BAILEY SUPERFUND SITE

MONTHLY PROJECT STATUS REPORT
APRIL 1997

General Description of Activities and Progress Made this Reporting Period:

Modified North Marsh and Pit B Remediation

- Parsons ES submitted a set of as-built drawings to EPA on December 5, 1996 and requested that EPA sign a Certificate of Completion for the work completed during the interim period at the Bailey Site. No response from EPA has been received.

Revised Remedial Design

- Parsons ES provided copies of laboratory quality assurance project plans for three laboratories used during the remedial design and remedial action to EPA. These plans were compiled into an Appendix to the Quality Assurance Project Plan for the Revised Remedial Design and Remedial Action (GeoSyntec Consultants, August 1996). EPA had requested these plans in their comments on the Quality Assurance Project Plan. In addition, a copy of the most recent EPA laboratory audit of Law Environmental was provided to EPA as requested in EPA's letter dated January 17, 1997. The appendix and recent audit were sent to EPA on April 30, 1997.

Progress of Revised Final Remediation

- Cattle were sighted on the Bailey site several times this month. Parsons ES informed the cattle owner that the cattle must be prevented from coming back to the site. In addition, the BSSC notified the landowners that the cattle were on their property and entering the remediation area. The cattle owner has installed additional fencing to prevent the cattle from trespassing on the site.

- OHM completed the following activities this month:

  East Dike Activities:

  * Completed placement of additional fill and final grading operations.
  * Unloaded geosynthetic materials.
  * Performed as-built survey of subgrade elevation.
  * Prepared ground surface in support of the start of anchor trench excavation.
  * Began liner installation.

  North Dike Activities:

  * Continued placement of general fill in the surficial waste area.
  * Completed excavation and consolidation of bulk waste (6,049 cubic yards).

* Covered all waste with clean fill and continued to place general fill to reach subgrade elevations (estimated 13,500 in-place cubic yards to date).

Other Site Activities:

* Submittals during this period included geosynthetic material manufacturer certifications, survey results, schedule updates and resubmittals.
* Dewatering operations continued in the North Marsh and Pond A areas on an as needed basis. Water from this area was not in contact with waste. Wastewater was removed daily from the consolidation water collection system sumps and transferred to the wastewater treatment plant holding tank for eventual analysis and disposal.

Wastewater Management and Treatment

- Parsons ES collected samples of the wastewater stored on site on April 2, 1997 to characterize the wastewater for disposal purposes (EPA was notified on March 25, 1997 of this sampling event). This wastewater contained consolidation wastewater from the North and East Dikes and did not meet TOC discharge criteria. Results of the characterization analyses are summarized in Table 1 and indicate that no VOCs, SVOCs, or metals on the TCLP list were detected in the wastewater. The laboratory results are in Attachment A of this report. In a letter dated January 21, 1997, Parsons ES confirmed EPA's agreement that such wastewater could be taken off-site and off-site disposal of the wastewater was coordinated with EPA oversight. This wastewater (approximately 231,000 gallons) was taken off-site to the CECOS West Lake Facility (#LAD000618256) between April 21 and May 4, 1997.

Air Monitoring

- Results from documentation samples collected on March 27, 1997 are summarized in Table 2. Analytical data for these samples are in Attachment B of this report.

- No documentation air samples were collected during the month of April either because no intrusive work was being performed or due to inclement weather. According to the Revised Air Monitoring Plan for Final Remediation (Parsons ES, 1997), documentation air samples are only required during intrusive activities. At this time, the only intrusive site activities remaining are excavation and relocation of a small portion of waste near the site bridge. When this activity occurs, final air documentation samples will be collected.

Activities to be Commenced or Completed During Next Reporting Period:

- OHM plans to complete the following site activities next month:

  * Begin rip rap placement on the North Dike slopes.

  * Complete filling and grading operations on the North Dike to the subgrade elevation.

* Complete installation of geosynthetic materials and protective soil layer on the East Dike.

* Begin installation of geosynthetic materials on the North Dike.

Problems Encountered in Commencing or Completing Remedial Action:

- None at this time.

Schedule:

Pursuant to Chris Villarreal's agreement, as confirmed in a telephone conversation on February 6, 1997, the site activities listed under "Activities to be Commenced or Completed During Next Reporting Period" are provided in place of a schedule at this time. Site work is proceeding according to the overall schedule. However, some delays have occurred due to inclement weather.

TABLE 1

WASTEWATER DATA[1] FOR THE APRIL 1997 MONTHLY REPORT

Bailey Superfund Site, Orange County, Texas

Compound	Maximum Concentration of Contaminants for the Toxicity Characteristic - TCLP Grab Sample (mg/L)[2]	TCLP Grab Sample No. WHT040297 Collected 4/2/97 (mg/L)
Arsenic	5.00	<0.03
Barium	100.00	<1
Cadmium	1.00	<0.016
Chromium	5.00	<0.016
Lead	5.00	<0.04
Mercury	0.20	<0.0002
Selenium	1.00	<0.04
Silver	5.00	<0.03
Benzene	0.50	<0.050
2-Butanone	200.00	<0.200
Carbon Tetrachloride	0.50	<0.050
Chlorobenzene	100.00	<0.050
Chloroform	6.00	<0.050
1,2-Dichloroethane	0.50	<0.050
1,1-Dichloroethene	0.70	<0.050
Tetrachloroethene	0.70	<0.050
Trichloroethene	0.50	<0.050
Vinyl Chloride	0.20	<0.100
o- Cresol	200.00	<0.050
m-, p- Cresols	200.00	<0.100
1,4-Dichlorobenzene	7.50	<0.050
2,4-Dinitrotoluene	0.13	<0.050
Hexachlorobenzene	0.13	<0.050
Hexachlorobutadiene	0.50	<0.050
Hexachloroethane	3.00	<0.050
Nitrobenzene	2.00	<0.050
Pentachlorophenol	100.00	<0.250
Pyridine	5.00	<0.050
2,4,5-Trichlorophenol	400.00	<0.100
2,4,6-Trichlorophenol	2.00	<0.050

[1] Wastewater sample collected from the Wastewater Treatment Plant holding tank. This wastewater was sampled for the above constituents to characterize it for off-site disposal. Wastewater in the holding tank is from the consolidation water collection system from the North and East Dikes.

[2] 40 CFR 261.24

TABLE 2
DOCUMENTATION AIR SAMPLING FOR THE APRIL 1997 MONTHLY REPORT
Bailey Site, Orange County, Texas

Air Samples taken 3/27/97

Compound	Action Level[1] (ppm)	Action Level[1] (ppb)	Analysis Results 032797D1 (ppb) *Downwind*	Analysis Results 032797U1 (ppb) *Upwind*
Acetone	375	375,000	4.5	4.6
Benzene	0.5	500	0.64	0.64
Butanone, 2- (MEK)	100	100,000	2.2	2.2
Carbon Disulfide	2	2,000	<0.96	<0.94
Chlorobenzene	5	5,000	<0.19	<0.19
Dichloroethane, 1,2-	5	5,000	<0.19	<0.19
Dichloroethene, cis-1,2-	100	100,000	<0.19	<0.19
Dichloroethene, trans-1,2-	100	100,000	<0.96	<0.94
Dichloropropane, 1,2-	37.5	37,500	<0.19	<0.19
Ethyl Benzene	50	50,000	<0.19	<0.19
Methylene Chloride	25	25,000	<0.96	<0.94
Styrene	25	25,000	<0.19	<0.19
Tetrachloroethene	12.5	12,500	<0.19	<0.19
Toluene	25	25,000	0.48	2.4
Trichloroethane, 1,1,1-	5	5,000	<0.19	<0.19
Trichloroethene	25	25,000	<0.19	<0.19
Xylene, m,p-	50	50,000	0.20	1.1
Xylene, o-	50	50,000	<0.19	0.38

[1] Action Levels for the site are specified in Table 2-2 of the Revised Air Monitoring Plan for Final Remediation (Parsons ES, January, 1997)

ATTACHMENTS A & B

BAILEY SUPERFUND SITE
MONTHLY REPORT FOR APRIL 1997

ATTACHMENT A

WATER TREATMENT ANALYTICAL DATA

BAILEY SUPERFUND SITE
MONTHLY REPORT FOR APRIL 1997

TABLE 1

WASTEWATER DATA[1] FOR THE APRIL 1997 MONTHLY REPORT

Bailey Superfund Site, Orange County, Texas

Compound	Maximum Concentration of Contaminants for the Toxicity Characteristic - TCLP Grab Sample (mg/L)[2]	TCLP Grab Sample No. WHT040297 Collected 4/2/97 (mg/L)
Arsenic	5.00	<0.03
Barium	100.00	<1
Cadmium	1.00	<0.016
Chromium	5.00	<0.016
Lead	5.00	<0.04
Mercury	0.20	<0.0002
Selenium	1.00	<0.04
Silver	5.00	<0.03
Benzene	0.50	<0.050
2-Butanone	200.00	<0.200
Carbon Tetrachloride	0.50	<0.050
Chlorobenzene	100.00	<0.050
Chloroform	6.00	<0.050
1,2-Dichloroethane	0.50	<0.050
1,1-Dichloroethene	0.70	<0.050
Tetrachloroethene	0.70	<0.050
Trichloroethene	0.50	<0.050
Vinyl Chloride	0.20	<0.100
o- Cresol	200.00	<0.050
m-, p- Cresols	200.00	<0.100
1,4-Dichlorobenzene	7.50	<0.050
2,4-Dinitrotoluene	0.13	<0.050
Hexachlorobenzene	0.13	<0.050
Hexachlorobutadiene	0.50	<0.050
Hexachloroethane	3.00	<0.050
Nitrobenzene	2.00	<0.050
Pentachlorophenol	100.00	<0.250
Pyridine	5.00	<0.050
2,4,5-Trichlorophenol	400.00	<0.100
2,4,6-Trichlorophenol	2.00	<0.050

[1] Wastewater sample collected from the Wastewater Treatment Plant holding tank. This wastewater was sampled for the above constituents to characterize it for off-site disposal. Wastewater in the holding tank is from the consolidation water collection system from the North and East Dikes.

[2] 40 CFR 261.24

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713)660-0901

April 18, 1997

Ms. Jackie Travers
PARSON ENGINEERING SCIENCE
9906 Gulf Freeway, Suite 100
Houston, TX 77034

The following report contains analytical results for samples received at Southern Petroleum Laboratories (SPL) on April 3, 1997. The samples were assigned to Certificate of Analysis No. 9704195 and analyzed for all parameters as listed on the chain of custody.

There were no analytical problems encountered with this group of samples and all quality control data was within acceptance limits.

If you have any questions or comments pertaining to this data report, please do not hesitate to contact me. Please reference the above Certificate of Analysis No. during any inquiries.

Again, SPL is pleased to be of service to you. We anticipate working with you in fulfilling all your current and future analytical needs.

Southern Petroleum Laboratories

Ed Fry
Project Manager

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713)660-0901

Southern Petroleum Laboratories, Inc.

Certificate of Analysis Number: 97-04-195

Approved for Release by:

Ed Fry, Project Manager

Date: 4/21/97

Greg Grandits
Laboratory Director

Idelis Williams
Quality Assurance Officer

The attached analytical data package may not be reproduced except in full without the express written approval of this laboratory.

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713)660-0901

Certificate of Analysis No. H9-9704195-01

Parson Engineering Science
9906 Gulf Freeway, Suite 100
Houston, TX 77034
ATTN: Jackie Travers

DATE: 04/18/97

PROJECT: Bailey Superfund Site
SITE: Bridge City, TX
SAMPLED BY: Parson Engineering Science
SAMPLE ID: WHT040297

PROJECT NO: 727931
MATRIX: WATER
DATE SAMPLED: 04/02/97 08:00:00
DATE RECEIVED: 04/03/97

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Zero Headspace extraction Method 1311 Analyzed by: WLR Date: 04/04/97	04/04/97		
TCLP Leachate Extraction Method 1311 *** Analyzed by: WLR Date: 04/04/97	04/04/97		
Silver, TCLP Leachate Method 7760A *** Analyzed by: JLB Date: 04/17/97 13:00:00	ND	0.03	mg/L
Arsenic, TCLP Leachate Method 6010A *** Analyzed by: CT Date: 04/16/97 14:57:39	ND	0.030	mg/L
Barium, TCLP Leachate Method 6010A *** Analyzed by: CT Date: 04/16/97 14:57:39	ND	1	mg/L
Cadmium, TCLP Leachate Method 6010A *** Analyzed by: CT Date: 04/16/97 14:57:39	ND	0.016	mg/L

ND - Not detected.

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713)660-0901

Certificate of Analysis No. H9-9704195-01

Parson Engineering Science
9906 Gulf Freeway, Suite 100
Houston, TX 77034
ATTN: Jackie Travers

DATE: 04/18/97

PROJECT: Bailey Superfund Site
SITE: Bridge City, TX
SAMPLED BY: Parson Engineering Science
SAMPLE ID: WHT040297

PROJECT NO: 727931
MATRIX: WATER
DATE SAMPLED: 04/02/97 08:00:00
DATE RECEIVED: 04/03/97

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Chromium, TCLP Leachate Method 6010A *** Analyzed by: CT Date: 04/16/97 14:57:39	ND	0.016	mg/L
Mercury, TCLP Leachate Method 7470 A*** Analyzed by: PB Date: 04/04/97	ND	0.0002	mg/L
Acid Digestion of TCLP Leachate, ICP Method 3010A *** Analyzed by: MM Date: 04/04/97	04/04/97		
Lead, TCLP Leachate Method 6010A *** Analyzed by: CT Date: 04/16/97 14:57:39	ND	0.04	mg/L
TCLP Leachate Filtering Method 1311 *** Analyzed by: WLR Date: 04/04/97	04/04/97		
Selenium, TCLP Leachate Method 6010A *** Analyzed by: CT Date: 04/16/97 14:57:39	ND	0.04	mg/L

ND - Not detected.

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.

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HOUSTON, TEXAS 77054
PHONE (713)660-0901

Certificate of Analysis No. H9-9704195-01

Parson Engineering Science
9906 Gulf Freeway, Suite 100
Houston, TX 77034
ATTN: Jackie Travers

04/18/97

PROJECT: Bailey Superfund Site
SITE: Bridge City, TX
SAMPLED BY: Parson Engineering Science
SAMPLE ID: WHT040297

PROJECT NO: 727931
MATRIX: LEACHATE
DATE SAMPLED: 04/02/97 08:00:00
DATE RECEIVED: 04/03/97

ANALYTICAL DATA

PARAMETER	RESULTS	PQL*	UNITS	RL ▲
Benzene	ND	50	ug/L	500
2-Butanone	ND	200	ug/L	200000
Carbon Tetrachloride	ND	50	ug/L	500
Chlorobenzene	ND	50	ug/L	100000
Chloroform	ND	50	ug/L	6000
1,2-Dichloroethane	ND	50	ug/L	500
1,1-Dichloroethene	ND	50	ug/L	700
Tetrachloroethene	ND	50	ug/L	700
Trichloroethene	ND	50	ug/L	500
Vinyl Chloride	ND	100	ug/L	200

SURROGATES	AMOUNT SPIKED	% RECOVERY	LOWER LIMIT	UPPER LIMIT
4-Bromofluorobenzene	50 ug/L	94	86	115
1,2-Dichloroethane-d4	50 ug/L	99	76	114
Toluene-d8	50 ug/L	100	88	110

ANALYZED BY: GT DATE/TIME: 04/04/97 15:34:00
LEACHATE PREP(ZHE) BY: WLR DATE/TIME: 04/04/97
METHOD: 1311/8240, TCLP Volatiles
NOTES: * - Practical Quantitation Limit ND - Not Detected
NA - Not Analyzed
▲ - Regulatory Limit. Reference Federal Register 55, 11862 (3/29/90), RCRA Toxicity Characteristic Final Rule.

COMMENTS:

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713)660-0901

Certificate of Analysis No. H9-9704195-01

Parson Engineering Science
9906 Gulf Freeway, Suite 100
Houston, TX 77034
ATTN: Jackie Travers

04/18/97

PROJECT: Bailey Superfund Site
SITE: Bridge City, TX
SAMPLED BY: Parson Engineering Science
SAMPLE ID: WHT040297

PROJECT NO: 727931
MATRIX: LEACHATE
DATE SAMPLED: 04/02/97 08:00:00
DATE RECEIVED: 04/03/97

ANALYTICAL DATA

PARAMETER	RESULTS	PQL*	UNITS	RL ▲
ortho-Cresol	ND	50	ug/L	200000
meta, para-Cresols	ND	100	ug/L	200000
1,4-Dichlorobenzene	ND	50	ug/L	7500
2,4-Dinitrotoluene	ND	50	ug/L	130
Hexachlorobenzene	ND	50	ug/L	130
Hexachlorobutadiene	ND	50	ug/L	500
Hexachloroethane	ND	50	ug/L	3000
Nitrobenzene	ND	50	ug/L	2000
Pentachlorophenol	ND	250	ug/L	100000
Pyridine	ND	50	ug/L	5000
2,4,5-Trichlorophenol	ND	100	ug/L	400000
2,4,6-Trichlorophenol	ND	50	ug/L	2000

SURROGATES	AMOUNT SPIKED	% RECOVERY	LOWER LIMIT	UPPER LIMIT
Nitrobenzene-d5	50 ug/L	101	35	114
2-Fluorobiphenyl	50 ug/L	105	43	116
Terphenyl-d14	50 ug/L	103	33	141
Phenol-d5	75 ug/L	89	10	110
2-Fluorophenol	75 ug/L	83	21	110
2,4,6-Tribromophenol	75 ug/L	117	10	123

ANALYZED BY: PC DATE/TIME: 04/09/97 21:00:00
LEACHATE EXTRACTION BY: SW DATE/TIME: 04/04/97 14:00:00
METHOD: 1311/8270, TCLP Semivolatiles
NOTES: * - Practical Quantitation Limit ND - Not Detected
NA - Not Analyzed
▲ - Regulatory Limit. Reference Federal Register 55, 11862 (3/29/90), RCRA Toxicity Characteristic Final Rule.

COMMENTS:

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.

QUALITY CONTROL

DOCUMENTATION

SPL Labs

RECOVERY REPORT

Client Name:
Client SDG: k970314
Sample Matrix: LIQUID
Fraction: VOA
Lab Smp Id: 9703615-01BMS-TCLPV/10X-WATER
Level: LOW
Operator: HLW
Data Type: MS DATA
SampleType: METHSPIKE
SpikeList File: TCLP.spk
Quant Type: ISTD
Method File: /chem/k.i/k970314.b/k8240bwq.m
Misc Info: K073S1/K073K01/K970310

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
5 Vinyl Chloride	500	700	140.99	50-150
10 1,1-Dichloroethene	500	660	131.77	50-150
17 2-Butanone	500	530	105.99	50-150
21 Chloroform	500	530	105.58	50-150
25 1,2-Dichloroethane	500	530	105.41	50-150
27 Benzene	500	500	100.73	50-150
28 Carbon Tetrachlori	500	530	105.98	50-150
34 Trichloroethene	500	450	89.93	50-150
48 Tetrachloroethene	500	540	107.10	50-150
52 Chlorobenzene	500	560	111.31	50-150

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 23 1,2-Dichloroethane	50	52	104.92	76-114
$ 40 Toluene-d8	50	55	109.85	88-110
$ 61 Bromofluorobenzene	50	53	106.21	86-115

SPL Labs

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id: METHSPIKE-8240W/1X
Level: LOW
Data Type: MS DATA
SpikeList File: 8240water.spk
Client SDG: k970314
Fraction: VOA
Client Smp ID: LAB CONT. SAMP.
Operator: HLW
SampleType: METHSPIKE
Quant Type: ISTD
Method File: /chem/k.i/k970314.b/k8240bwq.m
Misc Info: K073S1/K073B01/K970310

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
10 1,1-Dichloroethene	50	62	123.22	61-145
34 Trichloroethene	50	44	87.84	71-120
27 Benzene	50	52	103.31	76-127
43 Toluene	50	54	107.40	76-125
52 Chlorobenzene	50	52	104.90	75-130

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 23 1,2-Dichloroethane	50	50	99.23	76-114
$ 40 Toluene-d8	50	55	109.23	88-110
$ 61 Bromofluorobenzene	50	53	105.78	86-115

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

SPL Blank QC Report

Matrix: Aqueous
Sample ID: BLANK
Batch: M970404113701

Reported on: 04/08/97 16:13
Analyzed on: 04/04/97 12:54
Analyst: GT

METHOD 8240/8260 M094B01

Compound	Result	Detection Limit	Units
Vinyl Chloride	ND	10	ug/L
1,1-Dichloroethene	ND	5	ug/L
2-Butanone	ND	20	ug/L
Chloroform	ND	5	ug/L
1,2-Dichloroethane	ND	5	ug/L
Benzene	ND	5	ug/L
Carbon Tetrachloride	ND	5	ug/L
Trichloroethene	ND	5	ug/L
Tetrachloroethene	ND	5	ug/L
Chlorobenzene	ND	5	ug/L

Surrogate	Result	QC Criteria	Units
1,2-Dichloroethane-d4	98	76-114	% Recovery
Toluene-d8	103	88-110	% Recovery
Bromofluorobenzene	88	86-115	% Recovery

Samples in Batch 9704195-01

Notes

ND - Not detected.

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

SPL Blank QC Report

Matrix: Leachate
Sample ID: TCLPB0403
Batch: M970404113701

Reported on: 04/08/97 16:13
Analyzed on: 04/04/97 14:25
Analyst: GT

METHOD 8240

Compound	Result	Detection Limit	Units
Benzene	ND	5	ug/L
2-Butanone	ND	20	ug/L
Carbon Tetrachloride	ND	5	ug/L
Chlorobenzene	ND	5	ug/L
Chloroform	ND	5	ug/L
1,2-Dichloroethane	ND	5	ug/L
1,1-Dichloroethene	ND	5	ug/L
Tetrachloroethene	ND	5	ug/L
Trichloroethene	ND	5	ug/L
Vinyl Chloride	ND	10	ug/L

Surrogate	Result	QC Criteria	Units
1,2-Dichloroethane-d4	91	76-114	% Recovery
Toluene-d8	104	88-110	% Recovery
Bromofluorobenzene	91	86-115	% Recovery

Samples in Batch 9704195-01

Notes

ND - Not detected.

SPL Houston Labs

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id: 9703422-01BMS-TCLPS
Level: LOW
Data Type: MS DATA
SpikeList File: tclp.spk
Method File: /chem1/h.i/h970320.b/h8270wQ.m
Misc Info: E074F1/H079S06/H079CC2

Client SDG: h970320
Fraction: SV

Operator: LH
SampleType: MS
Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED
17 ortho-Cresol	750	660	87.81
20 meta,para-Cresol	1500	1300	88.50
12 1,4-Dichlorobenzen	500	300	60.27
53 2,4-Dinitrotoluene	500	450	89.30
63 Hexachlorobenzene	500	370	74.19
35 Hexachlorobutadien	500	660	132.16
22 Hexachloroethane	500	390	77.96
24 Nitrobenzene	500	350	70.71
64 Pentachlorophenol	750	420	56.62
2 Pyridine	500	270-170=100	20.00
40 2,4,5-Trichlorophe	750	600	80.34
39 2,4,6-Trichlorophe	750	800	106.08

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED
$ 23 Nitrobenzene-d5	10	10	104.83
$ 41 2-Fluorobiphenyl	10	7	73.92
$ 72 Terphenyl-d14	10	9	87.52
$ 4 Phenol-d5	15	13	84.22
$ 3 2-Fluorophenol	15	11	72.28
$ 61 2,4,6-Tribromophen	15	16	106.77

SPL Houston Labs

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id: LCS
Level: LOW
Data Type: MS DATA
SpikeList File: tclp.spk
Method File: /chem1/h.i/h970318.b/h8270wQ.m
Misc Info: E074F1/H074B03/H077IC3

Client SDG: h970318
Fraction: SV

Operator: LH
SampleType: BLANK
Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
17 ortho-Cresol	750	380	51.34	10-120
20 meta,para-Cresol	1500	700	46.54	10-120
12 1,4-Dichlorobenzen	500	370	74.18	20-124
53 2,4-Dinitrotoluene	500	280	55.81	39-139
63 Hexachlorobenzene	500	380	75.92	0-152
35 Hexachlorobutadien	500	570	114.60	24-116
22 Hexachloroethane	500	450	89.68	40-113
24 Nitrobenzene	500	460	92.18	35-180
64 Pentachlorophenol	750	420	56.63	14-176
2 Pyridine	500	130	26.55	0-150
40 2,4,5-Trichlorophe	750	440	58.42	30-140
39 2,4,6-Trichlorophe	750	430	57.99	37-144

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 23 Nitrobenzene-d5	50	47	94.12	35-114
$ 41 2-Fluorobiphenyl	50	38	75.68	43-116
$ 72 Terphenyl-d14	50	39	78.69	33-141
$ 4 Phenol-d5	75	18	23.84	10-110
$ 3 2-Fluorophenol	75	20	26.32	21-110
$ 61 2,4,6-Tribromophen	75	66	88.71	10-123

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

SPL Blank QC Report

Matrix: Aqueous
Sample ID: BLANK
Batch: E970404042258

Reported on: 04/12/97 13:52
Analyzed on: 04/10/97 19:45
Analyst: PC

METHOD 8270 P094B03A

Compound	Result	Detection Limit	Units
Pyridine	ND	50	ug/L
1,4-Dichlorobenzene	ND	50	ug/L
Hexachloroethane	ND	50	ug/L
Nitrobenzene	ND	50	ug/L
Hexachlorobutadiene	ND	50	ug/L
2,4,6-Trichlorophenol	ND	50	ug/L
2,4,5-Trichlorophenol	ND	100	ug/L
2,4-Dinitrotoluene	ND	50	ug/L
Hexachlorobenzene	ND	50	ug/L
Pentachlorophenol	ND	250	ug/L
ortho-Cresol	ND	50	ug/L
meta,para-Cresol	ND	100	ug/L

Surrogate	Result	QC Criteria	Units
Nitrobenzene-d5	104	35-114	% Recovery
2-Fluorobiphenyl	93	43-116	% Recovery
Terphenyl-d14	114	33-141	% Recovery
Phenol-d5	100	10-110	% Recovery
2-Fluorophenol	102	21-110	% Recovery
2,4,6-Tribromophenol	92	10-123	% Recovery

Samples in Batch 9704195-01

Notes

ND - Not detected.

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

SPL Blank QC Report

Matrix: Leachate
Sample ID: BLANK
Batch: E970404042258

Reported on: 04/12/97 13:52
Analyzed on: 04/10/97 20:17
Analyst: PC

METHOD 8270

Compound	Result	Detection Limit	Units
Pyridine	ND	50	ug/L
1,4-Dichlorobenzene	ND	50	ug/L
Hexachloroethane	ND	50	ug/L
Nitrobenzene	ND	50	ug/L
Hexachlorobutadiene	ND	50	ug/L
2,4,6-Trichlorophenol	ND	50	ug/L
2,4,5-Trichlorophenol	ND	100	ug/L
2,4-Dinitrotoluene	ND	50	ug/L
Hexachlorobenzene	ND	50	ug/L
Pentachlorophenol	ND	250	ug/L
ortho-Cresol	ND	50	ug/L
meta,para-Cresol	ND	100	ug/L

Surrogate	Result	QC Criteria	Units
Nitrobenzene-d5	100	35-114	% Recovery
2-Fluorobiphenyl	83	43-116	% Recovery
Terphenyl-d14	97	33-141	% Recovery
Phenol-d5	107	10-110	% Recovery
2-Fluorophenol	100	21-110	% Recovery
2,4,6-Tribromophenol	89	10-123	% Recovery

Samples in Batch 9704195-01

Notes

ND - Not detected.

LAFAYETTE AREA LAB
500 AMBASSADOR CAFFERY PKWY.
SCOTT, LOUISIANA
ZIP 70583-8544
PHONE: (318) 237-4775

6010A QUALITY CONTROL REPORT

Batch: 9704160900
Matrix: TCLP

Units: mg/L
Analyst: CT

LABORATORY CONTROL SAMPLE

Element	Method Blank	True Value	Result	Recovery	QC Limits
Arsenic	ND	4	3.97	99.2	80-120
Barium	ND	2	1.82	91.1	80-120
Cadmium	ND	2	1.88	94.0	80-120
Chromium	ND	2	1.92	96.2	80-120
Lead	ND	2	1.76	88.0	80-120
Selenium	ND	4	3.71	92.9	80-120

Work Order(s) in Batch:
9704679-01A
9704699-01A
9704702-01A

MATRIX SPIKES

			Matrix Spike		Matrix Spike Duplicate		QC Limits		
Element	Sample Result	Spike Added	Result	Recovery	Result	Recovery	Recovery	RPD %	QC Limits %
Arsenic	ND	4	4.10	102.5	4.12	103.0	80-120	0.49	20
Barium	ND	2	2.18	109.0	2.18	109.0	80-120	0.00	20
Cadmium	ND	2	1.86	93.0	1.88	94.0	80-120	1.07	20
Chromium	ND	2	1.90	95.0	1.92	96.0	80-120	1.05	20
Lead	ND	2	1.74	87.0	1.78	89.0	80-120	2.27	20
Selenium	ND	4	3.80	95.0	3.86	96.5	80-120	1.57	20

Sample spiked: 9704679-01A NC=Not Calculated ND=Not Detected M041697C

form: 200.7

LAFAYETTE LABORATORY
500 AMBASSADOR CAFFERY PKWY.
SCOTT, LOUISIANA 70583-8544
PHONE (318) 237-4775
FAX (318) 237-8005

** SPL QUALITY CONTROL REPORT **

Matrix: Leachate

Reported on: 04/17/97
Analyzed on: 04/17/97
Analyst: JLB

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Silver, TCLP Leachate
Method 7760A ***

SPL Sample ID Number	Method Blank mg/L	Sample Result mg/L	Spike Added mg/L	Matrix Spike Result mg/L	Matrix Spike Recovery %	Matrix Spike Duplicate Result mg/L	Matrix Spike Duplicate Recovery %	RPD (%)	QC LIMITS (Advisory) RPD Max	QC LIMITS (Advisory) % REC
9704679-01A	ND	ND	1.00	0.84	84.0	0.84	84.0	0	20	80 -120

3100970417130000-9704923

Samples in batch:

9704679-01A 9704699-01A 9704702-01A

COMMENTS:

LAFAYETTE LABORATORY
500 AMBASSADOR CAFFERY PKWY.
SCOTT, LOUISIANA 70583-8544
PHONE (318) 237-4775
FAX (318) 237-8005

** SPL QUALITY CONTROL REPORT **

Matrix: Leachate

Reported on: 04/17/97
Analyzed on: 04/17/97
Analyst: JLB

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Silver, TCLP Leachate
Method 7760A ***

SPL Sample ID Number	Blank Value mg/L	LCS Concentration mg/L	Measured Concentration mg/L	% Recovery	QC Limits Recovery
LCS	ND	1.00	0.93	93.0	80 - 120

3100970417130000-9704924

Samples in batch:

9704679-01A 9704699-01A 9704702-01A

COMMENTS:

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713)660-0901

** SPL QUALITY CONTROL REPORT **

Matrix: Leachate

Reported on: 04/04/97
Analyzed on: 04/04/97
Analyst: PB

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Mercury, TCLP Leachate
Method 7470 A***

SPL Sample ID Number	Method Blank ug/L	Sample Result ug/L	Spike Added ug/L	Matrix Spike Result ug/L	Matrix Spike Recovery %	Matrix Spike Duplicate Result ug/L	Matrix Spike Duplicate Recovery %	RPD (%)	QC LIMITS (Advisory) RPD Max	QC LIMITS (Advisory) % REC
9704130-01A	ND	ND	2.00	0.74	37.0 *	0.74	37.0 *	0	20	82.3 -125

-9704174

Samples in batch:

9704130-01A 9704133-01A 9704195-01C

COMMENTS:
LCS= SPL ID# 94-452-30-8
* = MI

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713)660-0901

** SPL QUALITY CONTROL REPORT **

Matrix: Leachate

Reported on: 04/04/97
Analyzed on: 04/04/97
Analyst: PB

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Mercury, TCLP Leachate
Method 7470 A***

SPL Sample ID Number	Blank Value ug/L	LCS Concentration ug/L	Measured Concentration ug/L	% Recovery	QC Limits Recovery
LCS	ND	2.00	1.84	92.0	80 - 120

-9704174

Samples in batch:

9704130-01A 9704133-01A 9704195-01C

COMMENTS:
LCS= SPL ID# 94-452-30-8
* = MI

CHAIN OF CUSTODY

AND

SAMPLE RECEIPT CHECKLIST

SPL, Inc.

Analysis Request & Chain of Custody Record

SPL Workorder No: 97-04-195

20685

page 1 of 1

Client Name: PARSONS ES

Address/Phone: HOUSTON, TX. 713 943-5432

Client Contact: JACKIE TRAVERS

Project Name: BAILEY SUPERFUND SITE

Project Number: 727931

Project Location: BRIDGE CITY, TX. 77611

Invoice To: HOUSTON OFFICE

matrix: W=water S=soil SL=sludge O=other:
bottle: P=plastic A=amber glass G=glass V=vial
size: 1=1 liter 4=4oz 40=vial 8=8oz 16=16oz
pres.: 1=HCl 2=HNO3 3=H2SO4 O=other:

Requested Analysis

SAMPLE ID	DATE	TIME	comp	grab	matrix	bottle	size	pres.	Number of Containers	TCLP - VOC	TCLP - SVOC	TCLP - METALS						
~~WHT01309~~ MHM																		
WHT040297	4/2/97	0800		✓	W	G	32oz	—	6	✓	✓	✓						

Client/Consultant Remarks: 5 DAY TURNAROUND

Laboratory remarks:

Intact? ☑ Y ☐ N

Temp: 4° CROL

Requested TAT

24hr ☐ 72hr ☐

48hr ☐ Standard ☐

Other ☑ 5 DAY

Special Reporting Requirements: PER CONTRACT

Fax Results ☐ Raw Data ☐

Standard QC ☐ Level 3 QC ☐ Level 4 QC ☐

Special Detection Limits (specify):

PM review (initial):

1. Relinquished by Sampler:	date 4-2-97	time 1600	2. Received by: 4/5/97 @ 1000
3. Relinquished by:	date	time	4. Received by:
5. Relinquished by:	date	time	6. Received by Laboratory:

☐ 8880 Interchange Drive, Houston, TX 77054 (713) 660-0901

☐ 459 Hughes Drive, Traverse City, MI 49684 (616) 947-5777

☐ 500 Ambassador Caffery Parkway, Scott, LA 70583 (318) 237-4775

☐ 1511 E. Orangethorpe Avenue, Fullerton, CA 92631 (714) 447-6868

SPL Houston Environmental Laboratory

Sample Login Checklist

Date:	Time:
4-3-97	1000

SPL Sample ID:
97-04-195

			Yes	No
1	Chain-of-Custody (COC) form is present.		✓	
2	COC is properly completed.		✓	
3	If no, Non-Conformance Worksheet has been completed.			
4	Custody seals are present on the shipping container.		✓	
5	If yes, custody seals are intact.		✓	
6	All samples are tagged or labeled.		✓	
7	If no, Non-Conformance Worksheet has been completed.			
8	Sample containers arrived intact		✓	
9	Temperature of samples upon arrival:		4° C	
10	Method of sample delivery to SPL:	SPL Delivery		
		Client Delivery		
		FedEx Delivery (airbill #)	8309617750	
		Other:		
11	Method of sample disposal:	SPL Disposal	✓	
		HOLD		
		Return to Client		

Name:	Date:
[illegible signature]	4-3-97

ATTACHMENT B

DOCUMENTATION AIR MONITORING ANALYTICAL DATA

BAILEY SUPERFUND SITE MONTHLY REPORT FOR APRIL 1997

TABLE 2
DOCUMENTATION AIR SAMPLING FOR THE APRIL 1997
MONTHLY REPORT
Bailey Site, Orange County, Texas

Air Samples taken 3/27/97

Compound	Action Level[1] (ppm)	Action Level[1] (ppb)	Analysis Results 032797D1 (ppb) *Downwind*	Analysis Results 032797U1 (ppb) *Upwind*
Acetone	375	375,000	4.5	4.6
Benzene	0.5	500	0.64	0.64
Butanone, 2- (MEK)	100	100,000	2.2	2.2
Carbon Disulfide	2	2,000	<0.96	<0.94
Chlorobenzene	5	5,000	<0.19	<0.19
Dichloroethane, 1,2-	5	5,000	<0.19	<0.19
Dichloroethene, cis-1,2-	100	100,000	<0.19	<0.19
Dichloroethene, trans-1,2-	100	100,000	<0.96	<0.94
Dichloropropane, 1,2-	37.5	37,500	<0.19	<0.19
Ethyl Benzene	50	50,000	<0.19	<0.19
Methylene Chloride	25	25,000	<0.96	<0.94
Styrene	25	25,000	<0.19	<0.19
Tetrachloroethene	12.5	12,500	<0.19	<0.19
Toluene	25	25,000	0.48	2.4
Trichloroethane, 1,1,1-	5	5,000	<0.19	<0.19
Trichloroethene	25	25,000	<0.19	<0.19
Xylene, m,p-	50	50,000	0.20	1.1
Xylene, o-	50	50,000	<0.19	0.38

[1] Action Levels for the site are specified in Table 2-2 of the Revised Air Monitoring Plan for Final Remediation (Parsons ES, January, 1997)

@AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 9703255

Work Order Summary

CLIENT: Ms. Barbara Dye
Parsons Engineering Science, Inc.
9906 Gulf Freeway, Suite 100
Houston, TX 77034

BILL TO: Ms. Mary E. Miller
Parsons Engineering Science, Inc.
9906 Gulf Freeway, Suite 100
Houston, TX 77034

PHONE: 713-943-5432
FAX: 713-943-5427
DATE RECEIVED: 3/28/97
DATE COMPLETED: 4/1/97

P.O. # 727931-3004-00
PROJECT # 727931 Bailey

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.
01A	032797U1	TO-14	8.5 "Hg
02A	032797D1	TO-14	9.0 "Hg
03A	Lab Blank	TO-14	NA

CERTIFIED BY: Linda L. Freeman
Laboratory Director

DATE: 4/3/97

Certification numbers: CA ELAP - 1149, NY ELAP - 11291, UT ELAP - E-217

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA 95630
(916) 985-1000 • (800) 985-5955 • FAX (916) 985-1020

AIR TOXICS LTD.

SAMPLE NAME: 032797U1

ID#: 9703255-01A

EPA METHOD TO-14 GC/MS Full Scan

File Name:	**j033108**	**Date of Collection:**	**3/27/97**
Dil. Factor:	**1.87**	**Date of Analysis:**	**3/31/97**

Compound	Det. Limit (ppbv)	Amount (ppbv)
Methylene Chloride	0.94	Not Detected
cis-1,2-Dichloroethene	0.19	Not Detected
1,1,1-Trichloroethane	0.19	Not Detected
Benzene	0.19	0.64
1,2-Dichloroethane	0.19	Not Detected
Trichloroethene	0.19	Not Detected
1,2-Dichloropropane	0.19	Not Detected
Toluene	0.19	2.4
Tetrachloroethene	0.19	Not Detected
Chlorobenzene	0.19	Not Detected
Ethyl Benzene	0.19	Not Detected
m,p-Xylene	0.19	1.1
o-Xylene	0.19	0.38
Styrene	0.19	Not Detected
Acetone	0.94	4.6
Carbon Disulfide	0.94	Not Detected
trans-1,2-Dichloroethene	0.94	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.94	2.2

Container Type: 6 Liter Summa Canister

Surrogates	% Recovery	Method Limits
Octafluorotoluene	106	70-130
Toluene-d8	110	70-130
4-Bromofluorobenzene	116	70-130

AIR TOXICS LTD.

SAMPLE NAME: 032797D1

ID#: 9703255-02A

EPA METHOD TO-14 GC/MS Full Scan

File Name:	j033107	**Date of Collection:**	3/27/97
Dil. Factor:	1.91	**Date of Analysis:**	3/31/97

Compound	Det. Limit (ppbv)	Amount (ppbv)
Methylene Chloride	0.96	Not Detected
cis-1,2-Dichloroethene	0.19	Not Detected
1,1,1-Trichloroethane	0.19	Not Detected
Benzene	0.19	0.64
1,2-Dichloroethane	0.19	Not Detected
Trichloroethene	0.19	Not Detected
1,2-Dichloropropane	0.19	Not Detected
Toluene	0.19	0.48
Tetrachloroethene	0.19	Not Detected
Chlorobenzene	0.19	Not Detected
Ethyl Benzene	0.19	Not Detected
m,p-Xylene	0.19	0.20
o-Xylene	0.19	Not Detected
Styrene	0.19	Not Detected
Acetone	0.96	4.5
Carbon Disulfide	0.96	Not Detected
trans-1,2-Dichloroethene	0.96	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.96	2.2

Container Type: 6 Liter Summa Canister

Surrogates	% Recovery	Method Limits
Octafluorotoluene	106	70-130
Toluene-d8	110	70-130
4-Bromofluorobenzene	118	70-130

AIR TOXICS LTD.

SAMPLE NAME: Lab Blank

ID#: 9703255-03A

EPA METHOD TO-14 GC/MS Full Scan

File Name:	j033105	**Date of Collection:**	NA
Dil. Factor:	1.00	**Date of Analysis:**	3/31/97

Compound	Det. Limit (ppbv)	Amount (ppbv)
Methylene Chloride	0.50	Not Detected
cis-1,2-Dichloroethene	0.10	Not Detected
1,1,1-Trichloroethane	0.10	Not Detected
Benzene	0.10	Not Detected
1,2-Dichloroethane	0.10	Not Detected
Trichloroethene	0.10	Not Detected
1,2-Dichloropropane	0.10	Not Detected
Toluene	0.10	Not Detected
Tetrachloroethene	0.10	Not Detected
Chlorobenzene	0.10	Not Detected
Ethyl Benzene	0.10	Not Detected
m,p-Xylene	0.10	Not Detected
o-Xylene	0.10	Not Detected
Styrene	0.10	Not Detected
Acetone	0.50	Not Detected
Carbon Disulfide	0.50	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.50	Not Detected

Container Type: NA

Surrogates	% Recovery	Method Limits
Octafluorotoluene	100	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	108	70-130

AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX: (916) 985-1020

CHAIN-OF-CUSTODY RECORD

№ 010140

Page 1 of 1

Contact Person: Barbara Dye
Company: Parsons ES
Address: 9906 Gulf Freeway City: Houston State: TX Zip: 77034
Phone: 713-943-5432 FAX: 713 943-5427
Collected By: Signature: [signature]

Project info:
P.O. #: 727931-3004-0C
Project #: 727931
Project Name: Bailey

Turn Around Time:
☒ Normal
☐ Rush _____ Specify

Lab I.D.	Field Sample I.D.	Date & Time	Analyses Requested	Canister Pressure / Vacuum Initial	Final	Receipt
01A	03279701	03-27-97 0716 - 1528	TO-14 per contract STRATT	-30	-9	8.5 Hg
02A	03279701	03-27-97 0705 - 1525	"	-30	-8	9.0 Hg

Relinquished By: (Signature) Date/Time 1600 3-27-97 Print Name Michael Steiner
Relinquished By: (Signature) Date/Time Received By. (Signature) Date/Time
Relinquished By: (Signature) Date/Time Received By: (Signature) Date/Time Scott Anderson Air 3/28/97 1100

Notes:
2 Gauges
2 Flow controller
2 Filters

Lab Use Only	Shipper Name	Air Bill #	Opened By:	Date/Time	Temp. (°C)	Condition	Custody Seals Intact?	Work Order #
	FEDEX	0360943925	[illegible]	3/28/97 1100	AMBIENT	GOOD	Yes No None N/A 3/25/97	9703255

Form 1293 rev. 06

LEVEL-IV VALIDATABLE

Volatile Organics Analysis
EPA Method TO-14

COMPLETE SDG FILE (CSF) DOCUMENT
INVENTORY SHEET

Lab Name: Air Toxics Ltd.
City/State: Folsom, CA
Lab Code:

Contract:
SDG:
Work Order: 9703255

	Page Nos. From	Page Nos. To	(Please Check:) Lab	(Please Check:) Region
1. Inventory Sheet (ATL-2) (Do Not Number)			√	
2. Cover Page & Laboratory Narrative (Do Not Number)			√	
3. QC Summary				
a. Surrogate Recovery (FORM II-ATL)	–	–	–	
b. Sample Results/Sample Results Duplicate (FORM III-DUP-ATL)	–	–	–	
c. Method Blank Summary (FORM IV-ATL)	–	–	–	
d. GC/MS Instrument Performance Check (BFB Tune) (FORM V-ATL) + Run Log	1	5	√	
e. Internal Standard Area and Retention Time Summary (FORM VIII-ATL)	–	–	–	
4. Sample Results (FORM I-ATL/FORM I-TIC-ATL + Raw Data)	6	76	√	
5. Standards & Raw QC Data				
a. Initial Calibration Data (Summary Sheet + Raw Data)	77	126	√	
b. Continuing Calibration Data (Summary Sheet + Raw Data)	127	156	√	
c. BFB Tune (Raw Data)	157	166	√	
d. Blank Data (FORM I-ATL + Raw Data)	167	191	√	
6. Canister Certification (FORM ATL-3 + Raw Data)	–	–	–	
7. Shipping/Receiving Documents:				
a. Airbill (No. of Shipments ____)	–	–	–	
b. Chain-of-Custody Records	192	192	√	
c. Sample Tags	–	–	–	
d. Sample Log-In Sheet	193	193	√	
Misc. Shipping/Receiving Records (list individual records)				
Corrective Action Report	–	–	–	
	–	–	–	
8. Internal Lab Sample Transfer Records & Tracking Sheets	–	–	–	
9. Internal Original Sample Preparation & Analysis Records (describe or list):				
a. Preparation Records	–	–	–	
b. Analysis Records	–	–	–	
10. Other Records (decribe or list)				
a. Telephone Communication Log	–	–	–	
b. Dilution Factors	194	194	√	
	–	–	–	

Comments:

Completed by:

Julie R Bellendir (Signature) — Julie R. Bellendir / Document Control (Print Name & Title) — 4-3-97 (Date)

FORM ATL-2

LABORATORY NARRATIVE
Analysis of VOLATILE ORGANICS by EPA Method TO-14
Work Order #9703255

Two 6L Summa™ Canister samples were received on March 28, 1997. The laboratory performed analysis via EPA Method TO-14 using a capillary direct quadrupole GC/MS in the full scan mode. The method involves cryofocusing up to 0.5 L of air at liquid argon temperatures. The cryofocused aliquot is then flash vaporized to 225°C and swept through a hydrophobic drier to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis. Please see the data sheets for the analytical detection limit. Library searching of the top ten tentatively identified compounds was not performed per the client's request.

The concentrations present in the samples were calculated using the technique of internal standards. Three internal standards (Bromochloromethane, 1,4-Difluorobenzene and Chlorobenzene-d5) were spiked at 5.0 ppbv into every standard, blank and sample. Three surrogates (Octafluorotoluene, Toluene-d8 and 4-Bromofluorobenzene) were also spiked at 5.0 ppbv.

The analytical dilution factor reported on the data sheet is derived from a combination of canister receipt vacuum and laboratory dilution. All canisters are pressurized to 5 psi (unless they are received at a pressure greater than 5psi) prior to analysis. This results in an effective dilution factor governed by the equation

$$DF_1 = \frac{14.7\text{ psi} + 5\text{ psi}}{14.7\text{ psi} - ((\text{Receipt Pressure})(14.7/30))}$$

A table of canister pressure dilution factors appears at the end of this deliverable. Should additional dilution be required to ensure that all compounds are within the analytical curve, the additional dilution factor (DF_2) would be multiplied by the pressurization dilution factor. This would result in the dilution factor shown on the report.

$$DF_1 \times DF_2 = \text{DF Total}$$

Laboratory duplicates, when performed, are noted by the suffix - Duplicate.

EPA Method TO-14 does not specify Initial Calibration and Continuing Calibration Check (CCC) criteria. The laboratory established criteria is that all compounds must be less than or equal to 30% RSD in the Initial Calibration Curve prior to analysis of samples. The average relative response factors from the initial calibration curve are used to calculate results. The Laboratory Standard Operating Procedure requires that 90% of the standard TO-14 target analytes must be within 70% to 130% Recovery in the CCC. For the non-standard TO-14 compounds (Acetone, Carbon Disulfide, trans-1,2-Dichloroethene and 2-Butanone), 80% must be witin 60% to 140% Recovery in the CCC. A new analytical curve is analyzed if these criteria are not met.

The laboratory used automated data transfer to create the forms found in the package. The first set of quantitation pages for each sample are the reduced data. Next, an audit history has been included to show all changes made to the unreduced data and the analyst performing the change. Finally, the unreduced quantitation pages are included.

GC/MS Calculations:

$$RRF = \frac{A_x}{A_{is}} \times \frac{C_{is}}{C_x}$$

Where: RRF - Relative Response Factor
A_x - Area of Characteristic Ion of Compound
A_{is} - Area of Characteristic Ion of Internal Standard
C_{is} - Concentration of Internal Standard
C_x - Concentration of Compound

Calculations continued on next page.

$$C_{sample} = \frac{A_{sample}}{A_{is}} \times \frac{C_{is}}{RRF} \times DF$$

Where: C_{sample} - Conc. of Compound in Sample
A_{sample} - Area of Cmpd's Ion in Sample
A_{is} - Area of Ion of Internal Std.
C_{is} - Conc. of Internal Standard
RRF - Relative Response Factor (the average RRF from the Initial Calibration Curve)
DF - Dilution Factor

All internal standard areas and retention times were within the allowed windows. All surrogate recoveries were within the allowed windows.

There were no out of the ordinary circumstances to report.

Five qualifiers may have been used on the data analysis sheets and indicate as follows:

- E - Exceeds instrument calibration range, but within linear range.
- S - Saturated Peak
- J - Reported below the detection limit, but supported by mass spectra.
- B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).
- Q - Exceeds Quality Control Limits of 70% to 130%

Table 1

Client Sample No.	Lab Sample ID	Date Collected	Date Received	Date Analyzed	Receipt Vacuum ("Hg/psi)	Final Pressure (psi)
032797U1	9703255-01A	3/27/97	3/28/97	3/31/97	8.5 "Hg	5 psi
032797D1	9703255-02A	3/27/97	3/28/97	3/31/97	9.0 "Hg	5 psi

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION-
BROMOFLUOROBENZENE (BFB)

0001

Lab Name: AIR TOXICS LIMITED
Lab Code:
Lab File ID: J010903
Instrument ID: MSD J
Matrix: Ambient Air

SDG No:
Comment:
BFB Injection Date: 1-9-97
BFB Injection Time: 09:07

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.19
75	30.0 - 60.0% of mass 95	45.57
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.57
173	< 2.0% of mass 174	(0.00
174	> 50.0% of mass 95	71.18
175	5.0 - 9.0% of mass 174	(6.99
176	> 95.0%, but < 101.0% of mass 174	(96.77
177	5.0 - 9.0% of mass 176	(6.97

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

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

	EPA SAMPLE ID.	LAB SAMPLE ID.	LAB FILE ID.	DATE ANALYZED	TIME ANALYZED
01		std 296-25 (0.1 ppbv)	J010904	1-9-97	09:24
02		std 296-25 (0.5 ppbv)	J010905	1-9-97	10:04
03		std 296-25 (5.0 ppbv)	J010906	1-9-97	10:44
04		std 296-25 (10.0 ppbv)	J010907	1-9-97	11:27
05		std 296-25 (25.0 ppbv)	J010908	1-9-97	12:02
06		std 296-25 (50.0 ppbv)	J010909	1-9-97	12:48
07		std 296-25 (75.0 ppbv)	J010910	1-9-97	13:31
08		System Blank	J010911	1-9-97	14:11
09		TO14-0001 (25.0 ppbv)	J010912	1-9-97	14:51
10		System Blank	J010913	1-9-97	15:41
11		TO14-0001 (25.0 ppbv)	J010914	1-9-97	16:21
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

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Code	Sample Name / Client	Cur #	Pressure	Amount	D.F.	Init
JO1C501	Lab Blank	94300		500.0 ml	1.0	FA
JO1C502	Lab Blank	94300		500.0 ml	1.0	FA
JO1C503	≠296-25 100 ppbv	(50 ppbv)		25.0 ml	2.00	FA
JO1C504	≠296-25 100 ppbv			50.0 ml	1.0	FA
JO1C505	Lab Blank	94300		500.0 ml	1.0	FA
				FA	1-7-97	
JO10701	System Blank	Bag		250.0 ml	1.0	FA
JO10702	BFB Tune Check ≠275-3-25			2.0 ml	1.0	FA
JO10703	Can Cert	12766		1.0L	1.0	FA
JO10704	Can Cert.	05365		1.0L	1.0	FA
JO10705	Can Cert.	12793		1.0L	1.0	FA
JO10706	Can Cert.	14111		1.0L	1.0	FA
JO10707	Can Cert.	05763		1.0L	1.0	FA
JO10708	Can Cert.	05711		1.0L	1.0	FA
JO10709	Can Cert	776-2		1.0L	1.0	FA
				FA	1-9-97	
JO10901	Lab Blank	94300		500.0 ml	1.0	FA
JO10902	Lab Blank	94300		500.0 ml	1.0	FA
JO10903	BFB Tune Check ≠275-3-25			2.0 ml	1.0	FA
JO10904	≠296-25 100 ppbv	(0.1 ppbv)		0.5 ml	1.0	FA
JO10905	≠296-25 100 ppbv	(0.5 ppbv)		2.5 ml	1.0	FA
JO10906	≠296-25 100 ppbv	(5.0 ppbv)		25.0 ml	1.0	FA
JO10907	≠296-25 100 ppbv	(10.0 ppbv)		50.0 ml	1.0	FA
JO10908	≠296-25 100 ppbv	(25.0 ppbv)		125.0 ml	1.0	FA
JO10909	≠296-25 100 ppbv	(50.0 ppbv)		250.0 ml	1.0	FA
JO10910	≠296-25 100 ppbv	(75.0 ppbv)		375.0 ml	1.0	FA
JO10911	System Blank	Bag		250.0 ml	1.0	FA
JO10912	T014-0001 1.0 ppmv	(25.0 ppbv)		12.5 ml	4.0	FA

Continued on Page

Read and Understood By

Signed Date Signed Date

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION-
BROMOFLUOROBENZENE (BFB)

0003

Lab Name: AIR TOXICS LIMITED
Lab Code:
Lab File ID: J033101
Instrument ID: MSD-J
Matrix: Ambient Air

SDG No:
Contract:
BFB Injection Date: 3-31-97
BFB Injection Time: 8:16

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.38
75	30.0 - 60.0% of mass 95	46.33
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.57
173	< 2.0% of mass 174	(0.00) 1
174	> 50.0% of mass 95	71.09
175	5.0 - 9.0% of mass 174	(7.30) 1
176	> 95.0%, but < 101.0% of mass 174	(99.78) 1
177	5.0 - 9.0% of mass 176	(6.60) 2

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

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

	EPA SAMPLE ID.	LAB SAMPLE ID.	LAB FILE ID.	DATE ANALYZED	TIME ANALYZED
01		#96-97 T014 (old std) Full scan	J033102	3-31-97	8:41
02		#236-97 (cupbd)	J033103	3-31-97	10:46
03		System Blank, 10ml MH 3/31/97	J033104	3-31-97	11:36
04		Lab Blank (Can # Cert.)	J033105	3-31-97	12:35
05		Can # 22498 Cert.	J033106	3-31-97	13:26
06		97-3255-04	J033107	3-31-97	14:13
07		97-3255-01A	J033108	3-31-97	15:08
08		Can # 1-53 Cert.	J033109	3-31-97	16:01
09		Can # 9-343 Cert	J033110	3-31-97	16:45
10		Standby	J033111		
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

PROJECT MSD-J COPY FROM ATL Notebook No. 221 Continued From Page 50004 53

File #	Sample Name/Client	Can #	Pressure	Amount	DF	Initials
J032712	#296-97		(0.1ppbv)	500 µl	1.0	MH
J032713			(5ppbv)	25 ml	1.0	MH
J032714	System Blank			250 ml	1.0	OB
				3/31/97		
✓ J032801	BFB Tune Check #295-8-15			2 µl	1.0	MH
J032802	System Blank	8 29		250 ml	1.0	MH
✓ J032803	#315-4 TO14 (old) std 100ppbv		(0.015ppbv)	75 µl	1.0	MH
J032804	#315-4		(0.015ppbv)	75 µl	1.0	MH
✓ J032805	#315-4		(0.015ppbv)	250 ml	1.0	MH
J032806	#315-4		(0.1ppbv)	500 µl	1.0	MH
J032807	#315-4		(0.1ppbv)	500 µl	1.0	MH
✓ J032808	#315-4		(0.1ppbv)	500 µl	1.0	MH
✓ J032809	#315-4		MH 3/28/97 (2.0ppbv)	10 ml	1.0	MH
✓ J032810	#315-4		(5ppbv)	25 ml	1.0	MH
✓ J032811	#315-4		(10ppbv)	5 ml	1.0	MH
✓ J032812	#315-4		(20ppbv)	~~Bend~~ 10 ml	MH 3/28/97 1.0	MH
J032813	System Blank	8 29		250 ml	1.0	MH
J032814	#315-4 100ppbv		75 ml	0.015ppbv	1.0	OB
J032815	#315-4 100ppbv		75 ml	0.015ppbv	1.0	OB
J032816	#315-4 100ppbv		500 ml	0.10ppbv	1.0	OB
				3/31/97		
✓ J033301	BFB Tune Check #295-8-11			2 µl	1.0	MH
✓ J033302	#296-97 TO14 (old std) Full scan			25 ml	1.0	MH
✓ J033303	#296-97 TO14 (10ppbv)			50 ml	1.0	MH
J033304	System Blank			250 ml	1.0	MH
✓ J033305	Lab Blank Can #5705 Cert.			500 ml	1.0	MH
✓ J033306	Can Cert.	22498		500 ml	1.0	MH
✓ J033307	9703255-02A/Parsons	20995	8"→5psi	500 ml	1.01	MH
✓ J033308	9703255-01A	13999	25"→5psi	500 ml	1.07	MH
✓ J033309	~~9703~~ MH 3/31/97 Can Cert	1053		500 ml	1.0	MH
✓ J033310	Can Cert.	9843		500 ml	1.0	MH
J033311	Standby					MH

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Read and Understood By

Signed: [signature] Date: 4/1/97 Signed: Date:

IS #296-75	Area (cts)
B C M:	331161
1,4-DFB:	1427422
C B-d5:	1184253

(SIM)

Increase multiplier 5 before this run.

IS #296-75	Area (cts)
B C M:	197959
1,4-DFB:	279427
C B-d5:	791209

0.22
CH_3Cl

Continued on Page

Read and Understood By

Signed	Date	Signed	Date
[illegible]	4/1/97		

AIR TOXICS LTD.

SAMPLE NAME: 032797U1

ID#: 9703255-01A

EPA METHOD TO-14 GC/MS Full Scan

File Name:	j033108	Date of Collection:	3/27/97
Dil. Factor:	1.87	Date of Analysis:	3/31/97

Compound	Det. Limit (ppbv)	Amount (ppbv)
Methylene Chloride	0.94	Not Detected
cis-1,2-Dichloroethene	0.19	Not Detected
1,1,1-Trichloroethane	0.19	Not Detected
Benzene	0.19	0.64
1,2-Dichloroethane	0.19	Not Detected
Trichloroethene	0.19	Not Detected
1,2-Dichloropropane	0.19	Not Detected
Toluene	0.19	2.4
Tetrachloroethene	0.19	Not Detected
Chlorobenzene	0.19	Not Detected
Ethyl Benzene	0.19	Not Detected
m,p-Xylene	0.19	1.1
o-Xylene	0.19	0.38
Styrene	0.19	Not Detected
Acetone	0.94	4.6
Carbon Disulfide	0.94	Not Detected
trans-1,2-Dichloroethene	0.94	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.94	2.2

Container Type: 6 Liter Summa Canister

Surrogates	% Recovery	Method Limits
Octafluorotoluene	106	70-130
Toluene-d8	110	70-130
4-Bromofluorobenzene	116	70-130

Data File: /chem/msdj.i/j-31mar.b/j033108.d
Report Date: 31-Mar-1997 15:43

MH 3/31/97

Air Toxics Limited

AMBIENT AIR METHOD TO14

Data file : /chem/msdj.i/j-31mar.b/j033108.d
Lab Smp Id: 9703255-01A Client Smp ID: 032797U1
Inj Date : 31-MAR-1997 15:09
Operator : MH Inst ID: msdj.i
Smp Info : 500mL Can#13999
Misc Info : 8.5"Hg-5.0psi Parsons TO14(Short List)
Comment :
Method : /chem/msdj.i/j-31mar.b/to140109.m
Meth Date : 31-Mar-1997 11:14 mhe Quant Type: ISTD
Cal Date : 09-JAN-1997 12:48 Cal File: j010909.d
Als bottle: 1
Dil Factor: 1.870
Integrator: HP RTE Compound Sublist: Parsons.sub
Target Version: 3.12 Sample Matrix: AIR
Concentration Formula: Uf * Vf

Name	Value	Description
Uf	1.000	ng unit correction factor
Vf	1.000	Volumetric correction factor

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
30 Bromochloromethane					CAS #: 74-97-5			
15.807	15.820 (1.000)	130	167031	5.0			100.00	9108
15.807	15.820 (0.000)	128	37904			26.08- 126.08	22.69	
15.807	15.820 (0.000)	49	100152			142.81- 242.81	59.96	
$ 35 Octafluorotoluene					CAS #: 434-64-0			
16.318	16.346 (1.032)	217	407717	5.3	5.3		100.00	8112
16.318	16.346 (0.000)	186	84240			17.98- 117.98	20.66	
* 40 1,4-Difluorobenzene					CAS #: 540-36-3			
17.127	17.155 (1.000)	114	711552	5.0			[illegible]	9172
17.127	17.155 (0.000)	88	41584			0.00- 69.[illegible]	[illegible]	
$ 49 Toluene-d8					CAS #: 2037-26-5			
19.133	19.169 (1.117)	98	709910	5.5	5.5		100.00	9946
19.133	19.169 (0.000)	70	27433			0.00- 63.97	3.86	
19.133	19.169 (0.000)	100	141504			16.53- 116.53	19.93	
58 Chlorobenzene-d5					CAS #: 3114-55-4			
21.185	21.229 (1.000)	117	668425	5.0			100.00	9958
21.185	21.229 (0.000)	82	119776			14.81- 114.81	17.92	

Data File: /chem/msdj.i/j-31mar.b/j033108.d
Report Date: 31-Mar-1997 15:43

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
$ 65 Bromofluorobenzene					CAS #: 460-00-4			
23.009	23.060 (1.086)	95	597898	5.8	5.8		100.00	7954
23.009	23.060 (0.000)	174	84720			10.31- 110.31	14.17	
23.009	23.060 (0.000)	176	80408			7.57- 107.57	13.45	
16 Acetone					CAS #: 67-64-1			
12.641	12.578 (0.800)	43	163288	2.5	4.6		100.00	
12.648	12.578 (0.800)	58	42944			0.00- 79.57	26.30	
28 2-Butanone					CAS #: 78-93-3			
15.448	15.461 (0.977)	72	21301	1.2	2.2		100.00	7757
15.448	15.461 (0.000)	43	28892			482.17- 582.17	35.64	
15.448	15.461 (0.000)	57	1909			0.00- 86.64	8.96	
37 Benzene					CAS #: 71-43-2			
16.684	16.705 (0.974)	78	46377	0.34	0.64		100.00	9050
16.684	16.705 (0.000)	77	3322			0.00- 74.19	7.16	
51 Toluene					CAS #: 108-88-3			
19.232	19.268 (1.123)	92	107697	1.3	2.4		100.00	8416
19.232	19.268 (0.000)	91	53998			115.23- 215.23	50.14	
61 m,p-Xylene					CAS #: 108-38-3			
21.483	21.519 (1.014)	106	40994	0.59	1.1		100.00	
21.483	21.519 (1.014)	91	92389			164.96- 264.96	25.37	
62 o-Xylene					CAS #: 95-47-6			
22.131	22.168 (1.045)	106	8661	0.20	0.38		100.00	8919
22.131	22.168 (0.000)	91	4942			179.83- 279.83	[illegible]	

Audit History For: /chem/msdj.i/j-31mar.b/j033108.. 0009

MH
3/31/97

Change Date: 31-Mar-97 15:26
Change Made by: Automation

Parameter: ChemLan Data Transfer
Old Value:
New Value:
Reason For Change: MS Data from Instrument: msdj.i

Change Date: 31-Mar-97 15:26
Change Made by: Automation

Parameter: Target Processing
Old Value:
New Value: Method: /chem/msdj.i/j-31mar.b/to140109..
Reason For Change: Complete Target Compound Proces-ing

Change Date: 31-Mar-97 15:40
Change Made by: mhe

Parameter: date
Old Value: 31-MAR-97 15:09
New Value: 31-MAR-1997 15:09
Reason For Change: N/A

Change Date: 31-Mar-97 15:40
Change Made by: mhe

Parameter: Misc Information
Old Value:
New Value: 8.5"Hg-5.0psi Parsons TO14(Short Li-
Reason For Change: N/A

Change Date: 31-Mar-97 15:40
Change Made by: mhe

Parameter: Compound Sublist
Old Value: AT.sub
New Value: Parsons.sub
Reason For Change: N/A

Change Date: 31-Mar-97 15:40
Change Made by: mhe

Parameter: Sample Info
Old Value: 9703255-01A 500mL Can#13999 Parson 8.5"-5psi 032797U1
New Value: 500mL Can#13999
Reason For Change: N/A

Change Date: 31-Mar-97 15:40
Change Made by: mhe

Parameter: Lab ID
Old Value:
New Value: 9703255-01A
Reason For Change: N/A

Change Date: 31-Mar-97 15:40
Change Made by: mhe

Parameter: Client ID
Old Value: VSTD150
New Value: 032797U1
Reason For Change: N/A

Change Date: 31-Mar-97 15:40
Change Made by: mhe

Parameter: Target Processing
Old Value:
New Value: Method: /chem/msdj.i/j-31mar.b/to140109.m
Reason For Change: Quantitation

Change Date: 31-Mar-97 15:40
Change Made by: mhe

Parameter: Best Hit for Carbon Disulfide changed
Old Value: Compound Manually Identified
New Value: New Hit #1
Reason For Change: N/A

Change Date: 31-Mar-97 15:40
Change Made by: mhe

Parameter: Manual reintegration of Carbon Disulfide (Signal 1)
Old Value: No previous peak at 12.831
New Value: New Area/Time: 4978 / 12.83
Reason For Change: N/A

Change Date: 31-Mar-97 15:40
Change Made by: mhe

Parameter: Best Hit for Carbon Disulfide changed
Old Value: Old Hit #1
New Value: Compound Undetected
Reason For Change: N/A

Change Date: 31-Mar-97 15:40
Change Made by: mhe

Parameter: Requantitate all compounds
Old Value:
New Value:
Reason For Change: N/A

Change Date: 31-Mar-97 15:40
Change Made by: mhe

Parameter: Best Hit for Methylene Chloride changed
Old Value: Old Hit #1
New Value: Compound Undetected
Reason For Change: N/A

Change Date: 31-Mar-97 15:40
Change Made by: mhe

Parameter: Requantitate all compounds
Old Value:
New Value:

Reason For Change: N/A

Change Date: 31-Mar-97 15:41
Change Made by: mhe

Parameter: Best Hit for 1,1,1-Trichlorethane changed
Old Value: Old Hit #1
New Value: Compound Undetected
Reason For Change: N/A

Change Date: 31-Mar-97 15:41
Change Made by: mhe

Parameter: Requantitate all compounds
Old Value:
New Value:
Reason For Change: N/A

Change Date: 31-Mar-97 15:41
Change Made by: mhe

Parameter: Best Hit for 1,2-Dichloroethane changed
Old Value: Old Hit #1
New Value: Compound Undetected
Reason For Change: N/A

Change Date: 31-Mar-97 15:41
Change Made by: mhe

Parameter: Requantitate all compounds
Old Value:
New Value:
Reason For Change: N/A

Change Date: 31-Mar-97 15:41
Change Made by: mhe

Parameter: Best Hit for Trichloroethene changed
Old Value: Compound Manually Identified
New Value: New Hit #1
Reason For Change: N/A

Change Date: 31-Mar-97 15:41
Change Made by: mhe

Parameter: Manual reintegration of Trichloroethene Signal 1
Old Value: No previous peak at 17.531
New Value: New Area/Time: 1199 / 17.53
Reason For Change: N/A

Change Date: 31-Mar-97 15:41
Change Made by: mhe

Parameter: Best Hit for Trichloroethene changed
Old Value: Old Hit #1
New Value: Compound Undetected
Reason For Change: N/A

Change Date: 31-Mar-97 15:41
Change Made by: mhe

Parameter: Requantitate all compounds
Old Value:
New Value:
Reason For Change: N/A

Change Date: 31-Mar-97 15:41
Change Made by: mhe

Parameter: Best Hit for Tetrachloroethene changed
Old Value: Compound Manually Identified
New Value: New Hit #1
Reason For Change: N/A

Change Date: 31-Mar-97 15:41
Change Made by: mhe

Parameter: Manual reintegration of Tetrachloroethe. (Signal 1)
Old Value: No previous peak at 20.003
New Value: New Area/Time: 644 / 20.00
Reason For Change: N/A

Change Date: 31-Mar-97 15:41
Change Made by: mhe

Parameter: Best Hit for Tetrachloroethene changed
Old Value: Old Hit #1
New Value: Compound Undetected
Reason For Change: N/A

Change Date: 31-Mar-97 15:41
Change Made by: mhe

Parameter: Requantitate all compounds
Old Value:
New Value:
Reason For Change: N/A

Change Date: 31-Mar-97 15:41
Change Made by: mhe

Parameter: Best Hit for Chlorobenzene changed
Old Value: Compound Manually Identified
New Value: New Hit #1
Reason For Change: N/A

Change Date: 31-Mar-97 15:41
Change Made by: mhe

Parameter: Manual reintegration of Chlorobenzene (Signal 1)
Old Value: No previous peak at 21.224
New Value: New Area/Time: 936 / 21.22
Reason For Change: N/A

Change Date: 31-Mar-97 15:41
Change Made by: mhe

Parameter: Best Hit for Chlorobenzene changed
Old Value: Old Hit #1
New Value: Compound Undetected

Reason For Change: N/A

Change Date: 31-Mar-97 15:41
Change Made by: mhe

Parameter: Requantitate all compounds
Old Value:
New Value:
Reason For Change: N/A

Change Date: 31-Mar-97 15:41
Change Made by: mhe

Parameter: Best Hit for Ethyl Benzene changed
Old Value: Old Hit #1
New Value: Compound Undetected
Reason For Change: N/A

Change Date: 31-Mar-97 15:41
Change Made by: mhe

Parameter: Requantitate all compounds
Old Value:
New Value:
Reason For Change: N/A

Change Date: 31-Mar-97 15:41
Change Made by: mhe

Parameter: Best Hit for Styrene changed
Old Value: Compound Manually Identified
New Value: New Hit #1
Reason For Change: N/A

Change Date: 31-Mar-97 15:41
Change Made by: mhe

Parameter: Manual reintegration of Styrene (Signal ..)
Old Value: No previous peak at 22.124
New Value: New Area/Time: 1904 / 22.12
Reason For Change: N/A

Change Date: 31-Mar-97 15:41
Change Made by: mhe

Parameter: Best Hit for Styrene changed
Old Value: Old Hit #1
New Value: Compound Undetected
Reason For Change: N/A

Change Date: 31-Mar-97 15:41
Change Made by: mhe

Parameter: Requantitate all compounds
Old Value:
New Value:
Reason For Change: N/A

Change Date: 31-Mar-97 15:42
Change Made by: mhe

Parameter: Best Match for Unknown compound at 4.1[illegible] min. changed.
Old Value: Old match: Unknown
New Value: New match: Unknown Compound Deleted
Reason For Change: N/A

Change Date: 31-Mar-97 15:42
Change Made by: mhe

Parameter: Best Match for Unknown compound at 22.617 min. changed.
Old Value: Old match: Acetamide, N,N-dimethyl-
New Value: New match: Unknown Compound Deleted
Reason For Change: N/A

Change Date: 31-Mar-97 15:42
Change Made by: mhe

Parameter: Best Match for Unknown compound at 25.301 min. changed.
Old Value: Old match: Phenol
New Value: New match: Unknown Compound Deleted
Reason For Change: N/A

Change Date: 31-Mar-97 15:42
Change Made by: mhe

Parameter: Best Match for Unknown compound at 22.788 min. changed.
Old Value: Old match: Cyclotetrasiloxane, octamethyl-
New Value: New match: Unknown Compound Deleted
Reason For Change: N/A

Change Date: 31-Mar-97 15:43
Change Made by: mhe

Parameter: Target Processing
Old Value:
New Value: Method: /chem/msdj.i/j-31mar.b/to14010.m
Reason For Change: Quantitation

Data File: /chem/msdj.i/j-31mar.b/j033108.d
Report Date: 31-Mar-1997 15:40

MH 3/31/97

Air Toxics Limited

AMBIENT AIR METHOD TO14

Data file : /chem/msdj.i/j-31mar.b/j033108.d
Lab Smp Id: 9703255-01A Client Smp ID: 032797U1
Inj Date : 31-MAR-1997 15:09
Operator : MH Inst ID: msdj.i
Smp Info : 500mL Can#13999
Misc Info : 8.5"Hg-5.0psi Parsons TO14(Short List)
Comment :
Method : /chem/msdj.i/j-31mar.b/to140109.m
Meth Date : 31-Mar-1997 11:14 mhe Quant Type: ISTD
Cal Date : 09-JAN-1997 12:48 Cal File: j010909.d
Als bottle: 1
Dil Factor: 1.870
Integrator: HP RTE Compound Sublist: Parsons.sub
Target Version: 3.12 Sample Matrix: AIR
Concentration Formula: Uf * Vf

Name	Value	Description
Uf	1.000	ng unit correction factor
Vf	1.000	Volumetric correction factor

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
* 30 Bromochloromethane					CAS #: 74-97-5			
15.807	15.820 (1.000)	130	167031	5.0			100.00	9108
15.807	15.820 (0.000)	128	37904			26.08- 126.08	22.69	
15.807	15.820 (0.000)	49	100152			142.81- 242.81	59.96	
35 Octafluorotoluene					CAS #: 434-64-0			
16.318	16.346 (1.032)	217	407717	5.3	5.3		100.00	8112
16.318	16.346 (0.000)	186	84240			17.98- 117.98	20.66	
40 1,4-Difluorobenzene					CAS #: 540-36-3			
17.127	17.155 (1.000)	114	711552	5.0			100.00	9172
17.127	17.155 (0.000)	88	41584			0.00- 69.13	5.84	
49 Toluene-d8					CAS #: 2037-26-5			
19.133	19.169 (1.117)	98	709910	5.5	5.5		100.00	9946
19.133	19.169 (0.000)	70	27433			0.00- 63.97	3.86	
19.133	19.169 (0.000)	100	141504			16.53- 116.53	19.93	
58 Chlorobenzene-d5					CAS #: 3114-55-4			
21.185	21.229 (1.000)	117	668425	5.0			100.00	9958
21.185	21.229 (0.000)	82	119776			14.81- 114.81	17.92	

Data File: /chem/msdj.i/j-31mar.b/j033108.d
Report Date: 31-Mar-1997 15:40

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
$ 65 Bromofluorobenzene					CAS #: 460-00-4			
23.009	23.060 (1.086)	95	597898	5.8	5.8		100.00	7954
23.009	23.060 (0.000)	174	84720			10.31- 110.31	14.17	
23.009	23.060 (0.000)	176	80408			7.57- 107.57	13.45	
16 Acetone					CAS #: 67-64-1			
12.641	12.578 (0.800)	43	163288	2.5	4.6		100.00	
12.648	12.578 (0.800)	58	42944			0.00- 79.57	26.30	
20 Methylene Chloride					CAS #: 75-09-2			
13.434	13.409 (0.850)	84	6176	0.16	0.30		100.00	3429
13.434	13.409 (0.000)	49	2772			102.16- 202.16	44.88	
13.434	13.409 (0.000)	51	513			0.00- 96.86	8.31	
28 2-Butanone					CAS #: 78-93-3			
15.448	15.461 (0.977)	72	21301	1.2	2.2		100.00	7757
15.448	15.461 (0.000)	43	28892			482.17- 582.17	135.64	
15.448	15.461 (0.000)	57	1909			0.00- 86.64	8.96	
15.189	15.461 (0.961)	72	79151	4.3	8.0		100.00	4592(Q)
15.189	15.461 (0.000)	43	39665			482.17- 582.17	50.11	
15.189	15.461 (0.000)	57	11636			0.00- 86.64	14.70	
33 1,1,1-Trichlorethane					CAS #: 71-55-6			
16.165	16.186 (1.023)	97	4931	0.063	0.12		100.00	7384(a)
16.165	16.186 (0.000)	99	718			14.39- 114.39	14.56	
37 Benzene					CAS #: 71-43-2			
16.684	16.705 (0.974)	78	46377	0.34	0.64		100.00	9050
16.684	16.705 (0.000)	77	3322			0.00- 74.19	7.16	
38 1,2-Dichloroethane					CAS #: 107-06-2			
16.684	16.713 (0.974)	62	2114	0.040	0.074		100.00	3933(a)
16.684	16.713 (0.000)	64	198			0.00- 83.16	9.37	
17.127	16.713 (1.000)	62	28450	0.53	1.0		100.00	3463(Q)
17.127	16.713 (0.000)	64	8375			0.00- 83.16	29.44	
51 Toluene					CAS #: 108-88-3			
19.232	19.268 (1.123)	92	107697	1.3	2.4		100.00	8416
19.232	19.268 (0.000)	91	53998			115.23- 215.23	50.14	
60 Ethyl Benzene					CAS #: 100-41-4			
21.330	21.366 (1.007)	106	6463	0.091	0.17		100.00	(a)
21.315	21.366 (1.006)	91	23430			296.25- 396.25	362.53	
21.483	21.366 (1.014)	106	40994	0.58	1.1		100.00	(Q)
21.483	21.366 (1.014)	91	92389			296.25- 396.25	225.37	

Data File: /chem/msdj.i/j-31mar.b/j033108.d
Report Date: 31-Mar-1997 15:40

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO	SIMILARITY	
61 m,p-Xylene					CAS #: 108-38-3				
21.483	21.519 (1.014)	106	40994	0.59	1.1		100.00		
21.483	21.519 (1.014)	91	92389			164.96- 264.96	225.37		
21.330	21.519 (1.007)	106	6463	0.093	0.17		100.00		(aQ)
21.315	21.519 (1.006)	91	23430			164.96- 264.96	362.53		
62 o-Xylene					CAS #: 95-47-6				
22.131	22.168 (1.045)	106	8661	0.20	0.38		100.00	8919	
22.131	22.168 (0.000)	91	4942			179.83- 279.83	57.06		

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

Data File: /chem/msdj.i/j-31mar.b/j033108.d
Report Date: 31-Mar-1997 15:40

Air Toxics Limited

Unknown Compounds Quantitation Report

Data file : /chem/msdj.i/j-31mar.b/j033108.d
Lab Smp Id: 9703255-01A Client Smp ID: 032797U1
Inj Date : 31-MAR-1997 15:09
Operator : MH Inst ID: msdj.i
Smp Info : 500mL Can#13999
Misc Info : 8.5"Hg-5.0psi Parsons TO14(Short List)
Comment :
Method : /chem/msdj.i/j-31mar.b/to140109.m
Meth Date : 31-Mar-1997 11:14 mhe
Cal Date : 09-JAN-1997 12:48 Cal File: j010909.d
Als bottle: 1
Dil Factor: 1.870 Target Version: 3.12
Integrator: HP RTE Compound Sublist: Parsons.sub
Sample Matrix: AIR
Quantitative Mode : Use RF of Nearest Std
Concentration Formula: Uf * Vf

Name	Value	Description
Uf	1.000	ng unit correction factor
Vf	1.000	Volumetric correction factor

	ISTD	RT	AREA	AMOUNT
*	30 Bromochloromethane	15.807	1173720	5.000
*	40 1,4-Difluorobenzene	17.127	1862892	5.000
*	58 Chlorobenzene-d5	21.185	2298399	5.000

RT	AREA	CONCENTRATIONS ON-COL(PPBV)	FINAL(PPBV)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown					CAS #:		
4.104	1896609	8.1	15.1	0		0	30
Unknown					CAS #:		
5.866	228740	0.97	1.8	0		0	30
Unknown					CAS #:		
7.445	166988	0.71	1.3	0		0	30

Data File: /chem/msdj.i/j-31mar.b/j033108.d
Report Date: 31-Mar-1997 15:40

RT	AREA	CONCENTRATIONS ON-COL(PPBV)	FINAL(PPBV)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Butane					CAS #: 106-97-8		
8.406	293286	1.2	2.3	64	NBS54K.l	98	30
Acetaldehyde					CAS #: 75-07-0		
9.139	399472	1.7	3.2	86	NBS54K.l	37	30
Unknown					CAS #:		
10.619	484080	2.1	3.8	0		0	30
Butanal					CAS #: 123-72-8		
15.189	885014	3.8	7.0	90	NBS54K.l	257	30
1-Butanol					CAS #: 71-36-3		
17.325	707994	1.9	3.6	78	NBS54K.l	322	40
Pentanal					CAS #: 110-62-3		
17.813	353299	0.95	1.8	72	NBS54K.l	647	40
1,3-Dioxolane, 2-propyl-					CAS #: 3390-13-4		
20.956	153760	0.33	0.62	59	NBS54K.l	2917	58
Heptanal					CAS #: 111-71-7		
22.330	165360	0.36	0.67	50	NBS54K.l	2693	58
Acetamide, N,N-dimethyl-					CAS #: 127-19-5		
22.627	2363806	5.1	9.6	80	NBS54K.l	707	58
Cyclotetrasiloxane, octamethyl-					CAS #: 556-67-2		
22.788	313653	0.68	1.3	64	NBS54K.l	35637	58
Phenol					CAS #: 108-95-2		
25.801	299668	0.65	1.2	91	NBS54K.l	933	58
Unknown					CAS #:		
27.251	232694	0.51	0.95	0		0	58

Data File: /chem/msdj.i/j-31mar.b/j033108.d
Report Date: 31-Mar-1997 15:40

Air Toxics Limited

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdj.i
Lab File ID: j033108.d
Lab Smp Id: 9703255-01A
Analysis Type: VOA
Quant Type: ISTD
Operator: MH
Method File: /chem/msdj.i/j-31mar.b/to140109.m
Misc Info: 8.5"Hg-5.0psi Parsons TO14(Short List)

Calibration Date: 03/31/97
Calibration Time: 1046
Client Smp ID: 032797U1
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	% DIFF
30 Bromochloromethane	197959	118775	277143	167031	-15.62
40 1,4-Difluorobenzene	879427	527656	1231198	711552	-19.09
58 Chlorobenzene-d5	791228	474737	1107719	668425	-15.52

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	% DIFF
30 Bromochloromethane	15.78	15.28	16.28	15.81	0.15
40 1,4-Difluorobenzene	17.12	16.62	17.62	17.13	0.05
58 Chlorobenzene-d5	21.18	20.68	21.68	21.19	0.04

MH
3/31/97

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

Data File: /chem/msdj.i/j-31mar.b/j033108.d
Report Date: 31-Mar-1997 15:40

Air Toxics Limited

RECOVERY REPORT

Client Name:
Sample Matrix: GAS
Lab Smp Id: 9703255-01A
Level: LOW
Data Type: MS DATA
SpikeList File:
Client SDG: j-31mar
Fraction: VOA
Client Smp ID: 032797U1
Operator: MH
SampleType: SAMPLE
Quant Type: ISTD
Method File: /chem/msdj.i/j-31mar.b/to140109.m
Misc Info: 8.5"Hg-5.0psi Parsons TO14(Short List)

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 35 Octafluorotoluene	5.0	5.3	105.35	60-140
$ 49 Toluene-d8	5.0	5.5	110.27	60-140
$ 65 Bromofluorobenzene	5.0	5.8	115.52	60-140

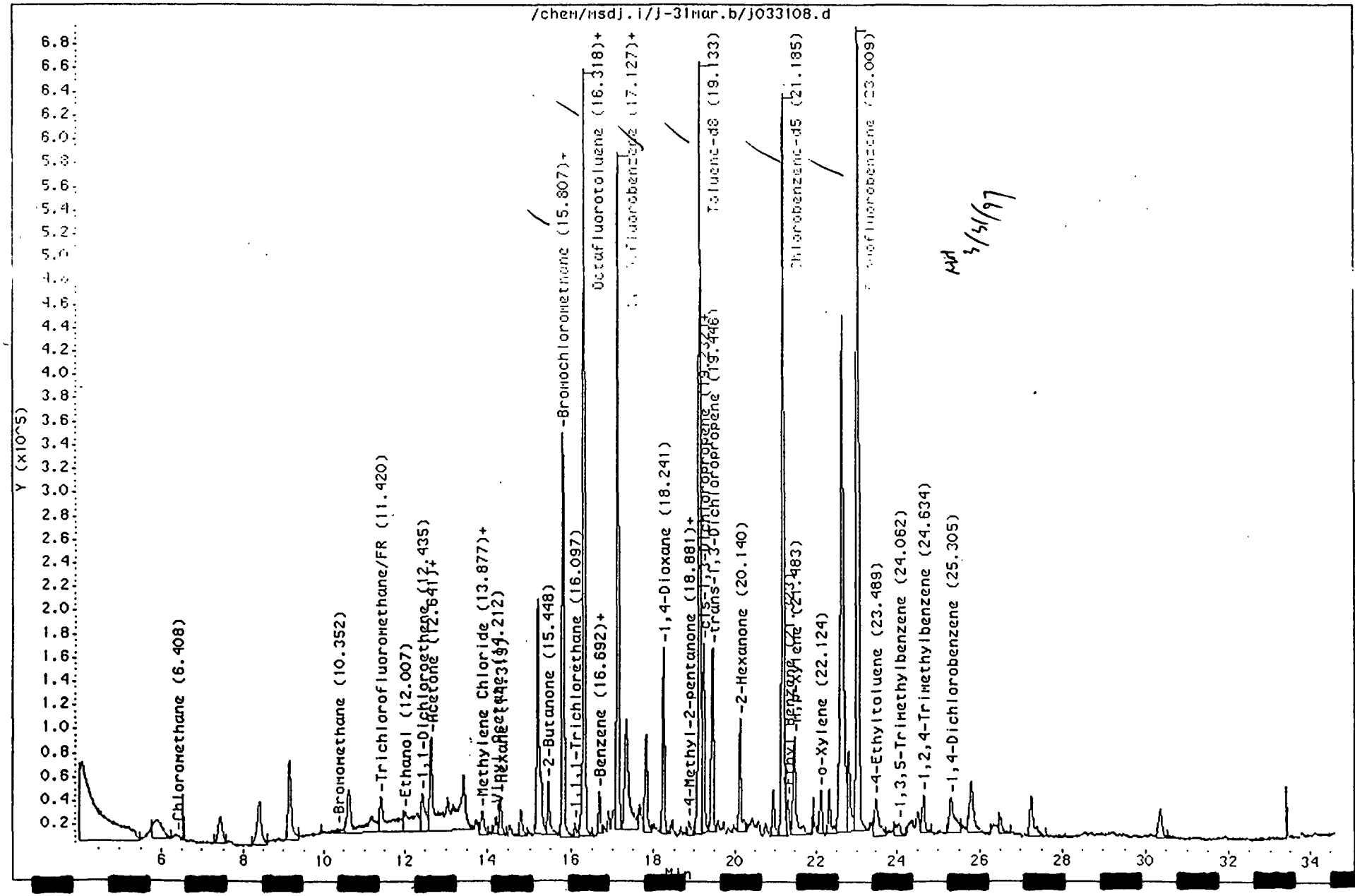
MH
3/31/97

Data File: /chem/msdj.i/j-31mar.b/j033108.d
Date : 31-MAR-1997 15:09
Client ID: 032797U1
Sample Info: 500mL Can#13999

