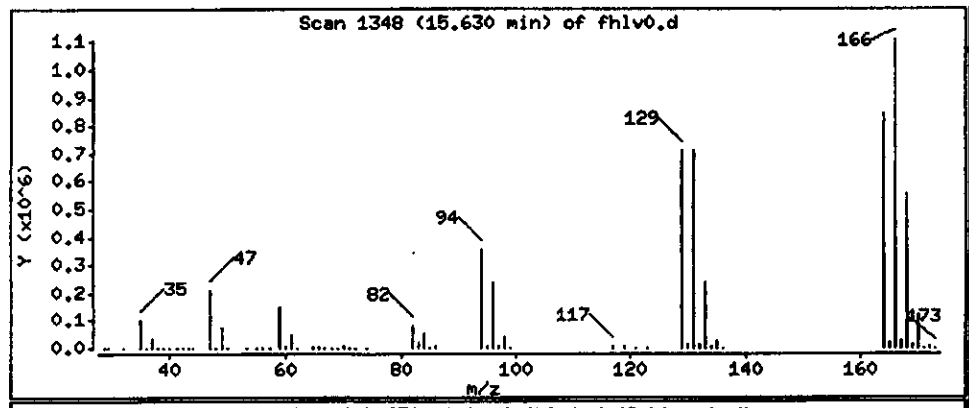
Client ID: J00208 Instrument: mt.i

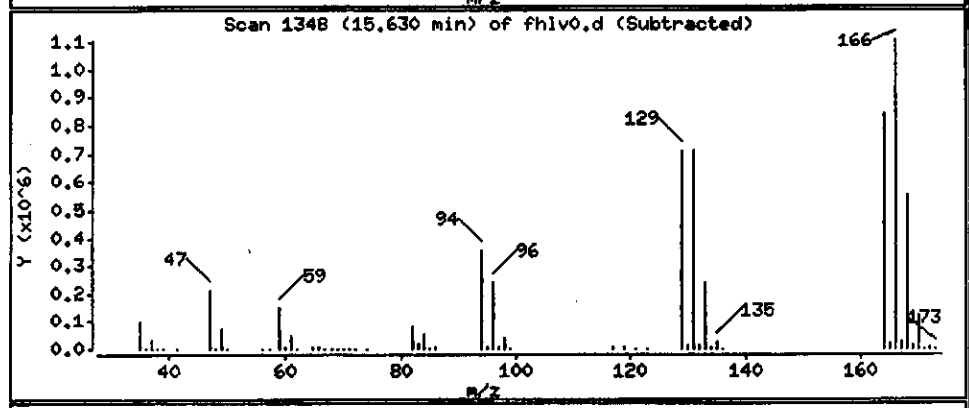
Sample Info: FHLV01AA,1.74,0,,

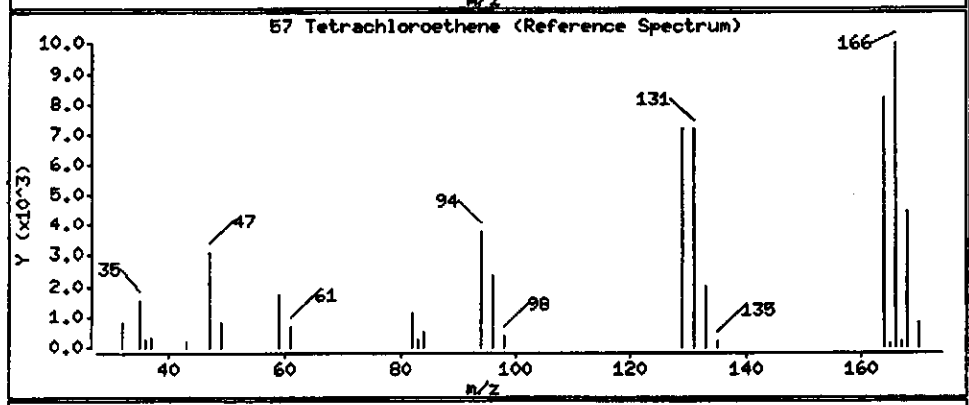
Volume Injected (uL): 500.0 Operator: 0691

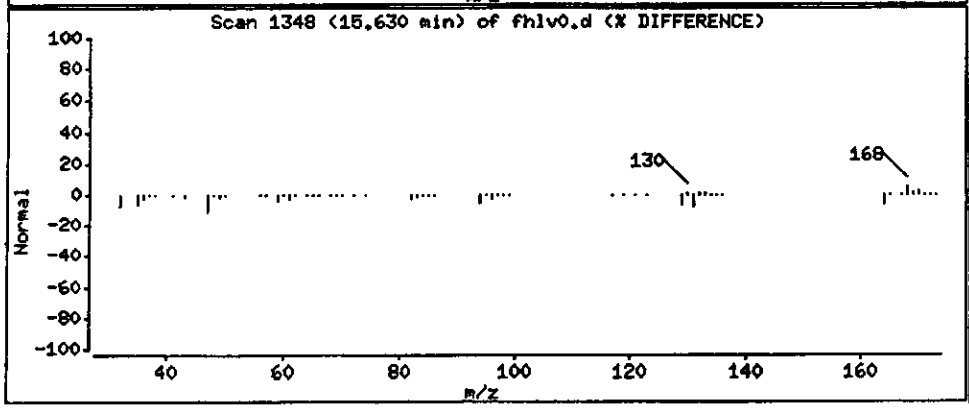
Column phase: DB-5 Column diameter: 0.32

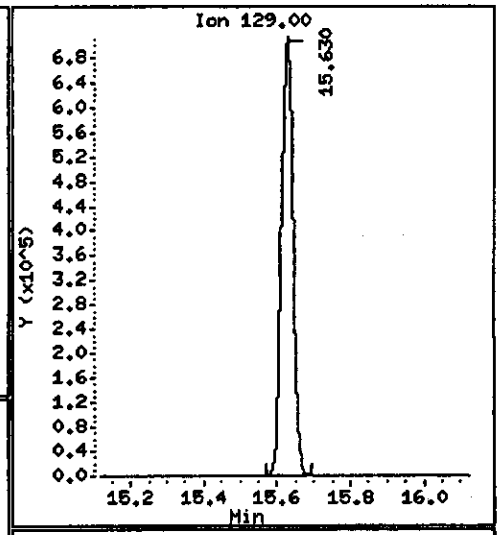
57 Tetrachloroethene Concentration: 41.79 ppb(v/v)

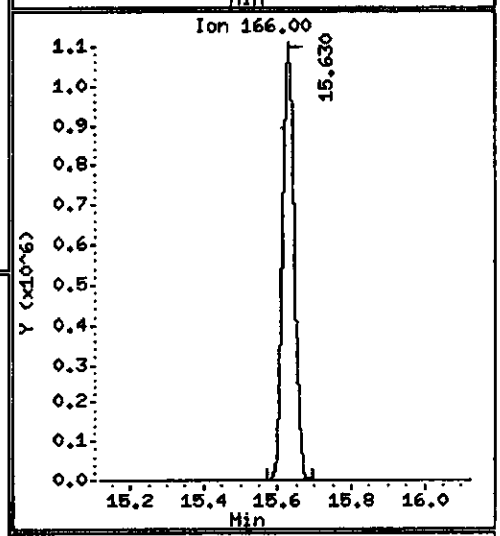


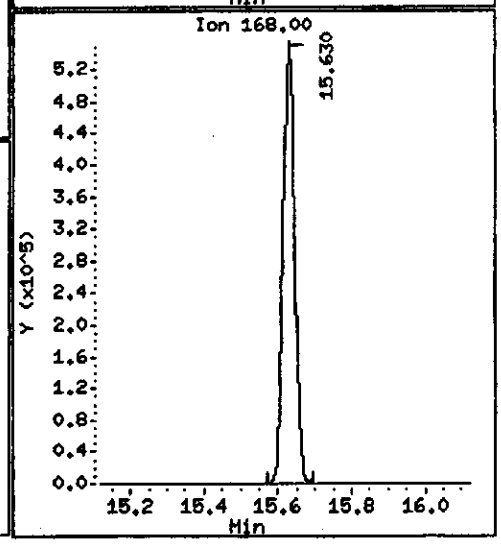












Data File: /var/chem/gcms/mt.i/T021703.b/fhlv0.d

Date : 18-FEB-2003 02:46

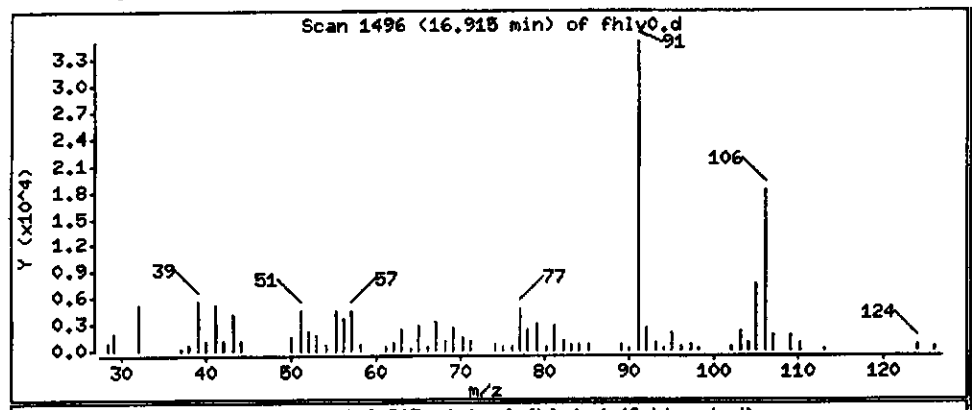
Client ID: J00208 | Instrument: mt.i

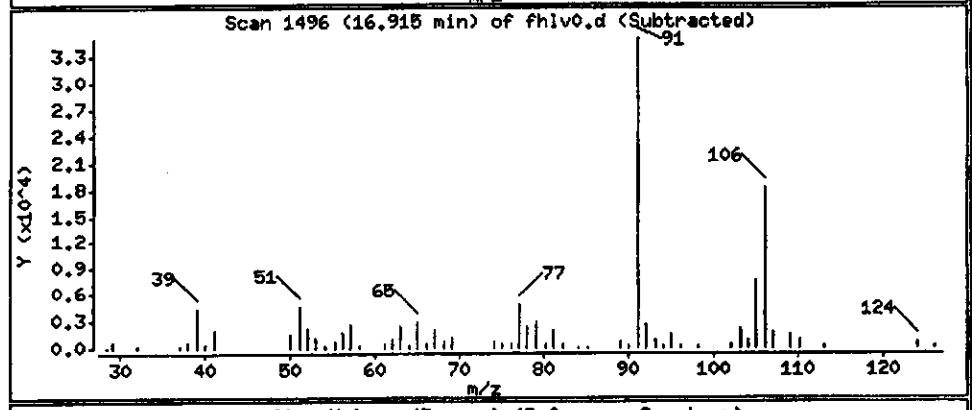
Sample Info: FHLV01AA,1.74,0,,

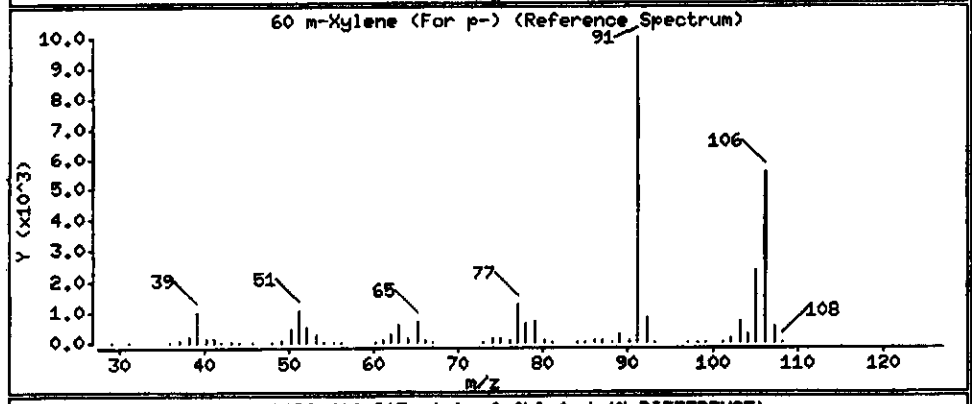
Volume Injected (uL): 500.0 | Operator: 0691

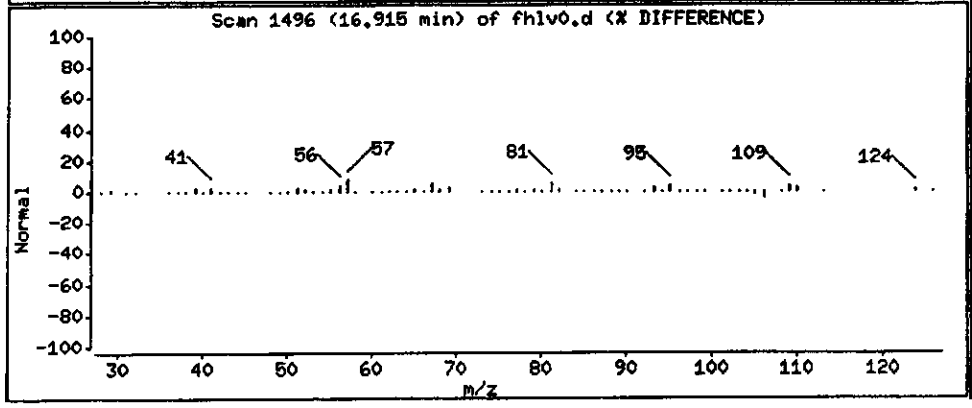
Column phase: DB-5 | Column diameter: 0.32

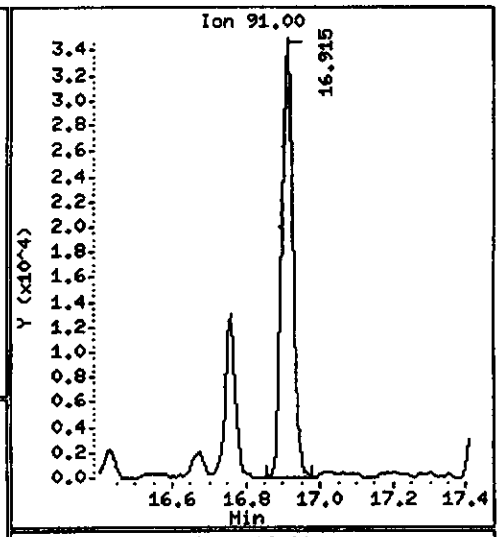
60 m-Xylene (For p-) | Concentration: 0.7060 ppb(v/v)

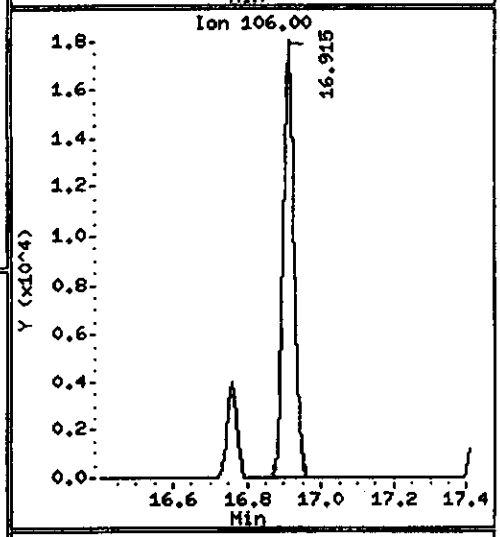


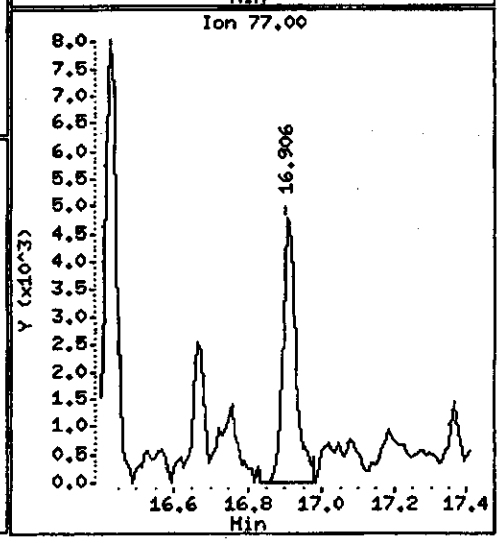












Data File: /var/chem/gcms/mt.i/T021703.b/fhlv0.d

Date : 18-FEB-2003 02:46

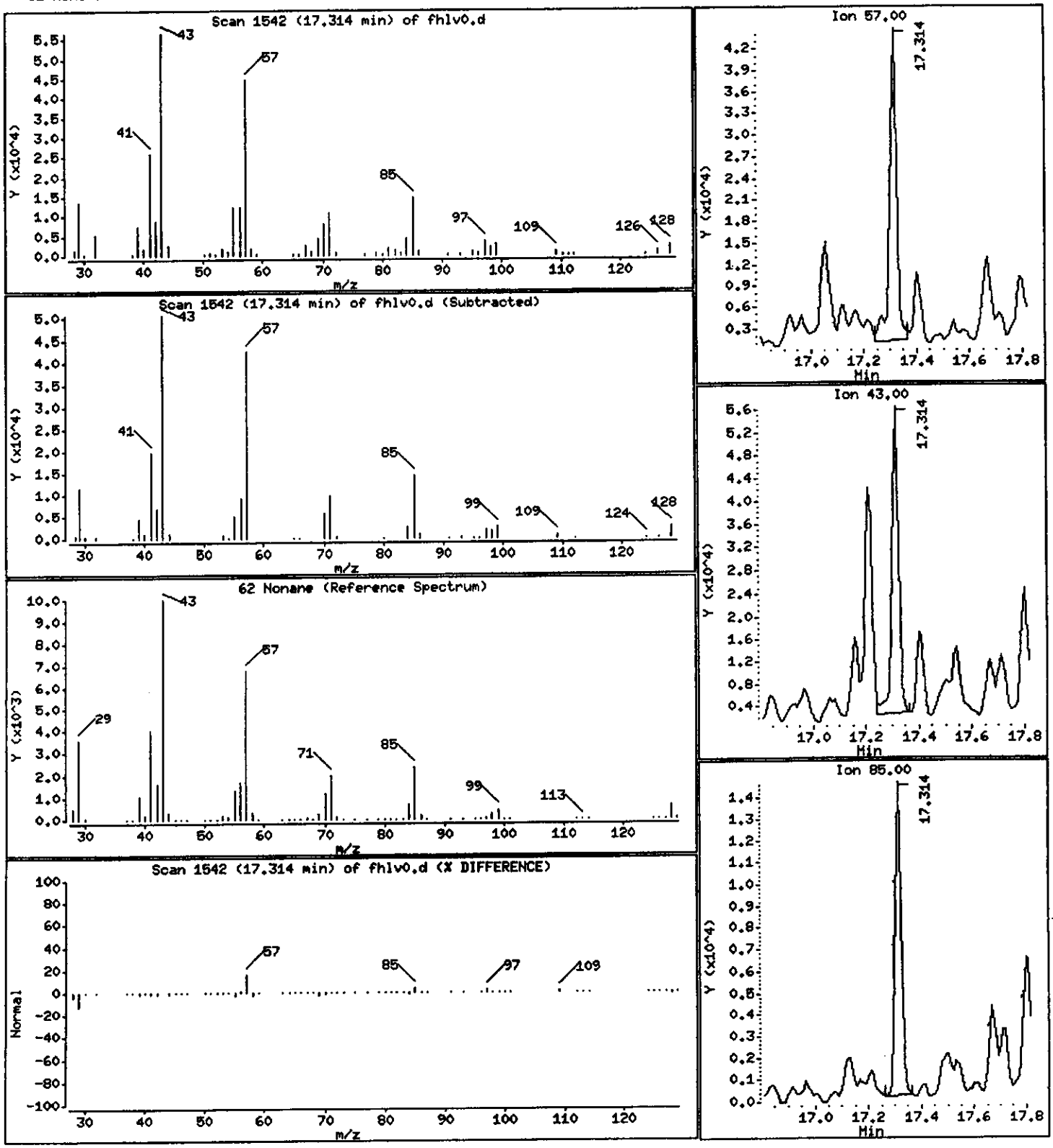
Client ID: J00208 Instrument: mt.i

Sample Info: FHLV01AA,1.74,0,,

Volume Injected (uL): 500.0 Operator: 0691

Column phase: DB-5 Column diameter: 0.32

62 Nonane Concentration: 1.129 ppb(v/v)



Data File: /var/chem/gcms/mt.i/T021703.b/fhlv0.d

Date : 18-FEB-2003 02:46

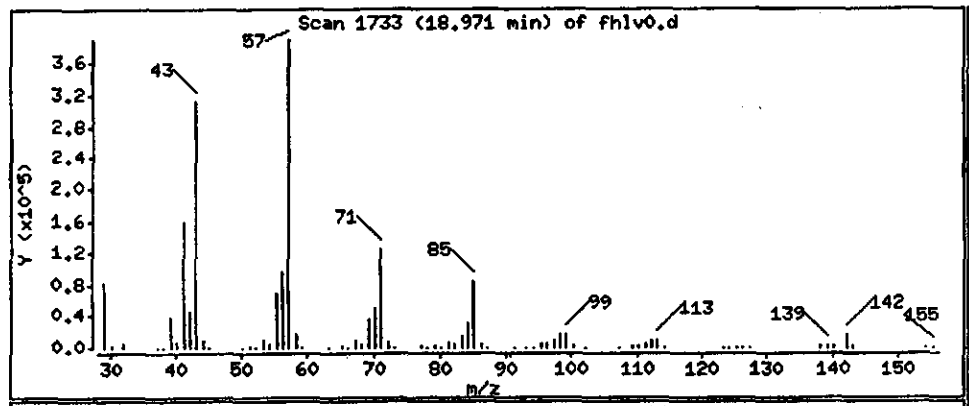
Client ID: J00208 Instrument: mt.i

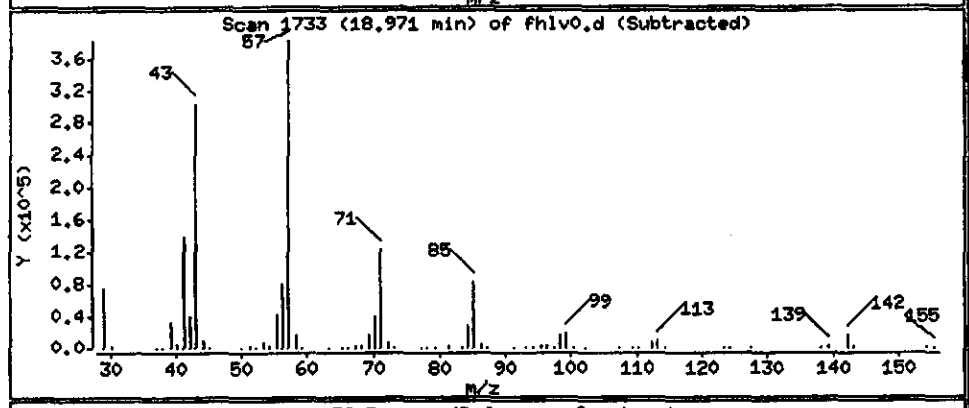
Sample Info: FHLV01AA,1.74,0,,

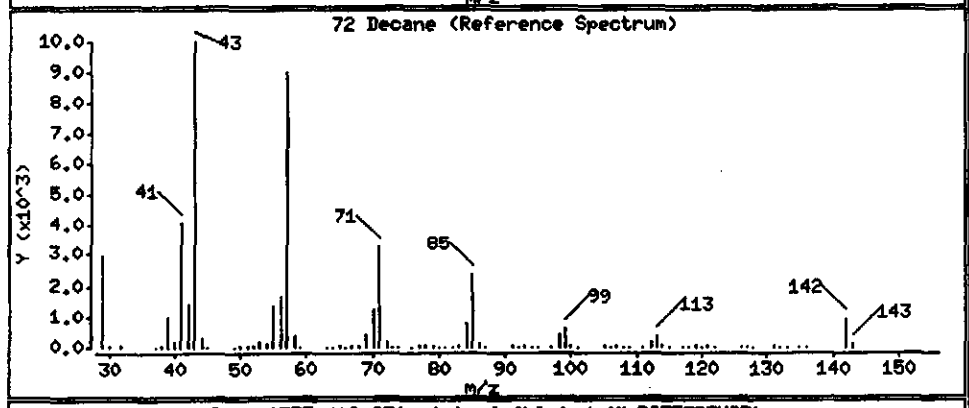
Volume Injected (uL): 500.0 Operator: 0691

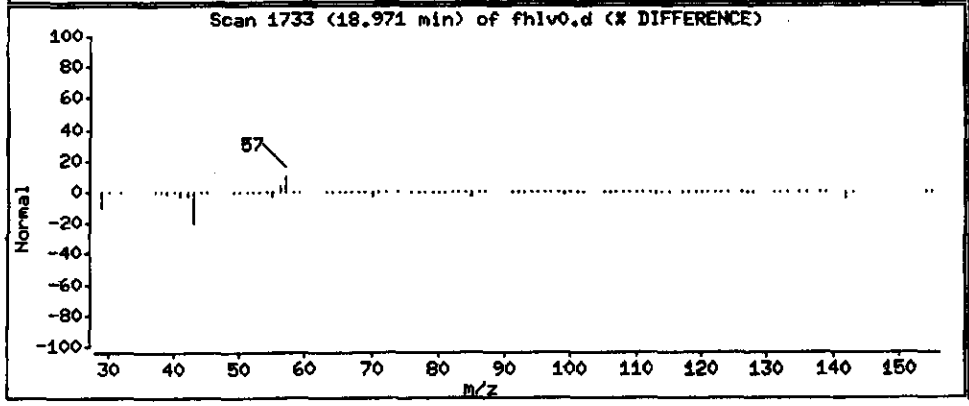
Column phase: DB-5 Column diameter: 0.32

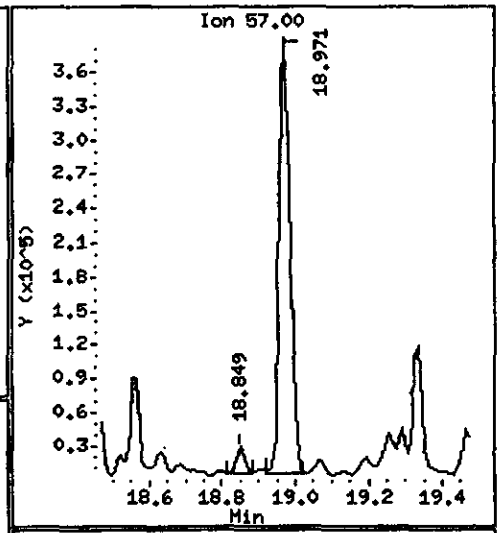
72 Decane Concentration: 8.507 ppb(v/v)

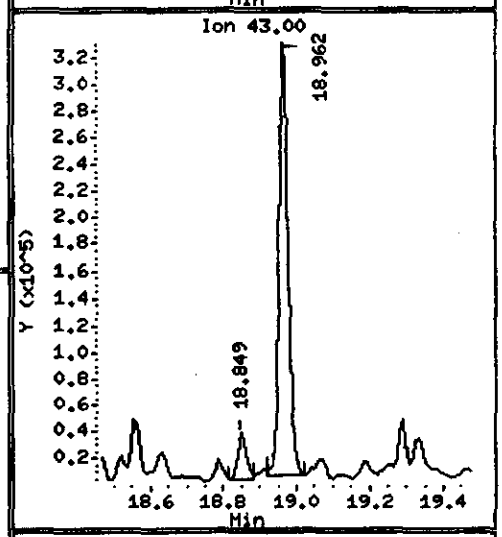


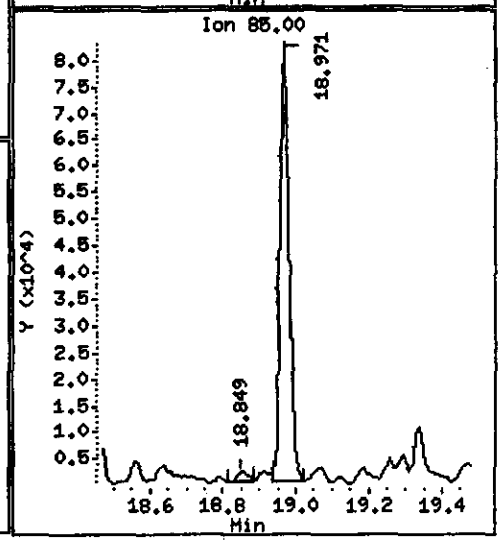












Data File: /var/chem/gcms/mt.i/T021703.b/fhlv0.d

Date : 18-FEB-2003 02:46

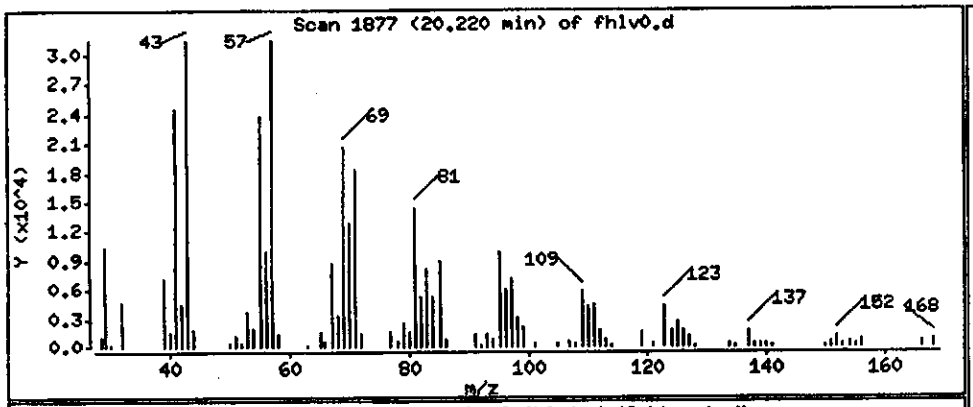
Client ID: J00208 Instrument: mt.i

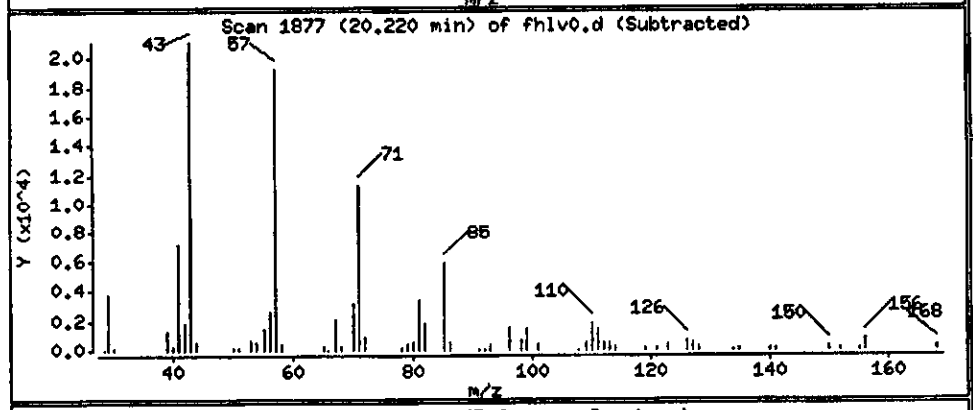
Sample Info: FHLV01AA,1.74,0,,

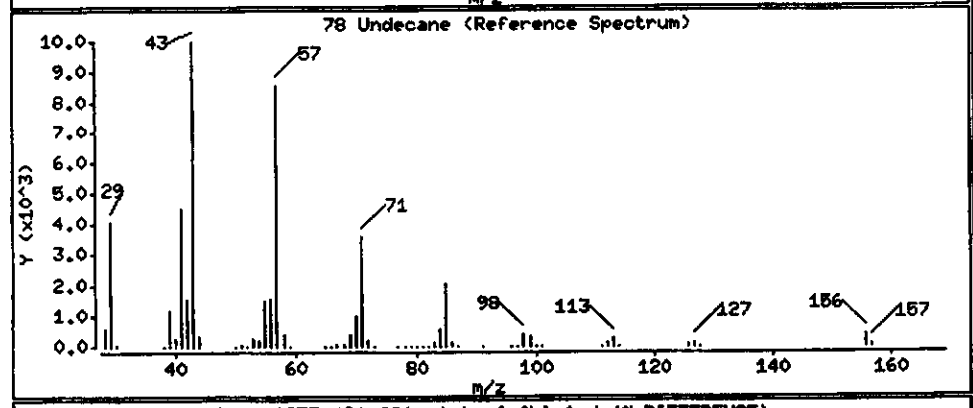
Volume Injected (uL): 500.0 Operator: 0691

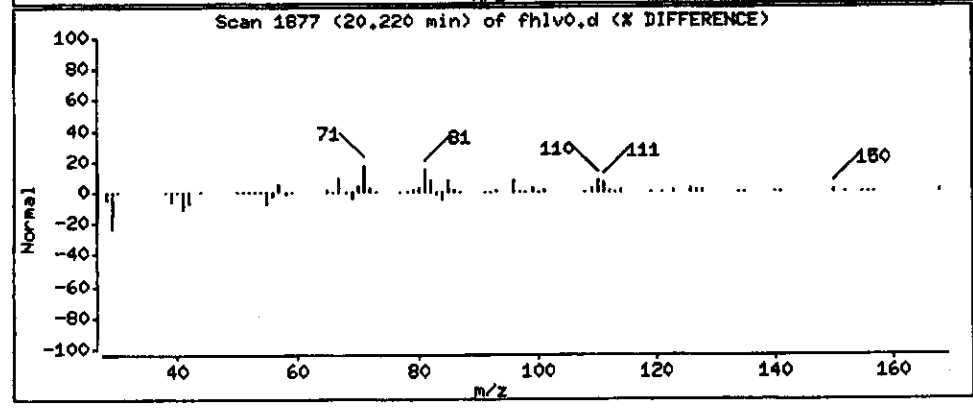
Column phase: DB-5 Column diameter: 0.32

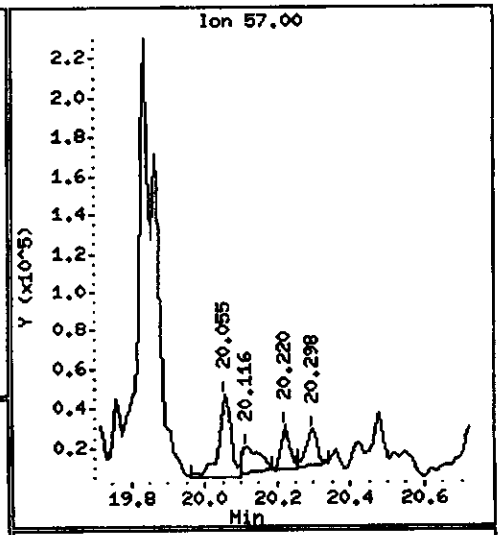
78 Undecane Concentration: 0.3714 ppb(v/v)

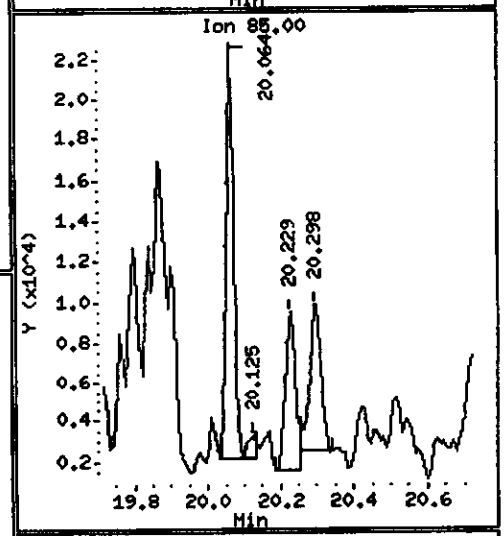


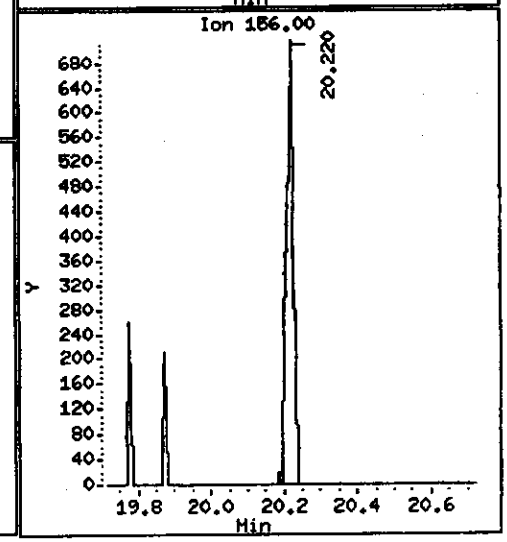












Data File: /var/chem/gcms/mt.i/T021703.b/fhlv0.d

Date : 18-FEB-2003 02:46

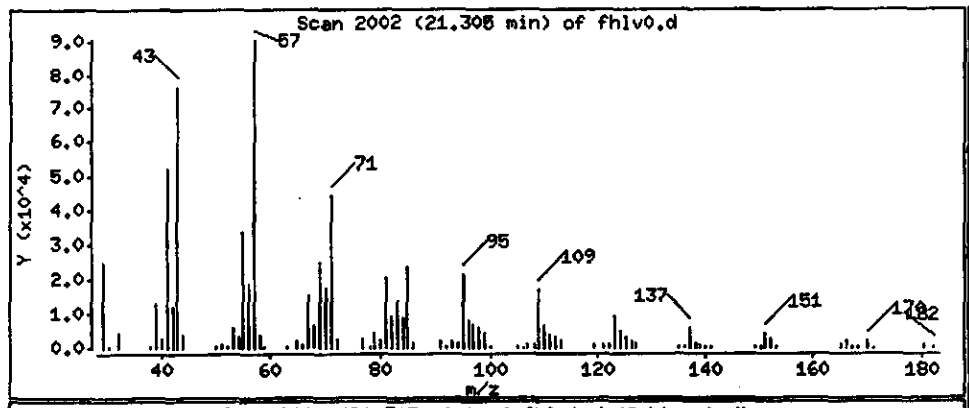
Client ID: J00208 Instrument: mt.i

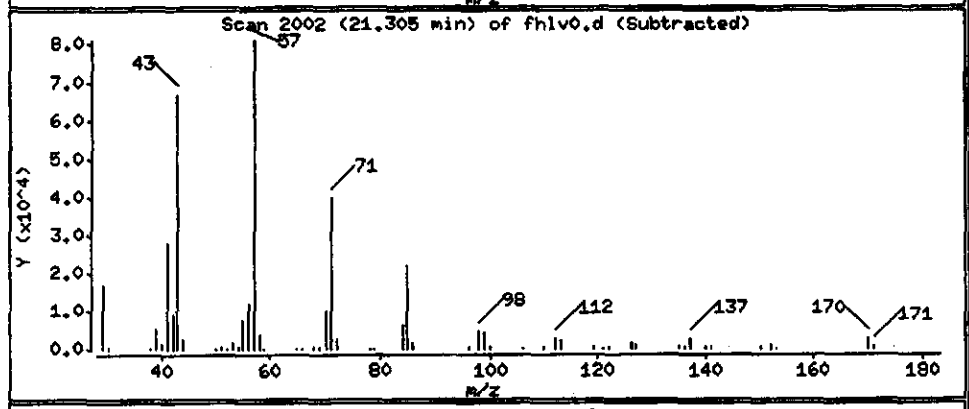
Sample Info: FHLV01AA,1.74,0,,

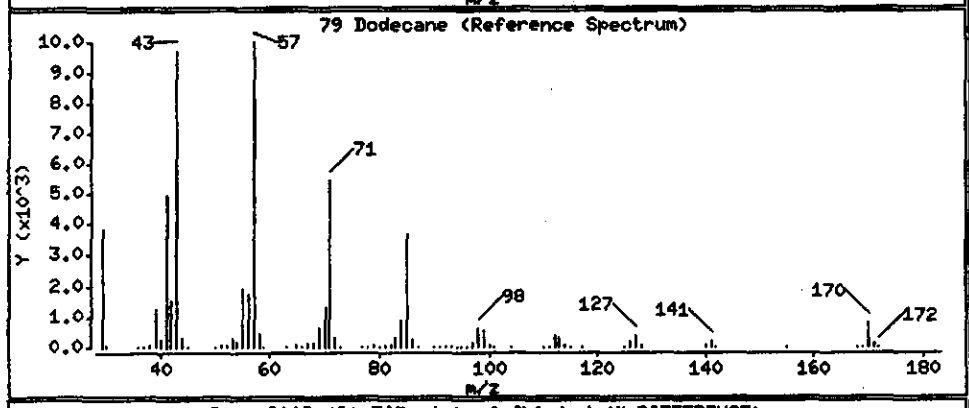
Volume Injected (uL): 500.0 Operator: 0691

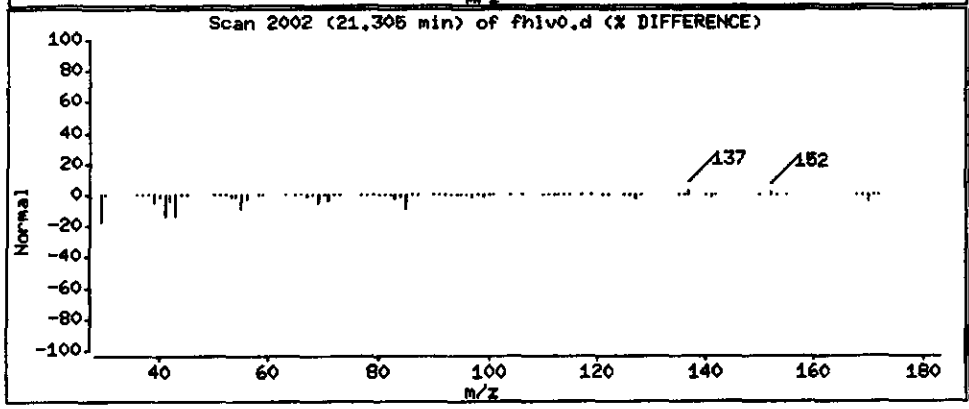
Column phase: DB-5 Column diameter: 0.32

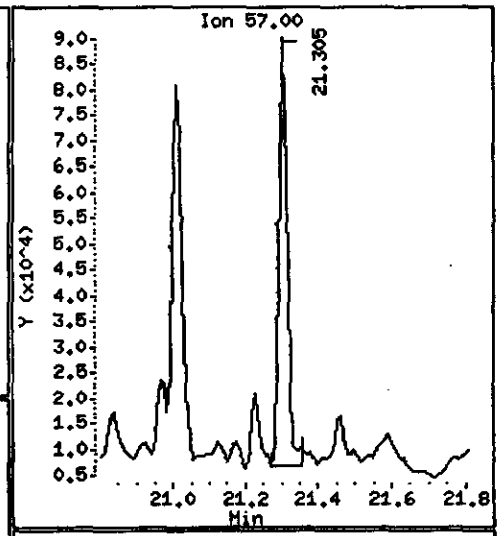
79 Dodecane Concentration: 1.324 ppb(v/v)

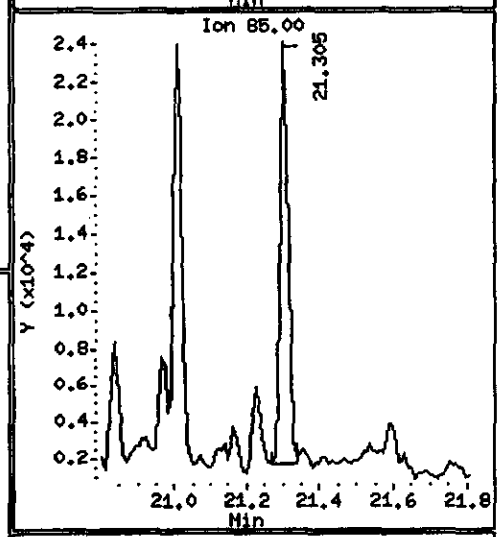


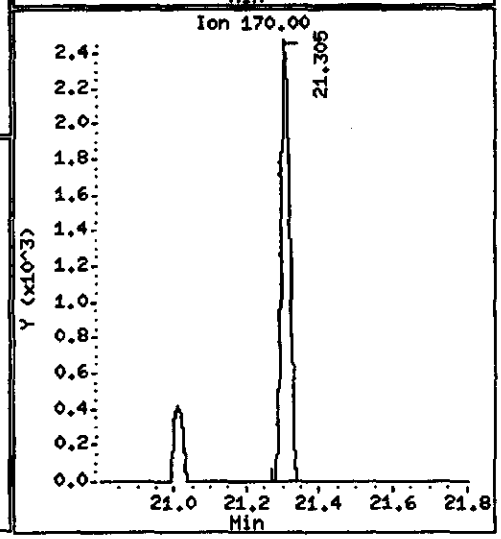












Data File: /var/chem/gcms/mt.i/T021703.b/fhlv0.d
Report Date: 18-Feb-2003 11:57

STL Knoxville

Modified Method TO-14

Data file : /var/chem/gcms/mt.i/T021703.b/fhlv0.d
Lab Smp Id: FHLV01AA Client Smp ID: J00208
Inj Date : 18-FEB-2003 02:46
Operator : 0691 Inst ID: mt.i
Smp Info : FHLV01AA,1.74,0,,
Misc Info : T021703,LA,AllNoJs.sub,,500ML
Comment :
Method : /var/chem/gcms/mt.i/T021703.b/LA.m
Meth Date : 18-Feb-2003 11:50 jarmanc Quant Type: ISTD
Cal Date : 17-FEB-2003 09:09 Cal File: md0217.d
Als bottle: 8
Dil Factor: 1.74000
Integrator: HP RTE Compound Sublist: AllNoJs.sub
Target Version: 3.50
Processing Host: qmidhp01

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

ISTD	RT	HEIGHT	AMOUNT
* 1 Bromochloromethane	9.757	1431684	10.000
* 3 Chlorobenzene-d5	16.429	3242578	10.000

RT	HEIGHT	CONCENTRATIONS ON-COL(ppb(v/v))	FINAL(ppb(v/v))	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Acetaldehyde				CAS #: 75-07-0			
4.629	319782	2.23360742	3.886	90	NBS75K.l	62264	1
Hexane, 2,5-dimethyl-				CAS #: 592-13-2			
14.320	332155	1.02435470	1.782	87	NBS75K.l	64206	3
Cyclohexane, 1,1,3-trimethyl-				CAS #: 3073-66-3			
16.238	506829	1.56304336	2.720	97	NBS75K.l	4647	3
Cyclohexane, 1,1,2,3-tetramethyl-				CAS #: 6783-92-2			
18.632	557625	1.71969649	2.992	74	NBS75K.l	7580	3

Data File: /var/chem/gcms/mt.i/T021703.b/fhlv0.d
Report Date: 18-Feb-2003 11:57

RT	HEIGHT	CONCENTRATIONS ON-COL(ppb(v/v))	FINAL(ppb(v/v))	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Nonane, 3-methylene-				CAS #: 51655-64-2			
18.789	389103	1.19998039	2.088	58	NBS75K.l	7591	3
Cyclooctane, 1,4-dimethyl-, cis-				CAS #: 13151-99-0			
18.849	357683	1.10308218	1.919	83	NBS75K.l	7609	3
Heptane, 2,2,4,6,6-pentamethyl-				CAS #: 13475-82-6			
19.335	408466	1.25969522	2.192	50	NBS75K.l	15367	3
Cyclohexene, 4-ethenyl-				CAS #: 100-40-3			
19.483	658593	2.03107836	3.534	70	NBS75K.l	63795	3
Nonane, 3-methyl-5-propyl-				CAS #: 31081-18-2			
19.587	972996	3.00068649	5.221	72	NBS75K.l	19054	3
Cycloheptane, chloro-				CAS #: 2453-46-5			
19.717	692654	2.13612132	3.717	59	NBS75K.l	5812	3
Hexane, 2,2,5-trimethyl-				CAS #: 3522-94-9			
19.838	595756	1.83729119	3.197	72	NBS75K.l	65129	3
1-Ethyl-2,2,6-trimethylcyclohexane				CAS #: 0-00-0			
19.908	533224	1.64444464	2.861	80	NBS75K.l	11030	3
Zinc, bis[2-(1,1-dimethylethyl)-3,3-dime				CAS #: 74793-36-5			
20.298	338049	1.04253159	1.814	64	NBS75K.l	44808	3
Naphthalene, decahydro-2-methyl-				CAS #: 2958-76-1			
20.975	382372	1.17922221	2.052	90	NBS75K.l	67009	3
Naphthalene, decahydro-2,6-dimethyl-				CAS #: 1618-22-0			
21.539	359391	1.10834959	1.928	89	NBS75K.l	14151	3
Diphenyl ether				CAS #: 101-84-8			
23.951	522228	1.61053335	2.802	91	NBS75K.l	15338	3

Data File: /var/chem/gcms/mt.i/T021703.b/fhlv0.d

Date : 18-FEB-2003 02:46

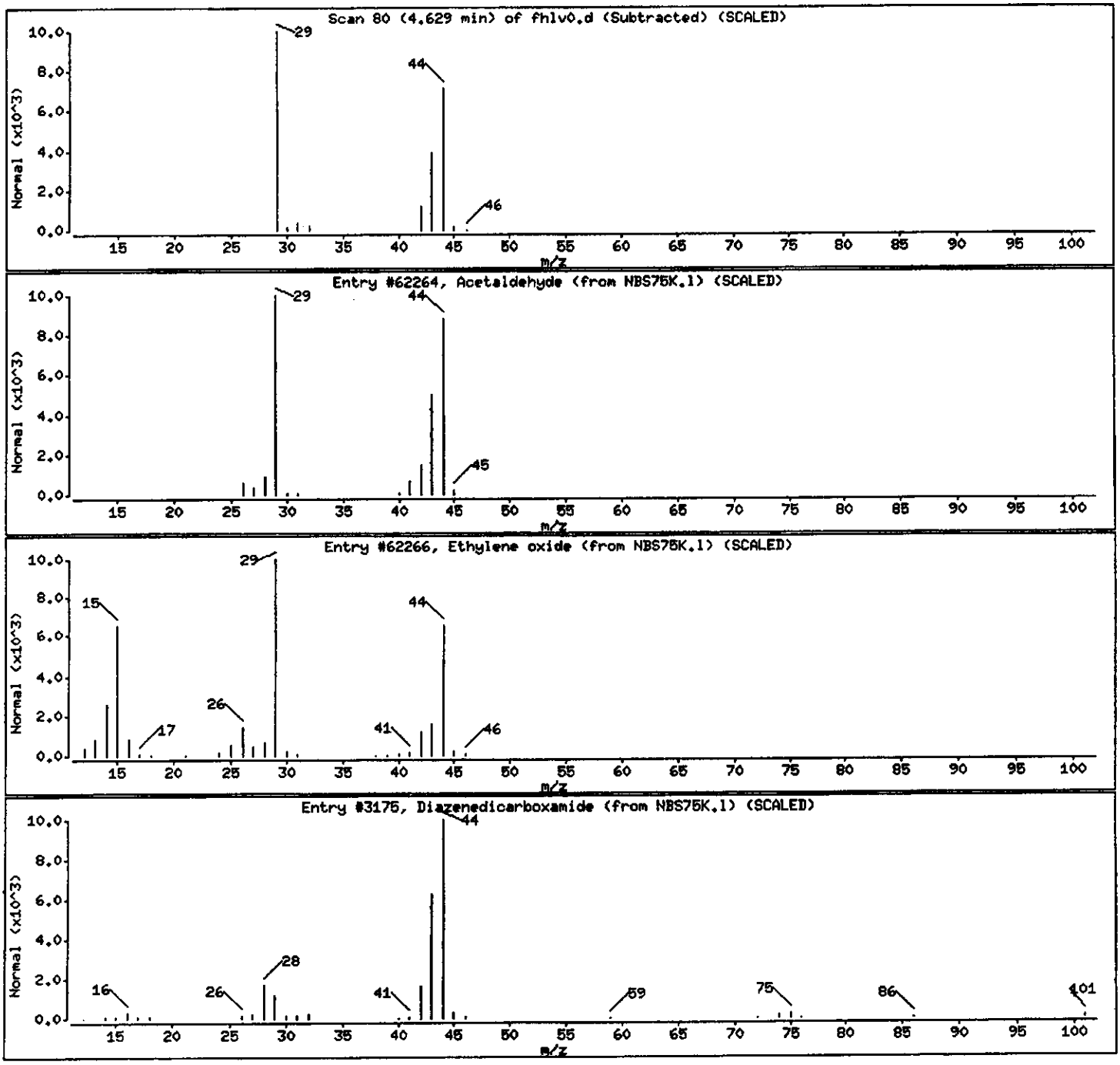
Client ID: J00208 Instrument: mt.i

Sample Info: FHLV01AA,1.74,0,,

Volume Injected (uL): 500.0 Operator: 0691

Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Acetaldehyde	75-07-0	NBS75K.l	62264	90	C2H4O	44
Ethylene oxide	75-21-8	NBS75K.l	62266	64	C2H4O	44
Diazenedicarboxamide	123-77-3	NBS75K.l	3175	17	C2H4N4O2	116



Data File: /var/chem/gcms/mt.i/T021703.b/fhlv0.d

Date : 18-FEB-2003 02:46

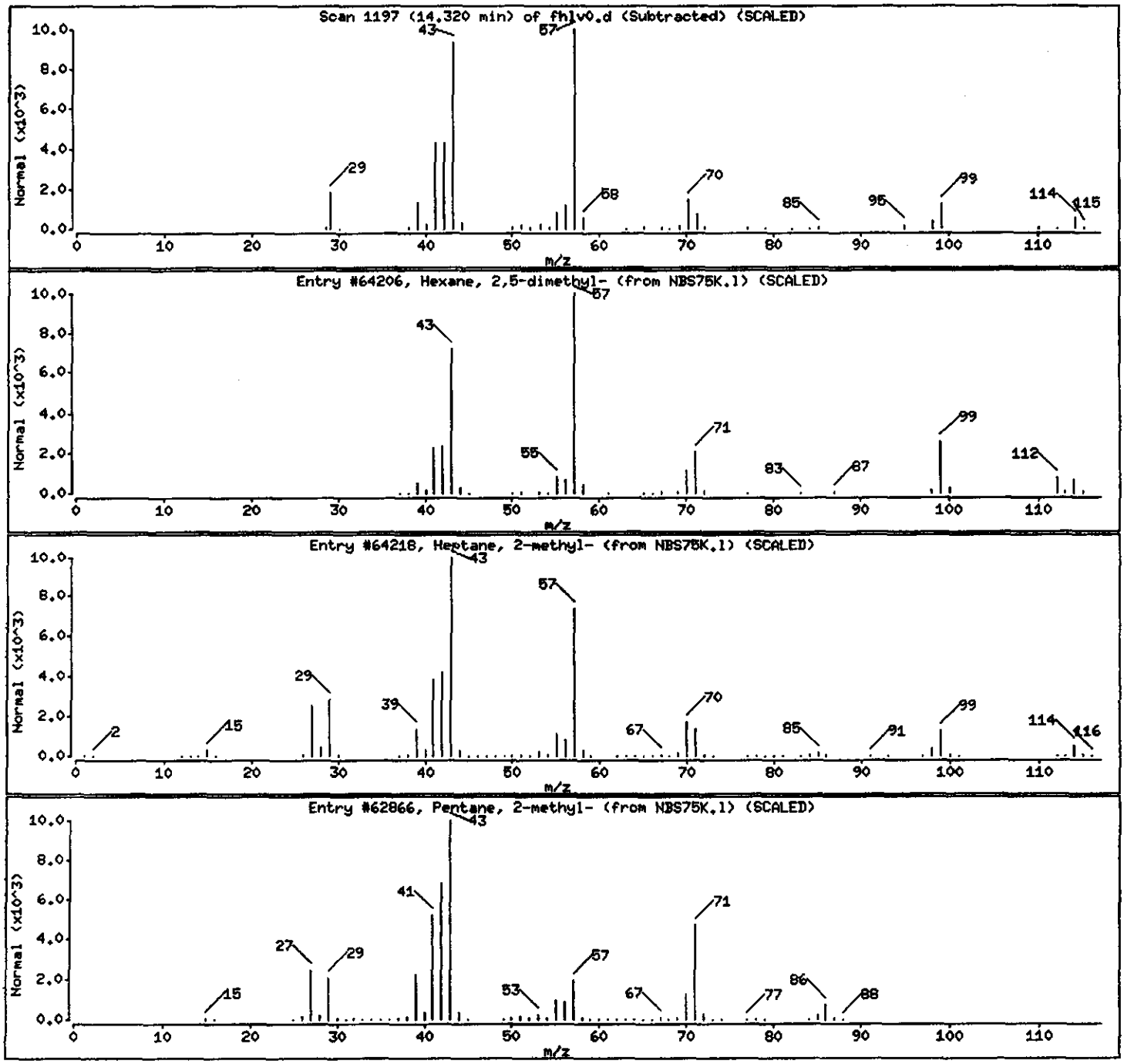
Client ID: J00208 Instrument: mt.i

Sample Info: FHLV01AA,1.74,0,,

Volume Injected (uL): 500.0 Operator: 0691

Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Hexane, 2,5-dimethyl-	592-13-2	NBS75K.l	64206	87	C8H18	114
Heptane, 2-methyl-	592-27-8	NBS75K.l	64218	83	C8H18	114
Pentane, 2-methyl-	107-83-5	NBS75K.l	62866	40	C6H14	86



Data File: /var/chem/gcms/mt.i/T021703.b/fhlv0.d

Date : 18-FEB-2003 02:46

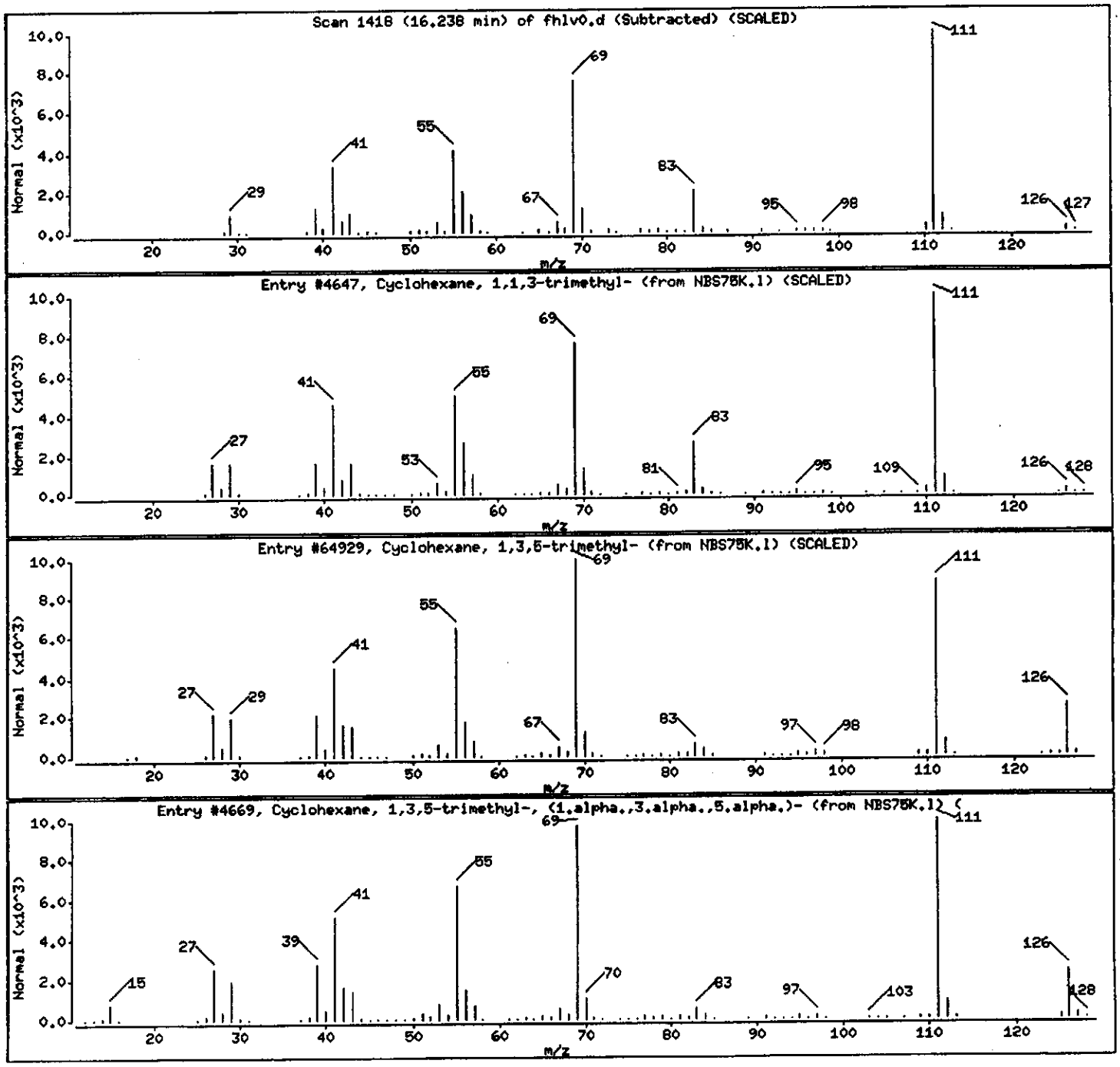
Client ID: J00208 Instrument: mt.i

Sample Info: FHLV01AA,1.74,0,,

Volume Injected (uL): 500.0 Operator: 0691

Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclohexane, 1,1,3-trimethyl-	3073-66-3	NBS75K.l	4647	97	C9H18	126
Cyclohexane, 1,3,5-trimethyl-	1839-63-0	NBS75K.l	64929	72	C9H18	126
Cyclohexane, 1,3,5-trimethyl-, (1.alpha.	1795-27-3	NBS75K.l	4669	64	C9H18	126



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Date : 18-FEB-2003 02:46

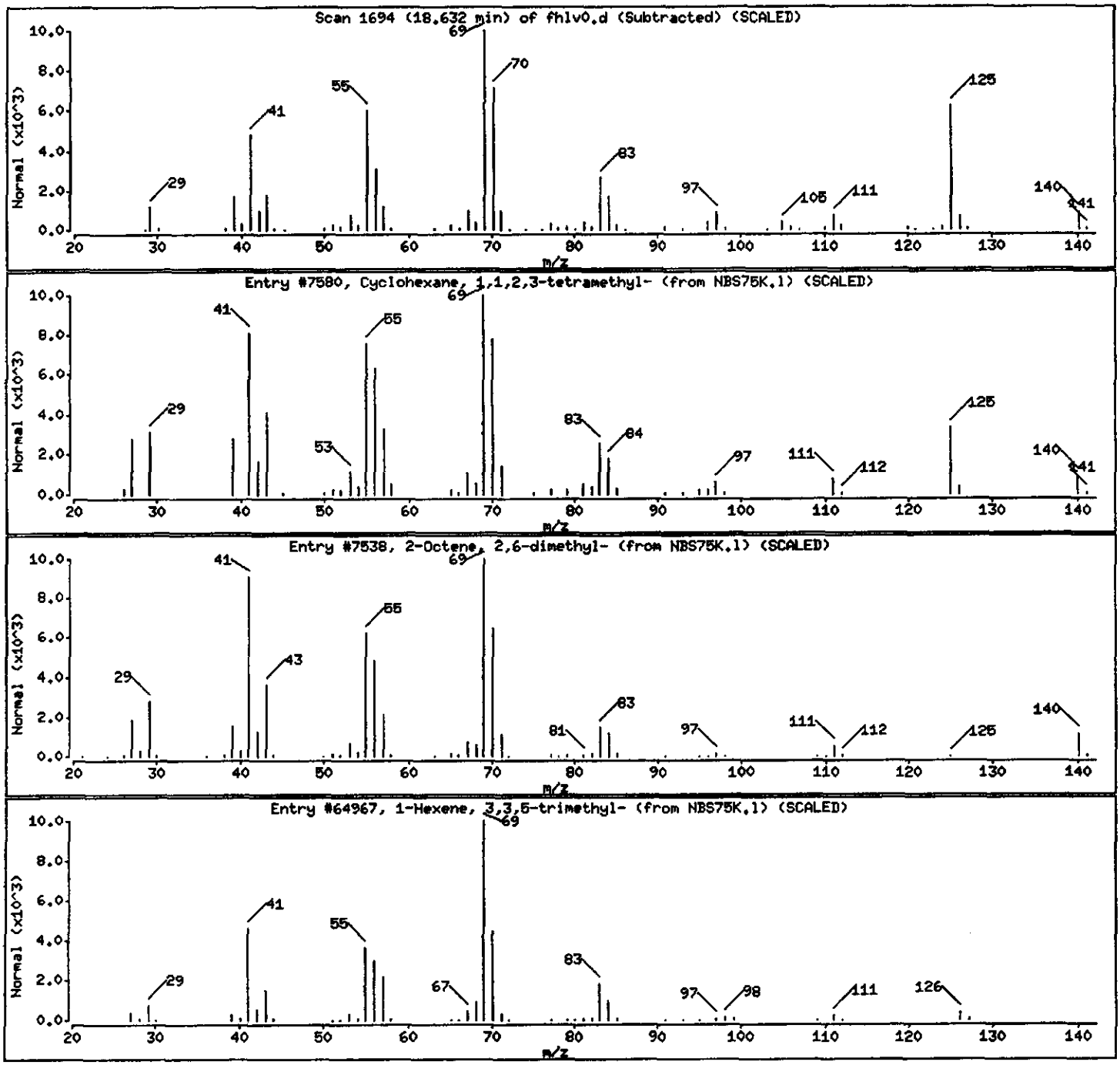
Client ID: J00208 Instrument: mt.i

Sample Info: FHLV01AA,1.74,0,,

Volume Injected (uL): 500.0 Operator: 0691

Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclohexane, 1,1,2,3-tetramethyl-	6783-92-2	NBS75K.1	7580	74	C10H20	140
2-Octene, 2,6-dimethyl-	4057-42-5	NBS75K.1	7538	64	C10H20	140
1-Hexene, 3,3,5-trimethyl-	13427-43-5	NBS75K.1	64967	59	C9H18	126



