BAILEY SUPERFUND SITE

MONTHLY PROJECT STATUS REPORT
MAY 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.

Progress of Revised Final Remediation

- OHM completed the following activities this month:

East Dike Activities:

* Installed the geosynthetic cap materials (254,865 sq. ft.).
* Excavated and backfilled the anchor trench.
* Placed part of the protective soil layer (approximately 9,000 loose cubic yards to date).
* Performed a topographic survey for the East Dike.
* Prepared a panel layout drawing for the East Dike.

North Dike Activities:

* Completed placement of general fill to achieve the subgrade elevations (estimated 21,500 in-place cubic yards) with the exception of the east end.
* Placed rip rap along the south slope (3,565 tons).
* Placing geosynthetic materials along the north slope to a location five feet beyond the top of slope.
* Excavated waste at the east end of the North Dike.
* Excavated and backfilled the anchor trench along the base of the north slope.
* Removed the sumps on the consolidation water collection system.
* Performed topographic survey of North Dike.

Other Site Activities:

* Submittals during this month included geosynthetic products, manufacturer and installer data, survey results, schedule updates and resubmittals.

* The 500,000 gallon storage tank was decontaminated and dismantled this period. In addition, the wastewater treatment system equipment was decontaminated and the contaminated material (i.e. liner) disposed on the North Dike beneath the general fill.

- Quality assurance data on the liner materials and cap subgrade were performed by GeoSyntec this month. Tables 1 through 5 summarize the quality assurance results collected to date by GeoSyntec. With Chris Villarreal's approval (by telephone on May 12, 1997), supporting test reports will not be submitted with the monthly report, but will be included in the final Remedial Action report for the site.
- Chris Villarreal attended the monthly site meeting on May 29, 1997.

Air Monitoring

- Documentation air samples were collected on May 14, 1997 during excavation of a small portion of waste near the site bridge. This is the final portion of intrusive work to be performed on site. Therefore, no additional documentation air samples will be collected. The results of this final sampling event are summarized in Table 6. Analytical data for these samples are in Attachment A of this report.

Activities to be Commenced or Completed During Next Reporting Period:

- OHM plans to complete the following site activities next month:
  * Complete rip rap placement on the North Dike slopes.
  * Complete geosynthetic materials and protective soil layer on the North Dike.
  * Install the final access road on the East and North Dikes.
  * Seed/mulch the East Dike.
  * Install perimeter fencing and gates.
  * Complete the protective soil layer on the East Dike.
- Parsons ES will prepare the final Inspection, Maintenance, and Monitoring Plan for EPA's review next month.

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
SUMMARY OF CONFORMANCE SAMPLE TEST RESULTS
FINAL REMEDIATION
BAILEY SUPERFUND SITE
ORANGE COUNTY, TEXAS
THROUGH 29 MAY 1997

SOIL COMPONENT

General Fill

Estimated quantity of imported fill: 25,000 yd^3

Total quantity delivered to date: 28,930 yd^3 (Based on truck count, 5/22/97)

Test	Designation	Frequency	Estimated No. Tests	Test This Report Period	Quantity to Date
Atterberg Limits	ASTM D 4318	1/2000 yd^3	13	1	9
Organic Content	ASTM D 2974	1/2000 yd^3	13	1	9
Moisture Density Relation	ASTM D698	1/2000 yd^3	13	1	9
Field Density Test	ASTM D2922	1/10,000 ft^2		66	210

Protective Cover

Estimated quantity of imported fill: 18,500 yd^3

Total quantity delivered to date: 5,860 yd^3 (Based on truck count, 5/22/97)

Test	Designation	Frequency	Estimated No. Tests	Test This Report Period	Quantity to Date
Atterberg Limits	ASTM D 4318	1/2000 yd^3	10	1	1
Organic Content	ASTM D 2974	1/2000 yd^3	10	1	1
Moisture Density Relation	ASTM D698	1/2000 yd^3	10	1	1

TABLE 2
SUMMARY OF CONFORMANCE SAMPLE TEST RESULTS
FINAL REMEDIATION
BAILEY SUPERFUND SITE
ORANGE COUNTY, TEXAS
THROUGH 29 MAY 1997

GEOSYNTHETIC CLAY LINER (GCL) MATERIAL

Initial estimate of quantity of material: 542,700 ft^2

Quantity of Material Delivered to Site: 623,250 ft^2 30-May-97

Test	Units	Specifications	Conformance Sample						
			GCL-1	GCL-2	GCL-3	GCL-4	GCL-5	GCL-6	GCL-7
GCL PRODUCT									
Hydraulic Conductivity	cm/s	<5.0 E-09	1.6 E-09	N/R	2.5 E-09	N/R	1.3 E-09	N/R	
Bentonite Content	lbs/ft2	>0.76	0.918	0.82	0.788	0.862	0.973	1.007	
Bentonite Moisture Content	%	<25.0	18	17	19	14	21	22	
Free Swell	ml/2g	>24	25	26	25	27	30	29	
Thickness	mils	>20	178	231	234	255	262	265	
Puncture Strength	lbs	>90	151	132	155	131	117	106	
Grab Tensile	lbs	>90	184/272	229/270	177/209	194/282	181/252	182/199	

Note: GCL-7 sampled 30 May 1997, testing is in progress.

TABLE 3
SUMMARY OF CONFORMANCE SAMPLE TEST RESULTS
FINAL REMEDIATION
BAILEY SUPERFUND SITE
ORANGE COUNTY, TEXAS
THROUGH 29 MAY 1997

GEOMEMBRANE (GM) MATERIAL

Initial Estimate of Quantity of Material: 542,700 ft^2

Quantity of Material Delivered to Site: 567,000 ft^2 28-May-97

Test	Units	Specifications	Conformance Sample					
			GM-1	GM-2	GM-3	GM-4	GM-5	GM-6
Specific Gravity	g/cc	>0.94	0.948	0.951	0.950	0.949	0.952	0.952
Thickness	mils	>.60	62.7	60.7	61.7	62.9	61.3	60.8
Tensile Strength - Yield	lb/in	>126	162/171	159/166	159/162	173/176	155/164	158/165
Tensile Elongation - Yield	%	>12	19/19	20/19	17/16	17/17	17/16	17/16
Tensile Strength - Break	lb/in	>225	256/250	237/252	296/284	307/292	294/290	282/299
Tensile Elongation - Break	%	>200	1123/1159	1060/1199	1262/1340	1300/1334	1276/1355	1226/1398
Carbon Black Content	%	2 - 3	2.48	2.69	2.59	1.76	2.33	2.41
Carbon Dispersion		Category 1 or 2	Cat. 1	Cat. 1	Cat. 1	Cat. 1	Cat. 1	Cat. 1
Tear Resistance	lb	>39	60/60	61/60	59/59	58/57	59/61	59/59

Note: GM-4 carbon black content below specified value. Reference GeoSyntec memorandum dated 19 May 1997.
Two isolation samples obtained which met specifications.

TABLE 4
SUMMARY OF CONFORMANCE SAMPLE TEST RESULTS
FINAL REMEDIATION
BAILEY SUPERFUND SITE
ORANGE COUNTY, TEXAS
THROUGH 29 MAY 1997

GEOCOMPOSITE DRAINAGE LAYER (GDL) MATERIAL

Initial Estimate of Quantity of 1-sided Material:	542,700 ft^2	
Quantity of 1-sided Material Delivered to Site:	574,200 ft^2	14-May-97
Initial Estimate of Quantity of 2-sided Material:	19,845 ft^2	
Quantity of 2-sided Material Delivered to Site:	26,100 ft^2	13-Mar-97

Test	Units	Specifications	Conformance Sample							
			GDL-1	GDL-2	GDL-3	GDL-4	GDL-5	GDL-6	GDL-7	GDL-8
GEONET COMPONENT										
Resin Density	g/cc	>0.935	0.945	0.942	0.945	0.945	0.942	0.944	0.946	0.945
Carbon Black Content	%	2.0 - 3.0	2.3	2.2	2.2	2.2	2.2	2.3	2.23	2.26
Thickness	mil	>200	217	209	226	229	225	223	215	218
Mass Per Unit Area	lbs/ft2	>0.16	0.184	0.176	0.182	0.180	0.179	0.178	0.173	0.18
GEOTEXTILE COMPONENT										
Mass Per Unit Area	oz/yd2	>5.7	6.9	9.4	7.0	7.5	6.6	6.4	7.0	7.0
Grab Strength	lbs	>160	259/183	347/262	226/179	241/203	239/185	207/188	215/193	216/192
Trapezoid Tear Strength	lbs	>60	88/87	106/78	104/104	117/105	111/84	99/75	85/88	79/84
Mullen Burst Strength	psi	>275	251	328	292	288	211	278	290	293
Puncture Strength	lbs	>80	105	125	88	94	100	89	99	100
Apparent Opening Size	sieve no.	<0.21	0.083	0.075	--	0.092	--	--	--	--
Permittivity	gal/min ft2	>110	79	158	--	128	134	126	--	--
GEOCOMPOSITE										
Transmissivity (one-sided)	gal/min/ft	>20	41	--	--	40	--	--	--	--
Transmissivity (two-sided)	gal/min/ft	>15		21						
Peel Strength	g/in	>500	1967/1740	2421/1513	2875/2951	3102/1438	1589/1816	832/530	3178/1740	2573/2043
Peel Strength/bottom	g/in	>500		2724/1589						

Note: GDL-2 is a double sided geocomposite. GDL-5 is a retest for GDL-1.
GDL-1 and GDL-5 geotextile component tests for Mullen Burst Strength and Permittivity did not meet the specificed values.
Reference GeoSyntec memorandum dated 5 May 1997 and 12 May 1997 for discussion on results.

TABLE 5
SUMMARY OF CONFORMANCE SAMPLE TEST RESULTS
FINAL REMEDIATION
BAILEY SUPERFUND SITE
ORANGE COUNTY, TEXAS
THROUGH 29 MAY 1997

GEOMEMBRANE SEAM PEEL AND SHEAR TESTS

Initial Estimate of Linear Feet of Seams:	22,612 ft.	
Linear Feet of Seams on East Dike:	13,462 ft.	16-May-97
Linear Feet of Seams on North Dike:	1661 ft.	22-May-97

	PEEL			SHEAR		
Sample Number	Thickness (mils)	Max. Tension (ppi)	Seam Separation (%)	Thickness (mils)	Max. Tension (ppi)	Elongation (%)
Specifications: Fusion	**54**	**85**	**10**	**54**	**108**	**>100**
Extrusion	**54**	**70**	**10**	**54**	**108**	**>100**
DS-E1	60.4	115	0	60.2	157	>100
DS-E2	61.2	115	0	60.5	158	>100
DS-E3	59.1	113	0	58.9	149	>100
DS-E4	59.4	116	0	59.3	157	>100
DS-E5	61.1	120	0	60.2	166	>100
DS-E6	60.6	123	0	60.7	160	>100
DS-E7	61.0	119	0	61.3	151	>100
DS-E8	59.9	110	0	61.2	154	>100
DS-E9	60.6	115	0	60.5	153	>100
DS-E10	60.2	114	0	61.3	158	>100
DS-E11*	60.3	126	0	60.5	153	>100
DS-E12	61.2	120	0	61.4	160	>100
DS-E13	61.4	125	0	61.3	168	>100
DS-E14	60.8	121	0	60.6	159	>100
DS-E15	58.7	124	0	59.2	146	>100
DS-E16	61.2	113	0	61.5	161	>100
DS-E17	61.0	123	0	62.3	162	>100
DS-E18	60.0	121	0	59.9	155	>100
DS-E19	60.0	116	0	61.0	157	>100

Note: * Indicates single track extrusion seam

TABLE 5 (con't)
SUMMARY OF CONFORMANCE SAMPLE TEST RESULTS
FINAL REMEDIATION
BAILEY SUPERFUND SITE
ORANGE COUNTY, TEXAS
THROUGH 29 MAY 1997

	PEEL			SHEAR		
Sample Number	Thickness (mils)	Max. Tension (ppi)	Seam Separation (%)	Thickness (mils)	Max. Tension (ppi)	Elongation (%)
Specifications: Fusion	**54**	**85**	**10**	**54**	**108**	**>100**
Extrusion	**54**	**70**	**10**	**54**	**108**	**>100**
DS-E20	59.4	121	0	59.7	157	>100
DS-E21	60.6	101	0	58.7	159	>100
DS-E22*	60.1	105	0	60.1	158	>100
DS-E23	59.5	117	0	59.8	159	>100
DS-E24	61.3	127	0	61.0	165	>100
DS-E25	59.6	113	0	59.6	154	>100
DS-E26	60.8	109	0	60.1	105	>100
DS-E27	58.3	119	0	58.6	146	>100
DS-E28	60.5	119	0	60.2	156	>100
North Dike						
DS-N1	61.6	118	0	61.4	160	>100
DS-N2	61.5	111	0	61.3	160	>100
DS-N3	61.3	123	0	61.6	169	>100
DS-N4	59.7	113	0	60.0	153	>100
DS-N5	60.1	101	0	60.5	155	>100

Note: * Indicates single track extrusion seam

TABLE 6
DOCUMENTATION AIR SAMPLING FOR THE MAY 1997
MONTHLY REPORT
Bailey Site, Orange County, Texas

Air Samples taken 5/14/97

Compound	Action Level[1] (ppm)	Action Level[1] (ppb)	Analysis Results 051497D1 (ppb) *Downwind*	Analysis Results 051497U1 (ppb) *Upwind*
Acetone	375	375,000	5.5	5.8
Benzene	0.5	500	0.73	0.58
Butanone, 2- (MEK)	100	100,000	2.0	2.5
Carbon Disulfide	2	2,000	<0.98	<0.98
Chlorobenzene	5	5,000	<0.20	<0.20
Dichloroethane, 1,2-	5	5,000	<0.20	<0.20
Dichloroethene, cis-1,2-	100	100,000	<0.20	<0.20
Dichloroethene, trans-1,2-	100	100,000	<0.98	<0.98
Dichloropropane, 1,2-	37.5	37,500	<0.20	<0.20
Ethyl Benzene	50	50,000	23	<0.20
Methylene Chloride	25	25,000	<0.98	<0.98
Styrene	25	25,000	<0.20	<0.20
Tetrachloroethene	12.5	12,500	<0.20	<0.20
Toluene	25	25,000	0.65	2.0
Trichloroethane, 1,1,1-	5	5,000	<0.20	<0.20
Trichloroethene	25	25,000	<0.20	<0.20
Xylene, m,p-	50	50,000	0.52	0.43
Xylene, o-	50	50,000	0.22	0.28

[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)

ATTACHMENT A

DOCUMENTATION AIR MONITORING ANALYTICAL DATA

BAILEY SUPERFUND SITE MONTHLY REPORT FOR MAY 1997

TABLE 6
DOCUMENTATION AIR SAMPLING FOR THE MAY 1997
MONTHLY REPORT
Bailey Site, Orange County, Texas

Air Samples taken 5/14/97

Compound	Action Level[1] (ppm)	Action Level[1] (ppb)	Analysis Results 051497D1 (ppb) *Downwind*	Analysis Results 051497U1 (ppb) *Upwind*
Acetone	375	375,000	5.5	5.8
Benzene	0.5	500	0.73	0.58
Butanone, 2- (MEK)	100	100,000	2.0	2.5
Carbon Disulfide	2	2,000	<0.98	<0.98
Chlorobenzene	5	5,000	<0.20	<0.20
Dichloroethane, 1,2-	5	5,000	<0.20	<0.20
Dichloroethene, cis-1,2-	100	100,000	<0.20	<0.20
Dichloroethene, trans-1,2-	100	100,000	<0.98	<0.98
Dichloropropane, 1,2-	37.5	37,500	<0.20	<0.20
Ethyl Benzene	50	50,000	23	<0.20
Methylene Chloride	25	25,000	<0.98	<0.98
Styrene	25	25,000	<0.20	<0.20
Tetrachloroethene	12.5	12,500	<0.20	<0.20
Toluene	25	25,000	0.65	2.0
Trichloroethane, 1,1,1-	5	5,000	<0.20	<0.20
Trichloroethene	25	25,000	<0.20	<0.20
Xylene, m,p-	50	50,000	0.52	0.43
Xylene, o-	50	50,000	0.22	0.28

[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)

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AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 9705177

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: 5/15/97
DATE COMPLETED: 6/5/97

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

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.
01A	051497U1	TO-14-S	9.5 "Hg
02A	051497D1	TO-14-S	9.5 "Hg
03A	Lab Blank	TO-14-S	NA

CERTIFIED BY: Robert Coleman
Laboratory Director

DATE: 6/5/97

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

LABORATORY NARRATIVE
Analysis of VOLATILE ORGANICS by EPA Method TO-14
Work Order #9705177

Two 6L Summa™ Canister samples were received on May 15, 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%

AIR TOXICS LTD.

SAMPLE NAME : 051497U1
ID#: 9705177-01A
EPA METHOD TO-14 GC/MS Full Scan

File Name:	**j052807**	**Date of Collection:**	**5/14/97**
Dil. Factor:	**1.96**	**Date of Analysis:**	**5/28/97**

Compound	Det. Limit (ppbv)	Amount (ppbv)
Methylene Chloride	0.98	Not Detected
cis-1,2-Dichloroethene	0.20	Not Detected
1,1,1-Trichloroethane	0.20	Not Detected
Benzene	0.20	0.58
1,2-Dichloroethane	0.20	Not Detected
Trichloroethene	0.20	Not Detected
1,2-Dichloropropane	0.20	Not Detected
Toluene	0.20	2.0
Tetrachloroethene	0.20	Not Detected
Chlorobenzene	0.20	Not Detected
Ethyl Benzene	0.20	Not Detected
m,p-Xylene	0.20	0.43
o-Xylene	0.20	0.28
Styrene	0.20	Not Detected
Acetone	0.98	5.8
Carbon Disulfide	0.98	Not Detected
trans-1,2-Dichloroethene	0.98	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.98	2.5

Container Type: 6 Liter Summa Canister

Surrogates	% Recovery	Method Limits
Octafluorotoluene	104	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	116	70-130

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SAMPLE NAME : 051497D1
ID#: 9705177-02A
EPA METHOD TO-14 GC/MS Full Scan

File Name:	**j052808**	**Date of Collection:**	**5/14/97**
Dil. Factor:	**1.96**	**Date of Analysis:**	**5/28/97**

Compound	Det. Limit (ppbv)	Amount (ppbv)
Methylene Chloride	0.98	Not Detected
cis-1,2-Dichloroethene	0.20	Not Detected
1,1,1-Trichloroethane	0.20	Not Detected
Benzene	0.20	0.73
1,2-Dichloroethane	0.20	Not Detected
Trichloroethene	0.20	Not Detected
1,2-Dichloropropane	0.20	Not Detected
Toluene	0.20	0.65
Tetrachloroethene	0.20	Not Detected
Chlorobenzene	0.20	Not Detected
Ethyl Benzene	0.20	23
m,p-Xylene	0.20	0.52
o-Xylene	0.20	0.22
Styrene	0.20	Not Detected
Acetone	0.98	5.5
Carbon Disulfide	0.98	Not Detected
trans-1,2-Dichloroethene	0.98	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.98	2.0

Container Type: 6 Liter Summa Canister

Surrogates	% Recovery	Method Limits
Octafluorotoluene	108	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	118	70-130

AIR TOXICS LTD.

SAMPLE NAME : Lab Blank
ID#: 9705177-03A
EPA METHOD TO-14 GC/MS Full Scan

File Name:	**j052805**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 5/28/97**

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	98	70-130
4-Bromofluorobenzene	98	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

№ 010141

Page 1 of 1

Contact Person: Barbara Dye
Company: Parsons ES
Address: 9966 Gulf Freeway City: Houston State: TX Zip: 77034
Phone: 713-943-5432 FAX: 713-943-5427
Collected By: Signature: [signature]

Project info:
P.O. #: 727931-3004-00
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	051497U1	05-14-97 0720 1520	TO-14 See Att	-30	-9	9.5-Hg
02A	051497D1	05-14-97 0730 1530	TO-14 See ATT	-30	-8.5	9.5-Hg

SAD 5/16/97

Relinquished By: (Signature) Date/Time: [signature] 5-14-97 (1600) Print Name: Michael Steiner
Relinquished By: (Signature) Date/Time
Received By: (Signature) Date/Time
Relinquished By: (Signature) Date/Time
Received By: (Signature) Date/Time: [signature] 1200 5/15/97

Notes: Filters, bagers, Flow controllers in another Fedex box

Lab Use Only	Shipper Name	Air Bill #	Opened By:	Date/Time	Temp. (°C)	Condition	Custody Seals Intact?	Work Order #
	FED. EX.	0370022446	TAS.	5/15/97 1200	AMBIENT	GOOD	(Yes) No None N/A	9705177

Form 1293 rev. 06

LABORATORY NARRATIVE
Analysis of VOLATILE ORGANICS by EPA Method TO-14
Work Order #9705177

Two 6L Summa™ Canister samples were received on May 15, 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)
051497U1	9705177-01A	5/14/97	5/15/97	5/28/97	9.5 "Hg	5 psi
051497D1	9705177-02A	5/14/97	5/15/97	5/28/97	9.5 "Hg	5 psi

0003

@ Air Toxicx Ltd.

GC/MS TUNING AND MASS CALIBRATION

4-Bromofluorobenzene (BFB)

Laboratory Name Air Toxics Ltd.
Lab File ID J052801
Instrument ID MSD-J
Matrix: AIR

SDG No.: _____
Contract: _____
BFB Injection Date: 5-28-97
BFB Injection Time: 8:03

Log Book #: 336

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15 - 40% of the base peak	17.33
75	30 - 60% of the base peak	45.41
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.79
173	Less than 2% of mass 174	0.00
174	Greater than 50% of mass 95	87.12
175	5.0 - 9.0% of mass 174	(6.88) 1
176	Greater than 95% but less than 101% of mass 174	(97.94) 1
177	5.0 - 9.0% of mass 176	(6.45) 2

1 - value in parenthesis is % mass 174
2 - value in parenthesis is % mass 176

# 315-33 I.S.	Area cts.
BCM	185470
1,4-DFB	846399
CB-d5	846820

THIS TUNE CHECK APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS

	use	Client Sample I.D.	File #	Sample Name/Cleint	Can #	Pressure	Amount	Dilution Factor	Date Analyzed	Time Analyzed	Init.
1	✓		J052802	#315-57 200ppbv		(5ppbv)	12.5ml	1.0	5-28-97	8:33	MH
2	✓		J052803	#315-36 10ppmv spc. std.		(10ppbv)	0.5ml	1.0	5-28-97	9:14	MH
3			J052804	System Blank	Bag		250ml	1.0	5-28-97	10:25	MH
4	✓		J052805	Lab Blank	05364		500ml	1.0	5-28-97	11:20	MH
5	RR		J052806	9705177-01A/Per.	21076	9.5" → 5 psi	100ml	9.8	5-28-97	10:09	MH
6	✓		J052807	9705177-01A	21076	9.5" → 5 psi	500ml	1.96	5-28-97	13:20	MH
7	✓		J052808	9705177-02A	05699	9.5" → 5 psi	500ml	1.96	5-28-97	14:11	MH
8	✓		J052809	9705179-01A	11030	7" → 5 psi	3ml	292	5-28-97	1500	MH

9	✓		J052810	9705177-04A	404	7.0"Hg - 5.0 psi	1 ml	915	5-28-97	1605	lmk
10	✓	CO-VOC-5	J052811	9705222A-01A/ERL	10777	8.5"Hg - 5.0 psi	100 ml	9.35	5-28-97	1647	lmk
11	✓	CO-VOC-6	J052812	9705222A-02A	21075	7.0"Hg - 5.0 psi	100 ml	9.55	5-28-97	1735	lmk
12	RR	CO-VOC-7	J052813	9705222A-03A	10767	10.0"Hg - 5.0 psi	100 ml	10.1	5-28-97	1816	lmk
13	✓	CO-VOC-8	J052814	9705222A-04A	12715	7.5"Hg - 5.0 psi	100 ml	8.95	5-28-97	1858	lmk
14	✓	CJ-VOC-5	J052815	9705222A-05A	10766	8.0"Hg - 5.0 psi	10.0 ml	91.5	5-28-97	1931	lmk
15	✓	CJ-VOC-6	J052816	9705222A-06A	12672	8.0"Hg - 5.0 psi	10.0 ml	91.5	5-28-97	2021	lmk
16	✓	CJ-VOC-7	J052817	9705222A-07A	12958	7.0"Hg - 5.0 psi	20.0 ml	43.8	5-28-97	2105	lmk
17	✓		J052818	9705222A-08A	14013	7.0"Hg 5.0 psi	25.0 ml	35.0	5-28-97	2153	lmk
18	✓	BO-VOC-1	J052819	9705222A-09A	5406	9.0"Hg - 5.0 psi	100 ml	9.55	5-28-97	2235	lmk
19	✓	BO-VOC-2	J052820	9705222A-10A	5359	8.0"Hg - 5.0 psi	100 mL	9.15	5-28-97	2316	lmk
20	✓	BO-VOC-3	J052821	9705222A-11A	12680	8.5"Hg - 5.0 psi	100 ml	9.35	5-28-97	2358	lmk
21	✓	BO-VOC-4	J052822	9705222A-12A	14118	8.0"Hg - 5.0 psi	100 ml	9.15	5-28-97	0035	lmk
22	✓	SJ-VOC-1	J052823	9705222A-13A	13344	7.5"Hg - 5.0 psi	10.0 ml	87.5	5-28-97	125	lmk
23	✓	SJ-VOC-2	J052824	9705222A-14A	13844	6.0"Hg - 5.0 psi	12.5 ml	67.2	5-28-97	207	lmk
24	✓	SJ-VOC-3	J052825	9705222A-15A	13856	7.0"Hg - 5.0 psi	12.5 ml	70.0	5-28-97	249	lmk
25	✓	CO-VOC-7	J052826	9705222A-03AA	10767	10.0"Hg - 5.0 psi	40.0 ml	25.1	5-28-97	0330	lmk
26	✓	SD-VOC-1	J052827	9705222A-16A	28508	9.0"Hg - 5.0 psi	16 mL	59.7	5-28-97	0412	KB
27	✓	SD-VOC-2	J052828	9705222A-17A	13792	9.0"Hg - 5.0 psi	18 mL	53.0	5-28-97	0453	KB
28	✓	SD-VOC-3	J052829	9705222A-18A	21002	8.5"Hg - 5.0 psi	18 mL	51.9	5-28-97	0535	KB
29	✓	ENVOC-1	J052830	9705222A-19A	12667	7.0"Hg - 5 psi	100 mL	8.75	5-28-97	0616	KB
30	✓		J052831	9705214-01A/ENVR.	1195	0.5"Hg - 5.2 psi	100 mL	6.90	5-28-97	0722	KB
31	✓		J052832	9705214-02A	1172	0"Hg - 5.2 psi	100 mL	6.77	5-28-97	8:03	KB
32											
33											
34											
35											
36											

Kathleen Badal
Signed

5/28/97
Date

0005
~~1100~~ 410
6/5

AIR TOXICS LTD.

SAMPLE NAME : 051497U1
ID#: 9705177-01A
EPA METHOD TO-14 GC/MS Full Scan

File Name:	052807	Date of Collection:	5/14/97
Dil. Factor:	1.96	Date of Analysis:	5/28/97

Compound	Det. Limit (ppbv)	Amount (ppbv)
Methylene Chloride	0.98	Not Detected
cis-1,2-Dichloroethene	0.20	Not Detected
1,1,1-Trichloroethane	0.20	Not Detected
Benzene	0.20	0.58
1,2-Dichloroethane	0.20	Not Detected
Trichloroethene	0.20	Not Detected
1,2-Dichloropropane	0.20	Not Detected
Toluene	0.20	2.0
Tetrachloroethene	0.20	Not Detected
Chlorobenzene	0.20	Not Detected
Ethyl Benzene	0.20	Not Detected
m,p-Xylene	0.20	0.43
o-Xylene	0.20	0.28
Styrene	0.20	Not Detected
Acetone	0.98	5.8
Carbon Disulfide	0.98	Not Detected
trans-1,2-Dichloroethene	0.98	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.98	2.5

Container Type: 6 Liter Summa Canister

Surrogates	% Recovery	Method Limits
Octafluorotoluene	104	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	116	70-130

0006

MH 5/28/97

Air Toxics Limited

AMBIENT AIR METHOD TO14

Data file : /chem/msdj.i/j-28may.b/j052807.d
Lab Smp Id: 9705177-01A Client Smp ID: 051497U1
Inj Date : 28-MAY-1997 13:20
Operator : MH Inst ID: msdj.i
Smp Info : 500mL Can#21076
Misc Info : 9.5"Hg-5.0psi Parsons
Comment :
Method : /chem/msdj.i/j-28may.b/to140527.m
Meth Date : 28-May-1997 14:19 mhe Quant Type: ISTD
Cal Date : 28-MAY-1997 08:33 Cal File: j052802.d
Als bottle: 1
Dil Factor: 1.960
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
32 Bromochloromethane					CAS #: 74-97-5			
15.732	15.699 (1.000)	130	145663	5.0			100.00	9264
15.732	15.699 (0.000)	128	34504			26.56- 126.56	23.69	
15.732	15.699 (0.000)	49	55088			75.98- 175.98	37.82	
$ 37 Octafluorotoluene					CAS #: 434-64-0			
16.250	16.240 (1.033)	217	484799	5.2	5.2		100.00	7535
16.250	16.240 (0.000)	186	90896			8.50- 108.50	18.75	
42 1,4-Difluorobenzene					CAS #: 540-36-3			
17.052	17.034 (1.000)	114	619798	5.0			100.00	9669
17.052	17.034 (0.000)	88	31480			0.00- 66.46	5.08	
$ 50 Toluene-d8					CAS #: 2037-26-5			
19.058	19.048 (1.118)	98	586646	5.1	5.1		100.00	9936
19.058	19.048 (0.000)	70	20816			0.00- 61.89	3.55	
19.058	19.048 (0.000)	100	115713			17.94- 117.94	19.72	
62 Chlorobenzene-d5					CAS #: 3114-55-4			
21.110	21.100 (1.000)	117	676967	5.0			100.00	9946
21.110	21.100 (0.000)	82	99808			5.68- 105.68	14.74	

Data File: /chem/msdj.i/j-28may.b/j052807.d
Report Date: 28-May-1997 14:19

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
$ 71 Bromofluorobenzene					CAS #: 460-00-4			
22.918	22.916 (1.086)	95	590701	5.8	5.8		100.00	8792
22.918	22.916 (0.000)	174	105416			20.39- 120.39	17.85	
22.918	22.916 (0.000)	176	103840			23.94- 123.94	17.58	
15 Acetone					CAS #: 67-64-1			
12.573	12.448 (0.799)	43	148980	3.0	5.8	✓	100.00	
12.573	12.448 (0.799)	58	32326			0.00- 81.57	21.70	
29 2-Butanone					CAS #: 78-93-3			
15.381	15.340 (0.978)	72	19338	1.3	2.5		100.00	7762
15.381	15.340 (0.000)	43	20089			328.21- 428.21	103.88	
15.381	15.340 (0.000)	57	1248			0.00- 79.36	6.45	
39 Benzene					CAS #: 71-43-2			
16.609	16.584 (0.974)	78	28147	0.30	0.58		100.00	9261
16.609	16.584 (0.000)	77	1768			0.00- 73.15	6.28	
52 Toluene					CAS #: 108-88-3			
19.150	19.139 (1.123)	92	79894	1.0	2.0		100.00	8118
19.150	19.139 (0.000)	91	39852			118.04- 218.04	49.88	
65 m,p-Xylene					CAS #: 108-38-3			
21.393	21.390 (1.013)	106	17438	0.22	0.43		100.00	
21.393	21.390 (1.013)	91	33871			149.27- 249.27	194.24	
67 o-Xylene					CAS #: 95-47-6			
22.033	22.031 (1.044)	106	8209	0.14	0.28		100.00	8786
22.033	22.031 (0.000)	91	4247			76.66- 176.66	51.74	

$\frac{5 \times 148980}{145663} \geq 1.732$

$= 2.95 \cong 3.0$ ppbv X

$1.96 = 5.8$ ppbv

MH 5/28/97

Audit History For: /chem/msdj.i/j-28may.b/j052807.d

Change Date: 28-May-97 13:43
Change Made by: Automation

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

Change Date: 28-May-97 13:43
Change Made by: Automation

Parameter: Target Processing
Old Value:
New Value: Method: /chem/msdj.i/j-28may.b/to140527.m
Reason For Change: Complete Target Compound Processing

Change Date: 28-May-97 13:53
Change Made by: mhe

Parameter: date
Old Value: 28-MAY-97 13:20
New Value: 28-MAY-1997 13:20
Reason For Change: N/A

Change Date: 28-May-97 13:53
Change Made by: mhe

Parameter: Misc Information
Old Value:
New Value: 9.5"Hg-5.0psi Parsons
Reason For Change: N/A

Change Date: 28-May-97 13:53
Change Made by: mhe

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

Change Date: 28-May-97 13:53
Change Made by: mhe

Parameter: Sample Info
Old Value: 9705177-01A 500mL Can#21076 9.5"-5p 051497U1 Par
New Value: 500mL Can#21076
Reason For Change: N/A

Change Date: 28-May-97 13:53
Change Made by: mhe

Parameter: Lab ID
Old Value:
New Value: 9705177-01A
Reason For Change: N/A

Change Date: 28-May-97 13:53
Change Made by: mhe

Parameter: Client ID
Old Value: VSTD150
New Value: 051497U1
Reason For Change: N/A

Change Date: 28-May-97 13:53
Change Made by: mhe

Parameter: Target Processing
Old Value:
New Value: Method: /chem/msdj.i/j-28may.b/to140527.m
Reason For Change: Quantitation

Change Date: 28-May-97 13:54
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: 28-May-97 13:54
Change Made by: mhe

Parameter: Manual reintegration of Carbon Disulfide (Signal 1)
Old Value: No previous peak at 12.779
New Value: New Area/Time: 3329 / 12.78
Reason For Change: N/A

Change Date: 28-May-97 13:54
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: 28-May-97 13:54
Change Made by: mhe

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

Change Date: 28-May-97 13:55
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: 28-May-97 13:55
Change Made by: mhe

Parameter: Requantitate all compounds
Old Value:
New Value:

Reason For Change: N/A

Change Date: 28-May-97 13:55
Change Made by: mhe

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

Change Date: 28-May-97 13:55
Change Made by: mhe

Parameter: Manual reintegration of 1,1,1-Trichlorethane (Signal 1)
Old Value: No previous peak at 16.090
New Value: New Area/Time: 3061 / 16.09
Reason For Change: N/A

Change Date: 28-May-97 13:55
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: 28-May-97 13:55
Change Made by: mhe

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

Change Date: 28-May-97 13:55
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: 28-May-97 13:55
Change Made by: mhe

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

Change Date: 28-May-97 13:55
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: 28-May-97 13:55
Change Made by: mhe

Parameter: Manual reintegration of Trichloroethene (Signal 1)
Old Value: No previous peak at 17.448
New Value: New Area/Time: 834 / 17.45
Reason For Change: N/A

Change Date: 28-May-97 13:55
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: 28-May-97 13:55
Change Made by: mhe

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

Change Date: 28-May-97 13:56
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: 28-May-97 13:56
Change Made by: mhe

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

Change Date: 28-May-97 13:56
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: 28-May-97 13:56
Change Made by: mhe

Parameter: Manual reintegration of Styrene (Signal 1)
Old Value: No previous peak at 22.041
New Value: New Area/Time: 3440 / 22.04
Reason For Change: N/A

Change Date: 28-May-97 13:56
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: 28-May-97 13:56
Change Made by: mhe

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

Change Date: 28-May-97 13:56
Change Made by: mhe

Parameter: Best Match for Unknown compound at 22.705 min. changed.
Old Value: Old match: Cyclotetrasiloxane, octamethyl-
New Value: New match: Unknown Compound Deleted
Reason For Change: N/A

Change Date: 28-May-97 13:56
Change Made by: mhe

Parameter: Best Match for Unknown compound at 25.711 min. changed.
Old Value: Old match: Phenol
New Value: New match: Unknown Compound Deleted
Reason For Change: N/A

Change Date: 28-May-97 13:56
Change Made by: mhe

Parameter: Best Match for Unknown compound at 19.378 min. changed.
Old Value: Old match: Cyclotrisiloxane, hexamethyl-
New Value: New match: Unknown Compound Deleted
Reason For Change: N/A

Change Date: 28-May-97 13:59
Change Made by: mhe

Parameter: Target Processing
Old Value:
New Value: Method: /chem/msdj.i/j-28may.b/to140527.m
Reason For Change: Quantitation

Change Date: 28-May-97 14:19
Change Made by: mhe

Parameter: Target Processing
Old Value:
New Value: Method: /chem/msdj.i/j-28may.b/to140527.m
Reason For Change: Quantitation

Air Toxics Limited

AMBIENT AIR METHOD TO14

Data file : /chem/msdj.i/j-28may.b/j052807.d
Lab Smp Id: 9705177-01A Client Smp ID: 051497U1
Inj Date : 28-MAY-1997 13:20
Operator : MH Inst ID: msdj.i
Smp Info : 500mL Can#21076
Misc Info : 9.5"Hg-5.0psi Parsons
Comment :
Method : /chem/msdj.i/j-28may.b/to140527.m
Meth Date : 28-May-1997 13:46 mhe Quant Type: ISTD
Cal Date : 27-MAY-1997 15:33 Cal File: j052710.d
Als bottle: 1
Dil Factor: 1.960
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
* 32 Bromochloromethane					CAS #: 74-97-5			
15.732	15.699 (1.000)	130	145663	5.0			100.00	9264
15.732	15.699 (0.000)	128	34504			29.71- 129.71	23.69	
15.732	15.699 (0.000)	49	55088			85.18- 185.18	37.82	
$ 37 Octafluorotoluene					CAS #: 434-64-0			
16.250	16.240 (1.033)	217	484799	5.0	5.0		100.00	7535
16.250	16.240 (0.000)	186	90896			8.78- 108.78	18.75	
* 42 1,4-Difluorobenzene					CAS #: 540-36-3			
17.052	17.034 (1.000)	114	619798	5.0			100.00	9669
17.052	17.034 (0.000)	88	31480			0.00- 67.09	5.08	
17.273	17.034 (1.000)	114	1699	5.0			100.00	3636(Q)
17.273	17.034 (0.000)	88	113			0.00- 67.09	6.65	
17.326	17.034 (1.000)	114	1193	5.0			100.00	1598(Q)
17.326	17.034 (0.000)	88	113			0.00- 67.09	9.47	
$ 50 Toluene-d8					CAS #: 2037-26-5			
19.058	19.048 (1.118)	98	586646	5.0	5.0		100.00	9936

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
$ 50 Toluene-d8 (continued)								
19.058	19.048 (0.000)	70	20816			0.00- 61.62	3.55	
19.058	19.048 (0.000)	100	115713			19.06- 119.06	19.72	
* 62 Chlorobenzene-d5					CAS #: 3114-55-4			
21.110	21.100 (1.000)	117	676967	5.0			100.00	9946
21.110	21.100 (0.000)	82	99808			3.25- 103.25	14.74	
$ 71 Bromofluorobenzene					CAS #: 460-00-4			
22.918	22.916 (1.086)	95	590701	5.4	5.4		100.00	8792
22.918	22.916 (0.000)	174	105416			26.29- 126.29	17.85	
22.918	22.916 (0.000)	176	103840			23.94- 123.94	17.58	
15 Acetone					CAS #: 67-64-1			
2.573	12.448 (0.799)	43	148980	3.7	7.3		100.00	
12.573	12.448 (0.799)	58	32326			0.00- 81.57	21.70	
1.932	12.448 (0.758)	43	6853	0.17	0.34		100.00	(a)
1.925	12.448 (0.758)	58	275			0.00- 81.57	4.01	
12.077	12.448 (0.768)	43	3029	0.076	0.15		100.00	(a)
2.085	12.448 (0.768)	58	318			0.00- 81.57	10.50	
12.283	12.448 (0.781)	43	2951	0.074	0.14		100.00	(a)
12.260	12.448 (0.779)	58	367			0.00- 81.57	12.44	
2.726	12.448 (0.809)	43	4506	0.11	0.22		100.00	(a)
12.711	12.448 (0.808)	58	307			0.00- 81.57	6.81	
2.993	12.448 (0.826)	43	4462	0.11	0.22		100.00	(a)
12.978	12.448 (0.825)	58	651			0.00- 81.57	14.59	
21 Methylene Chloride					CAS #: 75-09-2			
3.367	13.295 (0.850)	84	3204	0.12	0.24		100.00	4179
13.367	13.295 (0.000)	49	937			74.56- 174.56	29.24	
13.367	13.295 (0.000)	51	319			0.00- 90.50	9.96	
29 2-Butanone					CAS #: 78-93-3			
15.381	15.340 (0.978)	72	19338	1.3	2.5		100.00	7762
15.381	15.340 (0.000)	43	20089			326.68- 426.68	103.88	
5.381	15.340 (0.000)	57	1248			0.00- 78.46	6.45	
15.114	15.340 (0.961)	72	42322	2.8	5.5		100.00	4487(Q)
15.114	15.340 (0.000)	43	15990			326.68- 426.68	37.78	
5.114	15.340 (0.000)	57	4862			0.00- 78.46	11.49	
39 Benzene					CAS #: 71-43-2			
6.609	16.584 (0.974)	78	28147	0.30	0.58		100.00	9261

Data File: /chem/msdj.i/j-28may.b/j052807.d
Report Date: 28-May-1997 13:53

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO	SIMILARITY	
39 Benzene (continued)										
16.609	16.584	(0.000)	77	1768			0.00- 73.15	6.28		
40 1,2-Dichloroethane						CAS #: 107-06-2				
17.044	16.591	(1.000)	62	19542	0.48	0.94		100.00	3506	
17.044	16.591	(0.000)	64	4912			0.00- 82.42	25.14		
52 Toluene						CAS #: 108-88-3				
19.150	19.139	(1.123)	92	79894	1.0	2.0		100.00	8118	
19.150	19.139	(0.000)	91	39852			113.30- 213.30	49.88		
64 Ethyl Benzene						CAS #: 100-41-4				
21.240	21.230	(1.006)	106	4563	0.069	0.14		100.00		(a)
21.232	21.230	(1.006)	91	15754			268.72- 368.72	345.26		
21.393	21.230	(1.013)	106	17438	0.26	0.52		100.00		(Q)
21.393	21.230	(1.013)	91	33871			268.72- 368.72	194.24		
65 m,p-Xylene						CAS #: 108-38-3				
21.393	21.390	(1.013)	106	17438	0.23	0.46		100.00		
21.393	21.390	(1.013)	91	33871			149.27- 249.27	194.24		
21.240	21.390	(1.006)	106	4563	0.061	0.12		100.00		(aQ)
21.232	21.390	(1.006)	91	15754			149.27- 249.27	345.26		
67 o-Xylene						CAS #: 95-47-6				
22.033	22.031	(1.044)	106	8209	0.15	0.29		100.00	8786	
22.033	22.031	(0.000)	91	4247			157.65- 257.65	51.74		

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-28may.b/j052807.d
Report Date: 28-May-1997 13:53

Air Toxics Limited

Unknown Compounds Quantitation Report

Data file : /chem/msdj.i/j-28may.b/j052807.d
Lab Smp Id: 9705177-01A Client Smp ID: 051497U1
Inj Date : 28-MAY-1997 13:20
Operator : MH Inst ID: msdj.i
Smp Info : 500mL Can#21076
Misc Info : 9.5"Hg-5.0psi Parsons
Comment :
Method : /chem/msdj.i/j-28may.b/to140527.m
Meth Date : 28-May-1997 13:46 mhe
Cal Date : 27-MAY-1997 15:33 Cal File: j052710.d
Als bottle: 1
Dil Factor: 1.960 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

STD		RT	AREA	AMOUNT
32	Bromochloromethane	15.732	802272	5.000
* 42	1,4-Difluorobenzene	17.052	1374624	5.000
62	Chlorobenzene-d5	21.110	2002893	5.000

RT	AREA	CONCENTRATIONS ON-COL(PPBV)	CONCENTRATIONS FINAL(PPBV)	QUAL	QUANT LIBRARY	QUANT LIB ENTRY	QUANT CPND #
Unknown				CAS #:			
7.576	190542	1.2	2.3	0		0	32
1-Propanol				CAS #: 71-23-8			
14.725	114293	0.71	1.4	59	NBS54K.l	124	32
Unknown				CAS #:			
15.556	116974	0.73	1.4	0		0	32

Data File: /chem/msdj.i/j-28may.b/j052807.d
Report Date: 28-May-1997 13:53

RT	AREA	CONCENTRATIONS ON-COL(PPBV)	FINAL(PPBV)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
1-Butanol					CAS #: 71-36-3		
17.265	307830	1.1	2.2	80	NBS54K.l	322	42
Oxetane, 2,3,4-trimethyl-, (2.alpha.,3.a					CAS #: 32347-12-9		
18.165	450962	1.6	3.2	56	NBS54K.l	1438	42
Cyclotrisiloxane, hexamethyl-					CAS #: 541-05-9		
19.378	168901	0.42	0.83	80	NBS54K.l	23660	62
Ethanol, 2-propoxy-					CAS #: 2807-30-9		
20.401	146421	0.36	0.72	78	NBS54K.l	1716	62
1,3-Dioxolane, 2-(1-methylethyl)-					CAS #: 822-83-3		
20.881	126676	0.32	0.62	50	NBS54K.l	2886	62
Hexanal, 5-methyl-					CAS #: 1860-39-5		
22.239	107451	0.27	0.52	59	NBS54K.l	2672	62
Ethanol, 2-butoxy-					CAS #: 111-76-2		
22.468	2297632	5.7	11.2	83	NBS54K.l	3137	62
Cyclotetrasiloxane, octamethyl-					CAS #: 556-67-2		
22.705	470273	1.2	2.3	64	NBS54K.l	35637	62
Unknown					CAS #:		
24.421	171014	0.43	0.84	0		0	62
1-Hexanol, 2-ethyl-					CAS #: 104-76-7		
25.230	367245	0.92	1.8	59	NBS54K.l	4822	62
Phenol					CAS #: 108-95-2		
25.711	602108	1.5	2.9	87	NBS54K.l	933	62
Unknown					CAS #:		
27.160	121025	0.30	0.59	0		0	62

Data File: /chem/msdj.i/j-28may.b/j052807.d
Report Date: 28-May-1997 14:19

Air Toxics Limited

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdj.i
Lab File ID: j052807.d
Lab Smp Id: 9705177-01A
Analysis Type: VOA
Quant Type: ISTD
Operator: MH
Method File: /chem/msdj.i/j-28may.b/to140527.m
Misc Info: 9.5"Hg-5.0psi Parsons

Calibration Date: 05/28/97
Calibration Time: 0833
Client Smp ID: 051497U1
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	% DIFF
32 Bromochloromethane	185470	111282	259658	145663	-21.46
42 1,4-Difluorobenzene	846399	507839	1184959	619798	-26.77
62 Chlorobenzene-d5	846830	508098	1185562	676967	-20.06

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	% DIFF
32 Bromochloromethane	15.71	15.21	16.21	15.73	0.17
42 1,4-Difluorobenzene	17.04	16.54	17.54	17.05	0.06
62 Chlorobenzene-d5	21.10	20.60	21.60	21.11	0.05

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
5/28/97

Data File: /chem/msdj.i/j-28may.b/j052807.d
Report Date: 28-May-1997 14:19

Air Toxics Limited

RECOVERY REPORT

Client Name:
Sample Matrix: GAS
Lab Smp Id: 9705177-01A
Level: LOW
Data Type: MS DATA
SpikeList File:
Method File: /chem/msdj.i/j-28may.b/to140527.m
Misc Info: 9.5"Hg-5.0psi Parsons

Client SDG: j-28may
Fraction: VOA
Client Smp ID: 051497U1
Operator: MH
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 37 Octafluorotoluene	5.0	5.2	104.37	60-140
$ 50 Toluene-d8	5.0	5.1	102.02	60-140
$ 71 Bromofluorobenzene	5.0	5.8	115.32	60-140

MH
5/28/97

11021

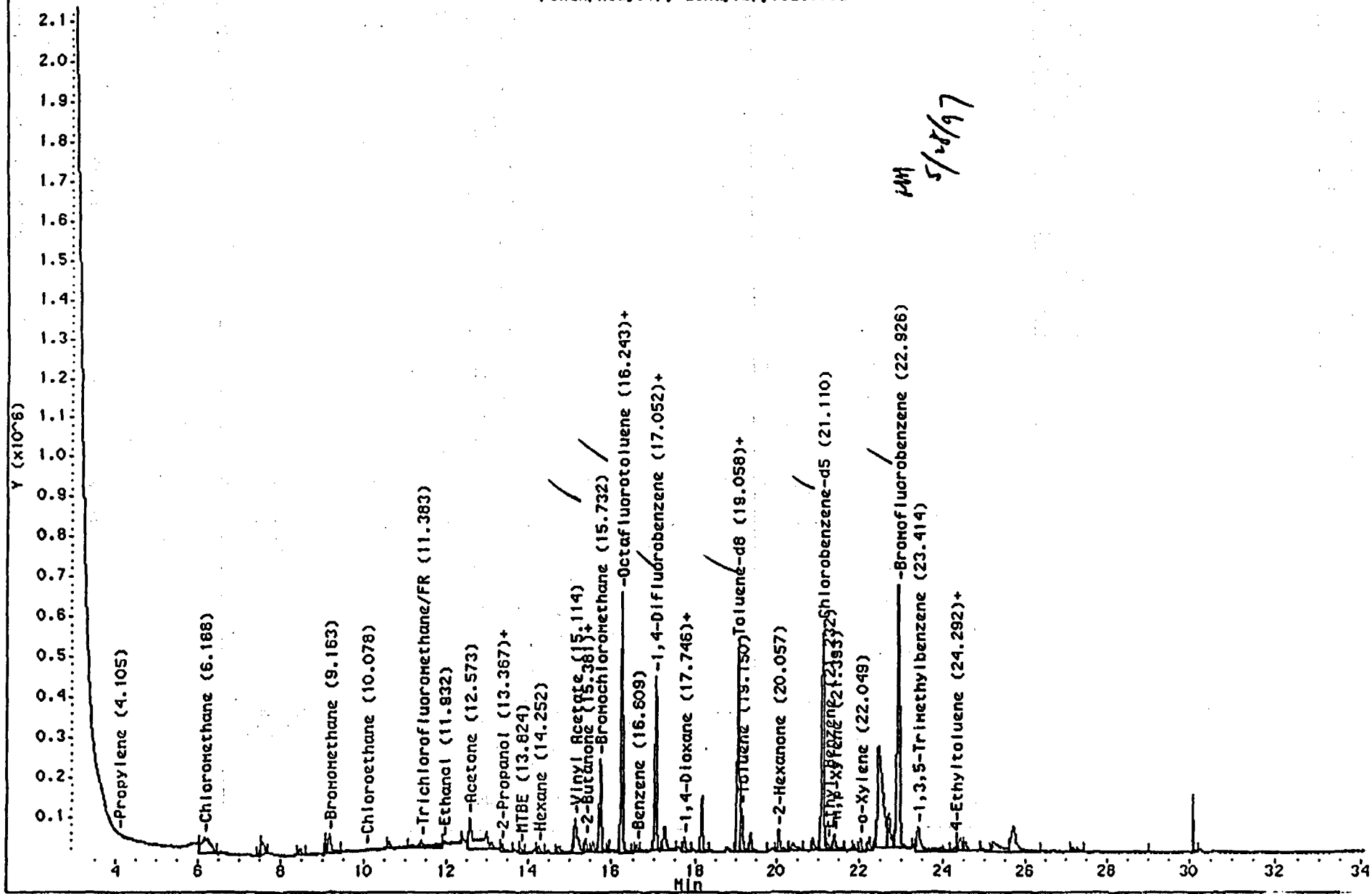
Data File: /chem/msdj.i/j-28may.b/j052807.d
Date : 28-MAY-1997 13:20
Client ID: 051497U1
Sample Info: 500mL Can#21076

Instrument: msdj.i

Operator: MH
Column diameter: 0.58

Column phase: RTx-624

/chem/msdj.i/j-28may.b/j052807.d



MH 5/28/97

Data File: /chem/msdj.i/j-28may.b/j052807.d

Date : 28-MAY-1997 13:20

Client ID: 051497U1

Instrument: msdj.i

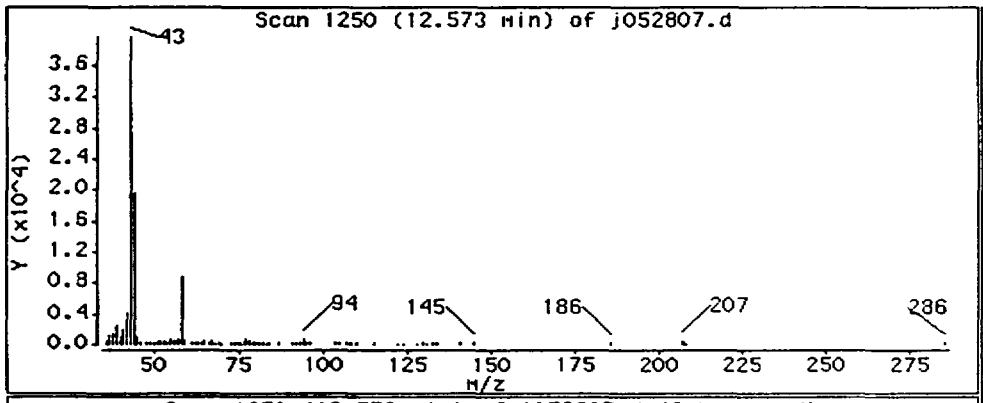
Sample Info: 500mL Can#21076

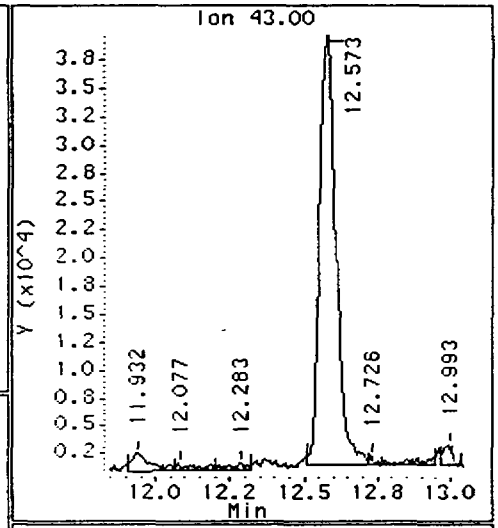
Operator: MH

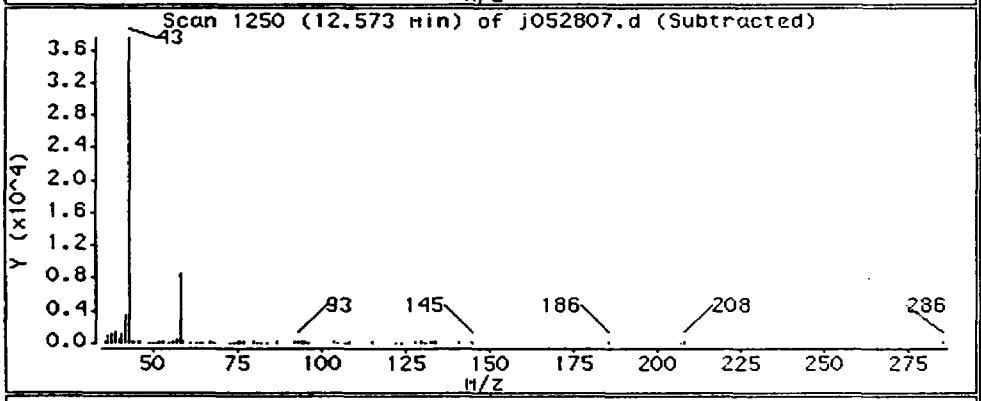
Column phase: RTx-624

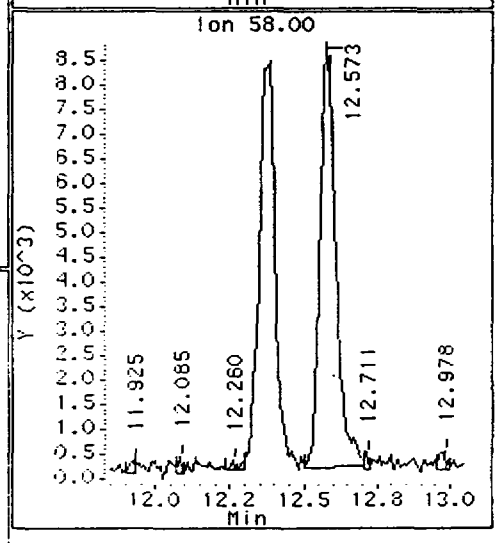
Column diameter: 0.58

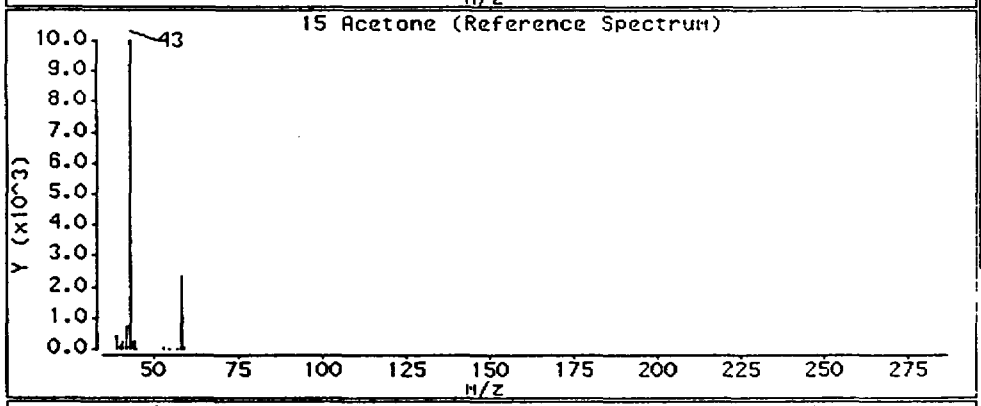
15 Acetone

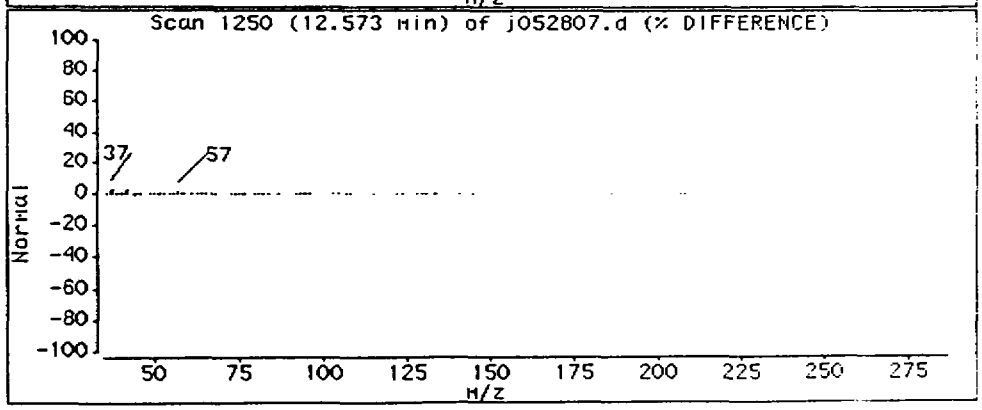












Data File: /chem/msdj.i/j-28may.b/j052807.d

Date : 28-MAY-1997 13:20

Client ID: 051497U1

Instrument: msdj.i

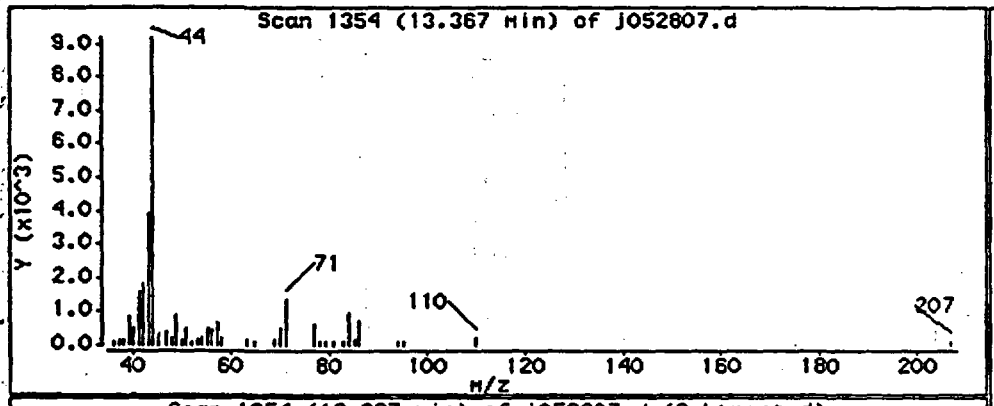
Sample Info: 500mL Can#21076

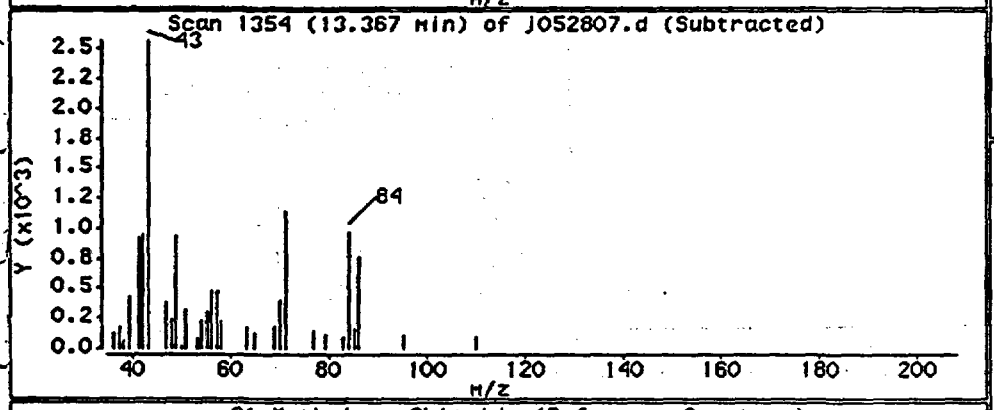
Operator: MH

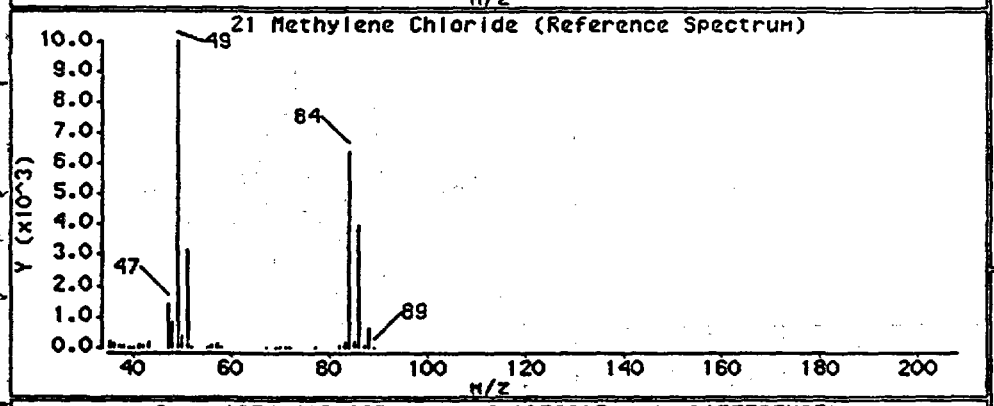
Column phase: RTx-624

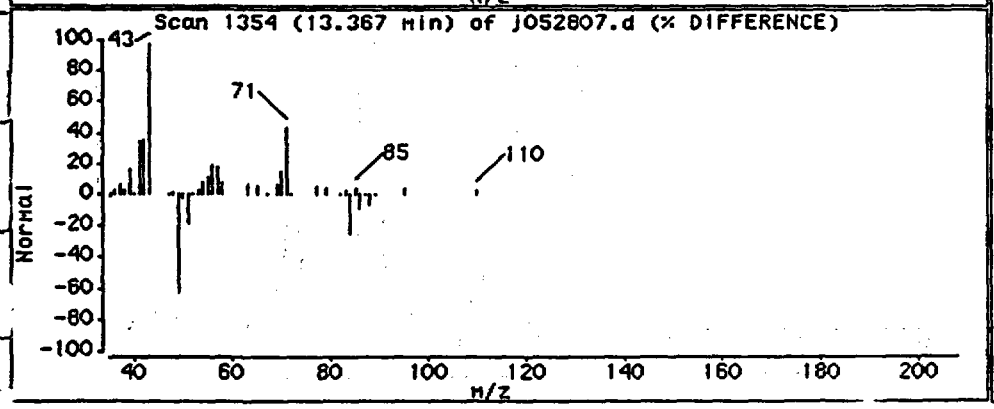
Column diameter: 0.58

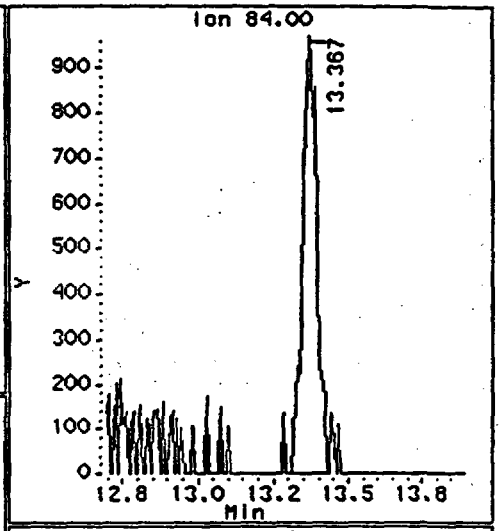
21 Methylene Chloride

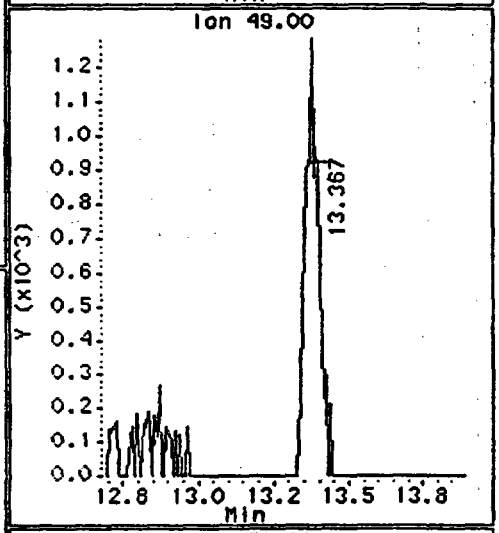


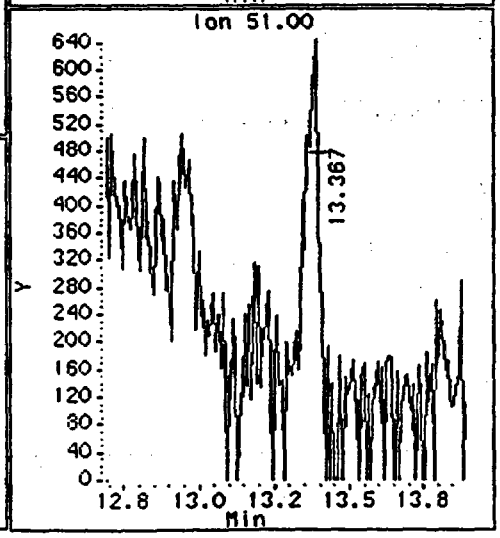












Data File: /chem/msdj.i/j-28may.b/j052807.d

Date : 28-MAY-1997 13:20

Client ID: 051497U1

Instrument: msdj.i

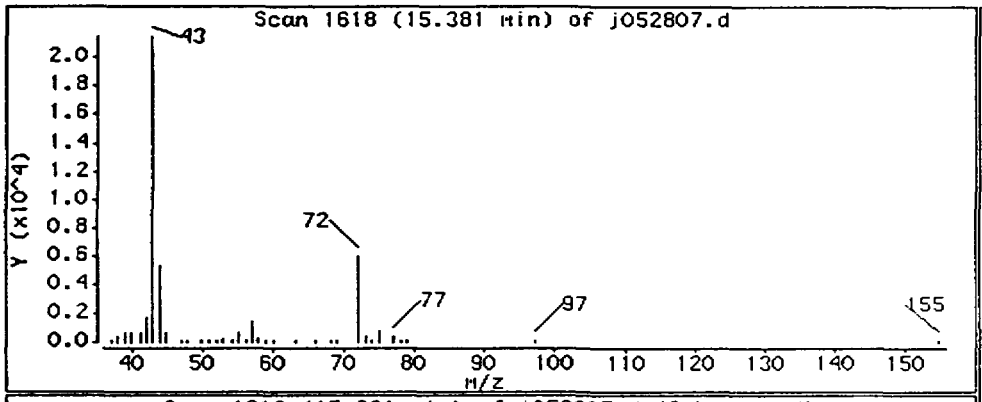
Sample Info: 500mL Can#21076

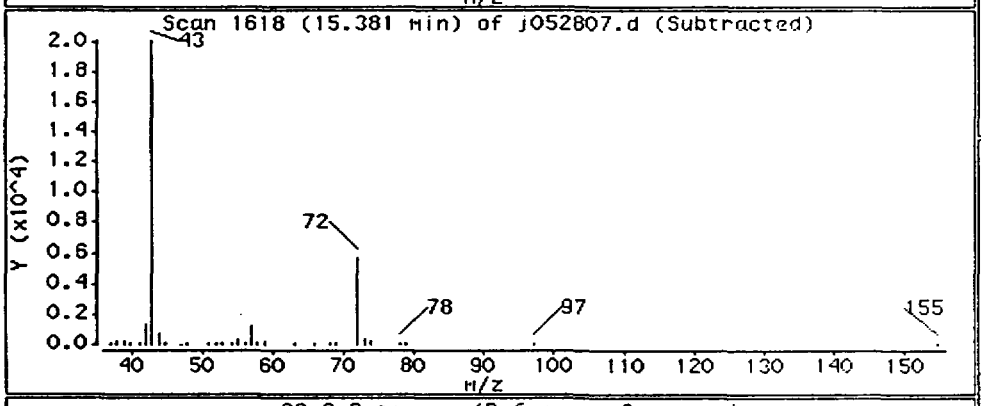
Operator: MH

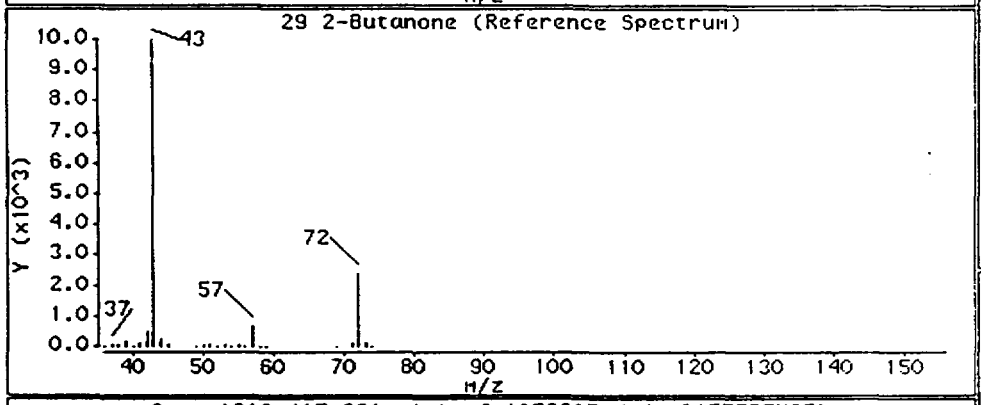
Column phase: RTx-624

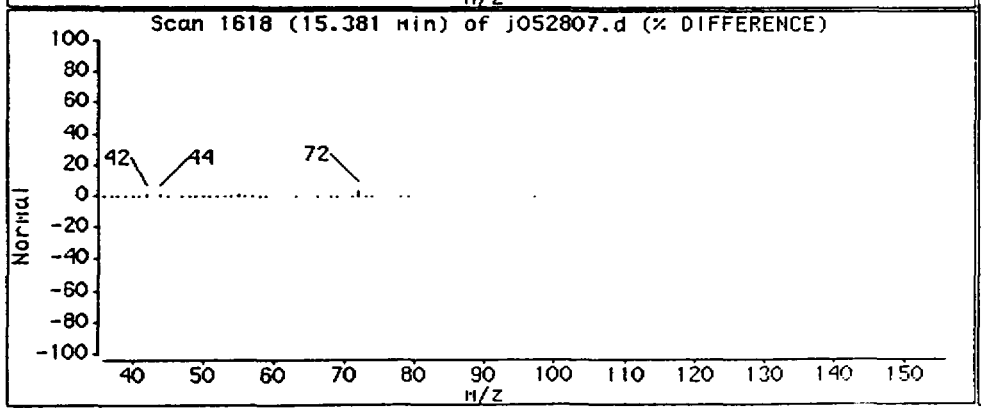
Column diameter: 0.58

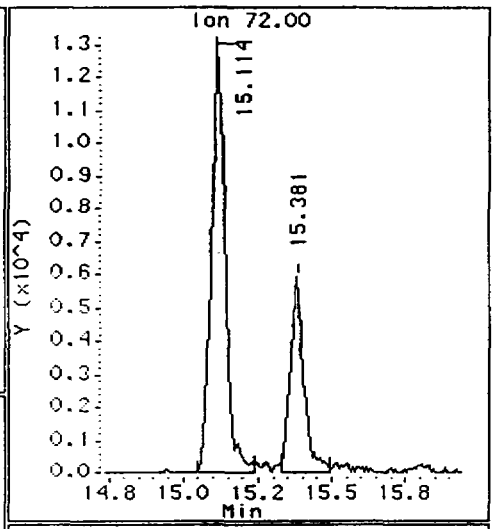
29 2-Butanone

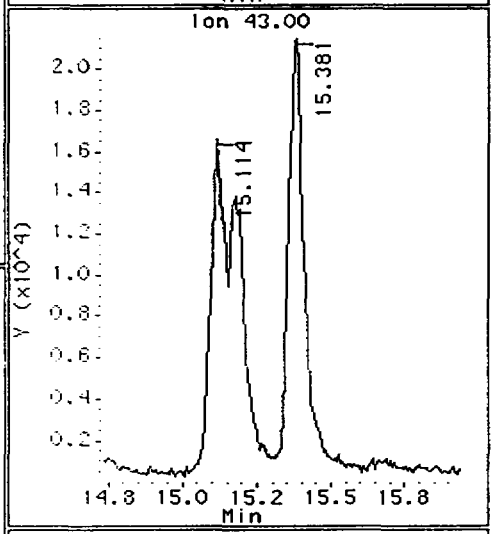


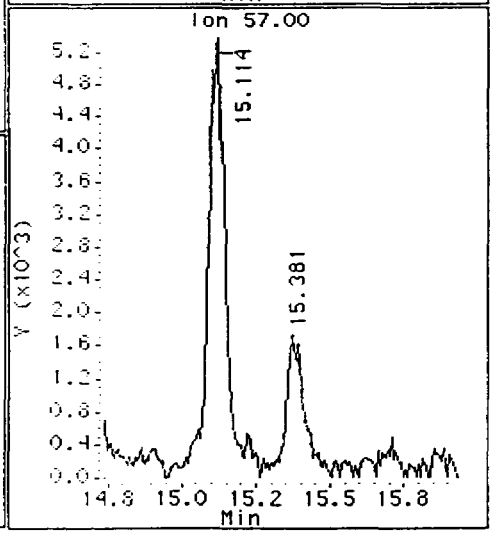






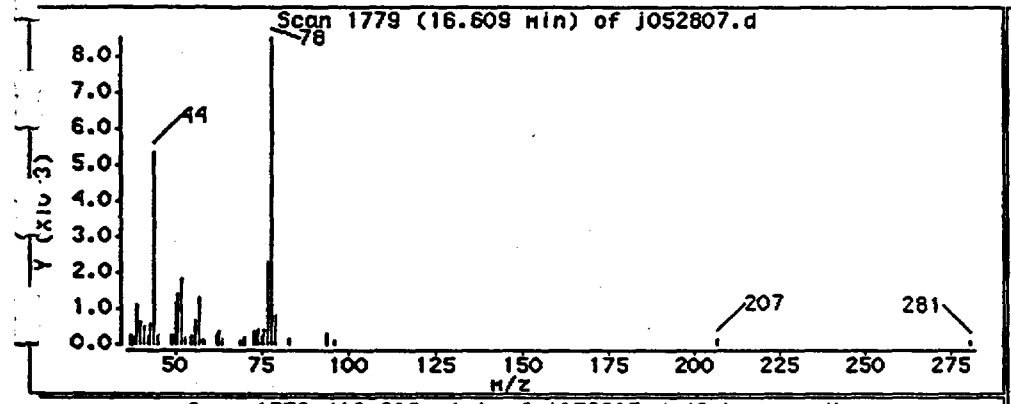


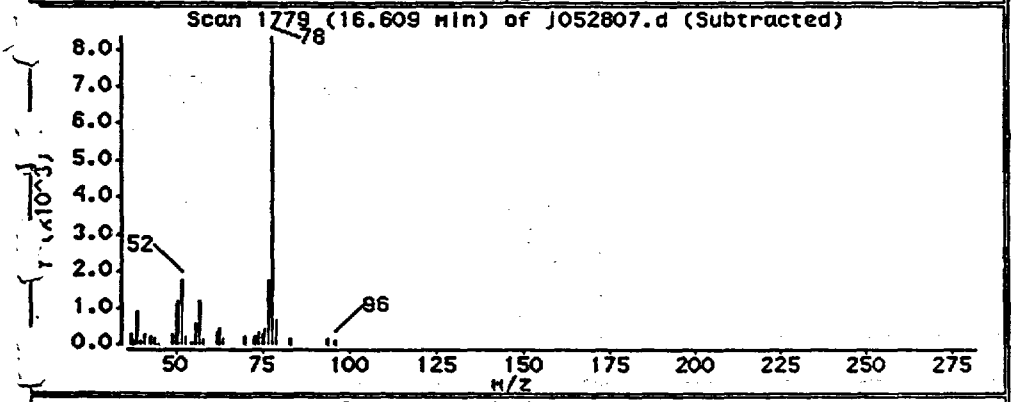


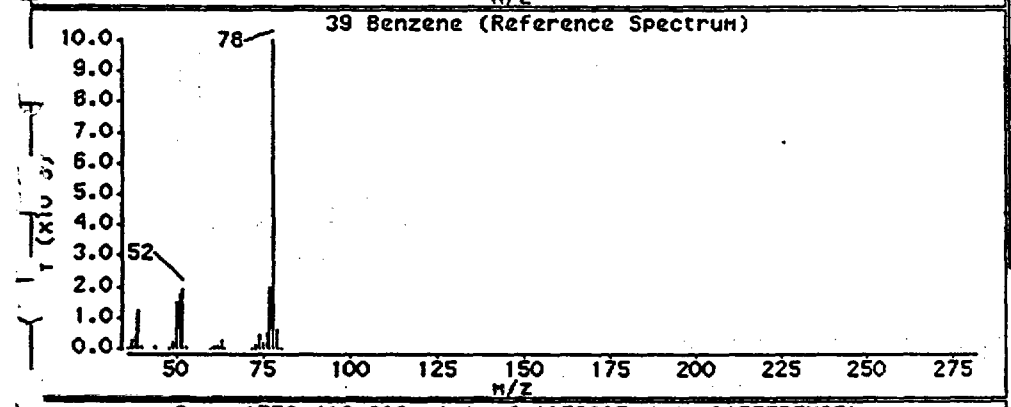


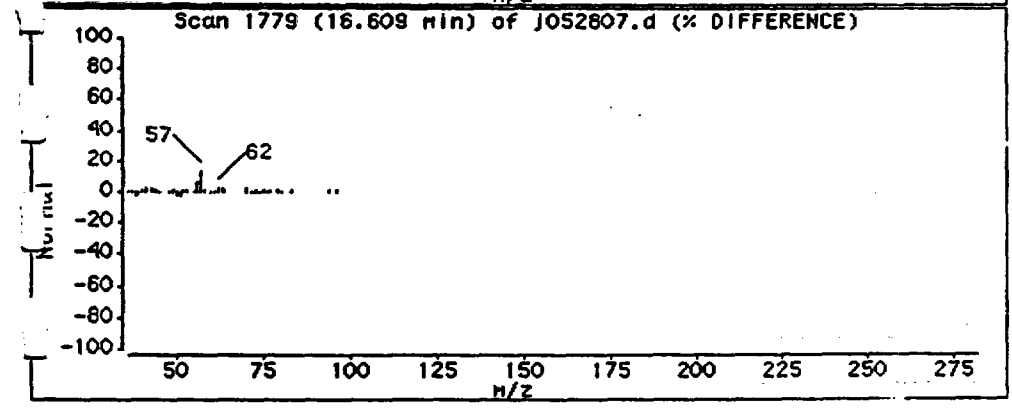
Data File: /chem/msdj.i/j-28may.b/j052807.d
Date : 28-MAY-1997 13:20
Client ID: 051497U1
Instrument: msdj.i
Sample Info: 500mL Can#21076
Operator: MH
Column phase: RTx-624
Column diameter: 0.58

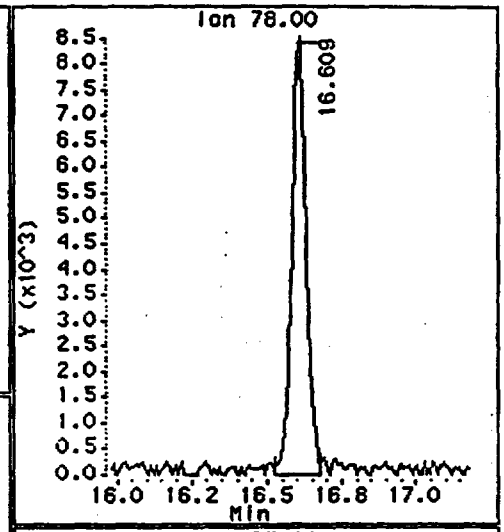
39 Benzene

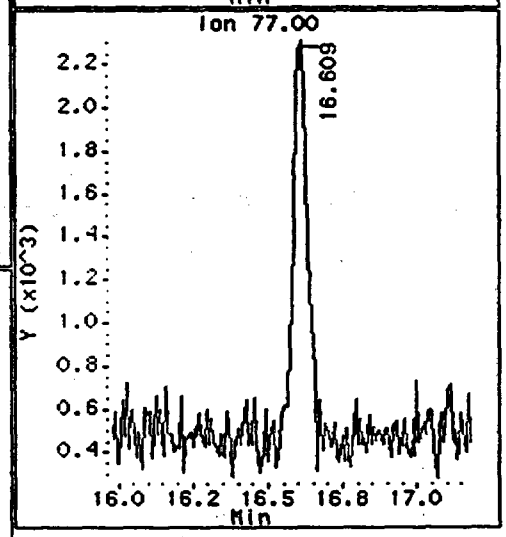












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Date : 28-MAY-1997 13:20

Client ID: 051497U1

Instrument: msdj.i

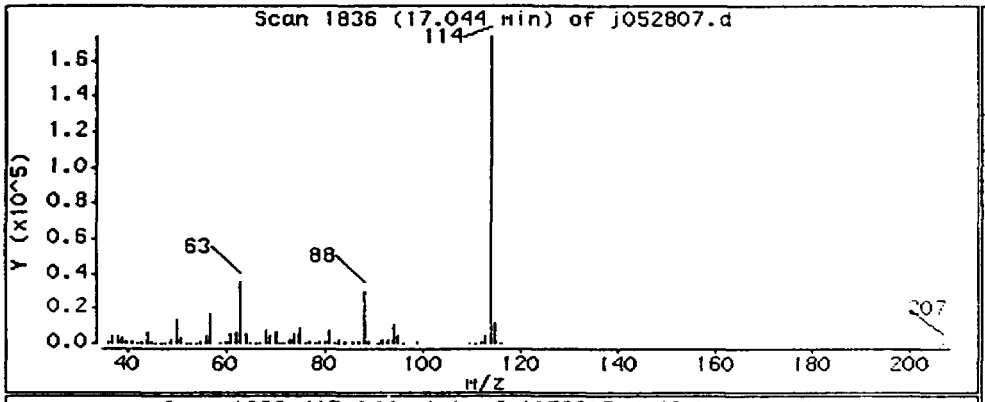
Sample Info: 500mL Can#21076

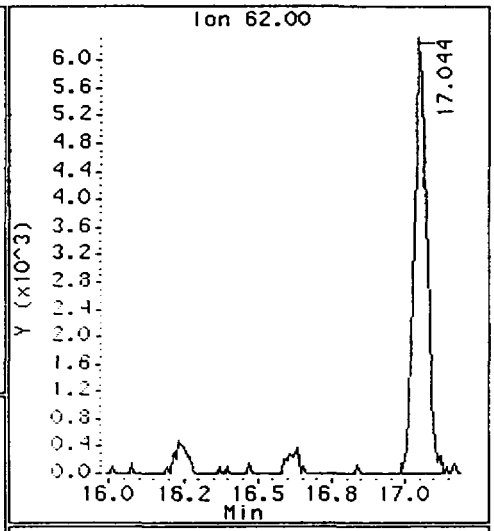
Operator: MH

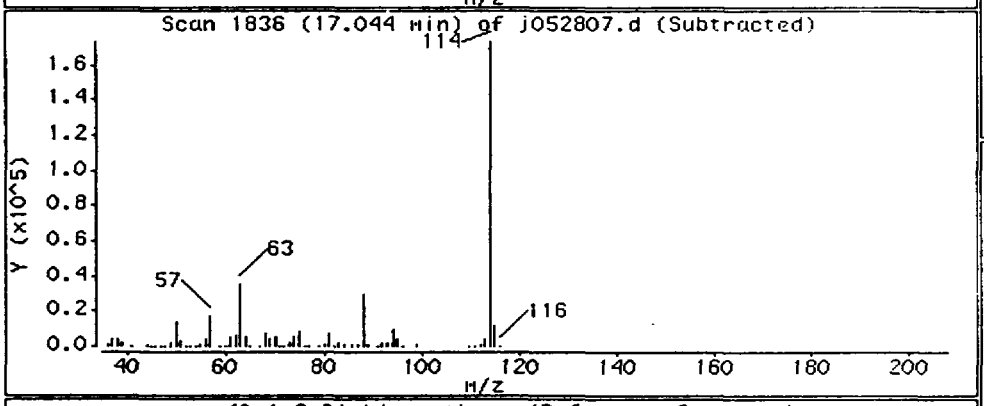
Column phase: RTx-624

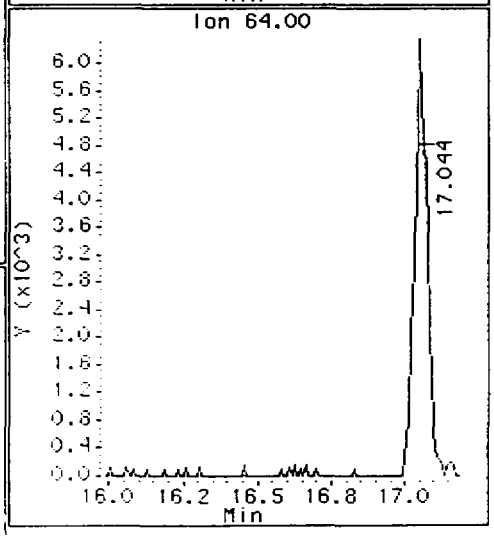
Column diameter: 0.58

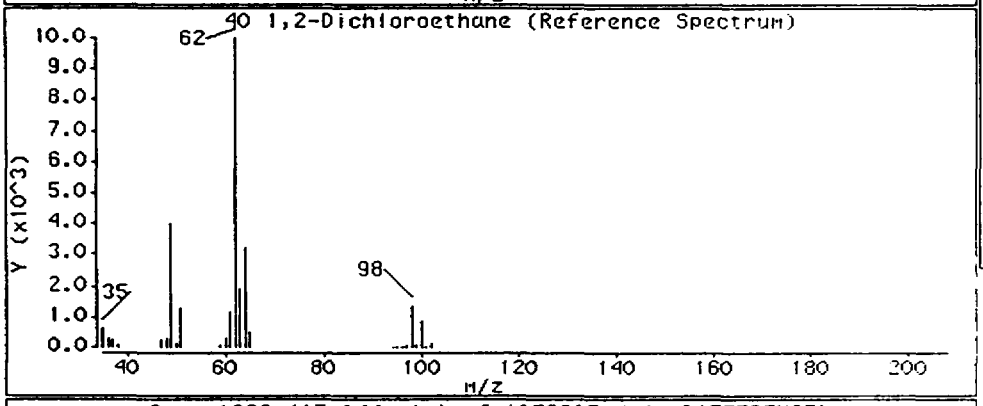
40 1,2-Dichloroethane

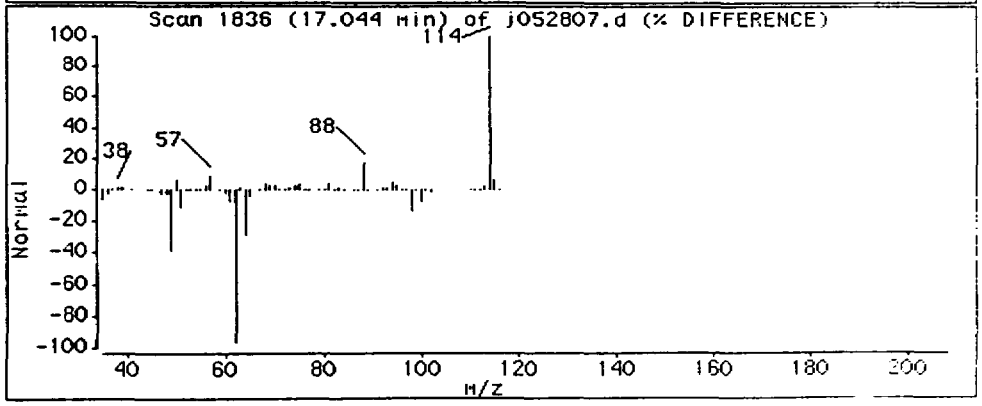






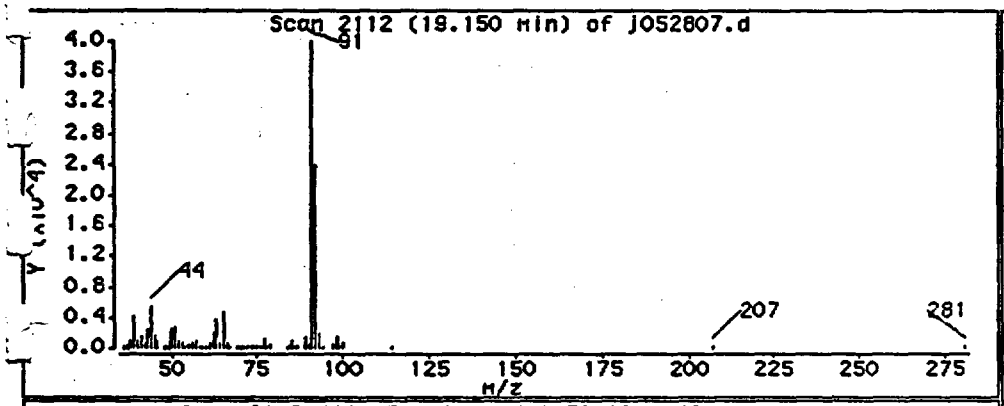


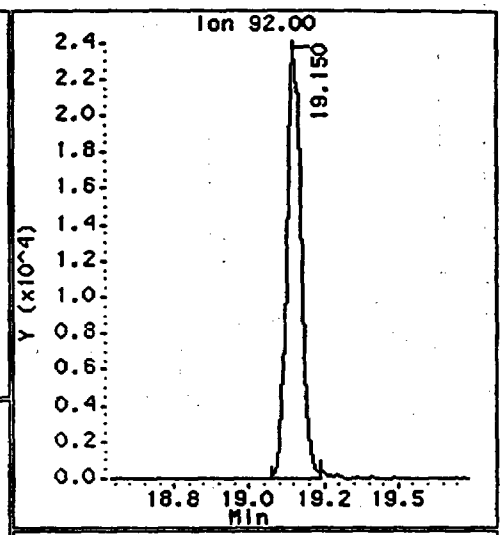


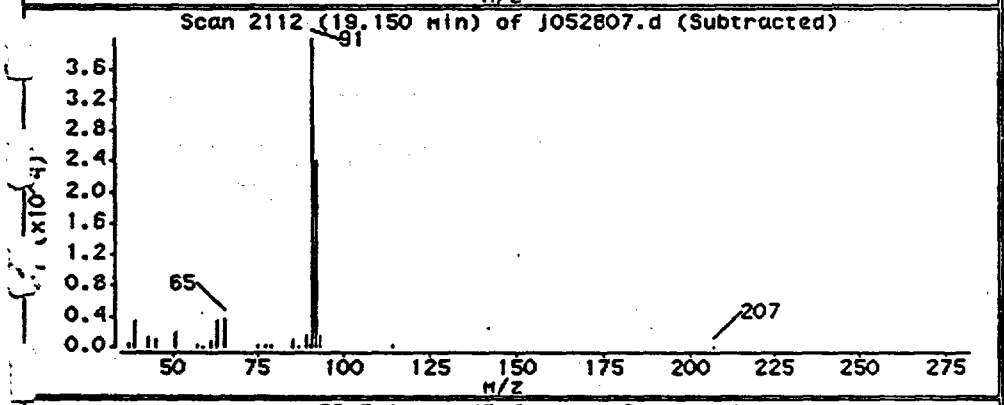


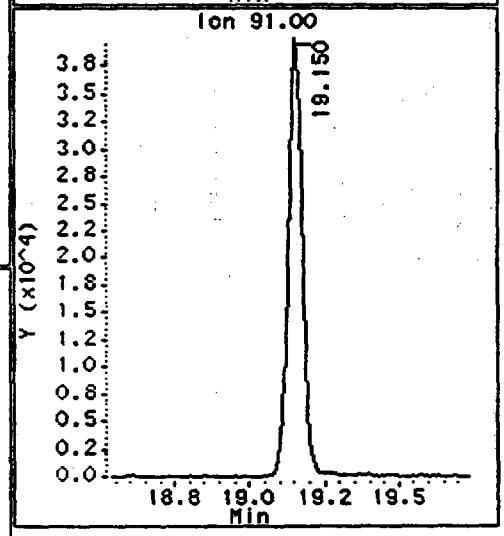
Data File: /chem/msdj.i/j-28may.b/j052807.d
Date : 28-MAY-1997 13:20
Client ID: 051497U1
Sample Info: 500mL Can#21076
Instrument: msdj.i
Operator: MH
Column phase: RTx-624
Column diameter: 0.58

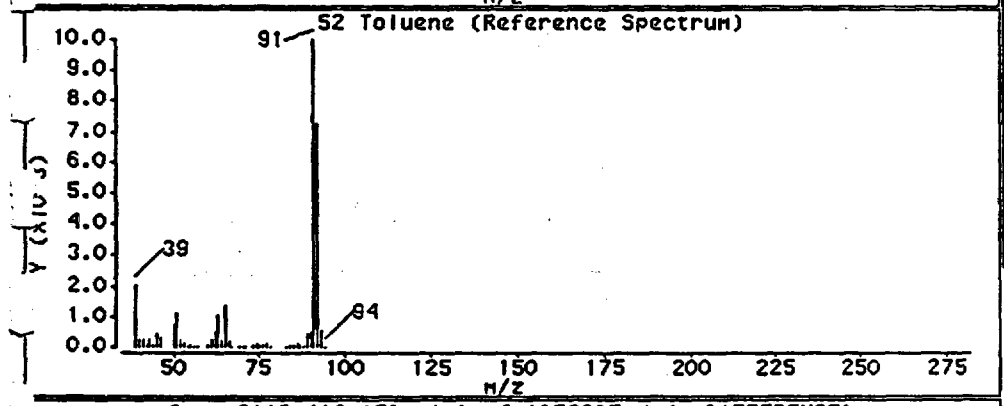
52 Toluene

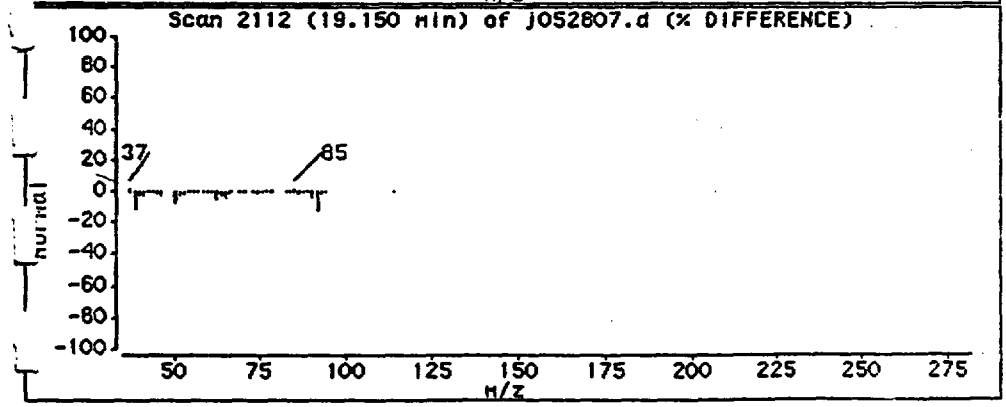












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Date : 28-MAY-1997 13:20

Client ID: 051497U1

Instrument: msdj.i

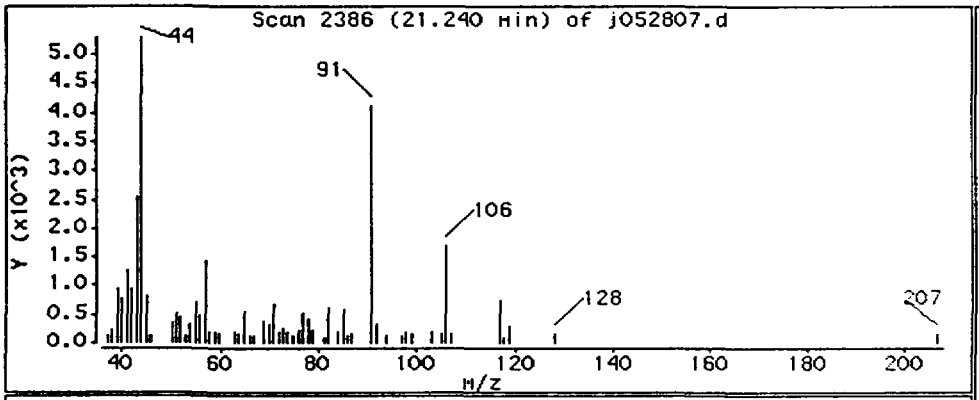
Sample Info: 500mL Can#21076

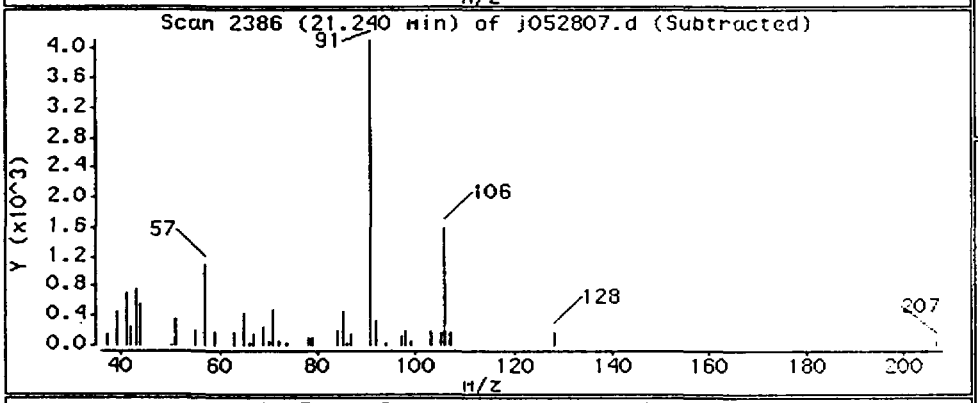
Operator: MH

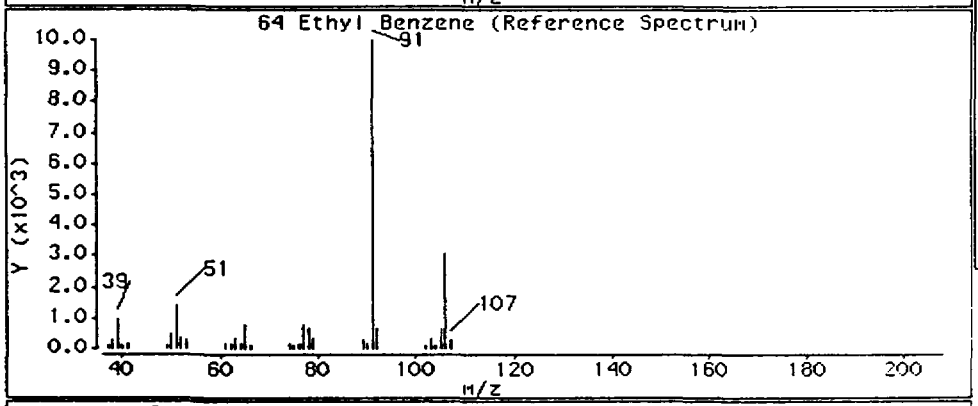
Column phase: RTx-624

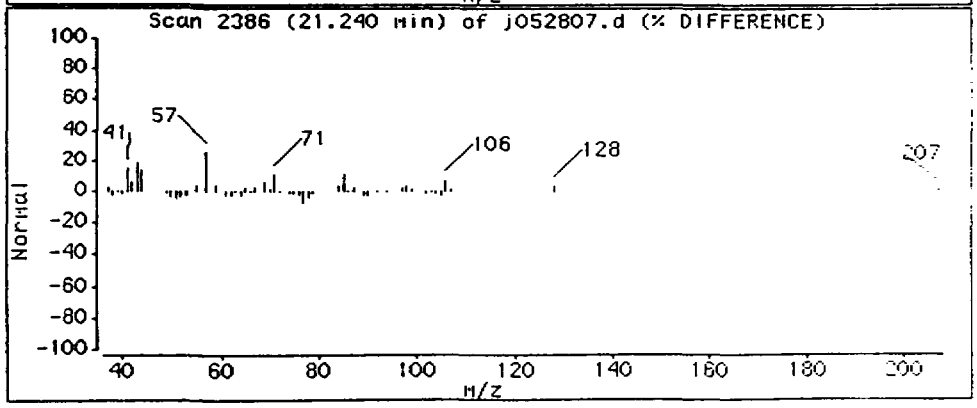
Column diameter: 0.58

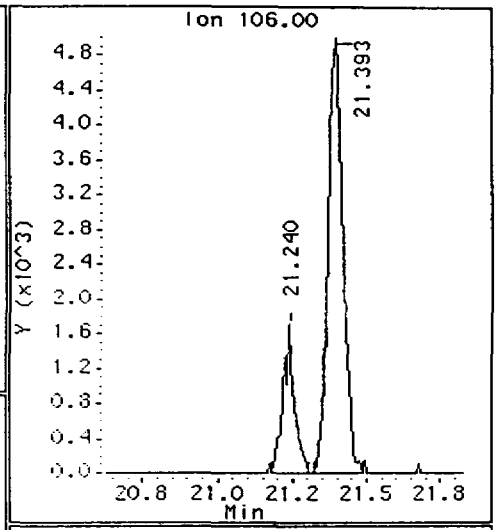
64 Ethyl Benzene

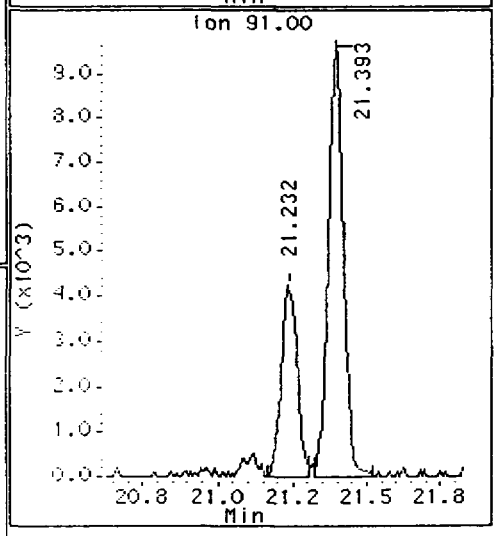












Data File: /chem/msdj.i/j-28may.b/j052807.d
Date : 28-MAY-1997 13:20
Client ID: 051497U1
Sample Info: 500mL Can#21076

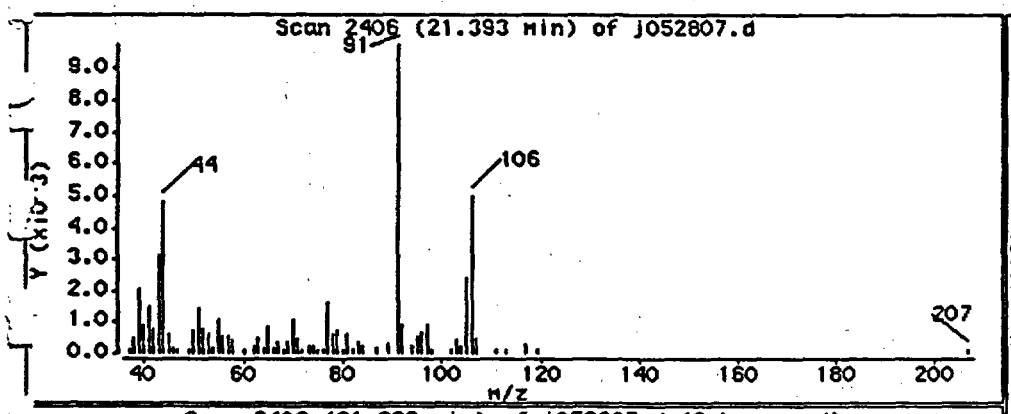
Instrument: msdj.i

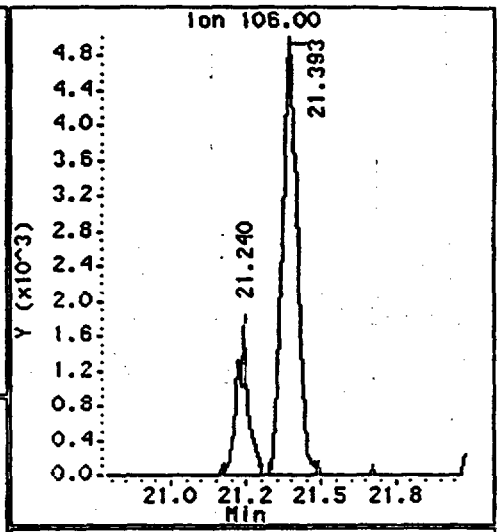
Operator: MH

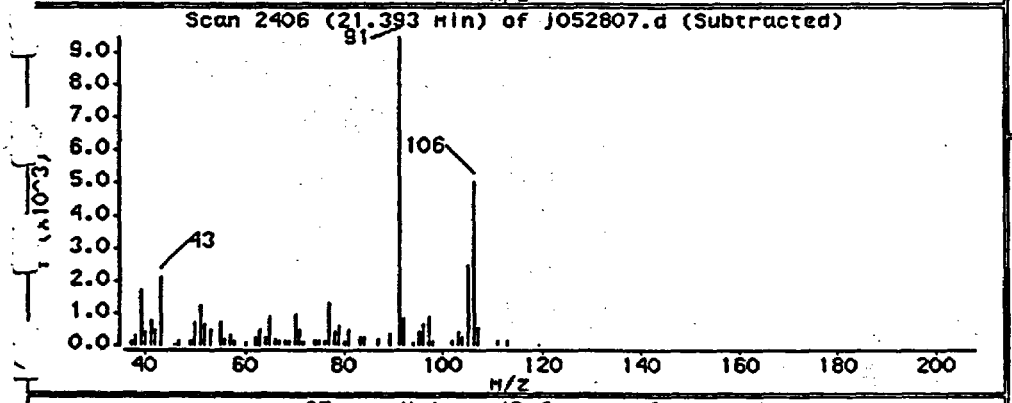
Column phase: RTx-624

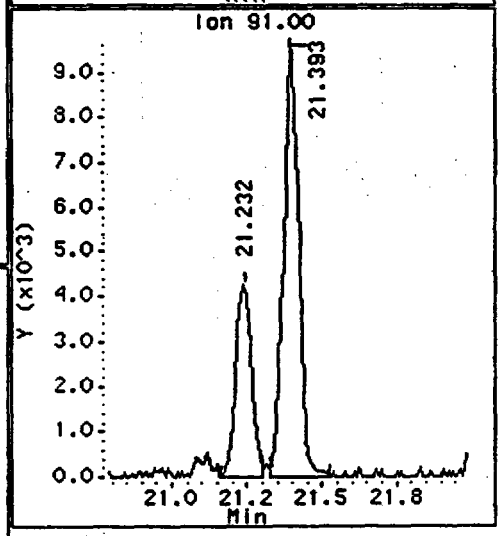
Column diameter: 0.58

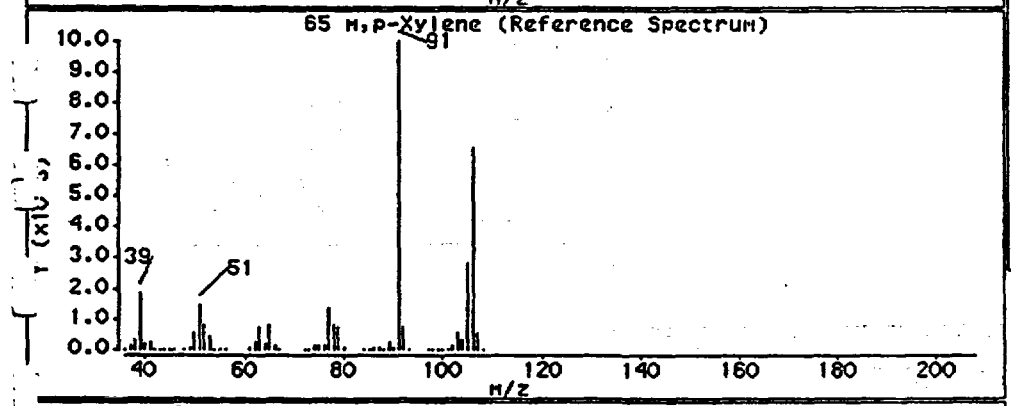
65 m,p-Xylene

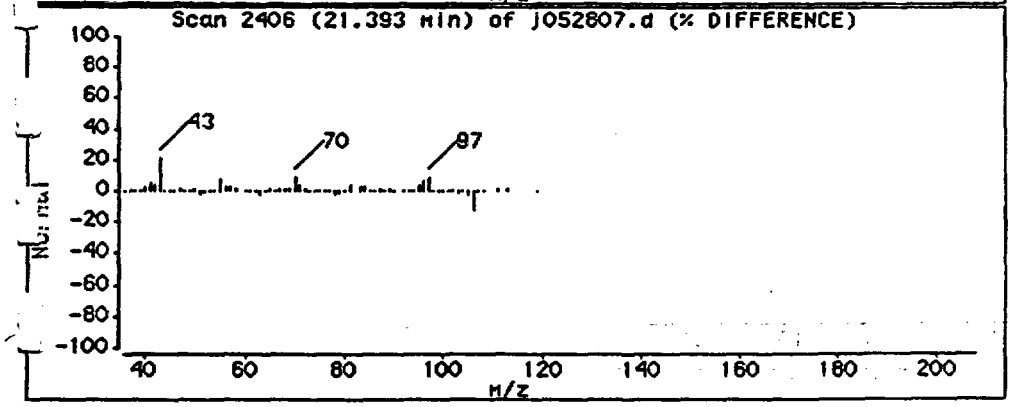












Data File: /chem/msdj.i/j-28may.b/j052807.d

Date : 28-MAY-1997 13:20

Client ID: 051497U1

Instrument: msdj.i

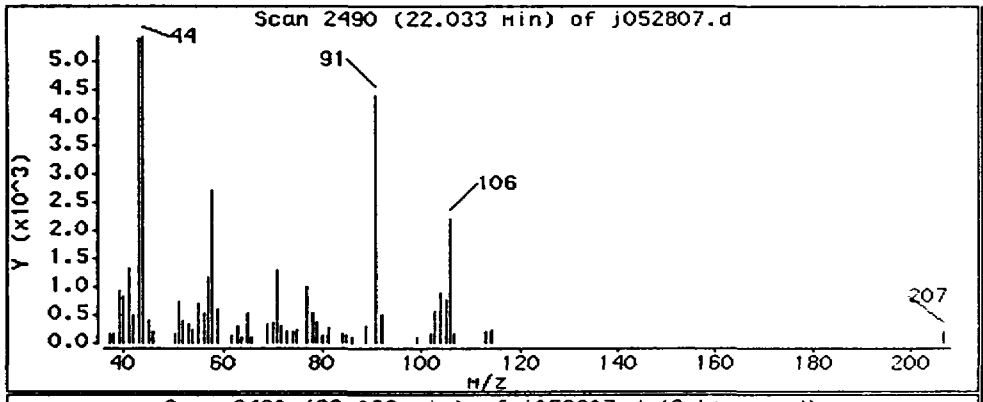
Sample Info: 500mL Can#21076

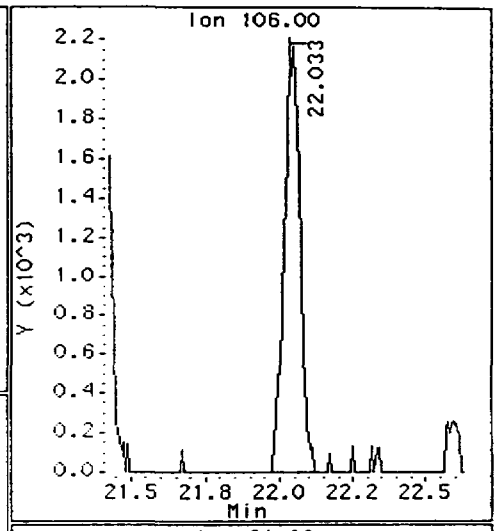
Operator: MH

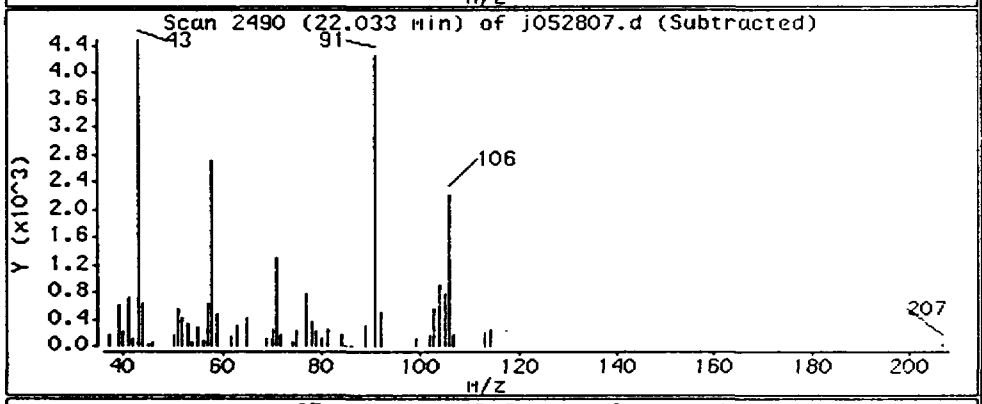
Column phase: RTx-624

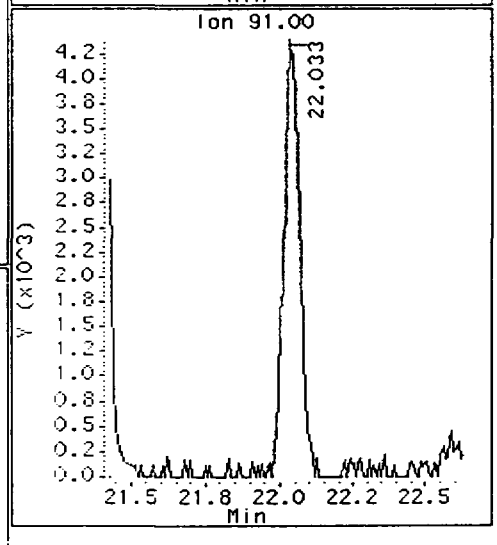
Column diameter: 0.58

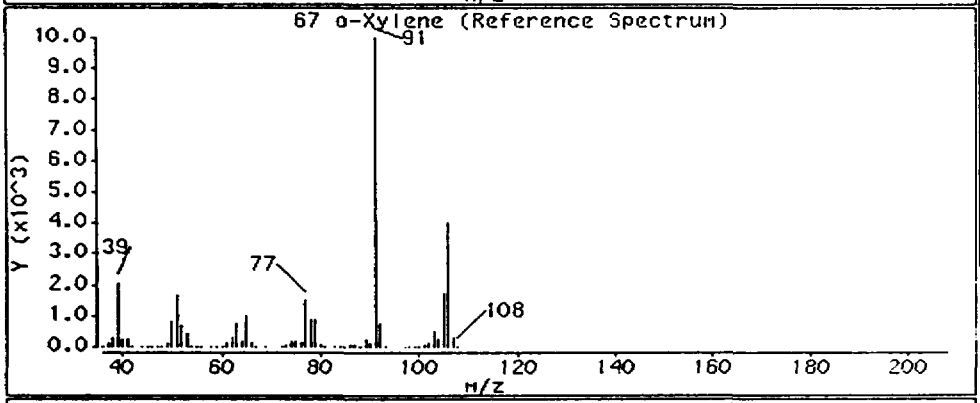
67 o-Xylene

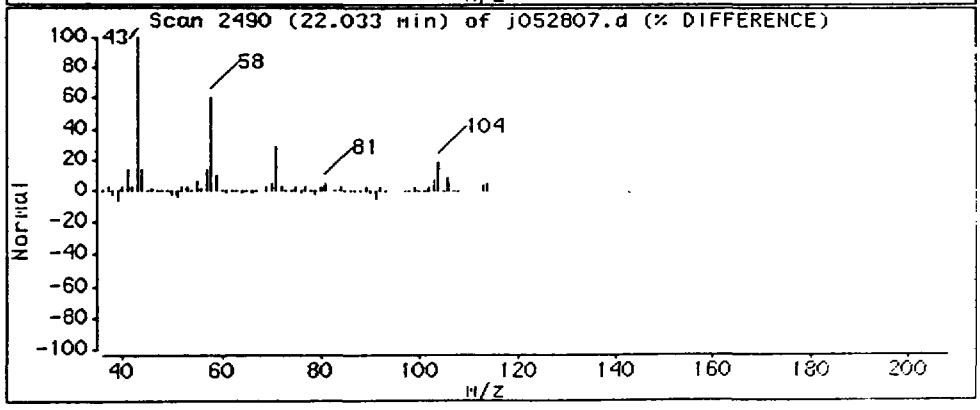






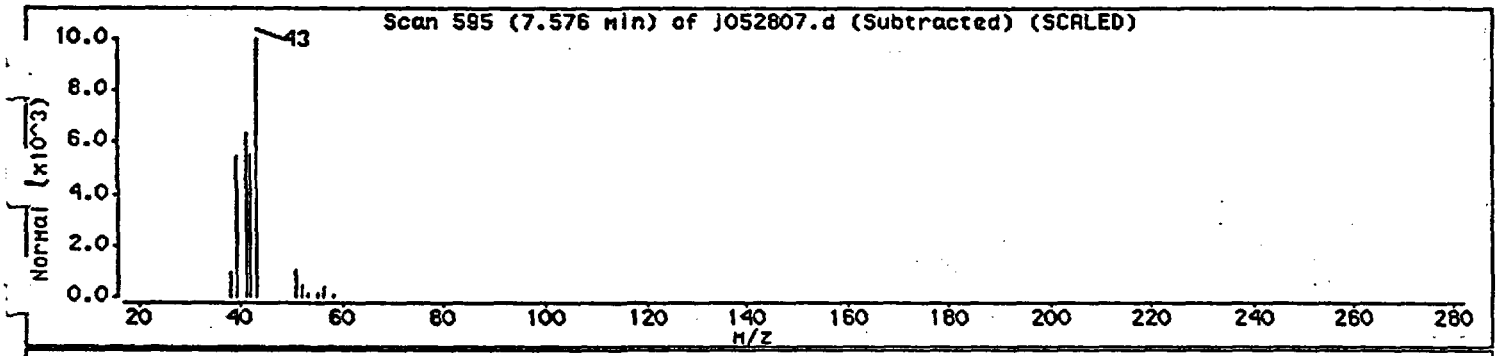






Data File: /chem/msdj.i/j-28may.b/j052807.d
Date : 28-MAY-1997 13:20
Instrument: msdj.i
Client ID: 051497U1
Column phase: RTx-624 Column diameter: 0.58