Column phase: RTx-624

Instrument: msdj.i

Operator: MH
Column diameter: 0.58



Data File: /chem/msdj.i/j-31mar.b/j033108.d

Date : 31-MAR-1997 15:09

Client ID: 032797U1

Instrument: msdj.i

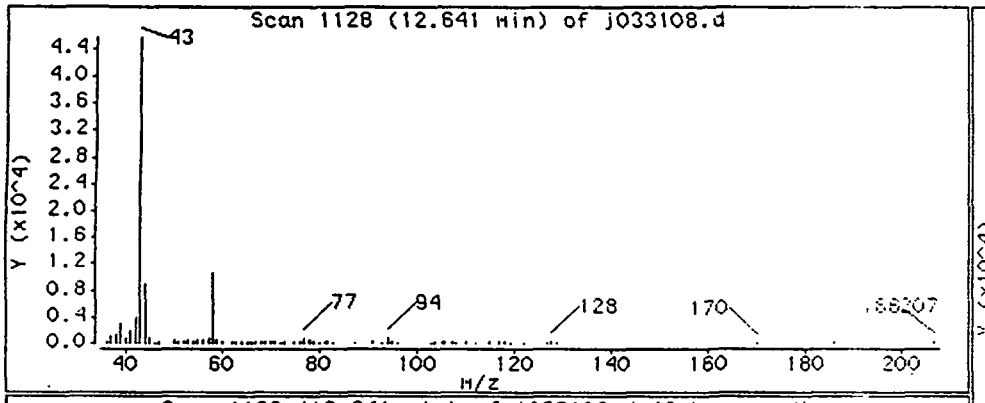
Sample Info: 500mL Can#13999

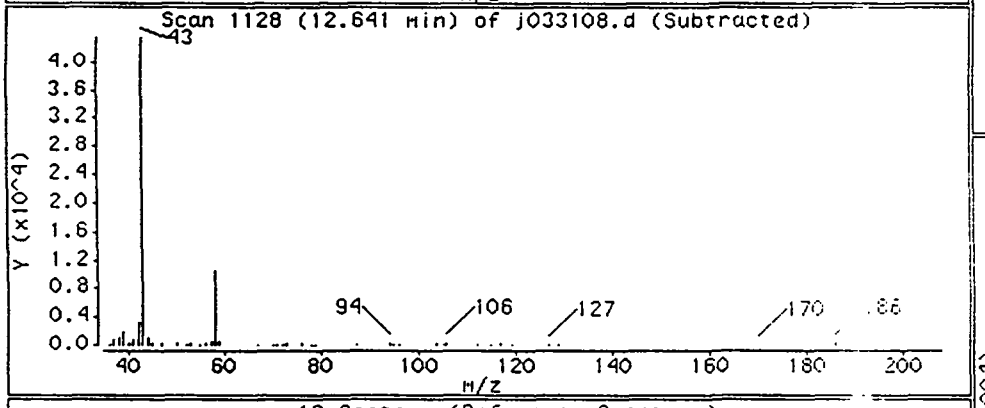
Operator: MH

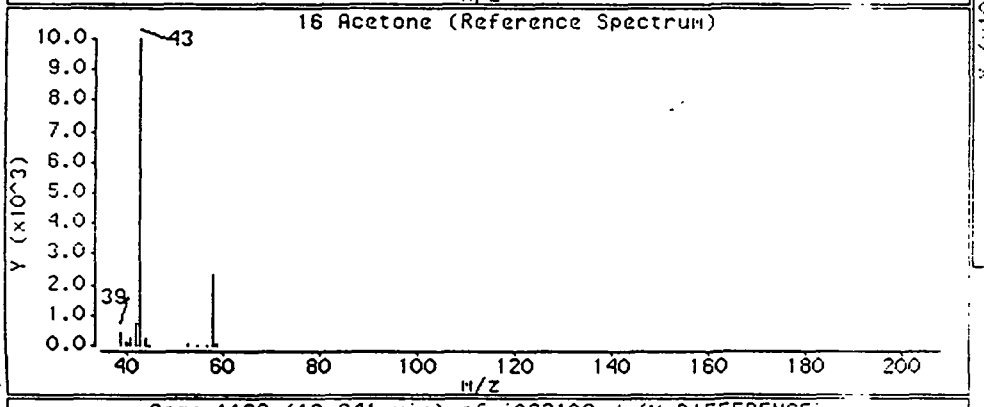
Column phase: RTx-624

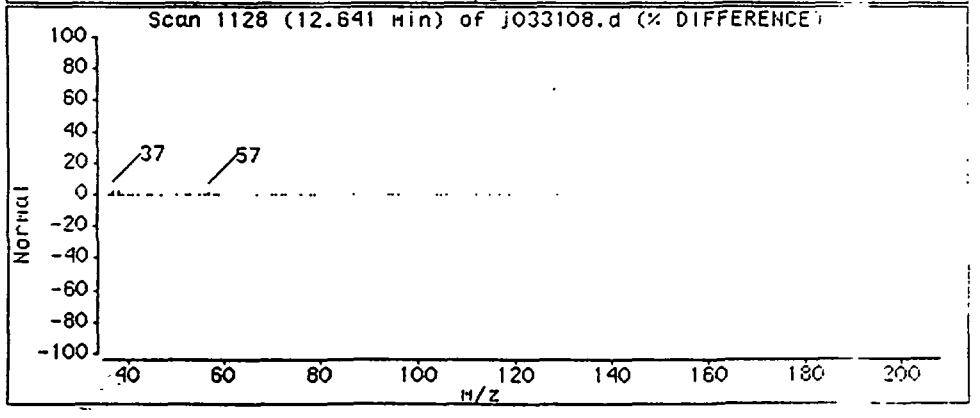
Column diameter: 0.58

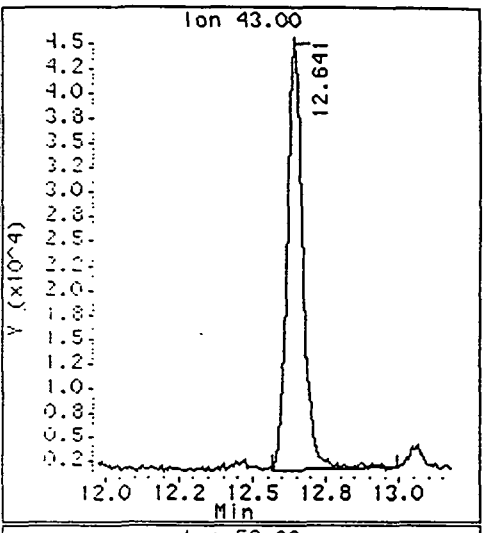
16 Acetone

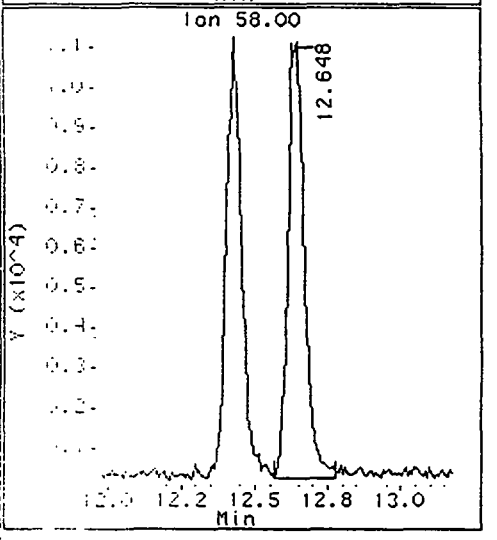












Data File: /chem/msdj.i/j-31mar.b/j033108.d

Date : 31-MAR-1997 15:09

Client ID: 032797U1

Instrument: msdj.i

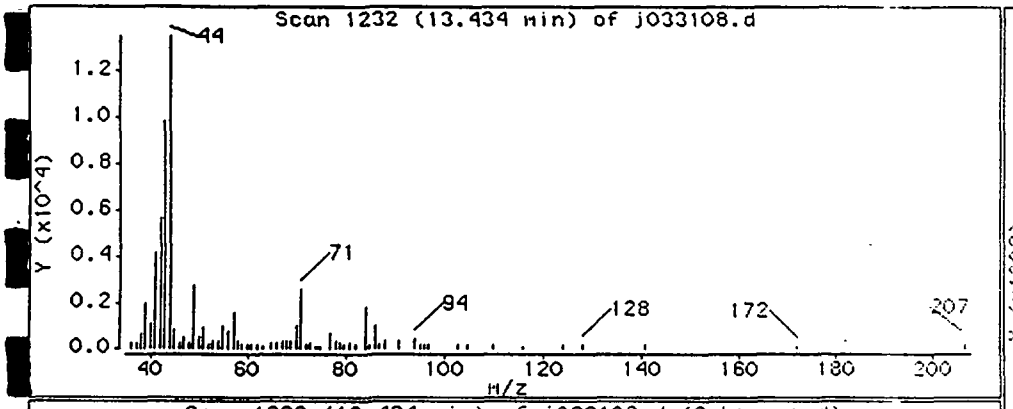
Sample Info: 500mL Can#13999

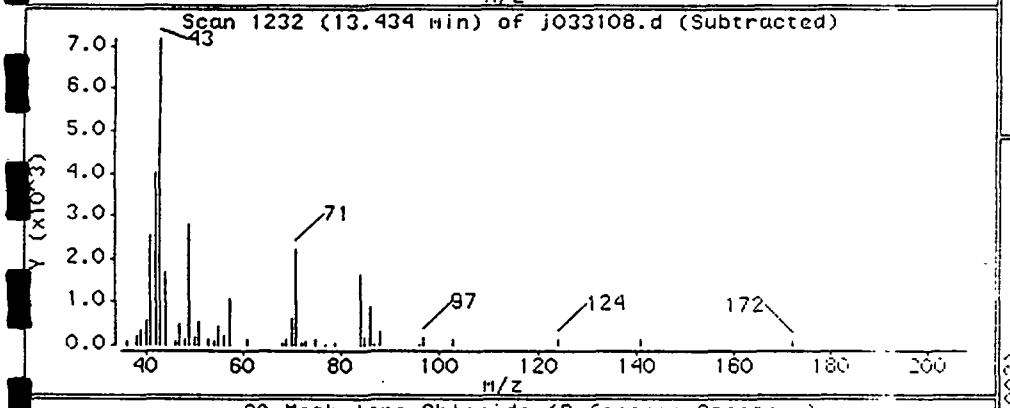
Operator: MH

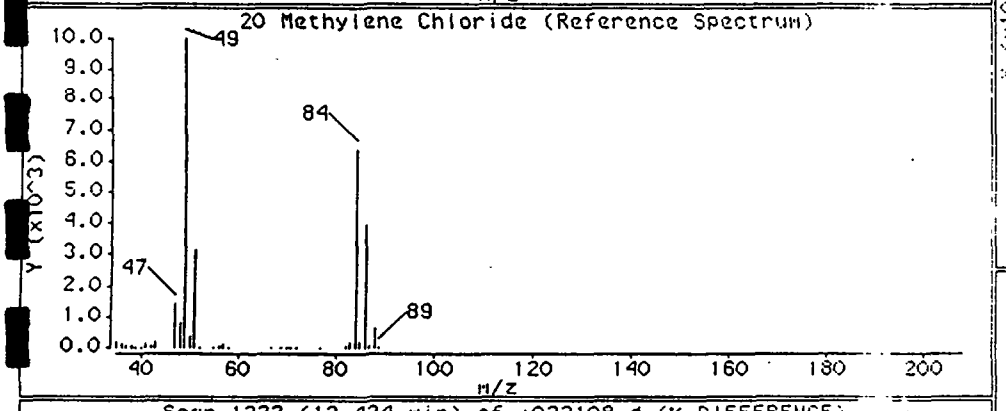
Column phase: RTx-624

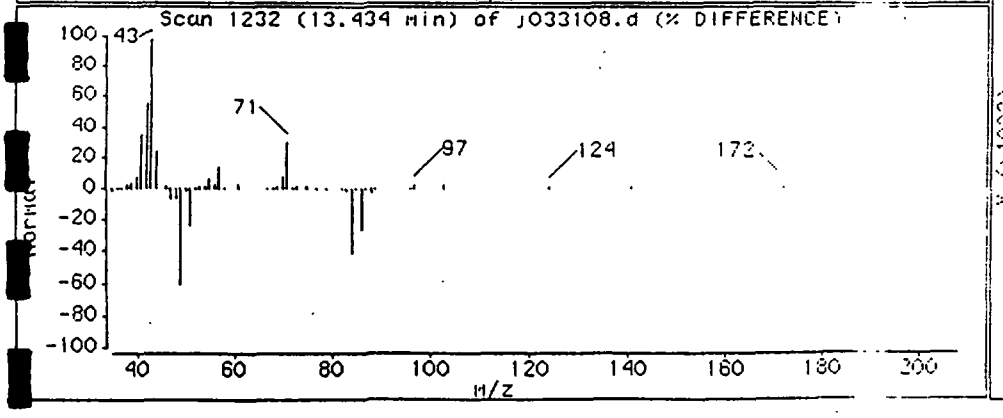
Column diameter: 0.53

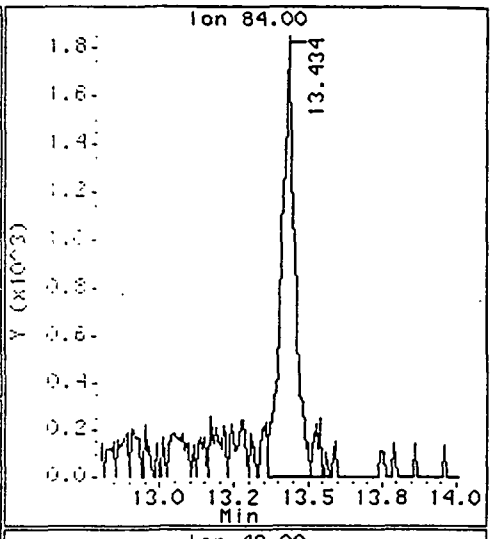
20 Methylene Chloride

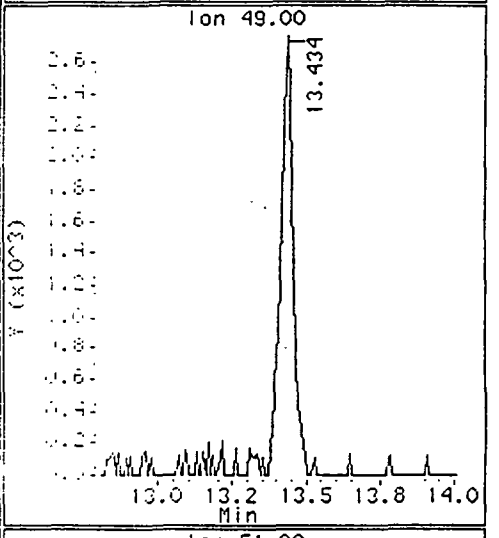


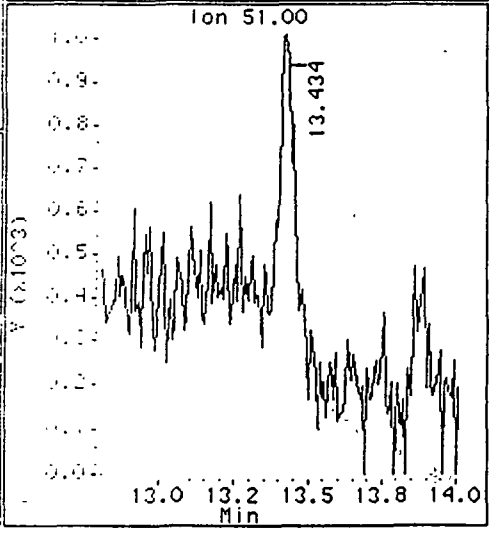












Data File: /chem/msdj.i/j-31mar.b/j033108.d

Date : 31-MAR-1997 15:09

Client ID: 032797U1

Instrument: msdj.i

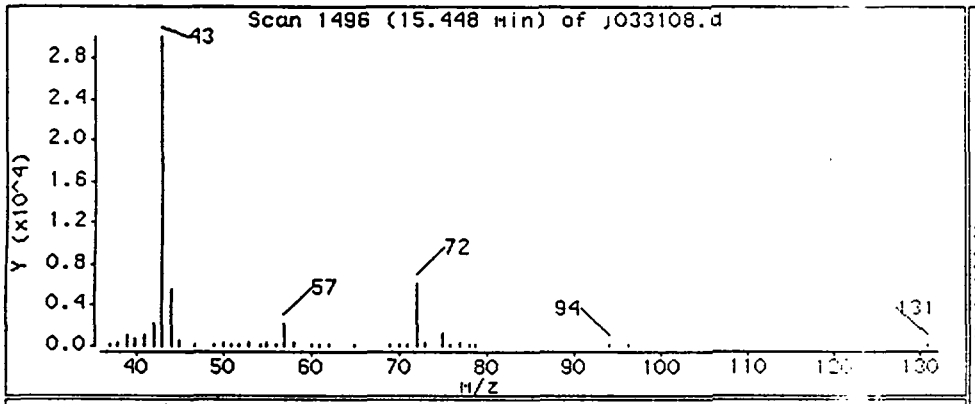
Sample Info: 500mL Can#13999

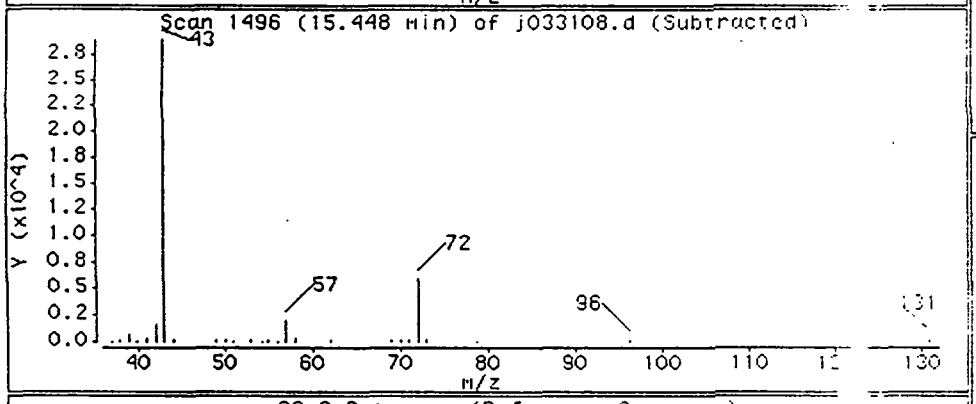
Operator: MH

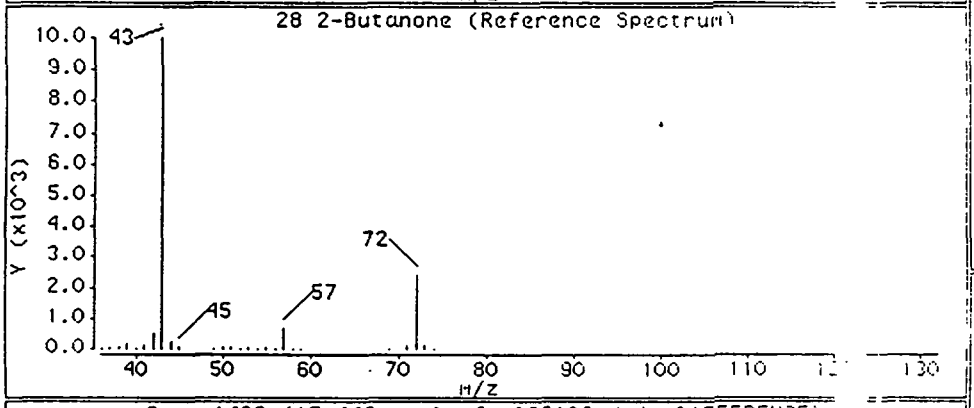
Column phase: RTx-624

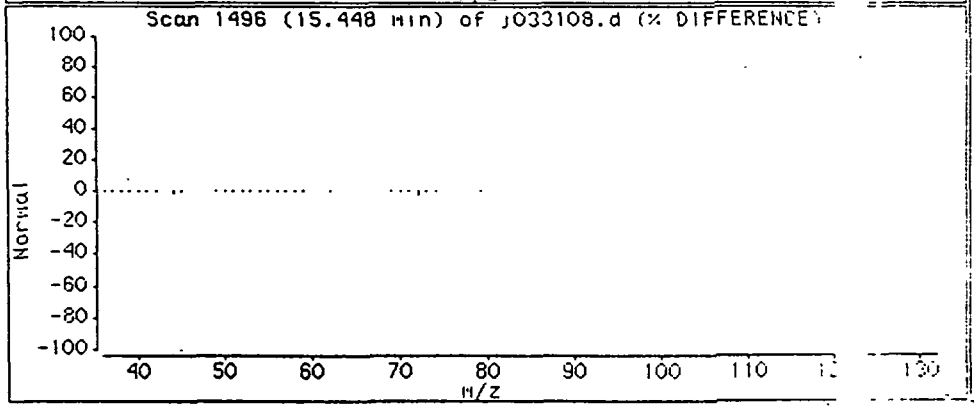
Column diameter: 0.53

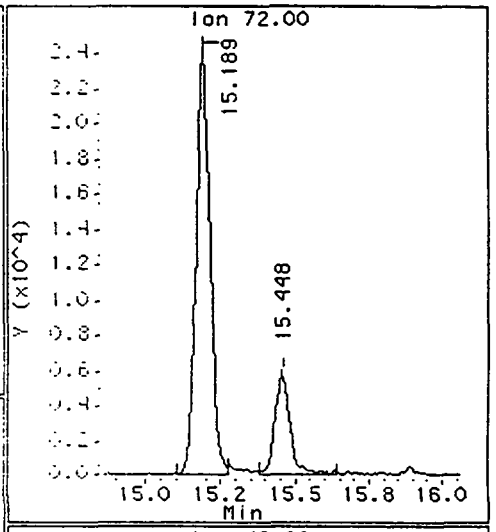
28 2-Butanone

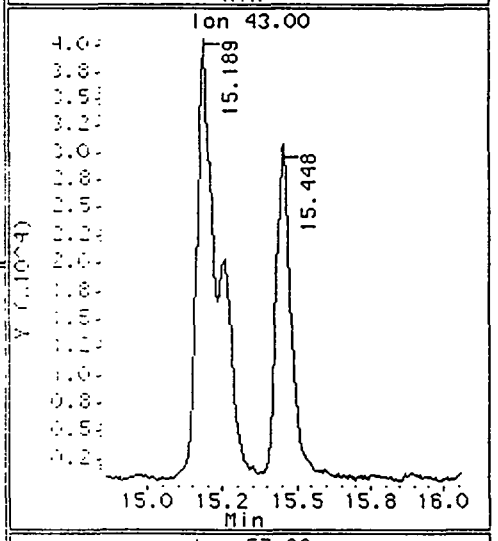


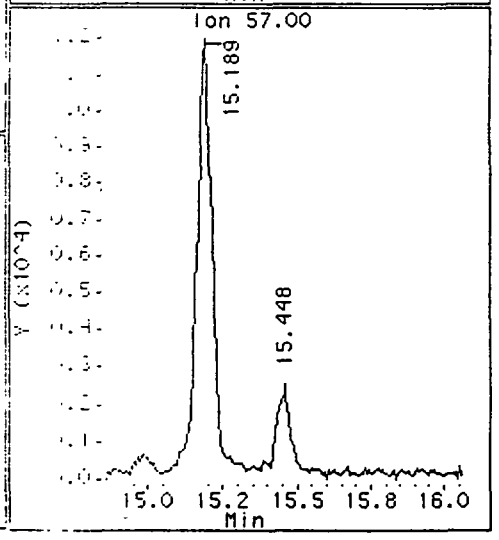












Data File: /chem/msdj.i/j-31mar.b/j033108.d

Date : 31-MAR-1997 15:09

Client ID: 032797U1

Instrument: msdj.i

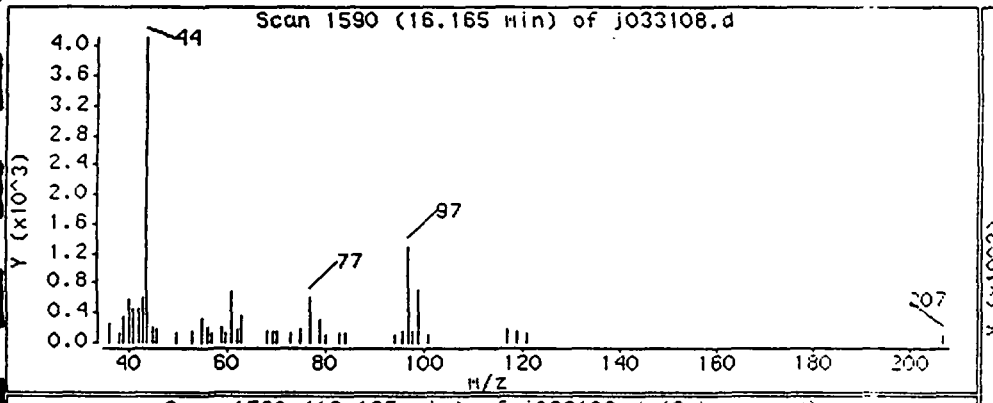
Sample Info: 500ML Can#13999

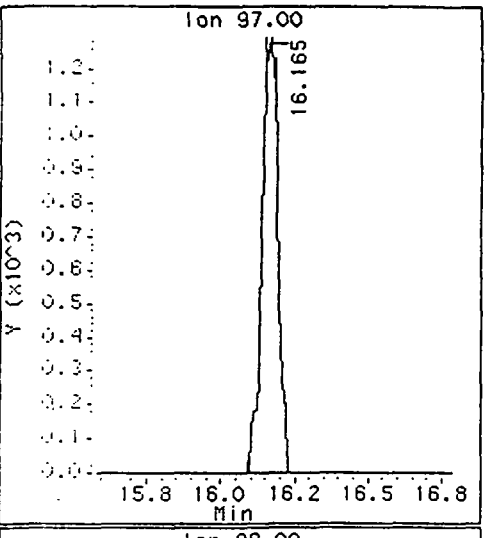
Operator: MH

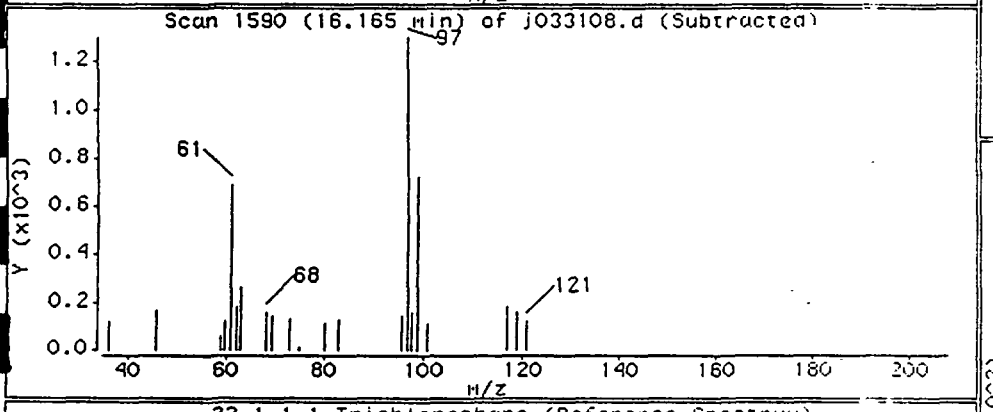
Column phase: RTx-624

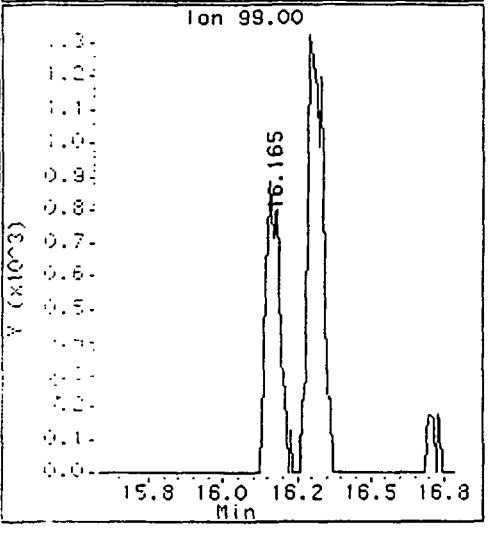
Column diameter: 0.58

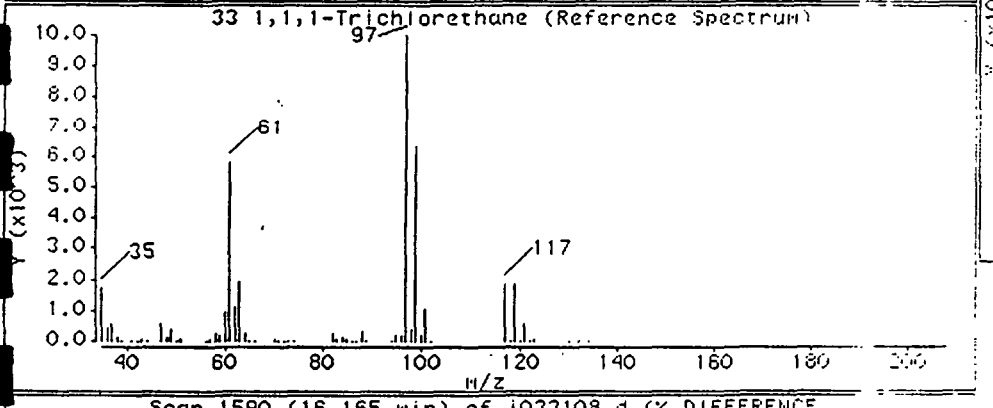
33 1,1,1-Trichlorethane

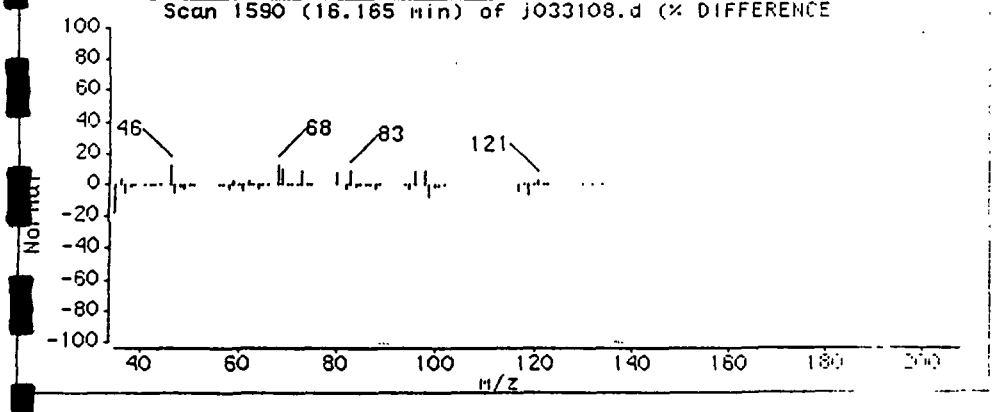












Data File: /chem/msdj.i/j-31mar.b/j033108.d

Date : 31-MAR-1997 15:09

Client ID: 032797U1

Instrument: msdj.i

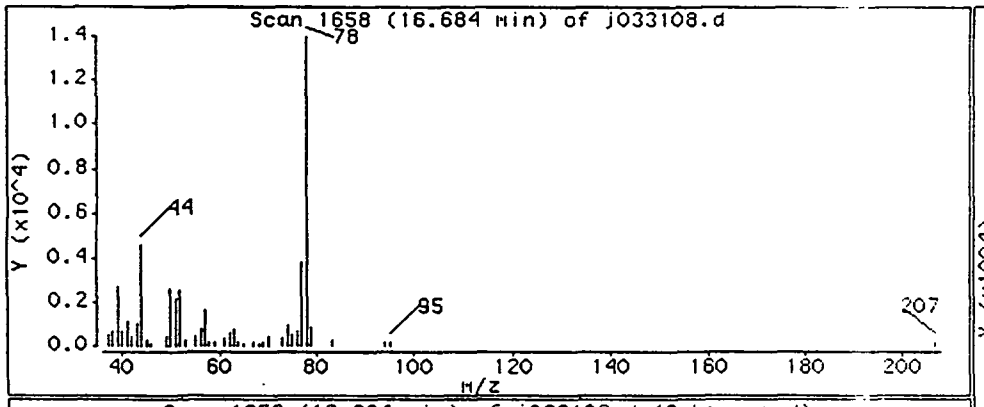
Sample Info: 500mL Can#13999

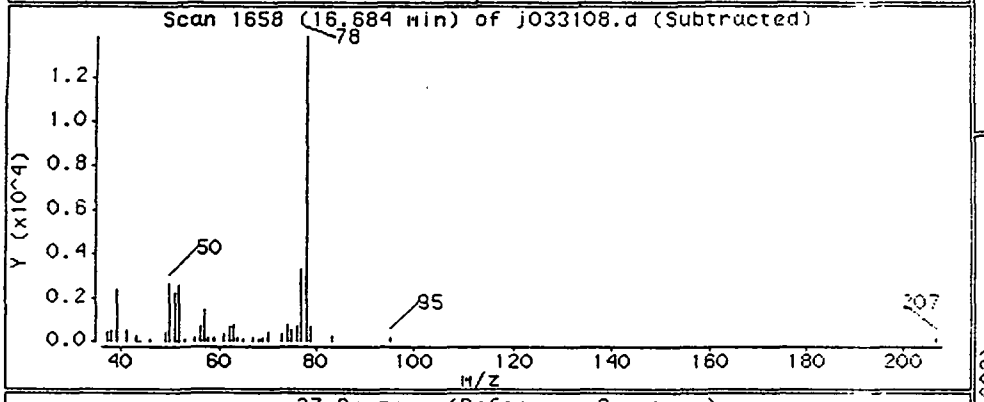
Operator: MH

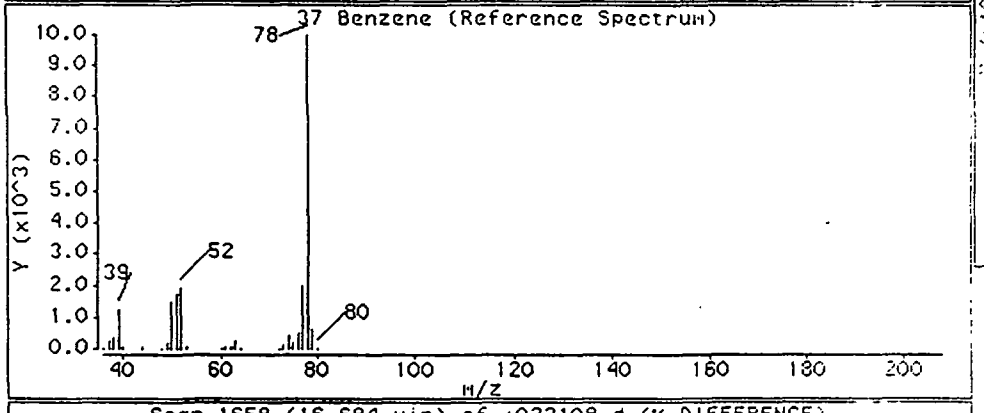
Column phase: RTx-624

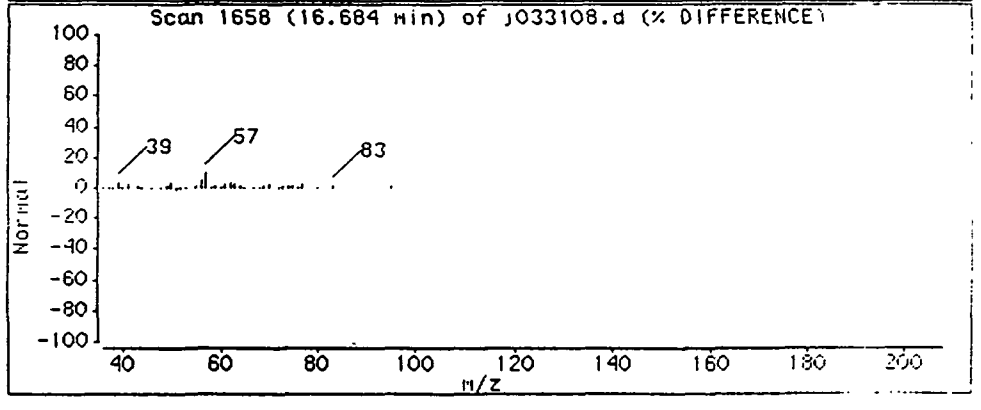
Column diameter: 0.53

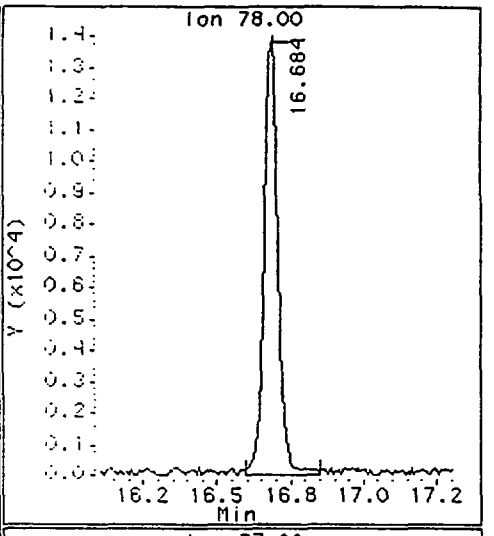
37 Benzene

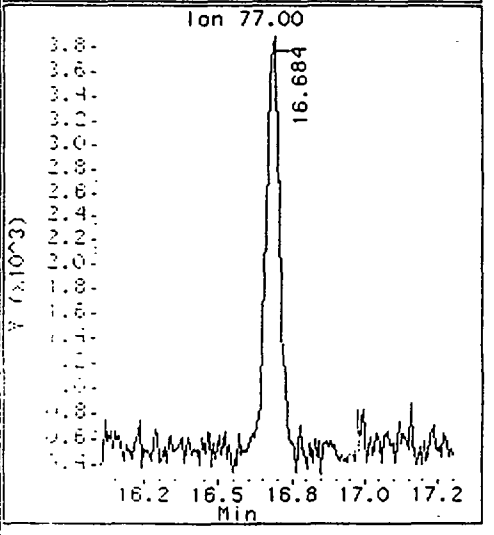












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Date : 31-MAR-1997 15:09

Client ID: 032797U1

Instrument: msdj.. ..

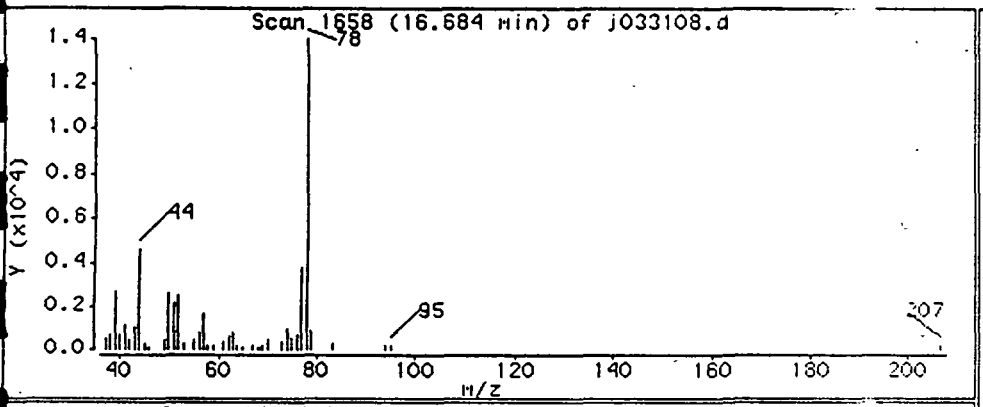
Sample Info: 500mL Can#13999

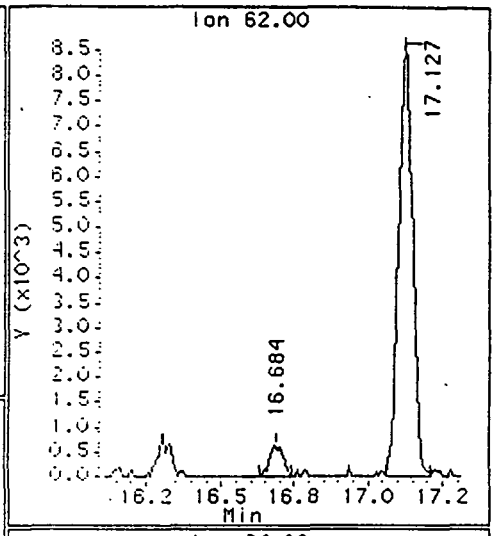
Operator: MH

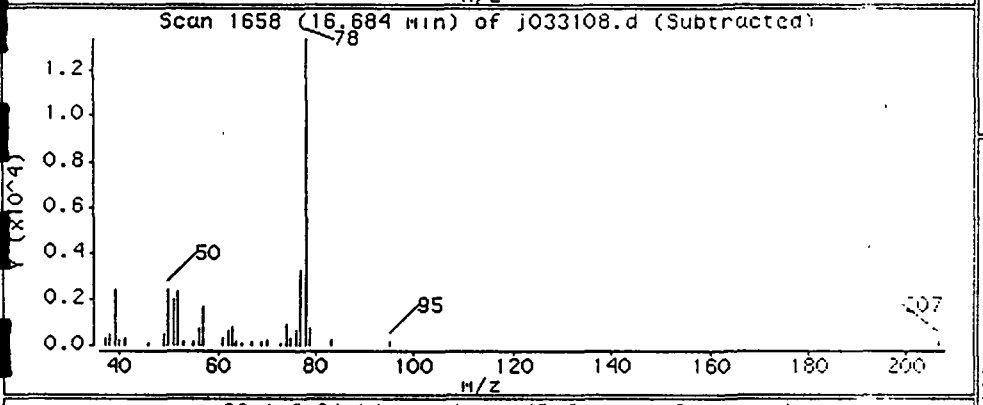
Column phase: RTx-624

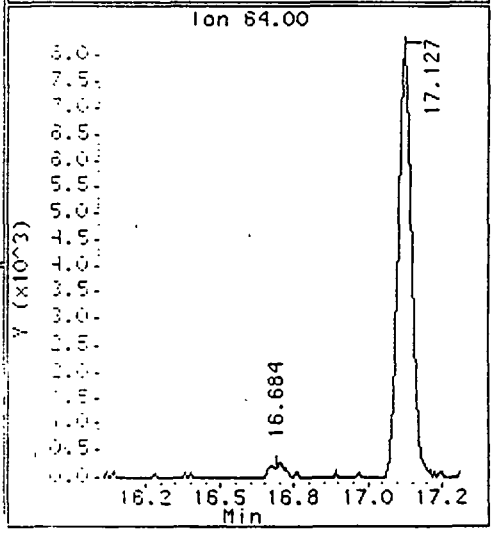
Column diameter: 0.58

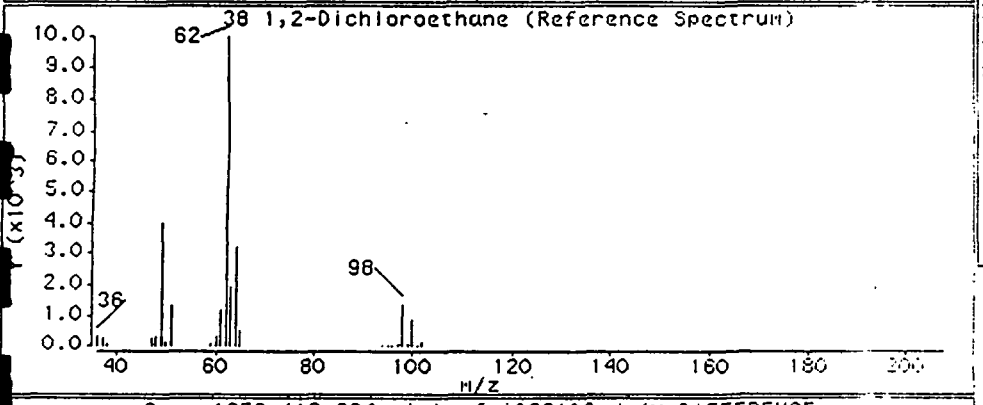
38 1,2-Dichloroethane

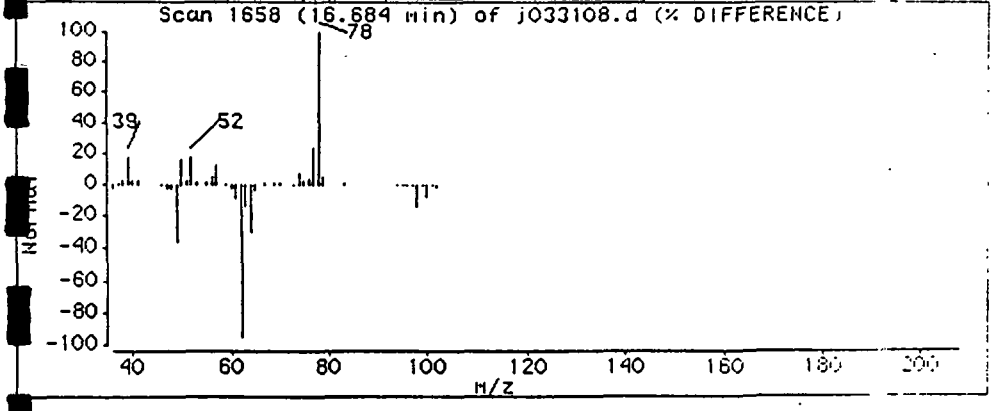












Data File: /chem/msdj.i/j-31mar.b/j033108.d

Date : 31-MAR-1997 15:09

Client ID: 032797U1

Instrument: msdj.i

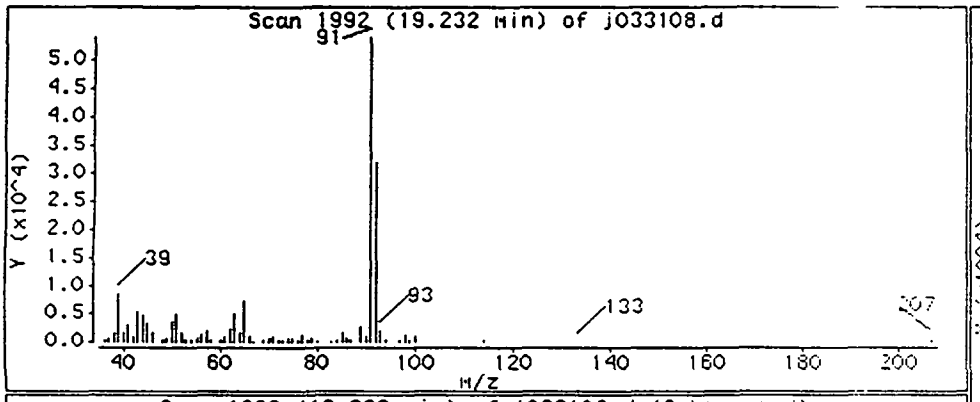
Sample Info: 500mL Can#13999

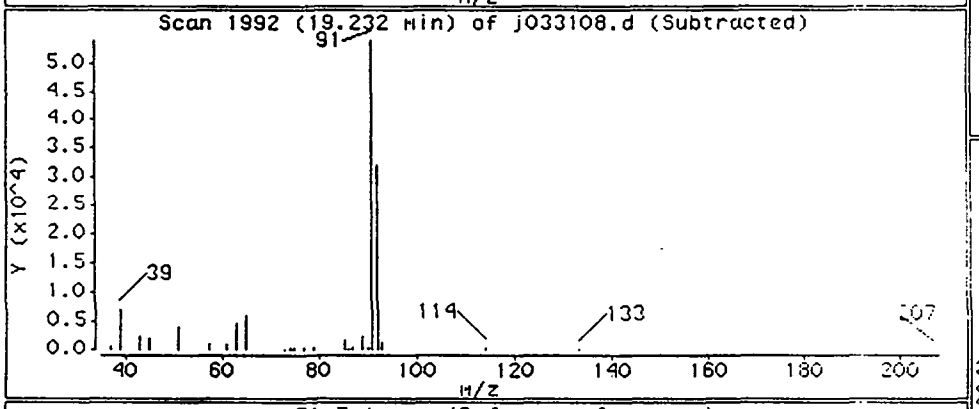
Operator: MM

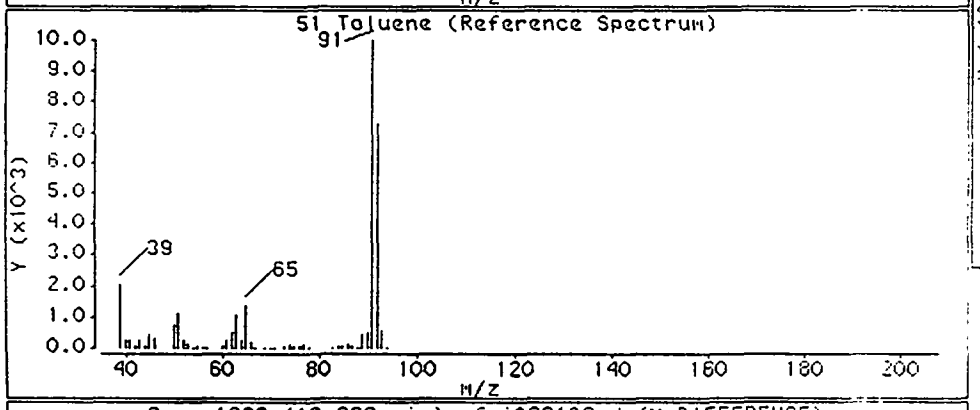
Column phase: RTx-624

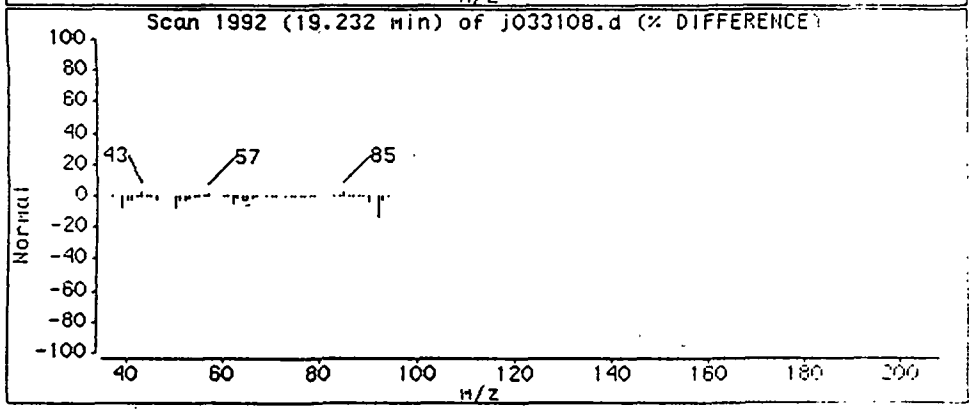
Column diameter: 0.53

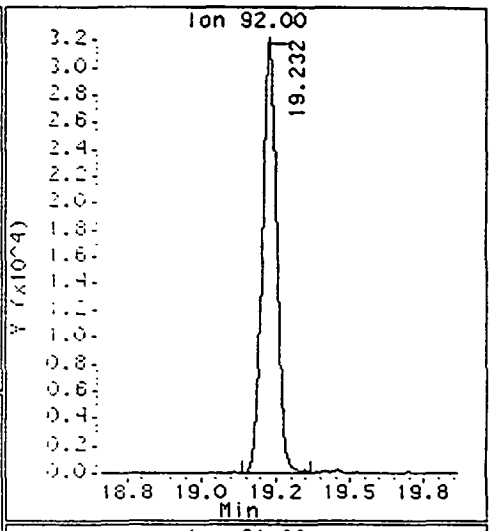
51 Toluene

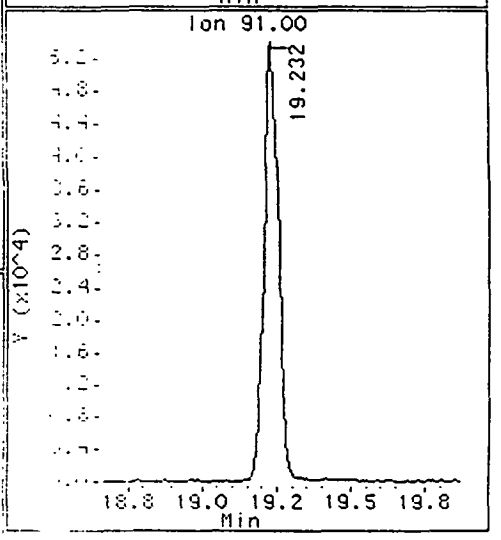












Data File: /chem/msdj.i/j-31mar.b/j033108.d

Date : 31-MAR-1997 15:09

Client ID: 032797U1

Instrument: msdj.i

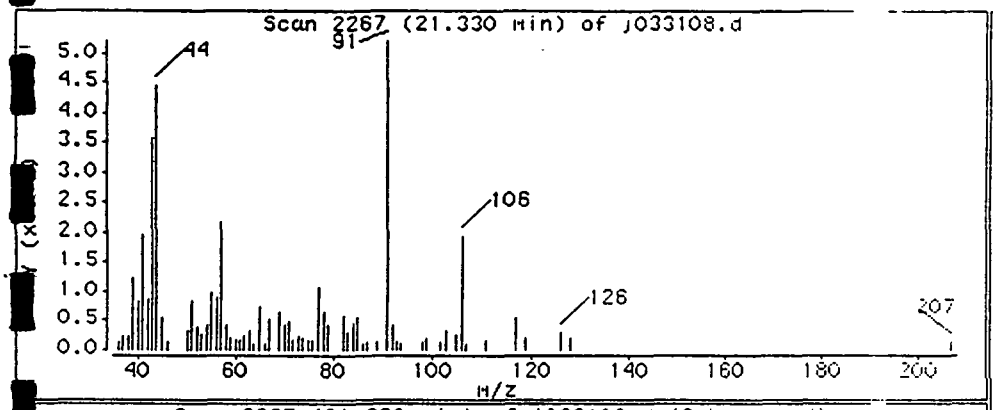
Sample Info: 500mL Can#13999

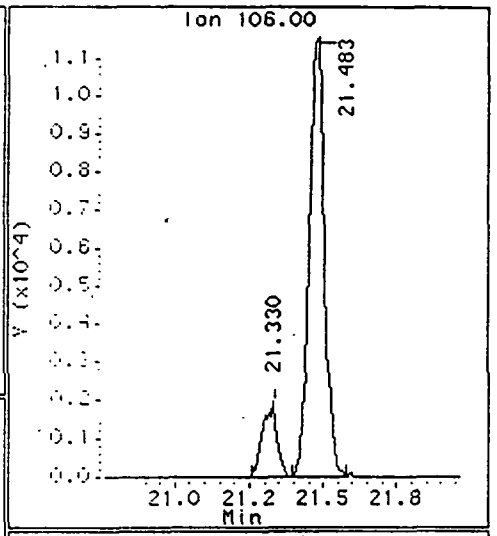
Operator: MH

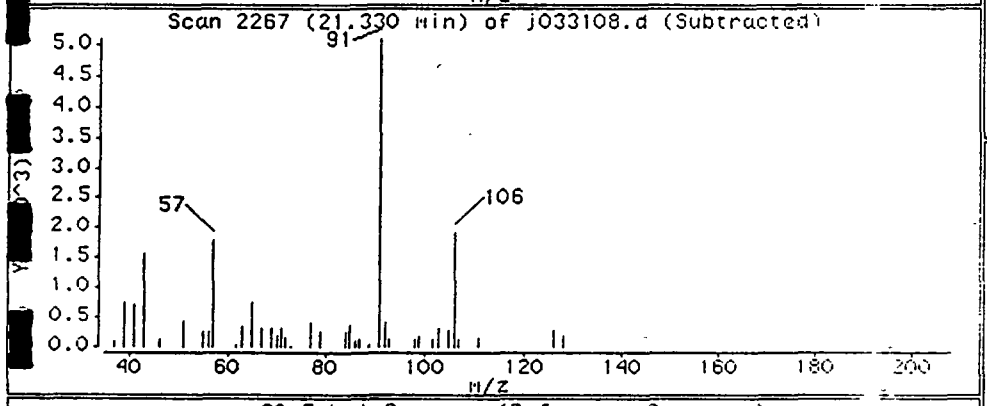
Column phase: RTx-624

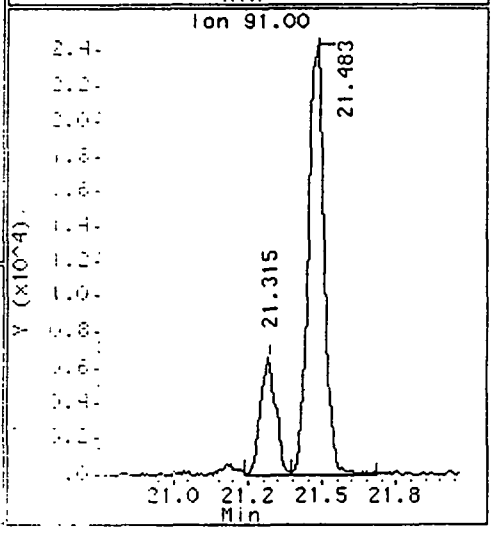
Column diameter: 0.58

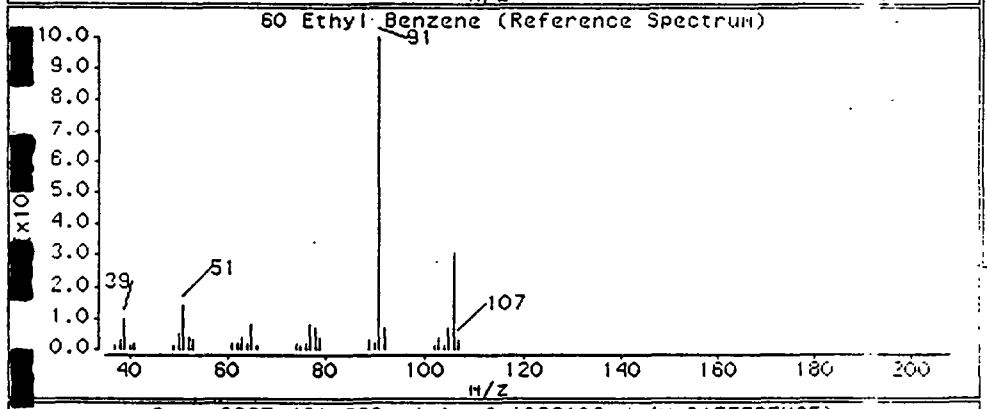
60 Ethyl Benzene

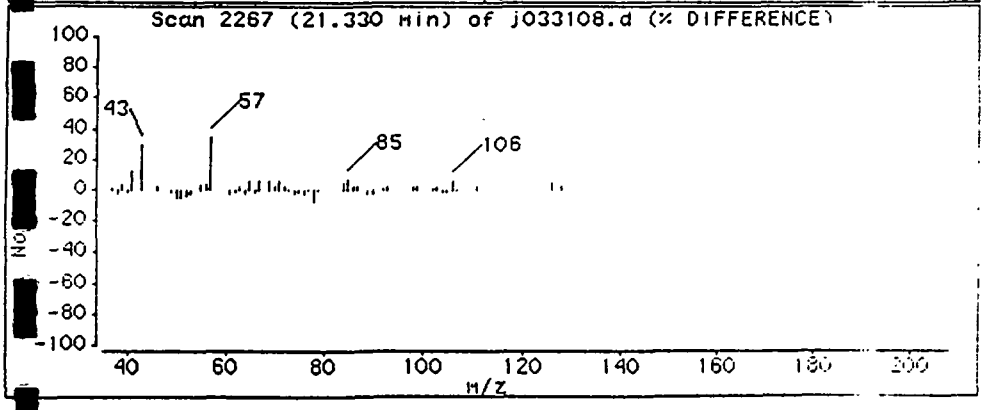












Data File: /chem/msdj.i/j-31mar.b/j033108.d

Date : 31-MAR-1997 15:09

Client ID: 032797U1

Instrument: msdj.i

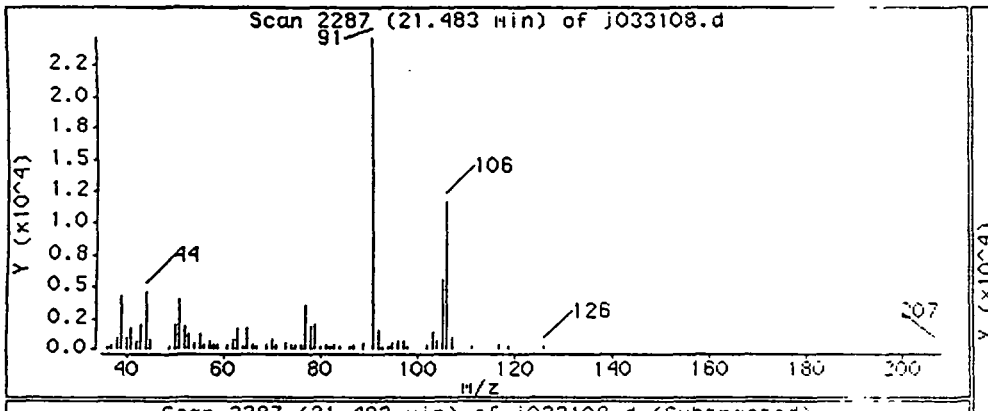
Sample Info: 500ML Can#13999

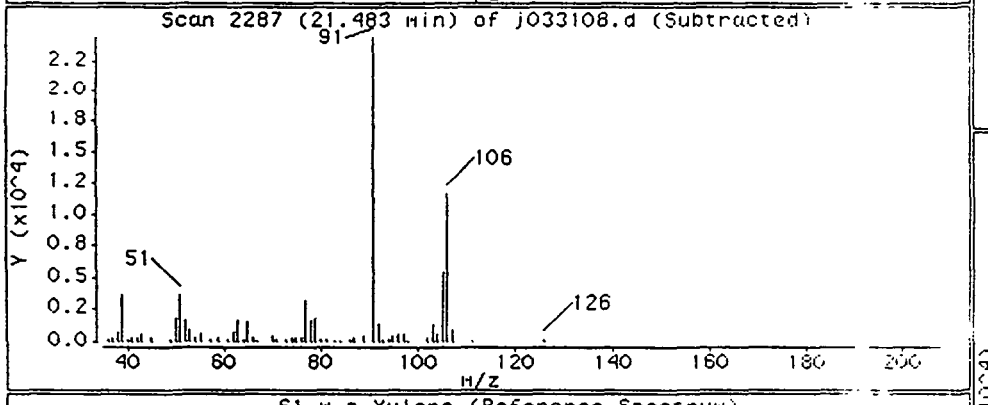
Operator: MH

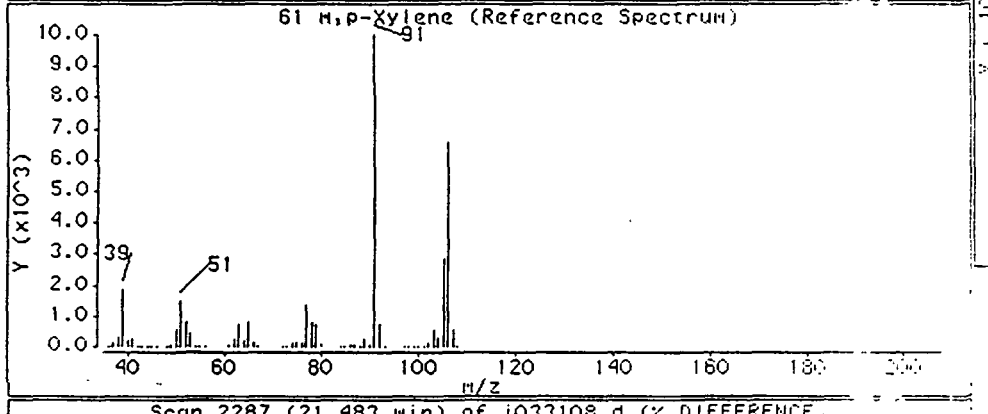
Column phase: RTx-624

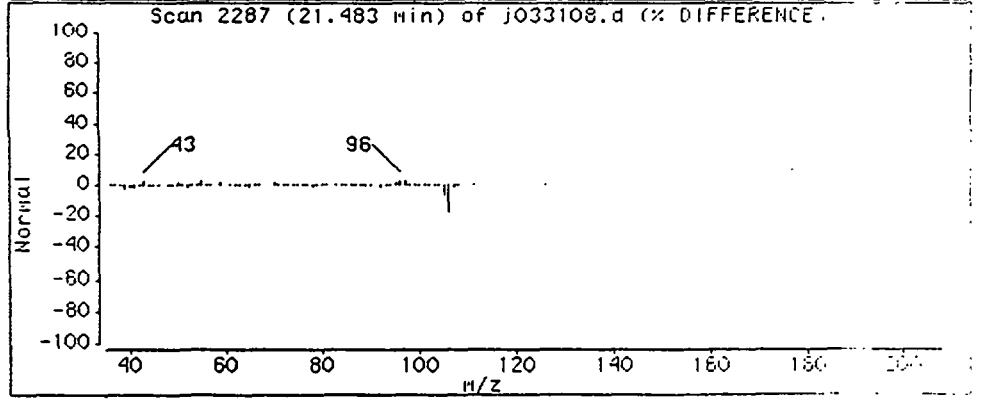
Column diameter: 0.58

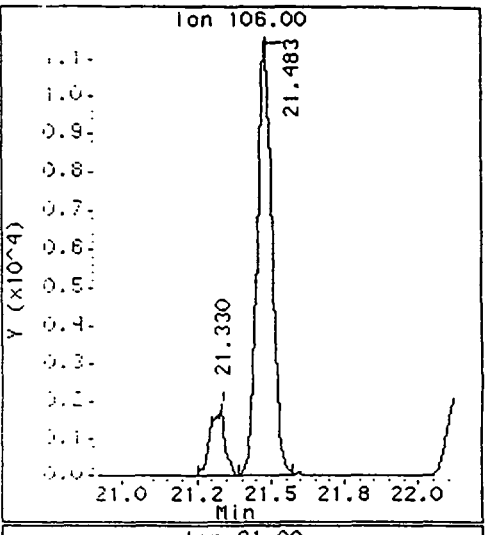
61 m,p-Xylene

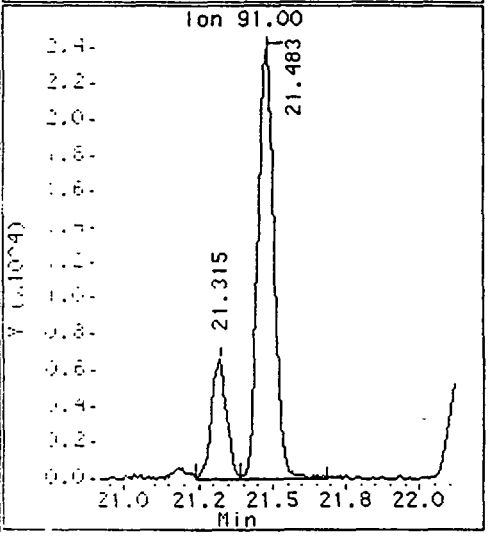












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Date : 31-MAR-1997 15:09

Client ID: 032797U1

Instrument: msdj.i

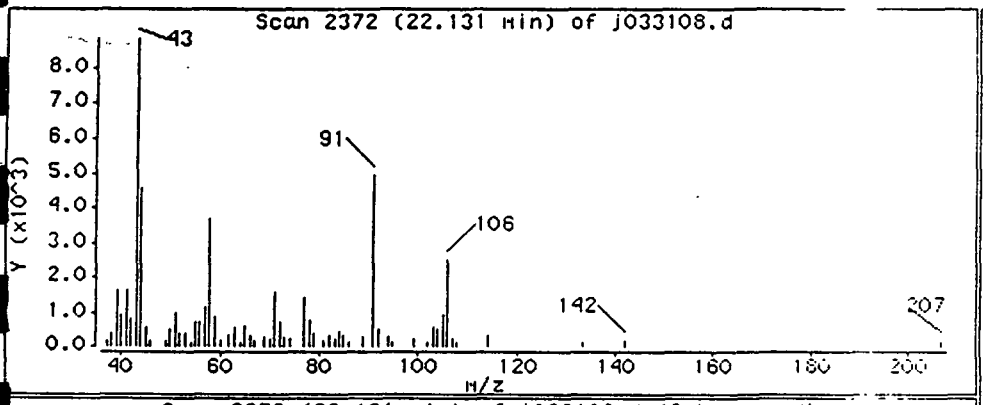
Sample Info: 500mL Can#13999

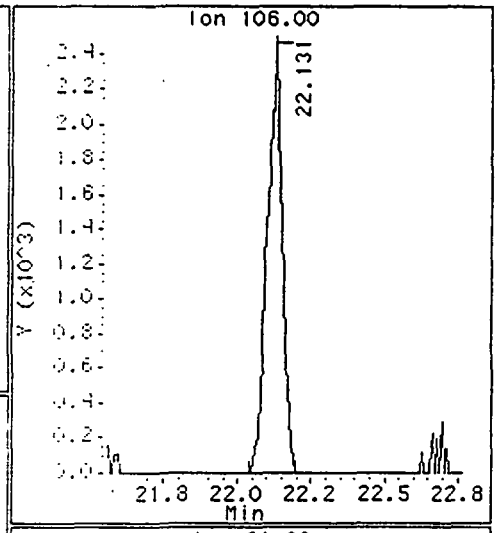
Operator: MH

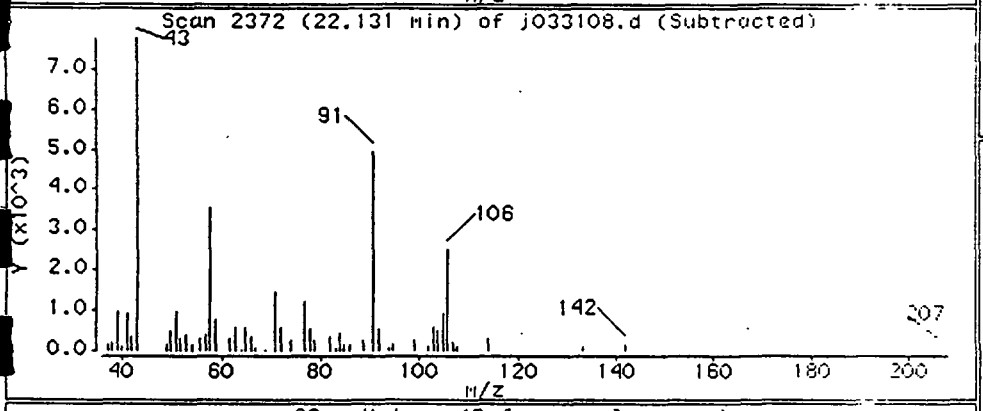
Column phase: RTx-624

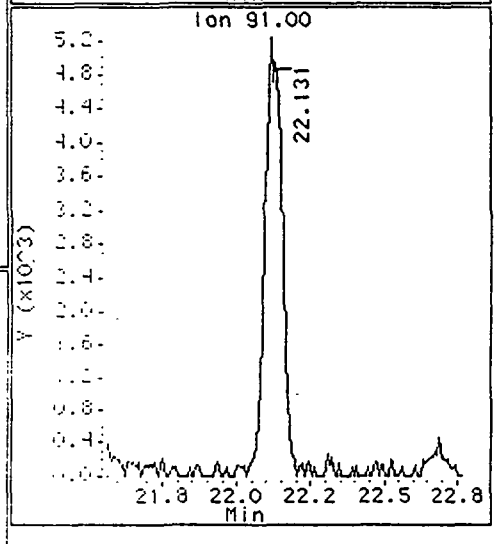
Column diameter: 0.58

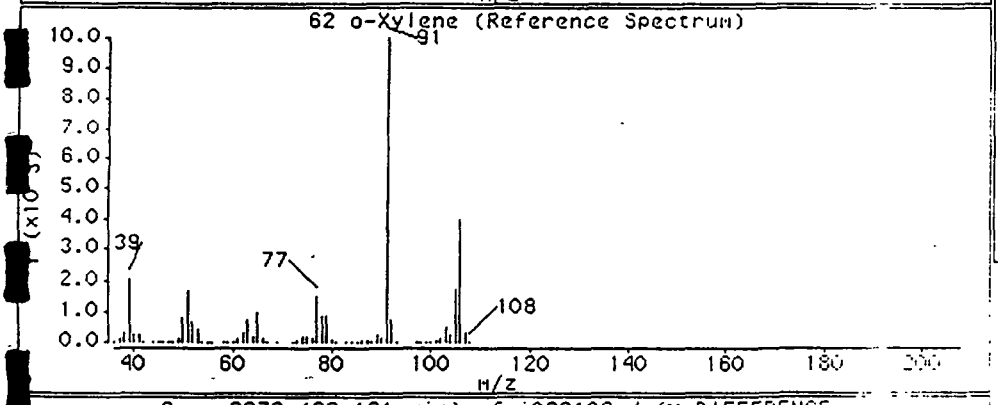
62 o-Xylene

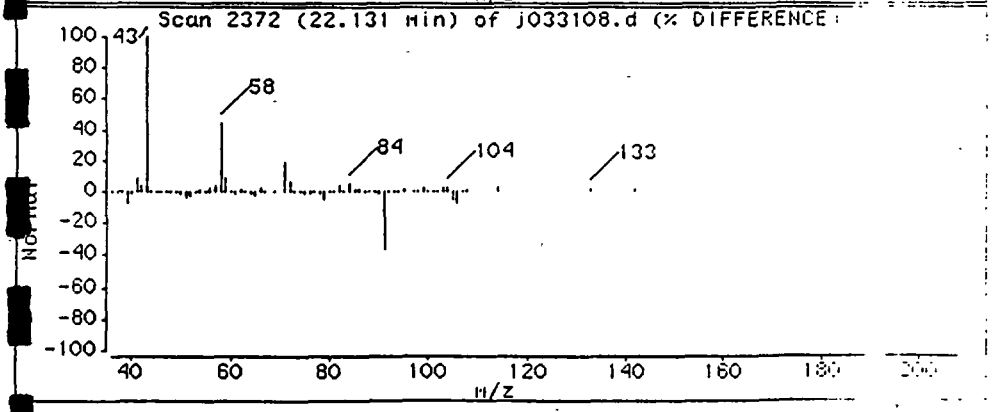










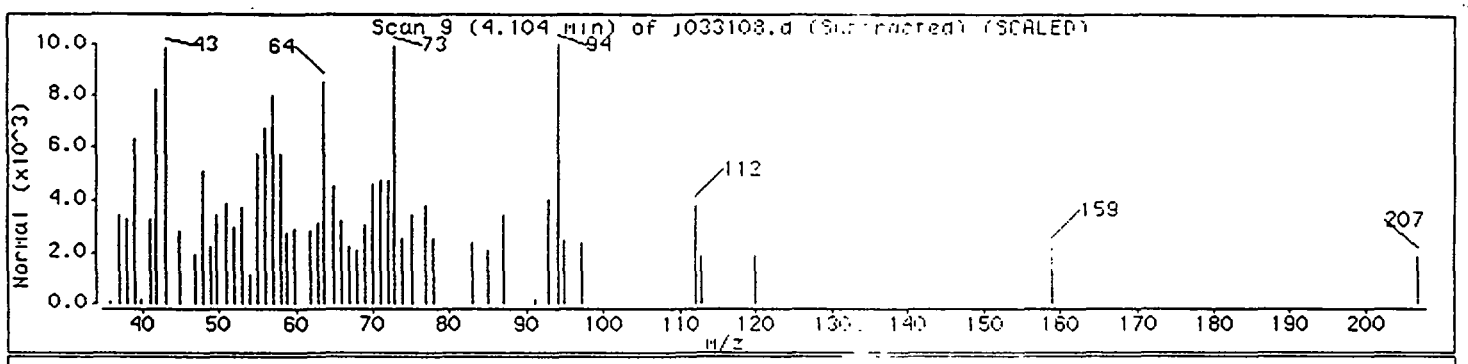


Data File: /chem/msdj.i/j-31mar.b/j033108.d

Date : 31-MAR-1997 15:09
Instrument: msdj.i
Client ID: 032797U1
Column phase: RTx-624 Column diameter: 0.58

Library Search Compound Match CAS Number Library Lib Entry Quality

UNKNOWN



Library Search Compound Match CAS Number Library Lib Entry Quality

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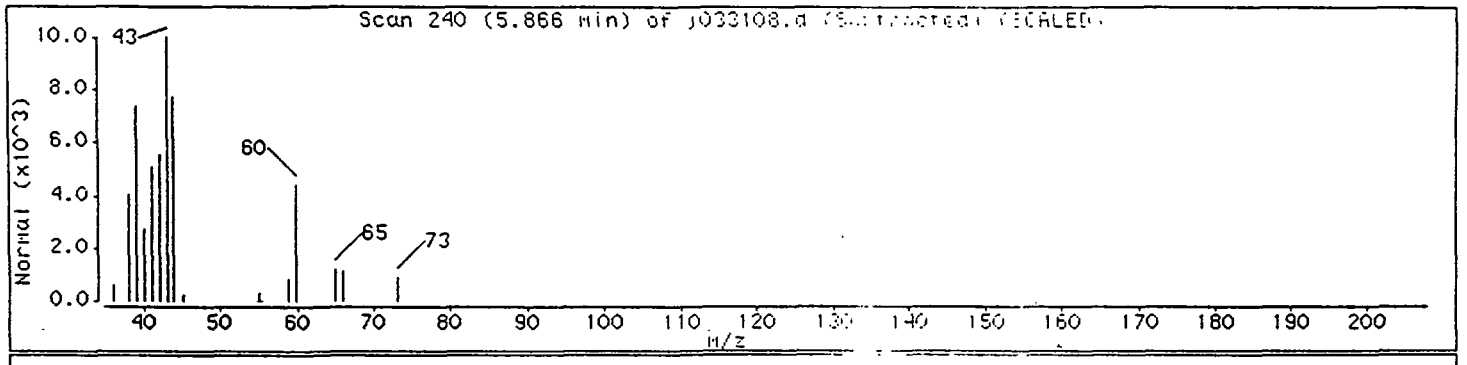

Data File: /chem/msdj.i/j-31mar.b/j033108.d
Date : 31-MAR-1997 15:09
Instrument: msdj.i
Client ID: 032797U1
Column phase: RTx-624

Column diameter: 0.58

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
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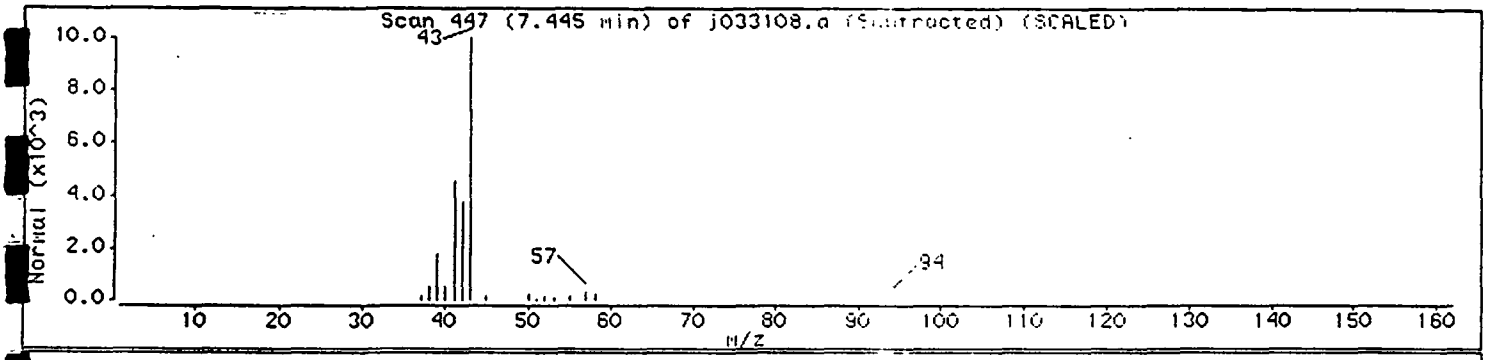
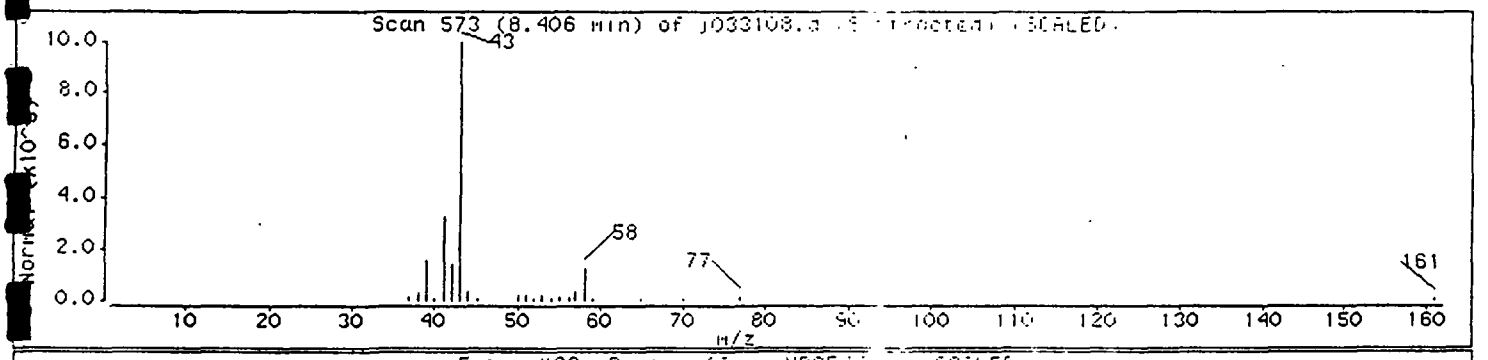
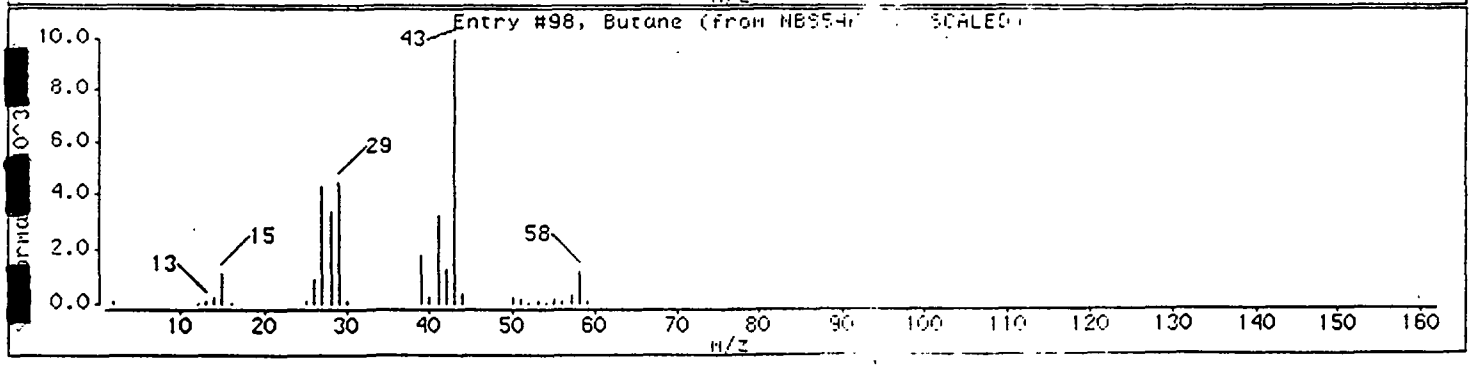


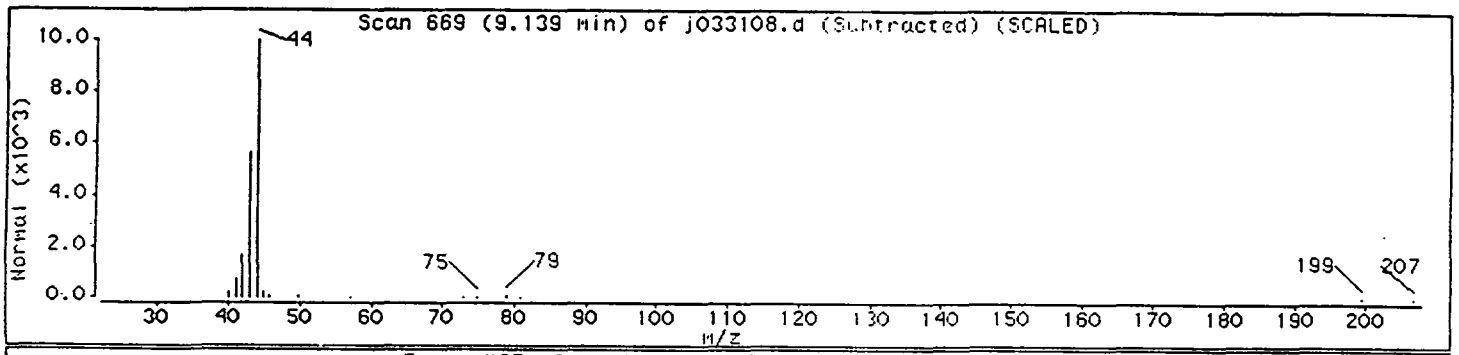
Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Butane	106-97-8	NBS54K.L	98	64

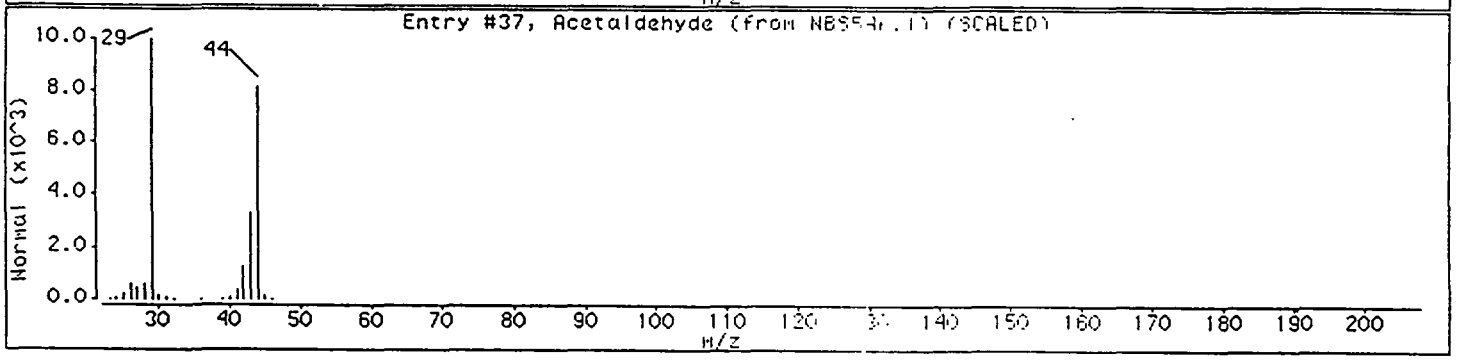




Data File: /chem/msdj.i/j-31mar.b/j033108.d
Date : 31-MAR-1997 15:09
Instrument: msdj.i
Client ID: 032797U1
Column phase: RTx-624 Column diameter: 0.53

Library Search Compound Match	CAS Number	Lib Entry	Quality
Acetaldehyde	75-07-0	NBS54K.I	37	86





Library Search Compound Match	CAS Number	Lib Entry	Quality
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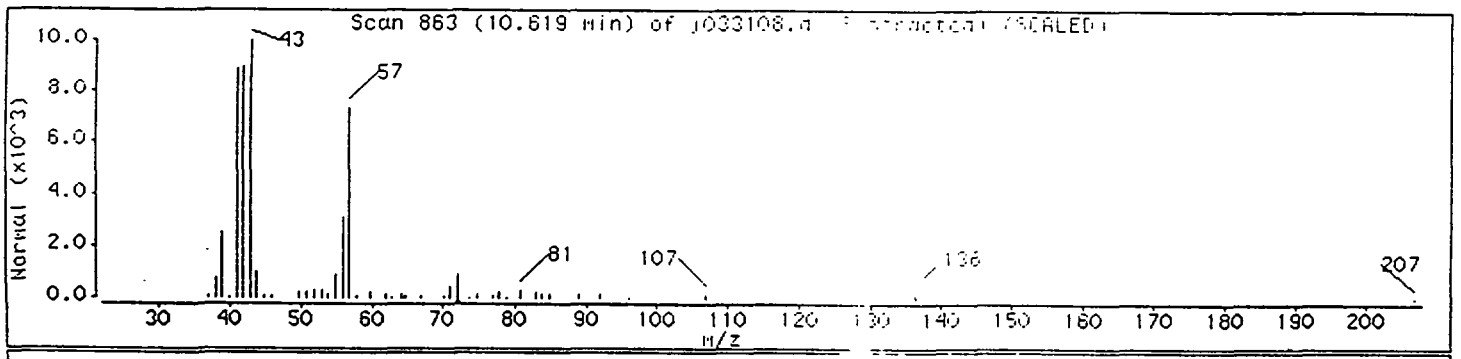
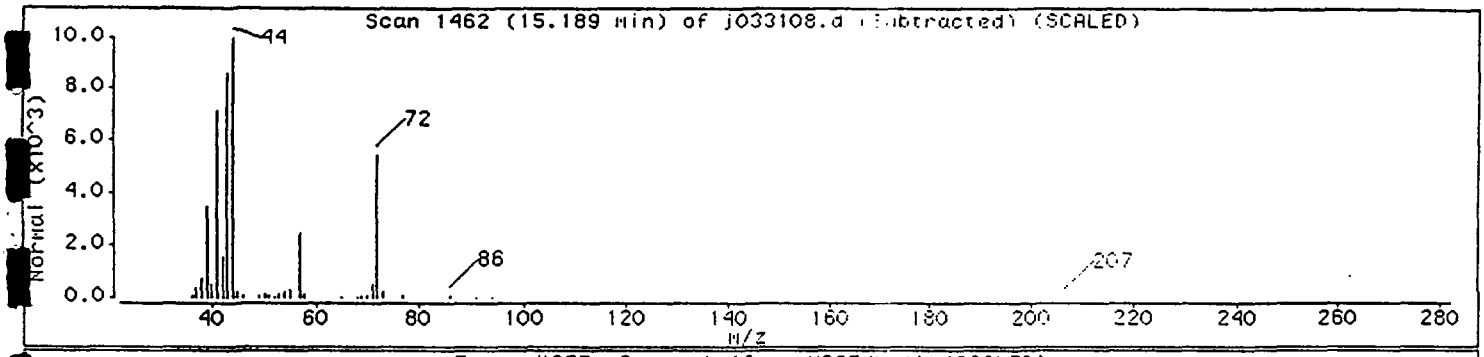
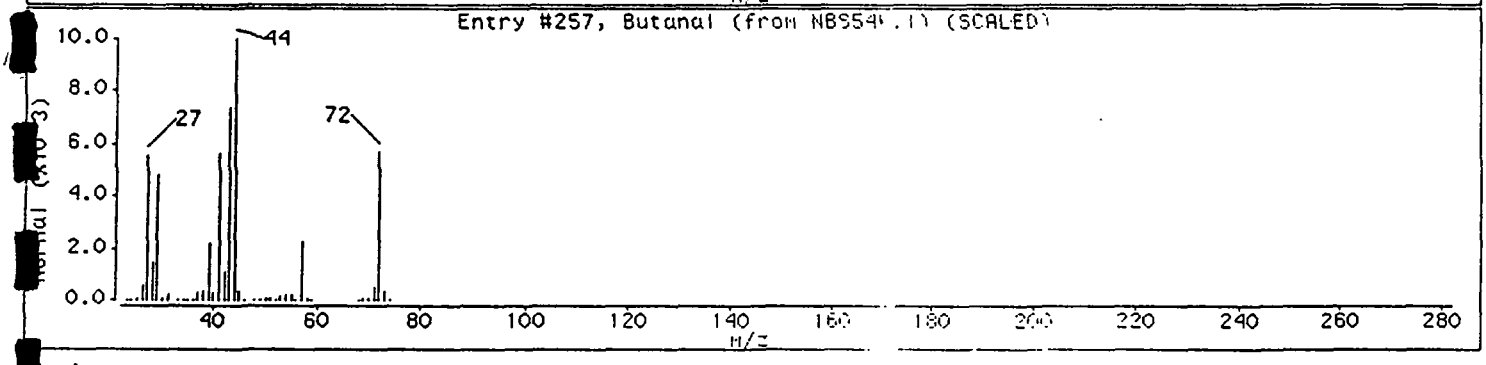


Data File: /chem/msdj.i/j-31mar.b/j033108.d
Date : 31-MAR-1997 15:09
Instrument: msdj.i
Client ID: 032797U1
Column phase: RTx-624

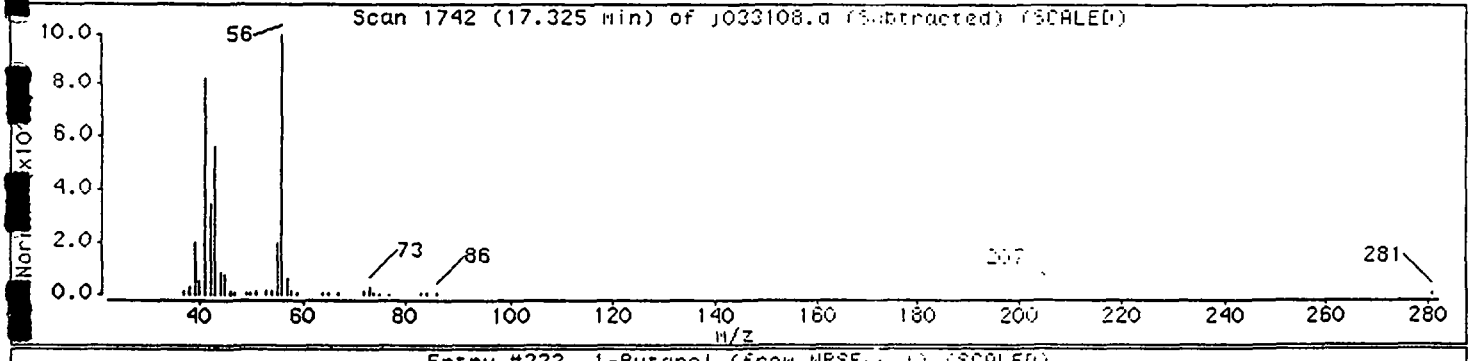
Column diameter: 0.58

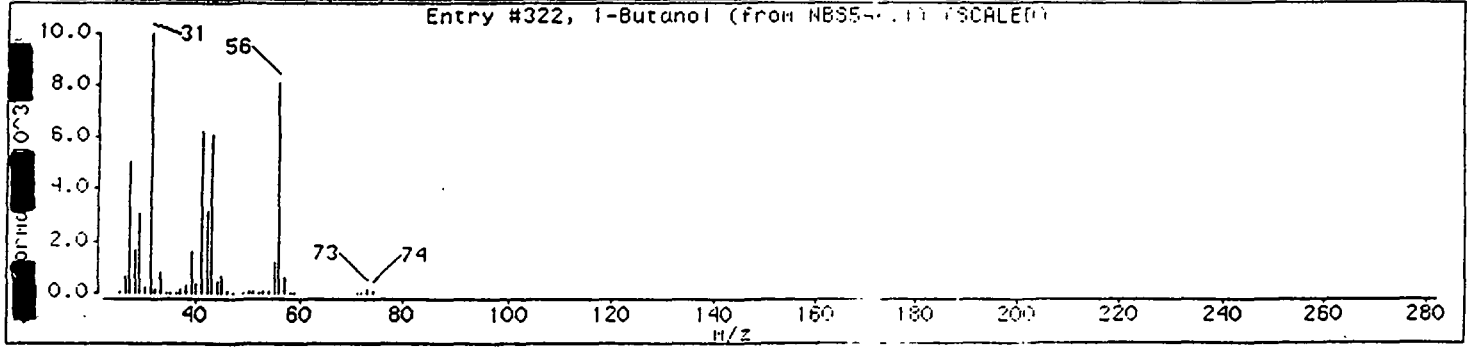
Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Butanal	123-72-8	NBS54K.I	257	90





Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
1-Butanol	71-36-3	NBS54K.I	322	78

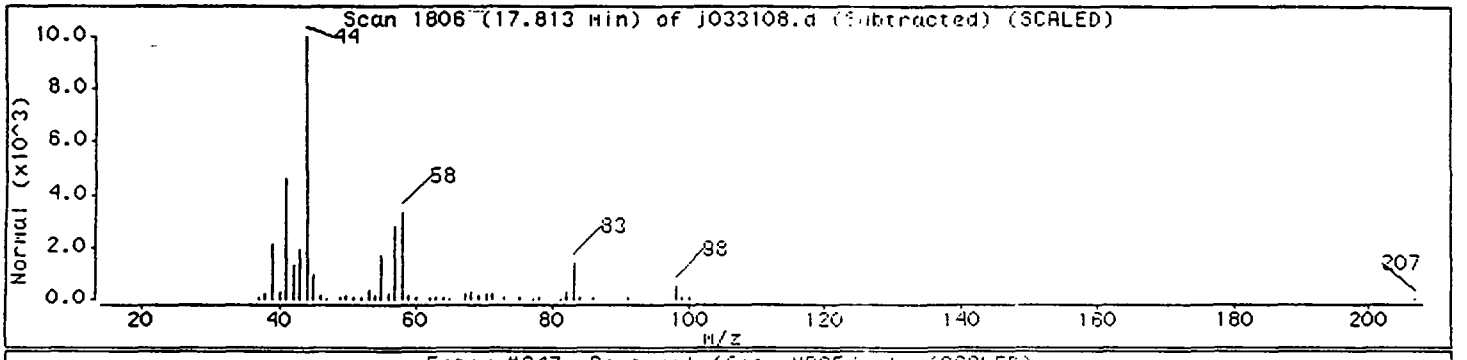


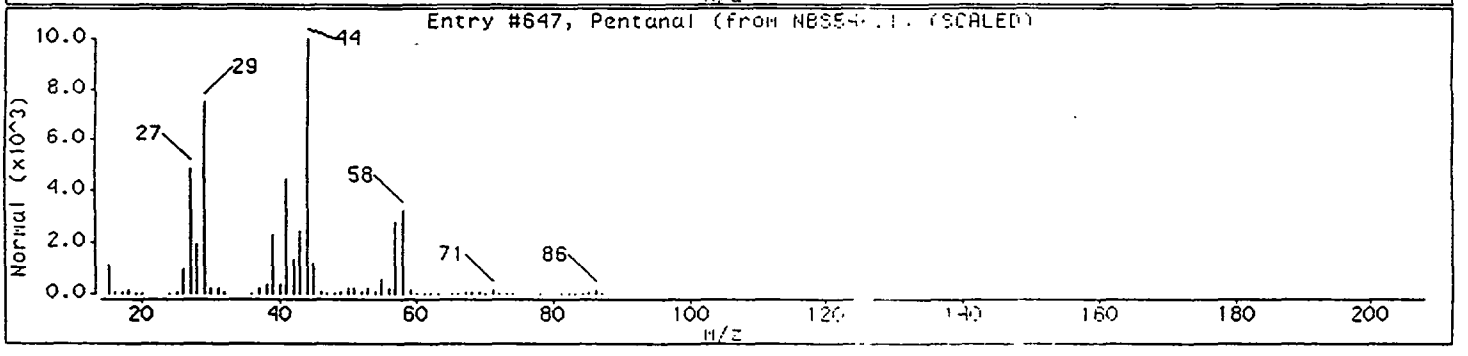


Data File: /chem/msdj.i/j-31mar.b/j033108.d
Date : 31-MAR-1997 15:09
Instrument: msdj.i
Client ID: 032797U1
Column phase: RTx-624

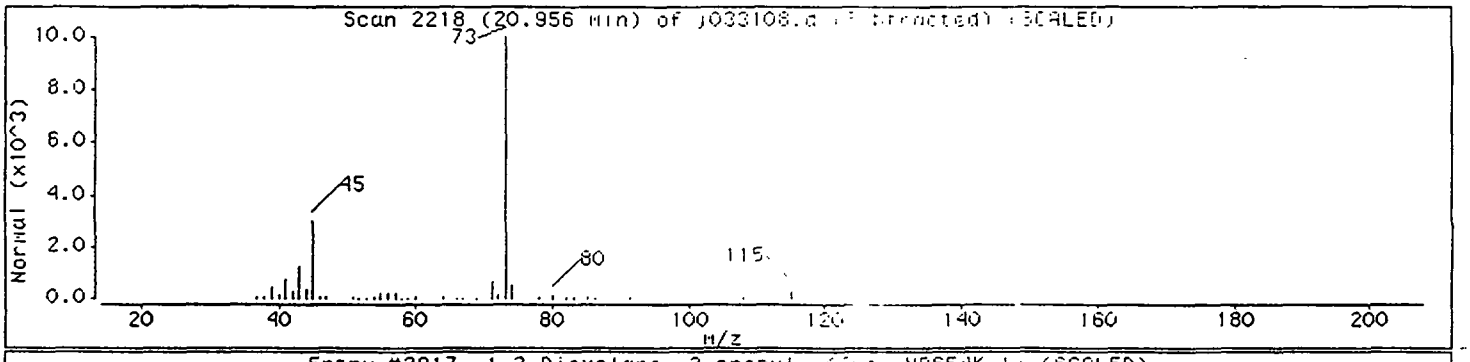
Column diameter: 0.53

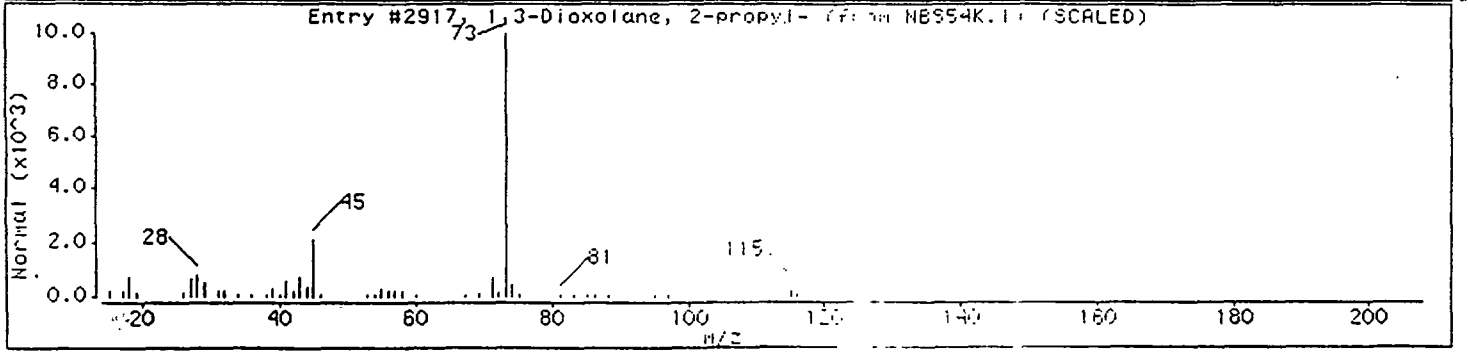
Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Pentanal	110-62-3	NBS54K.I	647	72





Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
1,3-Dioxolane, 2-propyl-	3390-13-4	NBS54K.I	2917	59

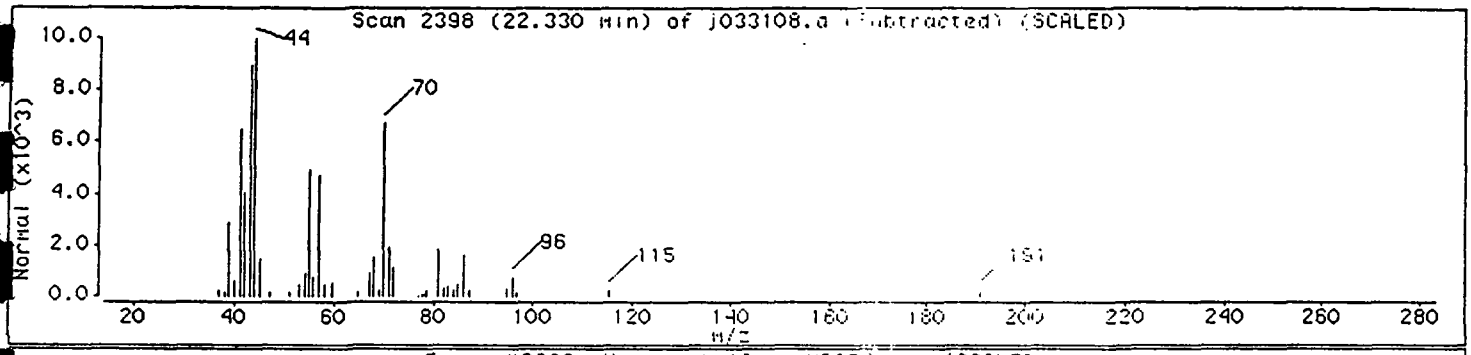


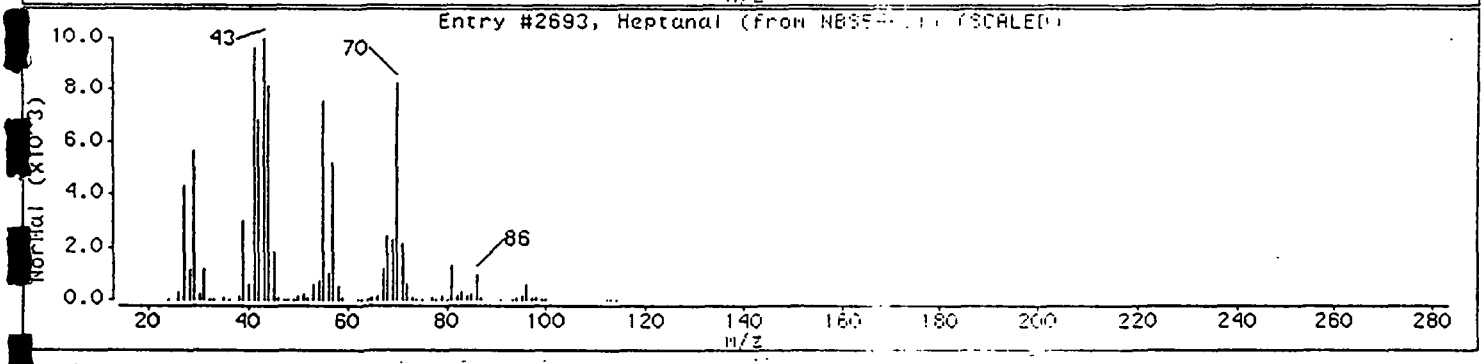


Data File: /chem/msdj.i/j-31mar.b/j033108.d
Date : 31-MAR-1997 15:09
Instrument: msdj.i
Client ID: 032797U1
Column phase: RTx-624

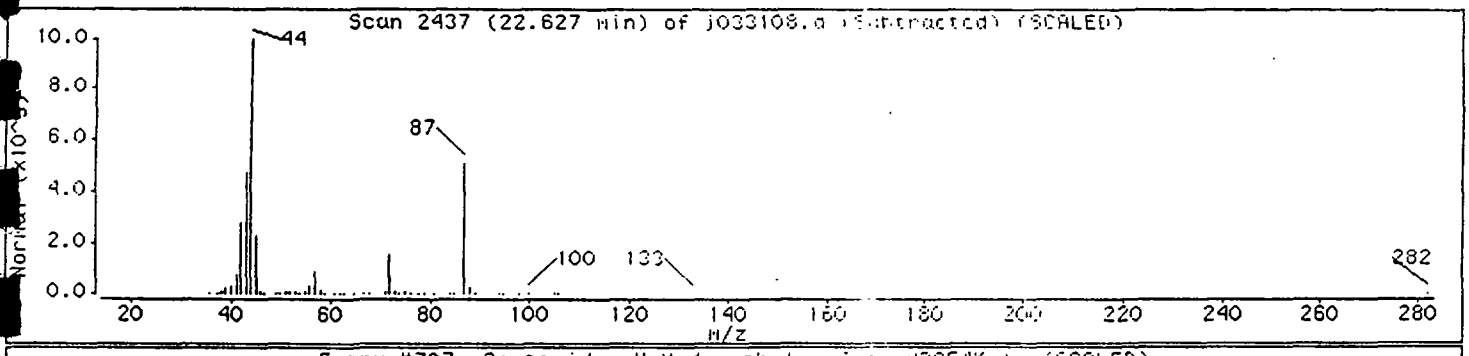
Column diameter: 0.58

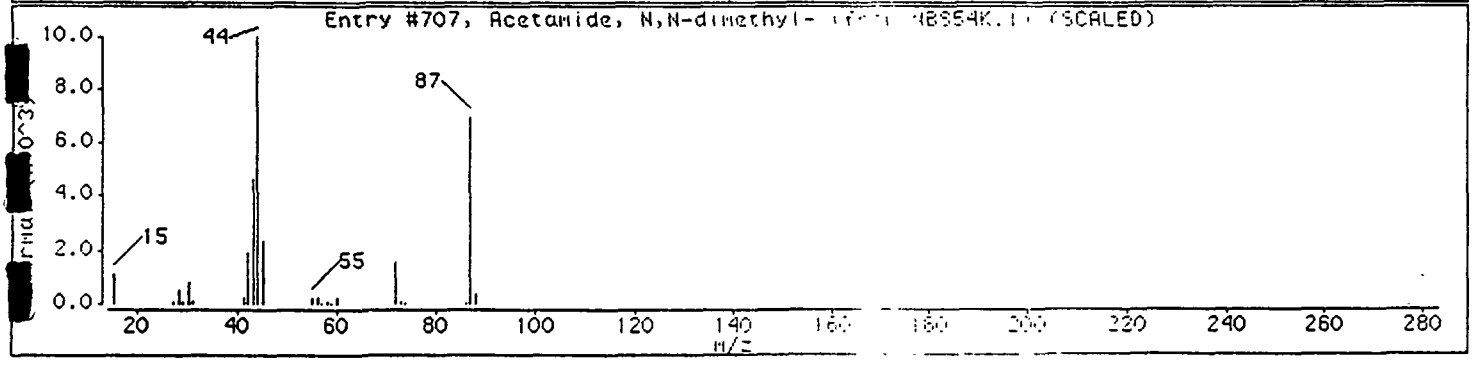
Library Search Compound Match	CAS Number	[illegible]	Lib Entry	Quality
Heptanal	111-71-7	NBS54K.I	2693	50





Library Search Compound Match	CAS Number	[illegible]	Lib Entry	Quality
Acetamide, N,N-dimethyl-	127-19-5	NBS[illegible]	707	80

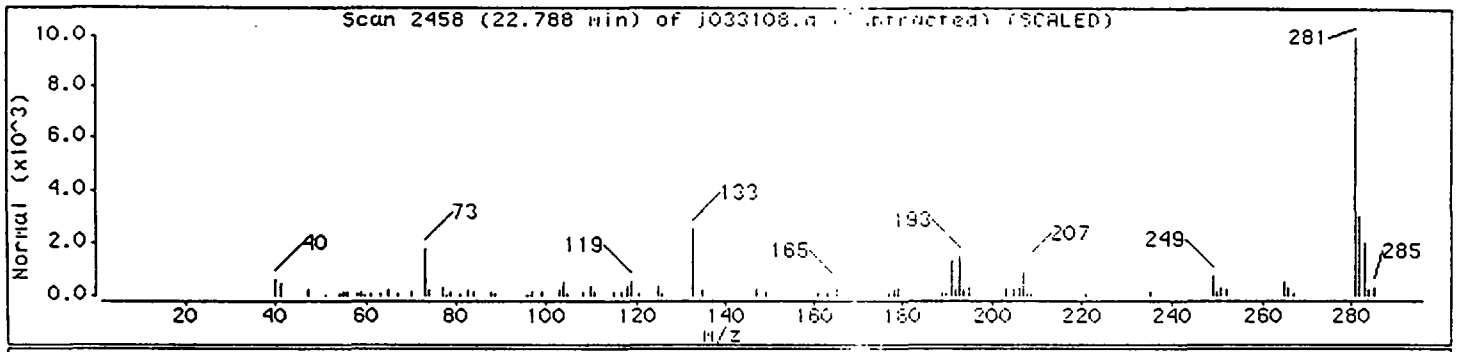


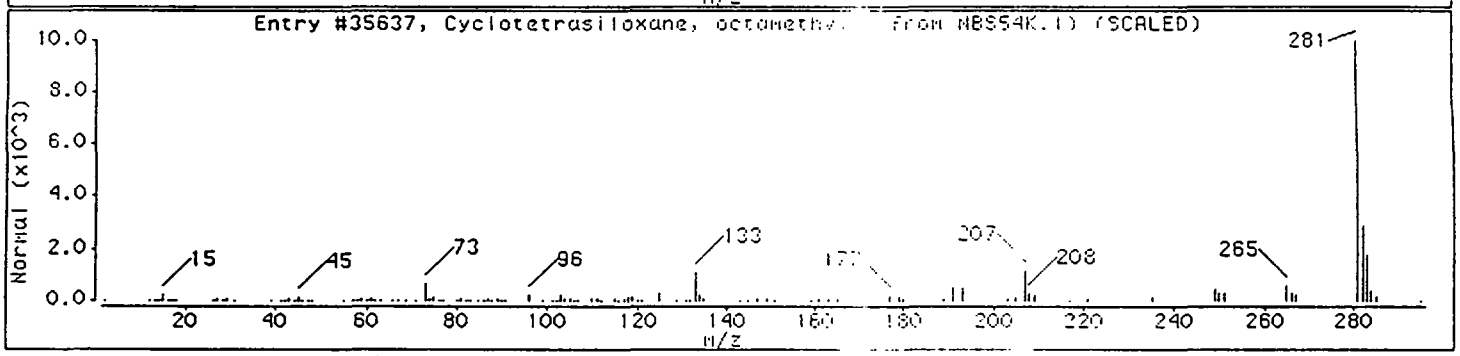


Data File: /chem/msdj.i/j-31mar.b/j033108.d

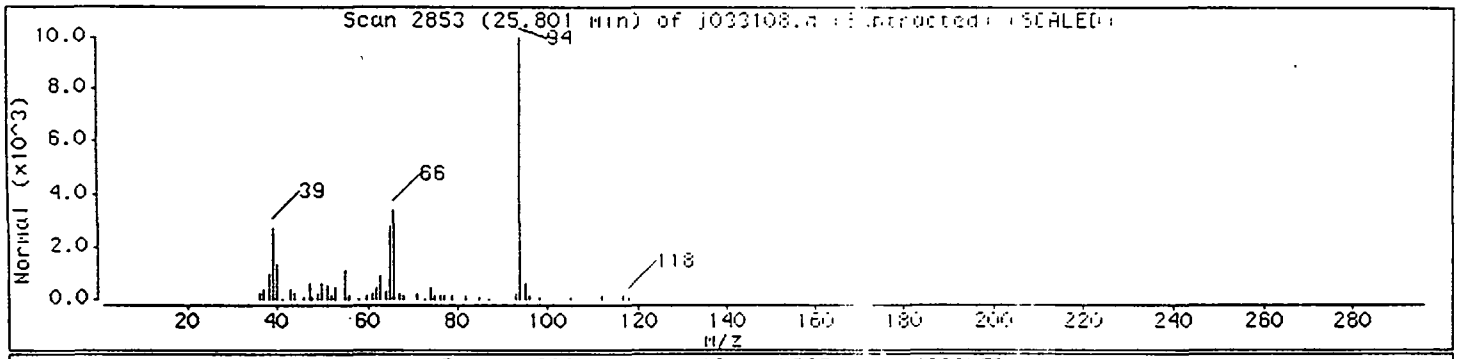
Date : 31-MAR-1997 15:09
Instrument: msdj.i
Client ID: 032797U1
Column phase: RTx-624 Column diameter: 0.58

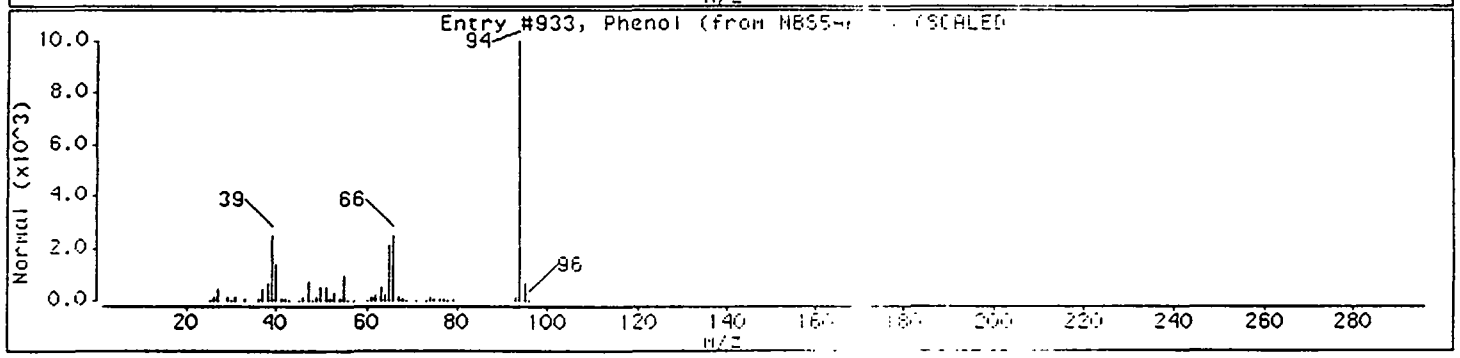
Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Cyclotetrasiloxane, octamethyl-	556-67-2	NBS54K.I	35637	64





Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Phenol	108-95-2	NBS54K.I	933	91

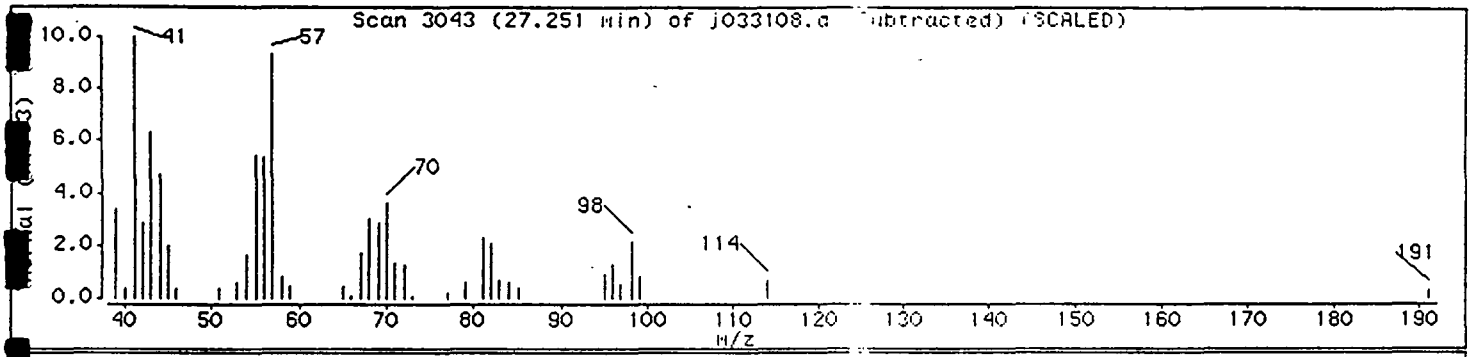




Data File: /chem/msdj.i/j-31mar.b/j033108.d
Date : 31-MAR-1997 15:09
Instrument: msdj.i
Client ID: 032797U1
Column phase: RTx-624

Column diameter: 0.58

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
UNKNOWN				



AIR TOXICS LTD.