Data File: /var/chem/gcms/mt.i/T021703.b/fhlv0.d

Date : 18-FEB-2003 02:46

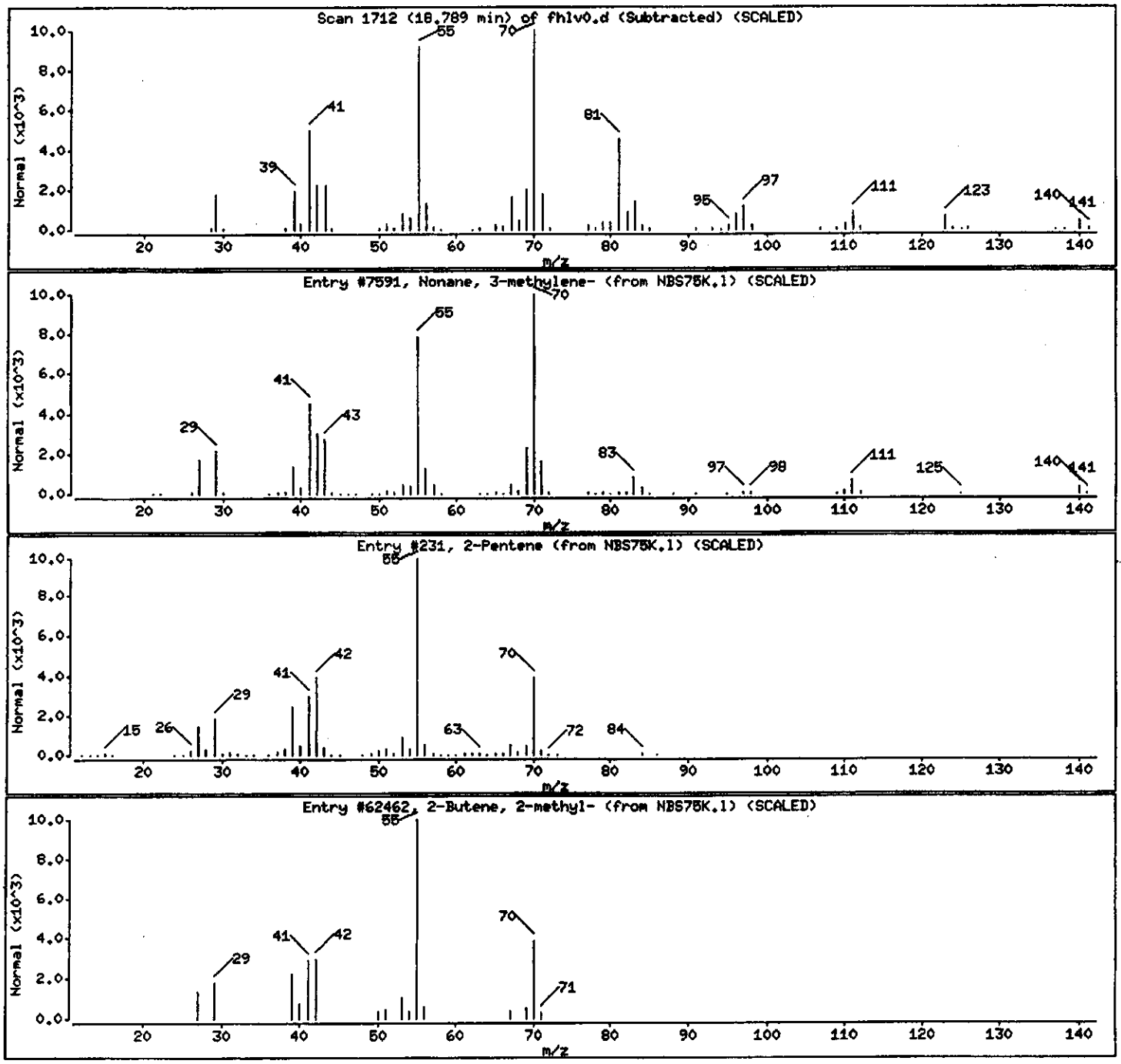
Client ID: J00208 Instrument: mt.i

Sample Info: FHLV01AA,1.74,0,,

Volume Injected (uL): 500.0 Operator: 0691

Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Nonane, 3-methylene-	51655-64-2	NBS75K.l	7591	58	C10H20	140
2-Pentene	109-68-2	NBS75K.l	231	50	C5H10	70
2-Butene, 2-methyl-	513-35-9	NBS75K.l	62462	50	C5H10	70



Data File: /var/chem/gcms/mt.i/T021703.b/fhlv0.d

Date : 18-FEB-2003 02:46

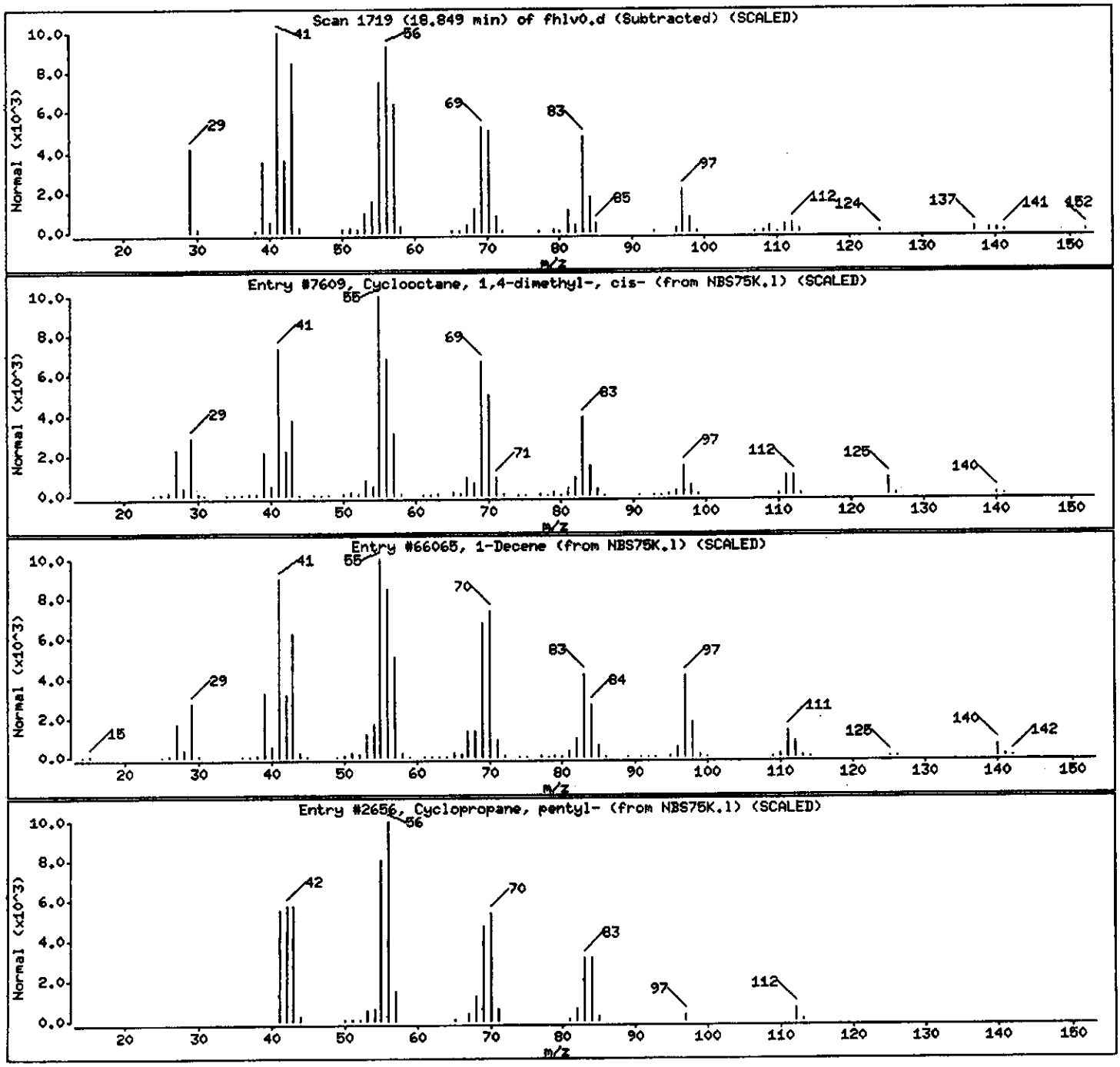
Client ID: J00208 Instrument: mt.i

Sample Info: FHLV01AA,1.74,0,,

Volume Injected (uL): 500.0 Operator: 0691

Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclooctane, 1,4-dimethyl-, cis-	13151-99-0	NBS75K.l	7609	83	C10H20	140
1-Decene	872-05-9	NBS75K.l	66065	83	C10H20	140
Cyclopropane, pentyl-	2511-91-3	NBS75K.l	2656	64	C8H16	112



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Date : 18-FEB-2003 02:46

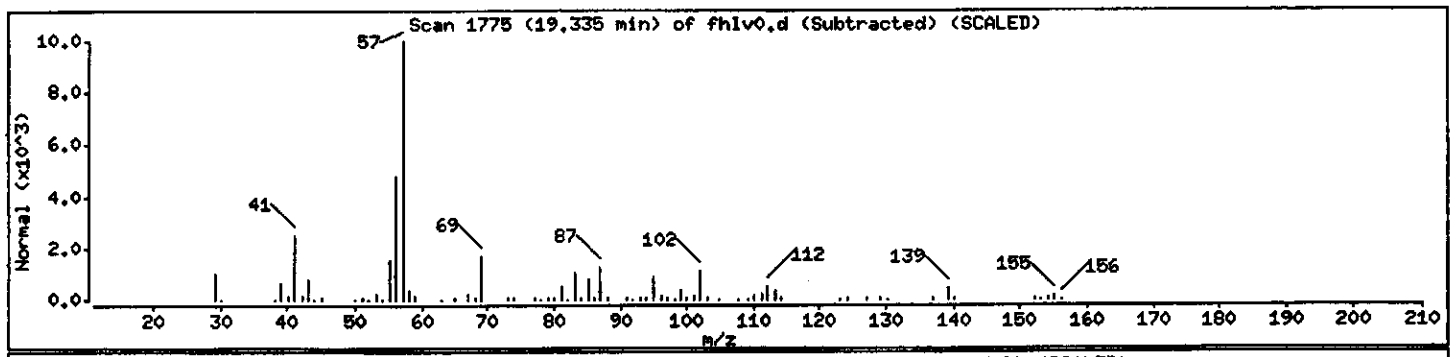
Client ID: J00208 Instrument: mt.i

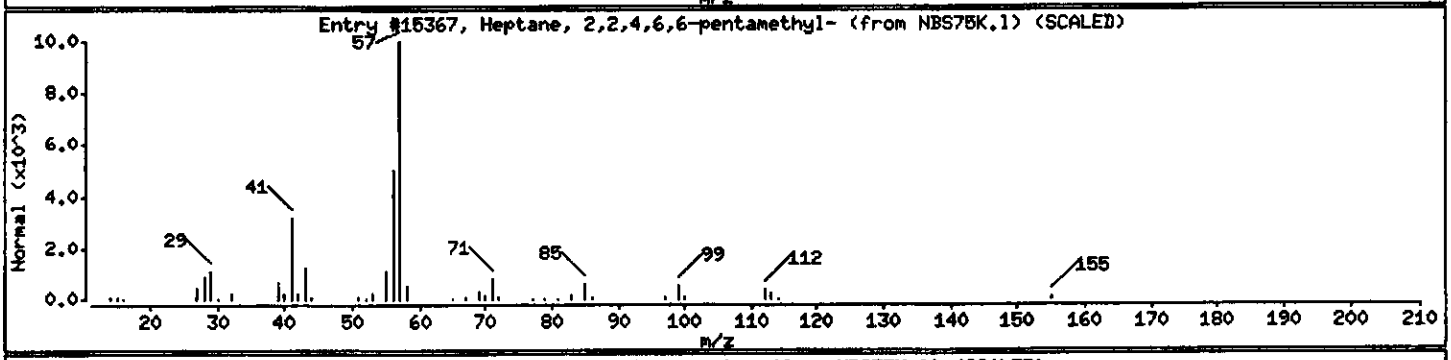
Sample Info: FHLV01AA,1.74,0,,

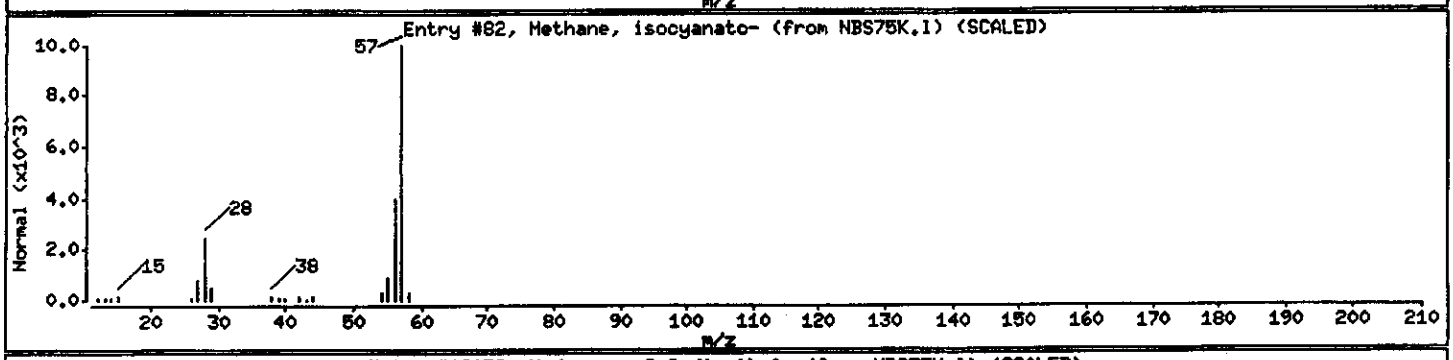
Volume Injected (uL): 500.0 Operator: 0691

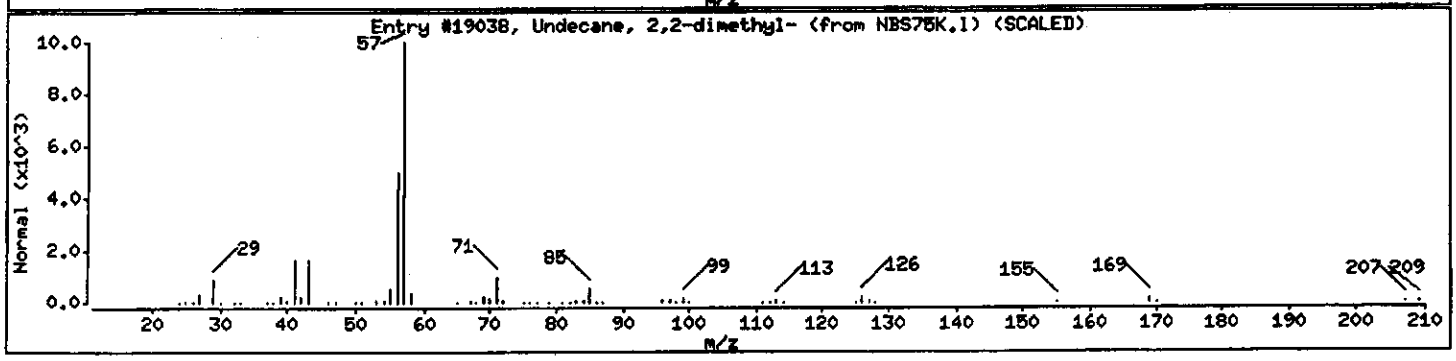
Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Heptane, 2,2,4,6,6-pentamethyl-	13475-82-6	NBS75K.l	15367	50	C12H26	170
Methane, isocyanato-	624-83-9	NBS75K.l	82	43	C2H3NO	57
Undecane, 2,2-dimethyl-	17312-64-0	NBS75K.l	19038	40	C13H28	184









Data File: /var/chem/gcms/mt.i/T021703.b/fhlv0.d

Date : 18-FEB-2003 02:46

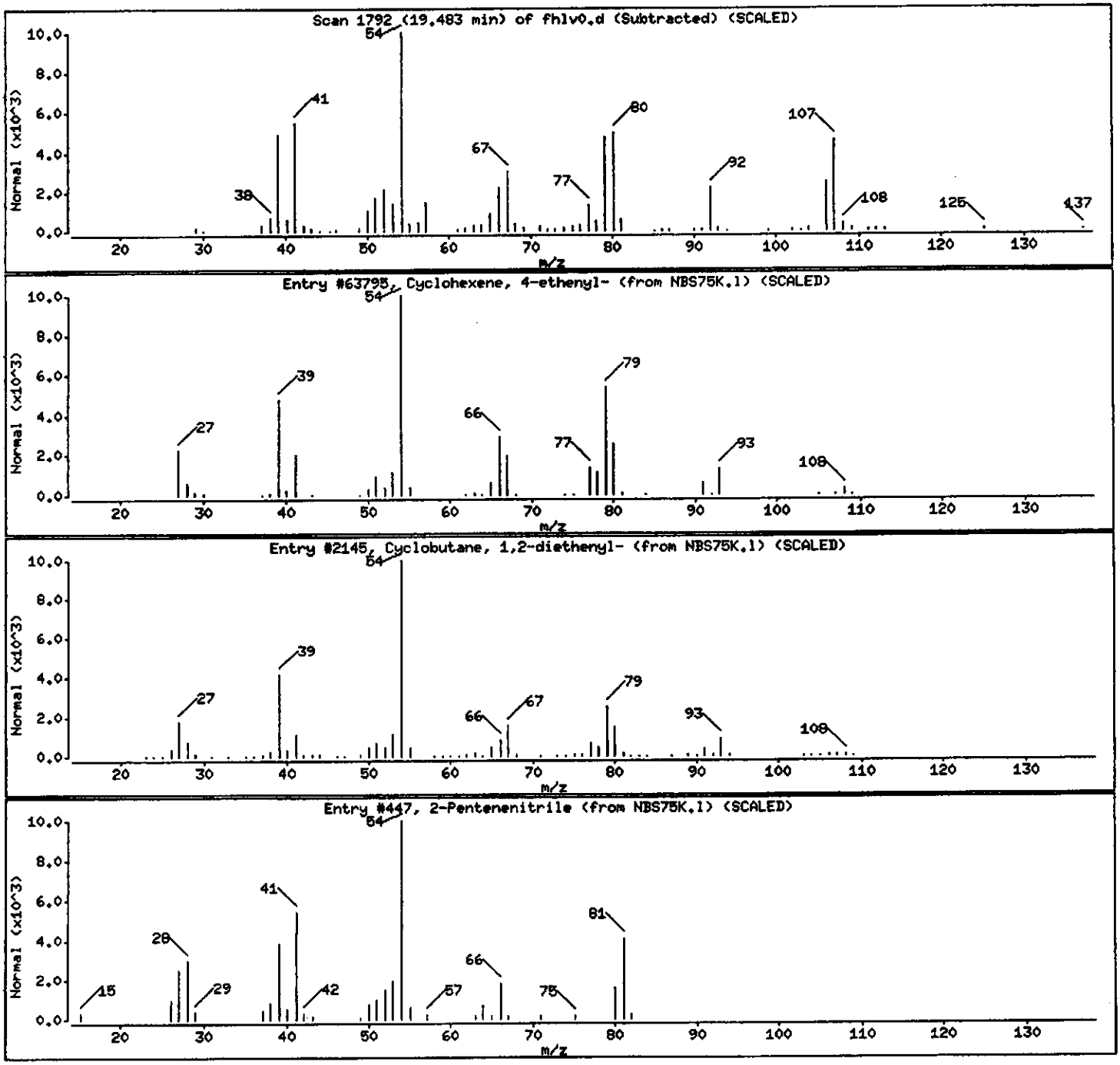
Client ID: J00208 Instrument: mt.i

Sample Info: FHLV01AA,1.74,0,,

Volume Injected (uL): 500.0 Operator: 0691

Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclohexene, 4-ethenyl-	100-40-3	NBS75K.l	63795	70	C8H12	108
Cyclobutane, 1,2-diethenyl-	2422-85-7	NBS75K.l	2145	47	C8H12	108
2-Pentenenitrile	13284-42-9	NBS75K.l	447	45	C5H7N	81



Data File: /var/chem/gcms/mt.i/T021703.b/fhlv0.d

Date : 18-FEB-2003 02:46

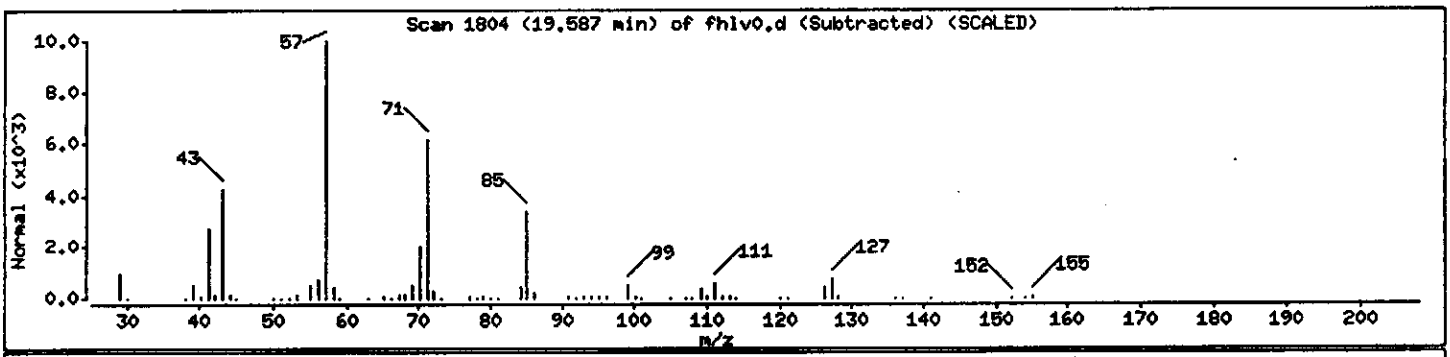
Client ID: J00208 Instrument: mt.i

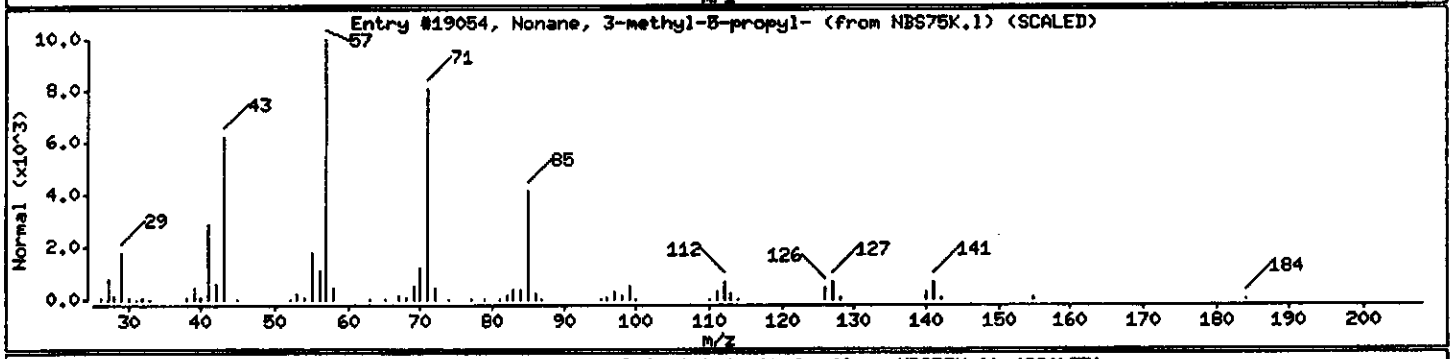
Sample Info: FHLV01AA,1.74,0,,

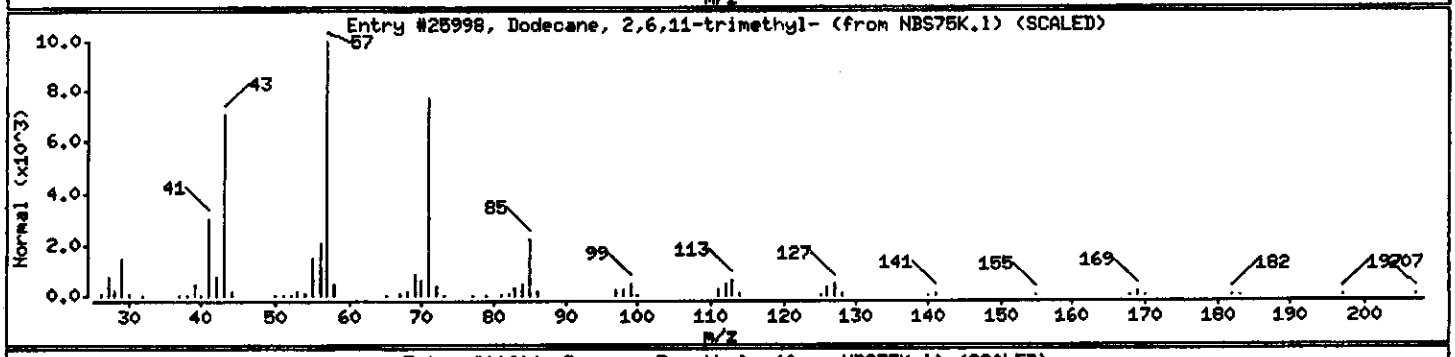
Volume Injected (uL): 500.0 Operator: 0691

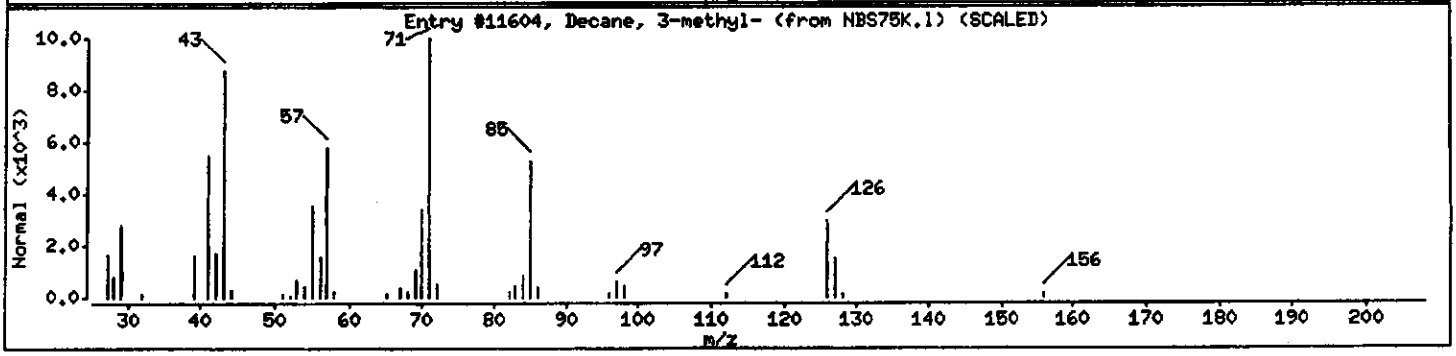
Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Nonane, 3-methyl-5-propyl-	31081-18-2	NBS75K.l	19054	72	C13H28	184
Dodecane, 2,6,11-trimethyl-	31295-56-4	NBS75K.l	25998	59	C15H32	212
Decane, 3-methyl-	13151-34-3	NBS75K.l	11604	59	C11H24	156









Data File: /var/chem/gcms/mt.i/T021703.b/fhlv0.d

Date : 18-FEB-2003 02:46

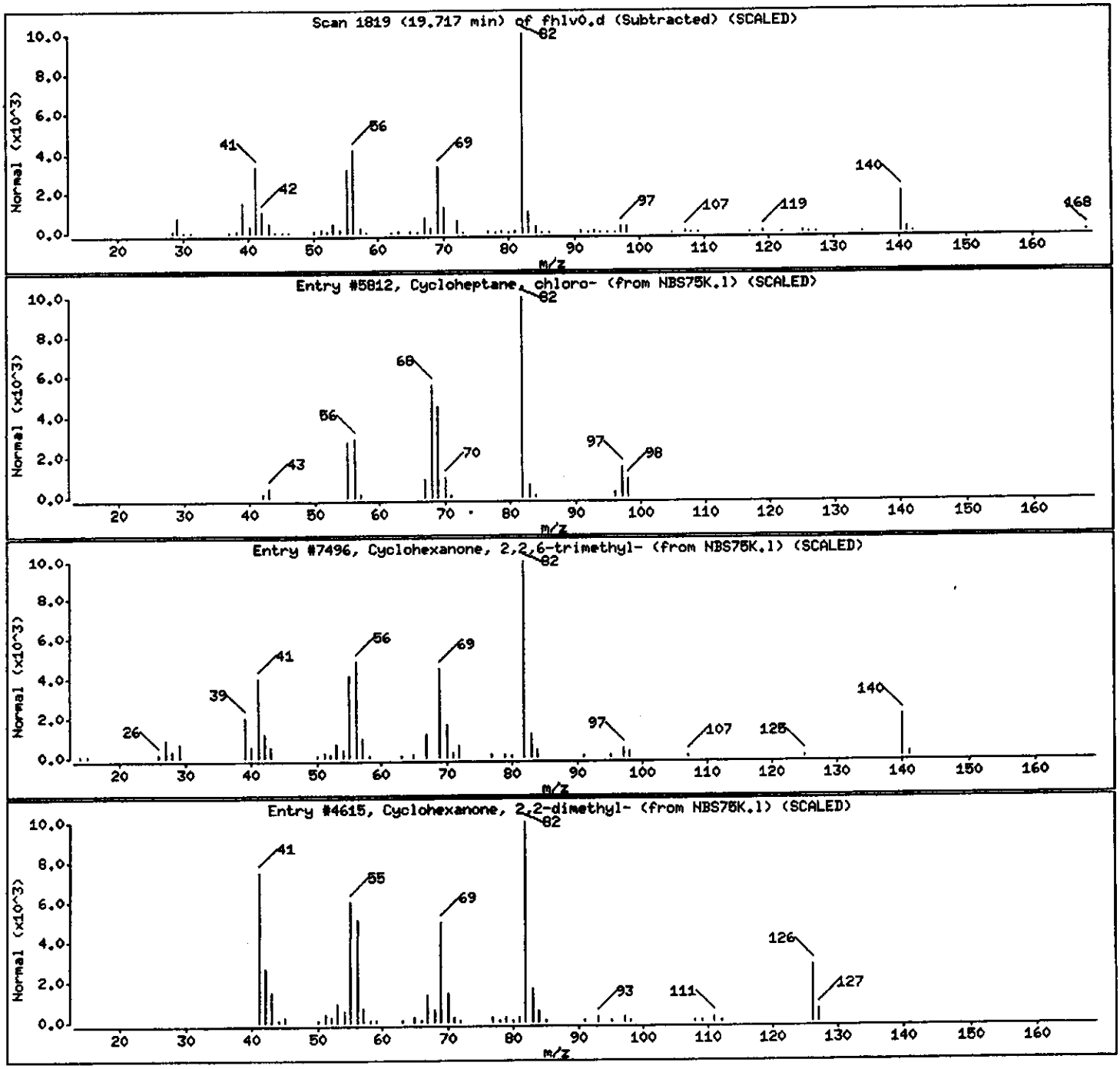
Client ID: J00208 Instrument: mt.i

Sample Info: FHLV01AA,1.74,0,,

Volume Injected (uL): 500.0 Operator: 0691

Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cycloheptane, chloro-	2453-46-5	NBS75K.1	5812	59	C7H13Cl	132
Cyclohexanone, 2,2,6-trimethyl-	2408-37-9	NBS75K.1	7496	53	C9H16O	140
Cyclohexanone, 2,2-dimethyl-	1193-47-1	NBS75K.1	4615	32	C8H14O	126



Data File: /var/chem/gcms/mt.i/T021703.b/fhlv0.d

Date : 18-FEB-2003 02:46

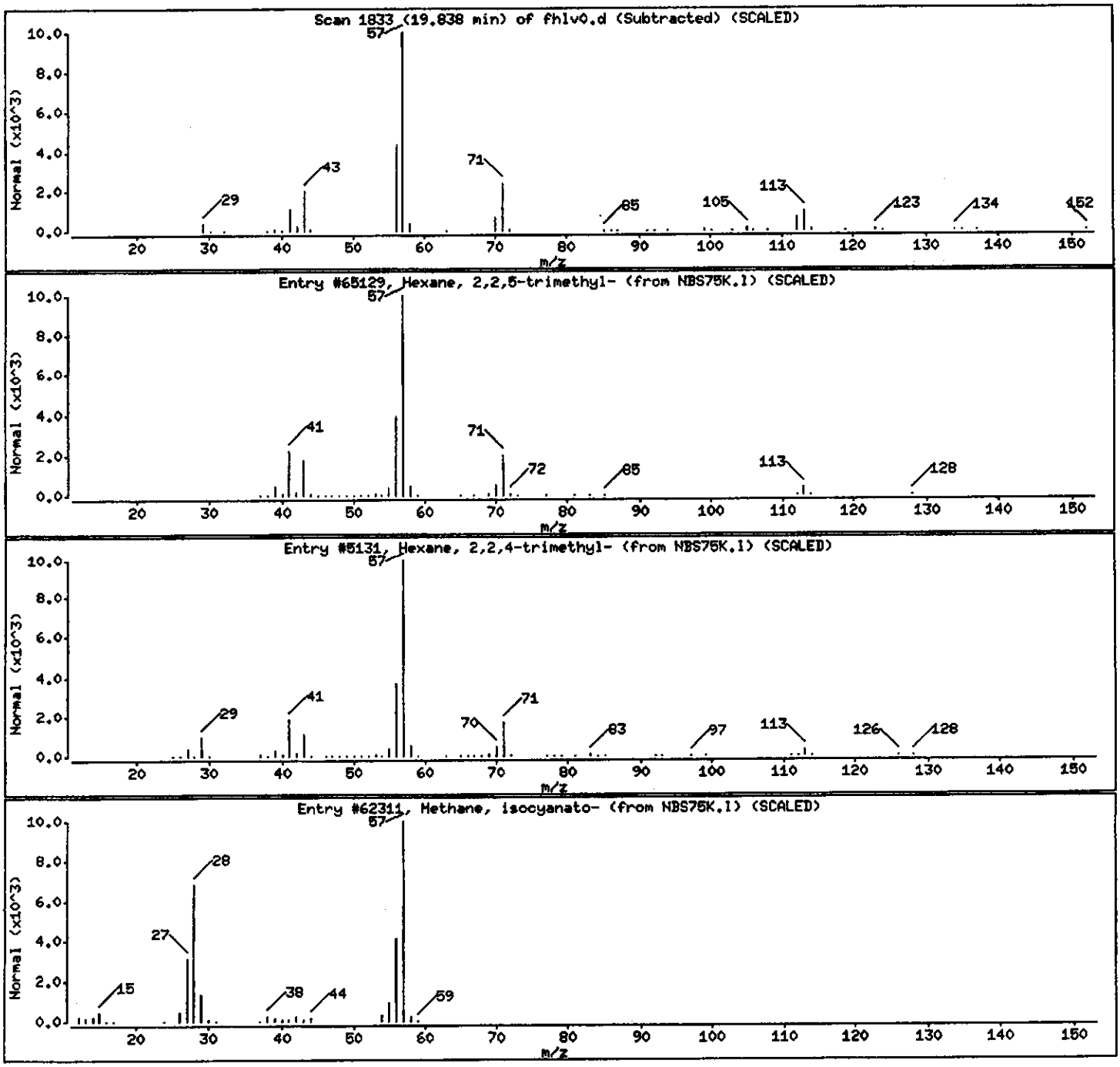
Client ID: J00208 Instrument: mt.i

Sample Info: FHLV01AA,1.74,0,,

Volume Injected (uL): 500.0 Operator: 0691

Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Hexane, 2,2,5-trimethyl-	3522-94-9	NBS75K.l	65129	72	C9H20	128
Hexane, 2,2,4-trimethyl-	16747-26-5	NBS75K.l	5131	42	C9H20	128
Methane, isocyanato-	624-83-9	NBS75K.l	62311	9	C2H3NO	57



Data File: /var/chem/gcms/mt.i/T021703.b/fhlv0.d

Date : 18-FEB-2003 02:46

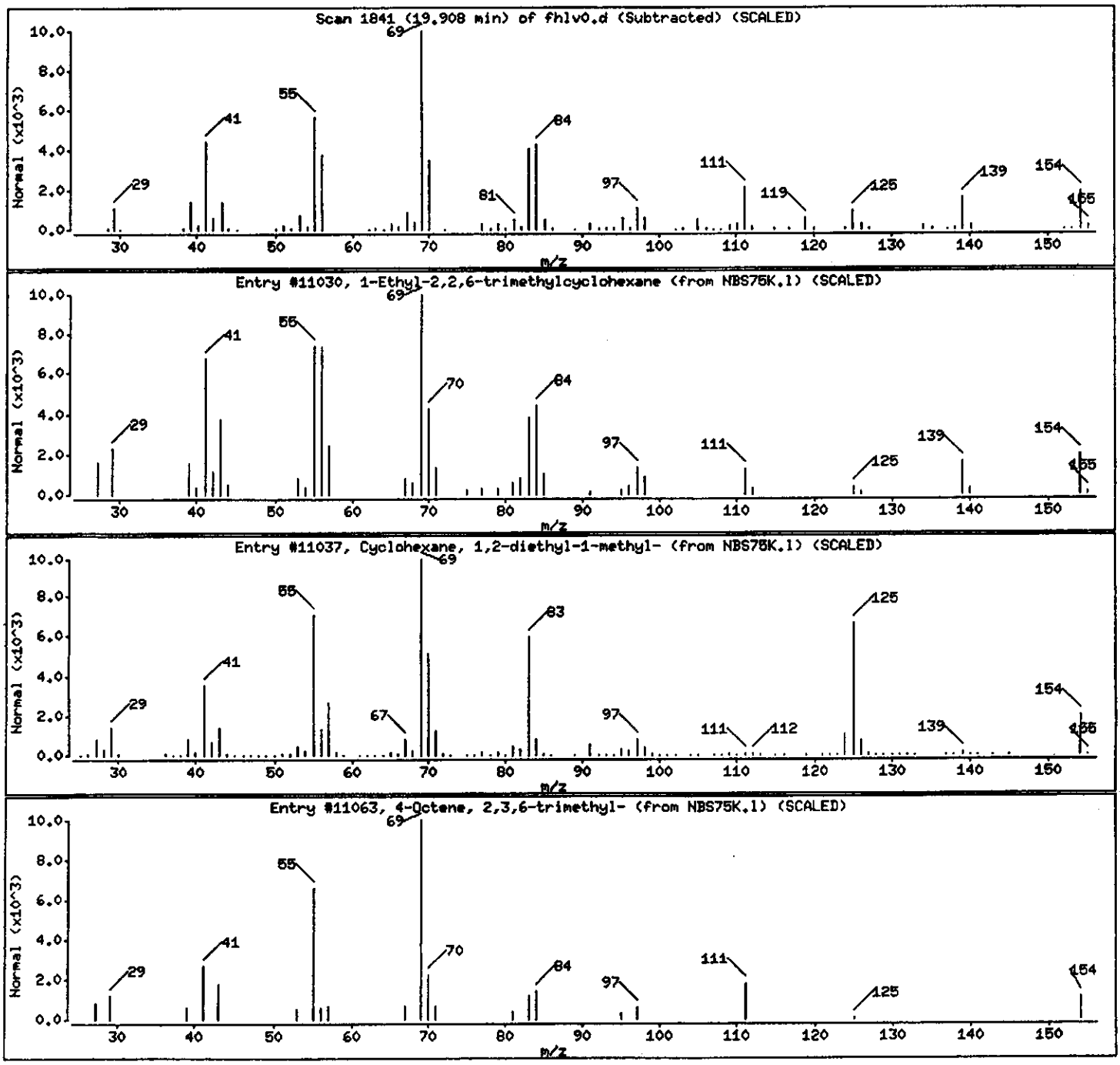
Client ID: J00208 Instrument: mt.i

Sample Info: FHLV01AA,1.74,0,,

Volume Injected (uL): 500.0 Operator: 0691

Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Ethyl-2,2,6-trimethylcyclohexane	0-00-0	NBS75K.l	11030	80	C11H22	154
Cyclohexane, 1,2-diethyl-1-methyl-	61141-79-5	NBS75K.l	11037	52	C11H22	154
4-Octene, 2,3,6-trimethyl-	63830-65-9	NBS75K.l	11063	47	C11H22	154



Data File: /var/chem/gcms/mt.i/T021703.b/fhlv0.d

Date : 18-FEB-2003 02:46

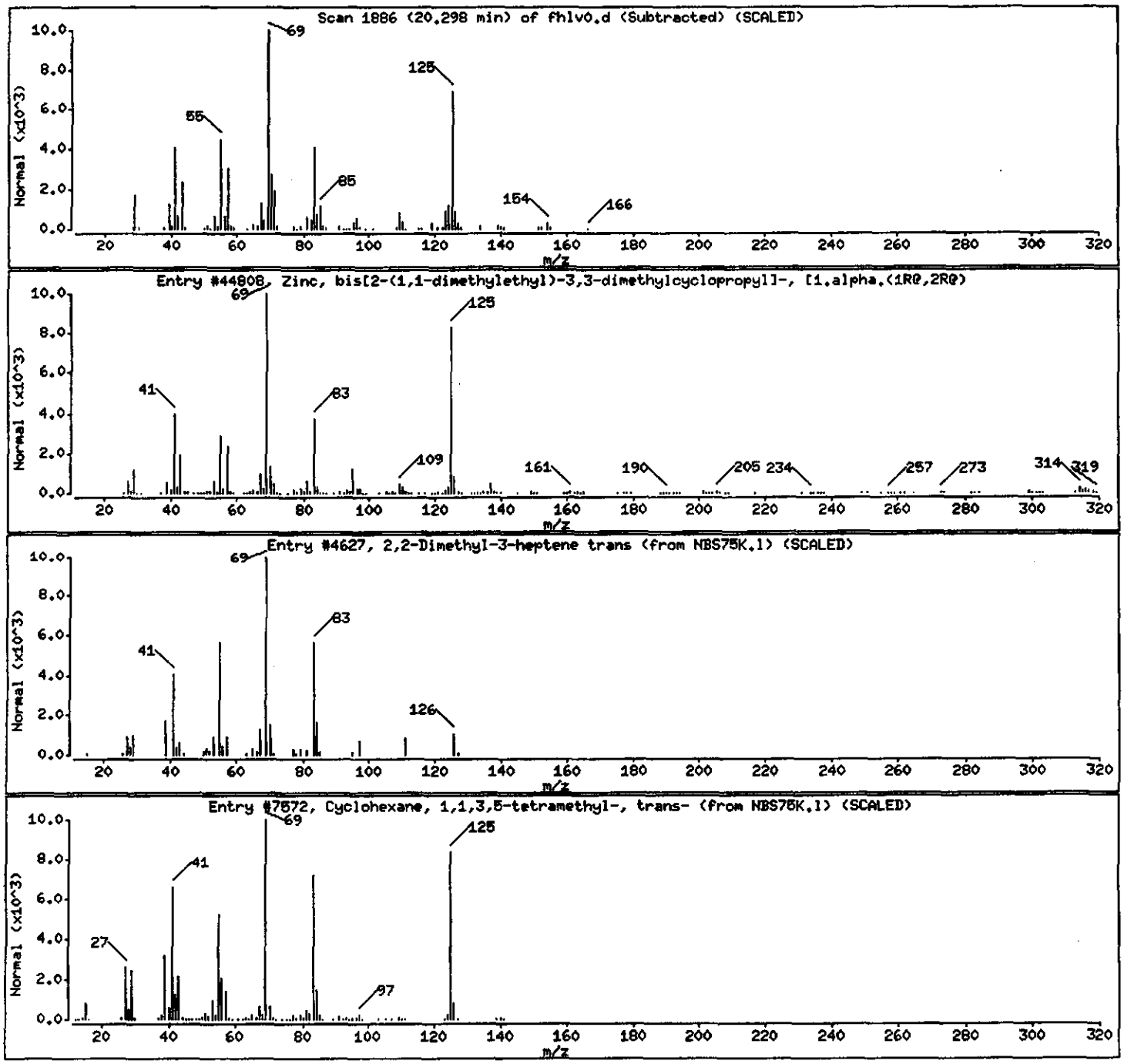
Client ID: J00208 Instrument: mt.i

Sample Info: FHLV01AA,1.74,0,,

Volume Injected (uL): 500.0 Operator: 0691

Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Zinc, bis[2-(1,1-dimethylethyl)-3,3-dime	74793-36-5	NBS75K.l	44808	64	C18H34Zn	314
2,2-Dimethyl-3-heptene trans	19550-75-5	NBS75K.l	4627	46	C9H18	126
Cyclohexane, 1,1,3,5-tetramethyl-, trans	50876-31-8	NBS75K.l	7572	43	C10H20	140



Data File: /var/chem/gcms/mt.i/T021703.b/fhlv0.d

Date : 18-FEB-2003 02:46

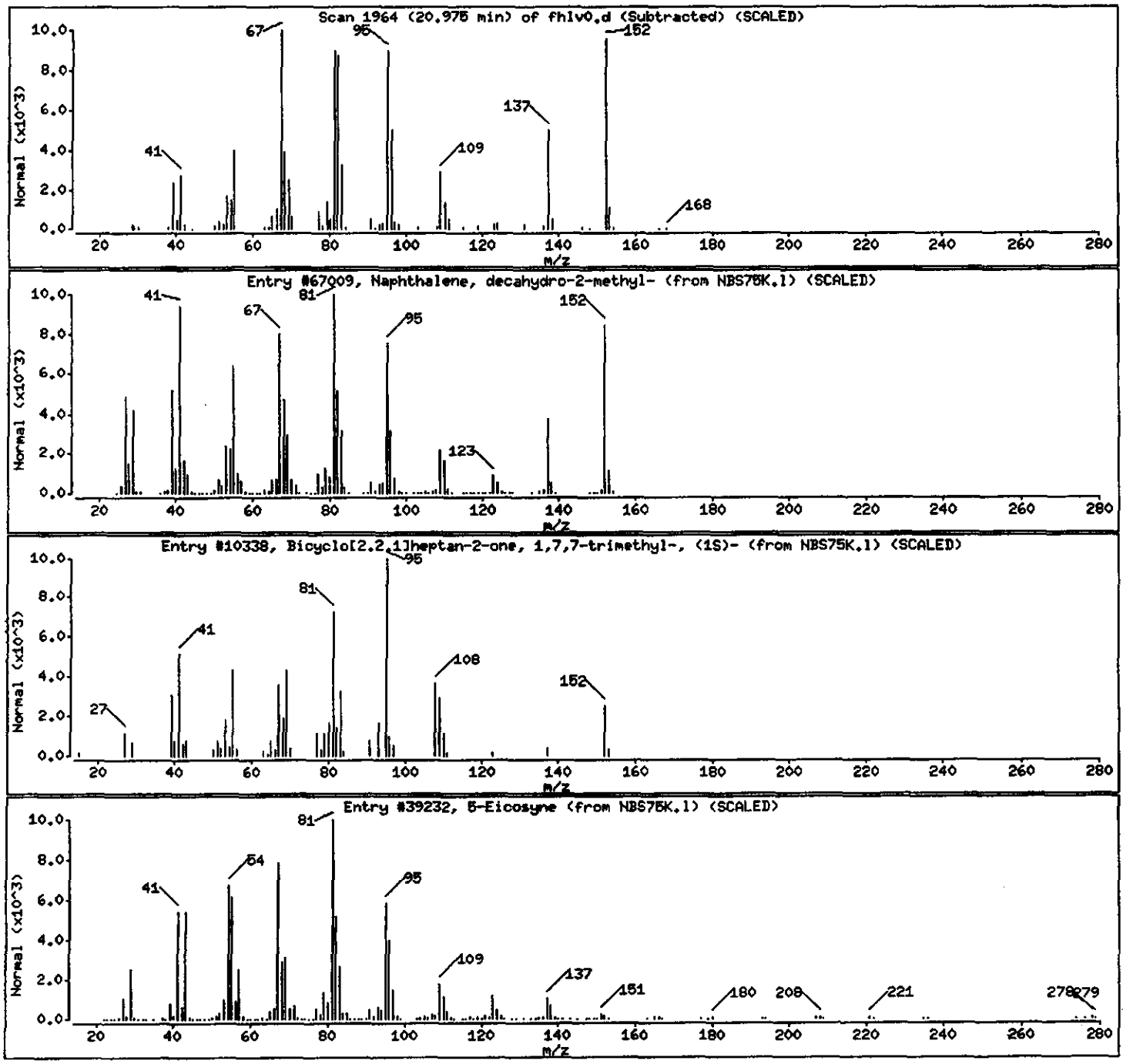
Client ID: J00208 Instrument: mt.i

Sample Info: FHLV01AA,1.74,0,,

Volume Injected (uL): 500.0 Operator: 0691

Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Naphthalene, decahydro-2-methyl-	2958-76-1	NBS75K.l	67009	90	C11H20	152
Bicyclo[2.2.1]heptan-2-one, 1,7,7-trimet	464-48-2	NBS75K.l	10338	53	C10H16O	152
5-Eicosyne	74685-31-7	NBS75K.l	39232	47	C20H38	278



Data File: /var/chem/gcms/mt.i/T021703.b/fhlv0.d

Date : 18-FEB-2003 02:46

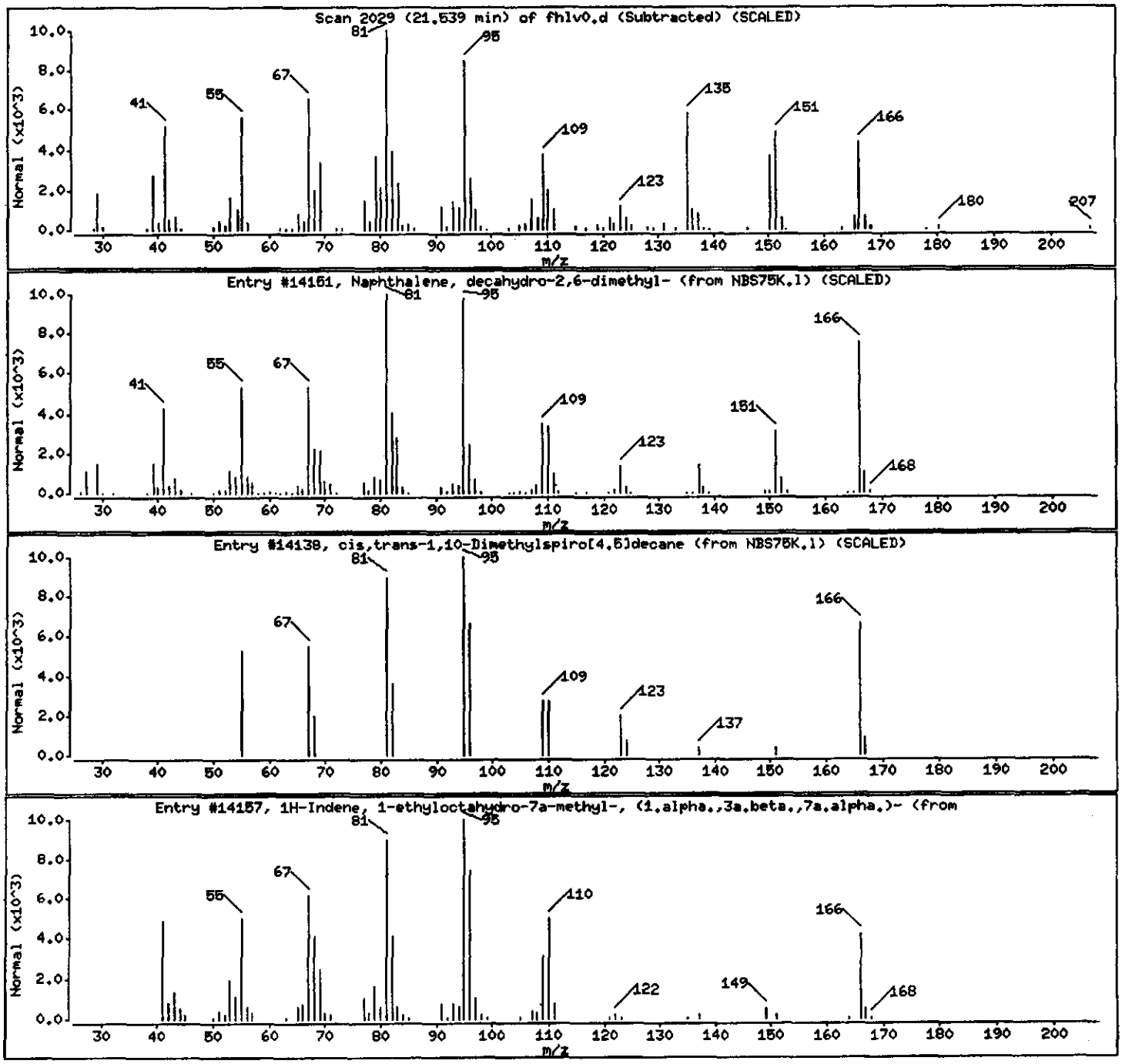
Client ID: J00208 Instrument: mt.i

Sample Info: FHLV01AA,1.74,0,,

Volume Injected (uL): 500.0 Operator: 0691

Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Naphthalene, decahydro-2,6-dimethyl-	1618-22-0	NBS75K.l	14151	89	C12H22	166
cis,trans-1,10-Dimethylspiro[4.5]decane	0-00-0	NBS75K.l	14138	64	C12H22	166
1H-Indene, 1-ethyloctahydro-7a-methyl-,	56324-71-1	NBS75K.l	14157	58	C12H22	166



Data File: /var/chem/gcms/mt.i/T021703.b/fhlv0.d

Date : 18-FEB-2003 02:46

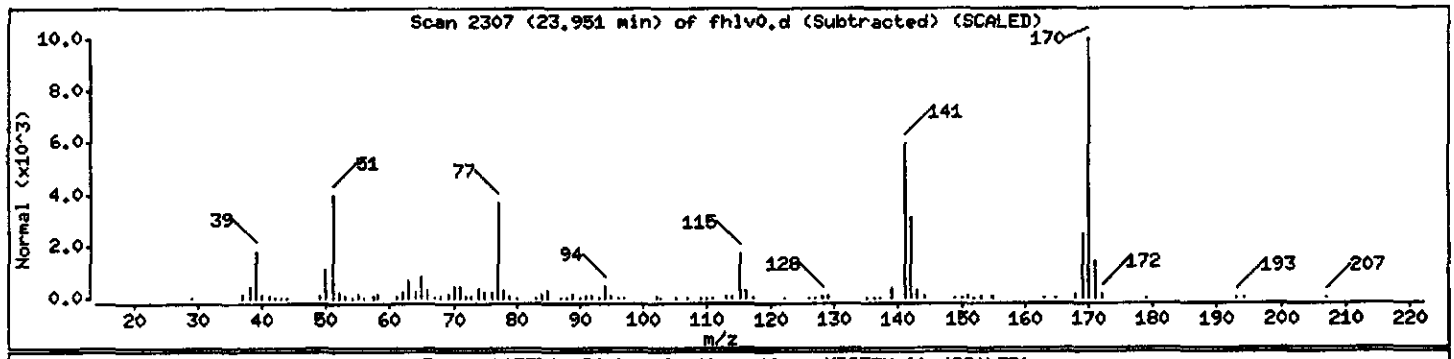
Client ID: J00208 Instrument: mt.i

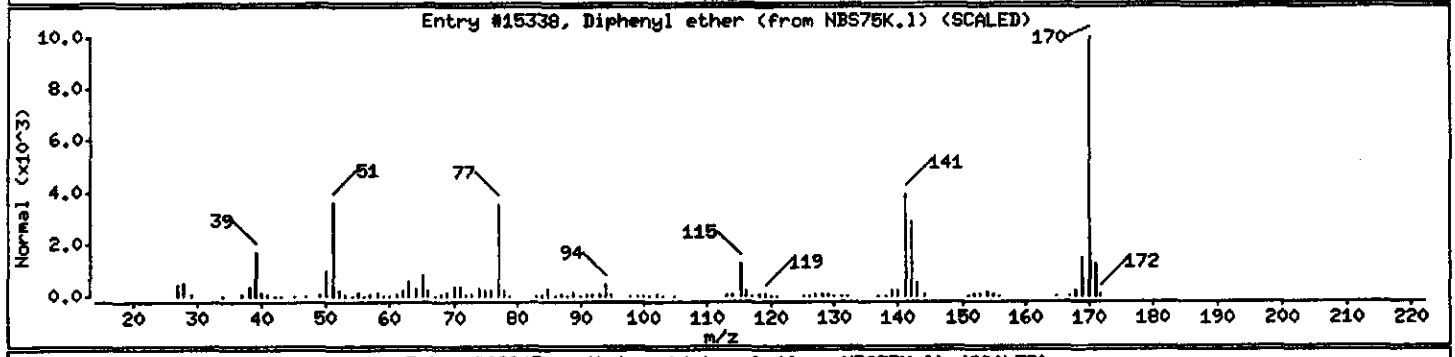
Sample Info: FHLV01AA,1.74,0,,

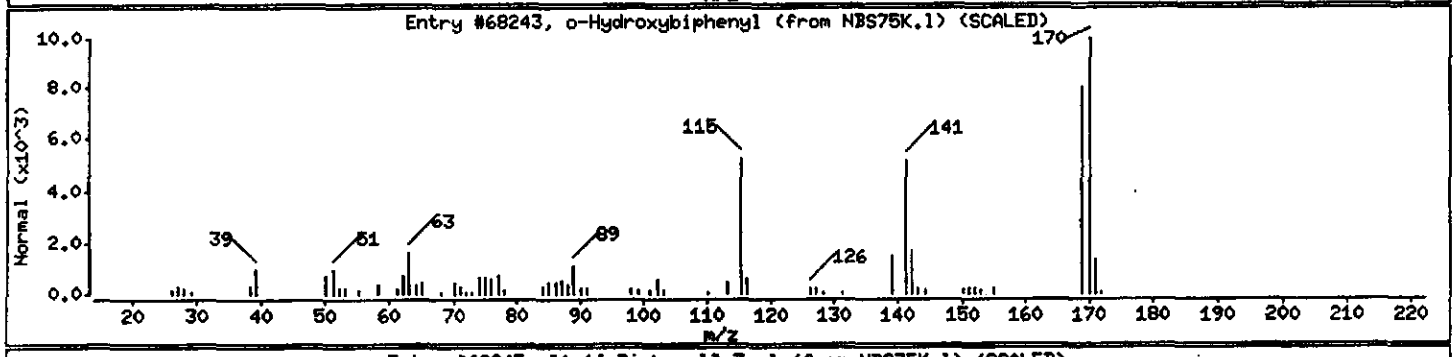
Volume Injected (uL): 500.0 Operator: 0691

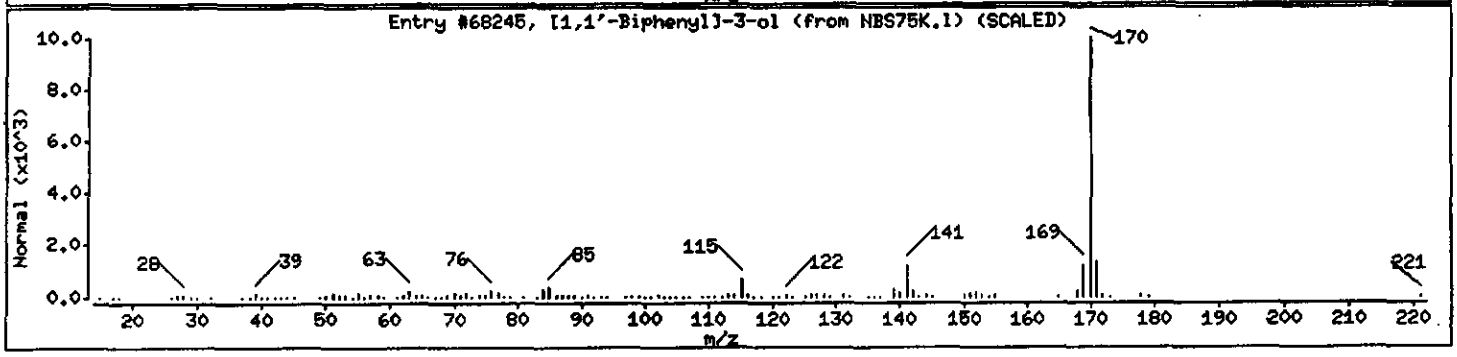
Column phase: DB-5 Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Diphenyl ether	101-84-8	NBS75K.l	15338	91	C12H10O	170
o-Hydroxybiphenyl	90-43-7	NBS75K.l	68243	38	C12H10O	170
[1,1'-Biphenyl]-3-ol	580-51-8	NBS75K.l	68245	38	C12H10O	170









BECHTEL HANFORD, INC.

Lab Name:Severn Trent Laboratories, Inc. SDG Number:W03984

Matrix: (soil/water) AIR Lab Sample ID:H3B140158 001
Method: EPA-19 TO-14
Volatile Organics, (GCMS-TO14 Low Level) ppb(v/v)

Sample WT/Vol: / mL
Work Order: FHLV01AC
Dilution factor: 1.74

Date Received: 02/14/03
Date Extracted:02/17/03
Date Analyzed: 02/18/03

QC Batch: 3048279

Client Sample Id: J00208 DUP

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
75-71-8	Dichlorodifluoromethane	0.60	
75-45-6	Chlorodifluoromethane	0.35	U
76-14-2	1,2-Dichloro-1,1,2,2-tetrafl	0.35	U
74-87-3	Chloromethane	0.87	U
75-01-4	Vinyl chloride	0.35	U
106-97-8	n-Butane	0.75	
106-99-0	1,3-Butadiene	0.35	U
74-83-9	Bromomethane	0.35	U
75-00-3	Chloroethane	0.35	U
75-69-4	Trichlorofluoromethane	0.35	U
109-66-0	Pentane	0.87	U
75-35-4	1,1-Dichloroethene	0.35	U
76-13-1	1,1,2-Trichloro-1,2,2-triflu	0.35	U
75-15-0	Carbon disulfide	0.35	U
107-05-1	3-Chloropropene	0.35	U
75-09-2	Methylene chloride	0.87	U
156-60-5	trans-1,2-Dichloroethene	0.35	U
110-54-3	n-Hexane	1.3	
75-34-3	1,1-Dichloroethane	0.35	U
156-59-2	cis-1,2-Dichloroethene	0.35	U
67-66-3	Chloroform	0.35	U
71-55-6	1,1,1-Trichloroethane	0.35	U
110-82-7	Cyclohexane	2.4	
56-23-5	Carbon tetrachloride	0.35	U
71-43-2	Benzene	0.35	U
107-06-2	1,2-Dichloroethane	0.35	U
142-82-5	n-Heptane	1.7	
79-01-6	Trichloroethene	0.35	U

BECHTEL HANFORD, INC.

