Environmental Planning & Management, Inc.
EPM

1983 Marcus Ave., Suite 109
Lake Success, New York 11042
Phone (516) 328-1194
Fax (516) 328-1381

LETTER OF TRANSMITTAL

Date: 02/04/14	Job No. 13001
Attention: Mr. Carl Hoffman	
Re: *Katonah Annual Water Monitoring*	

TO:

NYSDEC
625 Broadway
Albany, NY 12233-7013

WE ARE SENDING YOU: ☐ Included ☐ Under separate cover via _____ the following items:

☐ Shop Drawings ☐ Prints ☐ Plans ☐ Qualifications ☐ Specifications

☐ Copy of Letter ■ Report ☐ _____

COPIES	DATE	NO.	
1	2/4/14		*2013 - Katonah Annual Water Monitoring Report*

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☐ For review & comment

REMARKS

If there are any questions, please feel free to call me.
Office Phone: 516-328-1194

COPY TO

Mr. Damian Duda	*USEPA Region 2*
Mr. Kenneth Caffrey	*NYS Dept. of Health*
Mr. James Hahn	*Hahn Engineering*
Mr. Paul Kutzy	Westchester Co. Dept. of Health
Mr. William Nixon	*Town of Bedford*
File	EPM

SIGNED _____
Darren Frank

RECEIVED
FEB 06 2014
REMEDIAL BUREAU E

GROUNDWATER QUALITY MONITORING
ANNUAL REPORT
2013
KATONAH MUNICIPAL WELL
TOWN OF BEDFORD
WESTCHESTER, NEW YORK
NYSDEC SITE ID # 3-60-007

EPM PROJECT NUMBER: 13001

PREPARED FOR:

James J. Hahn Engineering
Millbrook Office Center
Route 22 & Milltown Road
Brewster, New York 10509

PREPARED BY:

Environmental Planning & Management, Inc.
1983 Marcus Avenue, Suite 109
Lake Success, New York 11042

RECEIVED
FEB 06 2014
REMEDIAL BUREAU E

ENVIRONMENTAL
PLANNING &
MANAGEMENT, INC.

James Hahn
James J. Hahn Engineering
Putnam Business Park
1689 Route 22
Brewster, NY 10509

February 4, 2014

Dear Mr. Hahn:

Enclosed please find the annual monitoring report of 2013 for the Katonah Municipal Well, Town of Bedford, Westchester County, New York (NYSDEC Site ID # 3-60-007).

Please call should you have any questions.

Sincerely,

Stacey Gogos
President

cc: Kenneth Caffrey, PE, NYSDOH
Carl Hoffman, NYSDEC
William Nixon, Town of Bedford
Paul Kutzy, Westchester County DOH
Damian Duda, USEPA Region 2

TABLE OF CONTENTS

1.0 Introduction 1

2.0 Sample Collection 2

3.0 Findings 3

4.0 Future Actions 8

List of Tables

Table 1 - Summary of Laboratory Analysis Results 5

List of Figures

Figure 1 - Sampling Tap Location Schematic 6

Figure 2 - Influent Tetrachloroethene Levels 7

APPENDICES

Appendix A - Data Validation Groundwater Monitoring Report

Appendix B - Laboratory Analysis Report

1.0 INTRODUCTION

This annual groundwater sampling and analysis report has been prepared for the Katonah Municipal Well Site in Katonah, Town of Bedford, New York. This submittal is in accordance with the groundwater monitoring requirements of the New York State Department of Health (NYSDOH) and the United States Environmental Protection Agency (USEPA). This report includes the data collection and analysis results of the remedial system operation for the year-end of 2013. Sampling of the remedial system and the two existing monitoring wells was conducted on December 19, 2013.

2.0 SAMPLE COLLECTION

Environmental Planning & Management Incorporated collected samples on December 19, 2013. Sample sets were collected from three sampling taps; the raw water sampling tap (RW), the stripper number two effluent sampling tap (STEFF), and the distribution sampling tap (DIST). One field duplicate sample (DUP) was collected from the Raw Water sampling tap. Samples were also collected from two nearby monitoring wells, monitoring well 4 (MW4) and monitoring well 11 (MW11). Sample locations are shown on Figure 1 - Sampling Tap Location Schematic. Sampling was conducted in accordance with the approved Project Operation Plan.

Samples were labeled at the field location and placed into transport coolers containing ice. A field equipment blank, trip blank and chain-of-custody documentation accompanied the samples to the laboratory for analysis. The samples were analyzed by Alpha Analytical Laboratories of Westborough, Massachusetts (NYS-Department of Health approved Environmental Laboratory Accreditation Program (ELAP) laboratory #11148, in accordance with CLP methods, for volatile organics (Principal Organic Contaminants), by USEPA method 524.2, revision number 4.1.

3.0 FINDINGS

VOC Analysis

Table 1 provides a summary of the analytical results for the annual water quality monitoring in comparison to the New York State Department of Health (NYSDOH) Drinking Water Standards and the United States Environmental Protection Agency (US EPA) site-specific clean-up standard for Tetrachloroethene (PCE). As indicated by the laboratory analysis, the treatment system effluent meets the NYSDOH drinking water standards and the USEPA clean-up level of less than one part per billion (ppb) (or non-detectable) for Tetrachloroethene.

Tetrachloroethene was detected in the untreated Raw Water (RW) sample at a concentration of 13 µg/L (ppb), exceeding the Site-Specific USEPA clean-up standard of 1 ppb. Sample RW also exhibited Trichloroethylene at a concentration below the NYSDOH drinking water standard.

Analytical results for the duplicate sample (DUP) of the Raw Water (RW) similarly exhibited Tetrachloroethene at a concentration 13 ppb. This sample also exhibited Trichloroethylene at a similar concentration below the NYSDOH drinking water standard.

No volatile organic compounds (VOCs) were detected in the treated (stripper number 2) water sample STEFF.

Chloroform, Bromoform, and Dibromochloromethane were detected in the Distribution (DIST) water sample at concentrations below the NYSDOH drinking water standards.

Trichloroethylene and cis-1,2-Dichloroethylene were detected in MW4 at concentrations below the USEPA Cleanup Standard and the NYSDOH drinking water standard as applicable.

Tetrachloroethylene was detected in MW11 at a concentration below the USEPA Cleanup Standard and the NYSDOH drinking water standard as applicable.

No VOCs were detected in the Field Blank (FB) or Trip blank water samples, demonstrating that no contamination was introduced during sampling and that cross-contamination had not occurred during delivery of the samples to the laboratory.

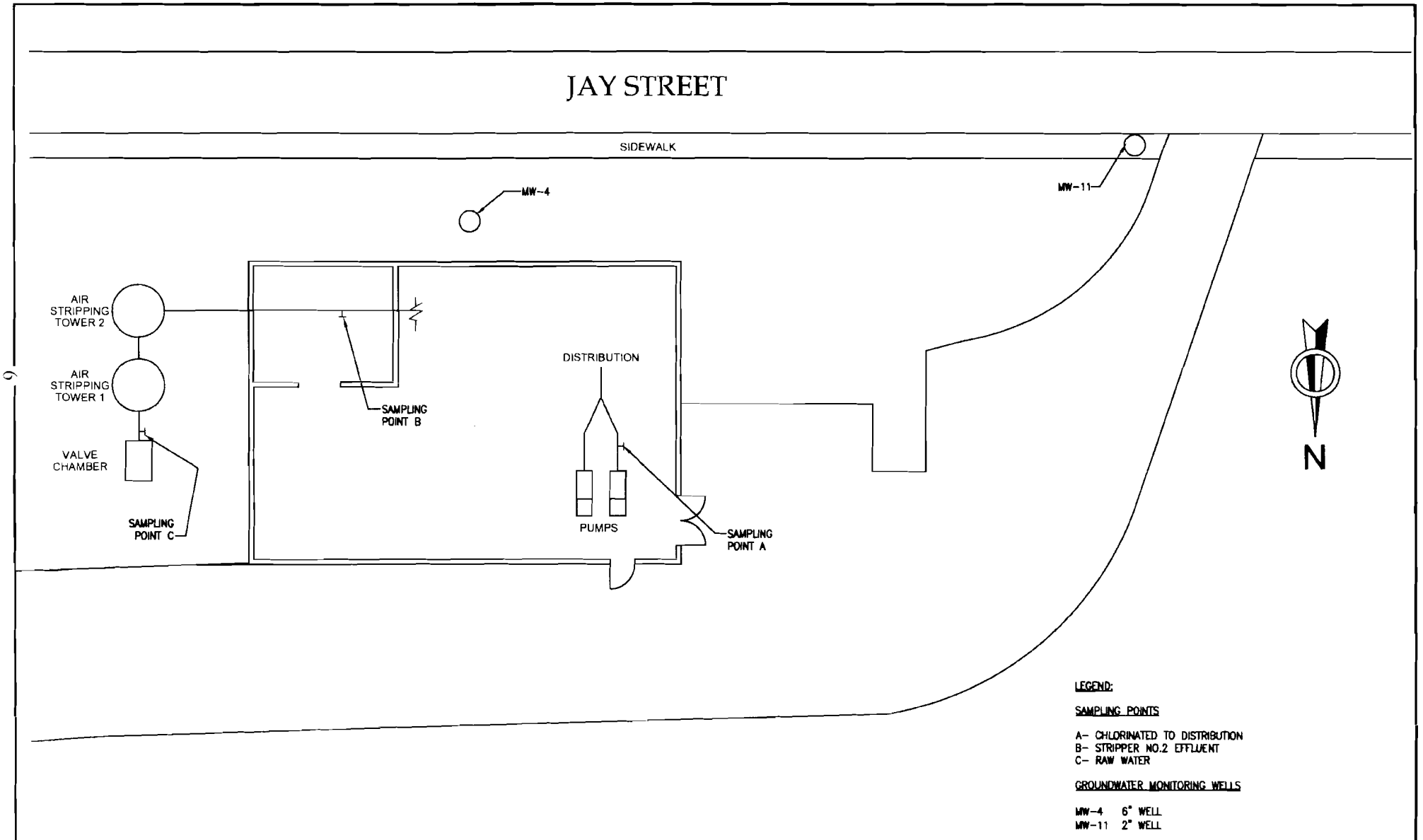
Refer to Table 1 for a summary of the groundwater analysis results for VOCs. Table 1 reflects the detectable concentration values which have been qualified as a result of data validation. Refer to Appendix A for the data validation report which details any variations of the detectable concentration values discussed above.

The PCE concentration in the Influent (raw water) has decreased relative to the last sampling event (see Figure 2). To date, the PCE level in the raw water samples is not of significant concern, as the treated water and distribution water samples continue to exhibit

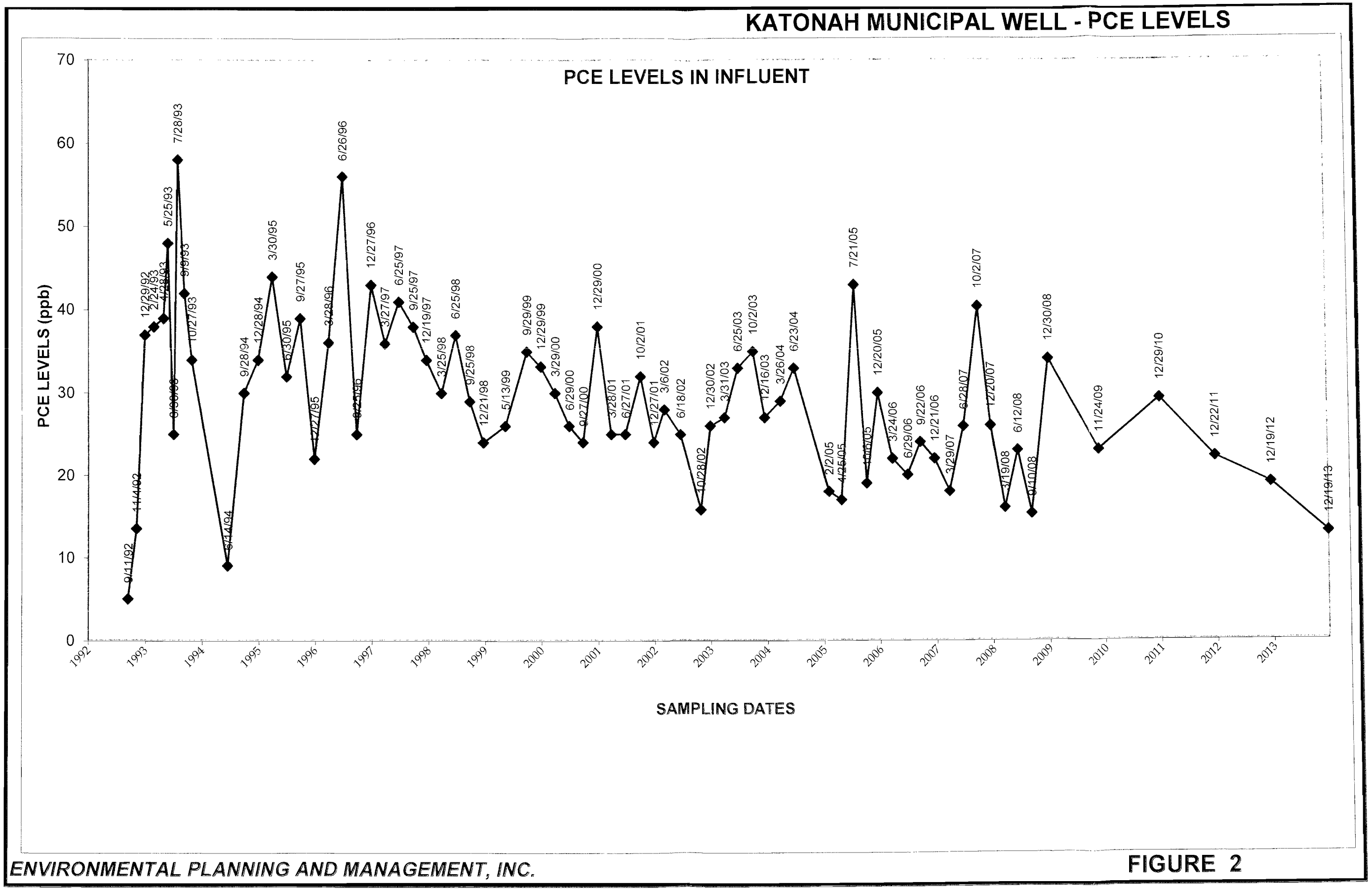
non-detectable or insignificant concentrations of PCE. However, changes in PCE levels will continue to be closely monitored.

Table 1 - SUMMARY OF ANNUAL VOC RESULTS KATONAH MUNICIPAL WELL									
Date Collected	12/19/2013								
Sample Location	Raw Water (Influent)	RW DUP	STEFF (Treated Water)	DIST (Distribution Water)	MW4 (Well 4)	MW11 (Well 11)	FB (Field Blank)	Trip Blank	NYSDOH MCL / USEPA Standard
Volatile Organic Compounds (ppb)									
Tetrachloroethylene (127-18-4)	**13**	**13**	ND	ND	ND	0.64	ND	ND	**1***
Trichloroethylene (79-01-6)	0.54	0.54	ND	ND	0.37 J	ND	ND	ND	**5**
cis-1.2-Dichloroethylene (156-59-2)	ND	ND	ND	ND	0.39 J	ND	ND	ND	**5**
Methylene Chloride (75-09-2)	ND	ND	ND	ND	ND	ND	ND	ND	**5**
Chloroform (67-66-3)	ND	ND	ND	0.82	ND	ND	ND	ND	**80****
Bromoform (75-25-2)	ND	ND	ND	8.0	ND	ND	ND	ND	**80****
Dibromochloromethane (124-48-1)	ND	ND	ND	5.3	ND	ND	ND	ND	**80****
Bromodichloromethane (75-27-4)	ND	ND	ND	ND	ND	ND	ND	ND	**80****
Methyl Tert Butyl Ether(MTBE 1634-04-4)	ND	ND	ND	ND	ND	ND	ND	ND	**10**

USEPA MCL: United States Environmental Protection Agency, National Primary Drinking Water Regulations, Maximum Contaminant Limit
USEPA Standard: United States Environmental Protection Agency, Site Specific Cleanup Standard
* - 1 ppb is the USEPA cleanup standard for the site
** - Total Trihalomethanes (TTHMS - chloroform, bromodichloromethane, dibromochloromethane, and bromoform)
Yellow shading indicates that contaminant level exceeds the regulatory level
B - Denotes that compound was detected in the field blank
J - Denotes an estimated value
MCL - maximum contaminant level
N - Presumptive evidence of a compound
ND - No Detectable Concentration
NR Denotes sample not analyzed for this compound
NS - No standard
R - Determined unusable following data validation
U - Denotes detection limit/not detected



PEM ENVIRONMENTAL PLANNING & MANAGEMENT, INC. 1983 MARCUS AVENUE SUITE 109 LAKE SUCCESS, NEW YORK 11042	DRAWN BY: AMR	DATE:	CLIENT: KATONAH MUNICIPAL WATER SYSTEM	TITLE: SIMPLIFIED SAMPLING LOCATION SCHEMATIC	DRAWING NO: FIG. 1
	CHECKED BY: FP	FILENAME: KATONAH		PROJECT LOCATION: KATONAH MUNICIPAL WATER SYSTEM KATONAH, NEW YORK	SHEET 1 OF 1
	APPR'VD BY: ASG	SCALE: NOT TO SCALE			
	PATH: C:\AMR\BEDFORD\KATONAH\22001DWGS				



ENVIRONMENTAL PLANNING AND MANAGEMENT, INC.

FIGURE 2

4.0 FUTURE ACTIONS

Water quality monitoring will continue to be conducted annually at the treatment system influent, stripper effluent, distribution point, and the two groundwater monitoring wells.

The next annual sampling event for the year-end of 2014, the twenty-third year of sampling, is tentatively scheduled for the month of December, 2014.

APPENDIX A

DATA VALIDATION REPORT

ENVIRONMENTAL
Data Services, Inc.

DATA USABILITY SUMMARY REPORT
KATONAH PUMP HOUSE, BEDFORD, NEW YORK

Client: EPM, Inc., Lake Success, New York
SDG: L1325883
Laboratory: Alpha Analytical, Westborough, Massachusetts
Site: Katonah Pump House, Bedford, NY
Date: January 10, 2014

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MW-4	L1325883-01	Water
2	RW	L1325883-02	Water
2MS	RWMS	L1325883-02MS	Water
2MSD	RWMSD	L1325883-02MSD	Water
3	DUP	L1325883-03	Water
4	STEFF	L1325883-04	Water
5	DIST	L1325883-05	Water
6	MW-11	L1325883-06	Water
7	FIELD BLANK	L1325883-07	Water
8	TRIP BLANK	L1325883-08	Water

A Data Usability Summary Review was performed on the analytical data for six water samples, one aqueous field blank sample and one aqueous trip blank sample collected on December 19, 2013 by EPM, Inc. at the Katonah site in Bedford, New York. The samples were analyzed under Environmental Protection Agency (USEPA) *"Methods for the Determination of Organic Compounds in Drinking Water, December 1988, Revised July 1991"*.

Specific method references are as follows:

Analysis	*Method References*
VOC	USEPA Method 524.2

The data have been validated according to the protocols and quality control (QC) requirements of the analytical methods and the USEPA Region II Data Review Standard Operating Procedures (SOPs) as follows:

- SOP Number HW-24, Revision 2, August 2008: Validating Volatile Organic Compounds by SW-846 Method 8260B;
- and the reviewer's professional judgment.

The following items/criteria were reviewed:

Organics

- Data Completeness

- Holding times and sample preservation
- Surrogate Spike recoveries
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) recoveries
- Laboratory Control Sample (LCS) recoveries
- Method blank and field blank contamination
- Gas Chromatography (GC)/Mass Spectroscopy (MS) tuning
- Initial and continuing calibration summaries
- Compound Quantitation
- Internal standard area and retention time summary forms
- Field Duplicate sample precision

Overall Usability Issues:

There were no rejections of data.

Overall the data is acceptable for the intended purposes. There were no qualifications.

Please note that any results qualified (U) due to blank contamination may be then qualified (J) due to another action. Therefore, the results may be qualified (UJ) due to the culmination of the blank contaminations and actions from other exceedences of QC criteria.

Data Completeness

- The data is a complete Category B data package as defined under the requirements for the NYS Department of Environmental Conservation Analytical Services Protocol.

Holding Times

- All samples were analyzed within 14 days for preserved water samples.

Surrogate Spike Recoveries

- All samples exhibited acceptable surrogate %R values.

Matrix Spike/Matrix Spike Duplicate (MS/MSD) Recoveries

- The following table presents MS/MSD samples that exhibited percent recoveries (%R) outside the QC limits and/or relative percent differences (RPD) above QC limits. A low %R may indicate a potential low bias while a high %R may indicate a potential high bias. For a low %R, positive results are considered estimated and qualified (J) while non-detects are estimated and qualified (UJ). For a high %R, positive results are considered estimated and qualified (J). Results are valid and usable, however possibly biased.

MS/MSD Sample ID	Compound	MS %R/MSD %R/ RPD	Qualifier
2	Chloroform	140%/136%/OK	None - All ND
	Carbon tetrachloride	142%/135%/OK	
	Dibromochloromethane	136%/OK/OK	
	1,1,2-Trichloroethane	131%/OK/OK	
	Trichlorofluoromethane	131%/OK/OK	
	1,2-Dichloroethane	134%/OK/OK	
	1,1,1-Trichloroethane	134%/OK/OK	
	Bromodichloromethane	140%/133%/OK	

Laboratory Control Samples

- The LCS samples exhibited acceptable %R values.

Method Blank

- The method blanks were free of contamination.

Field Blank

- Field QC results are summarized below.

Blank ID	Compound	Conc. ug/L	Action Level ug/L	Qualifier	Affected Samples
FIELD BLANK	None - ND	-	-	-	-
TRIP BLANK	None - ND	-	-	-	-

GC/MS Tuning

- All criteria were met.

Initial Calibration

- All %RSD and/or correlation coefficient and mean RRF criteria were met.

Continuing Calibration

- All %D and RRF criteria were met.

Compound Quantitation

- All criteria were met.

Internal Standard (IS) Area Performance

- All internal standards met response and retention time (RT) criteria.

Field Duplicate Sample Precision

- Field duplicate results are summarized below.

Compound	RW ug/L	DUP ug/L	RPD	Qualifier
Tetrachloroethene	13	13	0%	None
Trichloroethene	0.54	0.54	0%	

Please contact the undersigned at (757) 564-0090 if you have any questions or need further information.

Signed: Nancy Weaver Dated: 1/13/14

Nancy Weaver
Senior Chemist

Data Qualifiers

J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

UJ = The analyte was not detected above the sample reporting limit; and the reporting limit is approximate.

U = The analyte was analyzed for, but was not detected above the sample reporting limit.

R = The sample results is rejected due to serious deficiencies. The presence or absence of the analyte cannot be verified.

Form 1
Volatile Organics

Client	: Environmental Planning and Manageme	Lab Number	: L1325883
Project Name	: KATONAH	Project Number	: 13001
Lab ID	: L1325883-01	Date Collected	: 12/19/13 12:45
Client ID	: MW-4	Date Received	: 12/19/13
Sample Location	: BEDFORD, NY	Date Analyzed	: 12/24/13 14:07
Sample Matrix	: DW	Dilution Factor	: 1
Analytical Method	: 16,524.2	Analyst	: GT
Lab File ID	: 1224A10	Instrument ID	: BUNDY.I
Sample Amount	: 5 ml	GC Column	: RTX 502.2
Level	: LOW	%Solids	: NA
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L Results	RL	MDL	Qualifier
75-09-2	Methylene chloride	ND	0.50	0.15	U
75-34-3	1,1-Dichloroethane	ND	0.50	0.09	U
67-66-3	Chloroform	ND	0.50	0.05	U
56-23-5	Carbon tetrachloride	ND	0.50	0.10	U
78-87-5	1,2-Dichloropropane	ND	0.50	0.09	U
124-48-1	Dibromochloromethane	ND	0.50	0.08	U
79-00-5	1,1,2-Trichloroethane	ND	0.50	0.12	U
127-18-4	Tetrachloroethene	ND	0.50	0.09	U
108-90-7	Chlorobenzene	ND	0.50	0.08	U
75-69-4	Trichlorofluoromethane	ND	0.50	0.11	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.08	U
71-55-6	1,1,1-Trichloroethane	ND	0.50	0.08	U
75-27-4	Bromodichloromethane	ND	0.50	0.05	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.09	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.10	U
75-25-2	Bromoform	ND	0.50	0.09	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.09	U
71-43-2	Benzene	ND	0.50	0.09	U
108-88-3	Toluene	ND	0.50	0.12	U
100-41-4	Ethylbenzene	ND	0.50	0.06	U
179601-23-1	p/m-Xylene	ND	0.50	0.12	U
74-87-3	Chloromethane	ND	0.50	0.15	U
74-83-9	Bromomethane	ND	0.50	0.13	U
75-01-4	Vinyl chloride	ND	0.50	0.08	U
75-00-3	Chloroethane	ND	0.50	0.12	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.06	U
156-60-5	trans-1,2-Dichloroethene	ND	0.50	0.09	U

NW 1/10/14

ALPHA ANALYTICAL

Form 1
Volatile Organics

Client	: Environmental Planning and Manageme	Lab Number	: L1325883
Project Name	: KATONAH	Project Number	: 13001
Lab ID	: L1325883-01	Date Collected	: 12/19/13 12:45
Client ID	: MW-4	Date Received	: 12/19/13
Sample Location	: BEDFORD, NY	Date Analyzed	: 12/24/13 14:07
Sample Matrix	: DW	Dilution Factor	: 1
Analytical Method	: 16,524.2	Analyst	: GT
Lab File ID	: 1224A10	Instrument ID	: BUNDY.I
Sample Amount	: 5 ml	GC Column	: RTX 502.2
Level	: LOW	%Solids	: NA
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L Results	RL	MDL	Qualifier
156-59-2	cis-1,2-Dichloroethene	0.39	0.50	0.11	J
79-01-6	Trichloroethene	0.37	0.50	0.09	J
95-50-1	1,2-Dichlorobenzene	ND	0.50	0.07	U
541-73-1	1,3-Dichlorobenzene	ND	0.50	0.05	U
106-46-7	1,4-Dichlorobenzene	ND	0.50	0.05	U
100-42-5	Styrene	ND	0.50	0.06	U
95-47-6	o-Xylene	ND	0.50	0.09	U
563-58-6	1,1-Dichloropropene	ND	0.50	0.11	U
594-20-7	2,2-Dichloropropane	ND	0.50	0.11	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.50	0.09	U
96-18-4	1,2,3-Trichloropropane	ND	0.50	0.11	U
74-97-5	Bromochloromethane	ND	0.50	0.10	U
104-51-8	n-Butylbenzene	ND	0.50	0.06	U
75-71-8	Dichlorodifluoromethane	ND	0.50	0.10	U
87-68-3	Hexachlorobutadiene	ND	0.50	0.11	U
98-82-8	Isopropylbenzene	ND	0.50	0.08	U
99-87-6	p-Isopropyltoluene	ND	0.50	0.07	U
91-20-3	Naphthalene	0.10	0.50	0.06	J
103-65-1	n-Propylbenzene	ND	0.50	0.08	U
135-98-8	sec-Butylbenzene	ND	0.50	0.06	U
98-06-6	tert-Butylbenzene	ND	0.50	0.09	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.50	0.06	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.50	0.07	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.50	0.08	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.50	0.10	U
108-86-1	Bromobenzene	ND	0.50	0.09	U
95-49-8	o-Chlorotoluene	ND	0.50	0.10	U

MW 1/10/14

ALPHA ANALYTICAL

Form 1
Volatile Organics

Client	: Environmental Planning and Manageme	Lab Number	: L1325883
Project Name	: KATONAH	Project Number	: 13001
Lab ID	: L1325883-01	Date Collected	: 12/19/13 12:45
Client ID	: MW-4	Date Received	: 12/19/13
Sample Location	: BEDFORD, NY	Date Analyzed	: 12/24/13 14:07
Sample Matrix	: DW	Dilution Factor	: 1
Analytical Method	: 16,524.2	Analyst	: GT
Lab File ID	: 1224A10	Instrument ID	: BUNDY.I
Sample Amount	: 5 ml	GC Column	: RTX 502.2
Level	: LOW	%Solids	: NA
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L Results	RL	MDL	Qualifier
106-43-4	p-Chlorotoluene	ND	0.50	0.08	U
74-95-3	Dibromomethane	ND	0.50	0.09	U
106-93-4	1,2-Dibromoethane	ND	0.50	0.06	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.50	0.16	U
142-28-9	1,3-Dichloropropane	ND	0.50	0.11	U
1634-04-4	Methyl tert butyl ether	ND	0.50	0.06	U
1330-20-7	Xylene (Total)	ND	0.50	0.12	U

NW 1/10/14

ALPHA ANALYTICAL

2

Form 1
Volatile Organics

~~Client~~	~~: Environmental Planning and Manageme~~	~~Lab Number~~	~~: L1325883~~
Project Name	: KATONAH	Project Number	: 13001
Lab ID	: L1325883-02	Date Collected	: 12/19/13 13:00
Client ID	: RW	Date Received	: 12/19/13
Sample Location	: BEDFORD, NY	Date Analyzed	: 12/24/13 12:28
Sample Matrix	: DW	Dilution Factor	: 1
Analytical Method	: 16,524.2	Analyst	: GT
Lab File ID	: 1224A07	Instrument ID	: BUNDY.I
Sample Amount	: 5 ml	GC Column	: RTX 502.2
Level	: LOW	%Solids	: NA
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L Results	RL	MDL	Qualifier
75-09-2	Methylene chloride	ND	0.50	0.15	U
75-34-3	1,1-Dichloroethane	ND	0.50	0.09	U
67-66-3	Chloroform	ND	0.50	0.05	U
56-23-5	Carbon tetrachloride	ND	0.50	0.10	U
78-87-5	1,2-Dichloropropane	ND	0.50	0.09	U
124-48-1	Dibromochloromethane	ND	0.50	0.08	U
79-00-5	1,1,2-Trichloroethane	ND	0.50	0.12	U
127-18-4	Tetrachloroethene	13	0.50	0.09	
108-90-7	Chlorobenzene	ND	0.50	0.08	U
75-69-4	Trichlorofluoromethane	ND	0.50	0.11	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.08	U
71-55-6	1,1,1-Trichloroethane	ND	0.50	0.08	U
75-27-4	Bromodichloromethane	ND	0.50	0.05	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.09	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.10	U
75-25-2	Bromoform	ND	0.50	0.09	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.09	U
71-43-2	Benzene	ND	0.50	0.09	U
108-88-3	Toluene	ND	0.50	0.12	U
100-41-4	Ethylbenzene	ND	0.50	0.06	U
179601-23-1	p/m-Xylene	ND	0.50	0.12	U
74-87-3	Chloromethane	ND	0.50	0.15	U
74-83-9	Bromomethane	ND	0.50	0.13	U
75-01-4	Vinyl chloride	ND	0.50	0.08	U
75-00-3	Chloroethane	ND	0.50	0.12	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.06	U
156-60-5	trans-1,2-Dichloroethene	ND	0.50	0.09	U

NW 1/10/14

ALPHA ANALYTICAL

2

Form 1
Volatile Organics

Client	: Environmental Planning and Manageme	Lab Number	: L1325883
Project Name	: KATONAH	Project Number	: 13001
Lab ID	: L1325883-02	Date Collected	: 12/19/13 13:00
Client ID	: RW	Date Received	: 12/19/13
Sample Location	: BEDFORD, NY	Date Analyzed	: 12/24/13 12:28
Sample Matrix	: DW	Dilution Factor	: 1
Analytical Method	: 16,524.2	Analyst	: GT
Lab File ID	: 1224A07	Instrument ID	: BUNDY.I
Sample Amount	: 5 ml	GC Column	: RTX 502.2
Level	: LOW	%Solids	: NA
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L Results	RL	MDL	Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	0.50	0.11	U
79-01-6	Trichloroethene	0.54	0.50	0.09	
95-50-1	1,2-Dichlorobenzene	ND	0.50	0.07	U
541-73-1	1,3-Dichlorobenzene	ND	0.50	0.05	U
106-46-7	1,4-Dichlorobenzene	ND	0.50	0.05	U
100-42-5	Styrene	ND	0.50	0.06	U
95-47-6	o-Xylene	ND	0.50	0.09	U
563-58-6	1,1-Dichloropropene	ND	0.50	0.11	U
594-20-7	2,2-Dichloropropane	ND	0.50	0.11	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.50	0.09	U
96-18-4	1,2,3-Trichloropropane	ND	0.50	0.11	U
74-97-5	Bromochloromethane	ND	0.50	0.10	U
104-51-8	n-Butylbenzene	ND	0.50	0.06	U
75-71-8	Dichlorodifluoromethane	ND	0.50	0.10	U
87-68-3	Hexachlorobutadiene	ND	0.50	0.11	U
98-82-8	Isopropylbenzene	ND	0.50	0.08	U
99-87-6	p-Isopropyltoluene	ND	0.50	0.07	U
91-20-3	Naphthalene	ND	0.50	0.06	U
103-65-1	n-Propylbenzene	ND	0.50	0.08	U
135-98-8	sec-Butylbenzene	ND	0.50	0.06	U
98-06-6	tert-Butylbenzene	ND	0.50	0.09	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.50	0.06	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.50	0.07	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.50	0.08	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.50	0.10	U
108-86-1	Bromobenzene	ND	0.50	0.09	U
95-49-8	o-Chlorotoluene	ND	0.50	0.10	U

MW 1/10/14

ALPHA ANALYTICAL

2

Form 1
Volatile Organics

Client	: Environmental Planning and Manageme	Lab Number	: L1325883
Project Name	: KATONAH	Project Number	: 13001
Lab ID	: L1325883-02	Date Collected	: 12/19/13 13:00
Client ID	: RW	Date Received	: 12/19/13
Sample Location	: BEDFORD, NY	Date Analyzed	: 12/24/13 12:28
Sample Matrix	: DW	Dilution Factor	: 1
Analytical Method	: 16,524.2	Analyst	: GT
Lab File ID	: 1224A07	Instrument ID	: BUNDY.I
Sample Amount	: 5 ml	GC Column	: RTX 502.2
Level	: LOW	%Solids	: NA
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L Results	RL	MDL	Qualifier
106-43-4	p-Chlorotoluene	ND	0.50	0.08	U
74-95-3	Dibromomethane	ND	0.50	0.09	U
106-93-4	1,2-Dibromoethane	ND	0.50	0.06	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.50	0.16	U
142-28-9	1,3-Dichloropropane	ND	0.50	0.11	U
1634-04-4	Methyl tert butyl ether	ND	0.50	0.06	U
1330-20-7	Xylene (Total)	ND	0.50	0.12	U

NW 1/10/14

ALPHA ANALYTICAL

3

Form 1
Volatile Organics

Client	: Environmental Planning and Manageme	Lab Number	: L1325883
Project Name	: KATONAH	Project Number	: 13001
Lab ID	: L1325883-03	Date Collected	: 12/19/13 00:00
Client ID	: DUP	Date Received	: 12/19/13
Sample Location	: BEDFORD, NY	Date Analyzed	: 12/24/13 14:39
Sample Matrix	: DW	Dilution Factor	: 1
Analytical Method	: 16,524.2	Analyst	: GT
Lab File ID	: 1224A11	Instrument ID	: BUNDY.I
Sample Amount	: 5 ml	GC Column	: RTX 502.2
Level	: LOW	%Solids	: NA
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L Results	RL	MDL	Qualifier
75-09-2	Methylene chloride	ND	0.50	0.15	U
75-34-3	1,1-Dichloroethane	ND	0.50	0.09	U
67-66-3	Chloroform	ND	0.50	0.05	U
56-23-5	Carbon tetrachloride	ND	0.50	0.10	U
78-87-5	1,2-Dichloropropane	ND	0.50	0.09	U
124-48-1	Dibromochloromethane	ND	0.50	0.08	U
79-00-5	1,1,2-Trichloroethane	ND	0.50	0.12	U
127-18-4	Tetrachloroethene	13	0.50	0.09	
108-90-7	Chlorobenzene	ND	0.50	0.08	U
75-69-4	Trichlorofluoromethane	ND	0.50	0.11	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.08	U
71-55-6	1,1,1-Trichloroethane	ND	0.50	0.08	U
75-27-4	Bromodichloromethane	ND	0.50	0.05	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.09	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.10	U
75-25-2	Bromoform	ND	0.50	0.09	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.09	U
71-43-2	Benzene	ND	0.50	0.09	U
108-88-3	Toluene	ND	0.50	0.12	U
100-41-4	Ethylbenzene	ND	0.50	0.06	U
179601-23-1	p/m-Xylene	ND	0.50	0.12	U
74-87-3	Chloromethane	ND	0.50	0.15	U
74-83-9	Bromomethane	ND	0.50	0.13	U
75-01-4	Vinyl chloride	ND	0.50	0.08	U
75-00-3	Chloroethane	ND	0.50	0.12	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.06	U
156-60-5	trans-1,2-Dichloroethene	ND	0.50	0.09	U

NW 1/10/14

ALPHA ANALYTICAL

3

Form 1
Volatile Organics

Client	: Environmental Planning and Manageme	Lab Number	: L1325883
Project Name	: KATONAH	Project Number	: 13001
Lab ID	: L1325883-03	Date Collected	: 12/19/13 00:00
Client ID	: DUP	Date Received	: 12/19/13
Sample Location	: BEDFORD, NY	Date Analyzed	: 12/24/13 14:39
Sample Matrix	: DW	Dilution Factor	: 1
Analytical Method	: 16,524.2	Analyst	: GT
Lab File ID	: 1224A11	Instrument ID	: BUNDY.I
Sample Amount	: 5 ml	GC Column	: RTX 502.2
Level	: LOW	%Solids	: NA
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L Results	RL	MDL	Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	0.50	0.11	U
79-01-6	Trichloroethene	0.54	0.50	0.09	
95-50-1	1,2-Dichlorobenzene	ND	0.50	0.07	U
541-73-1	1,3-Dichlorobenzene	ND	0.50	0.05	U
106-46-7	1,4-Dichlorobenzene	ND	0.50	0.05	U
100-42-5	Styrene	ND	0.50	0.06	U
95-47-6	o-Xylene	ND	0.50	0.09	U
563-58-6	1,1-Dichloropropene	ND	0.50	0.11	U
594-20-7	2,2-Dichloropropane	ND	0.50	0.11	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.50	0.09	U
96-18-4	1,2,3-Trichloropropane	ND	0.50	0.11	U
74-97-5	Bromochloromethane	ND	0.50	0.10	U
104-51-8	n-Butylbenzene	ND	0.50	0.06	U
75-71-8	Dichlorodifluoromethane	ND	0.50	0.10	U
87-68-3	Hexachlorobutadiene	ND	0.50	0.11	U
98-82-8	Isopropylbenzene	ND	0.50	0.08	U
99-87-6	p-Isopropyltoluene	ND	0.50	0.07	U
91-20-3	Naphthalene	ND	0.50	0.06	U
103-65-1	n-Propylbenzene	ND	0.50	0.08	U
135-98-8	sec-Butylbenzene	ND	0.50	0.06	U
98-06-6	tert-Butylbenzene	ND	0.50	0.09	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.50	0.06	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.50	0.07	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.50	0.08	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.50	0.10	U
108-86-1	Bromobenzene	ND	0.50	0.09	U
95-49-8	o-Chlorotoluene	ND	0.50	0.10	U

NW 1/10/14

ALPHA ANALYTICAL

3

Form 1
Volatile Organics

Client	: Environmental Planning and Manageme	Lab Number	: L1325883
Project Name	: KATONAH	Project Number	: 13001
Lab ID	: L1325883-03	Date Collected	: 12/19/13 00:00
Client ID	: DUP	Date Received	: 12/19/13
Sample Location	: BEDFORD, NY	Date Analyzed	: 12/24/13 14:39
Sample Matrix	: DW	Dilution Factor	: 1
Analytical Method	: 16,524.2	Analyst	: GT
Lab File ID	: 1224A11	Instrument ID	: BUNDY.I
Sample Amount	: 5 ml	GC Column	: RTX 502.2
Level	: LOW	%Solids	: NA
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

		ug/L			
CAS NO.	Parameter	Results	RL	MDL	Qualifier
106-43-4	p-Chlorotoluene	ND	0.50	0.08	U
74-95-3	Dibromomethane	ND	0.50	0.09	U
106-93-4	1,2-Dibromoethane	ND	0.50	0.06	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.50	0.16	U
142-28-9	1,3-Dichloropropane	ND	0.50	0.11	U
1634-04-4	Methyl tert butyl ether	ND	0.50	0.06	U
1330-20-7	Xylene (Total)	ND	0.50	0.12	U

NW 1/10/14

ALPHA ANALYTICAL

4

Form 1
Volatile Organics

Client	: Environmental Planning and Manageme	Lab Number	: L1325883
Project Name	: KATONAH	Project Number	: 13001
Lab ID	: L1325883-04	Date Collected	: 12/19/13 13:05
Client ID	: STEFF	Date Received	: 12/19/13
Sample Location	: BEDFORD, NY	Date Analyzed	: 12/24/13 15:12
Sample Matrix	: DW	Dilution Factor	: 1
Analytical Method	: 16,524.2	Analyst	: GT
Lab File ID	: 1224A12	Instrument ID	: BUNDY.I
Sample Amount	: 5 ml	GC Column	: RTX 502.2
Level	: LOW	%Solids	: NA
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L Results	RL	MDL	Qualifier
75-09-2	Methylene chloride	ND	0.50	0.15	U
75-34-3	1,1-Dichloroethane	ND	0.50	0.09	U
67-66-3	Chloroform	ND	0.50	0.05	U
56-23-5	Carbon tetrachloride	ND	0.50	0.10	U
78-87-5	1,2-Dichloropropane	ND	0.50	0.09	U
124-48-1	Dibromochloromethane	ND	0.50	0.08	U
79-00-5	1,1,2-Trichloroethane	ND	0.50	0.12	U
127-18-4	Tetrachloroethene	ND	0.50	0.09	U
108-90-7	Chlorobenzene	ND	0.50	0.08	U
75-69-4	Trichlorofluoromethane	ND	0.50	0.11	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.08	U
71-55-6	1,1,1-Trichloroethane	ND	0.50	0.08	U
75-27-4	Bromodichloromethane	ND	0.50	0.05	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.09	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.10	U
75-25-2	Bromoform	ND	0.50	0.09	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.09	U
71-43-2	Benzene	ND	0.50	0.09	U
108-88-3	Toluene	ND	0.50	0.12	U
100-41-4	Ethylbenzene	ND	0.50	0.06	U
179601-23-1	p/m-Xylene	ND	0.50	0.12	U
74-87-3	Chloromethane	ND	0.50	0.15	U
74-83-9	Bromomethane	ND	0.50	0.13	U
75-01-4	Vinyl chloride	ND	0.50	0.08	U
75-00-3	Chloroethane	ND	0.50	0.12	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.06	U
156-60-5	trans-1,2-Dichloroethene	ND	0.50	0.09	U

MW 1/10/14

ALPHA ANALYTICAL

4

Form 1
Volatile Organics

Client	: Environmental Planning and Manageme	Lab Number	: L1325883
Project Name	: KATONAH	Project Number	: 13001
Lab ID	: L1325883-04	Date Collected	: 12/19/13 13:05
Client ID	: STEFF	Date Received	: 12/19/13
Sample Location	: BEDFORD, NY	Date Analyzed	: 12/24/13 15:12
Sample Matrix	: DW	Dilution Factor	: 1
Analytical Method	: 16,524.2	Analyst	: GT
Lab File ID	: 1224A12	Instrument ID	: BUNDY.I
Sample Amount	: 5 ml	GC Column	: RTX 502.2
Level	: LOW	%Solids	: NA
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L Results	RL	MDL	Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	0.50	0.11	U
79-01-6	Trichloroethene	ND	0.50	0.09	U
95-50-1	1,2-Dichlorobenzene	ND	0.50	0.07	U
541-73-1	1,3-Dichlorobenzene	ND	0.50	0.05	U
106-46-7	1,4-Dichlorobenzene	ND	0.50	0.05	U
100-42-5	Styrene	ND	0.50	0.06	U
95-47-6	o-Xylene	ND	0.50	0.09	U
563-58-6	1,1-Dichloropropene	ND	0.50	0.11	U
594-20-7	2,2-Dichloropropane	ND	0.50	0.11	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.50	0.09	U
96-18-4	1,2,3-Trichloropropane	ND	0.50	0.11	U
74-97-5	Bromochloromethane	ND	0.50	0.10	U
104-51-8	n-Butylbenzene	ND	0.50	0.06	U
75-71-8	Dichlorodifluoromethane	ND	0.50	0.10	U
87-68-3	Hexachlorobutadiene	ND	0.50	0.11	U
98-82-8	Isopropylbenzene	ND	0.50	0.08	U
99-87-6	p-Isopropyltoluene	ND	0.50	0.07	U
91-20-3	Naphthalene	ND	0.50	0.06	U
103-65-1	n-Propylbenzene	ND	0.50	0.08	U
135-98-8	sec-Butylbenzene	ND	0.50	0.06	U
98-06-6	tert-Butylbenzene	ND	0.50	0.09	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.50	0.06	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.50	0.07	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.50	0.08	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.50	0.10	U
108-86-1	Bromobenzene	ND	0.50	0.09	U
95-49-8	o-Chlorotoluene	ND	0.50	0.10	U

MW 1/10/14

4

Form 1
Volatile Organics

Client	: Environmental Planning and Manageme	Lab Number	: L1325883
Project Name	: KATONAH	Project Number	: 13001
Lab ID	: L1325883-04	Date Collected	: 12/19/13 13:05
Client ID	: STEFF	Date Received	: 12/19/13
Sample Location	: BEDFORD, NY	Date Analyzed	: 12/24/13 15:12
Sample Matrix	: DW	Dilution Factor	: 1
Analytical Method	: 16,524.2	Analyst	: GT
Lab File ID	: 1224A12	Instrument ID	: BUNDY.I
Sample Amount	: 5 ml	GC Column	: RTX 502.2
Level	: LOW	%Solids	: NA
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L Results	RL	MDL	Qualifier
106-43-4	p-Chlorotoluene	ND	0.50	0.08	U
74-95-3	Dibromomethane	ND	0.50	0.09	U
106-93-4	1,2-Dibromoethane	ND	0.50	0.06	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.50	0.16	U
142-28-9	1,3-Dichloropropane	ND	0.50	0.11	U
1634-04-4	Methyl tert butyl ether	ND	0.50	0.06	U
1330-20-7	Xylene (Total)	ND	0.50	0.12	U

NW 1/10/14

5

Form 1
Volatile Organics

Client	: Environmental Planning and Manageme	Lab Number	: L1325883
Project Name	: KATONAH	Project Number	: 13001
Lab ID	: L1325883-05	Date Collected	: 12/19/13 13:10
Client ID	: DIST	Date Received	: 12/19/13
Sample Location	: BEDFORD, NY	Date Analyzed	: 12/24/13 15:45
Sample Matrix	: DW	Dilution Factor	: 1
Analytical Method	: 16,524.2	Analyst	: GT
Lab File ID	: 1224A13	Instrument ID	: BUNDY.I
Sample Amount	: 5 ml	GC Column	: RTX 502.2
Level	: LOW	%Solids	: NA
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L Results	RL	MDL	Qualifier
75-09-2	Methylene chloride	ND	0.50	0.15	U
75-34-3	1,1-Dichloroethane	ND	0.50	0.09	U
67-66-3	Chloroform	0.82	0.50	0.05	
56-23-5	Carbon tetrachloride	ND	0.50	0.10	U
78-87-5	1,2-Dichloropropane	ND	0.50	0.09	U
124-48-1	Dibromochloromethane	5.3	0.50	0.08	
79-00-5	1,1,2-Trichloroethane	ND	0.50	0.12	U
127-18-4	Tetrachloroethene	ND	0.50	0.09	U
108-90-7	Chlorobenzene	ND	0.50	0.08	U
75-69-4	Trichlorofluoromethane	ND	0.50	0.11	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.08	U
71-55-6	1,1,1-Trichloroethane	ND	0.50	0.08	U
75-27-4	Bromodichloromethane	ND	0.50	0.05	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.09	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.10	U
75-25-2	Bromoform	8.0	0.50	0.09	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.09	U
71-43-2	Benzene	ND	0.50	0.09	U
108-88-3	Toluene	ND	0.50	0.12	U
100-41-4	Ethylbenzene	ND	0.50	0.06	U
179601-23-1	p/m-Xylene	ND	0.50	0.12	U
74-87-3	Chloromethane	ND	0.50	0.15	U
74-83-9	Bromomethane	ND	0.50	0.13	U
75-01-4	Vinyl chloride	ND	0.50	0.08	U
75-00-3	Chloroethane	ND	0.50	0.12	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.06	U
156-60-5	trans-1,2-Dichloroethene	ND	0.50	0.09	U

NW 1/10/14

ALPHA ANALYTICAL

Form 1
Volatile Organics

Client	: Environmental Planning and Manageme	Lab Number	: L1325883
Project Name	: KATONAH	Project Number	: 13001
Lab ID	: L1325883-05	Date Collected	: 12/19/13 13:10
Client ID	: DIST	Date Received	: 12/19/13
Sample Location	: BEDFORD, NY	Date Analyzed	: 12/24/13 15:45
Sample Matrix	: DW	Dilution Factor	: 1
Analytical Method	: 16,524.2	Analyst	: GT
Lab File ID	: 1224A13	Instrument ID	: BUNDY.I
Sample Amount	: 5 ml	GC Column	: RTX 502.2
Level	: LOW	%Solids	: NA
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L Results	RL	MDL	Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	0.50	0.11	U
79-01-6	Trichloroethene	ND	0.50	0.09	U
95-50-1	1,2-Dichlorobenzene	ND	0.50	0.07	U
541-73-1	1,3-Dichlorobenzene	ND	0.50	0.05	U
106-46-7	1,4-Dichlorobenzene	ND	0.50	0.05	U
100-42-5	Styrene	ND	0.50	0.06	U
95-47-6	o-Xylene	ND	0.50	0.09	U
563-58-6	1,1-Dichloropropene	ND	0.50	0.11	U
594-20-7	2,2-Dichloropropane	ND	0.50	0.11	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.50	0.09	U
96-18-4	1,2,3-Trichloropropane	ND	0.50	0.11	U
74-97-5	Bromochloromethane	ND	0.50	0.10	U
104-51-8	n-Butylbenzene	ND	0.50	0.06	U
75-71-8	Dichlorodifluoromethane	ND	0.50	0.10	U
87-68-3	Hexachlorobutadiene	ND	0.50	0.11	U
98-82-8	Isopropylbenzene	ND	0.50	0.08	U
99-87-6	p-Isopropyltoluene	ND	0.50	0.07	U
91-20-3	Naphthalene	ND	0.50	0.06	U
103-65-1	n-Propylbenzene	ND	0.50	0.08	U
135-98-8	sec-Butylbenzene	ND	0.50	0.06	U
98-06-6	tert-Butylbenzene	ND	0.50	0.09	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.50	0.06	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.50	0.07	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.50	0.08	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.50	0.10	U
108-86-1	Bromobenzene	ND	0.50	0.09	U
95-49-8	o-Chlorotoluene	ND	0.50	0.10	U

NW 1/10/14

5

Form 1
Volatile Organics

Client	: Environmental Planning and Manageme	Lab Number	: L1325883
Project Name	: KATONAH	Project Number	: 13001
Lab ID	: L1325883-05	Date Collected	: 12/19/13 13:10
Client ID	: DIST	Date Received	: 12/19/13
Sample Location	: BEDFORD, NY	Date Analyzed	: 12/24/13 15:45
Sample Matrix	: DW	Dilution Factor	: 1
Analytical Method	: 16,524.2	Analyst	: GT
Lab File ID	: 1224A13	Instrument ID	: BUNDY.I
Sample Amount	: 5 ml	GC Column	: RTX 502.2
Level	: LOW	%Solids	: NA
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

		ug/L			
CAS NO.	Parameter	Results	RL	MDL	Qualifier
106-43-4	p-Chlorotoluene	ND	0.50	0.08	U
74-95-3	Dibromomethane	ND	0.50	0.09	U
106-93-4	1,2-Dibromoethane	ND	0.50	0.06	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.50	0.16	U
142-28-9	1,3-Dichloropropane	ND	0.50	0.11	U
1634-04-4	Methyl tert butyl ether	ND	0.50	0.06	U
1330-20-7	Xylene (Total)	ND	0.50	0.12	U

NW 1/10/14

Form 1
Volatile Organics

6

Client	: Environmental Planning and Manageme	Lab Number	: L1325883
Project Name	: KATONAH	Project Number	: 13001
Lab ID	: L1325883-06	Date Collected	: 12/19/13 13:35
Client ID	: MW-11	Date Received	: 12/19/13
Sample Location	: BEDFORD, NY	Date Analyzed	: 12/24/13 16:18
Sample Matrix	: DW	Dilution Factor	: 1
Analytical Method	: 16,524.2	Analyst	: GT
Lab File ID	: 1224A14	Instrument ID	: BUNDY.I
Sample Amount	: 5 ml	GC Column	: RTX 502.2
Level	: LOW	%Solids	: NA
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L Results	RL	MDL	Qualifier
75-09-2	Methylene chloride	ND	0.50	0.15	U
75-34-3	1,1-Dichloroethane	ND	0.50	0.09	U
67-66-3	Chloroform	ND	0.50	0.05	U
56-23-5	Carbon tetrachloride	ND	0.50	0.10	U
78-87-5	1,2-Dichloropropane	ND	0.50	0.09	U
124-48-1	Dibromochloromethane	ND	0.50	0.08	U
79-00-5	1,1,2-Trichloroethane	ND	0.50	0.12	U
127-18-4	Tetrachloroethene	0.64	0.50	0.09	
108-90-7	Chlorobenzene	ND	0.50	0.08	U
75-69-4	Trichlorofluoromethane	ND	0.50	0.11	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.08	U
71-55-6	1,1,1-Trichloroethane	ND	0.50	0.08	U
75-27-4	Bromodichloromethane	ND	0.50	0.05	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.09	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.10	U
75-25-2	Bromoform	ND	0.50	0.09	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.09	U
71-43-2	Benzene	ND	0.50	0.09	U
108-88-3	Toluene	ND	0.50	0.12	U
100-41-4	Ethylbenzene	ND	0.50	0.06	U
179601-23-1	p/m-Xylene	ND	0.50	0.12	U
74-87-3	Chloromethane	ND	0.50	0.15	U
74-83-9	Bromomethane	ND	0.50	0.13	U
75-01-4	Vinyl chloride	ND	0.50	0.08	U
75-00-3	Chloroethane	ND	0.50	0.12	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.06	U
156-60-5	trans-1,2-Dichloroethene	ND	0.50	0.09	U

NW 1/10/14

ALPHA ANALYTICAL

Form 1
Volatile Organics

Client	: Environmental Planning and Manageme	Lab Number	: L1325883
Project Name	: KATONAH	Project Number	: 13001
Lab ID	: L1325883-06	Date Collected	: 12/19/13 13:35
Client ID	: MW-11	Date Received	: 12/19/13
Sample Location	: BEDFORD, NY	Date Analyzed	: 12/24/13 16:18
Sample Matrix	: DW	Dilution Factor	: 1
Analytical Method	: 16,524.2	Analyst	: GT
Lab File ID	: 1224A14	Instrument ID	: BUNDY.I
Sample Amount	: 5 ml	GC Column	: RTX 502.2
Level	: LOW	%Solids	: NA
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L Results	RL	MDL	Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	0.50	0.11	U
79-01-6	Trichloroethene	ND	0.50	0.09	U
95-50-1	1,2-Dichlorobenzene	ND	0.50	0.07	U
541-73-1	1,3-Dichlorobenzene	ND	0.50	0.05	U
106-46-7	1,4-Dichlorobenzene	ND	0.50	0.05	U
100-42-5	Styrene	ND	0.50	0.06	U
95-47-6	o-Xylene	ND	0.50	0.09	U
563-58-6	1,1-Dichloropropene	ND	0.50	0.11	U
594-20-7	2,2-Dichloropropane	ND	0.50	0.11	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.50	0.09	U
96-18-4	1,2,3-Trichloropropane	ND	0.50	0.11	U
74-97-5	Bromochloromethane	ND	0.50	0.10	U
104-51-8	n-Butylbenzene	ND	0.50	0.06	U
75-71-8	Dichlorodifluoromethane	ND	0.50	0.10	U
87-68-3	Hexachlorobutadiene	ND	0.50	0.11	U
98-82-8	Isopropylbenzene	ND	0.50	0.08	U
99-87-6	p-Isopropyltoluene	ND	0.50	0.07	U
91-20-3	Naphthalene	ND	0.50	0.06	U
103-65-1	n-Propylbenzene	ND	0.50	0.08	U
135-98-8	sec-Butylbenzene	ND	0.50	0.06	U
98-06-6	tert-Butylbenzene	ND	0.50	0.09	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.50	0.06	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.50	0.07	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.50	0.08	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.50	0.10	U
108-86-1	Bromobenzene	ND	0.50	0.09	U
95-49-8	o-Chlorotoluene	ND	0.50	0.10	U

MW 1/10/14

Form 1
Volatile Organics

6

Client	: Environmental Planning and Manageme	Lab Number	: L1325883
Project Name	: KATONAH	Project Number	: 13001
Lab ID	: L1325883-06	Date Collected	: 12/19/13 13:35
Client ID	: MW-11	Date Received	: 12/19/13
Sample Location	: BEDFORD, NY	Date Analyzed	: 12/24/13 16:18
Sample Matrix	: DW	Dilution Factor	: 1
Analytical Method	: 16,524.2	Analyst	: GT
Lab File ID	: 1224A14	Instrument ID	: BUNDY.I
Sample Amount	: 5 ml	GC Column	: RTX 502.2
Level	: LOW	%Solids	: NA
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L Results	RL	MDL	Qualifier
106-43-4	p-Chlorotoluene	ND	0.50	0.08	U
74-95-3	Dibromomethane	ND	0.50	0.09	U
106-93-4	1,2-Dibromoethane	ND	0.50	0.06	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.50	0.16	U
142-28-9	1,3-Dichloropropane	ND	0.50	0.11	U
1634-04-4	Methyl tert butyl ether	ND	0.50	0.06	U
1330-20-7	Xylene (Total)	ND	0.50	0.12	U

NW 1/10/14

ALPHA ANALYTICAL

7

Form 1
Volatile Organics

Client	: Environmental Planning and Manageme	Lab Number	: L1325883
Project Name	: KATONAH	Project Number	: 13001
Lab ID	: L1325883-07	Date Collected	: 12/19/13 14:00
Client ID	: FIELD BLANK	Date Received	: 12/19/13
Sample Location	: BEDFORD, NY	Date Analyzed	: 12/24/13 16:50
Sample Matrix	: DW	Dilution Factor	: 1
Analytical Method	: 16,524.2	Analyst	: GT
Lab File ID	: 1224A15	Instrument ID	: BUNDY.I
Sample Amount	: 5 ml	GC Column	: RTX 502.2
Level	: LOW	%Solids	: NA
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L Results	RL	MDL	Qualifier
75-09-2	Methylene chloride	ND	0.50	0.15	U
75-34-3	1,1-Dichloroethane	ND	0.50	0.09	U
67-66-3	Chloroform	ND	0.50	0.05	U
56-23-5	Carbon tetrachloride	ND	0.50	0.10	U
78-87-5	1,2-Dichloropropane	ND	0.50	0.09	U
124-48-1	Dibromochloromethane	ND	0.50	0.08	U
79-00-5	1,1,2-Trichloroethane	ND	0.50	0.12	U
127-18-4	Tetrachloroethene	ND	0.50	0.09	U
108-90-7	Chlorobenzene	ND	0.50	0.08	U
75-69-4	Trichlorofluoromethane	ND	0.50	0.11	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.08	U
71-55-6	1,1,1-Trichloroethane	ND	0.50	0.08	U
75-27-4	Bromodichloromethane	ND	0.50	0.05	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.09	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.10	U
75-25-2	Bromoform	ND	0.50	0.09	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.09	U
71-43-2	Benzene	ND	0.50	0.09	U
108-88-3	Toluene	ND	0.50	0.12	U
100-41-4	Ethylbenzene	ND	0.50	0.06	U
179601-23-1	p/m-Xylene	ND	0.50	0.12	U
74-87-3	Chloromethane	ND	0.50	0.15	U
74-83-9	Bromomethane	ND	0.50	0.13	U
75-01-4	Vinyl chloride	ND	0.50	0.08	U
75-00-3	Chloroethane	ND	0.50	0.12	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.06	U
156-60-5	trans-1,2-Dichloroethene	ND	0.50	0.09	U

NW 1/10/14

ALPHA ANALYTICAL

7

Form 1
Volatile Organics

Client	: Environmental Planning and Manageme	Lab Number	: L1325883
Project Name	: KATONAH	Project Number	: 13001
Lab ID	: L1325883-07	Date Collected	: 12/19/13 14:00
Client ID	: FIELD BLANK	Date Received	: 12/19/13
Sample Location	: BEDFORD, NY	Date Analyzed	: 12/24/13 16:50
Sample Matrix	: DW	Dilution Factor	: 1
Analytical Method	: 16,524.2	Analyst	: GT
Lab File ID	: 1224A15	Instrument ID	: BUNDY.I
Sample Amount	: 5 ml	GC Column	: RTX 502.2
Level	: LOW	%Solids	: NA
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L Results	RL	MDL	Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	0.50	0.11	U
79-01-6	Trichloroethene	ND	0.50	0.09	U
95-50-1	1,2-Dichlorobenzene	ND	0.50	0.07	U
541-73-1	1,3-Dichlorobenzene	ND	0.50	0.05	U
106-46-7	1,4-Dichlorobenzene	ND	0.50	0.05	U
100-42-5	Styrene	ND	0.50	0.06	U
95-47-6	o-Xylene	ND	0.50	0.09	U
563-58-6	1,1-Dichloropropene	ND	0.50	0.11	U
594-20-7	2,2-Dichloropropane	ND	0.50	0.11	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.50	0.09	U
96-18-4	1,2,3-Trichloropropane	ND	0.50	0.11	U
74-97-5	Bromochloromethane	ND	0.50	0.10	U
104-51-8	n-Butylbenzene	ND	0.50	0.06	U
75-71-8	Dichlorodifluoromethane	ND	0.50	0.10	U
87-68-3	Hexachlorobutadiene	ND	0.50	0.11	U
98-82-8	Isopropylbenzene	ND	0.50	0.08	U
99-87-6	p-Isopropyltoluene	ND	0.50	0.07	U
91-20-3	Naphthalene	ND	0.50	0.06	U
103-65-1	n-Propylbenzene	ND	0.50	0.08	U
135-98-8	sec-Butylbenzene	ND	0.50	0.06	U
98-06-6	tert-Butylbenzene	ND	0.50	0.09	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.50	0.06	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.50	0.07	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.50	0.08	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.50	0.10	U
108-86-1	Bromobenzene	ND	0.50	0.09	U
95-49-8	o-Chlorotoluene	ND	0.50	0.10	U

MW 1/10/14

ALPHA ANALYTICAL

7

Form 1
Volatile Organics

Client	: Environmental Planning and Manageme	Lab Number	: L1325883
Project Name	: KATONAH	Project Number	: 13001
Lab ID	: L1325883-07	Date Collected	: 12/19/13 14:00
Client ID	: FIELD BLANK	Date Received	: 12/19/13
Sample Location	: BEDFORD, NY	Date Analyzed	: 12/24/13 16:50
Sample Matrix	: DW	Dilution Factor	: 1
Analytical Method	: 16,524.2	Analyst	: GT
Lab File ID	: 1224A15	Instrument ID	: BUNDY.I
Sample Amount	: 5 ml	GC Column	: RTX 502.2
Level	: LOW	%Solids	: NA
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L Results	RL	MDL	Qualifier
106-43-4	p-Chlorotoluene	ND	0.50	0.08	U
74-95-3	Dibromomethane	ND	0.50	0.09	U
106-93-4	1,2-Dibromoethane	ND	0.50	0.06	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.50	0.16	U
142-28-9	1,3-Dichloropropane	ND	0.50	0.11	U
1634-04-4	Methyl tert butyl ether	ND	0.50	0.06	U
1330-20-7	Xylene (Total)	ND	0.50	0.12	U

MW 1/10/14

ALPHA ANALYTICAL

8

Form 1
Volatile Organics

Client	: Environmental Planning and Manageme	Lab Number	: L1325883
Project Name	: KATONAH	Project Number	: 13001
Lab ID	: L1325883-08	Date Collected	: 12/19/13 00:00
Client ID	: TRIP BLANK	Date Received	: 12/19/13
Sample Location	: BEDFORD, NY	Date Analyzed	: 12/24/13 11:23
Sample Matrix	: DW	Dilution Factor	: 1
Analytical Method	: 16,524.2	Analyst	: GT
Lab File ID	: 1224A05	Instrument ID	: BUNDY.I
Sample Amount	: 5 ml	GC Column	: RTX 502.2
Level	: LOW	%Solids	: NA
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L Results	RL	MDL	Qualifier
75-09-2	Methylene chloride	ND	0.50	0.15	U
75-34-3	1,1-Dichloroethane	ND	0.50	0.09	U
67-66-3	Chloroform	ND	0.50	0.05	U
56-23-5	Carbon tetrachloride	ND	0.50	0.10	U
78-87-5	1,2-Dichloropropane	ND	0.50	0.09	U
124-48-1	Dibromochloromethane	ND	0.50	0.08	U
79-00-5	1,1,2-Trichloroethane	ND	0.50	0.12	U
127-18-4	Tetrachloroethene	ND	0.50	0.09	U
108-90-7	Chlorobenzene	ND	0.50	0.08	U
75-69-4	Trichlorofluoromethane	ND	0.50	0.11	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.08	U
71-55-6	1,1,1-Trichloroethane	ND	0.50	0.08	U
75-27-4	Bromodichloromethane	ND	0.50	0.05	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.09	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.10	U
75-25-2	Bromoform	ND	0.50	0.09	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.09	U
71-43-2	Benzene	ND	0.50	0.09	U
108-88-3	Toluene	ND	0.50	0.12	U
100-41-4	Ethylbenzene	ND	0.50	0.06	U
179601-23-1	p/m-Xylene	ND	0.50	0.12	U
74-87-3	Chloromethane	ND	0.50	0.15	U
74-83-9	Bromomethane	ND	0.50	0.13	U
75-01-4	Vinyl chloride	ND	0.50	0.08	U
75-00-3	Chloroethane	ND	0.50	0.12	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.06	U
156-60-5	trans-1,2-Dichloroethene	ND	0.50	0.09	U

NW 1/10/14

ALPHA ANALYTICAL

Form 1
Volatile Organics

8

Client	: Environmental Planning and Manageme	Lab Number	: L1325883
Project Name	: KATONAH	Project Number	: 13001
Lab ID	: L1325883-08	Date Collected	: 12/19/13 00:00
Client ID	: TRIP BLANK	Date Received	: 12/19/13
Sample Location	: BEDFORD, NY	Date Analyzed	: 12/24/13 11:23
Sample Matrix	: DW	Dilution Factor	: 1
Analytical Method	: 16,524.2	Analyst	: GT
Lab File ID	: 1224A05	Instrument ID	: BUNDY.I
Sample Amount	: 5 ml	GC Column	: RTX 502.2
Level	: LOW	%Solids	: NA
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L Results	RL	MDL	Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	0.50	0.11	U
79-01-6	Trichloroethene	ND	0.50	0.09	U
95-50-1	1,2-Dichlorobenzene	ND	0.50	0.07	U
541-73-1	1,3-Dichlorobenzene	ND	0.50	0.05	U
106-46-7	1,4-Dichlorobenzene	ND	0.50	0.05	U
100-42-5	Styrene	ND	0.50	0.06	U
95-47-6	o-Xylene	ND	0.50	0.09	U
563-58-6	1,1-Dichloropropene	ND	0.50	0.11	U
594-20-7	2,2-Dichloropropane	ND	0.50	0.11	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.50	0.09	U
96-18-4	1,2,3-Trichloropropane	ND	0.50	0.11	U
74-97-5	Bromochloromethane	ND	0.50	0.10	U
104-51-8	n-Butylbenzene	ND	0.50	0.06	U
75-71-8	Dichlorodifluoromethane	ND	0.50	0.10	U
87-68-3	Hexachlorobutadiene	ND	0.50	0.11	U
98-82-8	Isopropylbenzene	ND	0.50	0.08	U
99-87-6	p-Isopropyltoluene	ND	0.50	0.07	U
91-20-3	Naphthalene	ND	0.50	0.06	U
103-65-1	n-Propylbenzene	ND	0.50	0.08	U
135-98-8	sec-Butylbenzene	ND	0.50	0.06	U
98-06-6	tert-Butylbenzene	ND	0.50	0.09	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.50	0.06	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.50	0.07	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.50	0.08	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.50	0.10	U
108-86-1	Bromobenzene	ND	0.50	0.09	U
95-49-8	o-Chlorotoluene	ND	0.50	0.10	U

MW 1/10/14

ALPHA ANALYTICAL

8

Form 1
Volatile Organics

Client	: Environmental Planning and Manageme	Lab Number	: L1325883
Project Name	: KATONAH	Project Number	: 13001
Lab ID	: L1325883-08	Date Collected	: 12/19/13 00:00
Client ID	: TRIP BLANK	Date Received	: 12/19/13
Sample Location	: BEDFORD, NY	Date Analyzed	: 12/24/13 11:23
Sample Matrix	: DW	Dilution Factor	: 1
Analytical Method	: 16,524.2	Analyst	: GT
Lab File ID	: 1224A05	Instrument ID	: BUNDY.I
Sample Amount	: 5 ml	GC Column	: RTX 502.2
Level	: LOW	%Solids	: NA
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L Results	RL	MDL	Qualifier
106-43-4	p-Chlorotoluene	ND	0.50	0.08	U
74-95-3	Dibromomethane	ND	0.50	0.09	U
106-93-4	1,2-Dibromoethane	ND	0.50	0.06	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.50	0.16	U
142-28-9	1,3-Dichloropropane	ND	0.50	0.11	U
1634-04-4	Methyl tert butyl ether	ND	0.50	0.06	U
1330-20-7	Xylene (Total)	ND	0.50	0.12	U

NW 1/10/14

APPENDIX B

LABORATORY ANALYSIS SUMMARY REPORT

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World Class Chemistry

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Alpha Analytical

Laboratory Code: 11148

SDG Number: L1325883

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Table of Contents

New York ASP Category B Data Deliverable Package 1
Table of Contents 2
Sample ID Cross Reference 4
SDG Narrative 5
Data Qualifier Definitions 7
Instrument Information 9
Sample Log-in Sheet 14
Lims COC (LN01) 15
External Chain of Custody 17
Organics Analysis 18
GCMS VOA 19
Volatiles QC Summary 20
Form 2 - Organics 21
Form 3 - Organics 22
Form 4 - Organics 28
Form 5 - Organics 29
Form 8 - Organics 31
Volatiles Sample Data 32
Form I - Organics 33
TRIP BLANK (L1325883-08) Analyzed: 12/24/13 11:23 60
RW (L1325883-02) Analyzed: 12/24/13 12:28 65
MW-4 (L1325883-01) Analyzed: 12/24/13 14:07 72
DUP (L1325883-03) Analyzed: 12/24/13 14:39 80
STEFF (L1325883-04) Analyzed: 12/24/13 15:12 87
DIST (L1325883-05) Analyzed: 12/24/13 15:45 92
MW-11 (L1325883-06) Analyzed: 12/24/13 16:18 100
FIELD BLANK (L1325883-07) Analyzed: 12/24/13 16:50 107
Volatile Standards Data 112
Initial Calibration 113
Form 6 - Organics 114
ICAL for BUNDY.I on 11/10/13 ICAL8787 122
Initial Calibration Summary - Cal Date: 11/10/13 23:22 122
bfb tune (1ul dir inj) Injected on: 11/10/13 17:06 130
2.5ng STD Injected on: 11/10/13 19:33 135
4 ng STD Injected on: 11/10/13 20:06 152
20ng STD Injected on: 11/10/13 20:38 163
40ng STD Injected on: 11/10/13 21:11 170
80ng STD Injected on: 11/10/13 21:44 175
100ng STD Injected on: 11/10/13 22:16 180
200ng STD Injected on: 11/10/13 22:49 185
400ng STD Injected on: 11/10/13 23:22 190
Initial Calibration Verification 196
ICV Summary Form Injected on: 11/11/13 01:00 197
ICV Quant Report Injected on: 11/11/13 01:00 199
Continuing Calibration 206
Form 7 - Organics 207
CC Summary - Bundy.i Run: 24-DEC-13 09:45 209
CC Quant - Inst. Bundy.i Inj Date: 12/24/13 09:45 211
BFB tune - Inst. Bundy.i Inj Date: 12/24/13 08:48 217
Volatiles Raw QC Data 222

Table of Contents

Laboratory Method Bl (WG661542-2) Analyzed: 12/24/13 10:50 223
Laboratory Control S (WG661542-1) Analyzed: 12/24/13 09:45 228
Matrix Spike (WG661542-3) Analyzed: 12/24/13 13:01 296
Matrix Spike Duplica (WG661542-4) Analyzed: 12/24/13 13:34 364
Volatiles Calculations 432
QC Batch WG661542 433
Sequence Log 434
ICAL Sequence for BUNDY.I on 10-NOV-2013 23:22 ICAL8787 435

ALPHA ANALYTICAL

Project Name: KATONAH
Project Number: 13001

Lab Number: L1325883
Report Date: 12/30/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1325883-01	MW-4	BEDFORD, NY	12/19/13 12:45
L1325883-02	RW	BEDFORD, NY	12/19/13 13:00
L1325883-03	DUP	BEDFORD, NY	12/19/13 00:00
L1325883-04	STEFF	BEDFORD, NY	12/19/13 13:05
L1325883-05	DIST	BEDFORD, NY	12/19/13 13:10
L1325883-06	MW-11	BEDFORD, NY	12/19/13 13:35
L1325883-07	FIELD BLANK	BEDFORD, NY	12/19/13 14:00
L1325883-08	TRIP BLANK	BEDFORD, NY	12/19/13 00:00

Project Name: KATONAH **Lab Number:** L1325883
Project Number: 13001 **Report Date:** 12/26/13

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE". respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Report Submission

Case Narrative (continued)

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Volatile Organics

The WG661542-3/-4 MS/MSD recoveries, performed on L1325883-02, are above the acceptance criteria for chloroform (140%/136%), carbon tetrachloride (142%/135%), dibromochloromethane (MS at 136%), 1,1,2-trichloroethane (MS at 131%), trichlorofluoromethane (MS at 131%), 1,2-dichloroethane (MS at 134%), 1,1,1-trichloroethane (MS at 134%) and bromodichloromethane (140%/133%); however, the associated LCS recoveries are within overall method allowances.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Michelle M. Morris Report Date: 12/26/13

Title: Technical Director/Representative

ALPHA ANALYTICAL
World Class Chemistry

List of Organic Method Qualifiers

Table 1

Qualifier (Q)	Description
B	Entered if the analyte is found in the associated blank as well as the sample.
C	Applied to pesticide results when the identification has been confirmed by GC/MS.
D	Included when the all identified compounds in the analysis are at the secondary dilution factor.
E	Identified compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
J	Indicates an estimated value, may indicate one of the following, depending on the situation: (1) The reported value is estimated and below the MDL. (2) Used when estimating a concentration for TIC where a 1:1 response is assumed or when the result indicates the presence of a compound that meets the identification criteria, but the results is less than the quantitation limit, but greater than zero. (3) QC associated with this analyte is within warning limits.
N	Included for TIC that indicate presumptive evidence of a compound.
U	Entered if the analyte was analyzed for, but not detected.
P	Used for a pesticide/Aroclor target analyte when the concentration difference between 2 GC columns is greater than 25%; the lower value is flagged with a "P".
EMPC	"Estimated Maximum Possible Concentration" – The amount of analyte cannot be accurately quantified, so a maximum concentration has been estimated for the compound.
"XYZ"	"Wildcard" or Laboratory defined qualifier.

Note: Form I allows only one character in each qualifier column. If multiple qualifiers are applicable, please assess qualifier priority in the following order: U, E, J, B, D, C, P, N. Reporting done in the EDD may include multiple qualifiers when applicable, separated by a single space.

(Information obtained from NYSDEC ASP Exhibit B, 7/2005, page 64)

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World Class Chemistry

List of Inorganic Method Qualifiers

Table 2

Qualifier	Column (1)	Description
Concentration qualifiers		
B	C	Entered if the reported value was less than the CRDL, but greater than the IDL.
U	C	Entered if the analyte was analyzed for, but not detected.
J	C	Entered if the reported value is estimated and below the MDL.
*	C	Duplicate precision exceeds RPD limit.
M	C	Replicate precision exceeds RPD limit.
"XYZ"	C	"Wildcard" or Laboratory defined qualifier.
Qualifier specific entries		
E	Q	Entered if the reported value is estimated because of the presence of interferences.
Method qualifiers		
A	M	Flame atomic absorption
AS	M	Semi-automated spectrophotometric
AV	M	Automated cold vapor atomic absorption
C	M	Manual spectrophotometric
F	M	Furnace atomic absorption
MS	M	Mass spectrometry (ICP-MS)
NR	M	Analyte is not required to be analyzed
P	M	Inductively coupled plasma (ICP)
" "	M	No data have been entered

(1) The term "Column" is used to indicate under which column heading in the reporting forms that the qualifier will be found under.
Note: Form I allows only one character in each qualifier column. If multiple qualifiers are applicable to column C, please assess qualifier priority in the following order: U, J, B. Reporting done in the EDD may include multiple qualifiers when applicable, separated by a single space.

(Information obtained from NYSDEC ASP Exhibit B, 7/2005, page 65)

Volatile Organics Instruments

Volatile Organics: Jack

Instrument: Agilent 5975MSD
Trap: Supelco K Trap (VOACARB 3000)
Concentrator: EST Encon
Autosampler: EST Centurion
Purge time: 11 min

Column Type: RTX-VMS
Column Length: 20 Meters
df: 1.00um
ID: 0.18mm
Desorb: 2 min

Volatile Organics: Quimby

Instrument: Agilent 5973MSD
Trap: Supelco K Trap (VOACARB 3000)
Concentrator: EST Encon
Autosampler: EST Centurion
Purge time: 11 min

Column Type: RTX-VMS
Column Length: 20 Meters
df: 1.00um
ID: 0.18mm
Desorb: 2 min

Volatile Organics: Curly

Instrument: Agilent 5972 MSD
Trap: Supelco K Trap (VOACARB 3000)
Concentrator: Tekmar 3000
Autosampler: Archon
Purge time: 11 min

Column Type: Restek RTX-502.2
Column Length: 40 Meters
df: 1.00 um
ID: 0.18 mm
Desorb: 2 min

Volatile Organics: Elaine

Instrument: Agilent 5973 MSD
Trap: Supelco K Trap (VOACARB 3000)
Concentrator: Teledyne Velocity
Autosampler: Teledyne Solatek
Purge time: 11 min

Column Type: Restek RTX-502.2
Column Length: 40 Meters
df: 1.00 um
ID: 0.18 mm
Desorb: 2 min

Volatile Organics: Gonzo

Instrument: Agilent 5973 MSD
Trap: Supelco K Trap (VOACARB 3000)
Concentrator: Teledyne Velocity
Autosampler: Teledyne Solatek
Purge time: 11 min

Column Type: Restek RTX-502.2
Column Length: 40 Meters
df: 1.00 um
ID: 0.18 mm
Desorb: 2 min

Volatile Organics: VOA101

Instrument: Agilent 5975C inert XL MSD	Column Type: Restek RTX-VMS
Trap: EST K Trap (VOCARB 3000)	Column Length: 30 Meters
Concentrator: Encon Evolution	df: 1.40 um
Autosampler: EST Centurion	ID: 0.25 mm
Purge time: 11 min	Desorb: 1 min

Volatile Organics: Charlie/Voa100/Voa104

Instrument: Agilent 5975C MSD	Column Type: Agilent DB-624
Trap: Supelco K Trap (VOACARB 3000)	Column Length: 25 Meters
Concentrator: Encon Evolution	df: 1.12 um
Autosampler: EST Centurion	ID: 0.20 mm
Purge time: 11 min	Desorb: 2 min

Volatile Organics: M

Instrument: Agilent 6890	Column Type: Restek RTX 502.2
	Column Length: 105 Meters
Concentrator: Tekmar 2016	df: 3.00 um
Autosampler: Tekmar 3100	ID: 0.53 mm

Volatile Organics: L/N

Instrument: Agilent 6890	Column Type: Restek RTX 502.2
	Column Length: 105 Meters
Concentrator: Encon Evolution	df: 3.00 um
Autosampler: EST Archon	ID: 0.53 mm

Volatile Organics: O/P

Instrument: Agilent 7890A	Column Type: Restek RTX 502.2
	Column Length: 105 Meters
Concentrator: Encon Evolution	df: 3.00 um
Autosampler: EST Centurion	ID: 0.53 mm

Volatile Organics in Air Instruments

Volatile Organics in Air:

Instrument: Agilent 6890 GC / 5975 MSD	Column Type: Restek RTX-1
	Column Length: 60 Meters
Concentrator: Entech 7100A	df: 1.00 um
Autosampler: Entech 7016CA	ID: 0.52 mm

Trap 1: Glass Bead: manufacturer-Entech: 20 cm packing material
Trap 2: Tenax: manufacturer-Entech: 20 cm packing material

Semivolatile Organics Instruments

Semivolatile Organics (Acid/Base/Neutral Extractables): Juliet/ Gcms5/Gcms7

Instrument: Agilent 5973N MSD	Injection volume: 1 ul
Column Type: Restek RXI-5SIL MS	df: 0.25 um
Column Length: 30 Meters	ID: 0.32 mm

Semivolatile Organics (Acid/Base/Neutral Extractables): Buffy

Instrument: Agilent 5973N MSD	Injection volume: 1 ul
Column Type: Restek RTX-5MS	df: 0.25 um
Column Length: 30 Meters	ID: 0.32 mm

Semivolatile Organics (Acid/Base/Neutral Extractables): Juliet/GCMS5

Instrument: Agilent 5973N MSD	Injection volume: 1 ul
Column Type: Restek RTX-5MS	df: 0.25 um
Column Length: 30 Meters	ID: 0.25 mm

Polynuclear Aromatic Hydrocarbons by 8270 SIM: Dakota/ Mork

Instrument: Agilent 5973 MSD	Injection volume: 1 ul
Column Type: Restek RTX-5MS	df: 0.25 um
Column Length: 30 Meters	ID: 0.32 mm

Polynuclear Aromatic Hydrocarbons by 8270 SIM: Mindy

Instrument: Agilent 5973N MSD	Injection volume: 1 ul
Column Type: Restek RXI-5SIL MS	df: 0.25 um
Column Length: 30 Meters	ID: 0.32 mm

Pesticides/PCB : Pest 11/Pest2/Pest7/Pest12

Instrument: Agilent 6890 w/Dual Micro ECDs	Injection Volume: 1uL
Column Type: Restek RTX-CLP (Channel A)	df: 0.32 um
Column: Restek RTX-CLPPesticide II (Channel B)	df: 0.25 um
Column Length: 30 Meters (Both)	ID: 0.32 mm (Both)

Pesticides/PCB: Pest 10/ Pest9

Instrument: Agilent 6890 w/Dual Micro ECDs	Injection Volume: 1uL
Column Type: Restek STX-CLP (Channel A)	df: 0.32 um
Column: Restek STX-CLPPesticide II (Channel B)	df: 0.25 um
Column Length: 30 Meters (Both)	ID: 0.32 mm (Both)

Herbicides

Instrument: Agilent 6890 w/Dual Micro ECDs	Injection Volume: 1uL
Column Type: Restek RTX-1701 (Channel A)	df: 0.25 um
Column Type: Restek RTX-5 (Channel B)	df: 0.25 um
Column Length: 30 Meters (Both)	ID: 0.32 mm (Both)

Petro9
Instrument: Agilent 6890 w/FID
Column: Restek RTX-5-MS
Column Length: 30 Meters
Injection Volume: 1uL
df: 0.25 um
ID: 0.32 mm

EPH Petro10/ Petro11
Instrument: Agilent 6890N w/FID
Column: Restek RTX-5-MS
Column Length: 30 Meters
Injection Volume: 1uL
df: 0.25um
ID: 0.32 mm

Explosives
Instrument: Dionex ICS-3000, AS50 Autosampler and PDA-100 detectors.
Injection Volume: 100uL
Column: Phenomenex Synergi 4u Hydro-RP and Luna 5u Phenyl-Hexyl

GC/MS Forensic Semivolatile Organic instruments

Semivolatile Organics (ALK-PAH extractables): PAH1/PAH2/PAH3/PAH4
Instrument: Agilent 5973C MSD
Column Type: Phenomenex ZB-5
Column Length: 60 Meters
Injection volume: 1ul
df: 0.25um
ID: 0.25mm

Semivolatile Organics (ALK-PAH extractables):
PAH8/PAH9/PAH10/PAH11/PAH12/PAH13/PAH14
Instrument: Agilent 5975C MSD
Column Type: Phenomenex ZB-5
Column Length: 60 Meters
Injection volume: 1ul
df: 0.25um
ID: 0.25mm

Semivolatile Organics (ALK-PAH extractables): PAH17/PAH18/PAH19
Instrument: Agilent 5975C MSD
Column Type: Phenomenex ZB-5
Column Length: 60 Meters
Injection volume: 1ul
df: 0.25um
ID: 0.25mm

GC/FID Forensic Semivolatile Organic instruments

Semivolatile Organics (SHC extractables):PAH1/PAH2/PAH3/PAH4/PAH8
Instrument: Agilent 6890N w/FID
Column Type: Restek RTX-5
Column Length: 60 Meters
Injection volume: 1ul
df: 0.25um
ID: 0.25mm

Semivolatile Organics (SHC extractables):
FID6 (dual column)/ FID9 (dual column)/ FID17 (dual column)
Instrument: Agilent 6890N w/FID
Column Type: Restek RTX-5
Column Length: 60 Meters
Injection volume: 1ul
df: 0.25um
ID: 0.25mm

Semivolatile Organics (SHC extractables):FID7 (dual column)

Instrument: Agilent 7890N w/FID	Injection volume: 1ul
Column Type: Restek RTX-5	df: 0.25um
Column Length: 60 Meters	ID: 0.25mm

Sample Delivery Group Form

Laboratory Job number: L1325883

Project Number: 13001

Project Name: KATONAH | Received: 12/19/2013 15:45

Client Account: Environmental Planning and Management | Received by: RO/WM

Samples Delivered by: COURIER | Cal Tracker #

Bill Of Laden N/A | Trackingnum

Coc Present Present

Container Status Intact | Sample IDs

All Containers Accounted For? Yes

Were Extra Samples Received? No

Do Sample Labels and COC agree? Yes

Are Samples in Appropriate Containers? Yes

Are Samples Received within Holding time? Yes

pH of Samples upon Receipt N/A | Are samples Properly Preserved? Yes

Initial pH | preserved in house with | Final pH

Other Issues

Chlorine Check N/A

Are VOA/VPH Vials Present? Yes

Aqueous: Do Vials Contain Head Space? No

Soils: Is MeOHCovering the Soil? N/A

Reagent H2O Preserved vials Frozen on N/A

Frozen by Client N/A

Cooler	Seal	Ice Present	Blue Ice Present	Temp - Celsius	Frozen with Receipt	Delivered Direct from Site
A	Absent	Yes	No	2.9 - IR Gun	No	No

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Dec 30 2013, 02:22 pm

Login Number: L1325883

Account: EPM Environmental Planning and ManagementProject: 13001

Received: 19DEC13 Due Date: 27DEC13

Sample #	Client ID	Mat	PR	Collected	Container
L1325883-01	MW-4	9	S0	19DEC13 12:45	3-Vial-I/B

Comment- 524: compounds to be reported EXCLUDING DIPE, ETBE, TAME,TBA,1,2,3-TMB. Reporting list built. ASP-B Package Due Date: 12/30/13

524.2,ASP-B

L1325883-02	RW	9	S0	19DEC13 13:00	6-Vial-I/B

Comment- 524: compounds to be reported EXCLUDING DIPE, ETBE, TAME,TBA,1,2,3-TMB. Reporting list built. L1325883-02 MS L1325883-02 MSD Package Due Date: 12/30/13

524.2,MS/MSD

L1325883-03	DUP	9	S0	19DEC13 00:00	3-Vial-I/B

Comment- 524: compounds to be reported EXCLUDING DIPE, ETBE, TAME,TBA,1,2,3-TMB. Reporting list built. Package Due Date: 12/30/13

524.2

L1325883-04	STEFF	9	S0	19DEC13 13:05	3-Vial-I/B

Comment- 524: compounds to be reported EXCLUDING DIPE, ETBE, TAME,TBA,1,2,3-TMB. Reporting list built. Package Due Date: 12/30/13

524.2

L1325883-05	DIST	9	S0	19DEC13 13:10	3-Vial-I/B

Comment- 524: compounds to be reported EXCLUDING DIPE, ETBE, TAME,TBA,1,2,3-TMB. Reporting list built. Package Due Date: 12/30/13

524.2

L1325883-06	MW-11	9	S0	19DEC13 13:35	3-Vial-I/B

Comment- 524: compounds to be reported EXCLUDING DIPE, ETBE, TAME,TBA,1,2,3-TMB. Reporting list built. Package Due Date: 12/30/13

524.2

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Dec 30 2013, 02:22 pm

Login Number: L1325883
Account: EPM Environmental Planning and ManagementProject: 13001
Received: 19DEC13 Due Date: 27DEC13

Sample #	Client ID	Mat	PR	Collected	Container
L1325883-07	FIELD BLANK	9	S0	19DEC13 14:00	3-Vial-I/B

Comment- 524: compounds to be reported EXCLUDING DIPE, ETBE, TAME,TBA,1,2,3-TMB. Reporting list built.
Package Due Date: 12/30/13

524.2

Sample #	Client ID	Mat	PR	Collected	Container
L1325883-08	TRIP BLANK	9	S0	19DEC13 00:00	2-Vial-I/B

Comment- 524: compounds to be reported EXCLUDING DIPE, ETBE, TAME,TBA,1,2,3-TMB. Reporting list built.
Package Due Date: 12/30/13

524.2

Logged By: Tom Tanico

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 12/20/13

ALPHA Job #: L1325883

ALPHA ANALYTICAL

WESTBORO, MA
TEL: 508-898-9220
FAX: 508-898-9193

MANSFIELD, MA
TEL: 508-822-9300
FAX: 508-822-3288

Client Information

Client: Environmental Planning & mgmt
Address: 1983 Marcus Ave. Suite 109
L. Success NY 11042
Phone: 516-328-1194
Fax: 516-328-1381
Email: dfrank@epmco.com
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: KATONAH
Project Location: BEDFORD NY
Project #: 13001
Project Manager: Darren Frank
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: 12/27/13 Time:

Report Information - Data Deliverables

☐ FAX ☒ EMAIL
☐ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #: 13001

Regulatory Requirements/Report Limits

State /Fed Program	Criteria
NYSDEC	CAT-B. Drinking Water

Other Project Specific Requirements/Comments/Detection Limits:

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	VOC 524.2 Rev3	Sample Specific Comments	Total # Bottles
25883.01	MW-4	12/19/13	12:45	DW	DF	3		
.02	RW	12/19/13	13:00	DW	DF	3		
.02	RW-MS/MSD	12/19/13	13:00	DW	DF	3		
.03	DUP			DW	DF	3		
.04	STEFF	12/19/13	13:05	DW	DF	3		
.05	DIST	12/19/13	13:10	DW	DF	3		
.06	MW-11	12/19/13	13:35	DW	DF	3		
.07	Field Blank	12/19/13	14:00	DW	DF	3		
.08	TRIP BLANK	LAB	—	—	—	3		
	Container Type					✓		
	Preservative					HCL		

SAMPLE HANDLING
Filtration
☐ Done
☒ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

Relinquished By:	Date/Time	Received By:	Date/Time
Darren Frank	12/19/13 15:45		12-19-13 1545
Tom Tolen	12-19-13 1843	Tom Tolen	12-19-13 1843
	12-20-13 00:45		12/20/13 00:45

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 14-OCT-07)

Organics

GC/MS VOA Analysis

Volatiles QC Summary

Form 2
Surrogate Recovery
Volatile Organics

Client: Environmental Planning and Management
Project Name: KATONAH

Lab Number: L1325883
Project Number: 13001

CLIENT ID (LAB SAMPLE NO.)	SMC1 BFB	SMC2 DCB	SMC3	SMC4	TOT OUT
DIST (L1325883-05)	98	109	--	--	0
DUP (L1325883-03)	92	104	--	--	0
FIELD BLANK (L1325883-07)	91	111	--	--	0
WG661542-1LCS	103	101	--	--	0
WG661542-2BLANK	93	103	--	--	0
MW-11 (L1325883-06)	92	104	--	--	0
MW-4 (L1325883-01)	91	104	--	--	0
RWMS	102	99	--	--	0
RWMSD	102	102	--	--	0
RW (L1325883-02)	90	106	--	--	0
STEFF (L1325883-04)	94	105	--	--	0
TRIP BLANK (L1325883-08)	91	105	--	--	0

	QC LIMITS
BFB = 4-BROMOFLUOROBENZENE	(80-120)
DCB = 1,2-DICHLOROBENZENE-D4	(80-120)

* Values outside of QC limits

FORM II 524.2

ALPHA ANALYTICAL

3A
LAB CONTROL SAMPLE RECOVERY
WATER VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs
SDG No.: L1325883 Matrix: Water
Lab Control Sample: WG661542-1LCS Injected: 12/24/13 09:45 Lab File ID: 1224A02.D

COMPOUND	SPIKE ADDED (ug/l)	SAMPLE CONCENTRATION (ug/l)	LCS CONCENTRATION (ug/l)	LCS % REC	QC. LIMITS REC.
Methylene chloride	4	NA	4.0	99	70-130
1,1-Dichloroethane	4	NA	4.3	107	70-130
Chloroform	4	NA	4.8	121	70-130
Carbon tetrachloride	4	NA	4.9	123	70-130
1,2-Dichloropropane	4	NA	4.4	109	70-130
Dibromochloromethane	4	NA	5.0	124	70-130
1,1,2-Trichloroethane	4	NA	4.6	116	70-130
Tetrachloroethene	4	NA	4.9	123	70-130
Chlorobenzene	4	NA	4.0	100	70-130
Trichlorofluoromethane	4	NA	4.8	120	70-130
1,2-Dichloroethane	4	NA	5.1	128	70-130
1,1,1-Trichloroethane	4	NA	4.7	118	70-130
Bromodichloromethane	4	NA	5.0	126	70-130
trans-1,3-Dichloropropen	4	NA	4.1	103	70-130
cis-1,3-Dichloropropene	4	NA	4.2	104	70-130
Bromoform	4	NA	3.9	99	70-130
1,1,2,2-Tetrachloroethan	4	NA	3.6	91	70-130
Benzene	4	NA	4.2	106	70-130
Toluene	4	NA	4.3	108	70-130
Ethylbenzene	4	NA	3.9	99	70-130
p/m-Xylenes	8	NA	7.9	99	70-130
Chloromethane	4	NA	3.8	94	70-130
Bromomethane	4	NA	3.4	86	70-130
Vinyl chloride	4	NA	3.8	96	70-130
Chloroethane	4	NA	4.1	103	70-130
1,1-Dichloroethene	4	NA	4.2	106	70-130
trans-1,2-Dichloroethene	4	NA	3.9	98	70-130
cis-1,2-Dichloroethene	4	NA	4.3	108	70-130
Trichloroethene	4	NA	4.7	117	70-130
1,2-Dichlorobenzene	4	NA	3.8	94	70-130
1,3-Dichlorobenzene	4	NA	4.0	99	70-130
1,4-Dichlorobenzene	4	NA	3.8	96	70-130
Styrene	4	NA	3.8	95	70-130
o-Xylenes	4	NA	3.6	90	70-130
1,1-Dichloropropene	4	NA	4.1	102	70-130

* Values outside of QC limits.

COMMENTS: _____

FORM III 524.2

3A
LAB CONTROL SAMPLE RECOVERY
WATER VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs
SDG No.: L1325883 Matrix: Water
Lab Control Sample: WG661542-1LCS Injected: 12/24/13 09:45 Lab File ID: 1224A02.D

COMPOUND	SPIKE ADDED (ug/l)	SAMPLE CONCENTRATION (ug/l)	LCS CONCENTRATION (ug/l)	LCS % REC	QC. LIMITS REC.
2,2-Dichloropropane	4	NA	4.7	118	70-130
1,1,1,2-Tetrachloroethan	4	NA	4.2	104	70-130
1,2,3-Trichloropropane	4	NA	4.1	103	70-130
Bromochloromethane	4	NA	4.3	108	70-130
n-Butylbenzene	4	NA	3.9	97	70-130
Dichlorodifluoromethane	4	NA	3.9	97	70-130
Hexachlorobutadiene	4	NA	4.3	107	70-130
Isopropylbenzene	4	NA	3.9	98	70-130
p-Isopropyltoluene	4	NA	3.8	96	70-130
Naphthalene	4	NA	3.0	74	70-130
n-Propylbenzene	4	NA	3.9	98	70-130
sec-Butylbenzene	4	NA	3.9	98	70-130
tert-Butylbenzene	4	NA	3.9	98	70-130
1,2,3-Trichlorobenzene	4	NA	3.7	92	70-130
1,2,4-Trichlorobenzene	4	NA	3.6	90	70-130
1,2,4,-Trimethylbenzene	4	NA	4.0	101	70-130
1,3,5-Trimethylbenzene	4	NA	4.0	99	70-130
Bromobenzene	4	NA	4.2	105	70-130
o-Chlorotoluene	4	NA	4.3	108	70-130
p-Chlorotoluene	4	NA	4.2	104	70-130
Dibromomethane	4	NA	4.7	118	70-130
1,2-Dibromoethane	4	NA	3.9	97	70-130
1,2-Dibromo-3-chloroprop	4	NA	3.6	90	70-130
1,3-Dichloropropane	4	NA	4.5	112	70-130
methyl-tert-butyl ether	4	NA	4.0	100	70-130

* Values outside of QC limits.

COMMENTS: _____

_____

FORM III 524.2

3A
MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY
WATER VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs
SDG No.: L1325883 Matrix: Water
Client Sample ID : RW Injected: 12/24/13 12:28 Lab File ID: 1224A07.D
Matrix Spike : WG661542-3 Injected: 12/24/13 13:01 Lab File ID: 1224A08.D
Matrix Spike Dup : WG661542-4 Injected: 12/24/13 13:34 Lab File ID: 1224A09.D

COMPOUND	SPIKE ADDED (ug/l)	SAMPLE CONCENTRATION (ug/l)	MS CONCENTRATION (ug/l)	MS % REC	QC. LIMITS REC.
Methylene chloride	4	ND	4.2	106	70-130
1,1-Dichloroethane	4	ND	4.7	117	70-130
Chloroform	4	ND	5.6	140*	70-130
Carbon tetrachloride	4	ND	5.7	142*	70-130
1,2-Dichloropropane	4	ND	4.9	123	70-130
Dibromochloromethane	4	ND	5.4	136*	70-130
1,1,2-Trichloroethane	4	ND	5.2	131*	70-130
Tetrachloroethene	4	13	17.	112	70-130
Chlorobenzene	4	ND	4.3	108	70-130
Trichlorofluoromethane	4	ND	5.2	131*	70-130
1,2-Dichloroethane	4	ND	5.4	134*	70-130
1,1,1-Trichloroethane	4	ND	5.4	134*	70-130
Bromodichloromethane	4	ND	5.6	140*	70-130
trans-1,3-Dichloropropen	4	ND	4.6	116	70-130
cis-1,3-Dichloropropene	4	ND	4.6	116	70-130
Bromoform	4	ND	4.6	116	70-130
1,1,2,2-Tetrachloroethan	4	ND	4.1	103	70-130
Benzene	4	ND	4.6	114	70-130
Toluene	4	ND	4.6	114	70-130
Ethylbenzene	4	ND	4.2	105	70-130
p/m-Xylenes	8	ND	8.6	107	70-130
Chloromethane	4	ND	4.1	104	70-130
Bromomethane	4	ND	3.4	84	70-130
Vinyl chloride	4	ND	4.2	106	70-130
Chloroethane	4	ND	4.3	108	70-130
1,1-Dichloroethene	4	ND	4.4	109	70-130
trans-1,2-Dichloroethene	4	ND	4.3	108	70-130
cis-1,2-Dichloroethene	4	ND	4.8	121	70-130
Trichloroethene	4	0.54	5.5	123	70-130
1,2-Dichlorobenzene	4	ND	3.9	98	70-130
1,3-Dichlorobenzene	4	ND	4.2	105	70-130
1,4-Dichlorobenzene	4	ND	3.8	96	70-130
Styrene	4	ND	4.1	102	70-130
o-Xylenes	4	ND	3.9	97	70-130
1,1-Dichloropropene	4	ND	4.5	112	70-130

* Values outside of QC limits.

COMMENTS: _____

FORM III 524.2

3A
MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY
WATER VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs
SDG No.: L1325883 Matrix: Water
Client Sample ID : RW Injected: 12/24/13 12:28 Lab File ID: 1224A07.D
Matrix Spike : WG661542-3 Injected: 12/24/13 13:01 Lab File ID: 1224A08.D
Matrix Spike Dup : WG661542-4 Injected: 12/24/13 13:34 Lab File ID: 1224A09.D

COMPOUND	SPIKE ADDED (ug/l)	SAMPLE CONCENTRATION (ug/l)	MS CONCENTRATION (ug/l)	MS % REC	QC. LIMITS REC.
2,2-Dichloropropane	4	ND	5.2	130	70-130
1,1,1,2-Tetrachloroethan	4	ND	4.7	117	70-130
1,2,3-Trichloropropane	4	ND	4.6	115	70-130
Bromochloromethane	4	ND	4.6	116	70-130
n-Butylbenzene	4	ND	3.9	98	70-130
Dichlorodifluoromethane	4	ND	4.4	110	70-130
Hexachlorobutadiene	4	ND	4.2	105	70-130
Isopropylbenzene	4	ND	4.2	106	70-130
p-Isopropyltoluene	4	ND	4.2	105	70-130
Naphthalene	4	ND	3.0	76	70-130
n-Propylbenzene	4	ND	4.3	107	70-130
sec-Butylbenzene	4	ND	4.4	109	70-130
tert-Butylbenzene	4	ND	4.0	101	70-130
1,2,3-Trichlorobenzene	4	ND	3.5	89	70-130
1,2,4-Trichlorobenzene	4	ND	3.6	89	70-130
1,2,4,-Trimethylbenzene	4	ND	4.3	108	70-130
1,3,5-Trimethylbenzene	4	ND	4.1	103	70-130
Bromobenzene	4	ND	4.5	112	70-130
o-Chlorotoluene	4	ND	4.8	120	70-130
p-Chlorotoluene	4	ND	4.6	116	70-130
Dibromomethane	4	ND	5.0	125	70-130
1,2-Dibromoethane	4	ND	4.4	109	70-130
1,2-Dibromo-3-chloroprop	4	ND	4.0	100	70-130
1,3-Dichloropropane	4	ND	5.0	126	70-130
methyl-tert-butyl ether	4	ND	4.0	100	70-130

* Values outside of QC limits.

COMMENTS: _____

FORM III 524.2

3A
MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY
WATER VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs
SDG No.: L1325883 Matrix: Water
Client Sample ID : RW Injected: 12/24/13 12:28 Lab File ID: 1224A07.D
Matrix Spike : WG661542-3 Injected: 12/24/13 13:01 Lab File ID: 1224A08.D
Matrix Spike Dup : WG661542-4MSD Injected: 12/24/13 13:34 Lab File ID: 1224A09.D

COMPOUND	SPIKE ADDED (ug/l)	MSD CONCENTRATION (ug/l)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC.
Methylene chloride	4	4.2	106	0	20	70-130
1,1-Dichloroethane	4	4.7	117	0	20	70-130
Chloroform	4	5.4	136 *	4	20	70-130
Carbon tetrachloride	4	5.4	135 *	5	20	70-130
1,2-Dichloropropane	4	4.8	120	2	20	70-130
Dibromochloromethane	4	5.2	130	4	20	70-130
1,1,2-Trichloroethane	4	4.9	122	6	20	70-130
Tetrachloroethene	4	17.	102	0	20	70-130
Chlorobenzene	4	4.3	107	0	20	70-130
Trichlorofluoromethane	4	5.0	125	4	20	70-130
1,2-Dichloroethane	4	5.2	130	4	20	70-130
1,1,1-Trichloroethane	4	5.2	129	4	20	70-130
Bromodichloromethane	4	5.3	133 *	6	20	70-130
trans-1,3-Dichloropropen	4	4.7	117	2	20	70-130
cis-1,3-Dichloropropene	4	4.6	115	0	20	70-130
Bromoform	4	4.8	119	4	20	70-130
1,1,2,2-Tetrachloroethan	4	4.4	109	7	20	70-130
Benzene	4	4.5	113	2	20	70-130
Toluene	4	4.6	116	0	20	70-130
Ethylbenzene	4	4.2	106	0	20	70-130
p/m-Xylenes	8	8.4	106	2	20	70-130
Chloromethane	4	4.4	111	7	20	70-130
Bromomethane	4	4.1	103	19	20	70-130
Vinyl chloride	4	4.1	103	2	20	70-130
Chloroethane	4	4.2	104	2	20	70-130
1,1-Dichloroethene	4	4.4	110	0	20	70-130
trans-1,2-Dichloroethene	4	4.4	110	2	20	70-130
cis-1,2-Dichloroethene	4	4.8	121	0	20	70-130
Trichloroethene	4	5.3	119	4	20	70-130
1,2-Dichlorobenzene	4	4.1	102	5	20	70-130
1,3-Dichlorobenzene	4	4.1	103	2	20	70-130
1,4-Dichlorobenzene	4	3.9	98	3	20	70-130
Styrene	4	3.9	97	5	20	70-130
o-Xylenes	4	4.0	101	3	20	70-130
1,1-Dichloropropene	4	4.5	113	0	20	70-130

* Values outside of QC limits.

COMMENTS: _____

FORM III 524.2

3A
MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY
WATER VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs
SDG No.: L1325883 Matrix: Water
Client Sample ID : RW Injected: 12/24/13 12:28 Lab File ID: 1224A07.D
Matrix Spike : WG661542-3 Injected: 12/24/13 13:01 Lab File ID: 1224A08.D
Matrix Spike Dup : WG661542-4MSD Injected: 12/24/13 13:34 Lab File ID: 1224A09.D

COMPOUND	SPIKE ADDED (ug/l)	MSD CONCENTRATION (ug/l)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC.
2,2-Dichloropropane	4	5.1	127	2	20	70-130
1,1,1,2-Tetrachloroethan	4	4.6	116	2	20	70-130
1,2,3-Trichloropropane	4	4.8	119	4	20	70-130
Bromochloromethane	4	4.9	123	6	20	70-130
n-Butylbenzene	4	4.0	100	3	20	70-130
Dichlorodifluoromethane	4	4.1	102	7	20	70-130
Hexachlorobutadiene	4	4.2	106	0	20	70-130
Isopropylbenzene	4	4.1	102	2	20	70-130
p-Isopropyltoluene	4	4.2	106	0	20	70-130
Naphthalene	4	3.3	82	10	20	70-130
n-Propylbenzene	4	4.2	106	2	20	70-130
sec-Butylbenzene	4	4.4	109	0	20	70-130
tert-Butylbenzene	4	4.2	105	5	20	70-130
1,2,3-Trichlorobenzene	4	4.0	100	13	20	70-130
1,2,4-Trichlorobenzene	4	3.7	92	3	20	70-130
1,2,4,-Trimethylbenzene	4	4.2	105	2	20	70-130
1,3,5-Trimethylbenzene	4	4.1	103	0	20	70-130
Bromobenzene	4	4.4	111	2	20	70-130
o-Chlorotoluene	4	4.8	120	0	20	70-130
p-Chlorotoluene	4	4.5	112	2	20	70-130
Dibromomethane	4	5.1	129	2	20	70-130
1,2-Dibromoethane	4	4.3	107	2	20	70-130
1,2-Dibromo-3-chloroprop	4	4.2	105	5	20	70-130
1,3-Dichloropropane	4	5.0	125	0	20	70-130
methyl-tert-butyl ether	4	4.0	100	0	20	70-130

* Values outside of QC limits.

COMMENTS: _____

_____

FORM III 524.2

4A

VOLATILE ORGANICS METHOD BLANK SUMMARY

SAMPLE NO.

WG661542-2BLANK

Lab Name: Alpha Analytical Labs

SDG No.: L1325883

Lab File ID: 1224A04 Lab Sample ID: WG661542-2

Date Analyzed: 12/24/13 Time Analyzed: 10:50

Instrument ID: BUNDY.I

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	WG661542-1LCS	WG661542-1	1224A02	12/24/13 09:45
02	TRIP BLANK	L1325883-08	1224A05	12/24/13 11:23
03	RW	L1325883-02	1224A07	12/24/13 12:28
04	RWMS	WG661542-3	1224A08	12/24/13 13:01
05	RWMSD	WG661542-4	1224A09	12/24/13 13:34
06	MW-4	L1325883-01	1224A10	12/24/13 14:07
07	DUP	L1325883-03	1224A11	12/24/13 14:39
08	STEFF	L1325883-04	1224A12	12/24/13 15:12
09	DIST	L1325883-05	1224A13	12/24/13 15:45
10	MW-11	L1325883-06	1224A14	12/24/13 16:18
11	FIELD BLANK	L1325883-07	1224A15	12/24/13 16:50

COMMENTS: _____

page 1 of 1

FORM IV 524.2 LOW

5A
VOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Alpha Analytical Labs

SDG No.: L1325883

Lab File ID: BFB1110B_tune BFB Injection Date: 11/10/13

Instrument ID: Bundy.i BFB Injection Time: 17:06

m/e	ION ABUNDANCE CRITERIA	% Relative Abundance
95	Base Peak, 100% relative abundance	100
50	15.0 - 40.0% of mass 95	21.4
75	30.0 - 60.0% of mass 95	44.2
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.9 (1.09)1
174	Greater than 50.0 of mass 95	83.6
175	5.0 - 9.0% of mass 174	6.5 (7.74)1
176	95.0 - 101% of mass 174	80.8 (96.6)1
177	5.0 - 9.0% of mass 176	5.1 (6.34)2

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

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	2.5ng STD	2.5ng STD	1107A05	11/10/13	19:33
02	4ng STD	4ng STD	1107A06	11/10/13	20:06
03	20ng STD	20ng STD	1107A07	11/10/13	20:38
04	40ng STD	40ng STD	1107A08	11/10/13	21:11
05	80ng STD	80ng STD	1107A09	11/10/13	21:44
06	100ng STD	100ng STD	1107A10	11/10/13	22:16
07	200ng STD	200ng STD	1107A11	11/10/13	22:49
08	400ng STD	400ng STD	1107A12	11/10/13	23:22
09	ICV Quant Report	ICV Quant Repo	1107A15	11/11/13	01:00
10	ICV Summary Form	ICV Summary Fo	ccal	11/11/13	01:00

FORM V 524.2

5A
VOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Alpha Analytical Labs

SDG No.: L1325883

Lab File ID: BFB1224B_tune BFB Injection Date: 12/24/13

Instrument ID: Bundy.i BFB Injection Time: 08:48

m/e	ION ABUNDANCE CRITERIA	% Relative Abundance
95	Base Peak, 100% relative abundance	100
50	15.0 - 40.0% of mass 95	24.2
75	30.0 - 60.0% of mass 95	48.4
96	5.0 - 9.0% of mass 95	6.4
173	Less than 2.0% of mass 174	0.7 (0.87)1
174	Greater than 50.0 of mass 95	80.8
175	5.0 - 9.0% of mass 174	6.4 (7.97)1
176	95.0 - 101% of mass 174	77.9 (96.4)1
177	5.0 - 9.0% of mass 176	5.3 (6.77)2

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

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

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	524 CCV	524 CCV	1224A02	12/24/13	09:45
02	WG661542-1LCS	WG661542-1	1224A02	12/24/13	09:45
03	WG661542-2BLANK	WG661542-2	1224A04	12/24/13	10:50
04	TRIP BLANK	L1325883-08	1224A05	12/24/13	11:23
05	RW	L1325883-02	1224A07	12/24/13	12:28
06	RWMS	WG661542-3	1224A08	12/24/13	13:01
07	RWMSD	WG661542-4	1224A09	12/24/13	13:34
08	MW-4	L1325883-01	1224A10	12/24/13	14:07
09	DUP	L1325883-03	1224A11	12/24/13	14:39
10	STEFF	L1325883-04	1224A12	12/24/13	15:12
11	DIST	L1325883-05	1224A13	12/24/13	15:45
12	MW-11	L1325883-06	1224A14	12/24/13	16:18
13	FIELD BLANK	L1325883-07	1224A15	12/24/13	16:50

FORM V 524.2

8A

VOLATILE ORGANICS INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Alpha Analytical Labs

SDG No.: L1325883

Lab File ID (Standard): 1224A02_ccal Date Analyzed: 24-DEC-2013

Instrument ID : Bundy.i Time Analyzed: 09:45

		IS1(FLB) AREA	RT	IS2(CBZ) AREA	RT	IS3(DCB) AREA	RT
	12 HOUR STD	36873	7.87	32655	11.36	18891	14.27
	UPPER LIMIT	73746	8.37	65310	11.86	37782	14.77
	LOWER LIMIT	18437	7.37	16328	10.86	9446	13.77
	EPA SAMPLE NO.						
01	WG661542-1LCS	36873	7.87	32655	11.36	18891	14.27
02	WG661542-2BLANK	34046	7.88	30251	11.36	15776	14.28
03	TRIP BLANK	33592	7.87	30686	11.36	14792	14.27
04	RW	35115	7.87	31976	11.36	16186	14.27
05	RWMS	37168	7.87	32541	11.36	19393	14.27
06	RWMSD	37480	7.87	32688	11.36	19030	14.27
07	MW-4	35628	7.87	31377	11.36	15993	14.27
08	DUP	34978	7.87	31148	11.36	16210	14.27
09	STEFF	33492	7.87	30701	11.36	15117	14.27
10	DIST	34775	7.87	30687	11.36	15699	14.27
11	MW-11	34561	7.87	30985	11.36	15821	14.28
12	FIELD BLANK	33661	7.87	29622	11.36	14841	14.27

IS1(FLB) = FLUOROBENZENE
IS2(CBZ) = CHLOROBENZENE-D5
IS3(DCB) = 1,4-DICHLOROBENZENE-D4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50 % of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

* Values outside of QC limits.

Volatiles Sample Data

Form 1
Volatile Organics

Client	: Environmental Planning and Manageme	Lab Number	: L1325883
Project Name	: KATONAH	Project Number	: 13001
Lab ID	: L1325883-01	Date Collected	: 12/19/13 12:45
Client ID	: MW-4	Date Received	: 12/19/13
Sample Location	: BEDFORD, NY	Date Analyzed	: 12/24/13 14:07
Sample Matrix	: DW	Dilution Factor	: 1
Analytical Method	: 16,524.2	Analyst	: GT
Lab File ID	: 1224A10	Instrument ID	: BUNDY.I
Sample Amount	: 5 ml	GC Column	: RTX 502.2
Level	: LOW	%Solids	: NA
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L Results	RL	MDL	Qualifier
75-09-2	Methylene chloride	ND	0.50	0.15	U
75-34-3	1,1-Dichloroethane	ND	0.50	0.09	U
67-66-3	Chloroform	ND	0.50	0.05	U
56-23-5	Carbon tetrachloride	ND	0.50	0.10	U
78-87-5	1,2-Dichloropropane	ND	0.50	0.09	U
124-48-1	Dibromochloromethane	ND	0.50	0.08	U
79-00-5	1,1,2-Trichloroethane	ND	0.50	0.12	U
127-18-4	Tetrachloroethene	ND	0.50	0.09	U
108-90-7	Chlorobenzene	ND	0.50	0.08	U
75-69-4	Trichlorofluoromethane	ND	0.50	0.11	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.08	U
71-55-6	1,1,1-Trichloroethane	ND	0.50	0.08	U
75-27-4	Bromodichloromethane	ND	0.50	0.05	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.09	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.10	U
75-25-2	Bromoform	ND	0.50	0.09	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.09	U
71-43-2	Benzene	ND	0.50	0.09	U
108-88-3	Toluene	ND	0.50	0.12	U
100-41-4	Ethylbenzene	ND	0.50	0.06	U
179601-23-1	p/m-Xylene	ND	0.50	0.12	U
74-87-3	Chloromethane	ND	0.50	0.15	U
74-83-9	Bromomethane	ND	0.50	0.13	U
75-01-4	Vinyl chloride	ND	0.50	0.08	U
75-00-3	Chloroethane	ND	0.50	0.12	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.06	U
156-60-5	trans-1,2-Dichloroethene	ND	0.50	0.09	U

ALPHA ANALYTICAL

Form 1
Volatile Organics

Client	: Environmental Planning and Manageme	Lab Number	: L1325883
Project Name	: KATONAH	Project Number	: 13001
Lab ID	: L1325883-01	Date Collected	: 12/19/13 12:45
Client ID	: MW-4	Date Received	: 12/19/13
Sample Location	: BEDFORD, NY	Date Analyzed	: 12/24/13 14:07
Sample Matrix	: DW	Dilution Factor	: 1
Analytical Method	: 16,524.2	Analyst	: GT
Lab File ID	: 1224A10	Instrument ID	: BUNDY.I
Sample Amount	: 5 ml	GC Column	: RTX 502.2
Level	: LOW	%Solids	: NA
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L Results	RL	MDL	Qualifier
156-59-2	cis-1,2-Dichloroethene	0.39	0.50	0.11	J
79-01-6	Trichloroethene	0.37	0.50	0.09	J
95-50-1	1,2-Dichlorobenzene	ND	0.50	0.07	U
541-73-1	1,3-Dichlorobenzene	ND	0.50	0.05	U
106-46-7	1,4-Dichlorobenzene	ND	0.50	0.05	U
100-42-5	Styrene	ND	0.50	0.06	U
95-47-6	o-Xylene	ND	0.50	0.09	U
563-58-6	1,1-Dichloropropene	ND	0.50	0.11	U
594-20-7	2,2-Dichloropropane	ND	0.50	0.11	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.50	0.09	U
96-18-4	1,2,3-Trichloropropane	ND	0.50	0.11	U
74-97-5	Bromochloromethane	ND	0.50	0.10	U
104-51-8	n-Butylbenzene	ND	0.50	0.06	U
75-71-8	Dichlorodifluoromethane	ND	0.50	0.10	U
87-68-3	Hexachlorobutadiene	ND	0.50	0.11	U
98-82-8	Isopropylbenzene	ND	0.50	0.08	U
99-87-6	p-Isopropyltoluene	ND	0.50	0.07	U
91-20-3	Naphthalene	0.10	0.50	0.06	J
103-65-1	n-Propylbenzene	ND	0.50	0.08	U
135-98-8	sec-Butylbenzene	ND	0.50	0.06	U
98-06-6	tert-Butylbenzene	ND	0.50	0.09	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.50	0.06	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.50	0.07	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.50	0.08	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.50	0.10	U
108-86-1	Bromobenzene	ND	0.50	0.09	U
95-49-8	o-Chlorotoluene	ND	0.50	0.10	U

ALPHA ANALYTICAL

Form 1
Volatile Organics

Client	: Environmental Planning and Manageme	Lab Number	: L1325883
Project Name	: KATONAH	Project Number	: 13001
Lab ID	: L1325883-01	Date Collected	: 12/19/13 12:45
Client ID	: MW-4	Date Received	: 12/19/13
Sample Location	: BEDFORD, NY	Date Analyzed	: 12/24/13 14:07
Sample Matrix	: DW	Dilution Factor	: 1
Analytical Method	: 16,524.2	Analyst	: GT
Lab File ID	: 1224A10	Instrument ID	: BUNDY.I
Sample Amount	: 5 ml	GC Column	: RTX 502.2
Level	: LOW	%Solids	: NA
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

		ug/L			
CAS NO.	Parameter	Results	RL	MDL	Qualifier
106-43-4	p-Chlorotoluene	ND	0.50	0.08	U
74-95-3	Dibromomethane	ND	0.50	0.09	U
106-93-4	1,2-Dibromoethane	ND	0.50	0.06	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.50	0.16	U
142-28-9	1,3-Dichloropropane	ND	0.50	0.11	U
1634-04-4	Methyl tert butyl ether	ND	0.50	0.06	U
1330-20-7	Xylene (Total)	ND	0.50	0.12	U

ALPHA ANALYTICAL

Form 1
Volatile Organics

Client	: Environmental Planning and Manageme	Lab Number	: L1325883
Project Name	: KATONAH	Project Number	: 13001
Lab ID	: L1325883-02	Date Collected	: 12/19/13 13:00
Client ID	: RW	Date Received	: 12/19/13
Sample Location	: BEDFORD, NY	Date Analyzed	: 12/24/13 12:28
Sample Matrix	: DW	Dilution Factor	: 1
Analytical Method	: 16,524.2	Analyst	: GT
Lab File ID	: 1224A07	Instrument ID	: BUNDY.I
Sample Amount	: 5 ml	GC Column	: RTX 502.2
Level	: LOW	%Solids	: NA
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L Results	RL	MDL	Qualifier
75-09-2	Methylene chloride	ND	0.50	0.15	U
75-34-3	1,1-Dichloroethane	ND	0.50	0.09	U
67-66-3	Chloroform	ND	0.50	0.05	U
56-23-5	Carbon tetrachloride	ND	0.50	0.10	U
78-87-5	1,2-Dichloropropane	ND	0.50	0.09	U
124-48-1	Dibromochloromethane	ND	0.50	0.08	U
79-00-5	1,1,2-Trichloroethane	ND	0.50	0.12	U
127-18-4	Tetrachloroethene	13	0.50	0.09	
108-90-7	Chlorobenzene	ND	0.50	0.08	U
75-69-4	Trichlorofluoromethane	ND	0.50	0.11	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.08	U
71-55-6	1,1,1-Trichloroethane	ND	0.50	0.08	U
75-27-4	Bromodichloromethane	ND	0.50	0.05	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.09	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.10	U
75-25-2	Bromoform	ND	0.50	0.09	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.09	U
71-43-2	Benzene	ND	0.50	0.09	U
108-88-3	Toluene	ND	0.50	0.12	U
100-41-4	Ethylbenzene	ND	0.50	0.06	U
179601-23-1	p/m-Xylene	ND	0.50	0.12	U
74-87-3	Chloromethane	ND	0.50	0.15	U
74-83-9	Bromomethane	ND	0.50	0.13	U
75-01-4	Vinyl chloride	ND	0.50	0.08	U
75-00-3	Chloroethane	ND	0.50	0.12	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.06	U
156-60-5	trans-1,2-Dichloroethene	ND	0.50	0.09	U

ALPHA ANALYTICAL

Form 1
Volatile Organics

Client	: Environmental Planning and Manageme	Lab Number	: L1325883
Project Name	: KATONAH	Project Number	: 13001
Lab ID	: L1325883-02	Date Collected	: 12/19/13 13:00
Client ID	: RW	Date Received	: 12/19/13
Sample Location	: BEDFORD, NY	Date Analyzed	: 12/24/13 12:28
Sample Matrix	: DW	Dilution Factor	: 1
Analytical Method	: 16,524.2	Analyst	: GT
Lab File ID	: 1224A07	Instrument ID	: BUNDY.I
Sample Amount	: 5 ml	GC Column	: RTX 502.2
Level	: LOW	%Solids	: NA
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L Results	RL	MDL	Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	0.50	0.11	U
79-01-6	Trichloroethene	0.54	0.50	0.09	
95-50-1	1,2-Dichlorobenzene	ND	0.50	0.07	U
541-73-1	1,3-Dichlorobenzene	ND	0.50	0.05	U
106-46-7	1,4-Dichlorobenzene	ND	0.50	0.05	U
100-42-5	Styrene	ND	0.50	0.06	U
95-47-6	o-Xylene	ND	0.50	0.09	U
563-58-6	1,1-Dichloropropene	ND	0.50	0.11	U
594-20-7	2,2-Dichloropropane	ND	0.50	0.11	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.50	0.09	U
96-18-4	1,2,3-Trichloropropane	ND	0.50	0.11	U
74-97-5	Bromochloromethane	ND	0.50	0.10	U
104-51-8	n-Butylbenzene	ND	0.50	0.06	U
75-71-8	Dichlorodifluoromethane	ND	0.50	0.10	U
87-68-3	Hexachlorobutadiene	ND	0.50	0.11	U
98-82-8	Isopropylbenzene	ND	0.50	0.08	U
99-87-6	p-Isopropyltoluene	ND	0.50	0.07	U
91-20-3	Naphthalene	ND	0.50	0.06	U
103-65-1	n-Propylbenzene	ND	0.50	0.08	U
135-98-8	sec-Butylbenzene	ND	0.50	0.06	U
98-06-6	tert-Butylbenzene	ND	0.50	0.09	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.50	0.06	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.50	0.07	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.50	0.08	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.50	0.10	U
108-86-1	Bromobenzene	ND	0.50	0.09	U
95-49-8	o-Chlorotoluene	ND	0.50	0.10	U

ALPHA ANALYTICAL

Form 1
Volatile Organics

Client	: Environmental Planning and Manageme	Lab Number	: L1325883
Project Name	: KATONAH	Project Number	: 13001
Lab ID	: L1325883-02	Date Collected	: 12/19/13 13:00
Client ID	: RW	Date Received	: 12/19/13
Sample Location	: BEDFORD, NY	Date Analyzed	: 12/24/13 12:28
Sample Matrix	: DW	Dilution Factor	: 1
Analytical Method	: 16,524.2	Analyst	: GT
Lab File ID	: 1224A07	Instrument ID	: BUNDY.I
Sample Amount	: 5 ml	GC Column	: RTX 502.2
Level	: LOW	%Solids	: NA
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L Results	RL	MDL	Qualifier
106-43-4	p-Chlorotoluene	ND	0.50	0.08	U
74-95-3	Dibromomethane	ND	0.50	0.09	U
106-93-4	1,2-Dibromoethane	ND	0.50	0.06	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.50	0.16	U
142-28-9	1,3-Dichloropropane	ND	0.50	0.11	U
1634-04-4	Methyl tert butyl ether	ND	0.50	0.06	U
1330-20-7	Xylene (Total)	ND	0.50	0.12	U

ALPHA ANALYTICAL

Form 1
Volatile Organics

Client	: Environmental Planning and Manageme	Lab Number	: L1325883
Project Name	: KATONAH	Project Number	: 13001
Lab ID	: L1325883-03	Date Collected	: 12/19/13 00:00
Client ID	: DUP	Date Received	: 12/19/13
Sample Location	: BEDFORD, NY	Date Analyzed	: 12/24/13 14:39
Sample Matrix	: DW	Dilution Factor	: 1
Analytical Method	: 16,524.2	Analyst	: GT
Lab File ID	: 1224A11	Instrument ID	: BUNDY.I
Sample Amount	: 5 ml	GC Column	: RTX 502.2
Level	: LOW	%Solids	: NA
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L Results	RL	MDL	Qualifier
75-09-2	Methylene chloride	ND	0.50	0.15	U
75-34-3	1,1-Dichloroethane	ND	0.50	0.09	U
67-66-3	Chloroform	ND	0.50	0.05	U
56-23-5	Carbon tetrachloride	ND	0.50	0.10	U
78-87-5	1,2-Dichloropropane	ND	0.50	0.09	U
124-48-1	Dibromochloromethane	ND	0.50	0.08	U
79-00-5	1,1,2-Trichloroethane	ND	0.50	0.12	U
127-18-4	Tetrachloroethene	13	0.50	0.09	
108-90-7	Chlorobenzene	ND	0.50	0.08	U
75-69-4	Trichlorofluoromethane	ND	0.50	0.11	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.08	U
71-55-6	1,1,1-Trichloroethane	ND	0.50	0.08	U
75-27-4	Bromodichloromethane	ND	0.50	0.05	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.09	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.10	U
75-25-2	Bromoform	ND	0.50	0.09	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.09	U
71-43-2	Benzene	ND	0.50	0.09	U
108-88-3	Toluene	ND	0.50	0.12	U
100-41-4	Ethylbenzene	ND	0.50	0.06	U
179601-23-1	p/m-Xylene	ND	0.50	0.12	U
74-87-3	Chloromethane	ND	0.50	0.15	U
74-83-9	Bromomethane	ND	0.50	0.13	U
75-01-4	Vinyl chloride	ND	0.50	0.08	U
75-00-3	Chloroethane	ND	0.50	0.12	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.06	U
156-60-5	trans-1,2-Dichloroethene	ND	0.50	0.09	U

ALPHA ANALYTICAL

Form 1
Volatile Organics

Client	: Environmental Planning and Manageme	Lab Number	: L1325883
Project Name	: KATONAH	Project Number	: 13001
Lab ID	: L1325883-03	Date Collected	: 12/19/13 00:00
Client ID	: DUP	Date Received	: 12/19/13
Sample Location	: BEDFORD, NY	Date Analyzed	: 12/24/13 14:39
Sample Matrix	: DW	Dilution Factor	: 1
Analytical Method	: 16,524.2	Analyst	: GT
Lab File ID	: 1224A11	Instrument ID	: BUNDY.I
Sample Amount	: 5 ml	GC Column	: RTX 502.2
Level	: LOW	%Solids	: NA
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L Results	RL	MDL	Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	0.50	0.11	U
79-01-6	Trichloroethene	0.54	0.50	0.09	
95-50-1	1,2-Dichlorobenzene	ND	0.50	0.07	U
541-73-1	1,3-Dichlorobenzene	ND	0.50	0.05	U
106-46-7	1,4-Dichlorobenzene	ND	0.50	0.05	U
100-42-5	Styrene	ND	0.50	0.06	U
95-47-6	o-Xylene	ND	0.50	0.09	U
563-58-6	1,1-Dichloropropene	ND	0.50	0.11	U
594-20-7	2,2-Dichloropropane	ND	0.50	0.11	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.50	0.09	U
96-18-4	1,2,3-Trichloropropane	ND	0.50	0.11	U
74-97-5	Bromochloromethane	ND	0.50	0.10	U
104-51-8	n-Butylbenzene	ND	0.50	0.06	U
75-71-8	Dichlorodifluoromethane	ND	0.50	0.10	U
87-68-3	Hexachlorobutadiene	ND	0.50	0.11	U
98-82-8	Isopropylbenzene	ND	0.50	0.08	U
99-87-6	p-Isopropyltoluene	ND	0.50	0.07	U
91-20-3	Naphthalene	ND	0.50	0.06	U
103-65-1	n-Propylbenzene	ND	0.50	0.08	U
135-98-8	sec-Butylbenzene	ND	0.50	0.06	U
98-06-6	tert-Butylbenzene	ND	0.50	0.09	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.50	0.06	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.50	0.07	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.50	0.08	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.50	0.10	U
108-86-1	Bromobenzene	ND	0.50	0.09	U
95-49-8	o-Chlorotoluene	ND	0.50	0.10	U

ALPHA ANALYTICAL

Form 1
Volatile Organics

Client	: Environmental Planning and Manageme	Lab Number	: L1325883
Project Name	: KATONAH	Project Number	: 13001
Lab ID	: L1325883-03	Date Collected	: 12/19/13 00:00
Client ID	: DUP	Date Received	: 12/19/13
Sample Location	: BEDFORD, NY	Date Analyzed	: 12/24/13 14:39
Sample Matrix	: DW	Dilution Factor	: 1
Analytical Method	: 16,524.2	Analyst	: GT
Lab File ID	: 1224A11	Instrument ID	: BUNDY.I
Sample Amount	: 5 ml	GC Column	: RTX 502.2
Level	: LOW	%Solids	: NA
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

		ug/L			
CAS NO.	Parameter	Results	RL	MDL	Qualifier
106-43-4	p-Chlorotoluene	ND	0.50	0.08	U
74-95-3	Dibromomethane	ND	0.50	0.09	U
106-93-4	1,2-Dibromoethane	ND	0.50	0.06	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.50	0.16	U
142-28-9	1,3-Dichloropropane	ND	0.50	0.11	U
1634-04-4	Methyl tert butyl ether	ND	0.50	0.06	U
1330-20-7	Xylene (Total)	ND	0.50	0.12	U

ALPHA ANALYTICAL

Form 1
Volatile Organics

Client	: Environmental Planning and Manageme	Lab Number	: L1325883
Project Name	: KATONAH	Project Number	: 13001
Lab ID	: L1325883-04	Date Collected	: 12/19/13 13:05
Client ID	: STEFF	Date Received	: 12/19/13
Sample Location	: BEDFORD, NY	Date Analyzed	: 12/24/13 15:12
Sample Matrix	: DW	Dilution Factor	: 1
Analytical Method	: 16,524.2	Analyst	: GT
Lab File ID	: 1224A12	Instrument ID	: BUNDY.I
Sample Amount	: 5 ml	GC Column	: RTX 502.2
Level	: LOW	%Solids	: NA
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L Results	RL	MDL	Qualifier
75-09-2	Methylene chloride	ND	0.50	0.15	U
75-34-3	1,1-Dichloroethane	ND	0.50	0.09	U
67-66-3	Chloroform	ND	0.50	0.05	U
56-23-5	Carbon tetrachloride	ND	0.50	0.10	U
78-87-5	1,2-Dichloropropane	ND	0.50	0.09	U
124-48-1	Dibromochloromethane	ND	0.50	0.08	U
79-00-5	1,1,2-Trichloroethane	ND	0.50	0.12	U
127-18-4	Tetrachloroethene	ND	0.50	0.09	U
108-90-7	Chlorobenzene	ND	0.50	0.08	U
75-69-4	Trichlorofluoromethane	ND	0.50	0.11	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.08	U
71-55-6	1,1,1-Trichloroethane	ND	0.50	0.08	U
75-27-4	Bromodichloromethane	ND	0.50	0.05	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.09	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.10	U
75-25-2	Bromoform	ND	0.50	0.09	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.09	U
71-43-2	Benzene	ND	0.50	0.09	U
108-88-3	Toluene	ND	0.50	0.12	U
100-41-4	Ethylbenzene	ND	0.50	0.06	U
179601-23-1	p/m-Xylene	ND	0.50	0.12	U
74-87-3	Chloromethane	ND	0.50	0.15	U
74-83-9	Bromomethane	ND	0.50	0.13	U
75-01-4	Vinyl chloride	ND	0.50	0.08	U
75-00-3	Chloroethane	ND	0.50	0.12	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.06	U
156-60-5	trans-1,2-Dichloroethene	ND	0.50	0.09	U

ALPHA ANALYTICAL

Form 1
Volatile Organics

Client	: Environmental Planning and Manageme	Lab Number	: L1325883
Project Name	: KATONAH	Project Number	: 13001
Lab ID	: L1325883-05	Date Collected	: 12/19/13 13:10
Client ID	: DIST	Date Received	: 12/19/13
Sample Location	: BEDFORD, NY	Date Analyzed	: 12/24/13 15:45
Sample Matrix	: DW	Dilution Factor	: 1
Analytical Method	: 16,524.2	Analyst	: GT
Lab File ID	: 1224A13	Instrument ID	: BUNDY.I
Sample Amount	: 5 ml	GC Column	: RTX 502.2
Level	: LOW	%Solids	: NA
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L Results	RL	MDL	Qualifier
75-09-2	Methylene chloride	ND	0.50	0.15	U
75-34-3	1,1-Dichloroethane	ND	0.50	0.09	U
67-66-3	Chloroform	0.82	0.50	0.05	
56-23-5	Carbon tetrachloride	ND	0.50	0.10	U
78-87-5	1,2-Dichloropropane	ND	0.50	0.09	U
124-48-1	Dibromochloromethane	5.3	0.50	0.08	
79-00-5	1,1,2-Trichloroethane	ND	0.50	0.12	U
127-18-4	Tetrachloroethene	ND	0.50	0.09	U
108-90-7	Chlorobenzene	ND	0.50	0.08	U
75-69-4	Trichlorofluoromethane	ND	0.50	0.11	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.08	U
71-55-6	1,1,1-Trichloroethane	ND	0.50	0.08	U
75-27-4	Bromodichloromethane	ND	0.50	0.05	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.09	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.10	U
75-25-2	Bromoform	8.0	0.50	0.09	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.09	U
71-43-2	Benzene	ND	0.50	0.09	U
108-88-3	Toluene	ND	0.50	0.12	U
100-41-4	Ethylbenzene	ND	0.50	0.06	U
179601-23-1	p/m-Xylene	ND	0.50	0.12	U
74-87-3	Chloromethane	ND	0.50	0.15	U
74-83-9	Bromomethane	ND	0.50	0.13	U
75-01-4	Vinyl chloride	ND	0.50	0.08	U
75-00-3	Chloroethane	ND	0.50	0.12	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.06	U
156-60-5	trans-1,2-Dichloroethene	ND	0.50	0.09	U

ALPHA ANALYTICAL

Form 1
Volatile Organics

Client	: Environmental Planning and Manageme	Lab Number	: L1325883
Project Name	: KATONAH	Project Number	: 13001
Lab ID	: L1325883-05	Date Collected	: 12/19/13 13:10
Client ID	: DIST	Date Received	: 12/19/13
Sample Location	: BEDFORD, NY	Date Analyzed	: 12/24/13 15:45
Sample Matrix	: DW	Dilution Factor	: 1
Analytical Method	: 16,524.2	Analyst	: GT
Lab File ID	: 1224A13	Instrument ID	: BUNDY.I
Sample Amount	: 5 ml	GC Column	: RTX 502.2
Level	: LOW	%Solids	: NA
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L Results	RL	MDL	Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	0.50	0.11	U
79-01-6	Trichloroethene	ND	0.50	0.09	U
95-50-1	1,2-Dichlorobenzene	ND	0.50	0.07	U
541-73-1	1,3-Dichlorobenzene	ND	0.50	0.05	U
106-46-7	1,4-Dichlorobenzene	ND	0.50	0.05	U
100-42-5	Styrene	ND	0.50	0.06	U
95-47-6	o-Xylene	ND	0.50	0.09	U
563-58-6	1,1-Dichloropropene	ND	0.50	0.11	U
594-20-7	2,2-Dichloropropane	ND	0.50	0.11	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.50	0.09	U
96-18-4	1,2,3-Trichloropropane	ND	0.50	0.11	U
74-97-5	Bromochloromethane	ND	0.50	0.10	U
104-51-8	n-Butylbenzene	ND	0.50	0.06	U
75-71-8	Dichlorodifluoromethane	ND	0.50	0.10	U
87-68-3	Hexachlorobutadiene	ND	0.50	0.11	U
98-82-8	Isopropylbenzene	ND	0.50	0.08	U
99-87-6	p-Isopropyltoluene	ND	0.50	0.07	U
91-20-3	Naphthalene	ND	0.50	0.06	U
103-65-1	n-Propylbenzene	ND	0.50	0.08	U
135-98-8	sec-Butylbenzene	ND	0.50	0.06	U
98-06-6	tert-Butylbenzene	ND	0.50	0.09	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.50	0.06	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.50	0.07	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.50	0.08	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.50	0.10	U
108-86-1	Bromobenzene	ND	0.50	0.09	U
95-49-8	o-Chlorotoluene	ND	0.50	0.10	U

ALPHA ANALYTICAL

Form 1
Volatile Organics

Client	: Environmental Planning and Manageme	Lab Number	: L1325883
Project Name	: KATONAH	Project Number	: 13001
Lab ID	: L1325883-05	Date Collected	: 12/19/13 13:10
Client ID	: DIST	Date Received	: 12/19/13
Sample Location	: BEDFORD, NY	Date Analyzed	: 12/24/13 15:45
Sample Matrix	: DW	Dilution Factor	: 1
Analytical Method	: 16,524.2	Analyst	: GT
Lab File ID	: 1224A13	Instrument ID	: BUNDY.I
Sample Amount	: 5 ml	GC Column	: RTX 502.2
Level	: LOW	%Solids	: NA
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

		ug/L			
CAS NO.	Parameter	Results	RL	MDL	Qualifier
106-43-4	p-Chlorotoluene	ND	0.50	0.08	U
74-95-3	Dibromomethane	ND	0.50	0.09	U
106-93-4	1,2-Dibromoethane	ND	0.50	0.06	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.50	0.16	U
142-28-9	1,3-Dichloropropane	ND	0.50	0.11	U
1634-04-4	Methyl tert butyl ether	ND	0.50	0.06	U
1330-20-7	Xylene (Total)	ND	0.50	0.12	U

ALPHA ANALYTICAL

Form 1
Volatile Organics

Client	: Environmental Planning and Manageme	Lab Number	: L1325883
Project Name	: KATONAH	Project Number	: 13001
Lab ID	: L1325883-06	Date Collected	: 12/19/13 13:35
Client ID	: MW-11	Date Received	: 12/19/13
Sample Location	: BEDFORD, NY	Date Analyzed	: 12/24/13 16:18
Sample Matrix	: DW	Dilution Factor	: 1
Analytical Method	: 16,524.2	Analyst	: GT
Lab File ID	: 1224A14	Instrument ID	: BUNDY.I
Sample Amount	: 5 ml	GC Column	: RTX 502.2
Level	: LOW	%Solids	: NA
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L Results	RL	MDL	Qualifier
75-09-2	Methylene chloride	ND	0.50	0.15	U
75-34-3	1,1-Dichloroethane	ND	0.50	0.09	U
67-66-3	Chloroform	ND	0.50	0.05	U
56-23-5	Carbon tetrachloride	ND	0.50	0.10	U
78-87-5	1,2-Dichloropropane	ND	0.50	0.09	U
124-48-1	Dibromochloromethane	ND	0.50	0.08	U
79-00-5	1,1,2-Trichloroethane	ND	0.50	0.12	U
127-18-4	Tetrachloroethene	0.64	0.50	0.09	
108-90-7	Chlorobenzene	ND	0.50	0.08	U
75-69-4	Trichlorofluoromethane	ND	0.50	0.11	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.08	U
71-55-6	1,1,1-Trichloroethane	ND	0.50	0.08	U
75-27-4	Bromodichloromethane	ND	0.50	0.05	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.09	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.10	U
75-25-2	Bromoform	ND	0.50	0.09	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.09	U
71-43-2	Benzene	ND	0.50	0.09	U
108-88-3	Toluene	ND	0.50	0.12	U
100-41-4	Ethylbenzene	ND	0.50	0.06	U
179601-23-1	p/m-Xylene	ND	0.50	0.12	U
74-87-3	Chloromethane	ND	0.50	0.15	U
74-83-9	Bromomethane	ND	0.50	0.13	U
75-01-4	Vinyl chloride	ND	0.50	0.08	U
75-00-3	Chloroethane	ND	0.50	0.12	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.06	U
156-60-5	trans-1,2-Dichloroethene	ND	0.50	0.09	U

ALPHA ANALYTICAL

Form 1
Volatile Organics

Client	: Environmental Planning and Manageme	Lab Number	: L1325883
Project Name	: KATONAH	Project Number	: 13001
Lab ID	: L1325883-06	Date Collected	: 12/19/13 13:35
Client ID	: MW-11	Date Received	: 12/19/13
Sample Location	: BEDFORD, NY	Date Analyzed	: 12/24/13 16:18
Sample Matrix	: DW	Dilution Factor	: 1
Analytical Method	: 16,524.2	Analyst	: GT
Lab File ID	: 1224A14	Instrument ID	: BUNDY.I
Sample Amount	: 5 ml	GC Column	: RTX 502.2
Level	: LOW	%Solids	: NA
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L Results	RL	MDL	Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	0.50	0.11	U
79-01-6	Trichloroethene	ND	0.50	0.09	U
95-50-1	1,2-Dichlorobenzene	ND	0.50	0.07	U
541-73-1	1,3-Dichlorobenzene	ND	0.50	0.05	U
106-46-7	1,4-Dichlorobenzene	ND	0.50	0.05	U
100-42-5	Styrene	ND	0.50	0.06	U
95-47-6	o-Xylene	ND	0.50	0.09	U
563-58-6	1,1-Dichloropropene	ND	0.50	0.11	U
594-20-7	2,2-Dichloropropane	ND	0.50	0.11	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.50	0.09	U
96-18-4	1,2,3-Trichloropropane	ND	0.50	0.11	U
74-97-5	Bromochloromethane	ND	0.50	0.10	U
104-51-8	n-Butylbenzene	ND	0.50	0.06	U
75-71-8	Dichlorodifluoromethane	ND	0.50	0.10	U
87-68-3	Hexachlorobutadiene	ND	0.50	0.11	U
98-82-8	Isopropylbenzene	ND	0.50	0.08	U
99-87-6	p-Isopropyltoluene	ND	0.50	0.07	U
91-20-3	Naphthalene	ND	0.50	0.06	U
103-65-1	n-Propylbenzene	ND	0.50	0.08	U
135-98-8	sec-Butylbenzene	ND	0.50	0.06	U
98-06-6	tert-Butylbenzene	ND	0.50	0.09	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.50	0.06	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.50	0.07	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.50	0.08	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.50	0.10	U
108-86-1	Bromobenzene	ND	0.50	0.09	U
95-49-8	o-Chlorotoluene	ND	0.50	0.10	U

ALPHA ANALYTICAL

Form 1
Volatile Organics

Client	: Environmental Planning and Manageme	Lab Number	: L1325883
Project Name	: KATONAH	Project Number	: 13001
Lab ID	: L1325883-06	Date Collected	: 12/19/13 13:35
Client ID	: MW-11	Date Received	: 12/19/13
Sample Location	: BEDFORD, NY	Date Analyzed	: 12/24/13 16:18
Sample Matrix	: DW	Dilution Factor	: 1
Analytical Method	: 16,524.2	Analyst	: GT
Lab File ID	: 1224A14	Instrument ID	: BUNDY.I
Sample Amount	: 5 ml	GC Column	: RTX 502.2
Level	: LOW	%Solids	: NA
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L Results	RL	MDL	Qualifier
106-43-4	p-Chlorotoluene	ND	0.50	0.08	U
74-95-3	Dibromomethane	ND	0.50	0.09	U
106-93-4	1,2-Dibromoethane	ND	0.50	0.06	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.50	0.16	U
142-28-9	1,3-Dichloropropane	ND	0.50	0.11	U
1634-04-4	Methyl tert butyl ether	ND	0.50	0.06	U
1330-20-7	Xylene (Total)	ND	0.50	0.12	U

ALPHA ANALYTICAL

Form 1
Volatile Organics

Client	: Environmental Planning and Manageme	Lab Number	: L1325883
Project Name	: KATONAH	Project Number	: 13001
Lab ID	: L1325883-07	Date Collected	: 12/19/13 14:00
Client ID	: FIELD BLANK	Date Received	: 12/19/13
Sample Location	: BEDFORD, NY	Date Analyzed	: 12/24/13 16:50
Sample Matrix	: DW	Dilution Factor	: 1
Analytical Method	: 16,524.2	Analyst	: GT
Lab File ID	: 1224A15	Instrument ID	: BUNDY.I
Sample Amount	: 5 ml	GC Column	: RTX 502.2
Level	: LOW	%Solids	: NA
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L Results	RL	MDL	Qualifier
75-09-2	Methylene chloride	ND	0.50	0.15	U
75-34-3	1,1-Dichloroethane	ND	0.50	0.09	U
67-66-3	Chloroform	ND	0.50	0.05	U
56-23-5	Carbon tetrachloride	ND	0.50	0.10	U
78-87-5	1,2-Dichloropropane	ND	0.50	0.09	U
124-48-1	Dibromochloromethane	ND	0.50	0.08	U
79-00-5	1,1,2-Trichloroethane	ND	0.50	0.12	U
127-18-4	Tetrachloroethene	ND	0.50	0.09	U
108-90-7	Chlorobenzene	ND	0.50	0.08	U
75-69-4	Trichlorofluoromethane	ND	0.50	0.11	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.08	U
71-55-6	1,1,1-Trichloroethane	ND	0.50	0.08	U
75-27-4	Bromodichloromethane	ND	0.50	0.05	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.09	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.10	U
75-25-2	Bromoform	ND	0.50	0.09	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.09	U
71-43-2	Benzene	ND	0.50	0.09	U
108-88-3	Toluene	ND	0.50	0.12	U
100-41-4	Ethylbenzene	ND	0.50	0.06	U
179601-23-1	p/m-Xylene	ND	0.50	0.12	U
74-87-3	Chloromethane	ND	0.50	0.15	U
74-83-9	Bromomethane	ND	0.50	0.13	U
75-01-4	Vinyl chloride	ND	0.50	0.08	U
75-00-3	Chloroethane	ND	0.50	0.12	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.06	U
156-60-5	trans-1,2-Dichloroethene	ND	0.50	0.09	U

ALPHA ANALYTICAL

Form 1
Volatile Organics

Client	: Environmental Planning and Manageme	Lab Number	: L1325883
Project Name	: KATONAH	Project Number	: 13001
Lab ID	: L1325883-07	Date Collected	: 12/19/13 14:00
Client ID	: FIELD BLANK	Date Received	: 12/19/13
Sample Location	: BEDFORD, NY	Date Analyzed	: 12/24/13 16:50
Sample Matrix	: DW	Dilution Factor	: 1
Analytical Method	: 16,524.2	Analyst	: GT
Lab File ID	: 1224A15	Instrument ID	: BUNDY.I
Sample Amount	: 5 ml	GC Column	: RTX 502.2
Level	: LOW	%Solids	: NA
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L Results	RL	MDL	Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	0.50	0.11	U
79-01-6	Trichloroethene	ND	0.50	0.09	U
95-50-1	1,2-Dichlorobenzene	ND	0.50	0.07	U
541-73-1	1,3-Dichlorobenzene	ND	0.50	0.05	U
106-46-7	1,4-Dichlorobenzene	ND	0.50	0.05	U
100-42-5	Styrene	ND	0.50	0.06	U
95-47-6	o-Xylene	ND	0.50	0.09	U
563-58-6	1,1-Dichloropropene	ND	0.50	0.11	U
594-20-7	2,2-Dichloropropane	ND	0.50	0.11	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.50	0.09	U
96-18-4	1,2,3-Trichloropropane	ND	0.50	0.11	U
74-97-5	Bromochloromethane	ND	0.50	0.10	U
104-51-8	n-Butylbenzene	ND	0.50	0.06	U
75-71-8	Dichlorodifluoromethane	ND	0.50	0.10	U
87-68-3	Hexachlorobutadiene	ND	0.50	0.11	U
98-82-8	Isopropylbenzene	ND	0.50	0.08	U
99-87-6	p-Isopropyltoluene	ND	0.50	0.07	U
91-20-3	Naphthalene	ND	0.50	0.06	U
103-65-1	n-Propylbenzene	ND	0.50	0.08	U
135-98-8	sec-Butylbenzene	ND	0.50	0.06	U
98-06-6	tert-Butylbenzene	ND	0.50	0.09	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.50	0.06	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.50	0.07	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.50	0.08	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.50	0.10	U
108-86-1	Bromobenzene	ND	0.50	0.09	U
95-49-8	o-Chlorotoluene	ND	0.50	0.10	U

ALPHA ANALYTICAL

Form 1
Volatile Organics

Client	: Environmental Planning and Manageme	Lab Number	: L1325883
Project Name	: KATONAH	Project Number	: 13001
Lab ID	: L1325883-07	Date Collected	: 12/19/13 14:00
Client ID	: FIELD BLANK	Date Received	: 12/19/13
Sample Location	: BEDFORD, NY	Date Analyzed	: 12/24/13 16:50
Sample Matrix	: DW	Dilution Factor	: 1
Analytical Method	: 16,524.2	Analyst	: GT
Lab File ID	: 1224A15	Instrument ID	: BUNDY.I
Sample Amount	: 5 ml	GC Column	: RTX 502.2
Level	: LOW	%Solids	: NA
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L Results	RL	MDL	Qualifier
106-43-4	p-Chlorotoluene	ND	0.50	0.08	U
74-95-3	Dibromomethane	ND	0.50	0.09	U
106-93-4	1,2-Dibromoethane	ND	0.50	0.06	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.50	0.16	U
142-28-9	1,3-Dichloropropane	ND	0.50	0.11	U
1634-04-4	Methyl tert butyl ether	ND	0.50	0.06	U
1330-20-7	Xylene (Total)	ND	0.50	0.12	U

ALPHA ANALYTICAL

Form 1
Volatile Organics

Client	: Environmental Planning and Manageme	Lab Number	: L1325883
Project Name	: KATONAH	Project Number	: 13001
Lab ID	: L1325883-08	Date Collected	: 12/19/13 00:00
Client ID	: TRIP BLANK	Date Received	: 12/19/13
Sample Location	: BEDFORD, NY	Date Analyzed	: 12/24/13 11:23
Sample Matrix	: DW	Dilution Factor	: 1
Analytical Method	: 16,524.2	Analyst	: GT
Lab File ID	: 1224A05	Instrument ID	: BUNDY.I
Sample Amount	: 5 ml	GC Column	: RTX 502.2
Level	: LOW	%Solids	: NA
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L Results	RL	MDL	Qualifier
75-09-2	Methylene chloride	ND	0.50	0.15	U
75-34-3	1,1-Dichloroethane	ND	0.50	0.09	U
67-66-3	Chloroform	ND	0.50	0.05	U
56-23-5	Carbon tetrachloride	ND	0.50	0.10	U
78-87-5	1,2-Dichloropropane	ND	0.50	0.09	U
124-48-1	Dibromochloromethane	ND	0.50	0.08	U
79-00-5	1,1,2-Trichloroethane	ND	0.50	0.12	U
127-18-4	Tetrachloroethene	ND	0.50	0.09	U
108-90-7	Chlorobenzene	ND	0.50	0.08	U
75-69-4	Trichlorofluoromethane	ND	0.50	0.11	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.08	U
71-55-6	1,1,1-Trichloroethane	ND	0.50	0.08	U
75-27-4	Bromodichloromethane	ND	0.50	0.05	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.09	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.10	U
75-25-2	Bromoform	ND	0.50	0.09	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.09	U
71-43-2	Benzene	ND	0.50	0.09	U
108-88-3	Toluene	ND	0.50	0.12	U
100-41-4	Ethylbenzene	ND	0.50	0.06	U
179601-23-1	p/m-Xylene	ND	0.50	0.12	U
74-87-3	Chloromethane	ND	0.50	0.15	U
74-83-9	Bromomethane	ND	0.50	0.13	U
75-01-4	Vinyl chloride	ND	0.50	0.08	U
75-00-3	Chloroethane	ND	0.50	0.12	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.06	U
156-60-5	trans-1,2-Dichloroethene	ND	0.50	0.09	U

ALPHA ANALYTICAL

Form 1
Volatile Organics

Client	: Environmental Planning and Manageme	Lab Number	: L1325883
Project Name	: KATONAH	Project Number	: 13001
Lab ID	: L1325883-08	Date Collected	: 12/19/13 00:00
Client ID	: TRIP BLANK	Date Received	: 12/19/13
Sample Location	: BEDFORD, NY	Date Analyzed	: 12/24/13 11:23
Sample Matrix	: DW	Dilution Factor	: 1
Analytical Method	: 16,524.2	Analyst	: GT
Lab File ID	: 1224A05	Instrument ID	: BUNDY.I
Sample Amount	: 5 ml	GC Column	: RTX 502.2
Level	: LOW	%Solids	: NA
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L Results	RL	MDL	Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	0.50	0.11	U
79-01-6	Trichloroethene	ND	0.50	0.09	U
95-50-1	1,2-Dichlorobenzene	ND	0.50	0.07	U
541-73-1	1,3-Dichlorobenzene	ND	0.50	0.05	U
106-46-7	1,4-Dichlorobenzene	ND	0.50	0.05	U
100-42-5	Styrene	ND	0.50	0.06	U
95-47-6	o-Xylene	ND	0.50	0.09	U
563-58-6	1,1-Dichloropropene	ND	0.50	0.11	U
594-20-7	2,2-Dichloropropane	ND	0.50	0.11	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.50	0.09	U
96-18-4	1,2,3-Trichloropropane	ND	0.50	0.11	U
74-97-5	Bromochloromethane	ND	0.50	0.10	U
104-51-8	n-Butylbenzene	ND	0.50	0.06	U
75-71-8	Dichlorodifluoromethane	ND	0.50	0.10	U
87-68-3	Hexachlorobutadiene	ND	0.50	0.11	U
98-82-8	Isopropylbenzene	ND	0.50	0.08	U
99-87-6	p-Isopropyltoluene	ND	0.50	0.07	U
91-20-3	Naphthalene	ND	0.50	0.06	U
103-65-1	n-Propylbenzene	ND	0.50	0.08	U
135-98-8	sec-Butylbenzene	ND	0.50	0.06	U
98-06-6	tert-Butylbenzene	ND	0.50	0.09	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.50	0.06	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.50	0.07	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.50	0.08	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.50	0.10	U
108-86-1	Bromobenzene	ND	0.50	0.09	U
95-49-8	o-Chlorotoluene	ND	0.50	0.10	U

ALPHA ANALYTICAL

Form 1
Volatile Organics

Client	: Environmental Planning and Manageme	Lab Number	: L1325883
Project Name	: KATONAH	Project Number	: 13001
Lab ID	: L1325883-08	Date Collected	: 12/19/13 00:00
Client ID	: TRIP BLANK	Date Received	: 12/19/13
Sample Location	: BEDFORD, NY	Date Analyzed	: 12/24/13 11:23
Sample Matrix	: DW	Dilution Factor	: 1
Analytical Method	: 16,524.2	Analyst	: GT
Lab File ID	: 1224A05	Instrument ID	: BUNDY.I
Sample Amount	: 5 ml	GC Column	: RTX 502.2
Level	: LOW	%Solids	: NA
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L Results	RL	MDL	Qualifier
106-43-4	p-Chlorotoluene	ND	0.50	0.08	U
74-95-3	Dibromomethane	ND	0.50	0.09	U
106-93-4	1,2-Dibromoethane	ND	0.50	0.06	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.50	0.16	U
142-28-9	1,3-Dichloropropane	ND	0.50	0.11	U
1634-04-4	Methyl tert butyl ether	ND	0.50	0.06	U
1330-20-7	Xylene (Total)	ND	0.50	0.12	U

ALPHA ANALYTICAL

Form 1
Volatile Organics

Client	: Environmental Planning and Manageme	Lab Number	: L1325883
Project Name	: KATONAH	Project Number	: 13001
Lab ID	: WG661542-2	Date Collected	: NA
Client ID	: WG661542-2BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 12/24/13 10:50
Sample Matrix	: DW	Dilution Factor	: 1
Analytical Method	: 16,524.2	Analyst	: GT
Lab File ID	: 1224A04	Instrument ID	: BUNDY.I
Sample Amount	: 5 ml	GC Column	: RTX 502.2
Level	: LOW	%Solids	: NA
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L Results	RL	MDL	Qualifier
75-09-2	Methylene chloride	ND	0.50	0.15	U
75-34-3	1,1-Dichloroethane	ND	0.50	0.09	U
67-66-3	Chloroform	ND	0.50	0.05	U
56-23-5	Carbon tetrachloride	ND	0.50	0.10	U
78-87-5	1,2-Dichloropropane	ND	0.50	0.09	U
124-48-1	Dibromochloromethane	ND	0.50	0.08	U
79-00-5	1,1,2-Trichloroethane	ND	0.50	0.12	U
127-18-4	Tetrachloroethene	ND	0.50	0.09	U
108-90-7	Chlorobenzene	ND	0.50	0.08	U
75-69-4	Trichlorofluoromethane	ND	0.50	0.11	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.08	U
71-55-6	1,1,1-Trichloroethane	ND	0.50	0.08	U
75-27-4	Bromodichloromethane	ND	0.50	0.05	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.09	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.10	U
75-25-2	Bromoform	ND	0.50	0.09	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.09	U
71-43-2	Benzene	ND	0.50	0.09	U
108-88-3	Toluene	ND	0.50	0.12	U
100-41-4	Ethylbenzene	ND	0.50	0.06	U
179601-23-1	p/m-Xylene	ND	0.50	0.12	U
74-87-3	Chloromethane	ND	0.50	0.15	U
74-83-9	Bromomethane	ND	0.50	0.13	U
75-01-4	Vinyl chloride	ND	0.50	0.08	U
75-00-3	Chloroethane	ND	0.50	0.12	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.06	U
156-60-5	trans-1,2-Dichloroethene	ND	0.50	0.09	U

ALPHA ANALYTICAL

Form 1
Volatile Organics

Client	: Environmental Planning and Manageme	Lab Number	: L1325883
Project Name	: KATONAH	Project Number	: 13001
Lab ID	: WG661542-2	Date Collected	: NA
Client ID	: WG661542-2BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 12/24/13 10:50
Sample Matrix	: DW	Dilution Factor	: 1
Analytical Method	: 16,524.2	Analyst	: GT
Lab File ID	: 1224A04	Instrument ID	: BUNDY.I
Sample Amount	: 5 ml	GC Column	: RTX 502.2
Level	: LOW	%Solids	: NA
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L Results	RL	MDL	Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	0.50	0.11	U
79-01-6	Trichloroethene	ND	0.50	0.09	U
95-50-1	1,2-Dichlorobenzene	ND	0.50	0.07	U
541-73-1	1,3-Dichlorobenzene	ND	0.50	0.05	U
106-46-7	1,4-Dichlorobenzene	ND	0.50	0.05	U
100-42-5	Styrene	ND	0.50	0.06	U
95-47-6	o-Xylene	ND	0.50	0.09	U
563-58-6	1,1-Dichloropropene	ND	0.50	0.11	U
594-20-7	2,2-Dichloropropane	ND	0.50	0.11	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.50	0.09	U
96-18-4	1,2,3-Trichloropropane	ND	0.50	0.11	U
74-97-5	Bromochloromethane	ND	0.50	0.10	U
104-51-8	n-Butylbenzene	ND	0.50	0.06	U
75-71-8	Dichlorodifluoromethane	ND	0.50	0.10	U
87-68-3	Hexachlorobutadiene	ND	0.50	0.11	U
98-82-8	Isopropylbenzene	ND	0.50	0.08	U
99-87-6	p-Isopropyltoluene	ND	0.50	0.07	U
91-20-3	Naphthalene	ND	0.50	0.06	U
103-65-1	n-Propylbenzene	ND	0.50	0.08	U
135-98-8	sec-Butylbenzene	ND	0.50	0.06	U
98-06-6	tert-Butylbenzene	ND	0.50	0.09	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.50	0.06	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.50	0.07	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.50	0.08	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.50	0.10	U
108-86-1	Bromobenzene	ND	0.50	0.09	U
95-49-8	o-Chlorotoluene	ND	0.50	0.10	U

ALPHA ANALYTICAL

Form 1
Volatile Organics

Client	: Environmental Planning and Manageme	Lab Number	: L1325883
Project Name	: KATONAH	Project Number	: 13001
Lab ID	: WG661542-2	Date Collected	: NA
Client ID	: WG661542-2BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 12/24/13 10:50
Sample Matrix	: DW	Dilution Factor	: 1
Analytical Method	: 16,524.2	Analyst	: GT
Lab File ID	: 1224A04	Instrument ID	: BUNDY.I
Sample Amount	: 5 ml	GC Column	: RTX 502.2
Level	: LOW	%Solids	: NA
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

		ug/L			
CAS NO.	Parameter	Results	RL	MDL	Qualifier
106-43-4	p-Chlorotoluene	ND	0.50	0.08	U
74-95-3	Dibromomethane	ND	0.50	0.09	U
106-93-4	1,2-Dibromoethane	ND	0.50	0.06	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.50	0.16	U
142-28-9	1,3-Dichloropropane	ND	0.50	0.11	U
1634-04-4	Methyl tert butyl ether	ND	0.50	0.06	U
1330-20-7	Xylene (Total)	ND	0.50	0.12	U

ALPHA ANALYTICAL

Alpha Analytical Labs

gc/ms voa -Bundy 524

Data file : \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A05.D
Lab Smp Id:
Inj Date : 24-DEC-2013 11:23
Operator : gt Inst ID: Bundy.i
Smp Info : 11325883-08,31,5,,b
Misc Info : wg661542,ical8787
Comment :
Method : \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\524extras.m
Meth Date : 24-Dec-2013 11:09 Bundy.i Quant Type: ISTD
Cal Date : 10-NOV-2013 23:22 Cal File: 1107A12.D
Als bottle: 14
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 524.sub
Target Version: 4.12
Processing Host: VIRTUALXP-72976

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ngs)	FINAL (ngs)	REVIEW CODE
1 dichlorodifluoromethane	85	Compound Not Detected.						
2 chloromethane	50	Compound Not Detected.						
3 vinyl chloride	62	Compound Not Detected.						
4 bromomethane	94	Compound Not Detected.						
5 chloroethane	64	Compound Not Detected.						
6 trichlorofluoromethane	101	Compound Not Detected.						
9 1,1-dichloroethene	96	Compound Not Detected.						
11 methylene chloride	84	Compound Not Detected.						
13 methyl-tert-butyl ether	73	Compound Not Detected.						
14 trans-1,2-dichloroethene	96	Compound Not Detected.						
16 1,1-dichloroethane	63	Compound Not Detected.						
19 2,2-dichloropropane	77	Compound Not Detected.						
20 cis-1,2-dichloroethene	96	Compound Not Detected.						
21 chloroform	83	Compound Not Detected.						
22 bromochloromethane	128	Compound Not Detected.						
24 1,1,1-trichloroethane	97	Compound Not Detected.						
25 1,1-dichloropropene	75	Compound Not Detected.						
27 carbon tetrachloride	117	Compound Not Detected.						
28 1,2-dichloroethane	62	Compound Not Detected.						
29 benzene	78	Compound Not Detected.						
* 30 fluorobenzene	96	7.874	7.874	(1.000)	33592	20.0000		
31 trichloroethene	95	Compound Not Detected.						
32 1,2-dichloropropane	63	Compound Not Detected.						
33 bromodichloromethane	83	Compound Not Detected.						
34 dibromomethane	93	Compound Not Detected.						
36 cis-1,3-dichloropropene	75	Compound Not Detected.						
37 toluene	92	Compound Not Detected.						
38 trans-1,3-dichloropropene	75	Compound Not Detected.						
40 1,1,2-trichloroethane	83	Compound Not Detected.						

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ngs)	FINAL (ngs)	REVIEW CODE
	41 1,3-dichloropropane	76	Compound Not Detected.						
	42 tetrachloroethene	166	Compound Not Detected.						
	43 dibromochloromethane	129	Compound Not Detected.						
	44 1,2-dibromoethane	107	Compound Not Detected.						
*	45 Chlorobenzene-d5	117	11.355	11.361	(1.000)	30686	20.0000		
	46 chlorobenzene	112	Compound Not Detected.						
	47 ethylbenzene	91	Compound Not Detected.						
	48 1,1,1,2-tetrachloroethane	131	Compound Not Detected.						
	49 p/m-xylenes	106	Compound Not Detected.						
	50 o-xylenes	106	Compound Not Detected.						
	51 styrene	104	Compound Not Detected.						
	52 isopropylbenzene	105	Compound Not Detected.						
	53 bromoform	173	Compound Not Detected.						
	54 1,1,2,2-tetrachloroethane	83	Compound Not Detected.						
$	55 4-bromofluorobenzene	95	12.797	12.797	(1.127)	13564	18.1517	18.15	
	56 1,2,3-trichloropropane	110	Compound Not Detected.						
	57 n-propylbenzene	91	Compound Not Detected.						
	58 bromobenzene	156	Compound Not Detected.						
	59 1,3,5-trimethylbenzene	105	Compound Not Detected.						
	60 o-chlorotoluene	126	Compound Not Detected.						
	61 p-chlorotoluene	91	Compound Not Detected.						
	62 tert-butylbenzene	119	Compound Not Detected.						
	63 1,2,4,-trimethylbenzene	105	Compound Not Detected.						
	64 sec-butylbenzene	105	Compound Not Detected.						
	65 p-isopropyltoluene	119	Compound Not Detected.						
	66 1,3-dichlorobenzene	146	Compound Not Detected.						
*	67 1,4-Dichlorobenzene-d4	152	14.271	14.271	(1.000)	14792	20.0000		
	68 1,4-dichlorobenzene	146	Compound Not Detected.						
	69 n-butylbenzene	91	Compound Not Detected.						
$	70 1,2-Dichlorobenzene-d4	152	14.742	14.746	(1.033)	14768	20.9511	20.95	
	71 1,2-dichlorobenzene	146	Compound Not Detected.						
	72 1,2-dibromo-3-chloropropane	75	Compound Not Detected.						
	74 1,2,4-trichlorobenzene	182	Compound Not Detected.						
	75 hexachlorobutadiene	225	Compound Not Detected.						
	76 naphthalene	128	Compound Not Detected.						
	77 1,2,3-trichlorobenzene	180	Compound Not Detected.						
M	78 Xylene (total)	106	Compound Not Detected.						

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: Bundy.i
Lab File ID: 1224A05.D
Lab Smp Id:
Analysis Type: VOA
Quant Type: ISTD
Operator: gt
Method File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\524extras.m
Misc Info: wg661542,ical8787

Calibration Date: 24-DEC-2013
Calibration Time: 09:45

Level: MED
Sample Type: WATER

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 3

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
30 fluorobenzene	36873	18437	73746	33592	-8.90
45 Chlorobenzene-d5	32655	16328	65310	30686	-6.03
67 1,4-Dichlorobenze	18891	9446	37782	14792	-21.70

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
30 fluorobenzene	7.87	7.37	8.37	7.87	-0.00
45 Chlorobenzene-d5	11.36	10.86	11.86	11.36	-0.05
67 1,4-Dichlorobenze	14.27	13.77	14.77	14.27	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Alpha Analytical Labs

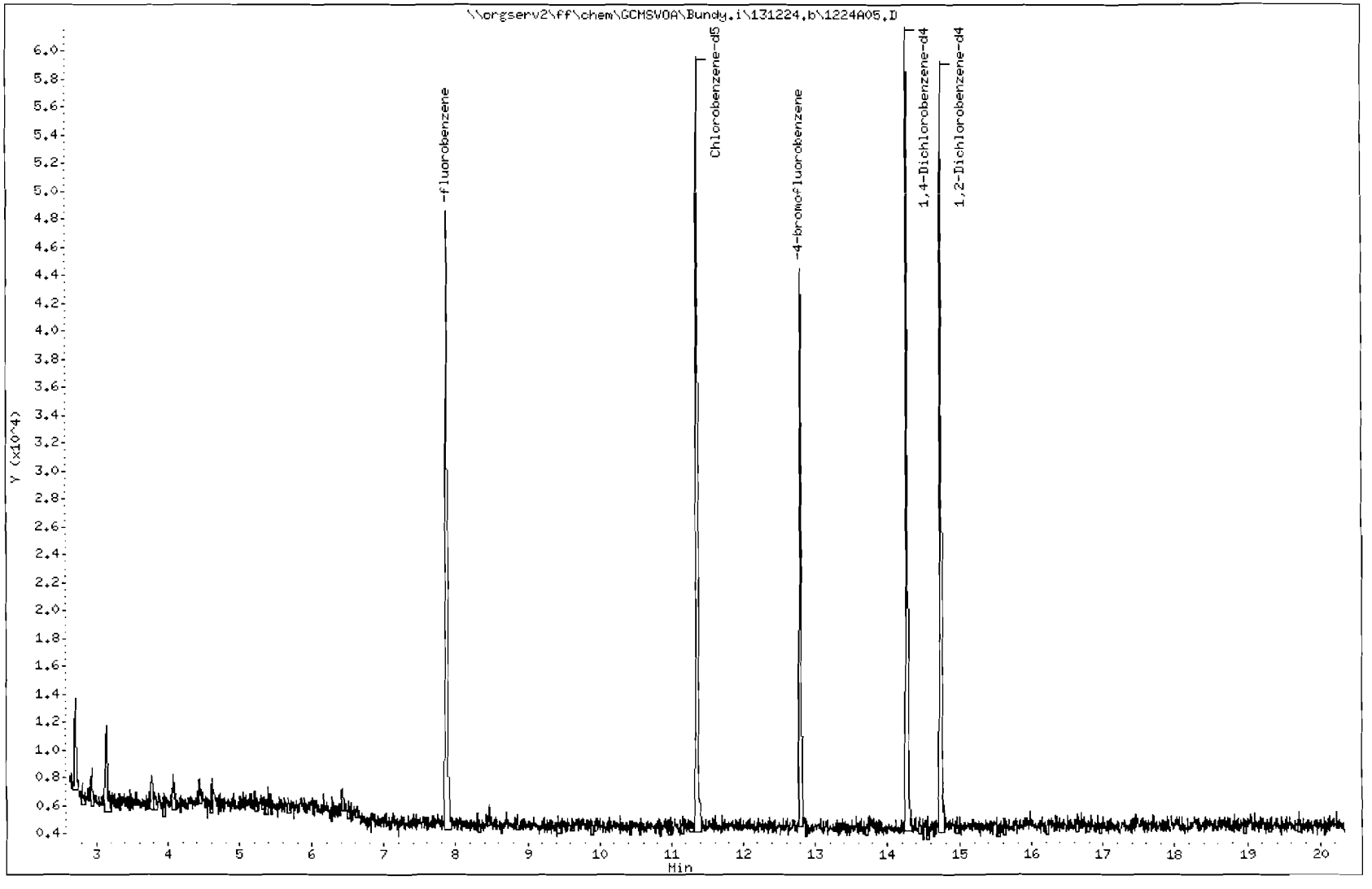
RECOVERY REPORT

Client Name:
Client SDG: 131224.b
Sample Matrix: LIQUID
Fraction: VOA
Lab Smp Id:
Level: MED
Operator: gt
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: 524NH.spk
Quant Type: ISTD
Sublist File: 524.sub
Method File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\524extras.m
Misc Info: wg661542,ical8787

SURROGATE COMPOUND	AMOUNT ADDED ngs	AMOUNT RECOVERED ngs	% RECOVERED	LIMITS
$ 55 4-bromofluorobenze	20.00	18.15	90.76	80-120
$ 70 1,2-Dichlorobenzen	20.00	20.95	104.76	80-120

Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A05.D
Date : 24-DEC-2013 11:23
Client ID:
Sample Info: 11325883-08,31,5,,b
Purge Volume: 5.0
Column phase:

Instrument: Bundy.i
Operator: gt
Column diameter: 0.18



Alpha Analytical Labs

gc/ms voa -Bundy 524

Data file : \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A07.D
Lab Smp Id:
Inj Date : 24-DEC-2013 12:28
Operator : gt Inst ID: Bundy.i
Smp Info : l1325883-02,31,5,,b
Misc Info : wg661542,ical8787
Comment :
Method : \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\524extras.m
Meth Date : 24-Dec-2013 11:09 Bundy.i Quant Type: ISTD
Cal Date : 10-NOV-2013 23:22 Cal File: 1107A12.D
Als bottle: 16
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 524.sub
Target Version: 4.12
Processing Host: VIRTUALXP-72976

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ngs)	FINAL (ngs)	REVIEW CODE
1 dichlorodifluoromethane	85	Compound Not Detected.						
2 chloromethane	50	Compound Not Detected.						
3 vinyl chloride	62	Compound Not Detected.						
4 bromomethane	94	Compound Not Detected.						
5 chloroethane	64	Compound Not Detected.						
6 trichlorofluoromethane	101	Compound Not Detected.						
9 1,1-dichloroethene	96	Compound Not Detected.						
11 methylene chloride	84	Compound Not Detected.						
13 methyl-tert-butyl ether	73	Compound Not Detected.						
14 trans-1,2-dichloroethene	96	Compound Not Detected.						
16 1,1-dichloroethane	63	Compound Not Detected.						
19 2,2-dichloropropane	77	Compound Not Detected.						
20 cis-1,2-dichloroethene	96	Compound Not Detected.						
21 chloroform	83	Compound Not Detected.						
22 bromochloromethane	128	Compound Not Detected.						
24 1,1,1-trichloroethane	97	Compound Not Detected.						
25 1,1-dichloropropene	75	Compound Not Detected.						
27 carbon tetrachloride	117	Compound Not Detected.						
28 1,2-dichloroethane	62	Compound Not Detected.						
29 benzene	78	Compound Not Detected.						
* 30 fluorobenzene	96	7.874	7.874	(1.000)	35115	20.0000		
31 trichloroethene	95	8.315	8.304	(1.056)	1239	2.69049	2.69	
32 1,2-dichloropropane	63	Compound Not Detected.						
33 bromodichloromethane	83	Compound Not Detected.						
34 dibromomethane	93	Compound Not Detected.						
36 cis-1,3-dichloropropene	75	Compound Not Detected.						
37 toluene	92	Compound Not Detected.						
38 trans-1,3-dichloropropene	75	Compound Not Detected.						
40 1,1,2-trichloroethane	83	Compound Not Detected.						

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ngs)	FINAL (ngs)	REVIEW CODE
	41 1,3-dichloropropane	76	Compound Not Detected.						
	42 tetrachloroethene	166	10.443	10.443	(1.326)	31197	64.3694	64.36	
	43 dibromochloromethane	129	Compound Not Detected.						
	44 1,2-dibromoethane	107	Compound Not Detected.						
*	45 Chlorobenzene-d5	117	11.361	11.361	(1.000)	31976	20.0000		
	46 chlorobenzene	112	Compound Not Detected.						
	47 ethylbenzene	91	Compound Not Detected.						
	48 1,1,1,2-tetrachloroethane	131	Compound Not Detected.						
	49 p/m-xylenes	106	Compound Not Detected.						
	50 o-xylenes	106	Compound Not Detected.						
	51 styrene	104	Compound Not Detected.						
	52 isopropylbenzene	105	Compound Not Detected.						
	53 bromoform	173	Compound Not Detected.						
	54 1,1,2,2-tetrachloroethane	83	Compound Not Detected.						
$	55 4-bromofluorobenzene	95	12.803	12.797	(1.127)	13952	17.9177	17.91	
	56 1,2,3-trichloropropane	110	Compound Not Detected.						
	57 n-propylbenzene	91	Compound Not Detected.						
	58 bromobenzene	156	Compound Not Detected.						
	59 1,3,5-trimethylbenzene	105	Compound Not Detected.						
	60 o-chlorotoluene	126	Compound Not Detected.						
	61 p-chlorotoluene	91	Compound Not Detected.						
	62 tert-butylbenzene	119	Compound Not Detected.						
	63 1,2,4,-trimethylbenzene	105	Compound Not Detected.						
	64 sec-butylbenzene	105	Compound Not Detected.						
	65 p-isopropyltoluene	119	Compound Not Detected.						
	66 1,3-dichlorobenzene	146	Compound Not Detected.						
*	67 1,4-Dichlorobenzene-d4	152	14.271	14.271	(1.000)	16186	20.0000		
	68 1,4-dichlorobenzene	146	Compound Not Detected.						
	69 n-butylbenzene	91	Compound Not Detected.						
$	70 1,2-Dichlorobenzene-d4	152	14.748	14.748	(1.033)	16283	21.1103	21.11	
	71 1,2-dichlorobenzene	146	Compound Not Detected.						
	72 1,2-dibromo-3-chloropropane	75	Compound Not Detected.						
	74 1,2,4-trichlorobenzene	182	Compound Not Detected.						
	75 hexachlorobutadiene	225	Compound Not Detected.						
	76 naphthalene	128	Compound Not Detected.						
	77 1,2,3-trichlorobenzene	180	Compound Not Detected.						
M	78 Xylene (total)	106	Compound Not Detected.						

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: Bundy.i
Lab File ID: 1224A07.D
Lab Smp Id:
Analysis Type: VOA
Quant Type: ISTD
Operator: gt
Method File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\524extras.m
Misc Info: wg661542,ical8787

Calibration Date: 24-DEC-2013
Calibration Time: 09:45

Level: MED
Sample Type: WATER

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 3

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
30 fluorobenzene	36873	18437	73746	35115	-4.77
45 Chlorobenzene-d5	32655	16328	65310	31976	-2.08
67 1,4-Dichlorobenze	18891	9446	37782	16186	-14.32

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
30 fluorobenzene	7.87	7.37	8.37	7.87	-0.00
45 Chlorobenzene-d5	11.36	10.86	11.86	11.36	-0.00
67 1,4-Dichlorobenze	14.27	13.77	14.77	14.27	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Alpha Analytical Labs

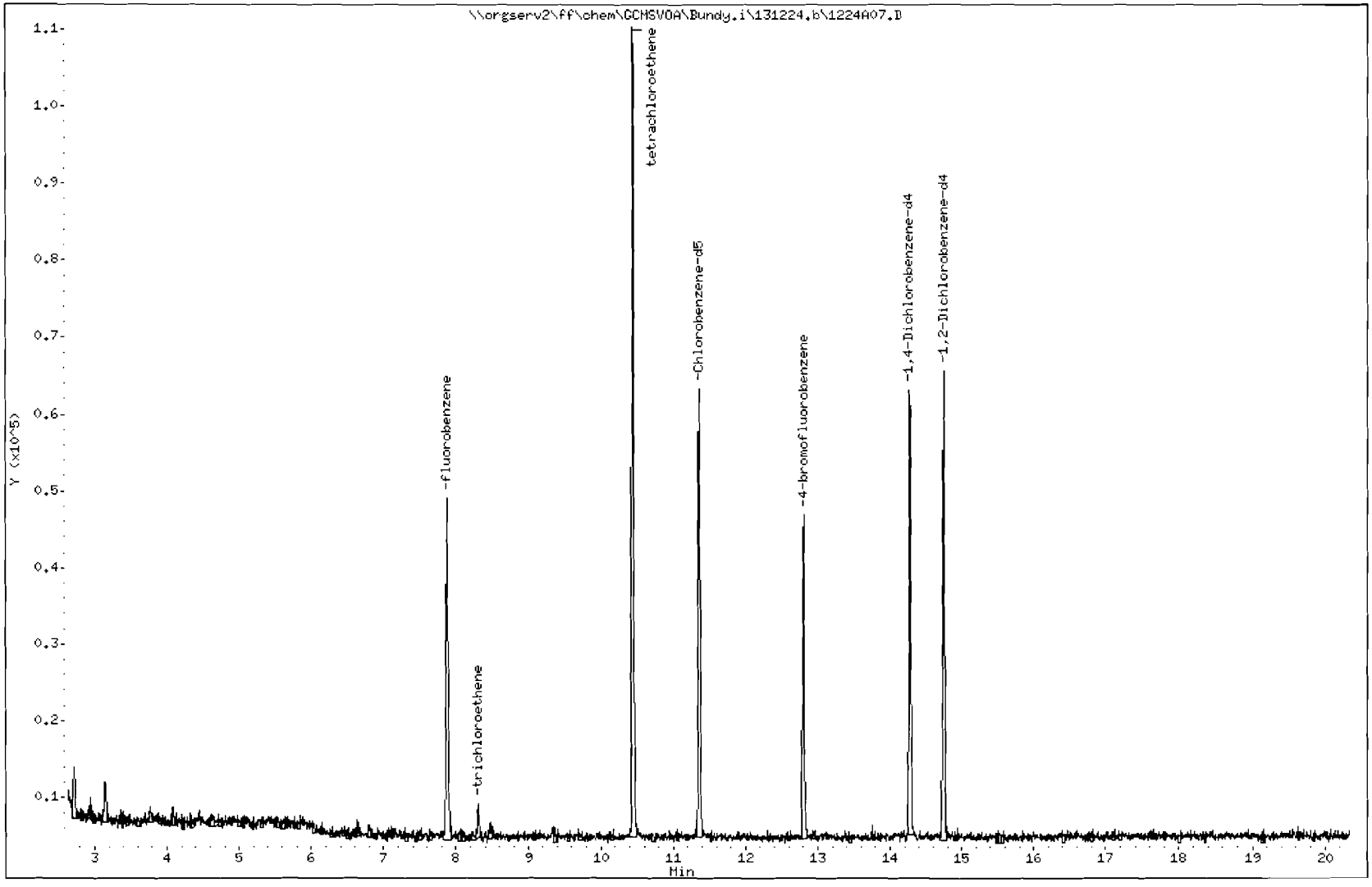
RECOVERY REPORT

Client Name:
Client SDG: 131224.b
Sample Matrix: LIQUID
Fraction: VOA
Lab Smp Id:
Level: MED
Operator: gt
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: 524NH.spk
Quant Type: ISTD
Sublist File: 524.sub
Method File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\524extras.m
Misc Info: wg661542,ical8787

SURROGATE COMPOUND	AMOUNT ADDED ngs	AMOUNT RECOVERED ngs	% RECOVERED	LIMITS
$ 55 4-bromofluorobenze	20.00	17.91	89.59	80-120
$ 70 1,2-Dichlorobenzen	20.00	21.11	105.55	80-120

Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A07.D
Date : 24-DEC-2013 12:28
Client ID:
Sample Info: 11325883-02,31,5,,b
Purge Volume: 5.0
Column phase:

Instrument: Bundy.i
Operator: gt
Column diameter: 0.18



Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A07.D

Date : 24-DEC-2013 12:28

Client ID:

Instrument: Bundy.i

Sample Info: 11325883-02.31,5,,b

Purge Volume: 5.0

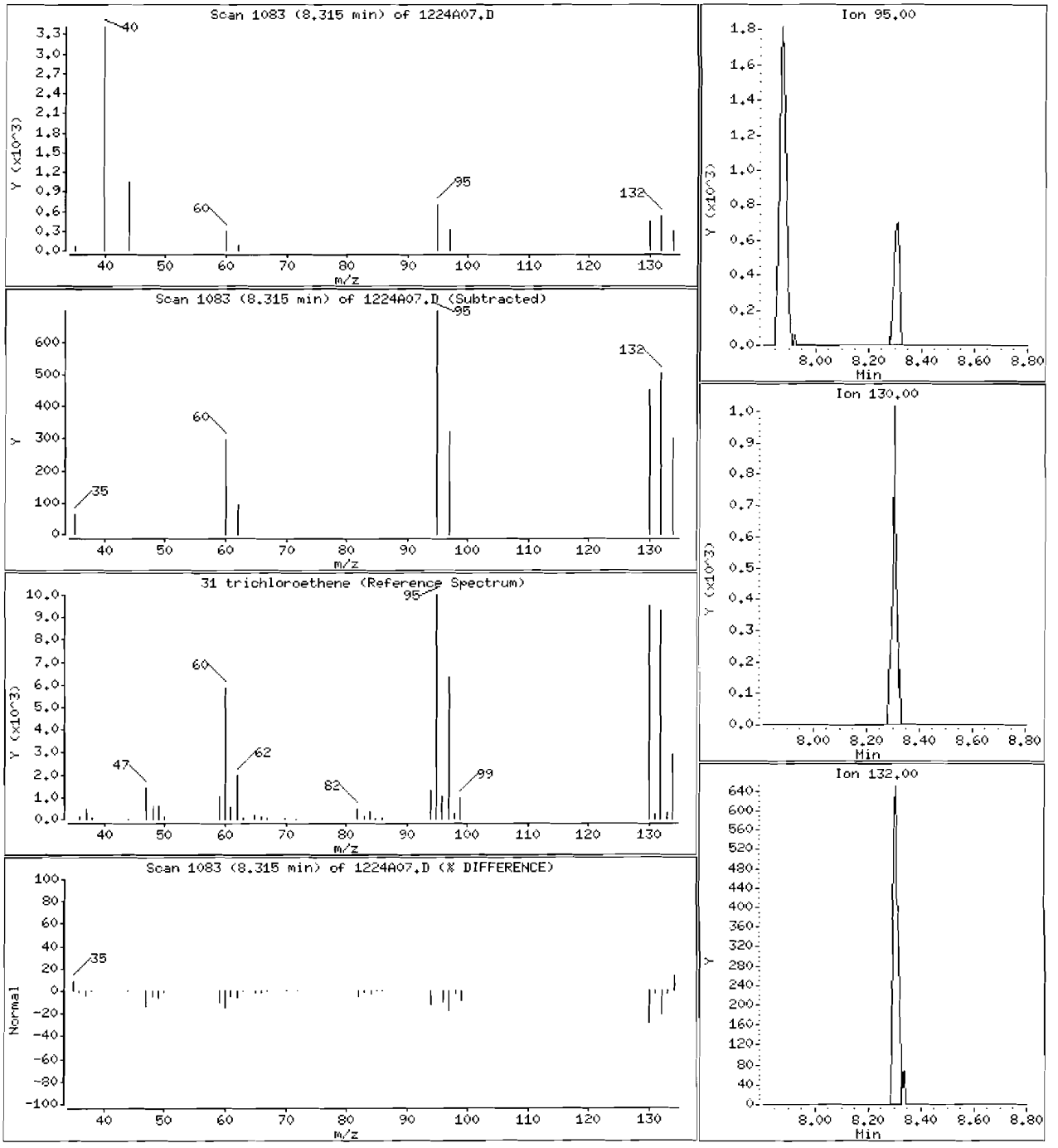
Operator: gt

Column phase:

Column diameter: 0.18

31 trichloroethene

Concentration: 2.69 ngs



Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A07.D

Date : 24-DEC-2013 12:28

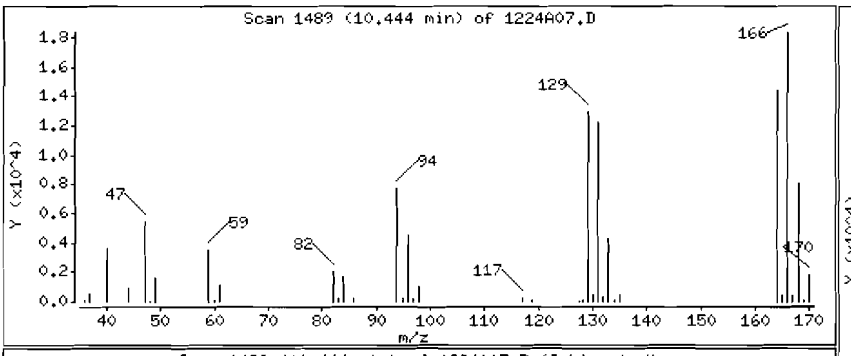
Client ID: Instrument: Bundy.i

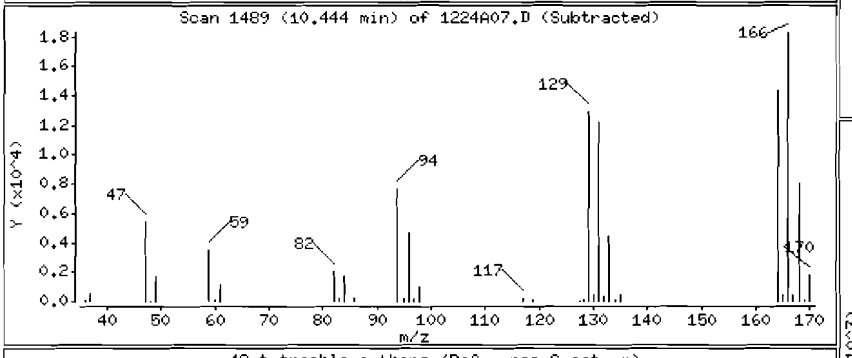
Sample Info: 11325883-02,31,5,,b

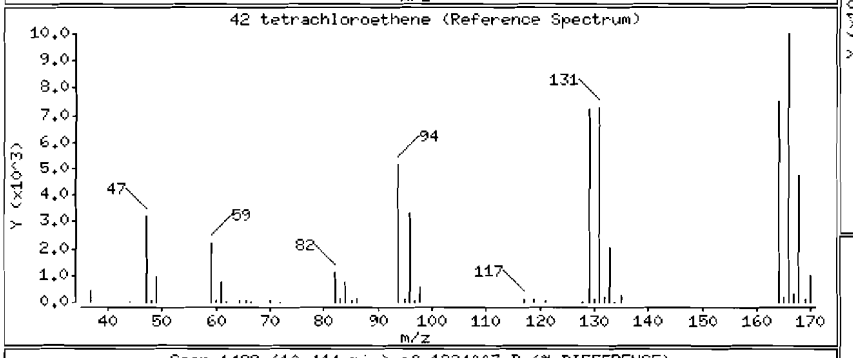
Purge Volume: 5.0 Operator: gt

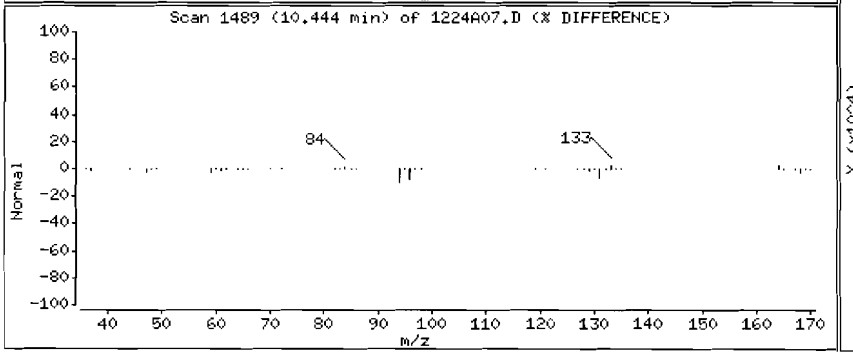
Column phase: Column diameter: 0.18

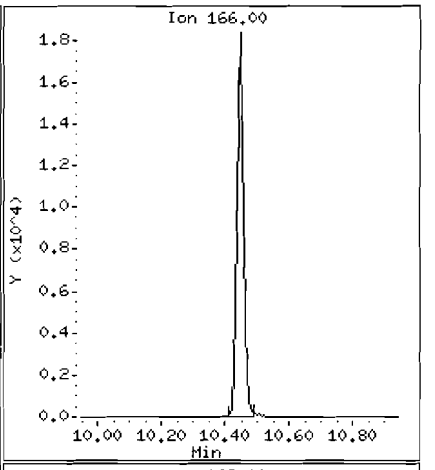
42 tetrachloroethene Concentration: 64.36 ngs

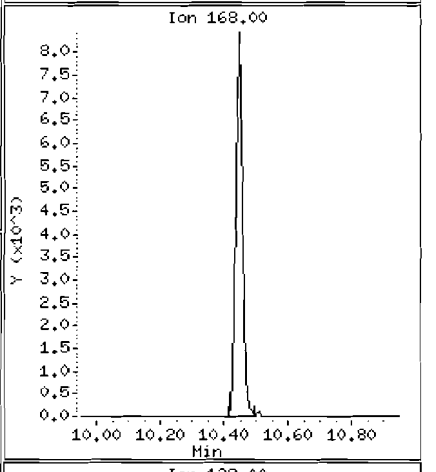


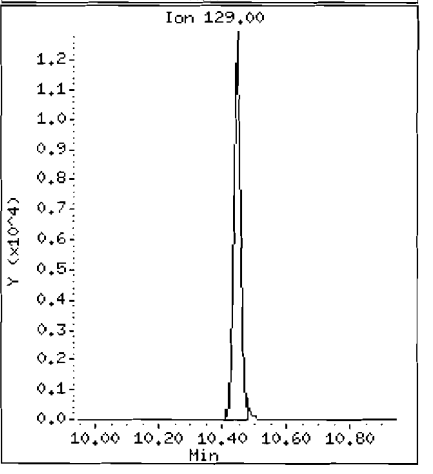












Alpha Analytical Labs

gc/ms voa -Bundy 524

Data file : \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A10.D
Lab Smp Id:
Inj Date : 24-DEC-2013 14:07
Operator : gt Inst ID: Bundy.i
Smp Info : 11325883-01,31,5,,b
Misc Info : wg661542,ical8787
Comment :
Method : \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\524extras.m
Meth Date : 24-Dec-2013 11:09 Bundy.i Quant Type: ISTD
Cal Date : 10-NOV-2013 23:22 Cal File: 1107A12.D
Als bottle: 19
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 524.sub
Target Version: 4.12
Processing Host: VIRTUALXP-72976

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ngs)	FINAL (ngs)	REVIEW CODE
1 dichlorodifluoromethane	85	Compound Not Detected.						
2 chloromethane	50	Compound Not Detected.						
3 vinyl chloride	62	Compound Not Detected.						
4 bromomethane	94	Compound Not Detected.						
5 chloroethane	64	Compound Not Detected.						
6 trichlorofluoromethane	101	Compound Not Detected.						
9 1,1-dichloroethene	96	Compound Not Detected.						
11 methylene chloride	84	Compound Not Detected.						
13 methyl-tert-butyl ether	73	Compound Not Detected.						
14 trans-1,2-dichloroethene	96	Compound Not Detected.						
16 1,1-dichloroethane	63	Compound Not Detected.						
19 2,2-dichloropropane	77	Compound Not Detected.						
20 cis-1,2-dichloroethene	96	6.647	6.647	(0.844)	905	1.93520	1.93	
21 chloroform	83	Compound Not Detected.						
22 bromochloromethane	128	Compound Not Detected.						
24 1,1,1-trichloroethane	97	Compound Not Detected.						
25 1,1-dichloropropene	75	Compound Not Detected.						
27 carbon tetrachloride	117	Compound Not Detected.						
28 1,2-dichloroethane	62	Compound Not Detected.						
29 benzene	78	Compound Not Detected.						
* 30 fluorobenzene	96	7.874	7.874	(1.000)	35628	20.0000		
31 trichloroethene	95	8.309	8.304	(1.055)	865	1.85130	1.85	
32 1,2-dichloropropane	63	Compound Not Detected.						
33 bromodichloromethane	83	Compound Not Detected.						
34 dibromomethane	93	Compound Not Detected.						
36 cis-1,3-dichloropropene	75	Compound Not Detected.						
37 toluene	92	Compound Not Detected.						
38 trans-1,3-dichloropropene	75	Compound Not Detected.						
40 1,1,2-trichloroethane	83	Compound Not Detected.						