SAMPLE NAME: 032797D1

ID#: 9703255-02A

EPA METHOD TO-14 GC/MS Full Scan

File Name:	j033107	Date of Collection:	3/27/97
Dil. Factor:	1.91	Date of Analysis:	3/31/97

Compound	Det. Limit (ppbv)	Amount (ppbv)
Methylene Chloride	0.96	Not Detected
cis-1,2-Dichloroethene	0.19	Not Detected
1,1,1-Trichloroethane	0.19	Not Detected
Benzene	0.19	0.64
1,2-Dichloroethane	0.19	Not Detected
Trichloroethene	0.19	Not Detected
1,2-Dichloropropane	0.19	Not Detected
Toluene	0.19	0.48
Tetrachloroethene	0.19	Not Detected
Chlorobenzene	0.19	Not Detected
Ethyl Benzene	0.19	Not Detected
m,p-Xylene	0.19	0.20
o-Xylene	0.19	Not Detected
Styrene	0.19	Not Detected
Acetone	0.96	4.5
Carbon Disulfide	0.96	Not Detected
trans-1,2-Dichloroethene	0.96	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.96	2.2

Container Type: 6 Liter Summa Canister

Surrogates	% Recovery	Method Limits
Octafluorotoluene	106	70-130
Toluene-d8	110	70-130
4-Bromofluorobenzene	118	70-130

MH 3/31/97

Air Toxics Limited

AMBIENT AIR METHOD TO14

Data file : /chem/msdj.i/j-31mar.b/j033107.d
Lab Smp Id: 9703255-02A Client Smp ID: 032797D1
Inj Date : 31-MAR-1997 14:13
Operator : MH Inst ID: msdj.i
Smp Info : 500mL Can#20995
Misc Info : 9"-5.0psi Parsons TO14(Short)
Comment :
Method : /chem/msdj.i/j-31mar.b/to140109.m
Meth Date : 31-Mar-1997 11:14 mhe Quant Type: ISTD
Cal Date : 09-JAN-1997 12:48 Cal File: j010909.d
Als bottle: 1
Dil Factor: 1.910
Integrator: HP RTE Compound Sublist: Parsons.sub
Target Version: 3.12 Sample Matrix: AIR
Concentration Formula: Uf * Vf

Name	Value	Description
Uf	1.000	ng unit correction factor
Vf	1.000	Volumetric correction factor

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
30 Bromochloromethane					CAS #: 74-97-5			
15.806	15.820 (1.000)	130	169087	5.0			00.00	9105
15.806	15.820 (0.000)	128	41184			26.08- 126.08	24.36	
15.806	15.820 (0.000)	49	103904			142.81- 242.81	61.45	
$ 35 Octafluorotoluene					CAS #: 434-64-0			
16.317	16.346 (1.032)	217	418325	5.3	5.3		00.00	8134
16.317	16.346 (0.000)	186	87568			17.98- 117.98	20.93	
* 40 1,4-Difluorobenzene					CAS #: 540-36-3			
17.134	17.155 (1.000)	114	728749	5.0			00.00	9255
17.134	17.155 (0.000)	88	41640			0.00- 69.13	5.71	
* 49 Toluene-d8					CAS #: 2037-26-5			
19.140	19.169 (1.117)	98	728015	5.5	5.5		00.00	9928
19.140	19.169 (0.000)	70	29216			0.00- 63.97	4.01	
19.140	19.169 (0.000)	100	139904			16.53- 116.53	19.22	
58 Chlorobenzene-d5					CAS #: 3114-55-4			
21.185	21.229 (1.000)	117	686996	5.0			00.00	9760
21.185	21.229 (0.000)	82	121816			14.81- 114.81	17.73	

Data File: /chem/msdj.i/j-31mar.b/j033107.d
Report Date: 31-Mar-1997 15:16

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
$ 65 Bromofluorobenzene					CAS #: 460-00-4			
23.008	23.060 (1.086)	95	628392	5.9	5.9		100.00	7998
23.008	23.060 (0.000)	174	88120			10.31- 110.31	14.02	
23.008	23.060 (0.000)	176	82920			7.57- 107.57	13.20	
16 Acetone					CAS #: 67-64-1			
12.663	12.578 (0.801)	43	158252	2.4	4.5		100.00	
12.670	12.578 (0.802)	58	40628			0.00- 79.57	25.67	
28 2-Butanone					CAS #: 78-93-3			
15.455	15.461 (0.978)	72	21621	1.2	2.2		100.00	7869
15.455	15.461 (0.000)	43	28413			482.17- 582.17	131.41	
15.455	15.461 (0.000)	57	1951			0.00- 86.64	9.02	
37 Benzene					CAS #: 71-43-2			
16.683	16.705 (0.974)	78	46956	0.34	0.64		100.00	9070
16.683	16.705 (0.000)	77	2975			0.00- 74.19	6.34	
51 Toluene					CAS #: 108-88-3			
19.232	19.268 (1.122)	92	21213	0.25	0.48		100.00	7486
19.232	19.268 (0.000)	91	10421			115.23- 215.23	49.13	
61 m,p-Xylene					CAS #: 108-38-3			
21.482	21.519 (1.014)	106	7572	0.11	0.20		100.00	
21.482	21.519 (1.014)	91	17182			164.96- 264.96	226.91	

Audit History For: /chem/msdj.i/j-31mar.b/j033107.c

0044

MH
3/31/97

Change Date: 31-Mar-97 14:29
Change Made by: Automation

Parameter: ChemLan Data Transfer
Old Value:
New Value:
Reason For Change: MS Data from Instrument: msdj.i

Change Date: 31-Mar-97 14:30
Change Made by: Automation

Parameter: Target Processing
Old Value:
New Value: Method: /chem/msdj.i/j-31mar.b/to140109.m
Reason For Change: Complete Target Compound Processing

Change Date: 31-Mar-97 15:13
Change Made by: mhe

Parameter: date
Old Value: 31-MAR-97 14:13
New Value: 31-MAR-1997 14:13
Reason For Change: N/A

Change Date: 31-Mar-97 15:13
Change Made by: mhe

Parameter: Misc Information
Old Value:
New Value: 9"-5.0psi Parsons TO14(Short)
Reason For Change: N/A

Change Date: 31-Mar-97 15:13
Change Made by: mhe

Parameter: Compound Sublist
Old Value: AT.sub
New Value: Parsons.sub
Reason For Change: N/A

Change Date: 31-Mar-97 15:13
Change Made by: mhe

Parameter: Sample Info
Old Value: 9703255-02A 500mL Can#20995 Parson 9"-5psi 032797D1
New Value: 500mL Can#20995
Reason For Change: N/A

Change Date: 31-Mar-97 15:13
Change Made by: mhe

Parameter: Lab ID
Old Value:
New Value: 9703255-02A
Reason For Change: N/A

Change Date: 31-Mar-97 15:13
Change Made by: mhe

Parameter: Client ID
Old Value: VSTD150
New Value: 032797D1
Reason For Change: N/A

Change Date: 31-Mar-97 15:13
Change Made by: mhe

Parameter: Target Processing
Old Value:
New Value: Method: /chem/msdj.i/j-31mar.b/to140109. .
Reason For Change: Quantitation

Change Date: 31-Mar-97 15:13
Change Made by: mhe

Parameter: Target Processing
Old Value:
New Value: Method: /chem/msdj.i/j-31mar.b/to140109. .
Reason For Change: Quantitation

Change Date: 31-Mar-97 15:14
Change Made by: mhe

Parameter: Best Hit for Carbon Disulfide changed
Old Value: Old Hit #1
New Value: Compound Undetected
Reason For Change: N/A

Change Date: 31-Mar-97 15:14
Change Made by: mhe

Parameter: Requantitate all compounds
Old Value:
New Value:
Reason For Change: N/A

Change Date: 31-Mar-97 15:14
Change Made by: mhe

Parameter: Best Hit for Methylene Chloride changed
Old Value: Old Hit #1
New Value: Compound Undetected
Reason For Change: N/A

Change Date: 31-Mar-97 15:14
Change Made by: mhe

Parameter: Requantitate all compounds
Old Value:
New Value:
Reason For Change: N/A

Change Date: 31-Mar-97 15:14
Change Made by: mhe

Parameter: Best Hit for 1,1,1-Trichlorethane chang-
Old Value: Old Hit #1
New Value: Compound Undetected

Reason For Change: N/A

Change Date: 31-Mar-97 15:14
Change Made by: mhe

Parameter: Requantitate all compounds
Old Value:
New Value:
Reason For Change: N/A

Change Date: 31-Mar-97 15:14
Change Made by: mhe

Parameter: Best Hit for 1,2-Dichloroethane changed
Old Value: Old Hit #2
New Value: Compound Undetected
Reason For Change: N/A

Change Date: 31-Mar-97 15:14
Change Made by: mhe

Parameter: Requantitate all compounds
Old Value:
New Value:
Reason For Change: N/A

Change Date: 31-Mar-97 15:14
Change Made by: mhe

Parameter: Best Hit for Trichloroethene changed
Old Value: Compound Manually Identified
New Value: New Hit #1
Reason For Change: N/A

Change Date: 31-Mar-97 15:14
Change Made by: mhe

Parameter: Manual reintegration of Trichloroethene (Signal 1)
Old Value: No previous peak at 17.523
New Value: New Area/Time: 1807 / 17.52
Reason For Change: N/A

Change Date: 31-Mar-97 15:14
Change Made by: mhe

Parameter: Best Hit for Trichloroethene changed
Old Value: Old Hit #1
New Value: Compound Undetected
Reason For Change: N/A

Change Date: 31-Mar-97 15:14
Change Made by: mhe

Parameter: Requantitate all compounds
Old Value:
New Value:
Reason For Change: N/A

Change Date: 31-Mar-97 15:14
Change Made by: mhe

Parameter: Best Hit for Tetrachloroethene changed
Old Value: Compound Manually Identified
New Value: New Hit #1
Reason For Change: N/A

Change Date: 31-Mar-97 15:14
Change Made by: mhe

Parameter: Manual reintegration of Tetrachloroethene (Signal 1)
Old Value: No previous peak at 19.995
New Value: New Area/Time: 563 / 19.99
Reason For Change: N/A

Change Date: 31-Mar-97 15:14
Change Made by: mhe

Parameter: Best Hit for Tetrachloroethene changed
Old Value: Old Hit #1
New Value: Compound Undetected
Reason For Change: N/A

Change Date: 31-Mar-97 15:14
Change Made by: mhe

Parameter: Requantitate all compounds
Old Value:
New Value:
Reason For Change: N/A

Change Date: 31-Mar-97 15:15
Change Made by: mhe

Parameter: Best Hit for Chlorobenzene changed
Old Value: Compound Manually Identified
New Value: New Hit #1
Reason For Change: N/A

Change Date: 31-Mar-97 15:15
Change Made by: mhe

Parameter: Manual reintegration of Chlorobenzene (Signal 1)
Old Value: No previous peak at 21.208
New Value: New Area/Time: 799 / 21.21
Reason For Change: N/A

Change Date: 31-Mar-97 15:15
Change Made by: mhe

Parameter: Best Hit for Chlorobenzene changed
Old Value: Old Hit #1
New Value: Compound Undetected
Reason For Change: N/A

Change Date: 31-Mar-97 15:15
Change Made by: mhe

Parameter: Requantitate all compounds
Old Value:
New Value:

Reason For Change: N/A

Change Date: 31-Mar-97 15:15
Change Made by: mhe

Parameter: Manual reintegration of Ethyl Benzene (Signal 1)
Old Value: Old Area/Time: 7572 / 21.48
New Value: New Area/Time: 2457 / 21.31
Reason For Change: N/A

Change Date: 31-Mar-97 15:15
Change Made by: mhe

Parameter: Best Hit for Ethyl Benzene changed
Old Value: Old Hit #1
New Value: Compound Undetected
Reason For Change: N/A

Change Date: 31-Mar-97 15:15
Change Made by: mhe

Parameter: Requantitate all compounds
Old Value:
New Value:
Reason For Change: N/A

Change Date: 31-Mar-97 15:15
Change Made by: mhe

Parameter: Best Hit for o-Xylene changed
Old Value: Compound Manually Identified
New Value: New Hit #1
Reason For Change: N/A

Change Date: 31-Mar-97 15:15
Change Made by: mhe

Parameter: Manual reintegration of o-Xylene (Signal 1)
Old Value: No previous peak at 22.138
New Value: New Area/Time: 1990 / 22.14
Reason For Change: N/A

Change Date: 31-Mar-97 15:15
Change Made by: mhe

Parameter: Best Hit for o-Xylene changed
Old Value: Old Hit #1
New Value: Compound Undetected
Reason For Change: N/A

Change Date: 31-Mar-97 15:15
Change Made by: mhe

Parameter: Requantitate all compounds
Old Value:
New Value:
Reason For Change: N/A

Change Date: 31-Mar-97 15:15
Change Made by: mhe

Parameter: Best Hit for Styrene changed
Old Value: Compound Manually Identified
New Value: New Hit #1
Reason For Change: N/A

Change Date: 31-Mar-97 15:15
Change Made by: mhe

Parameter: Manual reintegration of Styrene (Signal [illegible])
Old Value: No previous peak at 22.138
New Value: New Area/Time: 630 / 22.14
Reason For Change: N/A

Change Date: 31-Mar-97 15:15
Change Made by: mhe

Parameter: Best Hit for Styrene changed
Old Value: Old Hit #1
New Value: Compound Undetected
Reason For Change: N/A

Change Date: 31-Mar-97 15:15
Change Made by: mhe

Parameter: Requantitate all compounds
Old Value:
New Value:
Reason For Change: N/A

Change Date: 31-Mar-97 15:15
Change Made by: mhe

Parameter: Best Match for Unknown compound at 22.642 min. changed.
Old Value: Old match: Unknown
New Value: New match: Unknown Compound Deleted
Reason For Change: N/A

Change Date: 31-Mar-97 15:15
Change Made by: mhe

Parameter: Best Match for Unknown compound at 2[illegible] min. changed.
Old Value: Old match: Unknown
New Value: New match: Unknown Compound Deleted
Reason For Change: N/A

Change Date: 31-Mar-97 15:15
Change Made by: mhe

Parameter: Best Match for Unknown compound at 25.[illegible] min. changed.
Old Value: Old match: Phenol
New Value: New match: Unknown Compound Deleted
Reason For Change: N/A

Change Date: 31-Mar-97 15:15
Change Made by: mhe

Parameter: Best Match for Unknown compound at 26.[illegible] min. changed.
Old Value: Old match: Unknown
New Value: New match: Unknown Compound Deleted

Reason For Change: N/A

Change Date: 31-Mar-97 15:16
Change Made by: mhe

Parameter: Target Processing
Old Value:
New Value: Method: /chem/msdj.i/j-31mar.b/to140109...
Reason For Change: Quantitation

Data File: /chem/msdj.i/j-31mar.b/j033107.d
Report Date: 31-Mar-1997 15:13

MH 3/31/97

Air Toxics Limited

AMBIENT AIR METHOD TO14

Data file : /chem/msdj.i/j-31mar.b/j033107.d
Lab Smp Id: 9703255-02A Client Smp ID: 032797D1
Inj Date : 31-MAR-1997 14:13
Operator : MH Inst ID: msdj.i
Smp Info : 500mL Can#20995
Misc Info : 9"-5.0psi Parsons TO14(Short)
Comment :
Method : /chem/msdj.i/j-31mar.b/to140109.m
Meth Date : 31-Mar-1997 11:14 mhe Quant Type: ISTD
Cal Date : 09-JAN-1997 12:48 Cal File: j010909.d
Als bottle: 1
Dil Factor: 1.910
Integrator: HP RTE Compound Sublist: Parsons.sub
Target Version: 3.12 Sample Matrix: AIR
Concentration Formula: Uf * Vf

Name	Value	Description
Uf	1.000	ng unit correction factor
Vf	1.000	Volumetric correction factor

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
* 30 Bromochloromethane					CAS #: 74-97-5			
15.806	15.820 (1.000)	130	169087	5.0			100.00	9105
15.806	15.820 (0.000)	128	41184			26.08- 126.08	24.36	
15.806	15.820 (0.000)	49	103904			142.81- 242.81	61.45	
$ 35 Octafluorotoluene					CAS #: 434-64-0			
16.317	16.346 (1.032)	217	418325	5.3	5.3		100.00	8134
16.317	16.346 (0.000)	186	87568			17.98- 117.98	20.93	
* 40 1,4-Difluorobenzene					CAS #: 540-36-3			
17.134	17.155 (1.000)	114	728749	5.0			100.00	9255
17.134	17.155 (0.000)	88	41640			0.00- 69.13	5.71	
$ 49 Toluene-d8					CAS #: 2037-26-5			
19.140	19.169 (1.117)	98	728015	5.5	5.5		100.00	9928
19.140	19.169 (0.000)	70	29216			0.00- 63.97	4.01	
19.140	19.169 (0.000)	100	139904			16.53- 116.53	19.22	
* 58 Chlorobenzene-d5					CAS #: 3114-55-4			
21.185	21.229 (1.000)	117	686996	5.0			100.00	9960
21.185	21.229 (0.000)	82	121816			14.81- 114.81	17.73	

Data File: /chem/msdj.i/j-31mar.b/j033107.d
Report Date: 31-Mar-1997 15:13

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
$ 65 Bromofluorobenzene					CAS #: 460-00-4			
23.008	23.060 (1.086)	95	628392	5.9	5.9		100.00	7998
23.008	23.060 (0.000)	174	88120			10.31- 110.31	14.02	
23.008	23.060 (0.000)	176	82920			7.57- 107.57	13.20	
16 Acetone					CAS #: 67-64-1			
12.663	12.578 (0.801)	43	158252	2.4	4.5		100.00	
12.670	12.578 (0.802)	58	40628			0.00- 79.57	25.67	
17 Carbon Disulfide					CAS #: 75-15-0			
12.854	12.707 (0.813)	76	58164	0.45	0.87		100.00	7887
20 Methylene Chloride					CAS #: 75-09-2			
13.456	13.409 (0.851)	84	2961	0.076	0.14		100.00	3406(a)
13.456	13.409 (0.000)	49	1295			102.16- 202.16	43.74	
13.456	13.409 (0.000)	51	642			0.00- 96.86	21.68	
28 2-Butanone					CAS #: 78-93-3			
15.455	15.461 (0.978)	72	21621	1.2	2.2		100.00	7869
15.455	15.461 (0.000)	43	28413			482.17- 582.17	131.41	
15.455	15.461 (0.000)	57	1951			0.00- 86.64	9.02	
33 1,1,1-Trichlorethane					CAS #: 71-55-6			
16.165	16.186 (1.023)	97	4601	0.058	0.11		100.00	7288(a)
16.165	16.186 (0.000)	99	981			14.39- 114.39	21.32	
37 Benzene					CAS #: 71-43-2			
16.683	16.705 (0.974)	78	46956	0.34	0.64		00.00	9070
16.683	16.705 (0.000)	77	2975			0.00- 74.19	6.34	
38 1,2-Dichloroethane					CAS #: 107-06-2			
16.699	16.713 (0.975)	62	2648	0.049	0.093		.00.00	4201(a)
16.699	16.713 (0.000)	64	231			0.00- 83.16	8.72	
51 Toluene					CAS #: 108-88-3			
19.232	19.268 (1.122)	92	21213	0.25	0.48		100.00	7486
19.232	19.268 (0.000)	91	10421			115.23- 215.23	49.13	
60 Ethyl Benzene					CAS #: 100-41-4			
21.482	21.366 (1.014)	106	7572	0.10	0.20		100.00	(Q)
21.482	21.366 (1.014)	91	17182			296.25- 396.25	226.91	
61 m,p-Xylene					CAS #: 108-38-3			
21.482	21.519 (1.014)	106	7572	0.11	0.20		100.00	
21.482	21.519 (1.014)	91	17182			164.96- 264.96	226.91	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

Air Toxics Limited

Unknown Compounds Quantitation Report

Data file : /chem/msdj.i/j-31mar.b/j033107.d
Lab Smp Id: 9703255-02A Client Smp ID: 032797D1
Inj Date : 31-MAR-1997 14:13
Operator : MH Inst ID: msdj.i
Smp Info : 500mL Can#20995
Misc Info : 9"-5.0psi Parsons TO14(Short)
Comment :
Method : /chem/msdj.i/j-31mar.b/to140109.m
Meth Date : 31-Mar-1997 11:14 mhe
Cal Date : 09-JAN-1997 12:48 Cal File: j010909.d
Als bottle: 1
Dil Factor: 1.910 Target Version: 3.12
Integrator: HP RTE Compound Sublist: Parsons.sub
Sample Matrix: AIR
Quantitative Mode : Use RF of Nearest Std
Concentration Formula: Uf * Vf

Name	Value	Description
Uf	1.000	ng unit correction factor
Vf	1.000	Volumetric correction factor

ISTD	RT	AREA	AMOUNT
* 30 Bromochloromethane	15.806	1176124	5.000
* 58 Chlorobenzene-d5	21.185	2345964	5.000

	RT	AREA	CONCENTRATIONS ON-COL(PPBV)	FINAL(PPBV)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown					CAS #:			
	6.376	1573870	6.7	12.8	0		0	30
Unknown					CAS #:			
	7.704	156079	0.66	1.3	0		[illegible]	30
Butane					CAS #: 106-97-8			
	8.589	246409	1.0	2.0	64	NBS54K.l	78	30
Acetaldehyde					CAS #: 75-07-0			
	9.275	520394	2.2	4.2	86	NBS54K.l	37	30

RT	AREA	CONCENTRATIONS ON-COL(PPBV)	FINAL(PPBV)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown					CAS #:		
10.710	104494	0.44	0.85	0		0	30
Butanal					CAS #: 123-72-8		
15.196	466971	2.0	3.8	90	NBS54K.l	257	30
Heptanal					CAS #: 111-71-7		
22.329	142981	0.30	0.58	50	NBS54K.l	2693	58
Unknown					CAS #:		
22.642	567988	1.2	2.3	0		0	58
Unknown					CAS #:		
22.787	349699	0.74	1.4	0		0	58
Octanal					CAS #: 124-13-0		
24.633	197763	0.42	0.80	72	NBS54K.l	486	58
1-Hexanol, 2-ethyl-					CAS #: 104-76-7		
25.304	565252	1.2	2.3	72	NBS54K.l	822	58
Phenol					CAS #: 108-95-2		
25.800	1019603	2.2	4.2	93	NBS54K.l	933	58
Unknown					CAS #:		
26.502	303354	0.65	1.2	0		0	58
Nonanal					CAS #: 124-19-6		
27.258	291036	0.62	1.2	83	NBS54K.l	942	58
Dodecanal					CAS #: 112-54-9		
30.355	236624	0.50	0.96	83	NBS54K.l	958	58

Air Toxics Limited

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdj.i
Lab File ID: j033107.d
Lab Smp Id: 9703255-02A
Analysis Type: VOA
Quant Type: ISTD
Operator: MH
Method File: /chem/msdj.i/j-31mar.b/to140109.m
Misc Info: 9"-5.0psi Parsons TO14(Short)

Calibration Date: 03/31/97
Calibration Time: 1046
Client Smp ID: 032797D1
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	% DIFF
30 Bromochloromethane	197959	118775	277143	169087	-14.58
40 1,4-Difluorobenzene	879427	527656	1231198	728749	-17.13
58 Chlorobenzene-d5	791228	474737	1107719	686996	-13.17

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	% DIFF
30 Bromochloromethane	15.78	15.28	16.28	15.81	0.14
40 1,4-Difluorobenzene	17.12	16.62	17.62	17.13	0.09
58 Chlorobenzene-d5	21.18	20.68	21.68	21.18	0.03

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

MH
3/31/97

Data File: /chem/msdj.i/j-31mar.b/j033107.d
Report Date: 31-Mar-1997 15:13

Air Toxics Limited

RECOVERY REPORT

Client Name:
Sample Matrix: GAS
Lab Smp Id: 9703255-02A
Level: LOW
Data Type: MS DATA
SpikeList File:
Method File: /chem/msdj.i/j-31mar.b/to140109.m
Misc Info: 9"-5.0psi Parsons TO14(Short)

Client SDG: j-31mar
Fraction: VOA
Client Smp ID: 032797D1
Operator: MH
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 35 Octafluorotoluene	5.0	5.3	106.78	60-140
$ 49 Toluene-d8	5.0	5.5	110.41	60-140
$ 65 Bromofluorobenzene	5.0	5.9	118.13	60-140

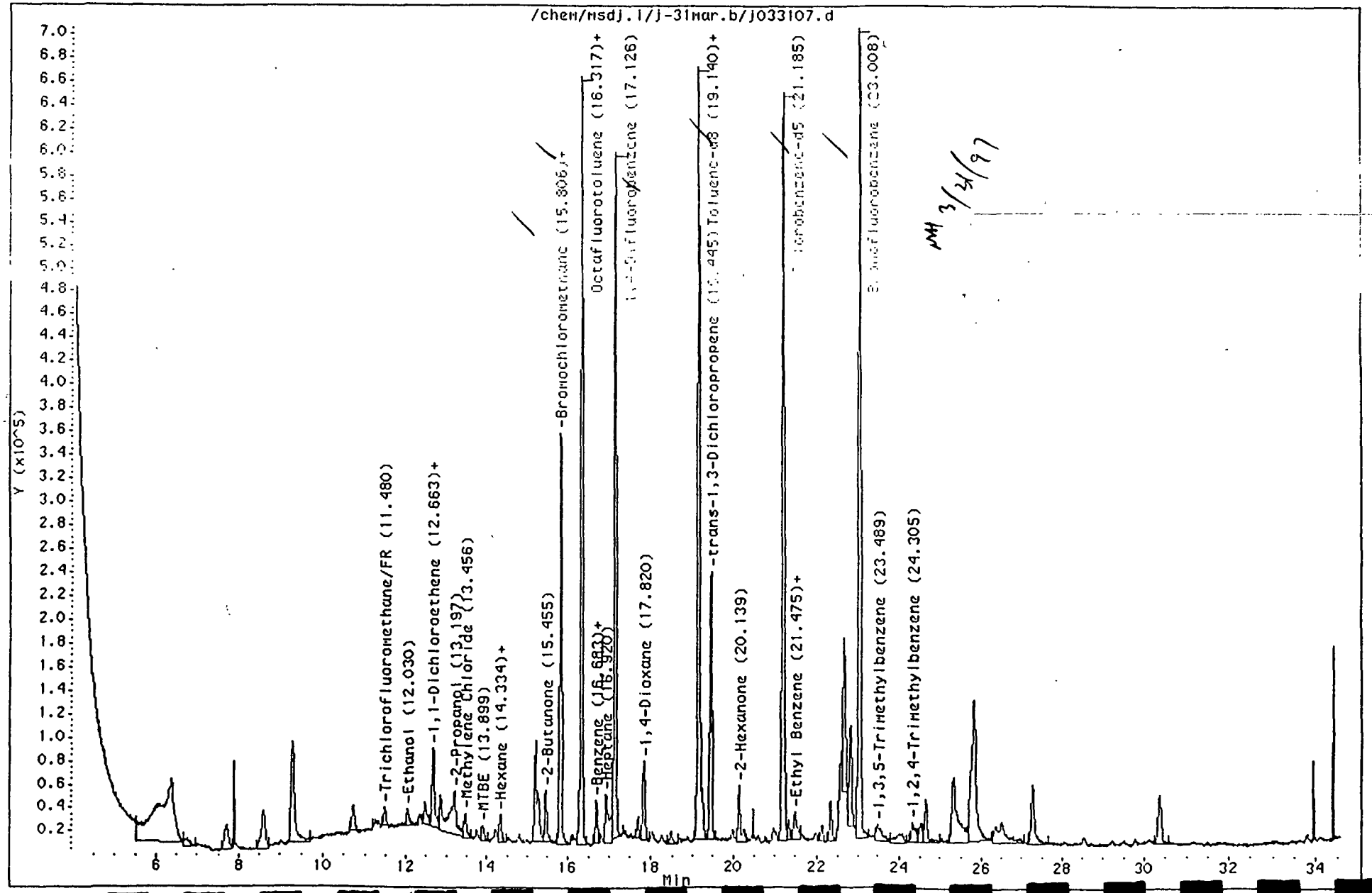
NM
3/31/97

Data File: /chem/msdj.i/j-31mar.b/j033107.d
Date : 31-MAR-1997 14:13
Client ID: 032797D1
Sample Info: 500mL Can#20995