Lab Name:Severn Trent Laboratories, Inc. SDG Number:W03984

Matrix: (soil/water) AIR Lab Sample ID:H3B140158 001
Method: EPA-19 TO-14
Volatile Organics, (GCMS-TO14 Low Level) ppb(v/v)

Sample WT/Vol: / mL Date Received: 02/14/03
Work Order: FHLV01AC Date Extracted:02/17/03
Dilution factor: 1.74 Date Analyzed: 02/18/03

QC Batch: 3048279

Client Sample Id: J00208 DUP

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
78-87-5	1,2-Dichloropropane	0.35	U
74-95-3	Dibromomethane	0.35	U
75-27-4	Bromodichloromethane	0.35	U
10061-01-5	cis-1,3-Dichloropropene	0.35	U
108-88-3	Toluene	0.38	
111-65-9	n-Octane	4.2	
10061-02-6	trans-1,3-Dichloropropene	0.35	U
79-00-5	1,1,2-Trichloroethane	0.35	U
127-18-4	Tetrachloroethene	41	
124-48-1	Dibromochloromethane	0.35	U
106-93-4	1,2-Dibromoethane (EDB)	0.35	U
108-90-7	Chlorobenzene	0.35	U
100-41-4	Ethylbenzene	0.35	U
136777-61-2	m-Xylene & p-Xylene	0.71	
111-84-2	Nonane	1.0	
95-47-6	o-Xylene	0.35	U
100-42-5	Styrene	0.35	U
75-25-2	Bromoform	0.35	U
98-82-8	Cumene	0.35	U
79-34-5	1,1,2,2-Tetrachloroethane	0.35	U
103-65-1	n-Propylbenzene	0.35	U
108-67-8	1,3,5-Trimethylbenzene	0.35	U
124-18-5	n-Decane	8.2	
98-83-9	alpha-Methylstyrene	0.35	U
95-63-6	1,2,4-Trimethylbenzene	0.35	U
541-73-1	1,3-Dichlorobenzene	0.35	U
106-46-7	1,4-Dichlorobenzene	0.35	U
100-44-7	Benzyl chloride	0.35	U

BECHTEL HANFORD, INC.

Lab Name:Severn Trent Laboratories, Inc. SDG Number:W03984

Matrix: (soil/water) AIR Lab Sample ID:H3B140158 001
Method: EPA-19 TO-14
Volatile Organics, (GCMS-TO14 Low Level) ppb(v/v)

Sample WT/Vol: / mL Date Received: 02/14/03
Work Order: FHLV01AC Date Extracted:02/17/03
Dilution factor: 1.74 Date Analyzed: 02/18/03

QC Batch: 3048279

Client Sample Id: J00208 DUP

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
95-50-1	1,2-Dichlorobenzene	0.35	U
1120-21-4	n-Undecane	0.38	
112-40-3	n-Dodecane	1.2	
120-82-1	1,2,4-Trichlorobenzene	0.35	U
87-68-3	Hexachlorobutadiene	0.35	U
91-20-3	Naphthalene	0.35	U
67-56-1	Methanol	17	U
60-29-7	Ethyl ether	0.87	U
67-64-1	Acetone	27	
107-13-1	Acrylonitrile	0.87	U
108-05-4	Vinyl acetate	0.87	U
78-93-3	2-Butanone (MEK)	5.8	
71-36-3	1-Butanol	0.87	U
108-10-1	4-Methyl-2-pentanone (MIBK)	0.87	U
591-78-6	2-Hexanone	0.87	U
1634-04-4	Methyl tert-butyl ether	0.87	U
107-02-8	Acrolein	0.87	U
75-05-8	Acetonitrile	1.7	U

Data File: /var/chem/gcms/mt.i/T021703.b/fhlv0dup.d
Report Date: 18-Feb-2003 09:56

STL Knoxville

Modified Method TO-14

Data file : /var/chem/gcms/mt.i/T021703.b/fhlv0dup.d
Lab Smp Id: FHLV01AC Client Smp ID: J00208 DUP
Inj Date : 18-FEB-2003 03:25
Operator : 0691 Inst ID: mt.i
Smp Info : FHLV01AC,1.74,0,,
Misc Info : T021703,LA,AllNoJs.sub,,500ML DUP
Comment :
Method : /var/chem/gcms/mt.i/T021703.b/LA.m
Meth Date : 18-Feb-2003 09:21 wilesd Quant Type: ISTD
Cal Date : 17-FEB-2003 09:09 Cal File: md0217.d
Als bottle: 8 QC Sample: SAMPLE DUPLICATE
Dil Factor: 1.74000
Integrator: HP RTE Compound Sublist: AllNoJs.sub
Target Version: 3.50
Processing Host: qmidhp01

021803

WJ 2/18/03

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	9.757	(1.000)	601818	10.0000		
* 2 1,4-Difluorobenzene	114	11.874	11.874	(1.000)	2788911	10.0000		
* 3 Chlorobenzene-d5	117	16.429	16.429	(1.000)	2282906	10.0000		
$ 4 1,2-Dichloroethane-d4	67	10.755	10.763	(0.906)	444684	10.1125	10.11	
$ 5 Toluene-d8	98	14.416	14.416	(0.877)	2254948	10.0547	10.05	
$ 6 4-Bromofluorobenzene	95	18.017	18.017	(1.097)	1443525	10.4167	10.42	
7 Chlorodifluoromethane	51	4.144	4.144	(0.425)	10364	0.10218	0.1778	
8 Dichlorodifluoromethane	85	4.222	4.222	(0.433)	42226	0.34424	0.5990	
14 n-Butane	43	4.751	4.742	(0.487)	33950	0.42939	0.7471	
20 Acetone	58	6.113	6.087	(0.627)	333858	15.3595	26.72	- 28.9
33 2-Butanone	72	9.037	8.993	(0.926)	95552	3.33004	5.794	- 6.089
34 Hexane	56	9.020	9.020	(0.924)	32377	0.72246	1.257	
41 Cyclohexane	69	11.380	11.379	(0.958)	32329	1.38708	2.414	- 2.467
43 Heptane	43	12.447	12.447	(1.048)	116943	0.95782	1.667	- 1.765
51 Toluene	91	14.520	14.520	(0.884)	42186	0.22041	0.3835	
54 Octane	85	15.180	15.180	(0.924)	141212	2.43493	4.237	- 4.256
57 Tetrachloroethene	129	15.631	15.622	(0.951)	1574771	23.5784	41.03	- 41.79
60 m-Xylene (For p-)	91	16.915	16.906	(1.030)	73897	0.40726	0.7086	
62 Nonane	57	17.314	17.314	(1.054)	74865	0.59897	1.042	- 1.129
72 Decane	57	18.971	18.971	(1.155)	782175	4.69252	8.165	- 8.507
78 Undecane	57	20.221	20.220	(1.231)	38098	0.21739	0.3782	

Data File: /var/chem/gcms/mt.i/T021703.b/fhlv0dup.d
Report Date: 18-Feb-2003 09:56

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	CONCENTRATIONS FINAL (ppb(v/v))
79 Dodecane	57	21.305	21.305	(1.297)	121694	0.71801	1.249 - 1.324

Data File: /var/chem/gcms/mt.i/T021703.b/fhlv0dup.d
Report Date: 18-Feb-2003 09:29

STL Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mt.i
Lab File ID: fhlv0dup.d
Lab Smp Id: FHLV01AC
Analysis Type: OTHER
Quant Type: ISTD
Operator: 0691
Method File: /var/chem/gcms/mt.i/T021703.b/LA.m
Misc Info: T021703,LA,AllNoJs.sub,,500ML DUP

Calibration Date: 17-FEB-2003
Calibration Time: 09:09
Client Smp ID: J00208 DUP
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	609839	362854	856824	601818	-1.32
2 1,4-Difluorobenze	2915257	1734578	4095936	2788911	-4.33
3 Chlorobenzene-d5	2372264	1411497	3333031	2282906	-3.77

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.76	9.26	10.26	9.76	0.00
2 1,4-Difluorobenze	11.87	11.37	12.37	11.87	0.00
3 Chlorobenzene-d5	16.43	15.93	16.93	16.43	0.00

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/T021703.b/fhlv0dup.d
Report Date: 18-Feb-2003 09:29

STL Knoxville

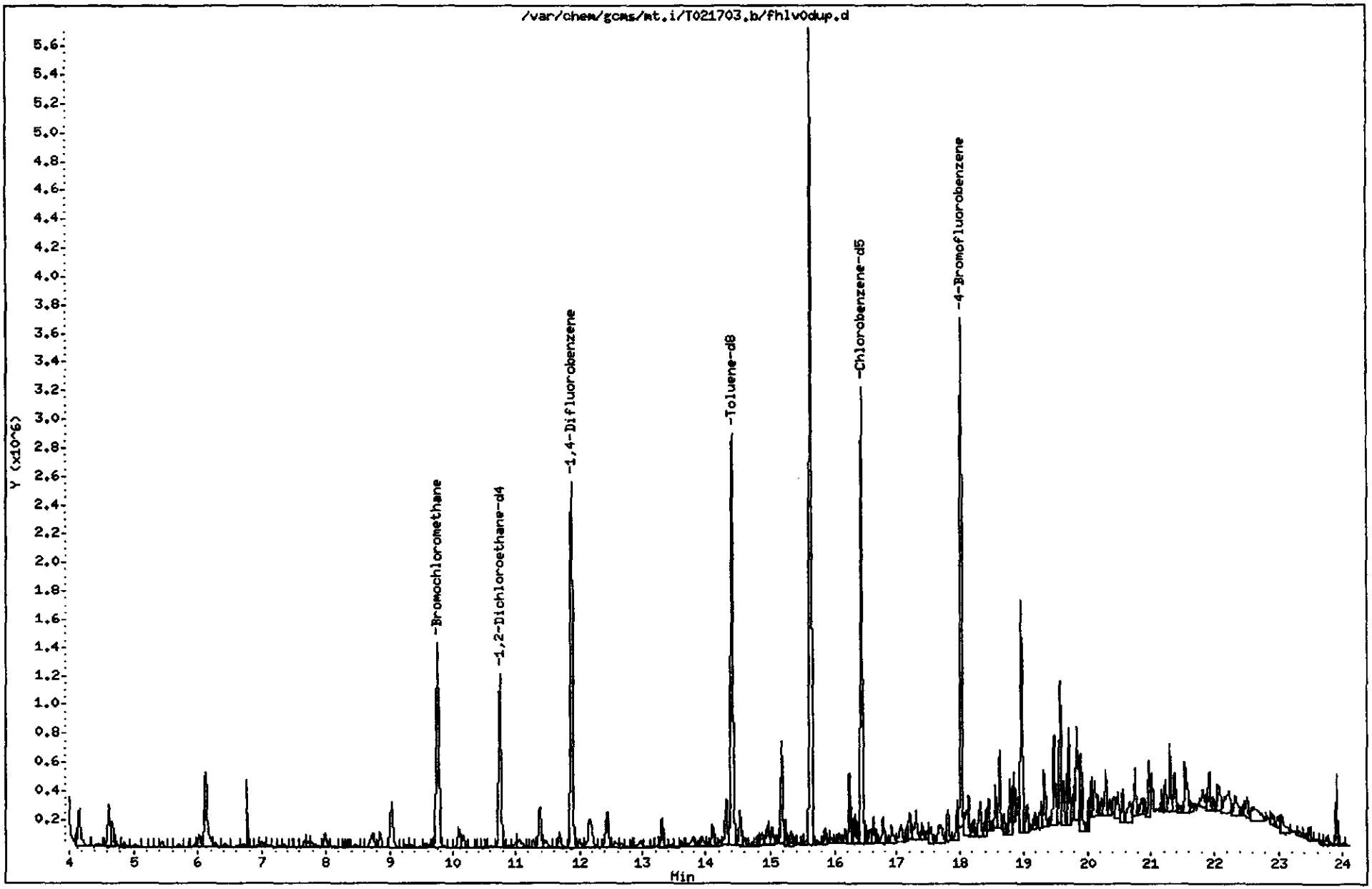
RECOVERY REPORT

Client Name: BECHTEL HANFORD, INC14-FEB-2003 00:00 Client SDG: W03984
Sample Matrix: GAS Fraction: OTHER
Lab Smp Id: FHLV01AC Client Smp ID: J00208 DUP
Level: LOW Operator: 0691
Data Type: MS DATA SampleType: SAMPLE DUPLICATE{úz*8 @
SpikeList File: RTALL.spk Quant Type: ISTD
Sublist File: AllNoJs.sub
Method File: /var/chem/gcms/mt.i/T021703.b/LA.m
Misc Info: T021703,LA,AllNoJs.sub,,500ML DUP

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 4 1,2-Dichloroethane	10.00	10.11	101.12	70-130
$ 5 Toluene-d8	10.00	10.05	100.55	70-130
$ 6 4-Bromofluorobenze	10.00	10.42	104.17	70-130

Data File: /var/chem/gcms/mt.i/T021703.b/fhlv0dup.d
Date : 18-FEB-2003 03:25
Client ID: J00208 DUP
Sample Info: FHLV01AC,1.74,0,,
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/T021703.b/fhlv0dup.d

Date : 18-FEB-2003 03:25

Client ID: J00208 DUP

Instrument: mt.i

Sample Info: FHLV01AC,1.74,0,,

Volume Injected (uL): 500.0

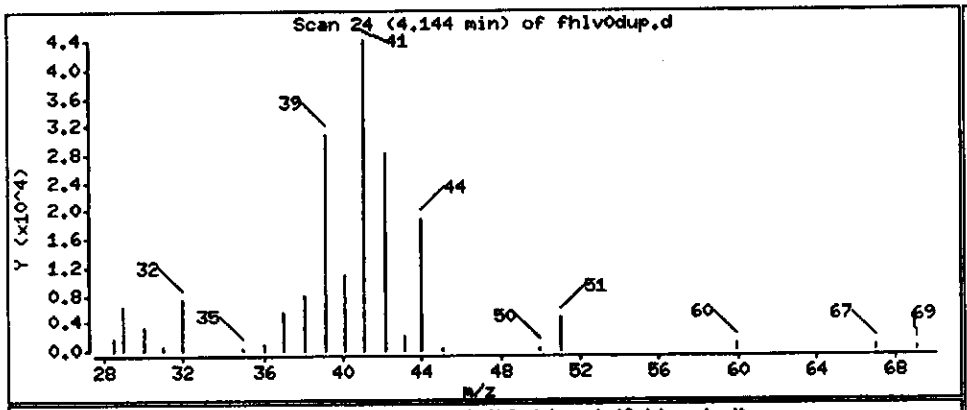
Operator: 0691

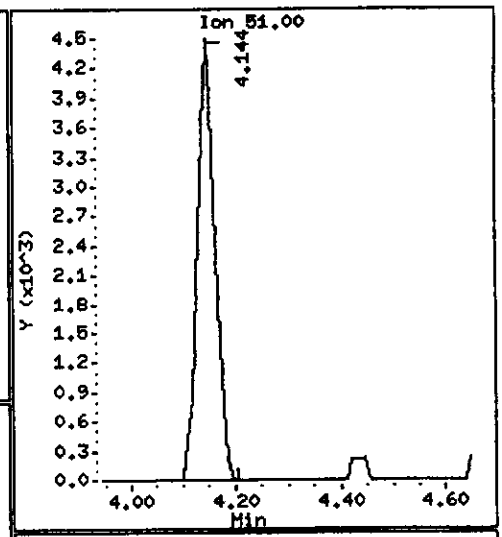
Column phase: DB-5

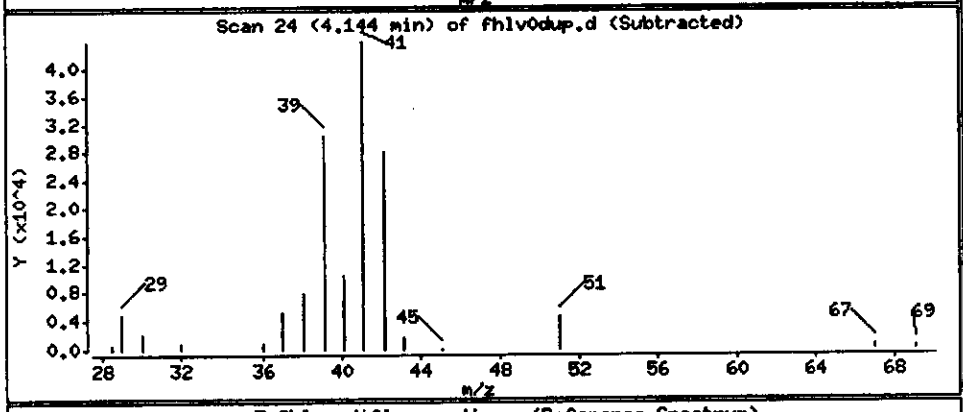
Column diameter: 0.32

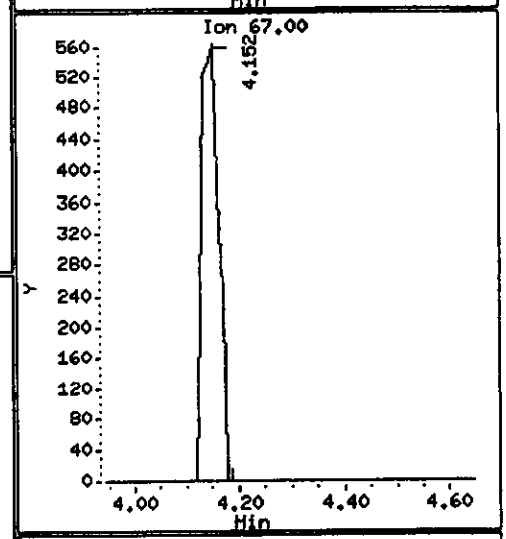
7 Chlorodifluoromethane

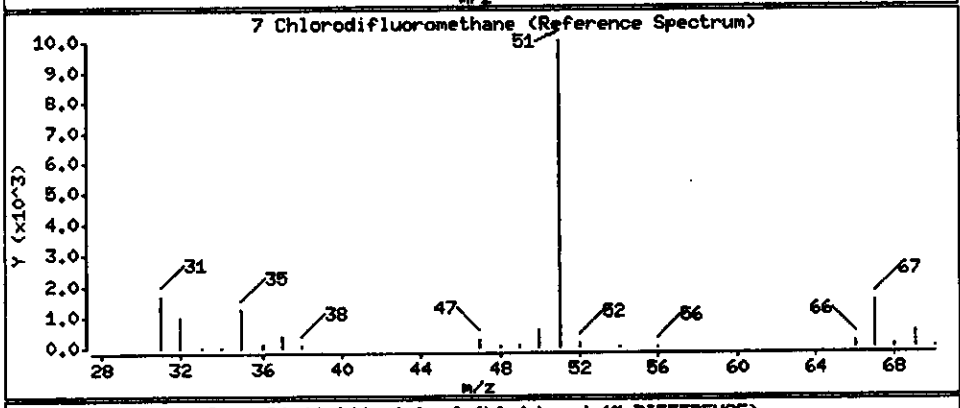
Concentration: 0.1778 ppb(v/v)

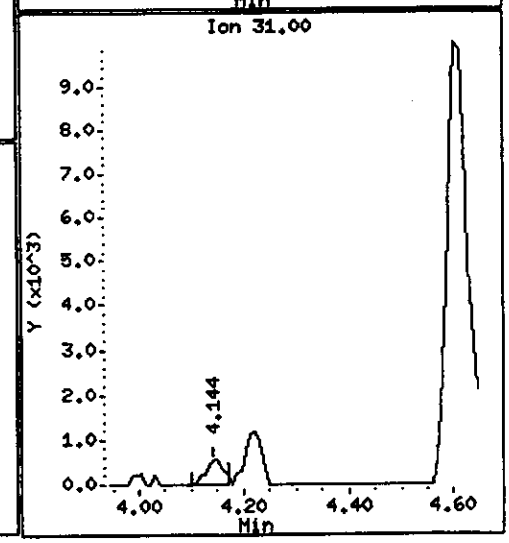


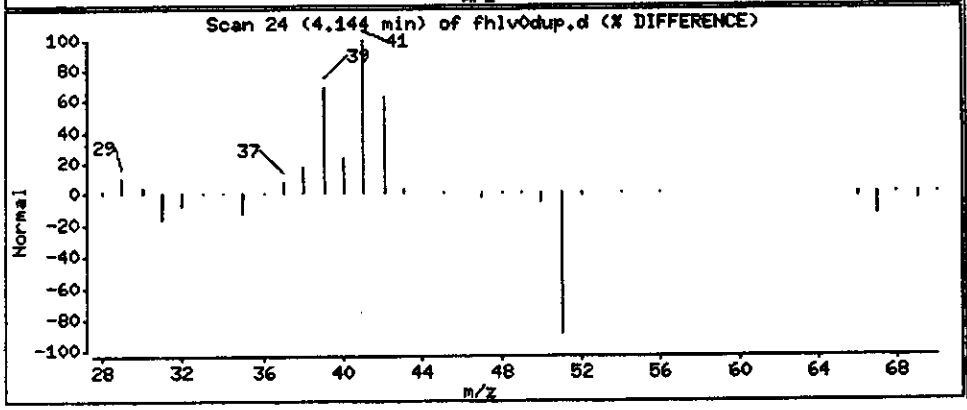












Data File: /var/chem/gcms/mt.i/T021703.b/fhlv0dup.d

Date : 18-FEB-2003 03:25

Client ID: J00208 DUP

Instrument: mt.i

Sample Info: FHLV01AC,1.74,0,,

Volume Injected (uL): 500.0

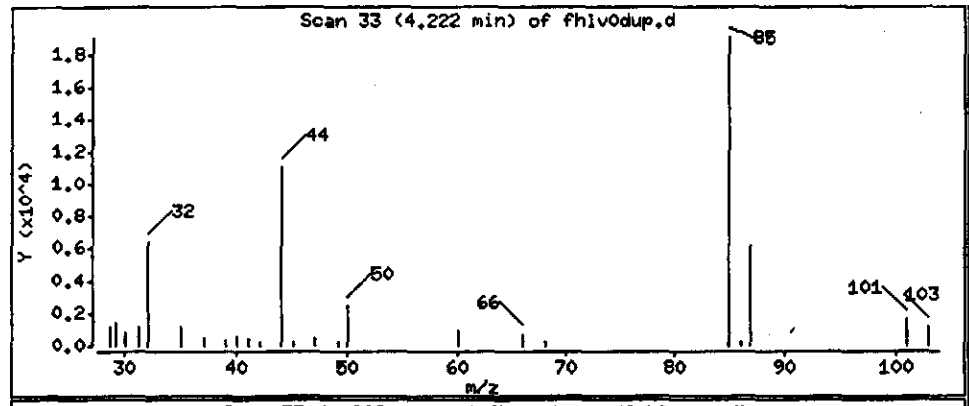
Operator: 0691

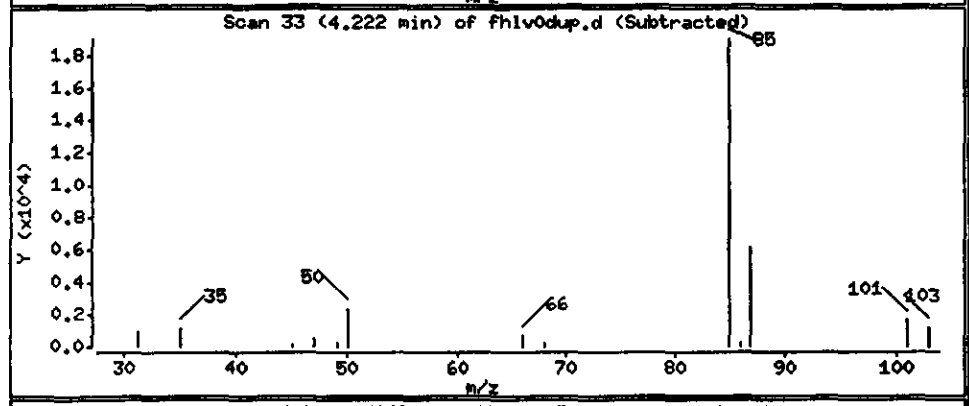
Column phase: DB-5

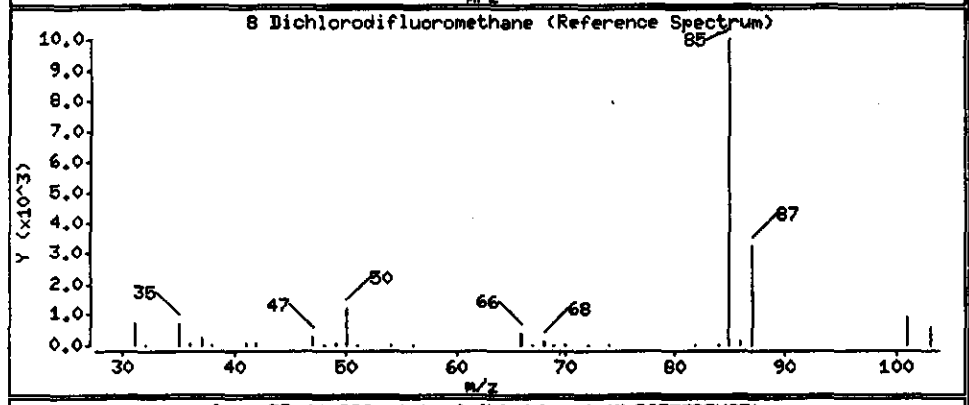
Column diameter: 0.32

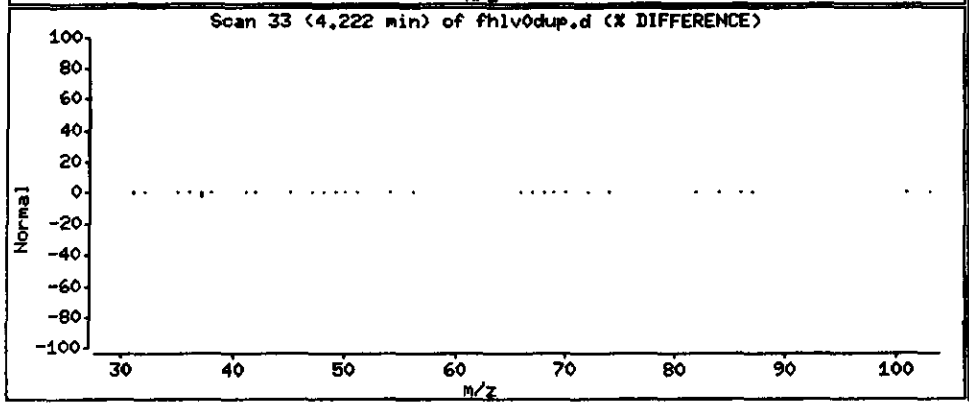
8 Dichlorodifluoromethane

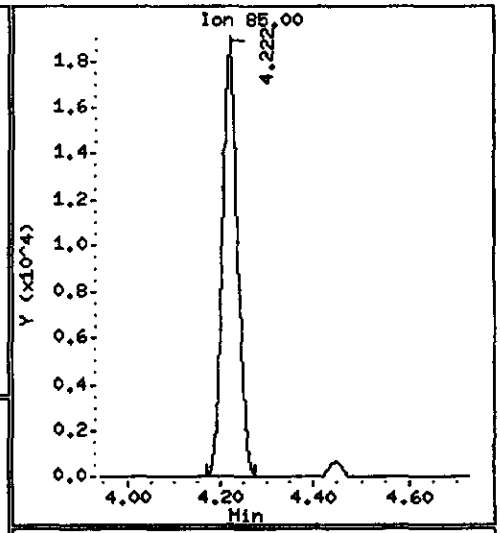
Concentration: 0.5990 ppb(v/v)

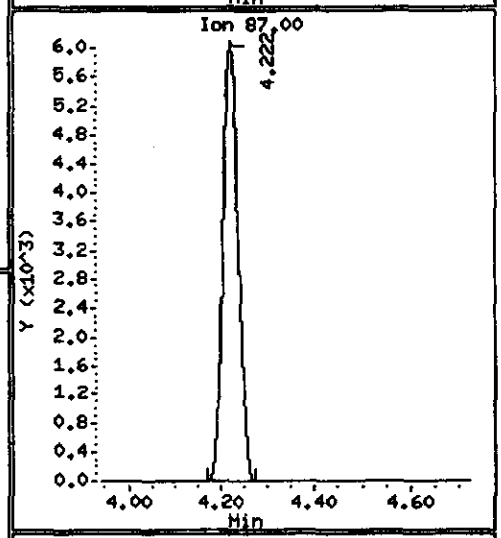


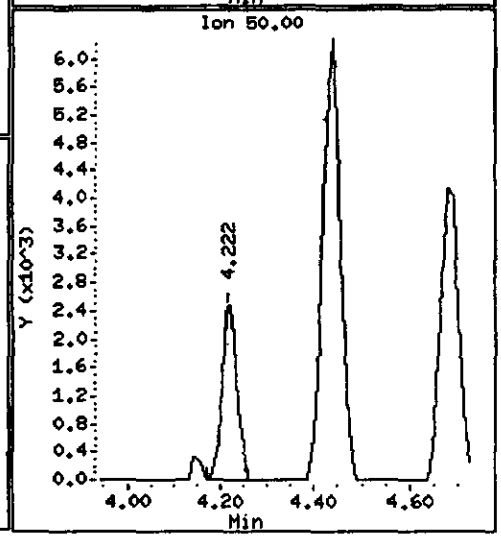












Data File: /var/chem/gcms/mt.i/T021703.b/fhlv0dup.d

Date : 18-FEB-2003 03:25

Client ID: J00208 DUP

Instrument: mt.i

Sample Info: FHLV01AC,1.74,0,,

Volume Injected (uL): 500.0

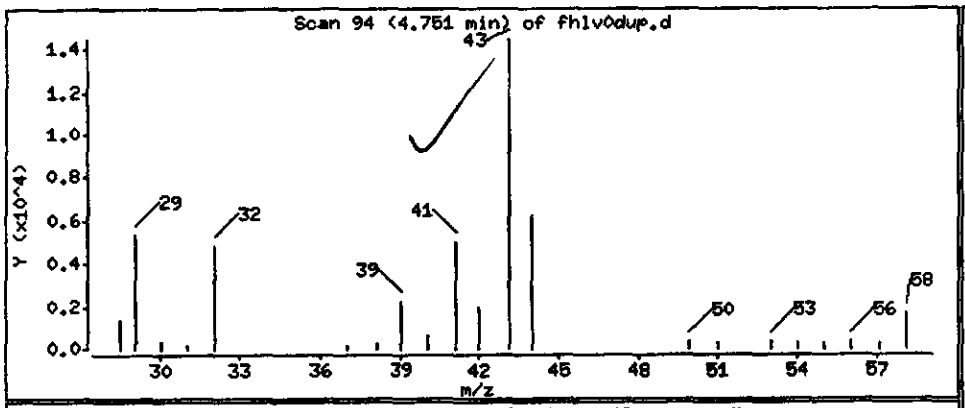
Operator: 0691

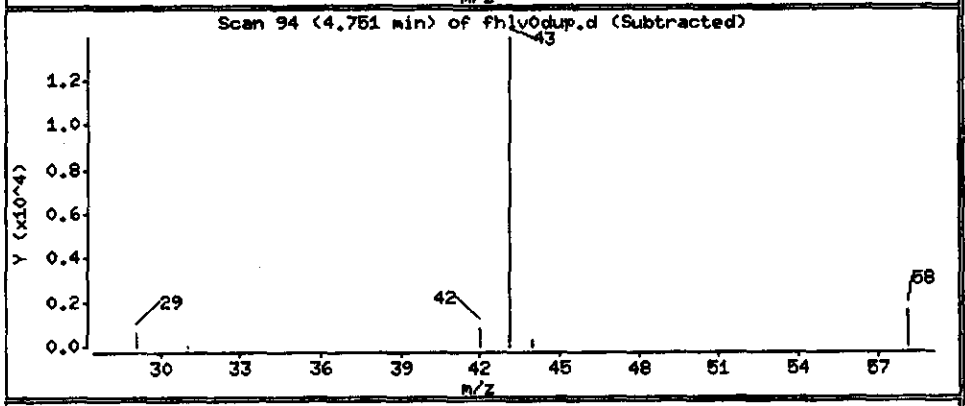
Column phase: DB-5

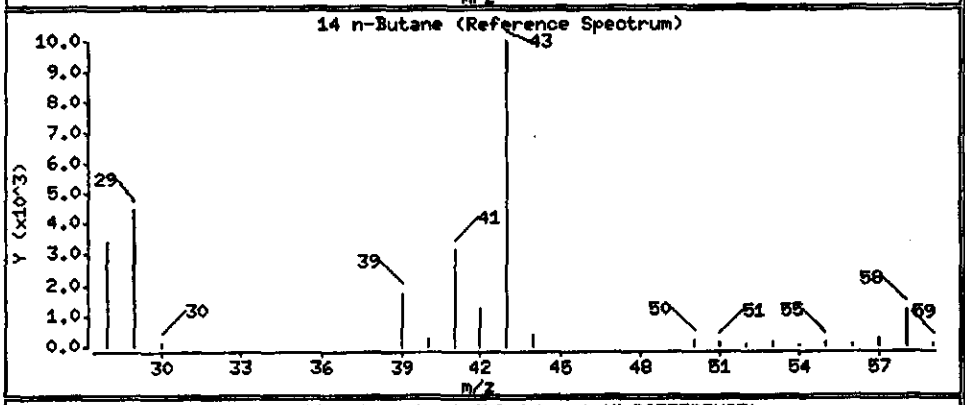
Column diameter: 0.32

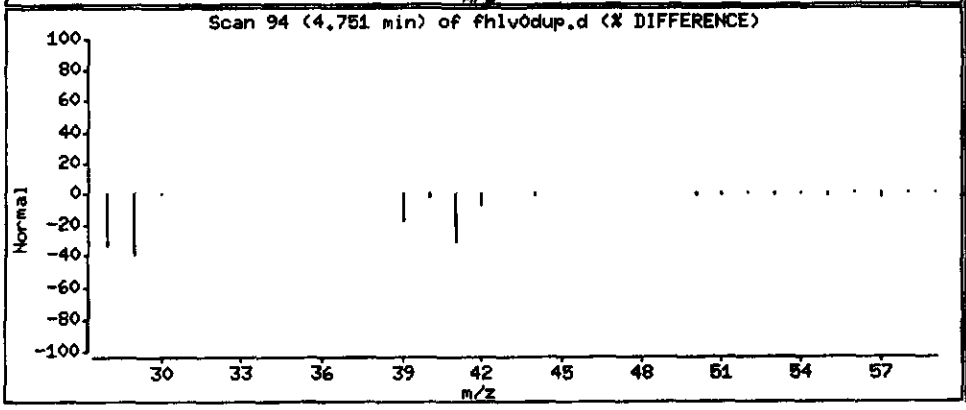
14 n-Butane

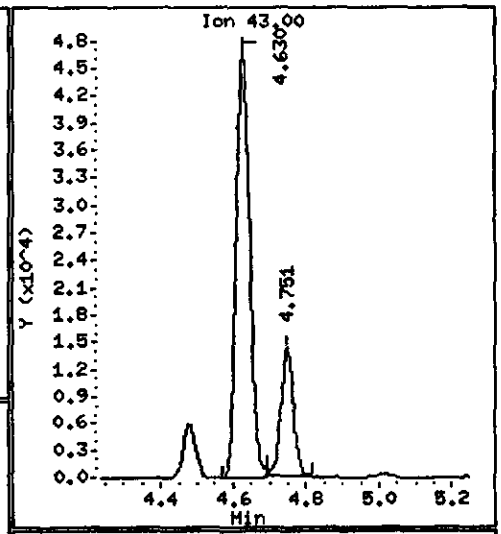
Concentration: 0.7471 ppb(v/v)

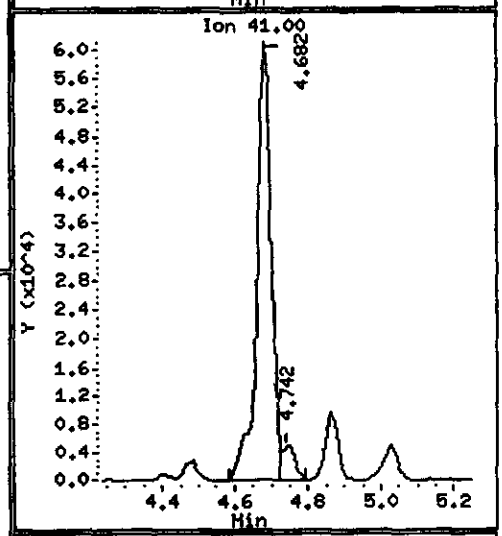


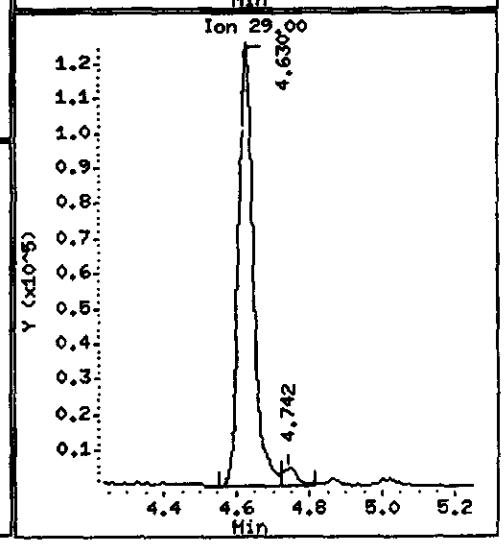












Data File: /var/chem/gcms/mt.i/T021703.b/fhlv0dup.d

Date : 18-FEB-2003 03:25

Client ID: J00208 DUP

Instrument: mt.i

Sample Info: FHLV01AC,1.74,0,,

Volume Injected (uL): 500.0

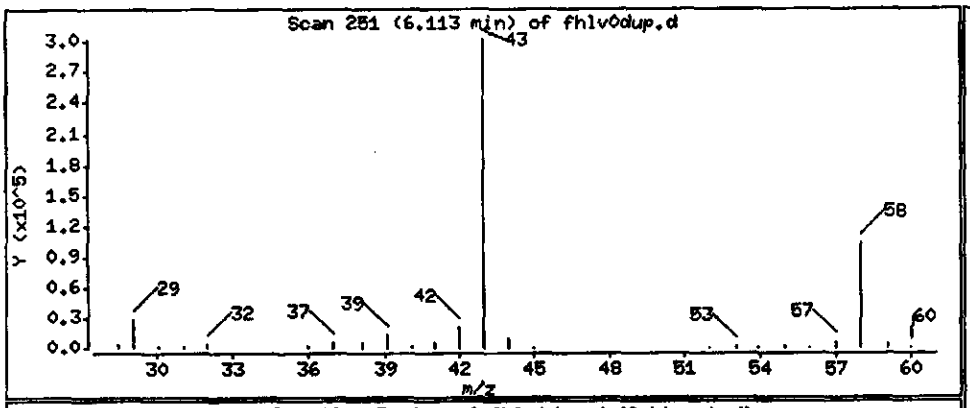
Operator: 0691

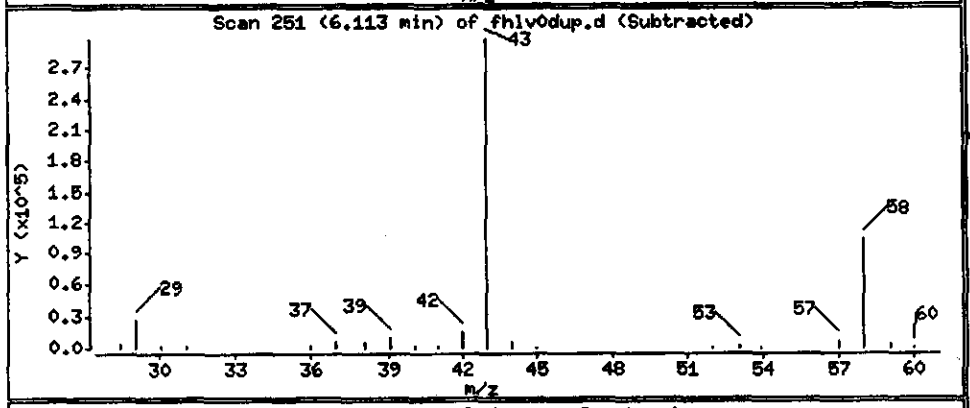
Column phase: DB-5

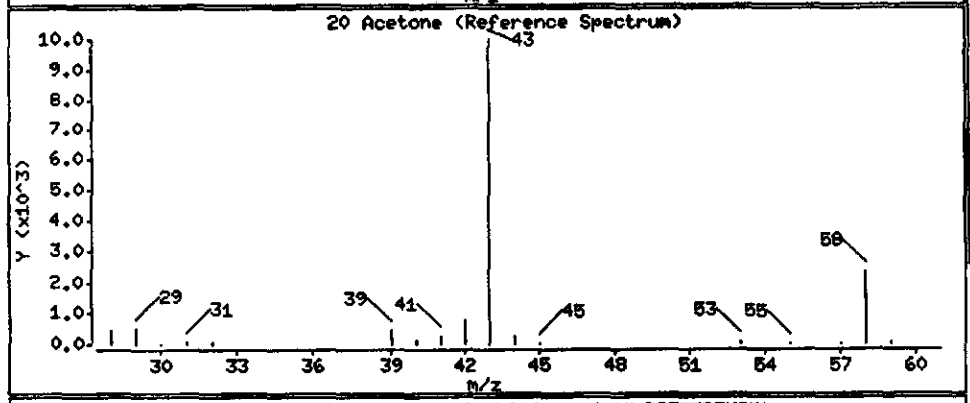
Column diameter: 0.32

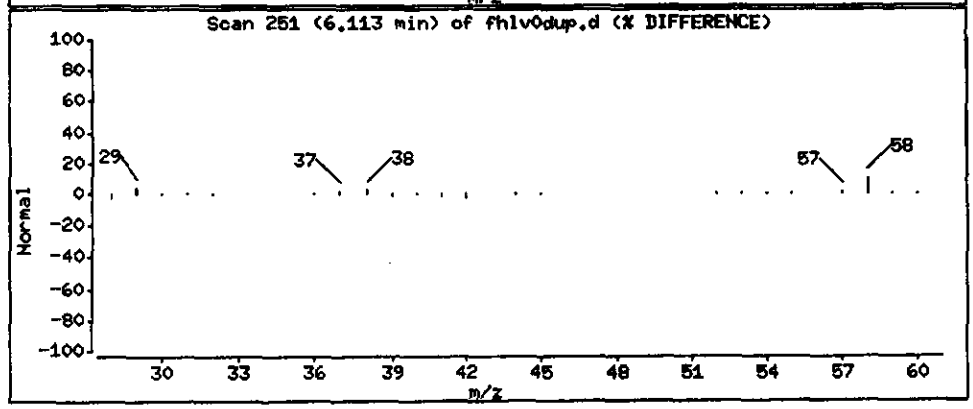
20 Acetone

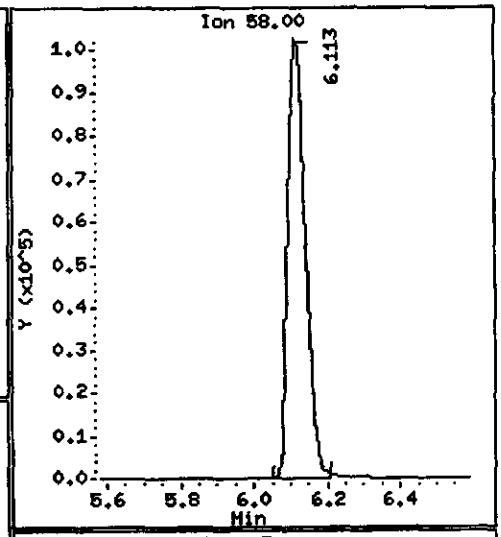
Concentration: 26.72 ppb(v/v)

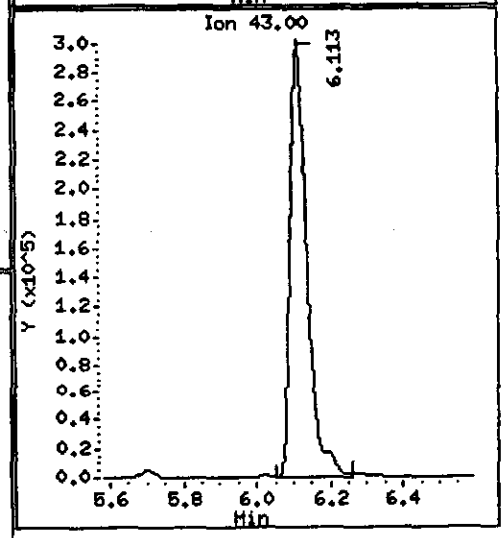












Data File: /var/chem/gcms/mt.i/T021703.b/fhlv0dup.d

Date : 18-FEB-2003 03:25

Client ID: J00208 DUP

Instrument: mt.i

Sample Info: FHLV01AC,1.74,0,,

Volume Injected (uL): 500.0

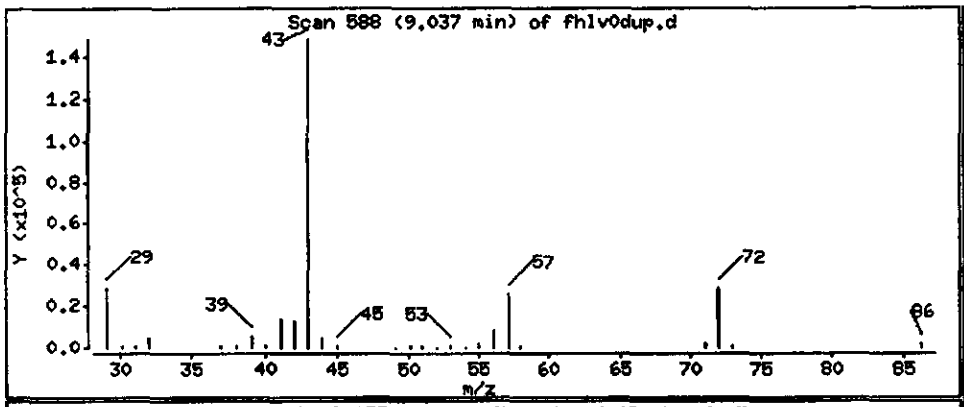
Operator: 0691

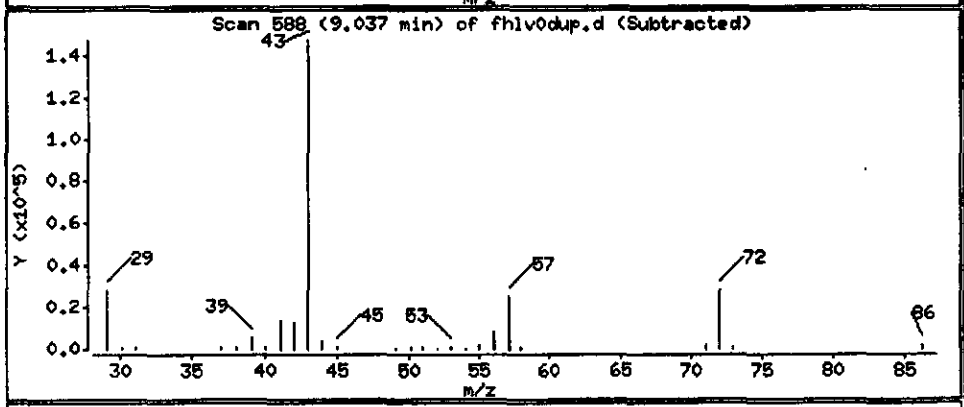
Column phase: DB-5

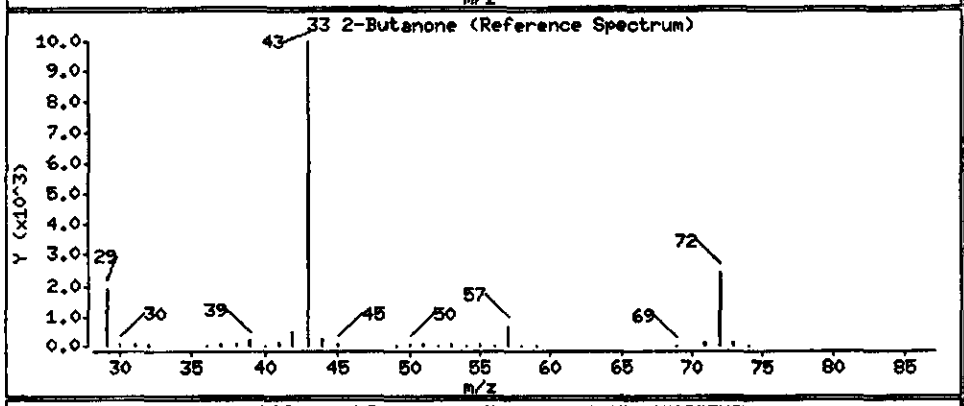
Column diameter: 0.32

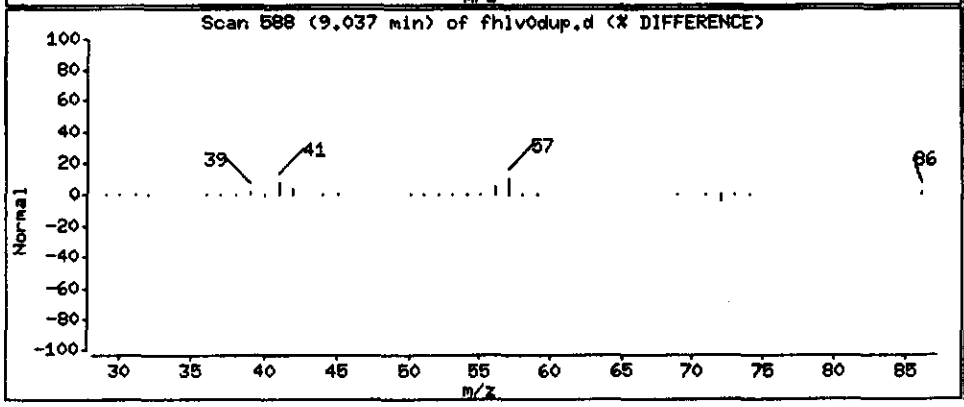
33 2-Butanone

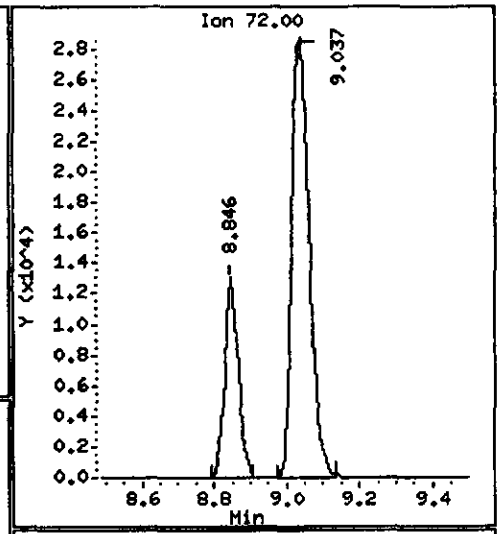
Concentration: 5.794 ppb(v/v)

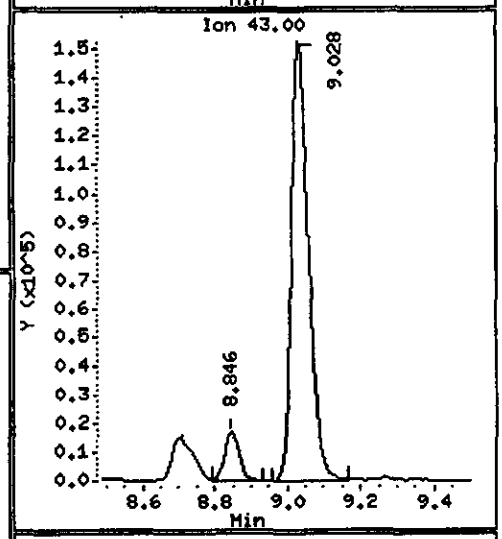


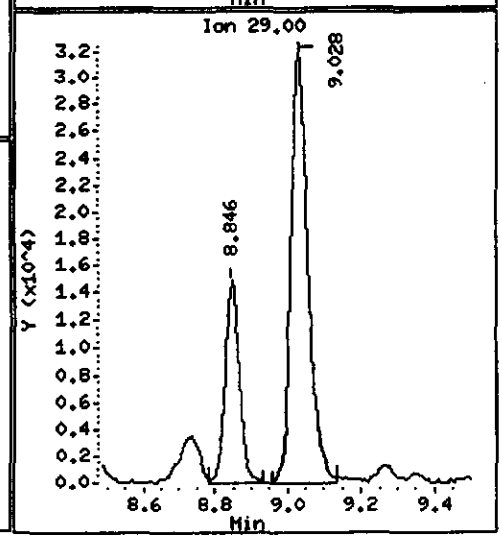












Data File: /var/chem/gcms/mt.i/T021703.b/fhlv0dup.d

Date : 18-FEB-2003 03:25

Client ID: J00208 DUP

Instrument: mt.i

Sample Info: FHLV01AC,1.74,0,,

Volume Injected (uL): 500.0

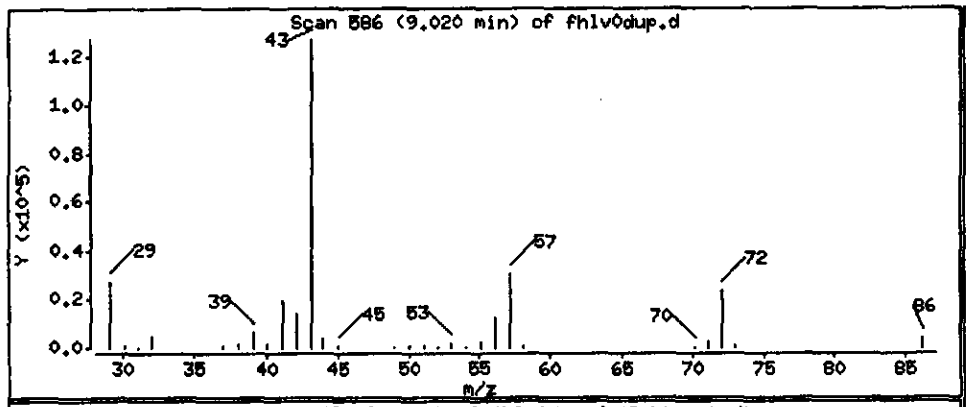
Operator: 0691

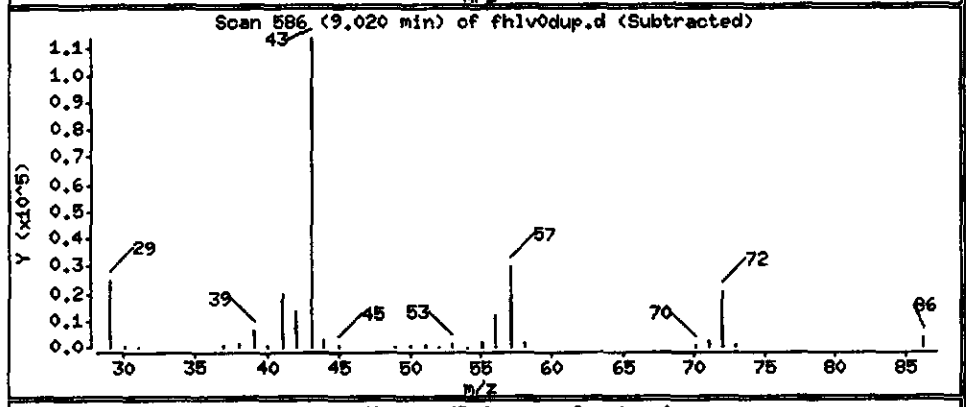
Column phase: DB-5

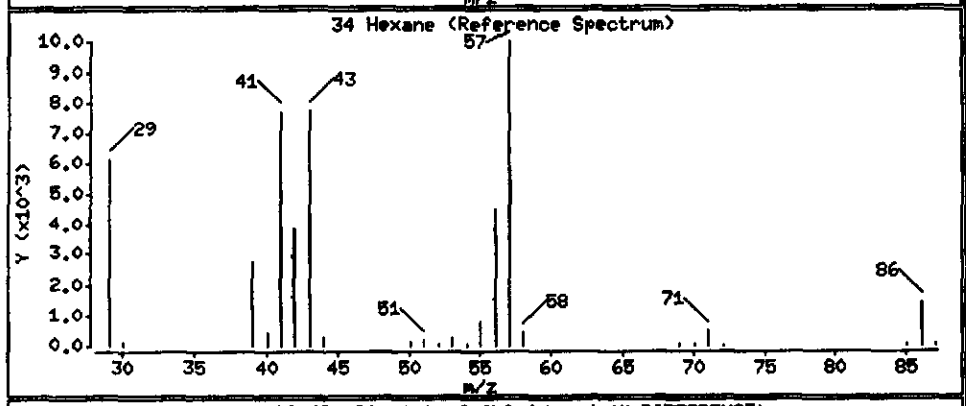
Column diameter: 0.32

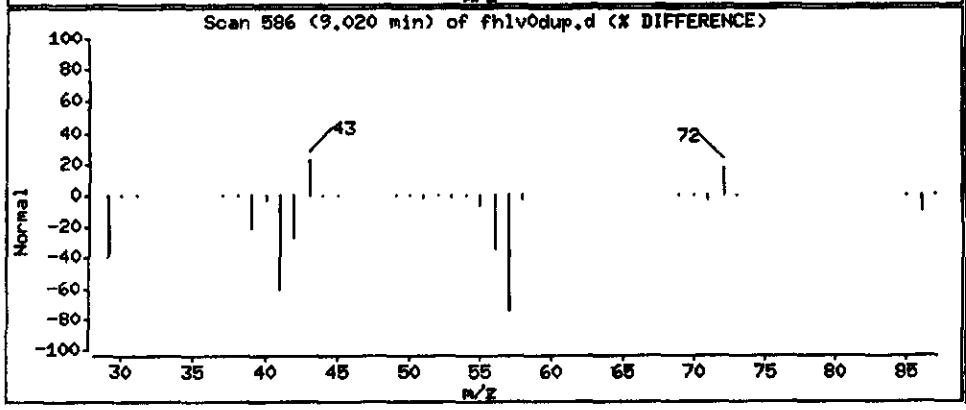
34 Hexane

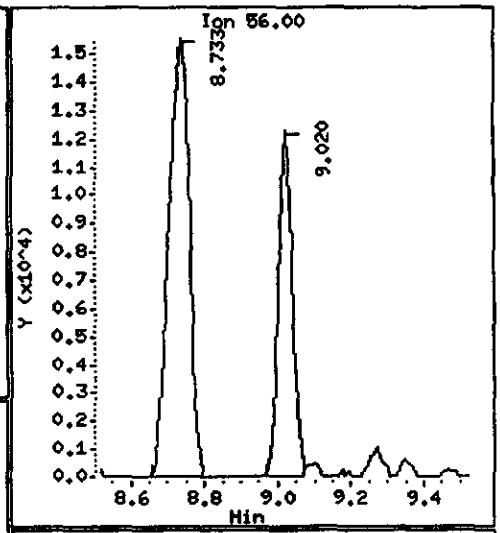
Concentration: 1.257 ppb(v/v)

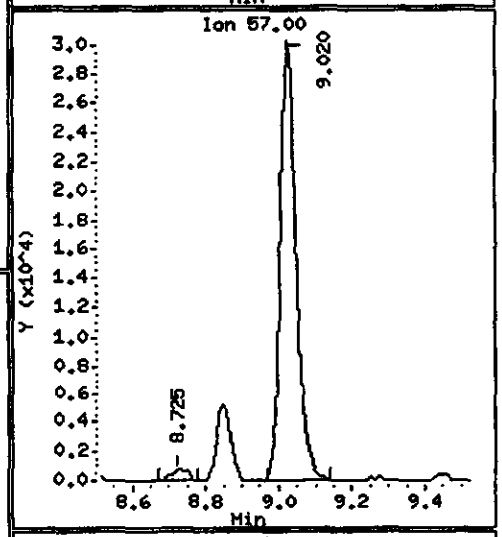


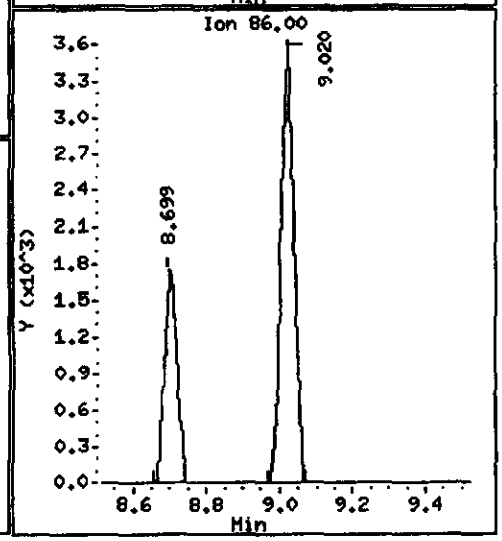












Data File: /var/chem/gcms/mt.i/T021703.b/fhlv0dup.d

Date : 18-FEB-2003 03:25

Client ID: J00208 DUP

Instrument: mt.i

Sample Info: FHLV01AC,1.74,0,,

Volume Injected (uL): 500.0

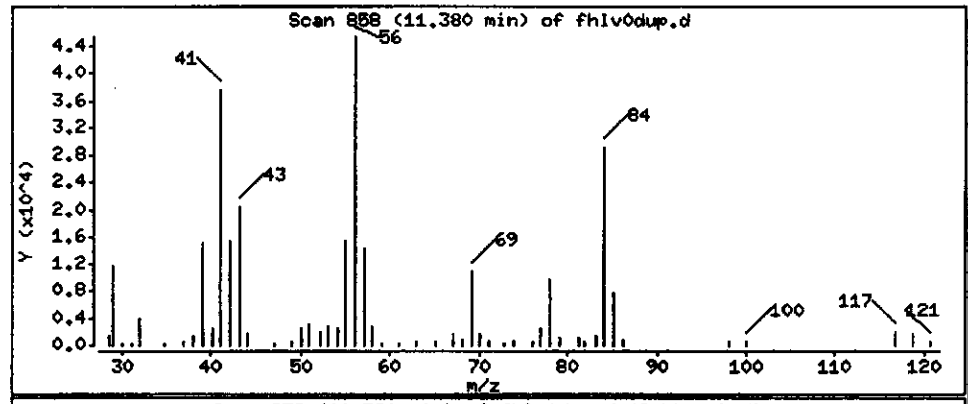
Operator: 0691

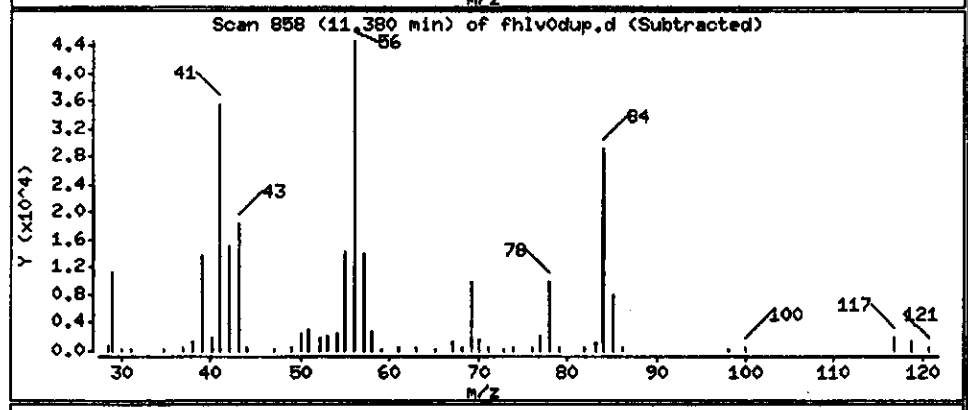
Column phase: DB-5

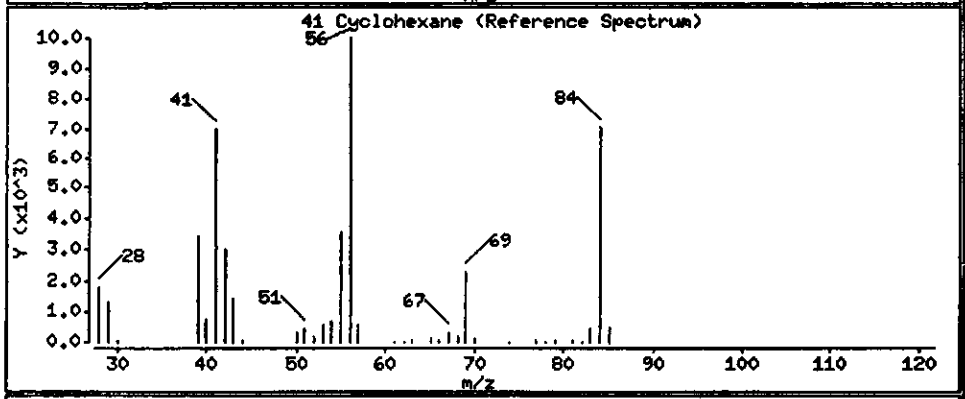
Column diameter: 0.32

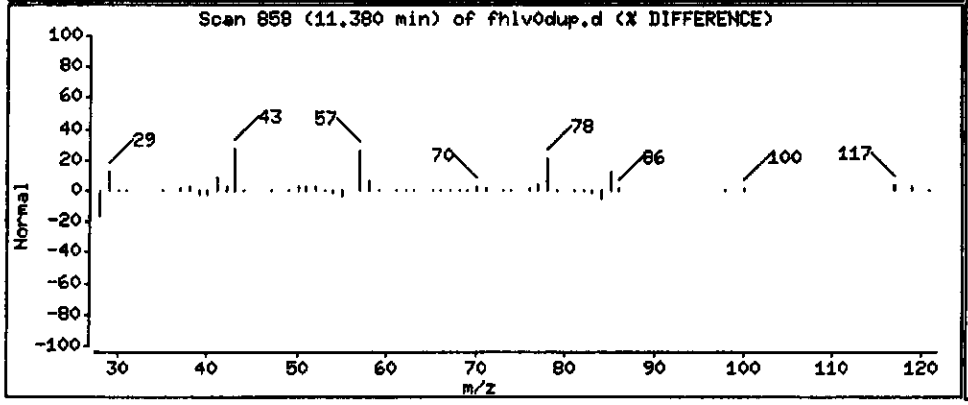
41 Cyclohexane

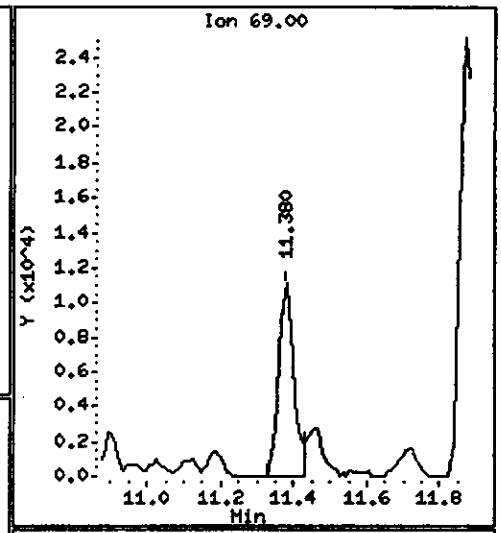
Concentration: 2.414 ppb(v/v)