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
UNKNOWN			--	



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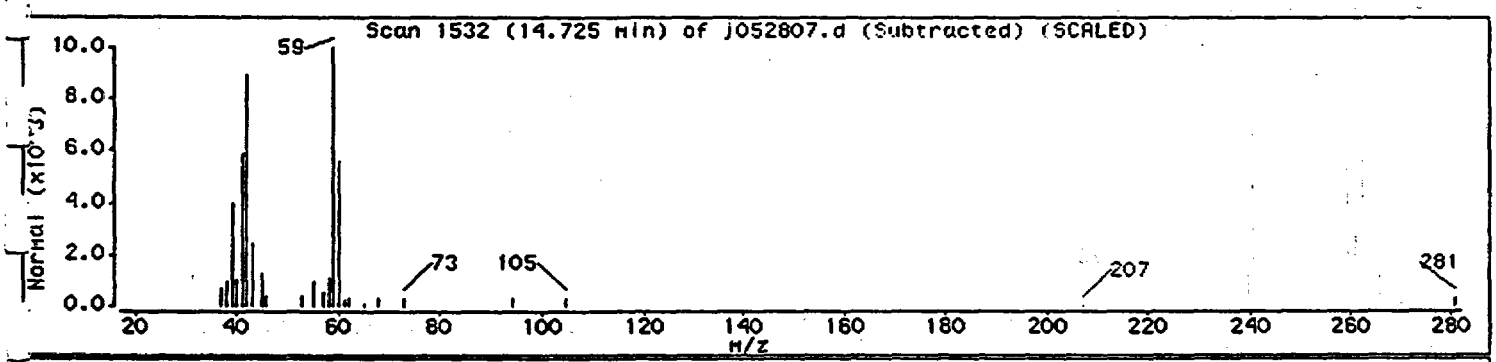
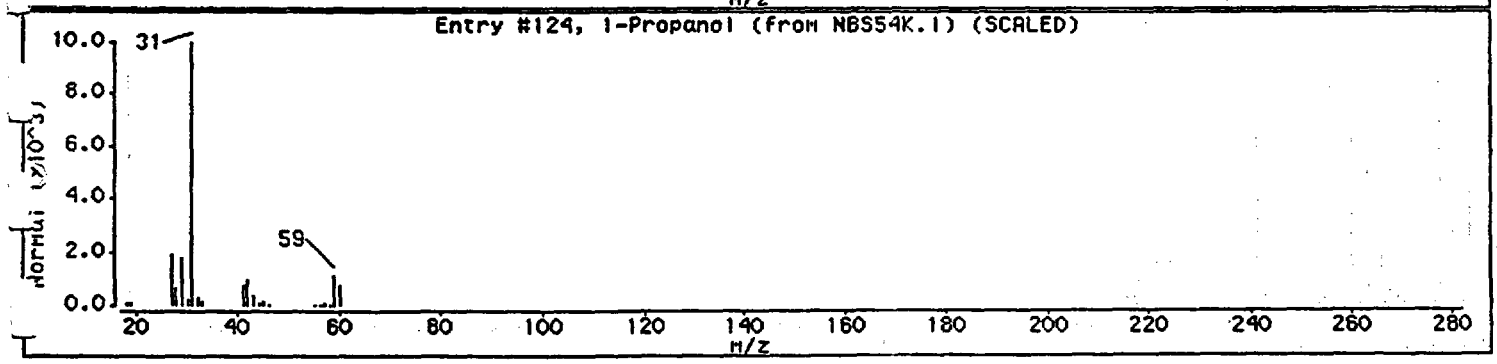
1-Propanol	71-23-8	NBS54K.I	124	59





Data File: /chem/msdj.i/j-28may.b/j052807.d
Date : 28-MAY-1997 13:20
Instrument: msdj.i
Client ID: 051497U1
Column phase: RTx-624 Column diameter: 0.58

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
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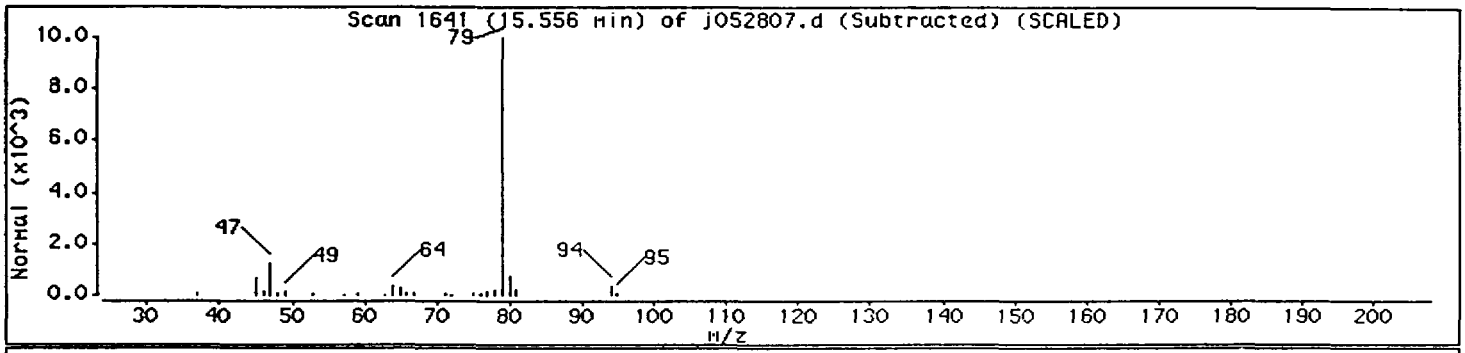

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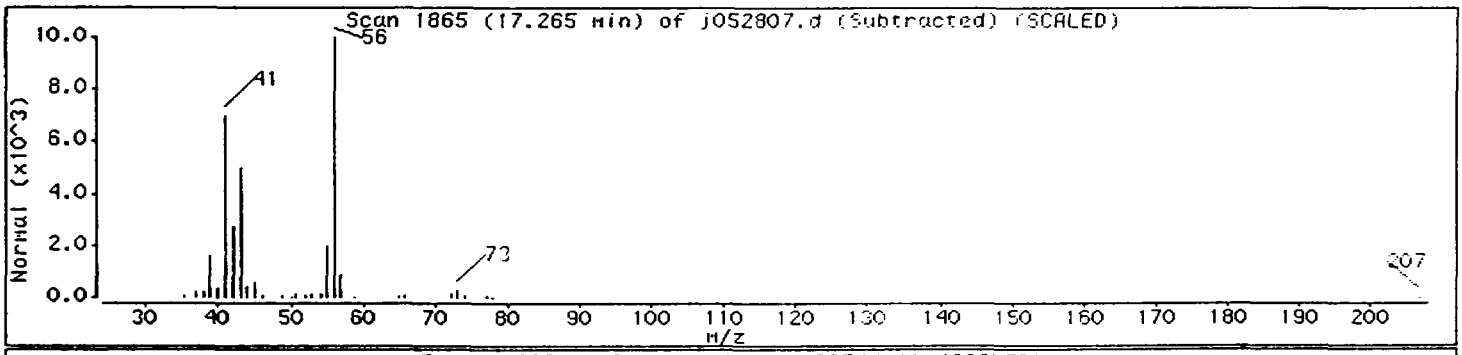
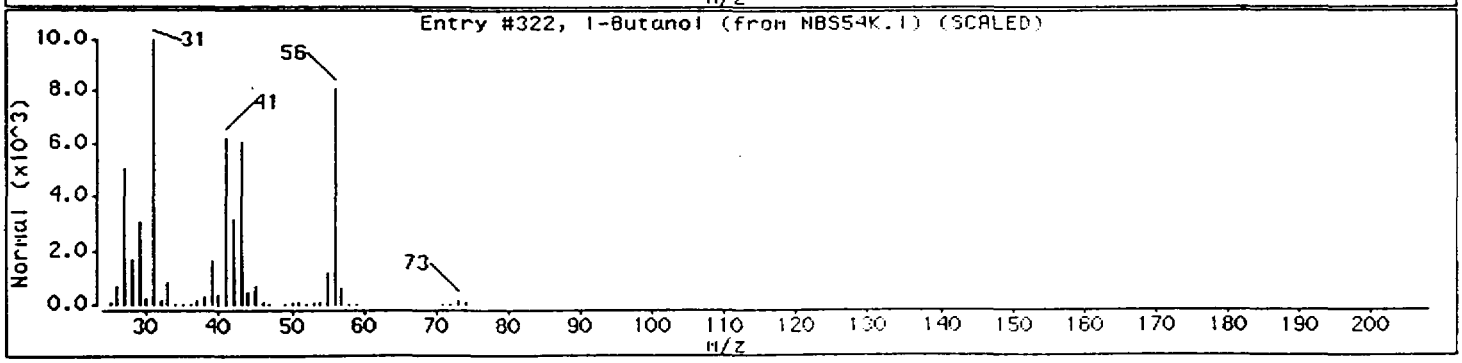
1-Butanol	71-36-3	NBS54K.I	322	80





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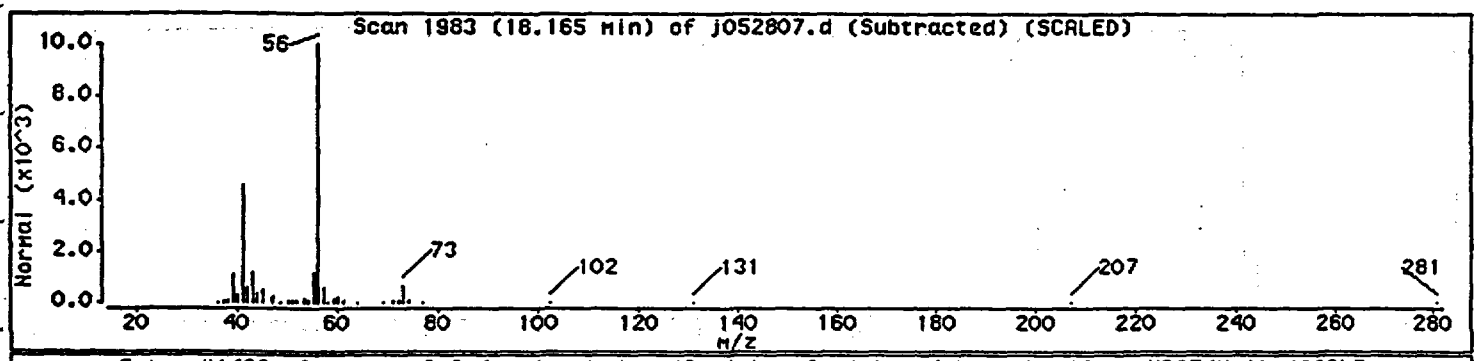
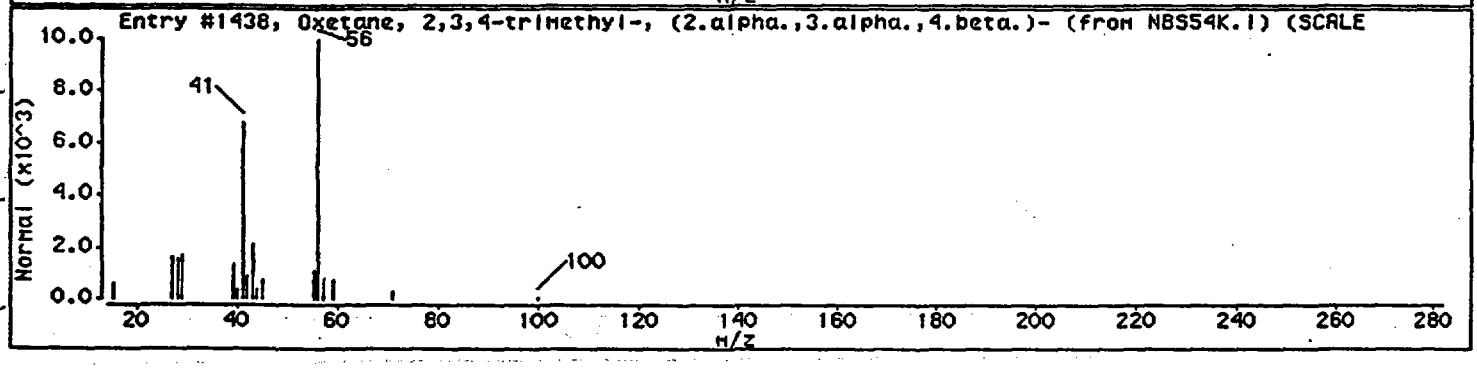
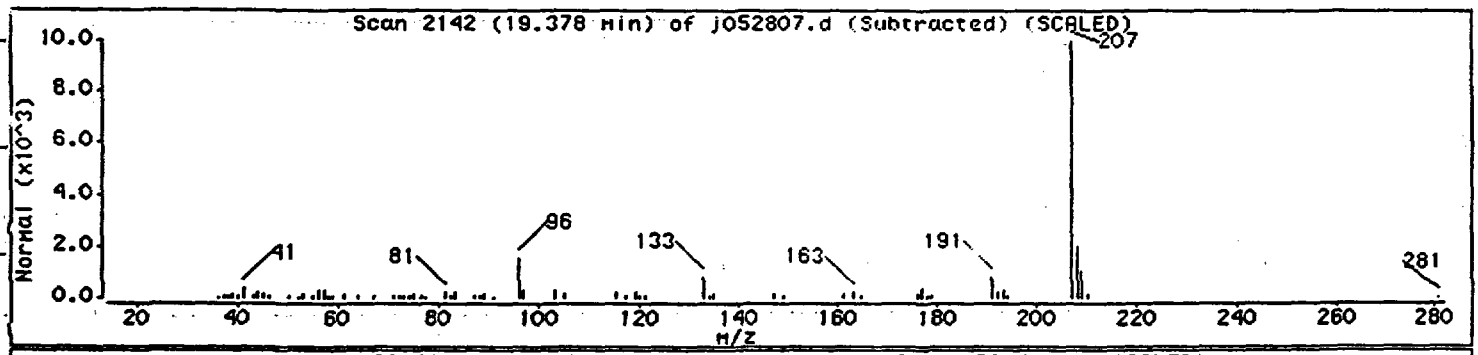
Date : 28-MAY-1997 13:20
Instrument: msdj.i
Client ID: 051497U1
Column phase: RTx-624 Column diameter: 0.58

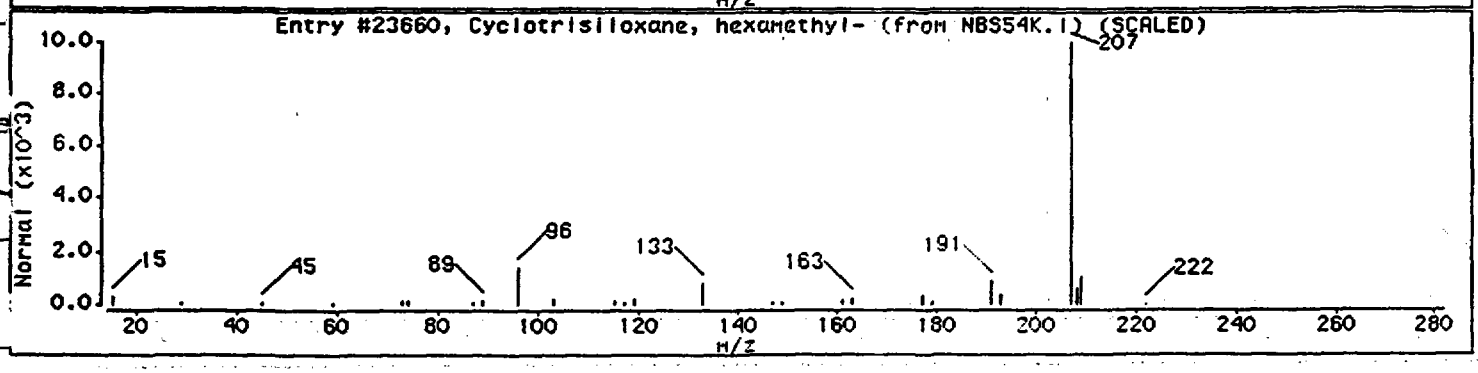
Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Oxetane, 2,3,4-trimethyl-, (2.alpha.,3.a	32347-12-9	NBS54K.l	1438	56





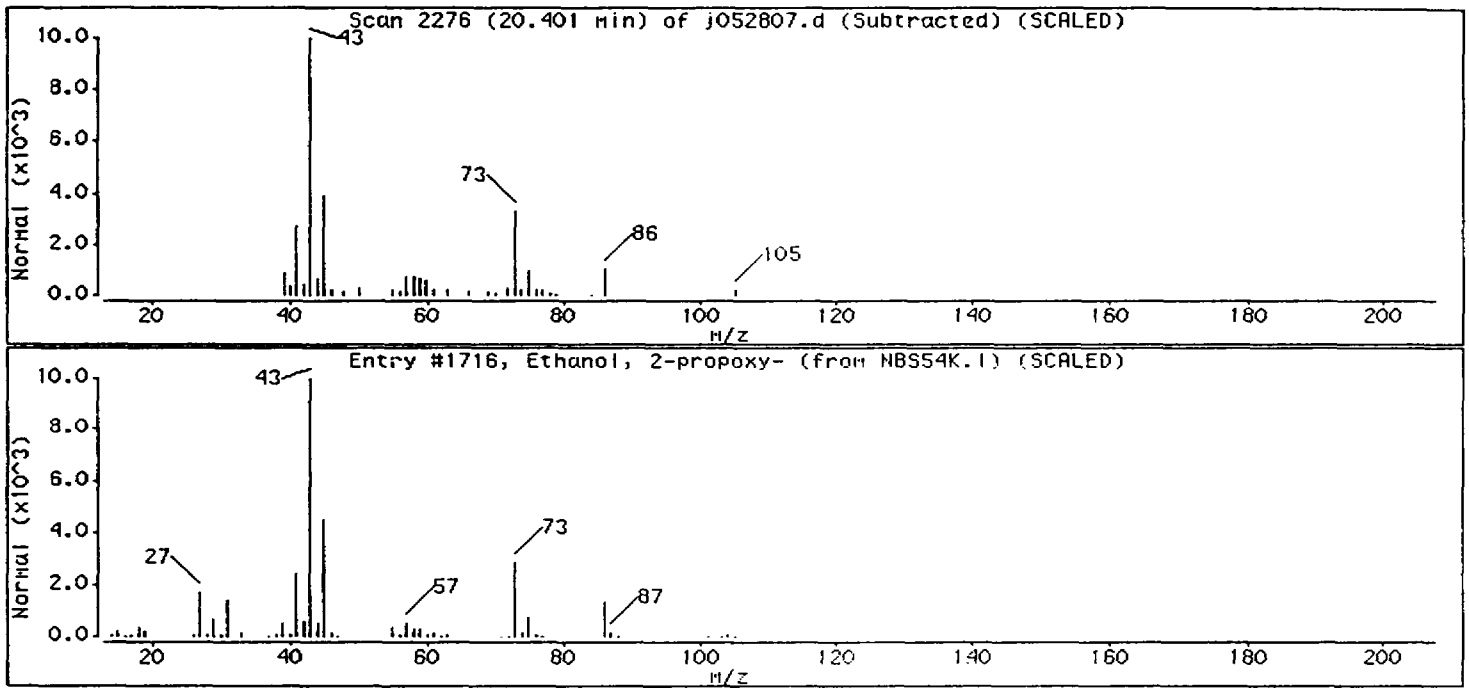
Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Cyclotrisiloxane, hexamethyl-	541-05-9	NBS54K.l	23660	80



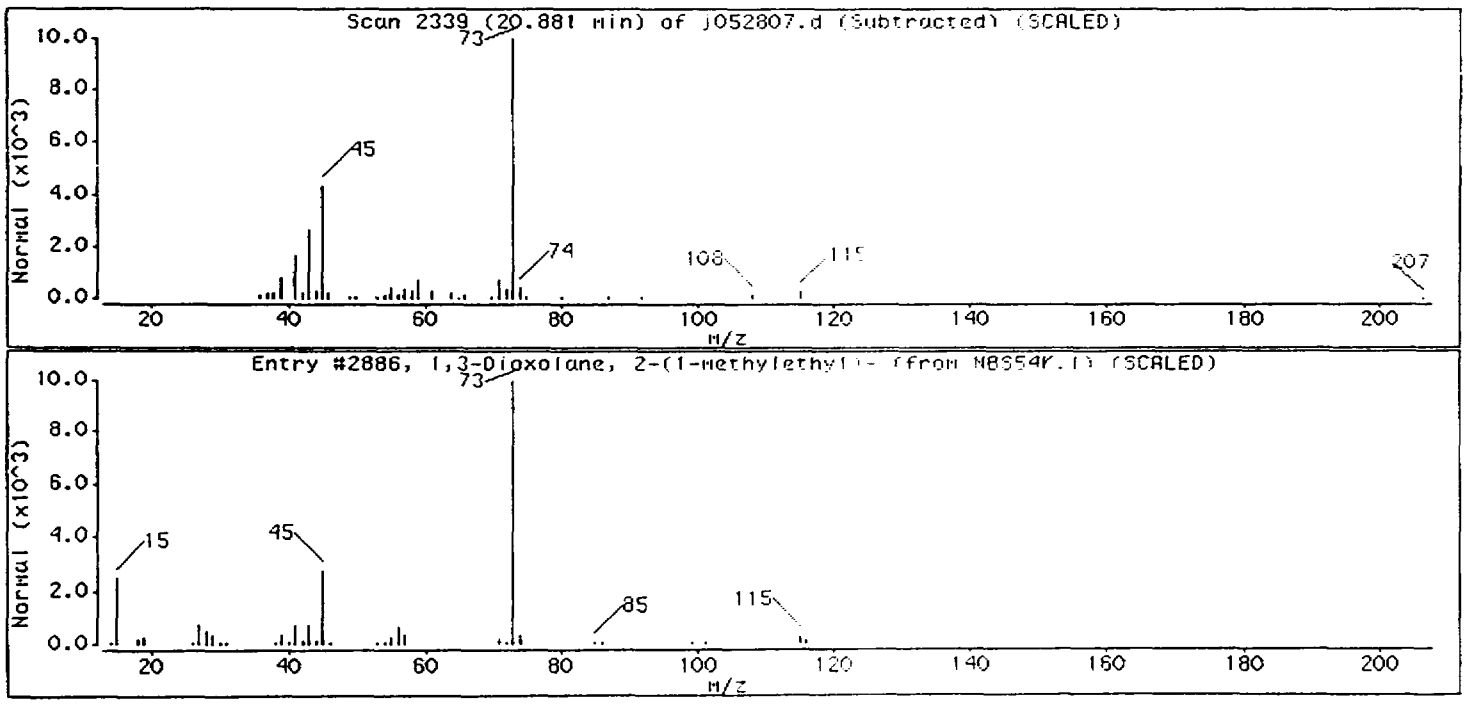


Data File: /chem/msdj.i/j-28may.b/j052807.d
Date : 28-MAY-1997 13:20
Instrument: msdj.i
Client ID: 051497U1
Column phase: RTx-624 Column diameter: 0.58

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Ethanol, 2-propoxy-	2807-30-9	NBS54K.I	1716	78

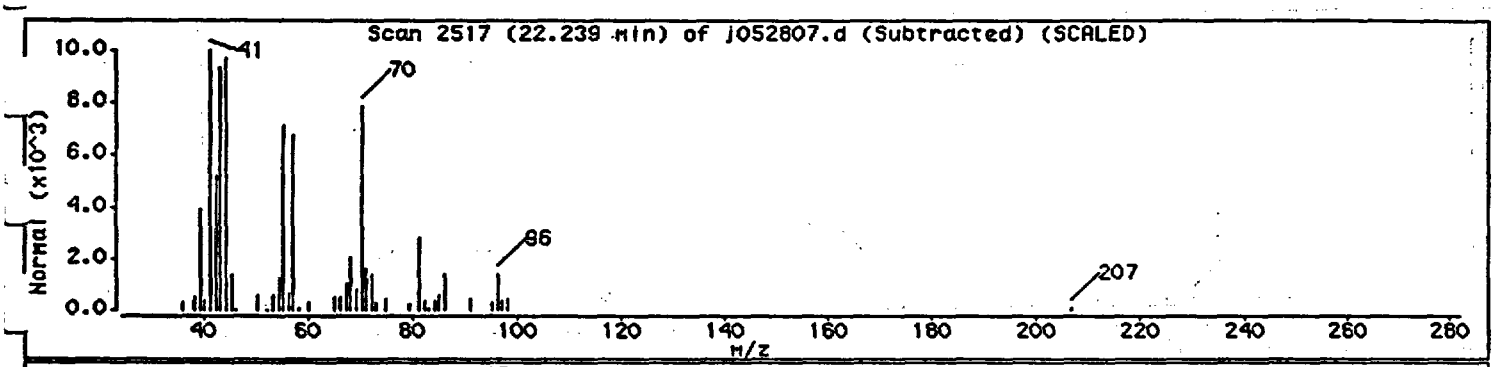


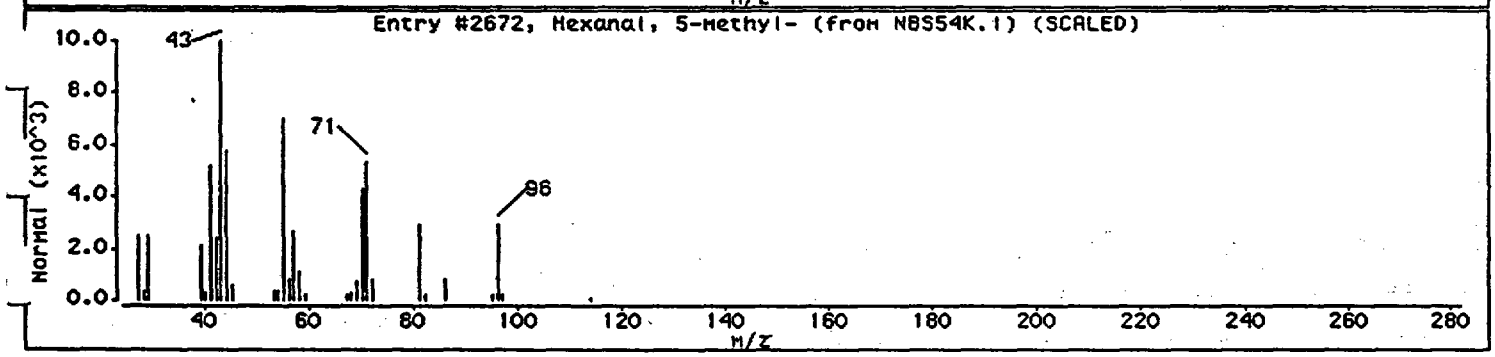
Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
1,3-Dioxolane, 2-(1-methylethyl)-	822-83-3	NBS54K.I	2886	50



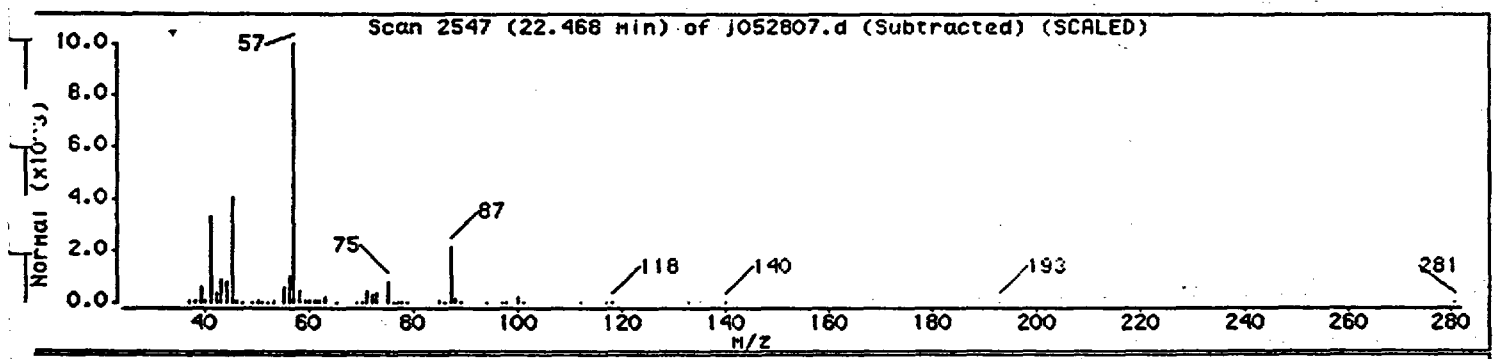
Data File: /chem/msdj.i/j-28may.b/j052807.d
Date : 28-MAY-1997 13:20
Instrument: msdj.i
Client ID: 051497U1
Column phase: RTx-624 Column diameter: 0.58

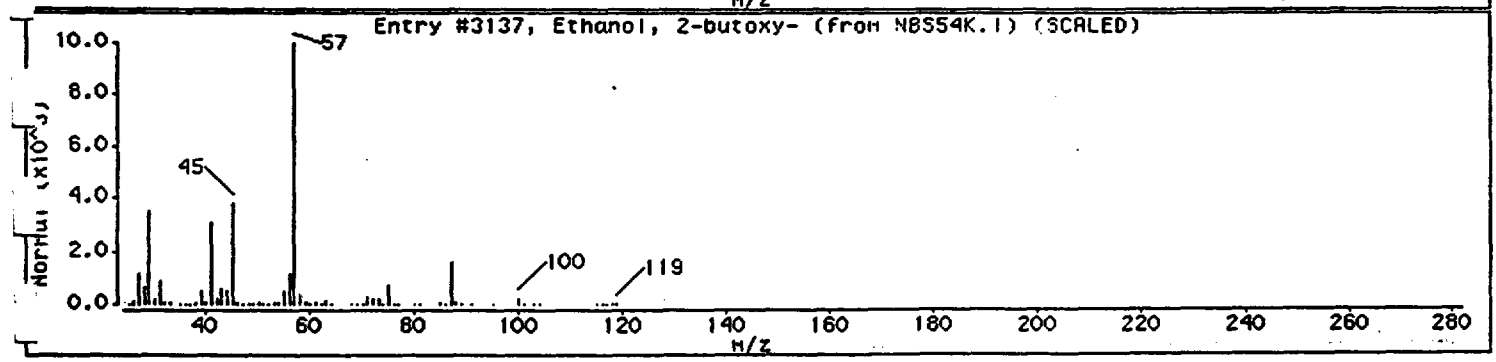
Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Hexanal, 5-methyl-	1860-39-5	NBS54K.I	2672	59





Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Ethanol, 2-butoxy-	111-76-2	NBS54K.I	3137	83

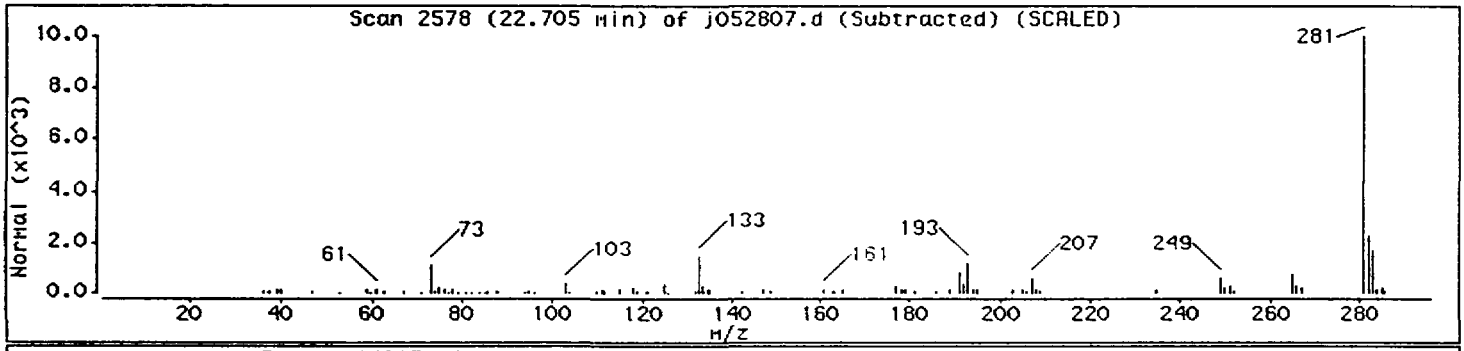


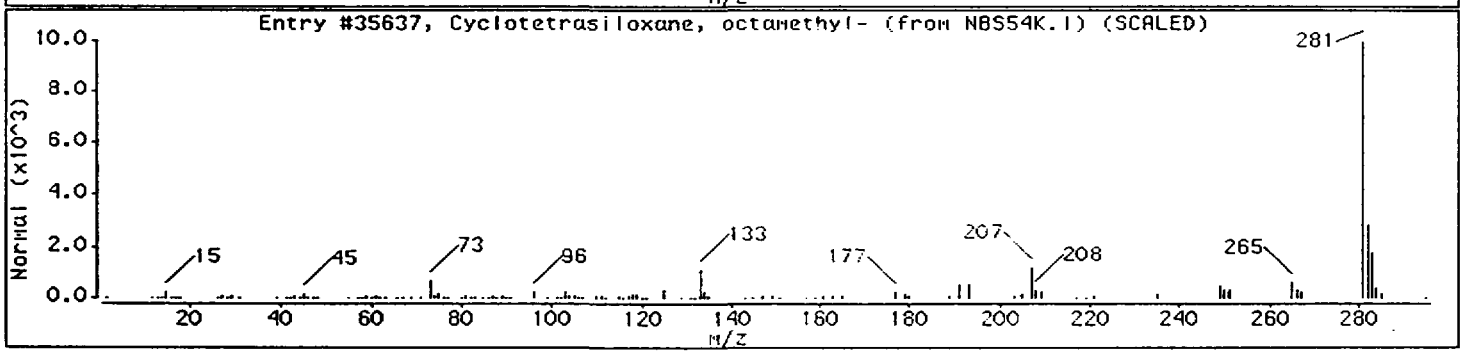


Data File: /chem/msdj.i/j-28may.b/j052807.d
Date : 28-MAY-1997 13:20
Instrument: msdj.i
Client ID: 051497U1
Column phase: RTx-624

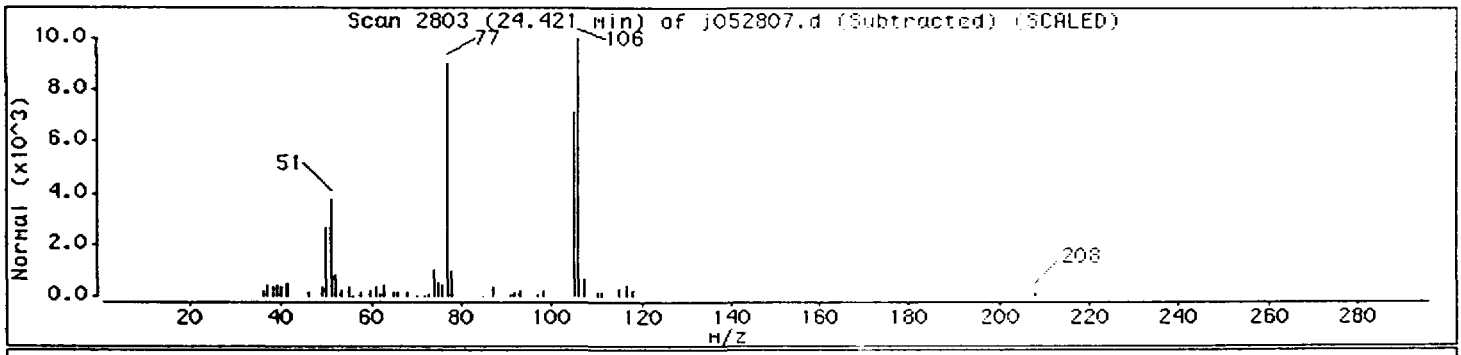
Column diameter: 0.58

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



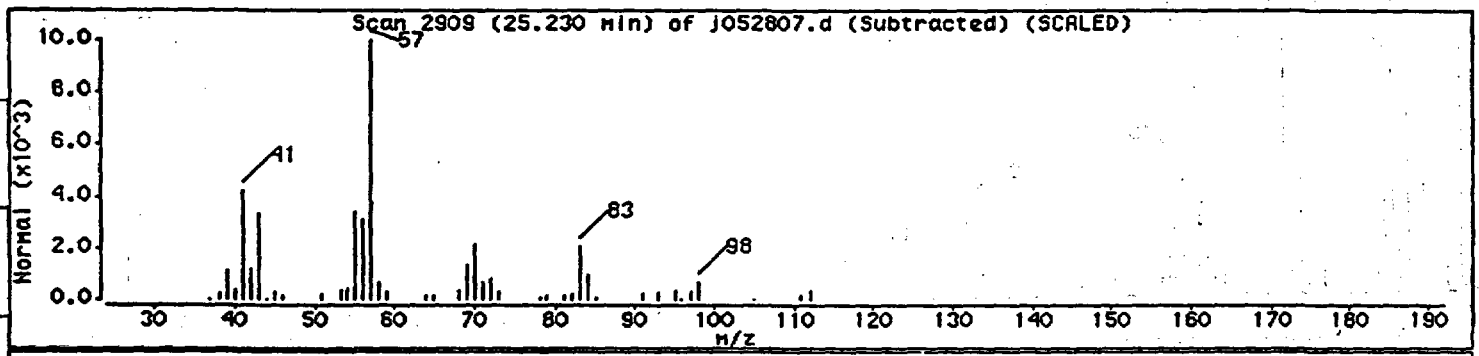


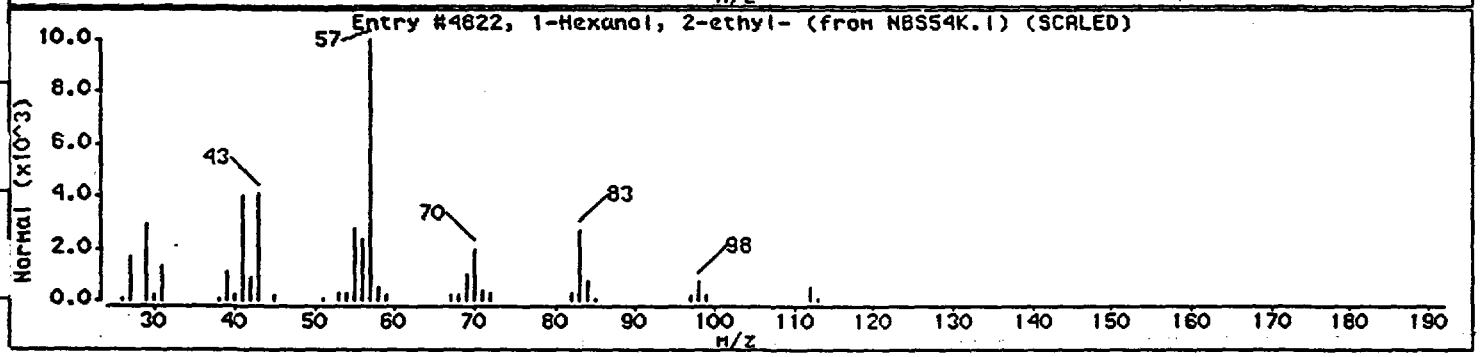
Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
UNKNOWN				



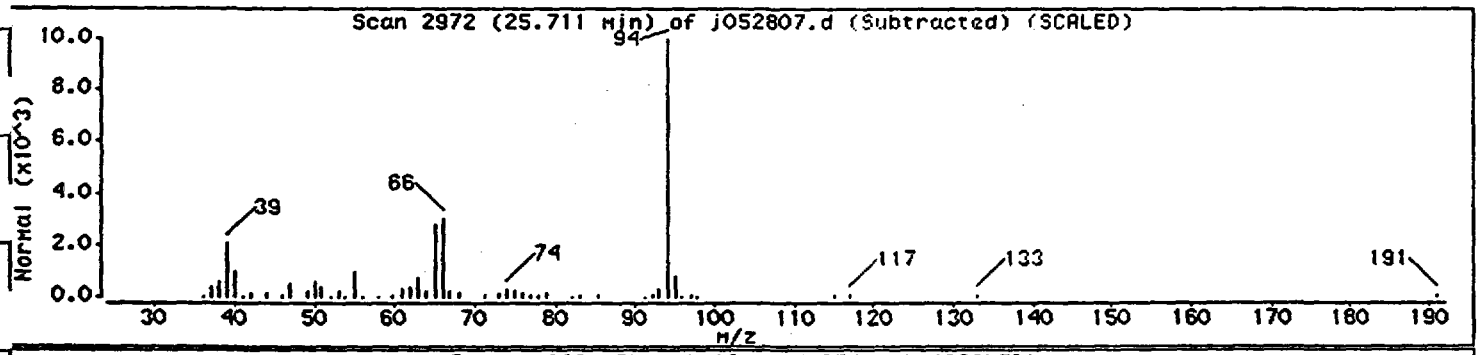
Data File: /chem/msdj.i/j-28may.b/j052807.d
Date : 28-MAY-1997 13:20
Instrument: msdj.i
Client ID: 051497U1
Column phase: RTx-624 Column diameter: 0.58

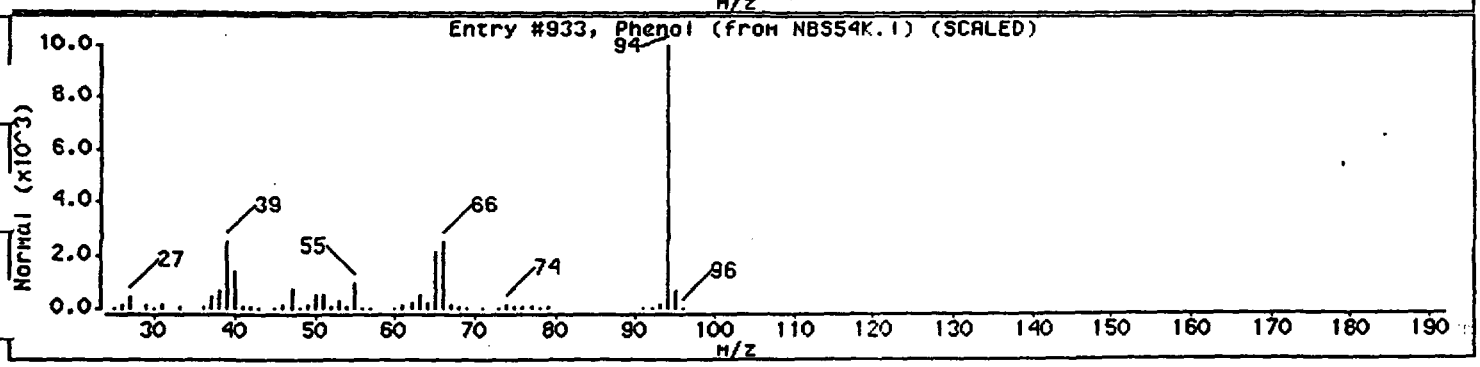
Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
1-Hexanol, 2-ethyl-	104-76-7	NBS54K.I	4822	59





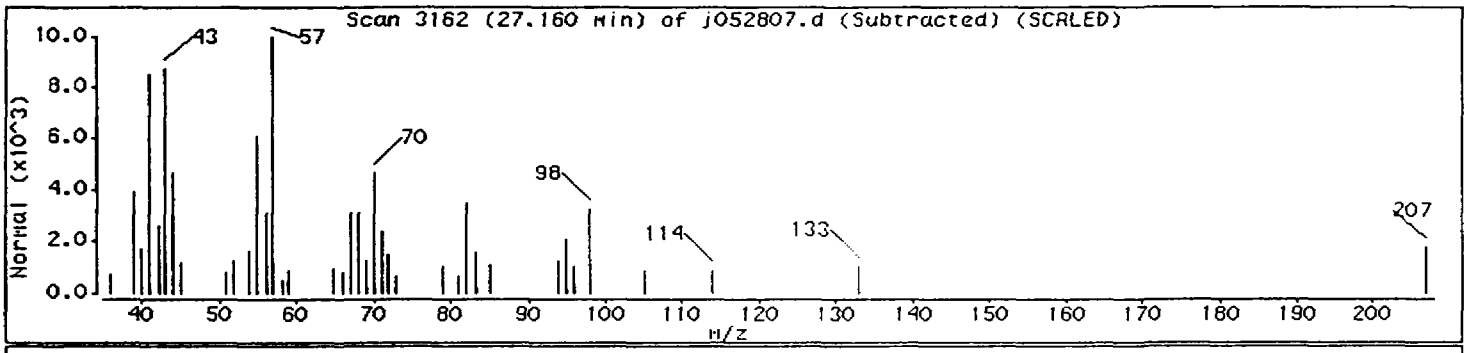
Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Phenol	108-95-2	NBS54K.I	933	87





Data File: /chem/msdj.i/j-28may.b/j052807.d
Date : 28-MAY-1997 13:20
Instrument: msdj.i
Client ID: 051497U1
Column phase: RTx-624 Column diameter: 0.58

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
UNKNOWN				



AIR TOXICS LTD.

SAMPLE NAME : 051497D1
ID#: 9705177-02A
EPA METHOD TO-14 GC/MS Full Scan

File Name:	052808	Date of Collection:	5/14/97
Dil. Factor:	1.96	Date of Analysis:	5/28/97

Compound	Det. Limit (ppbv)	Amount (ppbv)
Methylene Chloride	0.98	Not Detected
cis-1,2-Dichloroethene	0.20	Not Detected
1,1,1-Trichloroethane	0.20	Not Detected
Benzene	0.20	0.73
1,2-Dichloroethane	0.20	Not Detected
Trichloroethene	0.20	Not Detected
1,2-Dichloropropane	0.20	Not Detected
Toluene	0.20	0.65
Tetrachloroethene	0.20	Not Detected
Chlorobenzene	0.20	Not Detected
Ethyl Benzene	0.20	23
m,p-Xylene	0.20	0.52
o-Xylene	0.20	0.22
Styrene	0.20	Not Detected
Acetone	0.98	5.5
Carbon Disulfide	0.98	Not Detected
trans-1,2-Dichloroethene	0.98	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.98	2.0

Container Type: 6 Liter Summa Canister

Surrogates	% Recovery	Method Limits
Octafluorotoluene	108	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	118	70-130

Data File: /chem/msdj.i/j-28may.b/j052808.d
Report Date: 28-May-1997 15:02

MH 5/28/97

Air Toxics Limited

AMBIENT AIR METHOD TO14

Data file : /chem/msdj.i/j-28may.b/j052808.d
Lab Smp Id: 9705177-02A Client Smp ID: 051497D1
Inj Date : 28-MAY-1997 14:11
Operator : MH Inst ID: msdj.i
Smp Info : 500mL Can#05699
Misc Info : 9.5"Hg-5.0psi Parsons
Comment :
Method : /chem/msdj.i/j-28may.b/to140527.m
Meth Date : 28-May-1997 14:19 mhe Quant Type: ISTD
Cal Date : 28-MAY-1997 08:33 Cal File: j052802.d
Als bottle: 1
Dil Factor: 1.960
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
* 32 Bromochloromethane					CAS #: 74-97-5			
15.741	15.699 (1.000)	130	137569	5.0			100.00	9317
15.741	15.699 (0.000)	128	29992			26.56- 126.56	21.80	
15.741	15.699 (0.000)	49	51808			75.98- 175.98	37.66	
$ 37 Octafluorotoluene					CAS #: 434-64-0			
16.252	16.240 (1.032)	217	473539	5.4	5.4		100.00	7560
16.252	16.240 (0.000)	186	92320			8.50- 108.50	19.50	
* 42 1,4-Difluorobenzene					CAS #: 540-36-3			
17.060	17.034 (1.000)	114	594145	5.0			100.00	9677
17.060	17.034 (0.000)	88	31168			0.00- 66.46	5.25	
$ 50 Toluene-d8					CAS #: 2037-26-5			
19.059	19.048 (1.117)	98	558765	5.1	5.1		100.00	9837
19.059	19.048 (0.000)	70	21416			0.00- 61.89	3.83	
19.059	19.048 (0.000)	100	115976			17.94- 117.94	20.76	
* 62 Chlorobenzene-d5					CAS #: 3114-55-4			
21.112	21.100 (1.000)	117	660954	5.0			100.00	9919
21.112	21.100 (0.000)	82	97032			5.68- 105.68	14.68	

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	CONCENTRATIONS FINAL (PPBV)	TARGET RANGE	RATIO	SIMILARITY	
71 Bromofluorobenzene						CAS #: 460-00-4				
22.927	22.916	(1.086)	95	594829	5.9	5.9		100.00	8823	
22.927	22.916	(0.000)	174	109560			20.39- 120.39	18.42		
22.927	22.916	(0.000)	176	106816			23.94- 123.94	17.96		
15 Acetone						CAS #: 67-64-1				
12.590	12.448	(0.800)	43	133122	2.8	5.5		100.00		(M)
12.597	12.448	(0.800)	58	31886			0.00- 81.57	23.95		
29 2-Butanone						CAS #: 78-93-3				
15.382	15.340	(0.977)	72	14939	1.0	2.0		100.00	7624	
15.382	15.340	(0.000)	43	13541			328.21- 428.21	90.64		
15.382	15.340	(0.000)	57	971			0.00- 79.36	6.50		
39 Benzene						CAS #: 71-43-2				
16.610	16.584	(0.974)	78	34086	0.37	0.73		100.00	9363	
16.610	16.584	(0.000)	77	2218			0.00- 73.15	6.51		
52 Toluene						CAS #: 108-88-3				
19.158	19.139	(1.123)	92	24594	0.33	0.65		100.00	7903	
19.158	19.139	(0.000)	91	12434			118.04- 218.04	50.56		
64 Ethyl Benzene						CAS #: 100-41-4				
21.241	21.230	(1.006)	106	798558	11.9	23.3		100.00		
21.241	21.230	(1.006)	91	2545997			268.72- 368.72	318.82		
65 m,p-Xylene						CAS #: 108-38-3				
21.394	21.390	(1.013)	106	20631	0.27	0.52		100.00		
21.401	21.390	(1.014)	91	45781			149.27- 249.27	221.90		
67 o-Xylene						CAS #: 95-47-6				
22.035	22.031	(1.044)	106	6458	0.11	0.22		100.00	8448	
22.035	22.031	(0.000)	91	3043			76.66- 176.66	47.12		

QC Flag Legend

I - Operator selected an alternate compound hit.

Audit History For: /chem/msdj.i/j-28may.b/j052808.d

0042

Change Date: 28-May-97 14:35
Change Made by: Automation

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

MH 5/28/97

Change Date: 28-May-97 14:35
Change Made by: Automation

Parameter: Target Processing
Old Value:
New Value: Method: /chem/msdj.i/j-28may.b/to140527.m
Reason For Change: Complete Target Compound Processing

Change Date: 28-May-97 14:55
Change Made by: mhe

Parameter: date
Old Value: 28-MAY-97 14:11
New Value: 28-MAY-1997 14:11
Reason For Change: N/A

Change Date: 28-May-97 14:55
Change Made by: mhe

Parameter: Misc Information
Old Value:
New Value: 9.5"Hg-5.0psi Parsons
Reason For Change: N/A

Change Date: 28-May-97 14:55
Change Made by: mhe

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

Change Date: 28-May-97 14:55
Change Made by: mhe

Parameter: Sample Info
Old Value: 9705177-02A 500mL Can#05699 9.5"-5p 051497D1 Par
New Value: 500mL Can#05699
Reason For Change: N/A

Change Date: 28-May-97 14:55
Change Made by: mhe

Parameter: Lab ID
Old Value:
New Value: 9705177-02A
Reason For Change: N/A

Change Date: 28-May-97 14:55
Change Made by: mhe

Parameter: Client ID
Old Value: VSTD150
New Value: 051497D1
Reason For Change: N/A

Change Date: 28-May-97 14:55
Change Made by: mhe

Parameter: Target Processing
Old Value:
New Value: Method: /chem/msdj.i/j-28may.b/to140527.m
Reason For Change: Quantitation

Change Date: 28-May-97 14:55
Change Made by: mhe

Parameter: Target Processing
Old Value:
New Value: Method: /chem/msdj.i/j-28may.b/to140527.m
Reason For Change: Quantitation

Change Date: 28-May-97 14:57
Change Made by: mhe

Parameter: Best Hit for Acetone changed
Old Value: Old Hit #4
New Value: New Hit #5
Reason For Change: N/A

Change Date: 28-May-97 14:57
Change Made by: mhe

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

Change Date: 28-May-97 14:57
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: 28-May-97 14:57
Change Made by: mhe

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

Change Date: 28-May-97 14:57
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: 28-May-97 14:57
Change Made by: mhe

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

Change Date: 28-May-97 14:58
Change Made by: mhe

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

Change Date: 28-May-97 14:58
Change Made by: mhe

Parameter: Manual reintegration of 1,1,1-Trichlorethane (Signal 1)
Old Value: No previous peak at 16.099
New Value: New Area/Time: 2878 / 16.10
Reason For Change: N/A

Change Date: 28-May-97 14:58
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: 28-May-97 14:58
Change Made by: mhe

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

Change Date: 28-May-97 14:58
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: 28-May-97 14:58
Change Made by: mhe

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

Change Date: 28-May-97 14:58
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: 28-May-97 14:58
Change Made by: mhe

Parameter: Manual reintegration of Trichloroethene (Signal 1)
Old Value: No previous peak at 17.457
New Value: New Area/Time: 1245 / 17.46
Reason For Change: N/A

Change Date: 28-May-97 14:58
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: 28-May-97 14:58
Change Made by: mhe

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

Change Date: 28-May-97 14:58
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: 28-May-97 14:58
Change Made by: mhe

Parameter: Manual reintegration of Styrene (Signal 1)
Old Value: No previous peak at 22.050
New Value: New Area/Time: 3408 / 22.05
Reason For Change: N/A

Change Date: 28-May-97 14:58
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: 28-May-97 14:58
Change Made by: mhe

Parameter: Requantitate all compounds
Old Value:
New Value:

Reason For Change: N/A

Change Date: 28-May-97 14:58
Change Made by: mhe

Parameter: Best Match for Unknown compound at 3.335 min. changed.
Old Value: Old match: Unknown
New Value: New match: Unknown Compound Deleted
Reason For Change: N/A

Change Date: 28-May-97 14:59
Change Made by: mhe

Parameter: Best Match for Unknown compound at 19.372 min. changed.
Old Value: Old match: Cyclotrisiloxane, hexamethyl-
New Value: New match: Unknown Compound Deleted
Reason For Change: N/A

Change Date: 28-May-97 14:59
Change Made by: mhe

Parameter: Best Match for Unknown compound at 22.546 min. changed.
Old Value: Old match: Acetamide, N,N-dimethyl-
New Value: New match: Unknown Compound Deleted
Reason For Change: N/A

Change Date: 28-May-97 14:59
Change Made by: mhe

Parameter: Best Match for Unknown compound at 22.714 min. changed.
Old Value: Old match: Cyclotetrasiloxane, octamethyl-
New Value: New match: Unknown Compound Deleted
Reason For Change: N/A

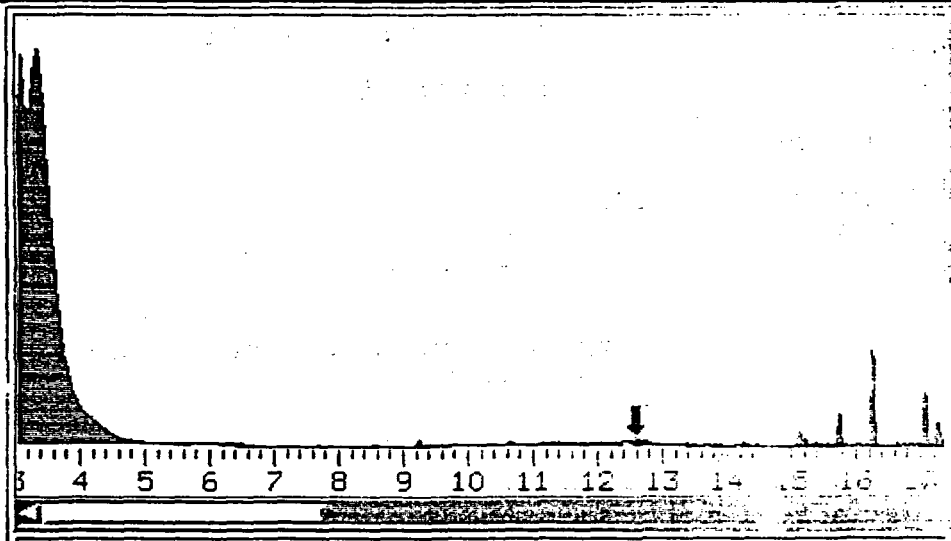
Change Date: 28-May-97 14:59
Change Made by: mhe

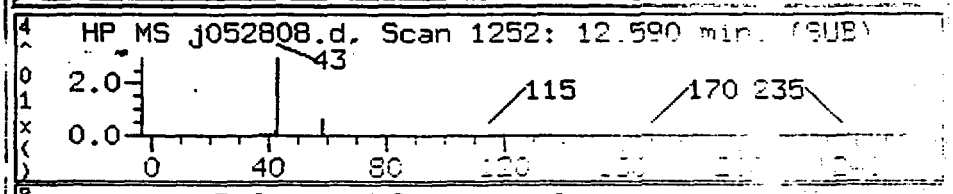
Parameter: Best Match for Unknown compound at 25.704 min. changed.
Old Value: Old match: Unknown
New Value: New match: Unknown Compound Deleted
Reason For Change: N/A

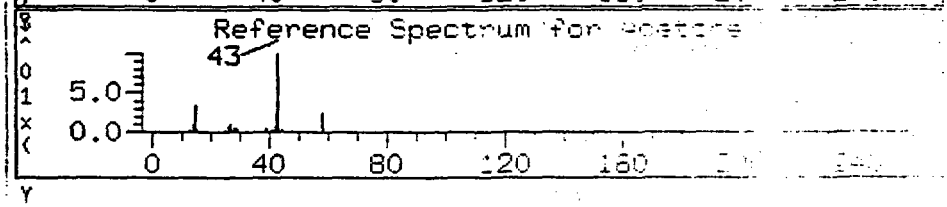
Change Date: 28-May-97 15:02
Change Made by: mhe

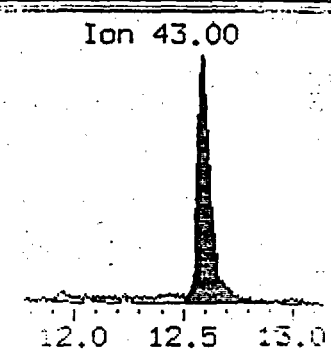
Parameter: Target Processing
Old Value:
New Value: Method: /chem/msdj.i/j-28may.b/to140527.m
Reason For Change: Quantitation

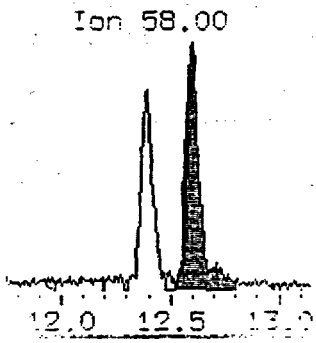
Target Review Host: calvin











Hit#	RT(min)	Response	Amount	Conc	Ratio	Flags
	12.193	365			-	
3	12.285	4041	0.08	0.17	100	aH
	12.292	377			9	
4	12.506	7304	0.15	0.30	100	aH
	12.491	954			13	
5	12.590	133122	2.79	5.48	100	H

Air Toxics Limited

AMBIENT AIR METHOD TO14

Data file : /chem/msdj.i/j-28may.b/j052808.d
Lab Smp Id: 9705177-02A Client Smp ID: 051497D1
Inj Date : 28-MAY-1997 14:11
Operator : MH Inst ID: msdj.i
Smp Info : 500mL Can#05699
Misc Info : 9.5"Hg-5.0psi Parsons
Comment :
Method : /chem/msdj.i/j-28may.b/to140527.m
Meth Date : 28-May-1997 14:19 mhe Quant Type: ISTD
Cal Date : 28-MAY-1997 08:33 Cal File: j052802.d
Als bottle: 1
Dil Factor: 1.960
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
* 32 Bromochloromethane					CAS #: 74-97-5			
15.741	15.699 (1.000)	130	137569	5.0			100.00	9317
15.741	15.699 (0.000)	128	29992			26.56- 126.56	21.80	
15.741	15.699 (0.000)	49	51808			75.98- 175.98	37.66	
$ 37 Octafluorotoluene					CAS #: 434-64-0			
16.252	16.240 (1.032)	217	473539	5.4	5.4		100.00	7560
16.252	16.240 (0.000)	186	92320			8.50- 108.50	19.50	
* 42 1,4-Difluorobenzene					CAS #: 540-36-3			
17.060	17.034 (1.000)	114	594145	5.0			100.00	9677
17.060	17.034 (0.000)	88	31168			0.00- 66.46	5.25	
17.221	17.034 (1.000)	114	2047	5.0			100.00	2778
17.221	17.034 (0.000)	88	66			0.00- 66.46	3.22	
17.457	17.034 (1.000)	114	523	5.0			100.00	4045(Q)
17.457	17.034 (0.000)	88	101			0.00- 66.46	19.31	
$ 50 Toluene-d8					CAS #: 2037-26-5			
19.059	19.048 (1.117)	98	558765	5.1	5.1		100.00	9837

Data File: /chem/msdj.i/j-28may.b/j052808.d
Report Date: 28-May-1997 14:55

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	CONCENTRATIONS FINAL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
50 Toluene-d8 (continued)								
19.059	19.048 (0.000)	70	21416			0.00- 61.89	3.83	
19.059	19.048 (0.000)	100	115976			17.94- 117.94	20.76	
62 Chlorobenzene-d5					CAS #: 3114-55-4			
21.112	21.100 (1.000)	117	660954	5.0			100.00	9919
21.112	21.100 (0.000)	82	97032			5.68- 105.68	14.68	
21.508	21.100 (1.000)	117	173	5.0			100.00	8775
21.508	21.100 (0.000)	82	137			5.68- 105.68	79.19	
71 Bromofluorobenzene					CAS #: 460-00-4			
22.927	22.916 (1.086)	95	594829	5.9	5.9		100.00	8823
22.927	22.916 (0.000)	174	109560			20.39- 120.39	18.42	
22.927	22.916 (0.000)	176	106816			23.94- 123.94	17.96	
15 Acetone					CAS #: 67-64-1			
12.506	12.448 (0.794)	43	7304	0.15	0.30		100.00	(a)
12.491	12.448 (0.794)	58	954			0.00- 81.57	13.06	
11.957	12.448 (0.760)	43	6059	0.13	0.25		100.00	(a)
11.957	12.448 (0.760)	58	665			0.00- 81.57	10.98	
12.185	12.448 (0.774)	43	4869	0.10	0.20		100.00	(a)
12.193	12.448 (0.775)	58	365			0.00- 81.57	7.50	
12.285	12.448 (0.780)	43	4041	0.085	0.17		100.00	(a)
12.292	12.448 (0.781)	58	377			0.00- 81.57	9.33	
12.590	12.448 (0.800)	43	133122	2.8	5.5		100.00	
12.597	12.448 (0.800)	58	31886			0.00- 81.57	23.95	
12.971	12.448 (0.824)	43	2502	0.052	0.10		100.00	(a)
12.971	12.448 (0.824)	58	120			0.00- 81.57	4.80	
17 Carbon Disulfide					CAS #: 75-15-0			
12.788	12.578 (0.812)	76	18326	0.25	0.49		100.00	6314
21 Methylene Chloride					CAS #: 75-09-2			
13.398	13.295 (0.851)	84	3614	0.14	0.28		100.00	4395
13.398	13.295 (0.000)	49	1181			70.95- 170.95	32.68	
13.398	13.295 (0.000)	51	438			0.00- 90.50	12.12	
29 2-Butanone					CAS #: 78-93-3			
15.382	15.340 (0.977)	72	14939	1.0	2.0		100.00	7624
15.382	15.340 (0.000)	43	13541			328.21- 428.21	90.64	
15.382	15.340 (0.000)	57	971			0.00- 79.36	6.50	
15.123	15.340 (0.961)	72	45979	3.2	6.3		100.00	4409(a)

Data File: /chem/msdj.i/j-28may.b/j052808.d
Report Date: 28-May-1997 14:55

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
29 2-Butanone (continued)								
15.123	15.340 (0.000)	43	16704			328.21- 428.21	36.33	
15.123	15.340 (0.000)	57	6230			0.00- 79.36	13.55	
39 Benzene					CAS #: 71-43-2			
16.610	16.584 (0.974)	78	34086	0.37	0.73		100.00	9363
16.610	16.584 (0.000)	77	2218			0.00- 73.15	6.51	
40 1,2-Dichloroethane					CAS #: 107-06-2			
17.060	16.591 (1.000)	62	18703	0.48	0.95		100.00	3515(Q)
17.060	16.591 (0.000)	64	5587			0.00- 81.41	29.87	
52 Toluene					CAS #: 108-88-3			
19.158	19.139 (1.123)	92	24594	0.33	0.65		100.00	7903
19.158	19.139 (0.000)	91	12434			118.04- 218.04	50.56	
64 Ethyl Benzene					CAS #: 100-41-4			
21.241	21.230 (1.006)	106	798558	11.9	23.3		100.00	
21.241	21.230 (1.006)	91	2545997			268.72- 368.72	318.82	
21.394	21.230 (1.013)	106	20631	0.31	0.60		100.00	(Q)
21.401	21.230 (1.014)	91	44631			268.72- 368.72	216.33	
65 m,p-Xylene					CAS #: 108-38-3			
21.394	21.390 (1.013)	106	20631	0.27	0.52		100.00	
21.401	21.390 (1.014)	91	45781			149.27- 249.27	221.90	
21.241	21.390 (1.006)	106	798558	10.3	20.2		100.00	(Q)
21.241	21.390 (1.006)	91	2546787			149.27- 249.27	318.92	
67 o-Xylene					CAS #: 95-47-6			
22.035	22.031 (1.044)	106	6458	0.11	0.22		100.00	8448
22.035	22.031 (0.000)	91	3043			76.66- 176.66	47.12	

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-28may.b/j052808.d
Lab Smp Id: 9705177-02A Client Smp ID: 051497D1
Inj Date : 28-MAY-1997 14:11
Operator : MH Inst ID: msdj.i
Smp Info : 500mL Can#05699
Misc Info : 9.5"Hg-5.0psi Parsons
Comment :
Method : /chem/msdj.i/j-28may.b/to140527.m
Meth Date : 28-May-1997 14:19 mhe
Cal Date : 28-MAY-1997 08:33 Cal File: j052802.d
Als bottle: 1
Dil Factor: 1.960 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
* 32 Bromochloromethane	15.741	729718	5.000
* 42 1,4-Difluorobenzene	17.060	1370577	5.000
* 62 Chlorobenzene-d5	21.112	1944285	5.000

RT	AREA	CONCENTRATIONS ON-COL(PPBV)	CONCENTRATIONS FINAL(PPBV)	QUAL	QUANT LIBRARY	QUANT LIB ENTRY	QUANT CPND #
Unknown				CAS #:			
3.335	91360202	626	1230	0		0	32
Unknown				CAS #:			
6.395	282491	1.9	3.8	0		0	32
Butane				CAS #: 106-97-8			
8.546	139346	0.95	1.9	59	NBS54K.l	98	32

Data File: /chem/msdj.i/j-28may.b/j052808.d
Report Date: 28-May-1997 14:55

RT	AREA	CONCENTRATIONS ON-COL(PPBV)	FINAL(PPBV)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Butanal					CAS #: 123-72-8		
15.123	490374	3.4	6.6	91	NBS54K.l	257	32
Unknown					CAS #:		
15.557	97659	0.67	1.3	0		0	32
Furan, 2-propyl-					CAS #: 4229-91-8		
17.259	768684	2.8	5.5	74	NBS54K.l	2076	42
Unknown					CAS #:		
17.755	139900	0.51	1.0	0		0	42
Cyclotrisiloxane, hexamethyl-					CAS #: 541-05-9		
19.372	403997	1.0	2.0	80	NBS54K.l	23660	62
Cyclohexene, 4-ethenyl-					CAS #: 100-40-3		
20.440	341963	0.88	1.7	87	NBS54K.l	1927	62
Heptanal					CAS #: 111-71-7		
22.248	129575	0.33	0.65	64	NBS54K.l	2693	62
Acetamide, N,N-dimethyl-					CAS #: 127-19-5		
22.546	748676	1.9	3.8	59	NBS54K.l	707	62
Cyclotetrasiloxane, octamethyl-					CAS #: 556-67-2		
22.714	470349	1.2	2.4	64	NBS54K.l	35637	62
Unknown					CAS #:		
23.919	114030	0.29	0.57	0		0	62
Unknown					CAS #:		
25.704	168235	0.43	0.85	0		0	62
Unknown					CAS #:		
27.146	146202	0.38	0.74	0		0	62

Data File: /chem/msdj.i/j-28may.b/j052808.d
Report Date: 28-May-1997 14:55

Air Toxics Limited

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdj.i
Lab File ID: j052808.d
Lab Smp Id: 9705177-02A
Analysis Type: VOA
Quant Type: ISTD
Operator: MH
Method File: /chem/msdj.i/j-28may.b/to140527.m
Misc Info: 9.5"Hg-5.0psi Parsons

Calibration Date: 05/28/97
Calibration Time: 0833
Client Smp ID: 051497D1
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	% DIFF
32 Bromochloromethane	185470	111282	259658	137569	-25.83
42 1,4-Difluorobenzene	846399	507839	1184959	594145	-29.80
62 Chlorobenzene-d5	846830	508098	1185562	660954	-21.95

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	% DIFF
32 Bromochloromethane	15.71	15.21	16.21	15.74	0.22
42 1,4-Difluorobenzene	17.04	16.54	17.54	17.06	0.11
62 Chlorobenzene-d5	21.10	20.60	21.60	21.11	0.06

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

MH
5/28/97

Data File: /chem/msdj.i/j-28may.b/j052808.d
Report Date: 28-May-1997 14:55

Air Toxics Limited

RECOVERY REPORT

Client Name:
Sample Matrix: GAS
Lab Smp Id: 9705177-02A
Level: LOW
Data Type: MS DATA
SpikeList File:
Client SDG: j-28may
Fraction: VOA
Client Smp ID: 051497D1
Operator: MH
SampleType: SAMPLE
Quant Type: ISTD
Method File: /chem/msdj.i/j-28may.b/to140527.m
Misc Info: 9.5"Hg-5.0psi Parsons

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 37 Octafluorotoluene	5.0	5.4	107.94	60-140
$ 50 Toluene-d8	5.0	5.1	101.37	60-140
$ 71 Bromofluorobenzene	5.0	5.9	118.93	60-140

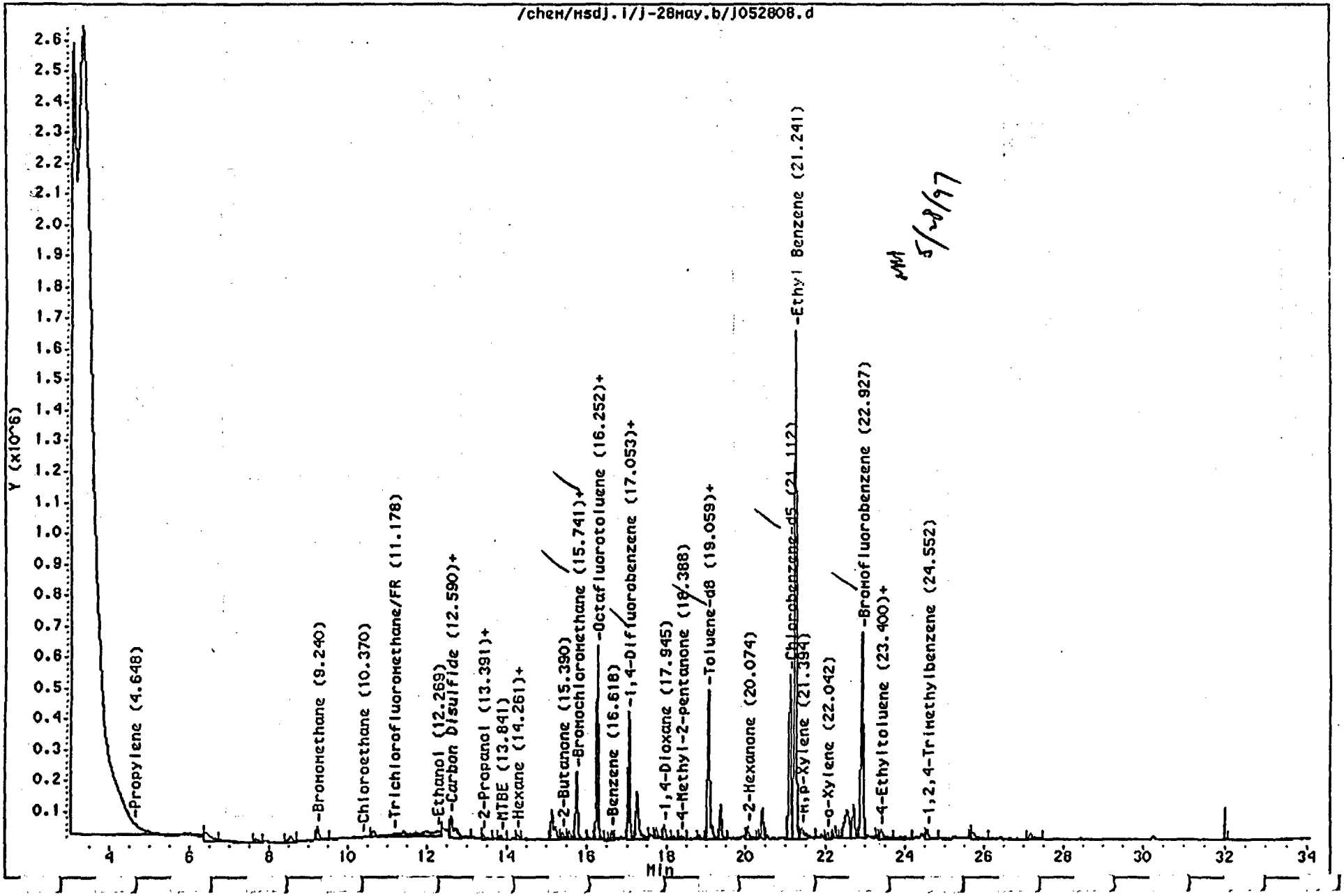
MH
5/28/97

i055

Data File: /chem/msdj.i/j-28may.b/j052808.d
Date : 28-MAY-1997 14:11
Client ID: 051497D1
Sample Info: 500mL Can#05699

Instrument: msdj.i

Operator: MH
Column phase: RTx-624
Column diameter: 0.58



Data File: /chem/msdj.i/j-28may.b/j052808.d

Date : 28-MAY-1997 14:11

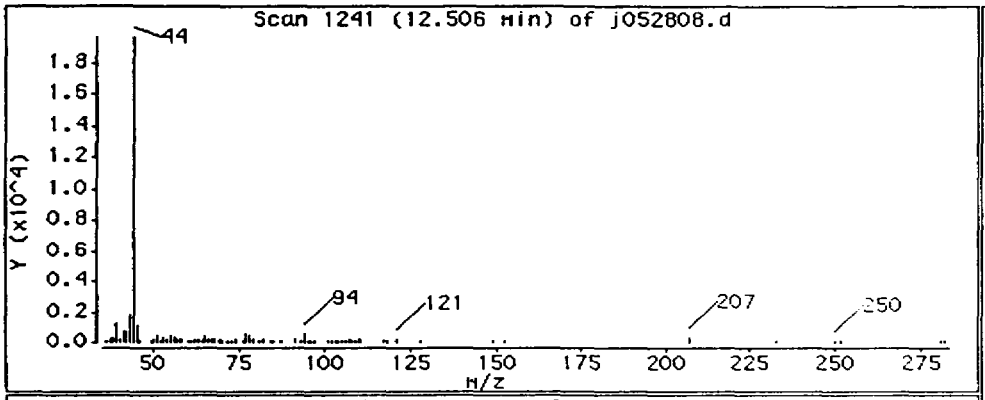
Client ID: 05149701 Instrument: msdj.i

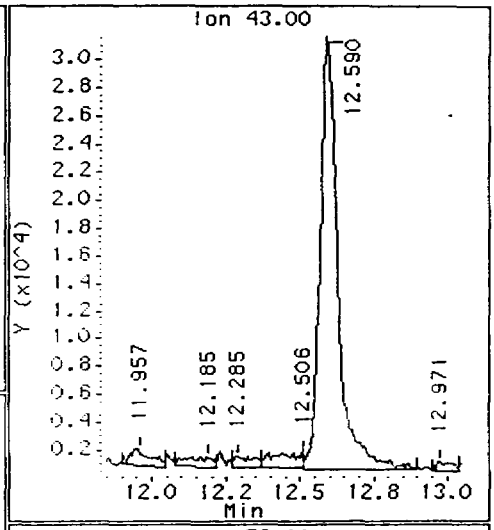
Sample Info: 500mL Can#05699

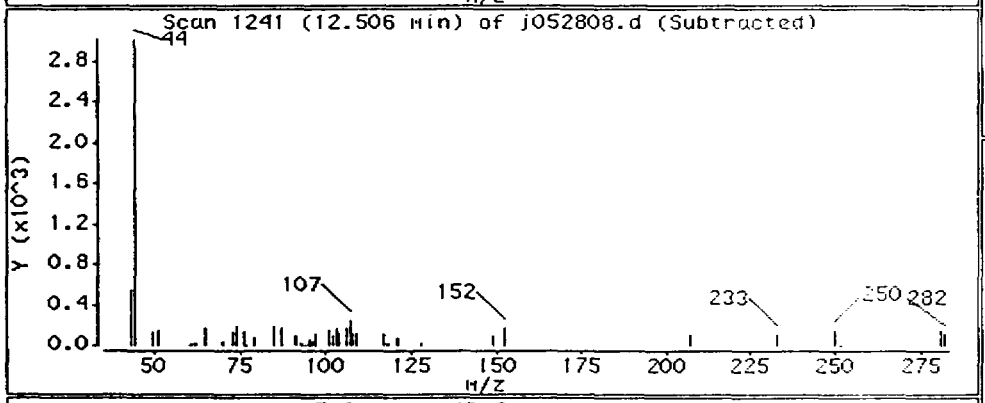
Operator: MH

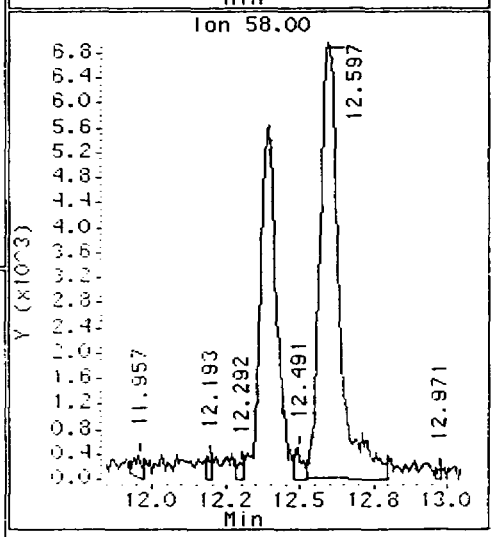
Column phase: RTx-624 Column diameter: 0.58

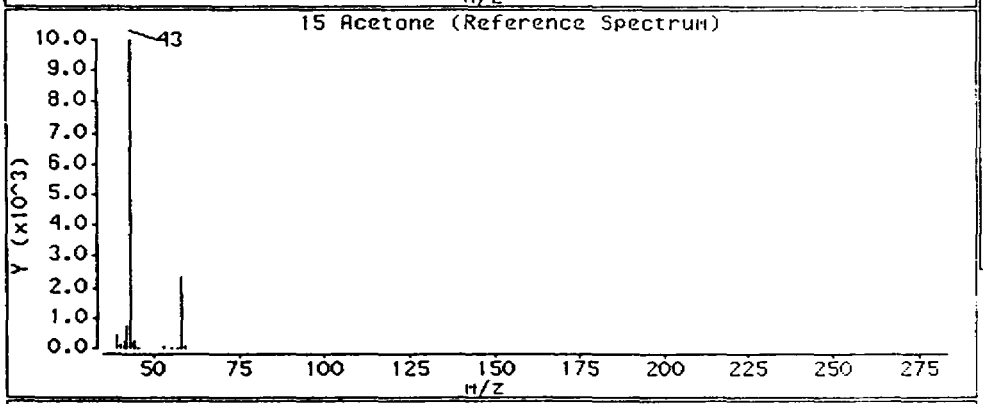
15 Acetone

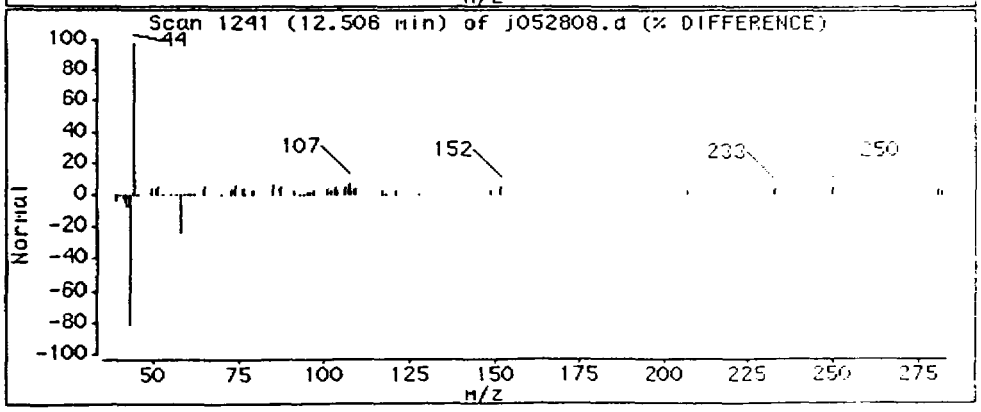












Data File: /chem/msdj.i/j-28may.b/j052808.d

Date : 28-MAY-1997 14:11

Client ID: 051497D1

Instrument: msdj.i

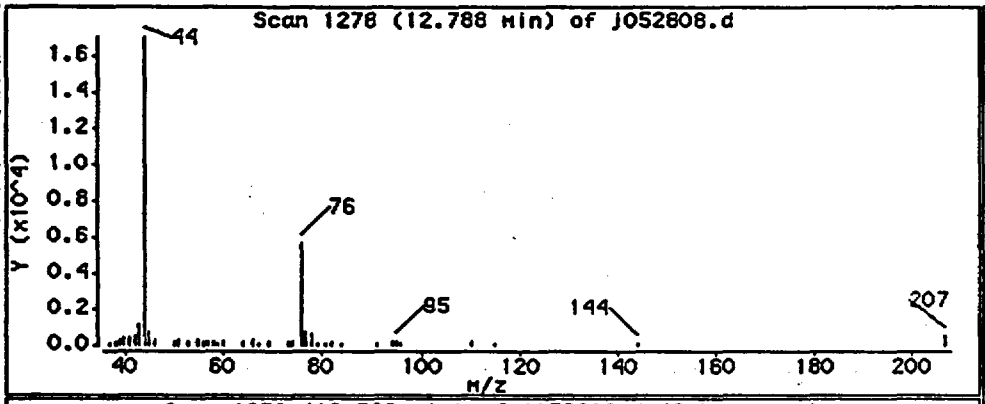
Sample Info: 500mL Can#05699

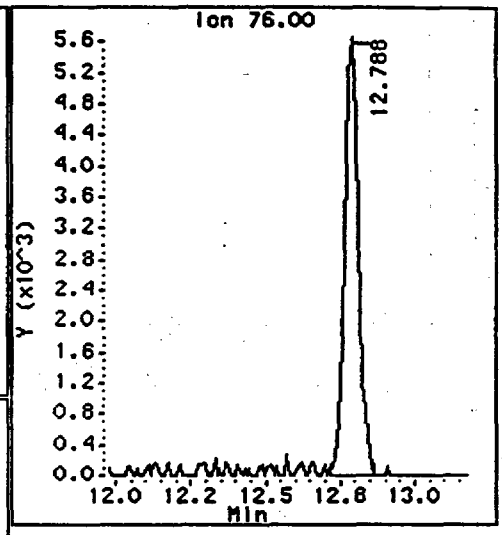
Operator: MH

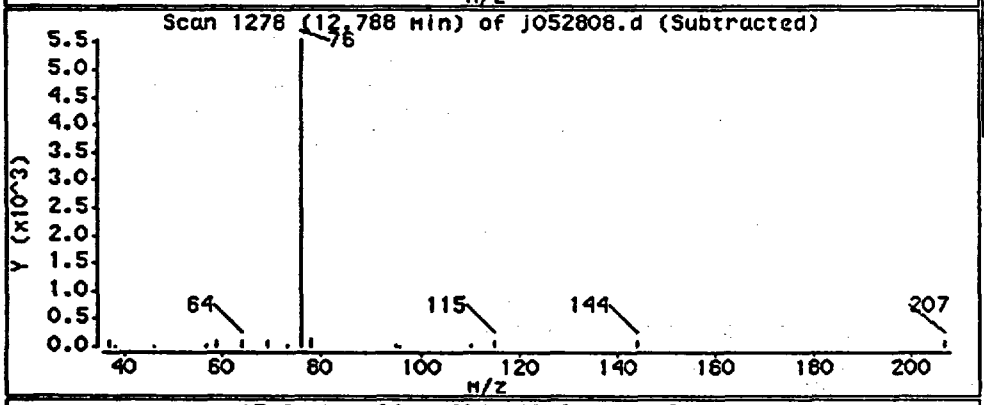
Column phase: RTx-624

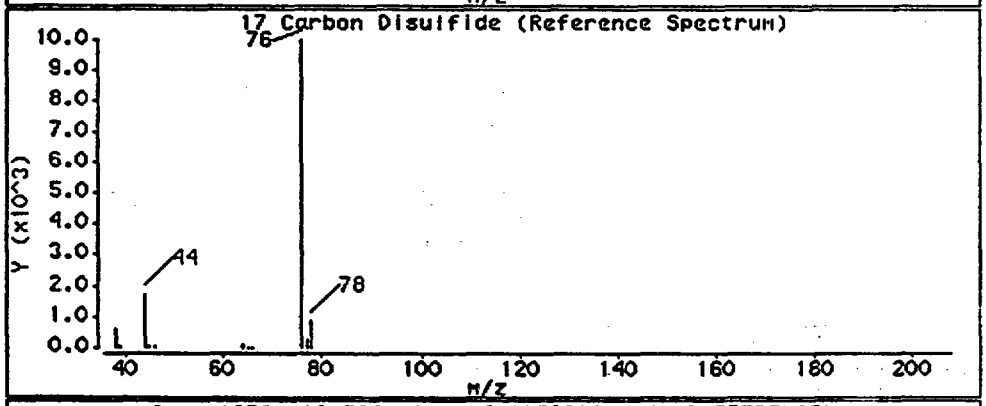
Column diameter: 0.58

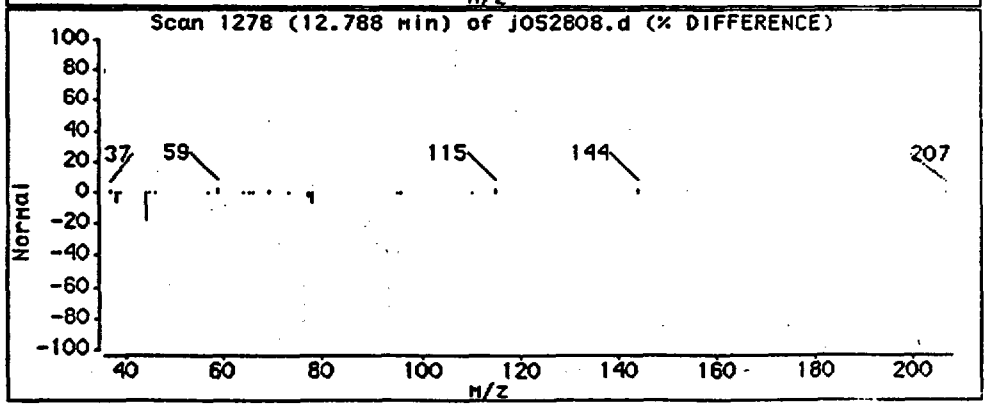
17 Carbon Disulfide











Data File: /chem/msdj.i/j-28may.b/j052808.d

Date : 28-MAY-1997 14:11

Client ID: 051497D1

Instrument: msdj.i

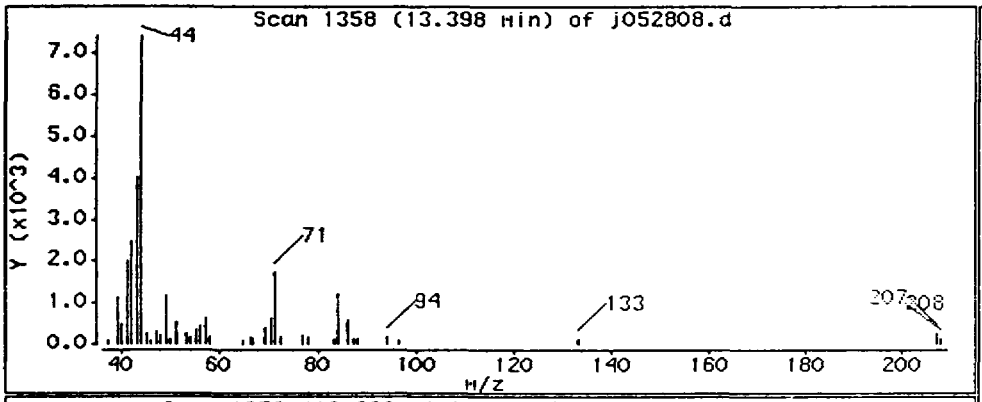
Sample Info: 500mL Can#05699

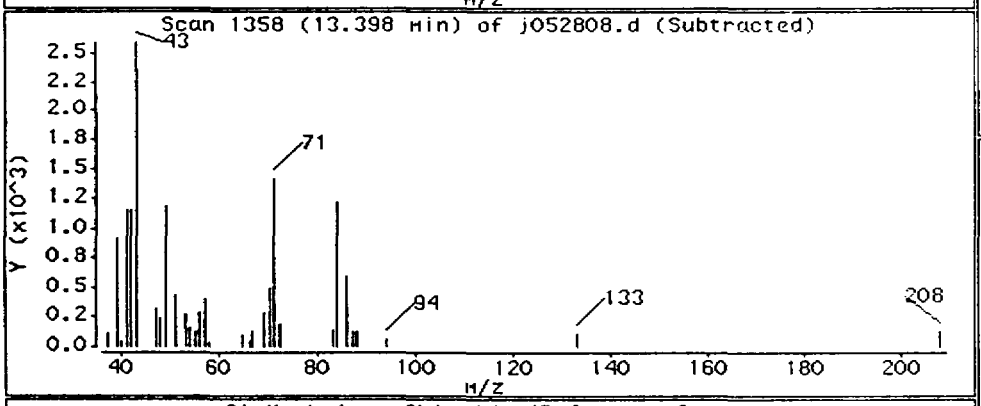
Operator: MH

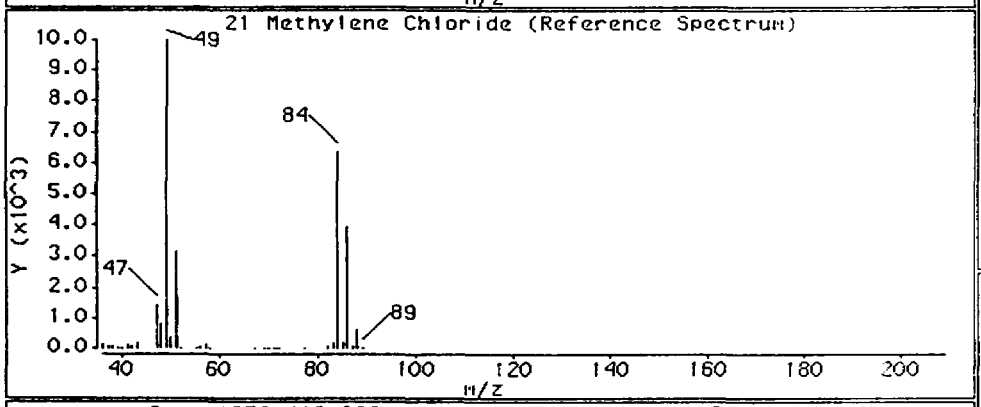
Column phase: RTx-624

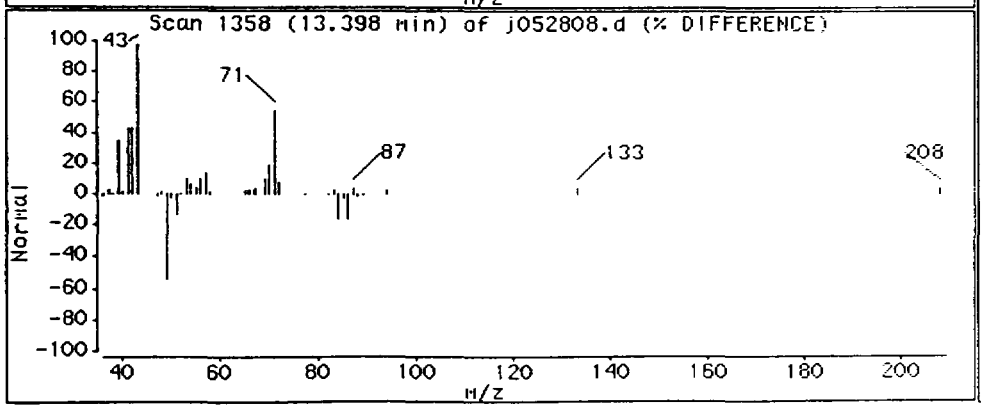
Column diameter: 0.58

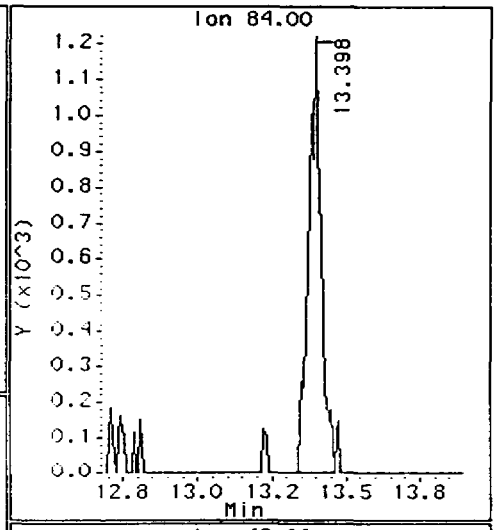
21 Methylene Chloride

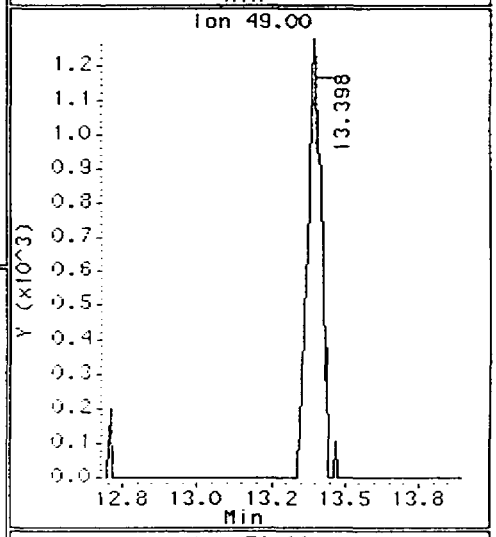


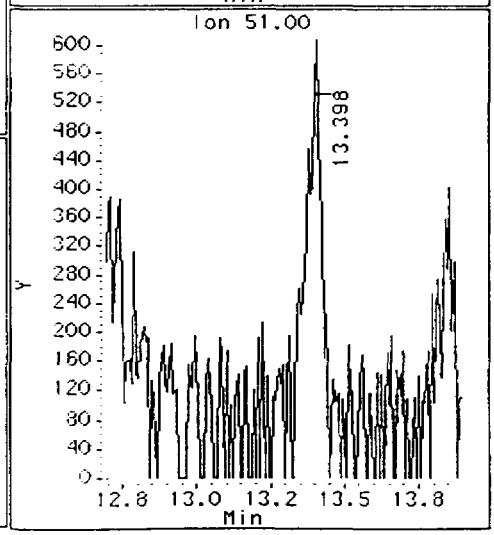












Data File: /chem/msdj.i/j-28may.b/j052808.d
Date : 28-MAY-1997 14:11
Client ID: 051497D1
Sample Info: 500mL Can#05699

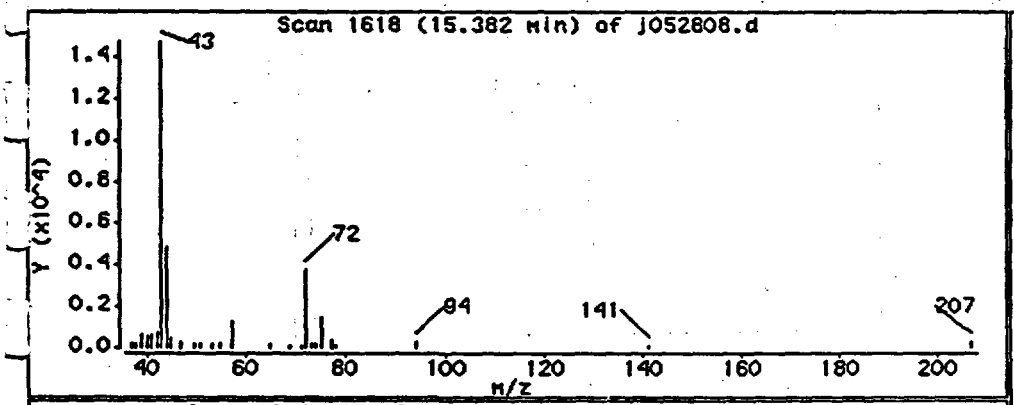
Instrument: msdj.i

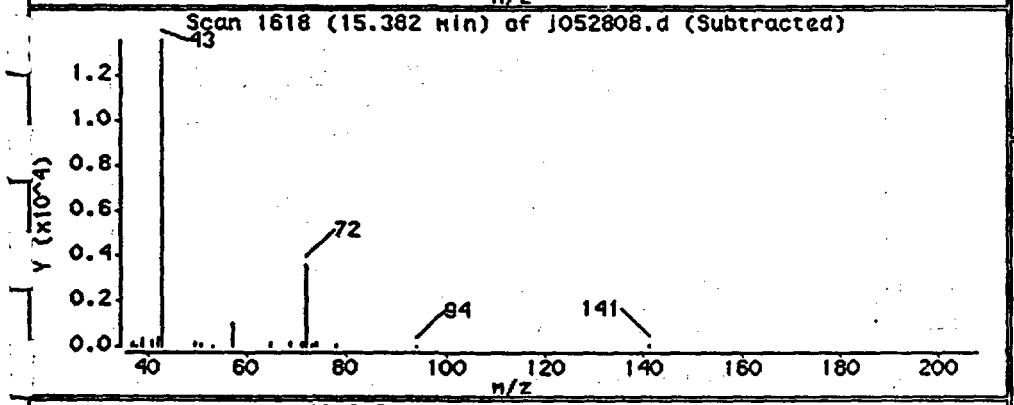
Operator: MH

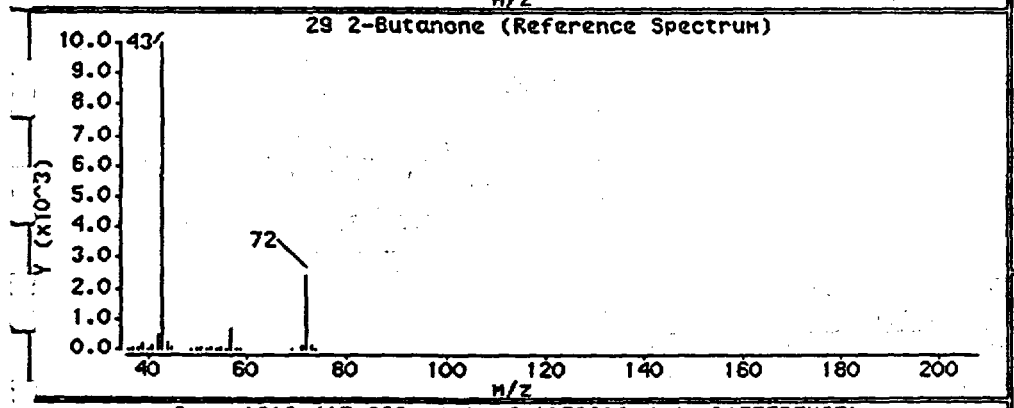
Column phase: RTx-624

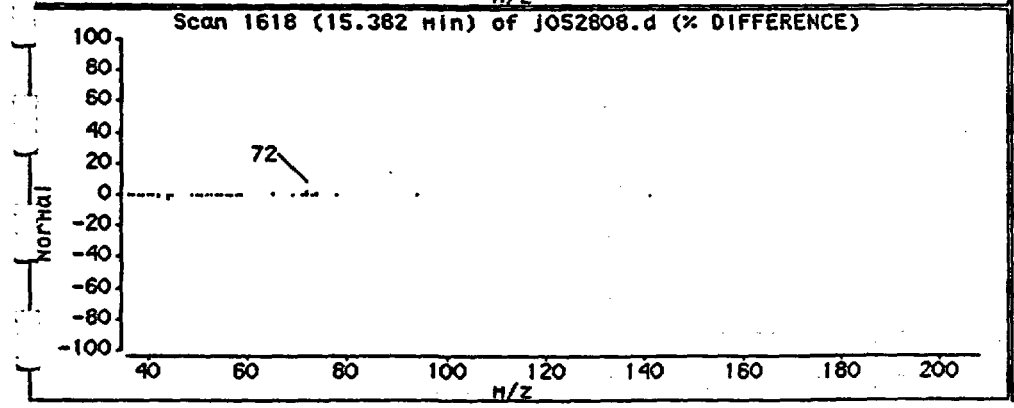
Column diameter: 0.58

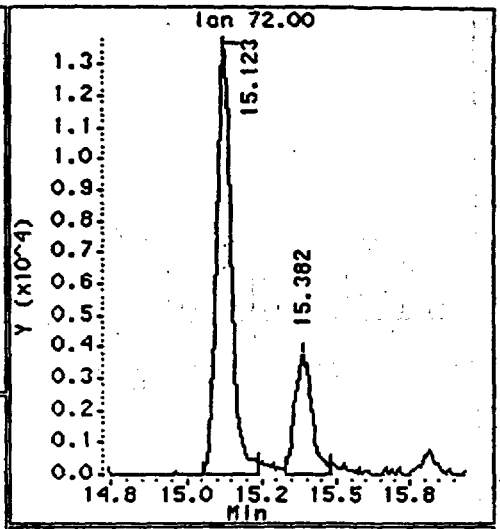
29 2-Butanone

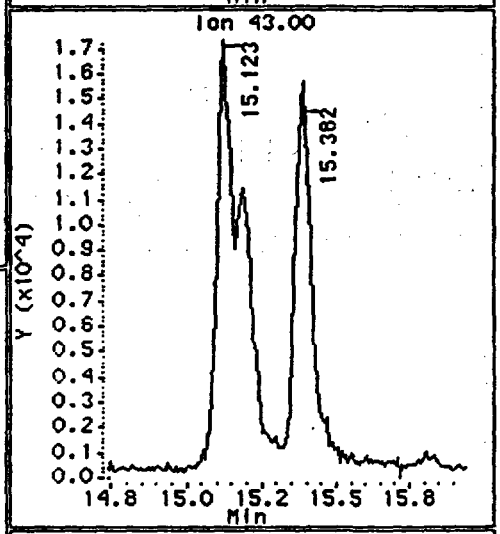


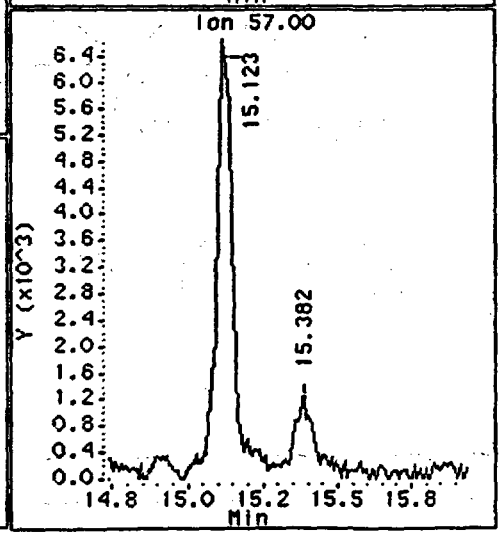






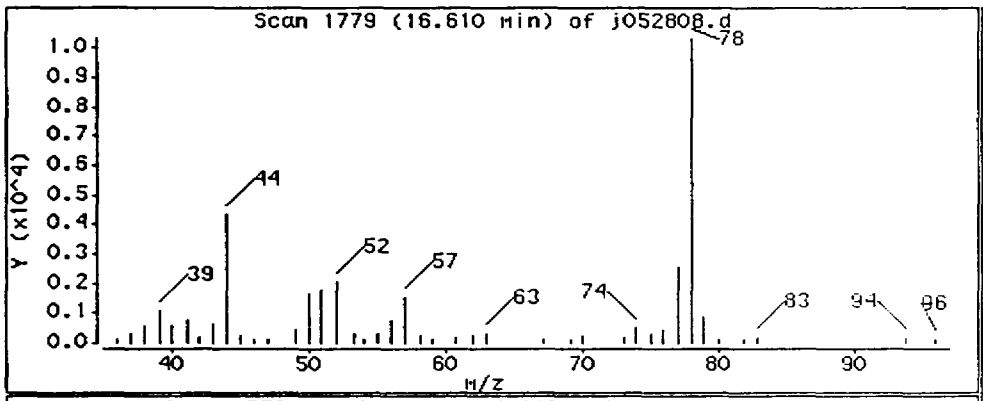


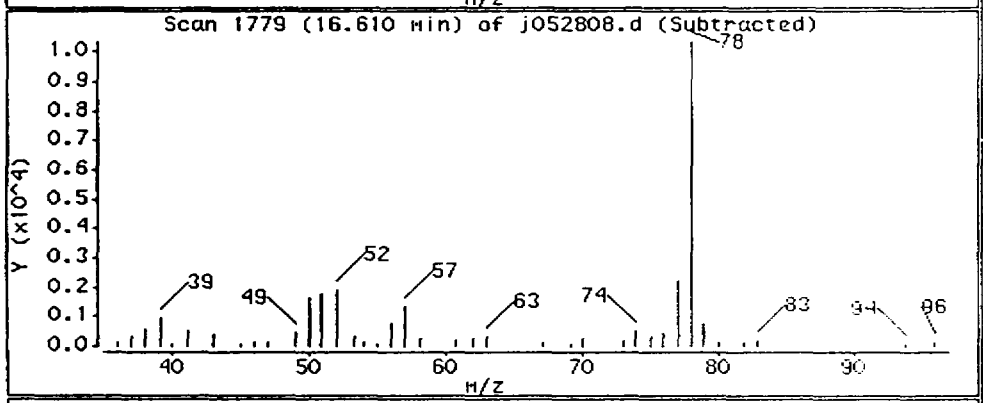


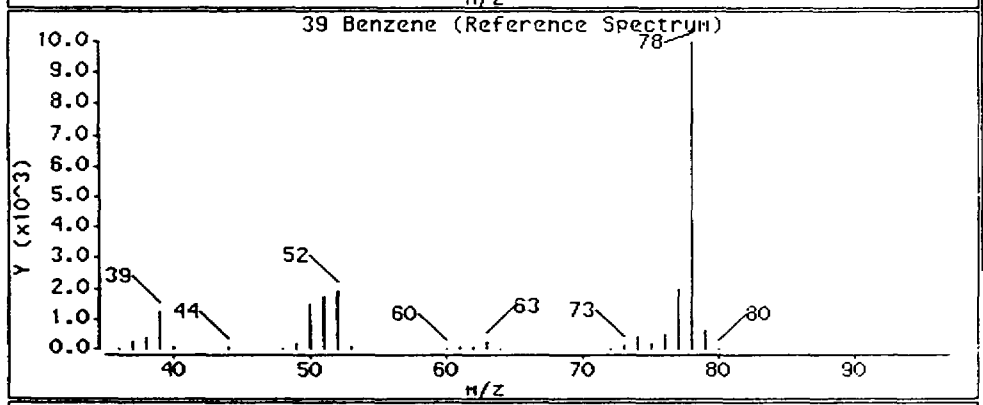


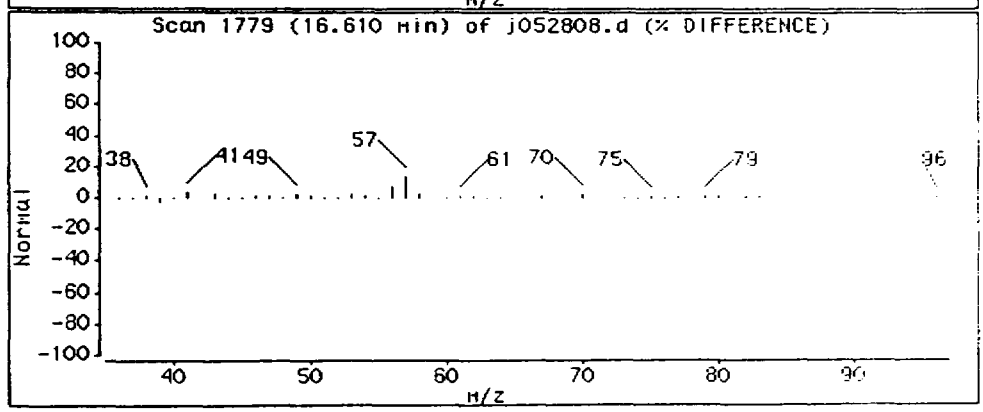
Data File: /chem/msdj.i/j-28may.b/j052808.d
Date : 28-MAY-1997 14:11
Client ID: 051497D1
Instrument: msdj.i
Sample Info: 500mL Can#05699
Operator: MH
Column phase: RTx-624
Column diameter: 0.58