Column phase: RTx-624

Instrument: msdj.i

Operator: MH
Column diameter: 0.58



Data File: /chem/msdj.i/j-31mar.b/j033107.d

Date : 31-MAR-1997 14:13

Client ID: 032797D1

Instrument: msdj.i

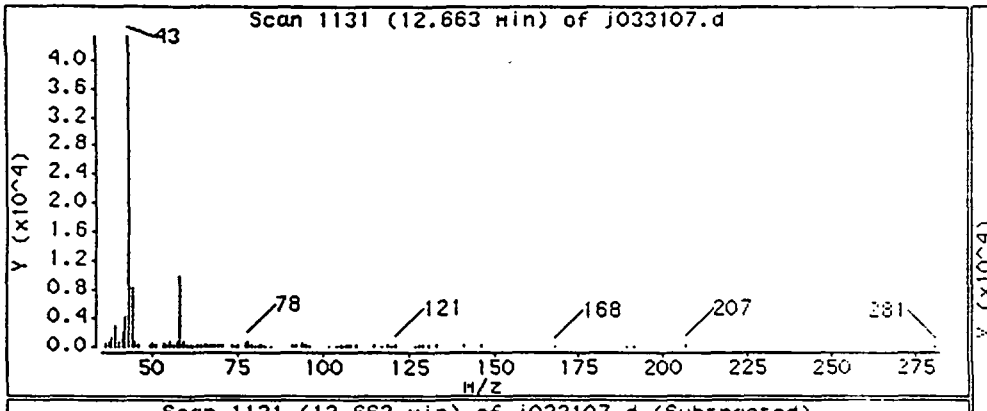
Sample Info: 500mL Can#20995

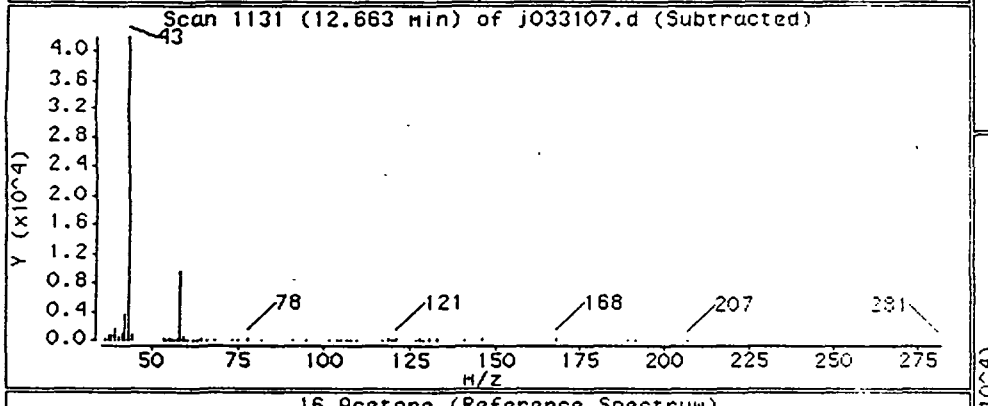
Operator: MH

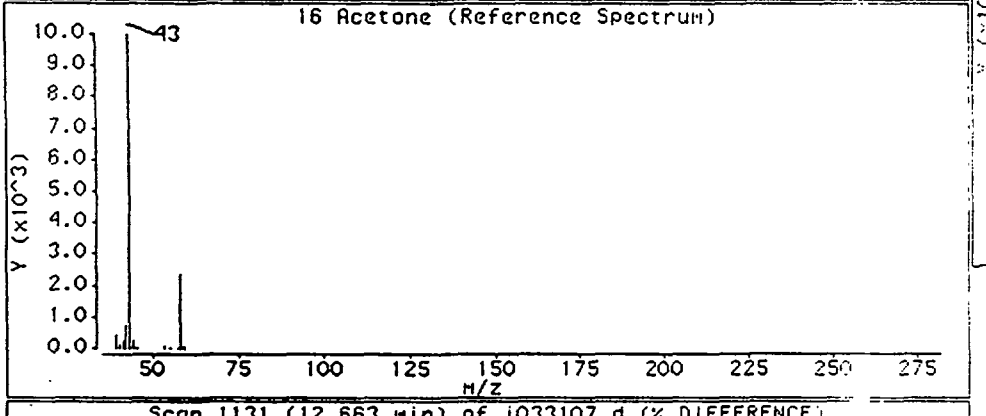
Column phase: RTx-624

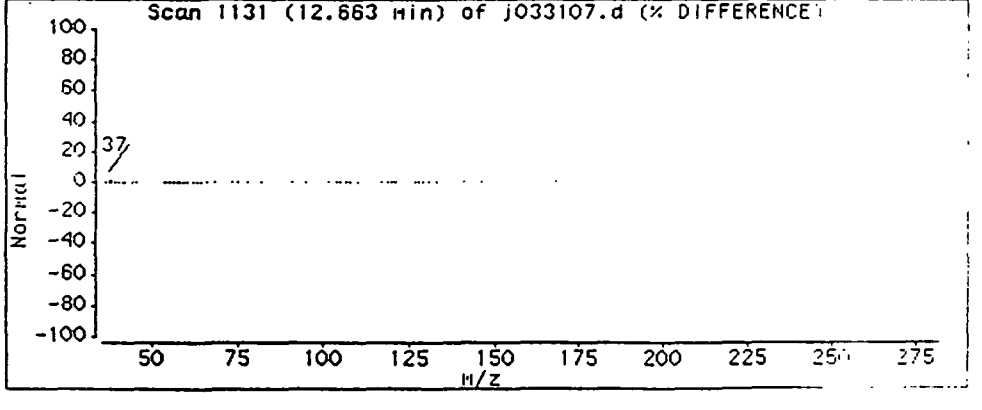
Column diameter: 0.58

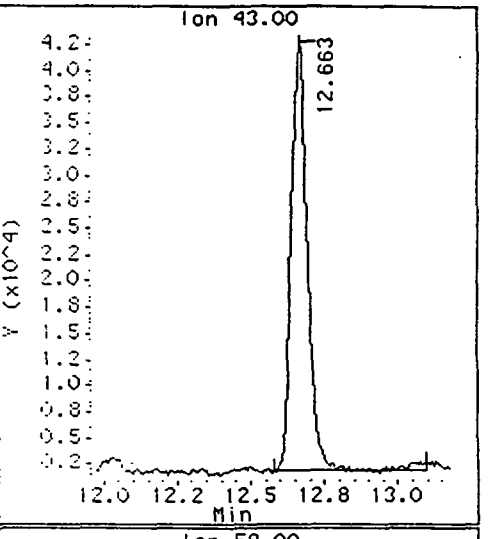
16 Acetone

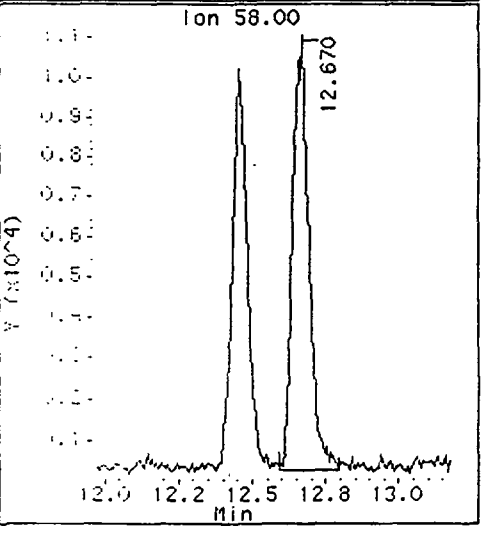












Data File: /chem/msdj.i/j-31mar.b/j033107.d

Date : 31-MAR-1997 14:13

Client ID: 032797D1

Instrument: msdj.i

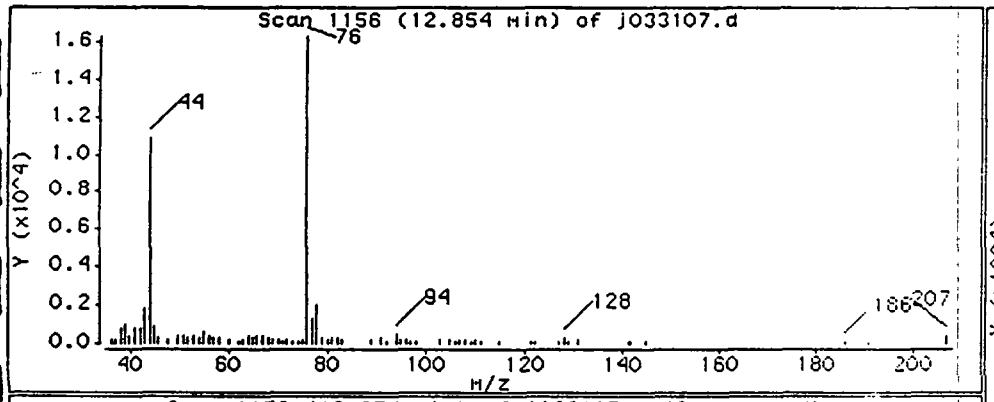
Sample Info: 500ML Can#20995

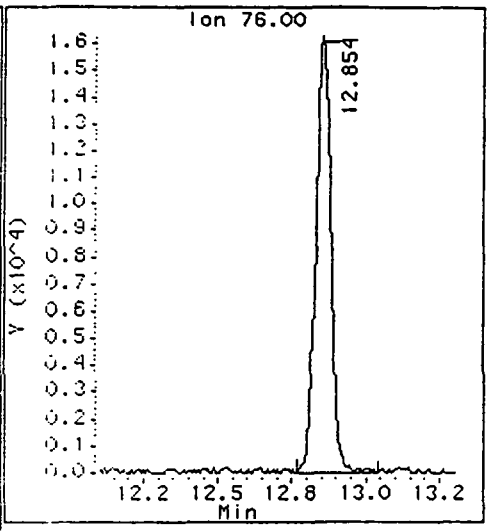
Operator: MH

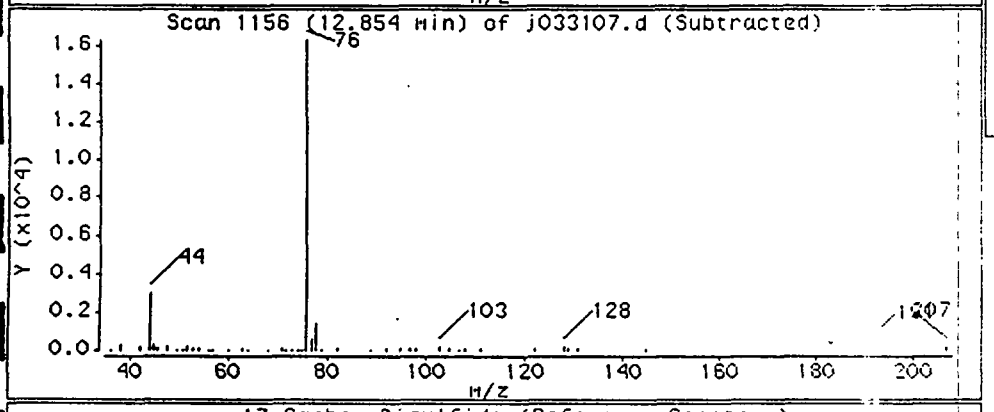
Column phase: RTx-624

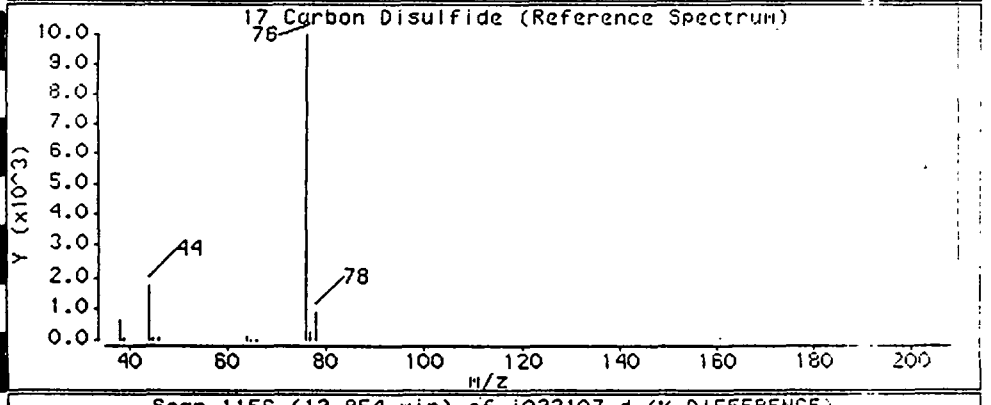
Column diameter: 0.58

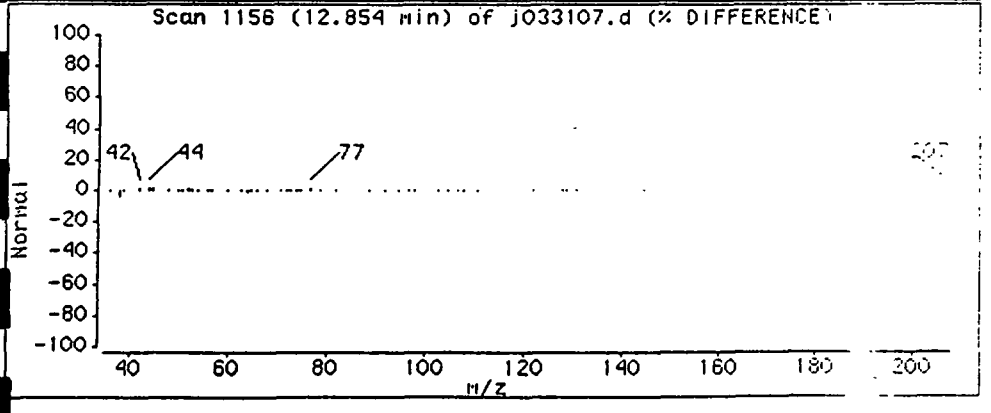
17 Carbon Disulfide











Data File: /chem/msdj.i/j-31mar.b/j033107.d

Page 11

Date : 31-MAR-1997 14:13

Client ID: 032797D1

Instrument: msdj.i

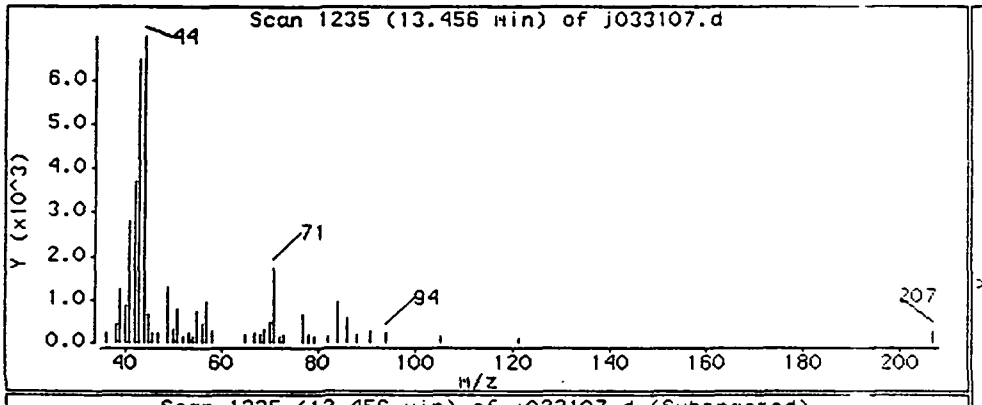
Sample Info: 500mL Can#20995

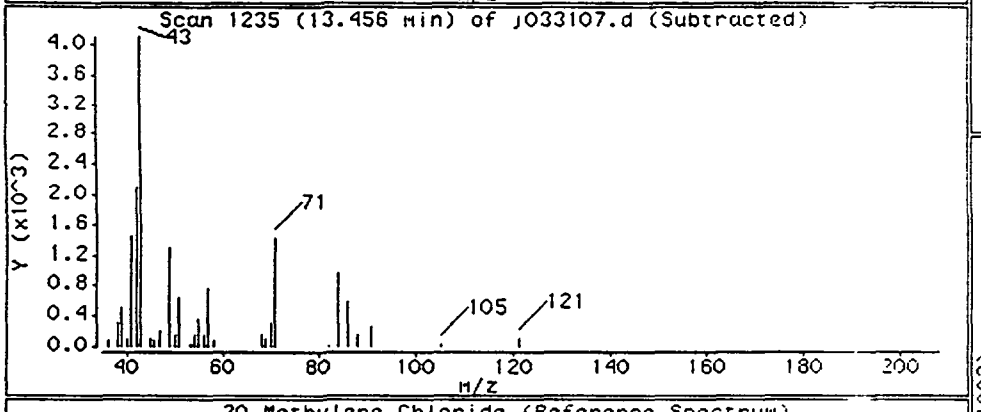
Operator: MH

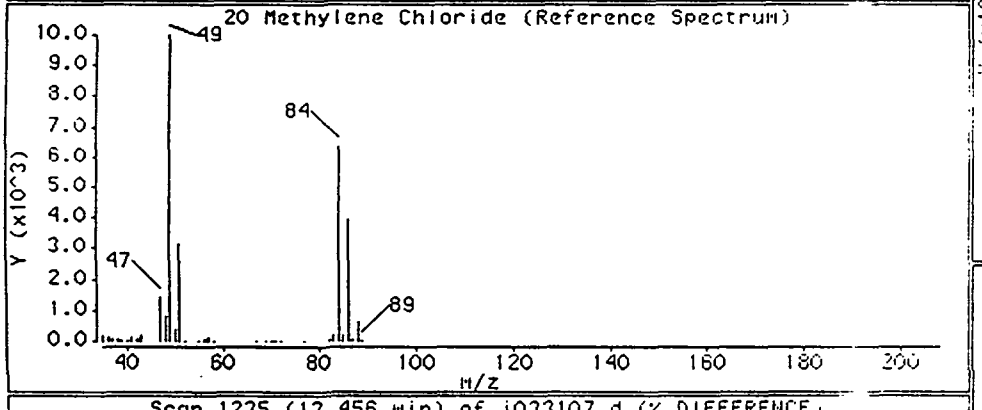
Column phase: RTx-624

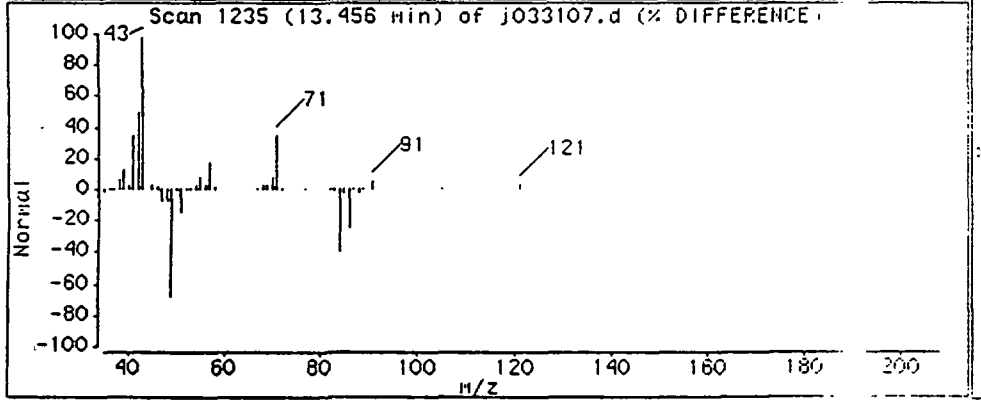
Column diameter: 0.53

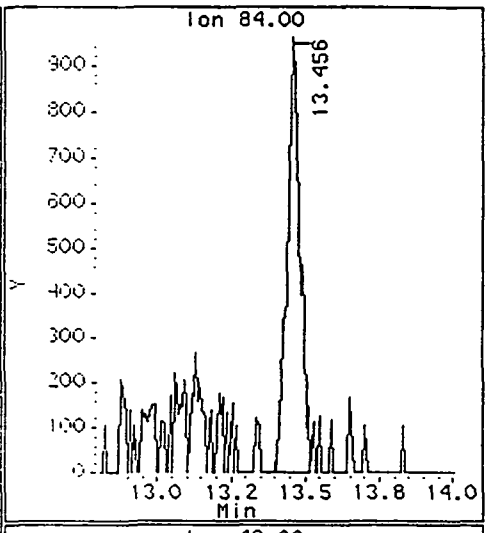
20 Methylene Chloride

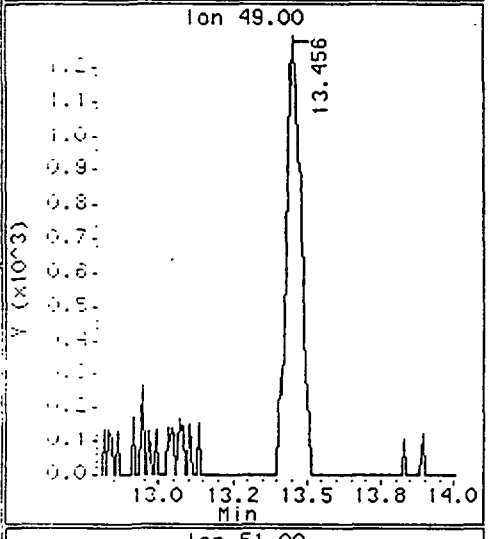


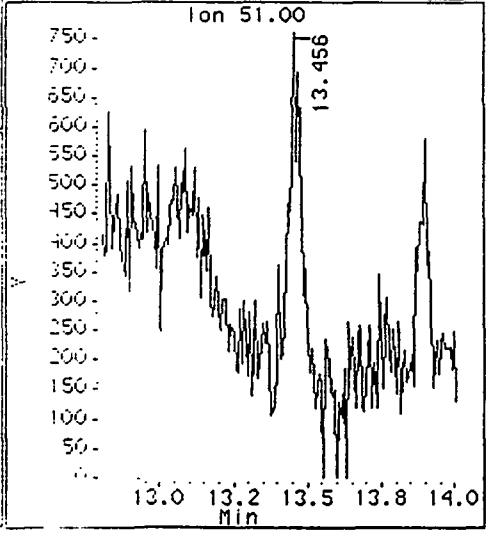












Data File: /chem/msdj.i/j-31mar.b/j033107.d

Date : 31-MAR-1997 14:13

Client ID: 032797D1

Instrument: msdj.i

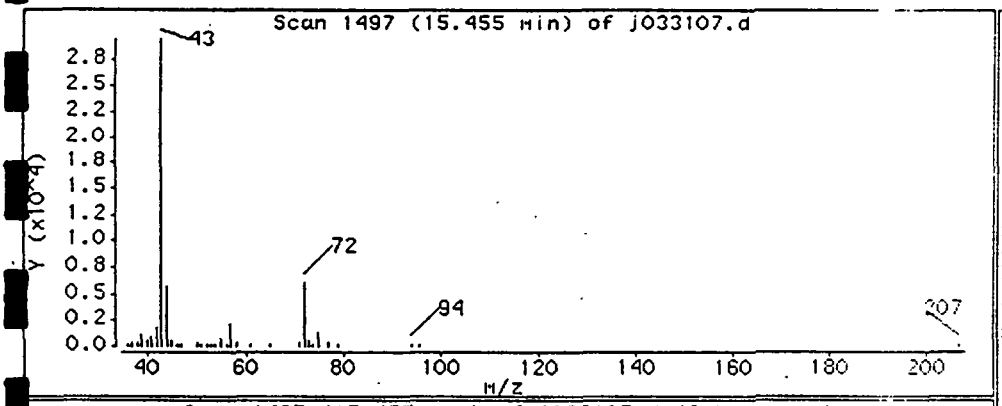
Sample Info: 500mL Can#20995

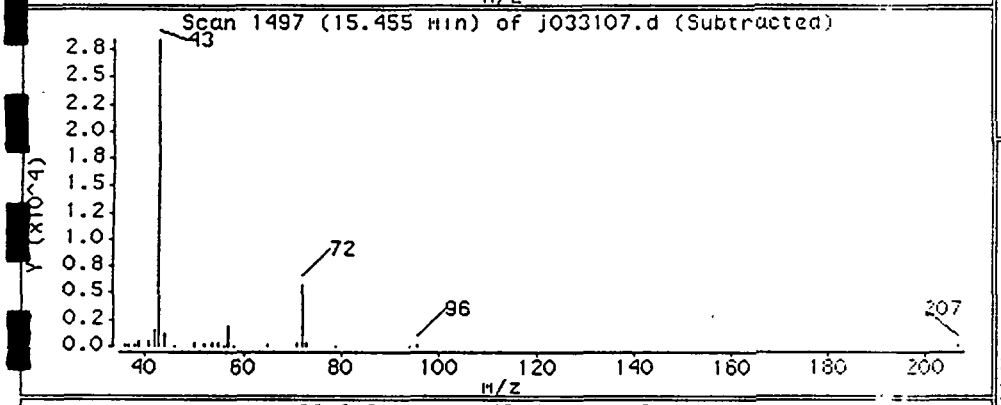
Operator: MH

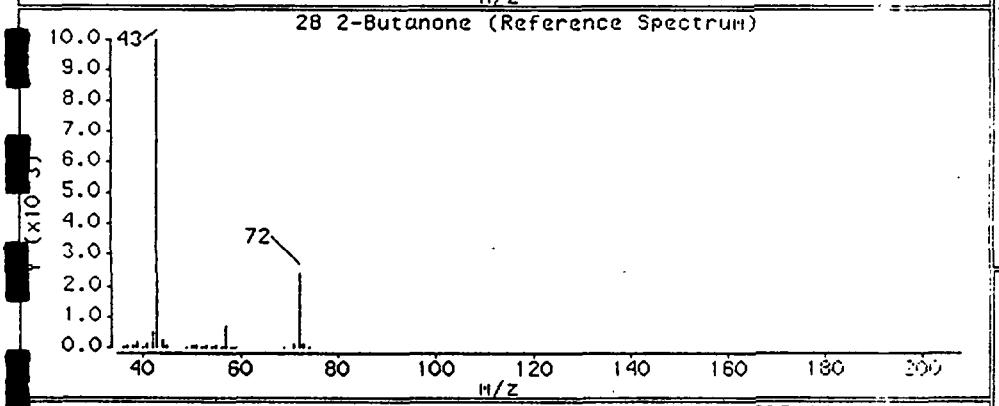
Column phase: RTx-624

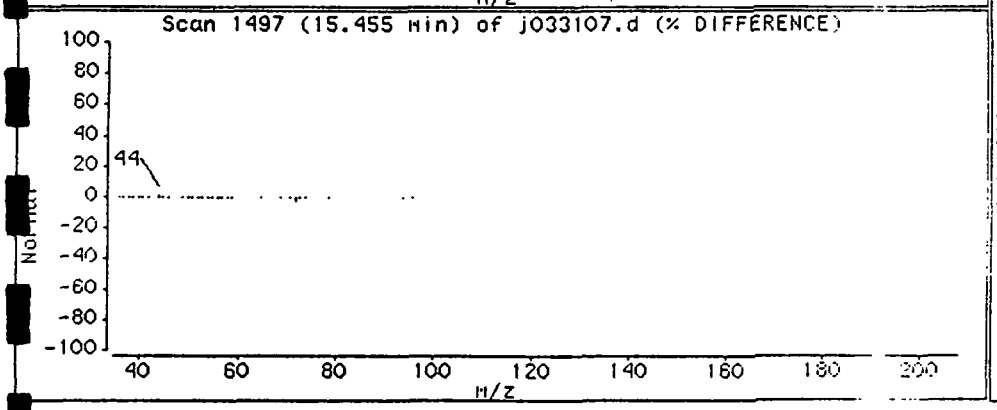
Column diameter: 0.58

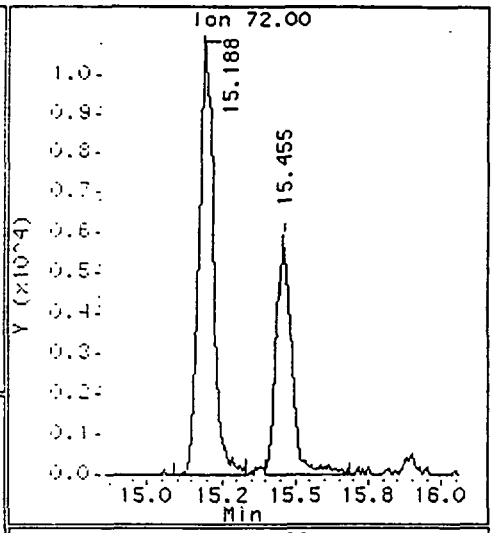
28 2-Butanone

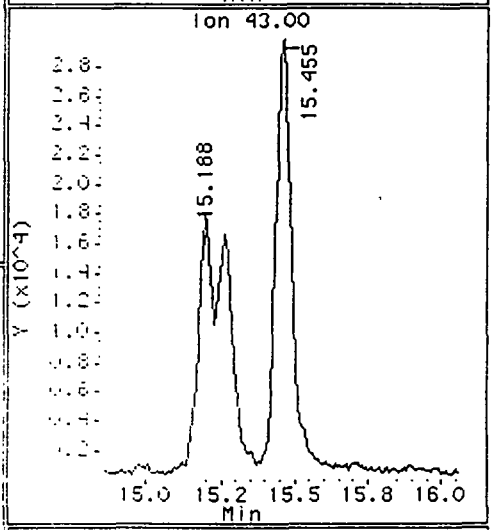


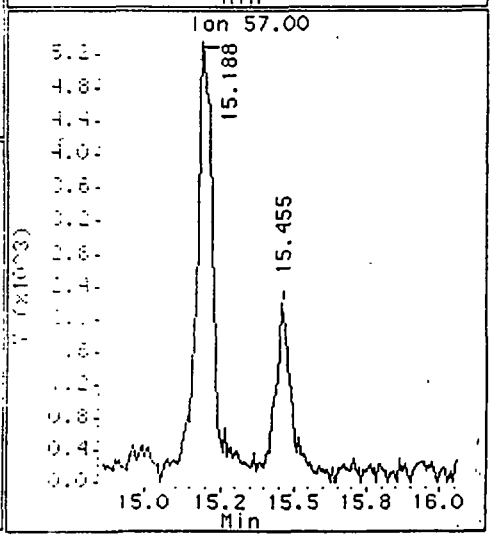












Data File: /chem/msdj.i/j-31mar.b/j033107.d

Date : 31-MAR-1997 14:13

Client ID: 032797D1

Instrument: msdj.i

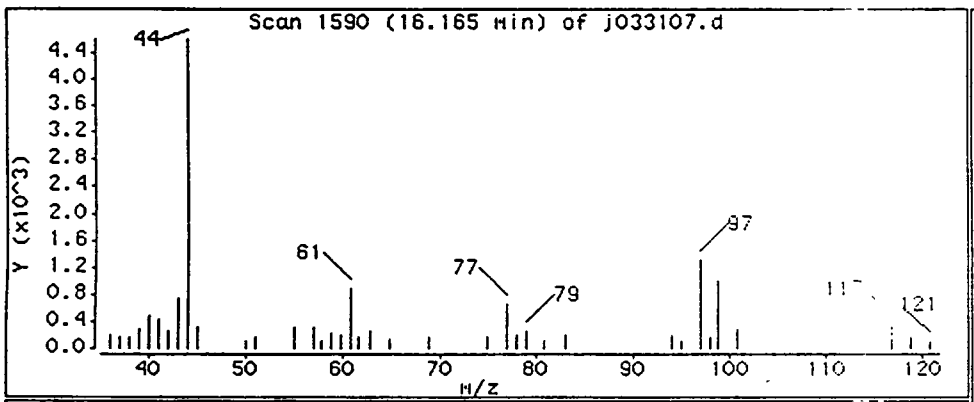
Sample Info: 500mL Can#20995

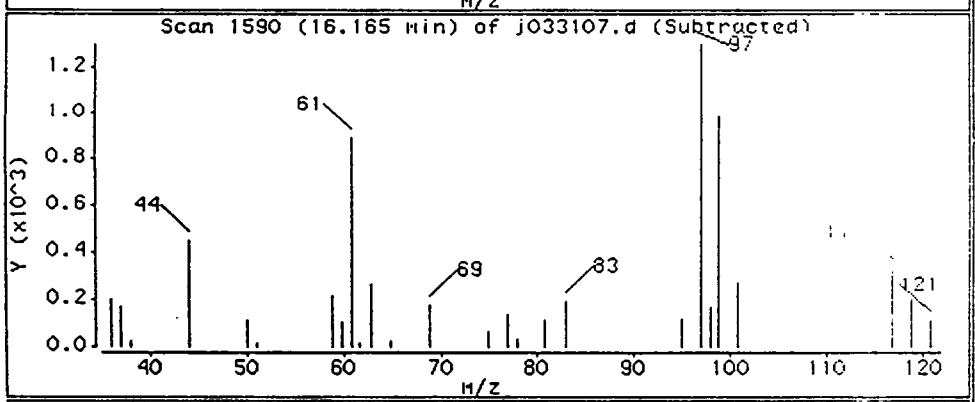
Operator : MH

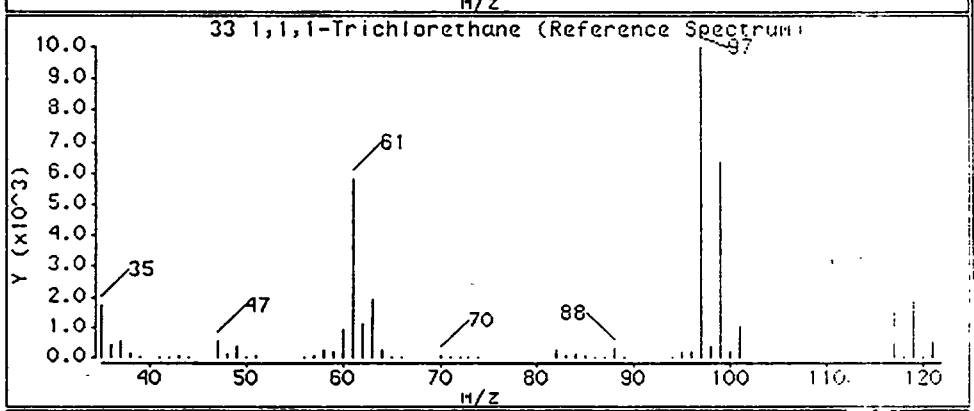
Column phase: RTx-624

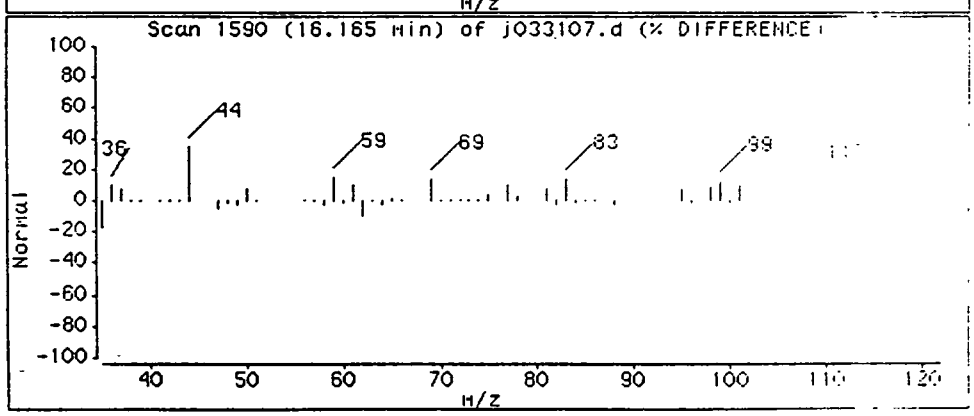
Column Diameter: 0.53

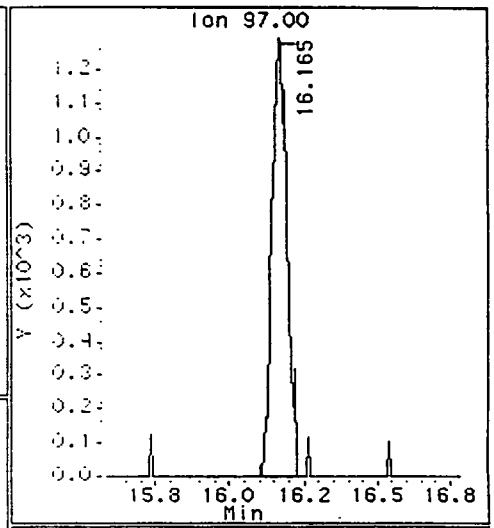
33 1,1,1-Trichlorethane

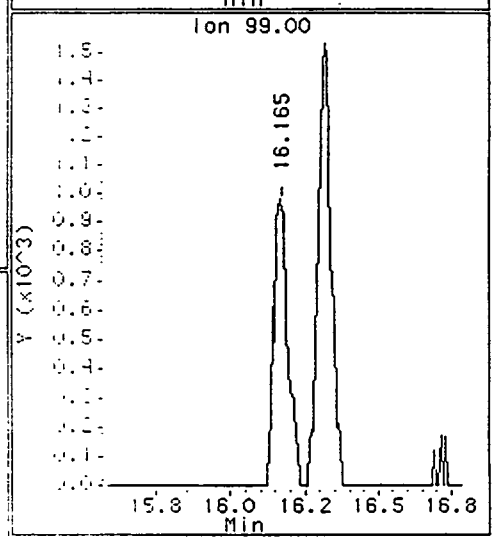












Data File: /chem/msdj.i/j-31mar.b/j033107.d

Date : 31-MAR-1997 14:13

Client ID: 032797D1

Instrument: msdj.i

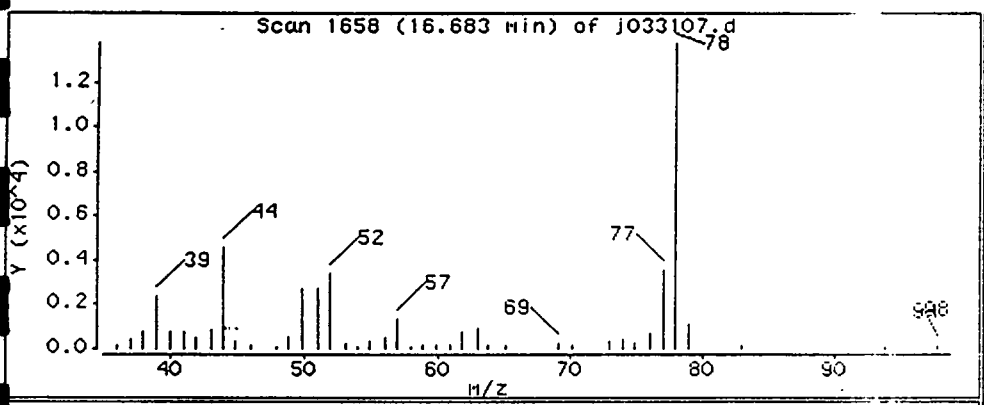
Sample Info: 500mL Can#20995

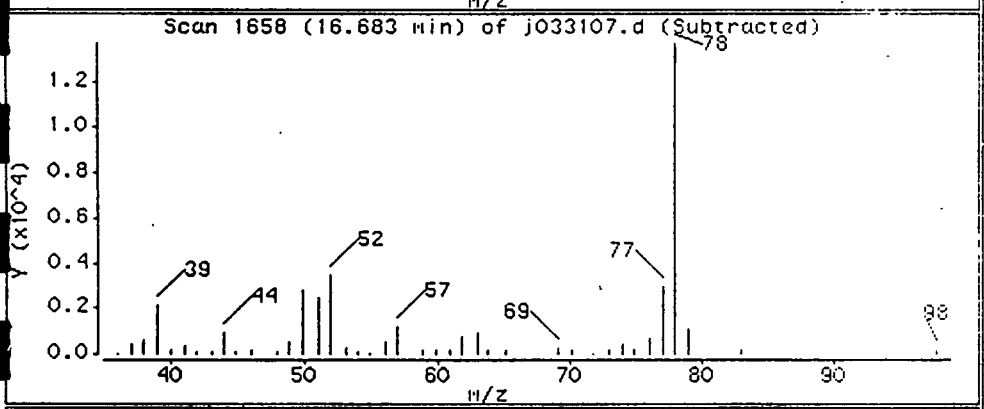
Operator: Mm

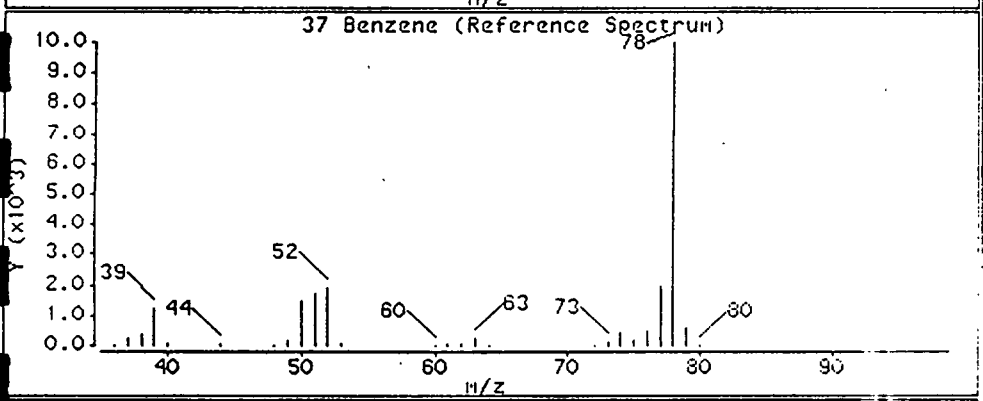
Column phase: RTx-624

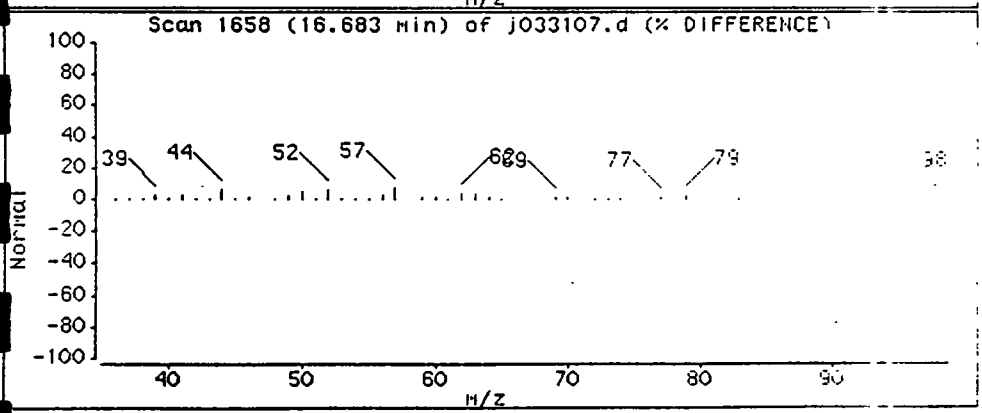
Column diameter: 0.58

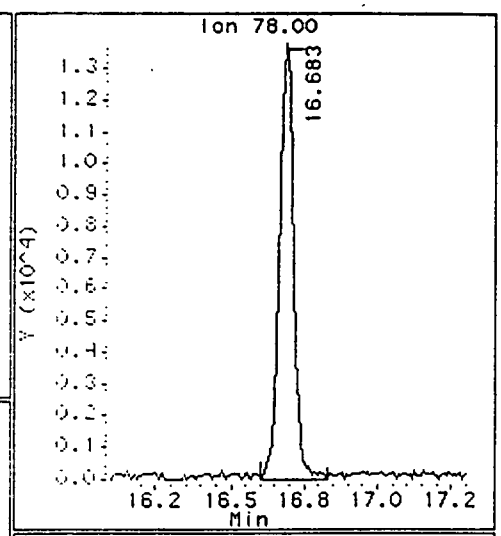
37 Benzene

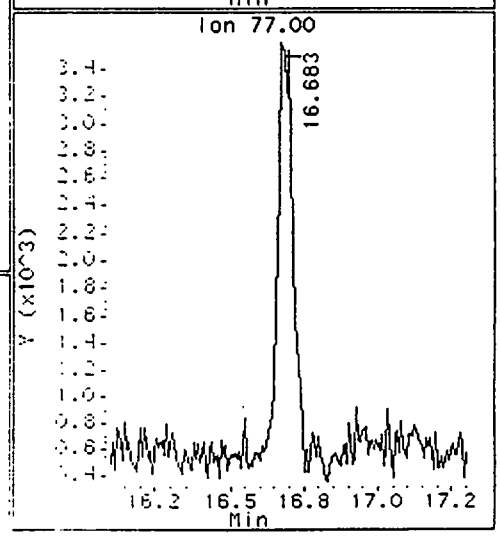












Data File: /chem/msdj.i/j-31mar.b/j033107.d

Date : 31-MAR-1997 14:13

Client ID: 032797D1

Instrument: msdj.i

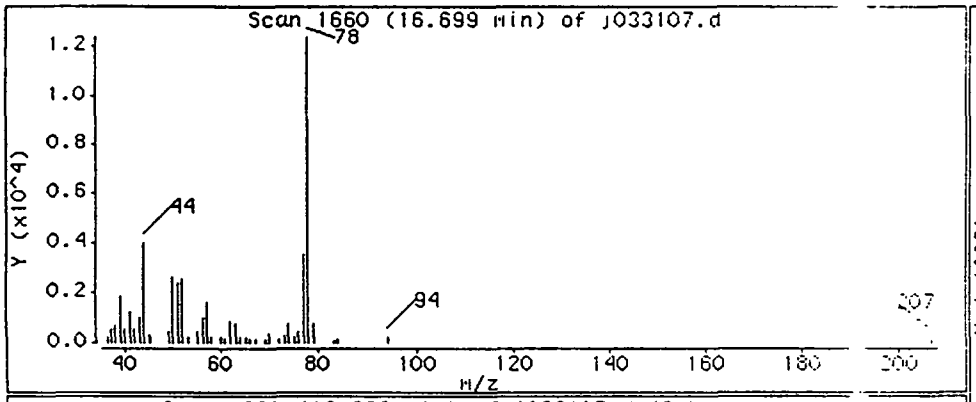
Sample Info: 500mL Can#20995

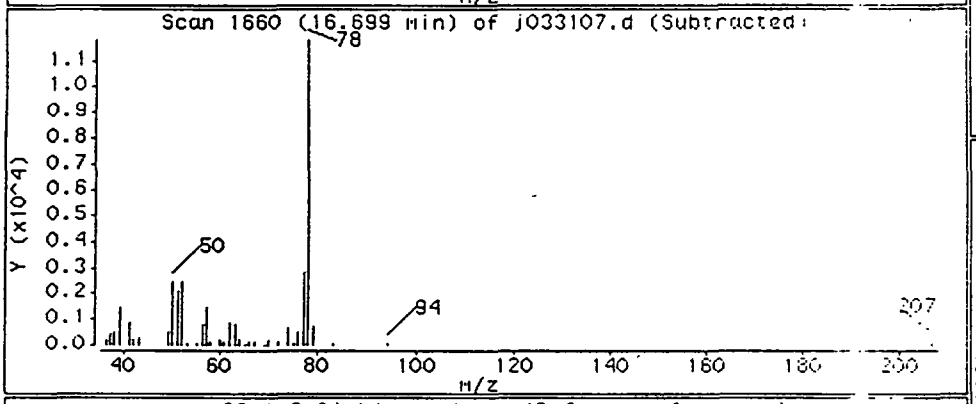
Operator: MH

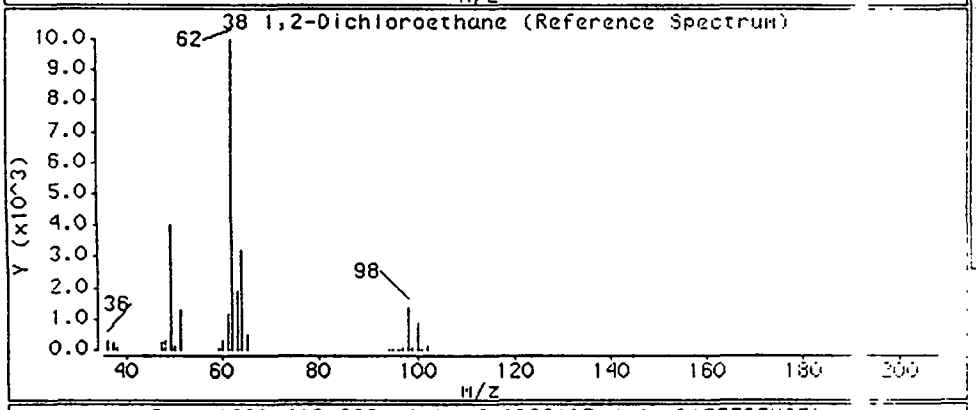
Column phase: RTx-624

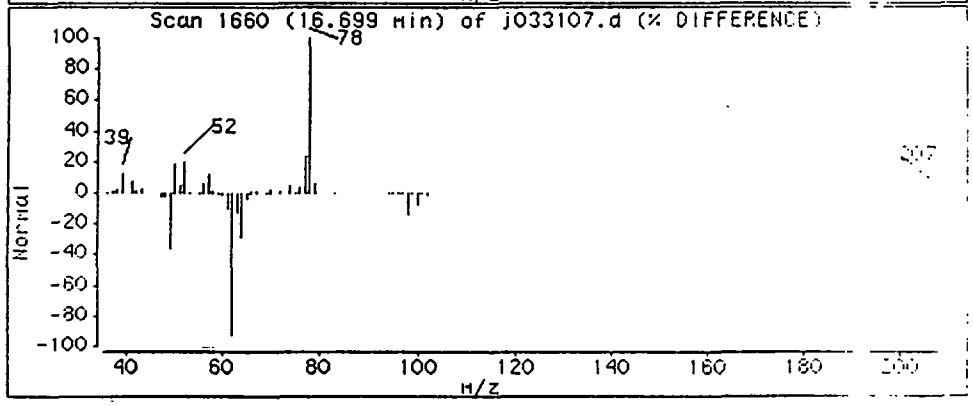
Column diameter: 0.58

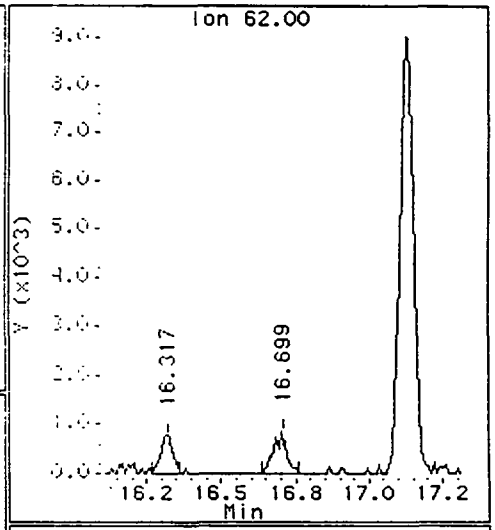
38 1,2-Dichloroethane

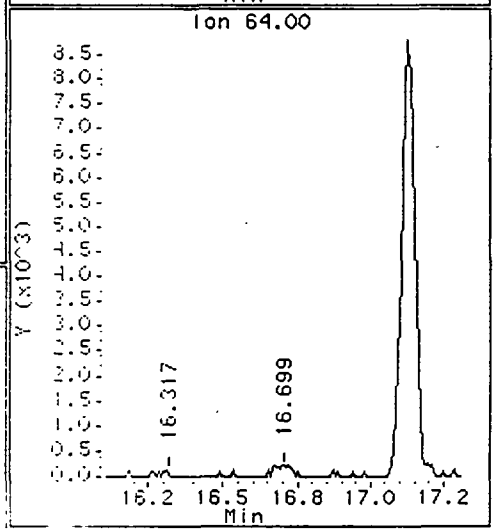












Data File: /chem/msdj.i/j-31mar.b/j033107.d

Date : 31-MAR-1997 14:13

Client ID: 032797D1

Instrument: msdj.i

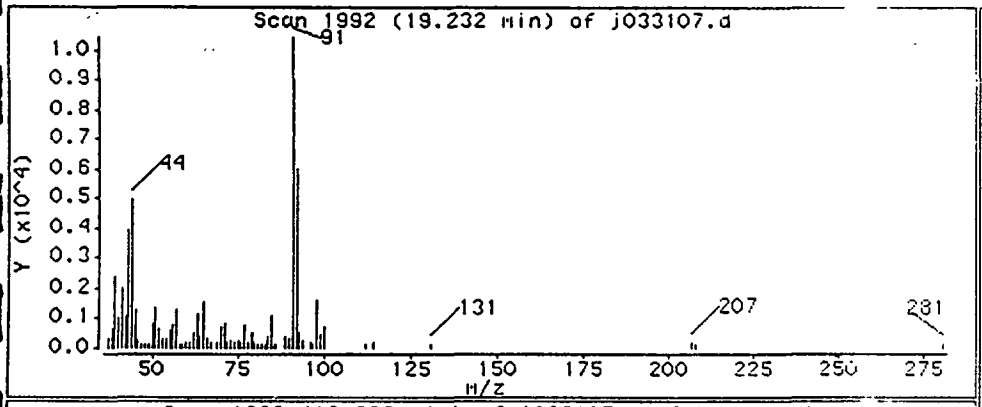
Sample Info: 500mL Can#20995

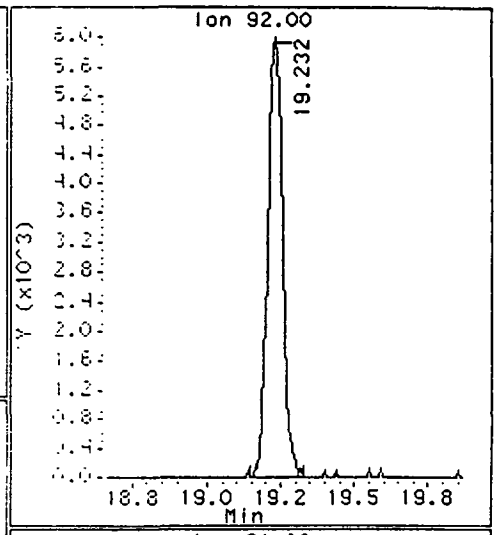
Operator: MH

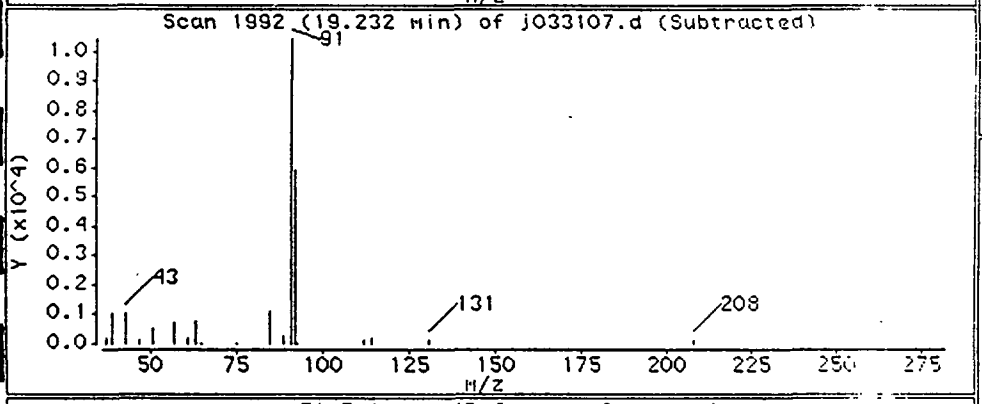
Column phase: RTx-624

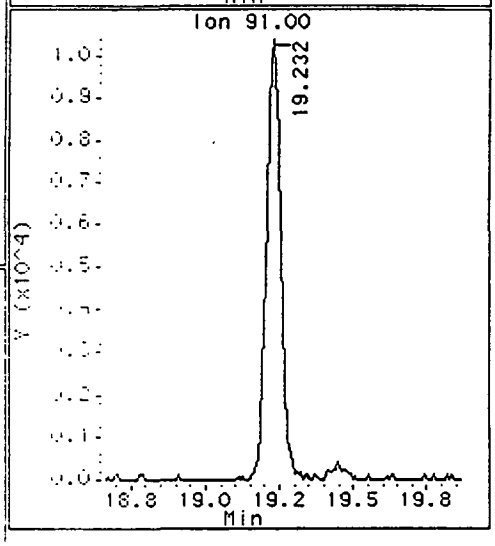
Column diameter: 0.58

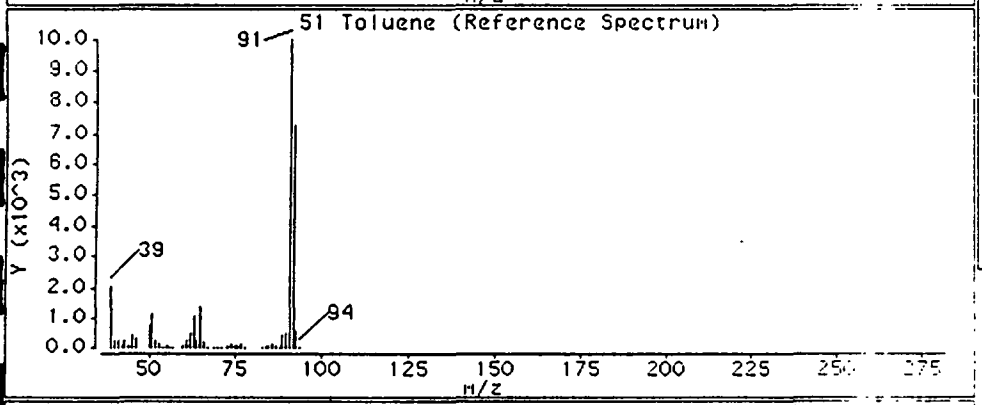
51 Toluene

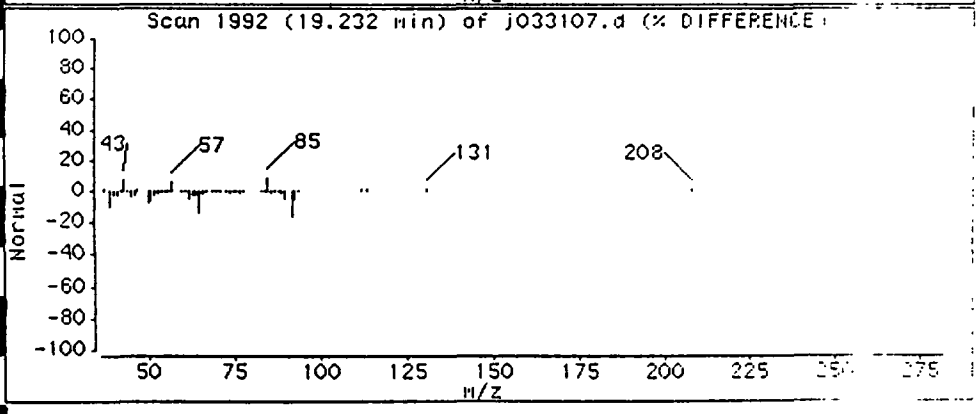












Data File: /chem/msdj.i/j-31mar.b/j033107.d

Date : 31-MAR-1997 14:13

Client ID: 032797D1

Instrument: msdj.i

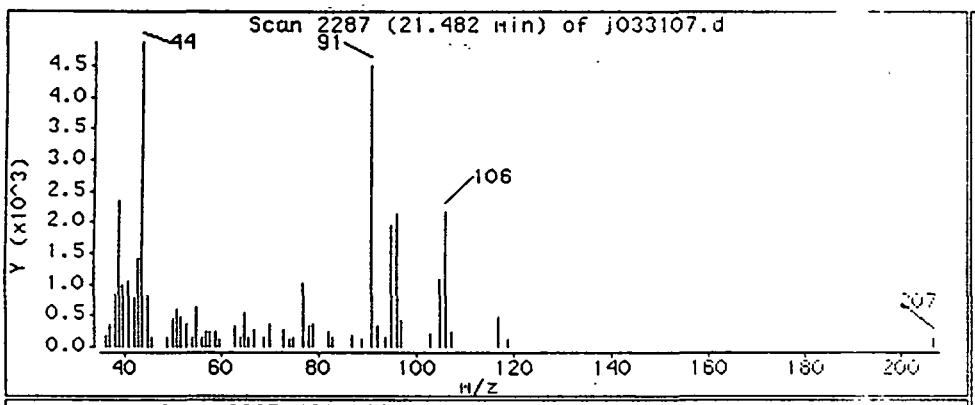
Sample Info: 500mL Can#20995

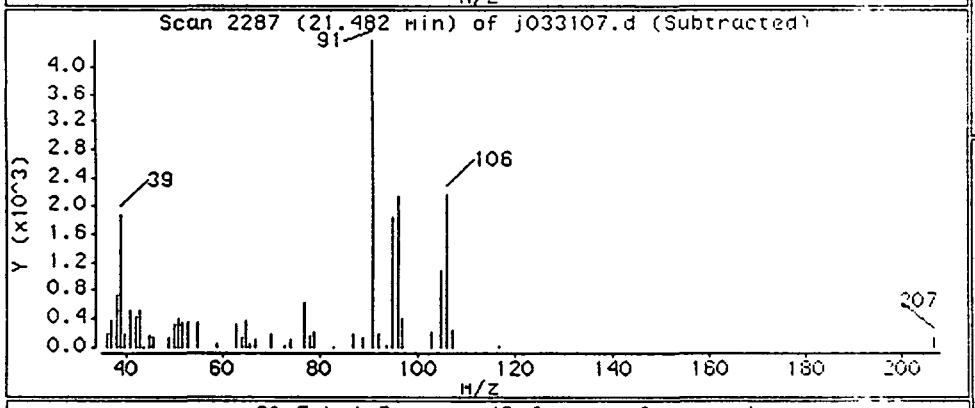
Operator : MH

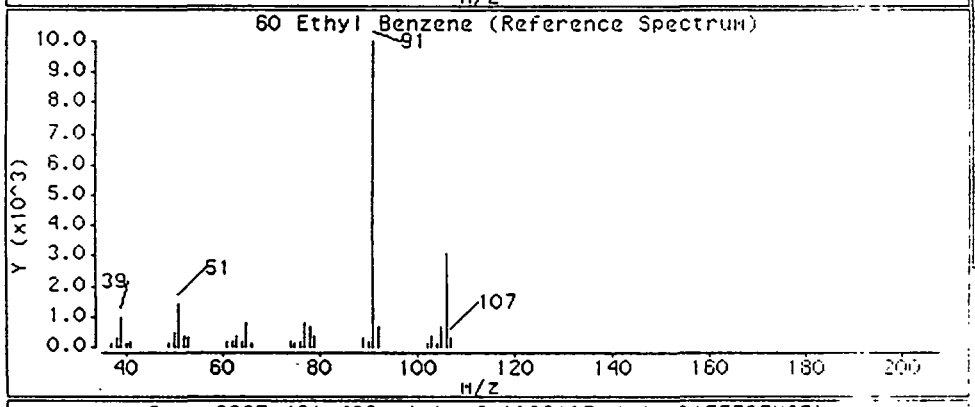
Column phase: RTx-624

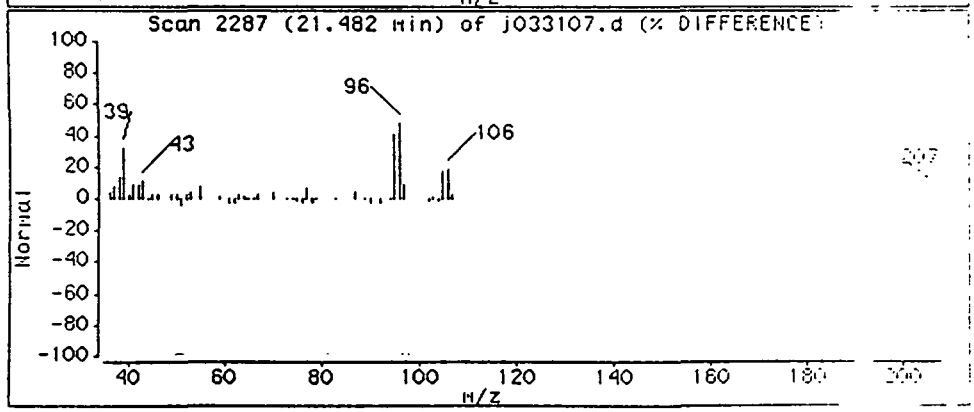
Column diameter: 0.56

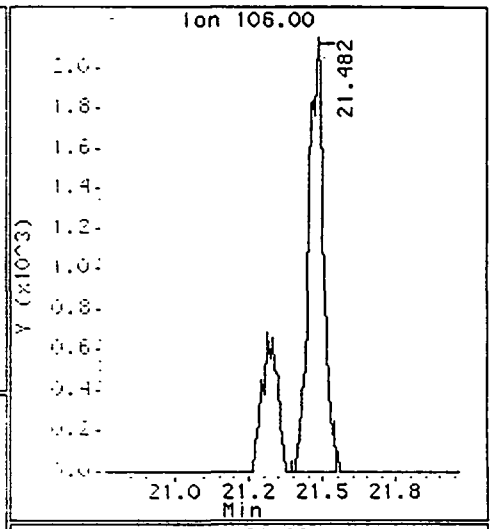
60 Ethyl Benzene

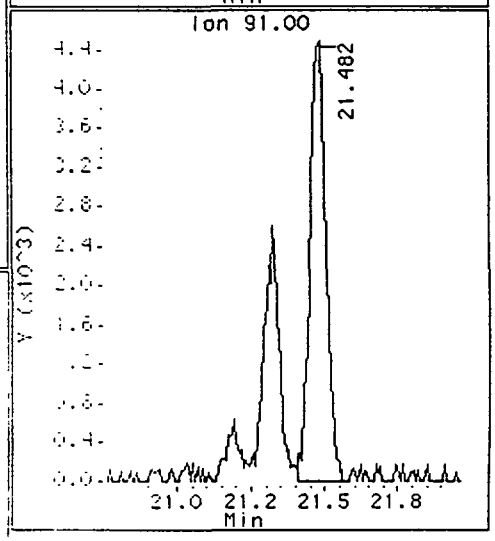












Data File: /chem/msdj.i/j-31mar.b/j033107.d

Date : 31-MAR-1997 14:13

Client ID: 0327970I

Sample Info: 500mL Can#20995

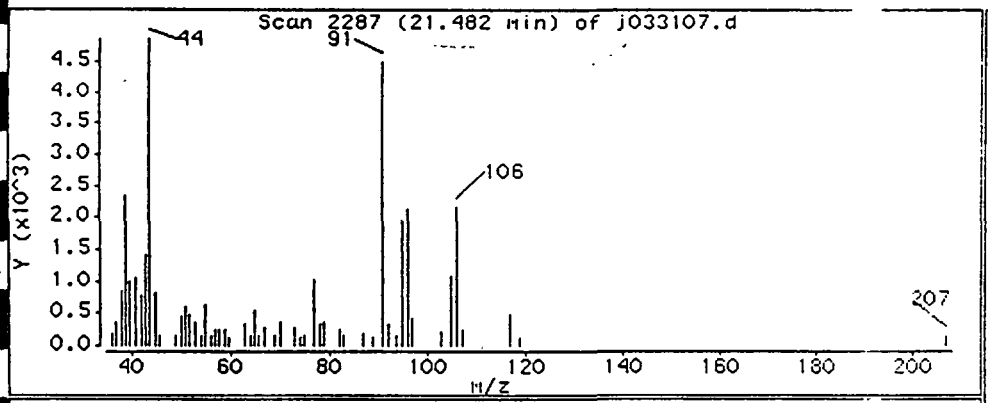
Column phase: RTx-624

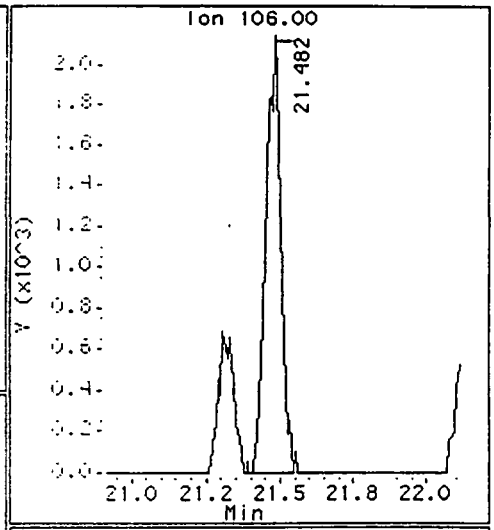
Instrument: msdj.i

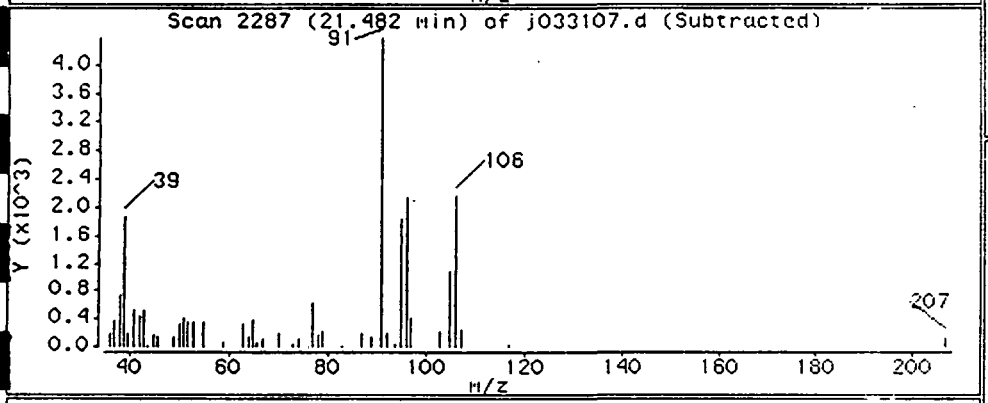
Operator: MH

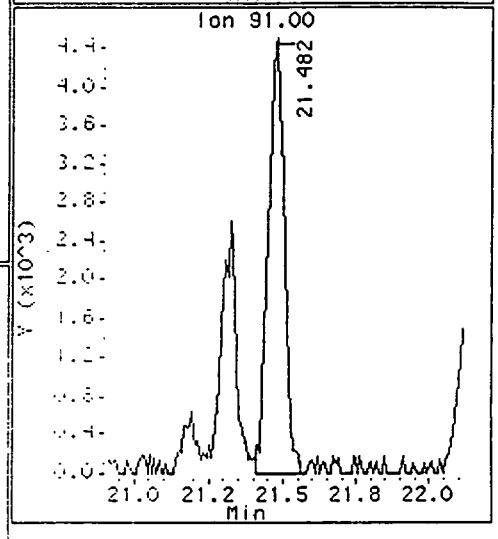
Column diameter: 0.58

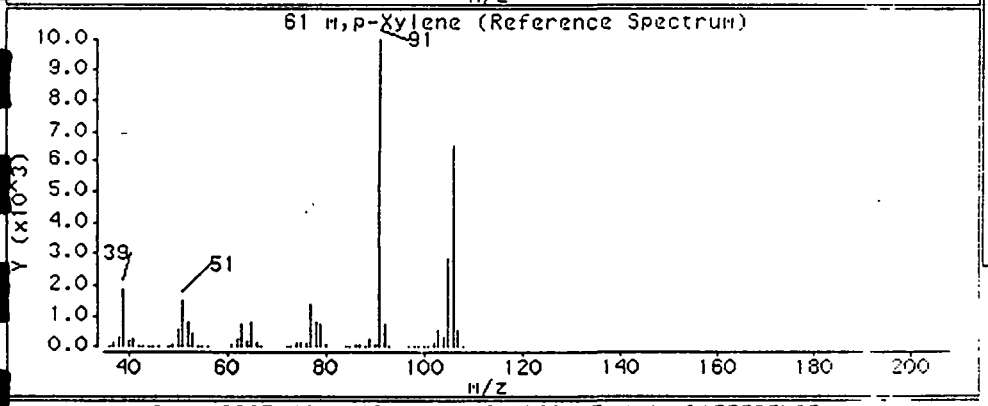
61 m,p-Xylene

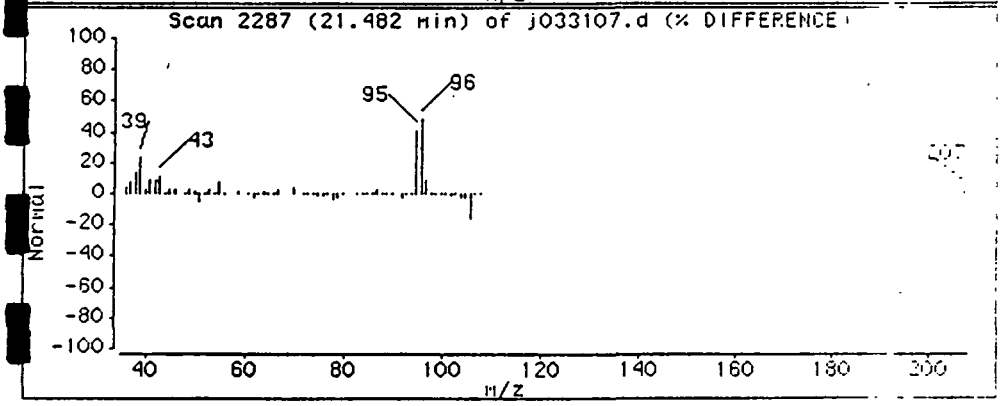








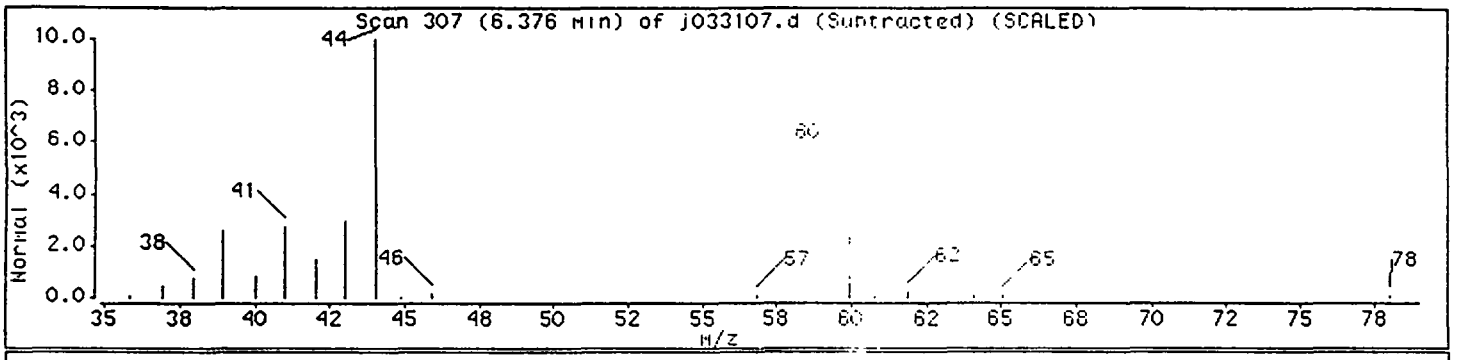




Data File: /chem/msdj.i/j-31mar.b/j033107.d
Date : 31-MAR-1997 14:13
Instrument: msdj.i
Client ID: 03279701
Column phase: RTx-624

Column diameter: 0.53

Library Search Compound Match	CAS Number	Lib Entry	Quality
UNKNOWN			



Library Search Compound Match	CAS Number	Lib Entry	Quality
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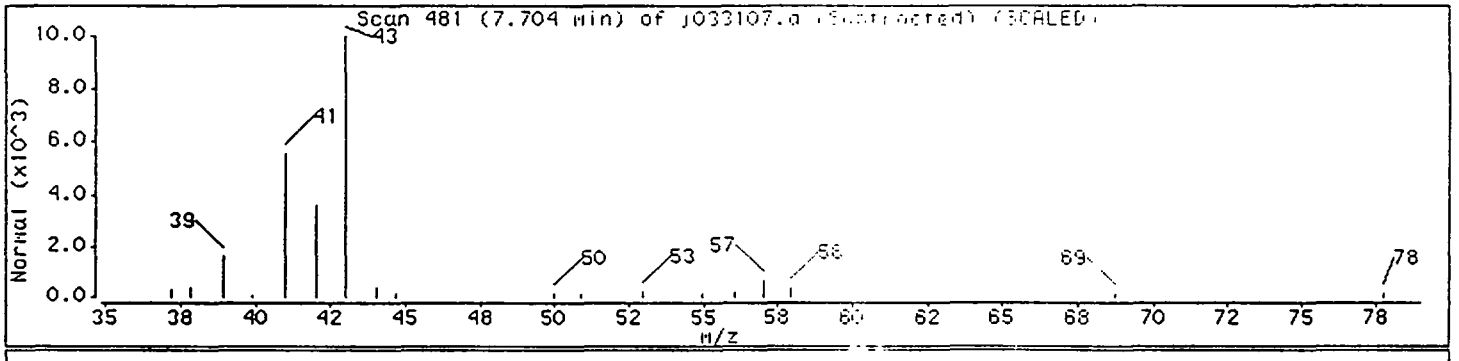
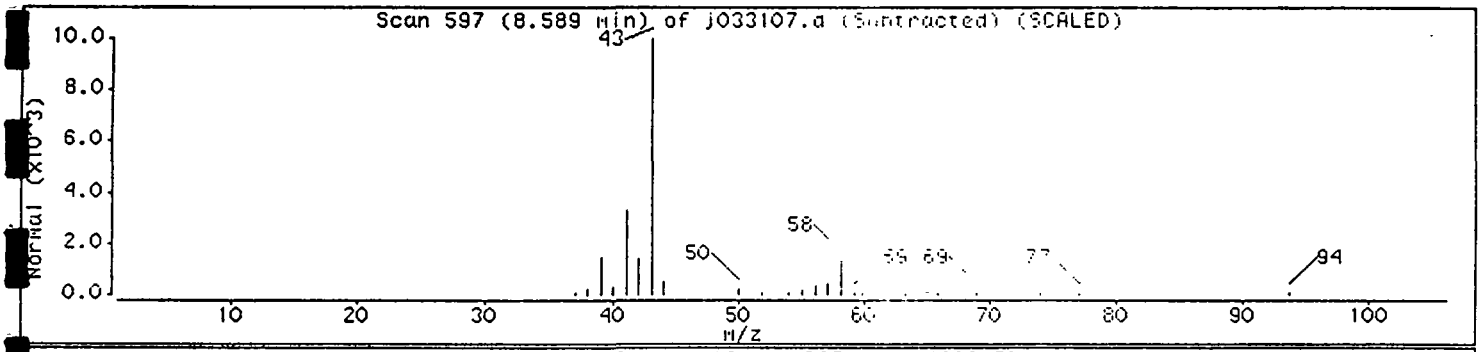
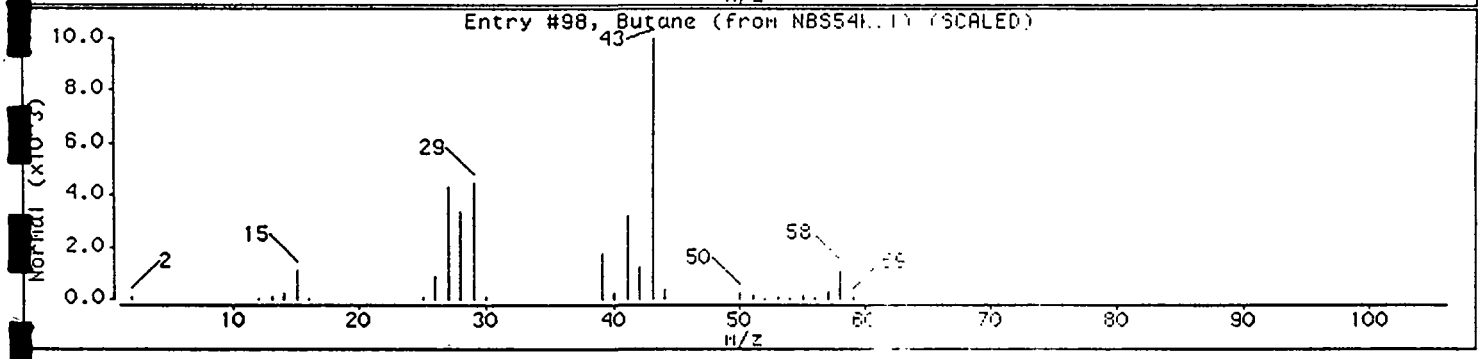


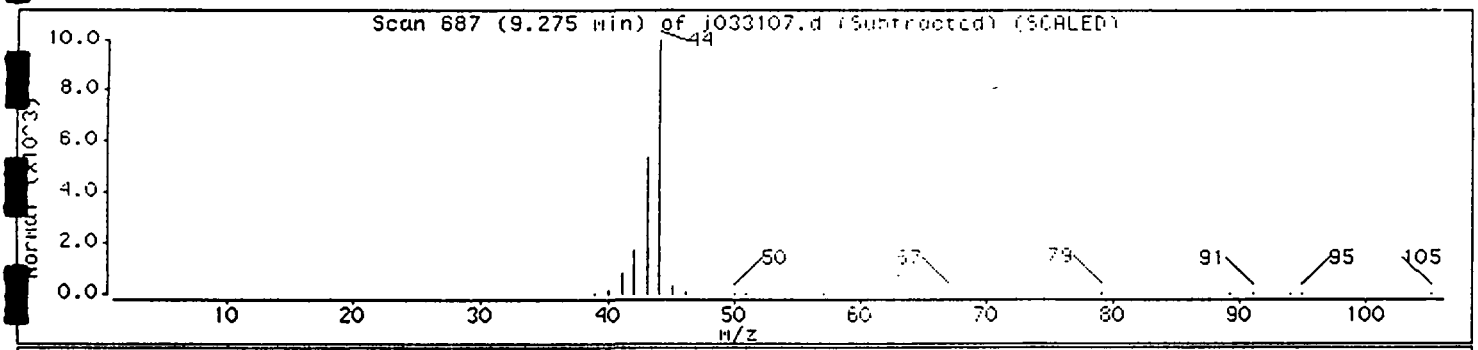
Data File: /chem/msdj.i/j-31mar.b/j033107.d
Date : 31-MAR-1997 14:13
Instrument: msdj.i
Client ID: 032797D1
Column phase: RTx-624 Column diameter: 0.53

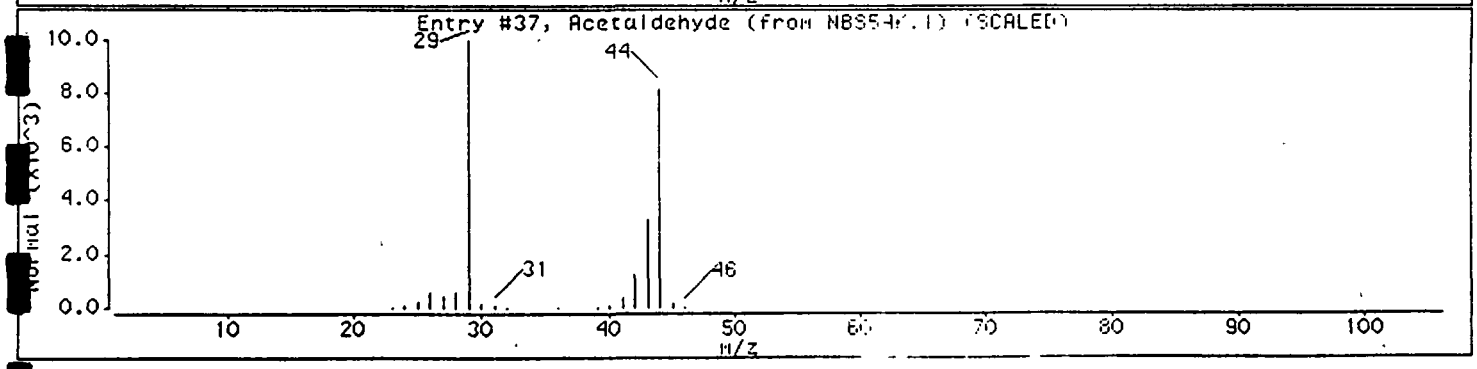
Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Butane	106-97-8	NBS54K.I	98	64





Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Acetaldehyde	75-07-0	NBS54K.I	37	86

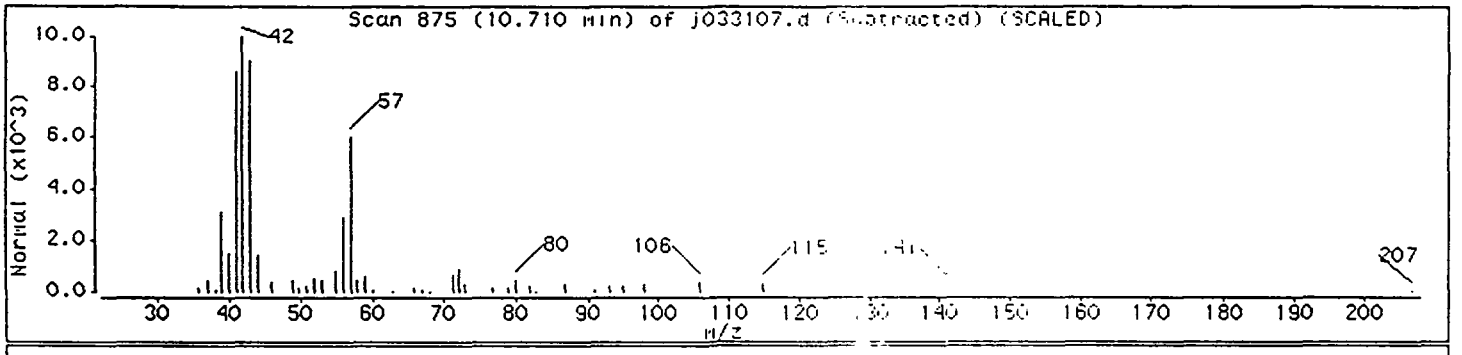




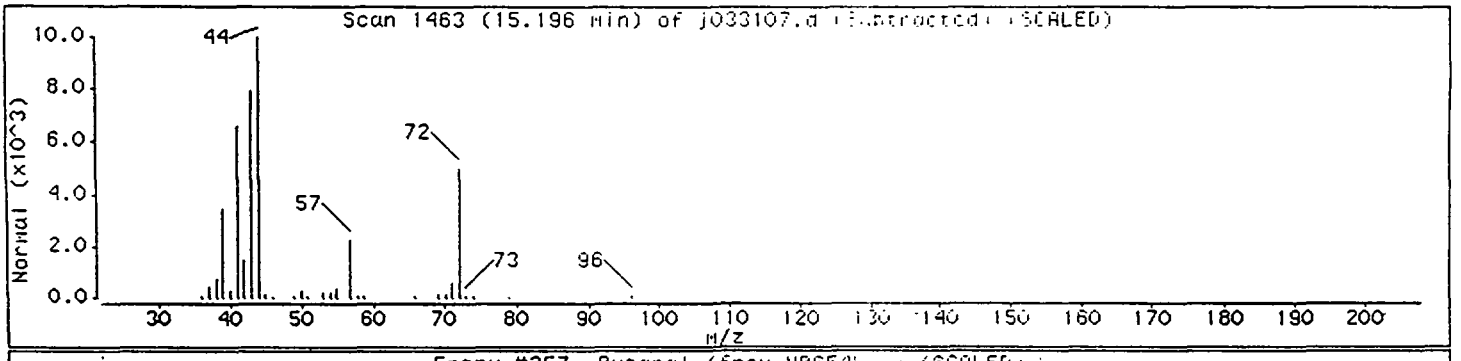
Data File: /chem/msdj.i/j-31mar.b/j033107.d
Date : 31-MAR-1997 14:13
Instrument: msdj.i
Client ID: 032797D1
Column phase: RTx-624

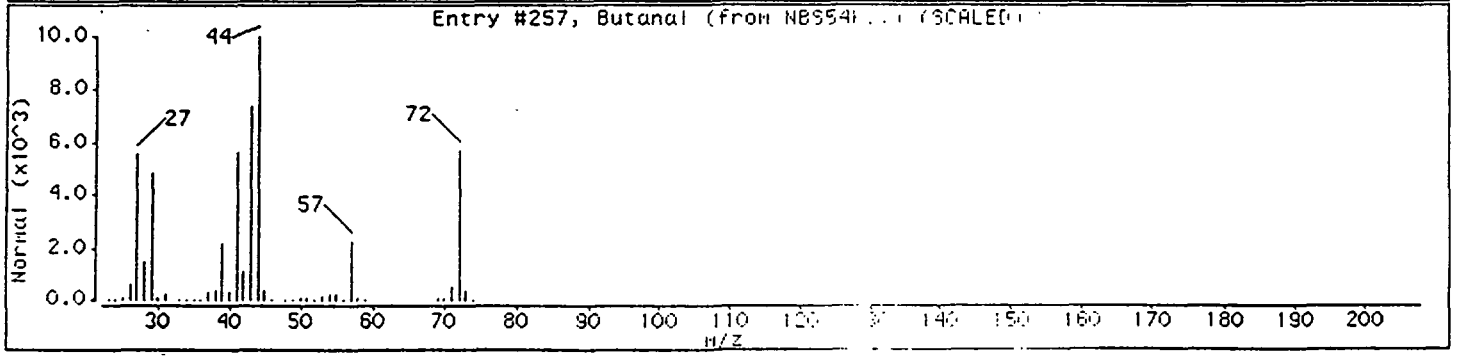
Column [illegible]meter: 0.58

Library Search Compound Match	CAS Number	[illegible]	Lib Entry	Quality
UNKNOWN				



Library Search Compound Match	CAS Number	[illegible]	Lib Entry	Quality
Butanal	123-72-8	NBS54[illegible]	257	90



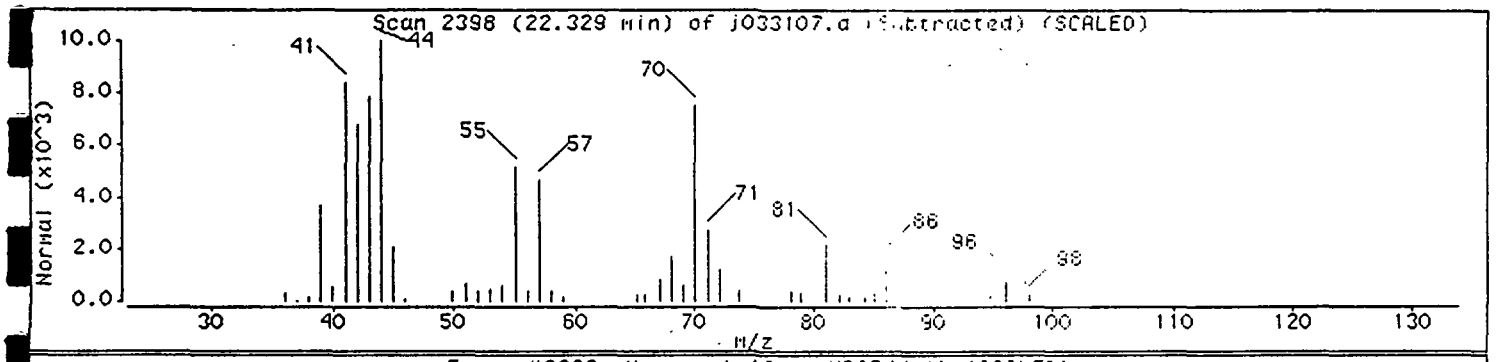


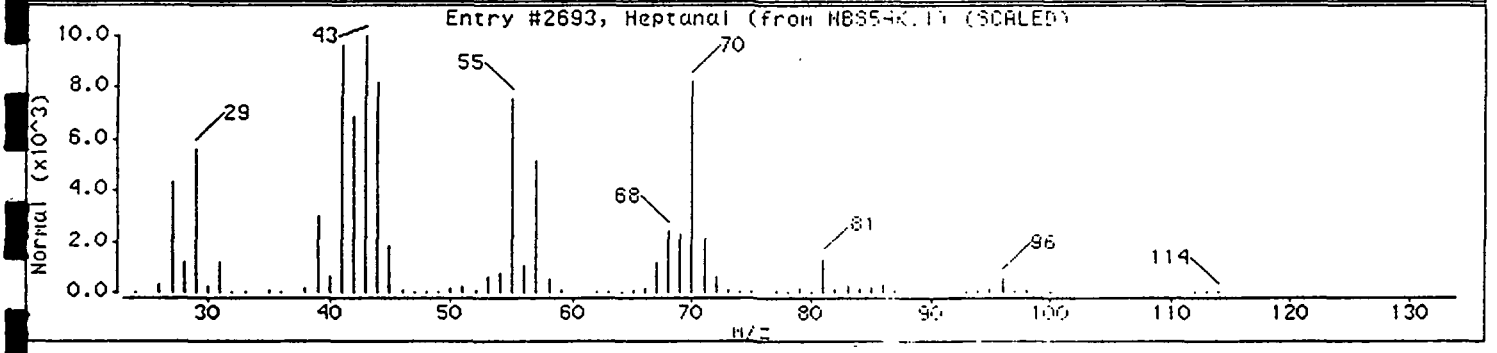
Data File: /chem/msdj.i/j-31mar.b/j033107.d
Date : 31-MAR-1997 14:13
Instrument: msdj.i
Client ID: 032797D1
Column phase: RTx-624

0072

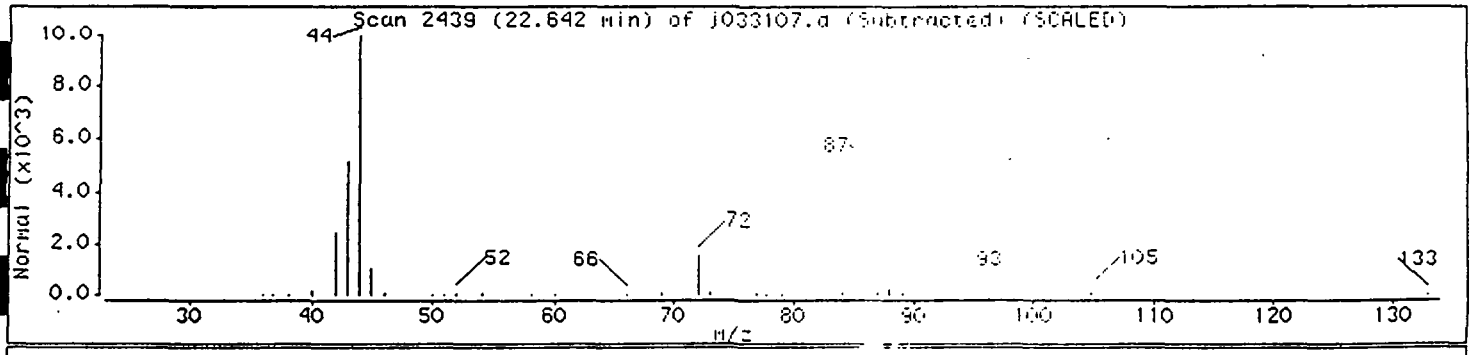
Column diameter: 0.58

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Heptanal	111-71-7	NBS54K.I	2693	50



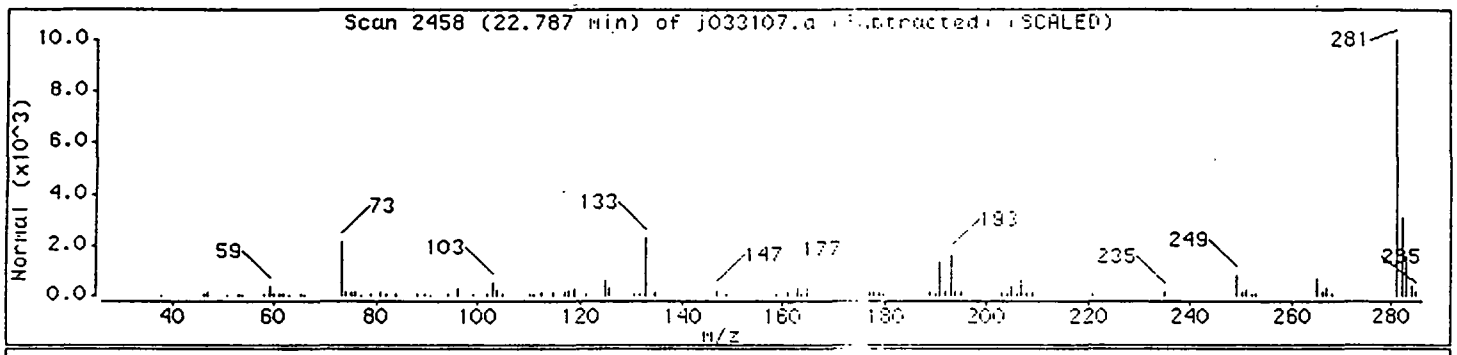


Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
UNKNOWN				

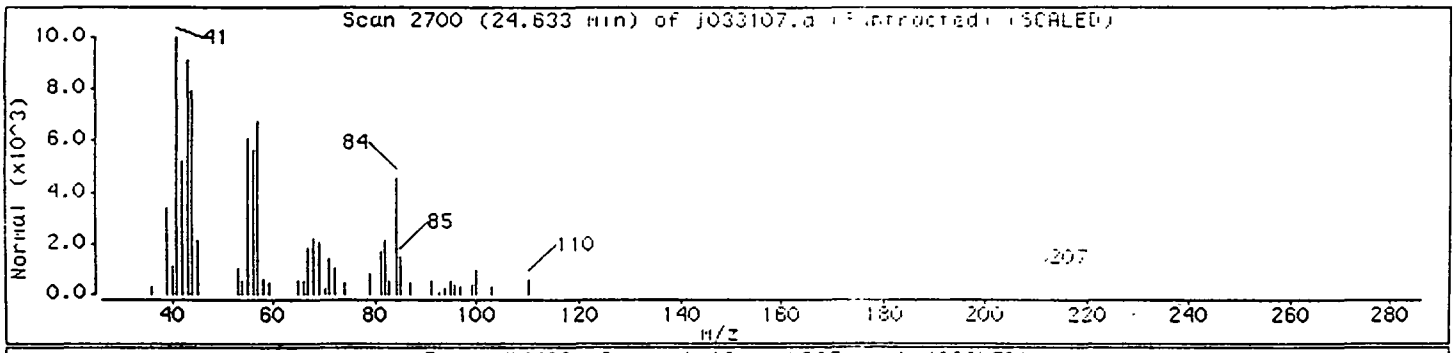


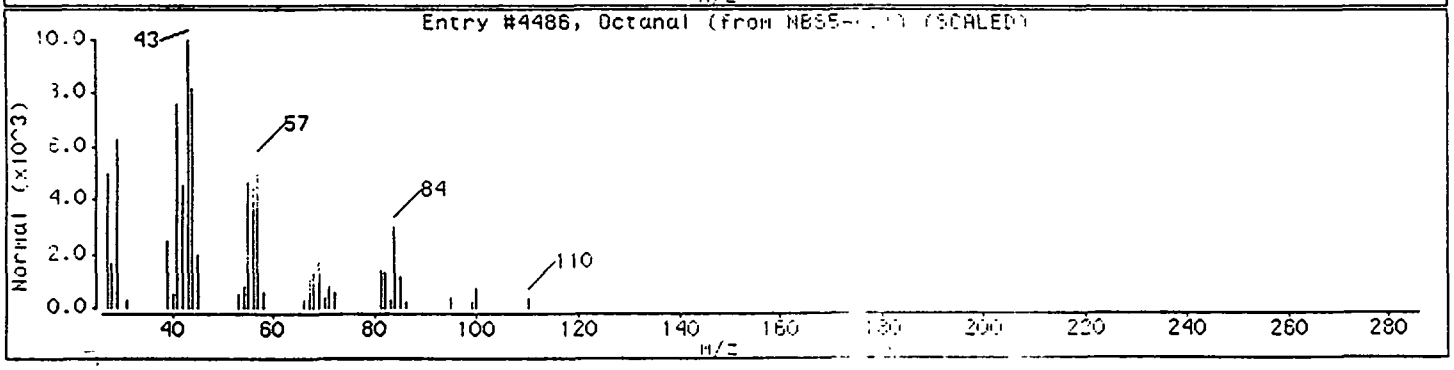
Data File: /chem/msdj.i/j-31mar.b/j033107.d
Date : 31-MAR-1997 14:13
Instrument: msdj.i
Client ID: 032797D1
Column phase: RTx-624 Column diameter: 0.58

Library Search Compound Match	CAS Number		Lib Entry	Quality
UNKNOWN				



Library Search Compound Match	CAS Number		Lib Entry	Quality
Octanal	124-13-0	NBS[illegible]	4486	72

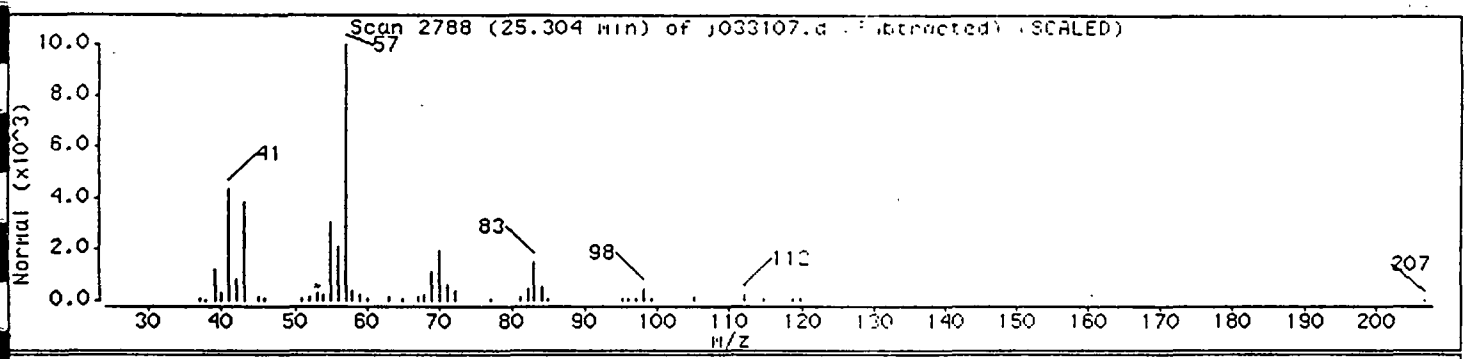


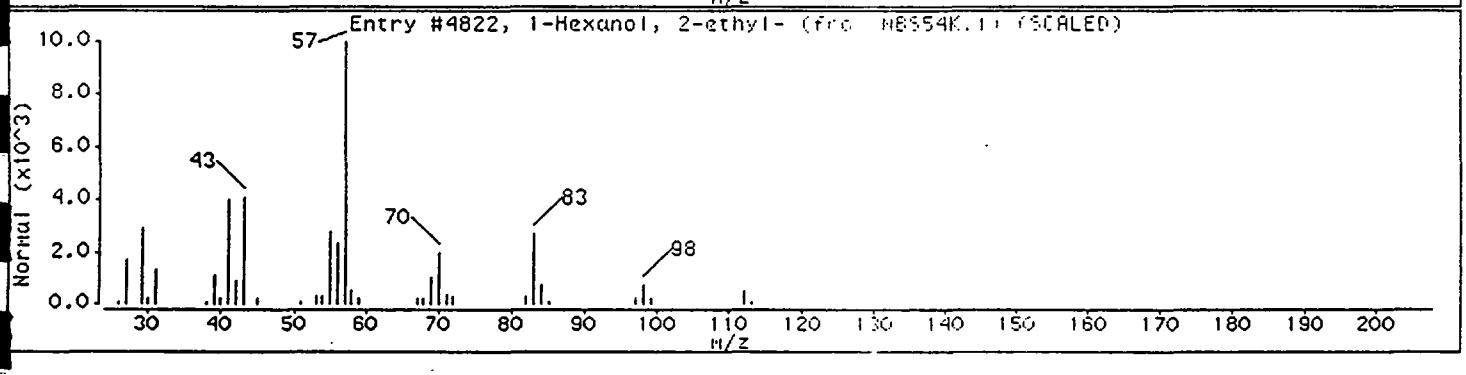


Data File: /chem/msdj.i/j-31mar.b/j033107.d
Date : 31-MAR-1997 14:13
Instrument: msdj.i
Client ID: 0327970I
Column phase: RTx-624

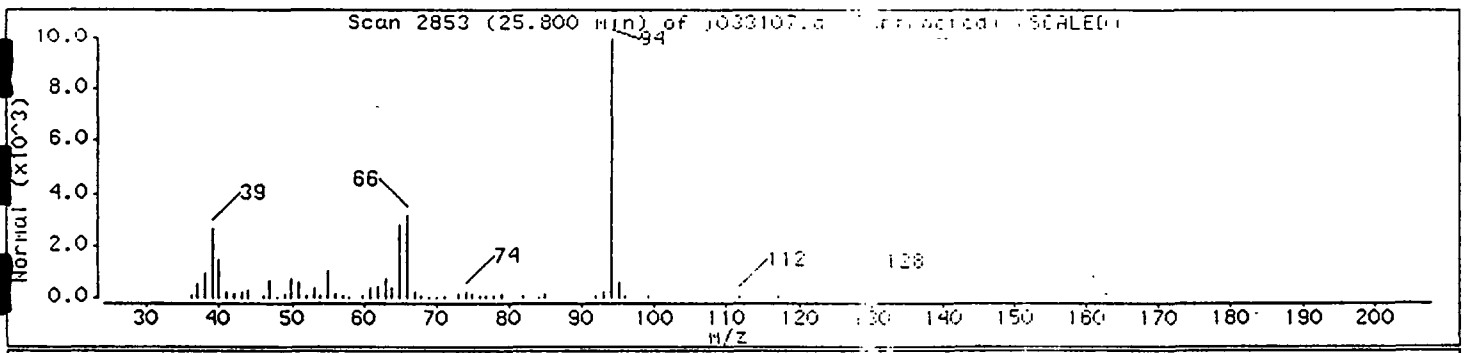
Column diameter: 0.58

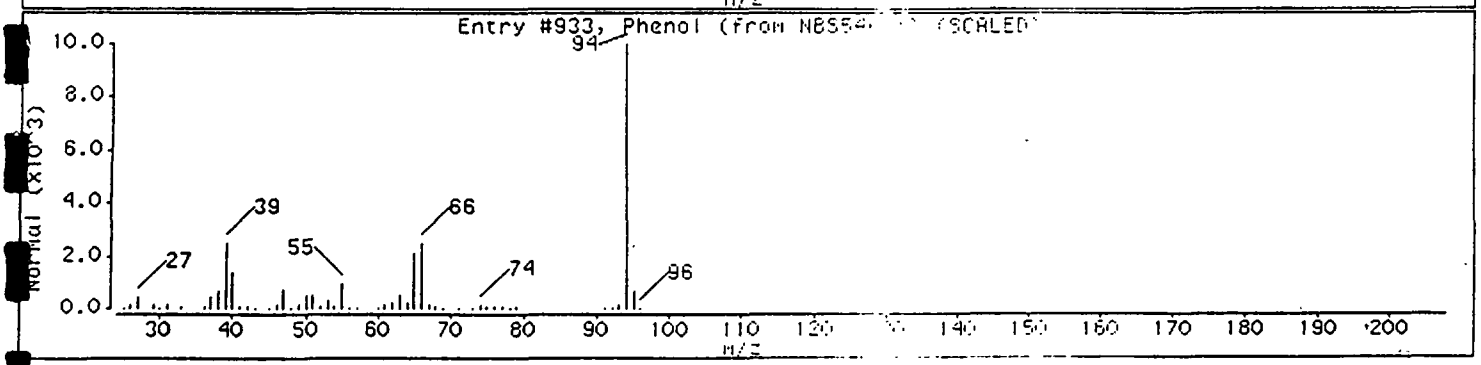
Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
1-Hexanol, 2-ethyl-	104-76-7	NBS54K.I	4822	72





Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Phenol	108-95-2	NBS54K.I	933	93

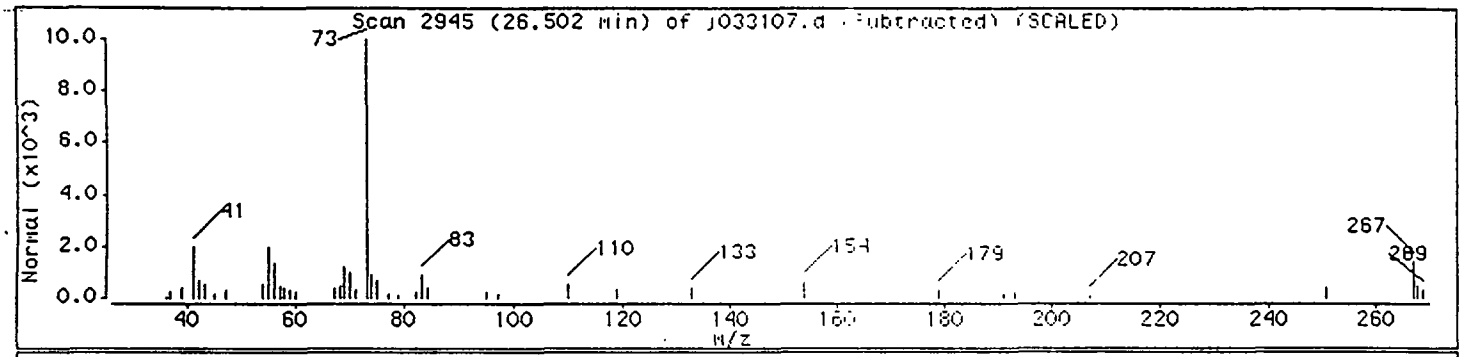




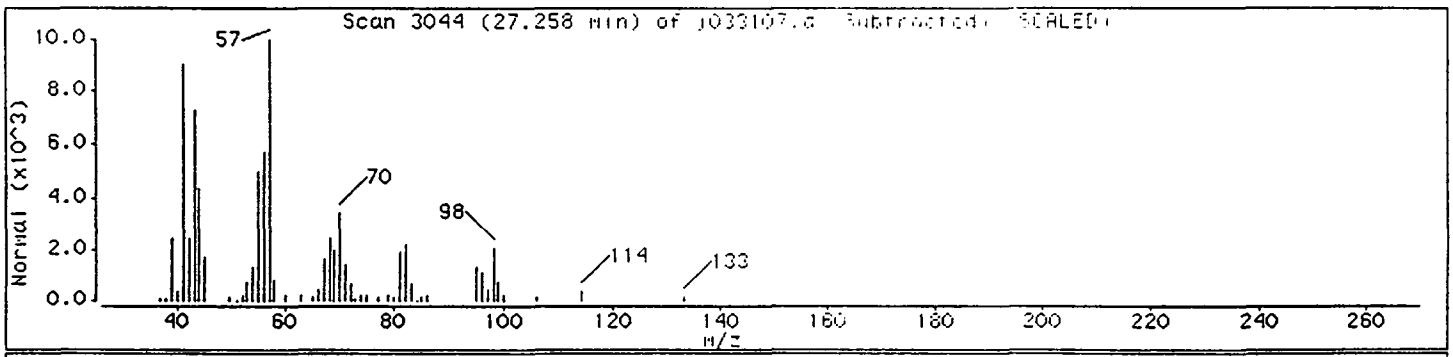
Data File: /chem/msdj.i/j-31mar.b/j033107.d
Date : 31-MAR-1997 14:13
Instrument: msdj.i
Client ID: 03279701
Column phase: RTx-624

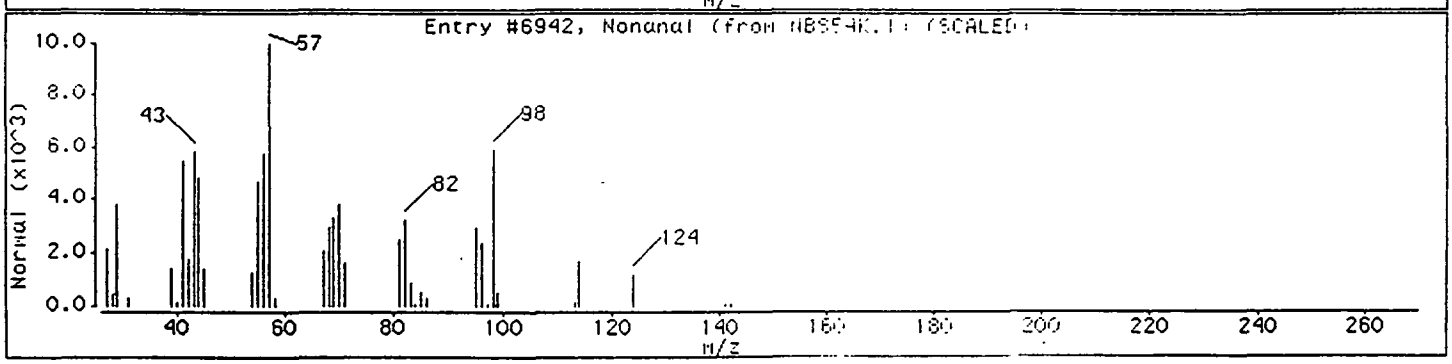
Column diameter: 0.53

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
UNKNOWN				



Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Nonanal	124-19-6	NBS54K.L	6942	83

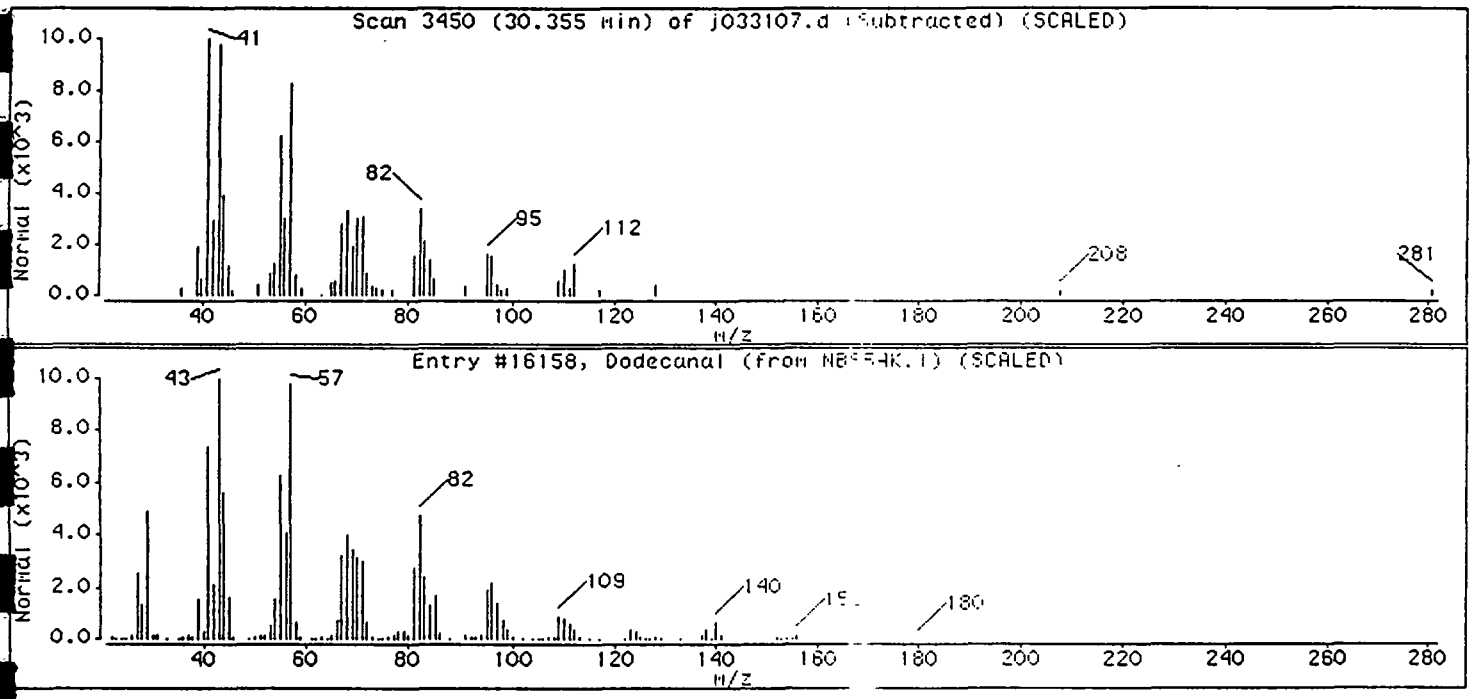




Data File: /chem/msdj.i/j-31mar.b/j033107.d
Date : 31-MAR-1997 14:13
Instrument: msdj.i
Client ID: 032797D1
Column phase: RTx-624

Column diameter: 0.58

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Dodecanal	112-54-9	NBS54K.I	16158	83



Report Date : 09-Jan-1997 14:25

Air Toxics Limited

INITIAL CALIBRATION DATA

Start Cal Date : 09-JAN-97 10:44
End Cal Date : 09-JAN-1997 12:48
Quant Method : ISTD
Origin : Force
Target Version : 3.12
Integrator : HP RTE
Method file : /chem/msdj.i/j-09jan.b/to140109.m
Cal Date : 09-Jan-1997 14:23 fayala
Curve Type : Average

Calibration File Names:
Level 2: /chem/msdj.i/j-09jan.b/j010905.d
Level 3: /chem/msdj.i/j-09jan.b/j010906.d
Level 4: /chem/msdj.i/j-09jan.b/j010907.d
Level 5: /chem/msdj.i/j-09jan.b/j010908.d
Level 6: /chem/msdj.i/j-09jan.b/j010909.d

Compound	0.5000 Level 2	5 Level 3	10 Level 4	25 Level 5	50 Level 6	$\overline{RRF}$	% RSD	
1 Propylene	0.79308	0.68716	0.66328	1.07471	0.97050	0.83775	21.427	
6 Dichlorodifluoromethane/FR 12	2.93315	3.02482	2.95409	3.43582	3.23579	3.11673	6.893	
7 Freon 114	2.22430	2.21634	2.20251	2.33267	2.26964	2.24909	2.360	
8 Chloromethane	1.21097	1.29756	1.22782	1.45358	1.36465	1.31092	7.658	
9 Vinyl Chloride	1.35849	1.38630	1.35452	1.45919	1.39207	1.39012	3.021	
10 1,3-Butadiene	1.00120	1.05160	1.02401	1.13941	1.06458	1.05616	4.983	
11 Bromomethane	1.15310	1.12122	1.10518	1.15298	1.24260	1.15502	4.603	
12 Chloroethane	0.89087	0.81099	0.78733	0.76766	0.75192	0.80175	6.798	
13 Vinyl Bromide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
14 Trichlorofluoromethane/FR 11	2.92572	3.12915	3.11398	3.12528	3.07652	3.07413	2.782	
15 Ethanol	0.34398	0.53100	0.53857	0.31021	0.32468	0.40969	28.035	
16 Acrolein	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
17 1,1-Dichloroethene	1.19957	1.24020	1.24330	0.85049	0.32986	1.07269	19.864	
18 Freon 113	1.61922	1.69085	1.68332	1.70465	1.67246	1.67410	1.961	
20 Acetone	2.04650	2.40857	2.36088	1.27516	1.80660	1.97954	23.424	
19 Carbon Disulfide	3.70910	3.81804	3.80469	3.80710	3.76203	3.78019	1.193	
22 2-Propanol	1.83843	2.54131	2.58455	2.69571	2.65392	2.46278	14.379	
21 Acetonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
23 Methylene Chloride	1.15640	1.16629	1.14944	1.14506	1.11677	1.14679	1.622	
25 Acrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
24 trans-1,2-Dichloroethene	1.23119	1.25799	1.27469	1.30959	1.30209	1.27511	2.523	
26 MTBE	3.12518	3.36269	3.39170	3.43749	3.44219	3.35185	3.907	
27 Hexane	2.24699	2.37345	2.34206	2.36200	2.33037	2.33098	2.139	
28 1,1-Dichloroethane	2.31033	2.38615	2.35981	2.42335	2.34145	2.36422	1.822	
30 Vinyl Acetate	2.90308	3.90195	3.94374	4.11653	4.17636	3.80833	13.625	
29 Chloroprene	0.72169	0.84026	0.81546	0.83720	0.82280	0.80749	6.072	
32 2-Butanone	0.45941	0.56283	0.56051	0.58610	0.58984	0.55174	9.657	

FA 1-9-97

MKL 1-10-97

Air Toxics Limited

INITIAL CALIBRATION DATA

Start Cal Date : 09-JAN-97 10:44
End Cal Date : 09-JAN-1997 12:48
Quant Method : ISTD
Origin : Force
Target Version : 3.12
Integrator : HP RTE
Method file : /chem/msdj.i/j-09jan.b/to140109.m
Cal Date : 09-Jan-1997 14:23 fayala
Curve Type : Average

Compound	0.5000 Level 2	5 Level 3	10 Level 4	25 Level 5	50 Level 6	$\overline{RRF}$	% RSD	
31 cis-1,2-Dichloroethene	1.27313	1.34242	1.36752	1.38466	1.38425	1.35039	3.443	
35 Tetrahydrofuran	1.22139	1.30452	1.33778	1.34771	1.34424	1.31113	4.043	
34 Chloroform	2.37578	2.50641	2.51333	2.53491	2.51475	2.48904	2.579	
36 1,1,1-Trichlorethane	2.27582	2.35007	2.32087	2.36039	2.34502	2.33044	1.450	
37 Cyclohexane	2.16405	2.22698	2.18015	2.18465	2.14685	2.18054	1.372	
38 Carbon Tetrachloride	1.52623	1.86312	1.88808	1.94438	1.99956	1.84427	10.055	
40 Benzene	0.91745	0.94993	0.94534	0.97544	0.99807	0.95724	3.210	
41 1,2-Dichloroethane	0.34857	0.37226	0.37308	0.38384	0.39091	0.37373	4.300	
42 Heptane	0.59400	0.65634	0.65381	0.69350	0.69960	0.65945	6.387	
4 Dicyclopentadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
2 Bicycloheptadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
44 Trichloroethene	0.33974	0.36019	0.36286	0.37490	0.38702	0.36494	4.841	
45 1,2-Dichloropropane	0.30095	0.33158	0.33155	0.34037	0.34305	0.32950	5.091	
46 1,4-Dioxane	0.14842	0.17420	0.18038	0.19055	0.19912	0.17854	10.837	
47 Bromodichloromethane	0.50922	0.57100	0.58190	0.61115	0.62207	0.57907	7.640	
48 cis-1,3-Dichloropropene	0.13899	0.16138	0.16480	0.17198	0.17593	0.16262	8.856	
3 DMDS	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
49 4-Methyl-2-pentanone	0.63157	0.70911	0.72669	0.74509	0.75025	0.71254	6.749	
52 Octane	0.24123	0.25360	0.25893	0.28812	0.31257	0.27089	10.692	
51 Toluene	0.50929	0.56803	0.56702	0.60262	0.63770	0.57693	8.270	
53 trans-1,3-Dichloropropene	0.56209	0.40863	0.38802	0.39774	0.38286	0.42787	17.686	
54 1,1,2-Trichloroethane	0.35843	0.40656	0.38864	0.39902	0.38934	0.38840	4.716	
56 2-Hexanone	0.69137	0.97265	0.95260	0.99183	0.98288	0.91827	13.904	
55 Tetrachloroethene	0.39373	0.44280	0.43039	0.45117	0.47139	0.43790	6.589	
57 Dibromochloromethane	0.44537	0.54450	0.53521	0.56215	0.56464	0.53037	9.252	
58 1,2-Dibromoethane	0.46390	0.53634	0.51074	0.52934	0.52379	0.51282	5.638	
60 Chlorobenzene	0.79078	0.84965	0.83491	0.89292	0.90073	0.85380	5.264	
61 Ethyl Benzene	0.45419	0.53001	0.51086	0.57535	0.58796	0.53168	10.092	
62 m,p-Xylene	0.42424	0.50760	0.48990	0.56339	0.60391	0.51781	13.355	
63 o-Xylene	0.26877	0.32072	0.30830	0.35113	0.35209	0.32020	10.774	
64 Styrene	0.49831	0.66665	0.66425	0.75757	0.76958	0.67127	16.165	
65 Bromoform	0.19251	0.26325	0.25741	0.27892	0.28956	0.25633	14.774	
67 1,1,2,2-Tetrachloroethane	0.74745	0.84858	0.77533	0.79701	0.77437	0.78855	4.804	
68 4-Ethyltoluene(1)	0.89314	1.03981	1.05639	1.22314	1.17410	1.07732	11.959	
(2)	0.23154	0.26187	0.26843	0.32214	0.30122	0.27704	12.753	

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Air Toxics Limited

INITIAL CALIBRATION DATA

Start Cal Date : 09-JAN-97 10:44
End Cal Date : 09-JAN-1997 12:48
Quant Method : ISTD
Origin : Force
Target Version : 3.12
Integrator : HP RTE
Method file : /chem/msdj.i/j-09jan.b/to140109.m
Cal Date : 09-Jan-1997 14:23 fayala
Curve Type : Average

Compound	0.5000 Level 2	5 Level 3	10 Level 4	25 Level 5	50 Level 6	RRF	% RSD	
69 1,3,5-Trimethylbenzene(1)	0.37581	0.52191	0.51120	0.60695	0.56405	0.51598	16.866	
(2)	0.18938	0.24078	0.23927	0.26082	0.26040	0.23813	12.235	
70 alpha-Methyl Styrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
71 1,2,4-Trimethylbenzene	0.32796	0.41617	0.41030	0.48211	0.46330	0.41997	14.244	
72 1,3-Dichlorobenzene	0.43526	0.52652	0.50311	0.59652	0.59302	0.53089	12.672	
73 1,4-Dichlorobenzene	0.41464	0.51777	0.49948	0.57981	0.57694	0.51773	13.072	
74 Benzyl Chloride	0.70147	0.98722	0.97823	1.18188	1.14885	0.99953	19.048	
75 1,2-Dichlorobenzene	0.39804	0.47189	0.45709	0.53241	0.51562	0.47501	11.139	
5 1,2-Dibromo-3-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
76 1,2,4-Trichlorobenzene	0.16627	0.18587	0.16992	0.23615	0.24548	0.20074	18.664	
77 Hexachlorobutadiene	0.19126	0.20969	0.19172	0.23300	0.23201	0.21154	9.709	
S 39 Octafluorotoluene	2.20966	2.20467	2.22502	2.41605	2.52799	2.31668	6.363	
S 50 Toluene-d8	0.88011	0.89757	0.89390	0.92470	0.92760	0.90477	2.276	
S 66 Bromofluorobenzene	0.78490	0.79243	0.76473	0.77199	0.75735	0.77428	1.855	

Data File: /chem/msdj.i/j-09jan.b/j010905.d
Report Date: 09-Jan-1997 14:21

Air Toxics Limited

AMBIENT AIR METHOD TO14

Data file : /chem/msdj.i/j-09jan.b/j010905.d
Lab Smp Id: VSTD0005 Client Smp ID: VSTD0005
Inj Date : 09-JAN-1997 10:04
Operator : FA Inst ID: msdj.i
Smp Info : 2.5ml #296-25 100ppbv (0.5ppbv)
Misc Info :
Comment :
Method : /chem/msdj.i/j-09jan.b/to140109.m
Meth Date : 09-Jan-1997 14:21 fayala Quant Type: ISTD
Cal Date : 09-JAN-1997 12:48 Cal File: j010909.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: AT.sub
Target Version: 3.12 Sample Matrix: AIR
Concentration Formula: Uf * Vf

Name	Value	Description
Uf	1.000	ng unit correction factor
Vf	1.000	Volumetric correction factor

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
* 33 Bromochloromethane					CAS #: 74-97-5			
16.689	16.689 (1.000)	130	193877	5.0			100.00	9624(Q)
16.689	16.689 (0.000)	128	43688			27.42- 127.42	22.53	
16.689	16.689 (0.000)	49	99136			125.67- 225.67	51.13	
* 43 1,4-Difluorobenzene					CAS #: 540-36-3			
18.032	18.032 (1.000)	114	850139	5.0			100.00	9792
18.032	18.032 (0.000)	88	47264			0.00- 67.86	5.56	
* 59 Chlorobenzene-d5					CAS #: 3114-55-4			
22.167	22.167 (1.000)	117	656394	5.0			100.00	7253
22.167	22.167 (0.000)	82	103704			10.92- 110.92	15.80	
$ 39 Octafluorotoluene					CAS #: 434-64-0			
17.200	17.200 (1.031)	217	428402	5.0	4.8		100.00	9710
17.200	17.200 (0.000)	186	89248			17.99- 117.99	20.83	
$ 50 Toluene-d8					CAS #: 2037-26-5			
20.069	20.069 (1.113)	98	748213	5.0	4.9		100.00	9787
20.069	20.069 (0.000)	70	25808			0.00- 61.99	3.45	
20.069	20.069 (0.000)	100	145664			17.70- 117.70	19.47	

Data File: /chem/msdj.i/j-09jan.b/j010905.d
Report Date: 09-Jan-1997 14:21

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
S 66 Bromofluorobenzene					CAS #: 460-00-4			
24.036	24.036 (1.084)	95	515201	5.0	5.1		100.00	9673
24.036	24.036 (0.000)	174	71136			9.51- 109.51	13.81	
24.036	24.036 (0.000)	176	70920			9.33- 109.33	13.77	
1 Propylene					CAS #: 115-07-1			
4.719	4.719 (0.283)	41	15376	0.50	0.47		100.00	7464(M)
4.680	4.680 (0.280)	42	293			0.00- 69.90	1.91	
4.680	4.680 (0.280)	39	566			0.00- 88.45	3.68	
6 Dichlorodifluoromethane/FR 12					CAS #: 75-71-8			
5.276	5.276 (0.316)	85	56867	0.50	0.47		100.00	8543(M)
5.276	5.276 (0.316)	87	1280			0.00- 81.43	2.25	
7 Freon 114					CAS #: 76-14-2			
7.015	7.015 (0.420)	135	43124	0.50	0.49		100.00	9511
7.015	7.015 (0.000)	137	1213			0.00- 77.56	2.81	
8 Chloromethane					CAS #: 74-87-3			
7.129	7.129 (0.427)	50	23478	0.50	0.46		100.00	8802(Q)
7.129	7.129 (0.000)	52	891			8.12- 108.12	3.80	
9 Vinyl Chloride					CAS #: 75-01-4			
8.236	8.236 (0.493)	62	26338	0.50	0.49		100.00	8364
8.236	8.236 (0.000)	64	745			0.00- 74.69	2.83	
10 1,3-Butadiene					CAS #: 106-99-0			
8.602	8.602 (0.515)	54	19411	0.50	0.47		100.00	9055(Q)
8.602	8.602 (0.000)	39	2676			54.41- 154.41	13.79	
11 Bromomethane					CAS #: 74-83-9			
10.151	10.151 (0.608)	94	22356	0.50	0.50		100.00	9050(Q)
10.151	10.151 (0.000)	96	2707			30.09- 130.09	12.11	
12 Chloroethane					CAS #: 75-00-3			
10.753	10.753 (0.644)	64	17272	0.50	0.56		100.00	8945
10.753	10.753 (0.000)	66	1021			0.00- 82.41	5.91	
14 Trichlorofluoromethane/FR 11					CAS #: 75-69-4			
11.730	11.730 (0.703)	101	56723	0.50	0.48		100.00	9577
11.730	11.730 (0.000)	103	8089			13.40- 113.40	14.26	
15 Ethanol					CAS #: 64-17-5			
12.943	12.943 (0.776)	45	6669	0.50	0.42		100.00	(M)
12.897	12.897 (0.773)	46	664			0.00- 59.96	9.96	
12.714	12.714 (0.762)	43	507			0.00- 57.60	7.60	
17 1,1-Dichloroethene					CAS #: 75-35-4			
13.149	13.149 (0.788)	96	23257	0.50	0.56		100.00	9392(Q)

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
17 1,1-Dichloroethene (continued)								
13.149	13.149 (0.000)	61	10406			115.70- 215.70	44.74	
13.149	13.149 (0.000)	98	4000			13.69- 113.69	17.20	
18 Freon 113					CAS #: 76-13-1			
13.225	13.225 (0.792)	151	31393	0.50	0.48		100.00	9203(Q)
13.225	13.225 (0.000)	153	4874			16.69- 116.69	15.53	
13.225	13.225 (0.000)	101	12289			118.16- 218.16	39.15	
19 Carbon Disulfide					CAS #: 75-15-0			
13.530	13.530 (0.811)	76	71911	0.50	0.49		100.00	8000
20 Acetone					CAS #: 67-64-1			
13.446	13.446 (0.806)	43	39677	0.50	0.52		100.00	
13.446	13.446 (0.806)	58	13203			0.00- 83.28	33.28	
22 2-Propanol					CAS #: 67-63-0			
13.889	13.889 (0.832)	45	35643	0.50	0.37		100.00	7225
13.889	13.889 (0.000)	43	1230			0.00- 68.22	3.45	
13.889	13.889 (0.000)	59	329			0.00- 54.87	0.92	
23 Methylene Chloride					CAS #: 75-09-2			
14.240	14.240 (0.853)	84	22420	0.50	0.50		100.00	9691(Q)
14.240	14.240 (0.000)	49	8120			92.41- 192.41	36.22	
14.240	14.240 (0.000)	51	2590			0.00- 95.42	11.55	
24 trans-1,2-Dichloroethene					CAS #: 156-60-5			
14.736	14.736 (0.883)	96	23870	0.50	0.48		100.00	9422(Q)
14.736	14.736 (0.000)	61	8906			75.67- 175.67	37.31	
14.736	14.736 (0.000)	98	3813			3.80- 103.80	15.97	
26 MTBE					CAS #: 1634-04-4			
14.728	14.728 (0.882)	73	60590	0.50	0.47		100.00	6412
14.728	14.728 (0.000)	57	3341			0.00- 71.27	5.51	
14.728	14.728 (0.000)	41	4569			0.00- 79.08	7.54	
27 Hexane					CAS #: 110-54-3			
15.163	15.163 (0.909)	57	43564	0.50	0.48		100.00	7239(aQ)
15.163	15.163 (0.000)	43	9334			22.17- 122.17	21.43	
15.163	15.163 (0.000)	56	7065			4.62- 104.62	16.22	
28 1,1-Dichloroethane					CAS #: 75-34-3			
15.430	15.430 (0.925)	63	44792	0.50	0.49		100.00	9576
15.430	15.430 (0.000)	65	4252			0.00- 82.86	9.49	
29 Chloroprene					CAS #: 126-99-8			
15.560	15.560 (0.932)	53	13992	0.50	0.45		100.00	7903
15.560	15.560 (0.000)	88	1618			0.00- 92.08	11.56	

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
29 Chloroprene (continued)								
15.560	15.560 (0.000)	50	1070			0.00- 77.83	7.65	
30 Vinyl Acetate					CAS #: 108-05-4			
15.514	15.514 (0.930)	43	56284	0.50	0.38		100.00	5917(a)
15.514	15.514 (0.000)	86	992			0.00- 57.95	1.76	
31 cis-1,2-Dichloroethene					CAS #: 156-59-2			
16.338	16.338 (0.979)	96	24683	0.50	0.47		100.00	9101(Q)
16.338	16.338 (0.000)	61	8551			70.56- 170.56	34.64	
16.338	16.338 (0.000)	98	4091			7.68- 107.68	16.57	
32 2-Butanone					CAS #: 78-93-3			
16.323	16.323 (0.978)	72	8907	0.50	0.42		100.00	7766(Q)
16.323	16.323 (0.000)	43	9821			345.05- 445.05	110.26	
16.323	16.323 (0.000)	57	618			0.00- 74.86	6.94	
34 Chloroform					CAS #: 67-66-3			
16.773	16.773 (1.005)	83	46061	0.50	0.48		100.00	8125
16.773	16.773 (0.000)	85	8585			10.95- 110.95	18.64	
35 Tetrahydrofuran					CAS #: 109-99-9			
16.765	16.765 (1.005)	42	23680	0.50	0.46		100.00	7333
16.765	16.765 (0.000)	71	1794			0.00- 80.76	7.58	
16.765	16.765 (0.000)	72	2198			0.00- 87.69	9.28	
36 1,1,1-Trichlorethane					CAS #: 71-55-6			
17.055	17.055 (1.022)	97	44123	0.50	0.49		100.00	9537
17.055	17.055 (0.000)	99	8065			13.75- 113.75	18.28	
37 Cyclohexane					CAS #: 110-82-7			
17.139	17.139 (1.027)	56	41956	0.50	0.50		100.00	8184(Q)
17.139	17.139 (0.000)	84	8572			23.41- 123.41	20.43	
17.139	17.139 (0.000)	41	7796			16.76- 116.76	18.58	
38 Carbon Tetrachloride					CAS #: 56-23-5			
17.307	17.307 (1.037)	119	29590	0.50	0.41		100.00	6991
17.307	17.307 (0.000)	117	0			0.00- 50.00	0.00	
40 Benzene					CAS #: 71-43-2			
17.589	17.589 (0.975)	78	77996	0.50	0.48		100.00	9700
17.589	17.589 (0.000)	77	5151			0.00- 73.23	6.60	
41 1,2-Dichloroethane					CAS #: 107-06-2			
17.589	17.589 (0.975)	62	29633	0.50	0.47		100.00	8187
17.589	17.589 (0.000)	64	2769			0.00- 82.52	9.34	
42 Heptane					CAS #: 142-82-5			
17.810	17.810 (0.988)	43	50498	0.50	0.45		100.00	7604

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
42 Heptane (continued)								
17.810	17.810 (0.000)	57	8398			2.54- 102.54	16.63	
17.810	17.810 (0.000)	71	7675			0.00- 98.02	15.20	
44 Trichloroethene					CAS #: 79-01-6			
18.428	18.428 (1.022)	95	28883	0.50	0.46		100.00	7831(Q)
18.428	18.428 (0.000)	130	6035			24.68- 124.68	20.89	
18.428	18.428 (0.000)	97	4905			10.70- 110.70	16.98	
45 1,2-Dichloropropane					CAS #: 78-87-5			
18.741	18.741 (1.039)	63	25585	0.50	0.46		100.00	9515(Q)
18.741	18.741 (0.000)	62	4967			20.77- 120.77	19.41	
18.741	18.741 (0.000)	41	4996			21.18- 121.18	19.53	
46 1,4-Dioxane					CAS #: 123-91-1			
18.901	18.901 (1.048)	88	12618	0.50	0.42		100.00	8935
18.901	18.901 (0.000)	58	2294			15.56- 115.56	18.18	
18.901	18.901 (0.000)	57	975			0.00- 77.87	7.73	
47 Bromodichloromethane					CAS #: 75-27-4			
19.092	19.092 (1.059)	83	43291	0.50	0.44		100.00	9237
19.092	19.092 (0.000)	85	7151			9.04- 109.04	16.52	
48 cis-1,3-Dichloropropene					CAS #: 542-75-6			
19.687	19.687 (1.092)	75	17015	0.72	0.62		100.00	9191
19.687	19.687 (0.000)	77	1764			0.00- 91.71	10.37	
19.687	19.687 (0.000)	39	2217			2.42- 102.42	13.03	
49 4-Methyl-2-pentanone					CAS #: 108-10-1			
19.802	19.802 (1.098)	43	53692	0.50	0.44		100.00	9481
19.802	19.802 (0.000)	58	5680			0.00- 87.30	10.58	
19.802	19.802 (0.000)	85	1907			0.00- 62.52	3.55	
51 Toluene					CAS #: 108-88-3			
20.168	20.168 (1.118)	92	43297	0.50	0.44		100.00	8444(Q)
20.168	20.168 (0.000)	91	22089			132.99- 232.99	51.02	
52 Octane					CAS #: 111-65-9			
20.152	20.152 (1.118)	57	20508	0.50	0.44		100.00	7415(Q)
20.152	20.152 (0.000)	85	6379			45.68- 145.68	31.10	
20.152	20.152 (0.000)	43	15346			180.18- 280.18	74.83	
53 trans-1,3-Dichloropropene					CAS #: 542-75-6			
20.381	20.381 (0.919)	75	7379	0.10	0.13		100.00	4065
20.381	20.381 (0.000)	77	171			0.00- 60.23	2.32	
54 1,1,2-Trichloroethane					CAS #: 79-00-5			
20.687	20.687 (0.933)	97	23527	0.50	0.46		100.00	9685(Q)

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RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
54 1,1,2-Trichloroethane (continued)								
20.687	20.687 (0.000)	99	3870			8.34- 108.34	16.45	
20.687	20.687 (0.000)	83	5623			34.77- 134.77	23.90	
55 Tetrachloroethene					CAS #: 127-18-4			
20.954	20.954 (0.945)	166	25844	0.50	0.45		100.00	8606(Q)
20.954	20.954 (0.000)	129	5624			25.01- 125.01	21.76	
20.954	20.954 (0.000)	131	5443			22.59- 122.59	21.06	
56 2-Hexanone					CAS #: 591-78-6			
20.923	20.923 (0.944)	43	45381	0.50	0.38		100.00	8349
20.923	20.923 (0.000)	58	6457			5.10- 105.10	14.23	
20.923	20.923 (0.000)	100	1108			0.00- 59.45	2.44	
57 Dibromochloromethane					CAS #: 124-48-1			
21.297	21.297 (0.961)	129	29234	0.50	0.42		100.00	8135
21.297	21.297 (0.000)	208	191			0.00- 52.39	0.65	
58 1,2-Dibromoethane					CAS #: 106-93-4			
21.518	21.518 (0.971)	107	30450	0.50	0.45		100.00	9568(Q)
21.518	21.518 (0.000)	109	6565			34.81- 134.81	21.56	
60 Chlorobenzene					CAS #: 108-90-7			
22.220	22.220 (1.002)	112	51906	0.50	0.46		100.00	8814
22.220	22.220 (0.000)	114	4471			0.00- 82.51	8.61	
22.220	22.220 (0.000)	77	7504			4.56- 104.56	14.46	
61 Ethyl Benzene					CAS #: 100-41-4			
22.296	22.296 (1.006)	106	29813	0.50	0.43		100.00	
22.296	22.296 (1.006)	91	103451			297.00- 397.00	347.00	
62 m,p-Xylene					CAS #: 108-38-3			
22.457	22.457 (1.013)	106	55694	1.0	0.82		100.00	
22.457	22.457 (1.013)	91	120203			165.83- 265.83	215.83	
63 o-Xylene					CAS #: 95-47-6			
23.136	23.136 (1.044)	106	17642	0.50	0.42		100.00	9410(Q)
23.136	23.136 (0.000)	91	8283			134.56- 234.56	46.95	
64 Styrene					CAS #: 100-42-5			
23.143	23.143 (1.044)	104	32709	0.50	0.37		100.00	9444
23.143	23.143 (0.000)	78	3633			0.00- 95.19	11.11	
65 Bromoform					CAS #: 75-25-2			
23.563	23.563 (1.063)	171	12636	0.50	0.38		100.00	8554(Q)
23.563	23.563 (0.000)	173	5870			146.98- 246.98	46.45	
67 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5			
24.181	24.181 (1.091)	83	49062	0.50	0.47		100.00	8028

Data File: /chem/msdj.i/j-09jan.b/j010905.d
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RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
67 1,1,2,2-Tetrachloroethane (continued)								
24.181	24.181 (0.000)	85	6781			12.99- 112.99	13.82	
68 4-Ethyltoluene					CAS #: 622-96-8			
24.585	24.585 (1.109)	105	58625	0.50	0.41		100.00	9412(M)
24.593	24.593 (1.109)	120	15198	0.50	0.42	0.00- 77.10	25.92	
69 1,3,5-Trimethylbenzene					CAS #: 108-67-8			
24.684	24.684 (1.114)	105	24668	0.50	0.36		100.00	7605(QMH)
24.684	24.684 (1.114)	120	12431	0.50	0.40	106.21- 206.21	50.39	
71 1,2,4-Trimethylbenzene					CAS #: 95-63-6			
25.440	25.440 (1.148)	105	21527	0.50	0.39		100.00	8355
25.440	25.440 (0.000)	120	2059			0.00- 91.22	9.56	
72 1,3-Dichlorobenzene					CAS #: 541-73-1			
26.172	26.172 (1.181)	146	28570	0.50	0.41		100.00	
26.164	26.164 (1.180)	148	18554			14.94- 114.94	64.94	
26.172	26.172 (1.181)	111	14543			0.90- 100.90	50.90	
73 1,4-Dichlorobenzene					CAS #: 106-46-7			
26.332	26.332 (1.188)	146	27217	0.50	0.40		100.00	
26.355	26.355 (1.189)	148	16966			12.34- 112.34	62.34	
26.340	26.340 (1.188)	111	13202			0.00- 98.51	48.51	
74 Benzyl Chloride					CAS #: 100-44-7			
26.584	26.584 (1.199)	91	46044	0.50	0.35		100.00	8814
26.584	26.584 (0.000)	126	1452			0.00- 66.13	3.15	
75 1,2-Dichlorobenzene					CAS #: 95-50-1			
27.225	27.225 (1.228)	146	26127	0.50	0.42		100.00	9213
27.225	27.225 (0.000)	148	3024			10.67- 110.67	11.57	
27.225	27.225 (0.000)	111	1788			0.00- 85.87	6.84	
76 1,2,4-Trichlorobenzene					CAS #: 120-82-1			
31.619	31.619 (1.426)	180	10914	0.50	0.41		100.00	9082(Q)
31.619	31.619 (0.000)	182	1603			32.25- 132.25	14.69	
77 Hexachlorobutadiene					CAS #: 87-68-3			
32.031	32.031 (1.445)	225	12554	0.50	0.45		100.00	8791
32.031	32.031 (0.000)	223	1306			8.04- 108.04	10.40	

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

QC Flag Legend

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

Air Toxics Limited

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

ID: msdj.i
): j010905.d
: VSTD0005
pe: VOA
: ISTD
A
: /chem/msdj.i/j-09jan.b/TO140109.m

Calibration Date: JAN/09/97
Calibration Time: 1044
Client Smp ID: VSTD0005
Level: LOW
Sample Type: AIR

		AREA LIMIT			
	STANDARD	LOWER	UPPER	SAMPLE	% DIFF
hloromethane	192118	115271	268965	193877	0.92
fluorobenzene	832855	499713	1165997	850139	2.08
benzene-d5	625059	375035	875083	656394	5.01

		RT LIMIT			
	STANDARD	LOWER	UPPER	SAMPLE	% DIFF
hloromethane	16.69	16.19	17.19	16.69	-0.02
fluorobenzene	18.03	17.53	18.53	18.03	-0.01
benzene-d5	22.16	21.66	22.66	22.17	0.02

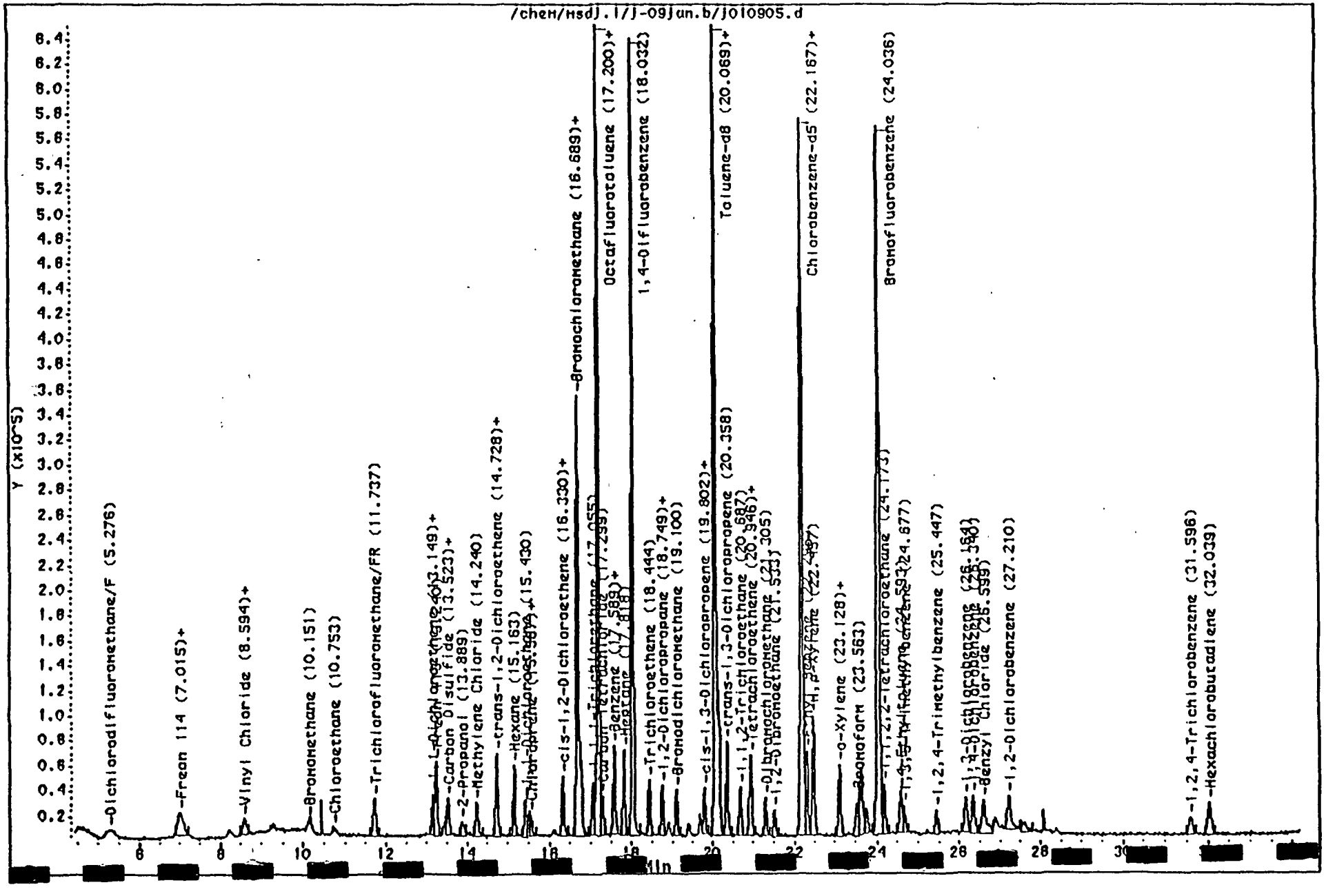
LIMIT = + 40% of internal standard area.
LIMIT = - 40% of internal standard area.
IIT = + 0.50 minutes of internal standard RT.
IIT = - 0.50 minutes of internal standard RT.