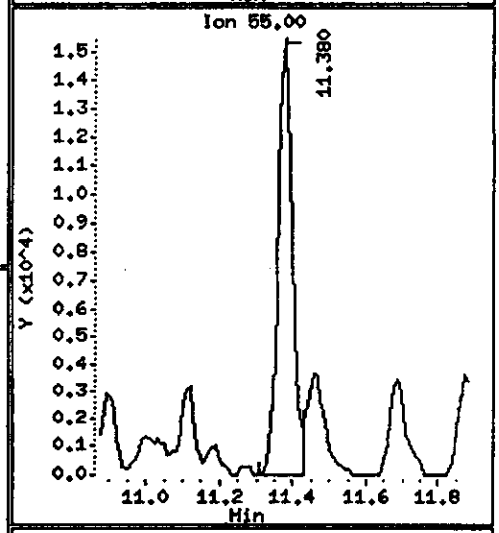


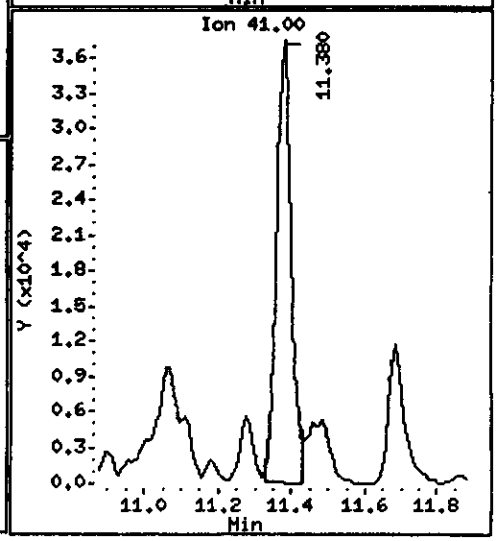












Data File: /var/chem/gcms/mt.i/T021703.b/fhlv0dup.d

Date : 18-FEB-2003 03:25

Client ID: J00208 DUP

Instrument: mt.i

Sample Info: FHLV01AC,1.74,0,,

Volume Injected (uL): 500.0

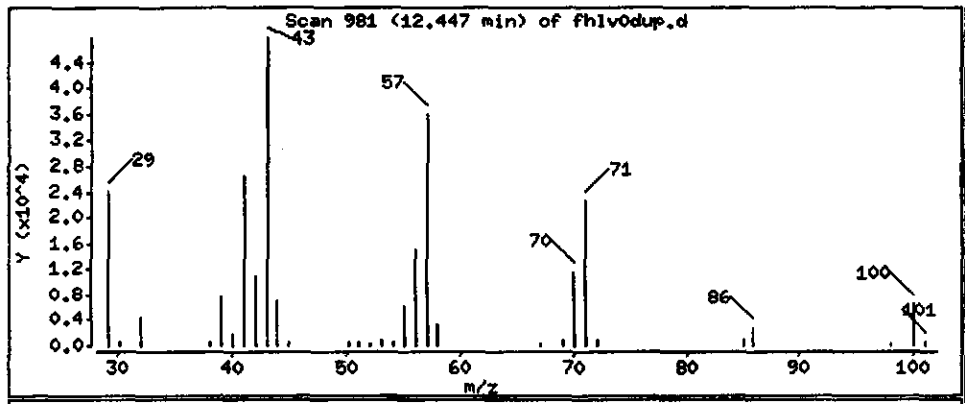
Operator: 0691

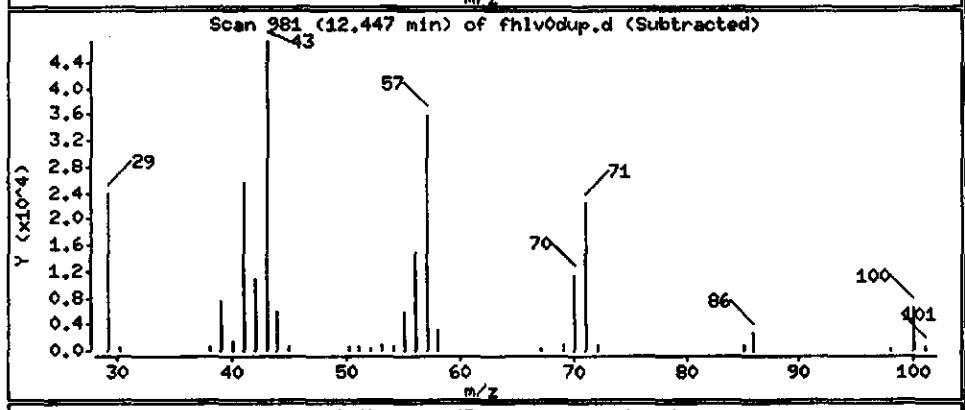
Column phase: DB-5

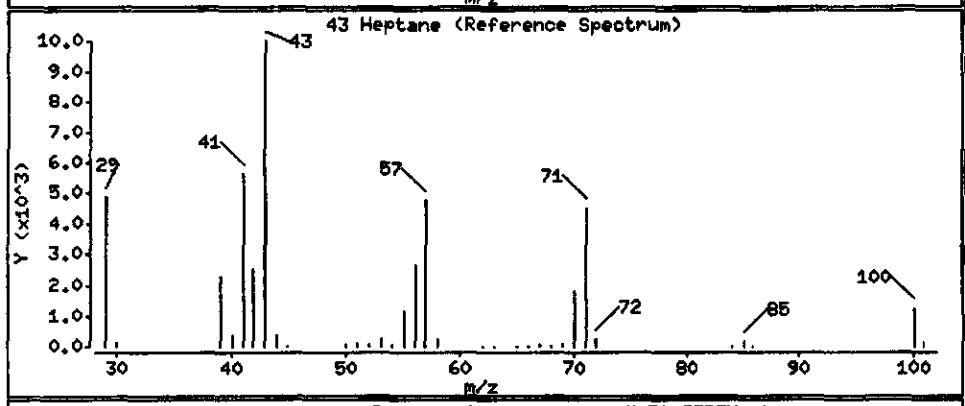
Column diameter: 0.32

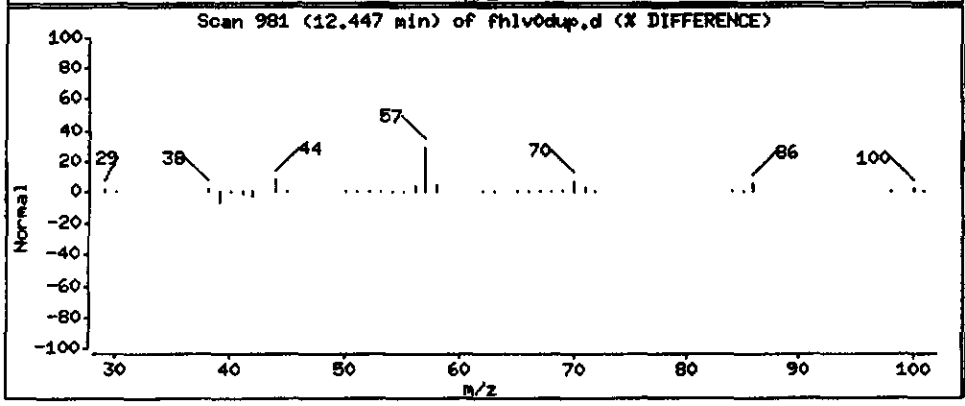
43 Heptane

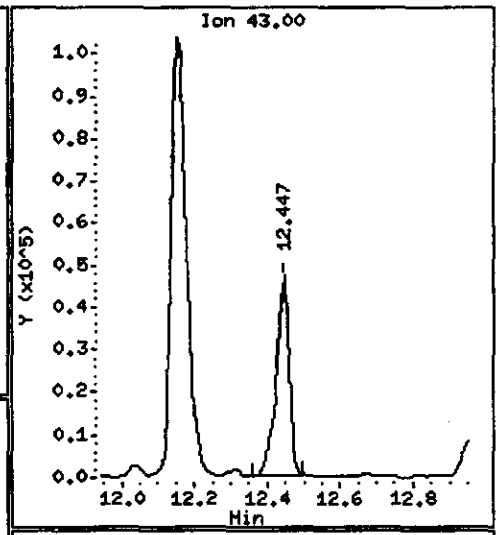
Concentration: 1.667 ppb(v/v)

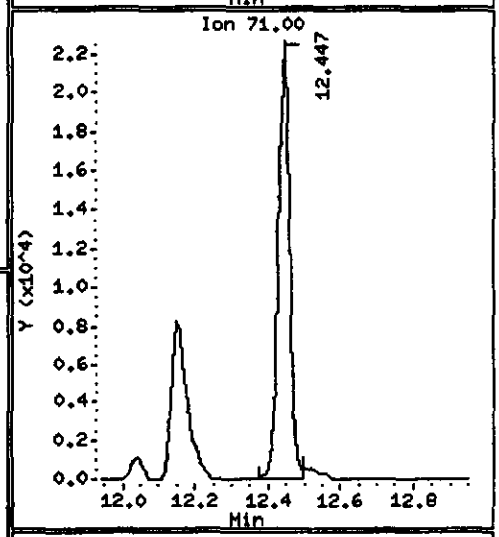


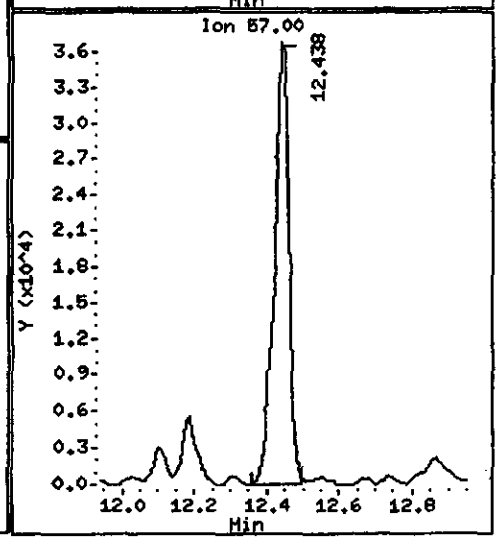












Data File: /var/chem/gcms/mt.i/T021703.b/fhlv0dup.d

Date : 18-FEB-2003 03:25

Client ID: J00208 DUP

Instrument: mt.i

Sample Info: FHLV01AC,1.74,0,,

Volume Injected (uL): 500.0

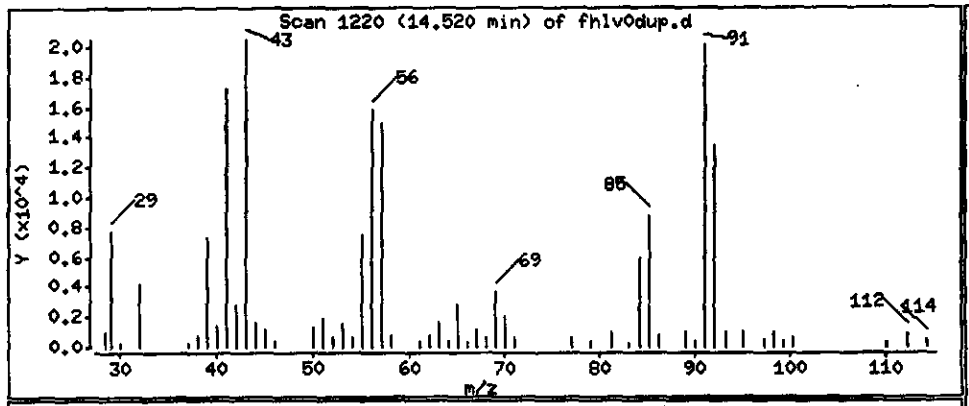
Operator: 0691

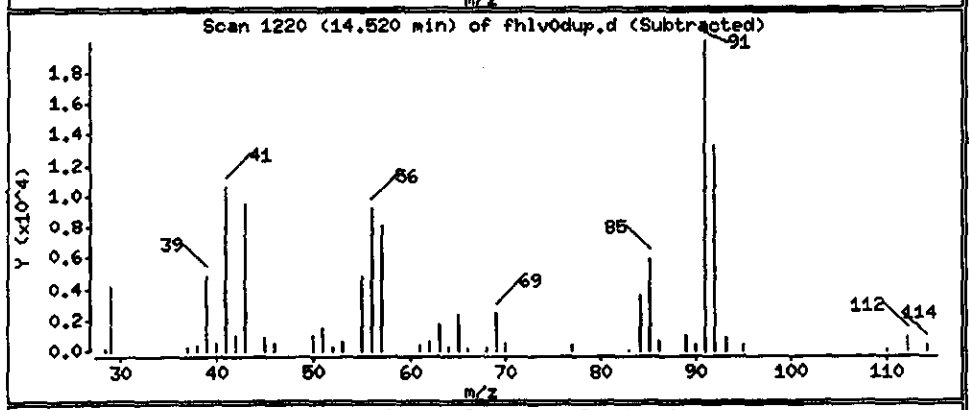
Column phase: DB-5

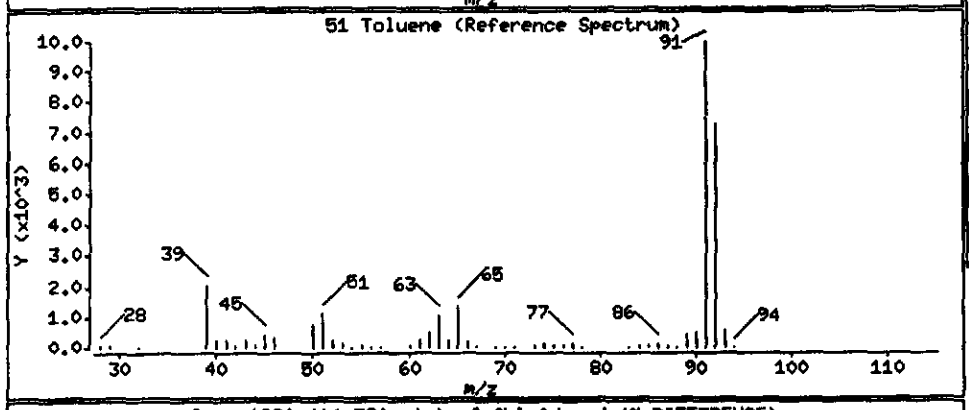
Column diameter: 0.32

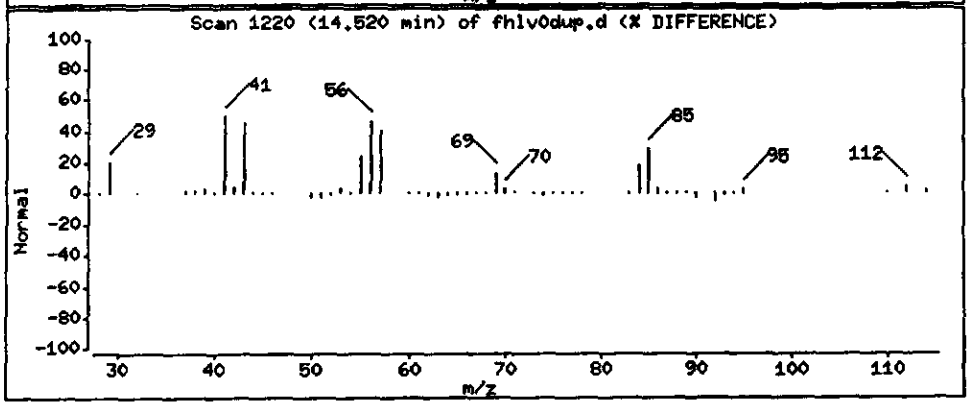
51 Toluene

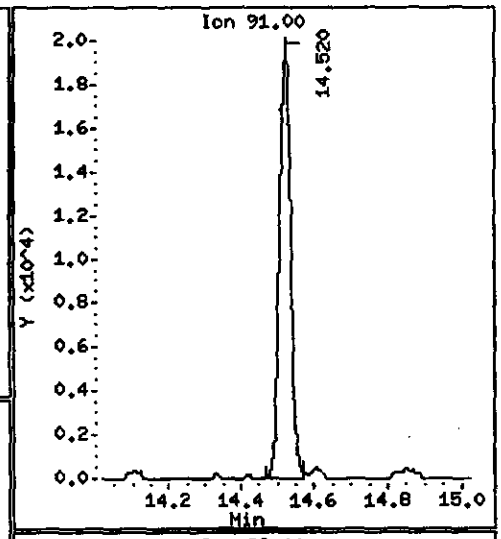
Concentration: 0.3835 ppb(v/v)

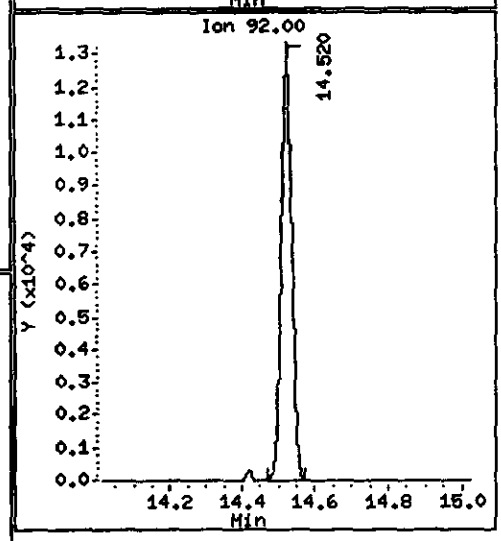












Data File: /var/chem/gcms/mt.i/T021703.b/fhlv0dup.d

Date : 18-FEB-2003 03:25

Client ID: J00208 DUP

Instrument: mt.i

Sample Info: FHLV01AC,1.74,0,,

Volume Injected (uL): 500.0

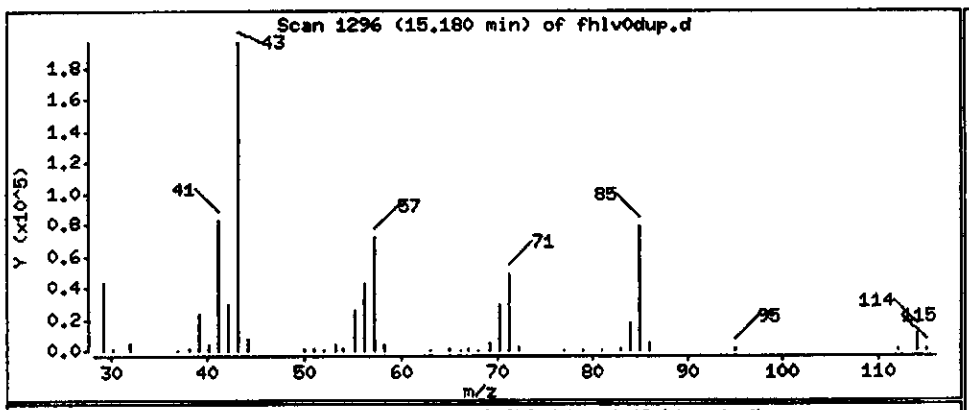
Operator: 0691

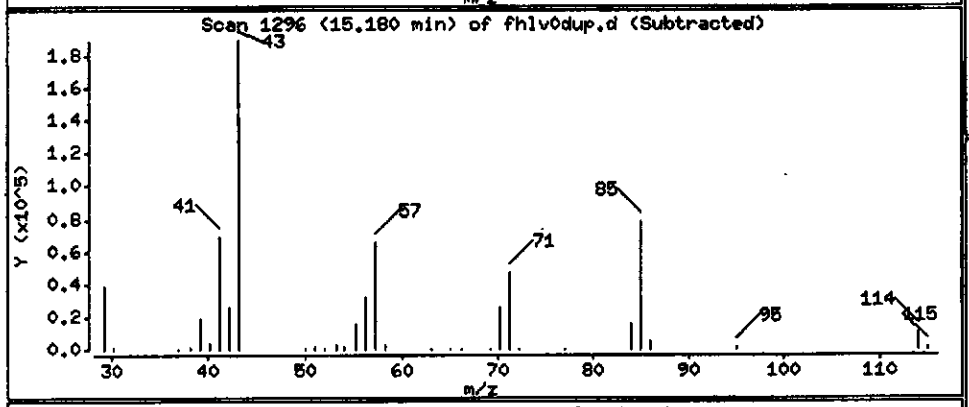
Column phase: DB-5

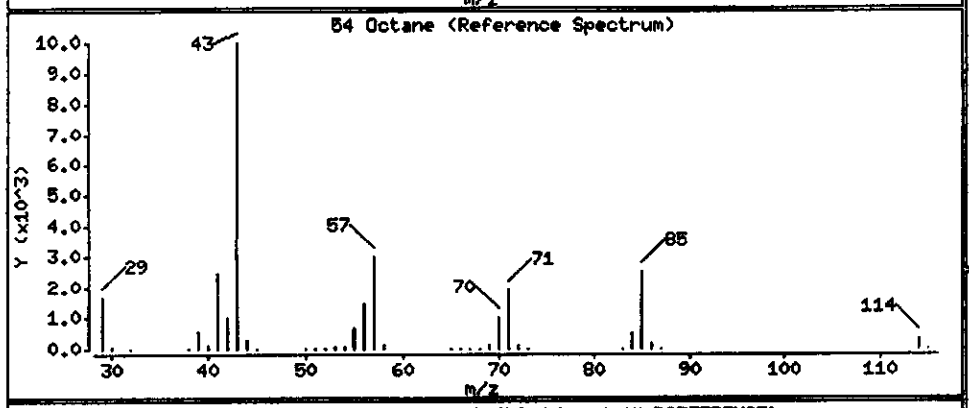
Column diameter: 0.32

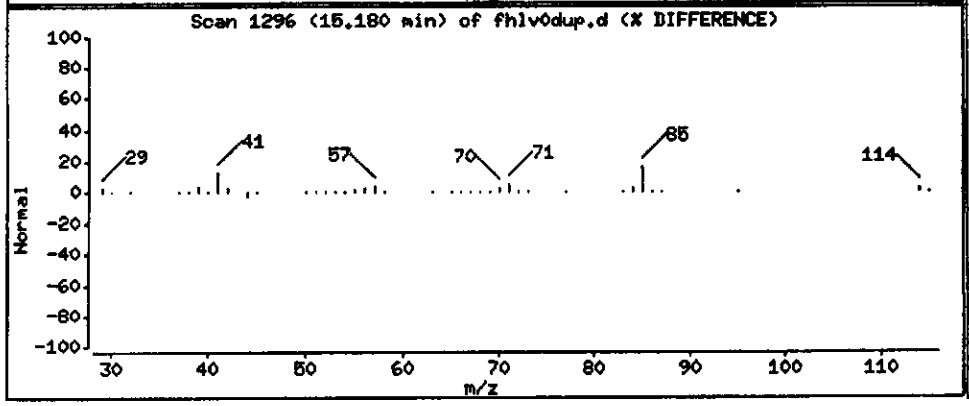
54 Octane

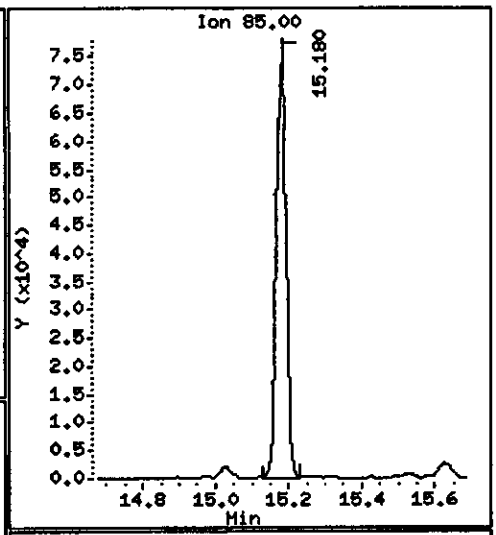
Concentration: 4.237 ppb(v/v)

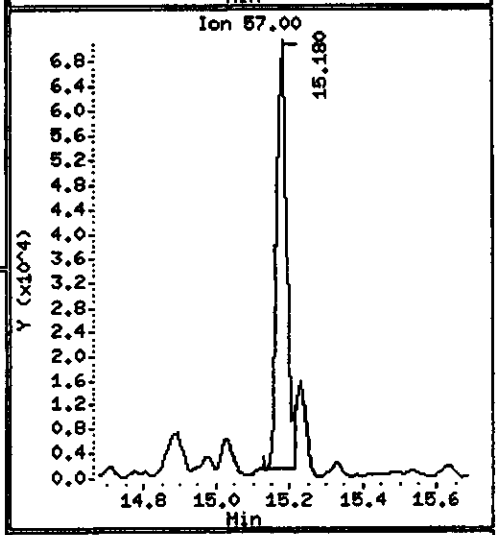


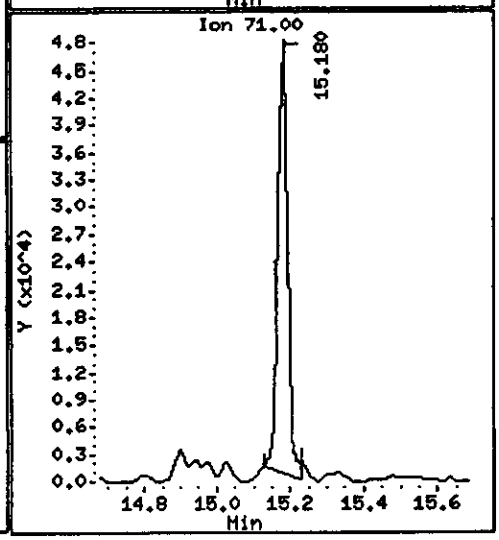












Data File: /var/chem/gcms/mt.i/T021703.b/fhlv0dup.d

Date : 18-FEB-2003 03:25

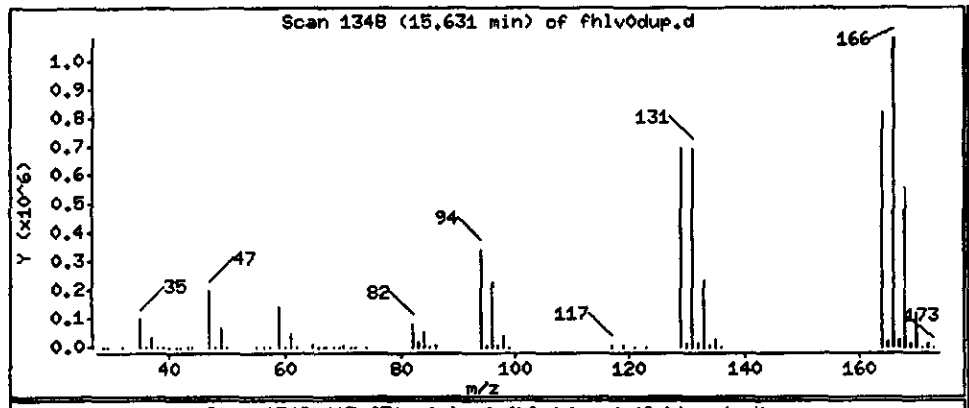
Client ID: J00208 DUP | Instrument: mt.i

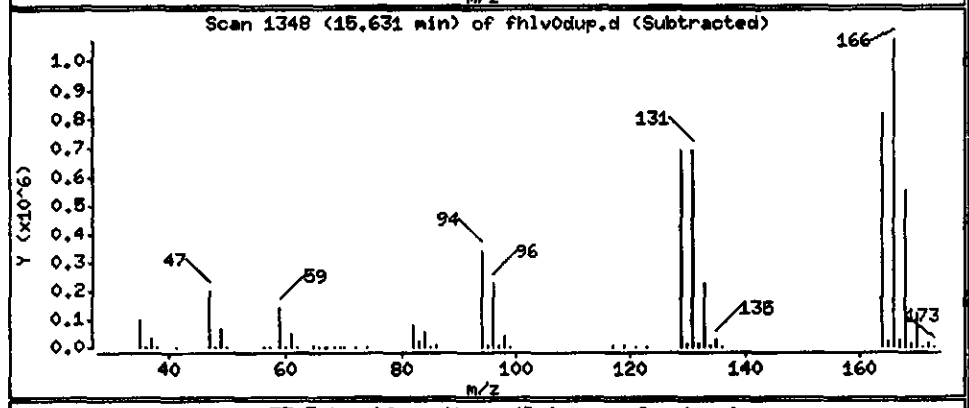
Sample Info: FHLV01AC,1.74,0,,

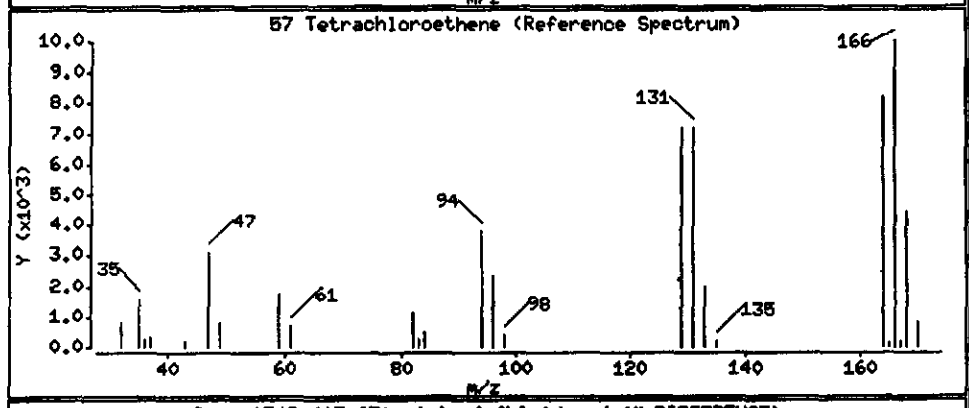
Volume Injected (uL): 500.0 | Operator: 0691

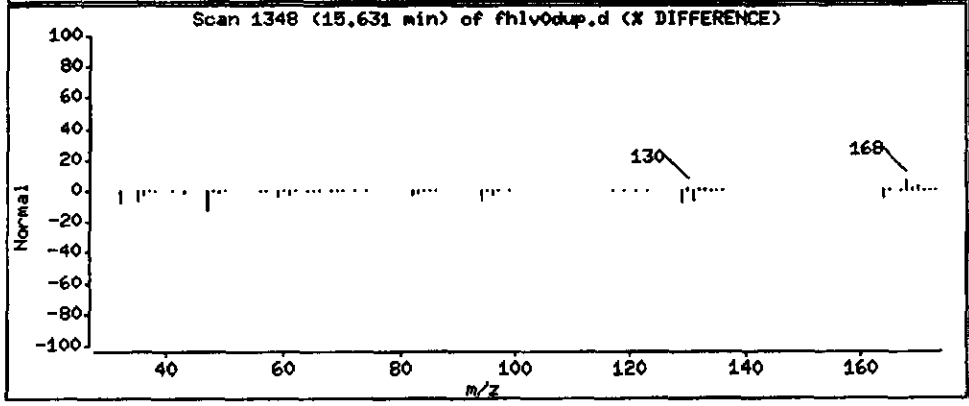
Column phase: DB-5 | Column diameter: 0.32

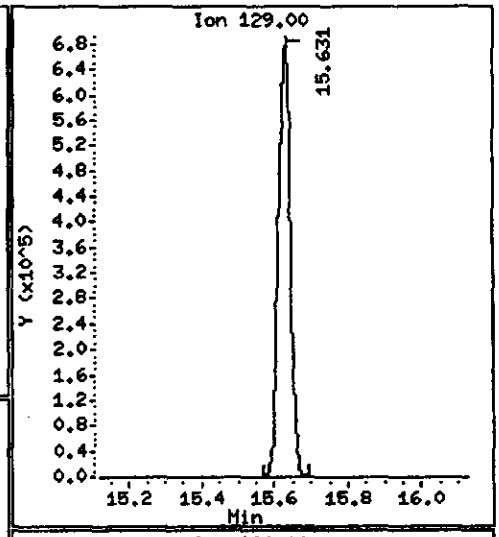
57 Tetrachloroethene | Concentration: 41.03 ppb(v/v)

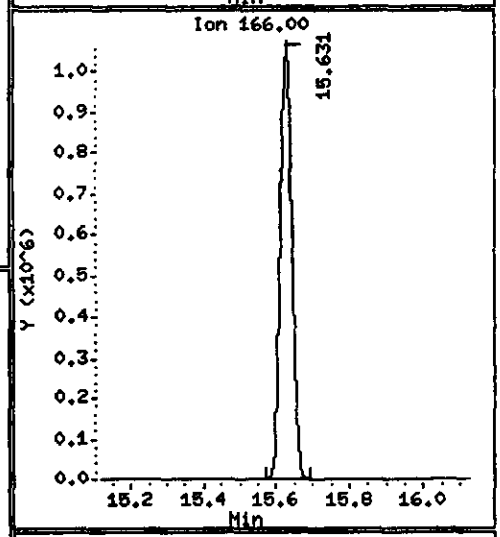


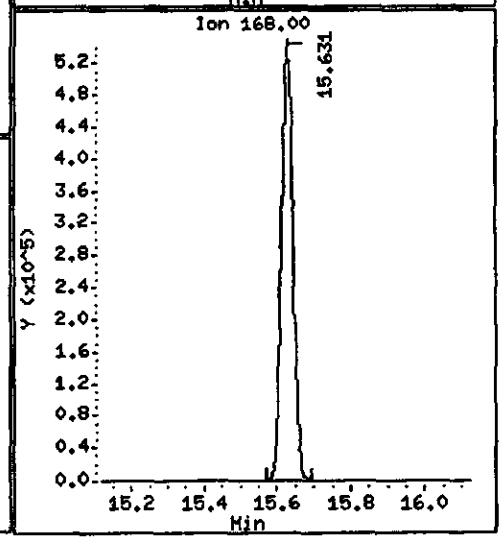












Data File: /var/chem/gcms/mt.i/T021703.b/fhlv0dup.d

Date : 18-FEB-2003 03:25

Client ID: J00208 DUP

Instrument: mt.i

Sample Info: FHLV01AC,1.74,0,,

Volume Injected (uL): 500.0

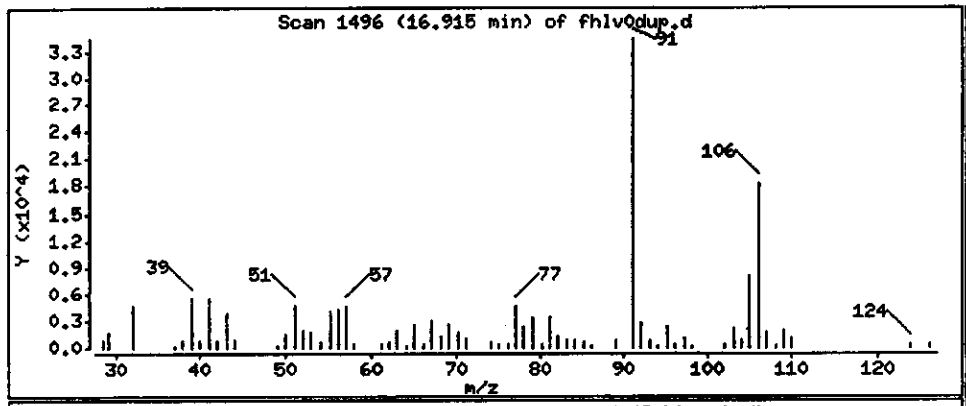
Operator: 0691

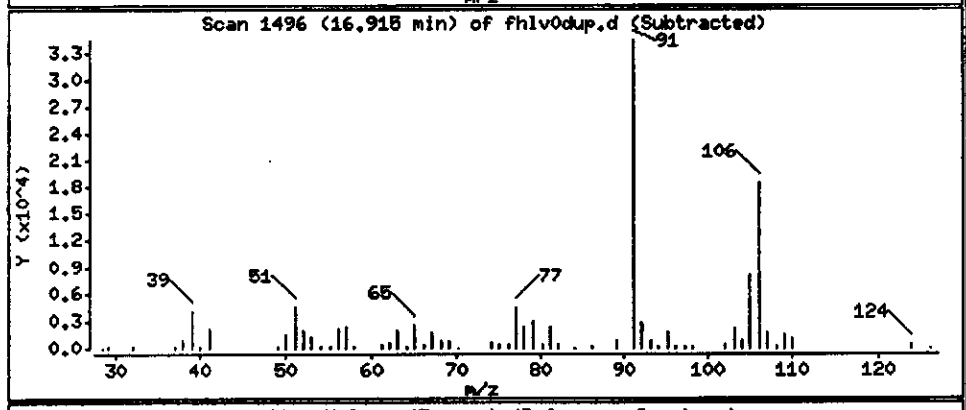
Column phase: DB-5

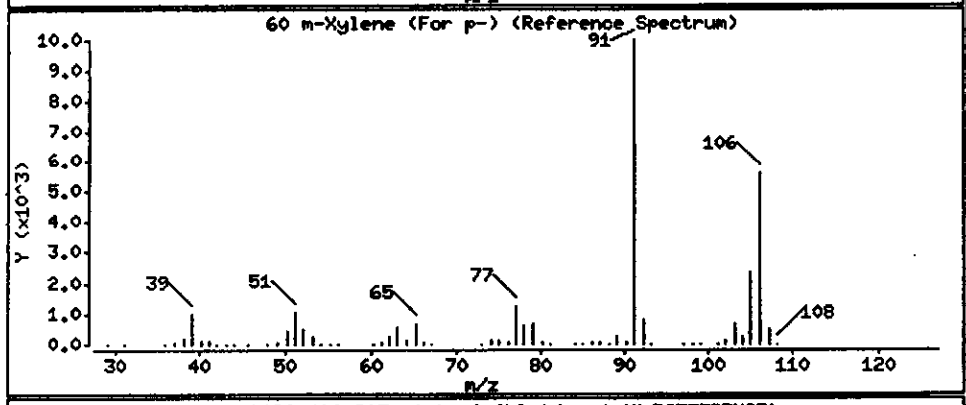
Column diameter: 0.32

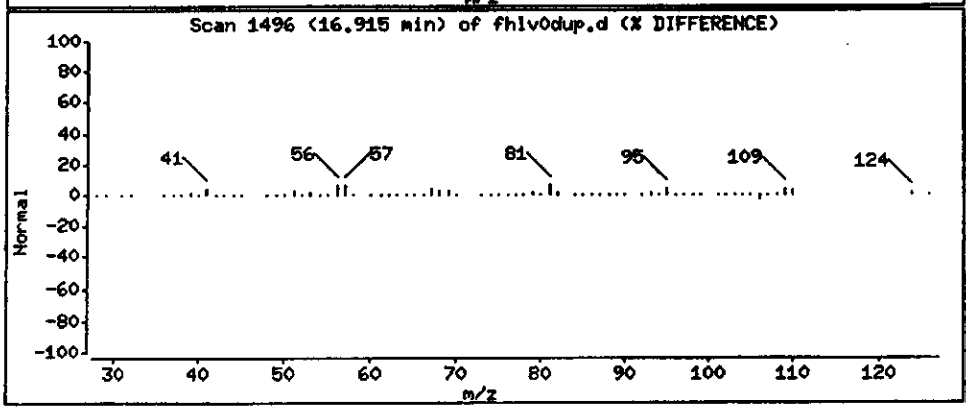
60 m-Xylene (For p-)

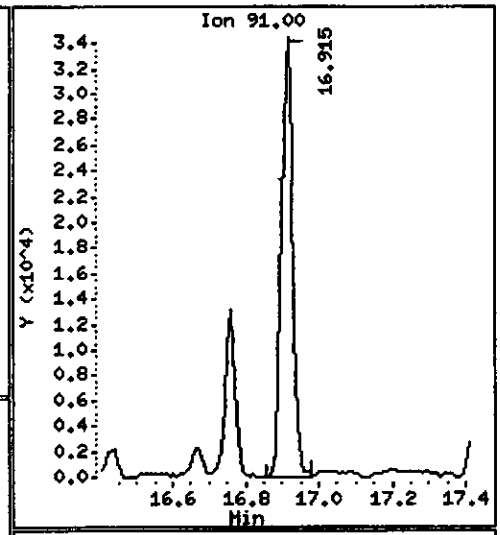
Concentration: 0.7086 ppb(v/v)

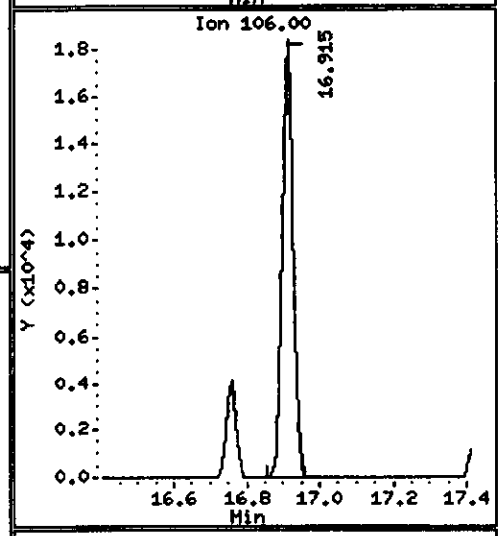


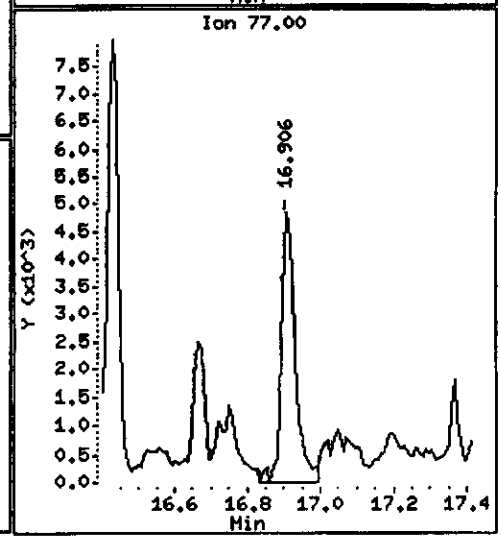












Data File: /var/chem/gcms/mt.i/T021703.b/fhlv0dup.d

Date : 18-FEB-2003 03:25

Client ID: J00208 DUP

Instrument: mt.i

Sample Info: FHLV01AC,1.74,0,,

Volume Injected (uL): 500.0

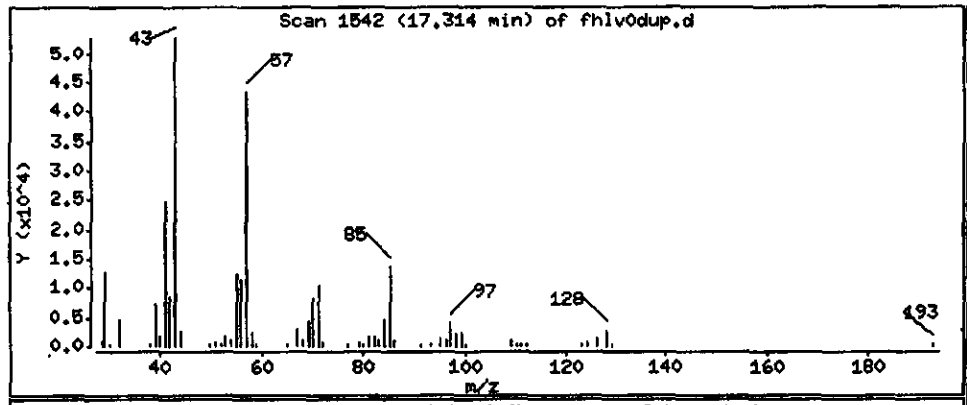
Operator: 0691

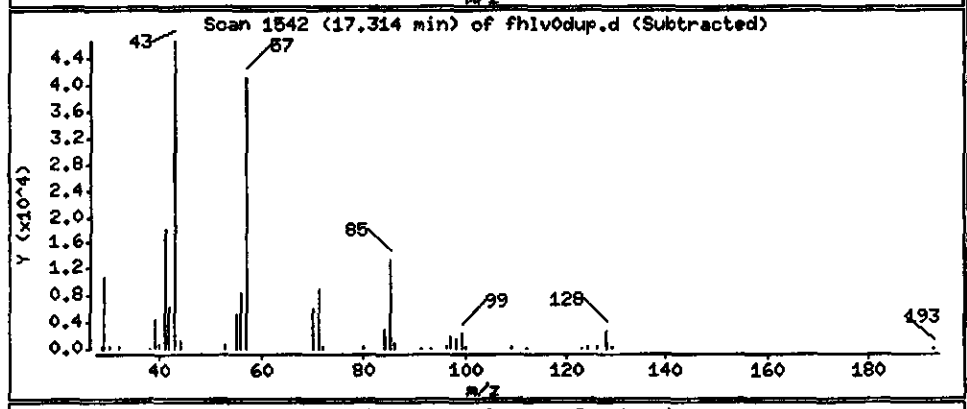
Column phase: DB-5

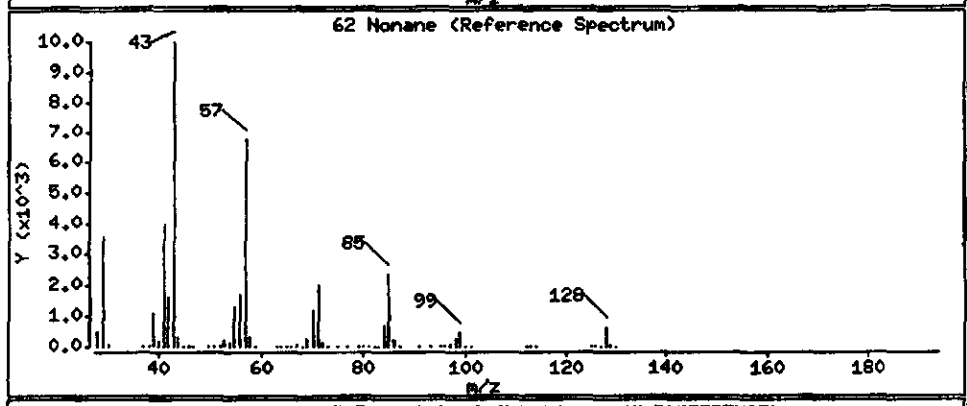
Column diameter: 0.32

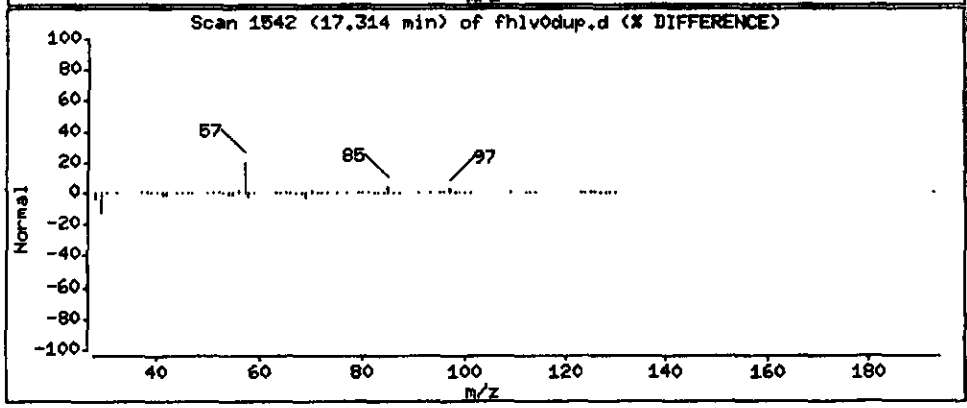
62 Nonane

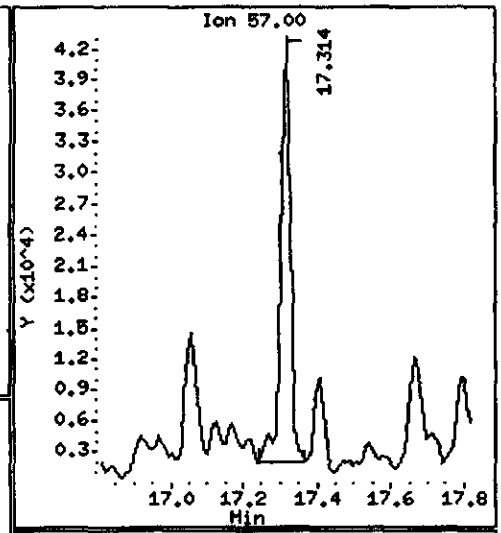
Concentration: 1.042 ppb(v/v)

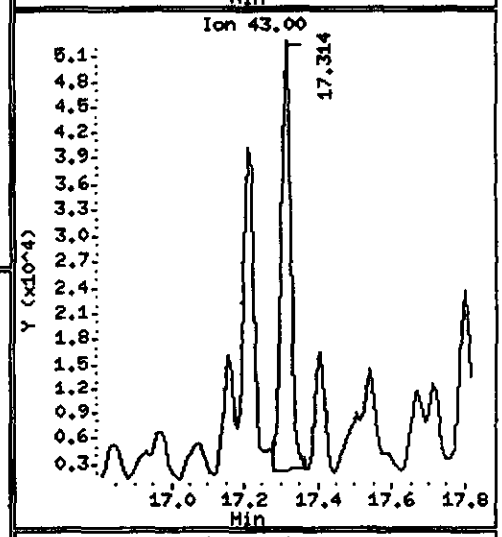


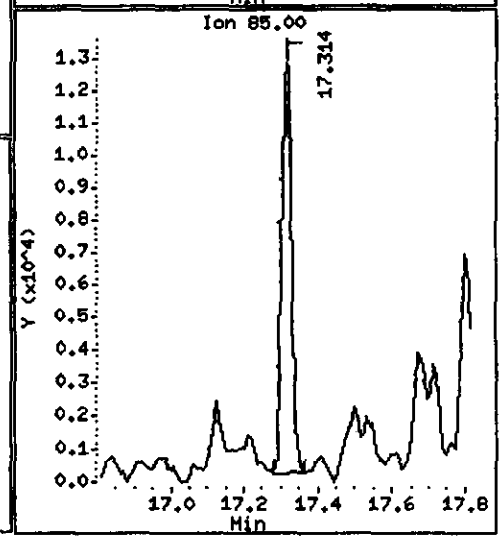












Data File: /var/chem/gcms/mt.i/T021703.b/fhlv0dup.d

Date : 18-FEB-2003 03:25

Client ID: J00208 DUP

Instrument: mt.i

Sample Info: FHLV01AC,1.74,0,,

Volume Injected (uL): 500.0

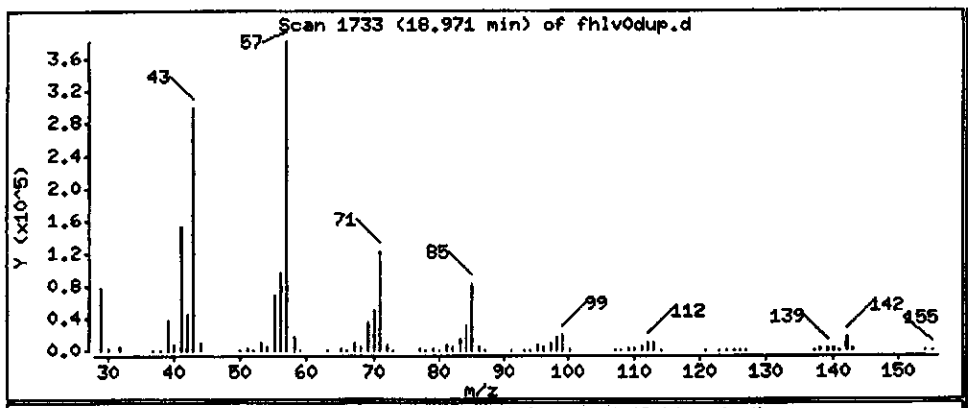
Operator: 0691

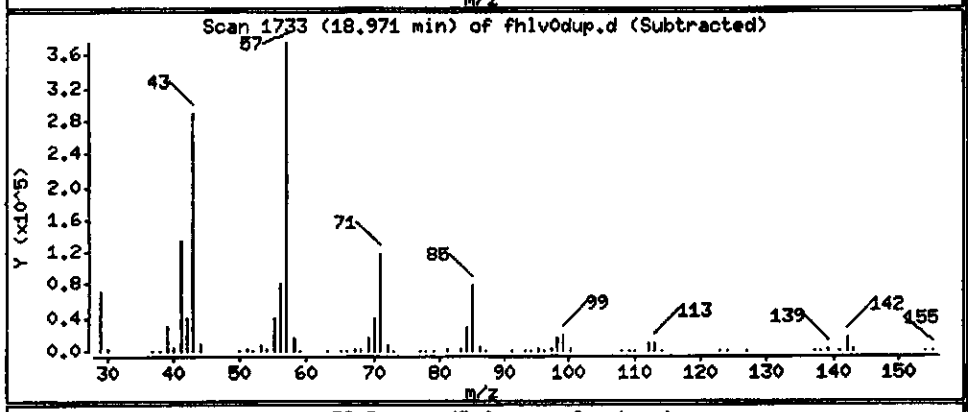
Column phase: DB-5

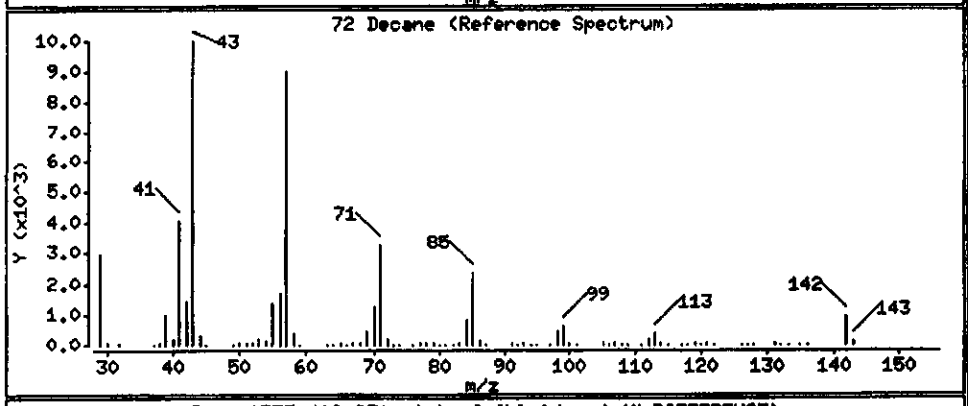
Column diameter: 0.32

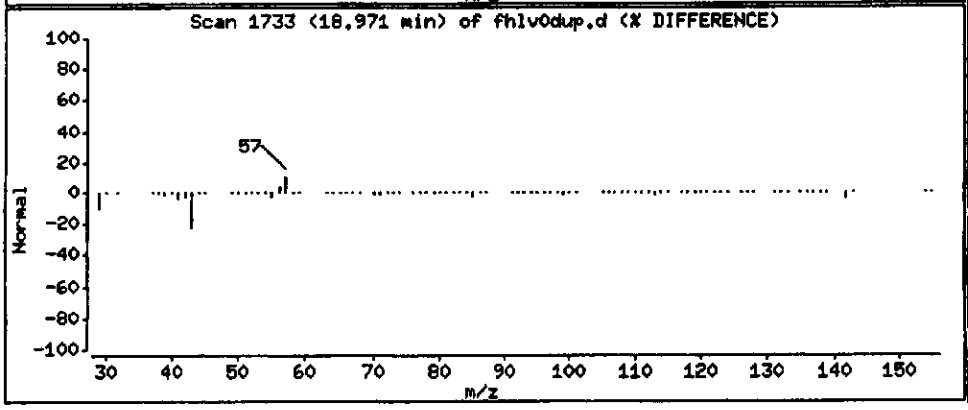
72 Decane

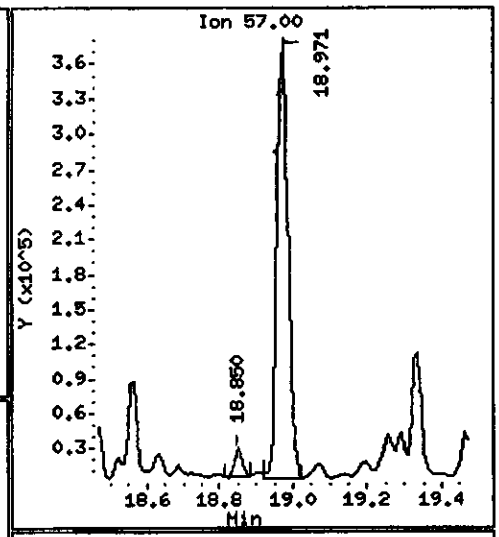
Concentration: 8.165 ppb(v/v)

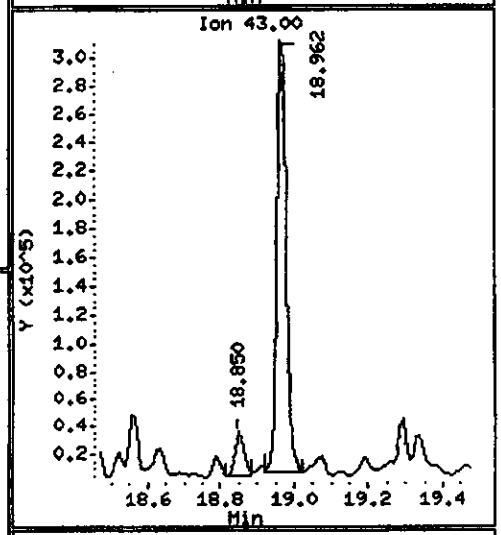


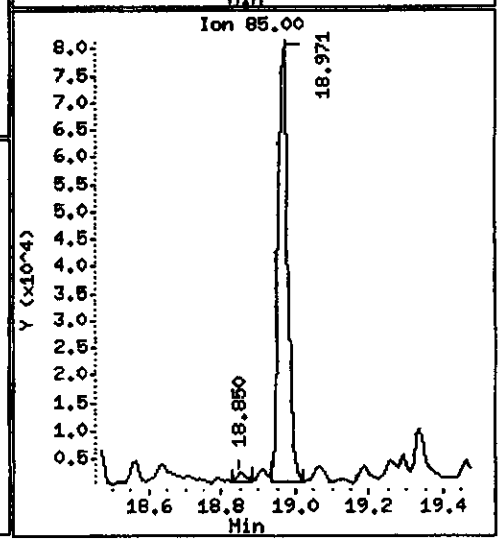












Data File: /var/chem/gcms/mt.i/T021703.b/fhlv0dup.d

Date : 18-FEB-2003 03:25

Client ID: J00208 DUP

Instrument: mt.i

Sample Info: FHLV01AC,1.74,0,,

Volume Injected (uL): 500.0

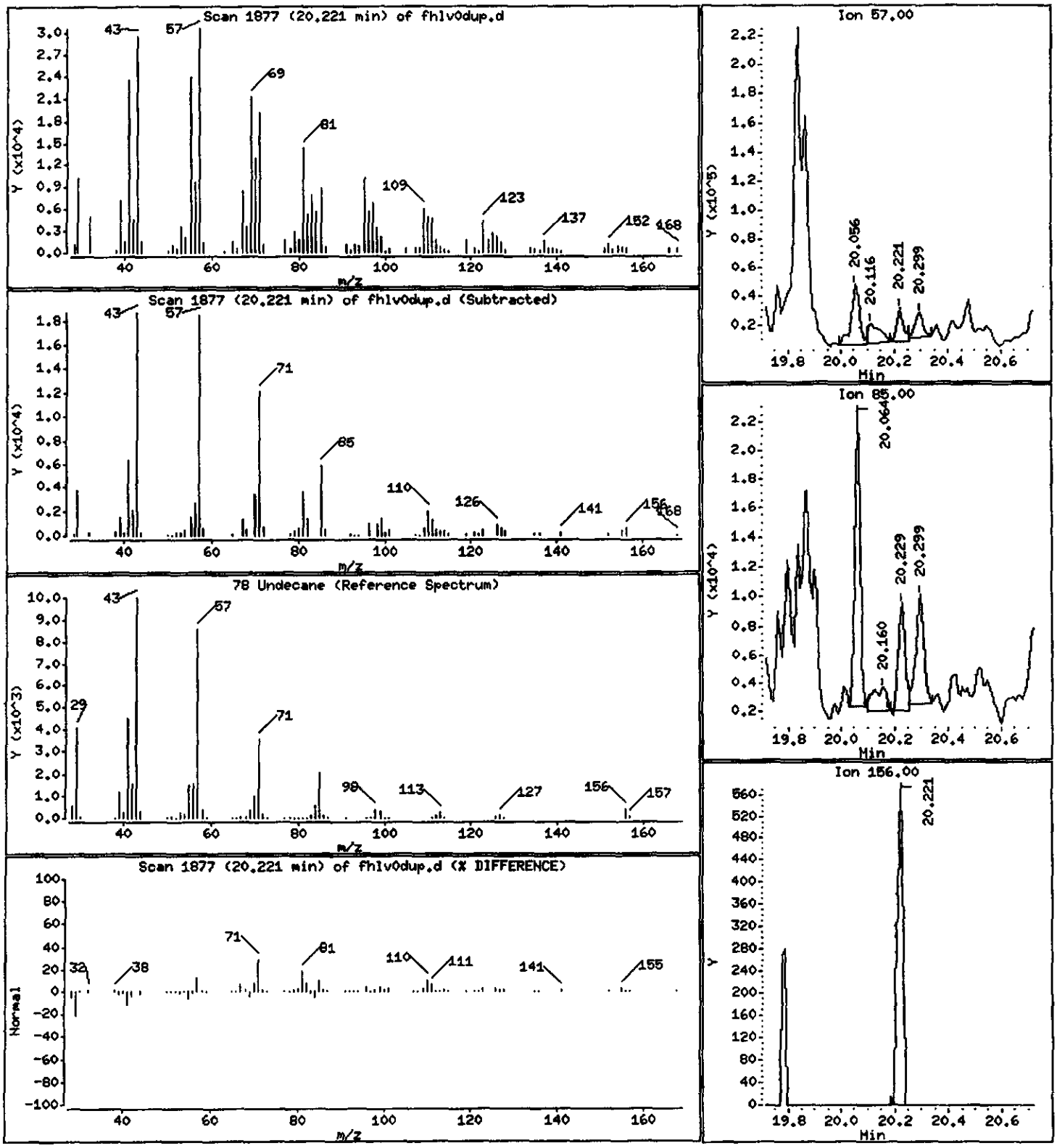
Operator: 0691

Column phase: DB-5

Column diameter: 0.32

78 Undecane

Concentration: 0.3783 ppb(v/v)