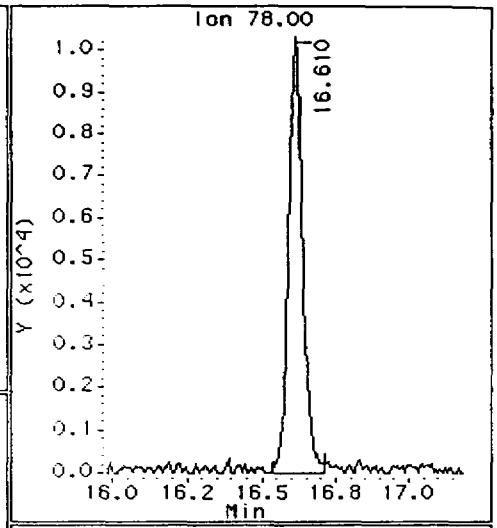
39 Benzene

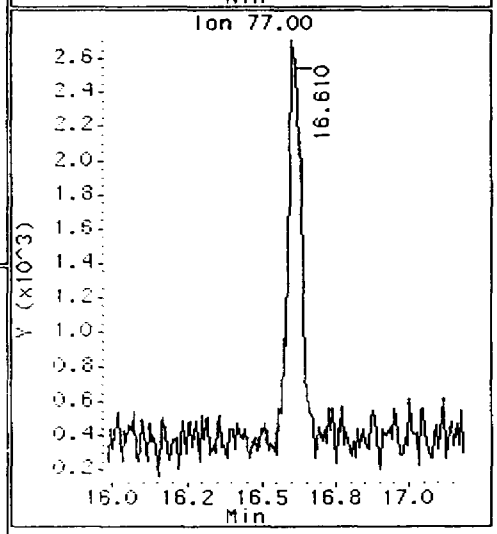












Data File: /chem/msdj.i/j-28may.b/j052808.d

Date : 28-MAY-1997 14:11

Client ID: 051497D1

Instrument: msdj.i

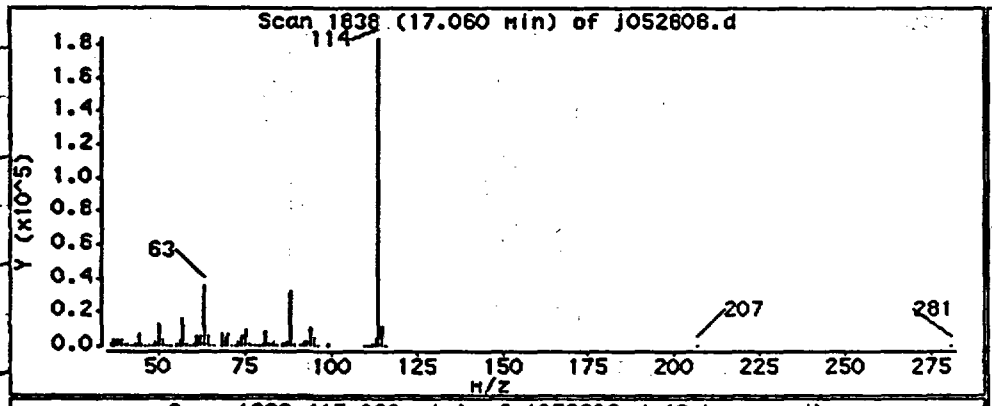
Sample Info: 500mL Can#05699

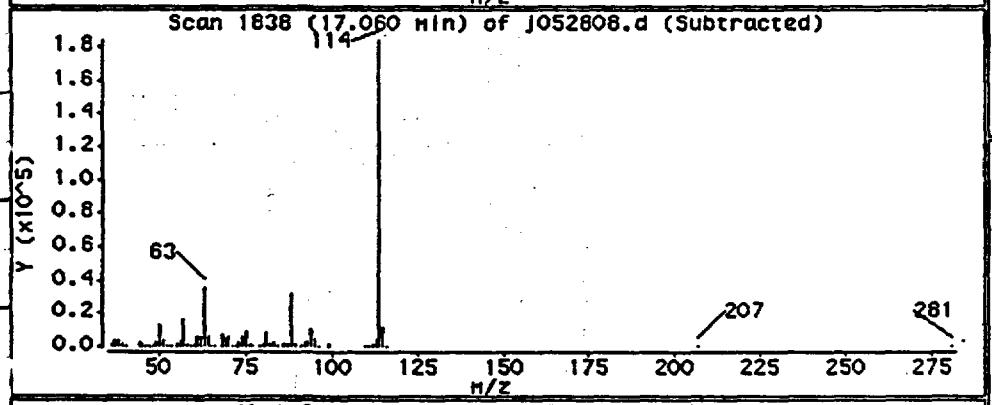
Operator: MH

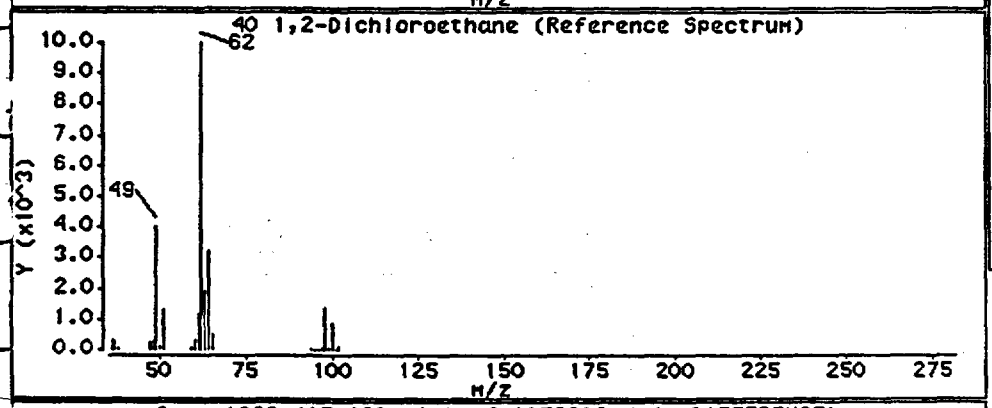
Column phase: RTx-624

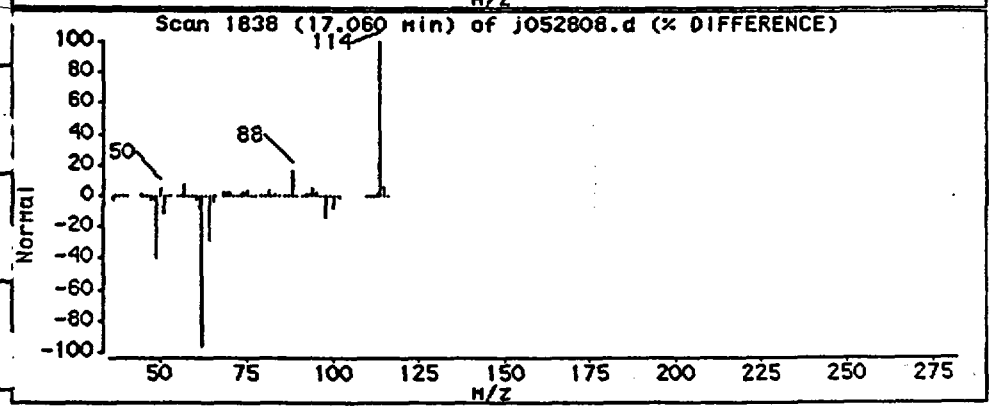
Column diameter: 0.58

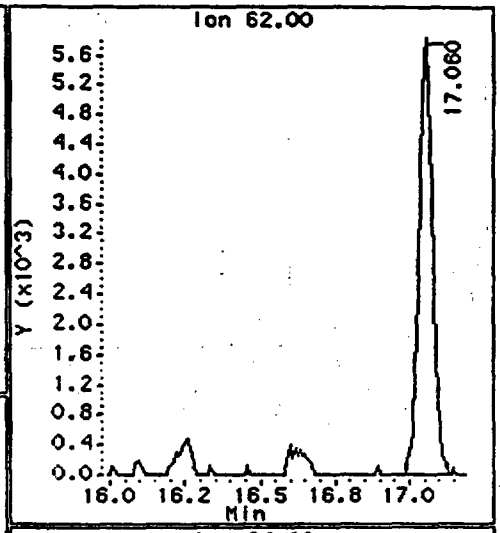
40 1,2-Dichloroethane

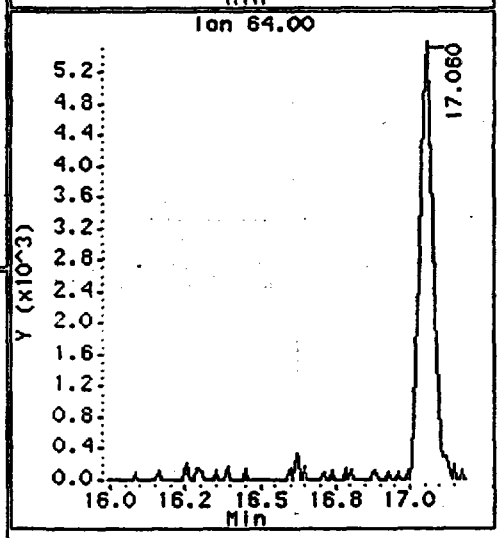












Data File: /chem/msdj.i/j-28may.b/j052808.d

Date : 28-MAY-1997 14:11

Client ID: 051497D1

Instrument: msdj.i

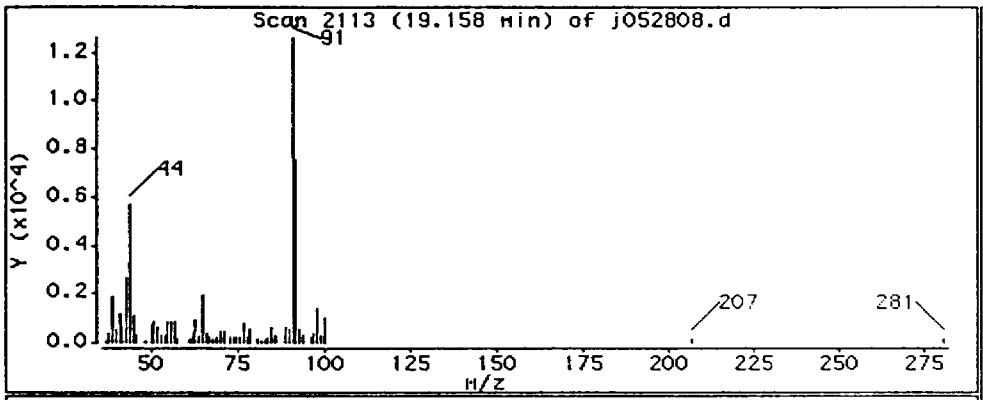
Sample Info: 500mL Can#05699

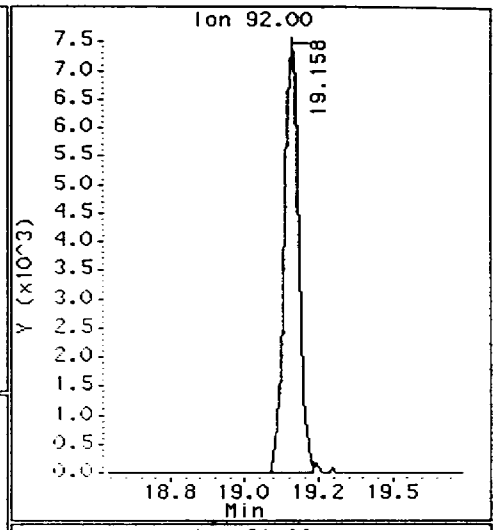
Operator: MH

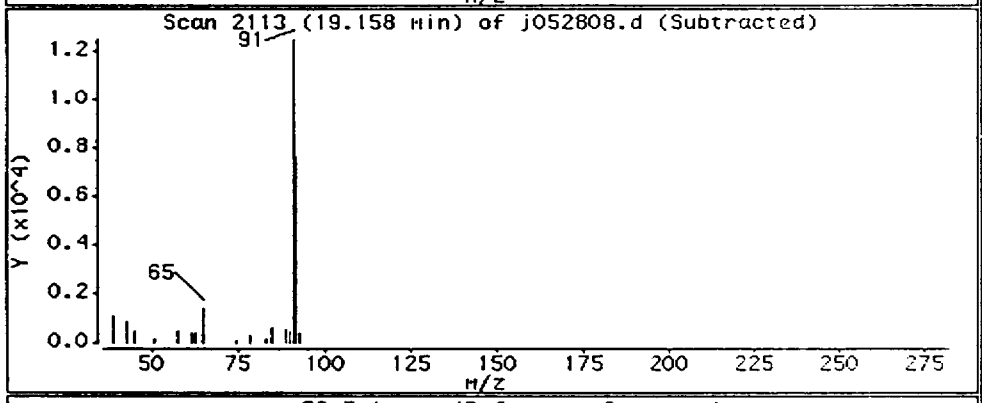
Column phase: RTx-624

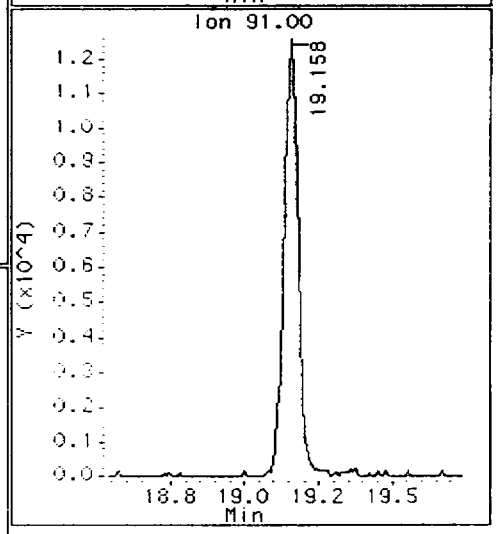
Column diameter: 0.58

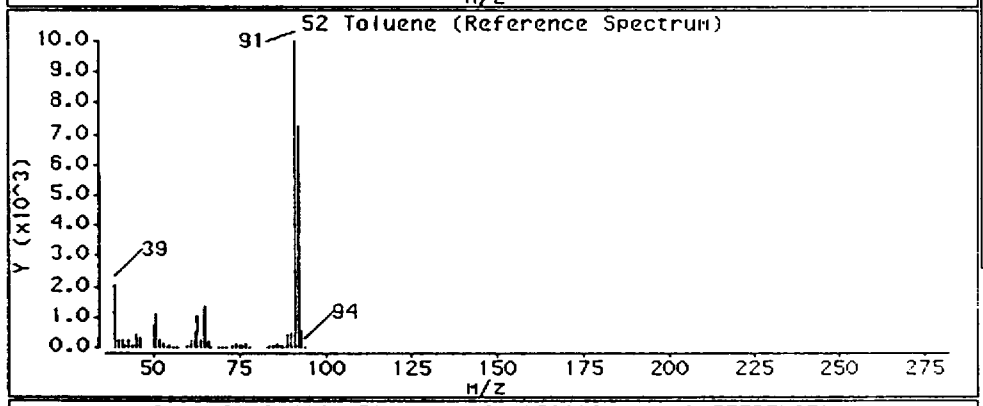
52 Toluene

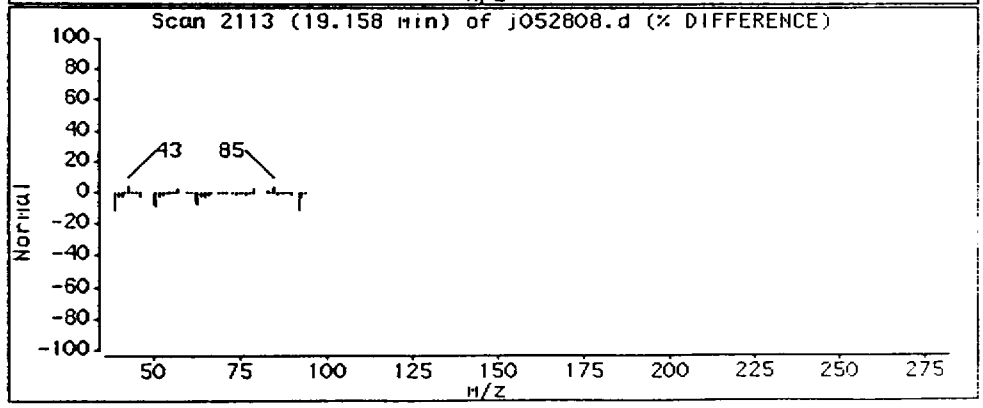












Data File: /chem/msdj.i/j-28may.b/j052808.d
Date : 28-MAY-1997 14:11
Client ID: 05149701
Sample Info: 500mL Can#05699

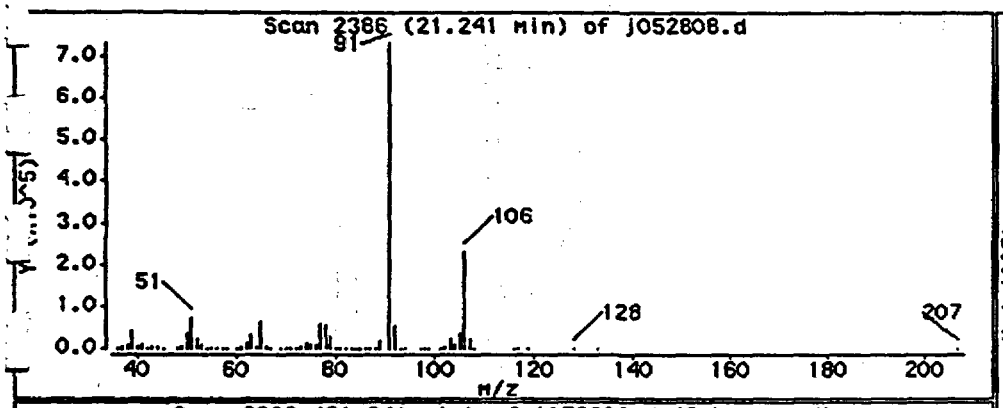
Instrument: msdj.i

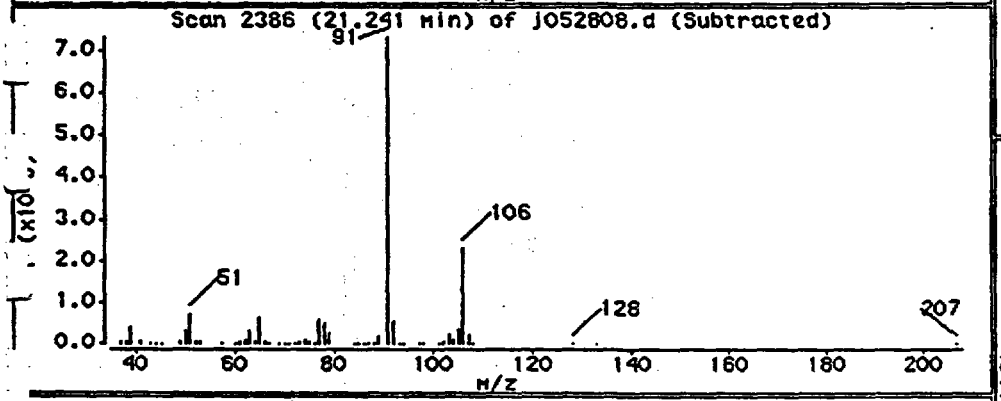
Operator: MH

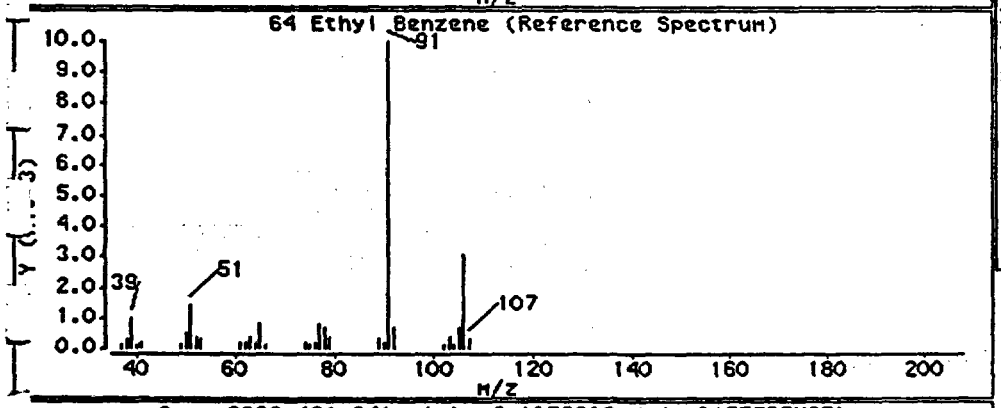
Column phase: RTx-624

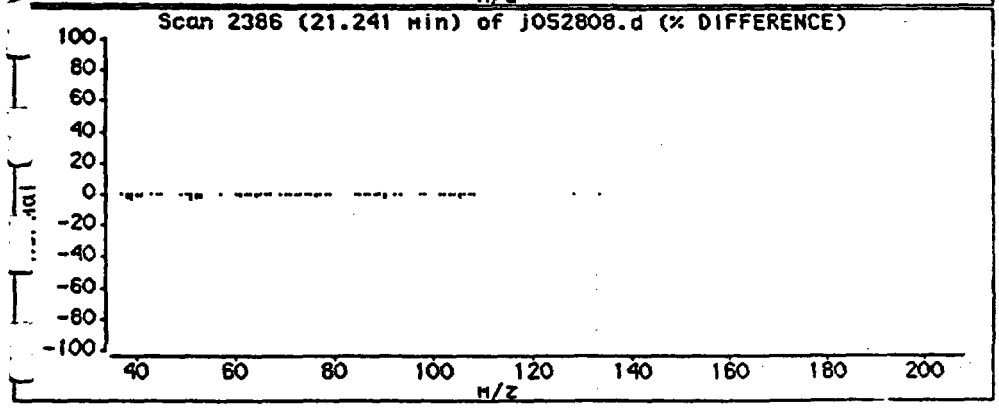
Column diameter: 0.58

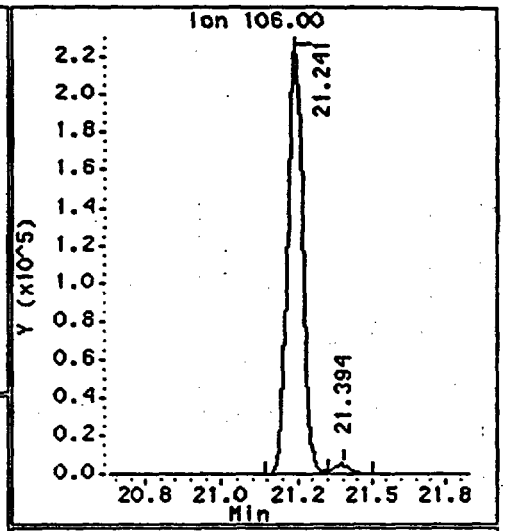
64 Ethyl Benzene

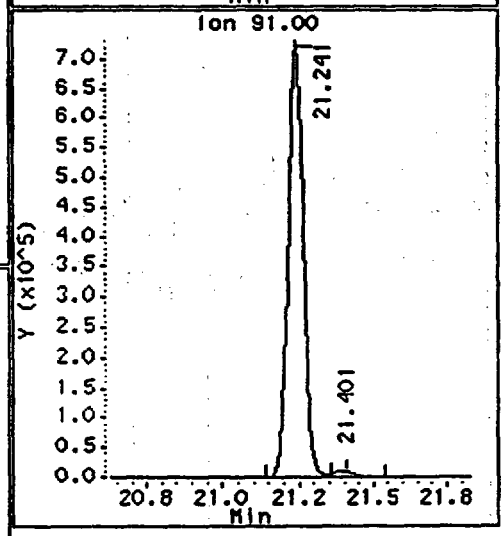












Data File: /chem/msdj.i/j-28may.b/j052808.d

Date : 28-MAY-1997 14:11

Client ID: 051497D1

Instrument: msdj.i

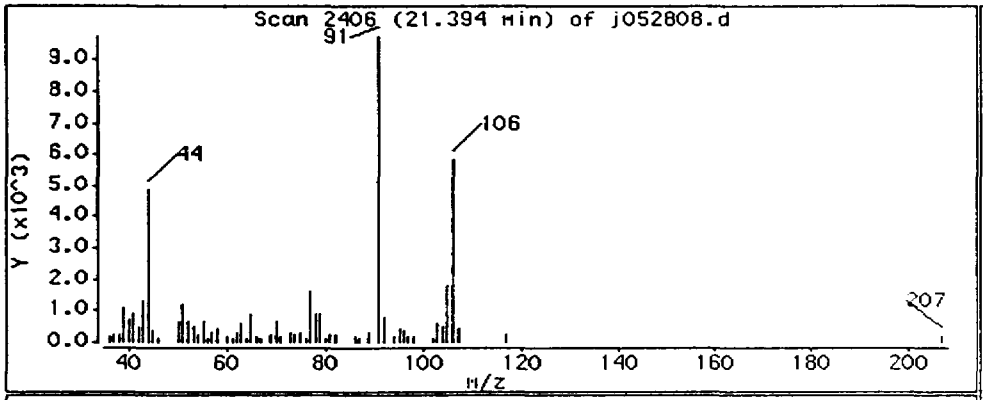
Sample Info: 500mL Can#05699

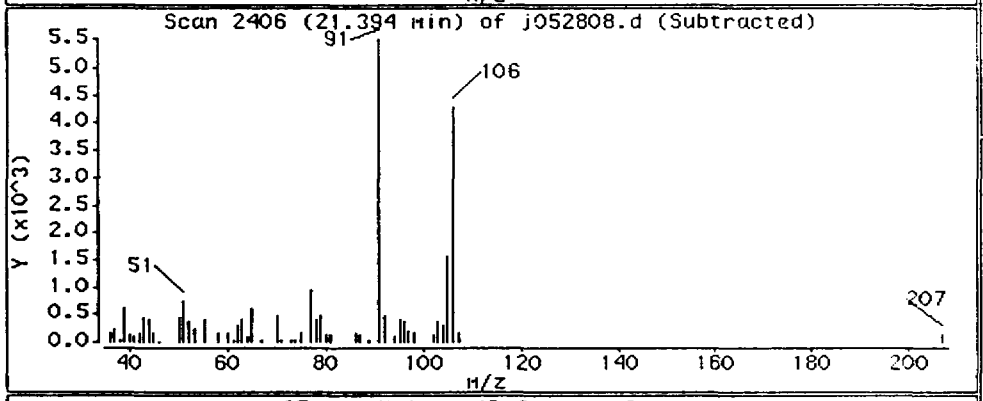
Operator: MH

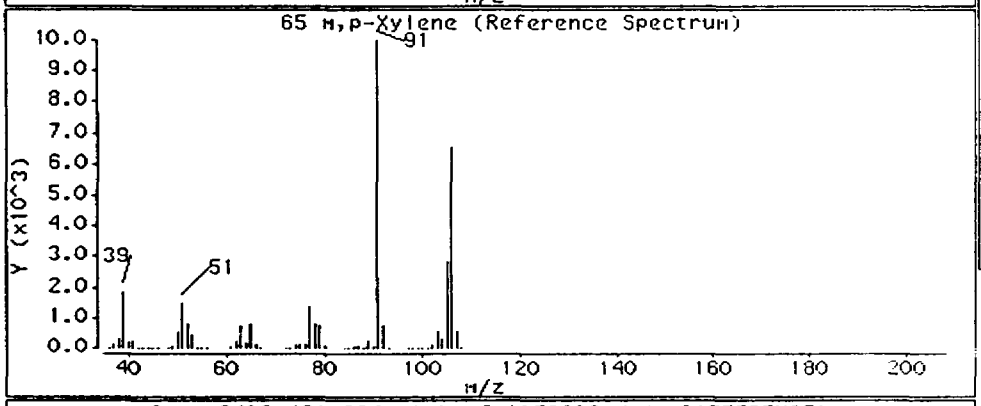
Column phase: RTx-624

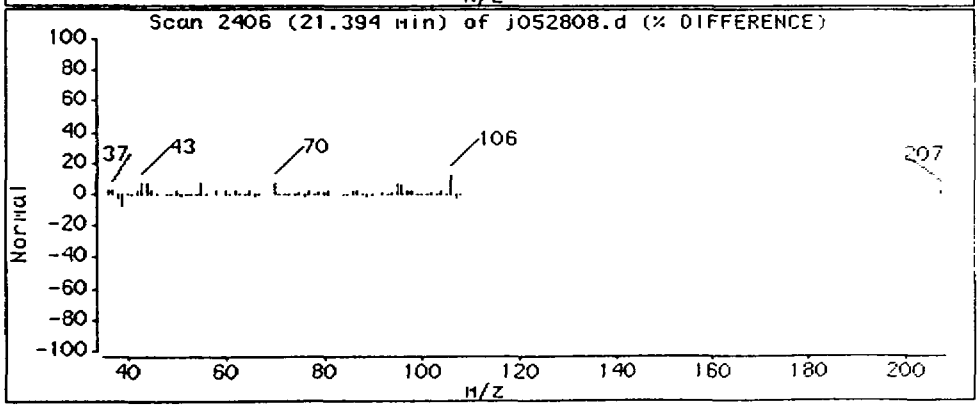
Column diameter: 0.58

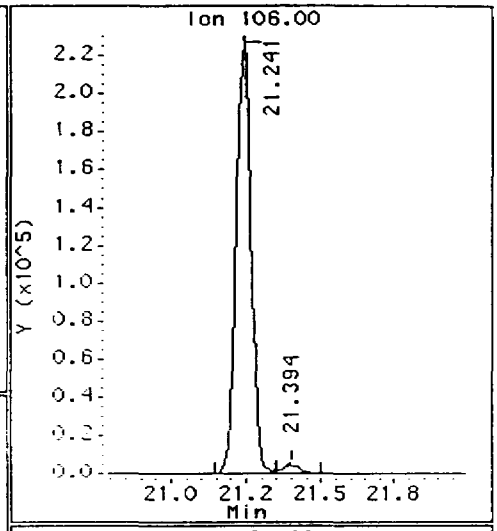
65 m,p-Xylene

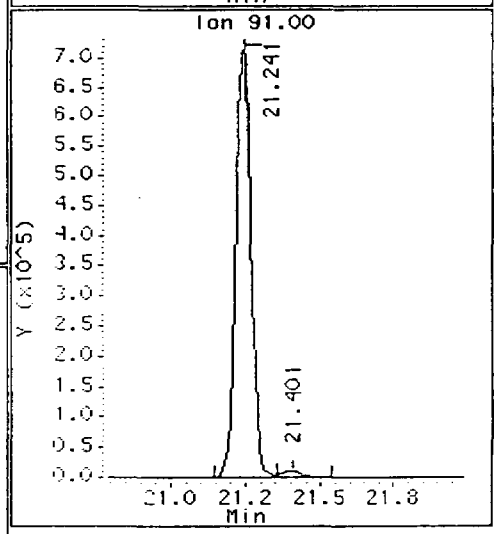












Data File: /chem/msdj.i/j-28may.b/j052808.d
Date : 28-MAY-1997 14:11
Client ID: 051497D1
Sample Info: 500mL Can#05699

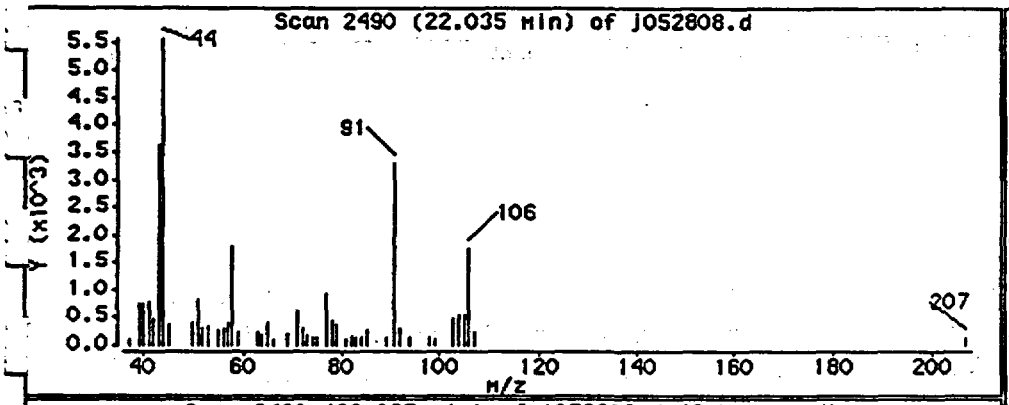
Instrument: msdj.i

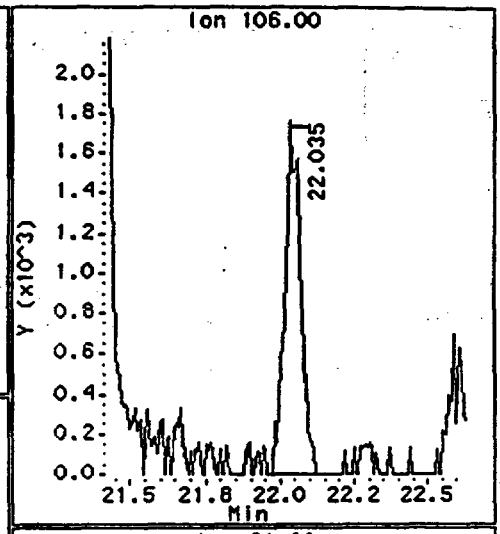
Operator: MH

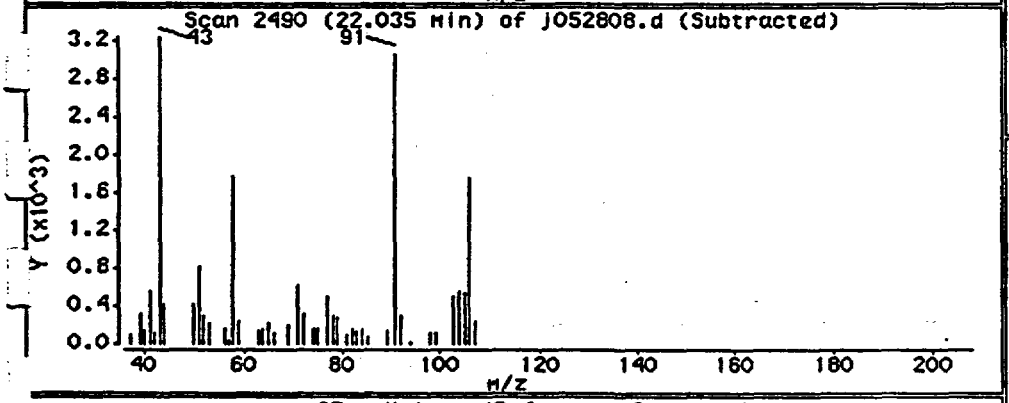
Column phase: RTx-624

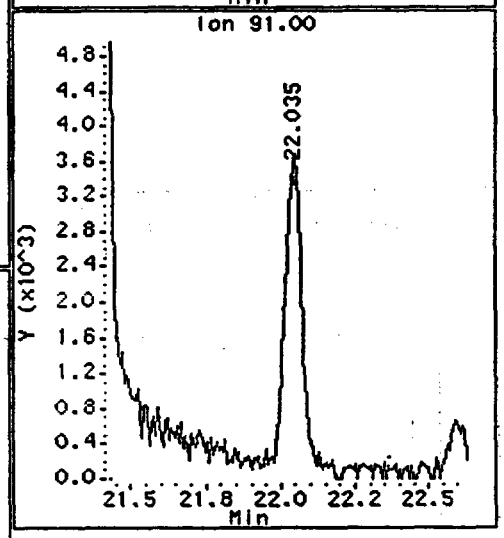
Column diameter: 0.58

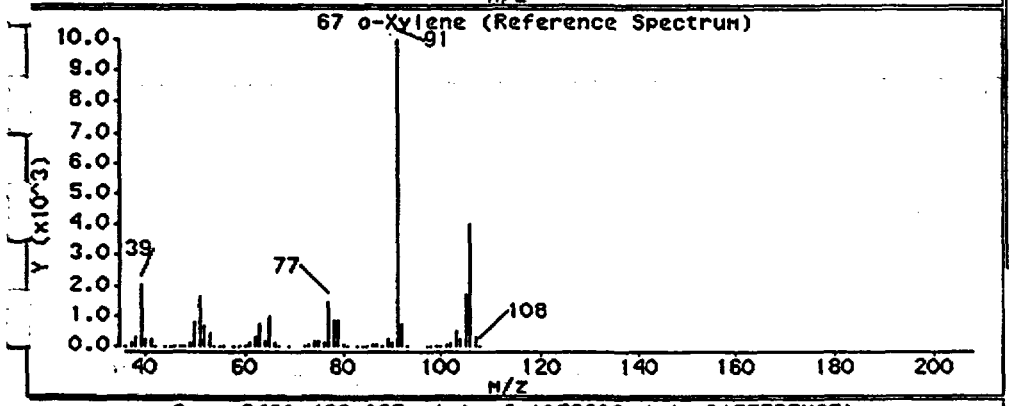
67 o-Xylene

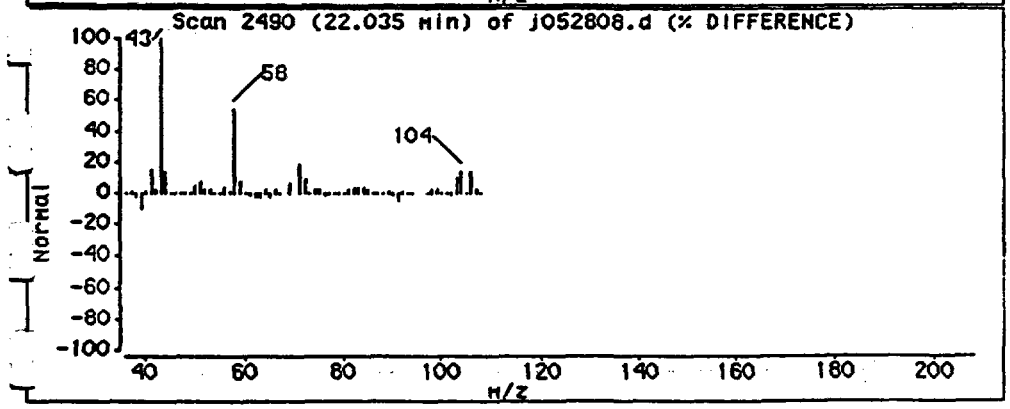












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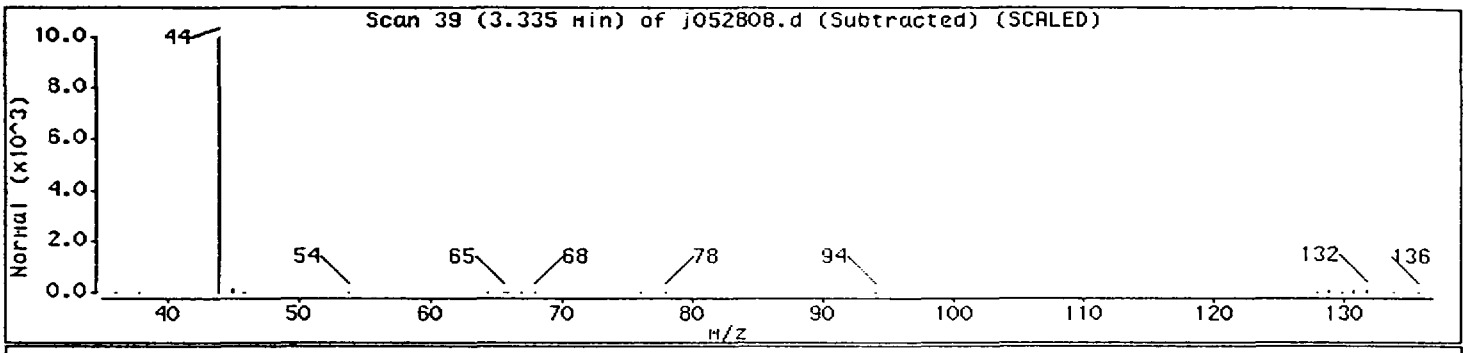
Date : 28-MAY-1997 14:11
Instrument: msdj.i
Client ID: 051497D1
Column phase: RTx-624 Column diameter: 0.58

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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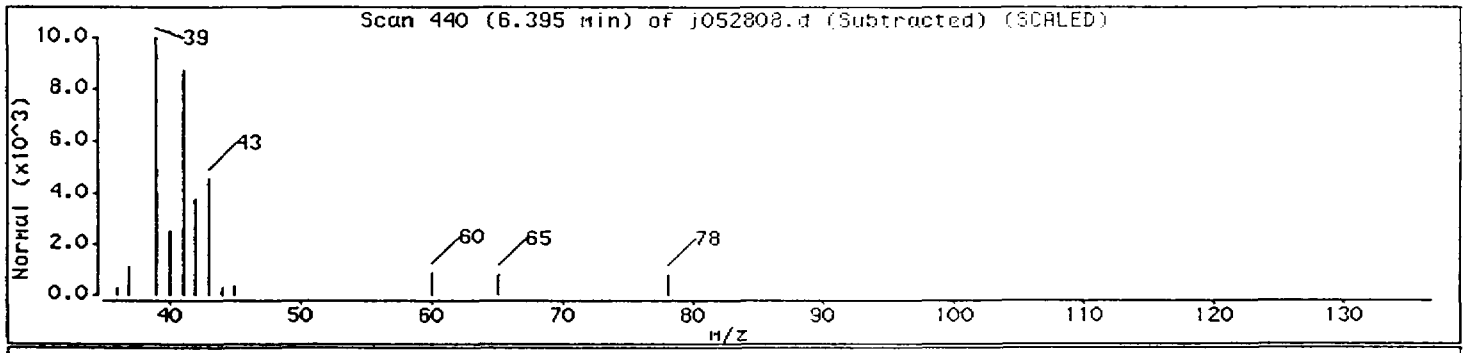

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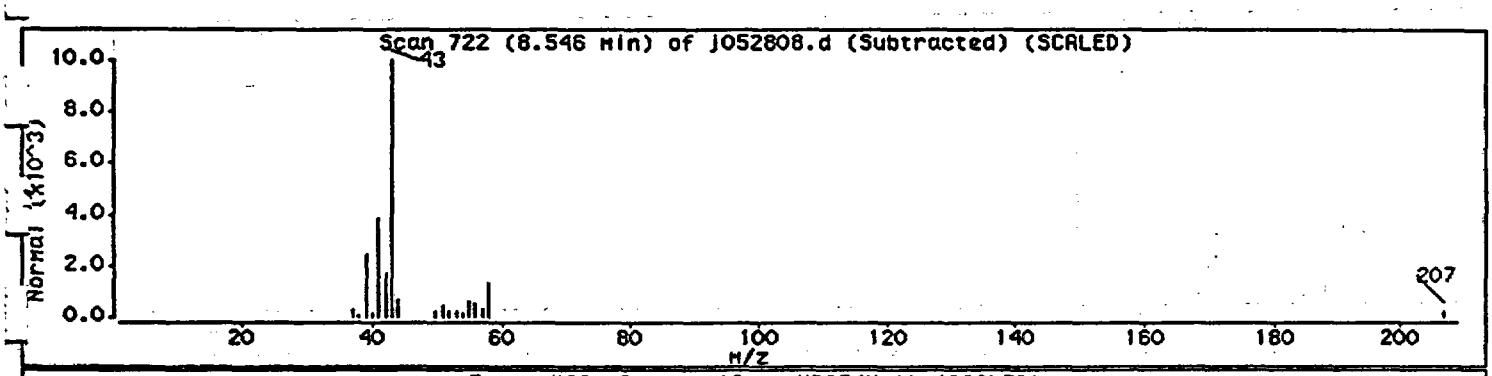
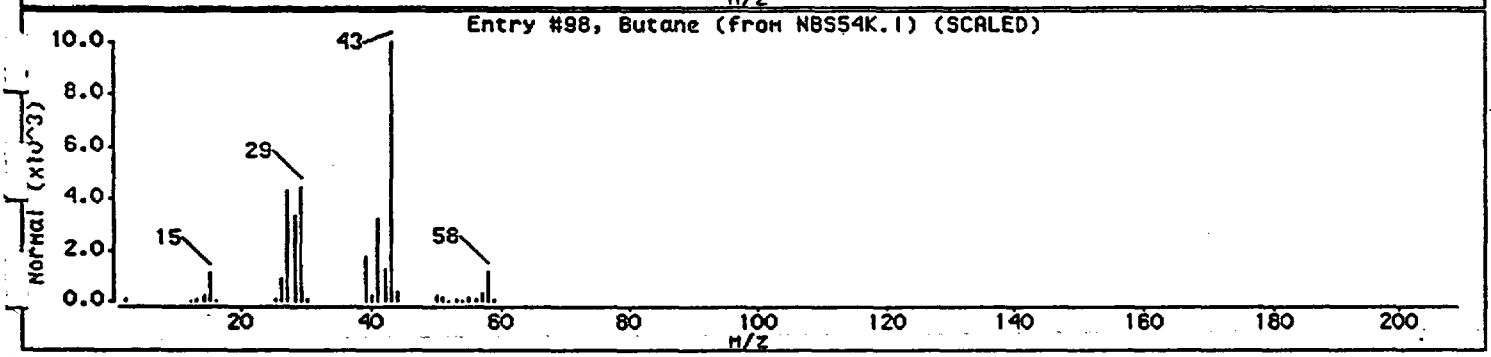
Date : 28-MAY-1997 14:11
Instrument: msdj.i
Client ID: 051497D1
Column phase: RTx-624 Column diameter: 0.58

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Butane	106-97-8	NBS54K.I	98	59





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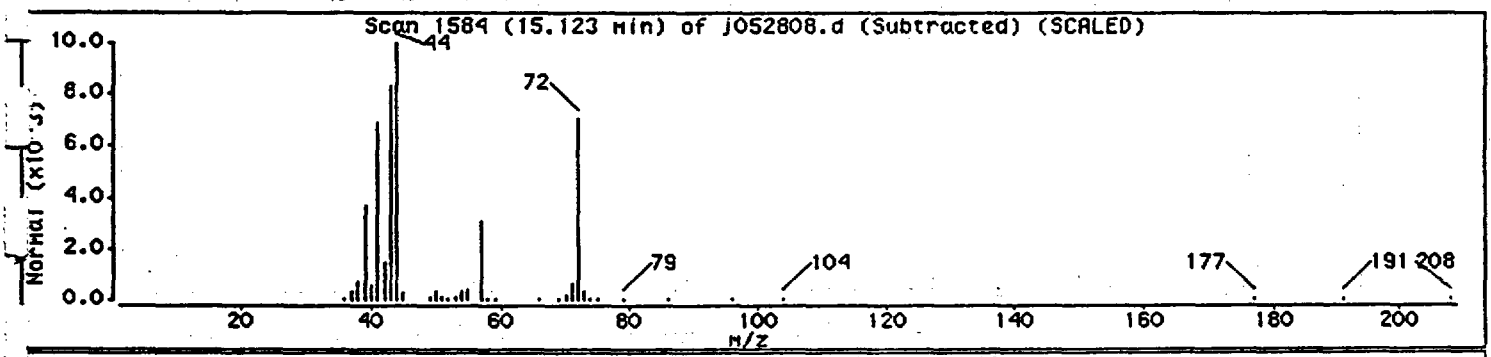
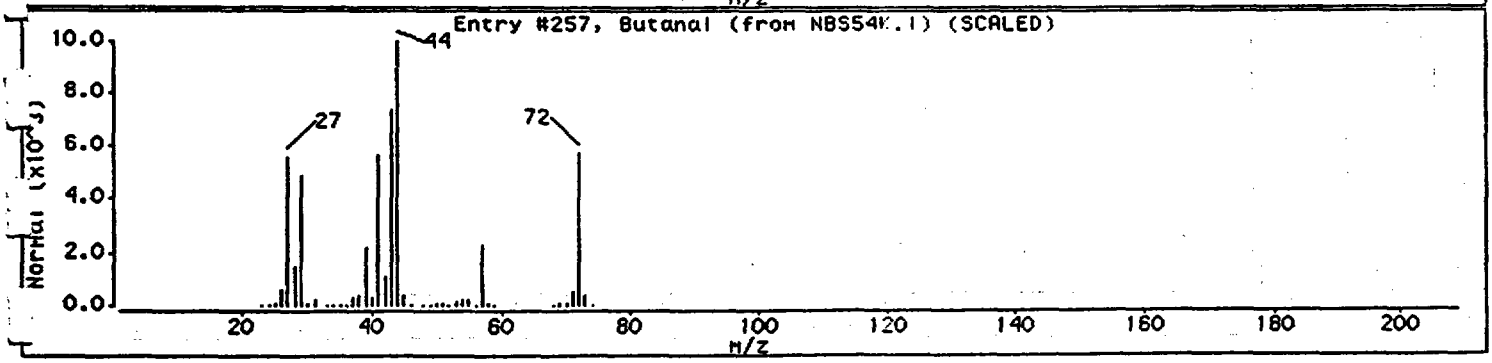
Butanal	123-72-8	NBS54K.I	257	91





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Date : 28-MAY-1997 14:11
Instrument: msdj.i
Client ID: 05149701
Column phase: RTx-624 Column diameter: 0.58

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
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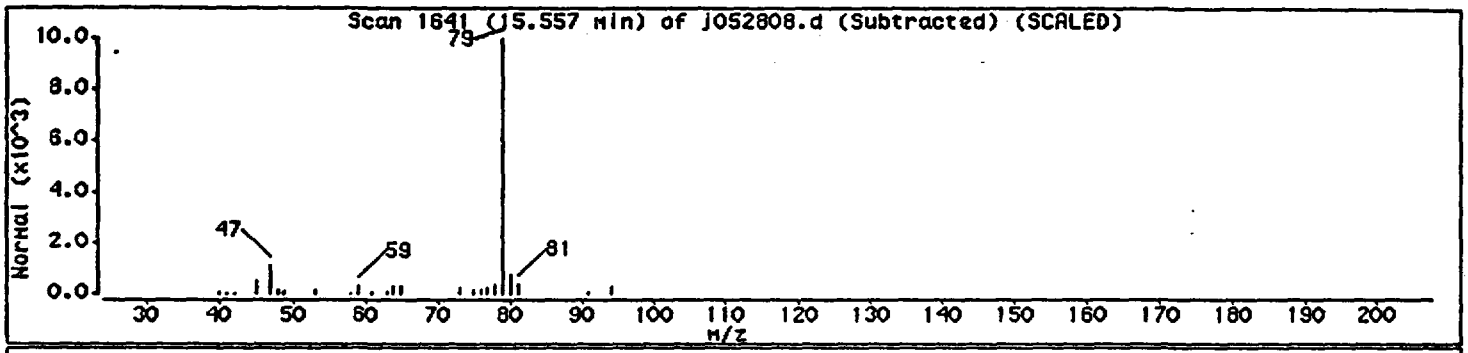
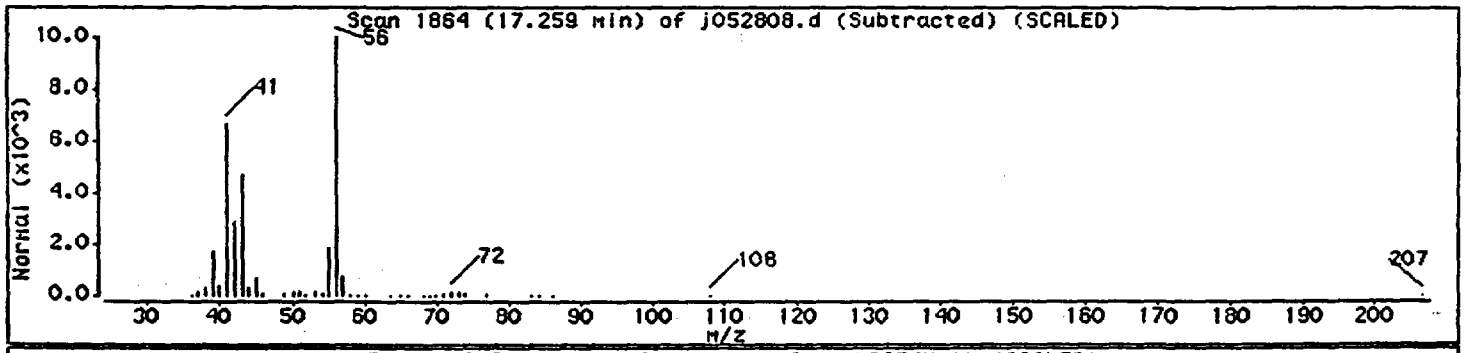
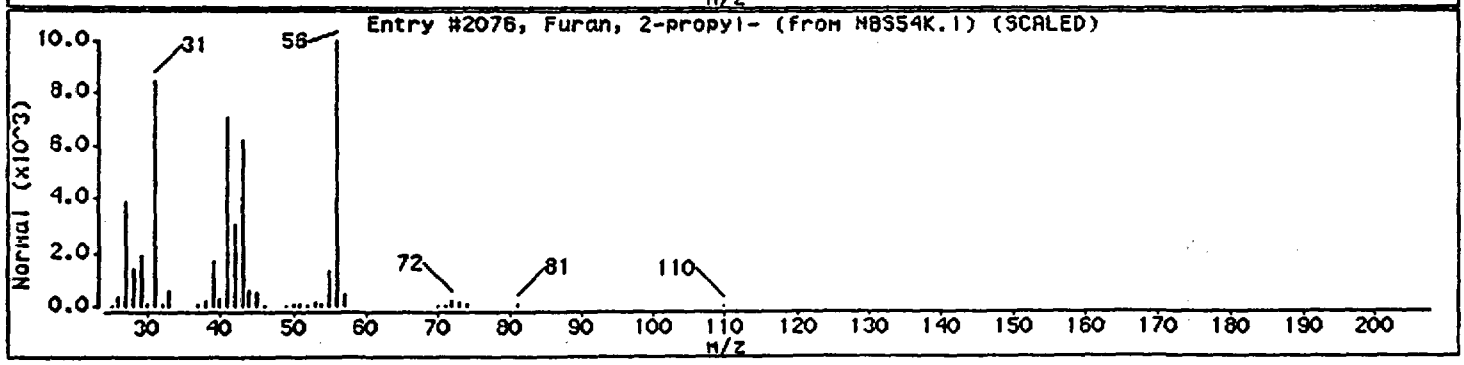


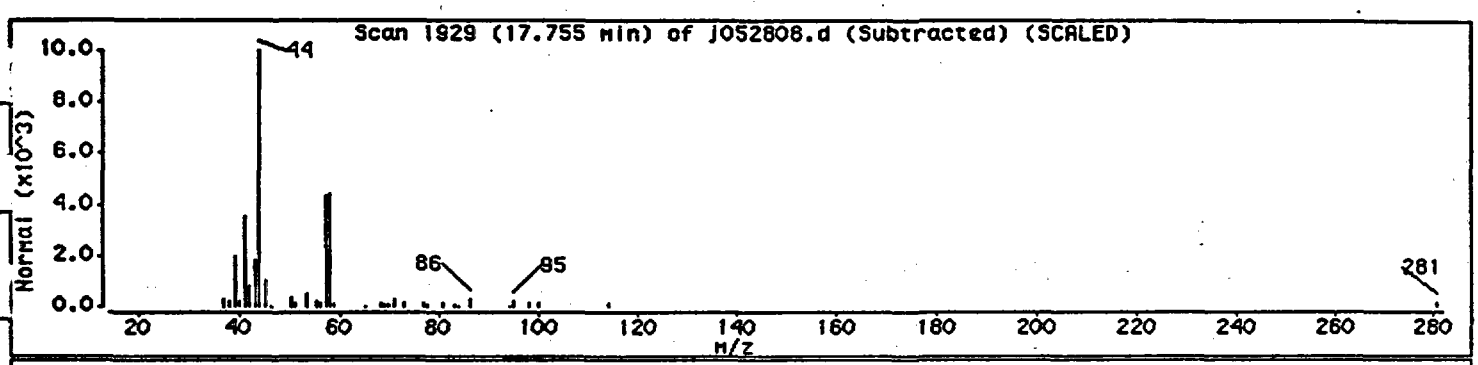
Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Furan, 2-propyl-	4229-91-8	NBS54K.I	2076	74



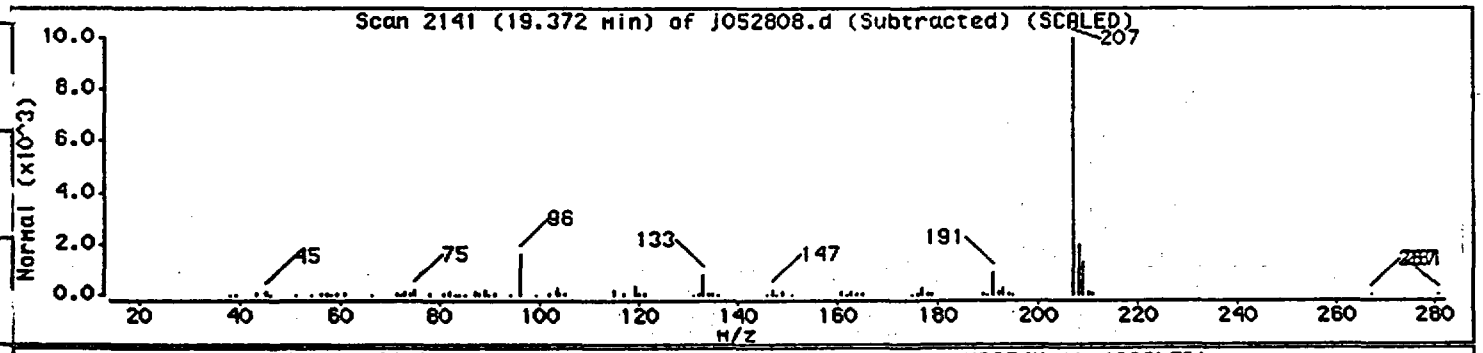


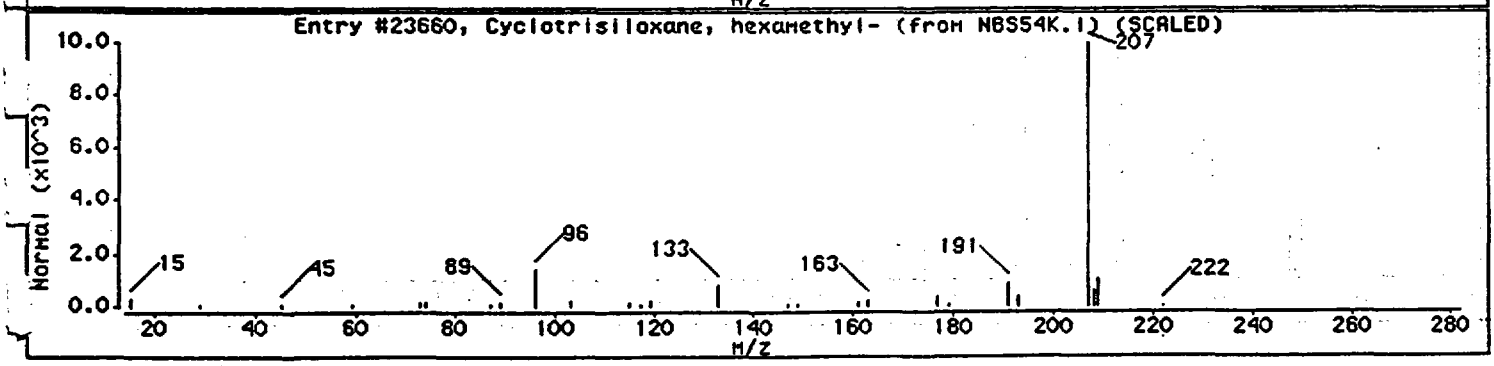
Data File: /chem/msdj.i/j-28may.b/j052808.d
Date : 28-MAY-1997 14:11
Instrument: msdj.i
Client ID: 051497D1
Column phase: RTx-624 Column diameter: 0.58

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
UNKNOWN			--	



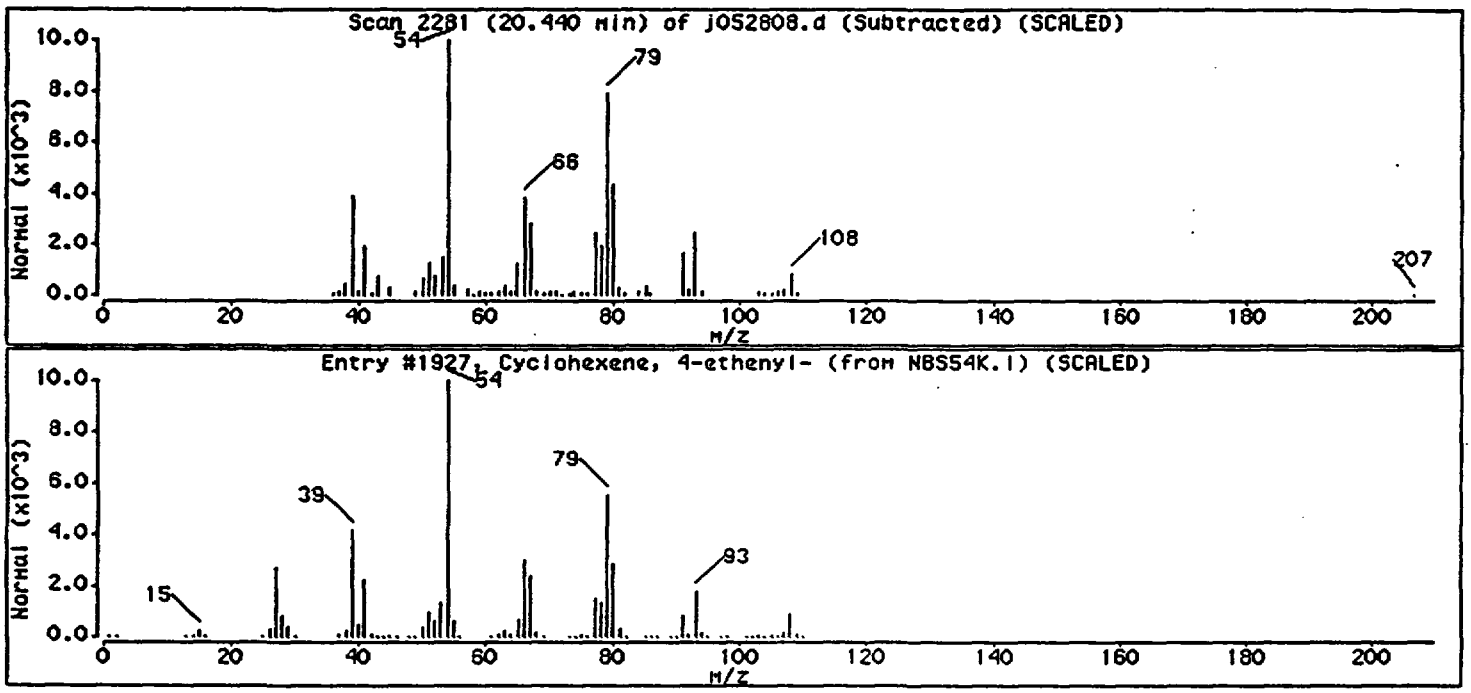
Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Cyclotrisiloxane, hexamethyl-	541-05-9	NBS54K.i	23660	80



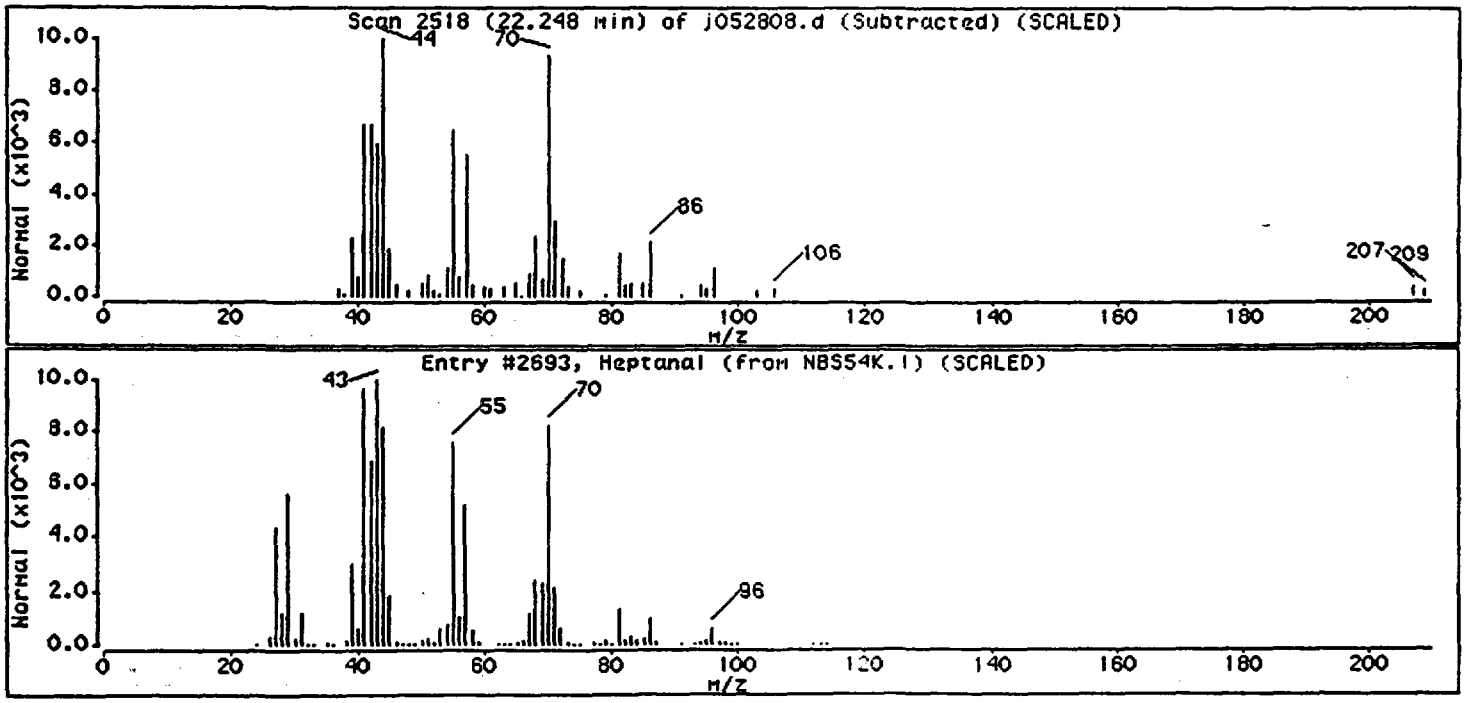


Data File: /chem/msdj.i/j-28may.b/j052808.d
Date : 28-MAY-1997 14:11
Instrument: msdj.i
Client ID: 051497D1
Column phase: RTx-624 Column diameter: 0.58

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Cyclohexene, 4-ethenyl-	100-40-3	NBS54K.I	1927 --	87

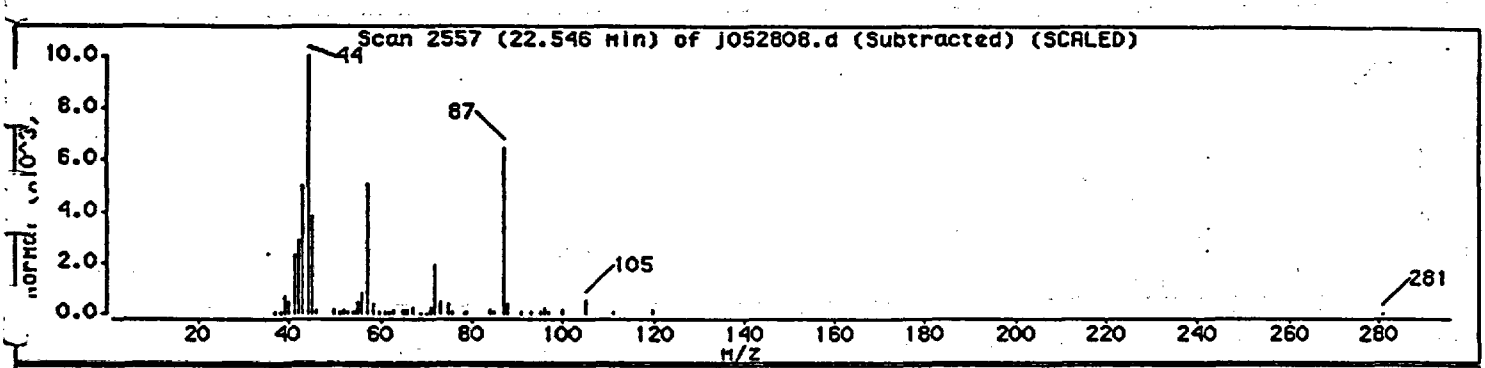


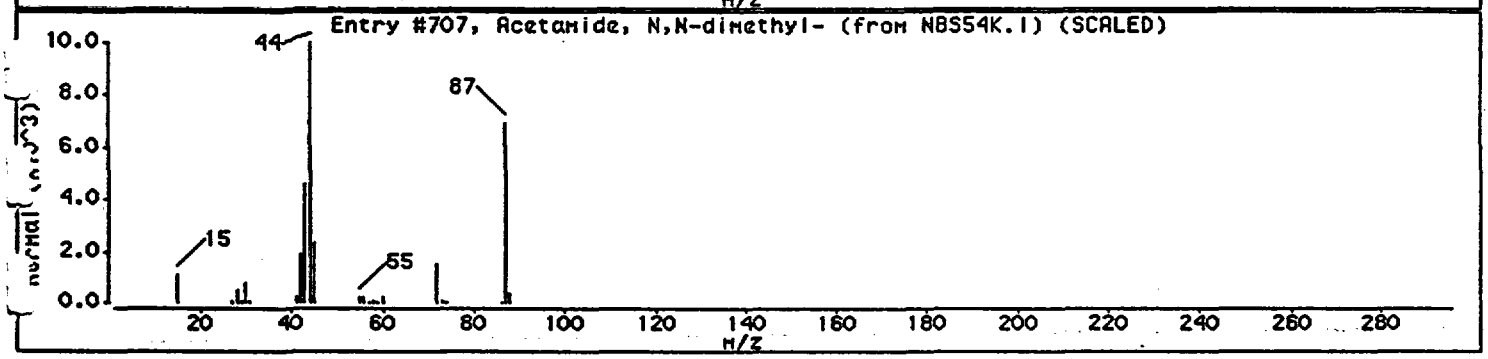
Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Heptanal	111-71-7	NBS54K.I	2693	64



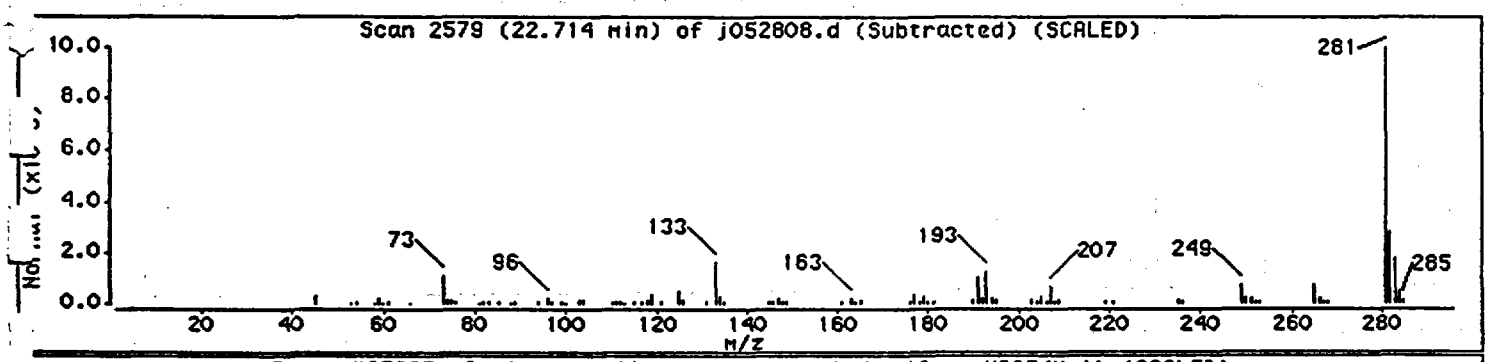
Data File: /chem/msdj.i/j-28may.b/j052808.d
Date : 28-MAY-1997 14:11
Instrument: msdj.i
Client ID: 051497D1
Column phase: RTx-624 Column diameter: 0.58

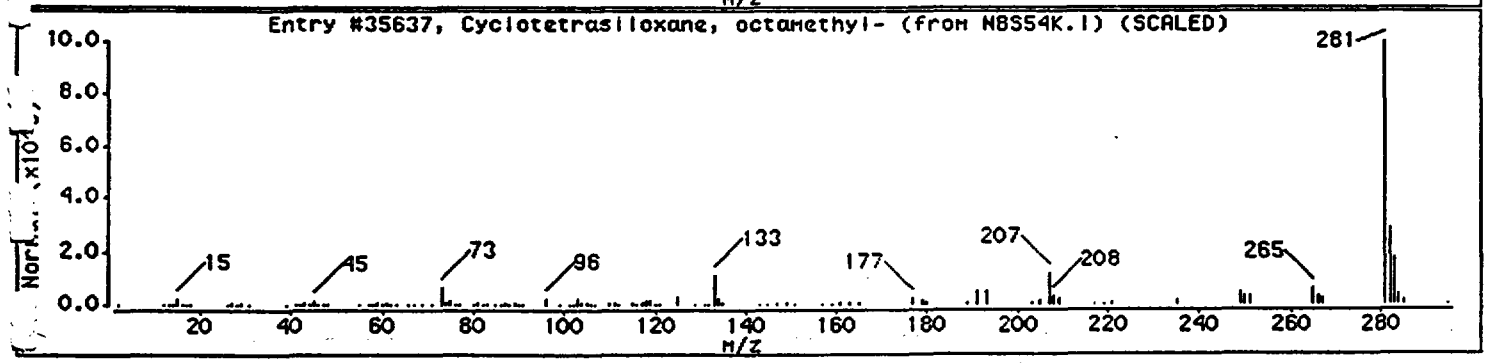
Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Acetamide, N,N-dimethyl-	127-19-5	NBS54K.I	707	59





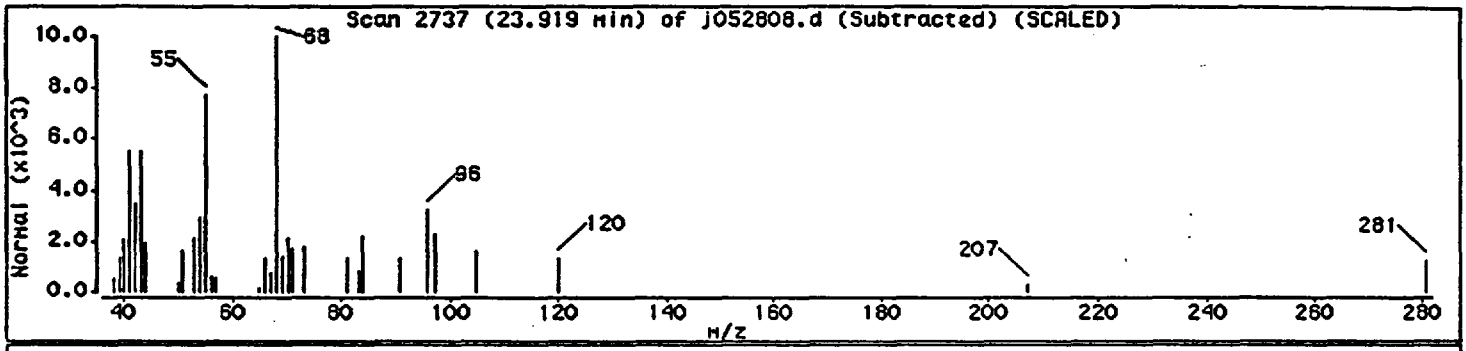
Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Cyclotetrasiloxane, octamethyl-	556-67-2	NBS54K.I	35637	64



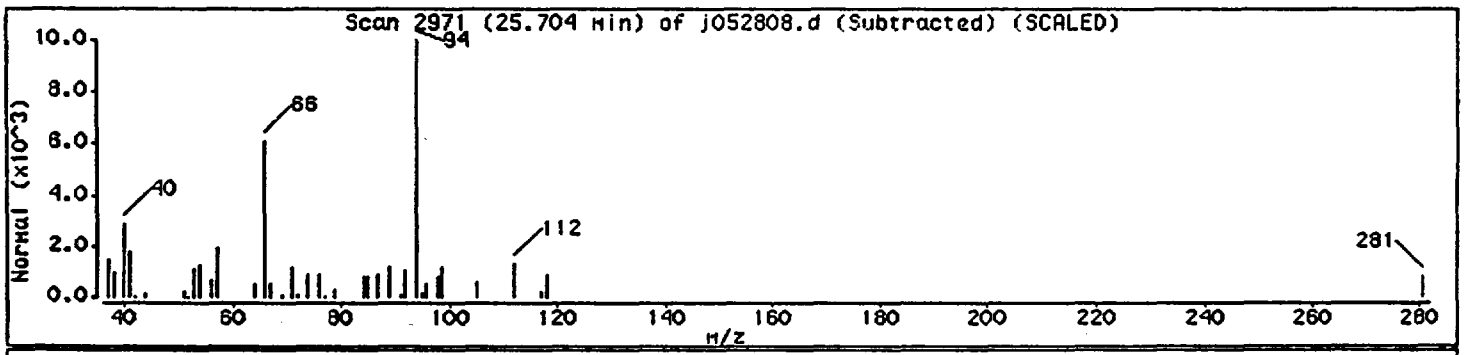


Data File: /chem/msdj.i/j-28may.b/j052808.d
Date : 28-MAY-1997 14:11
Instrument: msdj.i
Client ID: 051497D1
Column phase: RTx-624 Column diameter: 0.58

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
UNKNOWN				--



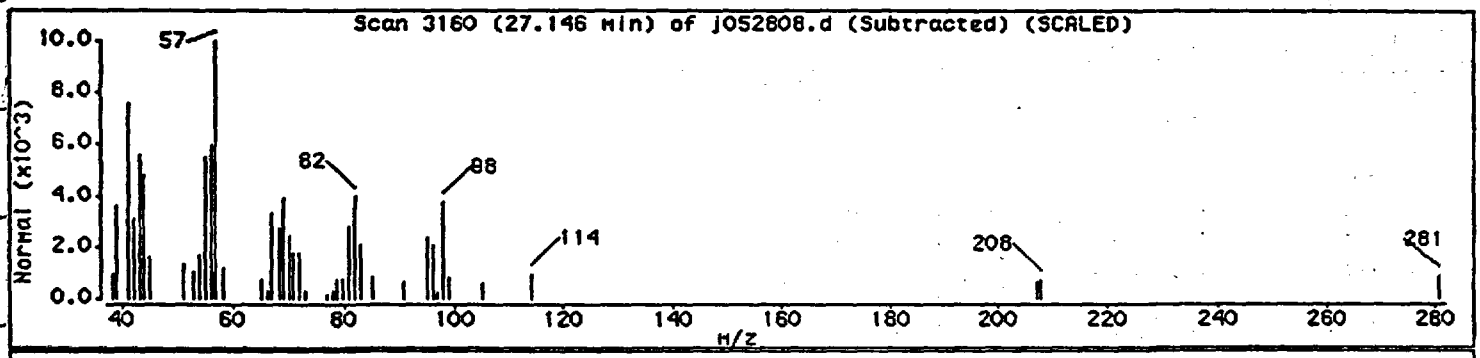
Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
UNKNOWN				



Data File: /chem/msdj.l/j-28may.b/j052808.d

Date : 28-MAY-1997 14:11
Instrument: msdj.l
Client ID: 051497D1
Column phase: RTx-624 Column diameter: 0.58

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
UNKNOWN			--	



0074

Air Toxics Limited

INITIAL CALIBRATION DATA

MH 5/28/97

Start Cal Date : 27-MAY-1997 10:54
End Cal Date : 27-MAY-1997 15:33
Quant Method : ISTD
Origin : Force
Target Version : 3.12
Integrator : HP RTE
Method file : /chem/msdj.i/j-27may.b/to140527.m
Cal Date : 28-May-1997 13:43 mhe
Curve Type : Average

mhe 5-28-97

Calibration File Names:
Level 2: /chem/msdj.i/j-27may.b/j052707.d
Level 3: /chem/msdj.i/j-27may.b/j052709.d
Level 4: /chem/msdj.i/j-27may.b/j052710.d
Level 5: /chem/msdj.i/j-27may.b/j052704.d
Level 6: /chem/msdj.i/j-27may.b/j052705.d

Compound	0.5000 Level 2	5 Level 3	10 Level 4	25 Level 5	50 Level 6	RRF	% RSD	
1 Propylene	0.22962	0.21299	0.21421	0.21030	0.23196	0.21982	4.617	
2 Dichlorodifluoromethane/FR 12	2.03509	1.89718	1.88634	1.85834	1.87852	1.91109	3.702	
3 Freon 114	1.61562	1.42090	1.45447	1.42222	1.45788	1.47422	5.490	
4 Chloromethane	0.96819	0.69977	0.77346	0.74636	0.75928	0.78941	13.136	
5 Vinyl Chloride	0.54950	0.60207	0.60692	0.60037	0.63708	0.59919	5.261	
6 1,3-Butadiene	0.30425	0.36183	0.37331	0.39178	0.40614	0.36746	10.670	
7 Bromomethane	0.16979	0.18955	0.18342	0.11619	0.18081	0.16795	17.746	
8 Chloroethane	0.41823	0.37834	0.36638	0.35552	0.36897	0.37749	6.406	
9 Trichlorofluoromethane/FR 11	2.63320	2.45053	2.28663	2.22028	2.21122	2.36037	7.634	
10 Vinyl Bromide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
11 Ethanol	0.19445	0.18064	0.20785	0.22135	0.13068	0.18699	18.683	
12 Acrolein	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
13 1,1-Dichloroethene	0.82442	0.85503	0.85235	0.81446	0.80307	0.82986	2.777	
14 Freon 113	1.71834	1.63116	1.57984	1.53224	1.49371	1.59106	5.521	
* 15 Acetone	1.40778	1.37006	1.36726	1.31234	1.41162	1.37400	2.916	
16 Propylene oxide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
17 Carbon Disulfide	2.67420	2.65405	2.68054	2.56515	2.51572	2.61793	2.809	
18 2-Propanol	1.01828	1.15823	1.20869	1.23670	1.28739	1.18186	8.689	
19 Acetonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
21 Methylene Chloride	1.02448	0.89322	0.87773	0.82013	0.81204	0.88552	9.633	
22 Acrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
23 trans-1,2-Dichloroethene	1.12837	0.97652	0.96922	0.91660	0.88697	0.97554	9.550	
24 MTBE	2.33468	2.42350	2.56160	2.54832	2.49800	2.47322	3.822	
25 Hexane	1.73126	1.64916	1.64605	1.53094	1.49769	1.61102	5.921	
26 1,1-Dichloroethane	1.83450	1.82377	1.79494	1.73089	1.69298	1.77542	3.448	
27 Vinyl Acetate	1.41710	2.00723	2.07099	2.07369	2.12479	1.93876	15.194	
28 Chloroprene	0.50041	0.62539	0.62016	0.61198	0.61713	0.59501	8.925	

Report Date : 28-May-1997 13:45

Air Toxics Limited

INITIAL CALIBRATION DATA

Start Cal Date : 27-MAY-1997 10:54
End Cal Date : 27-MAY-1997 15:33
Quant Method : ISTD
Origin : Force
Target Version : 3.12
Integrator : HP RTE
Method file : /chem/msdj.i/j-27may.b/to140527.m
Cal Date : 28-May-1997 13:43 mhe
Curve Type : Average

Compound	0.5000 Level 2	5 Level 3	10 Level 4	25 Level 5	50 Level 6	RRF	% RSD	
29 2-Butanone	0.56242	0.49624	0.51126	0.50005	0.49886	0.51376	5.410	
30 cis-1,2-Dichloroethene	1.15740	1.13557	1.13089	1.07543	1.04046	1.10795	4.363	
**31 Ethyl acetate	+++++	2.14157	2.46788	2.26841	+++++	2.29300	7.175	<-
33 Tetrahydrofuran	0.78295	0.81993	0.84899	0.81841	0.79928	0.81391	3.047	
34 Chloroform	2.20571	2.14240	2.11810	2.04964	1.99287	2.10174	3.931	
35 1,1,1-Trichlorethane	2.26665	2.17107	2.14453	2.10303	2.07802	2.15266	3.401	
36 Cyclohexane	1.85562	1.81184	1.79157	1.70925	1.69762	1.77318	3.828	
38 Carbon Tetrachloride	2.23763	2.21100	2.19072	2.19263	2.17210	2.20082	1.125	
39 Benzene	0.84570	0.76059	0.75655	0.71854	0.73041	0.76236	6.534	
40 1,2-Dichloroethane	0.33290	0.32882	0.33120	0.32318	0.32526	0.32827	1.231	
41 Heptane	0.57834	0.44236	0.45373	0.41647	0.42329	0.46284	14.314	
43 Trichloroethene	0.36385	0.33951	0.34704	0.33395	0.34080	0.34503	3.335	
44 1,2-Dichloropropane	0.31614	0.29589	0.29729	0.28359	0.28798	0.29618	4.223	
20 Methyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
45 1,4-Dioxane	0.13429	0.17578	0.18693	0.18736	0.19846	0.17657	14.134	
46 Bromodichloromethane	0.54851	0.54489	0.55312	0.54144	0.55102	0.54779	0.857	
47 Bicycloheptadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
48 cis-1,3-Dichloropropene	0.44031	0.47039	0.48163	0.47220	0.48262	0.46943	3.658	
49 4-Methyl-2-pentanone	0.52298	0.55820	0.58125	0.56582	0.58580	0.56281	4.429	
51 Octane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
52 Toluene	0.67190	0.62592	0.62492	0.59396	0.58886	0.62110	5.337	
53 trans-1,3-Dichloropropene	0.33564	0.37363	0.38456	0.37459	0.38238	0.37016	5.369	
**54 Ethyl butyrate	+++++	0.31351	0.40718	0.36894	+++++	0.36320	12.967	<-
55 1,1,2-Trichloroethane	0.32510	0.32678	0.32592	0.30797	0.30804	0.31876	3.086	
56 DMDS	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
57 2-Hexanone	0.45801	0.53087	0.59221	0.55752	0.55506	0.53874	9.307	
58 Tetrachloroethene	0.47709	0.46290	0.45431	0.44154	0.44143	0.45546	3.321	
**59 Methyl valerate	+++++	0.44185	0.56309	0.51426	+++++	0.50640	12.046	<-
60 Dibromochloromethane	0.47939	0.50787	0.51233	0.50154	0.50397	0.50102	2.547	
61 1,2-Dibromoethane	0.48349	0.49215	0.49697	0.47906	0.48065	0.48646	1.593	
63 Chlorobenzene	0.87762	0.85048	0.84450	0.80590	0.81161	0.83802	3.527	
64 Ethyl Benzene	0.49013	0.50192	0.50241	0.47393	0.47506	0.48869	2.837	
65 m,p-Xylene	0.55473	0.57269	0.57099	0.53725	0.52521	0.55217	3.768	
** 66 Ethyl valerate	+++++	0.23024	0.25323	0.23221	+++++	0.23860	5.341	<-

Air Toxics Limited

INITIAL CALIBRATION DATA

Start Cal Date : 27-MAY-1997 10:54
End Cal Date : 27-MAY-1997 15:33
Quant Method : ISTD
Origin : Force
Target Version : 3.12
Integrator : HP RTE
Method file : /chem/msdj.i/j-27may.b/to140527.m
Cal Date : 28-May-1997 13:43 mhe
Curve Type : Average

Compound	0.5000 Level 2	5 Level 3	10 Level 4	25 Level 5	50 Level 6	RRF	% RSD	
67 o-Xylene	0.40081	0.42551	0.42072	0.39936	0.39269	0.40782	3.530	
68 Styrene	0.55721	0.66557	0.68317	0.65312	0.65833	0.64348	7.700	
69 Bromoform	0.25545	0.26650	0.27329	0.26782	0.27026	0.26666	2.543	
* *70 a-Pinene	+++++	0.13483	0.11836	0.09872	+++++	0.11730	15.413	<-
72 1,1,2,2-Tetrachloroethane	0.80272	0.79133	0.78253	0.74124	0.72352	0.76827	4.440	
* *73 B-Pinene	+++++	0.31331	0.42821	0.36518	+++++	0.36890	15.597	<-
74 4-Ethyltoluene	1.01410	0.99912	1.04838	1.01761	1.00915	1.01767	1.820	
75 1,3,5-Trimethylbenzene	0.65488	0.74040	0.67321	0.64050	0.66395	0.67459	5.740	
76 1,2,4-Trimethylbenzene	0.55741	0.61807	0.60218	0.57980	0.59202	0.58990	3.890	
* *77 D-Limonene	+++++	0.37355	0.45801	0.37805	+++++	0.40320	11.785	<-
78 alpha-Methyl Styrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
79 1,3-Dichlorobenzene	0.64426	0.65530	0.64081	0.62330	0.62961	0.63866	1.966	
80 1,4-Dichlorobenzene	0.61270	0.62477	0.64081	0.59103	0.60398	0.61466	3.111	
81 Benzyl Chloride	0.64780	0.87465	0.93096	0.94471	1.01546	0.88271	15.925	
82 1,2-Dichlorobenzene	0.58834	0.60627	0.59142	0.56842	0.58369	0.58763	2.325	
83 Dicyclopentadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
84 1,2-Dibromo-3-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
85 1,2,4-Trichlorobenzene	0.18543	0.18956	0.19591	0.19110	0.22844	0.19809	8.773	
86 Hexachlorobutadiene	0.29887	0.33569	0.32601	0.30944	0.32719	0.31944	4.671	
$ 37 Octafluorotoluene	3.29734	3.31670	3.29266	3.32782	3.25820	3.29900	0.809	
$ 50 Toluene-d8	0.93634	0.94139	0.94291	0.94983	0.97361	0.94882	1.546	
$ 71 Bromofluorobenzene	0.79848	0.78817	0.80301	0.79982	0.81253	0.80040	1.096	

*. The lowest level of Acetone is 2 ppbv ref. to J052708.

* +. These 3 spc. compds are 3 pt. calibration. they are 5 ppbv 10 ppbv and 25 ppbv. ref. to J052712, J052715 + J052718.

MH
5/28/97

Name: Acetone

Mass: 43.00 Target Ratio: 100.00

Ratio Limits: 50.00 150.00

MS Tune Ratio Divisor Signal #: 1

Curve Type: Averaged

Origin: ✓ None, ✓ Include, ~ Force

Calibration Curve Info.:

y = + 1/(1.374e+00)*(x)

%RSD: 2.916

Continuing Cal Rf: 1.370e+00 % Difference: -16.069

Ok

Update Calibration

Calibration Curve

Help

Levl	Active	Reps	Amount	Response(Signal and STD)	
2	✓ Disable	1	2.00000	94044	167008
3	_ Disable	1	5.00000	228179	166547
4	_ Disable	1	10.00000	461844	168894
5	_ Disable	1	25.00000	112526	171489
6	_ Disable	1	50.00000	2377057	168392

Air Toxics Limited

AMBIENT AIR METHOD TO14

Data file : /chem/msdj.i/j-27may.b/j052708.d
Lab Smp Id:
Inj Date : 27-MAY-1997 14:01
Operator : MH Inst ID: msdj.i
Smp Info : 2.5mL#315-26 25ppbv TO14(0.5ppbv)+100extra(2
Misc Info : The Lowest Level for Acetone Only
Comment :
Method : /chem/msdj.i/j-27may.b/to140527.m
Meth Date : 27-May-1997 16:14 mhe Quant Type: ISTD
Cal Date : 27-MAY-1997 14:45 Cal File: j052709.d
Als bottle: 1
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: Acetone.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
* 32 Bromochloromethane					CAS #: 74-97-5			
15.693	15.699 (1.000)	130	167008	5.0			100.00	9325(Q)
15.693	15.699 (0.000)	128	38768			29.71- 129.71	23.21	
15.693	15.699 (0.000)	49	62536			85.18- 185.18	37.44	
$ 37 Octafluorotoluene					CAS #: 434-64-0			
16.235	16.240 (1.034)	217	556829	5.0	5.0		100.00	7264
16.235	16.240 (0.000)	186	105232			8.78- 108.78	18.90	
* 42 1,4-Difluorobenzene					CAS #: 540-36-3			
17.036	17.034 (1.000)	114	762955	5.0			100.00	9703
17.036	17.034 (0.000)	88	39384			0.00- 67.09	5.16	
$ 50 Toluene-d8					CAS #: 2037-26-5			
19.043	19.048 (1.118)	98	701586	4.9	4.9		100.00	9974
19.043	19.048 (0.000)	70	25944			0.00- 61.62	3.70	
19.043	19.048 (0.000)	100	151168			19.06- 119.06	21.55	
* 62 Chlorobenzene-d5					CAS #: 3114-55-4			
21.095	21.100 (1.000)	117	816189	5.0			100.00	10000
21.095	21.100 (0.000)	82	118320			3.25- 103.25	14.50	

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
71 Bromofluorobenzene						CAS #: 460-00-4			
22.903	22.916	(1.086)	95	642525	5.0	5.0		100.00	8814(Q)
22.903	22.916	(0.000)	174	118768			26.29- 126.29	18.48	
22.903	22.916	(0.000)	176	116384			23.94- 123.94	18.11	
15 Acetone						CAS #: 67-64-1			
12.474	12.448	(0.795)	43	94044	2.0	2.0		100.00	
12.474	12.448	(0.795)	58	28132			0.00- 81.57	29.91	

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/msdj.i/j-27may.b/j052708.d
Report Date: 27-May-1997 16:17

Air Toxics Limited

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdj.i
Lab File ID: j052708.d
Lab Smp Id:
Analysis Type: VOA
Quant Type: ISTD
Operator: MH
Method File: /chem/msdj.i/j-27may.b/to140527.m
Misc Info: The Lowest Level for Acetone Only

Calibration Date: 05/27/97
Calibration Time: 1445

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	% DIFF
32 Bromochloromethane	166547	99928	233166	167008	0.28
42 1,4-Difluorobenzene	763110	457866	1068354	762955	-0.02
62 Chlorobenzene-d5	806867	484120	1129614	816189	1.16

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	% DIFF
32 Bromochloromethane	15.70	15.20	16.20	15.69	-0.03
42 1,4-Difluorobenzene	17.03	16.53	17.53	17.04	0.02
62 Chlorobenzene-d5	21.10	20.60	21.60	21.09	-0.02

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

Data File: /chem/msdj.i/j-27may.b/j052708.d
Report Date: 27-May-1997 16:17

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-27may.b/to140527.m
Misc Info: The Lowest Level for Acetone Only

Client SDG: j-27may
Fraction: VOA
Operator: MH
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 37 Octafluorotoluene	5.0	5.0	100.53	60-140
$ 50 Toluene-d8	5.0	4.9	97.68	60-140
$ 71 Bromofluorobenzene	5.0	5.0	99.88	60-140

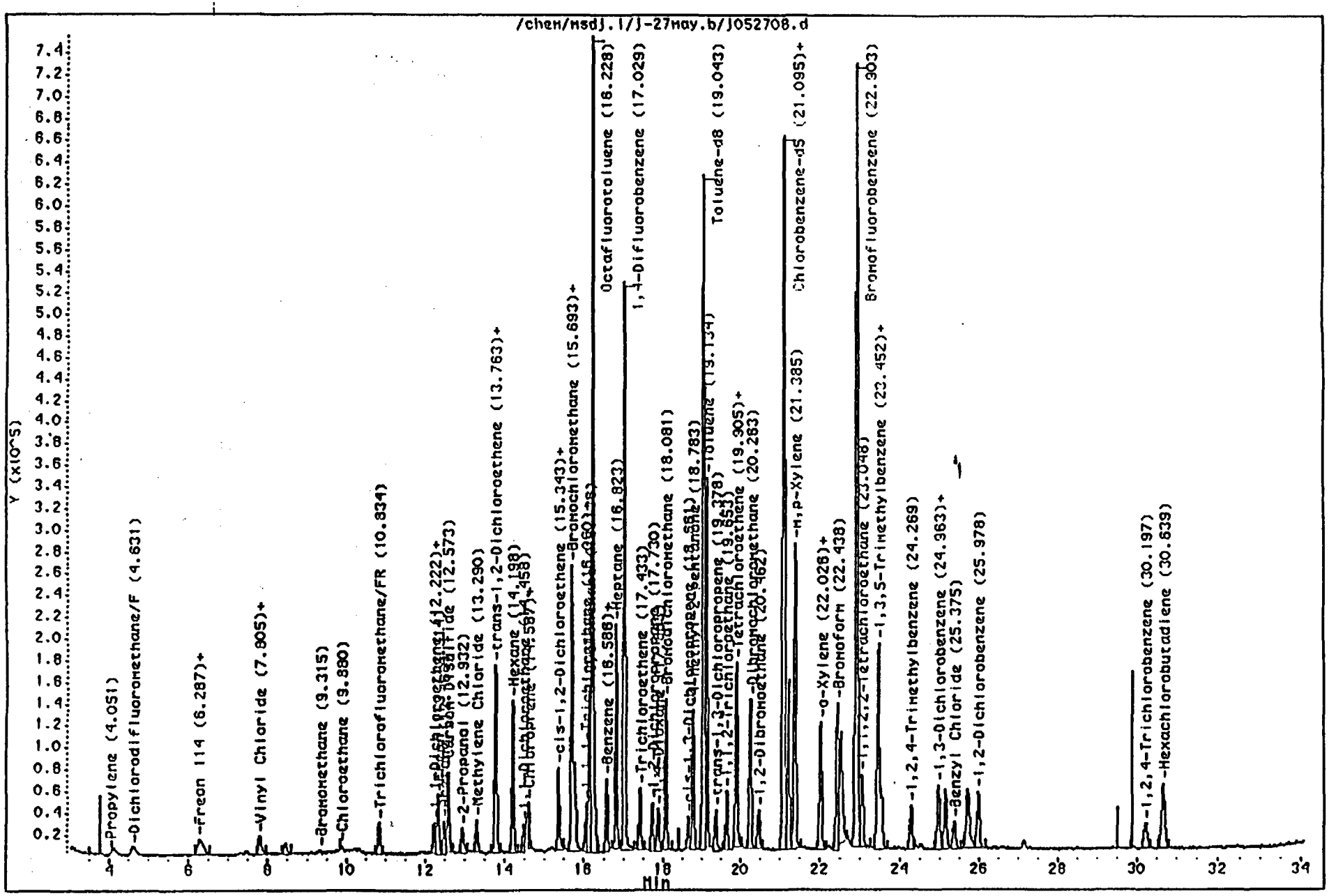
11082

Data File: /chem/msdj.i/j-27may.b/j052708.d
Date : 27-MAY-1997 14:01
Client ID:
Sample Info: 2.5MLM315-26 25ppbv TO14(0.5ppbv)+100extra(2

Column phase: RTx-624

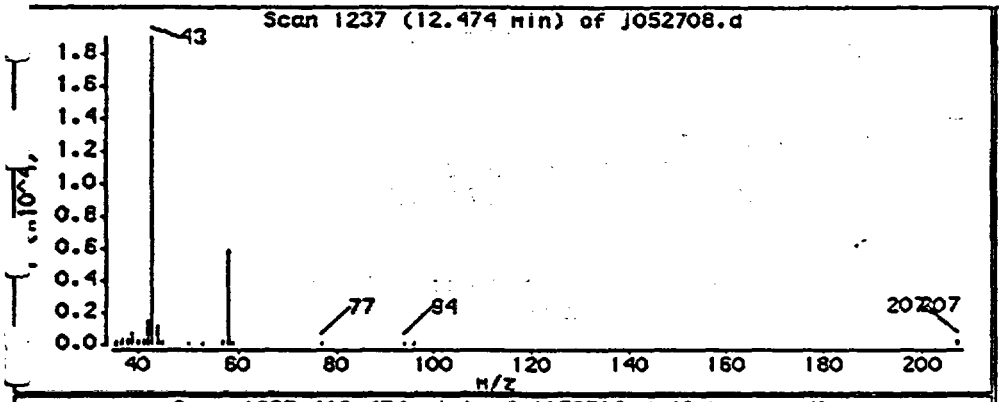
Instrument: msdj.i

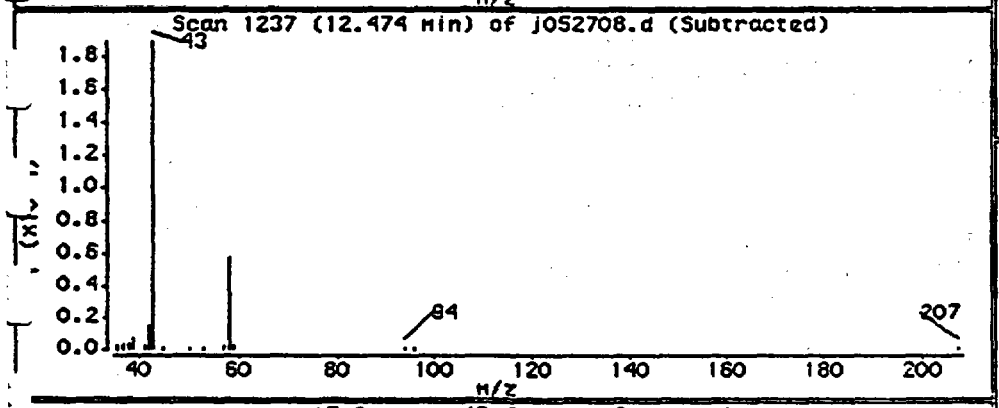
Operator: MH
Column diameter: 0.58

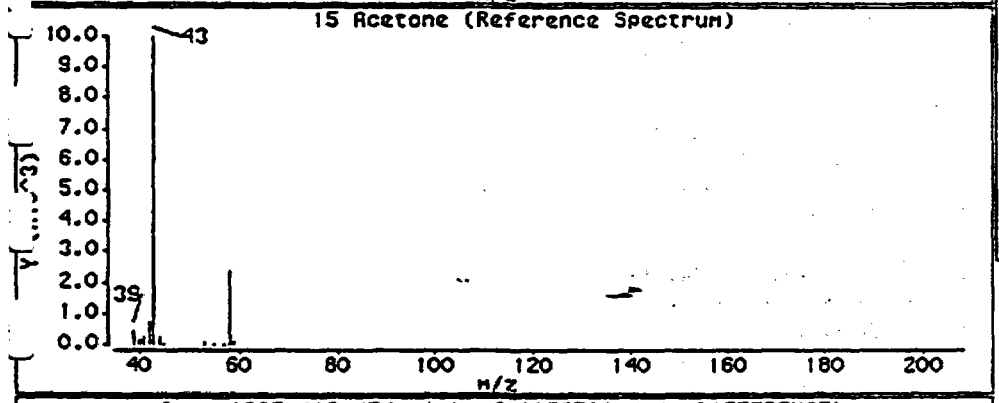


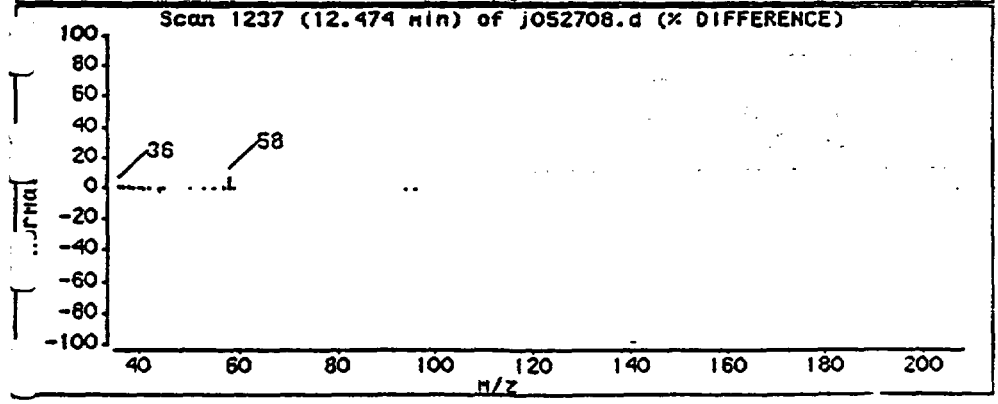
Data File: /chem/msdj.i/j-27may.b/j052708.d
Date : 27-MAY-1997 14:01
Client ID:
Instrument: msdj.i
Sample Info: 2.5ML#315-26 25ppbv TO14(0.5ppbv)+100extra(2
Operator: MH
Column phase: RTx-624
Column diameter: 0.58

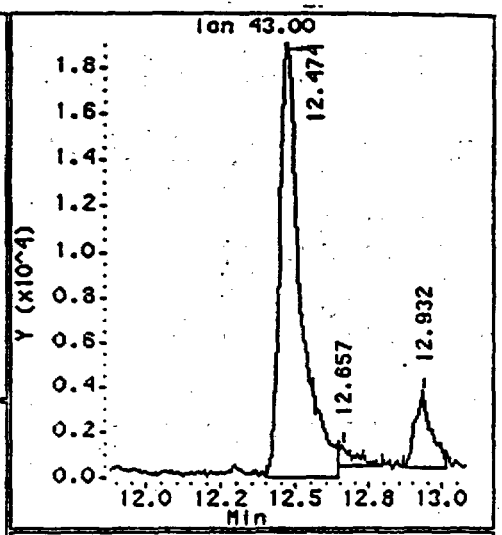
15 Acetone

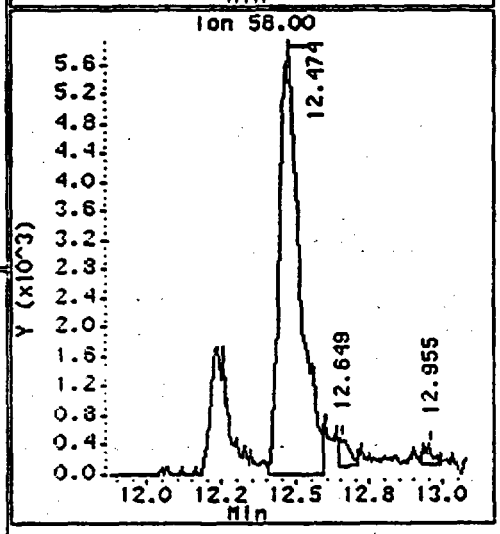












0084

Air Toxics Limited

AMBIENT AIR METHOD TO14

Data file : /chem/msdj.i/j-27may.b/j052719.d
Lab Smp Id: Second Source Client Smp ID: VSTD005
Inj Date : 27-MAY-97 22:52
Operator : JMP Inst ID: msdj.i
Smp Info : 296-86+296-55+34400 5ppbv
Misc Info : 50 ul + 50 ul + 2.5 ml
Comment :
Method : /chem/msdj.i/j-27may.b/to140527.m
Meth Date : 27-May-1997 22:19 jparker Quant Type: ISTD
Cal Date : 27-MAY-1997 19:41 Cal File: j052715.d
Als bottle: 1
Dil Factor: 20.000
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

3 TO-14 OUT
3 AT LIST OUT
5/27/97

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
* 32 Bromochloromethane					CAS #: 74-97-5			
15.706	15.707 (1.000)	130	172429	5.0			100.00	9420
15.706	15.707 (0.000)	128	38880			27.26- 127.26	78.63	
15.706	15.707 (0.000)	49	66320			80.99- 180.99	134.12	
* 42 1,4-Difluorobenzene					CAS #: 540-36-3			
17.041	17.042 (1.000)	114	785263	5.0			100.00	9592
17.041	17.042 (0.000)	88	42064			0.00- 66.83	17.28	
* 62 Chlorobenzene-d5					CAS #: 3114-55-4			
21.108	21.101 (1.000)	117	827606	5.0			100.00	9924
21.108	21.101 (0.000)	82	120944			6.03- 106.03	54.18	
$ 37 Octafluorotoluene					CAS #: 434-64-0			
16.240	16.241 (1.034)	217	549231	5.0	5.0		100.00	7294
16.240	16.241 (0.000)	186	107136			8.86- 108.86	59.94	
$ 50 Toluene-d8					CAS #: 2037-26-5			
19.055	19.056 (1.118)	98	743582	5.1	5.1		100.00	9900
19.055	19.056 (0.000)	70	27496			0.00- 61.51	12.28	
19.055	19.056 (0.000)	100	154368			17.92- 117.92	68.93	

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
71 Bromofluorobenzene					CAS #: 460-00-4			
22.923	22.917 (1.086)	95	648928	5.0	5.0		100.00	8795
22.923	22.917 (0.000)	174	115216			24.11- 124.11	72.56	
22.923	22.917 (0.000)	176	114344			20.77- 120.77	72.01	
1 Propylene					CAS #: 115-07-1			
4.125	4.102 (0.263)	41	31843	4.3	86.7		100.00	7686(Q)
4.125	4.102 (0.000)	42	2596			0.00- 50.00	59.17	
4.125	4.102 (0.000)	39	3597			0.00- 98.26	81.99	
2 Dichlorodifluoromethane/FR 12					CAS #: 75-71-8			
4.652	4.644 (0.296)	85	350712	5.4	107		100.00	9096
4.652	4.644 (0.000)	87	11249			0.00- 80.85	30.40	
3 Freon 114					CAS #: 76-14-2			
6.307	6.292 (0.402)	135	256496	5.2	105		100.00	8744
6.307	6.292 (0.000)	137	9117			0.00- 79.30	31.27	
4 Chloromethane					CAS #: 74-87-3			
6.421	6.414 (0.409)	50	114016	4.7	94.5		100.00	6167
6.421	6.414 (0.000)	52	4505			0.00- 75.63	41.26	
5 Vinyl Chloride					CAS #: 75-01-4			
7.482	7.474 (0.476)	62	114047	5.5	110		100.00	4485
7.482	7.474 (0.000)	64	5651			0.00- 85.46	33.85	
6 1,3-Butadiene					CAS #: 106-99-0			
7.802	7.802 (0.497)	54	48690	3.9	78.0		100.00	6554
7.802	7.802 (0.000)	39	9057			53.02- 153.02	103.63	
7 Bromomethane					CAS #: 74-83-9			
9.321	9.305 (0.593)	94	49050	7.5	150		100.00	6583 Q3
9.321	9.305 (0.000)	96	11273			45.00- 145.00	95.40	
8 Chloroethane					CAS #: 75-00-3			
9.885	9.885 (0.629)	64	77136	5.9	118		100.00	4019
9.885	9.885 (0.000)	66	5349			0.00- 79.53	31.49	
9 Trichlorofluoromethane/FR 11					CAS #: 75-69-4			
10.839	10.831 (0.690)	101	459541	5.4	109		100.00	8990
10.839	10.831 (0.000)	103	70168			13.39- 113.39	64.23	
11 Ethanol					CAS #: 64-17-5			
12.166	11.862 (0.775)	45	12115	1.9	38.9		100.00	(M) Q3
12.021	11.862 (0.765)	46	353			86.67- 186.67	2.91	
12.044	11.862 (0.767)	43	383			0.00- 82.76	3.16	
13 1,1-Dichloroethene					CAS #: 75-35-4			
12.227	12.220 (0.778)	96	167174	5.7	113		100.00	8930

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
13 1,1-Dichloroethene (continued)								
12.227	12.220 (0.000)	61	78616			118.20- 218.20	164.47	
12.227	12.220 (0.000)	98	32040			16.44- 116.44	67.03	
14 Freon 113					CAS #: 76-13-1			
12.311	12.311 (0.784)	151	327844	5.8	116		100.00	8307
12.311	12.311 (0.000)	153	50648			14.66- 114.66	64.83	
12.311	12.311 (0.000)	101	104231			82.31- 182.31	133.42	
17 Carbon Disulfide					CAS #: 75-15-0			
12.586	12.578 (0.801)	76	315550	3.4	69.0		100.00	7830
15 Acetone					CAS #: 67-64-1			
12.471	12.480 (0.794)	43	153926	3.2	65.2		100.00	
12.487	12.480 (0.795)	58	44909			0.00- 78.60	29.18	
18 2-Propanol					CAS #: 67-63-0			
12.922	12.921 (0.823)	45	146315	3.7	73.3		100.00	7498
12.922	12.921 (0.000)	43	5865			0.00- 69.89	20.95	
12.922	12.921 (0.000)	59	1273			0.00- 55.02	4.55	
21 Methylene Chloride					CAS #: 75-09-2			
13.295	13.312 (0.847)	84	196057	6.4	127		100.00	9214(Q)
13.295	13.312 (0.000)	49	68664			156.72- 256.72	124.79	
13.295	13.312 (0.000)	51	21208			0.42- 100.42	38.54	
23 trans-1,2-Dichloroethene					CAS #: 156-60-5			
13.776	13.776 (0.877)	96	132760	3.9	78.8		100.00	8225
13.776	13.776 (0.000)	61	55120			91.71- 191.71	148.71	
13.776	13.776 (0.000)	98	22960			12.64- 112.64	61.94	
24 MTBE					CAS #: 1634-04-4			
13.768	13.761 (0.877)	73	273717	3.3	65.5		100.00	6244
13.768	13.761 (0.000)	57	17088			0.00- 70.95	23.05	
13.768	13.761 (0.000)	41	15937			0.00- 69.73	21.50	
25 Hexane					CAS #: 110-54-3			
14.211	14.203 (0.905)	57	213261	3.7	75.0		100.00	7262
14.211	14.203 (0.000)	43	39275			6.89- 106.89	58.79	
14.211	14.203 (0.000)	56	37136			2.04- 102.04	55.59	
26 1,1-Dichloroethane					CAS #: 75-34-3			
14.463	14.463 (0.921)	63	351334	5.6	112		100.00	6396
14.463	14.463 (0.000)	65	32464			0.00- 84.34	31.08	
28 Chloroprene					CAS #: 126-99-8			
14.608	14.600 (0.930)	53	75881	3.5	70.4		100.00	7875
14.608	14.600 (0.000)	88	12493			3.61- 103.61	55.87	

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	CONCENTRATIONS FINAL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
28 Chloroprene (continued)								
14.608	14.600 (0.000)	50	5684			0.00- 76.13	25.42	
27 Vinyl Acetate					CAS #: 108-05-4			
14.547	14.539 (0.926)	43	236416	3.4	68.3		100.00	6205
14.547	14.539 (0.000)	86	5209			0.00- 60.39	10.41	
30 cis-1,2-Dichloroethene					CAS #: 156-59-2			
15.355	15.348 (0.978)	96	204238	5.2	104		100.00	8183
15.355	15.348 (0.000)	61	78000			82.34- 182.34	131.72	
15.355	15.348 (0.000)	98	36696			13.28- 113.28	61.97	
29 2-Butanone					CAS #: 78-93-3			
15.340	15.402 (0.977)	72	53266	3.1	62.2		100.00	7882(QM)
15.340	15.402 (0.977)	43	50391			64360.53-64460.53	94.60	
15.340	15.402 (0.977)	57	4346			36.84- 136.84	8.16	
34 Chloroform					CAS #: 67-66-3			
15.790	15.790 (1.005)	83	393391	5.3	106		100.00	8154
15.790	15.790 (0.000)	85	80208			15.04- 115.04	66.55	
33 Tetrahydrofuran					CAS #: 109-99-9			
15.767	15.403 (1.004)	42	94061	3.3	66.5		100.00	7448
15.767	15.403 (0.000)	71	11199			0.00- 58.02	43.76	
15.767	15.403 (0.000)	72	12842			0.00- 51.03	50.19	
35 1,1,1-Trichlorethane					CAS #: 71-55-6			
16.065	16.057 (1.023)	97	363363	4.8	97.1		100.00	7478
16.065	16.057 (0.000)	99	72768			14.76- 114.76	65.24	
36 Cyclohexane					CAS #: 110-82-7			
16.149	16.141 (1.028)	56	221112	3.5	70.8		100.00	8078
16.149	16.141 (0.000)	84	50650			28.07- 128.07	75.62	
16.149	16.141 (0.000)	41	34234			0.00- 99.85	51.11	
38 Carbon Tetrachloride					CAS #: 56-23-5			
16.309	16.309 (1.038)	119	379933	5.0	99.6		100.00	8703(H)
16.309	16.309 (0.000)	117	88696			44.66- 144.66	77.68	
39 Benzene					CAS #: 71-43-2			
16.591	16.584 (0.974)	78	614156	5.1	103		100.00	7852
16.591	16.584 (0.000)	77	41840			0.00- 73.15	22.45	
40 1,2-Dichloroethane					CAS #: 107-06-2			
16.599	17.043 (0.974)	62	265072	5.1	103		100.00	6407(Q)
16.599	17.043 (0.000)	64	24528			35.95- 135.95	32.47	
41 Heptane					CAS #: 142-82-5			
16.828	16.828 (0.987)	43	259573	3.7	74.7		100.00	7635

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
41 Heptane (continued)								
16.828	16.828 (0.000)	57	49064			6.71- 106.71	55.78	
16.828	16.828 (0.000)	71	51912			11.84- 111.84	59.02	
43 Trichloroethene					CAS #: 79-01-6			
17.430	17.430 (1.023)	95	276114	5.2	104		100.00	8411
17.430	17.430 (0.000)	130	80432			50.36- 150.36	96.57	
17.430	17.430 (0.000)	97	52440			15.47- 115.47	62.96	
44 1,2-Dichloropropane					CAS #: 78-87-5			
17.743	17.736 (1.041)	63	222381	4.8	95.7		100.00	8669
17.743	17.736 (0.000)	62	48159			23.36- 123.36	73.17	
17.743	17.736 (0.000)	41	33854			0.69- 100.69	51.44	
45 1,4-Dioxane					CAS #: 123-91-1			
17.896	17.888 (1.050)	88	81184	2.9	58.8		100.00	2827 Q3
17.896	17.888 (0.000)	58	17024			20.71- 120.71	73.38	
17.896	17.888 (0.000)	57	5251			0.00- 72.15	22.63	
46 Bromodichloromethane					CAS #: 75-27-4			
18.087	18.086 (1.061)	83	291365	3.4	68.1		100.00	9275
18.087	18.086 (0.000)	85	52872			15.89- 115.89	61.11	
48 cis-1,3-Dichloropropene					CAS #: 10061-01-5			
18.666	18.666 (1.095)	75	359402	4.9	97.3		100.00	9125
18.666	18.666 (0.000)	77	33331			0.00- 82.03	32.19	
18.666	18.666 (0.000)	39	49297			0.00- 95.15	47.61	
49 4-Methyl-2-pentanone					CAS #: 108-10-1			
18.788	19.049 (1.103)	43	287532	3.3	65.6		100.00	6710(Q)
18.788	19.049 (0.000)	58	35168			71.61- 171.61	39.44	
18.788	19.049 (0.000)	85	13412			0.00- 50.00	15.04	
52 Toluene					CAS #: 108-88-3			
19.147	19.139 (1.124)	92	613144	6.2	125		100.00	8712
19.147	19.139 (0.000)	91	307904			113.30- 213.30	164.87	
53 trans-1,3-Dichloropropene					CAS #: 10061-02-6			
19.384	19.383 (0.918)	75	262937	4.2	85.0		100.00	8500
19.384	19.383 (0.000)	77	24093			0.00- 81.75	32.29	
19.384	19.383 (0.000)	39	34339			0.00- 94.16	46.02	
55 1,1,2-Trichloroethane					CAS #: 79-00-5			
19.666	19.666 (0.932)	97	317378	5.9	117		100.00	8931
19.666	19.666 (0.000)	99	56888			13.16- 113.16	63.16	
19.666	19.666 (0.000)	83	75416			34.65- 134.65	83.74	
58 Tetrachloroethene					CAS #: 127-18-4			
19.925	19.917 (0.944)	166	452217	5.9	118		100.00	9287