Data File: /chem/msdj.i/j-09jan.b/j010905.d
Date : 09-JAN-1997 10:04
Client ID: VSTD0005
Sample Info: 2.5ml #298-25 100ppbv (0.5ppbv)

Column phase: RTx-624

Instrument: msdj.i

Operator: FA
Column diameter: 0.58



Data File: /chem/msdj.i/j-09jan.b/j010906.d
Report Date: 09-Jan-1997 14:16

Air Toxics Limited

AMBIENT AIR METHOD TO14

Data file : /chem/msdj.i/j-09jan.b/j010906.d
Lab Smp Id: VSTD005 Client Smp ID: VSTD005
Inj Date : 09-JAN-1997 10:44
Operator : FA Inst ID: msdj.i
Smp Info : 25.0ml #296-25 100ppbv (5.0ppbv)
Misc Info :
Comment :
Method : /chem/msdj.i/j-09jan.b/to140109.m
Meth Date : 09-Jan-1997 14:16 fayala Quant Type: ISTD
Cal Date : 09-JAN-1997 12:08 Cal File: j010908.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: AT.sub
Target Version: 3.12 Sample Matrix: AIR
Concentration Formula: Uf * Vf

Name	Value	Description
Uf	1.000	ng unit correction factor
Vf	1.000	Volumetric correction factor

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
* 33 Bromochloromethane					CAS #: 74-97-5			
16.691	16.691 (1.000)	130	192118	5.0			100.00	9568(Q)
16.691	16.691 (0.000)	128	44008			27.84- 127.84	22.91	
16.691	16.691 (0.000)	49	104608			135.03- 235.03	54.45	
* 43 1,4-Difluorobenzene					CAS #: 540-36-3			
18.034	18.034 (1.000)	114	832855	5.0			100.00	9727
18.034	18.034 (0.000)	88	44176			0.00- 67.42	5.30	
* 59 Chlorobenzene-d5					CAS #: 3114-55-4			
22.162	22.162 (1.000)	117	625059	5.0			100.00	7743
22.162	22.162 (0.000)	82	147072			23.02- 123.02	23.53	
$ 39 Octafluorotoluene					CAS #: 434-64-0			
17.210	17.210 (1.031)	217	423557	5.0	4.8		100.00	9824
17.210	17.210 (0.000)	186	85760			14.15- 114.15	20.25	
$ 50 Toluene-d8					CAS #: 2037-26-5			
20.071	20.071 (1.113)	98	747546	5.0	5.0		100.00	9758
20.071	20.071 (0.000)	70	27300			0.00- 62.71	3.65	
20.071	20.071 (0.000)	100	139904			15.16- 115.16	18.72	

ata File: /chem/msdj.i/j-09jan.b/j010906.d
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RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
$ 66 Bromofluorobenzene					CAS #: 460-00-4			
24.038	24.038 (1.085)	95	495314	5.0	5.1		100.00	9690
24.038	24.038 (0.000)	174	71272			10.63- 110.63	14.39	
24.038	24.038 (0.000)	176	66416			6.50- 106.50	13.41	
1 Propylene					CAS #: 115-07-1			
4.683	4.683 (0.281)	41	132016	5.0	4.1		100.00	7657(Q)
4.683	4.683 (0.000)	42	6001			10.63- 110.63	4.55	
4.683	4.683 (0.000)	39	6312			13.77- 113.77	4.78	
6 Dichlorodifluoromethane/FR 12					CAS #: 75-71-8			
5.263	5.263 (0.315)	85	581123	5.0	4.8		100.00	9571
5.263	5.263 (0.000)	87	12882			0.00- 81.97	2.22	
7 Freon 114					CAS #: 76-14-2			
7.018	7.018 (0.420)	135	425798	5.0	4.9		100.00	9745
7.018	7.018 (0.000)	137	13045			0.00- 82.14	3.06	
8 Chloromethane					CAS #: 74-87-3			
7.140	7.140 (0.428)	50	249285	5.0	4.9		100.00	9498
7.140	7.140 (0.000)	52	5860			0.00- 87.12	2.35	
9 Vinyl Chloride					CAS #: 75-01-4			
8.246	8.246 (0.494)	62	266334	5.0	5.0		100.00	9534
8.246	8.246 (0.000)	64	7965			0.00- 77.24	2.99	
10 1,3-Butadiene					CAS #: 106-99-0			
8.589	8.589 (0.515)	54	202031	5.0	5.0		100.00	9778(Q)
8.589	8.589 (0.000)	39	31153			48.46- 148.46	15.42	
11 Bromomethane					CAS #: 74-83-9			
10.161	10.161 (0.609)	94	215407	5.0	4.8		100.00	9526(Q)
10.161	10.161 (0.000)	96	36192			48.31- 148.31	16.80	
12 Chloroethane					CAS #: 75-00-3			
10.741	10.741 (0.643)	64	155805	5.0	5.0		100.00	9645
10.741	10.741 (0.000)	66	9294			0.00- 81.47	5.97	
14 Trichlorofluoromethane/FR 11					CAS #: 75-69-4			
11.717	11.717 (0.702)	101	601167	5.0	5.1		100.00	9840
11.717	11.717 (0.000)	103	82176			11.64- 111.64	13.67	
15 Ethanol					CAS #: 64-17-5			
12.747	12.747 (0.764)	45	102015	5.0	6.5		100.00	(H)
12.747	12.747 (0.764)	46	42245			0.00- 91.41	41.41	
12.747	12.747 (0.764)	43	23904			0.00- 73.43	23.43	
17 1,1-Dichloroethene					CAS #: 75-35-4			
13.144	13.144 (0.787)	96	238265	5.0	5.8		100.00	9305(Q)

Data File: /chem/msdj.i/j-09jan.b/j010906.d
Report Date: 09-Jan-1997 14:16

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
17 1,1-Dichloroethene (continued)								
13.144	13.144 (0.000)	61	122000			127.49- 227.49	51.20	
13.144	13.144 (0.000)	98	43168			12.80- 112.80	18.12	
18 Freon 113					CAS #: 76-13-1			
13.235	13.235 (0.793)	151	324843	5.0	5.0		100.00	9290(Q)
13.235	13.235 (0.000)	153	48984			13.46- 113.46	15.08	
13.235	13.235 (0.000)	101	120300			105.85- 205.85	37.03	
19 Carbon Disulfide					CAS #: 75-15-0			
13.518	13.518 (0.810)	76	733514	5.0	5.0		100.00	8027
20 Acetone					CAS #: 67-64-1			
13.388	13.388 (0.802)	43	462729	5.0	6.1		100.00	
13.388	13.388 (0.802)	58	138984			0.00- 80.04	30.04	
22 2-Propanol					CAS #: 67-63-0			
13.869	13.869 (0.831)	45	488232	5.0	5.2		100.00	7544
13.869	13.869 (0.000)	43	26146			0.00- 70.31	5.36	
13.869	13.869 (0.000)	59	5069			0.00- 53.94	1.04	
23 Methylene Chloride					CAS #: 75-09-2			
14.242	14.242 (0.853)	84	224066	5.0	5.1		100.00	9651(Q)
14.242	14.242 (0.000)	49	101848			104.22- 204.22	45.45	
14.242	14.242 (0.000)	51	32472			0.00- 99.17	14.49	
24 trans-1,2-Dichloroethene					CAS #: 156-60-5			
14.731	14.731 (0.883)	96	241682	5.0	4.9		100.00	9589(Q)
14.731	14.731 (0.000)	61	118536			107.35- 207.35	49.05	
14.731	14.731 (0.000)	98	49080			15.15- 115.15	20.31	
26 MTBE					CAS #: 1634-04-4			
14.731	14.731 (0.883)	73	646033	5.0	5.0		100.00	6447
14.731	14.731 (0.000)	57	43376			0.00- 74.88	6.71	
14.731	14.731 (0.000)	41	43978			0.00- 75.22	6.81	
27 Hexane					CAS #: 110-54-3			
15.166	15.166 (0.909)	57	455982	5.0	5.1		100.00	7284
15.166	15.166 (0.000)	43	101843			19.51- 119.51	22.33	
15.166	15.166 (0.000)	56	75048			1.22- 101.22	16.46	
28 1,1-Dichloroethane					CAS #: 75-34-3			
15.440	15.440 (0.925)	63	458422	5.0	5.0		100.00	9634
15.440	15.440 (0.000)	65	41836			0.00- 80.49	9.13	
29 Chloroprene					CAS #: 126-99-8			
15.570	15.570 (0.933)	53	161430	5.0	5.2		100.00	7889
15.570	15.570 (0.000)	88	24764			0.00- 99.91	15.34	

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
29 Chloroprene (continued)								
15.570	15.570 (0.000)	50	12487			0.00- 75.17	7.74	
30 Vinyl Acetate					CAS #: 108-05-4			
15.501	15.501 (0.929)	43	749635	5.0	5.1		100.00	5945
15.501	15.501 (0.000)	86	16469			0.00- 57.56	2.20	
31 cis-1,2-Dichloroethene					CAS #: 156-59-2			
16.333	16.333 (0.979)	96	257903	5.0	5.0		100.00	9750(Q)
16.333	16.333 (0.000)	61	111071			98.98- 198.98	43.07	
16.333	16.333 (0.000)	98	48344			14.85- 114.85	18.75	
32 2-Butanone					CAS #: 78-93-3			
16.318	16.318 (0.978)	72	108129	5.0	5.1		100.00	7902(Q)
16.318	16.318 (0.000)	43	148791			434.74- 534.74	137.61	
16.318	16.318 (0.000)	57	9883			0.00- 82.20	9.14	
34 Chloroform					CAS #: 67-66-3			
16.775	16.775 (1.005)	83	481526	5.0	5.0		100.00	9184
16.775	16.775 (0.000)	85	94335			15.56- 115.56	19.59	
35 Tetrahydrofuran					CAS #: 109-99-9			
16.760	16.760 (1.004)	42	250622	5.0	5.0		100.00	7488
16.760	16.760 (0.000)	71	26184			0.00- 87.36	10.45	
16.760	16.760 (0.000)	72	26934			0.00- 88.43	10.75	
36 1,1,1-Trichlorethane					CAS #: 71-55-6			
17.058	17.058 (1.022)	97	451490	5.0	5.0		100.00	9740
17.058	17.058 (0.000)	99	82088			12.67- 112.67	18.18	
37 Cyclohexane					CAS #: 110-82-7			
17.142	17.142 (1.027)	56	427842	5.0	5.1		100.00	8284(Q)
17.142	17.142 (0.000)	84	88251			21.88- 121.88	20.63	
17.142	17.142 (0.000)	41	72107			8.73- 108.73	16.85	
38 Carbon Tetrachloride					CAS #: 56-23-5			
17.309	17.309 (1.037)	119	357938	5.0	5.0		100.00	8578
17.309	17.309 (0.000)	117	40536			0.00- 89.33	11.32	
40 Benzene					CAS #: 71-43-2			
17.584	17.584 (0.975)	78	791151	5.0	5.0		100.00	9696
17.584	17.584 (0.000)	77	56750			0.00- 74.08	7.17	
41 1,2-Dichloroethane					CAS #: 107-06-2			
17.592	17.592 (0.975)	62	310040	5.0	5.0		100.00	8186
17.592	17.592 (0.000)	64	27950			0.00- 81.12	9.01	
42 Heptane					CAS #: 142-82-5			
17.821	17.821 (0.988)	43	546632	5.0	5.0		100.00	7677

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RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
42 Heptane (continued)								
17.821	17.821 (0.000)	57	84824			0.00- 98.34	15.52	
17.821	17.821 (0.000)	71	85616			0.00- 98.79	15.66	
44 Trichloroethene					CAS #: 79-01-6			
18.446	18.446 (1.023)	95	299983	5.0	4.9		100.00	7806(Q)
18.446	18.446 (0.000)	130	76000			35.60- 135.60	25.33	
18.446	18.446 (0.000)	97	56528			13.67- 113.67	18.84	
45 1,2-Dichloropropane					CAS #: 78-87-5			
18.751	18.751 (1.040)	63	276157	5.0	5.0		100.00	9705(Q)
18.751	18.751 (0.000)	62	61215			25.80- 125.80	22.17	
18.751	18.751 (0.000)	41	48193			9.67- 109.67	17.45	
46 1,4-Dioxane					CAS #: 123-91-1			
18.904	18.904 (1.048)	88	145083	5.0	4.9		100.00	9791(Q)
18.904	18.904 (0.000)	58	31616			28.21- 128.21	21.79	
18.904	18.904 (0.000)	57	10561			0.00- 76.12	7.28	
47 Bromodichloromethane					CAS #: 75-27-4			
19.102	19.102 (1.059)	83	475564	5.0	4.9		100.00	9379
19.102	19.102 (0.000)	85	86136			13.39- 113.39	18.11	
48 cis-1,3-Dichloropropene					CAS #: 542-75-6			
19.682	19.682 (1.091)	75	193547	7.2	7.1		100.00	9557
19.682	19.682 (0.000)	77	16863			0.00- 80.06	8.71	
19.682	19.682 (0.000)	39	33537			9.78- 109.78	17.33	
49 4-Methyl-2-pentanone					CAS #: 108-10-1			
19.804	19.804 (1.098)	43	590585	5.0	5.0		100.00	9640
19.804	19.804 (0.000)	58	62135			0.00- 85.05	10.52	
19.804	19.804 (0.000)	85	21217			0.00- 61.97	3.59	
51 Toluene					CAS #: 108-88-3			
20.170	20.170 (1.118)	92	473090	5.0	4.9		100.00	9459(Q)
20.170	20.170 (0.000)	91	229824			118.43- 218.43	48.58	
52 Octane					CAS #: 111-65-9			
20.147	20.147 (1.117)	57	211213	5.0	4.7		100.00	8365(Q)
20.147	20.147 (0.000)	85	68920			48.51- 148.51	32.63	
20.147	20.147 (0.000)	43	186907			217.16- 317.16	88.49	
53 trans-1,3-Dichloropropene					CAS #: 542-75-6			
20.399	20.399 (0.920)	75	51084	1.0	0.96		100.00	9676
20.399	20.399 (0.000)	77	3997			0.00- 77.26	7.82	
54 1,1,2-Trichloroethane					CAS #: 79-00-5			
20.689	20.689 (0.934)	97	254127	5.0	5.2		100.00	9745(Q)

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
54 1,1,2-Trichloroethane (continued)								
20.689	20.689 (0.000)	99	42120			8.45- 108.45	16.57	
0.689	20.689 (0.000)	83	63523			38.16- 138.16	25.00	
55 Tetrachloroethene					CAS #: 127-18-4			
20.956	20.956 (0.946)	166	276775	5.0	5.0		100.00	9270(Q)
0.956	20.956 (0.000)	129	64904			33.09- 133.09	23.45	
0.956	20.956 (0.000)	131	62344			29.81- 129.81	22.53	
56 2-Hexanone					CAS #: 591-78-6			
0.918	20.918 (0.944)	43	607966	5.0	5.3		100.00	8560
0.918	20.918 (0.000)	58	87648			0.00- 99.38	14.42	
20.918	20.918 (0.000)	100	16046			0.00- 59.04	2.64	
57 Dibromochloromethane					CAS #: 124-48-1			
21.307	21.307 (0.961)	129	340343	5.0	5.1		100.00	8205
21.307	21.307 (0.000)	208	4327			0.00- 54.97	1.27	
58 1,2-Dibromoethane					CAS #: 106-93-4			
21.528	21.528 (0.971)	107	335245	5.0	5.2		100.00	9790(Q)
21.528	21.528 (0.000)	109	80849			43.25- 143.25	24.12	
60 Chlorobenzene					CAS #: 108-90-7			
22.215	22.215 (1.002)	112	531080	5.0	5.0		100.00	9327
22.215	22.215 (0.000)	114	43088			0.00- 81.47	8.11	
2.215	22.215 (0.000)	77	87313			13.78- 113.78	16.44	
61 Ethyl Benzene					CAS #: 100-41-4			
22.299	22.299 (1.006)	106	331290	5.0	5.0		100.00	(H)
2.299	22.299 (1.006)	91	1148684			296.73- 396.73	346.73	
62 m,p-Xylene					CAS #: 108-38-3			
2.459	22.459 (1.013)	106	634566	10.0	9.8		100.00	(H)
2.459	22.459 (1.013)	91	1362372			164.69- 264.69	214.69	
63 o-Xylene					CAS #: 95-47-6			
3.123	23.123 (1.043)	106	200467	5.0	5.0		100.00	9728(Q)
3.123	23.123 (0.000)	91	112061			165.83- 265.83	55.90	
64 Styrene					CAS #: 100-42-5			
3.130	23.130 (1.044)	104	416695	5.0	5.0		100.00	9894
3.130	23.130 (0.000)	78	50240			0.00- 98.72	12.06	
65 Bromoform					CAS #: 75-25-2			
3.558	23.558 (1.063)	171	164546	5.0	5.1		100.00	8420(Q)
3.558	23.558 (0.000)	173	74536			143.98- 243.98	45.30	
67 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5			
.176	24.176 (1.091)	83	530413	5.0	5.4		100.00	9128

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RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
67 1,1,2,2-Tetrachloroethane (continued)								
24.176	24.176 (0.000)	85	77792			12.69- 112.69	14.67	
68 4-Ethyltoluene					CAS #: 622-96-8			
24.595	24.595 (1.110)	105	649945	5.0	4.8		100.00	9362(M)
24.595	24.595 (1.110)	120	163682	5.0	4.7	0.00- 76.35	25.18	
69 1,3,5-Trimethylbenzene					CAS #: 108-67-8			
24.687	24.687 (1.114)	105	326222	5.0	5.0		100.00	7991(M)
24.679	24.679 (1.114)	120	150504	5.0	5.0	0.00- 94.84	46.14	
71 1,2,4-Trimethylbenzene					CAS #: 95-63-6			
25.442	25.442 (1.148)	105	260129	5.0	5.0		100.00	8825
25.442	25.442 (0.000)	120	23798			0.00- 89.84	9.15	
72 1,3-Dichlorobenzene					CAS #: 541-73-1			
26.167	26.167 (1.181)	146	329109	5.0	5.0		100.00	
26.167	26.167 (1.181)	148	203666			11.88- 111.88	61.88	
26.167	26.167 (1.181)	111	153610			0.00- 96.67	46.67	
73 1,4-Dichlorobenzene					CAS #: 106-46-7			
26.342	26.342 (1.189)	146	323634	5.0	5.0		100.00	(H)
26.350	26.350 (1.189)	148	206187			13.71- 113.71	63.71	
26.350	26.350 (1.189)	111	144826			0.00- 94.75	44.75	
74 Benzyl Chloride					CAS #: 100-44-7			
26.594	26.594 (1.200)	91	617072	5.0	4.9		100.00	9278
26.594	26.594 (0.000)	126	21120			0.00- 66.49	3.42	
75 1,2-Dichlorobenzene					CAS #: 95-50-1			
27.227	27.227 (1.229)	146	294962	5.0	5.0		100.00	9764(Q)
27.227	27.227 (0.000)	148	35896			13.77- 113.77	12.17	
27.227	27.227 (0.000)	111	26496			0.00- 97.07	8.98	
76 1,2,4-Trichlorobenzene					CAS #: 120-82-1			
31.607	31.607 (1.426)	180	116181	5.0	4.6		100.00	9678(Q)
31.607	31.607 (0.000)	182	17792			45.53- 145.53	15.31	
77 Hexachlorobutadiene					CAS #: 87-68-3			
32.041	32.041 (1.446)	225	131070	5.0	5.0		100.00	9470
32.041	32.041 (0.000)	223	12093			7.67- 107.67	9.23	

QC Flag Legend

Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: /chem/msdj.i/j-09jan.b/j010906.d
Report Date: 09-Jan-1997 12:02

Air Toxics Limited

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdj.i
Lab File ID: j010906.d
Lab Smp Id: VSTD005
Analysis Type: VOA
Quant Type: ISTD
Operator: FA
Method File: /chem/msdj.i/j-09jan.b/TO140109.m
Misc Info:

Calibration Date: JAN/09/97
Calibration Time: 1044
Client Smp ID: VSTD005
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	% DIFF
33 Bromochloromethane	192118	115271	268965	192118	0.00
43 1,4-Difluorobenzene	832855	499713	1165997	832855	0.00
59 Chlorobenzene-d5	625059	375035	875083	625059	0.00

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	% DIFF
33 Bromochloromethane	16.69	16.19	17.19	16.69	0.00
43 1,4-Difluorobenzene	18.03	17.53	18.53	18.03	0.00
59 Chlorobenzene-d5	22.16	21.66	22.66	22.16	0.00

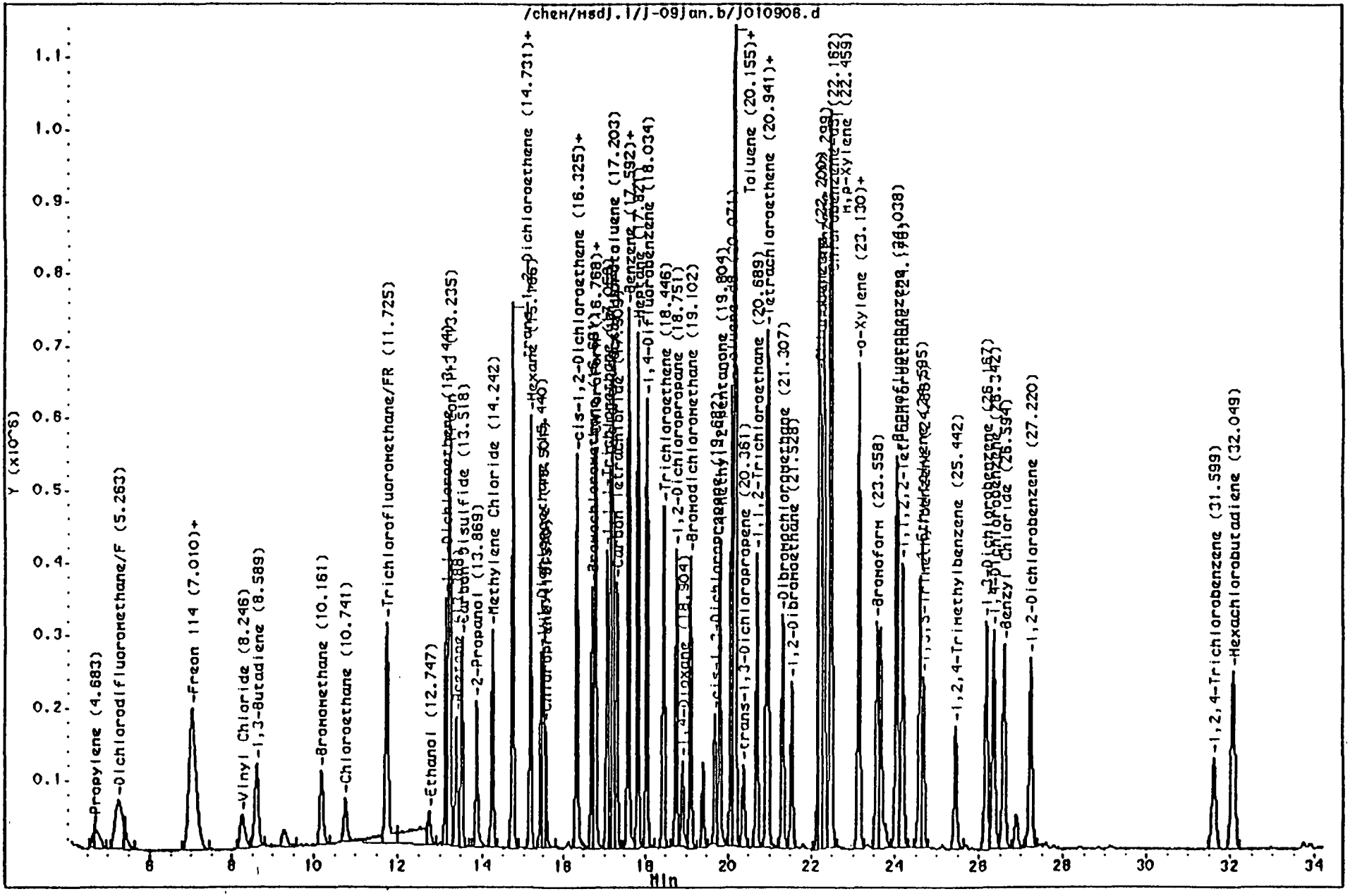
AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem/msdj.i/j-09jan.b/j010906.d
Date : 09-JAN-97 10:44
Client ID: VSTD005
Sample Info: 25.0ml #296-25 100ppbv (5.0ppbv)

Column phase: RTx-624

Instrument: msdj.i

Operator: FA
Column diameter: 0.58



Data File: /chem/msdj.i/j-09jan.b/j010907.d
Report Date: 09-Jan-1997 14:23

Air Toxics Limited

AMBIENT AIR METHOD TO14

Data file : /chem/msdj.i/j-09jan.b/j010907.d
Lab Smp Id: VSTD010 Client Smp ID: VSTD010
Inj Date : 09-JAN-1997 11:27
Operator : FA Inst ID: msdj.i
Smp Info : 50.0ml #296-25 100ppbv (10.0ppbv)
Misc Info :
Comment :
Method : /chem/msdj.i/j-09jan.b/to140109.m
Meth Date : 09-Jan-1997 14:23 fayala Quant Type: ISTD
Cal Date : 09-JAN-1997 12:48 Cal File: j010909.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: AT.sub
Target Version: 3.12 Sample Matrix: AIR
Concentration Formula: Uf * Vf

Name	Value	Description
Uf	1.000	ng unit correction factor
Vf	1.000	Volumetric correction factor

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
* 33 Bromochloromethane					CAS #: 74-97-5			
16.692	16.692 (1.000)	130	194531	5.0			100.00	9585(Q)
16.692	16.692 (0.000)	128	46640			28.83- 128.83	23.98	
16.692	16.692 (0.000)	49	105128			127.68- 227.68	54.04	
* 43 1,4-Difluorobenzene					CAS #: 540-36-3			
18.035	18.035 (1.000)	114	829384	5.0			100.00	9727
18.035	18.035 (0.000)	88	42960			0.00- 67.19	5.18	
* 59 Chlorobenzene-d5					CAS #: 3114-55-4			
22.177	22.177 (1.000)	117	656545	5.0			100.00	9779
22.177	22.177 (0.000)	82	97501			8.55- 108.55	14.85	
$ 39 Octafluorotoluene					CAS #: 434-64-0			
17.211	17.211 (1.031)	217	432836	5.0	4.8		100.00	9817
17.211	17.211 (0.000)	186	88920			15.29- 115.29	20.54	
$ 50 Toluene-d8					CAS #: 2037-26-5			
20.072	20.072 (1.113)	98	741386	5.0	4.9		100.00	9806
20.072	20.072 (0.000)	70	26760			0.00- 62.48	3.61	
20.072	20.072 (0.000)	100	141504			15.98- 115.98	19.09	

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
$ 66 Bromofluorobenzene					CAS #: 460-00-4			
24.039	24.039 (1.084)	95	502078	5.0	4.9		100.00	9719
24.039	24.039 (0.000)	174	70424			8.48- 108.48	14.03	
24.039	24.039 (0.000)	176	69328			7.57- 107.57	13.81	
1 Propylene					CAS #: 115-07-1			
4.699	4.699 (0.281)	41	258056	10.0	7.9		100.00	7686(Q)
4.699	4.699 (0.000)	42	12169			14.10- 114.10	4.72	
4.699	4.699 (0.000)	39	13451			20.85- 120.85	5.21	
6 Dichlorodifluoromethane/FR 12					CAS #: 75-71-8			
5.256	5.256 (0.315)	85	1149323	10.0	9.5		100.00	0(M)
5.263	5.263 (0.315)	87	0			0.00- 50.00	0.00	
7 Freon 114					CAS #: 76-14-2			
7.003	7.003 (0.420)	135	856913	10.0	9.8		100.00	9810
7.003	7.003 (0.000)	137	24496			0.00- 80.98	2.86	
8 Chloromethane					CAS #: 74-87-3			
7.117	7.117 (0.426)	50	477700	10.0	9.4		100.00	9127(M)
7.117	7.117 (0.426)	52	12892			0.00- 79.23	2.70	
9 Vinyl Chloride					CAS #: 75-01-4			
8.231	8.231 (0.493)	62	526994	10.0	9.7		100.00	9634
8.231	8.231 (0.000)	64	17504			0.00- 80.10	3.32	
10 1,3-Butadiene					CAS #: 106-99-0			
8.582	8.582 (0.514)	54	398402	10.0	9.7		100.00	9690(Q)
8.582	8.582 (0.000)	39	66407			56.78- 156.78	16.67	
11 Bromomethane					CAS #: 74-83-9			
10.161	10.161 (0.609)	94	429983	10.0	9.6		100.00	9504(Q)
10.161	10.161 (0.000)	96	72432			45.14- 145.14	16.85	
12 Chloroethane					CAS #: 75-00-3			
10.741	10.741 (0.643)	64	306321	10.0	9.8		100.00	9641
10.741	10.741 (0.000)	66	19056			0.00- 82.76	6.22	
14 Trichlorofluoromethane/FR 11					CAS #: 75-69-4			
11.725	11.725 (0.702)	101	1211530	10.0	10.1		100.00	9872
11.725	11.725 (0.000)	103	171338			13.13- 113.13	14.14	
15 Ethanol					CAS #: 64-17-5			
12.740	12.740 (0.763)	45	209536	10.0	13.1		100.00	
12.740	12.740 (0.763)	46	86610			0.00- 91.33	41.33	
12.747	12.747 (0.764)	43	55261			0.00- 76.37	26.37	
17 1,1-Dichloroethene					CAS #: 75-35-4			
13.144	13.144 (0.787)	96	483721	10.0	11.6		100.00	9350(Q)

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RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
17 1,1-Dichloroethene (continued)								
13.144	13.144 (0.000)	61	240960			125.93- 225.93	49.81	
13.144	13.144 (0.000)	98	87784			14.09- 114.09	18.15	
18 Freon 113					CAS #: 76-13-1			
13.236	13.236 (0.793)	151	654914	10.0	10.0		100.00	9310(a)
13.236	13.236 (0.000)	153	100016			14.05- 114.05	15.27	
13.236	13.236 (0.000)	101	243927			106.20- 206.20	37.25	
19 Carbon Disulfide					CAS #: 75-15-0			
13.518	13.518 (0.810)	76	1480262	10.0	10.1		100.00	8114
20 Acetone					CAS #: 67-64-1			
13.381	13.381 (0.802)	43	918530	10.0	11.9		100.00	
13.381	13.381 (0.802)	58	271567			0.00- 79.57	29.57	
22 2-Propanol					CAS #: 67-63-0			
13.861	13.861 (0.830)	45	1005549	10.0	10.5		100.00	7544
13.861	13.861 (0.000)	43	52124			0.00- 69.13	5.18	
13.861	13.861 (0.000)	59	9763			0.00- 53.58	0.97	
23 Methylene Chloride					CAS #: 75-09-2			
14.243	14.243 (0.853)	84	447204	10.0	10.0		100.00	9680(a)
14.243	14.243 (0.000)	49	199296			98.64- 198.64	44.56	
14.243	14.243 (0.000)	51	62830			0.00- 96.86	14.05	
24 trans-1,2-Dichloroethene					CAS #: 156-60-5			
14.731	14.731 (0.883)	96	495935	10.0	10		100.00	9554(a)
14.731	14.731 (0.000)	61	242688			104.97- 204.97	48.94	
14.731	14.731 (0.000)	98	99576			13.58- 113.58	20.08	
26 MTBE					CAS #: 1634-04-4			
14.731	14.731 (0.883)	73	1319582	10.0	10.1		100.00	6461
14.731	14.731 (0.000)	57	88400			0.00- 74.03	6.70	
14.731	14.731 (0.000)	41	92845			0.00- 75.24	7.04	
27 Hexane					CAS #: 110-54-3			
15.158	15.158 (0.908)	57	911208	10.0	10.0		100.00	7287
15.158	15.158 (0.000)	43	197960			20.00- 120.00	21.73	
15.158	15.158 (0.000)	56	149251			2.77- 102.77	16.38	
28 1,1-Dichloroethane					CAS #: 75-34-3			
15.433	15.433 (0.925)	63	918113	10.0	10		100.00	9642
15.433	15.433 (0.000)	65	86120			0.00- 81.51	9.38	
29 Chloroprene					CAS #: 126-99-8			
15.570	15.570 (0.933)	53	317266	10.0	10.1		100.00	7811
15.570	15.570 (0.000)	88	48808			1.16- 101.16	15.38	

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
29 Chloroprene (continued)								
15.570	15.570 (0.000)	50	24414			0.00- 75.59	7.70	
30 Vinyl Acetate					CAS #: 108-05-4			
15.502	15.502 (0.929)	43	1534361	10.0	10.4		100.00	5917
15.502	15.502 (0.000)	86	35081			0.00- 57.73	2.29	
31 cis-1,2-Dichloroethene					CAS #: 156-59-2			
16.333	16.333 (0.979)	96	532049	10.0	10.1		100.00	9734(Q)
16.333	16.333 (0.000)	61	219520			87.25- 187.25	41.26	
16.333	16.333 (0.000)	98	99024			11.91- 111.91	18.61	
32 2-Butanone					CAS #: 78-93-3			
16.318	16.318 (0.978)	72	218074	10.0	10.2		100.00	7901(Q)
16.318	16.318 (0.000)	43	310225			447.09- 547.09	142.26	
16.318	16.318 (0.000)	57	21626			0.00- 84.65	9.92	
34 Chloroform					CAS #: 67-66-3			
16.776	16.776 (1.005)	83	977840	10.0	10.1		100.00	9186
16.776	16.776 (0.000)	85	192128			14.95- 114.95	19.65	
35 Tetrahydrofuran					CAS #: 109-99-9			
16.760	16.760 (1.004)	42	520480	10.0	10.2		100.00	7505
16.760	16.760 (0.000)	71	52207			0.00- 86.02	10.03	
16.760	16.760 (0.000)	72	57134			0.00- 89.42	10.98	
36 1,1,1-Trichlorethane					CAS #: 71-55-6			
17.058	17.058 (1.022)	97	902963	10.0	10		100.00	9734
17.058	17.058 (0.000)	99	170240			17.27- 117.27	18.85	
37 Cyclohexane					CAS #: 110-82-7			
17.142	17.142 (1.027)	56	848215	10.0	10		100.00	8271(Q)
17.142	17.142 (0.000)	84	183295			24.74- 124.74	21.61	
17.142	17.142 (0.000)	41	148601			10.59- 110.59	17.52	
38 Carbon Tetrachloride					CAS #: 56-23-5			
17.310	17.310 (1.037)	119	734580	10.0	10.2		100.00	9451(Q)
17.310	17.310 (0.000)	117	166768			27.68- 127.68	22.70	
40 Benzene					CAS #: 71-43-2			
17.584	17.584 (0.975)	78	1568102	10.0	9.9		100.00	9737
17.584	17.584 (0.000)	77	112752			0.00- 74.19	7.19	
41 1,2-Dichloroethane					CAS #: 107-06-2			
17.600	17.600 (0.976)	62	618858	10.0	10		100.00	8448
17.600	17.600 (0.000)	64	57624			0.00- 82.18	9.31	
42 Heptane					CAS #: 142-82-5			
17.821	17.821 (0.988)	43	1084527	10.0	9.9		100.00	7674

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
42 Heptane (continued)								
17.821	17.821 (0.000)	57	168994			0.00- 98.18	15.58	
17.821	17.821 (0.000)	71	172928			0.00- 99.30	15.95	
44 Trichloroethene					CAS #: 79-01-6			
18.446	18.446 (1.023)	95	601904	10.0	9.9		100.00	7790(Q)
18.446	18.446 (0.000)	130	159808			38.73- 138.73	26.55	
18.446	18.446 (0.000)	97	114616			13.64- 113.64	19.04	
45 1,2-Dichloropropane					CAS #: 78-87-5			
18.752	18.752 (1.040)	63	549958	10.0	10.1		100.00	9737(Q)
18.752	18.752 (0.000)	62	120608			25.56- 125.56	21.93	
18.752	18.752 (0.000)	41	98518			11.72- 111.72	17.91	
46 1,4-Dioxane					CAS #: 123-91-1			
18.904	18.904 (1.048)	88	299209	10.0	10.1		100.00	9787(Q)
18.904	18.904 (0.000)	58	64336			25.46- 125.46	21.50	
18.904	18.904 (0.000)	57	21249			0.00- 74.92	7.10	
47 Bromodichloromethane					CAS #: 75-27-4			
19.110	19.110 (1.060)	83	965243	10.0	10.0		100.00	9372
19.110	19.110 (0.000)	85	170112			11.51- 111.51	17.62	
48 cis-1,3-Dichloropropene					CAS #: 542-75-6			
19.682	19.682 (1.091)	75	393646	14.4	14.6		100.00	9657
19.682	19.682 (0.000)	77	35827			0.00- 81.77	9.10	
19.682	19.682 (0.000)	39	64781			7.45- 107.45	16.46	
49 4-Methyl-2-pentanone					CAS #: 108-10-1			
19.805	19.805 (1.098)	43	1205412	10.0	10.2		100.00	9604
19.805	19.805 (0.000)	58	124570			0.00- 84.95	10.33	
19.805	19.805 (0.000)	85	41828			0.00- 61.74	3.47	
51 Toluene					CAS #: 108-88-3			
20.171	20.171 (1.118)	92	940562	10.0	9.8		100.00	9732(Q)
20.171	20.171 (0.000)	91	465216			118.81- 218.81	49.46	
52 Octane					CAS #: 111-65-9			
20.148	20.148 (1.117)	57	429505	10.0	9.6		100.00	8414(Q)
20.148	20.148 (0.000)	85	140416			50.22- 150.22	32.69	
20.148	20.148 (0.000)	43	382805			223.22- 323.22	89.13	
53 trans-1,3-Dichloropropene					CAS #: 542-75-6			
20.400	20.400 (0.920)	75	101902	2.0	1.8		100.00	9245
20.400	20.400 (0.000)	77	8316			0.00- 79.62	8.16	
54 1,1,2-Trichloroethane					CAS #: 79-00-5			
20.689	20.689 (0.933)	97	510323	10.0	10.0		100.00	9792(Q)

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
54 1,1,2-Trichloroethane (continued)								
20.689	20.689 (0.000)	99	89288			12.79- 112.79	17.50	
20.689	20.689 (0.000)	83	126712			39.10- 139.10	24.83	
55 Tetrachloroethene					CAS #: 127-18-4			
20.956	20.956 (0.945)	166	565139	10.0	9.8		100.00	9457(Q)
20.956	20.956 (0.000)	129	132608			32.85- 132.85	23.46	
20.956	20.956 (0.000)	131	125792			28.59- 128.59	22.26	
56 2-Hexanone					CAS #: 591-78-6			
20.918	20.918 (0.943)	43	1250843	10.0	10.4		100.00	8563
20.918	20.918 (0.000)	58	181333			0.00- 98.87	14.50	
20.918	20.918 (0.000)	100	32360			0.00- 58.72	2.59	
57 Dibromochloromethane					CAS #: 124-48-1			
21.307	21.307 (0.961)	129	702778	10.0	10.1		100.00	8302
21.307	21.307 (0.000)	208	7833			0.00- 54.22	1.11	
58 1,2-Dibromoethane					CAS #: 106-93-4			
21.529	21.529 (0.971)	107	670643	10.0	10		100.00	9740(Q)
21.529	21.529 (0.000)	109	167872			46.40- 146.40	25.03	
60 Chlorobenzene					CAS #: 108-90-7			
22.215	22.215 (1.002)	112	1096315	10.0	9.8		100.00	9652
22.215	22.215 (0.000)	114	89592			0.00- 81.98	8.17	
22.215	22.215 (0.000)	77	170703			10.92- 110.92	15.57	
61 Ethyl Benzene					CAS #: 100-41-4			
22.299	22.299 (1.006)	106	670810	10.0	9.6		100.00	(H)
22.299	22.299 (1.006)	91	2322710			296.25- 396.25	346.25	
62 m,p-Xylene					CAS #: 108-38-3			
22.459	22.459 (1.013)	106	1286569	20.0	18.9		100.00	(H)
22.459	22.459 (1.013)	91	2765569			164.96- 264.96	214.96	
63 o-Xylene					CAS #: 95-47-6			
23.131	23.131 (1.043)	106	404830	10.0	9.6		100.00	9569(Q)
23.131	23.131 (0.000)	91	224221			166.39- 266.39	55.39	
64 Styrene					CAS #: 100-42-5			
23.138	23.138 (1.043)	104	872225	10.0	9.9		100.00	9757
23.138	23.138 (0.000)	78	104280			0.00- 98.09	11.96	
65 Bromoform					CAS #: 75-25-2			
23.558	23.558 (1.062)	171	338006	10.0	10.0		100.00	8405(Q)
23.558	23.558 (0.000)	173	150656			141.89- 241.89	44.57	
67 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5			
24.176	24.176 (1.090)	83	1018077	10.0	9.8		100.00	9435

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
67 1,1,2,2-Tetrachloroethane (continued)								
.176	24.176 (0.000)	85	144384			11.12- 111.12	14.18	
68 4-Ethyltoluene					CAS #: 622-96-8			
.596	24.596 (1.109)	105	1387130	10.0	9.8		100.00	9331(M)
.596	24.596 (1.109)	120	352472	10.0	9.7	0.00- 76.11	25.41	
69 1,3,5-Trimethylbenzene					CAS #: 108-67-8			
.687	24.687 (1.113)	105	671249	10.0	9.9		100.00	7955(M)
.680	24.680 (1.113)	120	314188	10.0	10.0	0.00- 93.88	46.81	
71 1,2,4-Trimethylbenzene					CAS #: 95-63-6			
.442	25.442 (1.147)	105	538762	10.0	9.8		100.00	8886
25.442	25.442 (0.000)	120	51321			0.00- 92.53	9.53	
72 1,3-Dichlorobenzene					CAS #: 541-73-1			
.175	26.175 (1.180)	146	660635	10.0	9.5		100.00	
26.167	26.167 (1.180)	148	422142			13.90- 113.90	63.90	
26.167	26.167 (1.180)	111	308151			0.00- 96.64	46.64	
73 1,4-Dichlorobenzene					CAS #: 106-46-7			
26.350	26.350 (1.188)	146	655856	10.0	9.6		100.00	(H)
26.350	26.350 (1.188)	148	416047			13.44- 113.44	63.44	
.343	26.343 (1.188)	111	292687			0.00- 94.63	44.63	
74 Benzyl Chloride					CAS #: 100-44-7			
.595	26.595 (1.199)	91	1284507	10.0	9.8		100.00	9391
.595	26.595 (0.000)	126	43440			0.00- 66.70	3.38	
75 1,2-Dichlorobenzene					CAS #: 95-50-1			
.228	27.228 (1.228)	146	600206	10.0	9.6		100.00	9763
.228	27.228 (0.000)	148	70847			11.02- 111.02	11.80	
27.228	27.228 (0.000)	111	55444			0.00- 97.75	9.24	
76 1,2,4-Trichlorobenzene					CAS #: 120-82-1			
.607	31.607 (1.425)	180	223116	10.0	8.5		100.00	9749(Q)
31.607	31.607 (0.000)	182	33584			43.33- 143.33	15.05	
77 Hexachlorobutadiene					CAS #: 87-68-3			
.049	32.049 (1.445)	225	251747	10.0	9.1		100.00	9575
32.049	32.049 (0.000)	223	25049			9.71- 109.71	9.95	

QC Flag Legend

Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: /chem/msdj.i/j-09jan.b/j010907.d
Report Date: 09-Jan-1997 12:08

Air Toxics Limited

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdj.i
Lab File ID: j010907.d
Lab Smp Id: VSTD010
Analysis Type: VOA
Quant Type: ISTD
Operator: FA
Method File: /chem/msdj.i/j-09jan.b/TO140109.m
Misc Info:

Calibration Date: JAN/09/97
Calibration Time: 1044
Client Smp ID: VSTD010
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	% DIFF
33 Bromochloromethane	192118	115271	268965	194531	1.26
43 1,4-Difluorobenzene	832855	499713	1165997	829384	-0.42
59 Chlorobenzene-d5	625059	375035	875083	656545	5.04

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	% DIFF
33 Bromochloromethane	16.69	16.19	17.19	16.69	0.00
43 1,4-Difluorobenzene	18.03	17.53	18.53	18.03	0.00
59 Chlorobenzene-d5	22.16	21.66	22.66	22.18	0.07

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

C107

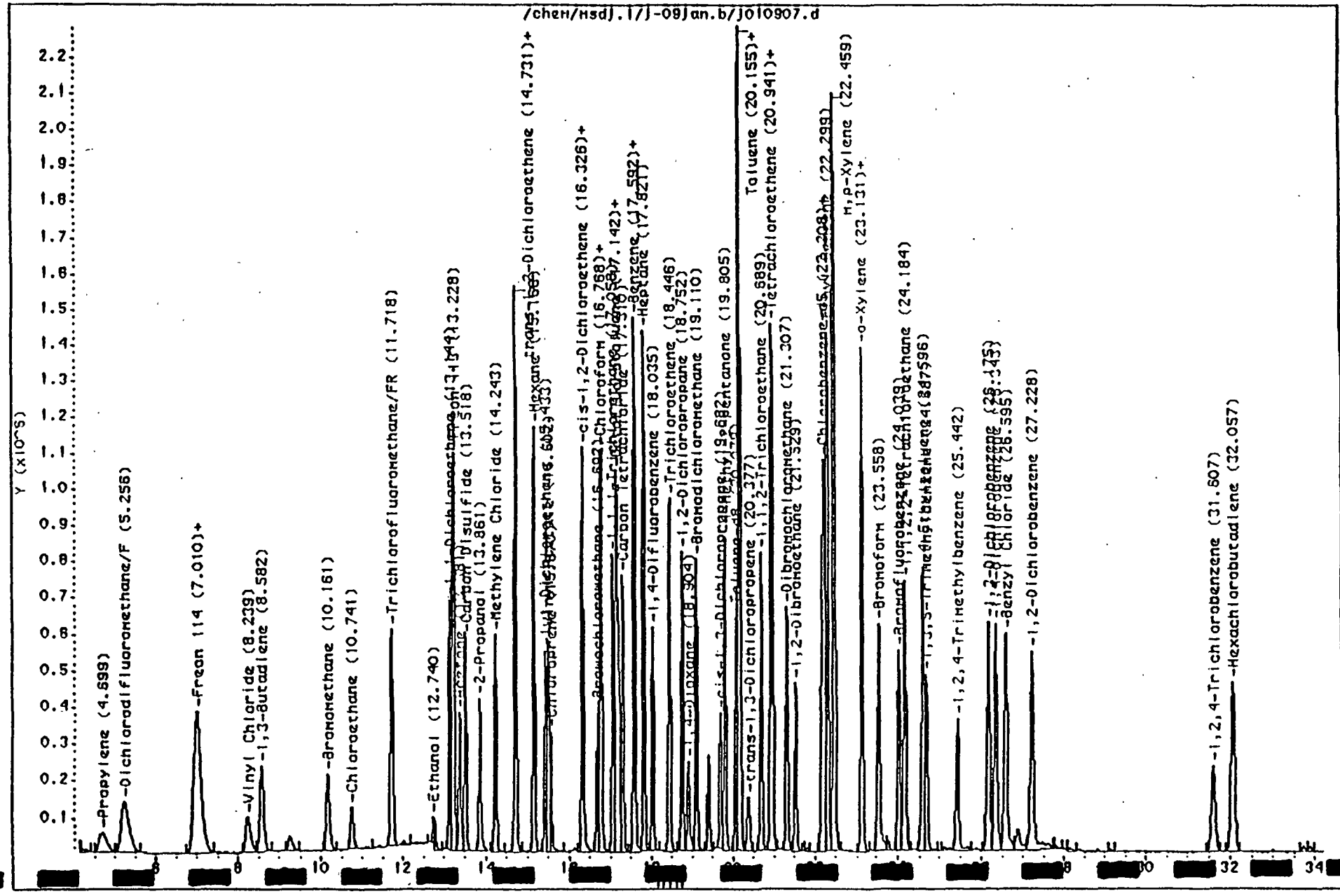
Data File: /chem/msdj.i/j-09jan.b/j010907.d
Date : 09-JAN-97 11:27
Client ID: VSTD010
Sample Info: 50.0ml M298-25 100ppbv (10.0ppbv)

Column phase: RTx-624

Page 1

Instrument: msdj.i

Operator: FA
Column diameter: 0.58



Data File: /chem/msdj.i/j-09jan.b/j010908.d
Report Date: 09-Jan-1997 14:18

Air Toxics Limited

AMBIENT AIR METHOD TO14

Data file : /chem/msdj.i/j-09jan.b/j010908.d
Lab Smp Id: VSTD025 Client Smp ID: VSTD025
Inj Date : 09-JAN-1997 12:08
Operator : FA Inst ID: msdj.i
Smp Info : 125.0ml #296-25 100ppbv (25.0ppbv)
Misc Info :
Comment :
Method : /chem/msdj.i/j-09jan.b/to140109.m
Meth Date : 09-Jan-1997 14:18 fayala Quant Type: ISTD
Cal Date : 09-JAN-1997 12:08 Cal File: j010908.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: AT.sub
Target Version: 3.12 Sample Matrix: AIR
Concentration Formula: Uf * Vf

Name	Value	Description
Uf	1.000	ng unit correction factor
Vf	1.000	Volumetric correction factor

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
* 33 Bromochloromethane					CAS #: 74-97-5			
16.722	16.722 (1.000)	130	182238	5.0			100.00	9511(Q)
16.722	16.722 (0.000)	128	38656			25.11- 125.11	21.21	
16.722	16.722 (0.000)	49	96856			138.20- 238.20	53.15	
* 43 1,4-Difluorobenzene					CAS #: 540-36-3			
18.050	18.050 (1.000)	114	762215	5.0			100.00	9760
18.050	18.050 (0.000)	88	38576			0.00- 66.51	5.06	
* 59 Chlorobenzene-d5					CAS #: 3114-55-4			
22.170	22.170 (1.000)	117	613020	5.0			100.00	9350
22.170	22.170 (0.000)	82	91570			7.48- 107.48	14.94	
$ 39 Octafluorotoluene					CAS #: 434-64-0			
17.211	17.211 (1.029)	217	440297	5.0	5.2		100.00	8770
17.211	17.211 (0.000)	186	88536			14.67- 114.67	20.11	
$ 50 Toluene-d8					CAS #: 2037-26-5			
20.079	20.079 (1.112)	98	704821	5.0	5.1		100.00	9726
20.079	20.079 (0.000)	70	24609			0.00- 62.35	3.49	
20.079	20.079 (0.000)	100	133263			16.89- 116.89	18.91	

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
$ 66 Bromofluorobenzene					CAS #: 460-00-4			
24.039	24.039 (1.084)	95	473245	5.0	5.0		100.00	9686
24.039	24.039 (0.000)	174	67544			10.59- 110.59	14.27	
24.039	24.039 (0.000)	176	63448			6.91- 106.91	13.41	
1 Propylene					CAS #: 115-07-1			
7.384	7.384 (0.442)	41	979263	25.0	32.1		100.00	6803(M)
7.392	7.392 (0.442)	42	643311			15.19- 115.19	65.69	
7.384	7.384 (0.442)	39	672872			18.12- 118.12	68.71	
6 Dichlorodifluoromethane/FR 12					CAS #: 75-71-8			
7.705	7.705 (0.461)	85	3130681	25.0	27.6		100.00	0(M)
7.705	7.705 (0.461)	87	1020297			0.00- 83.23	32.59	
7 Freon 114					CAS #: 76-14-2			
8.704	8.704 (0.520)	135	2125504	25.0	25.9		100.00	0(M)
8.712	8.712 (0.521)	137	672576			0.00- 81.78	31.64	
8 Chloromethane					CAS #: 74-87-3			
8.841	8.841 (0.529)	50	1324485	25.0	27.7		100.00	5718(M)
8.834	8.834 (0.528)	52	406010			0.00- 83.32	30.65	
9 Vinyl Chloride					CAS #: 75-01-4			
9.520	9.520 (0.569)	62	1329600	25.0	26.2		100.00	2401(M)
9.520	9.520 (0.569)	64	413288			0.00- 82.12	31.08	
10 1,3-Butadiene					CAS #: 106-99-0			
9.734	9.734 (0.582)	54	1038221	25.0	27.0		100.00	1680(M)
9.742	9.742 (0.583)	39	1084508			52.88- 152.88	104.46	
11 Bromomethane					CAS #: 74-83-9			
10.909	10.909 (0.652)	94	1050581	25.0	25.0		100.00	3462(M)
10.916	10.916 (0.653)	96	993010			43.56- 143.56	94.52	
12 Chloroethane					CAS #: 75-00-3			
11.336	11.336 (0.678)	64	699484	25.0	23.9		100.00	4574(M)
11.336	11.336 (0.678)	66	218115			0.00- 82.26	31.18	
14 Trichlorofluoromethane/FR 11					CAS #: 75-69-4			
12.122	12.122 (0.725)	101	2847720	25.0	25.4		100.00	9906(Q)
12.122	12.122 (0.000)	103	361152			15.80- 115.80	12.68	
15 Ethanol					CAS #: 64-17-5			
12.870	12.870 (0.770)	45	282656	25.0	18.9		100.00	(H)
12.870	12.870 (0.770)	46	121233			0.00- 92.89	42.89	
12.877	12.877 (0.770)	43	66313			0.00- 73.46	23.46	
17 1,1-Dichloroethene					CAS #: 75-35-4			
13.365	13.365 (0.799)	96	774956	25.0	19.8		100.00	6280(QH)

Data File: /chem/msdj.i/j-09jan.b/j010908.d
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RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
17 1,1-Dichloroethene (continued)								
13.365	13.365 (0.000)	61	332314			119.48- 219.48	42.88	
13.365	13.365 (0.000)	98	126971			14.76- 114.76	16.38	
18 Freon 113					CAS #: 76-13-1			
13.396	13.396 (0.801)	151	1553260	25.0	25.4		100.00	9870(Q)
13.396	13.396 (0.000)	153	206912			15.75- 115.75	13.32	
13.396	13.396 (0.000)	101	383232			71.78- 171.78	24.67	
19 Carbon Disulfide					CAS #: 75-15-0			
13.762	13.762 (0.823)	76	3468988	25.0	25.2		100.00	8164
20 Acetone					CAS #: 67-64-1			
13.533	13.533 (0.809)	43	1161913	25.0	16.1		100.00	
13.533	13.533 (0.809)	58	315384			0.00- 77.14	27.14	
22 2-Propanol					CAS #: 67-63-0			
13.922	13.922 (0.833)	45	2456307	25.0	27.4		100.00	7496
13.922	13.922 (0.000)	43	109251			0.00- 67.90	4.45	
13.922	13.922 (0.000)	59	20920			0.00- 53.43	0.85	
23 Methylene Chloride					CAS #: 75-09-2			
14.350	14.350 (0.858)	84	1043363	25.0	25.0		100.00	9749(Q)
14.350	14.350 (0.000)	49	436416			96.55- 196.55	41.83	
14.350	14.350 (0.000)	51	135286			0.00- 95.43	12.97	
24 trans-1,2-Dichloroethene					CAS #: 156-60-5			
14.815	14.815 (0.886)	96	1193282	25.0	25.7		100.00	9628(Q)
14.815	14.815 (0.000)	61	553408			102.72- 202.72	46.38	
14.815	14.815 (0.000)	98	226752			12.58- 112.58	19.00	
26 MTBE					CAS #: 1634-04-4			
14.807	14.807 (0.885)	73	3132204	25.0	25.6		100.00	6432
14.807	14.807 (0.000)	57	191552			0.00- 74.41	6.12	
14.807	14.807 (0.000)	41	197973			0.00- 75.22	6.32	
27 Hexane					CAS #: 110-54-3			
15.227	15.227 (0.911)	57	2152232	25.0	25.3		100.00	7287
15.227	15.227 (0.000)	43	438993			19.09- 119.09	20.40	
15.227	15.227 (0.000)	56	328570			1.71- 101.71	15.27	
28 1,1-Dichloroethane					CAS #: 75-34-3			
15.494	15.494 (0.927)	63	2208134	25.0	25.6		100.00	9527
15.494	15.494 (0.000)	65	190976			0.00- 81.16	8.65	
29 Chloroprene					CAS #: 126-99-8			
15.631	15.631 (0.935)	53	762852	25.0	25.9		100.00	7611
15.631	15.631 (0.000)	88	115369			3.15- 103.15	15.12	

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
29 Chloroprene (continued)								
15.631	15.631 (0.000)	50	52633			0.00- 74.25	6.90	
30 Vinyl Acetate					CAS #: 108-05-4			
15.547	15.547 (0.930)	43	3750938	25.0	27.0		100.00	5957
15.547	15.547 (0.000)	86	89940			0.00- 58.06	2.40	
31 cis-1,2-Dichloroethene					CAS #: 156-59-2			
16.371	16.371 (0.979)	96	1261689	25.0	25.6		100.00	9754(Q)
16.371	16.371 (0.000)	61	518336			90.65- 190.65	41.08	
16.371	16.371 (0.000)	98	235328			13.86- 113.86	18.65	
32 2-Butanone					CAS #: 78-93-3			
16.356	16.356 (0.978)	72	534047	25.0	26.6		100.00	7913(Q)
16.356	16.356 (0.000)	43	754119			449.07- 549.07	141.21	
16.356	16.356 (0.000)	57	48451			0.00- 82.06	9.07	
34 Chloroform					CAS #: 67-66-3			
16.806	16.806 (1.005)	83	2309788	25.0	25.5		100.00	9660
16.806	16.806 (0.000)	85	439808			14.36- 114.36	19.04	
35 Tetrahydrofuran					CAS #: 109-99-9			
16.799	16.799 (1.005)	42	1228018	25.0	25.7		100.00	7501
16.799	16.799 (0.000)	71	119344			0.00- 84.41	9.72	
16.799	16.799 (0.000)	72	132486			0.00- 88.20	10.79	
36 1,1,1-Trichlorethane					CAS #: 71-55-6			
17.096	17.096 (1.022)	97	2150766	25.0	25.3		100.00	9710
17.096	17.096 (0.000)	99	388032			14.13- 114.13	18.04	
37 Cyclohexane					CAS #: 110-82-7			
17.180	17.180 (1.027)	56	1990630	25.0	25.0		100.00	8278(Q)
17.180	17.180 (0.000)	84	413685			25.14- 125.14	20.78	
17.180	17.180 (0.000)	41	332918			10.47- 110.47	16.72	
38 Carbon Tetrachloride					CAS #: 56-23-5			
17.340	17.340 (1.037)	119	1771700	25.0	26.4		100.00	9489(Q)
17.340	17.340 (0.000)	117	476560			44.11- 144.11	26.90	
40 Benzene					CAS #: 71-43-2			
17.615	17.615 (0.976)	78	3717472	25.0	25.5		100.00	9809
17.615	17.615 (0.000)	77	262289			0.00- 74.19	7.06	
41 1,2-Dichloroethane					CAS #: 107-06-2			
17.615	17.615 (0.976)	62	1462842	25.0	25.7		100.00	8249
17.615	17.615 (0.000)	64	133824			0.00- 80.95	9.15	
42 Heptane					CAS #: 142-82-5			
17.829	17.829 (0.988)	43	2642976	25.0	26.3		100.00	7668

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RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
42 Heptane (continued)								
17.829	17.829 (0.000)	57	406516			0.00- 98.90	15.38	
17.829	17.829 (0.000)	71	409385			0.00- 99.25	15.49	
44 Trichloroethene					CAS #: 79-01-6			
18.454	18.454 (1.022)	95	1428786	25.0	25.7		100.00	7783(Q)
18.454	18.454 (0.000)	130	371712			37.30- 137.30	26.02	
18.454	18.454 (0.000)	97	277696			15.22- 115.22	19.44	
45 1,2-Dichloropropane					CAS #: 78-87-5			
18.767	18.767 (1.040)	63	1297182	25.0	25.8		100.00	9698(Q)
18.767	18.767 (0.000)	62	277955			23.89- 123.89	21.43	
18.767	18.767 (0.000)	41	223954			9.53- 109.53	17.26	
46 1,4-Dioxane					CAS #: 123-91-1			
18.958	18.958 (1.050)	88	726209	25.0	26.7		100.00	9775(Q)
18.958	18.958 (0.000)	58	107237			25.68- 125.68	14.77	
18.958	18.958 (0.000)	57	37210			0.00- 76.26	5.12	
47 Bromodichloromethane					CAS #: 75-27-4			
19.110	19.110 (1.059)	83	2329137	25.0	26.4		100.00	9379
19.110	19.110 (0.000)	85	421696			13.23- 113.23	18.11	
48 cis-1,3-Dichloropropene					CAS #: 542-75-6			
19.690	19.690 (1.091)	75	943827	36.0	38.1		100.00	9669
19.690	19.690 (0.000)	77	84747			0.00- 81.01	8.98	
19.690	19.690 (0.000)	39	157389			7.59- 107.59	16.68	
49 4-Methyl-2-pentanone					CAS #: 108-10-1			
19.805	19.805 (1.097)	43	2839593	25.0	26.1		100.00	9632
19.805	19.805 (0.000)	58	286454			0.00- 85.65	10.09	
19.805	19.805 (0.000)	85	102076			0.00- 62.70	3.59	
51 Toluene					CAS #: 108-88-3			
20.171	20.171 (1.117)	92	2296632	25.0	26.1		100.00	9697(Q)
20.171	20.171 (0.000)	91	1154437			120.64- 220.64	50.27	
52 Octane					CAS #: 111-65-9			
20.155	20.155 (1.117)	57	1098040	25.0	26.6		100.00	8353(Q)
20.155	20.155 (0.000)	85	375675			55.20- 155.20	34.21	
20.155	20.155 (0.000)	43	989788			227.17- 327.17	90.14	
53 trans-1,3-Dichloropropene					CAS #: 542-75-6			
20.407	20.407 (0.920)	75	243825	5.0	4.6		100.00	8412
20.407	20.407 (0.000)	77	19653			0.00- 79.54	8.06	
54 1,1,2-Trichloroethane					CAS #: 79-00-5			
20.697	20.697 (0.934)	97	1223037	25.0	25.7		100.00	9801(Q)

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
54 1,1,2-Trichloroethane (continued)								
0.697	20.697 (0.000)	99	206400			10.30- 110.30	16.88	
20.697	20.697 (0.000)	83	297349			36.88- 136.88	24.31	
55 Tetrachloroethene					CAS #: 127-18-4			
0.964	20.964 (0.946)	166	1382892	25.0	25.8		100.00	8935(Q)
20.964	20.964 (0.000)	129	316928			29.90- 129.90	22.92	
20.964	20.964 (0.000)	131	303296			26.46- 126.46	21.93	
56 2-Hexanone					CAS #: 591-78-6			
20.918	20.918 (0.944)	43	3040070	25.0	27.0		100.00	8575
0.918	20.918 (0.000)	58	429257			0.01- 100.01	14.12	
0.918	20.918 (0.000)	100	78992			0.00- 59.20	2.60	
57 Dibromochloromethane					CAS #: 124-48-1			
1.307	21.307 (0.961)	129	1723049	25.0	26.5		100.00	8310
1.307	21.307 (0.000)	208	19648			0.00- 54.28	1.14	
58 1,2-Dibromoethane					CAS #: 106-93-4			
1.529	21.529 (0.971)	107	1622479	25.0	25.8		100.00	9737(Q)
1.529	21.529 (0.000)	109	401024			45.05- 145.05	24.72	
60 Chlorobenzene					CAS #: 108-90-7			
2.223	22.223 (1.002)	112	2736877	25.0	26.1		100.00	9788
2.223	22.223 (0.000)	114	221504			0.00- 81.34	8.09	
22.223	22.223 (0.000)	77	439739			12.21- 112.21	16.07	
61 Ethyl Benzene					CAS #: 100-41-4			
2.299	22.299 (1.006)	106	1763511	25.0	27.0		100.00	(H)
22.299	22.299 (1.006)	91	6057297			293.48- 393.48	343.48	
62 m,p-Xylene					CAS #: 108-38-3			
22.467	22.467 (1.013)	106	3453692	50.0	54.4		100.00	(MH)
22.459	22.459 (1.013)	91	7216317			158.95- 258.95	208.95	
63 o-Xylene					CAS #: 95-47-6			
23.131	23.131 (1.043)	106	1076261	25.0	27.4		100.00	9610(Q)
23.131	23.131 (0.000)	91	618139			174.86- 274.86	57.43	
64 Styrene					CAS #: 100-42-5			
23.138	23.138 (1.044)	104	2322016	25.0	28.2		100.00	9828
23.138	23.138 (0.000)	78	285175			0.00- 98.00	12.28	
65 Bromoform					CAS #: 75-25-2			
23.558	23.558 (1.063)	171	854930	25.0	27.2		100.00	8454(Q)
23.558	23.558 (0.000)	173	382848			138.77- 238.77	44.78	
67 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5			
24.184	24.184 (1.091)	83	2442920	25.0	25.3		100.00	9714

Data File: /chem/msdj.i/j-09jan.b/j010908.d
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RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
67 1,1,2,2-Tetrachloroethane (continued)								
24.184	24.184 (0.000)	85	353404			12.67- 112.67	14.47	
68 4-Ethyltoluene					CAS #: 622-96-8			
24.603	24.603 (1.110)	105	3749039	25.0	28.4		100.00	9351(M)
24.603	24.603 (1.110)	120	987376	25.0	29.1	0.00- 76.55	26.34	
69 1,3,5-Trimethylbenzene					CAS #: 108-67-8			
24.687	24.687 (1.114)	105	1860375	25.0	29.4		100.00	8123(QM)
24.687	24.687 (1.114)	120	799446	25.0	27.4	245.81- 345.81	42.97	
71 1,2,4-Trimethylbenzene					CAS #: 95-63-6			
25.450	25.450 (1.148)	105	1477726	25.0	28.7		100.00	8854
25.450	25.450 (0.000)	120	138301			0.00- 91.34	9.36	
72 1,3-Dichlorobenzene					CAS #: 541-73-1			
26.175	26.175 (1.181)	146	1828402	25.0	28.1		100.00	
26.175	26.175 (1.181)	148	1157841			13.33- 113.33	63.33	
26.175	26.175 (1.181)	111	830611			0.00- 95.43	45.43	
73 1,4-Dichlorobenzene					CAS #: 106-46-7			
26.350	26.350 (1.189)	146	1777182	25.0	28.0		100.00	(H)
26.350	26.350 (1.189)	148	1127631			13.45- 113.45	63.45	
26.350	26.350 (1.189)	111	787076			0.00- 94.29	44.29	
74 Benzyl Chloride					CAS #: 100-44-7			
26.595	26.595 (1.200)	91	3622570	25.0	29.6		100.00	9300
26.595	26.595 (0.000)	126	129472			0.00- 67.72	3.57	
75 1,2-Dichlorobenzene					CAS #: 95-50-1			
27.228	27.228 (1.228)	146	1631883	25.0	28.0		100.00	9767(Q)
27.228	27.228 (0.000)	148	200896			14.57- 114.57	12.31	
27.228	27.228 (0.000)	111	149669			0.00- 98.10	9.17	
76 1,2,4-Trichlorobenzene					CAS #: 120-82-1			
31.615	31.615 (1.426)	180	723811	25.0	29.4		100.00	9759(Q)
31.615	31.615 (0.000)	182	108864			44.99- 144.99	15.04	
77 Hexachlorobutadiene					CAS #: 87-68-3			
32.057	32.057 (1.446)	225	714173	25.0	27.5		100.00	9693(Q)
32.057	32.057 (0.000)	223	71027			11.50- 111.50	9.95	

QC Flag Legend

Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: /chem/msdj.i/j-09jan.b/j010908.d
Report Date: 09-Jan-1997 12:42

Air Toxics Limited

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdj.i
Lab File ID: j010908.d
Lab Smp Id: VSTD025
Analysis Type: VOA
Quant Type: ISTD
Operator: FA
Method File: /chem/msdj.i/j-09jan.b/TO140109.m
Misc Info:

Calibration Date: JAN/09/97
Calibration Time: 1044
Client Smp ID: VSTD025
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	% DIFF
33 Bromochloromethane	192118	115271	268965	182238	-5.14
43 1,4-Difluorobenzene	832855	499713	1165997	762215	-8.48
59 Chlorobenzene-d5	625059	375035	875083	613020	-1.93

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	% DIFF
33 Bromochloromethane	16.69	16.19	17.19	16.72	0.19
43 1,4-Difluorobenzene	18.03	17.53	18.53	18.05	0.09
59 Chlorobenzene-d5	22.16	21.66	22.66	22.17	0.04

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

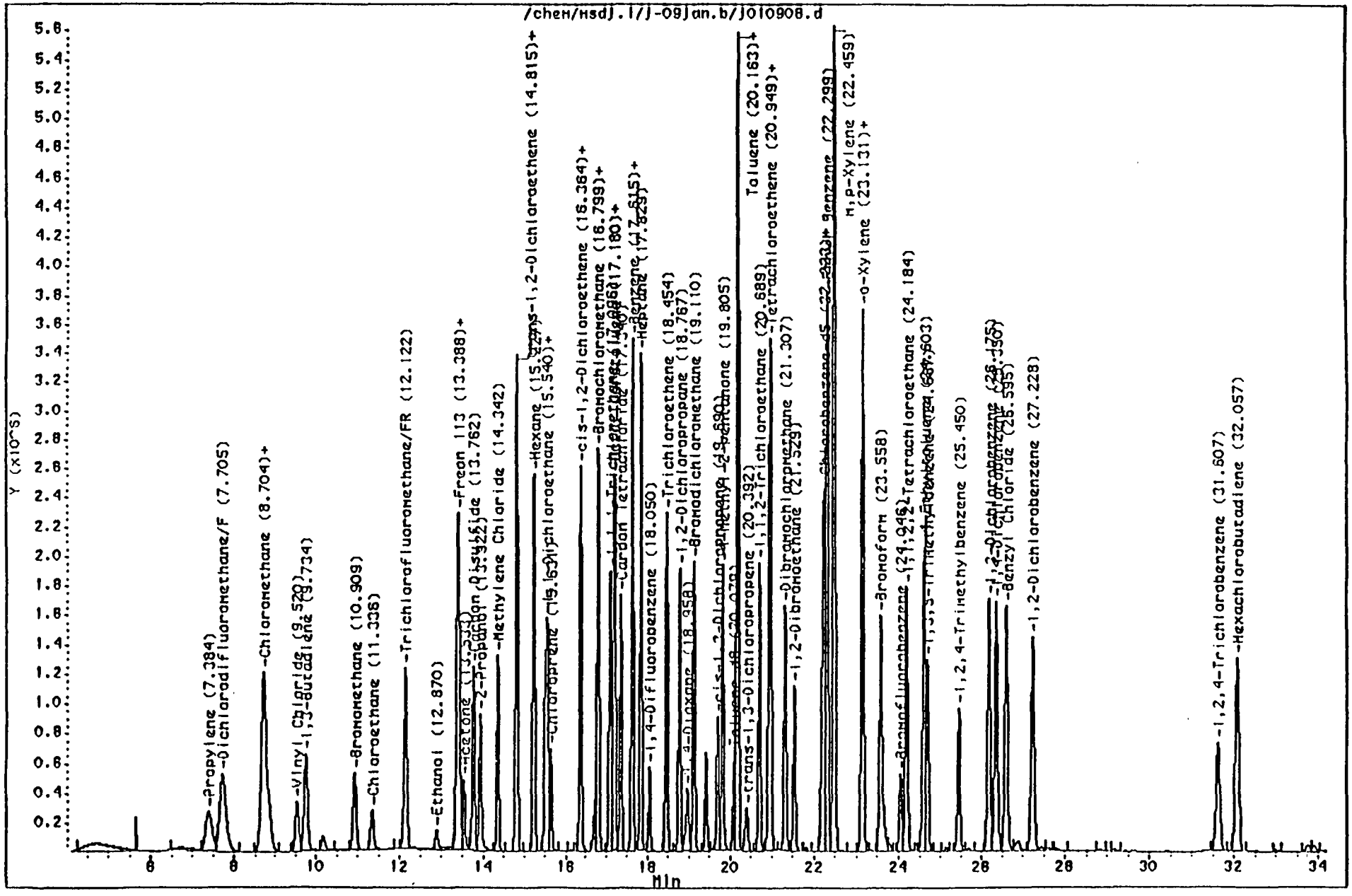
C116

Data File: /chem/msdj.i/j-09jan.b/j010908.d
Date : 09-JAN-97 12:08
Client ID: VSTD025
Sample Info: 1250.0ml #296-25 100ppbv (25.0ppbv)

Column phase: RTx-624

Instrument: msdj.i

Operator: FA
Column diameter: 0.58



Data File: /chem/msdj.i/j-09jan.b/j010909.d
Report Date: 09-Jan-1997 14:21

Air Toxics Limited

AMBIENT AIR METHOD TO14

Data file : /chem/msdj.i/j-09jan.b/j010909.d
Lab Smp Id: VSTD050 Client Smp ID: VSTD050
Inj Date : 09-JAN-1997 12:48
Operator : FA Inst ID: msdj.i
Smp Info : 250.0ml #296-25 100ppbv (50.0ppbv)
Misc Info :
Comment :
Method : /chem/msdj.i/j-09jan.b/to140109.m
Meth Date : 09-Jan-1997 14:19 fayala Quant Type: ISTD
Cal Date : 09-JAN-1997 12:48 Cal File: j010909.d
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: AT.sub
Target Version: 3.12 Sample Matrix: AIR
Concentration Formula: Uf * Vf

Name	Value	Description
Uf	1.000	ng unit correction factor
Vf	1.000	Volumetric correction factor

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
* 33 Bromochloromethane					CAS #: 74-97-5			
16.730	16.730 (1.000)	130	178952	5.0			100.00	9569(Q)
16.730	16.730 (0.000)	128	40760			28.96- 128.96	22.78	
16.730	16.730 (0.000)	49	94160			132.40- 232.40	52.62	
* 43 1,4-Difluorobenzene					CAS #: 540-36-3			
18.050	18.050 (1.000)	114	733906	5.0			100.00	9778
18.050	18.050 (0.000)	88	39048			0.00- 67.60	5.32	
* 59 Chlorobenzene-d5					CAS #: 3114-55-4			
22.177	22.177 (1.000)	117	614884	5.0			100.00	7200
22.177	22.177 (0.000)	82	94596			11.03- 111.03	15.38	
S 39 Octafluorotoluene					CAS #: 434-64-0			
17.211	17.211 (1.029)	217	452389	5.0	5.4		100.00	7856
17.211	17.211 (0.000)	186	90416			15.56- 115.56	19.99	
S 50 Toluene-d8					CAS #: 2037-26-5			
20.079	20.079 (1.112)	98	680769	5.0	5.1		100.00	9856
20.079	20.079 (0.000)	70	21580			0.00- 61.21	3.17	
20.079	20.079 (0.000)	100	125027			14.97- 114.97	18.37	

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RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
$ 66 Bromofluorobenzene					CAS #: 460-00-4			
24.047	24.047 (1.084)	95	465684	5.0	4.9		100.00	9785
24.047	24.047 (0.000)	174	69062			14.31- 114.31	14.83	
24.047	24.047 (0.000)	176	65832			11.30- 111.30	14.14	
1 Propylene					CAS #: 115-07-1			
7.667	7.667 (0.458)	41	1736727	50.0	57.9		100.00	7686(AQ)
7.667	7.667 (0.000)	42	110114			14.09- 114.09	6.34	
7.667	7.667 (0.000)	39	117041			18.12- 118.12	6.74	
6 Dichlorodifluoromethane/FR 12					CAS #: 75-71-8			
7.949	7.949 (0.475)	85	5790517	50.0	51.9		100.00	9503
7.949	7.949 (0.000)	87	189952			0.00- 82.25	3.28	
7 Freon 114					CAS #: 76-14-2			
8.849	8.849 (0.529)	135	4061565	50.0	50.4		100.00	9792
8.849	8.849 (0.000)	137	150016			0.00- 81.00	3.69	
8 Chloromethane					CAS #: 74-87-3			
8.994	8.994 (0.538)	50	2442063	50.0	52.0		100.00	9655
8.994	8.994 (0.000)	52	97187			0.00- 89.97	3.98	
9 Vinyl Chloride					CAS #: 75-01-4			
9.635	9.635 (0.576)	62	2491144	50.0	50.1		100.00	9647
9.635	9.635 (0.000)	64	127312			0.00- 82.04	5.11	
10 1,3-Butadiene					CAS #: 106-99-0			
9.849	9.849 (0.589)	54	1905093	50.0	50.4		100.00	9736(Q)
9.849	9.849 (0.000)	39	329019			50.51- 150.51	17.27	
11 Bromomethane					CAS #: 74-83-9			
10.985	10.985 (0.657)	94	2223659	50.0	53.8		100.00	9576(Q)
10.985	10.985 (0.000)	96	403904			44.51- 144.51	18.16	
12 Chloroethane					CAS #: 75-00-3			
11.382	11.382 (0.680)	64	1345581	50.0	46.9		100.00	9675
11.382	11.382 (0.000)	66	81693			0.00- 81.19	6.07	
14 Trichlorofluoromethane/FR 11					CAS #: 75-69-4			
12.168	12.168 (0.727)	101	5505499	50.0	50.0		100.00	9888(Q)
12.168	12.168 (0.000)	103	710783			15.55- 115.55	12.91	
15 Ethanol					CAS #: 64-17-5			
12.885	12.885 (0.770)	45	581024	50.0	39.6		100.00	
12.893	12.893 (0.771)	46	231436			0.00- 89.83	39.83	
12.893	12.893 (0.771)	43	137187			0.00- 73.61	23.61	
17 1,1-Dichloroethene					CAS #: 75-35-4			
13.389	13.389 (0.800)	96	1485052	50.0	38.7		100.00	6330(Q)

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RT	EXP RT	(REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
17 1,1-Dichloroethene (continued)									
13.389	13.389	(0.000)	61	641768			119.93- 219.93	43.22	
3.389	13.389	(0.000)	98	247808			15.62- 115.62	16.69	
18 Freon 113						CAS #: 76-13-1			
3.427	13.427	(0.803)	151	2992908	50.0	50.0		100.00	9883(Q)
3.427	13.427	(0.000)	153	411904			16.40- 116.40	13.76	
13.427	13.427	(0.000)	101	742603			69.71- 169.71	24.81	
19 Carbon Disulfide						CAS #: 75-15-0			
3.793	13.793	(0.824)	76	6732230	50.0	49.8		100.00	8154
20 Acetone						CAS #: 67-64-1			
3.556	13.556	(0.810)	43	3232939	50.0	45.6		100.00	
3.556	13.556	(0.810)	58	1019775			0.00- 81.54	31.54	
22 2-Propanol						CAS #: 67-63-0			
3.938	13.938	(0.833)	45	4749237	50.0	53.9		100.00	7370
3.938	13.938	(0.000)	43	217285			0.00- 67.16	4.58	
13.938	13.938	(0.000)	59	44712			0.00- 53.53	0.94	
23 Methylene Chloride						CAS #: 75-09-2			
4.365	14.365	(0.859)	84	1998488	50.0	48.7		100.00	9744(Q)
14.365	14.365	(0.000)	49	855744			98.40- 198.40	42.82	
.365	14.365	(0.000)	51	264727			0.00- 95.91	13.25	
24 trans-1,2-Dichloroethene						CAS #: 156-60-5			
14.830	14.830	(0.886)	96	2330112	50.0	51.0		100.00	9592(Q)
.830	14.830	(0.000)	61	1110016			102.43- 202.43	47.64	
.830	14.830	(0.000)	98	457792			12.87- 112.87	19.65	
26 MTBE						CAS #: 1634-04-4			
.823	14.823	(0.886)	73	6159874	50.0	51.3		100.00	6400
.823	14.823	(0.000)	57	382656			0.00- 74.33	6.21	
14.823	14.823	(0.000)	41	374920			0.00- 73.83	6.09	
27 Hexane						CAS #: 110-54-3			
5.235	15.235	(0.911)	57	4170251	50.0	50.0		100.00	7287
15.235	15.235	(0.000)	43	870435			19.23- 119.23	20.87	
.235	15.235	(0.000)	56	660100			2.50- 102.50	15.83	
28 1,1-Dichloroethane						CAS #: 75-34-3			
15.509	15.509	(0.927)	63	4190073	50.0	49.5		100.00	9043
.509	15.509	(0.000)	65	378866			0.00- 81.56	9.04	
29 Chloroprene						CAS #: 126-99-8			
15.639	15.639	(0.935)	53	1472418	50.0	50.9		100.00	7667
.639	15.639	(0.000)	88	221581			1.47- 101.47	15.05	

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RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
29 Chloroprene (continued)								
15.639	15.639 (0.000)	50	108321			0.00- 75.16	7.36	
30 Vinyl Acetate					CAS #: 108-05-4			
15.555	15.555 (0.930)	43	7473687	50.0	54.8		100.00	5928
15.555	15.555 (0.000)	86	182242			0.00- 57.92	2.44	
31 cis-1,2-Dichloroethene					CAS #: 156-59-2			
16.372	16.372 (0.979)	96	2477142	50.0	51.2		100.00	9681(Q)
16.372	16.372 (0.000)	61	1024192			87.23- 187.23	41.35	
16.372	16.372 (0.000)	98	458368			11.42- 111.42	18.50	
32 2-Butanone					CAS #: 78-93-3			
16.356	16.356 (0.978)	72	1055539	50.0	53.4		100.00	7908(Q)
16.356	16.356 (0.000)	43	1511495			429.93- 529.93	143.20	
16.356	16.356 (0.000)	57	102023			0.00- 82.39	9.67	
34 Chloroform					CAS #: 67-66-3			
16.806	16.806 (1.005)	83	4500190	50.0	50.5		100.00	9616
16.806	16.806 (0.000)	85	875200			14.83- 114.83	19.45	
35 Tetrahydrofuran					CAS #: 109-99-9			
16.799	16.799 (1.004)	42	2405545	50.0	51.3		100.00	7504
16.799	16.799 (0.000)	71	241958			0.00- 85.98	10.06	
16.799	16.799 (0.000)	72	261748			0.00- 88.92	10.88	
36 1,1,1-Trichlorethane					CAS #: 71-55-6			
17.096	17.096 (1.022)	97	4196466	50.0	50.3		100.00	9686
17.096	17.096 (0.000)	99	756288			13.21- 113.21	18.02	
37 Cyclohexane					CAS #: 110-82-7			
17.180	17.180 (1.027)	56	3841835	50.0	49.2		100.00	8272(Q)
17.180	17.180 (0.000)	84	788710			23.18- 123.18	20.53	
17.180	17.180 (0.000)	41	641134			9.49- 109.49	16.69	
38 Carbon Tetrachloride					CAS #: 56-23-5			
17.340	17.340 (1.036)	119	3578246	50.0	54.2		100.00	9392(Q)
17.340	17.340 (0.000)	117	1033272			50.73- 150.73	28.88	
40 Benzene					CAS #: 71-43-2			
17.615	17.615 (0.976)	78	7324878	50.0	52.1		100.00	9839
17.615	17.615 (0.000)	77	516399			0.00- 73.77	7.05	
41 1,2-Dichloroethane					CAS #: 107-06-2			
17.615	17.615 (0.976)	62	2868937	50.0	52.3		100.00	8224
17.615	17.615 (0.000)	64	271484			0.00- 82.15	9.46	
42 Heptane					CAS #: 142-82-5			
17.829	17.829 (0.988)	43	5134373	50.0	53.0		100.00	7655

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RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
42 Heptane (continued)								
17.829	17.829 (0.000)	57	801284			0.00- 98.73	15.61	
17.829	17.829 (0.000)	71	817856			0.00- 99.74	15.93	
44 Trichloroethene					CAS #: 79-01-6			
18.454	18.454 (1.022)	95	2840362	50.0	53.0		100.00	7785(Q)
18.454	18.454 (0.000)	130	741440			37.45- 137.45	26.10	
18.454	18.454 (0.000)	97	547904			14.62- 114.62	19.29	
45 1,2-Dichloropropane					CAS #: 78-87-5			
18.767	18.767 (1.040)	63	2517696	50.0	52.0		100.00	9708(Q)
18.767	18.767 (0.000)	62	548396			25.27- 125.27	21.78	
18.767	18.767 (0.000)	41	449275			11.67- 111.67	17.84	
46 1,4-Dioxane					CAS #: 123-91-1			
18.920	18.920 (1.048)	88	1461387	50.0	55.8		100.00	9858(AQ)
18.920	18.920 (0.000)	58	223968			24.84- 124.84	15.33	
18.920	18.920 (0.000)	57	71566			0.00- 73.91	4.90	
47 Bromodichloromethane					CAS #: 75-27-4			
19.110	19.110 (1.059)	83	4565385	50.0	53.7		100.00	9366
19.110	19.110 (0.000)	85	824145			12.86- 112.86	18.05	
48 cis-1,3-Dichloropropene					CAS #: 542-75-6			
19.690	19.690 (1.091)	75	1859281	72.0	77.9		100.00	9626(A)
19.690	19.690 (0.000)	77	173332			0.00- 81.81	9.32	
19.690	19.690 (0.000)	39	311599			7.19- 107.19	16.76	
49 4-Methyl-2-pentanone					CAS #: 108-10-1			
19.812	19.812 (1.098)	43	5506136	50.0	52.6		100.00	9510
19.812	19.812 (0.000)	58	587107			0.00- 86.07	10.66	
19.812	19.812 (0.000)	85	201239			0.00- 62.36	3.65	
51 Toluene					CAS #: 108-88-3			
20.179	20.179 (1.118)	92	4680118	50.0	55.3		100.00	9841(AQ)
20.179	20.179 (0.000)	91	2398449			119.81- 219.81	51.25	
52 Octane					CAS #: 111-65-9			
20.156	20.156 (1.117)	57	2293983	50.0	57.7		100.00	8394(AQ)
20.156	20.156 (0.000)	85	799539			55.06- 155.06	34.85	
20.156	20.156 (0.000)	43	2093293			225.06- 325.06	91.25	
53 trans-1,3-Dichloropropene					CAS #: 542-75-6			
20.407	20.407 (0.920)	75	470830	10.0	8.9		100.00	8420
20.407	20.407 (0.000)	77	40884			0.00- 81.39	8.68	
54 1,1,2-Trichloroethane					CAS #: 79-00-5			
20.697	20.697 (0.933)	97	2393999	50.0	50.1		100.00	9777(Q)

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
54 1,1,2-Trichloroethane (continued)								
20.697	20.697 (0.000)	99	427328			12.62- 112.62	17.85	
20.697	20.697 (0.000)	83	593421			36.96- 136.96	24.79	
55 Tetrachloroethene					CAS #: 127-18-4			
20.964	20.964 (0.945)	166	2898508	50.0	53.8		100.00	9113(Q)
20.964	20.964 (0.000)	129	676928			27.81- 127.81	23.35	
20.964	20.964 (0.000)	131	653304			25.09- 125.09	22.54	
56 2-Hexanone					CAS #: 591-78-6			
20.926	20.926 (0.944)	43	6043587	50.0	53.5		100.00	8587
20.926	20.926 (0.000)	58	905243			0.23- 100.23	14.98	
20.926	20.926 (0.000)	100	165777			0.00- 59.20	2.74	
57 Dibromochloromethane					CAS #: 124-48-1			
21.315	21.315 (0.961)	129	3471869	50.0	53.2		100.00	8383
21.315	21.315 (0.000)	208	42200			0.00- 54.50	1.22	
58 1,2-Dibromoethane					CAS #: 106-93-4			
21.537	21.537 (0.971)	107	3220692	50.0	51.1		100.00	9715(Q)
21.537	21.537 (0.000)	109	811328			44.77- 144.77	25.19	
60 Chlorobenzene					CAS #: 108-90-7			
22.223	22.223 (1.002)	112	5538471	50.0	52.7		100.00	9732
22.223	22.223 (0.000)	114	454016			0.00- 81.49	8.20	
22.223	22.223 (0.000)	77	894267			12.02- 112.02	16.15	
61 Ethyl Benzene					CAS #: 100-41-4			
22.307	22.307 (1.006)	106	3615296	50.0	55.3		100.00	(AH)
22.307	22.307 (1.006)	91	12466061			294.81- 394.81	344.81	
62 m,p-Xylene					CAS #: 108-38-3			
22.467	22.467 (1.013)	106	7426675	100	117		100.00	(AMH)
22.467	22.467 (1.013)	91	15592489			159.95- 259.95	209.95	
63 o-Xylene					CAS #: 95-47-6			
23.131	23.131 (1.043)	106	2164951	50.0	55.0		100.00	9648(Q)
23.131	23.131 (0.000)	91	1273533			172.76- 272.76	58.83	
64 Styrene					CAS #: 100-42-5			
23.139	23.139 (1.043)	104	4732013	50.0	57.3		100.00	9848(A)
23.139	23.139 (0.000)	78	611411			0.00- 99.15	12.92	
65 Bromoform					CAS #: 75-25-2			
23.566	23.566 (1.063)	171	1780432	50.0	56.5		100.00	8671(AQ)
23.566	23.566 (0.000)	173	834752			140.99- 240.99	46.88	
67 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5			
24.184	24.184 (1.090)	83	4761453	50.0	49.1		100.00	9854

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
67 1,1,2,2-Tetrachloroethane (continued)								
24.184	24.184 (0.000)	85	711269			14.86- 114.86	14.94	
68 4-Ethyltoluene					CAS #: 622-96-8			
24.603	24.603 (1.109)	105	7219379	50.0	54.5		100.00	9317(M)
24.603	24.603 (1.109)	120	1852134	50.0	54.4	0.00- 75.68	25.66	
69 1,3,5-Trimethylbenzene					CAS #: 108-67-8			
24.687	24.687 (1.113)	105	3468244	50.0	54.6		100.00	8878(QM)
24.687	24.687 (1.113)	120	1601173	50.0	54.7	151.38- 251.38	46.17	
71 1,2,4-Trimethylbenzene					CAS #: 95-63-6			
25.450	25.450 (1.148)	105	2848745	50.0	55.2		100.00	8855(A)
25.450	25.450 (0.000)	120	273320			0.00- 91.92	9.59	
72 1,3-Dichlorobenzene					CAS #: 541-73-1			
26.183	26.183 (1.181)	146	3646376	50.0	55.8		100.00	(A)
26.183	26.183 (1.181)	148	2319944			13.62- 113.62	63.62	
26.183	26.183 (1.181)	111	1641694			0.00- 95.02	45.02	
73 1,4-Dichlorobenzene					CAS #: 106-46-7			
26.358	26.358 (1.189)	146	3547527	50.0	55.7		100.00	(A)
26.358	26.358 (1.189)	148	2261358			13.74- 113.74	63.74	
26.358	26.358 (1.189)	111	1541648			0.00- 93.46	43.46	
74 Benzyl Chloride					CAS #: 100-44-7			
26.602	26.602 (1.200)	91	7064075	50.0	57.5		100.00	9318(A)
26.602	26.602 (0.000)	126	248896			0.00- 67.08	3.52	
75 1,2-Dichlorobenzene					CAS #: 95-50-1			
27.236	27.236 (1.228)	146	3170440	50.0	54.3		100.00	9825(Q)
27.236	27.236 (0.000)	148	396619			13.87- 113.87	12.51	
27.236	27.236 (0.000)	111	287881			0.00- 96.36	9.08	
76 1,2,4-Trichlorobenzene					CAS #: 120-82-1			
31.622	31.622 (1.426)	180	1509428	50.0	61.1		100.00	9804(AQ)
31.622	31.622 (0.000)	182	225280			43.82- 143.82	14.92	
77 Hexachlorobutadiene					CAS #: 87-68-3			
32.065	32.065 (1.446)	225	1426605	50.0	54.8		100.00	9721(Q)
32.065	32.065 (0.000)	223	152102			13.56- 113.56	10.66	

Qual Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
Q - Qualifier signal failed the ratio test.