Data File: /var/chem/gcms/mt.i/T021703.b/fhlv0dup.d

Date : 18-FEB-2003 03:25

Client ID: J00208 DUP

Instrument: mt.i

Sample Info: FHLV01AC,1.74,0,,

Volume Injected (uL): 500.0

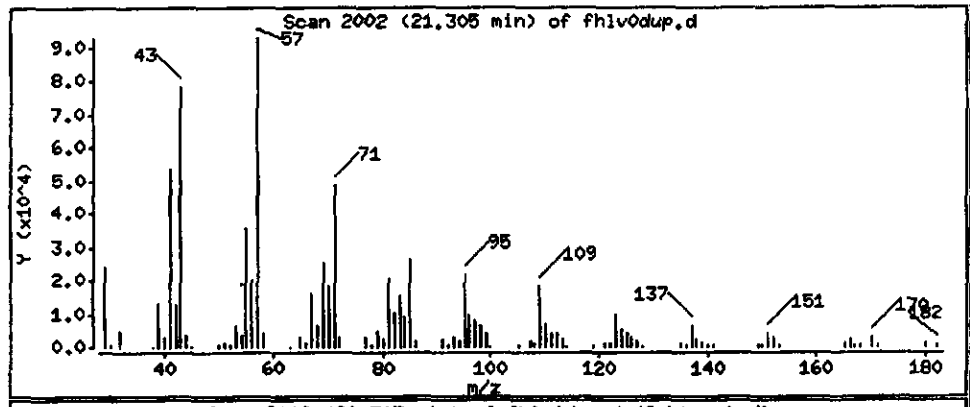
Operator: 0691

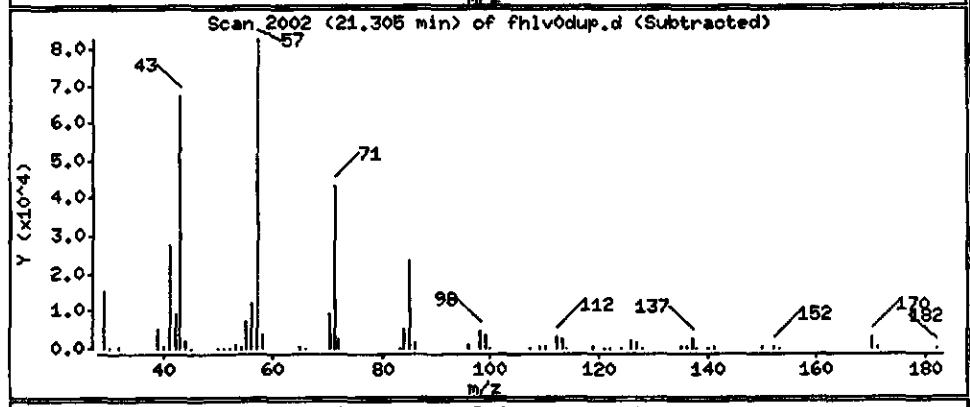
Column phase: DB-5

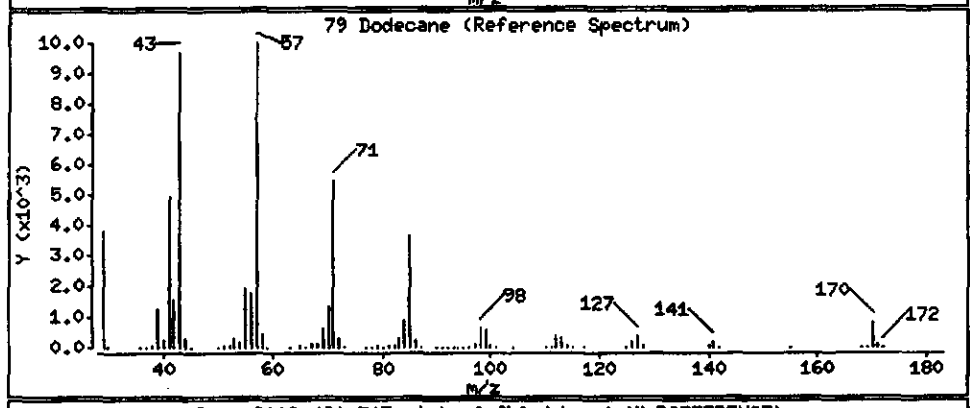
Column diameter: 0.32

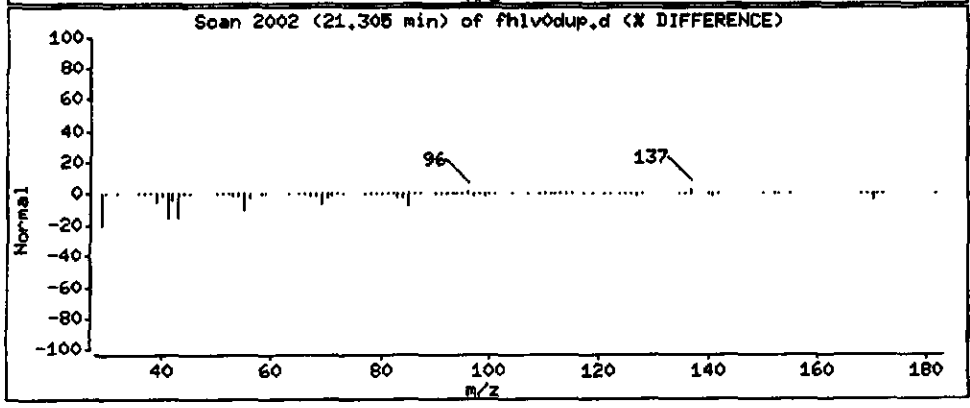
79 Dodecane

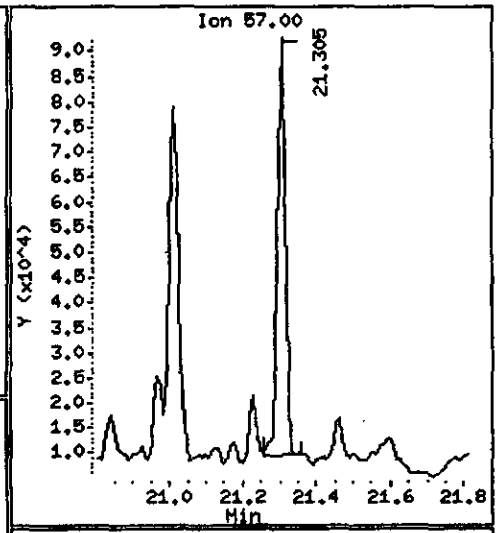
Concentration: 1.249 ppb(v/v)

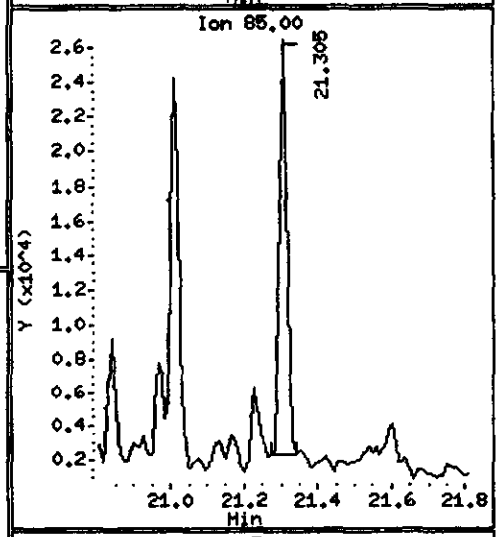


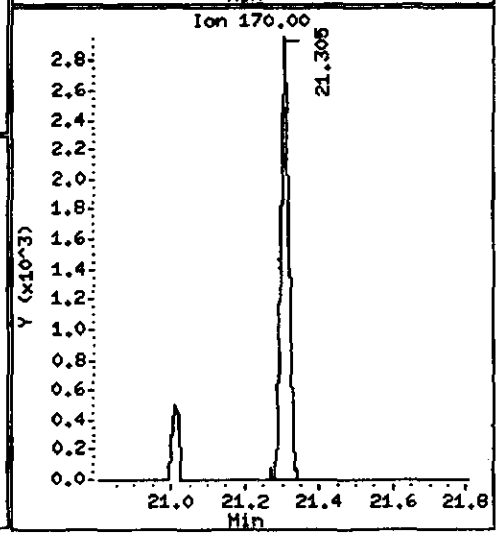












Data File: /var/chem/gcms/mt.i/T021703.b/fhlv0dup.d
Report Date: 18-Feb-2003 12:05

STL Knoxville

Modified Method TO-14

Data file : /var/chem/gcms/mt.i/T021703.b/fhlv0dup.d
Lab Smp Id: FHLV01AC Client Smp ID: J00208 DUP
Inj Date : 18-FEB-2003 03:25
Operator : 0691 Inst ID: mt.i
Smp Info : FHLV01AC,1.74,0,,
Misc Info : T021703,LA,AllNoJs.sub,,500ML DUP
Comment :
Method : /var/chem/gcms/mt.i/T021703.b/LA.m
Meth Date : 18-Feb-2003 11:50 jarmanc Quant Type: ISTD
Cal Date : 17-FEB-2003 09:09 Cal File: md0217.d
Als bottle: 8 QC Sample: SAMPLE DUPLICATE
Dil Factor: 1.74000
Integrator: HP RTE Compound Sublist: AllNoJs.sub
Target Version: 3.50
Processing Host: qmidhp01

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

ISTD	RT	HEIGHT	AMOUNT
* 1 Bromochloromethane	9.757	1416660	10.000
* 3 Chlorobenzene-d5	16.429	3185977	10.000

		CONCENTRATIONS			QUANT		
RT	HEIGHT	ON-COL(ppb(v/v))	FINAL(ppb(v/v))	QUAL	LIBRARY	LIB ENTRY	CPND #
Acetaldehyde				CAS #: 75-07-0			
4.630	296621	2.09380515	3.643	83	NBS75K.l	62264	1
Ethyne, fluoro-				CAS #: 2713-09-9			
6.764	468840	3.30947440	5.758	3	NBS75K.l	~~38~~	1 air
Heptane, 2-methyl-				CAS #: 592-27-8			
14.321	323075	1.01405315	1.764	72	NBS75K.l	64218	3
Cyclohexane, 1,1,3-trimethyl-				CAS #: 3073-66-3			
16.238	494511	1.55214868	2.701	97	NBS75K.l	4647	3

Data File: /var/chem/gcms/mt.i/T021703.b/fhlv0dup.d
Report Date: 18-Feb-2003 12:05

RT	HEIGHT	CONCENTRATIONS ON-COL(ppb(v/v))	FINAL(ppb(v/v))	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
2-Octene, 2,6-dimethyl-				CAS #: 4057-42-5			
18.633	536233	1.68310380	2.929	72	NBS75K.l	7538	3
Nonane, 3-methylene-				CAS #: 51655-64-2			
18.789	375648	1.17906689	2.052	64	NBS75K.l	7591	3
1-Decene				CAS #: 872-05-9			
18.850	343747	1.07893748	1.877	80	NBS75K.l	66065	3
Heptane, 2,2,4,6,6-pentamethyl-				CAS #: 13475-82-6			
19.336	399078	1.25260791	2.180	50	NBS75K.l	15367	3
Platinum, bis[(1,2,5,6-.eta.)-1,5-cycloo				CAS #: 12130-66-4			
19.492	621201	1.94979750	3.393	59	NBS75K.l	54668	3
Nonane, 3-methyl-5-propyl-				CAS #: 31081-18-2			
19.587	988547	3.10280645	5.399	64	NBS75K.l	19054	3
Cyclohexanone, 2,2,6-trimethyl-				CAS #: 2408-37-9			
19.717	678000	2.12807563	3.703	53	NBS75K.l	7496	3
Hexane, 2,2,5-trimethyl-				CAS #: 3522-94-9			
19.839	646331	2.02867441	3.530	72	NBS75K.l	65129	3
5-Undecene				CAS #: 4941-53-1			
19.900	532278	1.67069003	2.907	64	NBS75K.l	11084	3
Cyclohexane, 2,4-diethyl-1-methyl-				CAS #: 61142-70-9			
20.290	323297	1.01474995	1.766	64	NBS75K.l	11072	3
Naphthalene, decahydro-2-methyl-				CAS #: 2958-76-1			
20.758	331937	1.04186879	1.813	83	NBS75K.l	67009	3
Naphthalene, decahydro-2-methyl-				CAS #: 2958-76-1			
20.975	385050	1.20857746	2.103	89	NBS75K.l	67009	3
Naphthalene, decahydro-2,6-dimethyl-				CAS #: 1618-22-0			
21.539	360251	1.13073949	1.967	93	NBS75K.l	14151	3
Diphenyl ether				CAS #: 101-84-8			
23.908	498291	1.56401317	2.721	95	NBS75K.l	68248	3

Data File: /var/chem/gcms/mt.i/T021703.b/fhlv0dup.d

Date : 18-FEB-2003 03:25

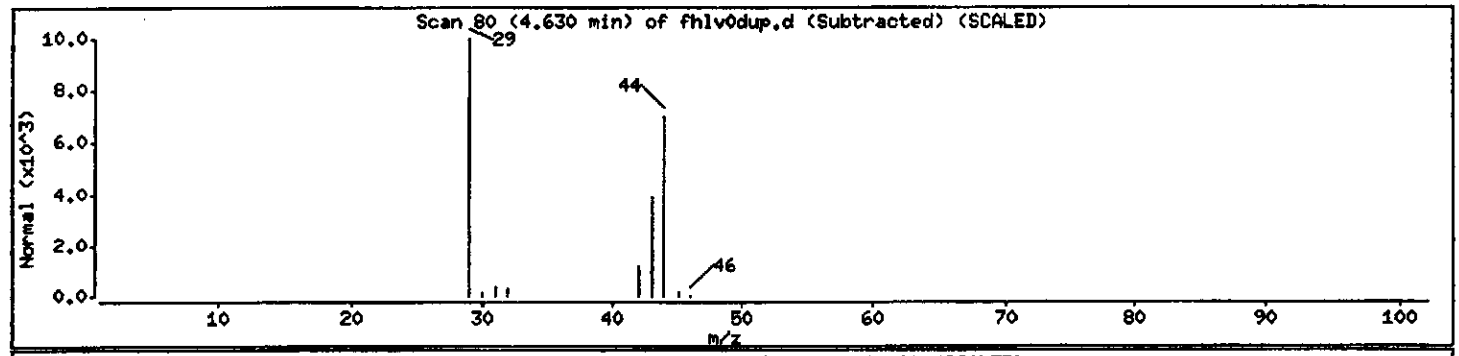
Client ID: J00208 DUP | Instrument: mt.i

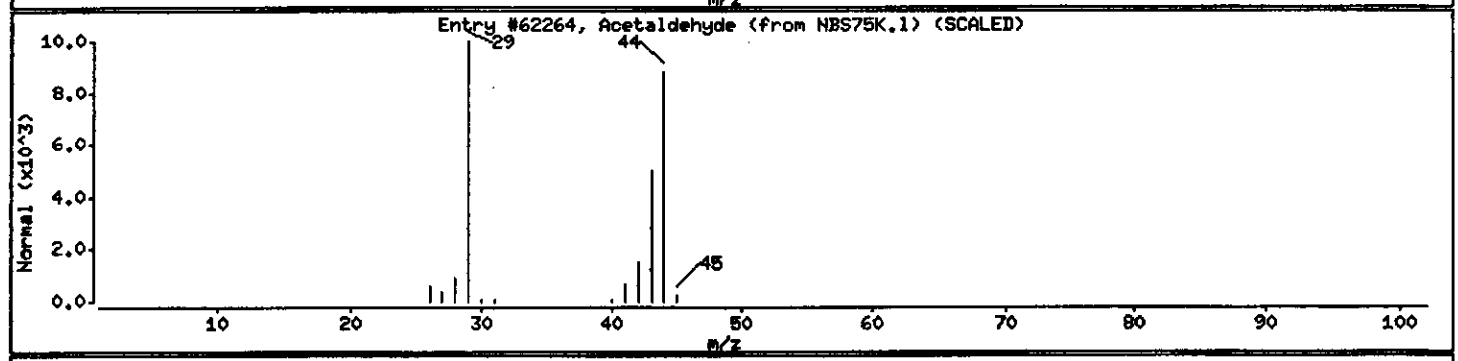
Sample Info: FHLV01AC,1.74,0,,

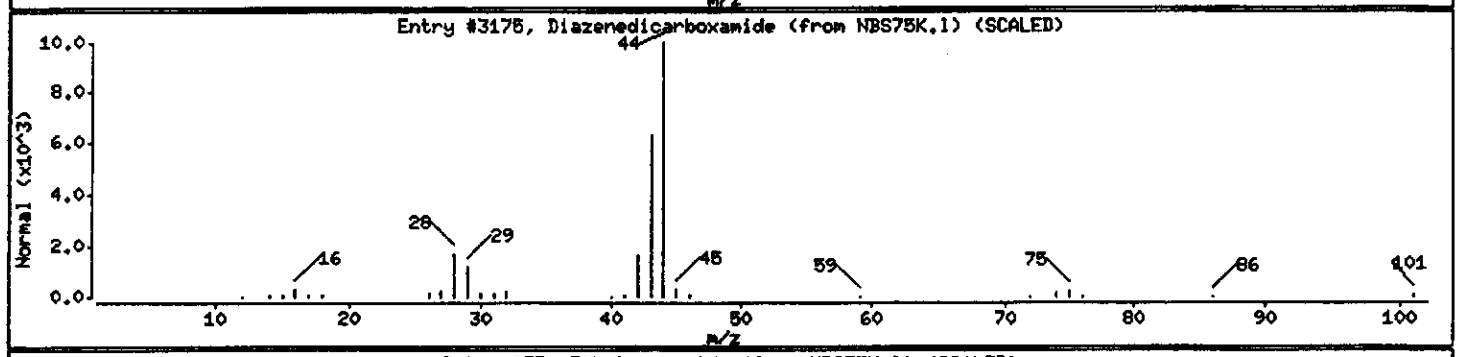
Volume Injected (uL): 500.0 | Operator: 0691

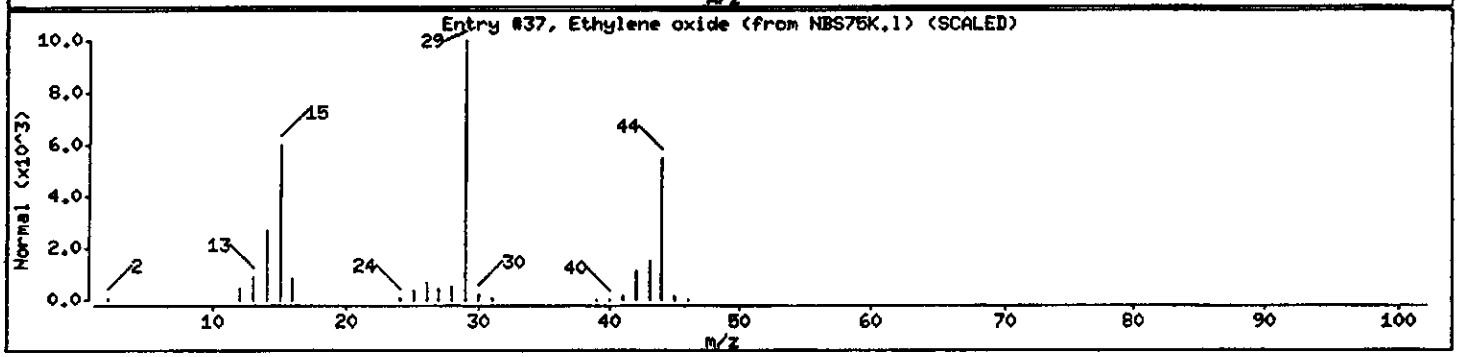
Column phase: DB-5 | Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Acetaldehyde	75-07-0	NBS75K.1	62264	83	C2H4O	44
Diazenedicarboxamide	123-77-3	NBS75K.1	3175	17	C2H4N4O2	116
Ethylene oxide	75-21-8	NBS75K.1	37	9	C2H4O	44









Data File: /var/chem/gcms/mt.i/T021703.b/fhlv0dup.d

Date : 18-FEB-2003 03:25

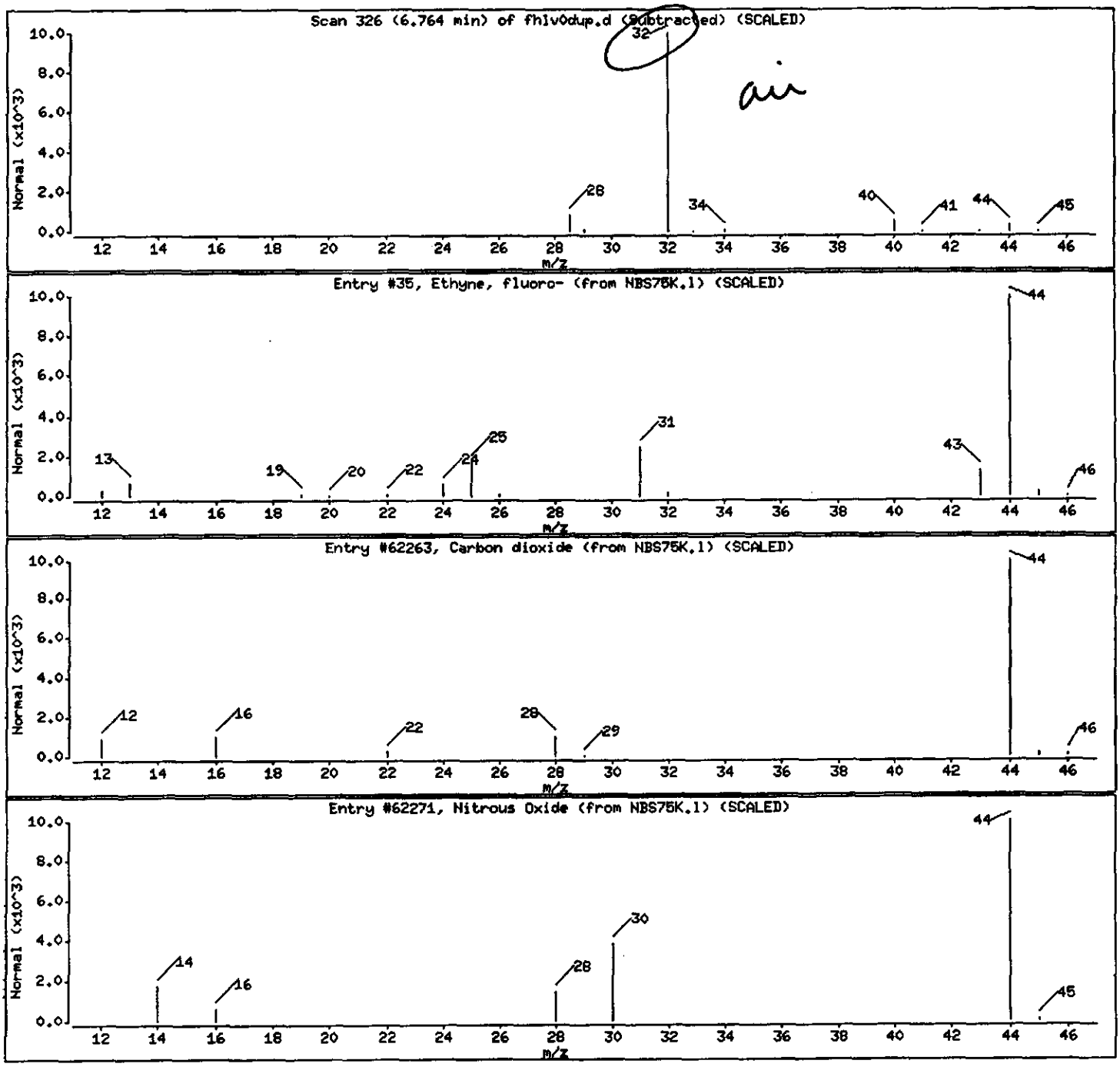
Client ID: J00208 DUP | Instrument: mt.i

Sample Info: FHLV01AC,1,74,0,,

Volume Injected (uL): 500.0 | Operator: 0691

Column phase: DB-5 | Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Ethyne, fluoro-	2713-09-9	NBS75K.1	35	3	C2HF	44
Carbon dioxide	124-38-9	NBS75K.1	62263	3	CO2	44
Nitrous Oxide	10024-97-2	NBS75K.1	62271	2	N2O	44



Data File: /var/chem/gcms/mt.i/T021703.b/fhlv0dup.d

Date : 18-FEB-2003 03:25

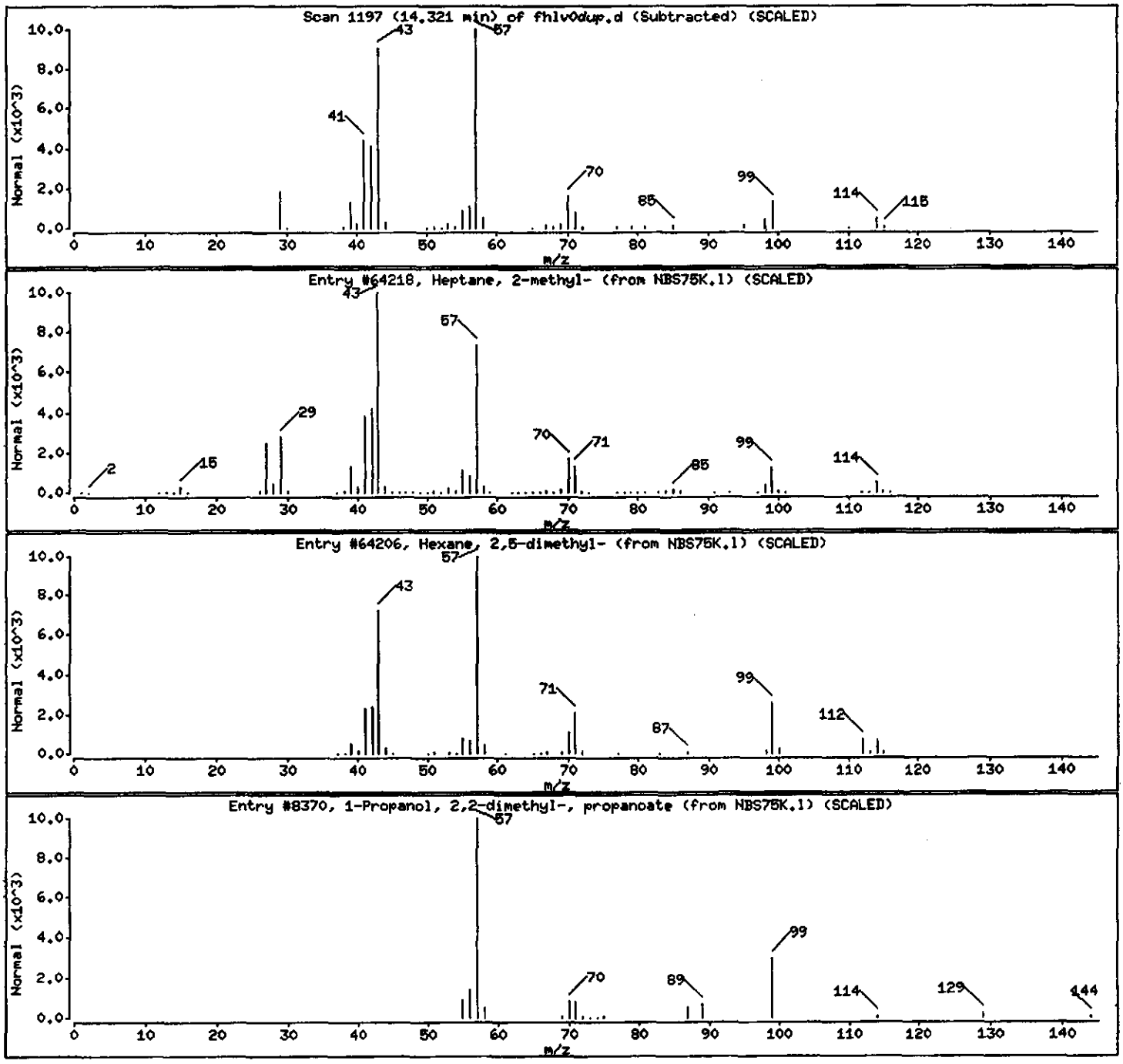
Client ID: J00208 DUP | Instrument: mt.i

Sample Info: FHLV01AC,1.74,0,,

Volume Injected (uL): 500.0 | Operator: 0691

Column phase: DB-5 | Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Heptane, 2-methyl-	592-27-8	NBS75K.l	64218	72	C8H18	114
Hexane, 2,5-dimethyl-	592-13-2	NBS75K.l	64206	59	C8H18	114
1-Propanol, 2,2-dimethyl-, propanoate	3581-69-9	NBS75K.l	8370	42	C8H16O2	144



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Date : 18-FEB-2003 03:25

Client ID: J00208 DUP

Instrument: mt.i

Sample Info: FHLV01AC,1.74,0,,

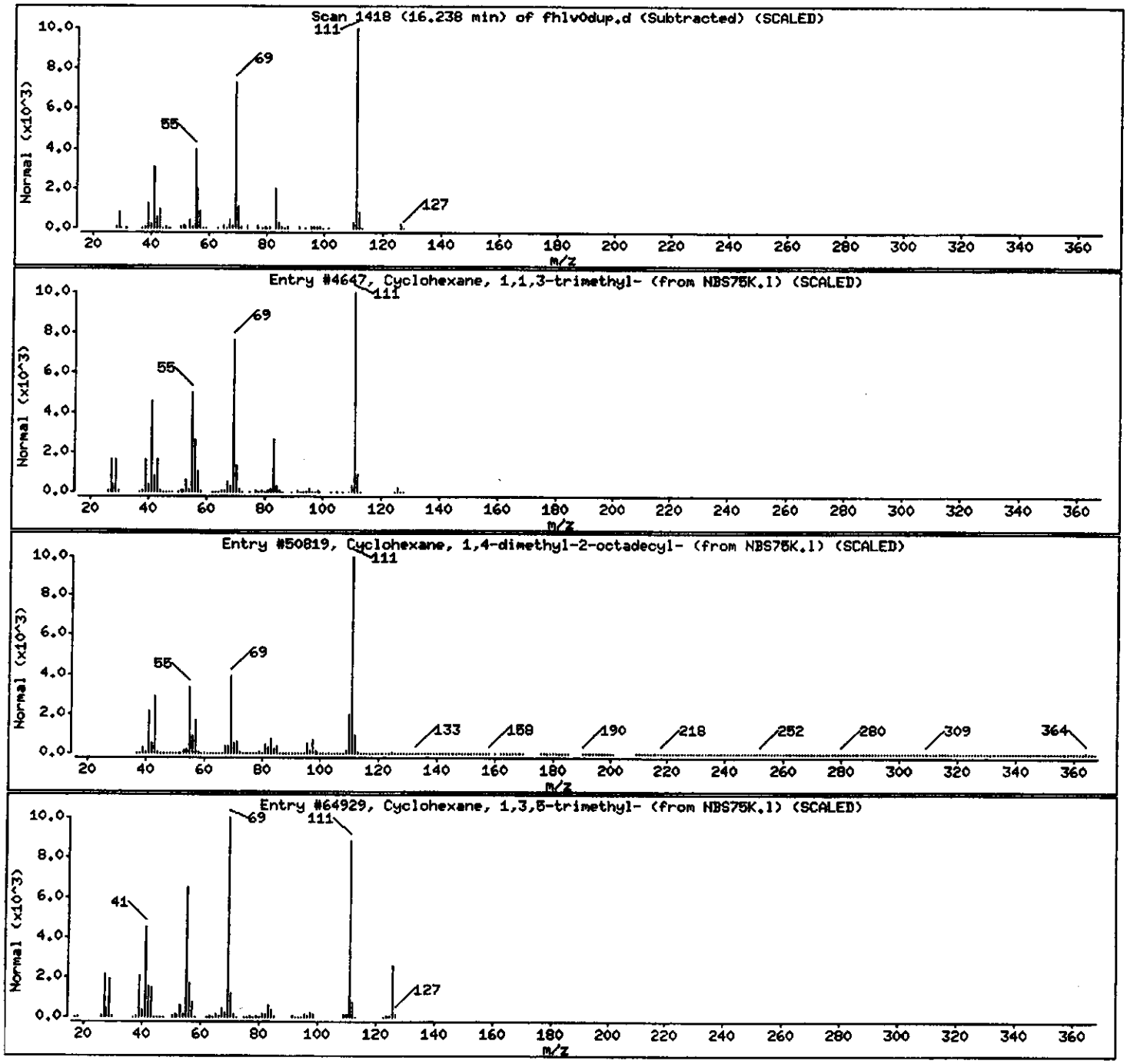
Volume Injected (uL): 500.0

Operator: 0691

Column phase: DB-5

Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclohexane, 1,1,3-trimethyl-	3073-66-3	NBS75K.l	4647	97	C9H18	126
Cyclohexane, 1,4-dimethyl-2-octadecyl-	55282-02-5	NBS75K.l	50819	50	C26H52	364
Cyclohexane, 1,3,5-trimethyl-	1839-63-0	NBS75K.l	64929	45	C9H18	126



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Date : 18-FEB-2003 03:25

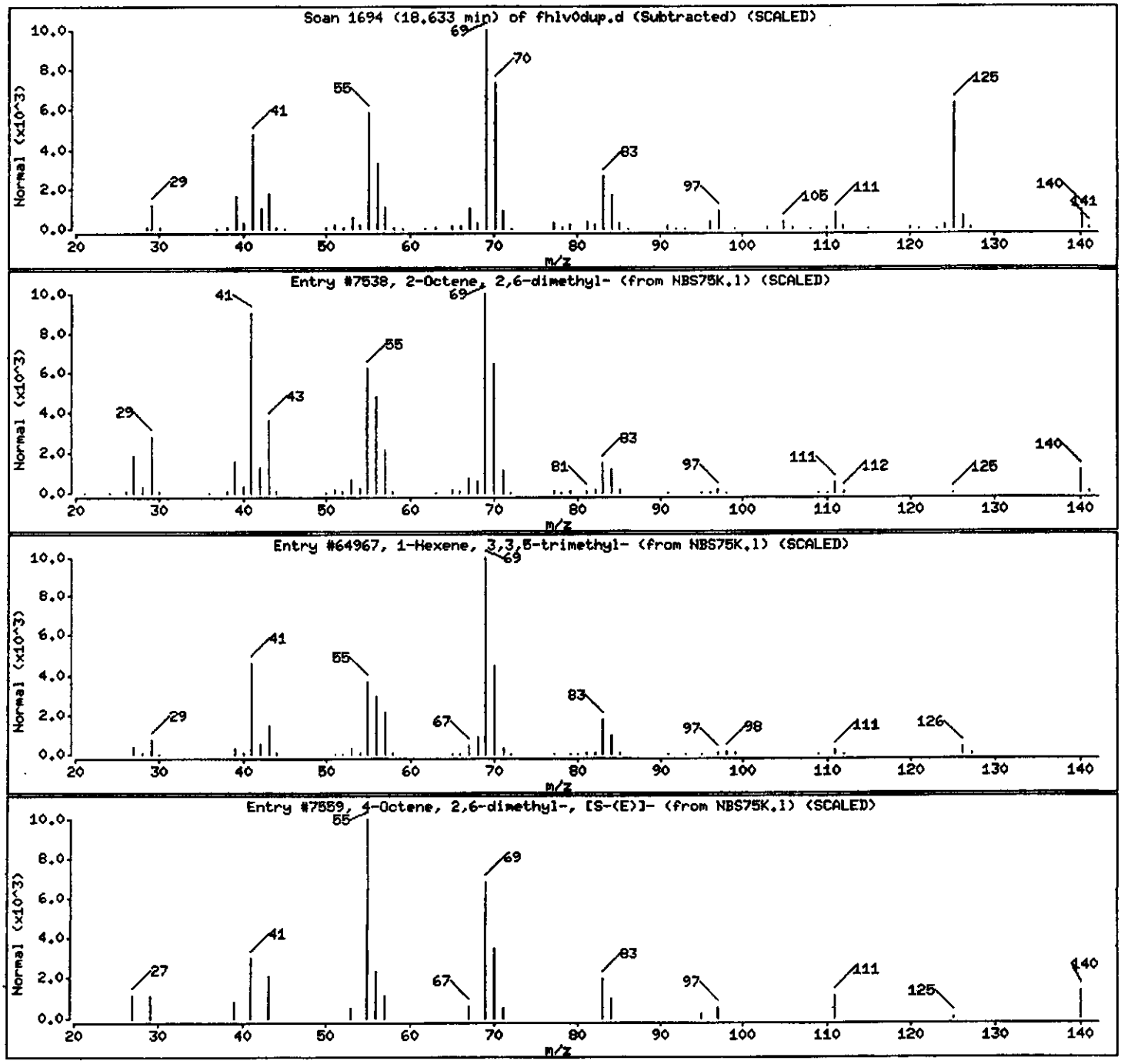
Client ID: J00208 DUP | Instrument: mt.i

Sample Info: FHLV01AC,1.74,0,,

Volume Injected (uL): 500.0 | Operator: 0691

Column phase: DB-5 | Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
2-Octene, 2,6-dimethyl-	4057-42-5	NBS75K.I	7538	72	C10H20	140
1-Hexene, 3,3,5-trimethyl-	13427-43-5	NBS75K.I	64967	50	C9H18	126
4-Octene, 2,6-dimethyl-, [S-(E)]-	62960-76-3	NBS75K.I	7559	47	C10H20	140



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Date : 18-FEB-2003 03:25

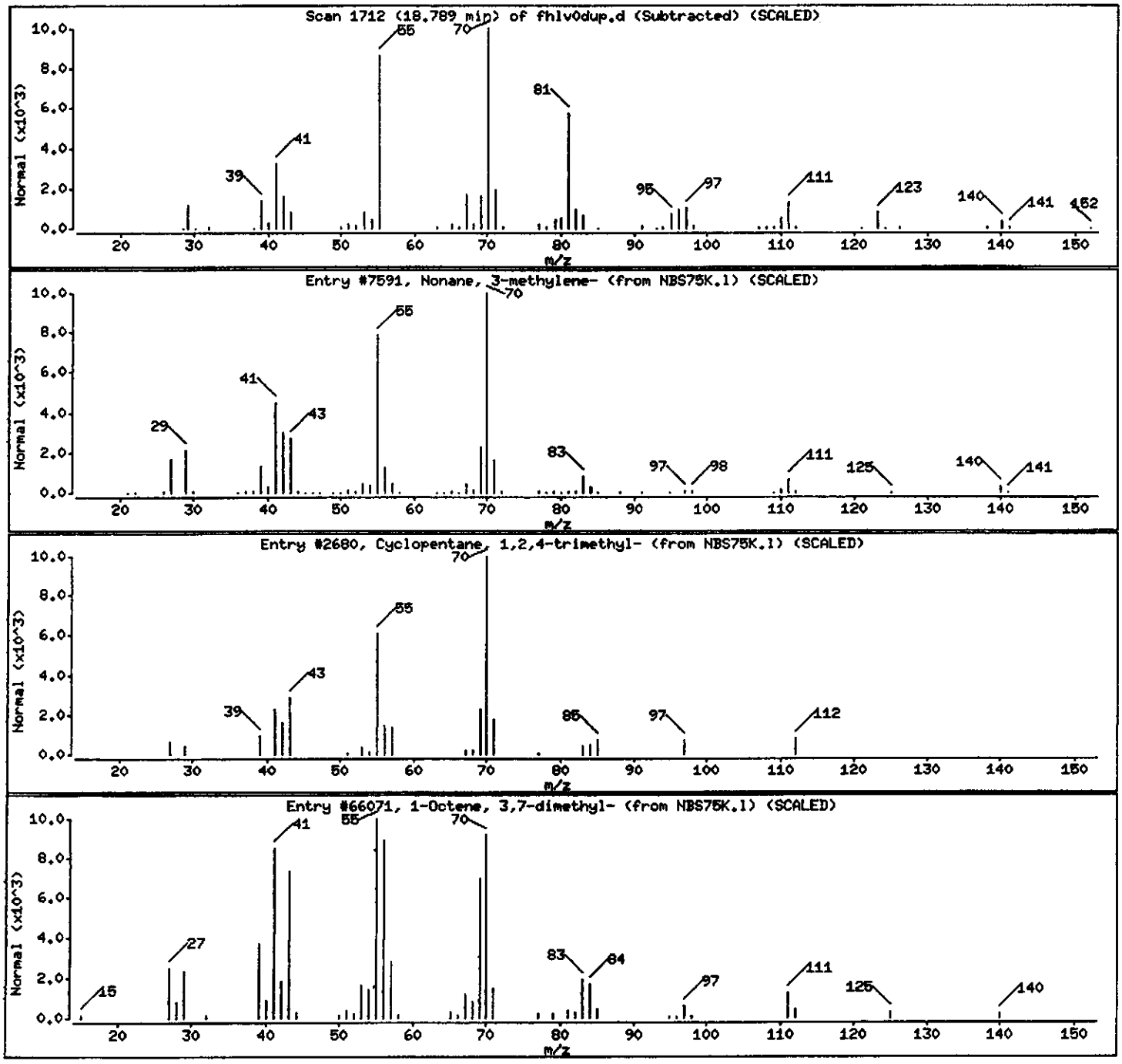
Client ID: J00208 DUP | Instrument: mt.i

Sample Info: FHLV01AC,1.74,0,,

Volume Injected (uL): 500.0 | Operator: 0691

Column phase: DB-5 | Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Nonane, 3-methylene-	51655-64-2	NBS75K.l	7591	64	C10H20	140
Cyclopentane, 1,2,4-trimethyl-	2815-58-9	NBS75K.l	2680	59	C8H16	112
1-Octene, 3,7-dimethyl-	4984-01-4	NBS75K.l	66071	56	C10H20	140



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Date : 18-FEB-2003 03:25

Client ID: J00208 DUP

Instrument: mt.i

Sample Info: FHLV01AC,1.74,0,,

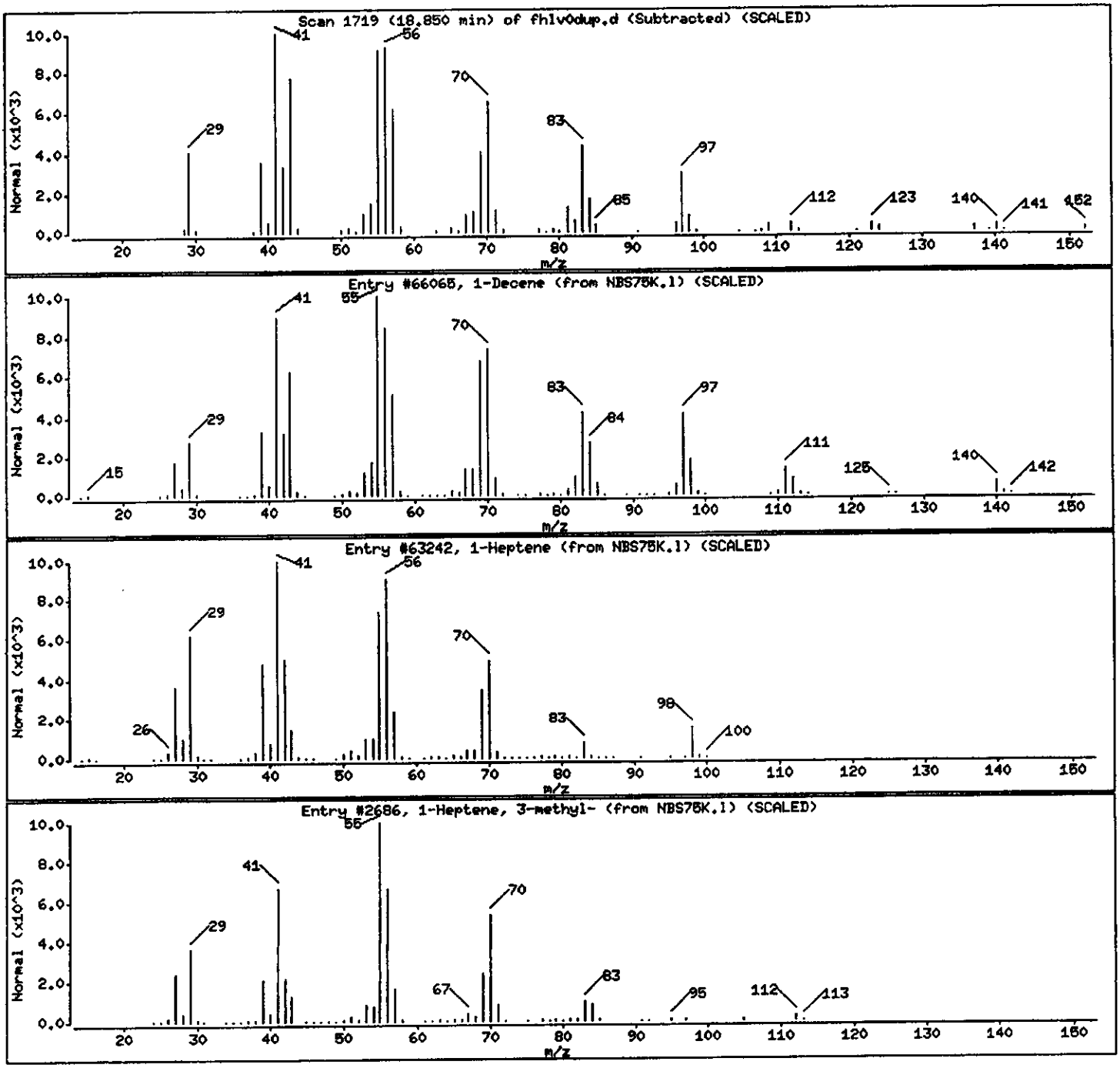
Volume Injected (uL): 500.0

Operator: 0691

Column phase: DB-5

Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Decene	872-05-9	NBS75K.l	66065	80	C10H20	140
1-Heptene	592-76-7	NBS75K.l	63242	64	C7H14	98
1-Heptene, 3-methyl-	4810-09-7	NBS75K.l	2686	64	C8H16	112



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Client ID: J00208 DUP

Instrument: mt.i

Sample Info: FHLV01AC,1.74,0,,

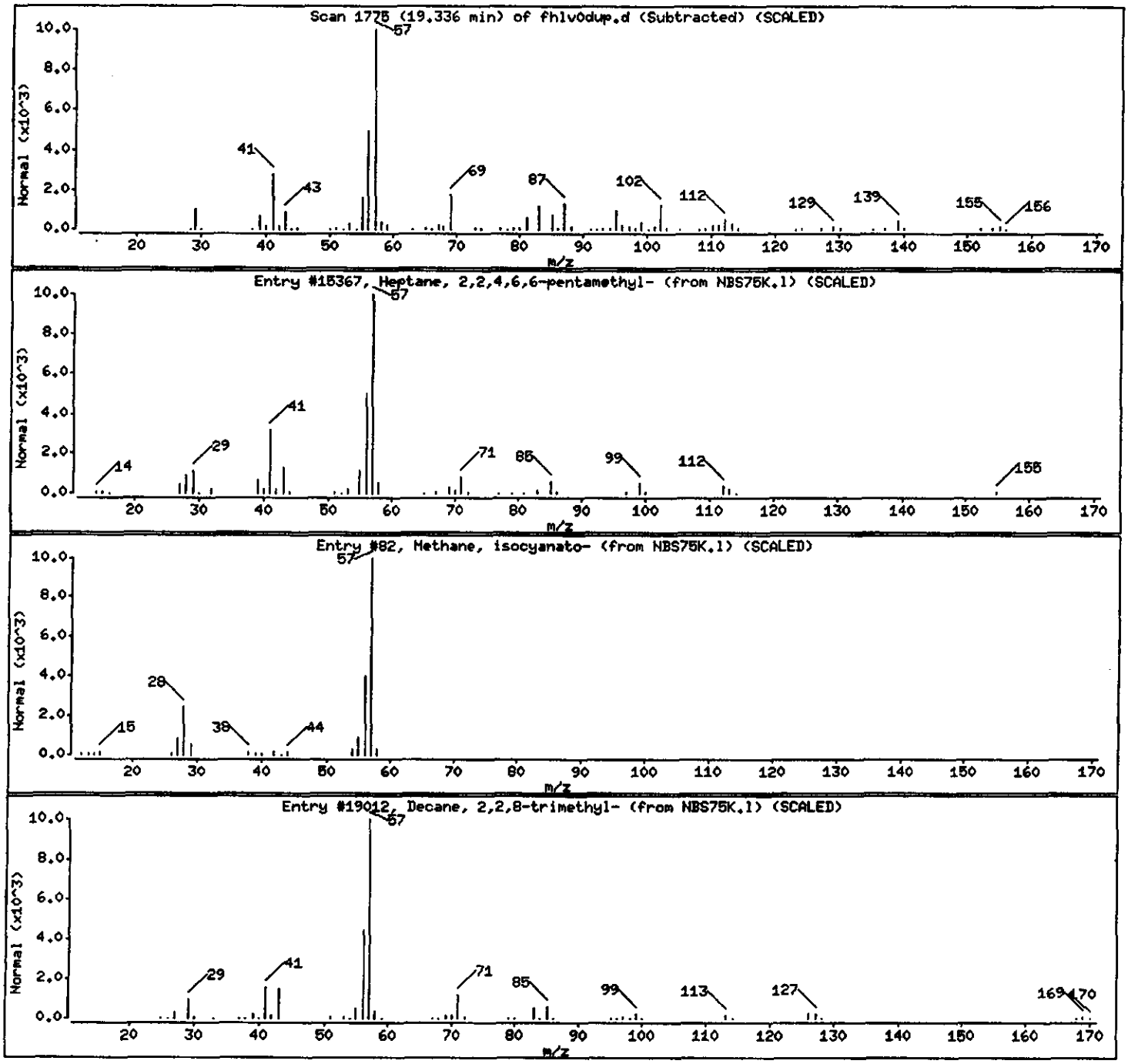
Volume Injected (uL): 500.0

Operator: 0691

Column phase: DB-5

Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Heptane, 2,2,4,6,6-pentamethyl-	13475-82-6	NBS75K.l	15367	50	C12H26	170
Methane, isocyanato-	624-83-9	NBS75K.l	82	38	C2H3NO	57
Decane, 2,2,8-trimethyl-	62238-01-1	NBS75K.l	19012	38	C13H28	184



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Date : 18-FEB-2003 03:25

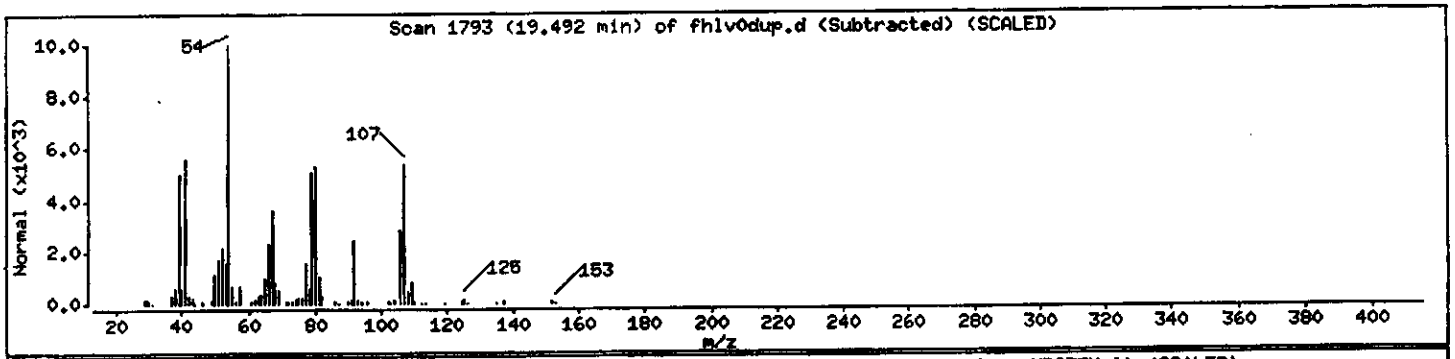
Client ID: J00208 DUP | Instrument: mt.i

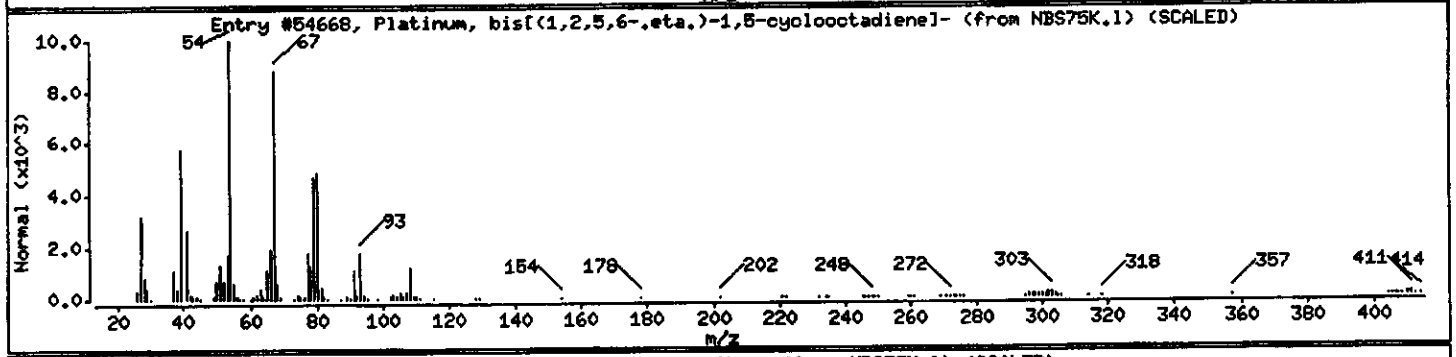
Sample Info: FHLV01AC,1.74,0,,

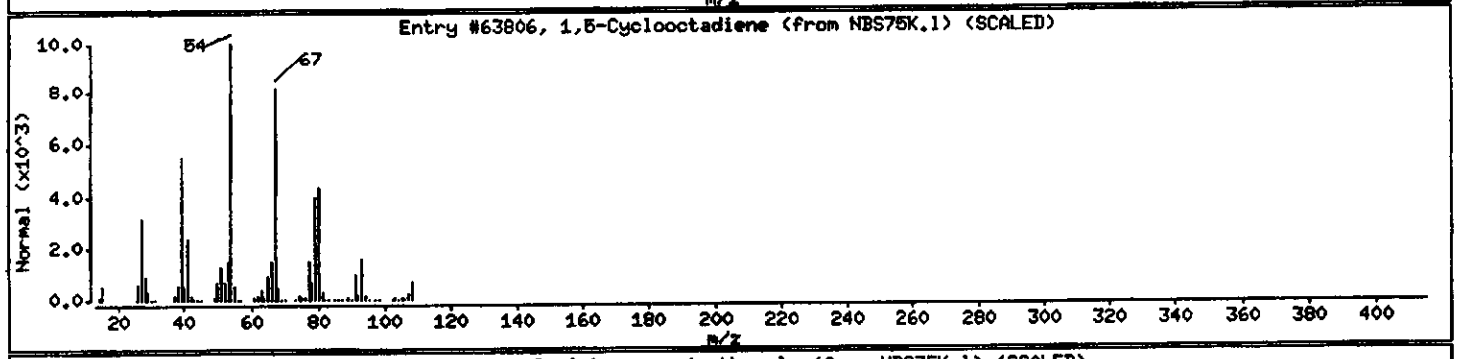
Volume Injected (uL): 500.0 | Operator: 0691

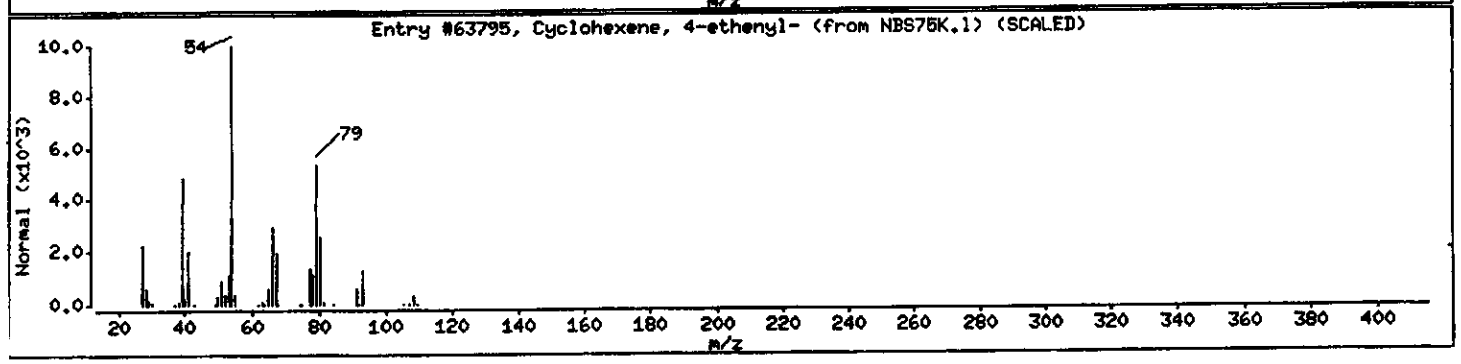
Column phase: DB-5 | Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Platinum, bis[(1,2,5,6-.eta.)-1,5-cycloo	12130-66-4	NBS75K.l	54668	59	C16H24Pt	411
1,5-Cyclooctadiene	111-78-4	NBS75K.l	63806	52	C8H12	108
Cyclohexene, 4-ethenyl-	100-40-3	NBS75K.l	63795	47	C8H12	108









Data File: /var/chem/gcms/mt.i/T021703.b/fhlv0dup.d

Date : 18-FEB-2003 03:25

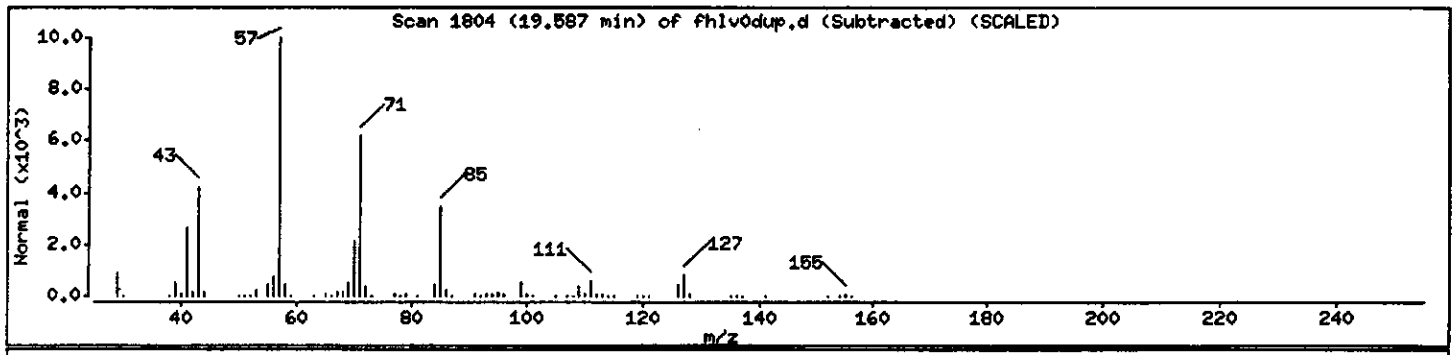
Client ID: J00208 DUP | Instrument: mt.i

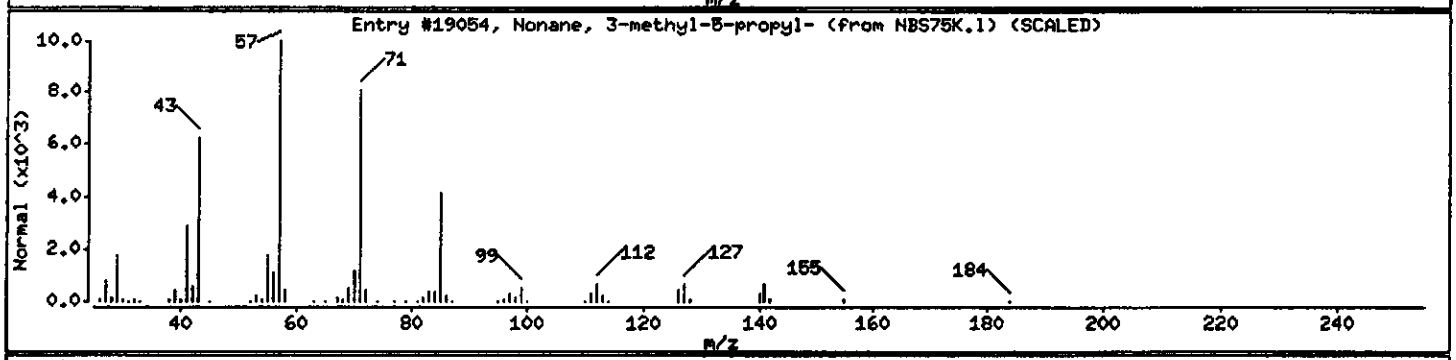
Sample Info: FHLV01AC,1.74,0,,

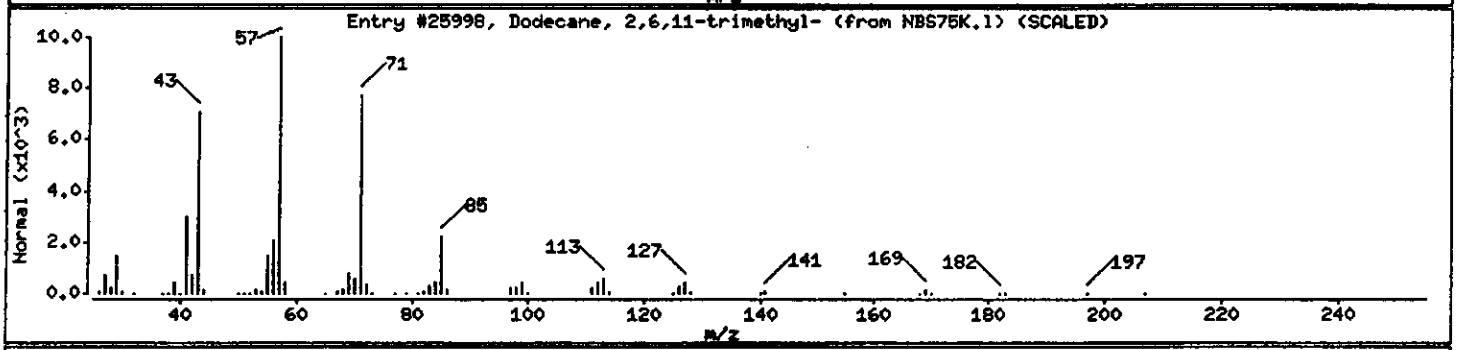
Volume Injected (uL): 500.0 | Operator: 0691

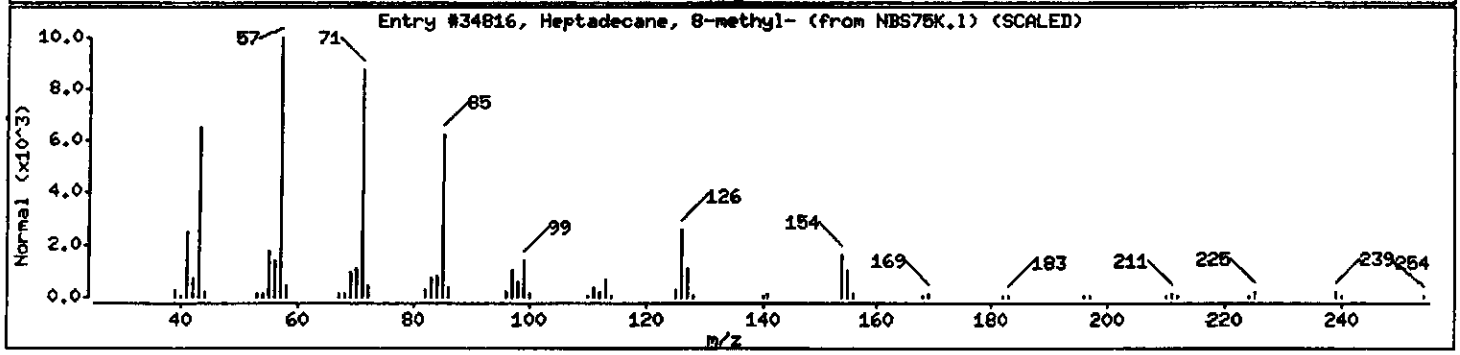
Column phase: DB-5 | Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Nonane, 3-methyl-5-propyl-	31081-18-2	NBS75K.l	19054	64	C13H28	184
Dodecane, 2,6,11-trimethyl-	31295-56-4	NBS75K.l	25998	59	C15H32	212
Heptadecane, 8-methyl-	13287-23-5	NBS75K.l	34816	59	C18H38	254