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
58 Tetrachloroethene (continued)									
19.925	19.917	(0.000)	129	97648			21.57- 121.57	72.83	
19.925	19.917	(0.000)	131	99504			20.15- 120.15	74.21	
57 2-Hexanone						CAS #: 591-78-6			
19.902	19.895	(0.943)	43	229329	2.6	52.2		100.00	8656
19.902	19.895	(0.000)	58	38384			7.81- 107.81	57.91	
19.902	19.895	(0.000)	100	7614			0.00- 62.00	11.49	
60 Dibromochloromethane						CAS #: 124-48-1			
20.269	20.261	(0.960)	129	279915	3.3	66.6		100.00	8835
20.269	20.261	(0.000)	208	4672			0.00- 56.05	6.03	
61 1,2-Dibromoethane						CAS #: 106-93-4			
20.474	20.474	(0.970)	107	500200	6.1	123		100.00	5533
20.474	20.474	(0.000)	109	129000			48.05- 148.05	92.54	
63 Chlorobenzene						CAS #: 108-90-7			
21.146	21.146	(1.002)	112	839808	6.0	119		100.00	9230
21.146	21.146	(0.000)	114	71088			0.00- 82.25	31.46	
21.146	21.146	(0.000)	77	128577			8.06- 108.06	56.90	
64 Ethyl Benzene						CAS #: 100-41-4			
21.230	21.230	(1.006)	106	430122	5.2	104		100.00	
21.230	21.230	(1.006)	91	1383155			268.72- 368.72	321.57	
65 m,p-Xylene						CAS #: 108-38-3			
21.390	21.390	(1.013)	106	944667	10	199		100.00	
21.390	21.390	(1.013)	91	1889380			149.27- 249.27	200.00	
67 o-Xylene						CAS #: 95-47-6			
22.038	22.597	(1.044)	106	363074	5.2	103		100.00	6149(QM)
22.038	22.597	(1.044)	91	51072			1443.70-1543.70	14.07	
68 Styrene						CAS #: 100-42-5			
22.046	22.046	(1.044)	104	836236	7.6	152		100.00	9095
22.046	22.046	(0.000)	78	102800			0.00- 95.23	45.31	
69 Bromoform						CAS #: 75-25-2			
22.443	22.443	(1.063)	171	157334	3.6	71.3		100.00	9110
22.443	22.443	(0.000)	173	74856			135.19- 235.19	199.72	
72 1,1,2,2-Tetrachloroethane						CAS #: 79-34-5			
23.061	23.061	(1.093)	83	628874	4.8	96.0		100.00	8992
23.061	23.061	(0.000)	85	97280			13.47- 113.47	53.04	
74 4-Ethyltoluene						CAS #: 622-96-8			
23.465	23.032	(1.112)	105	962147	5.8	116		100.00	9254(M)

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO	SIMILARITY	
74 4-Ethyltoluene (continued)									
23.465	23.032 (1.112)	120	64656			0.00- 53.27	6.72		
75 1,3,5-Trimethylbenzene					CAS #: 108-67-8				
23.557	23.032 (1.116)	105	555199	4.5	90.6		100.00	7941(M)	
23.465	23.032 (1.112)	120	64656			0.00- 53.27	11.65		
76 1,2,4-Trimethylbenzene					CAS #: 95-63-6				
24.289	24.512 (1.151)	105	462317	4.5	90.4		100.00	8762	
24.289	24.512 (0.000)	120	49096			0.00- 64.42	43.76		
79 1,3-Dichlorobenzene					CAS #: 541-73-1				
24.976	24.976 (1.183)	146	416919	3.8	76.9		100.00		
24.983	24.976 (1.184)	148	265332			14.07- 114.07	63.64		
24.976	24.976 (1.183)	111	179246			0.00- 92.40	42.99		
80 1,4-Dichlorobenzene					CAS #: 106-46-7				
25.144	24.976 (1.191)	146	413663	4.0	80.0		100.00	9259(H)	
25.144	24.976 (0.000)	148	53117			12.68- 112.68	63.87		
25.144	24.976 (0.000)	111	35657			0.00- 89.97	42.87		
81 Benzyl Chloride					CAS #: 100-44-7				
25.388	25.380 (1.203)	91	491197	3.4	67.8		100.00	9511	Q3
25.388	25.380 (0.000)	126	21104			0.00- 69.82	19.88		
82 1,2-Dichlorobenzene					CAS #: 95-50-1				
25.983	25.983 (1.231)	146	363752	3.6	72.5		100.00	9291	
25.983	25.983 (0.000)	148	46070			14.48- 114.48	63.08		
25.983	25.983 (0.000)	111	30480			0.00- 94.06	41.73		
85 1,2,4-Trichlorobenzene					CAS #: 120-82-1				
30.217	30.209 (1.432)	180	90359	2.9	57.6		100.00	9173	Q3
30.217	30.209 (0.000)	182	14402			46.99- 146.99	95.10		
86 Hexachlorobutadiene					CAS #: 87-68-3				
30.660	30.659 (1.453)	225	281940	5.1	101		100.00	9370	
30.660	30.659 (0.000)	223	29704			12.07- 112.07	62.42		

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-27may.b/j052719.d
Report Date: 27-May-1997 23:26

Air Toxics Limited

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdj.i
Lab File ID: j052719.d
Lab Smp Id: Second Source
Analysis Type: VOA
Quant Type: ISTD
Operator: JMP
Method File: /chem/msdj.i/j-27may.b/to140527.m
Misc Info: 50 ul + 50 ul + 2.5 ml

Calibration Date: 05/27/97
Calibration Time: 1941
Client Smp ID: VSTD005
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	% DIFF
32 Bromochloromethane	168577	101146	236008	172429	2.29
42 1,4-Difluorobenzene	777519	466511	1088527	785263	1.00
62 Chlorobenzene-d5	814218	488531	1139905	827606	1.64

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	% DIFF
32 Bromochloromethane	15.71	15.21	16.21	15.71	-0.02
42 1,4-Difluorobenzene	17.04	16.54	17.54	17.04	0.02
62 Chlorobenzene-d5	21.10	20.60	21.60	21.11	0.02

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

Data File: /chem/msdj.i/j-27may.b/j052719.d
Report Date: 27-May-1997 23:26

0092

Air Toxics Limited

RECOVERY REPORT

Client Name:
Sample Matrix: GAS
Lab Smp Id: Second Source
Level: LOW
Data Type: MS DATA
SpikeList File:
Client SDG: j-27may
Fraction: VOA
Client Smp ID: VSTD005
Operator: JMP
SampleType: SAMPLE
Quant Type: ISTD
Method File: /chem/msdj.i/j-27may.b/to140527.m
Misc Info: 50 ul + 50 ul + 2.5 ml

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 37 Octafluorotoluene	5.0	5.0	99.17	60-140
$ 50 Toluene-d8	5.0	5.1	101.29	60-140
$ 71 Bromofluorobenzene	5.0	5.0	100.57	60-140

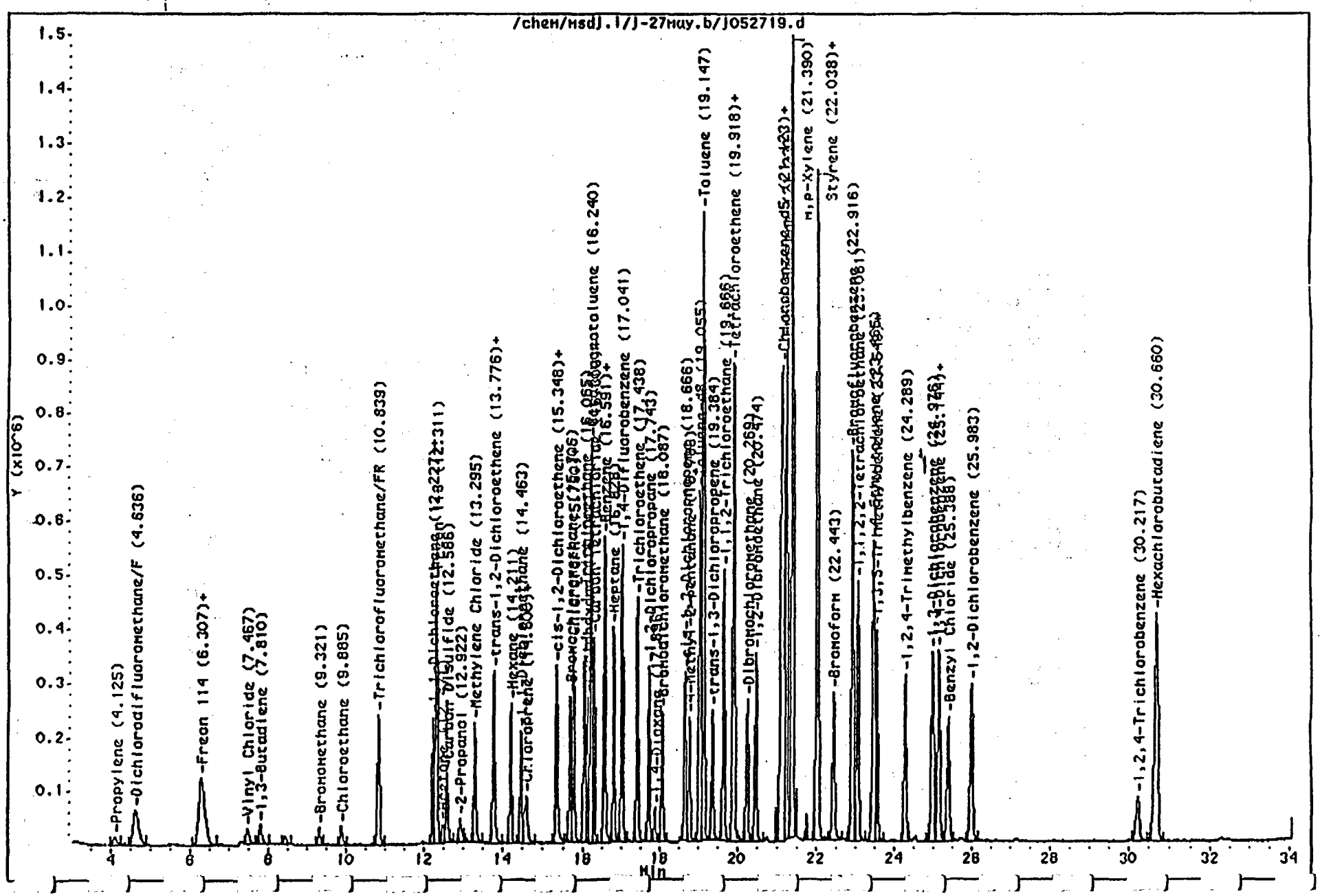
0093

Data File: /chem/msdj.i/j-27may.b/j052719.d
Date : 27-MAY-97 22:52
Client ID: VSTD005
Sample Info: 296-86+296-55+34400 5ppbv

Instrument: msdj.i

Operator: JMP
Column diameter: 0.58

Column phase: RTx-624



Air Toxics Limited

COMPOUND LISTING

Method file : /chem/msdj.i/j-08oct.b/j1008.m
Quant Method : ISTD
Last Update : 08-Oct-1996 13:39
Data Type : MS DATA
Target Version : 3.12
Number of Cpnds : 77

Global Integrator : HP RTE

Chromat Events	Values
Initial:Thresh Units	0.000000
Initial:Area Thresh	50000.000000
Initial:Max Peaks	100.000000
Initial:Bunching	1.000000
Initial:Smoothing	1.000000
Initial:Start Thresh	0.100000
Initial:Stop Thresh	0.200000
Initial:Baseline Reset	5.000000
Initial:Set Valley	100.000000

Compound	RT	RT Window	RF	Mass
1 Propylene	4.938	3.438-6.438	0.000	41.00
	4.938	3.438-6.438	0.000	42.00
	4.938	3.438-6.438	0.000	39.00
6 Dichlorodifluoromethane/FR	5.438	3.938-6.938	1.971	85.00
	5.438	3.938-6.938	0.000	87.00
7 Freon 114	7.169	6.669-7.669	1.665	135.00
	7.169	6.669-7.669	0.000	137.00
8 Chloromethane	7.291	6.791-7.791	0.761	50.00
	7.291	6.791-7.791	0.000	52.00
9 Vinyl Chloride	8.458	7.958-8.958	0.796	62.00
	8.458	7.958-8.958	0.000	64.00
10 1,3-Butadiene	8.912	8.412-9.412	0.000	54.00
	8.912	8.412-9.412	0.000	39.00
11 Bromomethane	10.334	9.834-10.834	0.733	94.00
	10.334	9.834-10.834	0.000	96.00
12 Chloroethane	11.147	10.647-11.647	0.000	64.00
	11.147	10.647-11.647	0.000	66.00
13 Vinyl Bromide	11.856	11.356-12.356	0.000	106.00
	11.856	11.356-12.356	0.000	108.00
14 Trichlorofluoromethane/FR	11.898	11.398-12.398	2.112	101.00
	11.898	11.398-12.398	0.000	103.00
15 Ethanol	13.229	12.729-13.729	0.000	45.00
	13.229	12.729-13.729	0.000	46.00
	13.229	12.729-13.729	0.000	43.00

Report Date : 08-Oct-1996 14:57

Air Toxics Limited

COMPOUND LISTING

Method file : /chem/msdj.i/j-08oct.b/j1008.m

Compound	RT	RT Window	RF	Mass
16 Acrolein	13.496	12.996-13.996	0.000	56.00
	13.496	12.996-13.996	0.000	55.00
17 1,1-Dichloroethene	13.332	12.832-13.832	0.778	96.00
	13.332	12.832-13.832	0.000	61.00
	13.332	12.832-13.832	0.000	98.00
18 Freon 113	13.400	12.900-13.900	1.492	151.00
	13.400	12.900-13.900	0.000	153.00
	13.400	12.900-13.900	0.000	101.00
20 Acetone	13.892	13.392-14.392	0.000	43.00
	13.892	13.392-14.392	0.000	58.00
19 Carbon Disulfide	14.030	13.530-14.530	0.000	76.00
22 2-Propanol	14.380	13.880-14.880	0.000	45.00
	14.380	13.880-14.880	0.000	43.00
	14.380	13.880-14.880	0.000	59.00
21 Acetonitrile	14.510	14.010-15.010	0.000	41.00
	14.510	14.010-15.010	0.000	40.00
23 Methylene Chloride	14.415	13.915-14.915	0.964	84.00
	14.415	13.915-14.915	0.000	49.00
	14.415	13.915-14.915	0.000	51.00
25 Acrylonitrile	15.273	14.773-15.773	0.000	53.00
	15.273	14.773-15.773	0.000	52.00
24 trans-1,2-Dichloroethene	14.918	14.418-15.418	0.993	96.00
	14.918	14.418-15.418	0.000	61.00
	14.918	14.418-15.418	0.000	98.00
26 MTBE	15.288	14.788-15.788	0.000	73.00
	15.288	14.788-15.788	0.000	57.00
	15.288	14.788-15.788	0.000	41.00
27 Hexane	15.730	15.230-16.230	0.000	57.00
	15.730	15.230-16.230	0.000	43.00
	15.730	15.230-16.230	0.000	56.00
28 1,1-Dichloroethane	15.612	15.112-16.112	1.781	63.00
	15.612	15.112-16.112	0.000	65.00
30 Vinyl Acetate	16.089	15.589-16.589	0.000	43.00
	16.089	15.589-16.589	0.000	86.00
29 Chloroprene	16.158	15.658-16.658	0.000	53.00
	16.158	15.658-16.658	0.000	88.00
	16.158	15.658-16.658	0.000	50.00
32 2-Butanone	16.951	16.451-17.451	0.000	72.00
	16.951	16.451-17.451	0.000	43.00
	16.951	16.451-17.451	0.000	57.00

Report Date : 08-Oct-1996 14:57

Air Toxics Limited

COMPOUND LISTING

Method file : /chem/msdj.i/j-08oct.b/j1008.m

	Compound	RT	RT Window	RF	Mass
	31 cis-1,2-Dichloroethene	16.528	16.028-17.028	1.120	96.00
		16.528	16.028-17.028	0.000	61.00
		16.528	16.028-17.028	0.000	98.00
*	33 Bromochloromethane	16.871	16.371-17.371	51506	130.00
		16.871	16.371-17.371	0.000	128.00
		16.871	16.371-17.371	0.000	49.00
	35 Tetrahydrofuran	17.408	16.908-17.908	0.000	42.00
		17.408	16.908-17.908	0.000	71.00
		17.408	16.908-17.908	0.000	72.00
	34 Chloroform	16.962	16.462-17.462	2.056	83.00
		16.962	16.462-17.462	0.000	85.00
	36 1,1,1-Trichlorethane	17.237	16.737-17.737	2.007	97.00
		17.237	16.737-17.737	0.000	99.00
	37 Cyclohexane	17.813	17.313-18.313	0.000	56.00
		17.813	17.313-18.313	0.000	84.00
		17.813	17.313-18.313	0.000	41.00
$	39 Octafluorotoluene	17.374	16.874-17.874	3.164	217.00
		17.374	16.874-17.874	0.000	186.00
	38 Carbon Tetrachloride	17.489	16.989-17.989	1.735	119.00
		17.489	16.989-17.989	0.000	117.00
	40 Benzene	17.778	17.278-18.278	0.919	78.00
		17.778	17.278-18.278	0.000	77.00
	41 1,2-Dichloroethane	17.778	17.278-18.278	0.327	62.00
		17.778	17.278-18.278	0.000	64.00
	42 Heptane	18.514	18.014-19.014	0.000	43.00
		18.514	18.014-19.014	0.000	57.00
		18.514	18.014-19.014	0.000	71.00
	4 Dicyclopentadiene	26.695	26.195-27.195	6.289	66.00
		26.695	26.195-27.195	0.000	132.00
		26.695	26.195-27.195	0.000	65.00
*	43 1,4-Difluorobenzene	18.221	17.721-18.721	213457	114.00
		18.221	17.721-18.721	0.000	88.00
	2 Bicycloheptadiene	18.663	18.163-19.163	2.867	91.00
		18.663	18.163-19.163	0.000	66.00
		18.663	18.163-19.163	0.000	92.00
	44 Trichloroethene	18.625	18.125-19.125	0.348	95.00
		18.625	18.125-19.125	0.000	130.00
		18.625	18.125-19.125	0.000	97.00
	45 1,2-Dichloropropane	18.930	18.430-19.430	0.312	63.00
		18.930	18.430-19.430	0.000	62.00
		18.930	18.430-19.430	0.000	41.00

Air Toxics Limited

COMPOUND LISTING

Method file : /chem/msdj.i/j-08oct.b/j1008.m

	Compound	RT	RT Window	RF	Mass
	46 1,4-Dioxane	19.658	19.158-20.158	0.000	88.00
		19.658	19.158-20.158	0.000	58.00
		19.658	19.158-20.158	0.000	57.00
	47 Bromodichloromethane	19.864	19.364-20.364	0.000	83.00
		19.864	19.364-20.364	0.000	85.00
	48 cis-1,3-Dichloropropene	19.876	19.376-20.376	0.251	75.00
		19.876	19.376-20.376	0.000	77.00
		19.876	19.376-20.376	0.000	39.00
	3 DMDS	20.067	19.567-20.567	1.581	94.00
		20.067	19.567-20.567	0.000	79.00
		20.067	19.567-20.567	0.000	45.00
	49 4-Methyl-2-pentanone	19.998	19.498-20.498	0.614	43.00
		19.998	19.498-20.498	0.000	58.00
		19.998	19.498-20.498	0.000	85.00
$	50 Toluene-d8	20.265	19.765-20.765	0.900	98.00
		20.265	19.765-20.765	0.000	70.00
		20.265	19.765-20.765	0.000	100.00
	52 Octane	21.008	20.508-21.508	0.000	57.00
		21.008	20.508-21.508	0.000	85.00
		21.008	20.508-21.508	0.000	43.00
	51 Toluene	20.356	19.856-20.856	0.647	92.00
		20.356	19.856-20.856	0.000	91.00
	53 trans-1,3-Dichloropropene	20.539	20.039-21.039	0.113	75.00
		20.539	20.039-21.039	0.027	77.00
	54 1,1,2-Trichloroethane	20.890	20.390-21.390	0.355	97.00
		20.890	20.390-21.390	0.000	99.00
		20.890	20.390-21.390	0.000	83.00
	56 2-Hexanone	21.886	21.386-22.386	0.000	43.00
		21.886	21.386-22.386	0.000	58.00
		21.886	21.386-22.386	0.000	100.00
	55 Tetrachloroethene	21.157	20.657-21.657	0.536	166.00
		21.157	20.657-21.657	0.000	129.00
		21.157	20.657-21.657	0.000	131.00
	57 Dibromochloromethane	22.320	21.820-22.820	0.000	129.00
		22.320	21.820-22.820	0.000	208.00
	58 1,2-Dibromoethane	21.752	21.252-22.252	0.522	107.00
		21.752	21.252-22.252	0.000	109.00
*	59 Chlorobenzene-d5	22.385	21.885-22.885	199218	117.00
		22.385	21.885-22.885	0.000	82.00
	60 Chlorobenzene	22.439	21.939-22.939	0.908	112.00
		22.439	21.939-22.939	0.000	114.00
		22.439	21.939-22.939	0.000	77.00

Air Toxics Limited

COMPOUND LISTING

Method file : /chem/msdj.i/j-08oct.b/j1008.m

Compound	RT	RT Window	RF	Mass
61 Ethyl Benzene	22.515	22.015-23.015	0.537	106.00
	22.515	22.015-23.015	0.000	91.00
62 m,p-Xylene	22.675	22.175-23.175	0.523	106.00
	22.675	22.175-23.175	0.000	91.00
63 o-Xylene	23.362	22.862-23.862	0.328	106.00
	23.362	22.862-23.862	0.000	91.00
64 Styrene	23.362	22.862-23.862	0.704	104.00
	23.362	22.862-23.862	0.000	78.00
65 Bromoform	24.952	24.452-25.452	0.000	171.00
	24.952	24.452-25.452	0.000	173.00
$ 66 Bromofluorobenzene	24.269	23.769-24.769	0.789	95.00
	24.269	23.769-24.769	0.000	174.00
	24.269	23.769-24.769	0.000	176.00
67 1,1,2,2-Tetrachloroethane	24.406	23.906-24.906	0.773	83.00
	24.406	23.906-24.906	0.000	85.00
68 4-Ethyltoluene	26.195	25.695-26.695	0.000	105.00
	26.195	25.695-26.695	0.000	120.00
69 1,3,5-Trimethylbenzene	26.302	25.802-26.802	0.000	105.00
	26.302	25.802-26.802	0.000	120.00
70 alpha-Methyl Styrene	26.836	26.336-27.336	0.000	118.00
	26.836	26.336-27.336	0.000	116.00
	26.836	26.336-27.336	0.000	103.00
71 1,2,4-Trimethylbenzene	27.194	26.694-27.694	0.000	105.00
	27.194	26.694-27.694	0.000	120.00
72 1,3-Dichlorobenzene	26.443	25.943-26.943	0.694	146.00
	26.443	25.943-26.943	0.000	148.00
	26.443	25.943-26.943	0.000	111.00
73 1,4-Dichlorobenzene	26.626	26.126-27.126	0.684	146.00
	26.626	26.126-27.126	0.000	148.00
	26.626	26.126-27.126	0.000	111.00
74 Benzyl Chloride	28.506	28.006-29.006	0.000	91.00
	28.506	28.006-29.006	0.000	126.00
75 1,2-Dichlorobenzene	27.518	27.018-28.018	0.641	146.00
	27.518	27.018-28.018	0.000	148.00
	27.518	27.018-28.018	0.000	111.00
5 1,2-Dibromo-3-Chloropropan	29.440	28.940-29.940	1.891	157.00
76 1,2,4-Trichlorobenzene	31.904	31.404-32.404	0.343	180.00
	31.904	31.404-32.404	0.000	182.00
77 Hexachlorobutadiene	33.807	33.307-34.307	0.000	225.00
	33.807	33.307-34.307	0.000	223.00

Air Toxics Limited

AMBIENT AIR METHOD TO14

Data file : /chem/msdj.i/j-27may.b/j052707.d
Lab Smp Id: Client Smp ID: VSTD150
Inj Date : 27-MAY-1997 13:18
Operator : MH Inst ID: msdj.i
Smp Info : 2.5mL #315-48 100ppbv TO14 Std. (0.5ppbv)
Misc Info :
Comment :
Method : /chem/msdj.i/j-27may.b/to140527.m
Meth Date : 27-May-1997 13:52 mhe Quant Type: ISTD
Cal Date : 27-MAY-1997 13:18 Cal File: j052707.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
* 32 Bromochloromethane					CAS #: 74-97-5			
15.695	15.695 (1.000)	130	169501	5.0			100.00	9311(Q)
15.695	15.695 (0.000)	128	37760			24.37- 124.37	22.28	
15.695	15.695 (0.000)	49	63952			75.95- 175.95	37.73	
* 42 1,4-Difluorobenzene					CAS #: 540-36-3			
17.030	17.030 (1.000)	114	765034	5.0			100.00	9666
17.030	17.030 (0.000)	88	39600			0.00- 66.54	5.18	
* 62 Chlorobenzene-d5					CAS #: 3114-55-4			
21.089	21.089 (1.000)	117	826153	5.0			100.00	9992
21.089	21.089 (0.000)	82	122928			3.80- 103.80	14.88	
$ 37 Octafluorotoluene					CAS #: 434-64-0			
16.229	16.229 (1.034)	217	558903	5.0	5.0		100.00	7507
16.229	16.229 (0.000)	186	110632			9.94- 109.94	19.79	
$ 50 Toluene-d8					CAS #: 2037-26-5			
19.044	19.044 (1.118)	98	716334	5.0	4.9		100.00	9924
19.044	19.044 (0.000)	70	25600			0.00- 61.64	3.57	
19.044	19.044 (0.000)	100	147136			16.91- 116.91	20.54	

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
$ 71 Bromofluorobenzene					CAS #: 460-00-4			
22.904	22.904 (1.086)	95	659663	5.0	5.0		100.00	8907(Q)
22.904	22.904 (0.000)	174	126944			26.26- 126.26	19.24	
22.904	22.904 (0.000)	176	124232			24.63- 124.63	18.83	
1 Propylene					CAS #: 115-07-1			
4.098	4.098 (0.261)	41	3892	0.50	0.51		100.00	6884(M)
4.098	4.098 (0.261)	42	60			0.00- 57.25	1.54	
4.098	4.098 (0.261)	39	168			0.00- 70.29	4.32	
2 Dichlorodifluoromethane/FR 12					CAS #: 75-71-8			
4.617	4.617 (0.294)	85	34495	0.50	0.53		100.00	8561(M)
4.617	4.617 (0.294)	87	1024			0.00- 73.74	2.97	
3 Freon 114					CAS #: 76-14-2			
6.296	6.296 (0.401)	135	27385	0.50	0.54		100.00	8870
6.296	6.296 (0.000)	137	835			0.00- 75.85	3.05	
4 Chloromethane					CAS #: 74-87-3			
6.410	6.410 (0.408)	50	16411	0.50	0.59		100.00	5974(M)
6.380	6.380 (0.406)	52	385			0.00- 69.69	2.35	
5 Vinyl Chloride					CAS #: 75-01-4			
7.471	7.471 (0.476)	62	9314	0.50	0.46		100.00	3903(M)
7.471	7.471 (0.476)	64	473			0.00- 84.81	5.08	
6 1,3-Butadiene					CAS #: 106-99-0			
7.814	7.814 (0.498)	54	5157	0.50	0.41		100.00	6384(M)
7.814	7.814 (0.498)	39	536			2.96- 102.96	10.39	
7 Bromomethane					CAS #: 74-83-9			
9.294	9.294 (0.592)	94	2878	0.50	0.54		100.00	5757
9.294	9.294 (0.000)	96	314			0.89- 100.89	10.91	
8 Chloroethane					CAS #: 75-00-3			
9.881	9.881 (0.630)	64	7089	0.50	0.55		100.00	3539
9.881	9.881 (0.000)	66	418			0.00- 76.93	5.90	
9 Trichlorofluoromethane/FR 11					CAS #: 75-69-4			
10.835	10.835 (0.690)	101	44633	0.50	0.56		100.00	8748
10.835	10.835 (0.000)	103	6643			10.93- 110.93	14.88	
11 Ethanol					CAS #: 64-17-5			
11.888	11.888 (0.757)	45	3296	0.50	0.53		100.00	(M)
11.865	11.865 (0.756)	46	137			0.00- 54.16	4.16	
11.827	11.827 (0.754)	43	327			0.00- 59.92	9.92	
13 1,1-Dichloroethene					CAS #: 75-35-4			
12.208	12.208 (0.778)	96	13974	0.50	0.51		100.00	8820(Q)

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
13 1,1-Dichloroethene (continued)								
12.208	12.208 (0.000)	61	6235			86.79- 186.79	44.62	
12.208	12.208 (0.000)	98	2520			5.29- 105.29	18.03	
14 Freon 113					CAS #: 76-13-1			
12.307	12.307 (0.784)	151	29126	0.50	0.54		100.00	8271(Q)
12.307	12.307 (0.000)	153	4436			12.43- 112.43	15.23	
12.307	12.307 (0.000)	101	10274			94.60- 194.60	35.27	
17 Carbon Disulfide					CAS #: 75-15-0			
12.582	12.582 (0.802)	76	45328	0.50	0.52		100.00	7821
15 Acetone					CAS #: 67-64-1			
12.468	12.468 (0.794)	43	42544	0.50	0.72		100.00	(M)
12.475	12.475 (0.795)	58	15380			0.00- 86.15	36.15	
18 2-Propanol					CAS #: 67-63-0			
12.933	12.933 (0.824)	45	17260	0.50	0.43		100.00	6993
12.933	12.933 (0.000)	43	709			0.00- 73.85	4.11	
12.933	12.933 (0.000)	59	173			0.00- 55.82	1.00	
21 Methylene Chloride					CAS #: 75-09-2			
13.299	13.299 (0.847)	84	17365	0.50	0.58		100.00	9090(Q)
13.299	13.299 (0.000)	49	5857			62.85- 162.85	33.73	
13.299	13.299 (0.000)	51	2050			0.00- 89.50	11.81	
23 trans-1,2-Dichloroethene					CAS #: 156-60-5			
13.772	13.772 (0.877)	96	19126	0.50	0.58		100.00	8237(Q)
13.772	13.772 (0.000)	61	7240			77.42- 177.42	37.85	
13.772	13.772 (0.000)	98	3700			15.12- 115.12	19.35	
24 MTBE					CAS #: 1634-04-4			
13.772	13.772 (0.877)	73	39573	0.50	0.47		100.00	6211
13.772	13.772 (0.000)	57	2413			0.00- 71.85	6.10	
13.772	13.772 (0.000)	41	2412			0.00- 71.84	6.10	
25 Hexane					CAS #: 110-54-3			
14.200	14.200 (0.905)	57	29345	0.50	0.54		100.00	7232
14.200	14.200 (0.000)	43	5867			15.25- 115.25	19.99	
14.200	14.200 (0.000)	56	4592			1.07- 101.07	15.65	
26 1,1-Dichloroethane					CAS #: 75-34-3			
14.467	14.467 (0.922)	63	31095	0.50	0.52		100.00	6396
14.467	14.467 (0.000)	65	2826			0.00- 79.93	9.09	
28 Chloroprene					CAS #: 126-99-8			
14.596	14.596 (0.930)	53	8482	0.50	0.43		100.00	7544
14.596	14.596 (0.000)	88	1245			0.00- 93.09	14.68	

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
28 Chloroprene (continued)								
14.596	14.596 (0.000)	50	672			0.00- 73.26	7.92	
27 Vinyl Acetate					CAS #: 108-05-4			
14.550	14.550 (0.927)	43	24020	0.50	0.38		100.00	5984(a)
14.550	14.550 (0.000)	86	737			0.00- 63.82	3.07	
30 cis-1,2-Dichloroethene					CAS #: 156-59-2			
15.352	15.352 (0.978)	96	19618	0.50	0.53		100.00	8198(Q)
15.352	15.352 (0.000)	61	7085			89.91- 189.91	36.11	
15.352	15.352 (0.000)	98	3205			13.29- 113.29	16.34	
29 2-Butanone					CAS #: 78-93-3			
15.344	15.344 (0.978)	72	9533	0.50	0.54		100.00	7702(Q)
15.344	15.344 (0.000)	43	7333			248.57- 348.57	76.92	
15.344	15.344 (0.000)	57	574			0.00- 73.37	6.02	
34 Chloroform					CAS #: 67-66-3			
15.786	15.786 (1.006)	83	37387	0.50	0.53		100.00	6470
15.786	15.786 (0.000)	85	7707			16.81- 116.81	20.61	
33 Tetrahydrofuran					CAS #: 109-99-9			
15.756	15.756 (1.004)	42	13271	0.50	0.49		100.00	7364
15.756	15.756 (0.000)	71	1217			0.00- 88.02	9.17	
15.756	15.756 (0.000)	72	1123			0.00- 85.08	8.46	
35 1,1,1-Trichlorethane					CAS #: 71-55-6			
16.053	16.053 (1.023)	97	38420	0.50	0.53		100.00	7511
16.053	16.053 (0.000)	99	6949			11.29- 111.29	18.09	
36 Cyclohexane					CAS #: 110-82-7			
16.137	16.137 (1.028)	56	31453	0.50	0.53		100.00	7815(Q)
16.137	16.137 (0.000)	84	7321			28.06- 128.06	23.28	
16.137	16.137 (0.000)	41	4588			0.00- 98.92	14.59	
38 Carbon Tetrachloride					CAS #: 56-23-5			
16.298	16.298 (1.038)	119	37928	0.50	0.51		100.00	6000(H)
16.298	16.298 (0.000)	117	0			0.00- 50.00	0.00	
39 Benzene					CAS #: 71-43-2			
16.580	16.580 (0.974)	78	64699	0.50	0.55		100.00	8051
16.580	16.580 (0.000)	77	4608			0.00- 74.39	7.12	
40 1,2-Dichloroethane					CAS #: 107-06-2			
16.595	16.595 (0.974)	62	25468	0.50	0.51		100.00	6324
16.595	16.595 (0.000)	64	2559			0.00- 86.14	10.05	
41 Heptane					CAS #: 142-82-5			
16.824	16.824 (0.988)	43	44245	0.50	0.61		100.00	7586(Q)

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
41 Heptane (continued)								
16.824	16.824 (0.000)	57	6847			11.28- 111.28	15.48	
16.824	16.824 (0.000)	71	7905			20.75- 120.75	17.87	
43 Trichloroethene					CAS #: 79-01-6			
17.427	17.427 (1.023)	95	27836	0.50	0.52		100.00	8398(Q)
17.427	17.427 (0.000)	130	7913			44.10- 144.10	28.43	
17.427	17.427 (0.000)	97	5563			16.16- 116.16	19.98	
44 1,2-Dichloropropane					CAS #: 78-87-5			
17.732	17.732 (1.041)	63	24186	0.50	0.53		100.00	8629
17.732	17.732 (0.000)	62	5154			19.14- 119.14	21.31	
17.732	17.732 (0.000)	41	4200			6.35- 106.35	17.37	
45 1,4-Dioxane					CAS #: 123-91-1			
17.892	17.892 (1.051)	88	10274	0.50	0.39		100.00	2688(Q)
17.892	17.892 (0.000)	58	2267			26.10- 126.10	22.07	
17.892	17.892 (0.000)	57	654			0.00- 71.95	6.37	
46 Bromodichloromethane					CAS #: 75-27-4			
18.090	18.090 (1.062)	83	41963	0.50	0.50		100.00	9075
18.090	18.090 (0.000)	85	7055			8.14- 108.14	16.81	
48 cis-1,3-Dichloropropene					CAS #: 10061-01-5			
18.663	18.663 (1.096)	75	33685	0.50	0.47		100.00	8974
18.663	18.663 (0.000)	77	2930			0.00- 80.89	8.70	
18.663	18.663 (0.000)	39	4080			0.00- 93.01	12.11	
49 4-Methyl-2-pentanone					CAS #: 108-10-1			
18.785	18.785 (1.103)	43	40010	0.50	0.47		100.00	6725
18.785	18.785 (0.000)	58	5069			0.00- 93.78	12.67	
18.785	18.785 (0.000)	85	2157			0.00- 68.63	5.39	
52 Toluene					CAS #: 108-88-3			
19.136	19.136 (1.124)	92	51403	0.50	0.54		100.00	8122(Q)
19.136	19.136 (0.000)	91	25248			107.53- 207.53	49.12	
53 trans-1,3-Dichloropropene					CAS #: 10061-02-6			
19.372	19.372 (0.919)	75	27729	0.50	0.46		100.00	8417
19.372	19.372 (0.000)	77	2034			0.00- 77.34	7.34	
19.372	19.372 (0.000)	39	3581			0.00- 98.14	12.91	
55 1,1,2-Trichloroethane					CAS #: 79-00-5			
19.654	19.654 (0.932)	97	26858	0.50	0.52		100.00	8869(Q)
19.654	19.654 (0.000)	99	4681			8.90- 108.90	17.43	
19.654	19.654 (0.000)	83	6397			30.49- 130.49	23.82	
58 Tetrachloroethene					CAS #: 127-18-4			
19.921	19.921 (0.945)	166	39415	0.50	0.53		100.00	9255

Data File: /chem/msdj.i/j-27may.b/j052707.d
Report Date: 27-May-1997 13:52

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
58 Tetrachloroethene (continued)								
19.921	19.921 (0.000)	129	7811			15.25- 115.25	19.82	
19.921	19.921 (0.000)	131	7722			14.51- 114.51	19.59	
57 2-Hexanone					CAS #: 591-78-6			
19.899	19.899 (0.944)	43	37839	0.50	0.44		100.00	8546
19.899	19.899 (0.000)	58	5583			7.62- 107.62	14.75	
19.899	19.899 (0.000)	100	1164			0.00- 62.01	3.08	
60 Dibromochloromethane					CAS #: 124-48-1			
20.257	20.257 (0.961)	129	39605	0.50	0.48		100.00	8950
20.257	20.257 (0.000)	208	893			0.00- 57.53	2.25	
61 1,2-Dibromoethane					CAS #: 106-93-4			
20.471	20.471 (0.971)	107	39944	0.50	0.50		100.00	5533(Q)
20.471	20.471 (0.000)	109	10255			42.65- 142.65	25.67	
63 Chlorobenzene					CAS #: 108-90-7			
21.134	21.134 (1.002)	112	72505	0.50	0.53		100.00	9114
21.134	21.134 (0.000)	114	5716			0.00- 78.96	7.88	
21.134	21.134 (0.000)	77	10466			3.03- 103.03	14.43	
64 Ethyl Benzene					CAS #: 100-41-4			
21.226	21.226 (1.006)	106	40492	0.50	0.51		100.00	
21.226	21.226 (1.006)	91	129874			270.74- 370.74	320.74	
65 m,p-Xylene					CAS #: 108-38-3			
21.379	21.379 (1.014)	106	91659	1.0	1.0		100.00	
21.379	21.379 (1.014)	91	182410			149.01- 249.01	199.01	
67 o-Xylene					CAS #: 95-47-6			
22.027	22.027 (1.044)	106	33113	0.50	0.50		100.00	8256(Q)
22.027	22.027 (0.000)	91	18562			157.91- 257.91	56.06	
68 Styrene					CAS #: 100-42-5			
22.035	22.035 (1.045)	104	46034	0.50	0.45		100.00	8671
22.035	22.035 (0.000)	78	5942			0.00- 98.23	12.91	
69 Bromoform					CAS #: 75-25-2			
22.439	22.439 (1.064)	171	21104	0.50	0.48		100.00	8583(Q)
22.439	22.439 (0.000)	173	9985			132.24- 232.24	47.31	
72 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5			
23.049	23.049 (1.093)	83	66317	0.50	0.53		100.00	7858
23.049	23.049 (0.000)	85	10772			15.52- 115.52	16.24	
74 4-Ethyltoluene					CAS #: 622-96-8			
23.461	23.461 (1.113)	105	83780	0.50	0.50		100.00	9150(M)

RT	EXP RT	(REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
74 4-Ethyltoluene (continued)									
23.461	23.461	(1.113)	120	5121			0.00- 76.16	6.11	
75 1,3,5-Trimethylbenzene						CAS #: 108-67-8			
23.538	23.538	(1.116)	105	54103	0.50	0.50		100.00	7872(M)
23.461	23.461	(1.113)	120	5121			0.00- 86.08	9.47	
76 1,2,4-Trimethylbenzene						CAS #: 95-63-6			
24.278	24.278	(1.151)	105	46051	0.50	0.48		100.00	8489
24.278	24.278	(0.000)	120	4438			0.00- 89.65	9.64	
79 1,3-Dichlorobenzene						CAS #: 541-73-1			
24.949	24.949	(1.183)	146	53226	0.50	0.51		100.00	
24.964	24.964	(1.184)	148	35359			16.43- 116.43	66.43	
24.972	24.972	(1.184)	111	21562			0.00- 90.51	40.51	
80 1,4-Dichlorobenzene						CAS #: 106-46-7			
25.140	25.140	(1.192)	146	50618	0.50	0.51		100.00	9322(QH)
25.140	25.140	(0.000)	148	6521			13.43- 113.43	12.88	
25.140	25.140	(0.000)	111	3571			0.00- 84.73	7.05	
81 Benzyl Chloride						CAS #: 100-44-7			
25.369	25.369	(1.203)	91	53518	0.50	0.37		100.00	9371
25.369	25.369	(0.000)	126	2099			0.00- 68.55	3.92	
82 1,2-Dichlorobenzene						CAS #: 95-50-1			
25.987	25.987	(1.232)	146	48606	0.50	0.51		100.00	9393(Q)
25.987	25.987	(0.000)	148	6172			16.59- 116.59	12.70	
25.987	25.987	(0.000)	111	4089			0.00- 94.12	8.41	
85 1,2,4-Trichlorobenzene						CAS #: 120-82-1			
30.213	30.213	(1.433)	180	15319	0.50	0.46		100.00	8498(Q)
30.213	30.213	(0.000)	182	2079			28.78- 128.78	13.57	
86 Hexachlorobutadiene						CAS #: 87-68-3			
30.656	30.656	(1.454)	225	24691	0.50	0.48		100.00	9298
30.656	30.656	(0.000)	223	2436			5.38- 105.38	9.87	

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Air Toxics Limited

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdj.i
Lab File ID: j052707.d
Lab Smp Id:
Analysis Type: VOA
Quant Type: ISTD
Operator: MH
Method File: /chem/msdj.i/j-27may.b/to140527.m
Misc Info:

Calibration Date: 05/27/97
Calibration Time: 1318
Client Smp ID: VSTD150
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	% DIFF
32 Bromochloromethane	169501	101701	237301	169501	0.00
42 1,4-Difluorobenzene	765034	459020	1071048	765034	0.00
62 Chlorobenzene-d5	826153	495692	1156614	826153	0.00

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	% DIFF
32 Bromochloromethane	15.69	15.19	16.19	15.69	0.00
42 1,4-Difluorobenzene	17.03	16.53	17.53	17.03	0.00
62 Chlorobenzene-d5	21.09	20.59	21.59	21.09	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.

0107

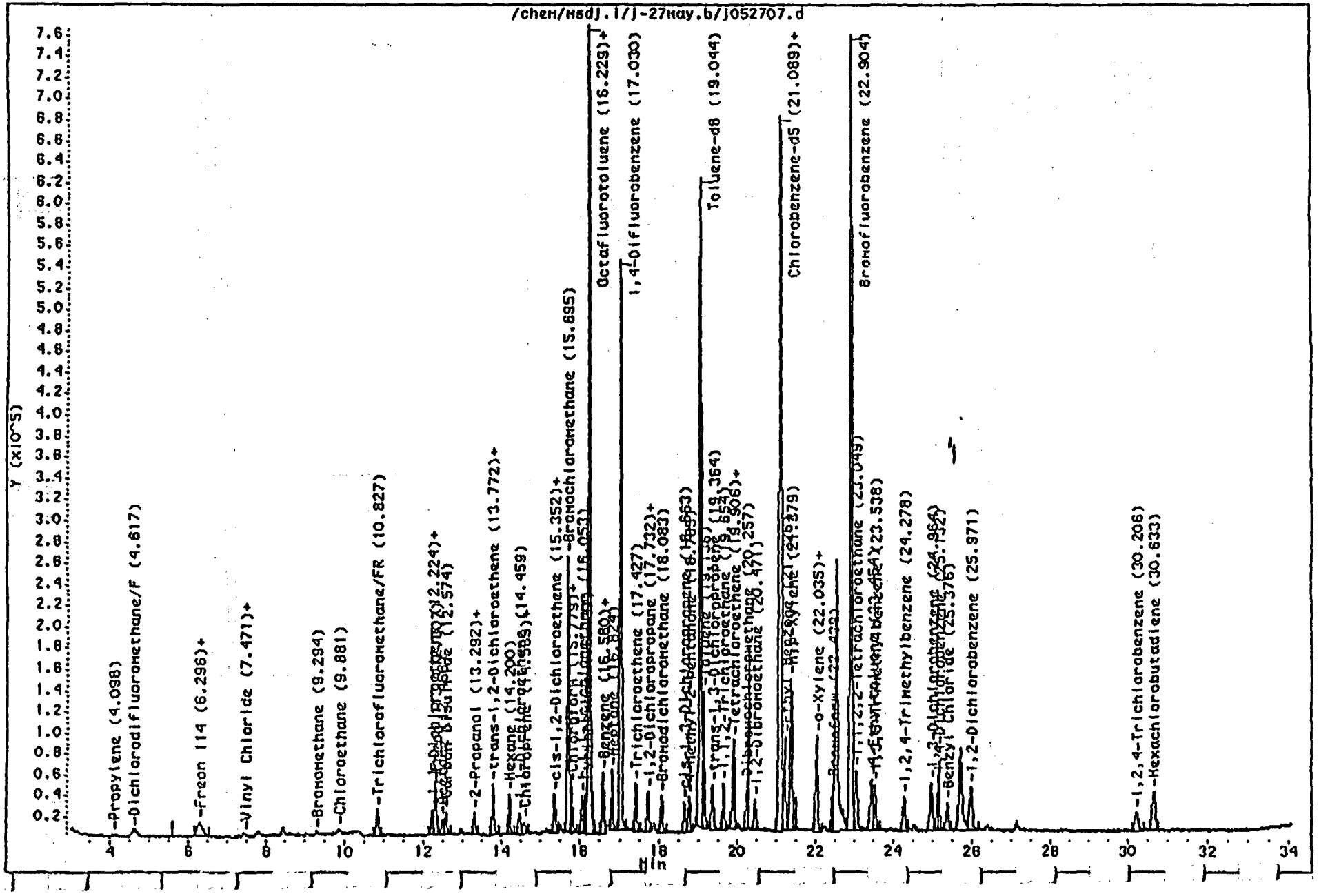
Data File: /chem/msdj.i/j-27may.b/j052707.d
Date : 27-MAY-1997 13:18
Client ID: VSTD150
Sample Info: 2.5mL W315-48 100ppbv TO14 Std. (0.5ppbv)

Instrument: msdj.i

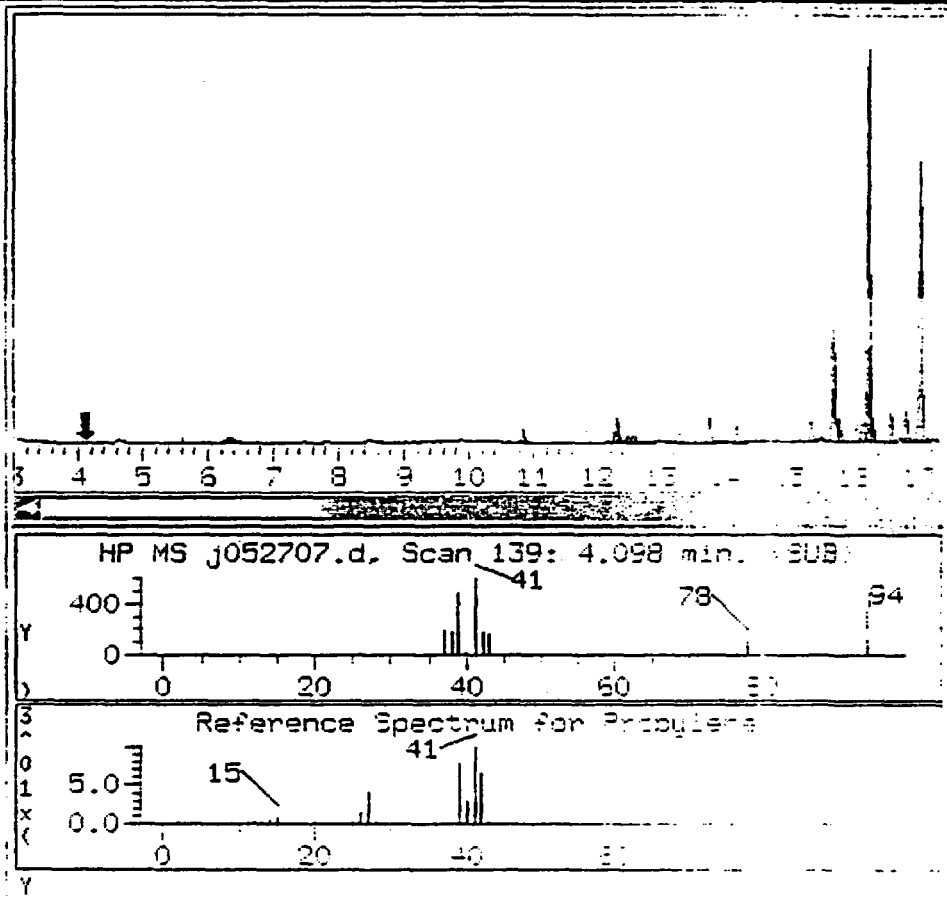
Operator: MH

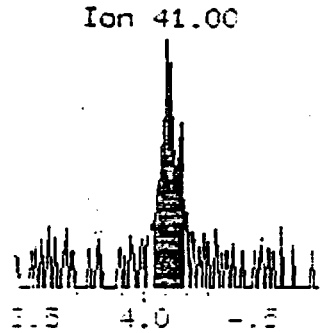
Column phase: RTx-624

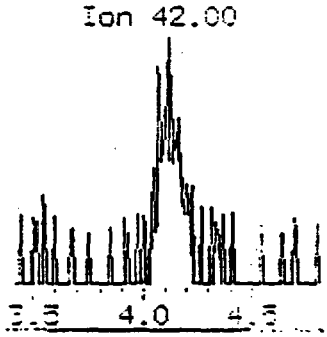
Column diameter: 0.58

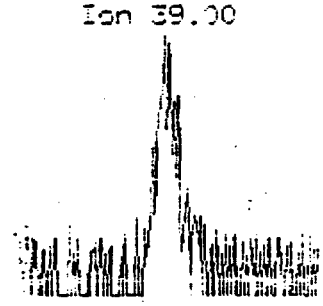


TargetReview-Host calvin









Hit#	RT(min)	Response	Amount	Conc	Ratio	Flags
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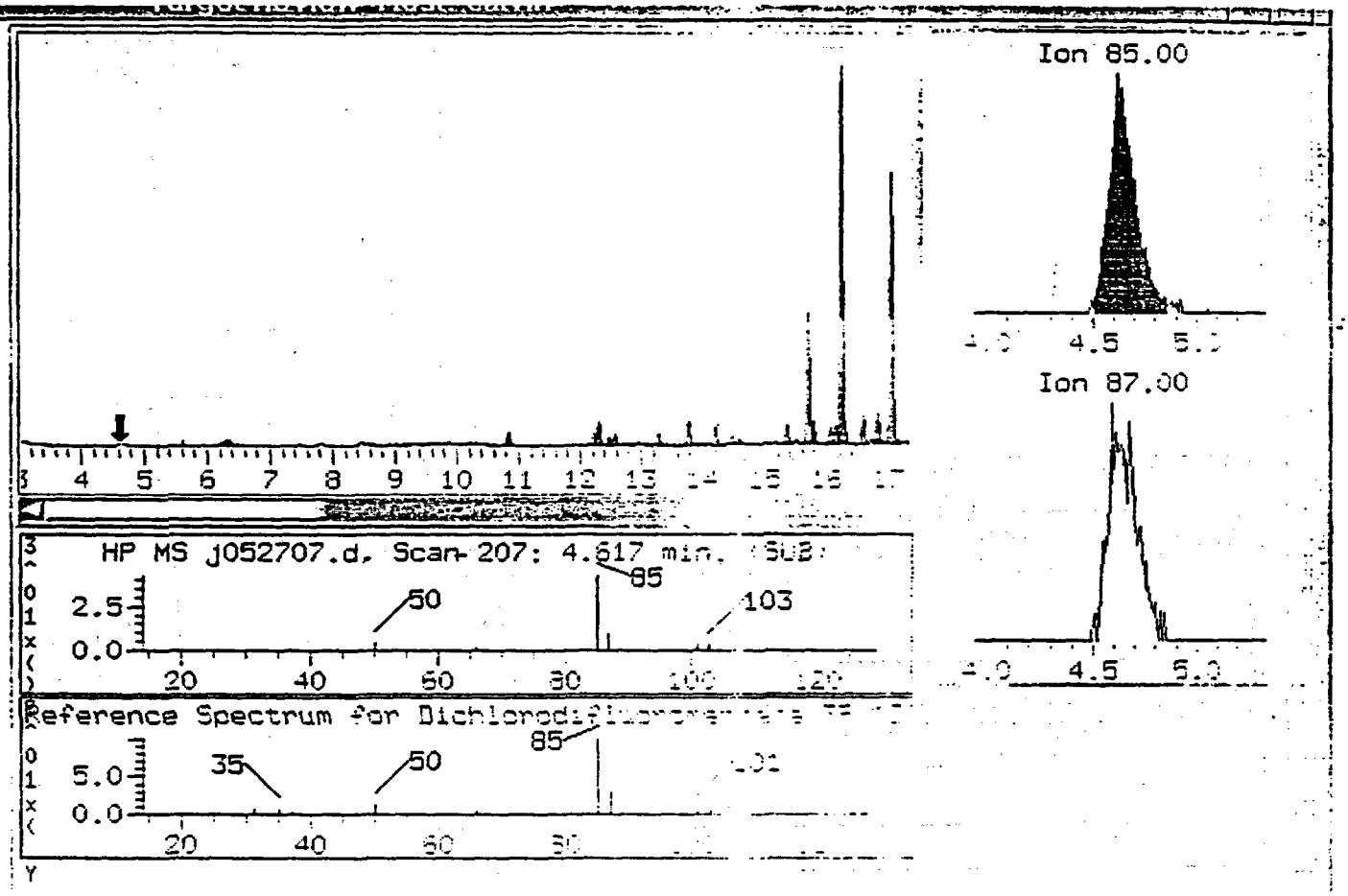
	4.098	60			2	
	4.098	168			4	

- Mark Propylene Undetected.



Hit#	RT(min)	Response	Amount	Conc	Ratio	Flags
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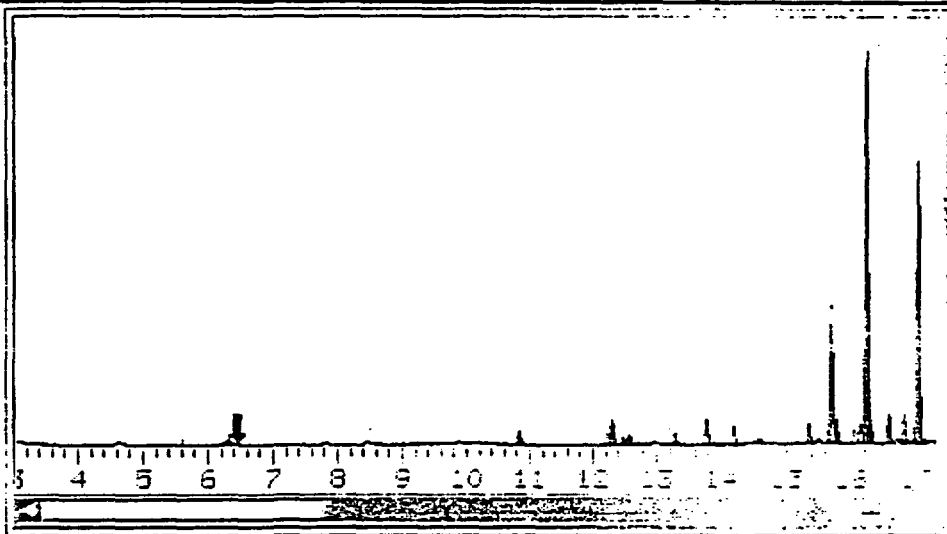
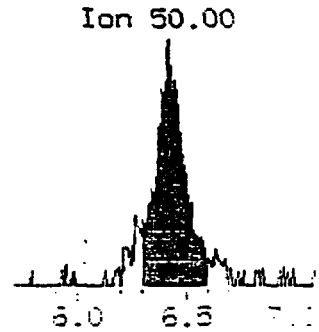
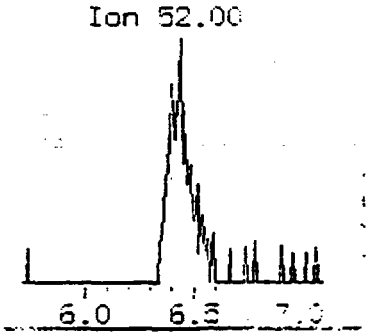
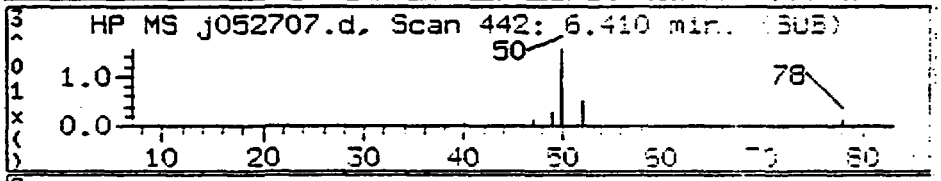
	4.617	1024			3	

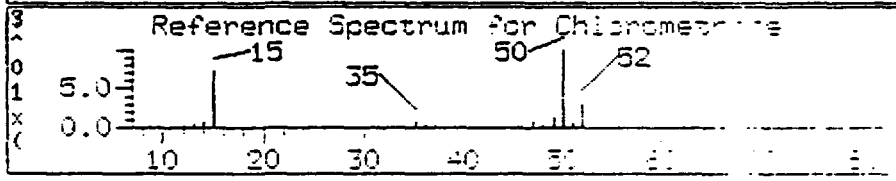
- Mark Dichlorodifluoromethane/FR 12 Undetected.







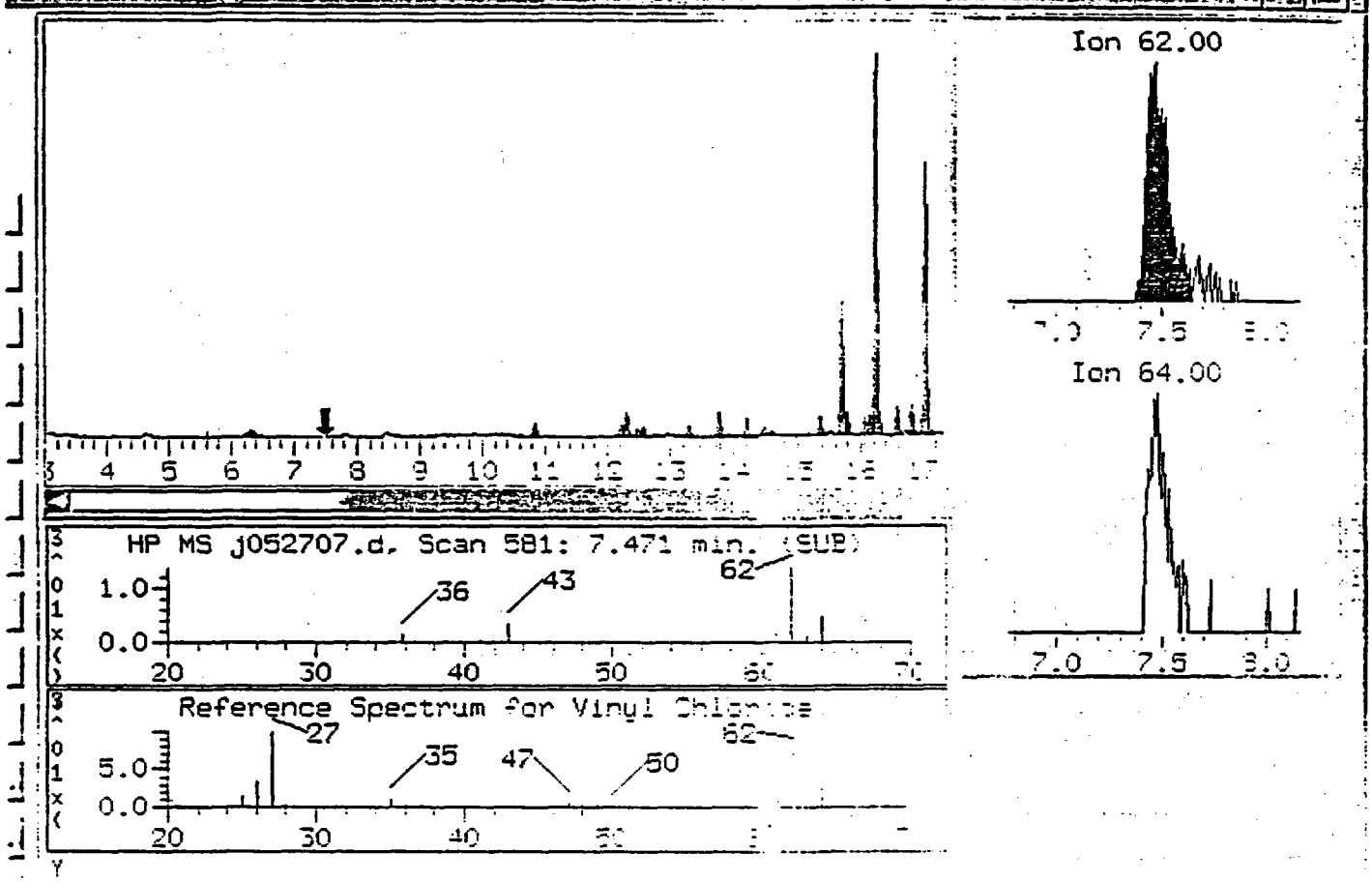




Hit#	RT(min)	Response	Amount:	Conc	Ratio	Flags
1	6.410	16411	0.59	0.59	100	M
	6.380	385				

- Mark Chloromethane Undetected.

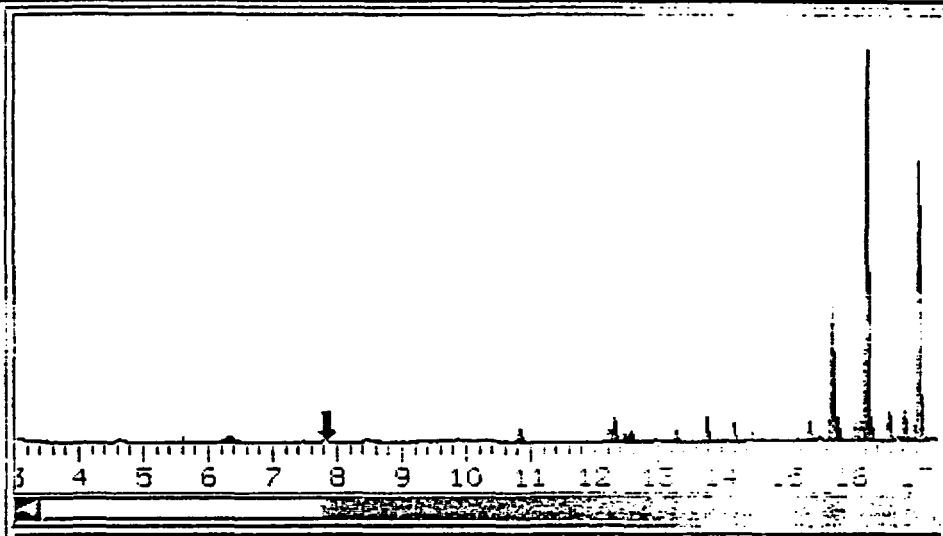
Target Review: Host: calvin

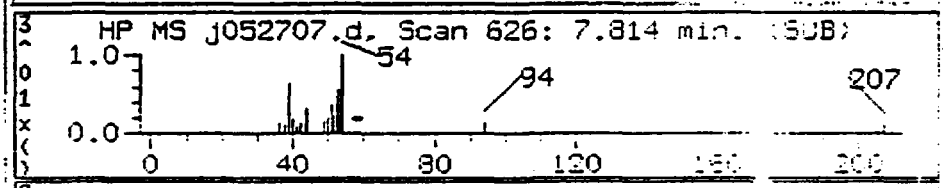


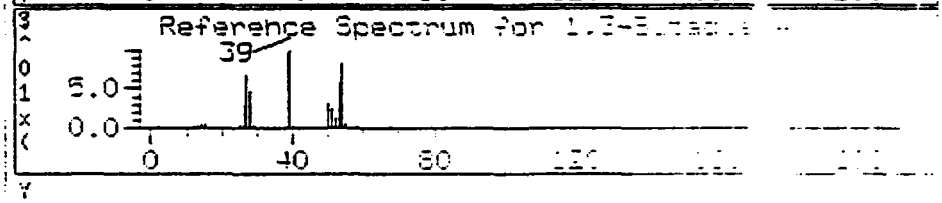
Hit#	RT(min)	Response	Amount :	Conc	Ratio	Flags
1	7.471	9314	0.46	0.46	100	M
	7.471	473				

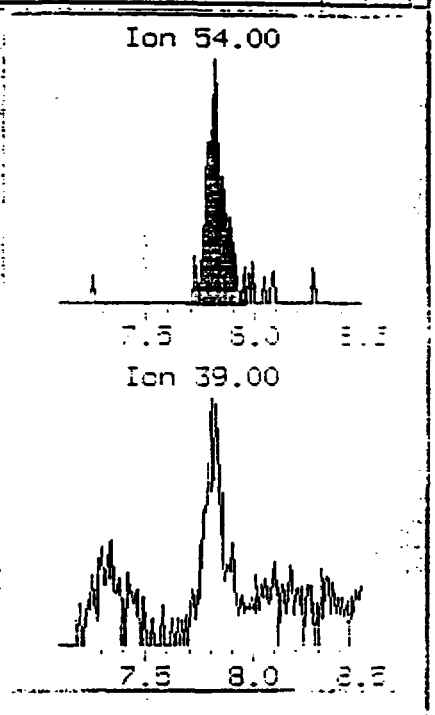
- Mark Vinyl Chloride Undetected.

Target Review Host-Calvin





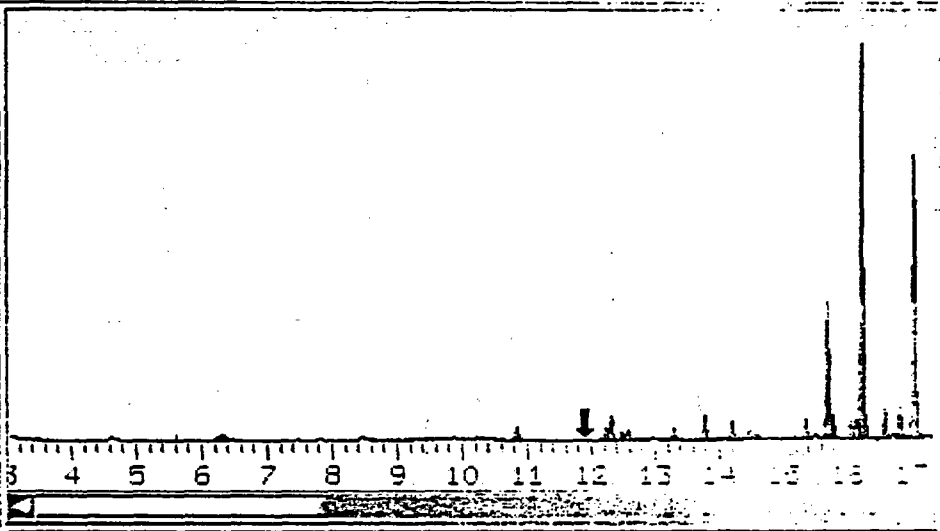


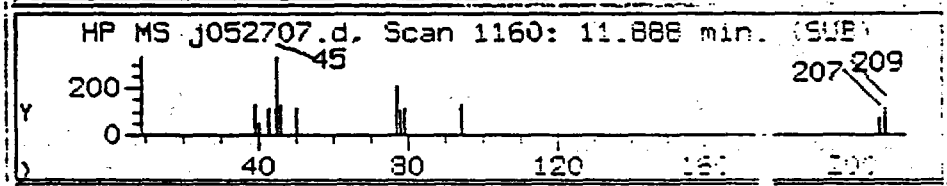


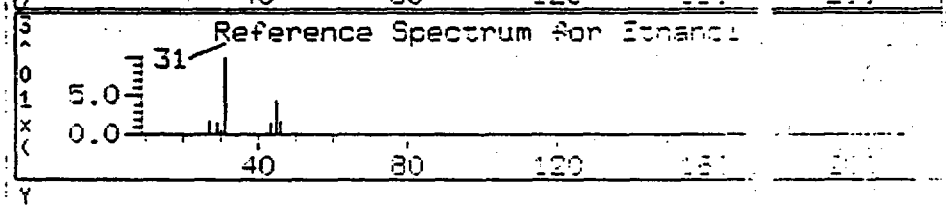
Hit#	RT(min)	Response	Amount	Conc	Ratio	Flags
1	7.814	5157	0.41	0.41	100	M
	7.814	536			10	

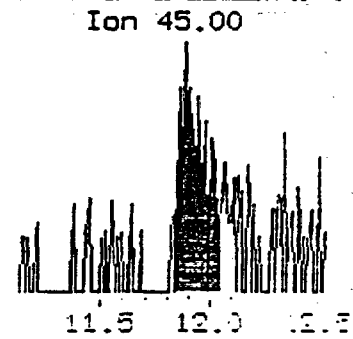
- Mark 1,3-Butadiene Undetected.

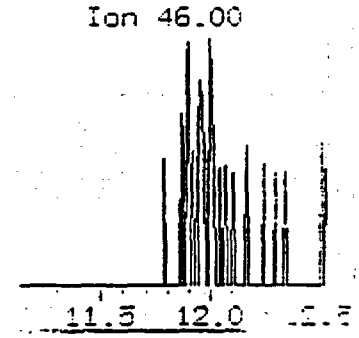
Target Review [illegible]







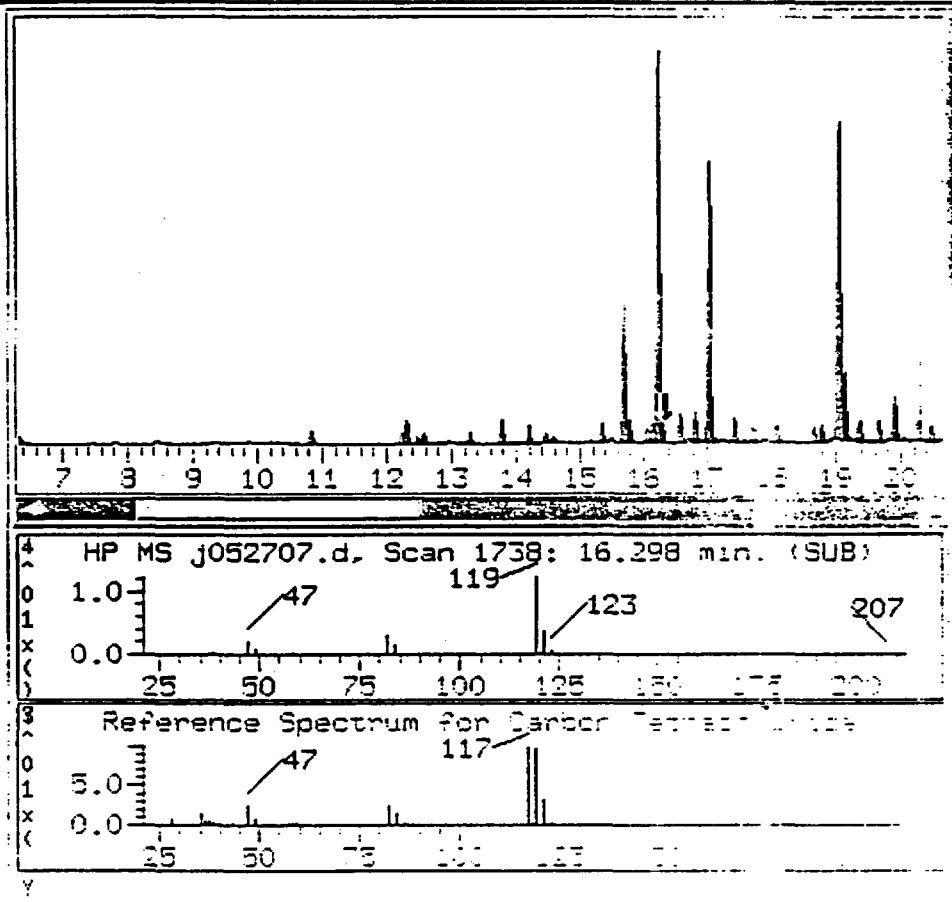


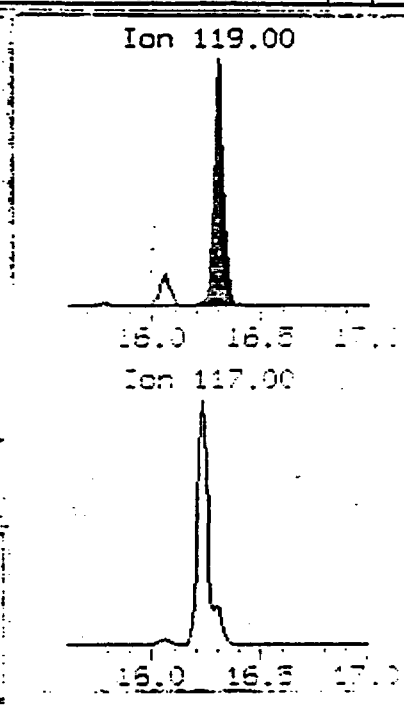


Hit#	RT(min)	Response	Amount	Conc	Ratio	Flags
1	11.888	3296	0.53	0.53	100	M
	11.865	137			-	
	11.827	327			[illegible]	

- Mark Ethanol Undetected.

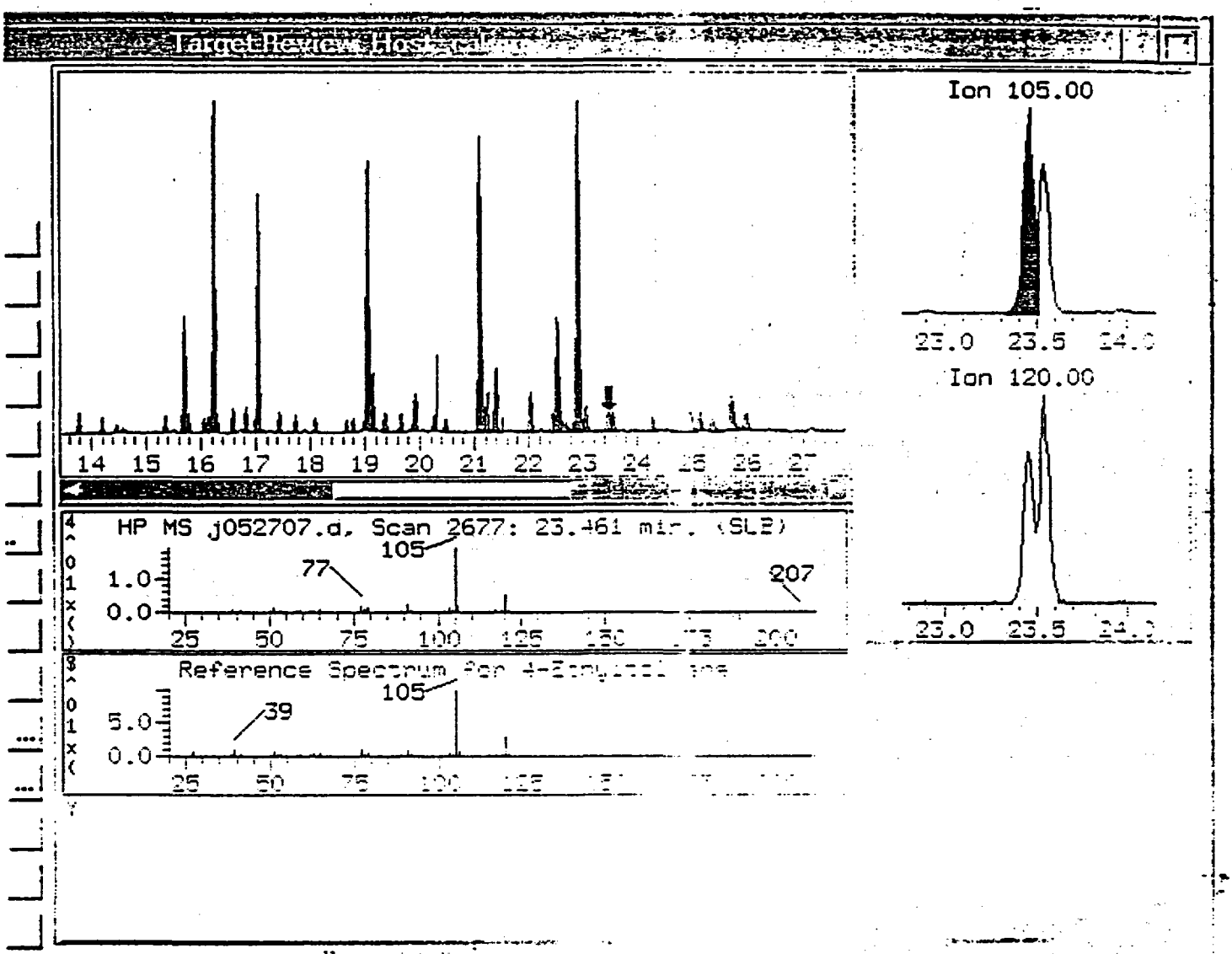
Target Review: Host2calvin





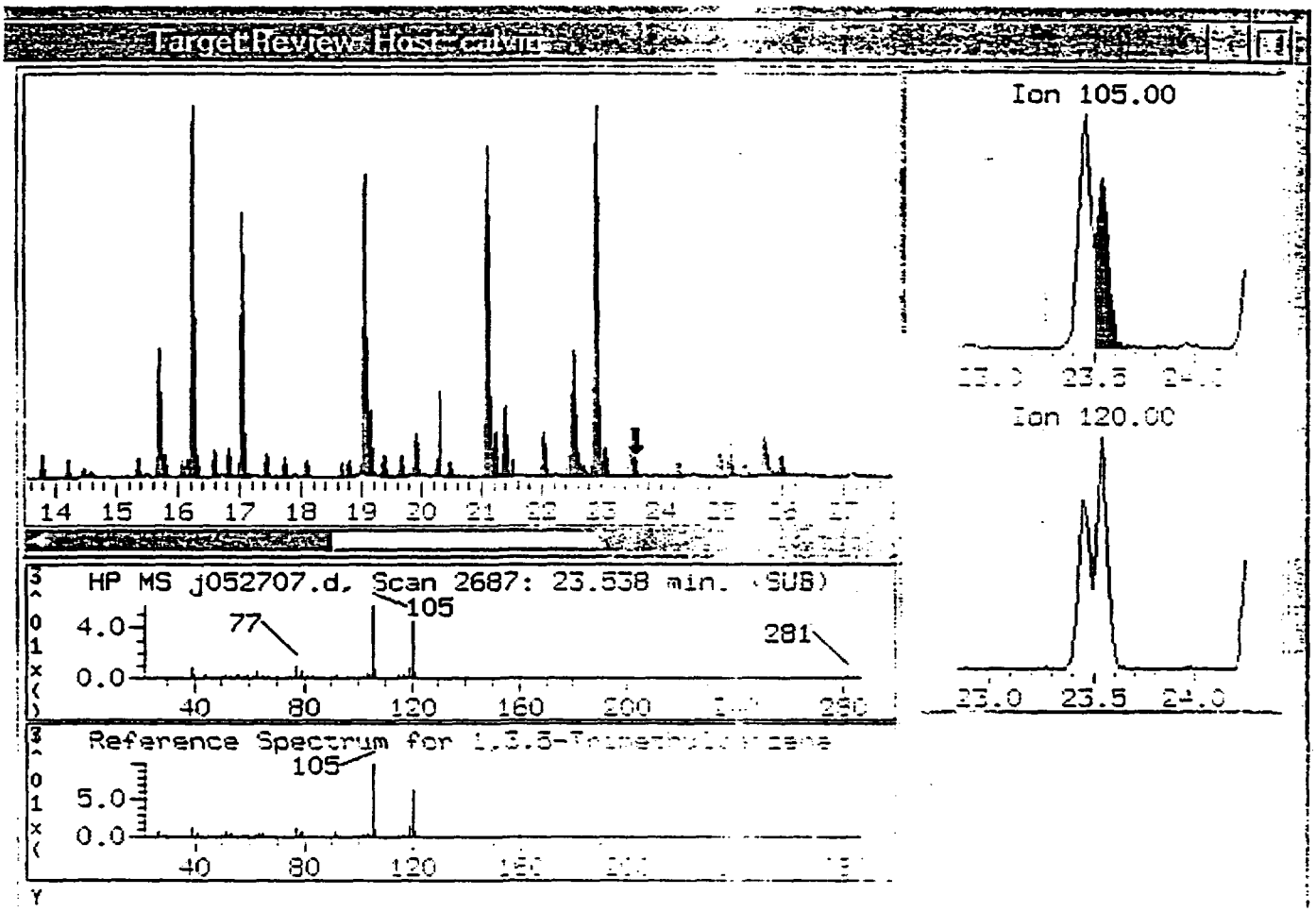
Hit#	RT(min)	Response	Amount	Conc	Ratio	Flags
1	16.061	4982	0.07	0.07	100	H
	16.061	1727			35	
2	16.298	37928	0.51	0.51	100	H
	16.298	0				

- Mark Carbon Tetrachloride Undetected.



Hit#	RT(min)	Response	Amount	Conc	Ratio	Flags
1	23.461	83780	0.50	0.50	100	M
	23.461	5121				

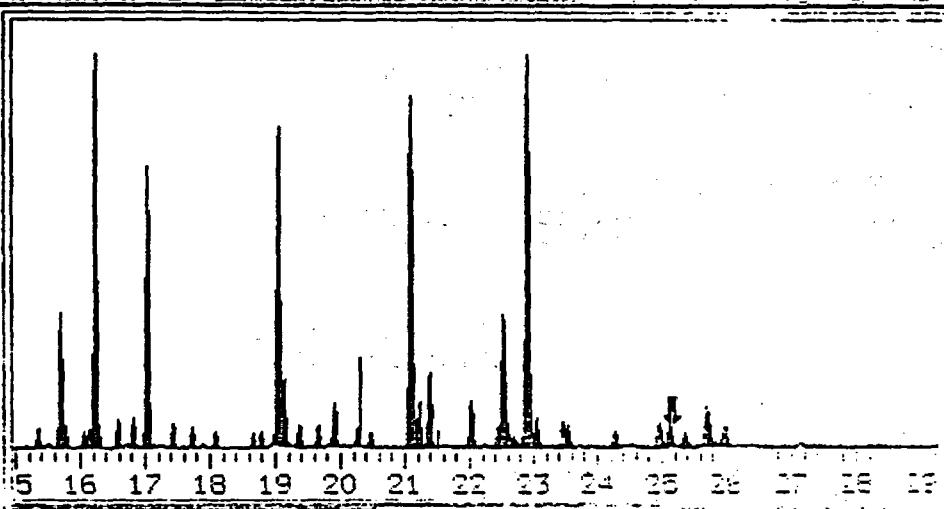
- Mark 4-Ethyltoluene Undetected.

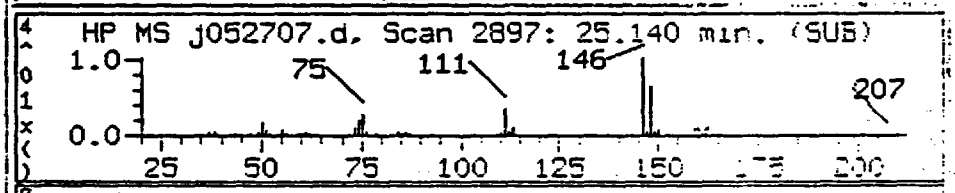


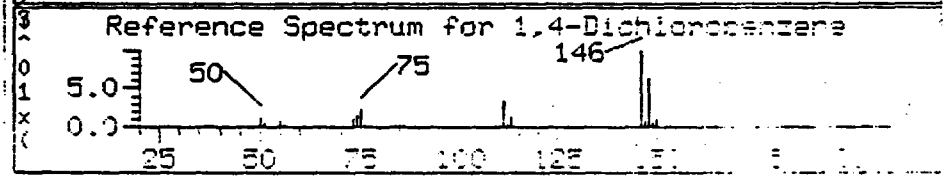
Hit#	RT(min)	Response	Amount	Conc	Ratio	Flags
1	23.538	54103	0.50	0.50	100	M
	23.461	5121				

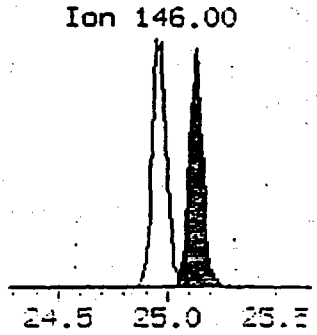
- Mark 1,3,5-Trimethylbenzene Undetected.

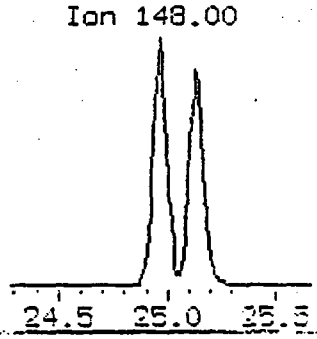
Target Review Host calcir

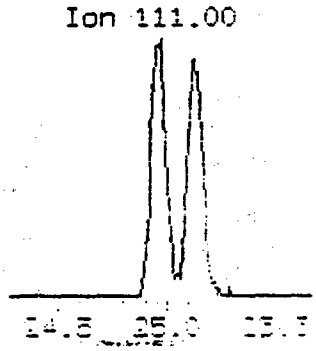












Hit#	RT(min)	Response	Amount	Conc	Ratio	Flags
1	24.949	53226	0.53	0.53	100	QH
	24.949	6424			12	
	24.949	4340			8	
2	25.140	50618	0.51	0.51	100	QH
	25.140	6521			13	
	25.140	3571			7	

Data File: /chem/msdj.i/j-27may.b/j052709.d
Report Date: 27-May-1997 16:18

Air Toxics Limited

AMBIENT AIR METHOD TO14

Data file : /chem/msdj.i/j-27may.b/j052709.d
Lab Smp Id: Client Smp ID: Level 3
Inj Date : 27-MAY-1997 14:45
Operator : MH Inst ID: msdj.i
Smp Info : 12.5mL#315-57 200ppbv TO14 Std. (5ppbv)
Misc Info :
Comment :
Method : /chem/msdj.i/j-27may.b/to140527.m
Meth Date : 27-May-1997 16:14 mhe Quant Type: ISTD
Cal Date : 27-MAY-1997 14:45 Cal File: j052709.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
* 32 Bromochloromethane					CAS #: 74-97-5			
15.698	15.699 (1.000)	130	166547	5.0			100.00	9310(Q)
15.698	15.699 (0.000)	128	39408			29.71- 129.71	23.66	
15.698	15.699 (0.000)	49	62152			85.18- 185.18	37.32	
* 42 1,4-Difluorobenzene					CAS #: 540-36-3			
17.033	17.034 (1.000)	114	763110	5.0			100.00	9647
17.033	17.034 (0.000)	88	39168			0.00- 67.09	5.13	
* 62 Chlorobenzene-d5					CAS #: 3114-55-4			
21.099	21.100 (1.000)	117	806867	5.0			100.00	9975
21.099	21.100 (0.000)	82	120538			3.25- 103.25	14.94	
$ 37 Octafluorotoluene					CAS #: 434-64-0			
16.232	16.240 (1.034)	217	552387	5.0	5.0		100.00	7191
16.232	16.240 (0.000)	186	109208			8.78- 108.78	19.77	
$ 50 Toluene-d8					CAS #: 2037-26-5			
19.047	19.048 (1.118)	98	718387	5.0	5.0		100.00	9947
19.047	19.048 (0.000)	70	24824			0.00- 61.62	3.46	
19.047	19.048 (0.000)	100	147787			19.06- 119.06	20.57	

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	CONCENTRATIONS FINAL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
S 71 Bromofluorobenzene					CAS #: 460-00-4			
22.907	22.916 (1.086)	95	635948	5.0	5.0		100.00	8864(Q)
22.907	22.916 (0.000)	174	120200			26.29- 126.29	18.90	
22.907	22.916 (0.000)	176	118800			23.94- 123.94	18.68	
1 Propylene					CAS #: 115-07-1			
4.109	4.117 (0.262)	41	35473	5.0	5.0		100.00	7518(QM)
4.109	4.117 (0.262)	42	3247			11.39- 111.39	9.15	
4.109	4.117 (0.262)	39	4796			42.12- 142.12	13.52	
2 Dichlorodifluoromethane/FR 12					CAS #: 75-71-8			
4.635	4.644 (0.295)	85	315970	5.0	5.0		100.00	9051
4.635	4.644 (0.000)	87	9589			0.00- 80.85	3.03	
3 Freon 114					CAS #: 76-14-2			
6.314	6.292 (0.402)	135	236647	5.0	5.0		100.00	8615
6.314	6.292 (0.000)	137	8250			0.00- 79.30	3.49	
4 Chloromethane					CAS #: 74-87-3			
6.413	6.414 (0.409)	50	116545	5.0	5.0		100.00	6163
6.413	6.414 (0.000)	52	4953			0.00- 75.63	4.25	
5 Vinyl Chloride					CAS #: 75-01-4			
7.466	7.474 (0.476)	62	100273	5.0	5.0		100.00	4485
7.466	7.474 (0.000)	64	4768			0.00- 85.46	4.76	
6 1,3-Butadiene					CAS #: 106-99-0			
7.809	7.802 (0.497)	54	60261	5.0	5.0		100.00	6554(Q)
7.809	7.802 (0.000)	39	12228			53.02- 153.02	20.29	
7 Bromomethane					CAS #: 74-83-9			
9.312	9.305 (0.593)	94	31569	5.0	5.0		100.00	6583(Q)
9.312	9.305 (0.000)	96	6583			45.00- 145.00	20.85	
8 Chloroethane					CAS #: 75-00-3			
9.877	9.885 (0.629)	64	63012	5.0	5.0		100.00	4019
9.877	9.885 (0.000)	66	4625			0.00- 79.53	7.34	
9 Trichlorofluoromethane/FR 11					CAS #: 75-69-4			
10.830	10.831 (0.690)	101	408128	5.0	5.0		100.00	9003
10.830	10.831 (0.000)	103	62976			13.39- 113.39	15.43	
11 Ethanol					CAS #: 64-17-5			
11.868	11.838 (0.756)	45	30085	5.0	5.0		100.00	(M)
11.891	11.838 (0.757)	46	11081			0.00- 92.20	36.83	
11.868	11.838 (0.756)	43	5687			0.00- 70.86	18.90	
13 1,1-Dichloroethene					CAS #: 75-35-4			
12.219	12.220 (0.778)	96	142402	5.0	5.0		100.00	8918(Q)

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
13 1,1-Dichloroethene (continued)								
12.219	12.220 (0.000)	61	69152			118.20- 218.20	48.56	
12.219	12.220 (0.000)	98	26648			16.44- 116.44	18.71	
14 Freon 113					CAS #: 76-13-1			
12.310	12.311 (0.784)	151	271665	5.0	5.0		100.00	8296(Q)
12.310	12.311 (0.000)	153	42616			14.66- 114.66	15.69	
12.310	12.311 (0.000)	101	85989			82.31- 182.31	31.65	
17 Carbon Disulfide					CAS #: 75-15-0			
12.577	12.578 (0.801)	76	442024	5.0	5.0		100.00	7870
15 Acetone					CAS #: 67-64-1			
12.455	12.448 (0.793)	43	228179	5.0	5.0		100.00	
12.455	12.448 (0.793)	58	68479			0.00- 81.57	30.01	
18 2-Propanol					CAS #: 67-63-0			
12.921	12.921 (0.823)	45	192899	5.0	5.0		100.00	7537
12.921	12.921 (0.000)	43	8447			0.00- 69.89	4.38	
12.921	12.921 (0.000)	59	1919			0.00- 55.02	0.99	
21 Methylene Chloride					CAS #: 75-09-2			
13.294	13.295 (0.847)	84	148763	5.0	5.0		100.00	9167(Q)
13.294	13.295 (0.000)	49	54168			74.56- 174.56	36.41	
13.294	13.295 (0.000)	51	16223			0.00- 90.50	10.91	
23 trans-1,2-Dichloroethene					CAS #: 156-60-5			
13.775	13.776 (0.878)	96	162636	5.0	5.0		100.00	8233(Q)
13.775	13.776 (0.000)	61	71672			91.71- 191.71	44.07	
13.775	13.776 (0.000)	98	31600			12.64- 112.64	19.43	
24 MTBE					CAS #: 1634-04-4			
13.767	13.761 (0.877)	73	403627	5.0	5.0		100.00	6092
13.767	13.761 (0.000)	57	23865			0.00- 70.95	5.91	
13.767	13.761 (0.000)	41	22713			0.00- 69.73	5.63	
25 Hexane					CAS #: 110-54-3			
14.202	14.203 (0.905)	57	274663	5.0	5.0		100.00	7286
14.202	14.203 (0.000)	43	51638			6.89- 106.89	18.80	
14.202	14.203 (0.000)	56	45856			2.04- 102.04	16.70	
26 1,1-Dichloroethane					CAS #: 75-34-3			
14.462	14.463 (0.921)	63	303744	5.0	5.0		100.00	6397
14.462	14.463 (0.000)	65	29192			0.00- 84.34	9.61	
28 Chloroprene					CAS #: 126-99-8			
14.599	14.600 (0.930)	53	104156	5.0	5.0		100.00	7868
14.599	14.600 (0.000)	88	17696			3.61- 103.61	16.99	

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RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
28 Chloroprene (continued)								
14.599	14.600 (0.000)	50	7891			0.00- 76.13	7.58	
27 Vinyl Acetate					CAS #: 108-05-4			
14.546	14.539 (0.927)	43	334298	5.0	5.0		100.00	6009
14.546	14.539 (0.000)	86	7536			0.00- 60.39	2.25	
30 cis-1,2-Dichloroethene					CAS #: 156-59-2			
15.347	15.348 (0.978)	96	189126	5.0	5.0		100.00	8169(Q)
15.347	15.348 (0.000)	61	74071			82.34- 182.34	39.16	
15.347	15.348 (0.000)	98	36840			13.28- 113.28	19.48	
29 2-Butanone					CAS #: 78-93-3			
15.339	15.340 (0.977)	72	82647	5.0	5.0		100.00	7903(Q)
15.339	15.340 (0.000)	43	84190			326.68- 426.68	101.87	
15.339	15.340 (0.000)	57	7294			0.00- 78.46	8.83	
34 Chloroform					CAS #: 67-66-3			
15.782	15.790 (1.005)	83	356811	5.0	5.0		100.00	8051
15.782	15.790 (0.000)	85	72696			15.04- 115.04	20.37	
33 Tetrahydrofuran					CAS #: 109-99-9			
15.759	15.767 (1.004)	42	136557	5.0	5.0		100.00	7476
15.759	15.767 (0.000)	71	17144			0.00- 94.74	12.55	
15.759	15.767 (0.000)	72	18830			0.57- 100.57	13.79	
35 1,1,1-Trichlorethane					CAS #: 71-55-6			
16.056	16.057 (1.023)	97	361586	5.0	5.0		100.00	7460
16.056	16.057 (0.000)	99	71048			14.76- 114.76	19.65	
36 Cyclohexane					CAS #: 110-82-7			
16.140	16.141 (1.028)	56	301756	5.0	5.0		100.00	7976(Q)
16.140	16.141 (0.000)	84	71736			28.07- 128.07	23.77	
16.140	16.141 (0.000)	41	44175			0.00- 99.85	14.64	
38 Carbon Tetrachloride					CAS #: 56-23-5			
16.300	16.309 (1.038)	119	368236	5.0	5.0		100.00	8731(QH)
16.300	16.309 (0.000)	117	106484			44.66- 144.66	28.92	
39 Benzene					CAS #: 71-43-2			
16.583	16.584 (0.974)	78	580414	5.0	5.0		100.00	7937
16.583	16.584 (0.000)	77	42490			0.00- 73.15	7.32	
40 1,2-Dichloroethane					CAS #: 107-06-2			
16.590	16.591 (0.974)	62	250929	5.0	5.0		100.00	6395
16.590	16.591 (0.000)	64	23648			0.00- 82.42	9.42	
41 Heptane					CAS #: 142-82-5			
16.827	16.828 (0.988)	43	337573	5.0	5.0		100.00	7628

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
41 Heptane (continued)								
16.827	16.828 (0.000)	57	62598			6.71- 106.71	18.54	
16.827	16.828 (0.000)	71	67696			11.84- 111.84	20.05	
43 Trichloroethene					CAS #: 79-01-6			
17.429	17.430 (1.023)	95	259087	5.0	5.0		100.00	8368(Q)
17.429	17.430 (0.000)	130	81056			50.36- 150.36	31.29	
17.429	17.430 (0.000)	97	52616			15.47- 115.47	20.31	
44 1,2-Dichloropropane					CAS #: 78-87-5			
17.735	17.736 (1.041)	63	225796	5.0	5.0		100.00	8684
17.735	17.736 (0.000)	62	51760			23.36- 123.36	22.92	
17.735	17.736 (0.000)	41	35656			0.69- 100.69	15.79	
45 1,4-Dioxane					CAS #: 123-91-1			
17.887	17.888 (1.050)	88	134139	5.0	5.0		100.00	2827(Q)
17.887	17.888 (0.000)	58	29864			20.71- 120.71	22.26	
17.887	17.888 (0.000)	57	9217			0.00- 72.15	6.87	
46 Bromodichloromethane					CAS #: 75-27-4			
18.086	18.086 (1.062)	83	415810	5.0	5.0		100.00	9326
18.086	18.086 (0.000)	85	79880			15.89- 115.89	19.21	
48 cis-1,3-Dichloropropene					CAS #: 10061-01-5			
18.665	18.666 (1.096)	75	358961	5.0	5.0		100.00	9215
18.665	18.666 (0.000)	77	34259			0.00- 82.03	9.54	
18.665	18.666 (0.000)	39	47119			0.00- 95.15	13.13	
49 4-Methyl-2-pentanone					CAS #: 108-10-1			
18.787	18.788 (1.103)	43	425966	5.0	5.0		100.00	6788
18.787	18.788 (0.000)	58	53678			0.00- 91.69	12.60	
18.787	18.788 (0.000)	85	20303			0.00- 65.42	4.77	
52 Toluene					CAS #: 108-88-3			
19.138	19.139 (1.124)	92	477646	5.0	5.0		100.00	8532(Q)
19.138	19.139 (0.000)	91	243095			113.30- 213.30	50.89	
53 trans-1,3-Dichloropropene					CAS #: 10061-02-6			
19.383	19.383 (0.919)	75	301467	5.0	5.0		100.00	8463
19.383	19.383 (0.000)	77	26635			0.00- 81.75	8.84	
19.383	19.383 (0.000)	39	38952			0.00- 94.16	12.92	
55 1,1,2-Trichloroethane					CAS #: 79-00-5			
19.657	19.666 (0.932)	97	263669	5.0	5.0		100.00	8915(Q)
19.657	19.666 (0.000)	99	47696			13.16- 113.16	18.09	
19.657	19.666 (0.000)	83	64632			34.65- 134.65	24.51	
58 Tetrachloroethene					CAS #: 127-18-4			
19.917	19.917 (0.944)	166	373499	5.0	5.0		100.00	9302

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	CONCENTRATIONS FINAL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
58 Tetrachloroethene (continued)								
19.917	19.917 (0.000)	129	76904			21.57- 121.57	20.59	
19.917	19.917 (0.000)	131	77440			20.15- 120.15	20.73	
57 2-Hexanone					CAS #: 591-78-6			
19.894	19.895 (0.943)	43	428343	5.0	5.0		100.00	8714
19.894	19.895 (0.000)	58	76016			7.81- 107.81	17.75	
19.894	19.895 (0.000)	100	15852			0.00- 62.00	3.70	
60 Dibromochloromethane					CAS #: 124-48-1			
20.260	20.261 (0.960)	129	409782	5.0	5.0		100.00	8934
20.260	20.261 (0.000)	208	6340			0.00- 56.05	1.55	
61 1,2-Dibromoethane					CAS #: 106-93-4			
20.466	20.474 (0.970)	107	397096	5.0	5.0		100.00	5533(Q)
20.466	20.474 (0.000)	109	101816			48.05- 148.05	25.64	
63 Chlorobenzene					CAS #: 108-90-7			
21.137	21.146 (1.002)	112	686227	5.0	5.0		100.00	9164
21.137	21.146 (0.000)	114	58488			0.00- 82.25	8.52	
21.137	21.146 (0.000)	77	106437			8.06- 108.06	15.51	
64 Ethyl Benzene					CAS #: 100-41-4			
21.229	21.230 (1.006)	106	404980	5.0	5.0		100.00	
21.229	21.230 (1.006)	91	1283884			268.72- 368.72	317.02	
65 m,p-Xylene					CAS #: 108-38-3			
21.381	21.390 (1.013)	106	924166	10.0	10.0		100.00	
21.381	21.390 (1.013)	91	1836246			149.27- 249.27	198.69	
67 o-Xylene					CAS #: 95-47-6			
22.030	22.031 (1.044)	106	343331	5.0	5.0		100.00	7974(Q)
22.030	22.031 (0.000)	91	194340			157.65- 257.65	56.60	
68 Styrene					CAS #: 100-42-5			
22.037	22.046 (1.044)	104	537026	5.0	5.0		100.00	8914
22.037	22.046 (0.000)	78	69599			0.00- 95.23	12.96	
69 Bromoform					CAS #: 75-25-2			
22.442	22.443 (1.064)	171	215029	5.0	5.0		100.00	8743(Q)
22.442	22.443 (0.000)	173	101687			135.19- 235.19	47.29	
72 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5			
23.060	23.061 (1.093)	83	638495	5.0	5.0		100.00	9072
23.060	23.061 (0.000)	85	99096			13.47- 113.47	15.52	
74 4-Ethyltoluene					CAS #: 622-96-8			
23.457	23.465 (1.112)	105	806153	5.0	5.0		100.00	9252(M)

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
74 4-Ethyltoluene (continued)									
23.457	23.465	(1.112)	120	55552			0.00- 79.01	6.89	
75 1,3,5-Trimethylbenzene						CAS #: 108-67-8			
23.540	23.549	(1.116)	105	597407	5.0	5.0		100.00	7930(M)
23.457	23.549	(1.112)	120	55552			7.58- 107.58	9.30	
76 1,2,4-Trimethylbenzene						CAS #: 95-63-6			
24.273	24.281	(1.150)	105	498701	5.0	5.0		100.00	8720
24.273	24.281	(0.000)	120	53528			0.00- 94.21	10.73	
79 1,3-Dichlorobenzene						CAS #: 541-73-1			
24.967	24.976	(1.183)	146	528742	5.0	5.0		100.00	
24.967	24.976	(1.183)	148	335769			14.07- 114.07	63.50	
24.967	24.976	(1.183)	111	223742			0.00- 92.40	42.32	
80 1,4-Dichlorobenzene						CAS #: 106-46-7			
25.135	24.976	(1.191)	146	504107	5.0	5.0		100.00	9318(Q)
25.135	24.976	(0.000)	148	67572			12.68- 112.68	13.40	
25.135	24.976	(0.000)	111	43942			0.00- 89.97	8.72	
81 Benzyl Chloride						CAS #: 100-44-7			
25.371	25.380	(1.202)	91	705723	5.0	5.0		100.00	9521
25.371	25.380	(0.000)	126	30200			0.00- 69.82	4.28	
82 1,2-Dichlorobenzene						CAS #: 95-50-1			
25.982	25.983	(1.231)	146	489176	5.0	5.0		100.00	9373(Q)
25.982	25.983	(0.000)	148	65296			14.48- 114.48	13.35	
25.982	25.983	(0.000)	111	43688			0.00- 94.06	8.93	
85 1,2,4-Trichlorobenzene						CAS #: 120-82-1			
30.216	30.209	(1.432)	180	152948	5.0	5.0		100.00	9073(Q)
30.216	30.209	(0.000)	182	22238			46.99- 146.99	14.54	
86 Hexachlorobutadiene						CAS #: 87-68-3			
30.651	30.659	(1.453)	225	270859	5.0	5.0		100.00	9404(Q)
30.651	30.659	(0.000)	223	27511			12.07- 112.07	10.16	

QC Flag Legend

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

Air Toxics Limited

0125

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdj.i
Lab File ID: j052709.d
Lab Smp Id:
Analysis Type: VOA
Quant Type: ISTD
Operator: MH
Method File: /chem/msdj.i/j-27may.b/to140527.m
Misc Info:

Calibration Date: 05/27/97
Calibration Time: 1445
Client Smp ID: Level 3
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	% DIFF
32 Bromochloromethane	166547	99928	233166	166547	0.00
42 1,4-Difluorobenzene	763110	457866	1068354	763110	0.00
62 Chlorobenzene-d5	806867	484120	1129614	806867	0.00

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	% DIFF
32 Bromochloromethane	15.70	15.20	16.20	15.70	0.00
42 1,4-Difluorobenzene	17.03	16.53	17.53	17.03	0.00
62 Chlorobenzene-d5	21.10	20.60	21.60	21.10	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.