QC Flag Legend

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

Data File: /chem/msdj.i/j-09jan.b/j010909.d
Report Date: 09-Jan-1997 13:20

Air Toxics Limited

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdj.i
Lab File ID: j010909.d
Lab Smp Id: VSTD050
Analysis Type: VOA
Quant Type: ISTD
Operator: FA
Method File: /chem/msdj.i/j-09jan.b/TO140109.m
Misc Info:

Calibration Date: JAN/09/97
Calibration Time: 1044
Client Smp ID: VSTD050
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	% DIFF
33 Bromochloromethane	192118	115271	268965	178952	-6.85
43 1,4-Difluorobenzene	832855	499713	1165997	733906	-11.88
59 Chlorobenzene-d5	625059	375035	875083	614884	-1.63

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	% DIFF
33 Bromochloromethane	16.69	16.19	17.19	16.73	0.23
43 1,4-Difluorobenzene	18.03	17.53	18.53	18.05	0.09
59 Chlorobenzene-d5	22.16	21.66	22.66	22.18	0.07

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

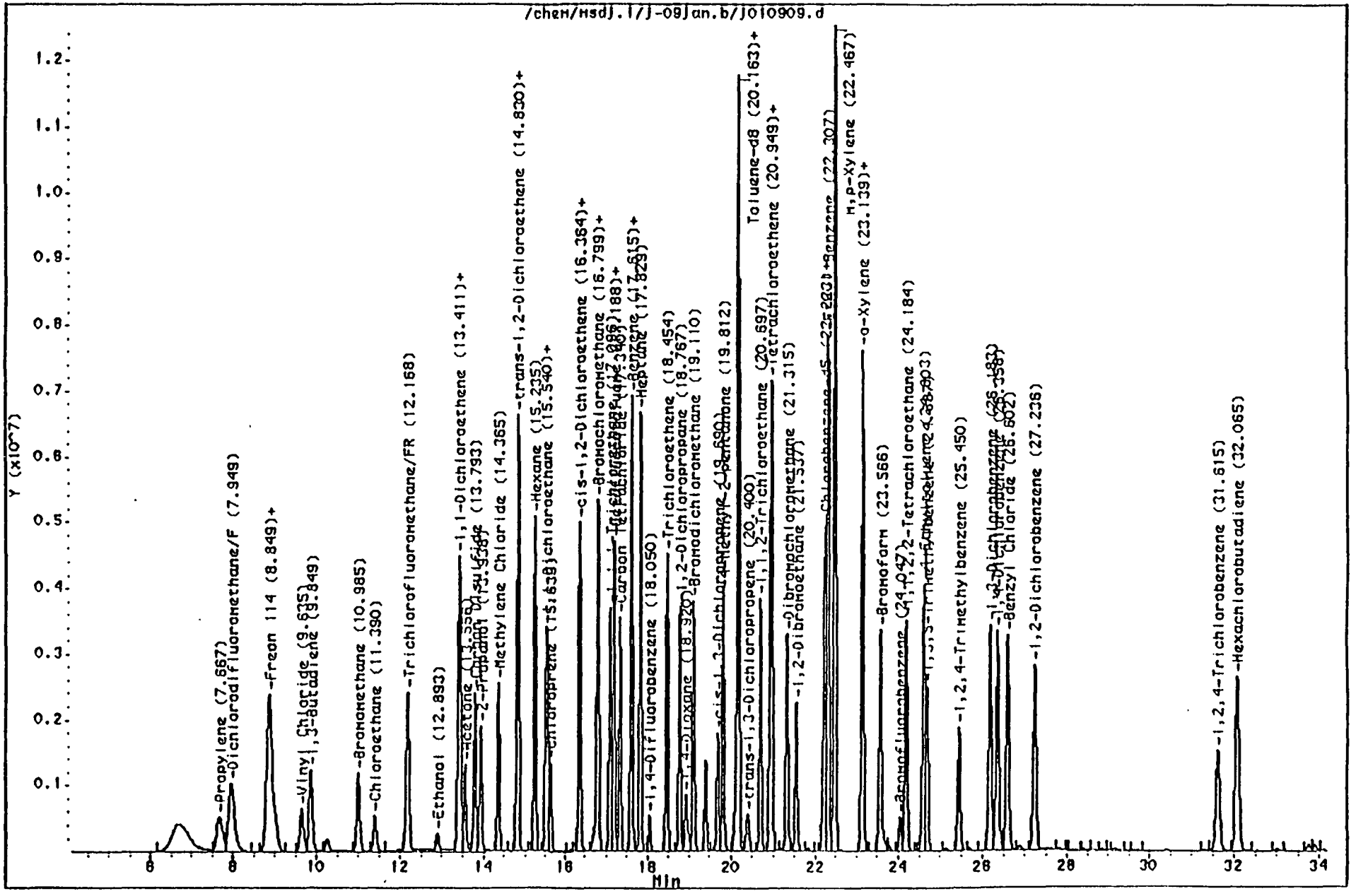
C126

Data File: /chem/msdj.i/j-09jan.b/j010909.d
Date : 09-JAN-97 12:48
Client ID: VSTD050
Sample Info: 250.0ml M296-25 100ppbv (50.0ppbv)

Column phase: RTx-624

Instrument: msdj.i

Operator: FA
Column diameter: 0.58



Data File: /chem/msdj.i/j-31mar.b/j033103.d
Report Date: 31-Mar-1997 11:05

0 out
MH
3/31/97

C127

Air Toxics Limited

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msdj.i
Lab File ID: j033103.d
Analysis Type: AIR
Lab Sample ID: Method Spike
Method File: /chem/msdj.i/j-31mar.b/to140109.m

Injection Date: 31-MAR-1997 10:46
Init. Calibration Date(s): JAN/09/97 JAN/09/97
Init. Calibration Times: 10:44 12:48
Quant Type: ISTD

COMPOUND	RRF	RF10	MIN RRF	%D	MAX %D
$ 35 Octafluorotoluene	2.317	2.232	0.010	3.7	30.0
$ 49 Toluene-d8	0.905	0.945	0.010	4.4	30.0
$ 65 Bromofluorobenzene	0.774	0.851	0.010	9.9	30.0
16 Acetone	1.980	2.665	0.010	34.6	40.0
17 Carbon Disulfide	3.780	3.849	0.010	1.8	40.0
20 Methylene Chloride	1.147	1.149	0.010	0.2	30.0
21 trans-1,2-Dichloroethene	1.275	1.247	0.010	2.2	40.0
28 2-Butanone	0.552	0.685	0.010	24.2	40.0
29 cis-1,2-Dichloroethene	1.350	1.456	0.010	7.9	30.0
33 1,1,1-Trichlorethane	2.330	2.645	0.010	13.5	30.0
37 Benzene	0.957	1.064	0.010	11.2	30.0
38 1,2-Dichloroethane	0.374	0.440	0.010	17.6	30.0
41 Trichloroethene	0.365	0.408	0.010	11.9	30.0
43 1,2-Dichloropropane	0.330	0.393	0.010	19.4	30.0
51 Toluene	0.577	0.637	0.010	10.4	30.0
55 Tetrachloroethene	0.438	0.449	0.010	2.5	30.0
59 Chlorobenzene	0.854	0.884	0.010	3.5	30.0
60 Ethyl Benzene	0.532	0.546	0.010	2.8	30.0
61 m,p-Xylene	0.518	0.527	0.010	1.8	30.0
62 o-Xylene	0.320	0.332	0.010	3.6	30.0
63 Styrene	0.671	0.649	0.010	3.3	30.0

0128

Air Toxics Limited

AMBIENT AIR METHOD TO14

Data file : /chem/msdj.i/j-31mar.b/j033103.d
Lab Smp Id: Client Smp ID: Method Spike
Inj Date : 31-MAR-1997 10:46
Operator : MH Inst ID: msdj.i
Smp Info : #296-97 100ppbv of TO14(O) Std. 50mL(10ppbv)
Misc Info :
Comment :
Method : /chem/msdj.i/j-31mar.b/to140109.m
Meth Date : 31-Mar-1997 11:09 mhe Quant Type: ISTD
Cal Date : 09-JAN-1997 12:48 Cal File: j010909.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: ~~TO14~~.sub
Target Version: 3.12 Sample Matrix: AIR
Concentration Formula: Uf * Vf

Parsons
MH
3/31/97

Name	Value	Description
Uf	1.000	ng unit correction factor
Vf	1.000	Volumetric correction factor

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
* 30 Bromochloromethane					CAS #: 74-97-5			
15.784	15.820 (1.000)	130	197959	5.0			100.00	9130(Q)
15.784	15.820 (0.000)	128	45144			26.08- 126.08	22.80	
15.784	15.820 (0.000)	49	114408			142.81- 242.81	57.79	
$ 35 Octafluorotoluene					CAS #: 434-64-0			
16.310	16.346 (1.033)	217	441857	5.0	4.8		100.00	7173
16.310	16.346 (0.000)	186	96680			17.98- 117.98	21.88	
* 40 1,4-Difluorobenzene					CAS #: 540-36-3			
17.119	17.155 (1.000)	114	879427	5.0			100.00	9216
17.119	17.155 (0.000)	88	52520			0.00- 69.13	5.97	
$ 49 Toluene-d8					CAS #: 2037-26-5			
19.125	19.169 (1.117)	98	830841	5.0	5.2		100.00	9952
19.125	19.169 (0.000)	70	34719			0.00- 63.97	4.18	
19.125	19.169 (0.000)	100	165323			16.53- 116.53	19.90	
* 58 Chlorobenzene-d5					CAS #: 3114-55-4			
21.177	21.229 (1.000)	117	791228	5.0			100.00	9857
21.177	21.229 (0.000)	82	138905			14.81- 114.81	17.56	

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
65 Bromofluorobenzene					CAS #: 460-00-4			
23.001	23.060 (1.086)	95	673448	5.0	5.5		100.00	8153
23.001	23.060 (0.000)	174	100208			10.31- 110.31	14.88	
23.001	23.060 (0.000)	176	95072			7.57- 107.57	14.12	
16 Acetone					CAS #: 67-64-1			
12.541	12.578 (0.795)	43	1055094	10.0	13.4		100.00	
12.541	12.578 (0.795)	58	303951			0.00- 79.57	28.81	
17 Carbon Disulfide					CAS #: 75-15-0			
12.671	12.707 (0.803)	76	1524034	10.0	10.2		100.00	7926
20 Methylene Chloride					CAS #: 75-09-2			
13.380	13.409 (0.848)	84	454845	10.0	10.0		100.00	9596(Q)
13.380	13.409 (0.000)	49	218944			102.16- 202.16	48.14	
13.380	13.409 (0.000)	51	68928			0.00- 96.86	15.15	
21 trans-1,2-Dichloroethene					CAS #: 156-60-5			
13.861	13.890 (0.878)	96	493606	10.0	9.8		100.00	8261(Q)
13.861	13.890 (0.000)	61	262739			113.36- 213.36	53.23	
13.861	13.890 (0.000)	98	99296			13.58- 113.58	20.12	
28 2-Butanone					CAS #: 78-93-3			
15.417	15.461 (0.977)	72	271245	10.0	12.4		100.00	7899(Q)
15.417	15.461 (0.000)	43	405346			482.17- 582.17	149.44	
15.417	15.461 (0.000)	57	27909			0.00- 86.64	10.29	
29 cis-1,2-Dichloroethene					CAS #: 156-59-2			
15.433	15.469 (0.978)	96	576630	10.0	10.8		100.00	8240(Q)
15.433	15.469 (0.000)	61	270726			103.69- 203.69	46.95	
15.433	15.469 (0.000)	98	112144			13.66- 113.66	19.45	
33 1,1,1-Trichlorethane					CAS #: 71-55-6			
16.142	16.186 (1.023)	97	1047376	10.0	11.4		100.00	7506
16.142	16.186 (0.000)	99	201728			14.39- 114.39	19.26	
37 Benzene					CAS #: 71-43-2			
16.669	16.705 (0.974)	78	1872204	10.0	11.1		100.00	7911
16.669	16.705 (0.000)	77	134756			0.00- 74.19	7.20	
38 1,2-Dichloroethane					CAS #: 107-06-2			
16.676	16.713 (0.974)	62	773218	10.0	11.8		100.00	6334
16.676	16.713 (0.000)	64	74816			0.00- 83.16	9.68	
41 Trichloroethene					CAS #: 79-01-6			
17.515	17.552 (1.023)	95	718002	10.0	11.2		100.00	8799(Q)
17.515	17.552 (0.000)	130	187904			36.66- 136.66	26.17	
17.515	17.552 (0.000)	97	143552			16.20- 116.20	19.99	

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
43 1,2-Dichloropropane					CAS #: 78-87-5			
17.821	17.865 (1.041)	63	691940	10.0	11.9		100.00	8654(Q)
17.821	17.865 (0.000)	62	156818			24.07- 124.07	22.66	
17.821	17.865 (0.000)	41	131181			11.72- 111.72	18.96	
51 Toluene					CAS #: 108-88-3			
19.217	19.268 (1.123)	92	1119944	10.0	11.0		100.00	8549(Q)
19.217	19.268 (0.000)	91	560665			115.23- 215.23	50.06	
55 Tetrachloroethene					CAS #: 127-18-4			
20.003	20.047 (0.945)	166	710048	10.0	10.2		100.00	9069(Q)
20.003	20.047 (0.000)	129	170304			29.48- 129.48	23.98	
20.003	20.047 (0.000)	131	166656			27.78- 127.78	23.47	
59 Chlorobenzene					CAS #: 108-90-7			
21.223	21.275 (1.002)	112	1398837	10.0	10.4		100.00	9147
21.223	21.275 (0.000)	114	119384			0.00- 81.98	8.53	
21.223	21.275 (0.000)	77	249531			16.05- 116.05	17.84	
60 Ethyl Benzene					CAS #: 100-41-4			
21.307	21.366 (1.006)	106	864800	10.0	10.3		100.00	
21.307	21.366 (1.006)	91	3022843			296.25- 396.25	349.54	
61 m,p-Xylene					CAS #: 108-38-3			
21.467	21.519 (1.014)	106	1667830	20.0	20.4		100.00	
21.467	21.519 (1.014)	91	3633808			164.96- 264.96	217.88	
62 o-Xylene					CAS #: 95-47-6			
22.108	22.168 (1.044)	106	524805	10.0	10.4		100.00	7789(Q)
22.108	22.168 (0.000)	91	318705			179.83- 279.83	60.73	
63 Styrene					CAS #: 100-42-5			
22.123	22.183 (1.045)	104	1027722	10.0	9.7		100.00	8696
22.123	22.183 (0.000)	78	137549			0.93- 100.93	13.38	

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Audit History For: /chem/msdj.i/j-31mar.b/j033103.d

MH
3/31/97

0131

Change Date: 31-Mar-97 11:02
Change Made by: Automation

Parameter: ChemLan Data Transfer
Old Value:
New Value:
Reason For Change: MS Data from Instrument: msdj.i

Change Date: 31-Mar-97 11:02
Change Made by: Automation

Parameter: Target Processing
Old Value:
New Value: Method: /chem/msdj.i/j-31mar.b/to140109.m
Reason For Change: Complete Target Compound Processing

Change Date: 31-Mar-97 11:04
Change Made by: mhe

Parameter: date
Old Value: 31-MAR-97 10:46
New Value: 31-MAR-1997 10:46
Reason For Change: N/A

Change Date: 31-Mar-97 11:04
Change Made by: mhe

Parameter: Compound Sublist
Old Value: AT.sub
New Value: Parsons.sub
Reason For Change: N/A

Change Date: 31-Mar-97 11:04
Change Made by: mhe

Parameter: Sample Type
Old Value: Non-Calibration Sample
New Value: Continuining Calibration
Reason For Change: N/A

Change Date: 31-Mar-97 11:04
Change Made by: mhe

Parameter: QC Sample Type
Old Value: BLANK
New Value: METHSPIKE
Reason For Change: N/A

Change Date: 31-Mar-97 11:04
Change Made by: mhe

Parameter: Spike Sample
Old Value: Off
New Value: On
Reason For Change: N/A

Change Date: 31-Mar-97 11:04
Change Made by: mhe

Parameter: Lab ID
Old Value:
New Value: Method Spike
Reason For Change: N/A

Change Date: 31-Mar-97 11:04
Change Made by: mhe

Parameter: Client ID
Old Value: VSTD150
New Value: Method Spike
Reason For Change: N/A

Change Date: 31-Mar-97 11:04
Change Made by: mhe

Parameter: Target Processing
Old Value:
New Value: Method: /chem/msdj.i/j-31mar.b/to140109.m
Reason For Change: Quantitation

Change Date: 31-Mar-97 11:05
Change Made by: mhe

Parameter: Target Processing
Old Value:
New Value: Method: /chem/msdj.i/j-31mar.b/to140109.m
Reason For Change: Quantitation

Change Date: 31-Mar-97 11:08
Change Made by: mhe

Parameter: Compound Sublist
Old Value: Parsons.sub
New Value: TO14.sub
Reason For Change: N/A

Change Date: 31-Mar-97 11:08
Change Made by: mhe

Parameter: Target Processing
Old Value:
New Value: Method: /chem/msdj.i/j-31mar.b/to140109.m
Reason For Change: Quantitation

Change Date: 31-Mar-97 11:09
Change Made by: mhe

Parameter: Lab ID
Old Value: Method Spike
New Value:
Reason For Change: N/A

Change Date: 31-Mar-97 11:09
Change Made by: mhe

Parameter: Target Processing
Old Value:
New Value: Method: /chem/msdj.i/j-31mar.b/to140109.m

Reason For Change: Quantitation

hange Date: 31-Mar-97 11:14
hange Made by: mhe

Parameter: Compound Sublist
Old Value: TO14.sub
New Value: Parsons.sub
Reason For Change: N/A

hange Date: 31-Mar-97 11:14
hange Made by: mhe

Parameter: Target Processing
Old Value:
New Value: Method: /chem/msdj.i/j-31mar.b/to140109.m
Reason For Change: Quantitation

0134

Air Toxics Limited

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdj.i
Lab File ID: j033103.d
Lab Smp Id:
Analysis Type: VOA
Quant Type: ISTD
Operator: MH
Method File: /chem/msdj.i/j-31mar.b/to140109.m
Misc Info:

Calibration Date: 03/31/97
Calibration Time: 0841
Client Smp ID: Method Spike
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	% DIFF
30 Bromochloromethane	195754	117452	274056	197959	1.13
40 1,4-Difluorobenzene	884490	530694	1238286	879427	-0.57
58 Chlorobenzene-d5	781371	468823	1093919	791228	1.26

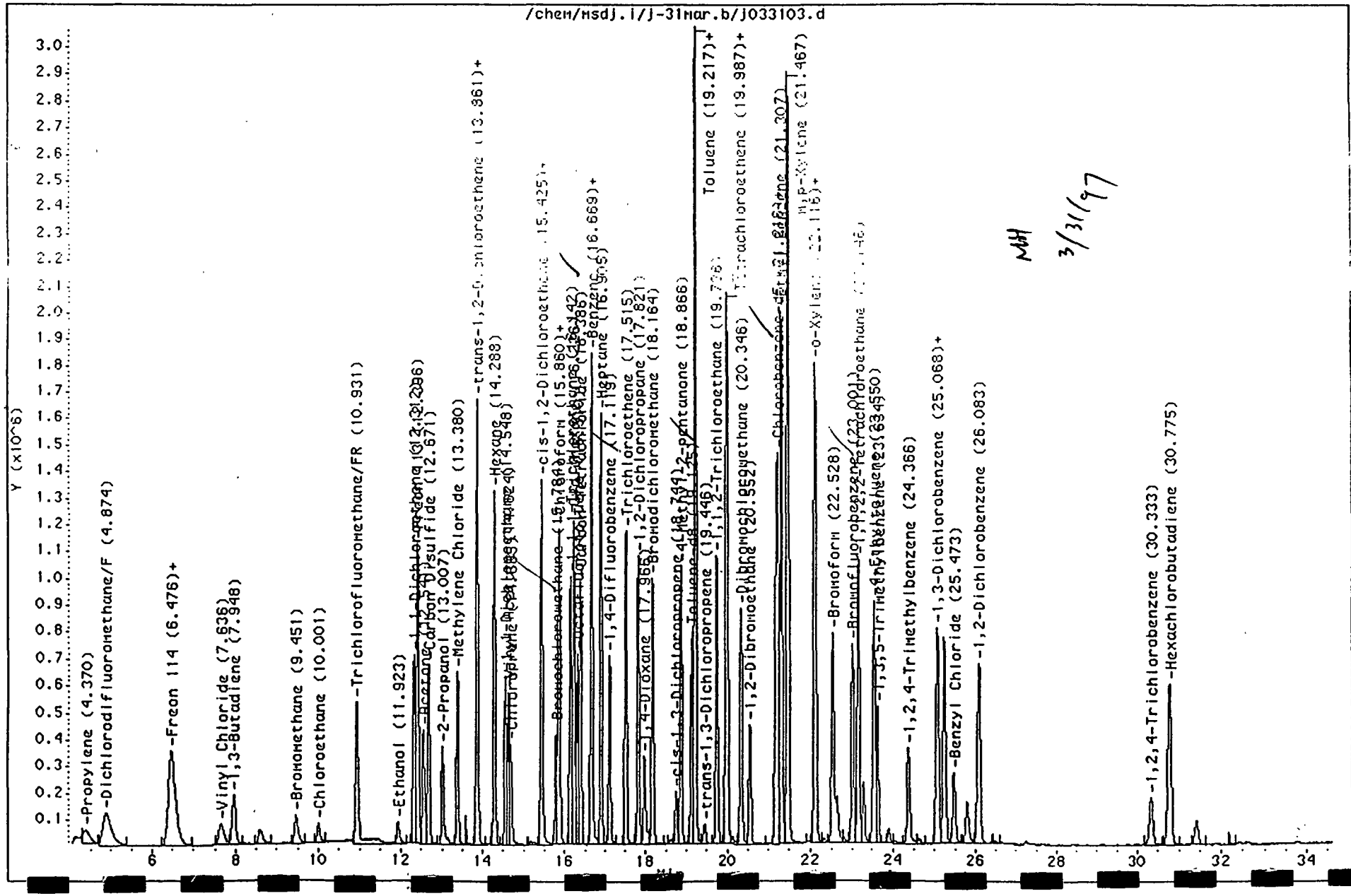
COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	% DIFF
30 Bromochloromethane	15.78	15.28	16.28	15.78	0.00
40 1,4-Difluorobenzene	17.12	16.62	17.62	17.12	0.00
58 Chlorobenzene-d5	21.19	20.69	21.69	21.18	-0.04

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

NH
3/31/97

Data File: /chem/msdj.i/j-31mar.b/j033103.d
Date : 31-MAR-1997 10:46
Client ID: Method Spike
Sample Info: #296-97 100ppbv of T014(0) Std. 50mL(10ppbv)

Instrument: msdj.i
Operator: MH
Column phase: RTx-624
Column diameter: 0.58



Data File: /chem/msdj.i/j-31mar.b/j033103.d

Date : 31-MAR-1997 10:46

0136

Client ID: Method Spike

Instrument: msdj.i

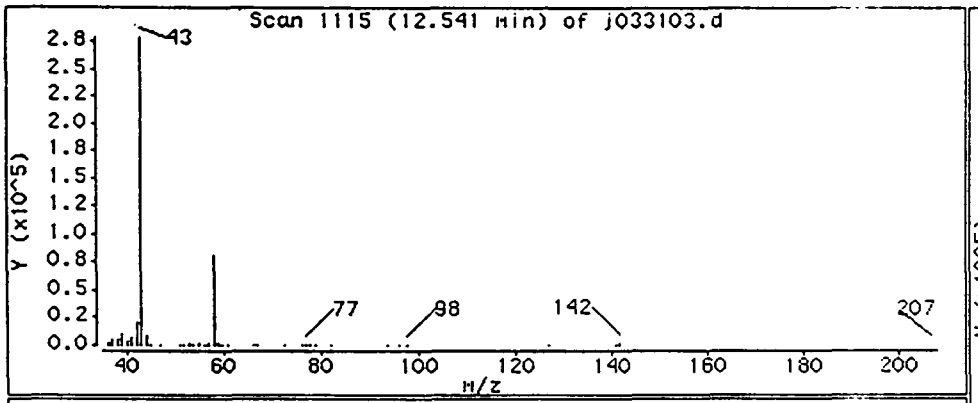
Sample Info: #296-97 100ppbv of TO14(0) Std. 50mL(10ppbv)

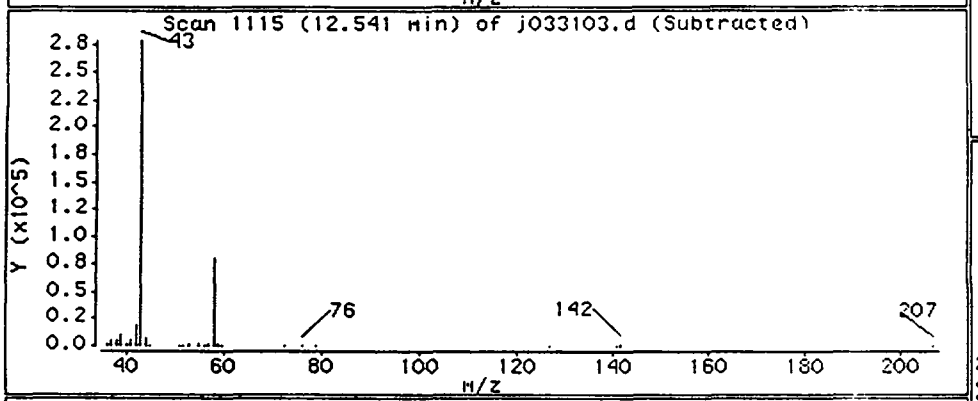
Operator: MH

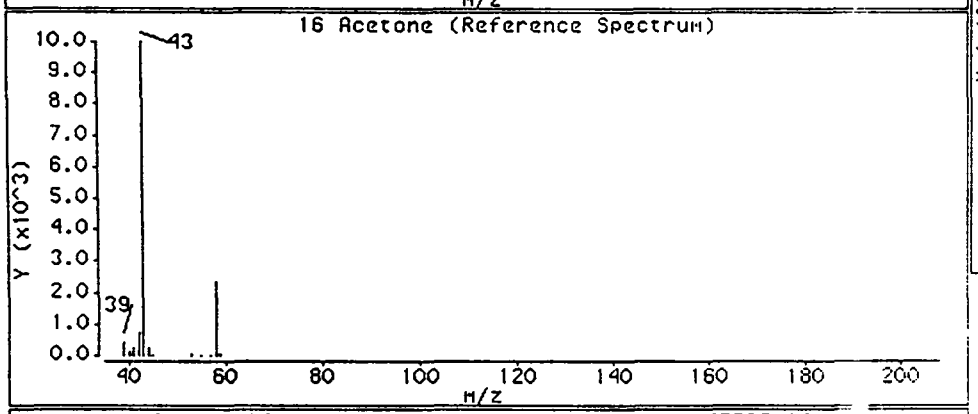
Column phase: RTx-624

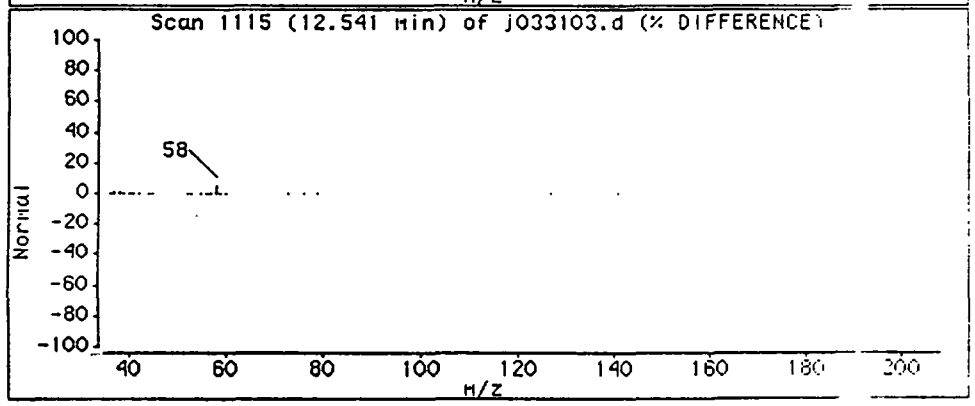
Column diameter: 0.58

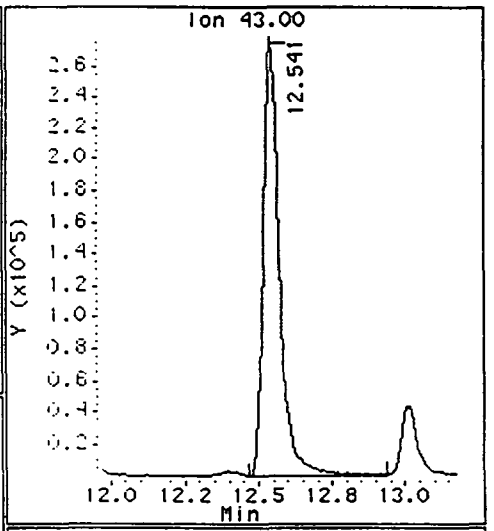
16 Acetone

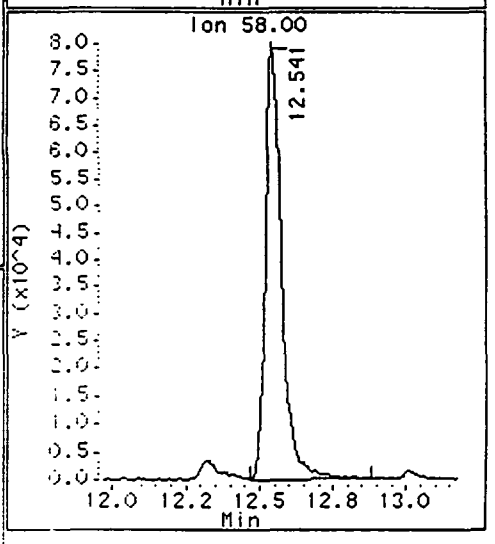












Data File: /chem/msdj.i/j-31mar.b/j033103.d

Date : 31-MAR-1997 10:46

0137

Client ID: Method Spike

Instrument: msdj.i

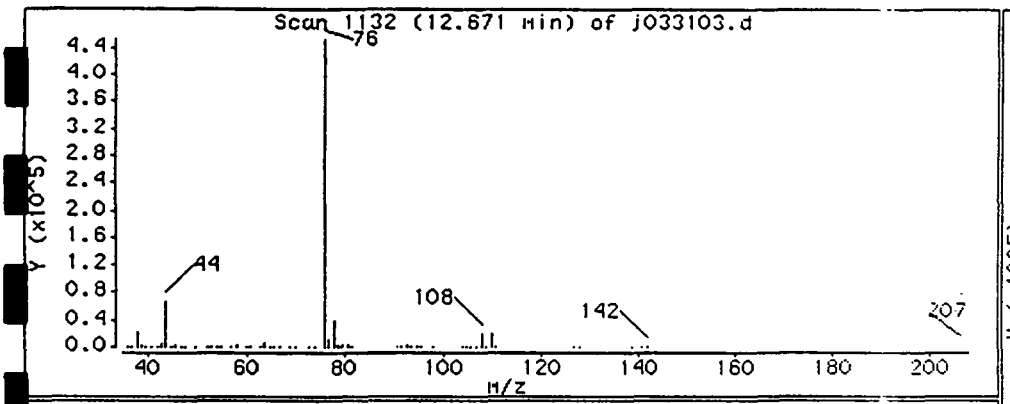
Sample Info: #296-97 100ppbv of TO14(0) Std. 50mL(10ppbv)

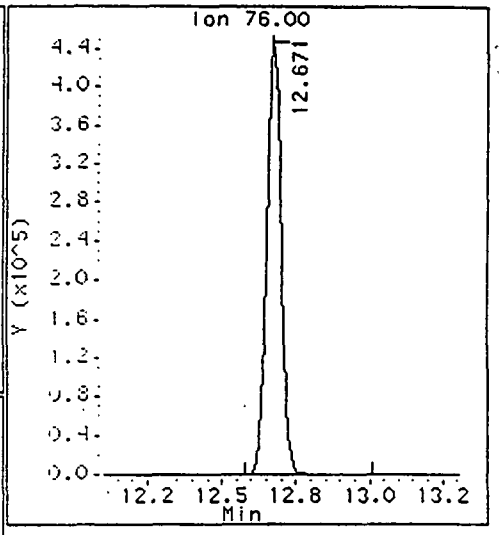
Operator: MH

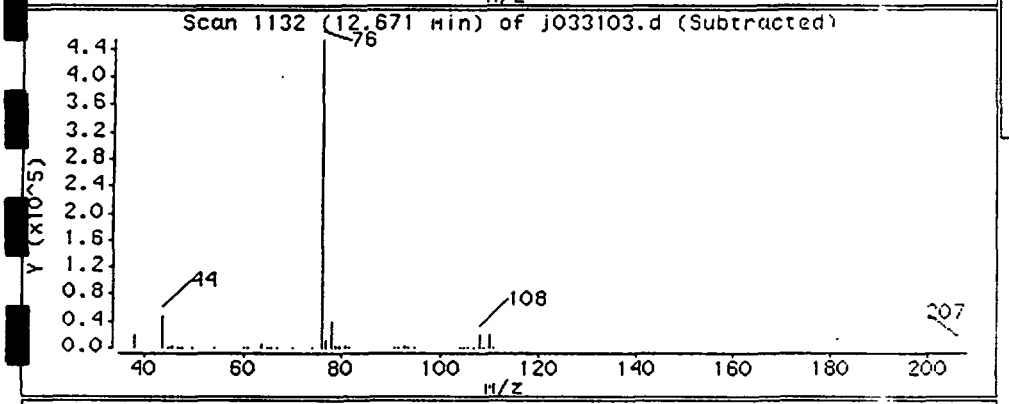
Column phase: RTx-624

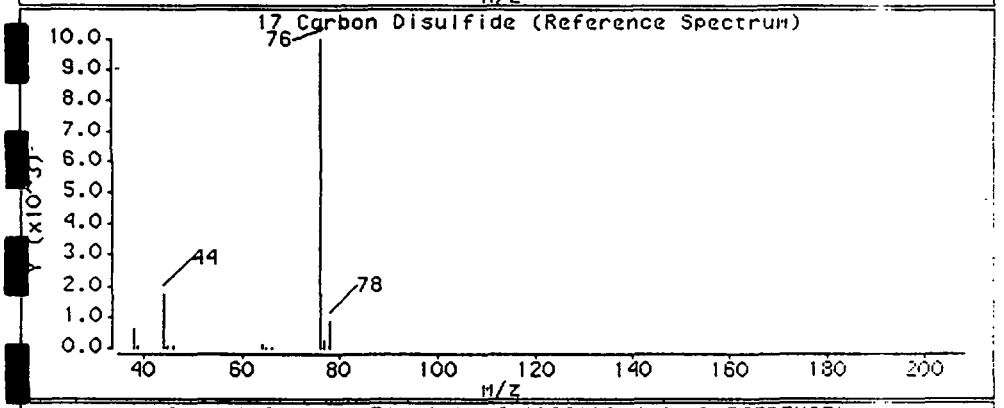
Column diameter: 0.53

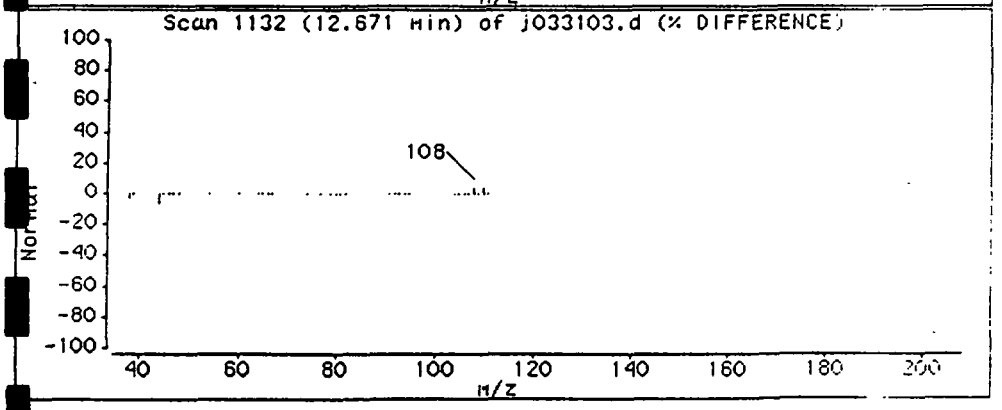
17 Carbon Disulfide











Data File: /chem/msdj.i/j-31mar.b/j033103.d

Date : 31-MAR-1997 10:46

Client ID: Method Spike

Instrument: msdj.i

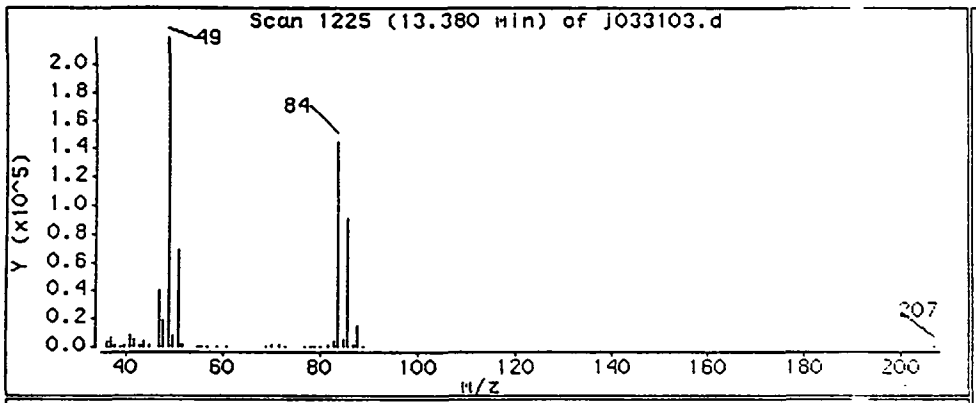
Sample Info: #296-97 100ppbv of T014(0) Std. 50mL(10ppbv)

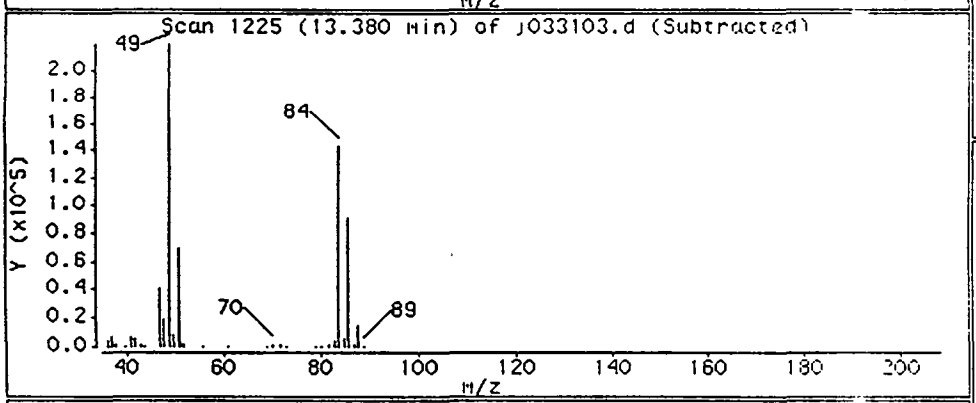
Operator: MH

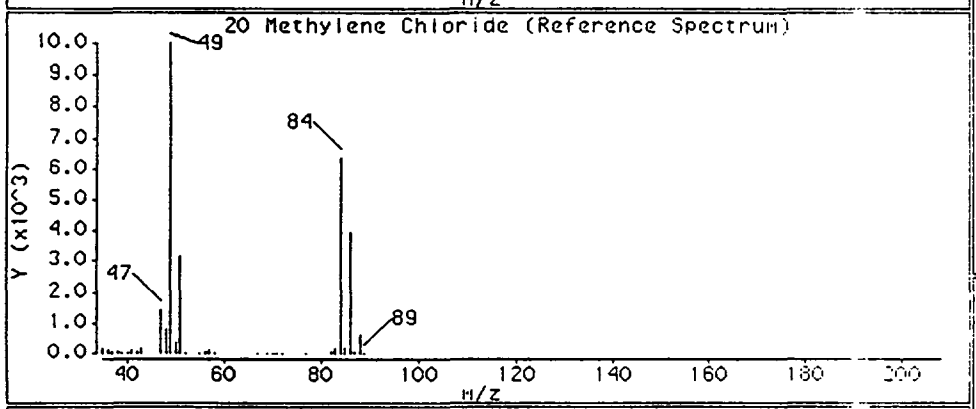
Column phase: RTx-624

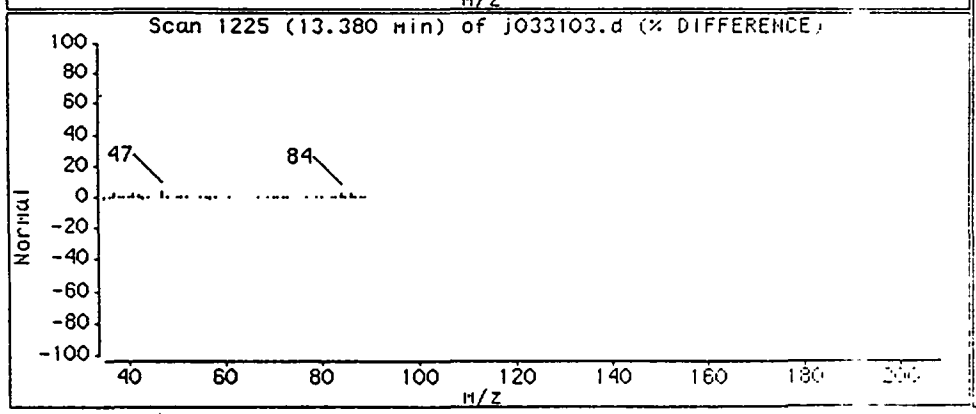
Column diameter: 0.58

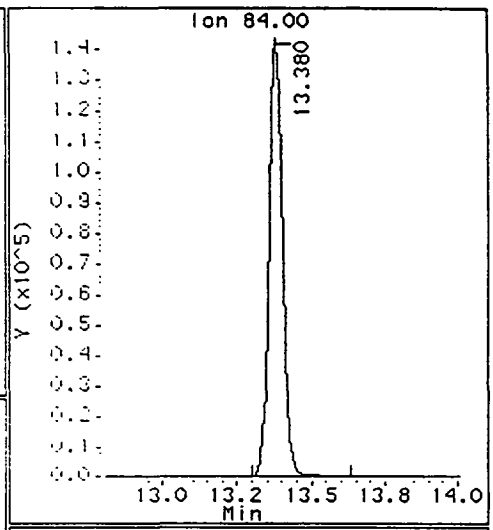
20 Methylene Chloride

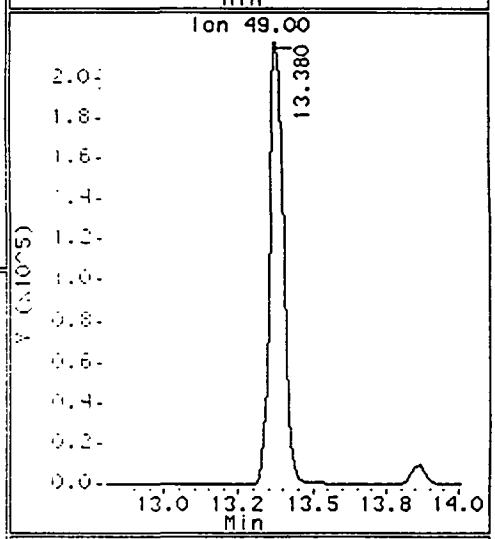


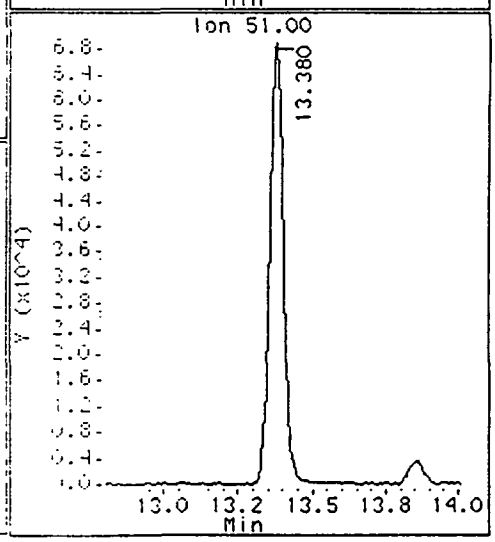












Data File: /chem/msdj.i/j-31mar.b/j033103.d

Date : 31-MAR-1997 10:46

Client ID: Method Spike

Instrument: msdj.i

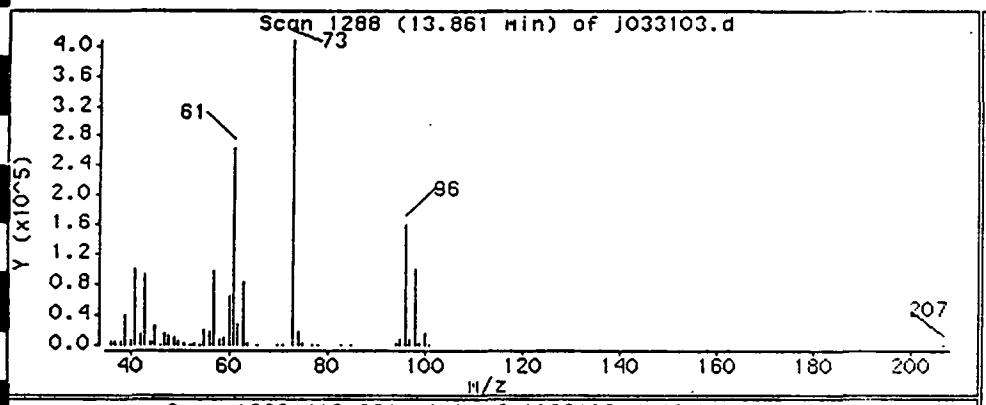
Sample Info: #296-97 100ppbv of T014(0) Std. 50mL(10ppbv)

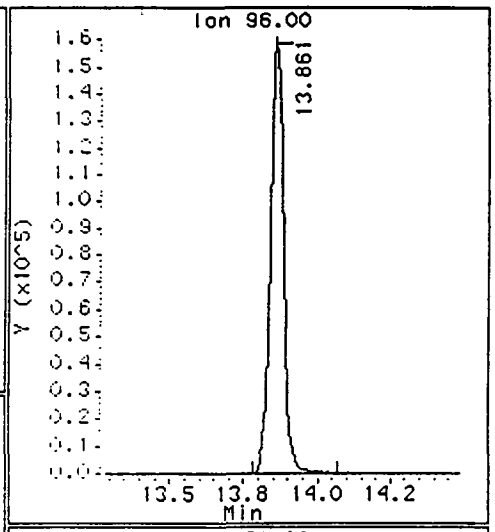
Operator: MH

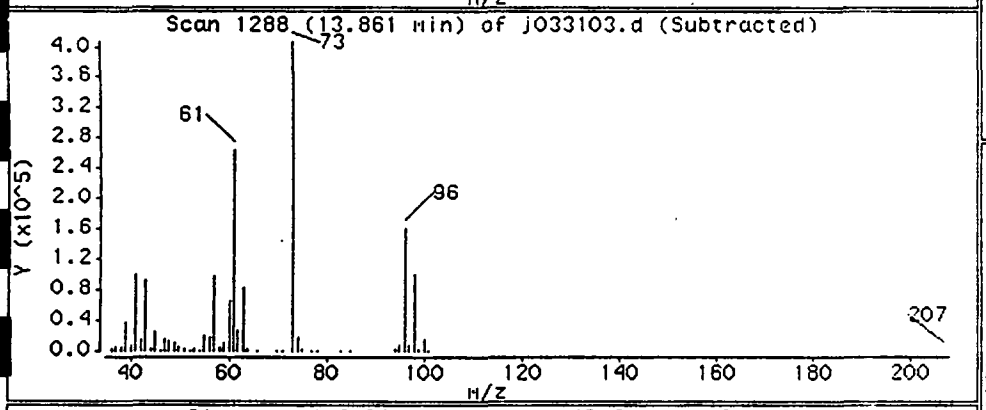
Column phase: RTx-624

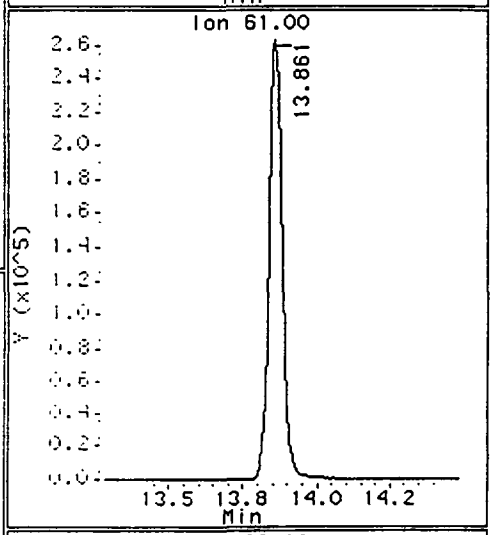
Column diameter: 0.58

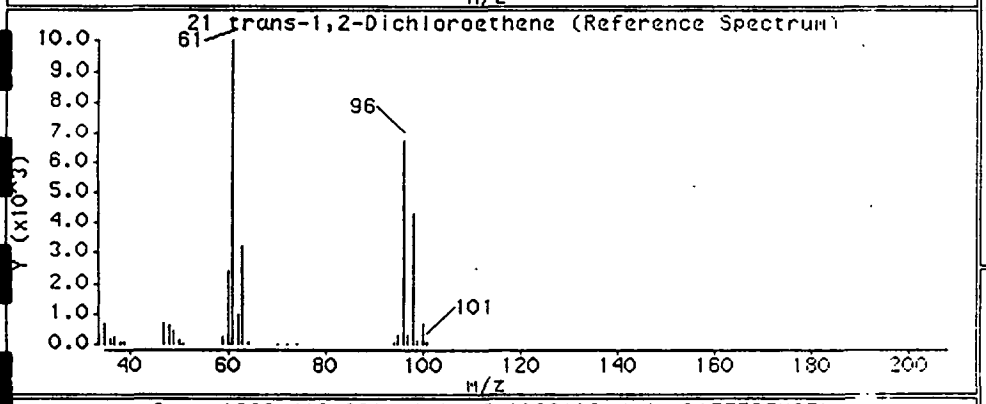
21 trans-1,2-Dichloroethene

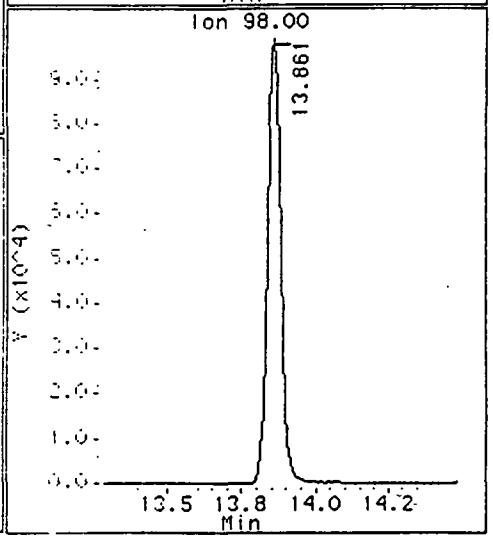


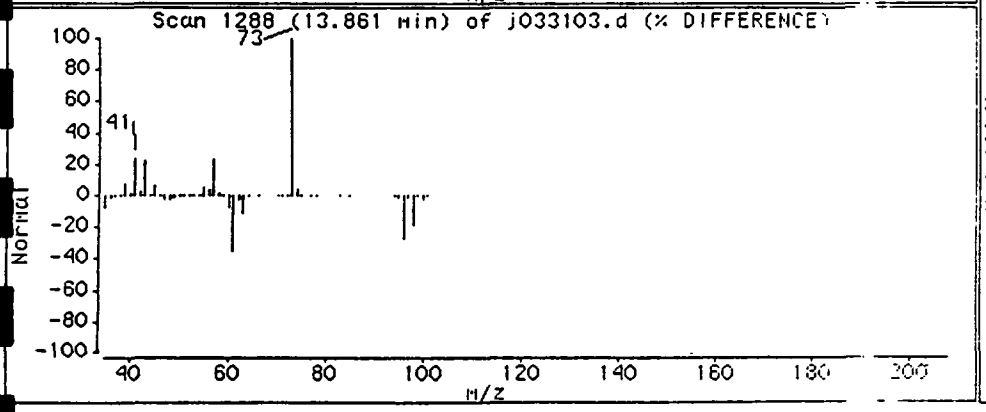












Data File: /chem/msdj.i/j-31mar.b/j033103.d

Date : 31-MAR-1997 10:46

0140

Client ID: Method Spike

Instrument: msdj.i

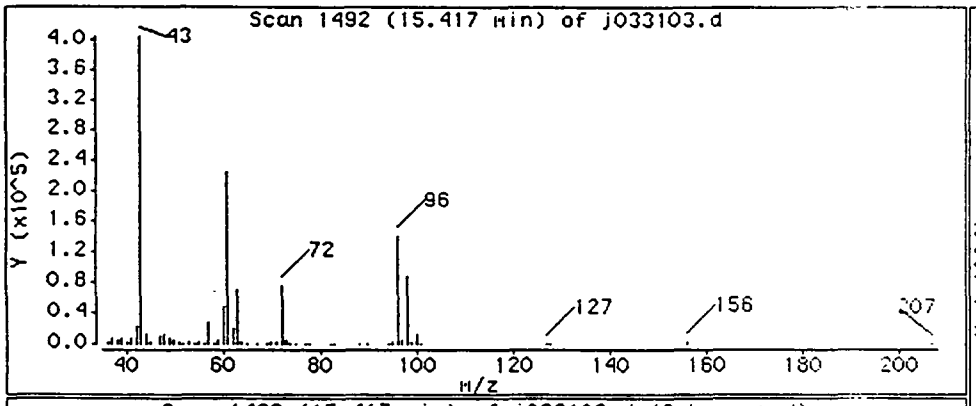
Sample Info: #296-97 100ppbv of T014(0) Std. 50mL(10ppbv)

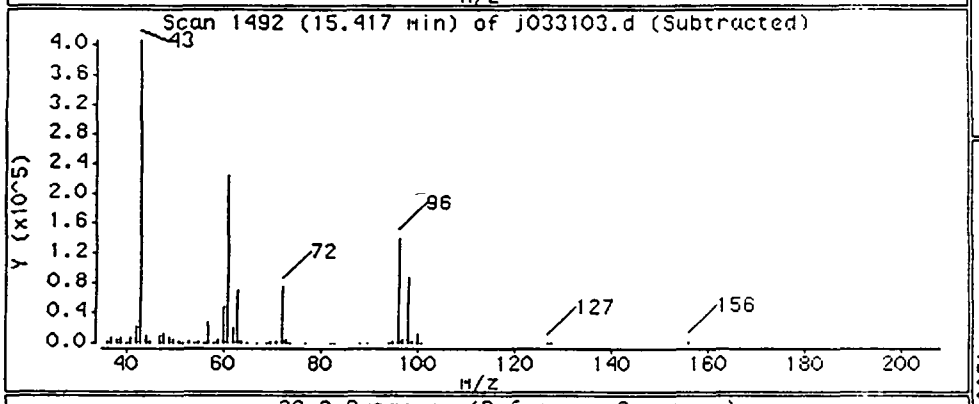
Operator: MH

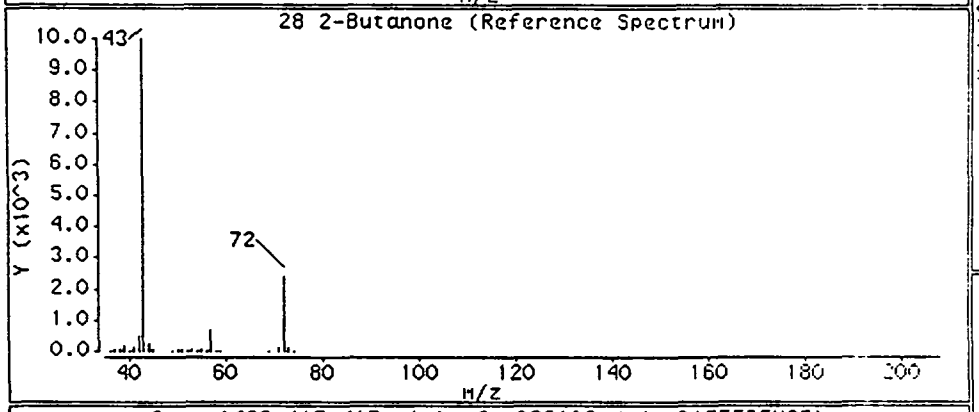
Column phase: RTx-624

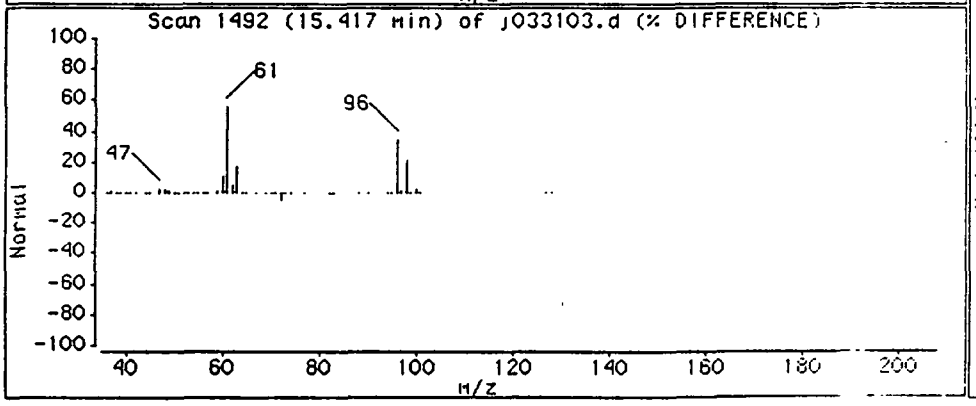
Column diameter: 0.58

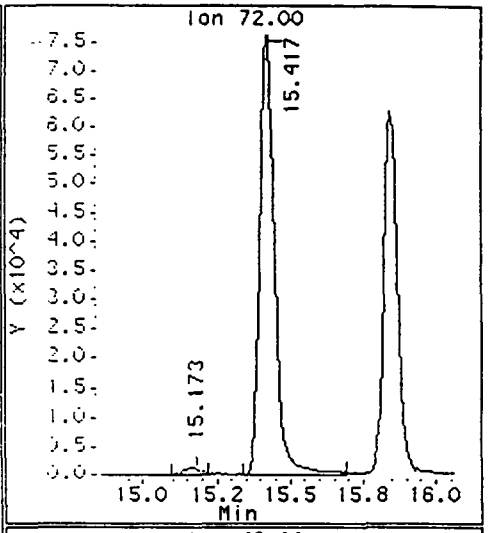
28 2-Butanone

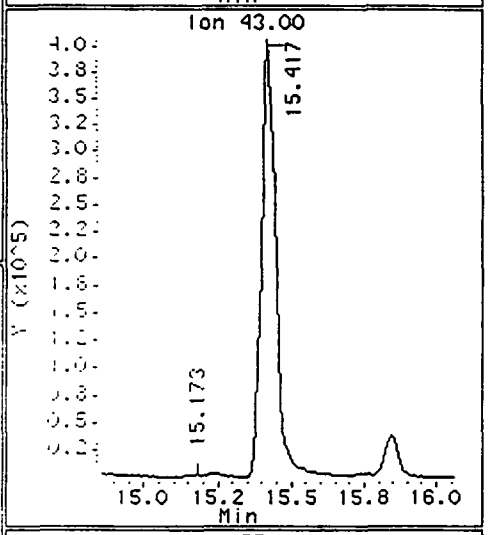


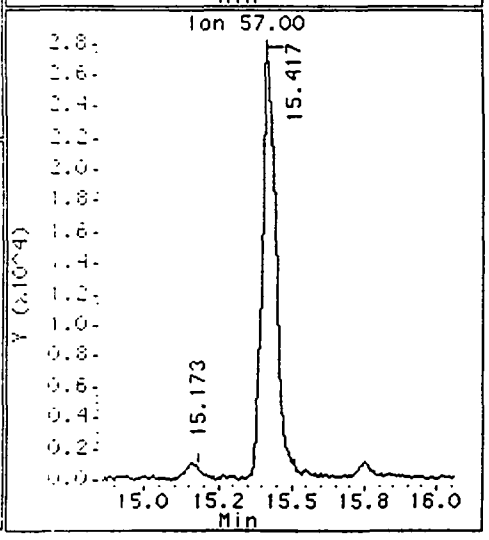












Data File: /chem/msdj.i/j-31mar.b/j033103.d

Date : 31-MAR-1997 10:46

0141

Client ID: Method Spike

Instrument: msdj.i

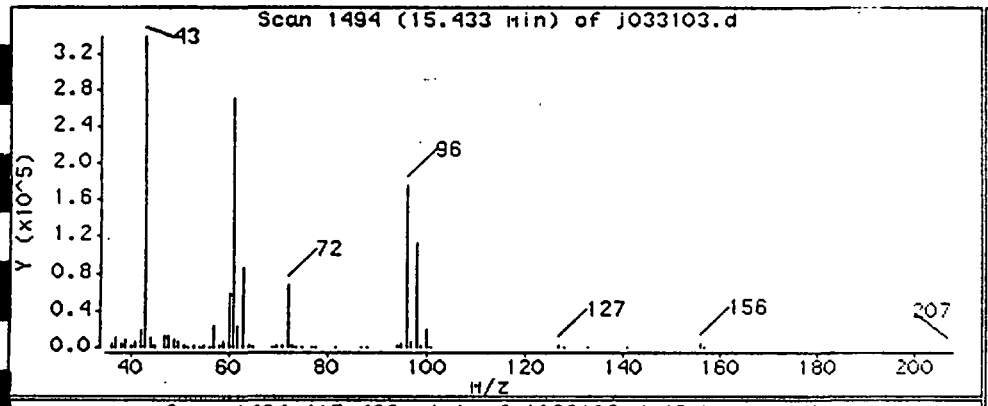
Sample Info: #296-97 100ppbv of TO14(0) Std. 50mL(10ppbv)

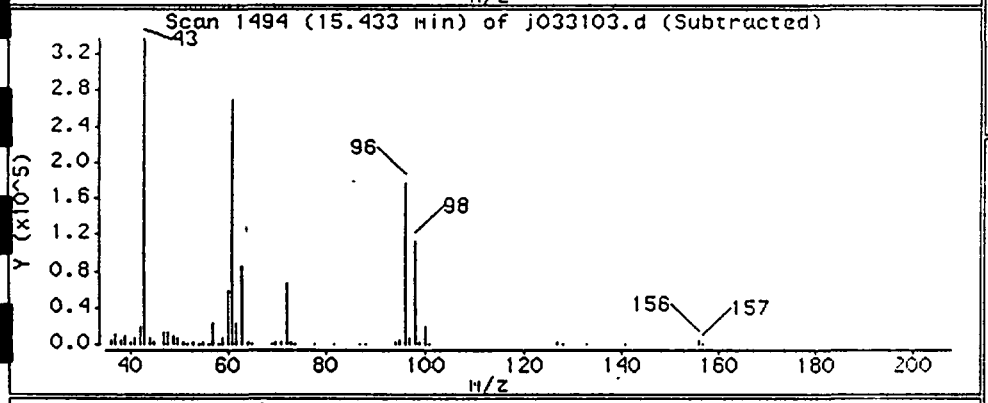
Operator: MH

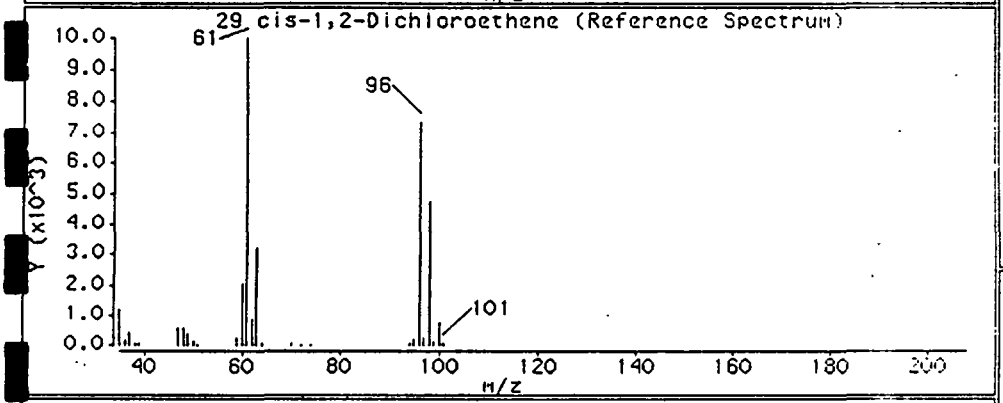
Column phase: RTx-624

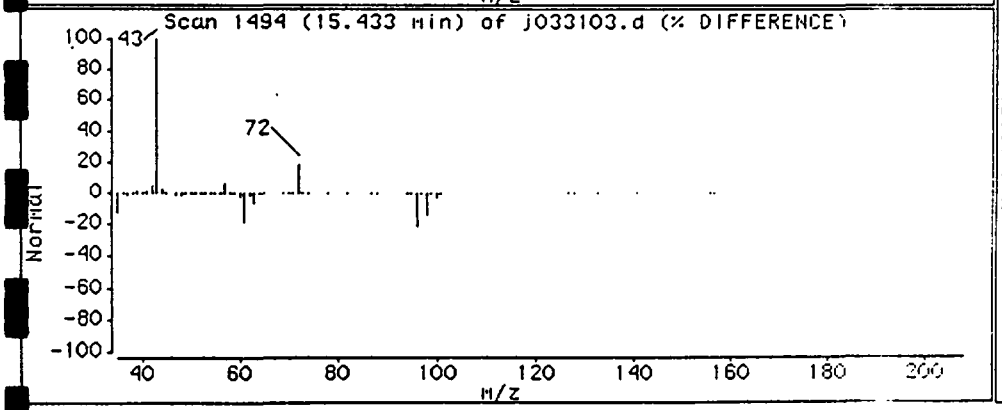
Column diameter: 0.58

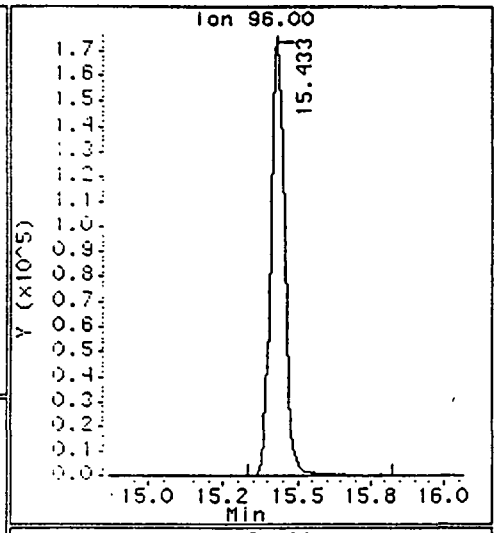
29 cis-1,2-Dichloroethene

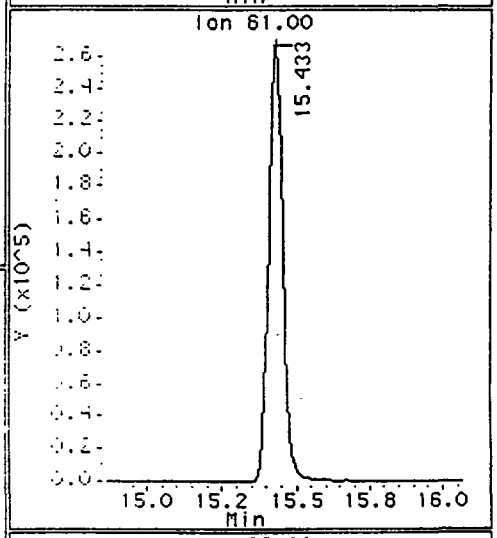


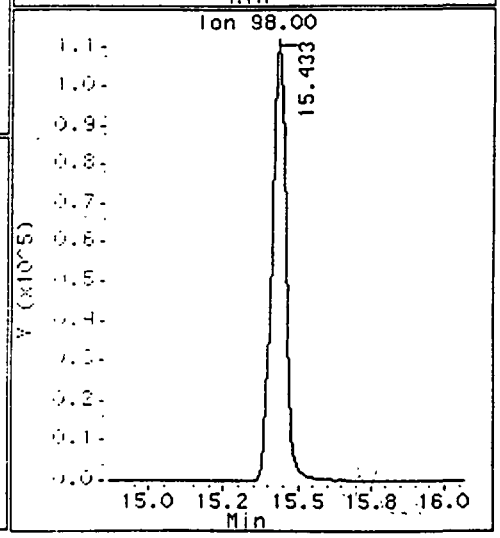












Data File: /chem/msdj.i/j-31mar.b/j033103.d

Date : 31-MAR-1997 10:46

Client ID: Method Spike

Instrument: msdj.i

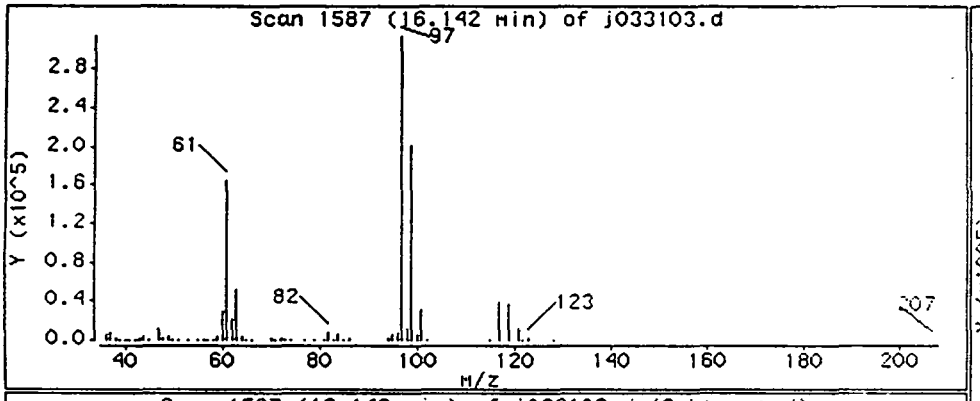
Sample Info: #296-97 100ppbv of T014(0) Std. 50mL(10ppbv)

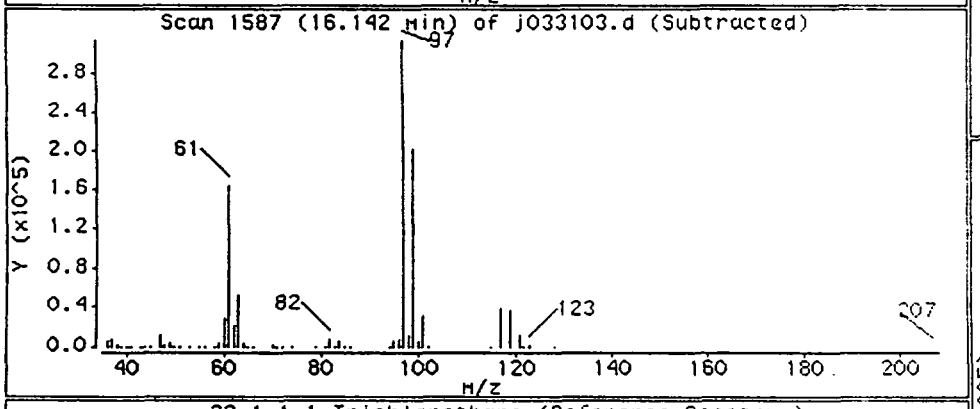
Operator : MH

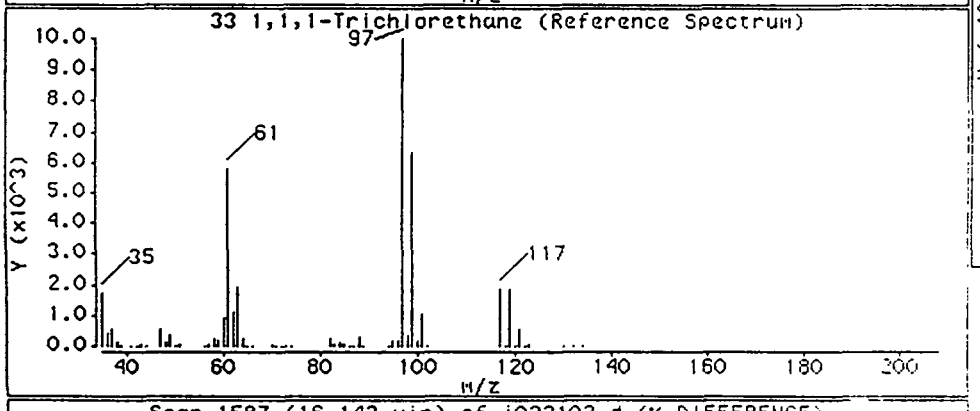
Column phase: RTx-624

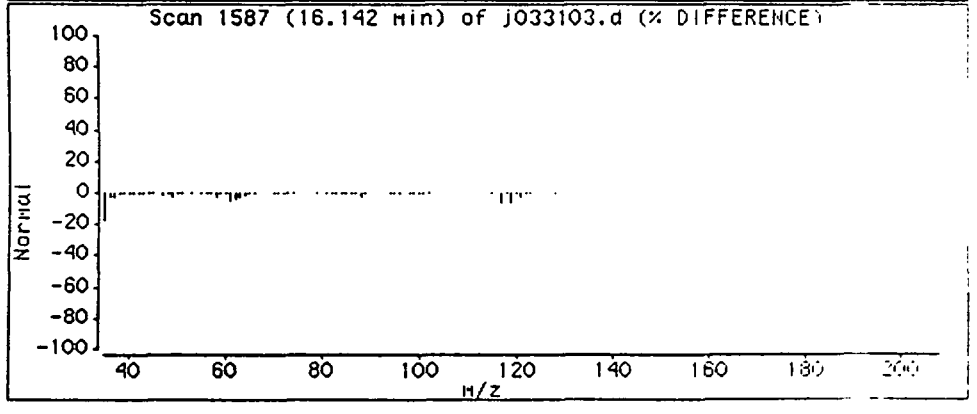
Column diameter: 0.53

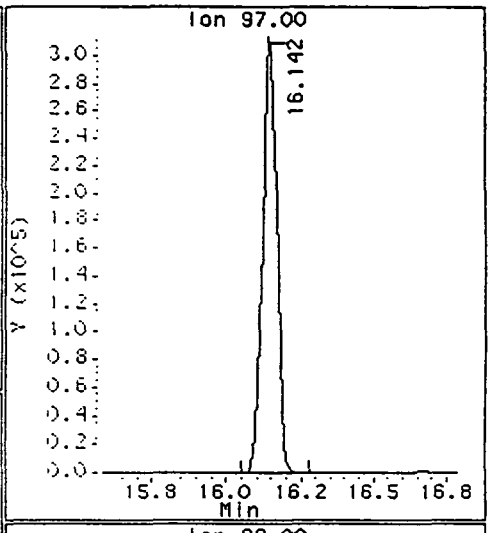
33 1,1,1-Trichlorethane

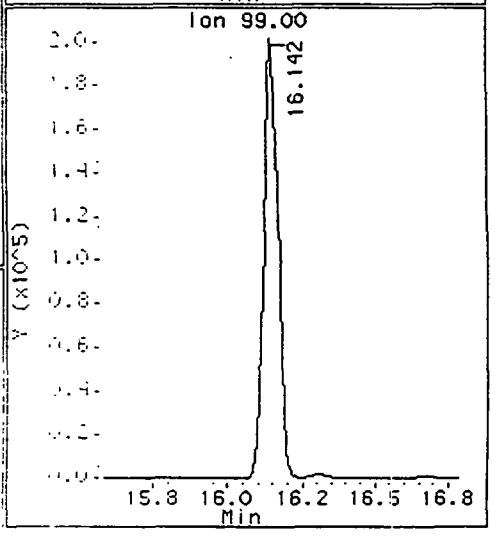












Data File: /chem/msdj.i/j-31mar.b/j033103.d

Date : 31-MAR-1997 10:46

Client ID: Method Spike

Instrument: msdj.i

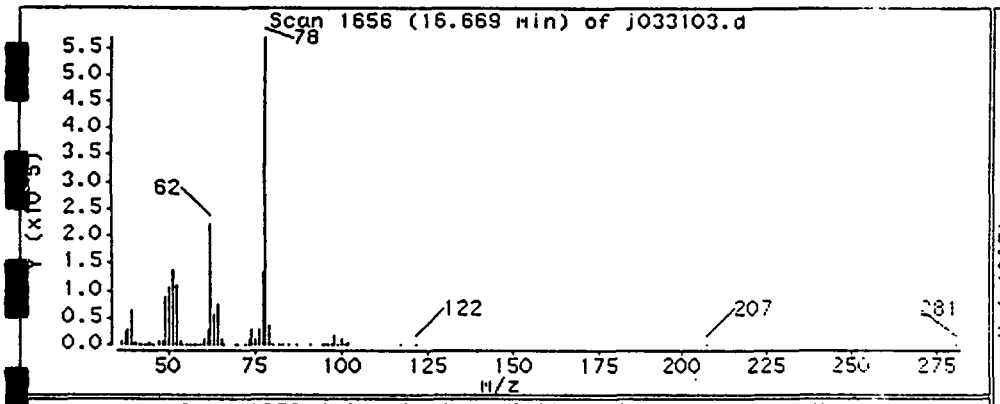
Sample Info: #296-97 100ppbv of T014(0) Std. 50mL(10ppbv)

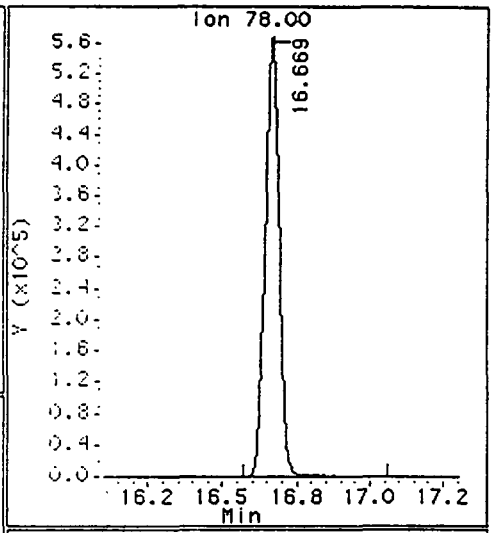
Operator: MH

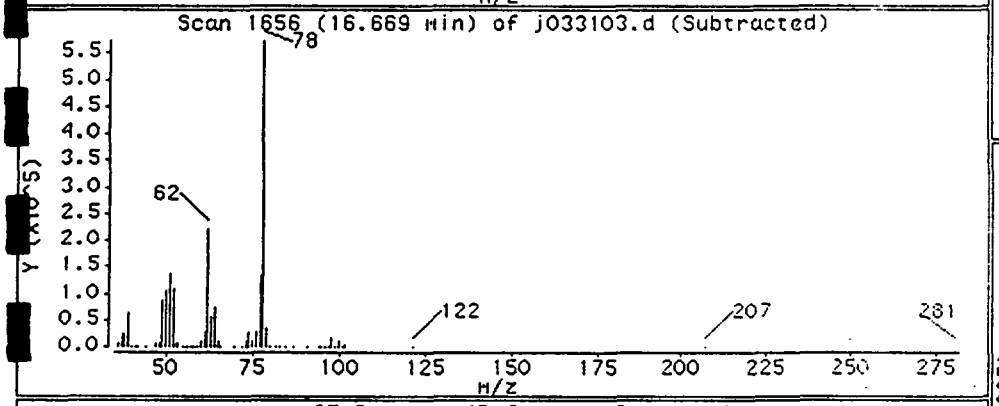
Column phase: RTx-624

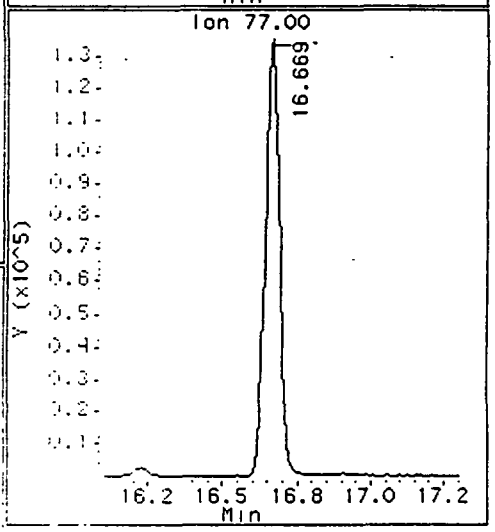
Column diameter: 0.58

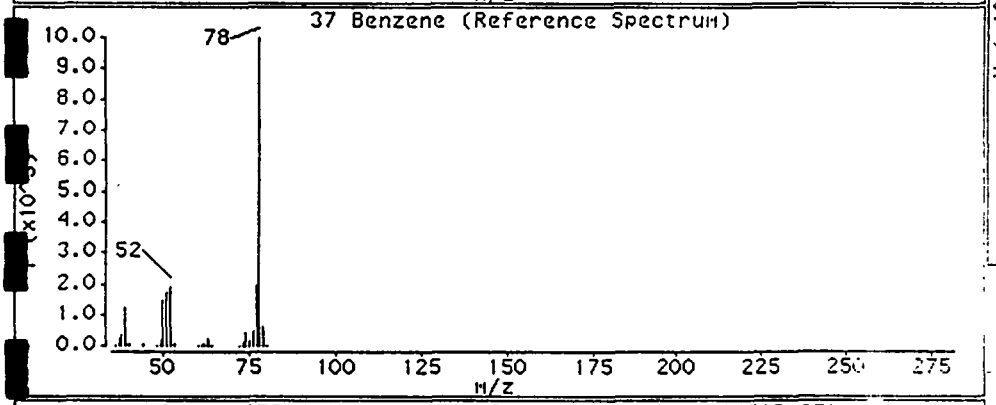
37 Benzene

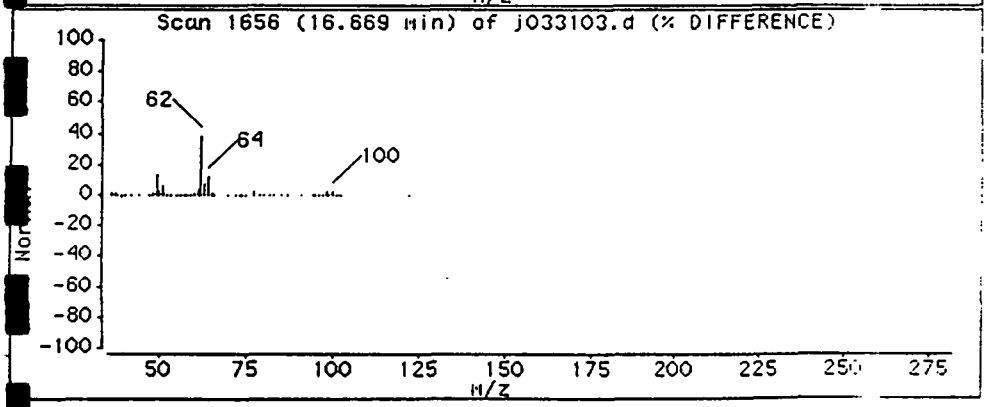












Data File: /chem/msdj.i/j-31mar.b/j033103.d

Date : 31-MAR-1997 10:46

Client ID: Method Spike

Instrument: msdj.i

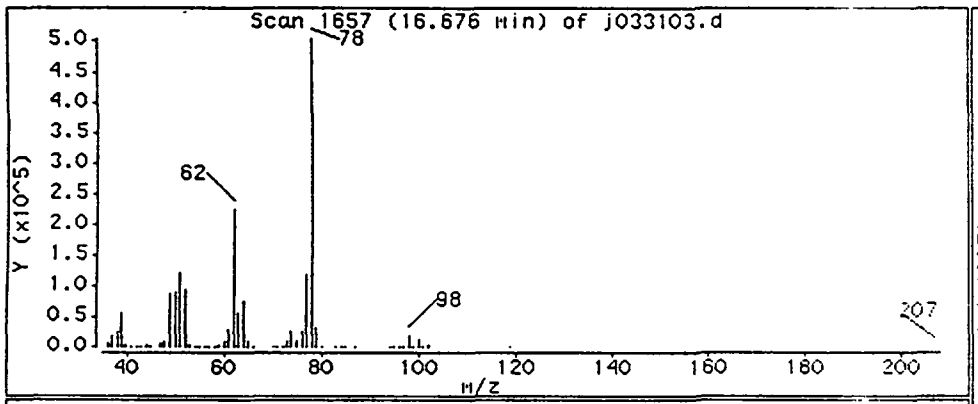
Sample Info: #296-97 100ppbv of T014(0) Std. 50mL(10ppbv)

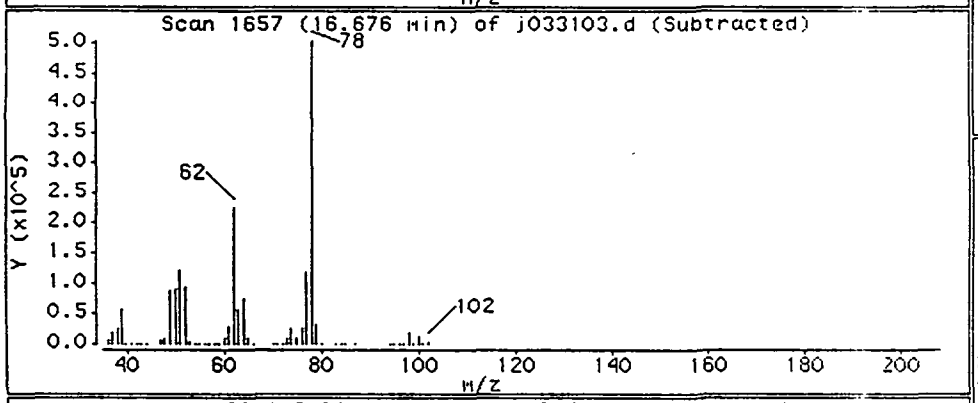
Operator: MH

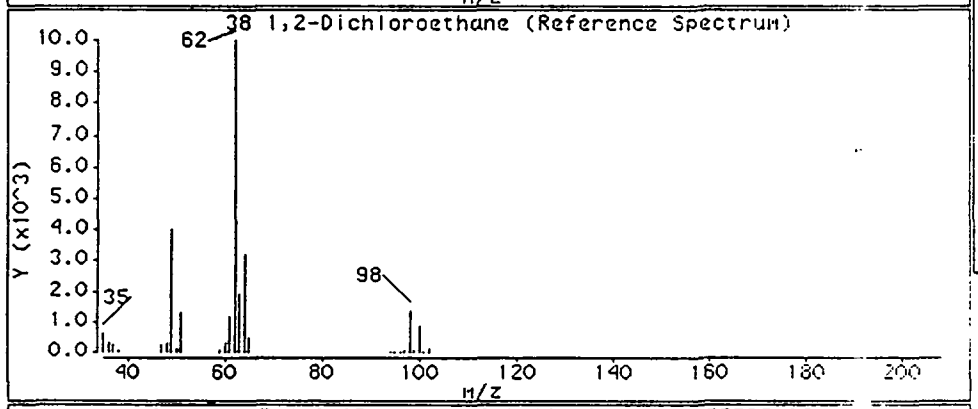
Column phase: RTx-624

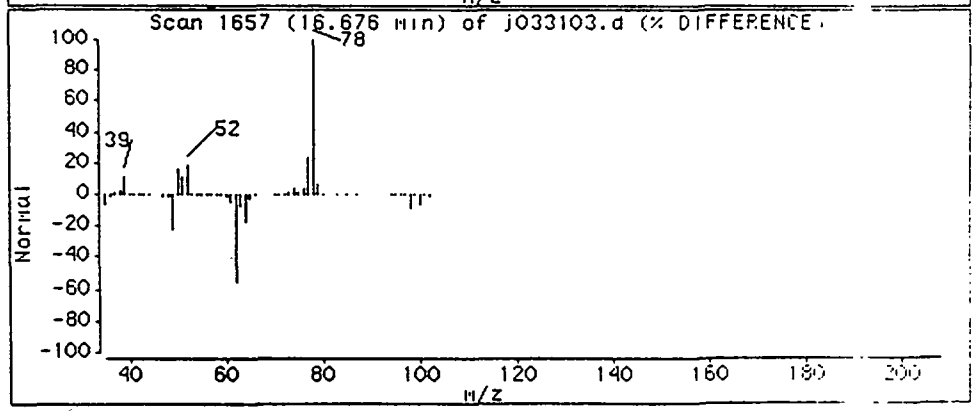
Column diameter: 0.53

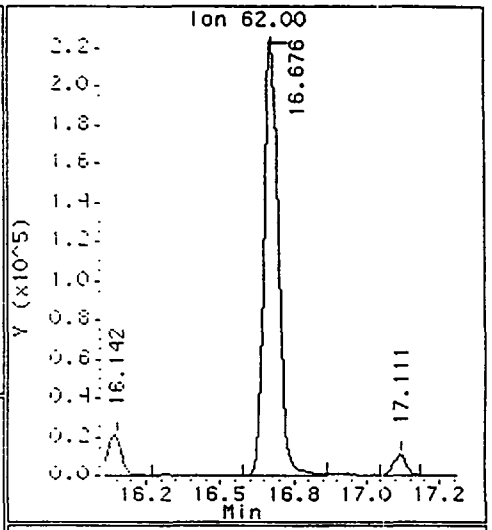
38 1,2-Dichloroethane

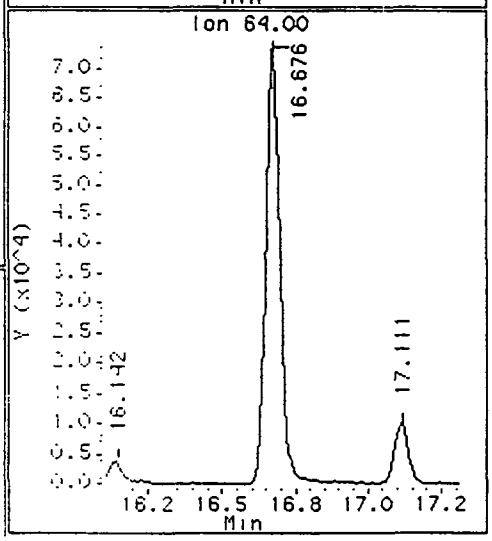












Data File: /chem/msdj.i/j-31mar.b/j033103.d

Date : 31-MAR-1997 10:46

Client ID: Method Spike

Instrument: msdj.i

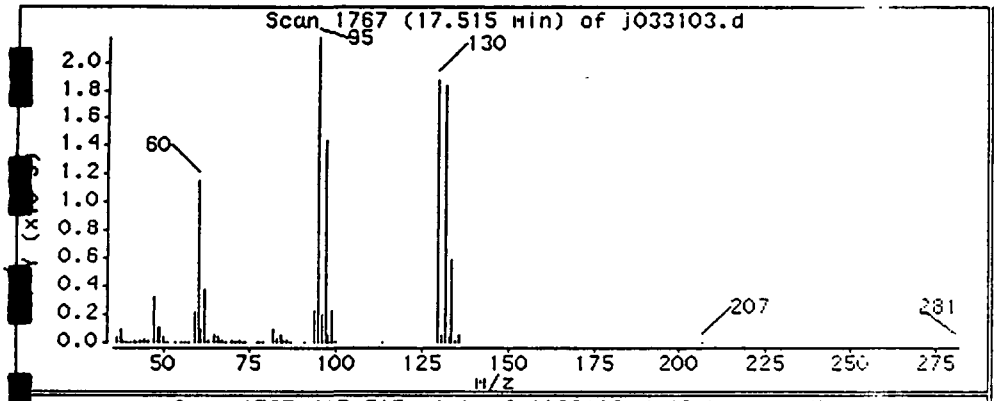
Sample Info: #296-97 100ppbv of T014(0) Std. 50mL(10ppbv)

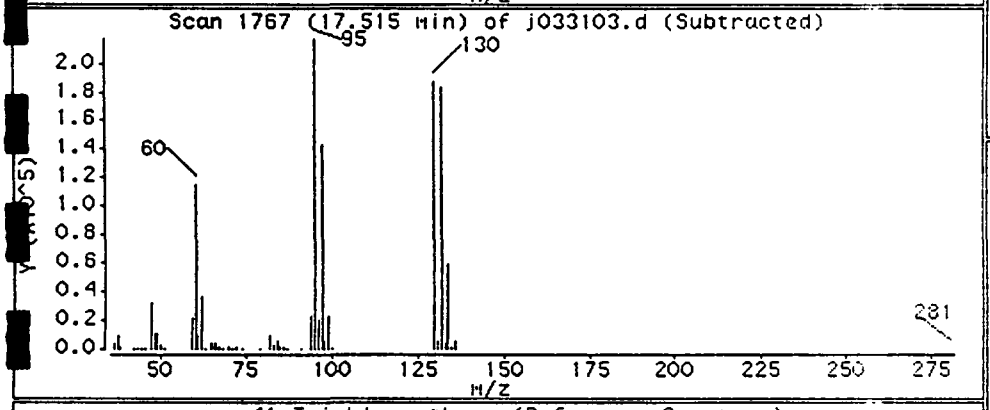
Operator: MH

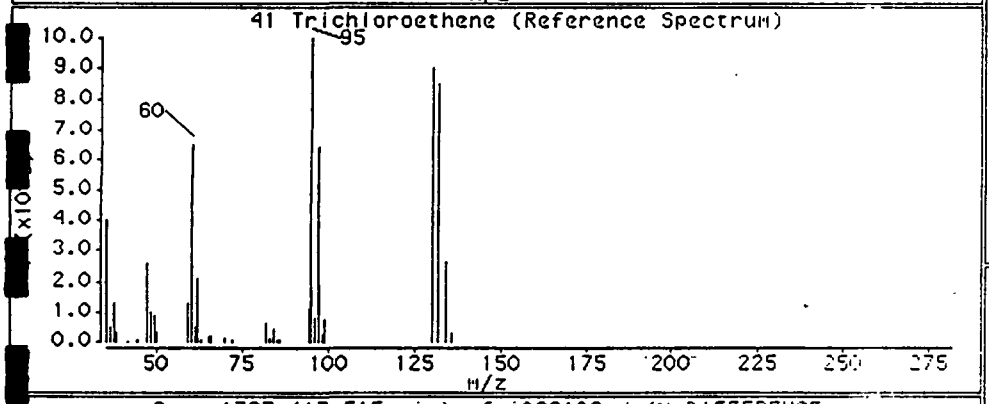
Column phase: RTx-624

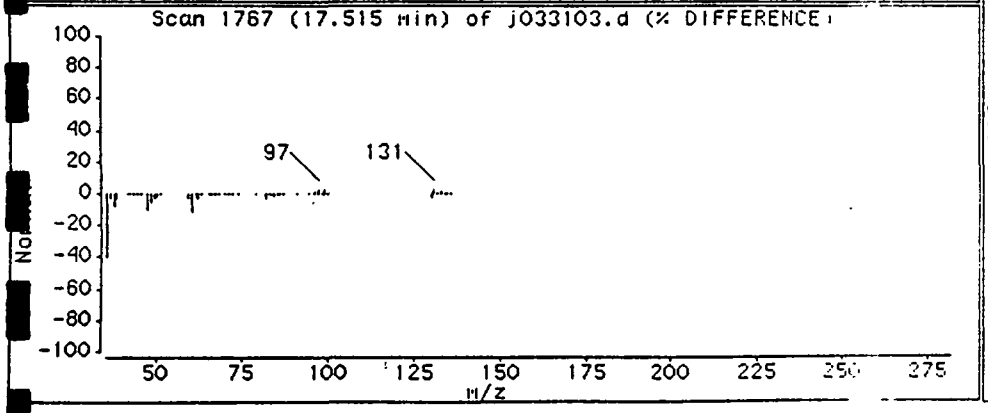
Column diameter: 0.56

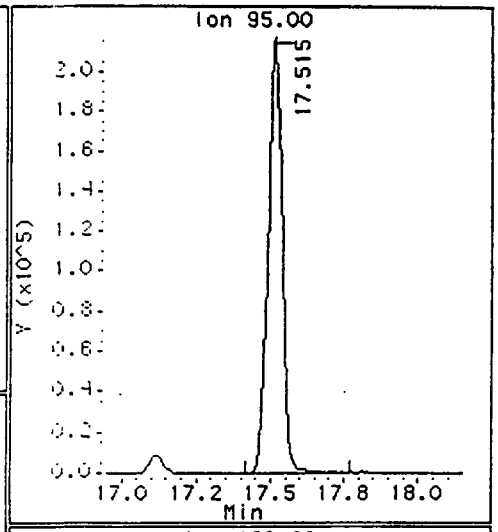
41 Trichloroethene

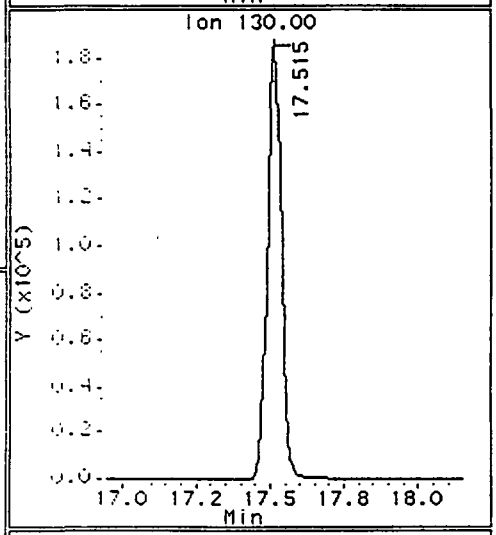


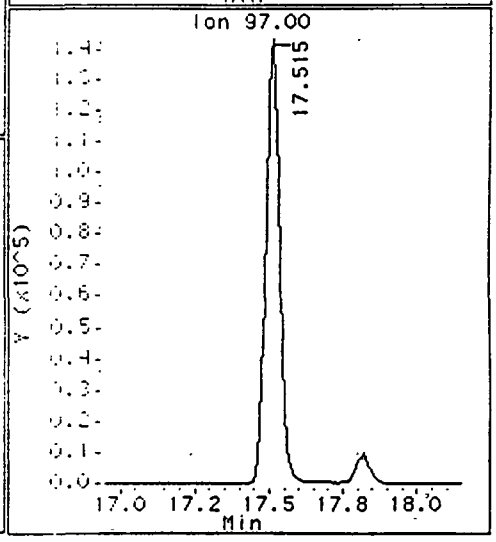












Data File: /chem/msdj.i/j-31mar.b/j033103.d

Date : 31-MAR-1997 10:46

Client ID: Method Spike

Instrument: msdj.i

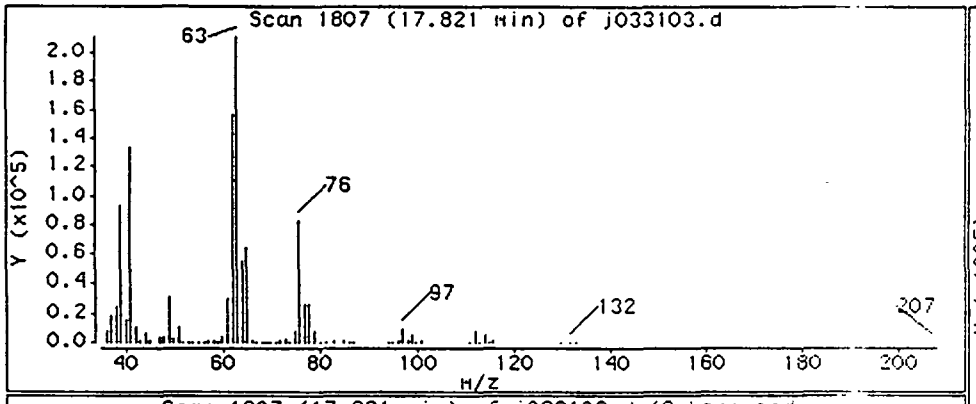
Sample Info: #296-97 100ppbv of TO14(0) Std. 50mL(10ppbv)

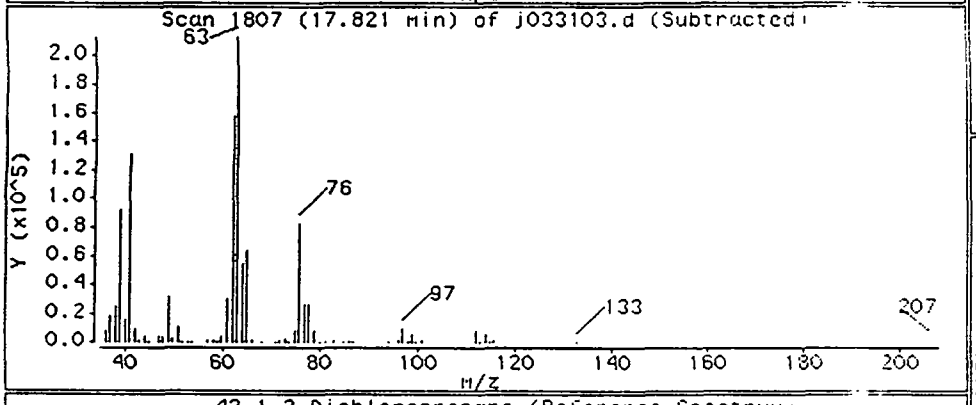
Operator : MH

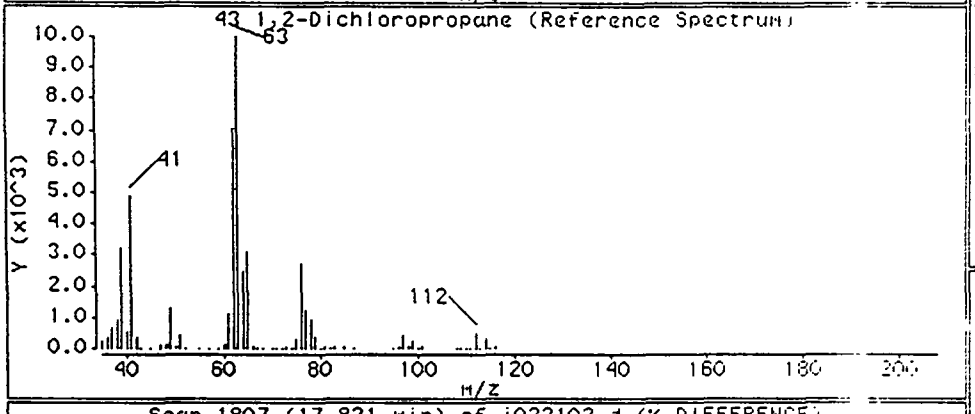
Column phase: RTx-624

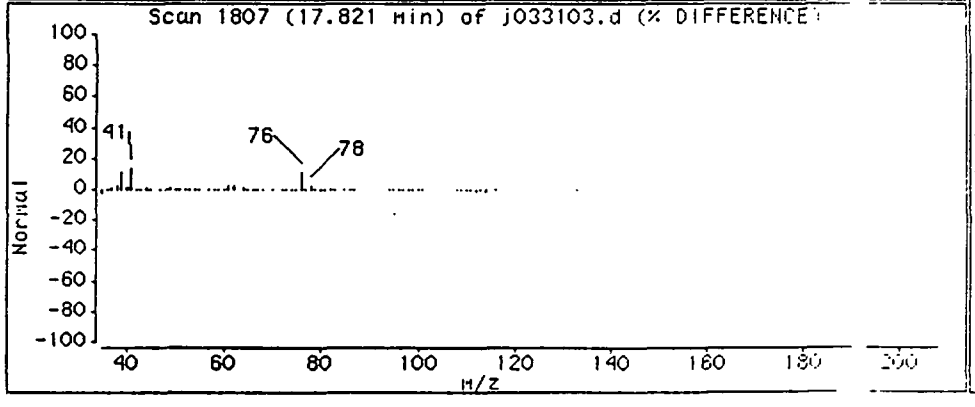
Column diameter: 0.58

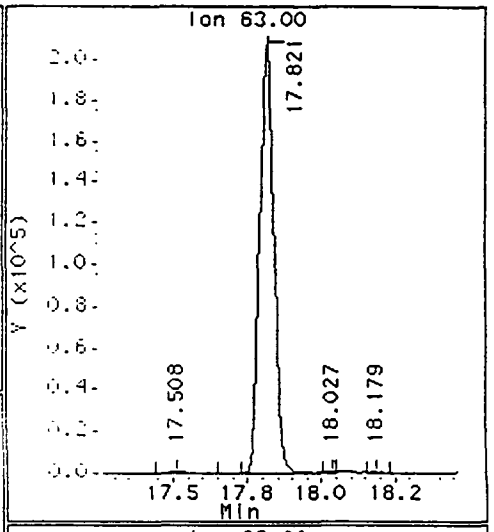
43 1,2-Dichloropropane

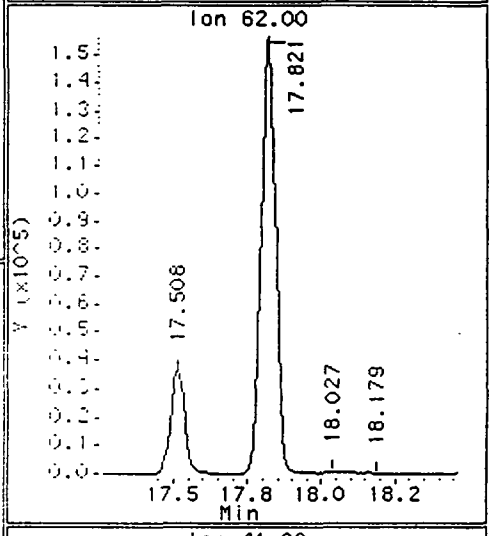


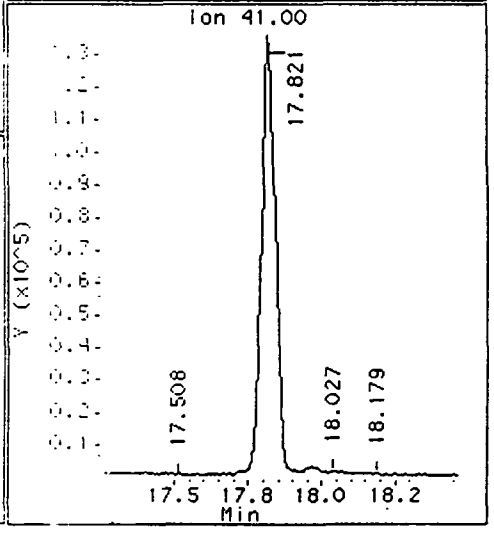












Data File: /chem/msdj.i/j-31mar.b/j033103.d

Date : 31-MAR-1997 10:46

Client ID: Method Spike

Instrument: msdj.i

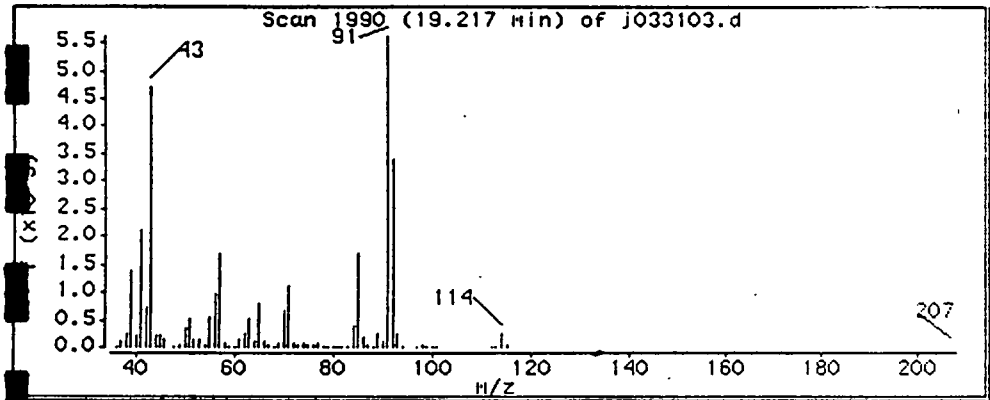
Sample Info: #296-97 100ppbv of T014(0) Std. 50mL(10ppbv)