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Date : 18-FEB-2003 03:25

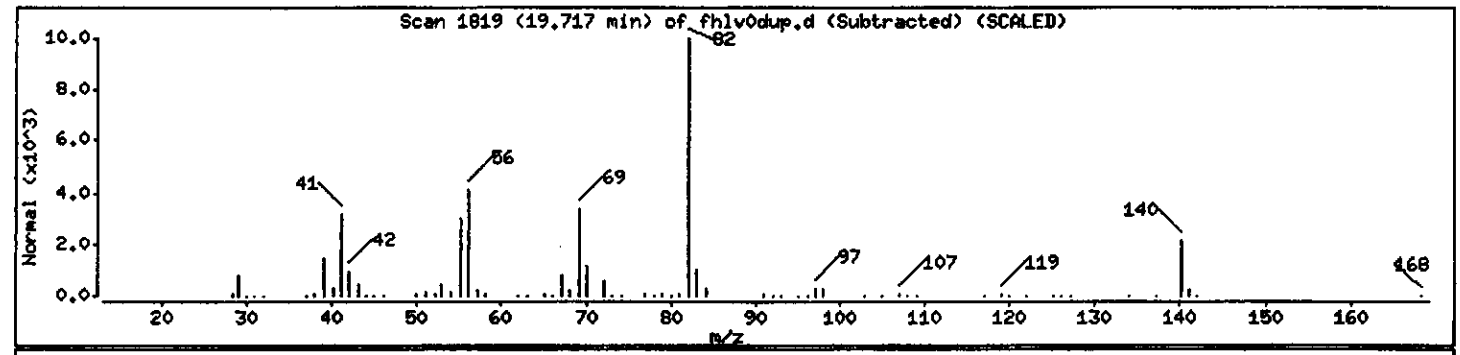
Client ID: J00208 DUP | Instrument: mt.i

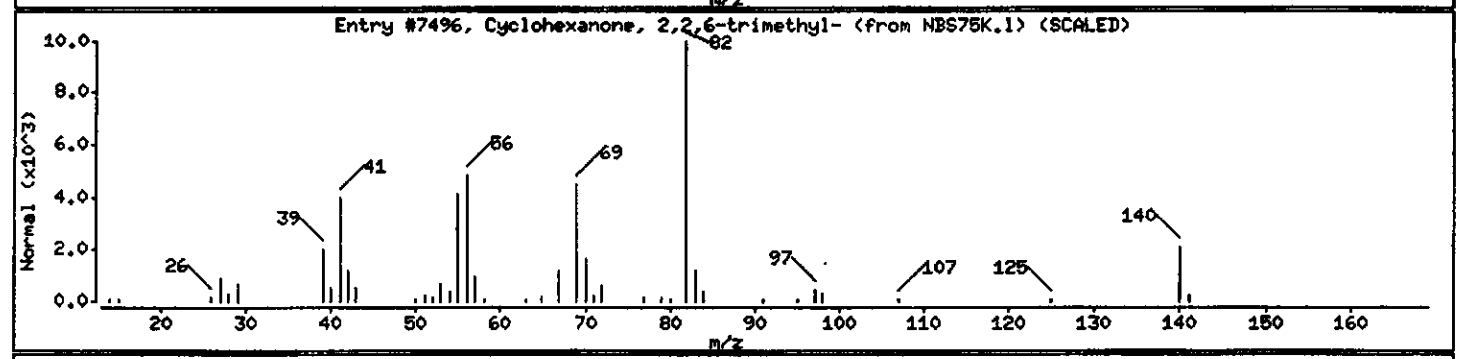
Sample Info: FHLV01AC,1.74,0,,

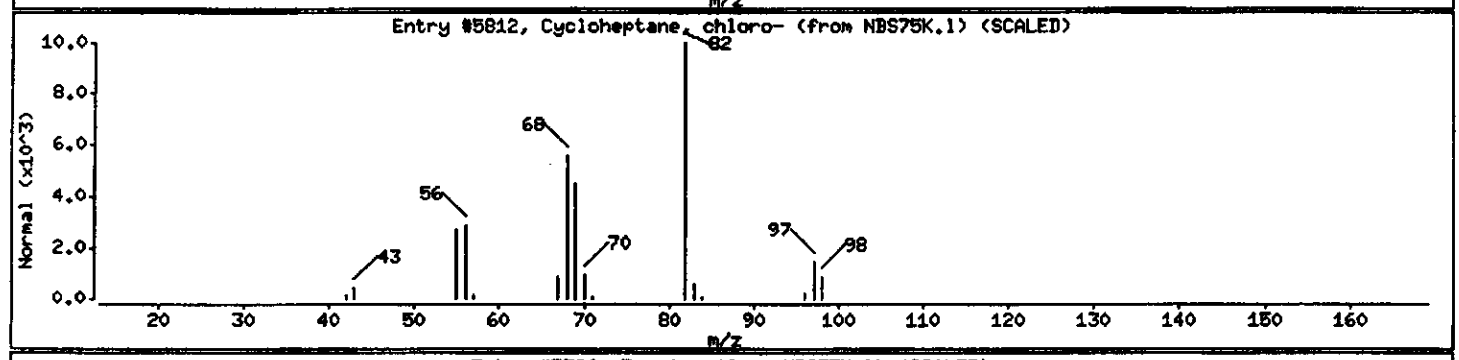
Volume Injected (uL): 500.0 | Operator: 0691

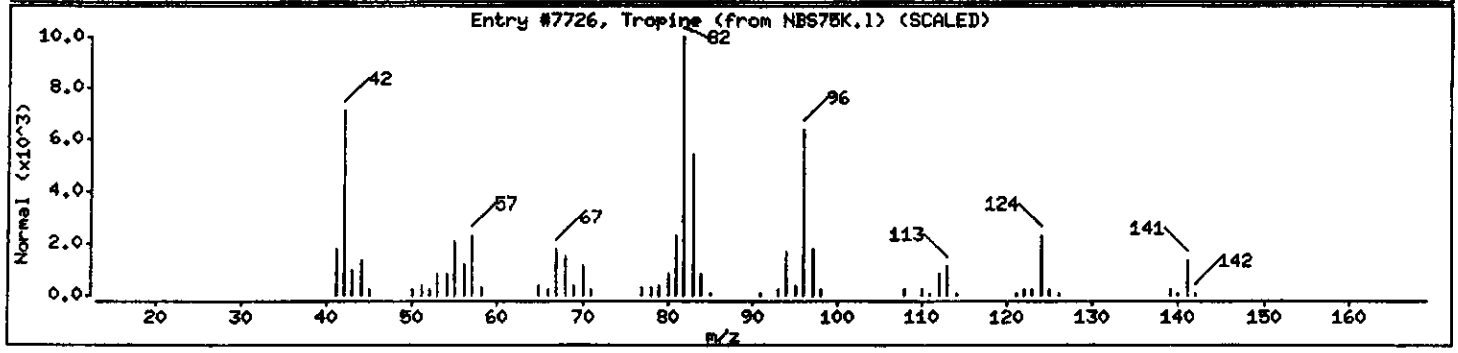
Column phase: DB-5 | Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclohexanone, 2,2,6-trimethyl-	2408-37-9	NBS75K.l	7496	53	C9H16O	140
Cycloheptane, chloro-	2453-46-5	NBS75K.l	5812	33	C7H13Cl	132
Tropine	120-29-6	NBS75K.l	7726	9	C8H15NO	141









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Date : 18-FEB-2003 03:25

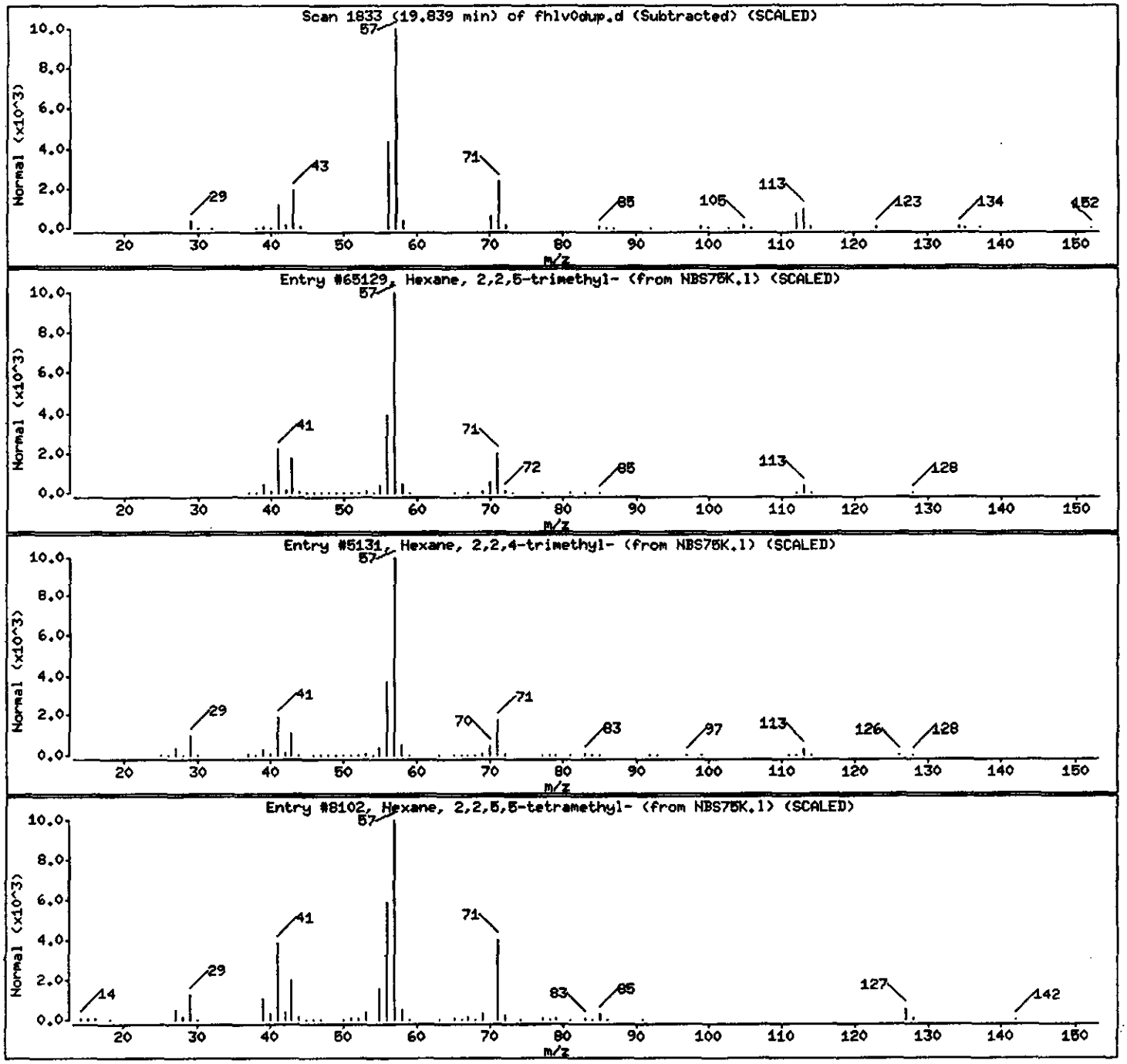
Client ID: J00208 DUP | Instrument: mt.i

Sample Info: FHLV01AC,1.74,0,,

Volume Injected (uL): 500.0 | Operator: 0691

Column phase: DB-5 | Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Hexane, 2,2,5-trimethyl-	3522-94-9	NBS75K.1	65129	72	C9H20	128
Hexane, 2,2,4-trimethyl-	16747-26-5	NBS75K.1	5131	56	C9H20	128
Hexane, 2,2,5,5-tetramethyl-	1071-81-4	NBS75K.1	8102	33	C10H22	142



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Date : 18-FEB-2003 03:25

Client ID: J00208 DUP

Instrument: mt.i

Sample Info: FHLV01AC,1.74,0,,

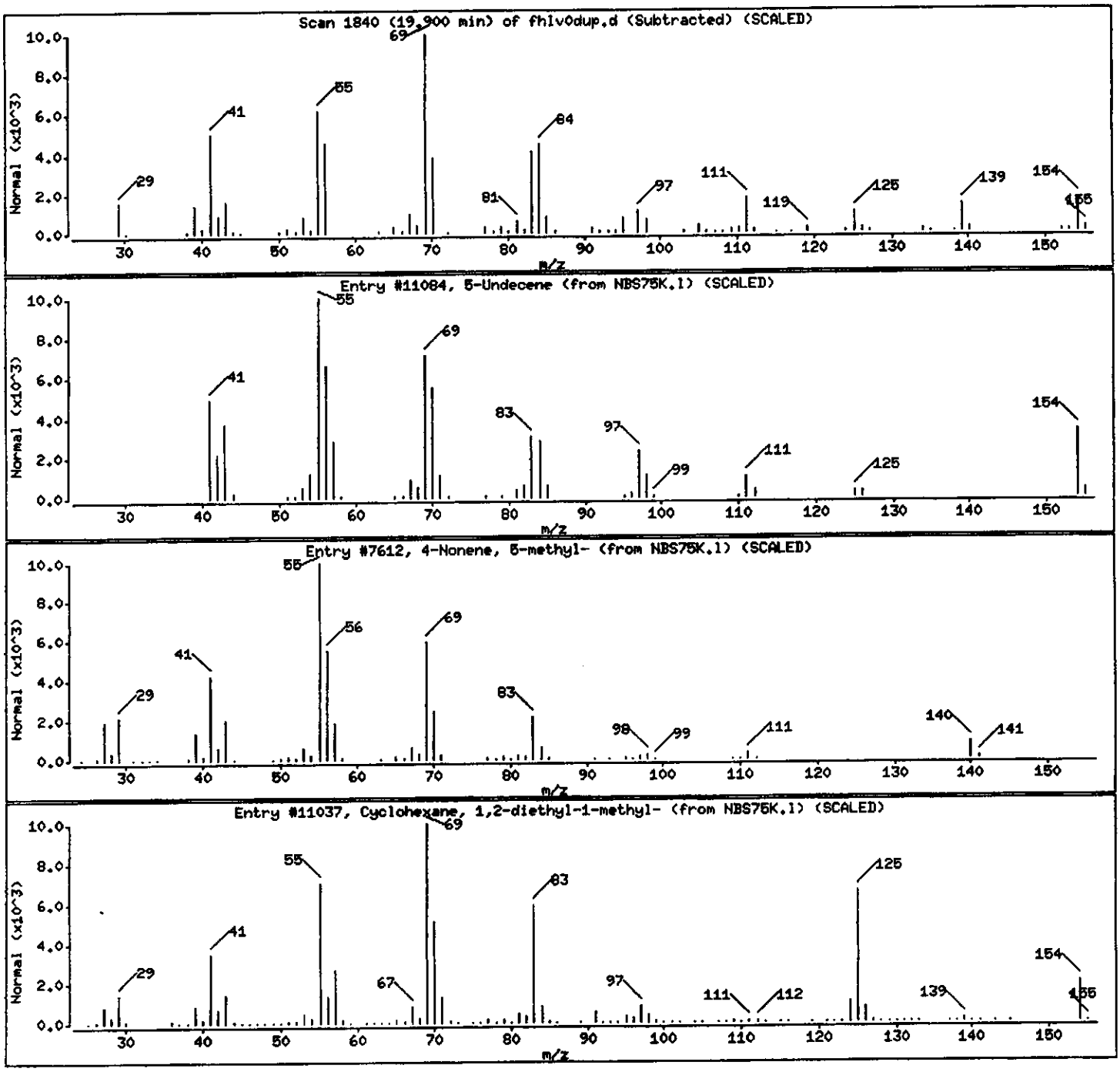
Volume Injected (uL): 500.0

Operator: 0691

Column phase: DB-5

Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
5-Undecene	4941-53-1	NBS75K.l	11084	64	C11H22	154
4-Nonene, 5-methyl-	15918-07-7	NBS75K.l	7612	59	C10H20	140
Cyclohexane, 1,2-diethyl-1-methyl-	61141-79-5	NBS75K.l	11037	52	C11H22	154



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Date : 18-FEB-2003 03:25

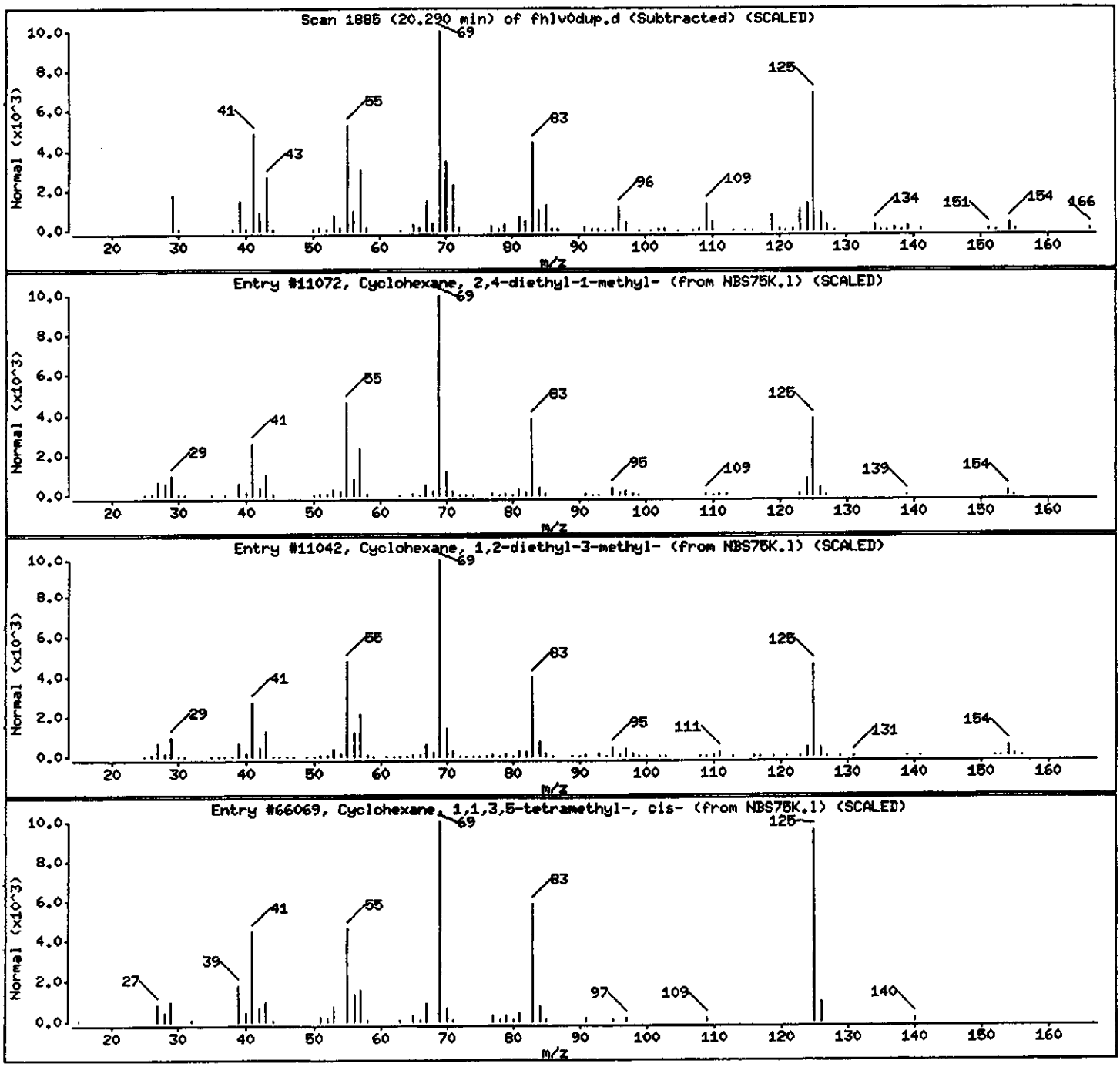
Client ID: J00208 DUP | Instrument: mt.i

Sample Info: FHLV01AC,1.74,0,,

Volume Injected (uL): 500.0 | Operator: 0691

Column phase: DB-5 | Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclohexane, 2,4-diethyl-1-methyl-	61142-70-9	NBS75K.1	11072	64	C11H22	154
Cyclohexane, 1,2-diethyl-3-methyl-	61141-80-8	NBS75K.1	11042	64	C11H22	154
Cyclohexane, 1,1,3,5-tetramethyl-, cis-	50876-32-9	NBS75K.1	66069	64	C10H20	140



Data File: /var/chem/gcms/mt.i/T021703.b/fhlv0dup.d

Date : 18-FEB-2003 03:25

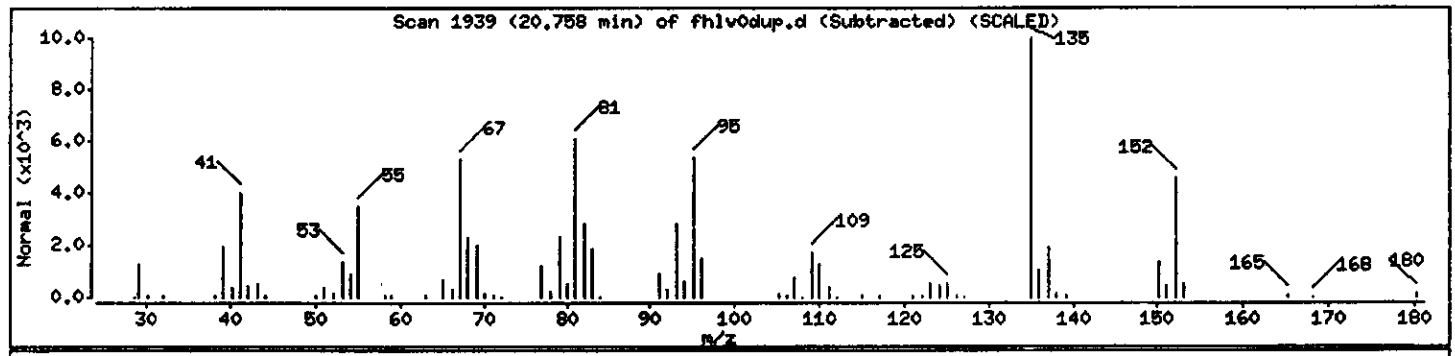
Client ID: J00208 DUP | Instrument: mt.i

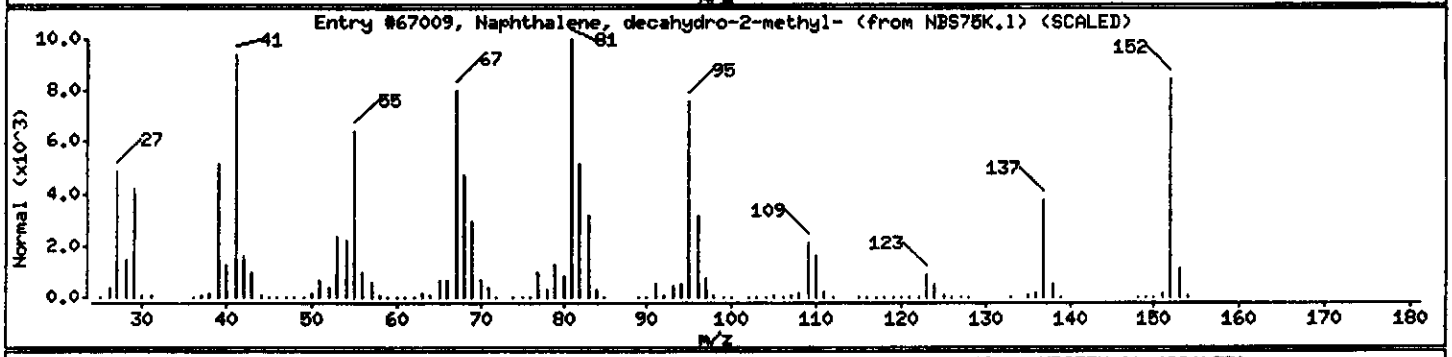
Sample Info: FHLV01AC,1.74,0,,

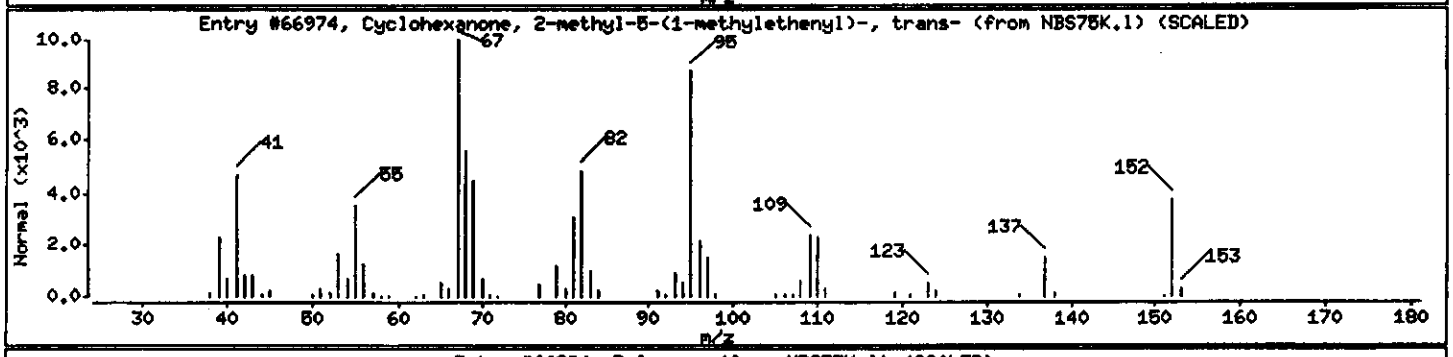
Volume Injected (uL): 500.0 | Operator: 0691

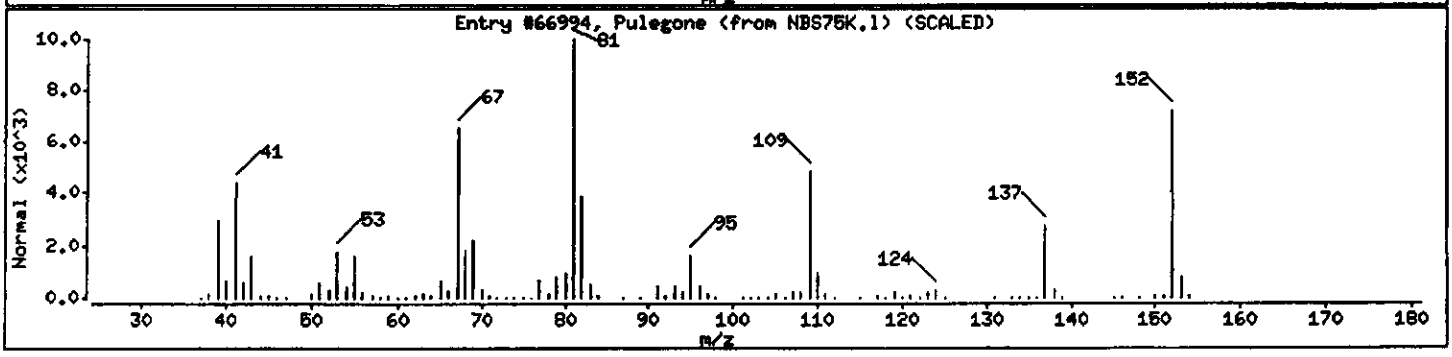
Column phase: DB-5 | Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Naphthalene, decahydro-2-methyl-	2958-76-1	NBS75K.l	67009	83	C11H20	152
Cyclohexanone, 2-methyl-5-(1-methylethen	5948-04-9	NBS75K.l	66974	60	C10H160	152
Pulegone	89-82-7	NBS75K.l	66994	42	C10H160	152









Data File: /var/chem/gcms/mt.i/T021703.b/fhlv0dup.d

Date : 18-FEB-2003 03:25

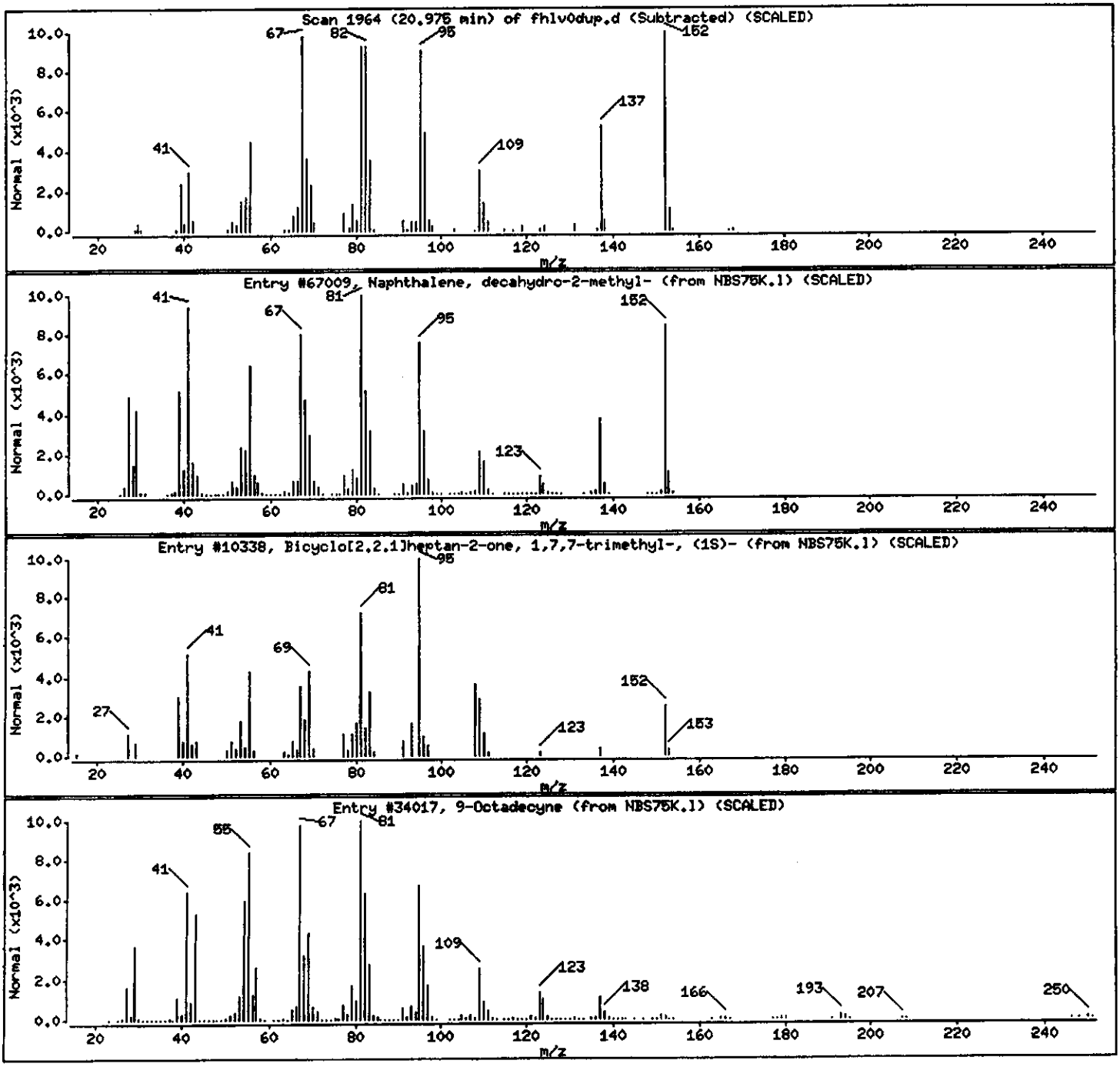
Client ID: J00208 DUP | Instrument: mt.i

Sample Info: FHLV01AC,1.74,0,,

Volume Injected (uL): 500.0 | Operator: 0691

Column phase: DB-5 | Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Naphthalene, decahydro-2-methyl-	2958-76-1	NBS75K.l	67009	89	C11H20	152
Bicyclo[2.2.1]heptan-2-one, 1,7,7-trimet	464-48-2	NBS75K.l	10338	62	C10H16O	152
9-Octadecyne	35365-59-4	NBS75K.l	34017	53	C18H34	250



Data File: /var/chem/gcms/mt.i/T021703.b/fhlv0dup.d

Date : 18-FEB-2003 03:25

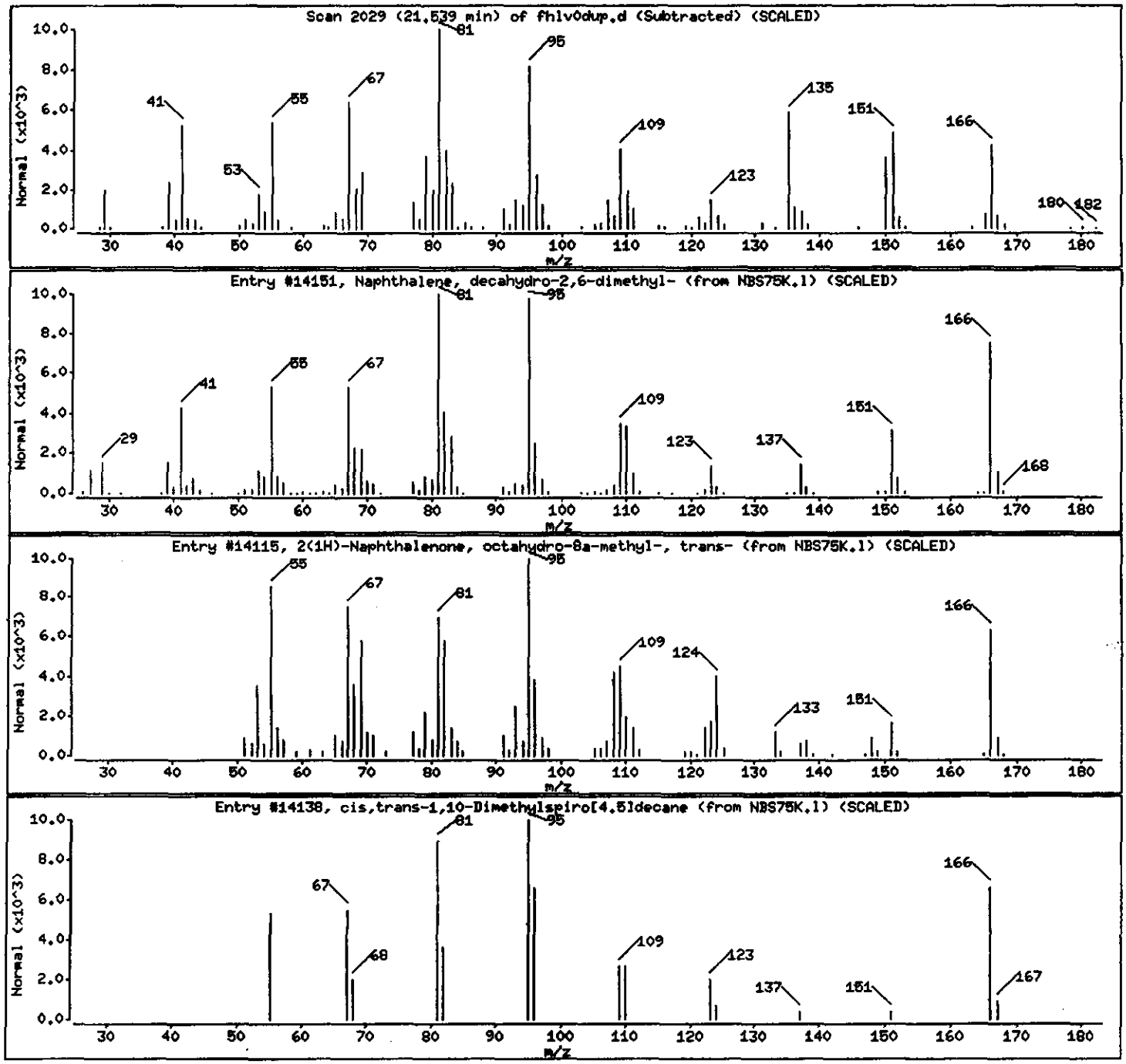
Client ID: J00208 DUP | Instrument: mt.i

Sample Info: FHLV01AC,1.74,0,,

Volume Injected (uL): 500.0 | Operator: 0691

Column phase: DB-5 | Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Naphthalene, decahydro-2,6-dimethyl-	1618-22-0	NBS75K.l	14151	93	C12H22	166
2(1H)-Naphthalenone, octahydro-8a-methyl	1197-95-1	NBS75K.l	14115	70	C11H18O	166
cis,trans-1,10-Dimethylspiro[4.5]decane	0-00-0	NBS75K.l	14138	64	C12H22	166



Data File: /var/chem/gcms/mt.i/T021703.b/fhlv0dup.d

Date : 18-FEB-2003 03:25

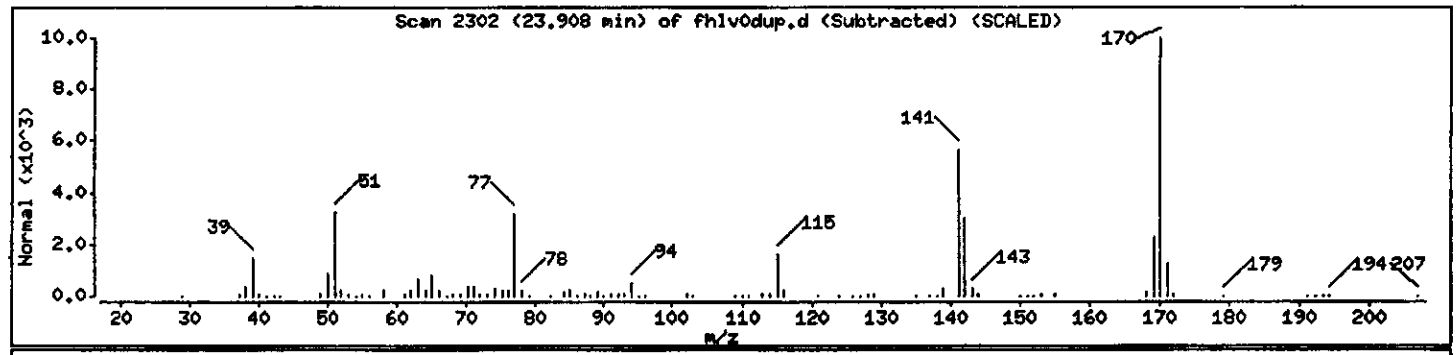
Client ID: J00208 DUP | Instrument: mt.i

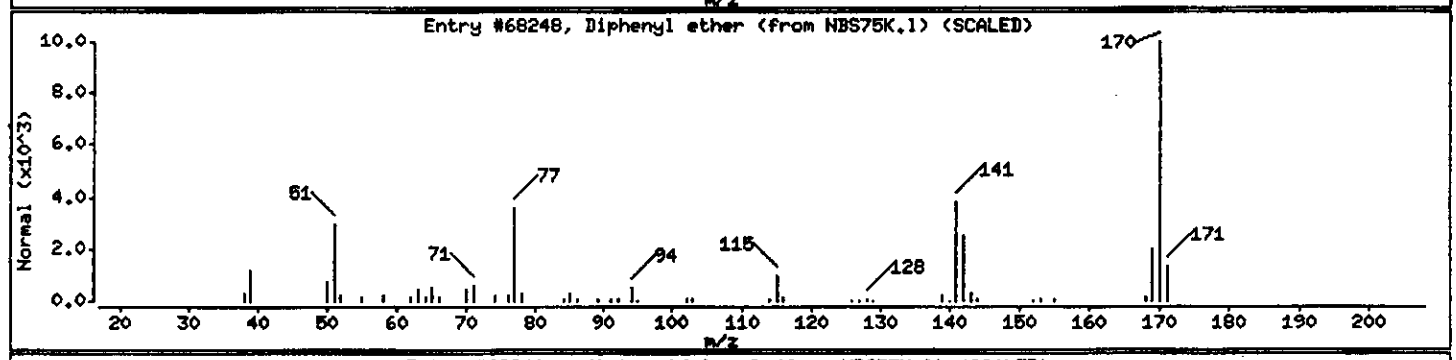
Sample Info: FHLV01AC,1.74,0,,

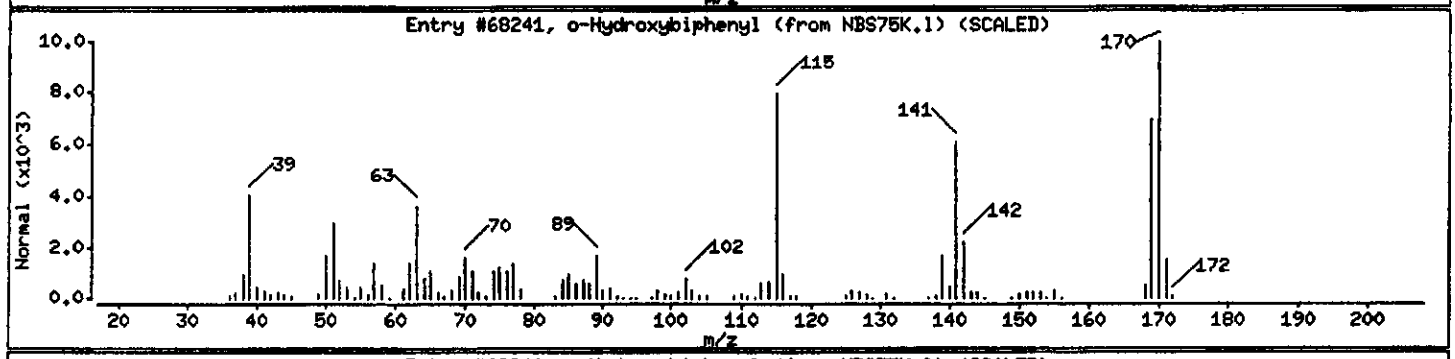
Volume Injected (uL): 500.0 | Operator: 0691

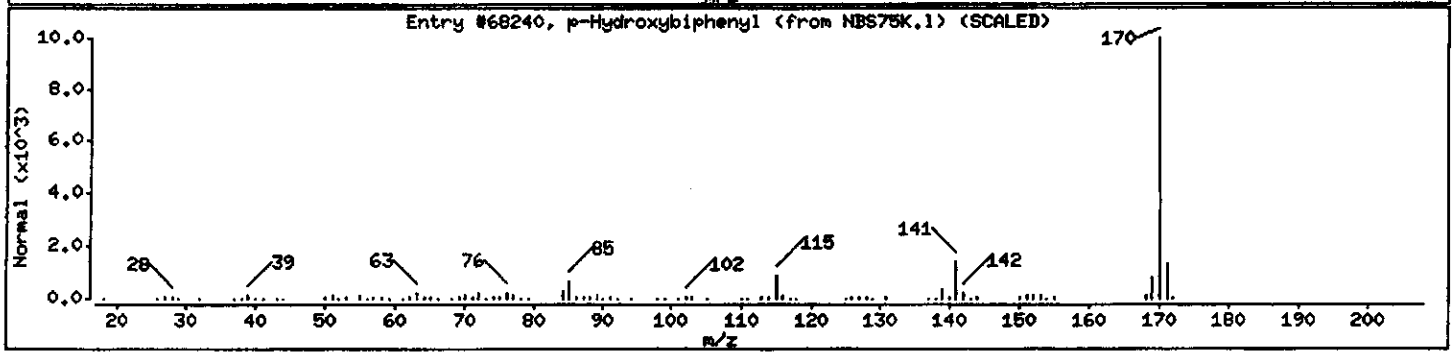
Column phase: DB-5 | Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Diphenyl ether	101-84-8	NBS75K.l	68248	95	C12H10O	170
o-Hydroxybiphenyl	90-43-7	NBS75K.l	68241	42	C12H10O	170
p-Hydroxybiphenyl	92-69-3	NBS75K.l	68240	38	C12H10O	170









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:	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. 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	NA
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?	✓				NA
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: cwf Preventive Maintenance Performed ✓

Date: 1/30/03 System Date/Time ok (y/n): Y Batch: ICAL cwf 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	✓	—

cwf 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: cwf 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

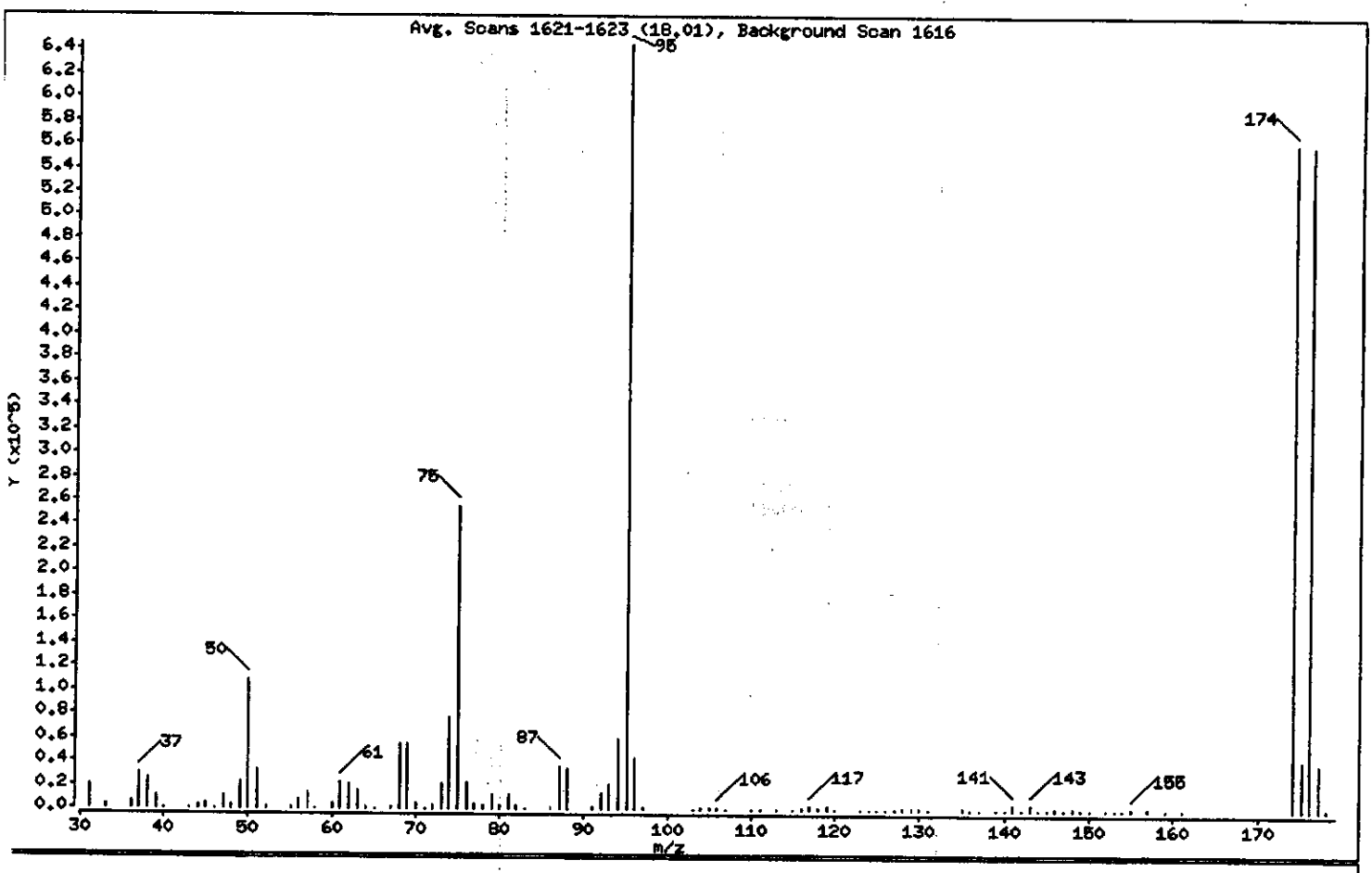
Sample Info: BFB,,3,,BFB,

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:

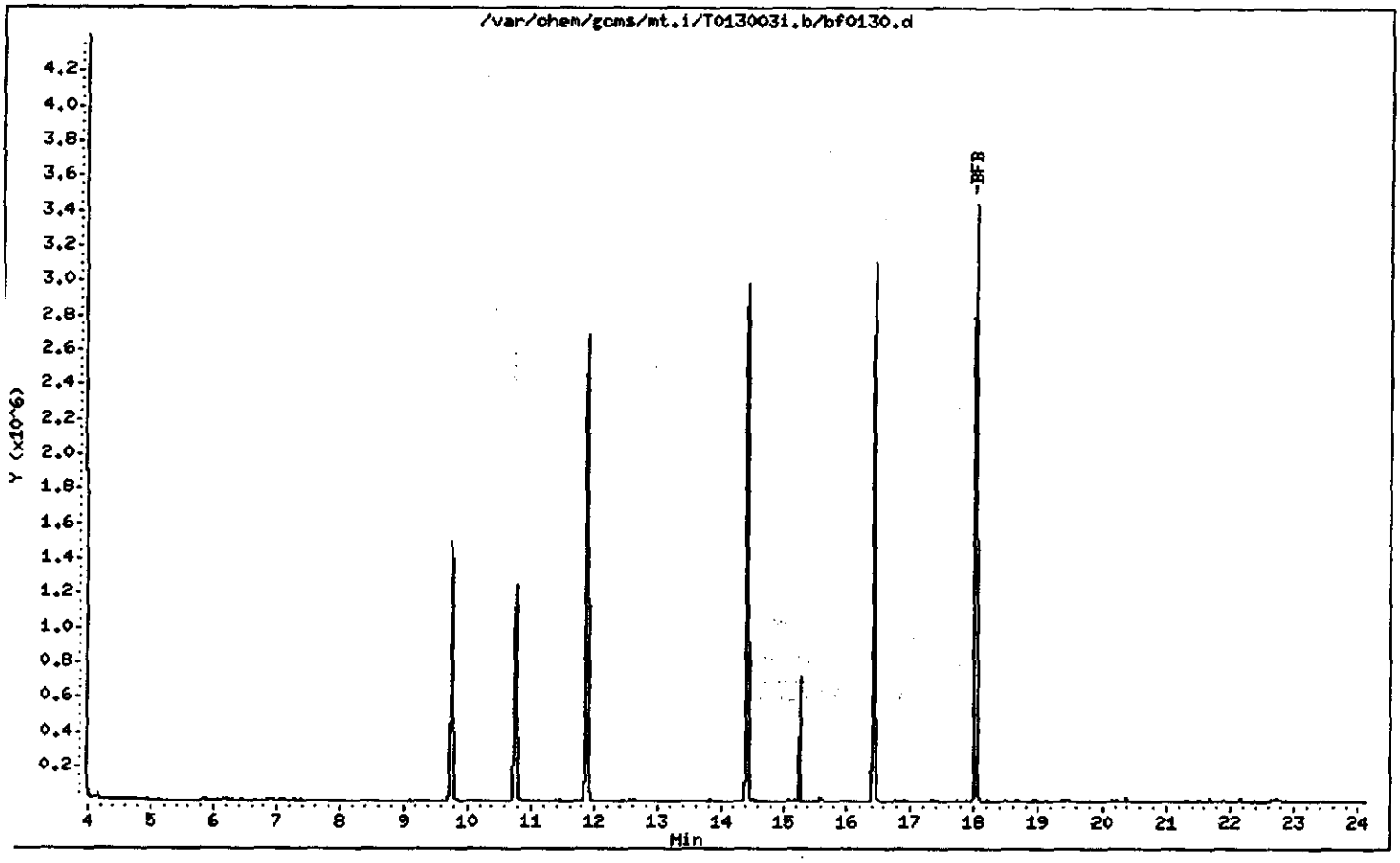
Instrument: mt.i

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 15 ppbv
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	$\overline{RRF}$	% 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

Report Date : 31-Jan-2003 12:05

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

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							
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

Report Date : 31-Jan-2003 12:05

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

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
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

Report Date : 31-Jan-2003 12:05

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

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

Report Date : 31-Jan-2003 12:05

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

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

Report Date : 31-Jan-2003 12:05

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

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

Report Date : 31-Jan-2003 12:05

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

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

Report Date : 31-Jan-2003 12:05

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

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							
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

Report Date : 31-Jan-2003 12:05

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

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

<40% OK
1/31/03

NA

Report Date : 31-Jan-2003 12:05

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

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							
135 Camphene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
136 b-Pinene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
137 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
138 d-Limonene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
139 4-tert-Butyltoluene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
140 Camphor	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++						+++++	+++++
4 1,2-Dichloroethane-d4	0.15645	0.15489	0.15386	0.15473	0.15222	0.15751		
	0.15972						0.15563	1.597
5 Toluene-d8	1.01498	1.02464	1.00261	0.99640	0.97303	1.01524		
	1.01903						1.00656	1.755
6 4-Bromofluorobenzene	0.61244	0.60570	0.59011	0.59383	0.57374	0.61815		
	0.61421						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

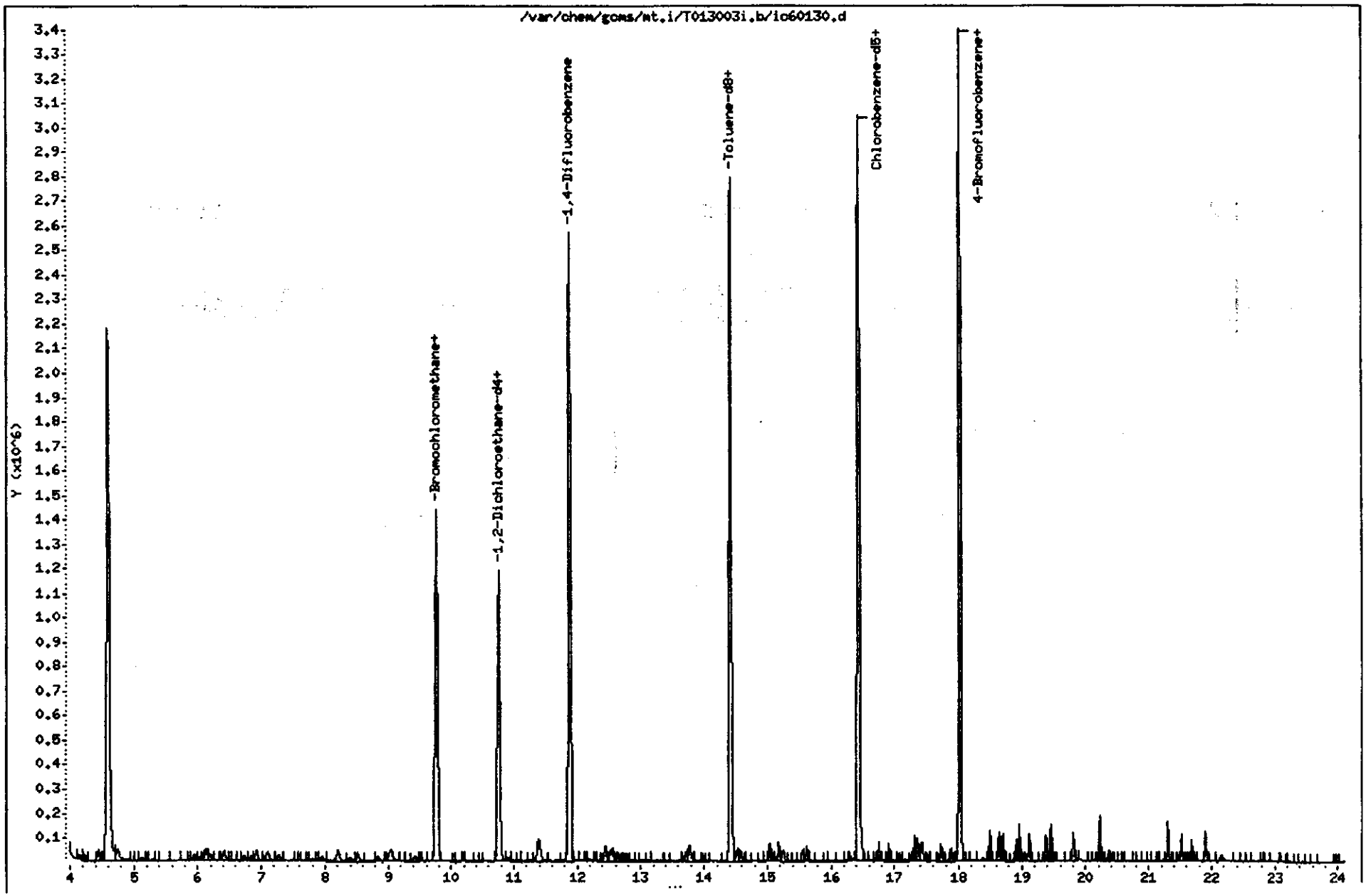
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
28 Carbon Disulfide	76	7.277	7.272	(0.746)	53973	0.20000	0.2355
29 trans-1,2-Dichloroethene	96	7.962	7.958	(0.816)	13093	0.20000	0.1926
30 Methyl-t-Butyl Ether	73	8.214	8.122	(0.842)	61771	0.40000	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

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)	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)
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

not used in curve wf 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

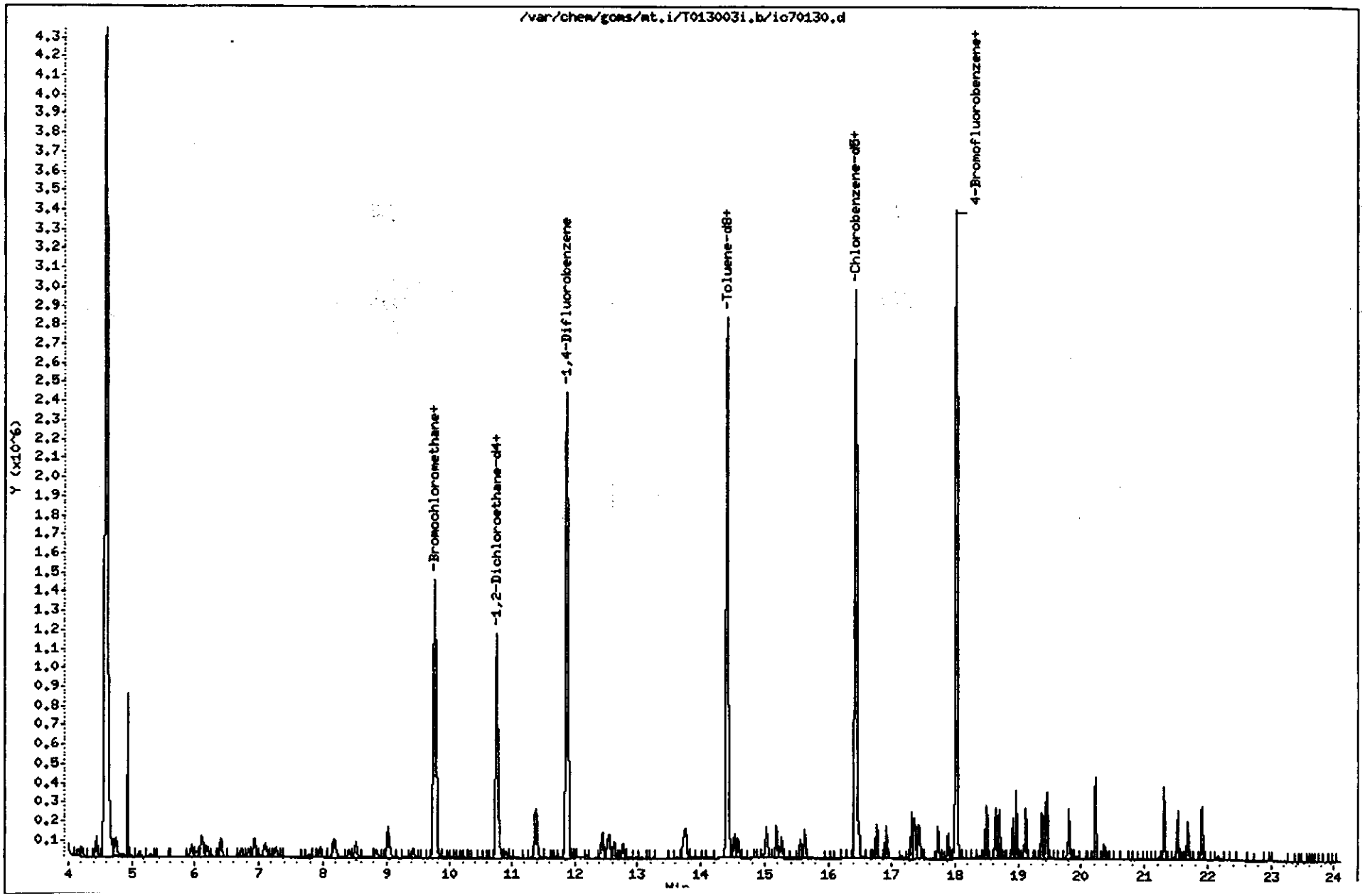
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
69 4-Ethyltoluene	105	18.634	18.638	(1.134)	181538	0.50000	0.5785
70 1,3,5-Trimethylbenzene	120	18.703	18.707	(1.138)	76001	0.50000	0.5914
71 Alpha-Methylstyrene	118	18.911	18.916	(1.151)	68618	0.50000	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.
I - 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

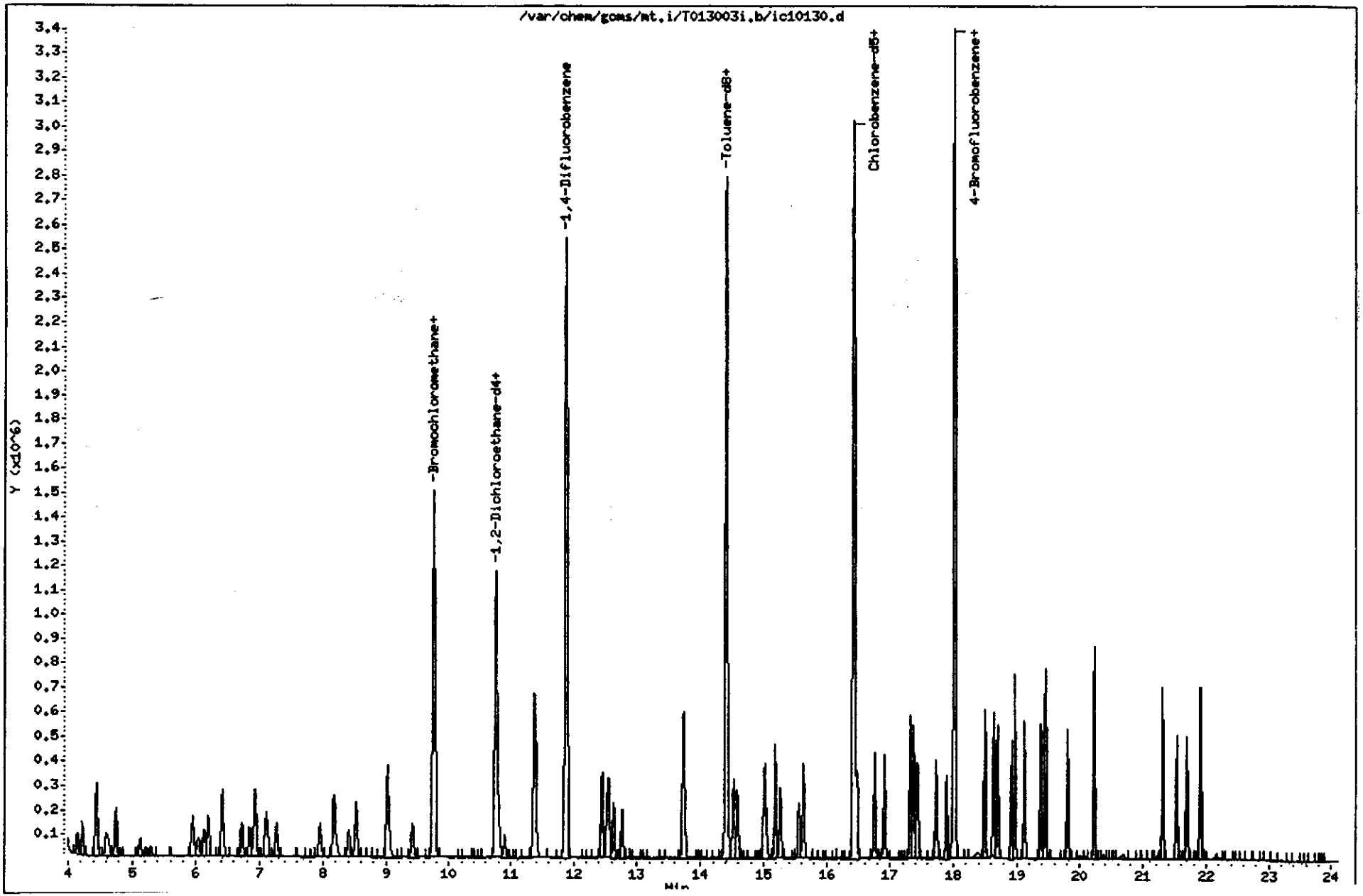
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
22 Ethyl Ether	31	6.409	6.379	(0.657)	239695	2.00000	2.000
23 1,1-Dichloroethene	96	6.721	6.717	(0.689)	81491	1.00000	1.000
24 Acrylonitrile	53	6.834	6.838	(0.700)	131542	2.00000	2.000
25 1,1,2-Trichlorotrifluoroethane	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