0126

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-27may.b/to140527.m
Misc Info:

Client SDG: j-27may
Fraction: VOA
Client Smp ID: Level 3
Operator: MH
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 37 Octafluorotoluene	5.0	5.0	100.00	60-140
$ 50 Toluene-d8	5.0	5.0	100.00	60-140
$ 71 Bromofluorobenzene	5.0	5.0	100.00	60-140

0127

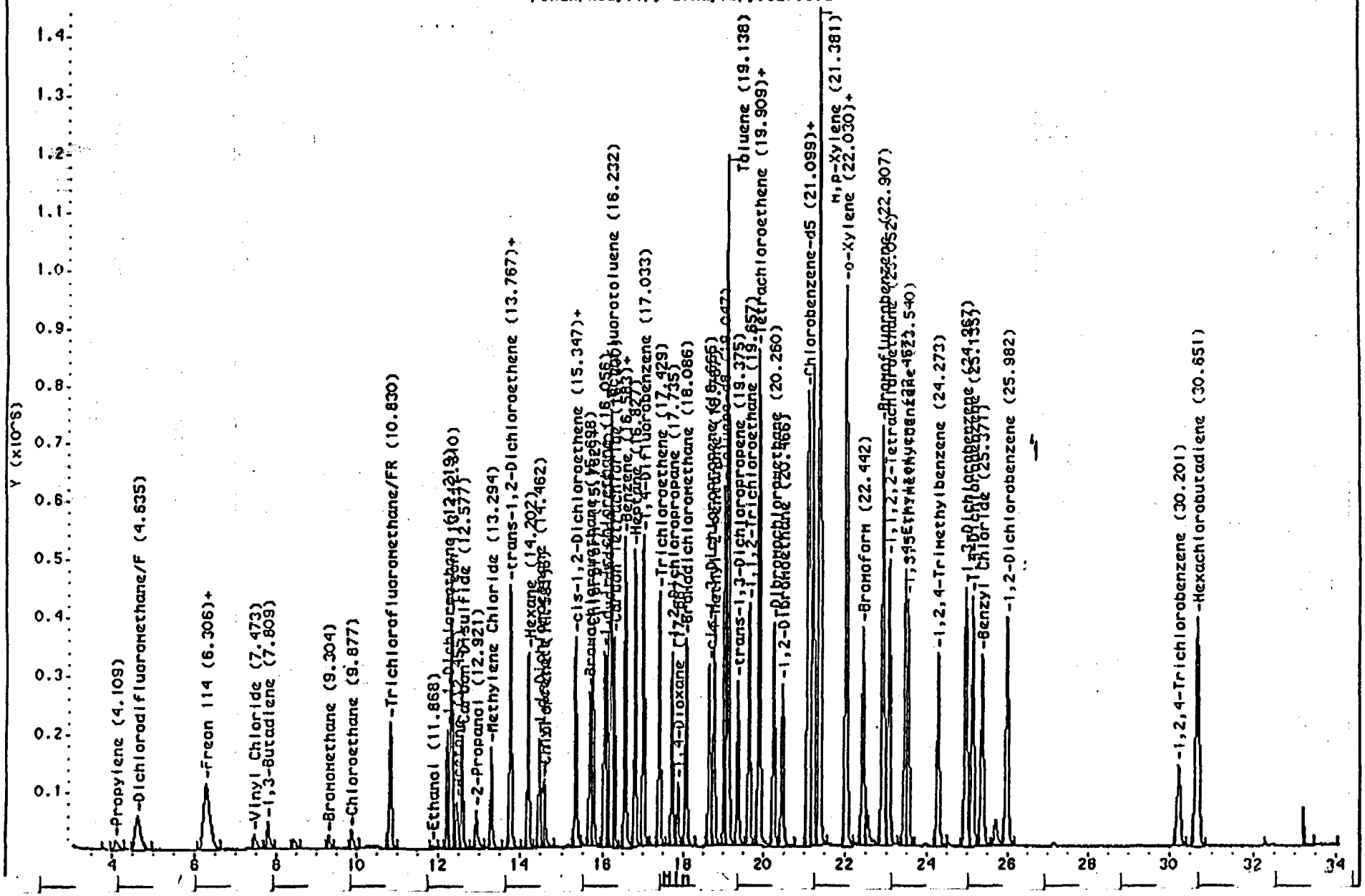
Data File: /chem/msdj.i/j-27may.b/j052709.d
Date : 27-MAY-1997 14:45
Client ID: Level 3
Sample Info: 12.5mL#315-57 200ppbv TO14 Std. (5ppbv)

Column phase: RTx-624

Instrument: msdj.i

Operator: MM
Column diameter: 0.58

/chem/msdj.i/j-27may.b/j052709.d



Data File: /chem/msdj.i/j-27may.b/j052709.d

Date : 27-MAY-1997 14:45

Client ID: Level 3

Instrument: msdj.i

0123

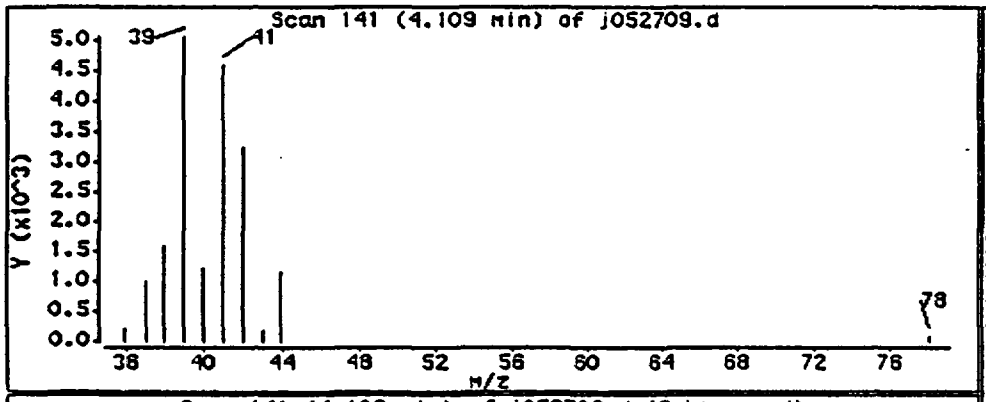
Sample Info: 12.5mL#315-57 200ppbv TO14 Std. (5ppbv)

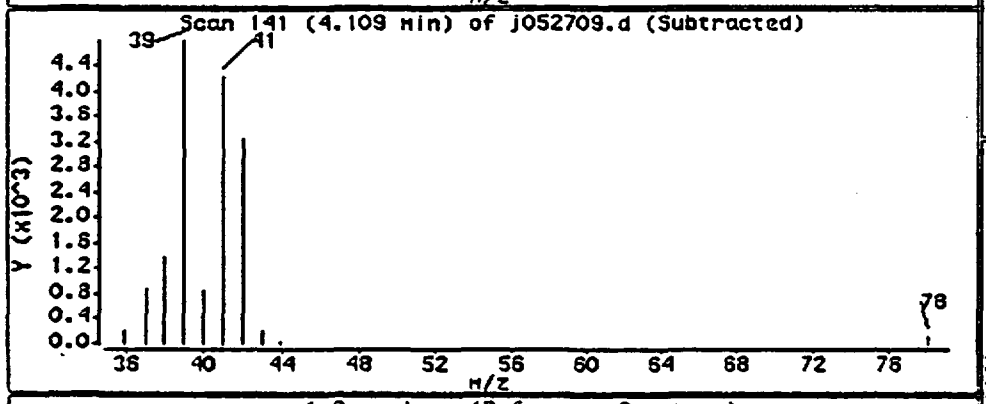
Operator: MH

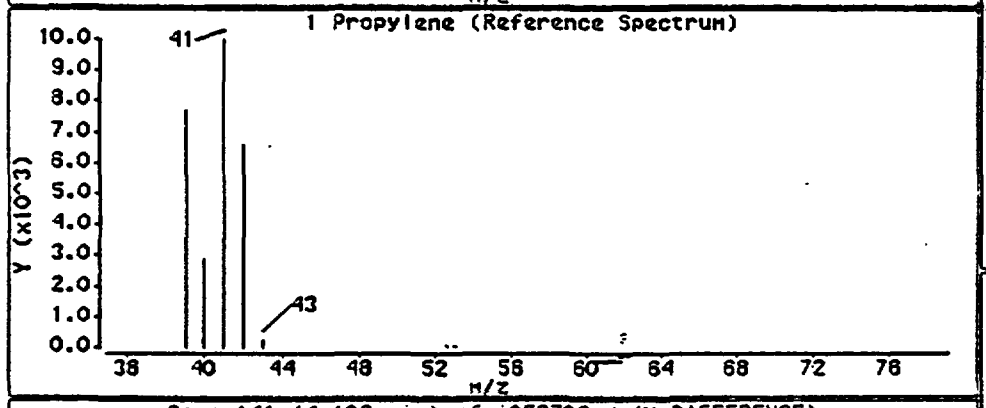
Column phase: RTx-624

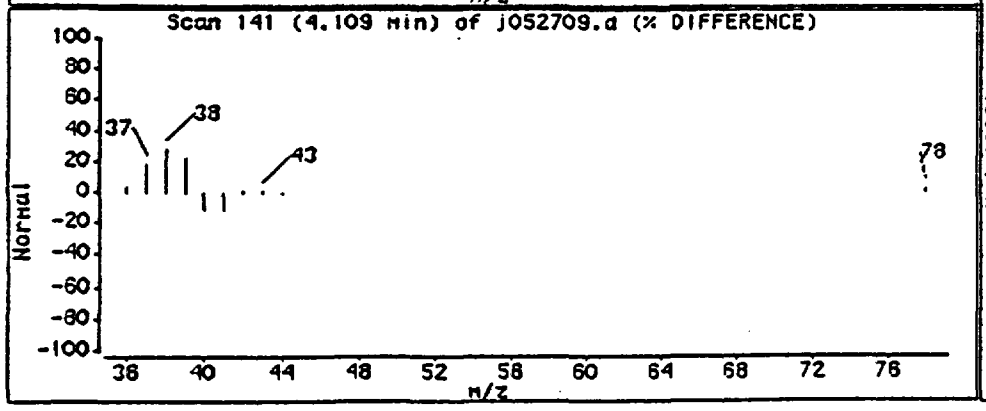
Column diameter: 0.58

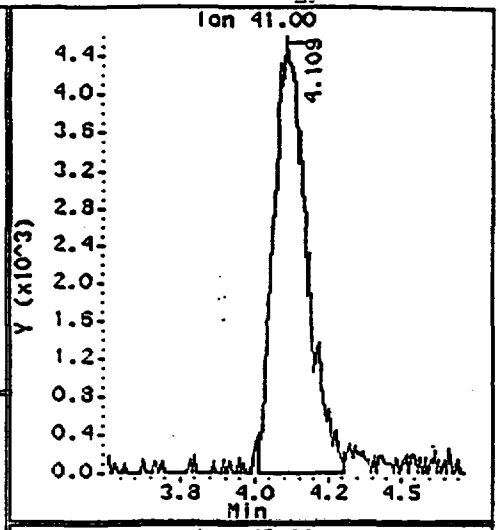
1 Propylene

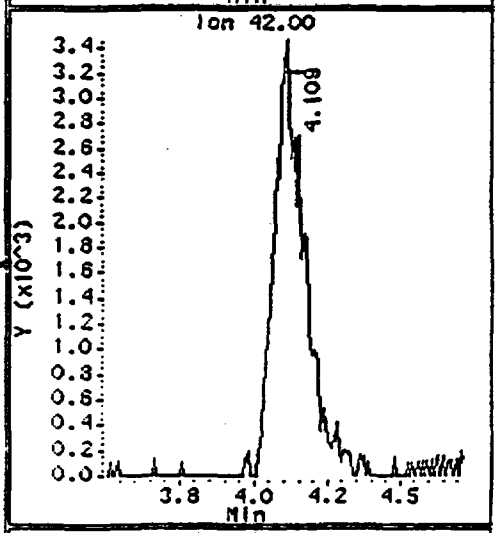


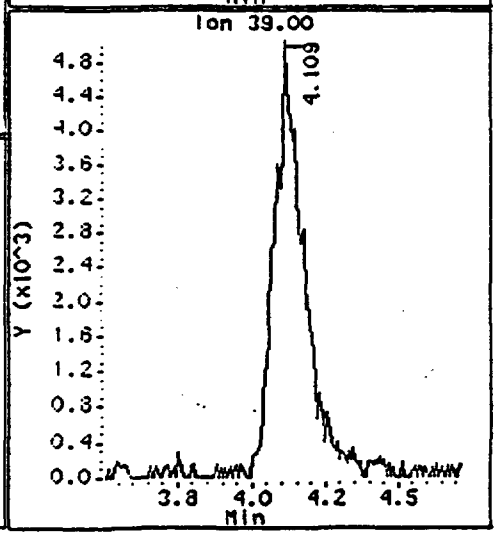












Data File: /chem/msdj.i/j-27may.b/j052709.d

Date : 27-MAY-1997 14:45

Client ID: Level 3

Instrument: msdj.i

0129

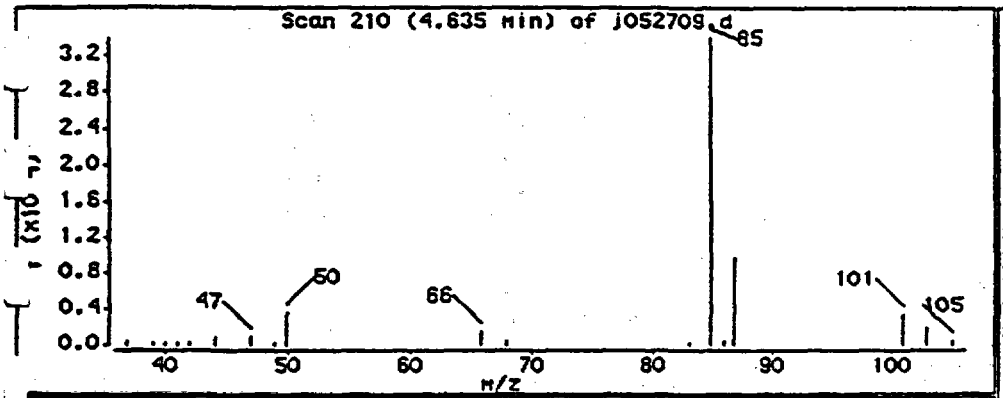
Sample Info: 12.5mL#315-57 200ppbv TO14 Std. (5ppbv)

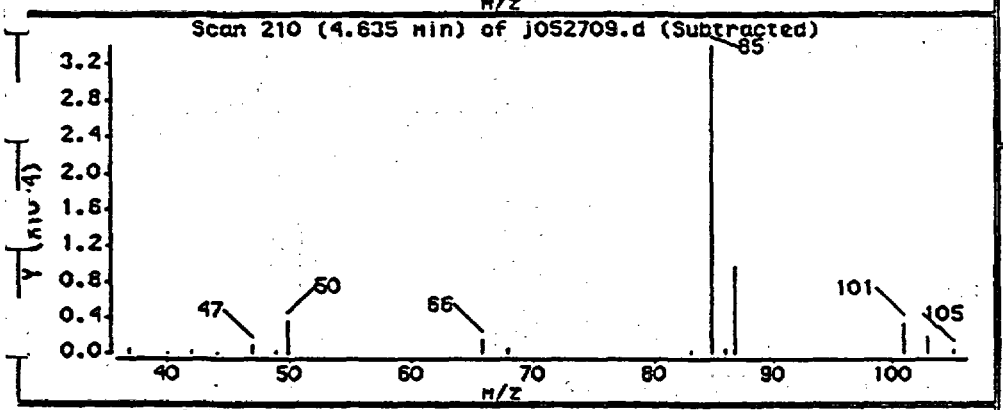
Operator: MH

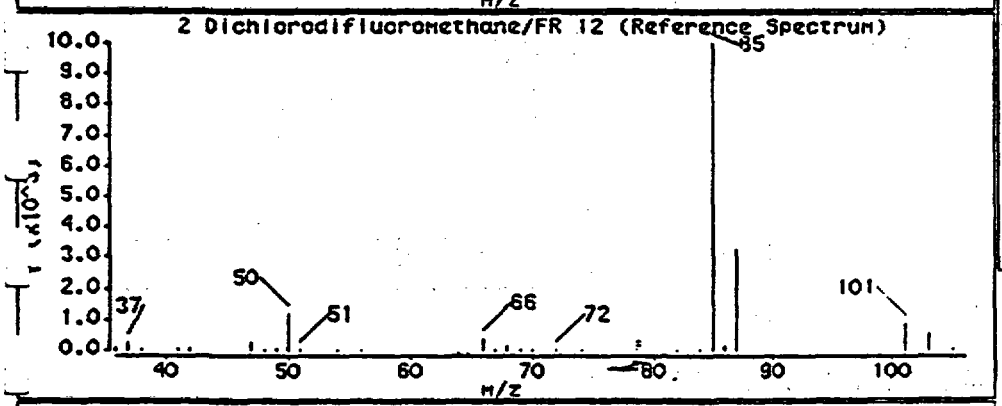
Column phase: RTx-624

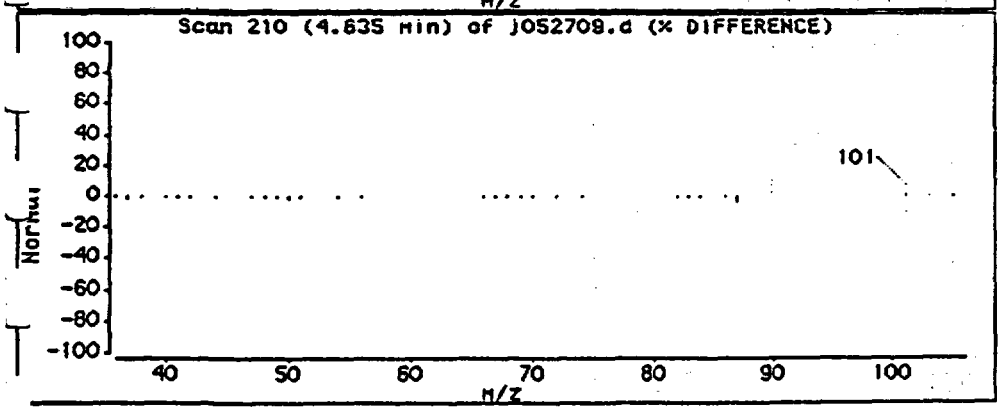
Column diameter: 0.58

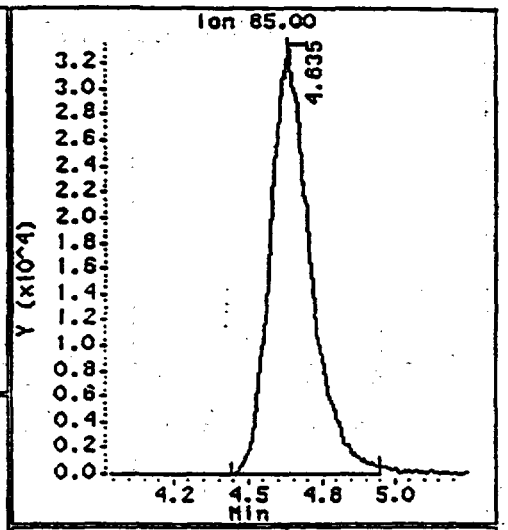
2 Dichlorodifluoromethane/FR 12

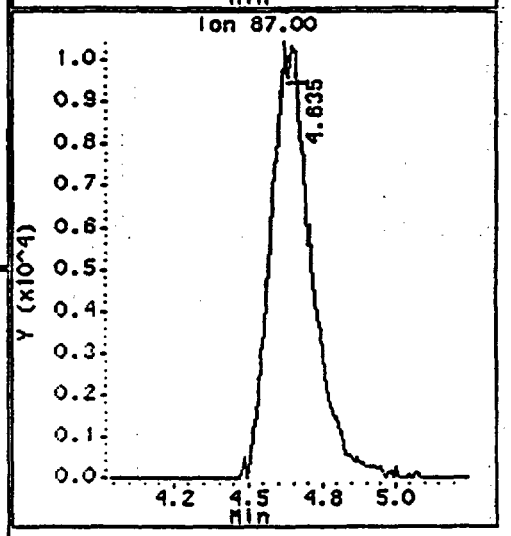












Data File: /chem/msdj.i/j-27may.b/j052709.d

Date : 27-MAY-1997 14:45

Client ID: Level 3

Instrument: msdj.i

0130

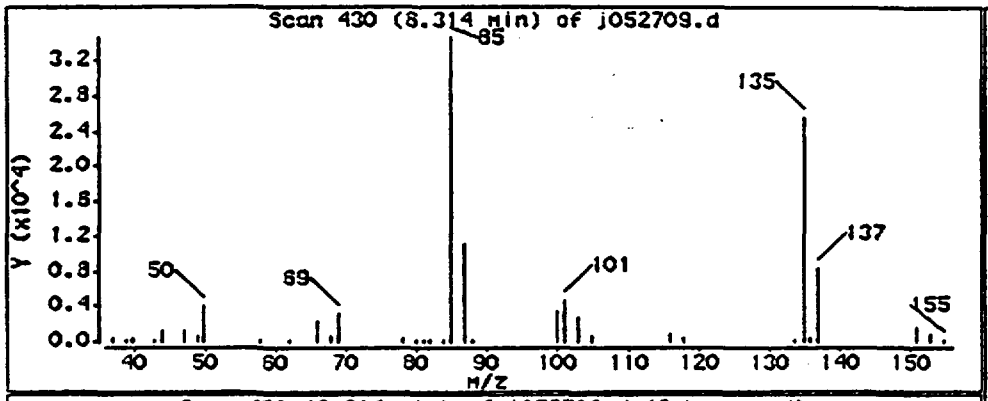
Sample Info: 12.5mL#315-57 200ppbv TO14 Std. (5ppbv)

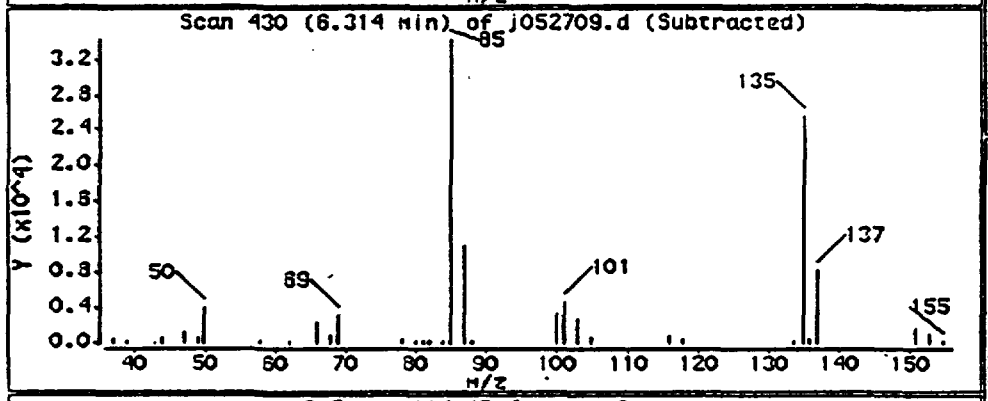
Operator: MH

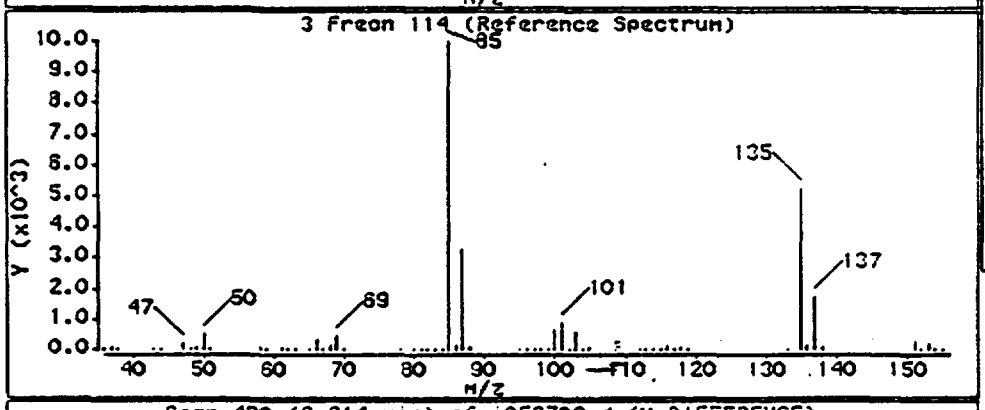
Column phase: RTx-624

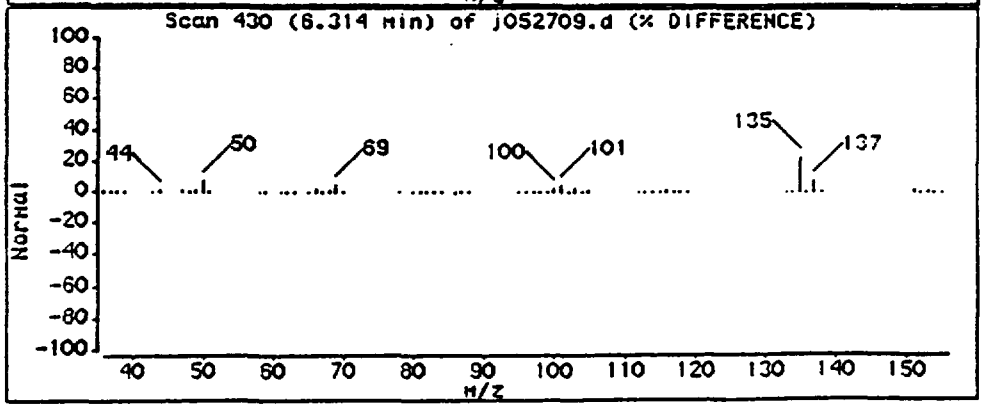
Column diameter: 0.58

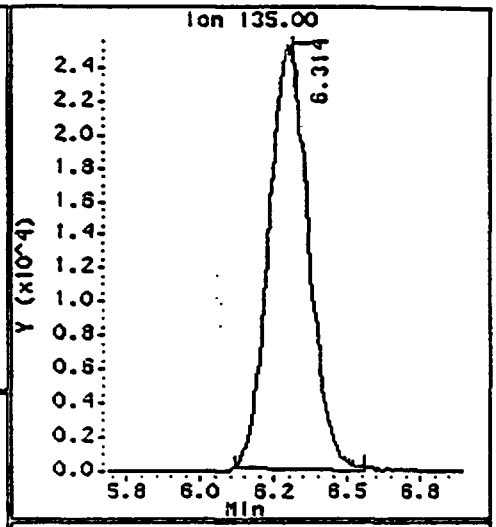
3 Freon 114

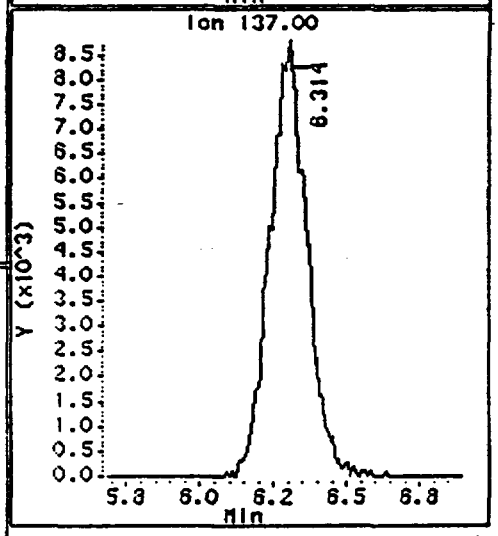






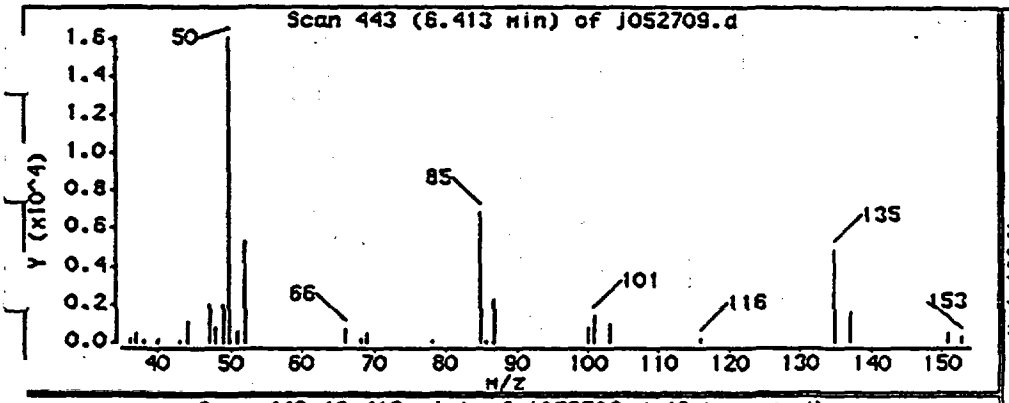


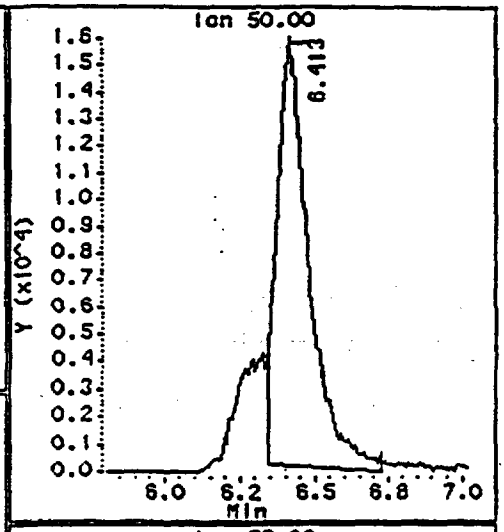


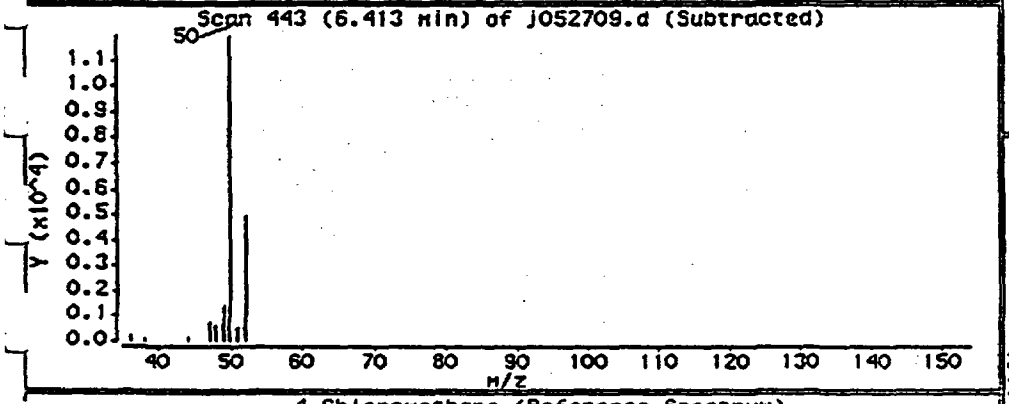


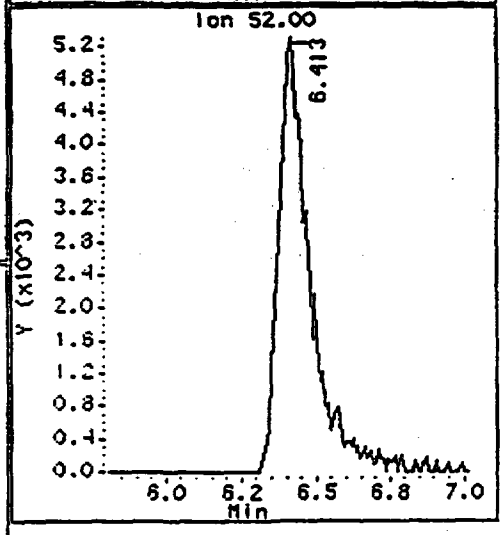
Data File: /chem/msdj.i/j-27may.b/j052709.d
Date : 27-MAY-1997 14:45
Client ID: Level 3 Instrument: msdj.i
Sample Info: 12.5mL#315-57 200ppbv TO14 Std. (5ppbv)
Operator: MH
Column phase: RTx-624 Column diameter: 0.58

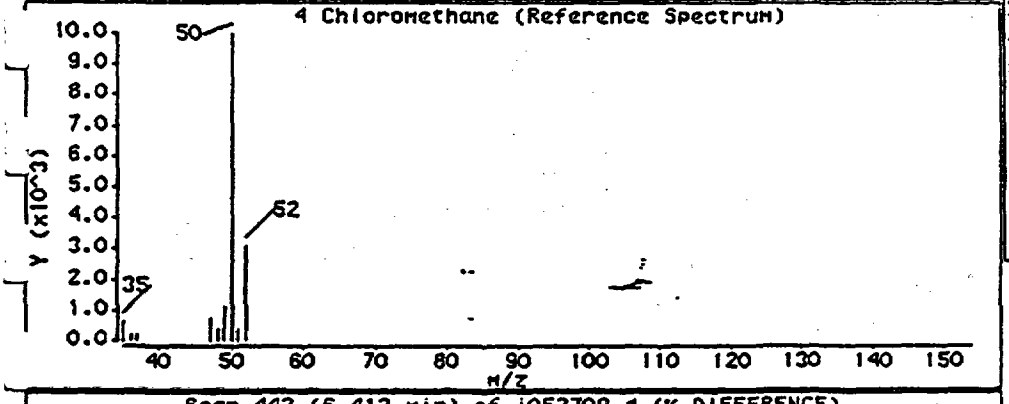
4 Chloromethane

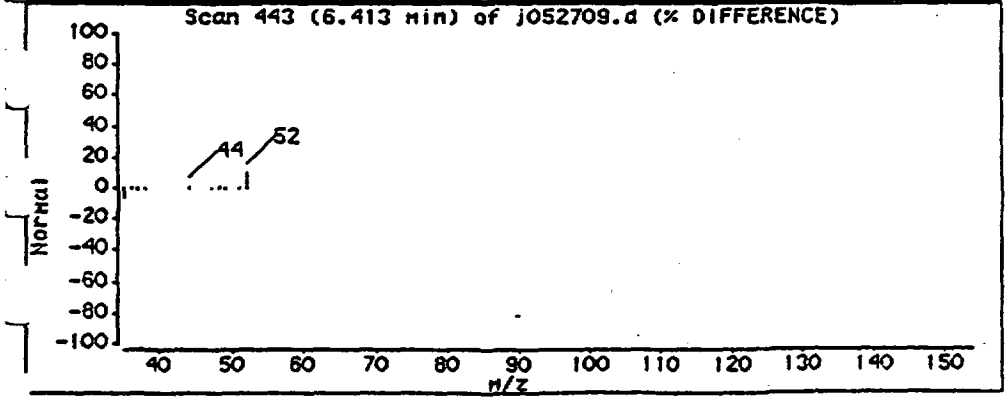












Data File: /chem/msdj.i/j-27May.b/j052709.d

Date : 27-MAY-1997 14:45

0132

Client ID: Level 3

Instrument: msdj.i

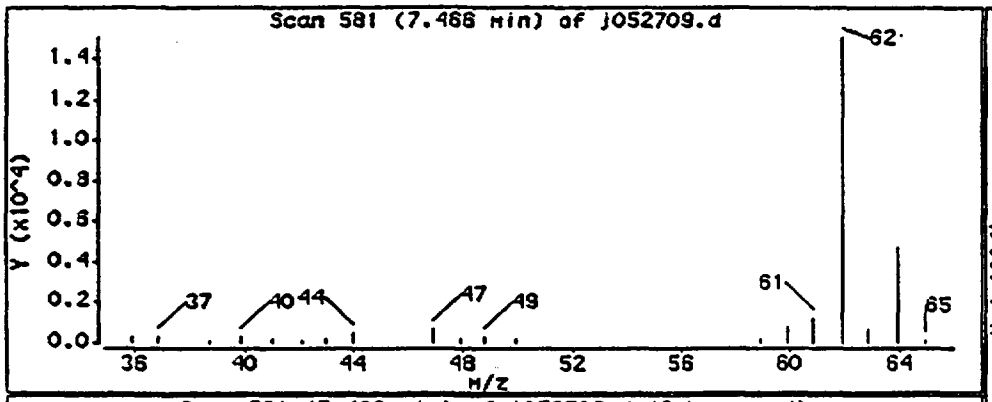
Sample Info: 12.5mL#315-57 200ppbv T014 Std. (5ppbv)

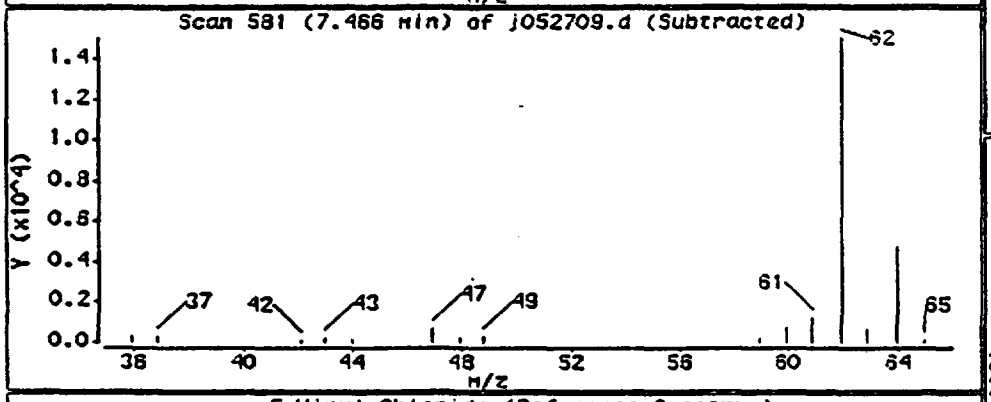
Operator: MH

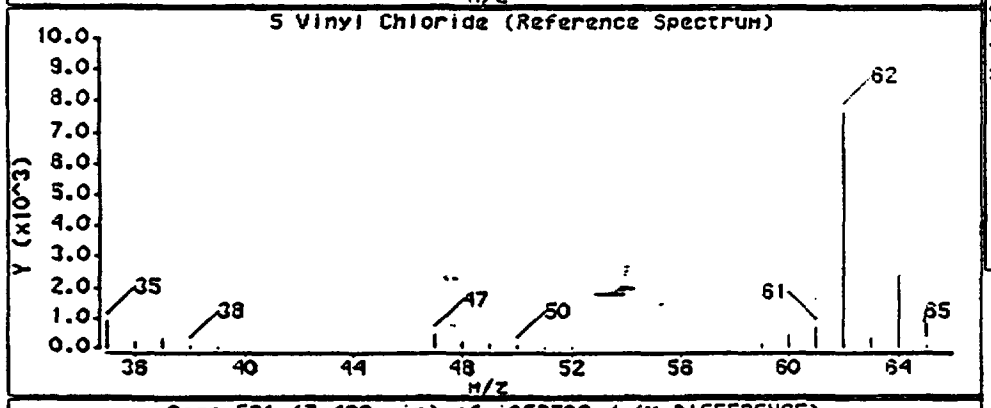
Column phase: RTx-624

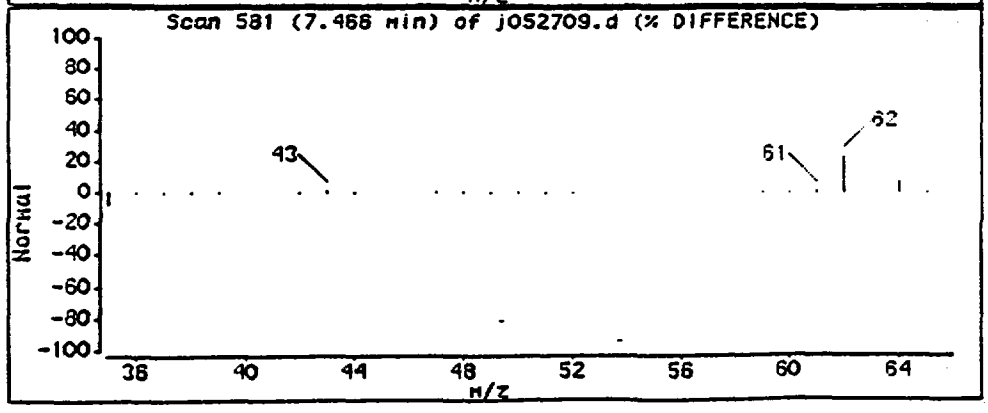
Column diameter: 0.58

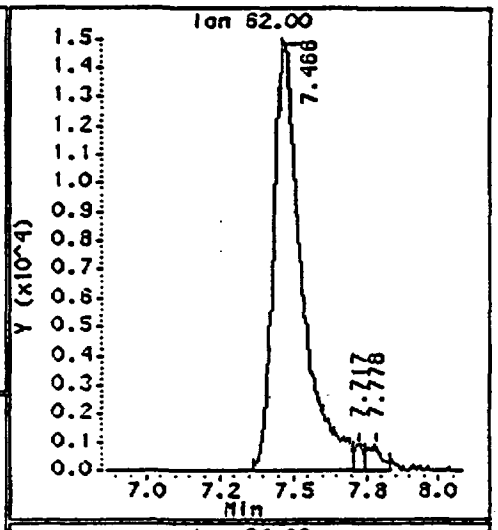
5 Vinyl Chloride

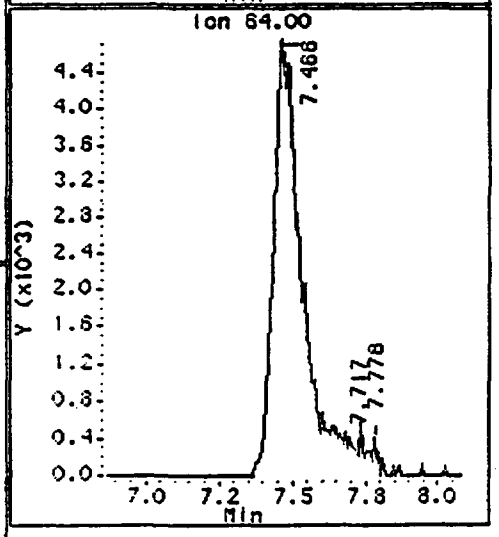






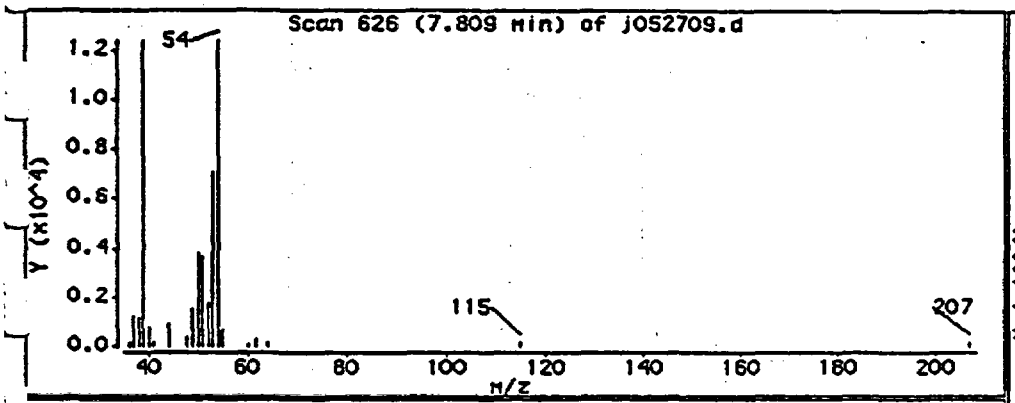


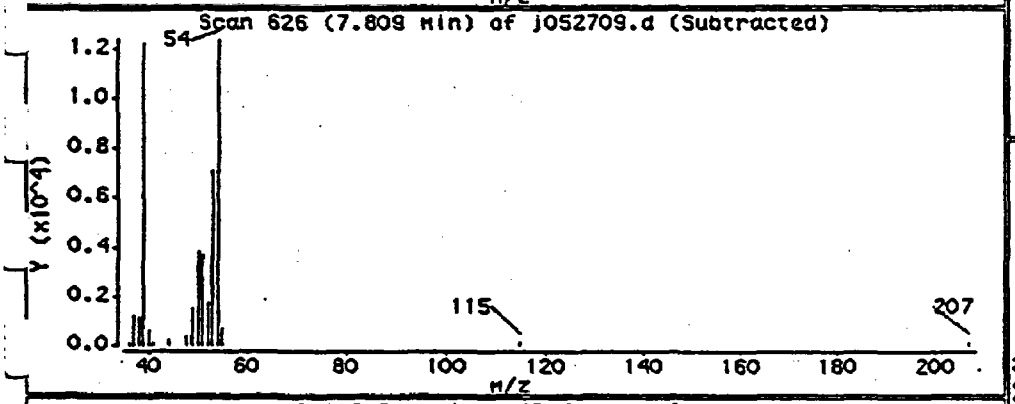


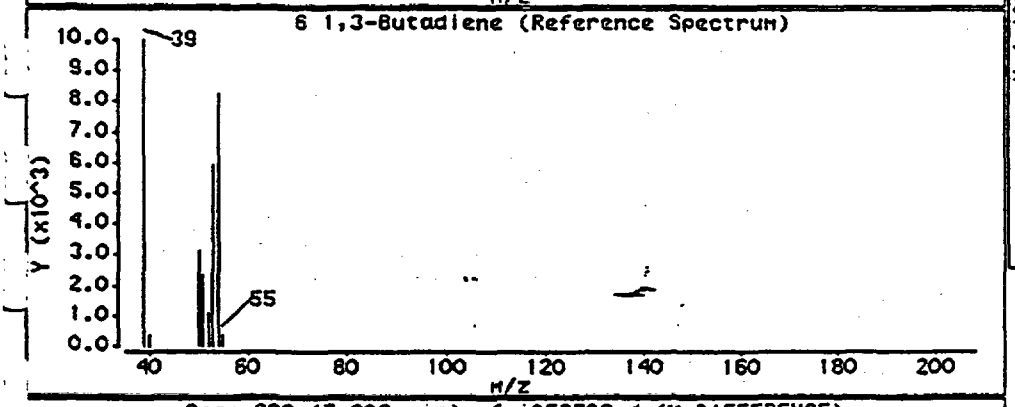


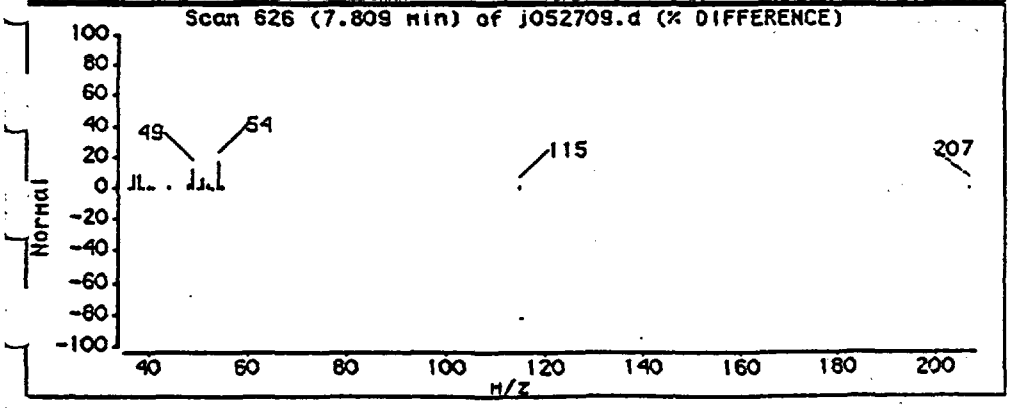
Data File: /chem/msdj.i/j-27may.b/j052709.d
Date : 27-MAY-1997 14:45
Client ID: Level 3 Instrument: msdj.i
Sample Info: 12.5mL#315-57 200ppbv T014 Std. (5ppbv)
Operator: MH
Column phase: RTx-624 Column diameter: 0.58

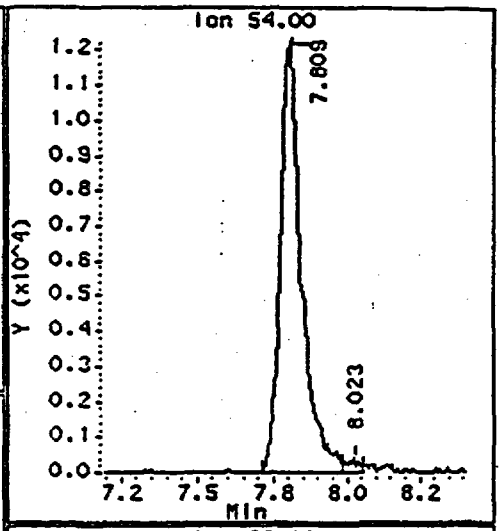
6 1,3-Butadiene

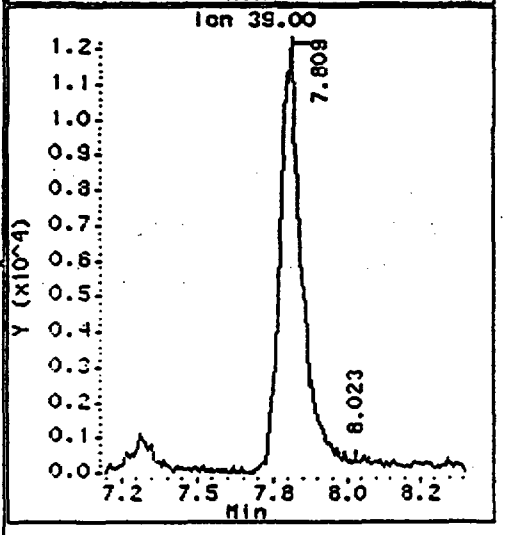












Data File: /chem/msdj.i/j-27may.b/j052709.d

Date : 27-MAY-1997 14:45

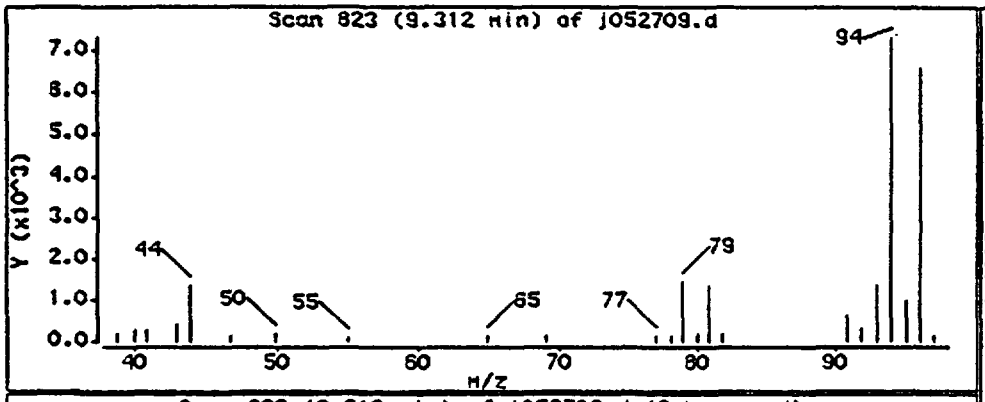
Client ID: Level 3 Instrument: msdj.i

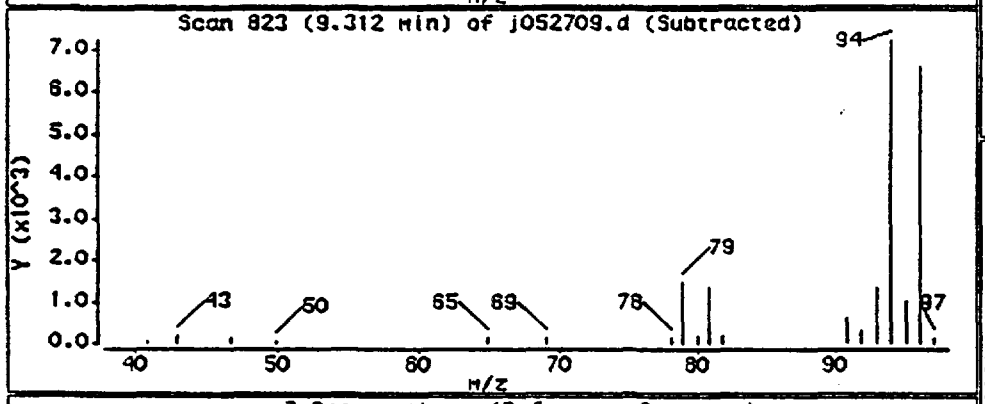
Sample Info: 12.5mL#315-57 200ppbv T014 Std. (5ppbv)

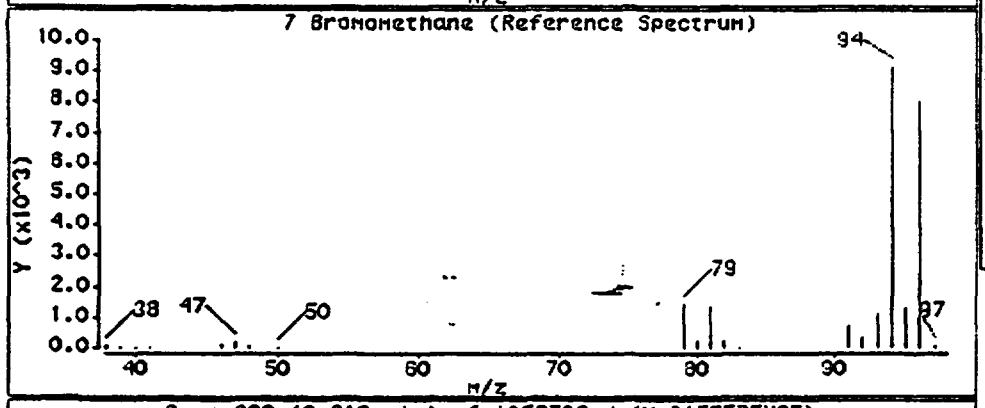
Operator: MM

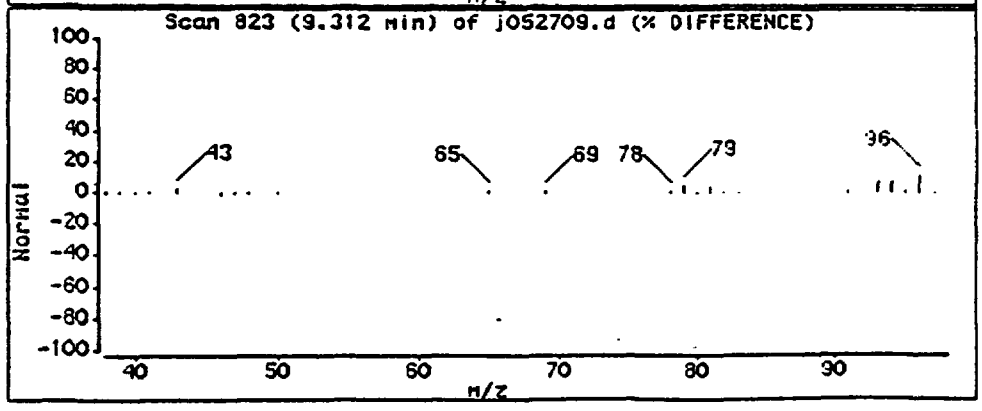
Column phase: RTx-624 Column diameter: 0.58

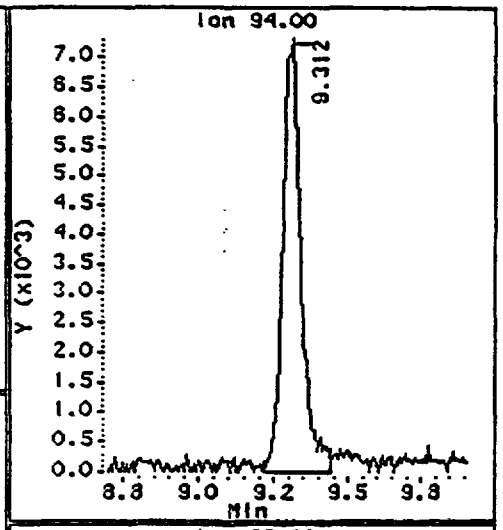
7 Bromomethane

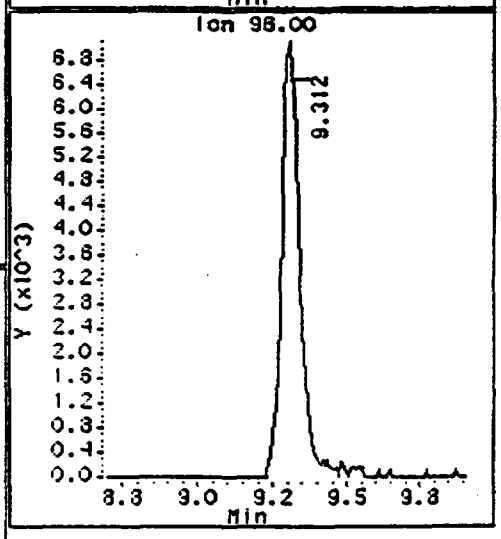






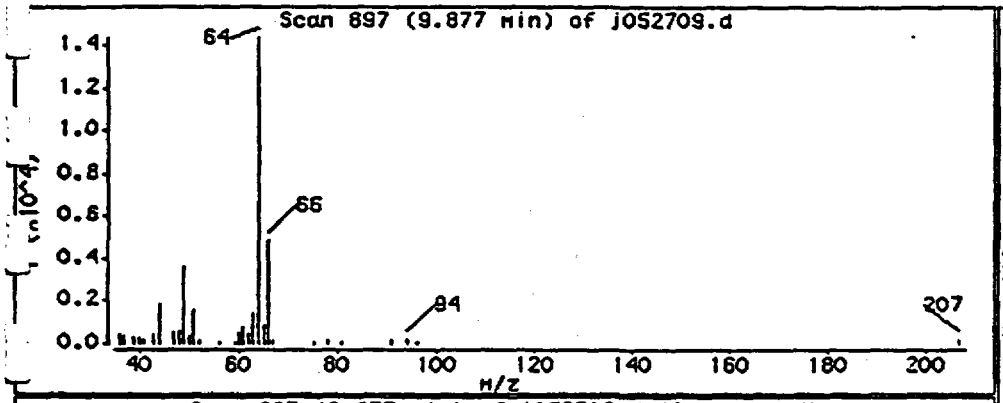


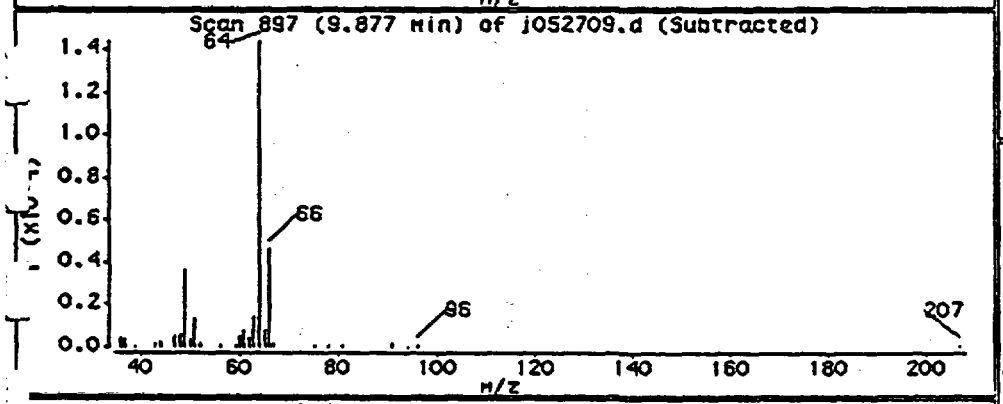


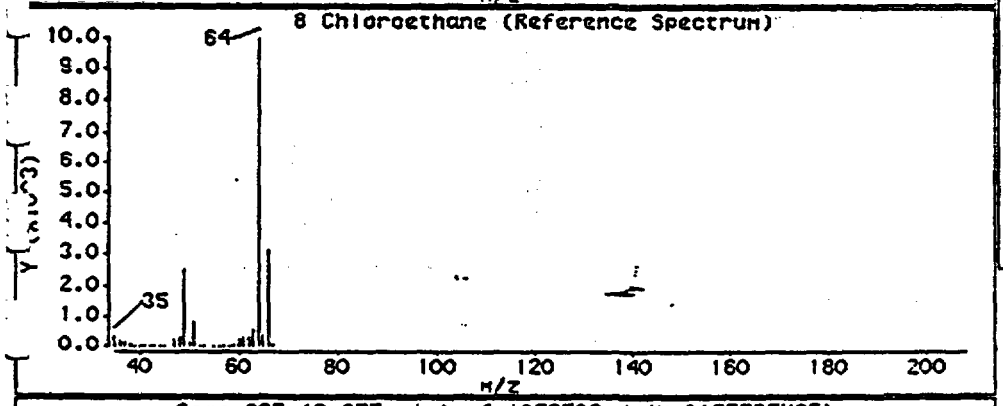


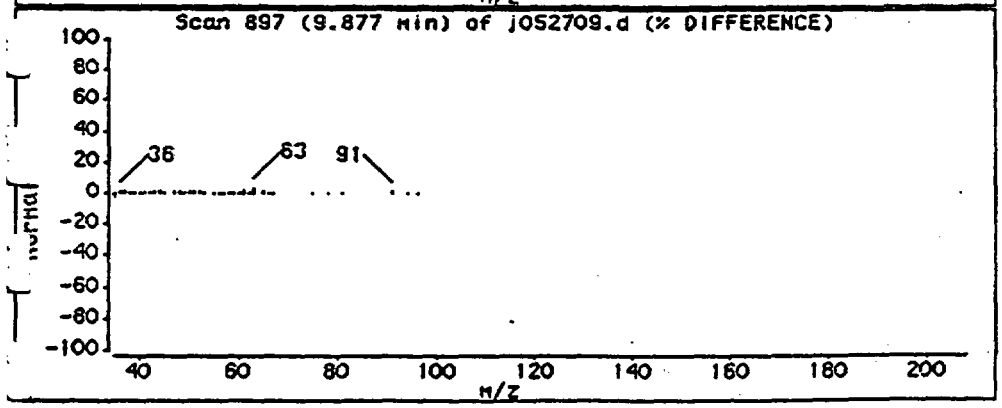
Data File: /chem/msdj.i/j-27may.b/j052709.d
Date : 27-MAY-1997 14:45
Client ID: Level 3 Instrument: msdj.i
Sample Info: 12.5mL#315-57 200ppbv T014 Std. (5ppbv)
Operator: MH
Column phase: RTx-624 Column diameter: 0.58

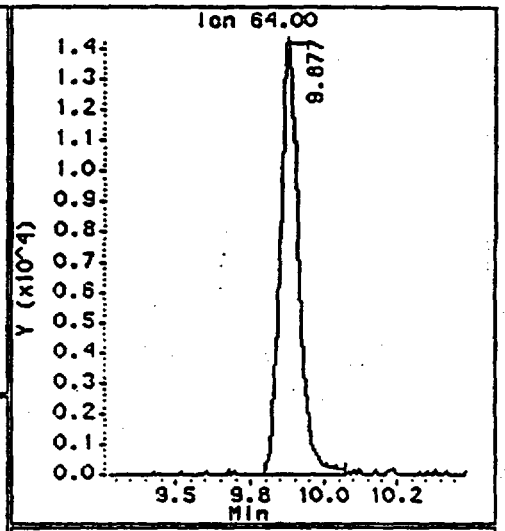
8 Chloroethane

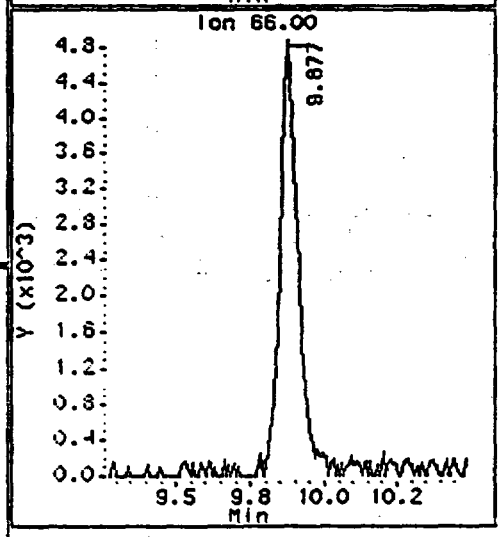






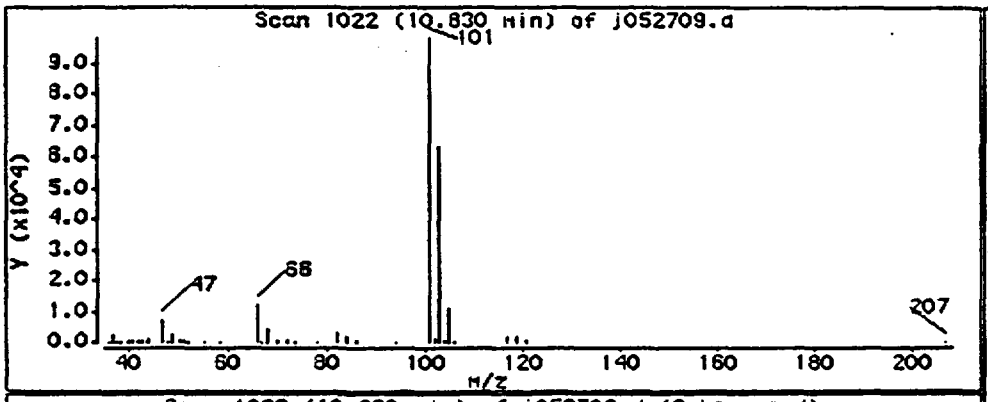


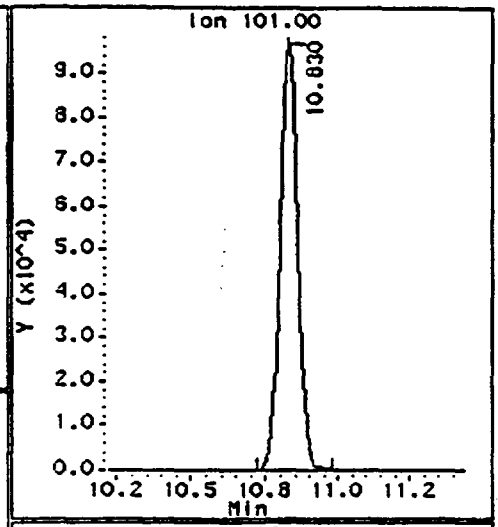


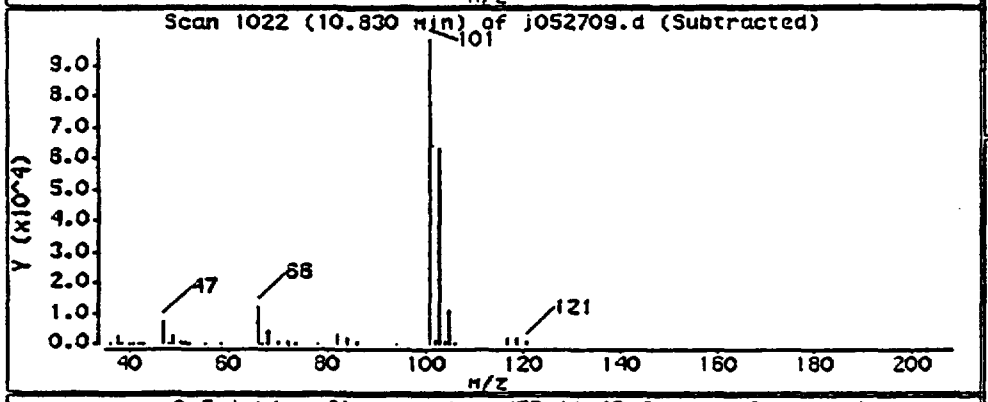


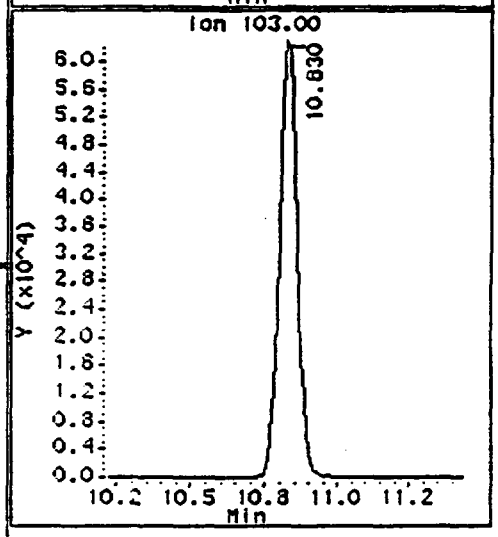
Data File: /chem/msdj.i/j-27may.b/j052709.d
Date : 27-MAY-1997 14:45
Client ID: Level 3 Instrument: msdj.i
Sample Info: 12.5mL#315-57 200ppbv T014 Std. (5ppbv)
Operator: MH
Column phase: RTx-624 Column diameter: 0.58

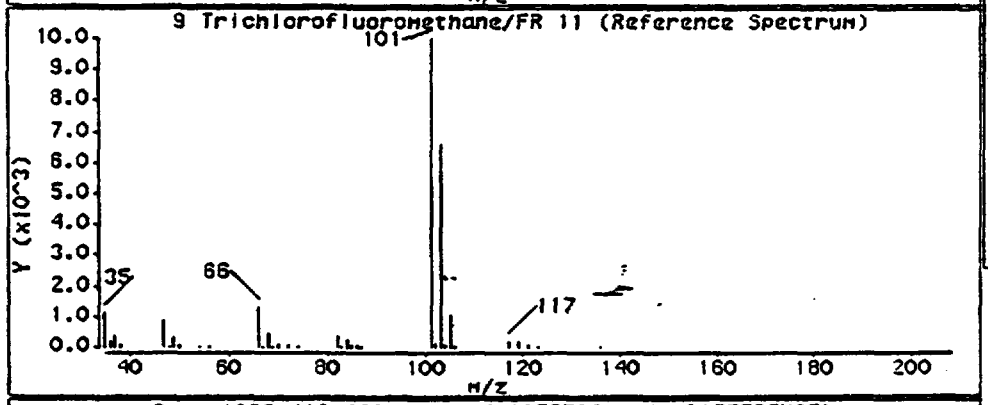
9 Trichlorofluoromethane/FR 11

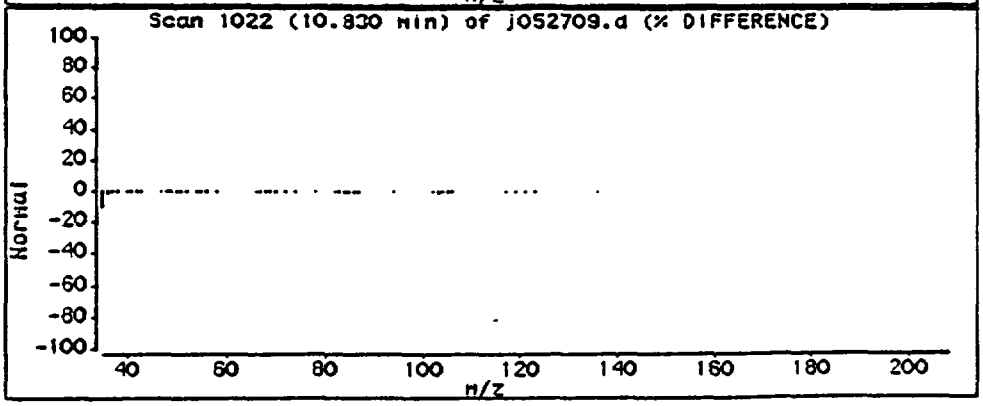












Data File: /chem/msdj.i/j-27may.b/j052709.d

Date : 27-MAY-1997 14:45

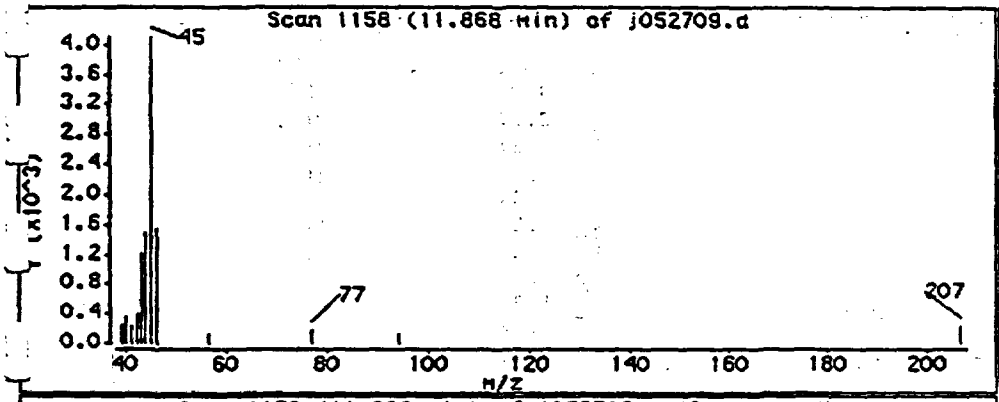
Client ID: Level 3 Instrument: msdj.i

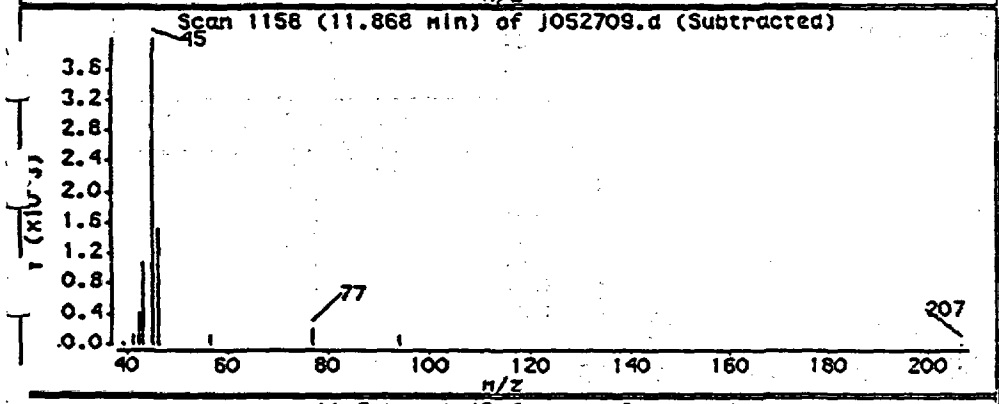
Sample Info: 12.5mL#315-57 200ppbv TO14 Std. (5ppbv)

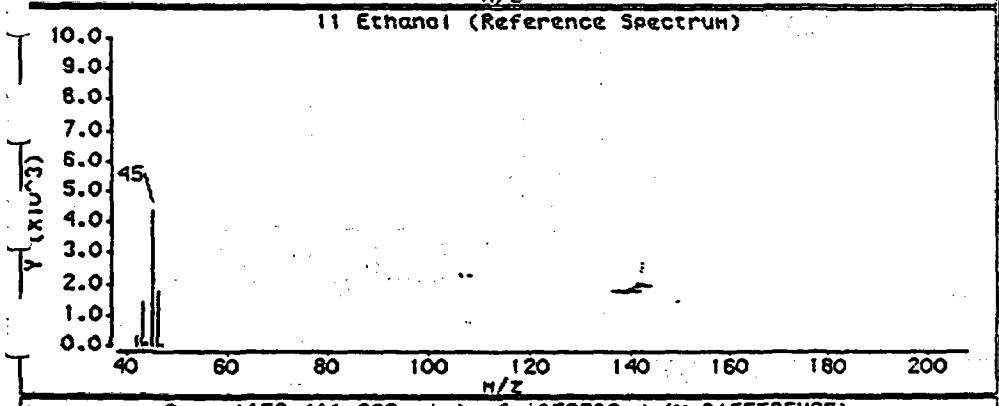
Operator: MH

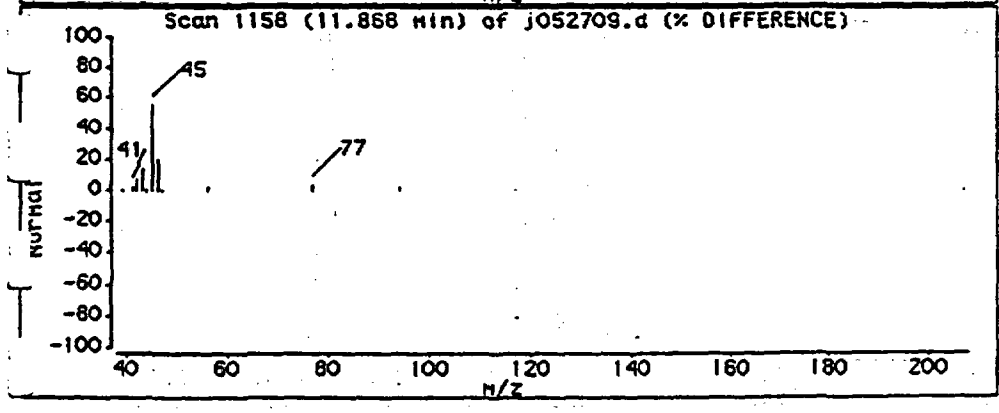
Column phase: RTx-624 Column diameter: 0.58

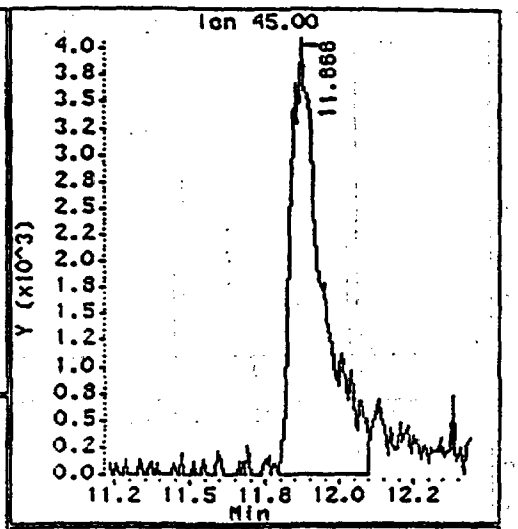
11 Ethanol

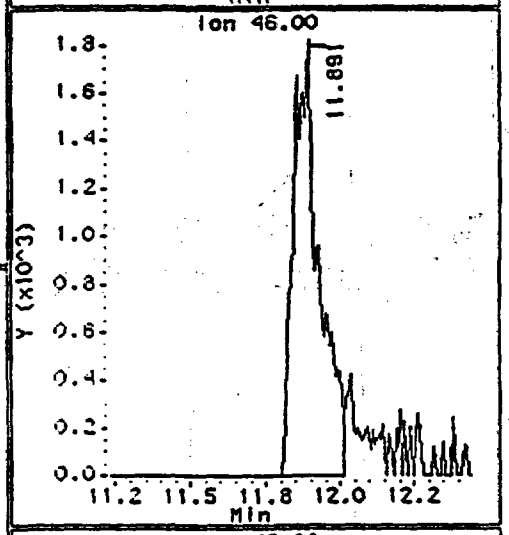


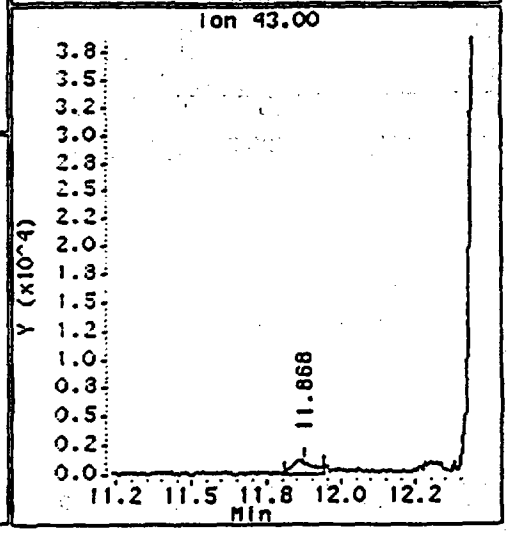






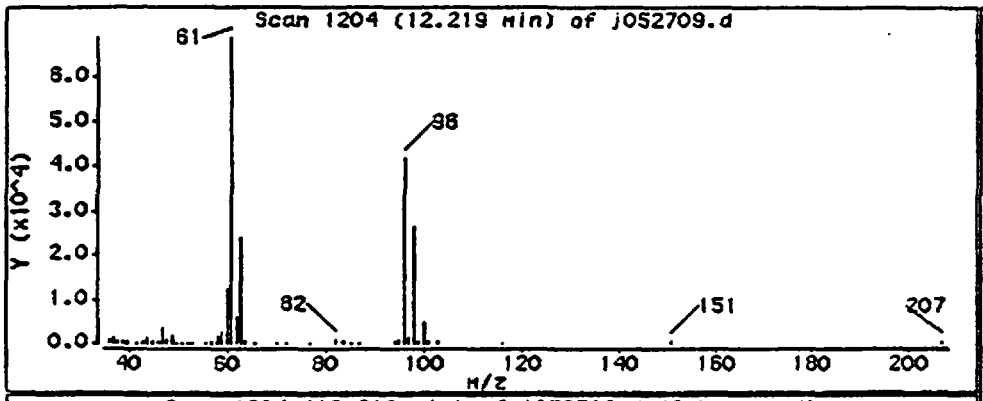


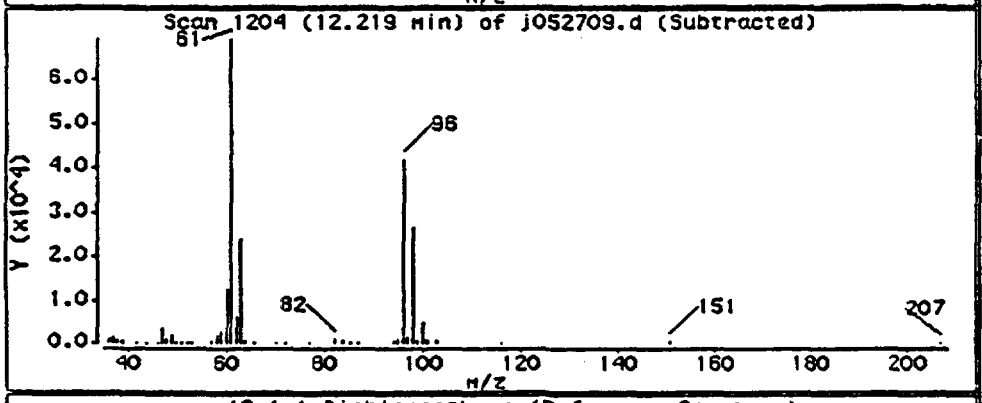


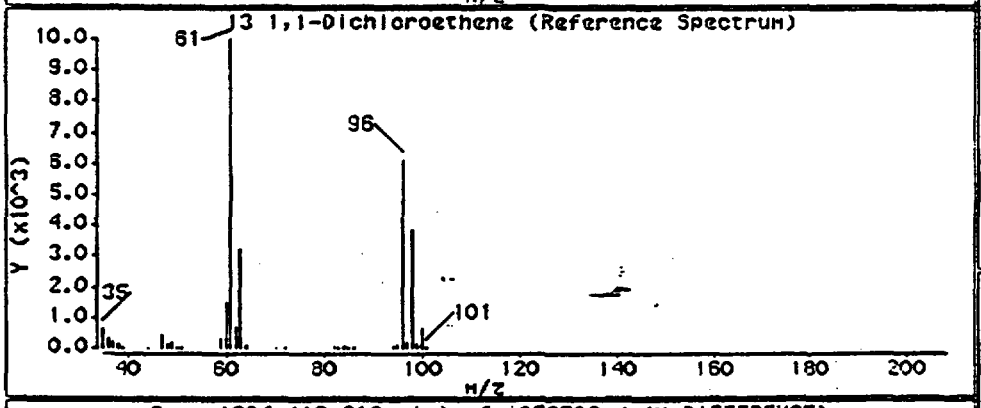


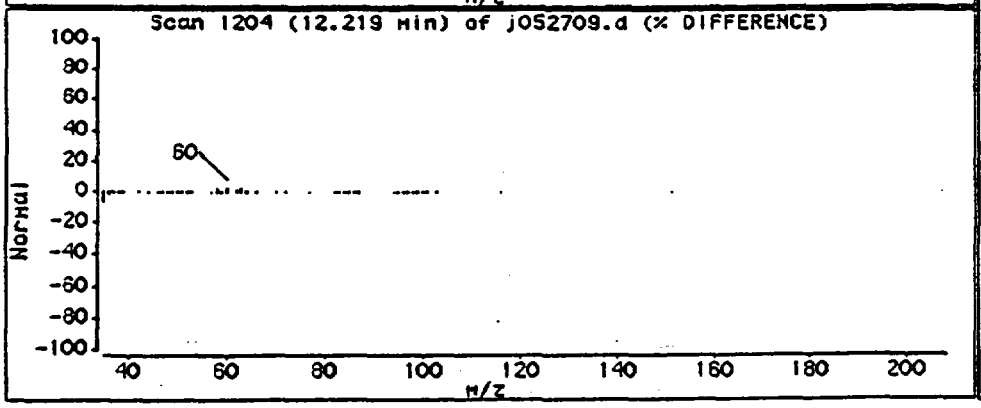
Data File: /chem/msdj.i/j-27may.b/j052709.d
Date : 27-MAY-1997 14:45
Client ID: Level 3 Instrument: msdj.i
Sample Info: 12.5mL#315-57 200ppbv TO14 Std. (5ppbv)
Operator: MH
Column phase: RTx-624 Column diameter: 0.58

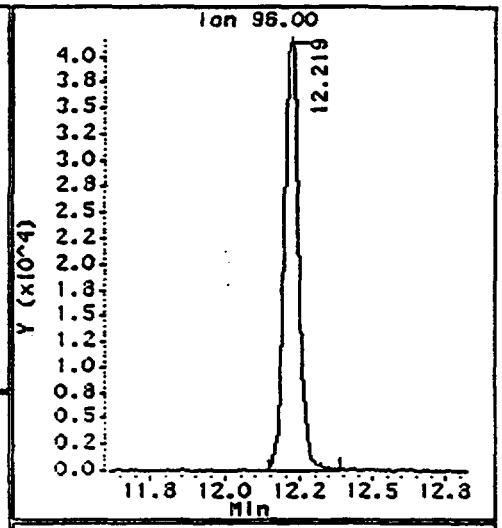
13 1,1-Dichloroethene

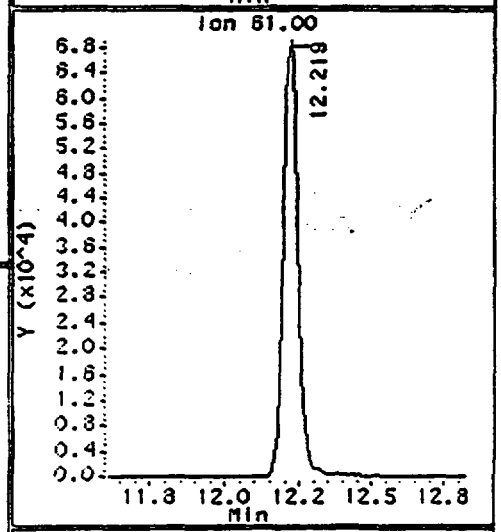


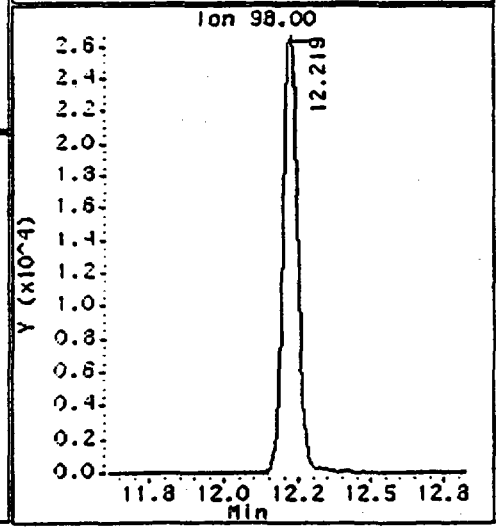












Data File: /chem/msdj.i/j-27may.b/j052709.d

Date : 27-MAY-1997 14:45

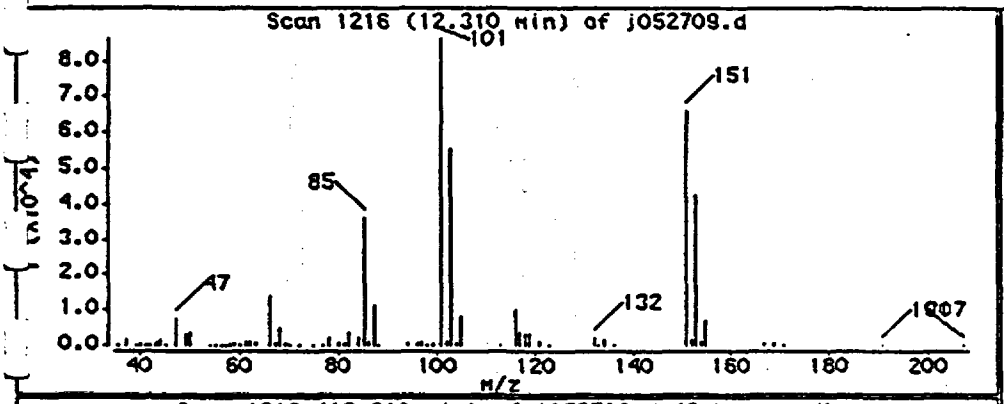
Client ID: Level 3 Instrument: msdj.i

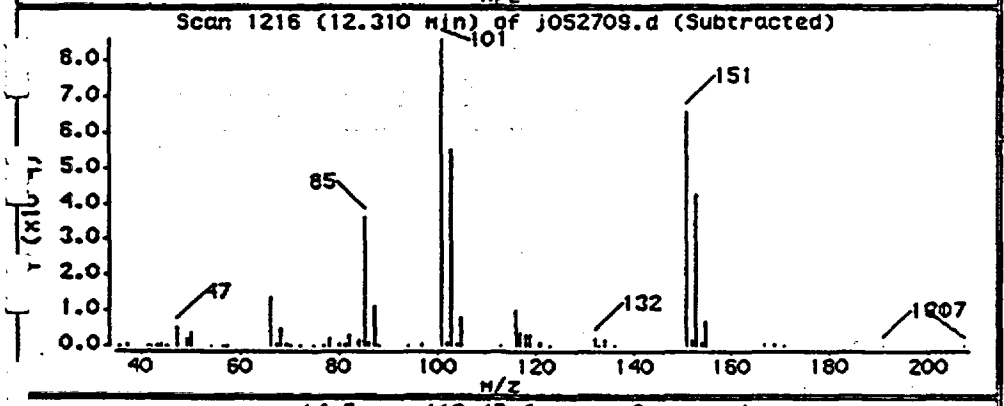
Sample Info: 12.5mL#315-57 200ppbv T014 Std. (5ppbv)

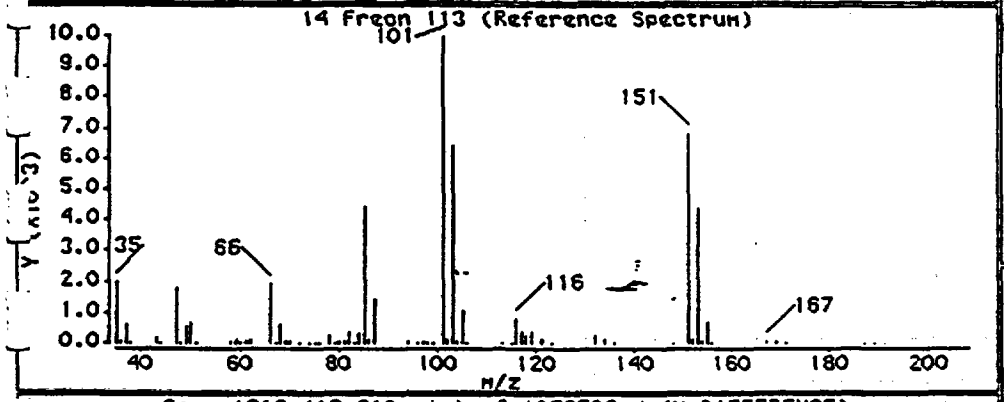
Operator: MH

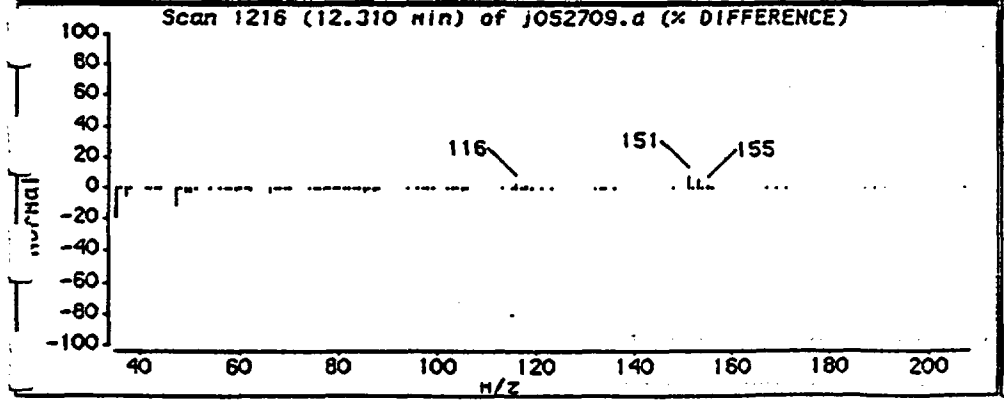
Column phase: RTx-624 Column diameter: 0.58

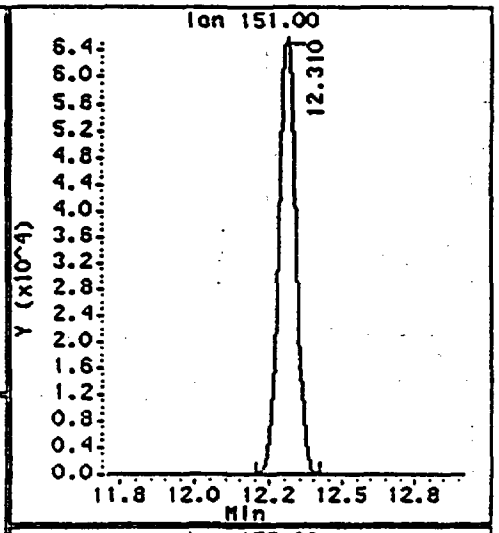
14 Freon 113

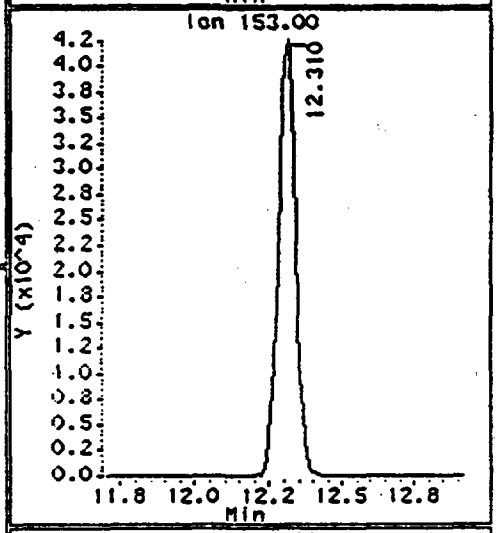


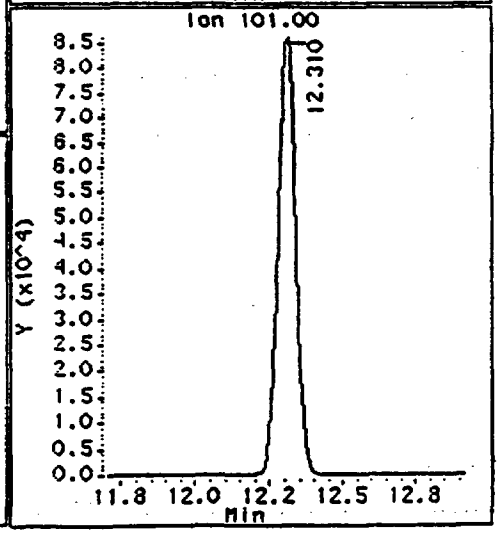












0140

Data File: /chem/msdj.i/j-27may.b/j052709.d

Date : 27-MAY-1997 14:45

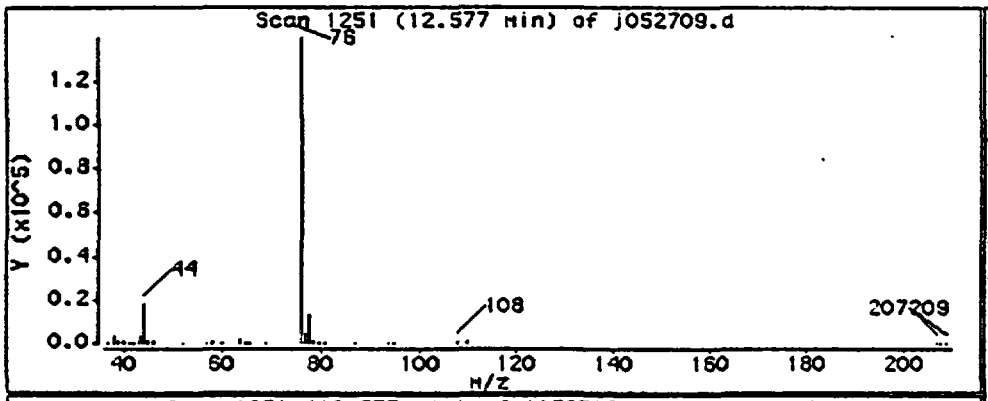
Client ID: Level 3 Instrument: msdj.i

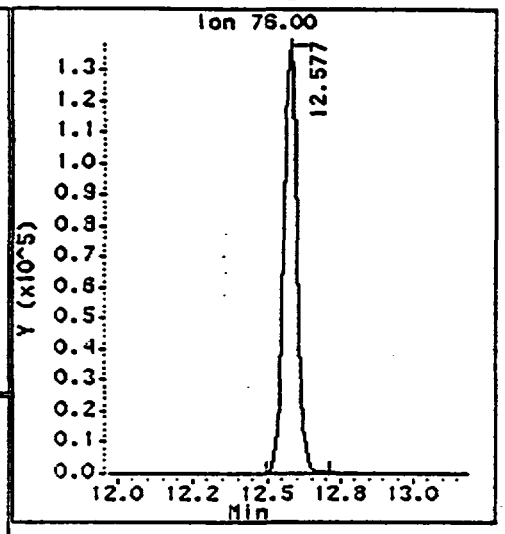
Sample Info: 12.5mL#315-57 200ppbv TO14 Std. (5ppbv)

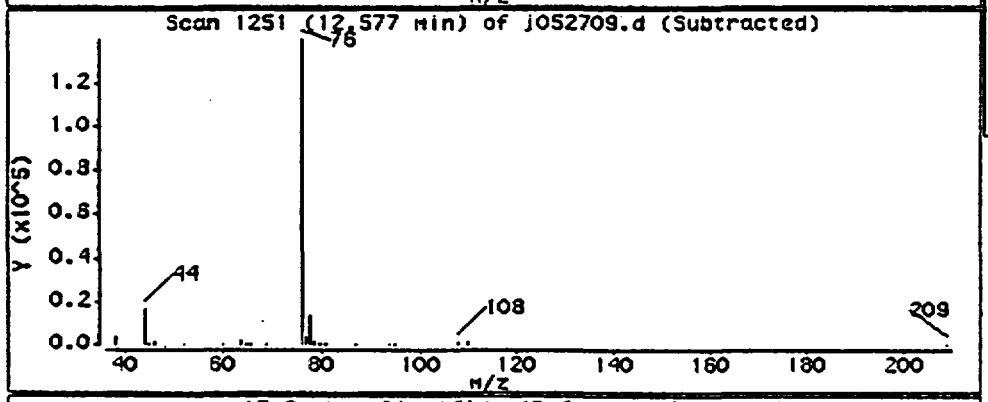
Operator: MH

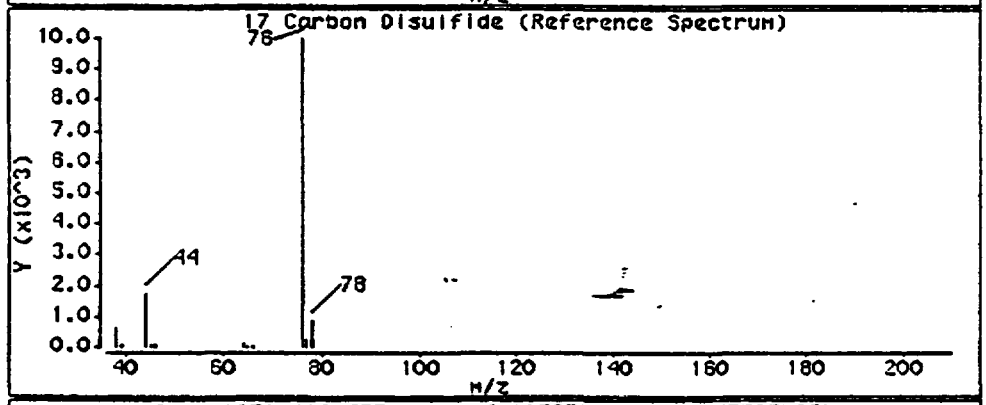
Column phase: RTx-624 Column diameter: 0.58

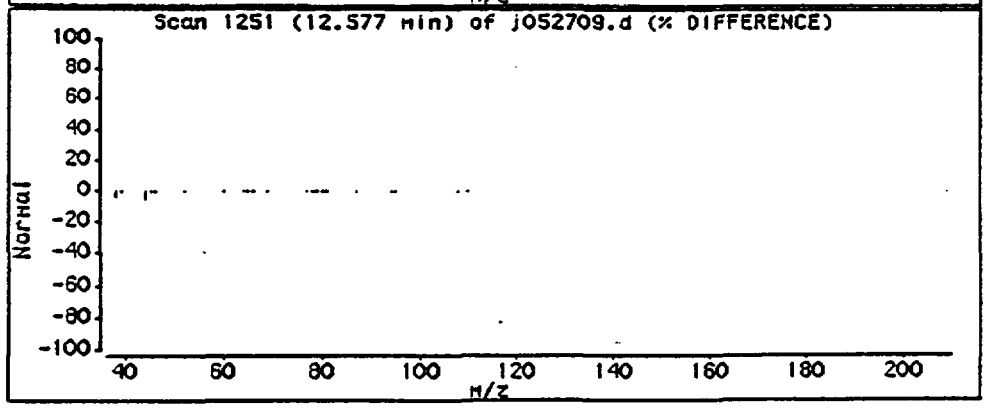
17 Carbon Disulfide











0141

Data File: /chem/msdj.i/j-27may.b/j052709.d

Date : 27-MAY-1997 14:45

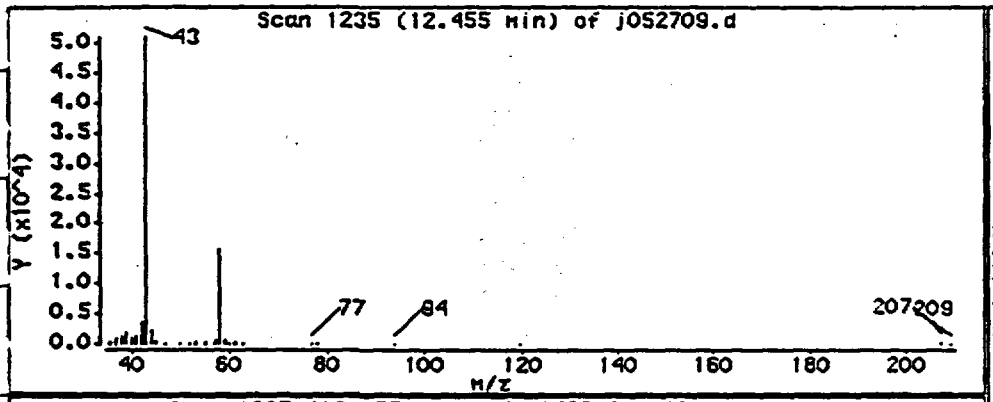
Client ID: Level 3 Instrument: msdj.i

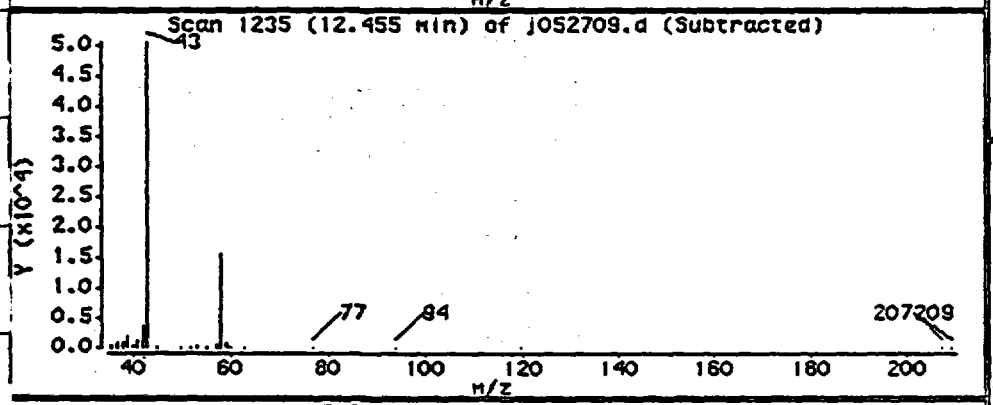
Sample Info: 12.5mL#315-57 200ppbv T014 Std. (5ppbv)

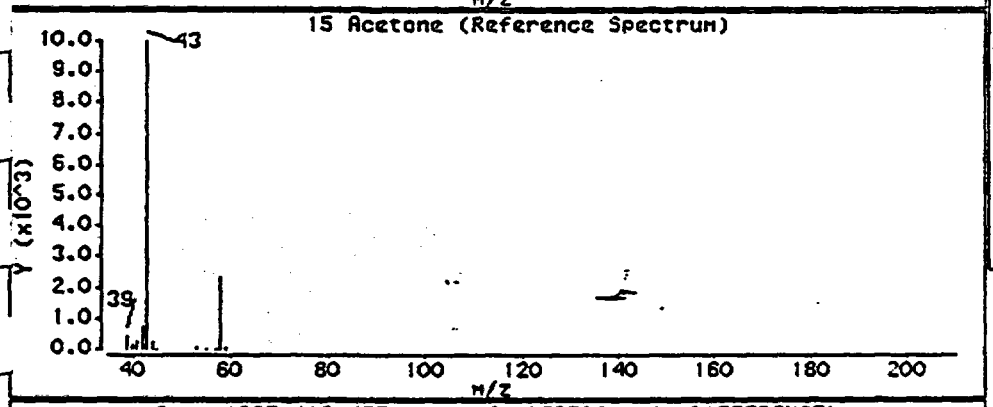
Operator: MH

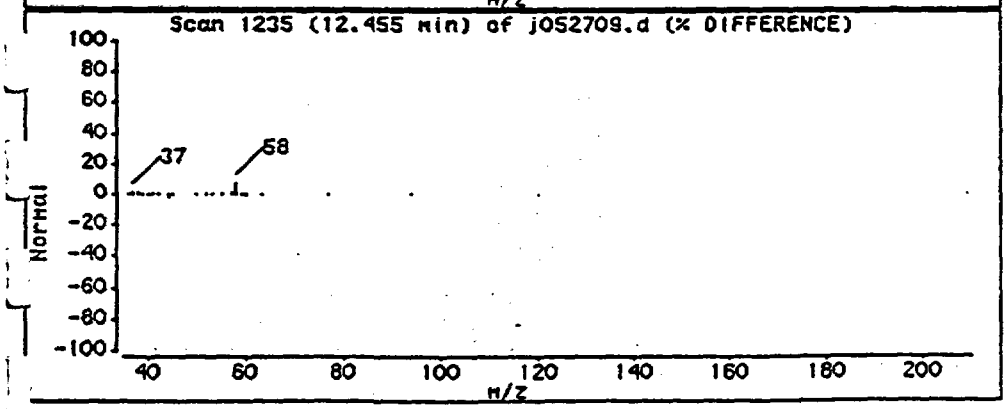
Column phase: RTx-624 Column diameter: 0.58

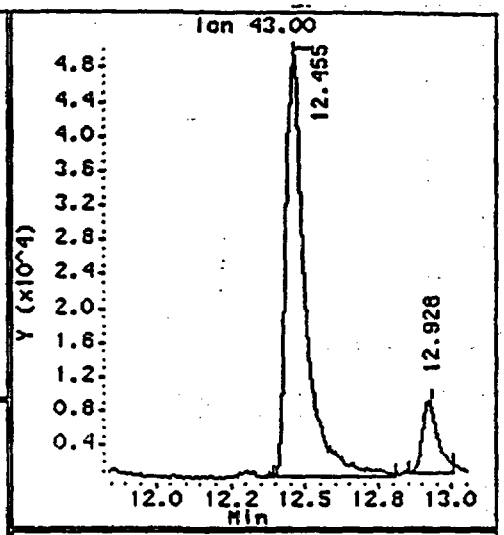
15 Acetone

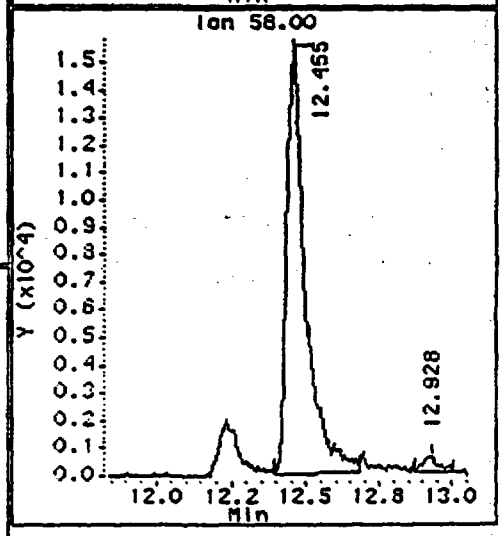












Data File: /chem/msdj.i/j-27may.b/j052709.d

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0142

Date : 27-MAY-1997 14:45

Client ID: Level 3

Instrument: msdj.i

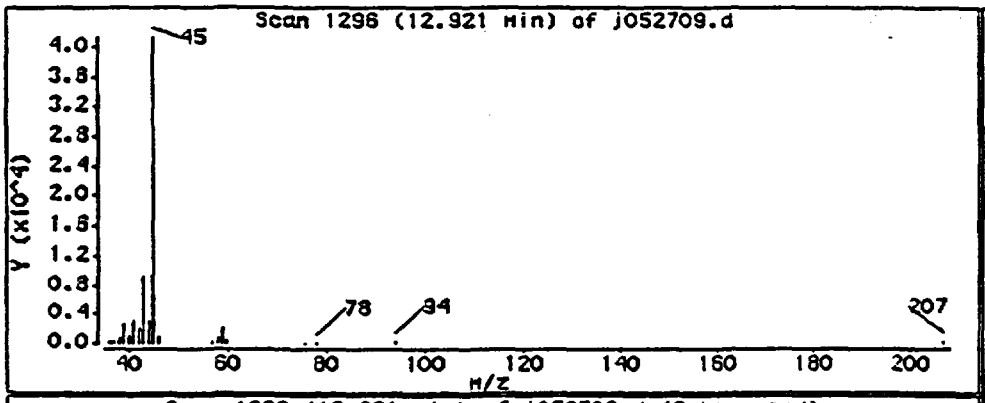
Sample Info: 12.5mL#315-57 200ppbv TO14 Std. (5ppbv)

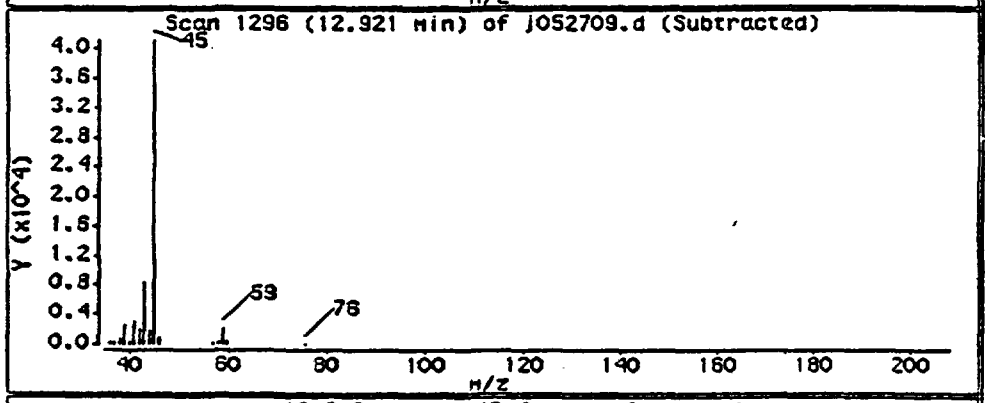
Operator: MH

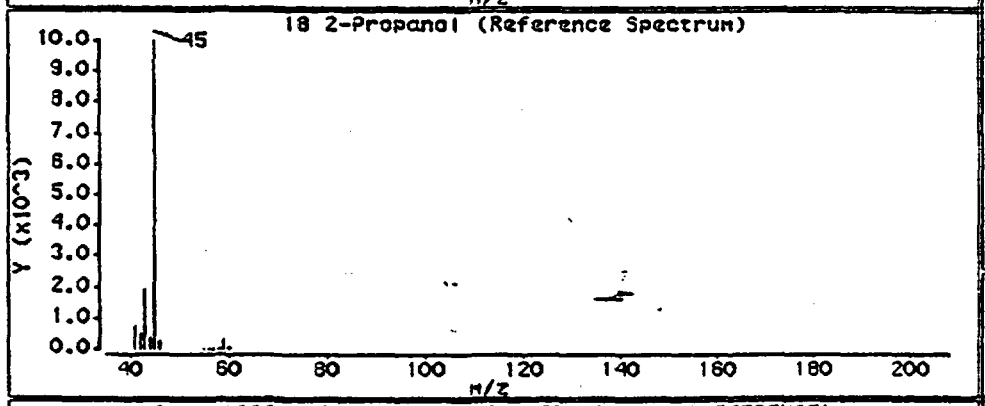
Column phase: RTx-624

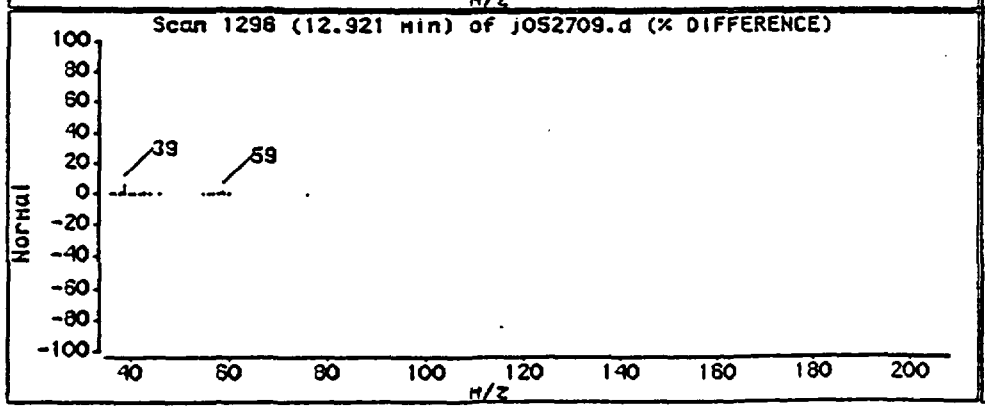
Column diameter: 0.58

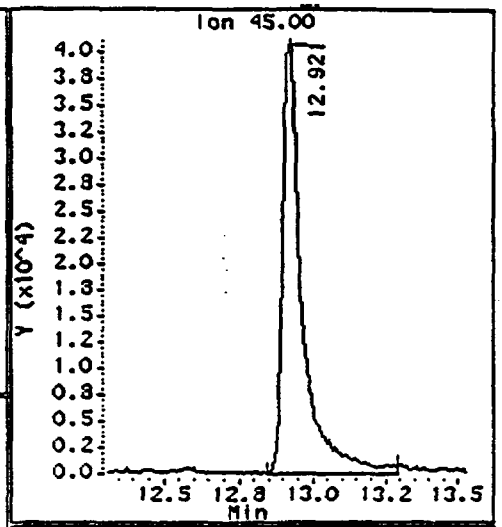
18 2-Propanol

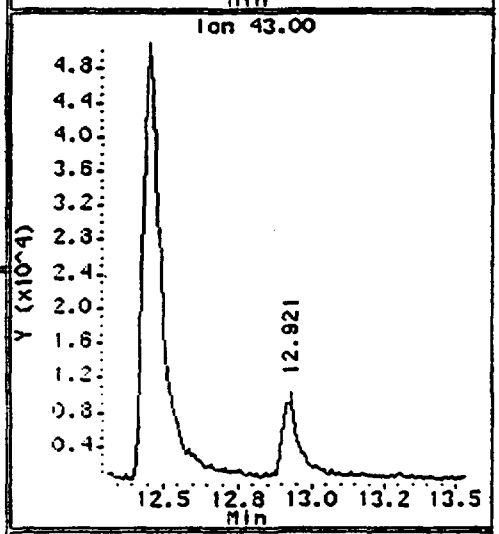


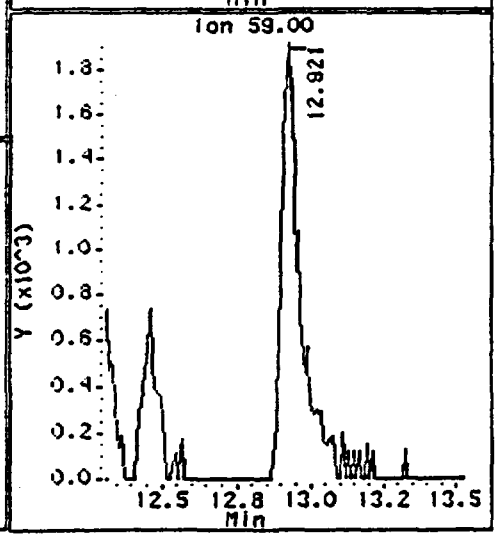












Data File: /chem/msdj.i/j-27may.b/j052709.d

Date : 27-MAY-1997 14:45

Client ID: Level 3

Instrument: msdj.i

0143

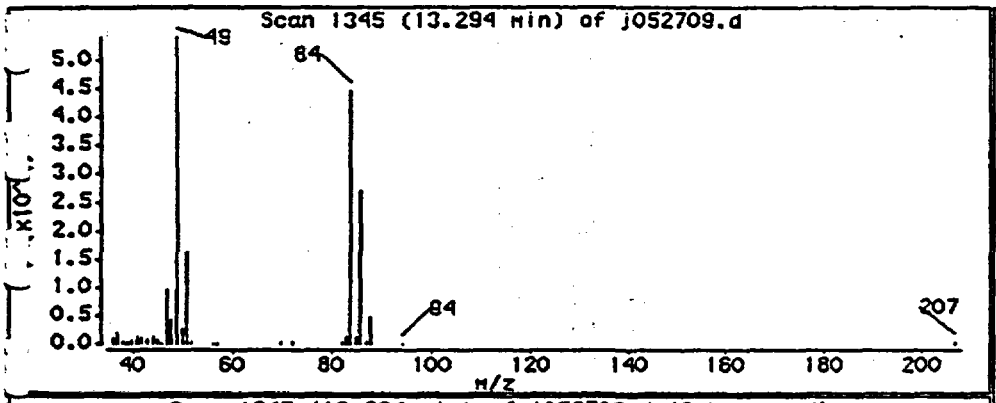
Sample Info: 12.5mL#315-57 200ppbv TO14 Std. (5ppbv)

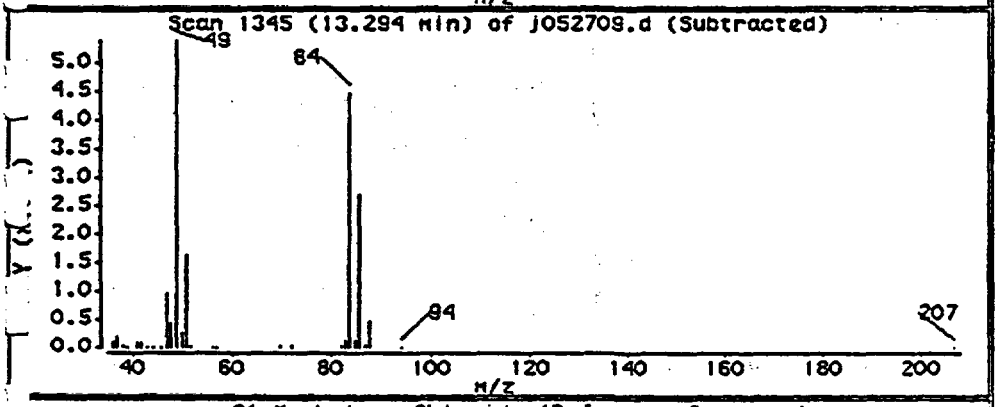
Operator: MH

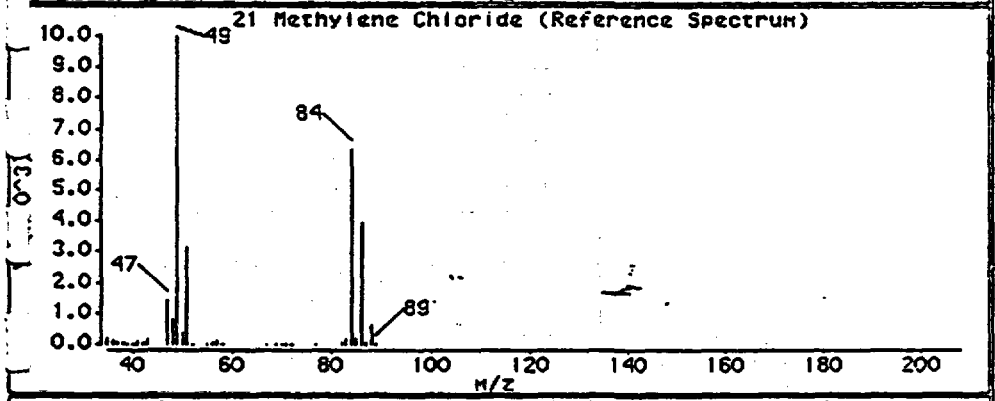
Column phase: RTx-624

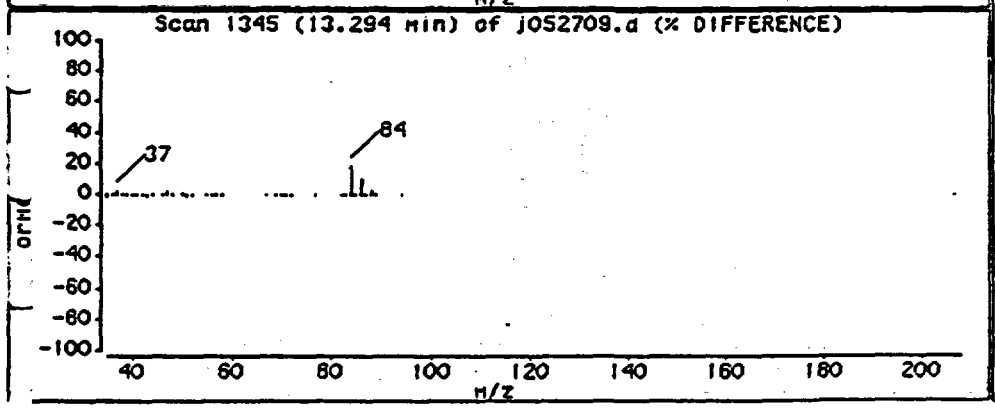
Column diameter: 0.58

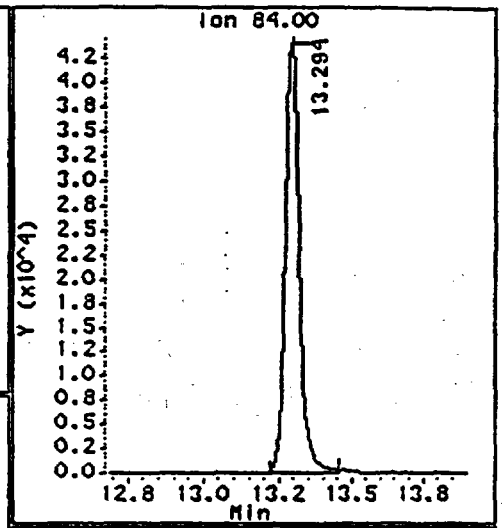
21 Methylene Chloride

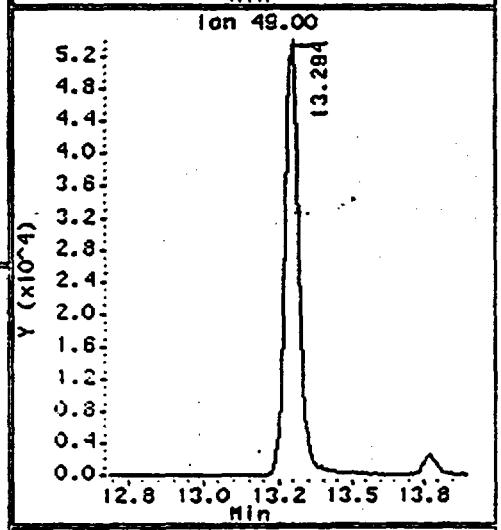


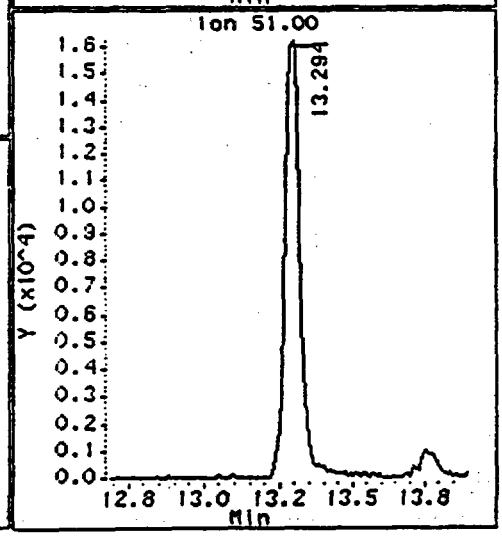












Data File: /chem/msdj.i/j-27may.b/j052709.d

Date : 27-MAY-1997 14:45

0144

Client ID: Level 3

Instrument: msdj.i

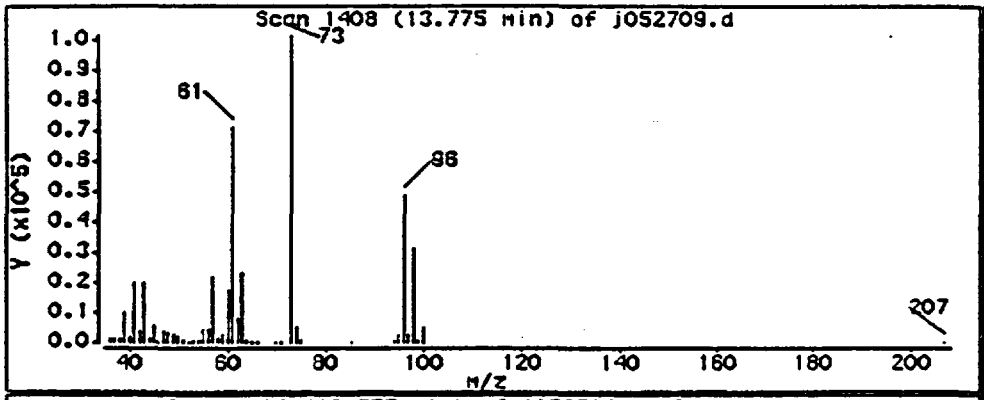
Sample Info: 12.5mL#315-57 200ppbv TO14 Std. (5ppbv)