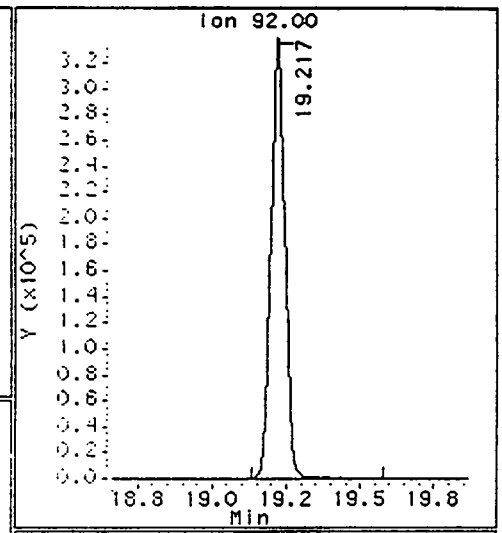
Operator: MH

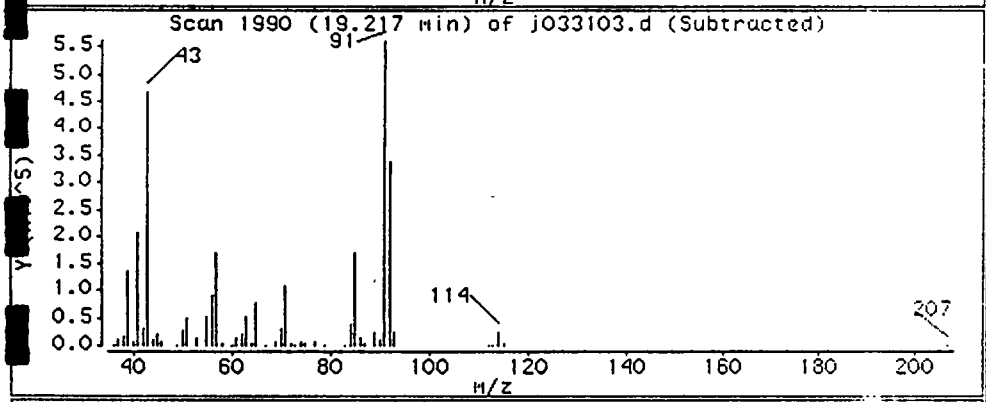
Column phase: RTx-624

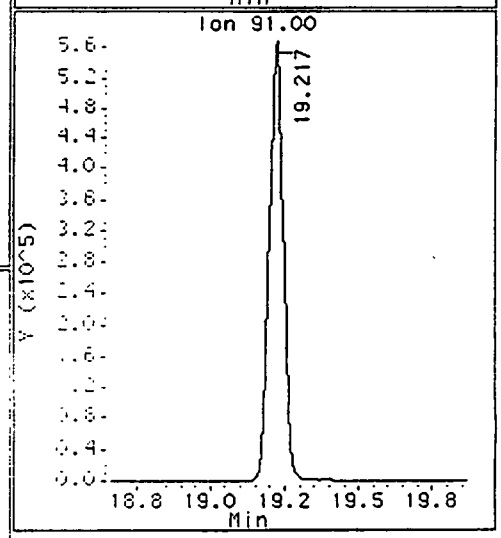
Column diameter: 0.58

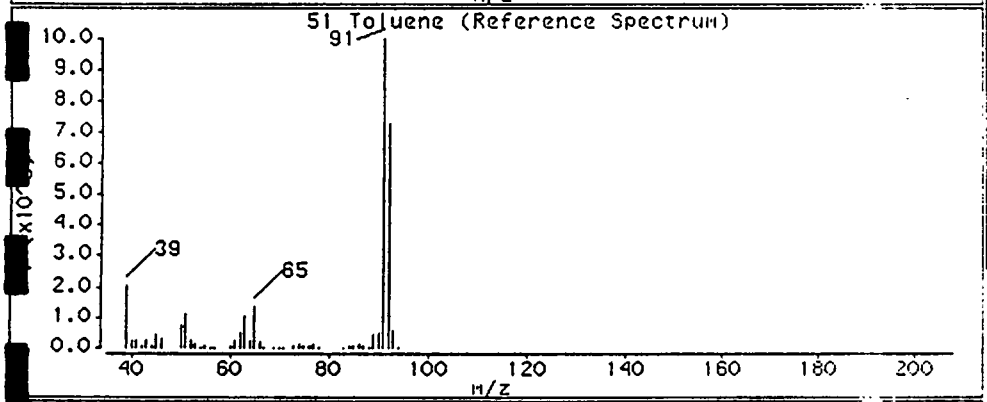
51 Toluene

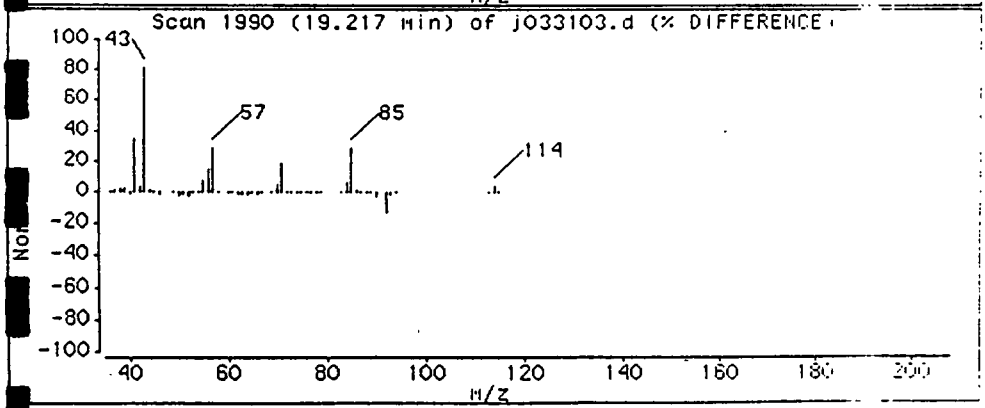












Data File: /chem/msdj.i/j-31mar.b/j033103.d

Date : 31-MAR-1997 10:46

Client ID: Method Spike

Instrument: msdj.i

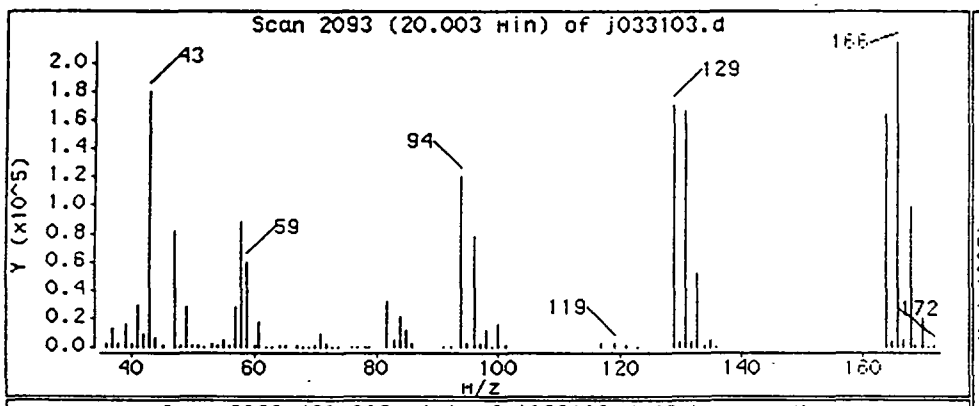
Sample Info: #296-97 100ppbv of TO14(0) Std. 50mL(10ppbv)

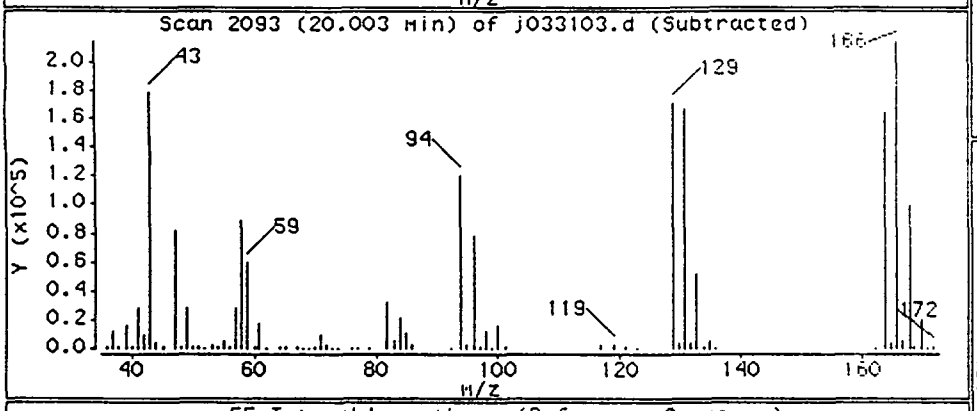
Operator: MH

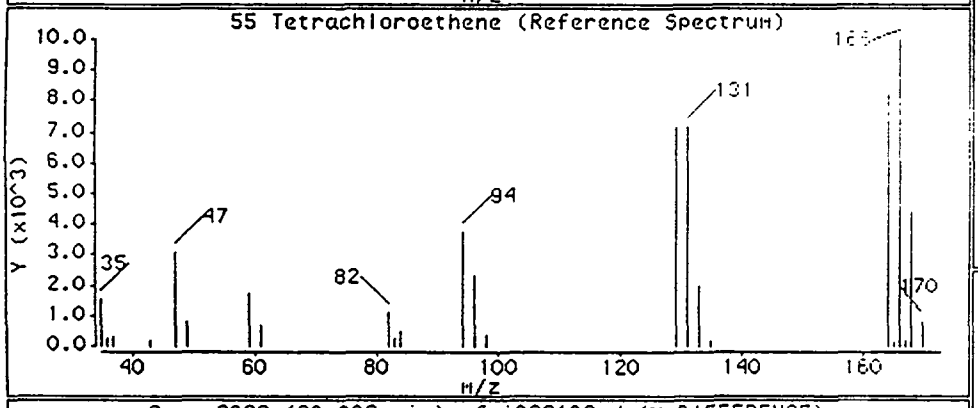
Column phase: RTx-624

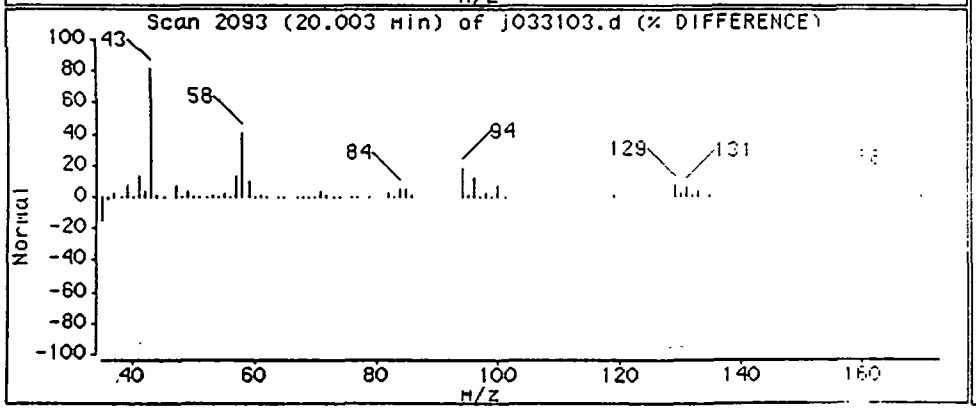
Column diameter: 0.58

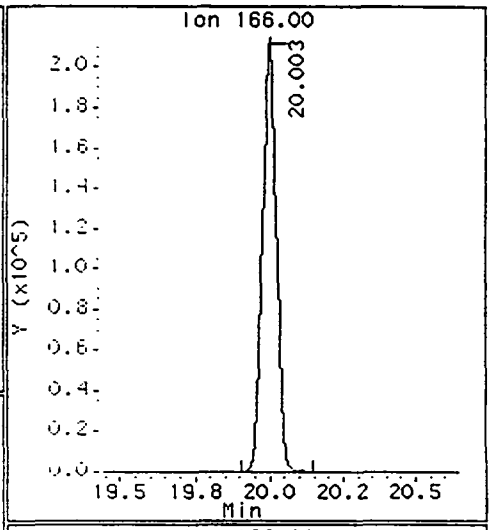
55 Tetrachloroethene

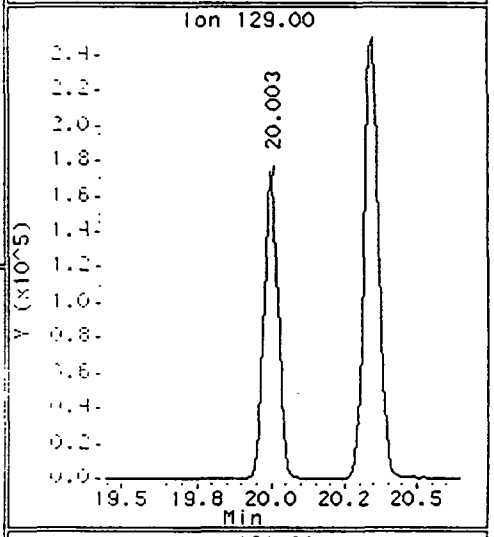


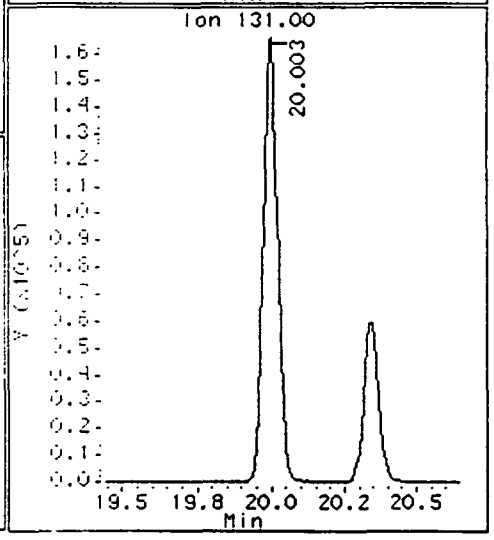












Data File: /chem/msdj.i/j-31mar.b/j033103.d

Date : 31-MAR-1997 10:46

Client ID: Method Spike

Instrument: msdj.i

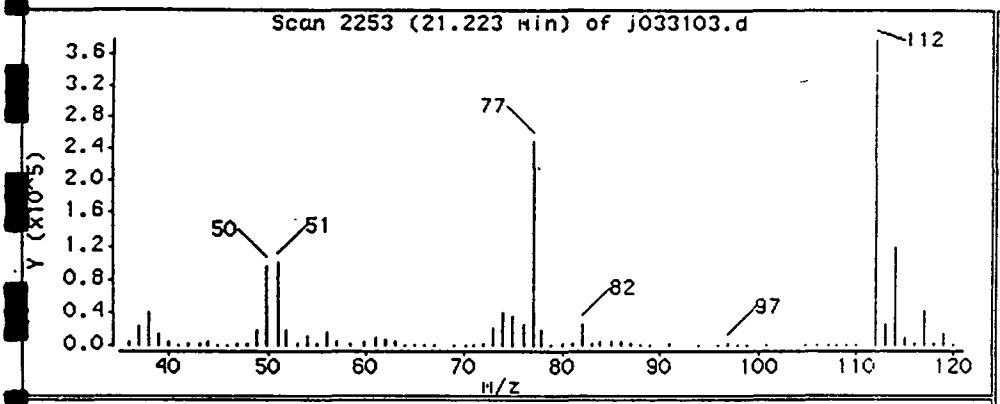
Sample Info: #296-97 100ppbv of TO14(0) Std. 50mL(10ppbv)

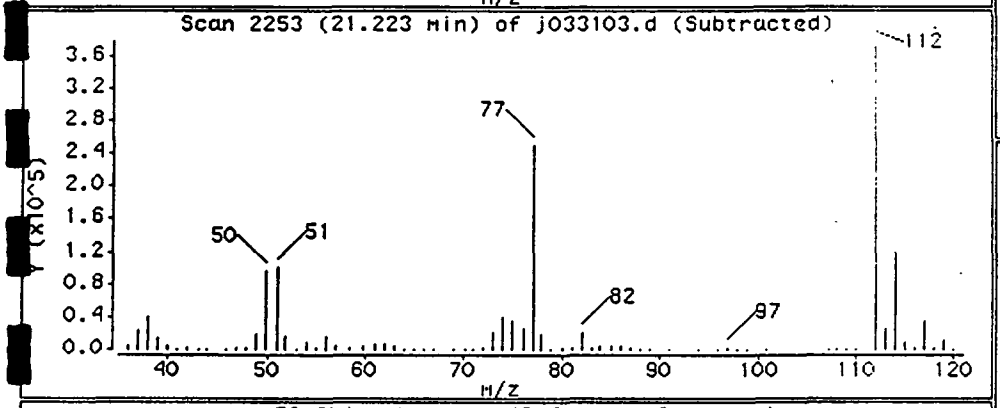
Operator: MH

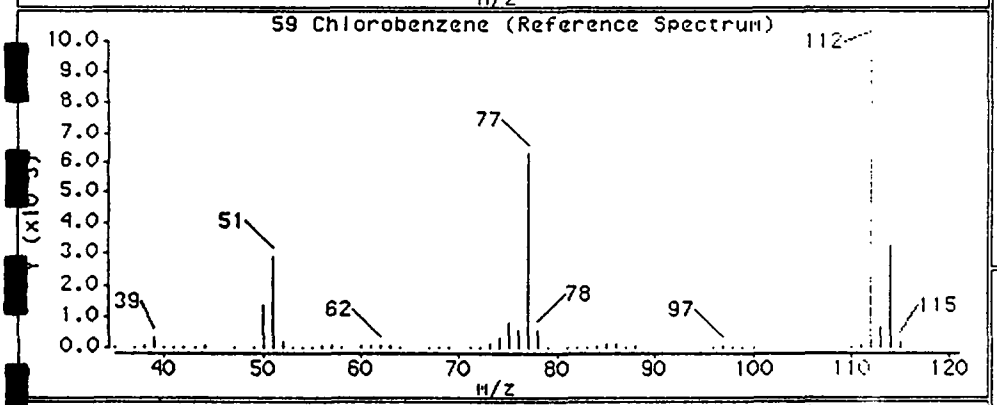
Column phase: RTx-624

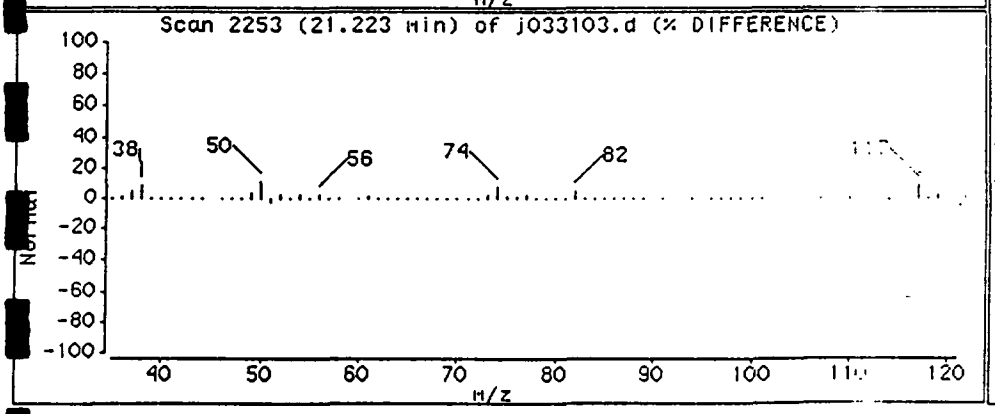
Column diameter: 0.58

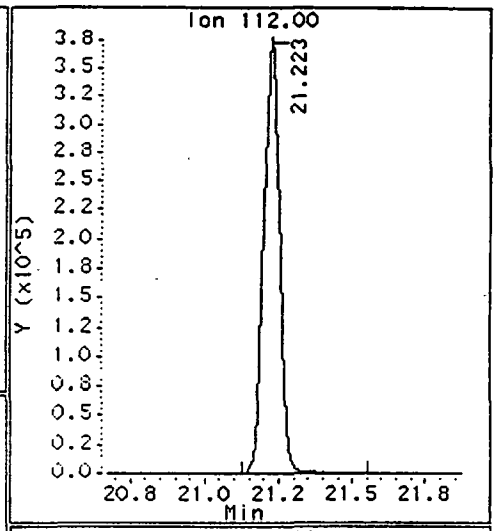
59 Chlorobenzene

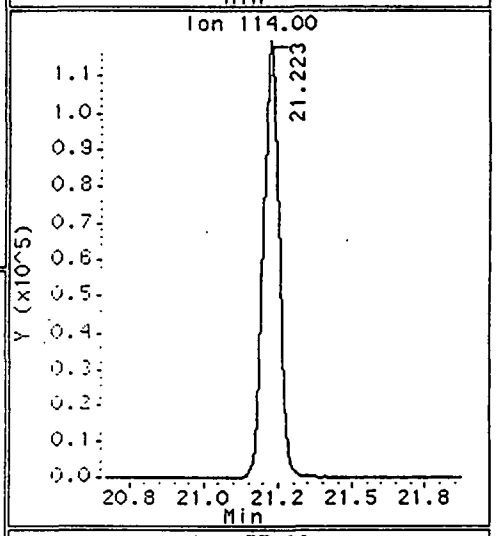


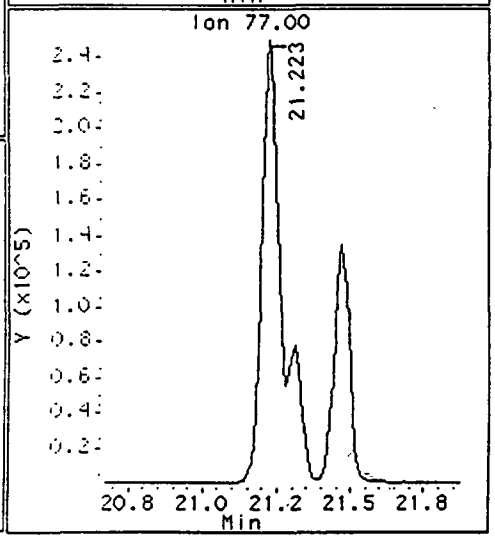












Data File: /chem/msdj.i/j-31mar.b/j033103.d

Date : 31-MAR-1997 10:46

Client ID: Method Spike

Instrument: msdj.i

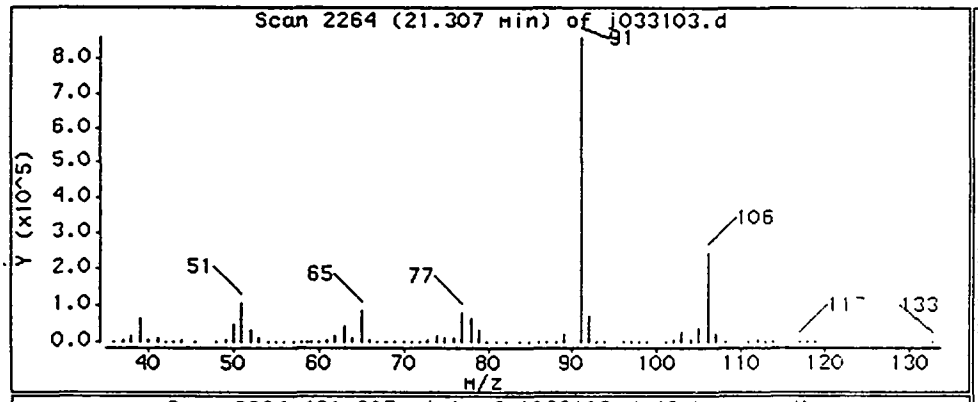
Sample Info: #296-97 100ppbv of TO14(0) Std. 50mL(10ppbv)

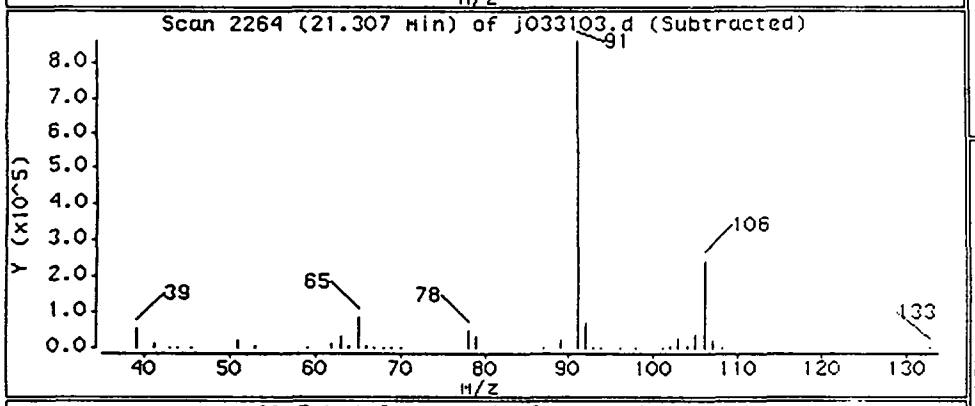
Operator: MH

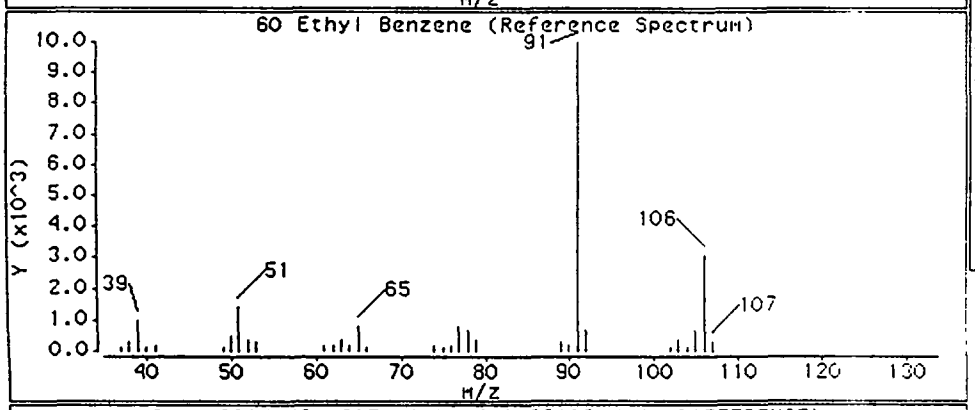
Column phase: RTx-624

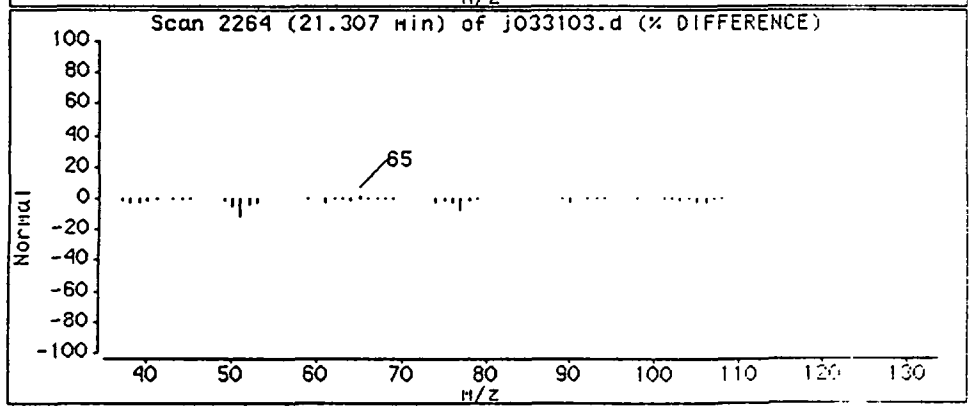
Column diameter: 0.58

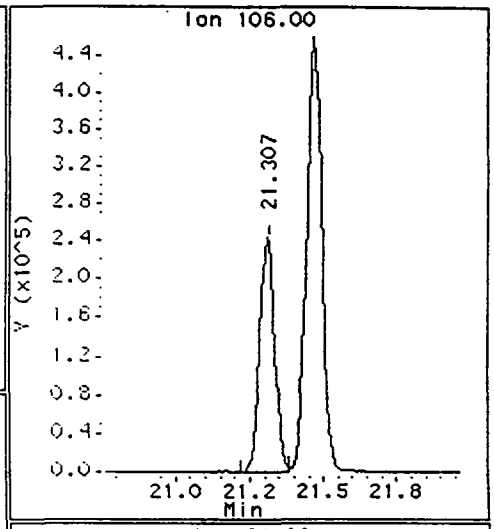
60 Ethyl Benzene

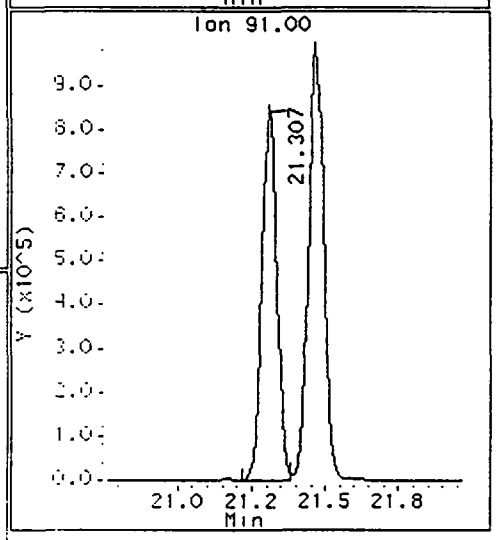












Data File: /chem/msdj.i/j-31mar.b/j033103.d

Date : 31-MAR-1997 10:46

Client ID: Method Spike

Instrument: msdj.i

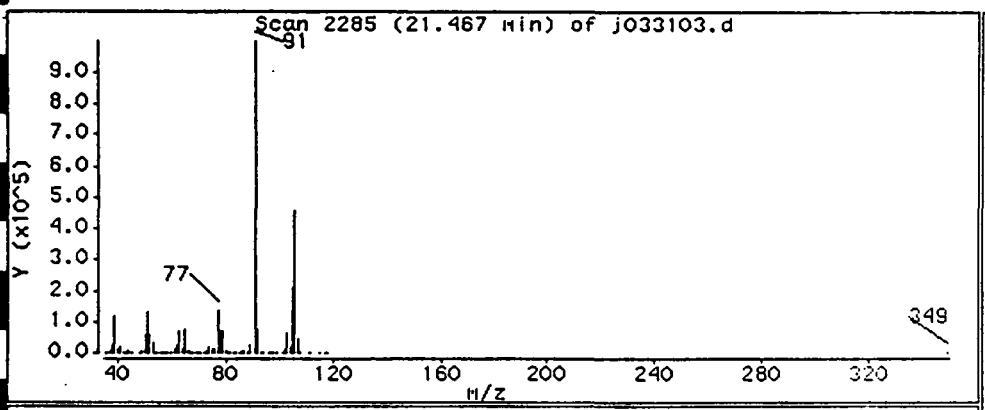
Sample Info: #296-97 100ppbv of T014(0) Std. 50mL(10ppbv)

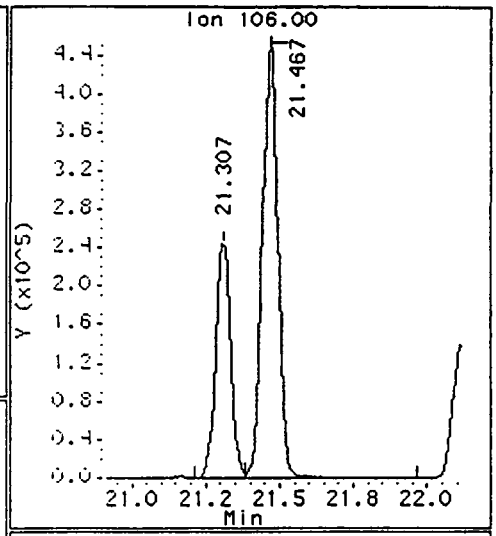
Operator: MH

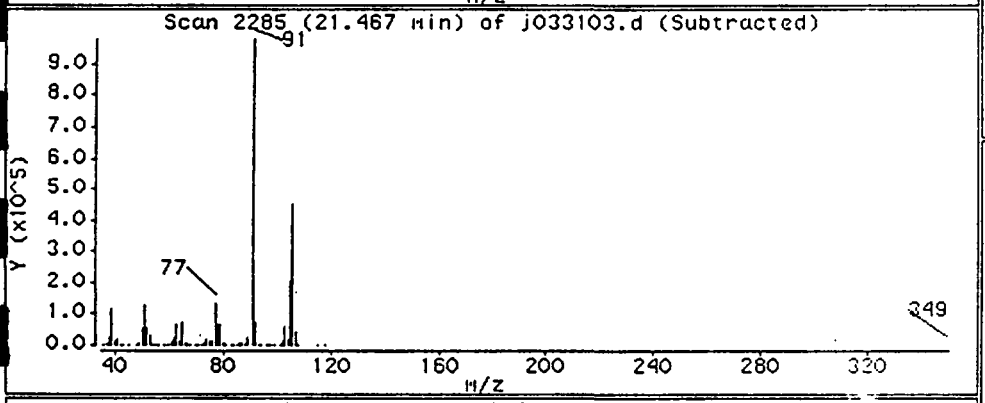
Column phase: RTx-624

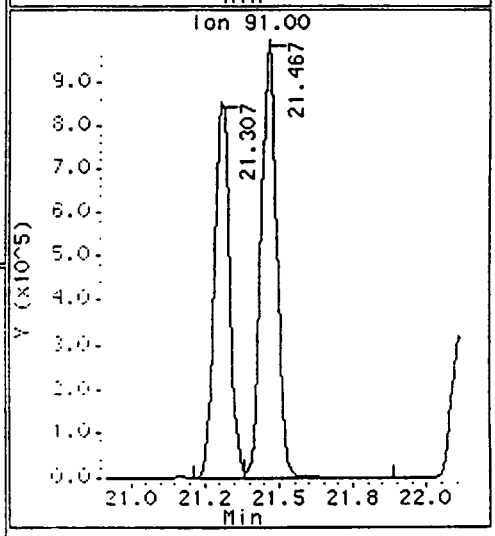
Column diameter: 0.58

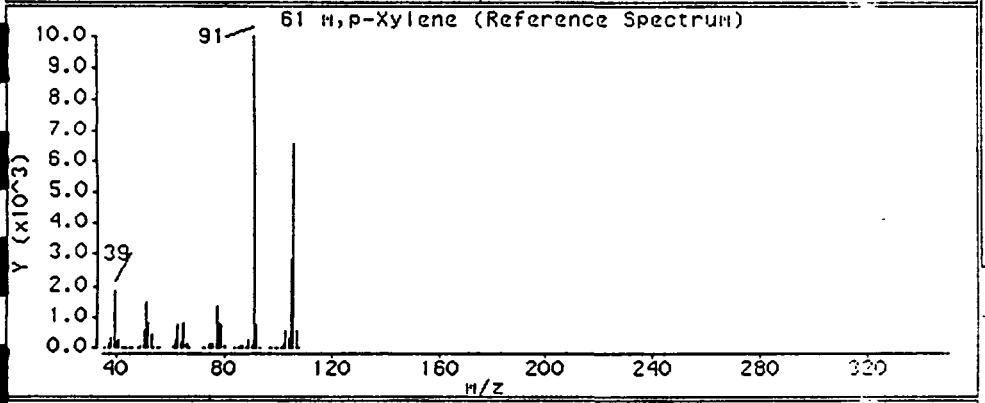
61 m,p-Xylene

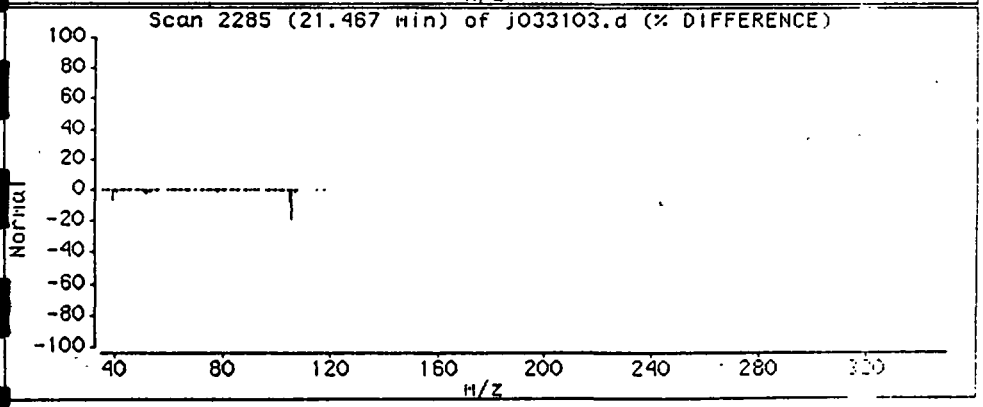












Data File: /chem/msdj.i/j-31mar.b/j033103.d

Date : 31-MAR-1997 10:46

Client ID: Method Spike

Instrument: msdj.i

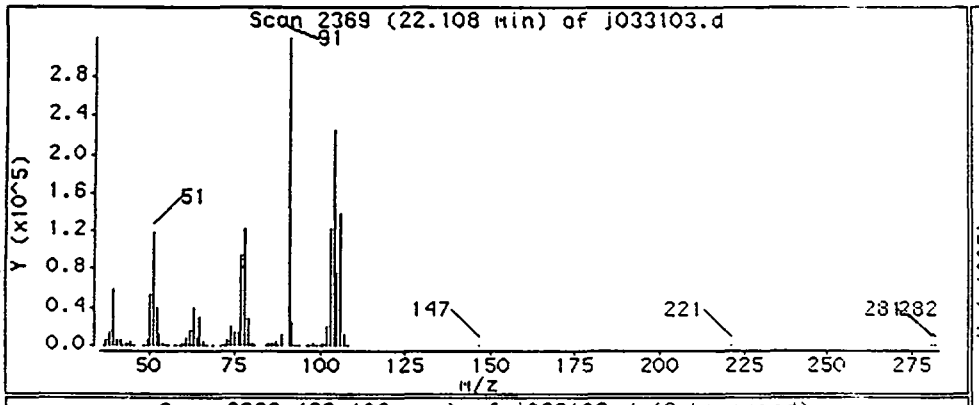
Sample Info: #296-97 100ppbv of TO14(0) Std. 50mL(10ppbv)

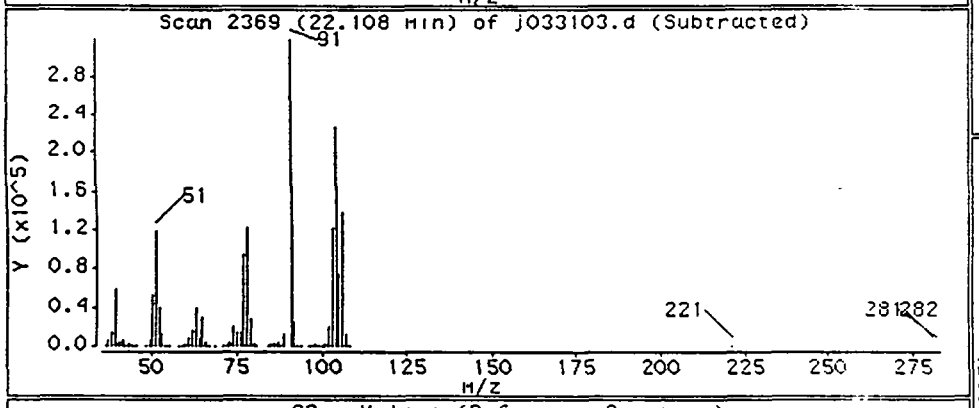
Operator: MH

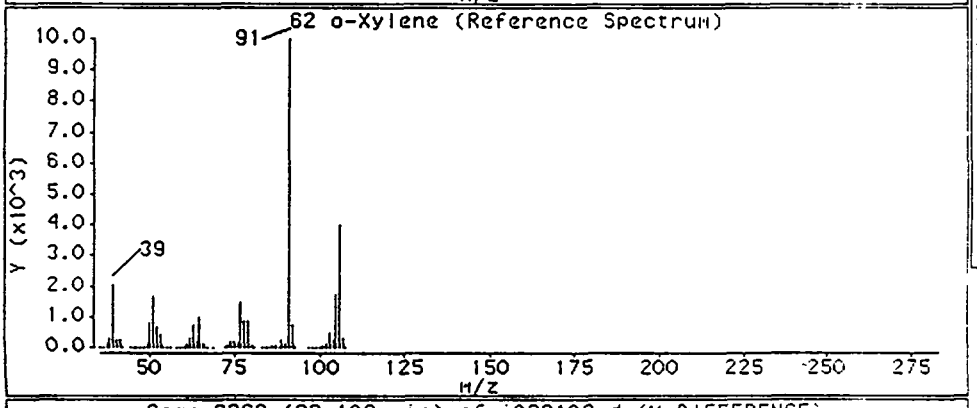
Column phase: RTx-624

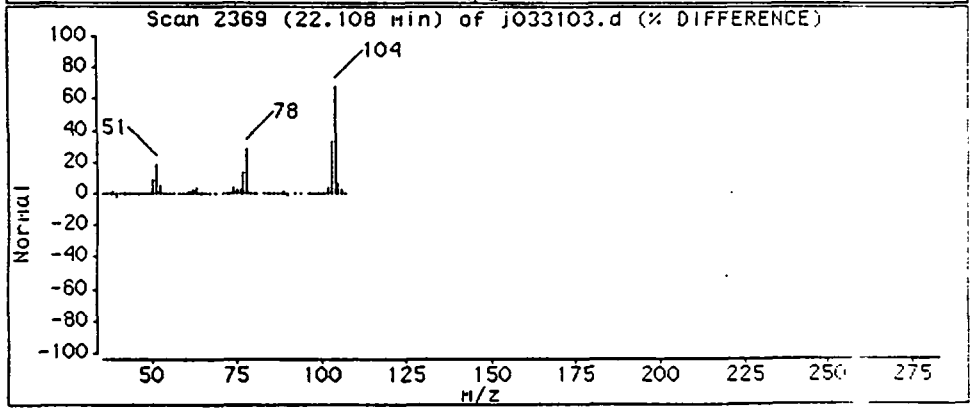
Column diameter: 0.58

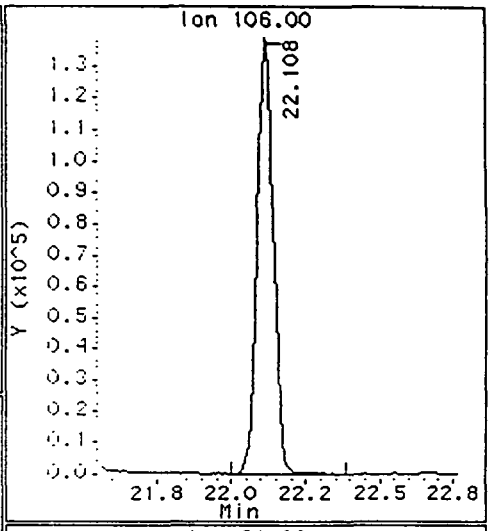
62 o-Xylene

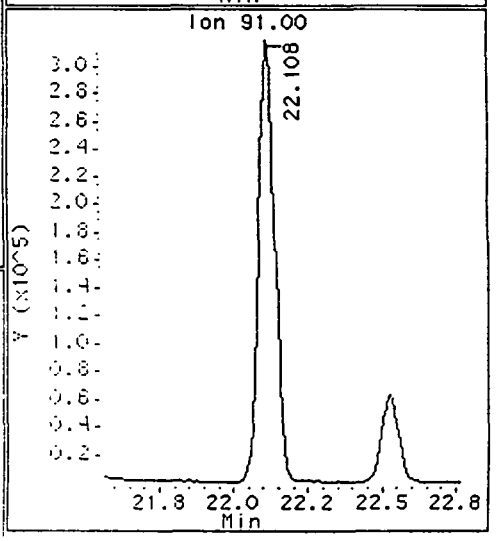












Data File: /chem/msdj.i/j-31mar.b/j033103.d

Date : 31-MAR-1997 10:46

Client ID: Method Spike

Instrument: msdj.i

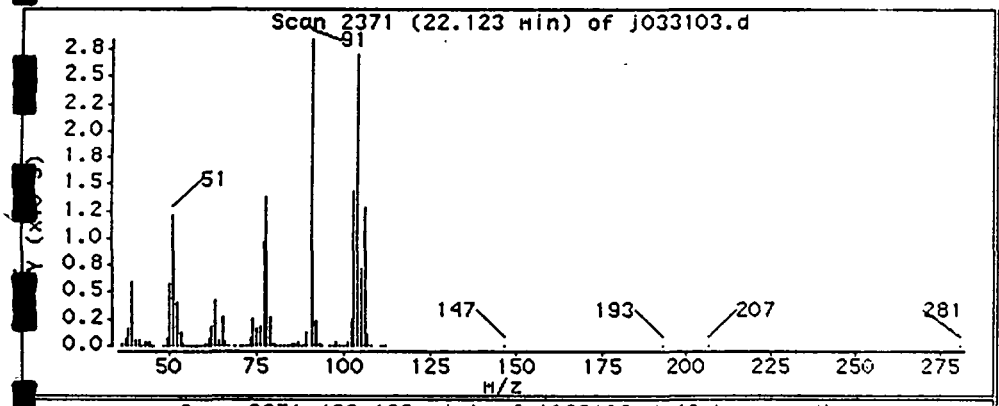
Sample Info: #296-97 100ppbv of TO14(0) Std. 50ML(10ppbv)

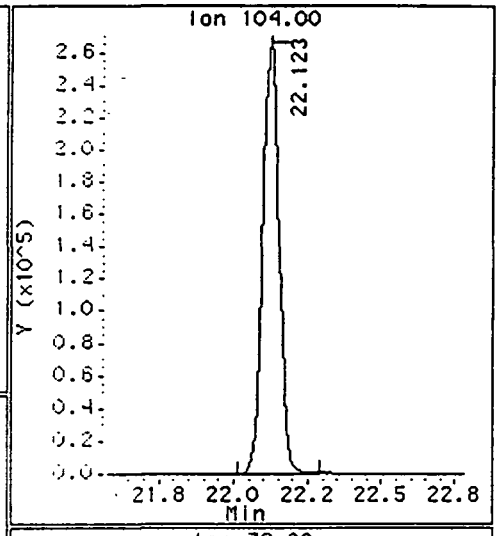
Operator: MH

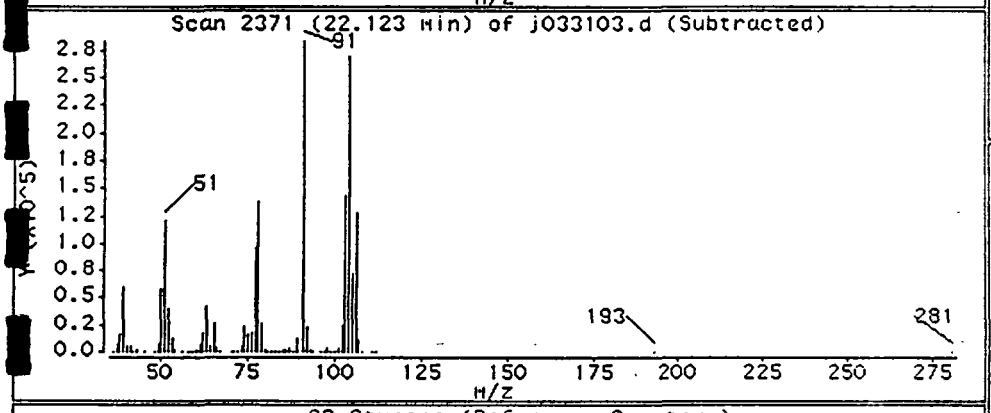
Column phase: RTx-624

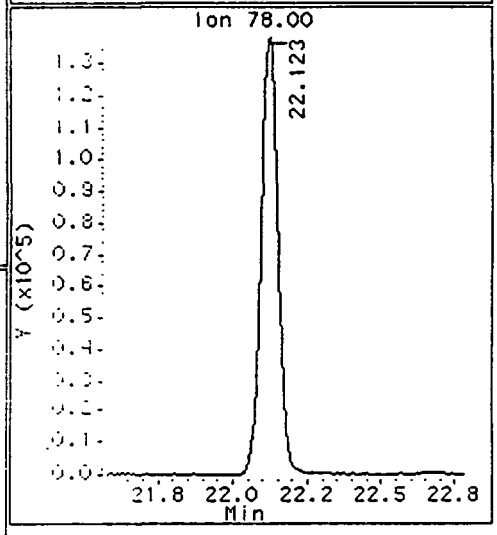
Column diameter: 0.58

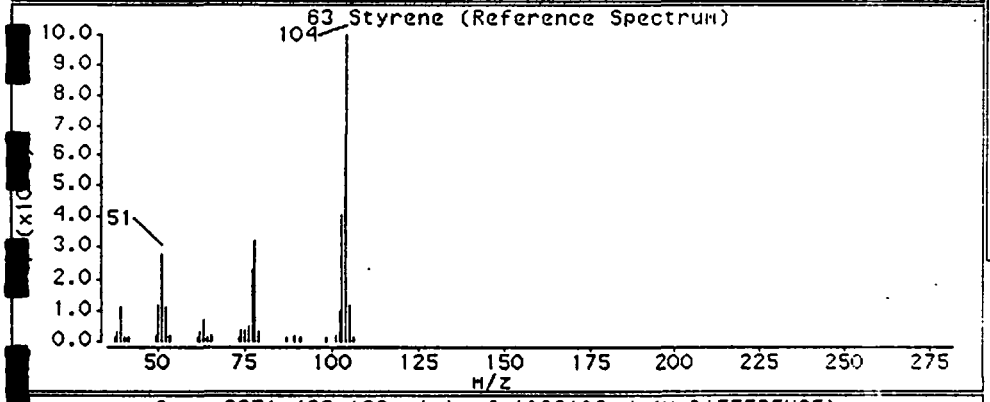
63 Styrene

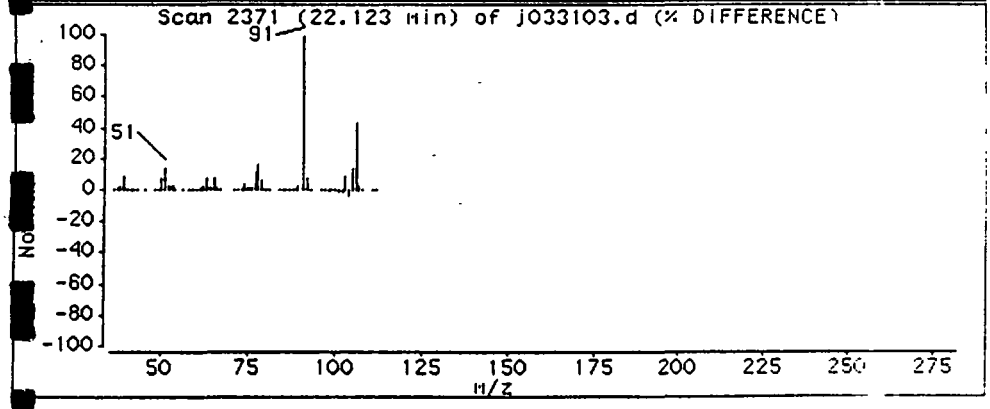








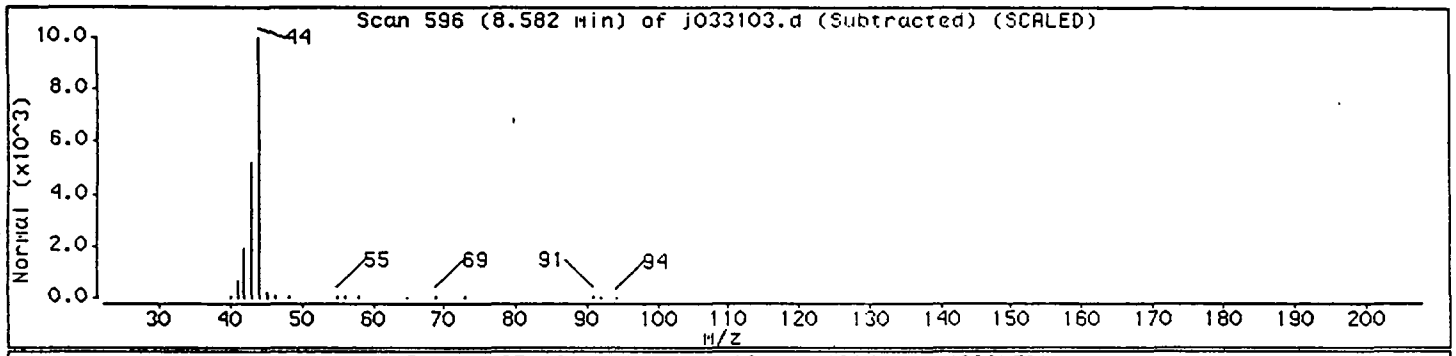


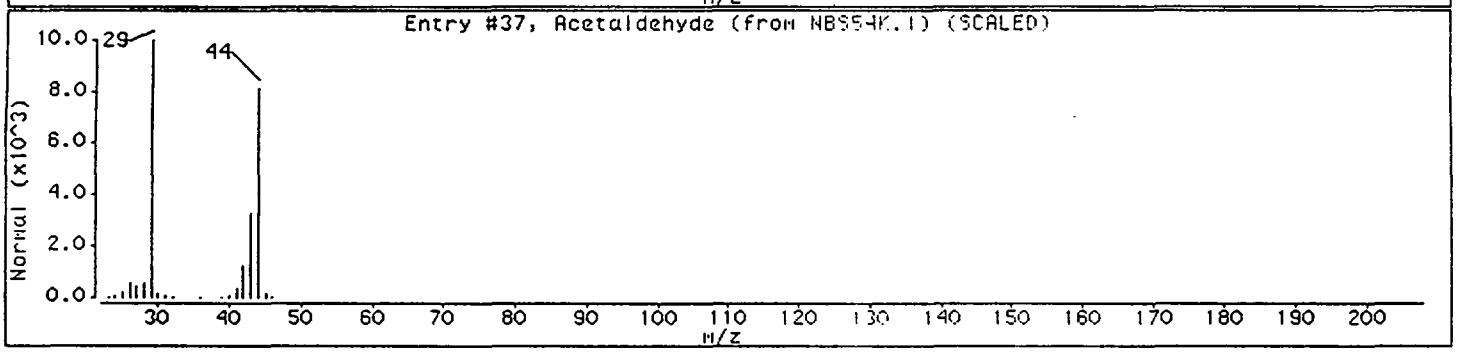


Data File: /chem/msdj.i/j-31mar.b/j033103.d
Date : 31-MAR-1997 10:46
Instrument: msdj.i
Client ID: Method Spike
Column phase: RTx-624

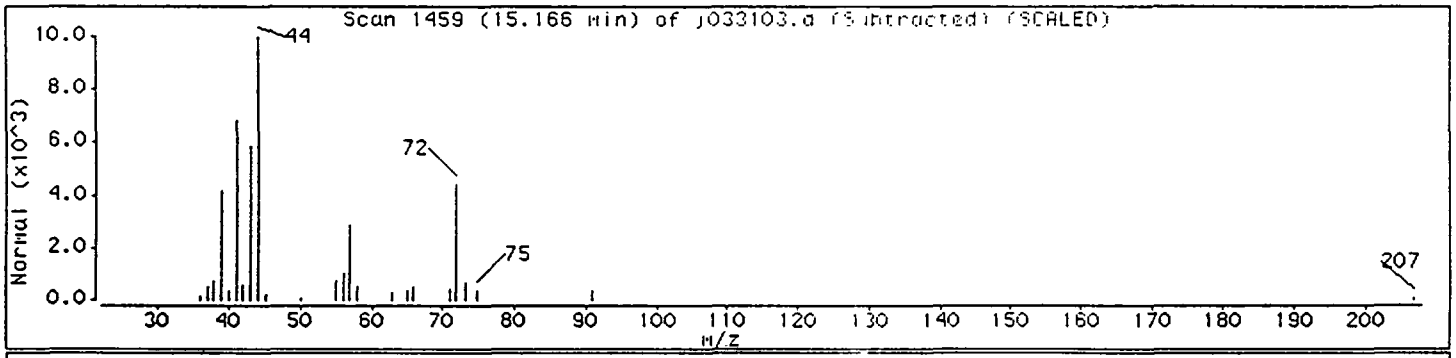
Column diameter: 0.58

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Acetaldehyde	75-07-0	NBS54K.I	37	64





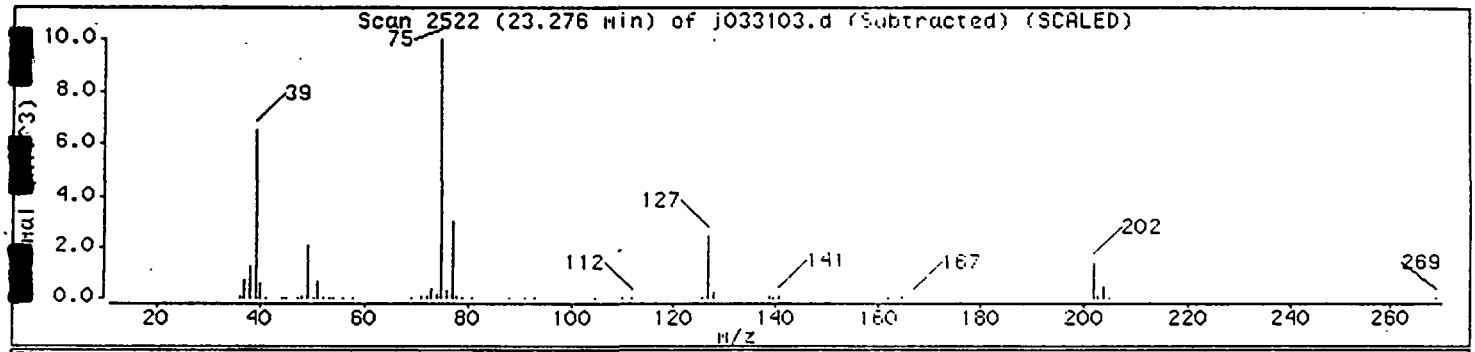
Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
UNKNOWN				

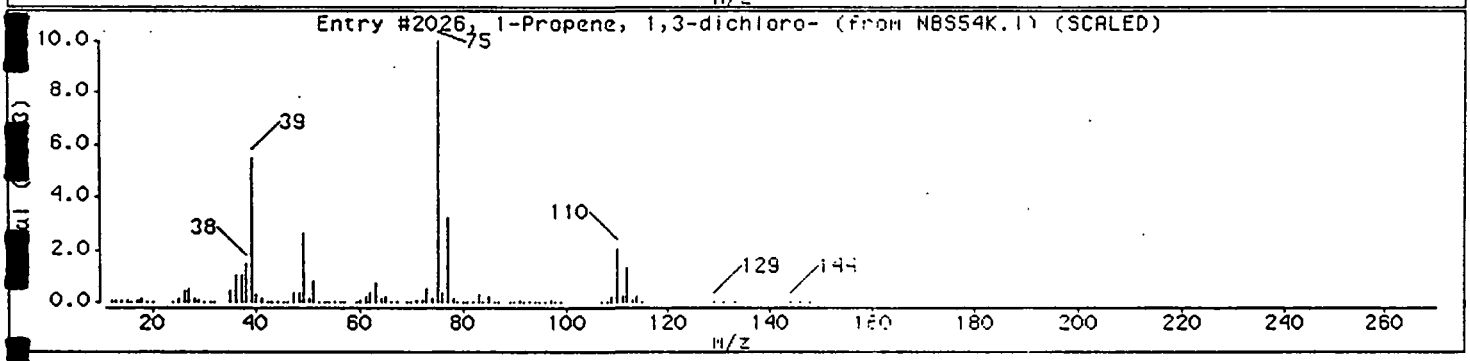


Data File: /chem/msdj.i/j-31mar.b/j033103.d
Date : 31-MAR-1997 10:46
Instrument: msdj.i
Client ID: Method Spike
Column phase: RTx-624

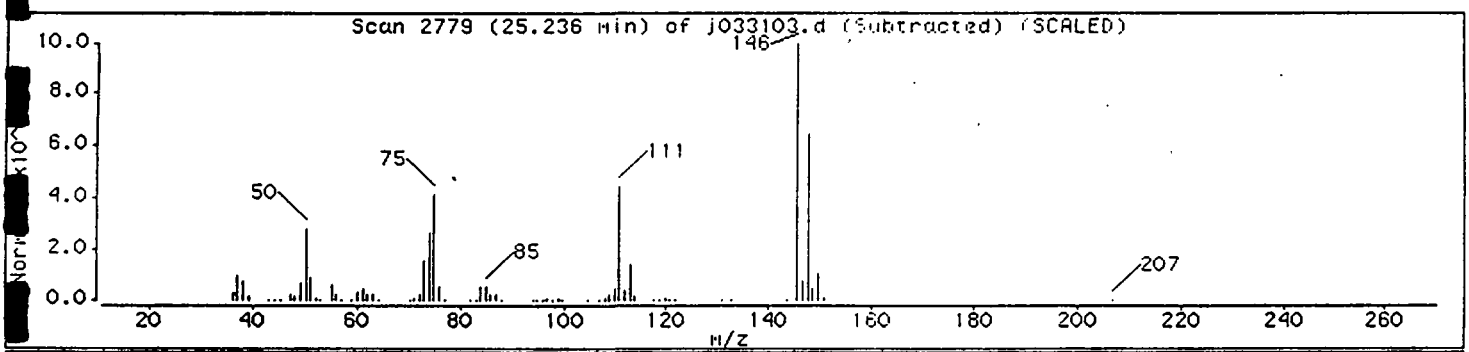
Column diameter: 0.58

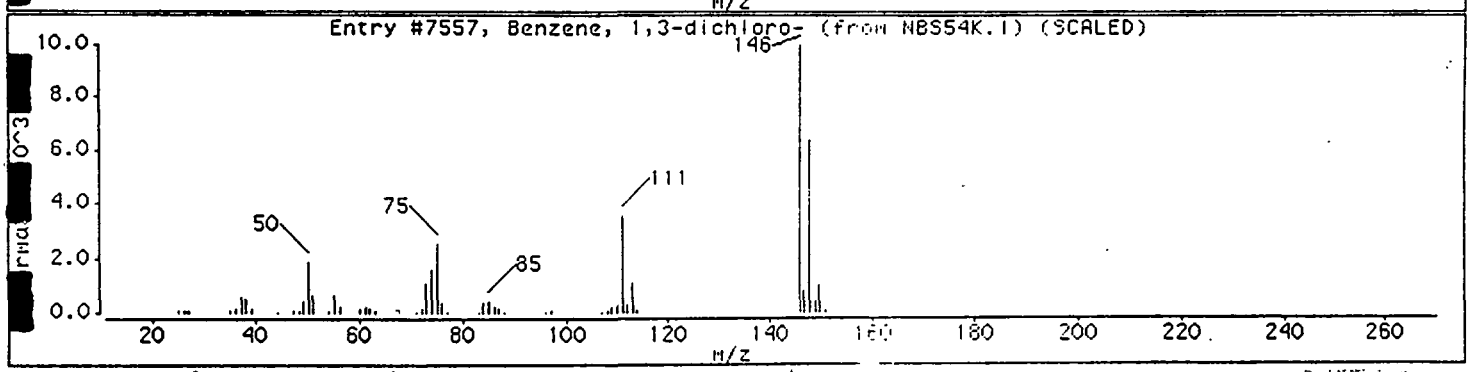
Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
1-Propene, 1,3-dichloro-	542-75-6	NBS54K.I	2026	56





Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Benzene, 1,3-dichloro-	541-73-1	NBS54K.I	7557	96

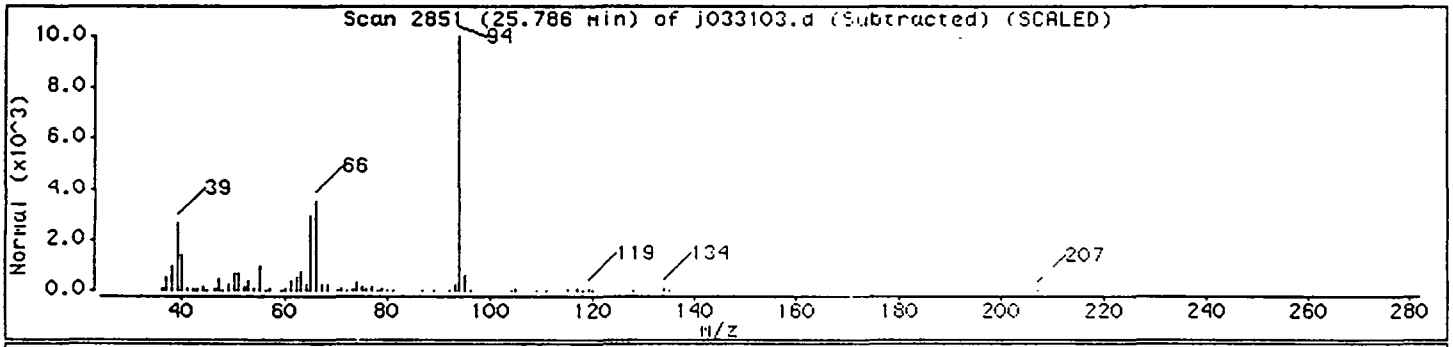


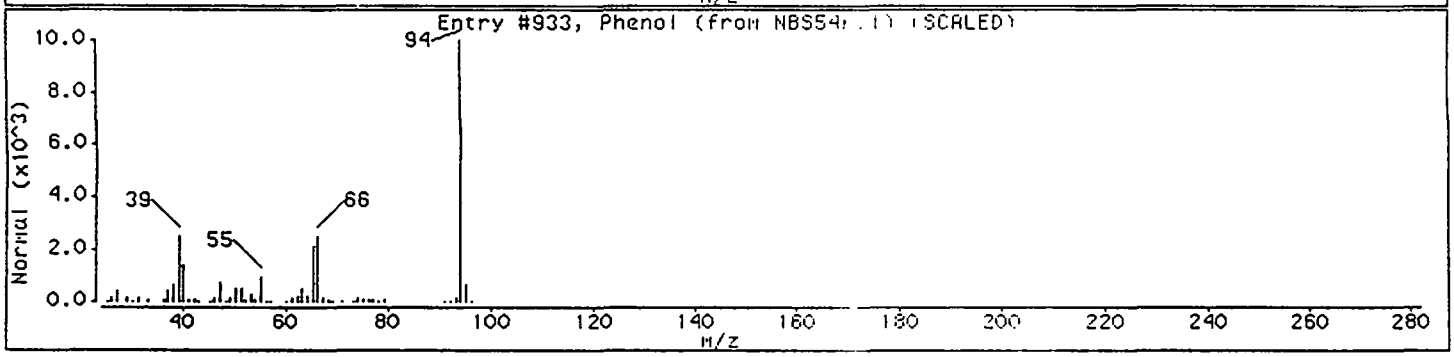


Data File: /chem/msdj.i/j-31mar.b/j033103.d

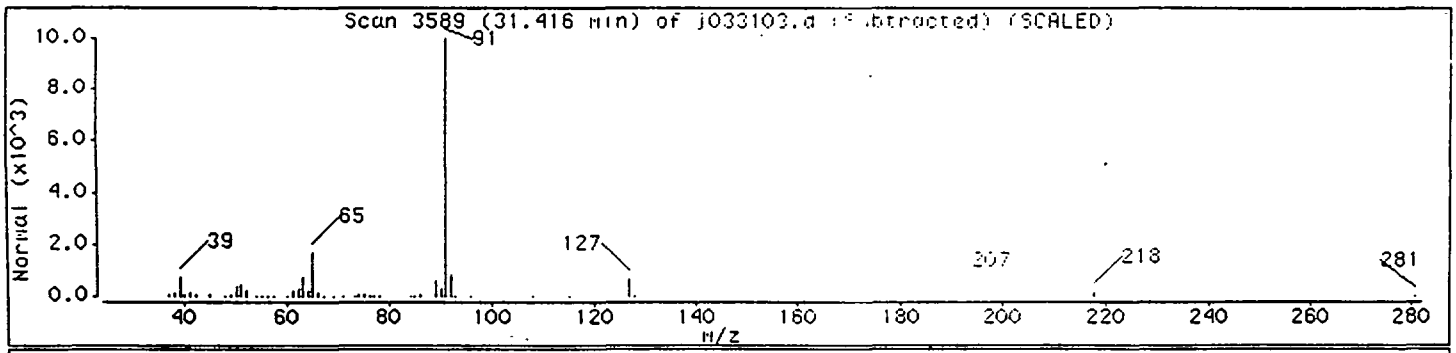
Date : 31-MAR-1997 10:46
Instrument: msdj.i
Client ID: Method Spike
Column phase: RTx-624 Column diameter: 0.58

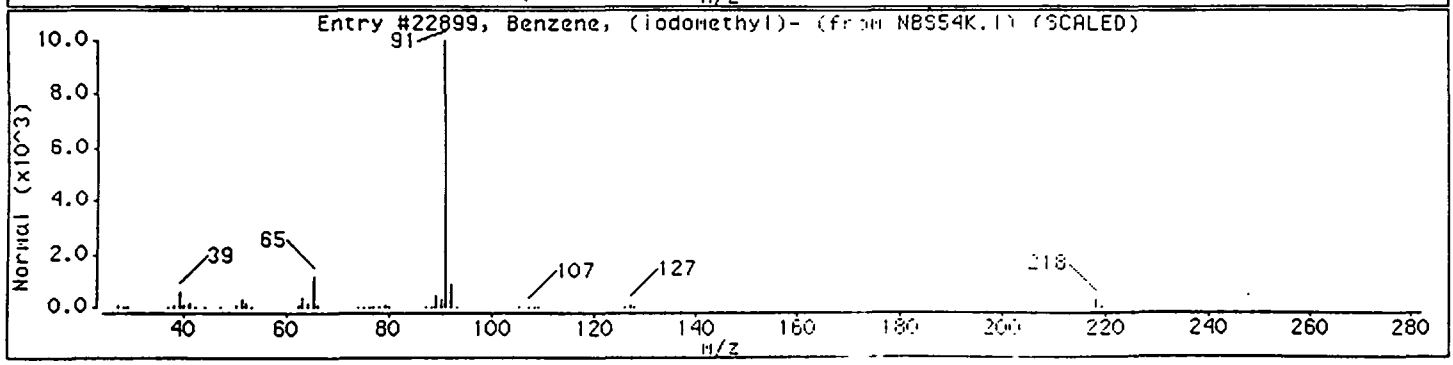
Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Phenol	108-95-2	NBS54K.I	933	87





Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Benzene, (iodomethyl)-	620-05-3	NBS54K.I	22899	72





Data File: /chem/msdj.i/j-09jan.b/j010903.d
Report Date: 09-Jan-1997 09:13

Air Toxics Limited

Data file : /chem/msdj.i/j-09jan.b/j010903.d
Lab Smp Id:
Inj Date : 09-JAN-1997 09:07
Operator : FA Inst ID: msdj.i
Smp Info : BFB Tune Check #275-8-25 2.0ul
Misc Info :
Comment :
Method : /chem/msdj.i/j-09jan.b/bfb.m
Meth Date : 09-Jan-1997 09:13 fayala Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 1 QC Sample: BFB
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.12 Sample Matrix: WATER
Concentration Formula: Uf * Vf * Vi

Name	Value	Description
Uf	1.000	ng unit correction factor
Vf	1.000	Volumetric correction factor
Vi	1.000	Injection Volume

RT	EXP RT	DLT RT	MASS	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
1 bfb						CAS #: 460-00-4		
8.019	8.019	0.000	95	65480				100.00
8.019	8.019	0.000	50	11913			15.00- 40.00	18.19
8.019	8.019	0.000	75	29837			30.00- 60.00	45.57
8.019	8.019	0.000	96	4304			5.00- 9.00	6.57
8.019	8.019	0.000	173	0			0.00- 2.00	0.00
8.019	8.019	0.000	174	46610			50.00- 100.00	71.18
8.019	8.019	0.000	175	3256			5.00- 9.00	6.99
8.019	8.019	0.000	176	45104			95.00- 101.00	96.77
8.019	8.019	0.000	177	3143			5.00- 9.00	6.97

Data File: /chem/msdj.i/j-09jan.b/j010903.d
Report Date: 09-Jan-1997 09:13

Air Toxics Limited

TARGET COMPOUNDS

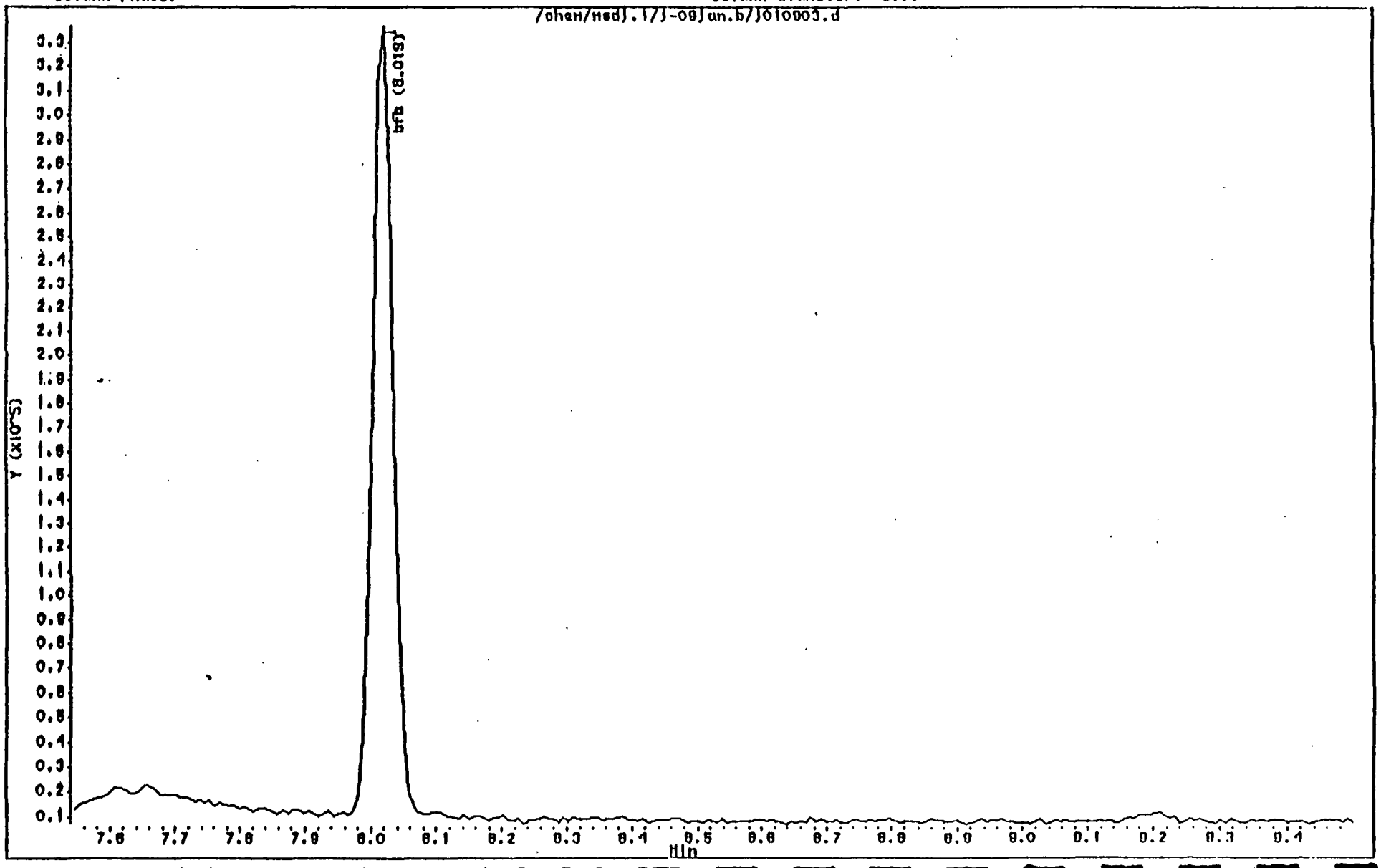
Client Name:
Lab Smp Id:
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: bfb
Data Type: MS DATA
Misc Info:

Client SDG: j-09jan
Sample Point:
Date Received:
Quant Type: ESTD
Level: LOW
Operator: FA

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

Data File: /ohem/msdj.1/j-09jun.b/j010003.d
Date : 09-JAN-1997 09:07
Client ID:
Sample Info: BFB Tune Check N275-8-25 2.0ul
Volume Injected (uL): 1.0
Column phase:

Instrument: msdj.1
Operator: FA
Column diameter: 2.00



Data File: /chem/msdj.i/j-09jan.b/j010903.d

Date : 09-JAN-1997 09:07

Client ID:

Instrument: msdj.i

Sample Info: BFB Tune Check #275-8-25 2.0ul

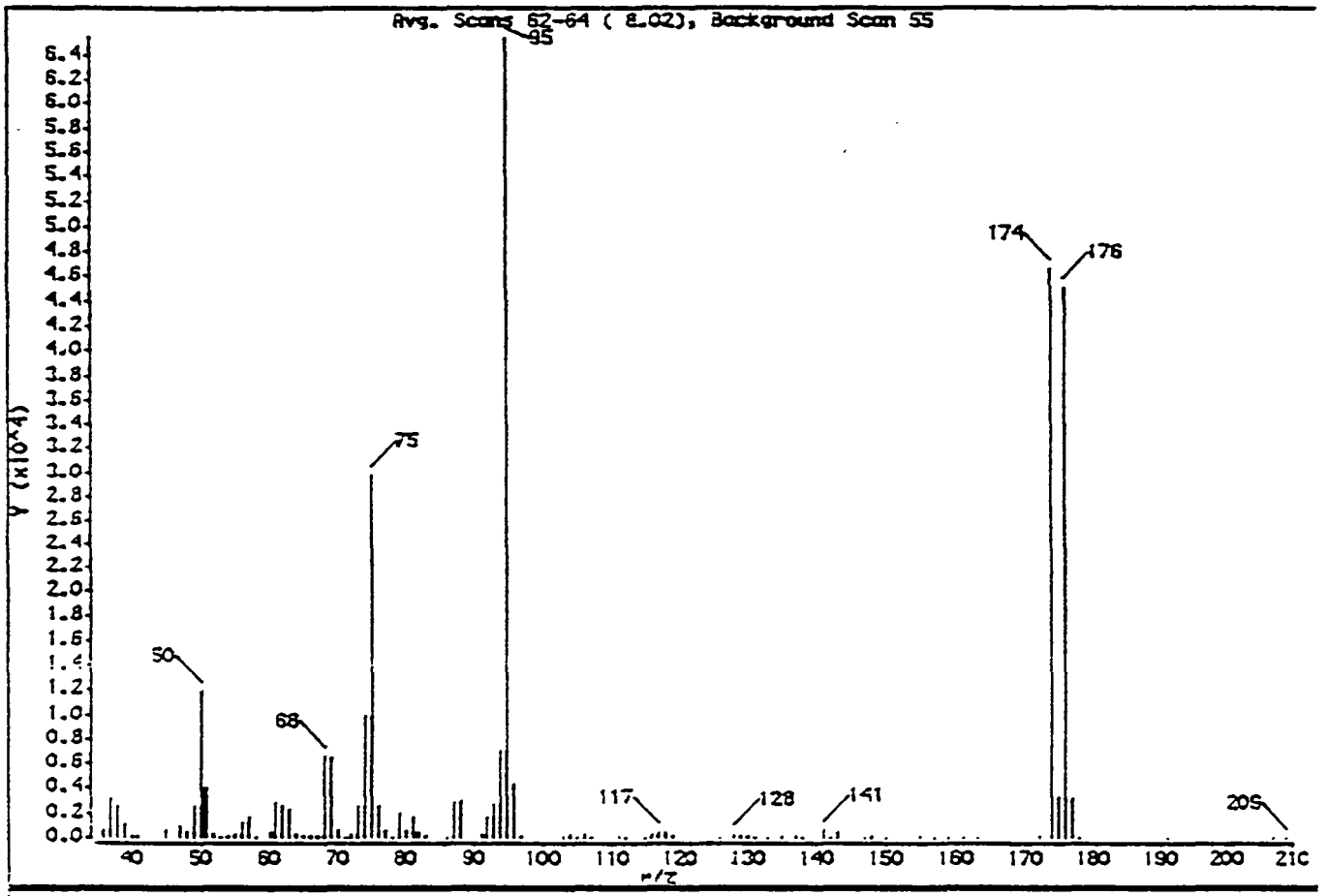
Volume Injected (uL): 1.0

Operator: FR

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	18.19
75	30.00 - 60.00% of mass 95	45.57
96	5.00 - 9.00% of mass 95	8.57
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 100.00% of mass 95	71.18
175	5.00 - 9.00% of mass 174	4.97 (6.99)
176	95.00 - 101.00% of mass 174	68.88 (96.77)
177	5.00 - 9.00% of mass 176	4.90 (6.97)

Data File: /chem/msdj.i/j-09jan.b/j010903.d

Date : 09-JAN-1997 09:07

Client ID:

Instrument: msdj.i

Sample Info: BFB Tune Check #275-8-25 2.0ul

Volume Injected (uL): 1.0

Operator: FA

Column phase:

Column diameter: 2.00

Data File: j010903.d

Spectrum : Avg. Scans 62-64 (8.02), Background Scan 55

Largest m/z: 95.00

Number of peaks: 94

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	611	65.00	120	93.00	2642	137.00	117
37.00	3142	66.00	195	94.00	7026	138.00	34
38.00	2627	67.00	154	95.00	65480	141.00	553
39.00	1089	68.00	6622	96.00	4304	142.00	56
40.00	94	69.00	6539	97.00	219	143.00	460
41.00	85	70.00	581	103.00	136	147.00	36
45.00	626	71.00	67	104.00	280	148.00	119
47.00	977	72.00	345	105.00	70	150.00	39
48.00	523	73.00	2521	106.00	230	155.00	121
49.00	2623	74.00	9552	107.00	34	157.00	59
50.00	11913	75.00	25832	111.00	152	159.00	55
51.00	4039	76.00	2533	112.00	43	161.00	36
52.00	279	77.00	551	115.00	43	163.00	35
53.00	50	78.00	54	116.00	263	172.00	218
54.00	83	79.00	1303	117.00	396	174.00	46608
55.00	250	80.00	551	118.00	382	175.00	3256
56.00	1167	81.00	1716	119.00	90	176.00	45104
57.00	1592	82.00	421	120.00	73	177.00	3143
58.00	2	83.00	159	122.00	261	178.00	45
60.00	477	86.00	52	125.00	108	191.00	75
61.00	2823	87.00	2534	130.00	201	207.00	37
62.00	2598	88.00	3022	131.00	45	209.00	46
63.00	2211	91.00	371	133.00	36		
64.00	255	92.00	1332	135.00	123		

Data File: /chem/msdj.i/j-31mar.b/j033101.d
Report Date: 31-Mar-1997 08:07

Air Toxics Limited

Data file : /chem/msdj.i/j-31mar.b/j033101.d
Lab Smp Id: Client Smp ID: BFB
Inj Date : 31-MAR-97 08:16
Operator : MH Inst ID: msdj.i
Smp Info : #275-8-25 BFB Tune Check 2uL (50n
Misc Info :
Comment :
Method : /chem/msdj.i/j-31mar.b/bfb.m
Meth Date : 31-Mar-1997 08:07 Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 1 QC Sample: BFB
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.12 Sample Matrix: WATER
Concentration Formula: Uf * Vf * Vi

Name	Value	Description
Uf	1.000	ng unit correction factor
Vf	1.000	Volumetric correction factor
Vi	1.000	Injection Volume

RT	EXP RT	DLT RT	MASS	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	[illegible]
1 bfb						CAS #: 460-00-4		
7.706	8.019	-0.313	95	106833				100.00
7.706	8.019	-0.313	50	20702			15.00- 40.00	19.38
7.706	8.019	-0.313	75	50032			30.00- 60.00	46.83
7.706	8.019	-0.313	96	7037			5.00- 9.00	6.59
7.706	8.019	-0.313	173	0			0.00- 2.00	0.00
7.706	8.019	-0.313	174	75946			50.00- 100.00	71.09
7.706	8.019	-0.313	175	5543			5.00- 9.00	[illegible]
7.706	8.019	-0.313	176	75778			95.00- 101.00	[illegible]
7.706	8.019	-0.313	177	5004			5.00- 9.00	[illegible]

Data File: /chem/msdj.i/j-31mar.b/j033101.d
Report Date: 31-Mar-1997 08:07

Air Toxics Limited

TARGET COMPOUNDS

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

Client SDG: j-31mar
Client Smp ID: BFB
Sample Point:
Date Received:
Quant Type: ESTD
Level: LOW
Operator: MH

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

C164

Data File: /chem/msdj.i/j-31mar.b/J033101.d

Page 3

Date : 31-MAR-97 08:16

Client ID: DFB

Instrument: msdj.i

Sample Info: M275-8-25 DFB Tune Check 2uL (50ng)

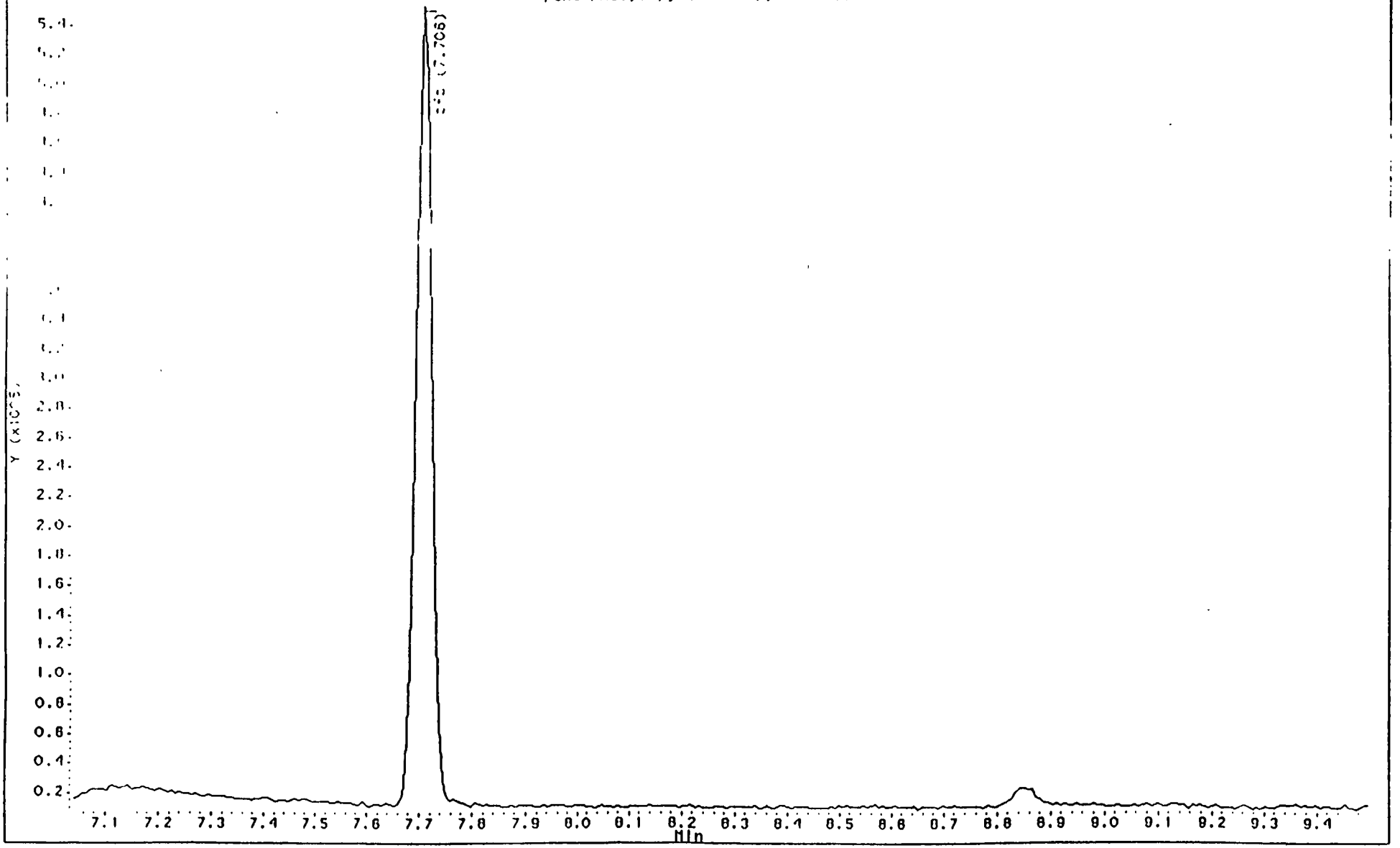
Volume Injected (uL): 1.0

Operator: MH

Column phase:

Column diameter: 2.00

/chem/msdj.i/j-31mar.b/J033101.d



Data File: /chem/msdj.i/j-31mar.b/j033101.d

Date : 31-MAR-97 08:15

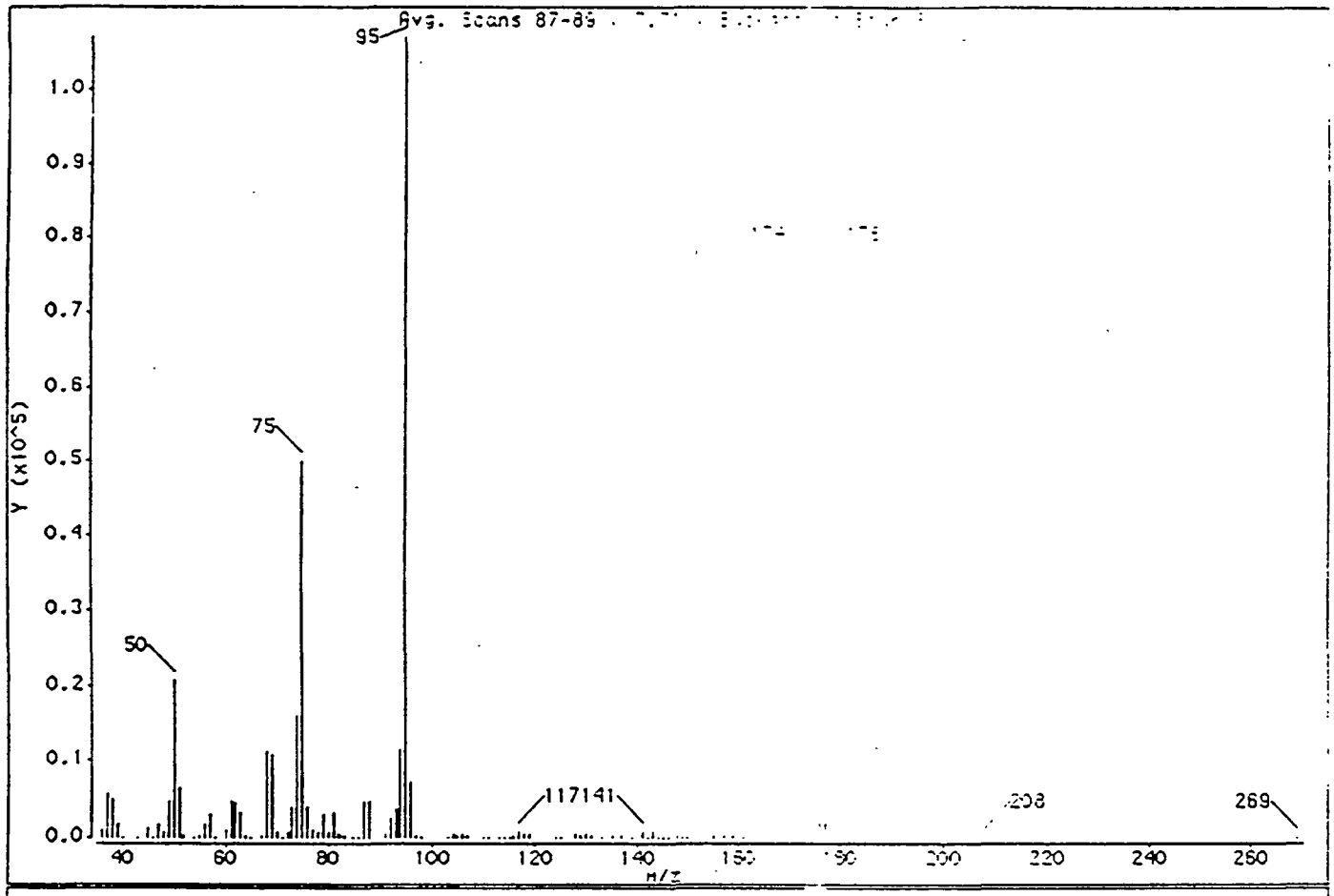
Client ID: BFB

Sample Info: #275-8-25 BFB Tune Check 2uL (50ng

Volume Injected (uL): 1.0

Column phase:

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	19.38
75	30.00 - 60.00% of mass 95	46.83
96	5.00 - 9.00% of mass 95	6.59
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 100.00% of mass 95	71.09
175	5.00 - 9.00% of mass 174	5.19 (7.30)
176	95.00 - 101.00% of mass 174	70.93 (99.78)
177	5.00 - 9.00% of mass 176	4.68 (6.60)

Data File: /chem/msd[illegible]/[illegible]-31mar.b/[illegible].d

Date : 31-MAR-97 08:16

Client ID: BFB

Sample Info: #275-8-25 BFB Tune Check [illegible] 50ng

Volume Injected (uL): 1.0

Column phase:

Data File: [illegible]033101.d
Spectrum : Avg. Scans 87-88 , [illegible]
Largest m/z: 95.00
Number of peaks: 100

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1083	68.00	11233	[illegible]	[illegible]	141.00	822
37.00	5647	69.00	10771	[illegible]	[illegible]	142.00	87
38.00	4331	70.00	810	103.00	[illegible]	143.00	778
39.00	1805	71.00	120	104.00	[illegible]	144.00	41
40.00	85	72.00	623	105.00	[illegible]	145.00	54
43.00	41	73.00	4049	106.00	[illegible]	146.00	41
45.00	1306	74.00	16065	107.00	[illegible]	148.00	212
46.00	61	75.00	50032	110.00	[illegible]	149.00	108
47.00	1838	76.00	3863	111.00	[illegible]	150.00	110
48.00	691	77.00	942	113.00	[illegible]	153.00	34
49.00	4538	78.00	646	114.00	[illegible]	155.00	201
50.00	20695	79.00	3003	115.00	[illegible]	157.00	201
51.00	6342	80.00	839	116.00	[illegible]	159.00	156
52.00	241	81.00	3140	117.00	[illegible]	161.00	117
54.00	50	82.00	528	118.00	[illegible]	174.00	75944
55.00	176	83.00	176	119.00	[illegible]	175.00	5543
56.00	1695	85.00	107	124.00	[illegible]	176.00	75776
57.00	2856	86.00	46	125.00	[illegible]	177.00	5004
58.00	61	87.00	4701	126.00	[illegible]	178.00	114
60.00	1096	88.00	4727	129.00	[illegible]	191.00	33
61.00	4640	91.00	505	130.00	[illegible]	208.00	41
62.00	4443	92.00	2350	131.00	[illegible]	209.00	86
63.00	3268	93.00	3788	133.00	[illegible]		
64.00	318	94.00	11550	135.00	[illegible]		
65.00	20	95.00	106832	137.00	[illegible]		
67.00	235	96.00	7037	139.00	[illegible]		

AIR TOXICS LTD.