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))
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

wt 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

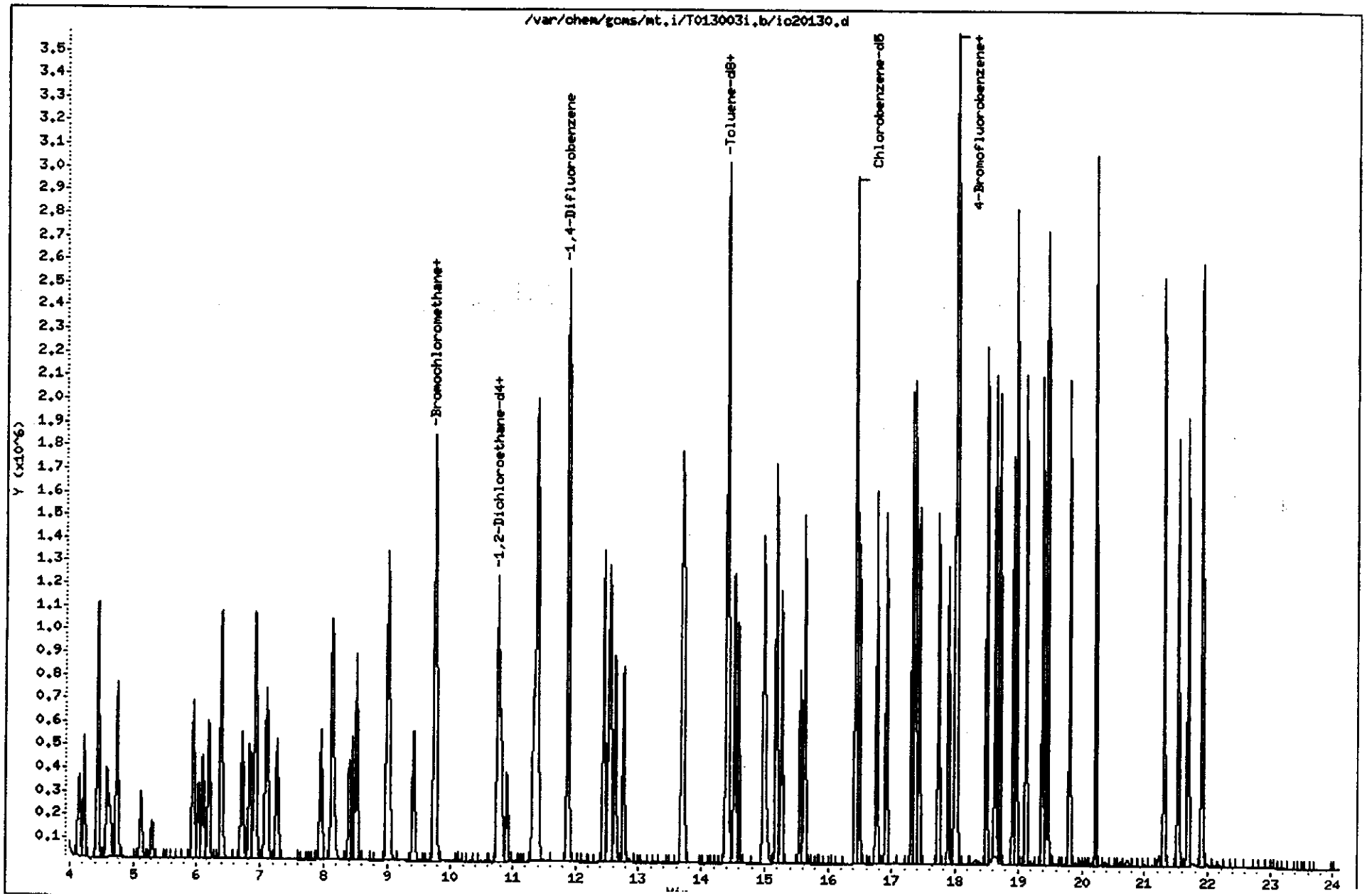
Data File: /var/chem/gcms/mt.i/T013003i.b/ic20130.d
Report Date: 31-Jan-2003 12:04

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



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

STL Knoxville

Modified Method TO-14

)ata 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
)perator : 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
)il Factor: 1.00000
Integrator: HP RTE Compound Sublist: RTall.sub
Target Version: 3.50
Processing Host: qmidhp01

ok wf 1/31/03

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

ompounds	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

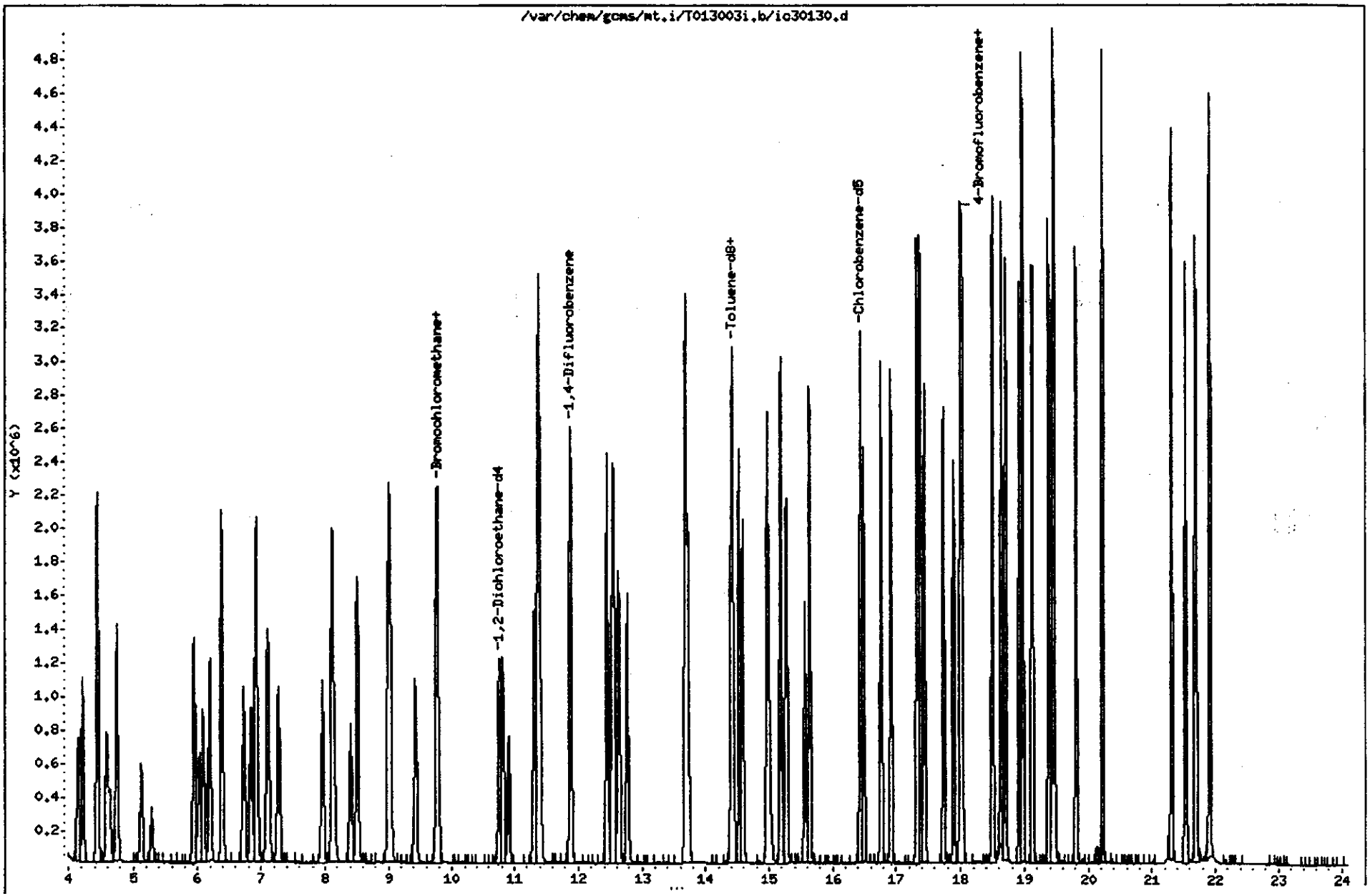
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
22 Ethyl Ether	31	6.379	6.379	(0.653)	1739707	20.0000	17.46
23 1,1-Dichloroethene	96	6.717	6.717	(0.688)	633267	10.0000	9.091
24 Acrylonitrile	53	6.838	6.838	(0.700)	1064275	20.0000	18.51
25 1,1,2-Trichlorotrifluoroethane	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

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	9.763	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

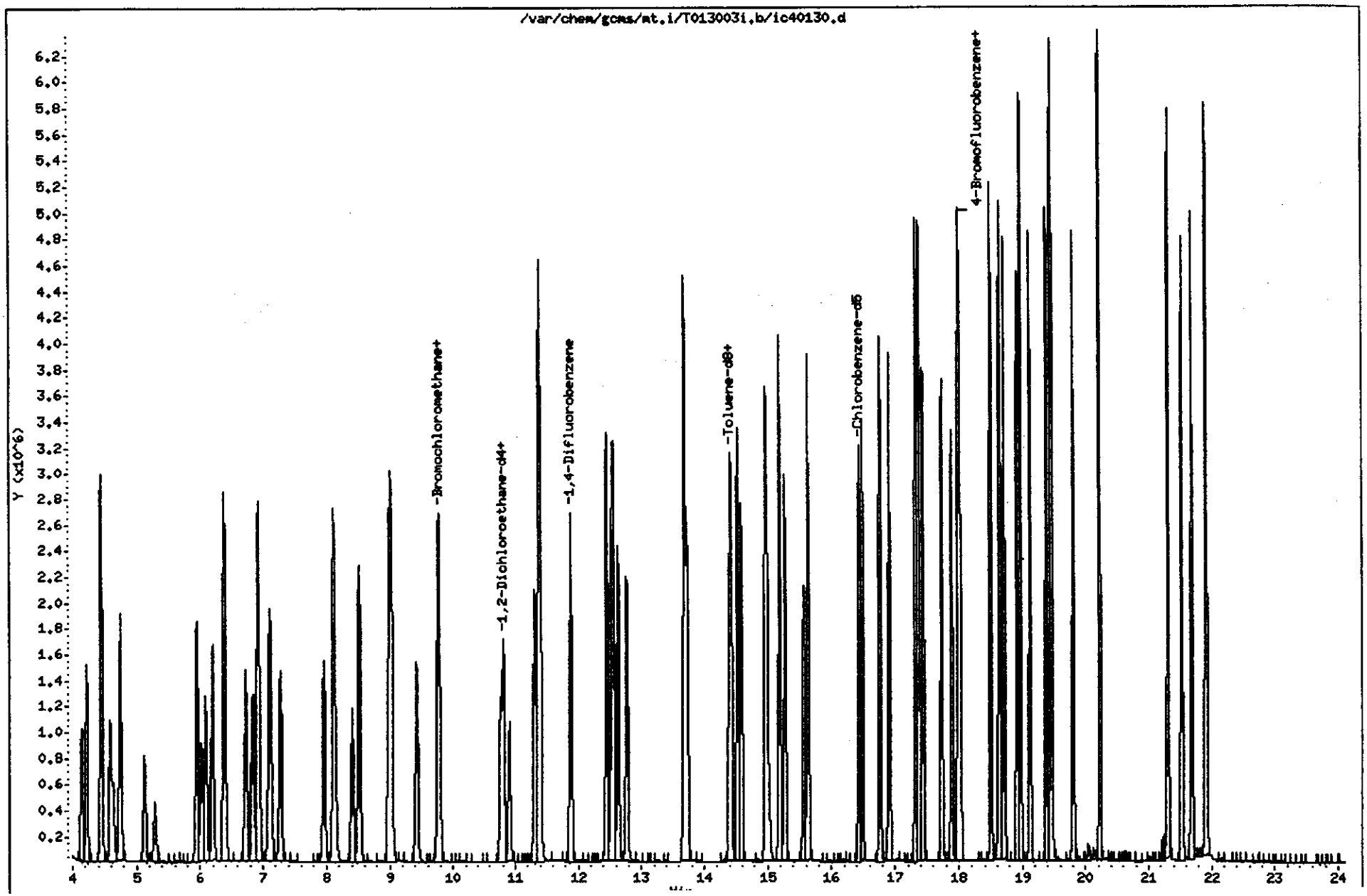
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
22 Ethyl Ether	31	6.379	6.379	(0.653)	2360776	30.0000	24.85
23 1,1-Dichloroethene	96	6.726	6.717	(0.689)	893626	15.0000	13.23
24 Acrylonitrile	53	6.839	6.838	(0.700)	1501599	30.0000	26.82
25 1,1,2-Trichlorotrifluoroethane	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/T0130031.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))	AMOUNTS 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

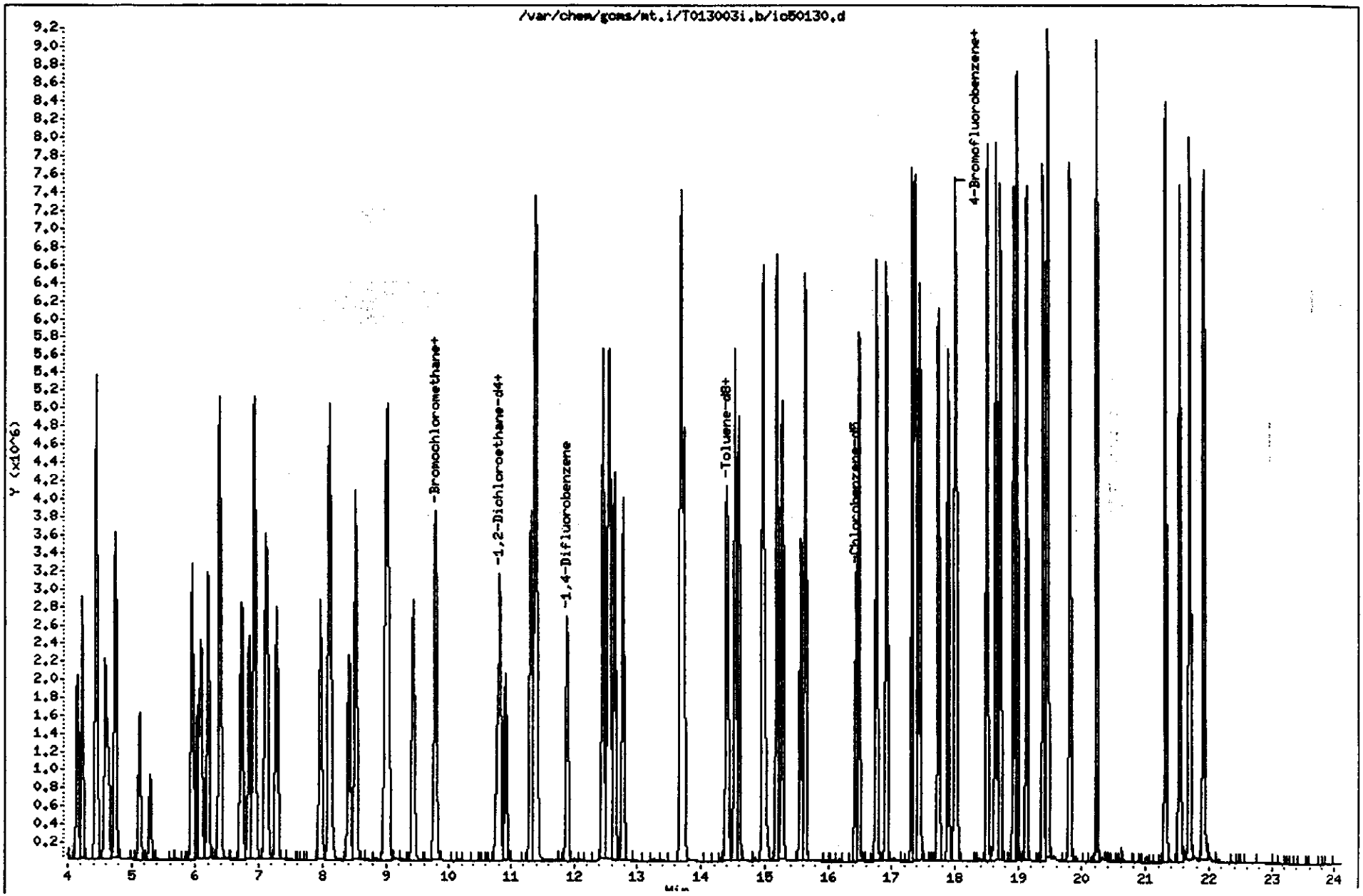
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
22 Ethyl Ether	31	6.374	6.379	(0.653)	4346202	60.0000	49.03
23 1,1-Dichloroethene	96	6.721	6.717	(0.688)	1756413	30.0000	27.25
24 Acrylonitrile	53	6.842	6.838	(0.701)	2957429	60.0000	55.21
25 1,1,2-Trichlorotrifluoroethane	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

Cpnd Variable Local Compound Variable

OK WJ 2/3/03

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))	CONCENTRATIONS 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

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/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 wf 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

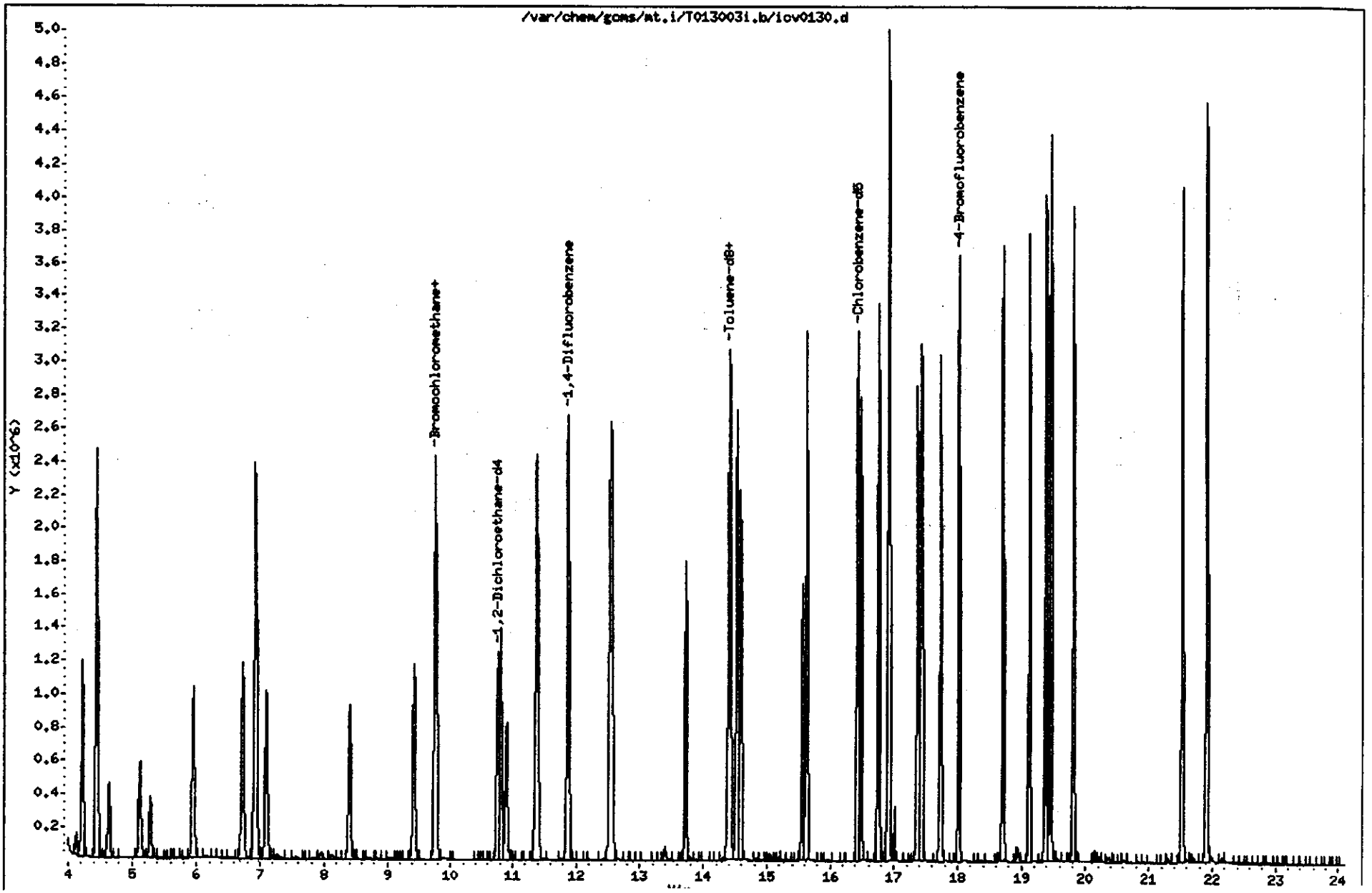
Data File: /var/chem/gcms/mt.i/T013003i.b/icv0130.d
Report Date: 31-Jan-2003 12:55

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:	2/17/03	CCAL Batch/ Scan Name:	T021703	Instrument:	MT	ICAL Batch/ Scan Name:	T013003 I	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. Have the Entech position no. & vol. been verified with ana log & sample vol. corrected if actual amount differs >5%?		✓			✓
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. 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%)?		✓			✓
14. If criteria were not met, was a NCM generated, approved by supervisor, and copy included in folder?	✓				NA
15. 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: 2/18/03	2nd Level Reviewer : JW	Date: 2/18/03
Comments:		Comments:	

STL Knoxville
TO-14/15 RUN LOG

GCMS Analysis: TO-14/15 Inst: MT

Analyst: DDF / DLW Preventive Maintenance Performed ✓

Date: 2-17-03 System Date/Time ok (y/n): x Batch: 3048279

BFB Time: 0833 Surr/IS ID: CX-929 IS #1 Area: 609839 ICAL Batch: T013003I

Time	Lot No.	File ID	Can #	Comments	I/S	Vol* (ml)	Pos	Use	DUP
0833	BFB	BF0217				100	15	✓	-
0909	CCV	MD0217		CX-1000			STD	✓	-
0946	BEF	RF0217		CX-1001			16	✓	-
1024	BLK	BK0217				500	15	N	-
1102		B		FHQC31AA				✓	-
1141	BLK Check	BLK 4348	12538				1	ok	-
1219		4349	92083				2	ok	-
1256	B150103	FHN48	0106	these cans had unusual		500	3	N	-
1335		49	93239	alkane hits early in			4		-
1424		5A	93279	the chromatogram &			5		-
1502		5C	12529	had higher than usual			6		-
1635		5D	12528	results for target analytes.			7		-
1714	B150106	5G	04190	In addition, the duplicate			8		-
1752		5G Dup		analysis failed by not					dup
1831		5K	12180	having the same analyte			9		-
1909		5L	11295	results (lower) and the			10		-
1948		5M	11374	early alkanes were not			11		-
2026		5N	11339	present in the dup. All			12		-
2105		5P	12209	other blanks & projects were			13		-
2143		5Q	0116	ok. These are rerun next day.			14		-
2221	B150124	FHN91	0179				1	✓	10
2259		92	1784				2	✓	11
2328		93	1937				3	✓	12
0015	MDL 1	CX1003	04311			DF 1-17-03 ~~500~~ 100	4	✓	-
0051	MDL2	1002	1762				5	✓	-
0130	Syringe Blank	SYR100	2046			~~500~~	6	ok	-
0208	Blank Check	BLK4350	02300				7	ok	-
0246	H3814D158	FHLV0	11413			500	8	✓	13
0325		VODup						✓	dup
				JW 2-18-03					

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

Analyst: JW Date: 2/18/03

030217
STL-Knoxville
TO-14 Autosampler Log
'MT'

Sample	Volume	Position	Date	Time
BFB	102ml	15	2/17/2003	8:31:48 AM
CCV	100ml	STD	2/17/2003	9:08:06 AM
REF	101ml	16	2/17/2003	9:44:53 AM
BLK	502ml	15	2/17/2003	10:22:57 AM
BLK	502ml	15	2/17/2003	11:01:07 AM
BLK4348	502ml	1	2/17/2003	11:39:22 AM
BLK4349	500ml	2	2/17/2003	12:17:19 PM
FHN48	501ml	3	2/17/2003	12:55:05 PM
FHN48	500ml	4	2/17/2003	1:33:11 PM
FHN5A	500ml	5	2/17/2003	2:22:52 PM
FHN5C	501ml	6	2/17/2003	3:00:50 PM
~~FHN5D~~	~~501ml~~	~~6~~	~~2/17/2003~~	~~3:00:50 PM~~
FHN5D	500ml	7	2/17/2003	4:34:15 PM
FHN5G	502ml	8	2/17/2003	5:12:24 PM
FHN5GD	500ml	8	2/17/2003	5:51:04 PM
FHN5K	500ml	9	2/17/2003	6:29:51 PM
FHN5L	501ml	10	2/17/2003	7:08:11 PM
FHN5M	500ml	11	2/17/2003	7:46:23 PM
FHN5N	502ml	12	2/17/2003	8:25:03 PM
FHN5P	502ml	13	2/17/2003	9:03:17 PM
FHN5Q	502ml	14	2/17/2003	9:41:29 PM
FHN91	501ml	1	2/17/2003	10:19:47 PM
FHN92	502ml	2	2/17/2003	10:58:05 PM
FHN93	502ml	3	2/17/2003	11:36:27 PM
CX1003	101ml	4	2/18/2003	12:13:24 AM
CX1002	101ml	5	2/18/2003	12:50:15 AM
SYR100	500ml	6	2/18/2003	1:28:36 AM
BLK4350	501ml	7	2/18/2003	2:06:48 AM
FHLV0	501ml	8	2/18/2003	2:45:14 AM
FHLV0D	502ml	8	2/18/2003	3:23:38 AM

gw 2.18.03

Data File: /var/chem/gcms/mt.i/T021703.b/bf0217.d

Date : 17-FEB-2003 08:33

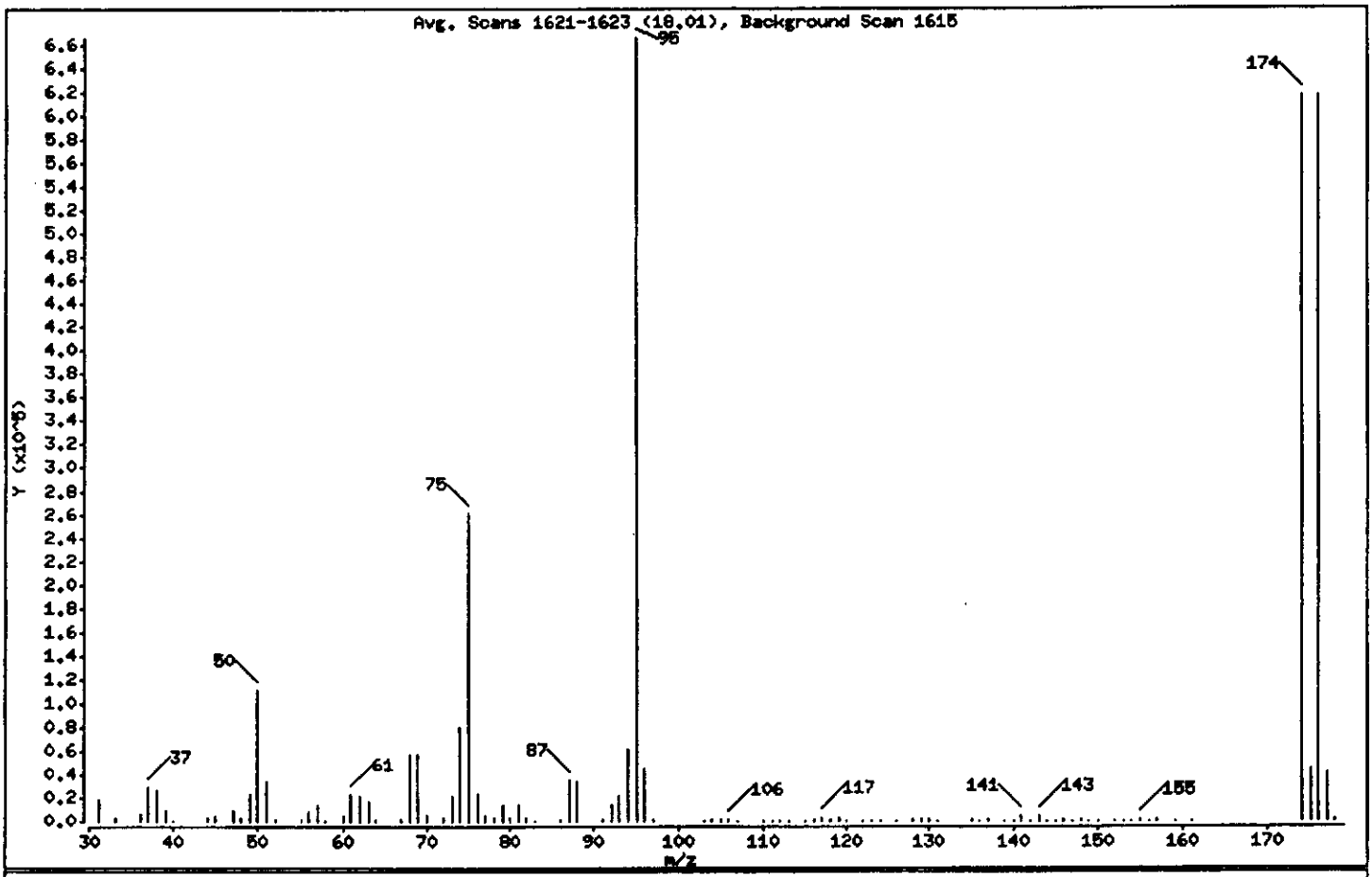
Client ID: Instrument: mt.i

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	16.60
75	30.00 - 60.00% of mass 95	39.20
96	5.00 - 9.00% of mass 95	6.62
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 100.00% of mass 95	92.59
175	5.00 - 9.00% of mass 174	6.66 (7.19)
176	95.00 - 101.00% of mass 174	92.56 (99.97)
177	5.00 - 9.00% of mass 176	6.22 (6.72)

OK cw 2/18/03

Data File: /var/chem/gcms/mt.i/T021703.b/bf0217.d

Date : 17-FEB-2003 08:33

Client ID: Instrument: mt.i

Sample Info: BFB,,3,,BFB,

Operator: 0691

Column phase: DB-5 Column diameter: 0.32

Data File: bf0217.d

Spectrum: Avg. Scans 1621-1623 (18.01), Background Scan 1615

Location of Maximum: 95.00

Number of points: 101

m/z	Y	m/z	Y	m/z	Y	m/z	Y
31.00	19168	69.00	56592	105.00	990	141.00	4195
33.00	2554	70.00	4079	106.00	2039	142.00	530
36.00	6114	72.00	2687	107.00	534	143.00	4468
37.00	29760	73.00	21496	110.00	71	144.00	219
38.00	25432	74.00	80432	111.00	333	145.00	311
39.00	9683	75.00	261056	112.00	72	146.00	838
40.00	181	76.00	22496	113.00	302	147.00	427
44.00	2782	77.00	3916	115.00	483	148.00	1367
45.00	5292	78.00	2976	116.00	1667	149.00	471
47.00	9776	79.00	13445	117.00	3096	150.00	541
48.00	3566	80.00	3437	118.00	1828	152.00	295
49.00	22560	81.00	13076	119.00	2305	153.00	453
50.00	110560	82.00	2343	120.00	118	154.00	359
51.00	33304	83.00	194	122.00	77	155.00	1322
52.00	1426	86.00	768	123.00	76	156.00	67
55.00	1232	87.00	35752	124.00	354	157.00	916
56.00	7759	88.00	33824	126.00	152	159.00	569
57.00	13743	91.00	1665	128.00	2057	161.00	537
58.00	532	92.00	13650	129.00	841	174.00	616576
60.00	4994	93.00	21208	130.00	1914	175.00	44352
61.00	23496	94.00	61624	131.00	726	176.00	616384
62.00	22080	95.00	665920	135.00	803	177.00	41392
63.00	16544	96.00	44056	136.00	70	178.00	1163
64.00	1321	97.00	1203	137.00	769		
67.00	1459	103.00	71	139.00	73		
68.00	57192	104.00	2109	140.00	339		

Data File: /var/chem/gcms/mt.i/T021703.b/bf0217.d

Date : 17-FEB-2003 08:33

Client ID:

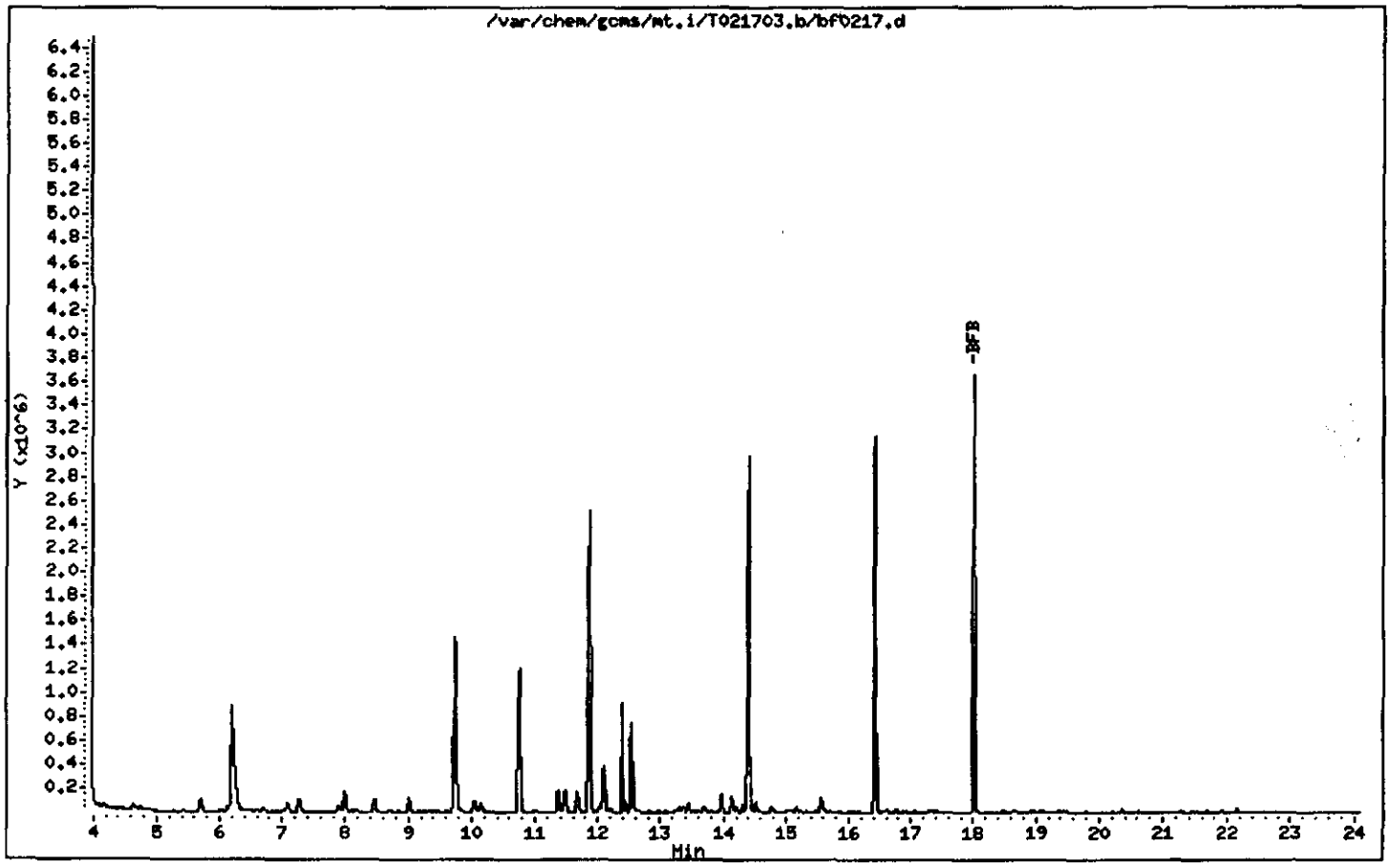
Instrument: mt.i

Sample Info: BFB,,3,,BFB,

Operator: 0691

Column phase: DB-5

Column diameter: 0.32



Data File: /chem/gcms/mt.i/T021703.b/md0217.d
Report Date: 17-Feb-2003 11:11

STL Knoxville

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: mt.i
Lab File ID: md0217.d
Analysis Type: AIR
Lab Sample ID: CCV
Method: /chem/gcms/mt.i/T021703.b/LA.m

Injection Date: 17-FEB-2003 09:09
Init. Cal. Date(s): 30-JAN-2003 30-JAN-2003 ✓
Init. Cal. Times: 18:04 23:00
Quant Type: ISTD

OK ww 2/18/03

COMPOUND	RRF / AMOUNT	RF10	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 4 1,2-Dichloroethane-d4	0.15563	0.15767	0.000	-1.31625	30.00000	Averaged
$ 5 Toluene-d8	1.00656	0.98238	0.000	2.40232	30.00000	Averaged
$ 6 4-Bromofluorobenzene	0.60117	0.60702	0.000	-0.97394	30.00000	Averaged
7 Chlorodifluoromethane	1.79965	1.68531	0.000	6.35368	30.00000	Averaged
8 Dichlorodifluoromethane	2.13583	2.03823	0.000	4.56967	30.00000	Averaged
9 Chloromethane	0.26745	0.25653	0.000	4.08273	30.00000	Averaged
10 1,2-Dichlorotetrafluoroetha	1.62971	1.53691	0.000	5.69436	30.00000	Averaged
11 Vinyl Chloride	0.87829	0.85762	0.000	2.35312	30.00000	Averaged
12 Methanol	0.39266	0.35582	0.000	9.38196	30.00000	Averaged
13 1,3-Butadiene	0.64371	0.62614	0.000	2.73028	30.00000	Averaged
14 n-Butane	1.47009	1.31377	0.000	10.63367	30.00000	Averaged
15 Bromomethane	0.96973	0.95657	0.000	1.35713	30.00000	Averaged
16 Chloroethane	0.47901	0.47315	0.000	1.22148	30.00000	Averaged
17 Trichlorofluoromethane	1.76025	1.65364	0.000	6.05674	30.00000	Averaged
18 Acrolein	0.34168	0.30600	0.000	10.44175	30.00000	Averaged
19 Acetonitrile	0.42365	0.38998	0.000	7.94773	30.00000	Averaged
20 Acetone	0.39864	0.36118	0.000	9.39800	30.00000	Averaged
21 Pentane	0.25712	0.24285	0.000	5.54706	30.00000	Averaged
22 Ethyl Ether	1.49141	1.32203	0.000	11.35671	30.00000	Averaged
23 1,1-Dichloroethene	1.04471	1.00995	0.000	3.32788	30.00000	Averaged
24 Acrylonitrile	0.87438	0.81675	0.000	6.59130	30.00000	Averaged
25 1,1,2-Trichlorotrifluoroeth	2.17966	1.95782	0.000	10.17789	30.00000	Averaged
26 Methylene Chloride	1.02938	0.89365	0.000	13.18632	30.00000	Averaged
27 3-Chloropropene	0.87734	0.81574	0.000	7.02110	30.00000	Averaged
28 Carbon Disulfide	3.70157	3.37270	0.000	8.88452	30.00000	Averaged
29 trans-1,2-Dichloroethene	1.08856	1.03660	0.000	4.77270	30.00000	Averaged
30 Methyl-t-Butyl Ether	2.50694	2.28388	0.000	8.89740	30.00000	Averaged
31 1,1-Dichloroethane	1.97608	1.79117	0.000	9.35780	30.00000	Averaged
32 Vinyl Acetate	3.00296	2.79397	0.000	6.95937	30.00000	Averaged
33 2-Butanone	0.54822	0.47679	0.000	13.03055	30.00000	Averaged
34 Hexane	0.84245	0.74466	0.000	11.60858	30.00000	Averaged
35 cis 1,2-Dichloroethene	1.17282	1.08910	0.000	7.13853	30.00000	Averaged
36 Chloroform	1.87238	1.78182	0.000	4.83670	30.00000	Averaged
37 1,1,1-Trichloroethane	1.65472	1.59371	0.000	3.68675	30.00000	Averaged
38 1,2-Dichloroethane	0.26331	0.25009	0.000	5.02010	30.00000	Averaged

Data File: /chem/gcms/mt.i/T021703.b/md0217.d
Report Date: 17-Feb-2003 11:11

STL Knoxville

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: mt.i
Lab File ID: md0217.d
Analysis Type: AIR
Lab Sample ID: CCV
Method: /chem/gcms/mt.i/T021703.b/LA.m

Injection Date: 17-FEB-2003 09:09
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	0.56170	0.000	10.82476	30.00000	Averaged
40 1-Butanol	0.15912	0.14311	0.000	10.06060	30.00000	Averaged
41 Cyclohexane	0.09546	0.08357	0.000	12.44960	30.00000	Averaged
42 Carbon Tetrachloride	1.69345	1.56788	0.000	7.41505	30.00000	Averaged
43 Heptane	0.48499	0.43778	0.000	9.73510	30.00000	Averaged
44 1,2-Dichloropropane	0.25600	0.22981	0.000	10.23097	30.00000	Averaged
45 Trichloroethene	0.31642	0.28519	0.000	9.86834	30.00000	Averaged
46 Dibromomethane	0.27997	0.24438	0.000	12.71194	30.00000	Averaged
47 Bromodichloromethane	0.44150	0.40182	0.000	8.98595	30.00000	Averaged
48 4-Methyl-2-pentanone	0.56645	0.50028	0.000	11.68040	30.00000	Averaged
49 cis-1,3-Dichloropropene	0.46500	0.40392	0.000	13.13682	30.00000	Averaged
50 trans-1,3-Dichloropropene	0.37108	0.32823	0.000	11.54542	30.00000	Averaged
51 Toluene	0.94594	0.83839	0.000	11.36989	30.00000	Averaged
52 1,1,2-Trichloroethane	0.35918	0.30802	0.000	14.24220	30.00000	Averaged
53 2-Hexanone	0.39359	0.35262	0.000	10.40978	30.00000	Averaged
54 Octane	0.29961	0.25404	0.000	15.21195	30.00000	Averaged
55 Dibromochloromethane	0.65670	0.57344	0.000	12.67789	30.00000	Averaged
56 1,2-Dibromoethane	0.59471	0.53162	0.000	10.60888	30.00000	Averaged
57 Tetrachloroethene	0.34430	0.29256	0.000	15.02789	30.00000	Averaged
58 Chlorobenzene	0.81211	0.70975	0.000	12.60416	30.00000	Averaged
59 Ethylbenzene	1.22161	1.04910	0.000	14.12129	30.00000	Averaged
60 m-Xylene (For p-)	0.93780	0.79482	0.000	15.24674	30.00000	Averaged
61 Bromoform	0.58747	0.52930	0.000	9.90193	30.00000	Averaged
62 Nonane	0.67355	0.54750	0.000	18.71426	30.00000	Averaged
63 Styrene	0.69263	0.57507	0.000	16.97236	30.00000	Averaged
64 o-Xylene	0.95586	0.80802	0.000	15.46647	30.00000	Averaged
65 1,1,2,2-Tetrachloroethane	0.83011	0.67522	0.000	18.65923	30.00000	Averaged
66 1,2,3-Trichloropropane	0.19413	0.16920	0.000	12.83805	30.00000	Averaged
67 Cumene	1.26115	1.04136	0.000	17.42815	30.00000	Averaged
68 n-Propylbenzene	1.71972	1.45204	0.000	15.56556	30.00000	Averaged
69 4-Ethyltoluene	1.41839	1.16605	0.000	17.79054	30.00000	Averaged
70 1,3,5-Trimethylbenzene	0.58087	0.46824	0.000	19.38950	30.00000	Averaged
71 Alpha-Methylstyrene	0.55634	0.48806	0.000	12.27302	30.00000	Averaged
72 Decane	0.97559	0.73015	0.000	25.15821	30.00000	Averaged
73 1,2,4-Trimethylbenzene	1.13100	0.92233	0.000	18.45044	30.00000	Averaged

Data File: /chem/gcms/mt.i/T021703.b/md0217.d
Report Date: 17-Feb-2003 11:11

STL Knoxville

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: mt.i
Lab File ID: md0217.d
Analysis Type: AIR
Lab Sample ID: CCV
Method: /chem/gcms/mt.i/T021703.b/LA.m

Injection Date: 17-FEB-2003 09:09
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	0.71741	0.000	20.60385	30.00000	Averaged
75 Benzyl Chloride	0.92372	0.79385	0.000	14.05907	30.00000	Averaged
76 1,4-Dichlorobenzene	0.86865	0.67825	0.000	21.91928	30.00000	Averaged
77 1,2-Dichlorobenzene	0.86721	0.67717	0.000	21.91478	30.00000	Averaged
78 Undecane	0.95116	0.76767	0.000	19.29159	30.00000	Averaged
79 Dodecane	0.86425	0.74242	0.000	14.09651	30.00000	Averaged
80 1,2,4-Trichlorobenzene	0.70304	0.58004	0.000	17.49447	30.00000	Averaged
81 Napthalene	1.60374	1.51824	0.000	5.33116	30.00000	Averaged
82 Hexachlorobutadiene	0.58604	0.50980	0.000	13.00806	30.00000	Averaged

Data File: /chem/gcms/mt.i/T021703.b/md0217.d
Report Date: 17-Feb-2003 11:11

STL Knoxville

Modified Method TO-14

Data file : /chem/gcms/mt.i/T021703.b/md0217.d
Lab Smp Id: CCV
Client Smp ID: 10PPBV
Inj Date : 17-FEB-2003 09:09
Operator : 0691
Inst ID: mt.i
Smp Info : CCV,,2,3,,10PPBV
Misc Info : T021703,LA,,,100ML
Comment :
Method : /chem/gcms/mt.i/T021703.b/LA.m
Meth Date : 17-Feb-2003 11:11 chemist
Quant Type: ISTD
Cal Date : 17-FEB-2003 09:09
Cal File: md0217.d
Als bottle: 1
Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE
Compound Sublist: RTall.sub
Target Version: 3.50
Processing Host: qmidhp01

cwf 2/18/03

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable
Local Compound Variable

Compound	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	9.757	(1.000)	609839	10.0000	
2 1,4-Difluorobenzene	114	11.874	11.874	(1.000)	2915257	10.0000	
3 Chlorobenzene-d5	117	16.429	16.429	(1.000)	2372264	10.0000	
4 1,2-Dichloroethane-d4	67	10.763	10.763	(0.906)	459660	10.0000	10.13
5 Toluene-d8	98	14.416	14.416	(0.877)	2330467	10.0000	9.760
6 4-Bromofluorobenzene	95	18.017	18.017	(1.097)	1440017	10.0000	10.10
7 Chlorodifluoromethane	51	4.144	4.144	(0.425)	1027766	10.0000	9.365
8 Dichlorodifluoromethane	85	4.222	4.222	(0.433)	1242992	10.0000	9.543
9 Chloromethane	52	4.430	4.430	(0.454)	156440	10.0000	9.592
10 1,2-Dichlorotetrafluoroethane	135	4.447	4.447	(0.456)	937266	10.0000	9.430
11 Vinyl Chloride	62	4.638	4.638	(0.475)	523011	10.0000	9.765
12 Methanol	31	4.586	4.586	(0.470)	867963	40.0000	36.25
13 1,3-Butadiene	54	4.742	4.742	(0.486)	381841	10.0000	9.727
14 n-Butane	43	4.742	4.742	(0.486)	801188	10.0000	8.937
15 Bromomethane	94	5.124	5.124	(0.525)	583353	10.0000	9.864
16 Chloroethane	64	5.289	5.289	(0.542)	288548	10.0000	9.878
17 Trichlorofluoromethane	101	5.939	5.939	(0.609)	1008453	10.0000	9.394
18 Acrolein	56	5.948	5.948	(0.610)	373221	20.0000	17.91
19 Acetonitrile	40	6.026	6.026	(0.618)	475649	20.0000	18.41
20 Acetone	58	6.087	6.087	(0.624)	440520	20.0000	18.12
21 Pentane	57	6.191	6.191	(0.635)	148102	10.0000	9.445

Data File: /chem/gcms/mt.i/T021703.b/md0217.d
Report Date: 17-Feb-2003 11:11

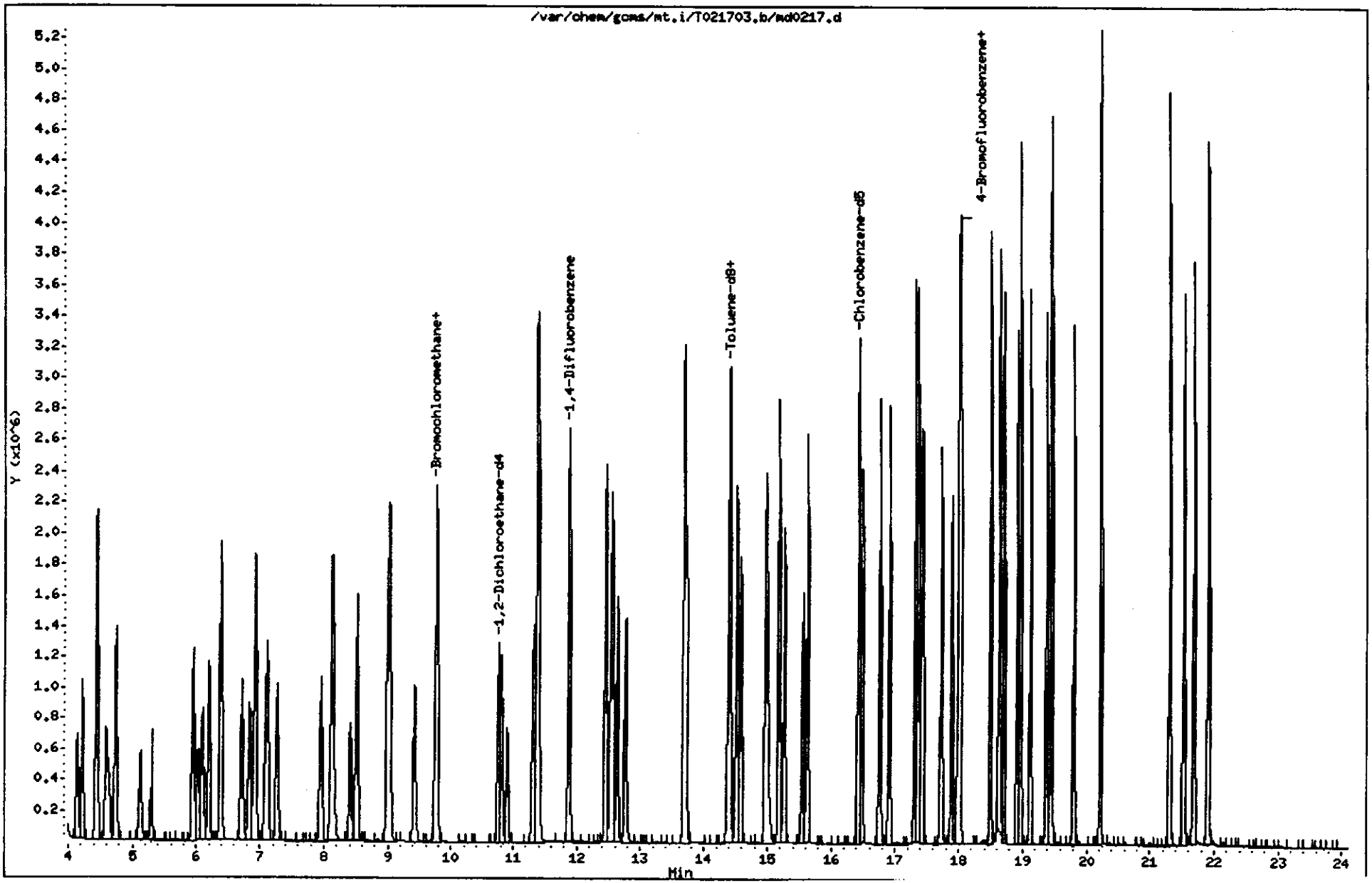
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
22 Ethyl Ether	31	6.382	6.382	(0.654)	1612454	20.0000	17.73
23 1,1-Dichloroethene	96	6.720	6.720	(0.689)	615906	10.0000	9.667
24 Acrylonitrile	53	6.833	6.833	(0.700)	996172	20.0000	18.68
25 1,1,2-Trichlorotrifluoroethane	101	6.920	6.920	(0.709)	1193955	10.0000	8.982
26 Methylene Chloride	84	7.093	7.093	(0.727)	544980	10.0000	8.681
27 3-Chloropropene	39	7.119	7.119	(0.730)	497470	10.0000	9.298
28 Carbon Disulfide	76	7.276	7.276	(0.746)	2056807	10.0000	9.112
29 trans-1,2-Dichloroethene	96	7.961	7.961	(0.816)	632161	10.0000	9.523
30 Methyl-t-Butyl Ether	73	8.126	8.126	(0.833)	2785604	20.0000	18.22
31 1,1-Dichloroethane	63	8.404	8.404	(0.861)	1092323	10.0000	9.064
32 Vinyl Acetate	43	8.516	8.516	(0.873)	3407747	20.0000	18.61
33 2-Butanone	72	8.993	8.993	(0.922)	581527	20.0000	17.39
34 Hexane	56	9.020	9.020	(0.924)	454120	10.0000	8.839
35 cis 1,2-Dichloroethene	96	9.427	9.427	(0.966)	664176	10.0000	9.286
36 Chloroform	83	9.774	9.774	(1.002)	1086621	10.0000	9.516
37 1,1,1-Trichloroethane	97	10.807	10.807	(1.108)	971908	10.0000	9.631
38 1,2-Dichloroethane	62	10.902	10.902	(0.918)	729068	10.0000	9.498
39 Benzene	78	11.371	11.371	(0.958)	1637508	10.0000	8.918
40 1-Butanol	31	11.319	11.319	(0.953)	834399	20.0000	17.99
41 Cyclohexane	69	11.379	11.379	(0.958)	243631	10.0000	8.755
42 Carbon Tetrachloride	117	11.397	11.397	(1.168)	956156	10.0000	9.258
43 Heptane	43	12.447	12.447	(1.048)	1276235	10.0000	9.026
44 1,2-Dichloropropane	63	12.525	12.525	(1.055)	669963	10.0000	8.977
45 Trichloroethene	130	12.551	12.551	(1.057)	831411	10.0000	9.013
46 Dibromomethane	93	12.629	12.629	(1.064)	712421	10.0000	8.729
47 Bromodichloromethane	83	12.768	12.768	(1.075)	1171422	10.0000	9.101
48 4-Methyl-2-pentanone	43	13.687	13.687	(1.153)	2916915	20.0000	17.66
49 cis-1,3-Dichloropropene	75	13.722	13.722	(1.156)	1177523	10.0000	8.686
50 trans-1,3-Dichloropropene	75	14.381	14.381	(0.875)	778657	10.0000	8.845
51 Toluene	91	14.520	14.520	(0.884)	1988877	10.0000	8.863
52 1,1,2-Trichloroethane	97	14.581	14.581	(0.888)	730714	10.0000	8.576
53 2-Hexanone	58	14.971	14.971	(0.911)	1673007	20.0000	17.92
54 Octane	85	15.180	15.180	(0.924)	602643	10.0000	8.479
55 Dibromochloromethane	129	15.266	15.266	(0.929)	1360352	10.0000	8.732
56 1,2-Dibromoethane	107	15.553	15.553	(0.947)	1261140	10.0000	8.939
57 Tetrachloroethene	129	15.622	15.622	(0.951)	694028	10.0000	8.497
58 Chlorobenzene	112	16.481	16.481	(1.003)	1683710	10.0000	8.740
59 Ethylbenzene	91	16.759	16.759	(1.020)	2488746	10.0000	8.588
60 m-Xylene (For p-)	91	16.906	16.906	(1.029)	1885517	10.0000	8.475
61 Bromoform	173	17.349	17.349	(1.056)	1255628	10.0000	9.010
62 Nonane	57	17.314	17.314	(1.054)	1298812	10.0000	8.128
63 Styrene	104	17.366	17.366	(1.057)	1364220	10.0000	8.303
64 o-Xylene	91	17.435	17.435	(1.061)	1916841	10.0000	8.453
65 1,1,2,2-Tetrachloroethane	83	17.730	17.730	(1.079)	1601804	10.0000	8.134
66 1,2,3-Trichloropropane	110	17.887	17.887	(1.089)	401396	10.0000	8.716
67 Cumene	105	17.991	17.991	(1.095)	2470378	10.0000	8.257
68 n-Propylbenzene	91	18.494	18.494	(1.126)	3444623	10.0000	8.443

Data File: /chem/gcms/mt.i/T021703.b/md0217.d
Report Date: 17-Feb-2003 11:11

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	18.633	18.633	(1.134)	2766188	10.0000	8.221
70 1,3,5-Trimethylbenzene	120	18.702	18.702	(1.138)	1110785	10.0000	8.061
71 Alpha-Methylstyrene	118	18.910	18.910	(1.151)	1157811	10.0000	8.773
72 Decane	57	18.971	18.971	(1.155)	1732099	10.0000	7.484
73 1,2,4-Trimethylbenzene	105	19.119	19.119	(1.164)	2188004	10.0000	8.155
74 1,3-Dichlorobenzene	146	19.379	19.379	(1.180)	1701893	10.0000	7.940
75 Benzyl Chloride	91	19.440	19.440	(1.183)	1883221	10.0000	8.594
76 1,4-Dichlorobenzene	146	19.457	19.457	(1.184)	1608985	10.0000	7.808
77 1,2-Dichlorobenzene	146	19.804	19.804	(1.205)	1606418	10.0000	7.808
78 Undecane	57	20.220	20.220	(1.231)	1821116	10.0000	8.071
79 Dodecane	57	21.305	21.305	(1.297)	1761210	10.0000	8.590
80 1,2,4-Trichlorobenzene	180	21.522	21.522	(1.310)	1376020	10.0000	8.250
81 Napthalene	128	21.678	21.678	(1.319)	3601662	10.0000	9.467
82 Hexachlorobutadiene	225	21.912	21.912	(1.334)	1209391	10.0000	8.699

Data File: /var/chem/gcms/mt.i/T021703.b/md0217.d
Date : 17-FEB-2003 09:09
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 ----------

2/17/2003 2:01:16 PM
Leak Check for C:\Smart\T021703.SEQ
Report File: C:\Smart\T021703.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	3	—	—	0.9	1.0	0.40
1	4	—	—	0.6	0.7	0.40
1	5	—	—	0.6	0.6	0.00
1	6	—	—	0.5	0.6	0.40
1	7	—	—	0.6	0.6	0.00
1	8	—	—	0.6	0.6	0.00
1	9	—	—	0.6	0.6	0.00
1	10	—	—	0.6	0.6	0.00
1	11	—	—	0.6	0.6	0.00
1	12	—	—	0.7	0.8	0.40
1	13	—	—	0.8	0.8	0.00
1	14	—	—	0.7	0.7	0.00

✓ OK-WJ 2/18/03

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

2/18/2003 8:34:14 AM
Leak Check for C:\Smart\T021703.SEQ
Report File: C:\Smart\T021703.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	---	---	0.8	0.9	0.40
1	2	---	---	0.5	0.6	0.40
1	3	---	---	0.6	0.6	0.00
1	4	---	---	0.6	0.6	0.00
1	5	---	---	0.5	0.5	0.00
1	6	---	---	0.4	0.4	0.00
1	7	---	---	0.5	0.5	0.00
1	8	---	---	0.4	0.4	0.00

OK wof
2/18/03

Raw QC Data

BECHTEL HANFORD, INC.
METHOD BLANK COMPOUNDS

Lab Name:Severn Trent Laboratories, Inc. SDG Number:W03984

Matrix: (soil/water) AIR Lab Sample ID:H3B170000 279
Method: EPA-19 TO-14
Volatile Organics, (GCMS-TO14 Low Level) ppb(v/v)

Sample WT/Vol: / mL Date Received: 02/15/03
Work Order: FHQC31AA Date Extracted:02/17/03
Dilution factor: 1 Date Analyzed: 02/17/03

QC Batch: 3048279

Client Sample Id: INTRA-LAB BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
75-71-8	Dichlorodifluoromethane	0.20	U
75-45-6	Chlorodifluoromethane	0.20	U
76-14-2	1,2-Dichloro-1,1,2,2-tetrafl	0.20	U
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl chloride	0.20	U
106-97-8	n-Butane	0.20	U
106-99-0	1,3-Butadiene	0.20	U
74-83-9	Bromomethane	0.20	U
75-00-3	Chloroethane	0.20	U
75-69-4	Trichlorofluoromethane	0.20	U
109-66-0	Pentane	0.50	U
75-35-4	1,1-Dichloroethene	0.20	U
76-13-1	1,1,2-Trichloro-1,2,2-triflu	0.20	U
75-15-0	Carbon disulfide	0.20	U
107-05-1	3-Chloropropene	0.20	U
75-09-2	Methylene chloride	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.20	U
110-54-3	n-Hexane	0.20	U
75-34-3	1,1-Dichloroethane	0.20	U
156-59-2	cis-1,2-Dichloroethene	0.20	U
67-66-3	Chloroform	0.20	U
71-55-6	1,1,1-Trichloroethane	0.20	U
110-82-7	Cyclohexane	0.50	U
56-23-5	Carbon tetrachloride	0.20	U
71-43-2	Benzene	0.20	U
107-06-2	1,2-Dichloroethane	0.20	U
142-82-5	n-Heptane	0.20	U
79-01-6	Trichloroethene	0.20	U

BECHTEL HANFORD, INC.
METHOD BLANK COMPOUNDS

Lab Name:Severn Trent Laboratories, Inc. SDG Number:W03984

Matrix: (soil/water) AIR Lab Sample ID:H3B170000 279
Method: EPA-19 TO-14
Volatile Organics, (GCMS-TO14 Low Level) ppb(v/v)

Sample WT/Vol: / mL Date Received: 02/15/03
Work Order: FHQC31AA Date Extracted:02/17/03
Dilution factor: 1 Date Analyzed: 02/17/03

QC Batch: 3048279

Client Sample Id: INTRA-LAB BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
78-87-5	1,2-Dichloropropane	0.20	U
74-95-3	Dibromomethane	0.20	U
75-27-4	Bromodichloromethane	0.20	U
10061-01-5	cis-1,3-Dichloropropene	0.20	U
108-88-3	Toluene	0.20	U
111-65-9	n-Octane	0.20	U
10061-02-6	trans-1,3-Dichloropropene	0.20	U
79-00-5	1,1,2-Trichloroethane	0.20	U
127-18-4	Tetrachloroethene	0.20	U
124-48-1	Dibromochloromethane	0.20	U
106-93-4	1,2-Dibromoethane (EDB)	0.20	U
108-90-7	Chlorobenzene	0.20	U
100-41-4	Ethylbenzene	0.20	U
136777-61-2	m-Xylene & p-Xylene	0.20	U
111-84-2	Nonane	0.20	U
95-47-6	o-Xylene	0.20	U
100-42-5	Styrene	0.20	U
75-25-2	Bromoform	0.20	U
98-82-8	Cumene	0.20	U
79-34-5	1,1,2,2-Tetrachloroethane	0.20	U
103-65-1	n-Propylbenzene	0.20	U
108-67-8	1,3,5-Trimethylbenzene	0.20	U
124-18-5	n-Decane	0.20	U
98-83-9	alpha-Methylstyrene	0.20	U
95-63-6	1,2,4-Trimethylbenzene	0.20	U
541-73-1	1,3-Dichlorobenzene	0.20	U
106-46-7	1,4-Dichlorobenzene	0.20	U
100-44-7	Benzyl chloride	0.20	U

BECHTEL HANFORD, INC.
METHOD BLANK COMPOUNDS

Lab Name:Severn Trent Laboratories, Inc. SDG Number:W03984

Matrix: (soil/water) AIR Lab Sample ID:H3B170000 279
Method: EPA-19 TO-14
Volatile Organics, (GCMS-TO14 Low Level) ppb(v/v)

Sample WT/Vol: / mL Date Received: 02/15/03
Work Order: FHQC31AA Date Extracted:02/17/03
Dilution factor: 1 Date Analyzed: 02/17/03

QC Batch: 3048279

Client Sample Id: INTRA-LAB BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
95-50-1	1,2-Dichlorobenzene	0.20	U
1120-21-4	n-Undecane	0.20	U
112-40-3	n-Dodecane	0.20	U
120-82-1	1,2,4-Trichlorobenzene	0.20	U
87-68-3	Hexachlorobutadiene	0.20	U
91-20-3	Naphthalene	0.20	U
67-56-1	Methanol	10	U
60-29-7	Ethyl ether	0.50	U
67-64-1	Acetone	5.0	U
107-13-1	Acrylonitrile	0.50	U
108-05-4	Vinyl acetate	0.50	U
78-93-3	2-Butanone (MEK)	0.50	U
71-36-3	1-Butanol	0.50	U
108-10-1	4-Methyl-2-pentanone (MIBK)	0.50	U
591-78-6	2-Hexanone	0.50	U
1634-04-4	Methyl tert-butyl ether	0.50	U
107-02-8	Acrolein	0.50	U
75-05-8	Acetonitrile	1.0	U