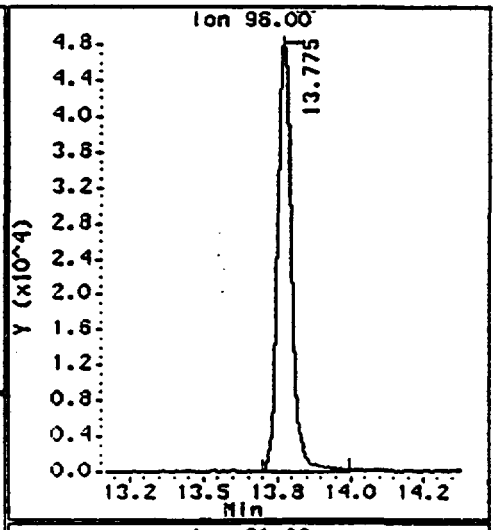
Operator: MM

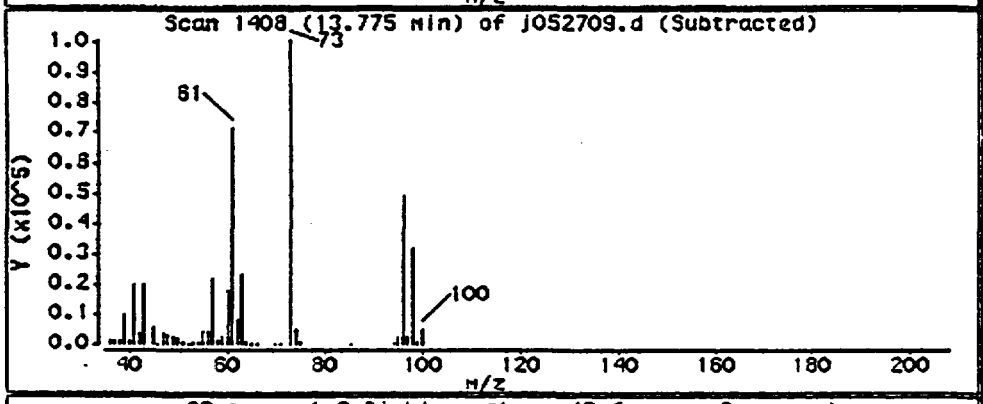
Column phase: RTx-624

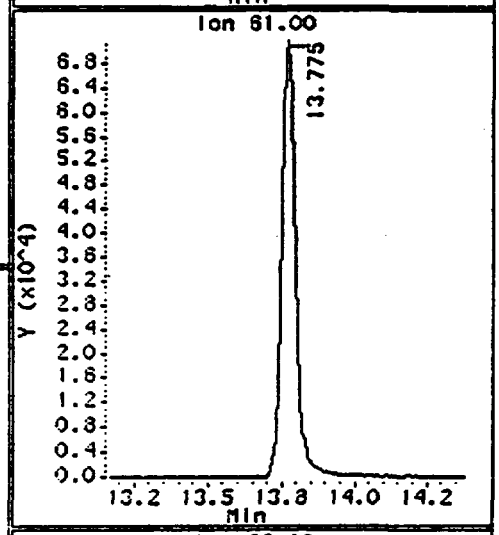
Column diameter: 0.58

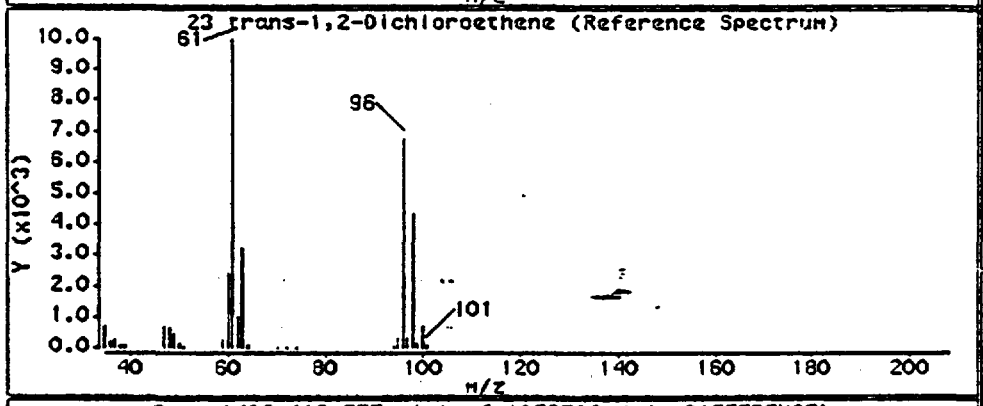
23 trans-1,2-Dichloroethene

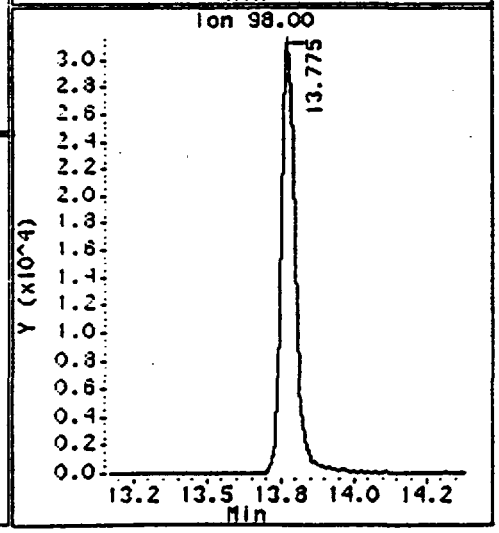


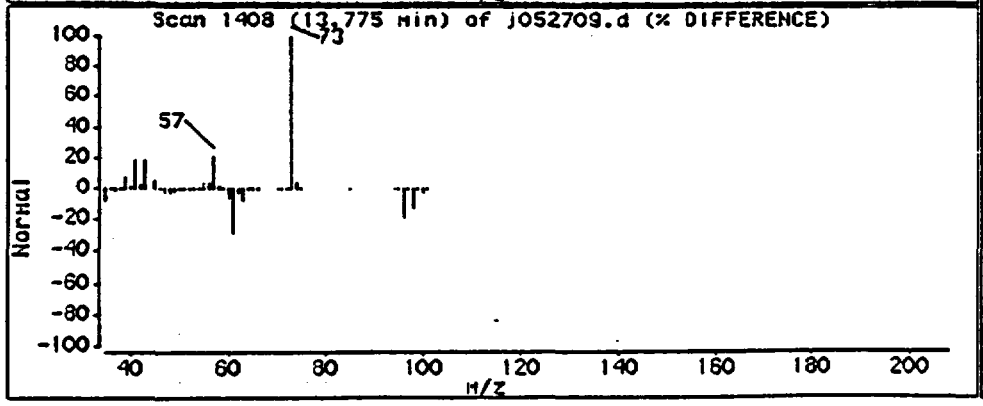












Data File: /chem/msdj.i/j-27may.b/j052709.d

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Date : 27-MAY-1997 14:45

-0145

Client ID: Level 3

Instrument: msdj.i

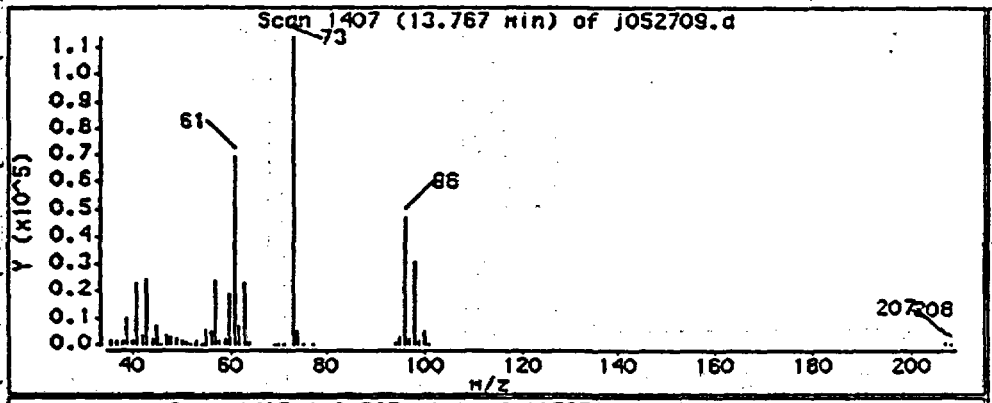
Sample Info: 12.5mL#315-57 200ppbv T014 Std. (5ppbv)

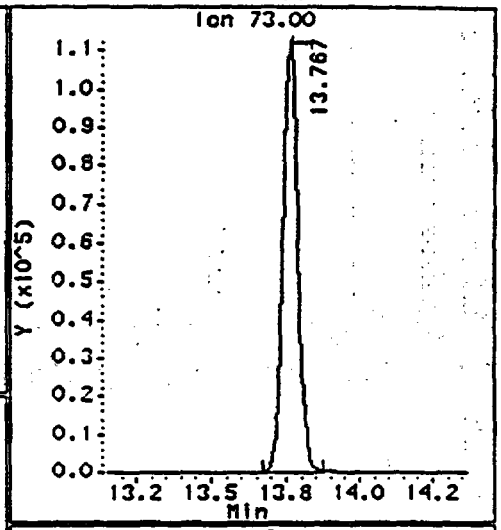
Operator: MH

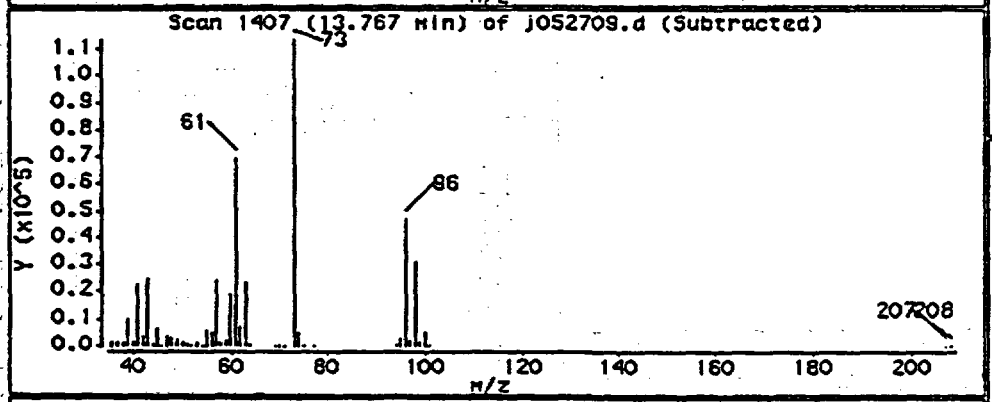
Column phase: RTx-624

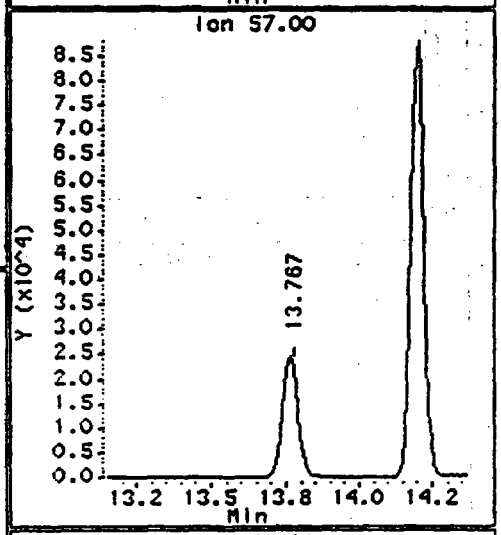
Column diameter: 0.58

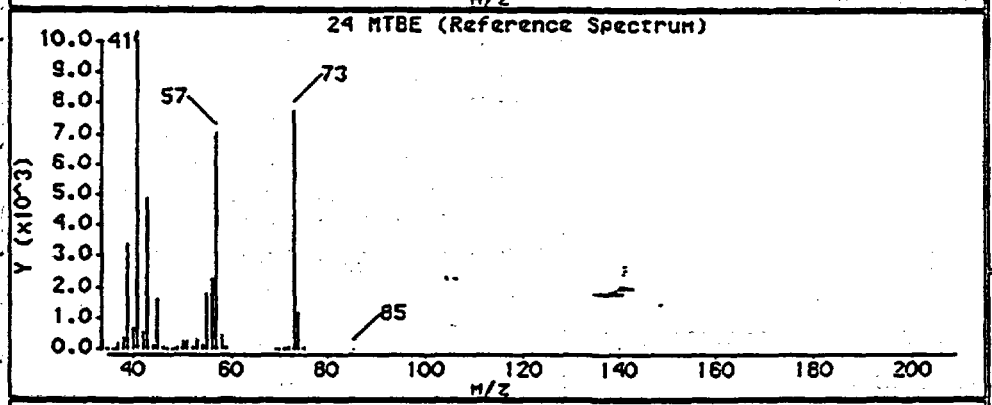
24 MTBE

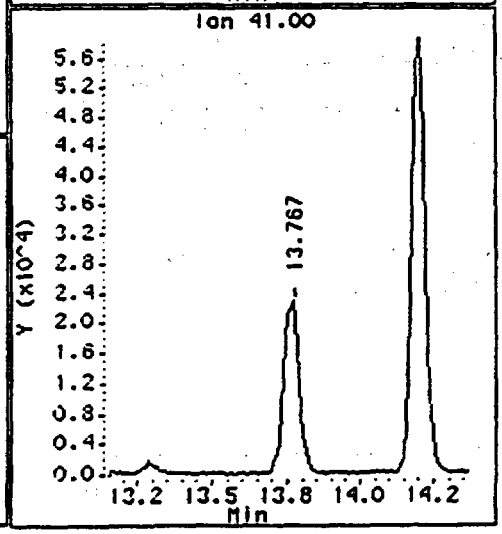


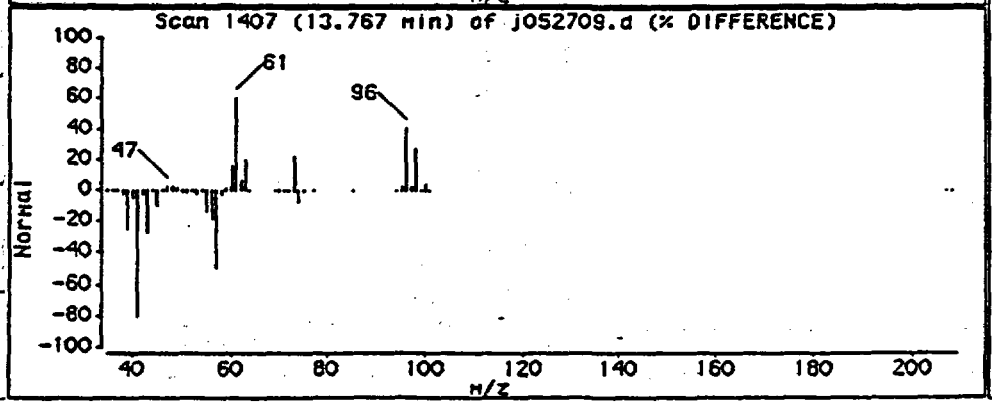












Data File: /chem/msdj.i/j-27may.b/j052709.d

Date : 27-MAY-1997 14:45

0146

Client ID: Level 3

Instrument: msdj.i

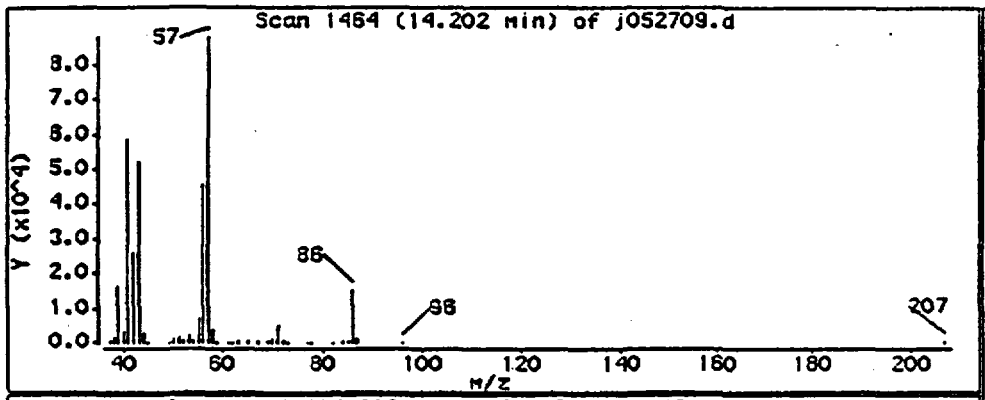
Sample Info: 12.5mL#315-57 200ppbv T014 Std. (5ppbv)

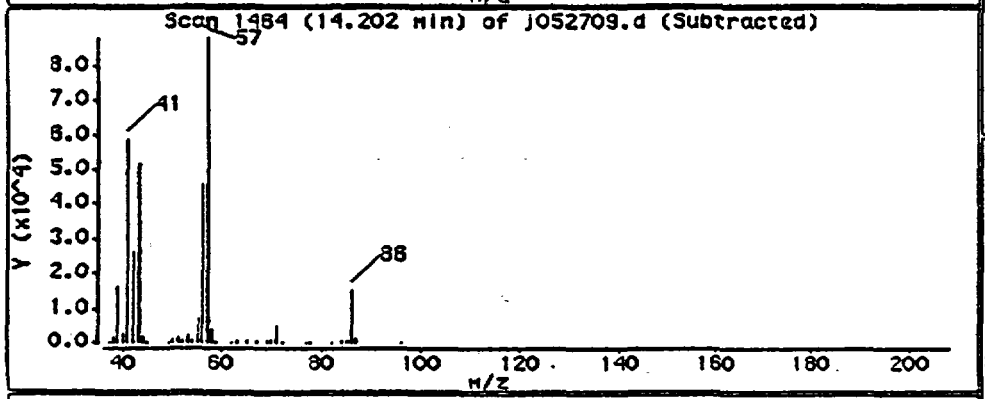
Operator: MH

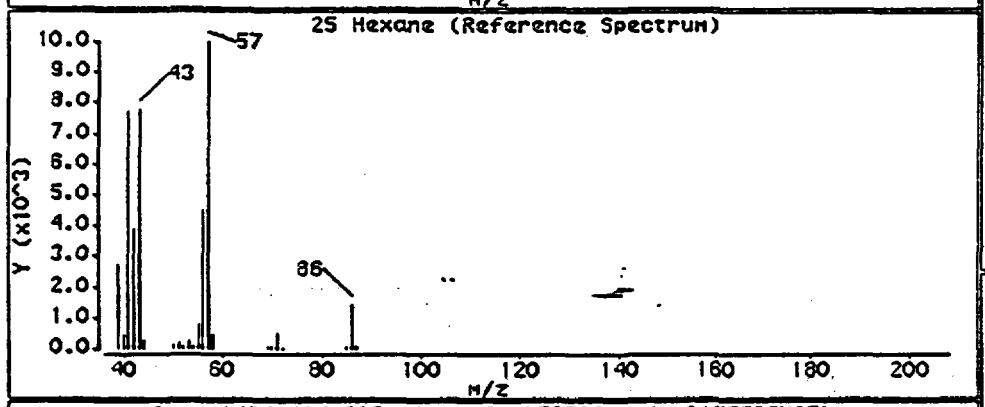
Column phase: RTx-624

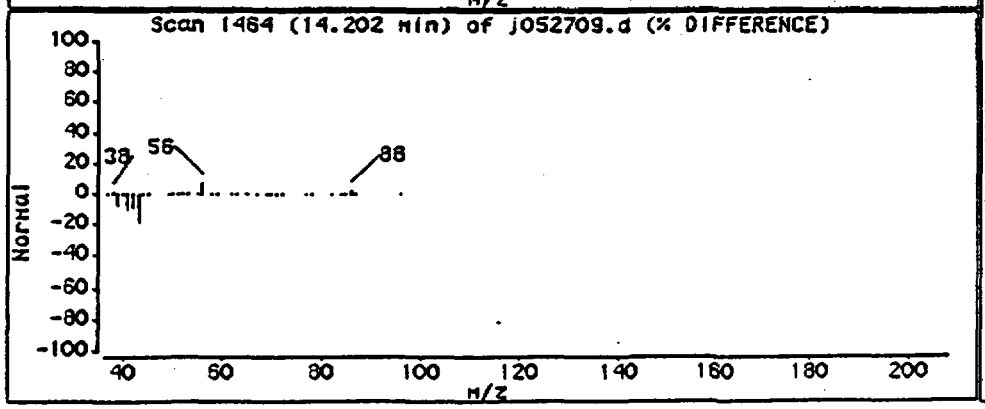
Column diameter: 0.58

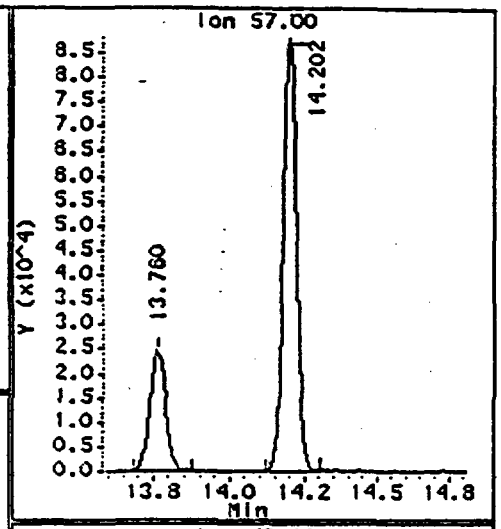
25 Hexane

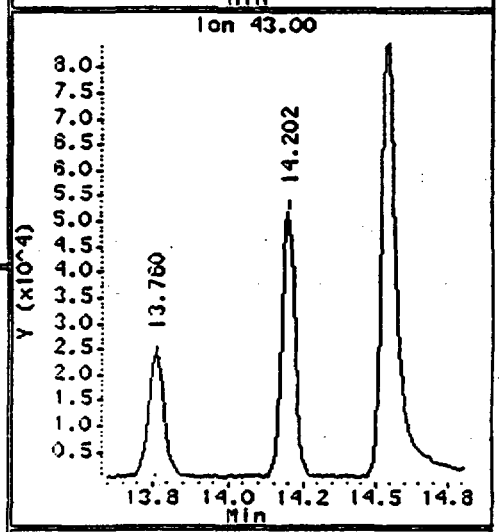


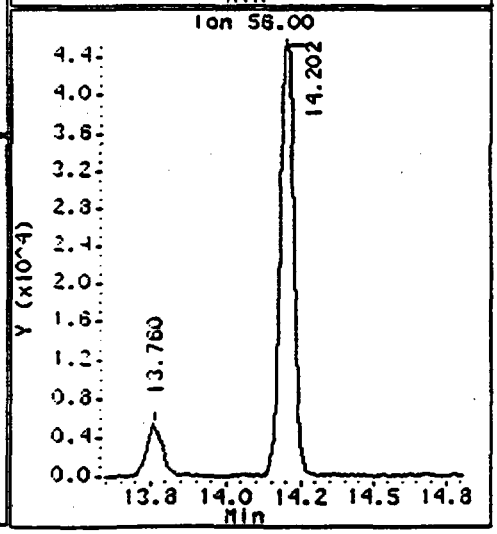








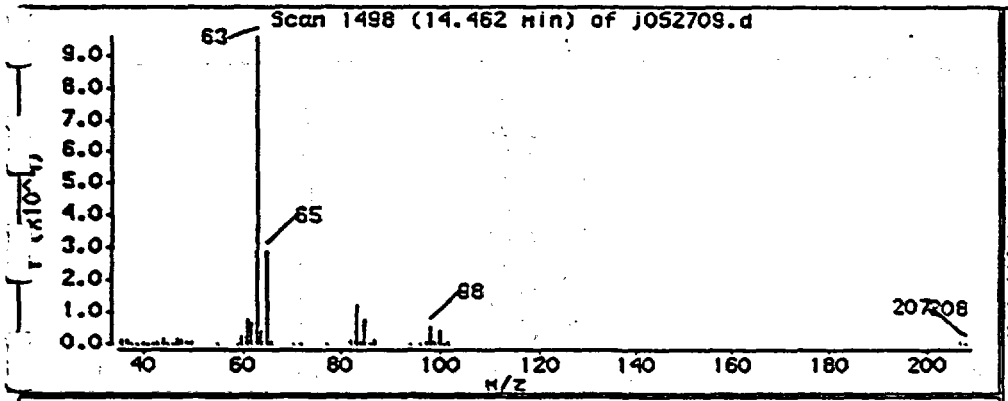


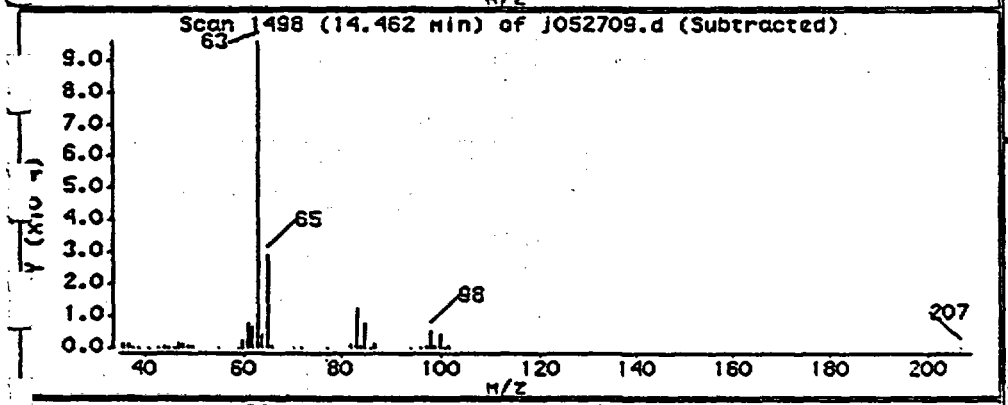


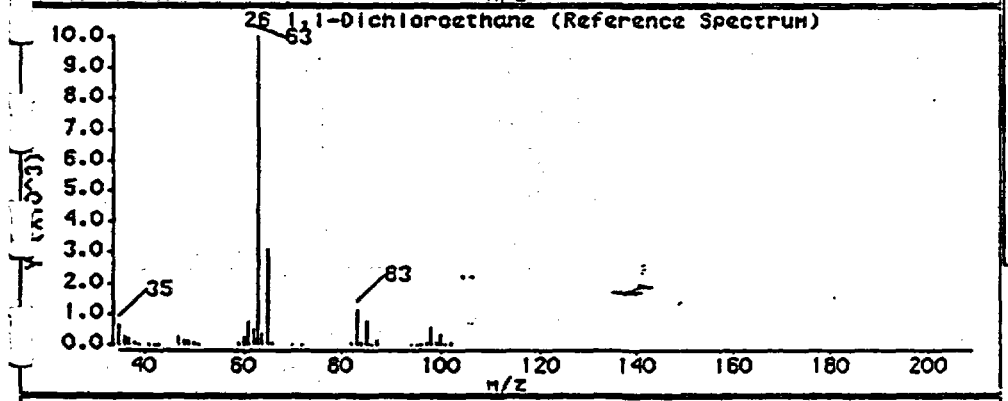
0147

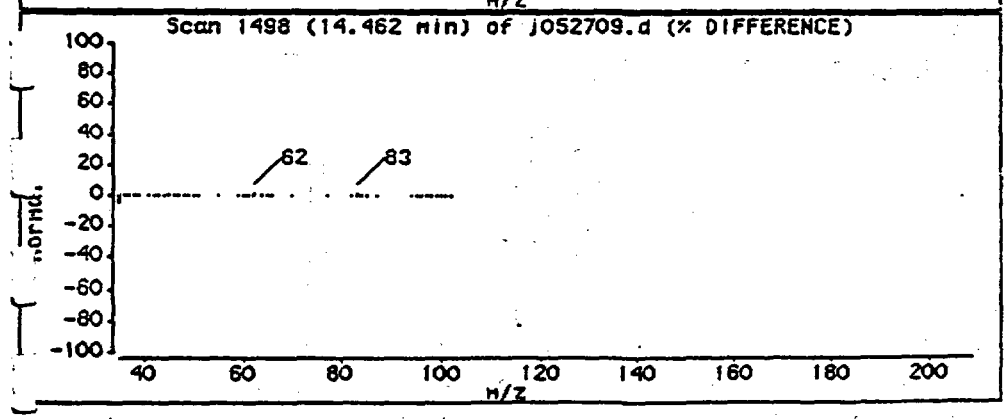
Data File: /chem/msdj.i/j-27may.b/j052709.d
Date : 27-MAY-1997 14:45
Client ID: Level 3 Instrument: msdj.i
Sample Info: 12.5mL#315-57 200ppbv TO14 Std. (5ppbv)
Operator: MH
Column phase: RTx-624 Column diameter: 0.58

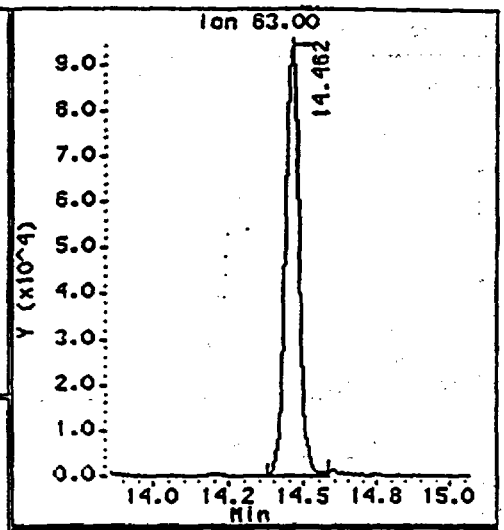
26 1,1-Dichloroethane

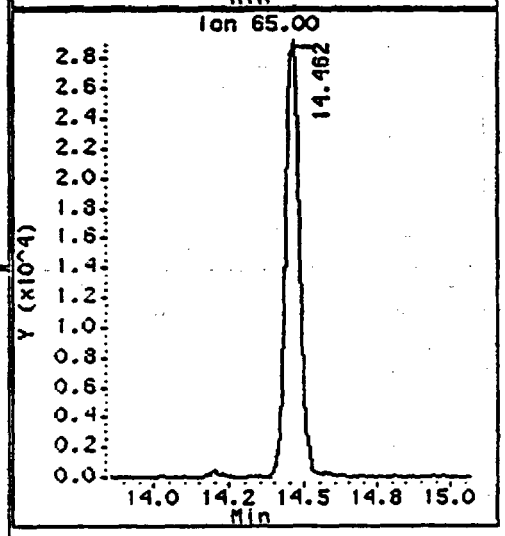












Data File: /chem/msdj.i/j-27may.b/j052709.d

Date : 27-MAY-1997 14:45

Client ID: Level 3

Instrument: msdj.i

Sample Info: 12.5mL#315-57 200ppbv TO14 Std. (5ppbv)

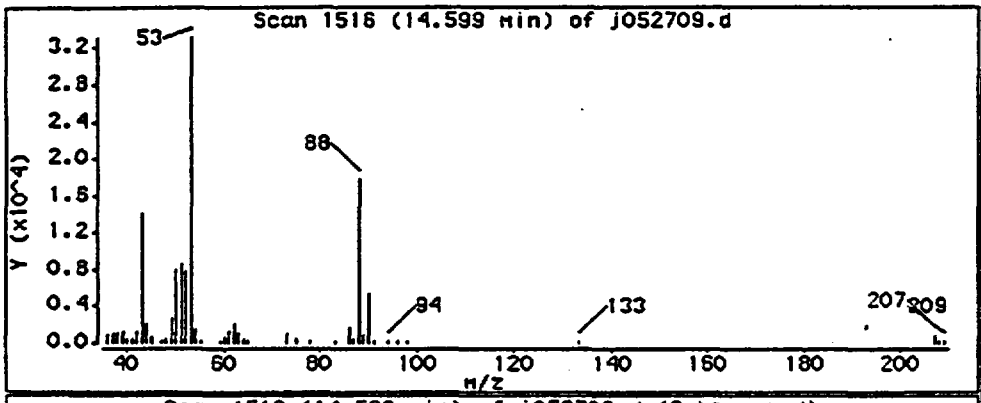
0148

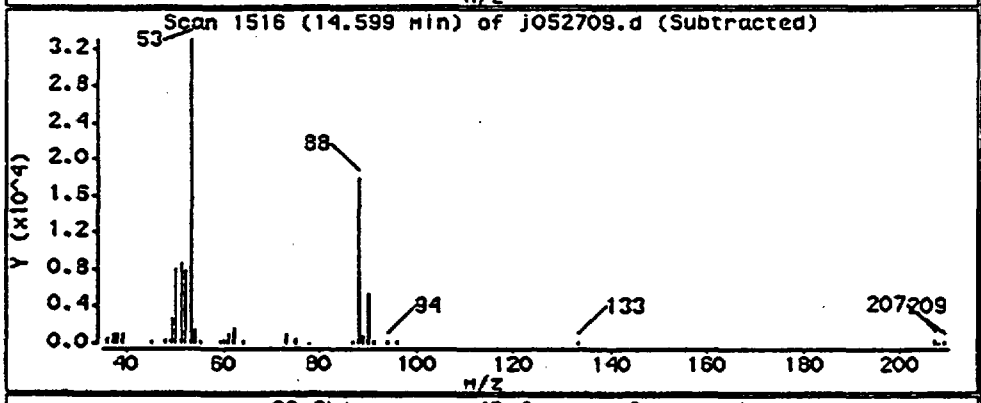
Operator: MH

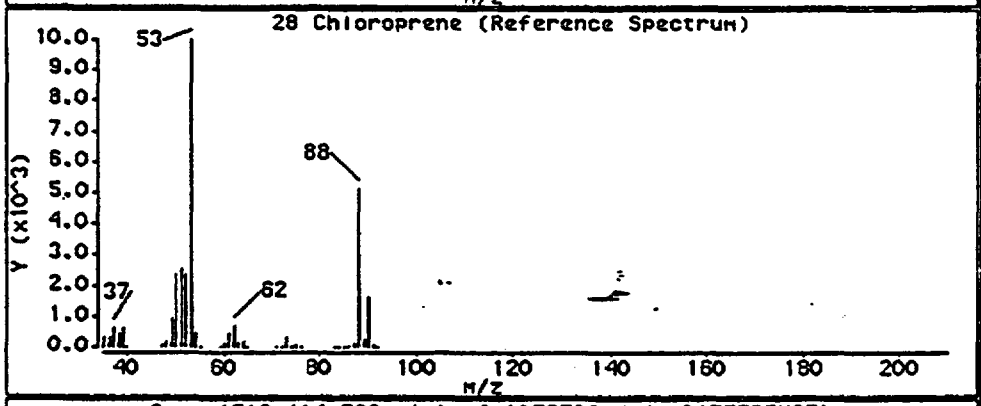
Column phase: RTx-624

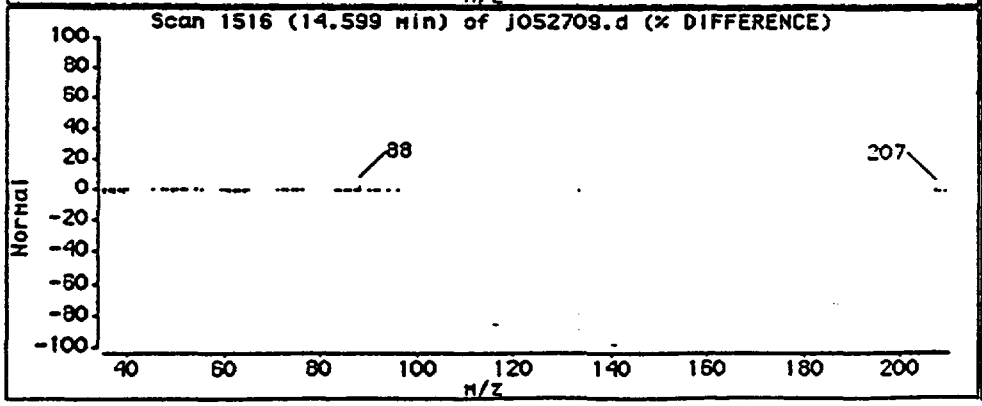
Column diameter: 0.58

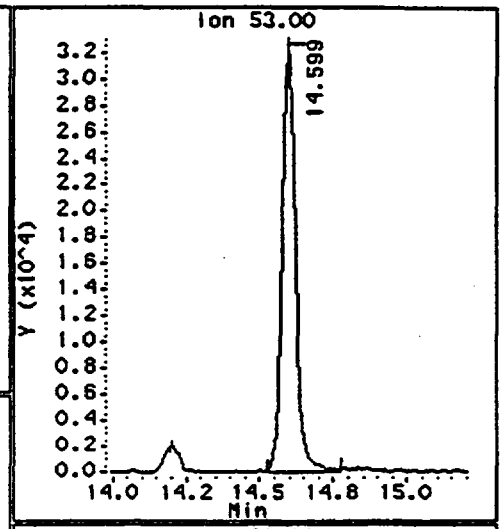
28 Chloroprene

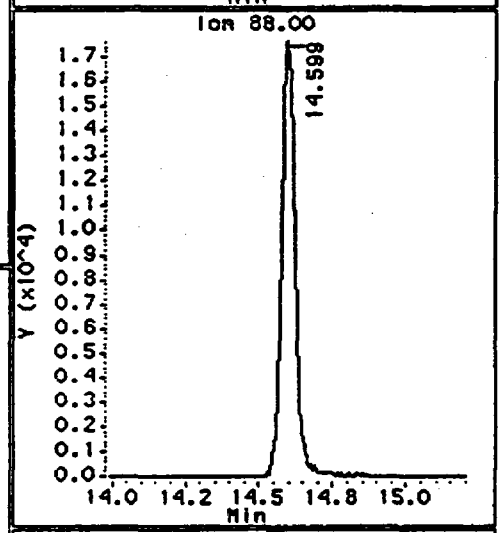


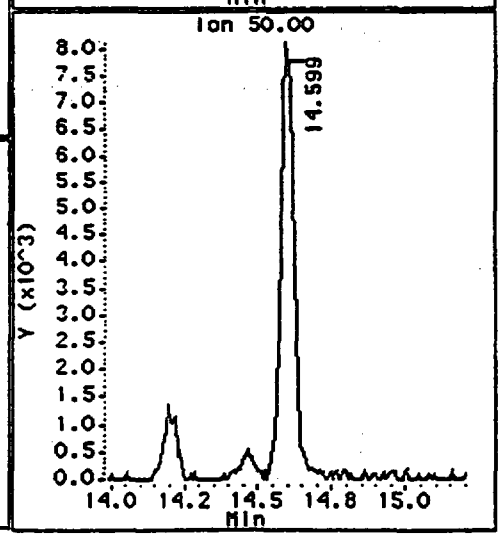












Data File: /chem/msdj.i/j-27may.b/j052709.d

Date : 27-MAY-1997 14:45

Client ID: Level 3

Instrument: msdj.i

0149

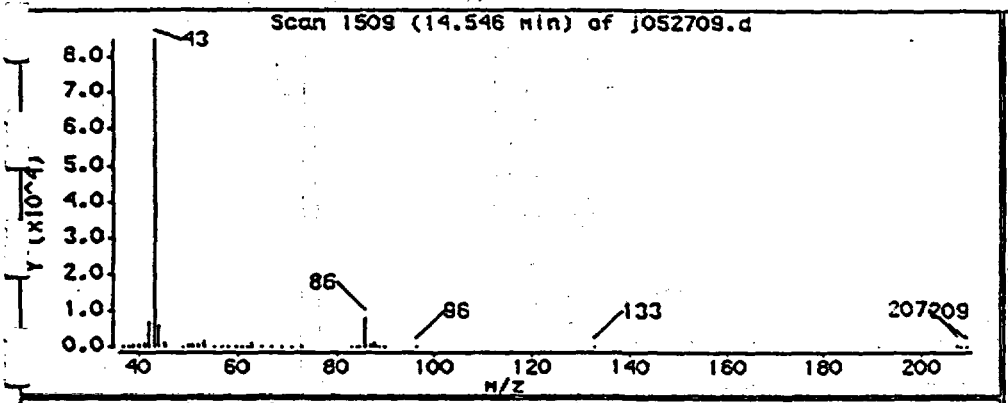
Sample Info: 12.5mL#315-57 200ppbv T014 Std. (5ppbv)

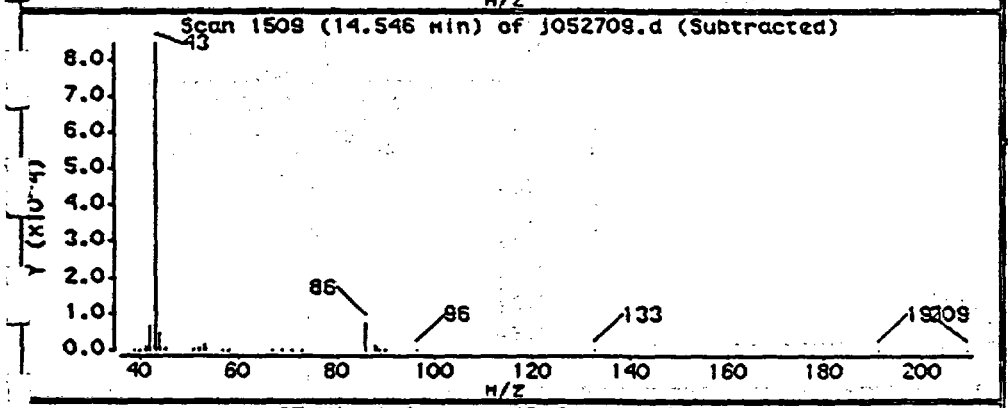
Operator: MH

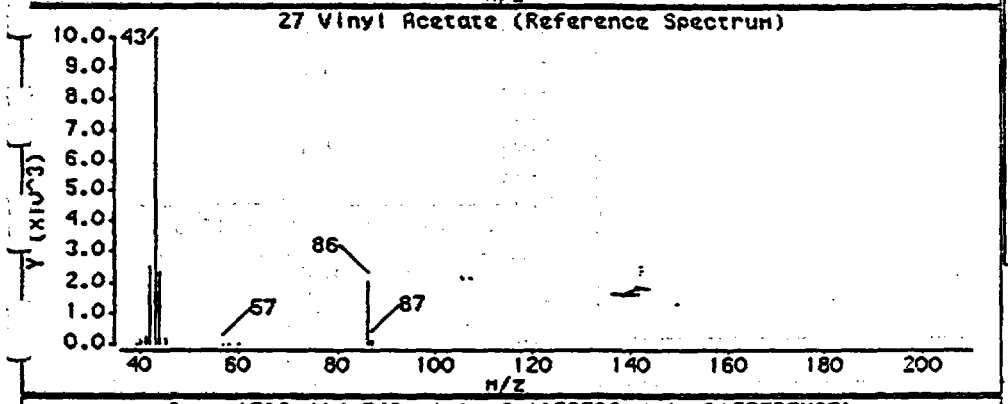
Column phase: RTx-624

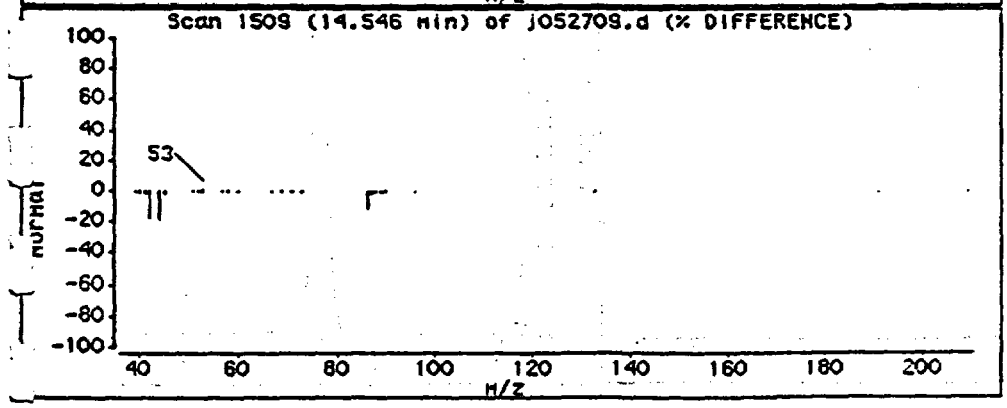
Column diameter: 0.58

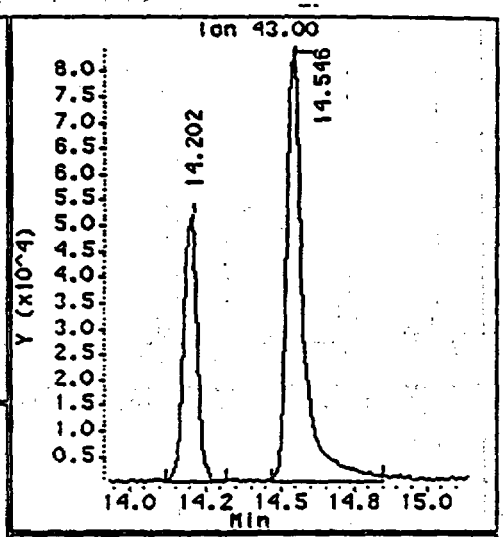
27 Vinyl Acetate

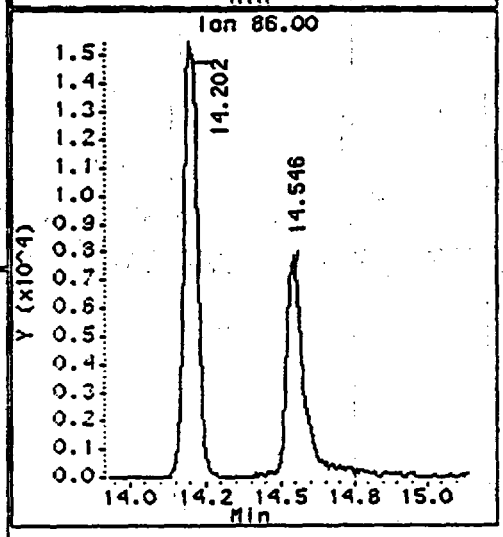












Data File: /chem/msdj.i/j-27may.b/j052709.d

Date : 27-MAY-1997 14:45

Client ID: Level 3

Instrument: msdj.i

0150

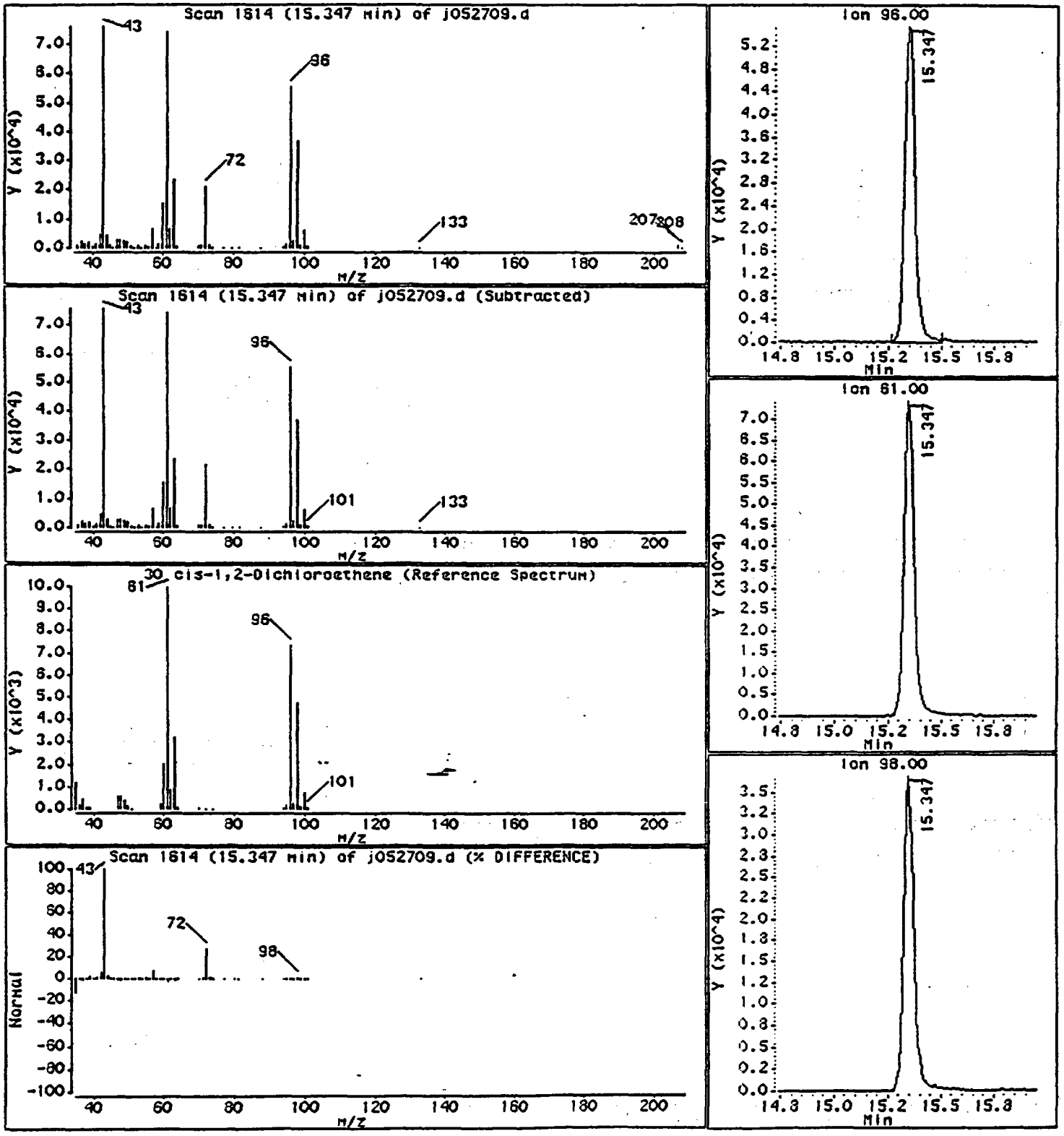
Sample Info: 12.5mL#315-57 200ppbv TO14 Std. (5ppbv)

Operator: MH

Column phase: RTx-624

Column diameter: 0.58

30 cis-1,2-Dichloroethene



Data File: /chem/msdj.i/j-27may.b/j052709.d

Date : 27-MAY-1997 14:45

Client ID: Level 3

Instrument: msdj.i

Sample Info: 12.5mL#315-57 200ppbv TO14 Std. (5ppbv)

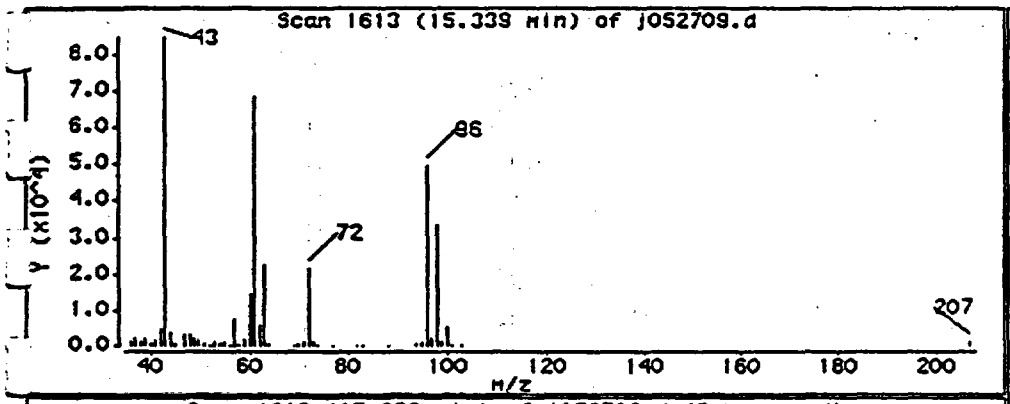
0151

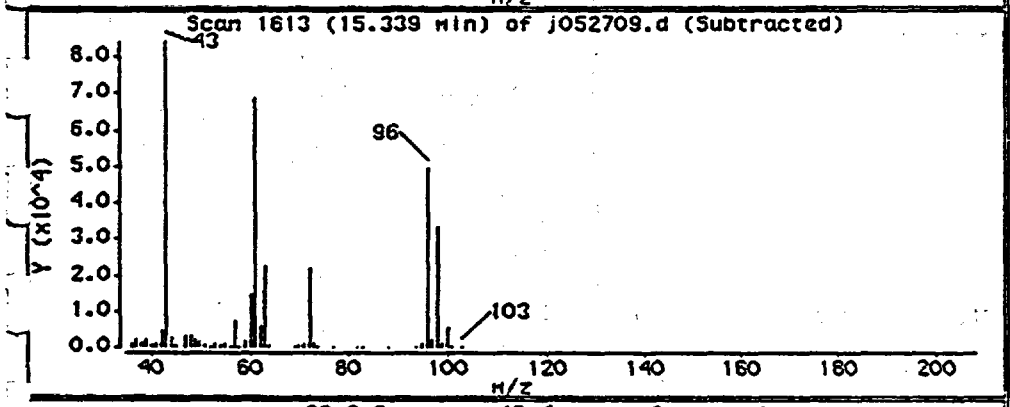
Operator: MH

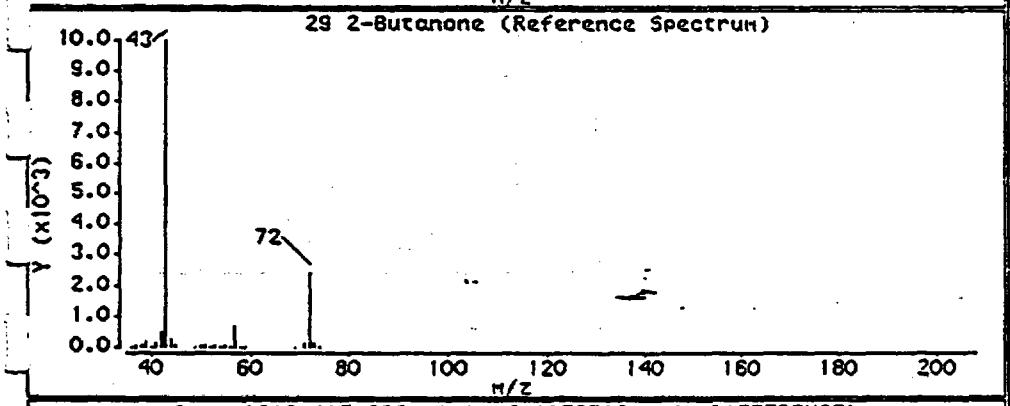
Column phase: RTx-624

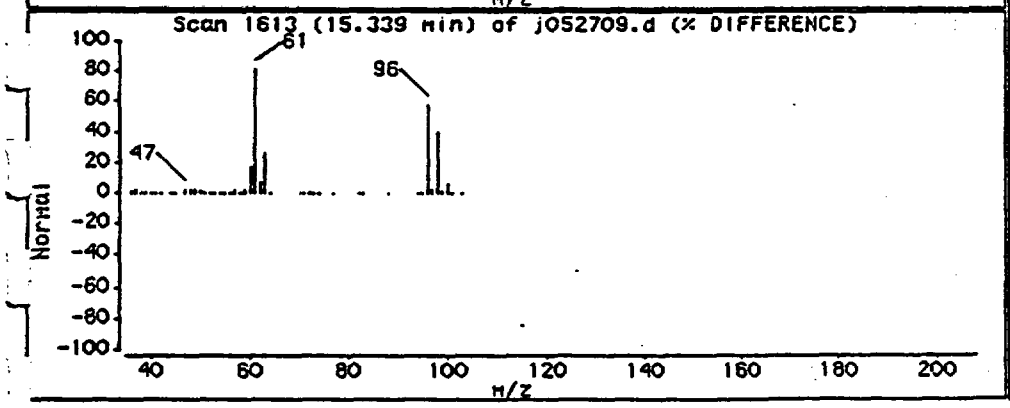
Column diameter: 0.58

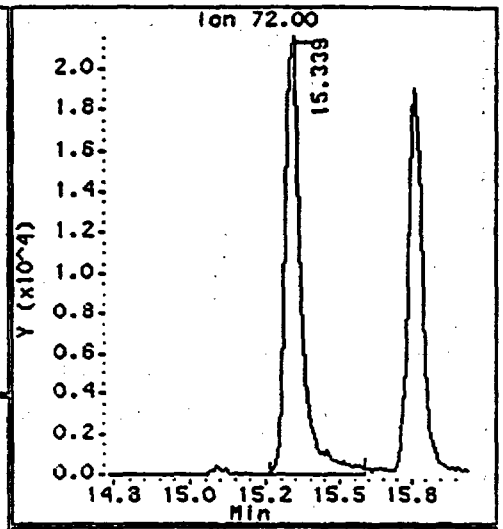
29 2-Butanone

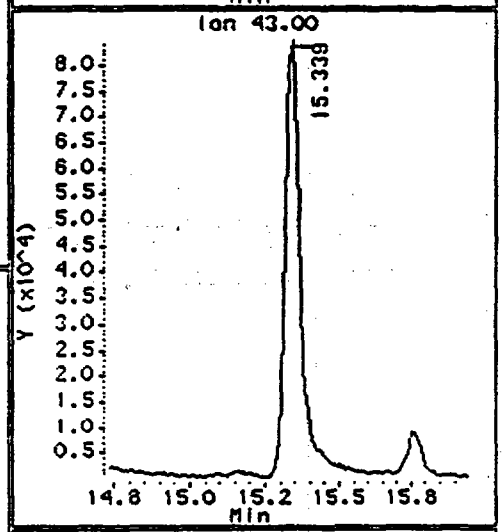


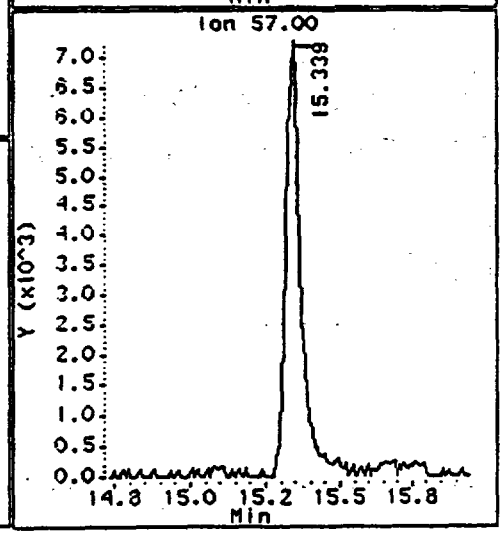












Data File: /chem/msdj.i/j-27may.b/j052709.d

Date : 27-MAY-1997 14:45

Client ID: Level 3

Instrument: msdj.i

0152

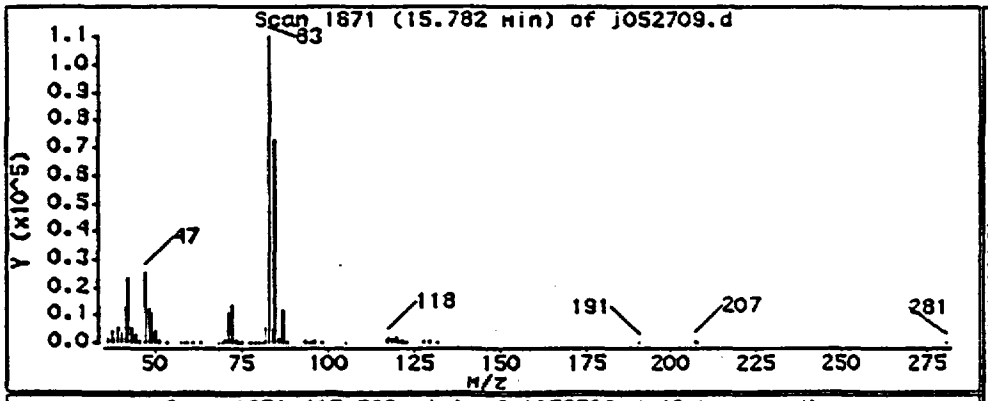
Sample Info: 12.5mL#315-57 200ppbv T014 Std. (5ppbv)

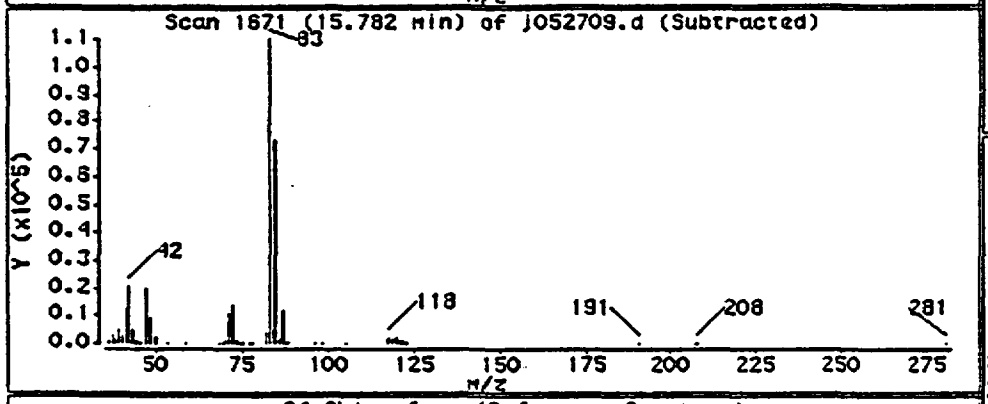
Operator: MH

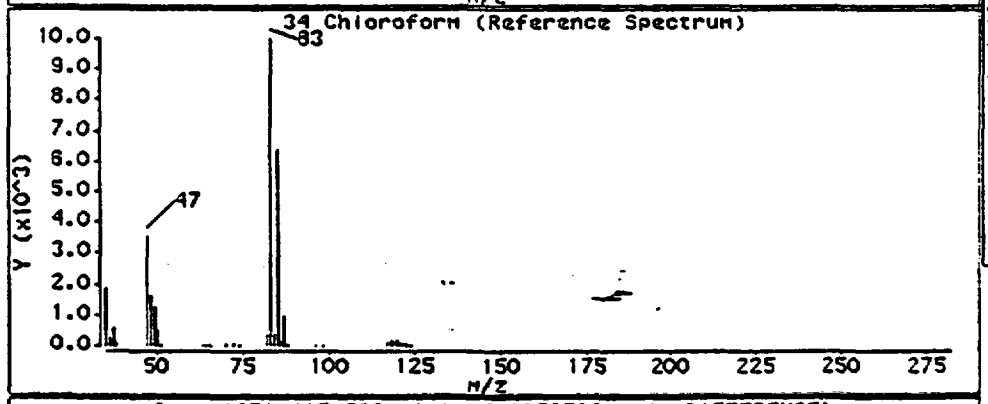
Column phase: RTx-624

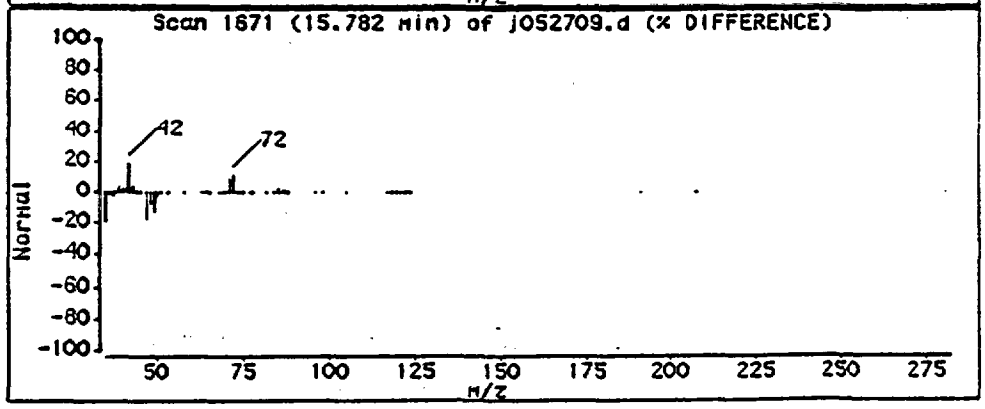
Column diameter: 0.58

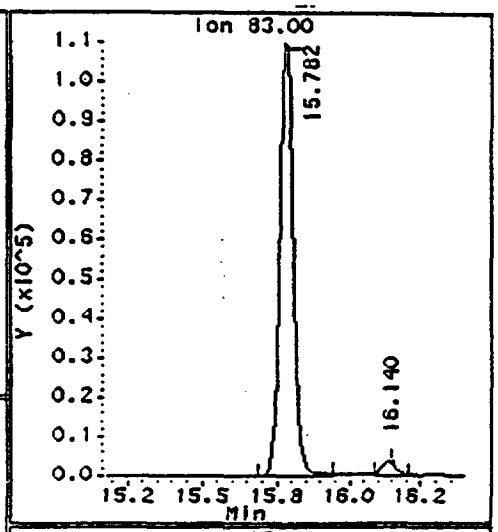
34 Chloroform

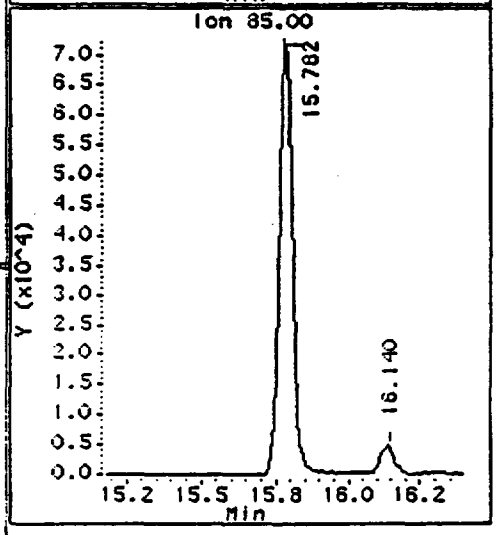












Data File: /chem/msdj.i/j-27may.b/j052709.d

Date : 27-MAY-1997 14:45

Client ID: Level 3

Instrument: msdj.i

0153

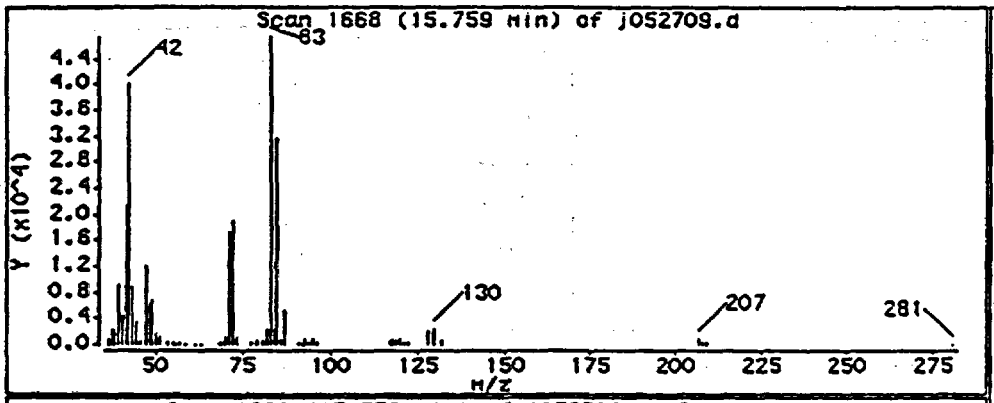
Sample Info: 12.5mL#315-57 200ppbv T014 Std. (5ppbv)

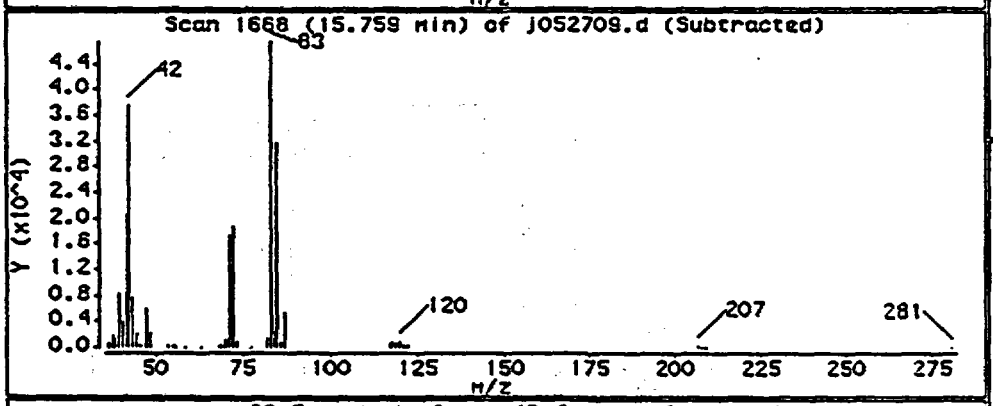
Operator: MH

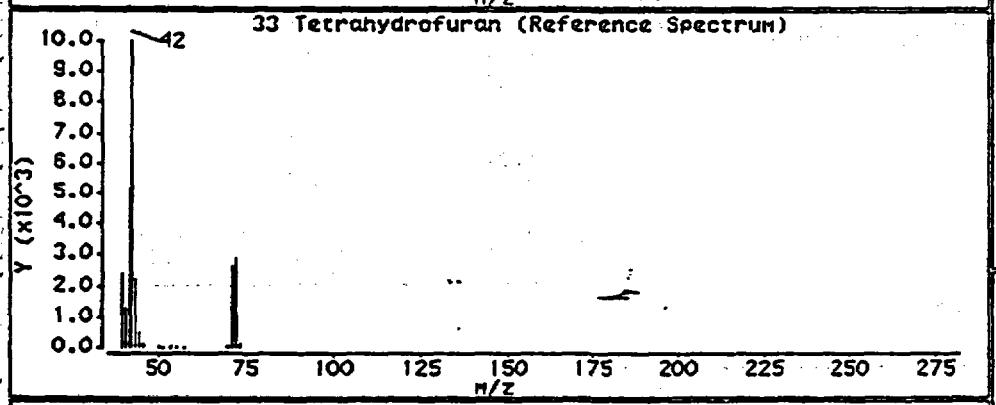
Column phase: RTx-624

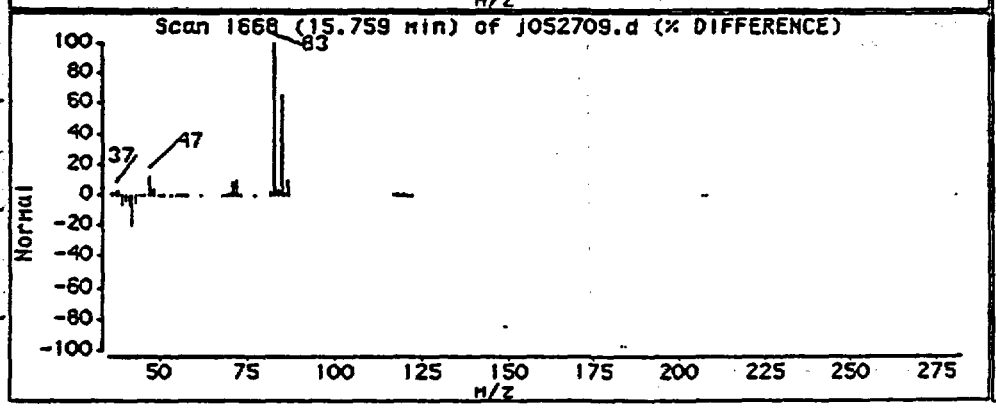
Column diameter: 0.58

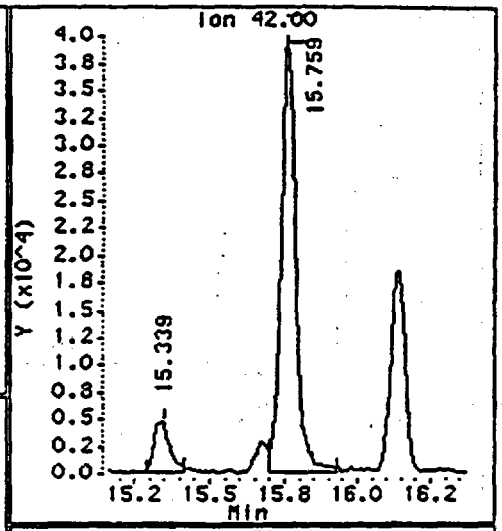
33 Tetrahydrofuran

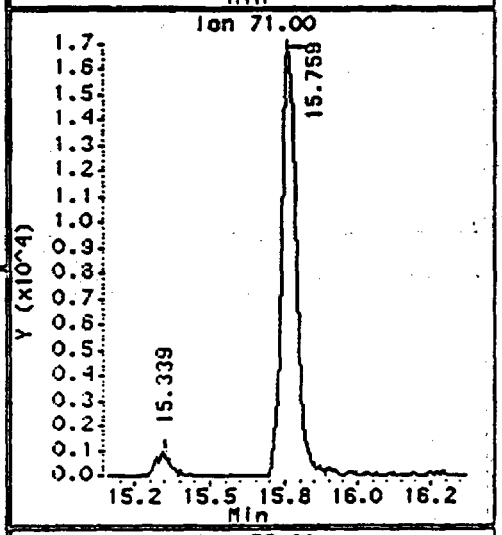


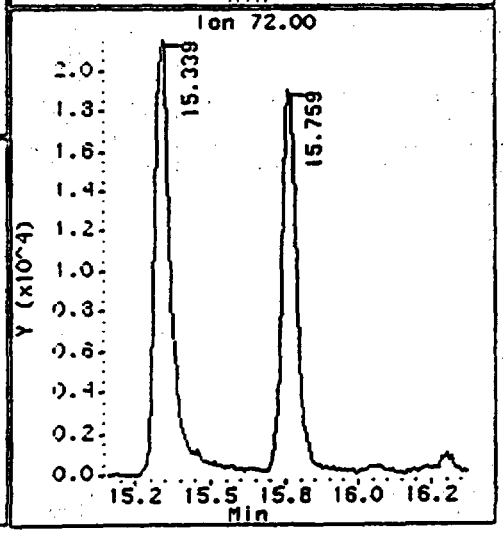












Data File: /chem/msdj.i/j-27may.b/j052709.d

Date : 27-MAY-1997 14:45

Client ID: Level 3

Instrument: msdj.i

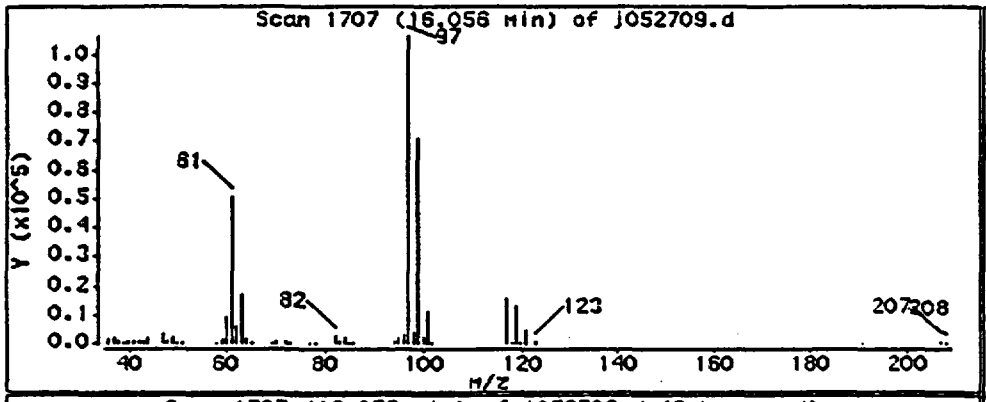
Sample Info: 12.5mL#315-57 200ppbv T014 Std. (5ppbv)

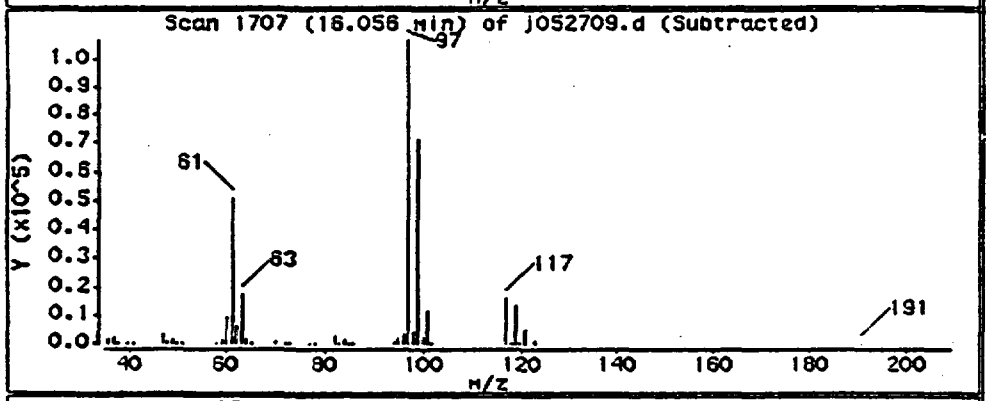
Operator: MH

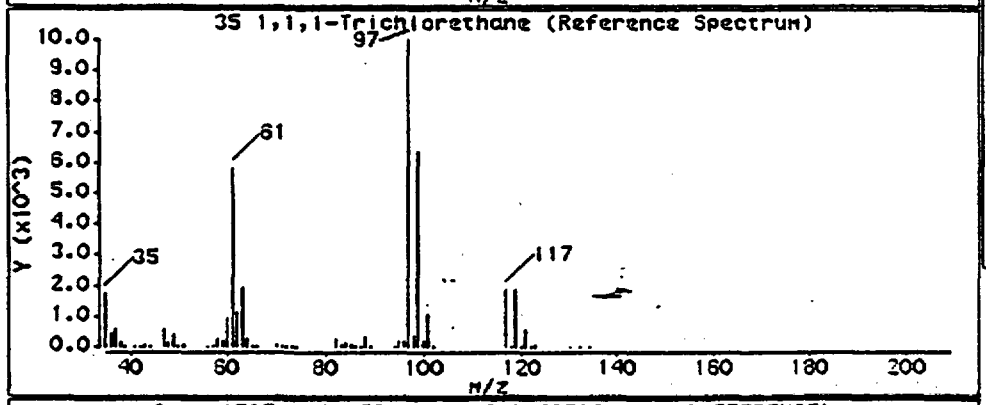
Column phase: RTx-624

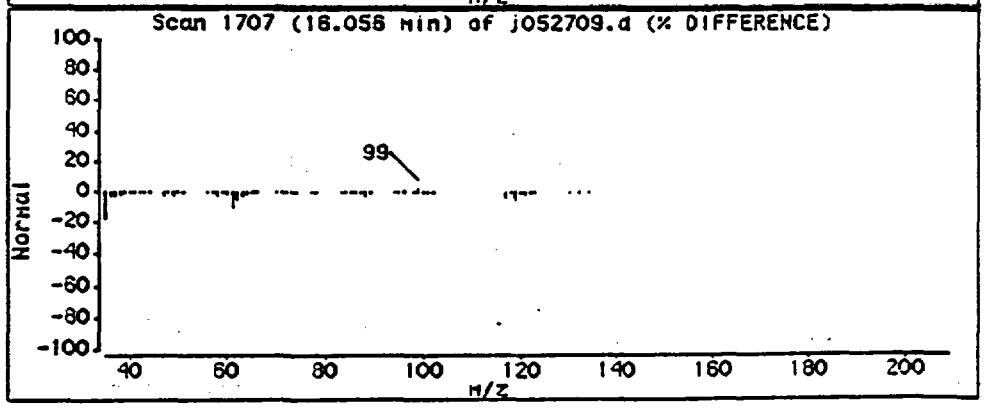
Column diameter: 0.58

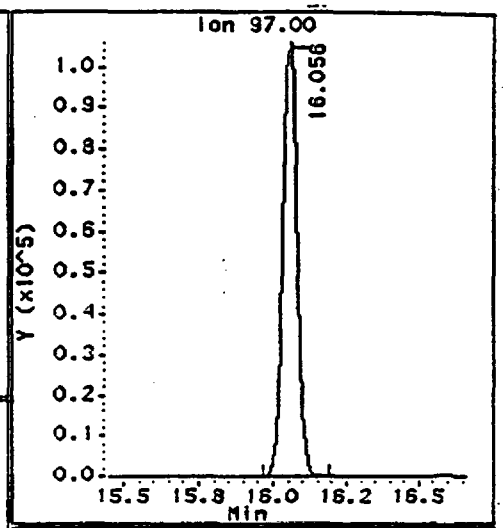
35 1,1,1-Trichlorethane

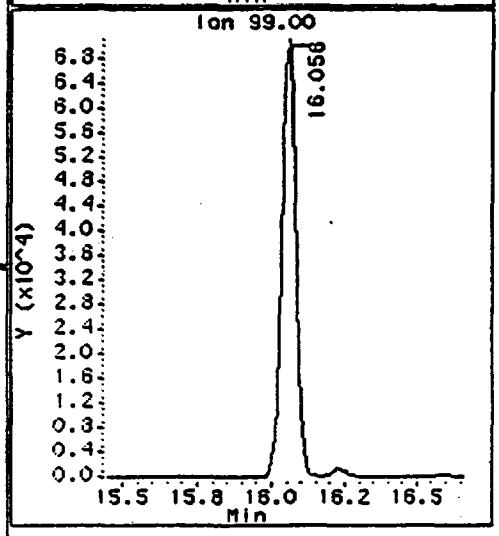












Data File: /chem/msdj.i/j-27may.b/j052709.d

Date : 27-MAY-1997 14:45

0155

Client ID: Level 3

Instrument: msdj.i

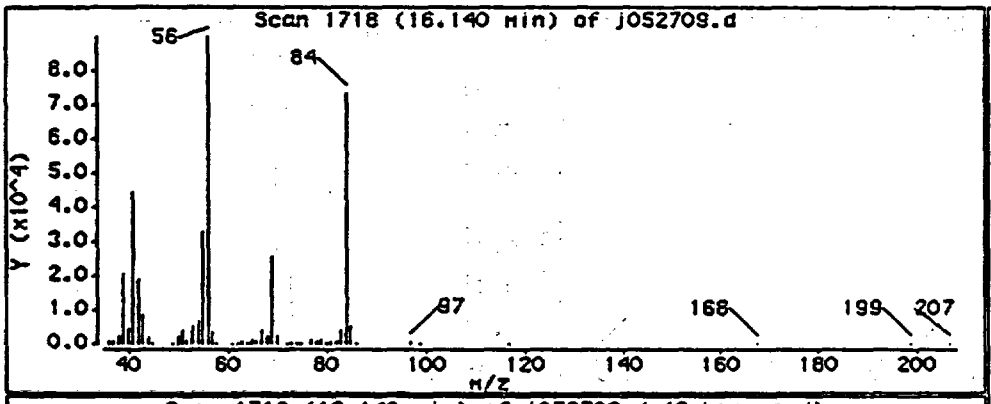
Sample Info: 12.5mL#315-57 200ppbv TO14 Std. (5ppbv)

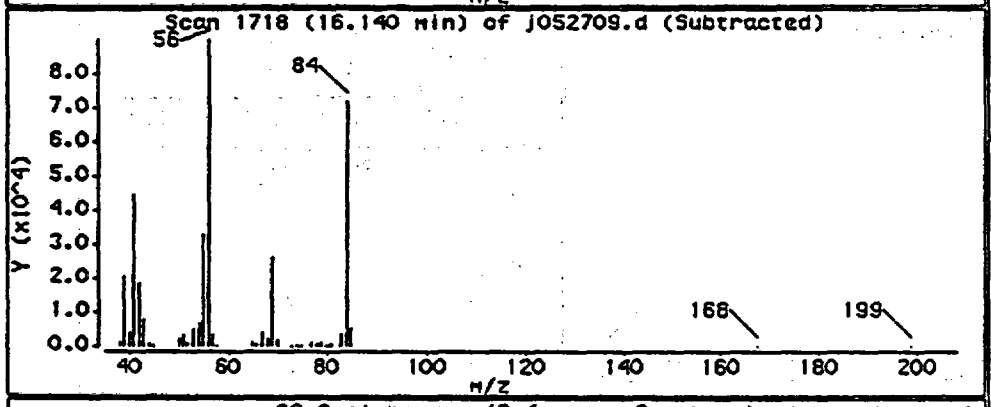
Operator: MH

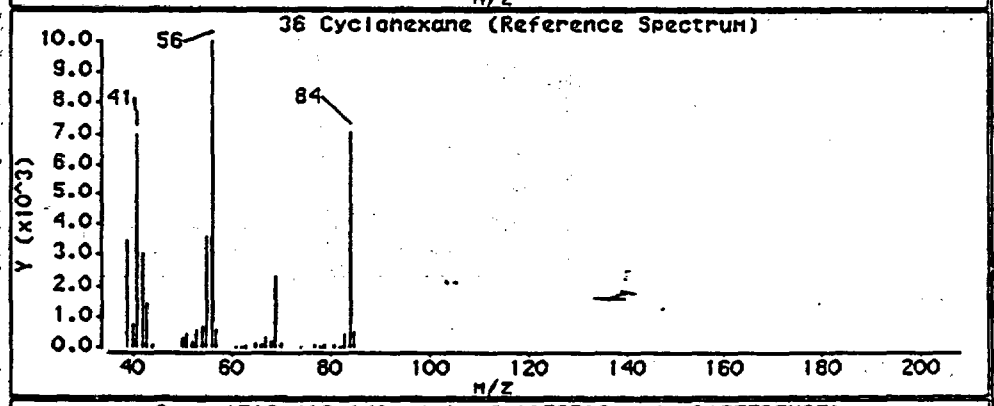
Column phase: RTx-624

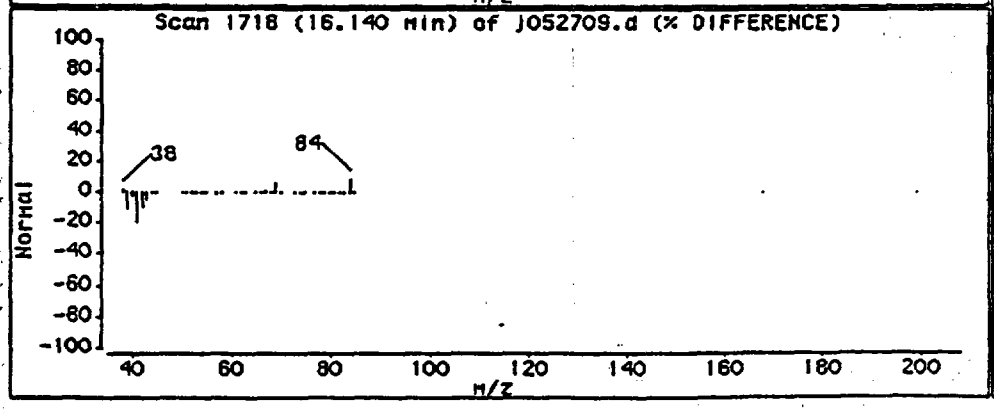
Column diameter: 0.58

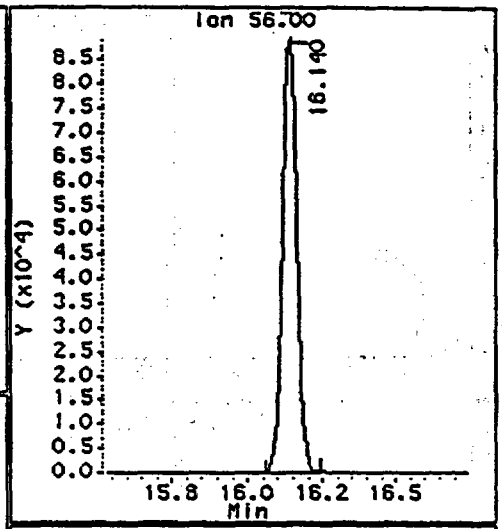
36 Cyclohexane

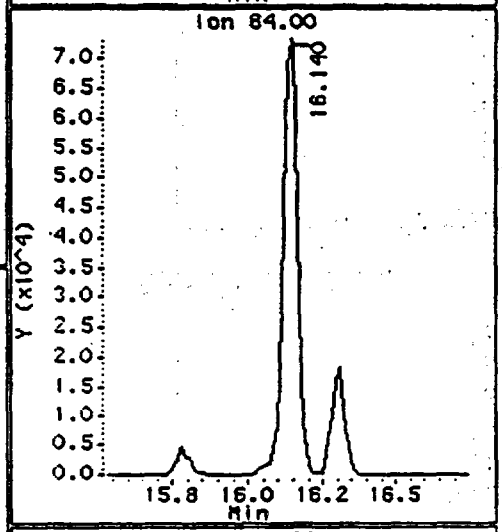


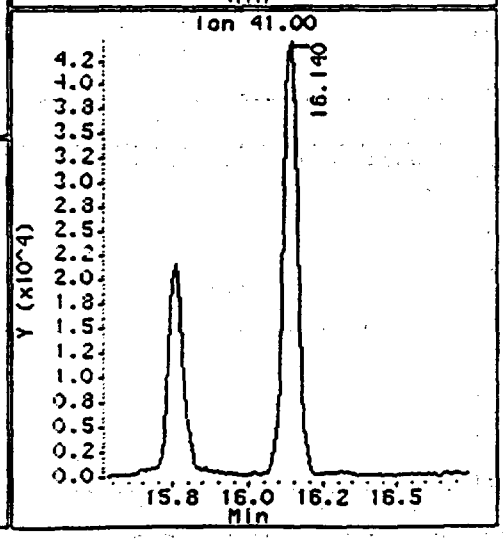












Data File: /chem/msdj.i/j-27may.b/j052709.d

Date : 27-MAY-1997 14:45

Client ID: Level 3

Instrument: msdj.i

0156

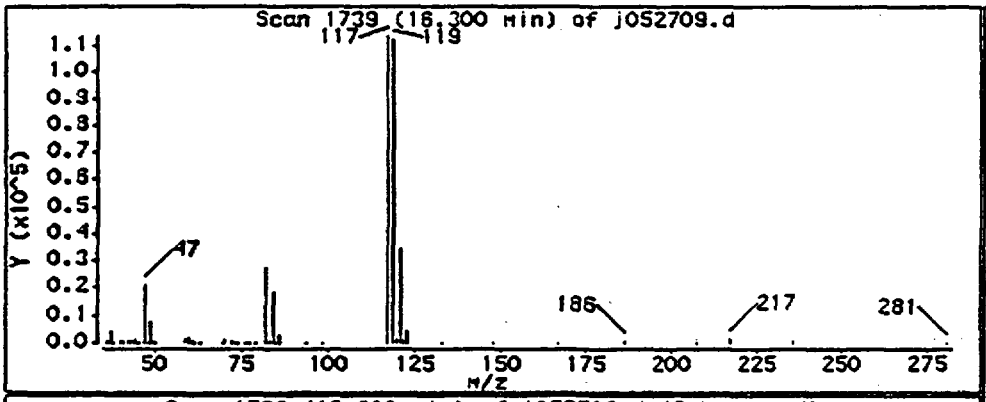
Sample Info: 12.5mL#315-57 200ppbv T014 Std. (5ppbv)

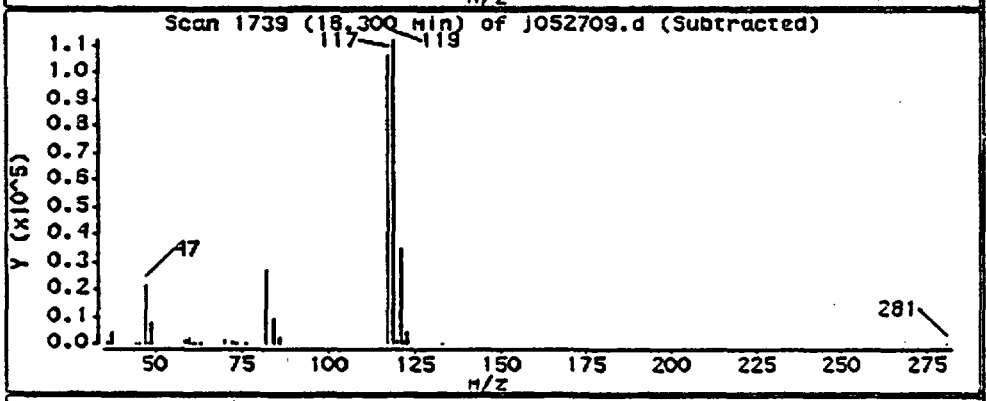
Operator: MM

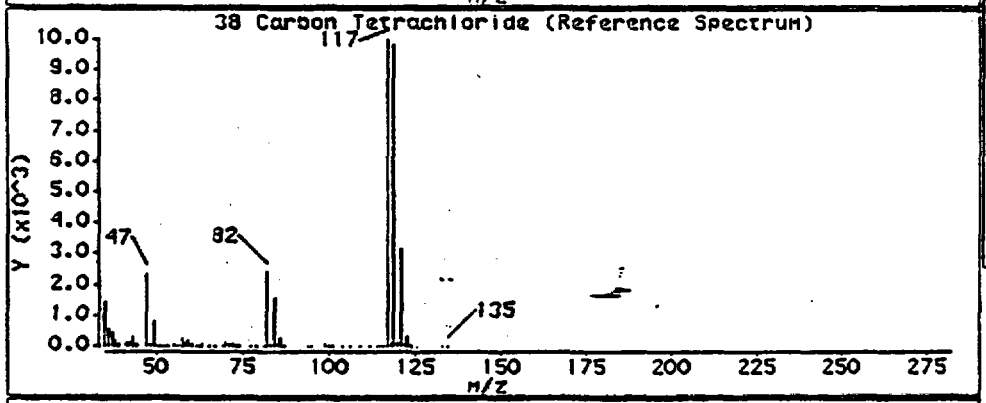
Column phase: RTx-624

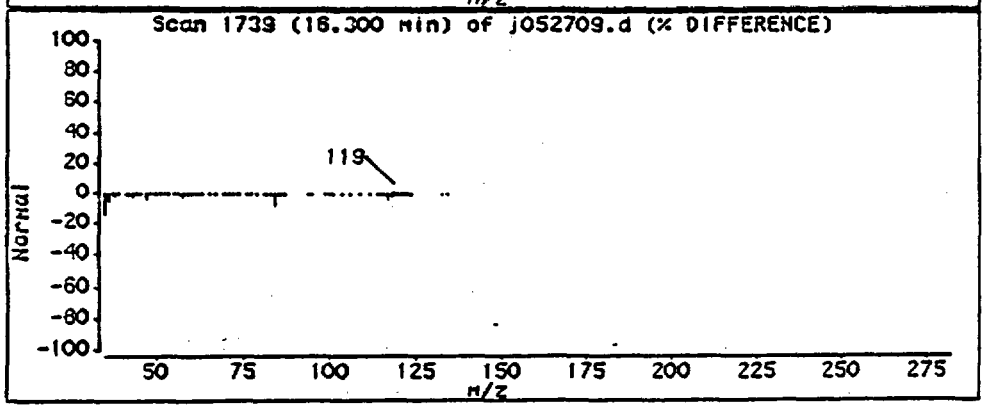
Column diameter: 0.58

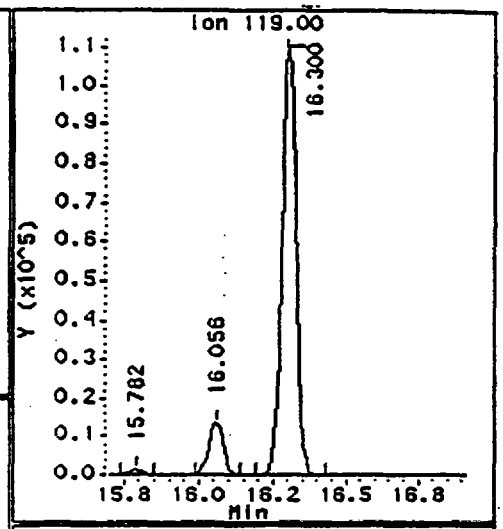
38 Carbon Tetrachloride

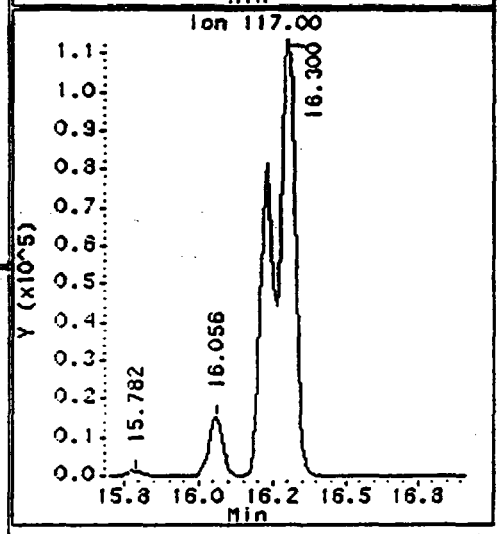












Data File: /chem/msdj.i/j-27may.b/j052709.d

Date : 27-MAY-1997 14:45

0157

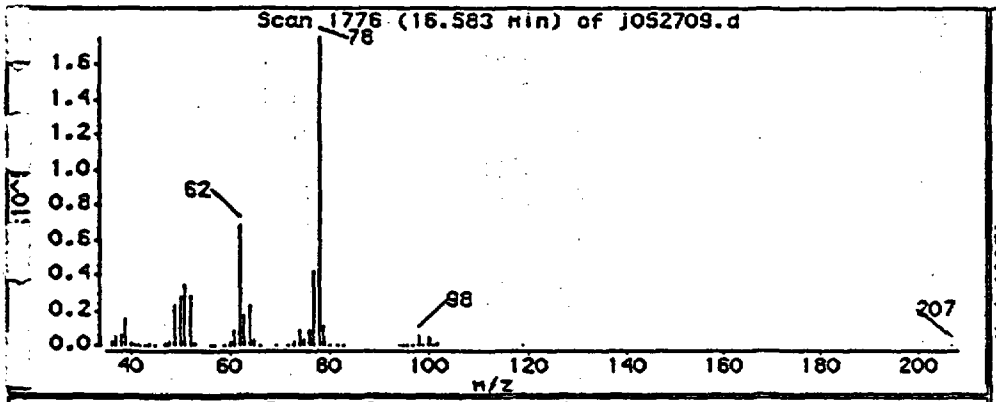
Client ID: Level 3 Instrument: msdj.i

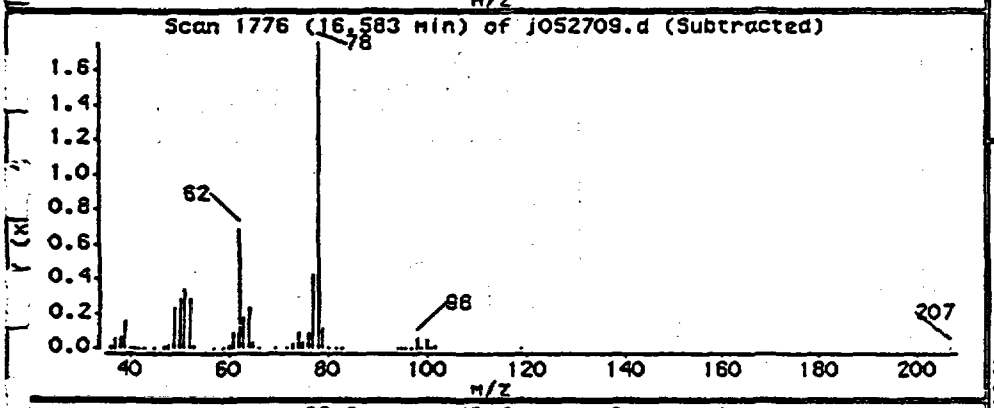
Sample Info: 12.5mL#315-57 200ppbv TO14 Std. (5ppbv)

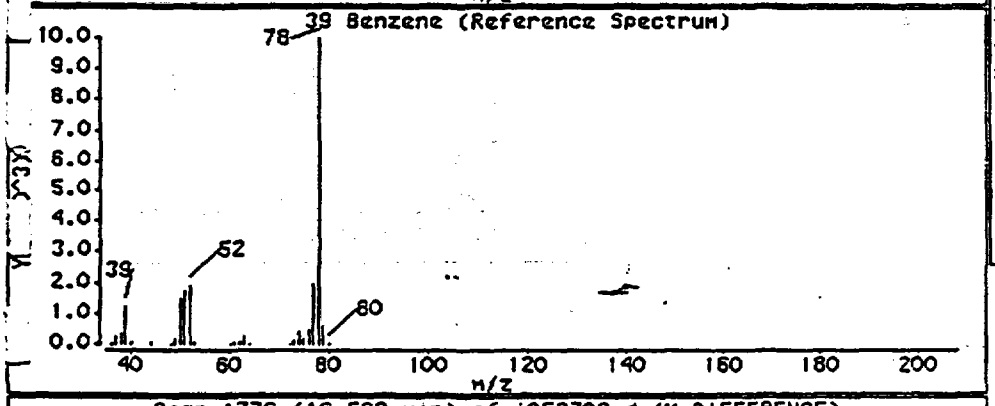
Operator: MH

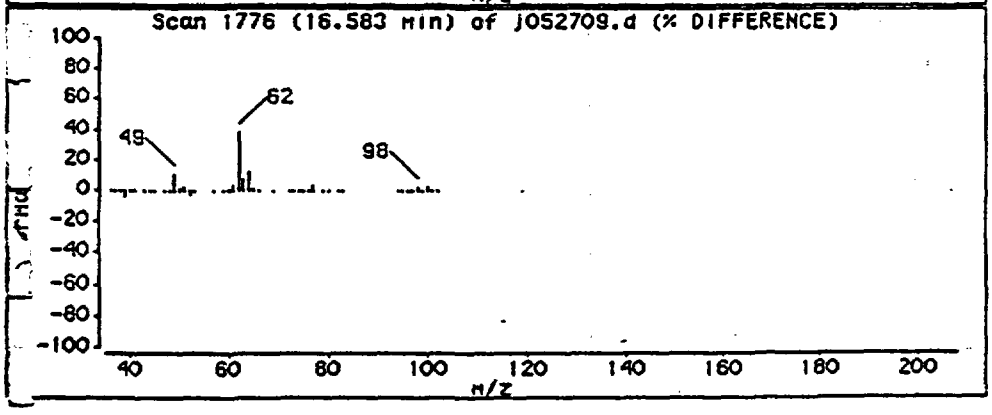
Column phase: RTx-624 Column diameter: 0.58

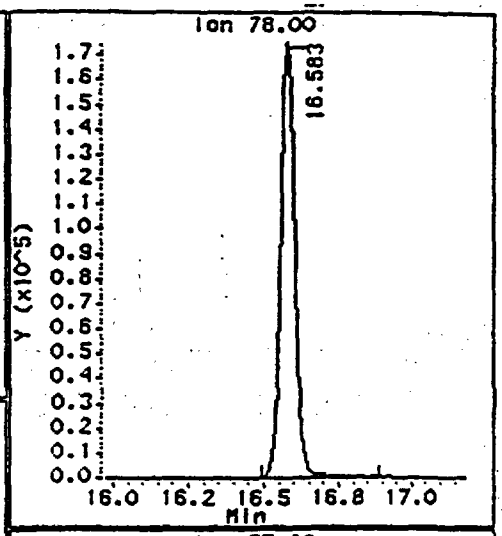
39 Benzene

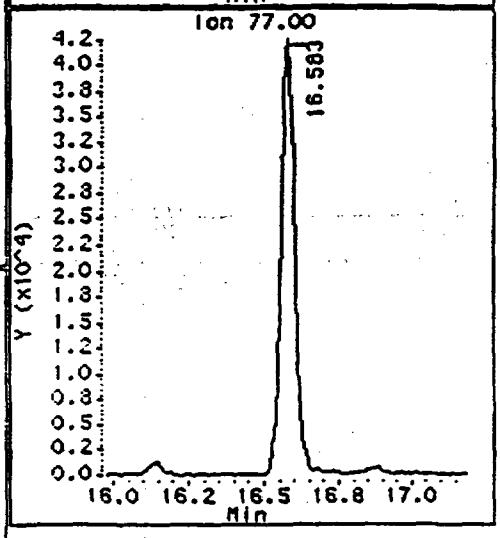












Data File: /chem/msdj.i/j-27may.b/j052709.d

Date : 27-MAY-1997 14:45

Client ID: Level 3

Instrument: msdj.i

0158

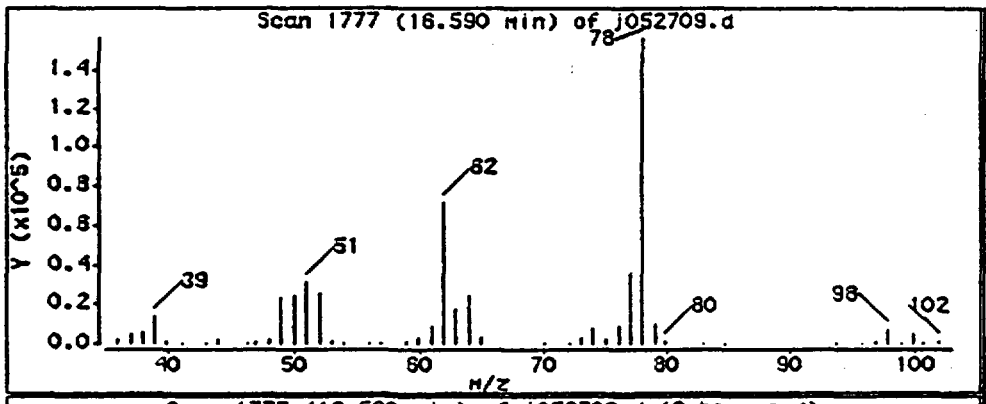
Sample Info: 12.5mL#315-57 200ppbv T014 Std. (5ppbv)

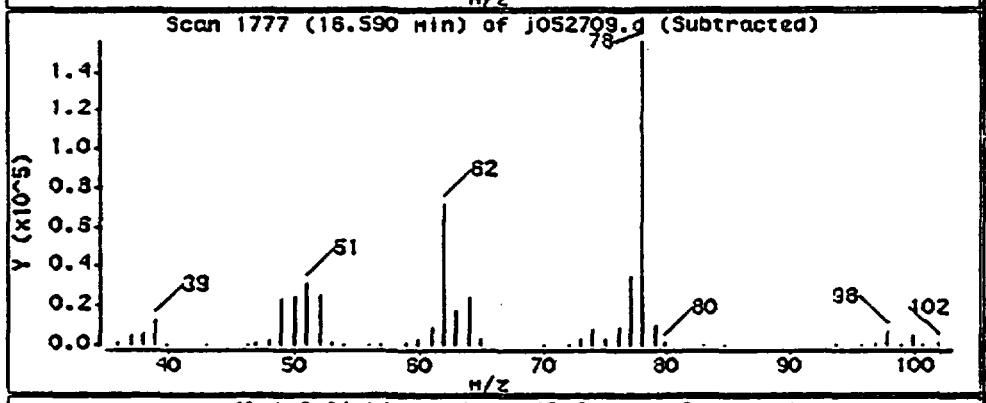
Operator: MH

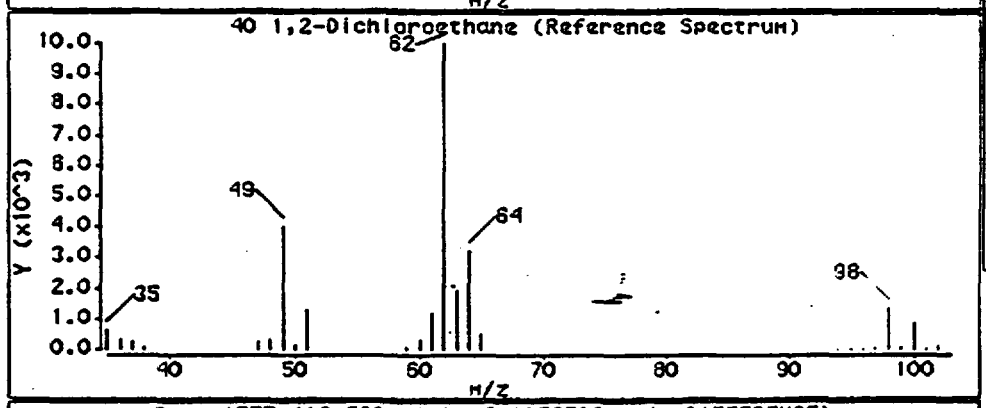
Column phase: RTx-624

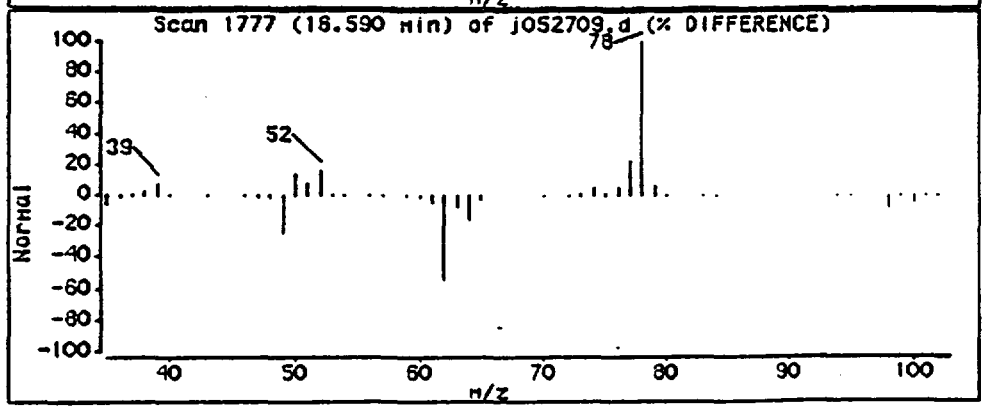
Column diameter: 0.58

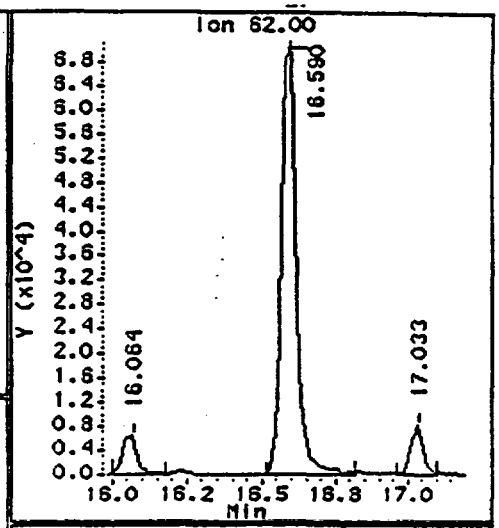
40 1,2-Dichloroethane

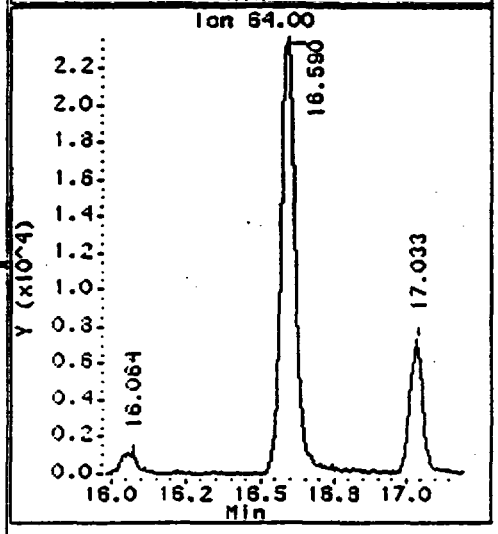












Data File: /chem/msdj.i/j-27may.b/j052709.d

Date : 27-MAY-1997 14:45

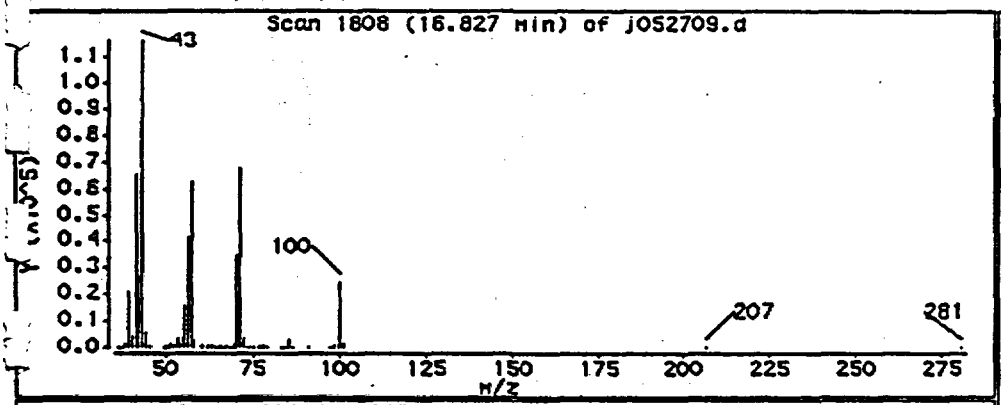
Client ID: Level 3 Instrument: msdj.i

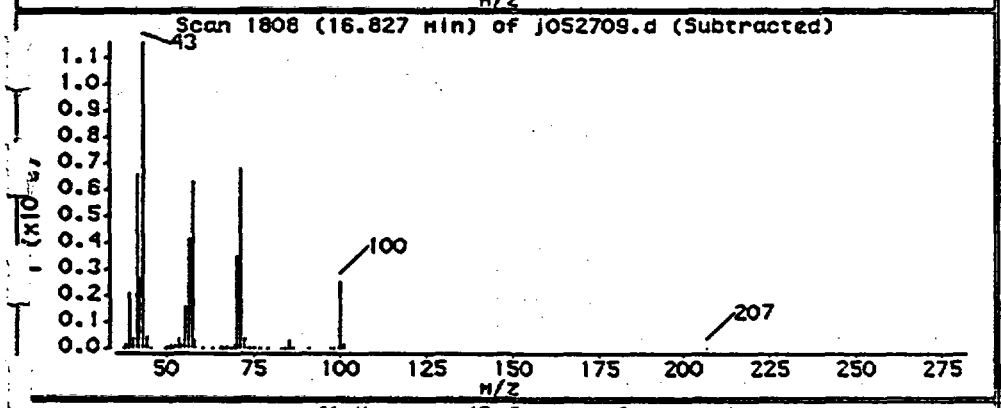
Sample Info: 12.5mL#315-57 200ppbv TO14 Std. (5ppbv)

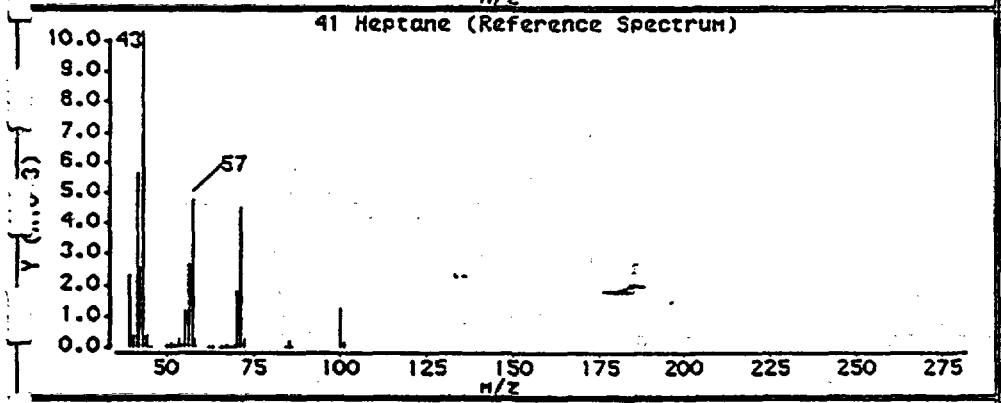
Operator: MH

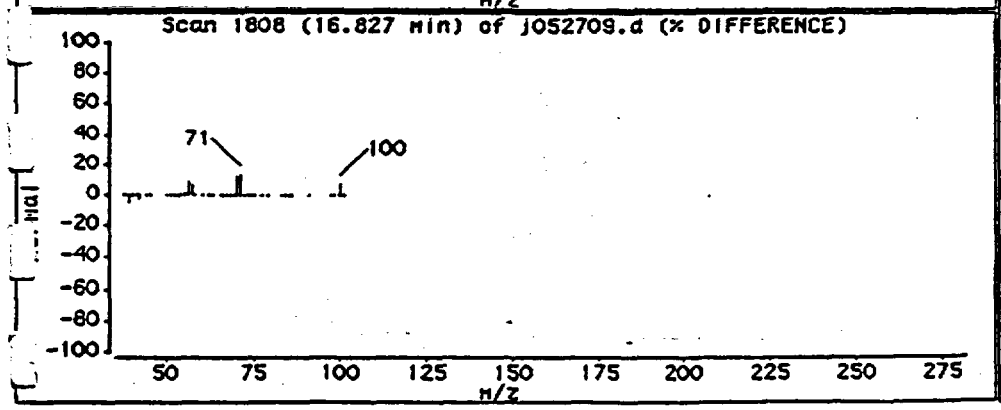
Column phase: RTx-624 Column diameter: 0.58