SAMPLE NAME: Lab Blank

ID#: 9703255-03A

EPA METHOD TO-14 GC/MS Full Scan

File Name:	1033105	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	3/31/97

Compound	Det. Limit (ppbv)	Amount (ppbv)
Methylene Chloride	0.50	Not Detected
cis-1,2-Dichloroethene	0.10	Not Detected
1,1,1-Trichloroethane	0.10	Not Detected
Benzene	0.10	Not Detected
1,2-Dichloroethane	0.10	Not Detected
Trichloroethene	0.10	Not Detected
1,2-Dichloropropane	0.10	Not Detected
Toluene	0.10	Not Detected
Tetrachloroethene	0.10	Not Detected
Chlorobenzene	0.10	Not Detected
Ethyl Benzene	0.10	Not Detected
m,p-Xylene	0.10	Not Detected
o-Xylene	0.10	Not Detected
Styrene	0.10	Not Detected
Acetone	0.50	Not Detected
Carbon Disulfide	0.50	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.50	Not Detected

Container Type: NA

Surrogates	% Recovery	Method Limits
Octafluorotoluene	100	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	108	70-130

MH
3/31/97

Data File: /chem/msdj.i/j-31mar.b/j033105.d
Report Date: 31-Mar-1997 15:01

Air Toxics Limited

AMBIENT AIR METHOD TO14

Data file : /chem/msdj.i/j-31mar.b/j033105.d
Lab Smp Id: Client Smp ID: Lab Blank
Inj Date : 31-MAR-1997 12:35
Operator : MH Inst ID: msdj.i
Smp Info : 500mL Can#05705 Certification
Misc Info : Lab Blank
Comment :
Method : /chem/msdj.i/j-31mar.b/to140109.m
Meth Date : 31-Mar-1997 11:14 mhe Quant Type: ISTD
Cal Date : 09-JAN-1997 12:48 Cal File: j010909.d
Als bottle: 1
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: AT.sub
Target Version: 3.12 Sample Matrix: AIR
Concentration Formula: Uf * Vf

Name	Value	Description
Uf	1.000	ng unit correction factor
Vf	1.000	Volumetric correction factor

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
* 30 Bromochloromethane					CAS #: 74-97-5			
15.783	15.820 (1.000)	130	195223	5.0			100.00	9189
15.783	15.820 (0.000)	128	45520			26.08- 126.08	23.32	
15.783	15.820 (0.000)	49	110024			142.81- 242.81	56.36	
* 40 1,4-Difluorobenzene					CAS #: 540-36-3			
17.118	17.155 (1.000)	114	876913	5.0			100.00	9258
17.118	17.155 (0.000)	88	53256			0.00- 69.13	6.07	
* 58 Chlorobenzene-d5					CAS #: 3114-55-4			
21.184	21.229 (1.000)	117	784205	5.0			100.00	9944
21.184	21.229 (0.000)	82	136832			14.81- 114.81	17.45	
$ 35 Octafluorotoluene					CAS #: 434-64-0			
16.309	16.346 (1.033)	217	451323	5.0	5.0		100.00	8141
16.309	16.346 (0.000)	186	94696			17.98- 117.98	20.98	
$ 49 Toluene-d8					CAS #: 2037-26-5			
19.132	19.169 (1.118)	98	833433	5.2	5.2		100.00	9934
19.132	19.169 (0.000)	70	33560			0.00- 63.97	4.03	
19.132	19.169 (0.000)	100	164544			16.53- 116.53	9.74	

Data File: /chem/msdj.i/j-31mar.b/j033105.d
Report Date: 31-Mar-1997 15:01

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
$ 65 Bromofluorobenzene						CAS #: 460-00-4			
23.000	23.060	(1.086)	95	659234	5.4	5.4		100.00	7954
23.000	23.060	(0.000)	174	88832			10.31- 110.31	13.48	
23.000	23.060	(0.000)	176	86336			7.57- 107.57	13.10	

Audit History For: /chem/msdj.i/j-31mar.b/j033105.d

MH
3/31/97

Change Date: 31-Mar-97 12:51
Change Made by: Automation

Parameter: ChemLan Data Transfer
Old Value:
New Value:
Reason For Change: MS Data from Instrument: msdj.i

Change Date: 31-Mar-97 12:52
Change Made by: Automation

Parameter: Target Processing
Old Value:
New Value: Method: /chem/msdj.i/j-31mar.b/to140109.m
Reason For Change: Complete Target Compound Processing

Change Date: 31-Mar-97 13:24
Change Made by: mhe

Parameter: date
Old Value: 31-MAR-97 12:35
New Value: 31-MAR-1997 12:35
Reason For Change: N/A

Change Date: 31-Mar-97 13:24
Change Made by: mhe

Parameter: Misc Information
Old Value:
New Value: Lab Blank
Reason For Change: N/A

Change Date: 31-Mar-97 13:24
Change Made by: mhe

Parameter: Sample Info
Old Value: 500mL Can#05705
New Value: 500mL Can#05705 Certification
Reason For Change: N/A

Change Date: 31-Mar-97 13:24
Change Made by: mhe

Parameter: Client ID
Old Value: VSTD150
New Value: Lab Blank
Reason For Change: N/A

Change Date: 31-Mar-97 13:24
Change Made by: mhe

Parameter: Target Processing
Old Value:
New Value: Method: /chem/msdj.i/j-31mar.b/to140109.m
Reason For Change: Quantitation

Change Date: 31-Mar-97 14:59
Change Made by: mhe

Parameter: Best Hit for Propylene changed
Old Value: Old Hit #2
New Value: Compound Undetected
Reason For Change: N/A

Change Date: 31-Mar-97 14:59
Change Made by: mhe

Parameter: Requantitate all compounds
Old Value:
New Value:
Reason For Change: N/A

Change Date: 31-Mar-97 15:00
Change Made by: mhe

Parameter: Best Hit for Ethanol changed
Old Value: Old Hit #2
New Value: Compound Undetected
Reason For Change: N/A

Change Date: 31-Mar-97 15:00
Change Made by: mhe

Parameter: Requantitate all compounds
Old Value:
New Value:
Reason For Change: N/A

Change Date: 31-Mar-97 15:00
Change Made by: mhe

Parameter: Best Hit for Freon 113 changed
Old Value: Compound Manually Identified
New Value: New Hit #1
Reason For Change: N/A

Change Date: 31-Mar-97 15:00
Change Made by: mhe

Parameter: Manual reintegration of Freon 113 (Sign... 1)
Old Value: No previous peak at 12.418
New Value: New Area/Time: 363 / 12.42
Reason For Change: N/A

Change Date: 31-Mar-97 15:00
Change Made by: mhe

Parameter: Best Hit for Freon 113 changed
Old Value: Old Hit #1
New Value: Compound Undetected
Reason For Change: N/A

Change Date: 31-Mar-97 15:00
Change Made by: mhe

Parameter: Requantitate all compounds
Old Value:
New Value:

Reason For Change: N/A

Change Date: 31-Mar-97 15:00
Change Made by: mhe

Parameter: Best Hit for Carbon Disulfide changed
Old Value: Old Hit #1
New Value: Compound Undetected
Reason For Change: N/A

Change Date: 31-Mar-97 15:00
Change Made by: mhe

Parameter: Requantitate all compounds
Old Value:
New Value:
Reason For Change: N/A

Change Date: 31-Mar-97 15:00
Change Made by: mhe

Parameter: Best Hit for Acetone changed
Old Value: Old Hit #1
New Value: Compound Undetected
Reason For Change: N/A

Change Date: 31-Mar-97 15:00
Change Made by: mhe

Parameter: Requantitate all compounds
Old Value:
New Value:
Reason For Change: N/A

Change Date: 31-Mar-97 15:00
Change Made by: mhe

Parameter: Best Hit for Methylene Chloride changed
Old Value: Old Hit #1
New Value: Compound Undetected
Reason For Change: N/A

Change Date: 31-Mar-97 15:00
Change Made by: mhe

Parameter: Requantitate all compounds
Old Value:
New Value:
Reason For Change: N/A

Change Date: 31-Mar-97 15:00
Change Made by: mhe

Parameter: Best Hit for 1,2-Dichloroethane changed
Old Value: Old Hit #1
New Value: Compound Undetected
Reason For Change: N/A

Change Date: 31-Mar-97 15:00
Change Made by: mhe

Parameter: Requantitate all compounds
Old Value:
New Value:
Reason For Change: N/A

Change Date: 31-Mar-97 15:00
Change Made by: mhe

Parameter: Best Hit for Heptane changed
Old Value: Old Hit #1
New Value: Compound Undetected
Reason For Change: N/A

Change Date: 31-Mar-97 15:00
Change Made by: mhe

Parameter: Requantitate all compounds
Old Value:
New Value:
Reason For Change: N/A

Change Date: 31-Mar-97 15:00
Change Made by: mhe

Parameter: Best Hit for 4-Methyl-2-pentanone changed
Old Value: Old Hit #1
New Value: Compound Undetected
Reason For Change: N/A

Change Date: 31-Mar-97 15:00
Change Made by: mhe

Parameter: Requantitate all compounds
Old Value:
New Value:
Reason For Change: N/A

Change Date: 31-Mar-97 15:00
Change Made by: mhe

Parameter: Best Match for Unknown compound at 22.6[illegible] min. changed.
Old Value: Old match: Acetamide, N,N-dimethyl-
New Value: New match: Unknown Compound Deleted
Reason For Change: N/A

Change Date: 31-Mar-97 15:00
Change Made by: mhe

Parameter: Best Match for Unknown compound at 25.808 min. changed.
Old Value: Old match: Phenol
New Value: New match: Unknown Compound Deleted
Reason For Change: N/A

Change Date: 31-Mar-97 15:01
Change Made by: mhe

Parameter: Best Match for Unknown compound at 34.4[illegible] min. changed.
Old Value: Old match: Unknown
New Value: New match: Unknown Compound Deleted

Reason For Change: N/A

Change Date: 31-Mar-97 15:01
Change Made by: mhe

Parameter: Best Match for Unknown compound at 10.122 min. changed.
Old Value: Old match: Unknown
New Value: New match: Unknown Compound Deleted
Reason For Change: N/A

Data File: /chem/msdj.i/j-31mar.b/j033105.d
Report Date: 31-Mar-1997 13:25

NM 3/31/97

Air Toxics Limited

AMBIENT AIR METHOD TO14

Data file : /chem/msdj.i/j-31mar.b/j033105.d
Lab Smp Id: Client Smp ID: Lab Blank
Inj Date : 31-MAR-1997 12:35
Operator : MH Inst ID: msdj.i
Smp Info : 500mL Can#05705 Certification
Misc Info : Lab Blank
Comment :
Method : /chem/msdj.i/j-31mar.b/to140109.m
Meth Date : 31-Mar-1997 11:14 mhe Quant Type: ISTD
Cal Date : 09-JAN-1997 12:48 Cal File: j010909.d
Als bottle: 1
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: AT.sub
Target Version: 3.12 Sample Matrix: AIR
Concentration Formula: Uf * Vf

Name	Value	Description
Uf	1.000	ng unit correction factor
Vf	1.000	Volumetric correction factor

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
* 30 Bromochloromethane					CAS #: 74-97-5			
15.783	15.820 (1.000)	130	195223	5.0			100.00	9189
15.783	15.820 (0.000)	128	45520			26.08- 126.08	23.32	
15.783	15.820 (0.000)	49	110024			142.81- 242.81	56.36	
* 40 1,4-Difluorobenzene					CAS #: 540-36-3			
17.118	17.155 (1.000)	114	876913	5.0			100.00	9258
17.118	17.155 (0.000)	88	53256			0.00- 69.13	6.07	
* 58 Chlorobenzene-d5					CAS #: 3114-55-4			
21.184	21.229 (1.000)	117	784205	5.0			100.00	9944
21.184	21.229 (0.000)	82	136832			14.81- 114.81	17.45	
* 35 Octafluorotoluene					CAS #: 434-64-0			
16.309	16.346 (1.033)	217	451323	5.0	5.0		100.00	8141
16.309	16.346 (0.000)	186	94696			17.98- 117.98	20.98	
* 49 Toluene-d8					CAS #: 2037-26-5			
19.132	19.169 (1.118)	98	833433	5.2	5.2		100.00	9934
19.132	19.169 (0.000)	70	33560			0.00- 63.97	4.03	
19.132	19.169 (0.000)	100	164544			16.53- 116.53	19.74	

Data File: /chem/msdj.i/j-31mar.b/j033105.d
Report Date: 31-Mar-1997 13:25

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	CONCENTRATIONS FINAL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
$ 65 Bromofluorobenzene					CAS #: 460-00-4			
23.000	23.060 (1.086)	95	659234	5.4	5.4		100.00	7954
23.000	23.060 (0.000)	174	88832			10.31- 110.31	13.48	
23.000	23.060 (0.000)	176	86336			7.57- 107.57	13.10	
1 Propylene					CAS #: 115-07-1			
4.392	4.236 (0.278)	41	6298	0.19	0.19		100.00	5769(Q)
4.392	4.236 (0.000)	42	0			14.10- 114.10	0.00	
4.392	4.236 (0.000)	39	159			20.85- 120.85	2.52	
4.095	4.236 (0.259)	41	3360	0.10	0.10		100.00	5166(Q)
4.095	4.236 (0.000)	42	0			14.10- 114.10	0.00	
4.095	4.236 (0.000)	39	216			20.85- 120.85	6.43	
11 Ethanol					CAS #: 64-17-5			
11.617	11.952 (0.736)	45	810	0.051	0.051		100.00	(aQ)
0.000	11.952 (0.000)	46	0			0.00- 91.33	0.00	
11.533	11.952 (0.731)	43	2276			0.00- 76.37	280.99	
11.388	11.952 (0.722)	45	808	0.050	0.050		100.00	(aQ)
0.000	11.952 (0.000)	46	0			0.00- 91.33	0.00	
11.434	11.952 (0.724)	43	1111			0.00- 76.37	37.50	
12.304	11.952 (0.780)	45	931	0.058	0.058		100.00	(a)
0.000	11.952 (0.000)	46	0			0.00- 91.33	0.00	
12.281	11.952 (0.778)	43	434			0.00- 76.37	46.62	
17 Carbon Disulfide					CAS #: 75-15-0			
12.678	12.707 (0.803)	76	10456	0.071	0.071		100.00	7005(a)
16 Acetone					CAS #: 67-64-1			
12.594	12.578 (0.798)	43	16357	0.21	0.21		100.00	(a)
12.594	12.578 (0.798)	58	5783			0.00- 79.57	35.35	
20 Methylene Chloride					CAS #: 75-09-2			
13.387	13.409 (0.848)	84	3854	0.086	0.086		100.00	8456(a)
13.387	13.409 (0.000)	49	1482			102.16- 202.16	38.45	
13.387	13.409 (0.000)	51	469			0.00- 96.86	[illegible]	
38 1,2-Dichloroethane					CAS #: 107-06-2			
17.118	16.713 (1.000)	62	35044	0.53	0.53		100.00	3539(Q)
17.118	16.713 (0.000)	64	10583			0.00- 83.16	30.20	
39 Heptane					CAS #: 142-82-5			
16.691	16.941 (0.975)	43	163702	1.4	1.4		100.00	3473
16.691	16.941 (0.000)	57	193			0.00- 96.21	0.12	
16.691	16.941 (0.000)	71	0			0.00- 99.30	0.00	

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
47 4-Methyl-2-pentanone					CAS #: 108-10-1			
19.125	18.910 (1.117)	43	6558	0.052	0.052		100.00	1254(aQ)
19.125	18.910 (0.000)	58	2549			0.00- 85.30	38.87	
19.125	18.910 (0.000)	85	0			0.00- 61.74	0.00	

C Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

Air Toxics Limited

Unknown Compounds Quantitation Report

Data file : /chem/msdj.i/j-31mar.b/j033105.d
Lab Smp Id: Client Smp ID: Lab Blank
Inj Date : 31-MAR-1997 12:35
Operator : MH Inst ID: msdj.i
Smp Info : 500mL Can#05705 Certification
Misc Info : Lab Blank
Comment :
Method : /chem/msdj.i/j-31mar.b/to140109.m
Meth Date : 31-Mar-1997 11:14 mhe
Cal Date : 09-JAN-1997 12:48 Cal File: j010909.d
Als bottle: 1
Dil Factor: 1.000 Target Version: 3.12
Integrator: HP RTE Compound Sublist: AT.sub
Sample Matrix: AIR
Quantitative Mode : Use RF of Nearest Std
Concentration Formula: Uf * Vf

Name	Value	Description
Uf	1.000	ng unit correction factor
Vf	1.000	Volumetric correction factor

ISTD	RT	AREA	AMOUNT
* 30 Bromochloromethane	15.783	1289122	5.000
* 58 Chlorobenzene-d5	21.184	2685938	5.000

RT	AREA	CONCENTRATIONS ON-COL(PPBV)	FINAL(PPBV)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown					CAS #:		
10.122	81192	0.31	0.31	0		0	30
Acetamide, N,N-dimethyl-					CAS #: 127-19-5		
22.611	2055953	3.8	3.8	72	NBS54K.l	707	58
Phenol					CAS #: 108-95-2		
25.808	465993	0.87	0.87	90	NBS54K.l	933	58
Unknown					CAS #:		
34.406	1735979	3.2	3.2	0		0	58

Data File: /chem/msdj.i/j-31mar.b/j033105.d
Report Date: 31-Mar-1997 13:25

Air Toxics Limited

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdj.i
Lab File ID: j033105.d
Lab Smp Id:
Analysis Type: VOA
Quant Type: ISTD
Operator: MH
Method File: /chem/msdj.i/j-31mar.b/to140109.m
Misc Info: Lab Blank

Calibration Date: 03/31/97
Calibration Time: 1046
Client Smp ID: Lab Blank
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	% DIFF
30 Bromochloromethane	197959	118775	277143	195223	-1.38
40 1,4-Difluorobenzene	879427	527656	1231198	876913	-0.29
58 Chlorobenzene-d5	791228	474737	1107719	784205	-0.89

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	% DIFF
30 Bromochloromethane	15.78	15.28	16.28	15.78	0.00
40 1,4-Difluorobenzene	17.12	16.62	17.62	17.12	0.00
58 Chlorobenzene-d5	21.18	20.68	21.68	21.18	0.03

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

MM 3/31/97

Data File: /chem/msdj.i/j-31mar.b/j033105.d
Report Date: 31-Mar-1997 13:25

Air Toxics Limited

RECOVERY REPORT

Client Name:
Sample Matrix: GAS
Lab Smp Id:
Level: LOW
Data Type: MS DATA
SpikeList File:
Method File: /chem/msdj.i/j-31mar.b/to140109.m
Misc Info: Lab Blank

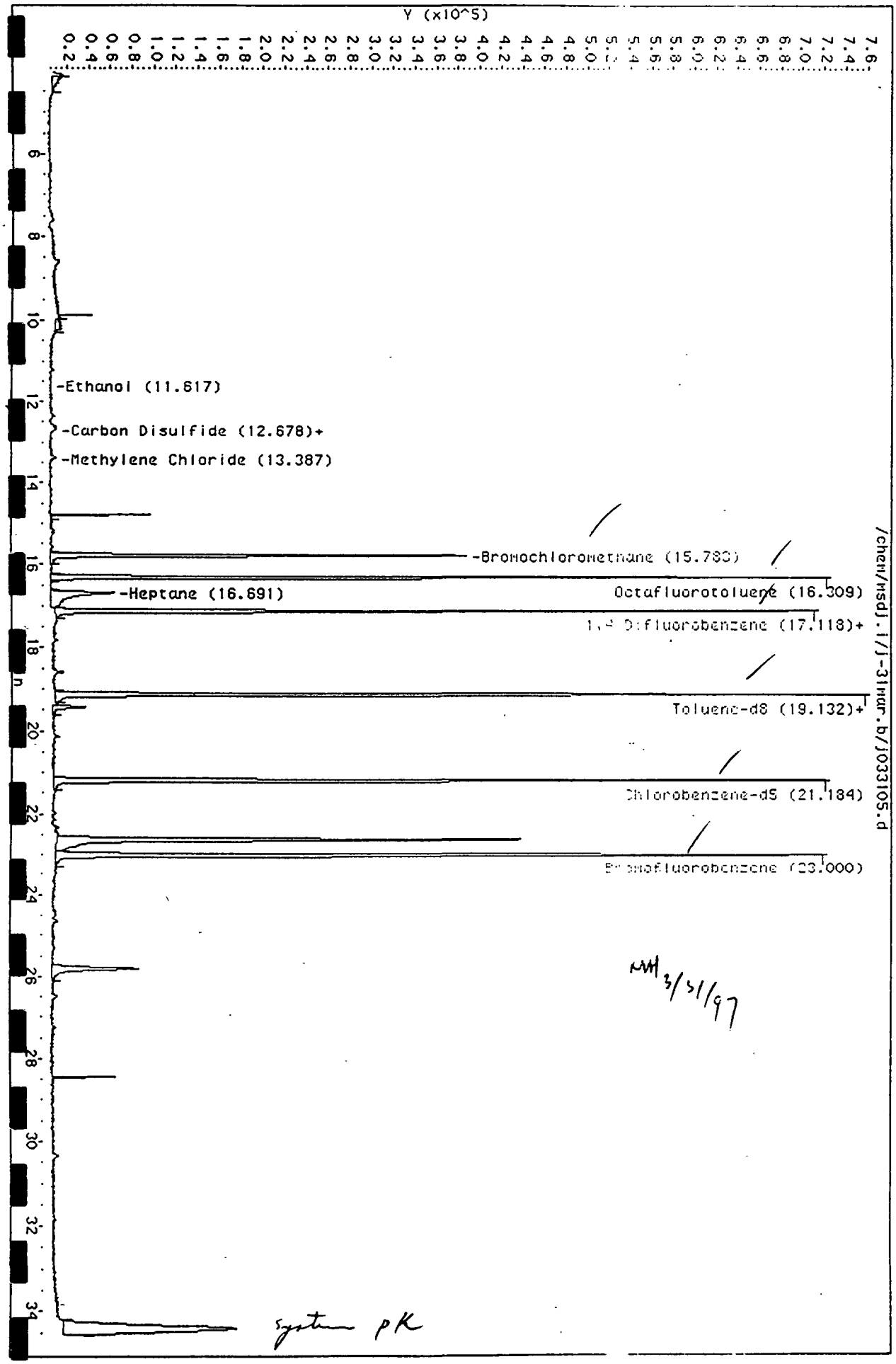
Client SDG: j-31mar
Fraction: VOA
Client Smp ID: Lab Blank
Operator: MH
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 35 Octafluorotoluene	5.0	5.0	99.78	60-140
$ 49 Toluene-d8	5.0	5.2	105.04	60-140
$ 65 Bromofluorobenzene	5.0	5.4	108.57	60-140

MH
3/31/97

Data File: /chem/msdj.i/j-31mar.b/j033105.d
Date : 31-MAR-1997 12:35
Client ID: Lab Blank
Sample Info: 500mL CanH05705 Certification
Column phase: RTx-624

Instrument: msdj.i
Operator: MH
Column diameter: 0.58



Data File: /chem/msdj.i/j-31mar.b/j033105.d

Date : 31-MAR-1997 12:35

Client ID: Lab Blank

Instrument: msdj.i

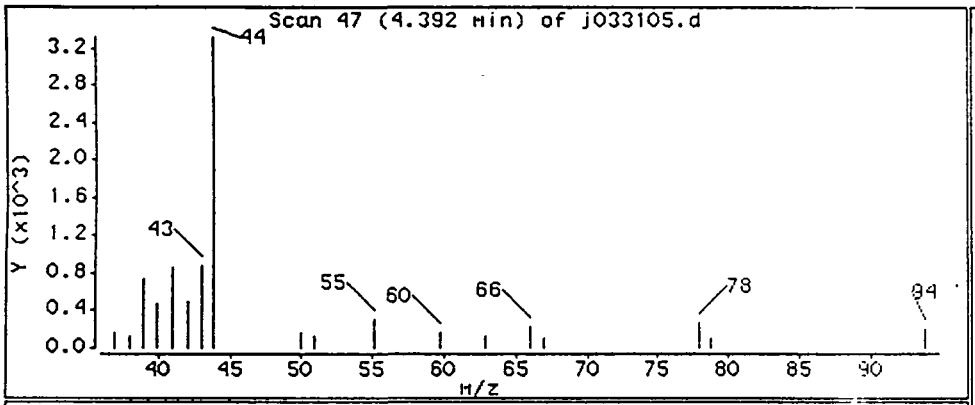
Sample Info: 500mL Can#05705 Certification

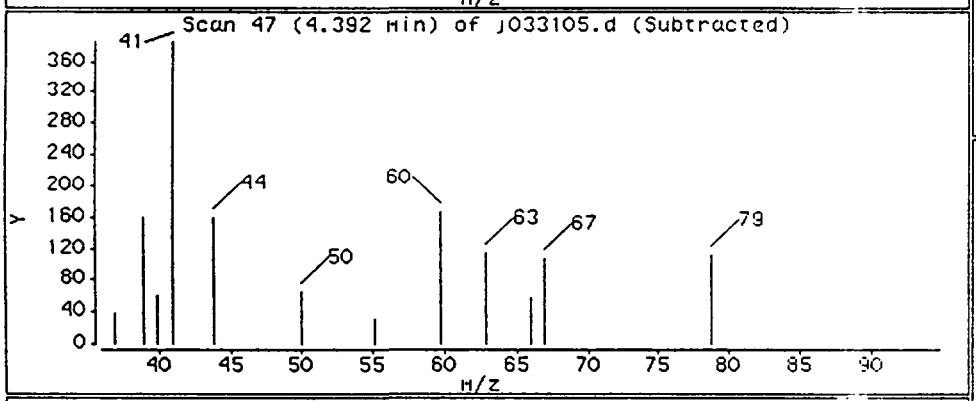
Operator : MH

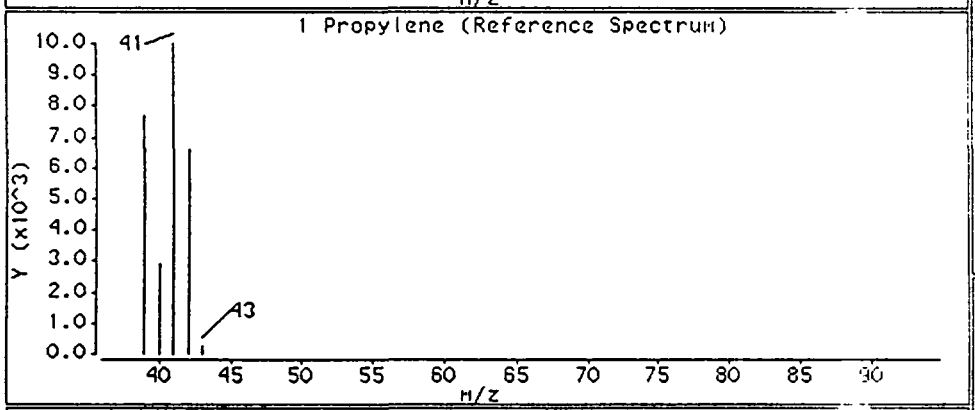
Column phase: RTx-624

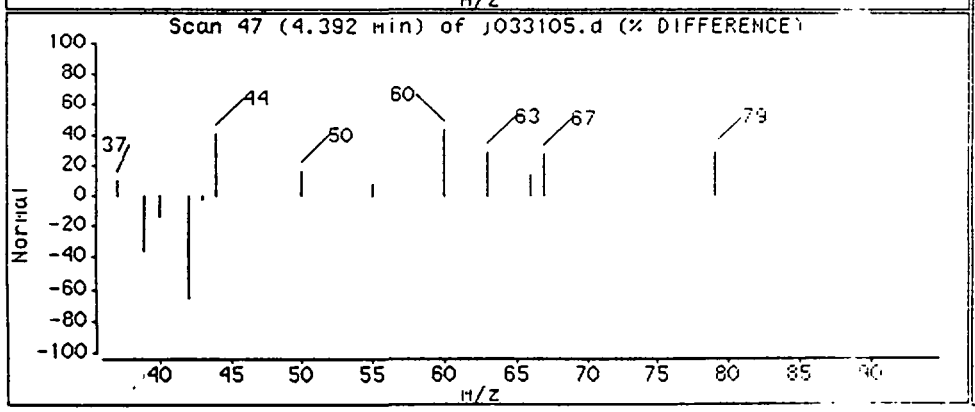
Column diameter: 0.58

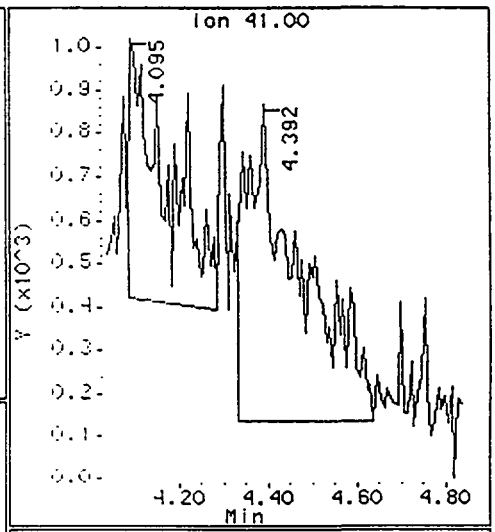
1 Propylene

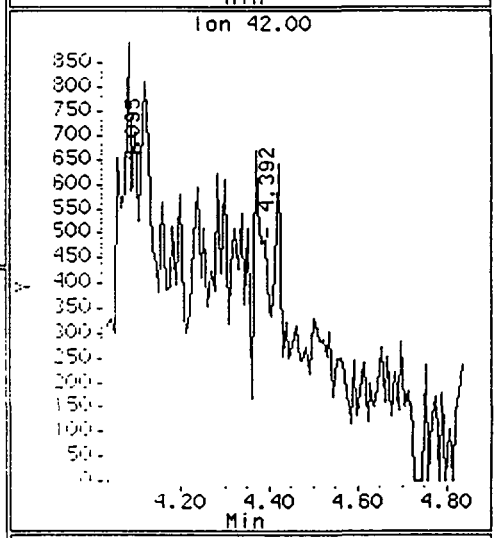


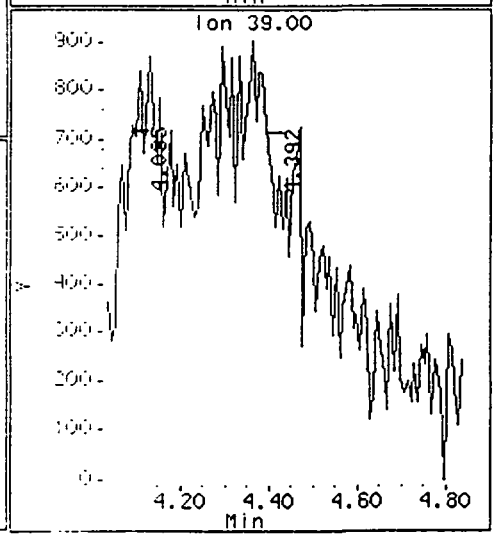












Data File: /chem/msdj.i/j-31mar.b/j033105.d

Date : 31-MAR-1997 12:35

Client ID: Lab Blank

Instrument: msdj.i

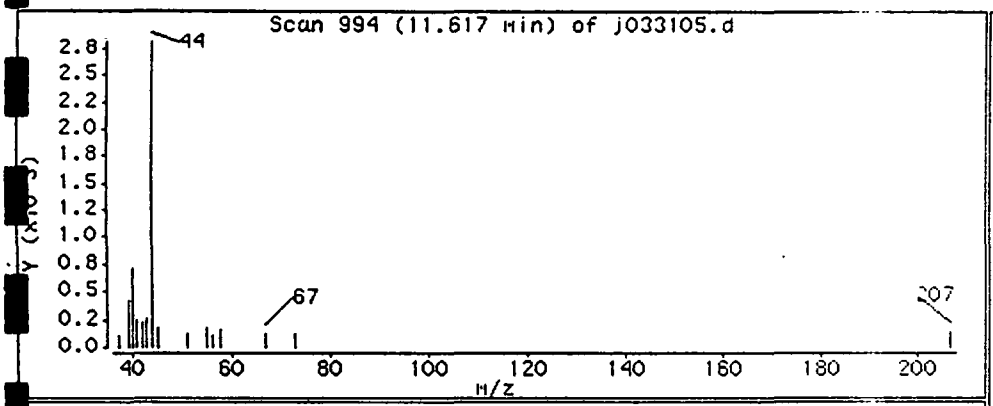
Sample Info: 500mL Can#05705 Certification

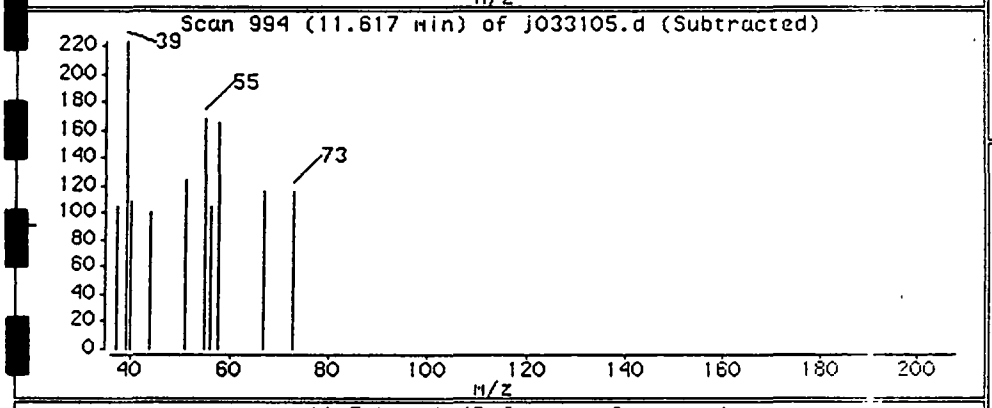
Operator: MH

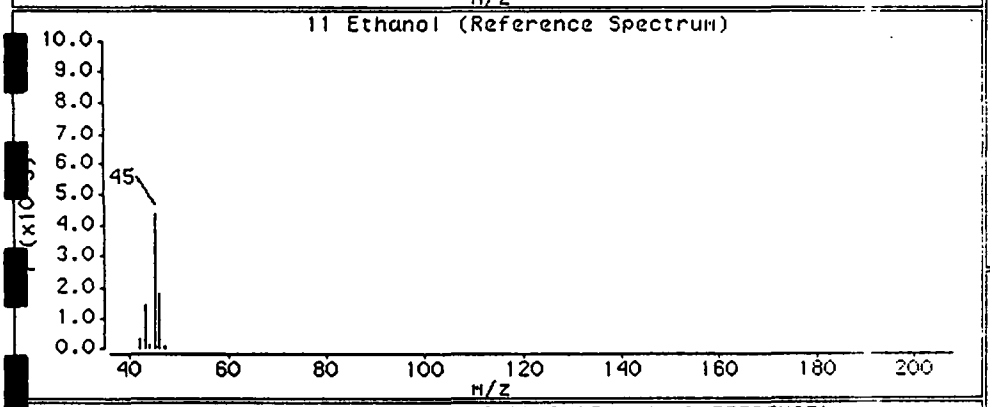
Column phase: RTx-624

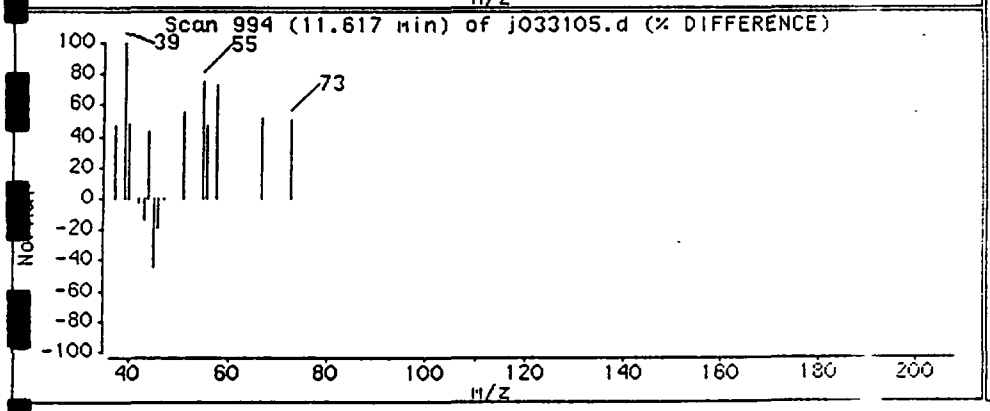
Column diameter: 0.58

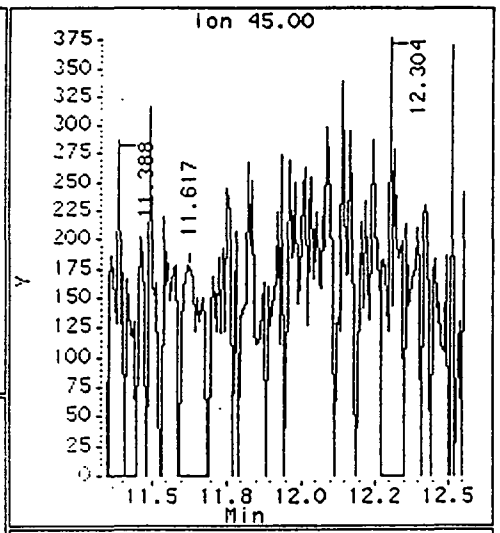
11 Ethanol

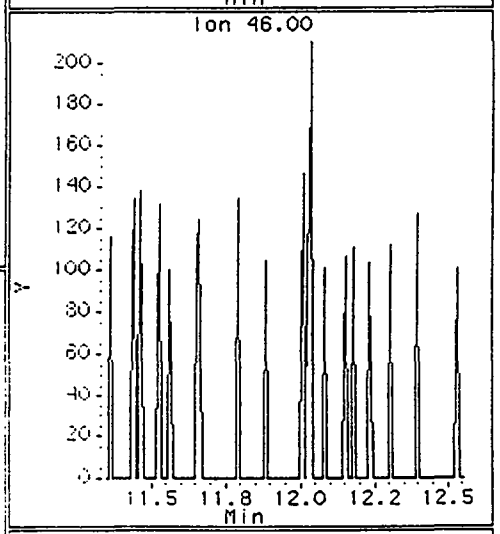


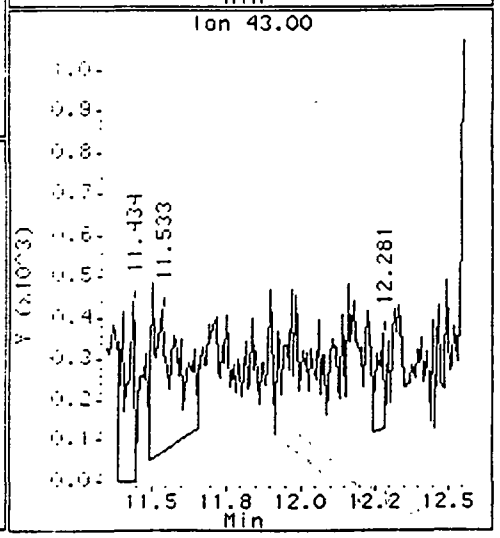












Data File: /chem/msdj.i/j-31mar.b/j033105.d

Date : 31-MAR-1997 12:35

Client ID: Lab Blank

Instrument: msdj.i

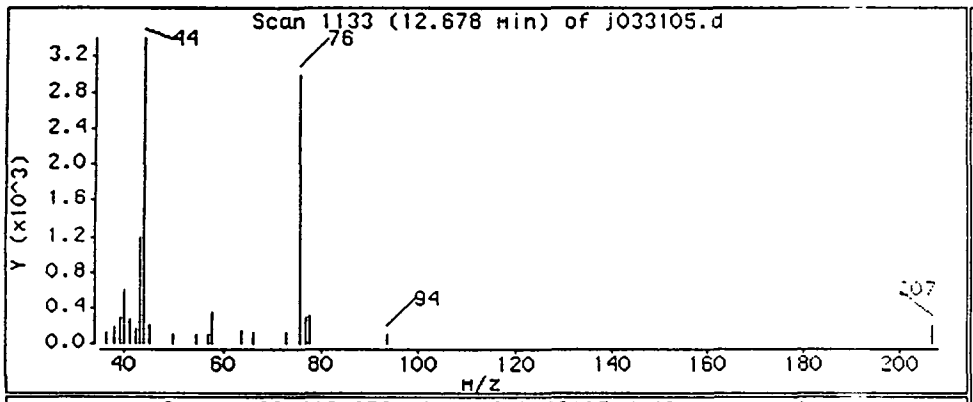
Sample Info: 500mL Can#05705 Certification

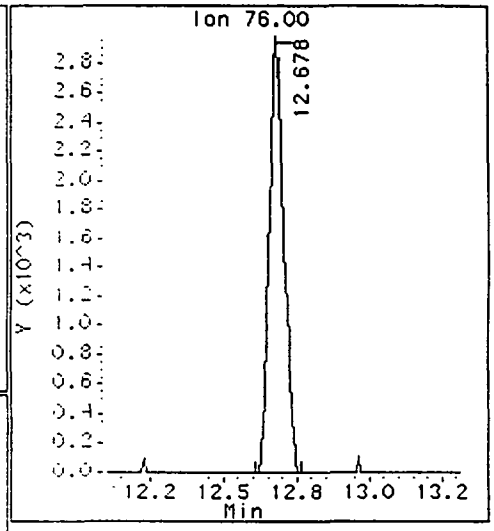
Operator : MH

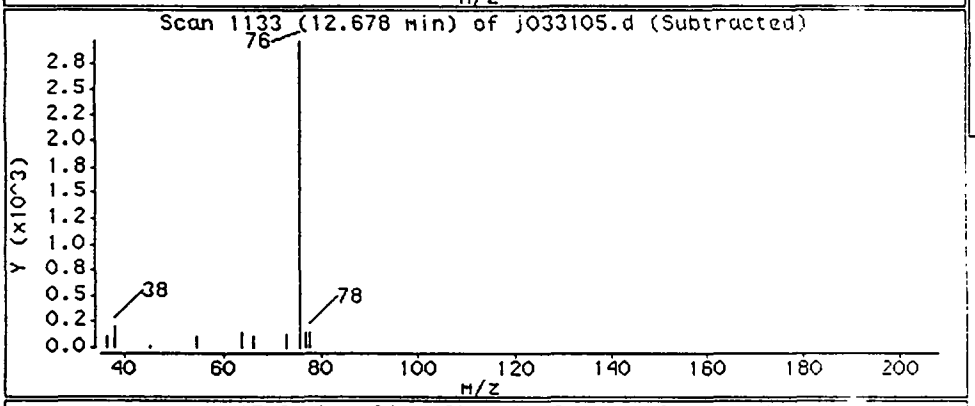
Column phase: RTx-624

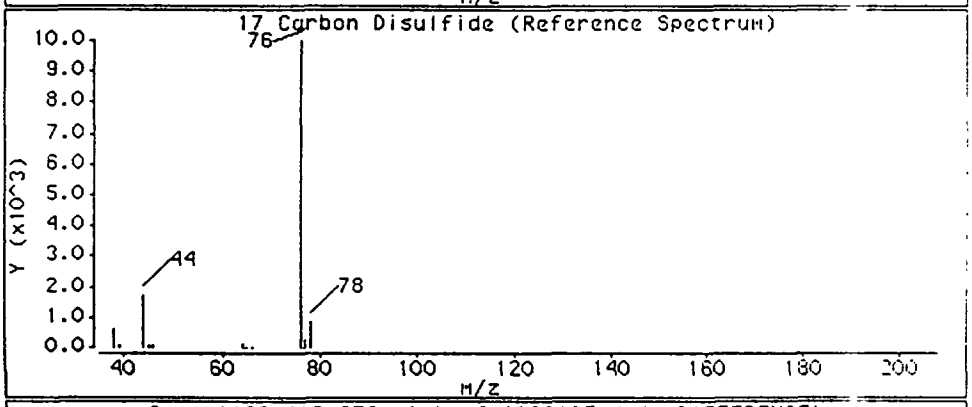
Column diameter: 0.58

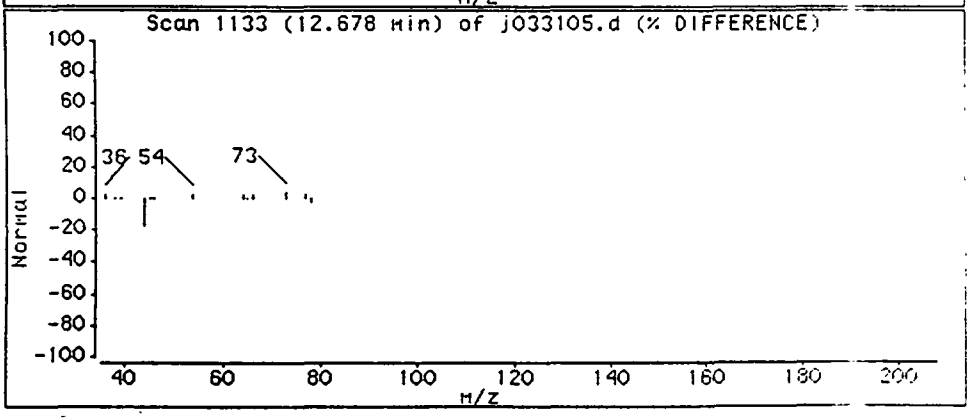
17 Carbon Disulfide











Data File: /chem/msdj.i/j-31mar.b/j033105.d

Date : 31-MAR-1997 12:35

Client ID: Lab Blank

Instrument: msdj.i

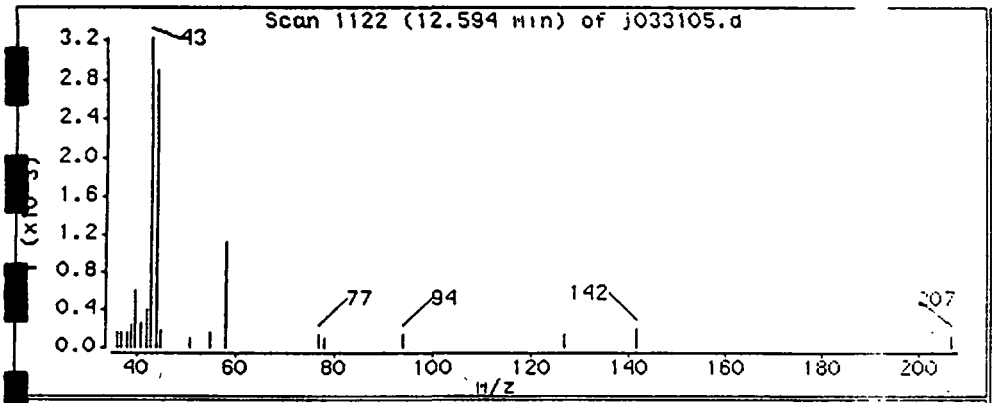
Sample Info: 500mL Can#05705 Certification

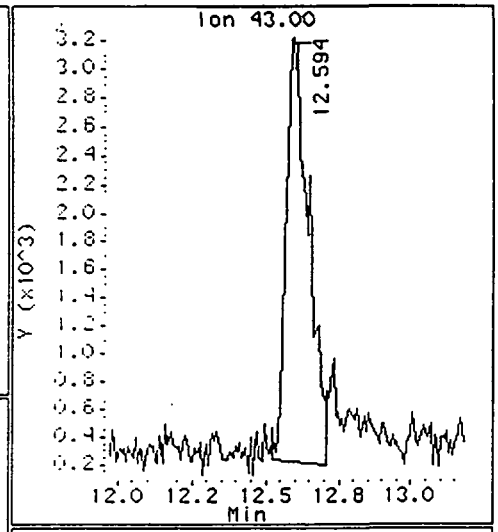
Operator: MH

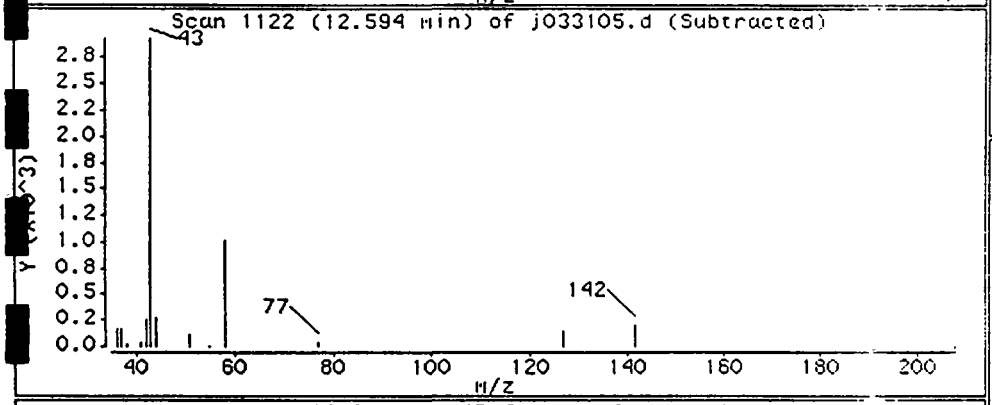
Column phase: RTx-624

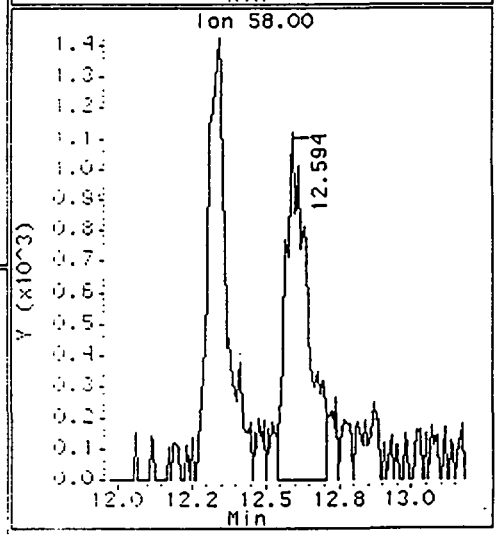
Column diameter: 0.58

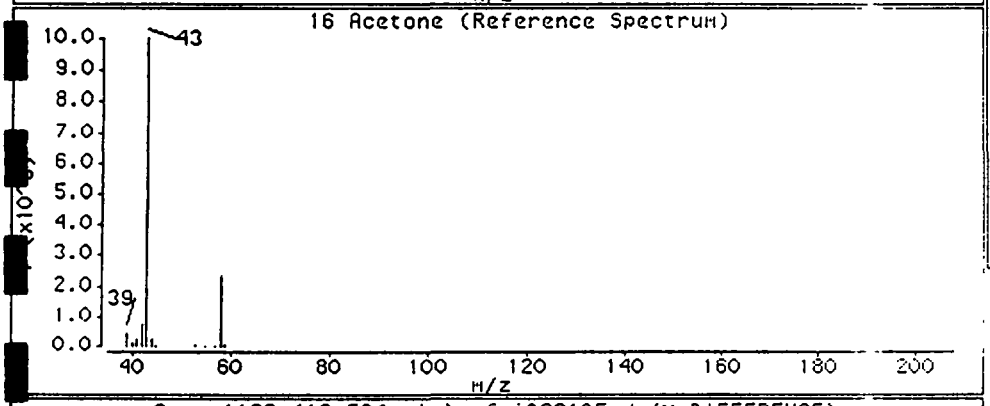
16 Acetone

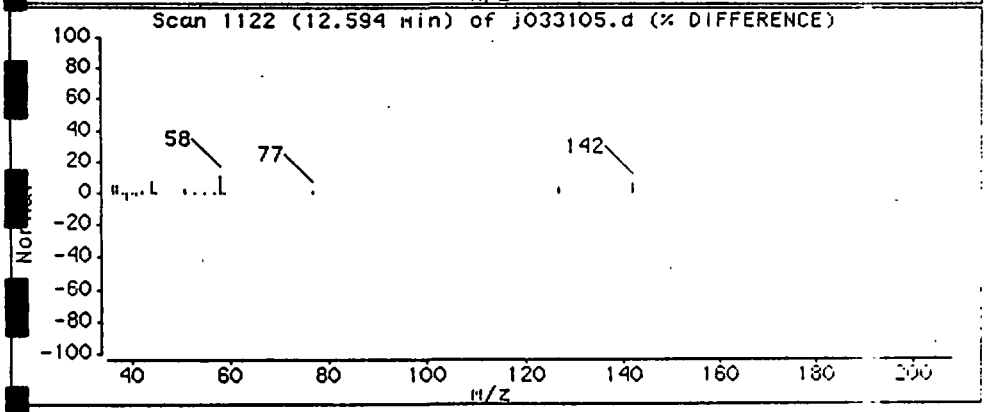












Data File: /chem/msdj.i/j-31mar.b/j033105.d

Date : 31-MAR-1997 12:35

Client ID: Lab Blank

Instrument: msdj.i

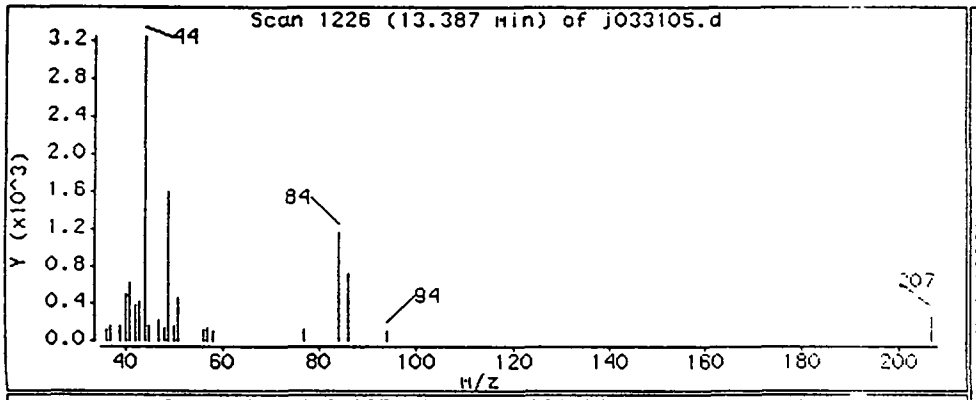
Sample Info: 500mL Can#05705 Certification

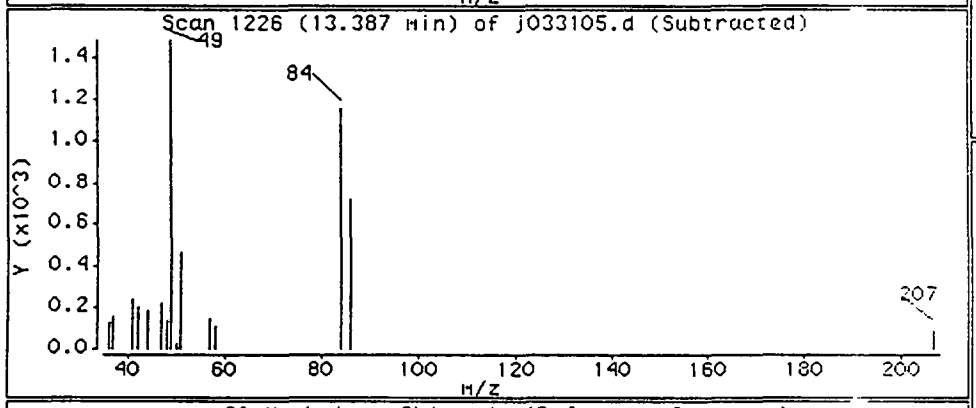
Operator : MH

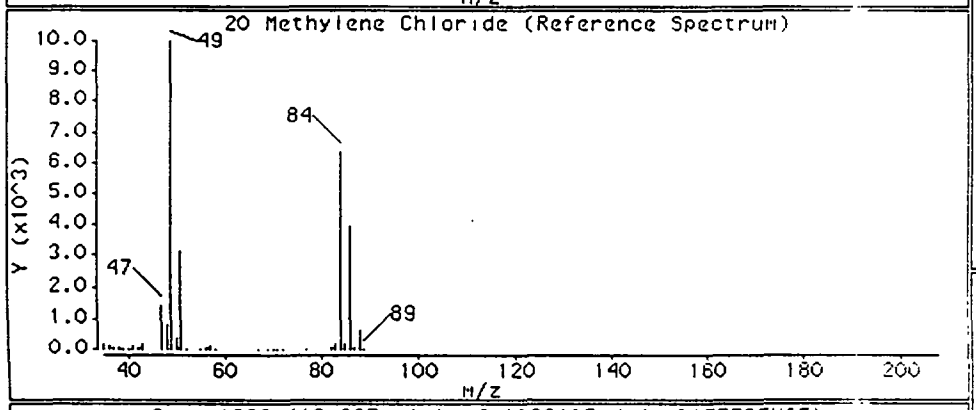
Column phase: RTx-624

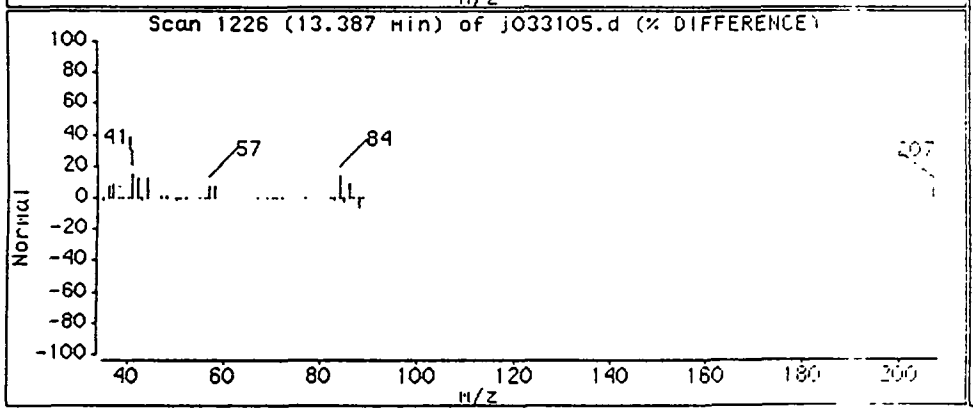
Column diameter: 0.53

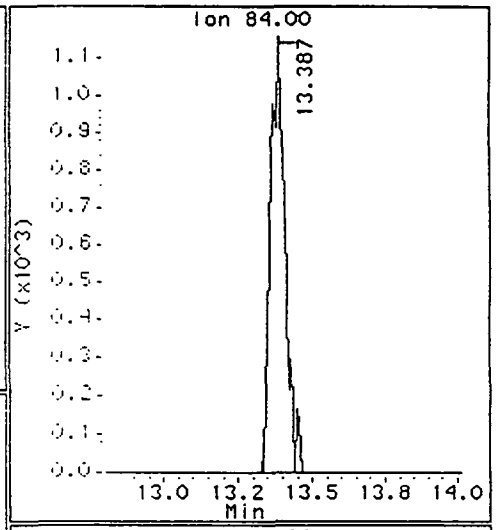
20 Methylene Chloride

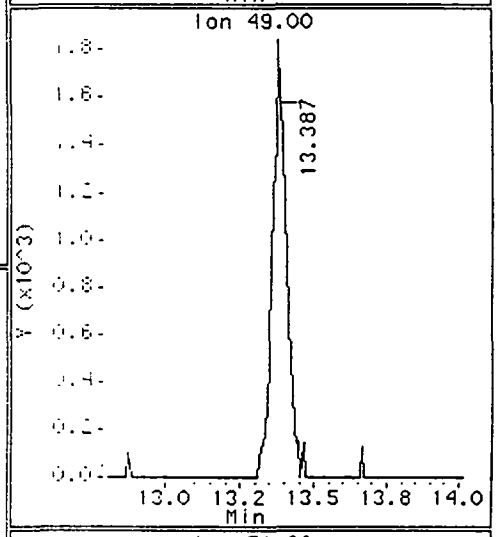


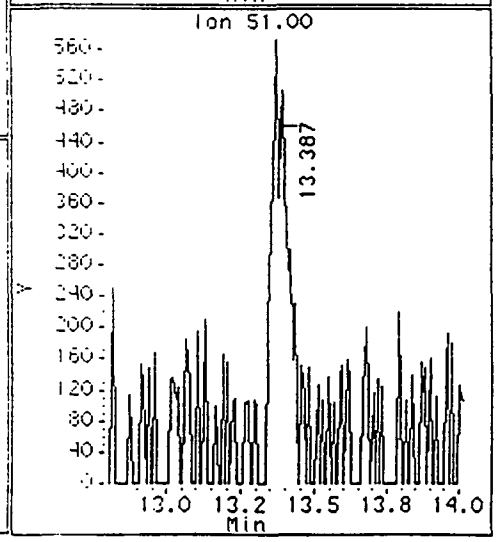






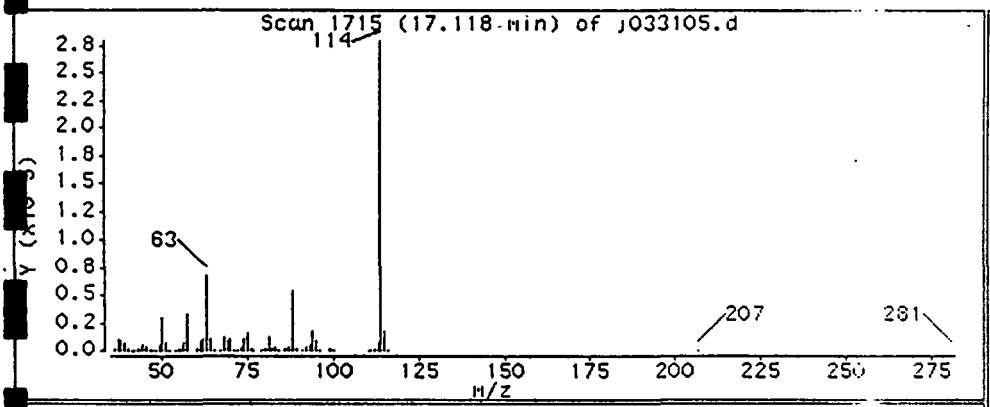


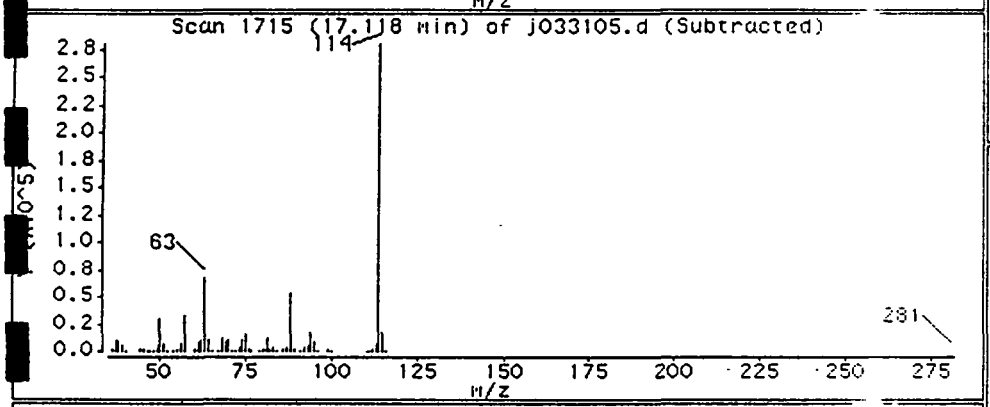


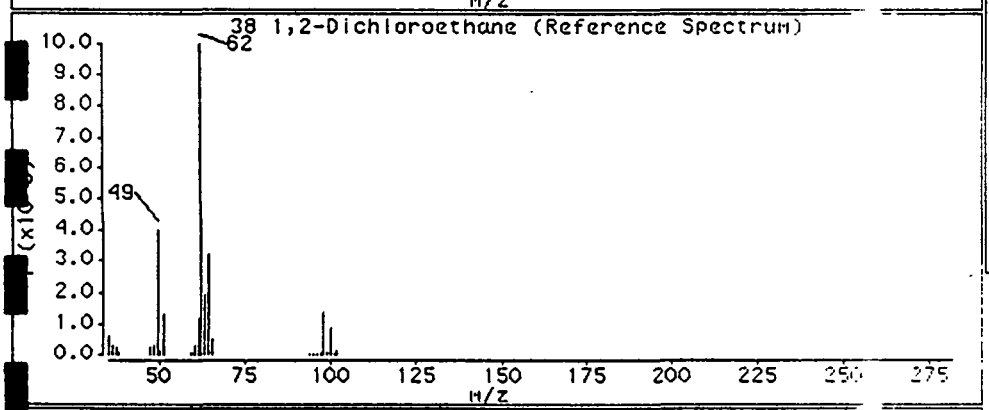


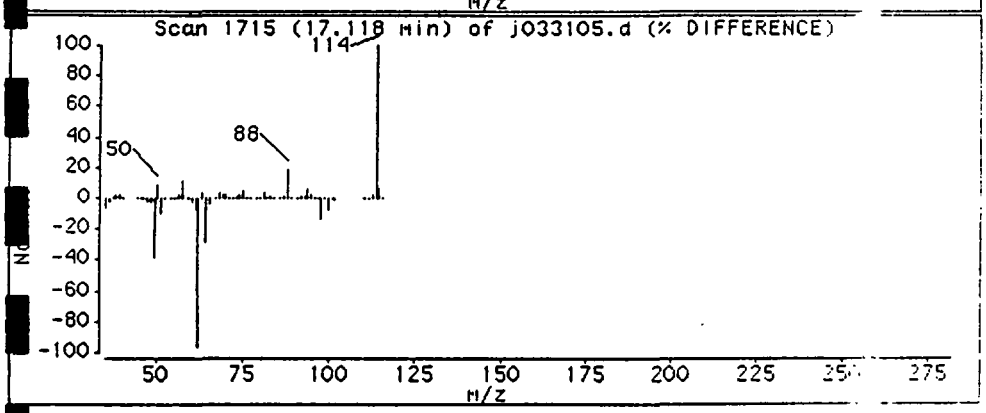
Data File: /chem/msdj.i/j-31mar.b/j033105.d
Date : 31-MAR-1997 12:35
Client ID: Lab Blank
Instrument: msdj.i
Sample Info: 500mL Can#05705 Certification
Operator: MH
Column phase: RTx-624
Column diameter: 0.58

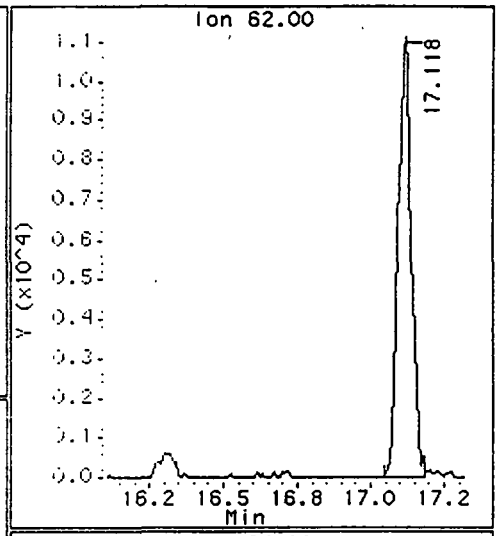
38 1,2-Dichloroethane

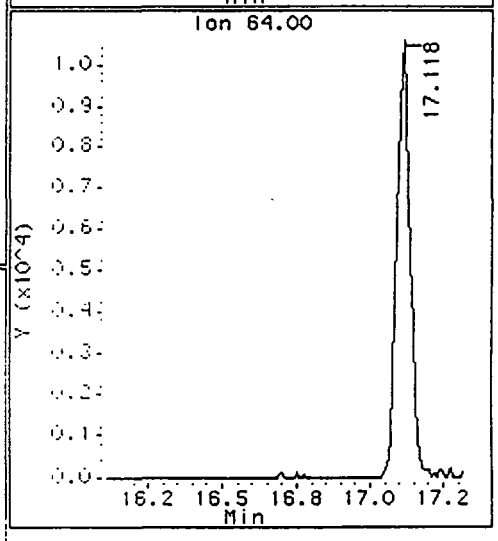












Data File: /chem/msdj.i/j-31mar.b/j033105.d

Date : 31-MAR-1997 12:35

Client ID: Lab Blank

Sample Info: 500mL Can#05705 Certification

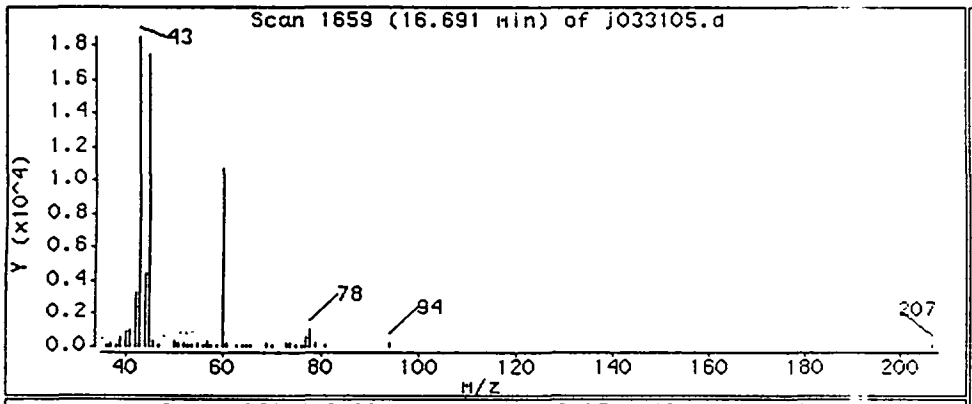
Column phase: RTx-624

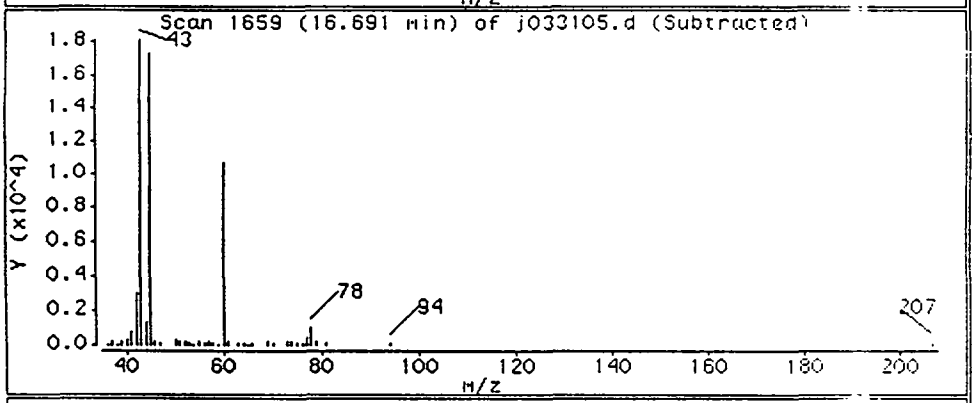
Instrument: msdj.i

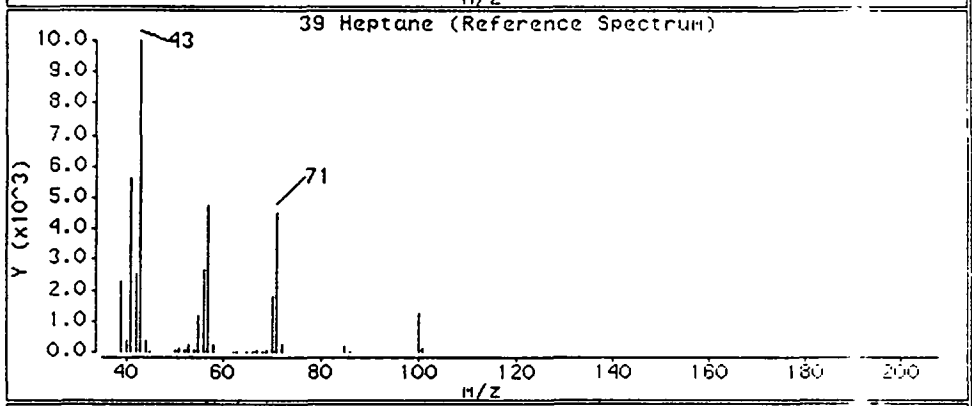
Operator: MH

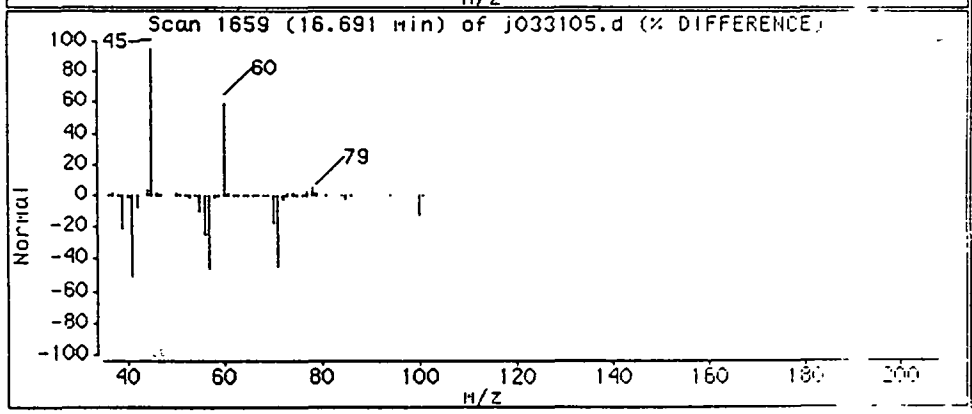
Column diameter: 0.58

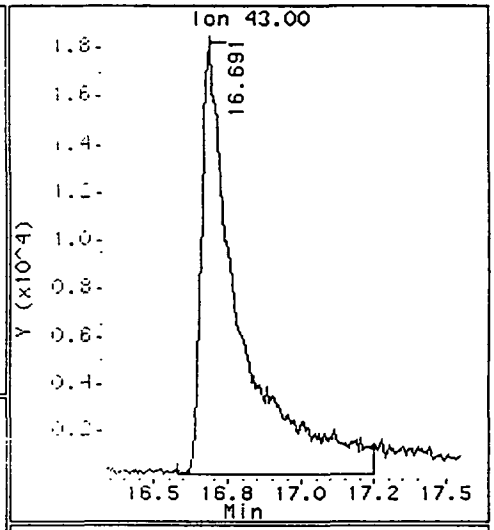
39 Heptane

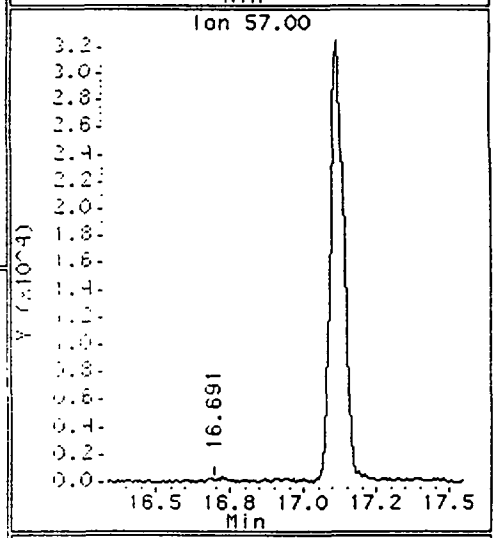


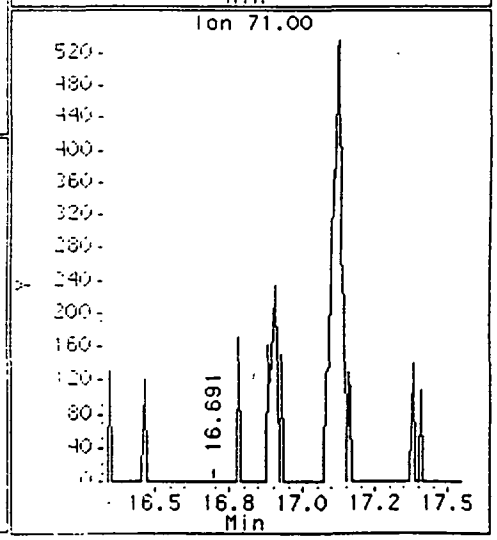












Data File: /chem/msdj.i/j-31mar.b/j033105.d

Date : 31-MAR-1997 12:35

Client ID: Lab Blank

Sample Info: 500mL Can#05705 Certification

Column phase: RTx-624

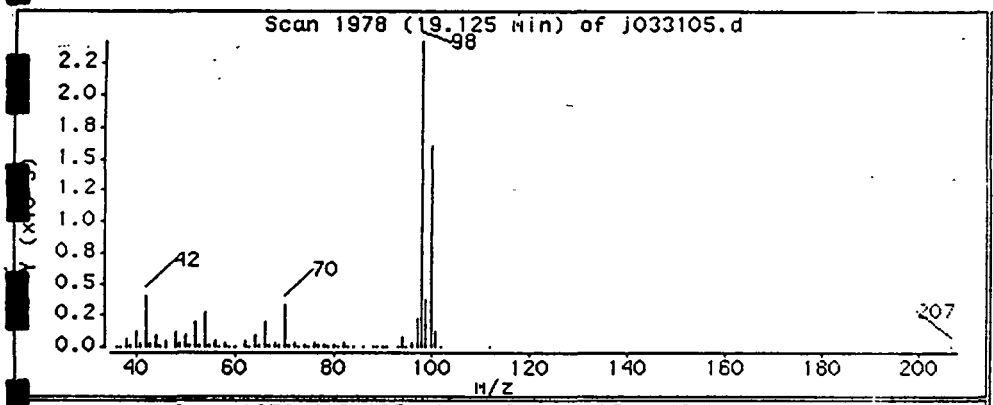
Instrument: msdj.i

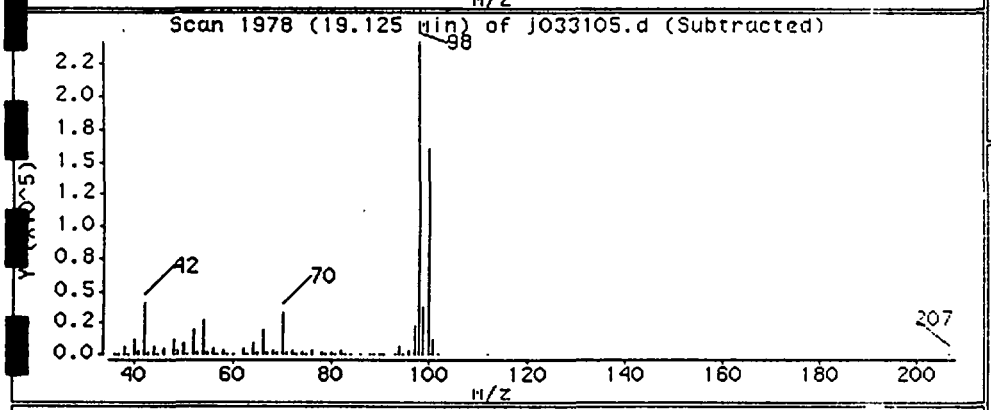
Operator: MH

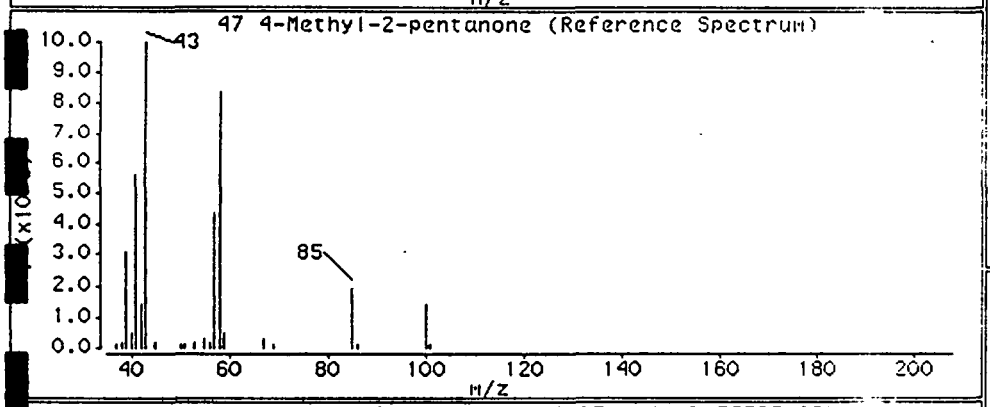
Column diameter: 0.58

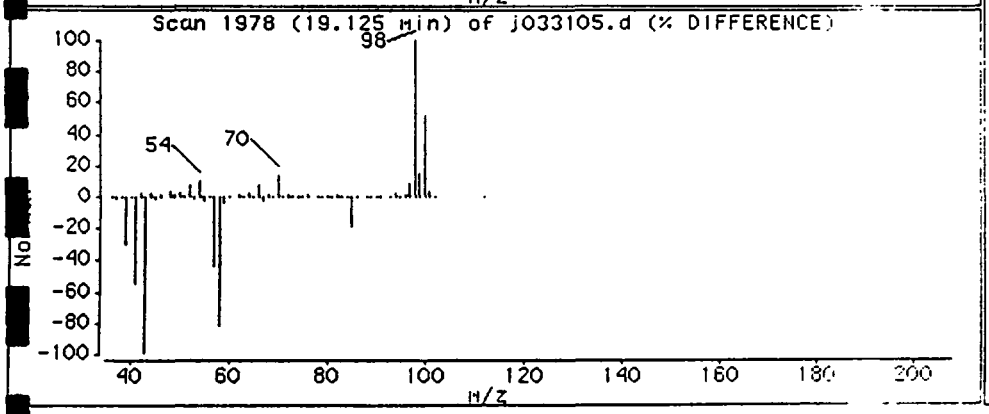
0189

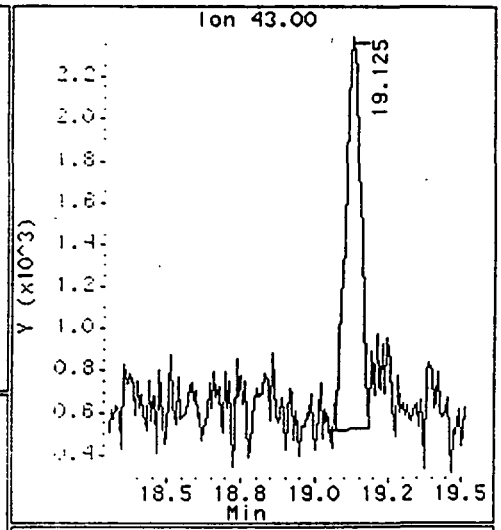
47 4-Methyl-2-pentanone

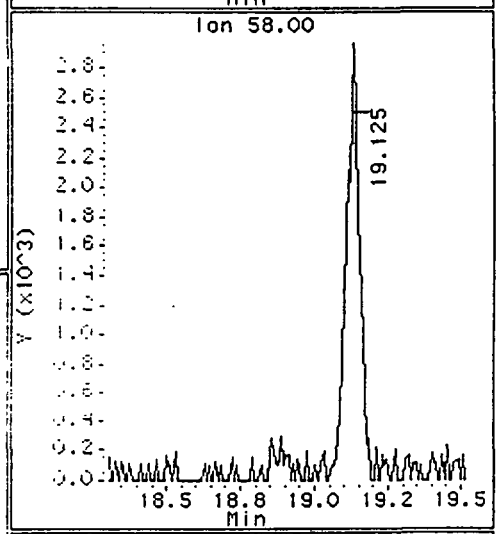


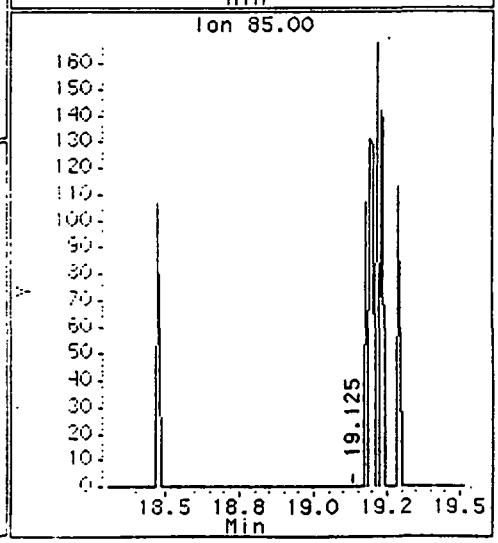








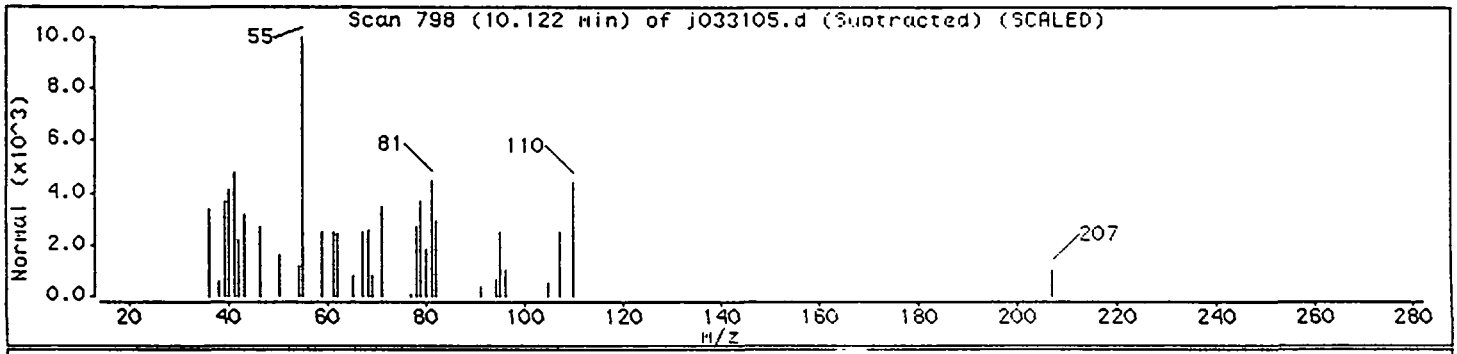




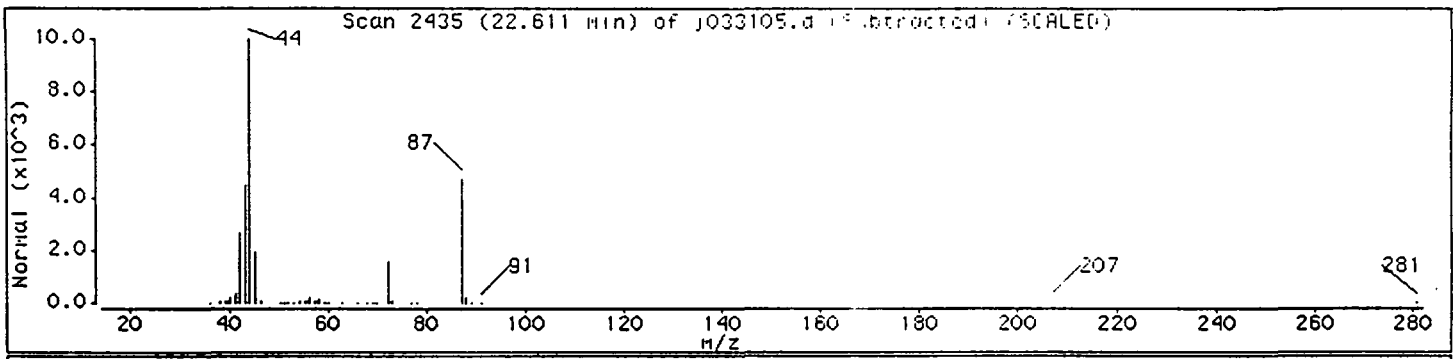
Data File: /chem/msdj.i/j-31mar.b/j033105.d
Date : 31-MAR-1997 12:35
Instrument: msdj.i
Client ID: Lab Blank
Column phase: RTx-624

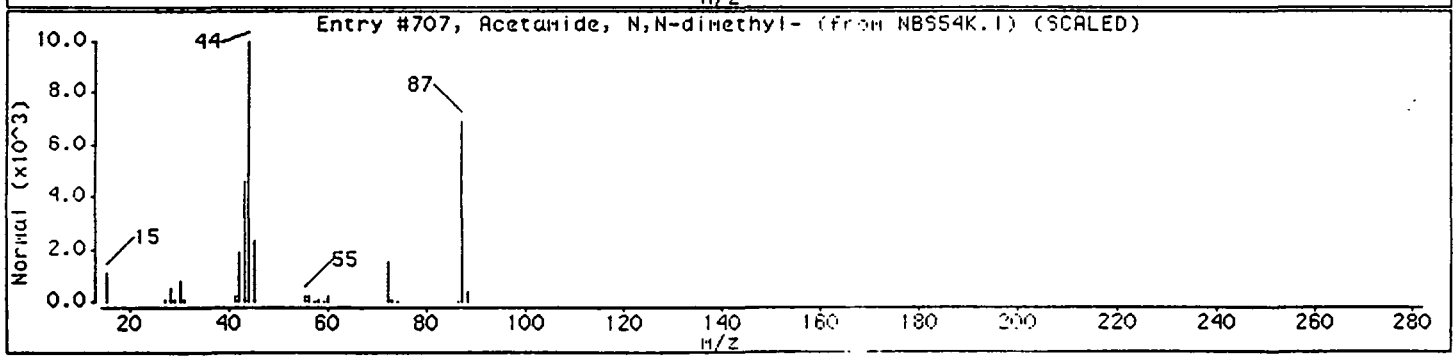
Column diameter: 0.58

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
UNKNOWN				



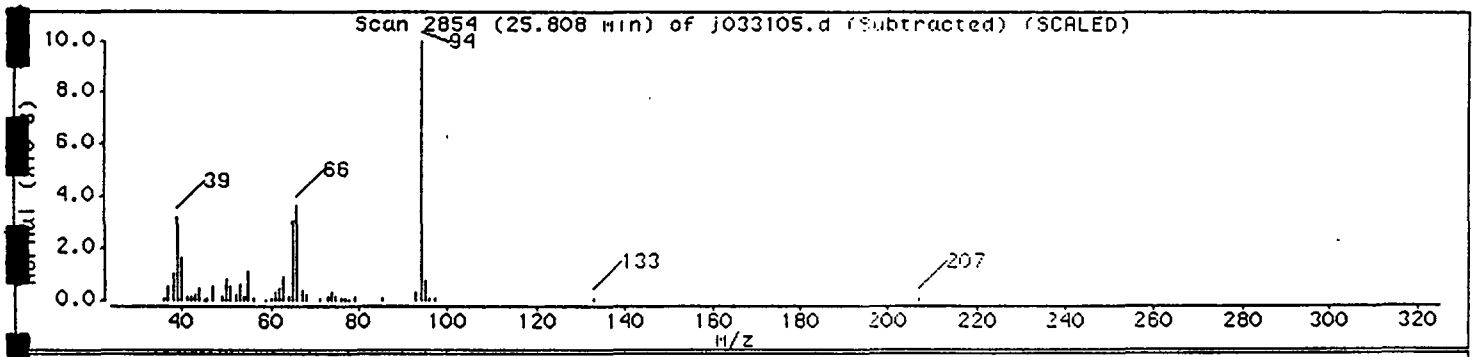
Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Acetamide, N,N-dimethyl-	127-19-5	NBS54K.I	707	72

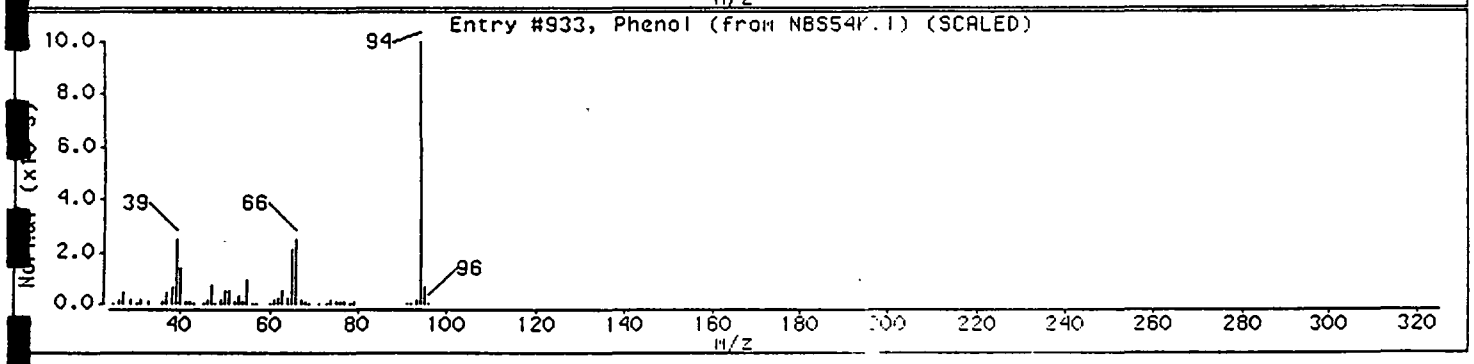




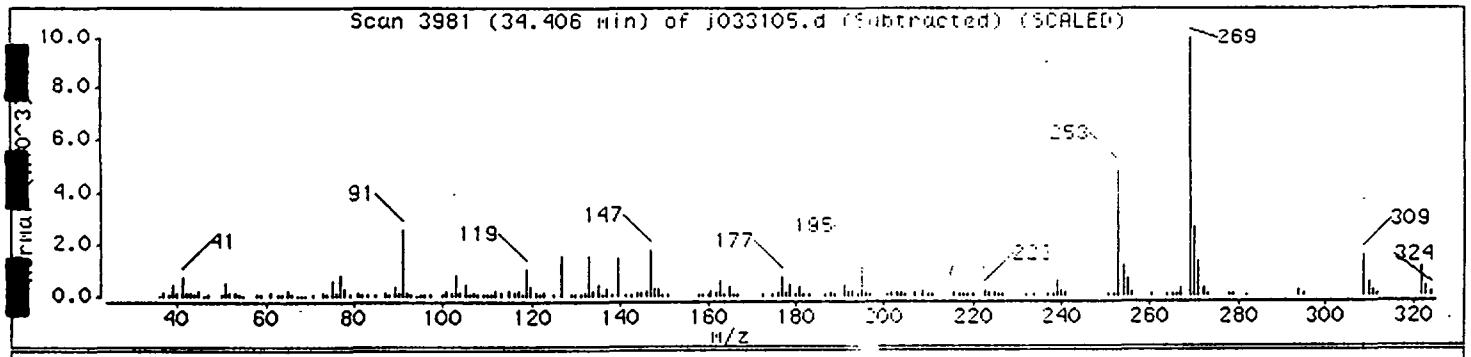
Data File: /chem/msdj.i/j-31mar.b/j033105.d
Date : 31-MAR-1997 12:35
Instrument: msdj.i
Client ID: Lab Blank
Column phase: RTx-624 Column diameter: 0.58

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Phenol	108-95-2	NBS54K.I	933	90





Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
UNKNOWN				



c192

AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX: (916) 985-1020

CHAIN-OF-CUSTODY RECORD

№ 010140

Page 1 of 1

Contact Person: Barbara Dye
Company: Parsons ES
Address: 9906 Gulf Freeway City: Houston State: TX Zip: 77034
Phone: 713-943-5432 FAX: 713 943-5427
Collected By: Signature: [signature]

Project info:
P.O. #: 727431-3004-0C
Project #: 727431
Project Name: Bailey

Turn Around Time:
☒ Normal
☐ Rush _____ Specify

Lab I.D.	Field Sample I.D.	Date & Time	Analyses Requested	Canister Pressure / Vacuum Initial	Final	Receipt
01A	032797U1	03-27-97 0716 - 1628	TO-14 per contract Scott II	-30	-9	8.5 lbs
02A	032797D1	03-27-97 0725 - 1625	"	-30	-8	9.0 lbs

3/2

Relinquished By: (Signature) Date/Time 1600 3-27-97 Print Name: Michael Steiner
Relinquished By: (Signature) Date/Time
Received By: (Signature) Date/Time
Relinquished By: (Signature) Date/Time
Received By: (Signature) Date/Time Scott Anderson AIR 3/28/97 1100

Notes:
2 Gauges
2 Flow controller
2 Filters

Lab Use Only	Shipper Name	Air Bill #	Opened By:	Date/Time	Temp. (°C)	Condition	Custody Seals Intact?	Work Order #
	FED EX	0360943925	[signature]	3/28/97 1100	AMBIENT	Good	Yes No None N/A 3/28/97	9703255

Form 1293 rev. 06

U.S. ENVIRONMENTAL PROTECTION AGENCY
CONTRACT LABORATORY PROGRAM
SAMPLE RECEIPT/LOG-IN SHEET

Lab Name: AIR TOXICS LTD. Contract No.:
Lab Code: SAS No.:
Case No.: SDG No.:

ITEM	REMARKS	EPA SAMPLE NO.	SAMPLE TAG NO.	ASSIGNED LAB NO.	REC/VAC PRESS.	REMARKS: SAMP. COND.
1. Custody Seals	Present/Absent/	032797U1	N/A	9703255-01A	8.5" Hg	GOOD
	Intact/Broken*	032797D1	N/A	9703255-02A	9.0" Hg	GOOD
2. Custody Seal Numbers	N/A					
3. Chain of Custody Records	Present/Absent*					
Traffic Reports or	Present/Absent*					
Packing List						
4. Airbill	Present/Absent*					
Airbill Numbers:	0360943925					
				3/28/97		
6. Sample Tags	Present/Absent*					
Sample Tag Numbers:	Listed/Not Listed on COC					
Sample Condition	Intact/Broken/Leaking*					
8. Does information on COC	Yes/No*					
record, traffic reports, &						
sample tags agree?						
9. Date Received by Lab:	3/28/97					
10. Time Received by Lab:	1100					
SAMPLE TRANSFER						
Area #:	B					
By:						
On:	3/28/97					

* circled, contact SMO and attach record of resolution.

Received By:
Signature: Scott Amerson
Print Name: SCOTT AMERSON

Log-in Date: 3/28/97

Reviewed By:
Signature:
Logbook No.:

Date: 4/3/97
Logbook Page No.:

FORM AADC-1-ATL

DILUTION FACTORS

$$\text{Dilution Factor} = \frac{\text{Final Pressure}}{\text{Initial Vacuum}} = \frac{14.7\ \text{psi} + \text{Final Pressure (psi)}}{14.7\ \text{psi} - [(\text{Initial Pressure ("Hg)})\ (14.7\ \text{psi} / 30\ \text{"Hg})]}$$

$$\text{Dilution Factor} = \frac{\text{Final Pressure}}{\text{Initial Pressure}} = \frac{14.7\ \text{psi} + \text{Final Pressure (psi)}}{14.7\ \text{psi} + \text{Initial Pressure (psi)}}$$

Initial Vacuum ("Hg)	5 psi Final Press. Dil. Factor	10 psi Final Press. Dil. Factor	15 psi Final Press. Dil. Factor
0.0	1.34	1.68	2.02
0.5	1.36	1.71	2.05
1.0	1.39	1.74	2.09
1.5	1.41	1.77	2.13
2.0	1.44	1.80	2.16
2.5	1.46	1.83	2.20
3.0	1.49	1.87	2.24
3.5	1.52	1.90	2.29
4.0	1.55	1.94	2.33
4.5	1.58	1.98	2.38
5.0	1.61	2.02	2.42
5.5	1.64	2.06	2.47
6.0	1.68	2.10	2.53
6.5	1.71	2.15	2.58
7.0	1.75	2.19	2.64
7.5	1.79	2.24	2.69
8.0	1.83	2.29	2.76
8.5	1.87	2.34	2.82
9.0	1.91	2.40	2.89
9.5	1.96	2.46	2.96
10.0	2.01	2.52	3.03
10.5	2.06	2.59	3.11
11.0	2.12	2.65	3.19
11.5	2.17	2.72	3.28
12.0	2.23	2.80	3.37
12.5	2.30	2.88	3.46
13.0	2.36	2.97	3.57
13.5	2.44	3.06	3.67
14.0	2.51	3.15	3.79
14.5	2.59	3.25	3.91
15.0	2.68	3.36	4.04
15.5	2.77	3.48	4.18
16.0	2.87	3.60	4.33
16.5	2.98	3.73	4.49
17.0	3.09	3.88	4.66
17.5	3.22	4.03	4.85
18.0	3.35	4.20	5.05
18.5	3.50	4.38	5.27
19.0	3.65	4.58	5.51
19.5	3.83	4.80	5.77
20.0	4.02	5.04	6.06
20.5	4.23	5.31	6.38

Initial Vacuum ("Hg)	5 psi Final Press. Dil. Factor	10 psi Final Press. Dil. Factor	15 psi Final Press. Dil. Factor
21.0	4.47	5.60	6.73
21.5	4.73	5.93	7.13
22.0	5.03	6.30	7.58
22.5	5.36	6.72	8.08
23.0	5.74	7.20	8.66
23.5	6.19	7.76	9.32
24.0	6.70	8.40	10.10
24.5	7.31	9.17	11.02
25.0	8.04	10.08	12.12
25.5	8.93	11.20	13.47
26.0	10.05	12.60	15.15
26.5	11.49	14.40	17.32
27.0	13.40	16.80	20.20
27.5	16.08	20.16	24.24
28.0	20.10	25.20	30.31
28.5	26.80	33.61	40.41
29.0	40.20	50.41	60.61

Initial Pressure (psi)	5 psi Final Press. Dil. Factor	10 psi Final Press. Dil. Factor	15 psi Final Press. Dil. Factor
0.0	1.34	1.68	2.02
0.2	1.32	1.66	1.99
0.4	1.30	1.64	1.97
0.6	1.29	1.61	1.94
0.8	1.27	1.59	1.92
1.0	1.25	1.57	1.89
1.2	1.24	1.55	1.87
1.4	1.22	1.53	1.84
1.6	1.21	1.52	1.82
1.8	1.19	1.50	1.80
2.0	1.18	1.48	1.78
2.2	1.17	1.46	1.76
2.4	1.15	1.44	1.74
2.6	1.14	1.43	1.72
2.8	1.13	1.41	1.70
3.0	1.11	1.40	1.68
3.2	1.10	1.38	1.66
3.4	1.09	1.36	1.64
3.6	1.08	1.35	1.62
3.8	1.06	1.34	1.61
4.0	1.05	1.32	1.59