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ngs)	FINAL (ngs)	REVIEW CODE
	41 1,3-dichloropropane	76	Compound Not Detected.						
	42 tetrachloroethene	166	Compound Not Detected.						
	43 dibromochloromethane	129	Compound Not Detected.						
	44 1,2-dibromoethane	107	Compound Not Detected.						
*	45 Chlorobenzene-d5	117	11.361	11.361	(1.000)	31377	20.0000		
	46 chlorobenzene	112	Compound Not Detected.						
	47 ethylbenzene	91	Compound Not Detected.						
	48 1,1,1,2-tetrachloroethane	131	Compound Not Detected.						
	49 p/m-xylenes	106	Compound Not Detected.						
	50 o-xylenes	106	Compound Not Detected.						
	51 styrene	104	Compound Not Detected.						
	52 isopropylbenzene	105	Compound Not Detected.						
	53 bromoform	173	Compound Not Detected.						
	54 1,1,2,2-tetrachloroethane	83	Compound Not Detected.						
$	55 4-bromofluorobenzene	95	12.803	12.797	(1.127)	13862	18.1420	18.14	
	56 1,2,3-trichloropropane	110	Compound Not Detected.						
	57 n-propylbenzene	91	Compound Not Detected.						
	58 bromobenzene	156	Compound Not Detected.						
	59 1,3,5-trimethylbenzene	105	Compound Not Detected.						
	60 o-chlorotoluene	126	Compound Not Detected.						
	61 p-chlorotoluene	91	Compound Not Detected.						
	62 tert-butylbenzene	119	Compound Not Detected.						
	63 1,2,4,-trimethylbenzene	105	Compound Not Detected.						
	64 sec-butylbenzene	105	Compound Not Detected.						
	65 p-isopropyltoluene	119	Compound Not Detected.						
	66 1,3-dichlorobenzene	146	Compound Not Detected.						
*	67 1,4-Dichlorobenzene-d4	152	14.271	14.271	(1.000)	15993	20.0000		
	68 1,4-dichlorobenzene	146	Compound Not Detected.						
	69 n-butylbenzene	91	Compound Not Detected.						
$	70 1,2-Dichlorobenzene-d4	152	14.748	14.748	(1.033)	15776	20.7004	20.70	
	71 1,2-dichlorobenzene	146	Compound Not Detected.						
	72 1,2-dibromo-3-chloropropane	75	Compound Not Detected.						
	74 1,2,4-trichlorobenzene	182	Compound Not Detected.						
	75 hexachlorobutadiene	225	Compound Not Detected.						
	76 naphthalene	128	17.112	17.118	(1.199)	854	0.48873	0.48	
	77 1,2,3-trichlorobenzene	180	Compound Not Detected.						
M	78 Xylene (total)	106	Compound Not Detected.						

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: Bundy.i
Lab File ID: 1224A10.D
Lab Smp Id:
Analysis Type: VOA
Quant Type: ISTD
Operator: gt
Method File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\524extras.m
Misc Info: wg661542,ical8787

Calibration Date: 24-DEC-2013
Calibration Time: 09:45

Level: MED
Sample Type: WATER

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 3

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
30 fluorobenzene	36873	18437	73746	35628	-3.38
45 Chlorobenzene-d5	32655	16328	65310	31377	-3.91
67 1,4-Dichlorobenze	18891	9446	37782	15993	-15.34

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
30 fluorobenzene	7.87	7.37	8.37	7.87	0.00
45 Chlorobenzene-d5	11.36	10.86	11.86	11.36	0.00
67 1,4-Dichlorobenze	14.27	13.77	14.77	14.27	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Alpha Analytical Labs

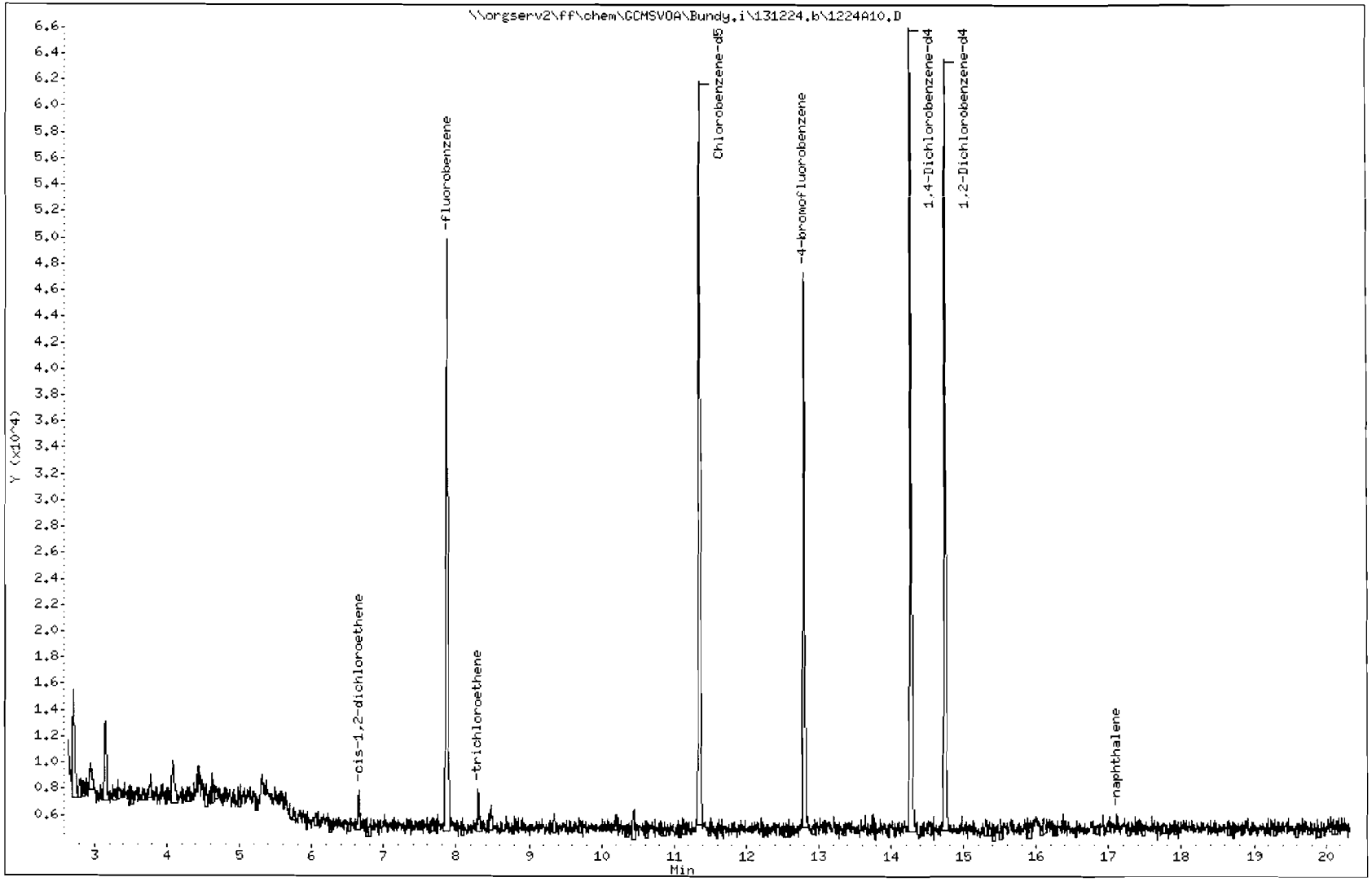
RECOVERY REPORT

Client Name:
Client SDG: 131224.b
Sample Matrix: LIQUID
Fraction: VOA
Lab Smp Id:
Level: MED
Operator: gt
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: 524NH.spk
Quant Type: ISTD
Sublist File: 524.sub
Method File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\524extras.m
Misc Info: wg661542,ical8787

SURROGATE COMPOUND	AMOUNT ADDED ngs	AMOUNT RECOVERED ngs	% RECOVERED	LIMITS
$ 55 4-bromofluorobenze	20.00	18.14	90.71	80-120
$ 70 1,2-Dichlorobenzen	20.00	20.70	103.50	80-120

Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A10.D
Date : 24-DEC-2013 14:07
Client ID:
Sample Info: 11325883-01,31,5,,b
Purge Volume: 5.0
Column phase:

Instrument: Bundy.i
Operator: gt
Column diameter: 0.18



Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A10.D

Date : 24-DEC-2013 14:07

Client ID:

Instrument: Bundy.i

Sample Info: 11325883-01,31,5,,b

Purge Volume: 5.0

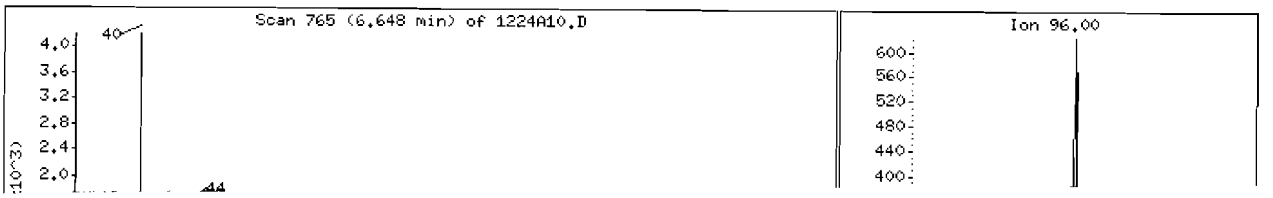
Operator: gt

Column phase:

Column diameter: 0.18

20 cis-1,2-dichloroethene

Concentration: 1.93 ngs



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Date : 24-DEC-2013 14:07

Client ID:

Instrument: Bundy.i

Sample Info: 11325883-01,31,5,,b

Purge Volume: 5.0

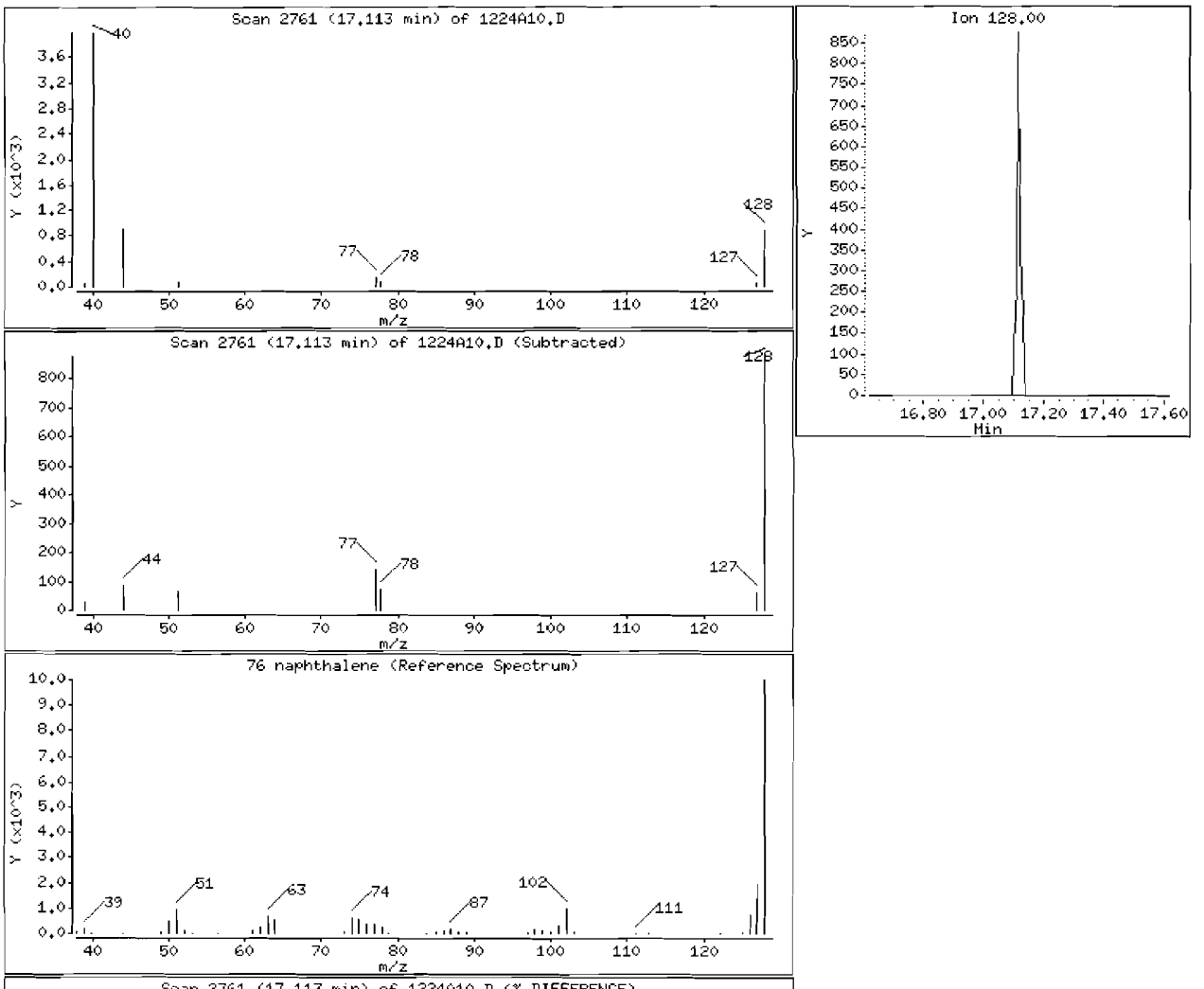
Operator: gt

Column phase:

Column diameter: 0.18

76 naphthalene

Concentration: 0.48 ngs



Alpha Analytical Labs

gc/ms voa -Bundy 524

Data file : \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A11.D
Lab Smp Id:
Inj Date : 24-DEC-2013 14:39
Operator : gt Inst ID: Bundy.i
Smp Info : 11325883-03,31,5,,b
Misc Info : wg661542,ical8787
Comment :
Method : \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\524extras.m
Meth Date : 24-Dec-2013 11:09 Bundy.i Quant Type: ISTD
Cal Date : 10-NOV-2013 23:22 Cal File: 1107A12.D
Als bottle: 20
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 524.sub
Target Version: 4.12
Processing Host: VIRTUALXP-72976

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ngs)	FINAL (ngs)	REVIEW CODE
1 dichlorodifluoromethane	85	Compound Not Detected.						
2 chloromethane	50	Compound Not Detected.						
3 vinyl chloride	62	Compound Not Detected.						
4 bromomethane	94	Compound Not Detected.						
5 chloroethane	64	Compound Not Detected.						
6 trichlorofluoromethane	101	Compound Not Detected.						
9 1,1-dichloroethene	96	Compound Not Detected.						
11 methylene chloride	84	Compound Not Detected.						
13 methyl-tert-butyl ether	73	Compound Not Detected.						
14 trans-1,2-dichloroethene	96	Compound Not Detected.						
16 1,1-dichloroethane	63	Compound Not Detected.						
19 2,2-dichloropropane	77	Compound Not Detected.						
20 cis-1,2-dichloroethene	96	Compound Not Detected.						
21 chloroform	83	Compound Not Detected.						
22 bromochloromethane	128	Compound Not Detected.						
24 1,1,1-trichloroethane	97	Compound Not Detected.						
25 1,1-dichloropropene	75	Compound Not Detected.						
27 carbon tetrachloride	117	Compound Not Detected.						
28 1,2-dichloroethane	62	Compound Not Detected.						
29 benzene	78	Compound Not Detected.						
* 30 fluorobenzene	96	7.874	7.874	(1.000)	34978	50.0000		
31 trichloroethene	95	8.304	8.304	(1.055)	1351	2.72716	2.72	
32 1,2-dichloropropane	63	Compound Not Detected.						
33 bromodichloromethane	83	Compound Not Detected.						
34 dibromomethane	93	Compound Not Detected.						
36 cis-1,3-dichloropropene	75	Compound Not Detected.						
37 toluene	92	Compound Not Detected.						
38 trans-1,3-dichloropropene	75	Compound Not Detected.						
40 1,1,2-trichloroethane	83	Compound Not Detected.						

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ngs)	FINAL (ngs)	REVIEW CODE
	41 1,3-dichloropropane	76	Compound Not Detected.						
	42 tetrachloroethene	166	10.443	10.443	(1.326)	30889	63.9835	63.98	
	43 dibromochloromethane	129	Compound Not Detected.						
	44 1,2-dibromoethane	107	Compound Not Detected.						
*	45 Chlorobenzene-d5	117	11.355	11.361	(1.000)	31148	20.0000		
	46 chlorobenzene	112	Compound Not Detected.						
	47 ethylbenzene	91	Compound Not Detected.						
	48 1,1,1,2-tetrachloroethane	131	Compound Not Detected.						
	49 p/m-xylenes	106	Compound Not Detected.						
	50 o-xylenes	106	Compound Not Detected.						
	51 styrene	104	Compound Not Detected.						
	52 isopropylbenzene	105	Compound Not Detected.						
	53 bromoform	173	Compound Not Detected.						
	54 1,1,2,2-tetrachloroethane	83	Compound Not Detected.						
$	55 4-bromofluorobenzene	95	12.797	12.797	(1.127)	13993	18.4481	18.44	
	56 1,2,3-trichloropropane	110	Compound Not Detected.						
	57 n-propylbenzene	91	Compound Not Detected.						
	58 bromobenzene	156	Compound Not Detected.						
	59 1,3,5-trimethylbenzene	105	Compound Not Detected.						
	60 o-chlorotoluene	126	Compound Not Detected.						
	61 p-chlorotoluene	91	Compound Not Detected.						
	62 tert-butylbenzene	119	Compound Not Detected.						
	63 1,2,4,-trimethylbenzene	105	Compound Not Detected.						
	64 sec-butylbenzene	105	Compound Not Detected.						
	65 p-isopropyltoluene	119	Compound Not Detected.						
	66 1,3-dichlorobenzene	146	Compound Not Detected.						
*	67 1,4-Dichlorobenzene-d4	152	14.271	14.271	(1.000)	16210	20.0000		
	68 1,4-dichlorobenzene	146	Compound Not Detected.						
	69 n-butylbenzene	91	Compound Not Detected.						
$	70 1,2-Dichlorobenzene-d4	152	14.748	14.748	(1.033)	16071	20.8052	20.80	
	71 1,2-dichlorobenzene	146	Compound Not Detected.						
	72 1,2-dibromo-3-chloropropane	75	Compound Not Detected.						
	74 1,2,4-trichlorobenzene	182	Compound Not Detected.						
	75 hexachlorobutadiene	225	Compound Not Detected.						
	76 naphthalene	128	Compound Not Detected.						
	77 1,2,3-trichlorobenzene	180	Compound Not Detected.						
M	78 Xylene (total)	106	Compound Not Detected.						

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: Bundy.i
Lab File ID: 1224A11.D
Lab Smp Id:
Analysis Type: VOA
Quant Type: ISTD
Operator: gt
Method File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\524extras.m
Misc Info: wg661542,ical8787

Calibration Date: 24-DEC-2013
Calibration Time: 09:45

Level: MED
Sample Type: WATER

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 3

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
30 fluorobenzene	36873	18437	73746	34978	-5.14
45 Chlorobenzene-d5	32655	16328	65310	31148	-4.61
67 1,4-Dichlorobenze	18891	9446	37782	16210	-14.19

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
30 fluorobenzene	7.87	7.37	8.37	7.87	-0.00
45 Chlorobenzene-d5	11.36	10.86	11.86	11.36	-0.05
67 1,4-Dichlorobenze	14.27	13.77	14.77	14.27	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Alpha Analytical Labs

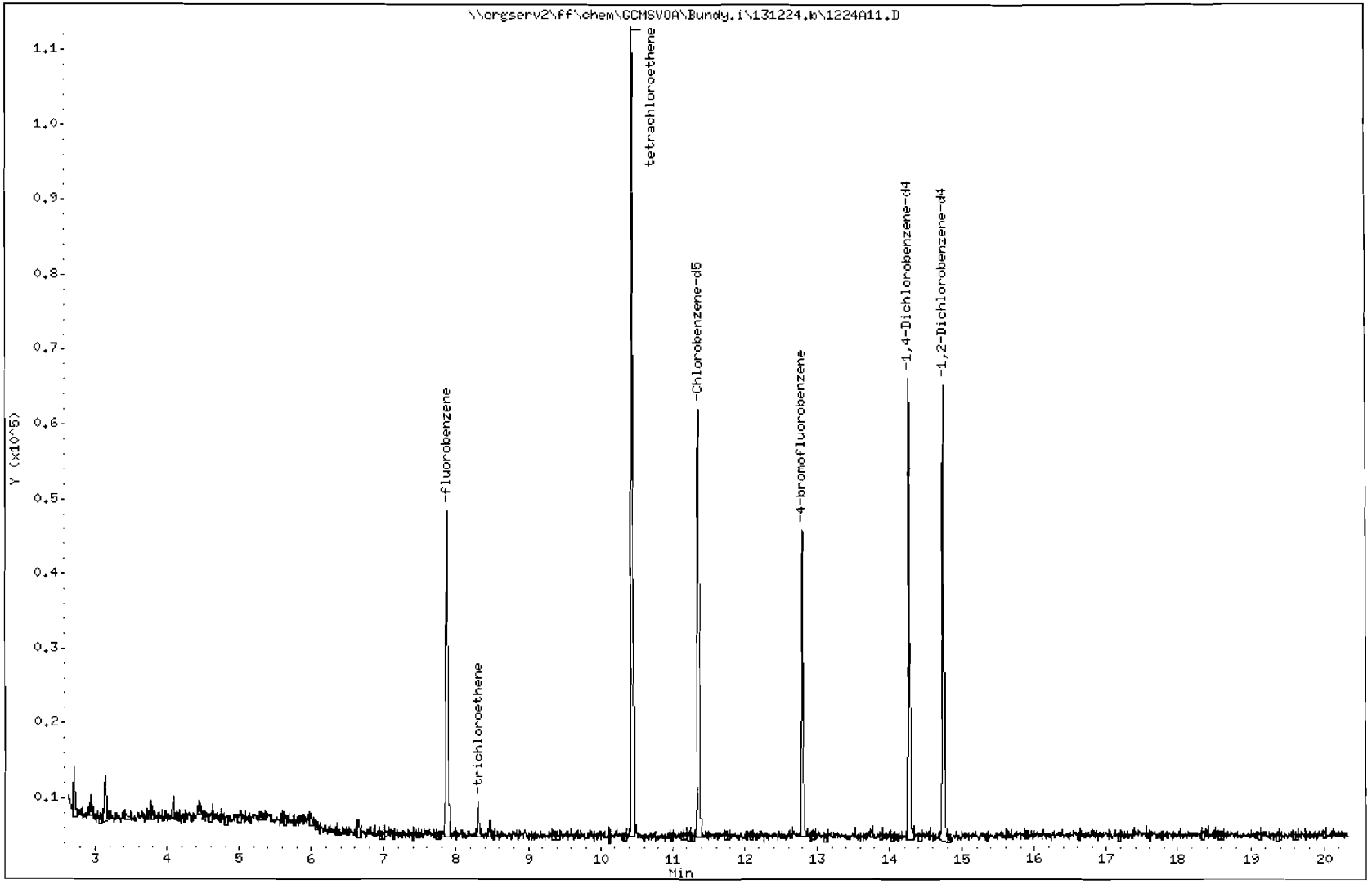
RECOVERY REPORT

Client Name:
Client SDG: 131224.b
Sample Matrix: LIQUID
Fraction: VOA
Lab Smp Id:
Level: MED
Operator: gt
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: 524NH.spk
Quant Type: ISTD
Sublist File: 524.sub
Method File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\524extras.m
Misc Info: wg661542,ical8787

SURROGATE COMPOUND	AMOUNT ADDED ngs	AMOUNT RECOVERED ngs	% RECOVERED	LIMITS
$ 55 4-bromofluorobenze	20.00	18.44	92.24	80-120
$ 70 1,2-Dichlorobenzen	20.00	20.80	104.03	80-120

Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A11.D
Date : 24-DEC-2013 14:39
Client ID:
Sample Info: 11325883-03,31,5,,b
Purge Volume: 5.0
Column phase:

Instrument: Bundy.i
Operator: gt
Column diameter: 0.18



Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A11.D

Date : 24-DEC-2013 14:39

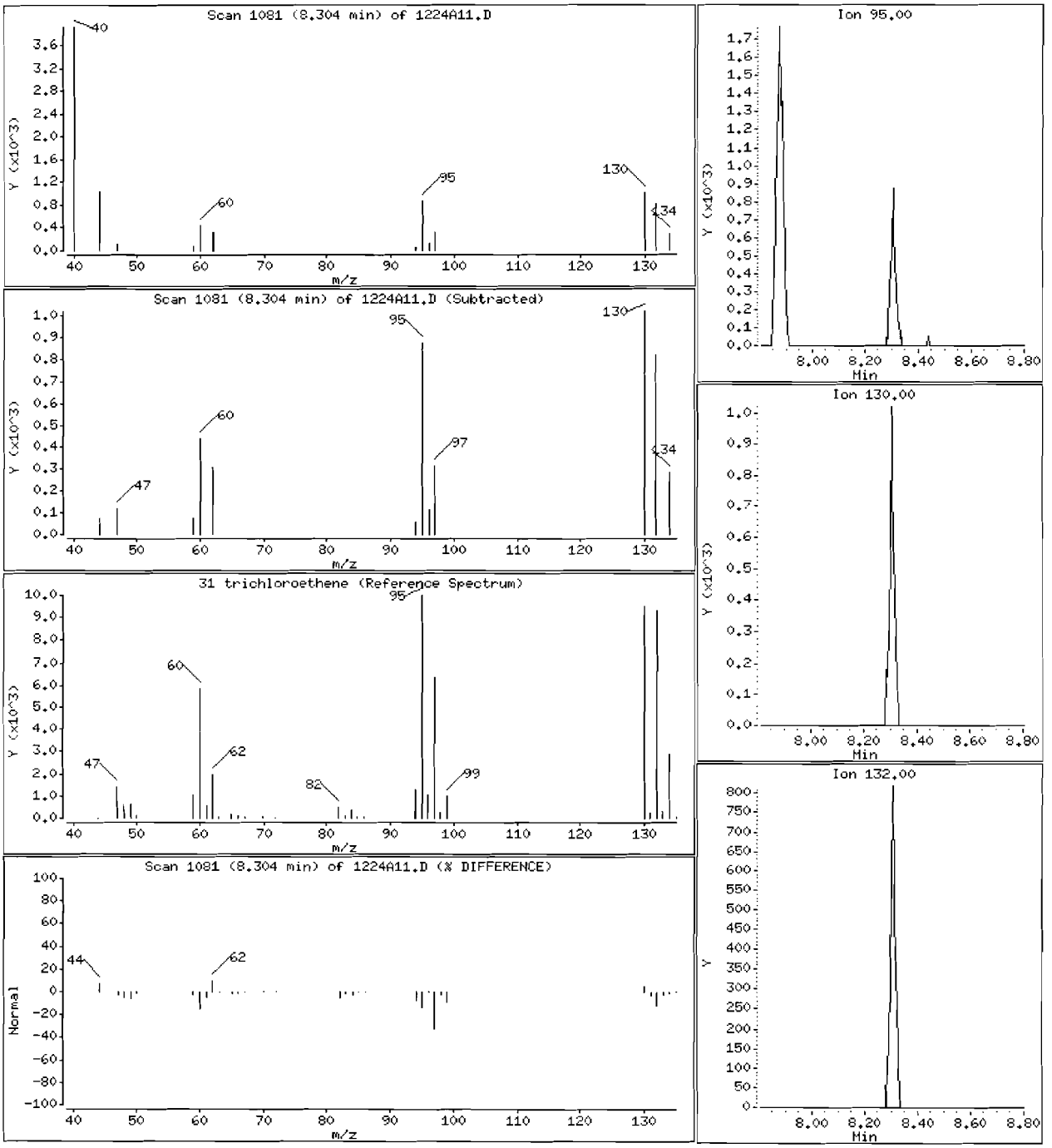
Client ID: Instrument: Bundy.i

Sample Info: 11325883-03,31,5,,b

Purge Volume: 5.0 Operator: gt

Column phase: Column diameter: 0.18

31 trichloroethene Concentration: 2.72 ngs



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Date : 24-DEC-2013 14:39

Client ID:

Instrument: Bundy.i

Sample Info: 11325883-03,31,5,,b

Purge Volume: 5.0

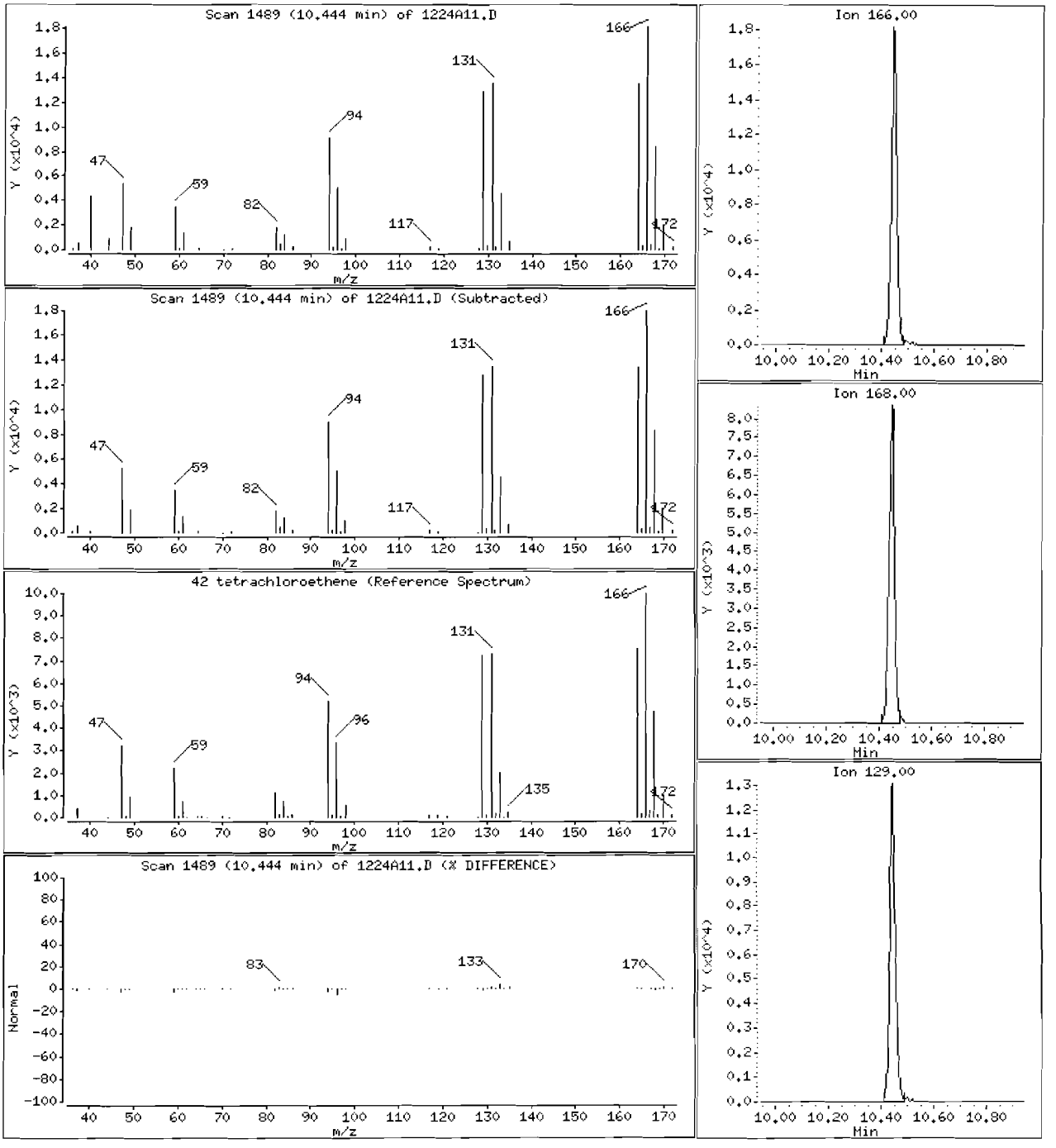
Operator: gt

Column phase:

Column diameter: 0.18

42 tetrachloroethene

Concentration: 63.98 ngs



Alpha Analytical Labs

gc/ms voa -Bundy 524

Data file : \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A12.D
Lab Smp Id:
Inj Date : 24-DEC-2013 15:12
Operator : gt Inst ID: Bundy.i
Smp Info : l1325883-04,31,5,,b
Misc Info : wg661542,ical8787
Comment :
Method : \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\524extras.m
Meth Date : 24-Dec-2013 11:09 Bundy.i Quant Type: ISTD
Cal Date : 10-NOV-2013 23:22 Cal File: 1107A12.D
Als bottle: 21
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 524.sub
Target Version: 4.12
Processing Host: VIRTUALXP-72976

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ngs)	FINAL (ngs)	REVIEW CODE
1 dichlorodifluoromethane	85	Compound Not Detected.						
2 chloromethane	50	Compound Not Detected.						
3 vinyl chloride	62	Compound Not Detected.						
4 bromomethane	94	Compound Not Detected.						
5 chloroethane	64	Compound Not Detected.						
6 trichlorofluoromethane	101	Compound Not Detected.						
9 1,1-dichloroethene	96	Compound Not Detected.						
11 methylene chloride	84	Compound Not Detected.						
13 methyl-tert-butyl ether	73	Compound Not Detected.						
14 trans-1,2-dichloroethene	96	Compound Not Detected.						
16 1,1-dichloroethane	63	Compound Not Detected.						
19 2,2-dichloropropane	77	Compound Not Detected.						
20 cis-1,2-dichloroethene	96	Compound Not Detected.						
21 chloroform	83	Compound Not Detected.						
22 bromochloromethane	128	Compound Not Detected.						
24 1,1,1-trichloroethane	97	Compound Not Detected.						
25 1,1-dichloropropene	75	Compound Not Detected.						
27 carbon tetrachloride	117	Compound Not Detected.						
28 1,2-dichloroethane	62	Compound Not Detected.						
29 benzene	78	Compound Not Detected.						
* 30 fluorobenzene	96	7.874	7.874	(1.000)	33492	23.0000		
31 trichloroethene	95	Compound Not Detected.						
32 1,2-dichloropropane	63	Compound Not Detected.						
33 bromodichloromethane	83	Compound Not Detected.						
34 dibromomethane	93	Compound Not Detected.						
36 cis-1,3-dichloropropene	75	Compound Not Detected.						
37 toluene	92	Compound Not Detected.						
38 trans-1,3-dichloropropene	75	Compound Not Detected.						
40 1,1,2-trichloroethane	83	Compound Not Detected.						

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ngs)	FINAL (ngs)	REVIEW CODE
	41 1,3-dichloropropane	76	Compound Not Detected.						
	42 tetrachloroethene	166	Compound Not Detected.						
	43 dibromochloromethane	129	Compound Not Detected.						
	44 1,2-dibromoethane	107	Compound Not Detected.						
*	45 Chlorobenzene-d5	117	11.361	11.361	(1.000)	30701	20.0000		
	46 chlorobenzene	112	Compound Not Detected.						
	47 ethylbenzene	91	Compound Not Detected.						
	48 1,1,1,2-tetrachloroethane	131	Compound Not Detected.						
	49 p/m-xylenes	106	Compound Not Detected.						
	50 o-xylenes	106	Compound Not Detected.						
	51 styrene	104	Compound Not Detected.						
	52 isopropylbenzene	105	Compound Not Detected.						
	53 bromoform	173	Compound Not Detected.						
	54 1,1,2,2-tetrachloroethane	83	Compound Not Detected.						
$	55 4-bromofluorobenzene	95	12.802	12.797	(1.127)	14076	18.8277	18.82	
	56 1,2,3-trichloropropane	110	Compound Not Detected.						
	57 n-propylbenzene	91	Compound Not Detected.						
	58 bromobenzene	156	Compound Not Detected.						
	59 1,3,5-trimethylbenzene	105	Compound Not Detected.						
	60 o-chlorotoluene	126	Compound Not Detected.						
	61 p-chlorotoluene	91	Compound Not Detected.						
	62 tert-butylbenzene	119	Compound Not Detected.						
	63 1,2,4,-trimethylbenzene	105	Compound Not Detected.						
	64 sec-butylbenzene	105	Compound Not Detected.						
	65 p-isopropyltoluene	119	Compound Not Detected.						
	66 1,3-dichlorobenzene	146	Compound Not Detected.						
*	67 1,4-Dichlorobenzene-d4	152	14.271	14.271	(1.000)	15117	20.0000		
	68 1,4-dichlorobenzene	146	Compound Not Detected.						
	69 n-butylbenzene	91	Compound Not Detected.						
$	70 1,2-Dichlorobenzene-d4	152	14.748	14.748	(1.033)	15153	21.0351	21.03	
	71 1,2-dichlorobenzene	146	Compound Not Detected.						
	72 1,2-dibromo-3-chloropropane	75	Compound Not Detected.						
	74 1,2,4-trichlorobenzene	182	Compound Not Detected.						
	75 hexachlorobutadiene	225	Compound Not Detected.						
	76 naphthalene	128	Compound Not Detected.						
	77 1,2,3-trichlorobenzene	180	Compound Not Detected.						
M	78 Xylene (total)	106	Compound Not Detected.						

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: Bundy.i
Lab File ID: 1224A12.D
Lab Smp Id:
Analysis Type: VOA
Quant Type: ISTD
Operator: gt
Method File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\524extras.m
Misc Info: wg661542,ical8787

Calibration Date: 24-DEC-2013
Calibration Time: 09:45

Level: MED
Sample Type: WATER

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 3

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
30 fluorobenzene	36873	18437	73746	33492	-9.17
45 Chlorobenzene-d5	32655	16328	65310	30701	-5.98
67 1,4-Dichlorobenze	18891	9446	37782	15117	-19.98

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
30 fluorobenzene	7.87	7.37	8.37	7.87	-0.00
45 Chlorobenzene-d5	11.36	10.86	11.86	11.36	-0.00
67 1,4-Dichlorobenze	14.27	13.77	14.77	14.27	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Alpha Analytical Labs

RECOVERY REPORT

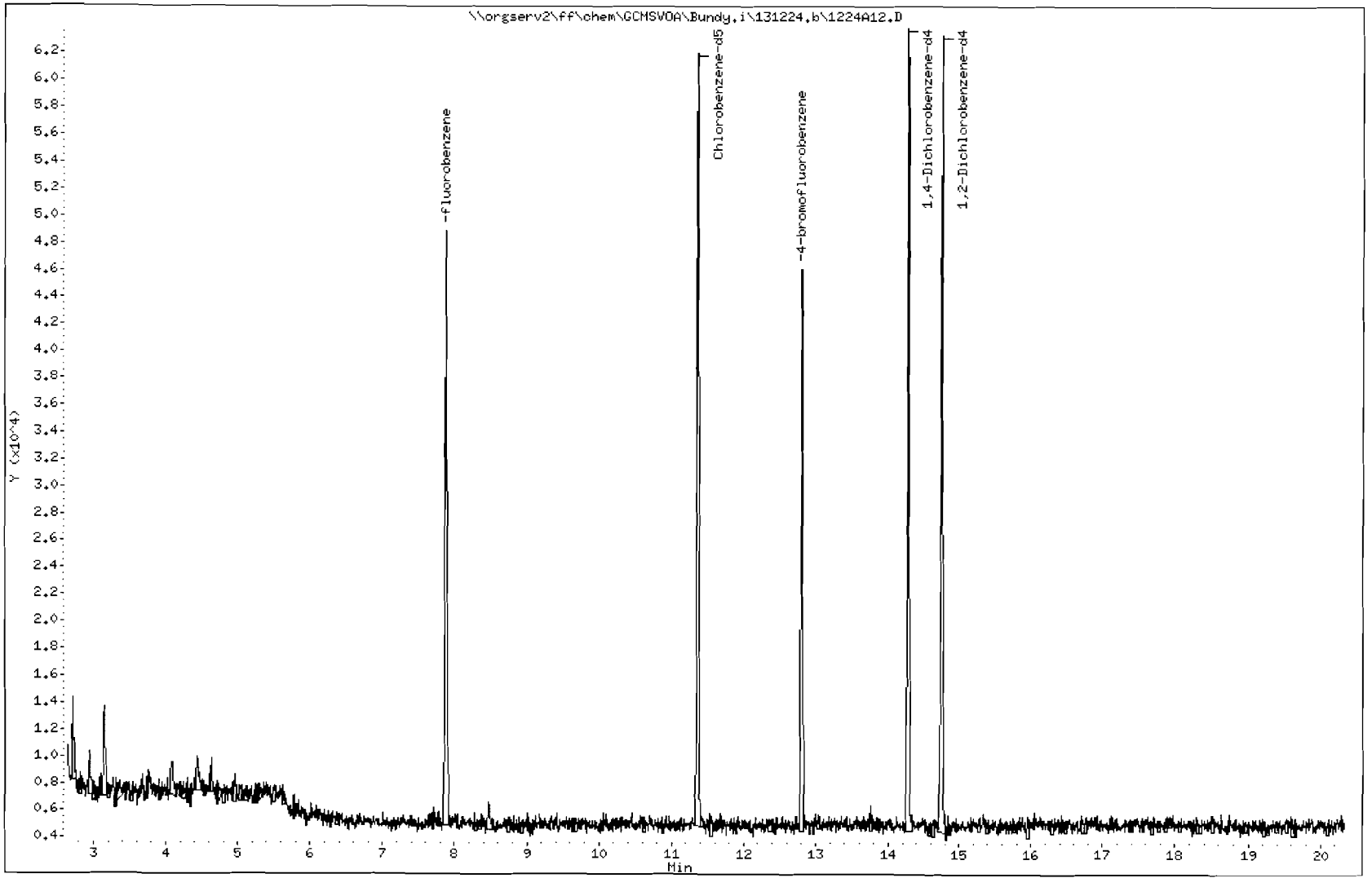
Client Name:
Client SDG: 131224.b
Sample Matrix: LIQUID
Fraction: VOA
Lab Smp Id:
Level: MED
Operator: gt
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: 524NH.spk
Quant Type: ISTD
Sublist File: 524.sub
Method File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\524extras.m
Misc Info: wg661542,ical8787

SURROGATE COMPOUND	AMOUNT ADDED ngs	AMOUNT RECOVERED ngs	% RECOVERED	LIMITS
$ 55 4-bromofluorobenze	20.00	18.82	94.14	80-120
$ 70 1,2-Dichlorobenzen	20.00	21.03	105.18	80-120

Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A12.D
Date : 24-DEC-2013 15:12
Client ID:
Sample Info: 11325883-04,31,5,,b
Purge Volume: 5.0
Column phase:

Instrument: Bundy.i

Operator: gt
Column diameter: 0.18



Alpha Analytical Labs

gc/ms voa -Bundy 524

Data file : \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A13.D
Lab Smp Id:
Inj Date : 24-DEC-2013 15:45
Operator : gt Inst ID: Bundy.i
Smp Info : 11325883-05,31,5,,b
Misc Info : wg661542,ical8787
Comment :
Method : \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\524extras.m
Meth Date : 24-Dec-2013 11:09 Bundy.i Quant Type: ISTD
Cal Date : 10-NOV-2013 23:22 Cal File: 1107A12.D
Als bottle: 22
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 524.sub
Target Version: 4.12
Processing Host: VIRTUALXP-72976

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ngs)	FINAL (ngs)	REVIEW CODE
1	dichlorodifluoromethane	85	Compound Not Detected.						
2	chloromethane	50	Compound Not Detected.						
3	vinyl chloride	62	Compound Not Detected.						
4	bromomethane	94	Compound Not Detected.						
5	chloroethane	64	Compound Not Detected.						
6	trichlorofluoromethane	101	Compound Not Detected.						
9	1,1-dichloroethene	96	Compound Not Detected.						
11	methylene chloride	84	Compound Not Detected.						
13	methyl-tert-butyl ether	73	Compound Not Detected.						
14	trans-1,2-dichloroethene	96	Compound Not Detected.						
16	1,1-dichloroethane	63	Compound Not Detected.						
19	2,2-dichloropropane	77	Compound Not Detected.						
20	cis-1,2-dichloroethene	96	Compound Not Detected.						
21	chloroform	83	6.799	6.805	(0.864)	2976	4.10434	4.10	
22	bromochloromethane	128	Compound Not Detected.						
24	1,1,1-trichloroethane	97	Compound Not Detected.						
25	1,1-dichloropropene	75	Compound Not Detected.						
27	carbon tetrachloride	117	Compound Not Detected.						
28	1,2-dichloroethane	62	Compound Not Detected.						
29	benzene	78	Compound Not Detected.						
* 30	fluorobenzene	96	7.874	7.874	(1.000)	34775	20.0000		
31	trichloroethene	95	Compound Not Detected.						
32	1,2-dichloropropane	63	Compound Not Detected.						
33	bromodichloromethane	83	Compound Not Detected.						
34	dibromomethane	93	Compound Not Detected.						
36	cis-1,3-dichloropropene	75	Compound Not Detected.						
37	toluene	92	Compound Not Detected.						
38	trans-1,3-dichloropropene	75	Compound Not Detected.						
40	1,1,2-trichloroethane	83	Compound Not Detected.						

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/)	FINAL (ng/)	REVIEW CODE
	41 1,3-dichloropropane	76	Compound Not Detected.						
	42 tetrachloroethene	166	Compound Not Detected.						
	43 dibromochloromethane	129	10.690	10.690	(1.358)	12938	26.6278	26.62	
	44 1,2-dibromoethane	107	Compound Not Detected.						
*	45 Chlorobenzene-d5	117	11.355	11.361	(1.000)	30687	20.0000		
	46 chlorobenzene	112	Compound Not Detected.						
	47 ethylbenzene	91	Compound Not Detected.						
	48 1,1,1,2-tetrachloroethane	131	Compound Not Detected.						
	49 p/m-xylenes	106	Compound Not Detected.						
	50 o-xylenes	106	Compound Not Detected.						
	51 styrene	104	Compound Not Detected.						
	52 isopropylbenzene	105	Compound Not Detected.						
	53 bromoform	173	12.556	12.556	(1.106)	14809	40.2394	40.23	
	54 1,1,2,2-tetrachloroethane	83	Compound Not Detected.						
$	55 4-bromofluorobenzene	95	12.797	12.797	(1.127)	14575	19.5041	19.50	
	56 1,2,3-trichloropropane	110	Compound Not Detected.						
	57 n-propylbenzene	91	Compound Not Detected.						
	58 bromobenzene	156	Compound Not Detected.						
	59 1,3,5-trimethylbenzene	105	Compound Not Detected.						
	60 o-chlorotoluene	126	Compound Not Detected.						
	61 p-chlorotoluene	91	Compound Not Detected.						
	62 tert-butylbenzene	119	Compound Not Detected.						
	63 1,2,4,-trimethylbenzene	105	Compound Not Detected.						
	64 sec-butylbenzene	105	Compound Not Detected.						
	65 p-isopropyltoluene	119	Compound Not Detected.						
	66 1,3-dichlorobenzene	146	Compound Not Detected.						
*	67 1,4-Dichlorobenzene-d4	152	14.271	14.271	(1.000)	15699	20.0000		
	68 1,4-dichlorobenzene	146	Compound Not Detected.						
	69 n-butylbenzene	91	Compound Not Detected.						
$	70 1,2-Dichlorobenzene-d4	152	14.748	14.748	(1.033)	16253	21.7256	21.72	
	71 1,2-dichlorobenzene	146	Compound Not Detected.						
	72 1,2-dibromo-3-chloropropane	75	Compound Not Detected.						
	74 1,2,4-trichlorobenzene	182	Compound Not Detected.						
	75 hexachlorobutadiene	225	Compound Not Detected.						
	76 naphthalene	128	Compound Not Detected.						
	77 1,2,3-trichlorobenzene	180	Compound Not Detected.						
M	78 Xylene (total)	106	Compound Not Detected.						

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: Bundy.i
Lab File ID: 1224A13.D
Lab Smp Id:
Analysis Type: VOA
Quant Type: ISTD
Operator: gt
Method File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\524extras.m
Misc Info: wg661542,ical8787

Calibration Date: 24-DEC-2013
Calibration Time: 09:45

Level: MED
Sample Type: WATER

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 3

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
30 fluorobenzene	36873	18437	73746	34775	-5.69
45 Chlorobenzene-d5	32655	16328	65310	30687	-6.03
67 1,4-Dichlorobenze	18891	9446	37782	15699	-16.90

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
30 fluorobenzene	7.87	7.37	8.37	7.87	-0.00
45 Chlorobenzene-d5	11.36	10.86	11.86	11.36	-0.05
67 1,4-Dichlorobenze	14.27	13.77	14.77	14.27	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Alpha Analytical Labs

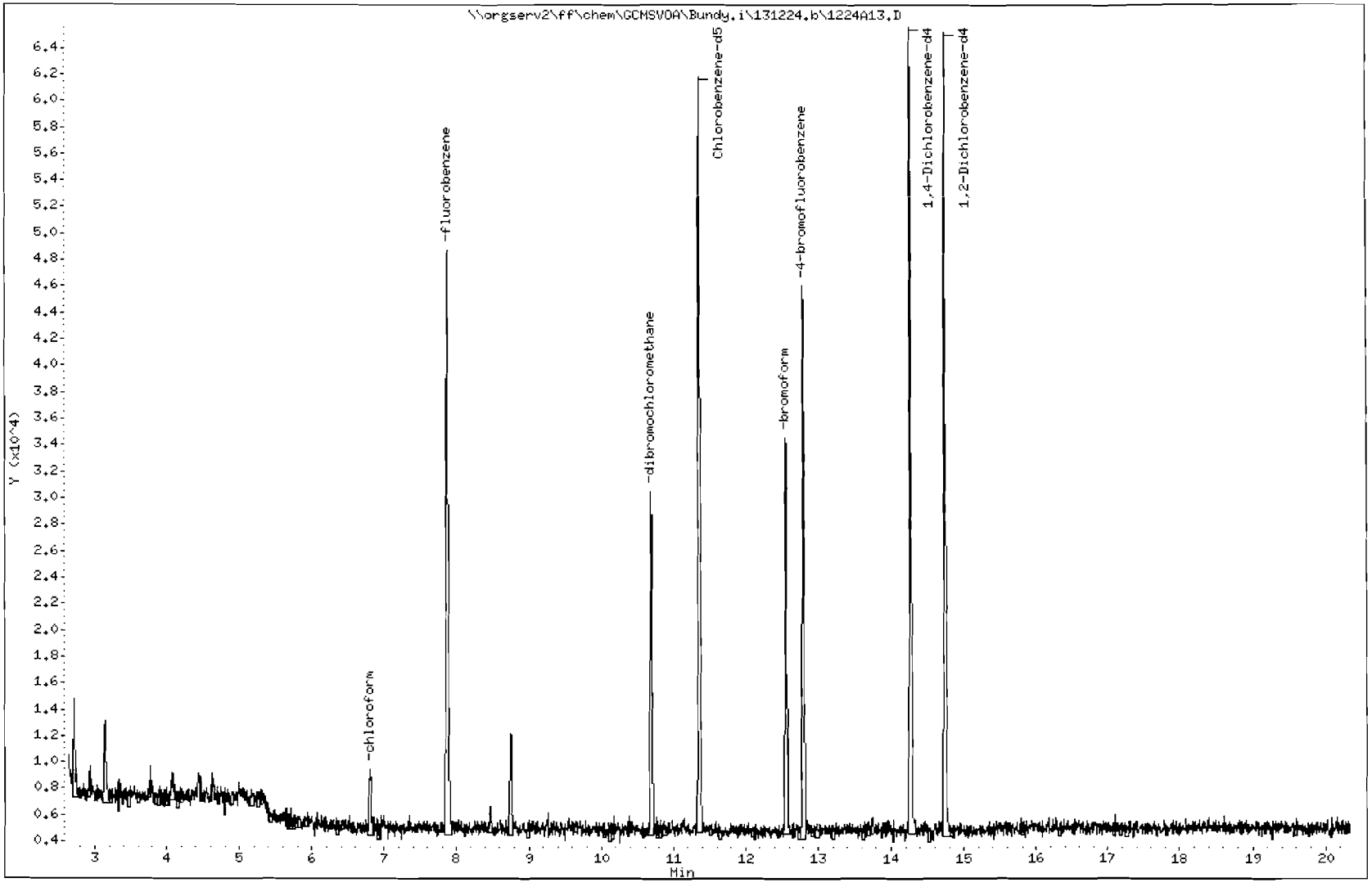
RECOVERY REPORT

Client Name:
Client SDG: 131224.b
Sample Matrix: LIQUID
Fraction: VOA
Lab Smp Id:
Level: MED
Operator: gt
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: 524NH.spk
Quant Type: ISTD
Sublist File: 524.sub
Method File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\524extras.m
Misc Info: wg661542,ical8787

SURROGATE COMPOUND	AMOUNT ADDED ngs	AMOUNT RECOVERED ngs	% RECOVERED	LIMITS
$ 55 4-bromofluorobenze	20.00	19.50	97.52	80-120
$ 70 1,2-Dichlorobenzen	20.00	21.72	108.63	80-120

Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A13.D
Date : 24-DEC-2013 15:45
Client ID:
Sample Info: 11325883-05,31,5,,b
Purge Volume: 5.0
Column phase:

Instrument: Bundy.i
Operator: gt
Column diameter: 0.18



Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A13.D

Date : 24-DEC-2013 15:45

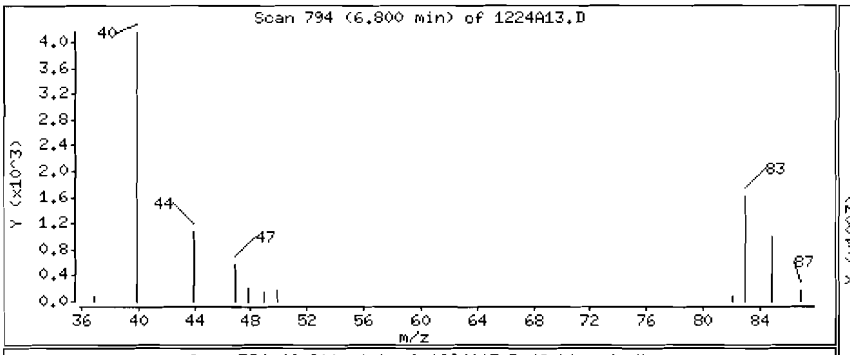
Client ID: Instrument: Bundy.i

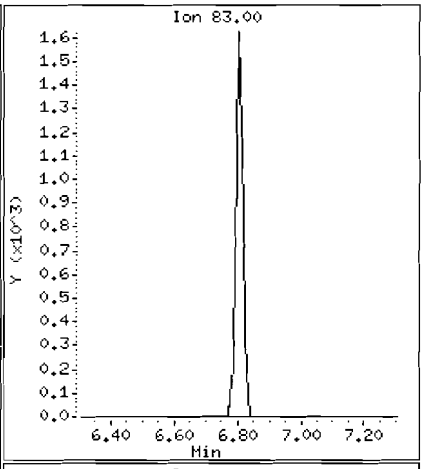
Sample Info: 11325883-05,31,5,,b

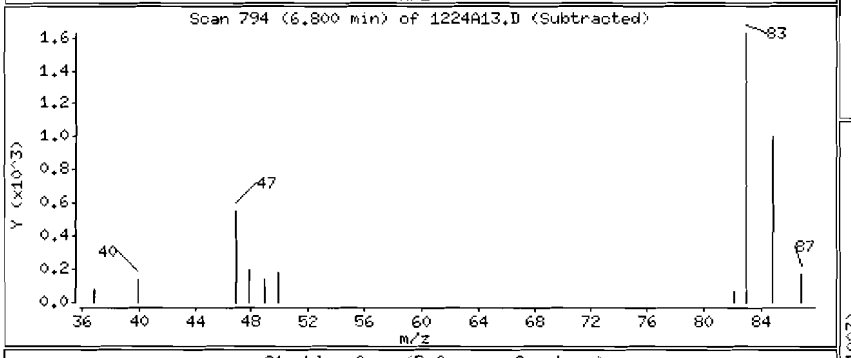
Purge Volume: 5.0 Operator: gt

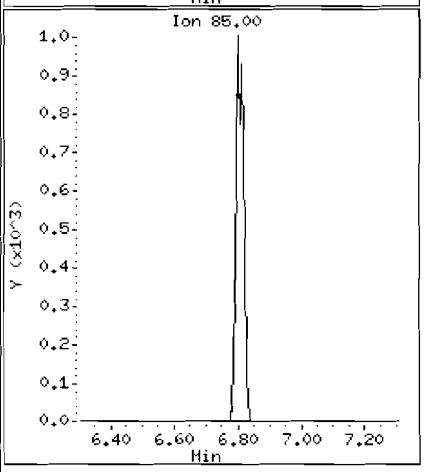
Column phase: Column diameter: 0.18

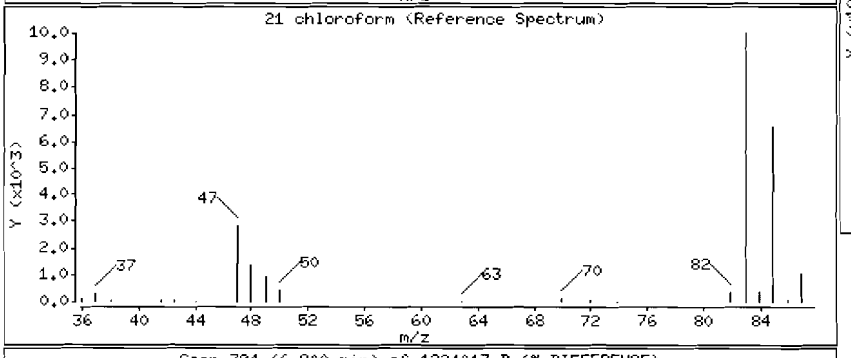
21 chloroform Concentration: 4.10 ngs

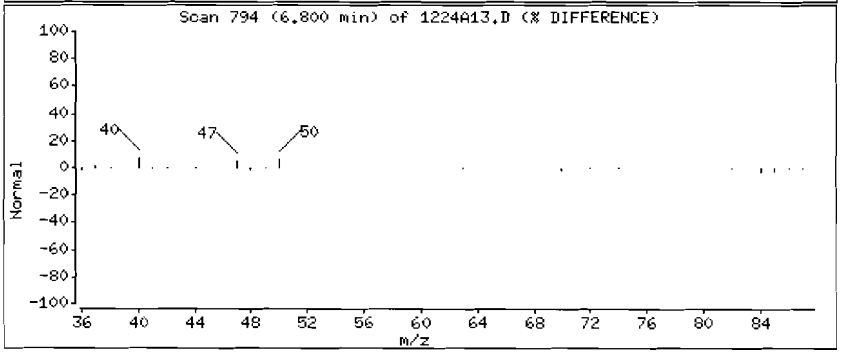












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A13.D

Date : 24-DEC-2013 15:45

Client ID:

Instrument: Bundy.i

Sample Info: 11325883-05,31,5,,b

Purge Volume: 5.0

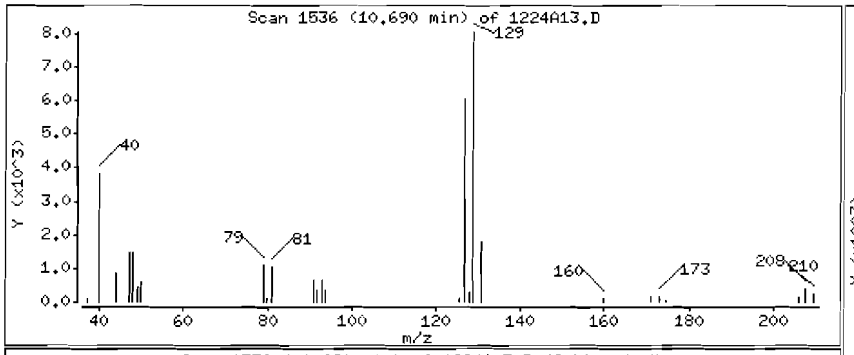
Operator: gt

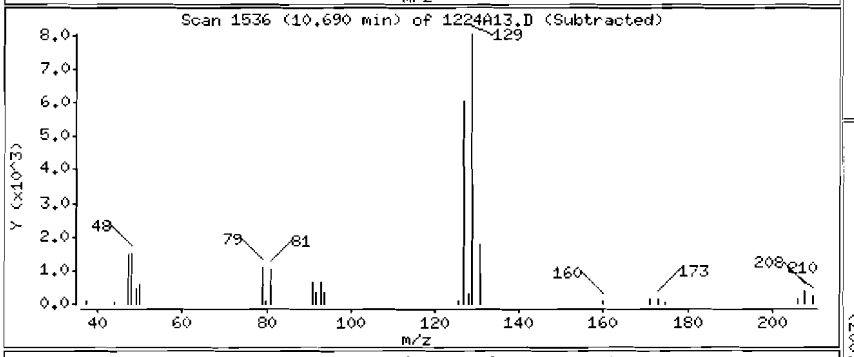
Column phase:

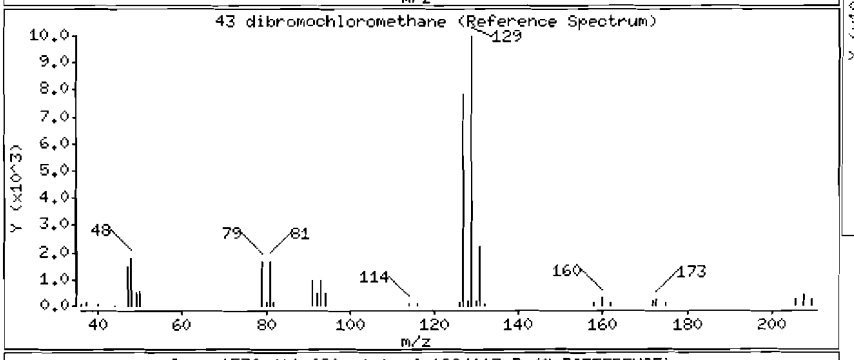
Column diameter: 0.18

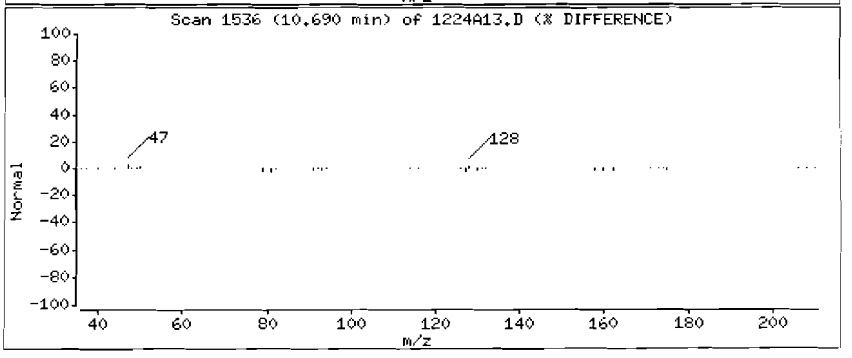
43 dibromochloromethane

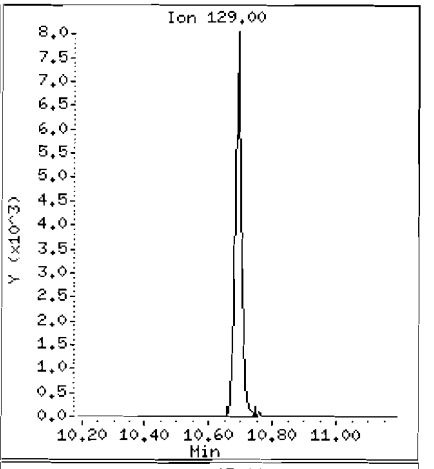
Concentration: 26.62 ngs

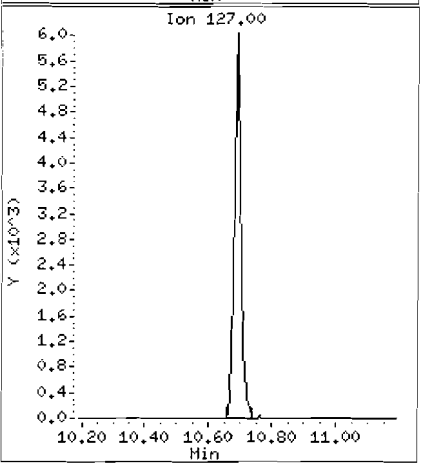












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A13.D

Date : 24-DEC-2013 15:45

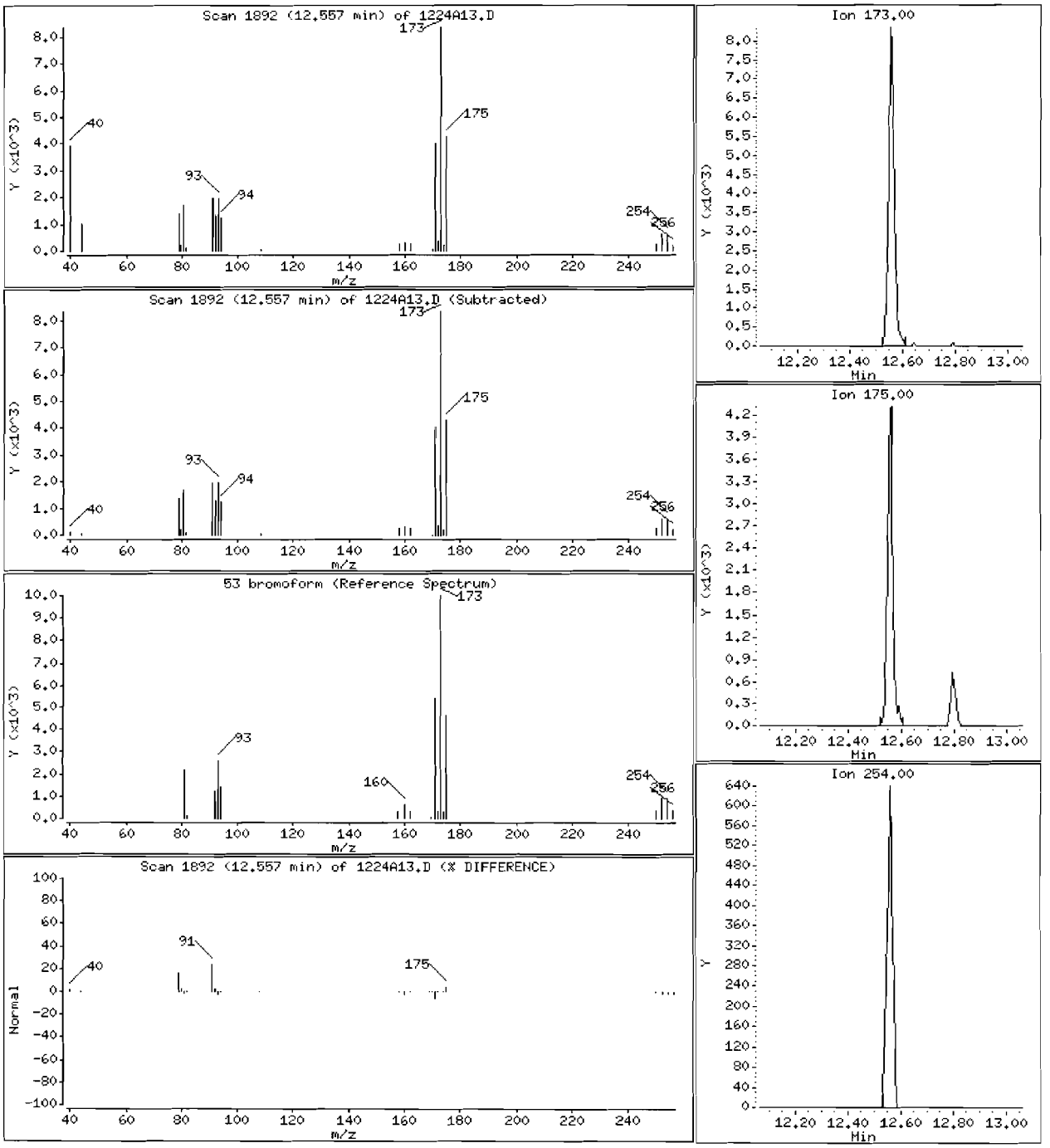
Client ID: Instrument: Bundy.i

Sample Info: 11325883-05.31.5,,b

Purge Volume: 5.0 Operator: gt

Column phase: Column diameter: 0.18

53 bromoform Concentration: 40.23 ngs



Alpha Analytical Labs

gc/ms voa -Bundy 524

Data file : \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A14.D
Lab Smp Id:
Inj Date : 24-DEC-2013 16:18
Operator : gt Inst ID: Bundy.i
Smp Info : l1325883-06,31,5,,b
Misc Info : wg661542,ical8787
Comment :
Method : \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\524extras.m
Meth Date : 30-Dec-2013 11:19 Bundy.i Quant Type: ISTD
Cal Date : 10-NOV-2013 23:22 Cal File: 1107A12.D
Als bottle: 23
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 524.sub
Target Version: 4.12
Processing Host: VIRTUALXP-72976

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ngs)	FINAL (ngs)	REVIEW CODE
1 dichlorodifluoromethane	85	Compound Not Detected.						
2 chloromethane	50	Compound Not Detected.						
3 vinyl chloride	62	Compound Not Detected.						
4 bromomethane	94	Compound Not Detected.						
5 chloroethane	64	Compound Not Detected.						
6 trichlorofluoromethane	101	Compound Not Detected.						
9 1,1-dichloroethene	96	Compound Not Detected.						
11 methylene chloride	84	Compound Not Detected.						
13 methyl-tert-butyl ether	73	Compound Not Detected.						
14 trans-1,2-dichloroethene	96	Compound Not Detected.						
16 1,1-dichloroethane	63	Compound Not Detected.						
19 2,2-dichloropropane	77	Compound Not Detected.						
20 cis-1,2-dichloroethene	96	Compound Not Detected.						
21 chloroform	83	Compound Not Detected.						
22 bromochloromethane	128	Compound Not Detected.						
24 1,1,1-trichloroethane	97	Compound Not Detected.						
25 1,1-dichloropropene	75	Compound Not Detected.						
27 carbon tetrachloride	117	Compound Not Detected.						
28 1,2-dichloroethane	62	Compound Not Detected.						
29 benzene	78	Compound Not Detected.						
* 30 fluorobenzene	96	7.874	7.874	(1.000)	34561	20.0000		
31 trichloroethene	95	Compound Not Detected.						
32 1,2-dichloropropane	63	Compound Not Detected.						
33 bromodichloromethane	83	Compound Not Detected.						
34 dibromomethane	93	Compound Not Detected.						
36 cis-1,3-dichloropropene	75	Compound Not Detected.						
37 toluene	92	Compound Not Detected.						
38 trans-1,3-dichloropropene	75	Compound Not Detected.						
40 1,1,2-trichloroethane	83	Compound Not Detected.						

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ngs)	FINAL (ngs)	REVIEW CODE
	41 1,3-dichloropropane	76	Compound Not Detected.						
	42 tetrachloroethene	166	10.443	10.443	(1.326)	1540	3.22845	3.22(M)	M1
	43 dibromochloromethane	129	Compound Not Detected.						
	44 1,2-dibromoethane	107	Compound Not Detected.						
*	45 Chlorobenzene-d5	117	11.355	11.361	(1.000)	30985	20.0000		
	46 chlorobenzene	112	Compound Not Detected.						
	47 ethylbenzene	91	Compound Not Detected.						
	48 1,1,1,2-tetrachloroethane	131	Compound Not Detected.						
	49 p/m-xylenes	106	Compound Not Detected.						
	50 o-xylenes	106	Compound Not Detected.						
	51 styrene	104	Compound Not Detected.						
	52 isopropylbenzene	105	Compound Not Detected.						
	53 bromoform	173	Compound Not Detected.						
	54 1,1,2,2-tetrachloroethane	83	Compound Not Detected.						
$	55 4-bromofluorobenzene	95	12.797	12.797	(1.127)	13809	18.3013	18.30	
	56 1,2,3-trichloropropane	110	Compound Not Detected.						
	57 n-propylbenzene	91	Compound Not Detected.						
	58 bromobenzene	156	Compound Not Detected.						
	59 1,3,5-trimethylbenzene	105	Compound Not Detected.						
	60 o-chlorotoluene	126	Compound Not Detected.						
	61 p-chlorotoluene	91	Compound Not Detected.						
	62 tert-butylbenzene	119	Compound Not Detected.						
	63 1,2,4,-trimethylbenzene	105	Compound Not Detected.						
	64 sec-butylbenzene	105	Compound Not Detected.						
	65 p-isopropyltoluene	119	Compound Not Detected.						
	66 1,3-dichlorobenzene	146	Compound Not Detected.						
*	67 1,4-Dichlorobenzene-d4	152	14.276	14.271	(1.000)	15821	20.0000		
	68 1,4-dichlorobenzene	146	Compound Not Detected.						
	69 n-butylbenzene	91	Compound Not Detected.						
$	70 1,2-Dichlorobenzene-d4	152	14.748	14.748	(1.033)	15608	20.7026	20.70	
	71 1,2-dichlorobenzene	146	Compound Not Detected.						
	72 1,2-dibromo-3-chloropropane	75	Compound Not Detected.						
	74 1,2,4-trichlorobenzene	182	Compound Not Detected.						
	75 hexachlorobutadiene	225	Compound Not Detected.						
	76 naphthalene	128	Compound Not Detected.						
	77 1,2,3-trichlorobenzene	180	Compound Not Detected.						
M	78 Xylene (total)	106	Compound Not Detected.						

QC Flag Legend

M - Compound response manually integrated.

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: Bundy.i
Lab File ID: 1224A14.D
Lab Smp Id:
Analysis Type: VOA
Quant Type: ISTD
Operator: gt
Method File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\524extras.m
Misc Info: wg661542,ical8787

Calibration Date: 24-DEC-2013
Calibration Time: 09:45
Level: MED
Sample Type: WATER

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 3

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
30 fluorobenzene	36873	18437	73746	34561	-6.27
45 Chlorobenzene-d5	32655	16328	65310	30985	-5.11
67 1,4-Dichlorobenze	18891	9446	37782	15821	-16.25

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
30 fluorobenzene	7.87	7.37	8.37	7.87	-0.00
45 Chlorobenzene-d5	11.36	10.86	11.86	11.36	-0.05
67 1,4-Dichlorobenze	14.27	13.77	14.77	14.28	0.04

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Alpha Analytical Labs

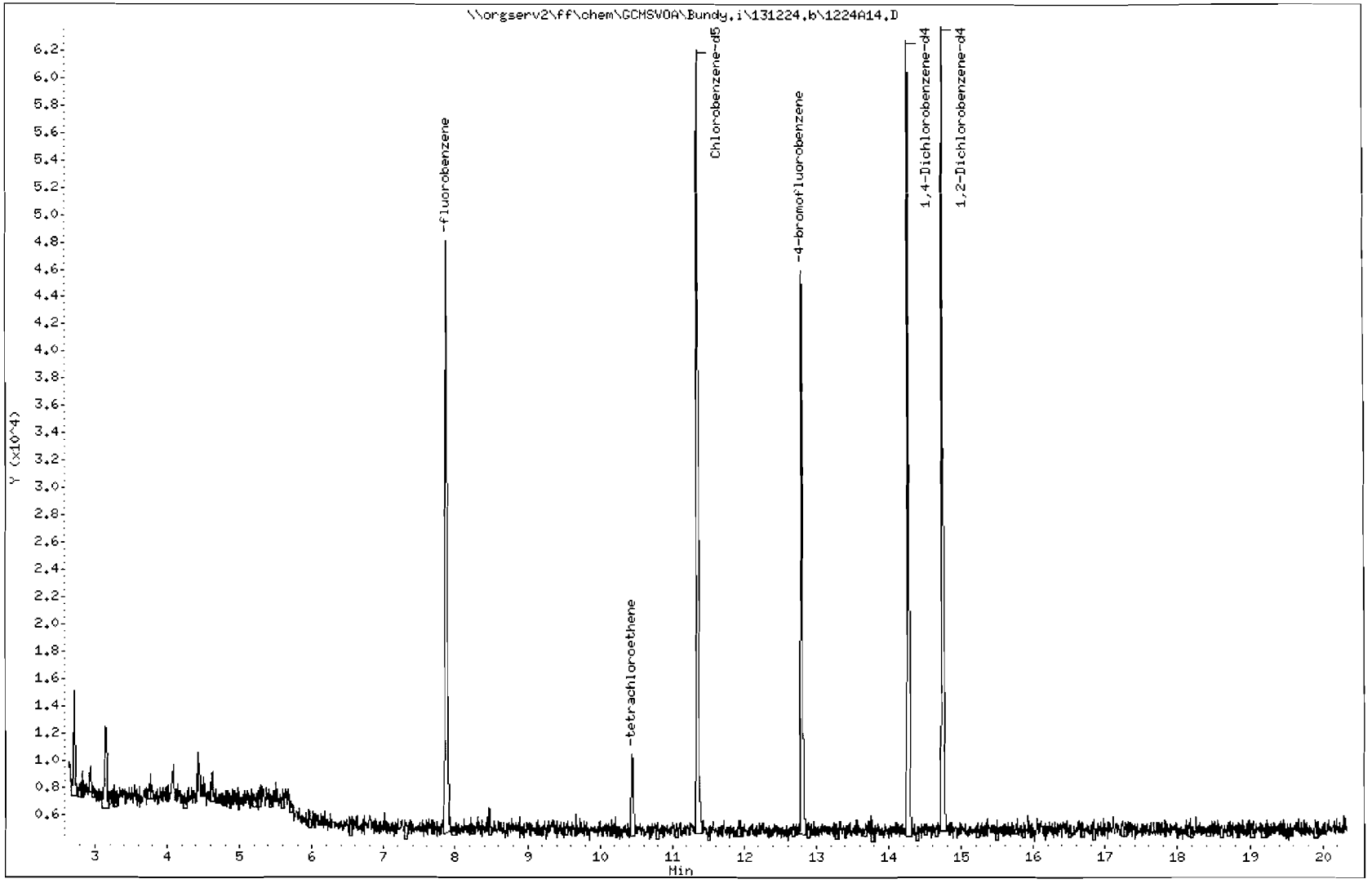
RECOVERY REPORT

Client Name:
Client SDG: 131224.b
Sample Matrix: LIQUID
Fraction: VOA
Lab Smp Id:
Level: MED
Operator: gt
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: 524NH.spk
Quant Type: ISTD
Sublist File: 524.sub
Method File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\524extras.m
Misc Info: wg661542,ical8787

SURROGATE COMPOUND	AMOUNT ADDED ngs	AMOUNT RECOVERED ngs	% RECOVERED	LIMITS
$ 55 4-bromofluorobenze	20.00	18.30	91.51	80-120
$ 70 1,2-Dichlorobenzen	20.00	20.70	103.51	80-120

Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A14.D
Date : 24-DEC-2013 16:18
Client ID:
Sample Info: 11325883-06,31,5,,b
Purge Volume: 5.0
Column phase:

Instrument: Bundy.i
Operator: gt
Column diameter: 0.18



Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A14.D

Date : 24-DEC-2013 16:18

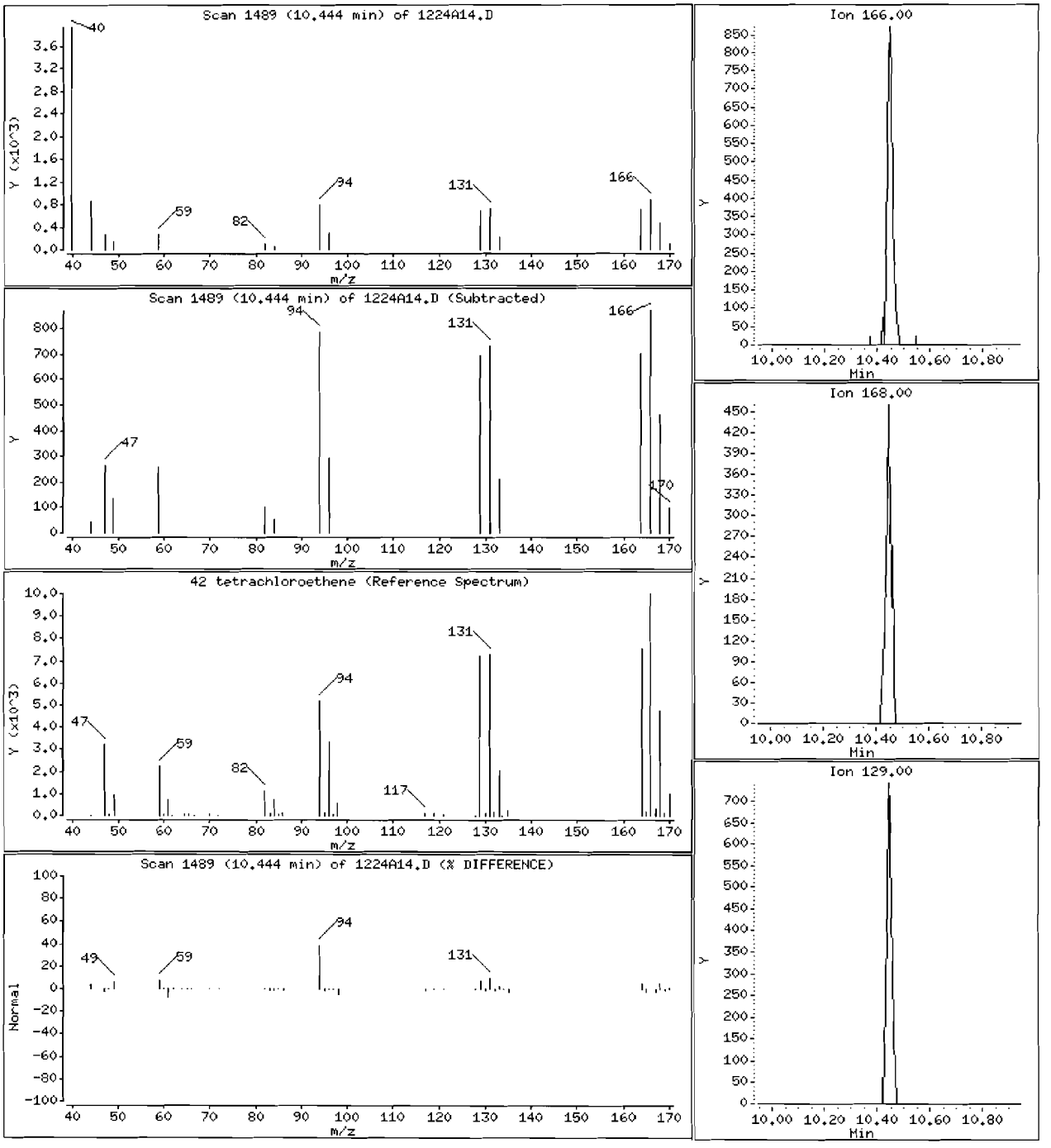
Client ID: Instrument: Bundy.i

Sample Info: 11325883-06,31,5,,b

Purge Volume: 5.0 Operator: gt

Column phase: Column diameter: 0.18

42 tetrachloroethene Concentration: 3.22 ngs



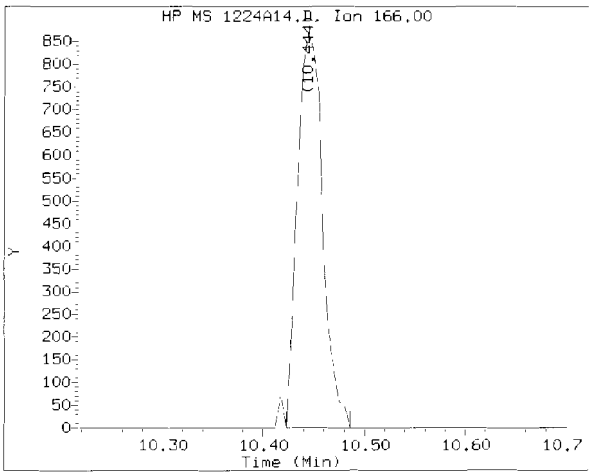
Alpha Analytical Labs

Manual Integration

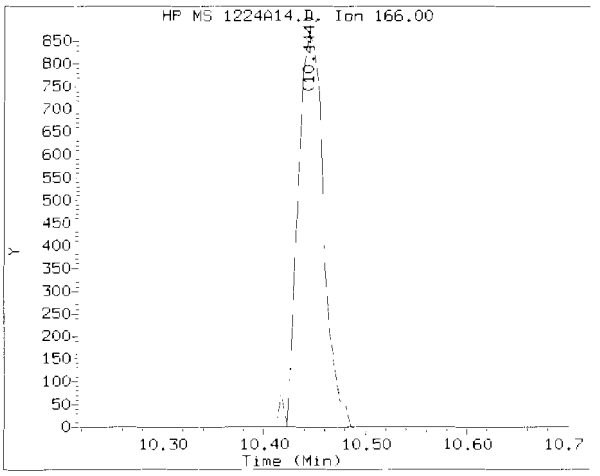
Sample Info : l1325883-06,31,5,,b
wg661542,ical8787

Instrument ID : Bundy.i
Method : 524extras.m
File : 1224A14.D
Injection Date : 24-DEC-2013 16:18
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: SAMPLE

Compound # 42: tetrachloroethene



Original Peak Response = 1517



Manual Peak Response = 1540 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false lo area count.

Alpha Analytical Labs

gc/ms voa -Bundy 524

Data file : \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A15.D
Lab Smp Id:
Inj Date : 24-DEC-2013 16:50
Operator : gt Inst ID: Bundy.i
Smp Info : l1325883-07,31,5,,b
Misc Info : wg661542,ical8787
Comment :
Method : \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\524extras.m
Meth Date : 24-Dec-2013 11:09 Bundy.i Quant Type: ISTD
Cal Date : 10-NOV-2013 23:22 Cal File: 1107A12.D
Als bottle: 24
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 524.sub
Target Version: 4.12
Processing Host: VIRTUALXP-72976

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ngs)	FINAL (ngs)	REVIEW CODE
	1 dichlorodifluoromethane	85	Compound Not Detected.						
	2 chloromethane	50	Compound Not Detected.						
	3 vinyl chloride	62	Compound Not Detected.						
	4 bromomethane	94	Compound Not Detected.						
	5 chloroethane	64	Compound Not Detected.						
	6 trichlorofluoromethane	101	Compound Not Detected.						
	9 1,1-dichloroethene	96	Compound Not Detected.						
	11 methylene chloride	84	Compound Not Detected.						
	13 methyl-tert-butyl ether	73	Compound Not Detected.						
	14 trans-1,2-dichloroethene	96	Compound Not Detected.						
	16 1,1-dichloroethane	63	Compound Not Detected.						
	19 2,2-dichloropropane	77	Compound Not Detected.						
	20 cis-1,2-dichloroethene	96	Compound Not Detected.						
	21 chloroform	83	Compound Not Detected.						
	22 bromochloromethane	128	Compound Not Detected.						
	24 1,1,1-trichloroethane	97	Compound Not Detected.						
	25 1,1-dichloropropene	75	Compound Not Detected.						
	27 carbon tetrachloride	117	Compound Not Detected.						
	28 1,2-dichloroethane	62	Compound Not Detected.						
	29 benzene	78	Compound Not Detected.						
*	30 fluorobenzene	96	7.874	7.874	(1.000)	33661	20.0000		
	31 trichloroethene	95	Compound Not Detected.						
	32 1,2-dichloropropane	63	Compound Not Detected.						
	33 bromodichloromethane	83	Compound Not Detected.						
	34 dibromomethane	93	Compound Not Detected.						
	36 cis-1,3-dichloropropene	75	Compound Not Detected.						
	37 toluene	92	Compound Not Detected.						
	38 trans-1,3-dichloropropene	75	Compound Not Detected.						
	40 1,1,2-trichloroethane	83	Compound Not Detected.						

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ngs)	FINAL (ngs)	REVIEW CODE
	41 1,3-dichloropropane	76	Compound Not Detected.						
	42 tetrachloroethene	166	Compound Not Detected.						
	43 dibromochloromethane	129	Compound Not Detected.						
	44 1,2-dibromoethane	107	Compound Not Detected.						
*	45 Chlorobenzene-d5	117	11.355	11.361	(1.000)	29622	20.0000		
	46 chlorobenzene	112	Compound Not Detected.						
	47 ethylbenzene	91	Compound Not Detected.						
	48 1,1,1,2-tetrachloroethane	131	Compound Not Detected.						
	49 p/m-xylenes	106	Compound Not Detected.						
	50 o-xylenes	106	Compound Not Detected.						
	51 styrene	104	Compound Not Detected.						
	52 isopropylbenzene	105	Compound Not Detected.						
	53 bromoform	173	Compound Not Detected.						
	54 1,1,2,2-tetrachloroethane	83	Compound Not Detected.						
$	55 4-bromofluorobenzene	95	12.803	12.797	(1.127)	13129	18.2007	18.20	
	56 1,2,3-trichloropropane	110	Compound Not Detected.						
	57 n-propylbenzene	91	Compound Not Detected.						
	58 bromobenzene	156	Compound Not Detected.						
	59 1,3,5-trimethylbenzene	105	Compound Not Detected.						
	60 o-chlorotoluene	126	Compound Not Detected.						
	61 p-chlorotoluene	91	Compound Not Detected.						
	62 tert-butylbenzene	119	Compound Not Detected.						
	63 1,2,4,-trimethylbenzene	105	Compound Not Detected.						
	64 sec-butylbenzene	105	Compound Not Detected.						
	65 p-isopropyltoluene	119	Compound Not Detected.						
	66 1,3-dichlorobenzene	146	Compound Not Detected.						
*	67 1,4-Dichlorobenzene-d4	152	14.271	14.271	(1.000)	14841	20.0000		
	68 1,4-dichlorobenzene	146	Compound Not Detected.						
	69 n-butylbenzene	91	Compound Not Detected.						
$	70 1,2-Dichlorobenzene-d4	152	14.748	14.748	(1.033)	15665	22.1502	22.15	
	71 1,2-dichlorobenzene	146	Compound Not Detected.						
	72 1,2-dibromo-3-chloropropane	75	Compound Not Detected.						
	74 1,2,4-trichlorobenzene	182	Compound Not Detected.						
	75 hexachlorobutadiene	225	Compound Not Detected.						
	76 naphthalene	128	Compound Not Detected.						
	77 1,2,3-trichlorobenzene	180	Compound Not Detected.						
M	78 Xylene (total)	106	Compound Not Detected.						

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: Bundy.i
Lab File ID: 1224A15.D
Lab Smp Id:
Analysis Type: VOA
Quant Type: ISTD
Operator: gt
Method File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\524extras.m
Misc Info: wg661542,ical8787

Calibration Date: 24-DEC-2013
Calibration Time: 09:45

Level: MED
Sample Type: WATER

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 3

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
30 fluorobenzene	36873	18437	73746	33661	-8.71
45 Chlorobenzene-d5	32655	16328	65310	29622	-9.29
67 1,4-Dichlorobenze	18891	9446	37782	14841	-21.44

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
30 fluorobenzene	7.87	7.37	8.37	7.87	-0.00
45 Chlorobenzene-d5	11.36	10.86	11.86	11.36	-0.05
67 1,4-Dichlorobenze	14.27	13.77	14.77	14.27	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Alpha Analytical Labs

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id:
Level: MED
Data Type: MS DATA
SpikeList File: 524NH.spk
Sublist File: 524.sub
Method File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\524extras.m
Misc Info: wg661542,ical8787

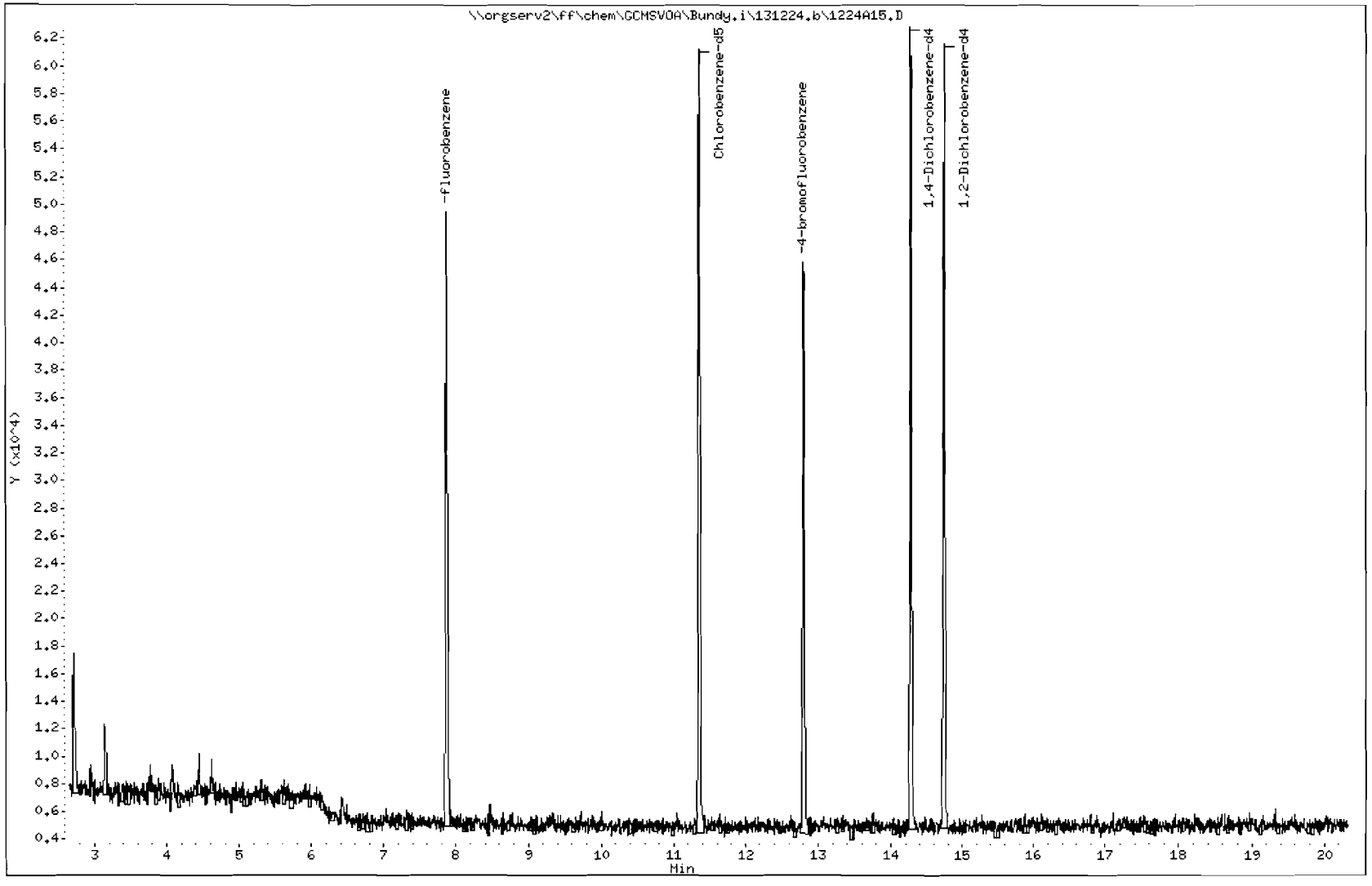
Client SDG: 131224.b
Fraction: VOA
Operator: gt
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	AMOUNT ADDED ngs	AMOUNT RECOVERED ngs	% RECOVERED	LIMITS
$ 55 4-bromofluorobenze	20.00	18.20	91.00	80-120
$ 70 1,2-Dichlorobenzen	20.00	22.15	110.75	80-120

Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A15.D
Date : 24-DEC-2013 16:50
Client ID:
Sample Info: 11325883-07,31,5,,b
Purge Volume: 5.0
Column phase:

Instrument: Bundy.i

Operator: gt
Column diameter: 0.18



Volatiles Standards Data

Initial Calibration

6A

VOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1325883

Instrument ID: BUNDY.I Calibration Date(s): 10-NOV-2013 10-NOV-2013

Calibration Times: 19:33 23:22

Calibration File Names:
Level 1: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131110ICAL.b\1107A05.D
Level 3: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131110ICAL.b\1107A07.D
Level 4: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131110ICAL.b\1107A08.D
Level 5: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131110ICAL.b\1107A09.D
Level 6: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131110ICAL.b\1107A10.D
Level 7: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131110ICAL.b\1107A11.D
Level 8: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131110ICAL.b\1107A12.D

Compound	2.500 Level 1	20.000 Level 3	40.000 Level 4	60.000 Level 5	100.000 Level 6	200.000 Level 7	RRF	% RSD
	400.000 Level 8							
1 dichlorodifluoromethane	0.29521	0.26287	0.25307	0.26424	0.25130	0.25754		
	0.24596						0.26146	6.201
2 chloromethane	0.40869	0.34739	0.36715	0.37590	0.34610	0.35640		
	0.35955						0.36589	5.902
3 vinyl chloride	0.36477	0.31594	0.29896	0.32221	0.29643	0.29683		
	0.28235						0.31107	8.726
4 bromomethane	0.07537	0.08368	0.08544	0.09447	0.09966	0.10585		
	0.11648						0.09442	15.000
5 chloroethane	0.20955	0.17281	0.16326	0.17357	0.15800	0.16594		
	0.16489						0.17257	9.954
6 trichlorofluoromethane	0.34735	0.33444	0.31288	0.34339	0.31119	0.31590		
	0.31378						0.32556	4.810
7 Ethyl ether	0.15571	0.12179	0.11132	0.11550	0.10808	0.10854		
	0.10830						0.11846	14.490
8 Acetone	+++++	0.10209	0.08205	0.08423	0.07692	0.07303		
	0.07768						0.08267	12.466

FORM VI-524-2

6A

VOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1325883

Instrument ID: BUNDY.I Calibration Date(s): 10-NOV-2013 10-NOV-2013

Calibration Times: 19:33 23:22

Compound	2.500 Level 1	20.000 Level 3	40.000 Level 4	60.000 Level 5	100.000 Level 6	200.000 Level 7	RRF	% RSD
	400.000 Level 8							
9 1,1-dichloroethene	0.24863	0.20223	0.18994	0.20717	0.19205	0.19389		
	0.19450						0.20406	10.078
10 Tert-Butyl Alcohol	0.05902	0.04464	0.04263	0.04422	0.04227	0.04187		
	0.04253						0.04531	13.530
11 methylene chloride	0.31106	0.25227	0.22494	0.21297	0.20731	0.20937		
	0.23411						0.23600	15.556
12 Carbon disulfide	0.70741	0.66781	0.65734	0.62352	0.57814	0.57817		
	0.65995						0.63891	7.541
13 methyl-tert-butyl ether	0.65587	0.67318	0.63604	0.65810	0.58248	0.57886		
	0.63615						0.63153	5.872
14 trans-1,2-dichloroethene	0.28347	0.24996	0.23661	0.25270	0.21178	0.23349		
	0.23854						0.24379	9.021
15 Diisopropyl Ether	1.22572	1.15635	1.11847	1.11866	1.08046	1.09575		
	1.08473						1.12573	4.539
16 1,1-dichloroethane	0.61667	0.54994	0.53407	0.55846	0.52070	0.52718		
	0.52912						0.54802	6.033
17 Ethyl-Tert-Butyl-Ether	1.07158	1.02963	0.97023	0.99198	0.94802	0.94633		
	0.93906						0.98526	5.029
18 2-butanone	*****	0.17957	0.15249	0.16175	0.14601	0.15196		
	0.15105						0.15714	7.709
19 2,2-dichloropropane	0.38583	0.34374	0.33191	0.33936	0.31703	0.31568		
	0.30524						0.33411	7.979

FORM VI-524-2

6A

VOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1325883

Instrument ID: BUNDY.I Calibration Date(s): 10-NOV-2013 10-NOV-2013

Calibration Times: 19:33 23:22

Compound	2.500 Level 1	20.000 Level 3	40.000 Level 4	60.000 Level 5	100.000 Level 6	200.000 Level 7	RRF	% RSD
	400.000 Level 8							
20 cis-1,2-dichloroethene	0.27960	0.26828	0.25904	0.25966	0.25877	0.26204		
	0.25224						0.26252	3.422
21 chloroform	0.46326	0.42936	0.40611	0.41932	0.39598	0.40527		
	0.39982						0.41702	5.616
22 bromochloromethane	0.13526	0.13123	0.13227	0.13528	0.13010	0.13237		
	0.12813						0.13209	1.974
23 Tetrahydofuran	0.10447	0.10152	0.09261	0.09682	0.09207	0.09250		
	0.09184						0.09598	5.369
24 1,1,1-trichloroethane	0.41438	0.38057	0.35825	0.38618	0.35921	0.36268		
	0.36389						0.37502	5.456
25 1,1-dichloropropene	0.35014	0.31449	0.30205	0.31380	0.29308	0.30358		
	0.30134						0.31121	6.013
26 Tert-Amyl Methyl Ether	0.71467	0.70783	0.67529	0.68177	0.65974	0.65698		
	0.65665						0.67899	3.547
27 carbon tetrachloride	0.36102	0.35186	0.32645	0.34041	0.32027	0.33207		
	0.33025						0.33748	4.309
28 1,2-dichloroethane	0.41317	0.39576	0.38916	0.39479	0.37291	0.37615		
	0.37886						0.38869	3.622
29 benzene	1.08840	0.99551	0.96402	0.99830	0.94246	0.95347		
	0.94793						0.98430	5.179
31 trichloroethene	0.29726	0.27080	0.25769	0.26461	0.24632	0.25111		
	0.24822						0.26229	6.785

FORM VI-524-2

6A

VOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1325883

Instrument ID: BUNDY.I Calibration Date(s): 10-NOV-2013 10-NOV-2013

Calibration Times: 19:33 23:22

Compound	2.500 Level 1	20.000 Level 3	40.000 Level 4	60.000 Level 5	100.000 Level 6	200.000 Level 7	400.000 Level 8	RRF	% RSD
32 1,2-dichloropropane	0.33296	0.32930	0.32256	0.33077	0.31007	0.31669	0.31548	0.32255	2.719
33 bromodichloromethane	0.38825	0.34865	0.32907	0.33803	0.32351	0.32864	0.32678	0.34042	6.677
34 dibromomethane	0.17906	0.16857	0.15669	0.16580	0.15783	0.15766	0.15784	0.16335	5.108
35 4-methyl-2-pentanone	0.15365	0.15565	0.13254	0.14060	0.12625	0.13071	0.12704	0.13806	8.894
36 cis-1,3-dichloropropene	0.41281	0.43729	0.41153	0.41751	0.40333	0.40955	0.40039	0.41320	2.925
37 toluene	0.67898	0.67524	0.64346	0.65826	0.62676	0.63809	0.63151	0.65033	3.208
38 trans-1,3-dichloropropene	0.37312	0.41489	0.37933	0.38710	0.36829	0.38016	0.36883	0.38167	4.222
39 2-hexanone	0.31593	0.36080	0.30193	0.32515	0.29268	0.29503	0.29310	0.31209	7.946
40 1,1,2-trichloroethane	0.20326	0.21726	0.19021	0.20440	0.18742	0.19084	0.18366	0.19672	6.078
41 1,3-dichloropropane	0.39913	0.42402	0.38002	0.40084	0.38206	0.38873	0.38260	0.39391	3.973
42 tetrachloroethene	0.30719	0.27811	0.26505	0.28371	0.26742	0.26546	0.26534	0.27604	5.641

FORM VI-524-2

6A

VOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1325883

Instrument ID: BUNDY.I Calibration Date(s): 10-NOV-2013 10-NOV-2013

Calibration Times: 19:33 23:22

Compound	2.500 Level 1	20.000 Level 3	40.000 Level 4	60.000 Level 5	100.000 Level 6	200.000 Level 7	RRF	% RSD
	400.000 Level 8							
43 dibromochloromethane	0.27718	0.30315	0.27018	0.28644	0.26933	0.27769		
	0.27215						0.27944	4.285
44 1,2-dibromoethane	0.33319	0.33464	0.30931	0.31758	0.31453	0.31147		
	0.31180						0.31893	3.314
46 chlorobenzene	1.04963	1.04455	0.93895	0.97035	0.95569	0.95179		
	0.94912						0.98001	4.774
47 ethylbenzene	1.73154	1.68046	1.56170	1.61904	1.57049	1.53352		
	1.52377						1.60293	4.875
48 1,1,1,2-tetrachloroethane	0.38276	0.37449	0.34315	0.34735	0.34753	0.33925		
	0.32909						0.35195	5.514
49 p/m-xylenes	0.61065	0.63711	0.60026	0.61057	0.59966	0.58387		
	0.58035						0.60321	3.157
50 o-xylenes	0.65087	0.64926	0.58348	0.60569	0.58240	0.58072		
	0.56991						0.60319	5.595
51 styrene	1.01938	1.12144	1.03638	1.05516	1.04690	1.02380		
	1.00635						1.04420	3.630
52 isopropylbenzene	1.56985	1.66995	1.50762	1.57317	1.51506	1.50734		
	1.49148						1.54778	4.047
53 bromoform	0.22947	0.28268	0.23155	0.24256	0.22966	0.23110		
	0.23198						0.23986	8.093
54 1,1,2,2-tetrachloroethane	0.41538	0.48260	0.39831	0.41280	0.37834	0.38061		
	0.37105						0.40561	9.400

FORM VI-524-2

6A

VOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1325883

Instrument ID: BUNDY.I Calibration Date(s): 10-NOV-2013 10-NOV-2013

Calibration Times: 19:33 23:22

Compound	2.500 Level 1	20.000 Level 3	40.000 Level 4	60.000 Level 5	100.000 Level 6	200.000 Level 7	RRF	% RSD
	400.000 Level 8							
56 1,2,3-trichloropropane	0.14379	0.13660	0.11056	0.11663	0.11039	0.10896		
	0.10844						0.11934	12.273
57 n-propylbenzene	1.90051	1.94711	1.80777	1.84093	1.81563	1.78800		
	1.77876						1.83984	3.381
58 bromobenzene	0.41443	0.46876	0.39843	0.41800	0.41426	0.40353		
	0.40228						0.41710	5.738
59 1,3,5-trimethylbenzene	1.37538	1.37606	1.23740	1.25921	1.24488	1.23109		
	1.22820						1.27889	5.233
60 o-chlorotoluene	0.35521	0.41720	0.38440	0.38869	0.38133	0.36948		
	0.36659						0.38041	5.240
61 p-chlorotoluene	1.19722	1.27729	1.15464	1.18328	1.13738	1.13180		
	1.12616						1.17254	4.548
62 tert-butylbenzene	1.19168	1.20472	1.07726	1.13630	1.09817	1.09074		
	1.08809						1.12671	4.646
63 1,2,4,-trimethylbenzene	1.32518	1.40825	1.24456	1.31396	1.26894	1.25949		
	1.24913						1.29564	4.531
64 sec-butylbenzene	1.64871	1.70494	1.57167	1.61921	1.60651	1.57974		
	1.58695						1.61682	2.901
65 p-isopropyltoluene	1.48180	1.51744	1.40557	1.45181	1.43338	1.40601		
	1.41867						1.44495	2.902
66 1,3-dichlorobenzene	1.48662	1.63007	1.47858	1.51580	1.42980	1.46790		
	1.41955						1.48976	4.707

FORM VI-524-2

6A

VOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1325883

Instrument ID: BUNDY.I Calibration Date(s): 10-NOV-2013 10-NOV-2013

Calibration Times: 19:33 23:22

Compound	2.500 Level 1	20.000 Level 3	40.000 Level 4	60.000 Level 5	100.000 Level 6	200.000 Level 7	RRF	% RSD
	400.000 Level 8							
68 1,4-dichlorobenzene	1.62671	1.70694	1.50150	1.53343	1.44320	1.50956		
	1.44315						1.53779	6.313
69 n-butylbenzene	2.36823	2.46015	2.26036	2.28604	2.19650	2.30216		
	2.22670						2.30002	3.895
71 1,2-dichlorobenzene	1.53421	1.63316	1.47856	1.51164	1.39256	1.45229		
	1.39559						1.48543	5.681
72 1,2-dibromo-3-chloropropane	0.11898	0.15472	0.14136	0.14166	0.12428	0.13408		
	0.13263						0.13539	8.796
73 1,3,5-trichlorobenzene	0.96966	1.06168	0.98767	1.00455	0.94556	1.00470		
	0.96867						0.99178	3.771
74 1,2,4-trichlorobenzene	0.86050	0.89794	0.85024	0.85040	0.79328	0.83890		
	0.82478						0.84515	3.810
75 hexachlorobutadiene	0.40244	0.38055	0.35077	0.36231	0.35602	0.36196		
	0.35700						0.36729	4.934
76 naphthalene	2.00506	2.30952	2.26142	2.27033	2.06575	2.21572		
	2.16867						2.18521	5.165
77 1,2,3-trichlorobenzene	0.89203	0.94320	0.87844	0.86895	0.81468	0.87235		
	0.85522						0.87498	4.433
M 78 Xylene (total)	0.62405	0.64116	0.59467	0.60894	0.59391	0.58282		
	0.57687						0.60320	3.814
$ 55 4-bromofluorobenzene	0.50627	0.48695	0.46359	0.47881	0.50569	0.48173		
	0.48621						0.48703	3.096

FORM VI-524-2

6A

VOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1325883

Instrument ID: BUNDY.I Calibration Date(s): 10-NOV-2013 10-NOV-2013

Calibration Times: 19:33 23:22

Compound	2.500 Level 1	20.000 Level 3	40.000 Level 4	60.000 Level 5	100.000 Level 6	200.000 Level 7	RRF	% RSD
	400.000 Level 8							
$ 70 1,2-Dichlorobenzene-d4	0.96546	0.90953	0.99285	0.98850	0.90943	0.92084		
	0.98479						0.95306	4.027

FORM VI-524-2

Alpha Analytical Labs

INITIAL CALIBRATION DATA

Start Cal Date : 10-NOV-2013 19:33
End Cal Date : 10-NOV-2013 23:22
Quant Method : ISTD
Origin : Disabled
Target Version : 4.12
Integrator : HP RTE
Method file : \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131110ICAL.b\524extras.m
Cal Date : 11-Nov-2013 09:26 Bundy.i
Curve Type : Average

Calibration File Names:
Level 1: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131110ICAL.b\1107A05.D
Level 3: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131110ICAL.b\1107A07.D
Level 4: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131110ICAL.b\1107A08.D
Level 5: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131110ICAL.b\1107A09.D
Level 6: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131110ICAL.b\1107A10.D
Level 7: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131110ICAL.b\1107A11.D
Level 8: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131110ICAL.b\1107A12.D

Compound	2.500 Level 1	20.000 Level 3	40.000 Level 4	60.000 Level 5	100.000 Level 6	200.000 Level 7	400.000 Level 8	___ RRF	% RSD
1 dichlorodifluoromethane	0.29521	0.26287	0.25307	0.26424	0.25132	0.25754	0.24596	0.26146	6.201
2 chloromethane	0.40869	0.34739	0.36715	0.37590	0.34610	0.35640	0.35955	0.36589	5.902
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4 bromomethane	0.07537	0.08368	0.08544	0.09447	0.09466	0.10585	0.11648	0.09442	15.000
5 chloroethane	0.20955	0.17281	0.16326	0.17357	0.15300	0.16594	0.16489	0.17257	9.954
6 trichlorofluoromethane	0.34735	0.33444	0.31268	0.34339	0.31119	0.31590	0.31378	0.32556	4.810
7 Ethyl ether	0.15571	0.12179	0.11132	0.11550	0.10808	0.10854	0.10830	0.11846	14.490
8 Acetone	+++++	0.10209	0.08205	0.08423	0.07692	0.07303	0.07768	0.08267	12.466

Alpha Analytical Labs

INITIAL CALIBRATION DATA

Start Cal Date : 10-NOV-2013 19:33
End Cal Date : 10-NOV-2013 23:22
Quant Method : ISTD
Origin : Disabled
Target Version : 4.12
Integrator : HP RTE
Method file : \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131110ICAL.b\524extras.m
Cal Date : 11-Nov-2013 09:26 Bundy.i
Curve Type : Average

Compound	2.500 Level 1	20.000 Level 3	40.000 Level 4	60.000 Level 5	100.000 Level 6	200.000 Level 7	RRF	% RSD
	400.000 Level 8							
9 1,1-dichloroethene	0.24863	0.20223	0.18994	0.20717	0.19205	0.19389		
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	0.04253						0.04531	13.530
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	0.23411						0.23600	15.556
12 Carbon disulfide	0.70741	0.66781	0.65734	0.62352	0.57814	0.57817		
	0.65995						0.63891	7.541
13 methyl-tert-butyl ether	0.65587	0.67318	0.63604	0.65810	0.58248	0.57888		
	0.63615						0.63153	5.872
14 trans-1,2-dichloroethene	0.28347	0.24996	0.23661	0.25270	0.21178	0.23349		
	0.23854						0.24379	9.021
15 Diisopropyl Ether	1.22572	1.15635	1.11847	1.11866	1.08046	1.09575		
	1.08473						1.12573	4.539
16 1,1-dichloroethane	0.61667	0.54994	0.53407	0.55846	0.52070	0.52718		
	0.52912						0.54802	6.033
17 Ethyl-Tert-Butyl-Ether	1.07158	1.02963	0.97023	0.99198	0.94802	0.94633		
	0.93906						0.98526	5.029
18 2-butanone	+++++	0.17957	0.15249	0.16175	0.14601	0.15196		
	0.15105						0.15714	7.709
19 2,2-dichloropropane	0.38583	0.34374	0.33191	0.33936	0.31703	0.31568		
	0.30524						0.33411	7.979

Alpha Analytical Labs

INITIAL CALIBRATION DATA

Start Cal Date : 10-NOV-2013 19:33
End Cal Date : 10-NOV-2013 23:22
Quant Method : ISTD
Origin : Disabled
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Integrator : HP RTE
Method file : \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131110ICAL.b\524extras.m
Cal Date : 11-Nov-2013 09:26 Bundy.i
Curve Type : Average

Compound	2.500 Level 1 / 400.000 Level 8	20.000 Level 3	40.000 Level 4	60.000 Level 5	100.000 Level 6	200.000 Level 7	RRF	% RSD
20 cis-1,2-dichloroethene	0.27960	0.26828	0.25904	0.25966	0.25677	0.26204		
	0.25224						0.26252	3.422
21 chloroform	0.46326	0.42936	0.40611	0.41932	0.39598	0.40527		
	0.39982						0.41702	5.616
22 bromochloromethane	0.13526	0.13123	0.13227	0.13528	0.13010	0.13237		
	0.12813						0.13209	1.974
23 Tetrahydofuran	0.10447	0.10152	0.09261	0.09682	0.09207	0.09250		
	0.09184						0.09596	5.369
24 1,1,1-trichloroethane	0.41438	0.38057	0.35825	0.38618	0.35921	0.36268		
	0.36389						0.37502	5.456
25 1,1-dichloropropene	0.35014	0.31449	0.30205	0.31380	0.29308	0.30358		
	0.30134						0.31121	6.013
26 Tert-Amyl Methyl Ether	0.71467	0.70783	0.67529	0.68177	0.65974	0.65698		
	0.65665						0.67899	3.547
27 carbon tetrachloride	0.36102	0.35186	0.32645	0.34041	0.32027	0.33207		
	0.33025						0.33748	4.309
28 1,2-dichloroethane	0.41317	0.39576	0.38916	0.39479	0.37291	0.37615		
	0.37886						0.38869	3.622
29 benzene	1.08840	0.99551	0.96402	0.99830	0.94246	0.95347		
	0.94793						0.98430	5.179
31 trichloroethene	0.29726	0.27080	0.25769	0.26461	0.24632	0.25111		
	0.24822						0.26229	6.785

Alpha Analytical Labs

INITIAL CALIBRATION DATA

Start Cal Date : 10-NOV-2013 19:33
End Cal Date : 10-NOV-2013 23:22
Quant Method : ISTD
Origin : Disabled
Target Version : 4.12
Integrator : HP RTE
Method file : \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131110ICAL.b\524extras.m
Cal Date : 11-Nov-2013 09:26 Bundy.i
Curve Type : Average

Compound	2.500 Level 1 / 400.000 Level 8	20.000 Level 3	40.000 Level 4	60.000 Level 5	100.000 Level 6	200.000 Level 7	RRF	% RSD
32 1,2-dichloropropane	0.33296	0.32930	0.32256	0.33077	0.31007	0.31669		
	0.31548						0.32255	2.719
33 bromodichloromethane	0.38825	0.34865	0.32907	0.33803	0.32351	0.32864		
	0.32678						0.34042	6.677
34 dibromomethane	0.17906	0.16857	0.15669	0.16580	0.15783	0.15766		
	0.15784						0.16335	5.108
35 4-methyl-2-pentanone	0.15365	0.15565	0.13254	0.14060	0.12625	0.13071		
	0.12704						0.13806	8.894
36 cis-1,3-dichloropropene	0.41281	0.43729	0.41153	0.41751	0.40333	0.40955		
	0.40039						0.41320	2.925
37 toluene	0.67898	0.67524	0.64346	0.65826	0.62676	0.63809		
	0.63151						0.65033	3.208
38 trans-1,3-dichloropropene	0.37312	0.41489	0.37933	0.38710	0.36829	0.38016		
	0.36883						0.38167	4.222
39 2-hexanone	0.31593	0.36080	0.30193	0.32515	0.29268	0.29503		
	0.29310						0.31209	7.946
40 1,1,2-trichloroethane	0.20326	0.21726	0.19021	0.20440	0.18742	0.19084		
	0.18366						0.19672	6.078
41 1,3-dichloropropane	0.39913	0.42402	0.38002	0.40084	0.38206	0.38873		
	0.38260						0.39391	3.973
42 tetrachloroethene	0.30719	0.27811	0.26505	0.28371	0.26742	0.26546		
	0.26534						0.27604	5.641

Alpha Analytical Labs

INITIAL CALIBRATION DATA

Start Cal Date : 10-NOV-2013 19:33
End Cal Date : 10-NOV-2013 23:22
Quant Method : ISTD
Origin : Disabled
Target Version : 4.12
Integrator : HP RTE
Method file : \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131110ICAL.b\524extras.m
Cal Date : 11-Nov-2013 09:26 Bundy.i
Curve Type : Average

Compound	2.500 Level 1	20.000 Level 3	40.000 Level 4	60.000 Level 5	100.000 Level 6	200.000 Level 7	RRF	% RSD
	400.000 Level 8							
43 dibromochloromethane	0.27718	0.30315	0.27018	0.28644	0.26433	0.27769		
	0.27215						0.27944	4.285
44 1,2-dibromoethane	0.33319	0.33464	0.30931	0.31758	0.31453	0.31147		
	0.31140						0.31893	3.314
46 chlorobenzene	1.04963	1.04455	0.93895	0.97035	0.95569	0.95179		
	0.94912						0.98001	4.774
47 ethylbenzene	1.73154	1.68046	1.56170	1.61904	1.57049	1.53352		
	1.52377						1.60293	4.875
48 1,1,1,2-tetrachloroethane	0.38276	0.37449	0.34315	0.34735	0.34753	0.33925		
	0.32909						0.35195	5.514
49 p/m-xylenes	0.61065	0.63711	0.60026	0.61057	0.59966	0.58387		
	0.58035						0.60321	3.157
50 o-xylenes	0.65087	0.64926	0.58348	0.60569	0.58240	0.58072		
	0.56991						0.60319	5.595
51 styrene	1.01938	1.12144	1.03638	1.05516	1.04690	1.02380		
	1.00635						1.04420	3.630
52 isopropylbenzene	1.56985	1.66995	1.50762	1.57317	1.51506	1.50734		
	1.49148						1.54778	4.047
53 bromoform	0.22947	0.28268	0.23155	0.24256	0.22966	0.23110		
	0.23198						0.23986	8.093
54 1,1,2,2-tetrachloroethane	0.41538	0.48280	0.39831	0.41280	0.37834	0.38061		
	0.37105						0.40561	9.400

Alpha Analytical Labs

INITIAL CALIBRATION DATA

Start Cal Date : 10-NOV-2013 19:33
End Cal Date : 10-NOV-2013 23:22
Quant Method : ISTD
Origin : Disabled
Target Version : 4.12
Integrator : HP RTE
Method file : \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131110ICAL.b\524extras.m
Cal Date : 11-Nov-2013 09:26 Bundy.i
Curve Type : Average

Compound	2.500 Level 1	20.000 Level 3	40.000 Level 4	60.000 Level 5	100.000 Level 6	200.000 Level 7	RRF	% RSD
	400.000 Level 8							
56 1,2,3-trichloropropane	0.14379	0.13660	0.11056	0.11663	0.11039	0.10896		
	0.10844						0.11934	12.273
57 n-propylbenzene	1.90051	1.94711	1.80777	1.84093	1.81583	1.78800		
	1.77876						1.83984	3.381
58 bromobenzene	0.41443	0.46876	0.39843	0.41800	0.41426	0.40353		
	0.40228						0.41710	5.738
59 1,3,5-trimethylbenzene	1.37538	1.37606	1.23740	1.25921	1.24488	1.23109		
	1.22820						1.27889	5.233
60 o-chlorotoluene	0.35521	0.41720	0.38440	0.38869	0.38133	0.36948		
	0.36659						0.38041	5.240
61 p-chlorotoluene	1.19722	1.27729	1.15464	1.18328	1.13738	1.13180		
	1.12616						1.17354	4.548
62 tert-butylbenzene	1.19168	1.20472	1.07726	1.13630	1.09817	1.09074		
	1.08809						1.12671	4.646
63 1,2,4,-trimethylbenzene	1.32518	1.40825	1.24456	1.31396	1.26894	1.25949		
	1.24913						1.29564	4.531
64 sec-butylbenzene	1.64871	1.70494	1.57167	1.61921	1.60651	1.57974		
	1.58645						1.61682	2.901
65 p-isopropyltoluene	1.48180	1.51744	1.40557	1.45181	1.43338	1.40601		
	1.41867						1.44495	2.902
66 1,3-dichlorobenzene	1.48662	1.63007	1.47858	1.51580	1.42980	1.46790		
	1.41955						1.48976	4.707

Alpha Analytical Labs

INITIAL CALIBRATION DATA

Start Cal Date : 10-NOV-2013 19:33
End Cal Date : 10-NOV-2013 23:22
Quant Method : ISTD
Origin : Disabled
Target Version : 4.12
Integrator : HP RTE
Method file : \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131110ICAL.b\524extras.m
Cal Date : 11-Nov-2013 09:26 Bundy.i
Curve Type : Average

Compound	2.500 Level 1 / 20.000 Level 3 / 40.000 Level 4 / 60.000 Level 5 / 100.000 Level 6 / 200.000 Level 7 / 400.000 Level 8	RRF	% RSD
68 1,4-dichlorobenzene	1.62671 / 1.70694 / 1.50150 / 1.53343 / 1.44320 / 1.50956 / 1.44315	1.53779	6.313
69 n-butylbenzene	2.36823 / 2.46015 / 2.26036 / 2.28604 / 2.19650 / 2.30216 / 2.22670	2.30002	3.895
71 1,2-dichlorobenzene	1.53421 / 1.63316 / 1.47856 / 1.51164 / 1.39256 / 1.45229 / 1.39559	1.48543	5.681
72 1,2-dibromo-3-chloropropane	0.11898 / 0.15472 / 0.14136 / 0.14166 / 0.12428 / 0.13408 / 0.13263	0.13539	8.796
73 1,3,5-trichlorobenzene	0.96966 / 1.06168 / 0.98767 / 1.00455 / 0.94556 / 1.00470 / 0.96867	0.99178	3.771
74 1,2,4-trichlorobenzene	0.86050 / 0.89794 / 0.85024 / 0.85040 / 0.79328 / 0.83890 / 0.82478	0.84515	3.810
75 hexachlorobutadiene	0.40244 / 0.38055 / 0.35077 / 0.36231 / 0.35602 / 0.36196 / 0.35700	0.36729	4.934
76 naphthalene	2.00506 / 2.30952 / 2.26142 / 2.27033 / 2.06575 / 2.21572 / 2.16867	2.18521	5.165
77 1,2,3-trichlorobenzene	0.89203 / 0.94320 / 0.87844 / 0.86895 / 0.81468 / 0.87235 / 0.85522	0.87498	4.433
M 78 Xylene (total)	0.62405 / 0.64116 / 0.59467 / 0.60894 / 0.53391 / 0.58282 / 0.57687	0.60320	3.814
$ 55 4-bromofluorobenzene	0.50627 / 0.48695 / 0.46359 / 0.47881 / 0.50569 / 0.48173 / 0.48621	0.48703	3.096

Alpha Analytical Labs

INITIAL CALIBRATION DATA

Start Cal Date : 10-NOV-2013 19:33
End Cal Date : 10-NOV-2013 23:22
Quant Method : ISTD
Origin : Disabled
Target Version : 4.12
Integrator : HP RTE
Method file : \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131110ICAL.b\524extras.m
Cal Date : 11-Nov-2013 09:26 Bundy.i
Curve Type : Average

Compound	2.500 Level 1	20.000 Level 3	40.000 Level 4	60.000 Level 5	100.000 Level 6	200.000 Level 7	400.000 Level 8	___ RRF	% RSD
$ 70 1,2-Dichlorobenzene-d4	0.96546	0.90953	0.99285	0.98850	0.90943	0.92084	0.98479	0.95306	4.027

Alpha Analytical Labs

Data file : \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131110ICAL.b\BFB1110B.D
Lab Smp Id:
Inj Date : 10-NOV-2013 17:06
Operator : kl Inst ID: Bundy.i
Smp Info : bfb tune (1ul dir inj)
Misc Info : 25 ng std
Comment :
Method : \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131110ICAL.b\bfb.m
Meth Date : 06-Oct-2011 16:04 klongeneck Quant Type: ISTD
Cal Date : 22-JUN-1994 11:13 Cal File: 622c0101001.d
Als bottle: 2 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12 Sample Matrix: WATER
Processing Host: VIRTUALXP-72976

Concentration Formula: Amt * DF * Uf * Vf * VI * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vf	1.000	Volumetric correction factor
VI	1.000	Injection Volume
Cpnd Variable		Local Compound Variable

RT	EXP RT	REL RT	MASS	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
1 bfb						CAS #: 460-00-4		
7.155	6.900	(0.000)	95	83744			100.00- 100.00	100.00
7.155	6.900	(0.000)	50	17944			15.00- 40.00	21.43
7.155	6.900	(0.000)	75	36984			30.00- 60.00	44.16
7.155	6.900	(0.000)	96	5726			5.00- 9.00	6.84
7.155	6.900	(0.000)	173	761			0.00- 2.00	1.09
7.155	6.900	(0.000)	174	70008			50.00- 100.00	83.60
7.155	6.900	(0.000)	175	5417			5.00- 9.00	7.74
7.155	6.900	(0.000)	176	67664			95.00- 101.00	96.65
7.155	6.900	(0.000)	177	4292			5.00- 9.00	6.34

Alpha Analytical Labs

TARGET COMPOUNDS

Client Name:
Lab Smp Id:
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: bfb
Data Type: MS DATA
Misc Info: 25 ng std

Client SDG: SDGa03020
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: kl

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
460-00-4	--------bfb	0.0	

Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131110ICAL.b\BFB1110B.D

Date : 10-NOV-2013 17:06

Client ID:

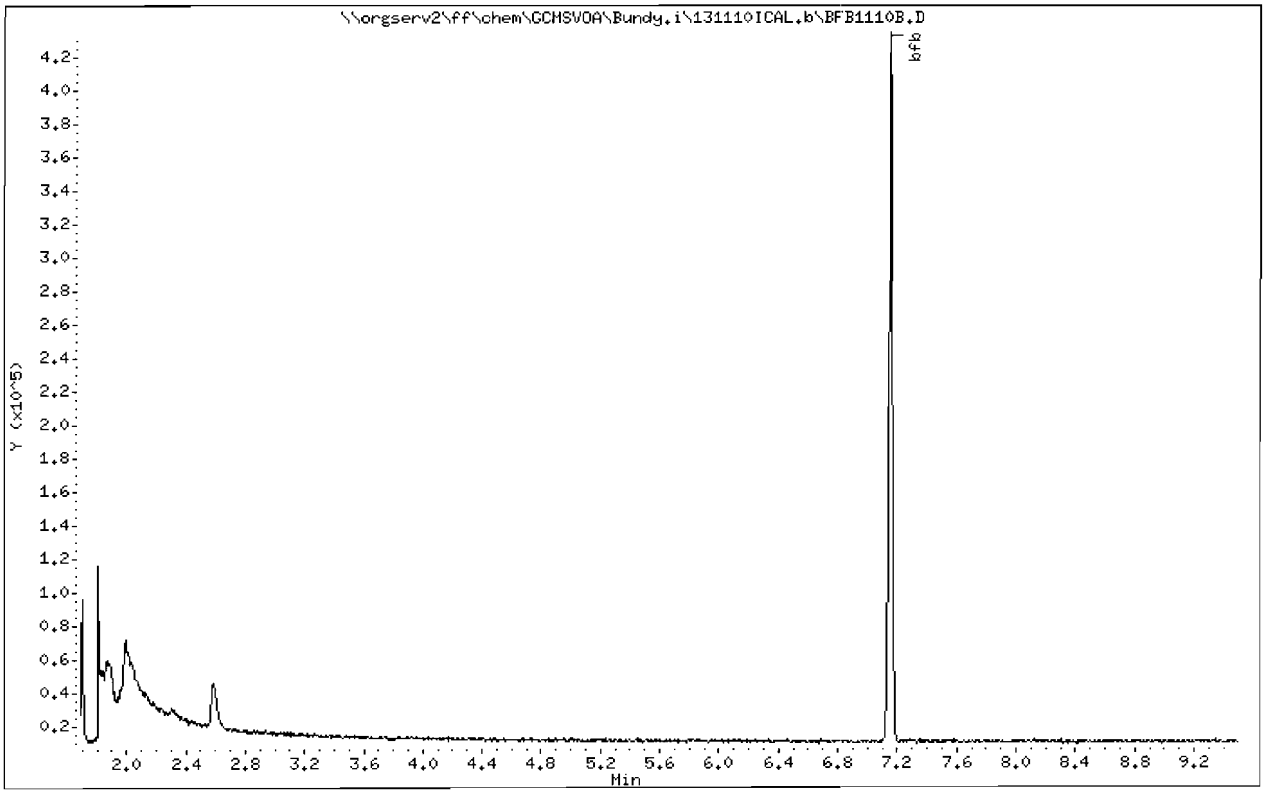
Instrument: Bundy.i

Sample Info: bfb tune (1ul dir inj)

Operator: kl

Column phase:

Column diameter: 2.00



Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131110ICAL.b\BFB1110B.D

Date : 10-NOV-2013 17:06

Client ID:

Instrument: Bundy.i

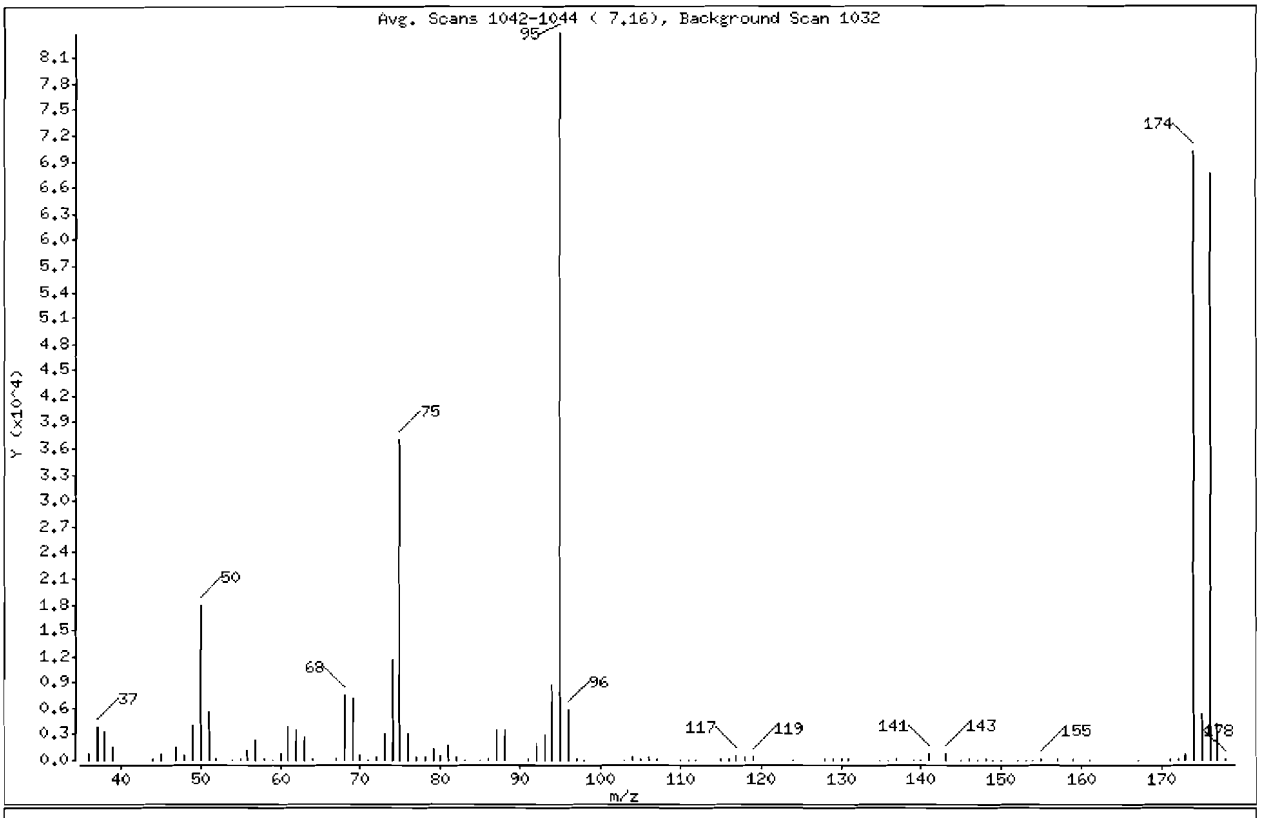
Sample Info: bfb tune (1ul dir inj)

Operator: kl

Column phase:

Column diameter: 2.00

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	21.43
75	30.00 - 60.00% of mass 95	44.16
96	5.00 - 9.00% of mass 95	6.84
173	Less than 2.00% of mass 174	0.91 (1.09)
174	50.00 - 100.00% of mass 95	83.60
175	5.00 - 9.00% of mass 174	6.47 (7.74)
176	95.00 - 101.00% of mass 174	80.80 (96.65)
177	5.00 - 9.00% of mass 176	5.13 (6.34)

Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131110ICAL.b\BFB1110B.D

Date : 10-NOV-2013 17:06

Client ID:

Instrument: Bundy.i

Sample Info: bfb tune (1ul dir inj)

Operator: kl

Column phase:

Column diameter: 2.00

Data File: BFB1110B.D
Spectrum: Avg. Scans 1042-1044 (7.16), Background Scan 1032
Location of Maximum: 95.00
Number of points: 99

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	765	69.00	7034	97.00	167	141.00	714
37.00	3812	70.00	572	98.00	27	143.00	705
38.00	3369	71.00	82	103.00	17	145.00	85
39.00	1513	72.00	356	104.00	336	146.00	121
44.00	115	73.00	3052	105.00	137	147.00	67
45.00	775	74.00	11474	106.00	354	148.00	142
47.00	1447	75.00	36984	107.00	100	149.00	77
48.00	578	76.00	3163	110.00	23	150.00	67
49.00	3970	77.00	417	111.00	72	152.00	44
50.00	17944	78.00	341	112.00	38	153.00	84
51.00	5511	79.00	1388	115.00	149	154.00	33
52.00	234	80.00	507	116.00	252	155.00	196
54.00	62	81.00	1657	117.00	496	157.00	140
55.00	285	82.00	408	118.00	339	159.00	123
56.00	1251	83.00	27	119.00	335	161.00	36
57.00	2306	85.00	31	124.00	48	167.00	17
58.00	108	86.00	128	128.00	227	171.00	110
59.00	63	87.00	3512	129.00	143	172.00	153
60.00	769	88.00	3441	130.00	274	173.00	761
61.00	3785	91.00	216	131.00	129	174.00	70008
62.00	3459	92.00	1883	135.00	93	175.00	5417
63.00	2751	93.00	2886	136.00	17	176.00	67664
64.00	215	94.00	8712	137.00	104	177.00	4292
67.00	189	95.00	83744	139.00	22	178.00	108
68.00	7493	96.00	5726	140.00	70		

Alpha Analytical Labs

gc/ms voa -Bundy 524

Data file : \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131110ICAL.b\1107A05.D
Lab Smp Id:
Inj Date : 10-NOV-2013 19:33
Operator : gt Inst ID: Bundy.i
Smp Info : CAL1
Misc Info : wg,ical8647
Comment :
Method : \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131110ICAL.b\524extras.m
Meth Date : 30-Dec-2013 10:47 Bundy.i Quant Type: ISTD
Cal Date : 10-NOV-2013 19:33 Cal File: 1107A05.D
Als bottle: 32 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 524NH.sub
Target Version: 4.12
Processing Host: VIRTUALXP-72976

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ngs)	ON-COL (ngs)	REVIEW CODE
1 dichlorodifluoromethane	85	2.752	2.752	(0.350)	2440	2.50000	2.82	
2 chloromethane	50	3.072	3.072	(0.390)	3378	2.50000	2.79(M)	M2
3 vinyl chloride	62	3.208	3.208	(0.407)	3015	2.50000	2.93(M)	M1
4 bromomethane	94	3.753	3.753	(0.477)	623	2.50000	1.99(M)	M2
5 chloroethane	64	3.821	3.821	(0.485)	1732	2.50000	3.03(M)	M2
6 trichlorofluoromethane	101	4.110	4.110	(0.522)	2871	2.50000	2.66(M)	M2
7 Ethyl ether	74	4.409	4.409	(0.560)	1287	2.50000	3.28	
8 Acetone	43	4.623	4.623	(0.587)	2376	5.00000	8.69	
9 1,1-dichloroethene	96	4.776	4.776	(0.607)	2055	2.50000	3.04	
10 Tert-Butyl Alcohol	59	4.398	4.398	(0.559)	2439	12.5000	16.28(M)	M1
11 methylene chloride	84	5.279	5.279	(0.670)	2571	2.50000	3.29	
12 Carbon disulfide	76	5.363	5.363	(0.681)	5847	2.50000	2.76	
13 methyl-tert-butyl ether	73	5.415	5.415	(0.688)	5421	2.50000	2.59	
14 trans-1,2-dichloroethene	96	5.588	5.588	(0.710)	2343	2.50000	2.90(M)	M1
15 Diisopropyl Ether	45	5.850	5.850	(0.743)	10131	2.50000	2.72	
16 1,1-dichloroethane	63	6.023	6.023	(0.765)	5097	2.50000	2.81(M)	M2
17 Ethyl-Tert-Butyl-Ether	59	6.270	6.270	(0.796)	8857	2.50000	2.71	
18 2-butanone	43	6.427	6.427	(0.816)	2983	5.00000	5.74(M)	
19 2,2-dichloropropane	77	6.600	6.600	(0.838)	3189	2.50000	2.88(M)	M2
20 cis-1,2-dichloroethene	96	6.647	6.647	(0.844)	2311	2.50000	2.66	
21 chloroform	83	6.810	6.810	(0.865)	3829	2.50000	2.77	
22 bromochloromethane	128	6.999	6.999	(0.889)	1118	2.50000	2.56	
23 Tetrahydofuran	42	7.014	7.014	(0.891)	1727	5.00000	5.44	
24 1,1,1-trichloroethane	97	7.229	7.229	(0.918)	3425	2.50000	2.76	
25 1,1-dichloropropene	75	7.387	7.387	(0.938)	2894	2.50000	2.81	
26 Tert-Amyl Methyl Ether	73	7.460	7.460	(0.948)	5907	2.50000	2.63	
27 carbon tetrachloride	117	7.507	7.507	(0.953)	2984	2.50000	2.67	
28 1,2-dichloroethane	62	7.643	7.643	(0.971)	3415	2.50000	2.65(M)	M2

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ngs)	AMOUNTS ON-COL (ngs)	REVIEW CODE
	29 benzene	78	7.685	7.685	(0.976)	8996	2.50000	2.76	
*	30 fluorobenzene	96	7.874	7.874	(1.000)	66123	20.0000		
	31 trichloroethene	95	8.299	8.299	(1.054)	2437	2.50000	2.83	
	32 1,2-dichloropropane	63	8.493	8.493	(1.079)	2762	2.50000	2.58(M)	M2
	33 bromodichloromethane	83	8.755	8.755	(1.112)	3239	2.50000	2.85(M)	M2
	34 dibromomethane	93	8.823	8.823	(1.121)	1430	2.50000	2.74	
	35 4-methyl-2-pentanone	58	9.028	9.028	(1.146)	2540	5.00000	5.56(M)	M2
	36 cis-1,3-dichloropropene	75	9.306	9.306	(1.182)	3412	2.50000	2.49	
	37 toluene	92	9.693	9.693	(1.231)	5612	2.50000	2.61	
	38 trans-1,3-dichloropropene	75	9.851	9.851	(1.251)	3084	2.50000	2.44	
	39 2-hexanone	43	9.992	9.992	(0.880)	1995	2.50000	2.53(M)	M2
	40 1,1,2-trichloroethane	83	10.050	10.050	(1.276)	1680	2.50000	2.58(M)	M1
	41 1,3-dichloropropane	76	10.333	10.333	(1.312)	3299	2.50000	2.53(M)	M2
	42 tetrachloroethene	166	10.443	10.443	(1.326)	2539	2.50000	2.78	
	43 dibromochloromethane	129	10.695	10.695	(1.358)	2291	2.50000	2.47(M)	M2
	44 1,2-dibromoethane	107	10.931	10.931	(0.963)	2104	2.50000	2.61(M)	M2
*	45 Chlorobenzene-d5	117	11.356	11.356	(1.000)	50517	20.0000		
	46 chlorobenzene	112	11.403	11.403	(1.004)	6628	2.50000	2.67	
	47 ethylbenzene	91	11.434	11.434	(1.007)	10934	2.50000	2.70	
	48 1,1,1,2-tetrachloroethane	131	11.434	11.434	(1.007)	2417	2.50000	2.71	
	49 p/m-xylenes	106	11.518	11.518	(1.014)	7712	5.00000	5.06	
	50 o-xylenes	106	12.053	12.053	(1.061)	4110	2.50000	2.69	
	51 styrene	104	12.095	12.095	(1.065)	6437	2.50000	2.44(M)	M2
	52 isopropylbenzene	105	12.467	12.467	(1.098)	9913	2.50000	2.53	
	53 bromoform	173	12.561	12.561	(1.106)	1449	2.50000	2.39(M)	M2
	54 1,1,2,2-tetrachloroethane	83	12.672	12.672	(1.116)	2623	2.50000	2.56(M)	M2
S	55 4-bromofluorobenzene	95	12.797	12.797	(1.127)	25575	20.0000	20.78	
	56 1,2,3-trichloropropane	110	12.866	12.866	(1.133)	908	2.50000	3.01	
	57 n-propylbenzene	91	12.960	12.960	(1.141)	12001	2.50000	2.58	
	58 bromobenzene	156	13.075	13.075	(1.151)	2617	2.50000	2.48	
	59 1,3,5-trimethylbenzene	105	13.149	13.149	(1.158)	8685	2.50000	2.68	
	60 o-chlorotoluene	126	13.217	13.217	(1.164)	2213	2.50000	2.33	
	61 p-chlorotoluene	91	13.264	13.264	(1.168)	7580	2.50000	2.55	
	62 tert-butylbenzene	119	13.594	13.594	(1.197)	7525	2.50000	2.64	
	63 1,2,4,-trimethylbenzene	105	13.647	13.647	(1.202)	8358	2.50000	2.55	
	64 sec-butylbenzene	105	13.856	13.856	(1.220)	10411	2.50000	2.54	
	65 p-isopropyltoluene	119	14.019	14.019	(1.235)	9357	2.50000	2.56	
	66 1,3-dichlorobenzene	146	14.182	14.182	(0.994)	4998	2.50000	2.49	
*	67 1,4-Dichlorobenzene-d4	152	14.271	14.271	(1.000)	26896	20.0000		
	68 1,4-dichlorobenzene	146	14.313	14.313	(1.003)	5469	2.50000	2.64	
	69 n-butylbenzene	91	14.517	14.517	(1.017)	7962	2.50000	2.57	
S	70 1,2-Dichlorobenzene-d4	152	14.748	14.748	(1.033)	25967	20.0000	20.26	
	71 1,2-dichlorobenzene	146	14.779	14.779	(1.036)	5158	2.50000	2.58	
	72 1,2-dibromo-3-chloropropane	75	15.723	15.723	(1.102)	400	2.50000	2.19(M)	M2
	73 1,3,5-trichlorobenzene	180	15.996	15.996	(1.121)	3260	2.50000	2.44	
	74 1,2,4-trichlorobenzene	182	16.761	16.761	(1.175)	2893	2.50000	2.54	
	75 hexachlorobutadiene	225	16.918	16.918	(1.186)	1353	2.50000	2.73(M)	M2
	76 naphthalene	128	17.118	17.118	(1.199)	6741	2.50000	2.29	
	77 1,2,3-trichlorobenzene	180	17.437	17.437	(1.222)	2999	2.50000	2.54	
M	78 Xylene (total)	106				11822	7.50000		

QC Flag Legend

M - Compound response manually integrated.

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: Bundy.i
Lab File ID: 1107A05.D
Lab Smp Id:
Analysis Type: VOA
Quant Type: ISTD
Operator: gt
Method File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131110ICAL.b\524extras.m
Misc Info: wg,ical8647

Calibration Date: 11-NOV-2013
Calibration Time: 01:00
Level: MED
Sample Type: WATER

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 3

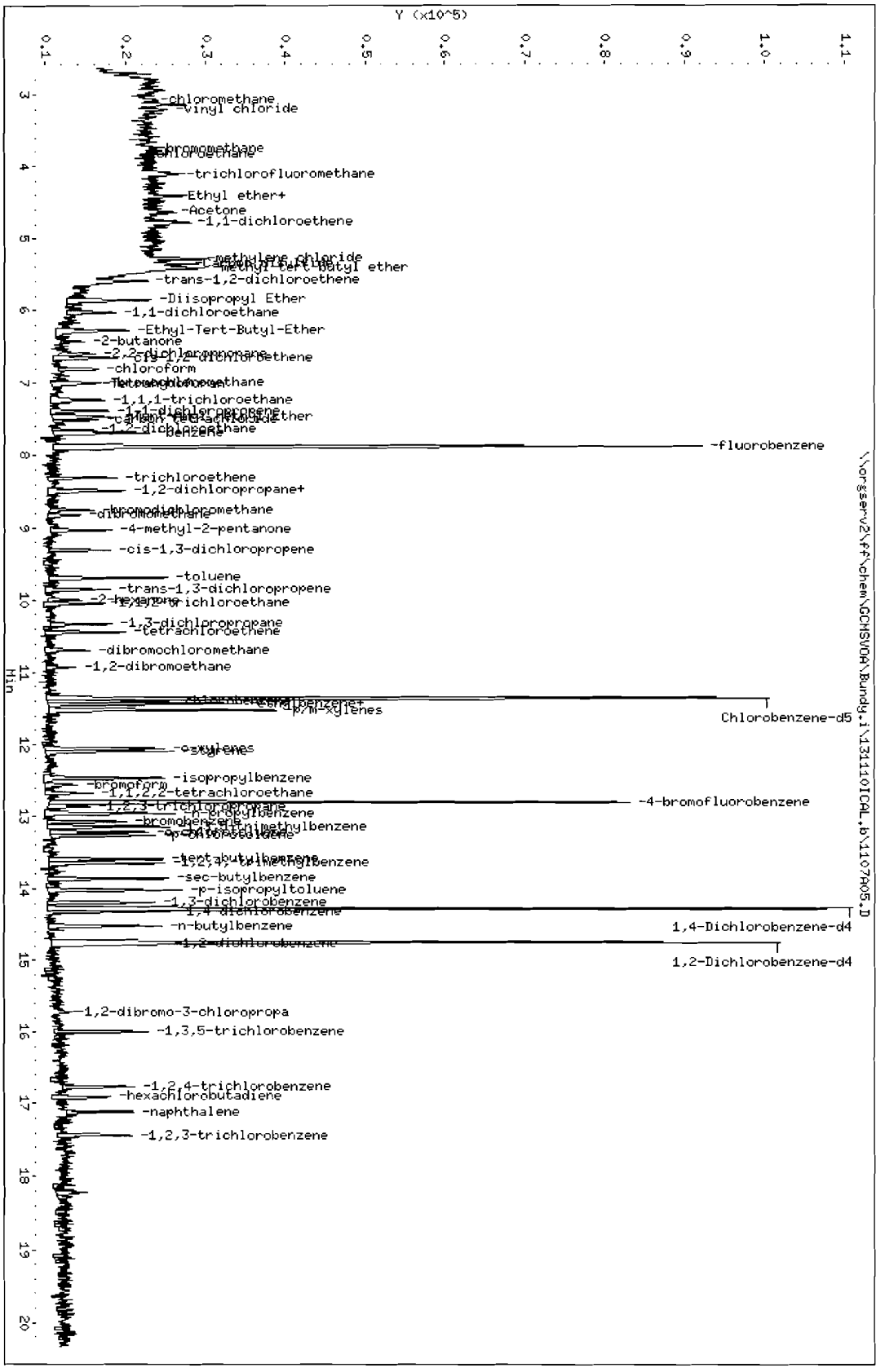
COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
30 fluorobenzene	66311	33156	132622	66123	-0.28
45 Chlorobenzene-d5	50410	25205	100820	50517	0.21
67 1,4-Dichlorobenze	26848	13424	53696	26896	0.18

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
30 fluorobenzene	7.87	7.37	8.37	7.87	0.00
45 Chlorobenzene-d5	11.36	10.86	11.86	11.36	-0.05
67 1,4-Dichlorobenze	14.28	13.78	14.78	14.27	-0.04

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131110ICAL.b\1107A05.D
Date : 10-NOV-2013 19:33
Client ID:
Sample Info: CAL1
Purge Volume: 5.0
Column phase:

Instrument: Bundy.i
Operator: gt
Column diameter: 0.18



Page 5

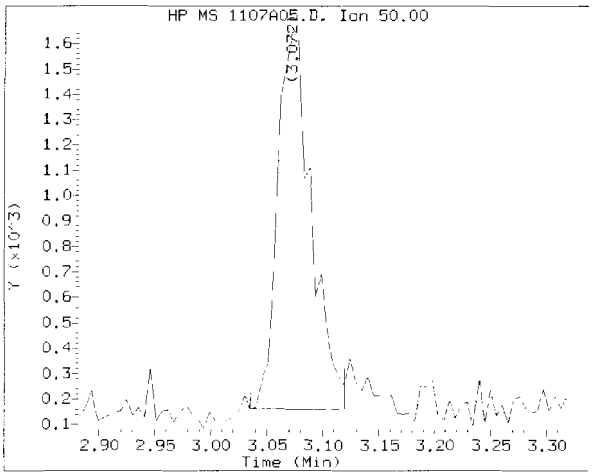
Alpha Analytical Labs

Manual Integration

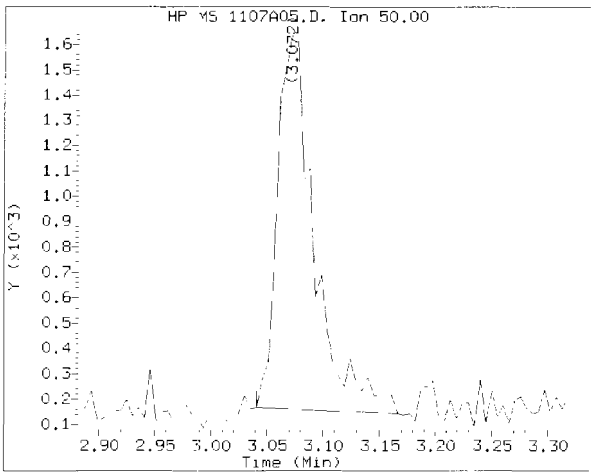
Sample Info : CAL1
wg,ical8647

Instrument ID : Bundy.i
Method : 524extras.m
File : 1107A05.D
Injection Date : 10-NOV-2013 19:33
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_1

Compound # 2: chloromethane



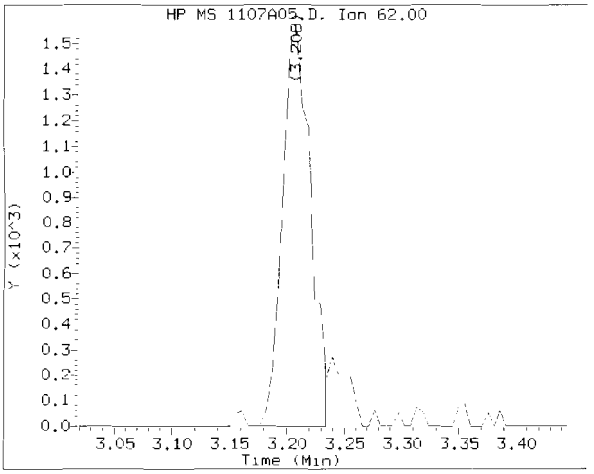
Original Peak Response = 3125



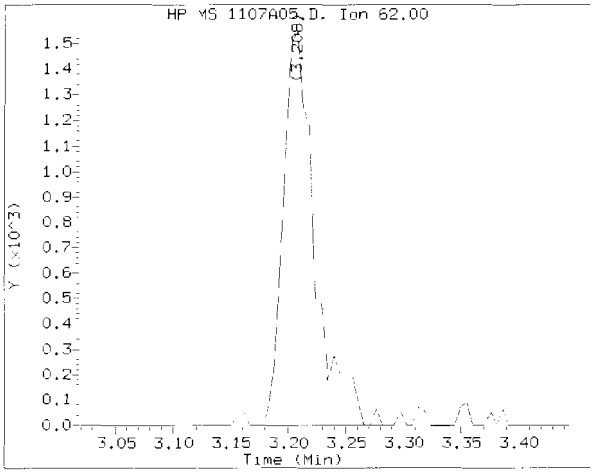
Manual Peak Response = 3378 M2

M2 = Peak not found by automatic integration algorithm.

Compound # 3: vinyl chloride



Original Peak Response = 2681



Manual Peak Response = 3015 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false lo area count.

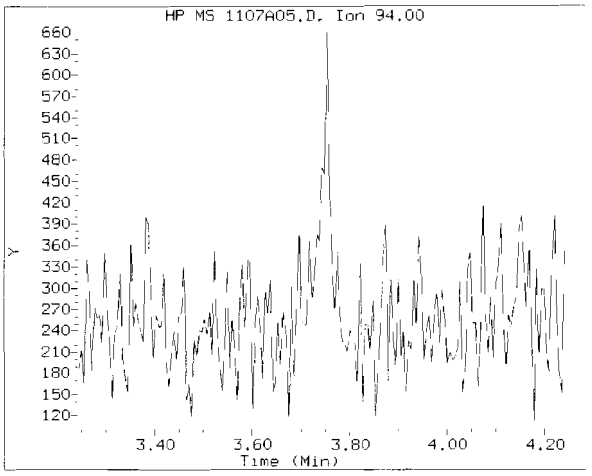
Alpha Analytical Labs

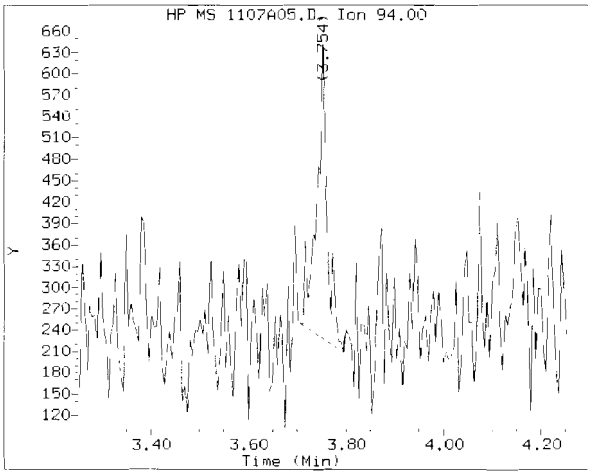
Manual Integration

Sample Info : L1
wg,ica18787

Instrument ID : Bundy.i
Method : 524extras.m
File : 1107A05.D
Injection Date : 10-NOV-2013 19:33
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_1

Compound # 4: bromomethane

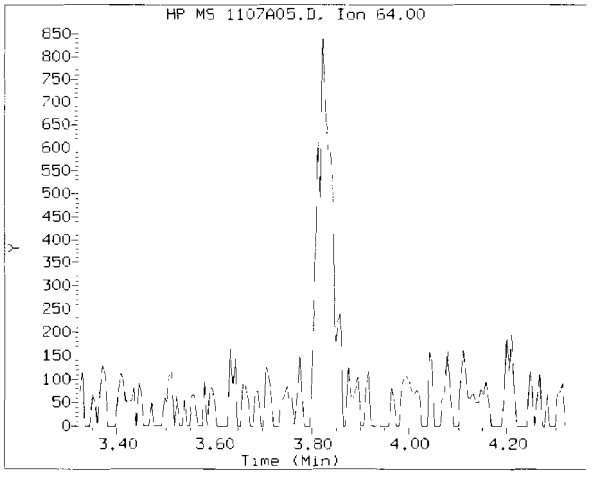


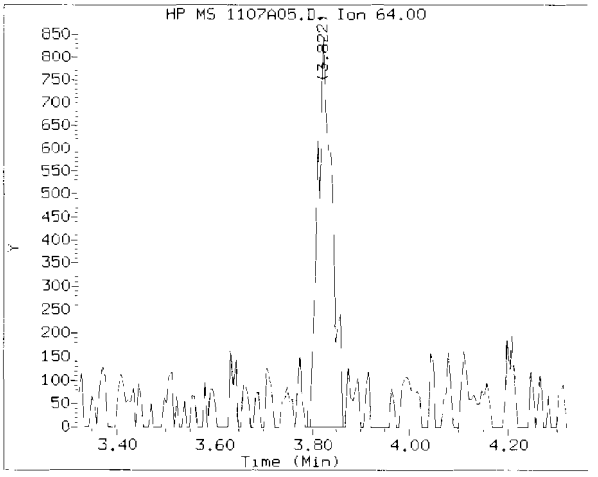


Original Peak Response = 0 Manual Peak Response = 623 M2

M2 = Peak not found by automatic integration algorithm.

Compound # 5: chloroethane





Original Peak Response = 0 Manual Peak Response = 1732 M2

M2 = Peak not found by automatic integration algorithm.

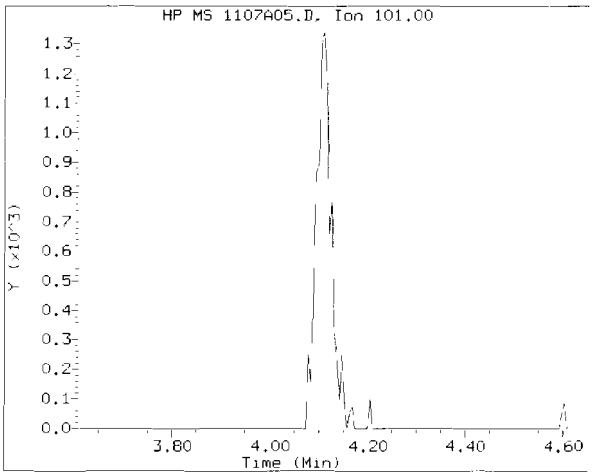
Alpha Analytical Labs

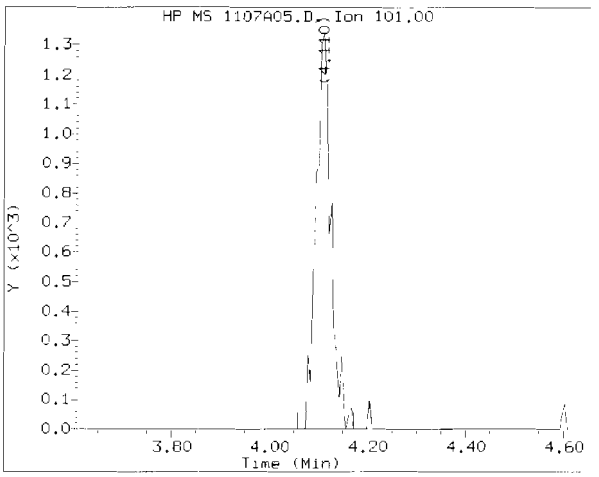
Manual Integration

Sample Info : L1
wg,ical8787

Instrument ID : Bundy.i
Method : 524extras.m
File : 1107A05.D
Injection Date : 10-NOV-2013 19:33
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_1

Compound # 6: trichlorofluoromethane

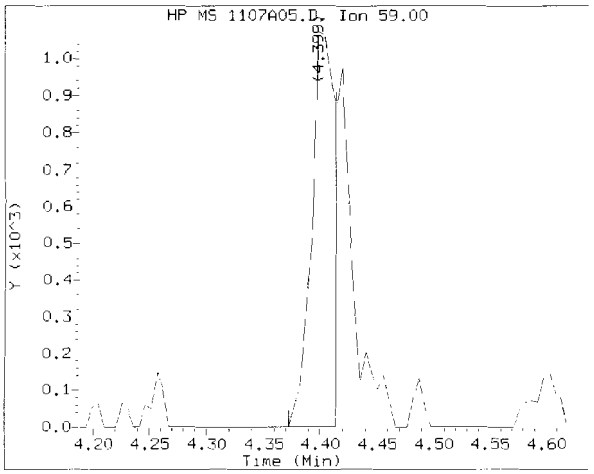


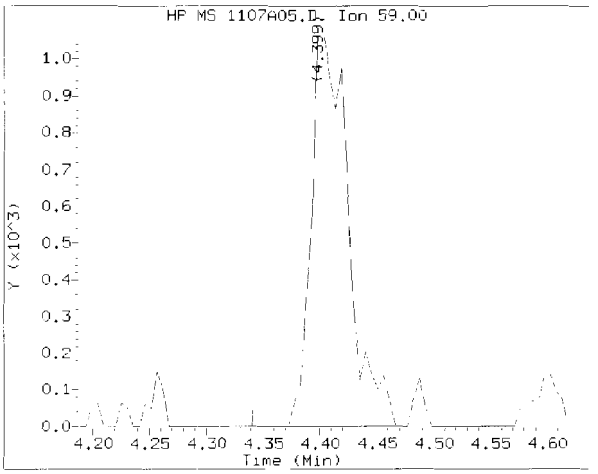


Original Peak Response = 0 Manual Peak Response = 2871 M2

M2 = Peak not found by automatic integration algorithm.

Compound # 10: Tert-Butyl Alcohol





Original Peak Response = 1571 Manual Peak Response = 2439 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false lo area count.

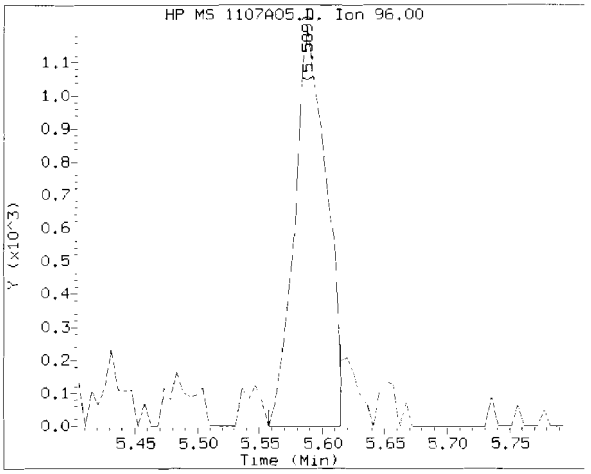
Alpha Analytical Labs

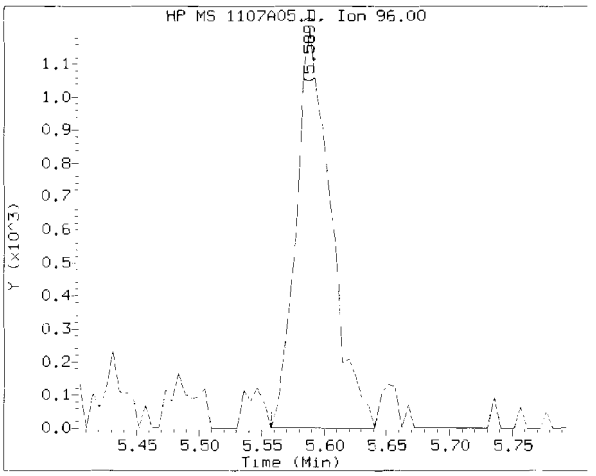
Manual Integration

Sample Info : L1
wg,ical8787

Instrument ID : Bundy.i
Method : 524extras.m
File : 1107A05.D
Injection Date : 10-NOV-2013 19:33
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_1

Compound # 14: trans-1,2-dichloroethene

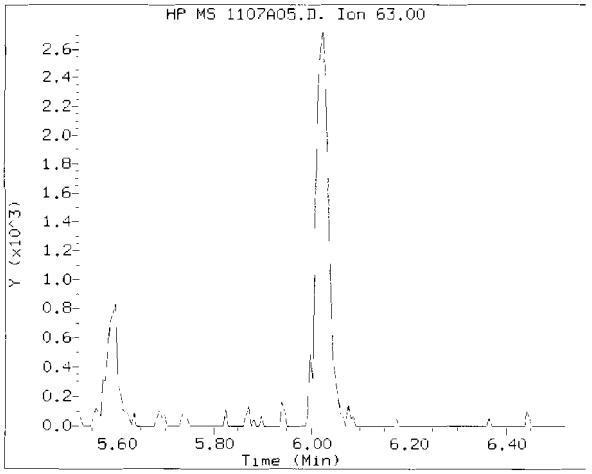


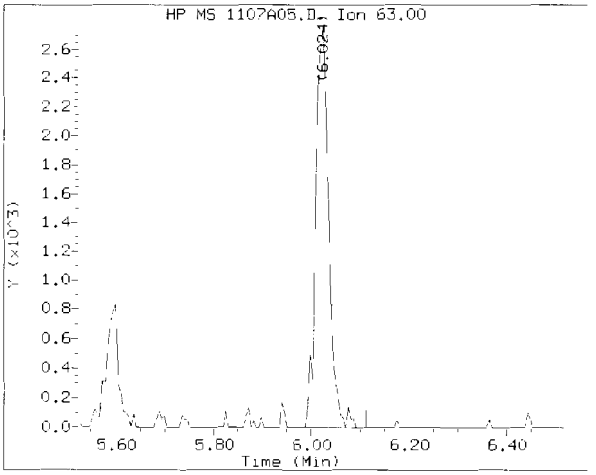


Original Peak Response = 2178 Manual Peak Response = 2343 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false lo area count.

Compound # 16: 1,1-dichloroethane





Original Peak Response = 0 Manual Peak Response = 5097 M2

M2 = Peak not found by automatic integration algorithm.

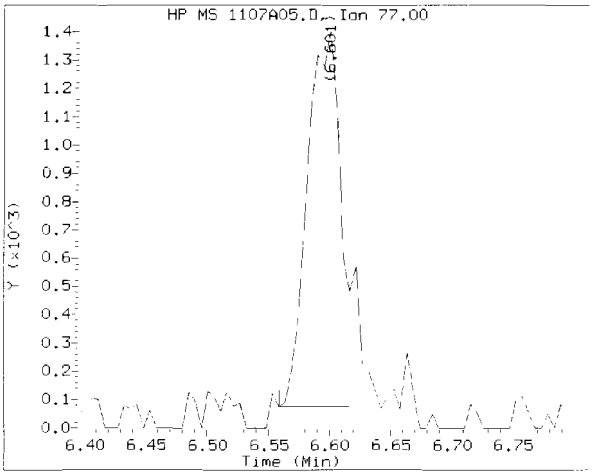
Alpha Analytical Labs

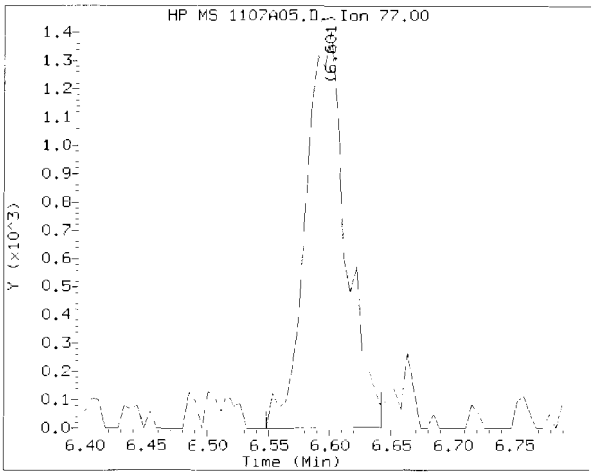
Manual Integration

Sample Info : Ll
wg,ical8787

Instrument ID : Bundy.i
Method : 524extras.m
File : 1107A05.D
Injection Date : 10-NOV-2013 19:33
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_1

Compound # 19: 2,2-dichloropropane

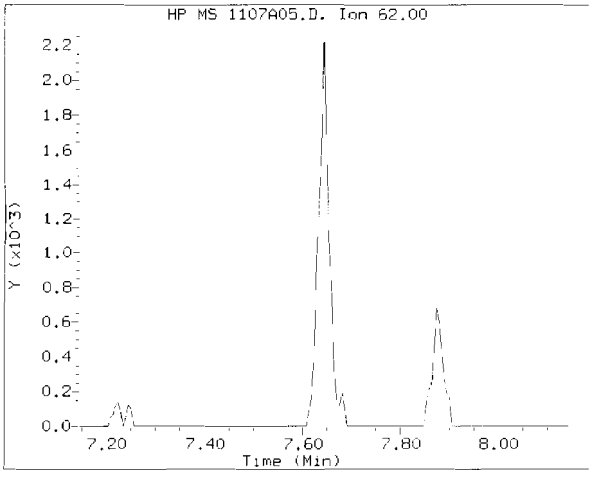


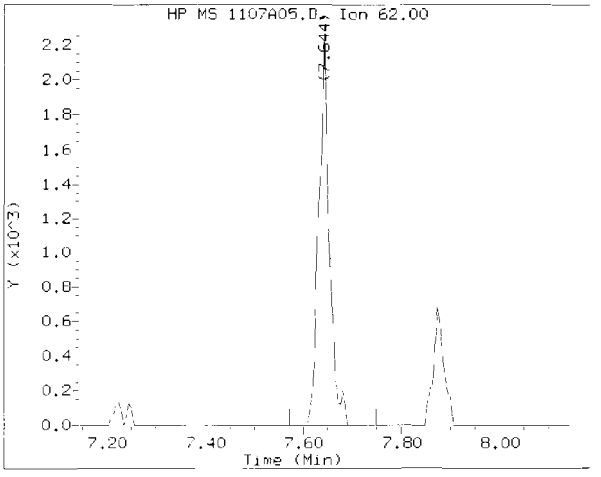


Original Peak Response = 2500 Manual Peak Response = 3189 M2

M2 = Peak not found by automatic integration algorithm.

Compound # 28: 1,2-dichloroethane





Original Peak Response = 0 Manual Peak Response = 3415 M2

M2 = Peak not found by automatic integration algorithm.

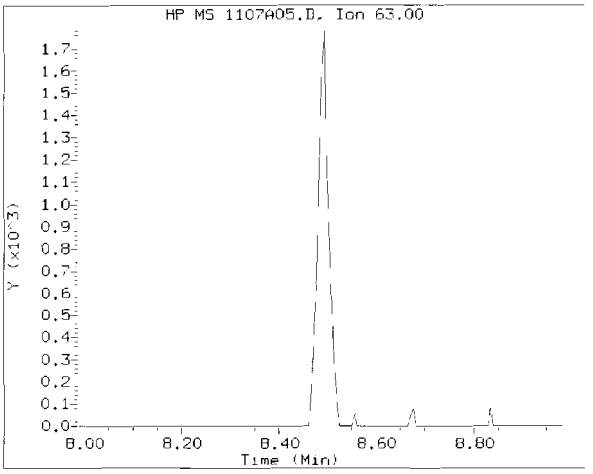
Alpha Analytical Labs

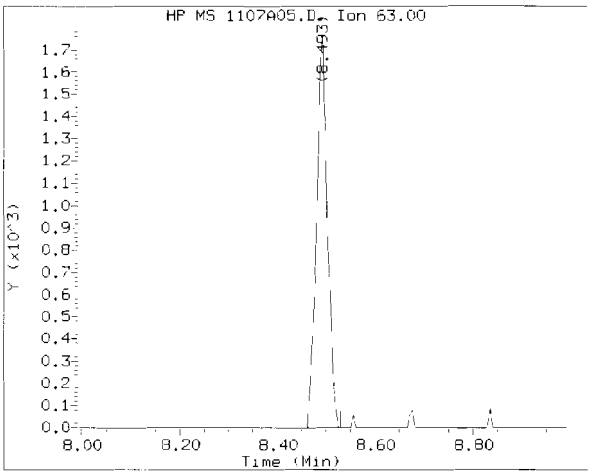
Manual Integration

Sample Info : L1
wg,ical8787

Instrument ID : Bundy.i
Method : 524extras.m
File : 1107A05.D
Injection Date : 10-NOV-2013 19:33
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_1

Compound # 32: 1,2-dichloropropane

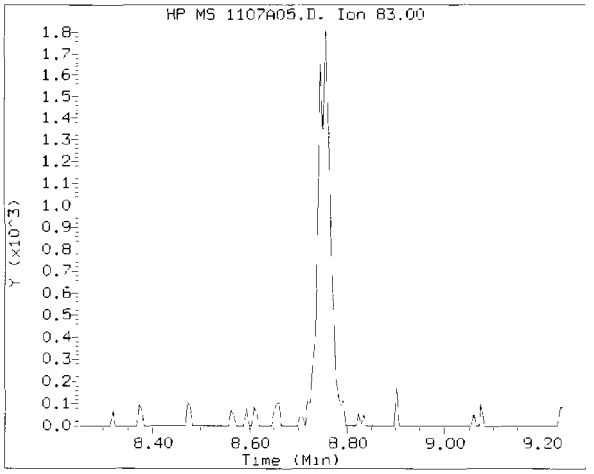


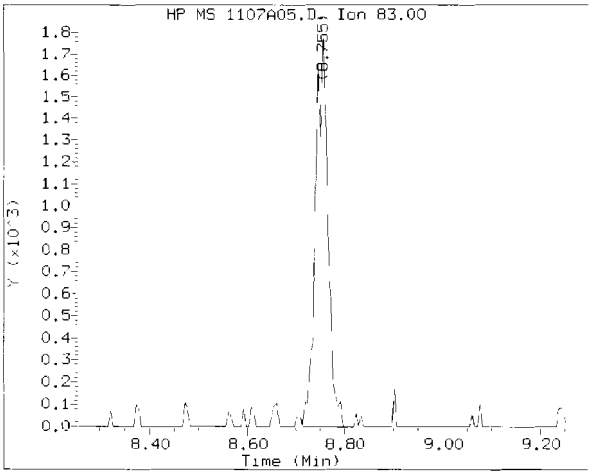


Original Peak Response = 0 Manual Peak Response = 2752 M2

M2 = Peak not found by automatic integration algorithm.

Compound # 33: bromodichloromethane





Original Peak Response = 0 Manual Peak Response = 3209 M2

M2 = Peak not found by automatic integration algorithm.

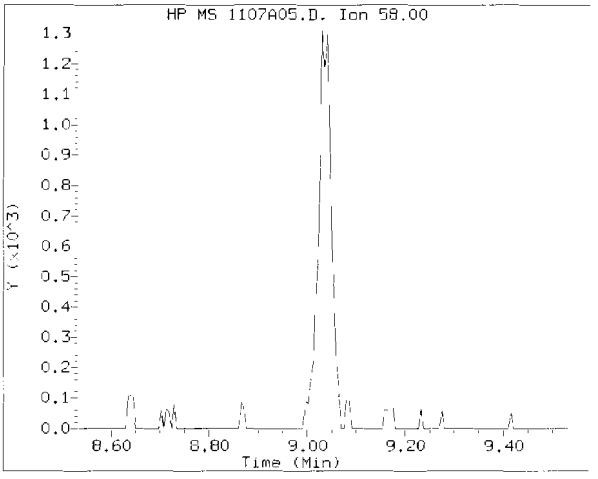
Alpha Analytical Labs

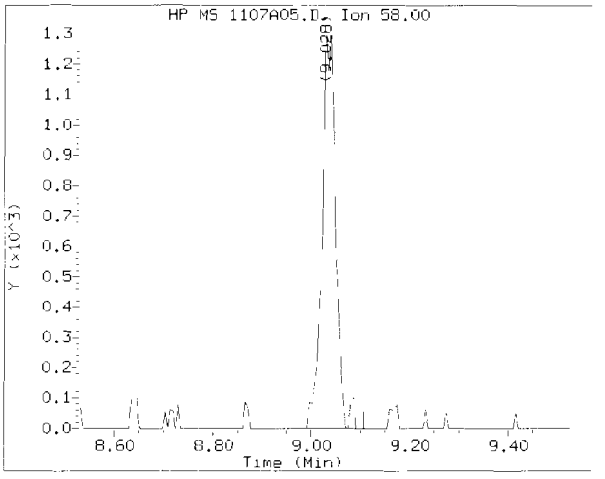
Manual Integration

Sample Info : L1
wg,ical8787

Instrument ID : Bundy.i
Method : 524extras.m
File : 1107A05.D
Injection Date : 10-NOV-2013 19:33
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_1

Compound # 35: 4-methyl-2-pentanone

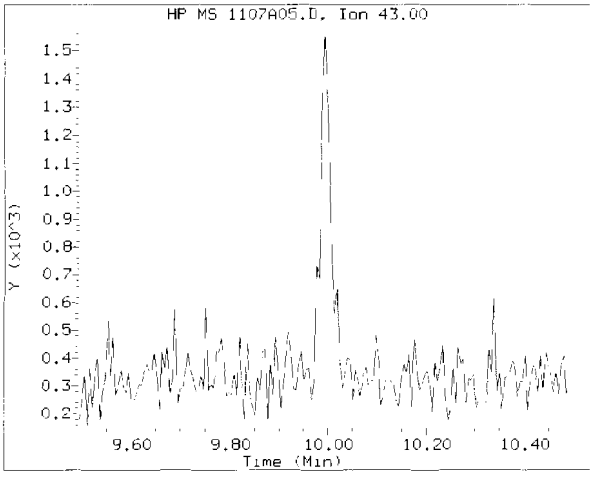


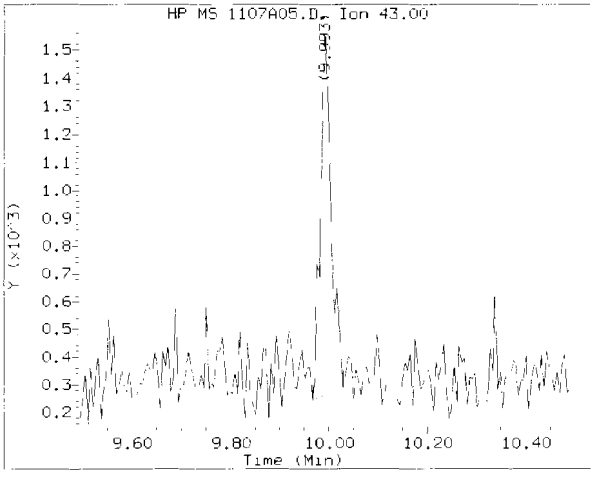


Original Peak Response = 0 Manual Peak Response = 2540 M2

M2 = Peak not found by automatic integration algorithm.

Compound # 39: 2-hexanone





Original Peak Response = 0 Manual Peak Response = 1995 M2

M2 = Peak not found by automatic integration algorithm.

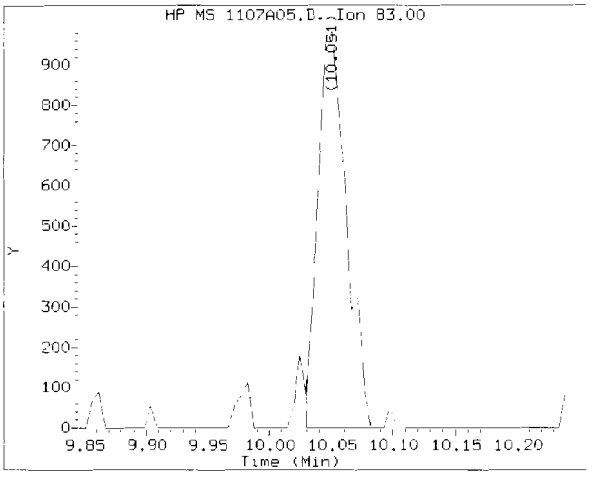
Alpha Analytical Labs

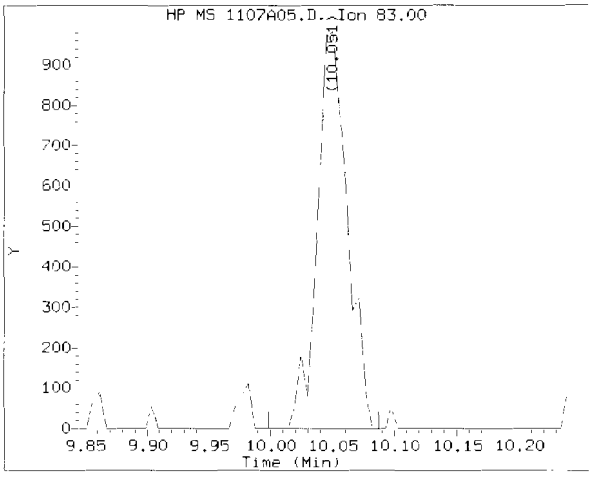
Manual Integration

Sample Info : L1
wg,ical8787

Instrument ID : Bundy.i
Method : 524extras.m
File : 1107A05.D
Injection Date : 10-NOV-2013 19:33
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_1

Compound # 40: 1,1,2-trichloroethane

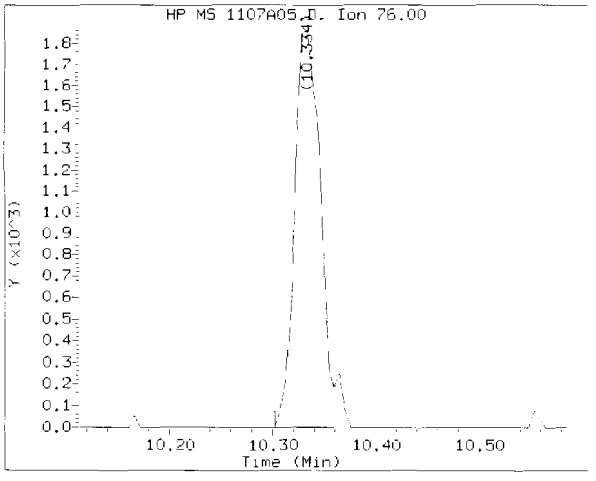


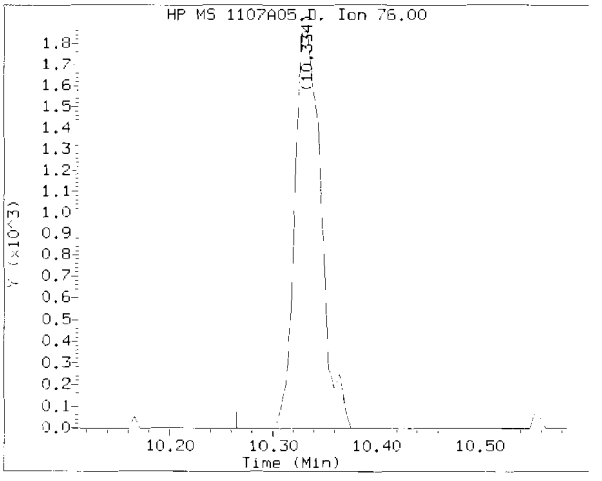


Original Peak Response = 1606 Manual Peak Response = 1680 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false lo area count.

Compound # 41: 1,3-dichloropropane





Original Peak Response = 3193 Manual Peak Response = 3299 M2

M2 = Peak not found by automatic integration algorithm.

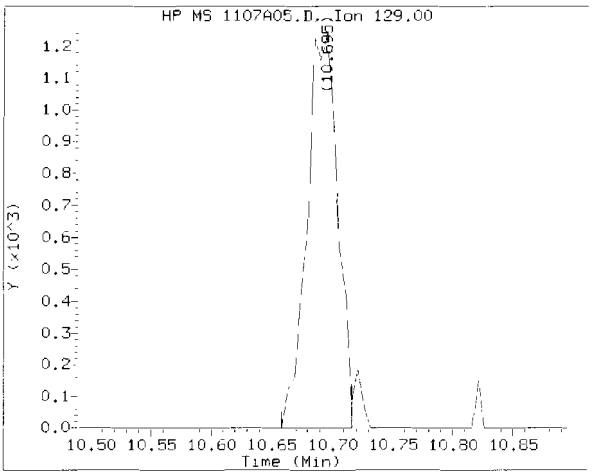
Alpha Analytical Labs

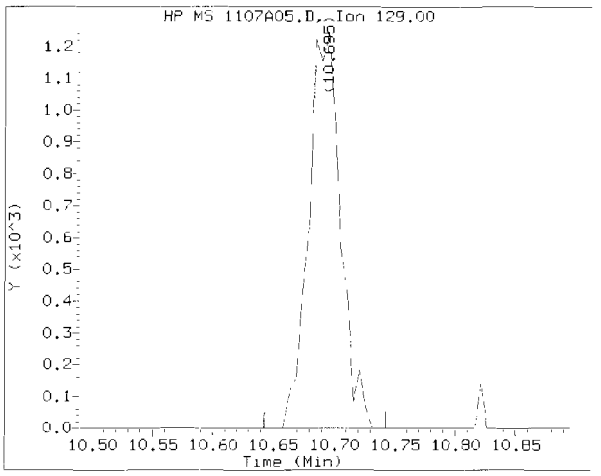
Manual Integration

Sample Info : L1
wg,ical8787

Instrument ID : Bundy.i
Method : 524extras.m
File : 1107A05.D
Injection Date : 10-NOV-2013 19:33
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_1

Compound # 43: dibromochloromethane

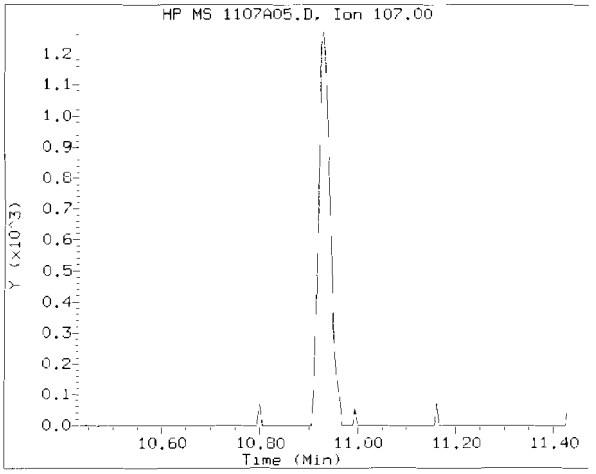


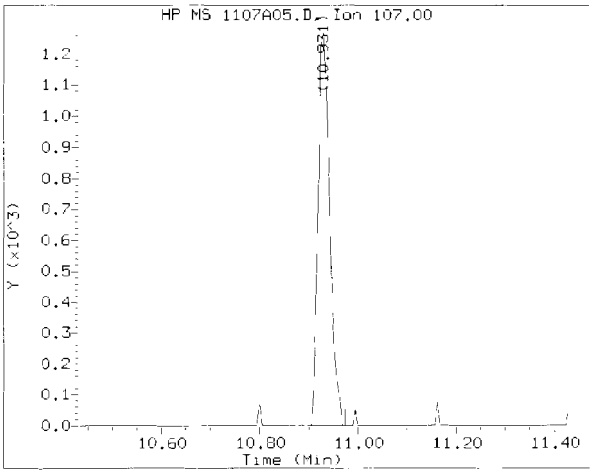


Original Peak Response = 2213 Manual Peak Response = 2291 M2

M2 = Peak not found by automatic integration algorithm.

Compound # 44: 1,2-dibromoethane





Original Peak Response = 0 Manual Peak Response = 2104 M2

M2 = Peak not found by automatic integration algorithm.

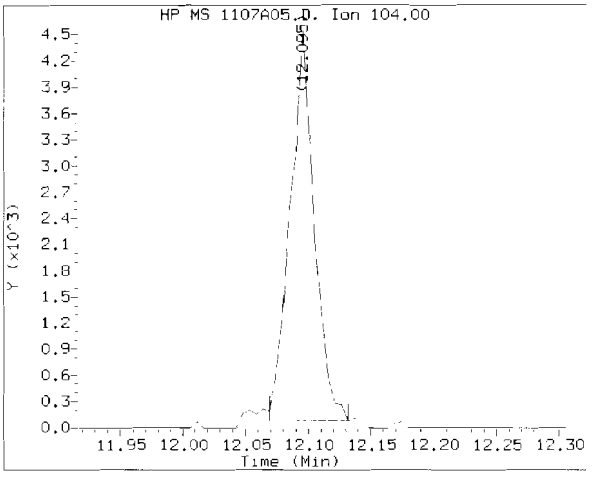
Alpha Analytical Labs

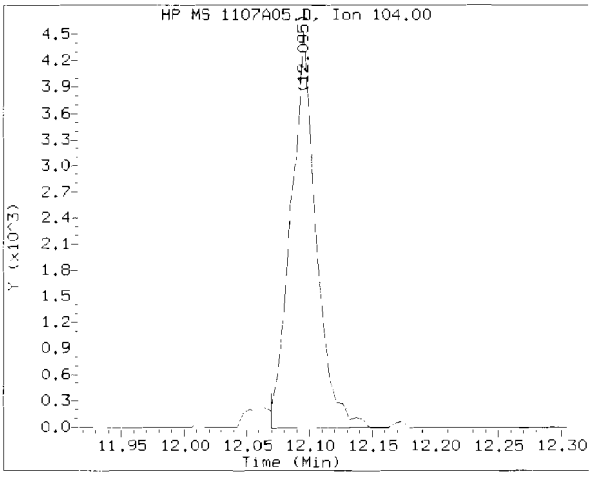
Manual Integration

Sample Info : L1
wg,ical8787

Instrument ID : Bundy.i
Method : 524extras.m
File : 1107A05.D
Injection Date : 10-NOV-2013 19:33
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_1

Compound # 51: styrene

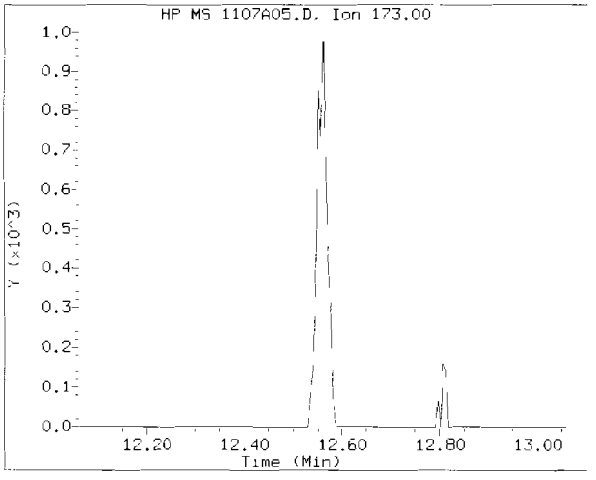


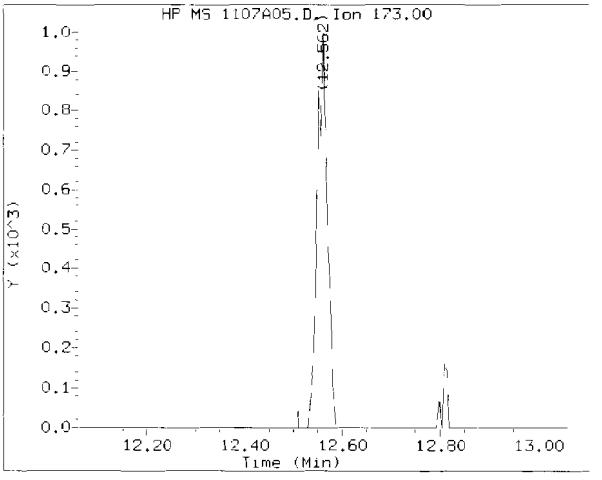


Original Peak Response = 5986 Manual Peak Response = 6437 M2

M2 = Peak not found by automatic integration algorithm.

Compound # 53: bromoform





Original Peak Response = 0 Manual Peak Response = 1449 M2

M2 = Peak not found by automatic integration algorithm.