Data File: /var/chem/gcms/mt.i/T021703.b/bk0217b.d
Report Date: 18-Feb-2003 09:32

STL Knoxville

Modified Method TO-14

Data file : /var/chem/gcms/mt.i/T021703.b/bk0217b.d
Lab Smp Id: FHQC31AA
Client Smp ID: INTRA-LAB BLANK
Inj Date : 17-FEB-2003 11:02
Operator : 0691
Inst ID: mt.i
Smp Info : FHQC31AA,,3,,BLANK
Misc Info : T021703,LA,,,500ML
Comment :
Method : /var/chem/gcms/mt.i/T021703.b/LA.m
Meth Date : 18-Feb-2003 09:21 wilesd
Quant Type: ISTD
Cal Date : 17-FEB-2003 09:09
Cal File: md0217.d
Als bottle: 15
QC Sample: METHOD BLANK
Dil Factor: 1.00000
Integrator: HP RTE
Compound Sublist: RTall.sub
Target Version: 3.50
Processing Host: qmidhp01

02/18/03

cwf 2/18/03

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	9.757	(1.000)	621837	10.0000	
* 2 1,4-Difluorobenzene	114	11.874	11.874	(1.000)	2812810	10.0000	
* 3 Chlorobenzene-d5	117	16.429	16.429	(1.000)	2299708	10.0000	
$ 4 1,2-Dichloroethane-d4	67	10.755	10.763	(0.906)	451653	10.1837	10.18
$ 5 Toluene-d8	98	14.416	14.416	(0.877)	2303845	10.1977	10.20
$ 6 4-Bromofluorobenzene	95	18.017	18.017	(1.097)	1470251	10.5321	10.53
12 Methanol	31	4.612	4.586	(0.473)	2670	0.12068	0.1207
28 Carbon Disulfide	76	7.267	7.276	(0.745)	8662	0.04130	0.04130

Data File: /var/chem/gcms/mt.i/T021703.b/bk0217b.d
Report Date: 18-Feb-2003 09:32

STL Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mt.i
Lab File ID: bk0217b.d
Lab Smp Id: FHQC31AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 0691
Method File: /var/chem/gcms/mt.i/T021703.b/LA.m
Misc Info: T021703,LA,,,500ML

Calibration Date: 17-FEB-2003
Calibration Time: 09:09
Client Smp ID: INTRA-LAB BLANK
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	609839	362854	856824	621837	1.97
2 1,4-Difluorobenze	2915257	1734578	4095936	2812810	-3.51
3 Chlorobenzene-d5	2372264	1411497	3333031	2299708	-3.06

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.76	9.26	10.26	9.76	0.00
2 1,4-Difluorobenze	11.87	11.37	12.37	11.87	0.00
3 Chlorobenzene-d5	16.43	15.93	16.93	16.43	0.00

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/T021703.b/bk0217b.d
Report Date: 18-Feb-2003 09:32

STL Knoxville

RECOVERY REPORT

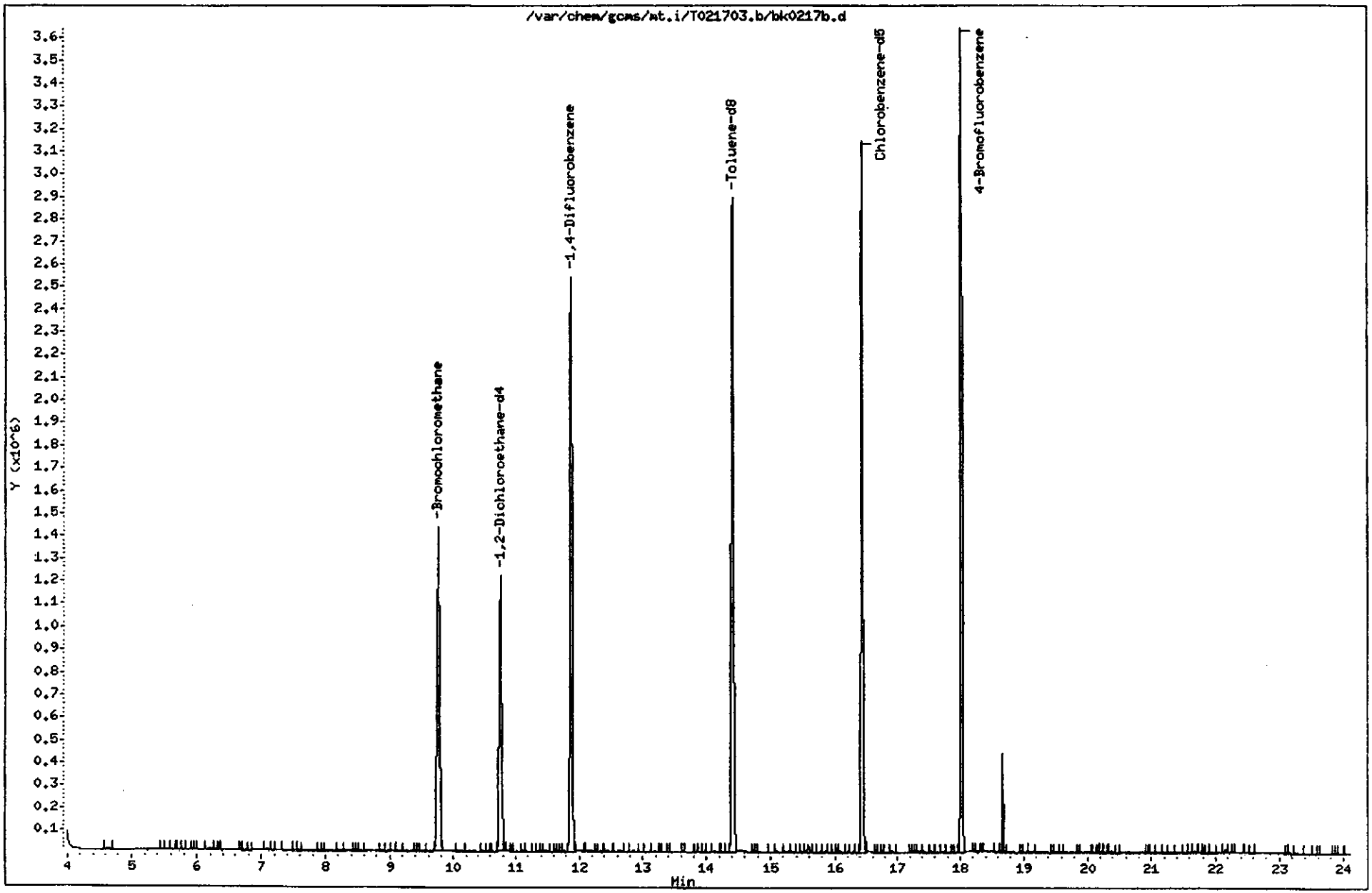
Client Name:
Sample Matrix: GAS
Lab Smp Id: FHQC31AA
Level: LOW
Data Type: MS DATA
SpikeList File: RTALL.spk
Sublist File: RTall.sub
Method File: /var/chem/gcms/mt.i/T021703.b/LA.m
Misc Info: T021703,LA,,,500ML

Client SDG: H3B170000
Fraction: OTHER
Client Smp ID: INTRA-LAB BLANK
Operator: 0691
SampleType: METHOD BLANK
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 4 1,2-Dichloroethane	10.00	10.18	101.84	70-130
$ 5 Toluene-d8	10.00	10.20	101.98	70-130
$ 6 4-Bromofluorobenze	10.00	10.53	105.32	70-130

Data File: /var/chem/gcms/mt.i/T021703.b/bk0217b.d
Date : 17-FEB-2003 11:02
Client ID: INTRA-LAB BLANK
Sample Info: FHQC31AA,,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/T021703.b/bk0217b.d

Date : 17-FEB-2003 11:02

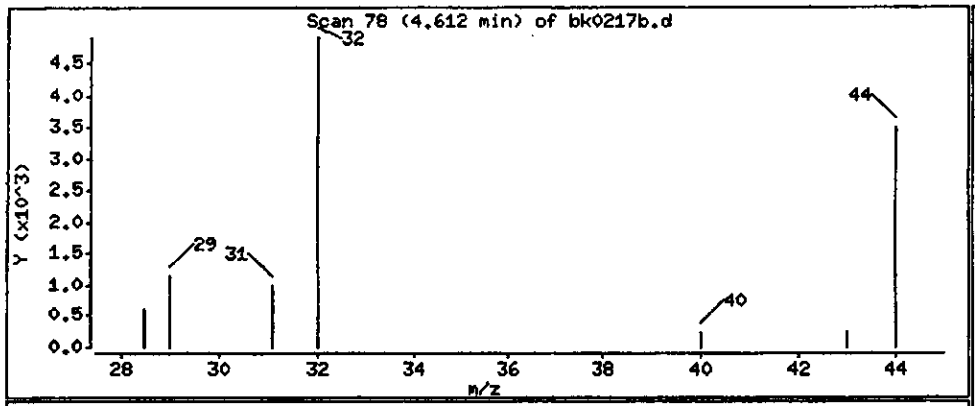
Client ID: INTRA-LAB BLANK | Instrument: mt.i

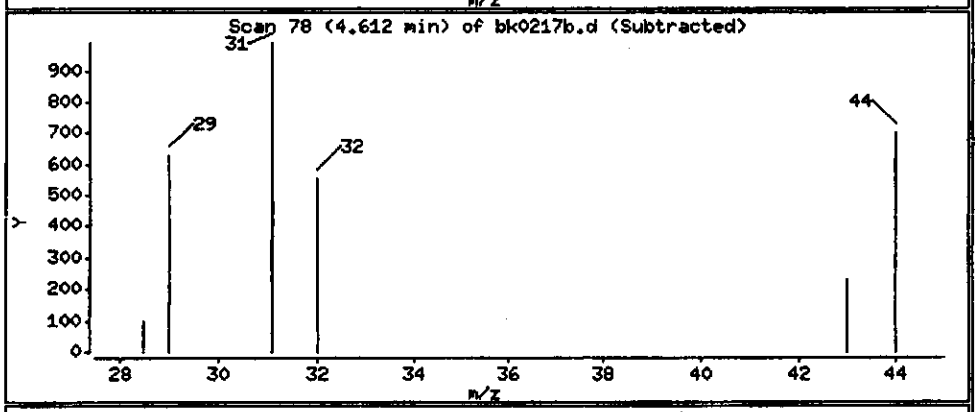
Sample Info: FHQC31AA,,3,,BLANK

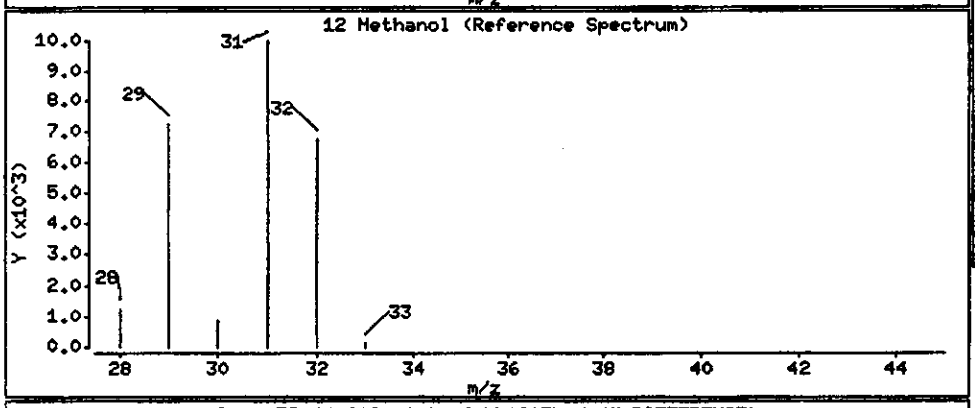
Volume Injected (uL): 500.0 | Operator: 0691

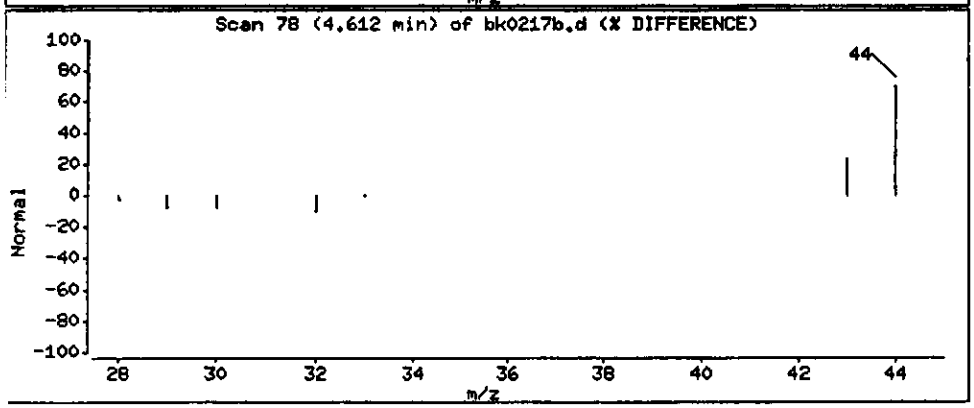
Column phase: DB-5 | Column diameter: 0.32

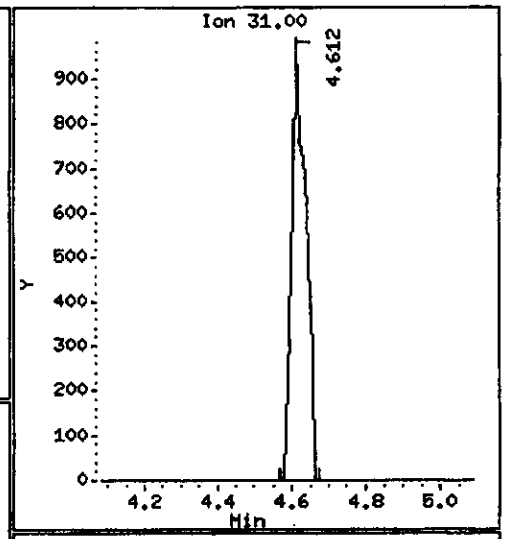
12 Methanol | Concentration: 0.1207 ppb(v/v)

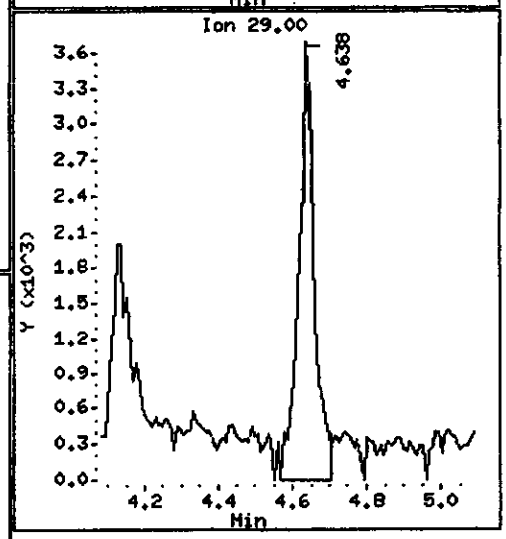












Data File: /var/chem/gcms/mt.i/T021703.b/bk0217b.d

Date : 17-FEB-2003 11:02

Client ID: INTRA-LAB BLANK

Instrument: mt.i

Sample Info: FHQC31AA,,3,,BLANK

Volume Injected (uL): 500.0

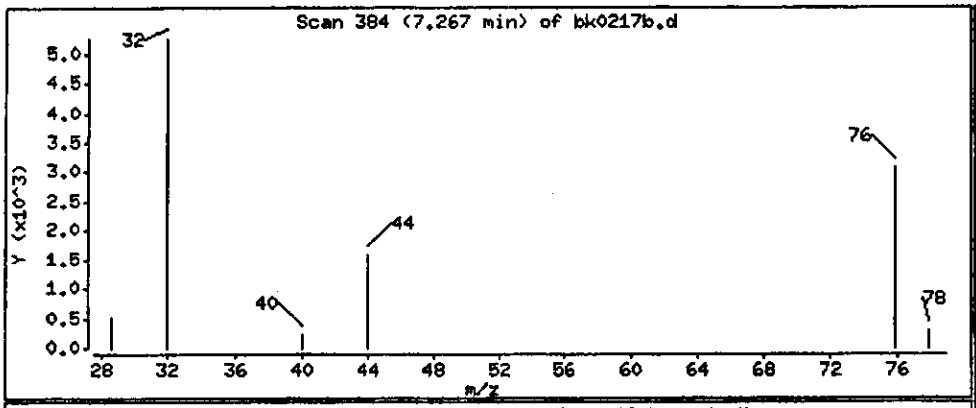
Operator: 0691

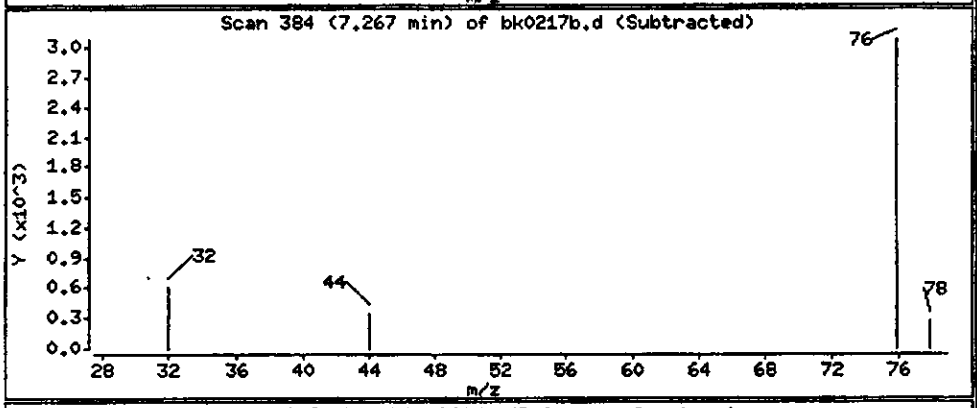
Column phase: DB-5

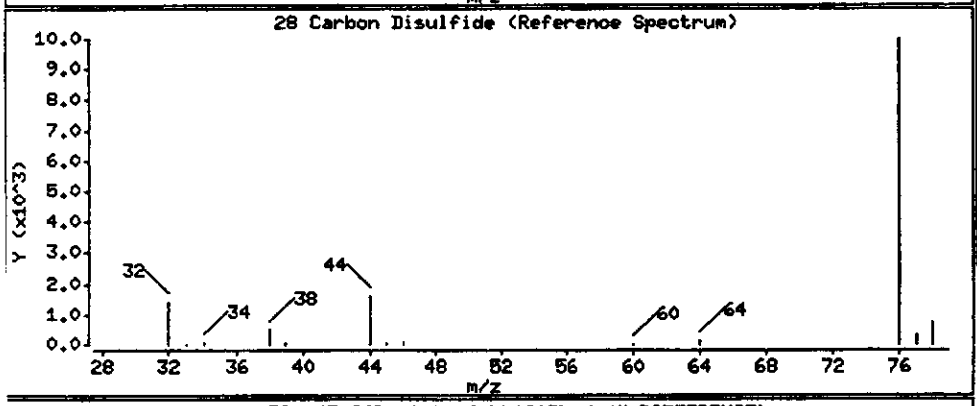
Column diameter: 0.32

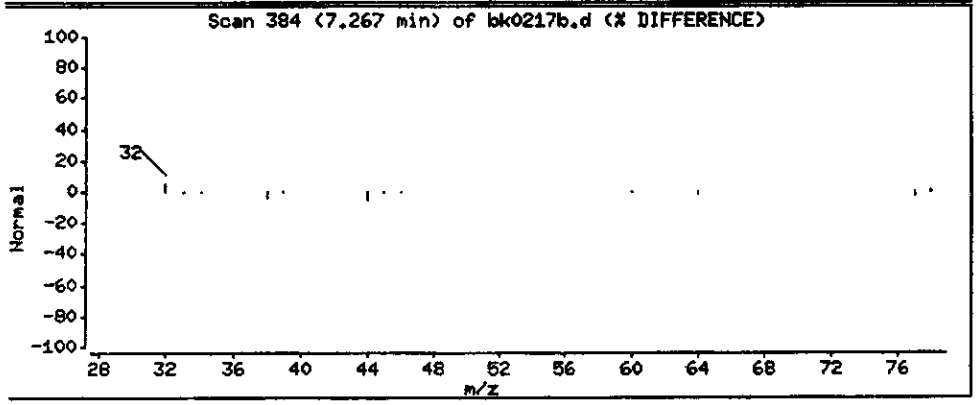
28 Carbon Disulfide

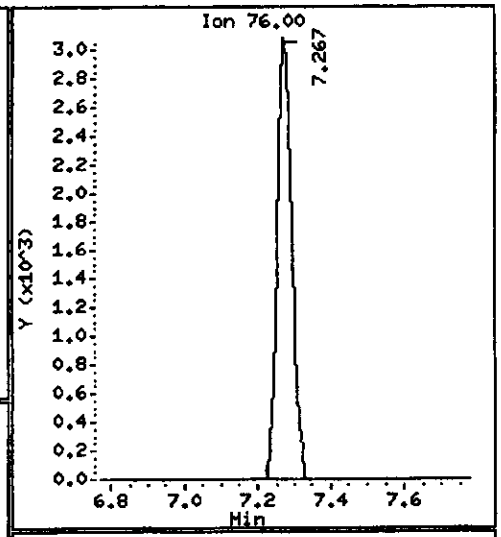
Concentration: 0.04130 ppb(v/v)

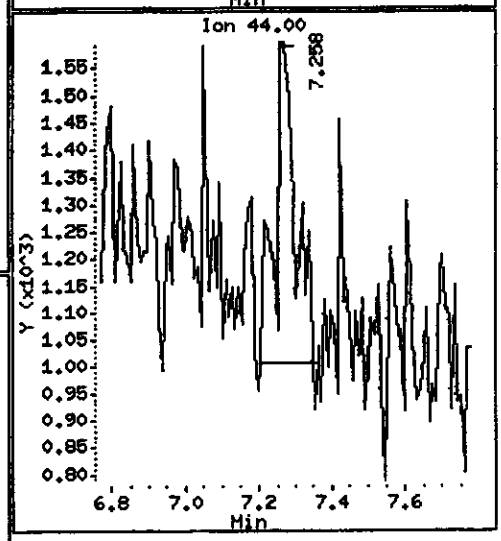












Data File: /var/chem/gcms/mt.i/T021703.b/bk0217b.d
Report Date: 18-Feb-2003 10:05

STL Knoxville

Modified Method TO-14

Data file : /var/chem/gcms/mt.i/T021703.b/bk0217b.d
Lab Smp Id: FHQC31AA Client Smp ID: INTRA-LAB BLANK
Inj Date : 17-FEB-2003 11:02
Operator : 0691 Inst ID: mt.i
Smp Info : FHQC31AA,,3,,BLANK
Misc Info : T021703,LA,,,500ML
Comment :
Method : /var/chem/gcms/mt.i/T021703.b/LA.m
Meth Date : 18-Feb-2003 10:02 wilesd Quant Type: ISTD
Cal Date : 17-FEB-2003 09:09 Cal File: md0217.d
Als bottle: 15 QC Sample: METHOD BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: RTall.sub
Target Version: 3.50
Processing Host: qmidhp01

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

ISTD	RT	HEIGHT	AMOUNT
* 3 Chlorobenzene-d5	16.429	3140108	10.000

	CONCENTRATIONS			QUANT			
RT	HEIGHT	ON-COL(ppb(v/v))	FINAL(ppb(v/v))	QUAL	LIBRARY	LIB ENTRY	CPND #
Methanesulfinic acid, trifluoro-, trimet				CAS #: 51735-75-2			
18.667	436541	1.39021015	1.390	4	NBS75K.l	24139	3

AD

2-18-03

Data File: /var/chem/gcms/mt.i/T021703.b/bk0217b.d

Date : 17-FEB-2003 11:02

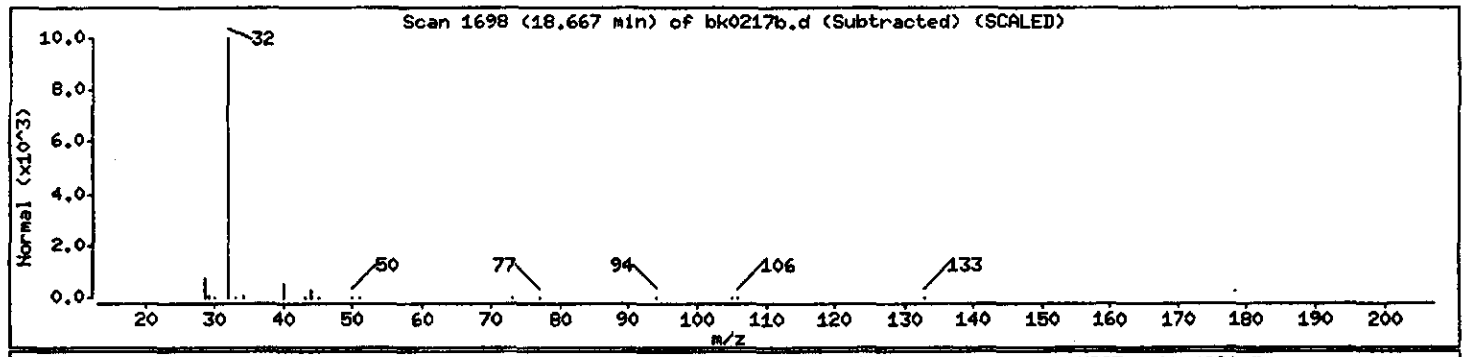
Client ID: INTRA-LAB BLANK | Instrument: mt.i

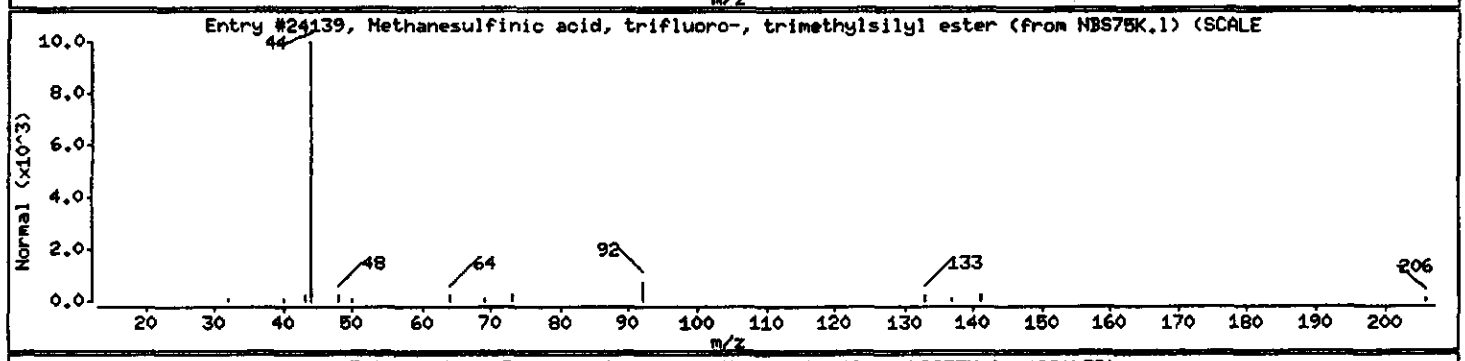
Sample Info: FHQC31AA,,3,,BLANK

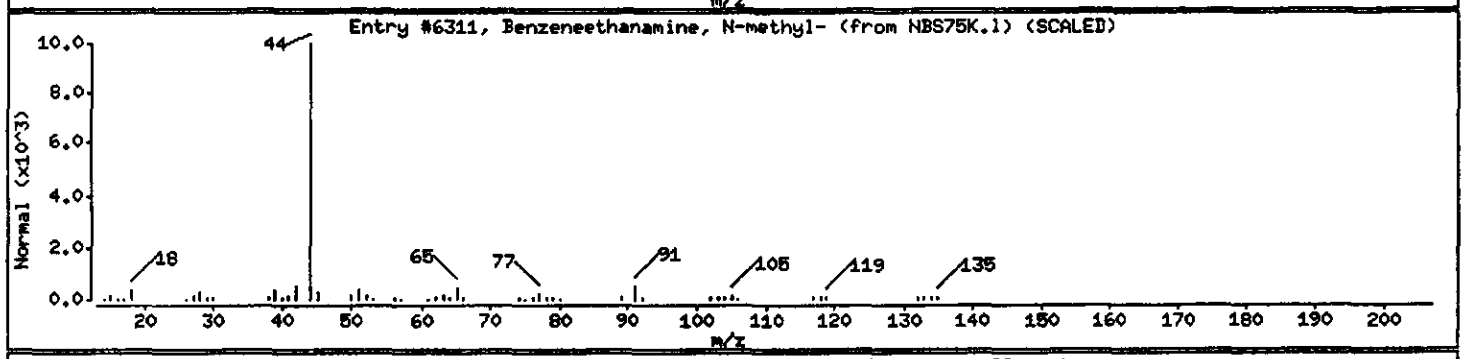
Volume Injected (uL): 500.0 | Operator: 0691

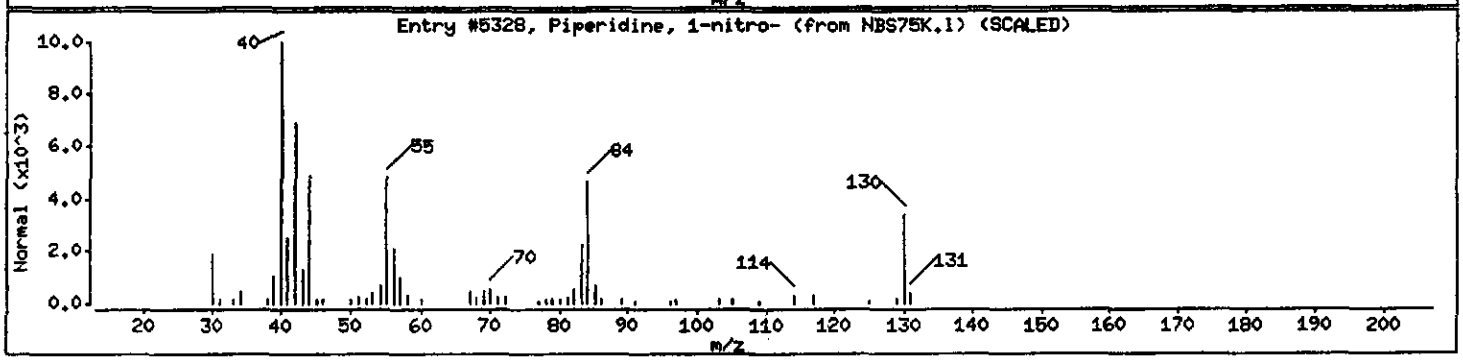
Column phase: DB-5 | Column diameter: 0.32

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Methanesulfinic acid, trifluoro-, trimet	51735-75-2	NBS75K.1	24139	4	C4H9F3O2SSi	206
Benzeneethanamine, N-methyl-	589-08-2	NBS75K.1	6311	4	C9H13N	135
Piperidine, 1-nitro-	7119-94-0	NBS75K.1	5328	4	C5H10N2O2	130









BECHTEL HANFORD, INC.
CHECK SAMPLE COMPOUNDS

Lab Name:Severn Trent Laboratories, Inc. SDG Number:W03984

Matrix: (soil/water) AIR Lab Sample ID:H3B170000 279
Method: EPA-19 TO-14
Volatile Organics, (GCMS-TO14 Low Level) ppb(v/v)

Sample WT/Vol: 100 / mL Date Received: 02/15/03
Work Order: FHQC31AC Date Extracted:02/17/03
Dilution factor: 1 Date Analyzed: 02/17/03

QC Batch: 3048279

Client Sample Id: CHECK SAMPLE

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
75-71-8	Dichlorodifluoromethane	10.2	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafl	10.1	
74-87-3	Chloromethane	10.1	
75-01-4	Vinyl chloride	10.2	
74-83-9	Bromomethane	10.1	
75-00-3	Chloroethane	10.0	
75-69-4	Trichlorofluoromethane	10.1	
75-35-4	1,1-Dichloroethene	10.2	
76-13-1	1,1,2-Trichloro-1,2,2-triflu	10.1	
75-09-2	Methylene chloride	10.2	
75-34-3	1,1-Dichloroethane	10.2	
156-59-2	cis-1,2-Dichloroethene	10.0	
67-66-3	Chloroform	10.2	
71-55-6	1,1,1-Trichloroethane	10.2	
56-23-5	Carbon tetrachloride	9.97	
71-43-2	Benzene	10.3	
107-06-2	1,2-Dichloroethane	10.3	
79-01-6	Trichloroethene	10.4	
78-87-5	1,2-Dichloropropane	10.4	
10061-01-5	cis-1,3-Dichloropropene	10.4	
108-88-3	Toluene	10.3	
10061-02-6	trans-1,3-Dichloropropene	10.2	
79-00-5	1,1,2-Trichloroethane	10.3	
127-18-4	Tetrachloroethene	10.5	
106-93-4	1,2-Dibromoethane (EDB)	10.2	
108-90-7	Chlorobenzene	10.4	
100-41-4	Ethylbenzene	10.3	
136777-61-2	m-Xylene & p-Xylene	10.4	

BECHTEL HANFORD, INC.
CHECK SAMPLE COMPOUNDS

Lab Name:Severn Trent Laboratories, Inc. SDG Number:W03984

Matrix: (soil/water) AIR Lab Sample ID:H3B170000 279
Method: EPA-19 TO-14
Volatile Organics, (GCMS-TO14 Low Level) ppb(v/v)

Sample WT/Vol: 100 / mL Date Received: 02/15/03
Work Order: FHQC31AC Date Extracted:02/17/03
Dilution factor: 1 Date Analyzed: 02/17/03

QC Batch: 3048279

Client Sample Id: CHECK SAMPLE

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ppb(v	Q
95-47-6	o-Xylene	10.3	
100-42-5	Styrene	10.3	
79-34-5	1,1,2,2-Tetrachloroethane	10.3	
108-67-8	1,3,5-Trimethylbenzene	10.7	
95-63-6	1,2,4-Trimethylbenzene	10.3	
541-73-1	1,3-Dichlorobenzene	10.2	
106-46-7	1,4-Dichlorobenzene	10.2	
100-44-7	Benzyl chloride	10.4	
95-50-1	1,2-Dichlorobenzene	10.3	
120-82-1	1,2,4-Trichlorobenzene	10.6	
87-68-3	Hexachlorobutadiene	9.36	
67-64-1	Acetone	20.8	

EPA-19 TO-14 CHECK SAMPLE RECOVERY

Lab Name: Severn Trent Laboratories, Inc. Client: BECHTEL HANFORD, INC.

Lab Code: STLKNX SDG No: W03984

Lot #: H3B170000 WO #: FHQC31AC
BATCH: 3048279

COMPOUND	SPIKE ADDED (ppb(v)	SAMPLE CONCENT. (ppb(v)	% REC	QC LIMITS REC	QUAL
Dichlorodifluoromethane	10.0	10.2	102	70 - 130	
Chloromethane	10.0	10.1	101	70 - 130	
1,2-Dichloro-1,1,2,2-tetr	10.0	10.1	101	70 - 130	
Vinyl chloride	10.0	10.2	102	70 - 130	
Bromomethane	10.0	10.1	101	70 - 130	
Chloroethane	10.0	10.0	100	70 - 130	
Trichlorofluoromethane	10.0	10.1	101	70 - 130	
Acetone	20.0	20.8	104	70 - 130	
1,1-Dichloroethene	10.0	10.2	102	70 - 130	
1,1,2-Trichloro-1,2,2-tri	10.0	10.1	101	70 - 130	
Methylene chloride	10.0	10.2	102	70 - 130	
1,1-Dichloroethane	10.0	10.2	102	70 - 130	
cis-1,2-Dichloroethene	10.0	10.0	100	70 - 130	
Chloroform	10.0	10.2	102	70 - 130	
1,1,1-Trichloroethane	10.0	10.2	102	70 - 130	
1,2-Dichloroethane	10.0	10.3	103	70 - 130	
Benzene	10.0	10.3	103	70 - 130	
Carbon tetrachloride	10.0	9.97	100	70 - 130	
1,2-Dichloropropane	10.0	10.4	104	70 - 130	
Trichloroethene	10.0	10.4	104	70 - 130	
cis-1,3-Dichloropropene	10.0	10.4	104	70 - 130	
trans-1,3-Dichloropropene	10.0	10.2	102	70 - 130	
Toluene	10.0	10.3	103	70 - 130	
1,1,2-Trichloroethane	10.0	10.3	103	70 - 130	
1,2-Dibromoethane (EDB)	10.0	10.2	102	70 - 130	
Tetrachloroethene	10.0	10.5	105	70 - 130	
Chlorobenzene	10.0	10.4	104	70 - 130	
Ethylbenzene	10.0	10.3	103	70 - 130	
m-Xylene & p-Xylene	10.0	10.4	104	70 - 130	
Styrene	10.0	10.3	103	70 - 130	
o-Xylene	10.0	10.3	103	70 - 130	

(Continued on next page)

Data File: /var/chem/gcms/mt.i/T021703.b/rf0217.d
Report Date: 18-Feb-2003 09:32

STL Knoxville

Modified Method TO-14

Data file : /var/chem/gcms/mt.i/T021703.b/rf0217.d
Lab Smp Id: FHQC31AC
Client Smp ID: INTRA-LAB CHECK
Inj Date : 17-FEB-2003 09:46
Operator : 0691
Inst ID: mt.i
Smp Info : FHQC31AC,,3,,LCS
Misc Info : T021703,LA,,,100ML
Comment :
Method : /var/chem/gcms/mt.i/T021703.b/LA.m
Meth Date : 18-Feb-2003 09:21 wilesd
Quant Type: ISTD
Cal Date : 17-FEB-2003 09:09
Cal File: md0217.d
Als bottle: 16
QC Sample: METHOD SPIKE
Dil Factor: 1.00000
Integrator: HP RTE
Compound Sublist: RTall.sub
Target Version: 3.50
Processing Host: qmidhp01

021803

wlf 2/18/03

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	9.767	9.757	(1.000)	611150	10.0000	
* 2 1,4-Difluorobenzene	114	11.875	11.874	(1.000)	2866236	10.0000	
* 3 Chlorobenzene-d5	117	16.430	16.429	(1.000)	2349723	10.0000	
$ 4 1,2-Dichloroethane-d4	67	10.764	10.763	(0.906)	454323	10.0529	10.05
$ 5 Toluene-d8	98	14.417	14.416	(0.877)	2314276	10.0258	10.02
$ 6 4-Bromofluorobenzene	95	18.018	18.017	(1.097)	1423911	9.98302	9.983
7 Chlorodifluoromethane	51	4.145	4.144	(0.424)	1028963	9.99016	9.990
8 Dichlorodifluoromethane	85	4.223	4.222	(0.432)	1274736	10.2334	10.23
9 Chloromethane	52	4.439	4.430	(0.455)	157889	10.0710	10.07
10 1,2-Dichlorotetrafluoroethane	135	4.448	4.447	(0.455)	947357	10.0860	10.08
11 Vinyl Chloride	62	4.639	4.638	(0.475)	533657	10.1817	10.18
12 Methanol	31	4.596	4.586	(0.471)	898927	41.3381	41.34
13 1,3-Butadiene	54	4.743	4.742	(0.486)	386257	10.0939	10.09
14 n-Butane	43	4.752	4.742	(0.487)	811429	10.1061	10.11
15 Bromomethane	94	5.125	5.124	(0.525)	590061	10.0933	10.09
16 Chloroethane	64	5.290	5.289	(0.542)	290066	10.0311	10.03
17 Trichlorofluoromethane	101	5.949	5.939	(0.609)	1019340	10.0863	10.09
18 Acrolein	56	5.949	5.948	(0.609)	373744	19.9851	19.98
19 Acetonitrile	40	6.027	6.026	(0.617)	484061	20.3101	20.31
20 Acetone	58	6.088	6.087	(0.623)	458120	20.7544	20.75
21 Pentane	57	6.201	6.191	(0.635)	144012	9.70303	9.703

Data File: /var/chem/gcms/mt.i/T021703.b/rf0217.d
Report Date: 18-Feb-2003 09:32

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	FINAL (ppb(v/v))
22 Ethyl Ether	31	6.383	6.382	(0.654)	1632621	20.2067	20.21
23 1,1-Dichloroethene	96	6.721	6.720	(0.688)	626303	10.1470	10.15
24 Acrylonitrile	53	6.834	6.833	(0.700)	1010570	20.2455	20.24
25 1,1,2-Trichlorotrifluoroethane	101	6.930	6.920	(0.710)	1210125	10.1137	10.11
26 Methylene Chloride	84	7.094	7.093	(0.726)	554992	10.1619	10.16
27 3-Chloropropene	39	7.120	7.119	(0.729)	511607	10.2621	10.26
28 Carbon Disulfide	76	7.277	7.276	(0.745)	2056264	9.97591	9.976
29 trans-1,2-Dichloroethene	96	7.962	7.961	(0.815)	646834	10.2101	10.21
30 Methyl-t-Butyl Ether	73	8.127	8.126	(0.832)	2856537	20.4653	20.46
31 1,1-Dichloroethane	63	8.413	8.404	(0.861)	1112774	10.1654	10.16
32 Vinyl Acetate	43	8.517	8.516	(0.872)	3411015	19.9762	19.98
33 2-Butanone	72	9.003	8.993	(0.922)	592214	20.3238	20.32
34 Hexane	56	9.021	9.020	(0.924)	463563	10.1860	10.19
35 cis 1,2-Dichloroethene	96	9.428	9.427	(0.965)	667603	10.0300	10.03
36 Chloroform	83	9.775	9.774	(1.001)	1111570	10.2077	10.21
37 1,1,1-Trichloroethane	97	10.808	10.807	(1.107)	996722	10.2333	10.23
38 1,2-Dichloroethane	62	10.903	10.902	(0.918)	739397	10.3151	10.32
39 Benzene	78	11.372	11.371	(0.958)	1661349	10.3191	10.32
40 1-Butanol	31	11.320	11.319	(0.953)	830230	20.2404	20.24
41 Cyclohexane	69	11.380	11.379	(0.958)	248683	10.3819	10.38
42 Carbon Tetrachloride	117	11.398	11.397	(1.167)	955077	9.96728	9.967
43 Heptane	43	12.448	12.447	(1.048)	1270777	10.1275	10.13
44 1,2-Dichloropropane	63	12.526	12.525	(1.055)	686231	10.4180	10.42
45 Trichloroethene	130	12.560	12.551	(1.058)	854200	10.4498	10.45
46 Dibromomethane	93	12.630	12.629	(1.064)	717384	10.2419	10.24
47 Bromodichloromethane	83	12.769	12.768	(1.075)	1183759	10.2781	10.28
48 4-Methyl-2-pentanone	43	13.688	13.687	(1.153)	2974134	20.7411	20.74
49 cis-1,3-Dichloropropene	75	13.723	13.722	(1.156)	1202547	10.3872	10.39
50 trans-1,3-Dichloropropene	75	14.391	14.381	(0.876)	788614	10.2250	10.22
51 Toluene	91	14.521	14.520	(0.884)	2033647	10.3232	10.32
52 1,1,2-Trichloroethane	97	14.582	14.581	(0.888)	743816	10.2770	10.28
53 2-Hexanone	58	14.972	14.971	(0.911)	1694040	20.4457	20.44
54 Octane	85	15.181	15.180	(0.924)	608542	10.1948	10.19
55 Dibromochloromethane	129	15.267	15.266	(0.929)	1371184	10.1763	10.18
56 1,2-Dibromoethane	107	15.554	15.553	(0.947)	1278206	10.2326	10.23
57 Tetrachloroethene	129	15.623	15.622	(0.951)	719532	10.4669	10.47
58 Chlorobenzene	112	16.482	16.481	(1.003)	1733701	10.3957	10.40
59 Ethylbenzene	91	16.760	16.759	(1.020)	2545134	10.3247	10.32
60 m-Xylene (For p-)	91	16.907	16.906	(1.029)	1935483	10.3635	10.36
61 Bromoform	173	17.350	17.349	(1.056)	1279239	10.2858	10.28
62 Nonane	57	17.315	17.314	(1.054)	1327583	10.3196	10.32
63 Styrene	104	17.367	17.366	(1.057)	1390110	10.2875	10.29
64 o-Xylene	91	17.436	17.435	(1.061)	1960515	10.3260	10.32
65 1,1,2,2-Tetrachloroethane	83	17.731	17.730	(1.079)	1630649	10.2777	10.28
66 1,2,3-Trichloropropane	110	17.888	17.887	(1.089)	414096	10.4154	10.42
67 Cumene	105	17.992	17.991	(1.095)	2480340	10.1366	10.14
68 n-Propylbenzene	91	18.495	18.494	(1.126)	3498675	10.2544	10.25

Data File: /var/chem/gcms/mt.i/T021703.b/rf0217.d
Report Date: 18-Feb-2003 09:32

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	CONCENTRATIONS FINAL (ppb(v/v))
69 4-Ethyltoluene	105	18.634	18.633	(1.134)	2973910	10.8541	10.85
70 1,3,5-Trimethylbenzene	120	18.703	18.702	(1.138)	1179995	10.7250	10.72
71 Alpha-Methylstyrene	118	18.911	18.910	(1.151)	1162377	10.1357	10.14
72 Decane	57	18.972	18.971	(1.155)	1760501	10.2615	10.26
73 1,2,4-Trimethylbenzene	105	19.120	19.119	(1.164)	2229287	10.2864	10.29
74 1,3-Dichlorobenzene	146	19.380	19.379	(1.180)	1717210	10.1868	10.19
75 Benzyl Chloride	91	19.441	19.440	(1.183)	1930884	10.3515	10.35
76 1,4-Dichlorobenzene	146	19.458	19.457	(1.184)	1628005	10.2153	10.22
77 1,2-Dichlorobenzene	146	19.805	19.804	(1.205)	1635092	10.2761	10.28
78 Undecane	57	20.221	20.220	(1.231)	1809886	10.0337	10.03
79 Dodecane	57	21.306	21.305	(1.297)	1789123	10.2559	10.26
80 1,2,4-Trichlorobenzene	180	21.523	21.522	(1.310)	1444302	10.5969	10.60
81 Napthalene	128	21.679	21.678	(1.319)	3310436	9.27959	9.280
82 Hexachlorobutadiene	225	21.905	21.912	(1.333)	1121833	9.36500	9.365

Data File: /var/chem/gcms/mt.i/T021703.b/rf0217.d
Report Date: 18-Feb-2003 09:32

STL Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mt.i
Lab File ID: rf0217.d
Lab Smp Id: FHQC31AC
Analysis Type: OTHER
Quant Type: ISTD
Operator: 0691
Method File: /var/chem/gcms/mt.i/T021703.b/LA.m
Misc Info: T021703,LA,,,100ML

Calibration Date: 17-FEB-2003
Calibration Time: 09:09
Client Smp ID: INTRA-LAB CHECK
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	609839	362854	856824	611150	0.21
2 1,4-Difluorobenze	2915257	1734578	4095936	2866236	-1.68
3 Chlorobenzene-d5	2372264	1411497	3333031	2349723	-0.95

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.76	9.26	10.26	9.77	0.10
2 1,4-Difluorobenze	11.87	11.37	12.37	11.87	0.01
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/T021703.b/rf0217.d
Report Date: 18-Feb-2003 09:32

STL Knoxville

RECOVERY REPORT

Client Name:
Sample Matrix: GAS
Lab Smp Id: FHQC31AC
Level: LOW
Data Type: MS DATA
SpikeList File: RTALL.spk
Sublist File: RTall.sub
Method File: /var/chem/gcms/mt.i/T021703.b/LA.m
Misc Info: T021703,LA,,,100ML

Client SDG: H3B170000
Fraction: OTHER
Client Smp ID: INTRA-LAB CHECK
Operator: 0691
SampleType: METHOD SPIKE
Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
7 Chlorodifluorometh	10.00	9.990	99.90	70-130
8 Dichlorodifluorome	10.00	10.23	102.33	70-130
9 Chloromethane	10.00	10.07	100.71	70-130
10 1,2-Dichlorotetraf	10.00	10.08	100.86	70-130
11 Vinyl Chloride	10.00	10.18	101.82	70-130
12 Methanol	40.00	41.34	103.35	60-140
13 1,3-Butadiene	10.00	10.09	100.94	70-130
14 n-Butane	10.00	10.11	101.06	70-130
15 Bromomethane	10.00	10.09	100.93	70-130
16 Chloroethane	10.00	10.03	100.31	70-130
17 Trichlorofluoromet	10.00	10.09	100.86	70-130
18 Acrolein	20.00	19.98	99.93	60-140
19 Acetonitrile	20.00	20.31	101.55	60-140
20 Acetone	20.00	20.75	103.77	60-140
21 Pentane	10.00	9.703	97.03	70-130
22 Ethyl Ether	20.00	20.21	101.03	60-140
23 1,1-Dichloroethene	10.00	10.15	101.47	70-130
24 Acrylonitrile	20.00	20.24	101.23	60-140
25 1,1,2-Trichlorotri	10.00	10.11	101.14	70-130
26 Methylene Chloride	10.00	10.16	101.62	70-130
27 3-Chloropropene	10.00	10.26	102.62	70-130
28 Carbon Disulfide	10.00	9.976	99.76	70-130
29 trans-1,2-Dichloro	10.00	10.21	102.10	70-130
30 Methyl-t-Butyl Eth	20.00	20.46	102.33	60-140
31 1,1-Dichloroethane	10.00	10.16	101.65	70-130
32 Vinyl Acetate	20.00	19.98	99.88	60-140
33 2-Butanone	20.00	20.32	101.62	60-140
34 Hexane	10.00	10.19	101.86	70-130
35 cis 1,2-Dichloroet	10.00	10.03	100.30	70-130
36 Chloroform	10.00	10.21	102.08	70-130
37 1,1,1-Trichloroeth	10.00	10.23	102.33	70-130
38 1,2-Dichloroethane	10.00	10.32	103.15	70-130
39 Benzene	10.00	10.32	103.19	70-130

Data File: /var/chem/gcms/mt.i/T021703.b/rf0217.d
Report Date: 18-Feb-2003 09:32

SPIKE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
40 1-Butanol	20.00	20.24	101.20	60-140
41 Cyclohexane	10.00	10.38	103.82	70-130
42 Carbon Tetrachlori	10.00	9.967	99.67	70-130
43 Heptane	10.00	10.13	101.28	70-130
44 1,2-Dichloropropan	10.00	10.42	104.18	70-130
45 Trichloroethene	10.00	10.45	104.50	70-130
46 Dibromomethane	10.00	10.24	102.42	70-130
47 Bromodichlorometha	10.00	10.28	102.78	70-130
48 4-Methyl-2-pentano	20.00	20.74	103.71	60-140
49 cis-1,3-Dichloropr	10.00	10.39	103.87	70-130
50 trans-1,3-Dichloro	10.00	10.22	102.25	70-130
51 Toluene	10.00	10.32	103.23	70-130
52 1,1,2-Trichloroeth	10.00	10.28	102.77	70-130
53 2-Hexanone	20.00	20.44	102.23	60-140
54 Octane	10.00	10.19	101.95	70-130
55 Dibromochlorometha	10.00	10.18	101.76	70-130
56 1,2-Dibromoethane	10.00	10.23	102.33	70-130
57 Tetrachloroethene	10.00	10.47	104.67	70-130
58 Chlorobenzene	10.00	10.40	103.96	70-130
59 Ethylbenzene	10.00	10.32	103.25	70-130
60 m-Xylene (For p-)	10.00	10.36	103.63	70-130
61 Bromoform	10.00	10.28	102.86	70-130
62 Nonane	10.00	10.32	103.20	70-130
63 Styrene	10.00	10.29	102.88	70-130
64 o-Xylene	10.00	10.32	103.26	70-130
65 1,1,2,2-Tetrachlor	10.00	10.28	102.78	70-130
66 1,2,3-Trichloropro	10.00	10.42	104.15	70-130
67 Cumene	10.00	10.14	101.37	70-130
68 n-Propylbenzene	10.00	10.25	102.54	70-130
69 4-Ethyltoluene	10.00	10.85	108.54	70-130
70 1,3,5-Trimethylben	10.00	10.72	107.25	70-130
71 Alpha-Methylstyren	10.00	10.14	101.36	70-130
72 Decane	10.00	10.26	102.61	70-130
73 1,2,4-Trimethylben	10.00	10.29	102.86	70-130
74 1,3-Dichlorobenzen	10.00	10.19	101.87	70-130
75 Benzyl Chloride	10.00	10.35	103.51	70-130
76 1,4-Dichlorobenzen	10.00	10.22	102.15	70-130
77 1,2-Dichlorobenzen	10.00	10.28	102.76	70-130
78 Undecane	10.00	10.03	100.34	70-130
79 Dodecane	10.00	10.26	102.56	70-130
80 1,2,4-Trichloroben	10.00	10.60	105.97	70-130
81 Napthalene	10.00	9.280	92.80	70-130
82 Hexachlorobutadien	10.00	9.365	93.65	70-130

Data File: /var/chem/gcms/mt.i/T021703.b/rf0217.d
Report Date: 18-Feb-2003 09:32

STL Knoxville

RECOVERY REPORT

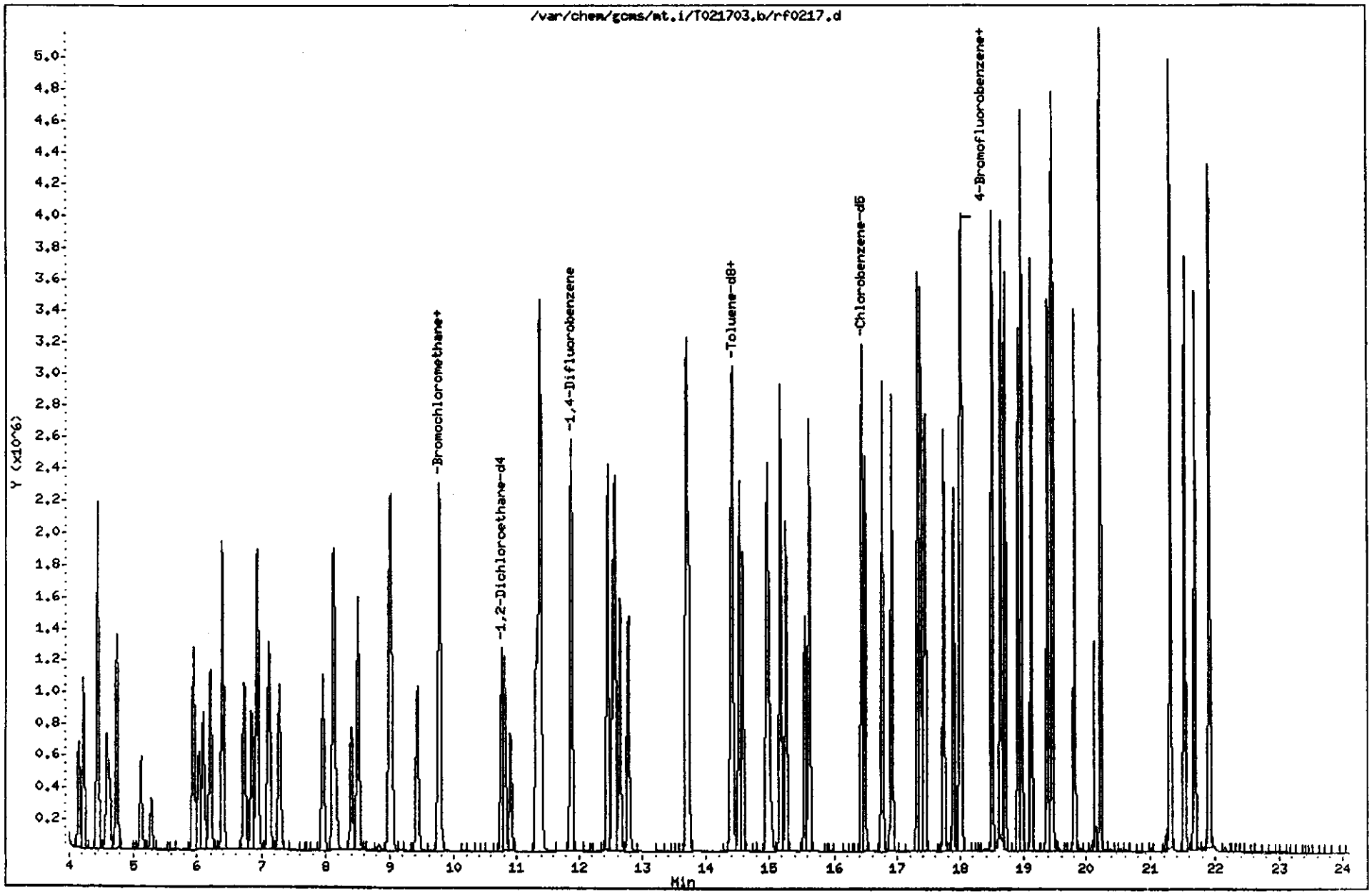
Client Name:
Sample Matrix: GAS
Lab Smp Id: FHQC31AC
Level: LOW
Data Type: MS DATA
SpikeList File: RTALL.spk
Sublist File: RTall.sub
Method File: /var/chem/gcms/mt.i/T021703.b/LA.m
Misc Info: T021703,LA,,,100ML

Client SDG: H3B170000
Fraction: OTHER
Client Smp ID: INTRA-LAB CHECK
Operator: 0691
SampleType: METHOD SPIKE
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 4 1,2-Dichloroethane	10.00	10.05	100.53	70-130
$ 5 Toluene-d8	10.00	10.02	100.26	70-130
$ 6 4-Bromofluorobenze	10.00	9.983	99.83	70-130

Data File: /var/chem/gcms/mt.i/T021703.b/rf0217.d
Date : 17-FEB-2003 09:46
Client ID: INTRA-LAB CHECK
Sample Info: FHQC31AC,,3,,LCS
Volume Injected (uL): 500.0
Column phase: DB-5

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



Miscellaneous Data

STL Knoxville GC/MS Air Data Review / Narrative Checklist **LOT/Project # H3B140158 6**

Method: TO-14 and TO-15 - KNOX-MS-0001, Rev 3

Instrument:	MT	
Scanned File:	T013003i	
	T021703	

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. Have the can number & lab ID been verified between the analysis log & sample prep log?		✓			✓
4. Sample analyses done within analytical holding time (HT)? *If no, list samples:* _____		✓		☐ [Tedlar1] Samples rec'd on (date) in Tedlar bags & ana by TO-14 (TO-15) within 72 hours from sampling. ☐ [Tedlar2] Samples rec'd on (date) in Tedlar bags & transferred into Summa canisters within 72 hours.	✓
5. 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.	✓
6. Were positive hits evaluated using qualitative identification criteria and technical judgement?		✓			✓
7. Are positive results within calibration range?		✓			✓
8. 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.	✓
9. 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
10. Have alternate hits/manual integrations been verified as correct?	✓				NA
11. Final report acceptable? (Results correct, RLs calculated correctly, units correct, surrogate %R correct, appropriate flags used, dilution factor correct, analysis dates correct.)		✓			✓
12. 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:** 2/18/03	**2nd Level Reviewer:**	**Date:** 02/18/03
Comments:		**Comments:**	

* Such action must be taken in consultation with client.

RQC058

Severn Trent Laboratories, Inc.
EXTRACTION BENCH WORKSHEET

MT 2/17/03

Run Date: 2/18/03
Time: 10:20:04

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: 3048279 *
****

PREP DATE: 2/17/03
COMP DATE: 2/17/03

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	INIT	PH"S ADJI	ADJ2	SOLVENTS EXTRACTION	VOL	EXCHANGE	VOL	SPIKE STANDARD/ SURROGATE ID
0/00/00 COMMENTS:	2/18/03	H3B140158-001 FHLV0-1-AA	R	88	JY	AIR	mL	NA	NA	NA		.0		.0	CX-929
0/00/00 COMMENTS:	2/18/03	H3B140158-001 FHLV0-1-ACX	R	88	JY	AIR	mL	NA	NA	NA		.0		.0	CX-929
0/00/00 COMMENTS:	2/26/03	H3B150124-001 FHN91-1-AA	DR	88	JY	AIR	mL	NA	NA	NA		.0		.0	CX-929
0/00/00 COMMENTS:	2/26/03	H3B150124-002 FHN92-1-AA	DR	88	JY	AIR	mL	NA	NA	NA		.0		.0	CX-929
0/00/00 COMMENTS:	2/26/03	H3B150124-003 FHN93-1-AA	DR	88	JY	AIR	mL	NA	NA	NA		.0		.0	CX-929
0/00/00 COMMENTS:	0/00/00	H3B170000-279 FHQC3-1-AAB		88	JY	AIR	mL	NA	NA	NA		.0		.0	CX-929
0/00/00 COMMENTS:	0/00/00	H3B170000-279 FHQC3-1-ACC		88	JY	AIR	100mL 100.00mL	NA	NA	NA		.0		.0	CX-1001 CX-929

R = RUSH C = CLP
E = EPA 600 D = EXP.DEL)

NUMBER OF WORK ORDERS IN BATCH: 7

STL-Knoxville Initial Canister Dilution

Analyst: DDF

Barometer: 30.16 inches Hg at sea level
735.964 mm Hg at Knoxville

Date: 2/14/03

Lot #	W/O #	P init inches	P init Abs,mm	P final psig	P final Abs,mm	Dilution Factor	
H3B140158	FHL V0	0.0	736.0	10.5	1279.0	1.74	(V0)

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

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STL-Knoxville

TO-14/TO-15 Canister Dilution Log

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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	2-14-03	30.16	B140127	FHLHD	93232	-1.6	5.1										
				HE	04165	-1.0	5.6										
		NA		HG	0163	17psi	NA										
				HK	11416	VAC	20										
		30.16	B140158	FHLVO	11413	0	10.5										

MS038R1.xls, 10/22/02

Updated: **7:53 AM EST on February 14,** Observed at **Knoxville, Tennessee**	
Temperature	**37 °F / 3 °C**
Windchill	**33 °F / 1 °C**
Humidity	**81%**
Dew Point	**32 °F / 0 °C**
Wind	**WSW at 5 mph / 8.0 km/h**
Wind Gust	-
Pressure	**30.16 in**

Sample Receipt Documentation

H3B1M0158

Bechtel Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	B03-013	Page 1 of 2

Collector: D. Bowers / Fahlhan	Company Contact: J. Larch	Telephone No.: 373-5904	Project Coordinator:
Price Code: Air Quality ☐	Data Turnaround: 3 days		
Project Designation: 300 FFI	Sampling Location: 618-4	SAF No.: B03-013	
Ice Chest No.:	Field Logbook No.:	COA: BG6184 2600	Method of Shipment: Gov Vehicle
Shipped To: STL Richland	Offsite Property No.: N/A		Bill of Lading/Air Bill No.: N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

Special Handling and/or Storage
Cool to 4 degrees C.

Preservation	None
Type of Container	Suma
No. of Container(s)	1
Volume	6L
SAMPLE ANALYSIS	VOA TO-14 Addon

Sample No.	Matrix *	Sample Date	Sample Time										
J00208	Air	2-12-03	1345	x				#1413					
J00209	Air												
J00210	Air BLK												
J00211	Air 2-12-03												
~~J00213~~													

CHAIN OF POSSESSION	Sign/Print Names	SPECIAL INSTRUCTIONS
Relinquished By: R. Fahlhan R. Fahlhan 2-12-03 Date/Time 1545	Received By: 1B 3728 2-12-03 Date/Time 1645	Rec'd temp. Ambient Custody Seals intact 1 Box Fedex # 7906 9715 6057 MF# 02-14-03
Relinquished By: 1B 3728 2-13-03 Date/Time 0730	Received By: R. Fahlhan Fahlhan 2-13-03 Date/Time 0730	
Relinquished By: ERC R. Fahlhan R. Fahlhan 2-13-03 Date/Time 0805	Received By: T. Heidelberg Date/Time 2-13-03 0805	
Relinquished By: T. Heidelberg Date/Time 2-13-03	Received By: Date/Time	
Relinquished By: Date/Time	Received By: Date/Time	
Relinquished By: Date/Time	Received By: Date/Time	

Matrix *
S=Soil
SE=Sediment
SO=Solid
S=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: [signature]	Title	Date/Time: 02-14-03, 09:30
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

BHI-EE-011 (10/99)