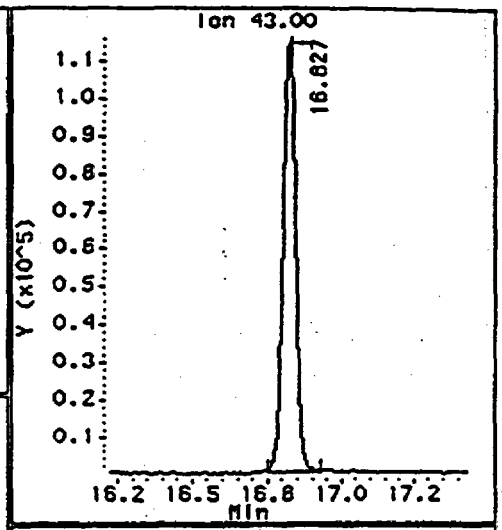
41 Heptane

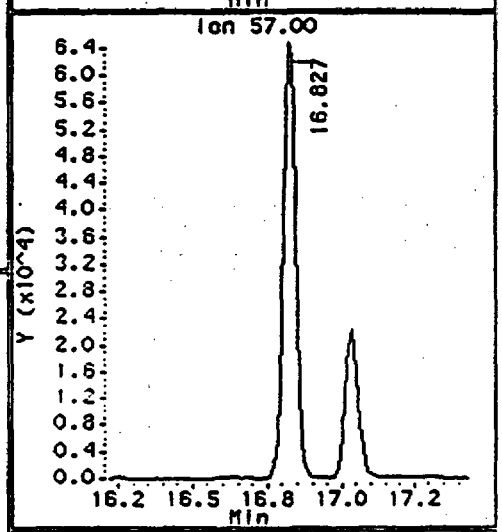


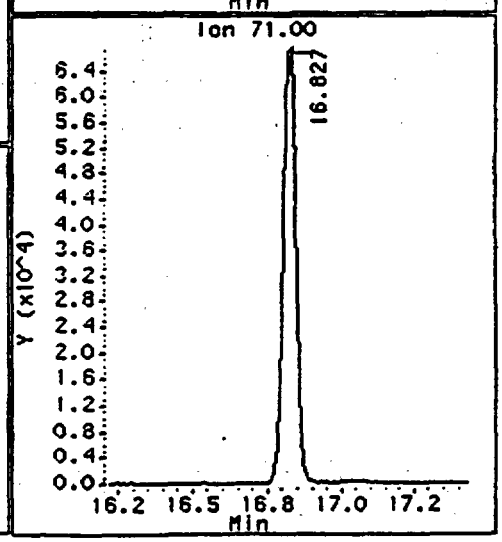












Data File: /chem/msdj.i/j-27may.b/j052709.d

Date : 27-MAY-1997 14:45

Client ID: Level 3

Instrument: msdj.i

0160

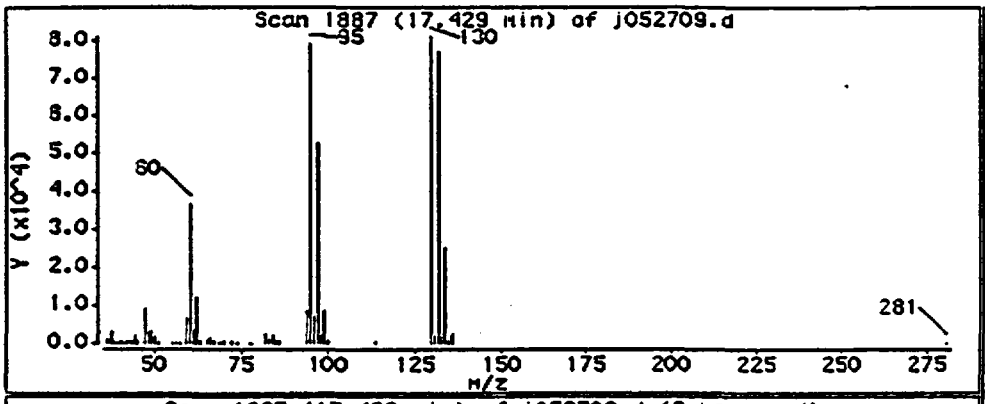
Sample Info: 12.5mL#315-57 200ppbv T014 Std. (5ppbv)

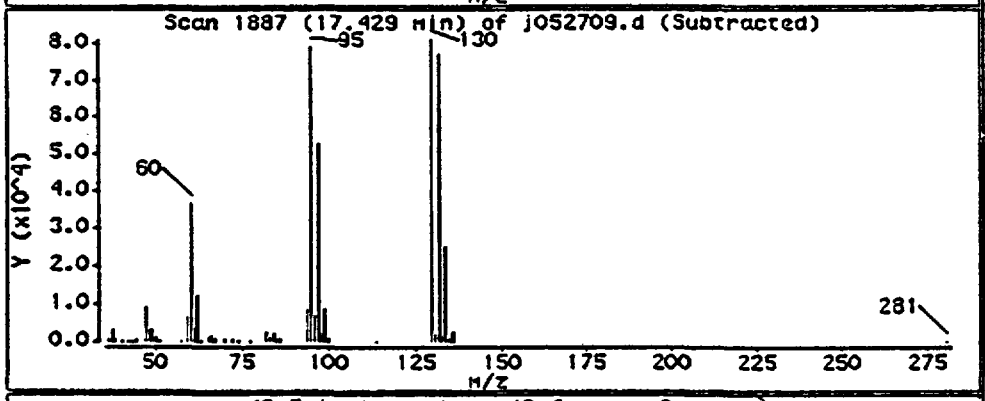
Operator: MH

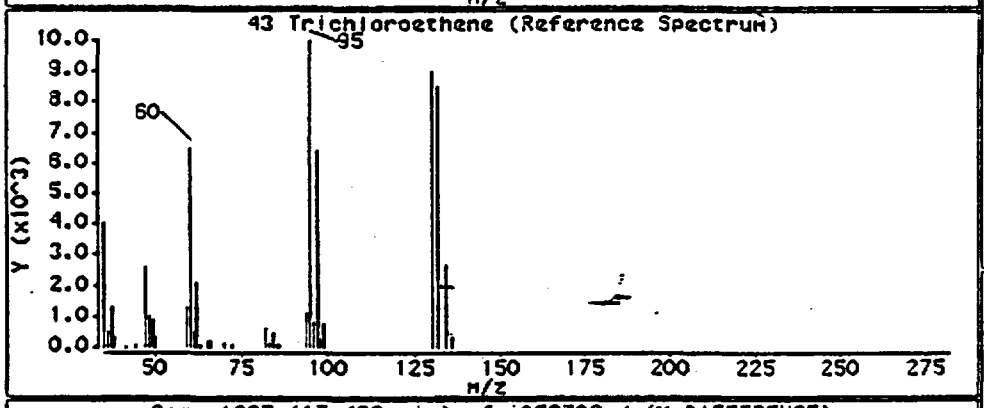
Column phase: RTx-624

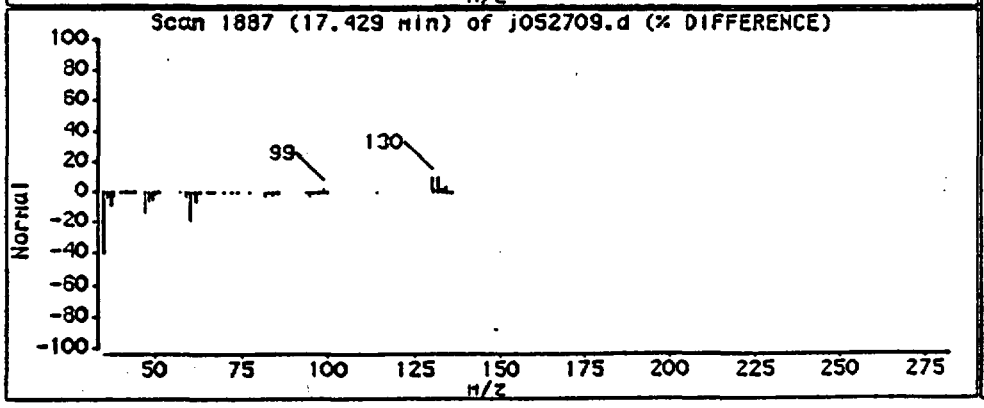
Column diameter: 0.58

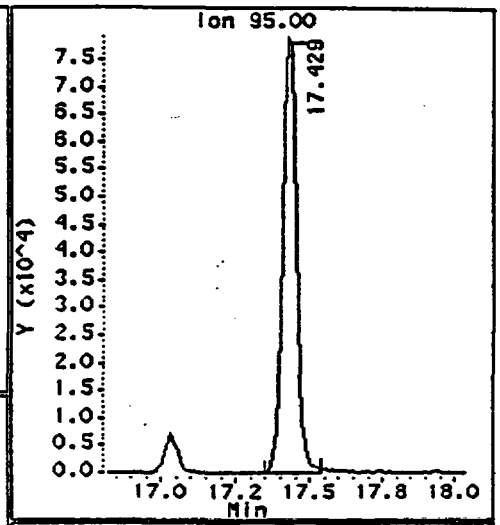
43 Trichloroethene

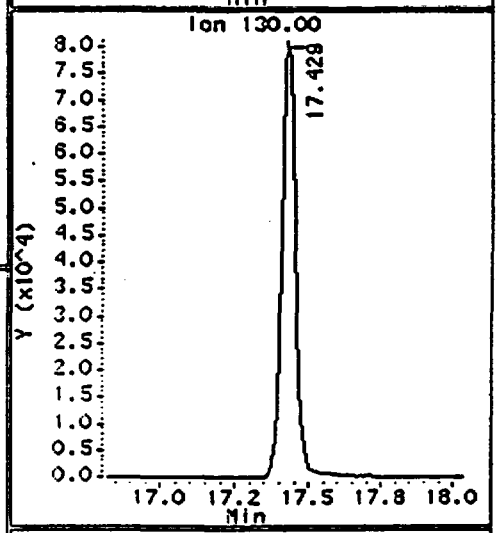


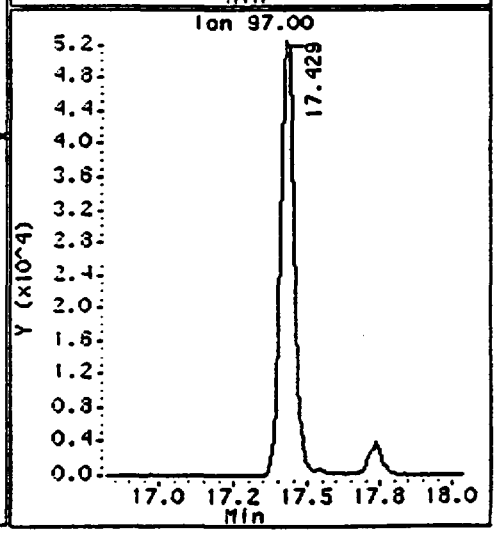












Data File: /chem/msdj.i/j-27may.b/j052709.d

Date : 27-MAY-1997 14:45

Client ID: Level 3

Instrument: msdj.i

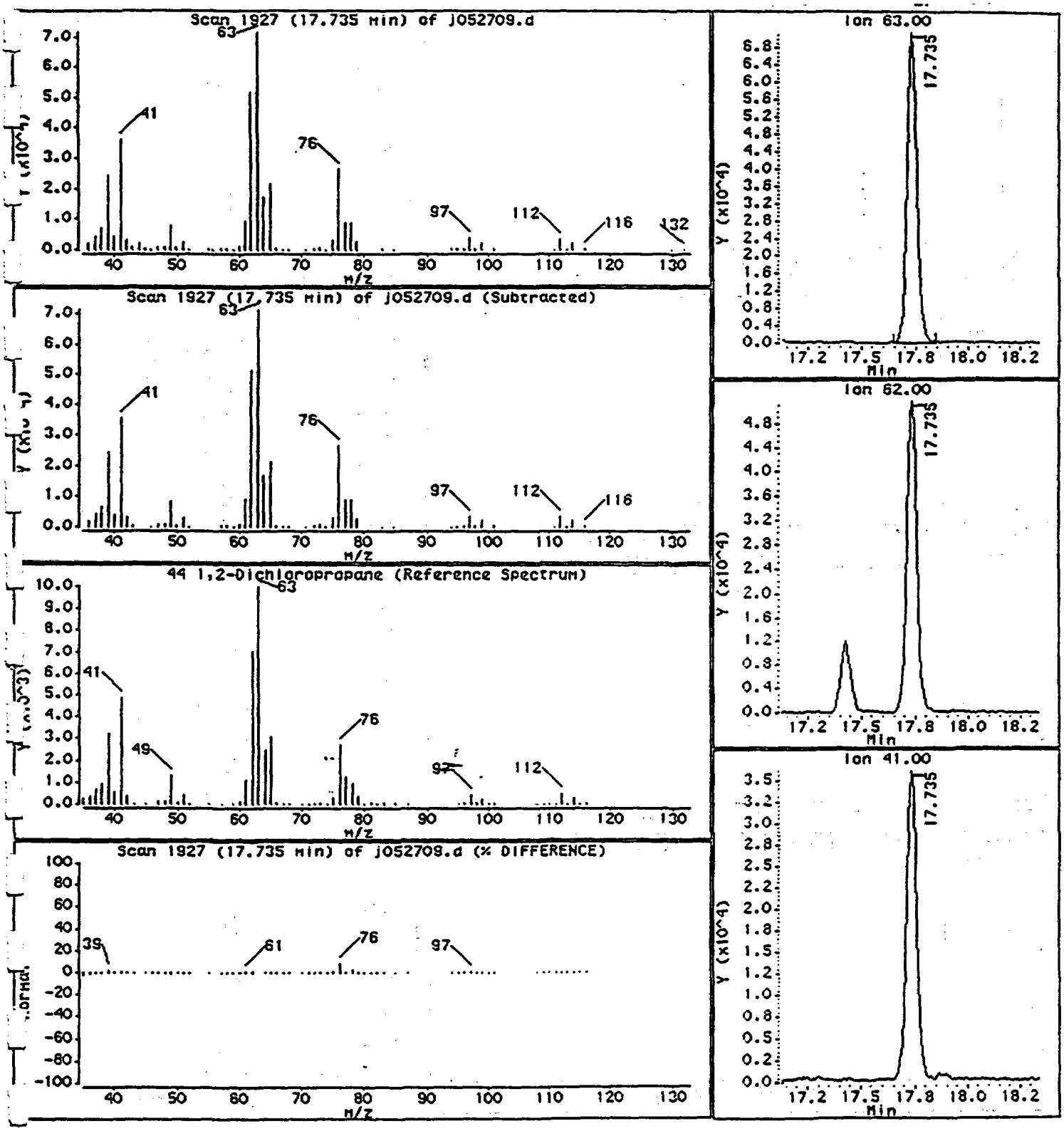
Sample Info: 12.5mL#315-57 200ppbv T014 Std. (5ppbv)

Operator: MH

Column phase: RTx-624

Column diameter: 0.58

44 1,2-Dichloropropane



Data File: /chem/msdj.i/j-27may.b/j052709.d

Date : 27-MAY-1997 14:45

Client ID: Level 3

Instrument: msdj.i

Sample Info: 12.5mL#315-57 200ppbv T014 Std. (5ppbv)

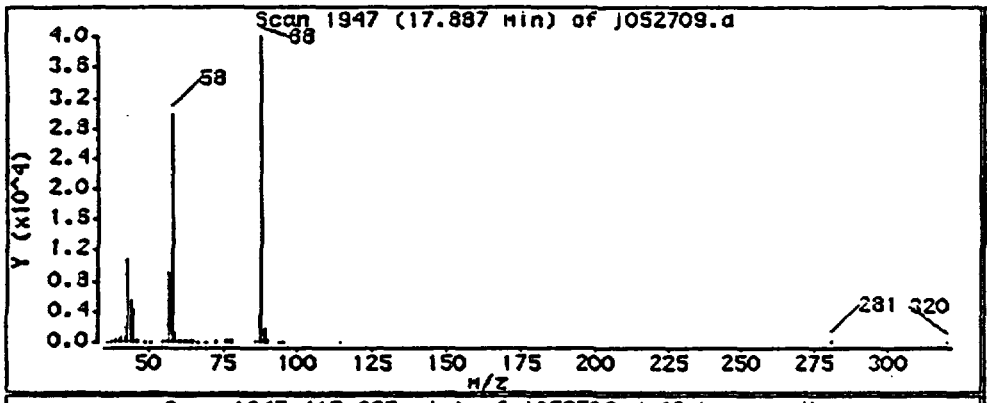
0162

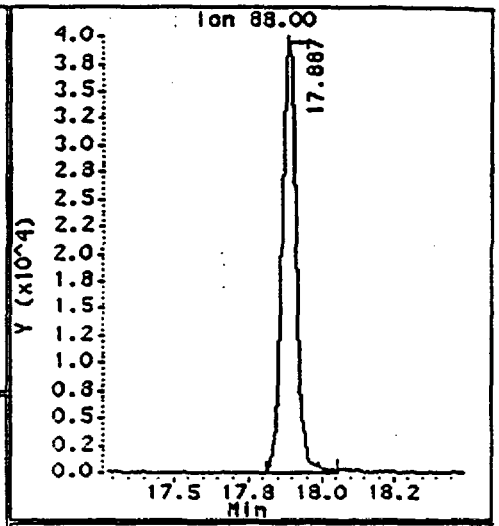
Operator: MH

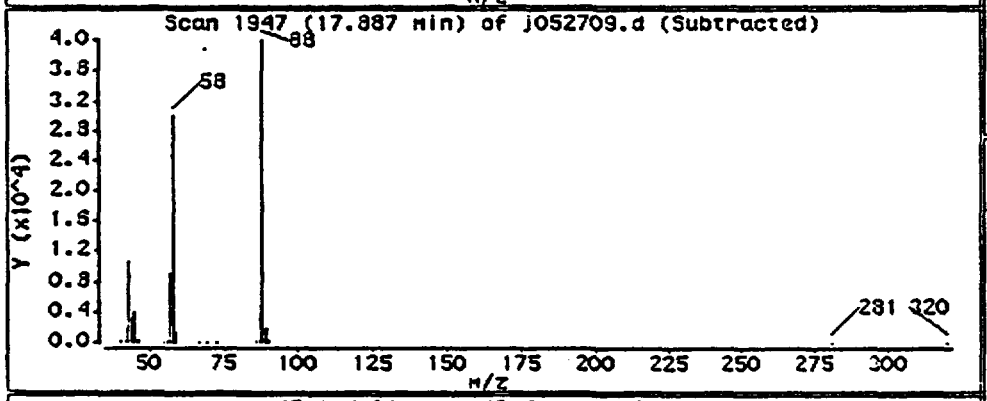
Column phase: RTx-624

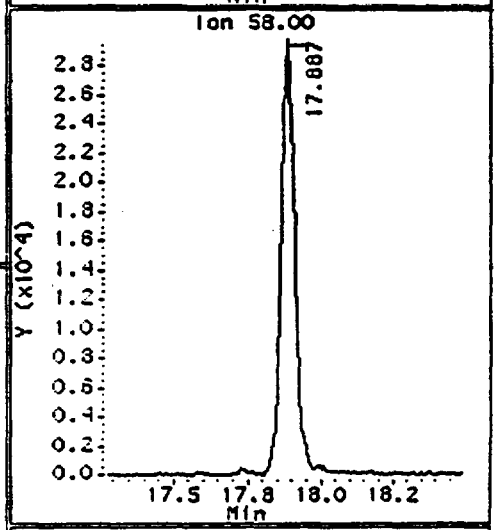
Column diameter: 0.58

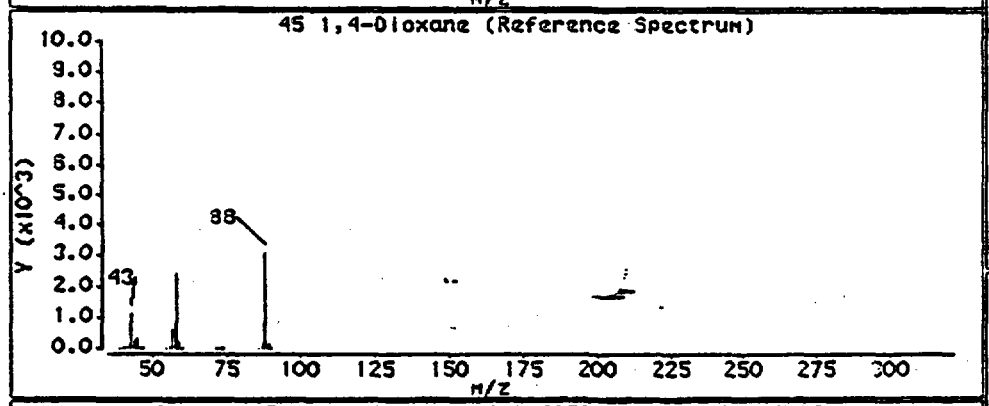
45 1,4-Dioxane

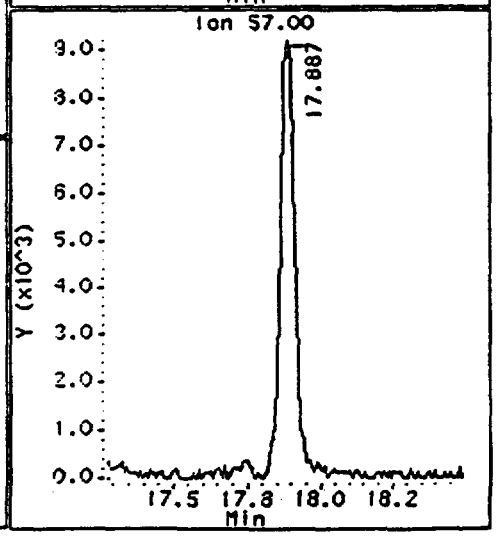


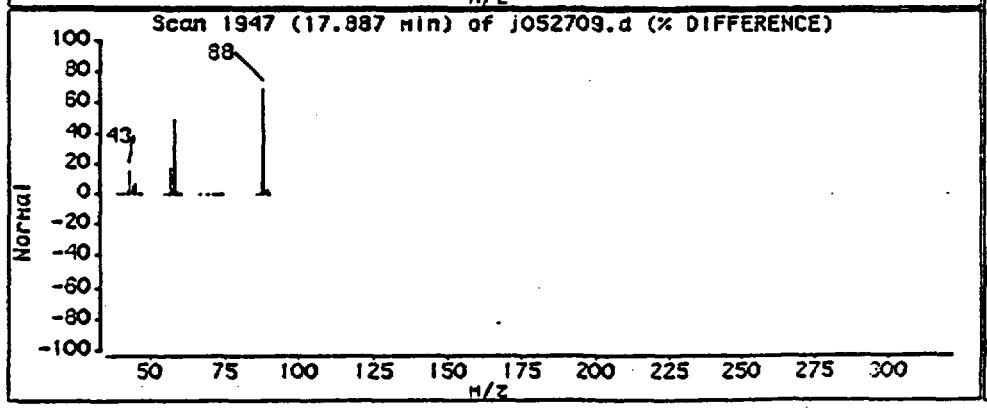












Data File: /chem/msdj.i/j-27may.b/j052709.d

Date : 27-MAY-1997 14:45

Client ID: Level 3

Instrument: msdj.i

0163

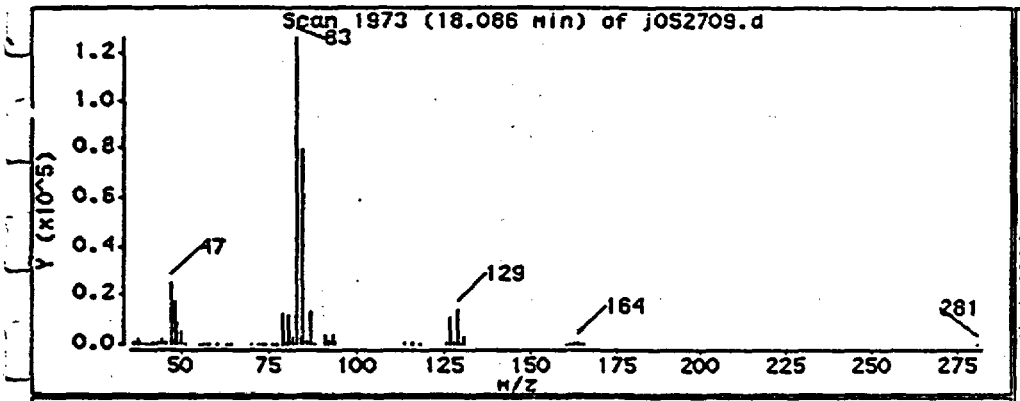
Sample Info: 12.SML#315-57 200ppbv T014 Std. (5ppbv)

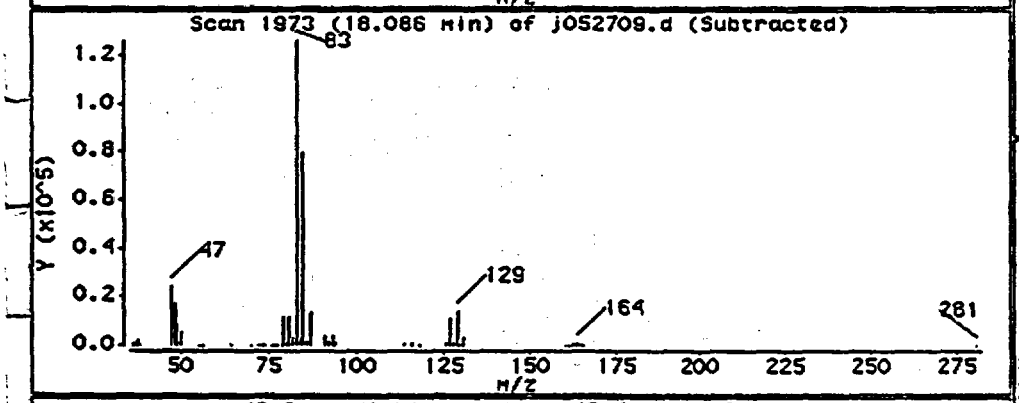
Operator: MH

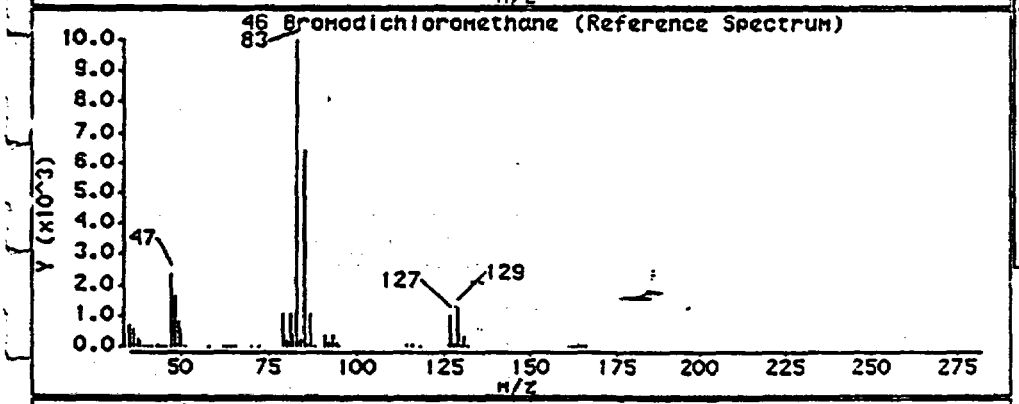
Column phase: RTx-624

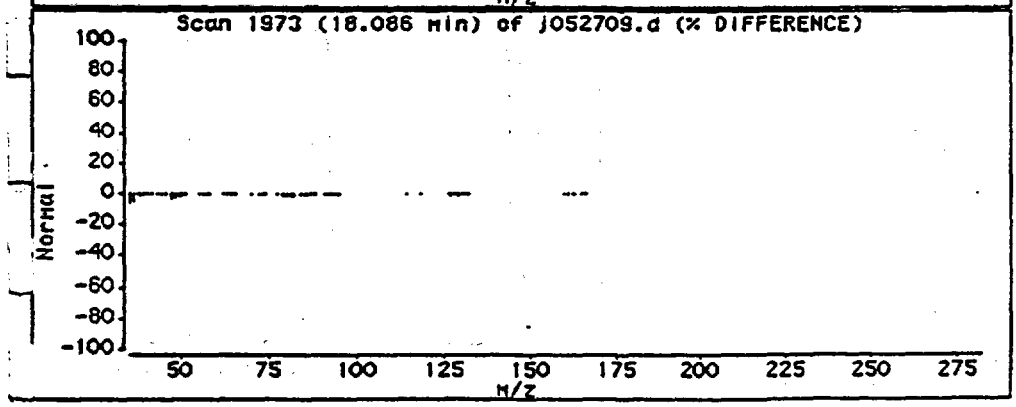
Column diameter: 0.58

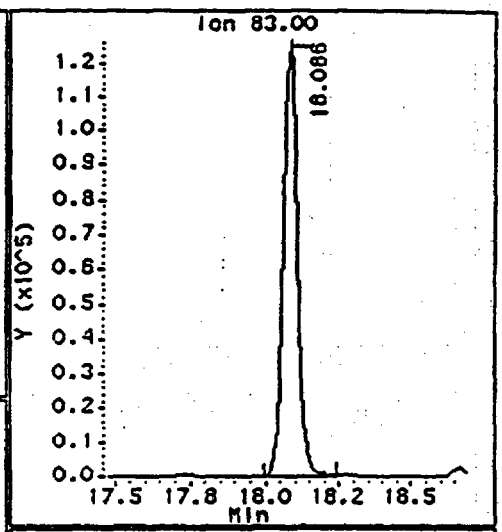
46 Bromodichloromethane

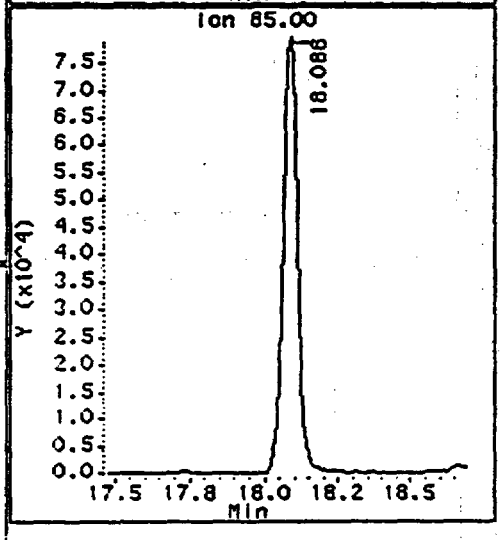












Data File: /chem/msdj.i/j-27may.b/j052709.d

Date : 27-MAY-1997 14:45

Client ID: Level 3

Instrument: msdj.i

Sample Info: 12.5mL#315-57 200ppbv TO14 Std. (5ppbv)

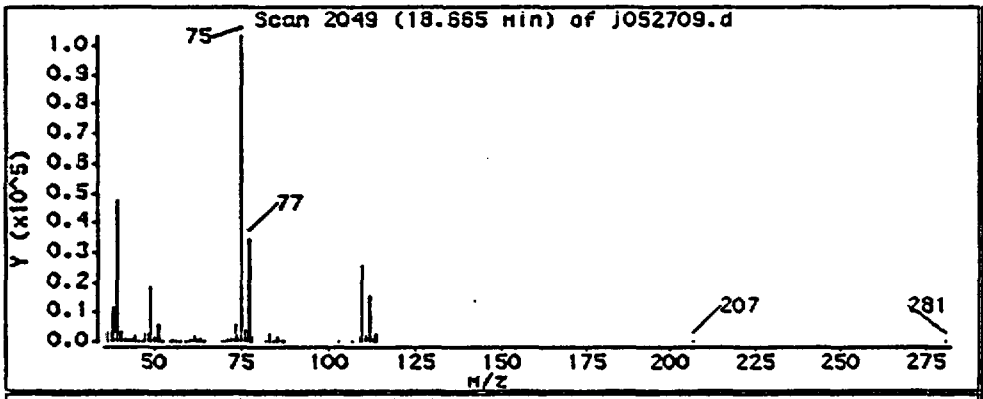
0164

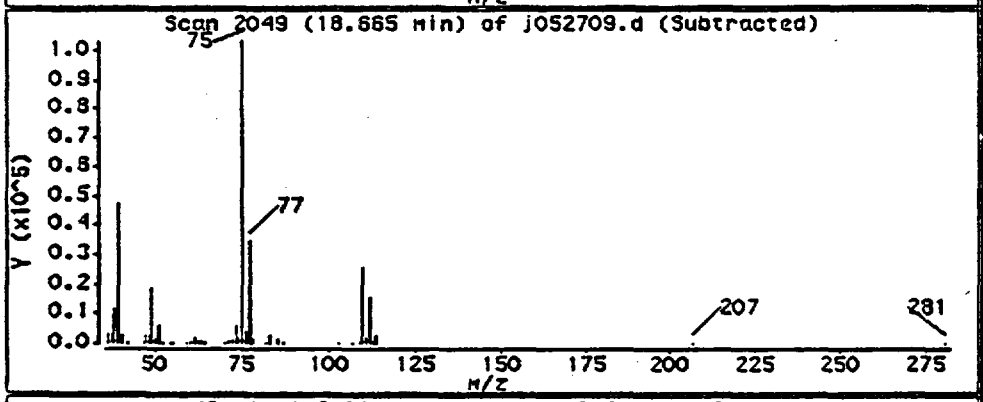
Operator: MH

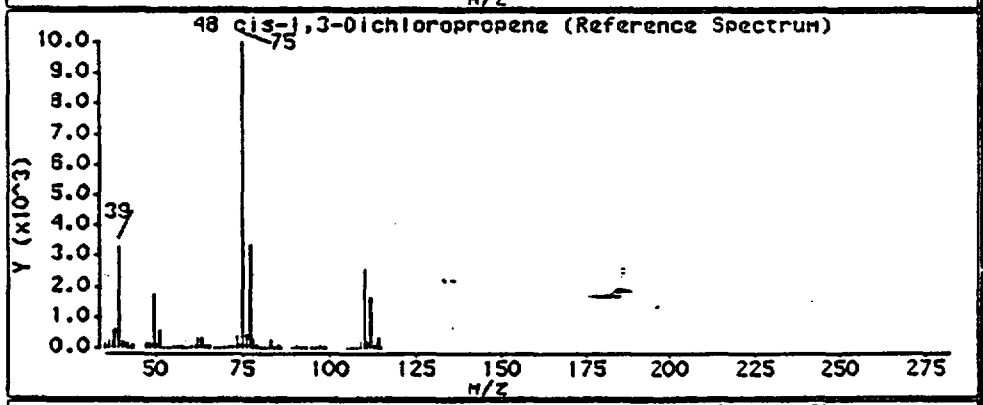
Column phase: RTx-624

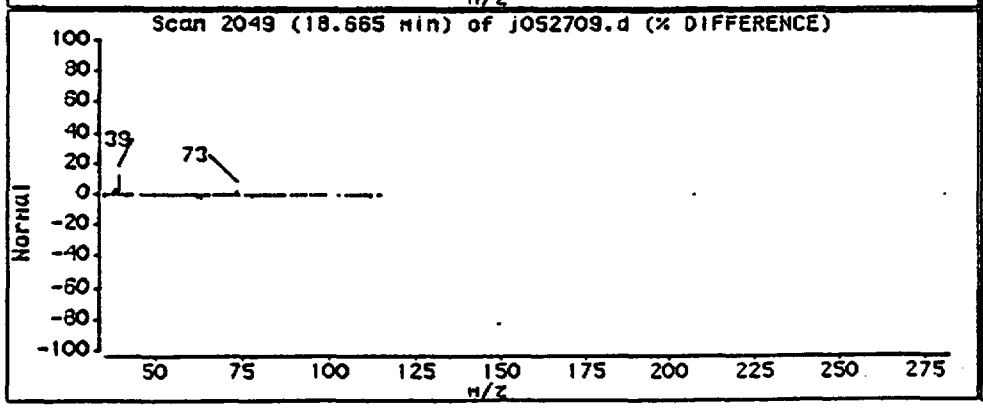
Column diameter: 0.58

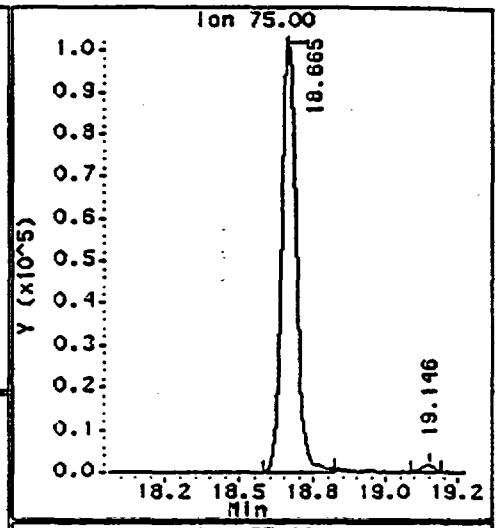
48 cis-1,3-Dichloropropene

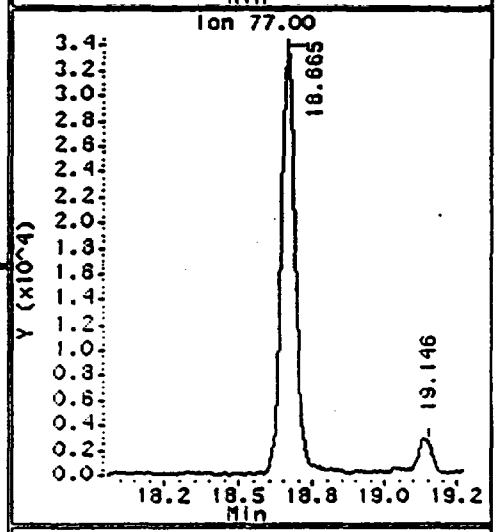


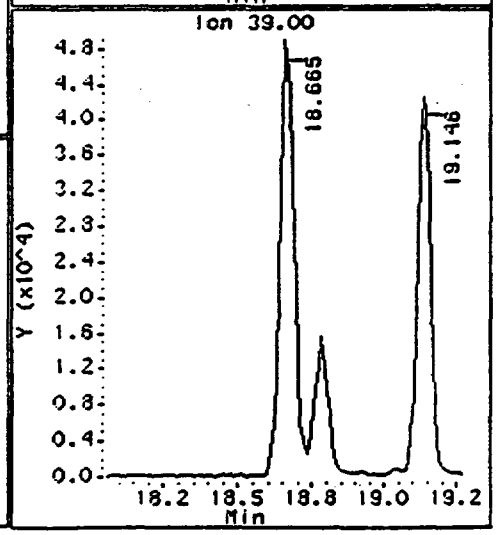












Data File: /chem/msdj.i/j-27may.b/j052709.d

Date : 27-MAY-1997 14:45

Client ID: Level 3

Instrument: msdj.i

Sample Info: 12.5mL#315-57 200ppbv T014 Std. (5ppbv)

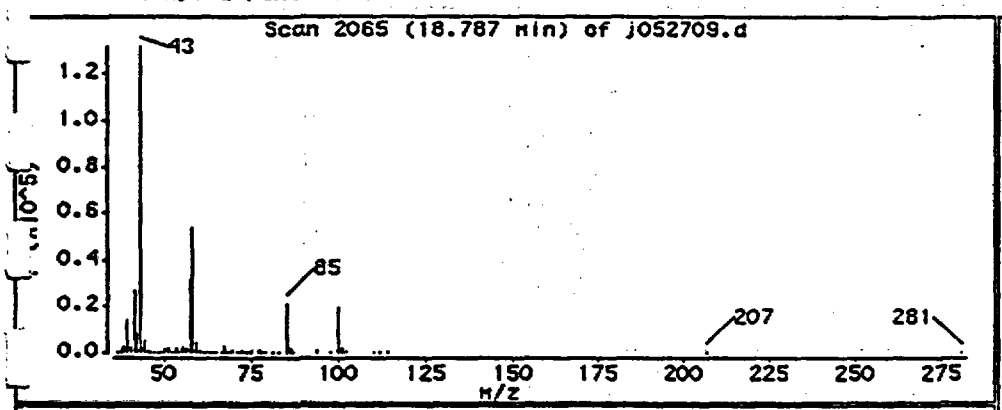
0165

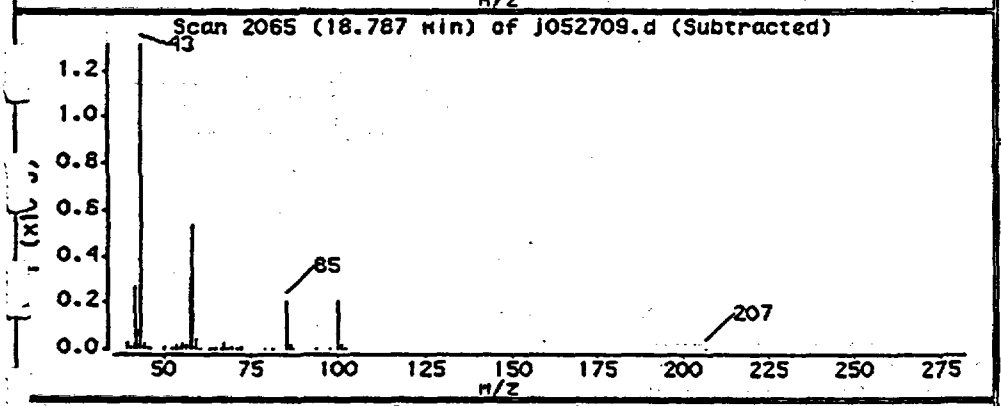
Operator: MH

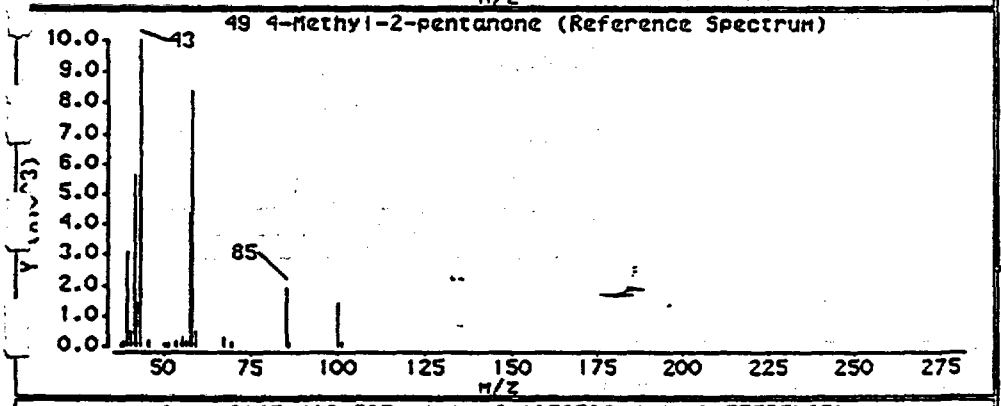
Column phase: RTx-624

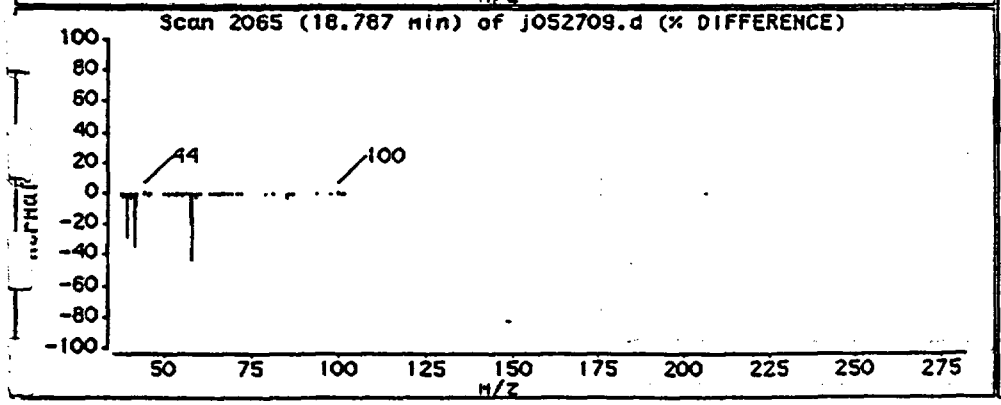
Column diameter: 0.58

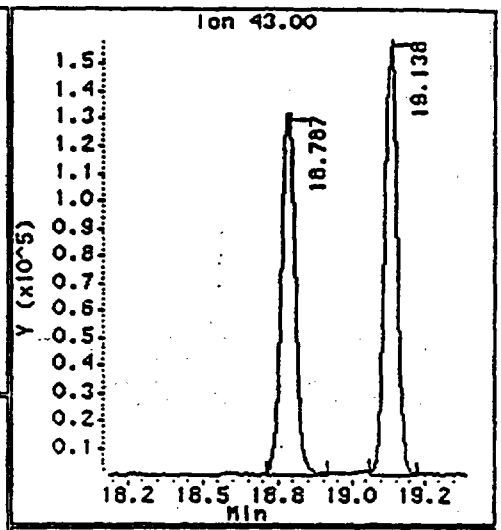
49 4-Methyl-2-pentanone

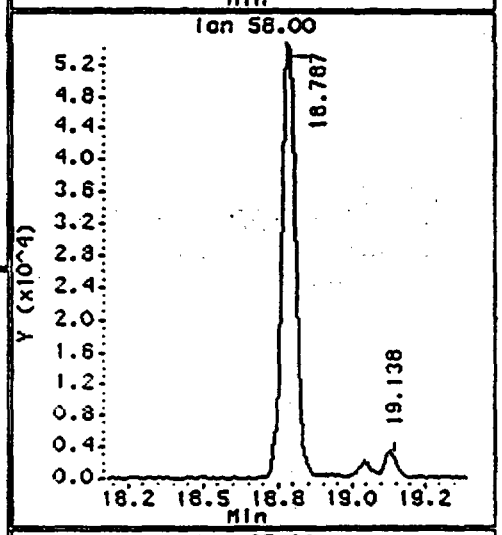


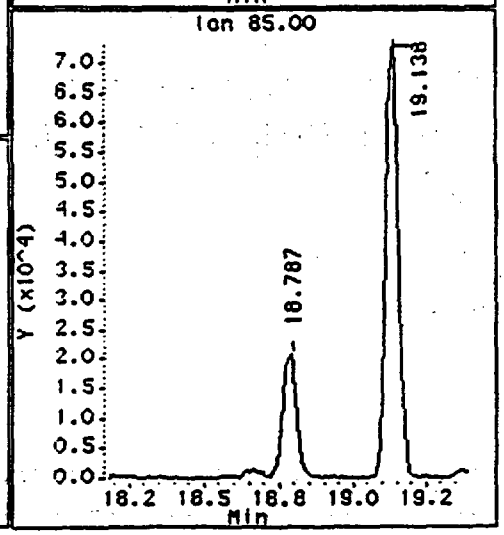












Data File: /chem/msdj.i/j-27may.b/j052709.d

Date : 27-MAY-1997 14:45

Client ID: Level 3

Instrument: msdj.i

0166

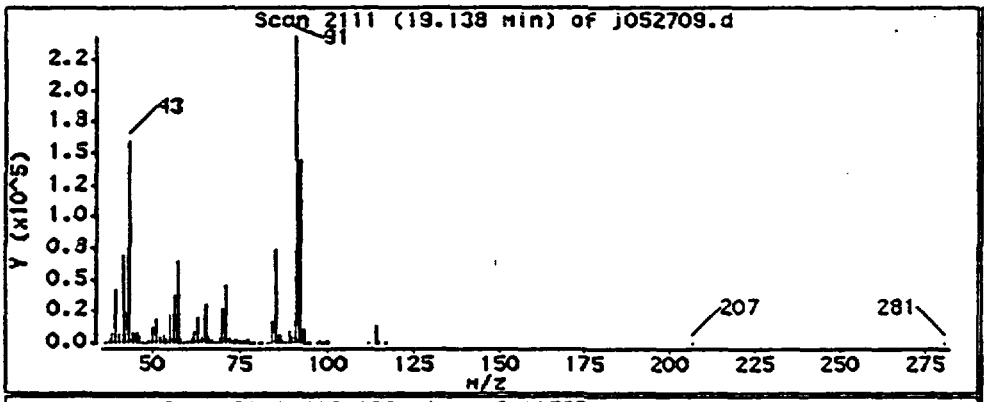
Sample Info: 12.5mL#315-57 200ppbv TO14 Std. (5ppbv)

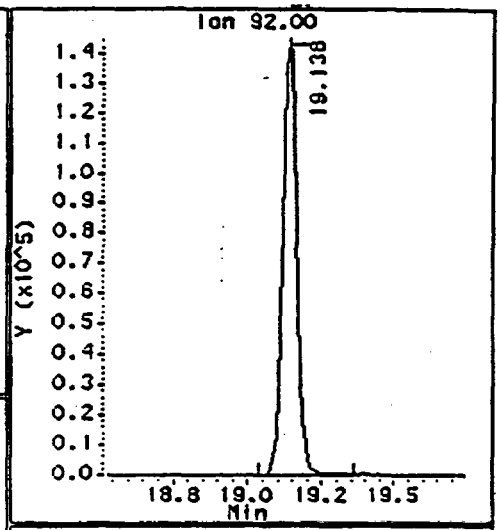
Operator: MH

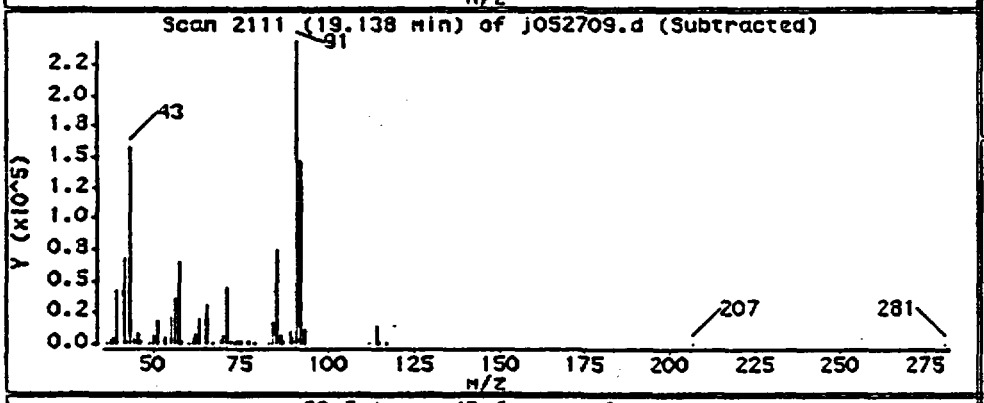
Column phase: RTx-624

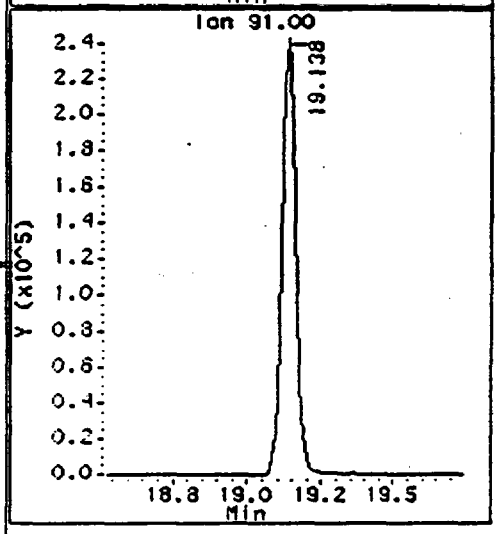
Column diameter: 0.58

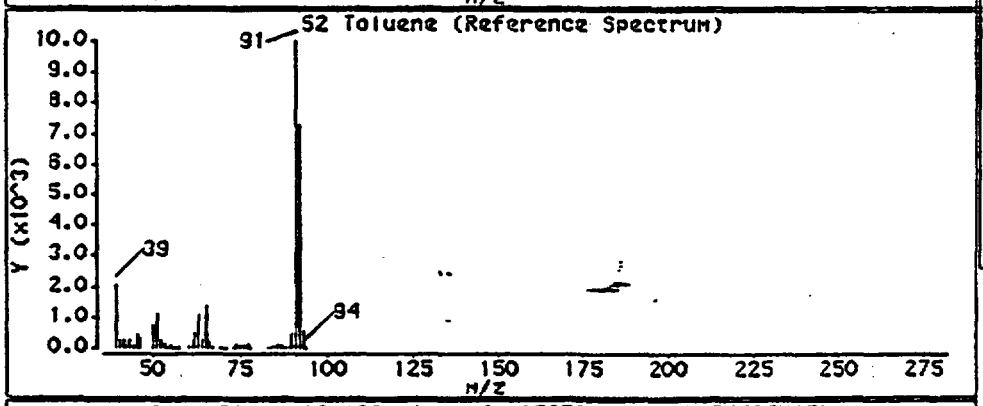
52 Toluene

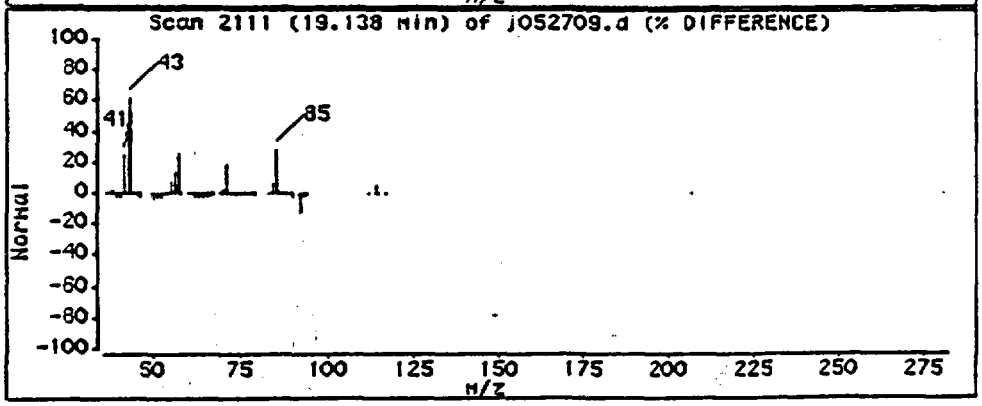












Data File: /chem/msdj.i/j-27may.b/j052709.d

Date : 27-MAY-1997 14:45

Client ID: Level 3

Instrument: msdj.i

0167

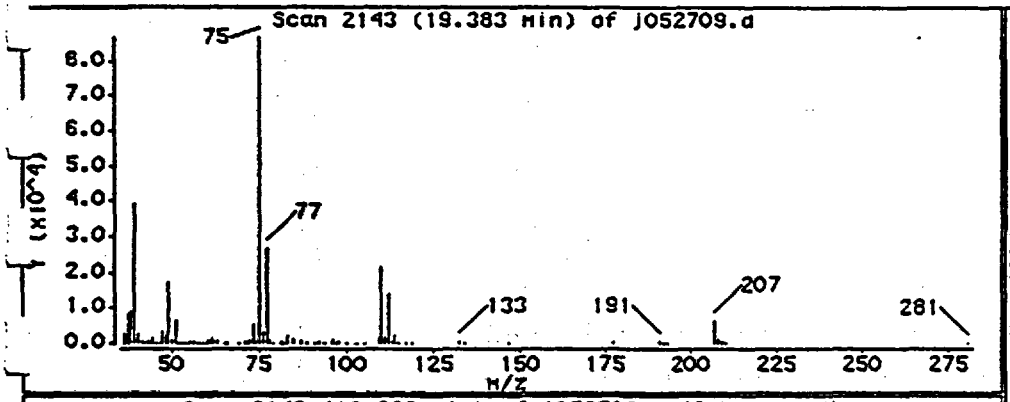
Sample Info: 12.5mL#315-57 200ppbv TO14 Std. (5ppbv)

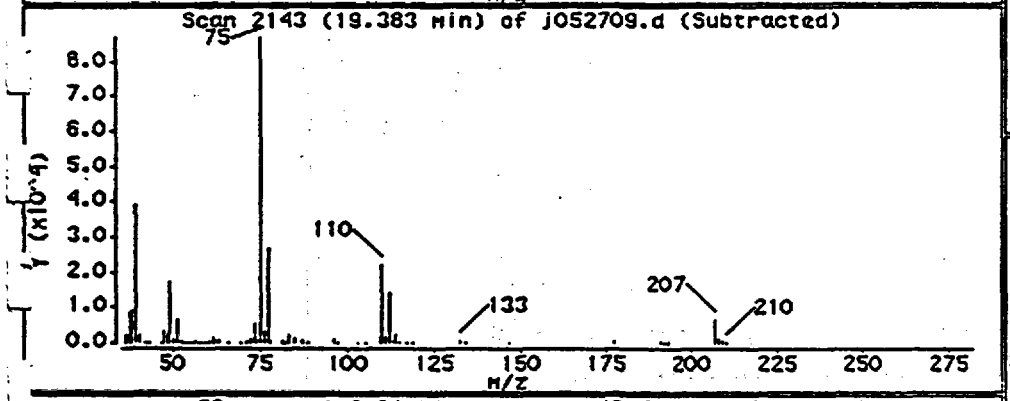
Operator: MH

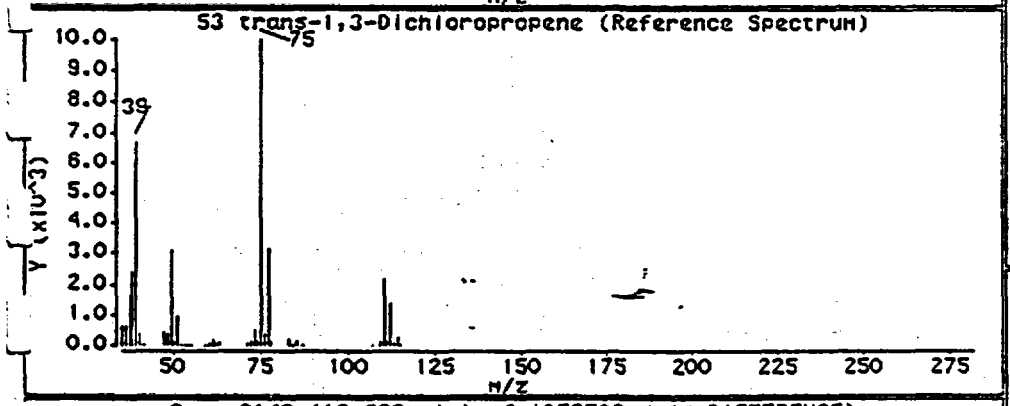
Column phase: RTx-624

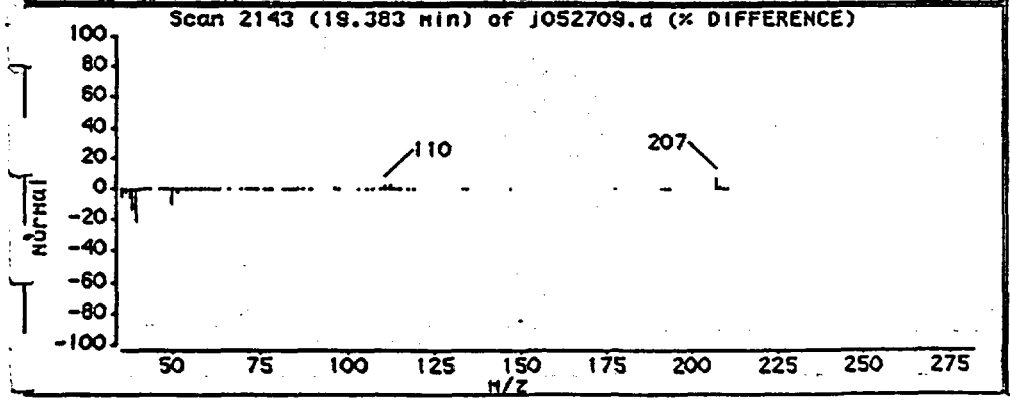
Column diameter: 0.58

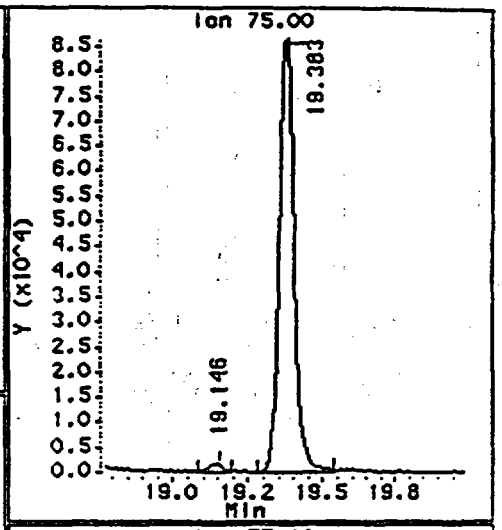
53 trans-1,3-Dichloropropene

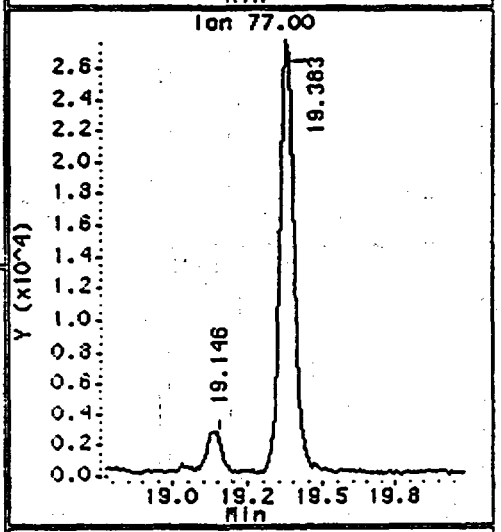


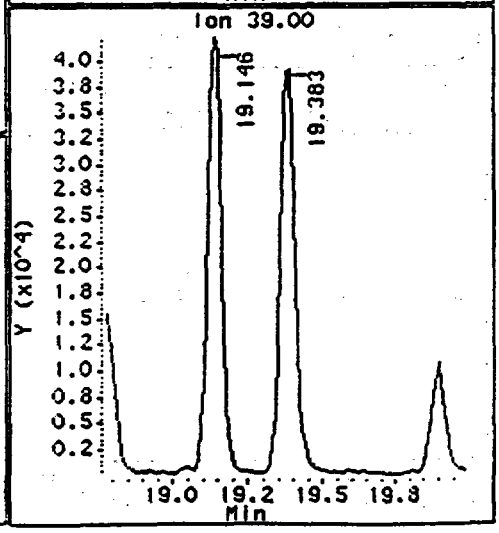












Data File: /chem/msdj.i/j-27may.b/j052709.d

Date : 27-MAY-1997 14:45

Client ID: Level 3

Instrument: msdj.i

Sample Info: 12.5mL#315-57 200ppbv TO14 Std. (5ppbv)

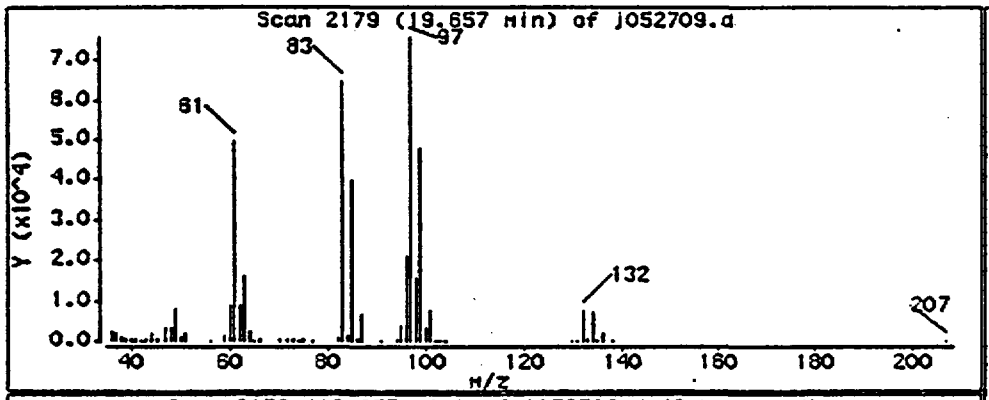
Operator: MH

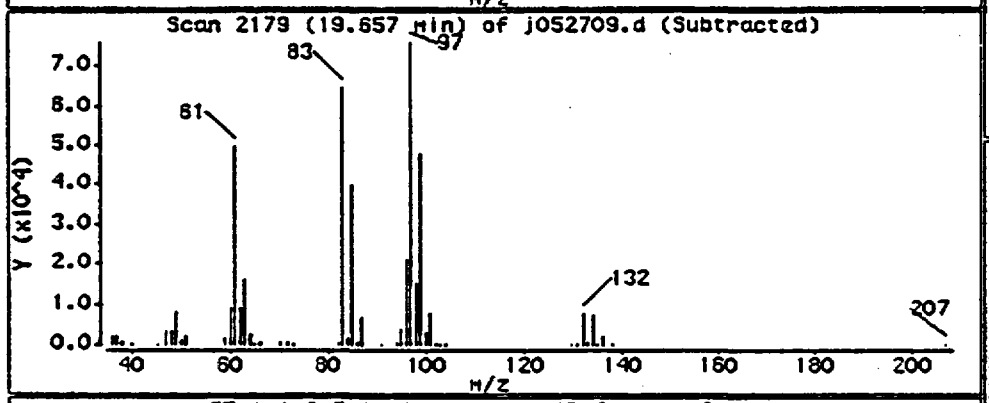
Column phase: RTx-624

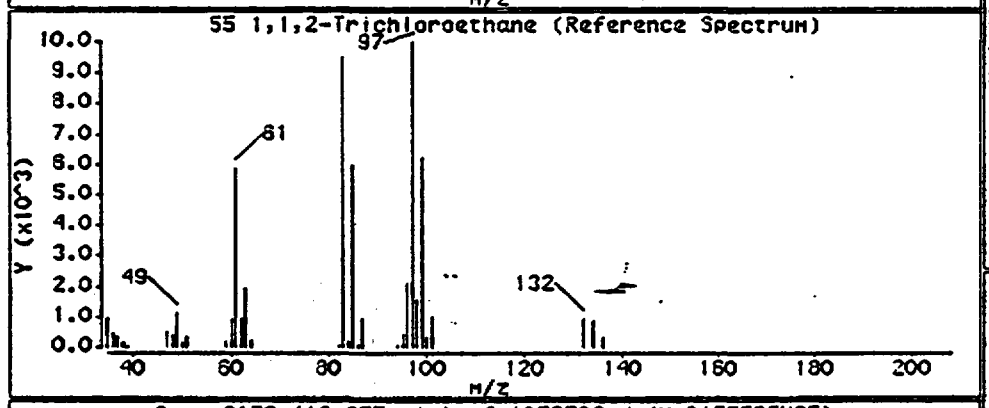
Column diameter: 0.58

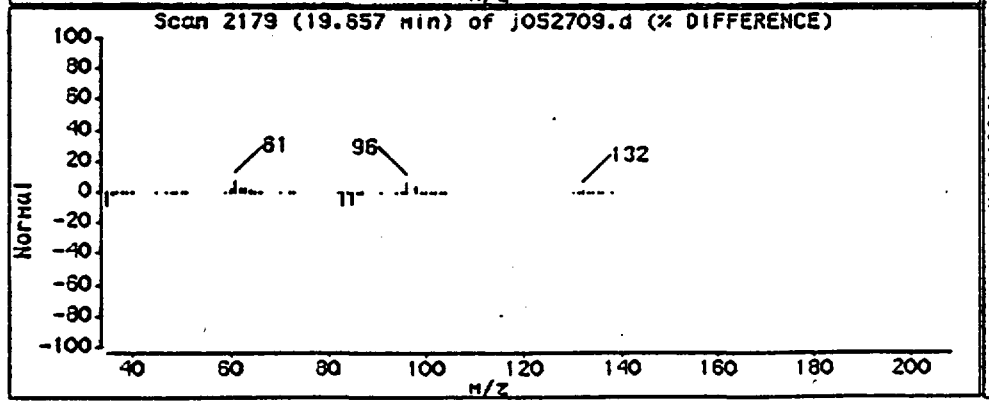
0168

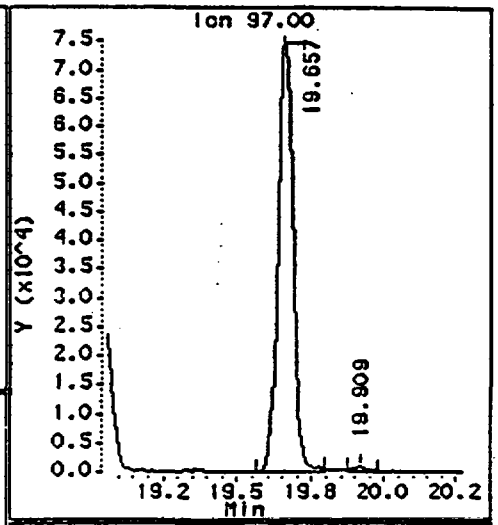
55 1,1,2-Trichloroethane

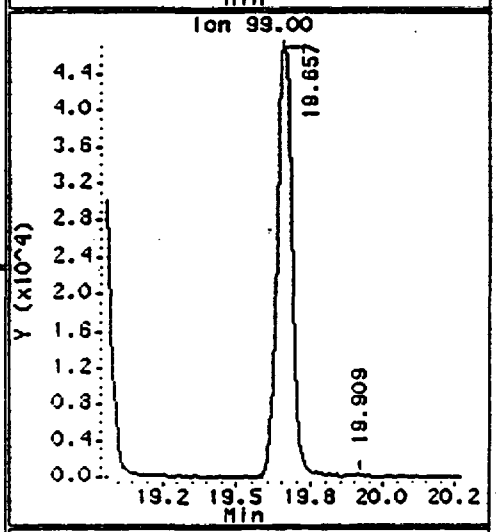


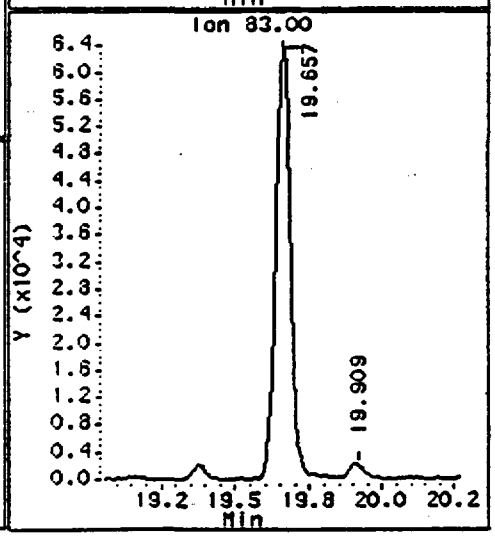












Data File: /chem/msdj.i/j-27may.b/j052709.d

Date : 27-MAY-1997 14:45

Client ID: Level 3

Instrument: msdj.i

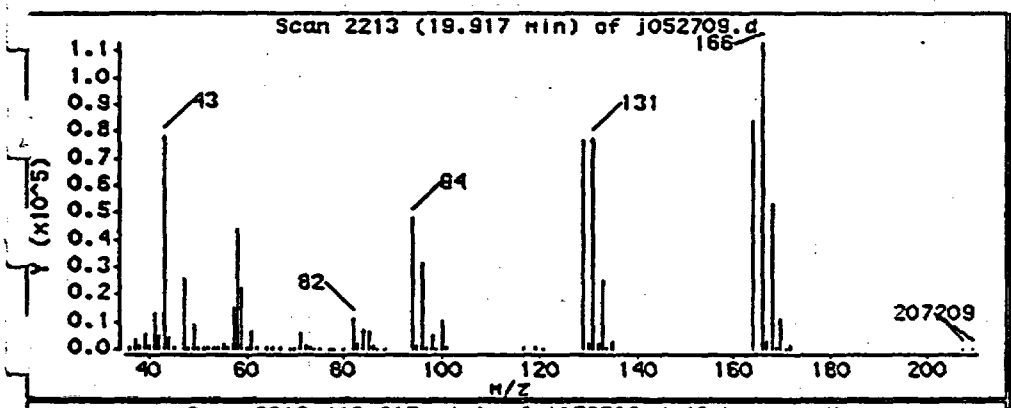
Sample Info: 12.5mL#315-57 200ppbv T014 Std. (5ppbv)

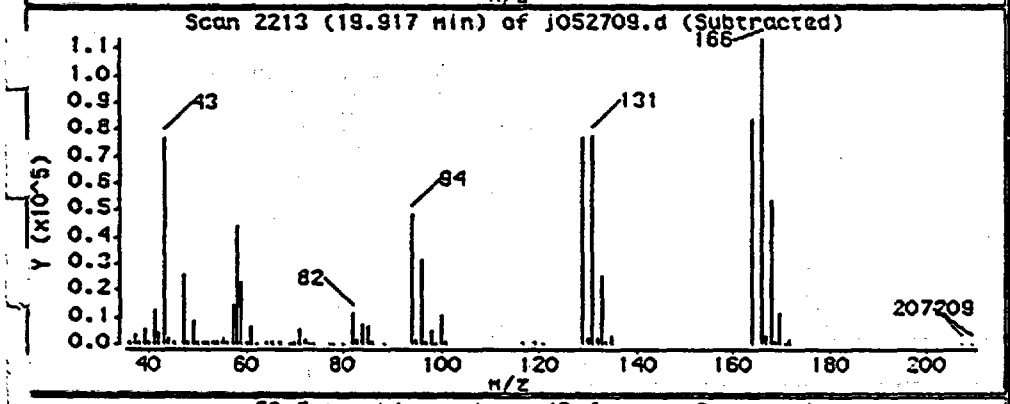
Operator: MH

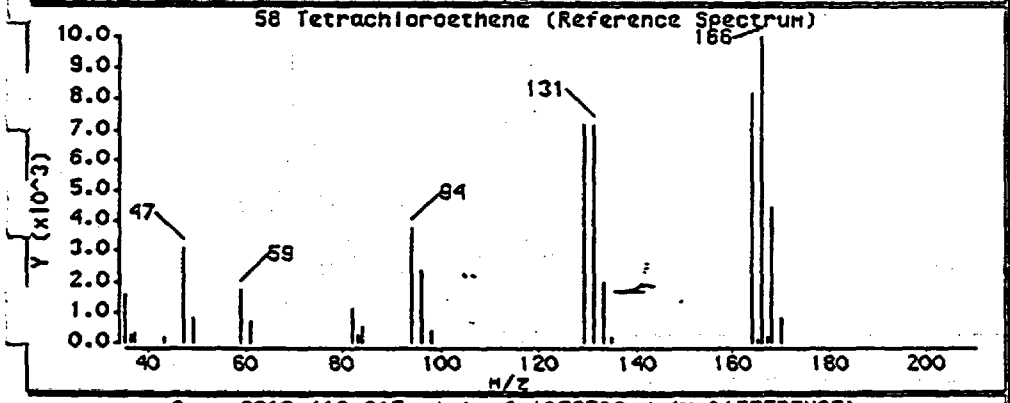
Column phase: RTx-624

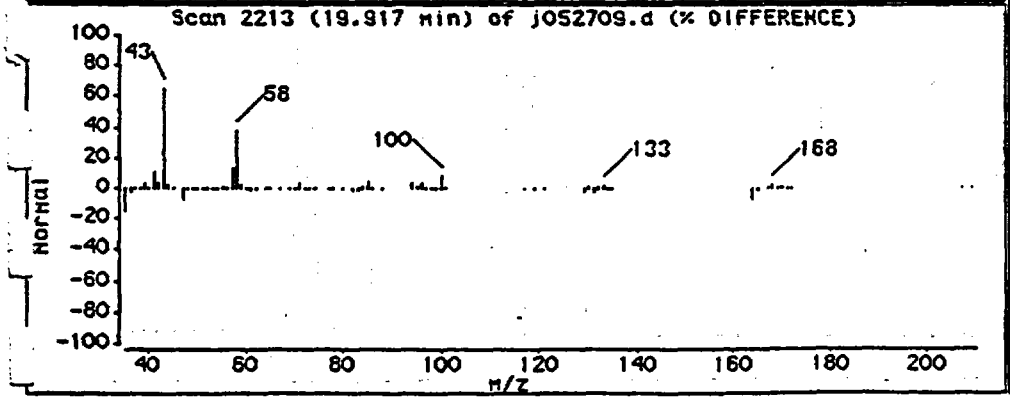
Column diameter: 0.58

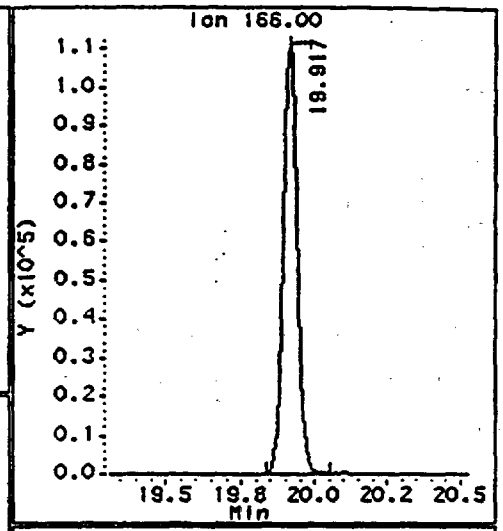
58 Tetrachloroethene

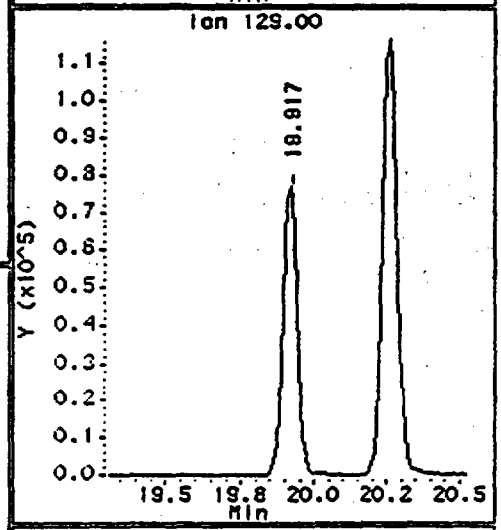


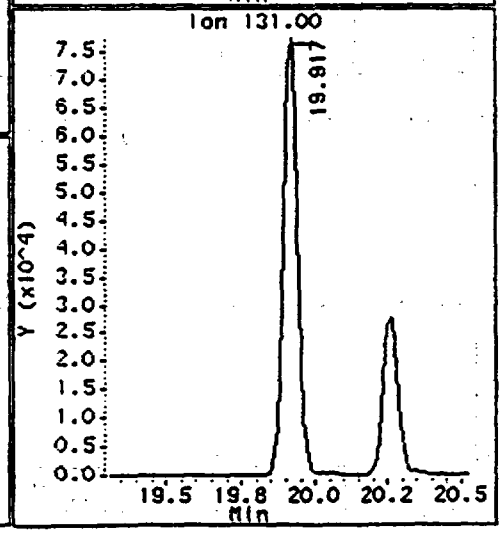












Data File: /chem/msdj.i/j-27may.b/j052709.d

Date : 27-MAY-1997 14:45

0170

Client ID: Level 3

Instrument: msdj.i

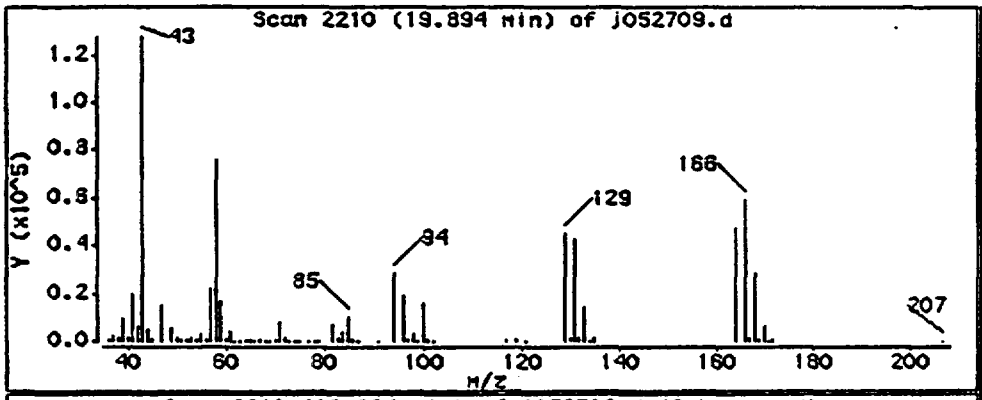
Sample Info: 12.5mL#315-57 200ppbv TO14 Std. (5ppbv)

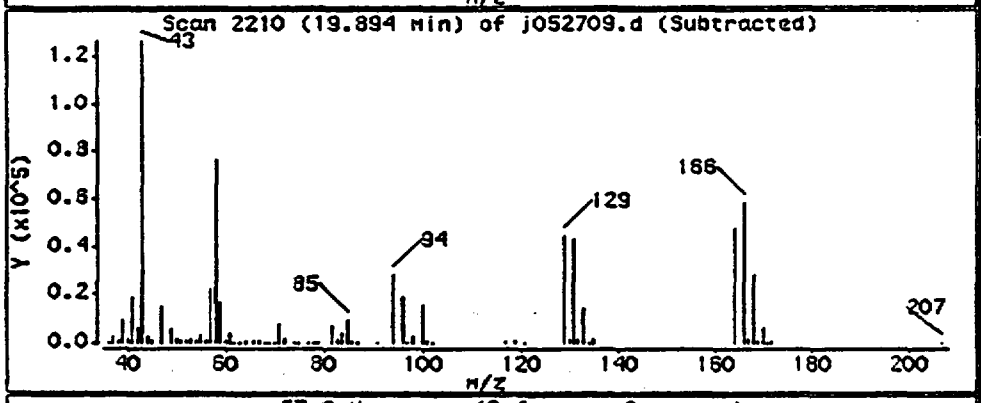
Operator: MH

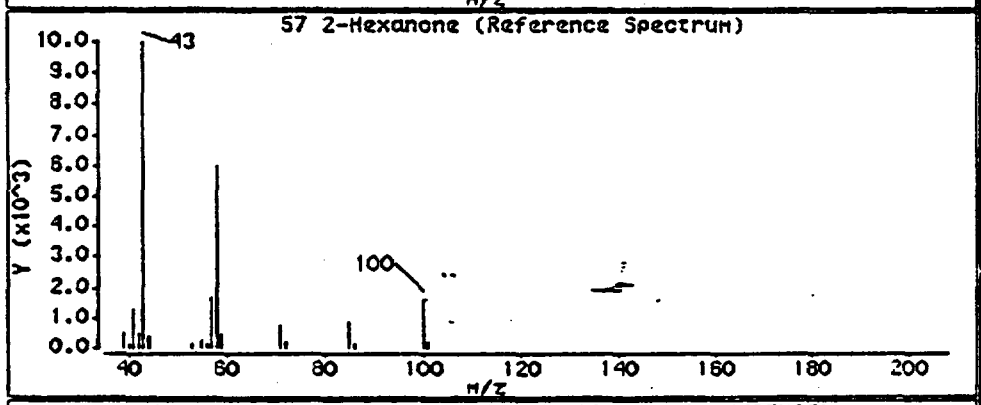
Column phase: RTx-624

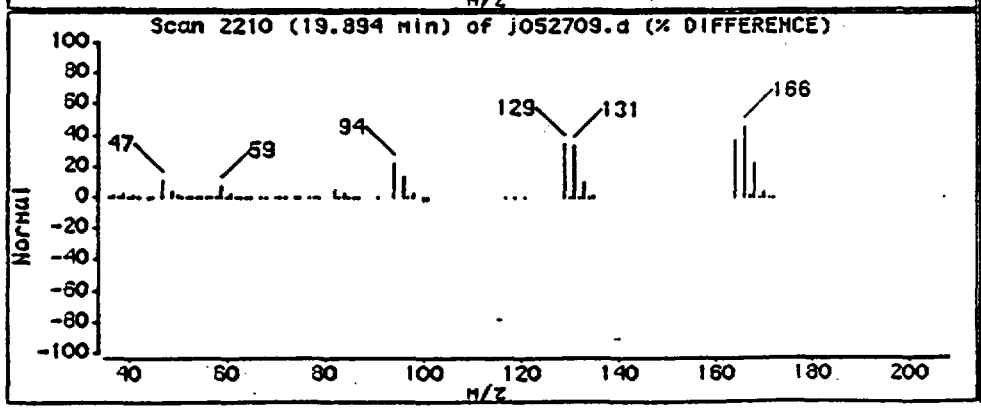
Column diameter: 0.58

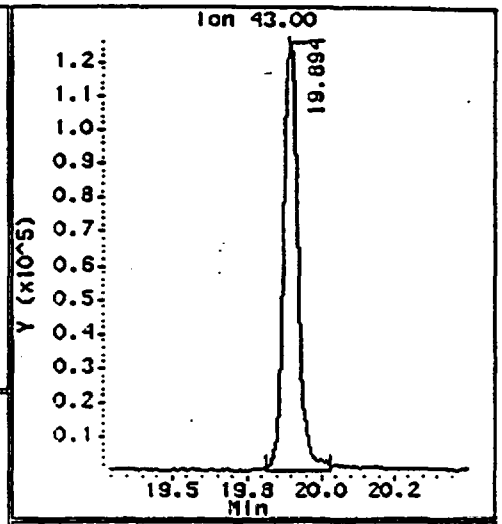
57 2-Hexanone

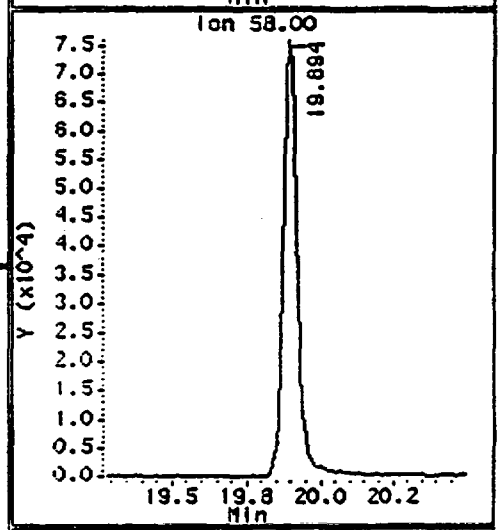


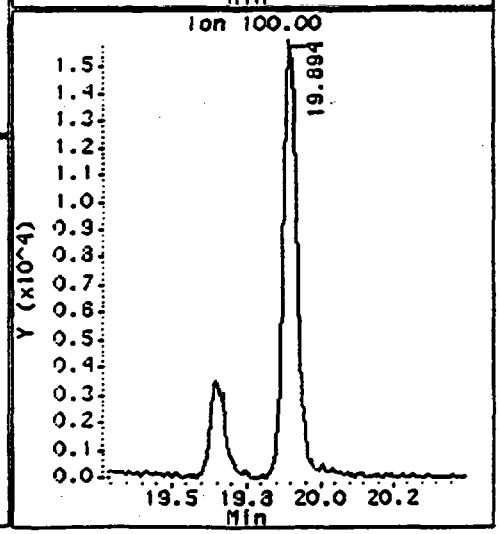












Data File: /chem/msdj.i/j-27may.b/j052709.d

Date : 27-MAY-1997 14:45

0171

Client ID: Level 3

Instrument: msdj.i

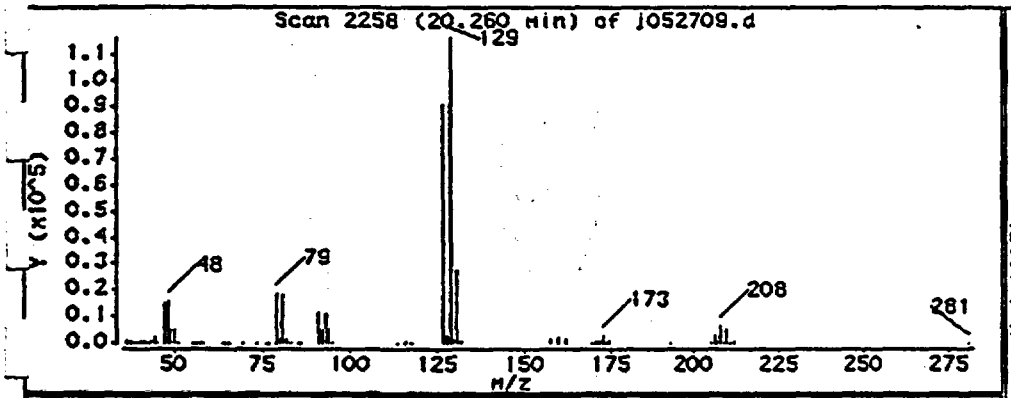
Sample Info: 12.5mL#315-57 200ppbv TO14 Std. (5ppbv)

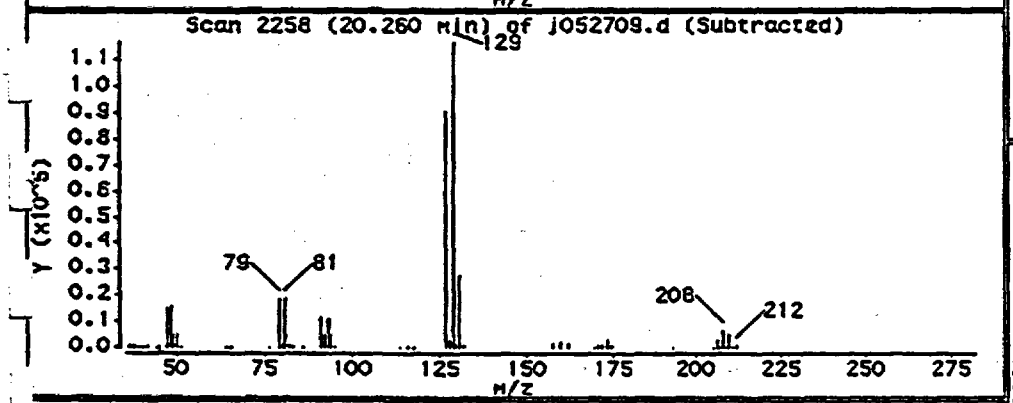
Operator: MH

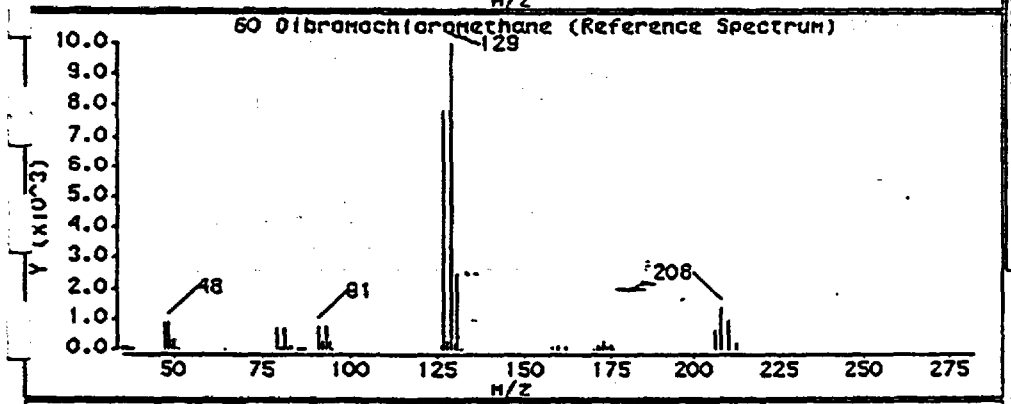
Column phase: RTx-624

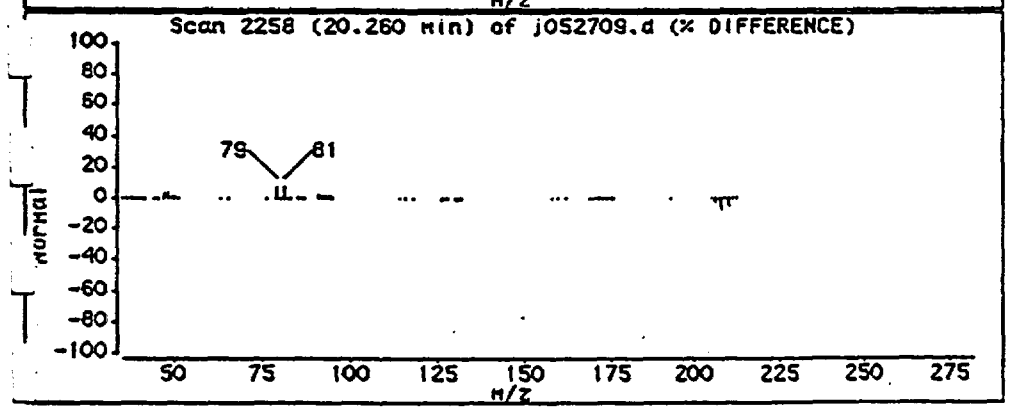
Column diameter: 0.58

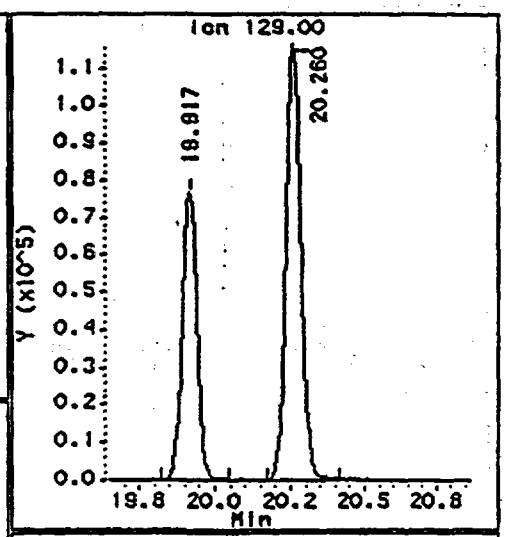
60 Dibromochloromethane

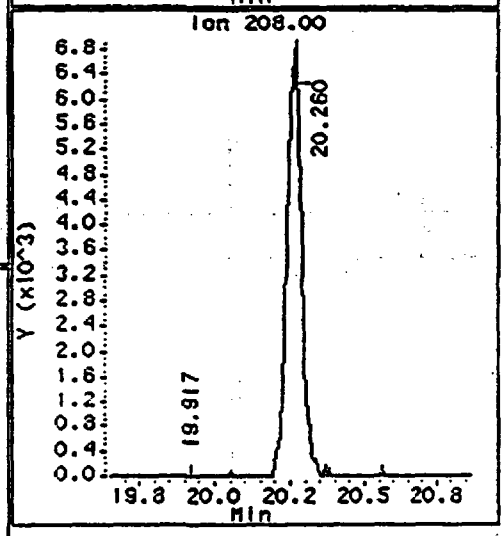












Data File: /chem/msdj.i/j-27may.b/j052709.d

Date : 27-MAY-1997 14:45

Client ID: Level 3

Instrument: msdj.i

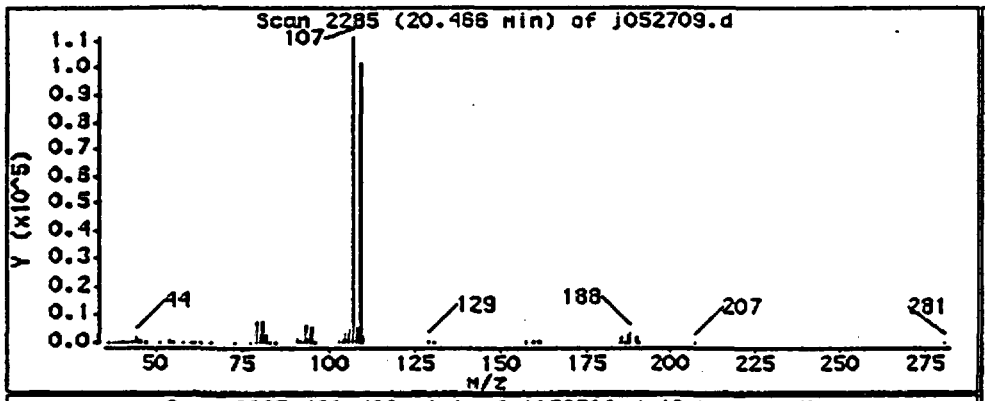
Sample Info: 12.5mL#315-57 200ppbv TO14 Std. (5ppbv)

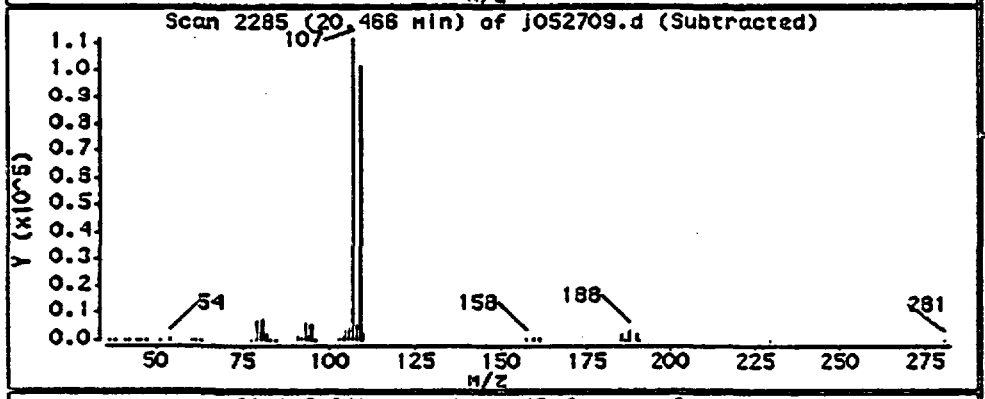
Operator: MH

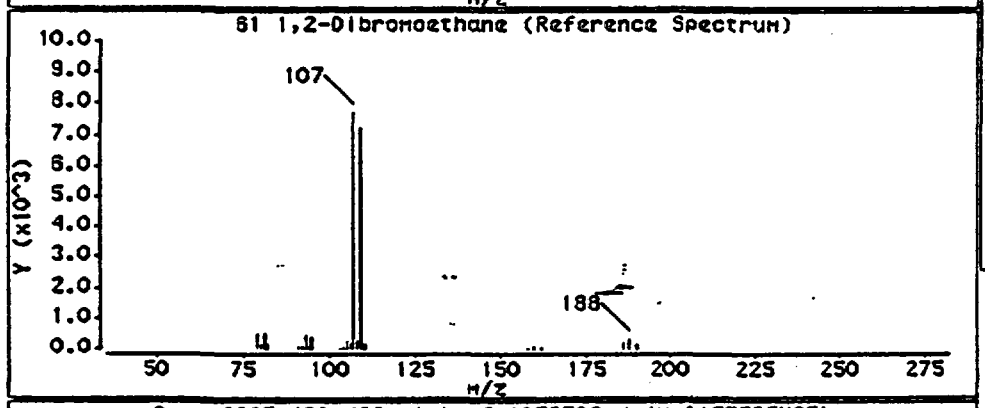
Column phase: RTx-624

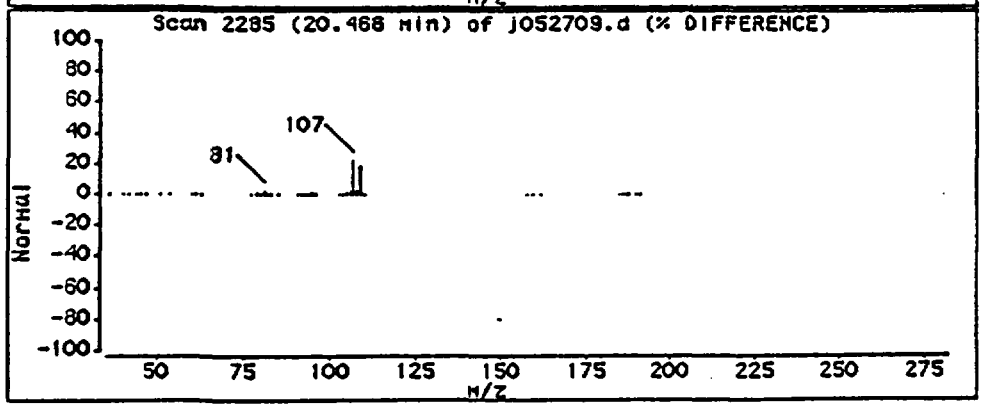
Column diameter: 0.58

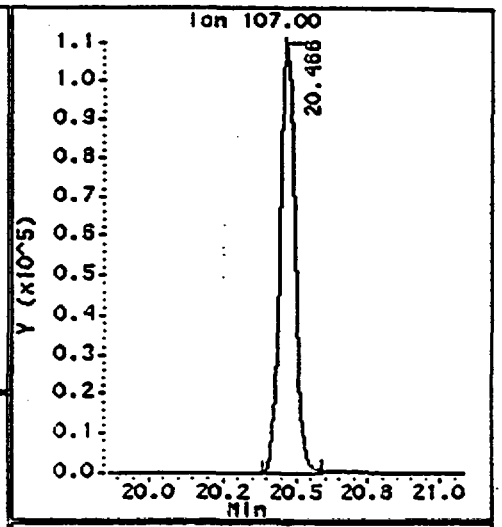
61 1,2-Dibromoethane

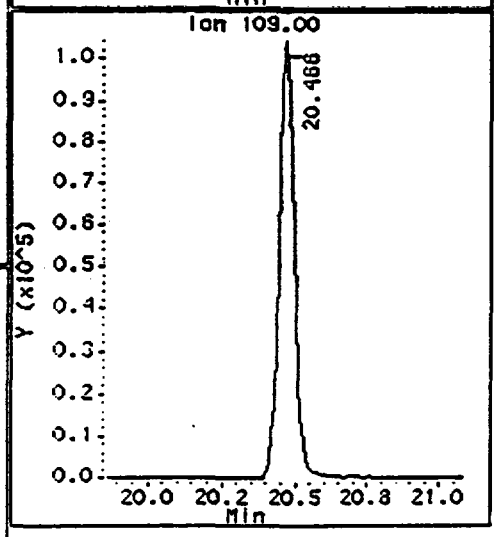












1172

Data File: /chem/msdj.i/j-27may.b/j052709.d

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Date : 27-MAY-1997 14:45

0173

Client ID: Level 3

Instrument: msdj.i

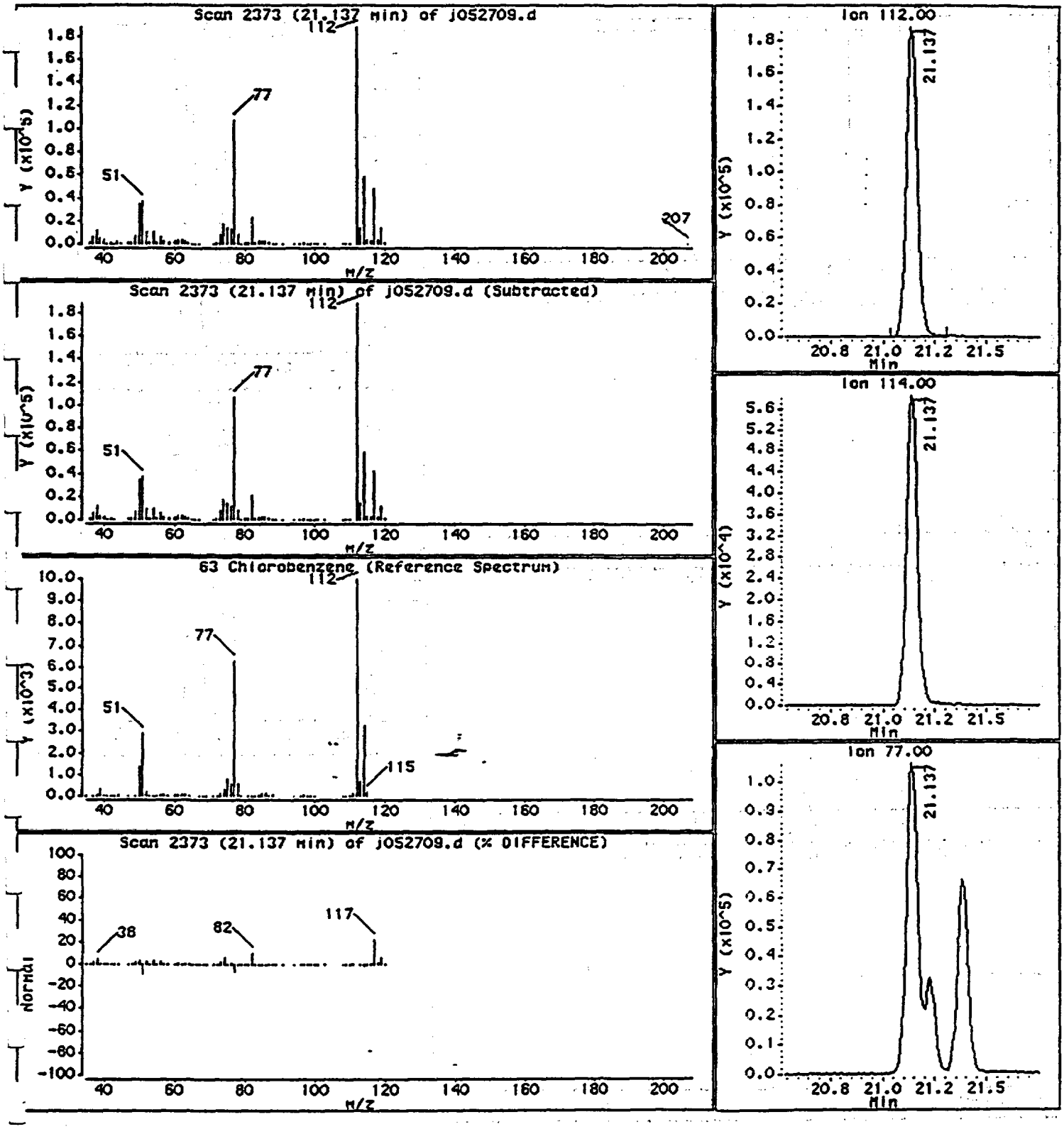
Sample Info: 12.5mL#315-57 200ppbv TO14 Std. (5ppbv)

Operator: MH

Column phase: RTx-624

Column diameter: 0.58

63 Chlorobenzene



Data File: /chem/msdj.i/j-27may.b/j052709.d

Date : 27-MAY-1997 14:45

Client ID: Level 3

Instrument: msdj.i

0174

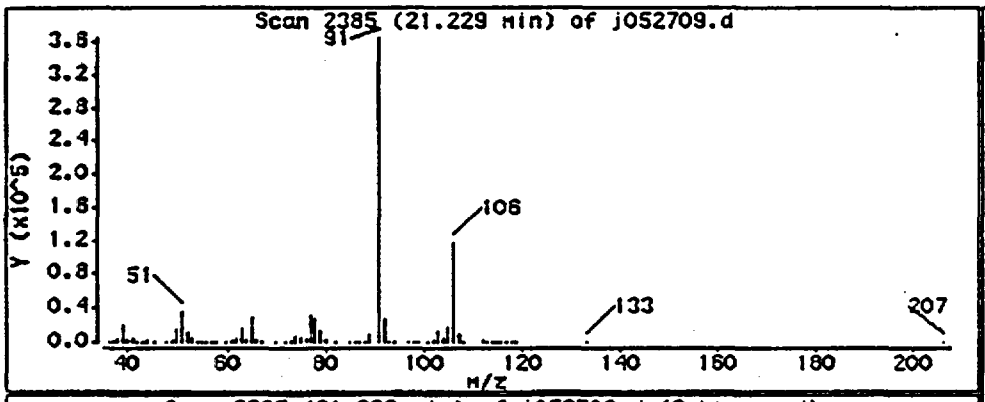
Sample Info: 12.5mL#315-57 200ppbv TO14 Std. (5ppbv)

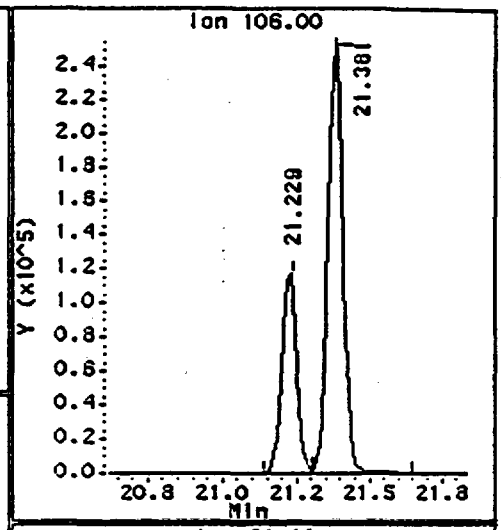
Operator: MH

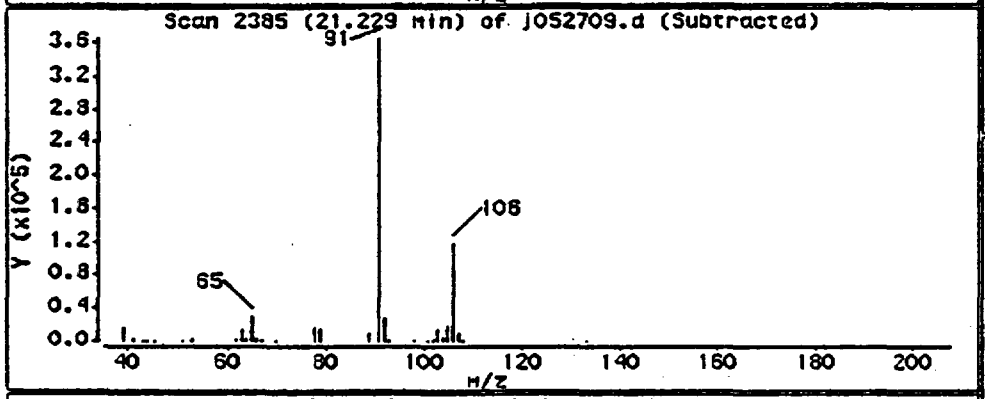
Column phase: RTx-624

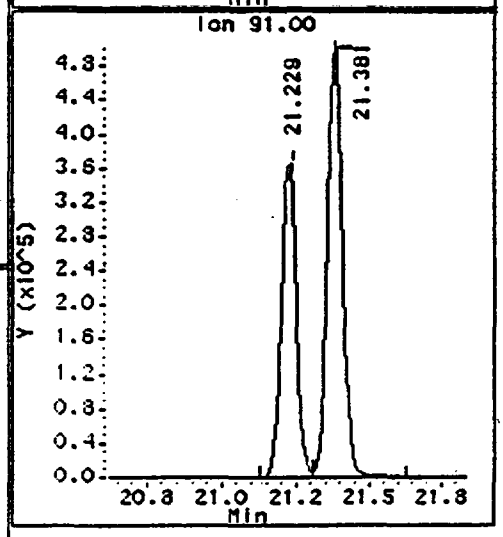
Column diameter: 0.58

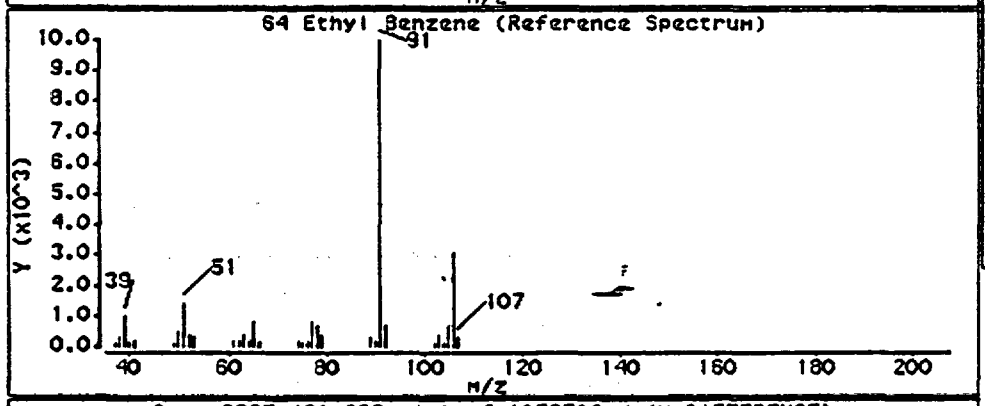
64 Ethyl Benzene

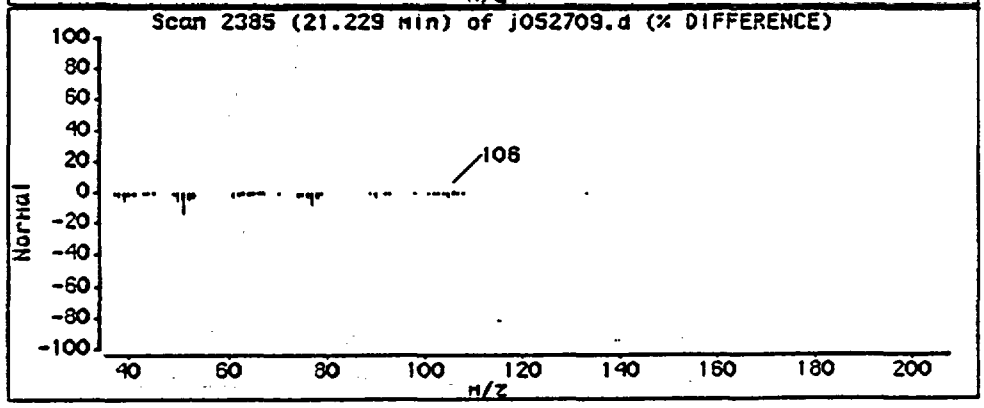












Data File: /chem/msdj.i/j-27may.b/j052709.d

Date : 27-MAY-1997 14:45

Client ID: Level 3

Instrument: msdj.i

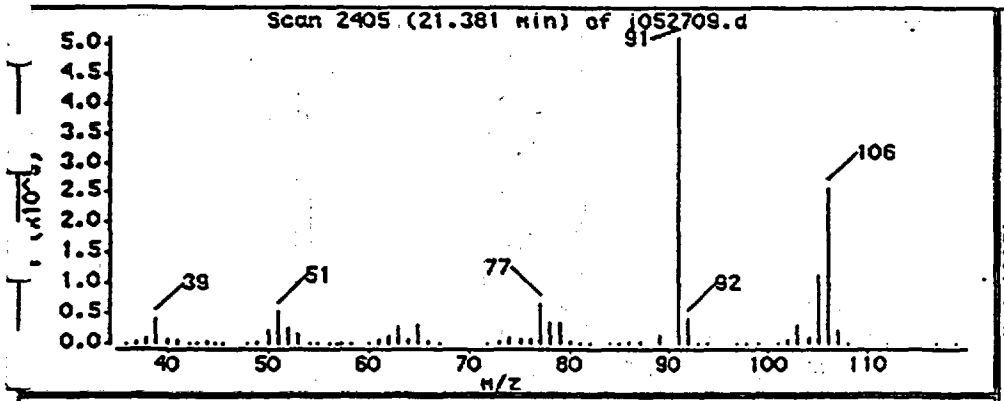
Sample Info: 12.5mL#315-57 200ppbv T014 Std. (5ppbv)