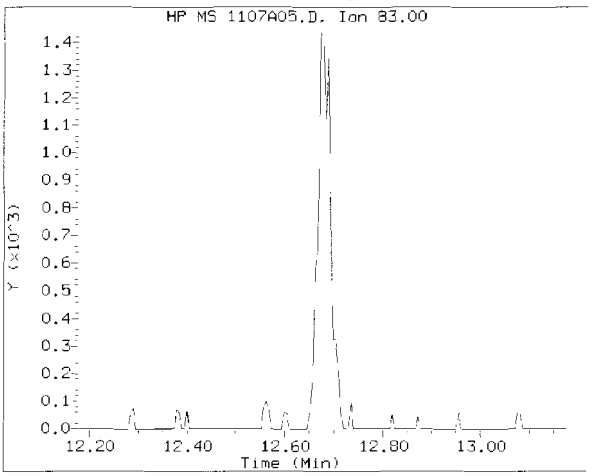
Alpha Analytical Labs

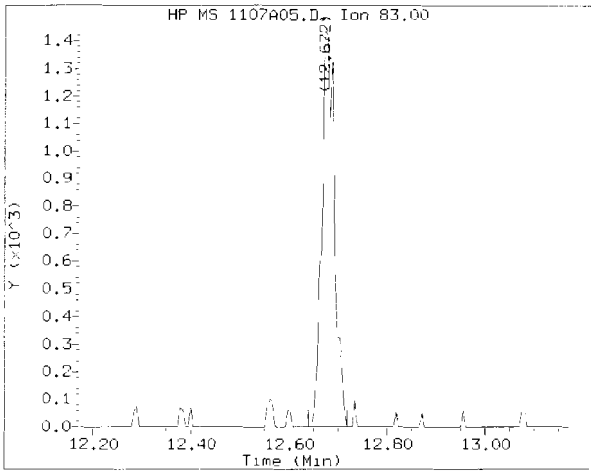
Manual Integration

Sample Info : L1
wg,ica18787

Instrument ID : Bundy.i
Method : 524extras.m
File : 1107A05.D
Injection Date : 10-NOV-2013 19:33
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_1

Compound # 54: 1,1,2,2-tetrachloroethane

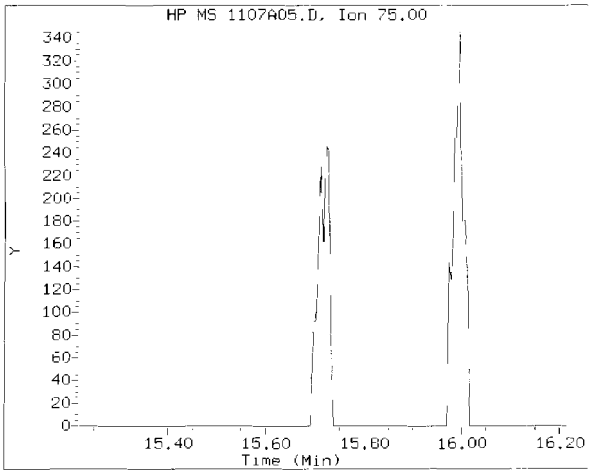


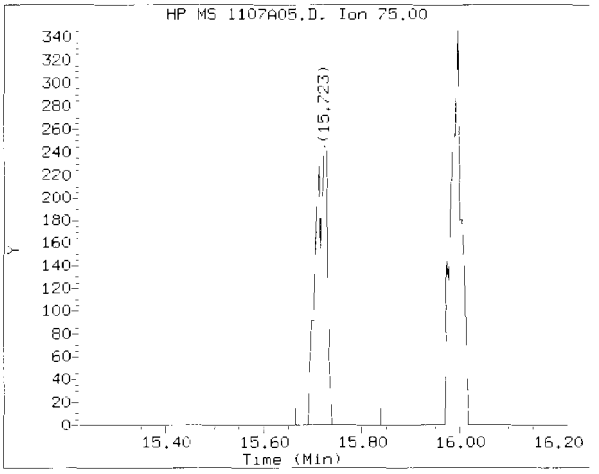


Original Peak Response = 0 Manual Peak Response = 2623 M2

M2 = Peak not found by automatic integration algorithm.

Compound # 72: 1,2-dibromo-3-chloropropane





Original Peak Response = 0 Manual Peak Response = 400 M2

M2 = Peak not found by automatic integration algorithm.

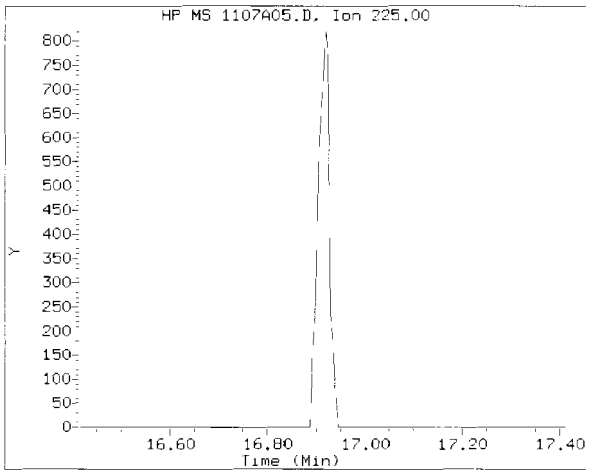
Alpha Analytical Labs

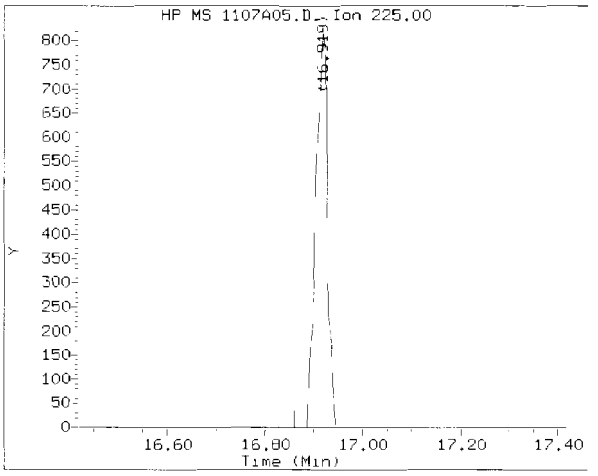
Manual Integration

Sample Info : L1
wg,ical8787

Instrument ID : Bundy.i
Method : 524extras.m
File : 1107A05.D
Injection Date : 10-NOV-2013 19:33
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_1

Compound # 75: hexachlorobutadiene





Original Peak Response = 0 Manual Peak Response = 1353 M2

M2 = Peak not found by automatic integration algorithm.

Alpha Analytical Labs

gc/ms voa -Bundy 524

Data file : \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131110ICAL.b\1107A06.D
Lab Smp Id:
Inj Date : 10-NOV-2013 20:06
Operator : gt Inst ID: Bundy.i
Smp Info : CAL2
Misc Info : wg,ical8647
Comment :
Method : \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131110ICAL.b\524extras.m
Meth Date : 30-Dec-2013 10:47 Bundy.i Quant Type: ISTD
Cal Date : 10-NOV-2013 19:33 Cal File: 1107A05.D
Als bottle: 33 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 524NH.sub
Target Version: 4.12
Processing Host: VIRTUALXP-72976

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ngs)	AMOUNTS ON-COL (ngs)	REVIEW CODE
1 dichlorodifluoromethane	85	2.747	2.747	(0.349)	3702	4.00000	4.21(M)	M1
2 chloromethane	50	3.066	3.066	(0.389)	5797	4.00000	4.71	
3 vinyl chloride	62	3.213	3.213	(0.408)	4731	4.00000	4.52	
4 bromomethane	94	3.737	3.737	(0.475)	1197	4.00000	3.76	
5 chloroethane	64	3.832	3.832	(0.487)	2981	4.00000	5.13(M)	
6 trichlorofluoromethane	101	4.110	4.110	(0.522)	4326	4.00000	3.95	
7 Ethyl ether	74	4.414	4.414	(0.561)	1839	4.00000	4.61(M)	M1
8 Acetone	43	4.629	4.629	(0.588)	4672	8.00000	16.80	
9 1,1-dichloroethene	96	4.776	4.776	(0.607)	3491	4.00000	5.08(M)	M1
10 Tert-Butyl Alcohol	59	4.403	4.403	(0.559)	2853	20.0000	18.73	
11 methylene chloride	84	5.284	5.284	(0.671)	4025	4.00000	5.07	
12 Carbon disulfide	76	5.358	5.358	(0.680)	9531	4.00000	4.43	
13 methyl-tert-butyl ether	73	5.415	5.415	(0.688)	8508	4.00000	4.30	
14 trans-1,2-dichloroethene	96	5.594	5.594	(0.710)	3782	4.00000	4.61	
15 Diisopropyl Ether	45	5.850	5.850	(0.743)	15222	4.00000	4.02	
16 1,1-dichloroethane	63	6.018	6.018	(0.764)	8284	4.00000	4.49	
17 Ethyl-Tert-Butyl-Ether	59	6.270	6.270	(0.796)	13204	4.00000	3.98	
18 2-butanone	43	6.422	6.422	(0.816)	7333	8.00000	13.87	
19 2,2-dichloropropane	77	6.600	6.600	(0.838)	4697	4.00000	4.18(M)	M1
20 cis-1,2-dichloroethene	96	6.647	6.647	(0.844)	4332	4.00000	4.90	
21 chloroform	83	6.805	6.805	(0.864)	6647	4.00000	4.74	
22 bromochloromethane	128	6.993	6.993	(0.888)	1851	4.00000	4.16	
23 Tetrahydofuran	42	7.020	7.020	(0.891)	3313	8.00000	10.26	
24 1,1,1-trichloroethane	97	7.229	7.229	(0.918)	3396	4.00000	4.27	
25 1,1-dichloropropene	75	7.376	7.376	(0.937)	4183	4.00000	3.99	
26 Tert-Amyl Methyl Ether	73	7.465	7.465	(0.948)	11074	4.00000	4.85	
27 carbon tetrachloride	117	7.502	7.502	(0.953)	4802	4.00000	4.23	
28 1,2-dichloroethane	62	7.644	7.644	(0.971)	5489	4.00000	4.19	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ngs)	AMOUNTS ON-COL (ngs)	REVIEW CODE
	29 benzene	78	7.685	7.685	(0.976)	15357	4.00000	4.63	
*	30 fluorobenzene	96	7.874	7.874	(1.000)	67254	20.0000		
	31 trichloroethene	95	8.309	8.309	(1.055)	4055	4.00000	4.59	
	32 1,2-dichloropropane	63	8.488	8.488	(1.078)	4899	4.00000	4.51(M)	M2
	33 bromodichloromethane	83	8.755	8.755	(1.112)	6003	4.00000	5.24	
	34 dibromomethane	93	8.828	8.828	(1.121)	2487	4.00000	4.52	
	35 4-methyl-2-pentanone	58	9.028	9.028	(1.146)	5970	8.00000	12.85(M)	M6
	36 cis-1,3-dichloropropene	75	9.306	9.306	(1.182)	7163	4.00000	5.15	
	37 toluene	92	9.694	9.694	(1.231)	10857	4.00000	4.96	
	38 trans-1,3-dichloropropene	75	9.851	9.851	(1.251)	7203	4.00000	5.61	
	39 2-hexanone	43	9.992	9.992	(0.880)	5765	4.00000	7.31(M)	M6
	40 1,1,2-trichloroethane	83	10.050	10.050	(1.276)	4117	4.00000	6.22	
	41 1,3-dichloropropane	76	10.328	10.328	(1.312)	7166	4.00000	5.40	
	42 tetrachloroethene	166	10.454	10.454	(1.328)	4166	4.00000	4.48	
	43 dibromochloromethane	129	10.690	10.690	(1.358)	5684	4.00000	6.04	
	44 1,2-dibromoethane	107	10.936	10.936	(0.963)	4711	4.00000	5.84(M)	M2
*	45 Chlorobenzene-d5	117	11.356	11.356	(1.000)	50505	20.0000		
	46 chlorobenzene	112	11.403	11.403	(1.004)	14712	4.00000	5.94	
	47 ethylbenzene	91	11.434	11.434	(1.007)	21728	4.00000	5.36	
	48 1,1,1,2-tetrachloroethane	131	11.429	11.429	(1.006)	5081	4.00000	5.71	
	49 p/m-xylenes	106	11.518	11.518	(1.014)	16505	8.00000	10.83	
	50 o-xylenes	106	12.053	12.053	(1.061)	8799	4.00000	5.77	
	51 styrene	104	12.095	12.095	(1.065)	16435	4.00000	6.23	
	52 isopropylbenzene	105	12.467	12.467	(1.098)	19232	4.00000	4.92	
	53 bromoform	173	12.562	12.562	(1.106)	4208	4.00000	6.94(M)	M2
	54 1,1,2,2-tetrachloroethane	83	12.677	12.677	(1.116)	7730	4.00000	7.54	
$	55 4-bromofluorobenzene	95	12.803	12.803	(1.127)	24663	20.0000	20.05	
	56 1,2,3-trichloropropane	110	12.871	12.871	(1.133)	1266	4.00000	4.20(M)	M6
	57 n-propylbenzene	91	12.960	12.960	(1.141)	23534	4.00000	5.06	
	58 bromobenzene	156	13.070	13.070	(1.151)	6801	4.00000	6.45	
	59 1,3,5-trimethylbenzene	105	13.143	13.143	(1.157)	16683	4.00000	5.16	
	60 o-chlorotoluene	126	13.222	13.222	(1.164)	5301	4.00000	5.51	
	61 p-chlorotoluene	91	13.264	13.264	(1.168)	16140	4.00000	5.45	
	62 tert-butylbenzene	119	13.594	13.594	(1.197)	14013	4.00000	4.92	
	63 1,2,4,-trimethylbenzene	105	13.647	13.647	(1.202)	17726	4.00000	5.41	
	64 sec-butylbenzene	105	13.857	13.857	(1.220)	19459	4.00000	4.76	
	65 p-isopropyltoluene	119	14.014	14.014	(1.234)	17863	4.00000	4.89	
	66 1,3-dichlorobenzene	146	14.192	14.192	(0.994)	12774	4.00000	6.54	
*	67 1,4-Dichlorobenzene-d4	152	14.276	14.276	(1.000)	26221	20.0000		
	68 1,4-dichlorobenzene	146	14.318	14.318	(1.003)	13612	4.00000	6.75	
	69 n-butylbenzene	91	14.522	14.522	(1.017)	14736	4.00000	4.88	
$	70 1,2-Dichlorobenzene-d4	152	14.748	14.748	(1.033)	26253	20.0000	21.01	
	71 1,2-dichlorobenzene	146	14.779	14.779	(1.035)	13194	4.00000	6.77	
	72 1,2-dibromo-3-chloropropane	75	15.718	15.718	(1.101)	1135	4.00000	6.39	
	73 1,3,5-trichlorobenzene	180	15.996	15.996	(1.120)	7395	4.00000	5.68	
	74 1,2,4-trichlorobenzene	182	16.766	16.766	(1.174)	6485	4.00000	5.85	
	75 hexachlorobutadiene	225	16.913	16.913	(1.185)	2284	4.00000	4.74(M)	M1
	76 naphthalene	128	17.118	17.118	(1.199)	16730	4.00000	5.83	
	77 1,2,3-trichlorobenzene	180	17.438	17.438	(1.221)	6696	4.00000	5.83	
M	78 Xylene (total)	106				25304	12.0000		

QC Flag Legend

M - Compound response manually integrated.

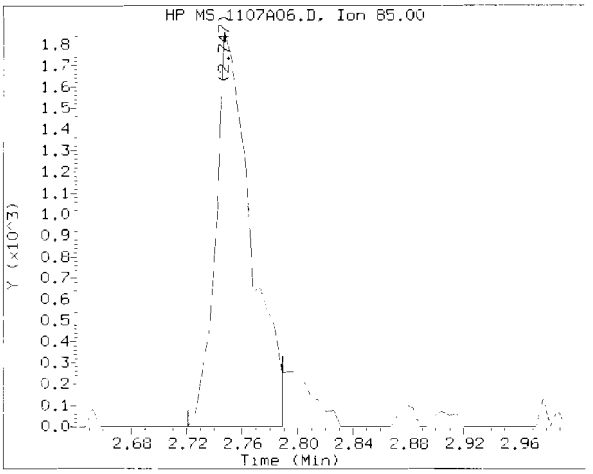
Alpha Analytical Labs

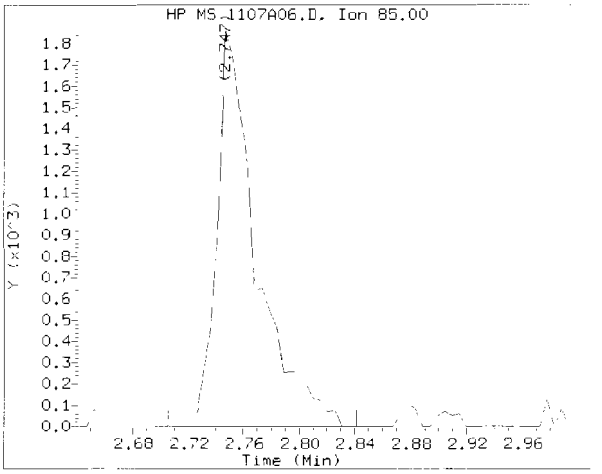
Manual Integration

Sample Info : CAL2
wg,ical8647

Instrument ID : Bundy.i
Method : 524extras.m
File : 1107A06.D
Injection Date : 10-NOV-2013 20:06
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_2

Compound # 1: dichlorodifluoromethane

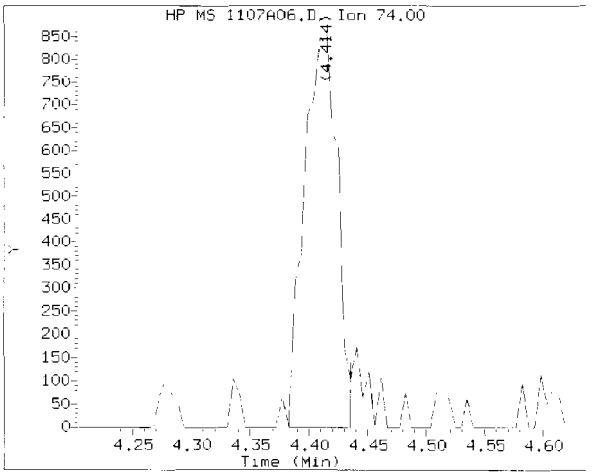


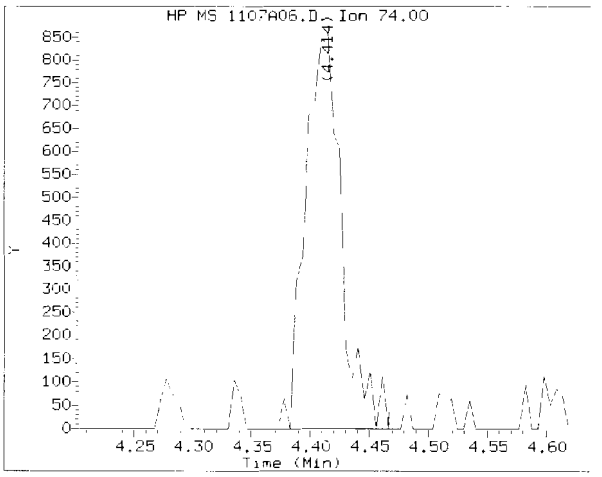


Original Peak Response = 3345 Manual Peak Response = 3702 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false lo area count.

Compound # 7: Ethyl ether





Original Peak Response = 1670 Manual Peak Response = 1839 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false lo area count.

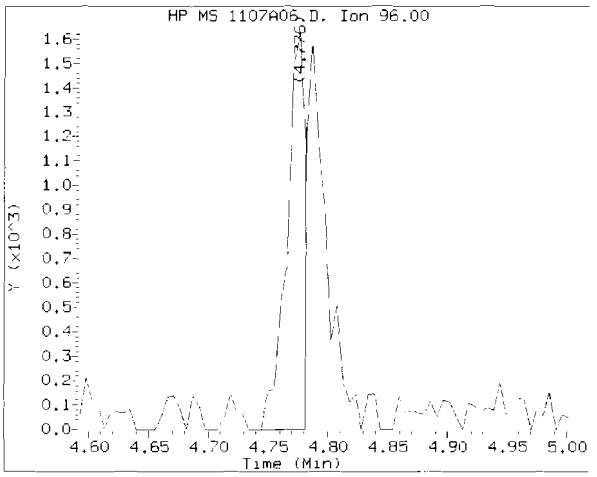
Alpha Analytical Labs

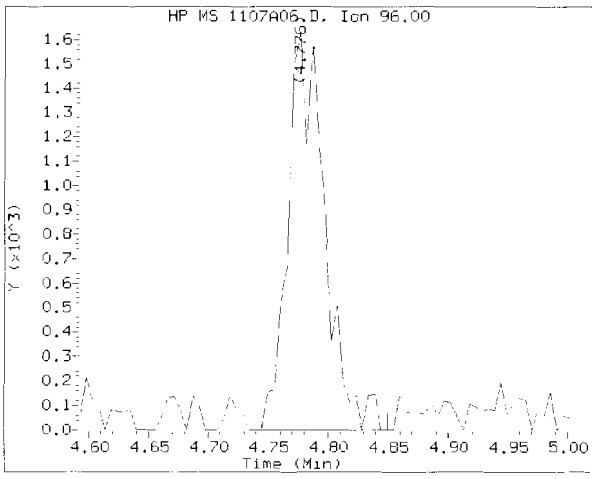
Manual Integration

Sample Info : L2
wg,ical8787

Instrument ID : Bundy.i
Method : 524extras.m
File : 1107A06.D
Injection Date : 10-NOV-2013 20:06
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_2

Compound # 9: 1,1-dichloroethene

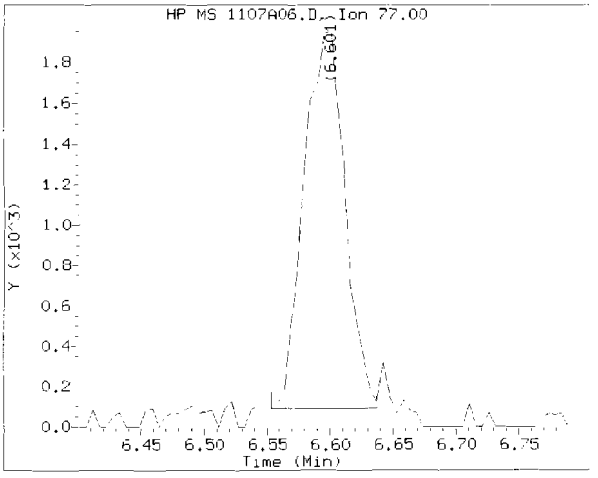


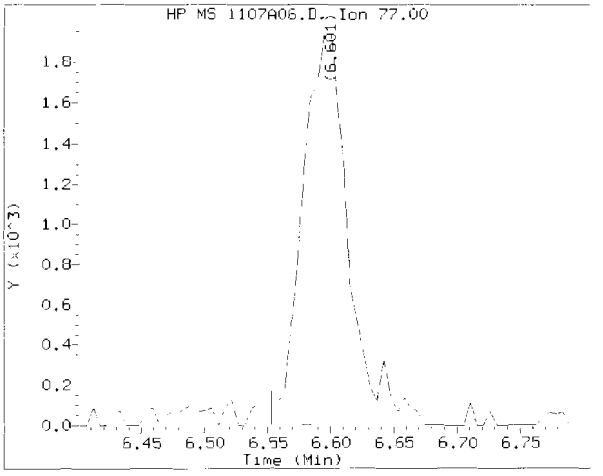


Original Peak Response = 1830 Manual Peak Response = 3491 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false lo area count.

Compound # 19: 2,2-dichloropropane





Original Peak Response = 4227 Manual Peak Response = 4697 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false lo area count.

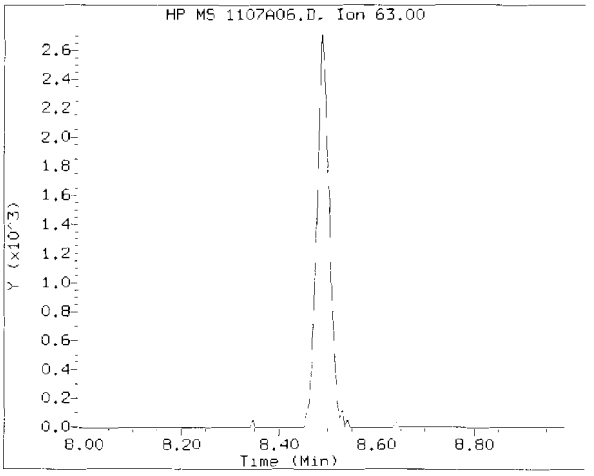
Alpha Analytical Labs

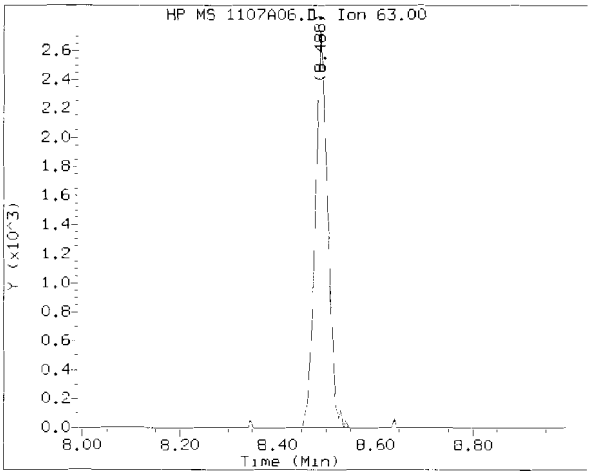
Manual Integration

Sample Info : L2
wg,ical8787

Instrument ID : Bundy.i
Method : 524extras.m
File : 1107A06.D
Injection Date : 10-NOV-2013 20:06
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_2

Compound # 32: 1,2-dichloropropane

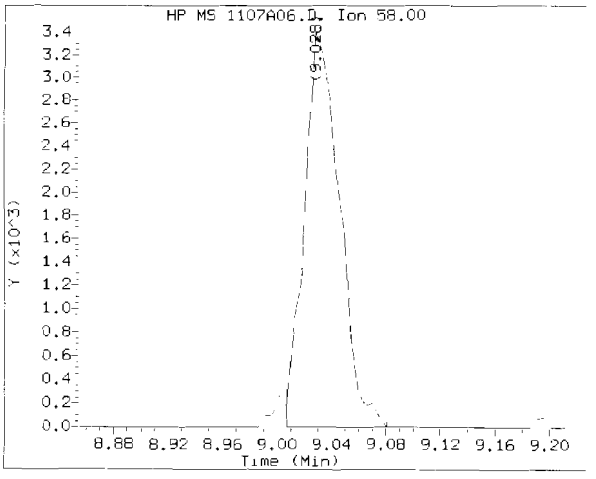


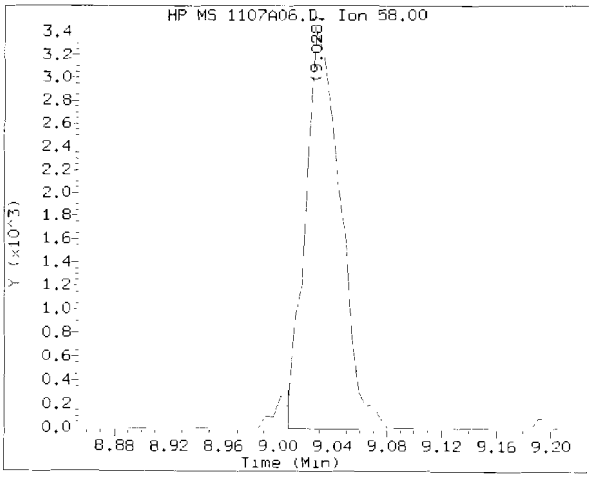


Original Peak Response = 0 Manual Peak Response = 4899 M2

M2 = Peak not found by automatic integration algorithm.

Compound # 35: 4-methyl-2-pentanone





Original Peak Response = 6092 Manual Peak Response = 5970 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peak

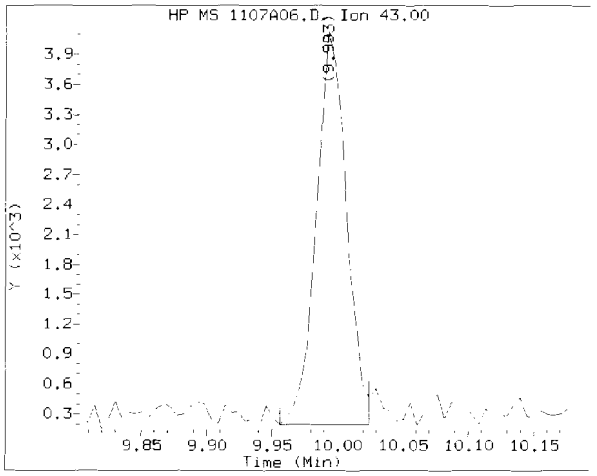
Alpha Analytical Labs

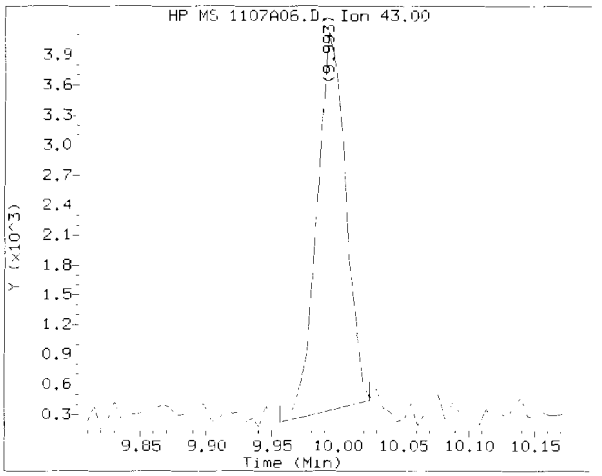
Manual Integration

Sample Info : L2
wg,ical8787

Instrument ID : Bundy.i
Method : 524extras.m
File : 1107A06.D
Injection Date : 10-NOV-2013 20:06
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_2

Compound # 39: 2-hexanone

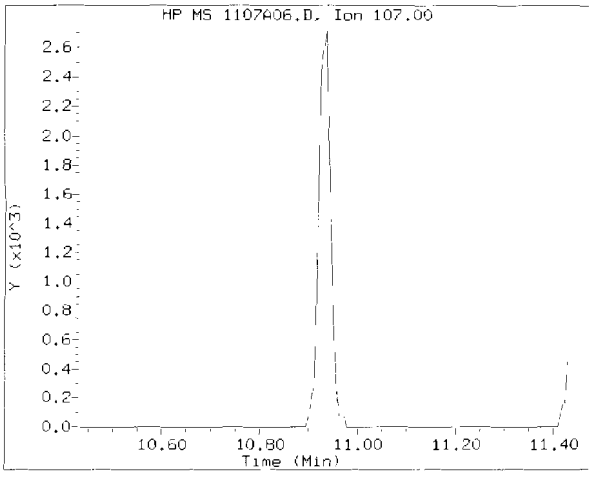


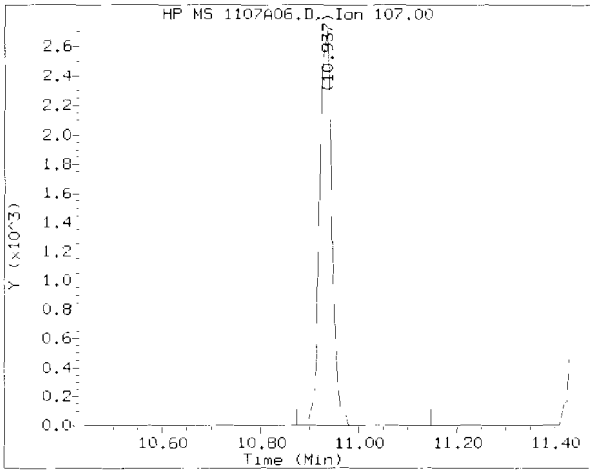


Original Peak Response = 6362 Manual Peak Response = 5765 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peak

Compound # 44: 1,2-dibromoethane





Original Peak Response = 0 Manual Peak Response = 4711 M2

M2 = Peak not found by automatic integration algorithm.

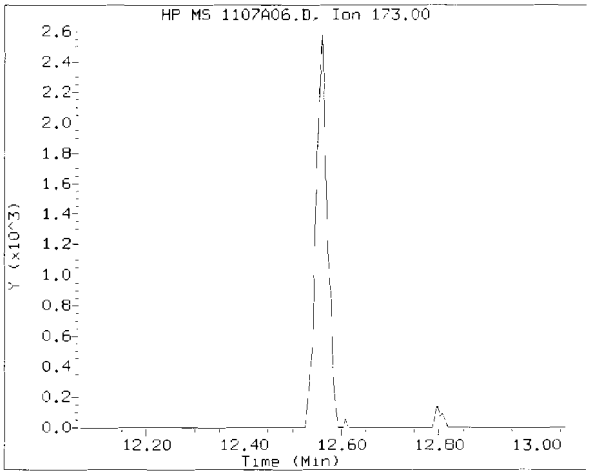
Alpha Analytical Labs

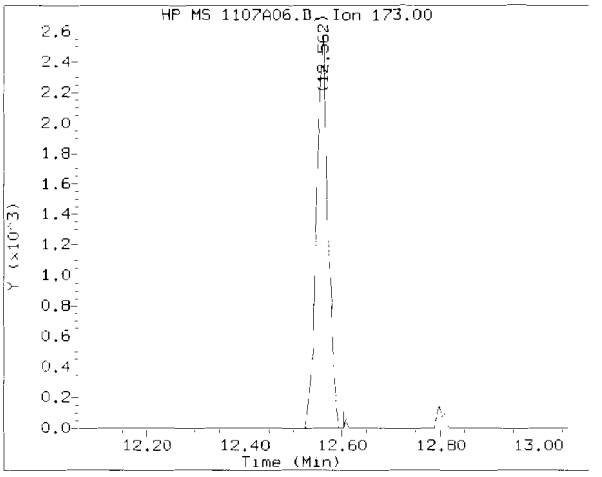
Manual Integration

Sample Info : L2
wg,ical8787

Instrument ID : Bundy.i
Method : 524extras.m
File : 1107A06.D
Injection Date : 10-NOV-2013 20:06
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_2

Compound # 53: bromoform

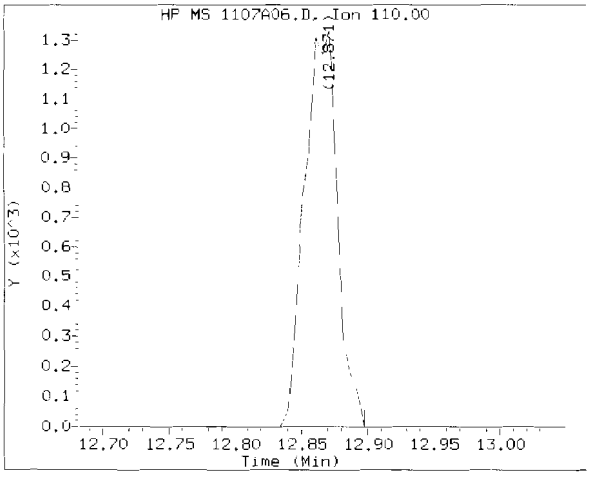


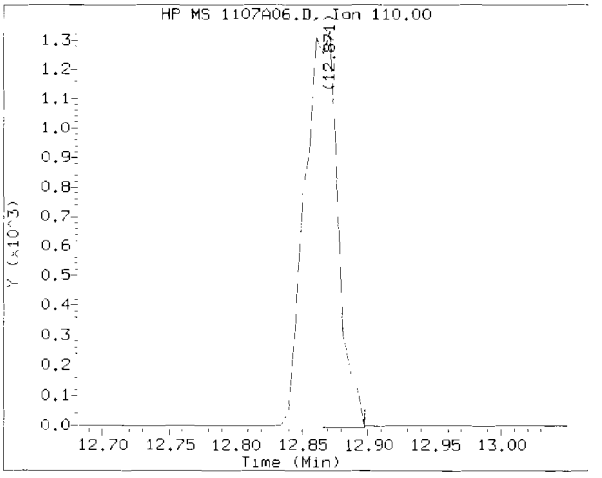


Original Peak Response = 0 Manual Peak Response = 4208 M2

M2 = Peak not found by automatic integration algorithm.

Compound # 56: 1,2,3-trichloropropane





Original Peak Response = 2312 Manual Peak Response = 1266 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peak

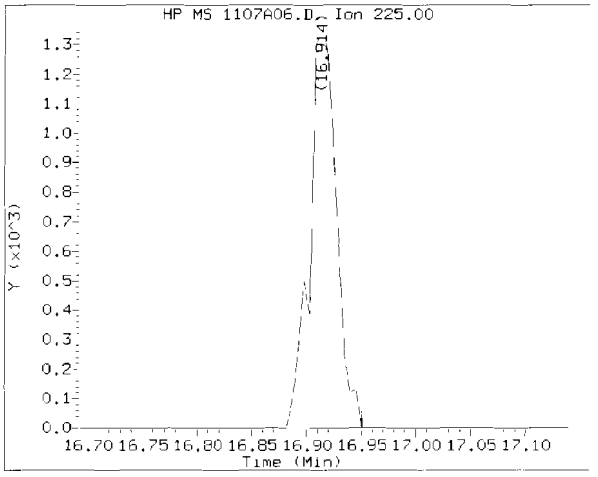
Alpha Analytical Labs

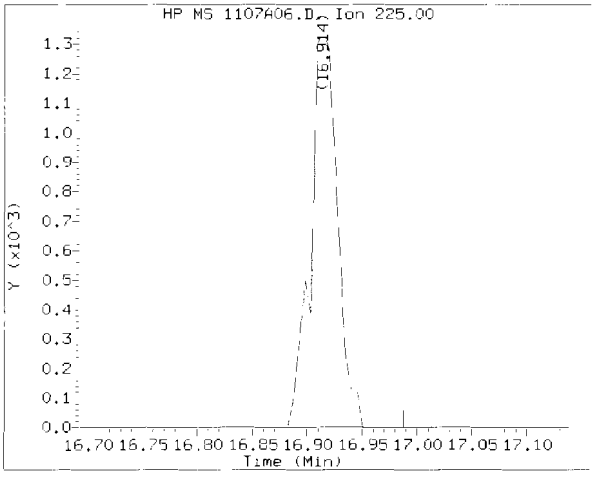
Manual Integration

Sample Info : L2
wg,ical8787

Instrument ID : Bundy.i
Method : 524extras.m
File : 1107A06.D
Injection Date : 10-NOV-2013 20:06
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_2

Compound # 75: hexachlorobutadiene





Original Peak Response = 2010 Manual Peak Response = 2284 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false lo area count.

Alpha Analytical Labs

gc/ms voa -Bundy 524

Data file : \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131110ICAL.b\1107A07.D
Lab Smp Id:
Inj Date : 10-NOV-2013 20:38
Operator : gt Inst ID: Bundy.i
Smp Info : CAL3
Misc Info : wg,ical8647
Comment :
Method : \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131110ICAL.b\524extras.m
Meth Date : 30-Dec-2013 10:47 Bundy.i Quant Type: ISTD
Cal Date : 10-NOV-2013 20:06 Cal File: 1107A06.D
Als bottle: 34 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 524NH.sub
Target Version: 4.12
Processing Host: VIRTUALXP-72976

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ngs)	ON-COL (ngs)	REVIEW CODE
1 dichlorodifluoromethane	85	2.752	2.752	(0.349)	17431	20.0000	20.10(M)	M1
2 chloromethane	50	3.071	3.071	(0.390)	23036	20.0000	18.98	
3 vinyl chloride	62	3.208	3.208	(0.407)	20950	20.0000	20.31	
4 bromomethane	94	3.743	3.743	(0.475)	5549	20.0000	17.72(M)	M1
5 chloroethane	64	3.826	3.826	(0.486)	11459	20.0000	20.02	
6 trichlorofluoromethane	101	4.110	4.110	(0.521)	22177	20.0000	20.54	
7 Ethyl ether	74	4.408	4.408	(0.560)	8076	20.0000	20.56(M)	M1
8 Acetone	43	4.629	4.629	(0.588)	13540	40.0000	49.40	
9 1,1-dichloroethene	96	4.781	4.781	(0.607)	13410	20.0000	19.82	
10 Tert-Butyl Alcohol	59	4.403	4.403	(0.559)	14801	100.000	98.52	
11 methylene chloride	84	5.279	5.279	(0.670)	16728	20.0000	21.37	
12 Carbon disulfide	76	5.363	5.363	(0.681)	44283	20.0000	20.90	
13 methyl-tert-butyl ether	73	5.420	5.420	(0.688)	44639	20.0000	21.31	
14 trans-1,2-dichloroethene	96	5.588	5.588	(0.710)	16575	20.0000	20.50	
15 Diisopropyl Ether	45	5.850	5.850	(0.743)	76679	20.0000	20.54	
16 1,1-dichloroethane	63	6.023	6.023	(0.765)	36467	20.0000	20.07	
17 Ethyl-Tert-Butyl-Ether	59	6.270	6.270	(0.796)	68276	20.0000	20.90	
18 2-butanone	43	6.422	6.422	(0.816)	23815	40.0000	45.70	
19 2,2-dichloropropane	77	6.595	6.595	(0.838)	22794	20.0000	20.57	
20 cis-1,2-dichloroethene	96	6.647	6.647	(0.844)	17790	20.0000	20.43(M)	M4
21 chloroform	83	6.804	6.804	(0.864)	28471	20.0000	20.59	
22 bromochloromethane	128	6.993	6.993	(0.888)	8702	20.0000	19.86	
23 Tetrahydofuran	42	7.019	7.019	(0.891)	13464	40.0000	42.31	
24 1,1,1-trichloroethane	97	7.229	7.229	(0.918)	25236	20.0000	20.29	
25 1,1-dichloropropene	75	7.386	7.386	(0.938)	20854	20.0000	20.21	
26 Tert-Amyl Methyl Ether	73	7.460	7.460	(0.947)	46937	20.0000	20.84	
27 carbon tetrachloride	117	7.507	7.507	(0.953)	23332	20.0000	20.85	
28 1,2-dichloroethane	62	7.643	7.643	(0.971)	26243	20.0000	20.36	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ngs)	AMOUNTS ON-COL (ngs)	REVIEW CODE
	29 benzene	78	7.680	7.680	(0.975)	66013	20.0000	20.22	
*	30 fluorobenzene	96	7.874	7.874	(1.000)	66311	20.0000		
	31 trichloroethene	95	8.304	8.304	(1.055)	17957	20.0000	20.64	
	32 1,2-dichloropropane	63	8.487	8.487	(1.078)	21836	20.0000	20.41	
	33 bromodichloromethane	83	8.750	8.750	(1.111)	23119	20.0000	20.48	
	34 dibromomethane	93	8.828	8.828	(1.121)	11178	20.0000	20.63	
	35 4-methyl-2-pentanone	58	9.033	9.033	(1.147)	20643	40.0000	45.09	
	36 cis-1,3-dichloropropene	75	9.311	9.311	(1.182)	28997	20.0000	21.16	
	37 toluene	92	9.693	9.693	(1.231)	44776	20.0000	20.76	
	38 trans-1,3-dichloropropene	75	9.851	9.851	(1.251)	27512	20.0000	21.74	
	39 2-hexanone	43	9.992	9.992	(0.880)	18188	20.0000	23.12	
	40 1,1,2-trichloroethane	83	10.050	10.050	(1.276)	14407	20.0000	22.08	
	41 1,3-dichloropropane	76	10.333	10.333	(1.312)	28117	20.0000	21.52	
	42 tetrachloroethene	166	10.443	10.443	(1.326)	18442	20.0000	20.15	
	43 dibromochloromethane	129	10.690	10.690	(1.358)	20102	20.0000	21.69	
	44 1,2-dibromoethane	107	10.931	10.931	(0.962)	16669	20.0000	20.98	
*	45 Chlorobenzene-d5	117	11.361	11.361	(1.000)	50410	20.0000		
	46 chlorobenzene	112	11.408	11.408	(1.004)	52656	20.0000	21.31	
	47 ethylbenzene	91	11.434	11.434	(1.006)	84712	20.0000	20.96	
	48 1,1,1,2-tetrachloroethane	131	11.439	11.439	(1.007)	18878	20.0000	21.28	
	49 p/m-xylenes	106	11.523	11.523	(1.014)	64233	40.0000	42.24	
	50 o-xylenes	106	12.058	12.058	(1.061)	32729	20.0000	21.52	
	51 styrene	104	12.095	12.095	(1.065)	56532	20.0000	21.47	
	52 isopropylbenzene	105	12.467	12.467	(1.097)	84182	20.0000	21.57	
	53 bromoform	173	12.556	12.556	(1.105)	14250	20.0000	23.57	
	54 1,1,2,2-tetrachloroethane	83	12.677	12.677	(1.116)	24338	20.0000	23.80	
$	55 4-bromofluorobenzene	95	12.803	12.803	(1.127)	24547	20.0000	19.99	
	56 1,2,3-trichloropropane	110	12.865	12.865	(1.132)	6886	20.0000	22.89	
	57 n-propylbenzene	91	12.960	12.960	(1.141)	98154	20.0000	21.16	
	58 bromobenzene	156	13.075	13.075	(1.151)	23630	20.0000	22.47	
	59 1,3,5-trimethylbenzene	105	13.143	13.143	(1.157)	69367	20.0000	21.51	
	60 o-chlorotoluene	126	13.217	13.217	(1.163)	21031	20.0000	21.93	
	61 p-chlorotoluene	91	13.264	13.264	(1.168)	64389	20.0000	21.78	
	62 tert-butylbenzene	119	13.594	13.594	(1.197)	60730	20.0000	21.38	
	63 1,2,4,-trimethylbenzene	105	13.647	13.647	(1.201)	70990	20.0000	21.73	
	64 sec-butylbenzene	105	13.856	13.856	(1.220)	85946	20.0000	21.09	
	65 p-isopropyltoluene	119	14.014	14.014	(1.234)	76494	20.0000	21.00	
	66 1,3-dichlorobenzene	146	14.187	14.187	(0.994)	43764	20.0000	21.88	
*	67 1,4-Dichlorobenzene-d4	152	14.276	14.276	(1.000)	26845	20.0000		
	68 1,4-dichlorobenzene	146	14.313	14.313	(1.003)	45828	20.0000	22.20	
	69 n-butylbenzene	91	14.522	14.522	(1.017)	66050	20.0000	21.39	
$	70 1,2-Dichlorobenzene-d4	152	14.748	14.748	(1.033)	24419	20.0000	19.08	
	71 1,2-dichlorobenzene	146	14.784	14.784	(1.036)	43847	20.0000	21.98	
	72 1,2-dibromo-3-chloropropane	75	15.712	15.712	(1.101)	4154	20.0000	22.85	
	73 1,3,5-trichlorobenzene	180	15.996	15.996	(1.120)	28504	20.0000	21.40	
	74 1,2,4-trichlorobenzene	182	16.766	16.766	(1.174)	24108	20.0000	21.24	
	75 hexachlorobutadiene	225	16.918	16.918	(1.185)	10217	20.0000	20.72	
	76 naphthalene	128	17.118	17.118	(1.199)	62006	20.0000	21.13	
	77 1,2,3-trichlorobenzene	180	17.432	17.432	(1.221)	25323	20.0000	21.55	
M	78 Xylene (total)	106				96962	60.0000		

QC Flag Legend

M - Compound response manually integrated.

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: Bundy.i
Lab File ID: 1107A07.D
Lab Smp Id:
Analysis Type: VOA
Quant Type: ISTD
Operator: gt
Method File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131110ICAL.b\524extras.m
Misc Info: wg,ical8647

Calibration Date: 10-NOV-2013
Calibration Time: 20:38

Level: MED
Sample Type: WATER

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 3

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
30 fluorobenzene	65595	32798	131190	66311	1.09
45 Chlorobenzene-d5	49202	24601	98404	50410	2.46
67 1,4-Dichlorobenze	26271	13136	52542	26848	2.20

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
30 fluorobenzene	7.87	7.37	8.37	7.87	-0.00
45 Chlorobenzene-d5	11.36	10.86	11.86	11.36	-0.00
67 1,4-Dichlorobenze	14.27	13.77	14.77	14.28	0.04

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131110ICAL.b\1107A07.D

Date : 10-NOV-2013 20:38

Client ID:

Sample Info: CAL3

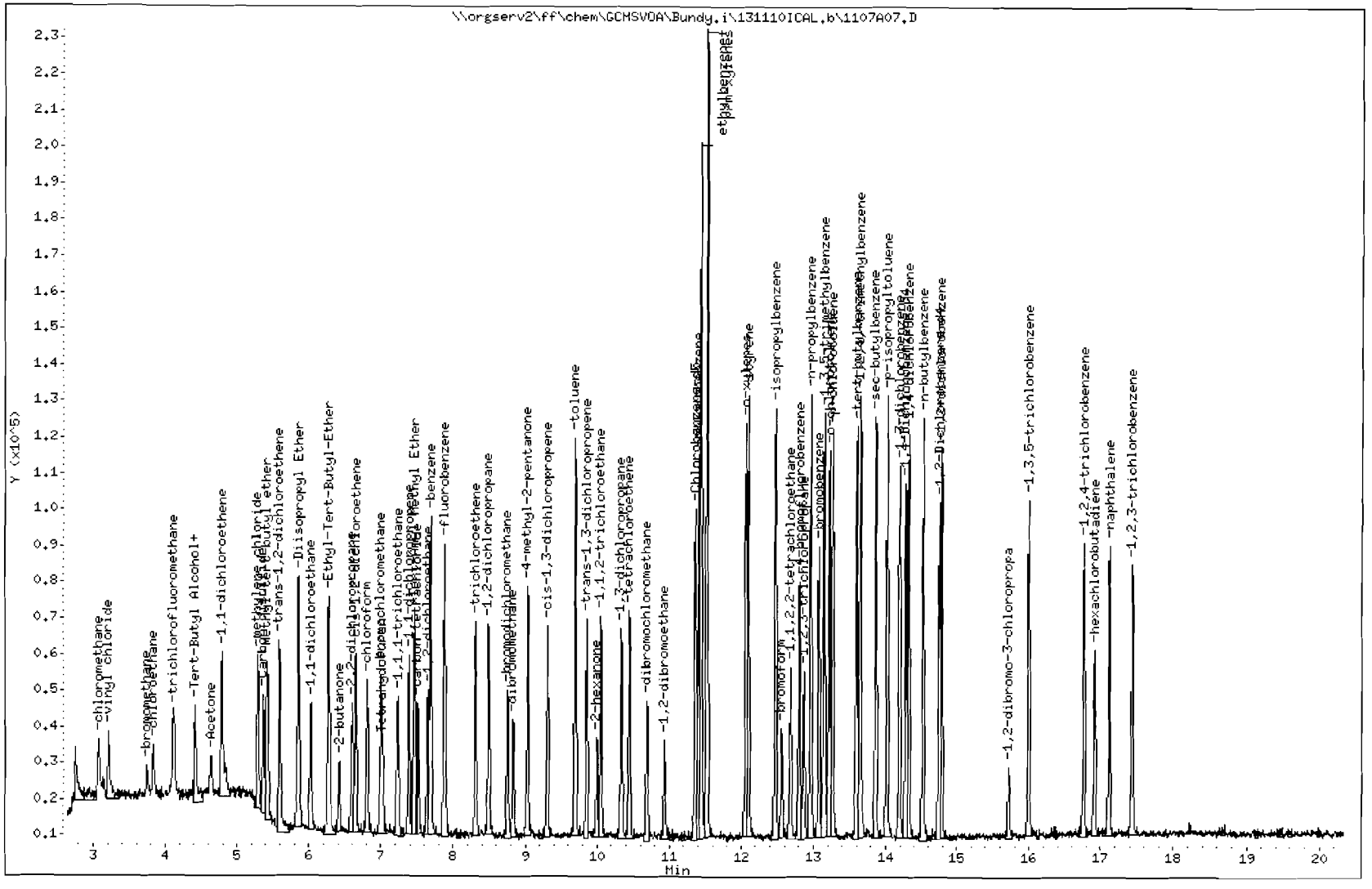
Purge Volume: 5.0

Column phase:

Instrument: Bundy.i

Operator: gt

Column diameter: 0.18



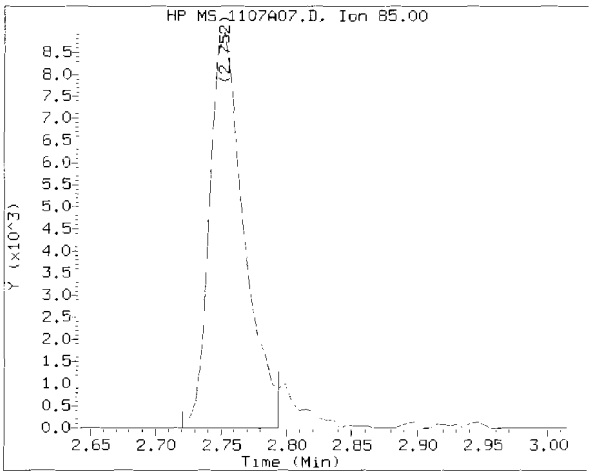
Alpha Analytical Labs

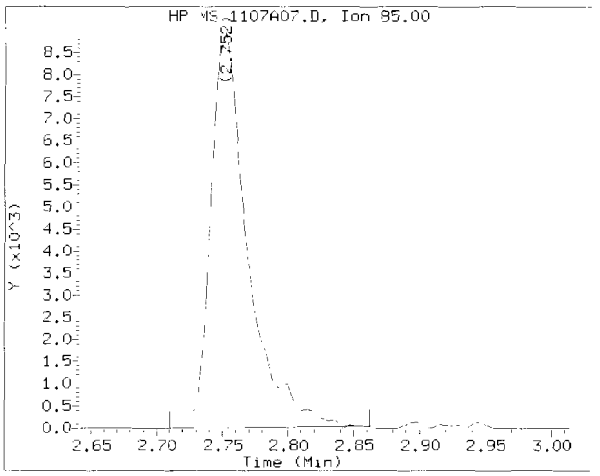
Manual Integration

Sample Info : CAL3
wg,ical8647

Instrument ID : Bundy.i
Method : 524extras.m
File : 1107A07.D
Injection Date : 10-NOV-2013 20:38
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_3

Compound # 1: dichlorodifluoromethane

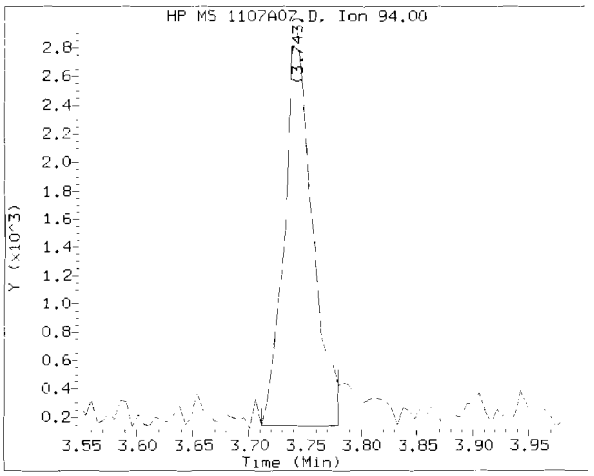


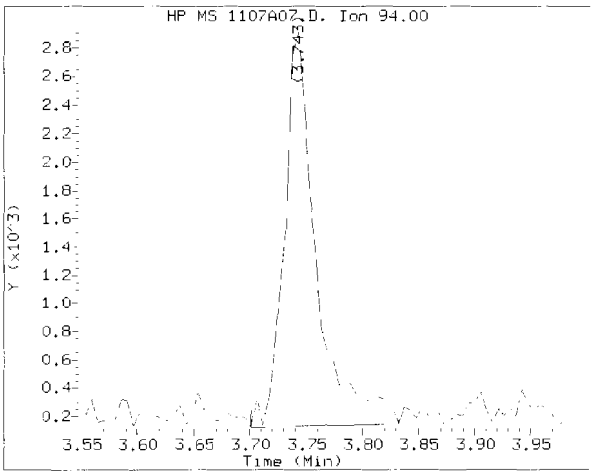


Original Peak Response = 16562 Manual Peak Response = 17431 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false lo area count.

Compound # 4: bromomethane





Original Peak Response = 4884 Manual Peak Response = 5549 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false lo area count.

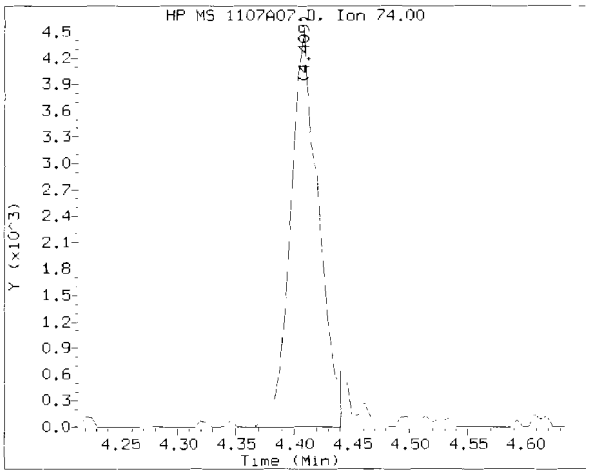
Alpha Analytical Labs

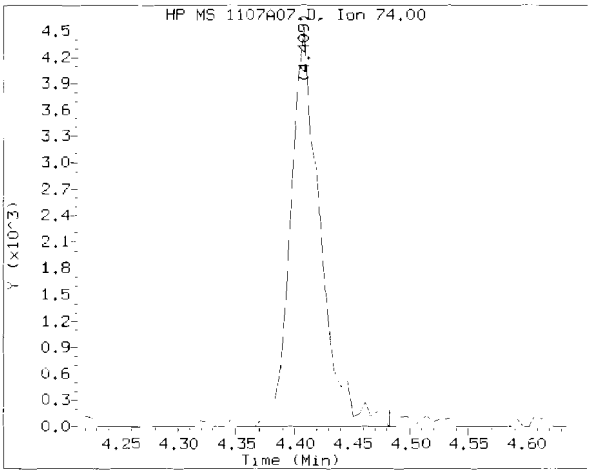
Manual Integration

Sample Info : L3
wg,ical8787

Instrument ID : Bundy.i
Method : 524extras.m
File : 1107A07.D
Injection Date : 10-NOV-2013 20:38
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CALIB_3

Compound # 7: Ethyl ether

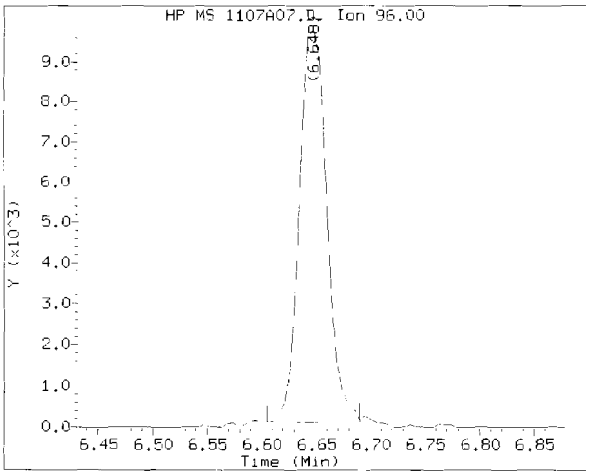


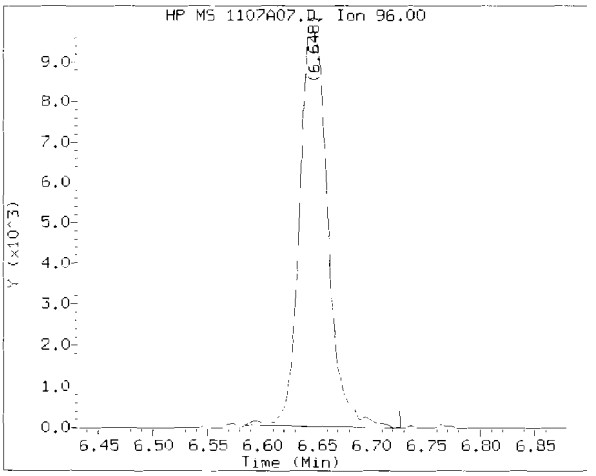


Original Peak Response = 7628 Manual Peak Response = 8076 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false lo area count.

Compound # 20: cis-1,2-dichloroethene





Original Peak Response = 17050 Manual Peak Response = 17790 M4

M4 = Poor automated baseline construction.

Alpha Analytical Labs

gc/ms voa -Bundy 524

Data file : \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131110ICAL.b\1107A08.D
Lab Smp Id:
Inj Date : 10-NOV-2013 21:11
Operator : gt Inst ID: Bundy.i
Smp Info : CAL4
Misc Info : wg,ical8647
Comment :
Method : \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131110ICAL.b\524extras.m
Meth Date : 30-Dec-2013 10:47 Bundy.i Quant Type: ISTD
Cal Date : 10-NOV-2013 20:38 Cal File: 1107A07.D
Als bottle: 35 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 524NH.sub
Target Version: 4.12
Processing Host: VIRTUALXP-72976

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ngs)	ON-COL (ngs)	REVIEW CODE
1 dichlorodifluoromethane	85	2.752	2.752	(0.349)	33039	40.0000	38.71	
2 chloromethane	50	3.071	3.071	(0.390)	48006	40.0000	40.13	
3 vinyl chloride	62	3.208	3.208	(0.407)	39040	40.0000	38.44	
4 bromomethane	94	3.737	3.737	(0.475)	11171	40.0000	36.19	
5 chloroethane	64	3.821	3.821	(0.485)	21347	40.0000	37.84	
6 trichlorofluoromethane	101	4.104	4.104	(0.521)	40910	40.0000	38.44	
7 Ethyl ether	74	4.408	4.408	(0.560)	14555	40.0000	37.58	
8 Acetone	43	4.629	4.629	(0.588)	21457	80.0000	79.40	
9 1,1-dichloroethene	96	4.781	4.781	(0.607)	24833	40.0000	37.23	
10 Tert-Butyl Alcohol	59	4.408	4.408	(0.560)	27871	200.000	188.17	
11 methylene chloride	84	5.284	5.284	(0.671)	29412	40.0000	38.12	
12 Carbon disulfide	76	5.357	5.357	(0.680)	85948	40.0000	41.15	
13 methyl-tert-butyl ether	73	5.415	5.415	(0.688)	83163	40.0000	40.28	
14 trans-1,2-dichloroethene	96	5.588	5.588	(0.710)	30937	40.0000	38.82	
15 Diisopropyl Ether	45	5.850	5.850	(0.743)	146242	40.0000	39.74	
16 1,1-dichloroethane	63	6.023	6.023	(0.765)	69831	40.0000	38.98	
17 Ethyl-Tert-Butyl-Ether	59	6.270	6.270	(0.796)	126859	40.0000	39.38	
18 2-butanone	43	6.416	6.416	(0.815)	39878	80.0000	77.63	
19 2,2-dichloropropane	77	6.600	6.600	(0.838)	43398	40.0000	39.73	
20 cis-1,2-dichloroethene	96	6.647	6.647	(0.844)	33870	40.0000	39.46	
21 chloroform	83	6.804	6.804	(0.864)	53100	40.0000	38.95	
22 bromochloromethane	128	6.993	6.993	(0.888)	17294	40.0000	40.05	
23 Tetrahydofuran	42	7.014	7.014	(0.891)	24219	80.0000	77.19	
24 1,1,1-trichloroethane	97	7.224	7.224	(0.917)	46842	40.0000	38.21	
25 1,1-dichloropropene	75	7.381	7.381	(0.937)	39493	40.0000	38.82	
26 Tert-Amyl Methyl Ether	73	7.460	7.460	(0.947)	88296	40.0000	39.78	
27 carbon tetrachloride	117	7.507	7.507	(0.953)	42684	40.0000	38.69	
28 1,2-dichloroethane	62	7.643	7.643	(0.971)	50884	40.0000	40.04	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ngs)	AMOUNTS ON-COL (ngs)	REVIEW CODE
	29 benzene	78	7.680	7.680	(0.975)	126047	40.0000	39.17	
*	30 fluorobenzene	96	7.874	7.874	(1.000)	65376	20.0000		
	31 trichloroethene	95	8.304	8.304	(1.055)	33693	40.0000	39.29	
	32 1,2-dichloropropane	63	8.487	8.487	(1.078)	42175	40.0000	40.00	
	33 bromodichloromethane	83	8.755	8.755	(1.112)	43026	40.0000	38.66	
	34 dibromomethane	93	8.833	8.833	(1.122)	20487	40.0000	38.36	
	35 4-methyl-2-pentanone	58	9.033	9.033	(1.147)	34659	80.0000	76.79	
	36 cis-1,3-dichloropropene	75	9.305	9.305	(1.182)	53809	40.0000	39.83	
	37 toluene	92	9.693	9.693	(1.231)	84134	40.0000	39.57	
	38 trans-1,3-dichloropropene	75	9.851	9.851	(1.251)	49596	40.0000	39.75	
	39 2-hexanone	43	9.992	9.992	(0.880)	30546	40.0000	38.69	
	40 1,1,2-trichloroethane	83	10.050	10.050	(1.276)	24870	40.0000	38.67	
	41 1,3-dichloropropane	76	10.333	10.333	(1.312)	49688	40.0000	38.58	
	42 tetrachloroethene	166	10.443	10.443	(1.326)	34656	40.0000	38.40	
	43 dibromochloromethane	129	10.690	10.690	(1.358)	35326	40.0000	38.67	
	44 1,2-dibromoethane	107	10.931	10.931	(0.962)	31292	40.0000	38.79	
*	45 Chlorobenzene-d5	117	11.361	11.361	(1.000)	50584	20.0000		
	46 chlorobenzene	112	11.408	11.408	(1.004)	94992	40.0000	38.32	
	47 ethylbenzene	91	11.434	11.434	(1.006)	157994	40.0000	38.97	
	48 1,1,1,2-tetrachloroethane	131	11.434	11.434	(1.006)	34716	40.0000	39.00	
	49 p/m-xylenes	106	11.523	11.523	(1.014)	121455	80.0000	79.60	
	50 o-xylenes	106	12.058	12.058	(1.061)	59030	40.0000	38.69	
	51 styrene	104	12.095	12.095	(1.065)	104848	40.0000	39.70	
	52 isopropylbenzene	105	12.467	12.467	(1.097)	152523	40.0000	38.96	
	53 bromoform	173	12.556	12.556	(1.105)	23425	40.0000	38.61	
	54 1,1,2,2-tetrachloroethane	83	12.677	12.677	(1.116)	40296	40.0000	39.27	
$	55 4-bromofluorobenzene	95	12.802	12.802	(1.127)	23450	20.0000	19.03	
	56 1,2,3-trichloropropane	110	12.865	12.865	(1.132)	11185	40.0000	37.05	
	57 n-propylbenzene	91	12.960	12.960	(1.141)	182888	40.0000	39.30	
	58 bromobenzene	156	13.075	13.075	(1.151)	40308	40.0000	38.20	
	59 1,3,5-trimethylbenzene	105	13.149	13.149	(1.157)	125165	40.0000	38.70	
	60 o-chlorotoluene	126	13.217	13.217	(1.163)	38889	40.0000	40.41	
	61 p-chlorotoluene	91	13.264	13.264	(1.168)	116813	40.0000	39.38	
	62 tert-butylbenzene	119	13.594	13.594	(1.197)	108984	40.0000	38.24	
	63 1,2,4,-trimethylbenzene	105	13.647	13.647	(1.201)	125910	40.0000	38.42	
	64 sec-butylbenzene	105	13.856	13.856	(1.220)	159003	40.0000	38.88	
	65 p-isopropyltoluene	119	14.014	14.014	(1.234)	142199	40.0000	38.90	
	66 1,3-dichlorobenzene	146	14.187	14.187	(0.994)	77797	40.0000	39.69	
*	67 1,4-Dichlorobenzene-d4	152	14.271	14.271	(1.000)	26308	20.0000		
	68 1,4-dichlorobenzene	146	14.312	14.312	(1.003)	79003	40.0000	39.05	
	69 n-butylbenzene	91	14.522	14.522	(1.018)	118931	40.0000	39.31	
$	70 1,2-Dichlorobenzene-d4	152	14.748	14.748	(1.033)	26120	20.0000	20.83	
	71 1,2-dichlorobenzene	146	14.779	14.779	(1.036)	77796	40.0000	39.81	
	72 1,2-dibromo-3-chloropropane	75	15.718	15.718	(1.101)	7438	40.0000	41.76	
	73 1,3,5-trichlorobenzene	180	15.995	15.995	(1.121)	51967	40.0000	39.83	
	74 1,2,4-trichlorobenzene	182	16.766	16.766	(1.175)	44736	40.0000	40.24	
	75 hexachlorobutadiene	225	16.918	16.918	(1.186)	18456	40.0000	38.20	
	76 naphthalene	128	17.117	17.117	(1.199)	118987	40.0000	41.39	
	77 1,2,3-trichlorobenzene	180	17.432	17.432	(1.222)	46220	40.0000	40.15	
M	78 Xylene (total)	106				180485	120.000		

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: Bundy.i
Lab File ID: 1107A08.D
Lab Smp Id:
Analysis Type: VOA
Quant Type: ISTD
Operator: gt
Method File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131110ICAL.b\524extras.m
Misc Info: wg,ical8647

Calibration Date: 10-NOV-2013
Calibration Time: 20:38

Level: MED
Sample Type: WATER

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 3

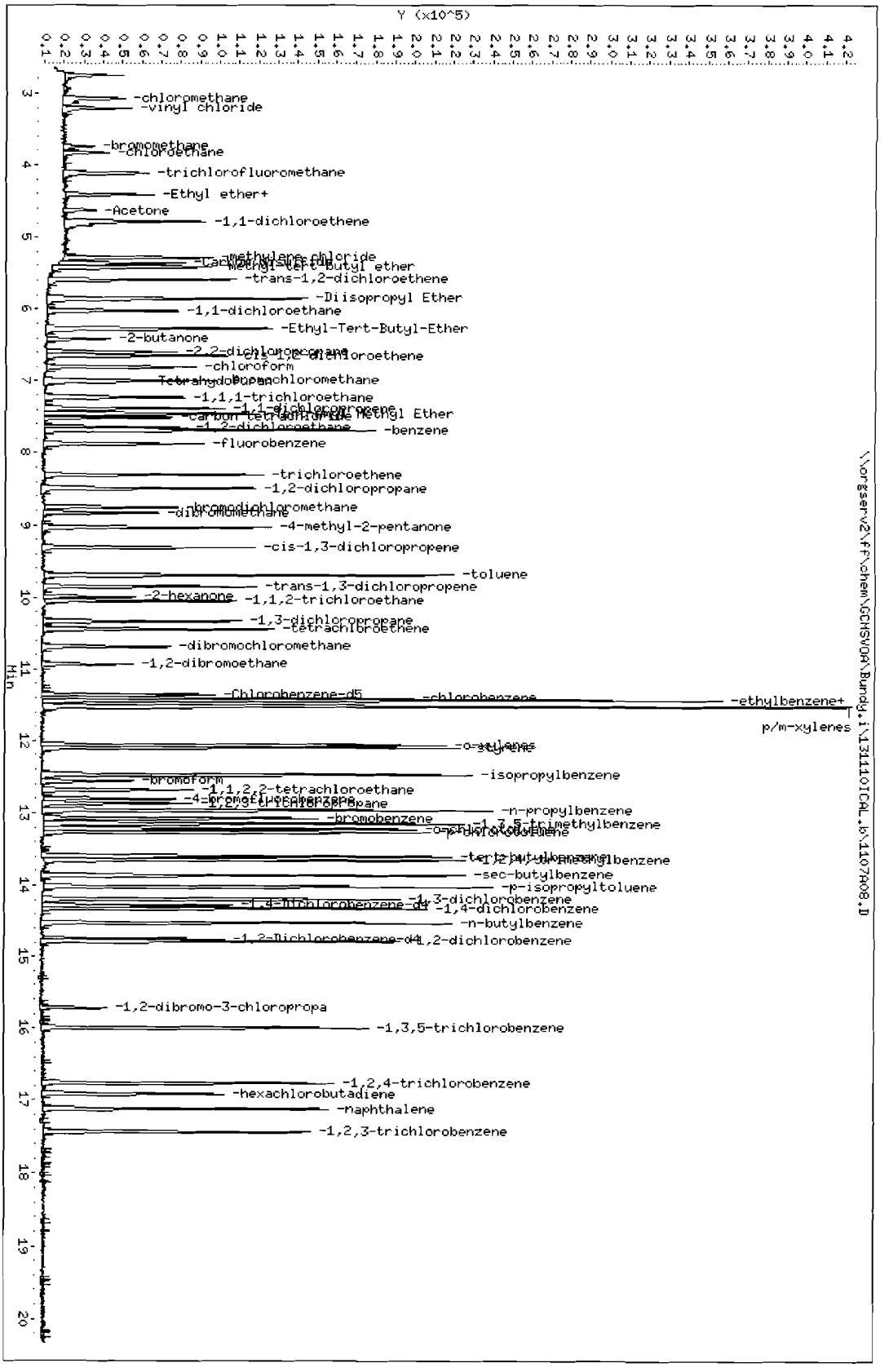
COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
30 fluorobenzene	65595	32798	131190	65376	-0.33
45 Chlorobenzene-d5	49202	24601	98404	50584	2.81
67 1,4-Dichlorobenze	26271	13136	52542	26308	0.14

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
30 fluorobenzene	7.87	7.37	8.37	7.87	-0.00
45 Chlorobenzene-d5	11.36	10.86	11.86	11.36	-0.00
67 1,4-Dichlorobenze	14.27	13.77	14.77	14.27	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131110ICAL.b\1107A08.D
Date : 10-NOV-2013 21:11
Client ID:
Sample Info: CAL4
Purge Volume: 5.0
Column phase:

Instrument: Bundy.i
Operator: gt
Column diameter: 0.18



Page 4

Alpha Analytical Labs

Manual Integration

Sample Info	: CAL4 wg,ical8647		
Instrument ID	: Bundy.i		
Method	: 524extras.m		
File	: 1107A08.D		
Injection Date	: 10-NOV-2013 21:11		
Quantitation	: ISTD	Integrator	: HP RTE
Dilution Factor	: 1.00	Sample Type	: CALIB_4

There are no manual integrations in this file.

Alpha Analytical Labs

gc/ms voa -Bundy 524

Data file : \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131110ICAL.b\1107A09.D
Lab Smp Id:
Inj Date : 10-NOV-2013 21:44
Operator : gt Inst ID: Bundy.i
Smp Info : CAL5
Misc Info : wg,ical8647
Comment :
Method : \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131110ICAL.b\524extras.m
Meth Date : 30-Dec-2013 10:47 Bundy.i Quant Type: ISTD
Cal Date : 10-NOV-2013 21:11 Cal File: 1107A08.D
Als bottle: 36 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 524NH.sub
Target Version: 4.12
Processing Host: VIRTUALXP-72976

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ngs)	ON-COL (ngs)	REVIEW CODE
1 dichlorodifluoromethane	85	2.752	2.752	(0.349)	51893	60.0000	60.63	
2 chloromethane	50	3.072	3.072	(0.390)	73823	60.0000	61.64	
3 vinyl chloride	62	3.208	3.208	(0.407)	63278	60.0000	62.14	
4 bromomethane	94	3.743	3.743	(0.475)	18552	60.0000	60.02	
5 chloroethane	64	3.821	3.821	(0.485)	34087	60.0000	60.34	
6 trichlorofluoromethane	101	4.110	4.110	(0.522)	67439	60.0000	63.28	
7 Ethyl ether	74	4.408	4.408	(0.560)	22682	60.0000	58.49	
8 Acetone	43	4.623	4.623	(0.587)	33082	120.000	122.26	
9 1,1-dichloroethene	96	4.781	4.781	(0.607)	40686	60.0000	60.91	
10 Tert-Butyl Alcohol	59	4.408	4.408	(0.560)	43426	300.000	292.80	
11 methylene chloride	84	5.284	5.284	(0.671)	41825	60.0000	54.14	
12 Carbon disulfide	76	5.363	5.363	(0.681)	122452	60.0000	58.55	
13 methyl-tert-butyl ether	73	5.415	5.415	(0.688)	129244	60.0000	62.52	
14 trans-1,2-dichloroethene	96	5.588	5.588	(0.710)	49627	60.0000	62.19	
15 Diisopropyl Ether	45	5.850	5.850	(0.743)	219693	60.0000	59.62	
16 1,1-dichloroethane	63	6.018	6.018	(0.764)	109676	60.0000	61.14	
17 Ethyl-Tert-Butyl-Ether	59	6.270	6.270	(0.796)	194814	60.0000	60.40	
18 2-butanone	43	6.422	6.422	(0.816)	63533	120.000	123.52	
19 2,2-dichloropropane	77	6.595	6.595	(0.838)	66646	60.0000	60.94	
20 cis-1,2-dichloroethene	96	6.647	6.647	(0.844)	50994	60.0000	59.34	
21 chloroform	83	6.805	6.805	(0.864)	82350	60.0000	60.33	
22 bromochloromethane	128	6.993	6.993	(0.888)	26568	60.0000	61.44	
23 Tetrahydofuran	42	7.020	7.020	(0.891)	38029	120.000	121.05	
24 1,1,1-trichloroethane	97	7.229	7.229	(0.918)	75842	60.0000	61.78	
25 1,1-dichloropropene	75	7.381	7.381	(0.937)	61626	60.0000	60.49	
26 Tert-Amyl Methyl Ether	73	7.460	7.460	(0.947)	133893	60.0000	60.24	
27 carbon tetrachloride	117	7.507	7.507	(0.953)	66852	60.0000	60.52	
28 1,2-dichloroethane	62	7.643	7.643	(0.971)	77532	60.0000	60.94	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ngs)	AMOUNTS ON-COL (ngs)	REVIEW CODE
	29 benzene	78	7.680	7.680	(0.975)	196056	60.0000	60.85	
*	30 fluorobenzene	96	7.874	7.874	(1.000)	65463	20.0000		
	31 trichloroethene	95	8.309	8.309	(1.055)	51967	60.0000	60.53	
	32 1,2-dichloropropane	63	8.488	8.488	(1.078)	64960	60.0000	61.53	
	33 bromodichloromethane	83	8.755	8.755	(1.112)	66385	60.0000	59.57	
	34 dibromomethane	93	8.828	8.828	(1.121)	32562	60.0000	60.90	
	35 4-methyl-2-pentanone	58	9.028	9.028	(1.146)	55223	120.000	122.20	
	36 cis-1,3-dichloropropene	75	9.311	9.311	(1.182)	81995	60.0000	60.62	
	37 toluene	92	9.693	9.693	(1.231)	129276	60.0000	60.73	
	38 trans-1,3-dichloropropene	75	9.851	9.851	(1.251)	76023	60.0000	60.85	
	39 2-hexanone	43	9.992	9.992	(0.880)	50265	60.0000	62.51	
	40 1,1,2-trichloroethane	83	10.050	10.050	(1.276)	40142	60.0000	62.24	
	41 1,3-dichloropropane	76	10.333	10.333	(1.312)	78720	60.0000	61.05	
	42 tetrachloroethene	166	10.443	10.443	(1.326)	55718	60.0000	61.66	
	43 dibromochloromethane	129	10.690	10.690	(1.358)	56253	60.0000	61.50	
	44 1,2-dibromoethane	107	10.931	10.931	(0.962)	49044	60.0000	59.74	
*	45 Chlorobenzene-d5	117	11.361	11.361	(1.000)	51530	20.0000		
	46 chlorobenzene	112	11.403	11.403	(1.004)	150005	60.0000	59.40	
	47 ethylbenzene	91	11.434	11.434	(1.006)	250287	60.0000	60.60	
	48 1,1,1,2-tetrachloroethane	131	11.434	11.434	(1.006)	53647	60.0000	59.21	
	49 p/m-xylenes	106	11.518	11.518	(1.014)	188776	120.000	121.46	
	50 o-xylenes	106	12.058	12.058	(1.061)	93633	60.0000	60.24	
	51 styrene	104	12.095	12.095	(1.065)	163117	60.0000	60.62	
	52 isopropylbenzene	105	12.467	12.467	(1.097)	243197	60.0000	60.98	
	53 bromoform	173	12.556	12.556	(1.105)	37447	60.0000	60.67	
	54 1,1,2,2-tetrachloroethane	83	12.677	12.677	(1.116)	63815	60.0000	61.06	
$	55 4-bromofluorobenzene	95	12.797	12.797	(1.126)	24673	20.0000	19.66	
	56 1,2,3-trichloropropane	110	12.866	12.866	(1.132)	18030	60.0000	58.63	
	57 n-propylbenzene	91	12.960	12.960	(1.141)	284540	60.0000	60.03	
	58 bromobenzene	156	13.075	13.075	(1.151)	64618	60.0000	60.12	
	59 1,3,5-trimethylbenzene	105	13.143	13.143	(1.157)	194651	60.0000	59.07	
	60 o-chlorotoluene	126	13.217	13.217	(1.163)	60037	60.0000	61.30	
	61 p-chlorotoluene	91	13.264	13.264	(1.168)	182973	60.0000	60.54	
	62 tert-butylbenzene	119	13.594	13.594	(1.197)	175660	60.0000	60.51	
	63 1,2,4,-trimethylbenzene	105	13.647	13.647	(1.201)	203125	60.0000	60.84	
	64 sec-butylbenzene	105	13.856	13.856	(1.220)	250313	60.0000	60.08	
	65 p-isopropyltoluene	119	14.014	14.014	(1.234)	224136	60.0000	60.28	
	66 1,3-dichlorobenzene	146	14.187	14.187	(0.994)	123344	60.0000	61.04	
*	67 1,4-Dichlorobenzene-d4	152	14.276	14.276	(1.000)	27124	20.0000		
	68 1,4-dichlorobenzene	146	14.313	14.313	(1.003)	124778	60.0000	59.82	
	69 n-butylbenzene	91	14.522	14.522	(1.017)	186020	60.0000	59.63	
$	70 1,2-Dichlorobenzene-d4	152	14.748	14.748	(1.033)	26812	20.0000	20.74	
	71 1,2-dichlorobenzene	146	14.784	14.784	(1.036)	123005	60.0000	61.05	
	72 1,2-dibromo-3-chloropropane	75	15.718	15.718	(1.101)	11527	60.0000	62.77	
	73 1,3,5-trichlorobenzene	180	15.996	15.996	(1.120)	81742	60.0000	60.77	
	74 1,2,4-trichlorobenzene	182	16.761	16.761	(1.174)	69199	60.0000	60.37	
	75 hexachlorobutadiene	225	16.918	16.918	(1.185)	29482	60.0000	59.18	
	76 naphthalene	128	17.118	17.118	(1.199)	184741	60.0000	62.33	
	77 1,2,3-trichlorobenzene	180	17.432	17.432	(1.221)	70706	60.0000	59.58	
M	78 Xylene (total)	106				282409	180.000		

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: Bundy.i
Lab File ID: 1107A09.D
Lab Smp Id:
Analysis Type: VOA
Quant Type: ISTD
Operator: gt
Method File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131110ICAL.b\524extras.m
Misc Info: wg,ical8647

Calibration Date: 10-NOV-2013
Calibration Time: 20:38
Level: MED
Sample Type: WATER

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 3

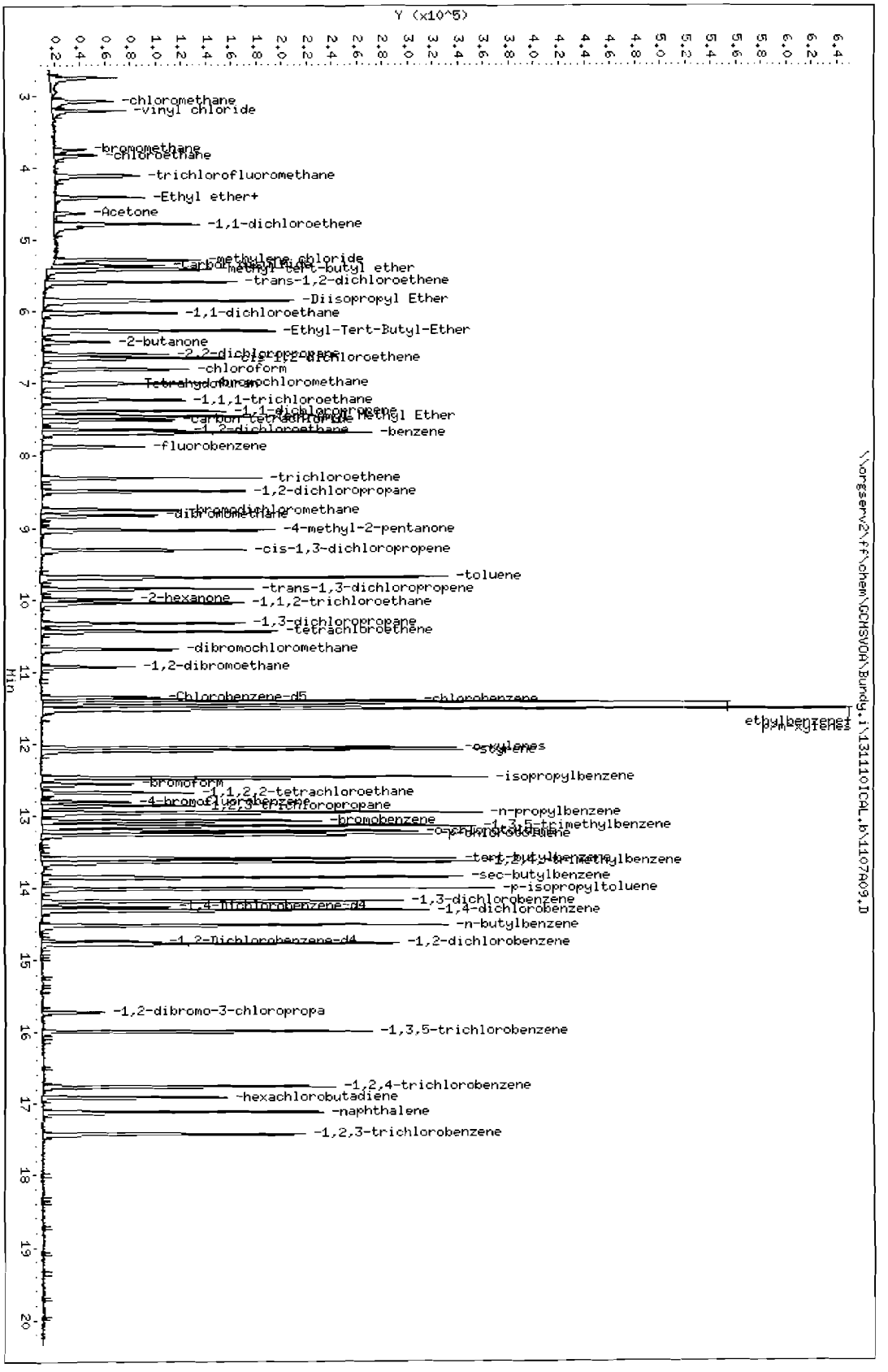
COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
30 fluorobenzene	65595	32798	131190	65463	-0.20
45 Chlorobenzene-d5	49202	24601	98404	51530	4.73
67 1,4-Dichlorobenze	26271	13136	52542	27124	3.25

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
30 fluorobenzene	7.87	7.37	8.37	7.87	0.00
45 Chlorobenzene-d5	11.36	10.86	11.86	11.36	0.00
67 1,4-Dichlorobenze	14.27	13.77	14.77	14.28	0.04

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131110ICAL.b\1107A09.D
Date : 10-NOV-2013 21:44
Client ID:
Sample Info: CAL5
Purge Volume: 5.0
Column phase:

Instrument: Bundy.i
Operator: gt
Column diameter: 0.18



Page 4

Alpha Analytical Labs

Manual Integration

Sample Info	: CAL5 wg,ical8647		
Instrument ID	: Bundy.i		
Method	: 524extras.m		
File	: 1107A09.D		
Injection Date	: 10-NOV-2013 21:44		
Quantitation	: ISTD	Integrator	: HP RTE
Dilution Factor	: 1.00	Sample Type	: CALIB_5

There are no manual integrations in this file.

Alpha Analytical Labs

gc/ms voa -Bundy 524

Data file : \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131110ICAL.b\1107A10.D
Lab Smp Id:
Inj Date : 10-NOV-2013 22:16
Operator : gt Inst ID: Bundy.i
Smp Info : CAL6
Misc Info : wg,ical8647
Comment :
Method : \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131110ICAL.b\524extras.m
Meth Date : 30-Dec-2013 10:47 Bundy.i Quant Type: ISTD
Cal Date : 10-NOV-2013 21:44 Cal File: 1107A09.D
Als bottle: 37 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 524NH.sub
Target Version: 4.12
Processing Host: VIRTUALXP-72976

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ngs)	AMOUNTS ON-COL (ngs)	REVIEW CODE
1 dichlorodifluoromethane	85	2.752	2.752	(0.350)	83460	100.000	96.12	
2 chloromethane	50	3.072	3.072	(0.390)	114937	100.000	94.59	
3 vinyl chloride	62	3.208	3.208	(0.407)	98442	100.000	95.29	
4 bromomethane	94	3.743	3.743	(0.475)	33096	100.000	105.54	
5 chloroethane	64	3.827	3.827	(0.486)	52464	100.000	91.55	
6 trichlorofluoromethane	101	4.110	4.110	(0.522)	103342	100.000	95.58	
7 Ethyl ether	74	4.409	4.409	(0.560)	35892	100.000	91.23	
8 Acetone	43	4.624	4.624	(0.587)	51089	200.000	186.09	
9 1,1-dichloroethene	96	4.781	4.781	(0.607)	63777	100.000	94.11	
10 Tert-Butyl Alcohol	59	4.409	4.409	(0.560)	70188	500.000	466.44	
11 methylene chloride	84	5.279	5.279	(0.670)	68844	100.000	87.84	
12 Carbon disulfide	76	5.363	5.363	(0.681)	191995	100.000	90.48	
13 methyl-tert-butyl ether	73	5.415	5.415	(0.688)	193437	100.000	92.23	
14 trans-1,2-dichloroethene	96	5.588	5.588	(0.710)	70331	100.000	86.87	
15 Diisopropyl Ether	45	5.850	5.850	(0.743)	358809	100.000	95.97	
16 1,1-dichloroethane	63	6.018	6.018	(0.764)	172918	100.000	95.01	
17 Ethyl-Tert-Butyl-Ether	59	6.270	6.270	(0.796)	314828	100.000	96.22	
18 2-butanone	43	6.422	6.422	(0.816)	96379	200.000	185.83	
19 2,2-dichloropropane	77	6.595	6.595	(0.838)	103384	100.000	94.88	
20 cis-1,2-dichloroethene	96	6.647	6.647	(0.844)	85272	100.000	97.81	
21 chloroform	83	6.805	6.805	(0.864)	131500	100.000	94.95	
22 bromochloromethane	128	6.993	6.993	(0.888)	43204	100.000	98.49	
23 Tetrahydofuran	42	7.020	7.020	(0.891)	61153	200.000	191.86	
24 1,1,1-trichloroethane	97	7.229	7.229	(0.918)	119289	100.000	95.78	
25 1,1-dichloropropene	75	7.381	7.381	(0.937)	97330	100.000	94.17	
26 Tert-Amyl Methyl Ether	73	7.460	7.460	(0.947)	219092	100.000	97.16	
27 carbon tetrachloride	117	7.507	7.507	(0.953)	106358	100.000	94.90	
28 1,2-dichloroethane	62	7.644	7.644	(0.971)	123840	100.000	95.94	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	PESPONSE	AMOUNTS CAL-AMT (ngs)	AMOUNTS ON-COL (ngs)	REVIEW CODE
	29 benzene	78	7.685	7.685	(0.976)	312960	100.000	95.74	
*	30 fluorobenzene	96	7.874	7.874	(1.000)	66418	20.0000		
	31 trichloroethene	95	8.304	8.304	(1.055)	81801	100.000	93.91	
	32 1,2-dichloropropane	63	8.493	8.493	(1.079)	102971	100.000	96.13	
	33 bromodichloromethane	83	8.755	8.755	(1.112)	107436	100.000	95.03	
	34 dibromomethane	93	8.828	8.828	(1.121)	52414	100.000	96.62	
	35 4-methyl-2-pentanone	58	9.033	9.033	(1.147)	83852	200.000	182.88	
	36 cis-1,3-dichloropropene	75	9.311	9.311	(1.182)	133943	100.000	97.61	
	37 toluene	92	9.694	9.694	(1.231)	208140	100.000	96.37	
	38 trans-1,3-dichloropropene	75	9.851	9.851	(1.251)	122304	100.000	96.49	
	39 2-hexanone	43	9.992	9.992	(0.880)	73811	100.000	93.78	
	40 1,1,2-trichloroethane	83	10.050	10.050	(1.276)	62241	100.000	95.27	
	41 1,3-dichloropropane	76	10.333	10.333	(1.312)	126879	100.000	96.99	
	42 tetrachloroethene	166	10.449	10.449	(1.327)	88806	100.000	96.87	
	43 dibromochloromethane	129	10.690	10.690	(1.358)	89442	100.000	96.38	
	44 1,2-dibromoethane	107	10.931	10.931	(0.962)	79322	100.000	98.62	
*	45 Chlorobenzene-d5	117	11.361	11.361	(1.000)	50436	20.0000		
	46 chlorobenzene	112	11.403	11.403	(1.004)	241016	100.000	97.51	
	47 ethylbenzene	91	11.434	11.434	(1.006)	396063	100.000	97.97	
	48 1,1,1,2-tetrachloroethane	131	11.434	11.434	(1.006)	87644	100.000	98.74	
	49 p/m-xylenes	106	11.523	11.523	(1.014)	302456	200.000	198.82	
	50 o-xylenes	106	12.058	12.058	(1.061)	146875	100.000	96.55	
	51 styrene	104	12.095	12.095	(1.065)	264017	100.000	100.25	
	52 isopropylbenzene	105	12.467	12.467	(1.097)	382083	100.000	97.88	
	53 bromoform	173	12.556	12.556	(1.105)	57917	100.000	95.74	
	54 1,1,2,2-tetrachloroethane	83	12.677	12.677	(1.116)	95413	100.000	93.27	
$	55 4-bromofluorobenzene	95	12.803	12.803	(1.127)	25506	20.0000	20.76	
	56 1,2,3-trichloropropane	110	12.866	12.866	(1.132)	27838	100.000	92.49	
	57 n-propylbenzene	91	12.960	12.960	(1.141)	457933	100.000	98.69	
	58 bromobenzene	156	13.075	13.075	(1.151)	104471	100.000	99.31	
	59 1,3,5-trimethylbenzene	105	13.149	13.149	(1.157)	313947	100.000	97.34	
	60 o-chlorotoluene	126	13.217	13.217	(1.163)	96167	100.000	100.24	
	61 p-chlorotoluene	91	13.264	13.264	(1.168)	286835	100.000	97.00	
	62 tert-butylbenzene	119	13.594	13.594	(1.197)	276948	100.000	97.46	
	63 1,2,4,-trimethylbenzene	105	13.647	13.647	(1.201)	320013	100.000	97.93	
	64 sec-butylbenzene	105	13.857	13.857	(1.220)	405143	100.000	99.36	
	65 p-isopropyltoluene	119	14.014	14.014	(1.234)	361483	100.000	99.19	
	66 1,3-dichlorobenzene	146	14.187	14.187	(0.994)	196311	100.000	95.97	
*	67 1,4-Dichlorobenzene-d4	152	14.271	14.271	(1.000)	27460	20.0000		
	68 1,4-dichlorobenzene	146	14.313	14.313	(1.003)	198152	100.000	93.84	
	69 n-butylbenzene	91	14.522	14.522	(1.018)	301579	100.000	95.49	
$	70 1,2-Dichlorobenzene-d4	152	14.748	14.748	(1.033)	24973	20.0000	19.08	
	71 1,2-dichlorobenzene	146	14.785	14.785	(1.036)	191198	100.000	93.74	
	72 1,2-dibromo-3-chloropropane	75	15.718	15.718	(1.101)	17064	100.000	91.79	
	73 1,3,5-trichlorobenzene	180	15.996	15.996	(1.121)	129825	100.000	95.33	
	74 1,2,4-trichlorobenzene	182	16.766	16.766	(1.175)	108917	100.000	93.86	
	75 hexachlorobutadiene	225	16.913	16.913	(1.185)	48881	100.000	96.92	
	76 naphthalene	128	17.118	17.118	(1.199)	283628	100.000	94.53	
	77 1,2,3-trichlorobenzene	180	17.432	17.432	(1.222)	111855	100.000	93.10	
M	78 Xylene (total)	106				449331	300.000		

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: Bundy.i
Lab File ID: 1107A10.D
Lab Smp Id:
Analysis Type: VOA
Quant Type: ISTD
Operator: gt
Method File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131110ICAL.b\524extras.m
Misc Info: wg,ical8647

Calibration Date: 10-NOV-2013
Calibration Time: 20:38

Level: MED
Sample Type: WATER

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 3

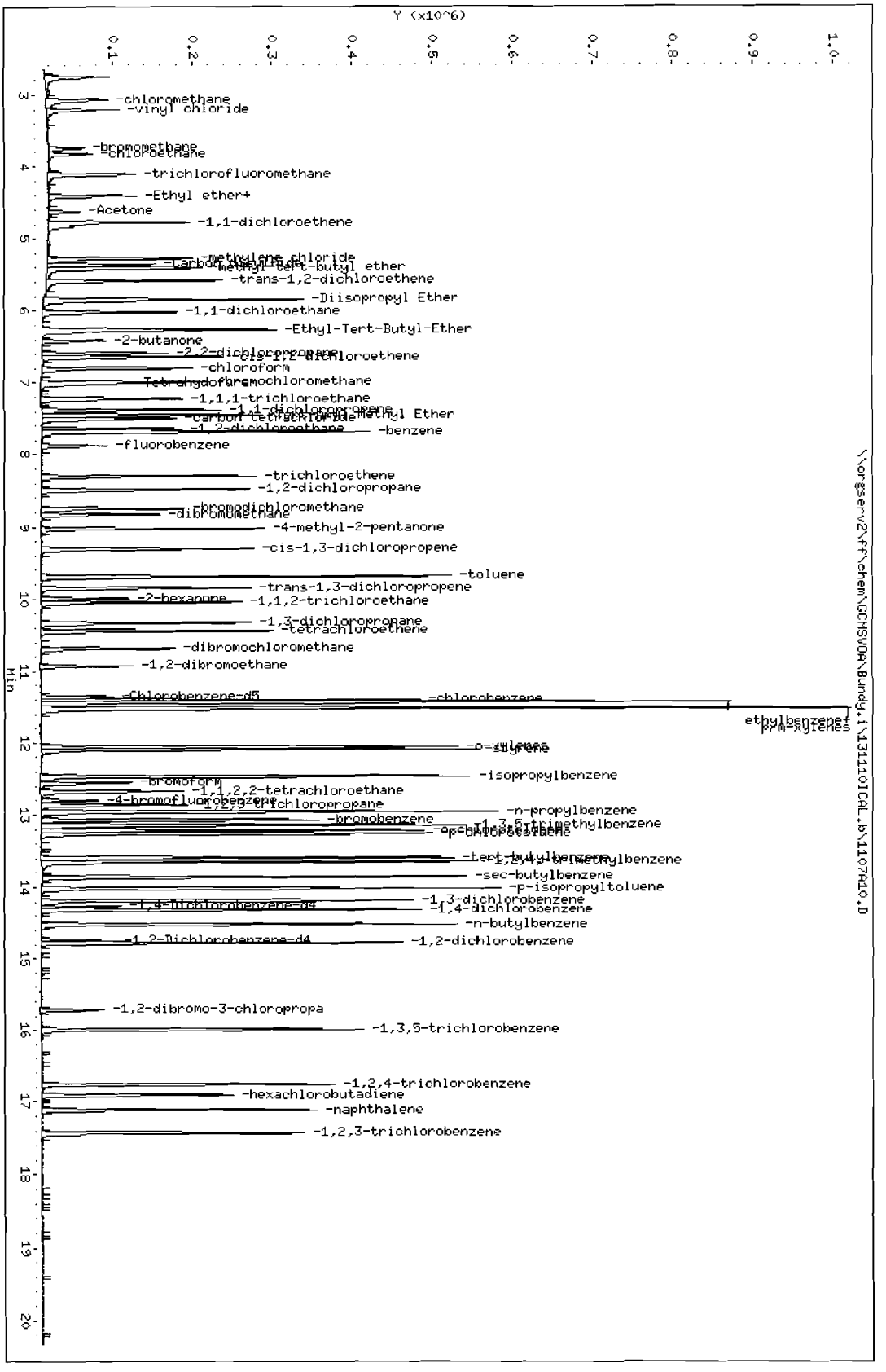
COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
30 fluorobenzene	65595	32798	131190	66418	1.25
45 Chlorobenzene-d5	49202	24601	98404	50438	2.51
67 1,4-Dichlorobenze	26271	13136	52542	27460	4.53

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
30 fluorobenzene	7.87	7.37	8.37	7.87	0.00
45 Chlorobenzene-d5	11.36	10.86	11.86	11.36	0.00
67 1,4-Dichlorobenze	14.27	13.77	14.77	14.27	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131110ICAL.b\1107A10.D
Date : 10-NOV-2013 22:16
Client ID:
Sample Info: CAL6
Purge Volume: 5.0
Column phase:

Instrument: Bundy.i
Operator: gt
Column diameter: 0.18



Page 4

Alpha Analytical Labs

Manual Integration

Sample Info	: CAL6 wg,ical8647	
Instrument ID	: Bundy.i	
Method	: 524extras.m	
File	: 1107A10.D	
Injection Date	: 10-NOV-2013 22:16	
Quantitation	: ISTD	Integrator : HP RTE
Dilution Factor	: 1.00	Sample Type: CALIB_6

There are no manual integrations in this file.

Alpha Analytical Labs

gc/ms voa -Bundy 524

Data file : \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131110ICAL.b\1107A11.D
Lab Smp Id:
Inj Date : 10-NOV-2013 22:49
Operator : gt Inst ID: Bundy.i
Smp Info : CAL7
Misc Info : wg,ical8647
Comment :
Method : \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131110ICAL.b\524extras.m
Meth Date : 30-Dec-2013 10:47 Bundy.i Quant Type: ISTD
Cal Date : 10-NOV-2013 22:16 Cal File: 1107A10.D
Als bottle: 38 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 524NH.sub
Target Version: 4.12
Processing Host: VIRTUALXP-72976

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ngs)	ON-COL (ngs)	REVIEW CODE
1 dichlorodifluoromethane	85	2.752	2.752	(0.350)	168733	200.000	197.00	
2 chloromethane	50	3.072	3.072	(0.390)	233504	200.000	194.81	
3 vinyl chloride	62	3.208	3.208	(0.407)	194474	200.000	190.84	
4 bromomethane	94	3.743	3.743	(0.475)	69352	200.000	224.21	
5 chloroethane	64	3.827	3.827	(0.486)	108720	200.000	192.31	
6 trichlorofluoromethane	101	4.110	4.110	(0.522)	206970	200.000	194.06	
7 Ethyl ether	74	4.409	4.409	(0.560)	71111	200.000	183.24	
8 Acetone	43	4.623	4.623	(0.587)	95692	400.000	353.36	
9 1,1-dichloroethene	96	4.781	4.781	(0.607)	127031	200.000	190.03	
10 Tert-Butyl Alcohol	59	4.409	4.409	(0.560)	137153	1000.00	923.99	
11 methylene chloride	84	5.284	5.284	(0.671)	137172	200.000	177.42	
12 Carbon disulfide	76	5.363	5.363	(0.681)	378802	200.000	180.98	
13 methyl-tert-butyl ether	73	5.410	5.410	(0.687)	379265	200.000	183.32	
14 trans-1,2-dichloroethene	96	5.588	5.588	(0.710)	152974	200.000	191.54	
15 Diisopropyl Ether	45	5.850	5.850	(0.743)	717901	200.000	194.67	
16 1,1-dichloroethane	63	6.023	6.023	(0.765)	345390	200.000	192.39	
17 Ethyl-Tert-Butyl-Ether	59	6.270	6.270	(0.796)	620006	200.000	192.09	
18 2-butanone	43	6.417	6.417	(0.815)	199119	400.000	386.81	
19 2,2-dichloropropane	77	6.595	6.595	(0.838)	206825	200.000	188.96	
20 cis-1,2-dichloroethene	96	6.647	6.647	(0.844)	171683	200.000	199.63	
21 chloroform	83	6.805	6.805	(0.864)	265518	200.000	194.36	
22 bromochloromethane	128	6.993	6.993	(0.888)	86723	200.000	200.41	
23 Tetrahydofuran	42	7.014	7.014	(0.891)	121210	400.000	385.51	
24 1,1,1-trichloroethane	97	7.229	7.229	(0.918)	237614	200.000	193.41	
25 1,1-dichloropropene	75	7.387	7.387	(0.938)	198896	200.000	195.09	
26 Tert-Amyl Methyl Ether	73	7.455	7.455	(0.947)	430432	200.000	193.51	
27 carbon tetrachloride	117	7.507	7.507	(0.953)	217563	200.000	196.79	
28 1,2-dichloroethane	62	7.643	7.643	(0.971)	246440	200.000	193.54	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ngs)	AMOUNTS ON-COL (ngs)	REVIEW CODE
	29 benzene	78	7.680	7.680	(0.975)	624636	200.000	193.73	
*	30 fluorobenzene	96	7.874	7.874	(1.000)	65517	20.0000		
	31 trichloroethene	95	8.304	8.304	(1.055)	164518	200.000	191.47	
	32 1,2-dichloropropane	63	8.493	8.493	(1.079)	207433	200.000	196.36	
	33 bromodichloromethane	83	8.750	8.750	(1.111)	215314	200.000	193.07	
	34 dibromomethane	93	8.828	8.828	(1.121)	103291	200.000	193.02	
	35 4-methyl-2-pentanone	58	9.028	9.028	(1.146)	171276	400.000	378.70	
	36 cis-1,3-dichloropropene	75	9.311	9.311	(1.182)	268327	200.000	198.23	
	37 toluene	92	9.694	9.694	(1.231)	418056	200.000	198.23	
	38 trans-1,3-dichloropropene	75	9.851	9.851	(1.251)	249067	200.000	199.20	
	39 2-hexanone	43	9.992	9.992	(0.880)	151972	200.000	189.06	
	40 1,1,2-trichloroethane	83	10.050	10.050	(1.276)	125035	200.000	194.02	
	41 1,3-dichloropropane	76	10.333	10.333	(1.312)	254633	200.000	197.36	
	42 tetrachloroethene	166	10.449	10.449	(1.327)	173920	200.000	192.33	
	43 dibromochloromethane	129	10.690	10.690	(1.358)	181936	200.000	198.74	
	44 1,2-dibromoethane	107	10.931	10.931	(0.962)	160436	200.000	195.31	
*	45 Chlorobenzene-d5	117	11.361	11.361	(1.000)	51510	20.0000		
	46 chlorobenzene	112	11.403	11.403	(1.004)	490268	200.000	194.24	
	47 ethylbenzene	91	11.434	11.434	(1.006)	789918	200.000	191.33	
	48 1,1,1,2-tetrachloroethane	131	11.434	11.434	(1.006)	174750	200.000	192.78	
	49 p/m-xylenes	106	11.523	11.523	(1.014)	601506	400.000	387.17	
	50 o-xylenes	106	12.058	12.058	(1.061)	299128	200.000	192.54	
	51 styrene	104	12.095	12.095	(1.065)	527361	200.000	196.09	
	52 isopropylbenzene	105	12.467	12.467	(1.097)	776431	200.000	194.77	
	53 bromoform	173	12.556	12.556	(1.105)	119038	200.000	192.69	
	54 1,1,2,2-tetrachloroethane	83	12.677	12.677	(1.116)	196050	200.000	187.66	
$	55 4-bromofluorobenzene	95	12.803	12.803	(1.127)	24814	20.0000	19.78	
	56 1,2,3-trichloropropane	110	12.866	12.866	(1.132)	56123	200.000	182.60	
	57 n-propylbenzene	91	12.960	12.960	(1.141)	920998	200.000	194.36	
	58 bromobenzene	156	13.075	13.075	(1.151)	207857	200.000	193.49	
	59 1,3,5-trimethylbenzene	105	13.149	13.149	(1.157)	634134	200.000	192.52	
	60 o-chlorotoluene	126	13.217	13.217	(1.163)	190319	200.000	194.25	
	61 p-chlorotoluene	91	13.264	13.264	(1.168)	582991	200.000	193.05	
	62 tert-butylbenzene	119	13.594	13.594	(1.197)	561838	200.000	193.61	
	63 1,2,4,-trimethylbenzene	105	13.647	13.647	(1.201)	648764	200.000	194.41	
	64 sec-butylbenzene	105	13.856	13.856	(1.220)	813726	200.000	195.41	
	65 p-isopropyltoluene	119	14.014	14.014	(1.234)	724238	200.000	194.61	
	66 1,3-dichlorobenzene	146	14.187	14.187	(0.994)	389581	200.000	197.06	
*	67 1,4-Dichlorobenzene-d4	152	14.276	14.276	(1.000)	26540	20.0000		
	68 1,4-dichlorobenzene	146	14.313	14.313	(1.003)	400638	200.000	196.32	
	69 n-butylbenzene	91	14.522	14.522	(1.017)	610993	200.000	200.18	
$	70 1,2-Dichlorobenzene-d4	152	14.743	14.743	(1.033)	24439	20.0000	19.32	
	71 1,2-dichlorobenzene	146	14.779	14.779	(1.035)	385439	200.000	195.53	
	72 1,2-dibromo-3-chloropropane	75	15.718	15.718	(1.101)	35584	200.000	198.06	
	73 1,3,5-trichlorobenzene	180	15.996	15.996	(1.120)	266647	200.000	202.60	
	74 1,2,4-trichlorobenzene	182	16.766	16.766	(1.174)	222645	200.000	198.52	
	75 hexachlorobutadiene	225	16.913	16.913	(1.185)	96064	200.000	197.09	
	76 naphthalene	128	17.118	17.118	(1.199)	588051	200.000	202.79	
	77 1,2,3-trichlorobenzene	180	17.432	17.432	(1.221)	231522	200.000	199.39	
M	78 Xylene (total)	106				900634	600.000		

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: Bundy.i
Lab File ID: 1107A11.D
Lab Smp Id:
Analysis Type: VOA
Quant Type: ISTD
Operator: gt
Method File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131110ICAL.b\524extras.m
Misc Info: wg,ical8647

Calibration Date: 10-NOV-2013
Calibration Time: 20:38

Level: MED
Sample Type: WATER

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 3

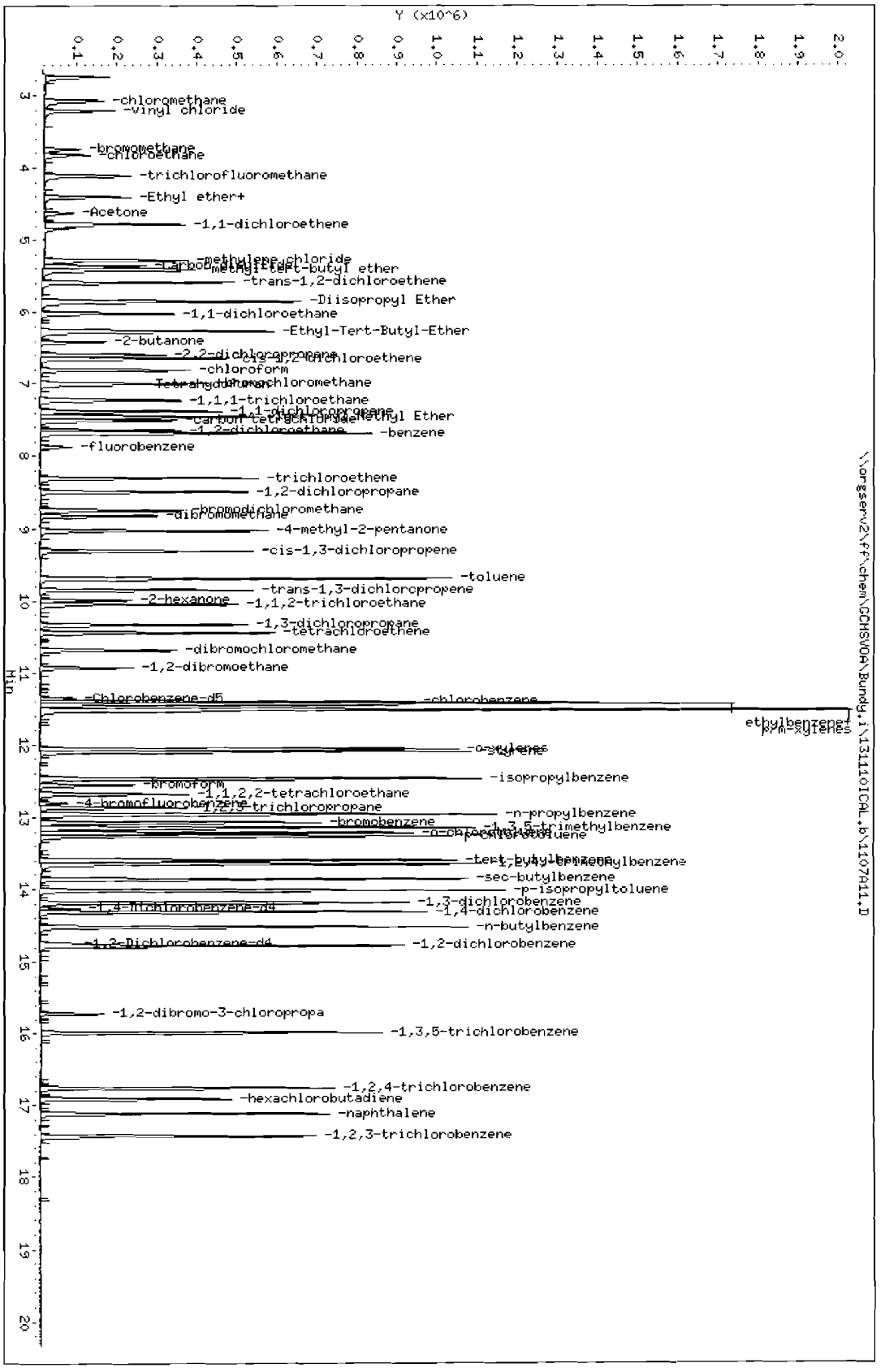
COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
30 fluorobenzene	65595	32798	131190	65517	-0.12
45 Chlorobenzene-d5	49202	24601	98404	51510	4.69
67 1,4-Dichlorobenze	26271	13136	52542	26540	1.02

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
30 fluorobenzene	7.87	7.37	8.37	7.87	0.00
45 Chlorobenzene-d5	11.36	10.86	11.86	11.36	0.00
67 1,4-Dichlorobenze	14.27	13.77	14.77	14.28	0.04

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131110ICAL.b\1107A11.D
Date : 10-NOV-2013 22:49
Client ID:
Sample Info: CAL7
Purge Volume: 5.0
Column phase:

Instrument: Bundy.i
Operator: gt
Column diameter: 0.18



Page 4

Alpha Analytical Labs

Manual Integration

Sample Info	: CAL7 wg,ical8647		
Instrument ID	: Bundy.i		
Method	: 524extras.m		
File	: 1107A11.D		
Injection Date	: 10-NOV-2013 22:49		
Quantitation	: ISTD	Integrator	: HP RTE
Dilution Factor	: 1.00	Sample Type	: CALIB_7

There are no manual integrations in this file.

Alpha Analytical Labs

gc/ms voa -Bundy 524

Data file : \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131110ICAL.b\1107A12.D
Lab Smp Id:
Inj Date : 10-NOV-2013 23:22
Operator : gt Inst ID: Bundy.i
Smp Info : CAL8
Misc Info : wg,ical8647
Comment :
Method : \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131110ICAL.b\524extras.m
Meth Date : 30-Dec-2013 10:47 Bundy.i Quant Type: ISTD
Cal Date : 10-NOV-2013 22:49 Cal File: 1107A11.D
Als bottle: 39 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 524NH.sub
Target Version: 4.12
Processing Host: VIRTUALXP-72976

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ngs)	ON-COL (ngs)	REVIEW CODE
1 dichlorodifluoromethane	85	2.752	2.752	(0.349)	318602	400.000	376.29	
2 chloromethane	50	3.071	3.071	(0.390)	465736	400.000	393.07	
3 vinyl chloride	62	3.203	3.203	(0.407)	365730	400.000	363.06	
4 bromomethane	94	3.743	3.743	(0.475)	150879	400.000	493.44	(A)
5 chloroethane	64	3.821	3.821	(0.485)	213580	400.000	382.18	
6 trichlorofluoromethane	101	4.110	4.110	(0.522)	406446	400.000	385.52	
7 Ethyl ether	74	4.408	4.408	(0.560)	140227	400.000	365.69	
8 Acetone	43	4.629	4.629	(0.588)	201247	800.000	751.75	(A)
9 1,1-dichloroethene	96	4.781	4.781	(0.607)	251944	400.000	381.27	
10 Tert-Butyl Alcohol	59	4.408	4.408	(0.560)	275444	2000.00	1877.17	
11 methylene chloride	84	5.284	5.284	(0.671)	303244	400.000	396.78	
12 Carbon disulfide	76	5.363	5.363	(0.681)	854851	400.000	413.17	(A)
13 methyl-tert-butyl ether	73	5.410	5.410	(0.687)	824019	400.000	402.92	(A)
14 trans-1,2-dichloroethene	96	5.588	5.588	(0.710)	308988	400.000	391.38	
15 Diisopropyl Ether	45	5.850	5.850	(0.743)	1405066	400.000	385.42	
16 1,1-dichloroethane	63	6.023	6.023	(0.765)	695374	400.000	386.20	
17 Ethyl-Tert-Butyl-Ether	59	6.270	6.270	(0.796)	1216385	400.000	381.24	
18 2-butanone	43	6.417	6.417	(0.815)	391372	800.000	769.00	(A)
19 2,2-dichloropropane	77	6.595	6.595	(0.838)	395383	400.000	365.43	
20 cis-1,2-dichloroethene	96	6.647	6.647	(0.844)	326726	400.000	384.33	
21 chloroform	83	6.805	6.805	(0.864)	517900	400.000	383.50	
22 bromochloromethane	128	6.993	6.993	(0.888)	165966	400.000	387.39	
23 Tetrahydofuran	42	7.014	7.014	(0.891)	237926	800.000	765.51	(A)
24 1,1,1-trichloroethane	97	7.229	7.229	(0.918)	471351	400.000	388.12	
25 1,1-dichloropropene	75	7.386	7.386	(0.938)	390333	400.000	387.31	
26 Tert-Amyl Methyl Ether	73	7.455	7.455	(0.947)	850569	400.000	386.83	
27 carbon tetrachloride	117	7.507	7.507	(0.953)	427782	400.000	391.43	
28 1,2-dichloroethane	62	7.643	7.643	(0.971)	490748	400.000	389.89	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ngs)	AMOUNTS ON-COL (ngs)	REVIEW CODE
	29 benzene	78	7.680	7.680	(0.975)	1227869	400.000	385.22	
*	30 fluorobenzene	96	7.874	7.874	(1.000)	64766	20.0000		
	31 trichloroethene	95	8.304	8.304	(1.055)	321527	400.000	378.54	
	32 1,2-dichloropropane	63	8.488	8.488	(1.078)	408649	400.000	391.23	
	33 bromodichloromethane	83	8.750	8.750	(1.111)	423287	400.000	383.97	
	34 dibromomethane	93	8.828	8.828	(1.121)	204452	400.000	386.50	
	35 4-methyl-2-pentanone	58	9.033	9.033	(1.147)	329109	800.000	736.11(A)	
	36 cis-1,3-dichloropropene	75	9.311	9.311	(1.182)	518636	400.000	387.59	
	37 toluene	92	9.693	9.693	(1.231)	818005	400.000	388.42	
	38 trans-1,3-dichloropropene	75	9.851	9.851	(1.251)	477755	400.000	386.54	
	39 2-hexanone	43	9.992	9.992	(0.880)	293722	400.000	375.66	
	40 1,1,2-trichloroethane	83	10.050	10.050	(1.276)	237900	400.000	373.44	
	41 1,3-dichloropropane	76	10.333	10.333	(1.312)	495595	400.000	388.51	
	42 tetrachloroethene	166	10.448	10.448	(1.327)	343697	400.000	384.49	
	43 dibromochloromethane	129	10.690	10.690	(1.358)	352517	400.000	389.55	
	44 1,2-dibromoethane	107	10.931	10.931	(0.962)	312466	400.000	391.06	
*	45 Chlorobenzene-d5	117	11.361	11.361	(1.000)	50106	20.0000		
	46 chlorobenzene	112	11.408	11.408	(1.004)	951133	400.000	387.39	
	47 ethylbenzene	91	11.434	11.434	(1.006)	1527001	400.000	380.24	
	48 1,1,1,2-tetrachloroethane	131	11.434	11.434	(1.006)	329784	400.000	374.01	
	49 p/m-xylenes	106	11.523	11.523	(1.014)	1163170	800.000	769.68	
	50 o-xylenes	106	12.058	12.058	(1.061)	571121	400.000	377.93	
	51 styrene	104	12.095	12.095	(1.065)	1008487	400.000	385.50	
	52 isopropylbenzene	105	12.467	12.467	(1.097)	1494644	400.000	385.45	
	53 bromoform	173	12.561	12.561	(1.106)	232474	400.000	386.87	
	54 1,1,2,2-tetrachloroethane	83	12.677	12.677	(1.116)	371839	400.000	365.91	
$	55 4-bromofluorobenzene	95	12.797	12.797	(1.126)	24362	20.0000	19.96	
	56 1,2,3-trichloropropane	110	12.865	12.865	(1.132)	108669	400.000	363.47	
	57 n-propylbenzene	91	12.960	12.960	(1.141)	1782532	400.000	386.72	
	58 bromobenzene	156	13.075	13.075	(1.151)	403137	400.000	385.79	
	59 1,3,5-trimethylbenzene	105	13.149	13.149	(1.157)	1230807	400.000	384.14	
	60 o-chlorotoluene	126	13.217	13.217	(1.163)	367364	400.000	385.46	
	61 p-chlorotoluene	91	13.264	13.264	(1.168)	1128548	400.000	384.17	
	62 tert-butylbenzene	119	13.594	13.594	(1.197)	1090399	400.000	386.29	
	63 1,2,4,-trimethylbenzene	105	13.647	13.647	(1.201)	1251777	400.000	385.63	
	64 sec-butylbenzene	105	13.856	13.856	(1.220)	1530316	400.000	392.61	
	65 p-isopropyltoluene	119	14.019	14.019	(1.234)	1421679	400.000	392.72	
	66 1,3-dichlorobenzene	146	14.187	14.187	(0.994)	759798	400.000	381.14	
*	67 1,4-Dichlorobenzene-d4	152	14.276	14.276	(1.000)	26762	20.0000		
	68 1,4-dichlorobenzene	146	14.313	14.313	(1.003)	772432	400.000	375.38	
	69 n-butylbenzene	91	14.522	14.522	(1.017)	1191817	400.000	387.24	
$	70 1,2-Dichlorobenzene-d4	152	14.748	14.748	(1.033)	26355	20.0000	20.66	
	71 1,2-dichlorobenzene	146	14.784	14.784	(1.036)	746974	400.000	375.80	
	72 1,2-dibromo-3-chloropropane	75	15.718	15.718	(1.101)	70989	400.000	391.85	
	73 1,3,5-trichlorobenzene	180	15.996	15.996	(1.120)	518472	400.000	390.67	
	74 1,2,4-trichlorobenzene	182	16.766	16.766	(1.174)	441455	400.000	390.35	
	75 hexachlorobutadiene	225	16.913	16.913	(1.185)	191081	400.000	388.79	
	76 naphthalene	128	17.118	17.118	(1.199)	1160757	400.000	396.97	
	77 1,2,3-trichlorobenzene	180	17.432	17.432	(1.221)	457747	400.000	390.96	
M	78 Xylene (total)	106				1734291	1200.00		

QC Flag Legend

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

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: Bundy.i
Lab File ID: 1107A12.D
Lab Smp Id:
Analysis Type: VOA
Quant Type: ISTD
Operator: gt
Method File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131110ICAL.b\524extras.m
Misc Info: wg,ical8647

Calibration Date: 10-NOV-2013
Calibration Time: 20:38

Level: MED
Sample Type: WATER

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 3

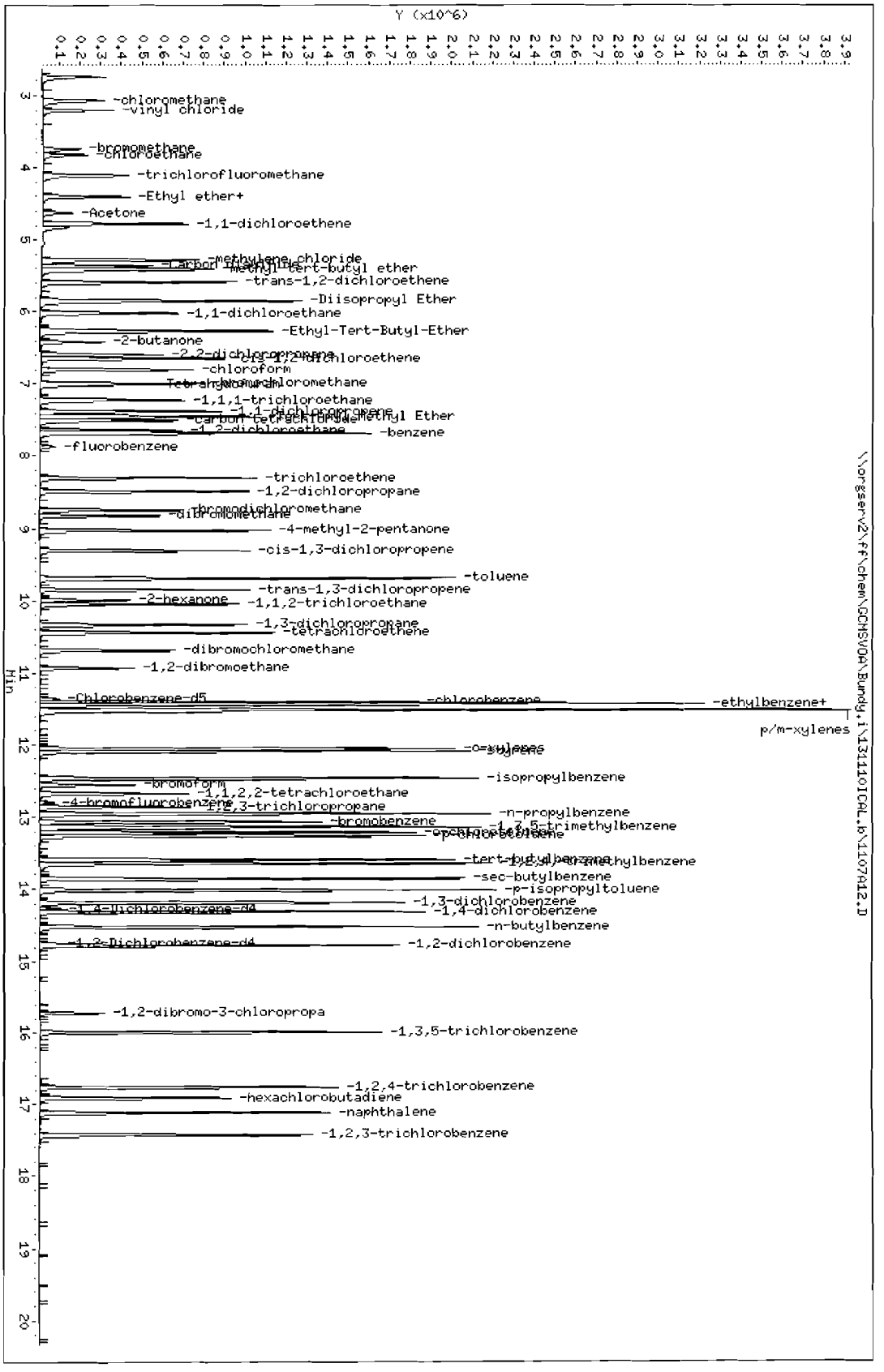
COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
30 fluorobenzene	65595	32798	131190	64766	-1.26
45 Chlorobenzene-d5	49202	24601	98404	50106	1.84
67 1,4-Dichlorobenze	26271	13136	52542	26762	1.87

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
30 fluorobenzene	7.87	7.37	8.37	7.87	0.00
45 Chlorobenzene-d5	11.36	10.86	11.86	11.36	0.00
67 1,4-Dichlorobenze	14.27	13.77	14.77	14.28	0.04

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\orgserv2\ff\chem\GCMS\DA\Bundy.i\131110ICAL.b\110712.D
Date : 10-NOV-2013 23:22
Client ID:
Sample Info: CAL8
Purge Volume: 5.0
Column phase:

Instrument: Bundy.i
Operator: gt
Column diameter: 0.18



Alpha Analytical Labs

Manual Integration

Sample Info	: CAL8 wg,ical8647		
Instrument ID	: Bundy.i		
Method	: 524extras.m		
File	: 1107A12.D		
Injection Date	: 10-NOV-2013 23:22		
Quantitation	: ISTD	Integrator	: HP RTE
Dilution Factor	: 1.00	Sample Type	: CALIB_8

There are no manual integrations in this file.

Initial Calibration Verification

Alpha Analytical Labs

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: Bundy.i
Lab File ID: 1107A15.D
Analysis Type: WATER
Lab Sample ID:
Method: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131110ICAL.b\524extras.m

Injection Date: 11-NOV-2013 01:00
Init. Cal. Date(s): 10-NOV-2013 10-NOV-2013
Init. Cal. Times: 19:33 23:22
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF20	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
1 dichlorodifluoromethane	0.26146	0.22877	0.010	-12.50287	30.00000	Averaged
2 chloromethane	0.36589	0.37523	0.010	2.55307	30.00000	Averaged
3 vinyl chloride	0.31107	0.30925	0.010	-0.58629	30.00000	Averaged
4 bromomethane	0.09442	0.09228	0.010	-2.26989	30.00000	Averaged
5 chloroethane	0.17257	0.15654	0.010	-9.29275	30.00000	Averaged
6 trichlorofluoromethane	0.32556	0.30754	0.010	-5.53634	30.00000	Averaged
7 Ethyl ether	0.11846	0.11095	0.010	-6.33812	30.00000	Averaged
8 Acetone	0.08267	0.08049	0.010	-2.62904	30.00000	Averaged
9 1,1-dichloroethene	0.20406	0.18209	0.010	-10.76710	30.00000	Averaged
10 Tert-Butyl Alcohol	0.04531	0.04036	0.010	-10.92866	30.00000	Averaged
11 methylene chloride	0.23600	0.20480	0.010	-13.22040	30.00000	Averaged
12 Carbon disulfide	0.63891	0.62000	0.010	-2.95882	30.00000	Averaged
13 methyl-tert-butyl ether	0.63153	0.53393	0.010	-15.45464	30.00000	Averaged
14 trans-1,2-dichloroethene	0.24379	0.21796	0.010	-10.59668	30.00000	Averaged
15 Diisopropyl Ether	1.12573	0.95353	0.010	-15.29669	30.00000	Averaged
16 1,1-dichloroethane	0.54802	0.49303	0.010	-10.03494	30.00000	Averaged
17 Ethyl-Tert-Butyl-Ether	0.98526	0.89720	0.010	-8.93759	30.00000	Averaged
18 2-butanone	0.15714	0.13980	0.010	-11.03683	30.00000	Averaged
19 2,2-dichloropropane	0.33411	0.28713	0.010	-14.06344	30.00000	Averaged
20 cis-1,2-dichloroethene	0.26252	0.24964	0.010	-4.90669	30.00000	Averaged
21 chloroform	0.41702	0.38739	0.010	-7.10377	30.00000	Averaged
22 bromochloromethane	0.13209	0.12568	0.010	-4.85285	30.00000	Averaged
23 Tetrahydofuran	0.09598	0.09229	0.010	-3.84653	30.00000	Averaged
24 1,1,1-trichloroethane	0.37502	0.35521	0.010	-5.28284	30.00000	Averaged
25 1,1-dichloropropene	0.31121	0.33484	0.010	7.59391	30.00000	Averaged
26 Tert-Amyl Methyl Ether	0.67899	0.62218	0.010	-8.36660	30.00000	Averaged
27 carbon tetrachloride	0.33748	0.30396	0.010	-9.93242	30.00000	Averaged
28 1,2-dichloroethane	0.38869	0.35878	0.010	-7.69467	30.00000	Averaged
29 benzene	0.98430	0.91226	0.010	-7.31811	30.00000	Averaged
31 trichloroethene	0.26229	0.25531	0.010	-2.66067	30.00000	Averaged
32 1,2-dichloropropane	0.32255	0.29877	0.010	-7.37032	30.00000	Averaged
33 bromodichloromethane	0.34042	0.28793	0.010	-15.41744	30.00000	Averaged
34 dibromomethane	0.16335	0.14902	0.010	-8.77179	30.00000	Averaged
35 4-methyl-2-pentanone	0.13806	0.11733	0.010	-15.01405	30.00000	Averaged
36 cis-1,3-dichloropropene	0.41320	0.39373	0.010	-4.71167	30.00000	Averaged
37 toluene	0.65033	0.59788	0.010	-8.06480	30.00000	Averaged
38 trans-1,3-dichloropropene	0.38167	0.34237	0.010	-10.29700	30.00000	Averaged
39 2-hexanone	0.31209	0.28304	0.010	-9.30922	30.00000	Averaged
40 1,1,2-trichloroethane	0.19672	0.17913	0.010	-8.94298	30.00000	Averaged
41 1,3-dichloropropane	0.39391	0.35974	0.010	-8.67615	30.00000	Averaged
42 tetrachloroethene	0.27604	0.25927	0.010	-6.07387	30.00000	Averaged
43 dibromochloromethane	0.27944	0.24035	0.010	-13.98869	30.00000	Averaged

Alpha Analytical Labs

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: Bundy.i Injection Date: 11-NOV-2013 01:00
Lab File ID: 1107A15.D Init. Cal. Date(s): 10-NOV-2013 10-NOV-2013
Analysis Type: WATER Init. Cal. Times: 19:33 23:22
Lab Sample ID: Quant Type: ISTD
Method: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131110ICAL.b\524extras.m

COMPOUND	RRF / AMOUNT	RF20	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
44 1,2-dibromoethane	0.31893	0.30519	0.010	-4.30819	30.00000	Averaged
46 chlorobenzene	0.98001	0.85728	0.010	-12.52341	30.00000	Averaged
47 ethylbenzene	1.60293	1.52262	0.010	-5.01023	30.00000	Averaged
48 1,1,1,2-tetrachloroethane	0.35195	0.32869	0.010	-6.60921	30.00000	Averaged
49 p/m-xylenes	0.60321	0.55771	0.010	-7.54285	30.00000	Averaged
50 o-xylenes	0.60319	0.52644	0.010	-12.72361	30.00000	Averaged
51 styrene	1.04420	0.96496	0.010	-7.58866	30.00000	Averaged
52 isopropylbenzene	1.54778	1.32759	0.010	-14.22639	30.00000	Averaged
53 bromoform	0.23986	0.22017	0.010	-8.20554	30.00000	Averaged
54 1,1,2,2-tetrachloroethane	0.40561	0.37409	0.010	-7.77158	30.00000	Averaged
$ 55 4-bromofluorobenzene	0.48703	0.49299	0.010	1.22255	30.00000	Averaged
56 1,2,3-trichloropropane	0.11934	0.11282	0.010	-5.46088	30.00000	Averaged
57 n-propylbenzene	1.83984	1.58276	0.010	-13.97309	30.00000	Averaged
58 bromobenzene	0.41710	0.37622	0.010	-9.79930	30.00000	Averaged
59 1,3,5-trimethylbenzene	1.27889	1.24985	0.010	-2.27075	30.00000	Averaged
60 o-chlorotoluene	0.38041	0.34253	0.010	-9.95910	30.00000	Averaged
61 p-chlorotoluene	1.17254	1.02049	0.010	-12.96770	30.00000	Averaged
62 tert-butylbenzene	1.12671	0.99138	0.010	-12.01067	30.00000	Averaged
63 1,2,4,-trimethylbenzene	1.29564	1.22233	0.010	-5.65864	30.00000	Averaged
64 sec-butylbenzene	1.61682	1.37474	0.010	-14.97255	30.00000	Averaged
65 p-isopropyltoluene	1.44495	1.23674	0.010	-14.40990	30.00000	Averaged
66 1,3-dichlorobenzene	1.48976	1.24959	0.010	-16.12125	30.00000	Averaged
68 1,4-dichlorobenzene	1.53779	1.39283	0.010	-9.42635	30.00000	Averaged
69 n-butylbenzene	2.30002	2.17342	0.010	-5.50413	30.00000	Averaged
$ 70 1,2-Dichlorobenzene-d4	0.95306	0.92596	0.010	-2.84274	30.00000	Averaged
71 1,2-dichlorobenzene	1.48543	1.21290	0.010	-18.34705	30.00000	Averaged
72 1,2-dibromo-3-chloropropane	0.13539	0.11724	0.001	-13.40434	30.00000	Averaged
73 1,3,5-trichlorobenzene	0.99178	0.88470	0.010	-10.79685	30.00000	Averaged
74 1,2,4-trichlorobenzene	0.84515	0.77637	0.010	-8.13817	30.00000	Averaged
75 hexachlorobutadiene	0.36729	0.33124	0.010	-9.81568	30.00000	Averaged
76 naphthalene	2.18521	1.90632	0.010	-12.76245	30.00000	Averaged
77 1,2,3-trichlorobenzene	0.87498	0.74203	0.010	-15.19407	30.00000	Averaged
M 78 Xylene (total)	0.60320	0.54729	0.010	-9.26973	30.00000	Averaged

Alpha Analytical Labs

gc/ms voa -Bundy 524

Data file : \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131110ICAL.b\1107A15.D
Lab Smp Id:
Inj Date : 11-NOV-2013 01:00
Operator : gt Inst ID: Bundy.i
Smp Info : ICV
Misc Info : wg,ical8647
Comment :
Method : \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131110ICAL.b\524extras.m
Meth Date : 30-Dec-2013 10:47 Bundy.i Quant Type: ISTD
Cal Date : 10-NOV-2013 23:22 Cal File: 1107A12.D
Als bottle: 42 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 524NH.sub
Target Version: 4.12
Processing Host: VIRTUALXP-72976

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ngs)	ON-COL (ngs)	REVIEW CODE
1 dichlorodifluoromethane	85	2.752	2.752	(0.349)	15006	20.0000	17.49	
2 chloromethane	50	3.071	3.071	(0.390)	24613	20.0000	20.51	
3 vinyl chloride	62	3.208	3.208	(0.407)	20285	20.0000	19.88	
4 bromomethane	94	3.743	3.743	(0.475)	6053	20.0000	19.54	
5 chloroethane	64	3.821	3.821	(0.485)	10268	20.0000	18.14	
6 trichlorofluoromethane	101	4.110	4.110	(0.522)	20173	20.0000	18.89	
7 Ethyl ether	74	4.408	4.408	(0.560)	7278	20.0000	18.73(M)	M1
8 Acetone	43	4.623	4.623	(0.587)	10560	40.0000	38.94	
9 1,1-dichloroethene	96	4.781	4.781	(0.607)	11944	20.0000	17.84(M)	M3
10 Tert-Butyl Alcohol	59	4.408	4.408	(0.560)	13237	100.000	89.07	
11 methylene chloride	84	5.279	5.279	(0.670)	13434	20.0000	17.35	
12 Carbon disulfide	76	5.357	5.357	(0.680)	40669	20.0000	19.40	
13 methyl-tert-butyl ether	73	5.415	5.415	(0.688)	35023	20.0000	16.90	
14 trans-1,2-dichloroethene	96	5.588	5.588	(0.710)	14297	20.0000	17.88	
15 Diisopropyl Ether	45	5.850	5.850	(0.743)	62547	20.0000	16.94(M)	M4
16 1,1-dichloroethane	63	6.018	6.018	(0.764)	32340	20.0000	17.99	
17 Ethyl-Tert-Butyl-Ether	59	6.275	6.275	(0.797)	58852	20.0000	18.21	
18 2-butanone	43	6.417	6.417	(0.815)	18340	40.0000	35.58	
19 2,2-dichloropropane	77	6.595	6.595	(0.838)	18834	20.0000	17.18	
20 cis-1,2-dichloroethene	96	6.647	6.647	(0.844)	16375	20.0000	19.01	
21 chloroform	83	6.810	6.810	(0.865)	25411	20.0000	18.57	
22 bromochloromethane	128	6.993	6.993	(0.888)	8244	20.0000	19.02	
23 Tetrahydofuran	42	7.019	7.019	(0.891)	12107	40.0000	38.46	
24 1,1,1-trichloroethane	97	7.229	7.229	(0.918)	23300	20.0000	18.94	
25 1,1-dichloropropene	75	7.381	7.381	(0.937)	21964	20.0000	21.51	
26 Tert-Amyl Methyl Ether	73	7.460	7.460	(0.947)	40812	20.0000	18.32	
27 carbon tetrachloride	117	7.507	7.507	(0.953)	19938	20.0000	18.01	
28 1,2-dichloroethane	62	7.643	7.643	(0.971)	23534	20.0000	18.46	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ngs)	ON-COL (ngs)	REVIEW CODE
	29 benzene	78	7.680	7.680	(0.975)	59841	20.0000	18.53	
*	30 fluorobenzene	96	7.874	7.874	(1.000)	65595	20.0000		
	31 trichloroethene	95	8.304	8.304	(1.055)	16747	20.0000	19.46	
	32 1,2-dichloropropane	63	8.493	8.493	(1.079)	19598	20.0000	18.52(M)	M2
	33 bromodichloromethane	83	8.750	8.750	(1.111)	18887	20.0000	16.91	
	34 dibromomethane	93	8.828	8.828	(1.121)	9775	20.0000	18.24	
	35 4-methyl-2-pentanone	58	9.028	9.028	(1.146)	15393	40.0000	33.99	
	36 cis-1,3-dichloropropene	75	9.311	9.311	(1.182)	25827	20.0000	19.05	
	37 toluene	92	9.693	9.693	(1.231)	39218	20.0000	18.38	
	38 trans-1,3-dichloropropene	75	9.851	9.851	(1.251)	22458	20.0000	17.94	
	39 2-hexanone	43	9.998	9.998	(0.880)	13926	20.0000	18.13	
	40 1,1,2-trichloroethane	83	10.050	10.050	(1.276)	11750	20.0000	18.21	
	41 1,3-dichloropropane	76	10.333	10.333	(1.312)	23597	20.0000	18.26	
	42 tetrachloroethene	166	10.448	10.448	(1.327)	17007	20.0000	18.78	
	43 dibromochloromethane	129	10.695	10.695	(1.358)	15766	20.0000	17.20	
	44 1,2-dibromoethane	107	10.931	10.931	(0.962)	15016	20.0000	19.13	
*	45 Chlorobenzene-d5	117	11.361	11.361	(1.000)	49202	20.0000		
	46 chlorobenzene	112	11.403	11.403	(1.004)	42180	20.0000	17.49	
	47 ethylbenzene	91	11.434	11.434	(1.006)	74916	20.0000	18.99	
	48 1,1,1,2-tetrachloroethane	131	11.439	11.439	(1.007)	16172	20.0000	18.67	
	49 p/m-xylenes	106	11.518	11.518	(1.014)	54881	40.0000	36.98	
	50 o-xylenes	106	12.053	12.053	(1.061)	25902	20.0000	17.45	
	51 styrene	104	12.095	12.095	(1.065)	47478	20.0000	18.48	
	52 isopropylbenzene	105	12.467	12.467	(1.097)	65320	20.0000	17.15	
	53 bromoform	173	12.556	12.556	(1.105)	10833	20.0000	18.35	
	54 1,1,2,2-tetrachloroethane	83	12.677	12.677	(1.116)	18406	20.0000	18.44	
$	55 4-bromofluorobenzene	95	12.803	12.803	(1.127)	24256	20.0000	20.24	
	56 1,2,3-trichloropropane	110	12.865	12.865	(1.132)	5551	20.0000	18.90	
	57 n-propylbenzene	91	12.960	12.960	(1.141)	77875	20.0000	17.20	
	58 bromobenzene	156	13.075	13.075	(1.151)	18511	20.0000	18.04	
	59 1,3,5-trimethylbenzene	105	13.149	13.149	(1.157)	61495	20.0000	19.54	
	60 o-chlorotoluene	126	13.217	13.217	(1.163)	16853	20.0000	18.00	
	61 p-chlorotoluene	91	13.264	13.264	(1.168)	50210	20.0000	17.40(M)	
	62 tert-butylbenzene	119	13.594	13.594	(1.197)	48778	20.0000	17.59	
	63 1,2,4,-trimethylbenzene	105	13.647	13.647	(1.201)	60141	20.0000	18.86	
	64 sec-butylbenzene	105	13.856	13.856	(1.220)	67640	20.0000	17.00	
	65 p-isopropyltoluene	119	14.014	14.014	(1.234)	60850	20.0000	17.11	
	66 1,3-dichlorobenzene	146	14.187	14.187	(0.994)	32828	20.0000	16.77	
*	67 1,4-Dichlorobenzene-d4	152	14.271	14.271	(1.000)	26271	20.0000		
	68 1,4-dichlorobenzene	146	14.313	14.313	(1.003)	36591	20.0000	18.11	
	69 n-butylbenzene	91	14.522	14.522	(1.018)	57098	20.0000	18.39	
$	70 1,2-Dichlorobenzene-d4	152	14.742	14.742	(1.033)	24326	20.0000	19.43	
	71 1,2-dichlorobenzene	146	14.779	14.779	(1.036)	31864	20.0000	16.33	
	72 1,2-dibromo-3-chloropropane	75	15.718	15.718	(1.101)	3089	20.0000	17.31	
	73 1,3,5-trichlorobenzene	180	15.996	15.996	(1.121)	23242	20.0000	17.84	
	74 1,2,4-trichlorobenzene	182	16.766	16.766	(1.175)	20396	20.0000	18.37	
	75 hexachlorobutadiene	225	16.913	16.913	(1.185)	8702	20.0000	18.03	
	76 naphthalene	128	17.118	17.118	(1.199)	50081	20.0000	17.44	
	77 1,2,3-trichlorobenzene	180	17.437	17.437	(1.222)	19494	20.0000	16.96	
M	78 Xylene (total)	106				80783	60.0000		

QC Flag Legend

M - Compound response manually integrated.

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: Bundy.i
Lab File ID: 1107A15.D
Lab Smp Id:
Analysis Type: VOA
Quant Type: ISTD
Operator: gt
Method File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131110ICAL.b\524extras.m
Misc Info: wg,ical8647

Calibration Date: 10-NOV-2013
Calibration Time: 20:38

Level: MED
Sample Type: WATER

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 3

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
30 fluorobenzene	66311	33156	132622	65595	-1.08
45 Chlorobenzene-d5	50410	25205	100820	49202	-2.40
67 1,4-Dichlorobenze	26848	13424	53696	26271	-2.15

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
30 fluorobenzene	7.87	7.37	8.37	7.87	0.00
45 Chlorobenzene-d5	11.36	10.86	11.86	11.36	0.00
67 1,4-Dichlorobenze	14.28	13.78	14.78	14.27	-0.04

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131110ICAL.b\1107A15.D

Date : 11-NOV-2013 01:00

Client ID:

Sample Info: ICV

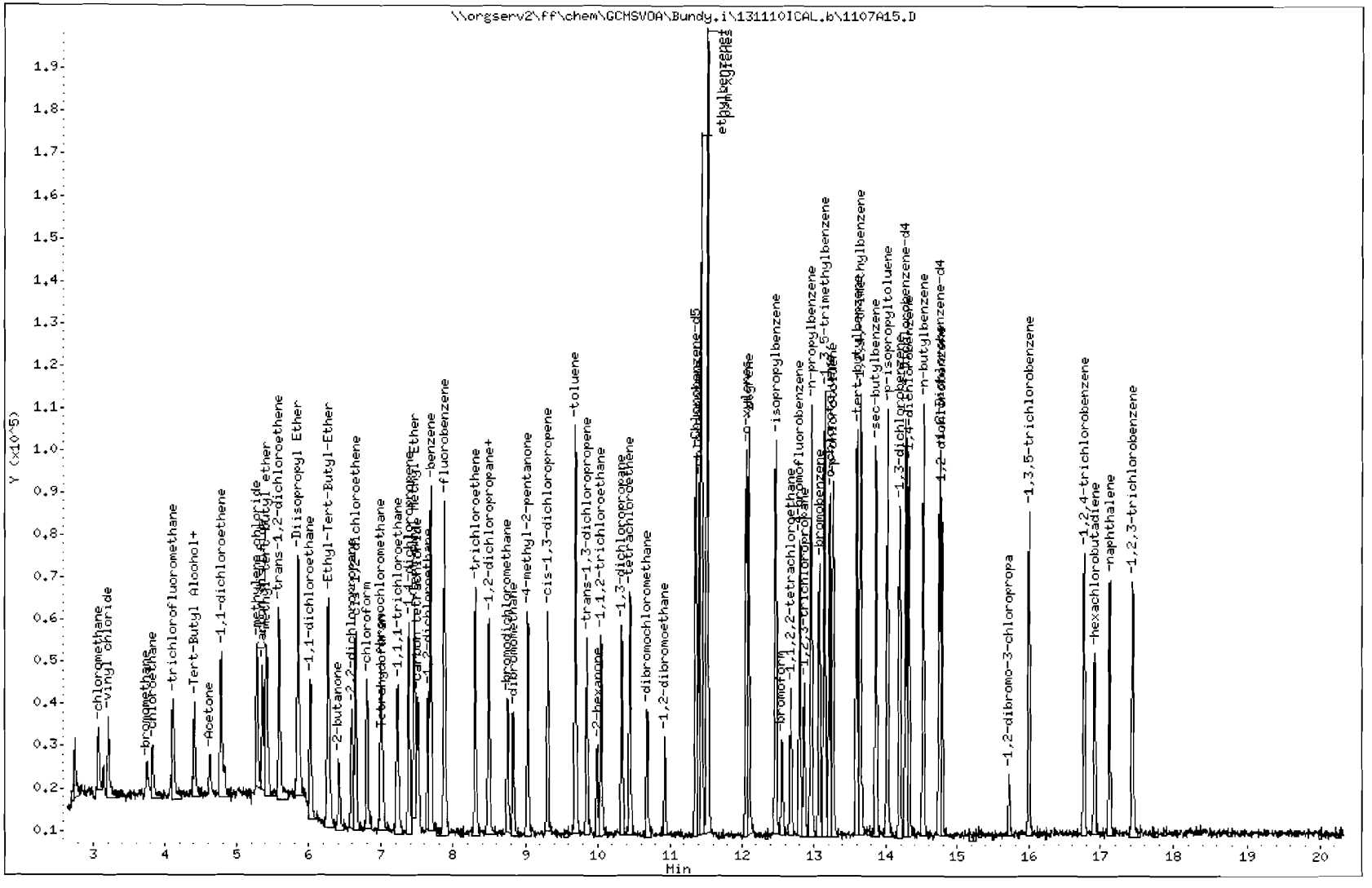
Purge Volume: 5.0

Column phase:

Instrument: Bundy.i

Operator: gt

Column diameter: 0.18



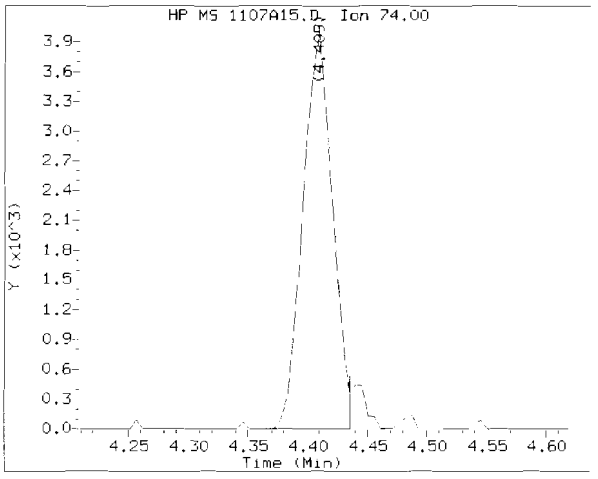
Alpha Analytical Labs

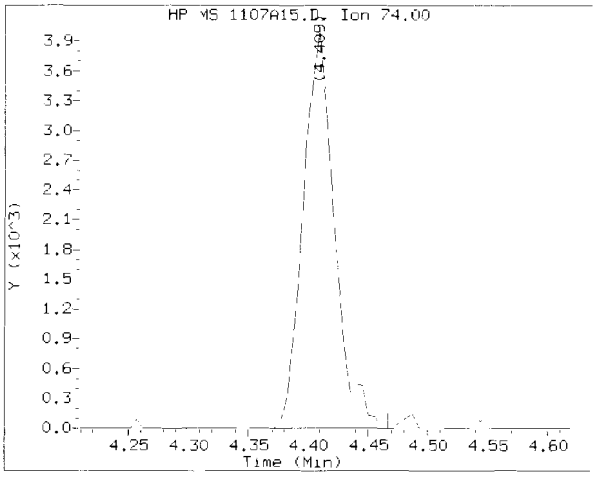
Manual Integration

Sample Info : ICV
wg,ical8647

Instrument ID : Bundy.i
Method : 524extras.m
File : 1107A15.D
Injection Date : 11-NOV-2013 01:00
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CCALIB_3

Compound # 7: Ethyl ether

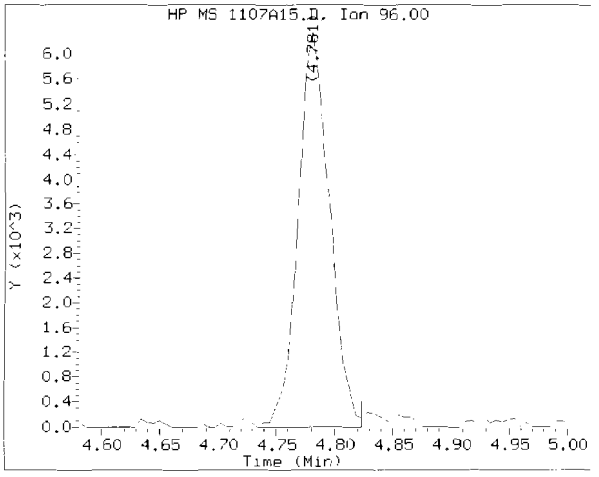


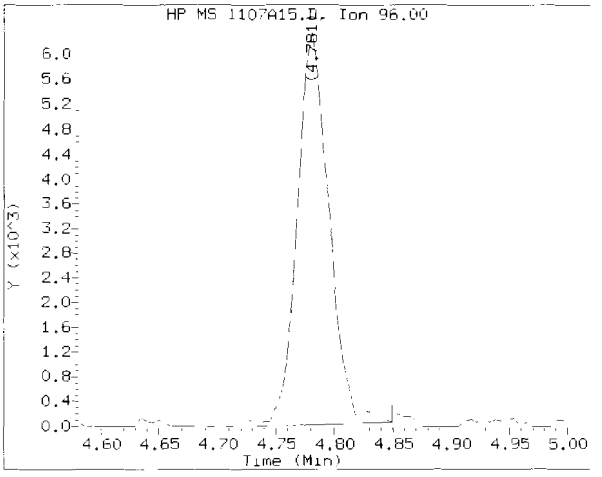


Original Peak Response = 6921 Manual Peak Response = 7278 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false lo area count.

Compound # 9: 1,1-dichloroethene





Original Peak Response = 11913 Manual Peak Response = 11944 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

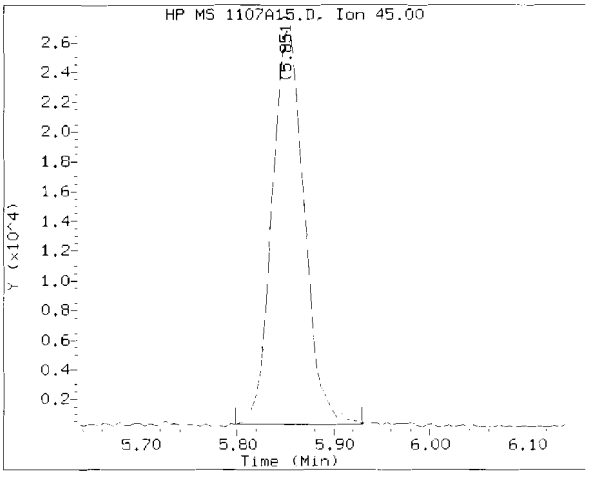
Alpha Analytical Labs

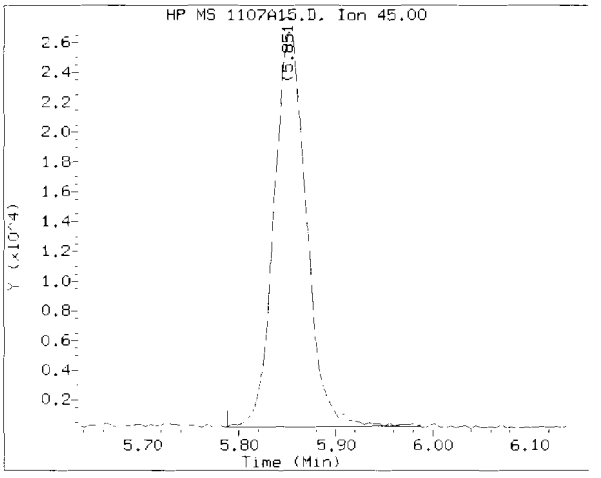
Manual Integration

Sample Info : ICV
wg,ical8787

Instrument ID : Bundy.i
Method : 524extras.m
File : 1107A15.D
Injection Date : 11-NOV-2013 01:00
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: SAMPLE

Compound # 15: Diisopropyl Ether

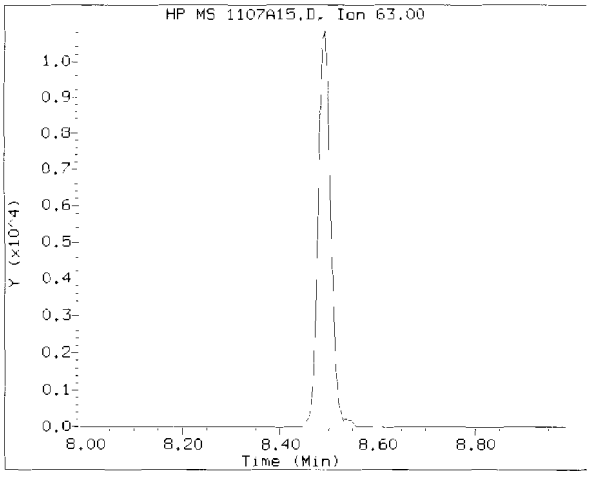


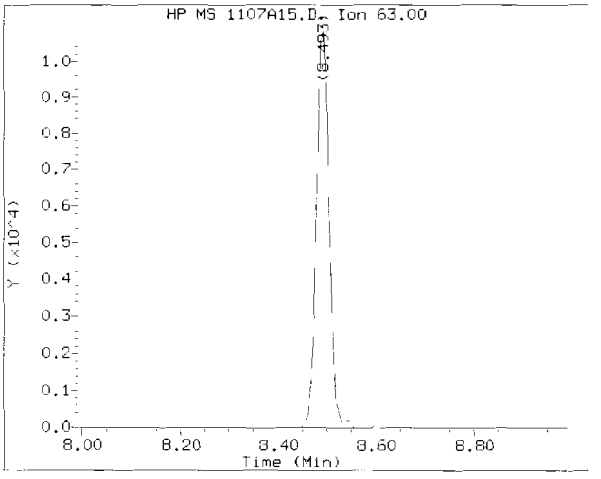


Original Peak Response = 61090 Manual Peak Response = 62547 M4

M4 = Poor automated baseline construction.

Compound # 32: 1,2-dichloropropane





Original Peak Response = 0 Manual Peak Response = 19598 M2

M2 = Peak not found by automatic integration algorithm.

Continuing Calibration

7A
Volatile Organics CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1325883

Instrument ID: Bundy.i Calibration Date: 24-DEC-2013 Time: 09:45

Lab File ID: 1224A02 Init. Calib. Date(s): 10-NOV-2 10-NOV-2

Sample No: ccv Init. Calib. Times : 19:33 23:22

Compound	$\overline{RRF}$	RRF	MIN RRF	%D	MAX %D
dichlorodifluoromethane	.26146	.25252	.01	-3	30
chloromethane	.36589	.34559	.01	-6	30
vinyl chloride	.31107	.29764	.01	-4	30
bromomethane	.09442	.0815	.01	-14	30
chloroethane	.17257	.17734	.01	3	30
trichlorofluoromethane	.32556	.39118	.01	20	30
1,1-dichloroethene	.20406	.21666	.01	6	30
methylene chloride	.236	.23402	.01	-1	30
methyl-tert-butyl ether	.63153	.62875	.01	0	30
trans-1,2-dichloroethene	.24379	.2398	.01	-2	30
1,1-dichloroethane	.54802	.58696	.01	7	30
2,2-dichloropropane	.33411	.39408	.01	18	30
cis-1,2-dichloroethene	.26252	.28427	.01	8	30
chloroform	.41702	.5066	.01	21	30
bromochloromethane	.13209	.14284	.01	8	30
1,1,1-trichloroethane	.37502	.44135	.01	18	30
1,1-dichloropropene	.31121	.3176	.01	2	30
carbon tetrachloride	.33748	.41667	.01	23	30
1,2-dichloroethane	.38869	.49681	.01	28	30
benzene	.9843	1.0409	.01	6	30
trichloroethene	.26229	.3077	.01	17	30
1,2-dichloropropane	.32255	.35156	.01	9	30
bromodichloromethane	.34042	.42744	.01	26	30
dibromomethane	.16335	.19272	.01	18	30
cis-1,3-dichloropropene	.4132	.42939	.01	4	30
toluene	.65033	.70336	.01	8	30
trans-1,3-dichloropropene	.38167	.39387	.01	3	30
1,1,2-trichloroethane	.19672	.22824	.01	16	30
1,3-dichloropropane	.39391	.44046	.01	12	30
tetrachloroethene	.27604	.33895	.01	23	30
dibromochloromethane	.27944	.34765	.01	24	30
1,2-dibromoethane	.31893	.30951	.01	-3	30
chlorobenzene	.98001	.97973	.01	0	30
ethylbenzene	1.6029	1.5819	.01	-1	30
1,1,1,2-tetrachloroethane	.35195	.36772	.01	4	30
p/m-xylenes	.60321	.59747	.01	-1	30
o-xylenes	.60319	.54267	.01	-10	30
styrene	1.0442	.99538	.01	-5	30

FORM VII 524.2

7A
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1325883

Instrument ID: Bundy.i Calibration Date: 24-DEC-2013 Time: 09:45

Lab File ID: 1224A02 Init. Calib. Date(s): 10-NOV-2 10-NOV-2

Sample No: ccv Init. Calib. Times : 19:33 23:22

Compound	$\overline{RRF}$	RRF	MIN RRF	%D	MAX %D
isopropylbenzene	1.5477	1.5102	.01	-2	30
bromoform	.23986	.23638	.01	-1	30
1,1,2,2-tetrachloroethane	.40561	.36812	.01	-9	30
1,2,3-trichloropropane	.11934	.12249	.01	3	30
n-propylbenzene	1.8398	1.7987	.01	-2	30
bromobenzene	.4171	.43972	.01	5	30
1,3,5-trimethylbenzene	1.2788	1.2696	.01	-1	30
o-chlorotoluene	.38041	.41301	.01	9	30
p-chlorotoluene	1.1725	1.2178	.01	4	30
tert-butylbenzene	1.1267	1.1018	.01	-2	30
1,2,4,-trimethylbenzene	1.2956	1.3144	.01	1	30
sec-butylbenzene	1.6168	1.5927	.01	-1	30
p-isopropyltoluene	1.4449	1.3922	.01	-4	30
1,3-dichlorobenzene	1.4897	1.4765	.01	-1	30
1,4-dichlorobenzene	1.5377	1.4817	.01	-4	30
n-butylbenzene	2.3000	2.2207	.01	-3	30
1,2-dichlorobenzene	1.4854	1.3988	.01	-6	30
1,2-dibromo-3-chloropropane	.13539	.12149	.001	-10	30
1,2,4-trichlorobenzene	.84515	.76036	.01	-10	30
hexachlorobutadiene	.36729	.39188	.01	7	30
naphthalene	2.1852	1.6226	.01	-26	30
1,2,3-trichlorobenzene	.87498	.80409	.01	-8	30
78 Xylene (total)	.6032	.57921	.01	-4	30
4-bromofluorobenzene	.48703	.50035	.01	3	30
1,2-Dichlorobenzene-d4	.95306	.96263	.01	1	30

FORM VII 524.2

Alpha Analytical Labs

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: Bundy.i Injection Date: 24-DEC-2013 09:45
Lab File ID: 1224A02.D Init. Cal. Date(s): 10-NOV-2013 10-NOV-2013
Analysis Type: WATER Init. Cal. Times: 19:33 23:22
Lab Sample ID: Quant Type: ISTD
Method: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\524extras.m

COMPOUND	RRF / AMOUNT	RF20	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
1 dichlorodifluoromethane	0.26146	0.25252	0.010	-3.41995	30.00000	Averaged
2 chloromethane	0.36589	0.34559	0.010	-5.54650	30.00000	Averaged
3 vinyl chloride	0.31107	0.29764	0.010	-4.31628	30.00000	Averaged
4 bromomethane	0.09442	0.08150	0.010	-13.68934	30.00000	Averaged
5 chloroethane	0.17257	0.17734	0.010	2.76134	30.00000	Averaged
6 trichlorofluoromethane	0.32556	0.39118	0.010	20.15511	30.00000	Averaged
9 1,1-dichloroethene	0.20406	0.21666	0.010	6.17686	30.00000	Averaged
11 methylene chloride	0.23600	0.23402	0.010	-0.84034	30.00000	Averaged
13 methyl-tert-butyl ether	0.63153	0.62875	0.010	-0.43950	30.00000	Averaged
14 trans-1,2-dichloroethene	0.24379	0.23980	0.010	-1.63932	30.00000	Averaged
16 1,1-dichloroethane	0.54802	0.58696	0.010	7.10595	30.00000	Averaged
19 2,2-dichloropropane	0.33411	0.39408	0.010	17.94870	30.00000	Averaged
20 cis-1,2-dichloroethene	0.26252	0.28427	0.010	8.28668	30.00000	Averaged
21 chloroform	0.41702	0.50660	0.010	21.48299	30.00000	Averaged
22 bromochloromethane	0.13209	0.14284	0.010	8.13926	30.00000	Averaged
24 1,1,1-trichloroethane	0.37502	0.44135	0.010	17.68722	30.00000	Averaged
25 1,1-dichloropropene	0.31121	0.31760	0.010	2.05458	30.00000	Averaged
27 carbon tetrachloride	0.33748	0.41667	0.010	23.46773	30.00000	Averaged
28 1,2-dichloroethane	0.38869	0.49681	0.010	27.81889	30.00000	Averaged
29 benzene	0.98430	1.04092	0.010	5.75311	30.00000	Averaged
31 trichloroethene	0.26229	0.30770	0.010	17.31576	30.00000	Averaged
32 1,2-dichloropropane	0.32255	0.35156	0.010	8.99491	30.00000	Averaged
33 bromodichloromethane	0.34042	0.42744	0.010	25.56364	30.00000	Averaged
34 dibromomethane	0.16335	0.19272	0.010	17.97768	30.00000	Averaged
36 cis-1,3-dichloropropene	0.41320	0.42939	0.010	3.91811	30.00000	Averaged
37 toluene	0.65033	0.70336	0.010	8.15457	30.00000	Averaged
38 trans-1,3-dichloropropene	0.38167	0.39387	0.010	3.19401	30.00000	Averaged
40 1,1,2-trichloroethane	0.19672	0.22824	0.010	16.02286	30.00000	Averaged
41 1,3-dichloropropane	0.39391	0.44046	0.010	11.81561	30.00000	Averaged
42 tetrachloroethene	0.27604	0.33895	0.010	22.78958	30.00000	Averaged
43 dibromochloromethane	0.27944	0.34765	0.010	24.40861	30.00000	Averaged
44 1,2-dibromoethane	0.31893	0.30951	0.010	-2.95440	30.00000	Averaged
46 chlorobenzene	0.98001	0.97973	0.010	-0.02917	30.00000	Averaged
47 ethylbenzene	1.60293	1.58199	0.010	-1.30624	30.00000	Averaged
48 1,1,1,2-tetrachloroethane	0.35195	0.36772	0.010	4.48263	30.00000	Averaged
49 p/m-xylenes	0.60321	0.59747	0.010	-0.95103	30.00000	Averaged
50 o-xylenes	0.60319	0.54267	0.010	-10.03268	30.00000	Averaged
51 styrene	1.04420	0.99538	0.010	-4.67589	30.00000	Averaged
52 isopropylbenzene	1.54778	1.51024	0.010	-2.42529	30.00000	Averaged
53 bromoform	0.23986	0.23638	0.010	-1.44882	30.00000	Averaged
54 1,1,2,2-tetrachloroethane	0.40561	0.36812	0.010	-9.24323	30.00000	Averaged
$ 55 4-bromofluorobenzene	0.48703	0.50035	0.010	2.73457	30.00000	Averaged

Alpha Analytical Labs

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: Bundy.i Injection Date: 24-DEC-2013 09:45
Lab File ID: 1224A02.D Init. Cal. Date(s): 10-NOV-2013 10-NOV-2013
Analysis Type: WATER Init. Cal. Times: 19:33 23:22
Lab Sample ID: Quant Type: ISTD
Method: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\524extras.m

COMPOUND	RRF / AMOUNT	RF20	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
56 1,2,3-trichloropropane	0.11934	0.12249	0.010	2.64395	30.00000	Averaged
57 n-propylbenzene	1.83984	1.79878	0.010	-2.23219	30.00000	Averaged
58 bromobenzene	0.41710	0.43972	0.010	5.42346	30.00000	Averaged
59 1,3,5-trimethylbenzene	1.27889	1.26961	0.010	-0.72574	30.00000	Averaged
60 o-chlorotoluene	0.38041	0.41301	0.010	8.57030	30.00000	Averaged
61 p-chlorotoluene	1.17254	1.21785	0.010	3.86470	30.00000	Averaged
62 tert-butylbenzene	1.12671	1.10185	0.010	-2.20597	30.00000	Averaged
63 1,2,4,-trimethylbenzene	1.29564	1.31444	0.010	1.45060	30.00000	Averaged
64 sec-butylbenzene	1.61682	1.59277	0.010	-1.48731	30.00000	Averaged
65 p-isopropyltoluene	1.44495	1.39225	0.010	-3.64735	30.00000	Averaged
66 1,3-dichlorobenzene	1.48976	1.47658	0.010	-0.88486	30.00000	Averaged
68 1,4-dichlorobenzene	1.53779	1.48171	0.010	-3.64646	30.00000	Averaged
69 n-butylbenzene	2.30002	2.22079	0.010	-3.44459	30.00000	Averaged
$ 70 1,2-Dichlorobenzene-d4	0.95306	0.96263	0.010	1.00422	30.00000	Averaged
71 1,2-dichlorobenzene	1.48543	1.39887	0.010	-5.82737	30.00000	Averaged
72 1,2-dibromo-3-chloropropane	0.13539	0.12149	0.001	-10.26751	30.00000	Averaged
74 1,2,4-trichlorobenzene	0.84515	0.76036	0.010	-10.03219	30.00000	Averaged
75 hexachlorobutadiene	0.36729	0.39188	0.010	6.69433	30.00000	Averaged
76 naphthalene	2.18521	1.62262	0.010	-25.74510	30.00000	Averaged
77 1,2,3-trichlorobenzene	0.87498	0.80409	0.010	-8.10229	30.00000	Averaged
M 78 Xylene (total)	0.60320	0.57921	0.010	-3.97818	30.00000	Averaged

Alpha Analytical Labs

gc/ms voa -Bundy 524

Data file : \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A02.D
Lab Smp Id:
Inj Date : 24-DEC-2013 09:45
Operator : gt Inst ID: Bundy.i
Smp Info : wg661542-1
Misc Info : wg661542,ical8787
Comment :
Method : \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\524extras.m
Meth Date : 30-Dec-2013 11:19 Bundy.i Quant Type: ISTD
Cal Date : 10-NOV-2013 23:22 Cal File: 1107A12.D
Als bottle: 11 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 524.sub
Target Version: 4.12
Processing Host: VIRTUALXP-72976

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ngs)	ON-COL (ngs)	REVIEW CODE
1 dichlorodifluoromethane	85	2.752	2.752	(0.349)	9311	20.0000	19.31	
2 chloromethane	50	3.066	3.066	(0.389)	12743	20.0000	18.89	
3 vinyl chloride	62	3.208	3.208	(0.407)	10975	20.0000	19.13	
4 bromomethane	94	3.743	3.743	(0.475)	3005	20.0000	17.26	
5 chloroethane	64	3.821	3.821	(0.485)	6539	20.0000	20.55	
6 trichlorofluoromethane	101	4.110	4.110	(0.522)	14424	20.0000	24.03	
9 1,1-dichloroethene	96	4.786	4.786	(0.608)	7989	20.0000	21.23	
11 methylene chloride	84	5.284	5.284	(0.671)	8629	20.0000	19.83	
13 methyl-tert-butyl ether	73	5.410	5.410	(0.687)	23184	20.0000	19.91	
14 trans-1,2-dichloroethene	96	5.593	5.593	(0.710)	8842	20.0000	19.67	
16 1,1-dichloroethane	63	6.018	6.018	(0.764)	21643	20.0000	21.42	
19 2,2-dichloropropane	77	6.595	6.595	(0.838)	14531	20.0000	23.58	
20 cis-1,2-dichloroethene	96	6.647	6.647	(0.844)	10482	20.0000	21.65	
21 chloroform	83	6.805	6.805	(0.864)	18680	20.0000	24.29	
22 bromochloromethane	128	6.993	6.993	(0.888)	5267	20.0000	21.62	
24 1,1,1-trichloroethane	97	7.224	7.224	(0.917)	16274	20.0000	23.53	
25 1,1-dichloropropene	75	7.381	7.381	(0.937)	11711	20.0000	20.41	
27 carbon tetrachloride	117	7.507	7.507	(0.953)	15364	20.0000	24.69	
28 1,2-dichloroethane	62	7.643	7.643	(0.971)	18319	20.0000	25.56(M)	M4
29 benzene	78	7.680	7.680	(0.975)	38382	20.0000	21.15	
* 30 fluorobenzene	96	7.874	7.874	(1.000)	36873	20.0000	(M)	M4
31 trichloroethene	95	8.304	8.304	(1.055)	11346	20.0000	23.46	
32 1,2-dichloropropane	63	8.488	8.488	(1.078)	12963	20.0000	21.79(M)	M2
33 bromodichloromethane	83	8.755	8.755	(1.112)	15761	20.0000	25.11	
34 dibromomethane	93	8.828	8.828	(1.121)	7106	20.0000	23.59	
36 cis-1,3-dichloropropene	75	9.311	9.311	(1.182)	15833	20.0000	20.78	
37 toluene	92	9.693	9.693	(1.231)	25935	20.0000	21.63	
38 trans-1,3-dichloropropene	75	9.851	9.851	(1.251)	14523	20.0000	20.63	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ngs)	AMOUNTS ON-COL (ngs)	REVIEW CODE
	40 1,1,2-trichloroethane	83	10.050	10.050	(1.276)	8416	20.0000	23.20	
	41 1,3-dichloropropane	76	10.333	10.333	(1.312)	16241	20.0000	22.36	
	42 tetrachloroethene	166	10.443	10.443	(1.326)	12448	20.0000	24.55	
	43 dibromochloromethane	129	10.690	10.690	(1.358)	12819	20.0000	24.88	
	44 1,2-dibromoethane	107	10.931	10.931	(0.962)	10197	20.0000	19.40(M)	M2
*	45 Chlorobenzene-d5	117	11.361	11.361	(1.000)	32655	20.0000		
	46 chlorobenzene	112	11.403	11.403	(1.004)	31993	20.0000	19.99	
	47 ethylbenzene	91	11.434	11.434	(1.006)	51660	20.0000	19.73	
	48 1,1,1,2-tetrachloroethane	131	11.434	11.434	(1.006)	12008	20.0000	20.89	
	49 p/m-xylenes	106	11.518	11.518	(1.014)	39021	40.0000	39.61	
	50 o-xylenes	106	12.058	12.058	(1.061)	17721	20.0000	17.99	
	51 styrene	104	12.090	12.090	(1.064)	32504	20.0000	19.06	
	52 isopropylbenzene	105	12.472	12.472	(1.098)	49317	20.0000	19.51	
	53 bromoform	173	12.556	12.556	(1.105)	7719	20.0000	19.71	
	54 1,1,2,2-tetrachloroethane	83	12.677	12.677	(1.116)	12021	20.0000	18.15	
$	55 4-bromofluorobenzene	95	12.797	12.797	(1.126)	16339	20.0000	20.54	
	56 1,2,3-trichloropropane	110	12.860	12.860	(1.132)	4000	20.0000	20.52	
	57 n-propylbenzene	91	12.960	12.960	(1.141)	58739	20.0000	19.55	
	58 bromobenzene	156	13.075	13.075	(1.151)	14359	20.0000	21.08	
	59 1,3,5-trimethylbenzene	105	13.149	13.149	(1.157)	41459	20.0000	19.85	
	60 o-chlorotoluene	126	13.217	13.217	(1.163)	13487	20.0000	21.71	
	61 p-chlorotoluene	91	13.264	13.264	(1.168)	39769	20.0000	20.77	
	62 tert-butylbenzene	119	13.594	13.594	(1.197)	35981	20.0000	19.55	
	63 1,2,4,-trimethylbenzene	105	13.647	13.647	(1.201)	42923	20.0000	20.29	
	64 sec-butylbenzene	105	13.856	13.856	(1.220)	52012	20.0000	19.70	
	65 p-isopropyltoluene	119	14.014	14.014	(1.234)	45464	20.0000	19.27	
	66 1,3-dichlorobenzene	146	14.187	14.187	(0.994)	27894	20.0000	19.82	
*	67 1,4-Dichlorobenzene-d4	152	14.271	14.271	(1.000)	18891	20.0000		
	68 1,4-dichlorobenzene	146	14.313	14.313	(1.003)	27991	20.0000	19.27	
	69 n-butylbenzene	91	14.517	14.517	(1.017)	41953	20.0000	19.31	
$	70 1,2-Dichlorobenzene-d4	152	14.748	14.748	(1.033)	18185	20.0000	20.20	
	71 1,2-dichlorobenzene	146	14.779	14.779	(1.036)	26426	20.0000	18.83	
	72 1,2-dibromo-3-chloropropane	75	15.712	15.712	(1.101)	2295	20.0000	17.94	
	74 1,2,4-trichlorobenzene	182	16.761	16.761	(1.175)	14364	20.0000	17.99	
	75 hexachlorobutadiene	225	16.913	16.913	(1.185)	7403	20.0000	21.33	
	76 naphthalene	128	17.118	17.118	(1.199)	30653	20.0000	14.85	
	77 1,2,3-trichlorobenzene	180	17.432	17.432	(1.222)	15190	20.0000	18.37	
M	78 Xylene (total)	106				56742	60.0000		

QC Flag Legend

M - Compound response manually integrated.

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: Bundy.i
Lab File ID: 1224A02.D
Lab Smp Id:
Analysis Type: VOA
Quant Type: ISTD
Operator: gt
Method File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\524extras.m
Misc Info: wg661542,ical8787

Calibration Date: 24-DEC-2013
Calibration Time: 09:12

Level: MED
Sample Type: WATER

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 3

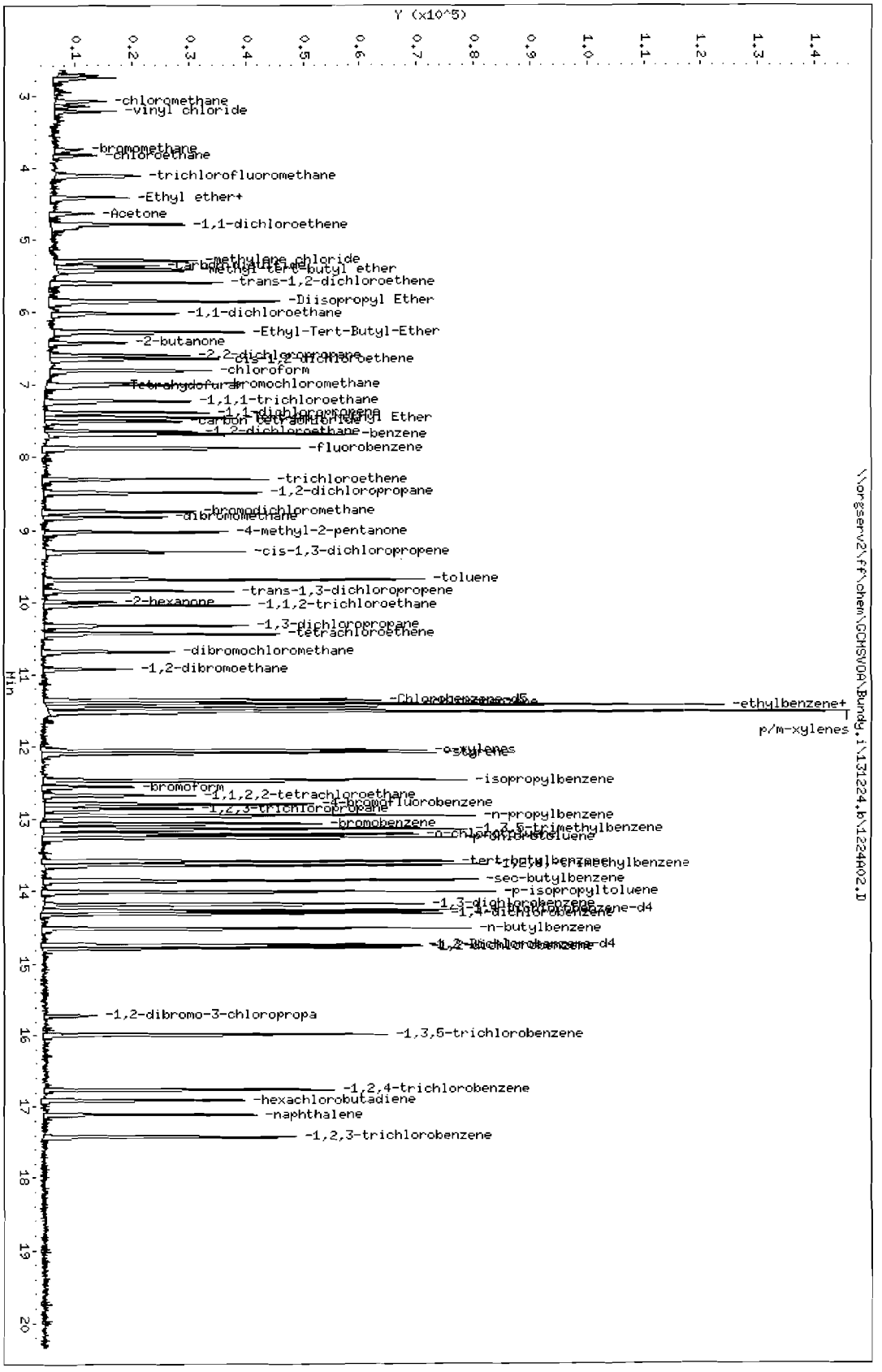
COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
30 fluorobenzene	66311	33156	132622	36873	-44.39
45 Chlorobenzene-d5	50410	25205	100820	32655	-35.22
67 1,4-Dichlorobenze	26848	13424	53696	18891	-29.64

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
30 fluorobenzene	7.87	7.37	8.37	7.87	0.00
45 Chlorobenzene-d5	11.36	10.86	11.86	11.36	0.00
67 1,4-Dichlorobenze	14.28	13.78	14.78	14.27	-0.04

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A02.D
Date : 24-DEC-2013 09:45
Client ID:
Sample Info: wg661542-1
Purge Volume: 5.0
Column phase:

Instrument: Bundy.i
Operator: gt
Column diameter: 0.18



Page 4

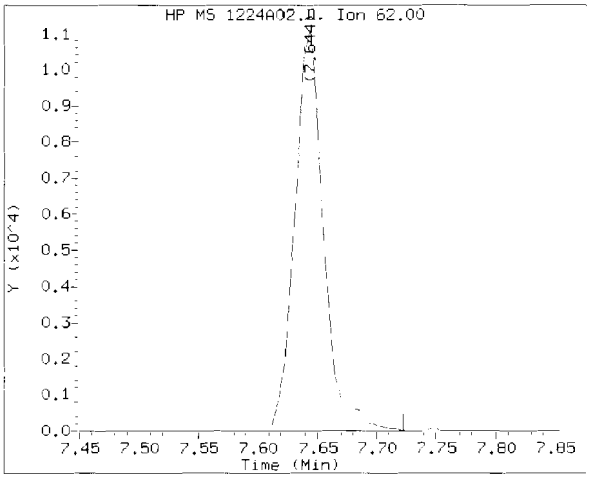
Alpha Analytical Labs

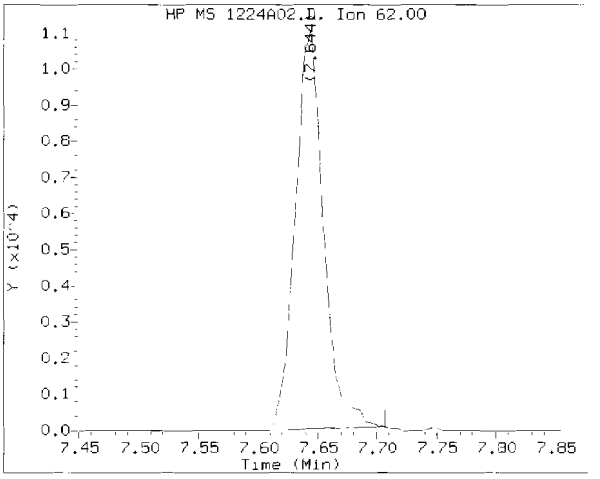
Manual Integration

Sample Info : wg661542-1
wg661542,ical8787

Instrument ID : Bundy.i
Method : 524extras.m
File : 1224A02.D
Injection Date : 24-DEC-2013 09:45
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: CCALIB_3

Compound # 28: 1,2-dichloroethane

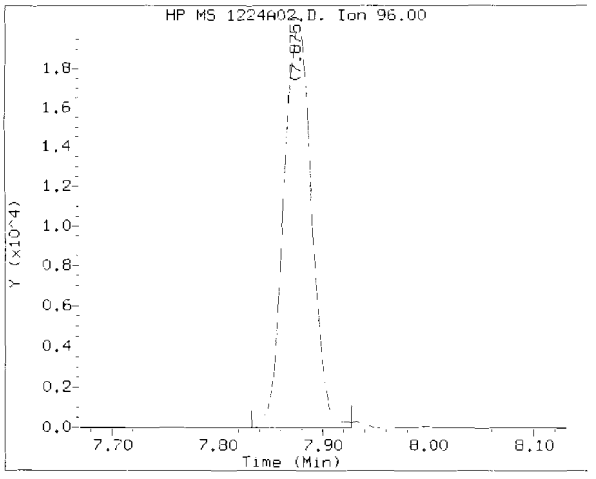


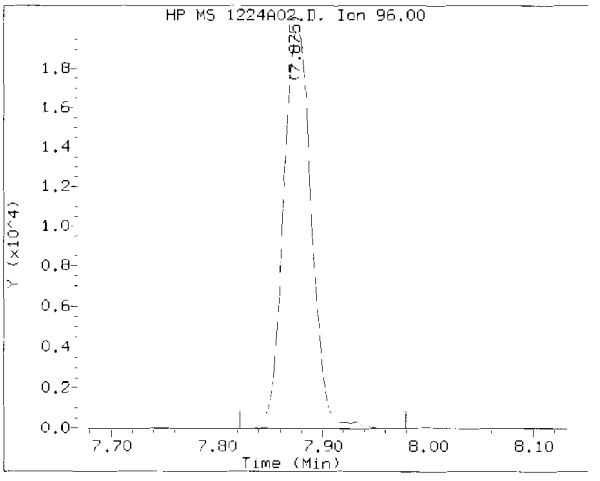


Original Peak Response = 18742 Manual Peak Response = 18319 M4

M4 = Poor automated baseline construction.

Compound # 30: fluorobenzene





Original Peak Response = 36652 Manual Peak Response = 36873 M4

M4 = Poor automated baseline construction.

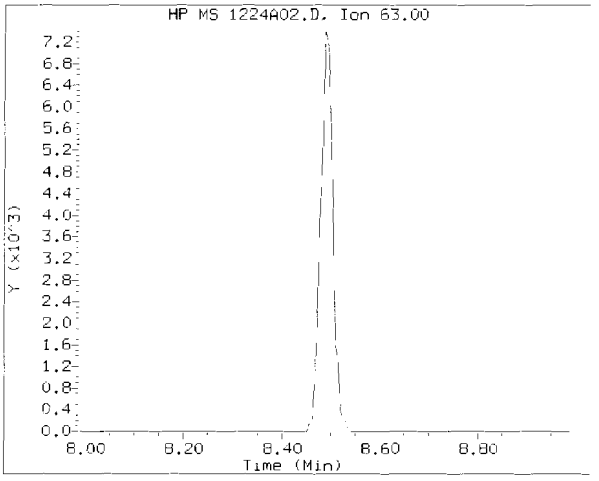
Alpha Analytical Labs

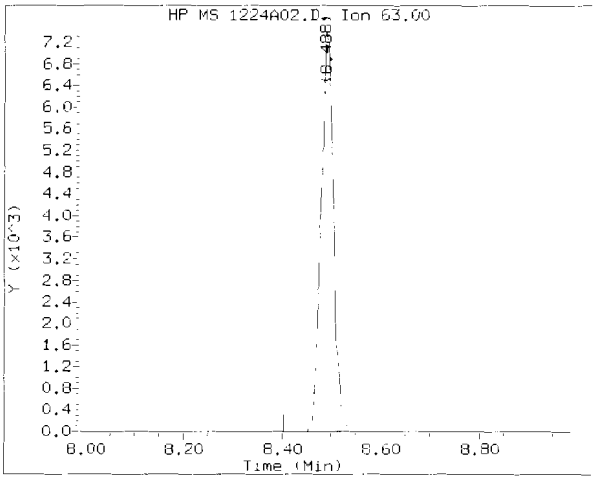
Manual Integration

Sample Info : 524 CCV
wg,ica18787

Instrument ID : Bundy.i
Method : 524extras.m
File : 1224A02.D
Injection Date : 24-DEC-2013 09:45
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: LCS

Compound # 32: 1,2-dichloropropane

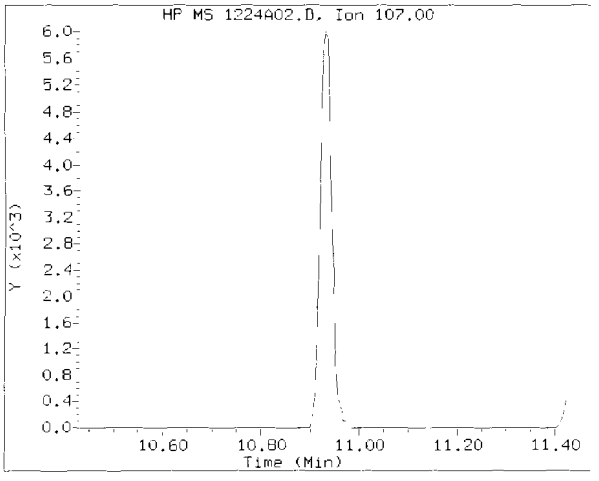


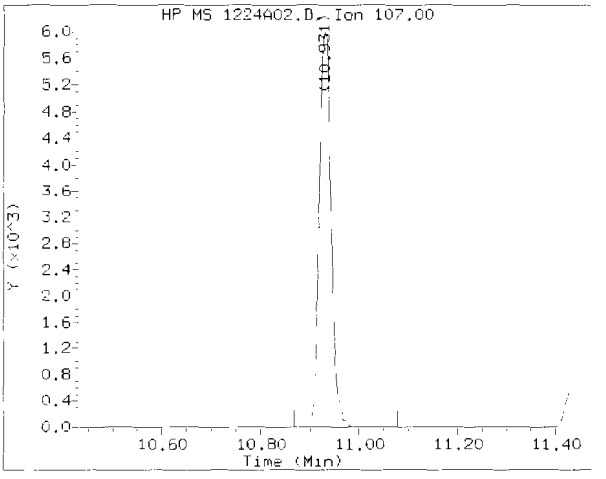


Original Peak Response = 0 Manual Peak Response = 12963 M2

M2 = Peak not found by automatic integration algorithm.

Compound # 44: 1,2-dibromoethane





Original Peak Response = 0 Manual Peak Response = 10107 M2

M2 = Peak not found by automatic integration algorithm.

Alpha Analytical Labs

Data file : \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\BFB1224B.D
Lab Smp Id:
Inj Date : 24-DEC-2013 08:48
Operator : kl Inst ID: Bundy.i
Smp Info : bfb tune (1ul dir inj)
Misc Info : 25 ng std
Comment :
Method : \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\bfb.m
Meth Date : 06-Oct-2011 16:04 klongeneck Quant Type: ISTD
Cal Date : 22-JUN-1994 11:13 Cal File: 622c0101001.d
Als bottle: 2 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12 Sample Matrix: WATER
Processing Host: VIRTUALXP-72976

Concentration Formula: Amt * DF * Uf * Vf * VI * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vf	1.000	Volumetric correction factor
VI	1.000	Injection Volume
Cpnd Variable		Local Compound Variable

RT	EXP RT	REL RT	MASS	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
1 bfb						CAS #: 460-00-4		
7.155	6.900	(0.000)	95	70888			100.00- 100.00	100.00
7.155	6.900	(0.000)	50	17160			15.00- 40.00	24.21
7.155	6.900	(0.000)	75	34312			30.00- 60.00	48.40
7.155	6.900	(0.000)	96	4531			5.00- 9.00	6.39
7.155	6.900	(0.000)	173	500			0.00- 2.00	0.87
7.155	6.900	(0.000)	174	57288			50.00- 100.00	80.81
7.155	6.900	(0.000)	175	4565			5.00- 9.00	7.97
7.155	6.900	(0.000)	176	55256			95.00- 101.00	96.45
7.155	6.900	(0.000)	177	3741			5.00- 9.00	6.77

Alpha Analytical Labs

TARGET COMPOUNDS

Client Name:
Lab Smp Id:
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: bfb
Data Type: MS DATA
Misc Info: 25 ng std

Client SDG: SDGa03020

Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: kl

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
460-00-4	--------bfb	0.0	

Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\BFB1224B.D

Date : 24-DEC-2013 08:48

Client ID:

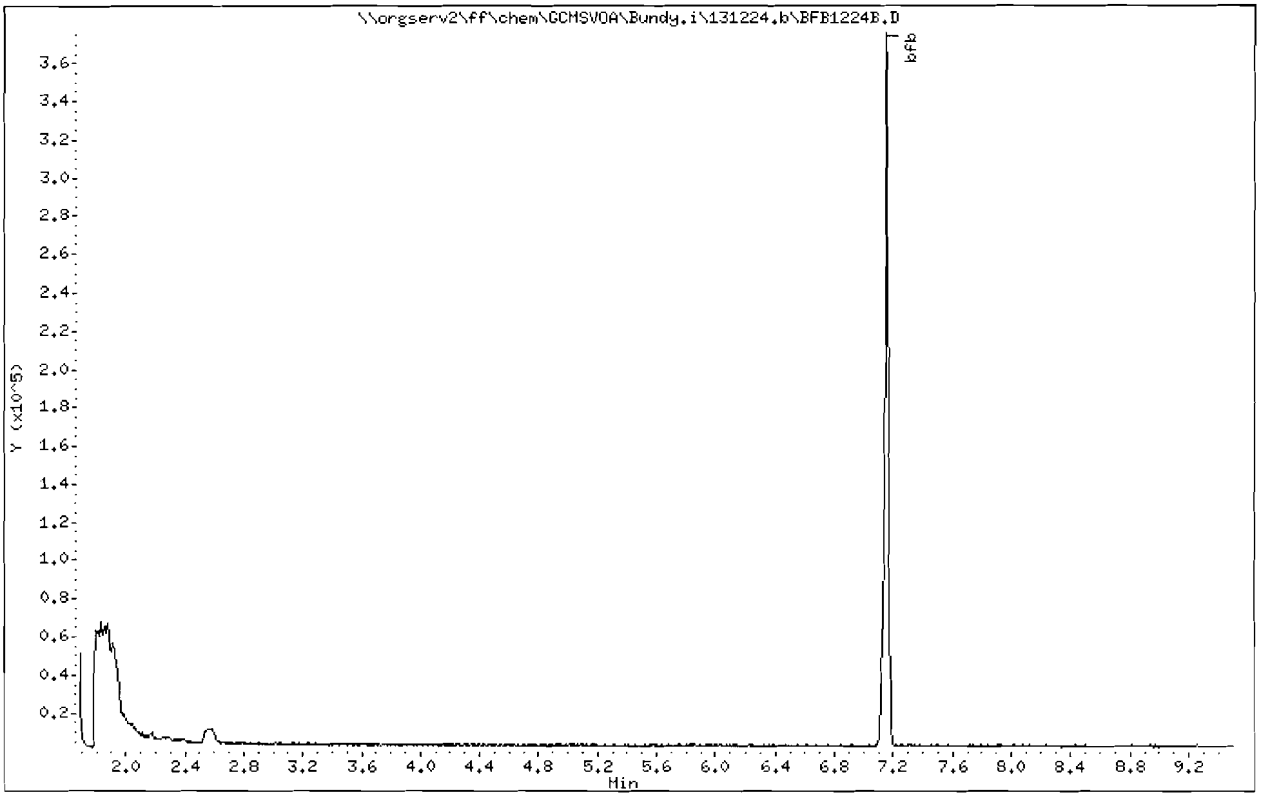
Instrument: Bundy.i

Sample Info: bfb tune (1ul dir inj)

Operator: kl

Column phase:

Column diameter: 2.00



Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\BFB1224B.D

Date : 24-DEC-2013 08:48

Client ID:

Instrument: Bundy.i

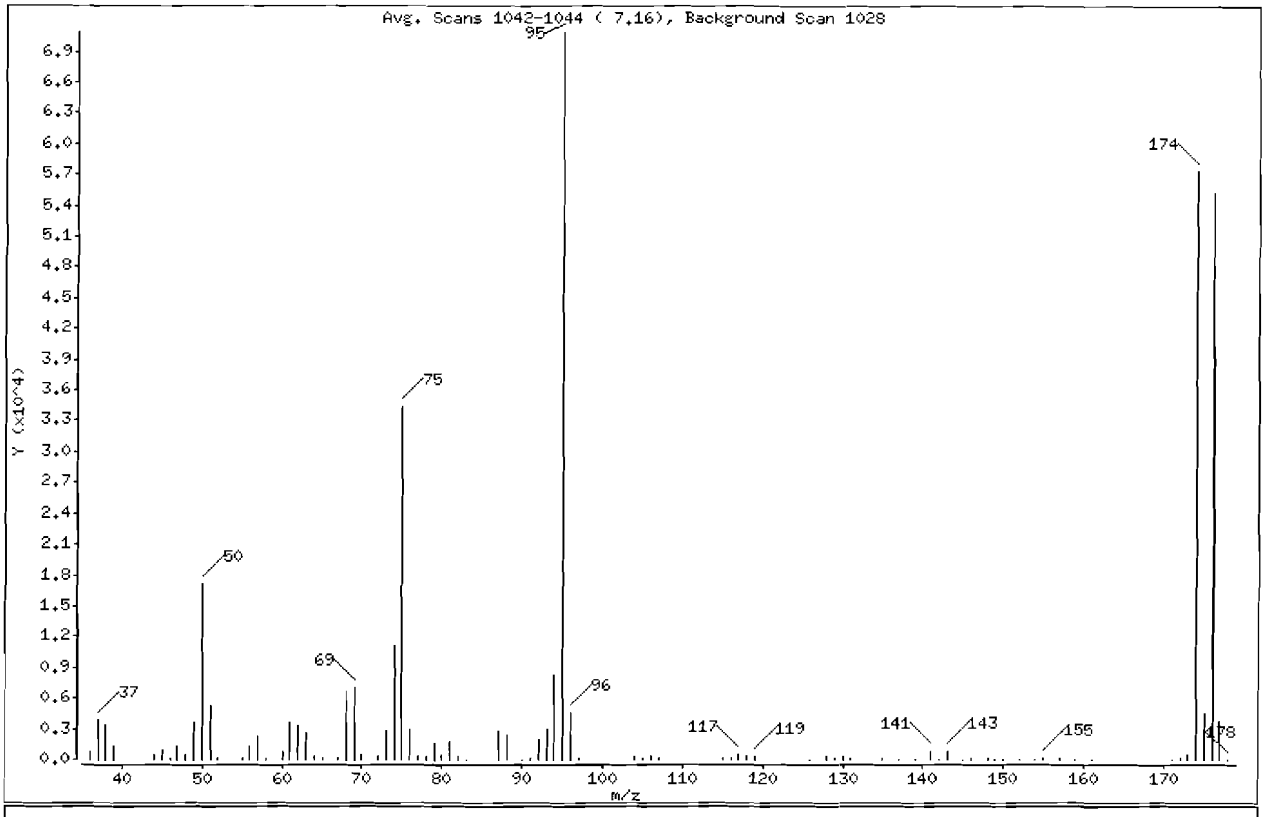
Sample Info: bfb tune (1ul dir inj)

Operator: kl

Column phase:

Column diameter: 2.00

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	24.21
75	30.00 - 60.00% of mass 95	48.40
96	5.00 - 9.00% of mass 95	6.39
173	Less than 2.00% of mass 174	0.71 (0.87)
174	50.00 - 100.00% of mass 95	80.81
175	5.00 - 9.00% of mass 174	6.44 (7.97)
176	95.00 - 101.00% of mass 174	77.95 (96.45)
177	5.00 - 9.00% of mass 176	5.28 (6.77)

Date : 24-DEC-2013 08:48

Client ID: Instrument: Bundy.i

Sample Info: bfb tune (1ul dir inj)

Operator: kl

Column phase: Column diameter: 2.00

Data File: BFB1224B.D
Spectrum: Avg. Scans 1042-1044 (7.16), Background Scan 1028
Location of Maximum: 95.00
Number of points: 88

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	751	67.00	188	95.00	70888	145.00	44
37.00	3891	68.00	6609	96.00	4531	146.00	154
38.00	3431	69.00	7034	97.00	136	148.00	181
39.00	1350	70.00	520	104.00	280	149.00	38
44.00	416	72.00	338	105.00	125	150.00	57
45.00	916	73.00	2757	106.00	361	152.00	60
46.00	88	74.00	11122	107.00	92	154.00	18
47.00	1351	75.00	34312	115.00	101	155.00	210
48.00	542	76.00	2990	116.00	197	157.00	157
49.00	3613	77.00	326	117.00	445	159.00	78
50.00	17160	78.00	258	118.00	296	161.00	65
51.00	5296	79.00	1651	119.00	401	171.00	48
52.00	238	80.00	408	126.00	58	172.00	208
55.00	226	81.00	1769	128.00	311	173.00	500
56.00	1242	82.00	313	129.00	94	174.00	57288
57.00	2240	83.00	42	130.00	311	175.00	4565
58.00	123	87.00	2769	131.00	119	176.00	55256
60.00	779	88.00	2461	135.00	147	177.00	3741
61.00	3558	90.00	18	137.00	60	178.00	55
62.00	3334	91.00	237	139.00	19		
63.00	2536	92.00	1935	141.00	776		
64.00	280	93.00	2876	142.00	70		
65.00	92	94.00	8233	143.00	756		

Volatiles Raw QC Data

Alpha Analytical Labs

gc/ms voa -Bundy 524

Data file : \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A04.D
Lab Smp Id:
Inj Date : 24-DEC-2013 10:50
Operator : gt Inst ID: Bundy.i
Smp Info : wg661542-2,31,5,,
Misc Info : wg661542,ical8787
Comment :
Method : \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\524extras.m
Meth Date : 24-Dec-2013 11:09 Bundy.i Quant Type: ISTD
Cal Date : 10-NOV-2013 23:22 Cal File: 1107A12.D
Als bottle: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 524.sub
Target Version: 4.12
Processing Host: VIRTUALXP-72976

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ngs)	FINAL (ngs)	REVIEW CODE
1 dichlorodifluoromethane	85	Compound Not Detected.						
2 chloromethane	50	Compound Not Detected.						
3 vinyl chloride	62	Compound Not Detected.						
4 bromomethane	94	Compound Not Detected.						
5 chloroethane	64	Compound Not Detected.						
6 trichlorofluoromethane	101	Compound Not Detected.						
9 1,1-dichloroethene	96	Compound Not Detected.						
11 methylene chloride	84	Compound Not Detected.						
13 methyl-tert-butyl ether	73	Compound Not Detected.						
14 trans-1,2-dichloroethene	96	Compound Not Detected.						
16 1,1-dichloroethane	63	Compound Not Detected.						
19 2,2-dichloropropane	77	Compound Not Detected.						
20 cis-1,2-dichloroethene	96	Compound Not Detected.						
21 chloroform	83	Compound Not Detected.						
22 bromochloromethane	128	Compound Not Detected.						
24 1,1,1-trichloroethane	97	Compound Not Detected.						
25 1,1-dichloropropene	75	Compound Not Detected.						
27 carbon tetrachloride	117	Compound Not Detected.						
28 1,2-dichloroethane	62	Compound Not Detected.						
29 benzene	78	Compound Not Detected.						
* 30 fluorobenzene	96	7.879	7.874	(1.000)	34046	20.0000		
31 trichloroethene	95	Compound Not Detected.						
32 1,2-dichloropropane	63	Compound Not Detected.						
33 bromodichloromethane	83	Compound Not Detected.						
34 dibromomethane	93	Compound Not Detected.						
36 cis-1,3-dichloropropene	75	Compound Not Detected.						
37 toluene	92	Compound Not Detected.						
38 trans-1,3-dichloropropene	75	Compound Not Detected.						
40 1,1,2-trichloroethane	83	Compound Not Detected.						

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ngs)	FINAL (ngs)	REVIEW CODE
	41 1,3-dichloropropane	76	Compound Not Detected.						
	42 tetrachloroethene	166	Compound Not Detected.						
	43 dibromochloromethane	129	Compound Not Detected.						
	44 1,2-dibromoethane	107	Compound Not Detected.						
*	45 Chlorobenzene-d5	117	11.356	11.361	(1.000)	30251	20.0000		
	46 chlorobenzene	112	Compound Not Detected.						
	47 ethylbenzene	91	Compound Not Detected.						
	48 1,1,1,2-tetrachloroethane	131	Compound Not Detected.						
	49 p/m-xylenes	106	Compound Not Detected.						
	50 o-xylenes	106	Compound Not Detected.						
	51 styrene	104	Compound Not Detected.						
	52 isopropylbenzene	105	Compound Not Detected.						
	53 bromoform	173	Compound Not Detected.						
	54 1,1,2,2-tetrachloroethane	83	Compound Not Detected.						
$	55 4-bromofluorobenzene	95	12.797	12.797	(1.127)	13697	18.5797	18.57	
	56 1,2,3-trichloropropane	110	Compound Not Detected.						
	57 n-propylbenzene	91	Compound Not Detected.						
	58 bromobenzene	156	Compound Not Detected.						
	59 1,3,5-trimethylbenzene	105	Compound Not Detected.						
	60 o-chlorotoluene	126	Compound Not Detected.						
	61 p-chlorotoluene	91	Compound Not Detected.						
	62 tert-butylbenzene	119	Compound Not Detected.						
	63 1,2,4,-trimethylbenzene	105	Compound Not Detected.						
	64 sec-butylbenzene	105	Compound Not Detected.						
	65 p-isopropyltoluene	119	Compound Not Detected.						
	66 1,3-dichlorobenzene	146	Compound Not Detected.						
*	67 1,4-Dichlorobenzene-d4	152	14.276	14.271	(1.000)	15776	20.0000		
	68 1,4-dichlorobenzene	146	Compound Not Detected.						
	69 n-butylbenzene	91	Compound Not Detected.						
$	70 1,2-Dichlorobenzene-d4	152	14.743	14.748	(1.033)	15502	20.6206	20.62	
	71 1,2-dichlorobenzene	146	Compound Not Detected.						
	72 1,2-dibromo-3-chloropropane	75	Compound Not Detected.						
	74 1,2,4-trichlorobenzene	182	Compound Not Detected.						
	75 hexachlorobutadiene	225	Compound Not Detected.						
	76 naphthalene	128	Compound Not Detected.						
	77 1,2,3-trichlorobenzene	180	Compound Not Detected.						
M	78 Xylene (total)	106	Compound Not Detected.						

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: Bundy.i
Lab File ID: 1224A04.D
Lab Smp Id:
Analysis Type: VOA
Quant Type: ISTD
Operator: gt
Method File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\524extras.m
Misc Info: wg661542,ical8787

Calibration Date: 24-DEC-2013
Calibration Time: 09:45

Level: MED
Sample Type: WATER

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 3

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
30 fluorobenzene	36873	18437	73746	34046	-7.67
45 Chlorobenzene-d5	32655	16328	65310	30251	-7.36
67 1,4-Dichlorobenze	18891	9446	37782	15776	-16.49

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
30 fluorobenzene	7.87	7.37	8.37	7.88	0.07
45 Chlorobenzene-d5	11.36	10.86	11.86	11.36	-0.05
67 1,4-Dichlorobenze	14.27	13.77	14.77	14.28	0.04

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A04.D Page 4
Report Date: 26-Dec-2013 09:42

Alpha Analytical Labs

RECOVERY REPORT

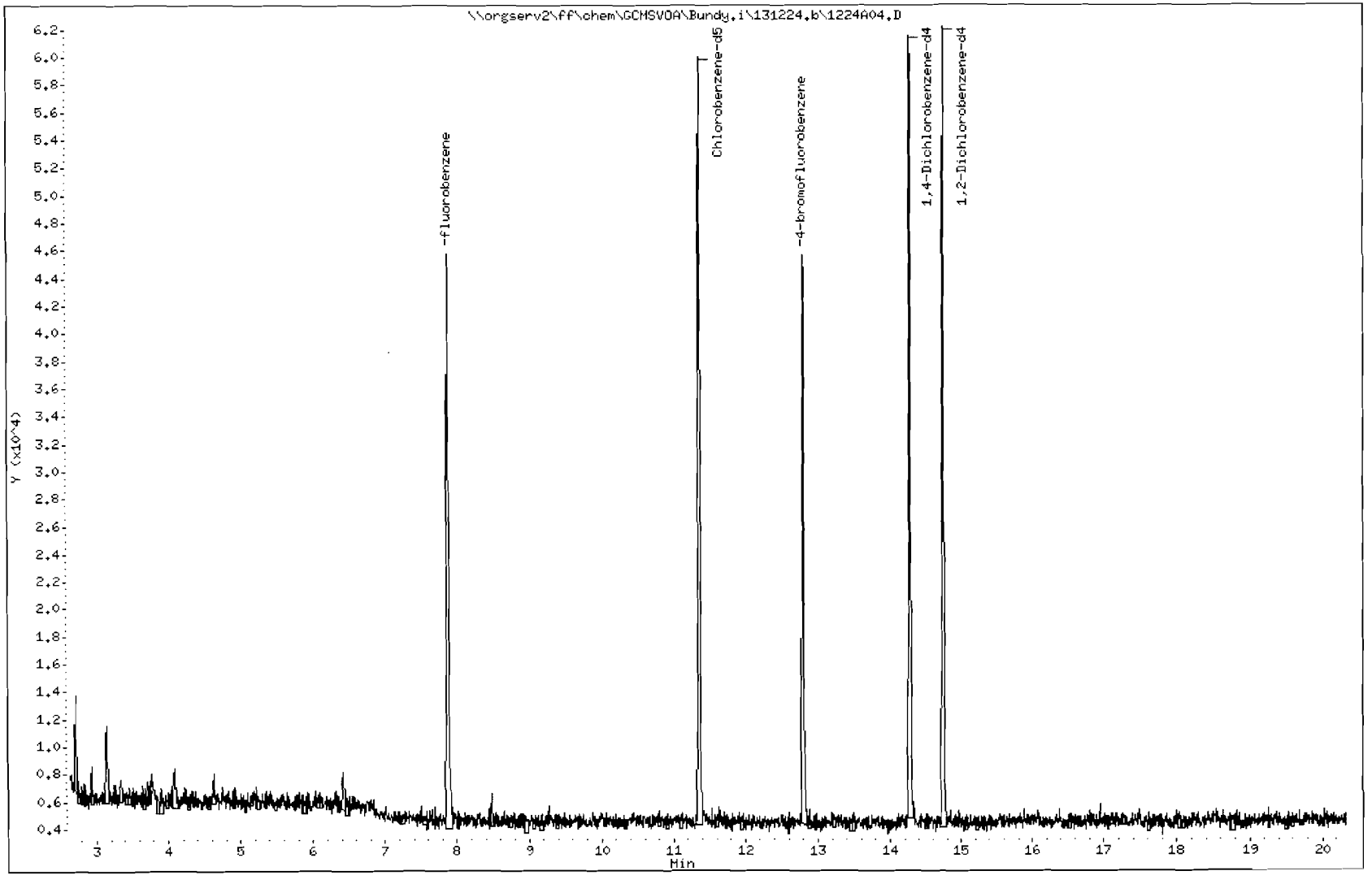
Client Name:
Sample Matrix: LIQUID
Lab Smp Id:
Level: MED
Data Type: MS DATA
SpikeList File: 524NH.spk
Sublist File: 524.sub
Method File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\524extras.m
Misc Info: wg661542,ical8787

Client SDG: 131224.b
Fraction: VOA
Operator: gt
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	AMOUNT ADDED ngs	AMOUNT RECOVERED ngs	% RECOVERED	LIMITS
$ 55 4-bromofluorobenze	20.00	18.57	92.90	80-120
$ 70 1,2-Dichlorobenzen	20.00	20.62	103.10	80-120

Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A04.D
Date : 24-DEC-2013 10:50
Client ID:
Sample Info: wg661542-2,31,5,,
Purge Volume: 5.0
Column phase:

Instrument: Bundy.i
Operator: gt
Column diameter: 0.18



Alpha Analytical Labs

gc/ms voa -Bundy 524

Data file : \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A02.D
Lab Smp Id:
Inj Date : 24-DEC-2013 09:45
Operator : gt Inst ID: Bundy.i
Smp Info : wg661542-1,31,5,,
Misc Info : wg661542,ical8787
Comment :
Method : \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\524extras.m
Meth Date : 30-Dec-2013 11:19 Bundy.i Quant Type: ISTD
Cal Date : 10-NOV-2013 23:22 Cal File: 1107A12.D
Als bottle: 11 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 524.sub
Target Version: 4.12
Processing Host: VIRTUALXP-72976

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ngs)	FINAL (ngs)	REVIEW CODE
1 dichlorodifluoromethane	85	2.752	2.752	(0.349)	9311	19.3160	19.31	
2 chloromethane	50	3.066	3.066	(0.389)	12743	18.8907	18.89	
3 vinyl chloride	62	3.208	3.208	(0.407)	10975	19.1367	19.13	
4 bromomethane	94	3.743	3.743	(0.475)	3005	17.2621	17.26	
5 chloroethane	64	3.821	3.821	(0.485)	6539	20.5523	20.55	
6 trichlorofluoromethane	101	4.110	4.110	(0.522)	14424	24.0310	24.03	
9 1,1-dichloroethene	96	4.786	4.786	(0.608)	7989	21.2354	21.23	
11 methylene chloride	84	5.284	5.284	(0.671)	8629	19.8319	19.83	
13 methyl-tert-butyl ether	73	5.410	5.410	(0.687)	23184	19.9121	19.91	
14 trans-1,2-dichloroethene	96	5.593	5.593	(0.710)	8842	19.6721	19.67	
16 1,1-dichloroethane	63	6.018	6.018	(0.764)	21643	21.4212	21.42	
19 2,2-dichloropropane	77	6.595	6.595	(0.838)	14531	23.5897	23.58	
20 cis-1,2-dichloroethene	96	6.647	6.647	(0.844)	10482	21.6573	21.65	
21 chloroform	83	6.805	6.805	(0.864)	18680	24.2966	24.29	
22 bromochloromethane	128	6.993	6.993	(0.888)	5267	21.6279	21.62	
24 1,1,1-trichloroethane	97	7.224	7.224	(0.917)	16274	23.5374	23.53	
25 1,1-dichloropropene	75	7.381	7.381	(0.937)	11711	20.4109	20.41	
27 carbon tetrachloride	117	7.507	7.507	(0.953)	15064	24.6935	24.69	
28 1,2-dichloroethane	62	7.643	7.643	(0.971)	18319	25.5638	25.56(M)	M4
29 benzene	78	7.680	7.680	(0.975)	38382	21.1506	21.15	
* 30 fluorobenzene	96	7.874	7.874	(1.000)	36873	20.0000	(M)	M4
31 trichloroethene	95	8.304	8.304	(1.055)	11346	23.4632	23.46	
32 1,2-dichloropropane	63	8.488	8.488	(1.078)	12963	21.7990	21.79(M)	M2
33 bromodichloromethane	83	8.755	8.755	(1.112)	15761	25.1127	25.11	
34 dibromomethane	93	8.828	8.828	(1.121)	7106	23.5955	23.59	
36 cis-1,3-dichloropropene	75	9.311	9.311	(1.182)	15833	20.7836	20.78	
37 toluene	92	9.693	9.693	(1.231)	25935	21.6309	21.63	
38 trans-1,3-dichloropropene	75	9.851	9.851	(1.251)	14523	20.6388	20.63	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ngs)	FINAL (ngs)	REVIEW CODE
	40 1,1,2-trichloroethane	83	10.050	10.050	(1.276)	8416	23.2046	23.20	
	41 1,3-dichloropropane	76	10.333	10.333	(1.312)	16241	22.3631	22.36	
	42 tetrachloroethene	166	10.443	10.443	(1.326)	12498	24.5579	24.55	
	43 dibromochloromethane	129	10.690	10.690	(1.358)	12819	24.8817	24.88	
	44 1,2-dibromoethane	107	10.931	10.931	(0.962)	10107	19.4091	19.40(M)	M2
*	45 Chlorobenzene-d5	117	11.361	11.361	(1.000)	32655	20.0000		
	46 chlorobenzene	112	11.403	11.403	(1.004)	31993	19.9942	19.99	
	47 ethylbenzene	91	11.434	11.434	(1.006)	51660	19.7388	19.73	
	48 1,1,1,2-tetrachloroethane	131	11.434	11.434	(1.006)	12008	20.8965	20.89	
	49 p/m-xylenes	106	11.518	11.518	(1.014)	39021	39.6196	39.61	
	50 o-xylenes	106	12.058	12.058	(1.061)	17721	17.9935	17.99	
	51 styrene	104	12.090	12.090	(1.064)	32504	19.0648	19.06	
	52 isopropylbenzene	105	12.472	12.472	(1.098)	49317	19.5149	19.51	
	53 bromoform	173	12.556	12.556	(1.105)	7719	19.7102	19.71	
	54 1,1,2,2-tetrachloroethane	83	12.677	12.677	(1.116)	12021	18.1514	18.15	
$	55 4-bromofluorobenzene	95	12.797	12.797	(1.126)	16339	20.5469	20.54	
	56 1,2,3-trichloropropane	110	12.860	12.860	(1.132)	4000	20.5288	20.52	
	57 n-propylbenzene	91	12.960	12.960	(1.141)	58739	19.5536	19.55	
	58 bromobenzene	156	13.075	13.075	(1.151)	14359	21.0847	21.08	
	59 1,3,5-trimethylbenzene	105	13.149	13.149	(1.157)	41459	19.8549	19.85	
	60 o-chlorotoluene	126	13.217	13.217	(1.163)	13487	21.7141	21.71	
	61 p-chlorotoluene	91	13.264	13.264	(1.168)	39769	20.7729	20.77	
	62 tert-butylbenzene	119	13.594	13.594	(1.197)	35981	19.5588	19.55	
	63 1,2,4,-trimethylbenzene	105	13.647	13.647	(1.201)	42923	20.2901	20.29	
	64 sec-butylbenzene	105	13.856	13.856	(1.220)	52012	19.7025	19.70	
	65 p-isopropyltoluene	119	14.014	14.014	(1.234)	45464	19.2705	19.27	
	66 1,3-dichlorobenzene	146	14.187	14.187	(0.994)	27894	19.8230	19.82	
*	67 1,4-Dichlorobenzene-d4	152	14.271	14.271	(1.000)	18891	20.0000		
	68 1,4-dichlorobenzene	146	14.313	14.313	(1.003)	27991	19.2707	19.27	
	69 n-butylbenzene	91	14.517	14.517	(1.017)	41953	19.3111	19.31	
$	70 1,2-Dichlorobenzene-d4	152	14.748	14.748	(1.033)	18185	20.2008	20.20	
	71 1,2-dichlorobenzene	146	14.779	14.779	(1.036)	26426	18.8345	18.83	
	72 1,2-dibromo-3-chloropropane	75	15.712	15.712	(1.101)	2295	17.9465	17.94	
	74 1,2,4-trichlorobenzene	182	16.761	16.761	(1.175)	14364	17.9936	17.99	
	75 hexachlorobutadiene	225	16.913	16.913	(1.185)	7403	21.3389	21.33	
	76 naphthalene	128	17.118	17.118	(1.199)	30653	14.8510	14.85	
	77 1,2,3-trichlorobenzene	180	17.432	17.432	(1.222)	15190	18.3795	18.37	
M	78 Xylene (total)	106				56742	57.6131	57.61	

QC Flag Legend

M - Compound response manually integrated.

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: Bundy.i
Lab File ID: 1224A02.D
Lab Smp Id:
Analysis Type: VOA
Quant Type: ISTD
Operator: gt
Method File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\524extras.m
Misc Info: wg661542,ical8787

Calibration Date: 24-DEC-2013
Calibration Time: 09:45

Level: MED
Sample Type: WATER

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 3

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
30 fluorobenzene	36873	18437	73746	36873	0.00
45 Chlorobenzene-d5	32655	16328	65310	32655	0.00
67 1,4-Dichlorobenze	18891	9446	37782	18891	0.00

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
30 fluorobenzene	7.87	7.37	8.37	7.87	0.00
45 Chlorobenzene-d5	11.36	10.86	11.86	11.36	0.00
67 1,4-Dichlorobenze	14.27	13.77	14.77	14.27	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Alpha Analytical Labs

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id:
Level: MED
Data Type: MS DATA
SpikeList File: 524lcs.spk
Sublist File: 524.sub
Method File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\524extras.m
Misc Info: wg661542,ical8787

Client SDG: 131224.b
Fraction: VOA
Operator: gt
SampleType: LCS
Quant Type: ISTD

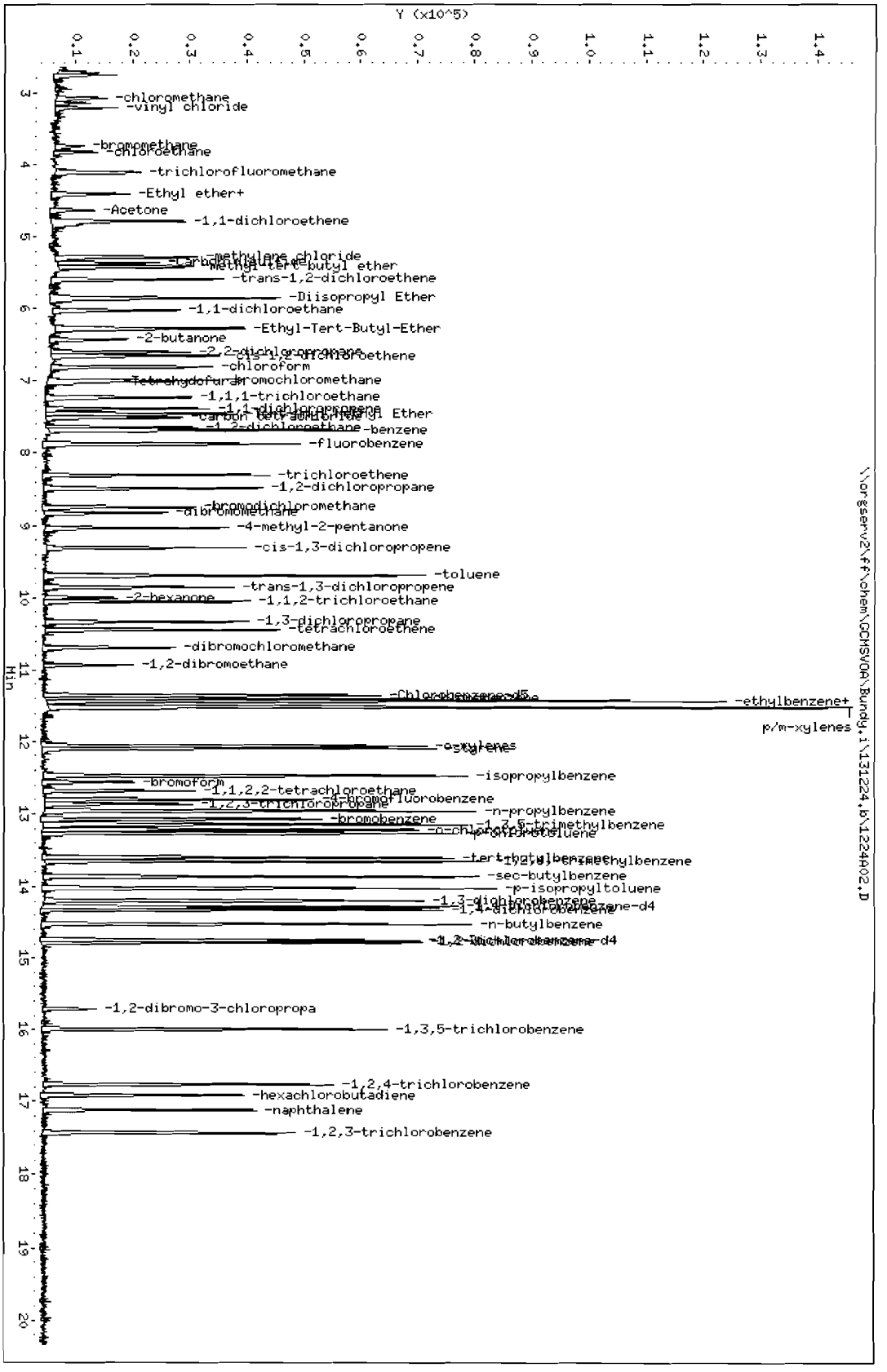
SPIKE COMPOUND	CONC ADDED ngs	CONC RECOVERED ngs	% RECOVERED	LIMITS
1 dichlorodifluorome	20.00	19.31	96.58	70-130
2 chloromethane	20.00	18.89	94.45	70-130
3 vinyl chloride	20.00	19.13	95.68	70-130
4 bromomethane	20.00	17.26	86.31	70-130
5 chloroethane	20.00	20.55	102.76	70-130
6 trichlorofluoromet	20.00	24.03	120.16	70-130
9 1,1-dichloroethene	20.00	21.23	106.18	70-130
11 methylene chloride	20.00	19.83	99.16	70-130
13 methyl-tert-butyl	20.00	19.91	99.56	70-130
14 trans-1,2-dichloro	20.00	19.67	98.36	70-130
16 1,1-dichloroethane	20.00	21.42	107.11	70-130
19 2,2-dichloropropan	20.00	23.58	117.95	70-130
20 cis-1,2-dichloroet	20.00	21.65	108.29	70-130
21 chloroform	20.00	24.29	121.48	70-130
22 bromochloromethane	20.00	21.62	108.14	70-130
24 1,1,1-trichloroeth	20.00	23.53	117.69	70-130
25 1,1-dichloropropen	20.00	20.41	102.05	70-130
27 carbon tetrachlori	20.00	24.69	123.47	70-130
28 1,2-dichloroethane	20.00	25.56	127.82	70-130
29 benzene	20.00	21.15	105.75	70-130
31 trichloroethene	20.00	23.46	117.32	70-130
32 1,2-dichloropropan	20.00	21.79	108.99	70-130
33 bromodichlorometha	20.00	25.11	125.56	70-130
34 dibromomethane	20.00	23.59	117.98	70-130
36 cis-1,3-dichloropr	20.00	20.78	103.92	70-130
37 toluene	20.00	21.63	108.15	70-130
38 trans-1,3-dichloro	20.00	20.63	103.19	70-130
40 1,1,2-trichloroeth	20.00	23.20	116.02	70-130
41 1,3-dichloropropan	20.00	22.36	111.82	70-130
42 tetrachloroethene	20.00	24.55	122.79	70-130
43 dibromochlorometha	20.00	24.88	124.41	70-130
44 1,2-dibromoethane	20.00	19.40	97.05	70-130
46 chlorobenzene	20.00	19.99	99.97	70-130
48 1,1,1,2-tetrachlor	20.00	20.89	104.48	70-130
47 ethylbenzene	20.00	19.73	98.69	70-130
49 p/m-xylenes	40.00	39.61	99.05	70-130
50 o-xylenes	20.00	17.99	89.97	70-130
51 styrene	20.00	19.06	95.32	70-130
52 isopropylbenzene	20.00	19.51	97.57	70-130
53 bromoform	20.00	19.71	98.55	70-130

SPIKE COMPOUND	CONC ADDED ngs	CONC RECOVERED ngs	% RECOVERED	LIMITS
54 1,1,2,2-tetrachlor	20.00	18.15	90.76	70-130
56 1,2,3-trichloropro	20.00	20.52	102.64	70-130
57 n-propylbenzene	20.00	19.55	97.77	70-130
58 bromobenzene	20.00	21.08	105.42	70-130
59 1,3,5-trimethylben	20.00	19.85	99.27	70-130
60 o-chlorotoluene	20.00	21.71	108.57	70-130
61 p-chlorotoluene	20.00	20.77	103.86	70-130
62 tert-butylbenzene	20.00	19.55	97.79	70-130
63 1,2,4,-trimethylbe	20.00	20.29	101.45	70-130
64 sec-butylbenzene	20.00	19.70	98.51	70-130
65 p-isopropyltoluene	20.00	19.27	96.35	70-130
66 1,3-dichlorobenzen	20.00	19.82	99.12	70-130
68 1,4-dichlorobenzen	20.00	19.27	96.35	70-130
69 n-butylbenzene	20.00	19.31	96.56	70-130
71 1,2-dichlorobenzen	20.00	18.83	94.17	70-130
72 1,2-dibromo-3-chlo	20.00	17.94	89.73	70-130
74 1,2,4-trichloroben	20.00	17.99	89.97	70-130
75 hexachlorobutadien	20.00	21.33	106.69	70-130
76 naphthalene	20.00	14.85	74.25	70-130
77 1,2,3-trichloroben	20.00	18.37	91.90	70-130
M 78 Xylene (total)	60.00	57.61	96.02	70-130

SURROGATE COMPOUND	AMOUNT ADDED ngs	AMOUNT RECOVERED ngs	% RECOVERED	LIMITS
$ 55 4-bromofluorobenze	20.00	20.54	102.73	80-120
$ 70 1,2-Dichlorobenzen	20.00	20.20	101.00	80-120

Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A02.D
Date : 24-DEC-2013 09:45
Client ID:
Sample Info: wg661542-1,31,5,,
Purge Volume: 5.0
Column phase:

Instrument: Bundy.i
Operator: gt
Column diameter: 0.18



Page 6

Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A02.D

Date : 24-DEC-2013 09:45

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-1,31,5,,

Purge Volume: 5.0

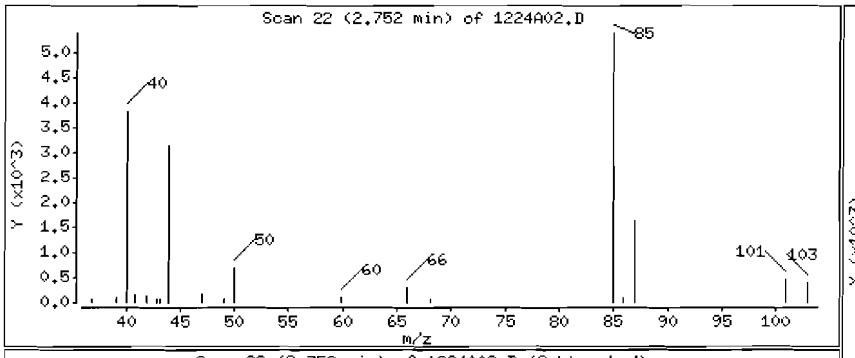
Operator: gt

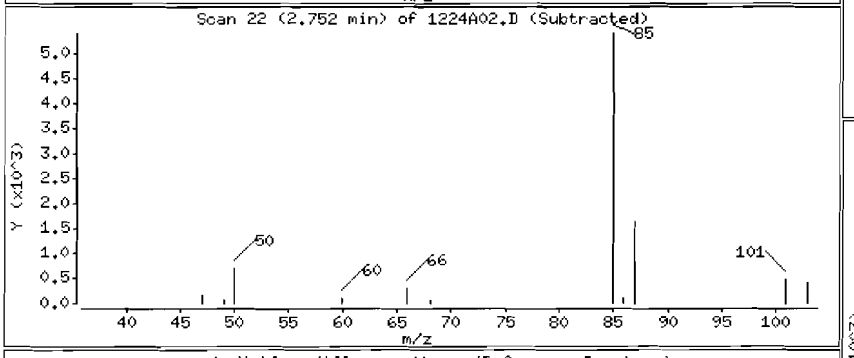
Column phase:

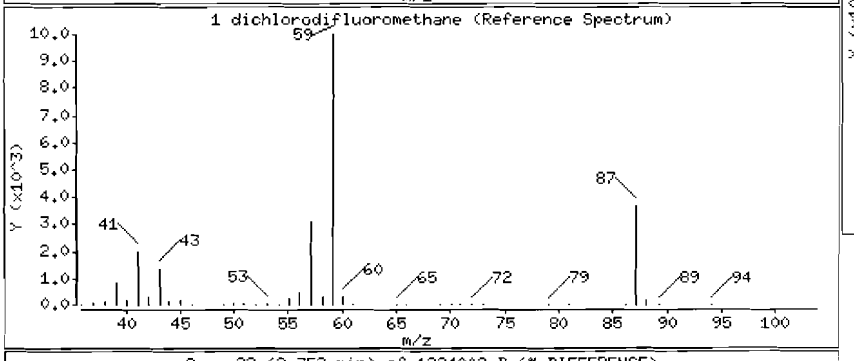
Column diameter: 0.18

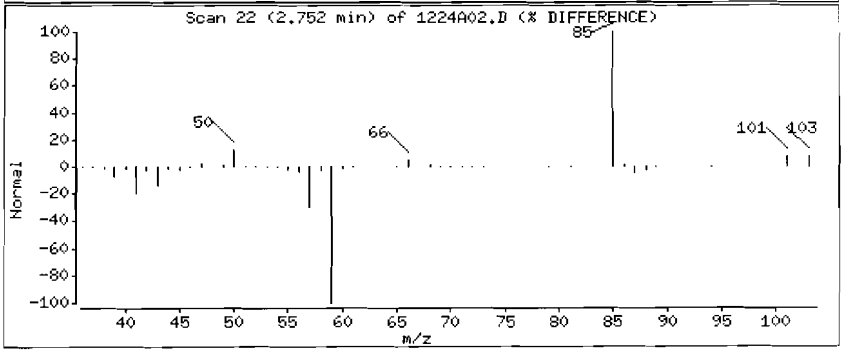
1 dichlorodifluoromethane

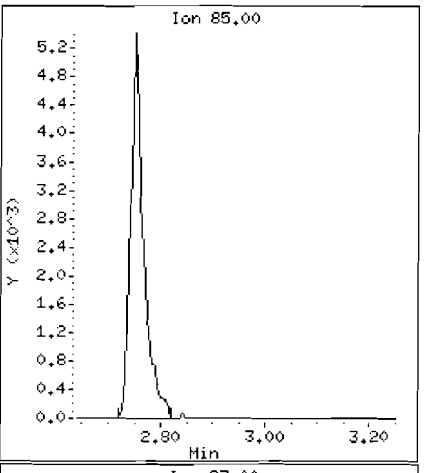
Concentration: 19.31 ngs

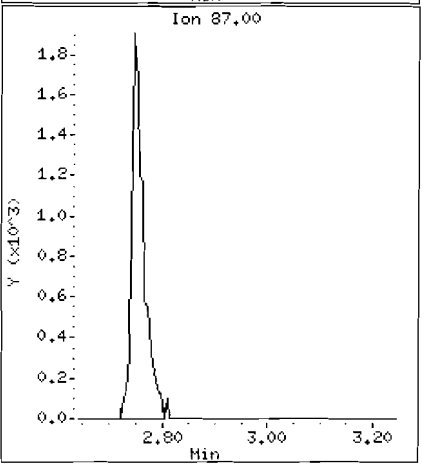












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A02.D

Date : 24-DEC-2013 09:45

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-1,31,5,,

Purge Volume: 5.0

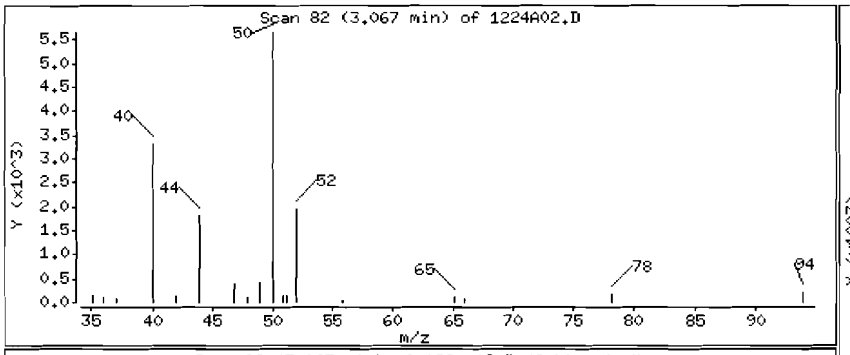
Operator: gt

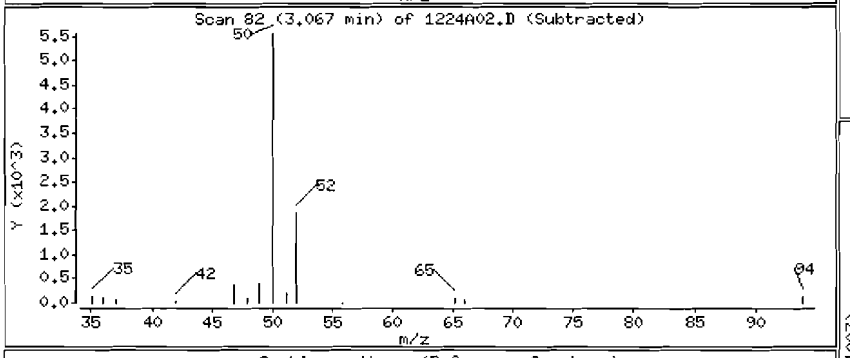
Column phase:

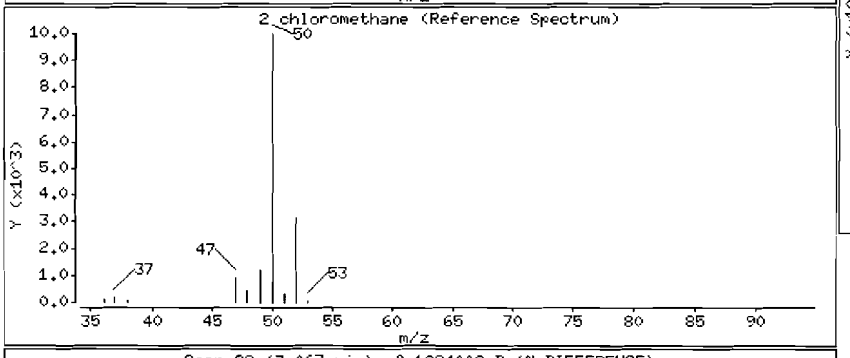
Column diameter: 0.18

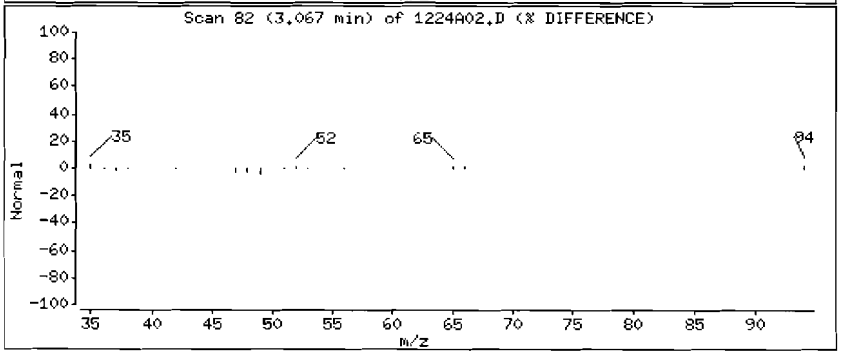
2 chloromethane

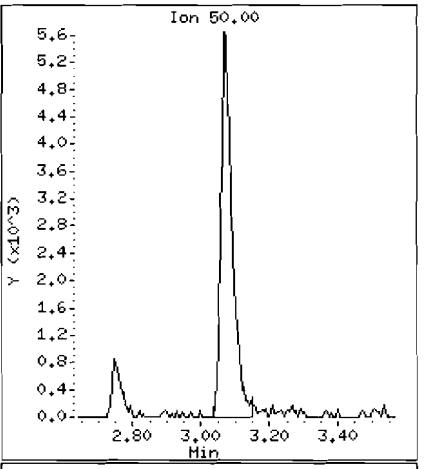
Concentration: 18.89 ngs

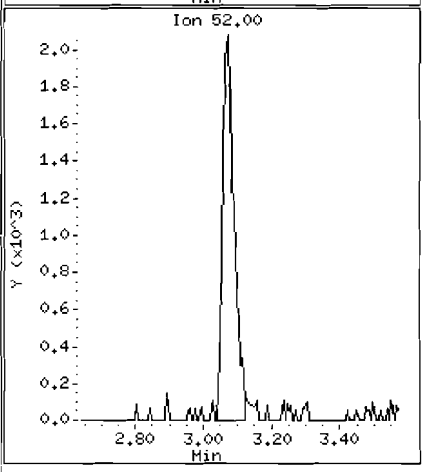












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A02.D

Date : 24-DEC-2013 09:45

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-1,31,5,,

Purge Volume: 5.0

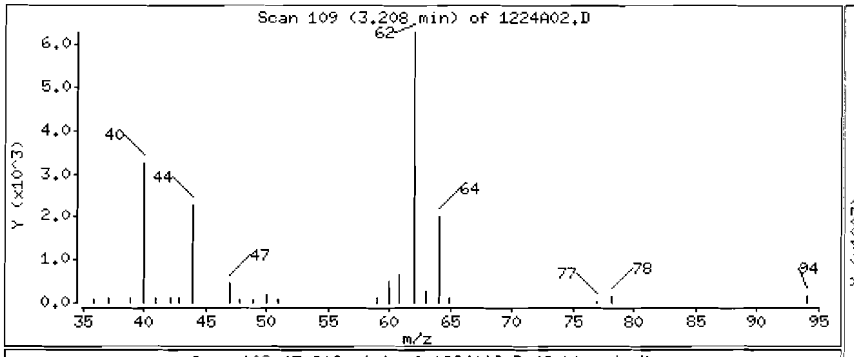
Operator: gt

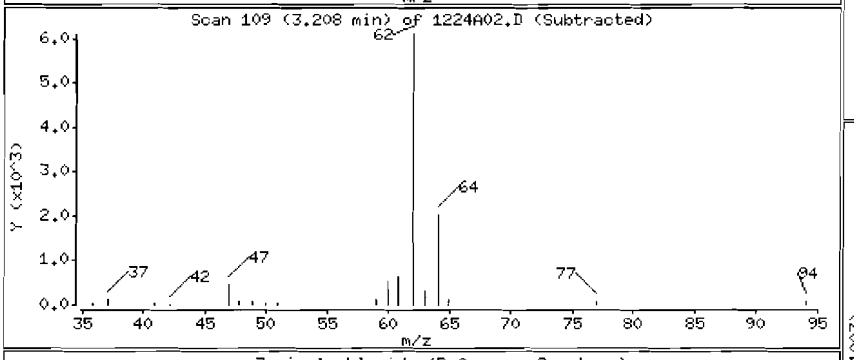
Column phase:

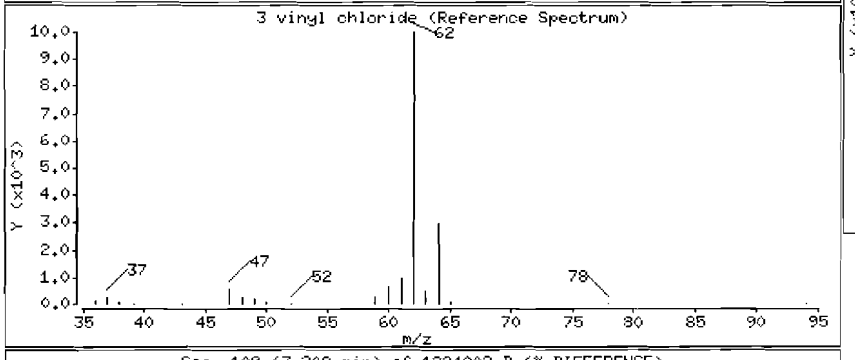
Column diameter: 0.18

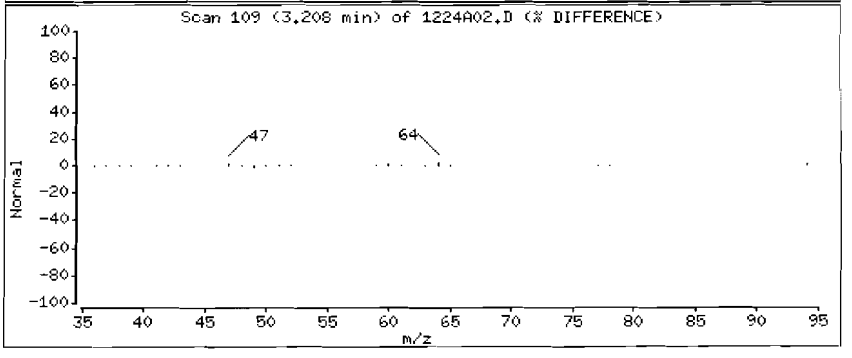
3 vinyl chloride

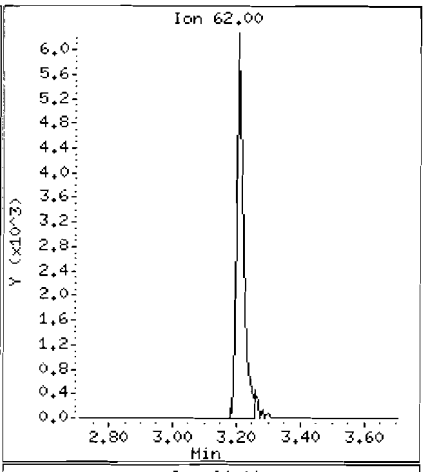
Concentration: 19.13 ngs

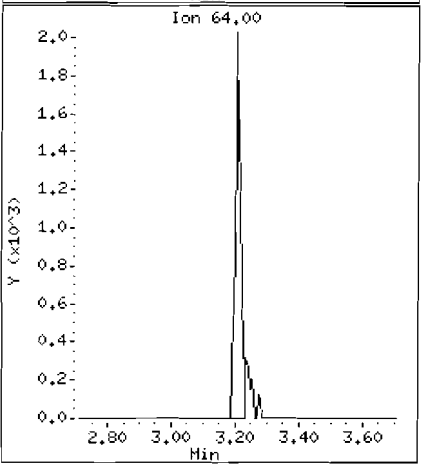












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A02.D

Date : 24-DEC-2013 09:45

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-1,31,5,,

Purge Volume: 5.0

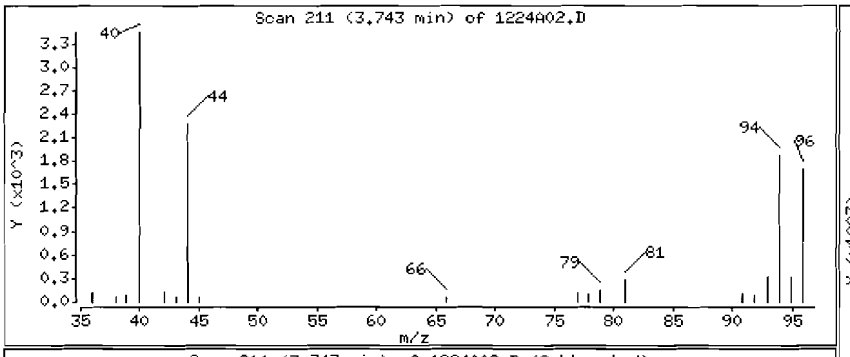
Operator: gt

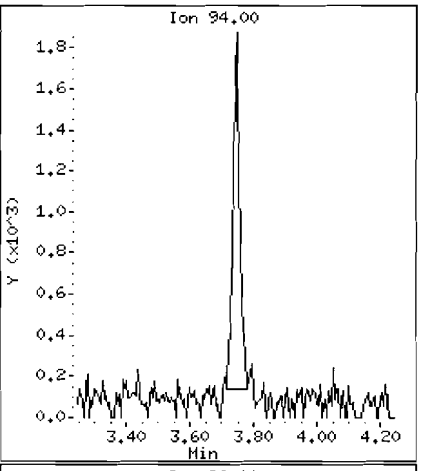
Column phase:

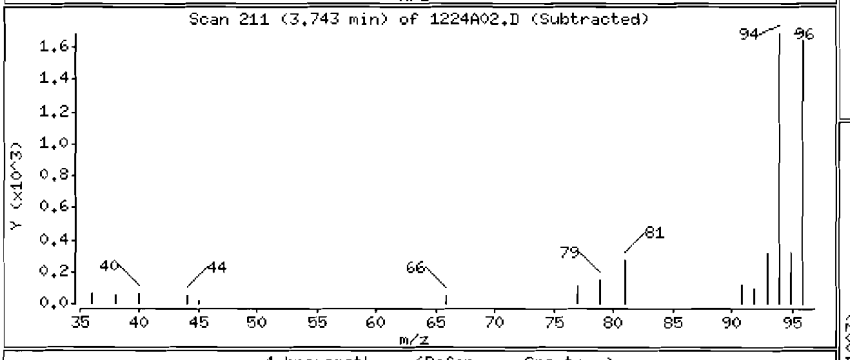
Column diameter: 0.18

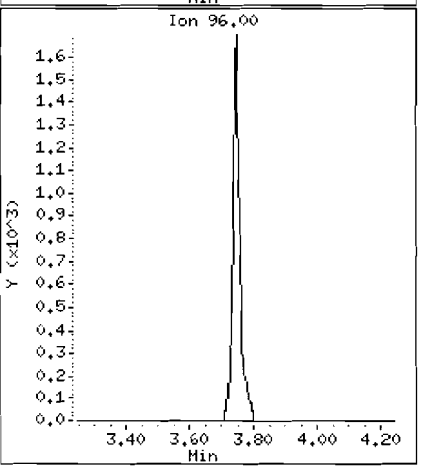
4 bromomethane

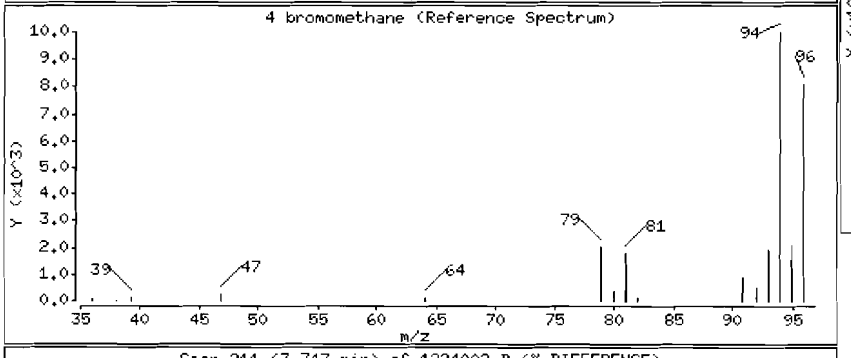
Concentration: 17.26 ngs

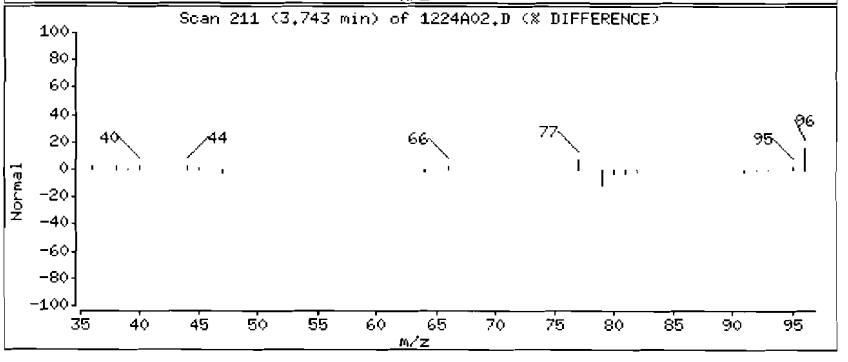












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A02.D

Date : 24-DEC-2013 09:45

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-1,31,5,,

Purge Volume: 5.0

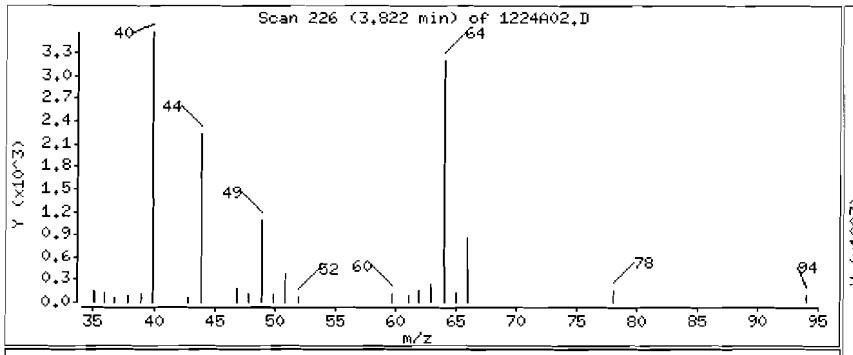
Operator: gt

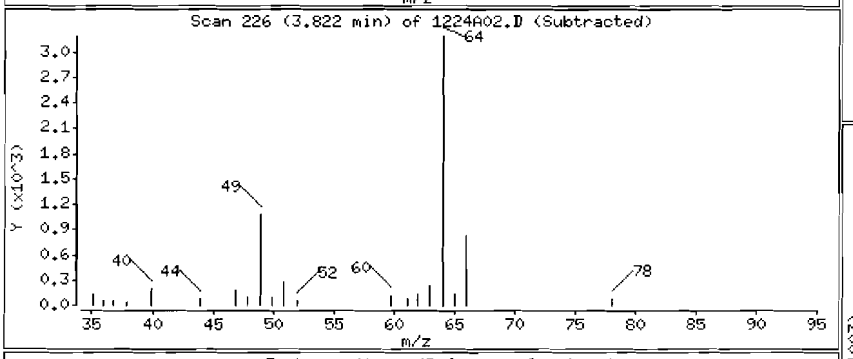
Column phase:

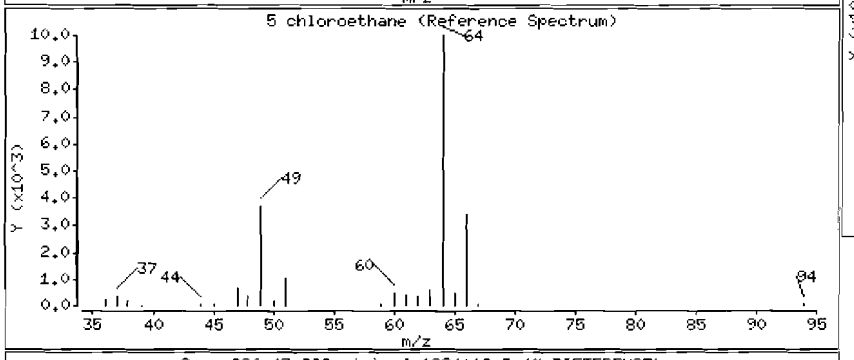
Column diameter: 0.18

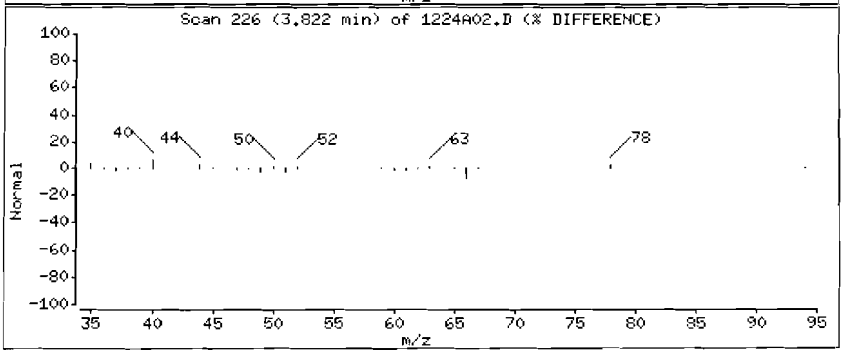
5 chloroethane

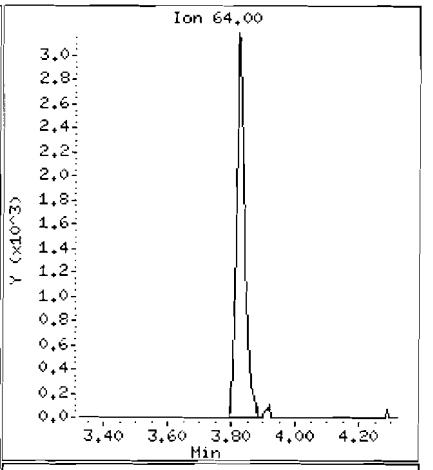
Concentration: 20.55 ngs

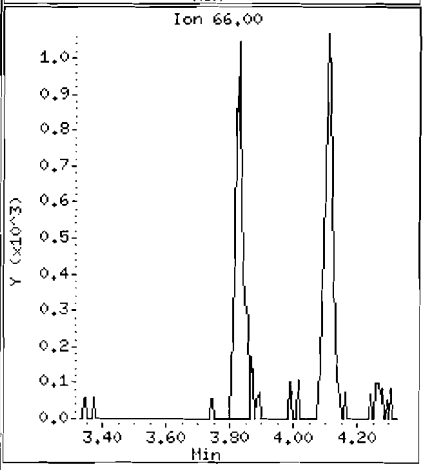












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A02.D

Date : 24-DEC-2013 09:45

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-1,31,5,,

Purge Volume: 5.0

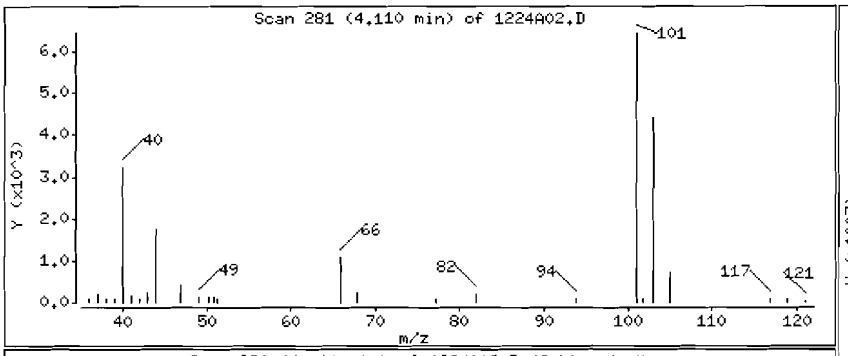
Operator: gt

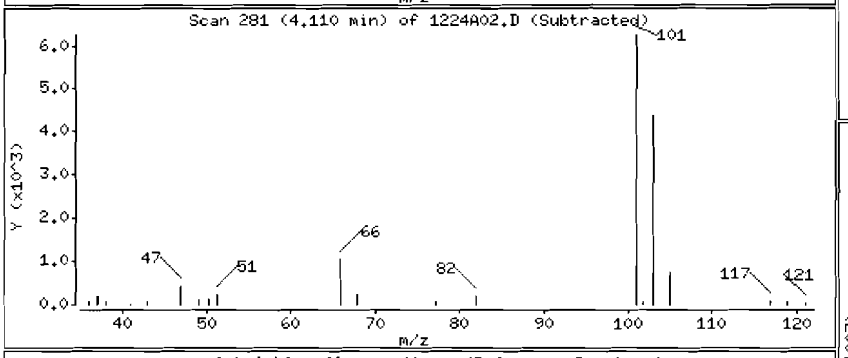
Column phase:

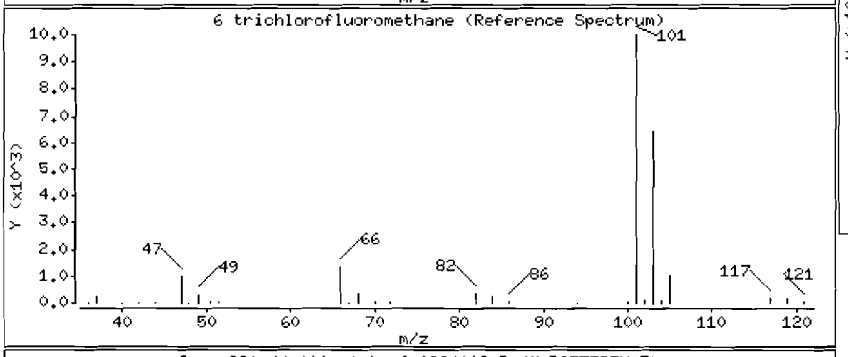
Column diameter: 0.18

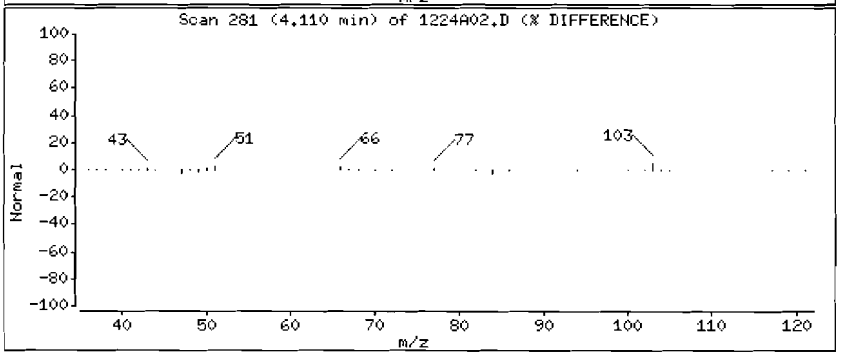
6 trichlorofluoromethane

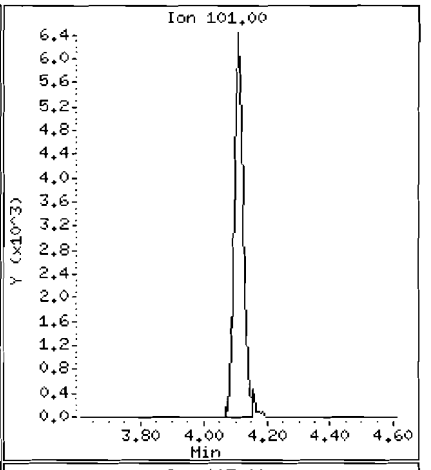
Concentration: 24.03 ngs

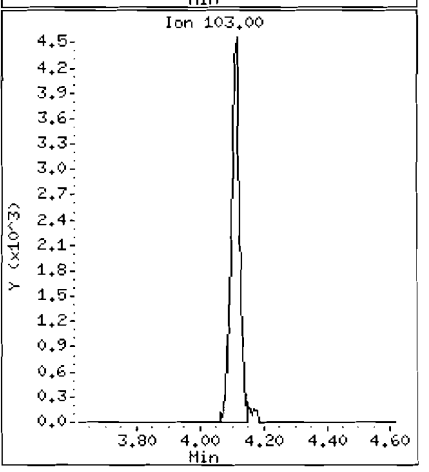












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A02.D

Date : 24-DEC-2013 09:45

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-1,31,5,,

Purge Volume: 5.0

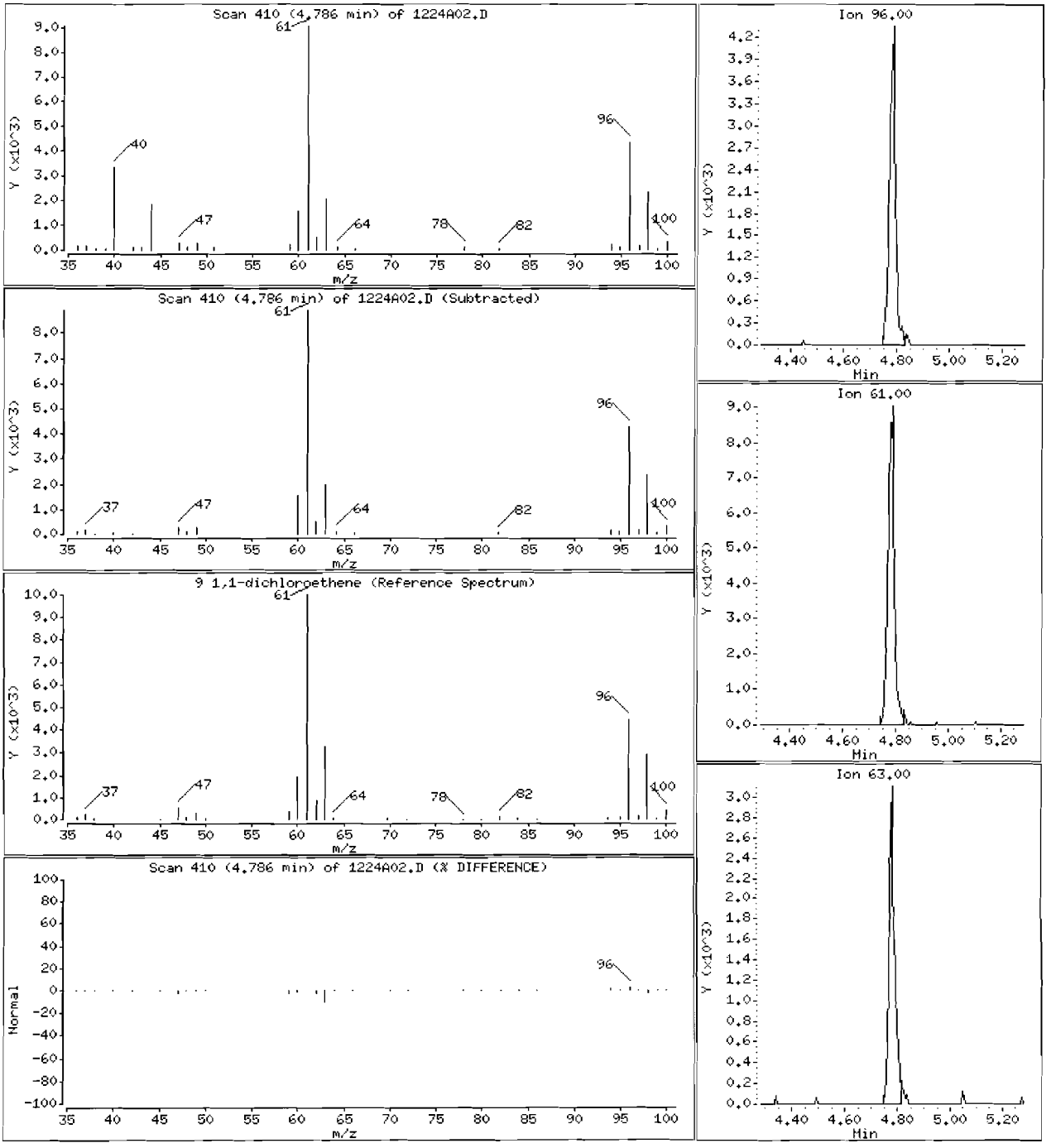
Operator: gt

Column phase:

Column diameter: 0.18

9 1,1-dichloroethene

Concentration: 21.23 ngs



Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A02.D

Date : 24-DEC-2013 09:45

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-1,31,5,,

Purge Volume: 5.0

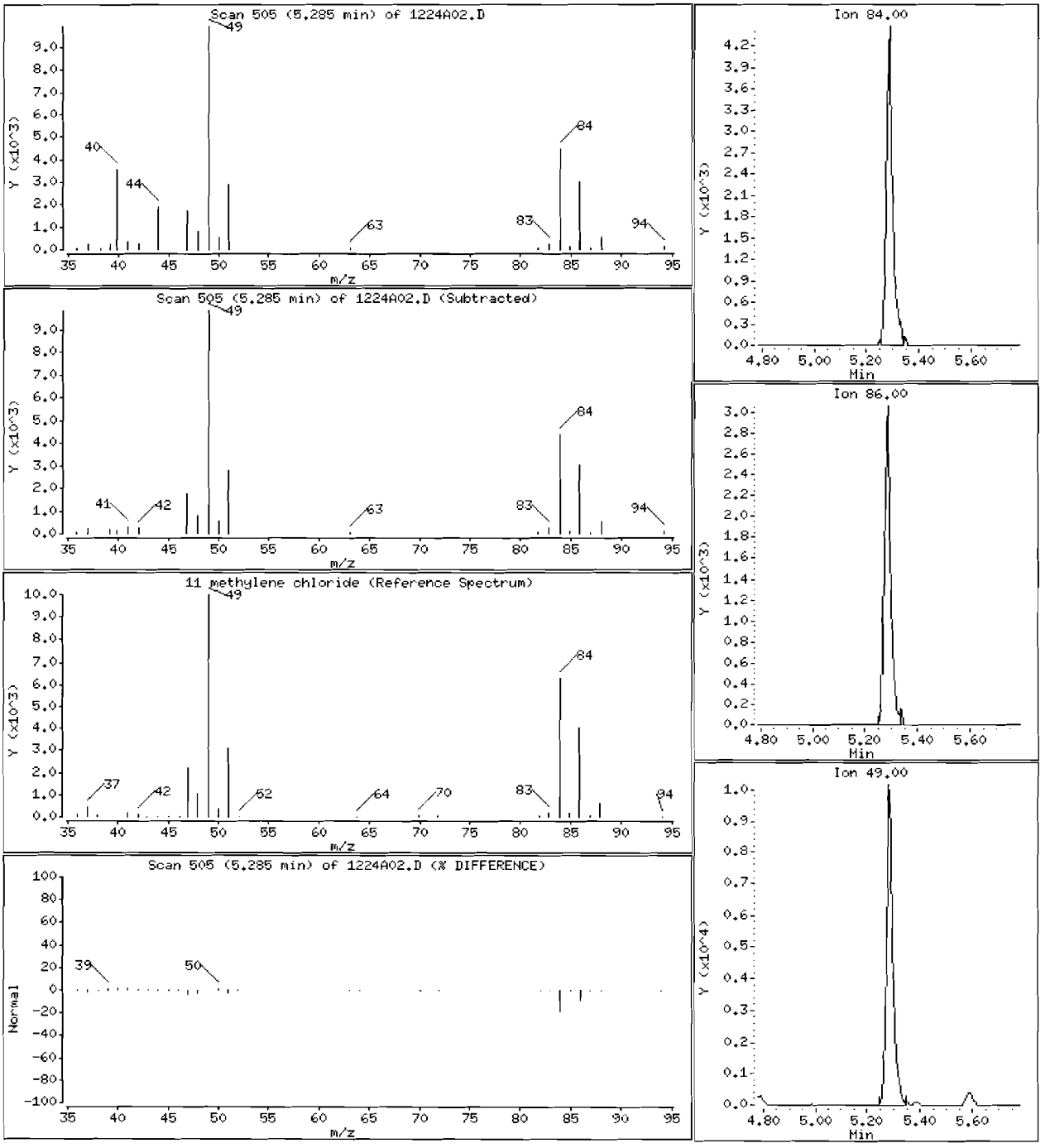
Operator: gt

Column phase:

Column diameter: 0.18

11 methylene chloride

Concentration: 19.83 ngs



Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A02.D

Date : 24-DEC-2013 09:45

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-1,31,5,,

Purge Volume: 5.0

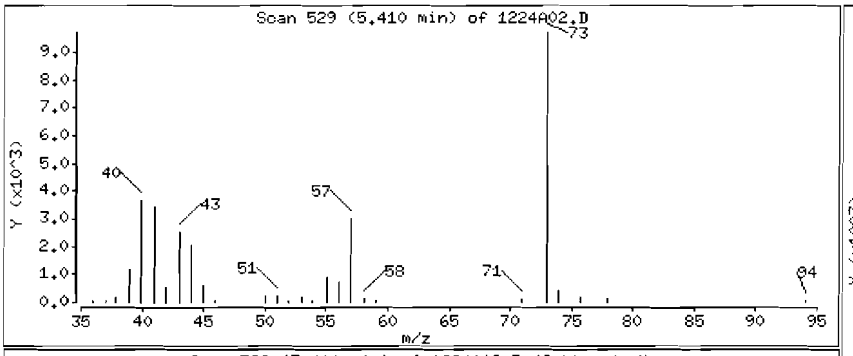
Operator: gt

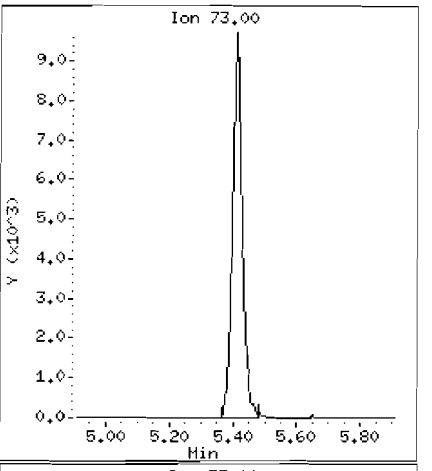
Column phase:

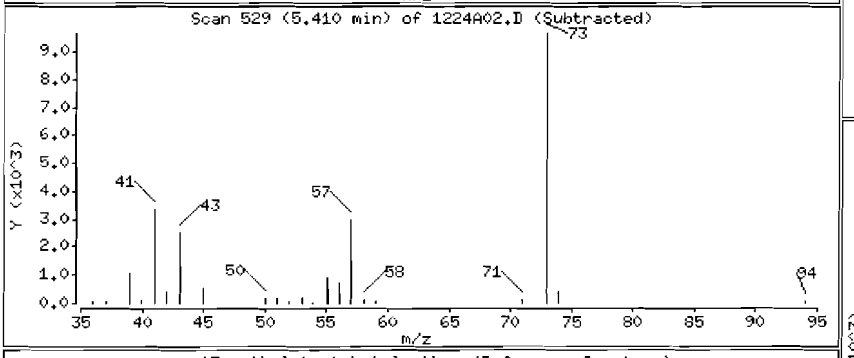
Column diameter: 0.18

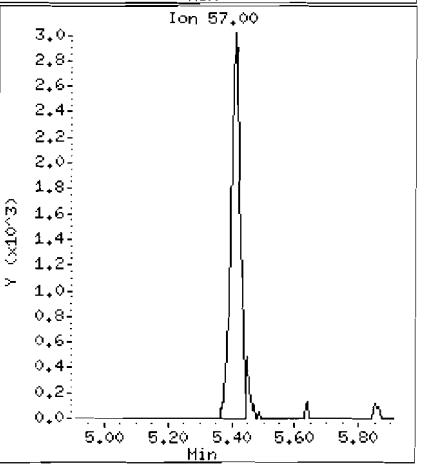
13 methyl-tert-butyl ether

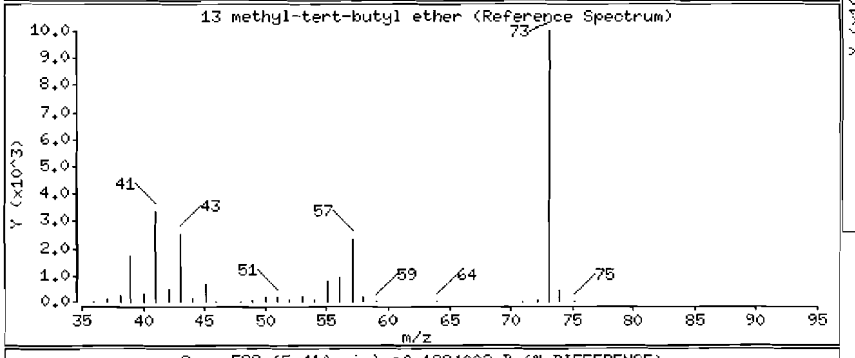
Concentration: 19.91 ngs

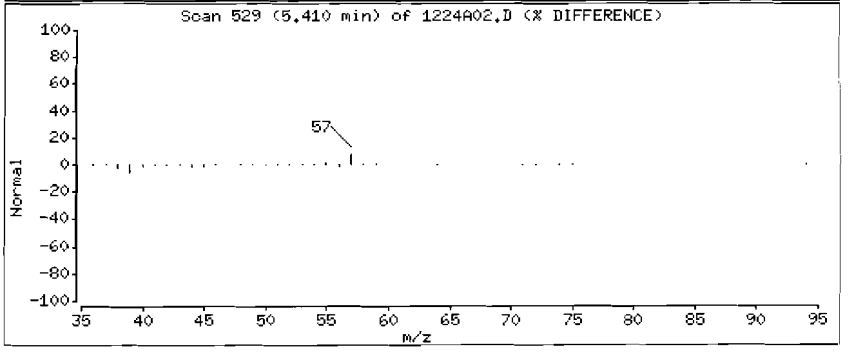












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A02.D

Date : 24-DEC-2013 09:45

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-1,31,5,,

Purge Volume: 5.0

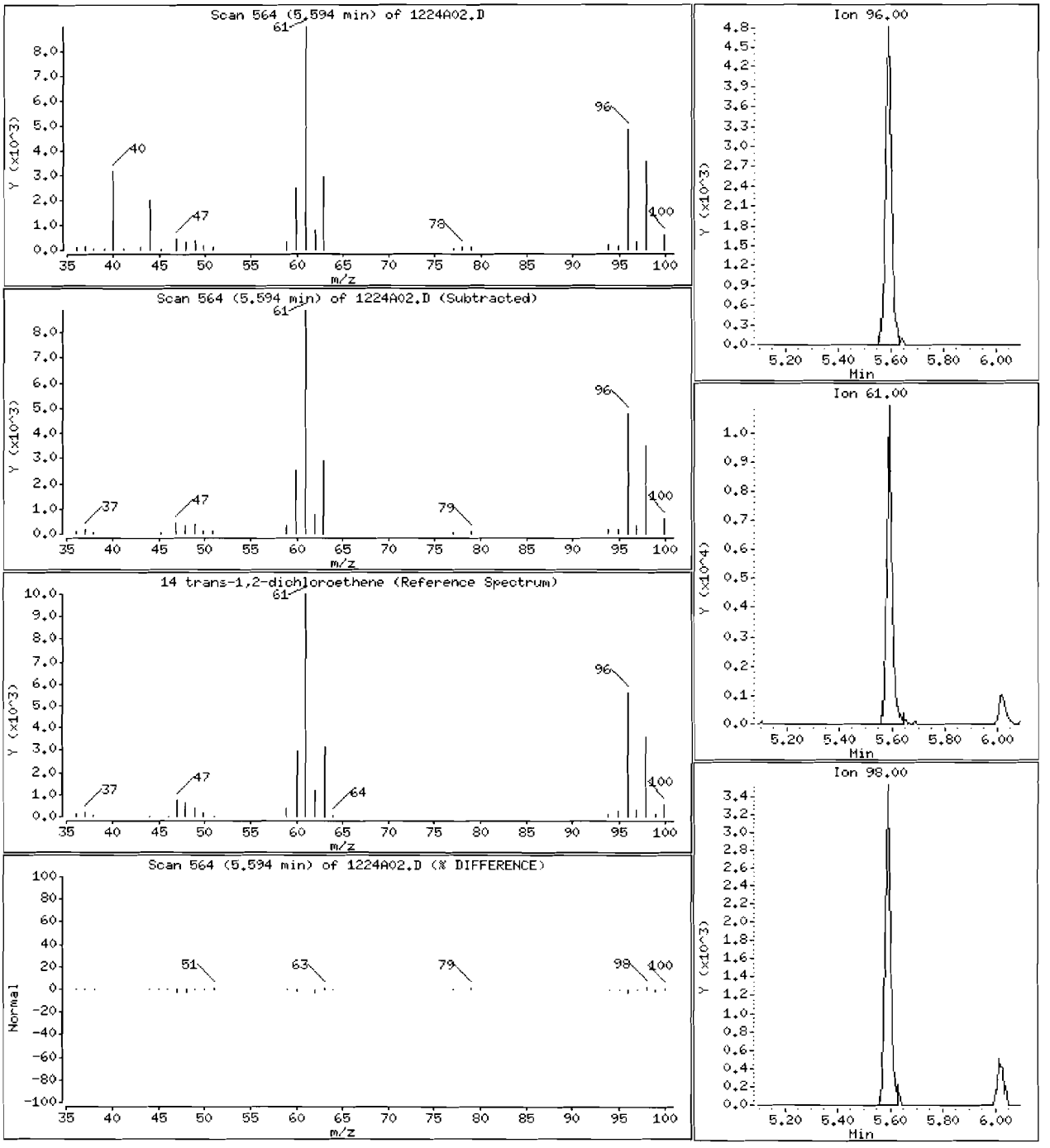
Operator: gt

Column phase:

Column diameter: 0.18

14 trans-1,2-dichloroethene

Concentration: 19.67 ngs



Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A02.D

Date : 24-DEC-2013 09:45

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-1,31,5,,

Purge Volume: 5.0

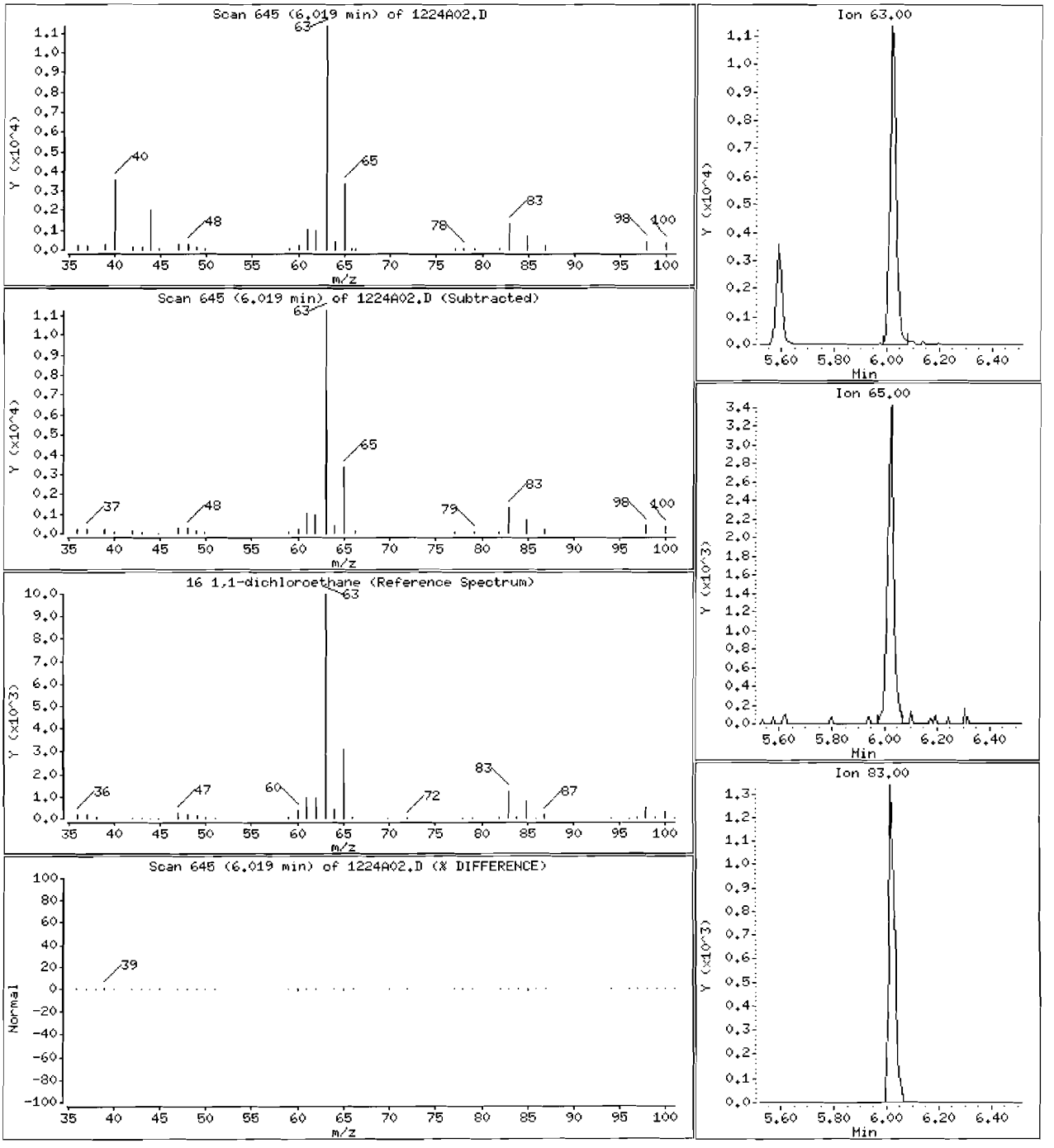
Operator: gt

Column phase:

Column diameter: 0.18

16 1,1-dichloroethane

Concentration: 21.42 ngs



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Date : 24-DEC-2013 09:45

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-1,31,5,,

Purge Volume: 5.0

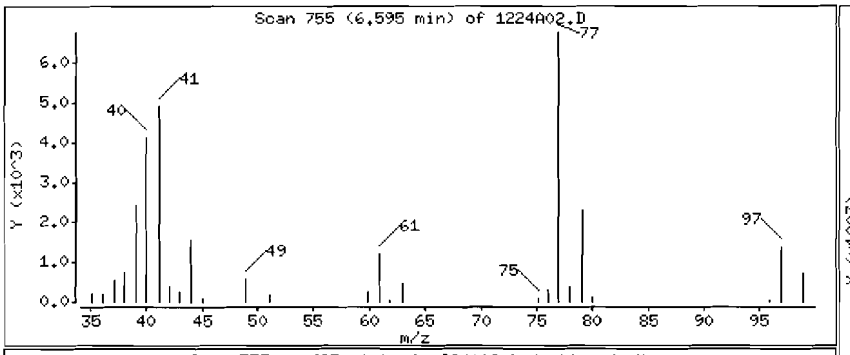
Operator: gt

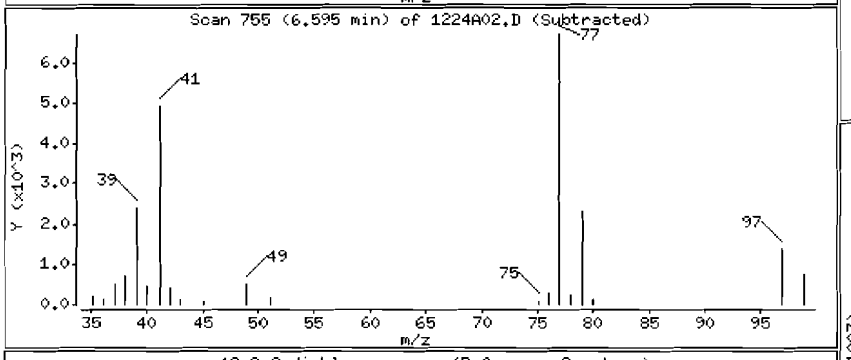
Column phase:

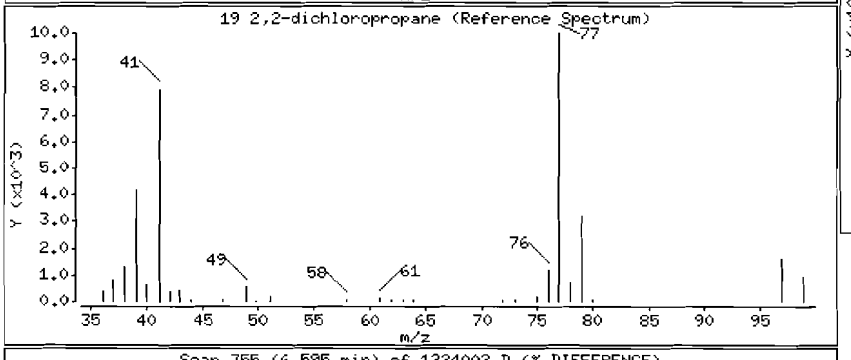
Column diameter: 0.18

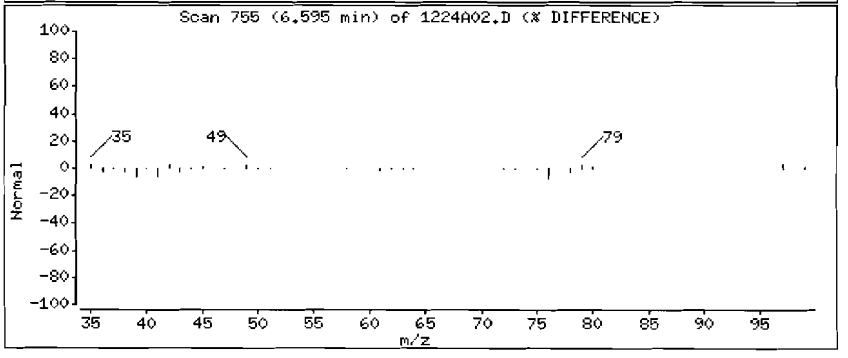
19 2,2-dichloropropane

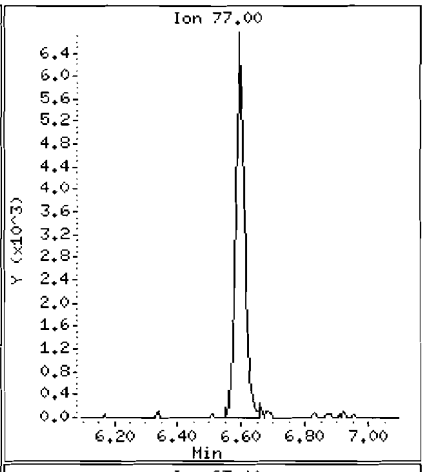
Concentration: 23.58 ngs

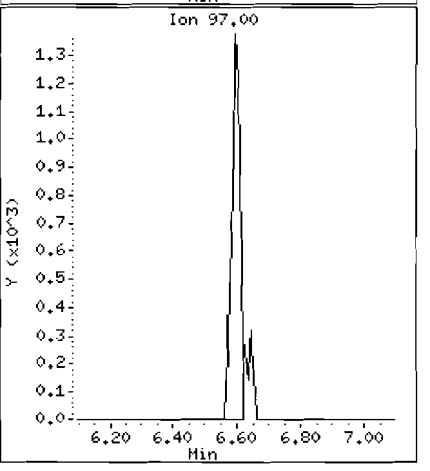












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A02.D

Date : 24-DEC-2013 09:45

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-1,31,5,,

Purge Volume: 5.0

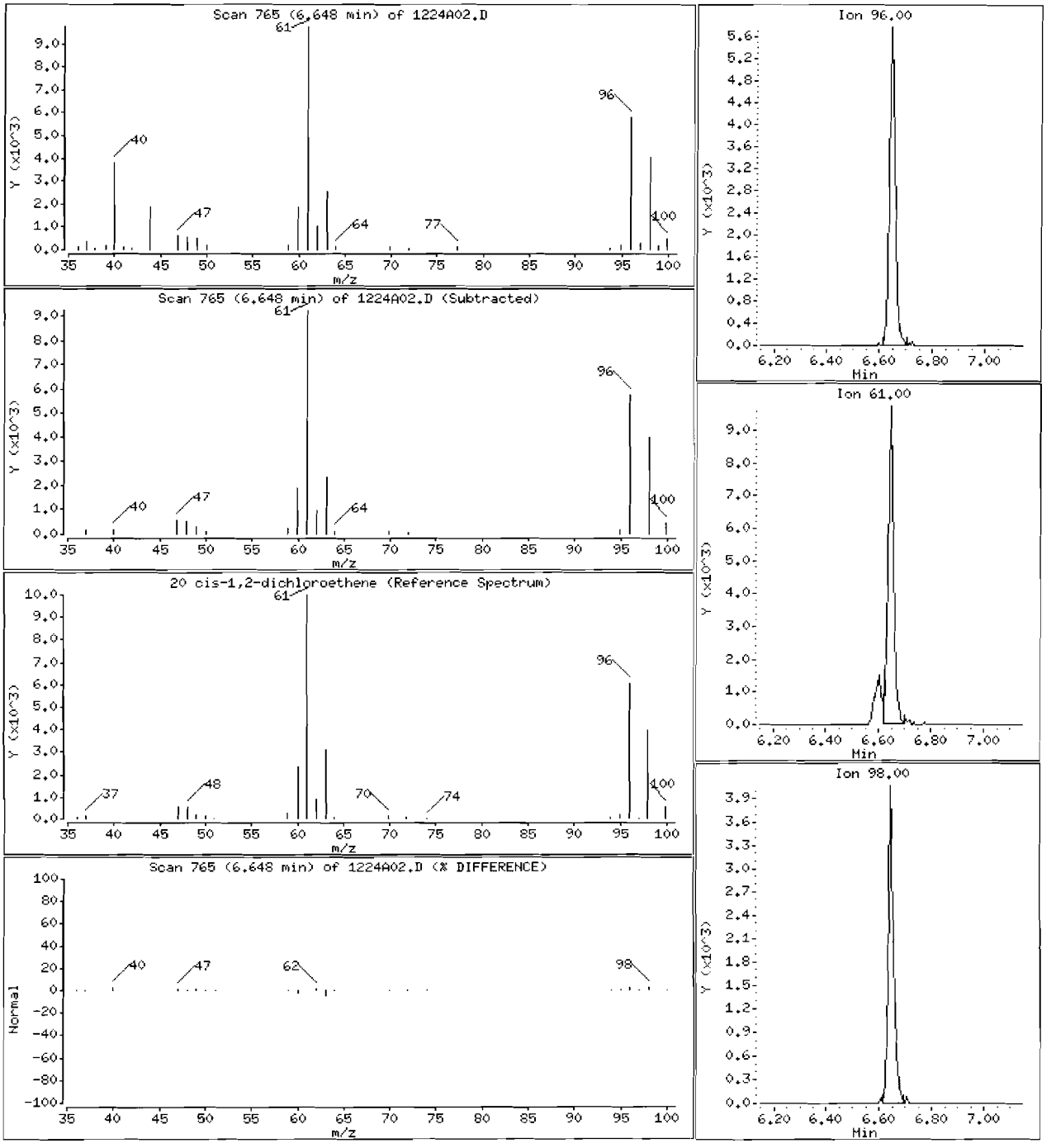
Operator: gt

Column phase:

Column diameter: 0.18

20 cis-1,2-dichloroethene

Concentration: 21.65 ngs



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Date : 24-DEC-2013 09:45

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-1,31,5,,

Purge Volume: 5.0

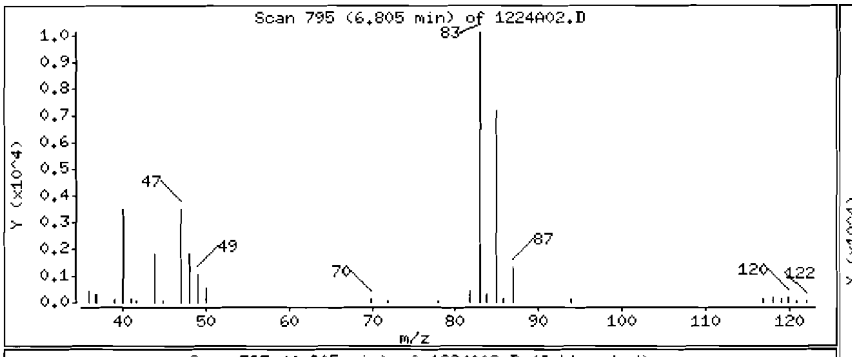
Operator: gt

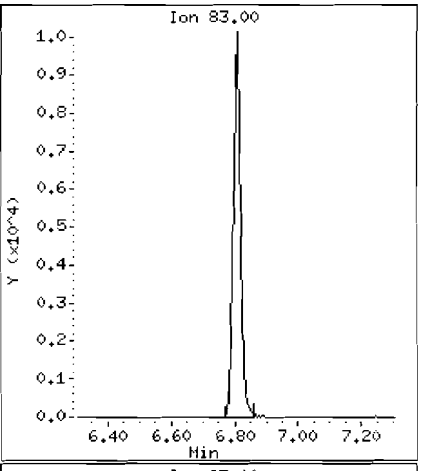
Column phase:

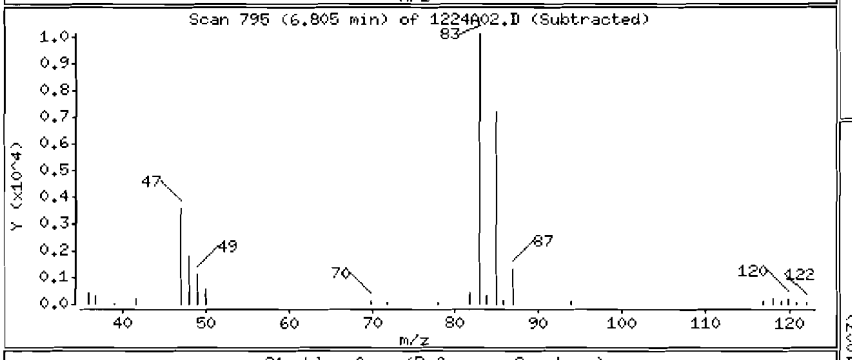
Column diameter: 0.18

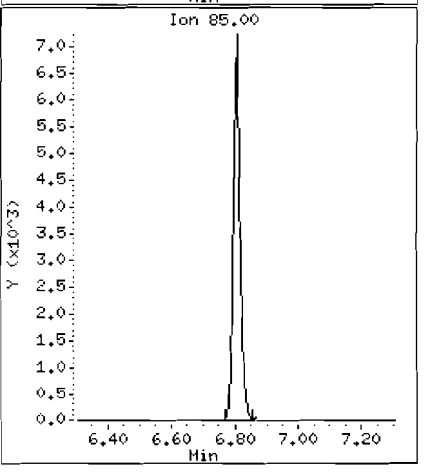
21 chloroform

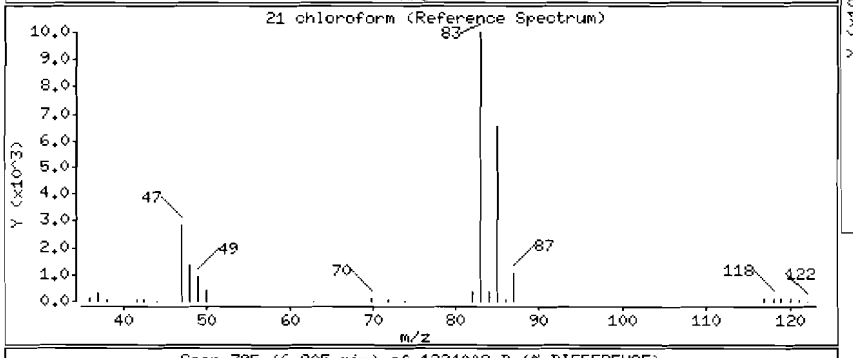
Concentration: 24.29 ngs

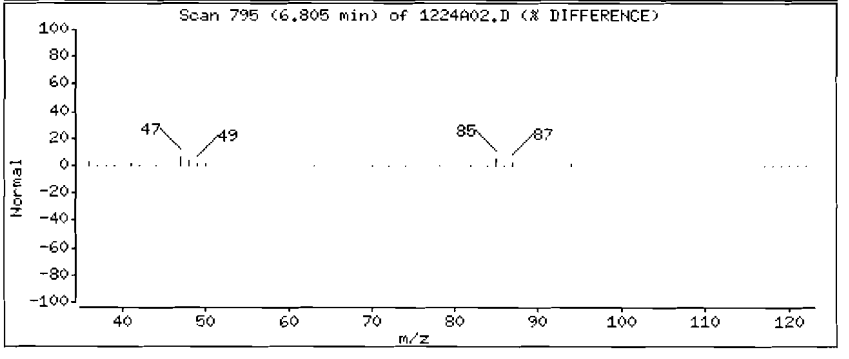












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A02.D

Date : 24-DEC-2013 09:45

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-1,31,5,,

Purge Volume: 5.0

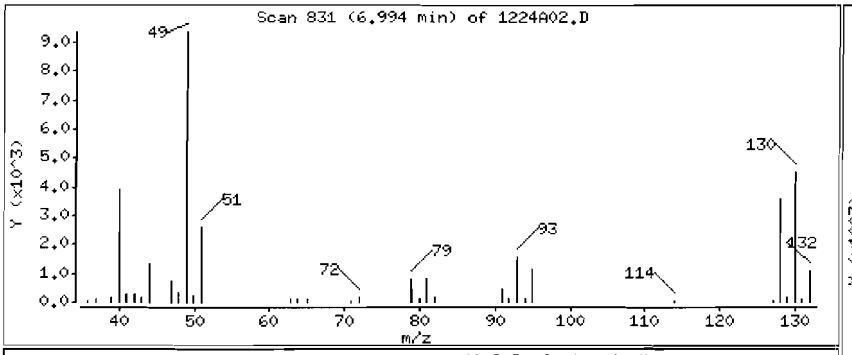
Operator: gt

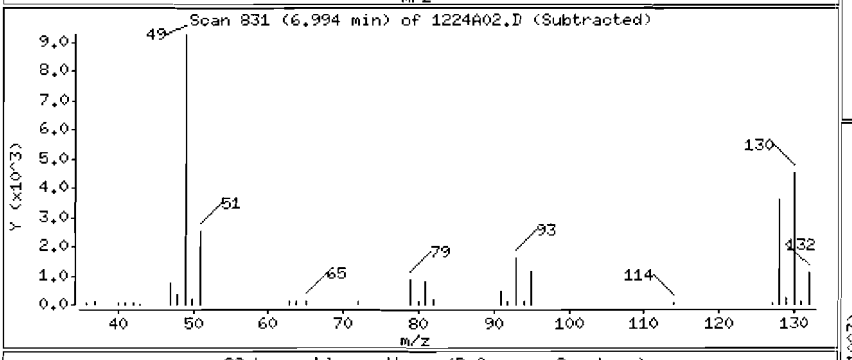
Column phase:

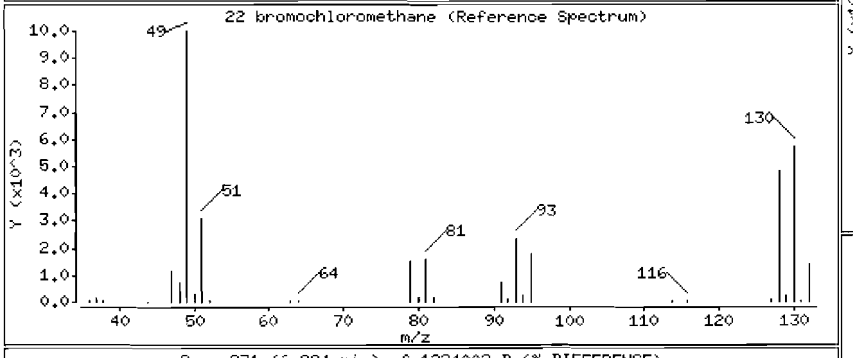
Column diameter: 0.18

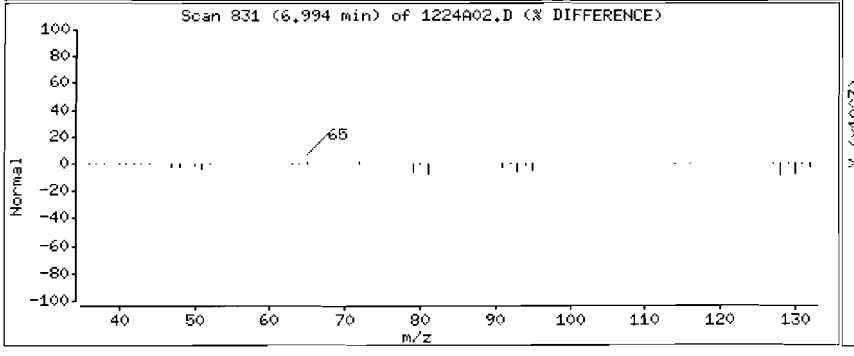
22 bromochloromethane

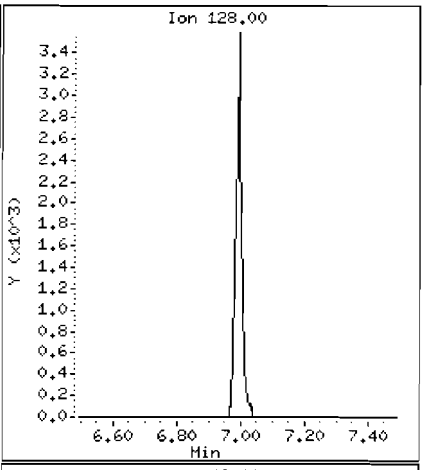
Concentration: 21.62 ngs

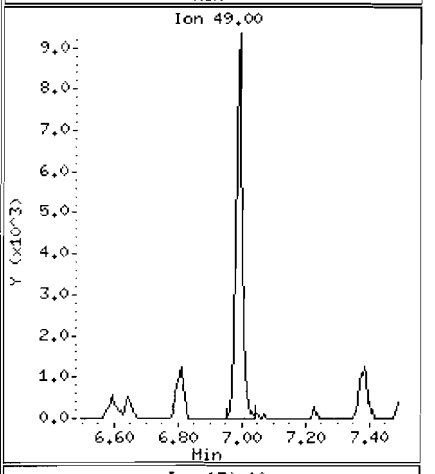


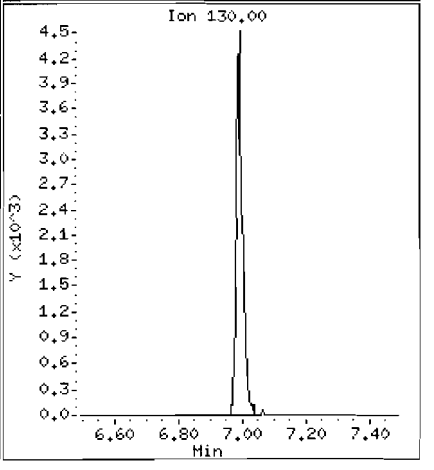












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A02.D

Date : 24-DEC-2013 09:45

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-1,31,5,,

Purge Volume: 5.0

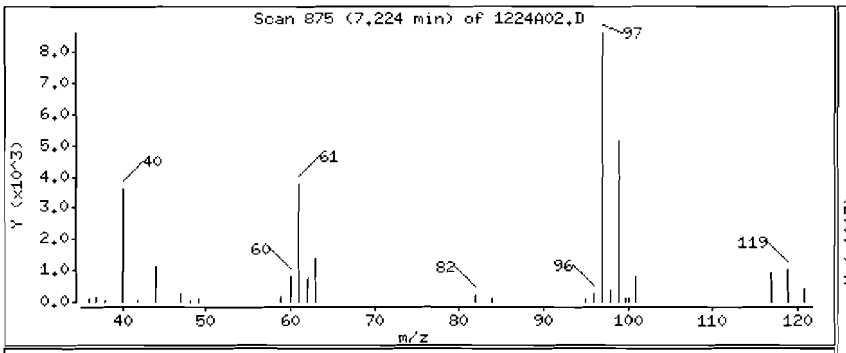
Operator: gt

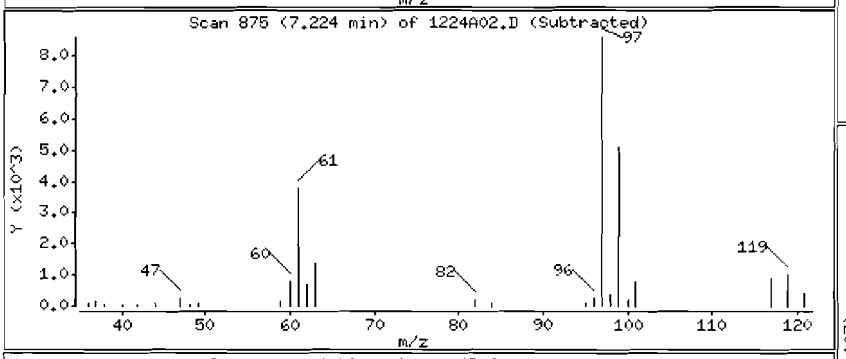
Column phase:

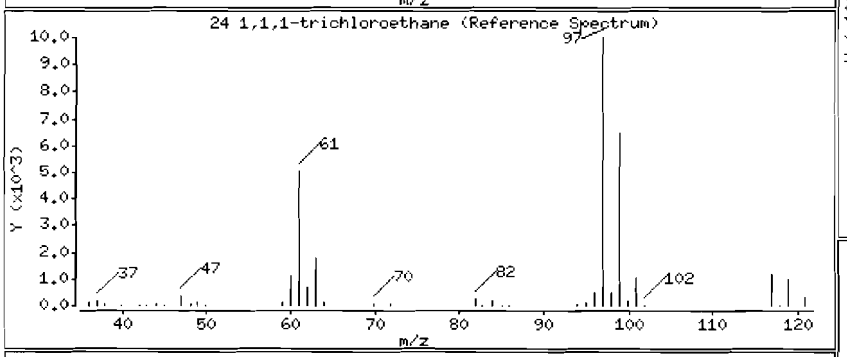
Column diameter: 0.18

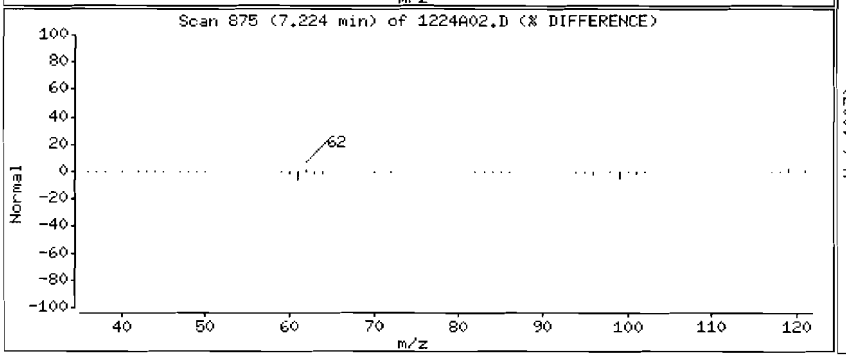
24 1,1,1-trichloroethane

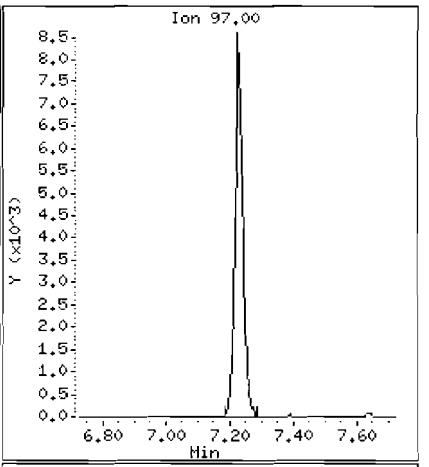
Concentration: 23.53 ngs

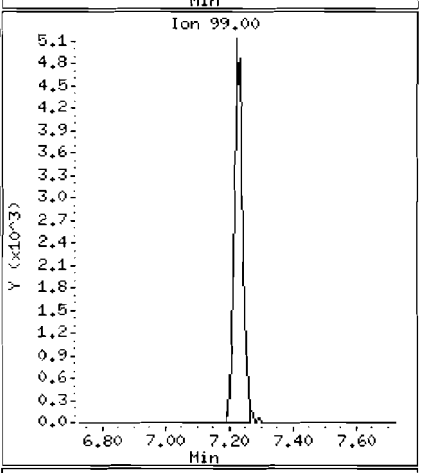


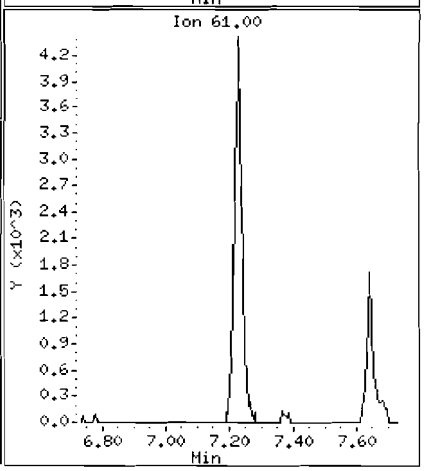












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A02.D

Date : 24-DEC-2013 09:45

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-1,31,5,,

Purge Volume: 5.0

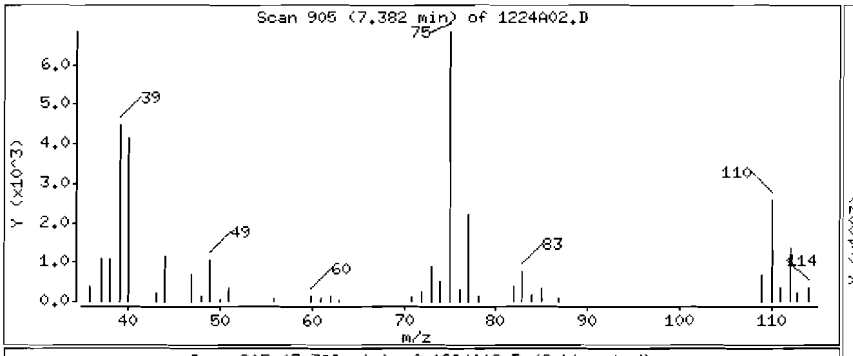
Operator: gt

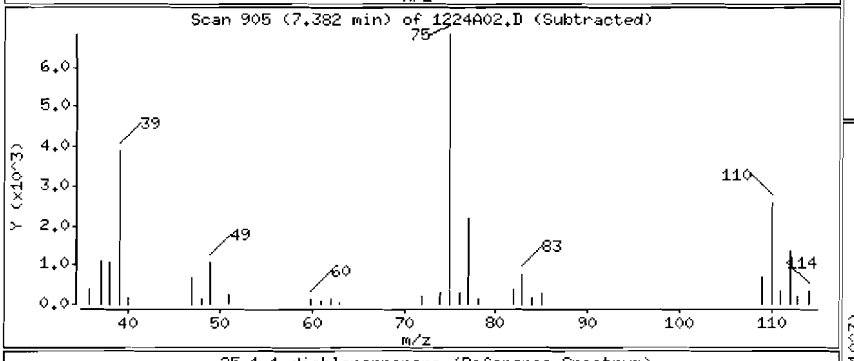
Column phase:

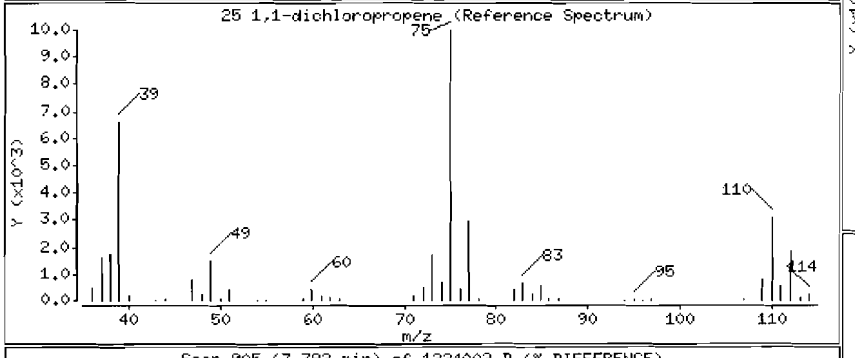
Column diameter: 0.18

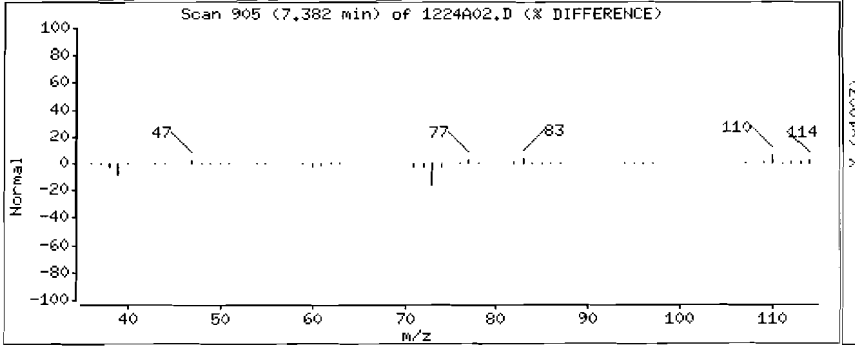
25 1,1-dichloropropene

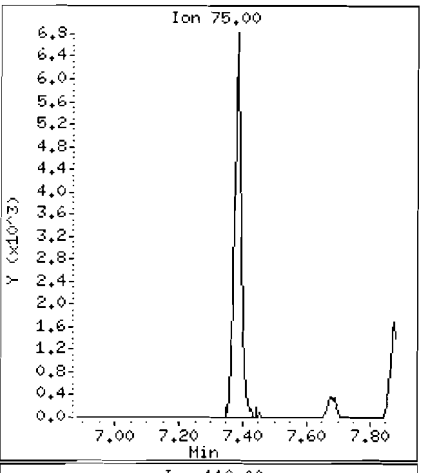
Concentration: 20.41 ngs

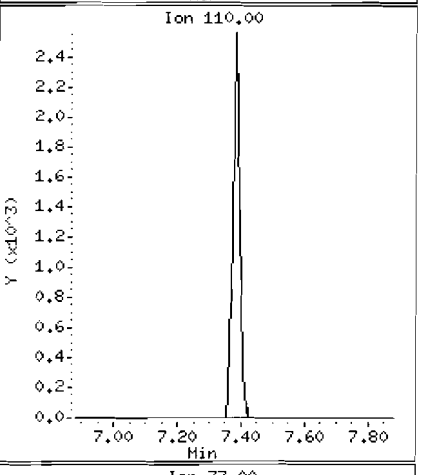


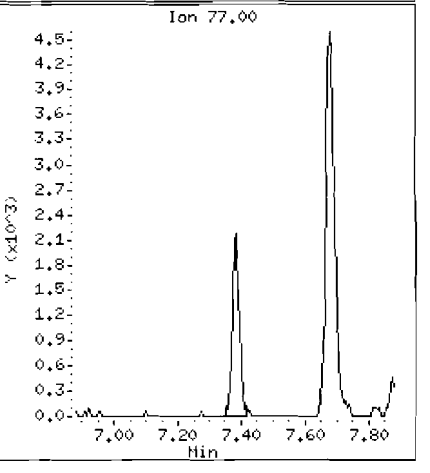












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A02.D

Date : 24-DEC-2013 09:45

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-1,31,5,,

Purge Volume: 5.0

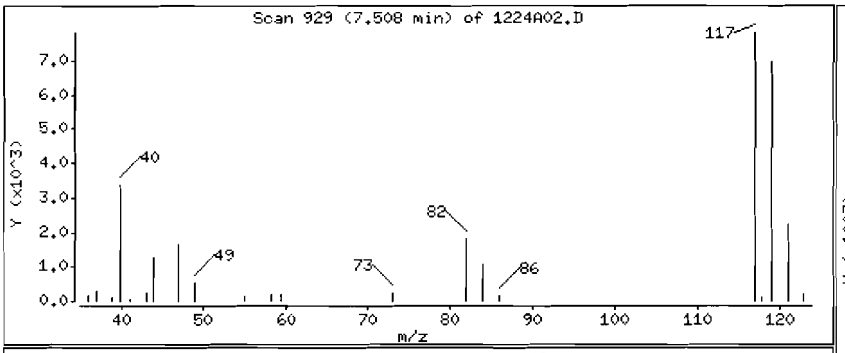
Operator: gt

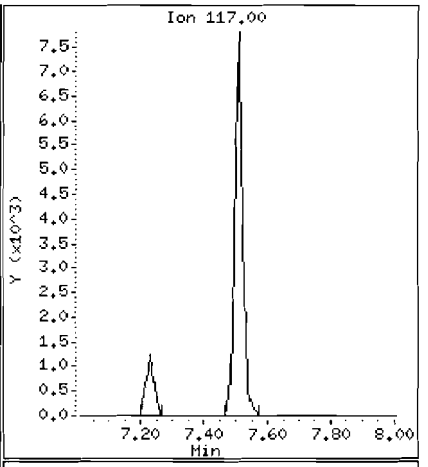
Column phase:

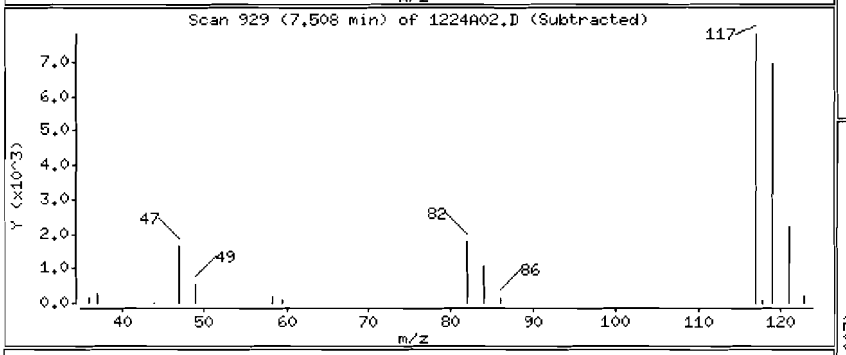
Column diameter: 0.18

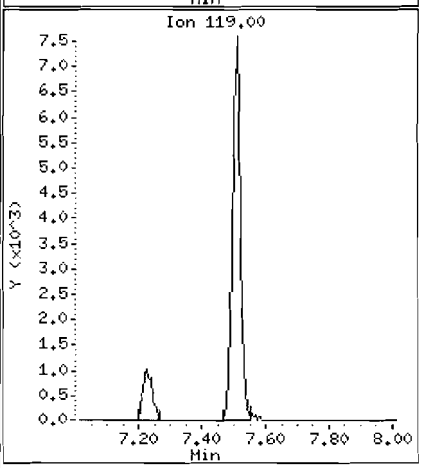
27 carbon tetrachloride

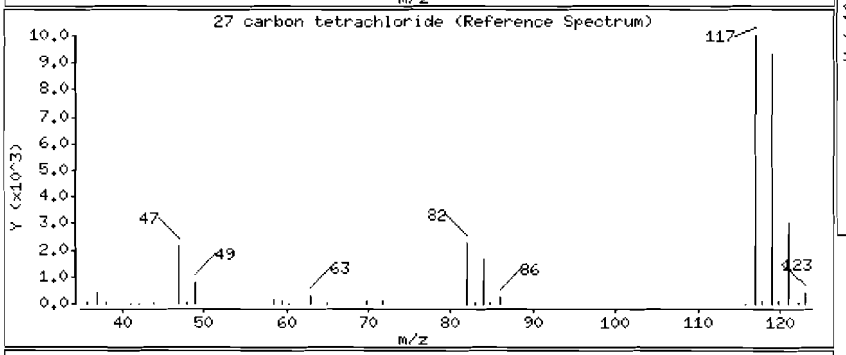
Concentration: 24.69 ngs

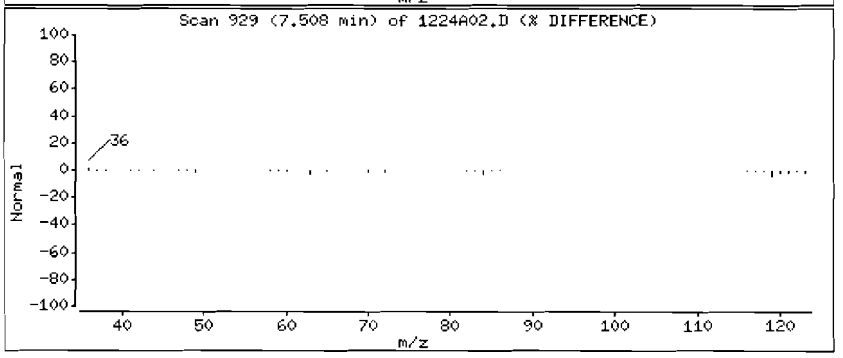












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A02.D

Date : 24-DEC-2013 09:45

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-1,31,5,,

Purge Volume: 5.0

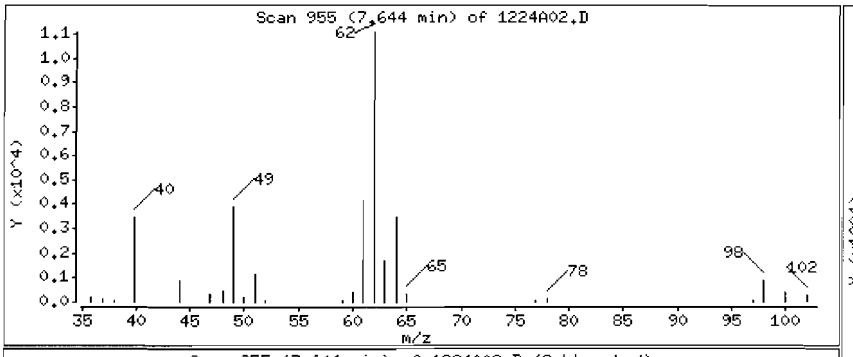
Operator: gt

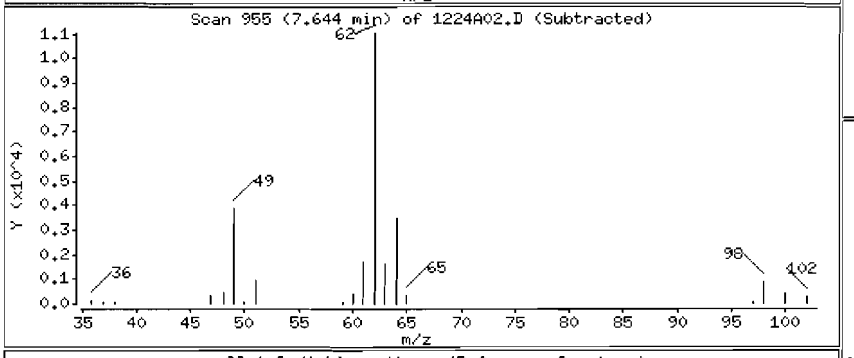
Column phase:

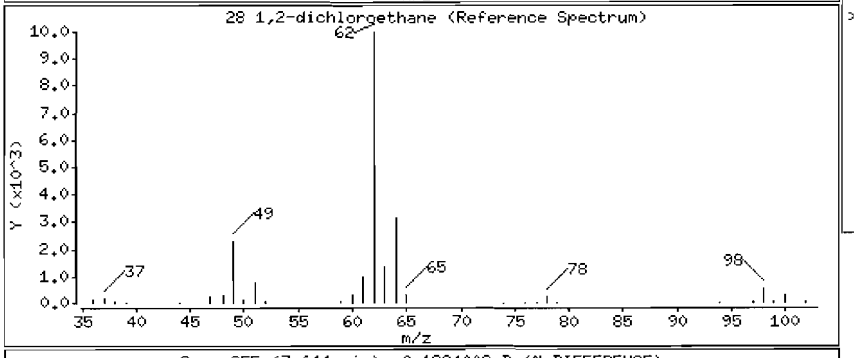
Column diameter: 0.18

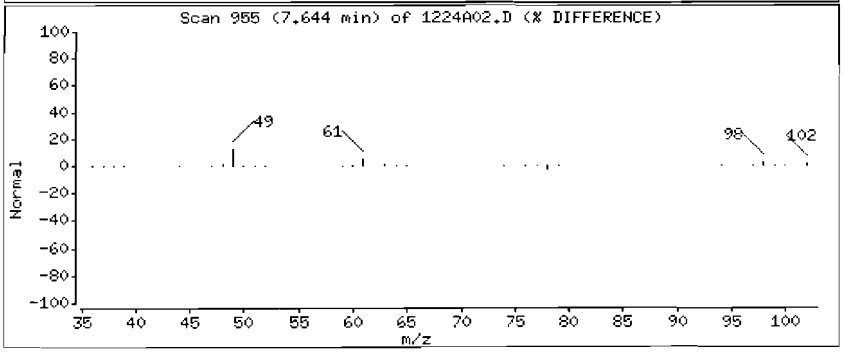
28 1,2-dichloroethane

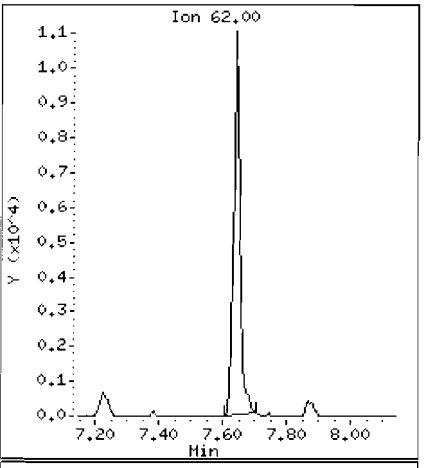
Concentration: 25.56 ngs

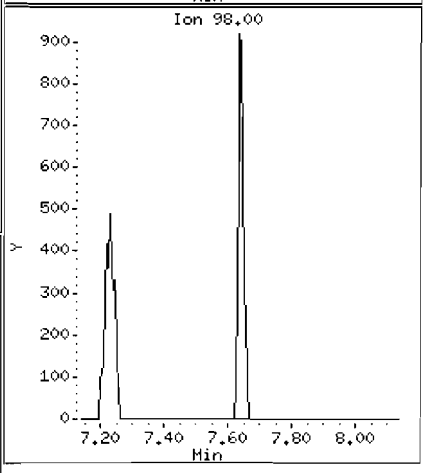












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A02.D

Date : 24-DEC-2013 09:45

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-1,31,5,,

Purge Volume: 5.0

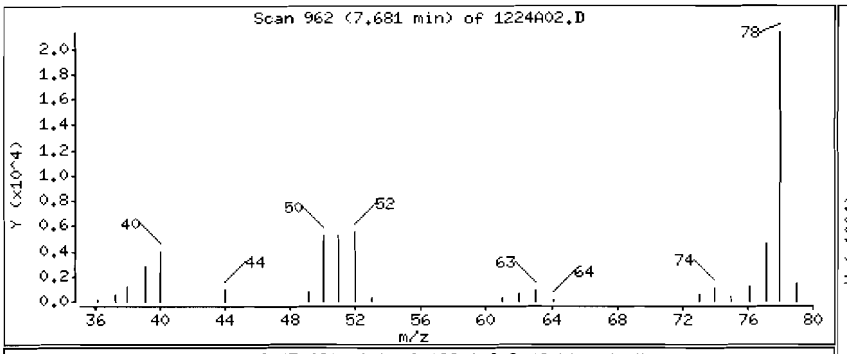
Operator: gt

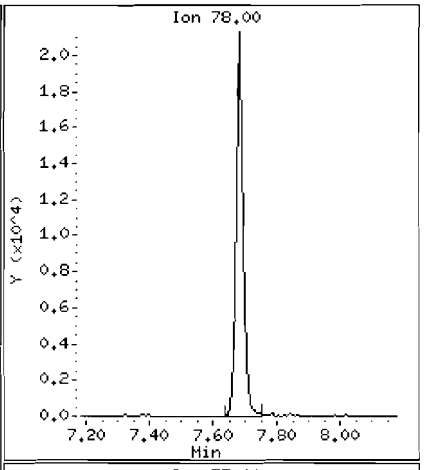
Column phase:

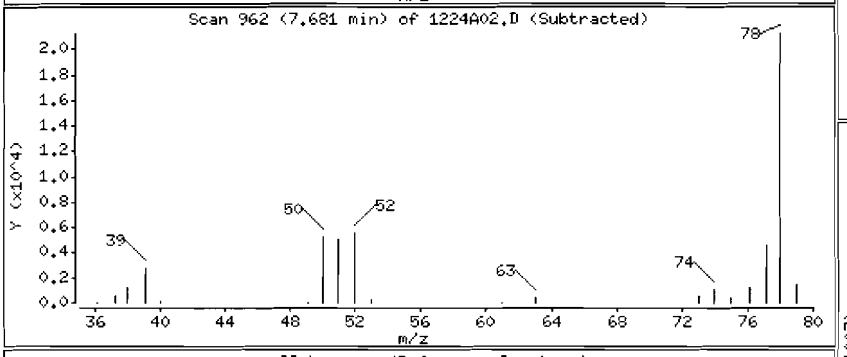
Column diameter: 0.18

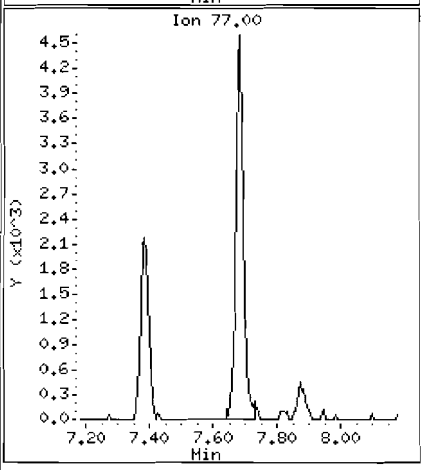
29 benzene

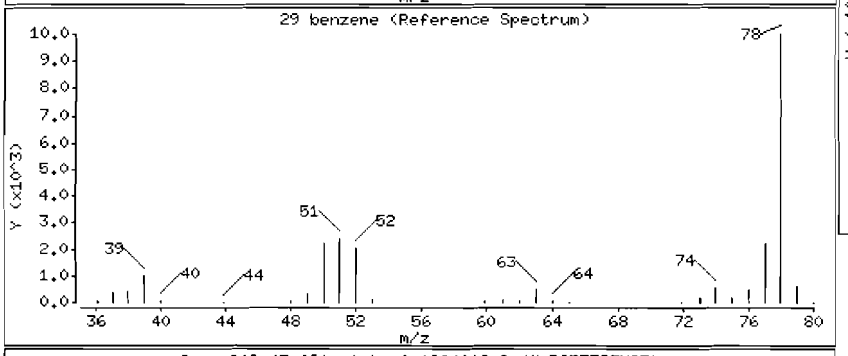
Concentration: 21.15 ngs

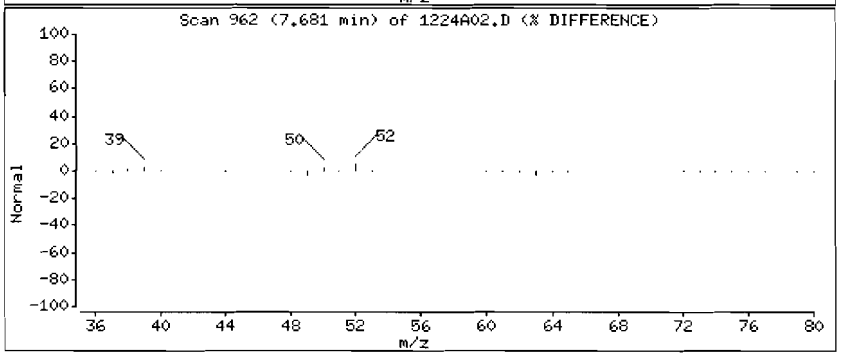












Data File: \\orgserv2\ff\chem\GCHSVOA\Bundy.i\131224.b\1224A02.D

Date : 24-DEC-2013 09:45

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-1,31,5,,

Purge Volume: 5.0

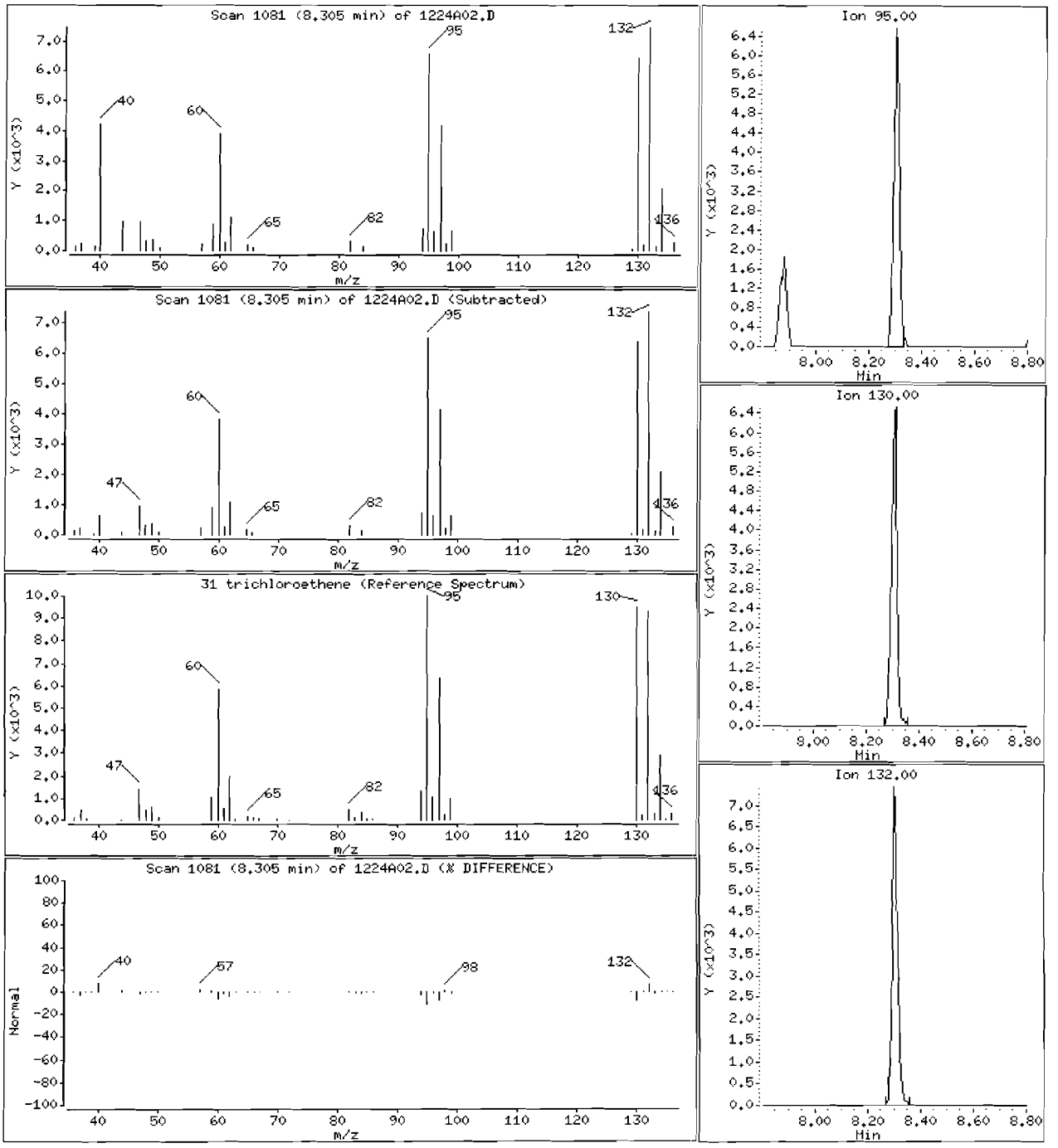
Operator: gt

Column phase:

Column diameter: 0.18

31 trichloroethene

Concentration: 23.46 ngs



Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A02.D

Date : 24-DEC-2013 09:45

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-1,31,5,,

Purge Volume: 5.0

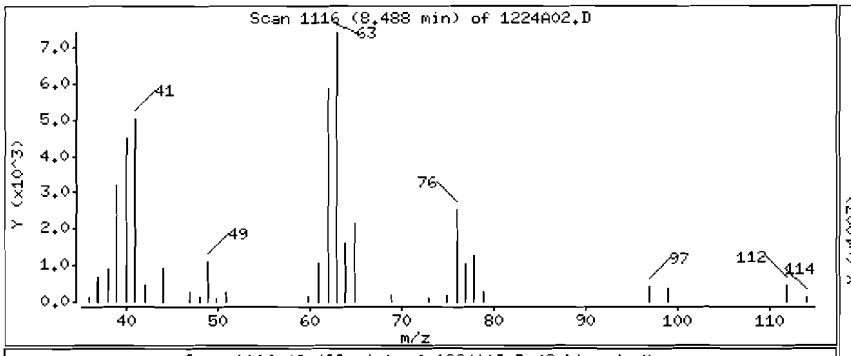
Operator: gt

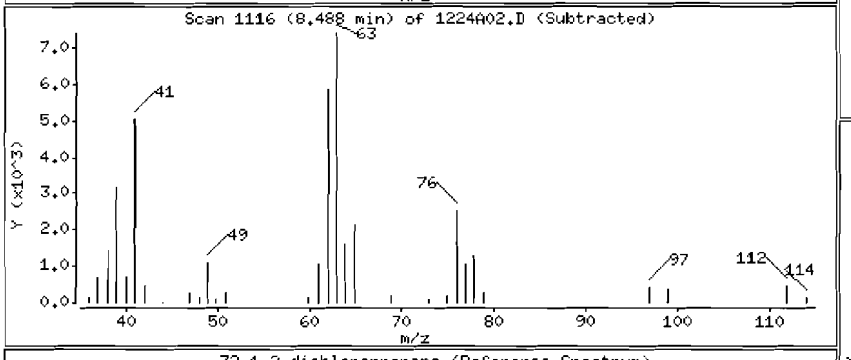
Column phase:

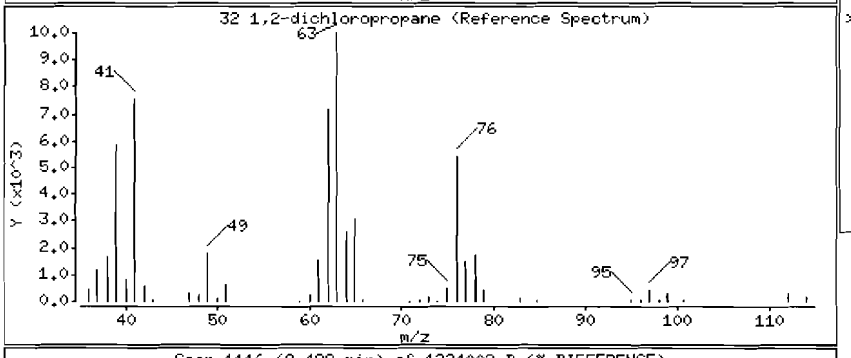
Column diameter: 0.18

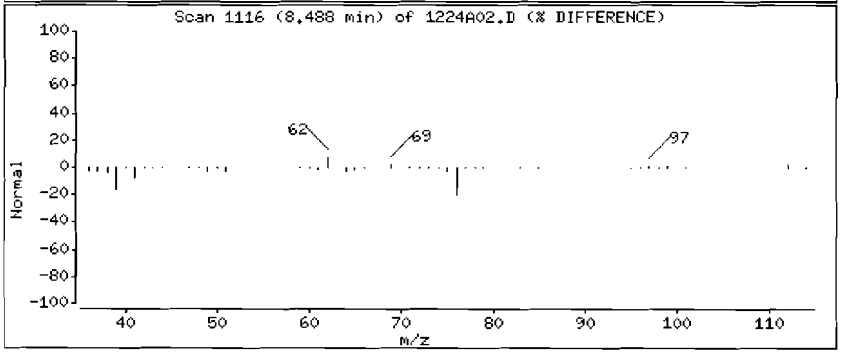
32 1,2-dichloropropane

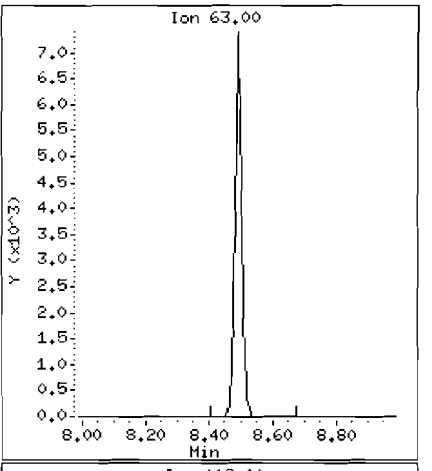
Concentration: 21.79 ngs

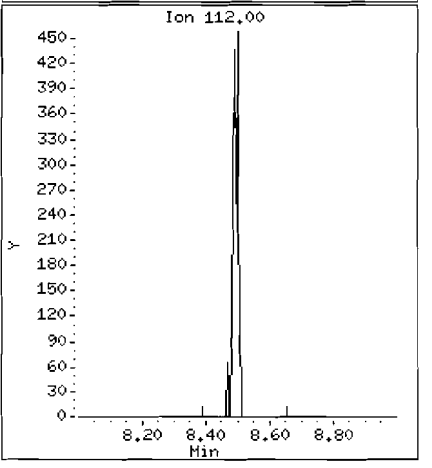












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A02.D

Date : 24-DEC-2013 09:45

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-1,31,5,,

Purge Volume: 5.0

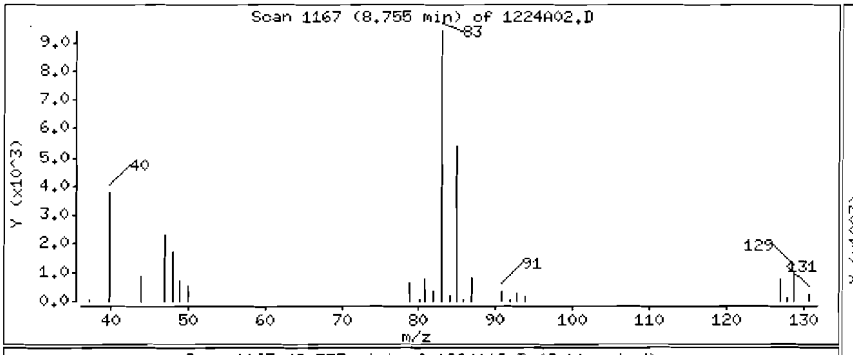
Operator: gt

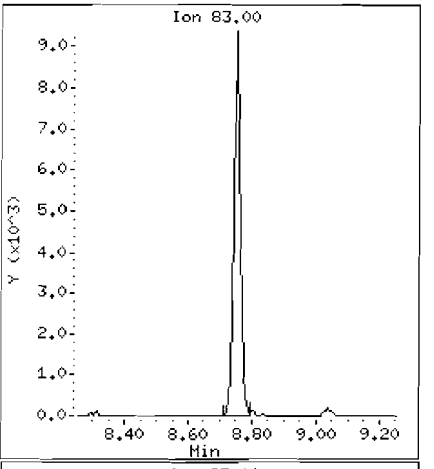
Column phase:

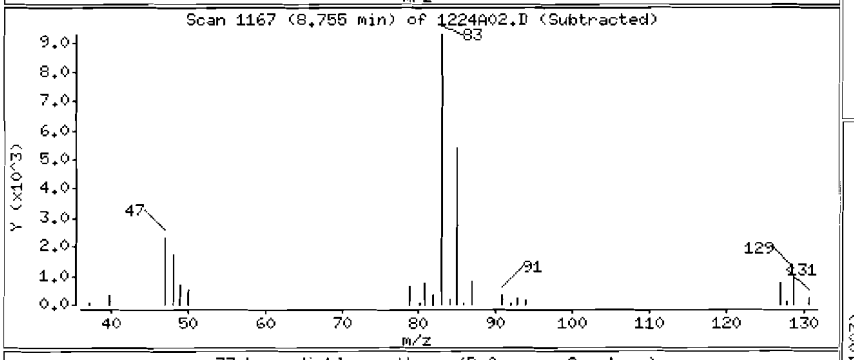
Column diameter: 0.18

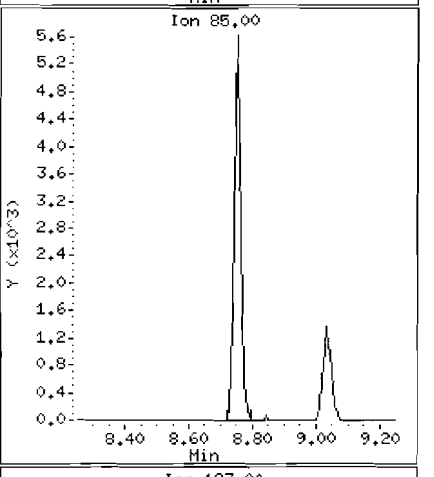
33 bromodichloromethane

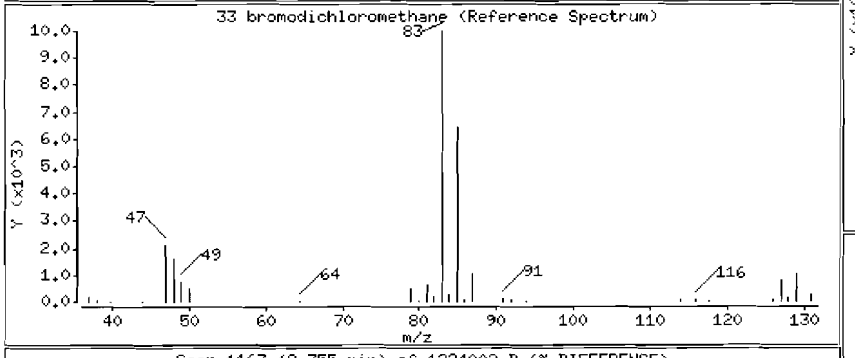
Concentration: 25.11 ngs

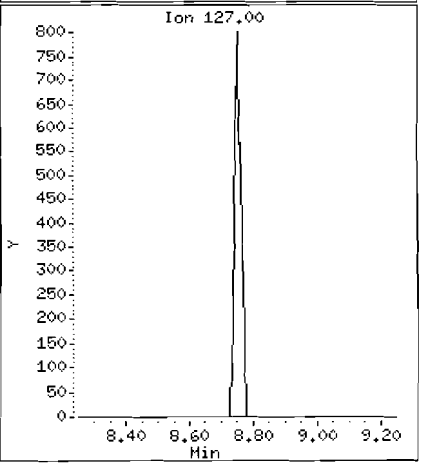


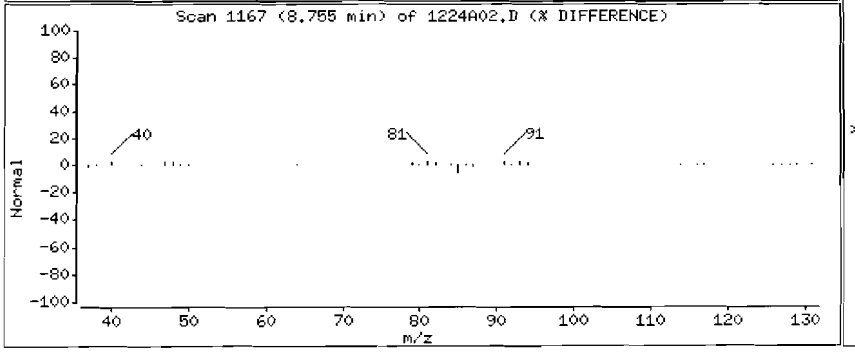












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A02.D

Date : 24-DEC-2013 09:45

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-1,31,5,,

Purge Volume: 5.0

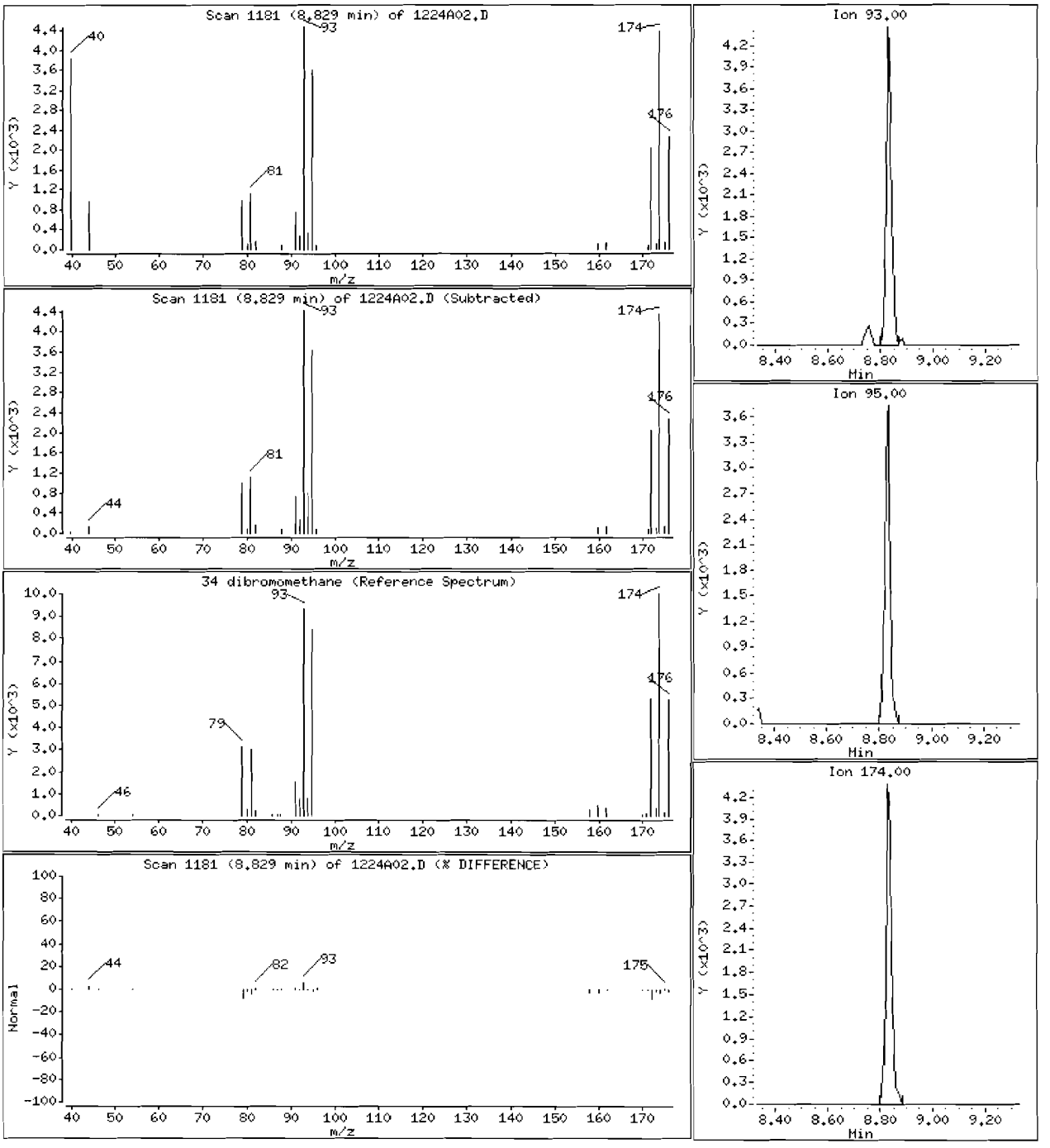
Operator: gt

Column phase:

Column diameter: 0.18

34 dibromomethane

Concentration: 23.59 ngs



Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A02.D

Date : 24-DEC-2013 09:45

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-1,31,5,,

Purge Volume: 5.0

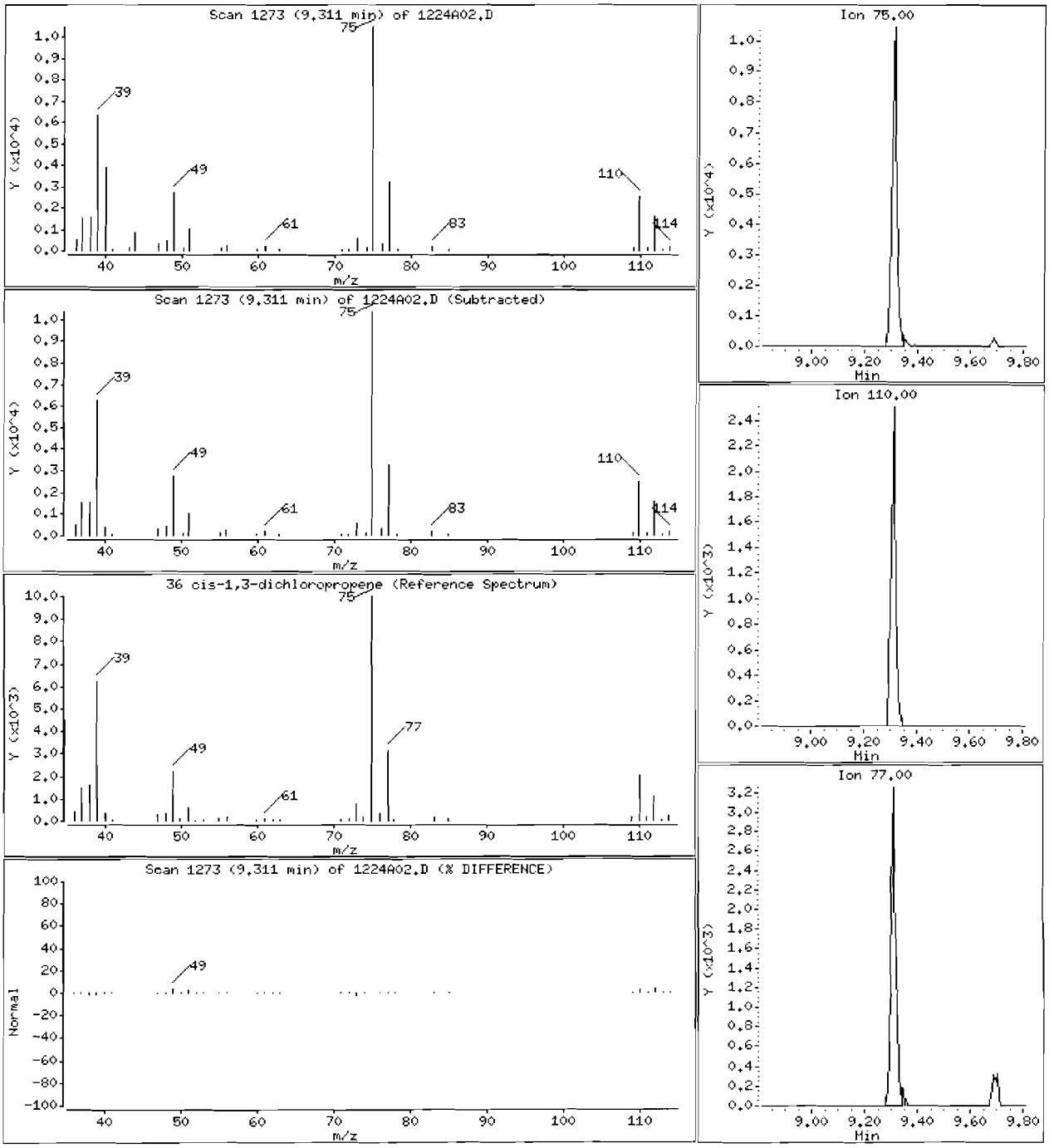
Operator: gt

Column phase:

Column diameter: 0.18

36 cis-1,3-dichloropropene

Concentration: 20.78 ngs



Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A02.D

Date : 24-DEC-2013 09:45

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-1,31,5,,

Purge Volume: 5.0

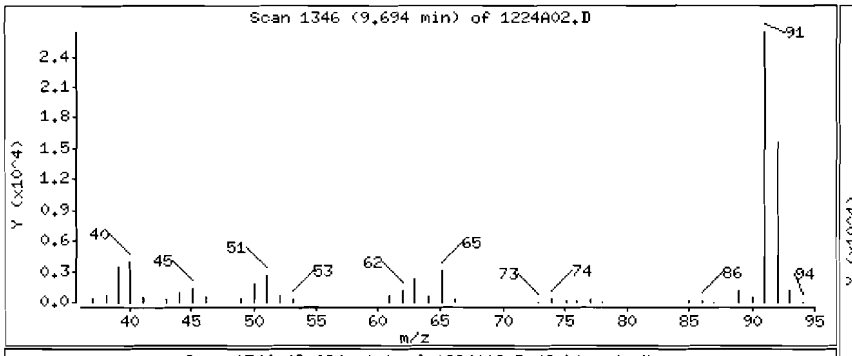
Operator: gt

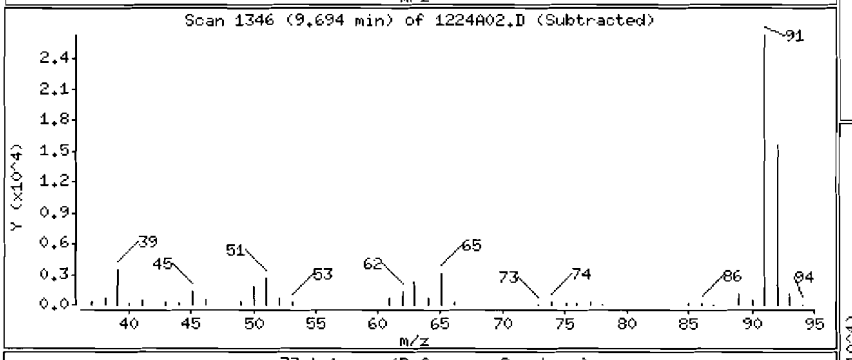
Column phase:

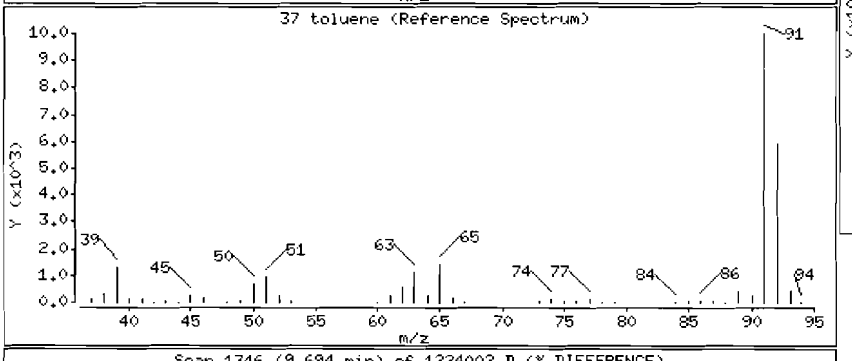
Column diameter: 0.18

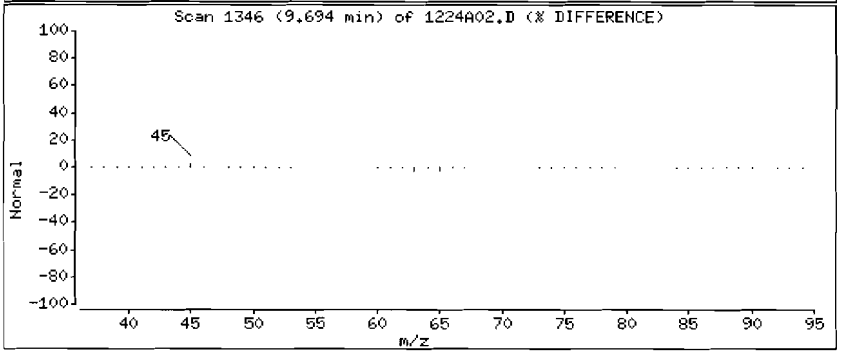
37 toluene

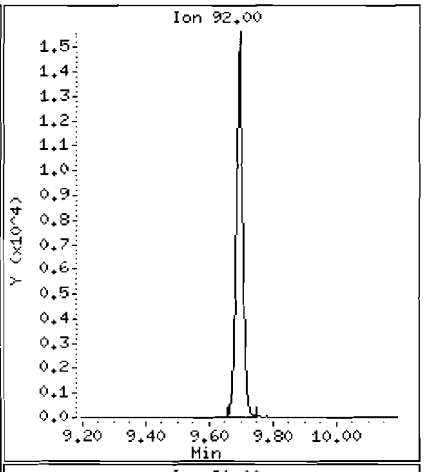
Concentration: 21.63 ngs

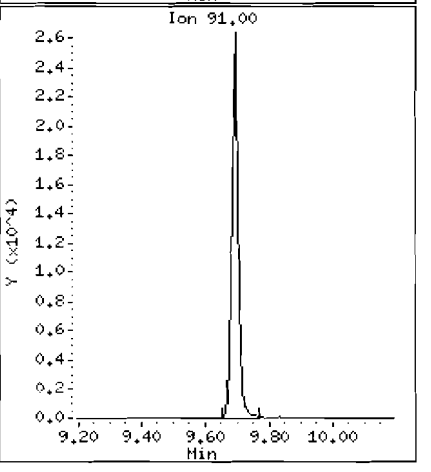












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A02.D

Date : 24-DEC-2013 09:45

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-1,31,5,,

Purge Volume: 5.0

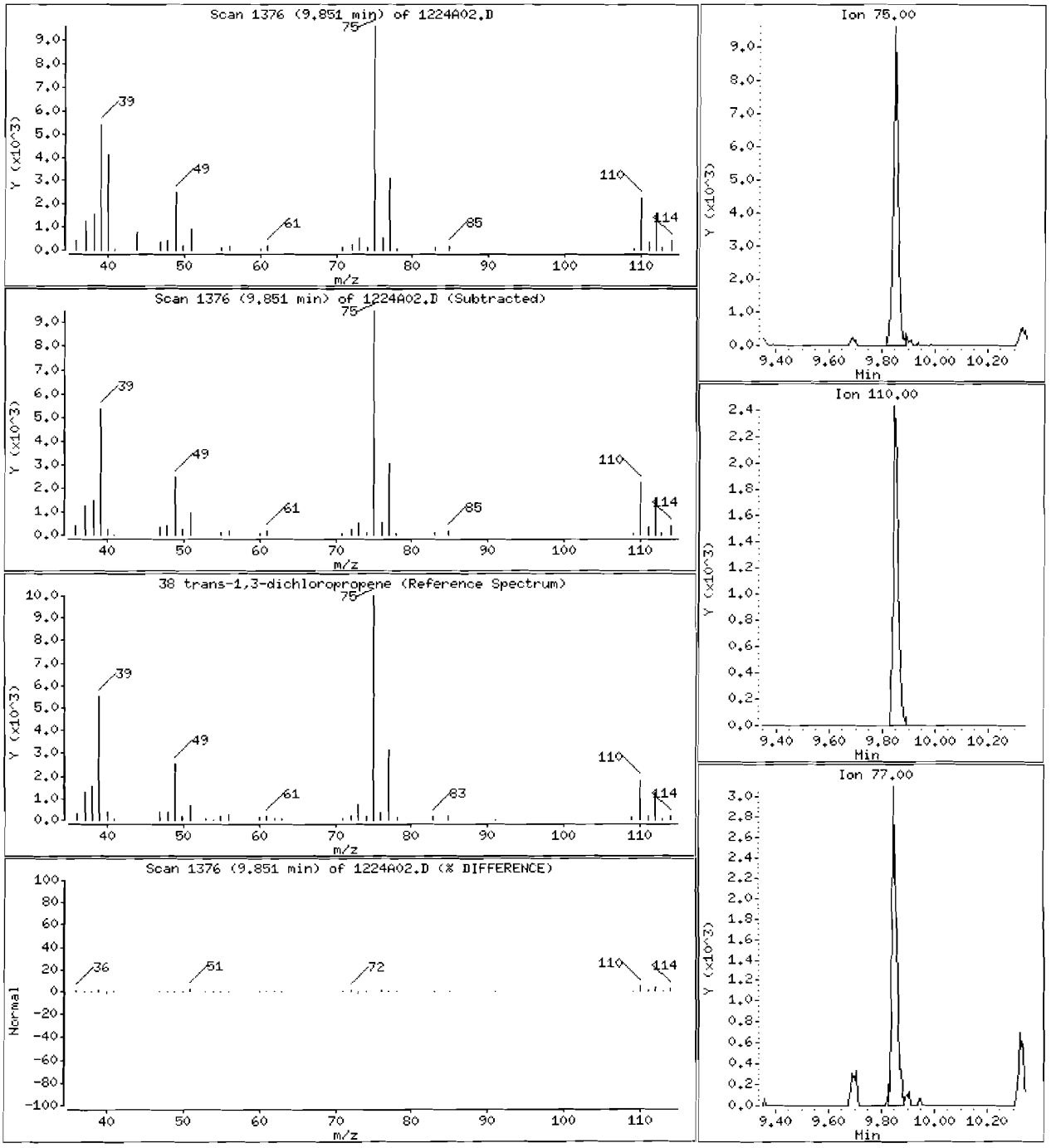
Operator: gt

Column phase:

Column diameter: 0.18

38 trans-1,3-dichloropropene

Concentration: 20.63 ngs



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Date : 24-DEC-2013 09:45

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-1,31,5,,

Purge Volume: 5.0

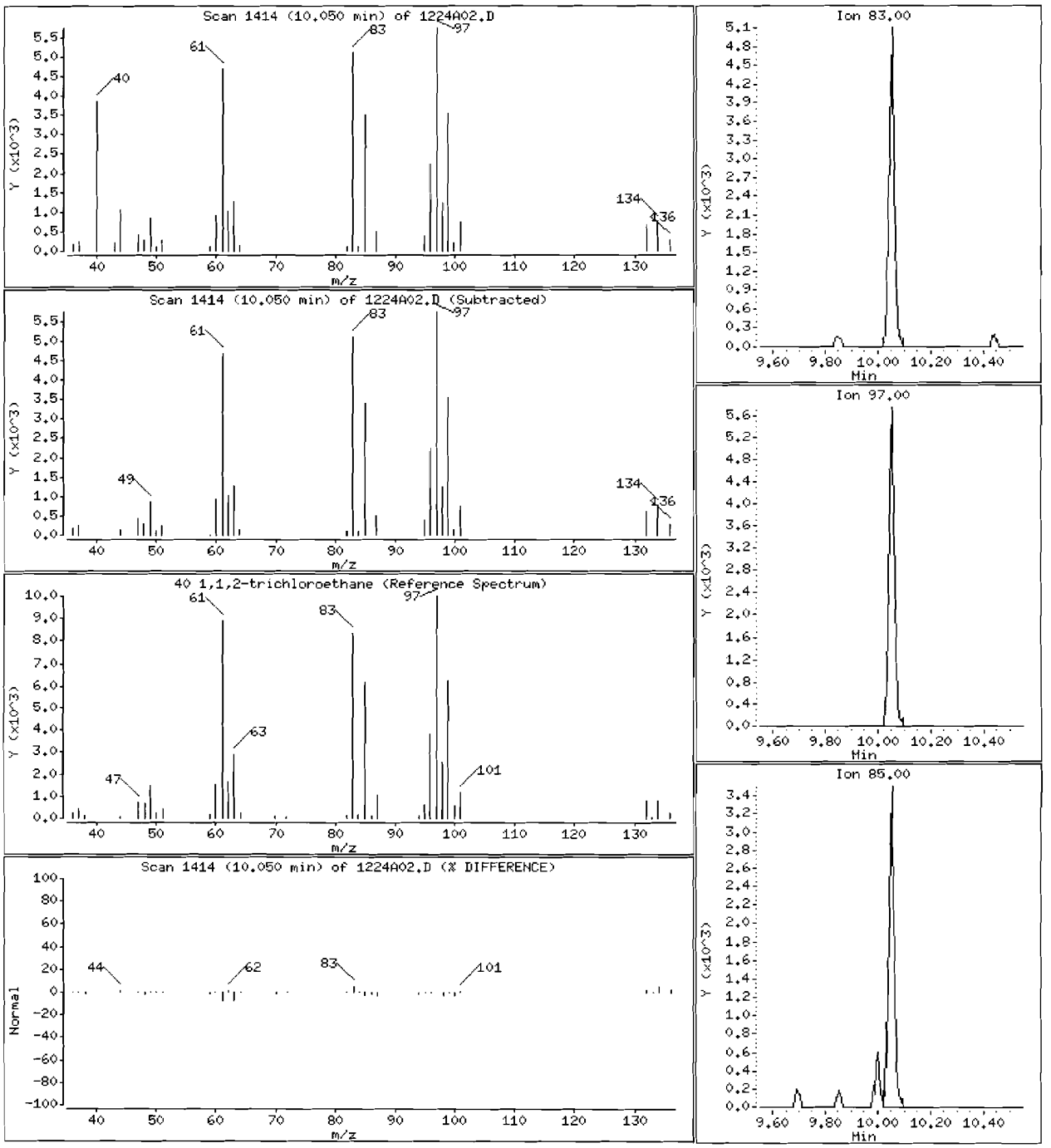
Operator: gt

Column phase:

Column diameter: 0.18

40 1,1,2-trichloroethane

Concentration: 23.20 ngs



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Date : 24-DEC-2013 09:45

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-1,31,5,,

Purge Volume: 5.0

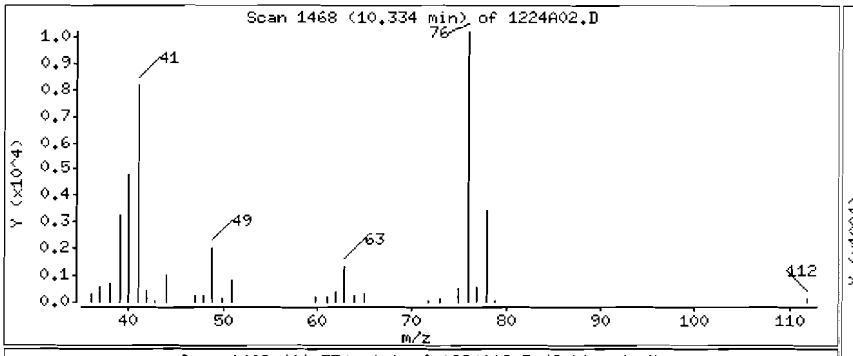
Operator: gt

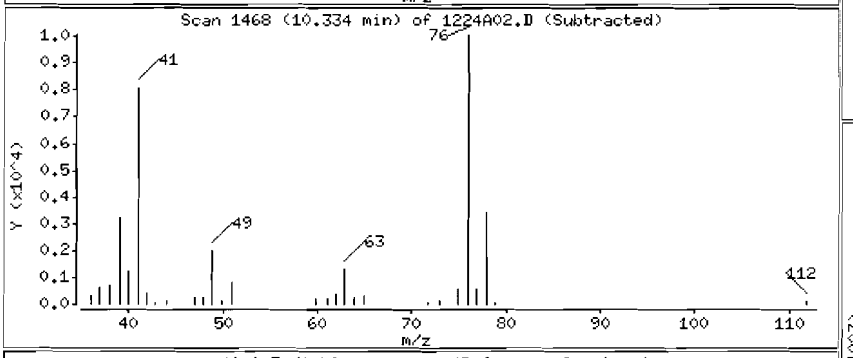
Column phase:

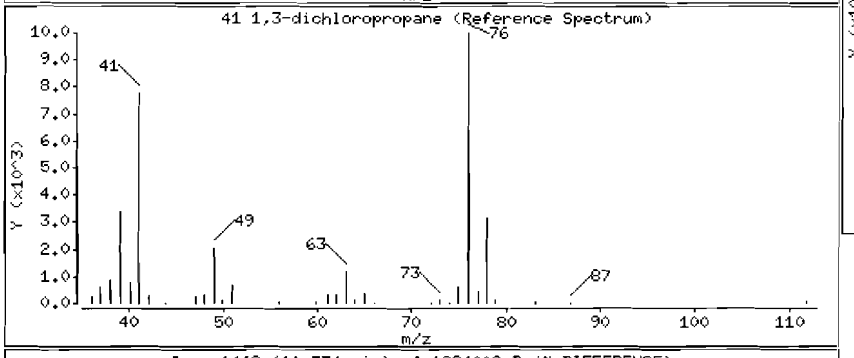
Column diameter: 0.18

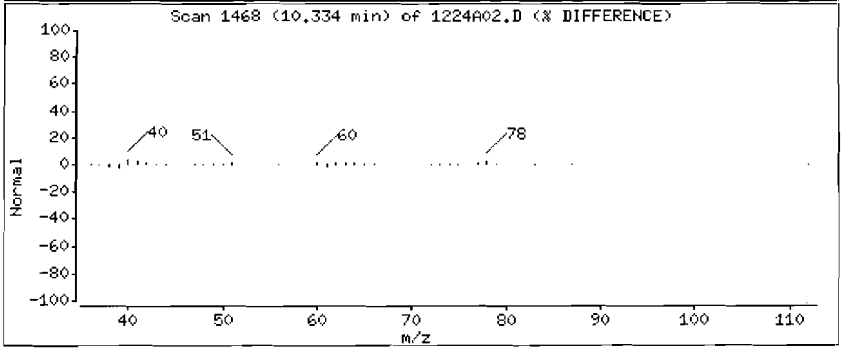
41 1,3-dichloropropane

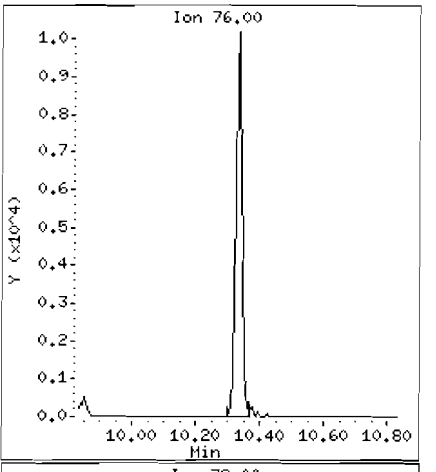
Concentration: 22.36 ngs

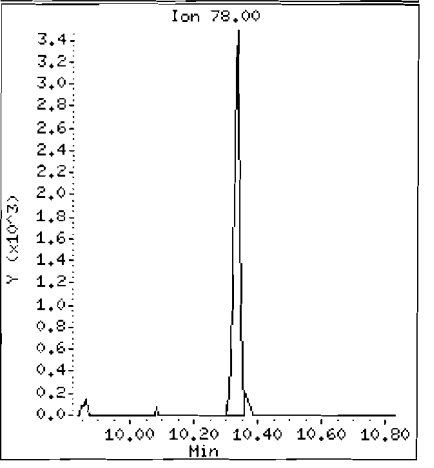












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A02.D

Date : 24-DEC-2013 09:45

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-1,31,5,,

Purge Volume: 5.0

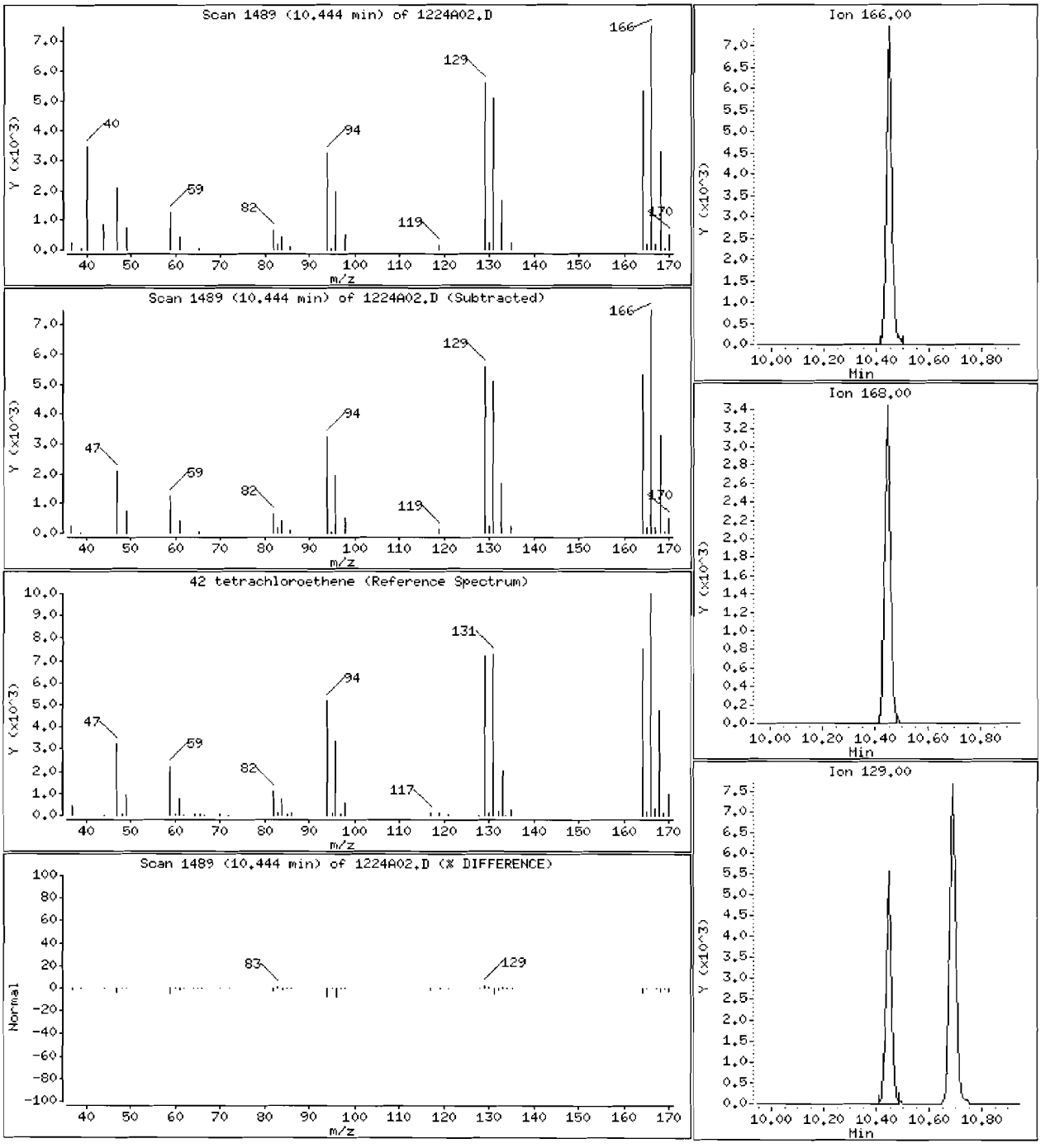
Operator: gt

Column phase:

Column diameter: 0.18

42 tetrachloroethene

Concentration: 24.55 ngs



Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A02.D

Date : 24-DEC-2013 09:45

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-1,31,5,,

Purge Volume: 5.0

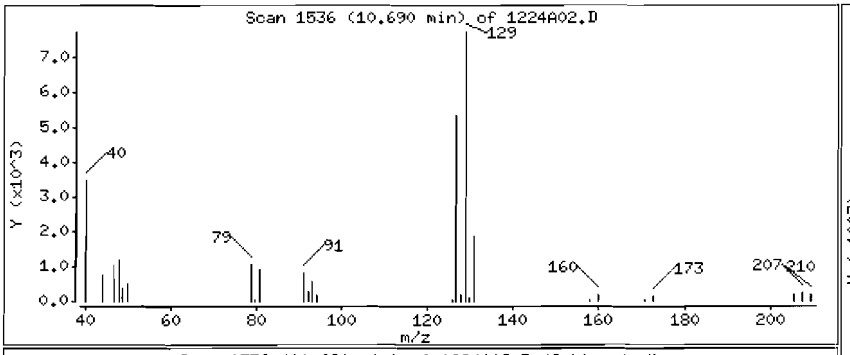
Operator: gt

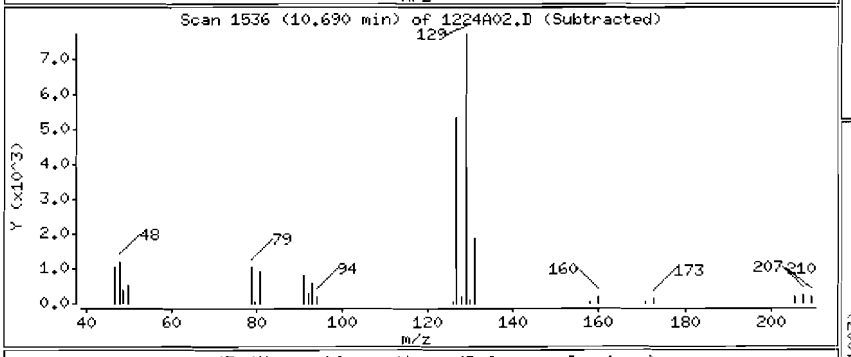
Column phase:

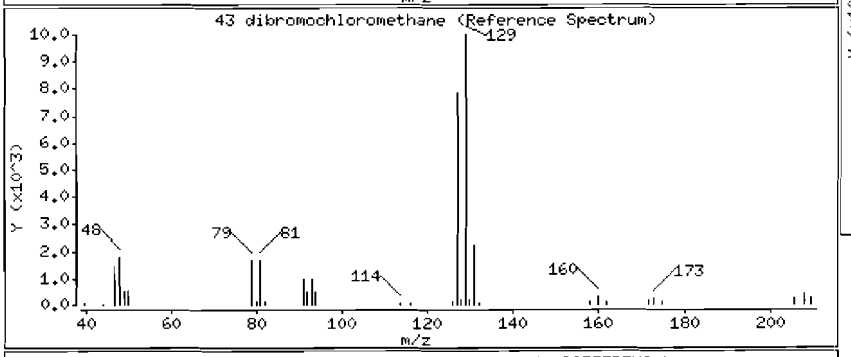
Column diameter: 0.18

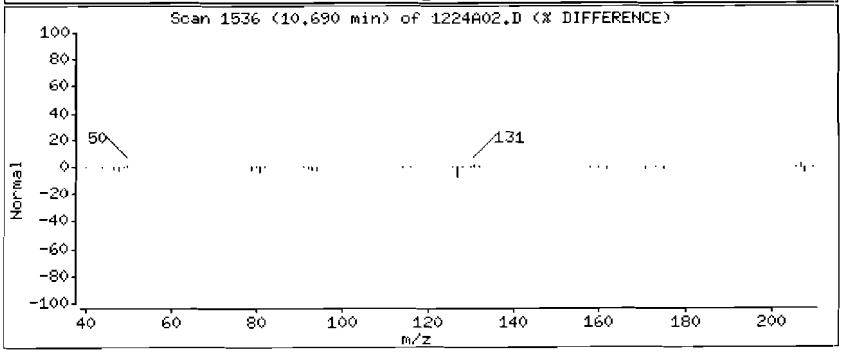
43 dibromochloromethane

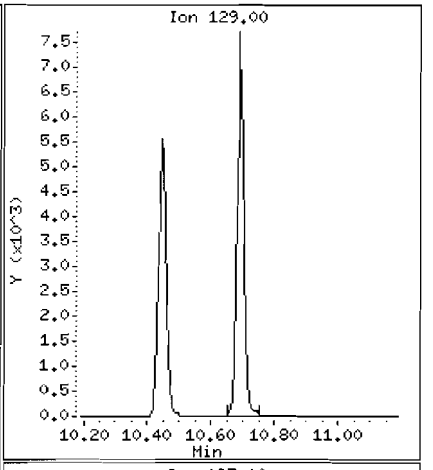
Concentration: 24.88 ngs

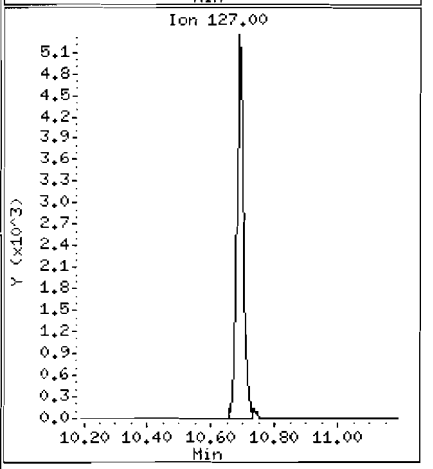












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A02.D

Date : 24-DEC-2013 09:45

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-1,31,5,,

Purge Volume: 5.0

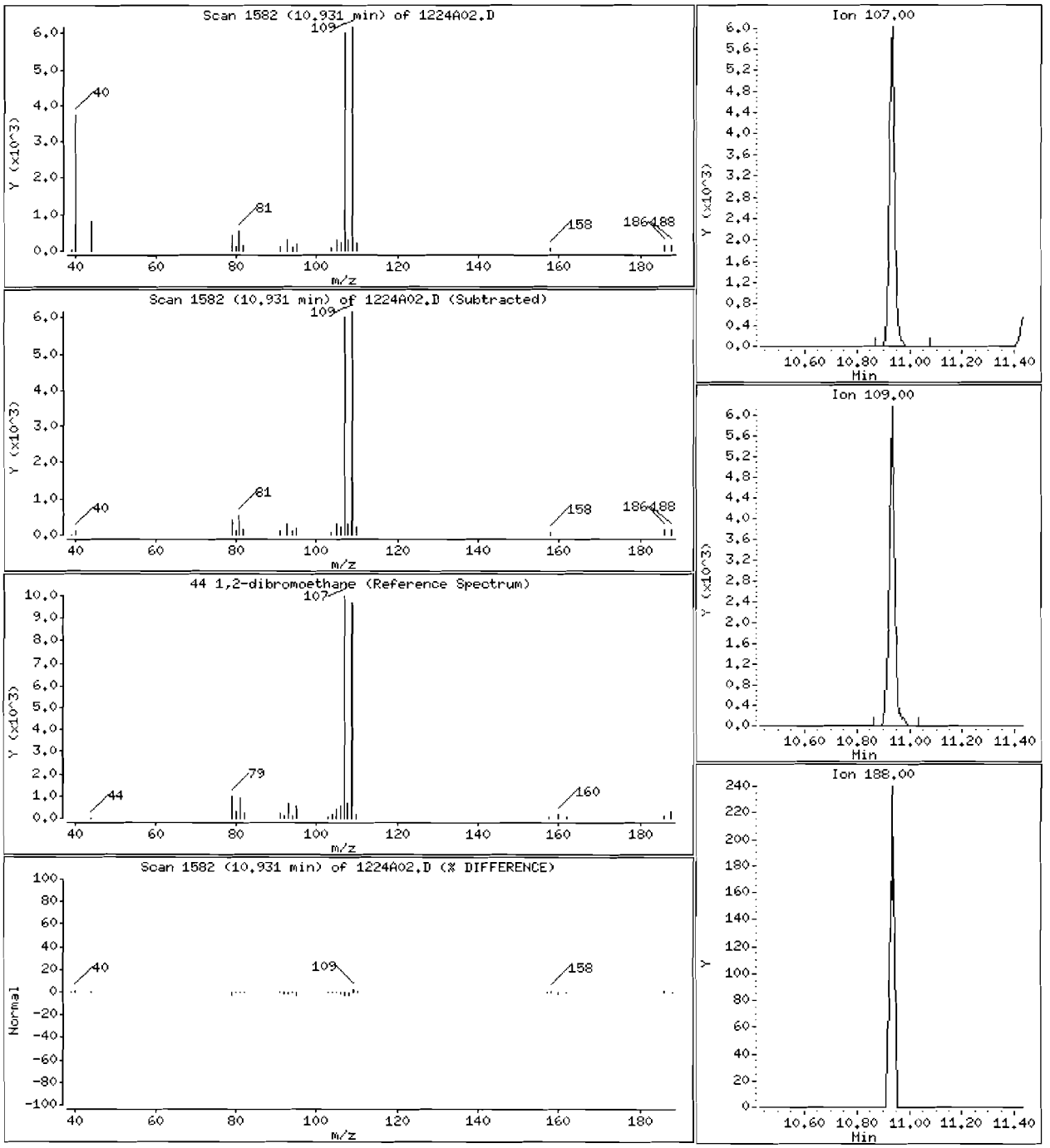
Operator: gt

Column phase:

Column diameter: 0.18

44 1,2-dibromoethane

Concentration: 19.40 ngs



Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A02.D

Date : 24-DEC-2013 09:45

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-1,31,5,,

Purge Volume: 5.0

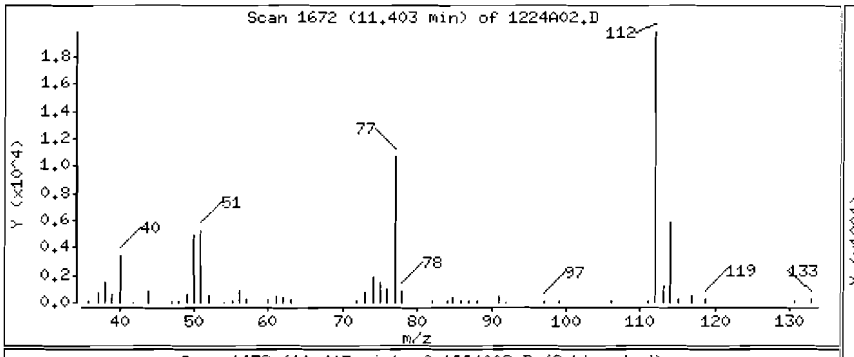
Operator: gt

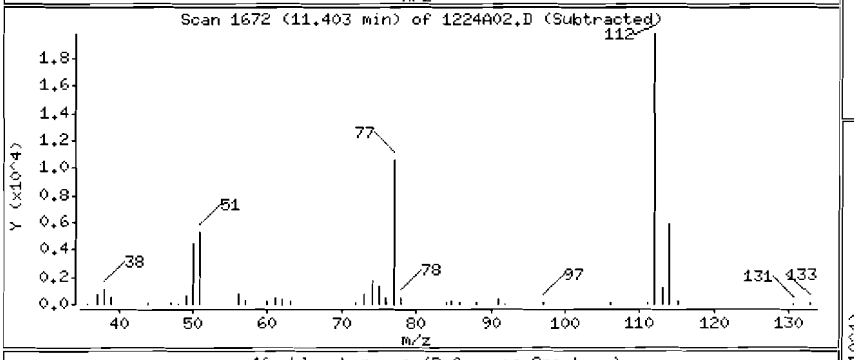
Column phase:

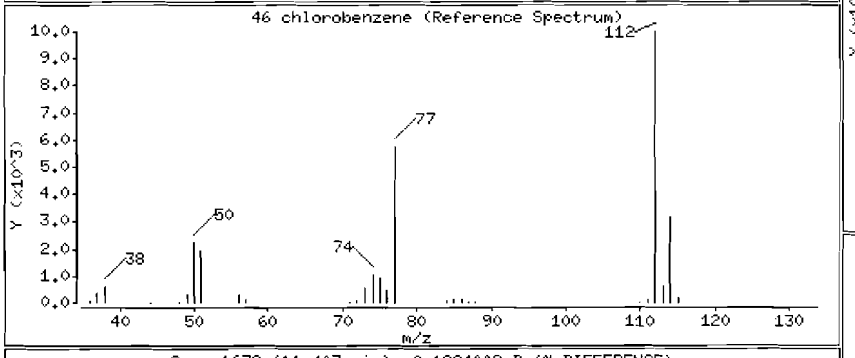
Column diameter: 0.18

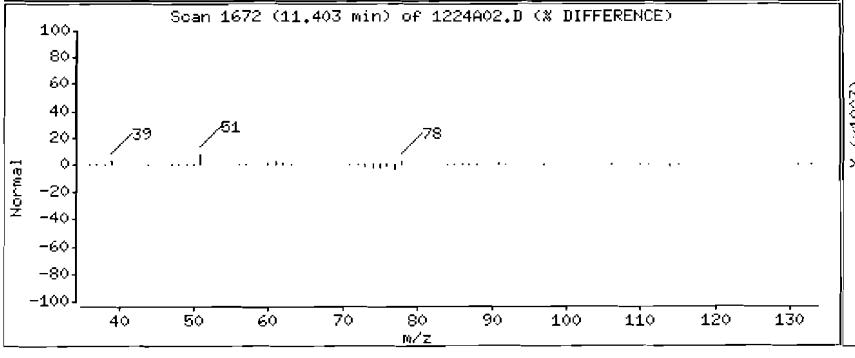
46 chlorobenzene

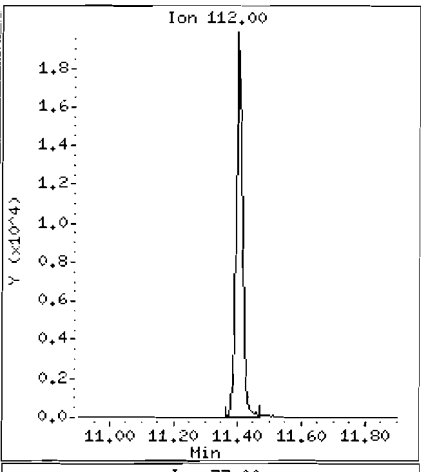
Concentration: 19.99 ngs

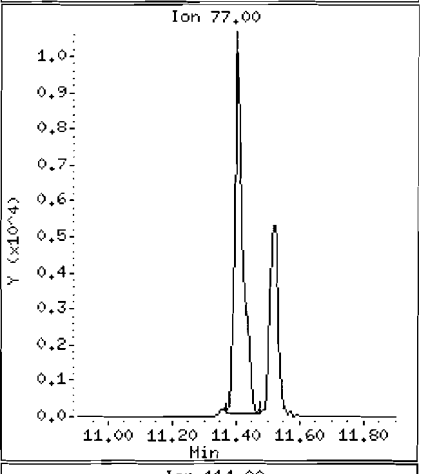


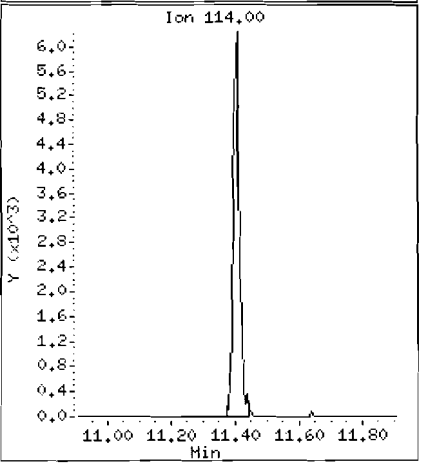












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A02.D

Date : 24-DEC-2013 09:45

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-1,31,5,,

Purge Volume: 5.0

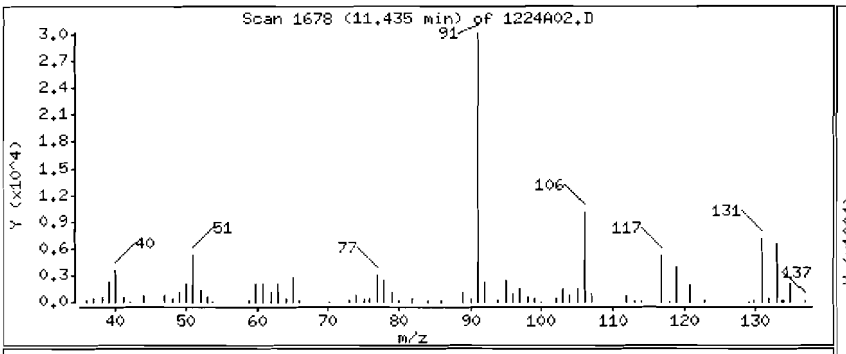
Operator: gt

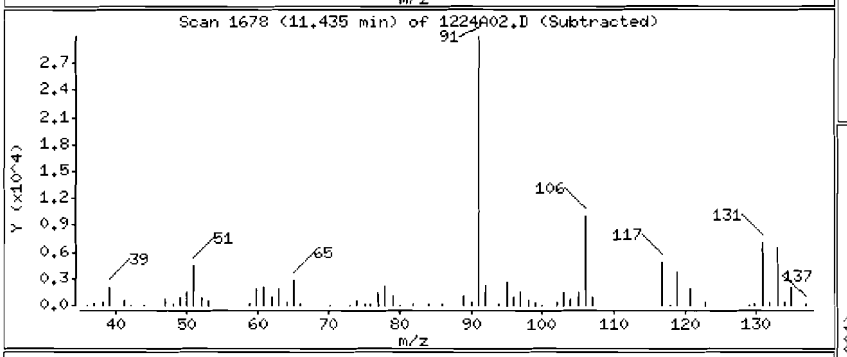
Column phase:

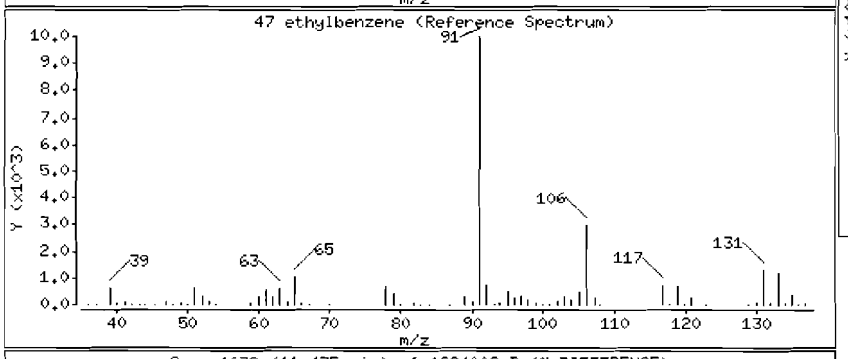
Column diameter: 0.18

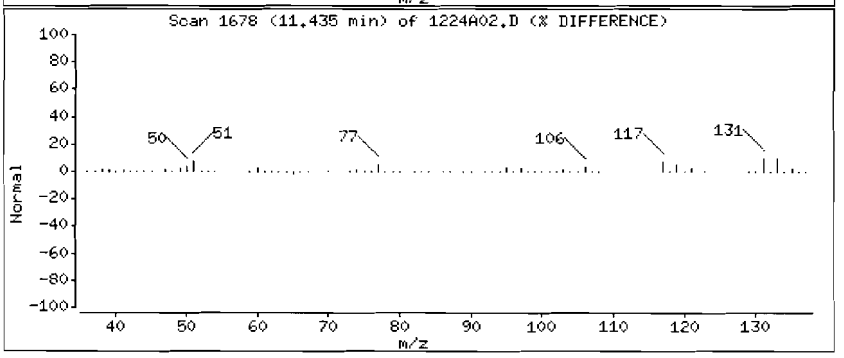
47 ethylbenzene

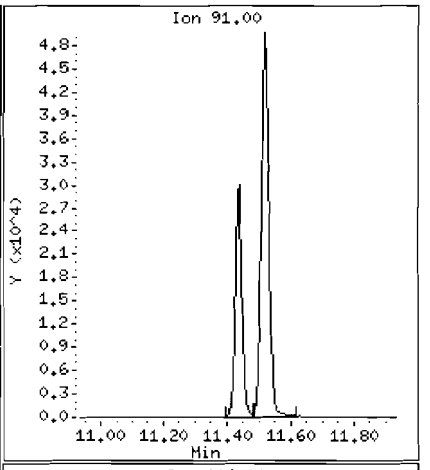
Concentration: 19.73 ngs

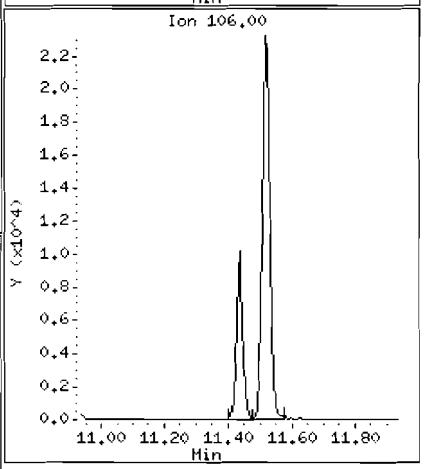












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A02.D

Date : 24-DEC-2013 09:45

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-1,31,5,,

Purge Volume: 5.0

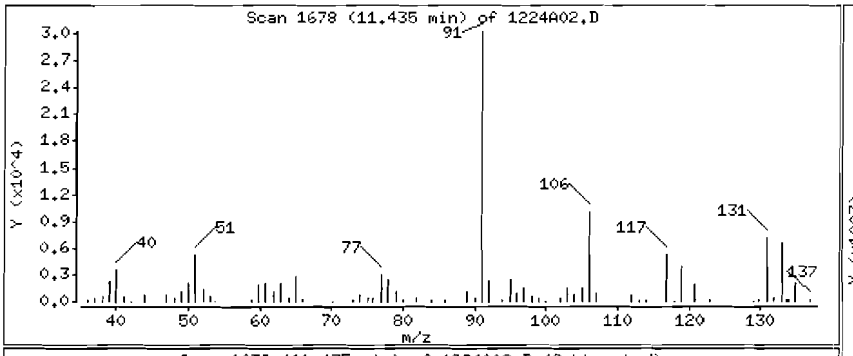
Operator: gt

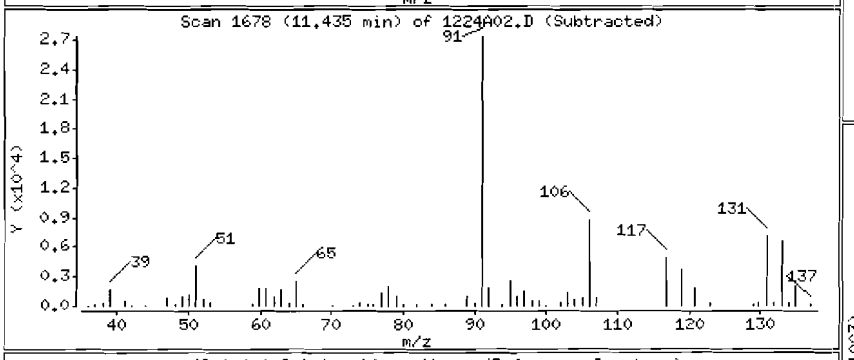
Column phase:

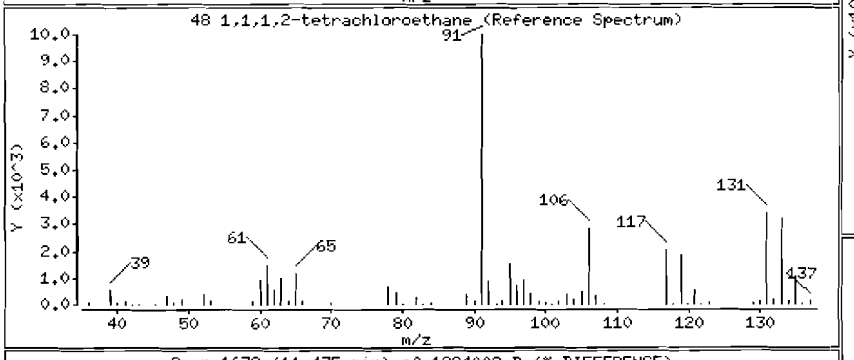
Column diameter: 0.18

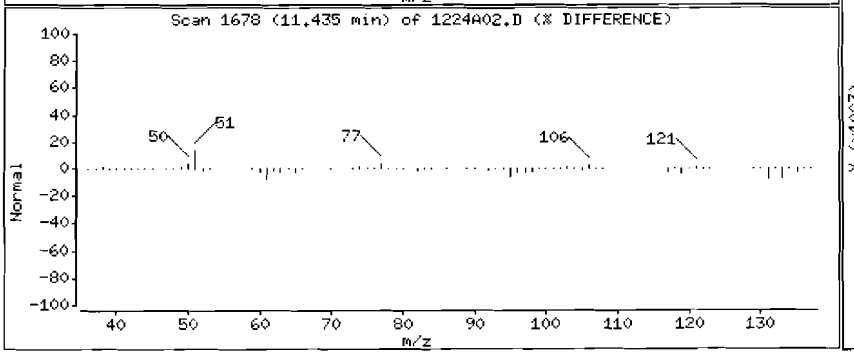
48 1,1,1,2-tetrachloroethane

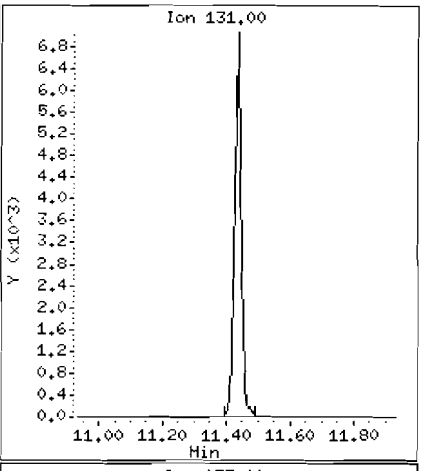
Concentration: 20.89 ngs

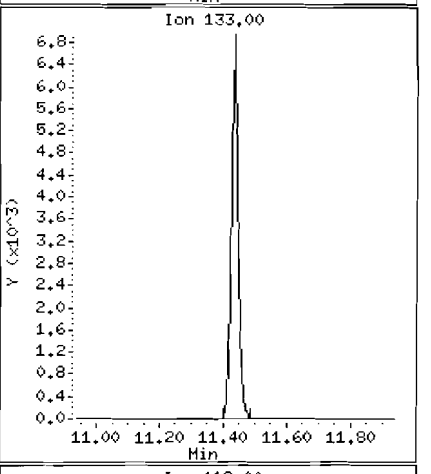


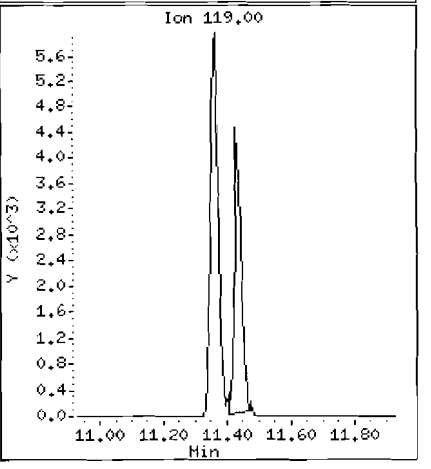












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A02.D

Date : 24-DEC-2013 09:45

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-1,31,5,,

Purge Volume: 5.0

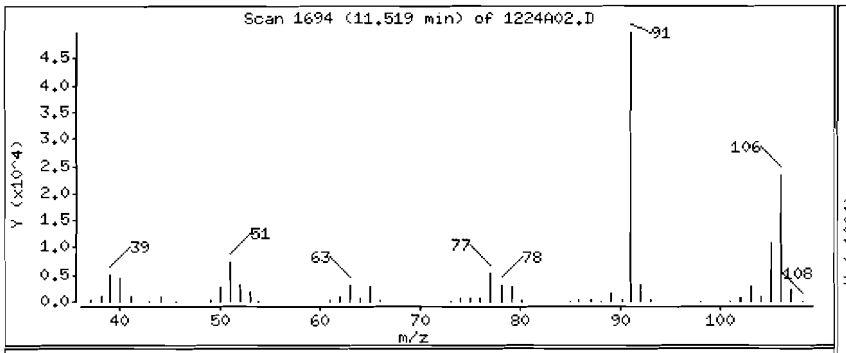
Operator: gt

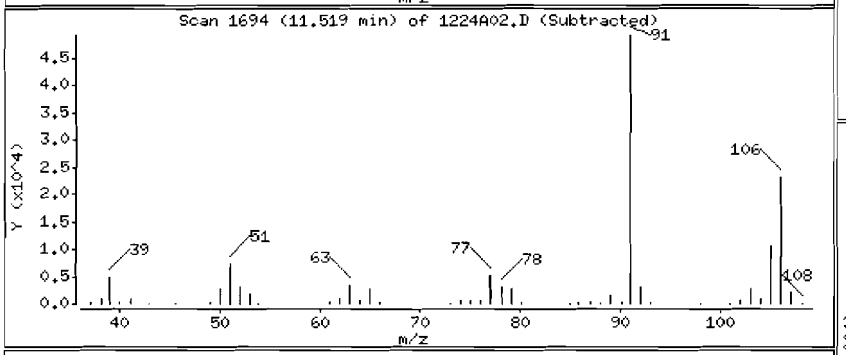
Column phase:

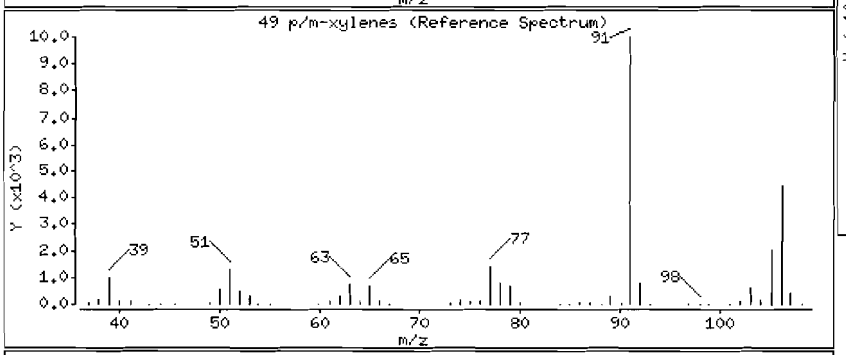
Column diameter: 0.18

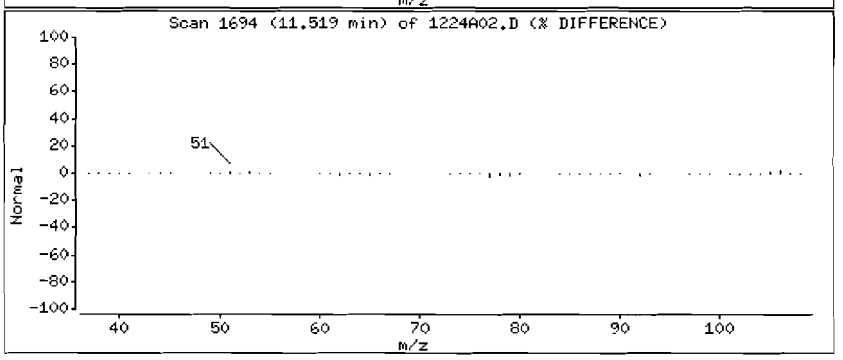
49 p/m-xylenes

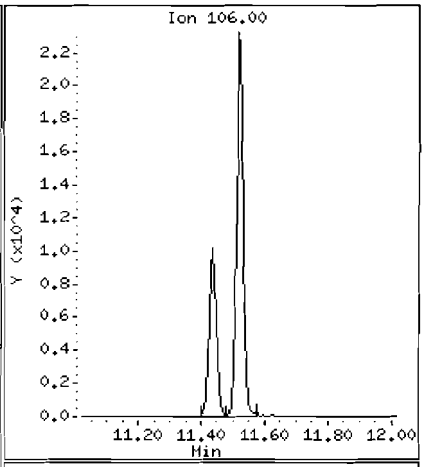
Concentration: 39.61 ngs

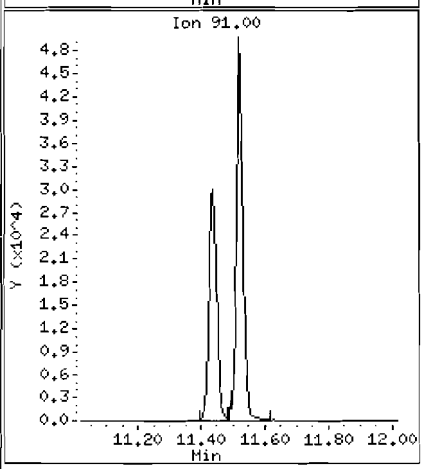












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A02.D

Date : 24-DEC-2013 09:45

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-1,31,5,,

Purge Volume: 5.0

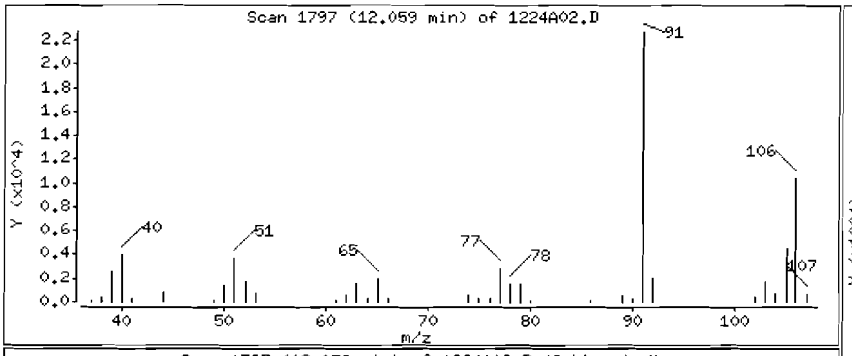
Operator: gt

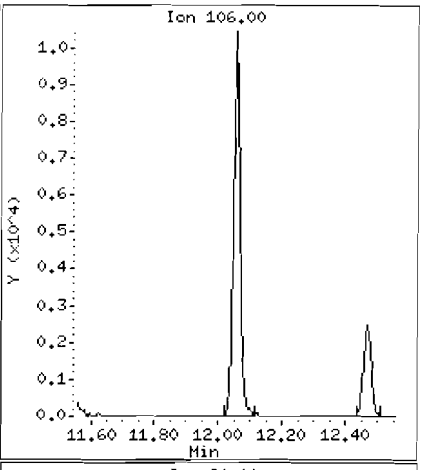
Column phase:

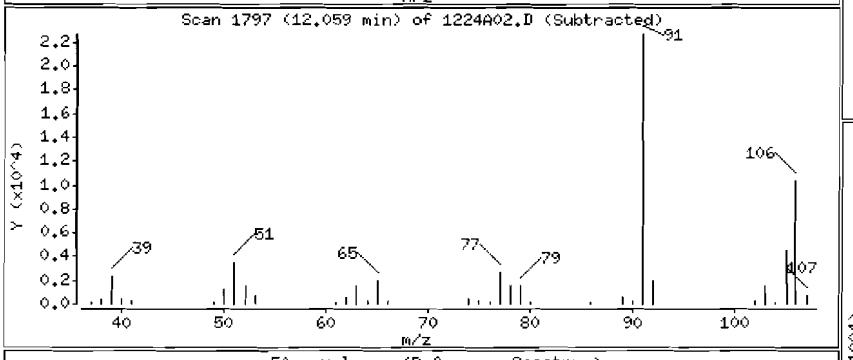
Column diameter: 0.18

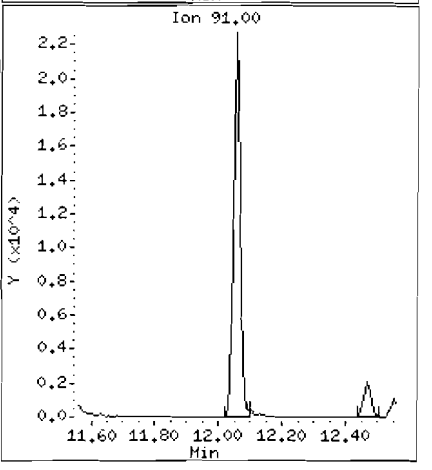
50 o-xylenes

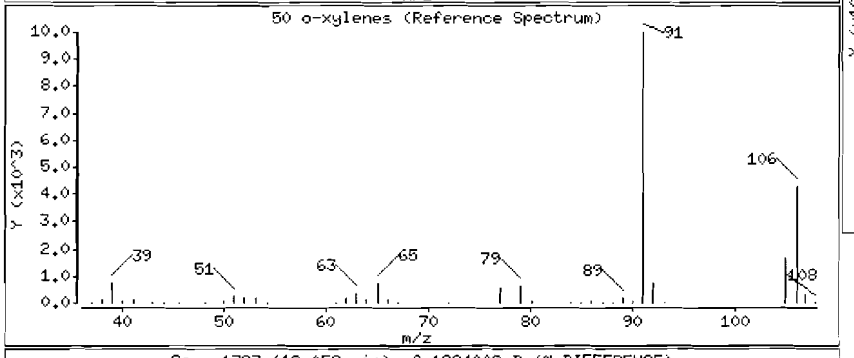
Concentration: 17.99 ngs

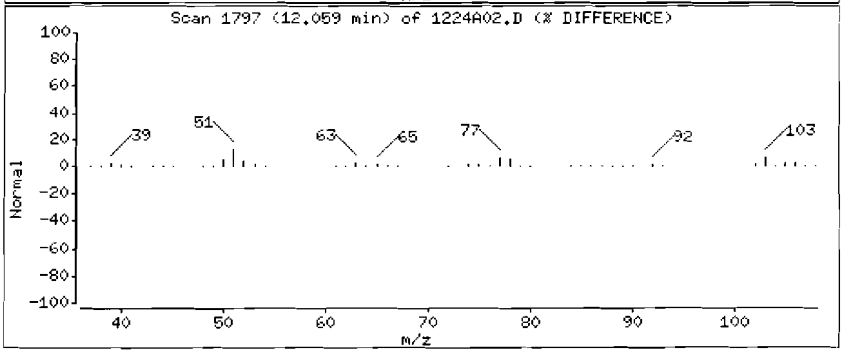












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A02.D

Date : 24-DEC-2013 09:45

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-1,31,5,,

Purge Volume: 5.0

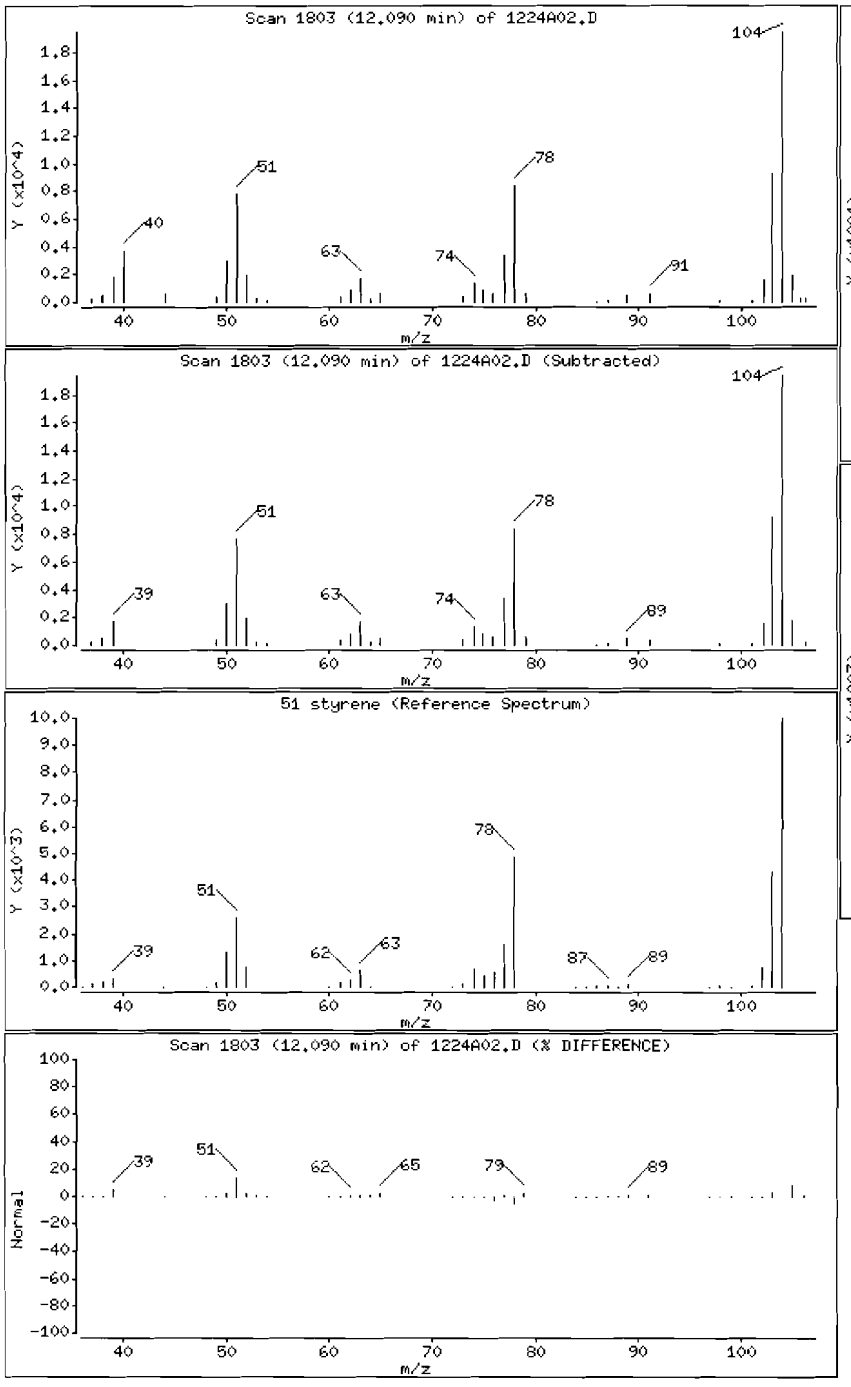
Operator: gt

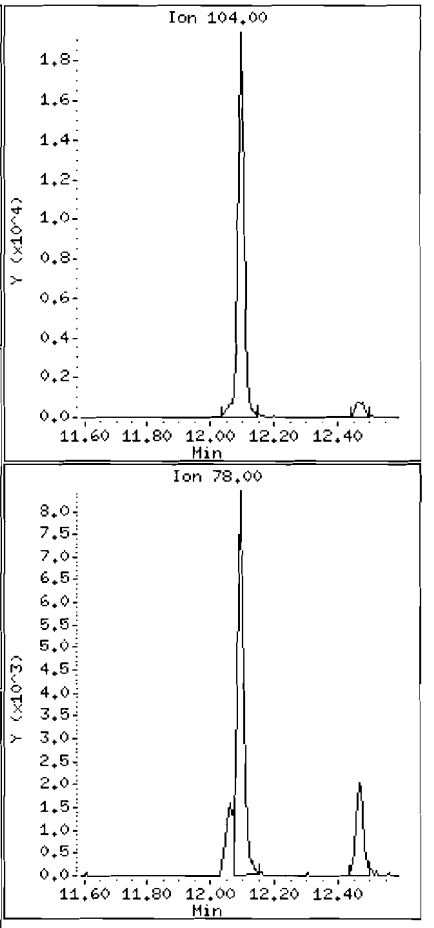
Column phase:

Column diameter: 0.18

51 styrene

Concentration: 19.06 ngs





Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A02.D

Date : 24-DEC-2013 09:45

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-1,31,5,,

Purge Volume: 5.0

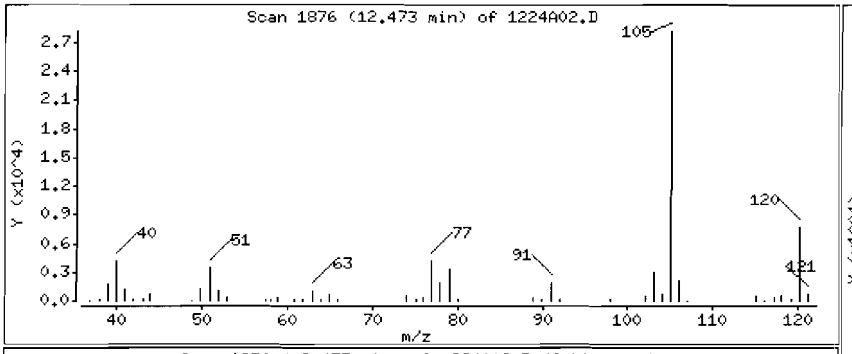
Operator: gt

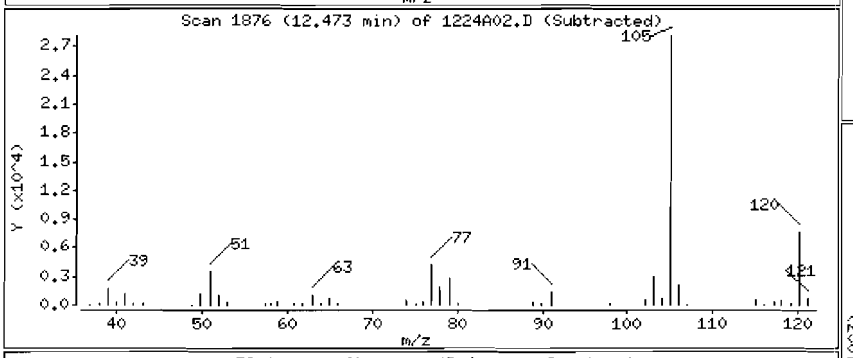
Column phase:

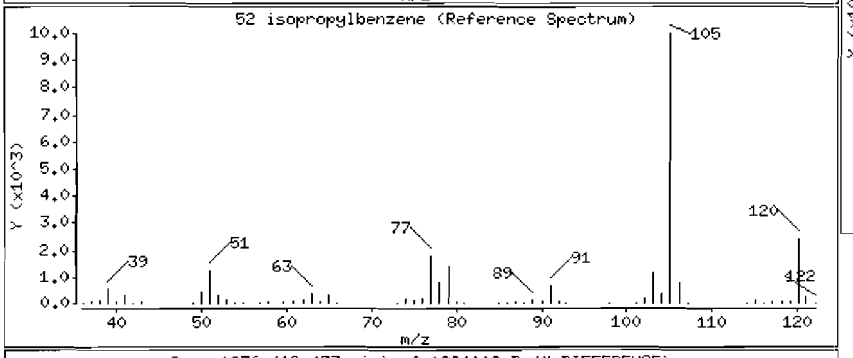
Column diameter: 0.18

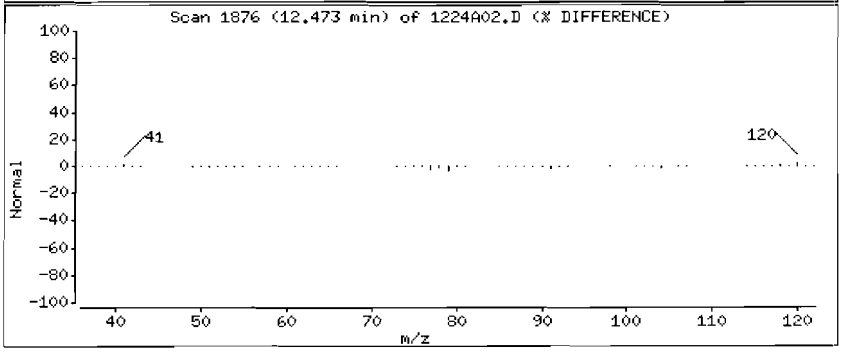
52 isopropylbenzene

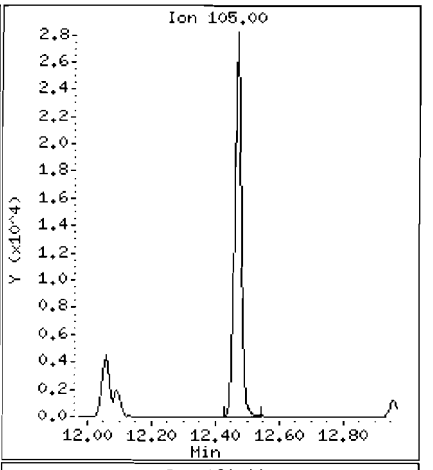
Concentration: 19.51 ngs

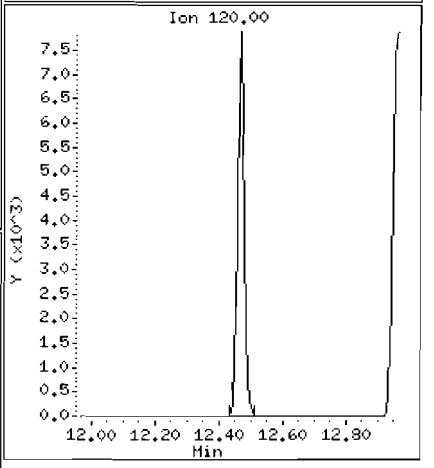












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A02.D

Date : 24-DEC-2013 09:45

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-1,31,5,,

Purge Volume: 5.0

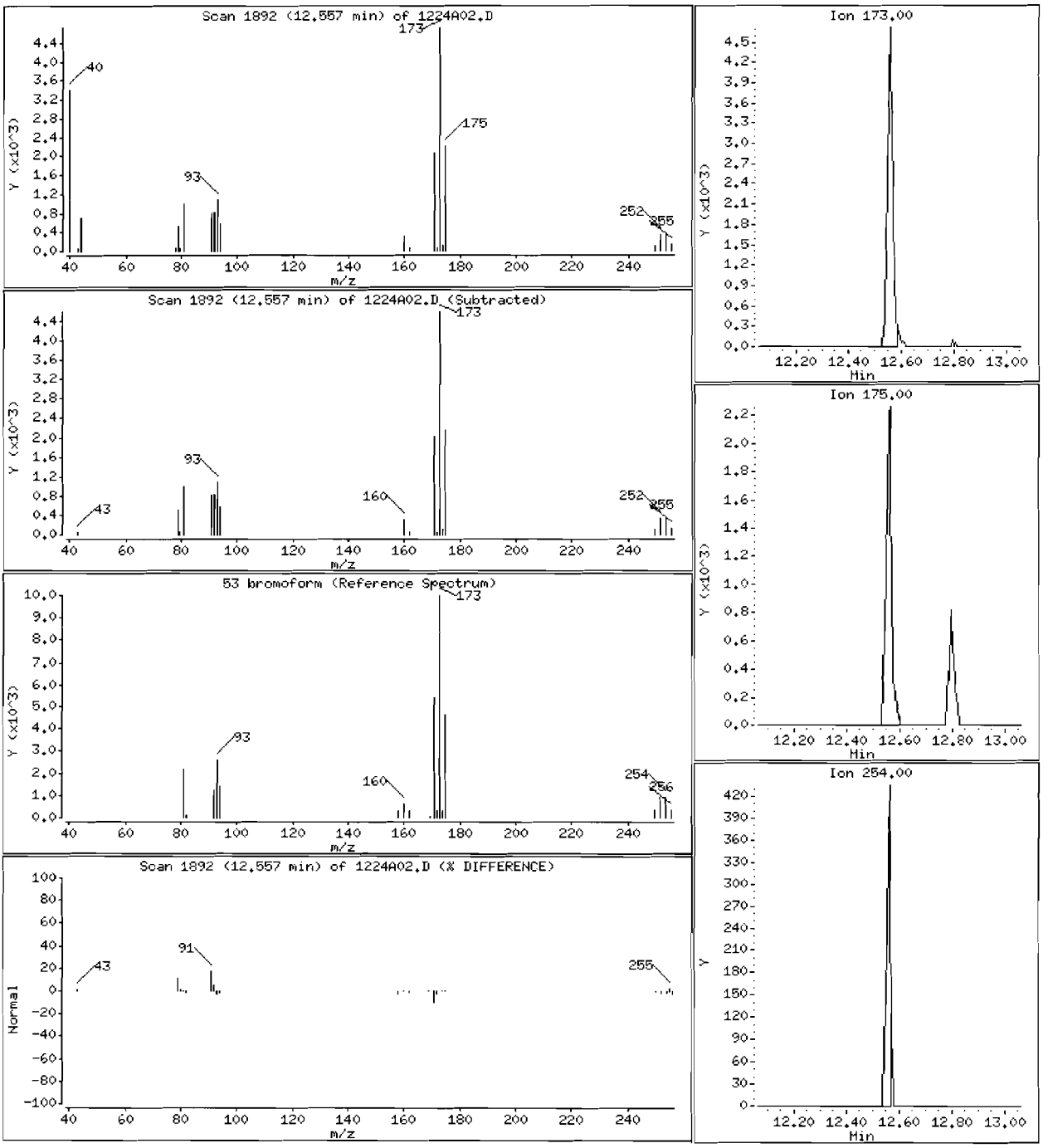
Operator: gt

Column phase:

Column diameter: 0.18

53 bromoform

Concentration: 19.71 ngs



Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A02.D

Date : 24-DEC-2013 09:45

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-1,31,5,,

Purge Volume: 5.0

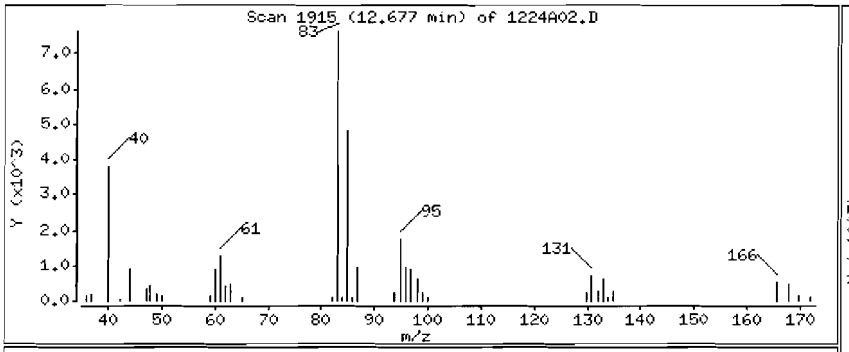
Operator: gt

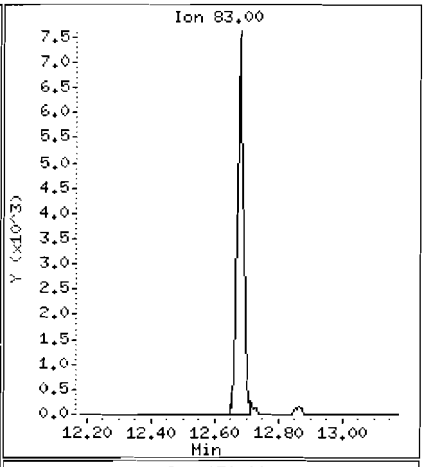
Column phase:

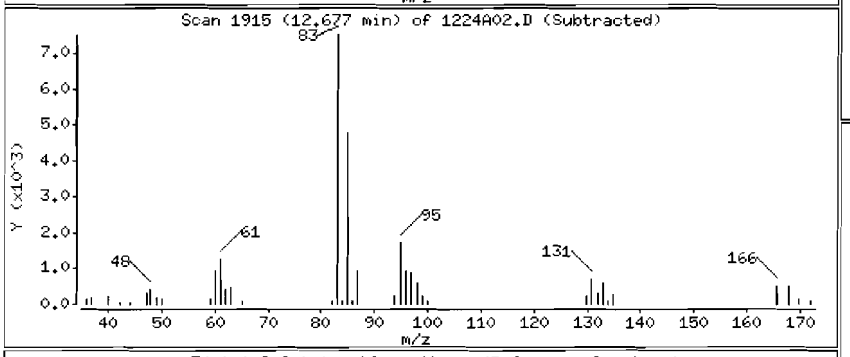
Column diameter: 0.18

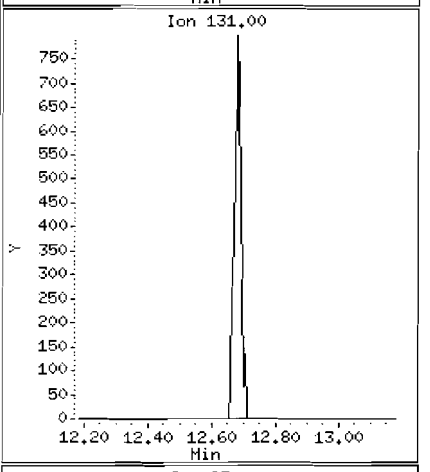
54 1,1,2,2-tetrachloroethane

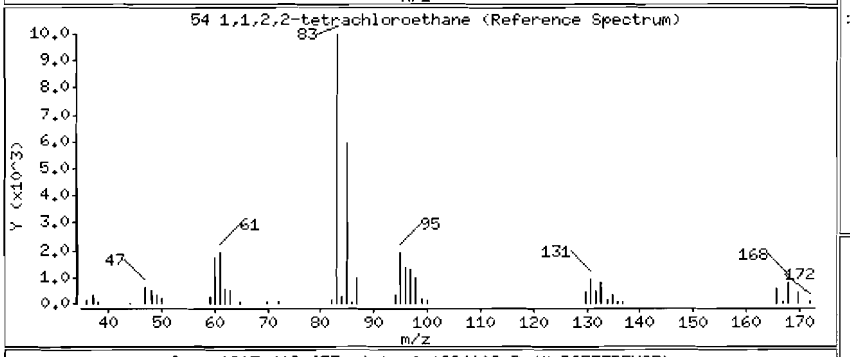
Concentration: 18.15 ngs

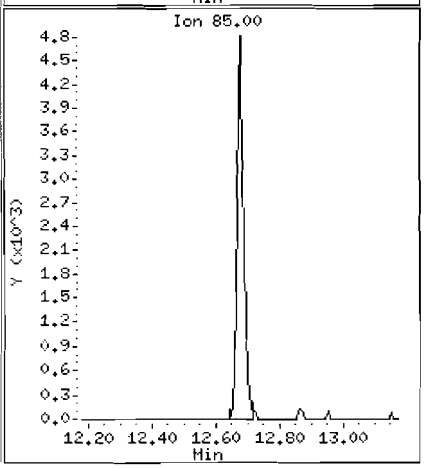


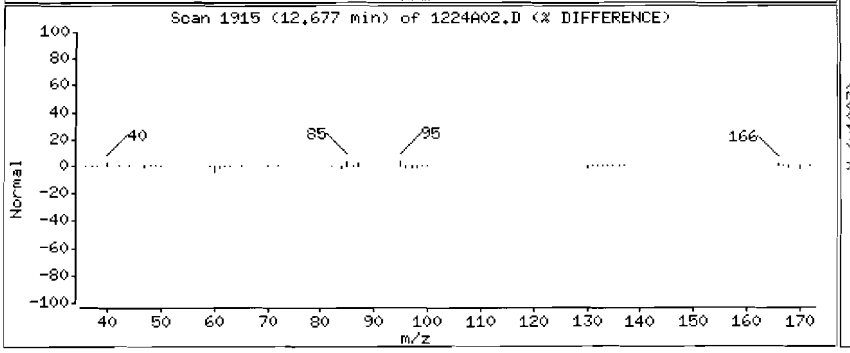












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A02.D

Date : 24-DEC-2013 09:45

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-1,31,5,,

Purge Volume: 5.0

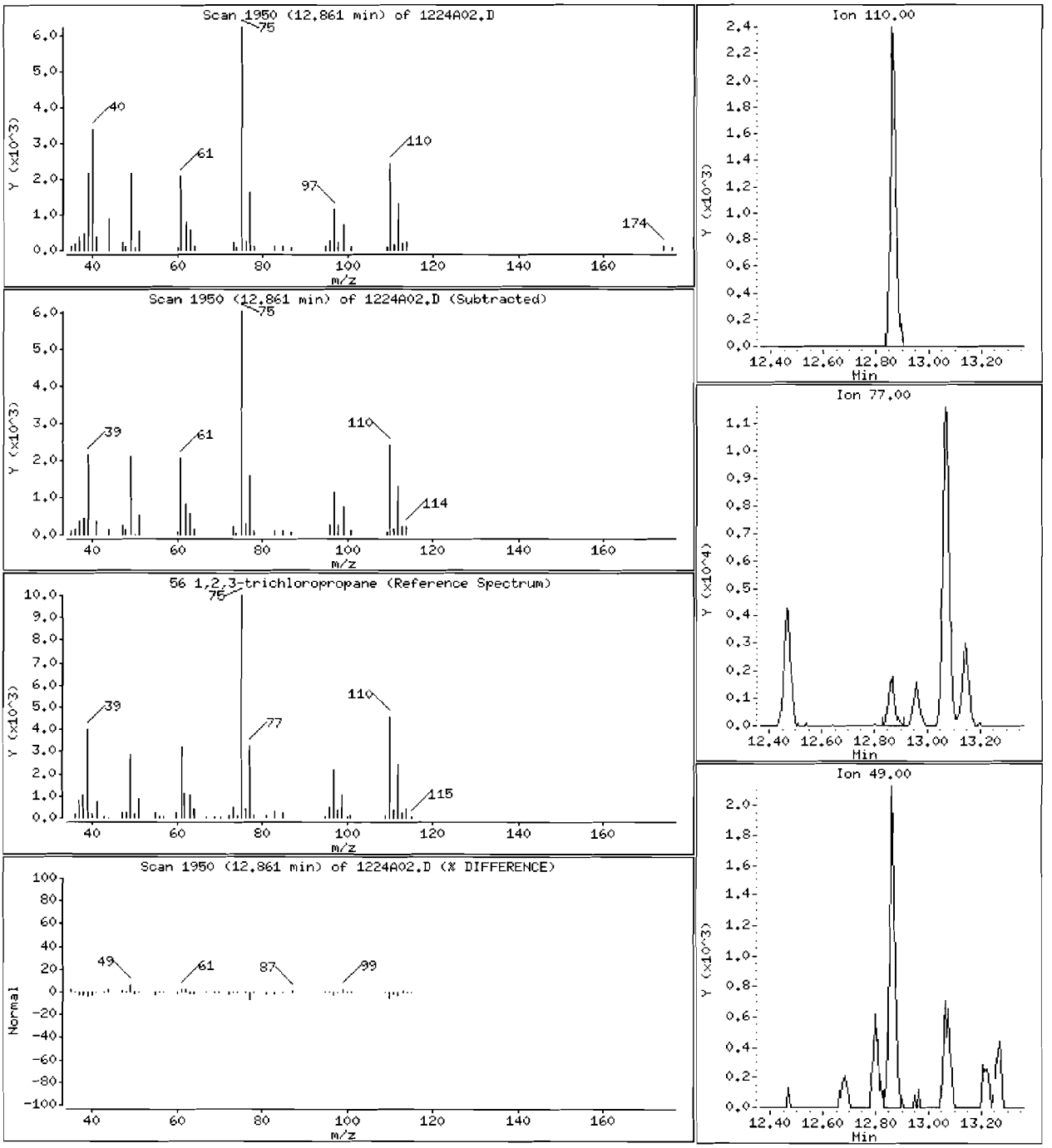
Operator: gt

Column phase:

Column diameter: 0.18

56 1,2,3-trichloropropane

Concentration: 20.52 ngs



Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A02.D

Date : 24-DEC-2013 09:45

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-1,31,5,,

Purge Volume: 5.0

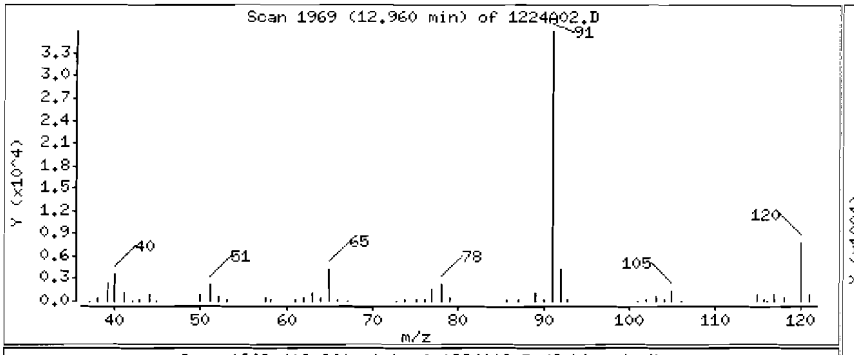
Operator: gt

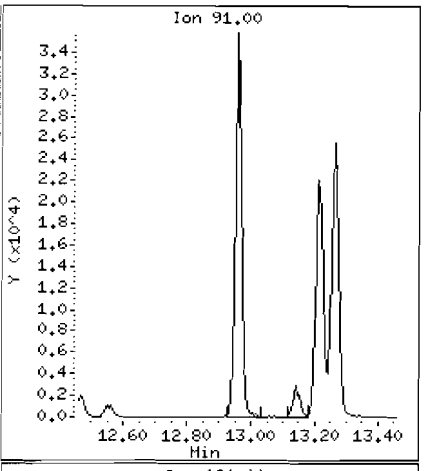
Column phase:

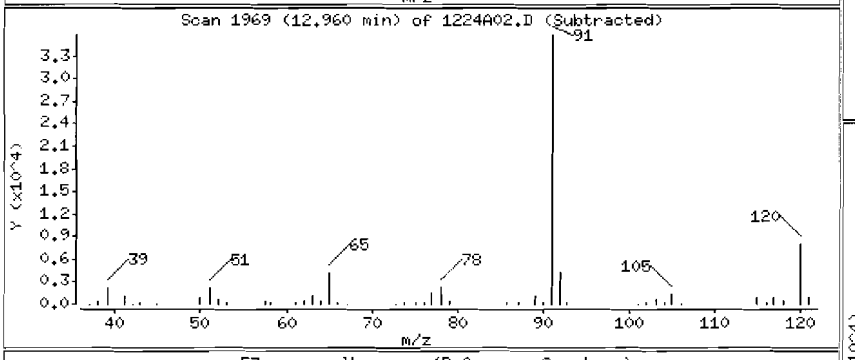
Column diameter: 0.18

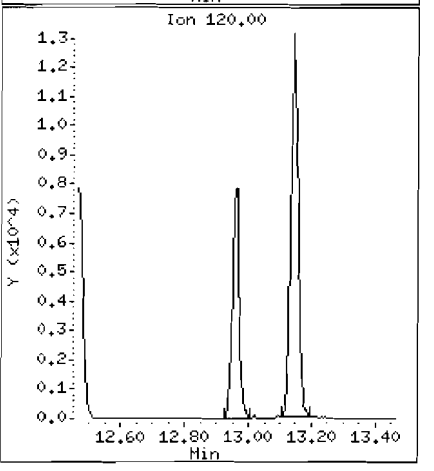
57 n-propylbenzene

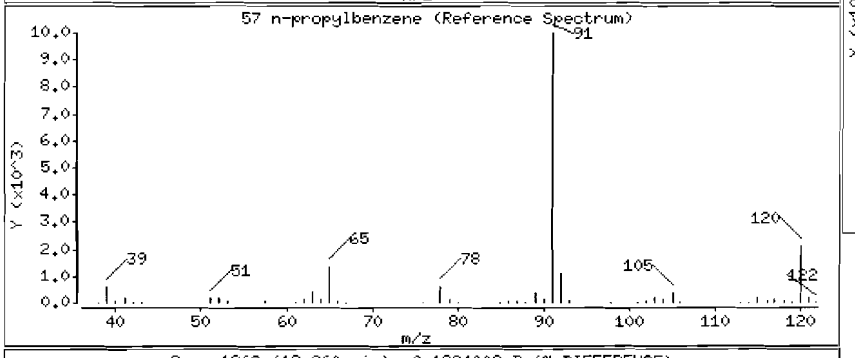
Concentration: 19.55 ngs

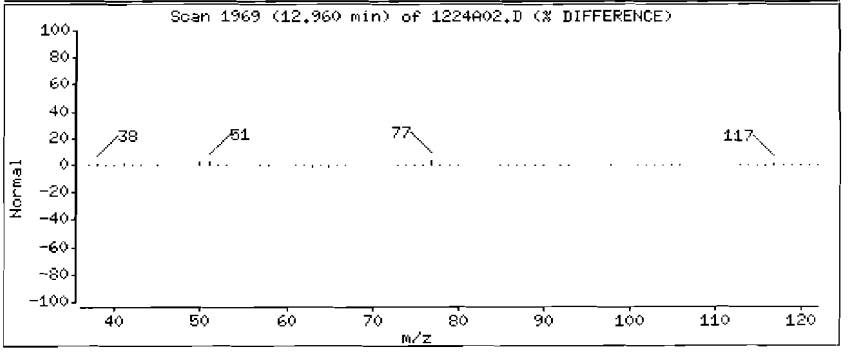












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A02.D

Date : 24-DEC-2013 09:45

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-1,31,5,,

Purge Volume: 5.0

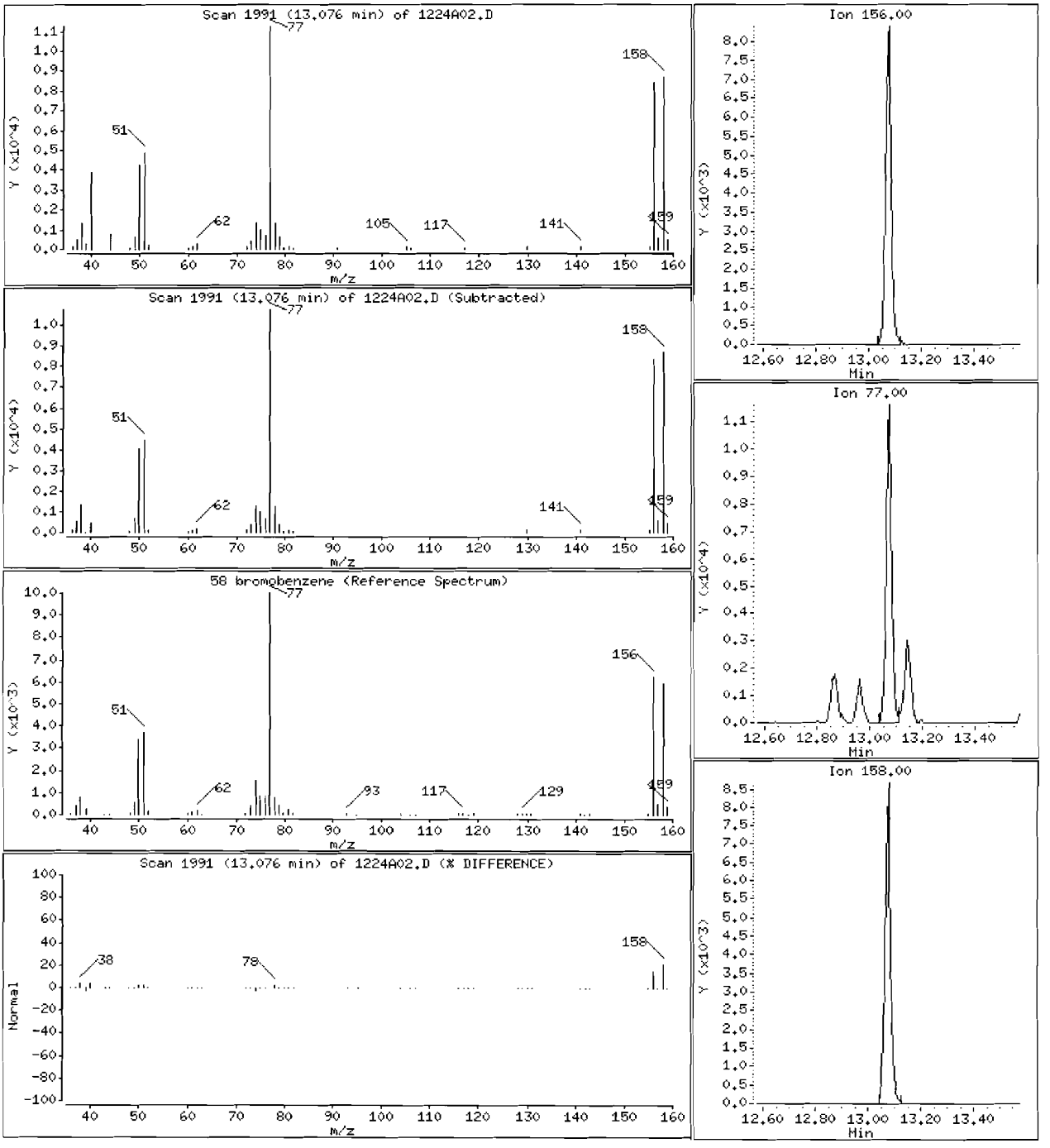
Operator: gt

Column phase:

Column diameter: 0.18

58 bromobenzene

Concentration: 21.08 ngs



Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A02.D

Date : 24-DEC-2013 09:45

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-1,31,5,,

Purge Volume: 5.0

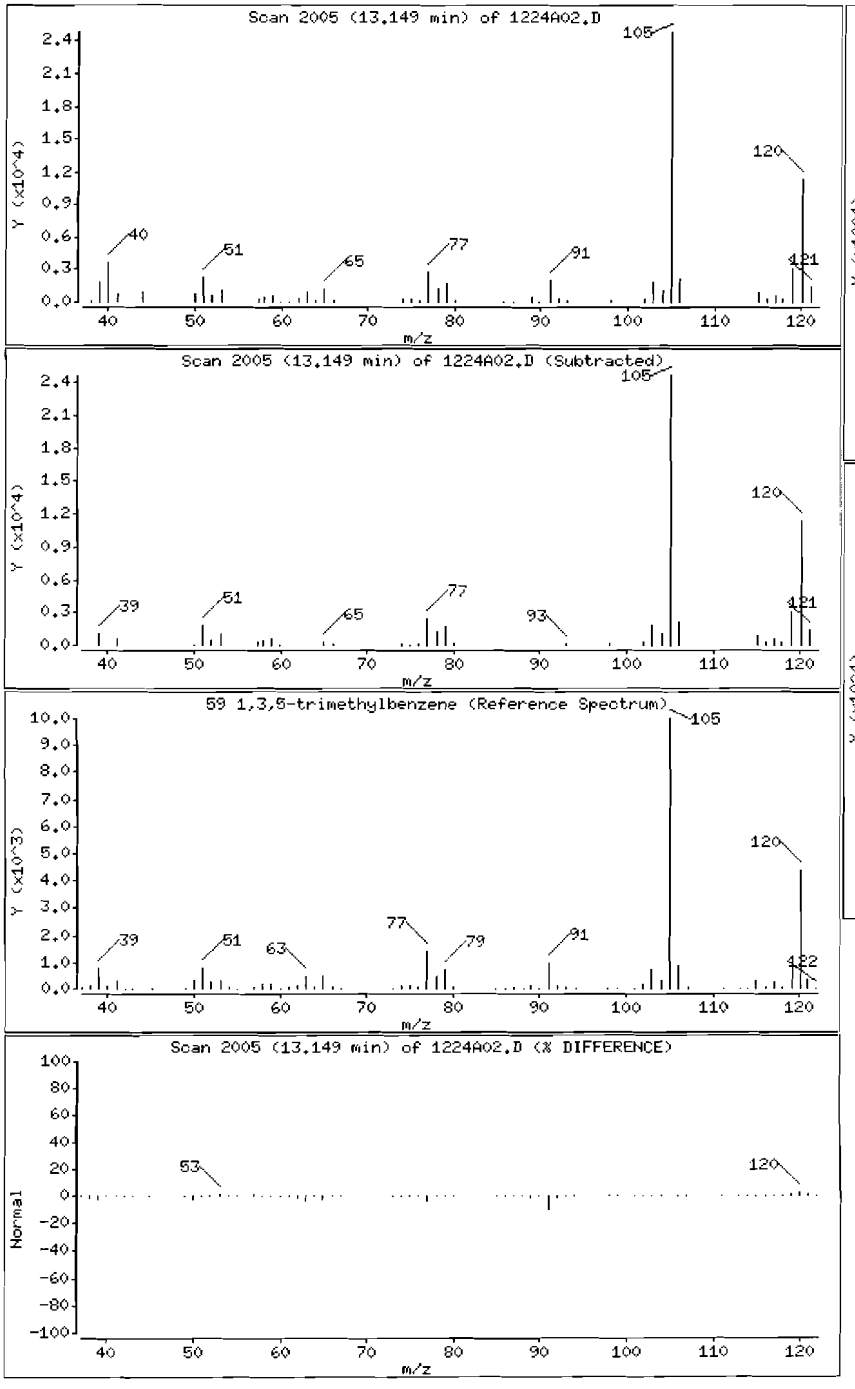
Operator: gt

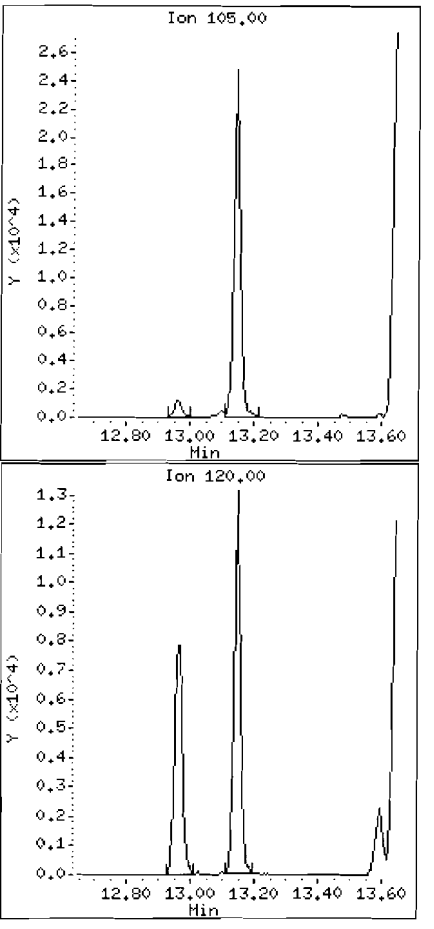
Column phase:

Column diameter: 0.18

59 1,3,5-trimethylbenzene

Concentration: 19.85 ngs





Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A02.D

Date : 24-DEC-2013 09:45

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-1,31,5,,

Purge Volume: 5.0

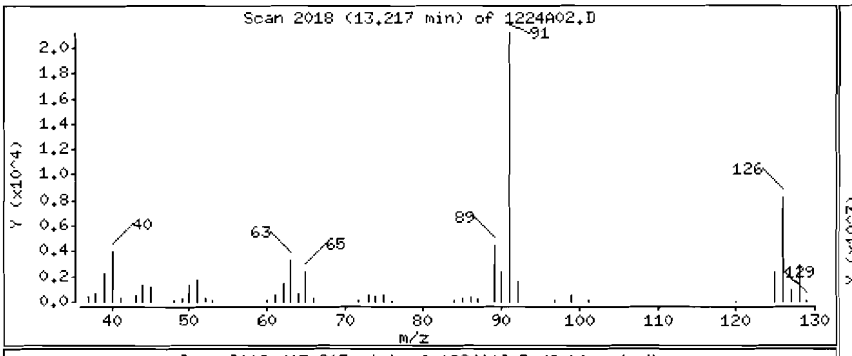
Operator: gt

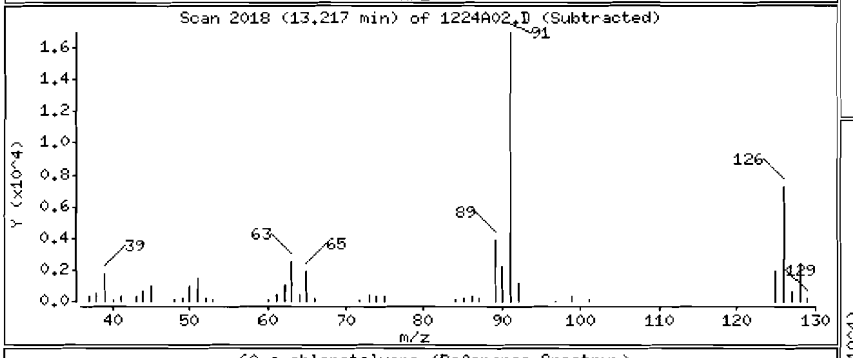
Column phase:

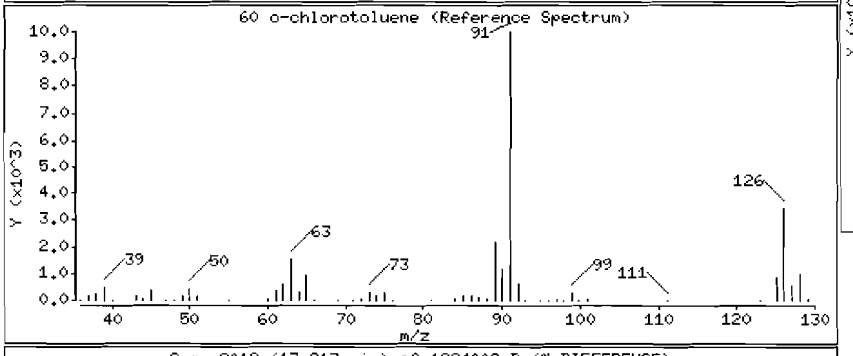
Column diameter: 0.18

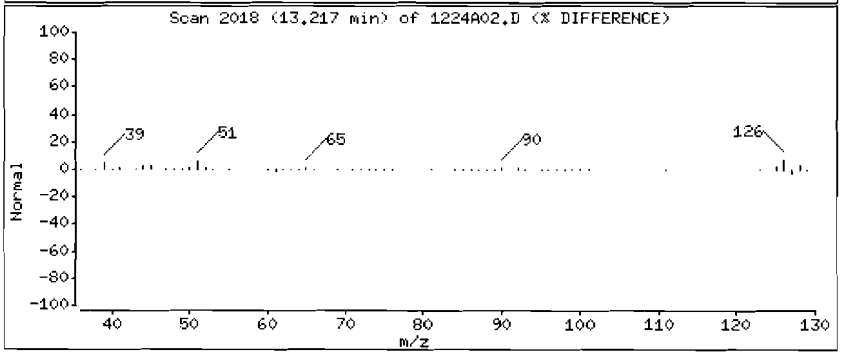
60 o-chlorotoluene

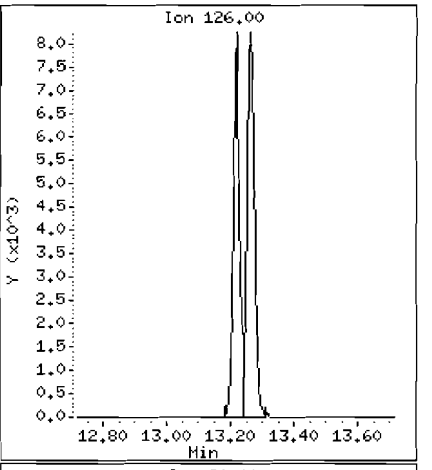
Concentration: 21.71 ngs

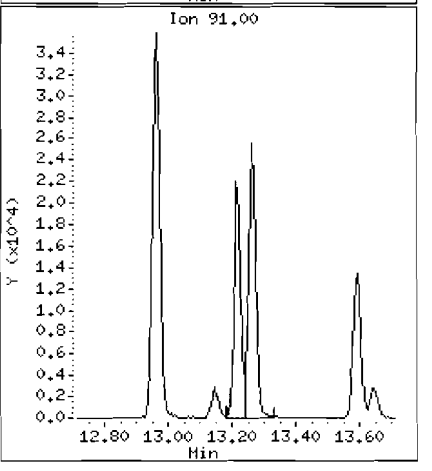












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A02.D

Date : 24-DEC-2013 09:45

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-1,31,5,,

Purge Volume: 5.0

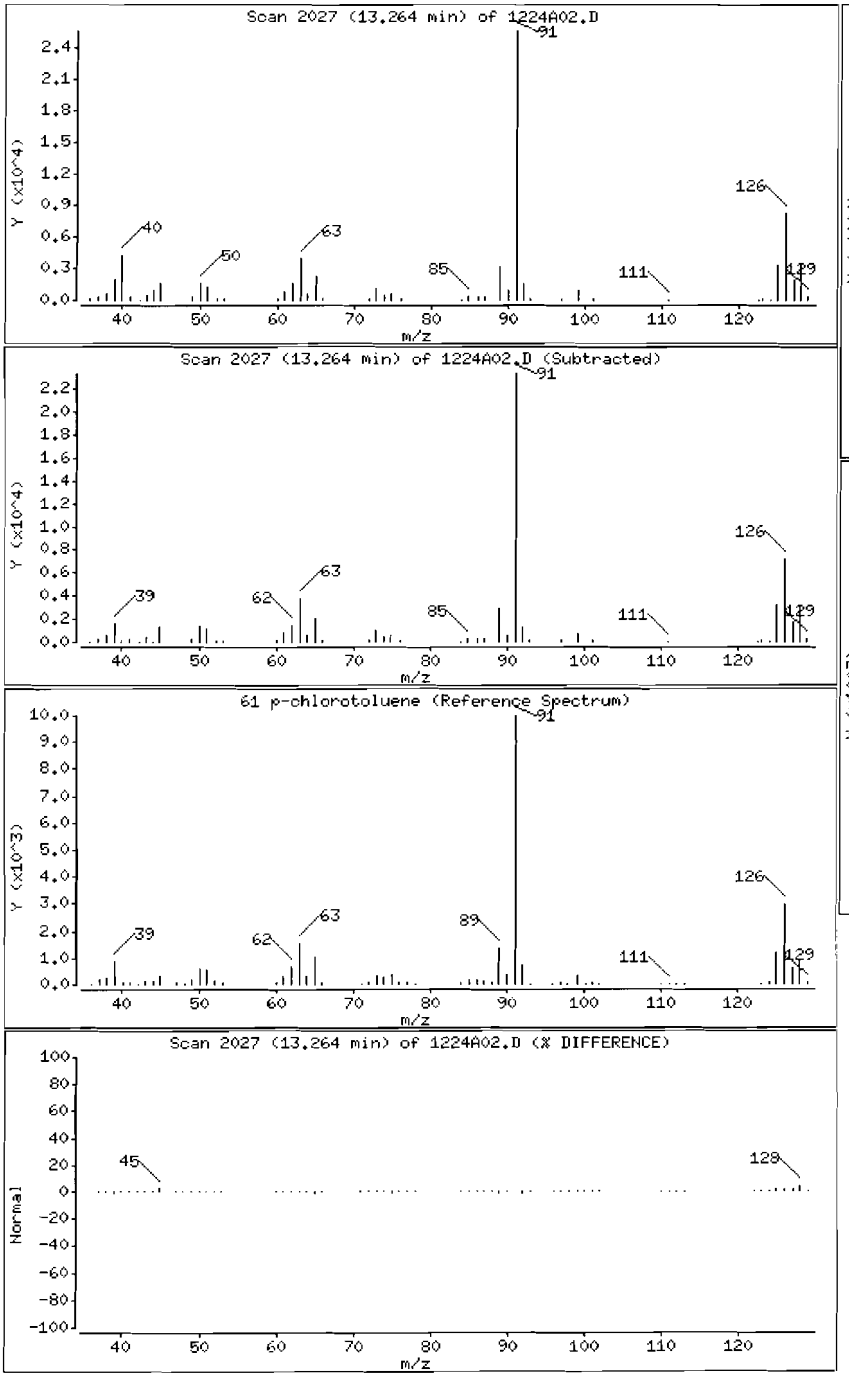
Operator: gt

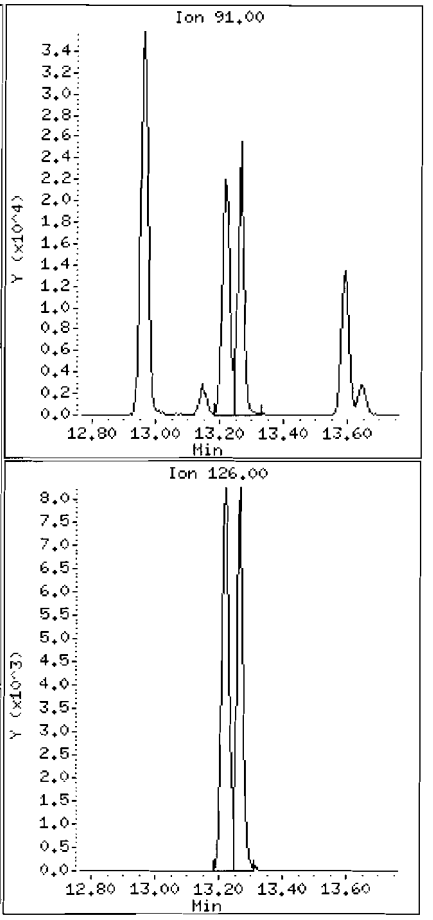
Column phase:

Column diameter: 0.18

61 p-chlorotoluene

Concentration: 20.77 ngs





Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A02.D

Date : 24-DEC-2013 09:45

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-1,31,5,,

Purge Volume: 5.0

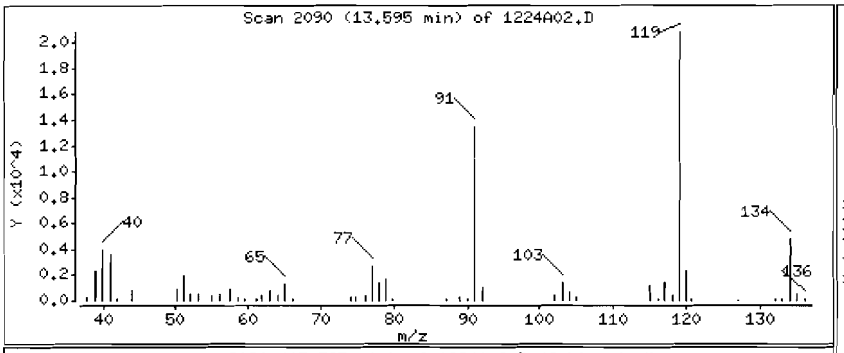
Operator: gt

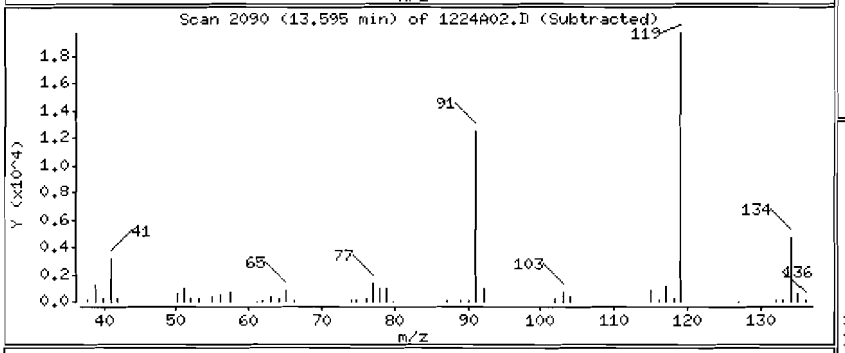
Column phase:

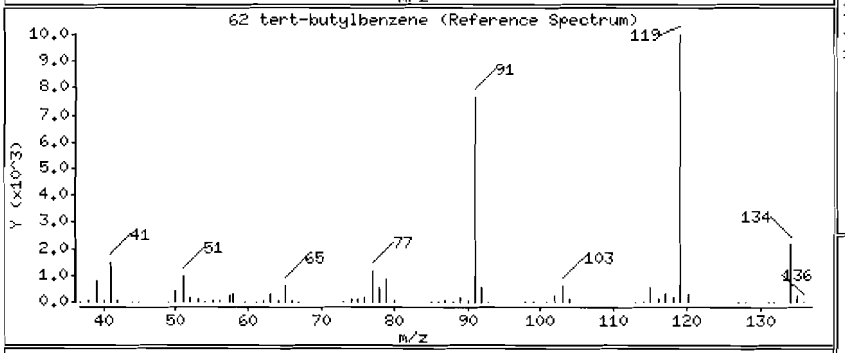
Column diameter: 0.18

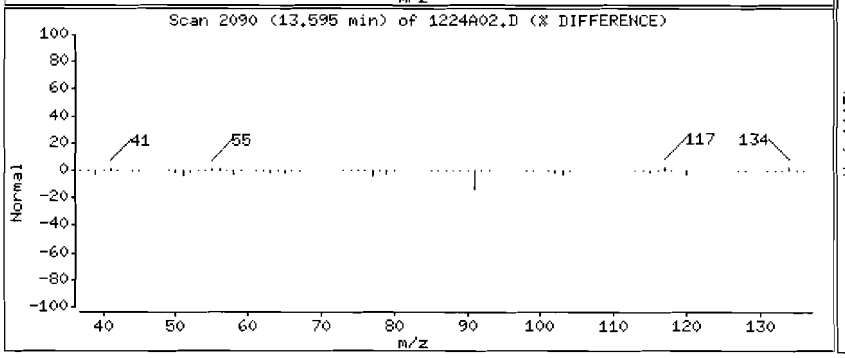
62 tert-butylbenzene

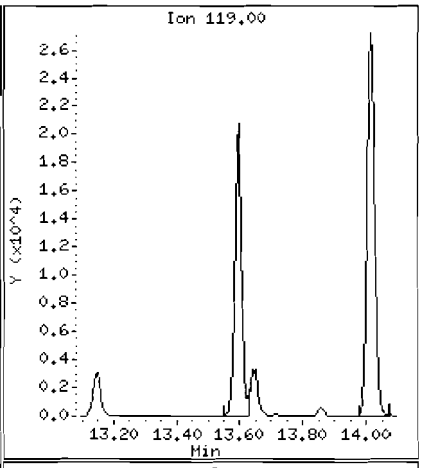
Concentration: 19.55 ngs

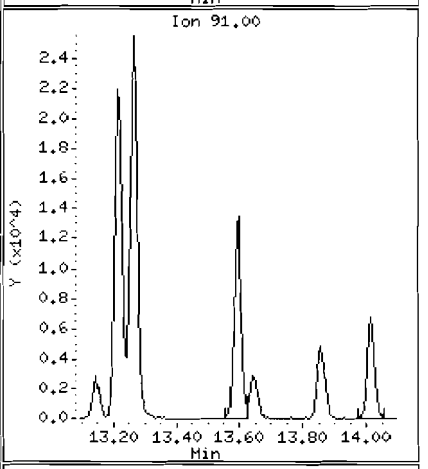


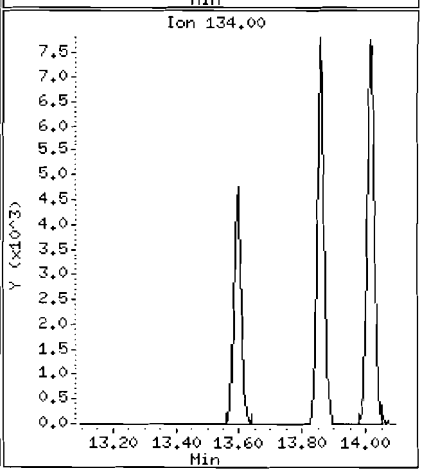












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A02.D

Date : 24-DEC-2013 09:45

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-1,31,5,,

Purge Volume: 5.0

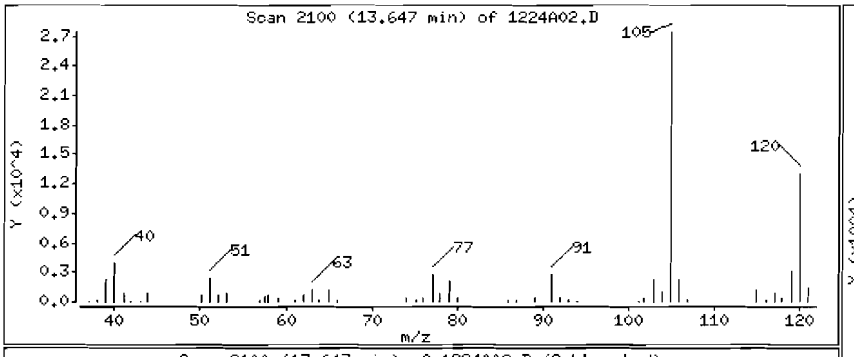
Operator: gt

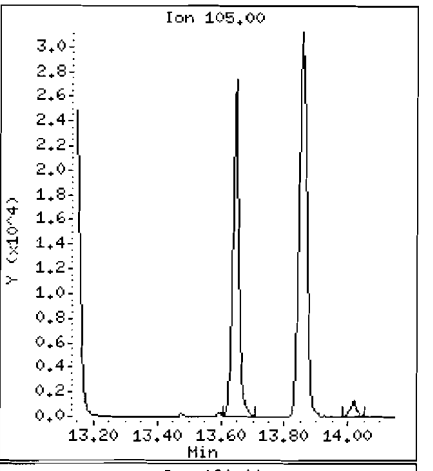
Column phase:

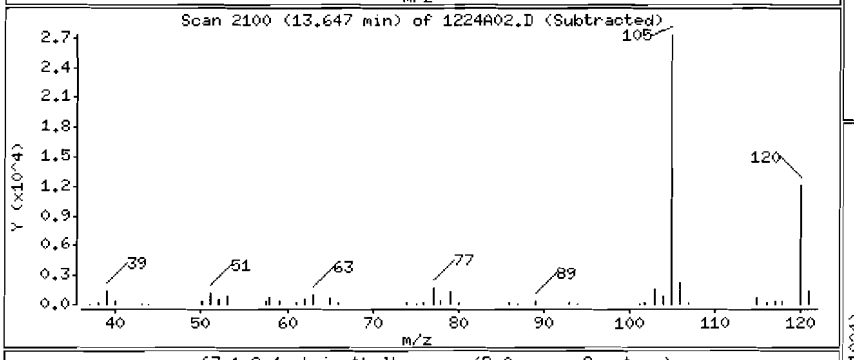
Column diameter: 0.18

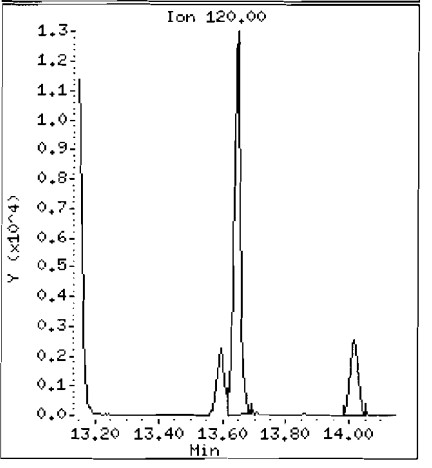
63 1,2,4,-trimethylbenzene

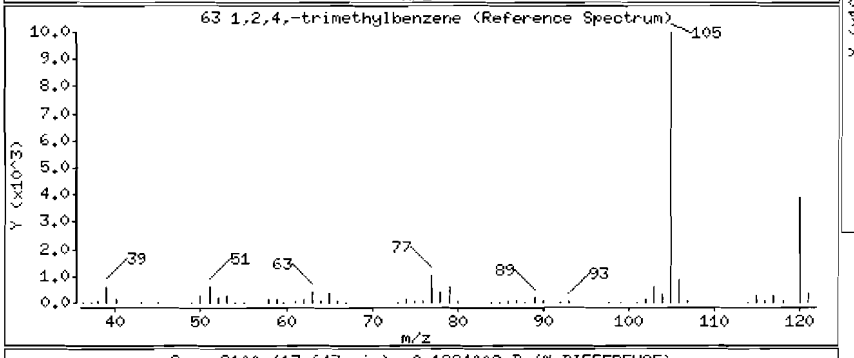
Concentration: 20.29 ngs

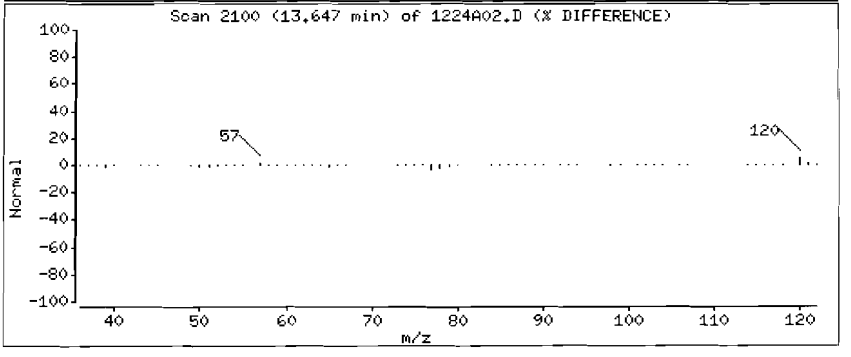












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A02.D

Date : 24-DEC-2013 09:45

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-1,31,5,,

Purge Volume: 5.0

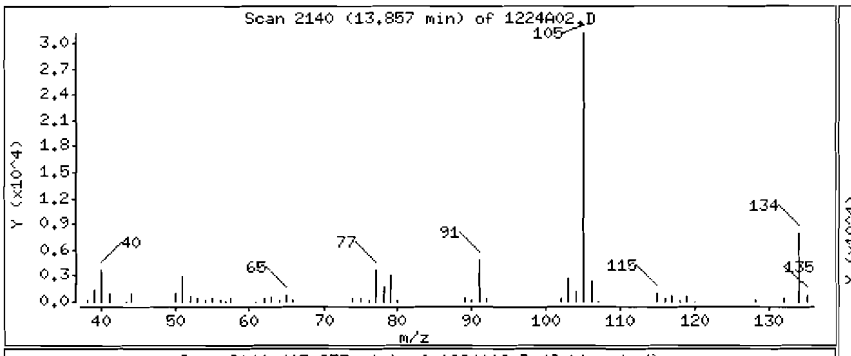
Operator: gt

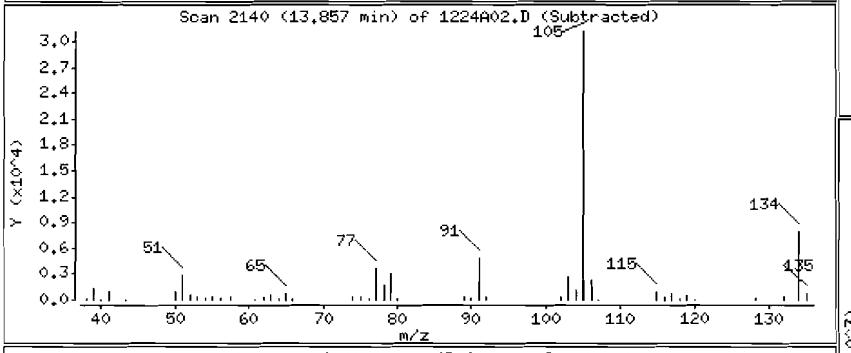
Column phase:

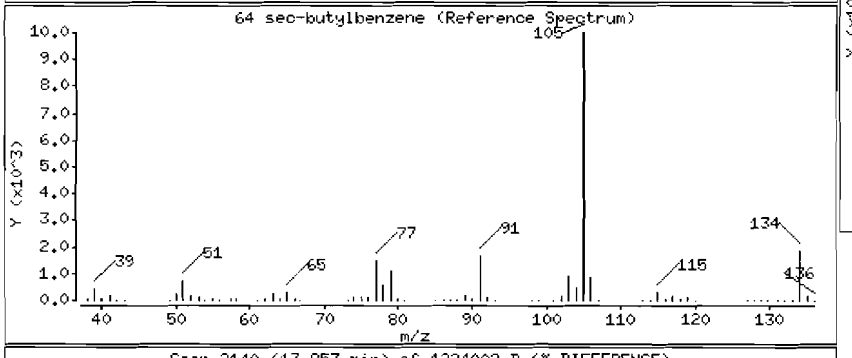
Column diameter: 0.18

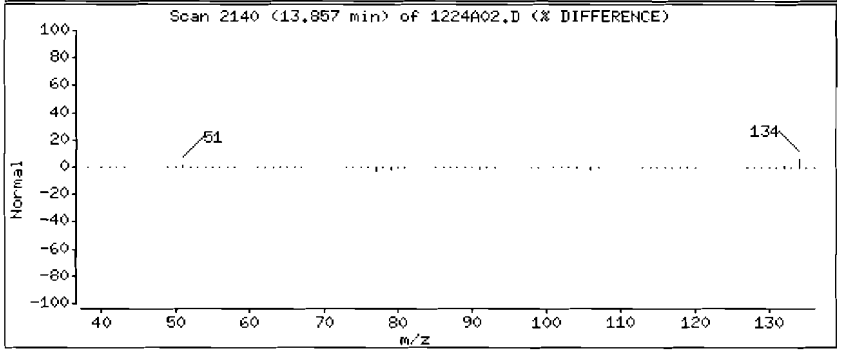
64 sec-butylbenzene

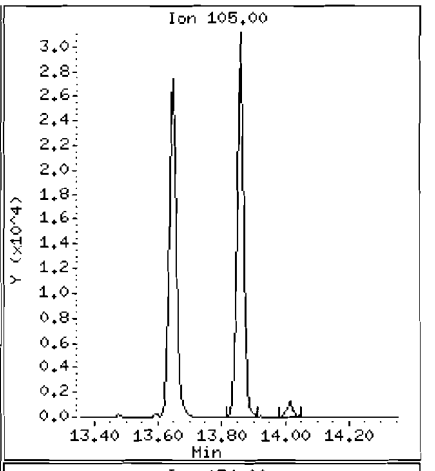
Concentration: 19.70 ngs

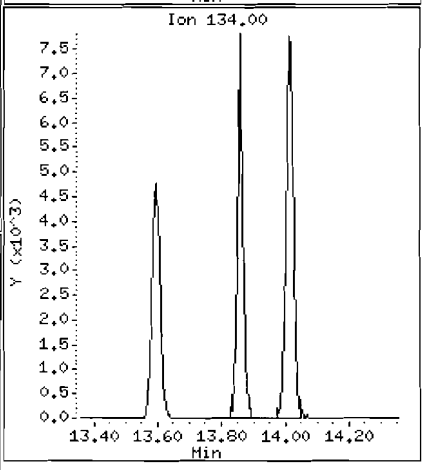












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A02.D

Date : 24-DEC-2013 09:45

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-1,31,5,,

Purge Volume: 5.0

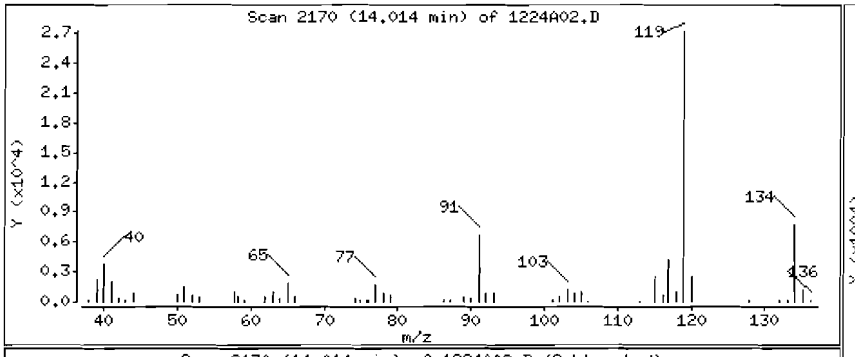
Operator: gt

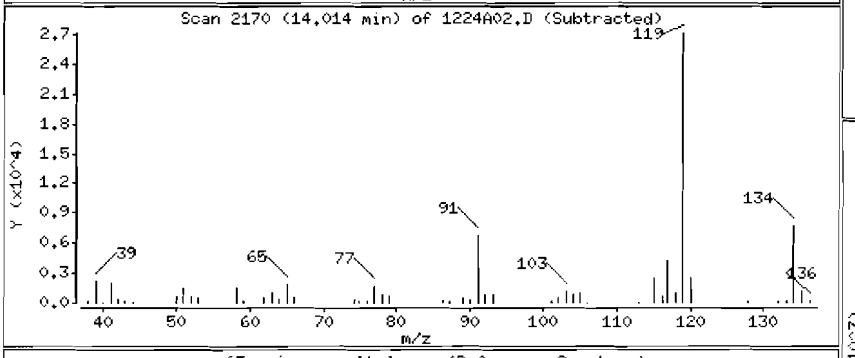
Column phase:

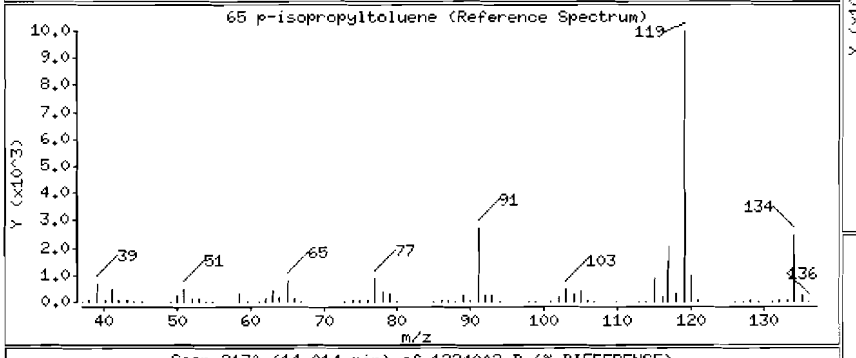
Column diameter: 0.18

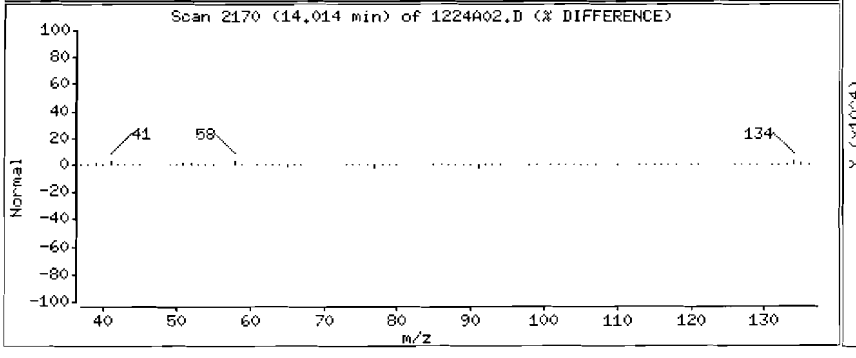
65 p-isopropyltoluene

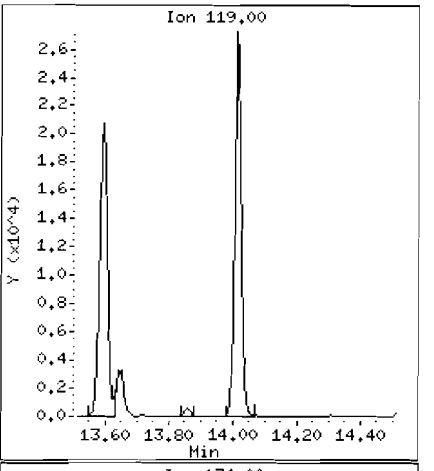
Concentration: 19.27 ngs

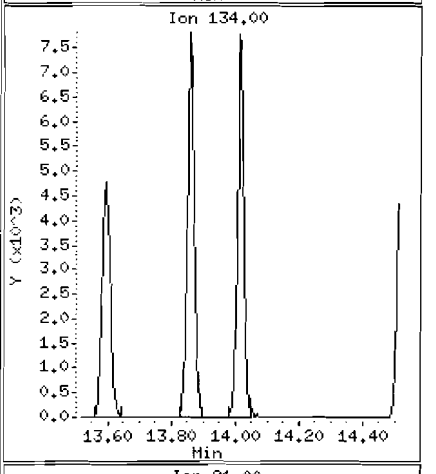


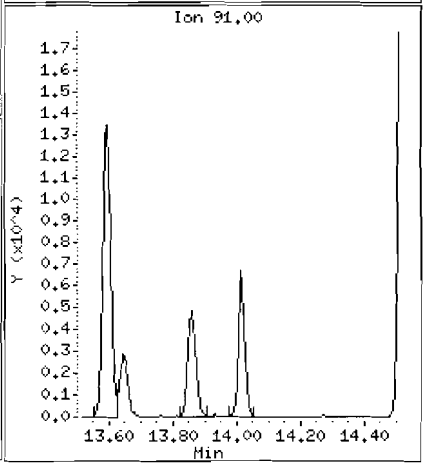












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A02.D

Date : 24-DEC-2013 09:45

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-1,31,5,,

Purge Volume: 5.0

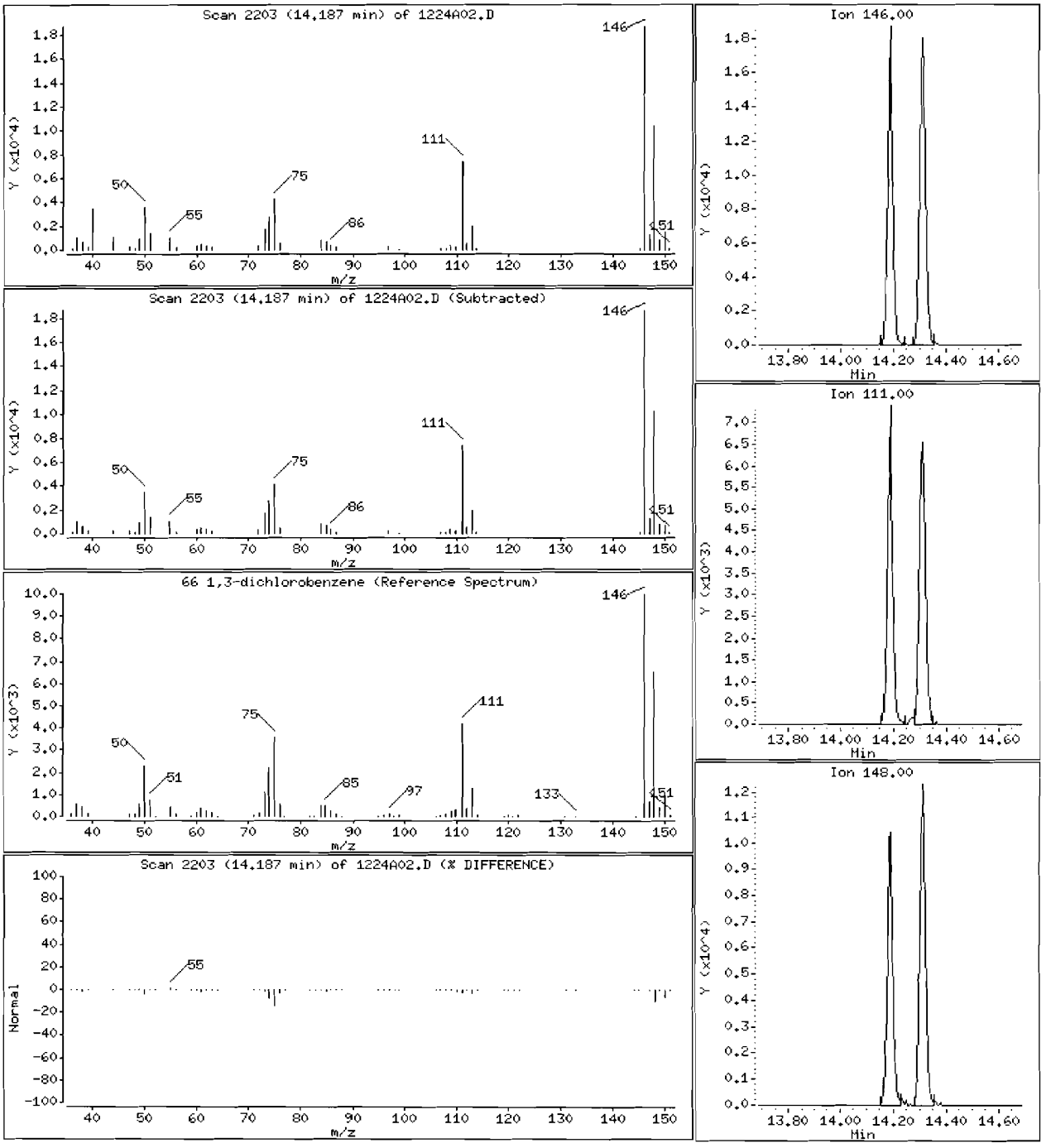
Operator: gt

Column phase:

Column diameter: 0.18

66 1,3-dichlorobenzene

Concentration: 19.82 ngs



Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A02.D

Date : 24-DEC-2013 09:45

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-1,31,5,,

Purge Volume: 5.0

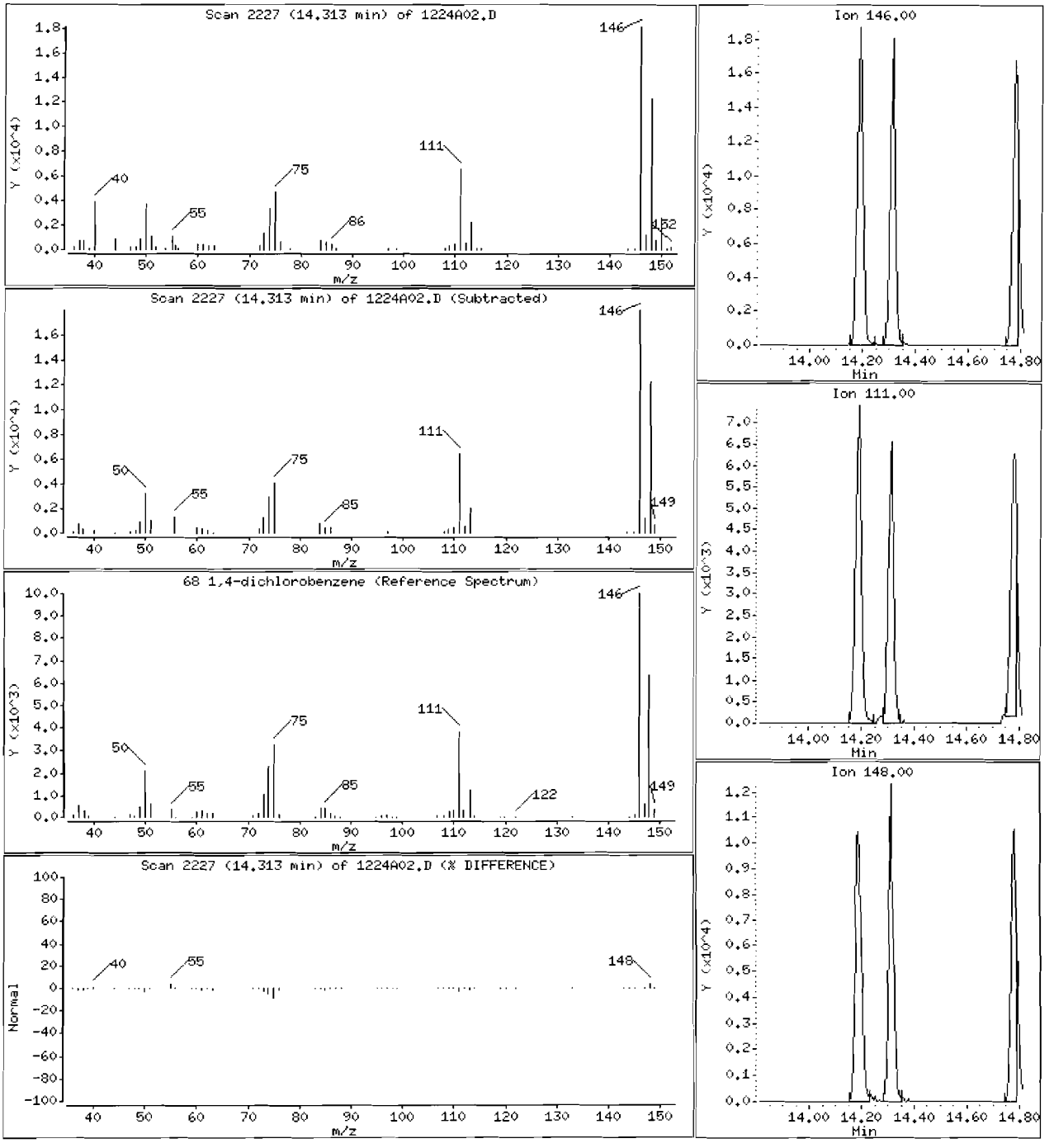
Operator: gt

Column phase:

Column diameter: 0.18

68 1,4-dichlorobenzene

Concentration: 19.27 ngs



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Date : 24-DEC-2013 09:45

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-1,31,5,,

Purge Volume: 5.0

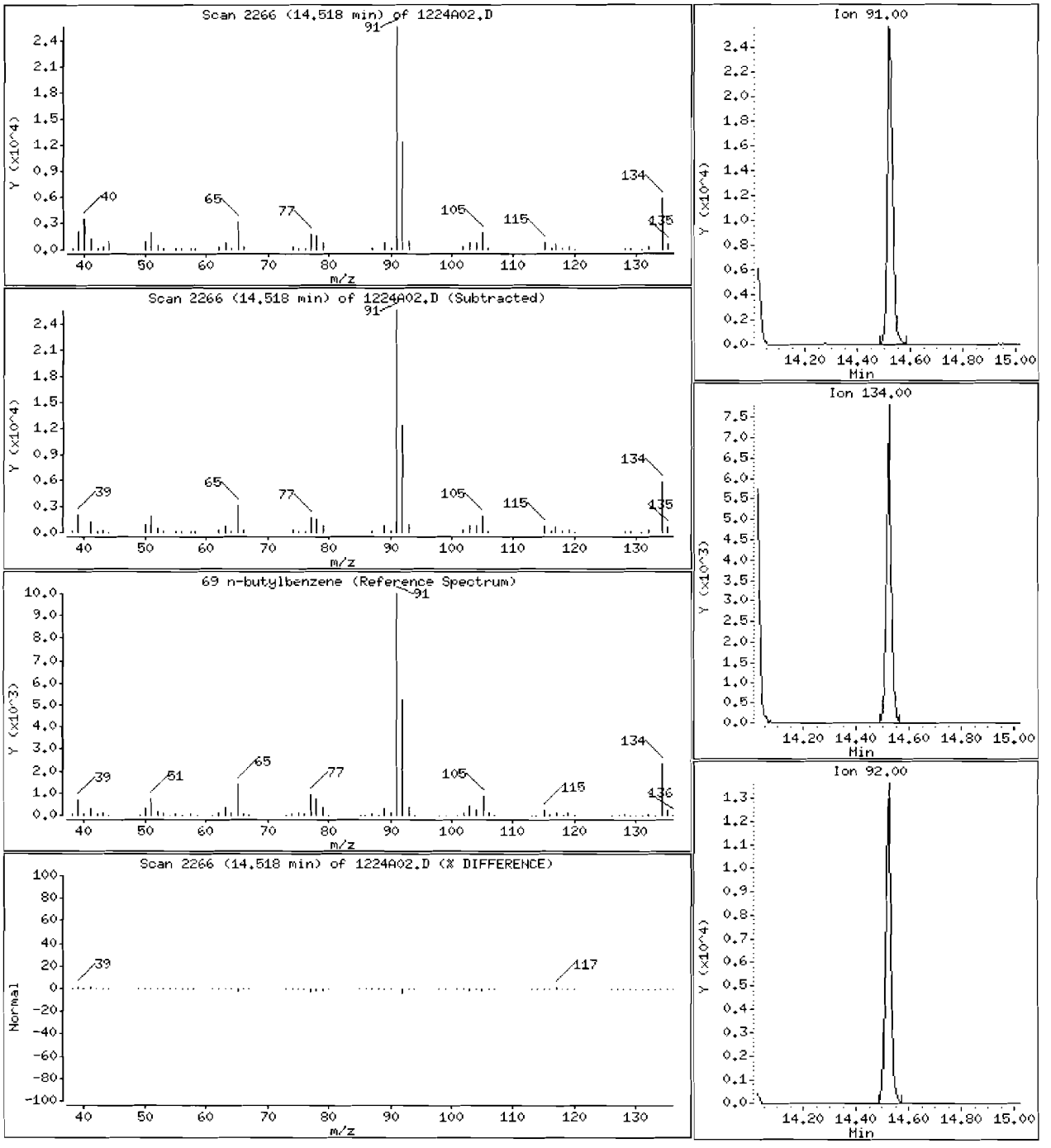
Operator: gt

Column phase:

Column diameter: 0.18

69 n-butylbenzene

Concentration: 19.31 ngs



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Date : 24-DEC-2013 09:45

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-1,31,5,,

Purge Volume: 5.0

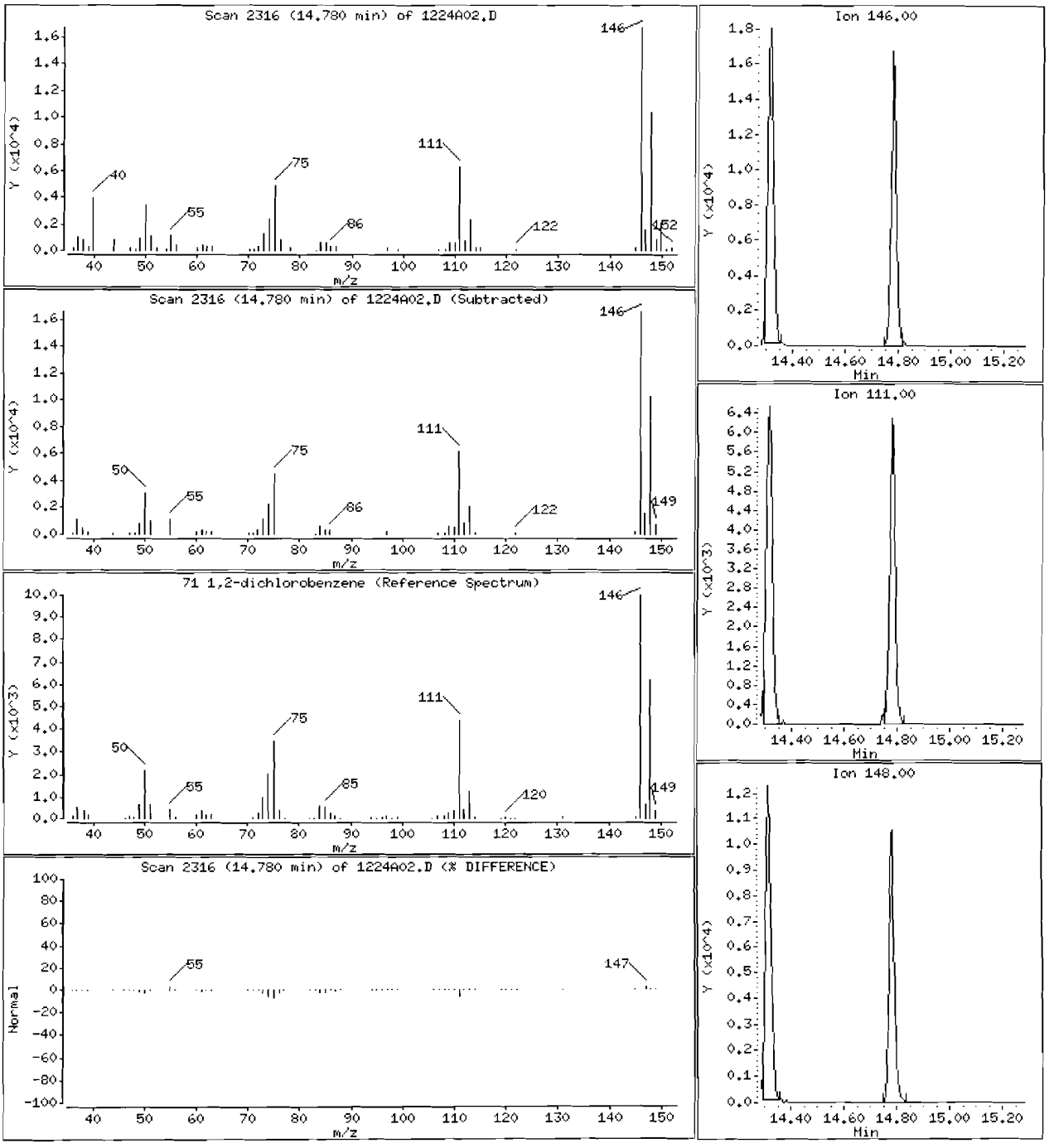
Operator: gt

Column phase:

Column diameter: 0.18

71 1,2-dichlorobenzene

Concentration: 18.83 ngs



Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A02.D

Date : 24-DEC-2013 09:45

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-1,31,5,,

Purge Volume: 5.0

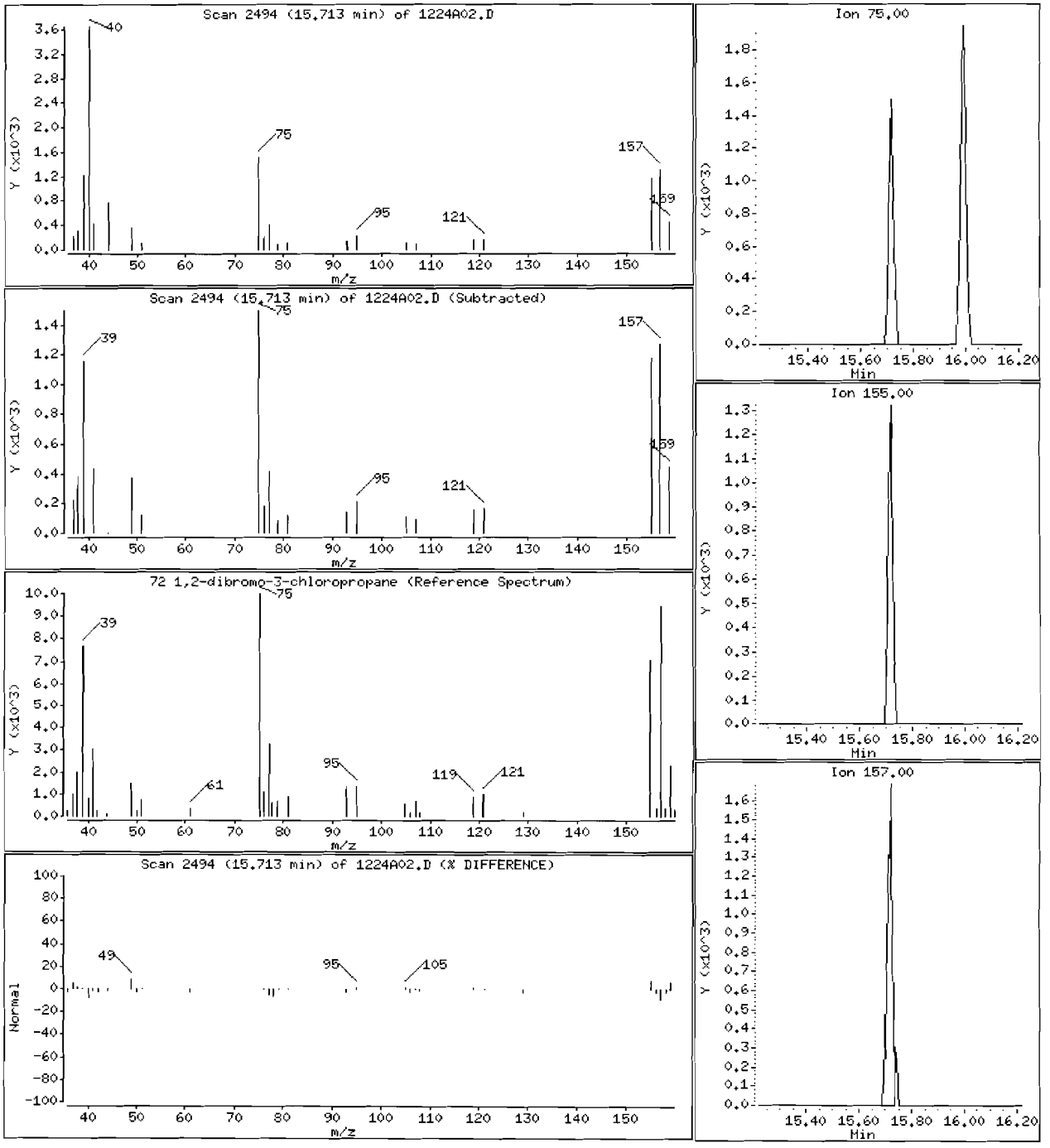
Operator: gt

Column phase:

Column diameter: 0.18

72 1,2-dibromo-3-chloropropane

Concentration: 17.94 ngs



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Date : 24-DEC-2013 09:45

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-1,31,5,,

Purge Volume: 5.0

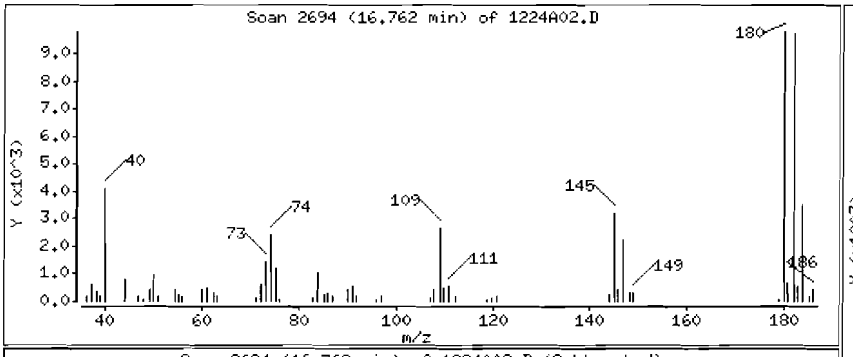
Operator: gt

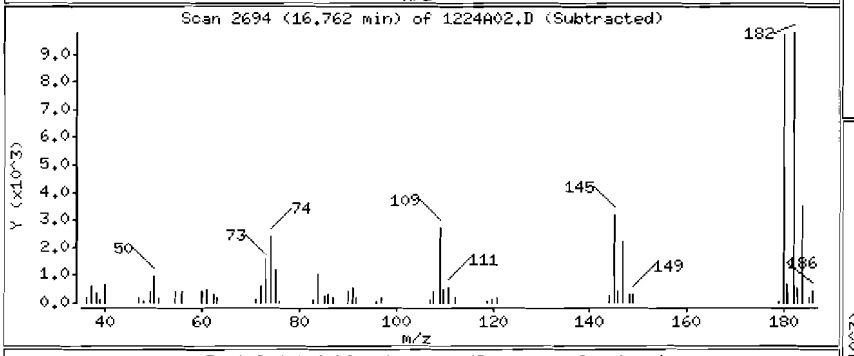
Column phase:

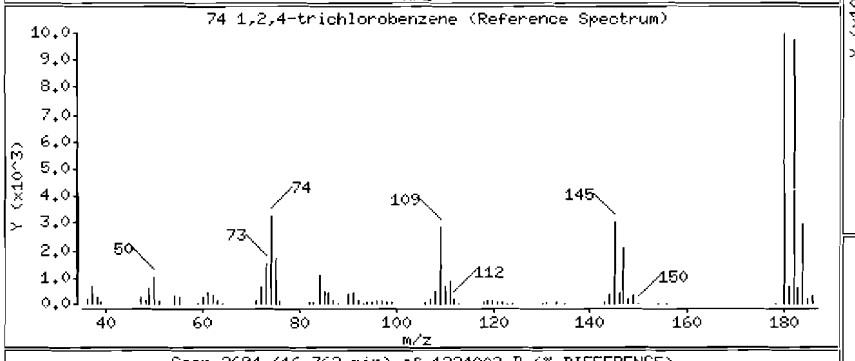
Column diameter: 0.18

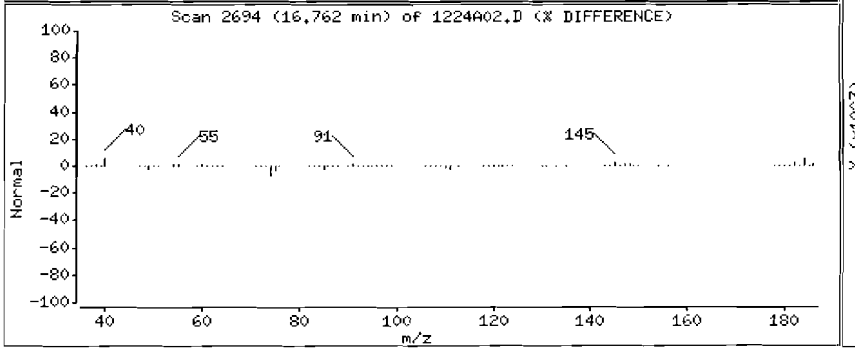
74 1,2,4-trichlorobenzene

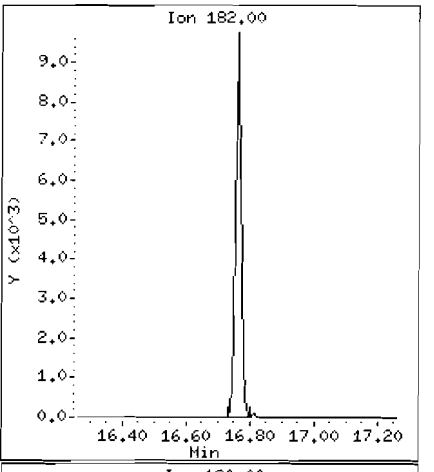
Concentration: 17.99 ngs

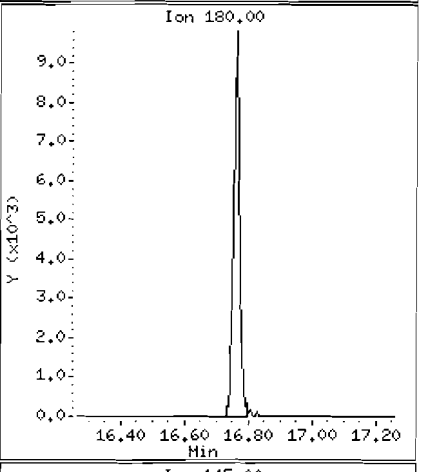


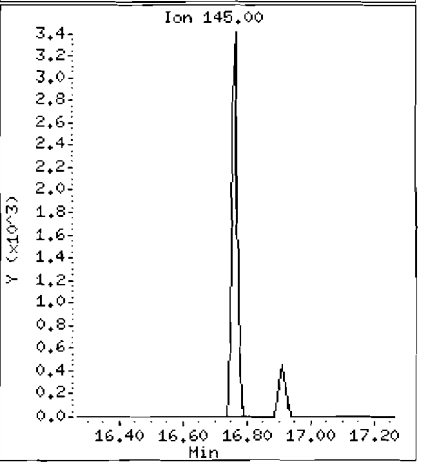












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A02.D

Date : 24-DEC-2013 09:45

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-1,31,5,,

Purge Volume: 5.0

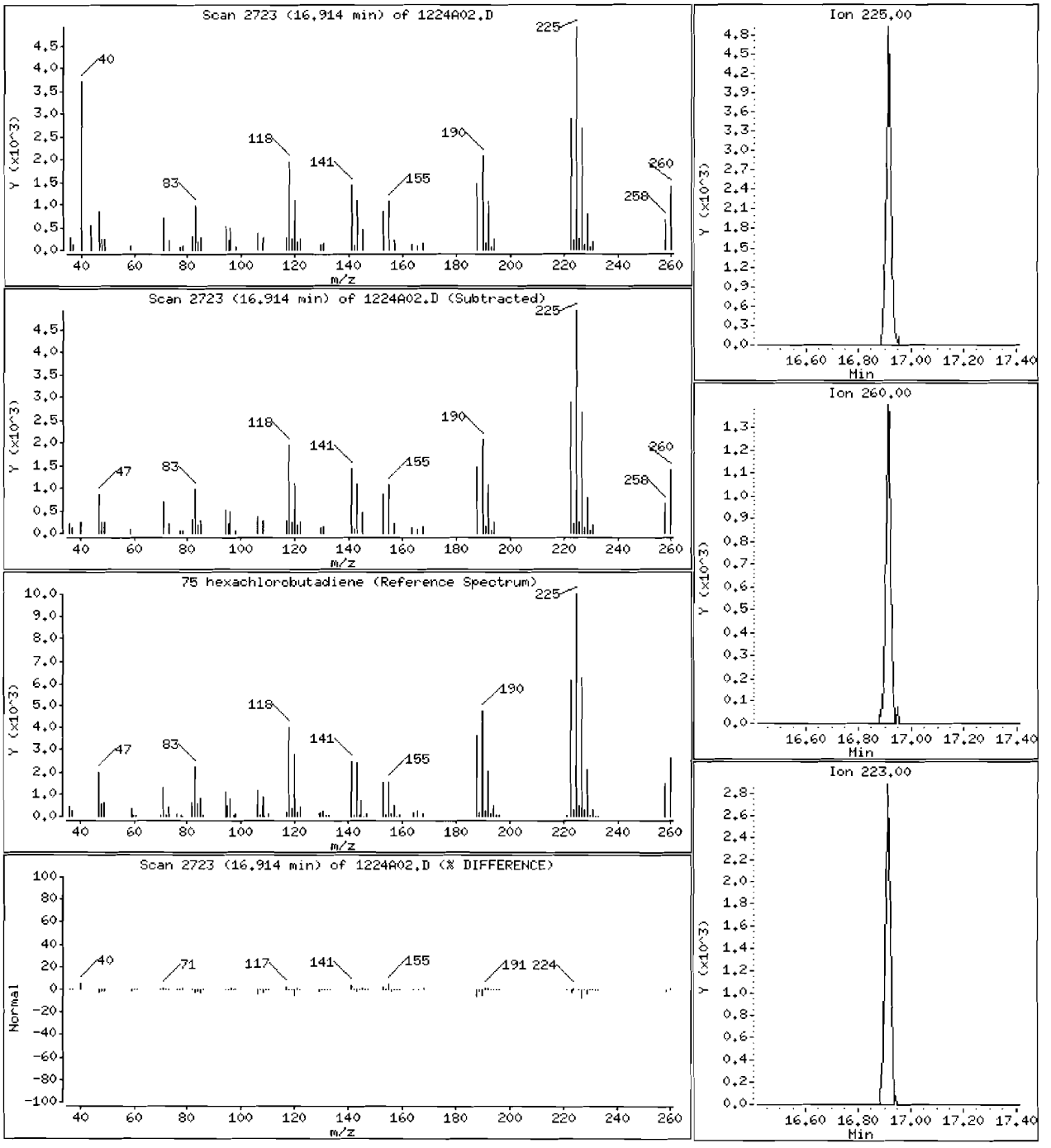
Operator: gt

Column phase:

Column diameter: 0.18

75 hexachlorobutadiene

Concentration: 21.33 ngs



Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A02.D

Date : 24-DEC-2013 09:45

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-1,31,5,,

Purge Volume: 5.0

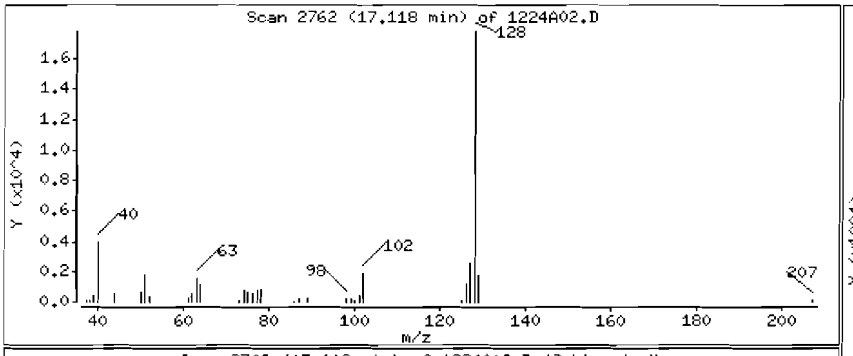
Operator: gt

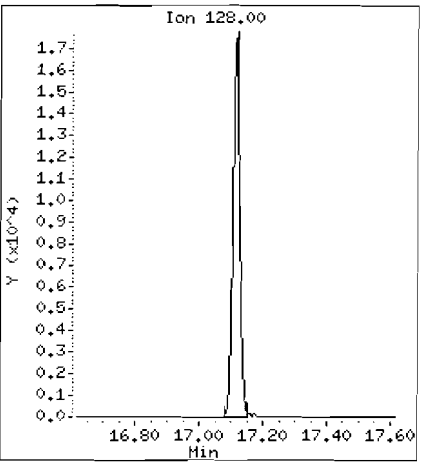
Column phase:

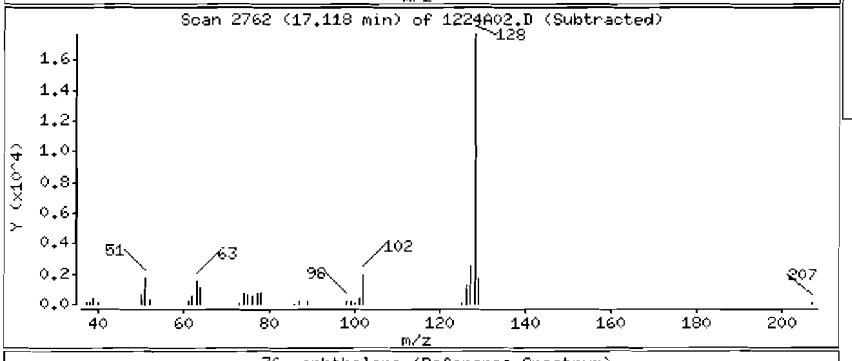
Column diameter: 0.18

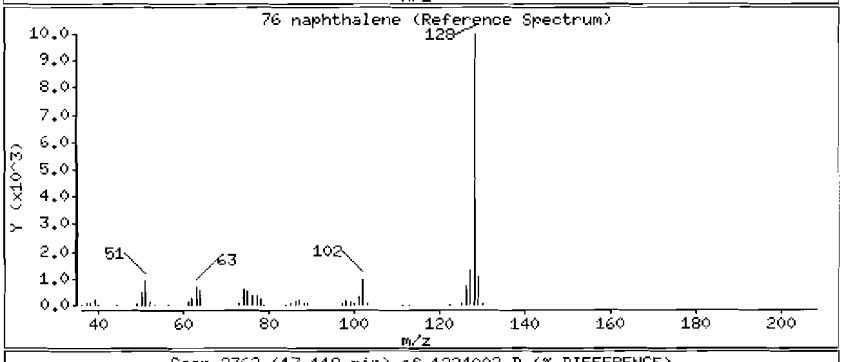
76 naphthalene

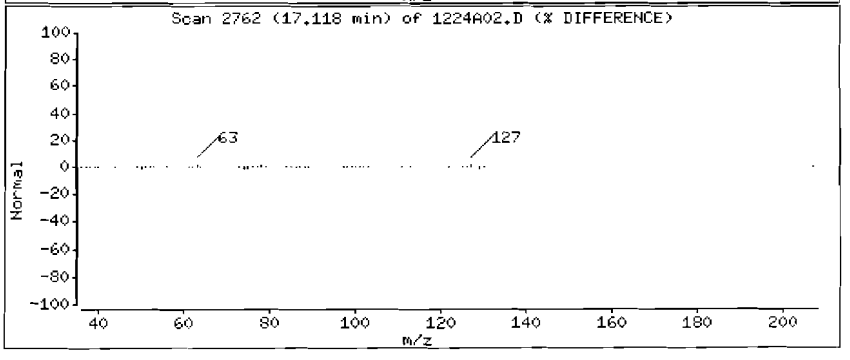
Concentration: 14.85 ngs











Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A02.D

Date : 24-DEC-2013 09:45

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-1,31,5,,

Purge Volume: 5.0

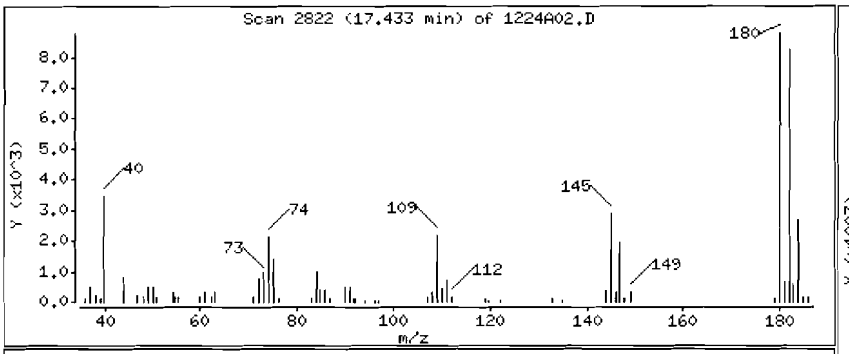
Operator: gt

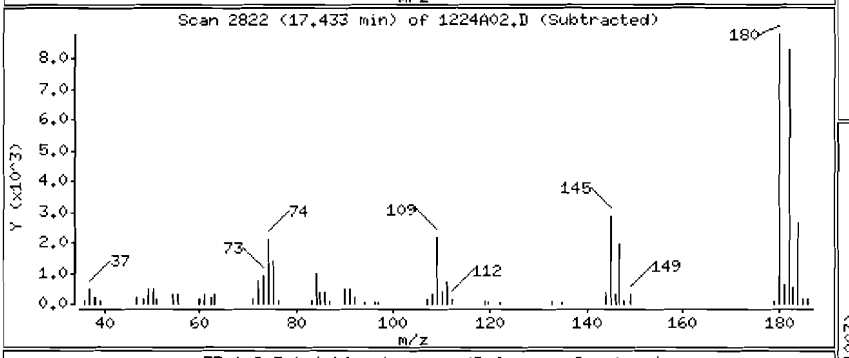
Column phase:

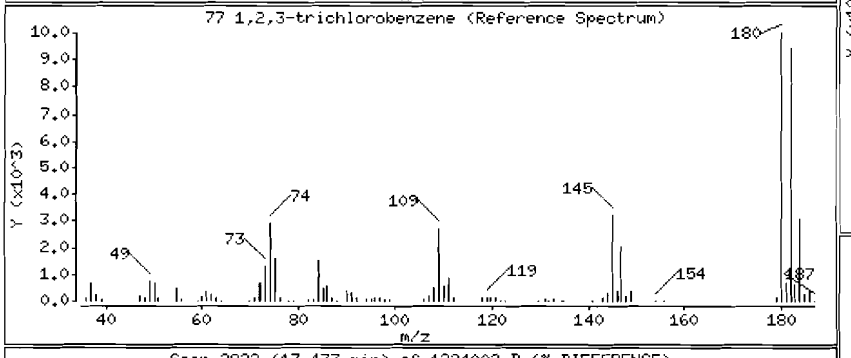
Column diameter: 0.18

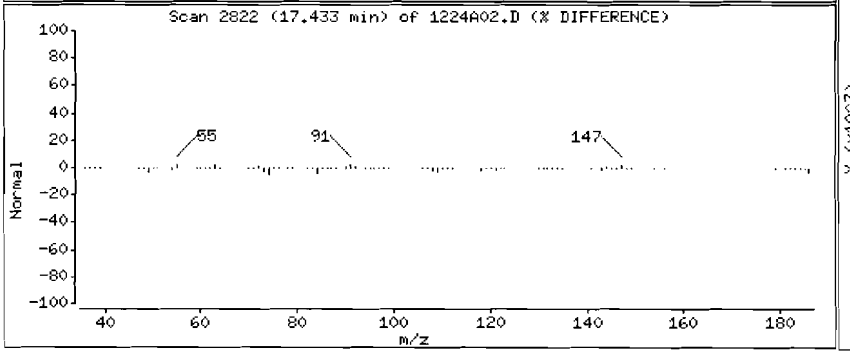
77 1,2,3-trichlorobenzene

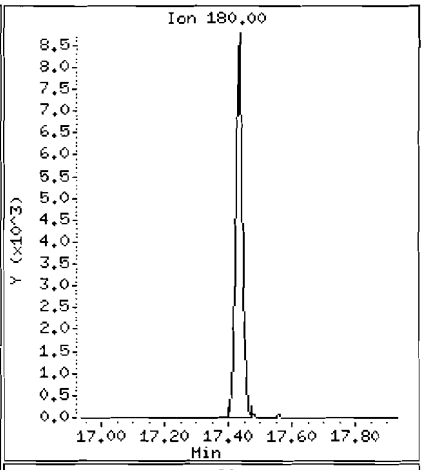
Concentration: 18.37 ngs

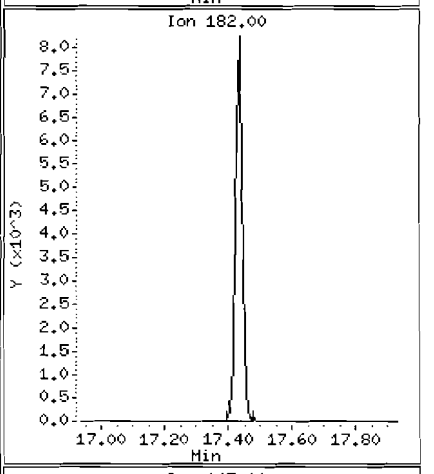


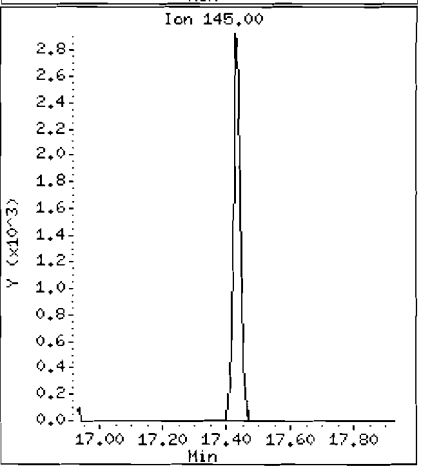












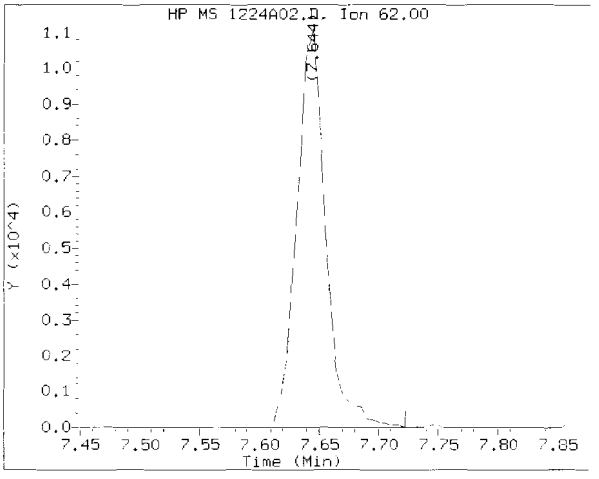
Alpha Analytical Labs

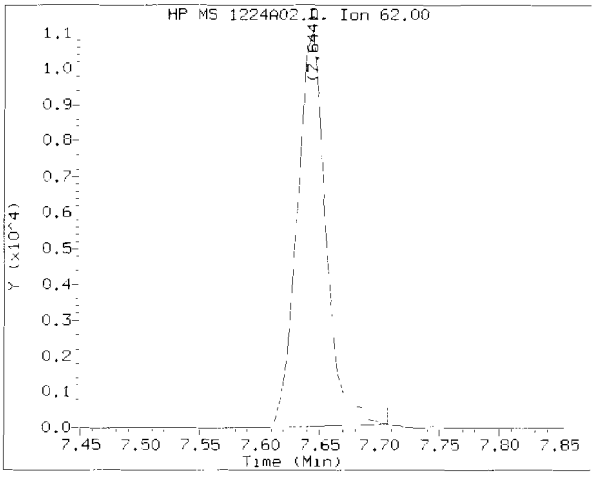
Manual Integration

Sample Info : wg661542-1,31,5,,
wg661542,ical8787

Instrument ID : Bundy.i
Method : 524extras.m
File : 1224A02.D
Injection Date : 24-DEC-2013 09:45
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: LCS

Compound # 28: 1,2-dichloroethane

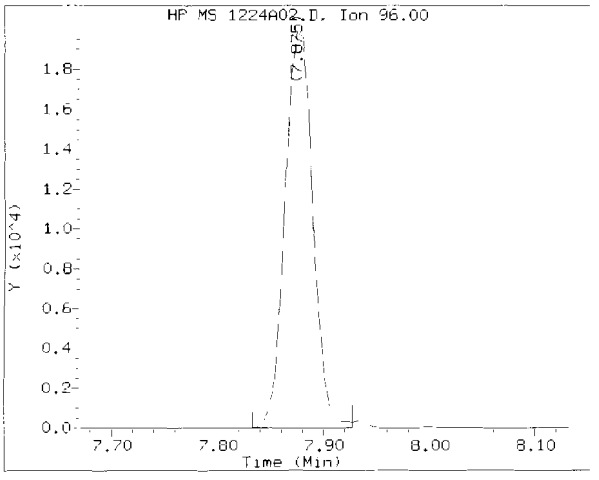


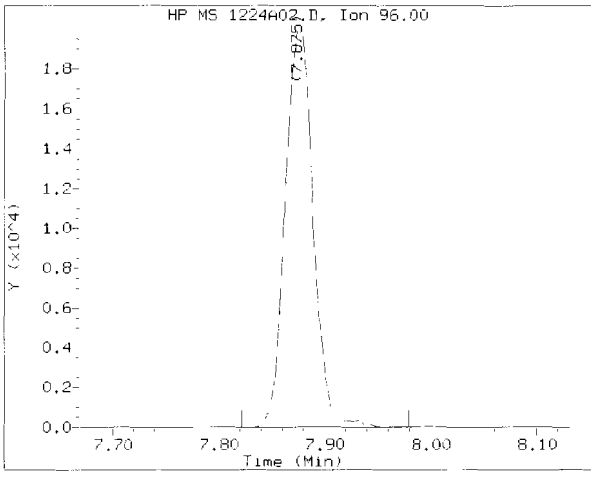


Original Peak Response = 18742 Manual Peak Response = 18319 M4

M4 = Poor automated baseline construction.

Compound # 30: fluorobenzene





Original Peak Response = 36652 Manual Peak Response = 36873 M4

M4 = Poor automated baseline construction.

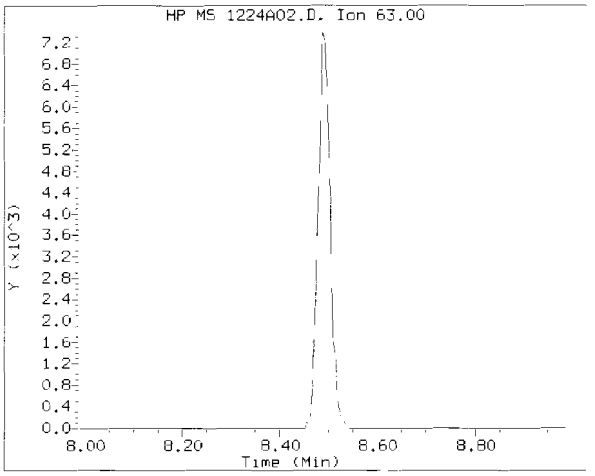
Alpha Analytical Labs

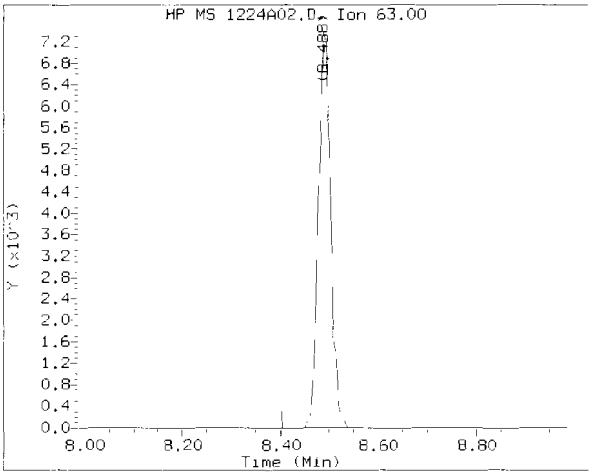
Manual Integration

Sample Info : 524 CCV
wg,ical8787

Instrument ID : Bundy.i
Method : 524extras.m
File : 1224A02.D
Injection Date : 24-DEC-2013 09:45
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: LCS

Compound # 32: 1,2-dichloropropane

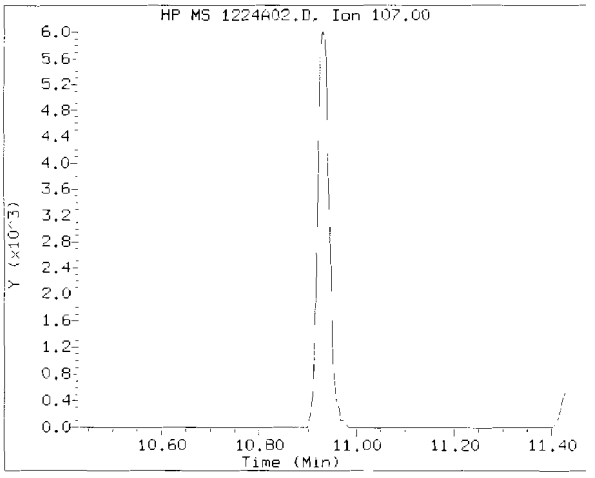


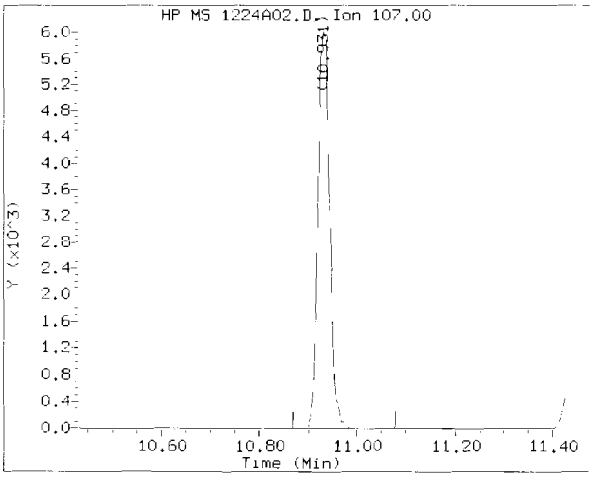


Original Peak Response = 0 Manual Peak Response = 12963 M2

M2 = Peak not found by automatic integration algorithm.

Compound # 44: 1,2-dibromoethane





Original Peak Response = 0 Manual Peak Response = 10107 M2

M2 = Peak not found by automatic integration algorithm.

Alpha Analytical Labs

gc/ms voa -Bundy 524

Data file : \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A08.D
Lab Smp Id:
Inj Date : 24-DEC-2013 13:01
Operator : gt Inst ID: Bundy.i
Smp Info : wg661542-3,31,5,,c1
Misc Info : wg661542,ical8787
Comment :
Method : \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\524extras.m
Meth Date : 30-Dec-2013 11:19 Bundy.i Quant Type: ISTD
Cal Date : 10-NOV-2013 23:22 Cal File: 1107A12.D
Als bottle: 17 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 524.sub
Target Version: 4.12
Processing Host: VIRTUALXP-72976

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ngs)	FINAL (ngs)	REVIEW CODE
	1 dichlorodifluoromethane	85	2.752	2.752	(0.350)	10697	22.0152	22.01	
	2 chloromethane	50	3.066	3.066	(0.389)	14107	20.7468	20.74	
	3 vinyl chloride	62	3.208	3.208	(0.407)	12219	21.1368	21.13	
	4 bromomethane	94	3.743	3.743	(0.475)	2934	16.8345	16.83(M)	M4
	5 chloroethane	64	3.827	3.821	(0.486)	6900	21.5148	21.51	
	6 trichlorofluoromethane	101	4.110	4.110	(0.522)	15810	26.1311	26.13(R)	
	9 1,1-dichloroethene	96	4.786	4.786	(0.608)	8295	21.8737	21.87	
	11 methylene chloride	84	5.284	5.284	(0.671)	9286	21.1725	21.17	
	13 methyl-tert-butyl ether	73	5.415	5.410	(0.688)	23452	19.9824	19.98	
	14 trans-1,2-dichloroethene	96	5.598	5.593	(0.710)	9747	21.5135	21.51	
	16 1,1-dichloroethane	63	6.018	6.018	(0.764)	23828	23.3966	23.39	
	19 2,2-dichloropropane	77	6.600	6.595	(0.838)	16092	25.9165	25.91	
	20 cis-1,2-dichloroethene	96	6.647	6.647	(0.844)	11787	24.1604	24.16	
	21 chloroform	83	6.805	6.805	(0.864)	21634	27.9155	27.91(R)	
	22 bromochloromethane	128	6.993	6.993	(0.888)	5705	23.2405	23.24	
	24 1,1,1-trichloroethane	97	7.224	7.224	(0.917)	18715	26.8531	26.85(R)	
	25 1,1-dichloropropene	75	7.381	7.381	(0.937)	12937	22.3687	22.36	
	27 carbon tetrachloride	117	7.502	7.507	(0.953)	17759	28.3163	28.31(R)	
	28 1,2-dichloroethane	62	7.643	7.643	(0.971)	19373	26.8200	26.82(R)	
	29 benzene	78	7.685	7.680	(0.976)	41725	22.8103	22.81	
*	30 fluorobenzene	96	7.874	7.874	(1.000)	37168	20.0000	(M)	
	31 trichloroethene	95	8.304	8.304	(1.055)	13353	27.3944	27.39(R)	
	32 1,2-dichloropropane	63	8.488	8.488	(1.079)	14746	24.6005	24.60(M)	M2
	33 bromodichloromethane	83	8.750	8.755	(1.111)	17654	27.9057	27.90(R)	
	34 dibromomethane	93	8.828	8.828	(1.121)	7571	24.9400	24.94	
	36 cis-1,3-dichloropropene	75	9.311	9.311	(1.182)	17853	23.2492	23.24	
	37 toluene	92	9.694	9.693	(1.231)	27906	22.7591	22.75	
	38 trans-1,3-dichloropropene	75	9.851	9.851	(1.251)	16419	23.1480	23.14	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ngs)	CONCENTRATIONS FINAL (ngs)	REVIEW CODE
	40 1,1,2-trichloroethane	83	10.050	10.050	(1.276)	9594	26.2426	26.24(R)	
	41 1,3-dichloropropane	76	10.333	10.333	(1.312)	18511	25.2865	25.28	
	42 tetrachloroethene	166	10.449	10.443	(1.327)	44841	87.4109	87.41(R)	
	43 dibromochloromethane	129	10.690	10.690	(1.358)	14087	27.1259	27.12(R)	
	44 1,2-dibromoethane	107	10.926	10.931	(0.962)	11326	21.8262	21.82(M)	M2
*	45 Chlorobenzene-d5	117	11.356	11.361	(1.000)	32541	20.0000		
	46 chlorobenzene	112	11.403	11.403	(1.004)	34385	21.5643	21.56	
	47 ethylbenzene	91	11.434	11.434	(1.007)	54925	21.0598	21.05	
	48 1,1,1,2-tetrachloroethane	131	11.434	11.434	(1.007)	13381	23.3674	23.36	
	49 p/m-xylenes	106	11.518	11.518	(1.014)	41966	42.7590	42.75	
	50 o-xylenes	106	12.058	12.058	(1.062)	19016	19.3760	19.37	
	51 styrene	104	12.095	12.090	(1.065)	34719	20.4353	20.43	
	52 isopropylbenzene	105	12.467	12.472	(1.098)	53585	21.2781	21.27	
	53 bromoform	173	12.556	12.556	(1.106)	9079	23.2642	23.26	
	54 1,1,2,2-tetrachloroethane	83	12.677	12.677	(1.116)	13626	20.6469	20.64	
$	55 4-bromofluorobenzene	95	12.797	12.797	(1.127)	16114	20.3350	20.33	
	56 1,2,3-trichloropropane	110	12.860	12.860	(1.133)	4458	22.9595	22.95	
	57 n-propylbenzene	91	12.960	12.960	(1.141)	64328	21.4891	21.48	
	58 bromobenzene	156	13.075	13.075	(1.151)	15159	22.3374	22.33	
	59 1,3,5-trimethylbenzene	105	13.143	13.149	(1.157)	43051	20.6895	20.68	
	60 o-chlorotoluene	126	13.217	13.217	(1.164)	14831	23.9615	23.96	
	61 p-chlorotoluene	91	13.264	13.264	(1.168)	44233	23.1856	23.18	
	62 tert-butylbenzene	119	13.589	13.594	(1.197)	37011	20.1892	20.18	
	63 1,2,4,-trimethylbenzene	105	13.647	13.647	(1.202)	45353	21.5139	21.51	
	64 sec-butylbenzene	105	13.856	13.856	(1.220)	57382	21.8129	21.81	
	65 p-isopropyltoluene	119	14.019	14.014	(1.235)	49222	20.9365	20.93	
	66 1,3-dichlorobenzene	146	14.187	14.187	(0.994)	30229	20.9263	20.92	
*	67 1,4-Dichlorobenzene-d4	152	14.271	14.271	(1.000)	19393	20.0000		
	68 1,4-dichlorobenzene	146	14.313	14.313	(1.003)	28776	19.2983	19.29	
	69 n-butylbenzene	91	14.522	14.517	(1.018)	43831	19.6533	19.65	
$	70 1,2-Dichlorobenzene-d4	152	14.748	14.748	(1.033)	18269	19.7688	19.76	
	71 1,2-dichlorobenzene	146	14.779	14.779	(1.036)	28241	19.6071	19.60	
	72 1,2-dibromo-3-chloropropane	75	15.713	15.712	(1.101)	2634	20.0642	20.06	
	74 1,2,4-trichlorobenzene	182	16.761	16.761	(1.175)	14609	17.8268	17.82	
	75 hexachlorobutadiene	225	16.913	16.913	(1.185)	7447	20.9100	20.91	
	76 naphthalene	128	17.118	17.118	(1.199)	32039	15.1207	15.12	
	77 1,2,3-trichlorobenzene	180	17.432	17.432	(1.222)	15030	17.7152	17.71	
M	78 Xylene (total)	106				60982	62.1351	62.13	

QC Flag Legend

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

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: Bundy.i
Lab File ID: 1224A08.D
Lab Smp Id:
Analysis Type: VOA
Quant Type: ISTD
Operator: gt
Method File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\524extras.m
Misc Info: wg661542,ical8787

Calibration Date: 24-DEC-2013
Calibration Time: 09:45
Level: MED
Sample Type: WATER

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 3

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
30 fluorobenzene	36873	18437	73746	37168	0.80
45 Chlorobenzene-d5	32655	16328	65310	32541	-0.35
67 1,4-Dichlorobenze	18891	9446	37782	19393	2.66

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
30 fluorobenzene	7.87	7.37	8.37	7.87	0.00
45 Chlorobenzene-d5	11.36	10.86	11.86	11.36	-0.05
67 1,4-Dichlorobenze	14.27	13.77	14.77	14.27	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Alpha Analytical Labs

RECOVERY REPORT

Client Name:
Client SDG: 131224.b
Sample Matrix: LIQUID
Fraction: VOA
Lab Smp Id:
Level: MED
Operator: gt
Data Type: MS DATA
SampleType: MS
SpikeList File: 524lcs.spk
Quant Type: ISTD
Sublist File: 524.sub
Method File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\524extras.m
Misc Info: wg661542,ical8787

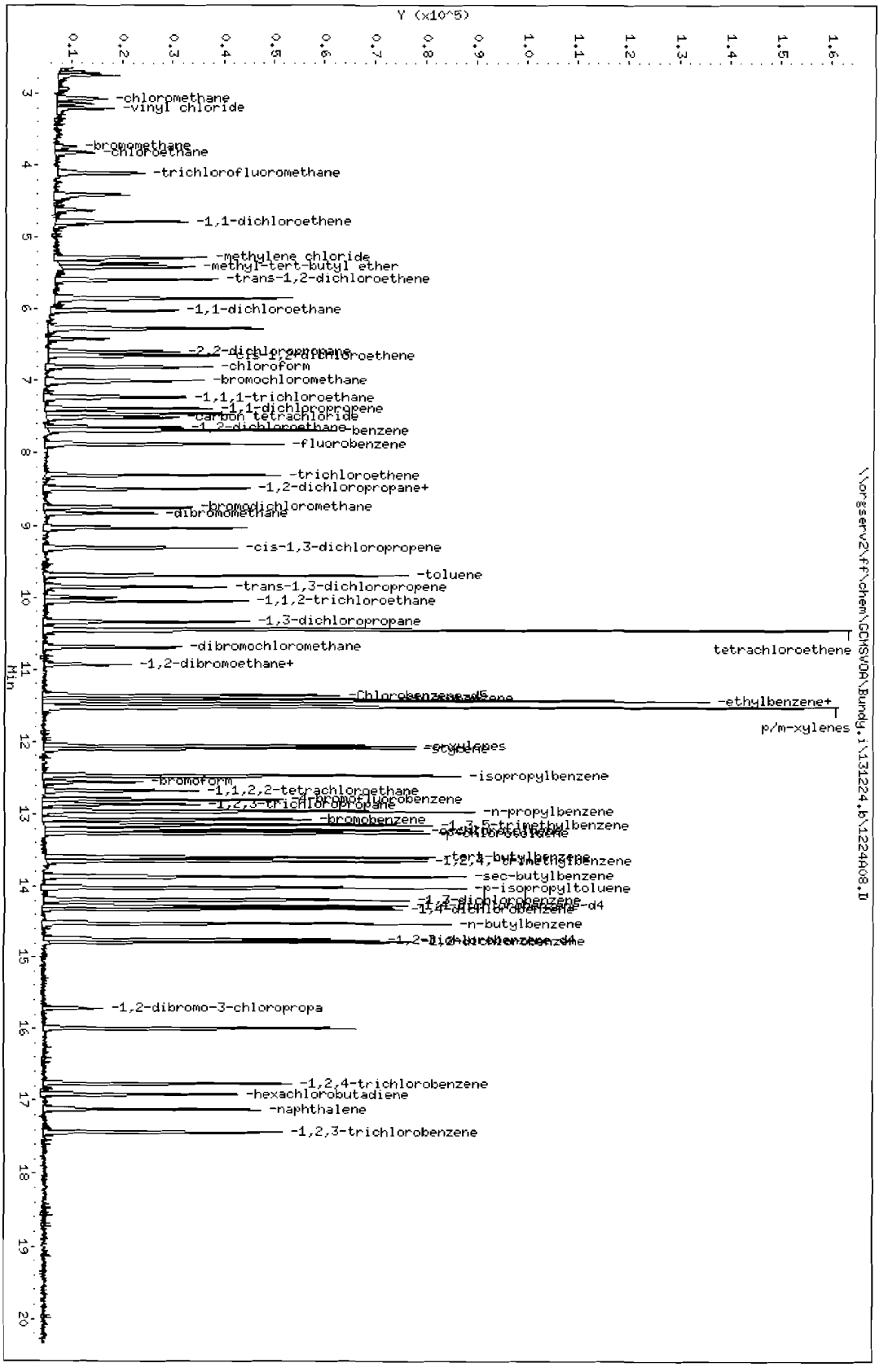
SPIKE COMPOUND	CONC ADDED ngs	CONC RECOVERED ngs	% RECOVERED	LIMITS
1 dichlorodifluorome	20.00	22.01	110.08	70-130
2 chloromethane	20.00	20.74	103.73	70-130
3 vinyl chloride	20.00	21.13	105.68	70-130
4 bromomethane	20.00	16.83	84.17	70-130
5 chloroethane	20.00	21.51	107.57	70-130
6 trichlorofluoromet	20.00	26.13	130.66*	70-130
9 1,1-dichloroethene	20.00	21.87	109.37	70-130
11 methylene chloride	20.00	21.17	105.86	70-130
13 methyl-tert-butyl	20.00	19.98	99.91	70-130
14 trans-1,2-dichloro	20.00	21.51	107.57	70-130
16 1,1-dichloroethane	20.00	23.39	116.98	70-130
19 2,2-dichloropropan	20.00	25.91	129.58	70-130
20 cis-1,2-dichloroet	20.00	24.16	120.80	70-130
21 chloroform	20.00	27.91	139.58*	70-130
22 bromochloromethane	20.00	23.24	116.20	70-130
24 1,1,1-trichloroeth	20.00	26.85	134.27*	70-130
25 1,1-dichloropropen	20.00	22.36	111.84	70-130
27 carbon tetrachlori	20.00	28.31	141.58*	70-130
28 1,2-dichloroethane	20.00	26.82	134.10*	70-130
29 benzene	20.00	22.81	114.05	70-130
31 trichloroethene	20.00	27.39	136.97*	70-130
32 1,2-dichloropropan	20.00	24.60	123.00	70-130
33 bromodichlorometha	20.00	27.90	139.53*	70-130
34 dibromomethane	20.00	24.94	124.70	70-130
36 cis-1,3-dichloropr	20.00	23.24	116.25	70-130
37 toluene	20.00	22.75	113.80	70-130
38 trans-1,3-dichloro	20.00	23.14	115.74	70-130
40 1,1,2-trichloroeth	20.00	26.24	131.21*	70-130
41 1,3-dichloropropan	20.00	25.28	126.43	70-130
42 tetrachloroethene	20.00	87.41	437.05*	70-130
43 dibromochlorometha	20.00	27.12	135.63*	70-130
44 1,2-dibromoethane	20.00	21.82	109.13	70-130
46 chlorobenzene	20.00	21.56	107.82	70-130
48 1,1,1,2-tetrachlor	20.00	23.36	116.84	70-130
47 ethylbenzene	20.00	21.05	105.30	70-130
49 p/m-xylenes	40.00	42.75	106.90	70-130
50 o-xylenes	20.00	19.37	96.88	70-130
51 styrene	20.00	20.43	102.18	70-130
52 isopropylbenzene	20.00	21.27	106.39	70-130
53 bromoform	20.00	23.26	116.32	70-130

SPIKE COMPOUND	CONC ADDED ngs	CONC RECOVERED ngs	% RECOVERED	LIMITS
54 1,1,2,2-tetrachlor	20.00	20.64	103.23	70-130
56 1,2,3-trichloropro	20.00	22.95	114.80	70-130
57 n-propylbenzene	20.00	21.48	107.45	70-130
58 bromobenzene	20.00	22.33	111.69	70-130
59 1,3,5-trimethylben	20.00	20.68	103.45	70-130
60 o-chlorotoluene	20.00	23.96	119.81	70-130
61 p-chlorotoluene	20.00	23.18	115.93	70-130
62 tert-butylbenzene	20.00	20.18	100.95	70-130
63 1,2,4,-trimethylbe	20.00	21.51	107.57	70-130
64 sec-butylbenzene	20.00	21.81	109.06	70-130
65 p-isopropyltoluene	20.00	20.93	104.68	70-130
66 1,3-dichlorobenzen	20.00	20.92	104.63	70-130
68 1,4-dichlorobenzen	20.00	19.29	96.49	70-130
69 n-butylbenzene	20.00	19.65	98.27	70-130
71 1,2-dichlorobenzen	20.00	19.60	98.04	70-130
72 1,2-dibromo-3-chlo	20.00	20.06	100.32	70-130
74 1,2,4-trichloroben	20.00	17.82	89.13	70-130
75 hexachlorobutadien	20.00	20.91	104.55	70-130
76 naphthalene	20.00	15.12	75.60	70-130
77 1,2,3-trichloroben	20.00	17.71	88.58	70-130
M 78 Xylene (total)	60.00	62.13	103.56	70-130

SURROGATE COMPOUND	AMOUNT ADDED ngs	AMOUNT RECOVERED ngs	% RECOVERED	LIMITS
$ 55 4-bromofluorobenze	20.00	20.33	101.67	80-120
$ 70 1,2-Dichlorobenzen	20.00	19.76	98.84	80-120

Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A08.D
Date : 24-DEC-2013 13:01
Client ID:
Sample Info: wg661542-3,31.5,,c1
Purge Volume: 5.0
Column phase:

Instrument: Bundy.i
Operator: gt
Column diameter: 0.18



Page 6

Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A08.D

Date : 24-DEC-2013 13:01

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-3,31,5,,c1

Purge Volume: 5.0

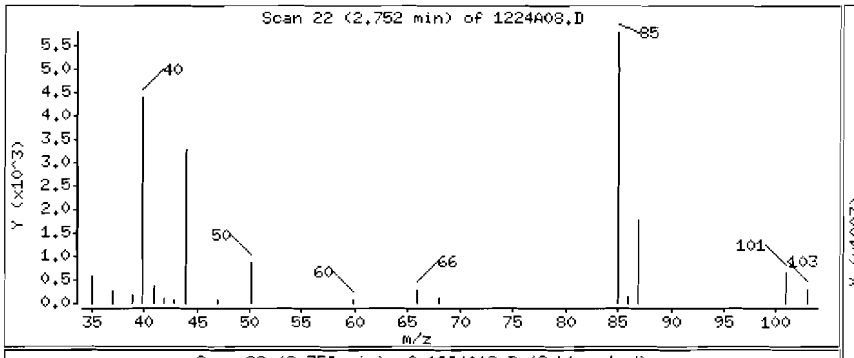
Operator: gt

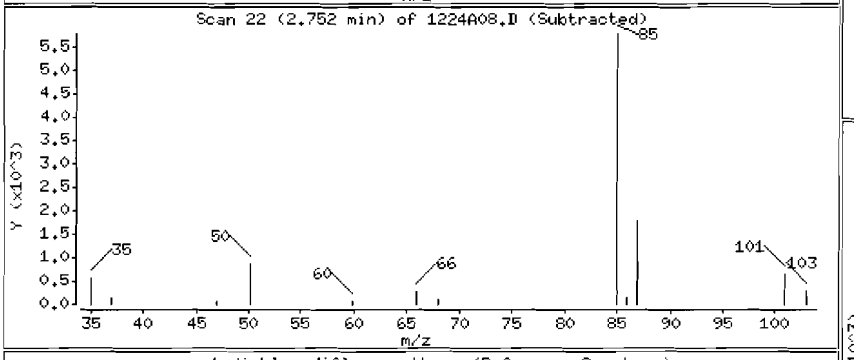
Column phase:

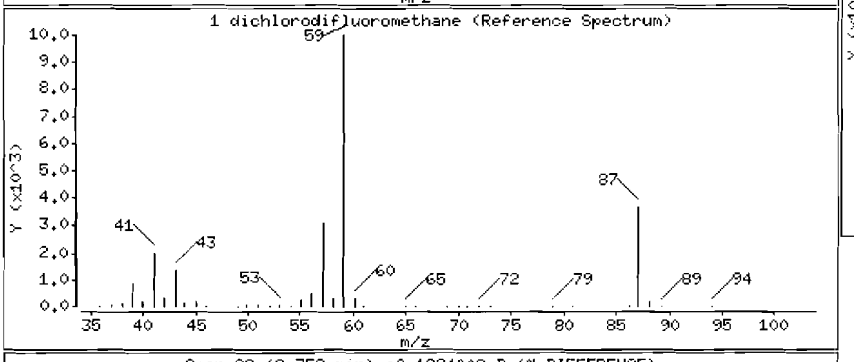
Column diameter: 0.18

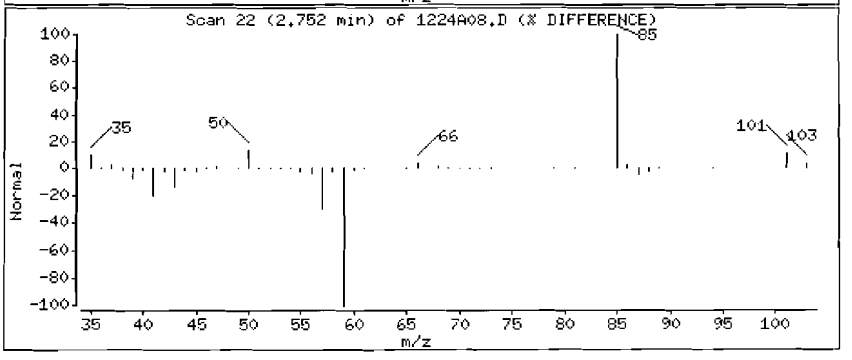
1 dichlorodifluoromethane

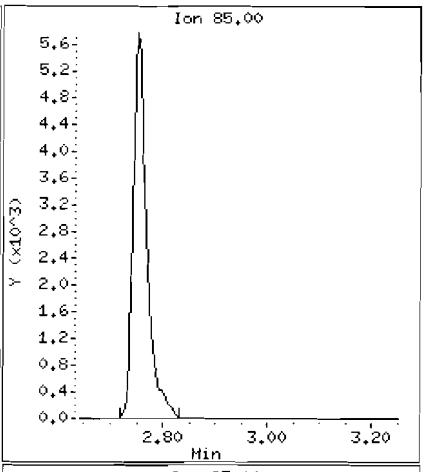
Concentration: 22.01 ngs

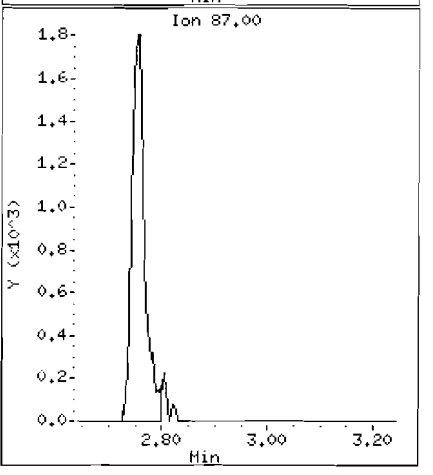












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Date : 24-DEC-2013 13:01

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-3,31,5,,c1

Purge Volume: 5.0

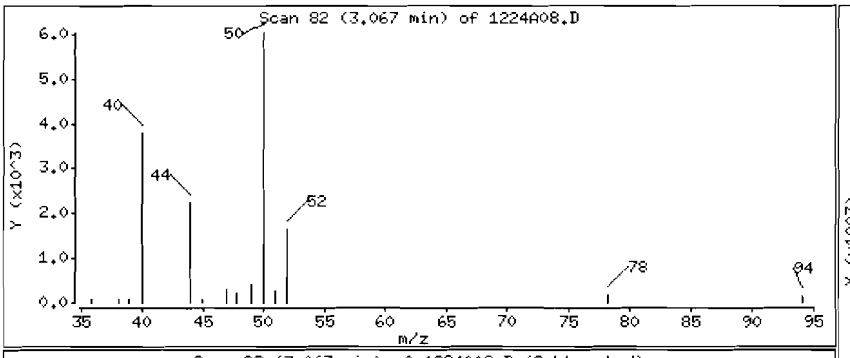
Operator: gt

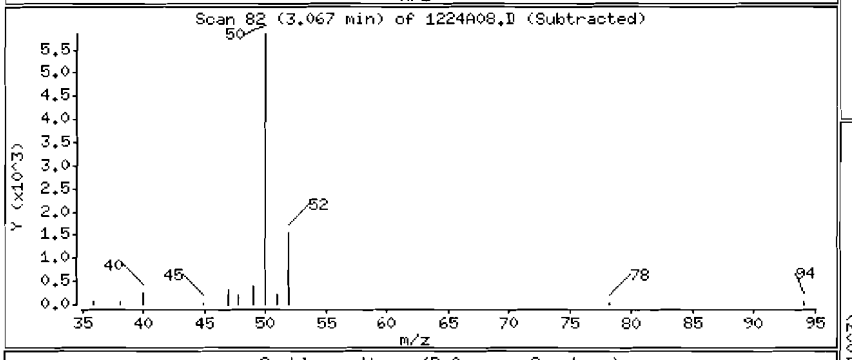
Column phase:

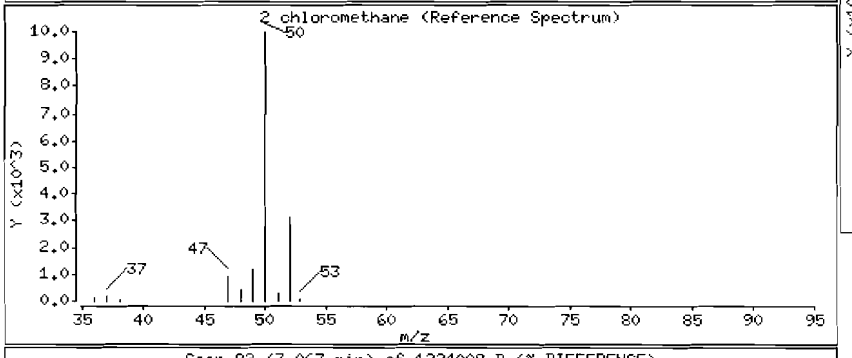
Column diameter: 0.18

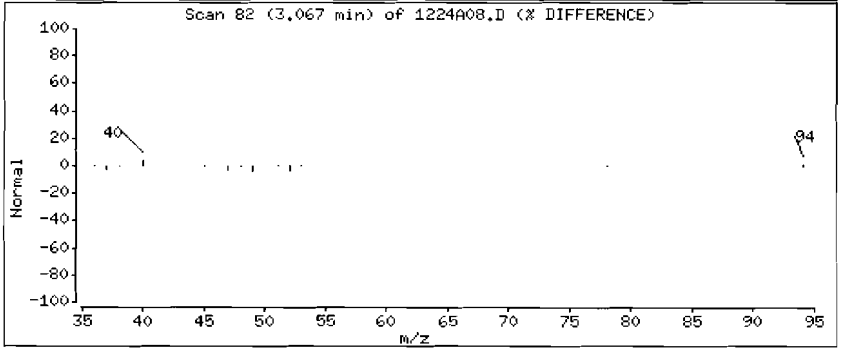
2 chloromethane

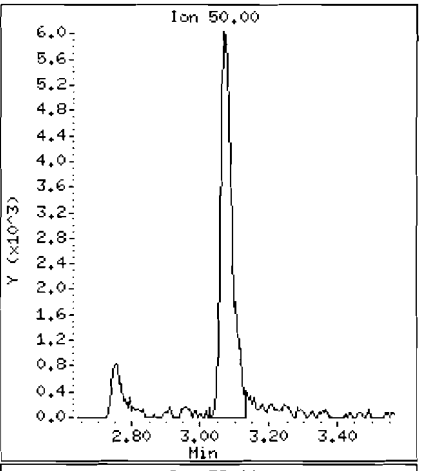
Concentration: 20.74 ngs

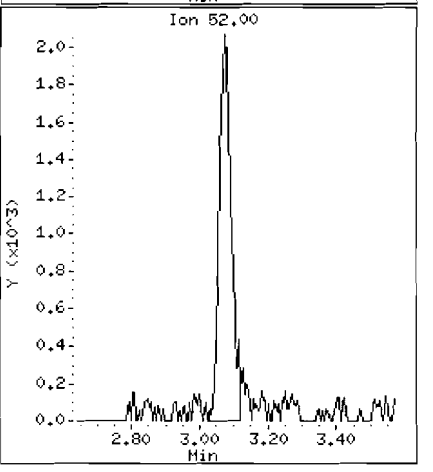












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Date : 24-DEC-2013 13:01

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-3,31,5,,c1

Purge Volume: 5.0

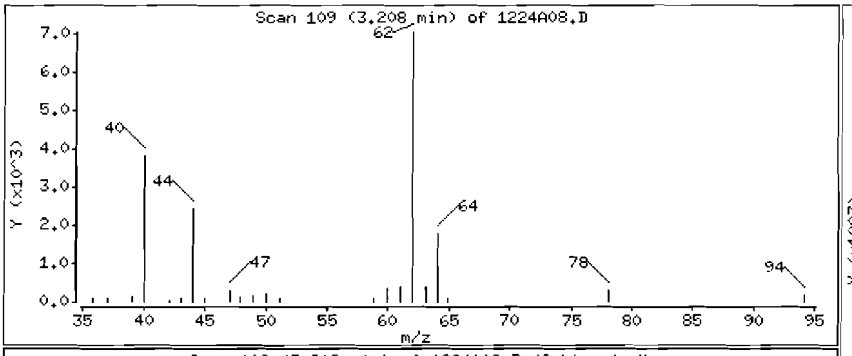
Operator: gt

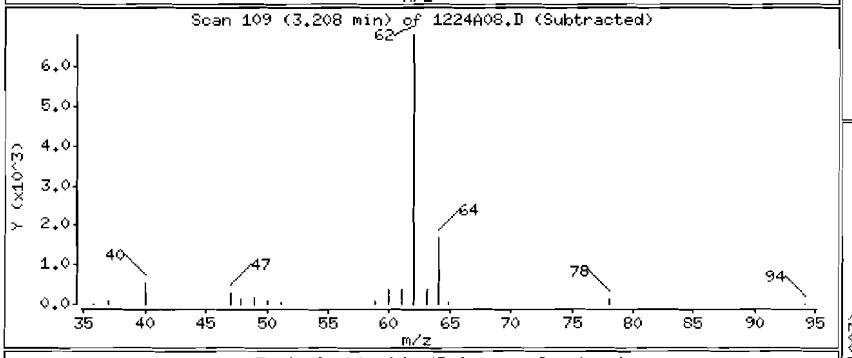
Column phase:

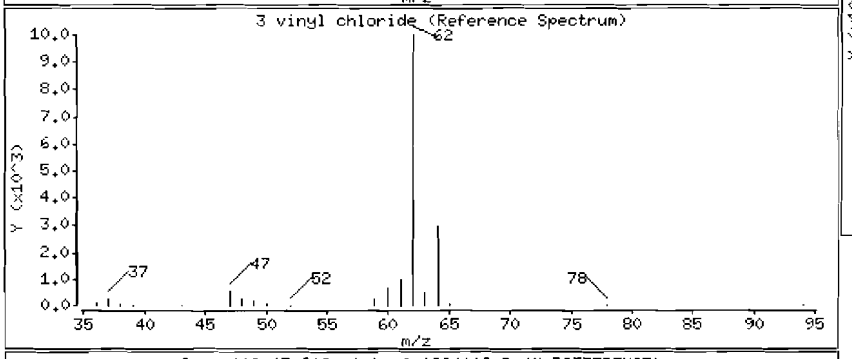
Column diameter: 0.18

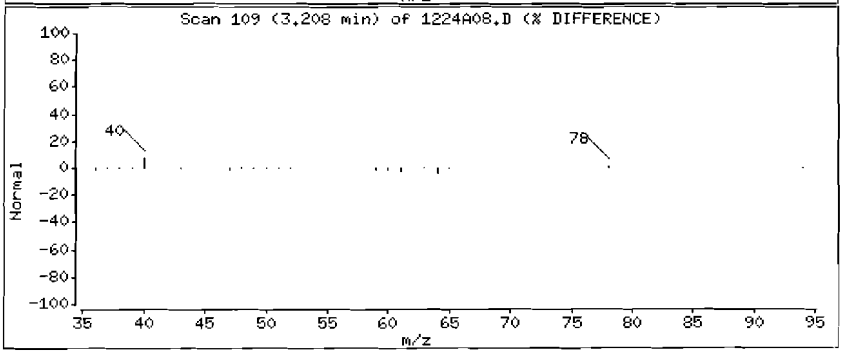
3 vinyl chloride

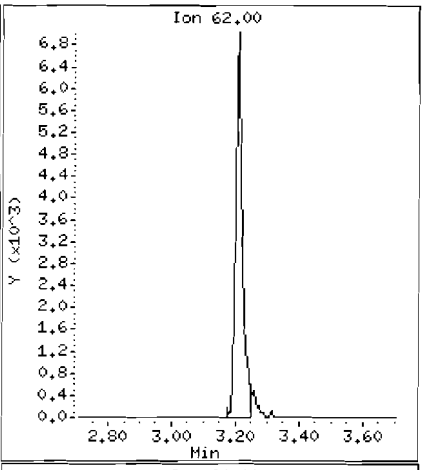
Concentration: 21.13 ngs

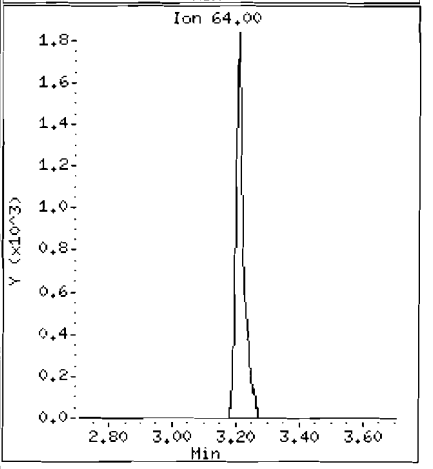












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A08.D

Date : 24-DEC-2013 13:01

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-3,31,5,,c1

Purge Volume: 5.0

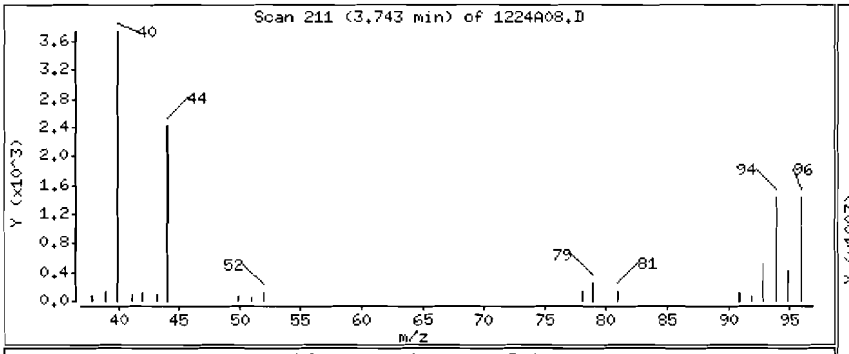
Operator: gt

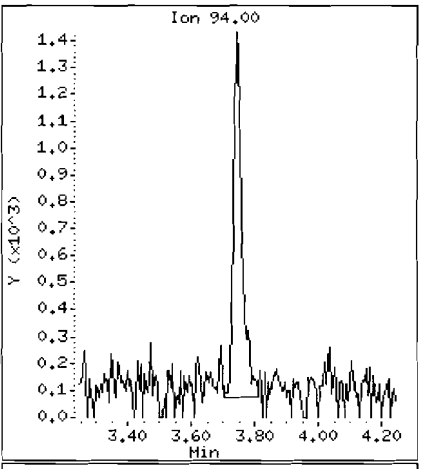
Column phase:

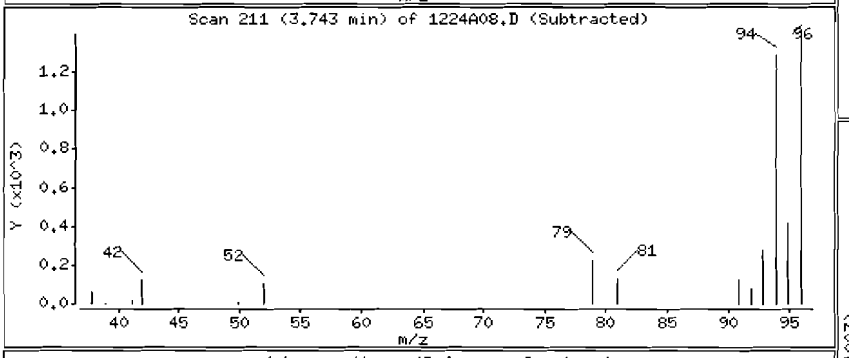
Column diameter: 0.18

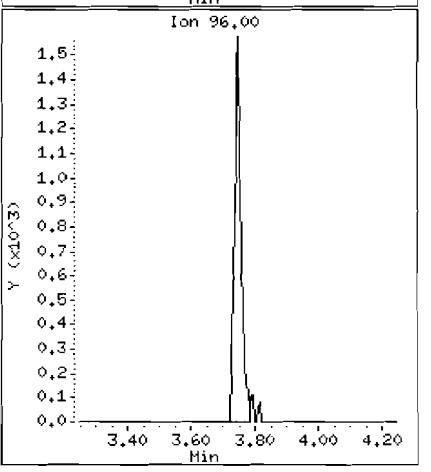
4 bromomethane

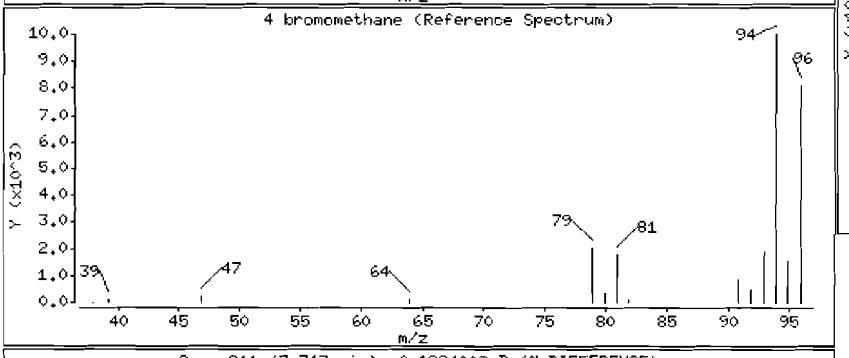
Concentration: 16.83 ngs

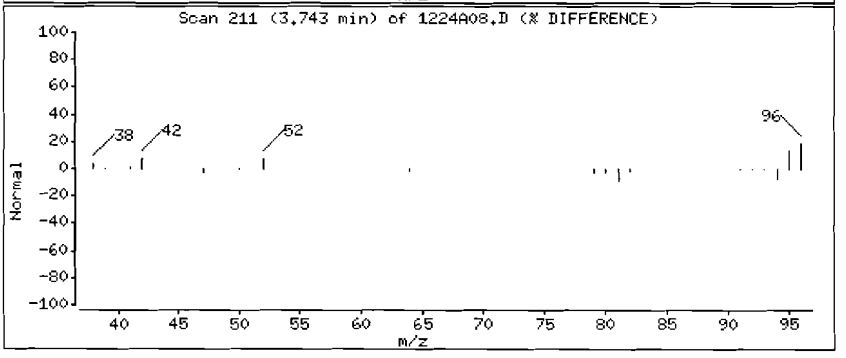












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A08.D

Date : 24-DEC-2013 13:01

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-3,31,5,,c1

Purge Volume: 5.0

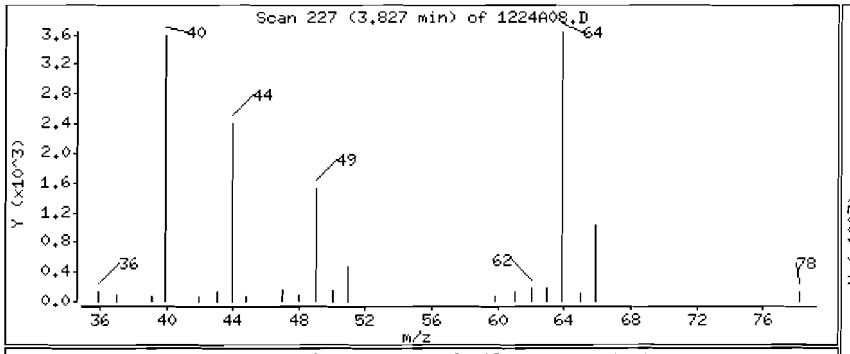
Operator: gt

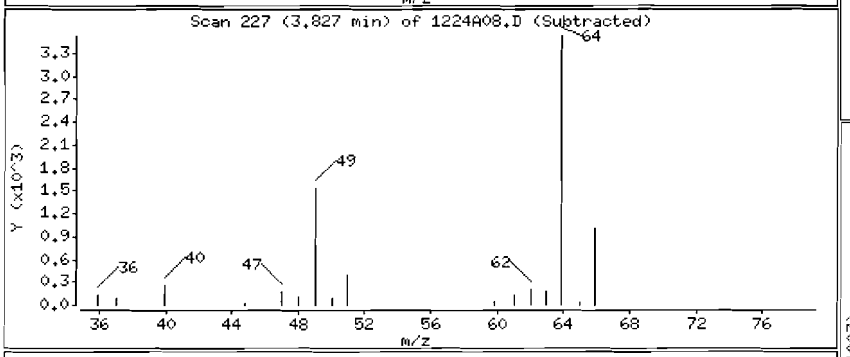
Column phase:

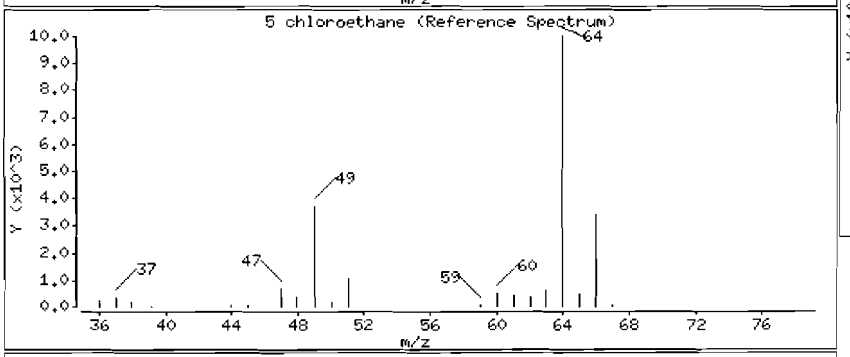
Column diameter: 0.18

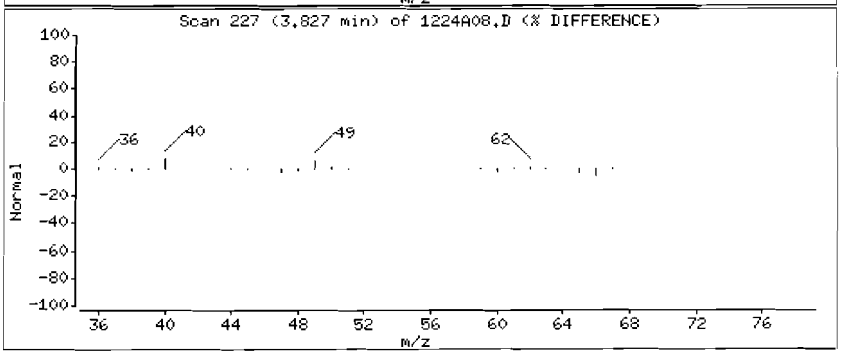
5 chloroethane

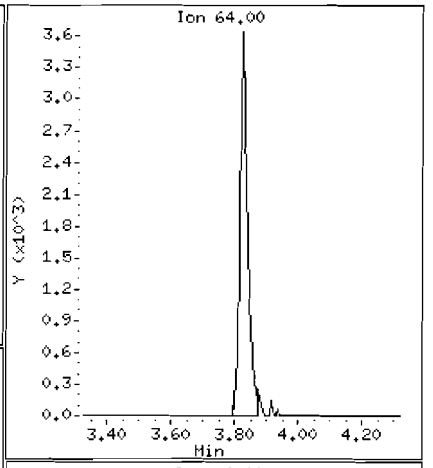
Concentration: 21.51 ngs

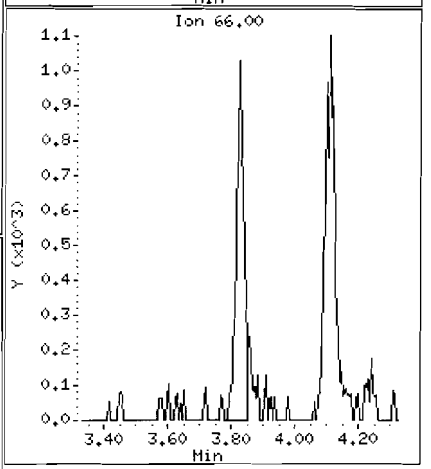












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A08.D

Date : 24-DEC-2013 13:01

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-3,31,5,,c1

Purge Volume: 5.0

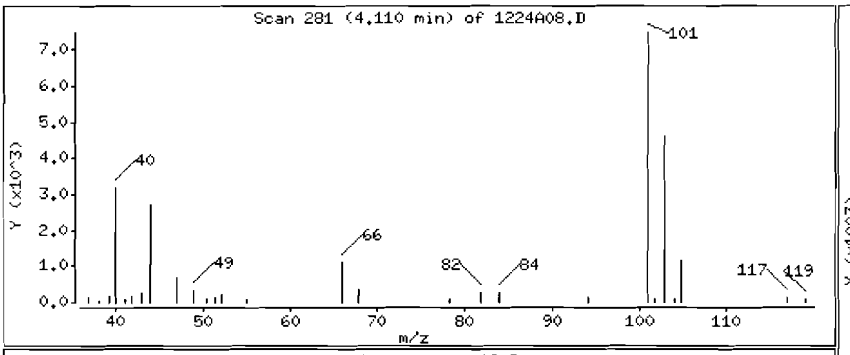
Operator: gt

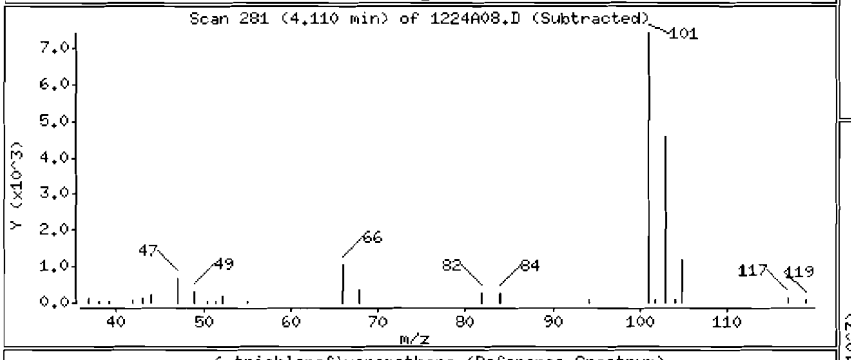
Column phase:

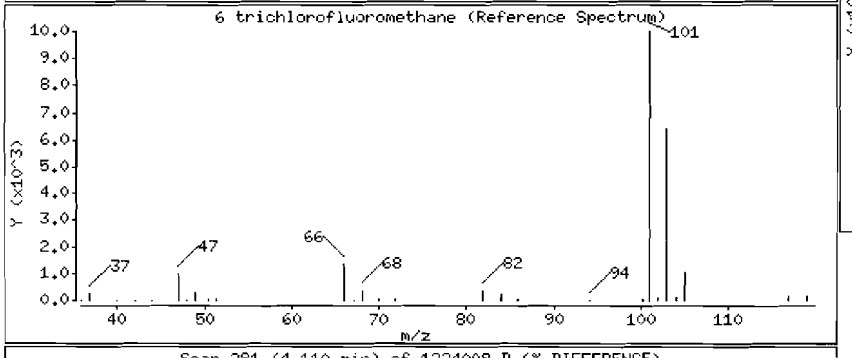
Column diameter: 0.18

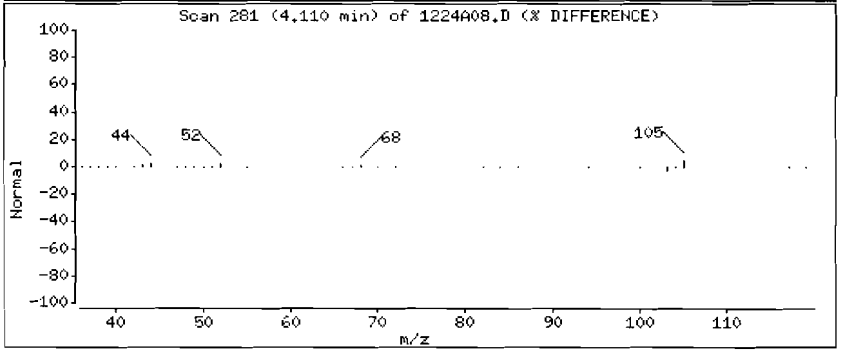
6 trichlorofluoromethane

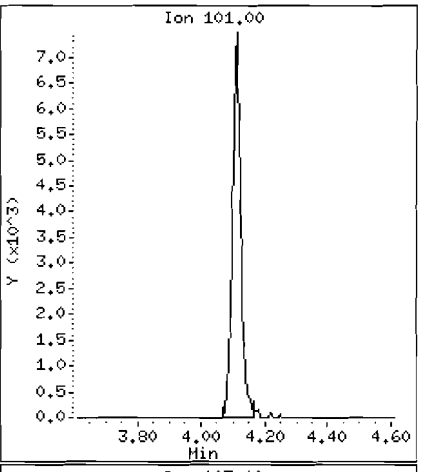
Concentration: 26.13 ngs

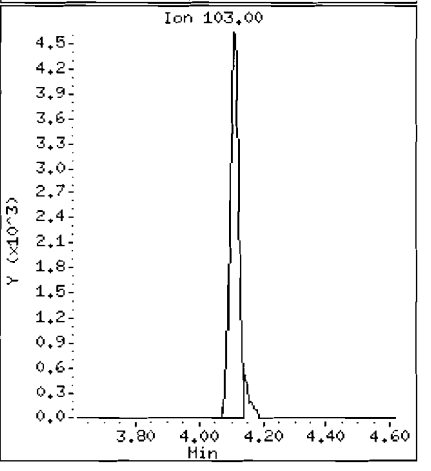












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A08.D

Date : 24-DEC-2013 13:01

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-3,31,5,,c1

Purge Volume: 5.0

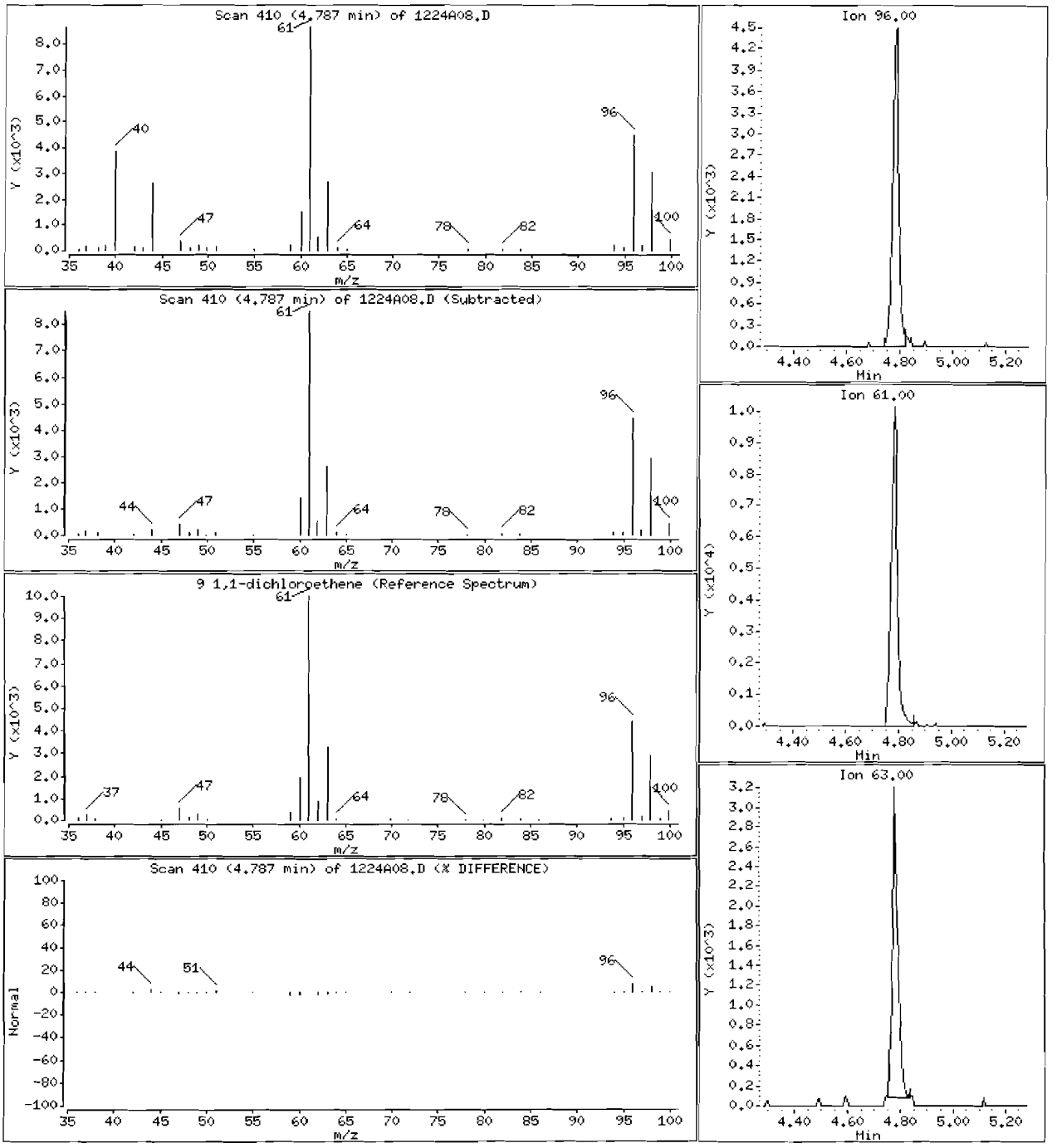
Operator: gt

Column phase:

Column diameter: 0.18

9 1,1-dichloroethene

Concentration: 21.87 ngs



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Date : 24-DEC-2013 13:01

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-3,31,5,,c1

Purge Volume: 5.0

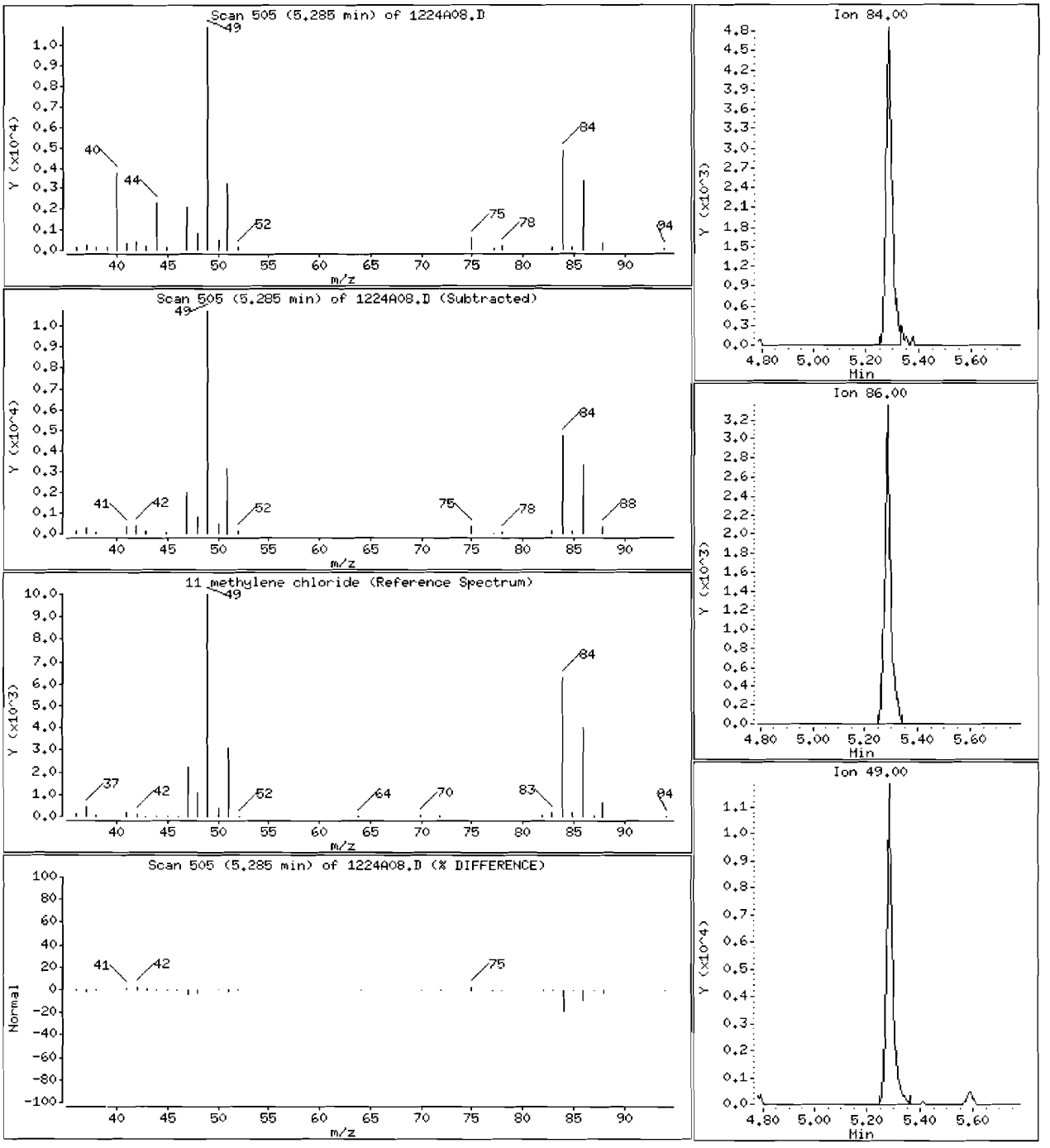
Operator: gt

Column phase:

Column diameter: 0.18

11 methylene chloride

Concentration: 21.17 ngs



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Date : 24-DEC-2013 13:01

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-3.31,5,,c1

Purge Volume: 5.0

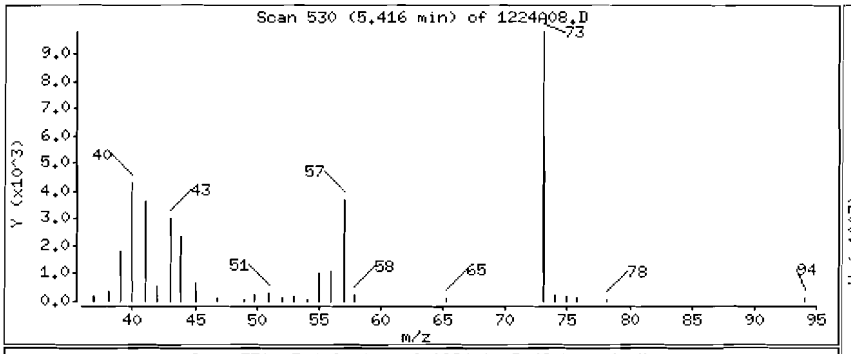
Operator: gt

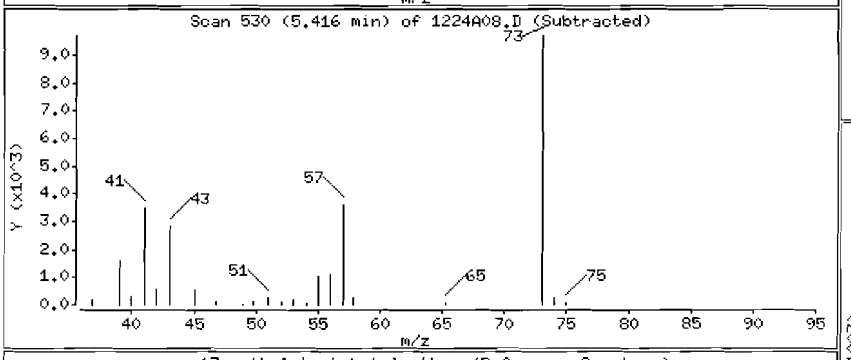
Column phase:

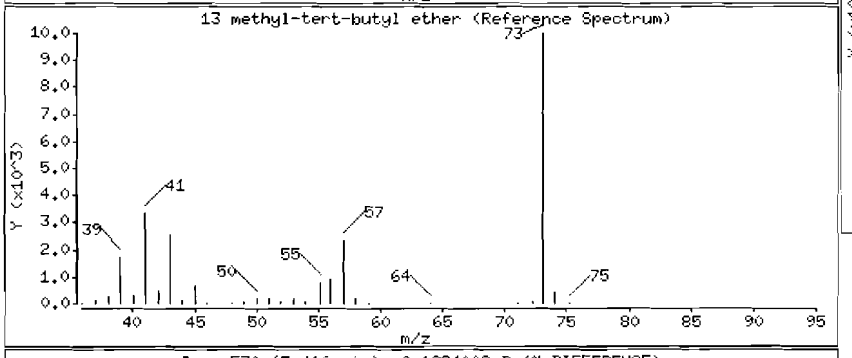
Column diameter: 0.18

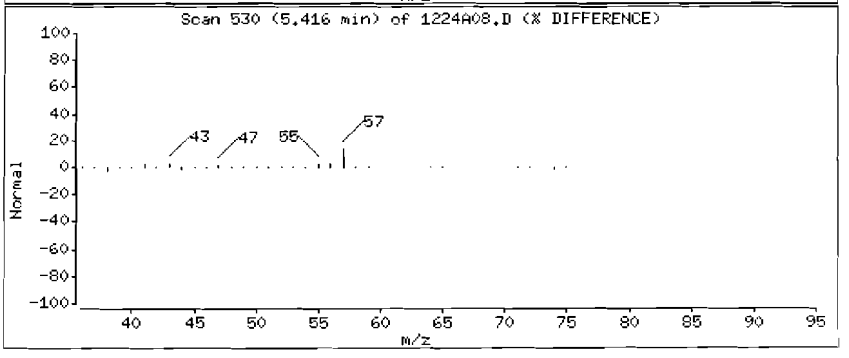
13 methyl-tert-butyl ether

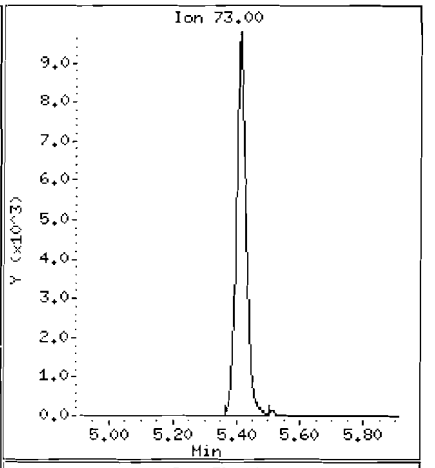
Concentration: 19.98 ngs

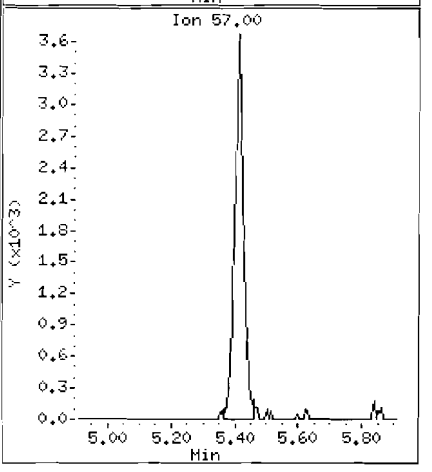












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Date : 24-DEC-2013 13:01

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-3,31,5,,c1

Purge Volume: 5.0

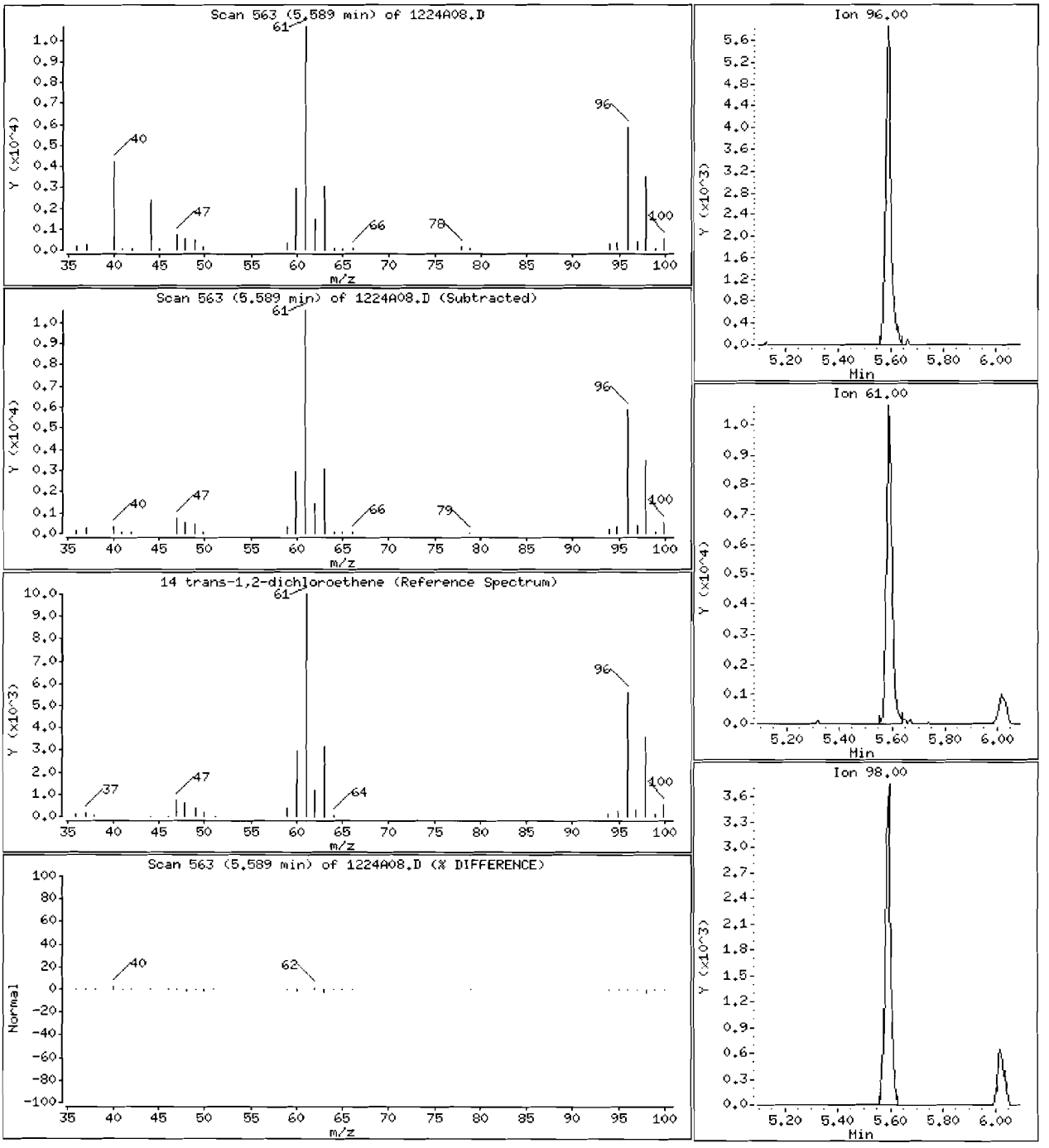
Operator: gt

Column phase:

Column diameter: 0.18

14 trans-1,2-dichloroethene

Concentration: 21.51 ngs



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Date : 24-DEC-2013 13:01

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-3,31,5,,c1

Purge Volume: 5.0

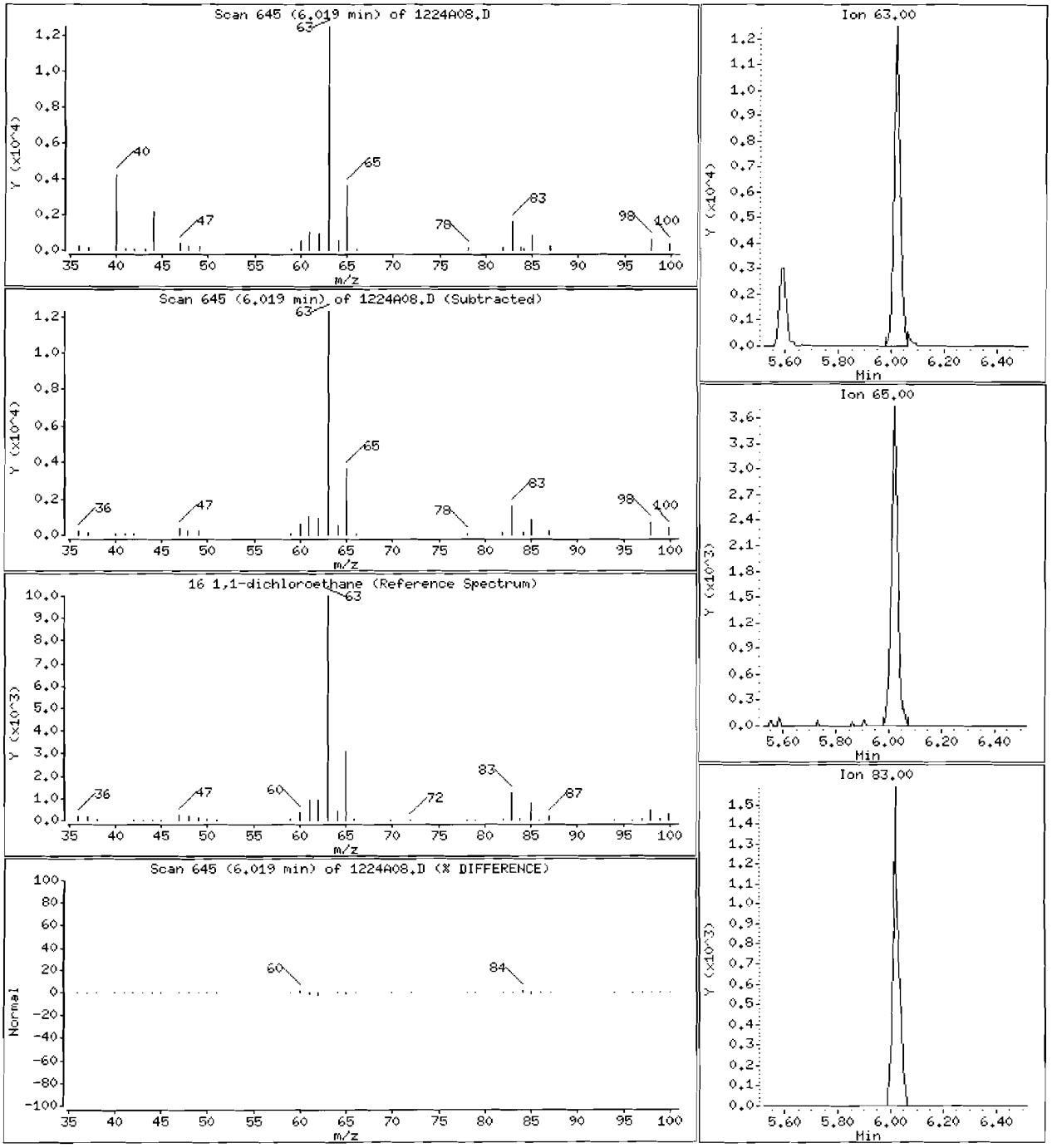
Operator: gt

Column phase:

Column diameter: 0.18

16 1,1-dichloroethane

Concentration: 23.39 ngs



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Date : 24-DEC-2013 13:01

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-3,31,5,,c1

Purge Volume: 5.0

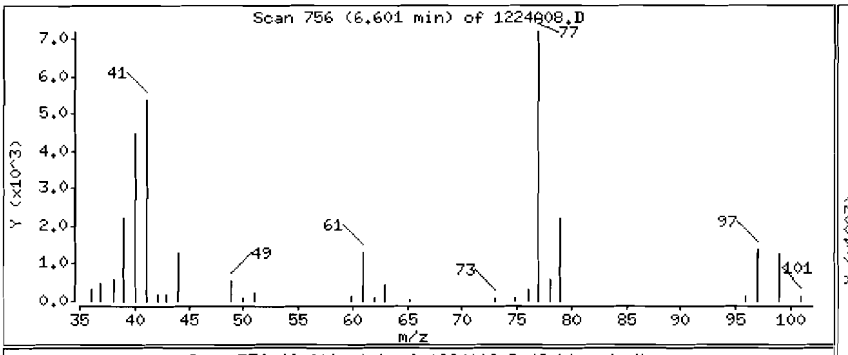
Operator: gt

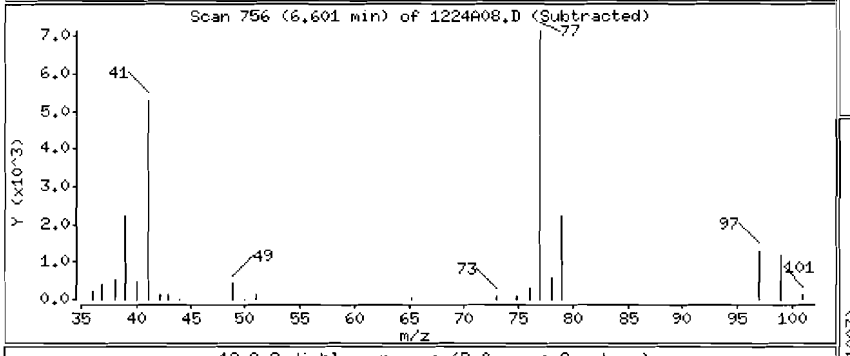
Column phase:

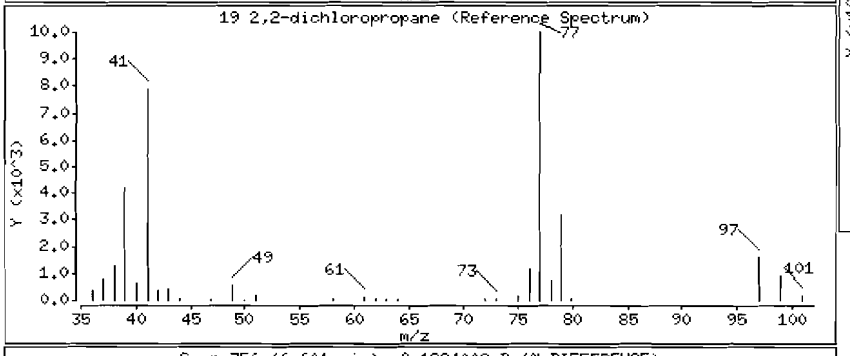
Column diameter: 0.18

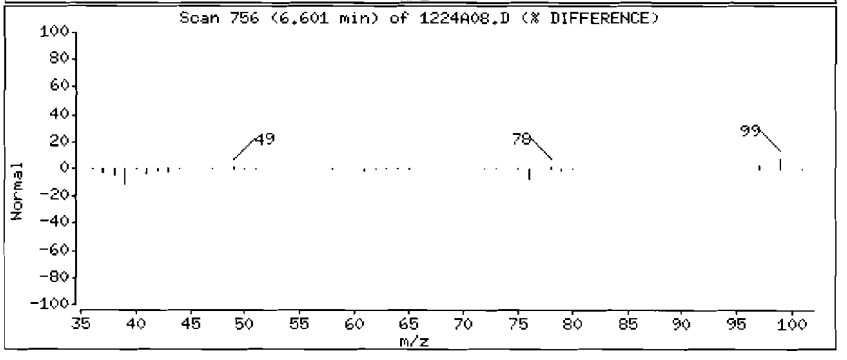
19 2,2-dichloropropane

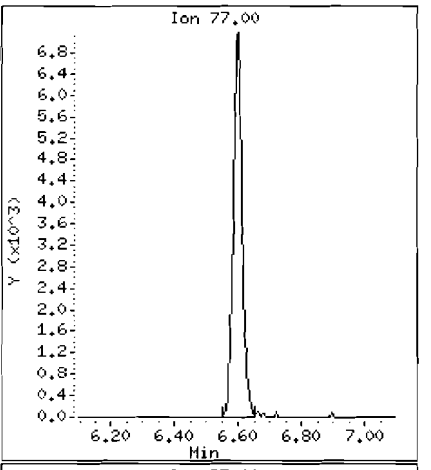
Concentration: 25.91 ngs

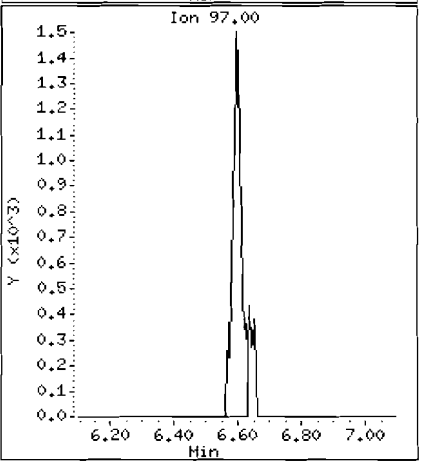












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Date : 24-DEC-2013 13:01

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-3,31,5,,c1

Purge Volume: 5.0

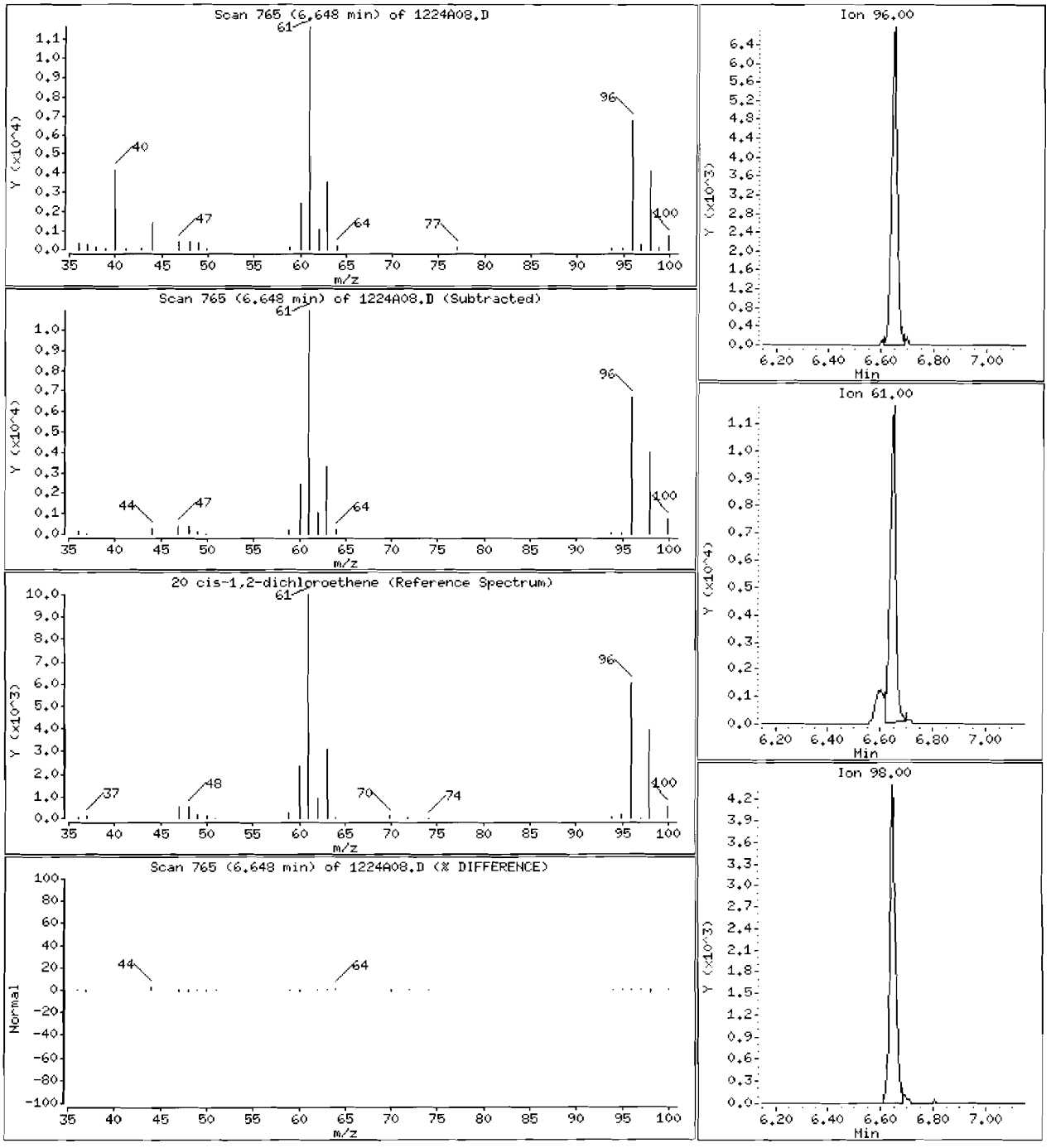
Operator: gt

Column phase:

Column diameter: 0.18

20 cis-1,2-dichloroethene

Concentration: 24.16 ngs



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Date : 24-DEC-2013 13:01

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-3,31,5,,c1

Purge Volume: 5.0

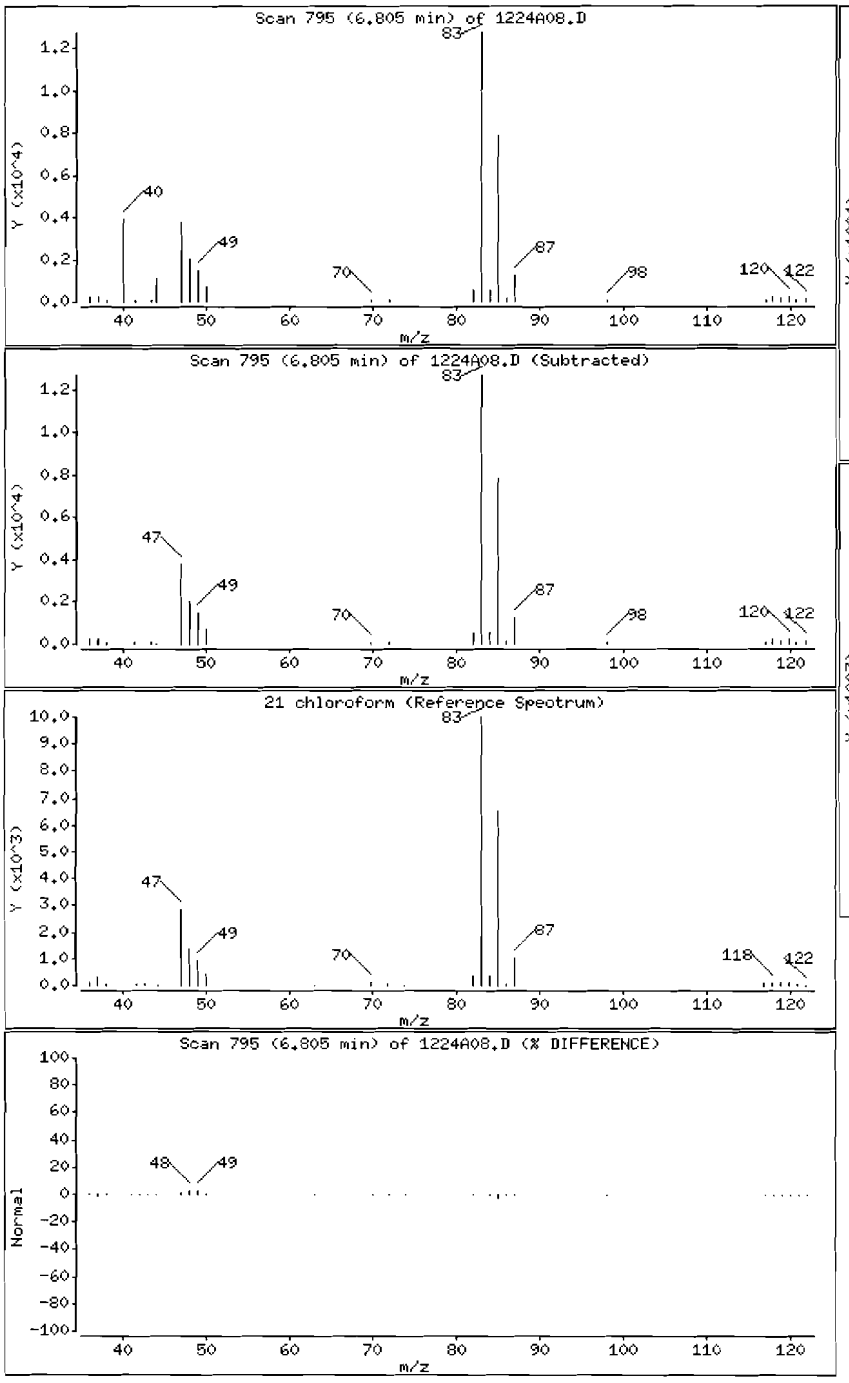
Operator: gt

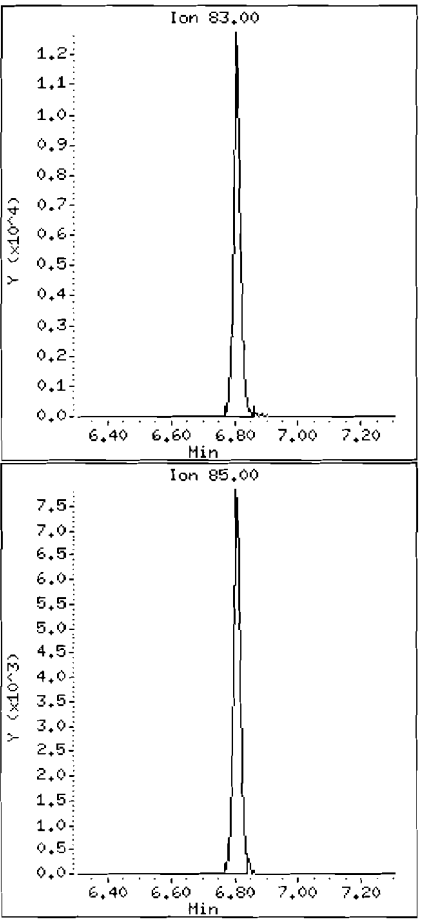
Column phase:

Column diameter: 0.18

21 chloroform

Concentration: 27.91 ngs





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Date : 24-DEC-2013 13:01

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-3,31,5,,c1

Purge Volume: 5.0

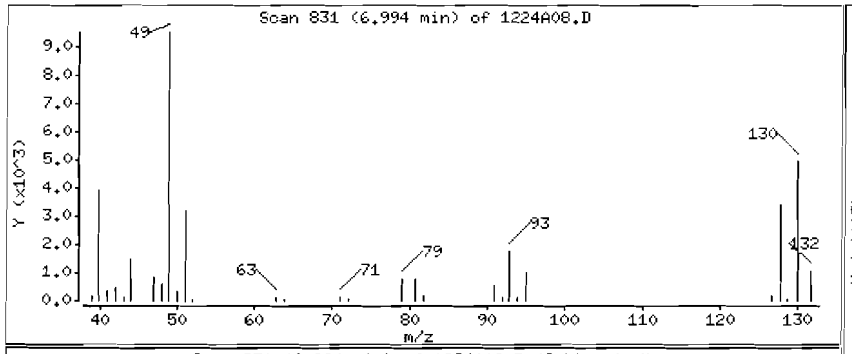
Operator: gt

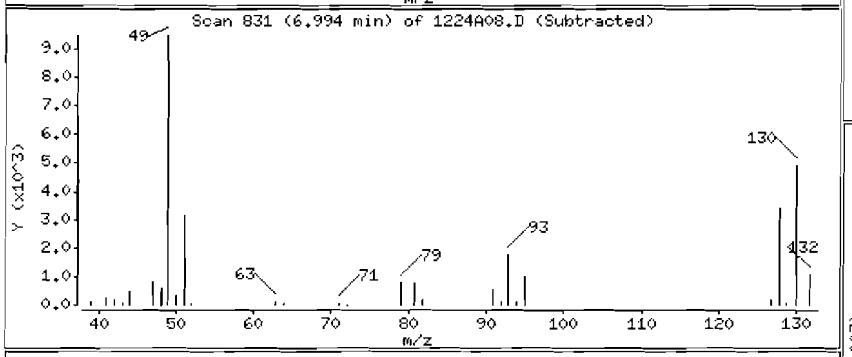
Column phase:

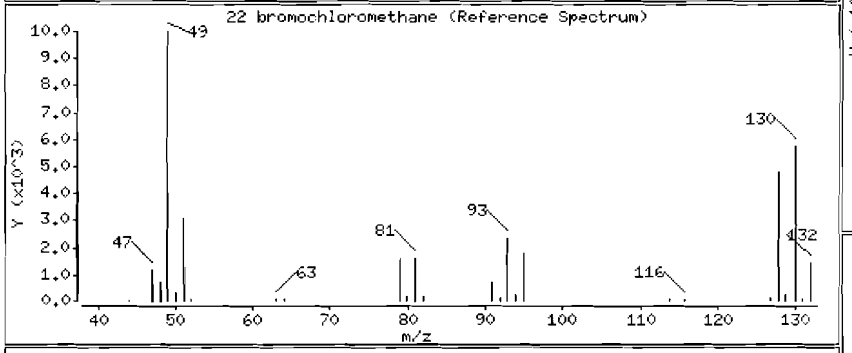
Column diameter: 0.18

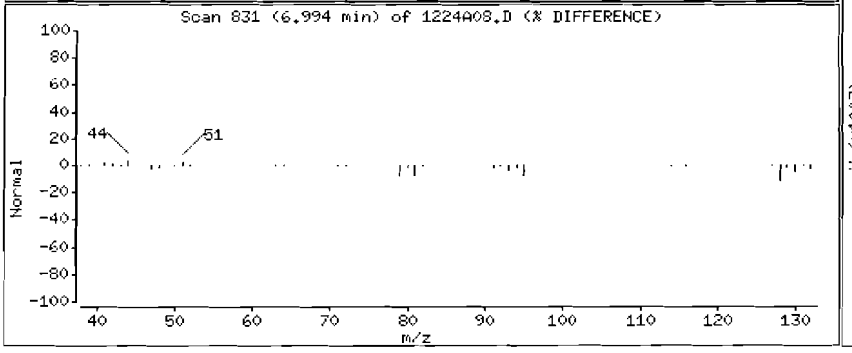
22 bromochloromethane

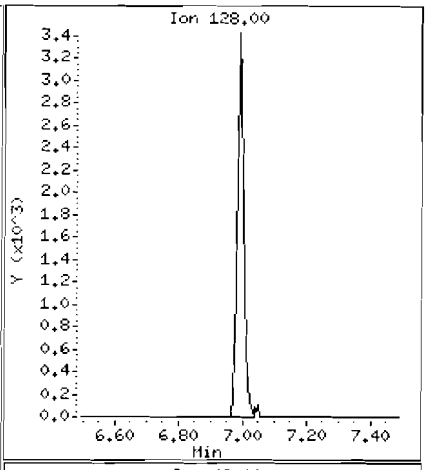
Concentration: 23.24 ngs

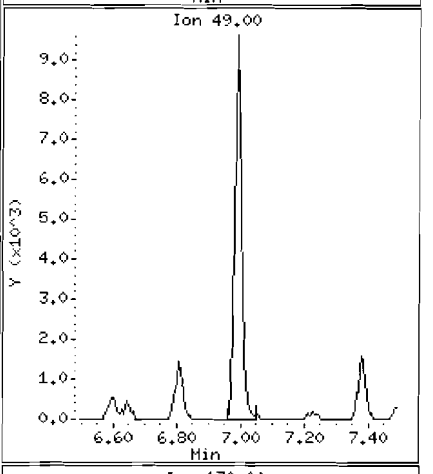


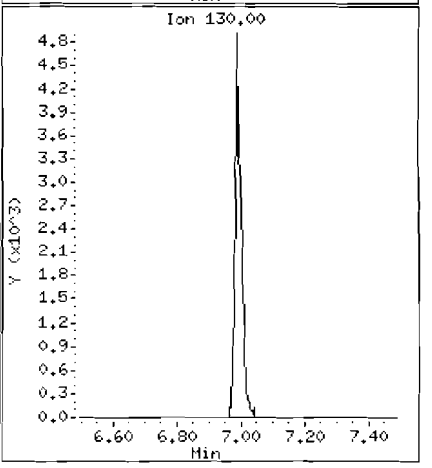












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A08.D

Date : 24-DEC-2013 13:01

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-3,31,5,,c1

Purge Volume: 5.0

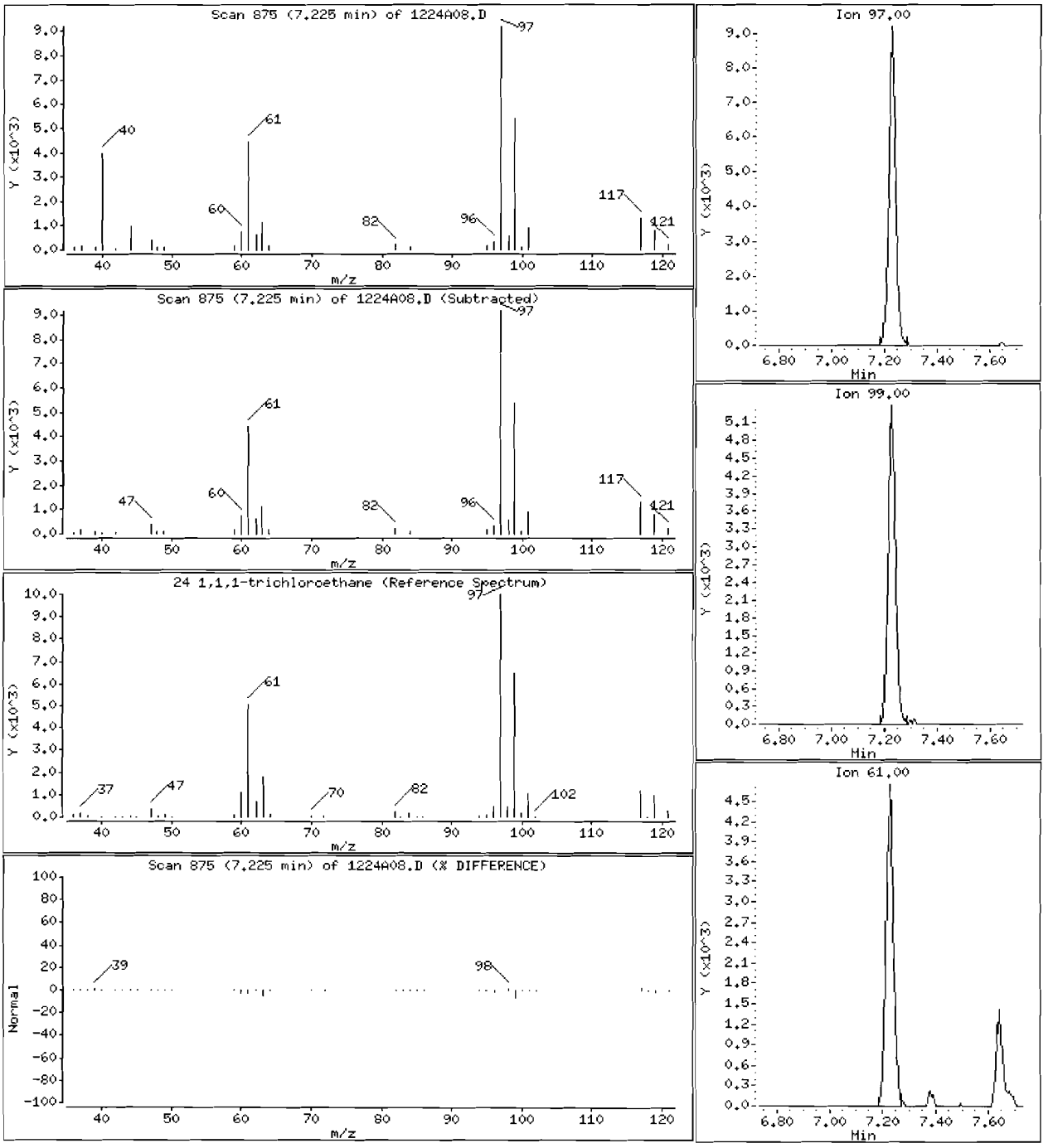
Operator: gt

Column phase:

Column diameter: 0.18

24 1,1,1-trichloroethane

Concentration: 26.85 ngs



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Date : 24-DEC-2013 13:01

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-3,31,5,,c1

Purge Volume: 5.0

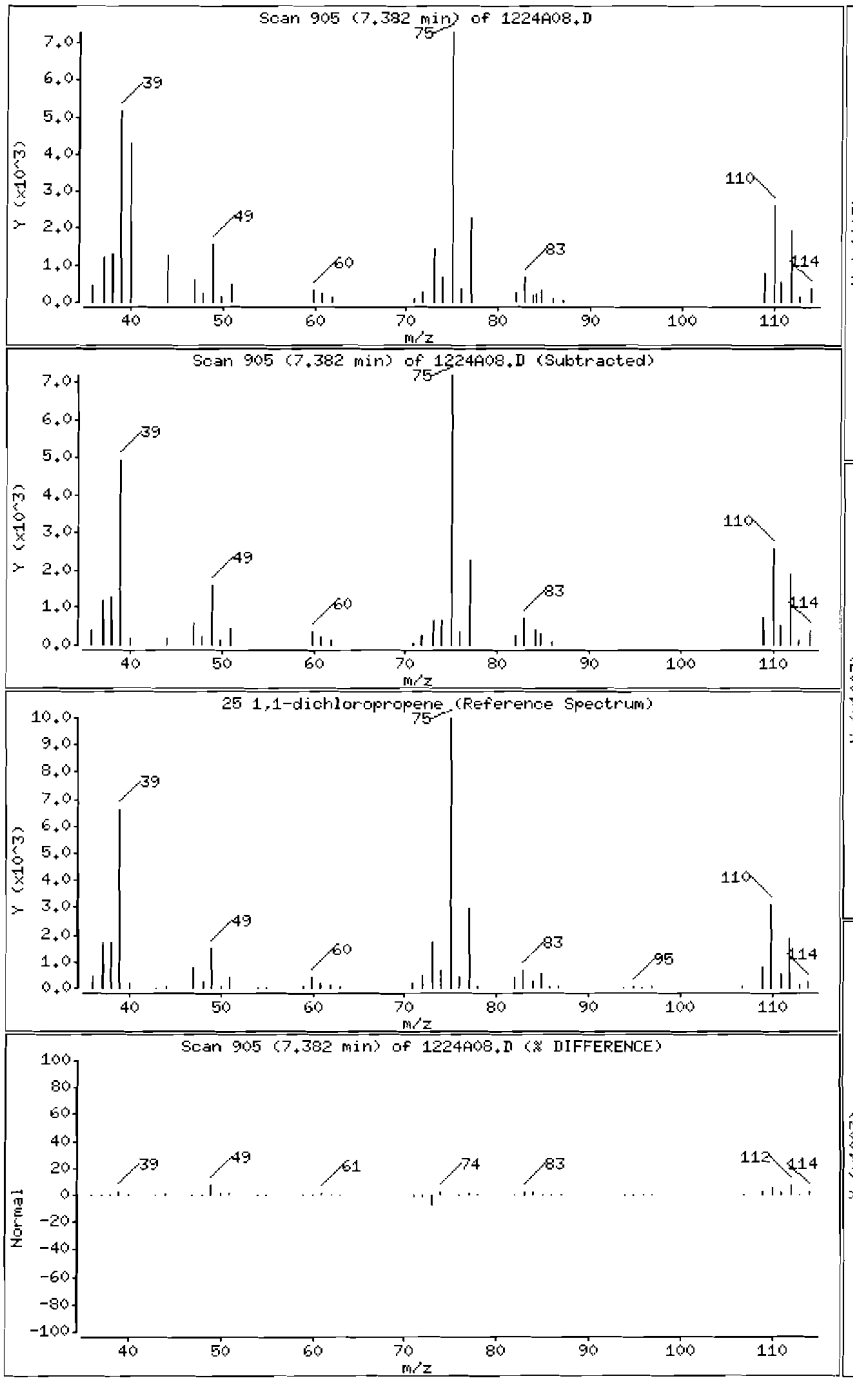
Operator: gt

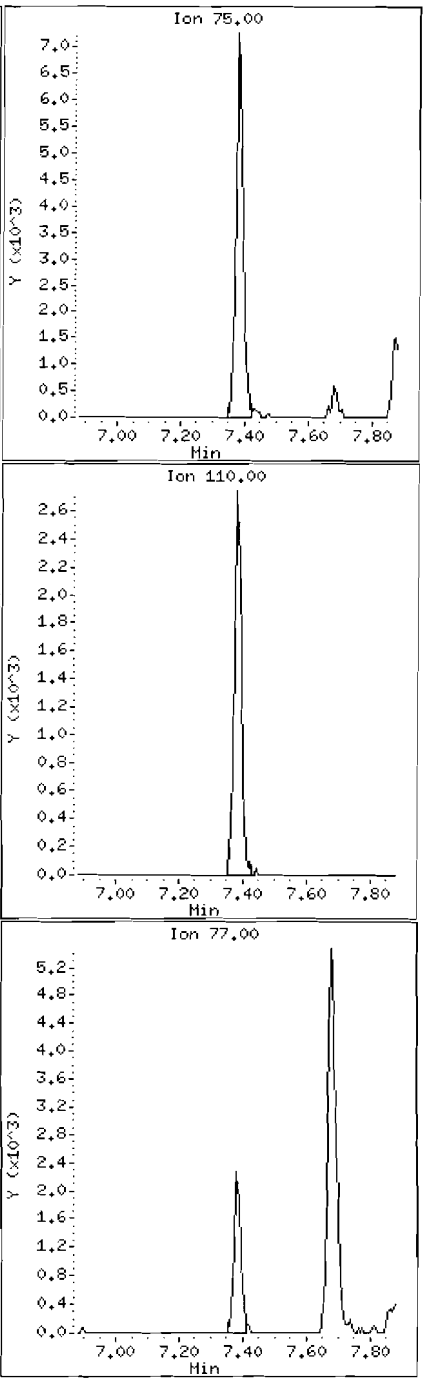
Column phase:

Column diameter: 0.18

25 1,1-dichloropropene

Concentration: 22.36 ngs





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Date : 24-DEC-2013 13:01

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-3,31,5,,c1

Purge Volume: 5.0

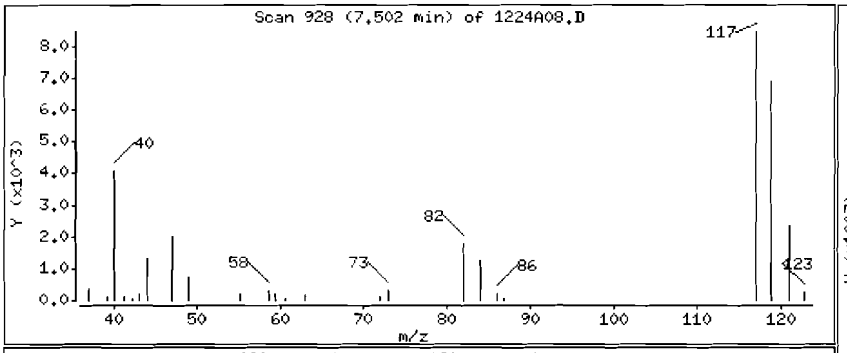
Operator: gt

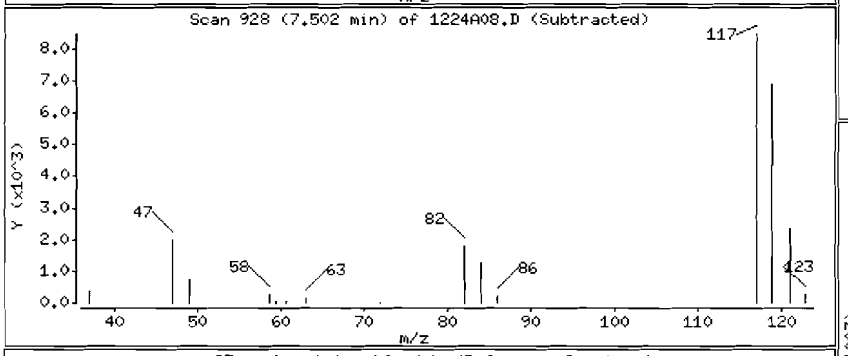
Column phase:

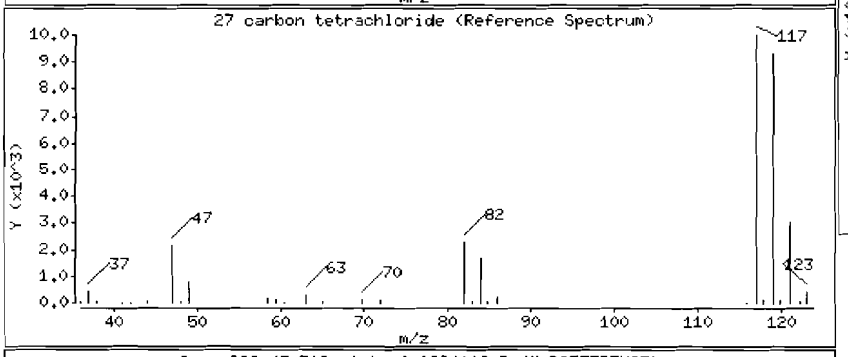
Column diameter: 0.18

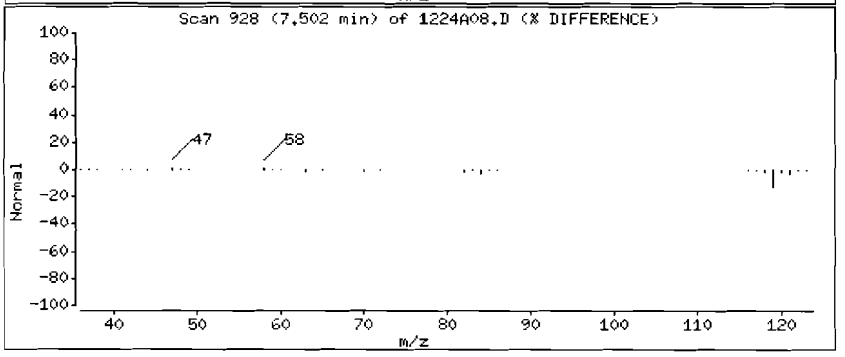
27 carbon tetrachloride

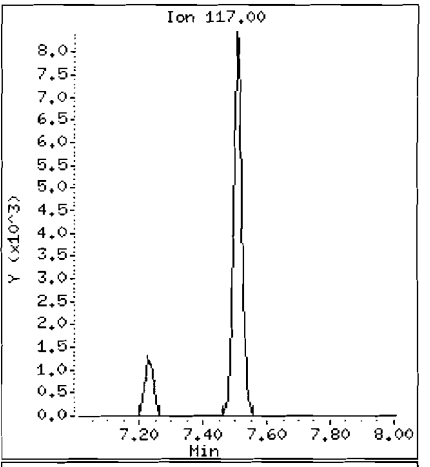
Concentration: 28.31 ngs

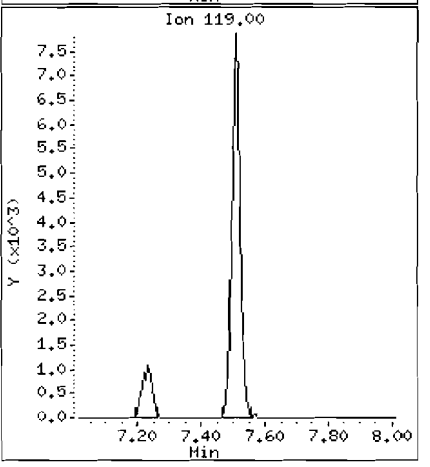












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A08.D

Date : 24-DEC-2013 13:01

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-3,31,5,,c1

Purge Volume: 5.0

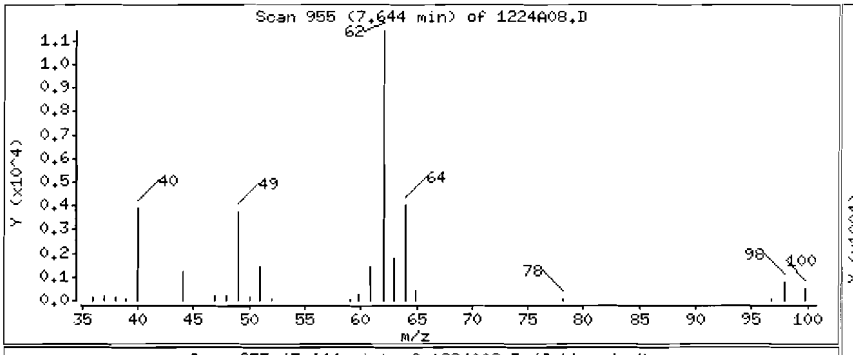
Operator: gt

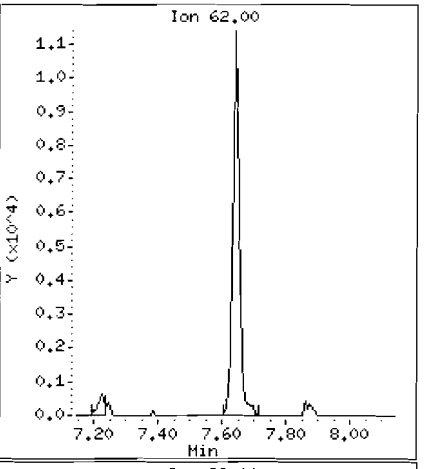
Column phase:

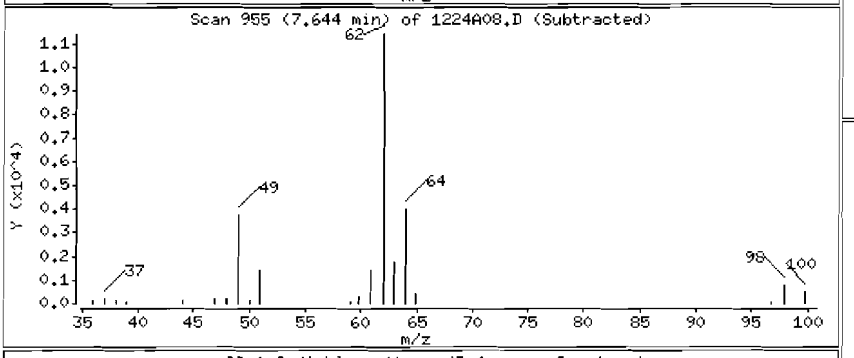
Column diameter: 0.18

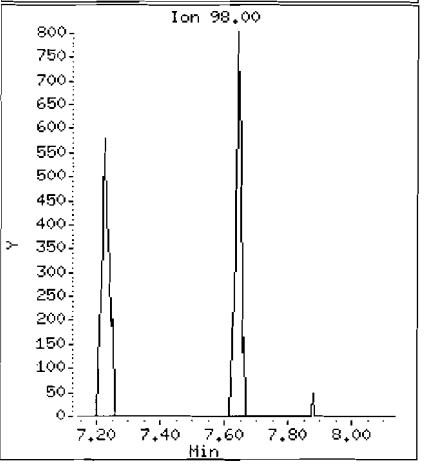
28 1,2-dichloroethane

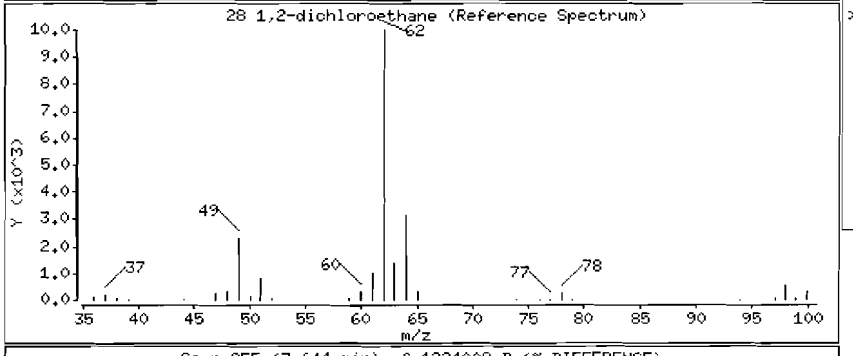
Concentration: 26.82 ngs

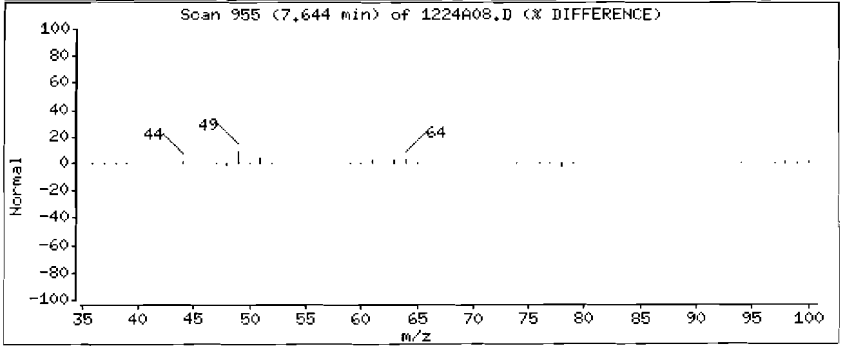












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A08.D

Date : 24-DEC-2013 13:01

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-3,31,5,,c1

Purge Volume: 5.0

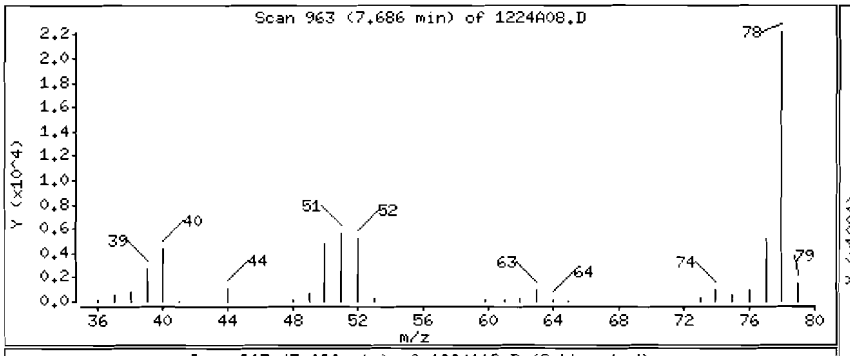
Operator: gt

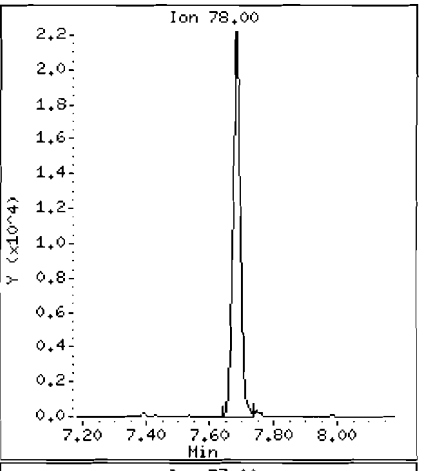
Column phase:

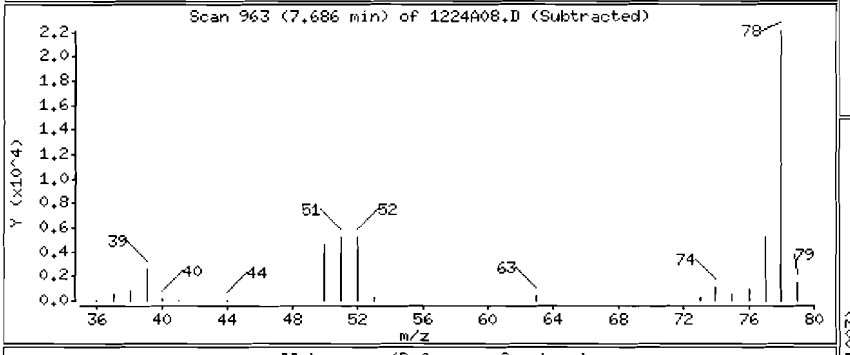
Column diameter: 0.18

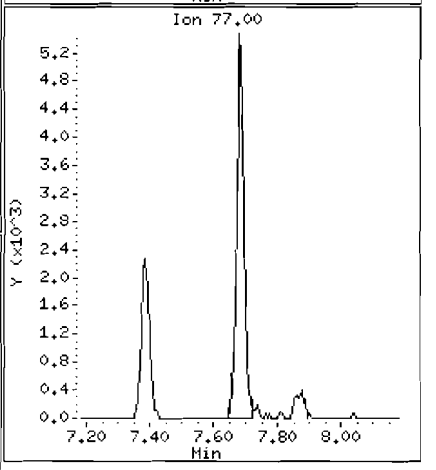
29 benzene

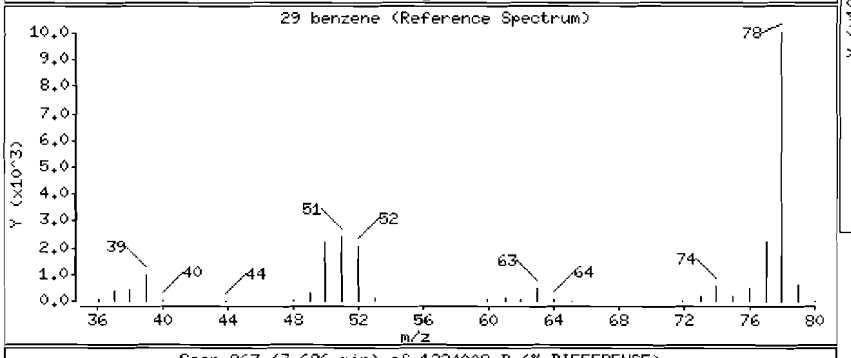
Concentration: 22.81 ngs

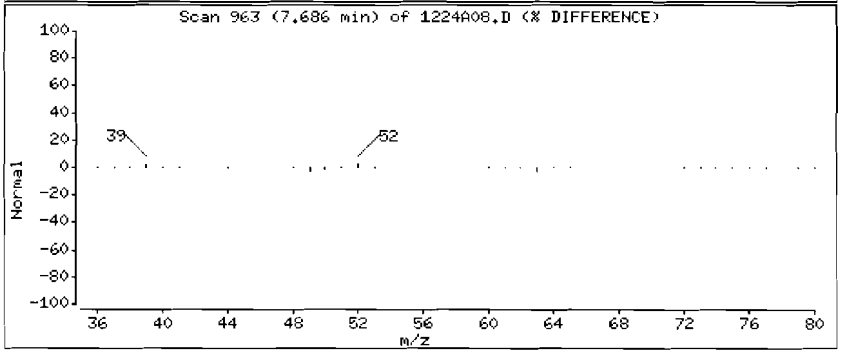












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A08.D

Date : 24-DEC-2013 13:01

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-3,31.5,,c1

Purge Volume: 5.0

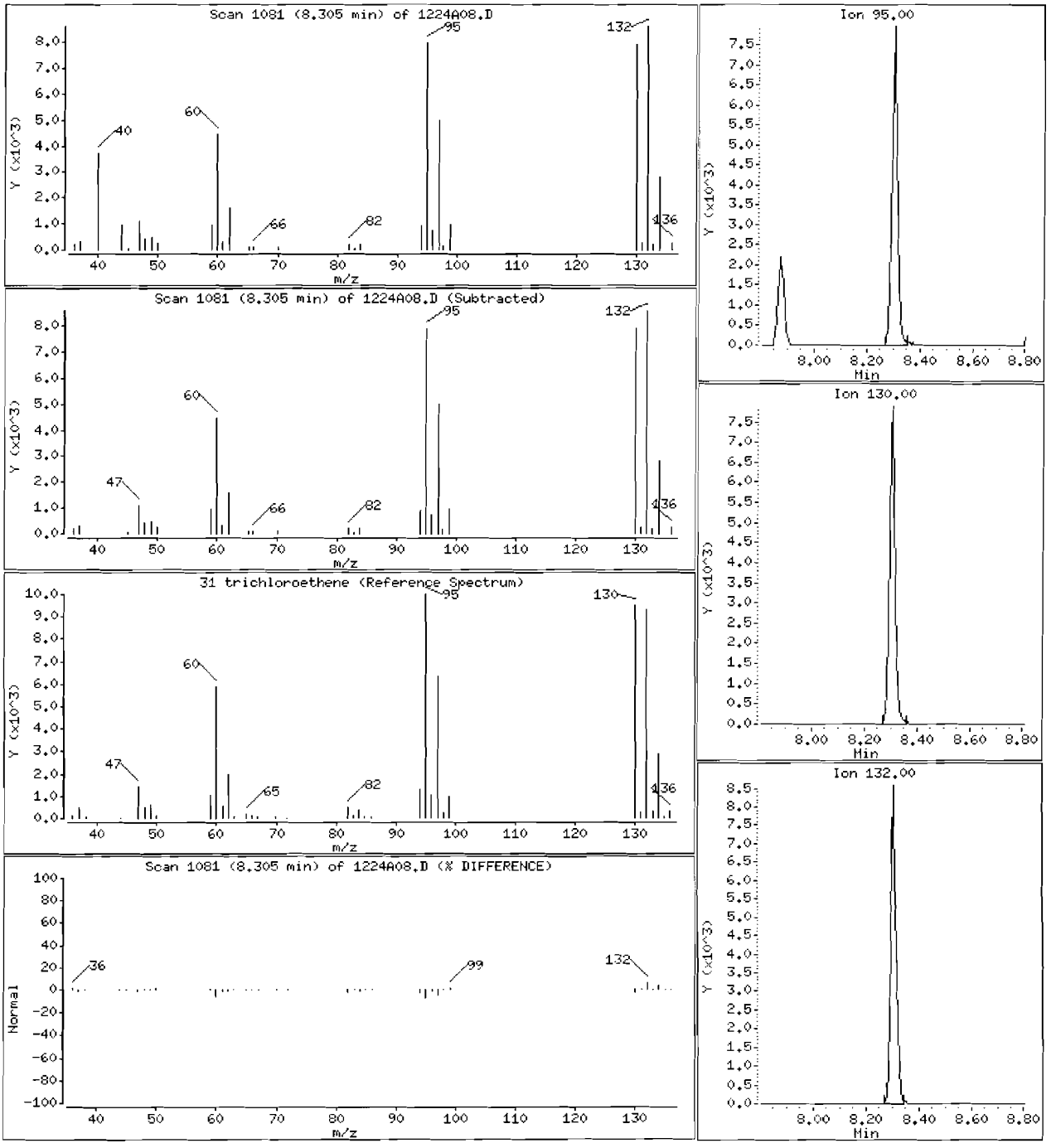
Operator: gt

Column phase:

Column diameter: 0.18

31 trichloroethene

Concentration: 27.39 ngs



Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A08.D

Date : 24-DEC-2013 13:01

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-3,31,5,,c1

Purge Volume: 5.0

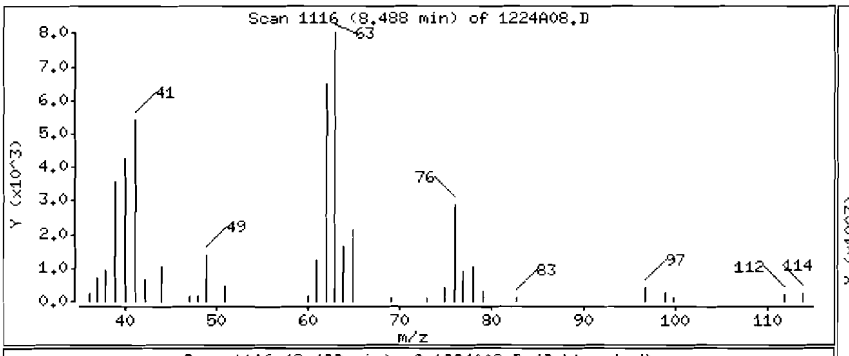
Operator: gt

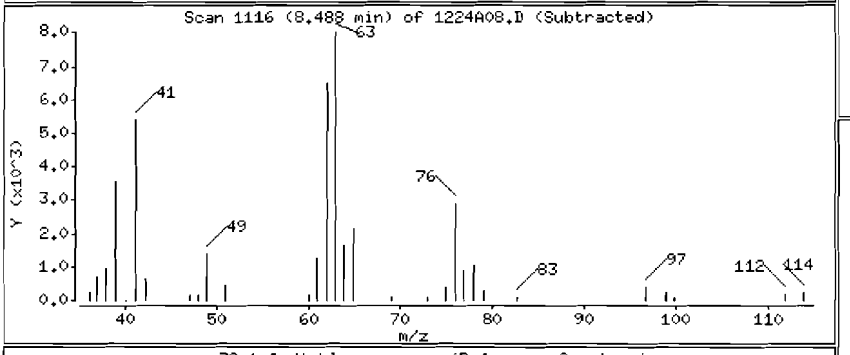
Column phase:

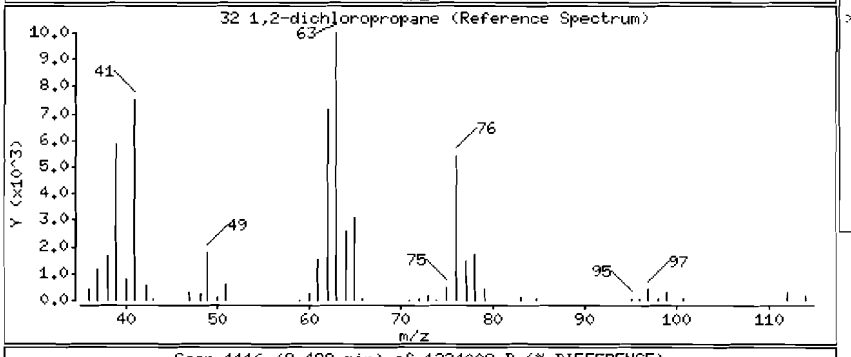
Column diameter: 0.18

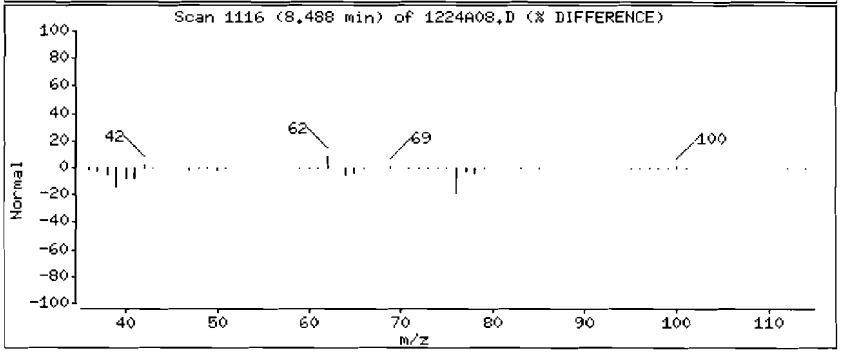
32 1,2-dichloropropane

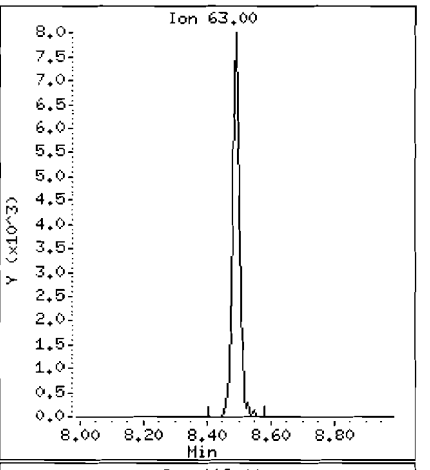
Concentration: 24.60 ngs

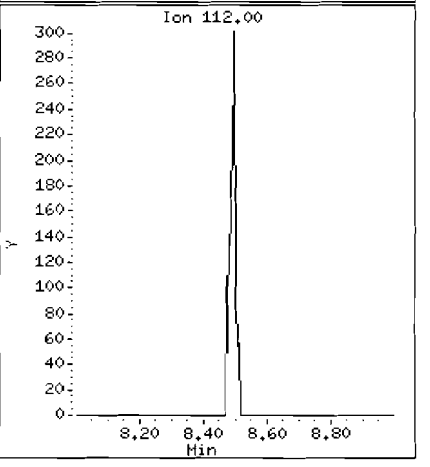












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A08.D

Date : 24-DEC-2013 13:01

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-3,31,5,,c1

Purge Volume: 5.0

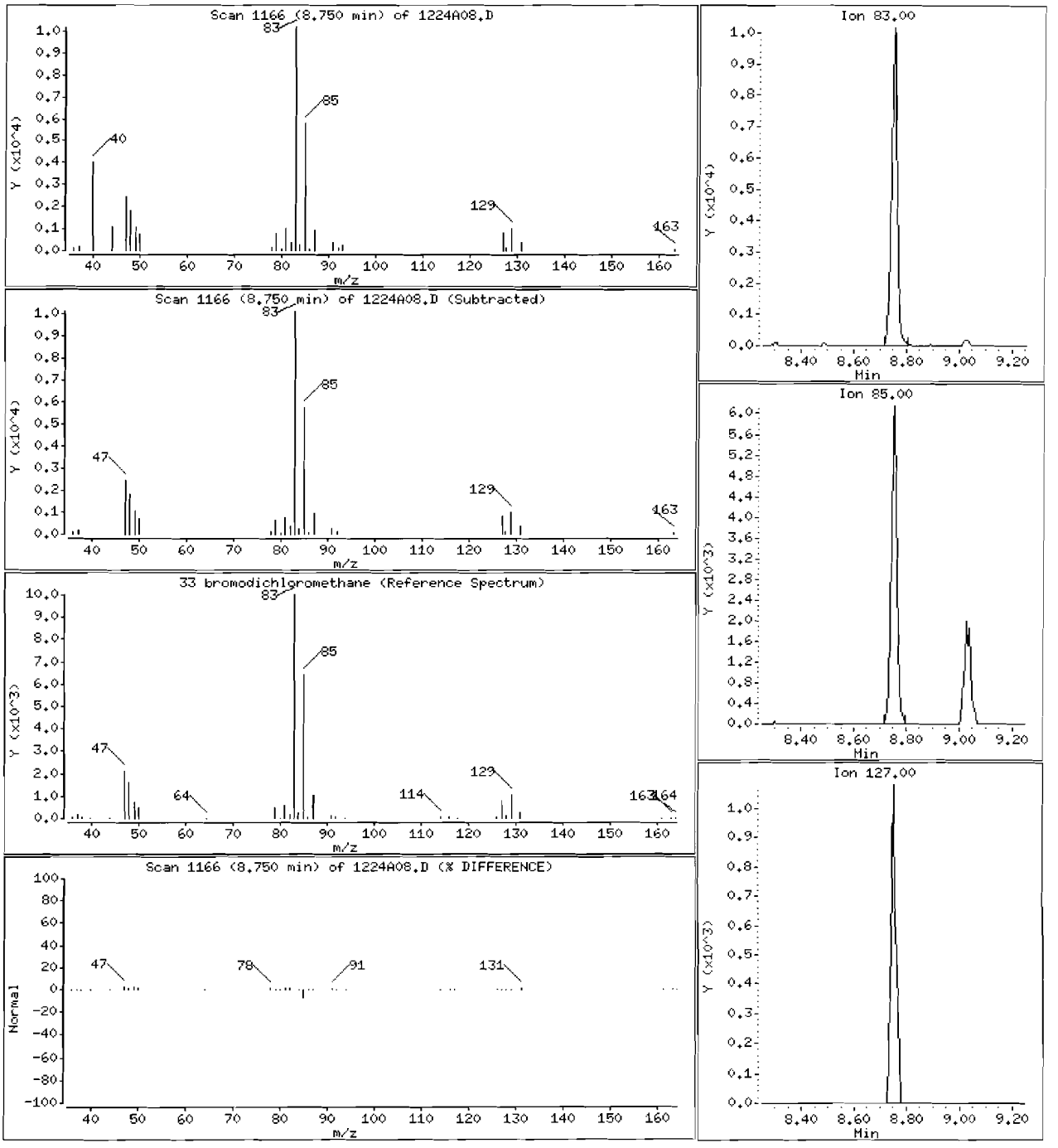
Operator: gt

Column phase:

Column diameter: 0.18

33 bromodichloromethane

Concentration: 27.90 ngs



Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A08.D

Date : 24-DEC-2013 13:01

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-3,31,5,,c1

Purge Volume: 5.0

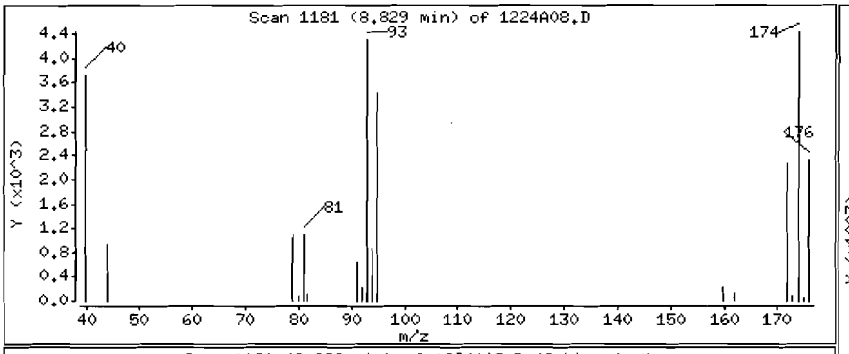
Operator: gt

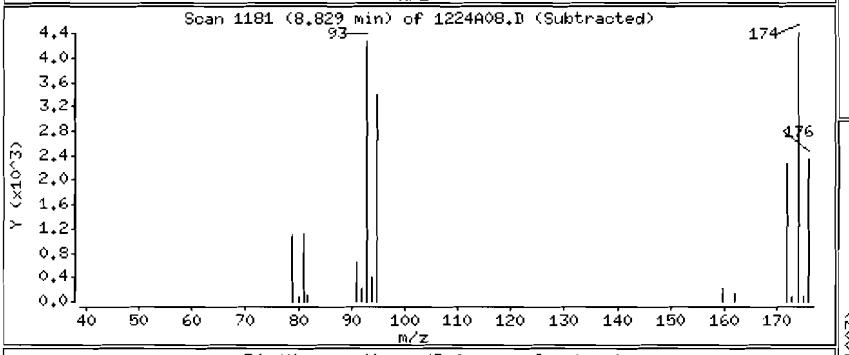
Column phase:

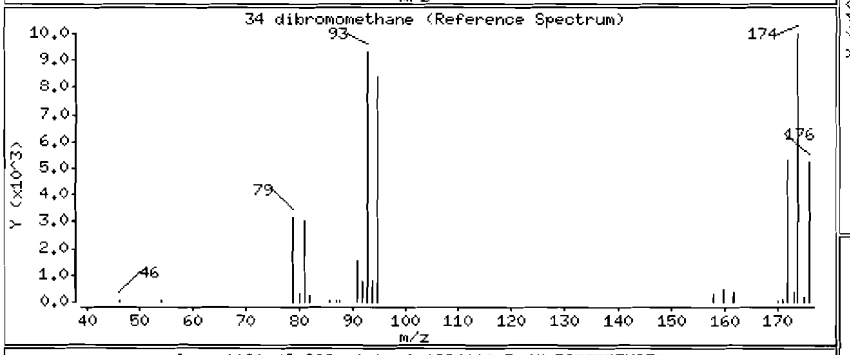
Column diameter: 0.18

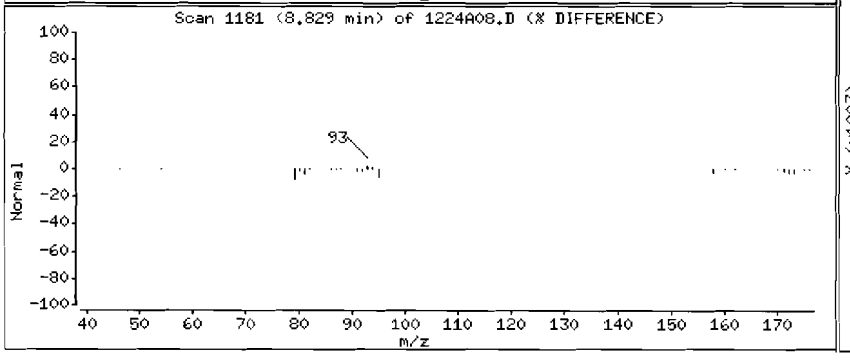
34 dibromomethane

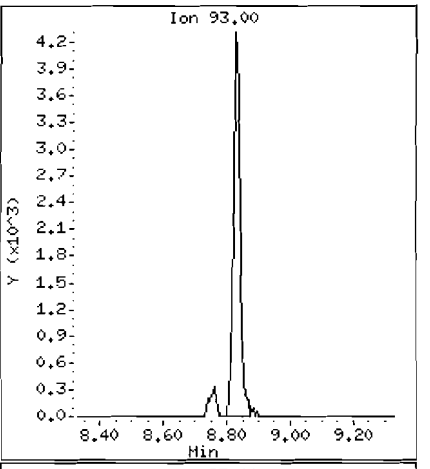
Concentration: 24.94 ngs

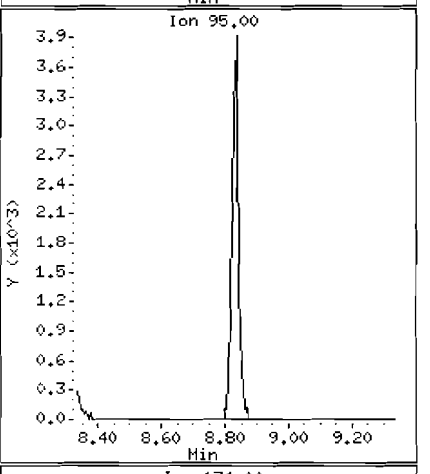


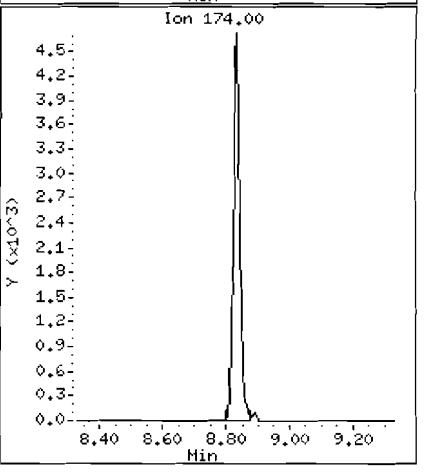












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A08.D

Date : 24-DEC-2013 13:01

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-3,31,5,,c1

Purge Volume: 5.0

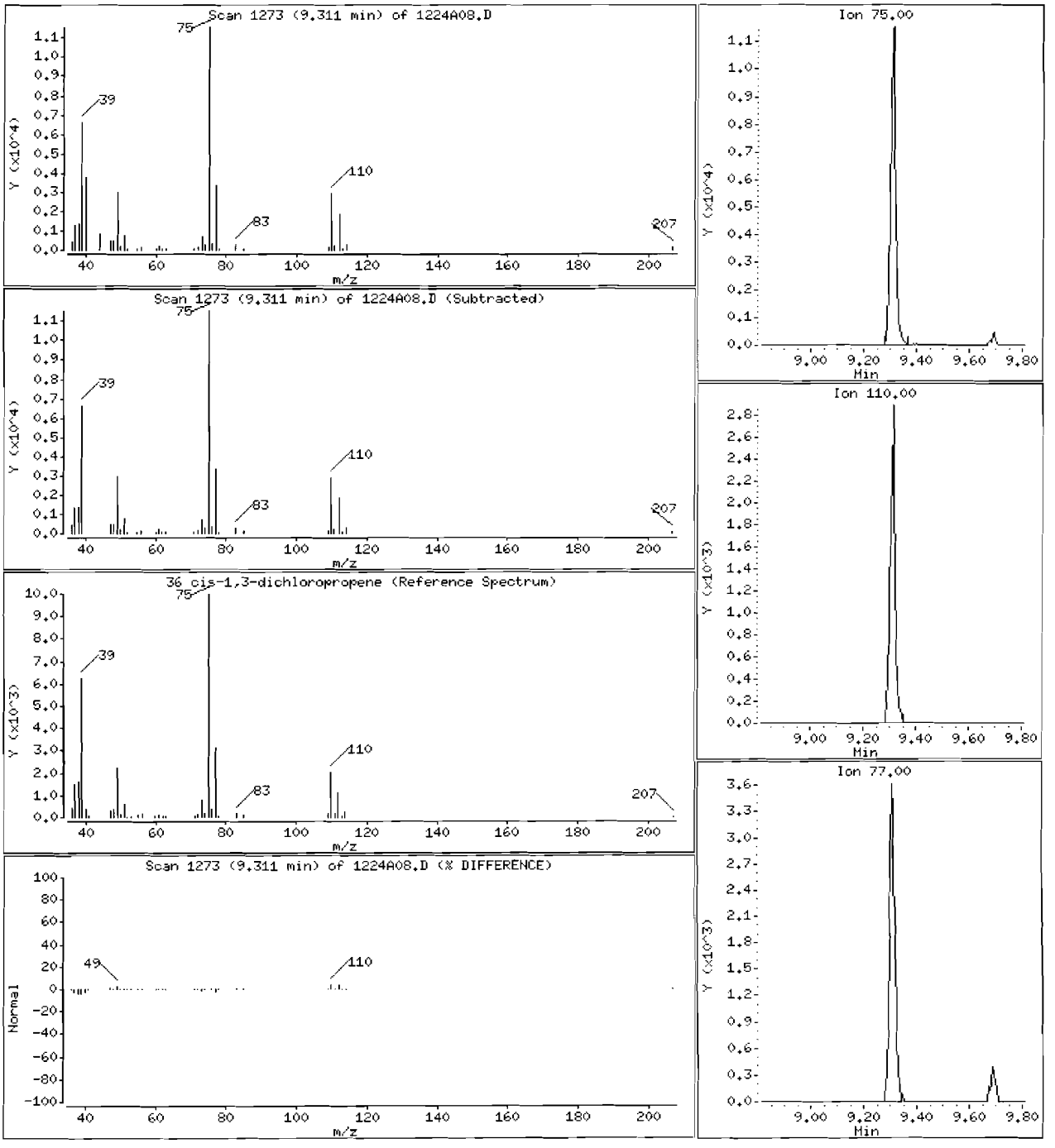
Operator: gt

Column phase:

Column diameter: 0.18

36 cis-1,3-dichloropropene

Concentration: 23.24 ngs



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Date : 24-DEC-2013 13:01

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-3,31,5,,c1

Purge Volume: 5.0

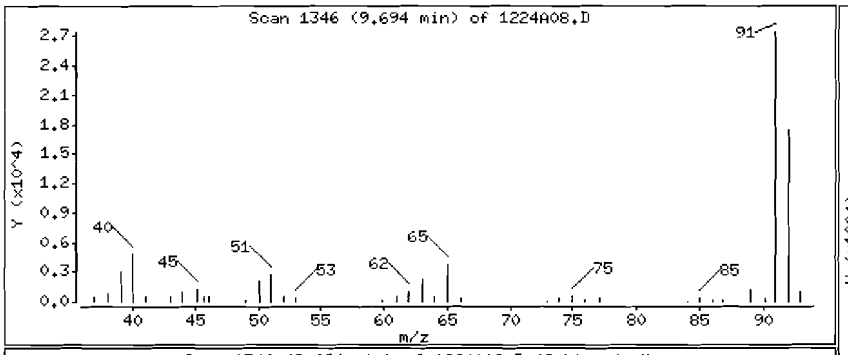
Operator: gt

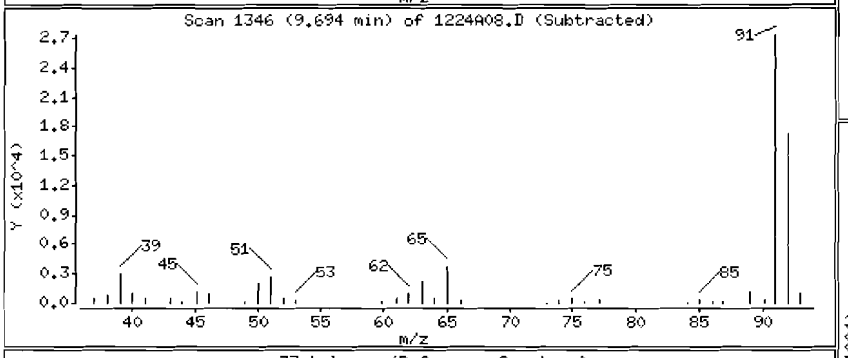
Column phase:

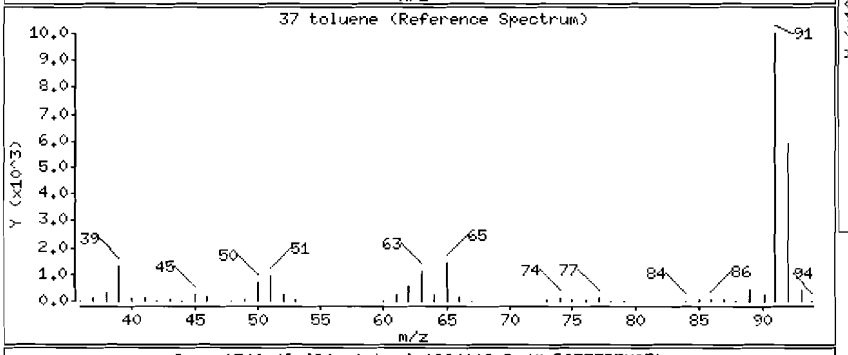
Column diameter: 0.18

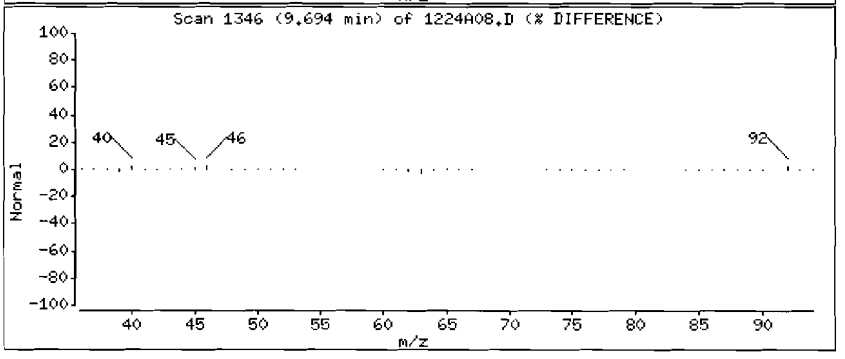
37 toluene

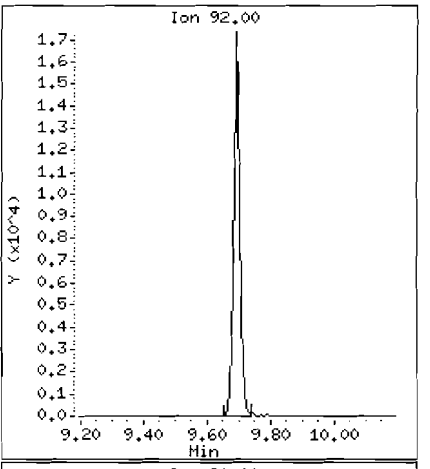
Concentration: 22.75 ngs

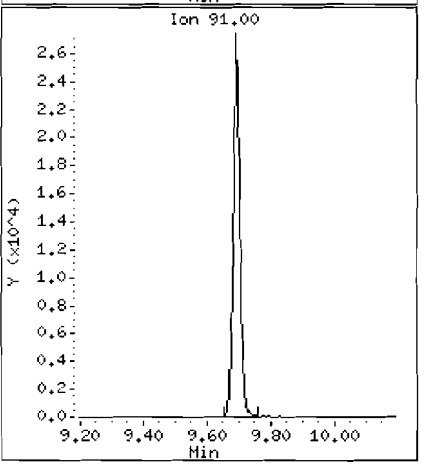












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A08.D

Date : 24-DEC-2013 13:01

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-3,31,5,,c1

Purge Volume: 5.0

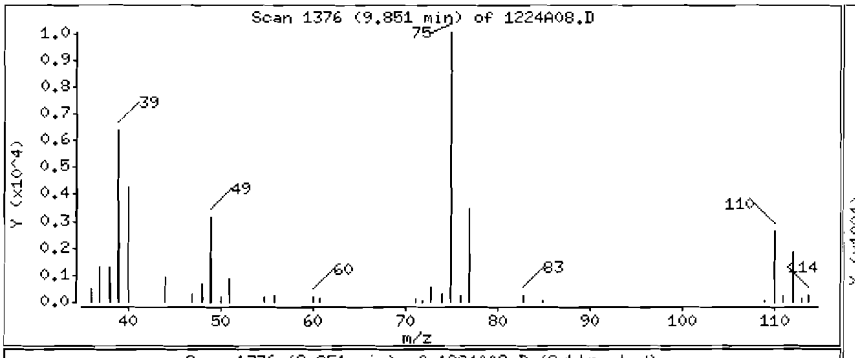
Operator: gt

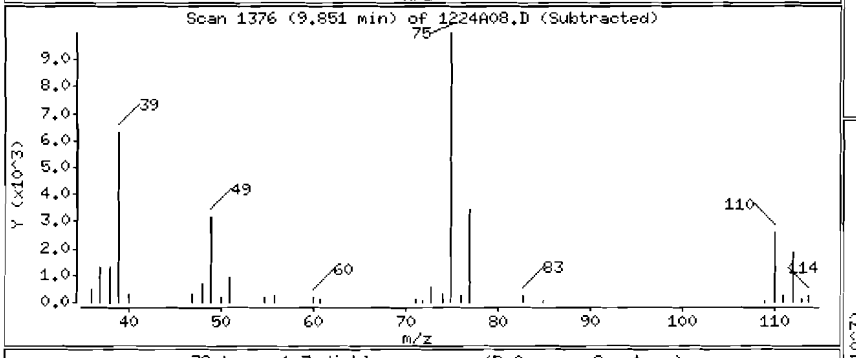
Column phase:

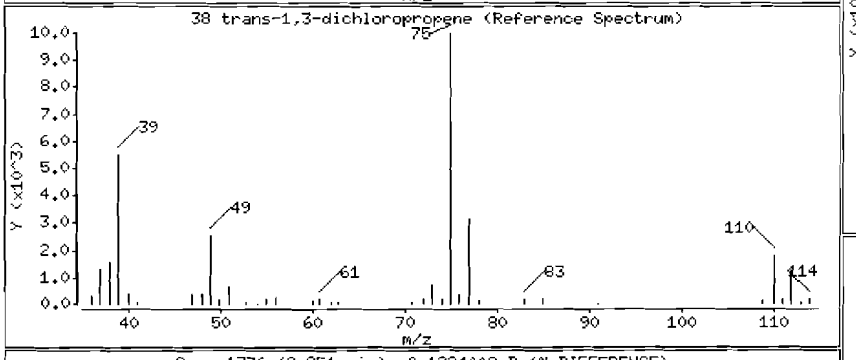
Column diameter: 0.18

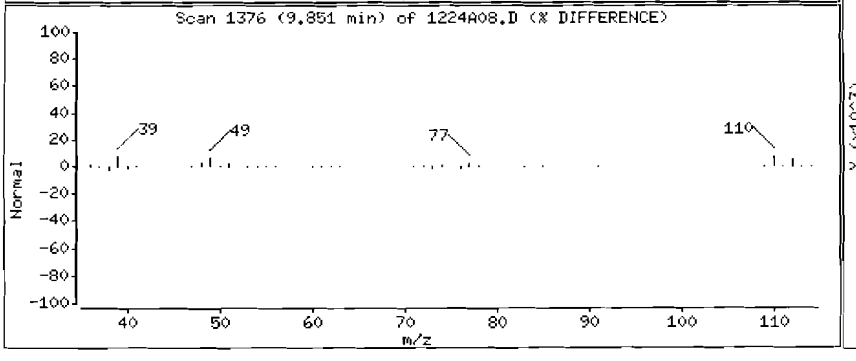
38 trans-1,3-dichloropropene

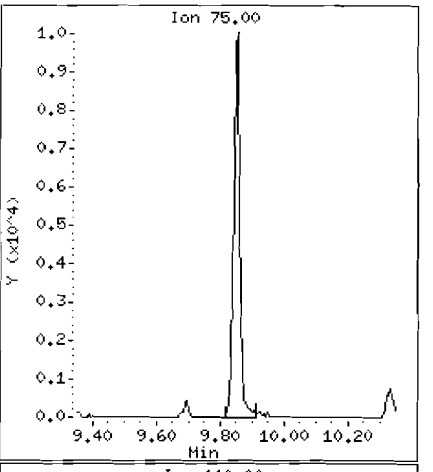
Concentration: 23.14 ngs

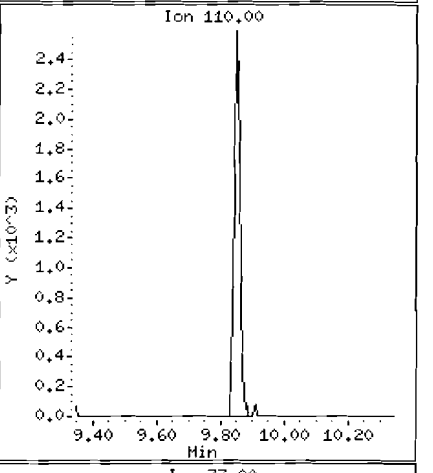


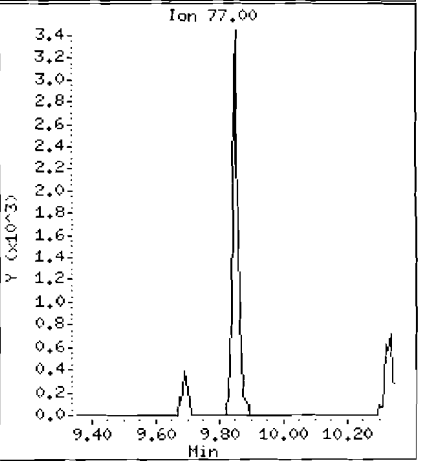












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A08.D

Date : 24-DEC-2013 13:01

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-3,31,5,,c1

Purge Volume: 5.0

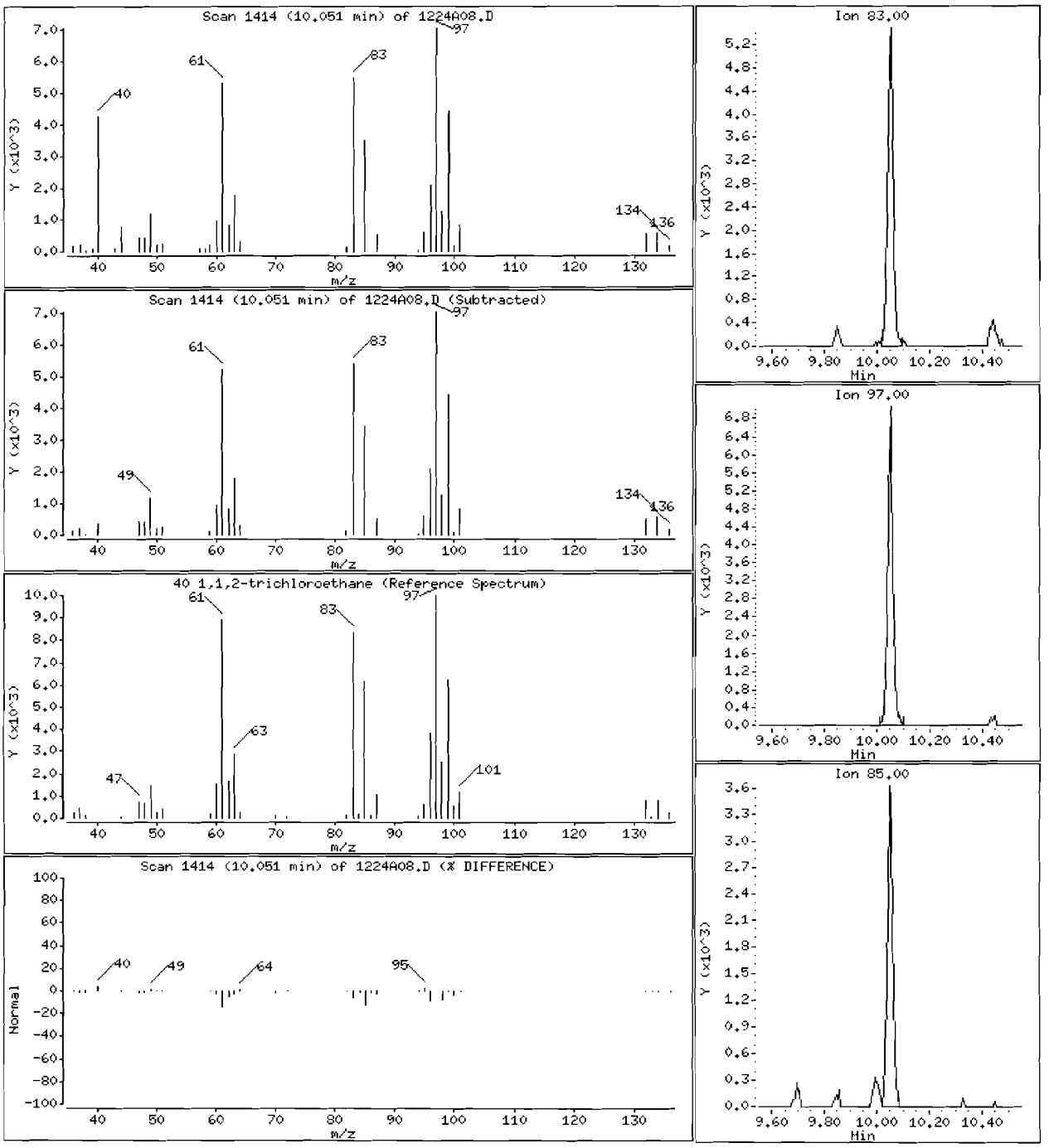
Operator: gt

Column phase:

Column diameter: 0.18

40 1,1,2-trichloroethane

Concentration: 26.24 ngs



Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A08.D

Date : 24-DEC-2013 13:01

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-3,31,5,,c1

Purge Volume: 5.0

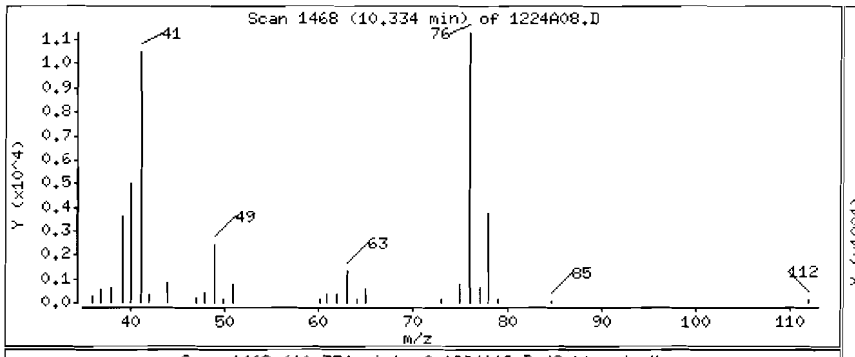
Operator: gt

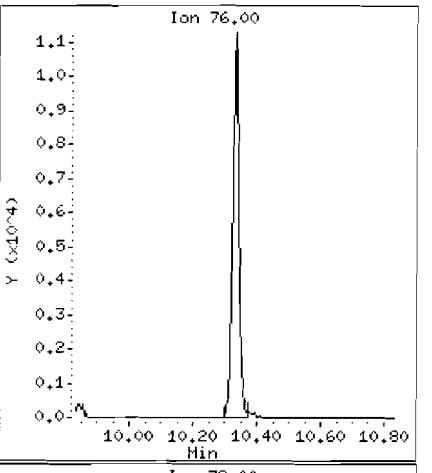
Column phase:

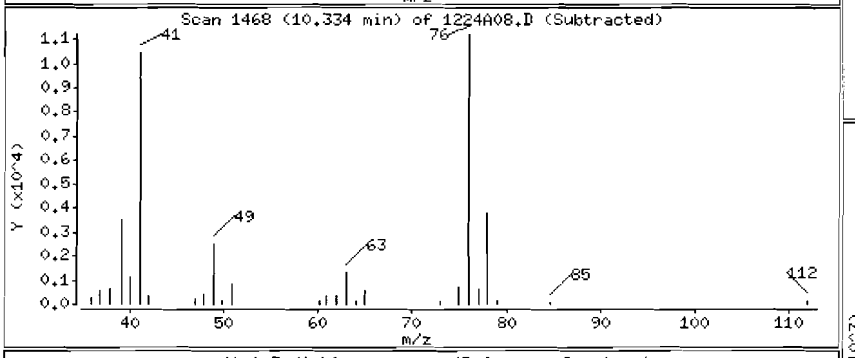
Column diameter: 0.18

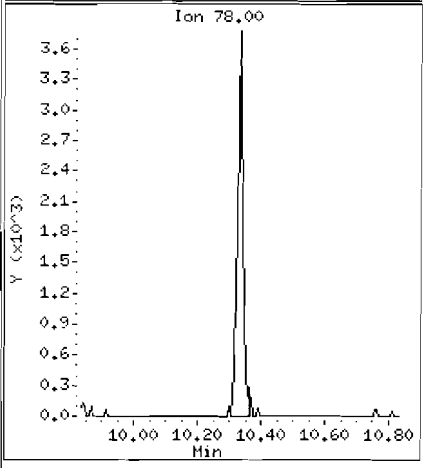
41 1,3-dichloropropane

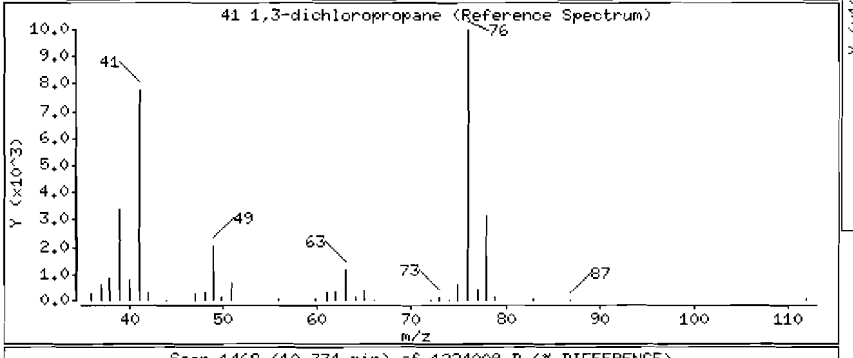
Concentration: 25.28 ngs

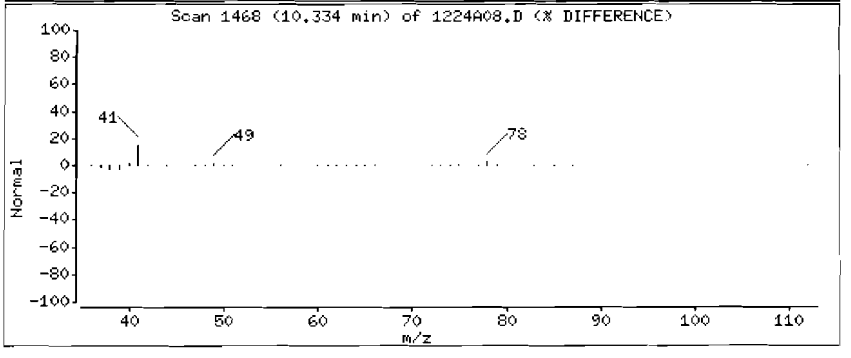












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A08.D

Date : 24-DEC-2013 13:01

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-3,31,5,,c1

Purge Volume: 5.0

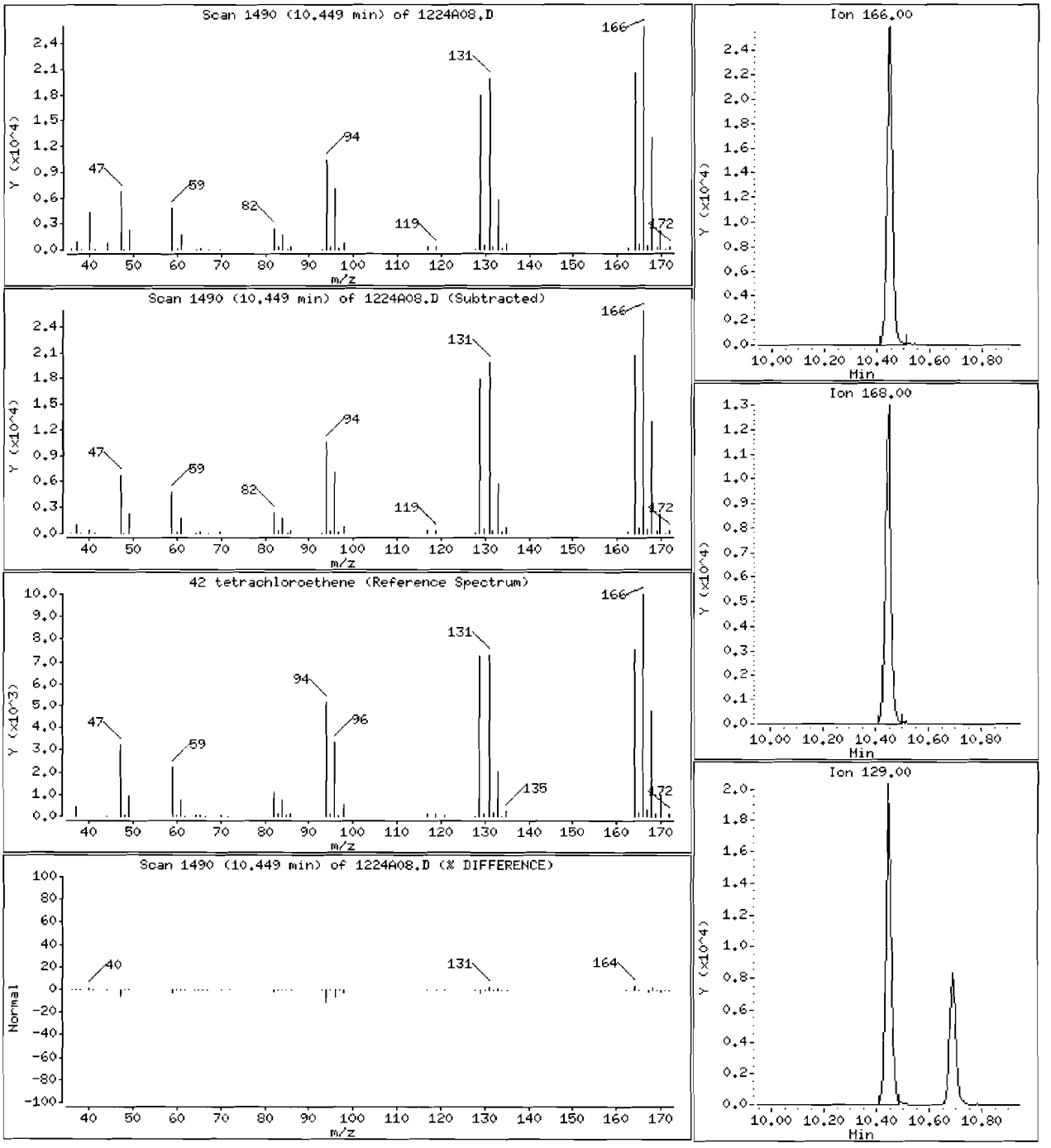
Operator: gt

Column phase:

Column diameter: 0.18

42 tetrachloroethene

Concentration: 87.41 ngs



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Date : 24-DEC-2013 13:01

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-3,31,5,,c1

Purge Volume: 5.0

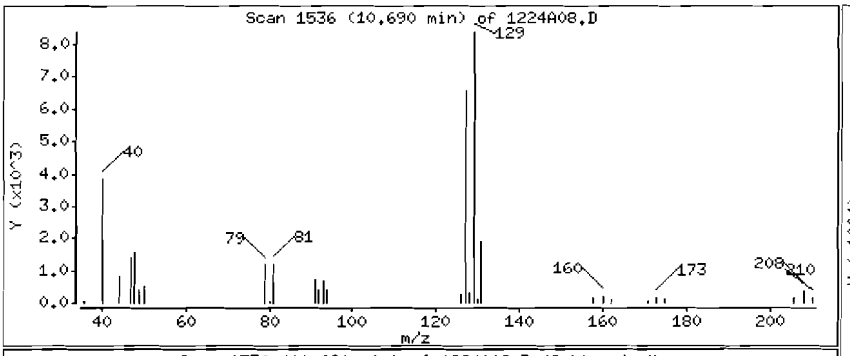
Operator: gt

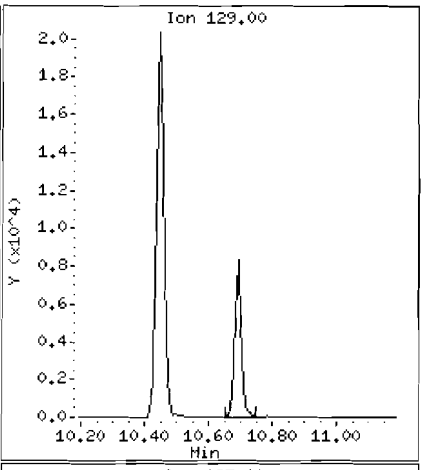
Column phase:

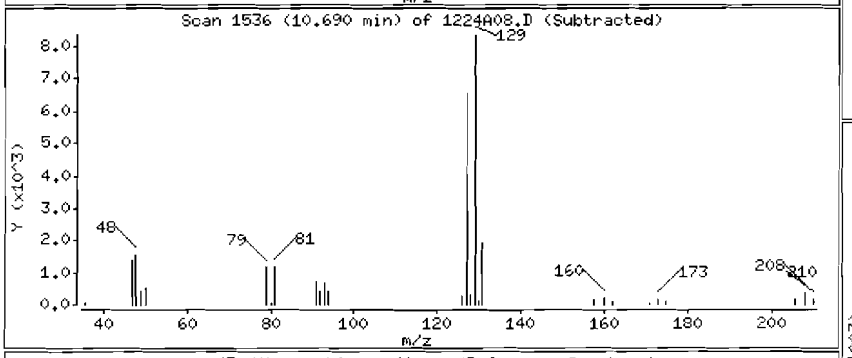
Column diameter: 0.18

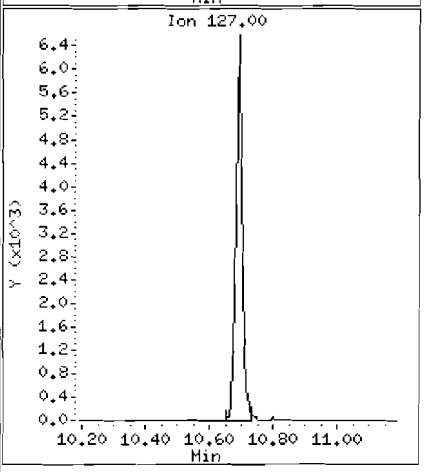
43 dibromochloromethane

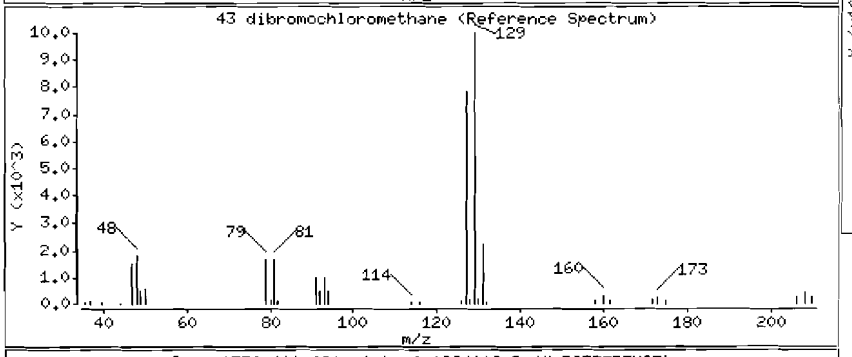
Concentration: 27.12 ngs

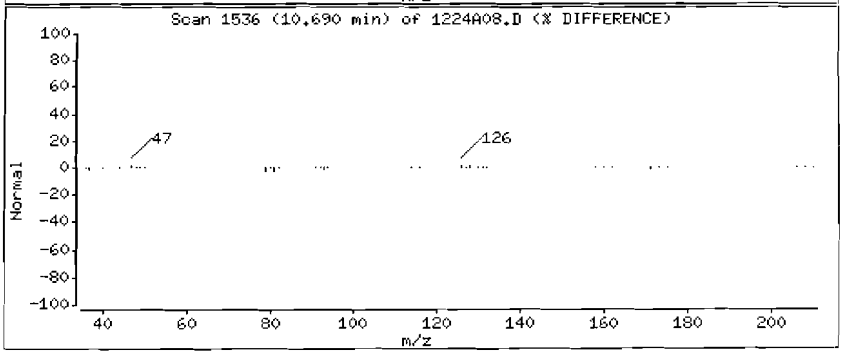












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A08.D

Date : 24-DEC-2013 13:01

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-3,31,5,,c1

Purge Volume: 5.0

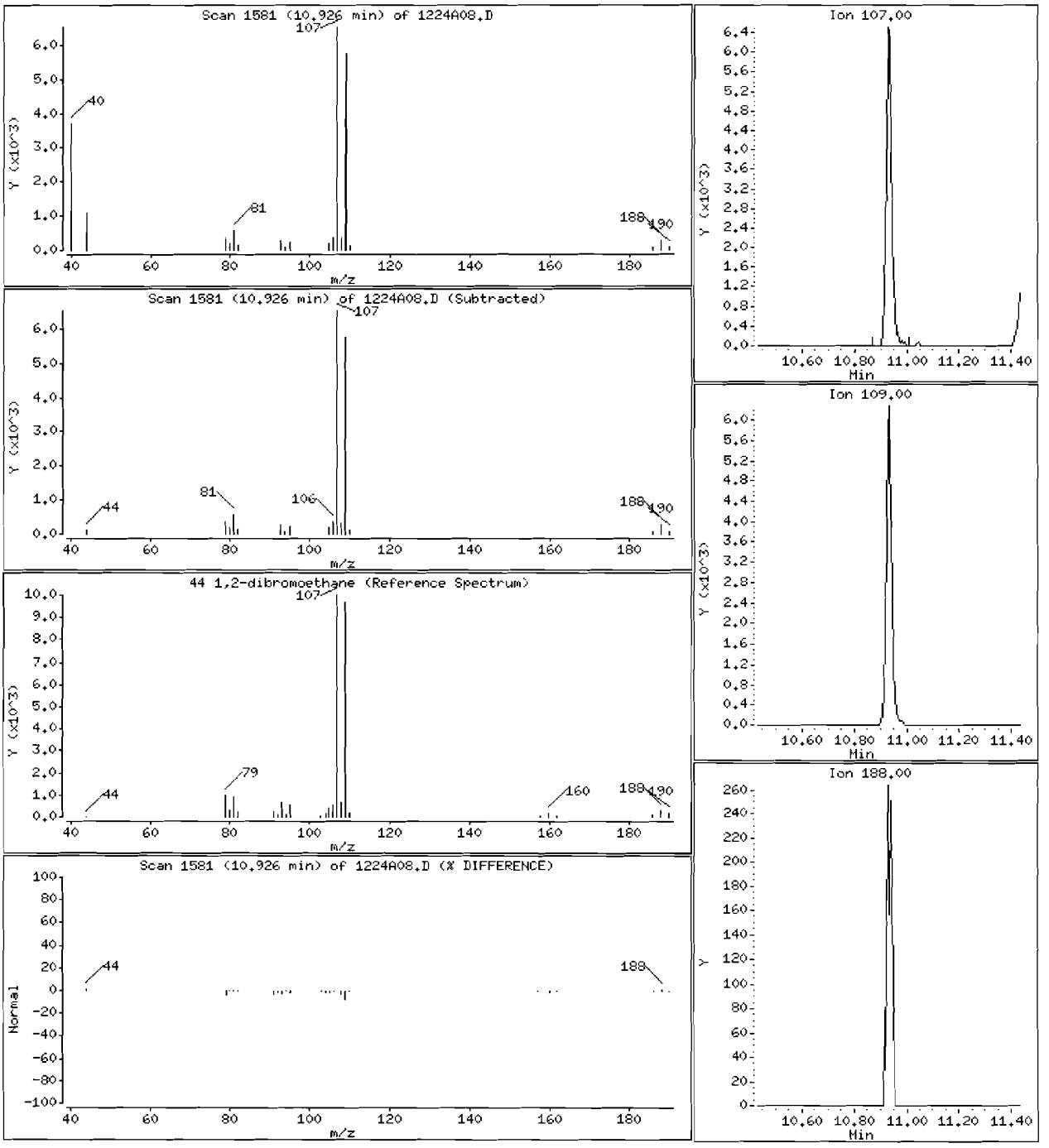
Operator: gt

Column phase:

Column diameter: 0.18

44 1,2-dibromoethane

Concentration: 21.82 ngs



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Date : 24-DEC-2013 13:01

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-3,31,5,,c1

Purge Volume: 5.0

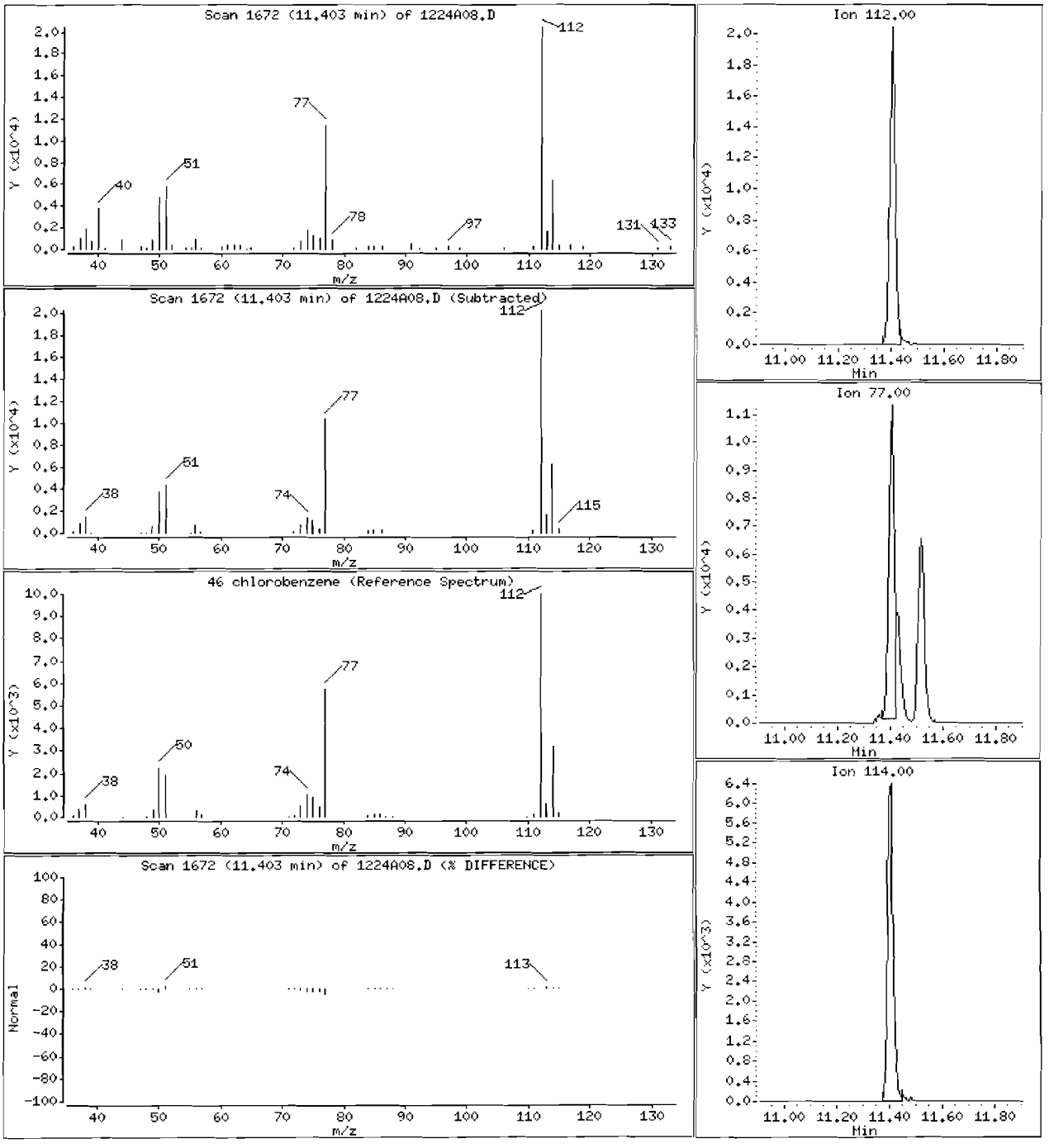
Operator: gt

Column phase:

Column diameter: 0.18

46 chlorobenzene

Concentration: 21.56 ngs



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Date : 24-DEC-2013 13:01

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-3,31,5,,c1

Purge Volume: 5.0

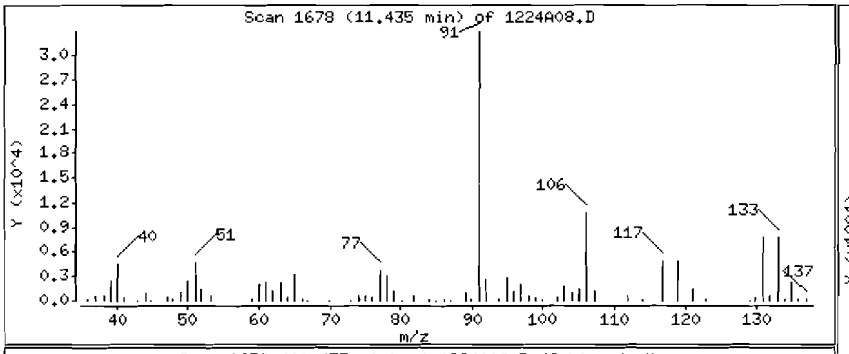
Operator: gt

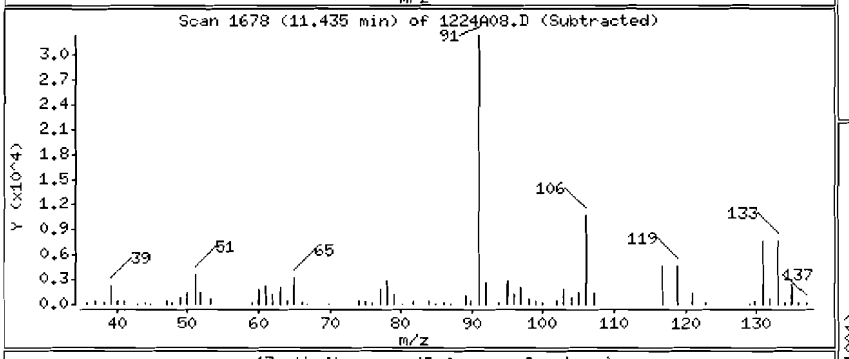
Column phase:

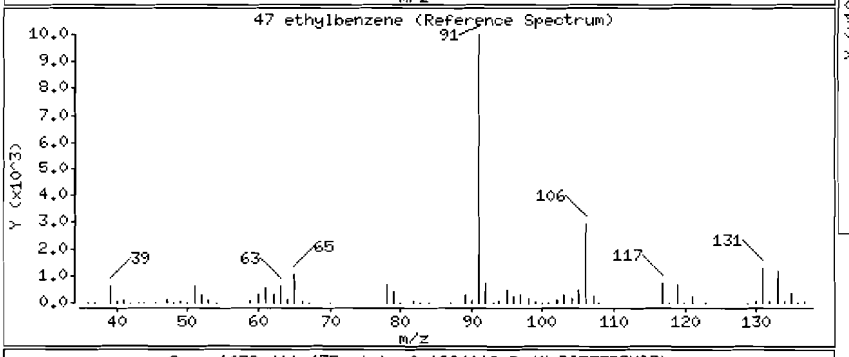
Column diameter: 0.18

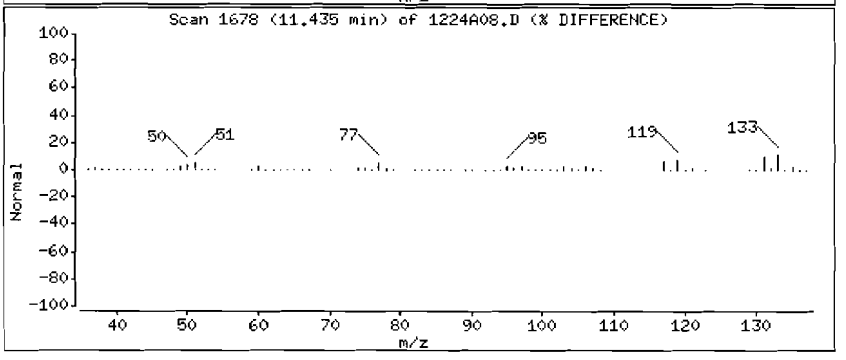
47 ethylbenzene

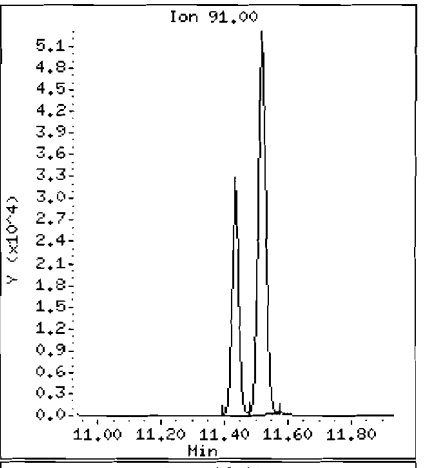
Concentration: 21.05 ngs

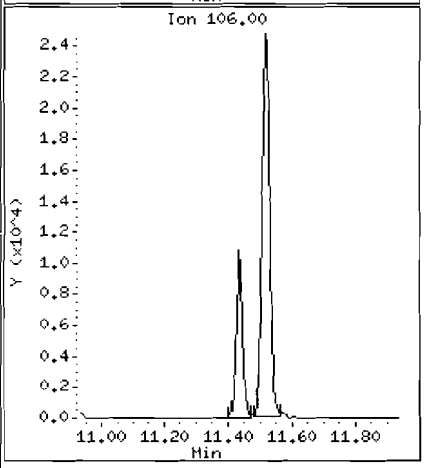












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A08.D

Date : 24-DEC-2013 13:01

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-3,31,5,,c1

Purge Volume: 5.0

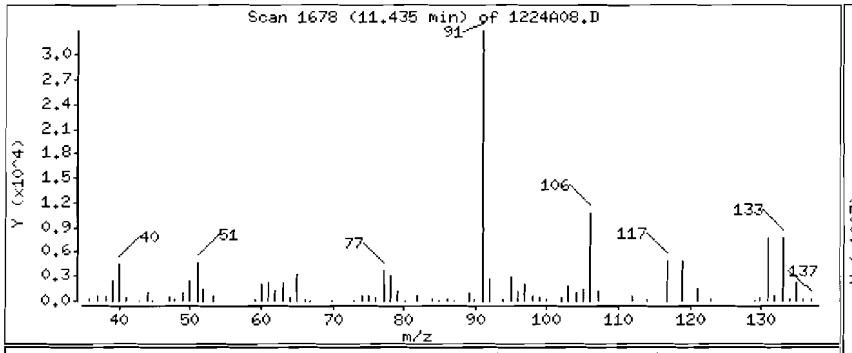
Operator: gt

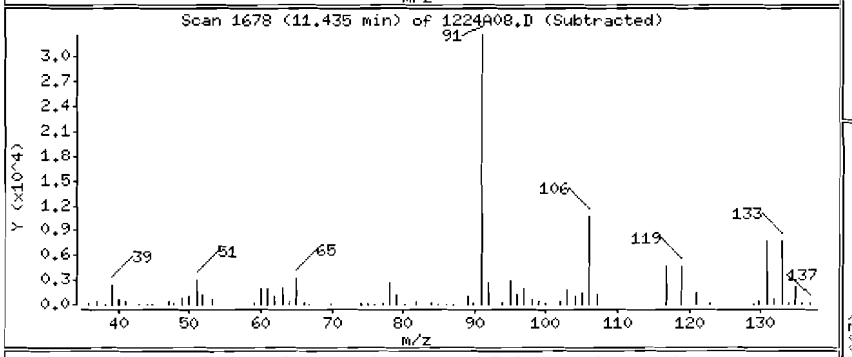
Column phase:

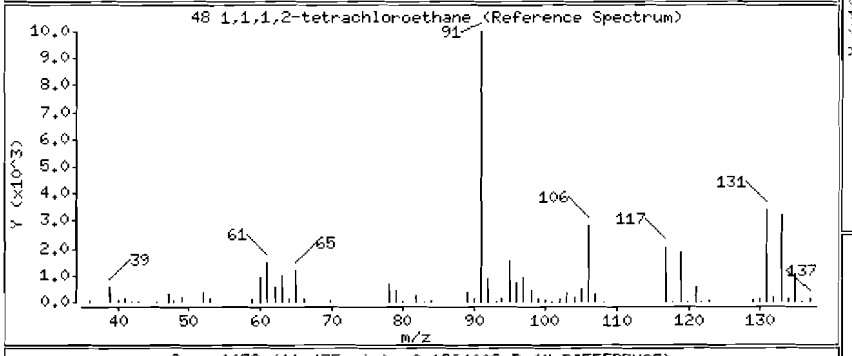
Column diameter: 0.18

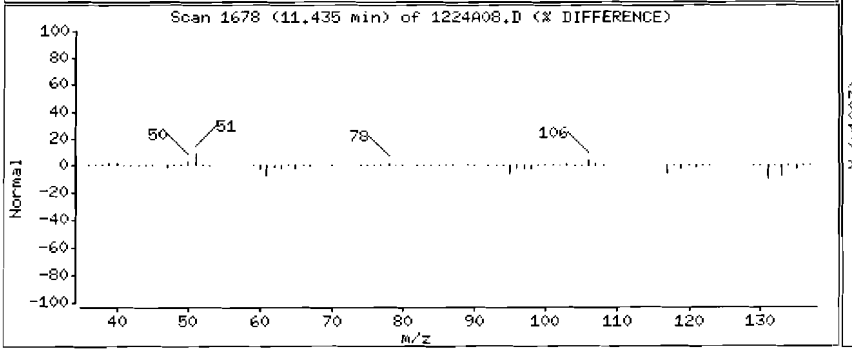
48 1,1,1,2-tetrachloroethane

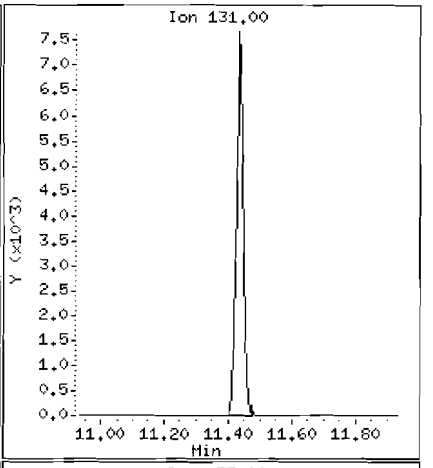
Concentration: 23.36 ngs

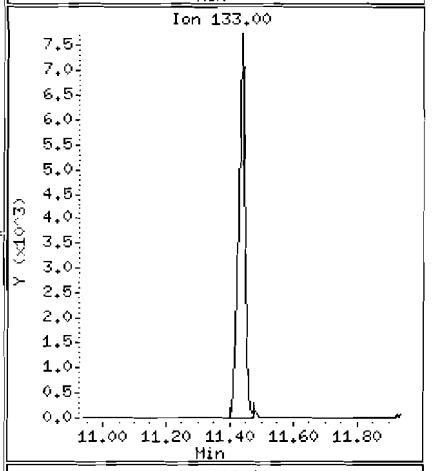


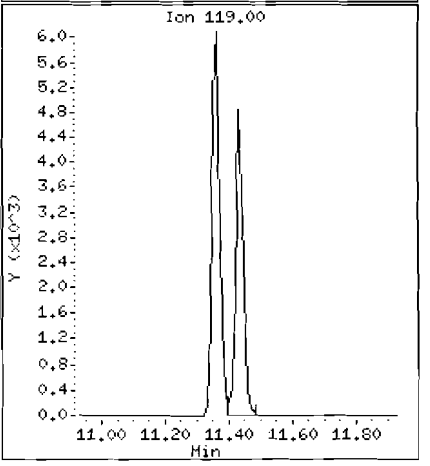












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A08.D

Date : 24-DEC-2013 13:01

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-3,31,5,,c1

Purge Volume: 5.0

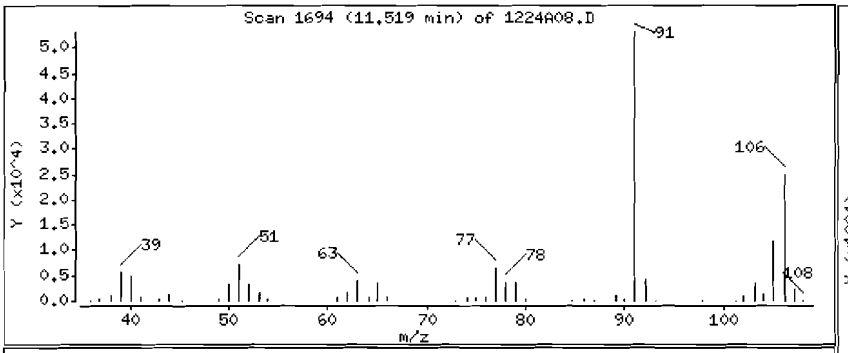
Operator: gt

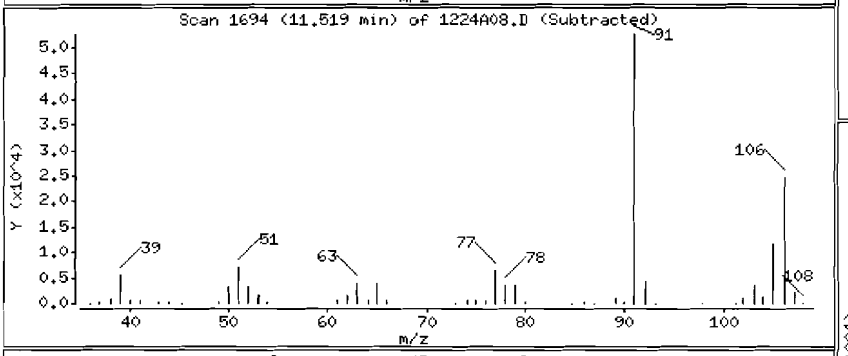
Column phase:

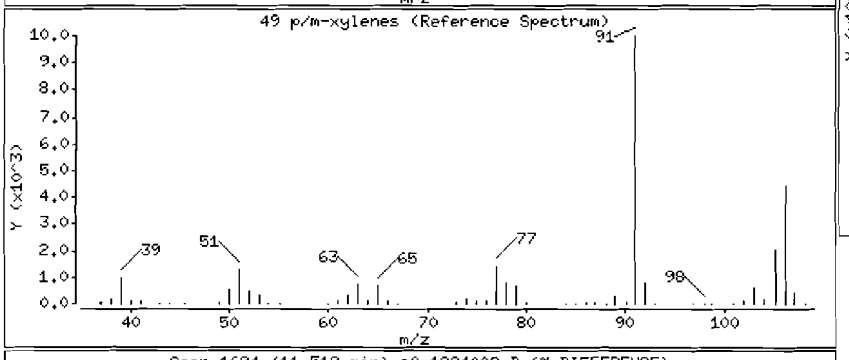
Column diameter: 0.18

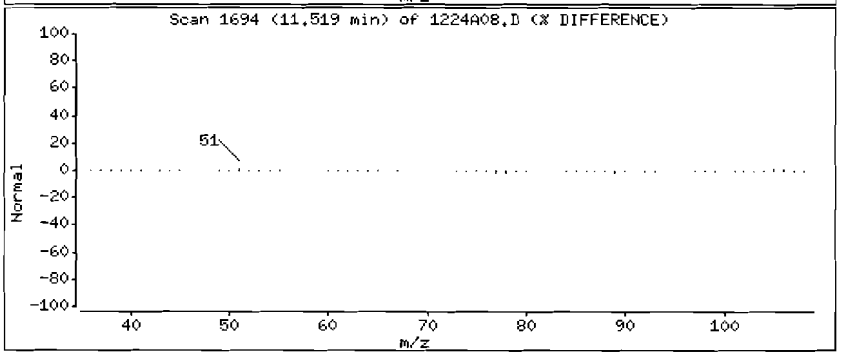
49 p/m-xylenes

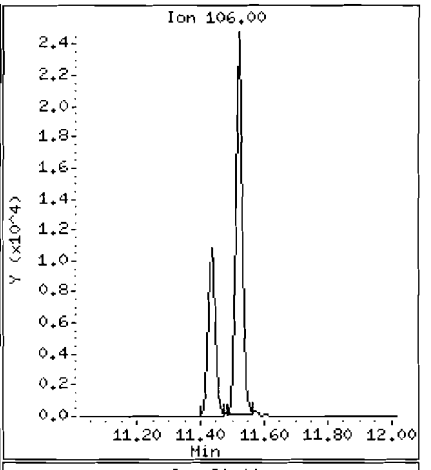
Concentration: 42.75 ngs

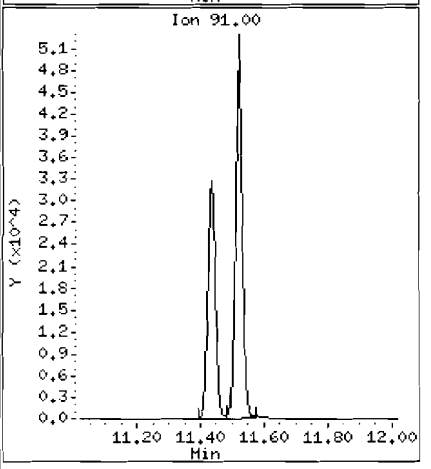












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A08.D

Date : 24-DEC-2013 13:01

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-3,31,5,,c1

Purge Volume: 5.0

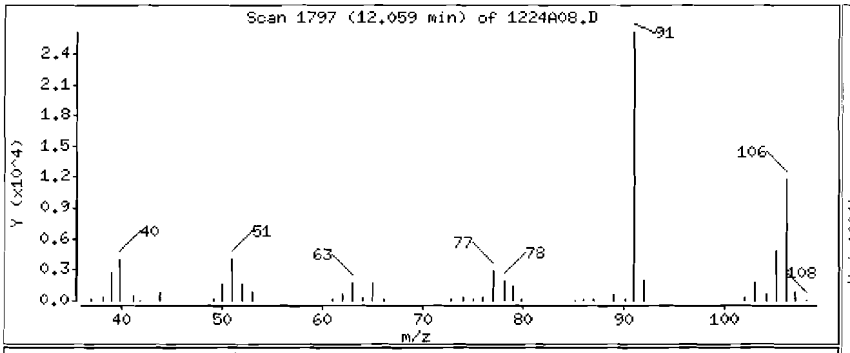
Operator: gt

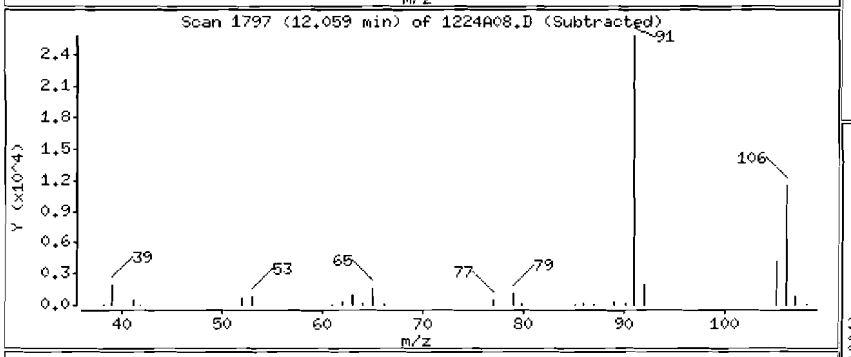
Column phase:

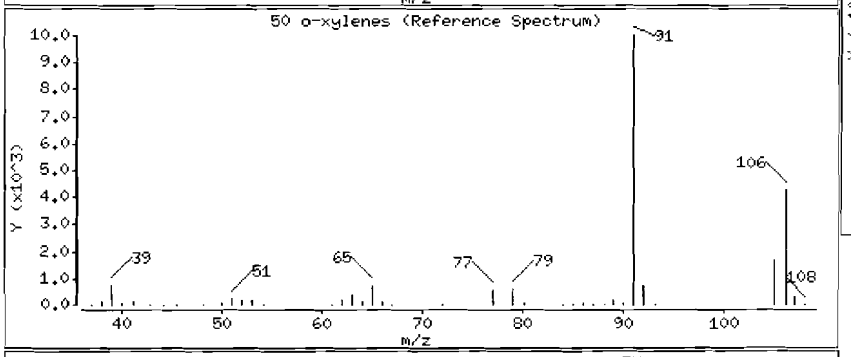
Column diameter: 0.18

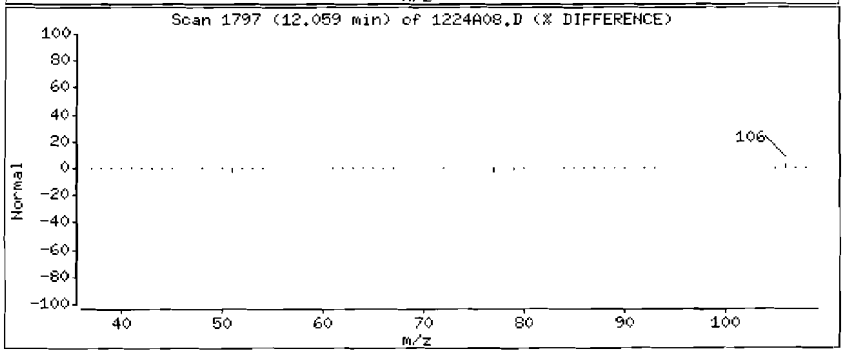
50 o-xylenes

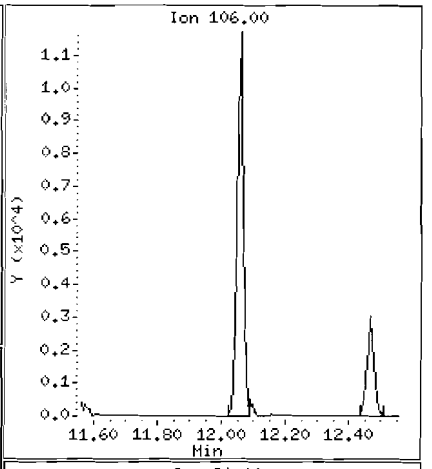
Concentration: 19.37 ngs

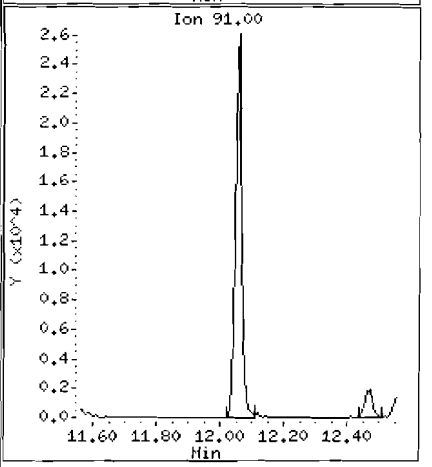












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A08.D

Date : 24-DEC-2013 13:01

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-3,31,5,,c1

Purge Volume: 5.0

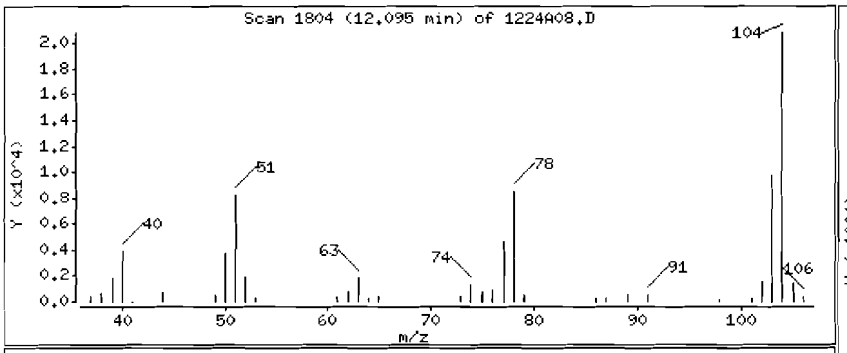
Operator: gt

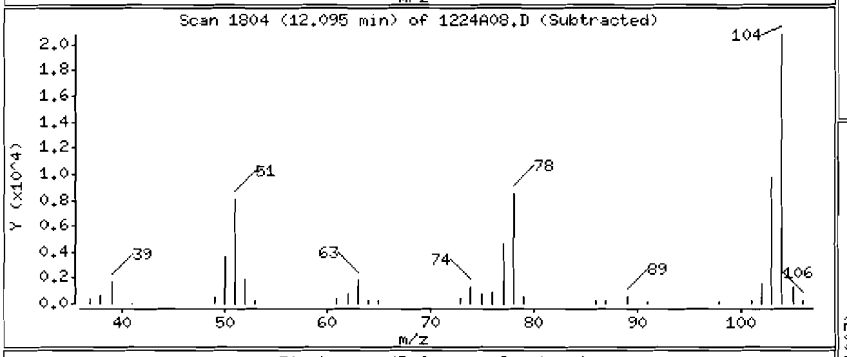
Column phase:

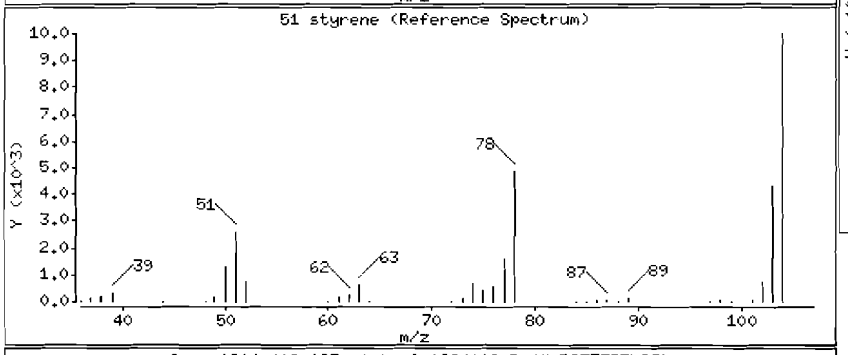
Column diameter: 0.18

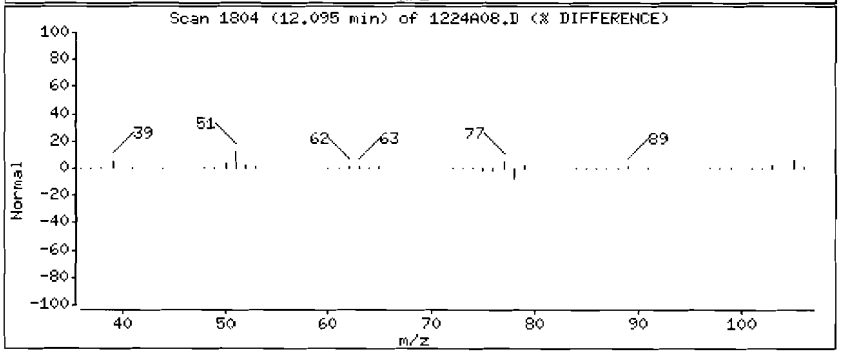
51 styrene

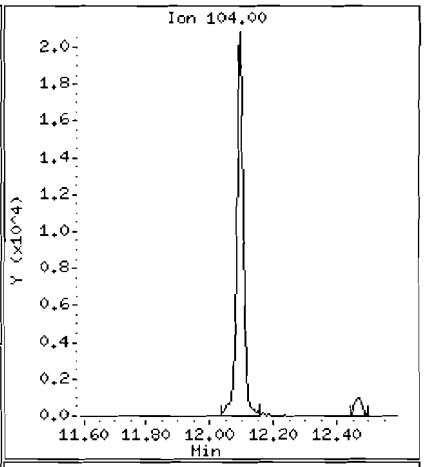
Concentration: 20.43 ngs

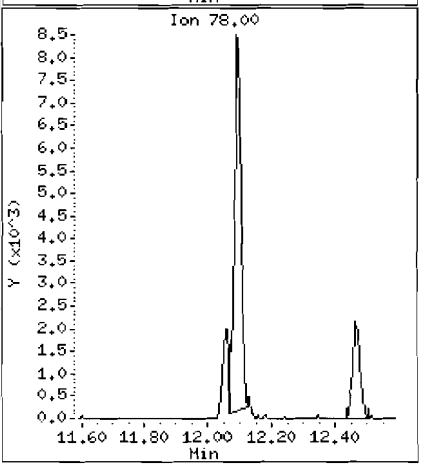












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A08.D

Date : 24-DEC-2013 13:01

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-3,31.5,,c1

Purge Volume: 5.0

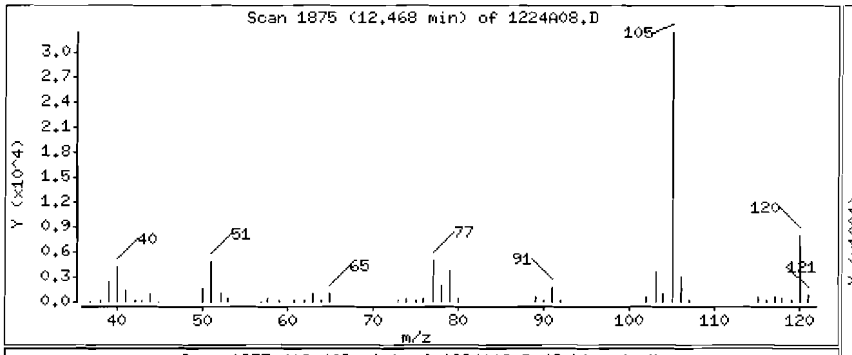
Operator: gt

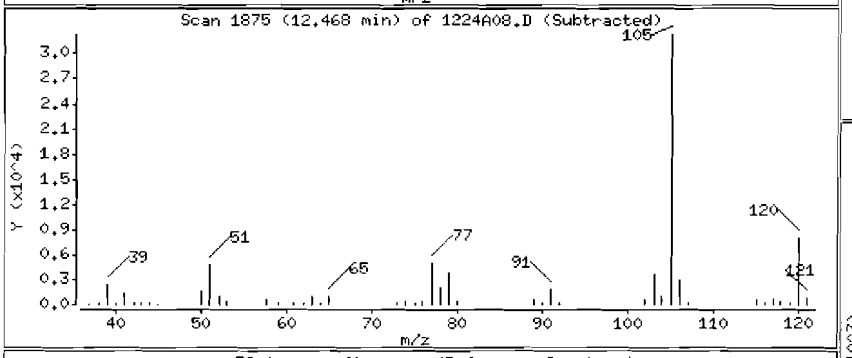
Column phase:

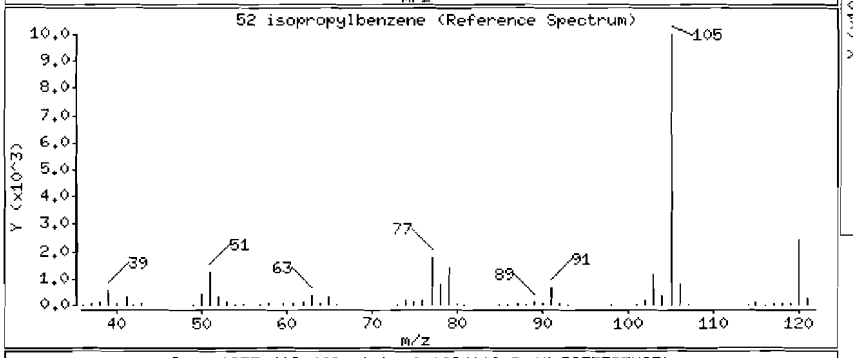
Column diameter: 0.18

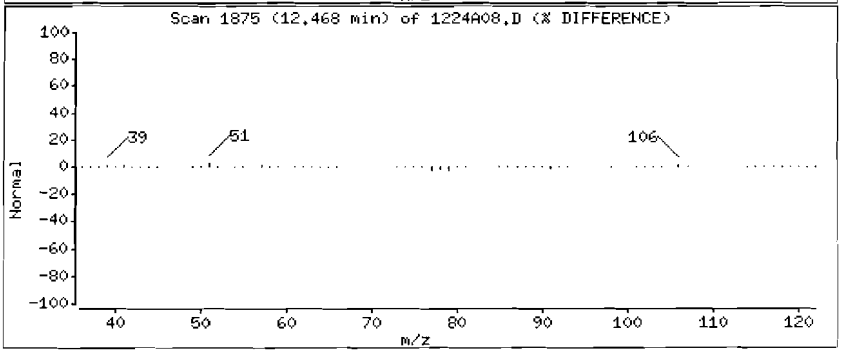
52 isopropylbenzene

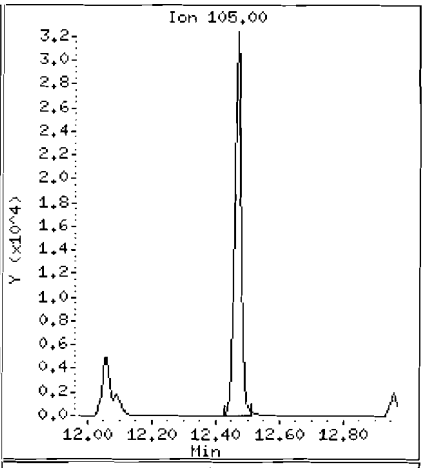
Concentration: 21.27 ngs

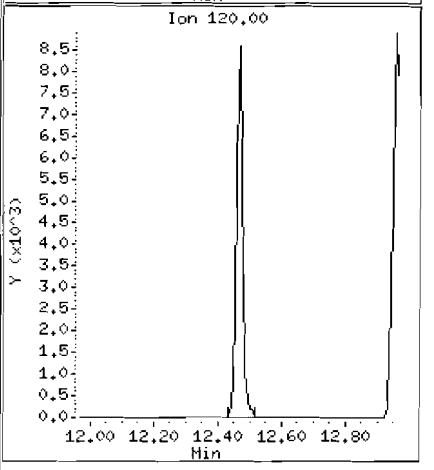












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A08.D

Date : 24-DEC-2013 13:01

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-3,31,5,,c1

Purge Volume: 5.0

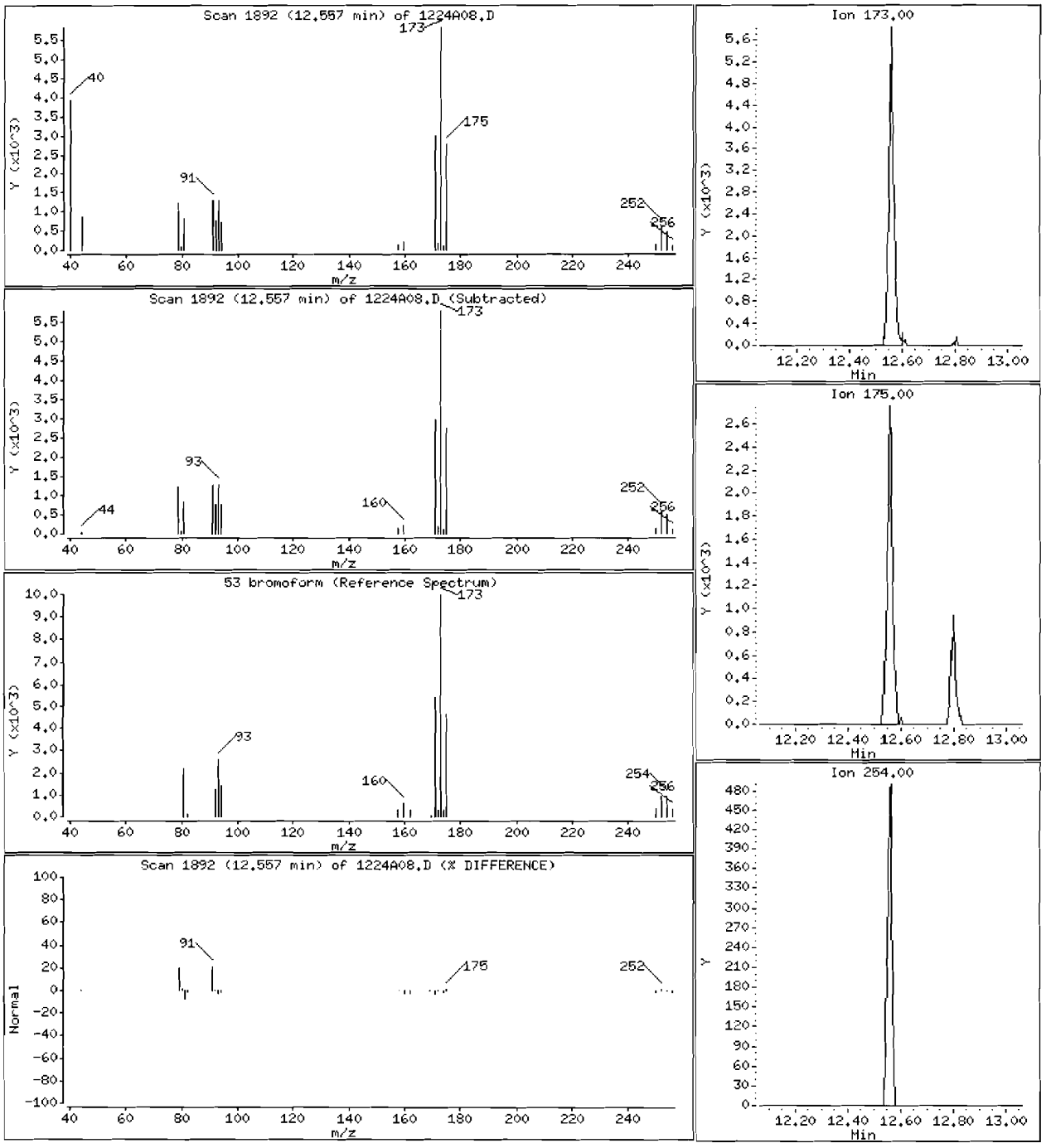
Operator: gt

Column phase:

Column diameter: 0.18

53 bromoform

Concentration: 23.26 ngs



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Date : 24-DEC-2013 13:01

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-3,31,5,,c1

Purge Volume: 5.0

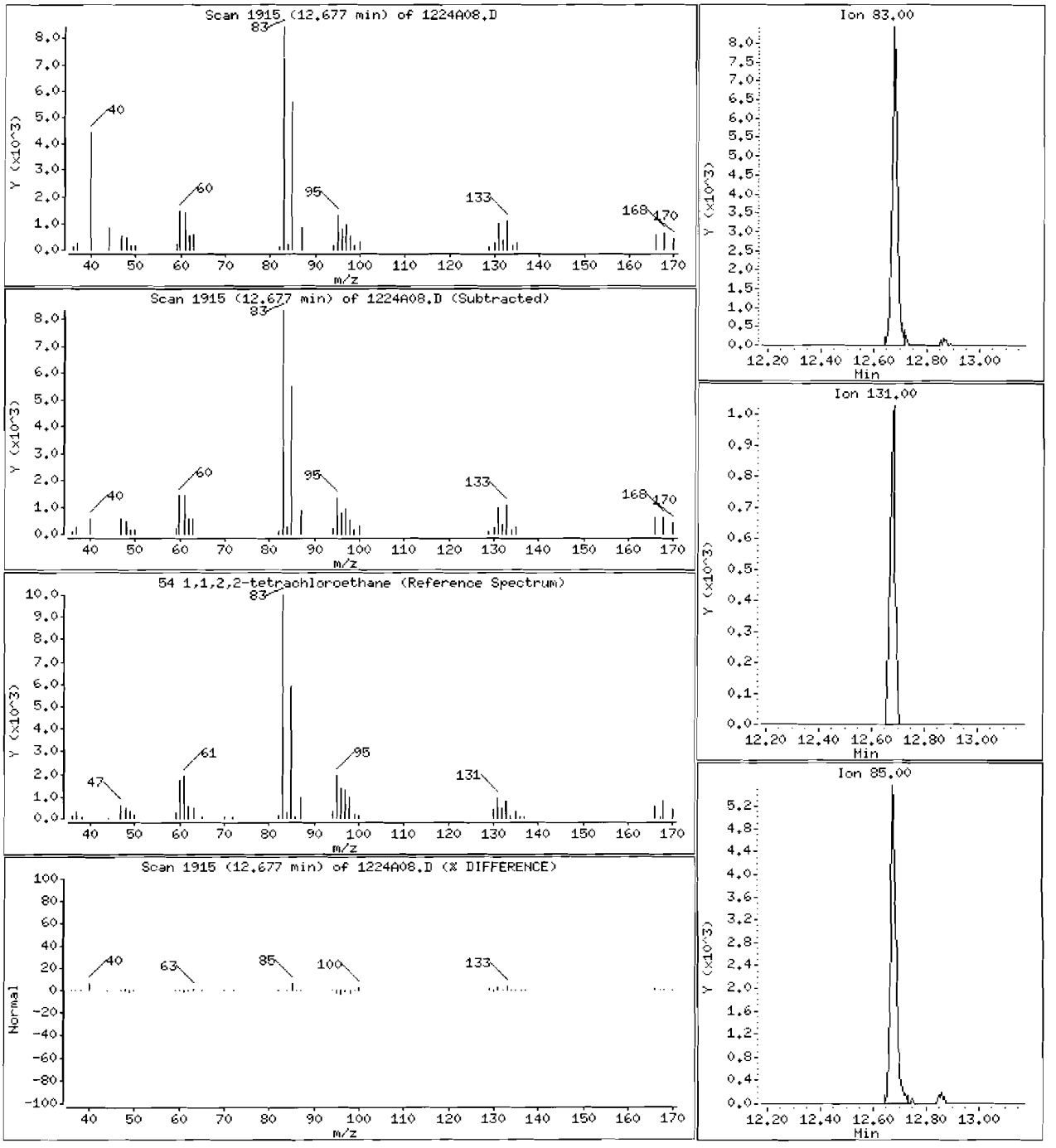
Operator: gt

Column phase:

Column diameter: 0.18

54 1,1,2,2-tetrachloroethane

Concentration: 20.64 ngs



Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A08.D

Date : 24-DEC-2013 13:01

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-3,31,5,,c1

Purge Volume: 5.0

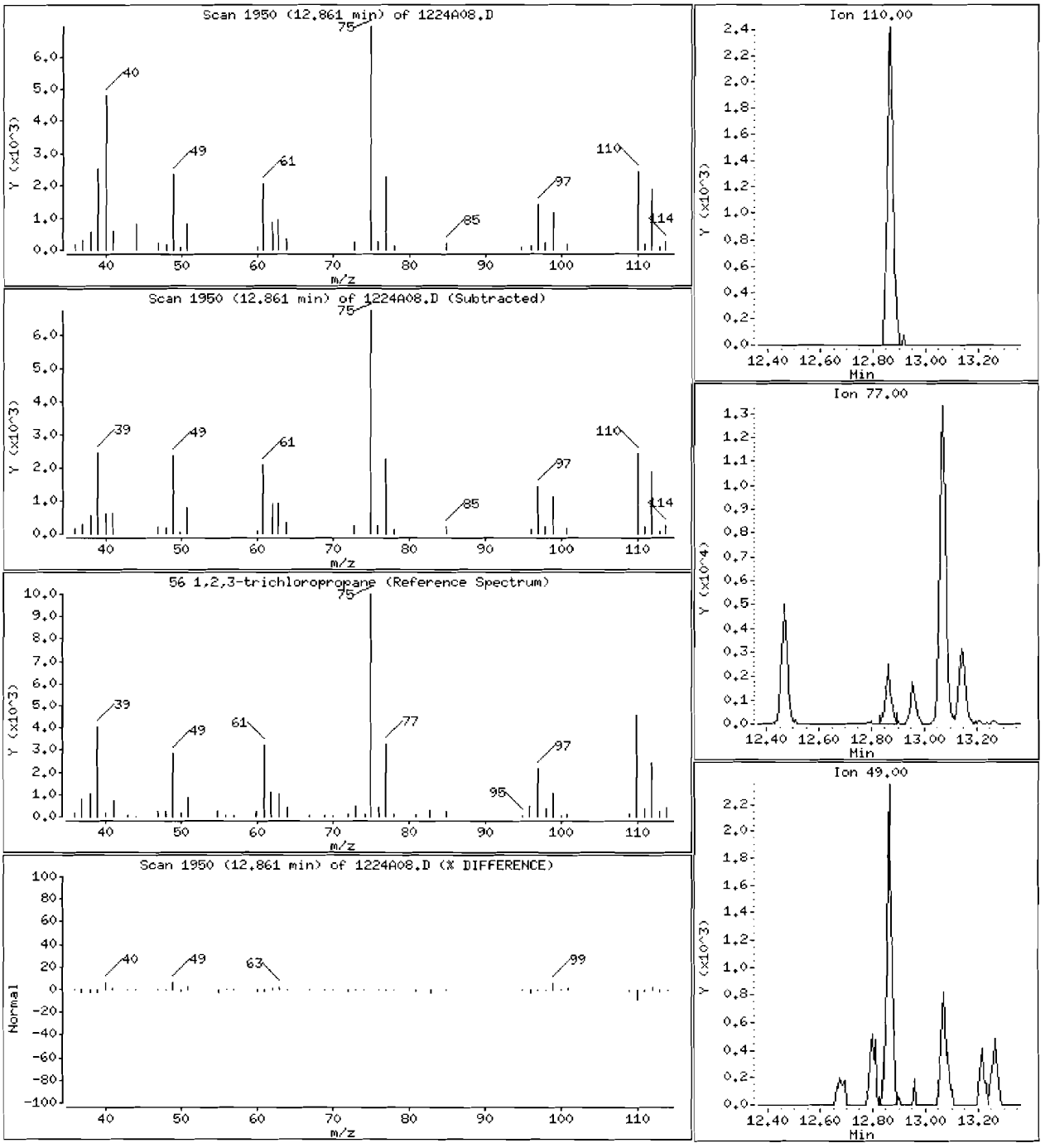
Operator: gt

Column phase:

Column diameter: 0.18

56 1,2,3-trichloropropane

Concentration: 22.95 ngs



Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A08.D

Date : 24-DEC-2013 13:01

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-3,31,5,,c1

Purge Volume: 5.0

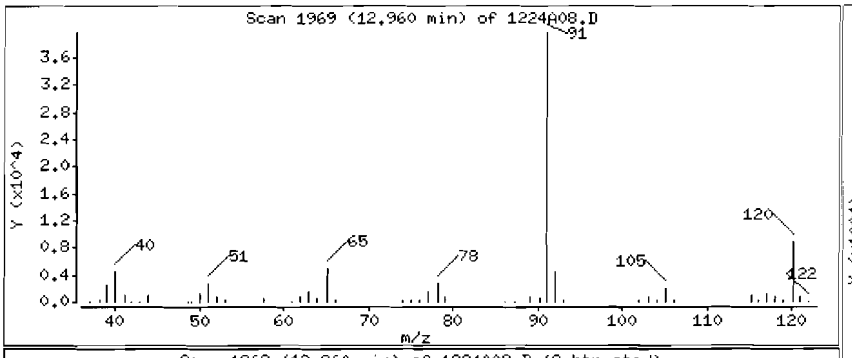
Operator: gt

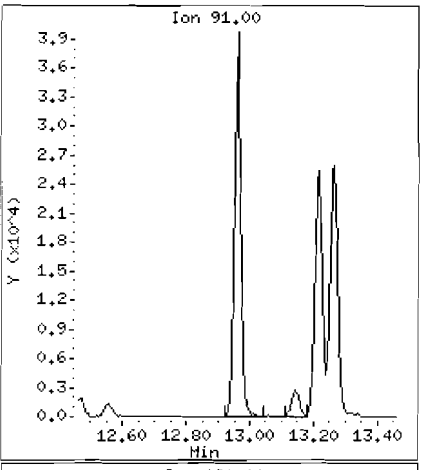
Column phase:

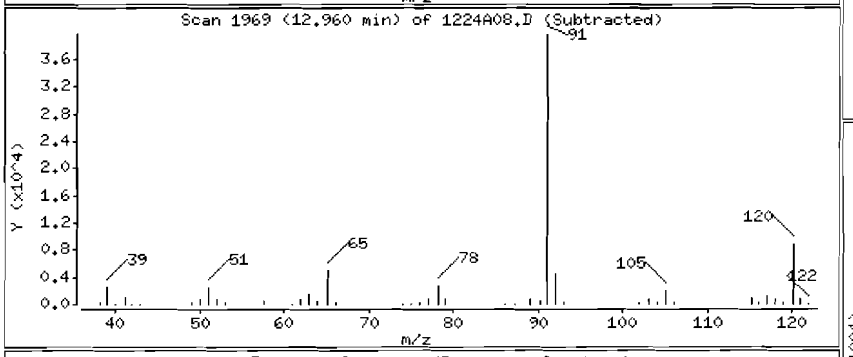
Column diameter: 0.18

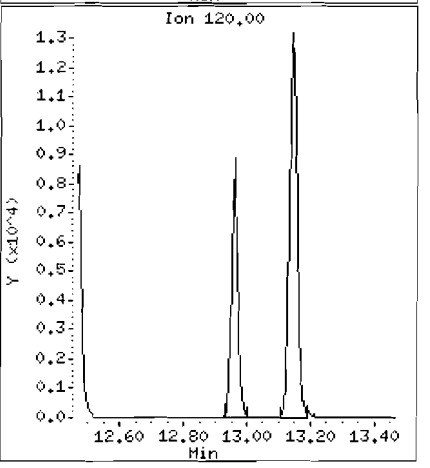
57 n-propylbenzene

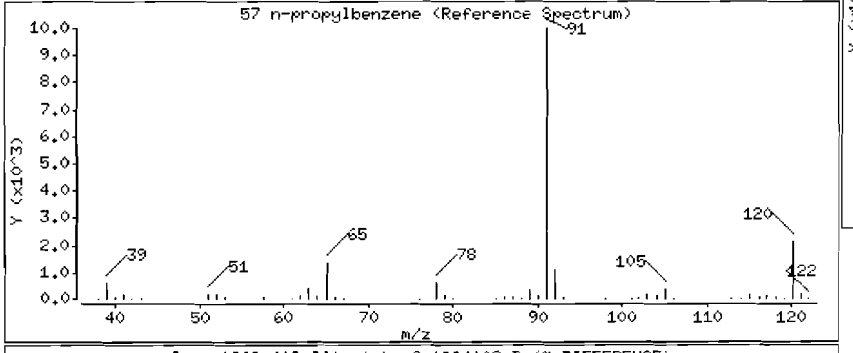
Concentration: 21.48 ngs

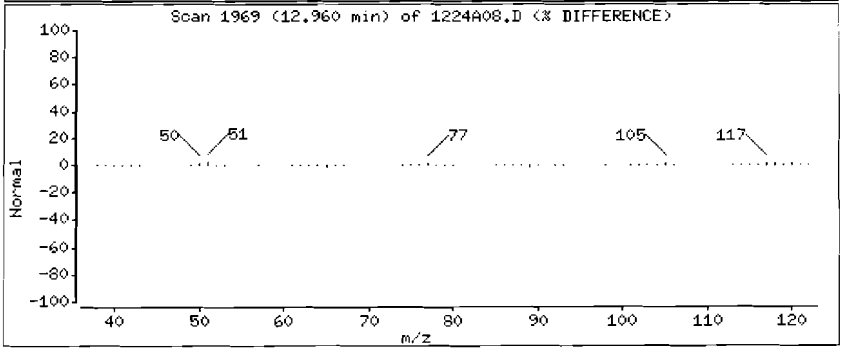












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A08.D

Date : 24-DEC-2013 13:01

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-3,31,5,,c1

Purge Volume: 5.0

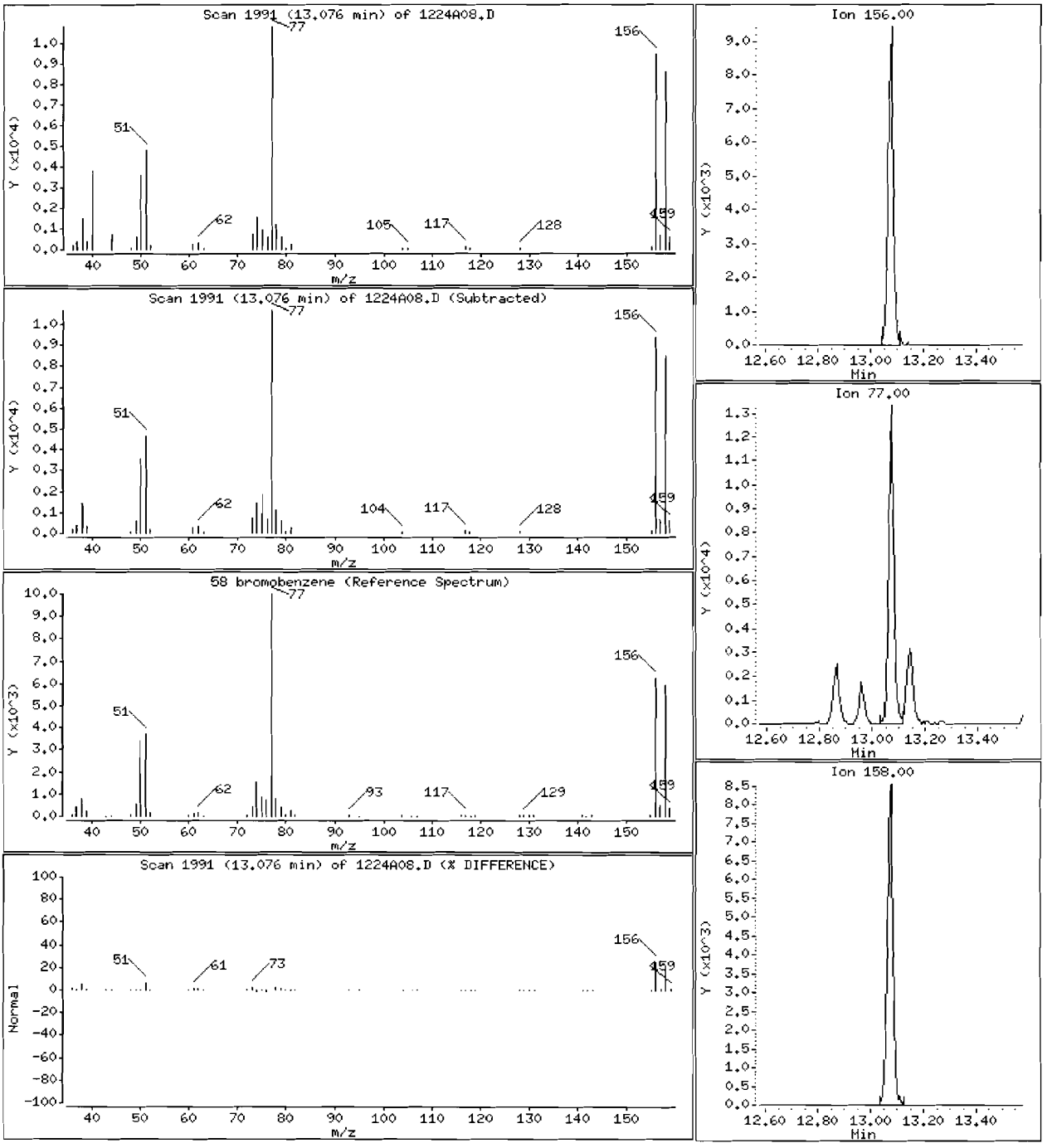
Operator: gt

Column phase:

Column diameter: 0.18

58 bromobenzene

Concentration: 22.33 ngs



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Date : 24-DEC-2013 13:01

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-3,31,5,,c1

Purge Volume: 5.0

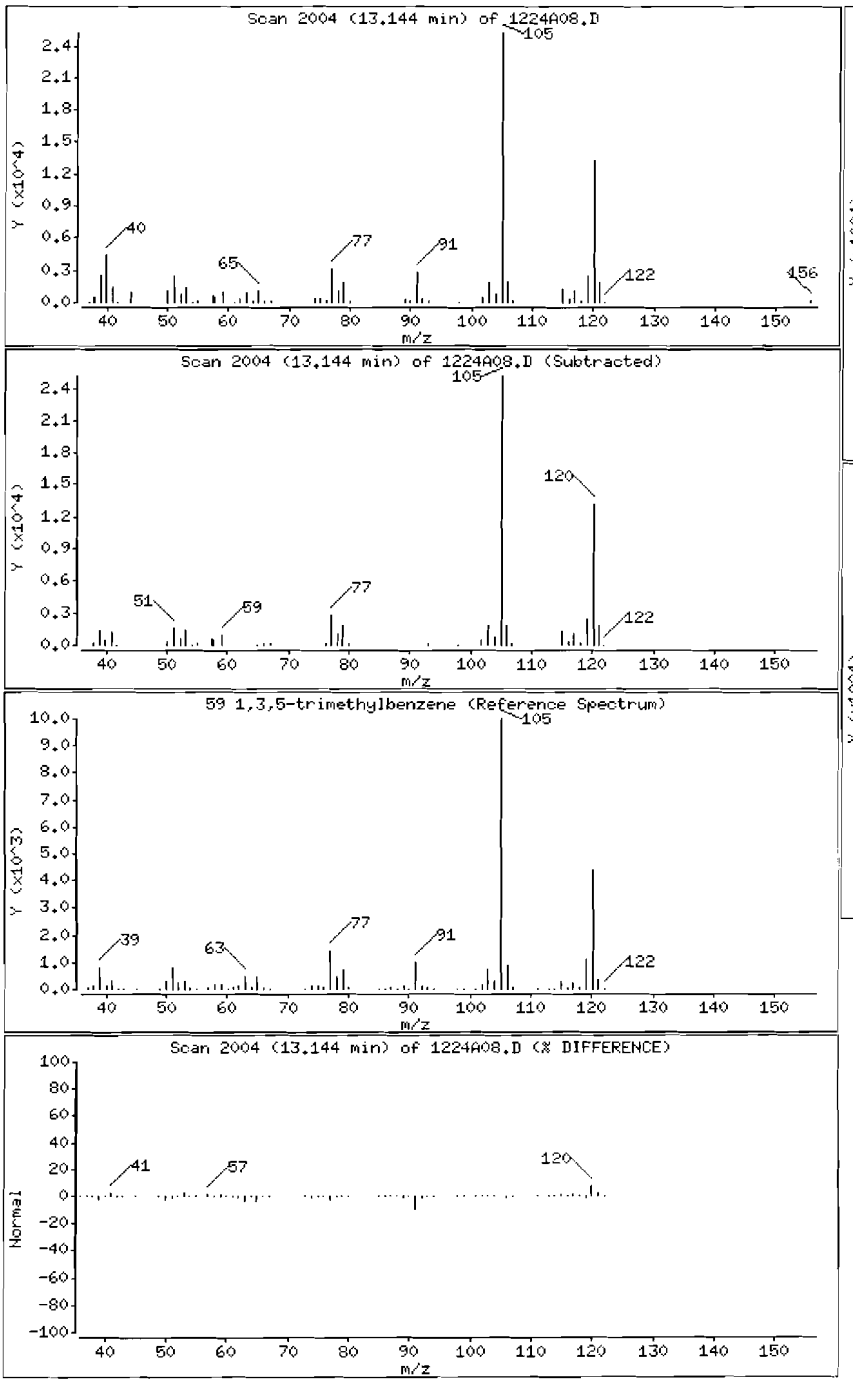
Operator: gt

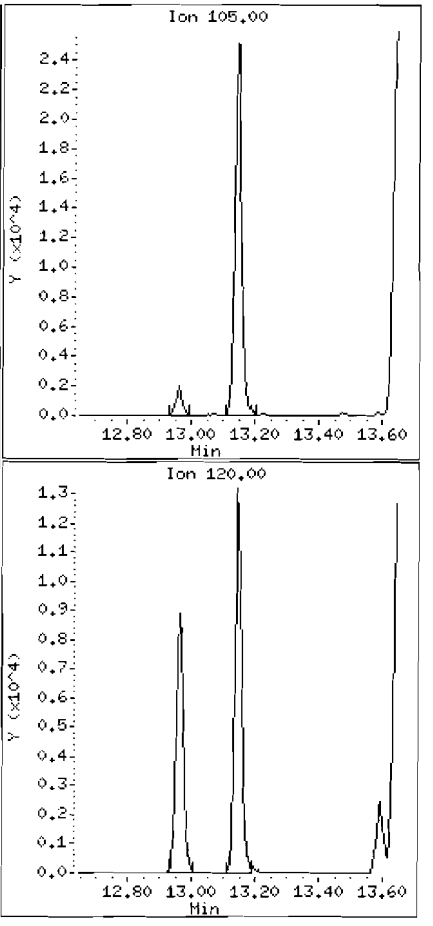
Column phase:

Column diameter: 0.18

59 1,3,5-trimethylbenzene

Concentration: 20.68 ngs





Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A08.D

Date : 24-DEC-2013 13:01

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-3,31,5,,c1

Purge Volume: 5.0

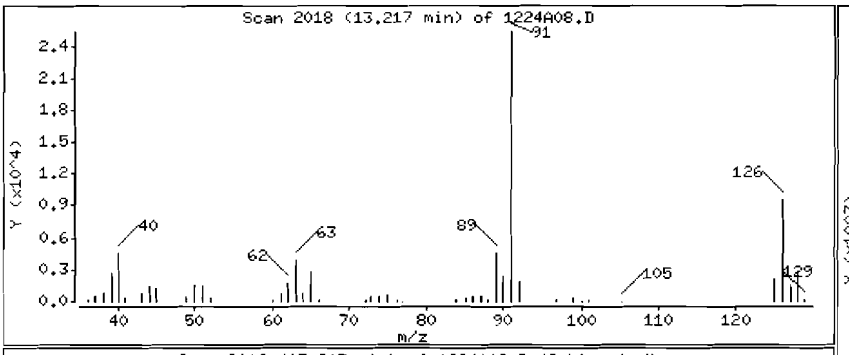
Operator: gt

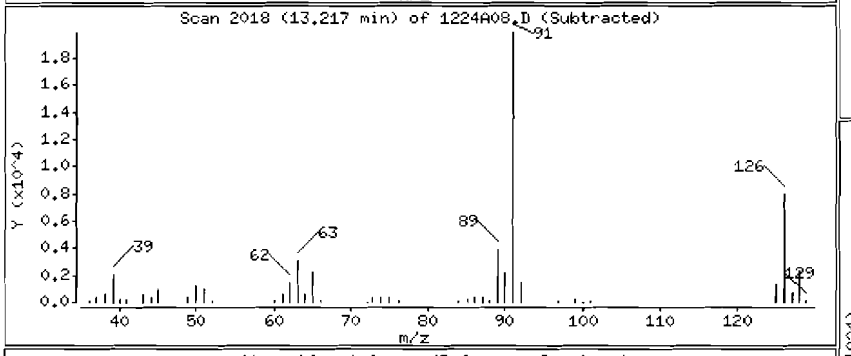
Column phase:

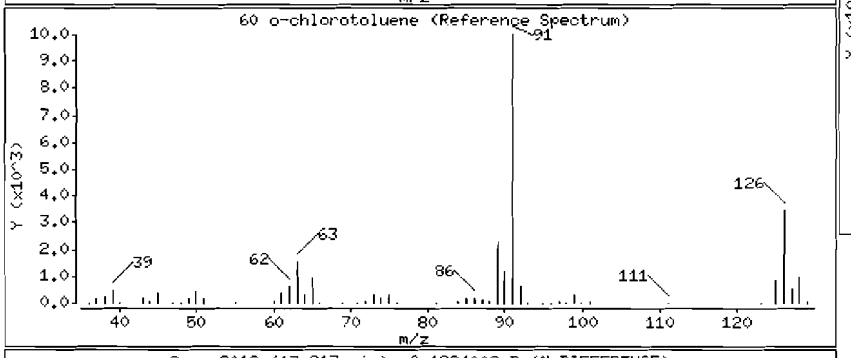
Column diameter: 0.18

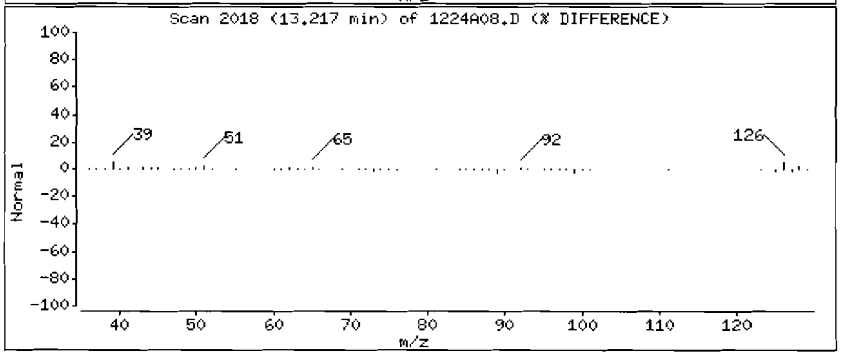
60 o-chlorotoluene

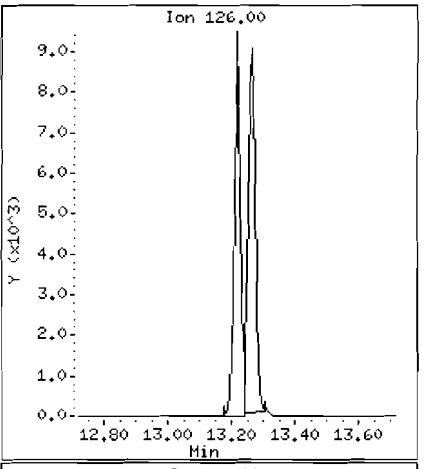
Concentration: 23.96 ngs

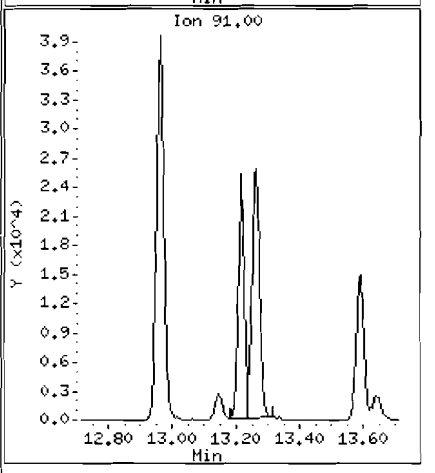












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A08.D

Date : 24-DEC-2013 13:01

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-3,31,5,,c1

Purge Volume: 5.0

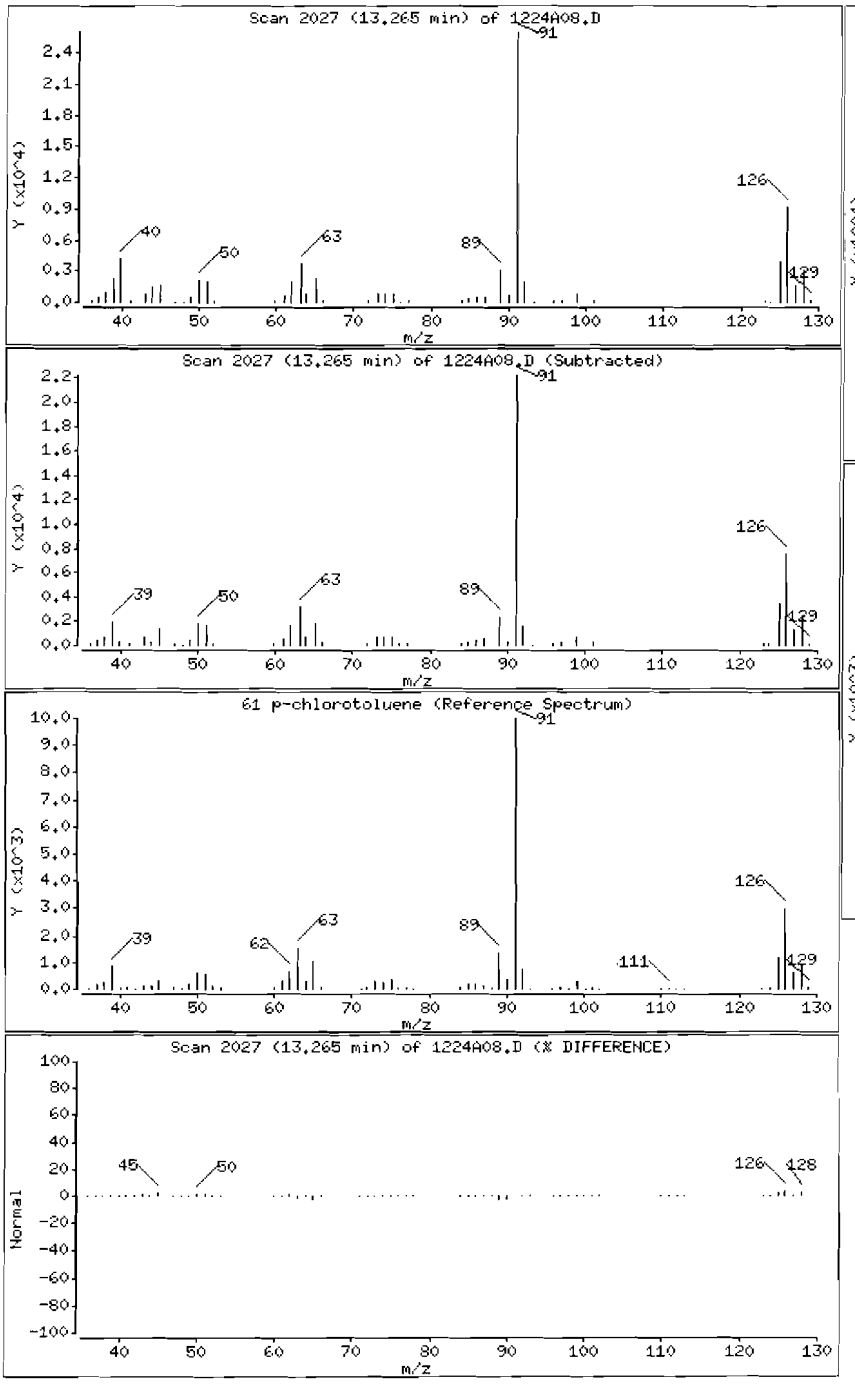
Operator: gt

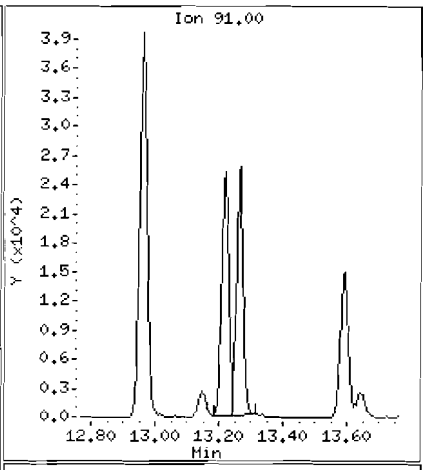
Column phase:

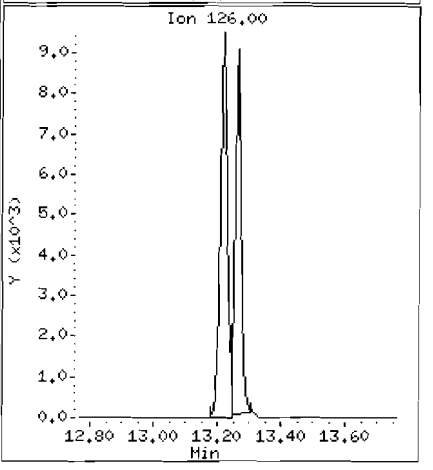
Column diameter: 0.18

61 p-chlorotoluene

Concentration: 23.18 ngs







Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A08.D

Date : 24-DEC-2013 13:01

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-3,31,5,,c1

Purge Volume: 5.0

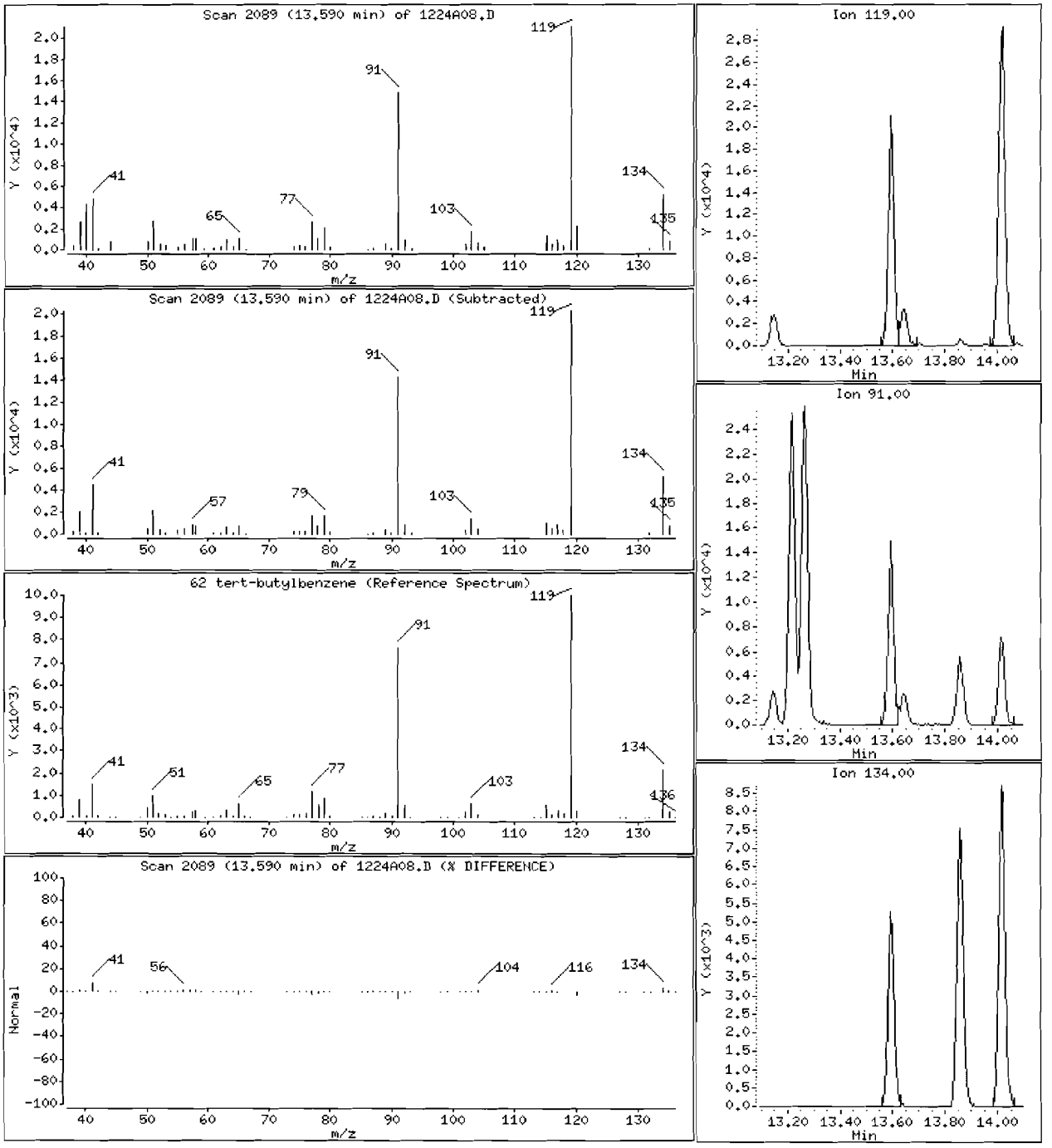
Operator: gt

Column phase:

Column diameter: 0.18

62 tert-butylbenzene

Concentration: 20.18 ngs



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Date : 24-DEC-2013 13:01

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-3,31,5,,c1

Purge Volume: 5.0

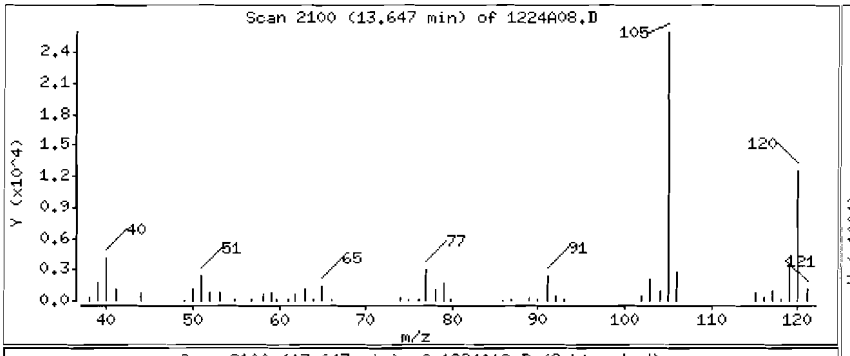
Operator: gt

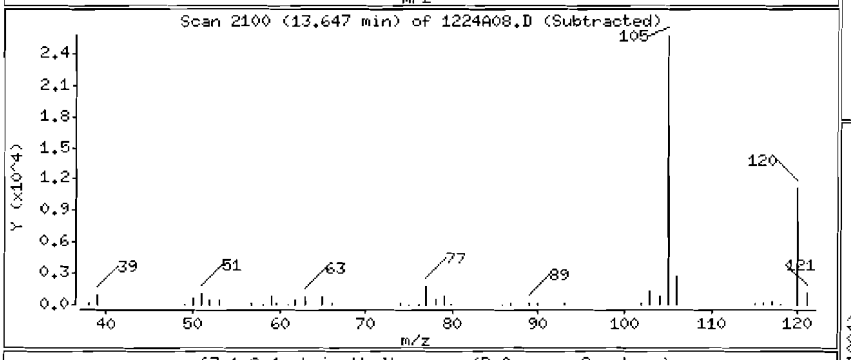
Column phase:

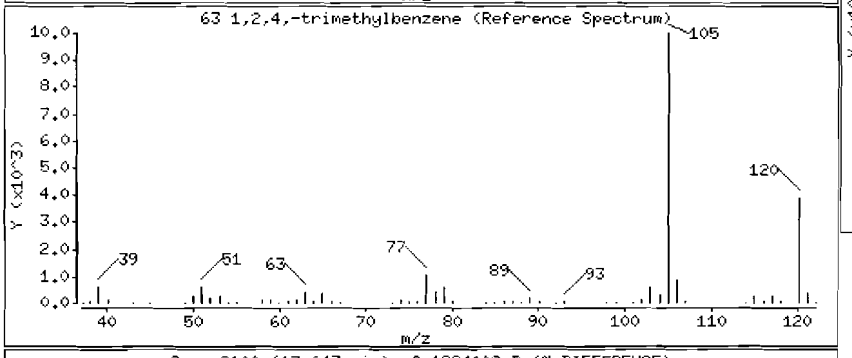
Column diameter: 0.18

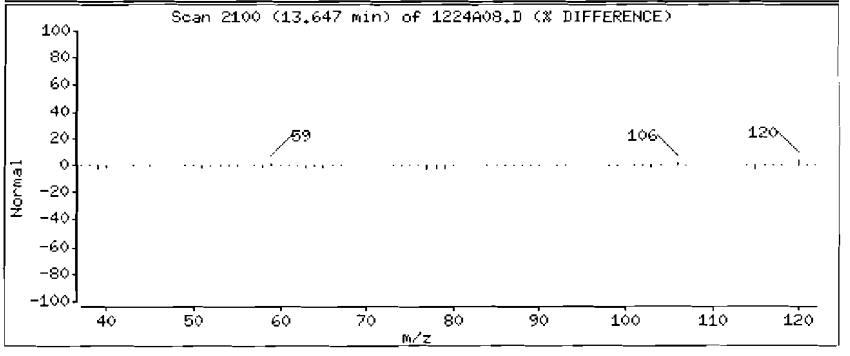
63 1,2,4,-trimethylbenzene

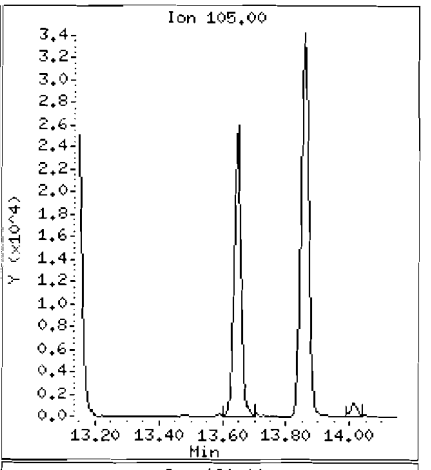
Concentration: 21.51 ngs

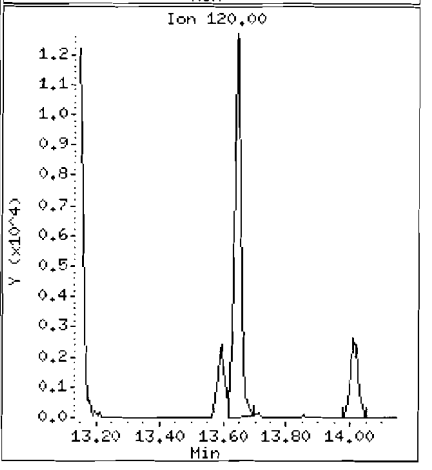












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A08.D

Date : 24-DEC-2013 13:01

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-3,31,5,,c1

Purge Volume: 5.0

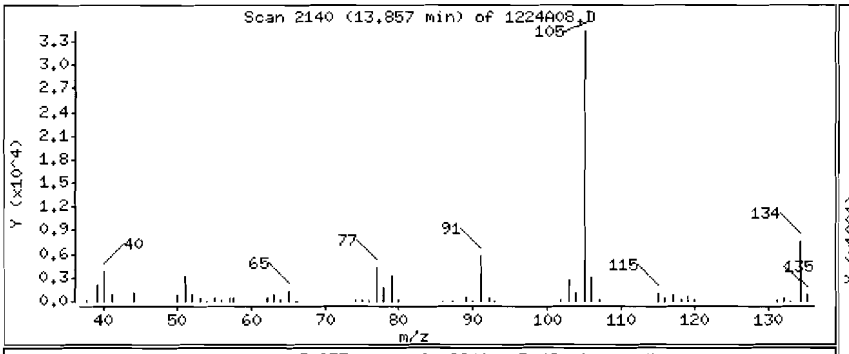
Operator: gt

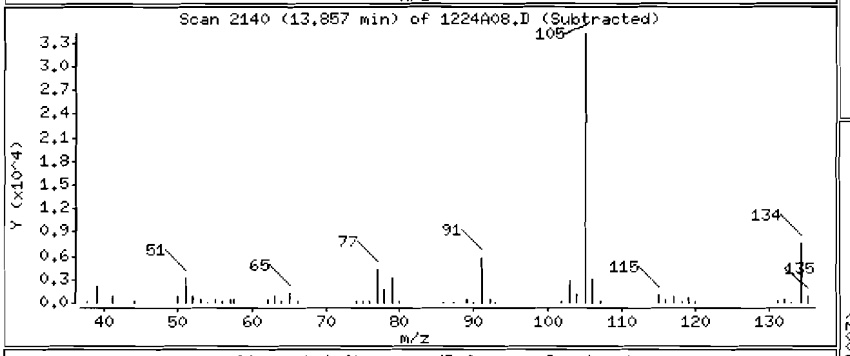
Column phase:

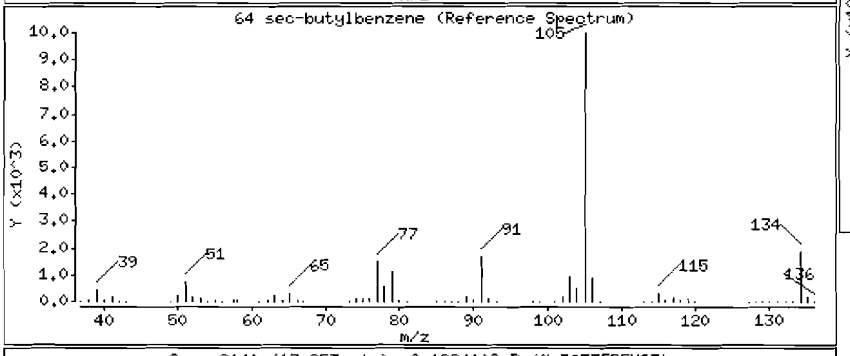
Column diameter: 0.18

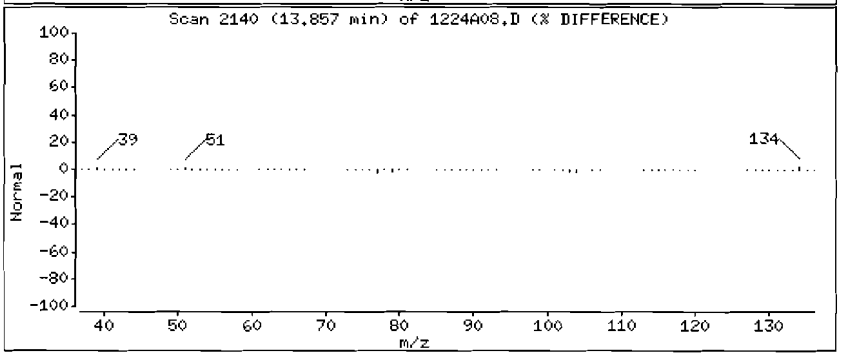
64 sec-butylbenzene

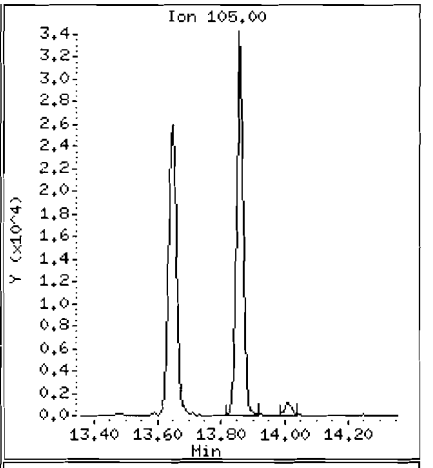
Concentration: 21.81 ngs

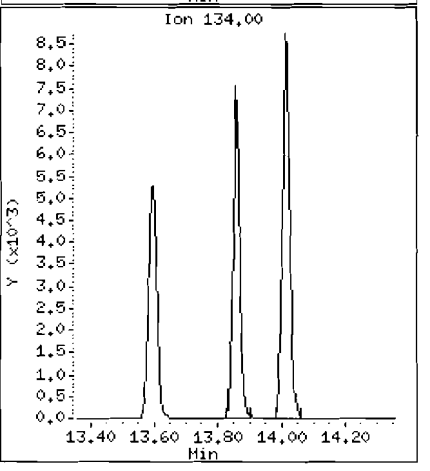












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A08.D

Date : 24-DEC-2013 13:01

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-3,31,5,,c1

Purge Volume: 5.0

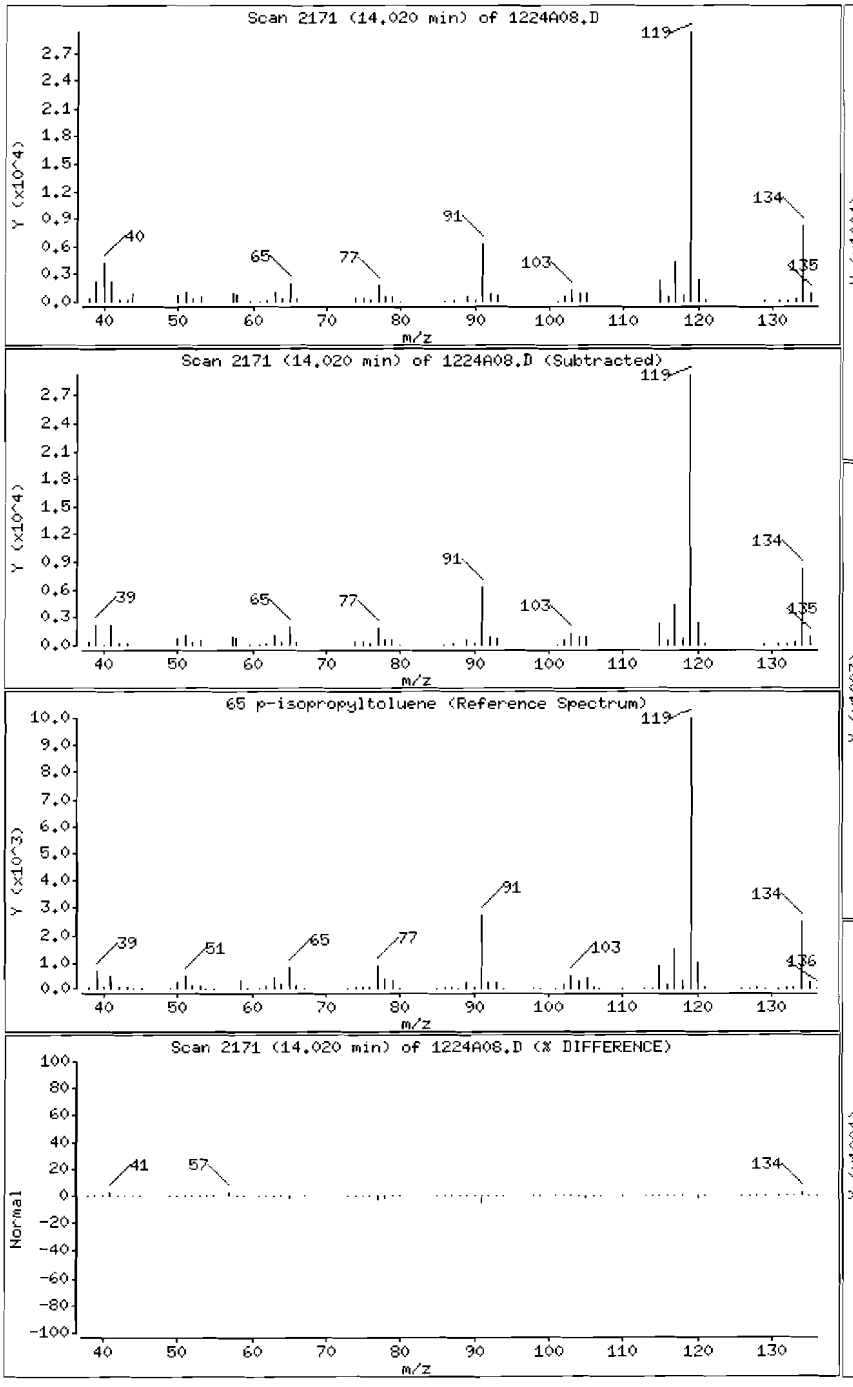
Operator: gt

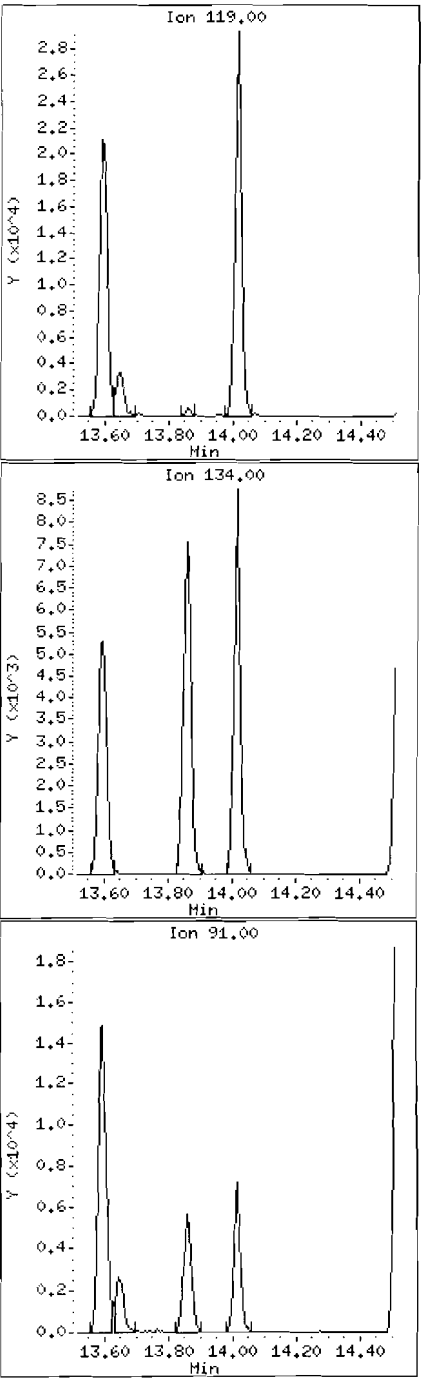
Column phase:

Column diameter: 0.18

65 p-isopropyltoluene

Concentration: 20.93 ngs





Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A08.D

Date : 24-DEC-2013 13:01

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-3,31,5,,c1

Purge Volume: 5.0

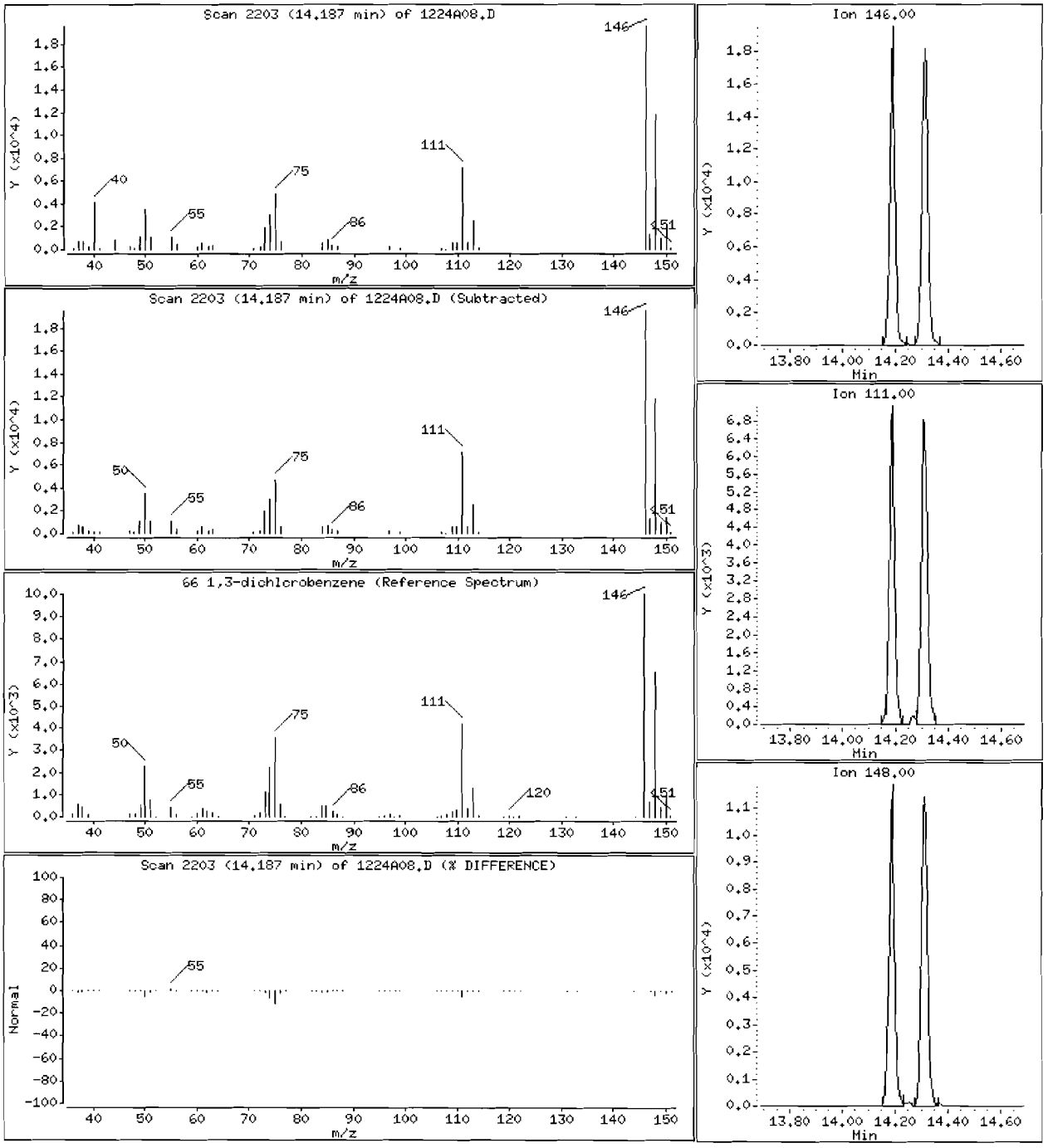
Operator: gt

Column phase:

Column diameter: 0.18

66 1,3-dichlorobenzene

Concentration: 20.92 ngs



Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A08.D

Date : 24-DEC-2013 13:01

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-3,31,5,,c1

Purge Volume: 5.0

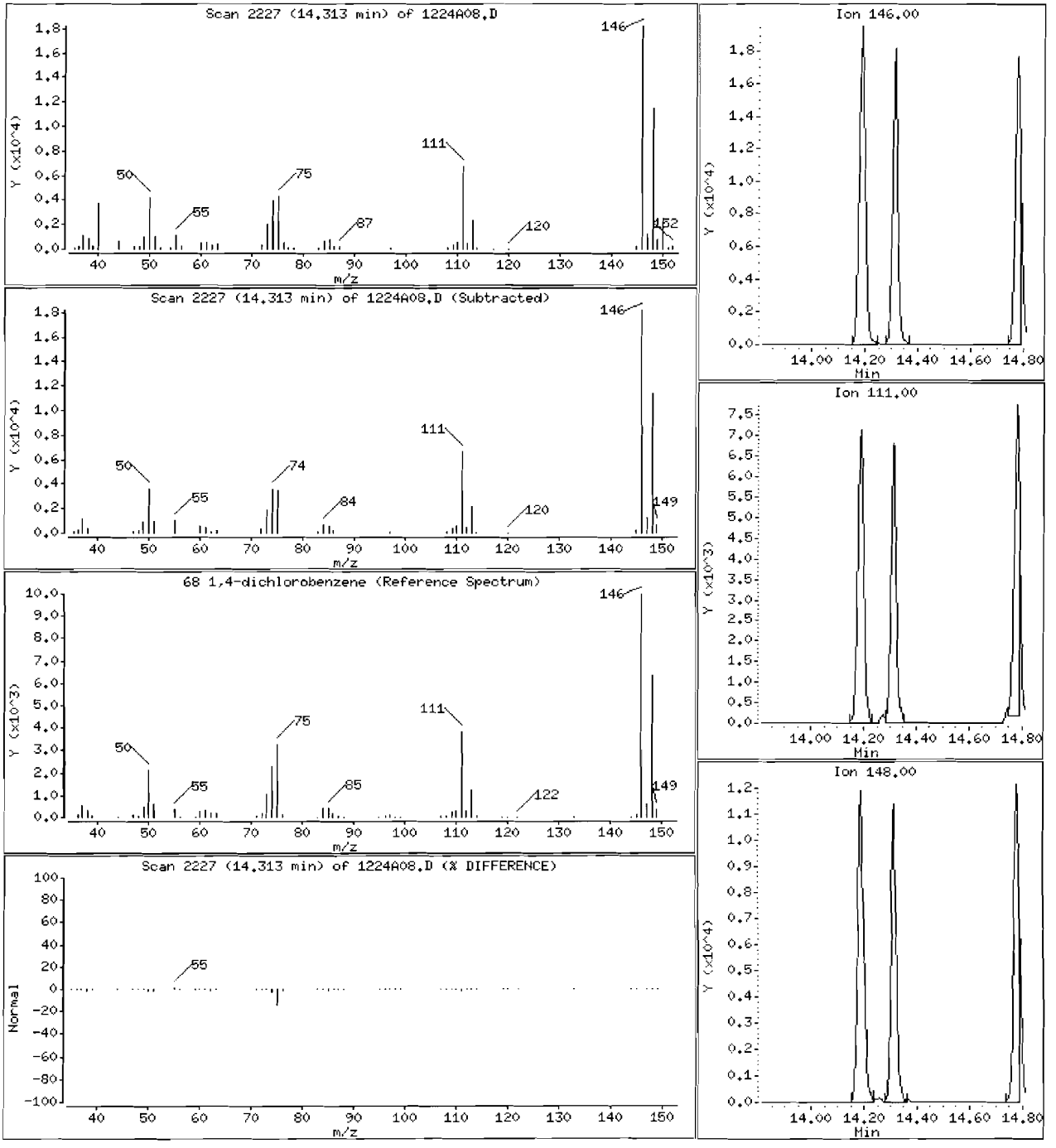
Operator: gt

Column phase:

Column diameter: 0.18

68 1,4-dichlorobenzene

Concentration: 19.29 ngs



Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A08.D

Date : 24-DEC-2013 13:01

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-3,31,5,,c1

Purge Volume: 5.0

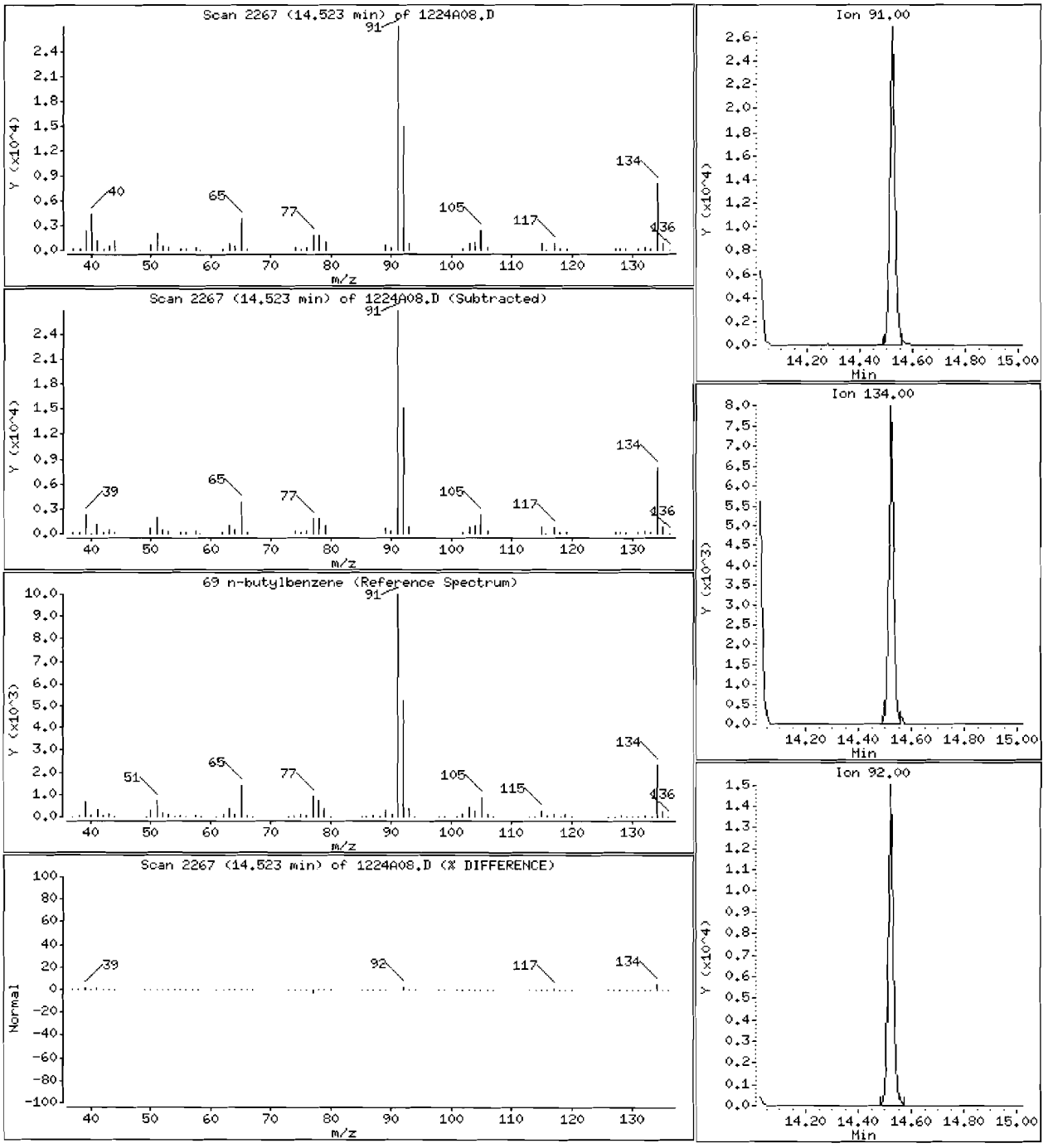
Operator: gt

Column phase:

Column diameter: 0.18

69 n-butylbenzene

Concentration: 19.65 ngs



Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A08.D

Date : 24-DEC-2013 13:01

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-3,31,5,,c1

Purge Volume: 5.0

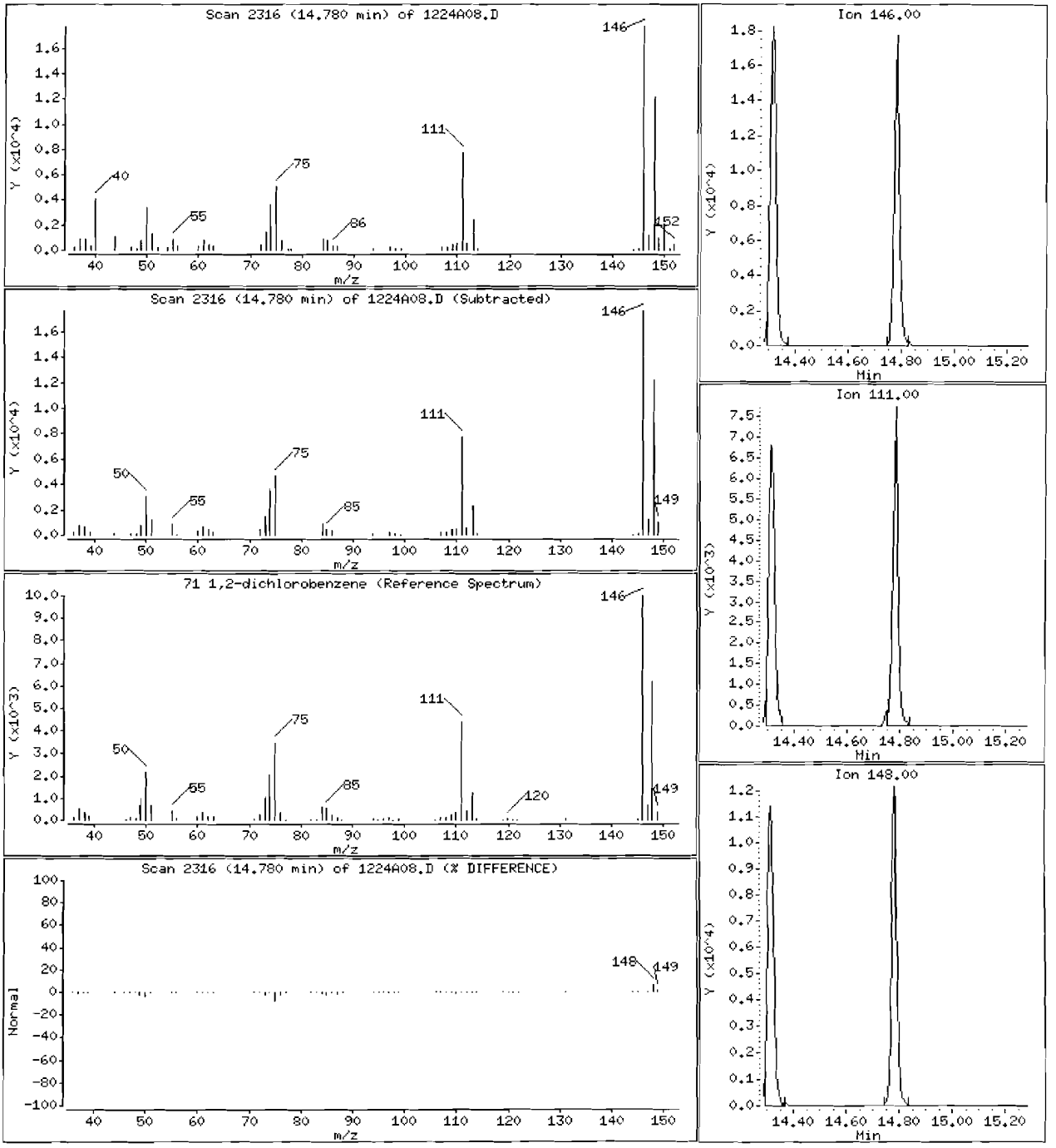
Operator: gt

Column phase:

Column diameter: 0.18

71 1,2-dichlorobenzene

Concentration: 19.60 ngs



Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A08.D

Date : 24-DEC-2013 13:01

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-3,31,5,,c1

Purge Volume: 5.0

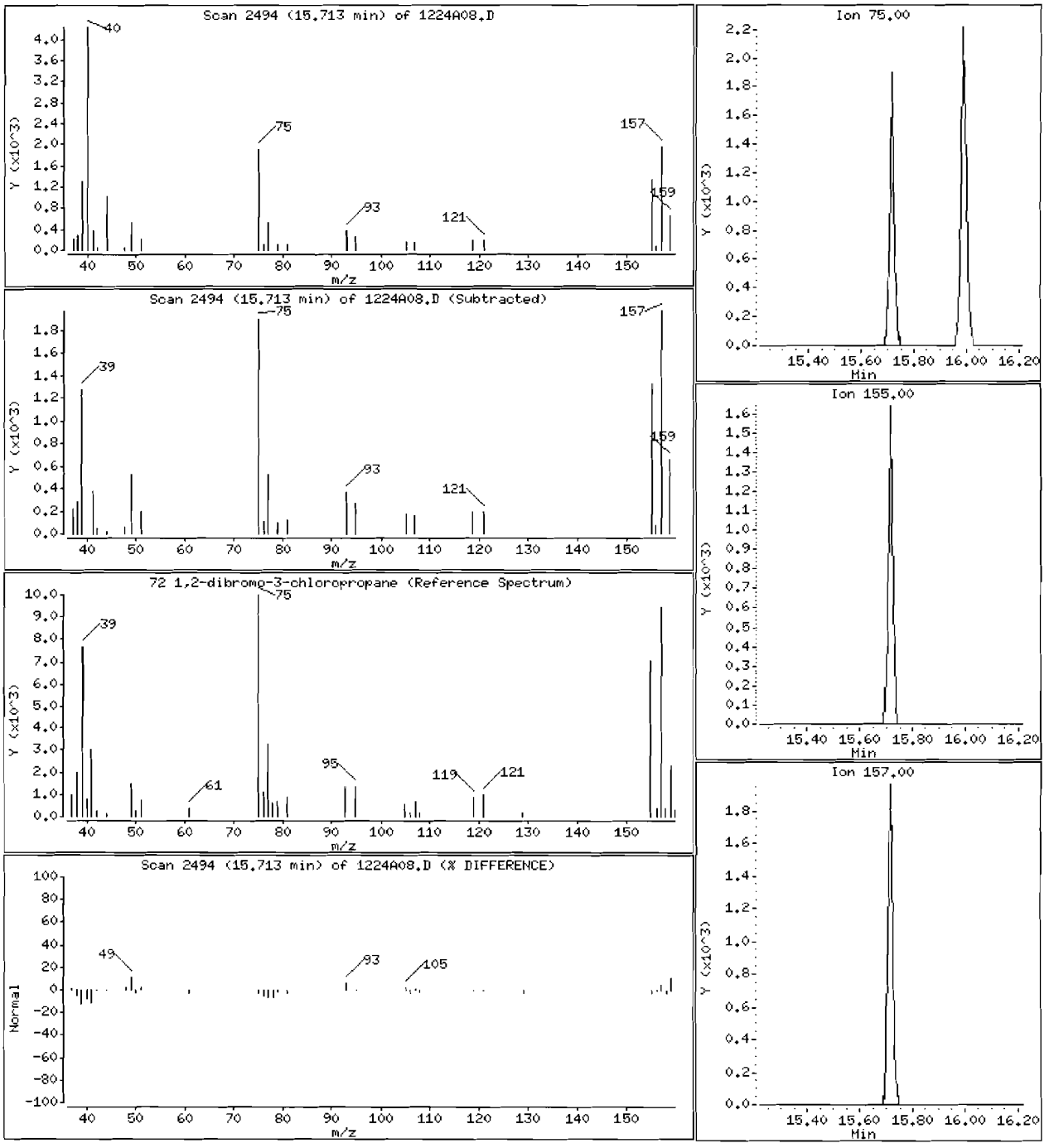
Operator: gt

Column phase:

Column diameter: 0.18

72 1,2-dibromo-3-chloropropane

Concentration: 20.06 ngs



Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A08.D

Date : 24-DEC-2013 13:01

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-3,31,5,,c1

Purge Volume: 5.0

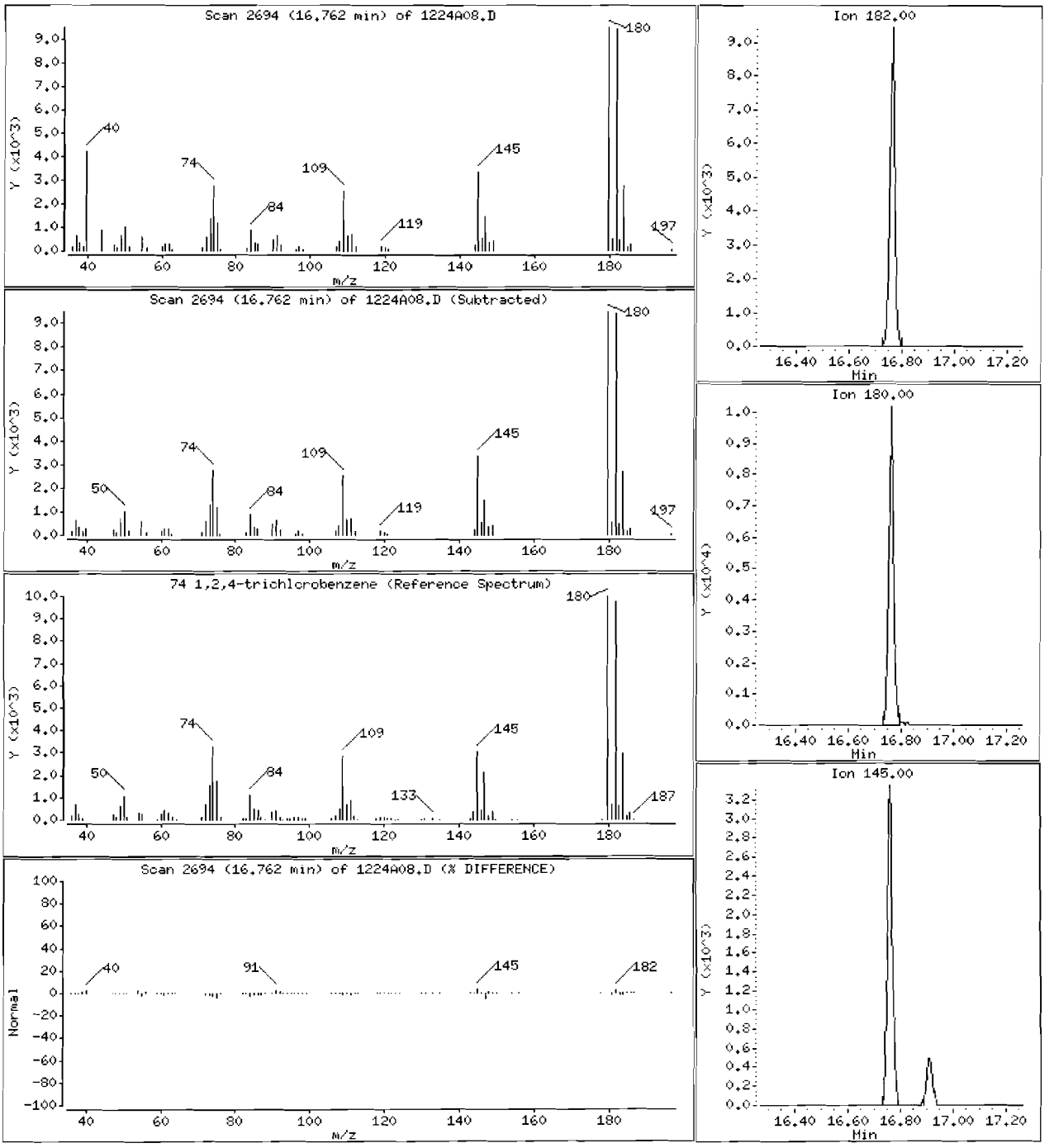
Operator: gt

Column phase:

Column diameter: 0.18

74 1,2,4-trichlorobenzene

Concentration: 17.82 ngs



Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A08.D

Date : 24-DEC-2013 13:01

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-3,31,5,,c1

Purge Volume: 5.0

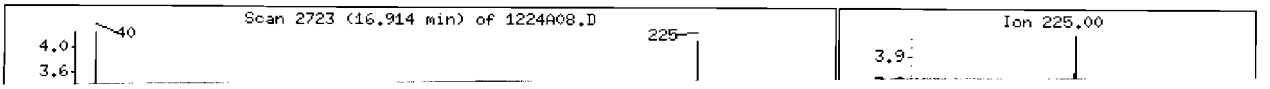
Operator: gt

Column phase:

Column diameter: 0.18

75 hexachlorobutadiene

Concentration: 20.91 ngs



Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A08.D

Date : 24-DEC-2013 13:01

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-3,31,5,,c1

Purge Volume: 5.0

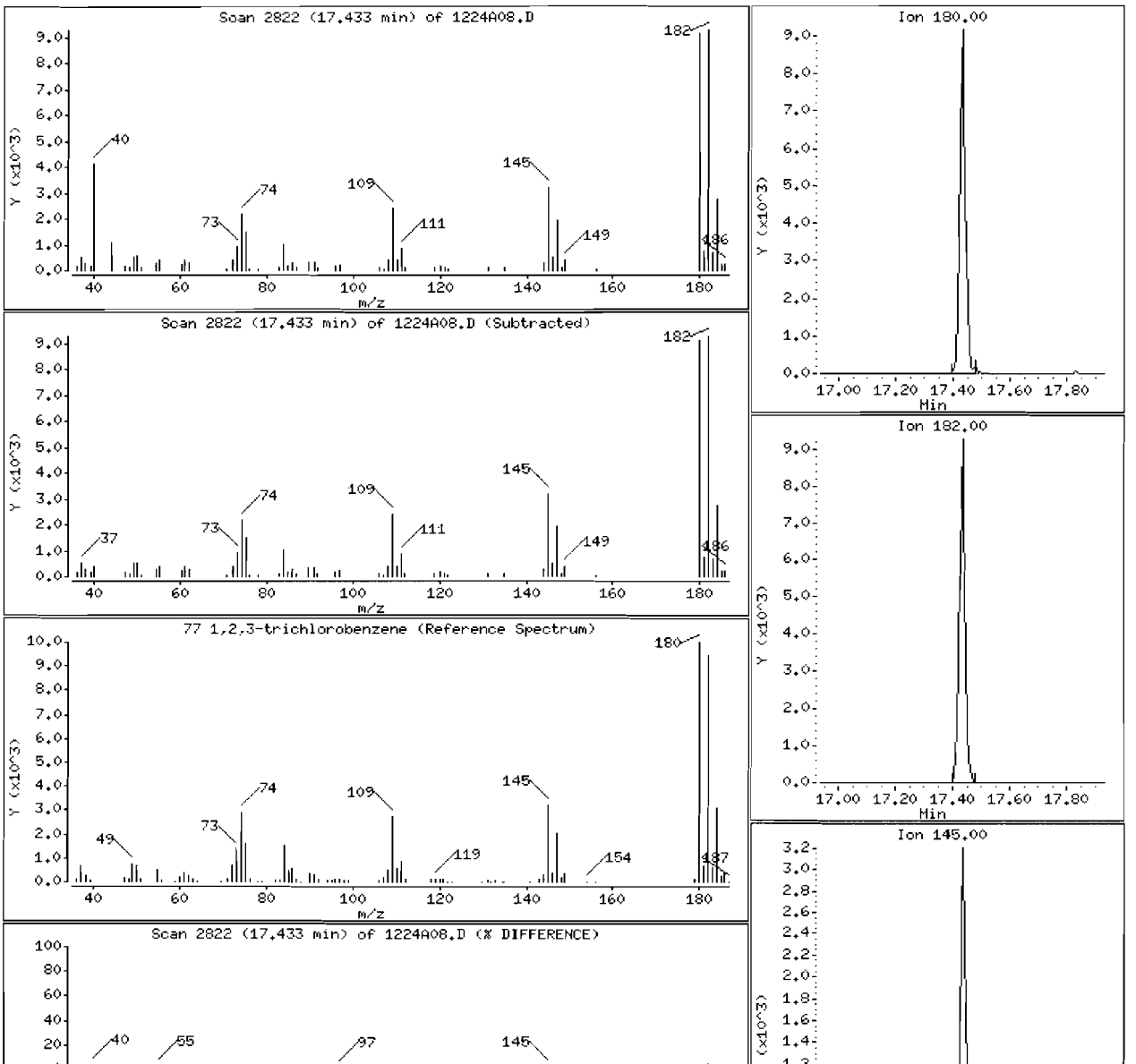
Operator: gt

Column phase:

Column diameter: 0.18

77 1,2,3-trichlorobenzene

Concentration: 17.71 ngs



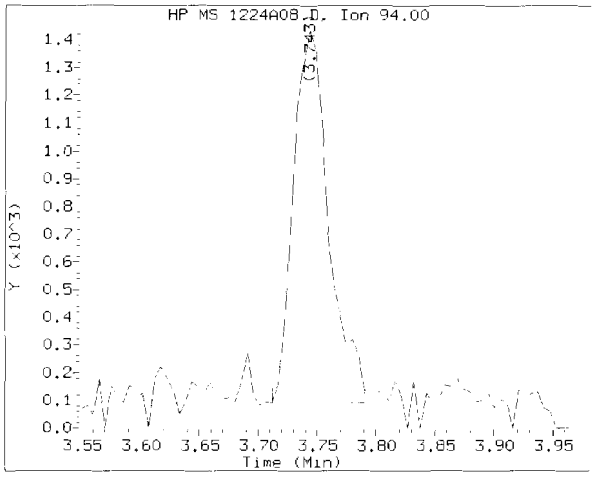
Alpha Analytical Labs

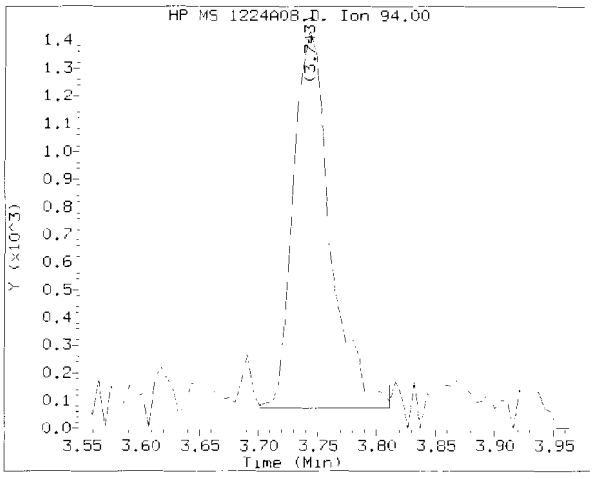
Manual Integration

Sample Info : wg661542-3,31,5,,cl
wg661542,ical8787

Instrument ID : Bundy.i
Method : 524extras.m
File : 1224A08.D
Injection Date : 24-DEC-2013 13:01
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: MS

Compound # 4: bromomethane

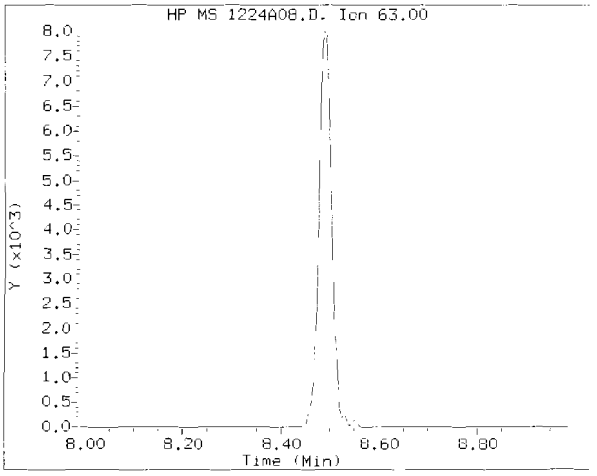


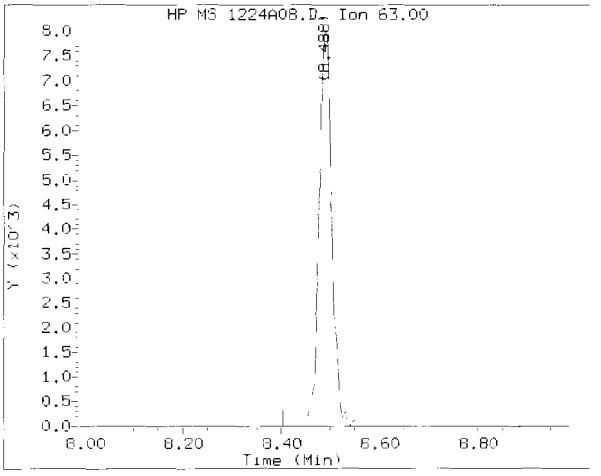


Original Peak Response = 2791 Manual Peak Response = 2954 M4

M4 = Poor automated baseline construction.

Compound # 32: 1,2-dichloropropane





Original Peak Response = 0 Manual Peak Response = 14746 M2

M2 = Peak not found by automatic integration algorithm.

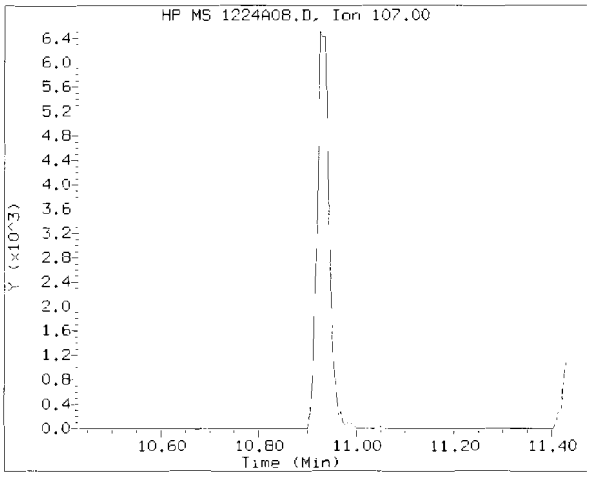
Alpha Analytical Labs

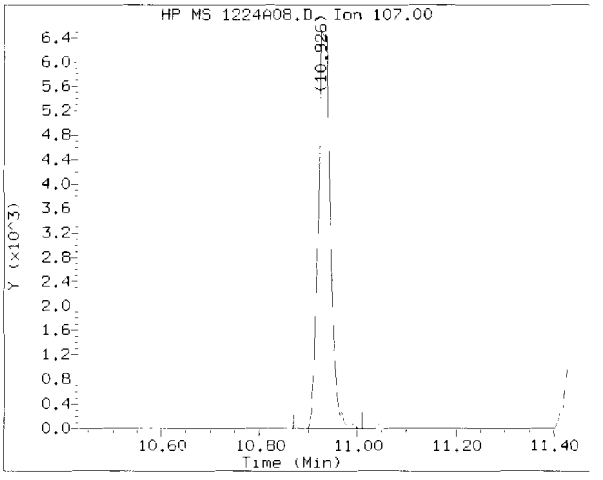
Manual Integration

Sample Info : l1325883-02MS,31,5,,c1
wg,ical8787

Instrument ID : Bundy.i
Method : 524extras.m
File : 1224A08.D
Injection Date : 24-DEC-2013 13:01
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: MS

Compound # 44: 1,2-dibromoethane





Original Peak Response = 0 Manual Peak Response = 11326 M2

M2 = Peak not found by automatic integration algorithm.

Alpha Analytical Labs

gc/ms voa -Bundy 524

Data file : \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A09.D
Lab Smp Id:
Inj Date : 24-DEC-2013 13:34
Operator : gt Inst ID: Bundy.i
Smp Info : wg661542-4,31,5,,b1
Misc Info : wg661542,ical8787
Comment :
Method : \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\524extras.m
Meth Date : 30-Dec-2013 11:19 Bundy.i Quant Type: ISTD
Cal Date : 10-NOV-2013 23:22 Cal File: 1107A12.D
Als bottle: 18 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 524.sub
Target Version: 4.12
Processing Host: VIRTUALXP-72976

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ngs)	FINAL (ngs)	REVIEW CODE
1 dichlorodifluoromethane	85	2.752	2.752	(0.349)	9990	20.3890	20.38	
2 chloromethane	50	3.071	3.066	(0.390)	15174	22.1302	22.13	
3 vinyl chloride	62	3.208	3.208	(0.407)	11988	20.5131	20.51	
4 bromomethane	94	3.743	3.743	(0.475)	3647	20.6108	20.61	
5 chloroethane	64	3.826	3.821	(0.486)	6752	20.8780	20.87	
6 trichlorofluoromethane	101	4.110	4.110	(0.522)	15313	25.0990	25.09	
9 1,1-dichloroethene	96	4.781	4.786	(0.607)	8421	22.0212	22.02	
11 methylene chloride	84	5.284	5.284	(0.671)	9385	21.2201	21.22	
13 methyl-tert-butyl ether	73	5.415	5.410	(0.688)	23787	20.0991	20.09	
14 trans-1,2-dichloroethene	96	5.593	5.593	(0.710)	10035	21.9648	21.96	
16 1,1-dichloroethane	63	6.018	6.018	(0.764)	23990	23.3596	23.35	
19 2,2-dichloropropane	77	6.595	6.595	(0.838)	15853	25.3191	25.31	
20 cis-1,2-dichloroethene	96	6.642	6.647	(0.844)	11954	24.2987	24.29	
21 chloroform	83	6.805	6.805	(0.864)	21289	27.2416	27.24(R)	
22 bromochloromethane	128	6.993	6.993	(0.888)	6090	24.6023	24.60	
24 1,1,1-trichloroethane	97	7.229	7.224	(0.918)	18140	25.8114	25.81	
25 1,1-dichloropropene	75	7.381	7.381	(0.937)	13142	22.5340	22.53	
27 carbon tetrachloride	117	7.507	7.507	(0.953)	17014	26.9026	26.90(R)	
28 1,2-dichloroethane	62	7.643	7.643	(0.971)	18942	26.0051	26.00(R)	
29 benzene	78	7.680	7.680	(0.975)	41537	22.5185	22.51	
* 30 fluorobenzene	96	7.874	7.874	(1.000)	37480	20.0000	(M)	M4
31 trichloroethene	95	8.304	8.304	(1.055)	13042	26.5336	26.53(R)	
32 1,2-dichloropropane	63	8.488	8.488	(1.078)	14459	23.9209	23.92(M)	M2
33 bromodichloromethane	83	8.750	8.755	(1.111)	16956	26.6263	26.62(R)	
34 dibromomethane	93	8.828	8.828	(1.121)	7874	25.7222	25.72	
36 cis-1,3-dichloropropene	75	9.305	9.311	(1.182)	17759	22.9343	22.93	
37 toluene	92	9.693	9.693	(1.231)	28365	23.2745	23.27	
38 trans-1,3-dichloropropene	75	9.851	9.851	(1.251)	16899	23.3468	23.34	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ngs)	FINAL (ngs)	REVIEW CODE
	40 1,1,2-trichloroethane	83	10.045	10.050	(1.276)	9022	24.4726	24.47	
	41 1,3-dichloropropane	76	10.333	10.333	(1.312)	18412	24.9419	24.94	
	42 tetrachloroethene	166	10.443	10.443	(1.326)	44151	85.3494	85.34(R)	
	43 dibromochloromethane	129	10.690	10.690	(1.358)	13606	25.9816	25.98	
	44 1,2-dibromoethane	107	10.931	10.931	(0.963)	11160	21.4096	21.40(M)	M2
*	45 Chlorobenzene-d5	117	11.355	11.361	(1.000)	32688	20.0000		
	46 chlorobenzene	112	11.408	11.403	(1.005)	34426	21.4930	21.49	
	47 ethylbenzene	91	11.434	11.434	(1.007)	55623	21.2315	21.23	
	48 1,1,1,2-tetrachloroethane	131	11.434	11.434	(1.007)	13322	23.1598	23.15	
	49 p/m-xylenes	106	11.518	11.518	(1.014)	41655	42.2513	42.25	
	50 o-xylenes	106	12.058	12.058	(1.062)	19833	20.1176	20.11	
	51 styrene	104	12.095	12.090	(1.065)	33054	19.3678	19.36	
	52 isopropylbenzene	105	12.467	12.472	(1.098)	51484	20.3519	20.35	
	53 bromoform	173	12.561	12.556	(1.106)	9324	23.7845	23.78	
	54 1,1,2,2-tetrachloroethane	83	12.677	12.677	(1.116)	14488	21.8544	21.85	
$	55 4-bromofluorobenzene	95	12.797	12.797	(1.127)	16280	20.4521	20.45	
	56 1,2,3-trichloropropane	110	12.860	12.860	(1.133)	4640	23.7894	23.78	
	57 n-propylbenzene	91	12.960	12.960	(1.141)	63865	21.2385	21.23	
	58 bromobenzene	156	13.075	13.075	(1.151)	15069	22.1049	22.10	
	59 1,3,5-trimethylbenzene	105	13.143	13.149	(1.157)	43199	20.6673	20.66	
	60 o-chlorotoluene	126	13.217	13.217	(1.164)	14964	24.0677	24.06	
	61 p-chlorotoluene	91	13.264	13.264	(1.168)	42965	22.4197	22.41	
	62 tert-butylbenzene	119	13.594	13.594	(1.197)	38511	20.9129	20.91	
	63 1,2,4,-trimethylbenzene	105	13.647	13.647	(1.202)	44640	21.0805	21.08	
	64 sec-butylbenzene	105	13.856	13.856	(1.220)	57821	21.8809	21.88	
	65 p-isopropyltoluene	119	14.014	14.014	(1.234)	50150	21.2353	21.23	
	66 1,3-dichlorobenzene	146	14.187	14.187	(0.994)	29234	20.6236	20.62	
*	67 1,4-Dichlorobenzene-d4	152	14.271	14.271	(1.000)	19030	20.0000		
	68 1,4-dichlorobenzene	146	14.313	14.313	(1.003)	28649	19.5796	19.57	
	69 n-butylbenzene	91	14.517	14.517	(1.017)	43672	19.9555	19.95	
$	70 1,2-Dichlorobenzene-d4	152	14.748	14.748	(1.033)	18484	20.3830	20.38	
	71 1,2-dichlorobenzene	146	14.784	14.779	(1.036)	28706	20.3101	20.31	
	72 1,2-dibromo-3-chloropropane	75	15.718	15.712	(1.101)	2710	21.0369	21.03	
	74 1,2,4-trichlorobenzene	182	16.766	16.761	(1.175)	14811	18.4180	18.41	
	75 hexachlorobutadiene	225	16.913	16.913	(1.185)	7405	21.1887	21.18	
	76 naphthalene	128	17.118	17.118	(1.199)	34158	16.4282	16.42	
	77 1,2,3-trichlorobenzene	180	17.432	17.432	(1.222)	16657	20.0074	20.00	
M	78 Xylene (total)	106				61488	62.3689	62.36	

QC Flag Legend

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

Alpha Analytical Labs

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: Bundy.i
Lab File ID: 1224A09.D
Lab Smp Id:
Analysis Type: VOA
Quant Type: ISTD
Operator: gt
Method File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\524extras.m
Misc Info: wg661542,ical8787

Calibration Date: 24-DEC-2013
Calibration Time: 09:45

Level: MED
Sample Type: WATER

Test Mode:
Use Last Continuing Calibrator.
If Continuing Cal. use Initial Cal. Level 3

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
30 fluorobenzene	36873	18437	73746	37480	1.65
45 Chlorobenzene-d5	32655	16328	65310	32688	0.10
67 1,4-Dichlorobenze	18891	9446	37782	19030	0.74

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
30 fluorobenzene	7.87	7.37	8.37	7.87	-0.00
45 Chlorobenzene-d5	11.36	10.86	11.86	11.36	-0.05
67 1,4-Dichlorobenze	14.27	13.77	14.77	14.27	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Alpha Analytical Labs

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id:
Level: MED
Data Type: MS DATA
SpikeList File: 524lcs.spk
Sublist File: 524.sub
Method File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\524extras.m
Misc Info: wg661542,ical8787

Client SDG: 131224.b
Fraction: VOA

Operator: gt
SampleType: MSD
Quant Type: ISTD

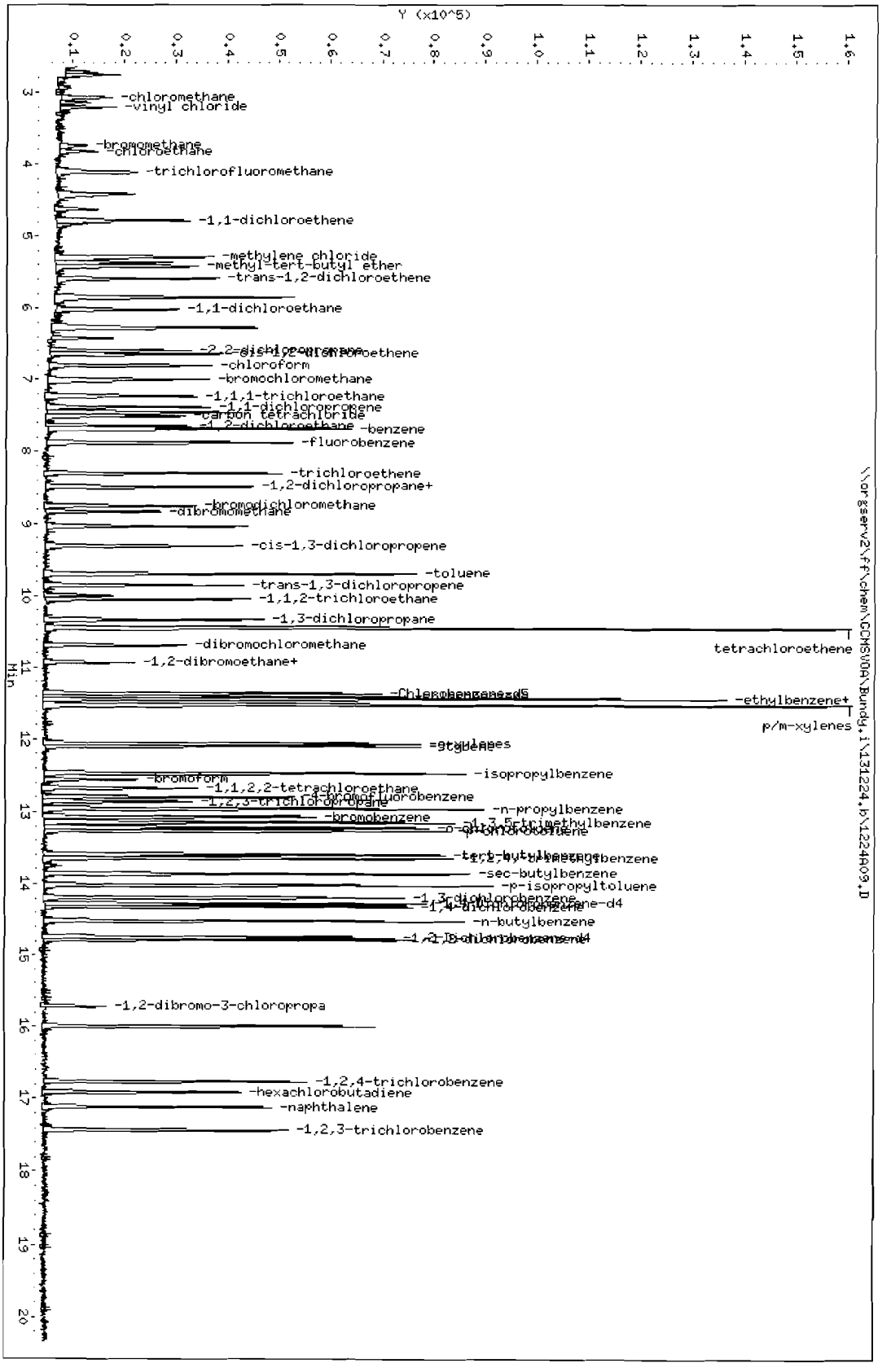
SPIKE COMPOUND	CONC ADDED ngs	CONC RECOVERED ngs	% RECOVERED	LIMITS
1 dichlorodifluorome	20.00	20.38	101.94	70-130
2 chloromethane	20.00	22.13	110.65	70-130
3 vinyl chloride	20.00	20.51	102.57	70-130
4 bromomethane	20.00	20.61	103.05	70-130
5 chloroethane	20.00	20.87	104.39	70-130
6 trichlorofluoromet	20.00	25.09	125.49	70-130
9 1,1-dichloroethene	20.00	22.02	110.11	70-130
11 methylene chloride	20.00	21.22	106.10	70-130
13 methyl-tert-butyl	20.00	20.09	100.50	70-130
14 trans-1,2-dichloro	20.00	21.96	109.82	70-130
16 1,1-dichloroethane	20.00	23.35	116.80	70-130
19 2,2-dichloropropan	20.00	25.31	126.60	70-130
20 cis-1,2-dichloroet	20.00	24.29	121.49	70-130
21 chloroform	20.00	27.24	136.21*	70-130
22 bromochloromethane	20.00	24.60	123.01	70-130
24 1,1,1-trichloroeth	20.00	25.81	129.06	70-130
25 1,1-dichloropropen	20.00	22.53	112.67	70-130
27 carbon tetrachlori	20.00	26.90	134.51*	70-130
28 1,2-dichloroethane	20.00	26.00	130.03*	70-130
29 benzene	20.00	22.51	112.59	70-130
31 trichloroethene	20.00	26.53	132.67*	70-130
32 1,2-dichloropropan	20.00	23.92	119.60	70-130
33 bromodichlorometha	20.00	26.62	133.13*	70-130
34 dibromomethane	20.00	25.72	128.61	70-130
36 cis-1,3-dichloropr	20.00	22.93	114.67	70-130
37 toluene	20.00	23.27	116.37	70-130
38 trans-1,3-dichloro	20.00	23.34	116.73	70-130
40 1,1,2-trichloroeth	20.00	24.47	122.36	70-130
41 1,3-dichloropropan	20.00	24.94	124.71	70-130
42 tetrachloroethene	20.00	85.34	426.75*	70-130
43 dibromochlorometha	20.00	25.98	129.91	70-130
44 1,2-dibromoethane	20.00	21.40	107.05	70-130
46 chlorobenzene	20.00	21.49	107.46	70-130
48 1,1,1,2-tetrachlor	20.00	23.15	115.80	70-130
47 ethylbenzene	20.00	21.23	106.16	70-130
49 p/m-xylenes	40.00	42.25	105.63	70-130
50 o-xylenes	20.00	20.11	100.59	70-130
51 styrene	20.00	19.36	96.84	70-130
52 isopropylbenzene	20.00	20.35	101.76	70-130
53 bromoform	20.00	23.78	118.92	70-130

SPIKE COMPOUND	CONC ADDED ngs	CONC RECOVERED ngs	% RECOVERED	LIMITS
54 1,1,2,2-tetrachlor	20.00	21.85	109.27	70-130
56 1,2,3-trichloropro	20.00	23.78	118.95	70-130
57 n-propylbenzene	20.00	21.23	106.19	70-130
58 bromobenzene	20.00	22.10	110.52	70-130
59 1,3,5-trimethylben	20.00	20.66	103.34	70-130
60 o-chlorotoluene	20.00	24.06	120.34	70-130
61 p-chlorotoluene	20.00	22.41	112.10	70-130
62 tert-butylbenzene	20.00	20.91	104.56	70-130
63 1,2,4,-trimethylbe	20.00	21.08	105.40	70-130
64 sec-butylbenzene	20.00	21.88	109.40	70-130
65 p-isopropyltoluene	20.00	21.23	106.18	70-130
66 1,3-dichlorobenzen	20.00	20.62	103.12	70-130
68 1,4-dichlorobenzen	20.00	19.57	97.90	70-130
69 n-butylbenzene	20.00	19.95	99.78	70-130
71 1,2-dichlorobenzen	20.00	20.31	101.55	70-130
72 1,2-dibromo-3-chlo	20.00	21.03	105.18	70-130
74 1,2,4-trichloroben	20.00	18.41	92.09	70-130
75 hexachlorobutadien	20.00	21.18	105.94	70-130
76 naphthalene	20.00	16.42	82.14	70-130
77 1,2,3-trichloroben	20.00	20.00	100.04	70-130
M 78 Xylene (total)	60.00	62.36	103.95	70-130

SURROGATE COMPOUND	AMOUNT ADDED ngs	AMOUNT RECOVERED ngs	% RECOVERED	LIMITS
$ 55 4-bromofluorobenze	20.00	20.45	102.26	80-120
$ 70 1,2-Dichlorobenzen	20.00	20.38	101.92	80-120

Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A09.D
Date : 24-DEC-2013 13:34
Client ID:
Sample Info: wg661542-4,31,5,,b1
Purge Volume: 5.0
Column phase:

Instrument: Bundy.i
Operator: gt
Column diameter: 0.18



Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A09.D

Date : 24-DEC-2013 13:34

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-4,31.5,,b1

Purge Volume: 5.0

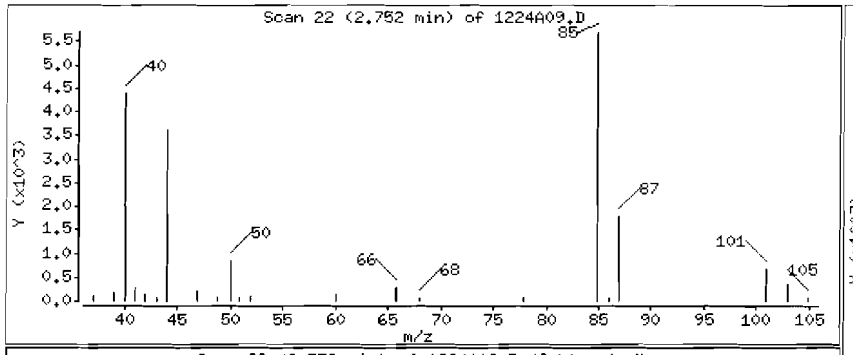
Operator: gt

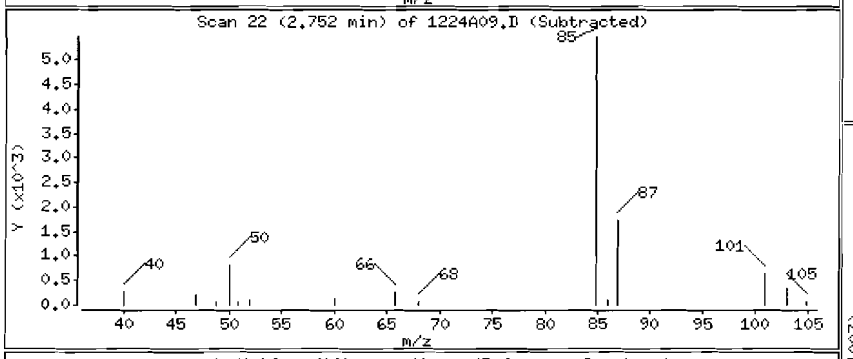
Column phase:

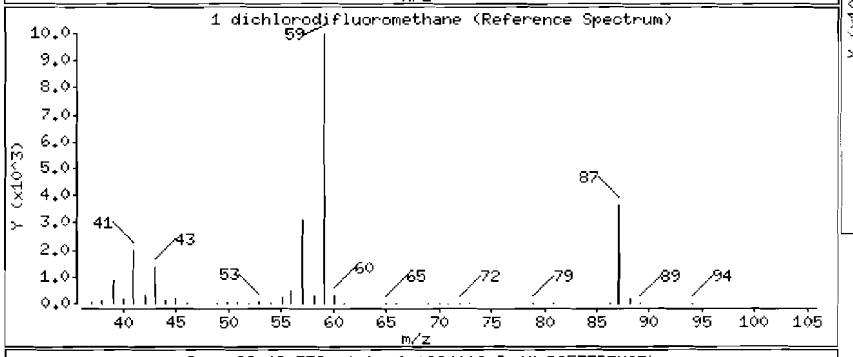
Column diameter: 0.18

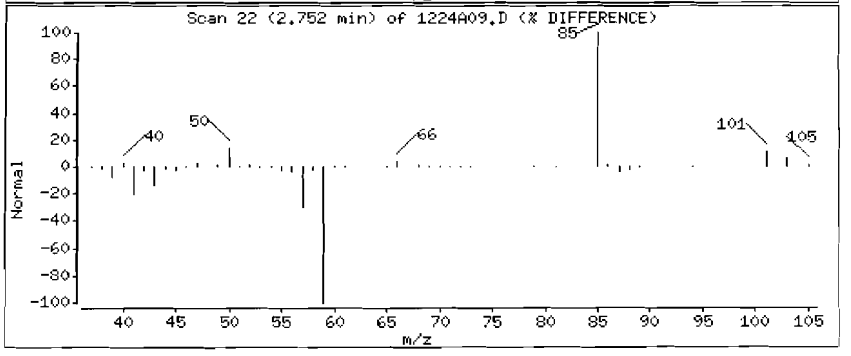
1 dichlorodifluoromethane

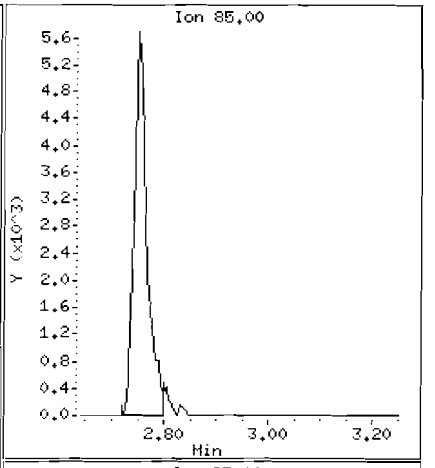
Concentration: 20.38 ngs

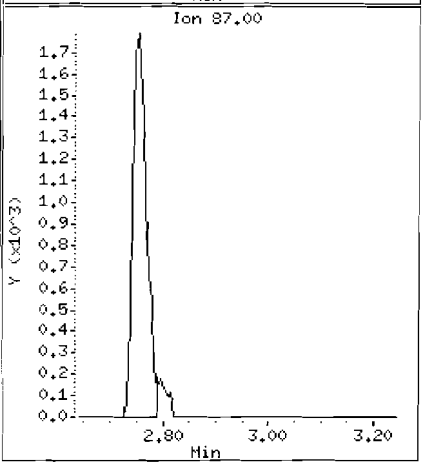












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A09.D

Date : 24-DEC-2013 13:34

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-4,31,5,,b1

Purge Volume: 5.0

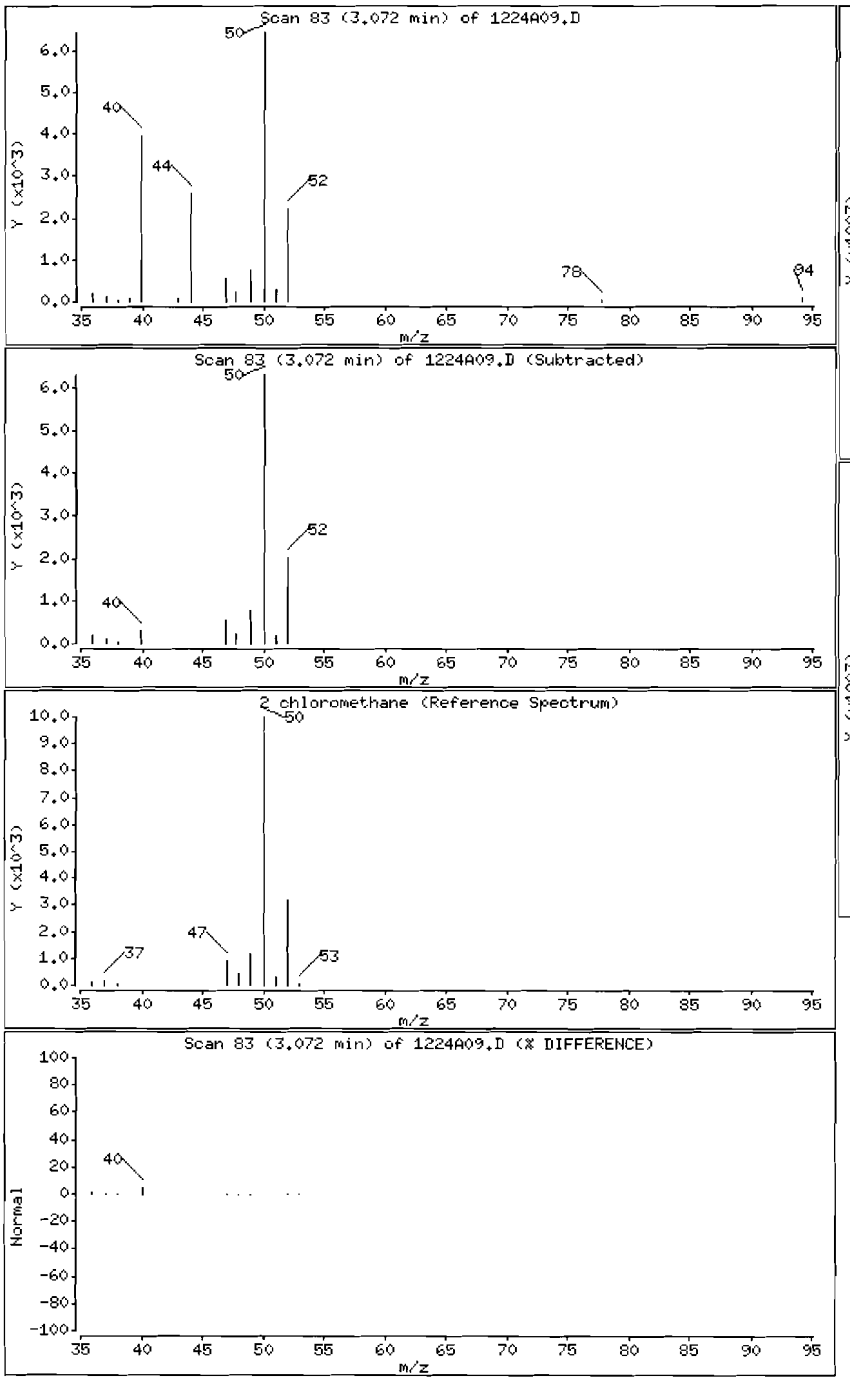
Operator: gt

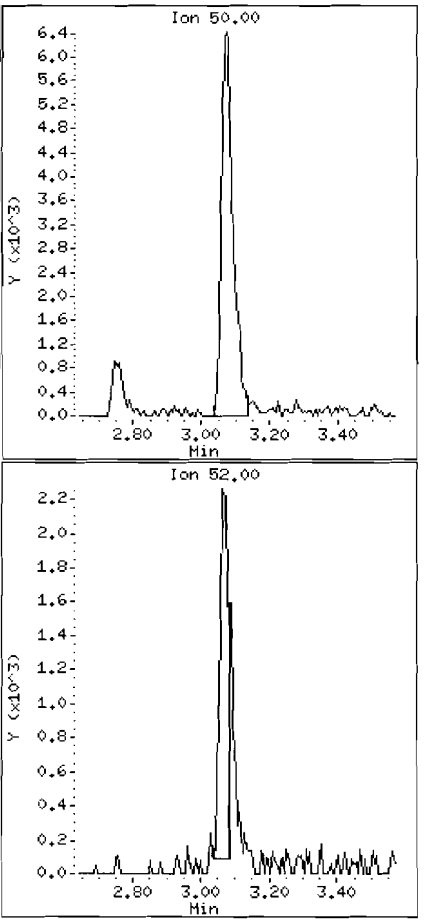
Column phase:

Column diameter: 0.18

2 chloromethane

Concentration: 22.13 ngs





Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A09.D

Date : 24-DEC-2013 13:34

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-4,31,5,,b1

Purge Volume: 5.0

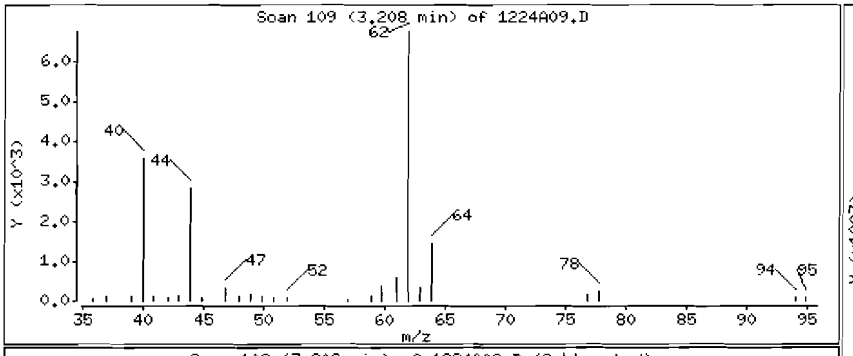
Operator: gt

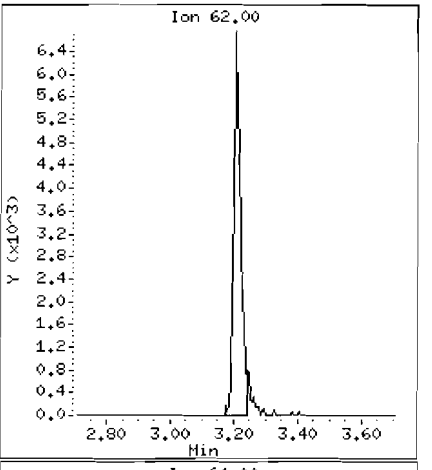
Column phase:

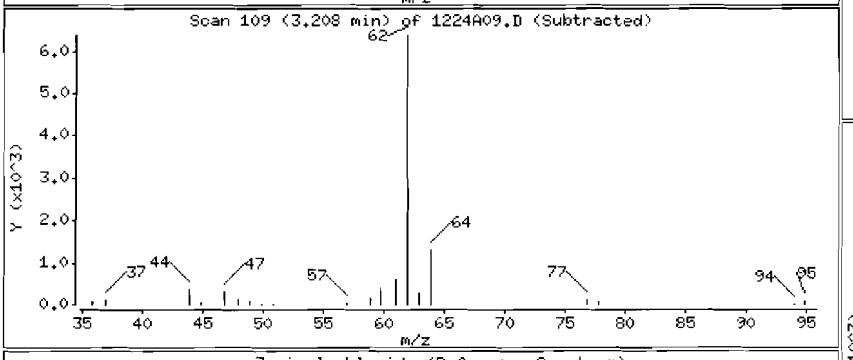
Column diameter: 0.18

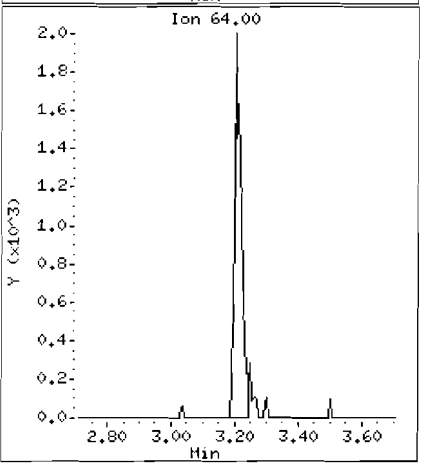
3 vinyl chloride

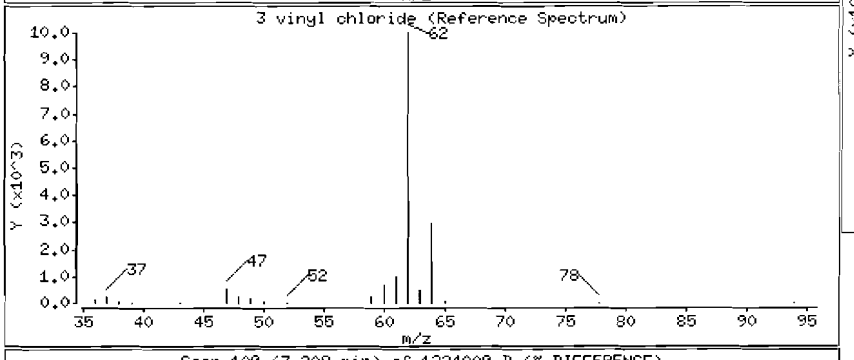
Concentration: 20.51 ngs

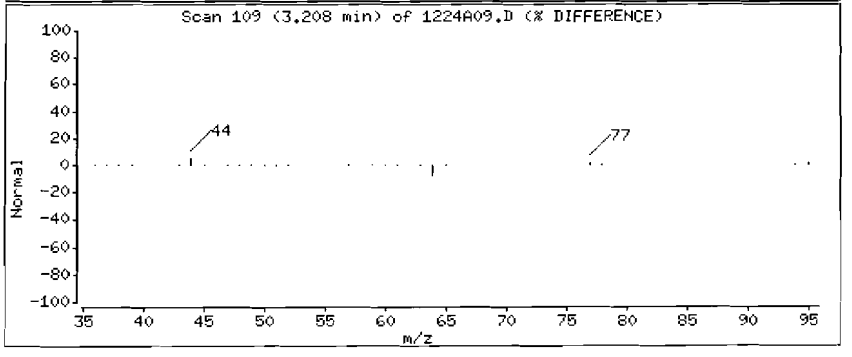












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A09.D

Date : 24-DEC-2013 13:34

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-4,31,5,,b1

Purge Volume: 5.0

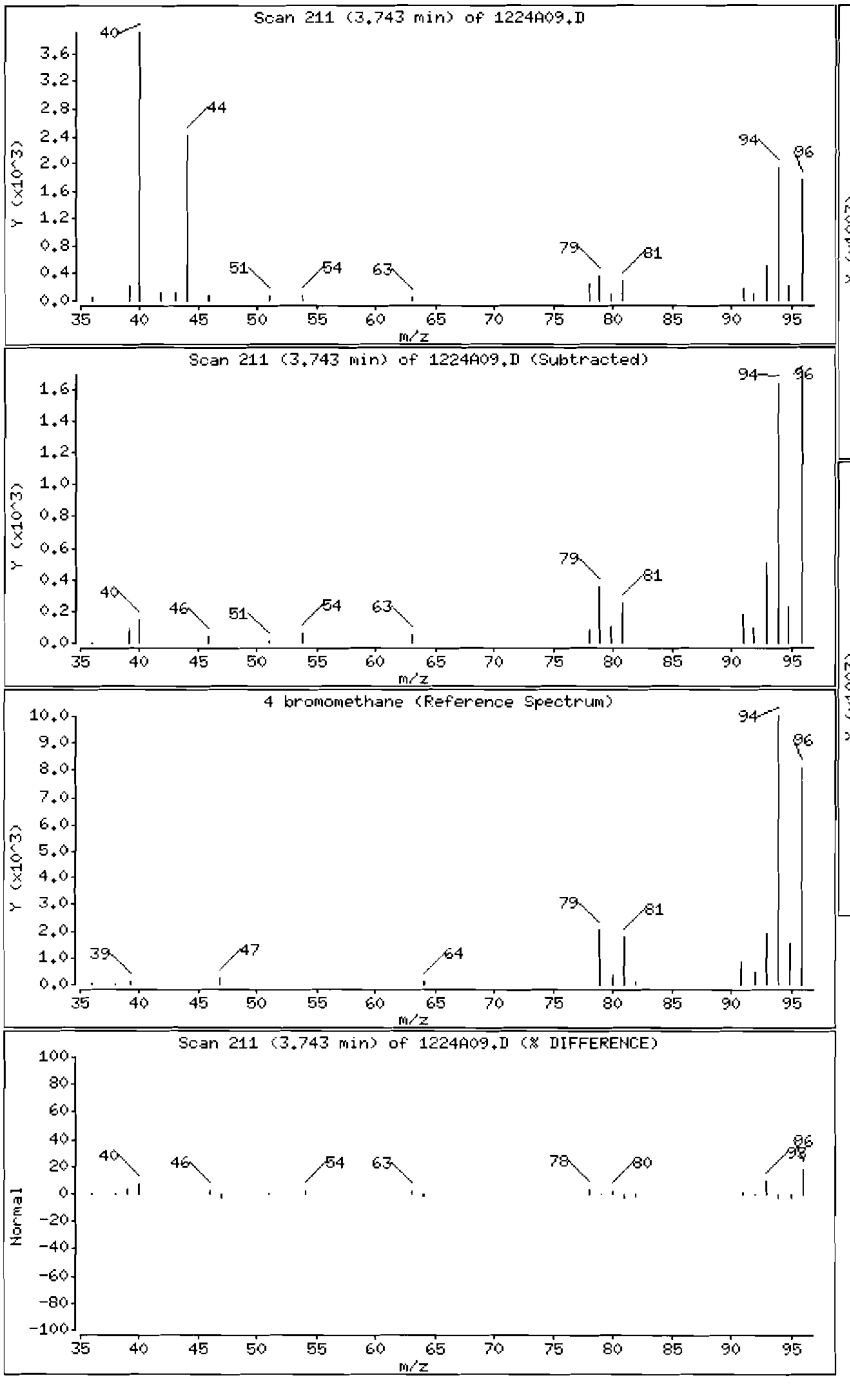
Operator: gt

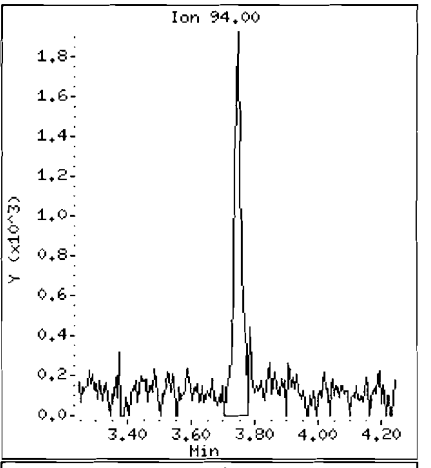
Column phase:

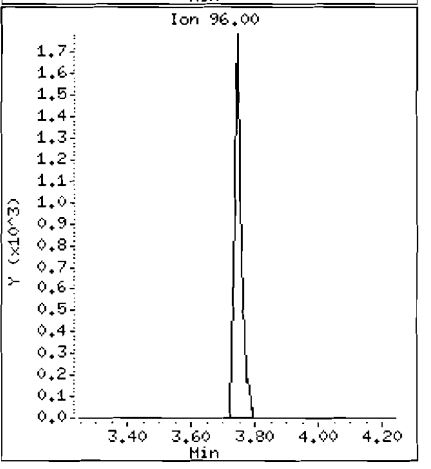
Column diameter: 0.18

4 bromomethane

Concentration: 20.61 ngs







Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A09.D

Date : 24-DEC-2013 13:34

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-4,31,5,,b1

Purge Volume: 5.0

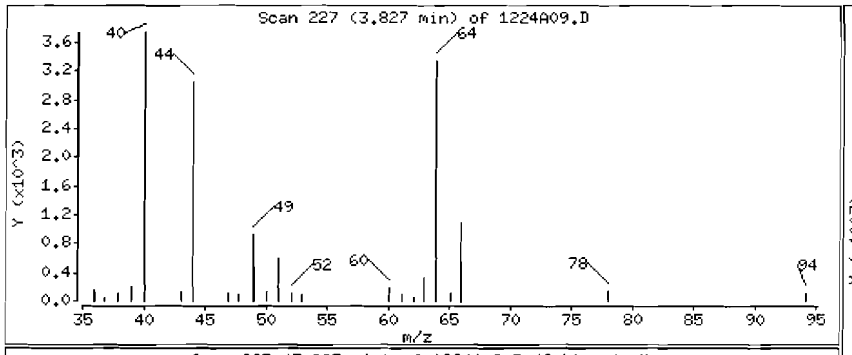
Operator: gt

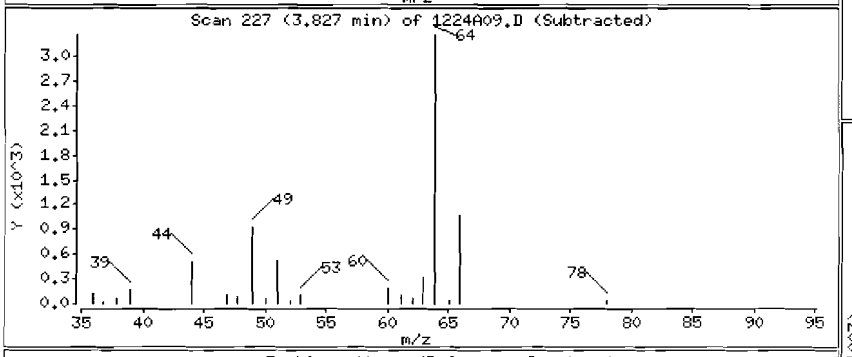
Column phase:

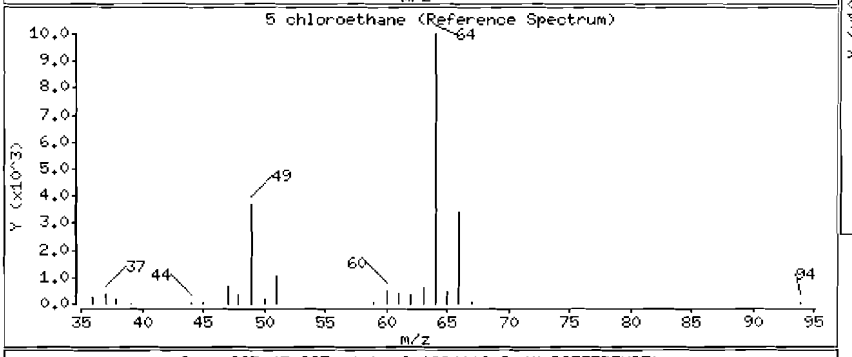
Column diameter: 0.18

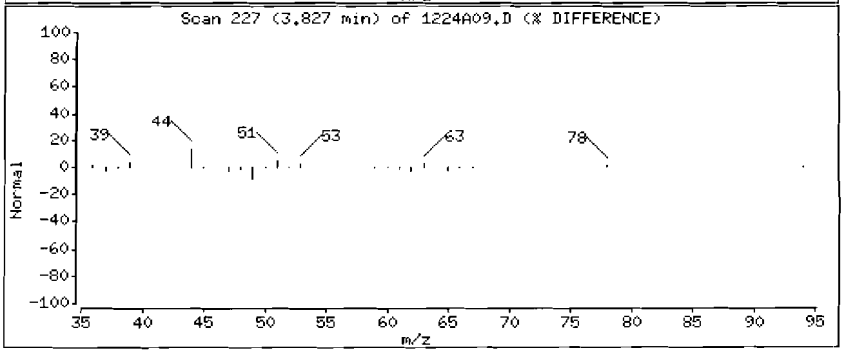
5 chloroethane

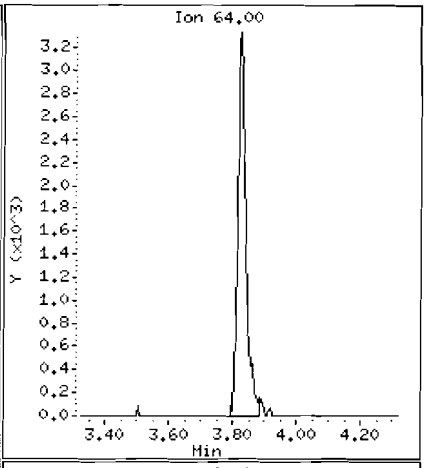
Concentration: 20.87 ngs

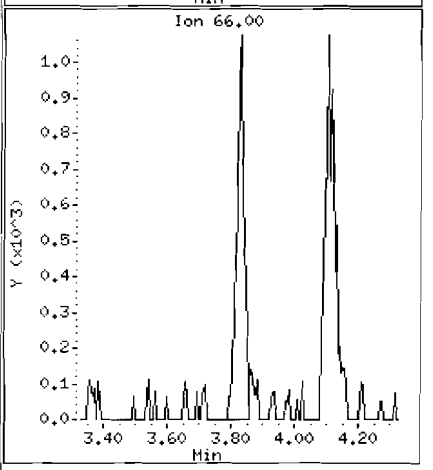












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A09.D

Date : 24-DEC-2013 13:34

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-4,31,5,,b1

Purge Volume: 5.0

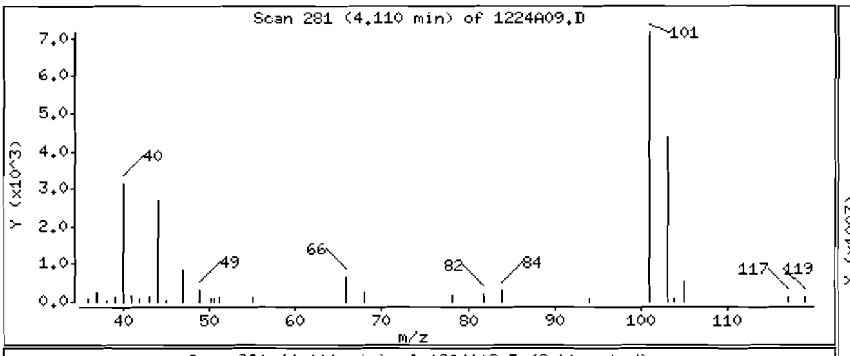
Operator: gt

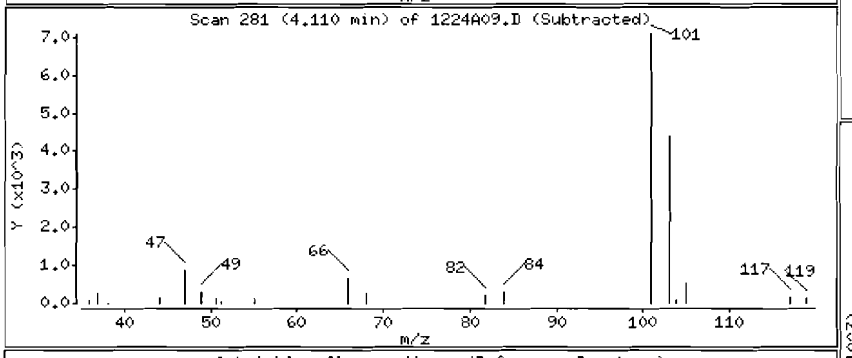
Column phase:

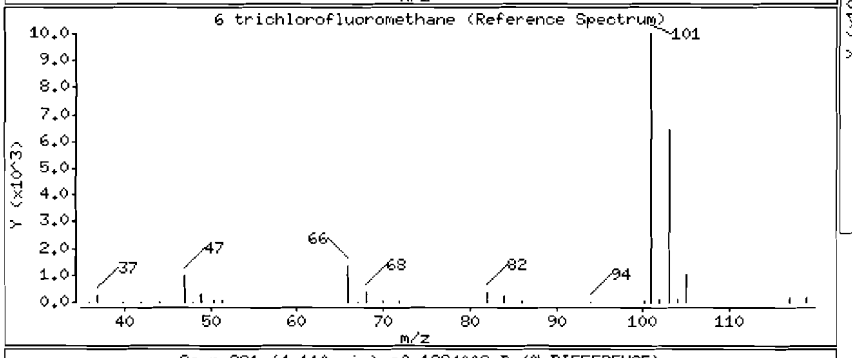
Column diameter: 0.18

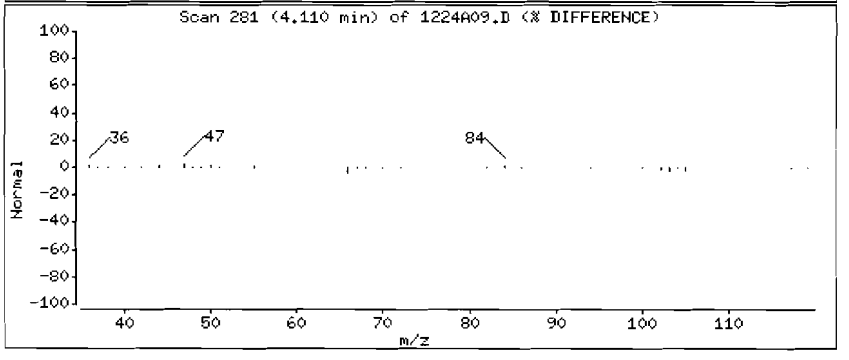
6 trichlorofluoromethane

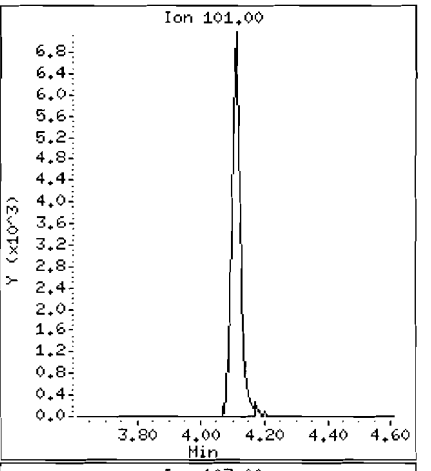
Concentration: 25.09 ngs

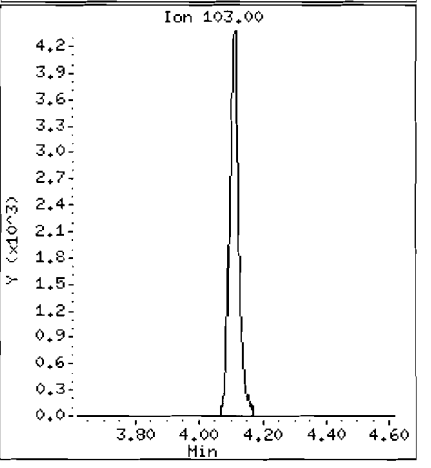












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A09.D

Date : 24-DEC-2013 13:34

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-4,31,5,,b1

Purge Volume: 5.0

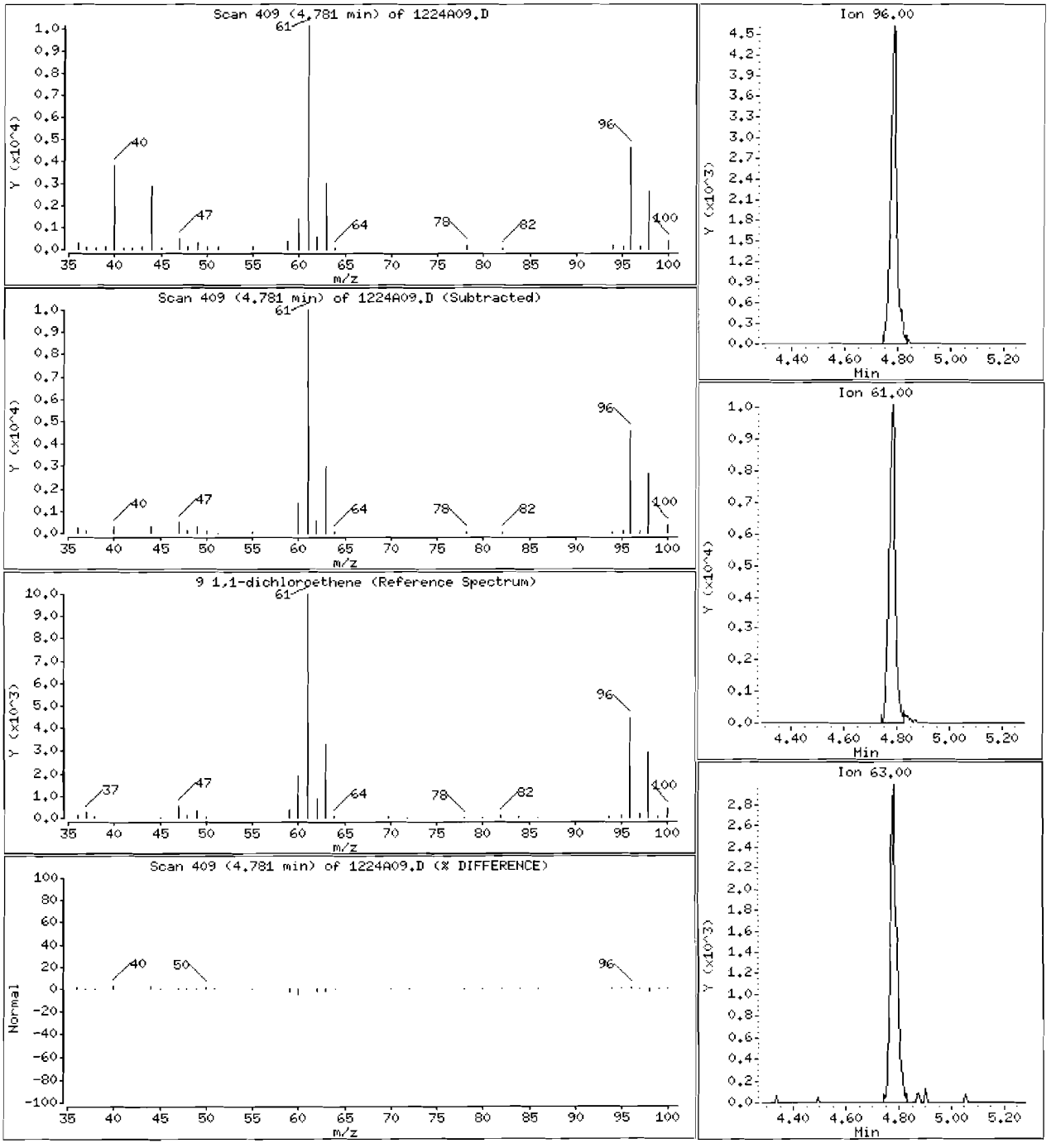
Operator: gt

Column phase:

Column diameter: 0.18

9 1,1-dichloroethene

Concentration: 22.02 ngs



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Date : 24-DEC-2013 13:34

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-4,31,5,,b1

Purge Volume: 5.0

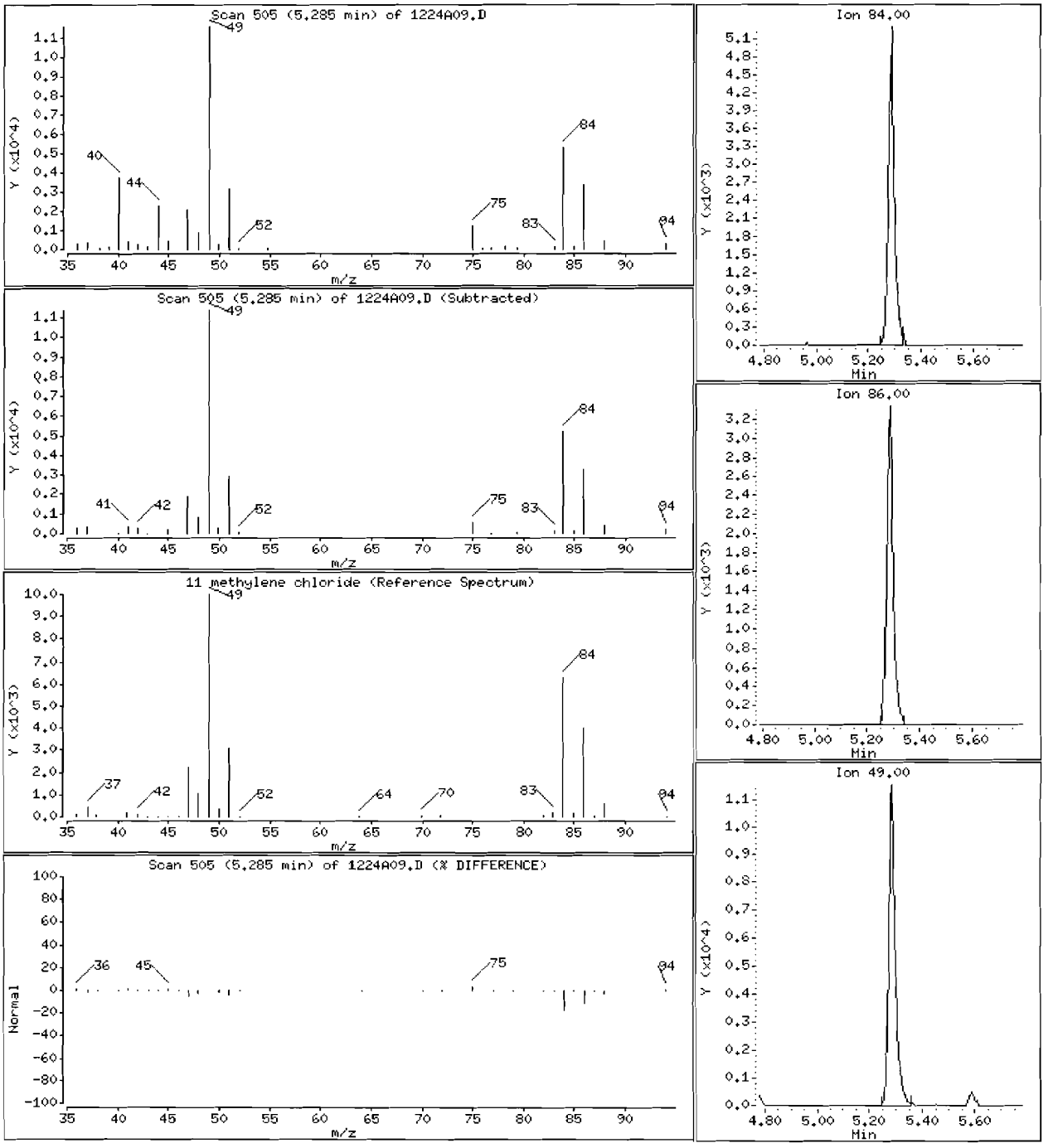
Operator: gt

Column phase:

Column diameter: 0.18

11 methylene chloride

Concentration: 21.22 ngs



Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A09.D

Date : 24-DEC-2013 13:34

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-4,31,5,,b1

Purge Volume: 5.0

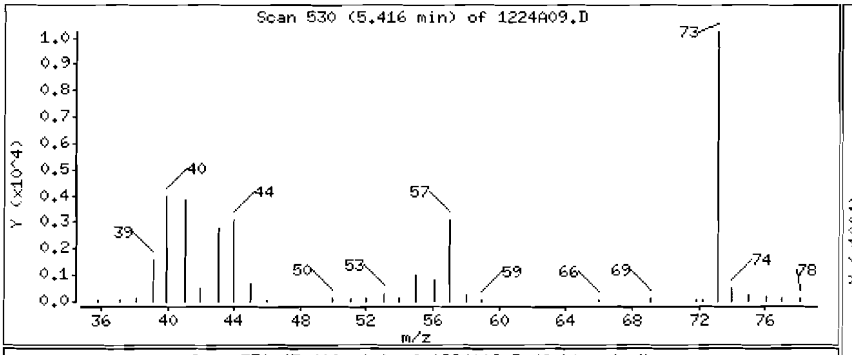
Operator: gt

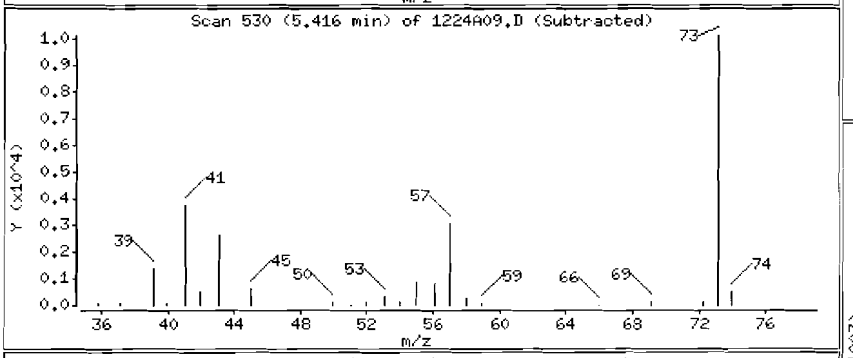
Column phase:

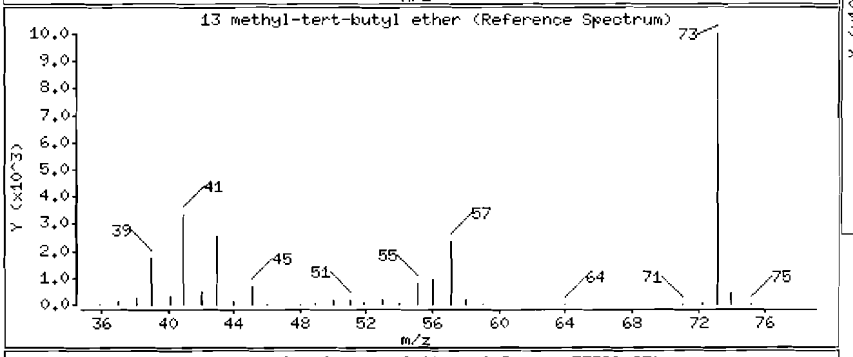
Column diameter: 0.18

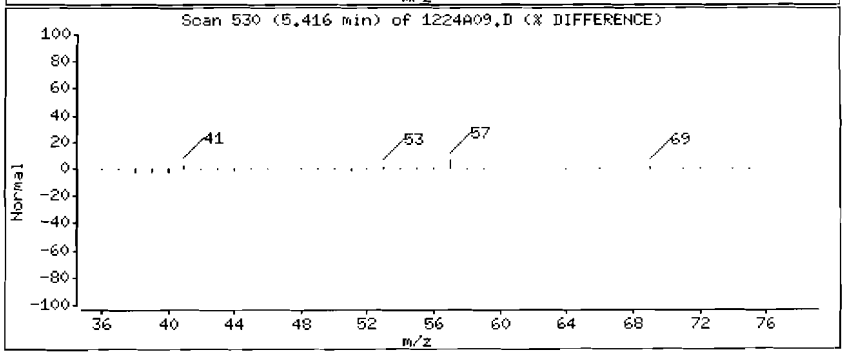
13 methyl-tert-butyl ether

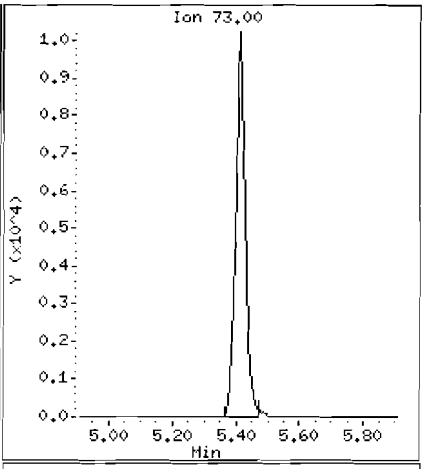
Concentration: 20.09 ngs

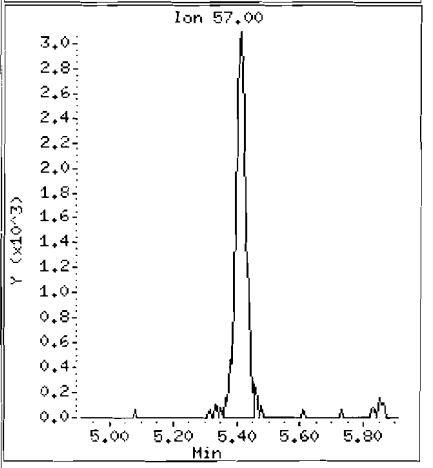












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A09.D

Date : 24-DEC-2013 13:34

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-4,31,5,,b1

Purge Volume: 5.0

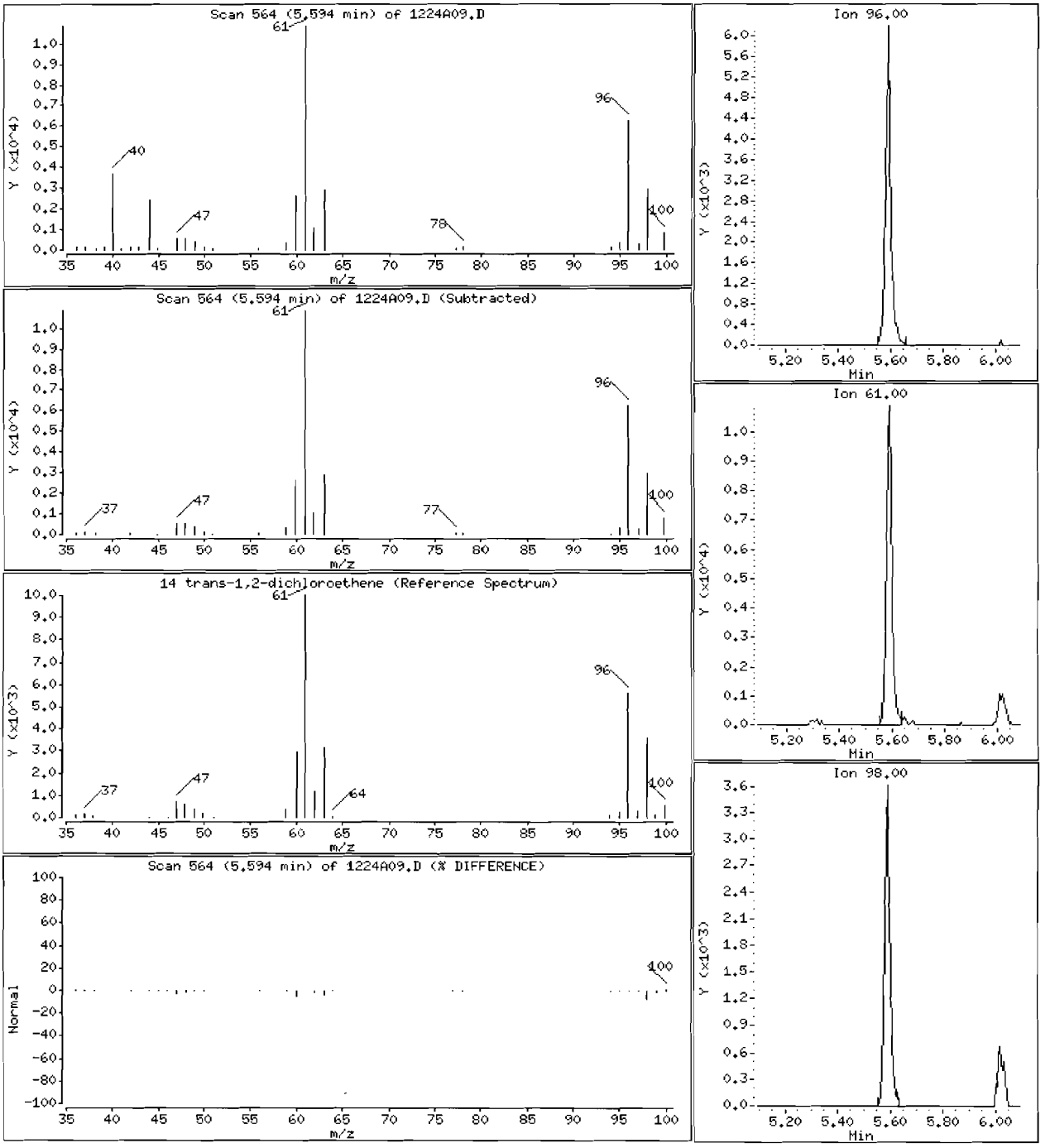
Operator: gt

Column phase:

Column diameter: 0.18

14 trans-1,2-dichloroethene

Concentration: 21.96 ngs



Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A09.D

Date : 24-DEC-2013 13:34

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-4,31,5,,b1

Purge Volume: 5.0

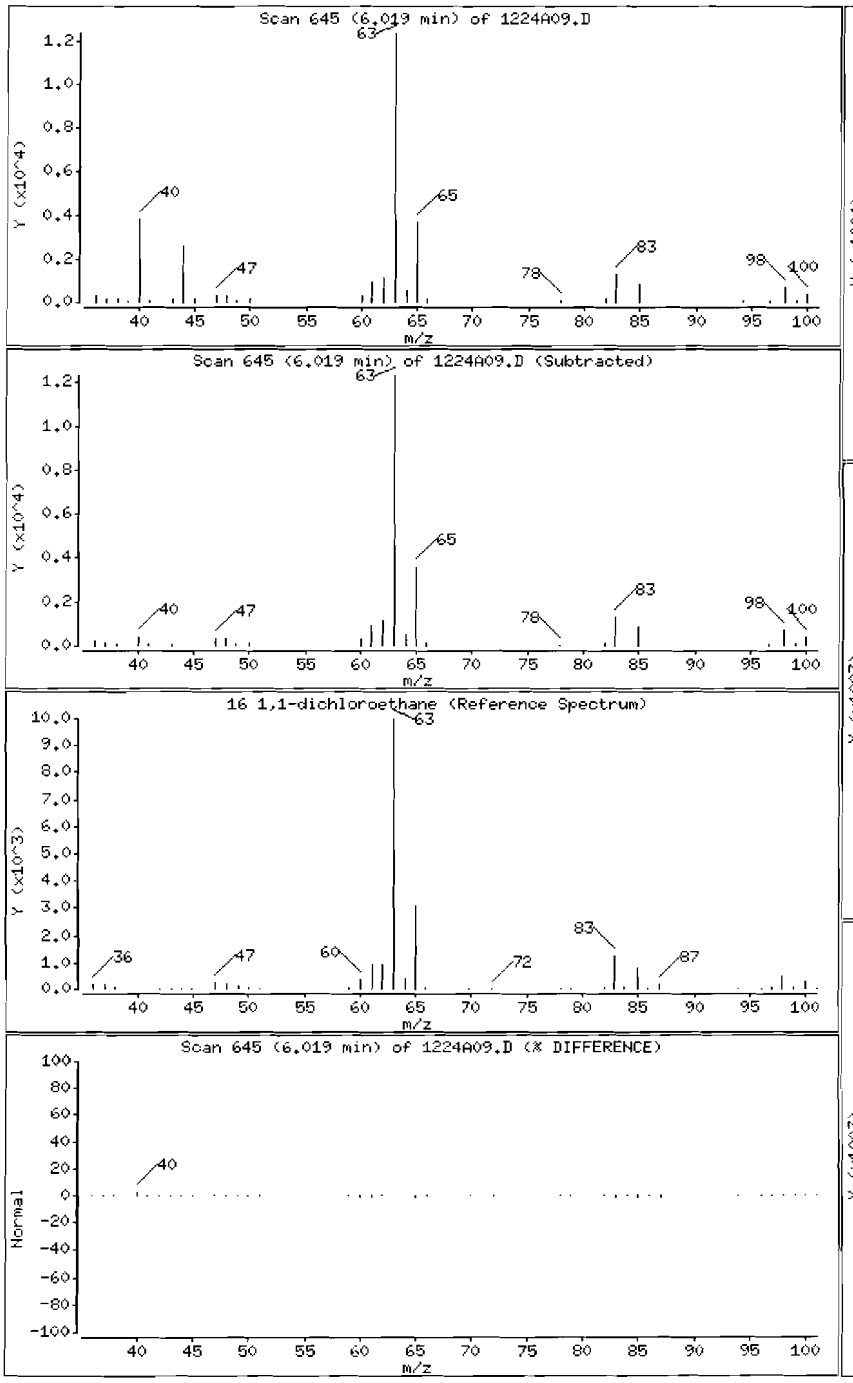
Operator: gt

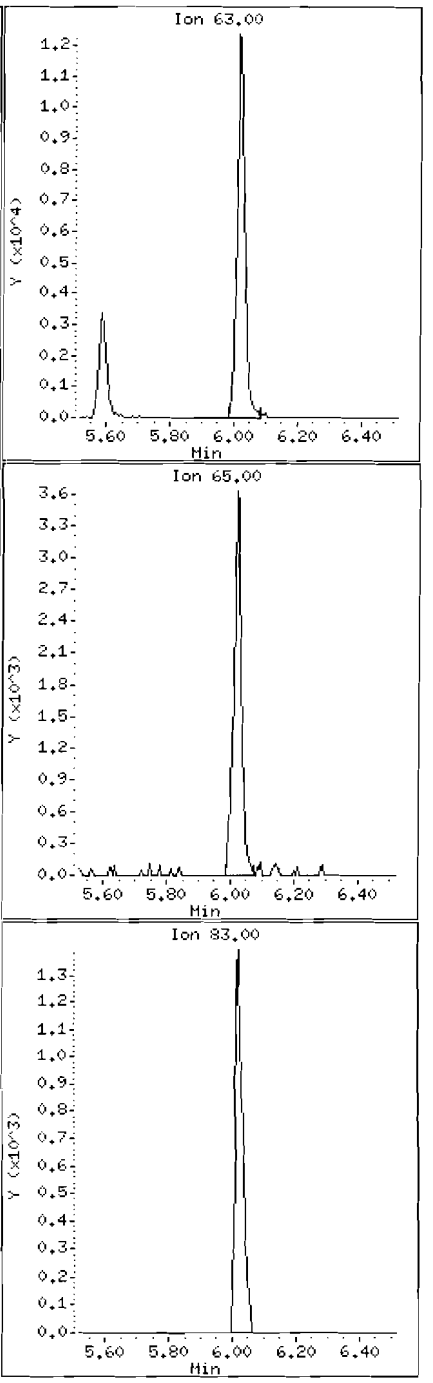
Column phase:

Column diameter: 0.18

16 1,1-dichloroethane

Concentration: 23.35 ngs





Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A09.D

Date : 24-DEC-2013 13:34

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-4,31,5,,b1

Purge Volume: 5.0

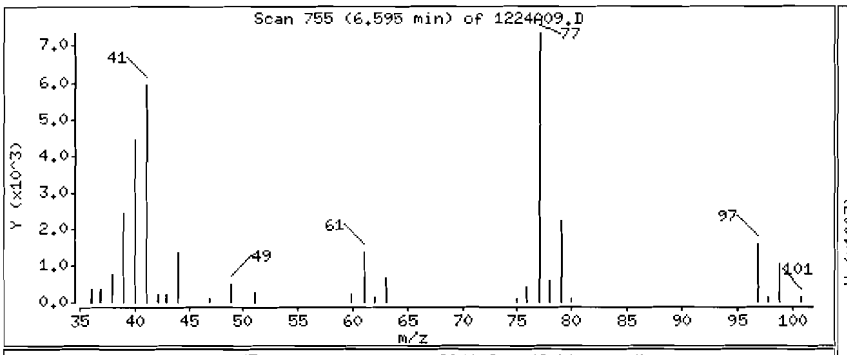
Operator: gt

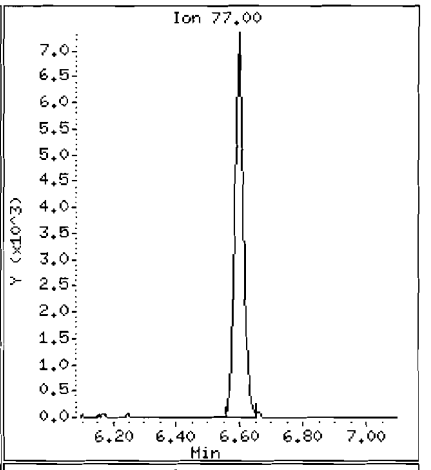
Column phase:

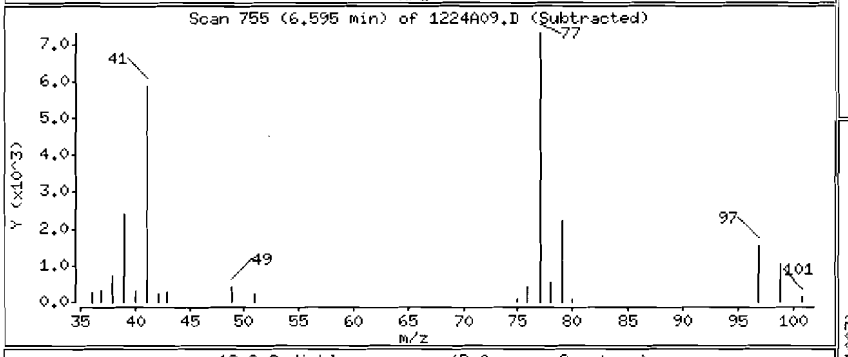
Column diameter: 0.18

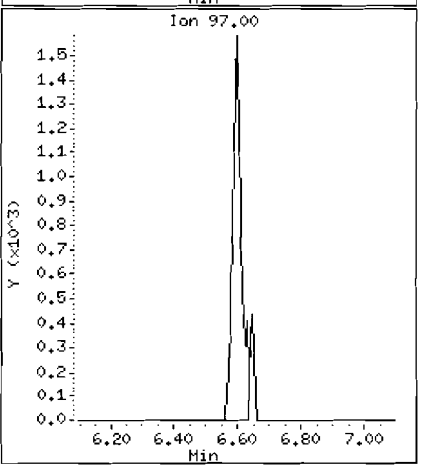
19 2,2-dichloropropane

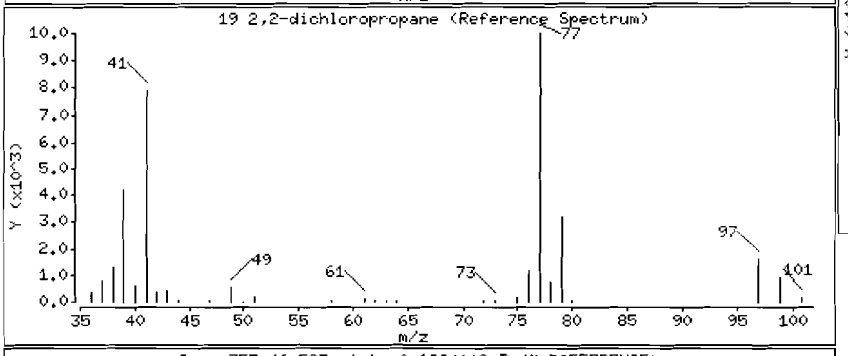
Concentration: 25.31 ngs

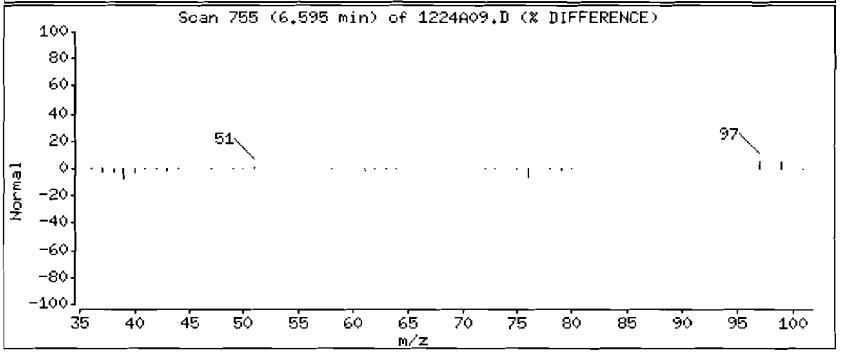












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A09.D

Date : 24-DEC-2013 13:34

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-4,31,5,,b1

Purge Volume: 5.0

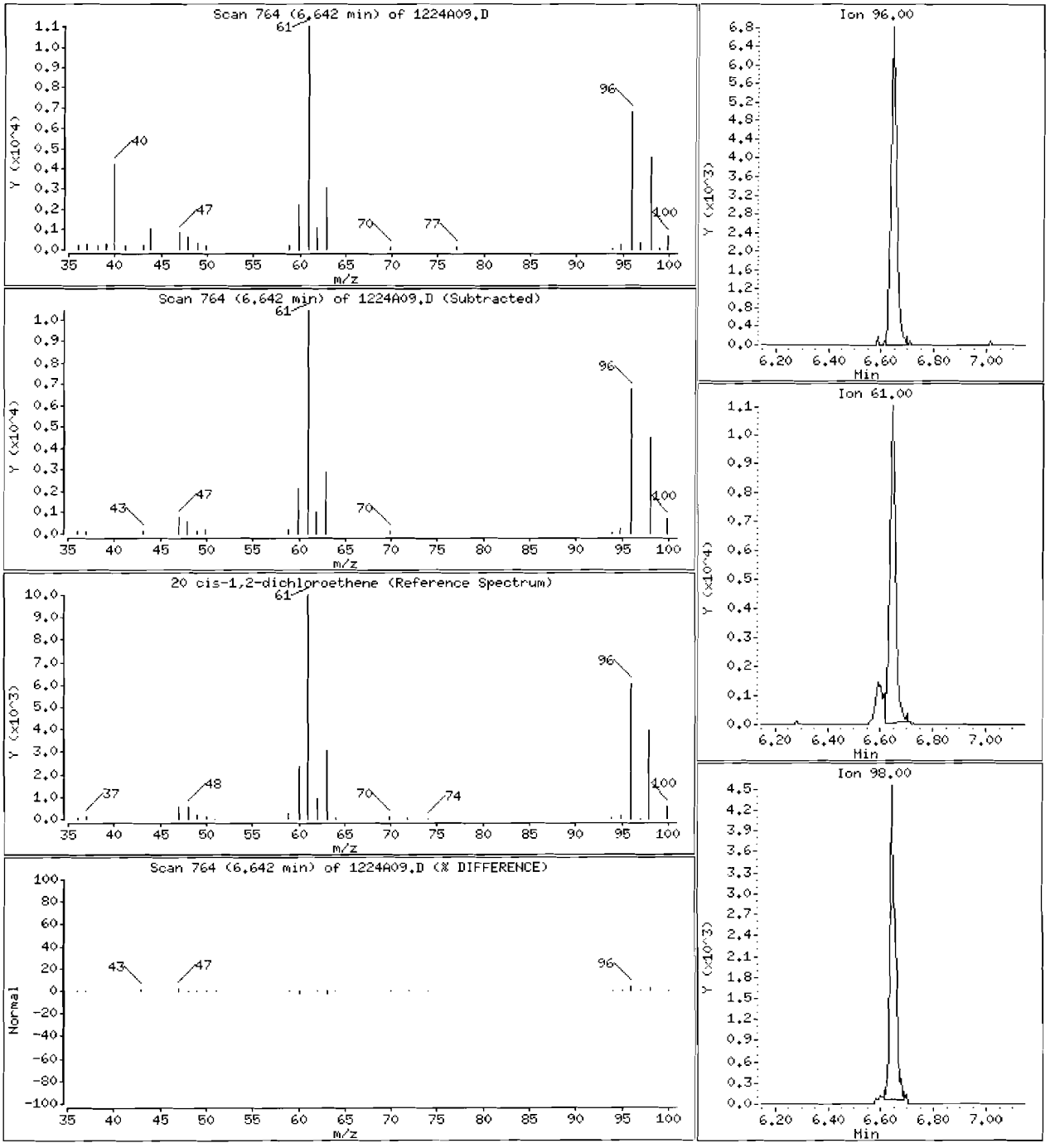
Operator: gt

Column phase:

Column diameter: 0.18

20 cis-1,2-dichloroethene

Concentration: 24.29 ngs



Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A09.D

Date : 24-DEC-2013 13:34

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-4,31,5,,b1

Purge Volume: 5.0

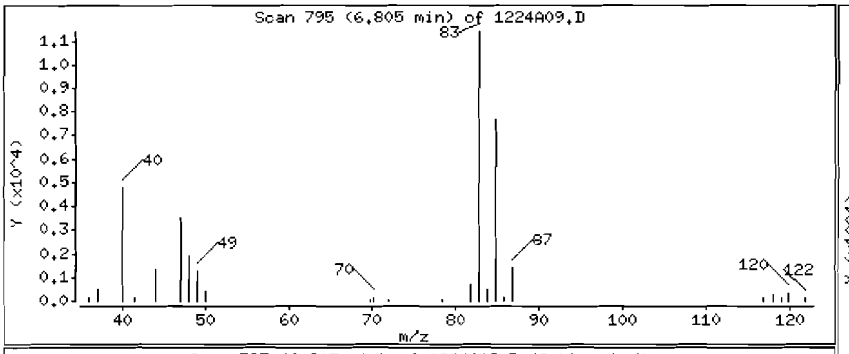
Operator: gt

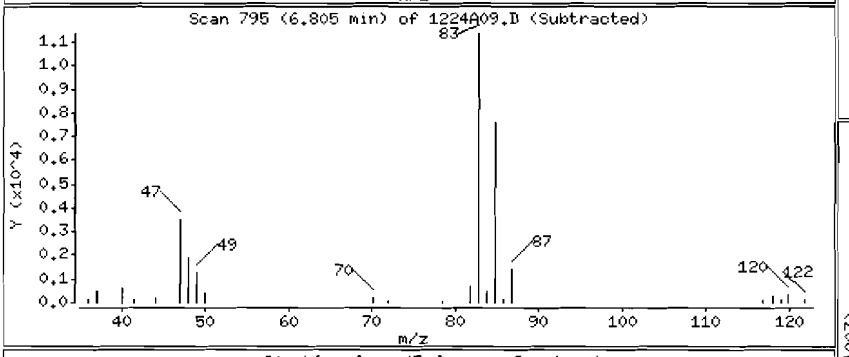
Column phase:

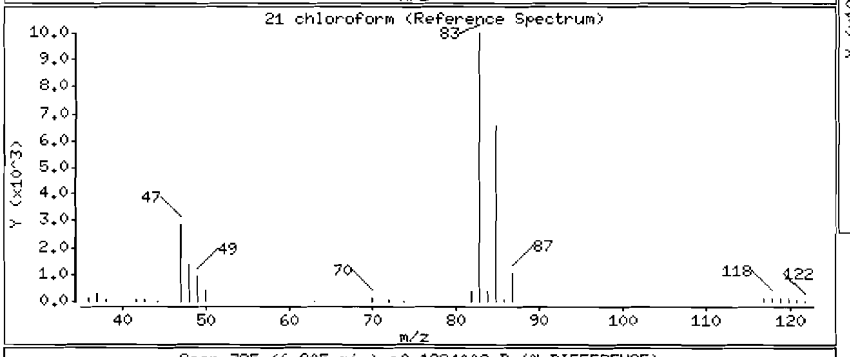
Column diameter: 0.18

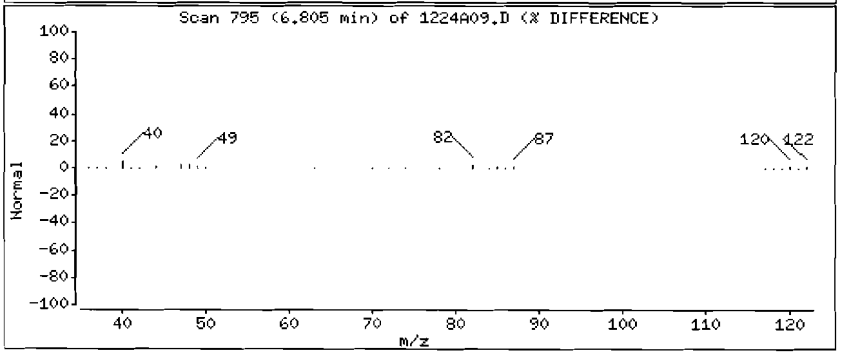
21 chloroform

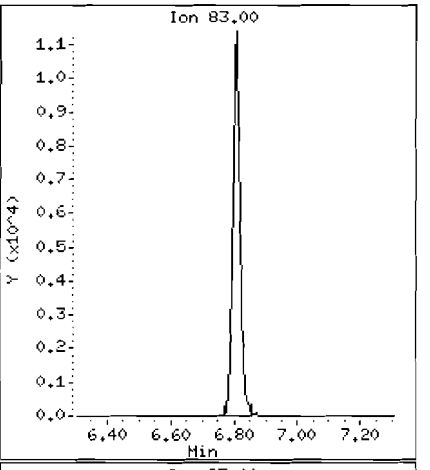
Concentration: 27.24 ngs

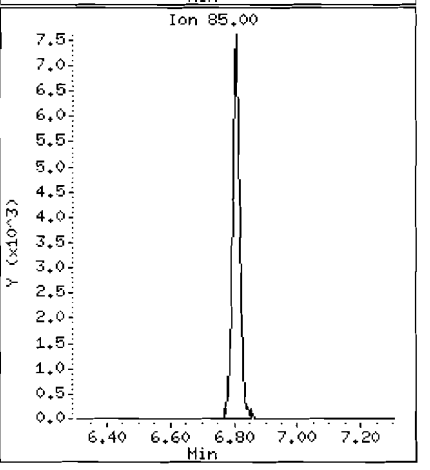












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A09.D

Date : 24-DEC-2013 13:34

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-4,31,5,,b1

Purge Volume: 5.0

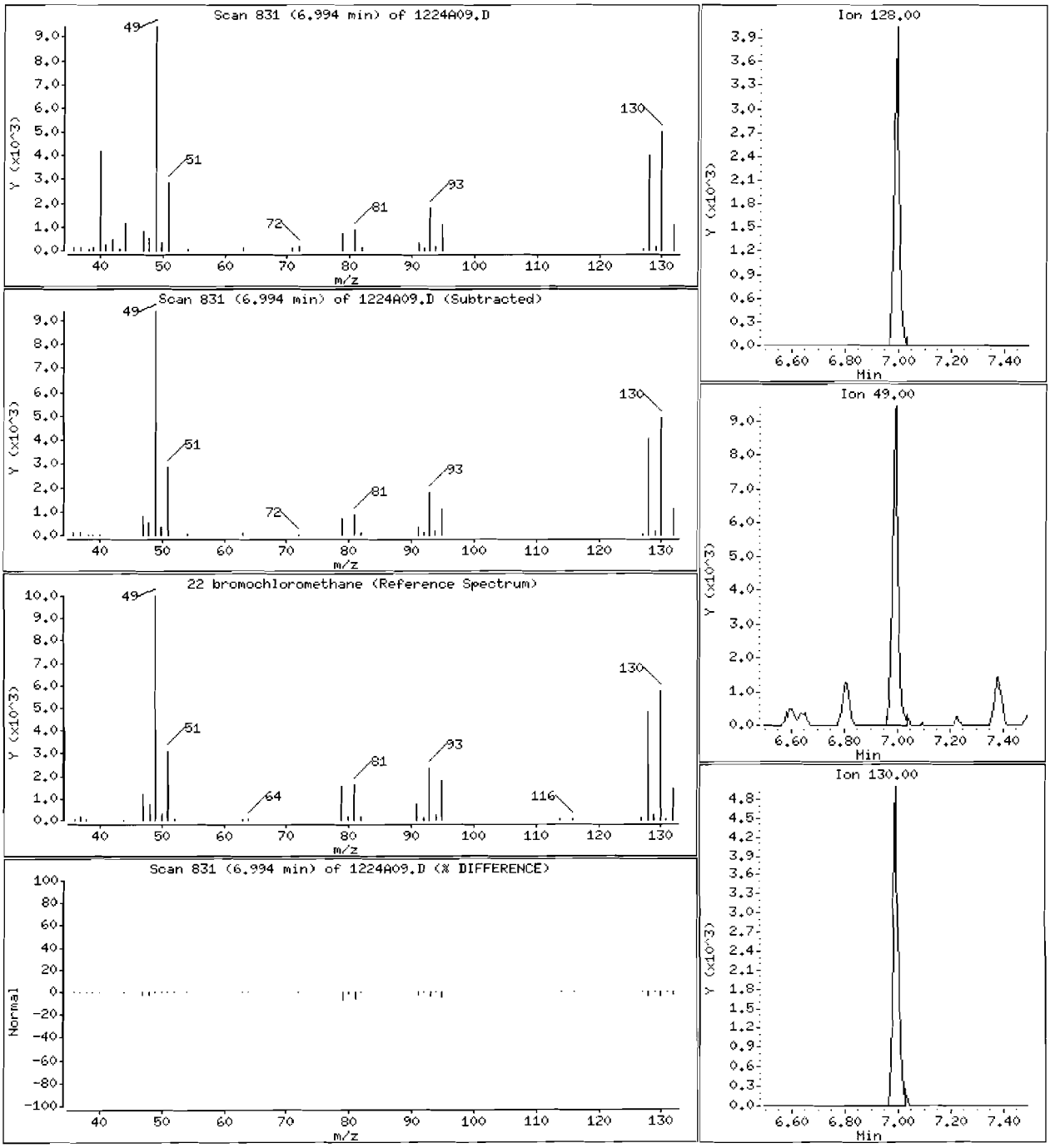
Operator: gt

Column phase:

Column diameter: 0.18

22 bromochloromethane

Concentration: 24.60 ngs



Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A09.D

Date : 24-DEC-2013 13:34

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-4,31,5,,b1

Purge Volume: 5.0

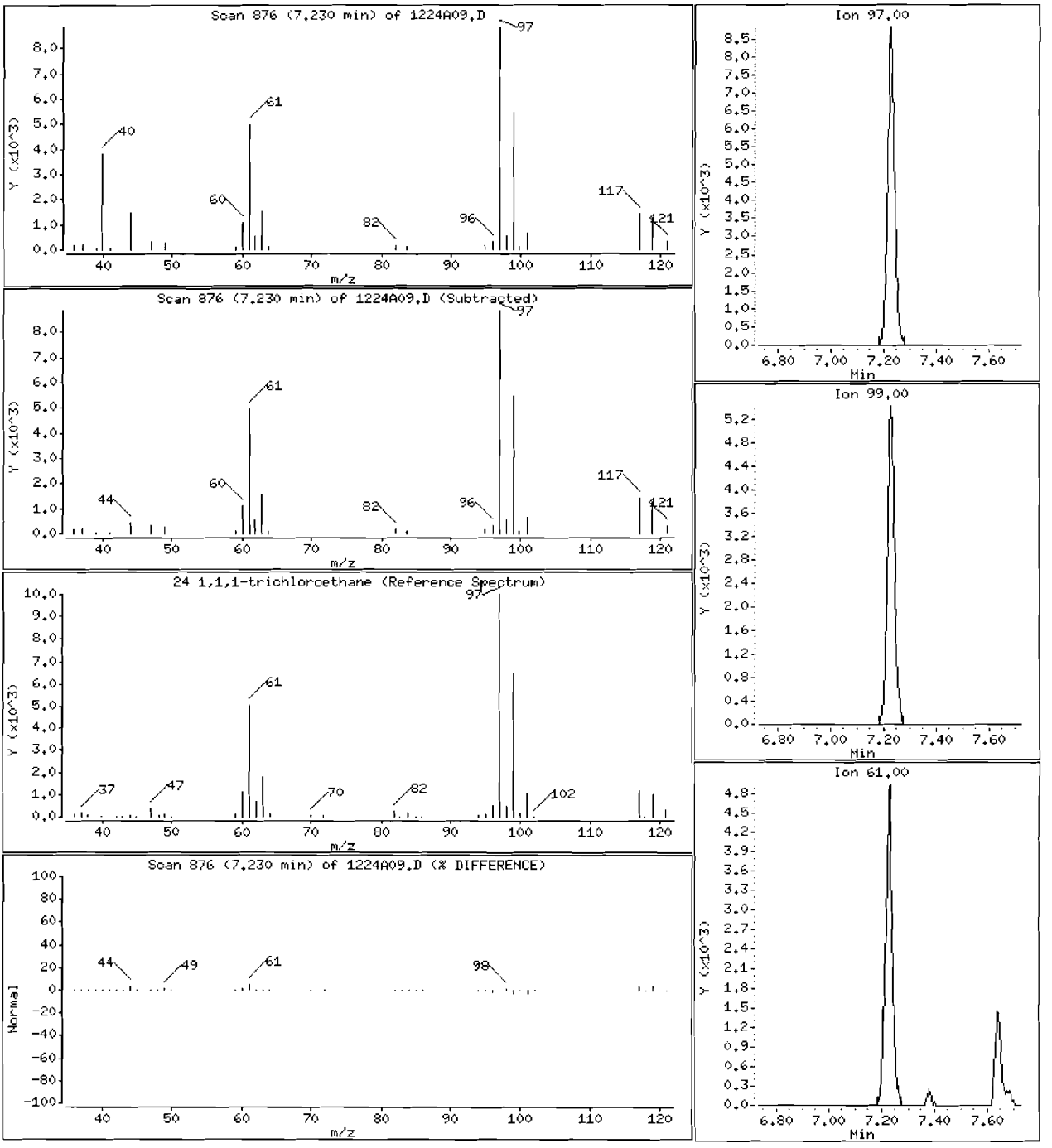
Operator: gt

Column phase:

Column diameter: 0.18

24 1,1,1-trichloroethane

Concentration: 25.81 ngs



Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A09.D

Date : 24-DEC-2013 13:34

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-4,31,5,,b1

Purge Volume: 5.0

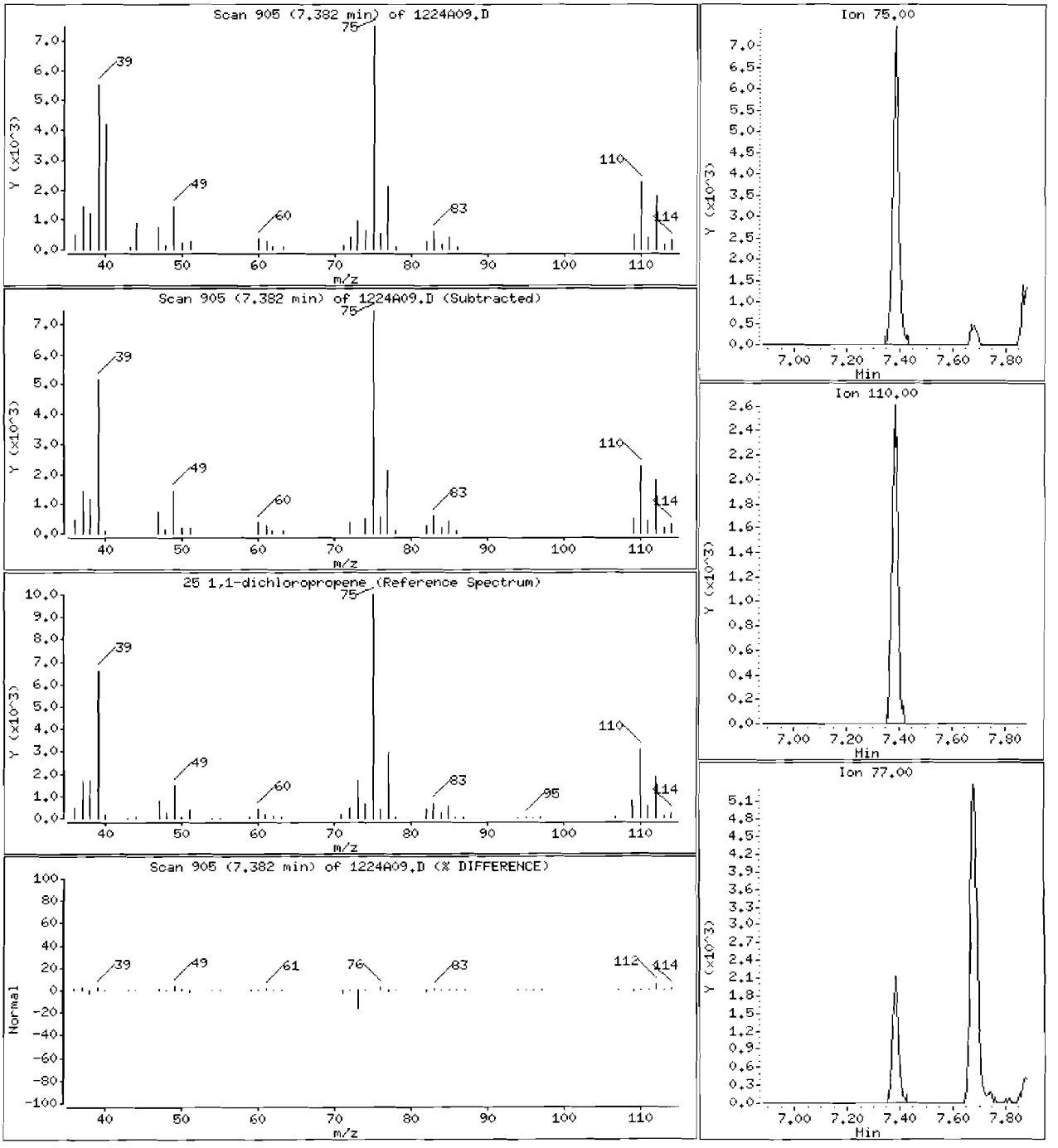
Operator: gt

Column phase:

Column diameter: 0.18

25 1,1-dichloropropene

Concentration: 22.53 ngs



Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A09.D

Date : 24-DEC-2013 13:34

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-4,31,5,,b1

Purge Volume: 5.0

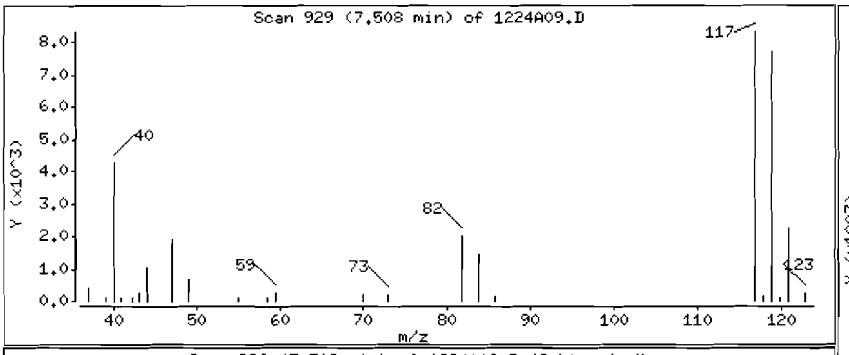
Operator: gt

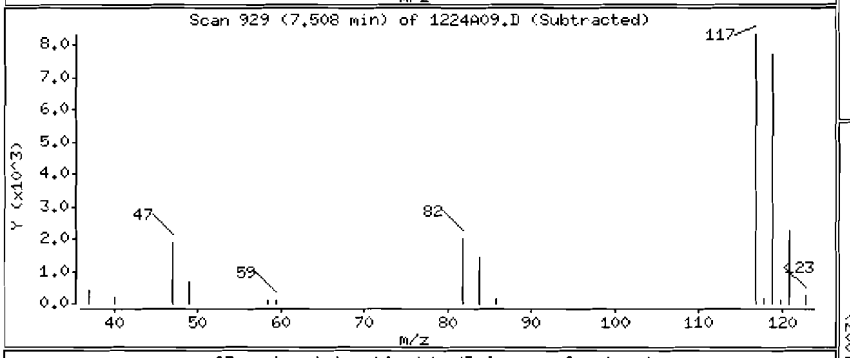
Column phase:

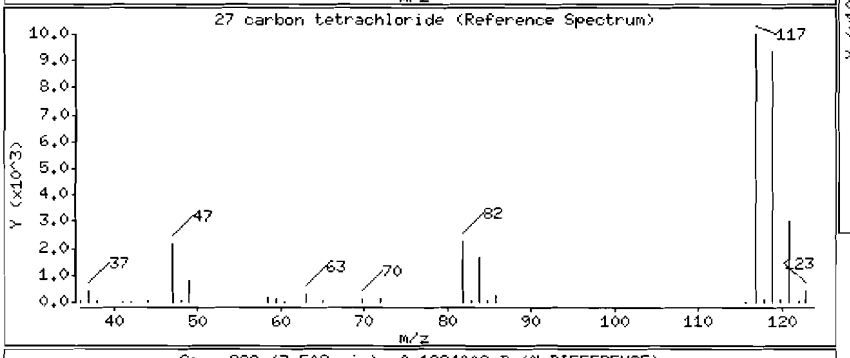
Column diameter: 0.18

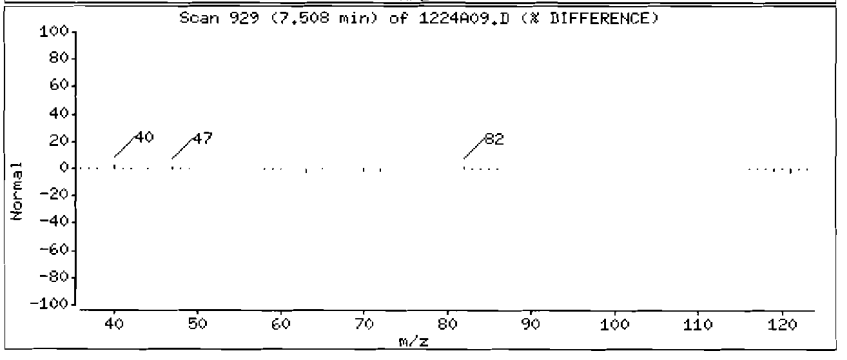
27 carbon tetrachloride

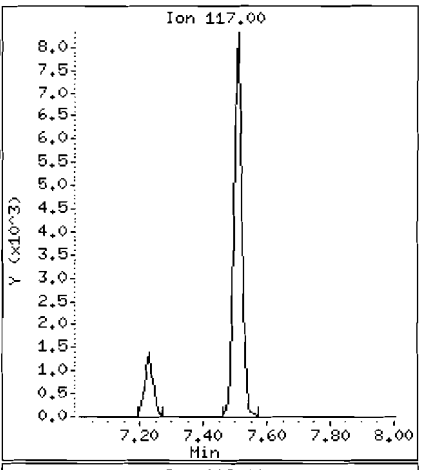
Concentration: 26.90 ngs

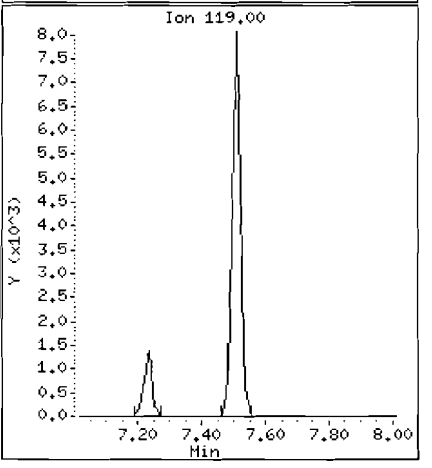












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A09.D

Date : 24-DEC-2013 13:34

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-4,31,5,,b1

Purge Volume: 5.0

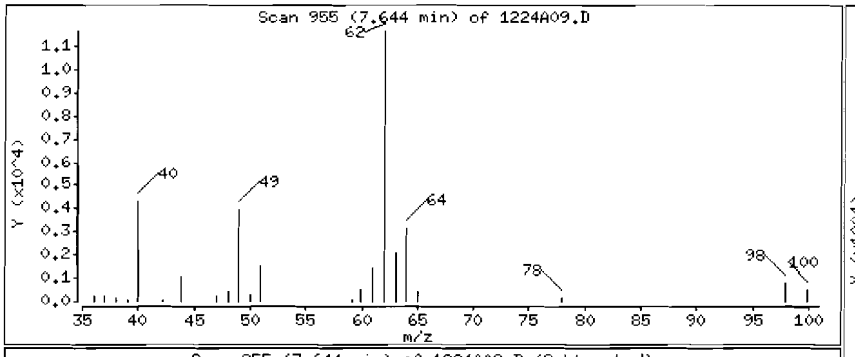
Operator: gt

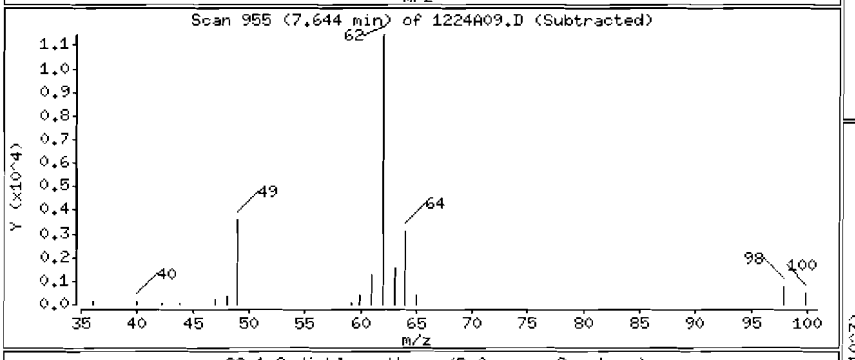
Column phase:

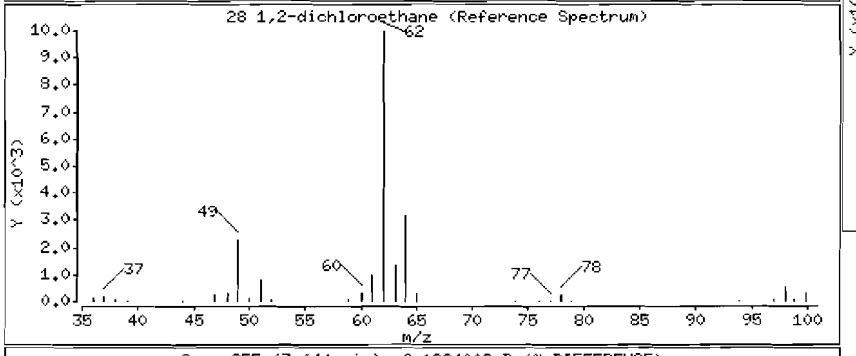
Column diameter: 0.18

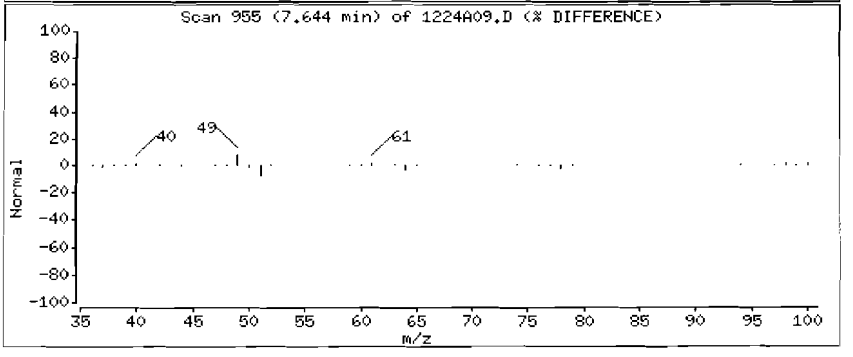
28 1,2-dichloroethane

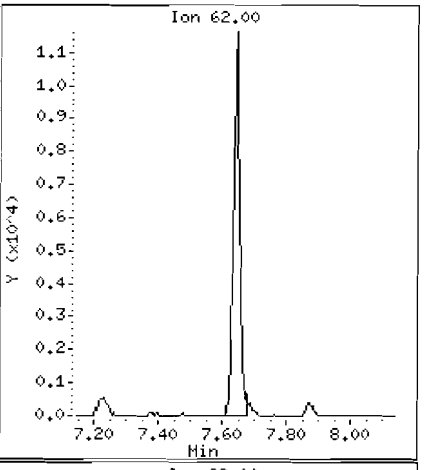
Concentration: 26.00 ngs

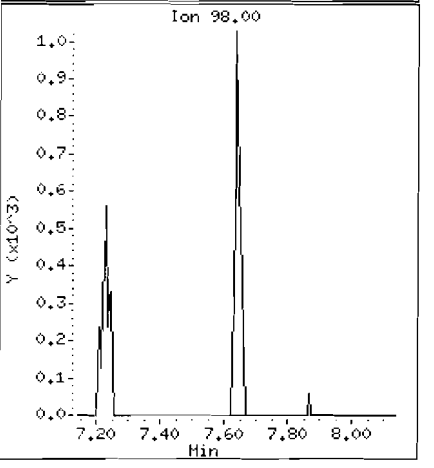












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A09.D

Date : 24-DEC-2013 13:34

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-4,31,5,,b1

Purge Volume: 5.0

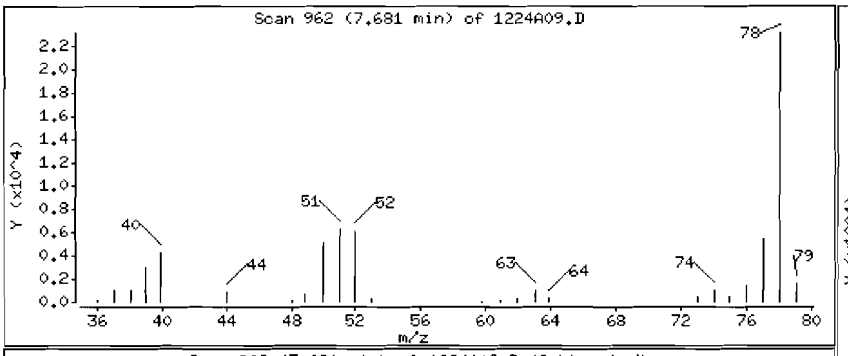
Operator: gt

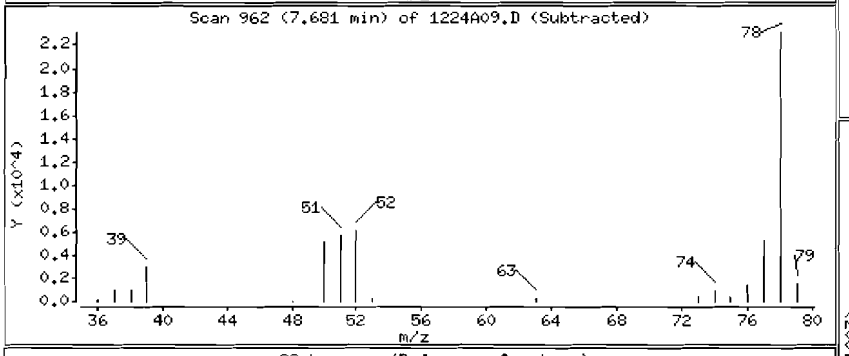
Column phase:

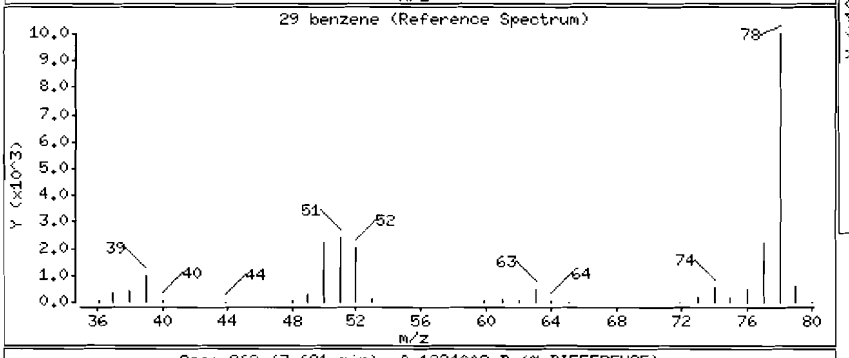
Column diameter: 0.18

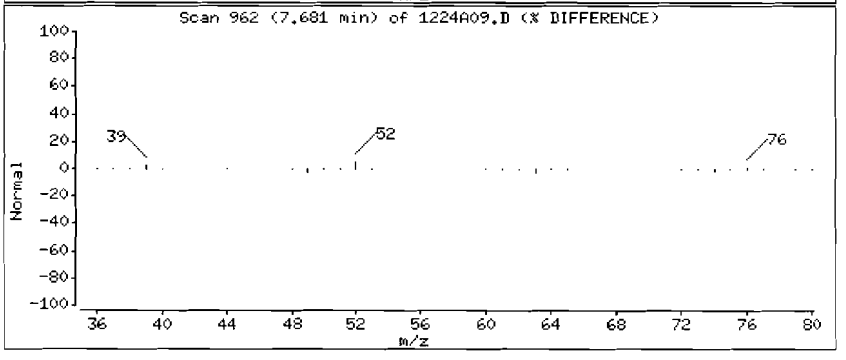
29 benzene

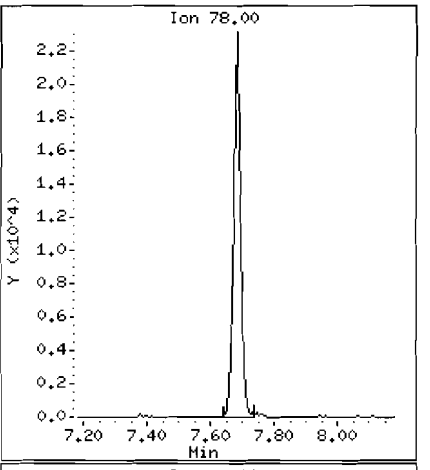
Concentration: 22.51 ngs

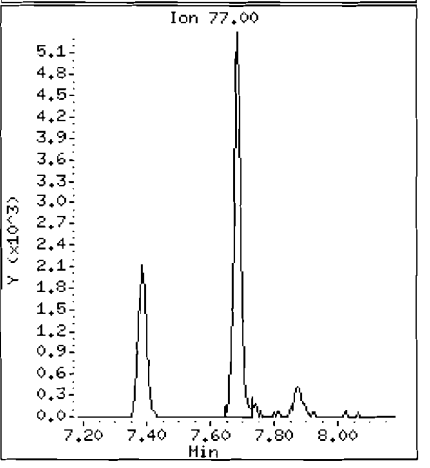












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A09.D

Date : 24-DEC-2013 13:34

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-4,31,5,,b1

Purge Volume: 5.0

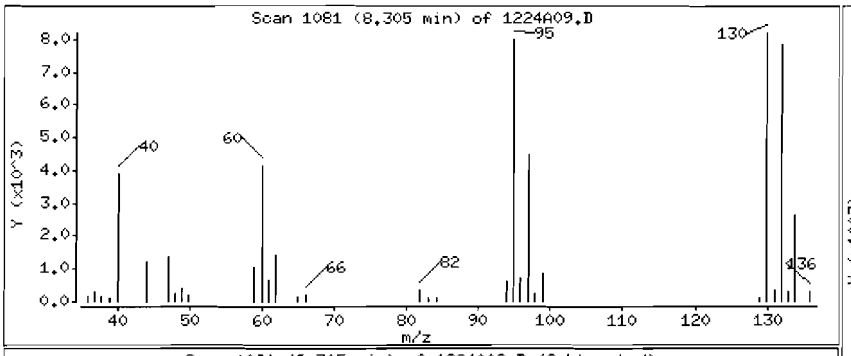
Operator: gt

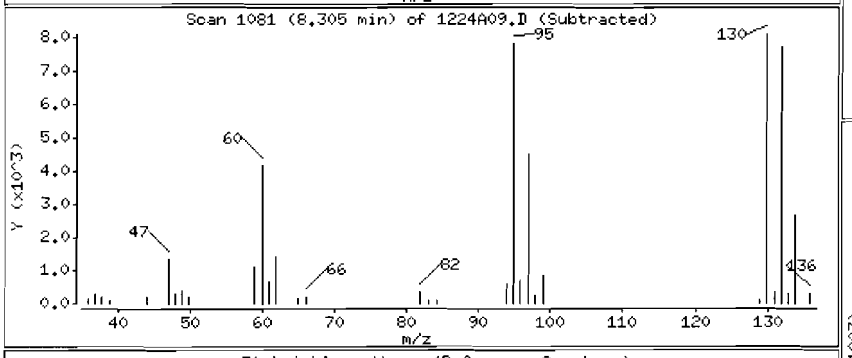
Column phase:

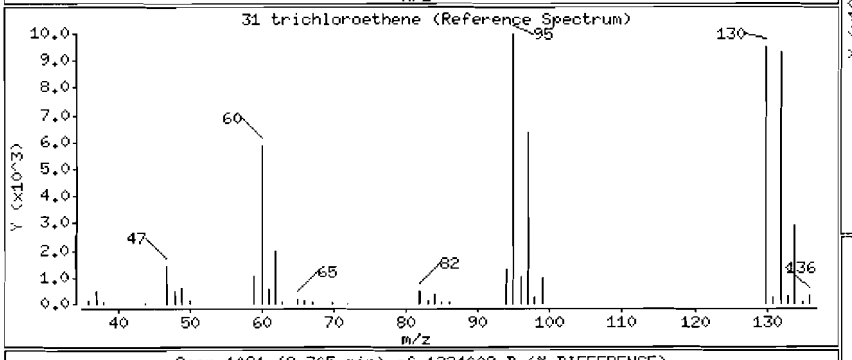
Column diameter: 0.18

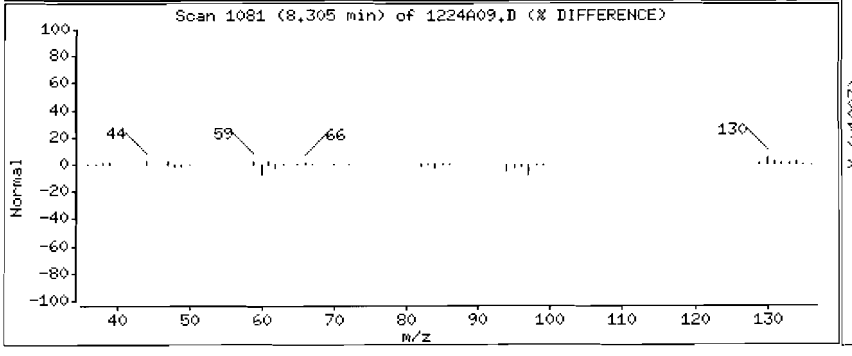
31 trichloroethene

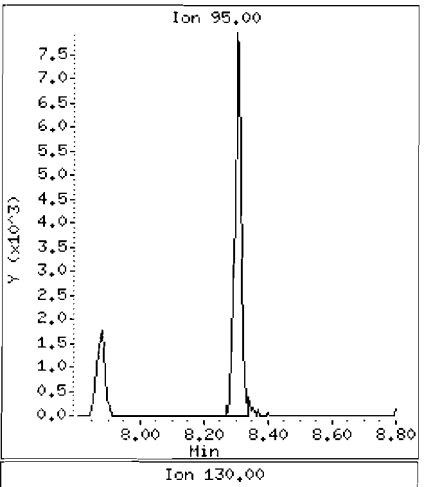
Concentration: 26.53 ngs

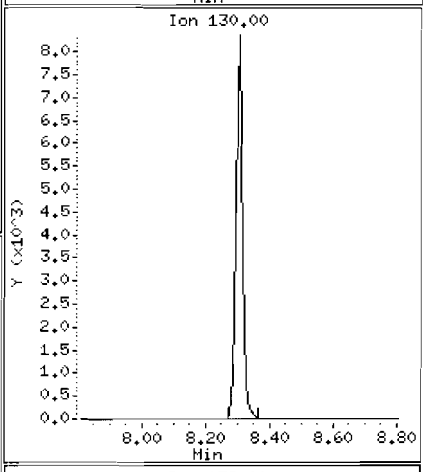


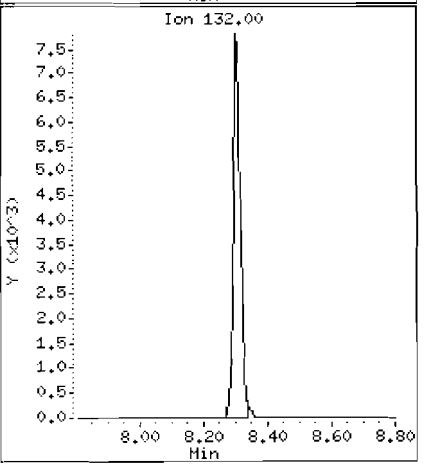












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A09.D

Date : 24-DEC-2013 13:34

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-4,31,5,,b1

Purge Volume: 5.0

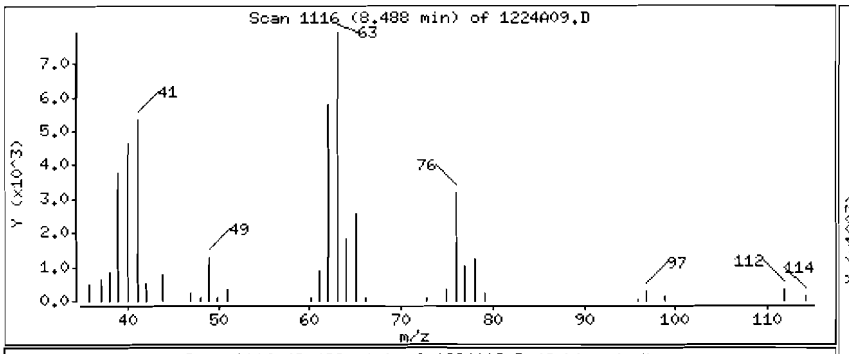
Operator: gt

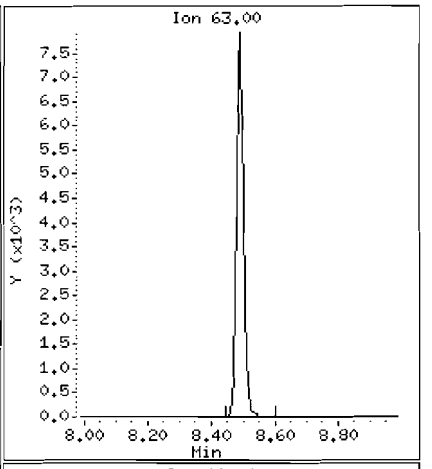
Column phase:

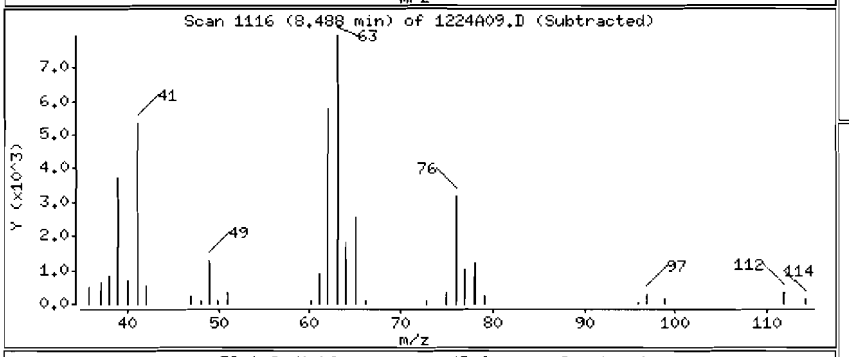
Column diameter: 0.18

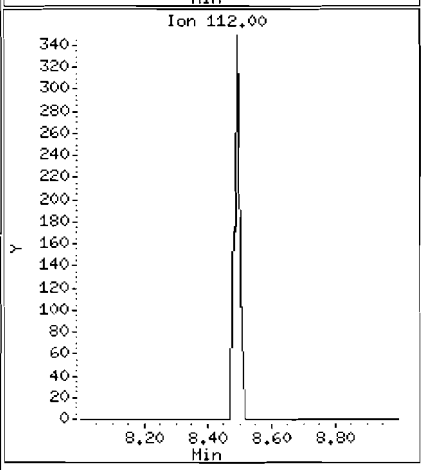
32 1,2-dichloropropane

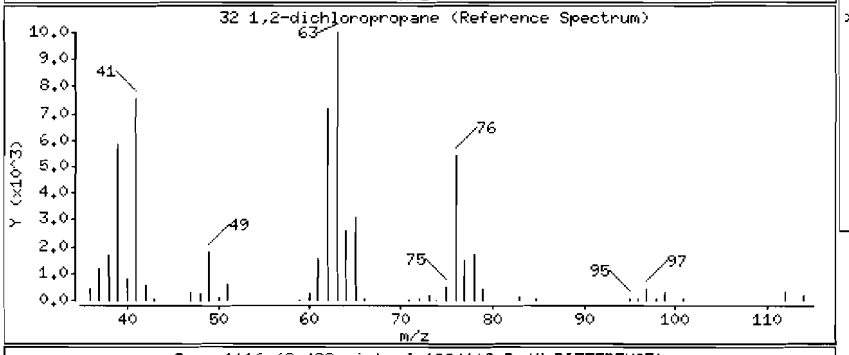
Concentration: 23.92 ngs

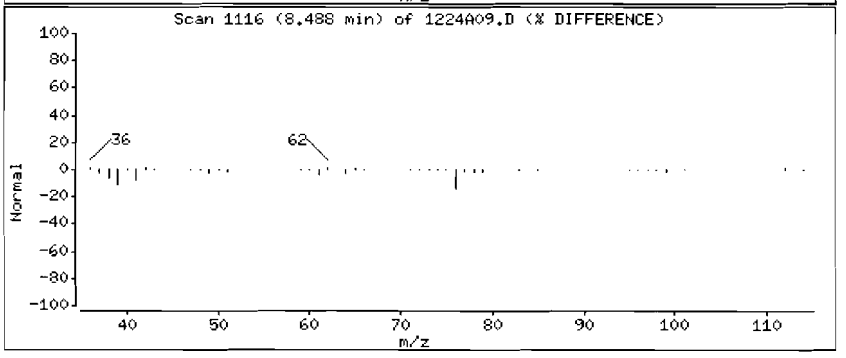












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A09.D

Date : 24-DEC-2013 13:34

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-4,31,5,,b1

Purge Volume: 5.0

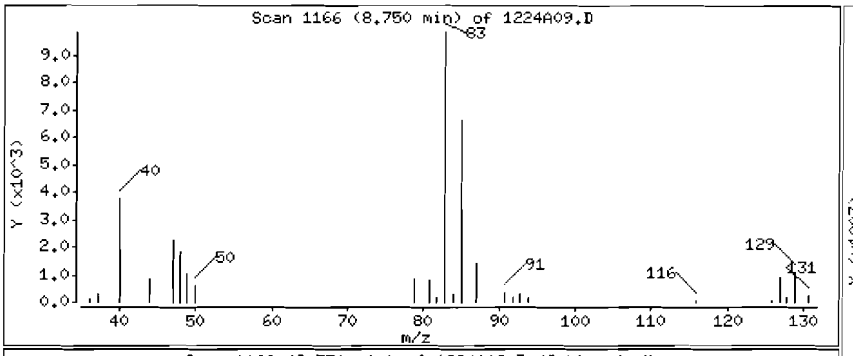
Operator: gt

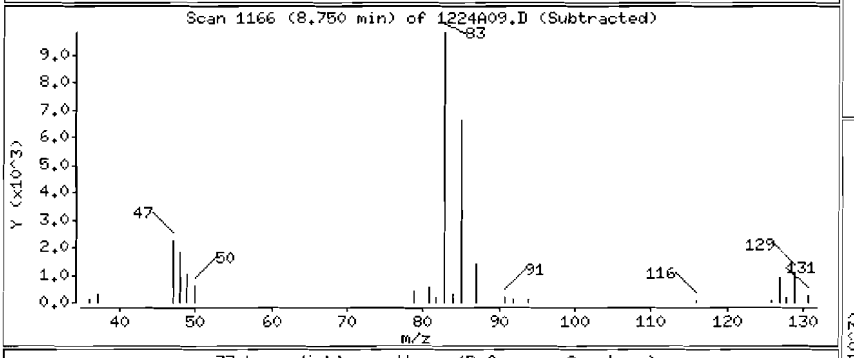
Column phase:

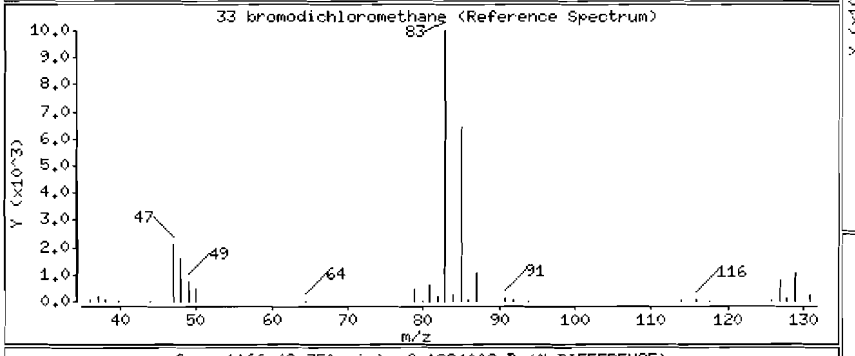
Column diameter: 0.18

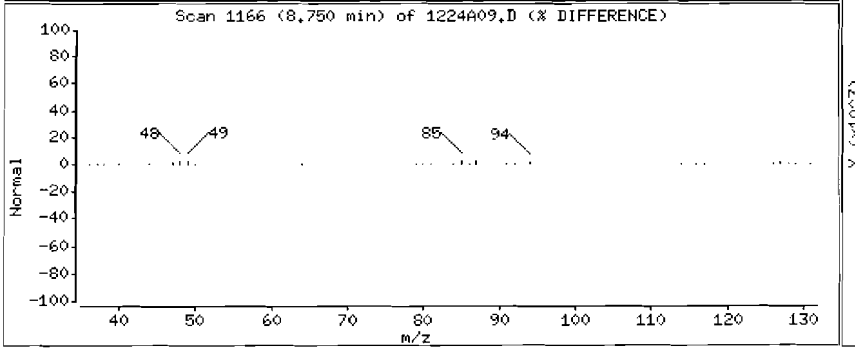
33 bromodichloromethane

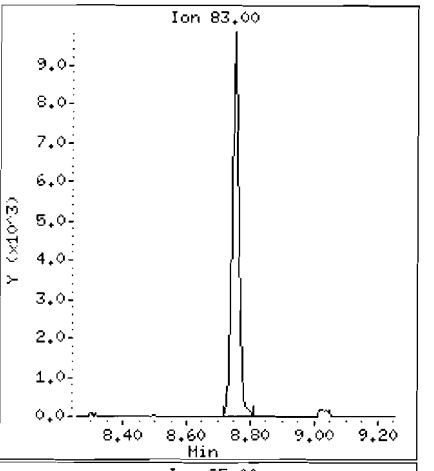
Concentration: 26.62 ngs

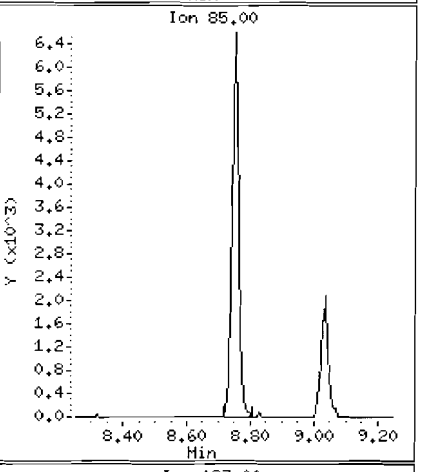


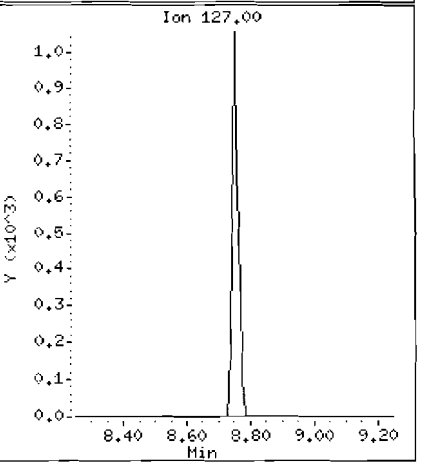












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A09.D

Date : 24-DEC-2013 13:34

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-4,31,5,,b1

Purge Volume: 5.0

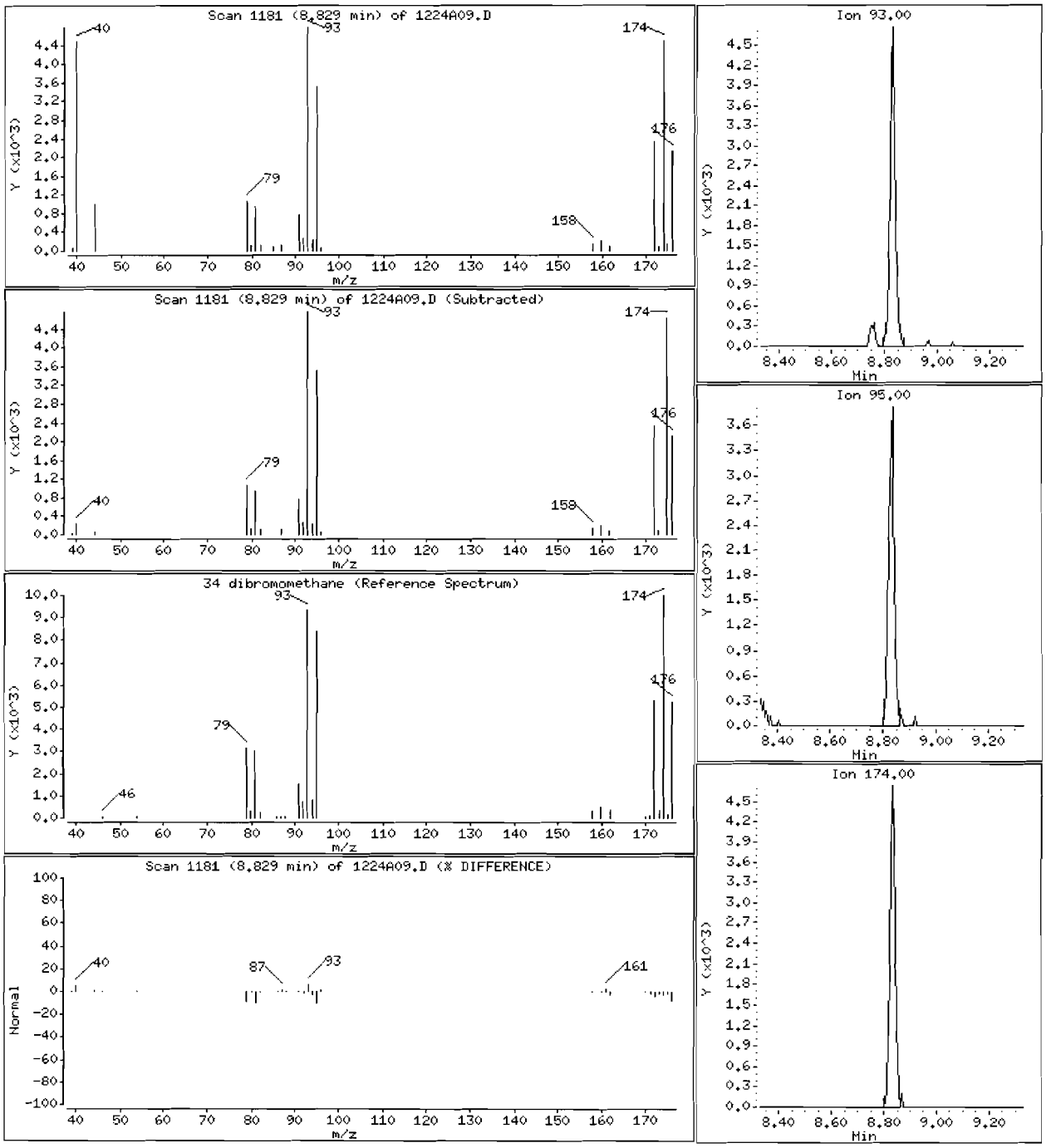
Operator: gt

Column phase:

Column diameter: 0.18

34 dibromomethane

Concentration: 25.72 ngs



Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A09.D

Date : 24-DEC-2013 13:34

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-4,31,5,,b1

Purge Volume: 5.0

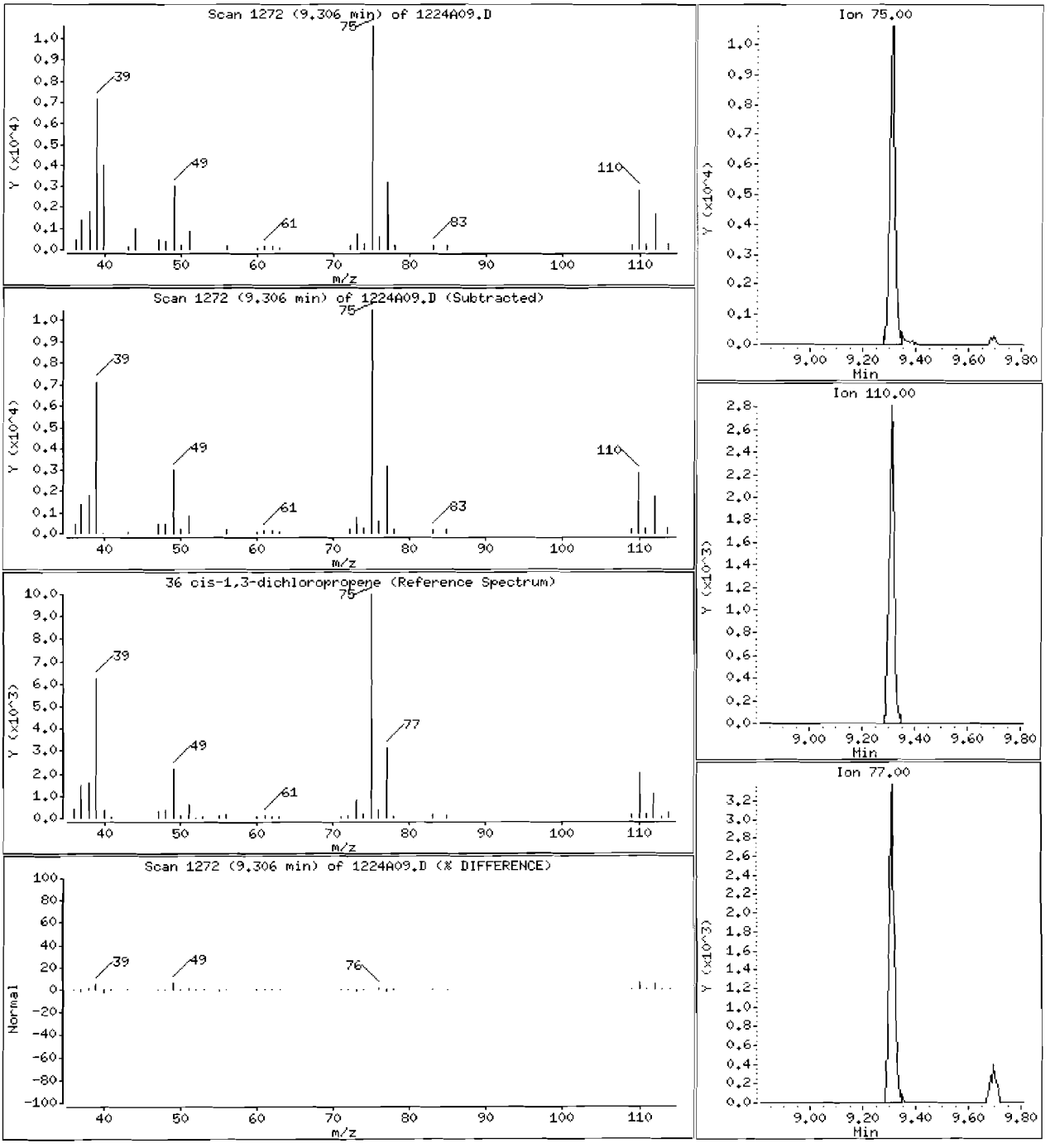
Operator: gt

Column phase:

Column diameter: 0.18

36 cis-1,3-dichloropropene

Concentration: 22.93 ngs



Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A09.D

Date : 24-DEC-2013 13:34

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-4,31,5,,b1

Purge Volume: 5.0

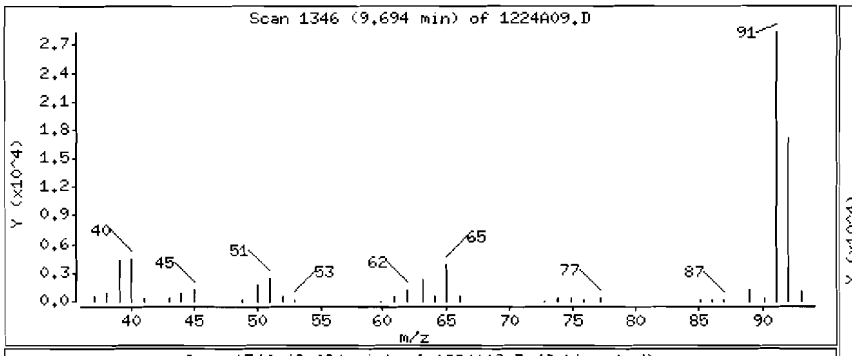
Operator: gt

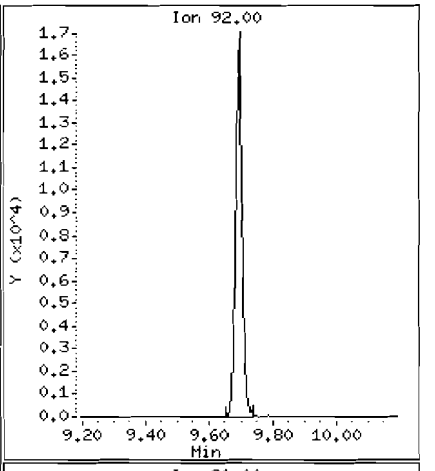
Column phase:

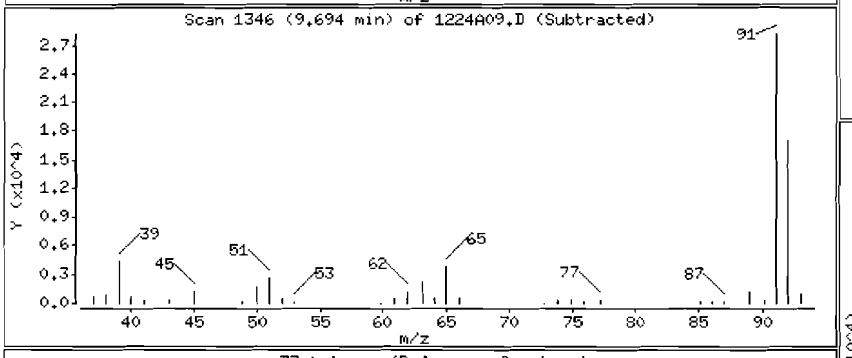
Column diameter: 0.18

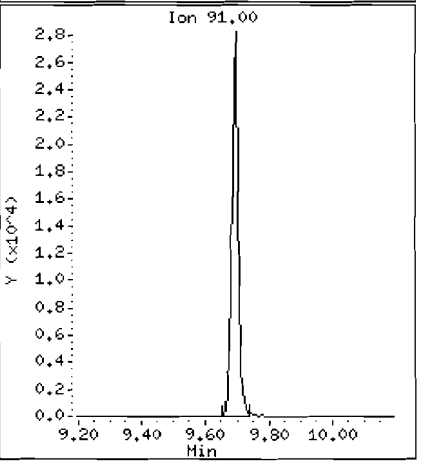
37 toluene

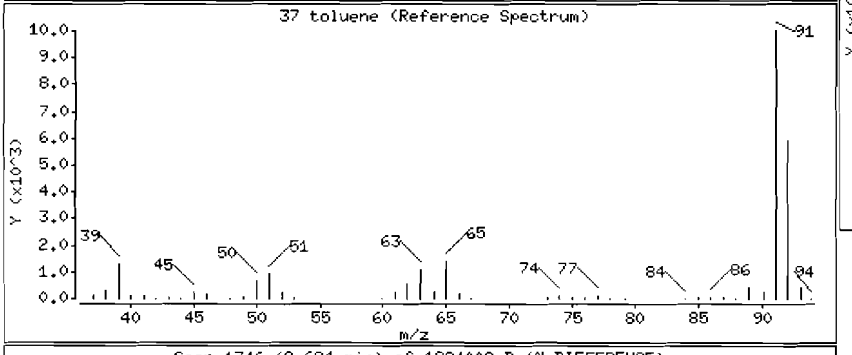
Concentration: 23.27 ngs

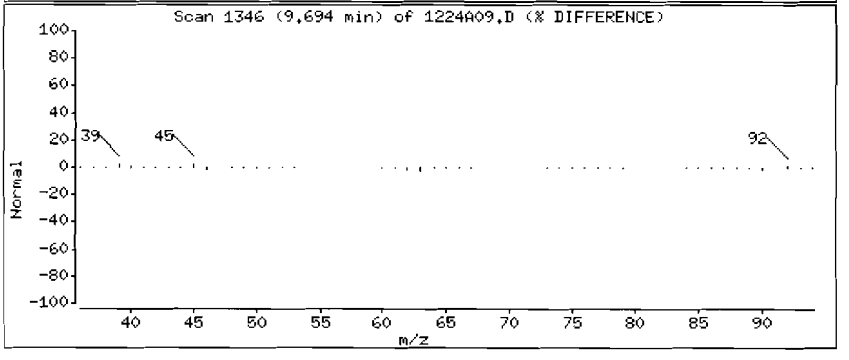












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A09.D

Date : 24-DEC-2013 13:34

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-4,31,5,,b1

Purge Volume: 5.0

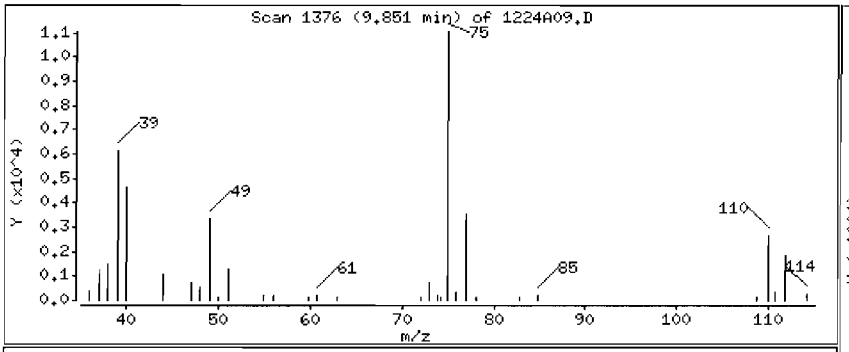
Operator: gt

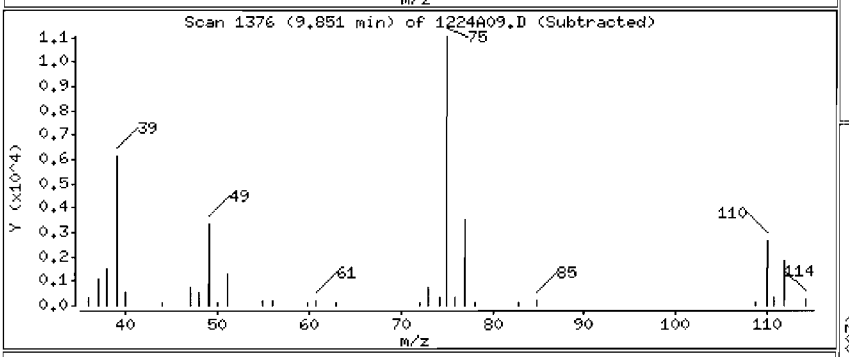
Column phase:

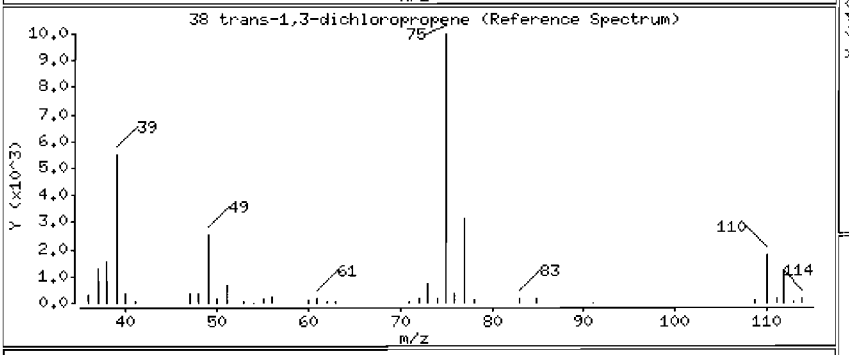
Column diameter: 0.18

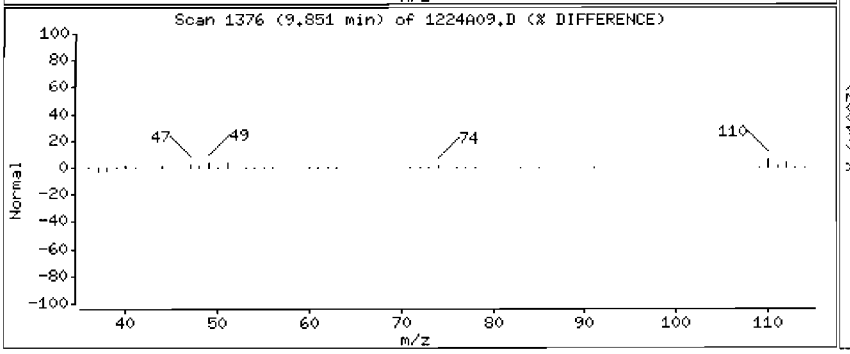
38 trans-1,3-dichloropropene

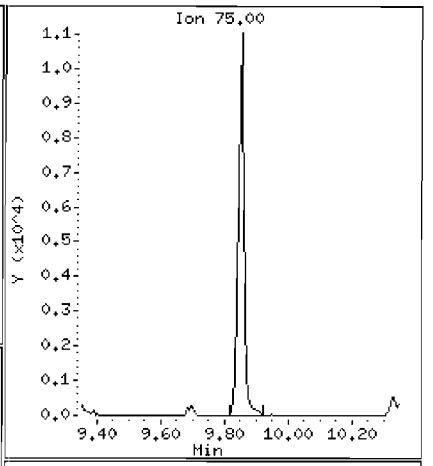
Concentration: 23.34 ngs

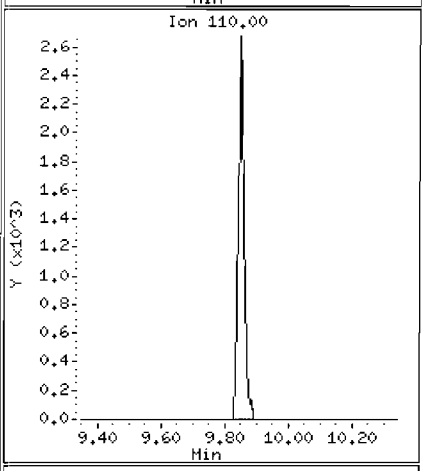


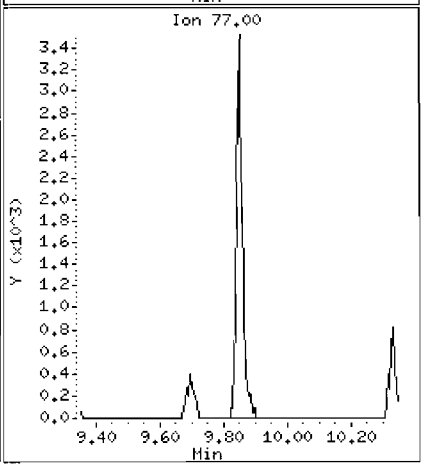












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A09.D

Date : 24-DEC-2013 13:34

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-4,31,5,,b1

Purge Volume: 5.0

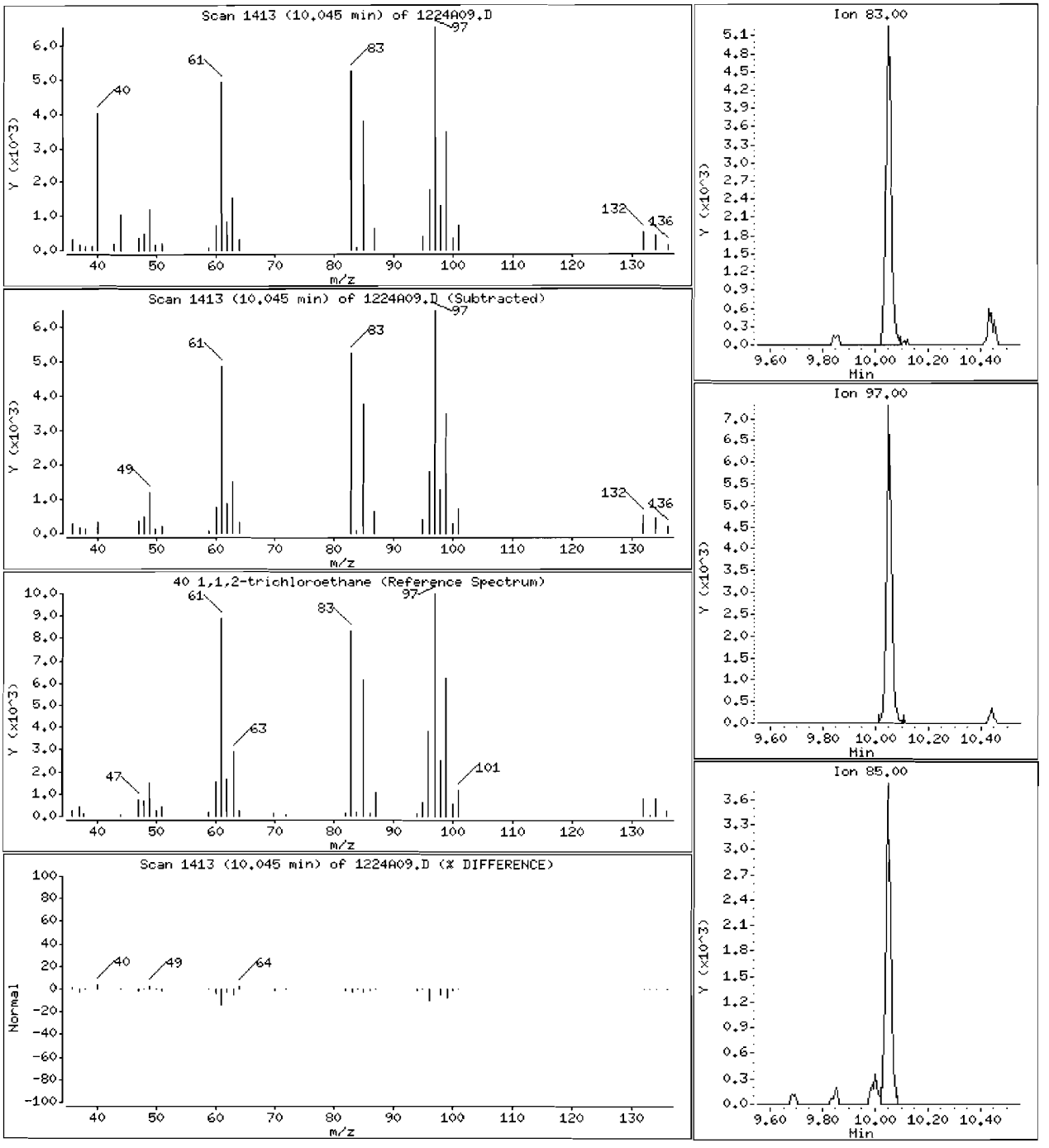
Operator: gt

Column phase:

Column diameter: 0.18

40 1,1,2-trichloroethane

Concentration: 24.47 ngs



Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A09.D

Date : 24-DEC-2013 13:34

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-4,31,5,,b1

Purge Volume: 5.0

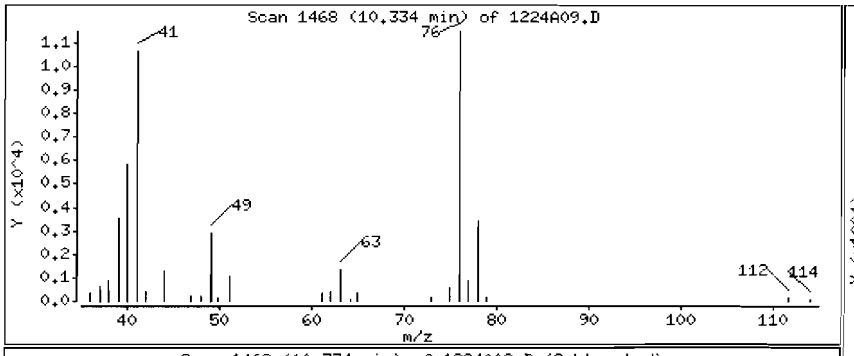
Operator: gt

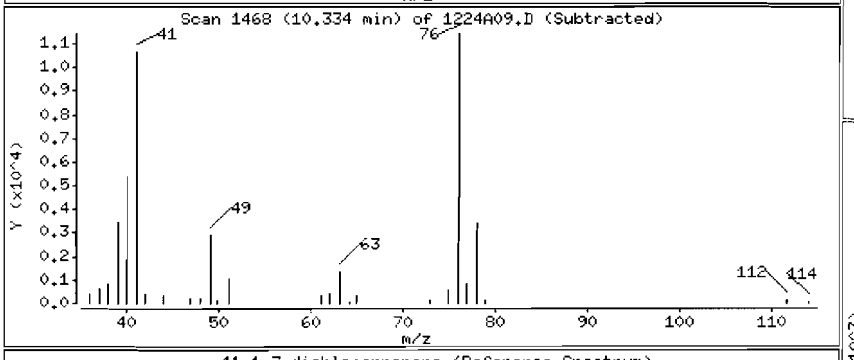
Column phase:

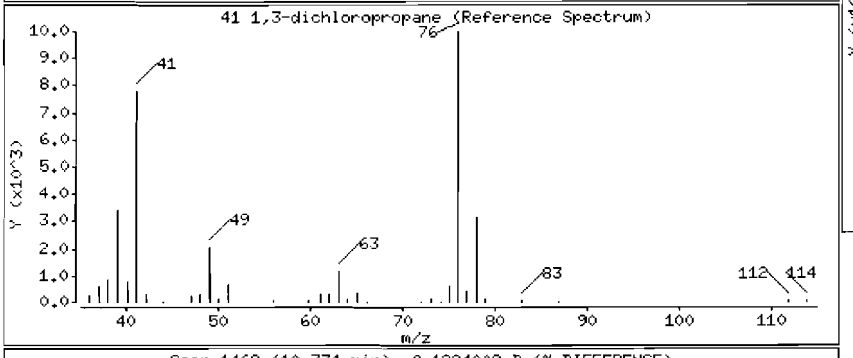
Column diameter: 0.18

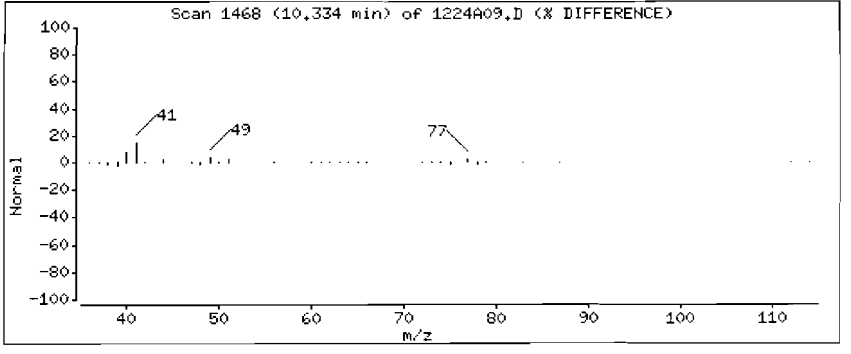
41 1,3-dichloropropane

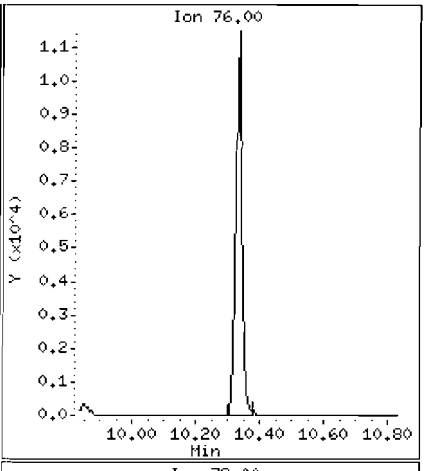
Concentration: 24.94 ngs

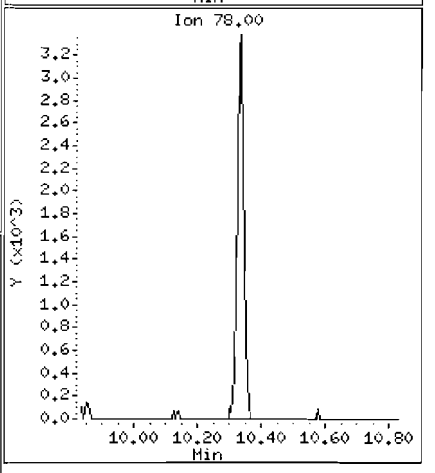












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A09.D

Date : 24-DEC-2013 13:34

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-4,31,5,,b1

Purge Volume: 5.0

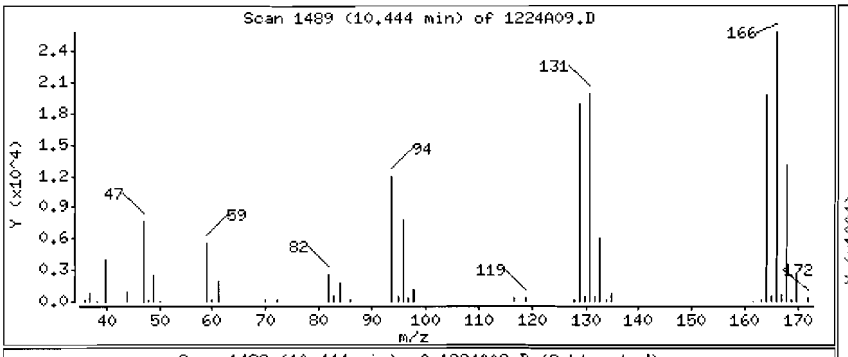
Operator: gt

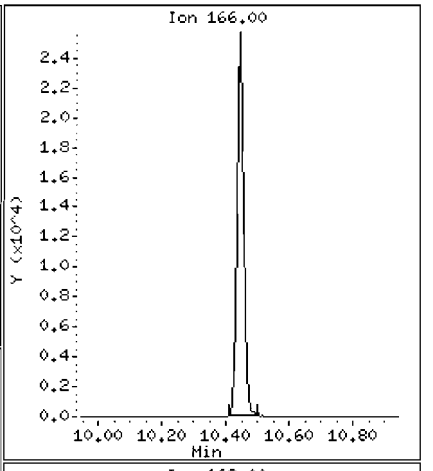
Column phase:

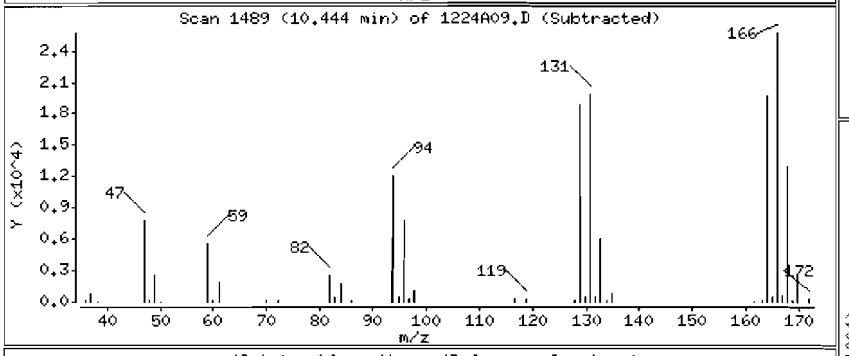
Column diameter: 0.18

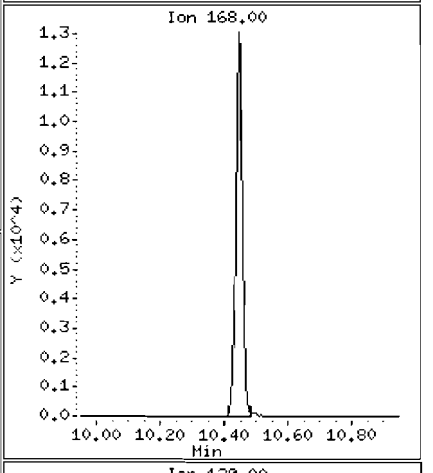
42 tetrachloroethene

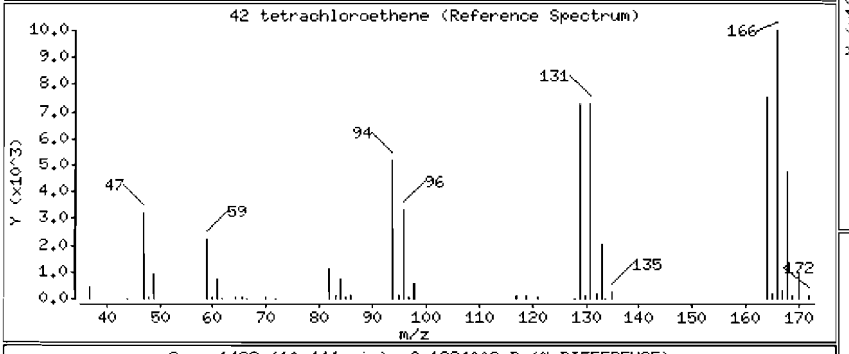
Concentration: 85.34 ngs

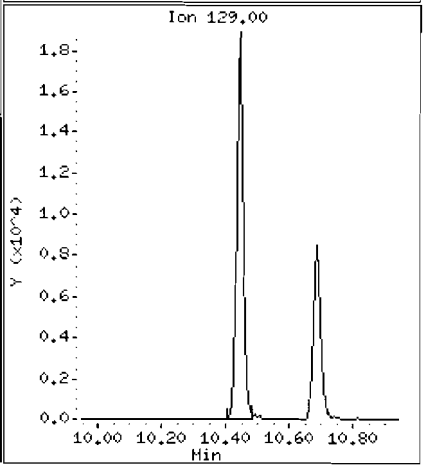


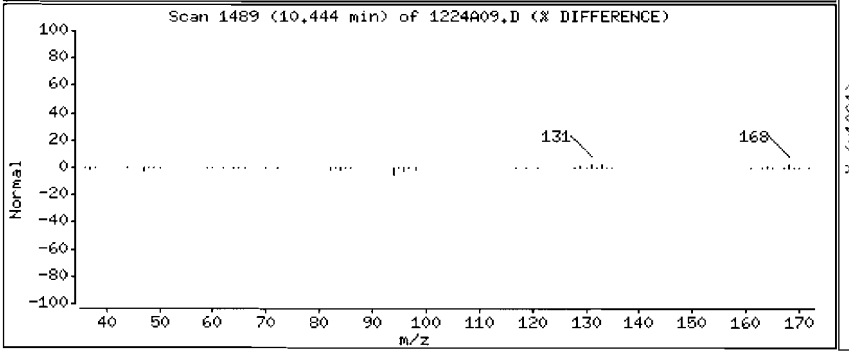












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A09.D

Date : 24-DEC-2013 13:34

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-4,31,5,,b1

Purge Volume: 5.0

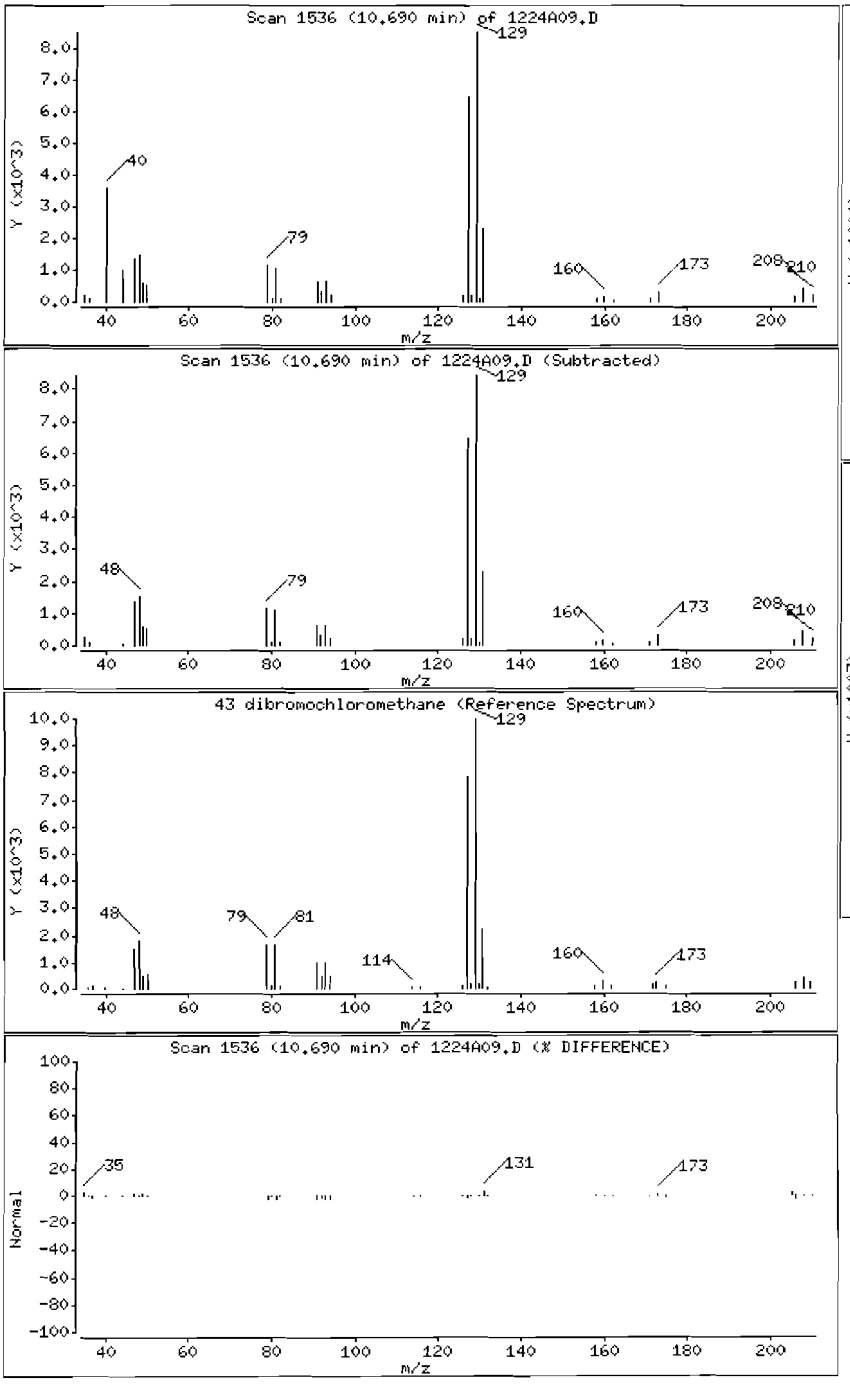
Operator: gt

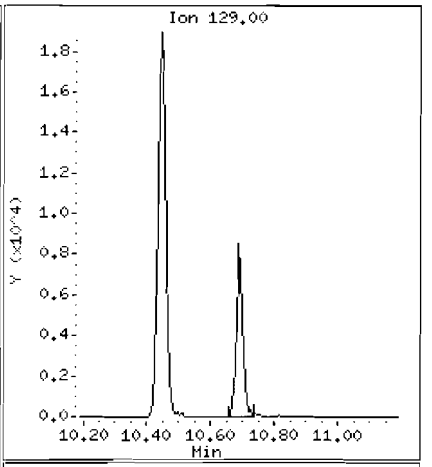
Column phase:

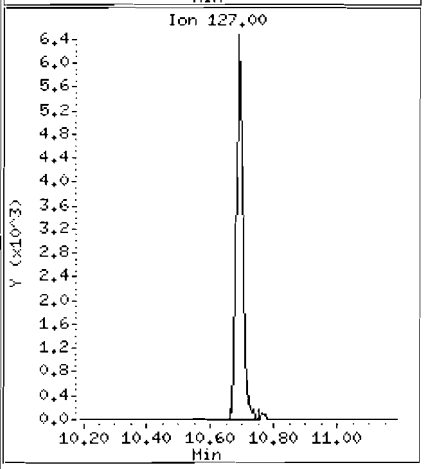
Column diameter: 0.18

43 dibromochloromethane

Concentration: 25.98 ngs







Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A09.D

Date : 24-DEC-2013 13:34

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-4,31,5,,b1

Purge Volume: 5.0

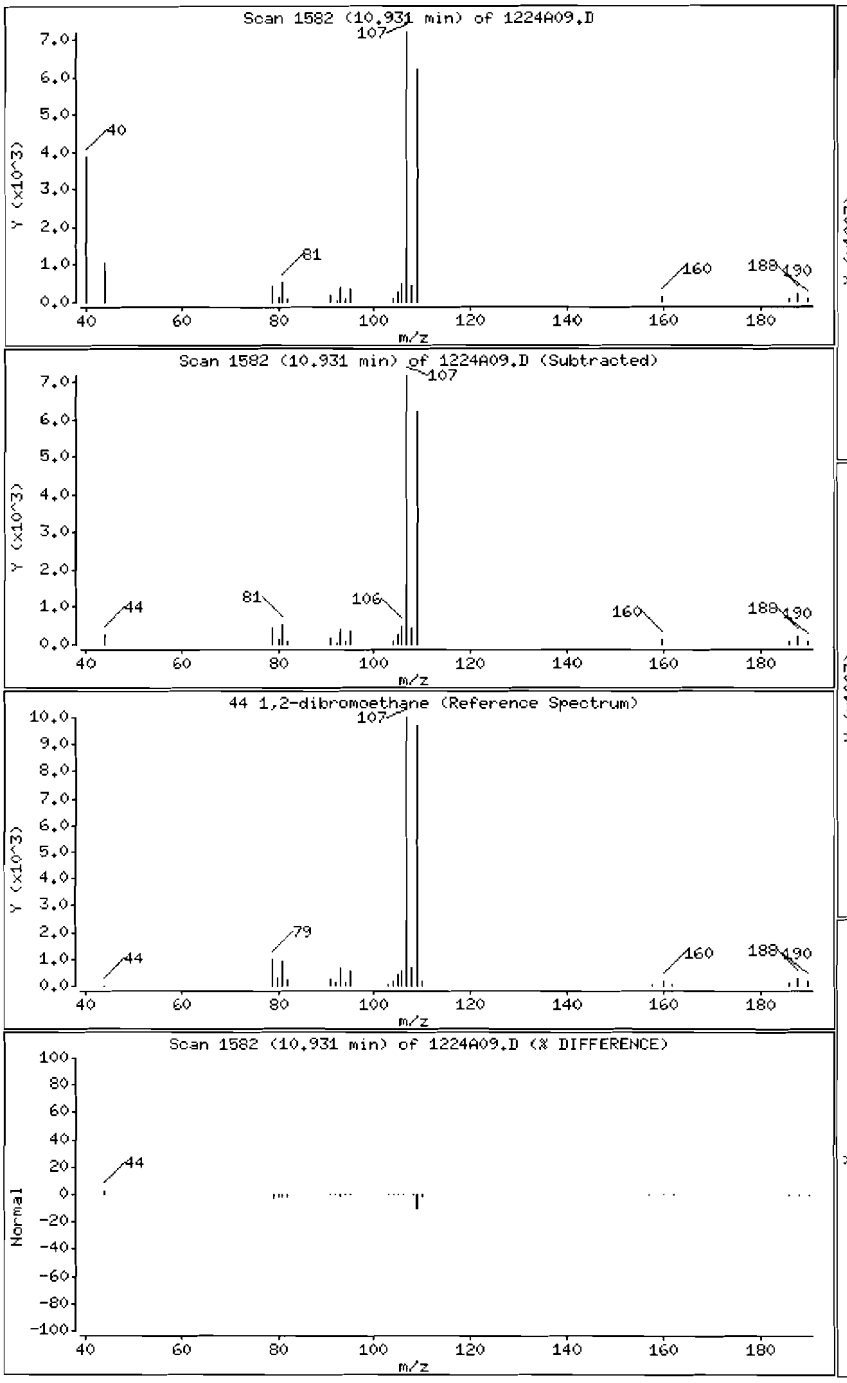
Operator: gt

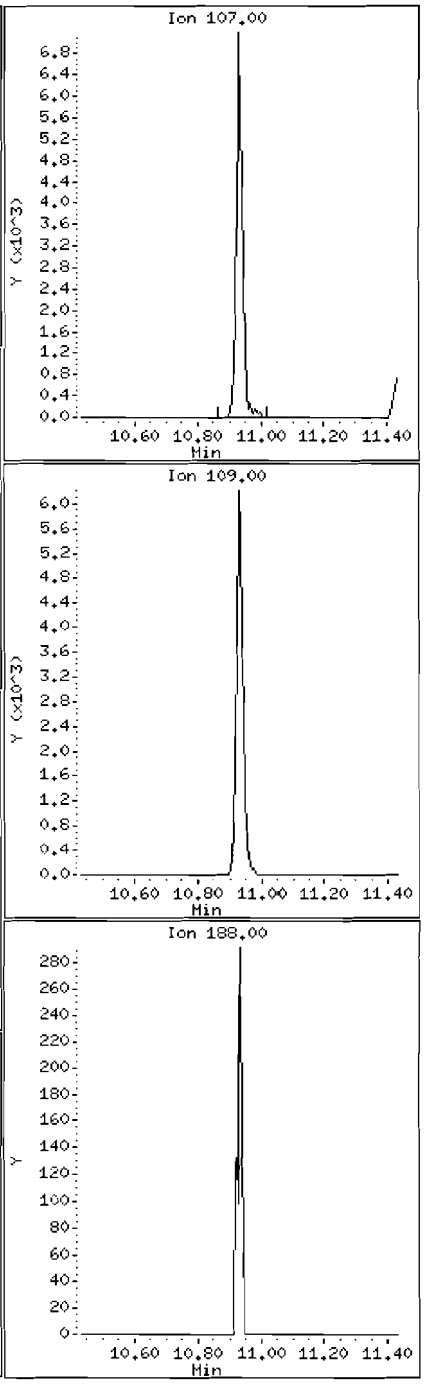
Column phase:

Column diameter: 0.18

44 1,2-dibromoethane

Concentration: 21.40 ngs





Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A09.D

Date : 24-DEC-2013 13:34

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-4,31,5,,b1

Purge Volume: 5.0

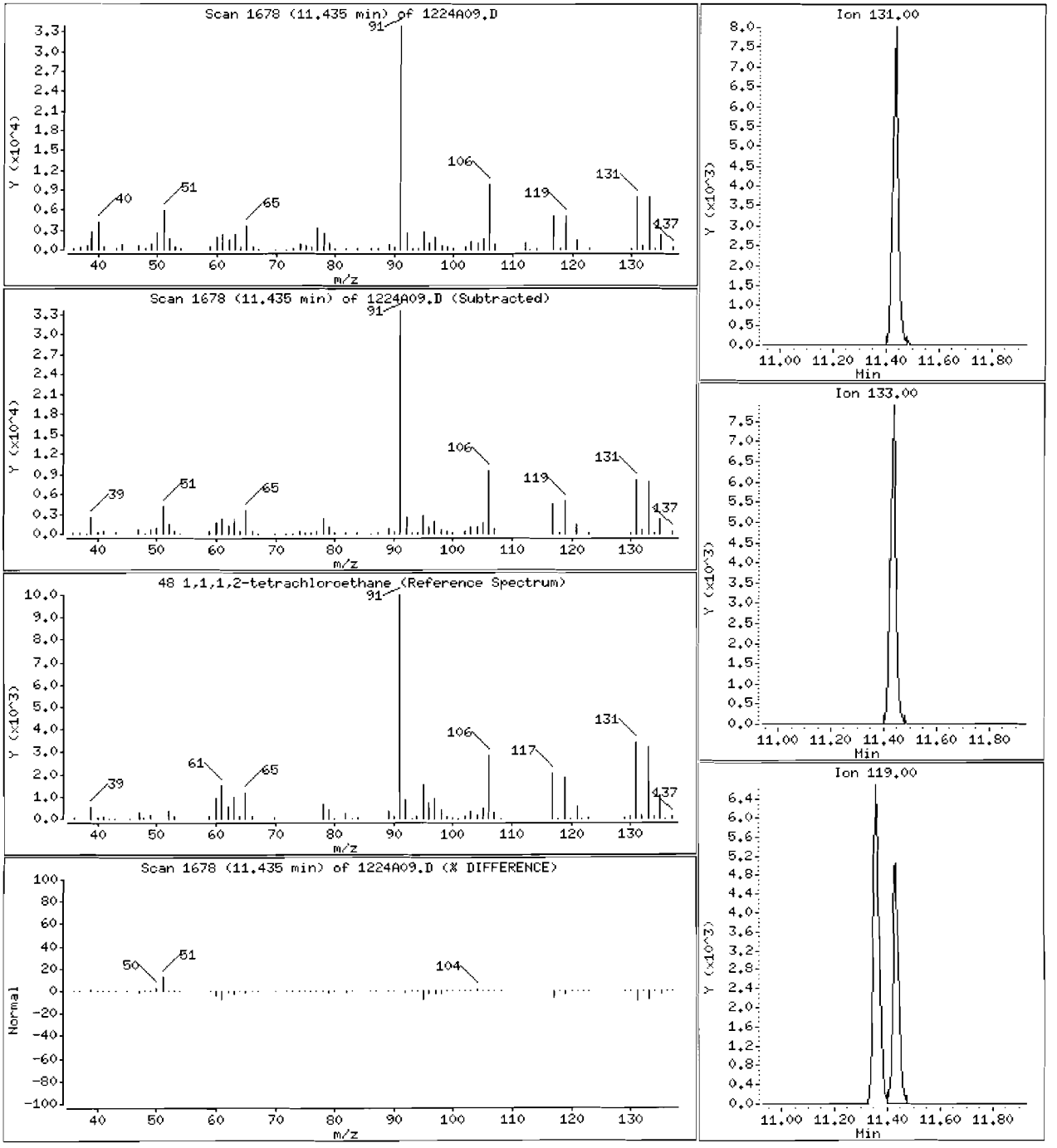
Operator: gt

Column phase:

Column diameter: 0.18

48 1,1,1,2-tetrachloroethane

Concentration: 23.15 ngs



Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A09.D

Date : 24-DEC-2013 13:34

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-4,31,5,,b1

Purge Volume: 5.0

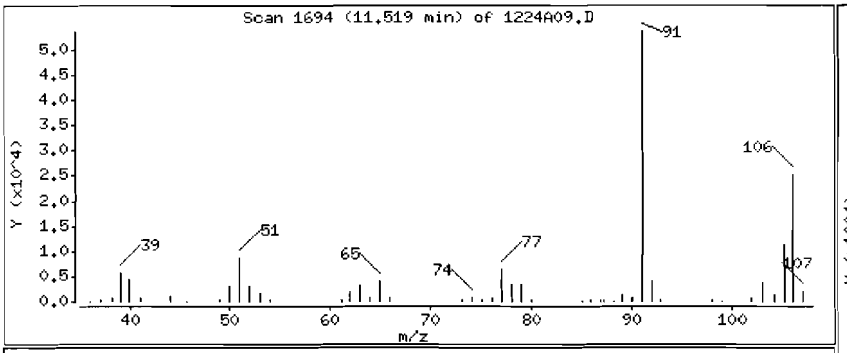
Operator: gt

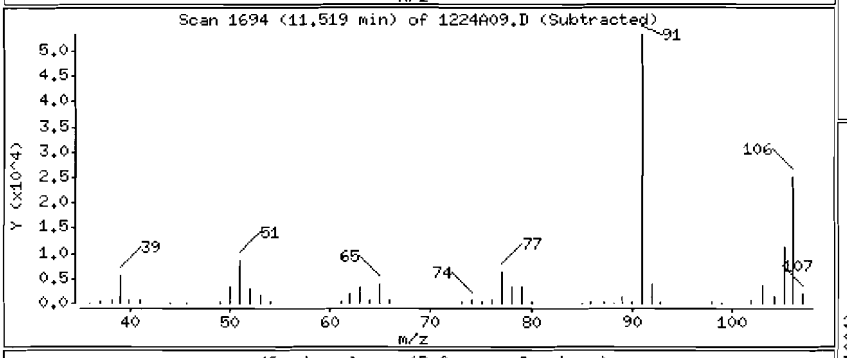
Column phase:

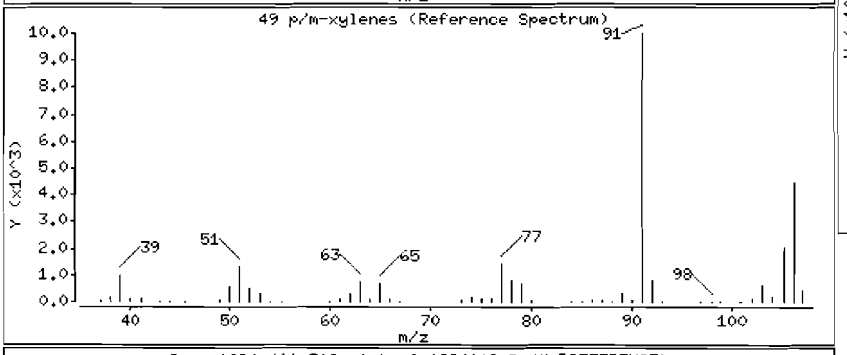
Column diameter: 0.18

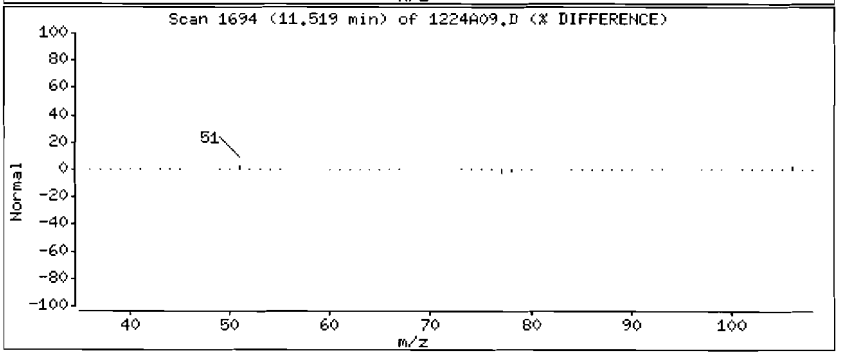
49 p/m-xylenes

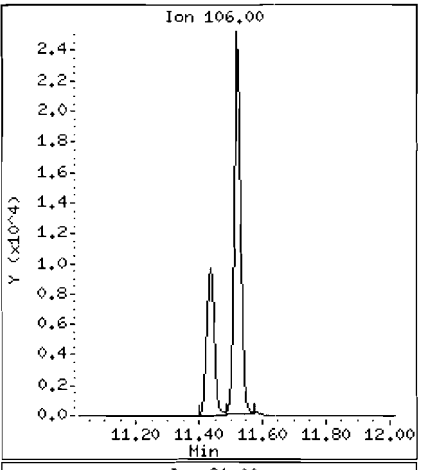
Concentration: 42.25 ngs

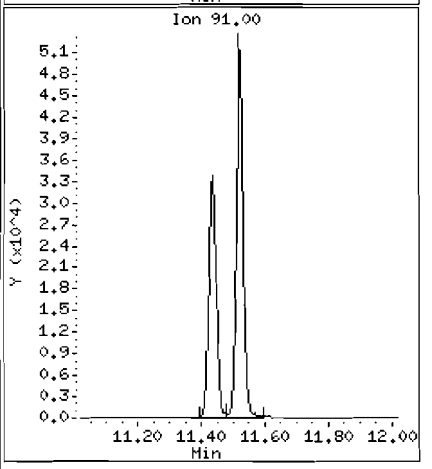












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A09.D

Date : 24-DEC-2013 13:34

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-4,31,5,,b1

Purge Volume: 5.0

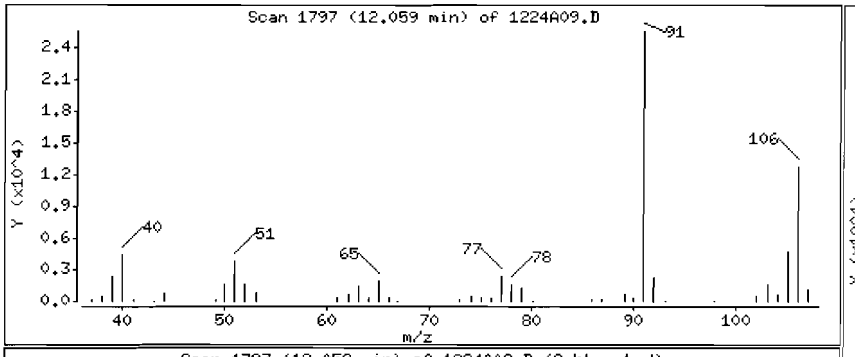
Operator: gt

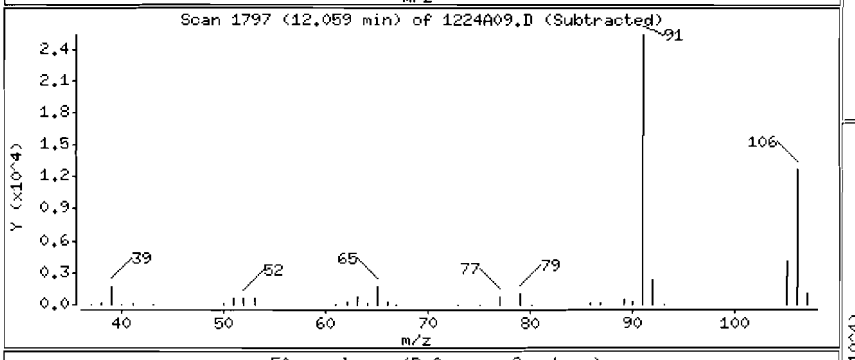
Column phase:

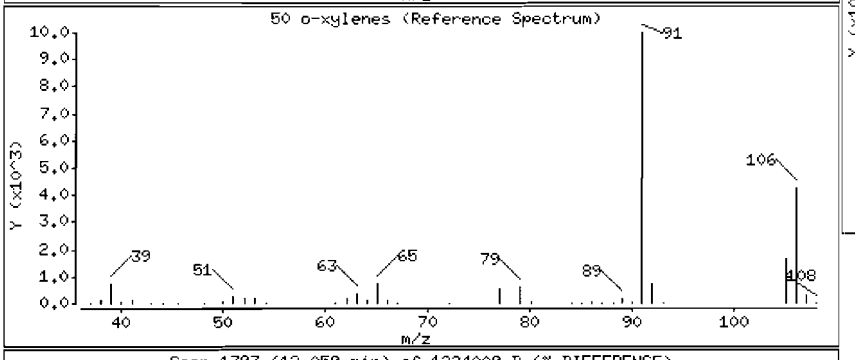
Column diameter: 0.18

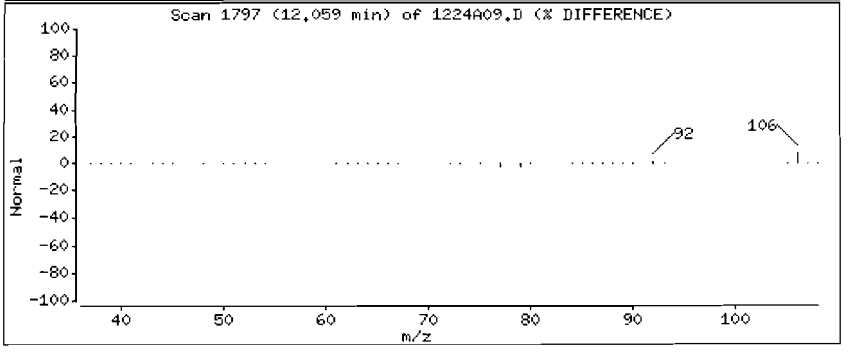
50 o-xylenes

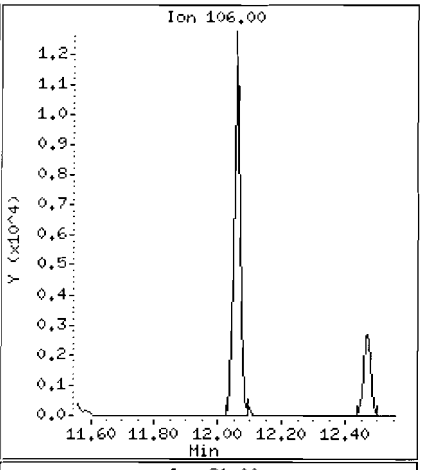
Concentration: 20.11 ngs

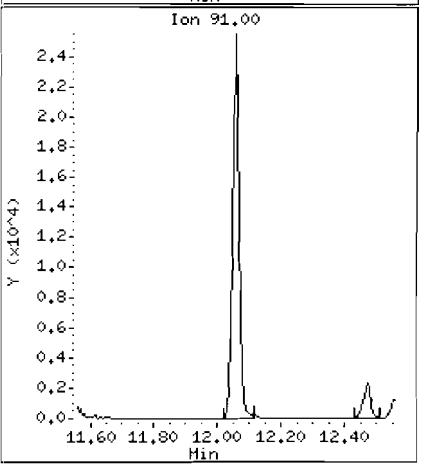












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A09.D

Date : 24-DEC-2013 13:34

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-4,31,5,,b1

Purge Volume: 5.0

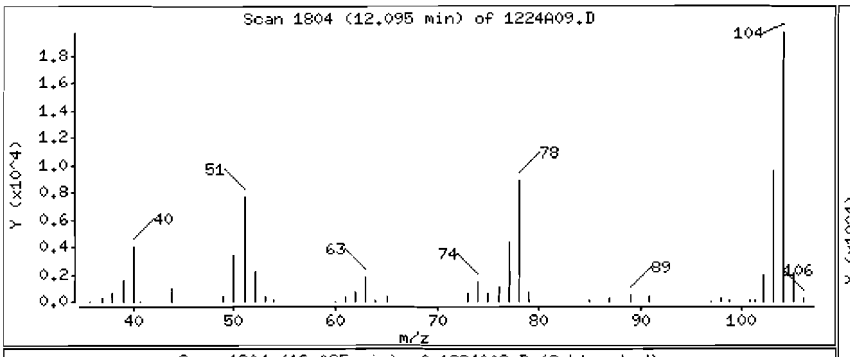
Operator: gt

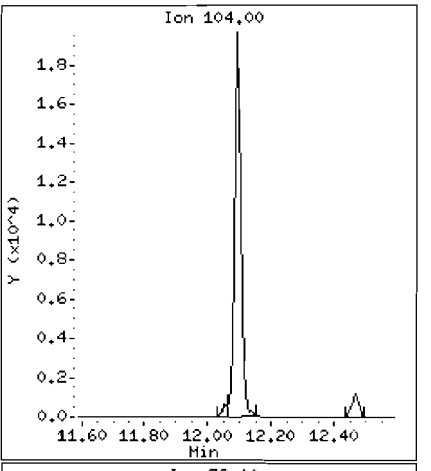
Column phase:

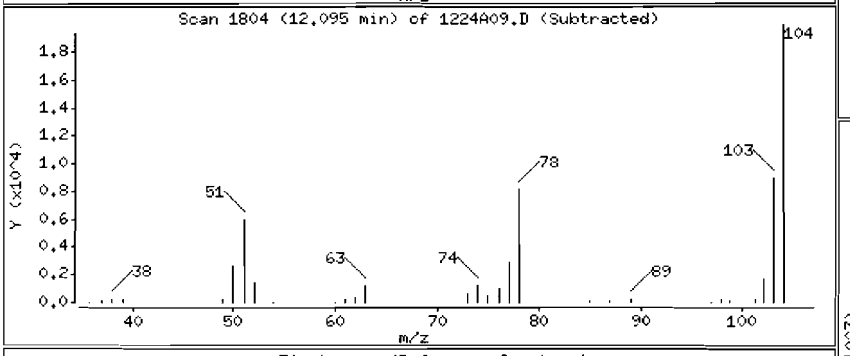
Column diameter: 0.18

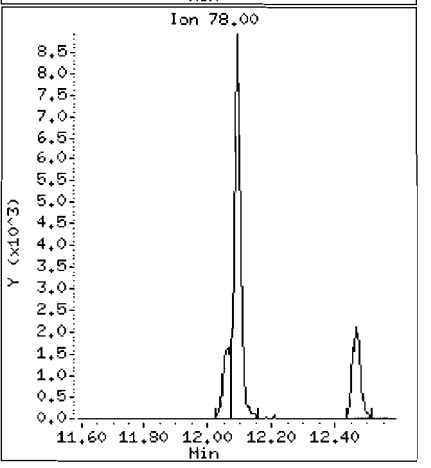
51 styrene

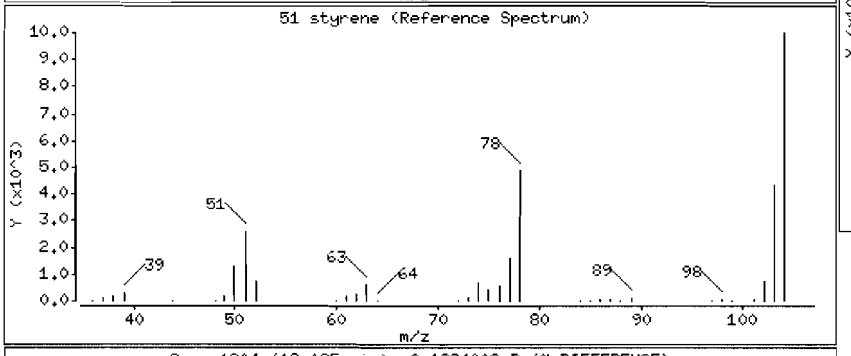
Concentration: 19.36 ngs

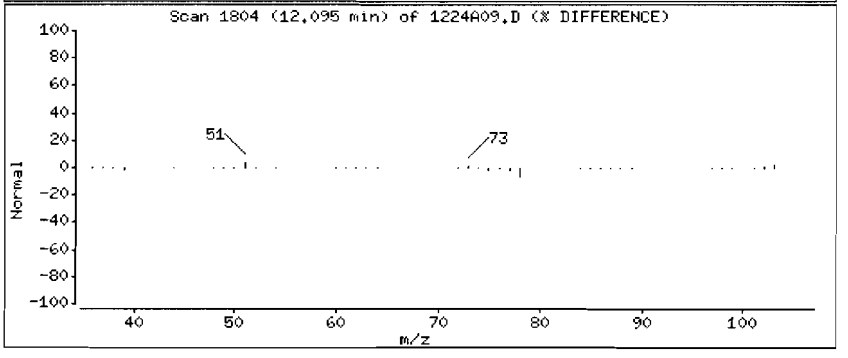












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A09.D

Date : 24-DEC-2013 13:34

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-4,31,5,,b1

Purge Volume: 5.0

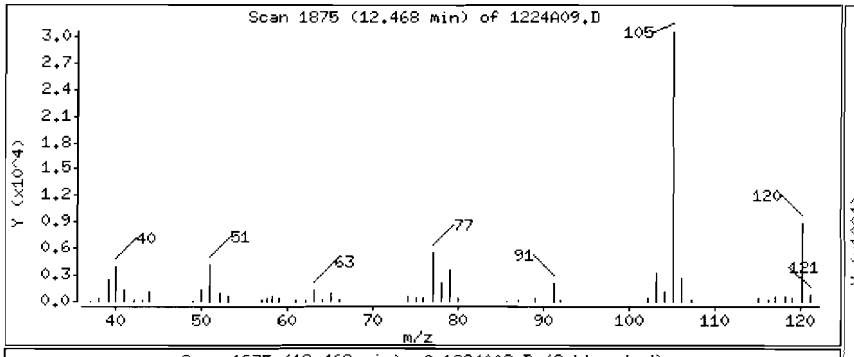
Operator: gt

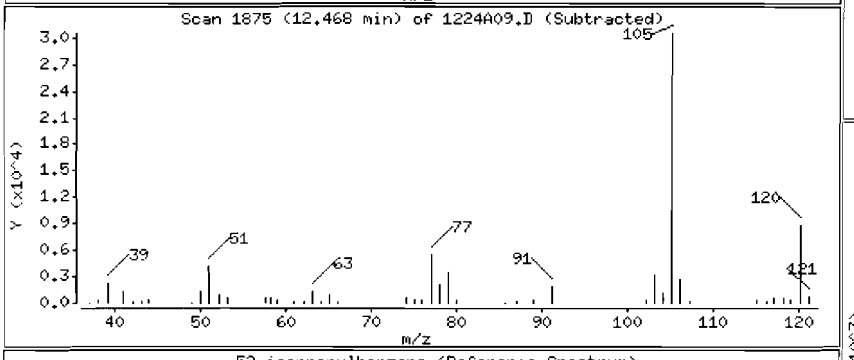
Column phase:

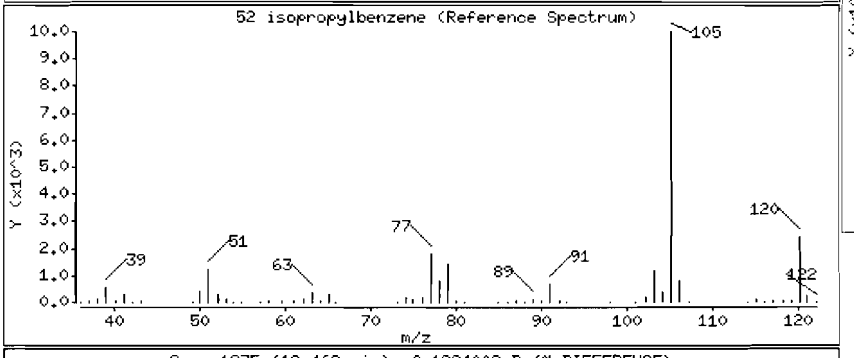
Column diameter: 0.18

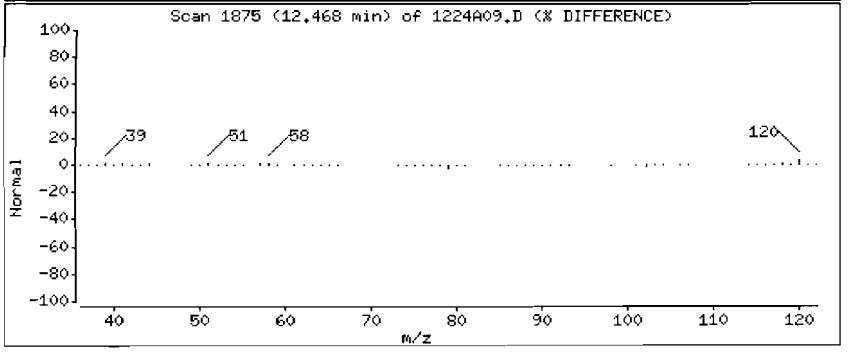
52 isopropylbenzene

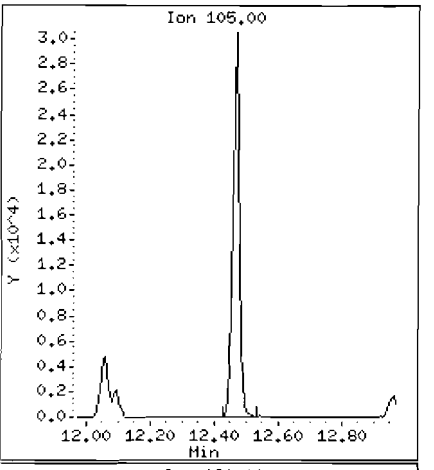
Concentration: 20.35 ngs

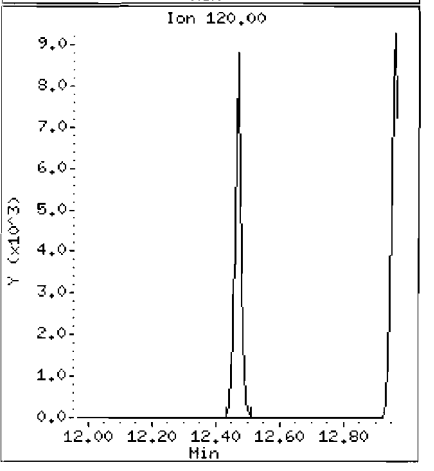












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A09.D

Date : 24-DEC-2013 13:34

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-4,31,5,,b1

Purge Volume: 5.0

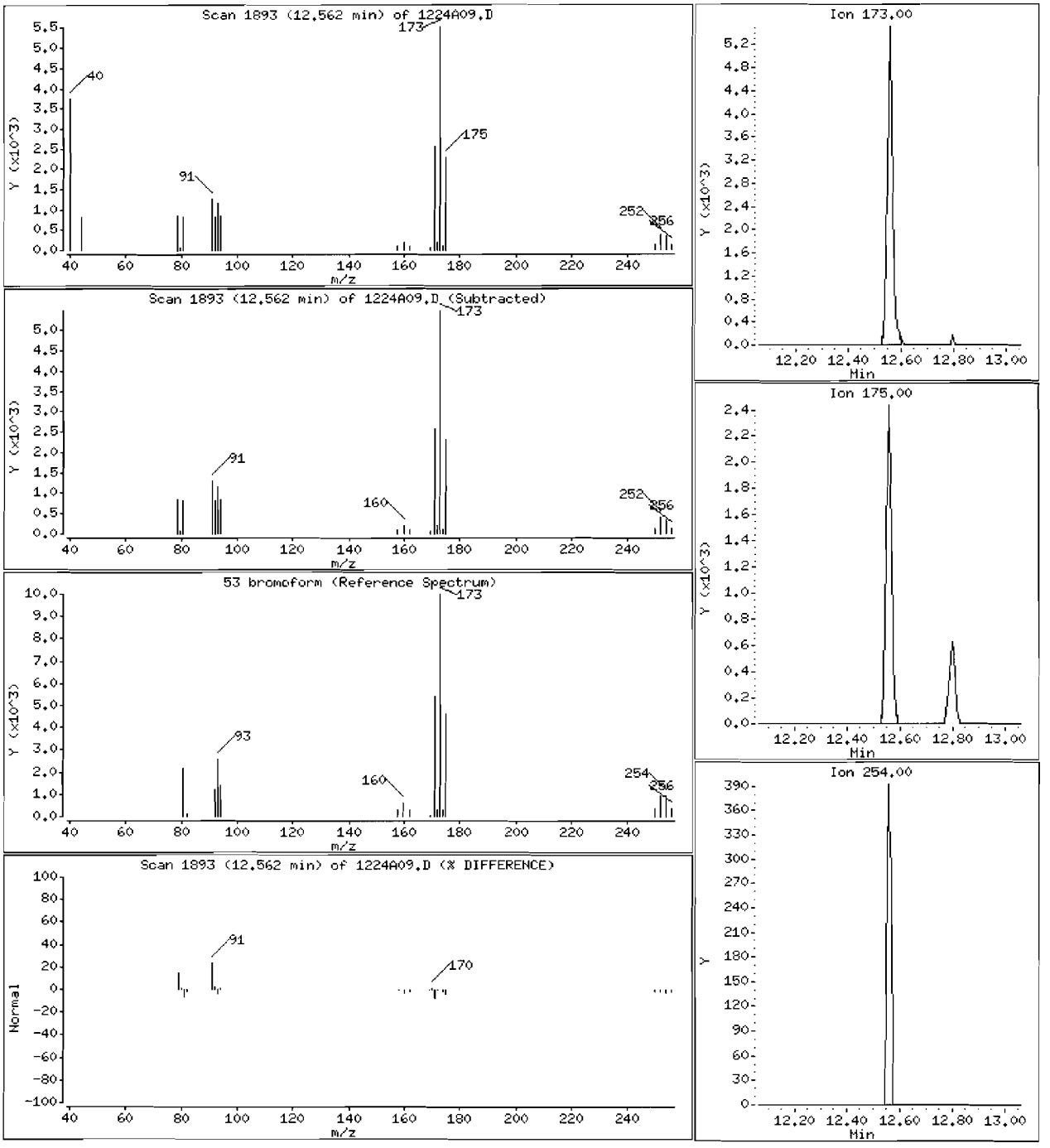
Operator: gt

Column phase:

Column diameter: 0.18

53 bromoform

Concentration: 23.78 ngs



Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A09.D

Date : 24-DEC-2013 13:34

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-4,31,5,,b1

Purge Volume: 5.0

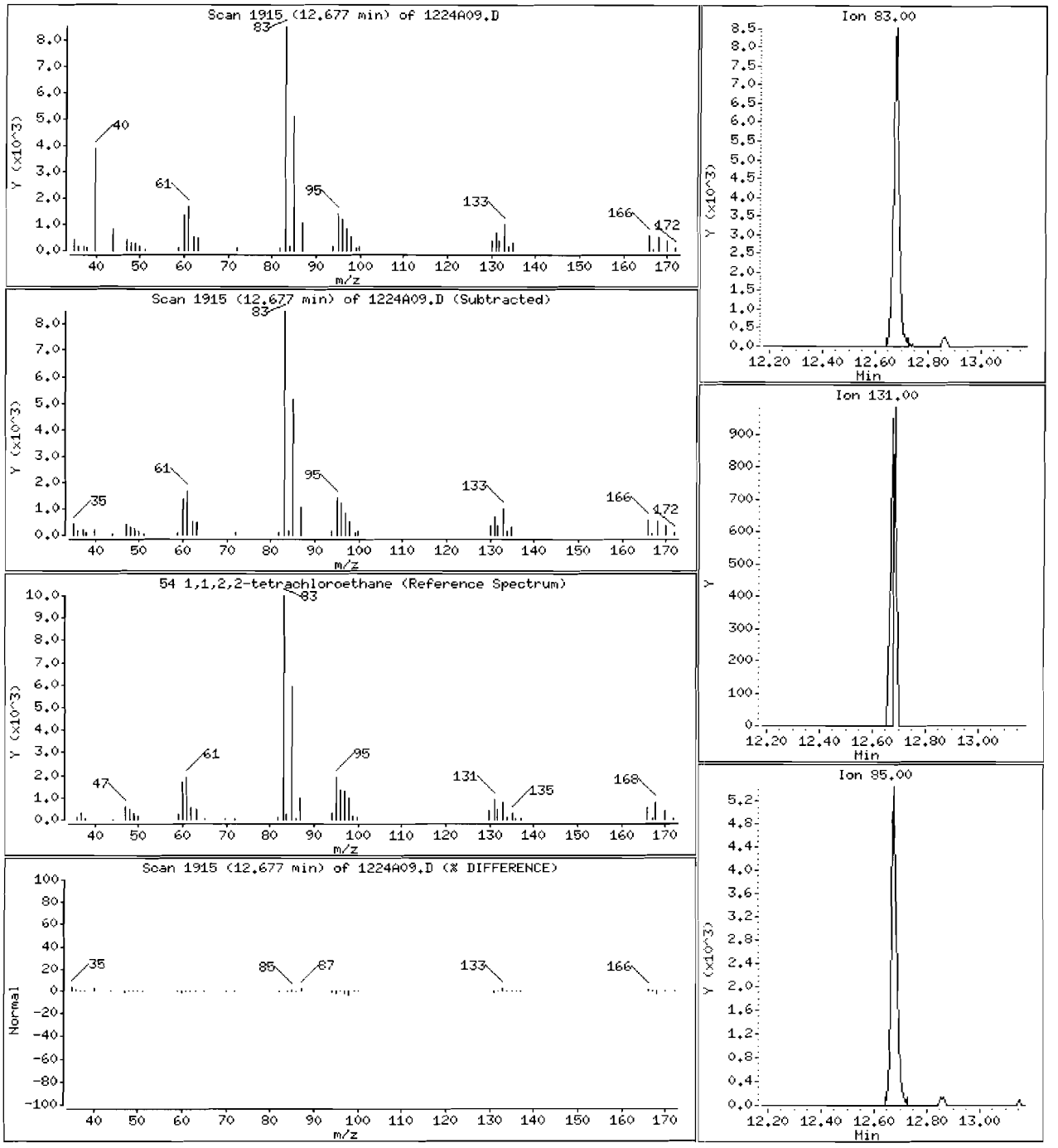
Operator: gt

Column phase:

Column diameter: 0.18

54 1,1,2,2-tetrachloroethane

Concentration: 21.85 ngs



Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A09.D

Date : 24-DEC-2013 13:34

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-4,31,5,,b1

Purge Volume: 5.0

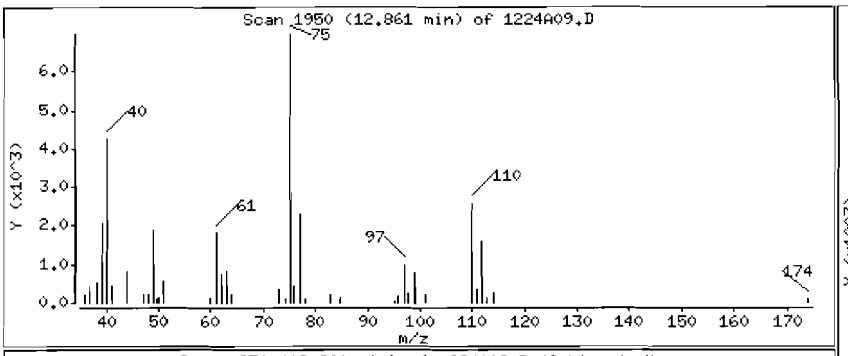
Operator: gt

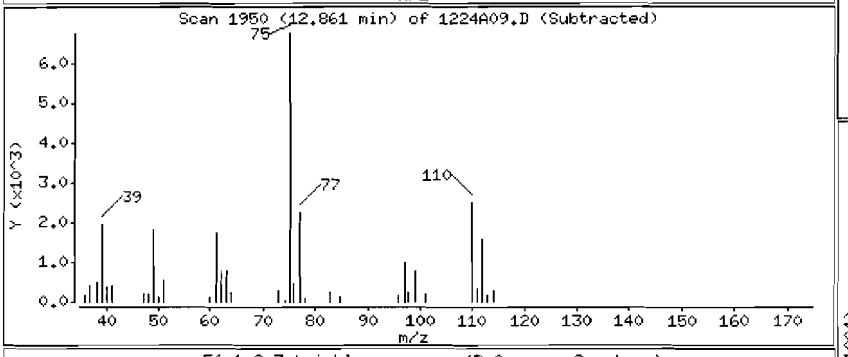
Column phase:

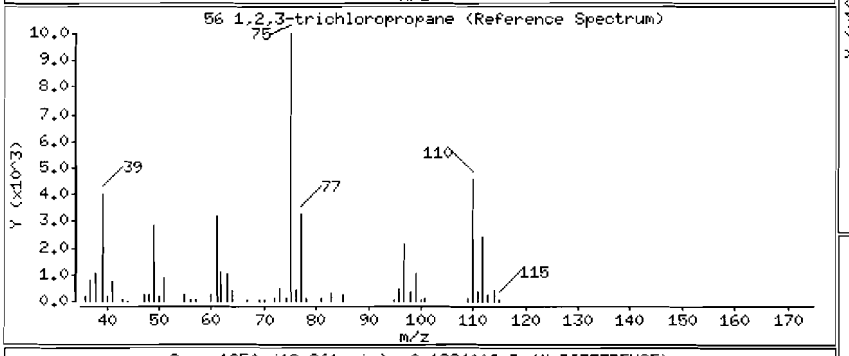
Column diameter: 0.18

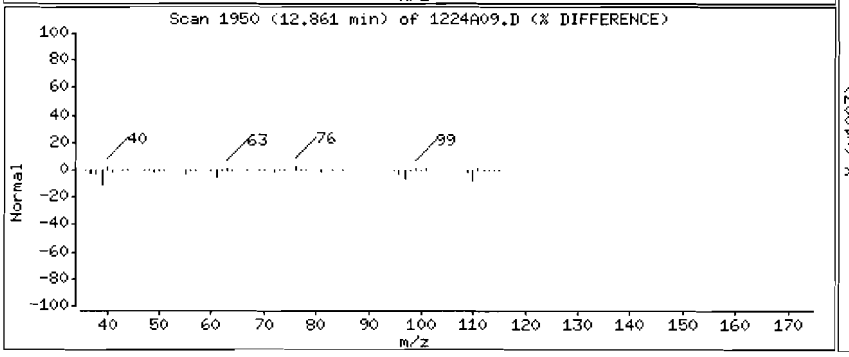
56 1,2,3-trichloropropane

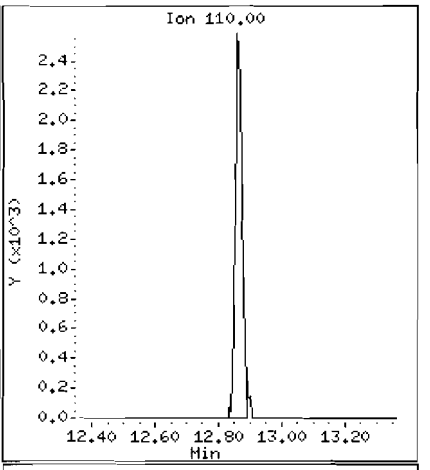
Concentration: 23.78 ngs

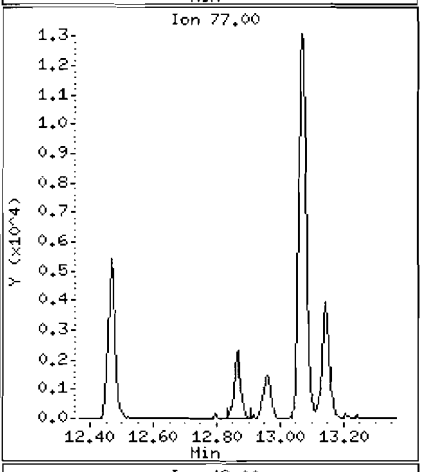


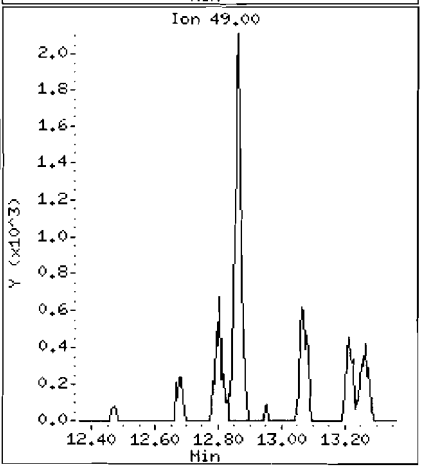












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A09.D

Date : 24-DEC-2013 13:34

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-4,31,5,,b1

Purge Volume: 5.0

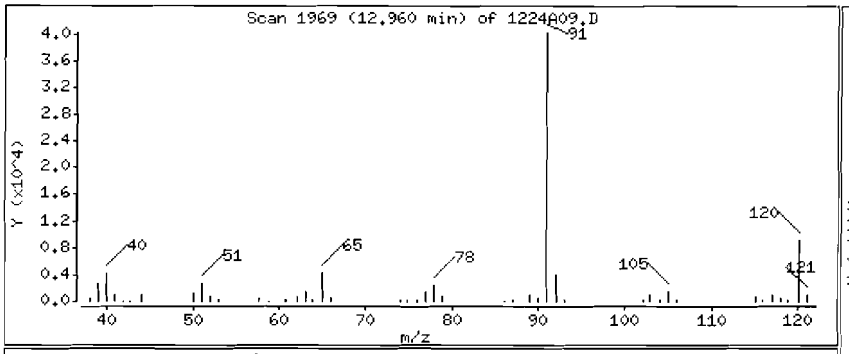
Operator: gt

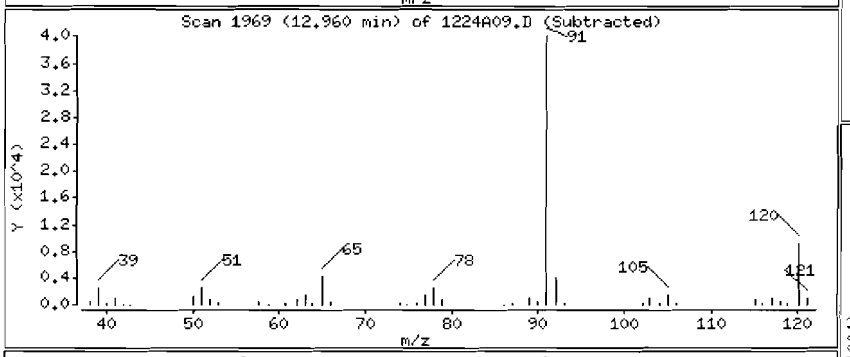
Column phase:

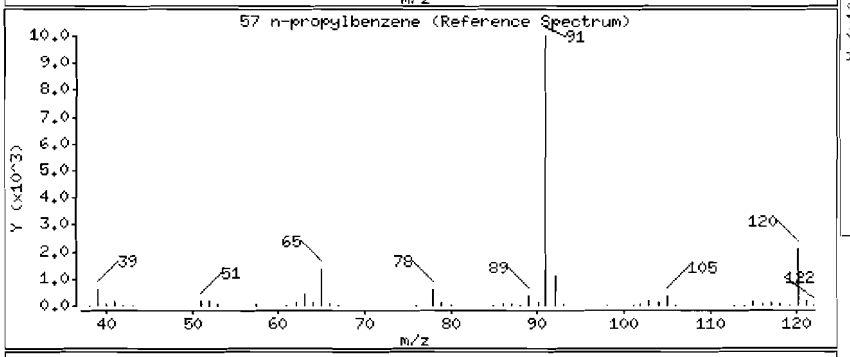
Column diameter: 0.18

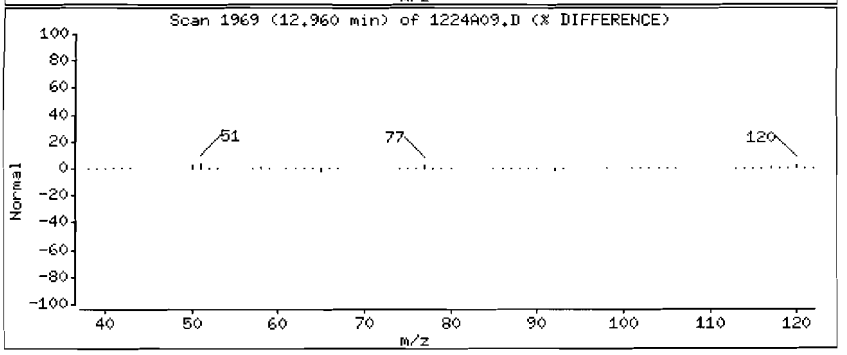
57 n-propylbenzene

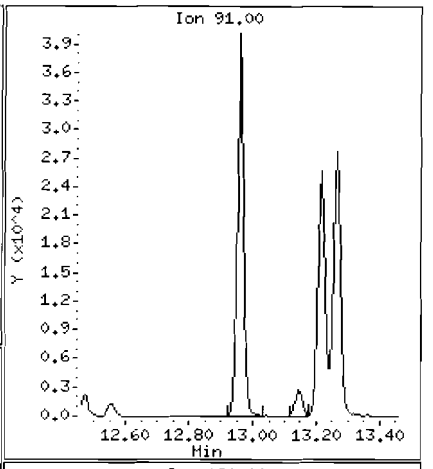
Concentration: 21.23 ngs

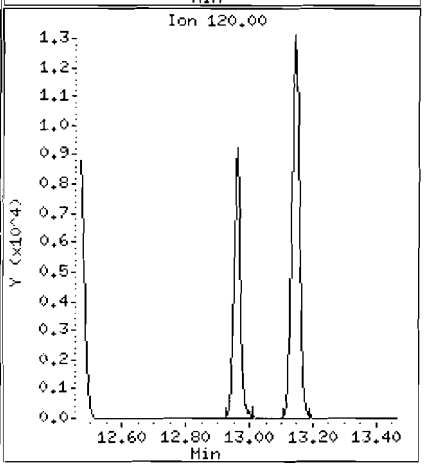












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A09.D

Date : 24-DEC-2013 13:34

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-4,31,5,,b1

Purge Volume: 5.0

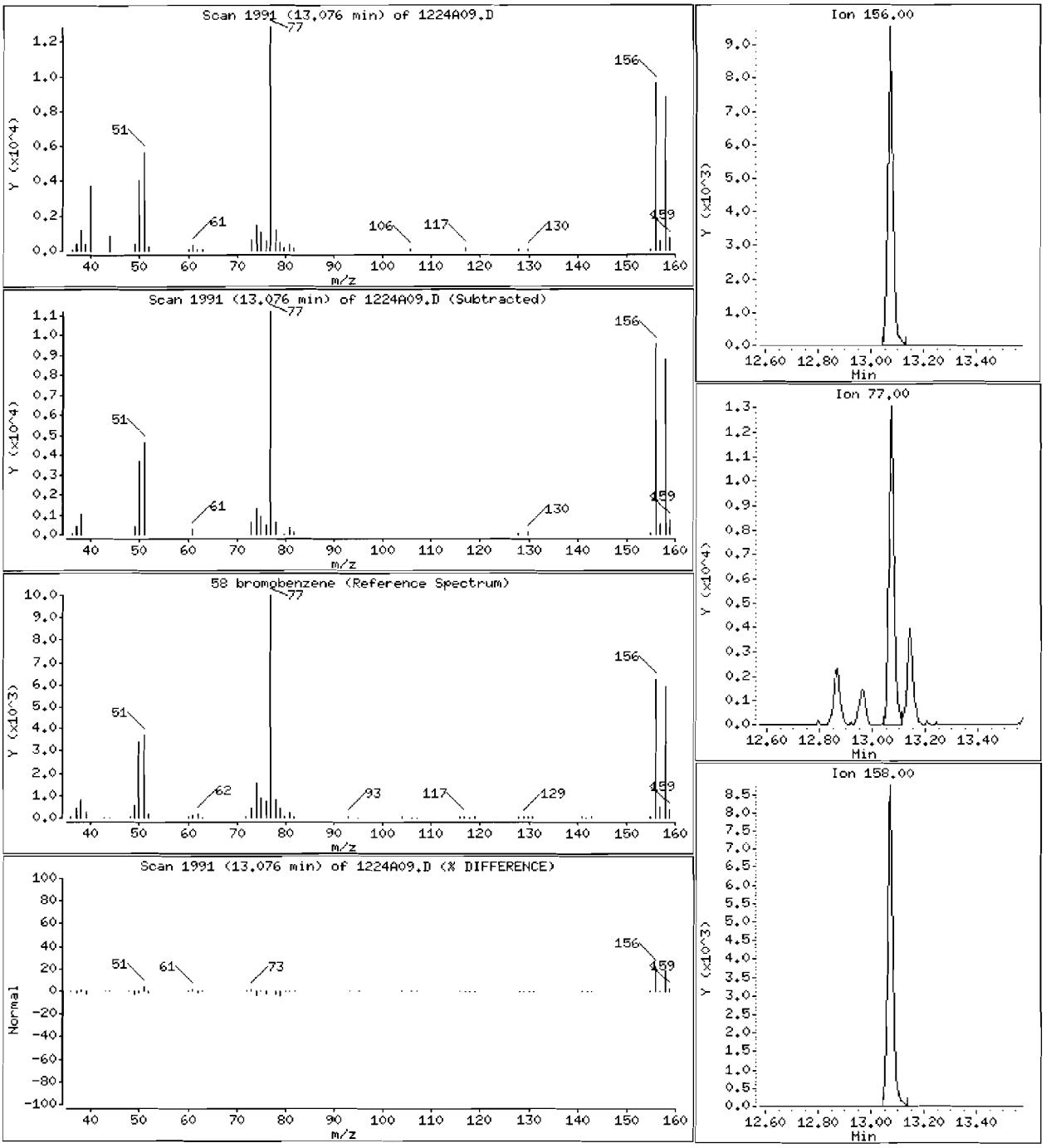
Operator: gt

Column phase:

Column diameter: 0.18

58 bromobenzene

Concentration: 22.10 ngs



Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A09.D

Date : 24-DEC-2013 13:34

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-4,31,5,,b1

Purge Volume: 5.0

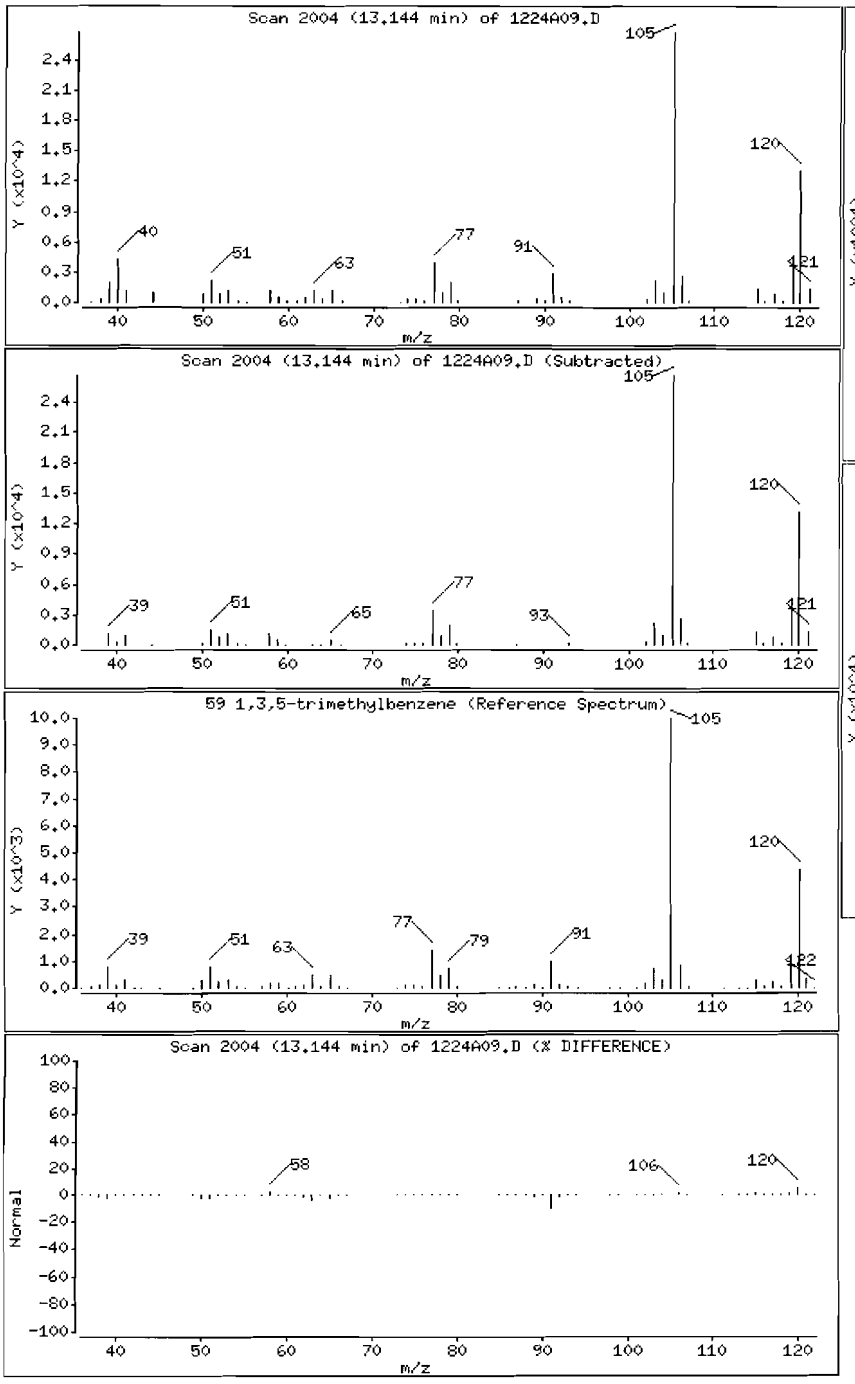
Operator: gt

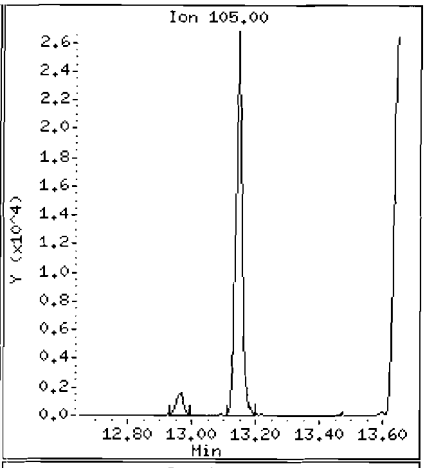
Column phase:

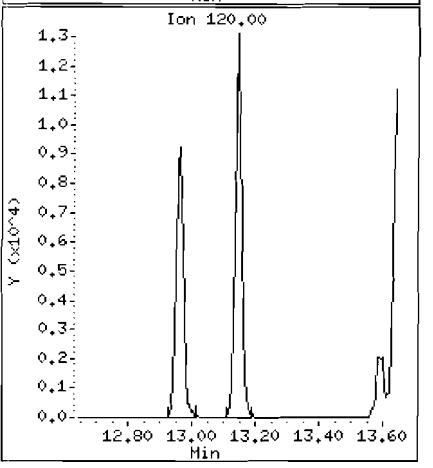
Column diameter: 0.18

59 1,3,5-trimethylbenzene

Concentration: 20.66 ngs







Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A09.D

Date : 24-DEC-2013 13:34

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-4,31,5,,b1

Purge Volume: 5.0

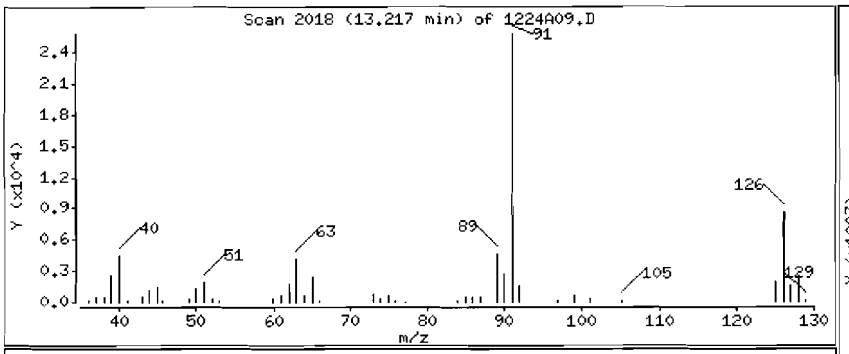
Operator: gt

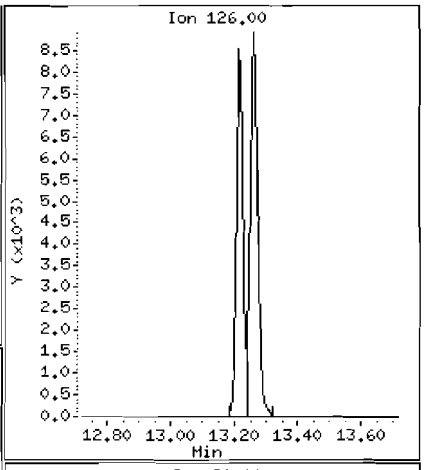
Column phase:

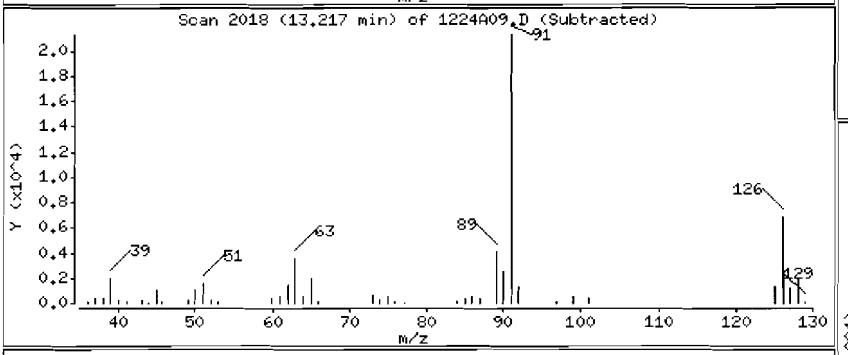
Column diameter: 0.18

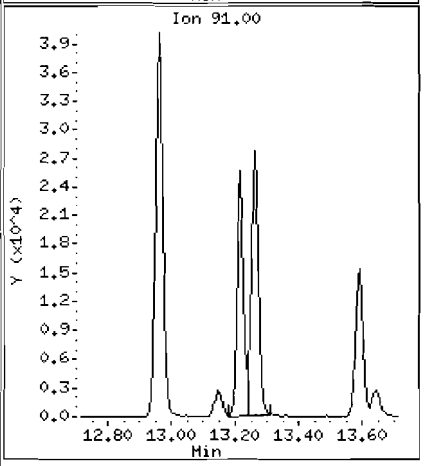
60 o-chlorotoluene

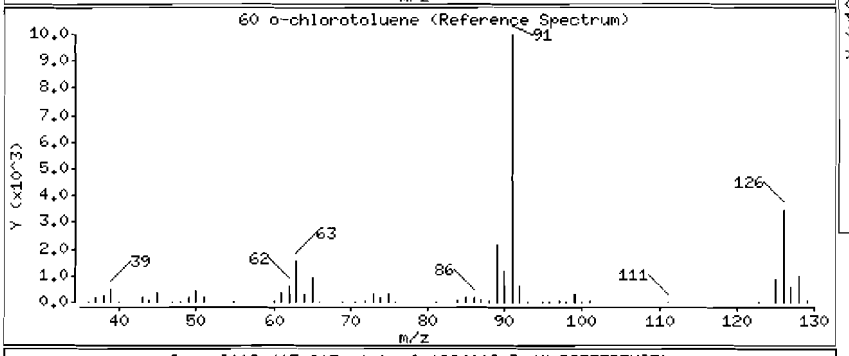
Concentration: 24.06 ngs

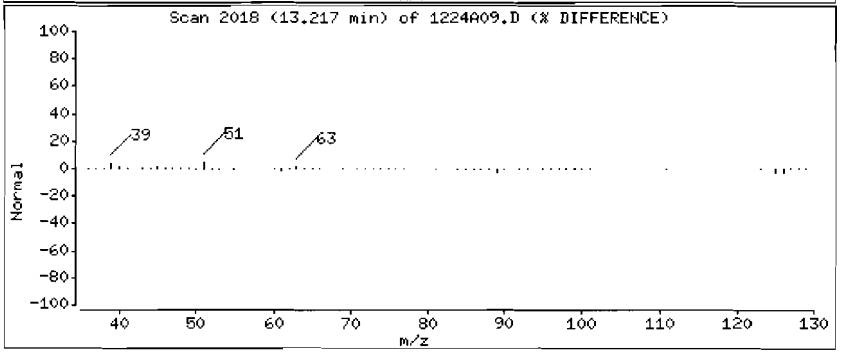












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A09.D

Date : 24-DEC-2013 13:34

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-4,31,5,,b1

Purge Volume: 5.0

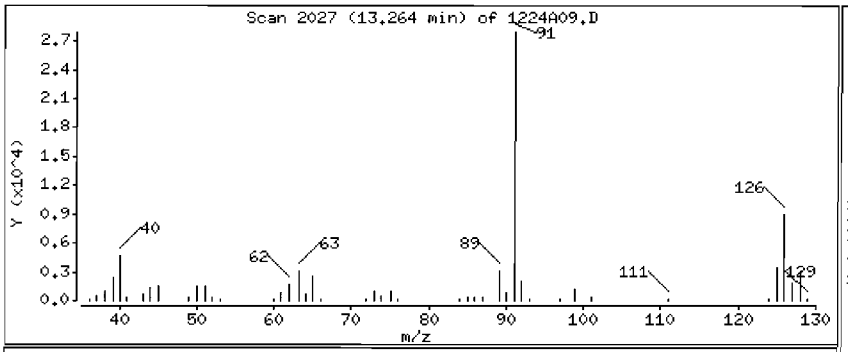
Operator: gt

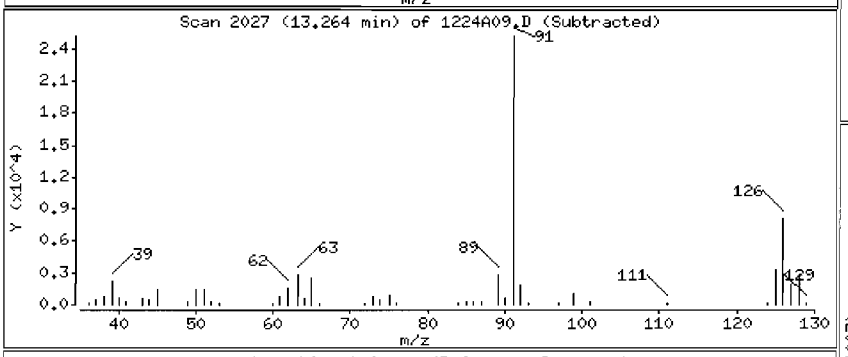
Column phase:

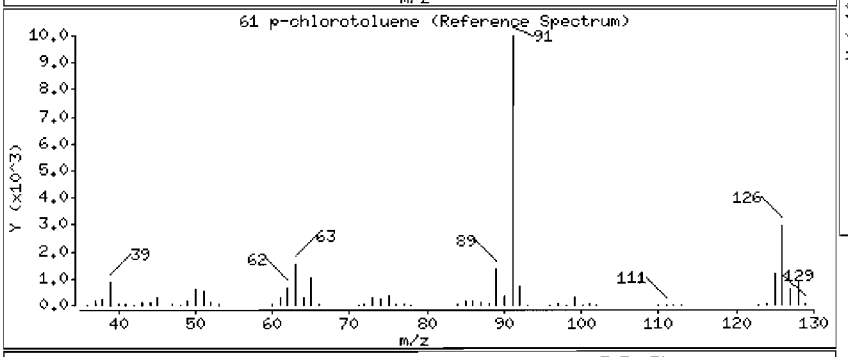
Column diameter: 0.18

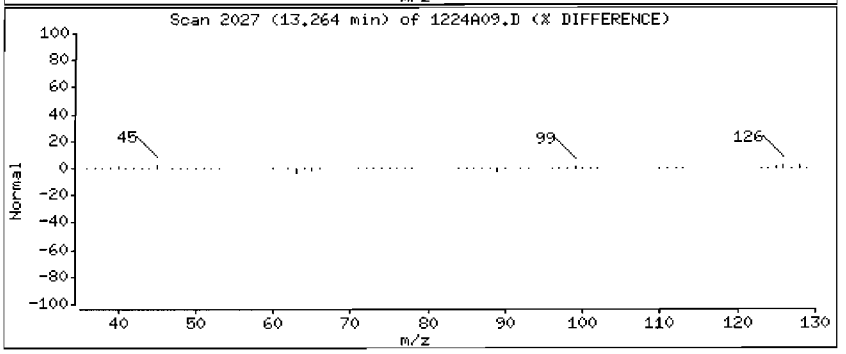
61 p-chlorotoluene

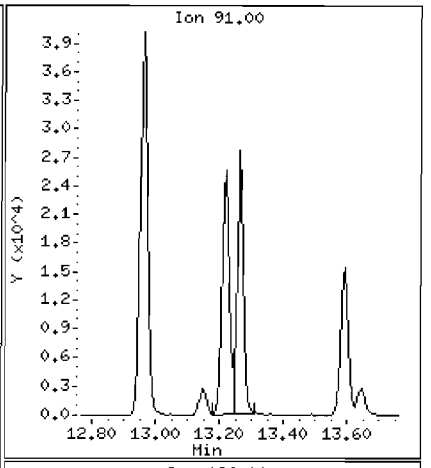
Concentration: 22.41 ngs

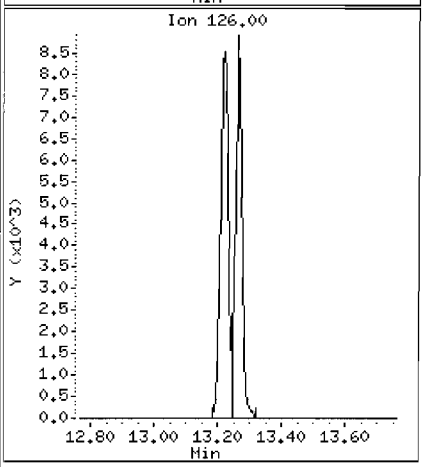












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A09.D

Date : 24-DEC-2013 13:34

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-4,31,5,,b1

Purge Volume: 5.0

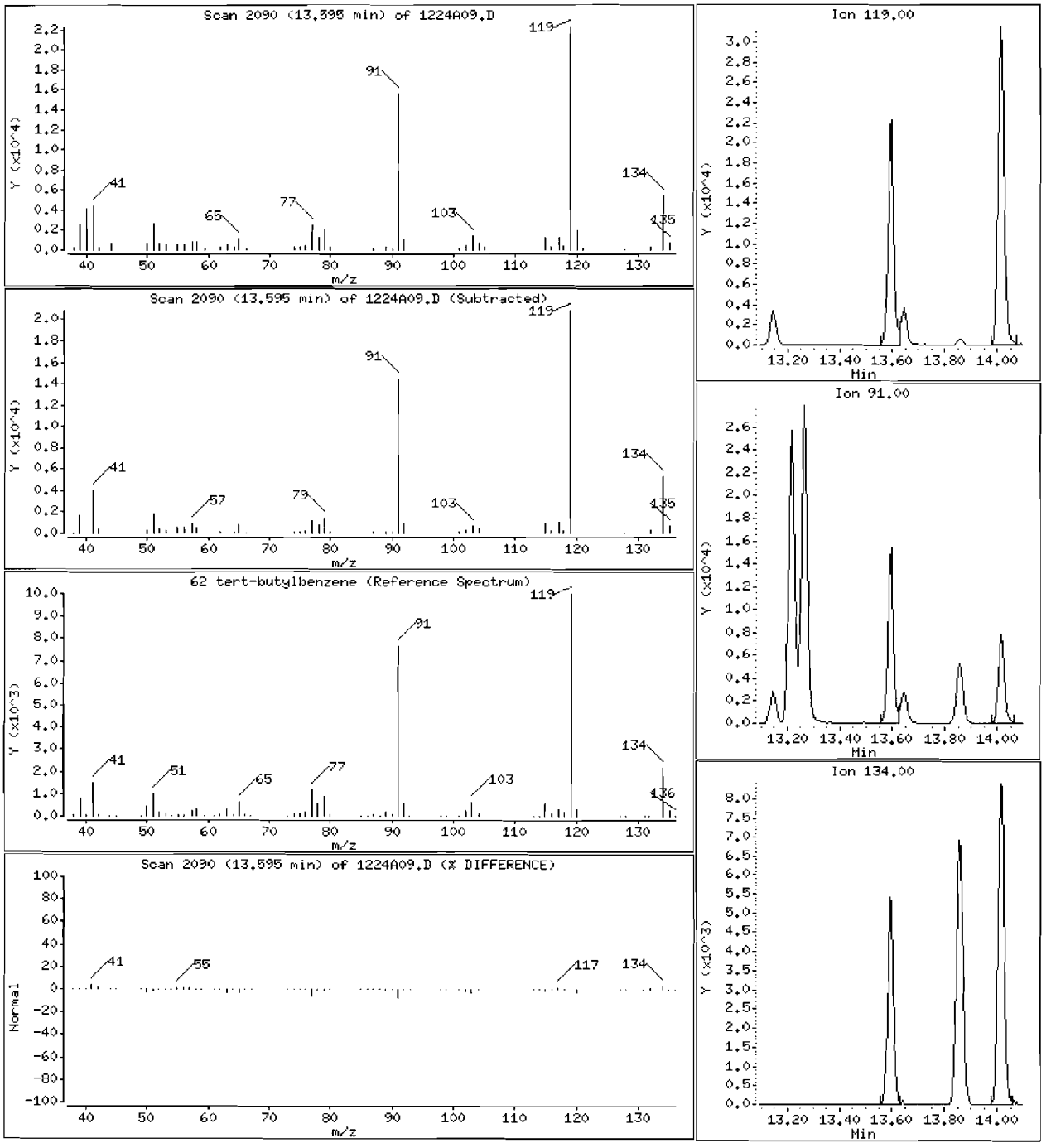
Operator: gt

Column phase:

Column diameter: 0.18

62 tert-butylbenzene

Concentration: 20.91 ngs



Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A09.D

Date : 24-DEC-2013 13:34

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-4,31,5,,b1

Purge Volume: 5.0

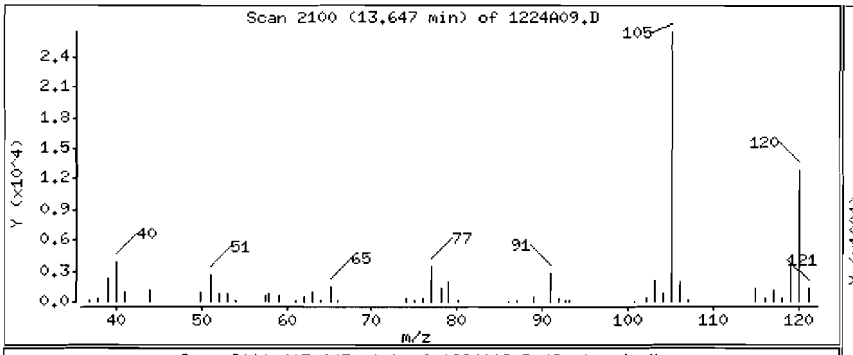
Operator: gt

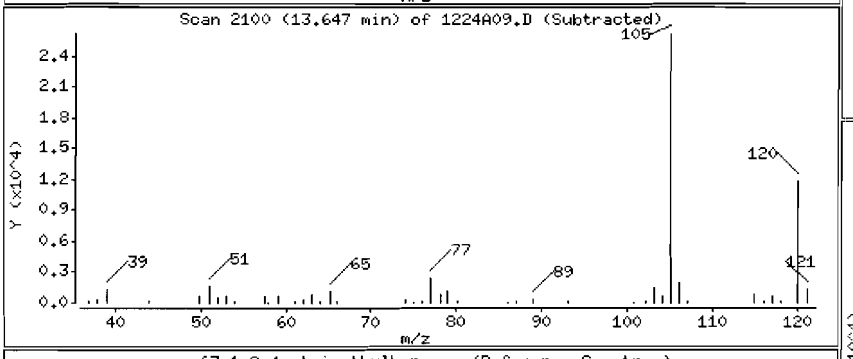
Column phase:

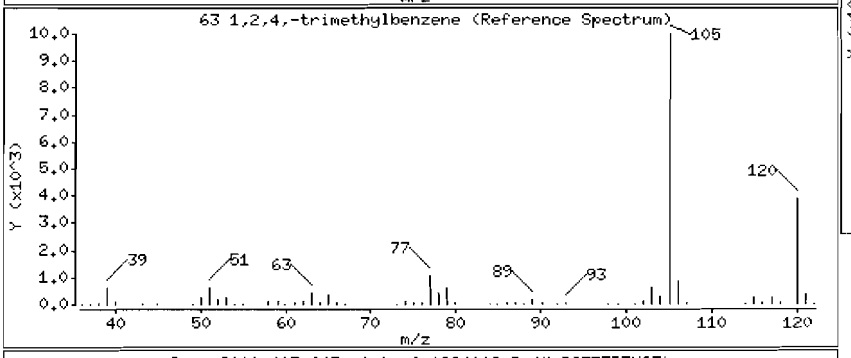
Column diameter: 0.18

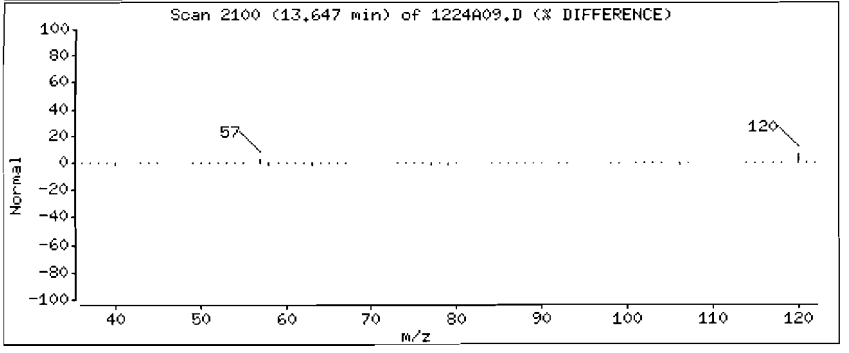
63 1,2,4,-trimethylbenzene

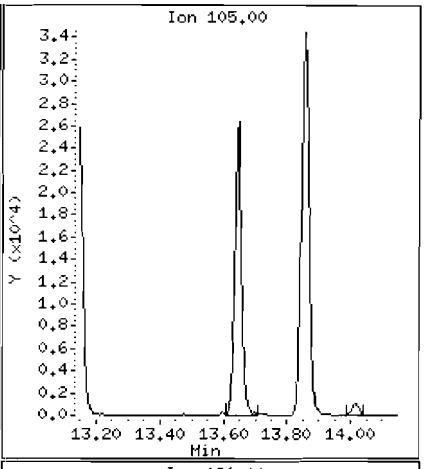
Concentration: 21.08 ngs

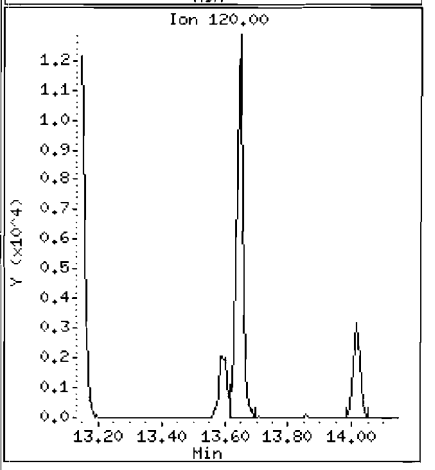












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A09.D

Date : 24-DEC-2013 13:34

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-4,31,5,,b1

Purge Volume: 5.0

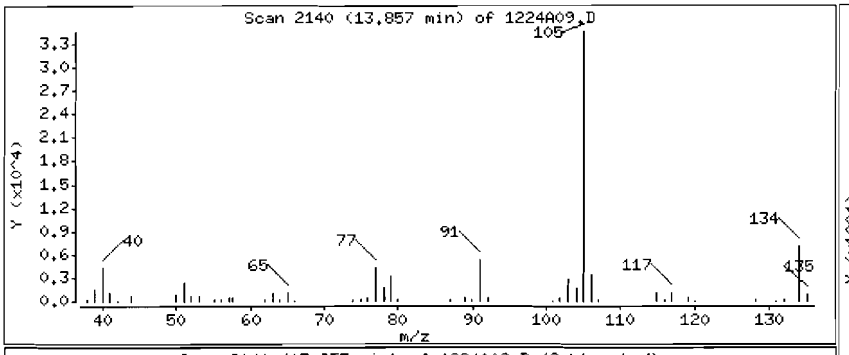
Operator: gt

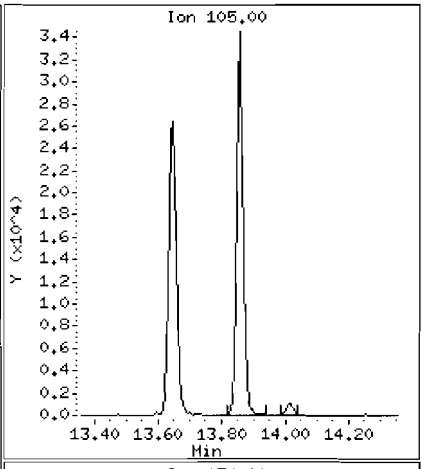
Column phase:

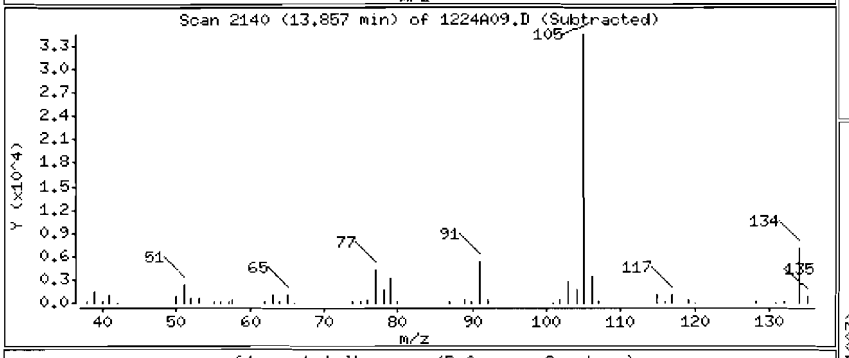
Column diameter: 0.18

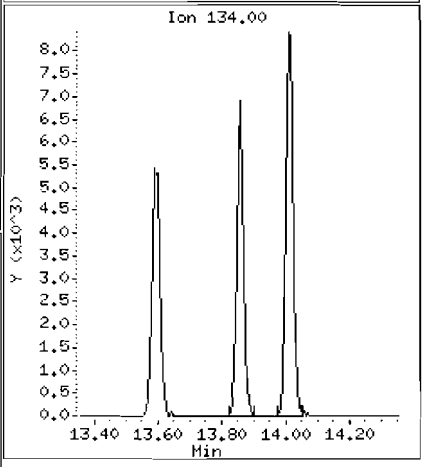
64 sec-butylbenzene

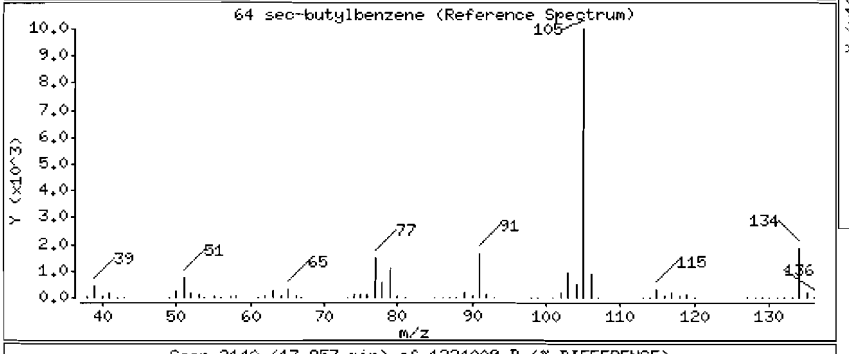
Concentration: 21.88 ngs

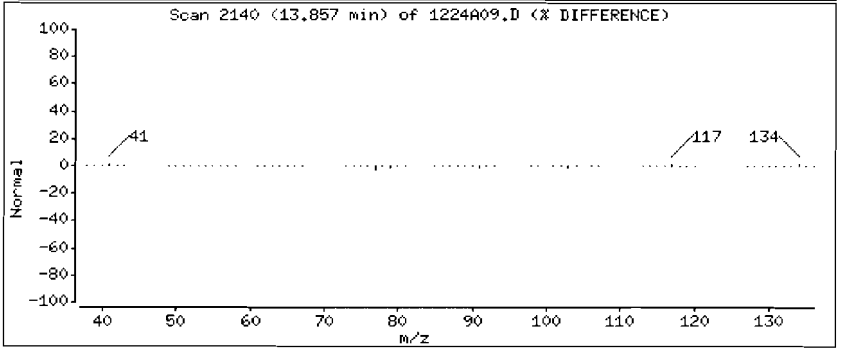












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A09.D

Date : 24-DEC-2013 13:34

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-4,31,5,,b1

Purge Volume: 5.0

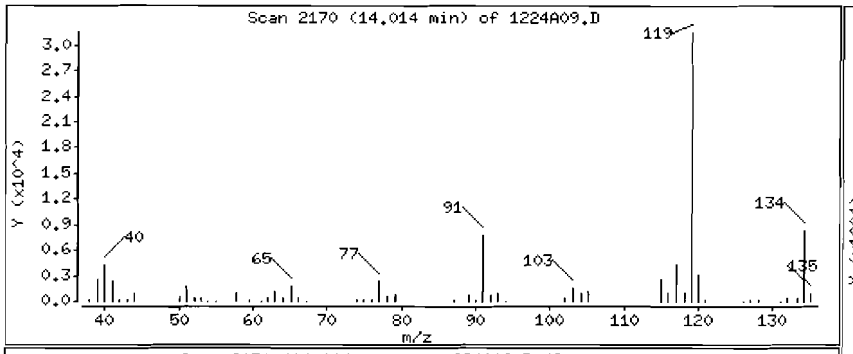
Operator: gt

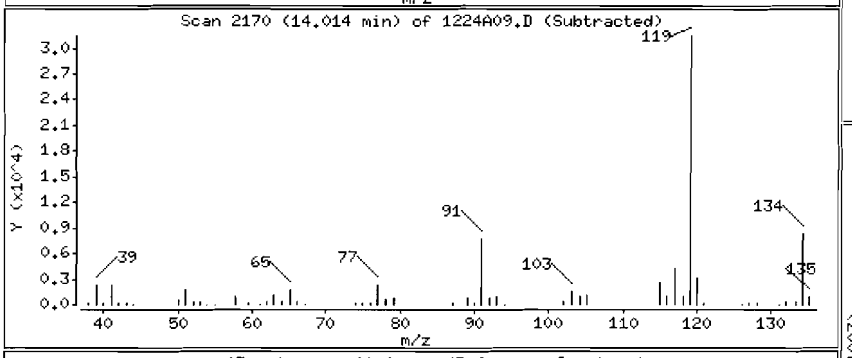
Column phase:

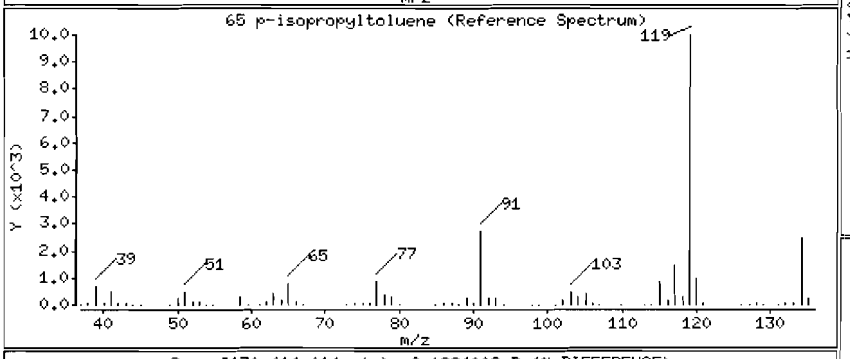
Column diameter: 0.18

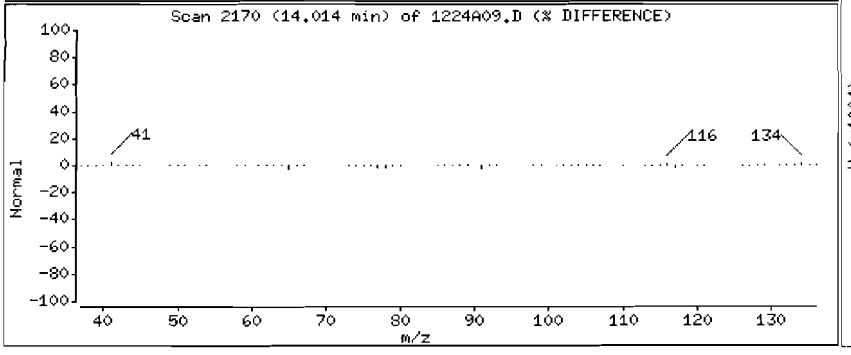
65 p-isopropyltoluene

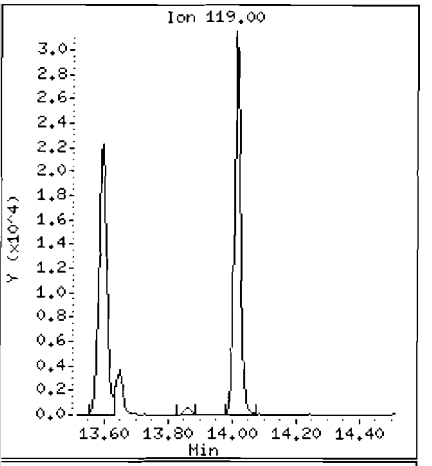
Concentration: 21.23 ngs

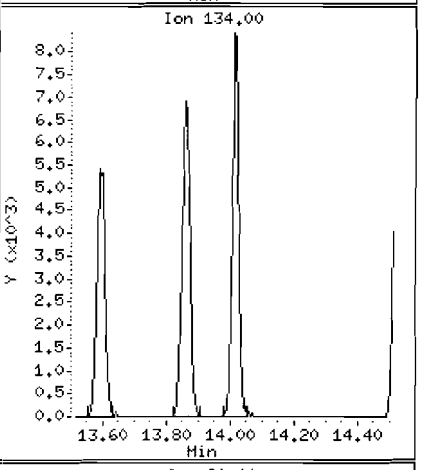


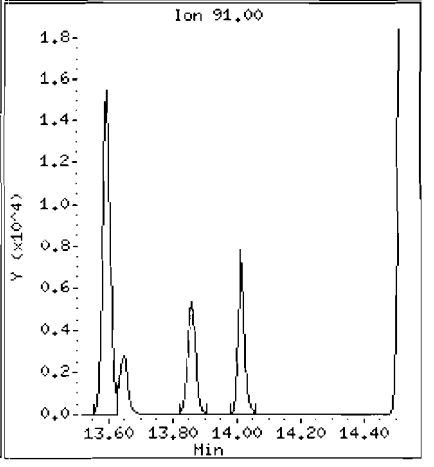












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A09.D

Date : 24-DEC-2013 13:34

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-4,31,5,,b1

Purge Volume: 5.0

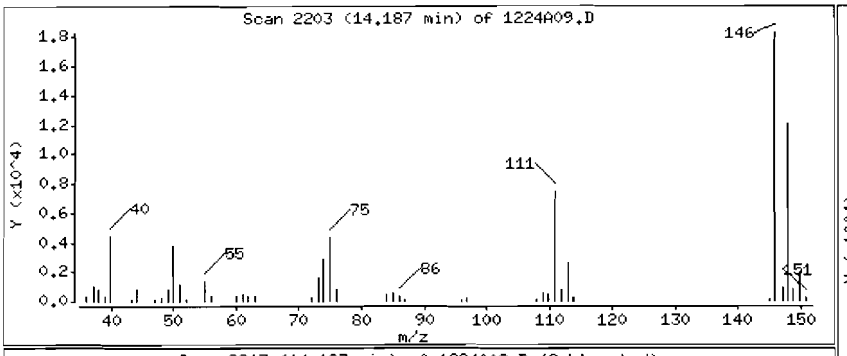
Operator: gt

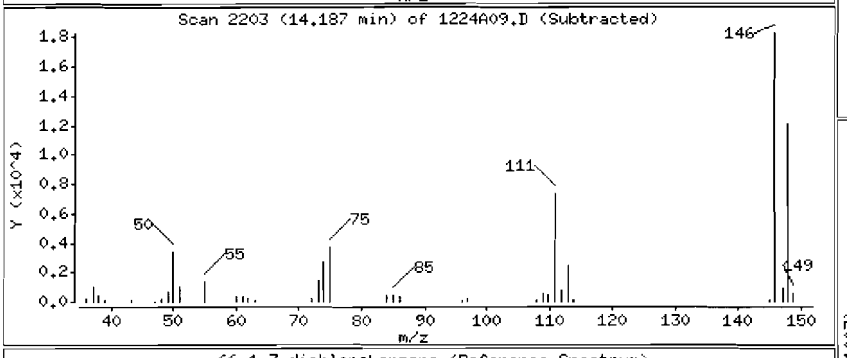
Column phase:

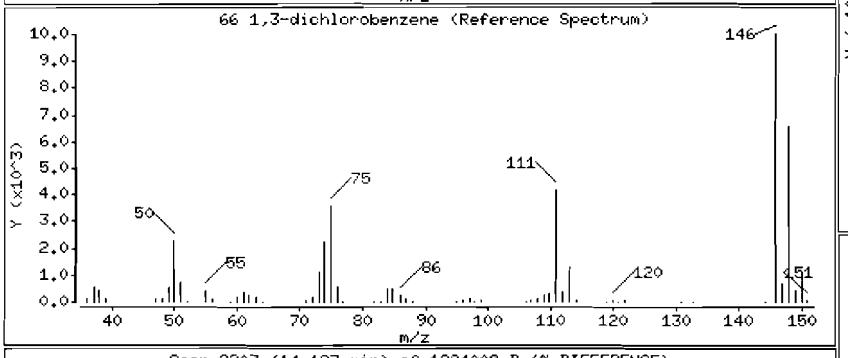
Column diameter: 0.18

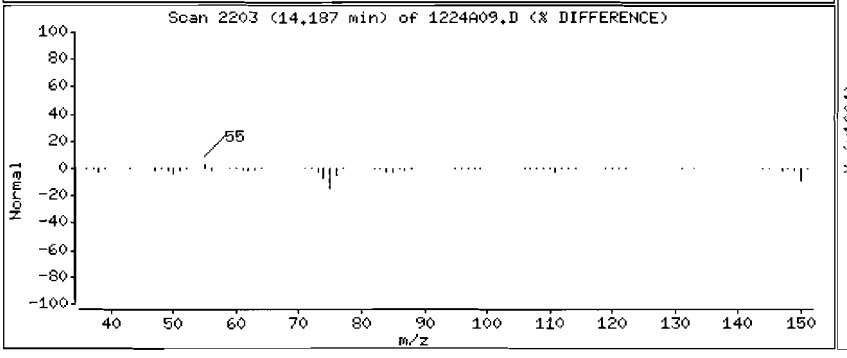
66 1,3-dichlorobenzene

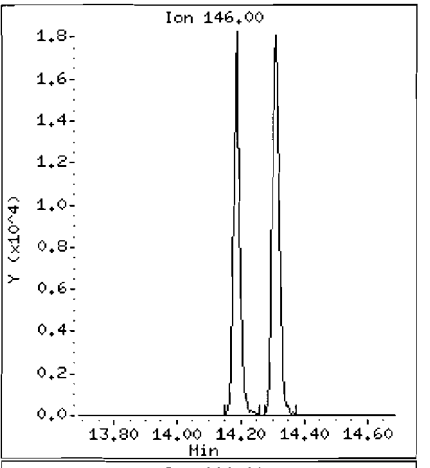
Concentration: 20.62 ngs

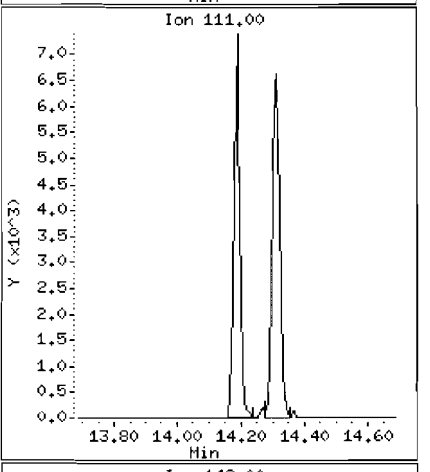


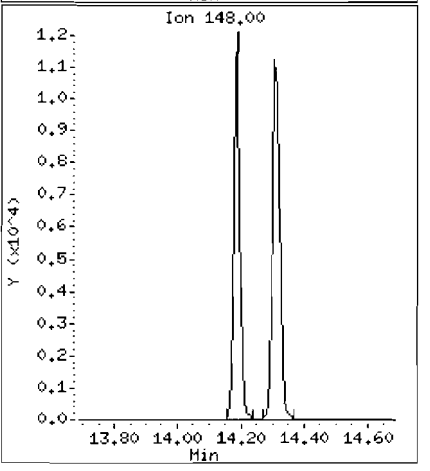












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A09.D

Date : 24-DEC-2013 13:34

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-4,31,5,,b1

Purge Volume: 5.0

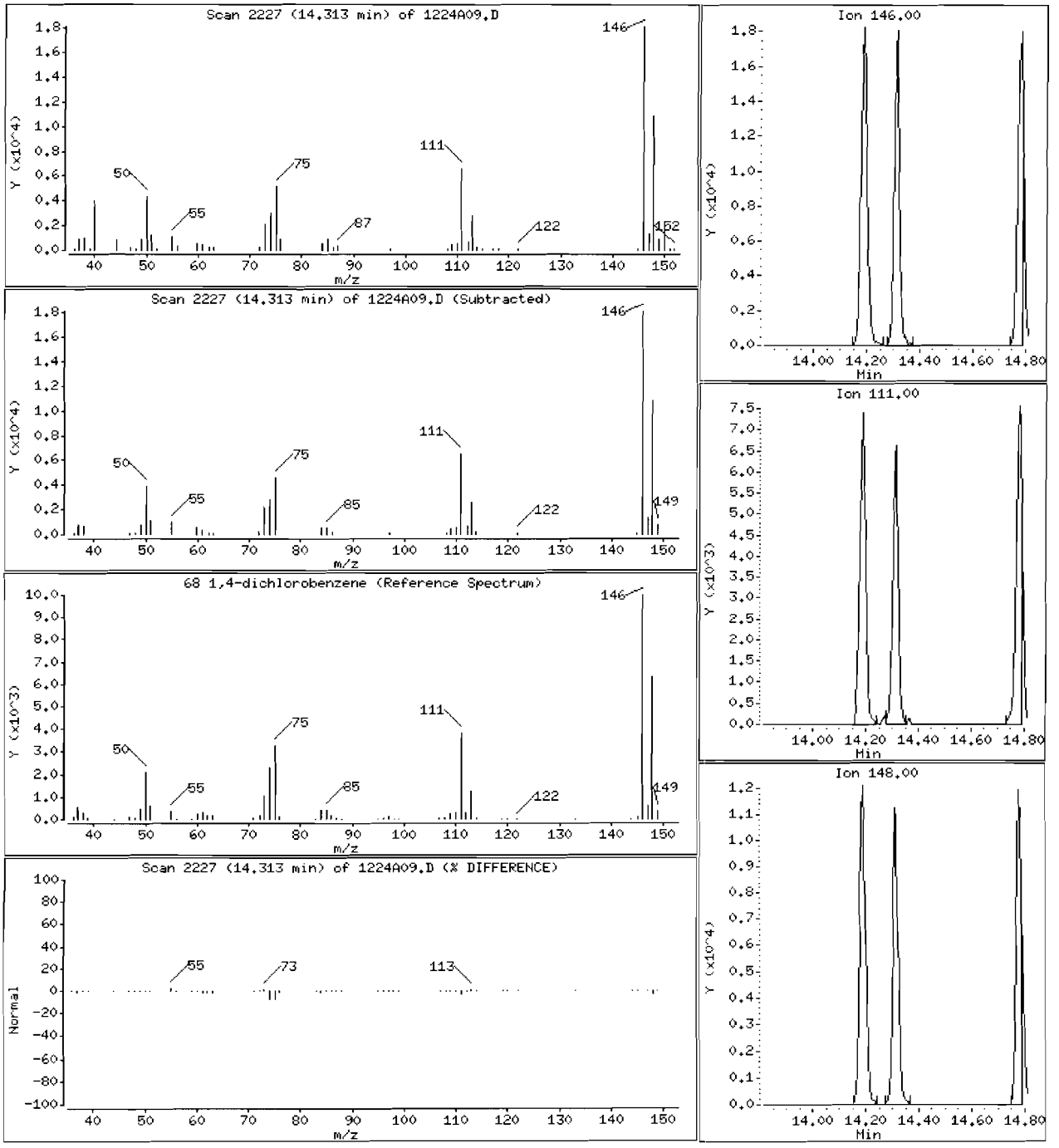
Operator: gt

Column phase:

Column diameter: 0.18

68 1,4-dichlorobenzene

Concentration: 19.57 ngs



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Date : 24-DEC-2013 13:34

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-4,31,5,,b1

Purge Volume: 5.0

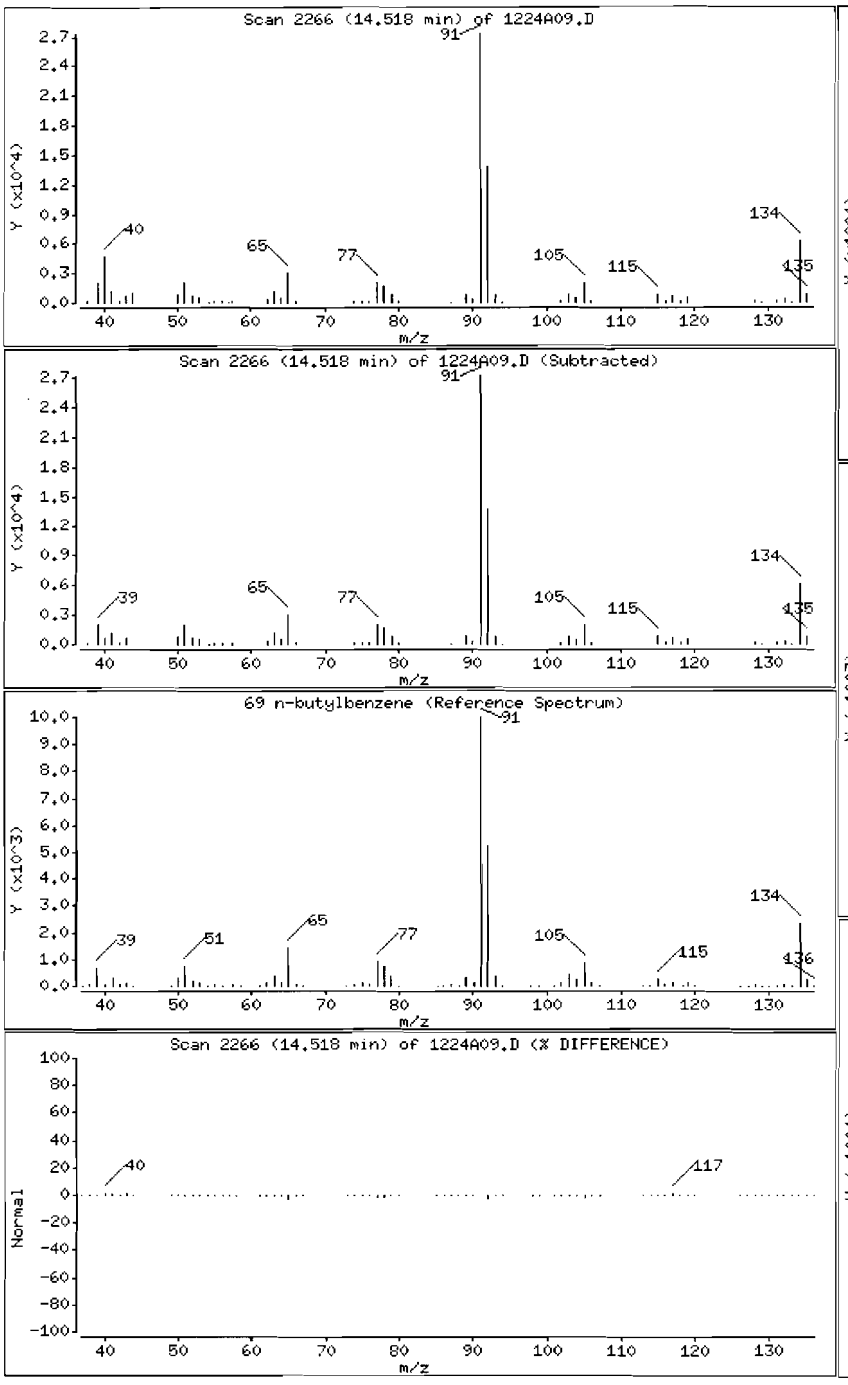
Operator: gt

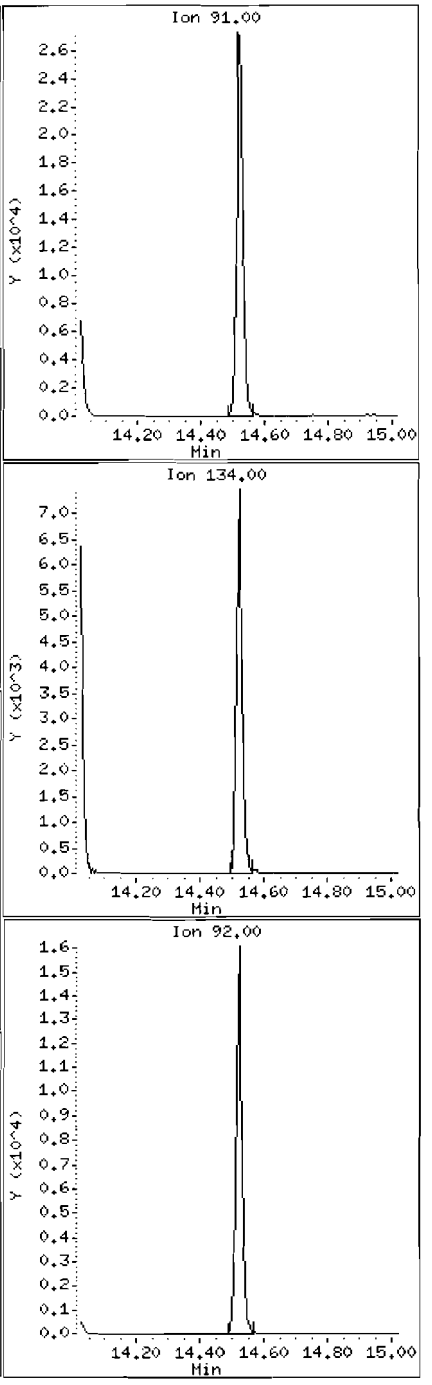
Column phase:

Column diameter: 0.18

69 n-butylbenzene

Concentration: 19.95 ngs





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Date : 24-DEC-2013 13:34

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-4,31,5,,b1

Purge Volume: 5.0

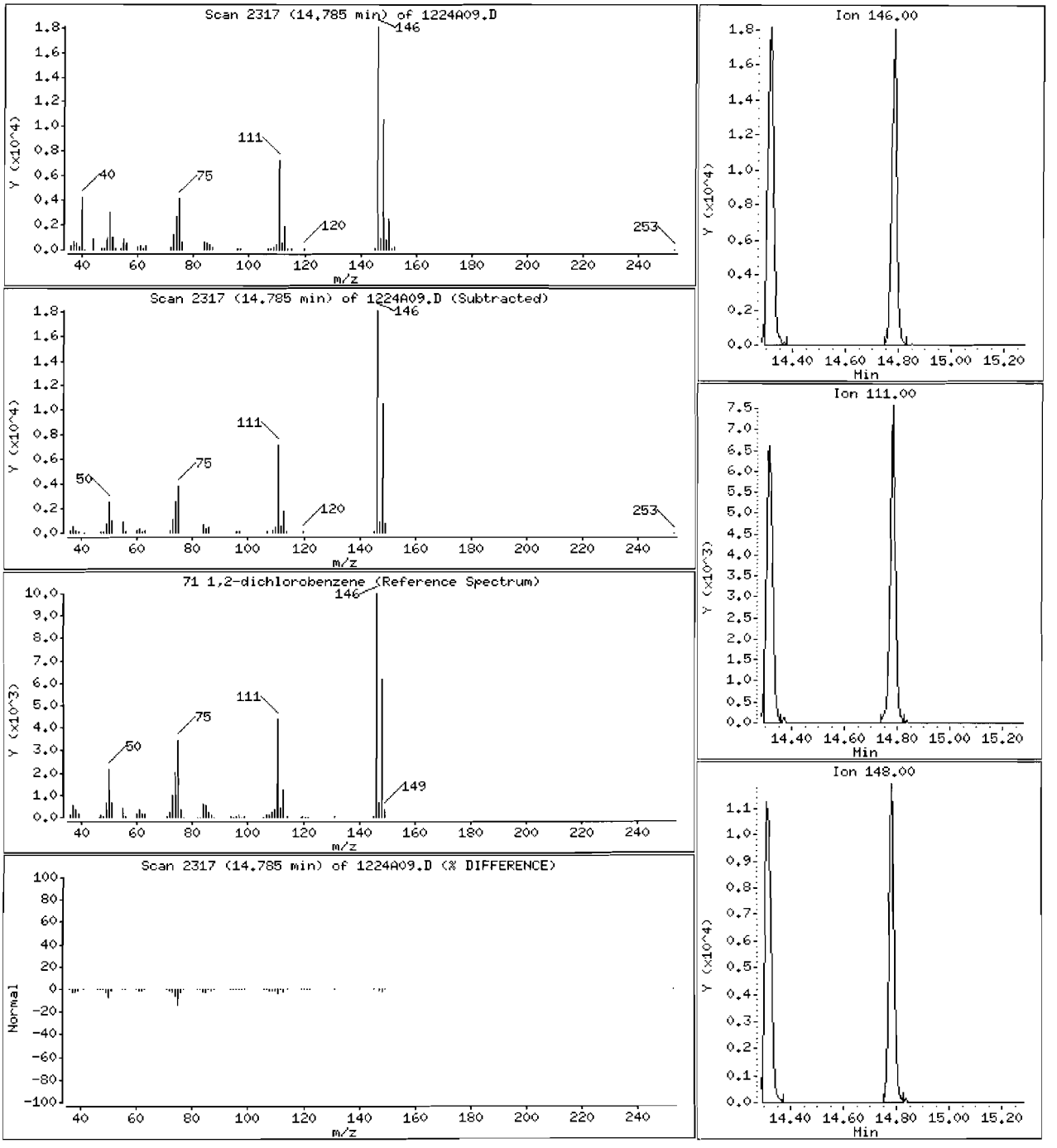
Operator: gt

Column phase:

Column diameter: 0.18

71 1,2-dichlorobenzene

Concentration: 20.31 ngs



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Date : 24-DEC-2013 13:34

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-4,31,5,,b1

Purge Volume: 5.0

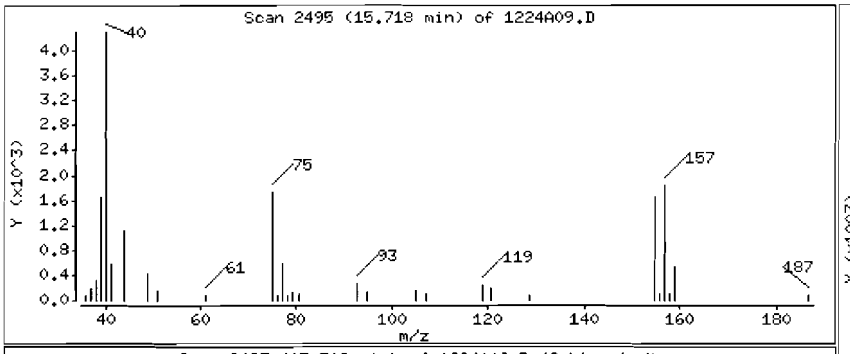
Operator: gt

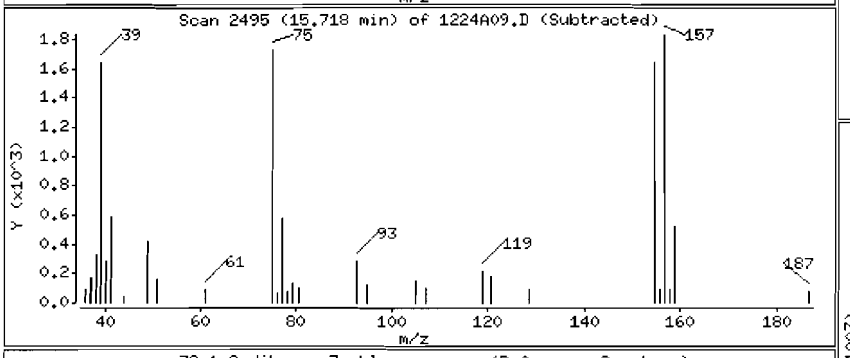
Column phase:

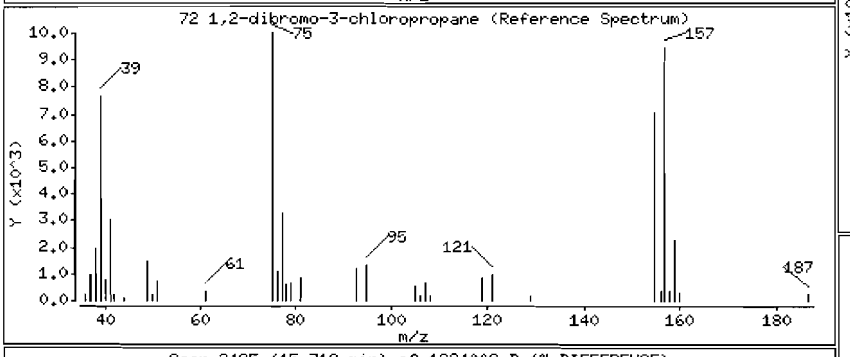
Column diameter: 0.18

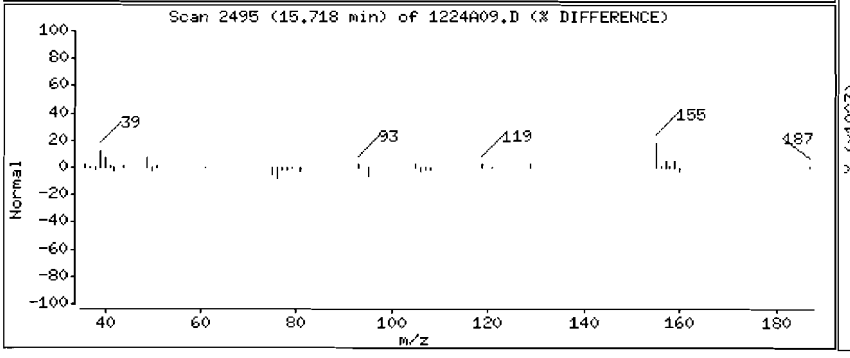
72 1,2-dibromo-3-chloropropane

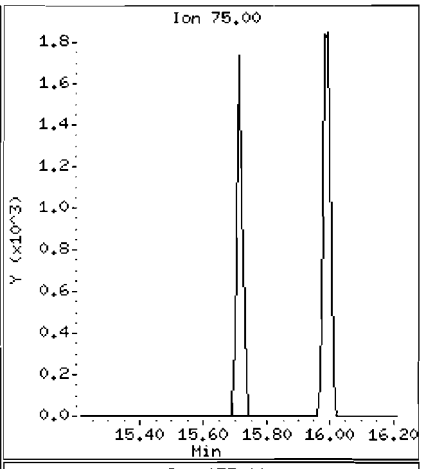
Concentration: 21.03 ngs

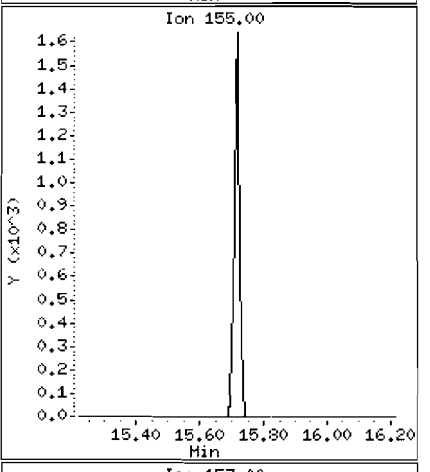


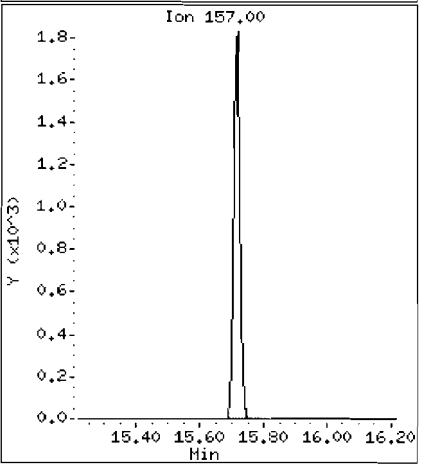












Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A09.D

Date : 24-DEC-2013 13:34

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-4,31,5,,b1

Purge Volume: 5.0

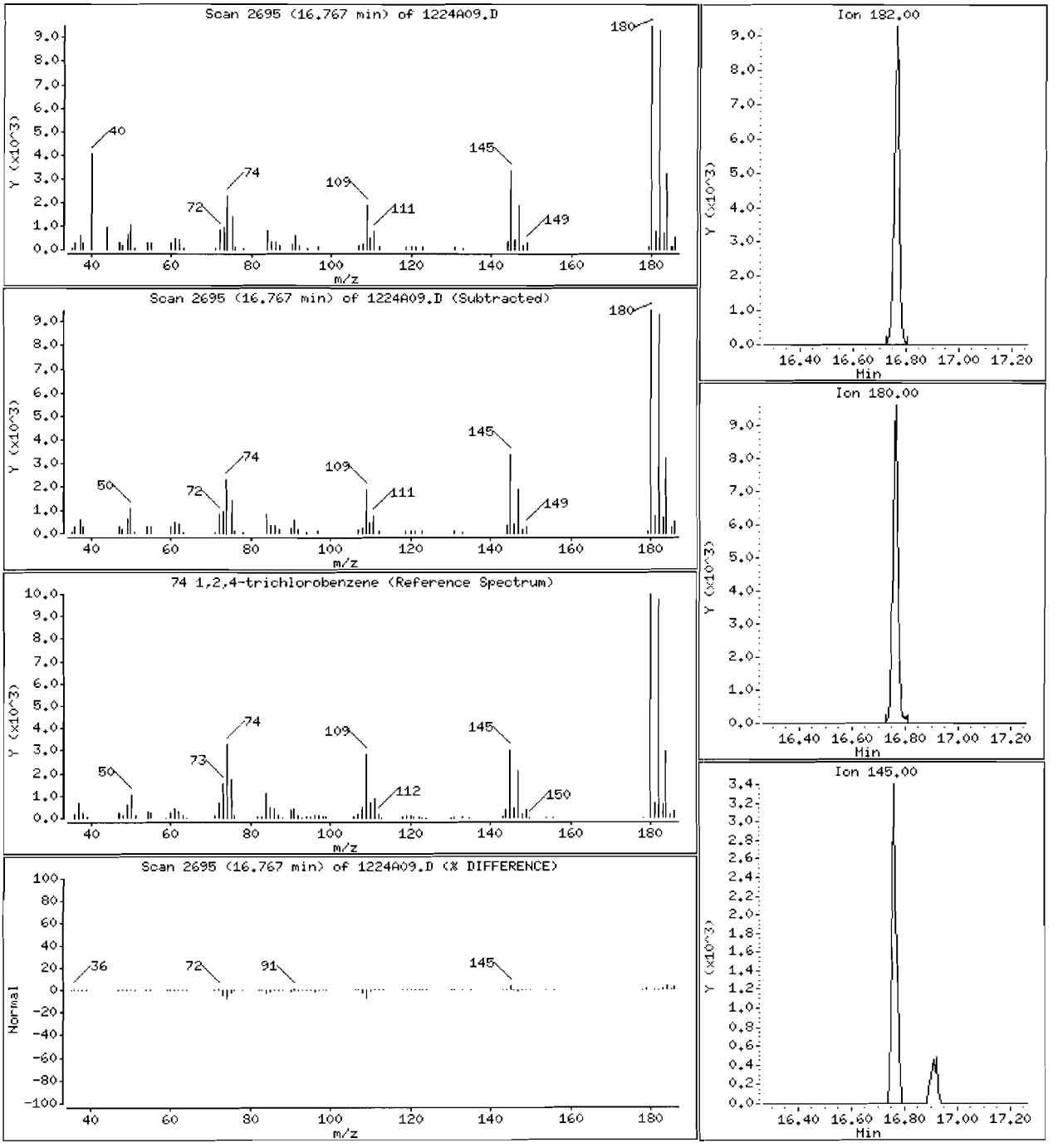
Operator: gt

Column phase:

Column diameter: 0.18

74 1,2,4-trichlorobenzene

Concentration: 18.41 ngs



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Date : 24-DEC-2013 13:34

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-4,31,5,,b1

Purge Volume: 5.0

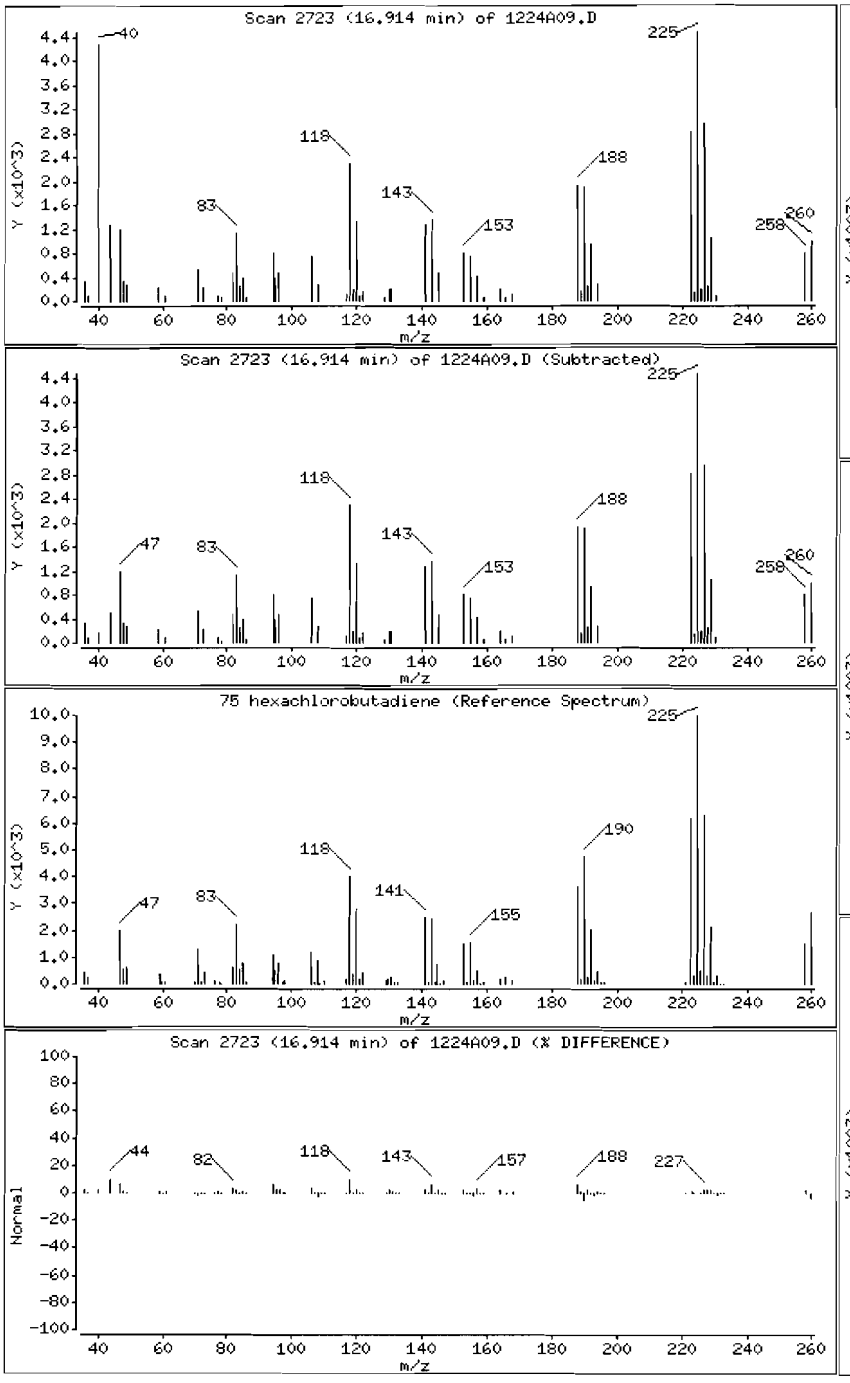
Operator: gt

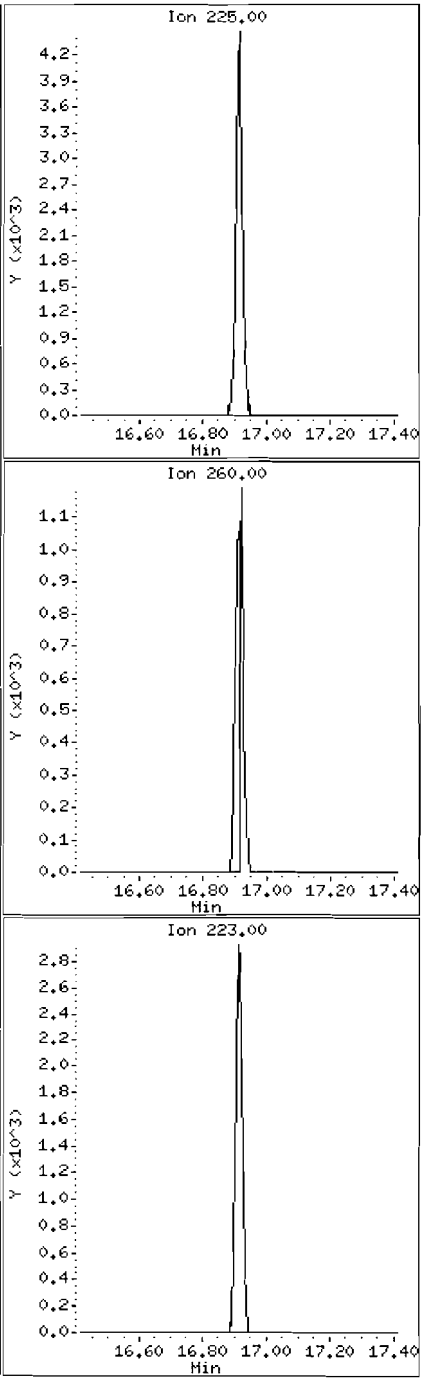
Column phase:

Column diameter: 0.18

75 hexachlorobutadiene

Concentration: 21.18 ngs





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Date : 24-DEC-2013 13:34

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-4,31,5,,b1

Purge Volume: 5.0

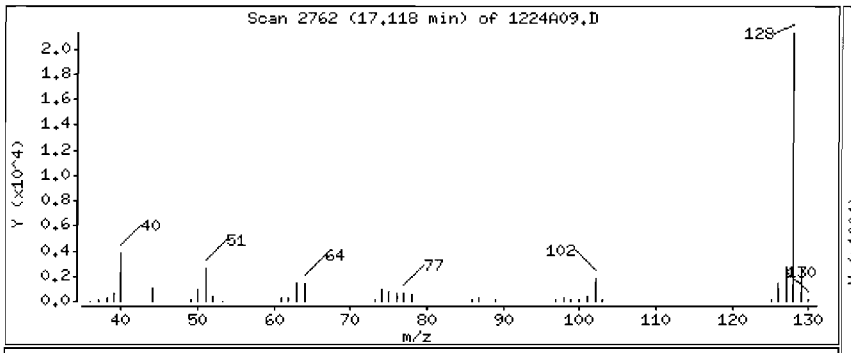
Operator: gt

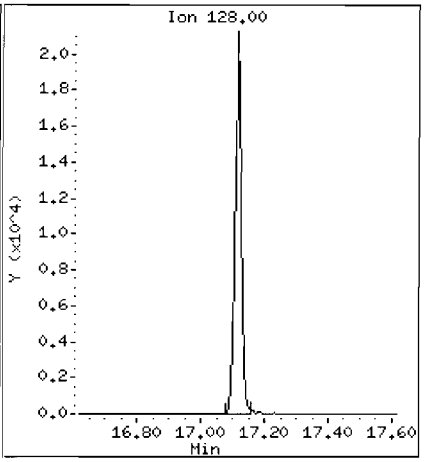
Column phase:

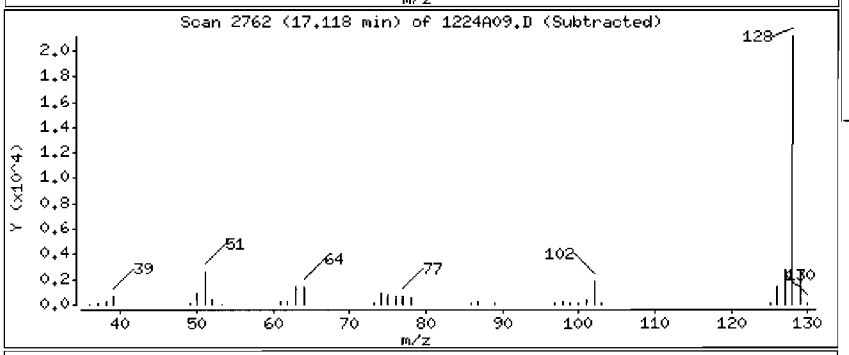
Column diameter: 0.18

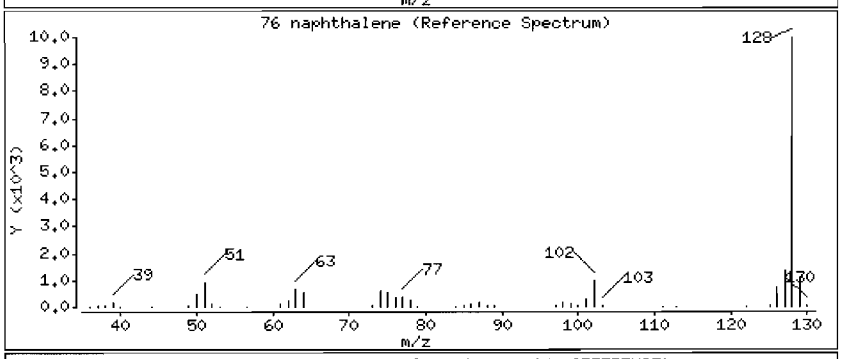
76 naphthalene

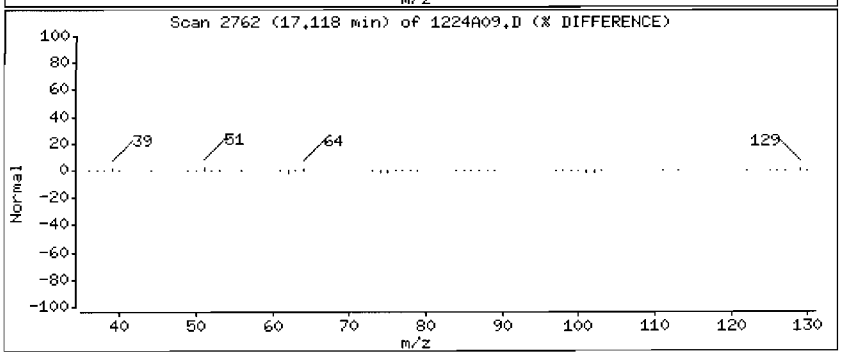
Concentration: 16.42 ngs











Data File: \\orgserv2\ff\chem\GCMSVOA\Bundy.i\131224.b\1224A09.D

Date : 24-DEC-2013 13:34

Client ID:

Instrument: Bundy.i

Sample Info: wg661542-4,31,5,,b1

Purge Volume: 5.0

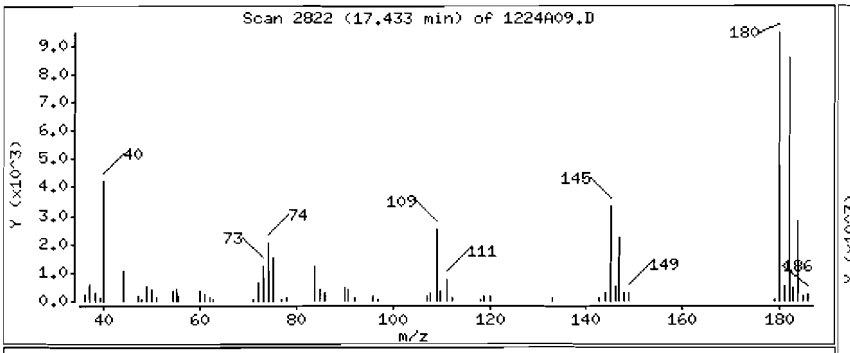
Operator: gt

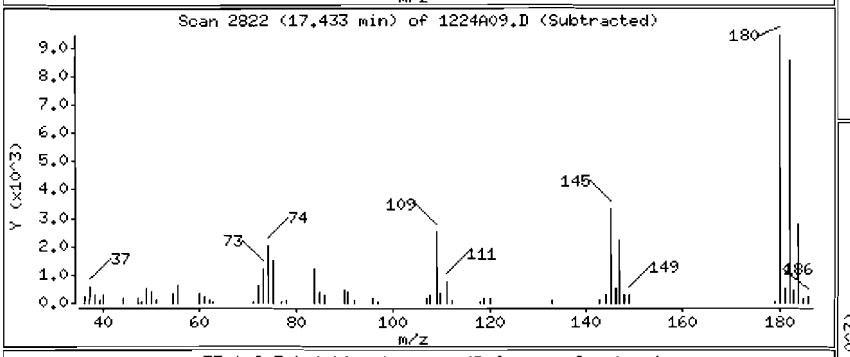
Column phase:

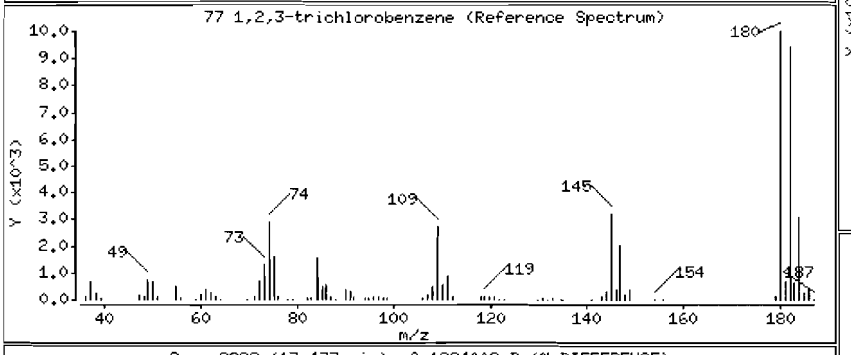
Column diameter: 0.18

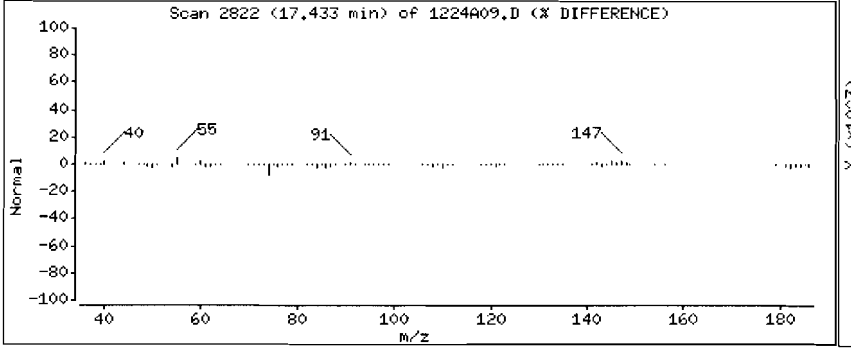
77 1,2,3-trichlorobenzene

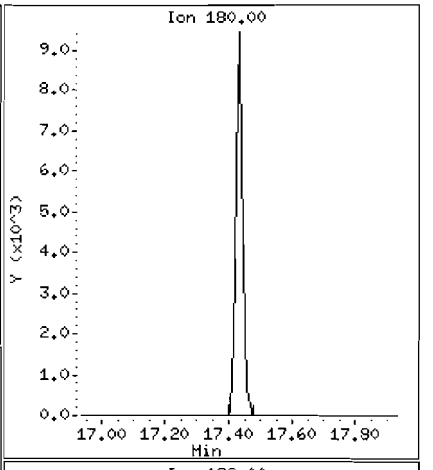
Concentration: 20.00 ngs

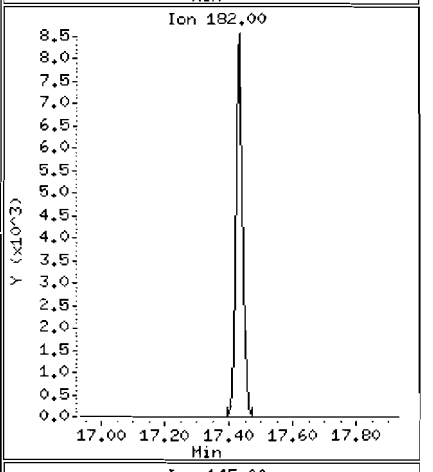


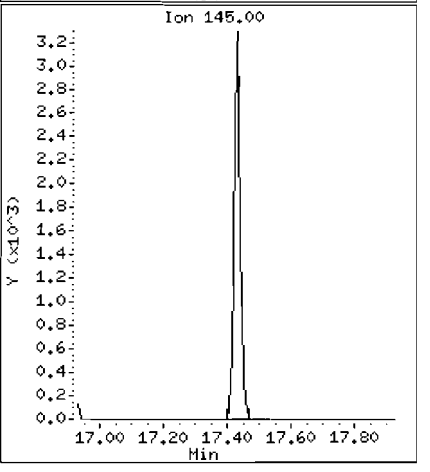












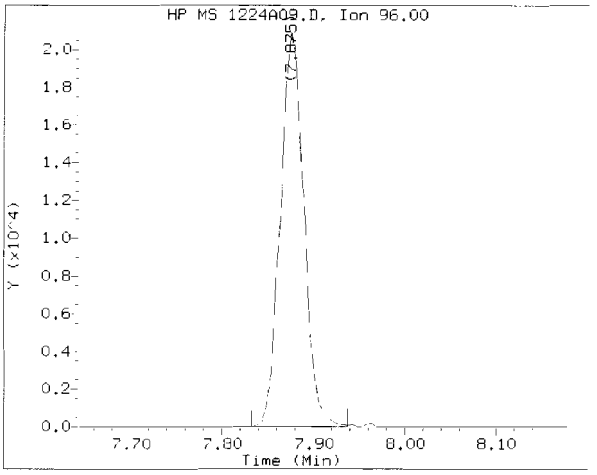
Alpha Analytical Labs

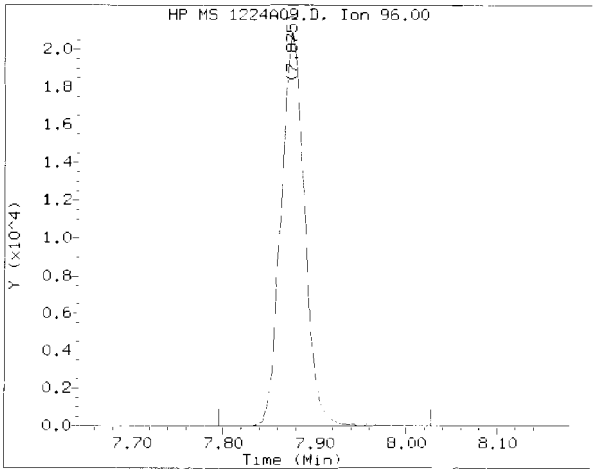
Manual Integration

Sample Info : wg661542-4,31,5,,b1
wg661542,ical8787

Instrument ID : Bundy.i
Method : 524extras.m
File : 1224A09.D
Injection Date : 24-DEC-2013 13:34
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: MSD

Compound # 30: fluorobenzene

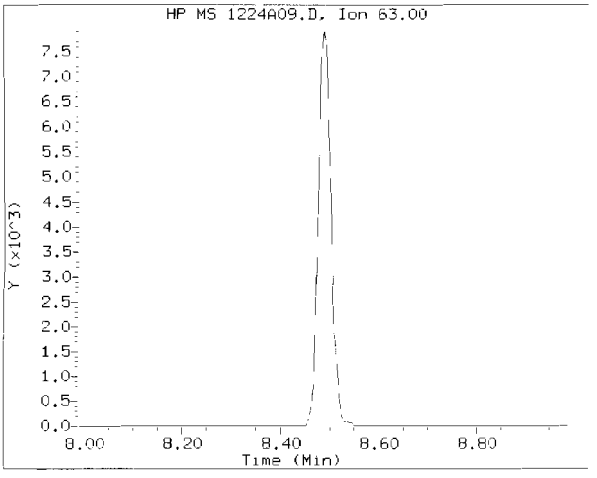


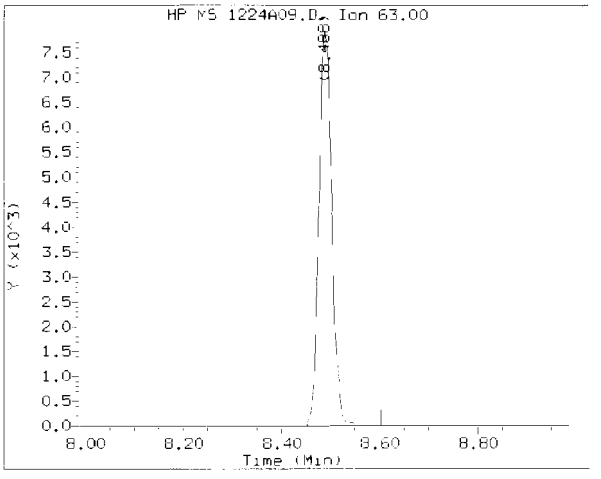


Original Peak Response = 37339 Manual Peak Response = 37480 M4

M4 = Poor automated baseline construction.

Compound # 32: 1,2-dichloropropane





Original Peak Response = 0 Manual Peak Response = 14459 M2

M2 = Peak not found by automatic integration algorithm.

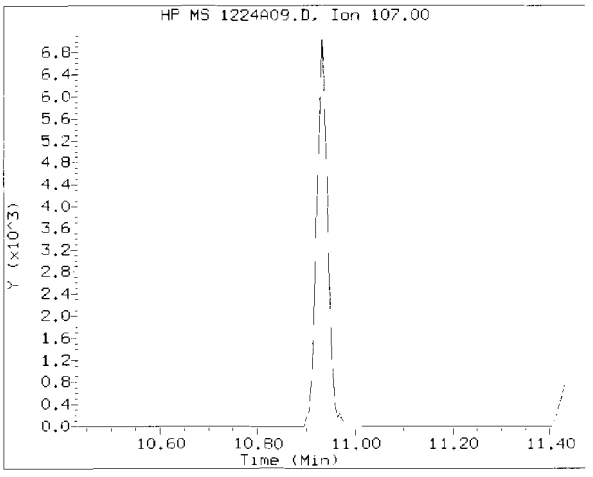
Alpha Analytical Labs

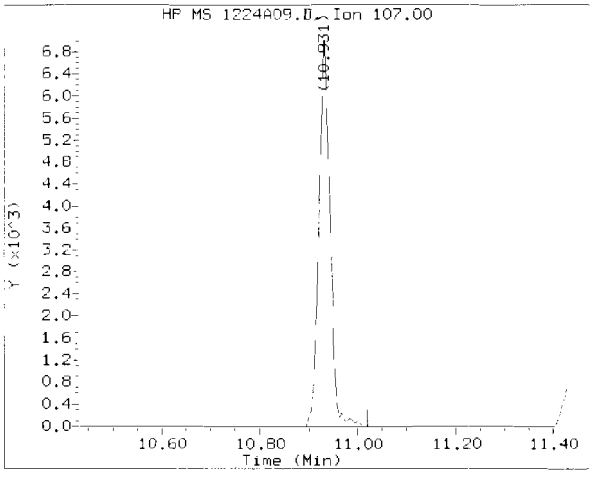
Manual Integration

Sample Info : l1325883-02MSD,31,5,,b1
wg,ical8787

Instrument ID : Bundy.i
Method : 524extras.m
File : 1224A09.D
Injection Date : 24-DEC-2013 13:34
Quantitation : ISTD Integrator : HP RTE
Dilution Factor : 1.00 Sample Type: MSD

Compound # 44: 1,2-dibromoethane





Original Peak Response = 0 Manual Peak Response = 11160 M2

M2 = Peak not found by automatic integration algorithm.

Calculation of Volatile Organic Compounds

Aqueous Concentration Formula: Amt * DF * Uf * (1/Vo)

Where:
DF = Dilution Factor
Vo = Sample Volume Purged (mL)
Uf = ng Unit Correction Factor (mL)

Soil Concentration Formula: Amt * DF * (1/Wt)

Where:
DF = Dilution Factor
Wt = Weight of Sample (g)

BUNDY.i	TR	**11/10/13**	
BFB:v4469	CCAL:V4516		IS/SS: v4336
	ICAL:V4522		

1	BFB		BFB	BFB1110A
1	BFB	✓	BFB	BFB1110B
28	BLK		524	1107A01
29	BLK		524	1107A02
30	BLK		524	1107A03
31	BLK		524	1107A04
32	L1		524	1107A05
33	L2		524	1107A06
34	L3		524	1107A07
35	L4		524	1107A08
36	L5		524	1107A09
37	L6		524	1107A10
38	L7		524	1107A11
39	L8		524	1107A12
40	BLK		524	1107A13
41	BLK		524	1107A14
42	ICV	✓	524	1107A15
43	ICV		524	1107A16
44	BLK		524	1107A17
45	BLK		524	1107A18

ICAL 8787