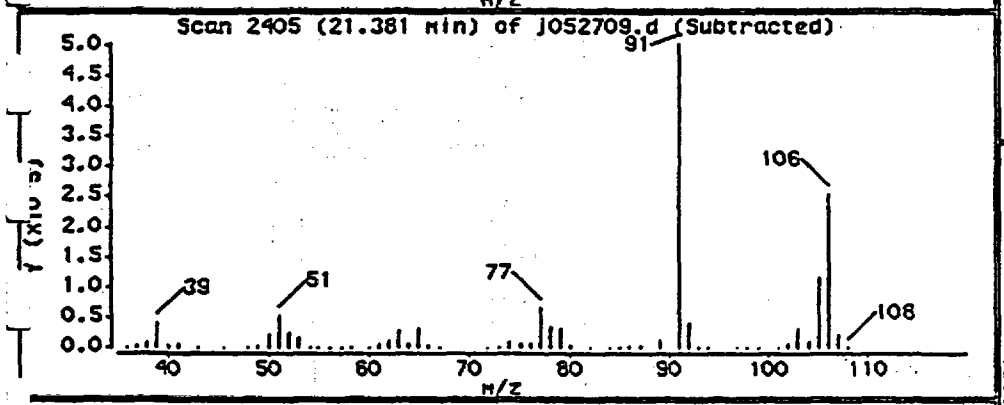
Operator: MH

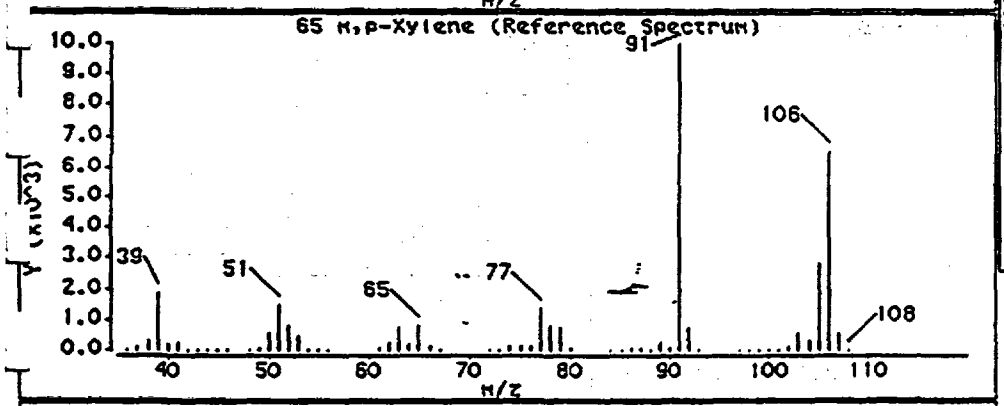
Column phase: RTx-624

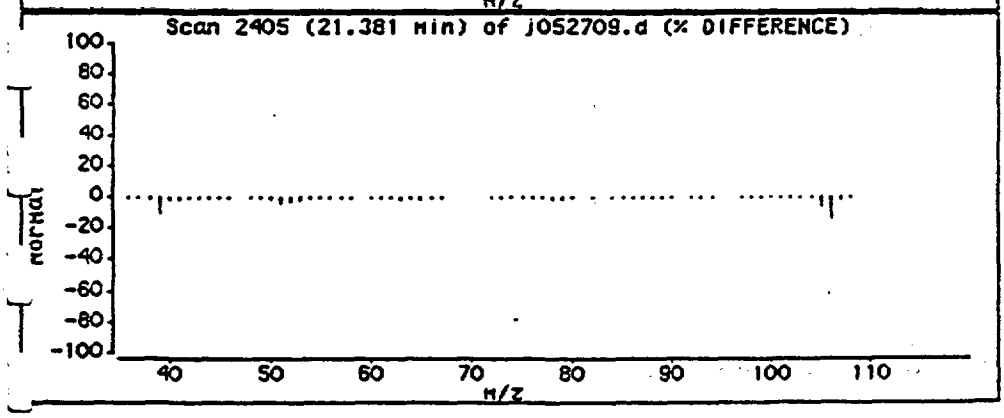
Column diameter: 0.58

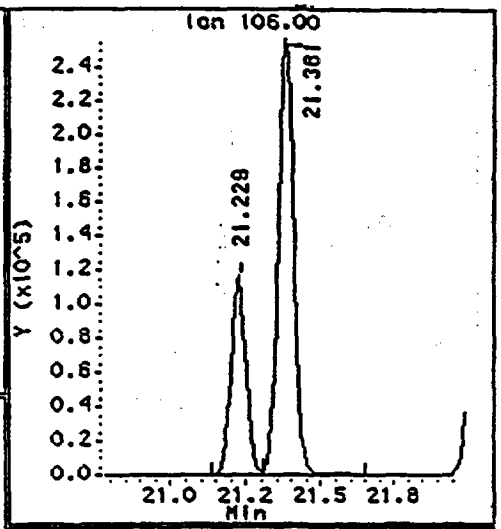
65 m,p-Xylene

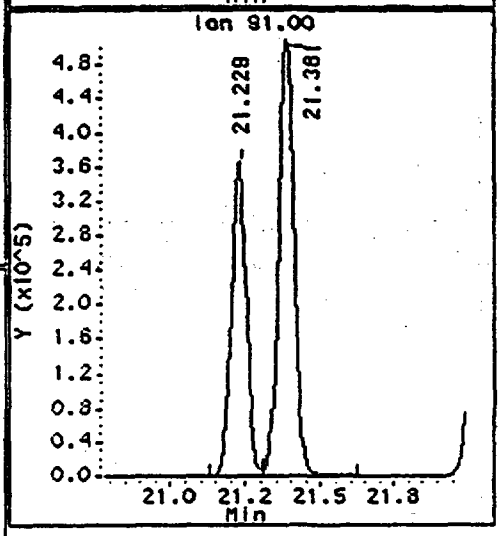












Data File: /chem/msdj.i/j-27may.b/j052709.d

Date : 27-MAY-1997 14:45

Client ID: Level 3

Instrument: msdj.i

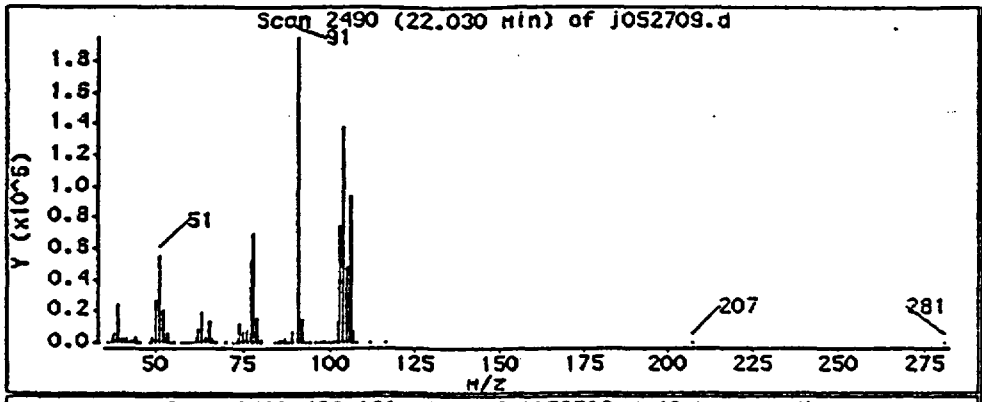
Sample Info: 12.5mL#315-57 200ppbv T014 Std. (5ppbv)

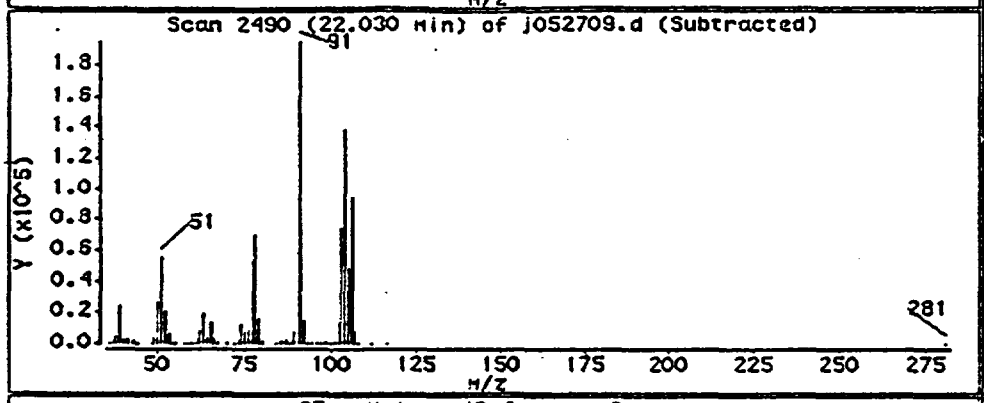
Operator: MH

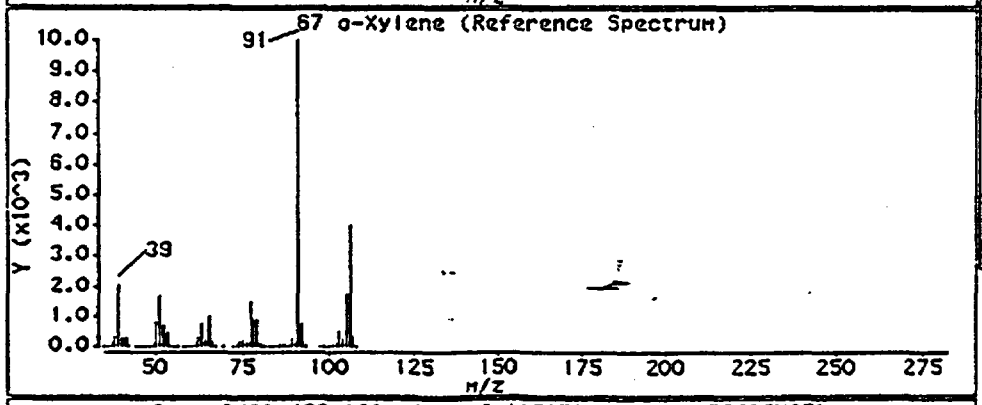
Column phase: RTx-624

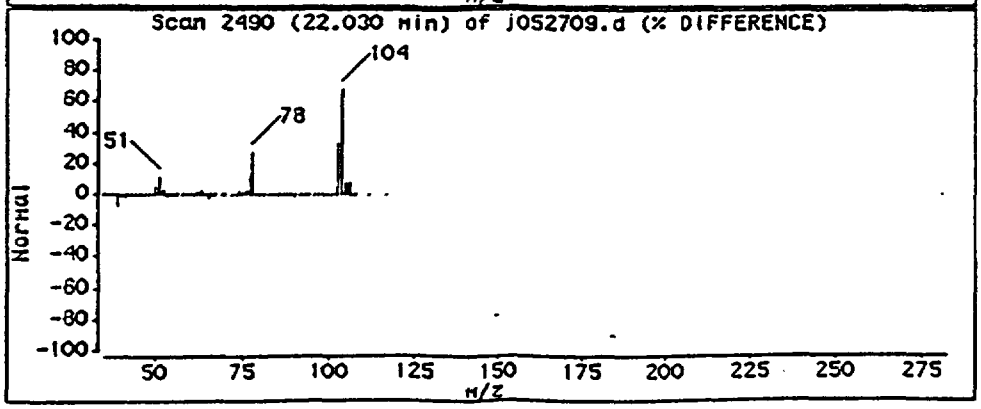
Column diameter: 0.58

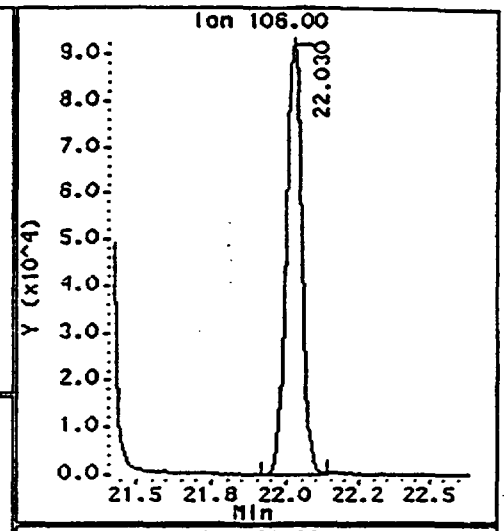
67 o-Xylene

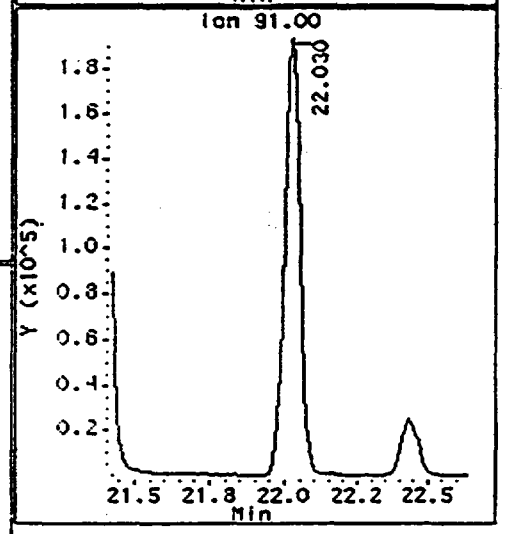












Data File: /chem/msdj.i/j-27may.b/j052709.d

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1177

Date : 27-MAY-1997 14:45

Client ID: Level 3

Instrument: msdj.i

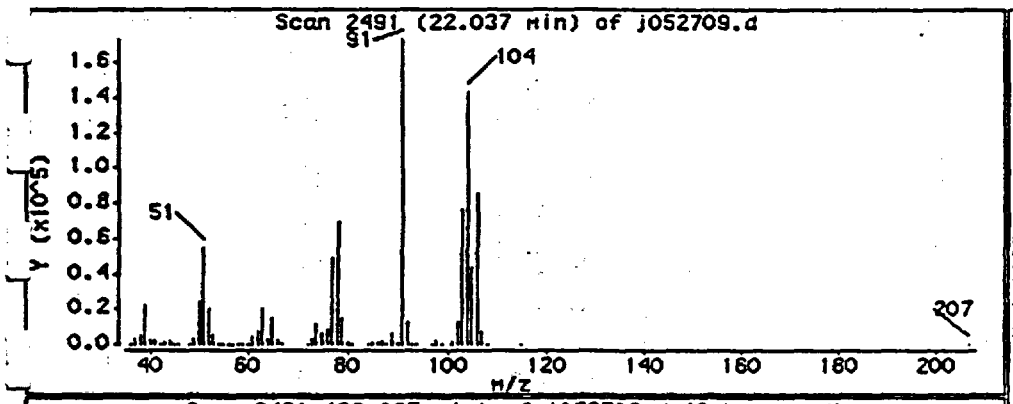
Sample Info: 12.5mL#315-57 200ppbv T014 Std. (5ppbv)

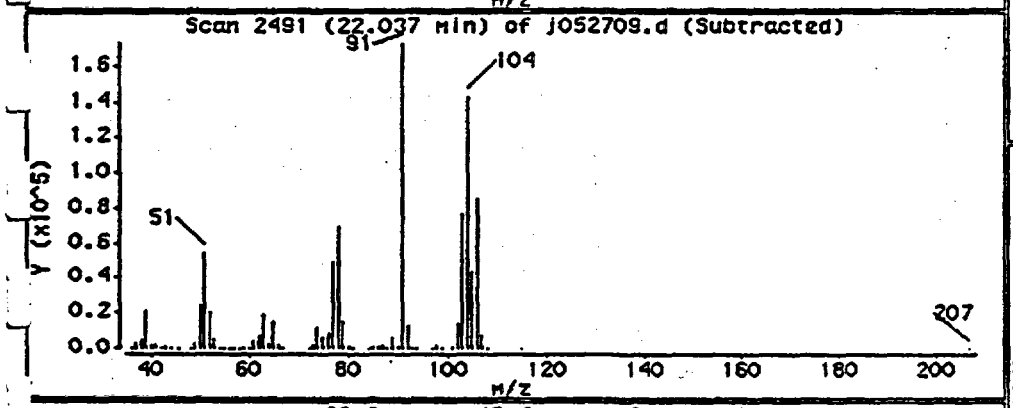
Operator: MH

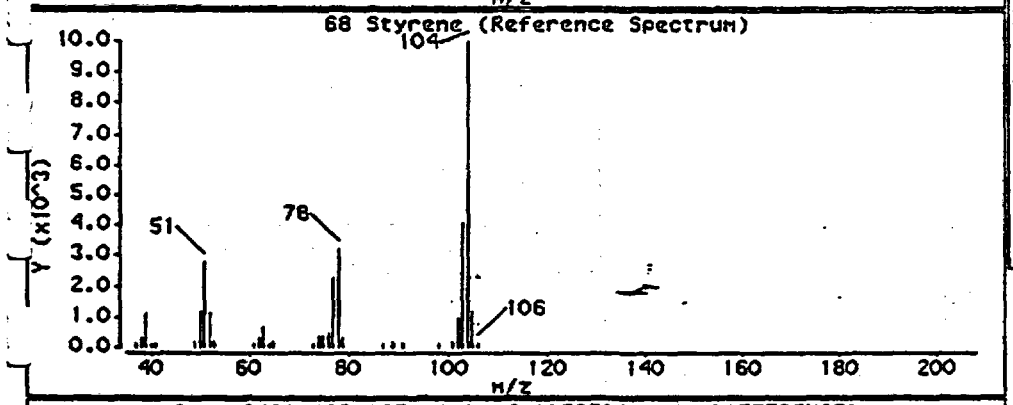
Column phase: RTx-624

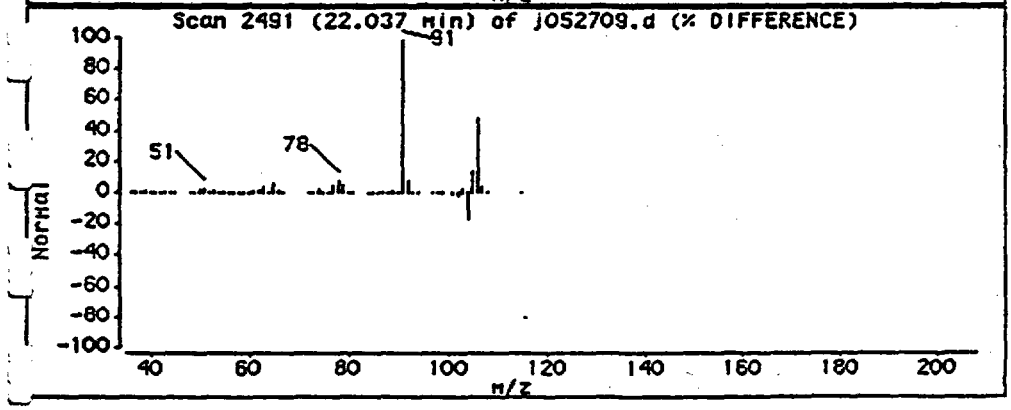
Column diameter: 0.58

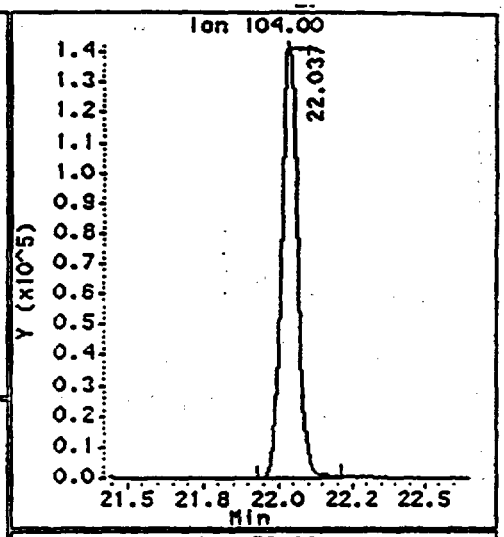
68 Styrene

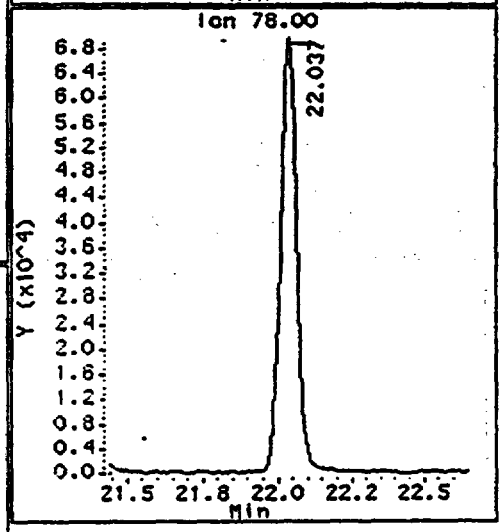












Data File: /chem/msdj.i/j-27may.b/j052709.d

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Date : 27-MAY-1997 14:45

11178

Client ID: Level 3

Instrument: msdj.i

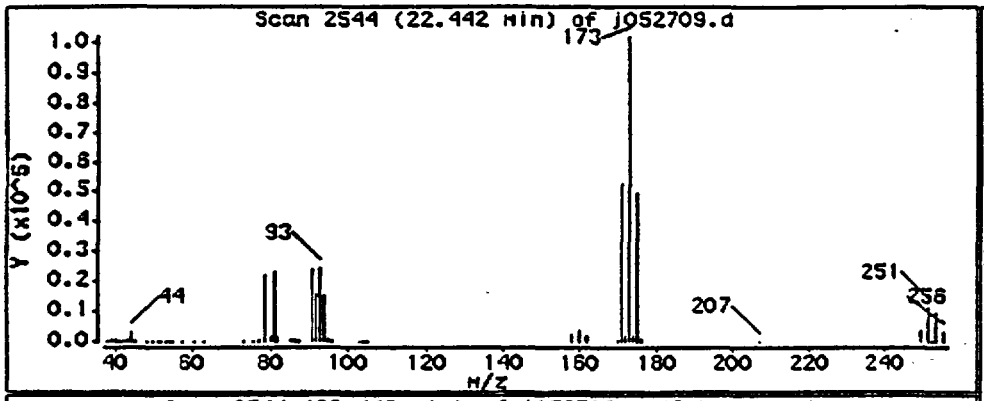
Sample Info: 12.5mL#315-57 200ppbv TO14 Std. (5ppbv)

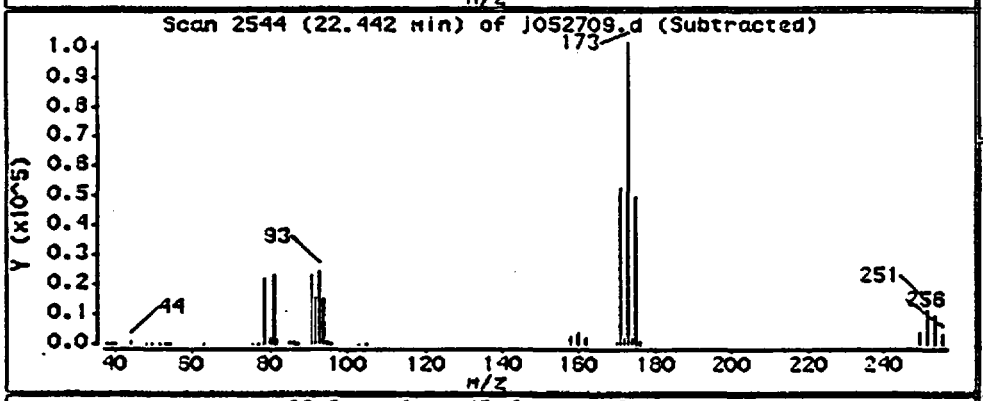
Operator: MH

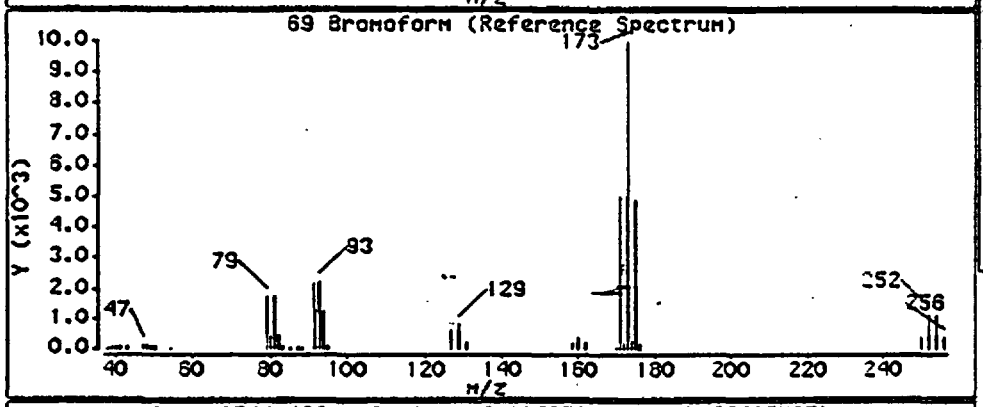
Column phase: RTx-624

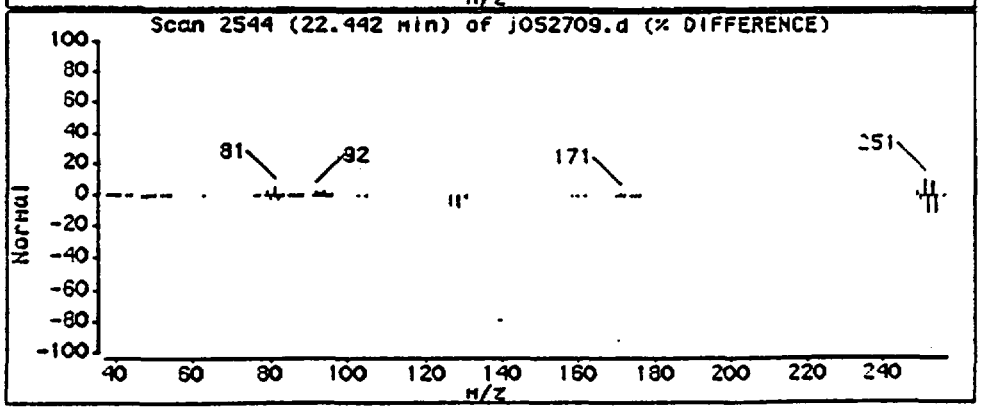
Column diameter: 0.58

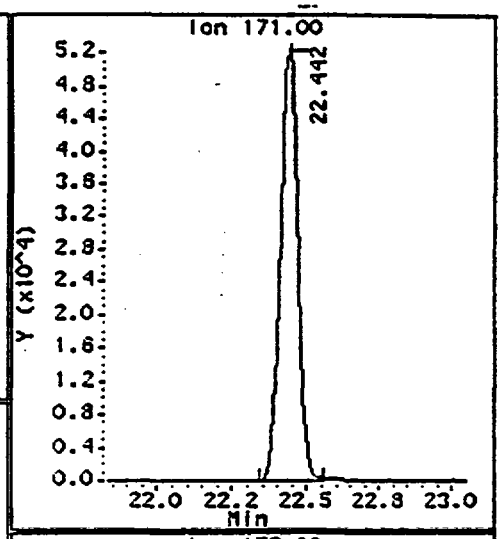
69 Bromoform

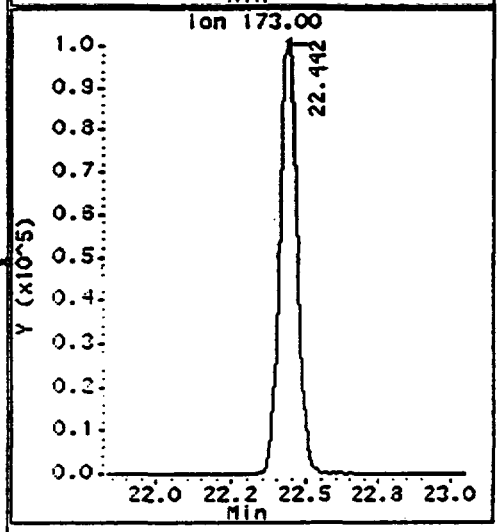












Data File: /chem/msdj.i/j-27may.b/j052709.d

Date : 27-MAY-1997 14:45

Client ID: Level 3

Instrument: msdj.i

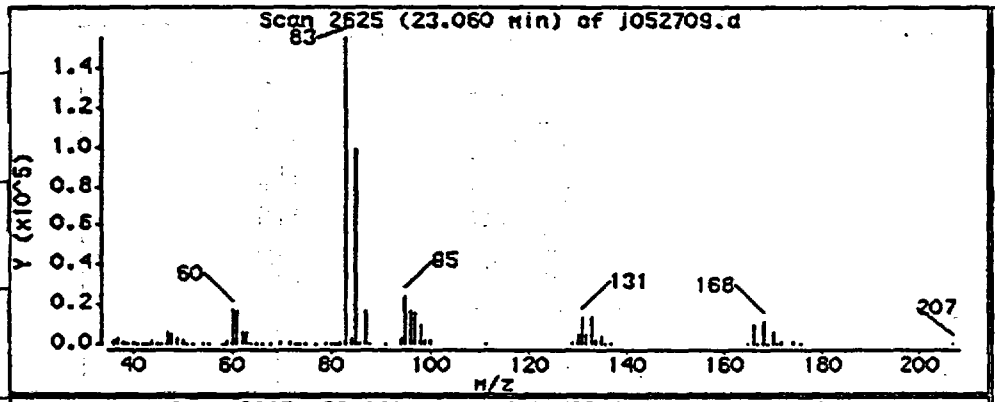
Sample Info: 12.5mL#315-57 200ppbv T014 Std. (5ppbv)

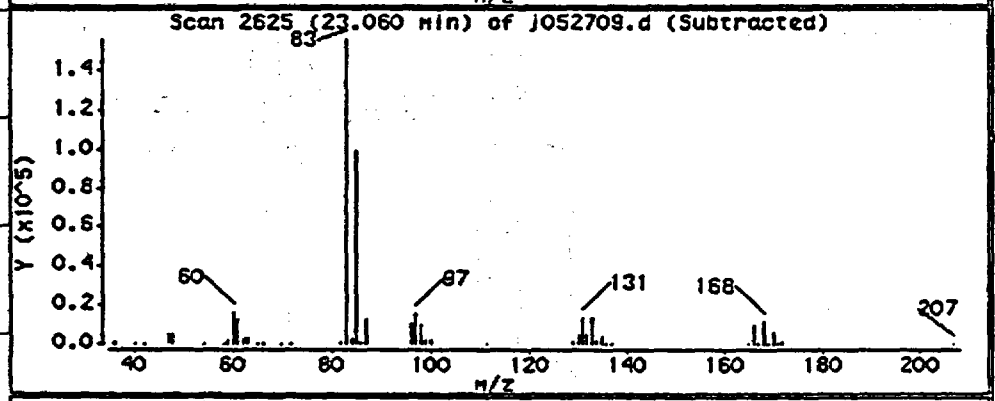
Operator: MH

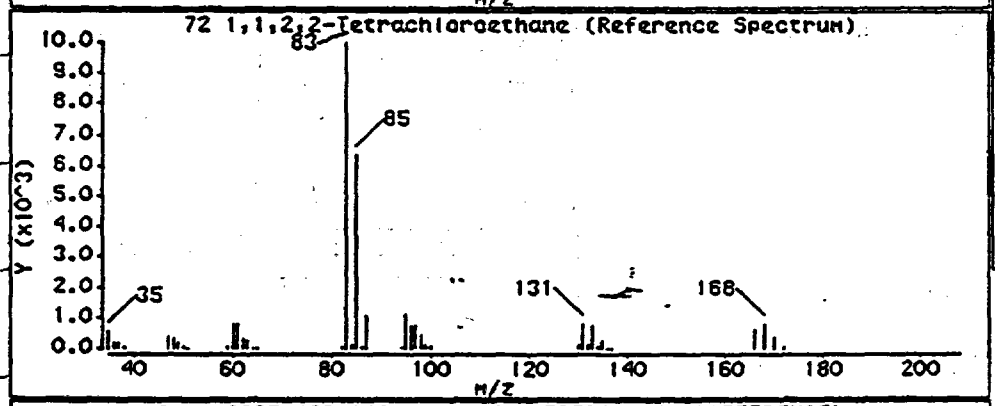
Column phase: RTx-624

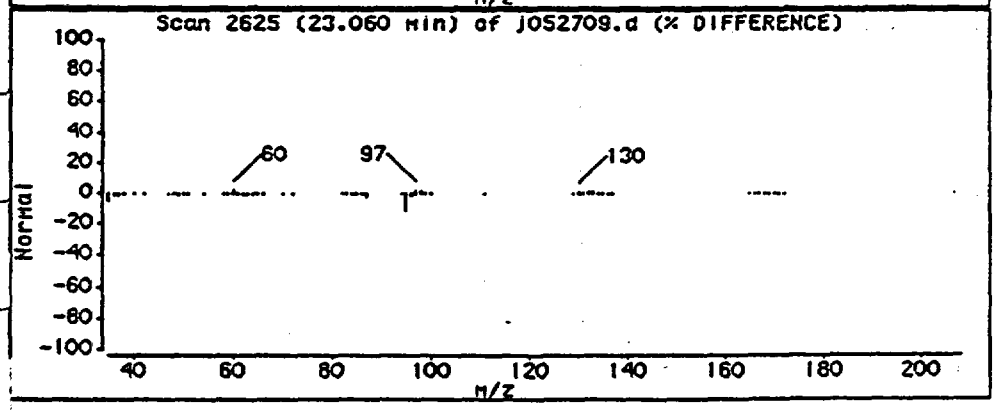
Column diameter: 0.58

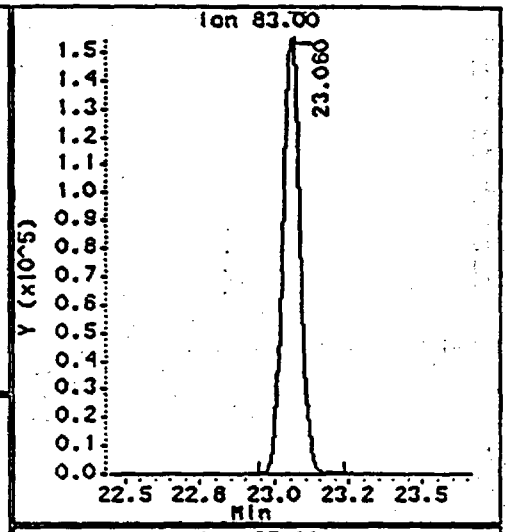
72 1,1,2,2-Tetrachloroethane

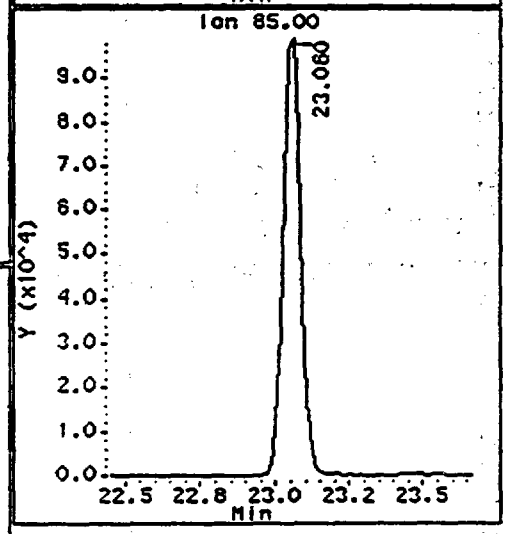












Data File: /chem/msdj.i/j-27may.b/j052709.d

Date : 27-MAY-1997 14:45

Client ID: Level 3

Instrument: msdj.i

0180

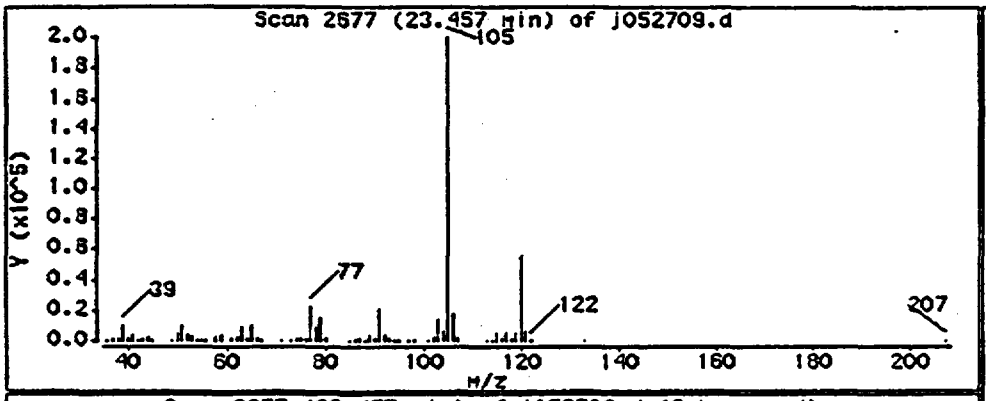
Sample Info: 12.5mL#315-57 200ppbv TO14 Std. (5ppbv)

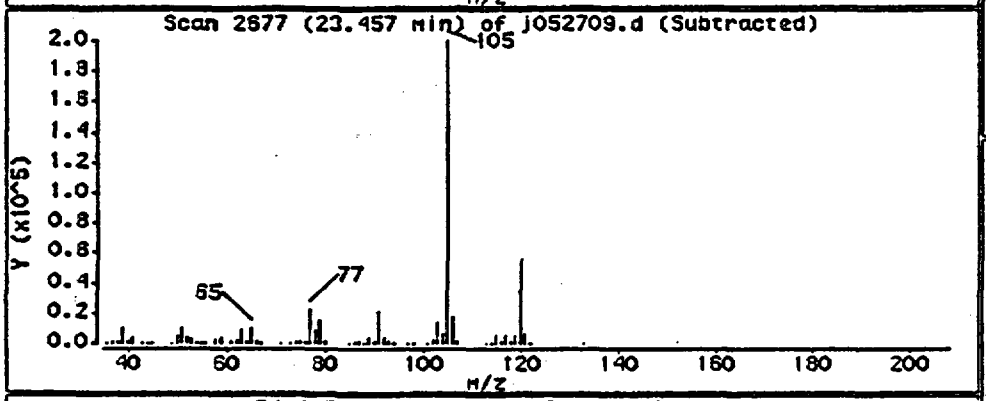
Operator: MH

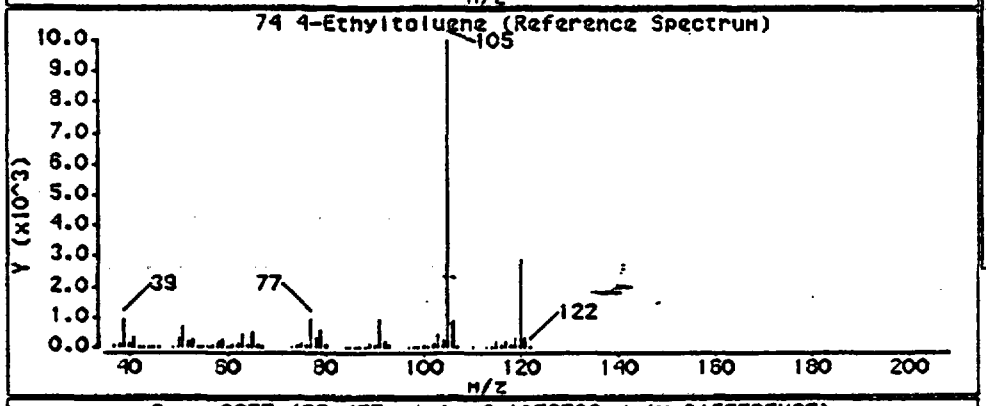
Column phase: RTx-624

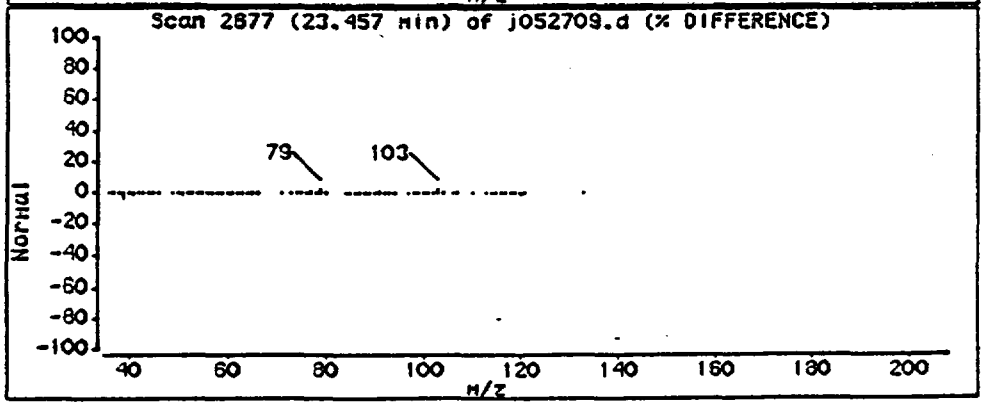
Column diameter: 0.58

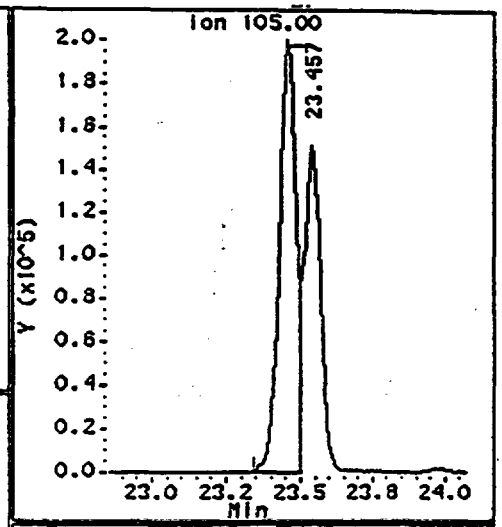
74 4-Ethyltoluene

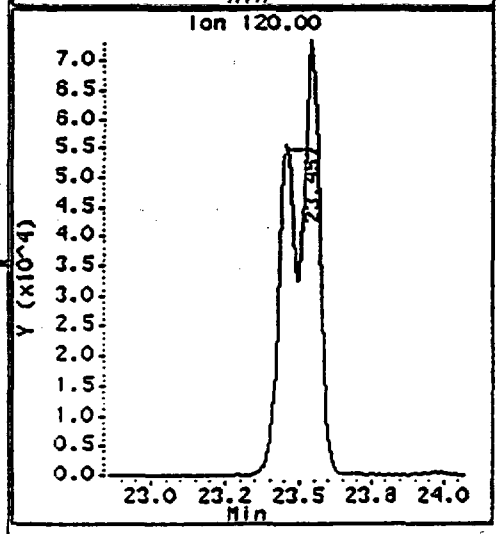












Data File: /chem/msdj.i/j-27may.b/j052709.d

Date : 27-MAY-1997 14:45

Client ID: Level 3

Instrument: msdj.i

Sample Info: 12.5mL#315-57 200ppbv T014 Std. (5ppbv)

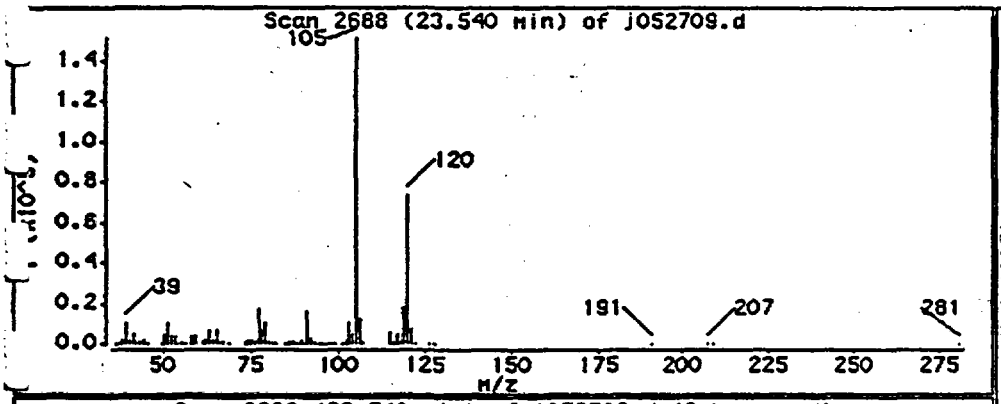
Operator: MH

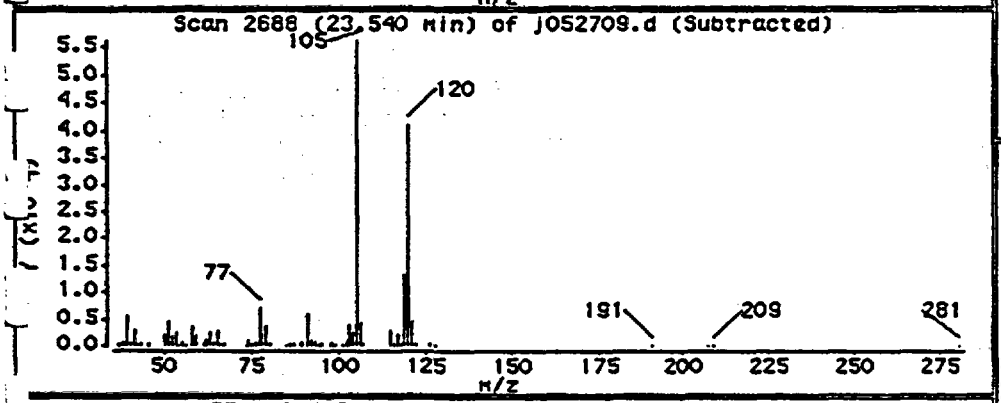
Column phase: RTx-624

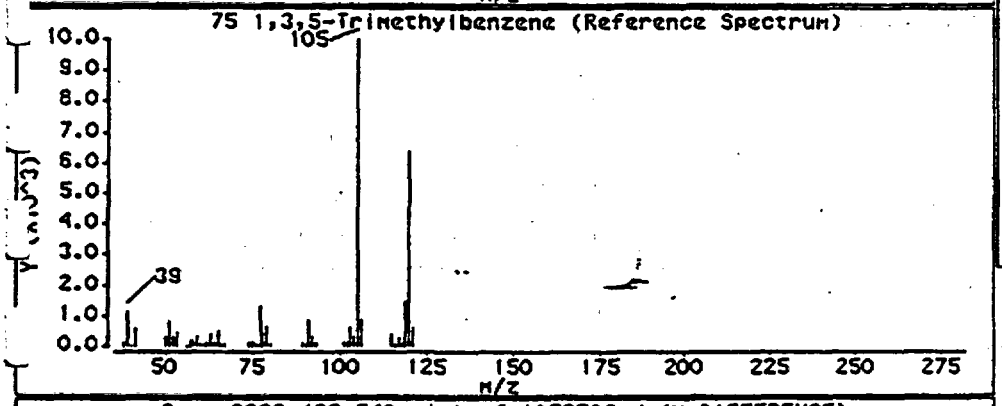
Column diameter: 0.58

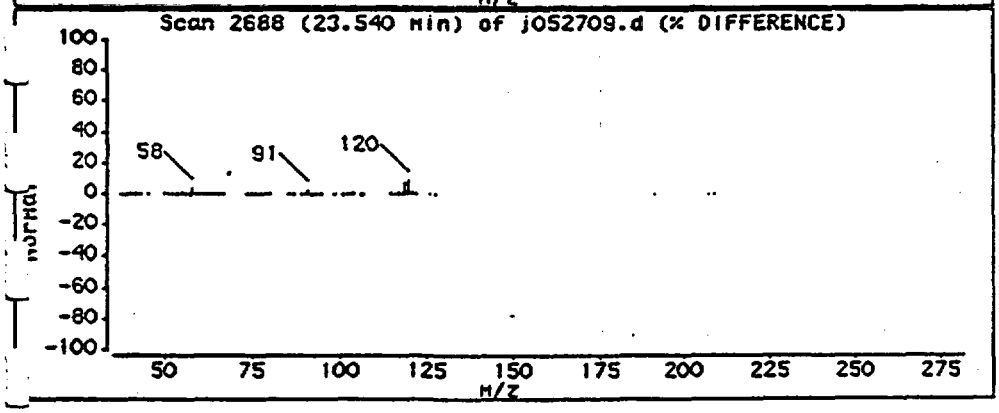
#181

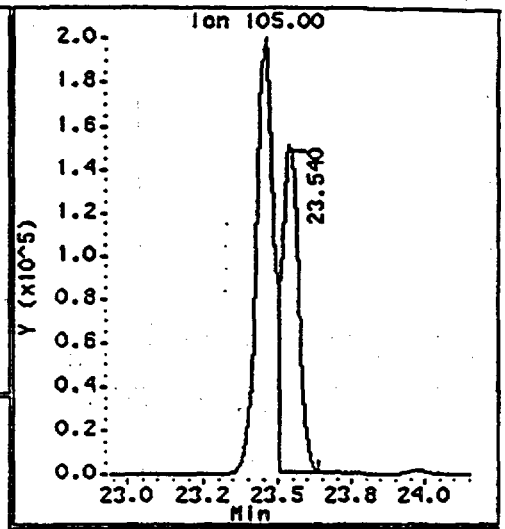
75 1,3,5-Trimethylbenzene

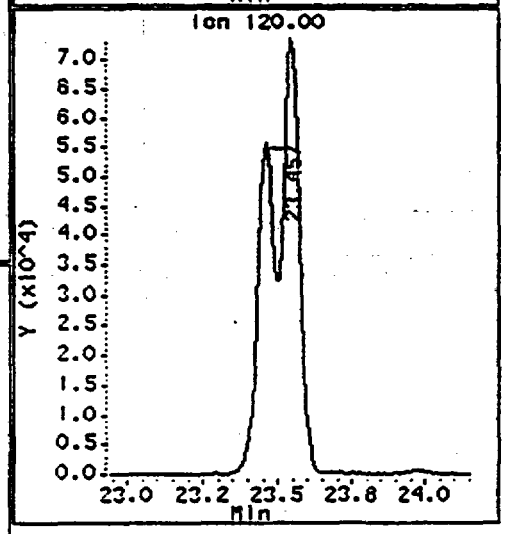












Data File: /chem/msdj.i/j-27may.b/j052709.d

Date : 27-MAY-1997 14:45

Client ID: Level 3

Instrument: msdj.i

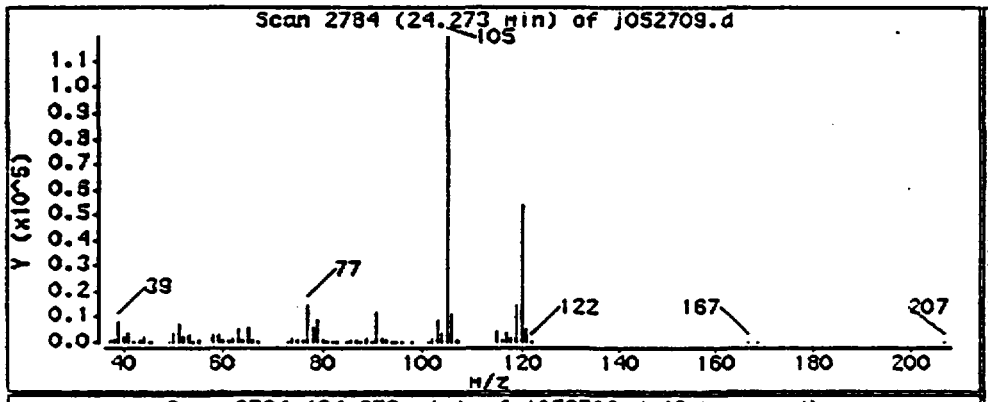
Sample Info: 12.5mL#315-57 200ppbv TO14 Std. (5ppbv)

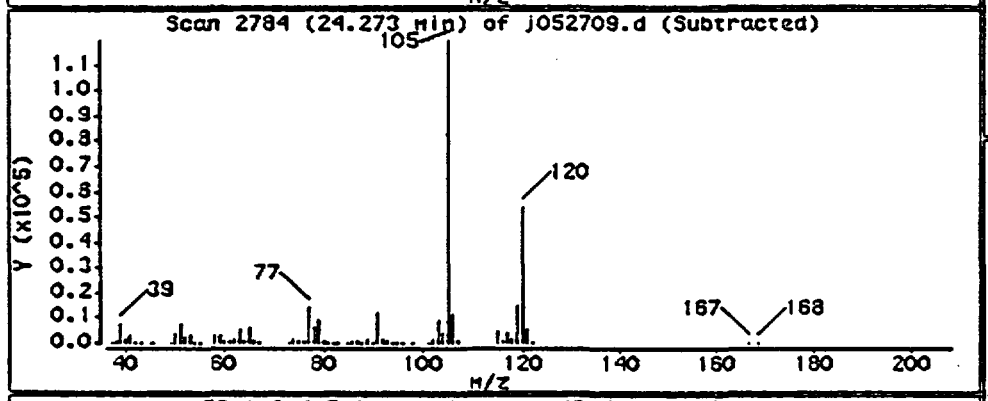
Operator: MH

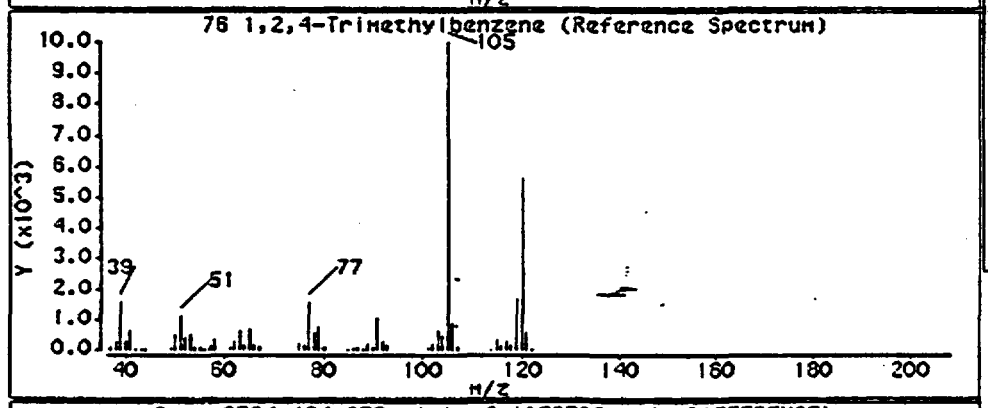
Column phase: RTx-624

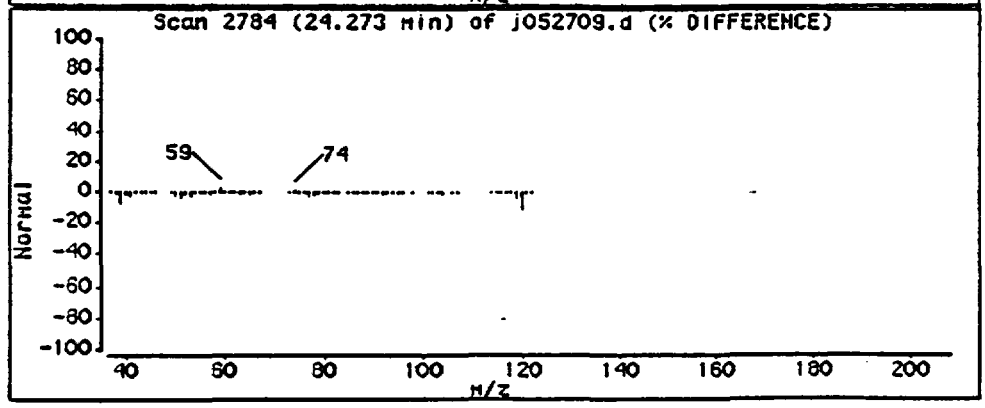
Column diameter: 0.58

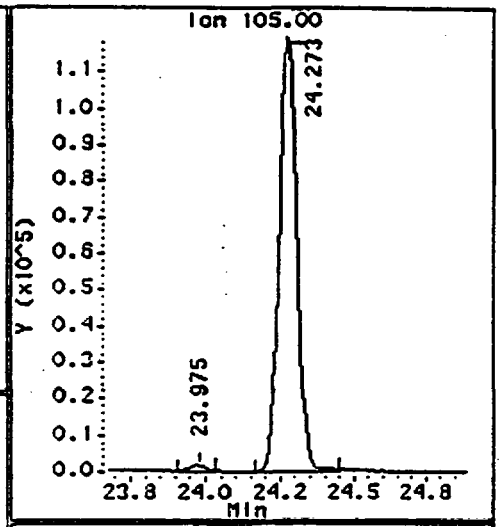
76 1,2,4-Trimethylbenzene

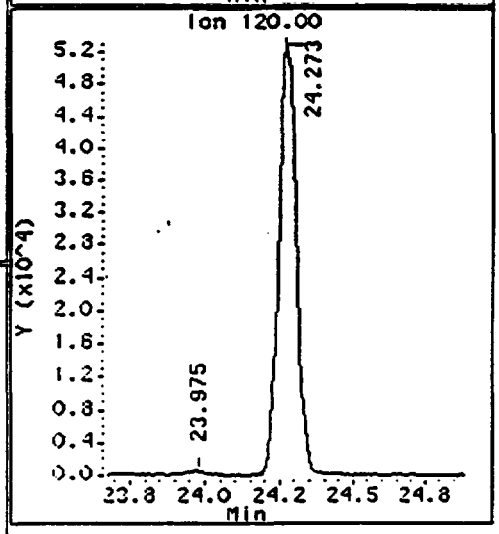












Data File: /chem/msdj.i/j-27may.b/j052709.d

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Date : 27-MAY-1997 14:45

Client ID: Level 3

Instrument: msdj.i

0183

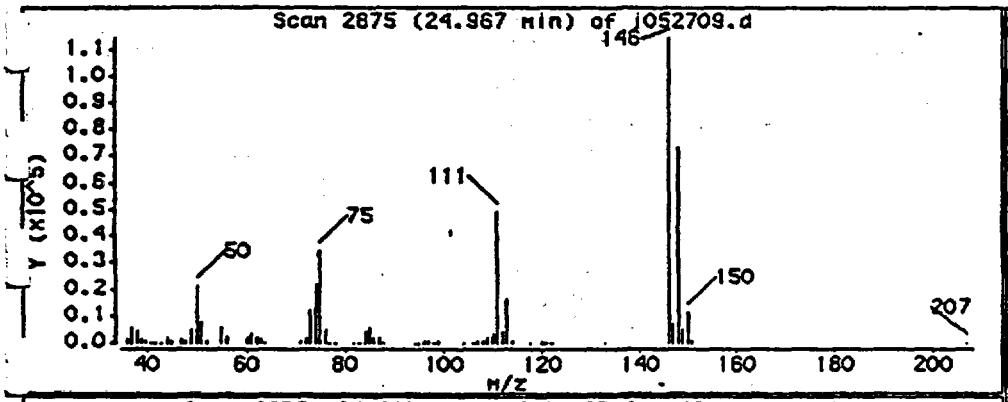
Sample Info: 12.5mL#315-57 200ppbv T014 Std. (5ppbv)

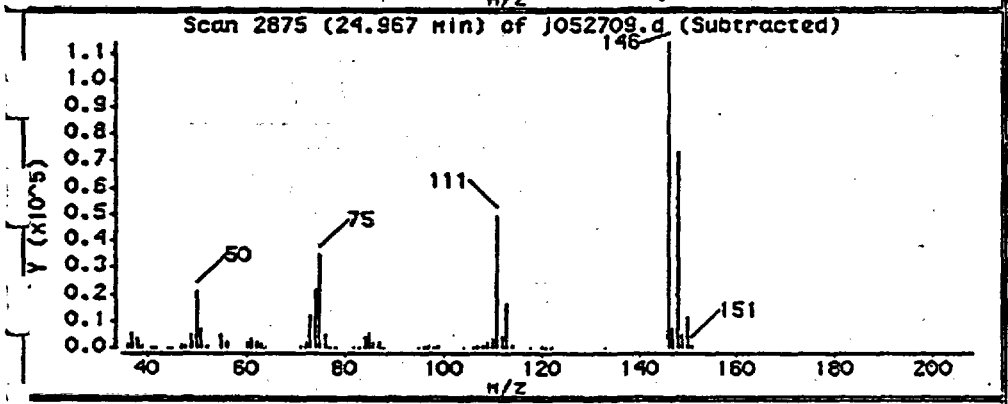
Operator: MH

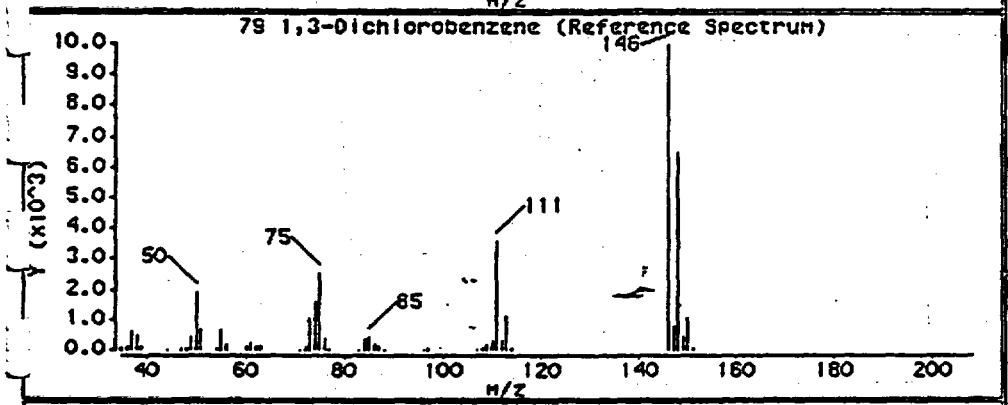
Column phase: RTx-624

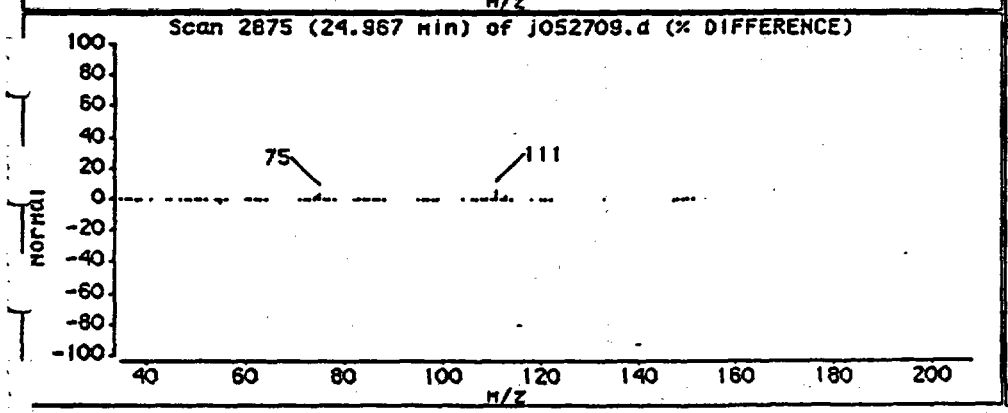
Column diameter: 0.58

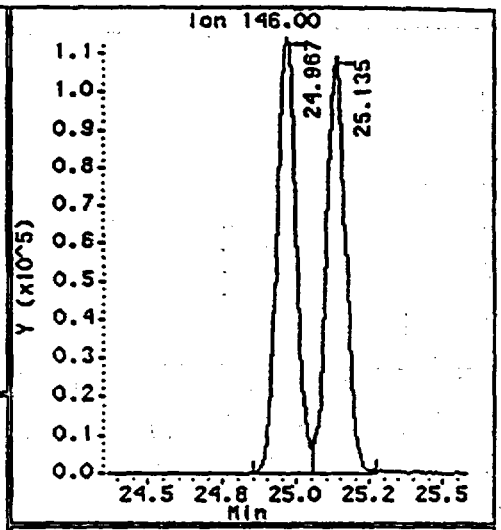
79 1,3-Dichlorobenzene

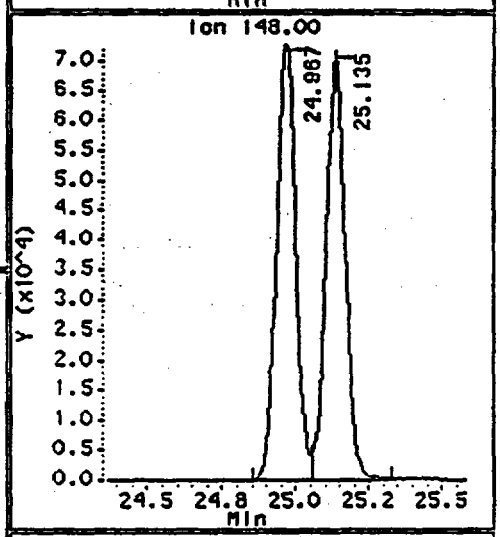


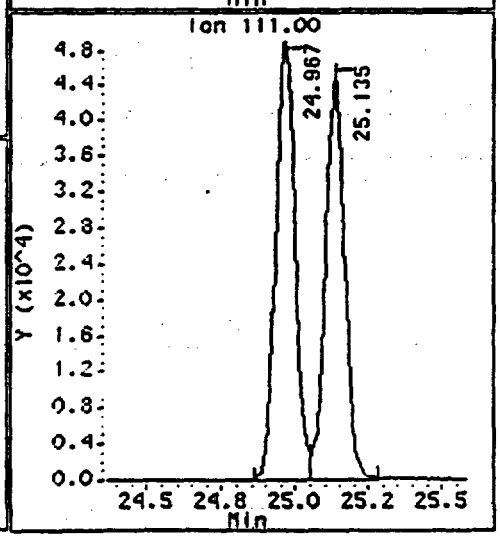












Data File: /chem/msdj.i/j-27may.b/j052709.d

Date : 27-MAY-1997 14:45

Client ID: Level 3

Instrument: msdj.i

0184

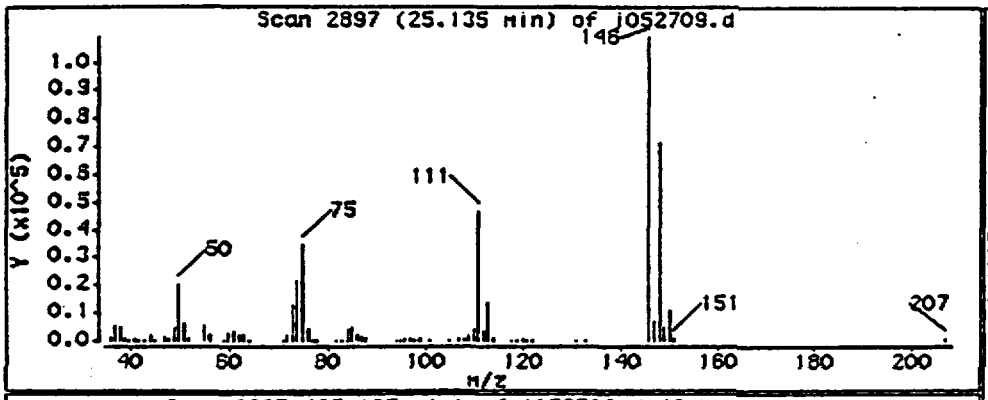
Sample Info: 12.5mL#315-57 200ppbv TO14 Std. (5ppbv)

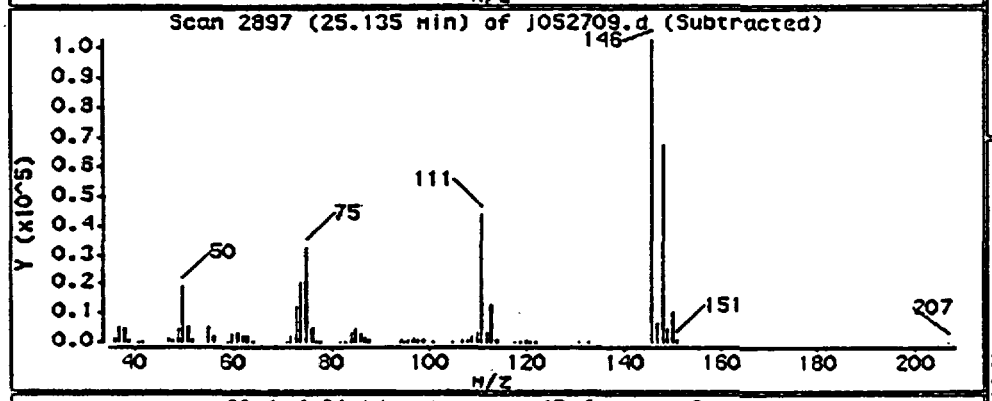
Operator: MH

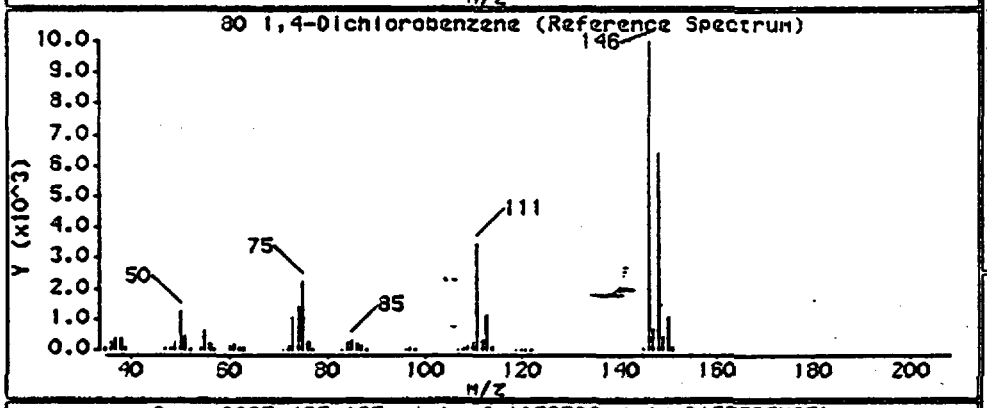
Column phase: RTx-624

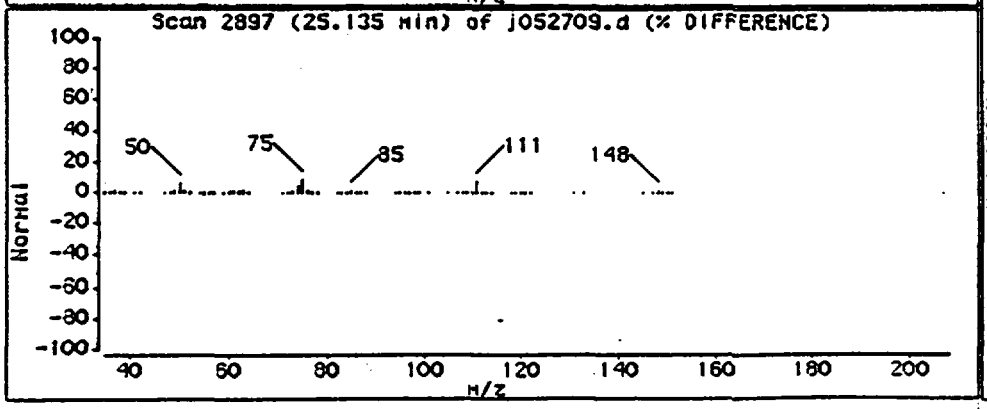
Column diameter: 0.58

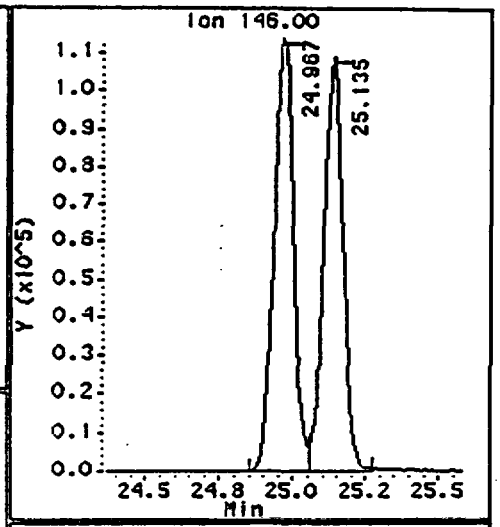
80 1,4-Dichlorobenzene

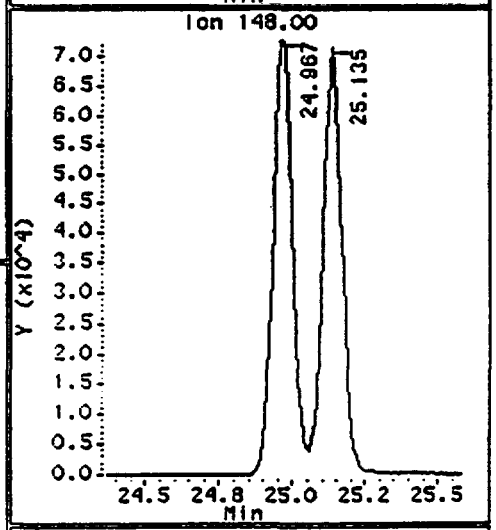


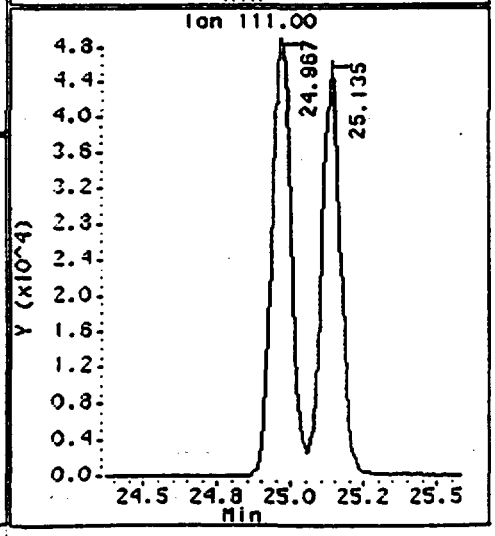












Data File: /chem/msdj.i/j-27may.b/j052709.d

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Date : 27-MAY-1997 14:45

0185

Client ID: Level 3

Instrument: msdj.i

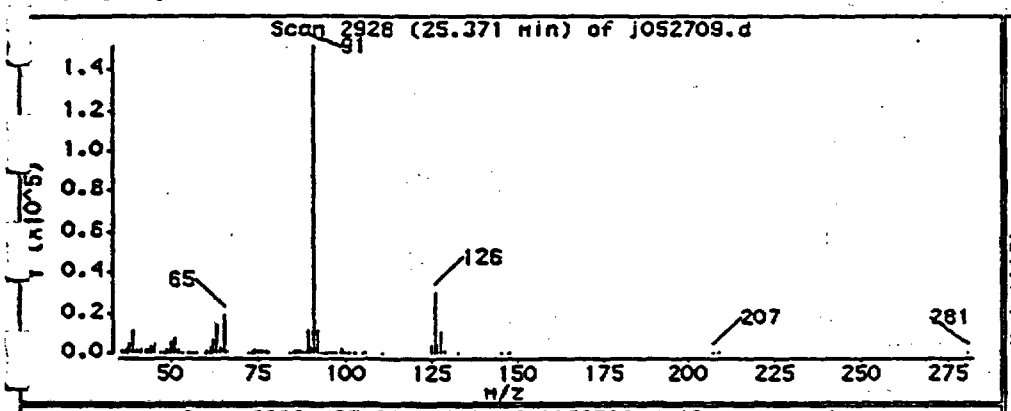
Sample Info: 12.5mL#315-57 200ppbv TO14 Std. (5ppbv)

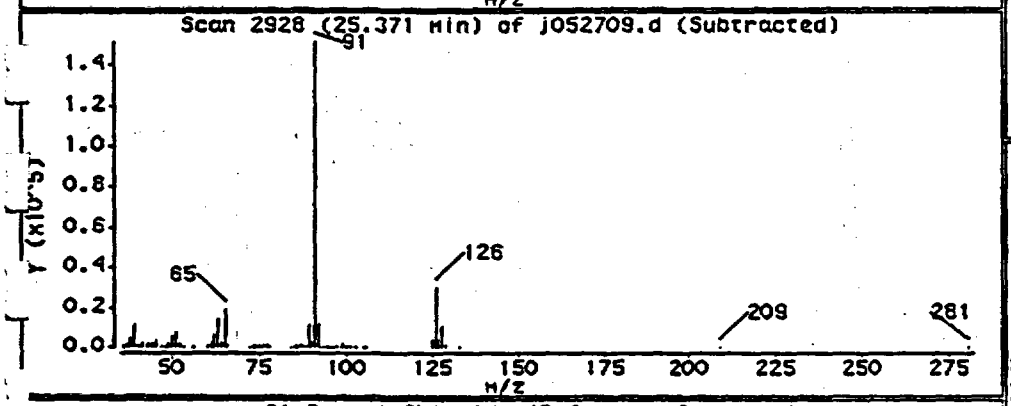
Operator: MH

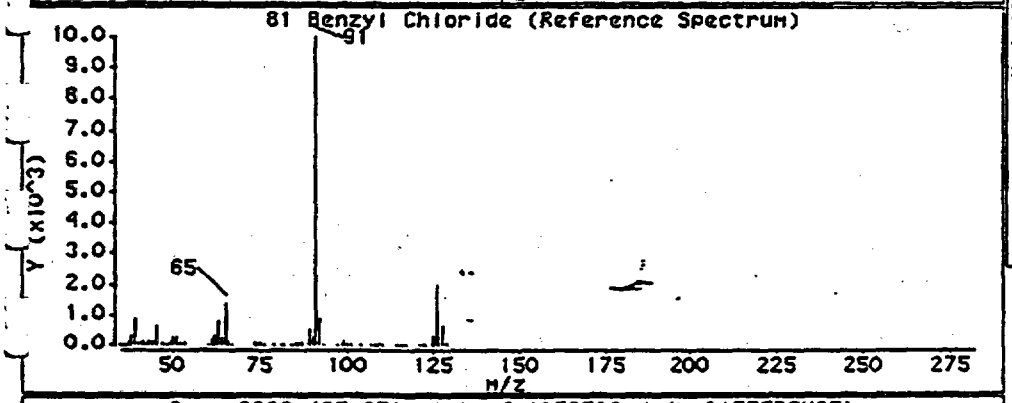
Column phase: RTx-624

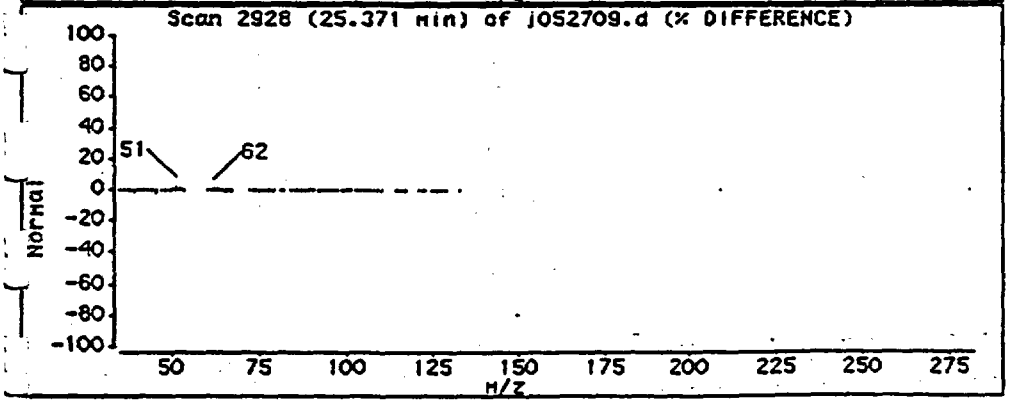
Column diameter: 0.58

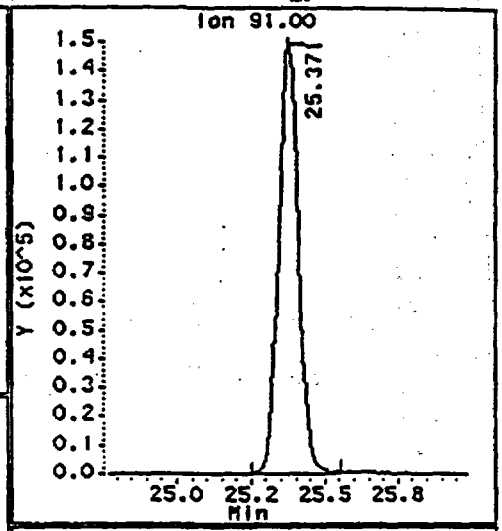
81 Benzyl Chloride

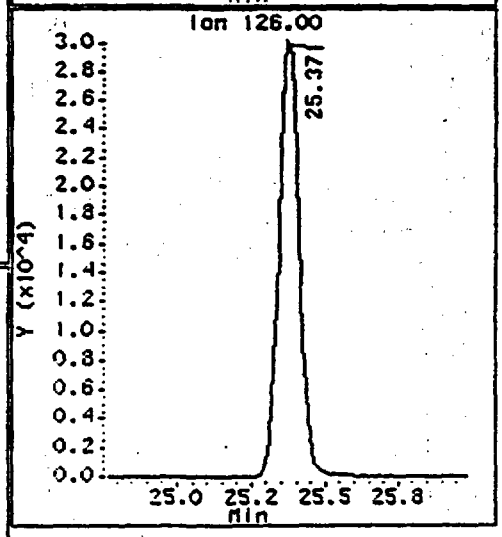












Data File: /chem/msdj.i/j-27may.b/j052709.d

Date : 27-MAY-1997 14:45

Client ID: Level 3

Instrument: msdj.i

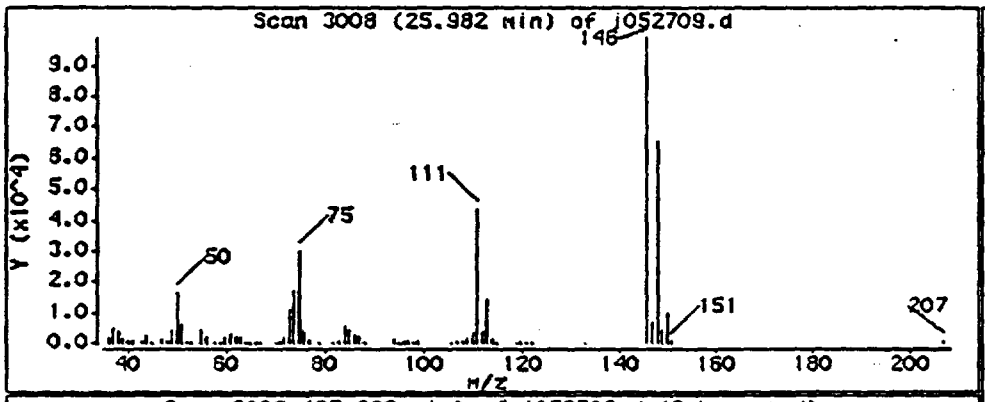
Sample Info: 12.5mL#315-57 200ppbv TO14 Std. (5ppbv)

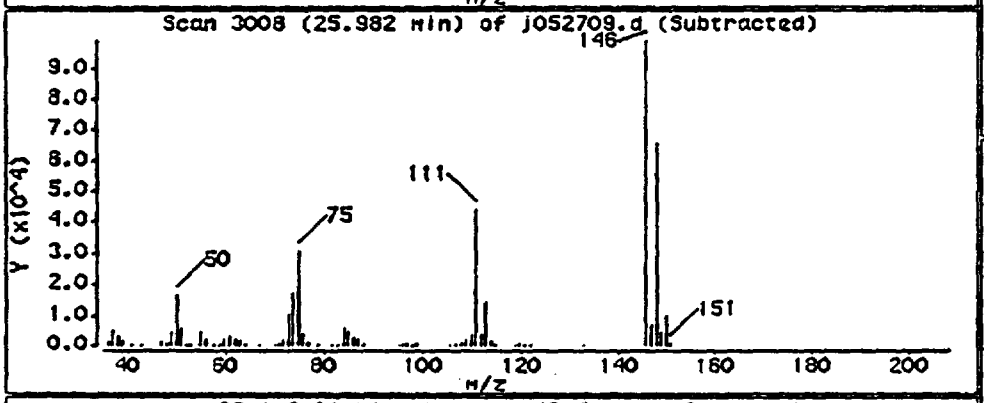
Operator: MH

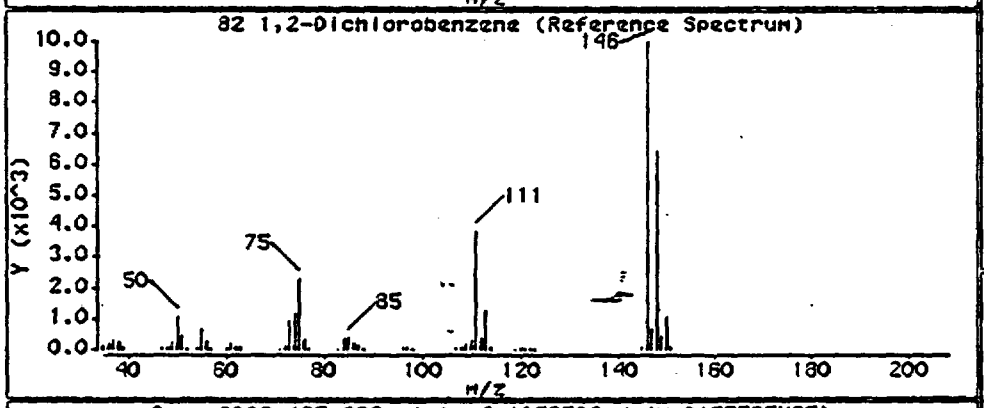
Column phase: RTx-624

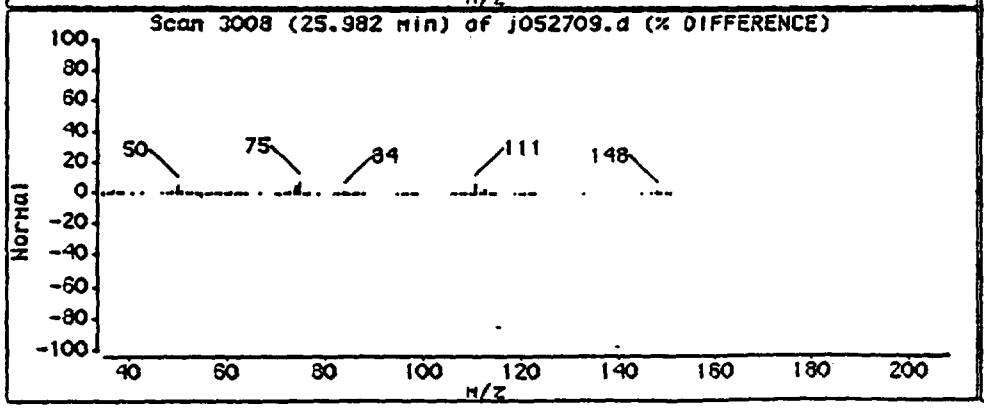
Column diameter: 0.58

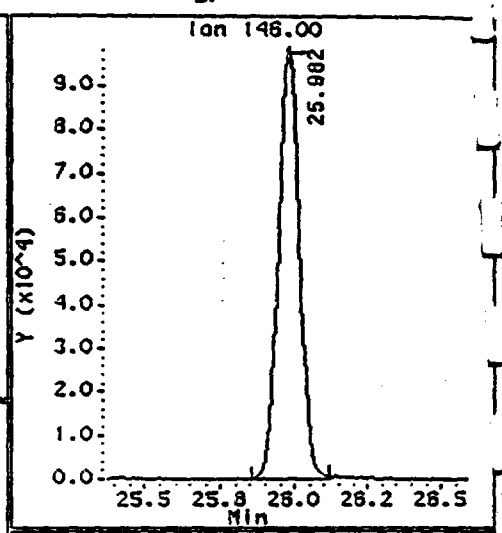
82 1,2-Dichlorobenzene

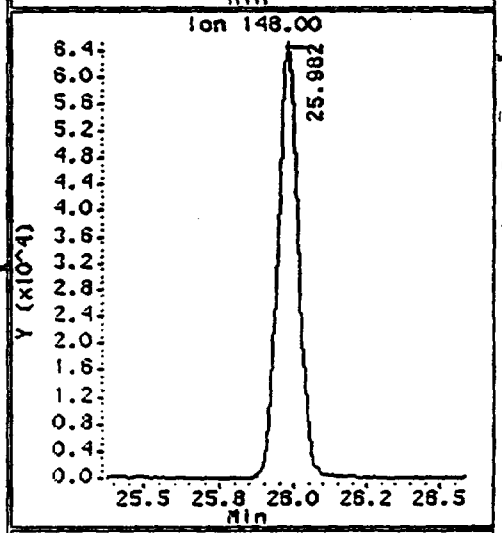


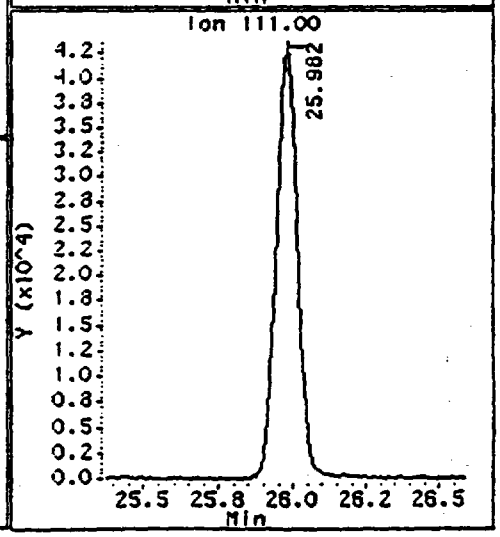












Data File: /chem/msdj.i/j-27may.b/j052709.d

Date : 27-MAY-1997 14:45

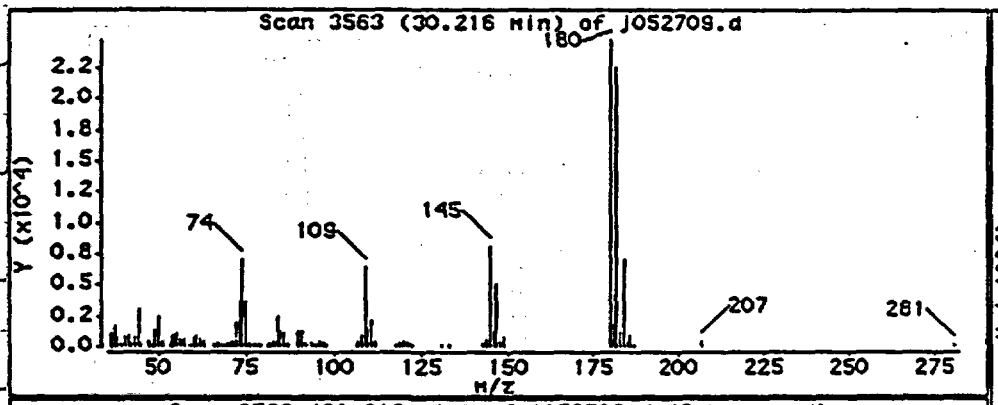
Client ID: Level 3 Instrument: msdj.i

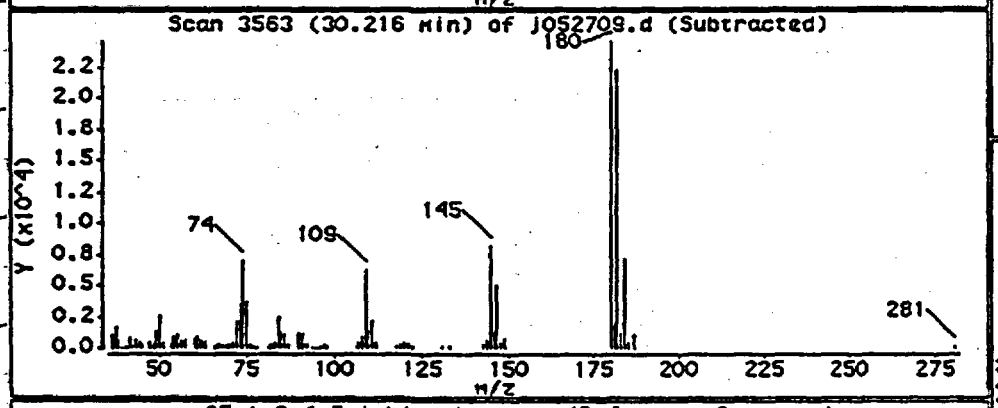
Sample Info: 12.5mL#315-57 200ppbv T014 Std. (5ppbv)

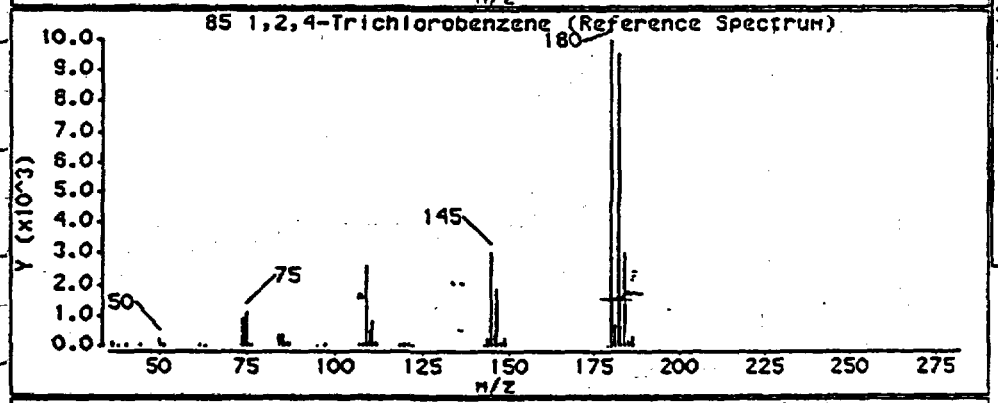
Operator: MH

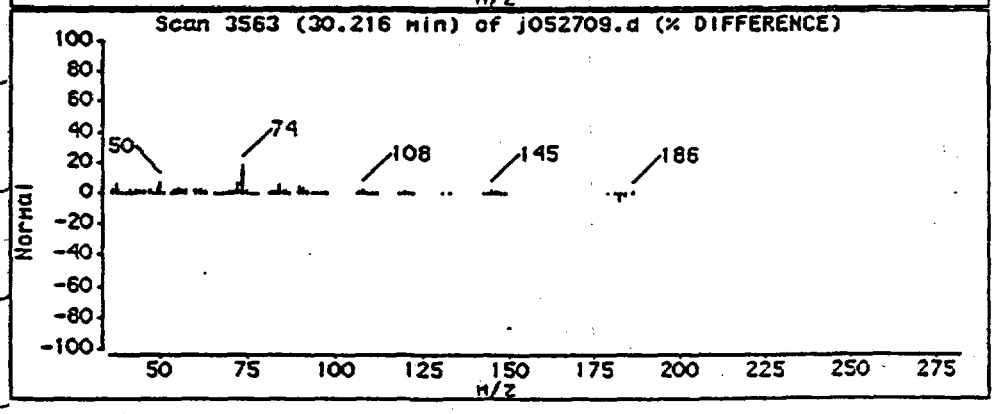
Column phase: RTx-624 Column diameter: 0.58

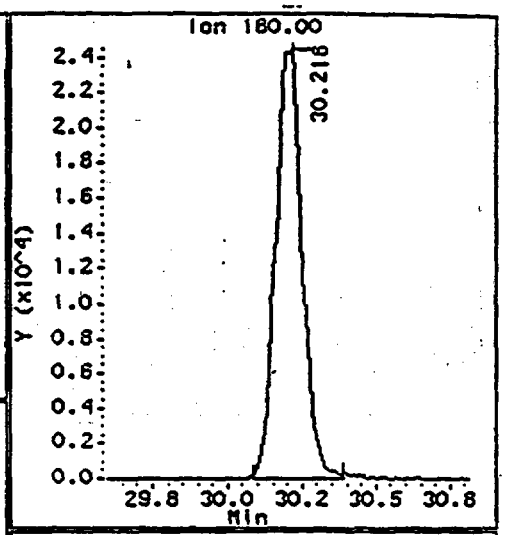
85 1,2,4-Trichlorobenzene

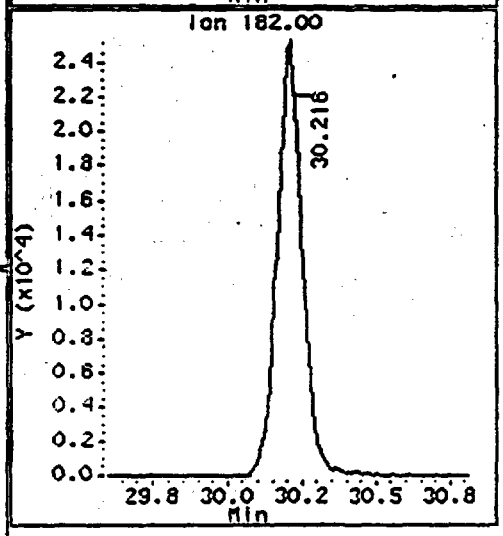












Data File: /chem/msdj.i/j-27may.b/j052709.d

Date : 27-MAY-1997 14:45

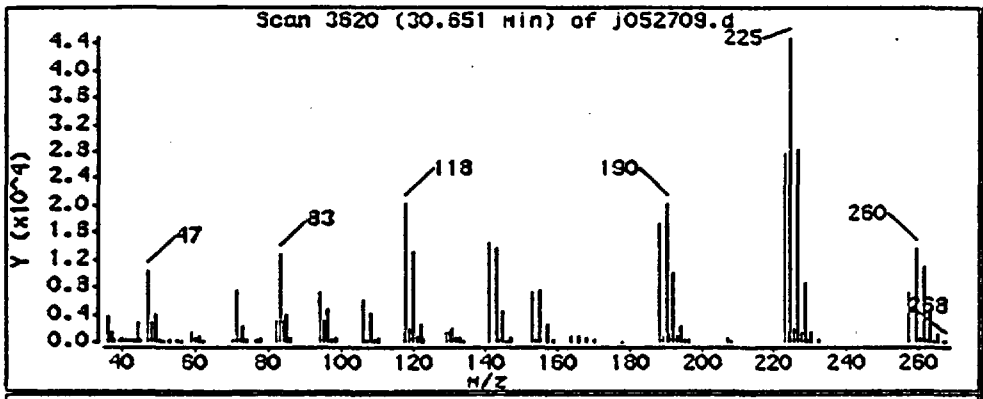
Client ID: Level 3 Instrument: msdj.i

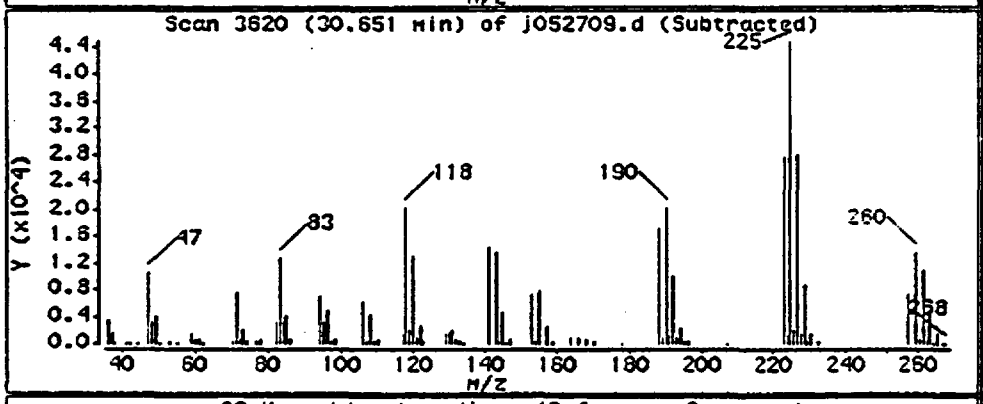
Sample Info: 12.5mL#315-57 200ppbv T014 Std. (5ppbv)

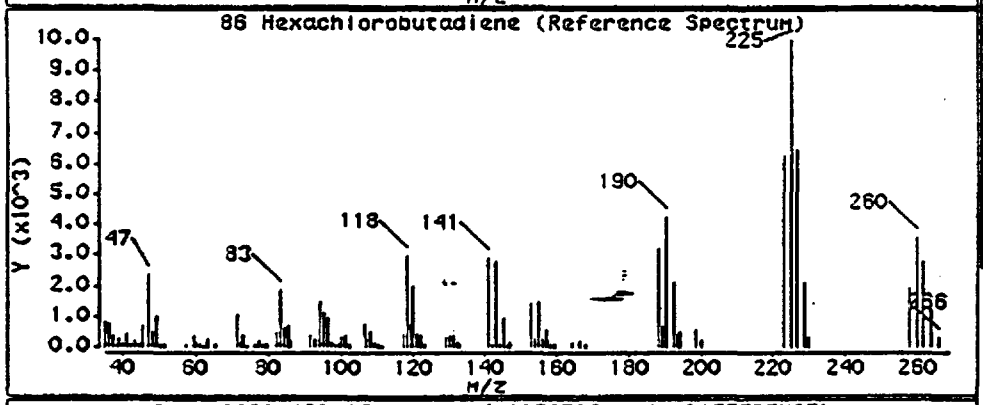
Operator: MH

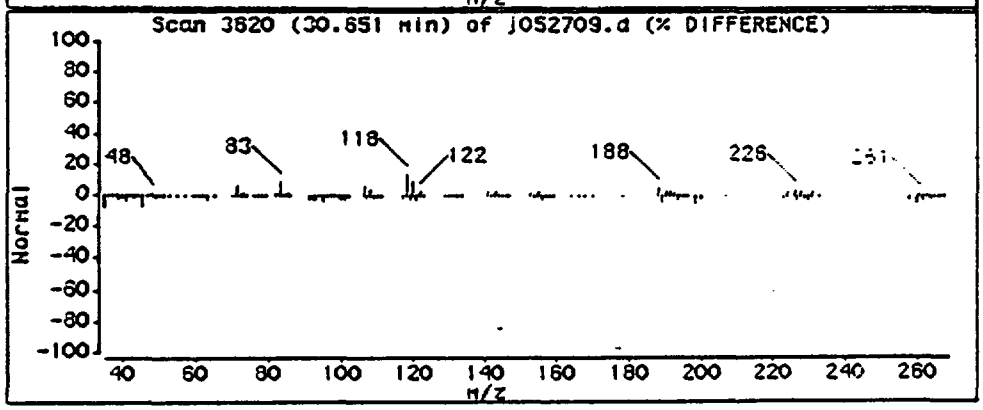
Column phase: RTx-624 Column diameter: 0.58

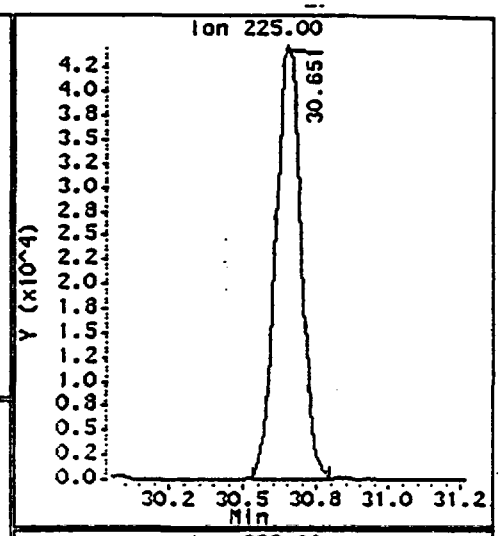
86 Hexachlorobutadiene

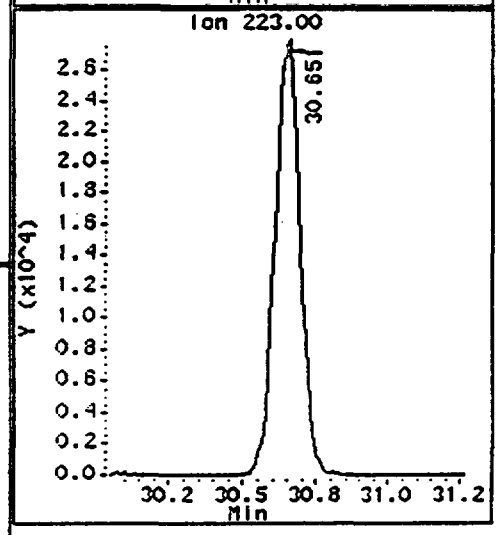












Data File: /chem/msdj.i/j-27may.b/j052709.d

Date : 27-MAY-1997 14:45

Instrument: msdj.i

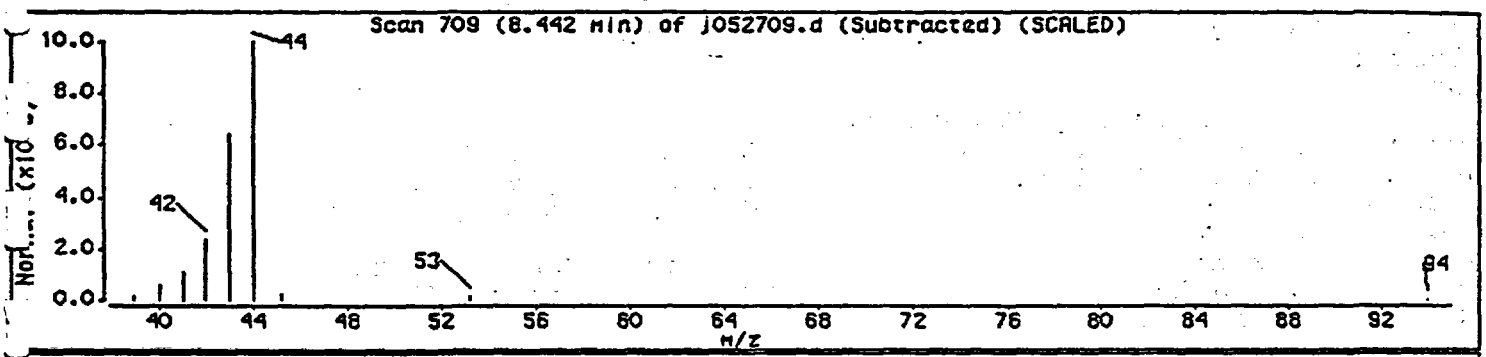
Client ID: Level 3

Column phase: RTx-624

Column diameter: 0.58

0189

Library Search Compound Match	CAS Number	Library	Lib Entry	Quality
Unknown			0	0



Air Toxics Limited

AMBIENT AIR METHOD TO14

Data file : /chem/msdj.i/j-27may.b/j052710.d
Lab Smp Id: Client Smp ID: VSTD150
Inj Date : 27-MAY-1997 15:33
Operator : MH Inst ID: msdj.i
Smp Info : 25mL#315-57 200ppbv TO14 Std. (10ppbv)
Misc Info :
Comment :
Method : /chem/msdj.i/j-27may.b/to140527.m
Meth Date : 27-May-1997 15:58 mhe Quant Type: ISTD
Cal Date : 27-MAY-1997 14:45 Cal File: j052709.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
* 32 Bromochloromethane					CAS #: 74-97-5			
15.699	15.699 (1.000)	130	168894	5.0			100.00	9434(a)
15.699	15.699 (0.000)	128	39728			29.71- 129.71	23.52	
15.699	15.699 (0.000)	49	67376			85.18- 185.18	39.89	
* 42 1,4-Difluorobenzene					CAS #: 540-36-3			
17.034	17.034 (1.000)	114	760541	5.0			100.00	9672
17.034	17.034 (0.000)	88	40008			0.00- 67.09	5.26	
* 62 Chlorobenzene-d5					CAS #: 3114-55-4			
21.100	21.100 (1.000)	117	810653	5.0			100.00	9968
21.100	21.100 (0.000)	82	119218			3.25- 103.25	14.71	
$ 37 Octafluorotoluene					CAS #: 434-64-0			
16.240	16.240 (1.034)	217	556111	5.0	5.0		100.00	6796
16.240	16.240 (0.000)	186	107184			8.78- 108.78	19.27	
$ 50 Toluene-d8					CAS #: 2037-26-5			
19.048	19.048 (1.118)	98	717121	5.0	5.0		100.00	9980
19.048	19.048 (0.000)	70	24828			0.00- 61.62	3.46	
19.048	19.048 (0.000)	100	147604			19.06- 119.06	20.58	

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
$ 71 Bromofluorobenzene					CAS #: 460-00-4			
22.916	22.916 (1.086)	95	650960	5.0	5.0		100.00	8855(Q)
22.916	22.916 (0.000)	174	121424			26.29- 126.29	18.65	
22.916	22.916 (0.000)	176	117688			23.94- 123.94	18.08	
1 Propylene					CAS #: 115-07-1			
4.117	4.117 (0.262)	41	72359	10.0	9.7		100.00	7686(Q)
4.117	4.117 (0.000)	42	6158			11.39- 111.39	8.51	
4.117	4.117 (0.000)	39	9241			42.12- 142.12	12.77	
2 Dichlorodifluoromethane/FR 12					CAS #: 75-71-8			
4.644	4.644 (0.296)	85	637183	10.0	9.9		100.00	9148
4.644	4.644 (0.000)	87	19992			0.00- 80.85	3.14	
3 Freon 114					CAS #: 76-14-2			
6.292	6.292 (0.401)	135	491302	10.0	9.9		100.00	8783
6.292	6.292 (0.000)	137	15767			0.00- 79.30	3.21	
4 Chloromethane					CAS #: 74-87-3			
6.414	6.414 (0.409)	50	261265	10.0	9.8		100.00	6237(M)
6.414	6.414 (0.409)	52	8800			0.00- 75.63	3.37	
5 Vinyl Chloride					CAS #: 75-01-4			
7.474	7.474 (0.476)	62	205011	10.0	10.1		100.00	4509
7.474	7.474 (0.000)	64	10807			0.00- 85.46	5.27	
6 1,3-Butadiene					CAS #: 106-99-0			
7.802	7.802 (0.497)	54	126099	10.0	10.2		100.00	6554(Q)
7.802	7.802 (0.000)	39	25590			53.02- 153.02	20.29	
7 Bromomethane					CAS #: 74-83-9			
9.305	9.305 (0.593)	94	61957	10.0	10.9		100.00	6526(Q)
9.305	9.305 (0.000)	96	13799			45.00- 145.00	22.27	
8 Chloroethane					CAS #: 75-00-3			
9.885	9.885 (0.630)	64	123758	10.0	9.7		100.00	4019
9.885	9.885 (0.000)	66	8453			0.00- 79.53	6.83	
9 Trichlorofluoromethane/FR 11					CAS #: 75-69-4			
10.831	10.831 (0.690)	101	772395	10.0	9.7		100.00	8984
10.831	10.831 (0.000)	103	117856			13.39- 113.39	15.26	
11 Ethanol					CAS #: 64-17-5			
11.838	11.838 (0.754)	45	70209	10.0	11.2		100.00	
11.846	11.846 (0.755)	46	29629			0.00- 92.20	42.20	
11.838	11.838 (0.754)	43	14648			0.00- 70.86	20.86	
13 1,1-Dichloroethene					CAS #: 75-35-4			
12.220	12.220 (0.778)	96	287913	10.0	10.3		100.00	8928(Q)

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
13 1,1-Dichloroethene (continued)								
12.220	12.220 (0.000)	61	145664			118.20- 218.20	50.59	
12.220	12.220 (0.000)	98	57536			16.44- 116.44	19.98	
14 Freon 113					CAS #: 76-13-1			
12.311	12.311 (0.784)	151	533651	10.0	9.9		100.00	8335(Q)
12.311	12.311 (0.000)	153	83504			14.66- 114.66	15.65	
12.311	12.311 (0.000)	101	170880			82.31- 182.31	32.02	
17 Carbon Disulfide					CAS #: 75-15-0			
12.578	12.578 (0.801)	76	905455	10.0	10.2		100.00	7891
15 Acetone					CAS #: 67-64-1			
12.448	12.448 (0.793)	43	461844	10.0	8.7		100.00	
12.448	12.448 (0.793)	58	145800			0.00- 81.57	31.57	
18 2-Propanol					CAS #: 67-63-0			
12.921	12.921 (0.823)	45	408281	10.0	10.5		100.00	7544
12.921	12.921 (0.000)	43	19404			0.00- 69.89	4.75	
12.921	12.921 (0.000)	59	4893			0.00- 55.02	1.20	
21 Methylene Chloride					CAS #: 75-09-2			
13.295	13.295 (0.847)	84	296487	10.0	9.9		100.00	9201(Q)
13.295	13.295 (0.000)	49	111128			74.56- 174.56	37.48	
13.295	13.295 (0.000)	51	36133			0.00- 90.50	12.19	
23 trans-1,2-Dichloroethene					CAS #: 156-60-5			
13.776	13.776 (0.878)	96	327391	10.0	10		100.00	8244(Q)
13.776	13.776 (0.000)	61	149376			91.71- 191.71	45.63	
13.776	13.776 (0.000)	98	66024			12.64- 112.64	20.17	
24 MTBE					CAS #: 1634-04-4			
13.761	13.761 (0.877)	73	865279	10.0	10.4		100.00	6063
13.761	13.761 (0.000)	57	50392			0.00- 70.95	5.82	
13.761	13.761 (0.000)	41	47463			0.00- 69.73	5.49	
25 Hexane					CAS #: 110-54-3			
14.203	14.203 (0.905)	57	556017	10.0	10.2		100.00	7287
14.203	14.203 (0.000)	43	103480			6.89- 106.89	18.61	
14.203	14.203 (0.000)	56	94657			2.04- 102.04	17.02	
26 1,1-Dichloroethane					CAS #: 75-34-3			
14.463	14.463 (0.921)	63	606310	10.0	10.1		100.00	6394
14.463	14.463 (0.000)	65	63880			0.00- 84.34	10.54	
28 Chloroprene					CAS #: 126-99-8			
14.600	14.600 (0.930)	53	209483	10.0	10.4		100.00	7782
14.600	14.600 (0.000)	88	35664			3.61- 103.61	17.02	

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
28 Chloroprene (continued)								
4.600	14.600 (0.000)	50	17380			0.00- 76.13	8.30	
27 Vinyl Acetate					CAS #: 108-05-4			
4.539	14.539 (0.926)	43	699557	10.0	11.0		100.00	6134
4.539	14.539 (0.000)	86	19992			0.00- 60.39	2.86	
30 cis-1,2-Dichloroethene					CAS #: 156-59-2			
5.348	15.348 (0.978)	96	382002	10.0	10.2		100.00	8195(Q)
15.348	15.348 (0.000)	61	153943			82.34- 182.34	40.30	
15.348	15.348 (0.000)	98	73608			13.28- 113.28	19.27	
29 2-Butanone					CAS #: 78-93-3			
15.340	15.340 (0.977)	72	172698	10.0	10.2		100.00	7912(Q)
15.340	15.340 (0.000)	43	187014			326.68- 426.68	108.29	
5.340	15.340 (0.000)	57	14130			0.00- 78.46	8.18	
34 Chloroform					CAS #: 67-66-3			
15.790	15.790 (1.006)	83	715469	10.0	10.1		100.00	8243
5.790	15.790 (0.000)	85	145024			15.04- 115.04	20.27	
33 Tetrahydrofuran					CAS #: 109-99-9			
15.767	15.767 (1.004)	42	286780	10.0	10.5		100.00	7445
5.767	15.767 (0.000)	71	35056			0.00- 94.74	12.22	
15.767	15.767 (0.000)	72	39618			0.57- 100.57	13.81	
35 1,1,1-Trichlorethane					CAS #: 71-55-6			
6.057	16.057 (1.023)	97	724395	10.0	10		100.00	7473
16.057	16.057 (0.000)	99	138688			14.76- 114.76	19.15	
36 Cyclohexane					CAS #: 110-82-7			
6.141	16.141 (1.028)	56	605172	10.0	10.1		100.00	8043(Q)
16.141	16.141 (0.000)	84	141501			28.07- 128.07	23.38	
16.141	16.141 (0.000)	41	90352			0.00- 99.85	14.93	
38 Carbon Tetrachloride					CAS #: 56-23-5			
16.309	16.309 (1.039)	119	740000	10.0	10		100.00	8894(Q)
16.309	16.309 (0.000)	117	209312			44.66- 144.66	28.29	
39 Benzene					CAS #: 71-43-2			
16.584	16.584 (0.974)	78	1150781	10.0	9.9		100.00	7982
16.584	16.584 (0.000)	77	82349			0.00- 73.15	7.16	
40 1,2-Dichloroethane					CAS #: 107-06-2			
16.591	16.591 (0.974)	62	503777	10.0	10.1		100.00	6406
16.591	16.591 (0.000)	64	48584			0.00- 82.42	9.64	
41 Heptane					CAS #: 142-82-5			
16.828	16.828 (0.988)	43	690162	10.0	9.8		100.00	7601

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
41 Heptane (continued)								
16.828	16.828 (0.000)	57	132288			6.71- 106.71	19.17	
16.828	16.828 (0.000)	71	144259			11.84- 111.84	20.90	
43 Trichloroethene					CAS #: 79-01-6			
17.430	17.430 (1.023)	95	527881	10.0	10.0		100.00	8394(Q)
17.430	17.430 (0.000)	130	160064			50.36- 150.36	30.32	
17.430	17.430 (0.000)	97	104416			15.47- 115.47	19.78	
44 1,2-Dichloropropane					CAS #: 78-87-5			
17.736	17.736 (1.041)	63	452209	10.0	10.0		100.00	8675(Q)
17.736	17.736 (0.000)	62	102593			23.36- 123.36	22.69	
17.736	17.736 (0.000)	41	70879			0.69- 100.69	15.67	
45 1,4-Dioxane					CAS #: 123-91-1			
17.888	17.888 (1.050)	88	284339	10.0	10.7		100.00	2827
17.888	17.888 (0.000)	58	59717			20.71- 120.71	21.00	
17.888	17.888 (0.000)	57	18711			0.00- 72.15	6.58	
46 Bromodichloromethane					CAS #: 75-27-4			
18.086	18.086 (1.062)	83	841340	10.0	10.1		100.00	9268
18.086	18.086 (0.000)	85	164672			15.89- 115.89	19.57	
48 cis-1,3-Dichloropropene					CAS #: 10061-01-5			
18.666	18.666 (1.096)	75	732592	10.0	10.2		100.00	9190
18.666	18.666 (0.000)	77	70114			0.00- 82.03	9.57	
18.666	18.666 (0.000)	39	98829			0.00- 95.15	13.49	
49 4-Methyl-2-pentanone					CAS #: 108-10-1			
18.788	18.788 (1.103)	43	884135	10.0	10.4		100.00	6725
18.788	18.788 (0.000)	58	114462			0.00- 91.69	12.95	
18.788	18.788 (0.000)	85	42333			0.00- 65.42	4.79	
52 Toluene					CAS #: 108-88-3			
19.139	19.139 (1.124)	92	950555	10.0	10.1		100.00	8604(Q)
19.139	19.139 (0.000)	91	463424			113.30- 213.30	48.75	
53 trans-1,3-Dichloropropene					CAS #: 10061-02-6			
19.383	19.383 (0.919)	75	623496	10.0	10.4		100.00	8419
19.383	19.383 (0.000)	77	58976			0.00- 81.75	9.46	
19.383	19.383 (0.000)	39	82008			0.00- 94.16	13.15	
55 1,1,2-Trichloroethane					CAS #: 79-00-5			
19.666	19.666 (0.932)	97	528421	10.0	10.2		100.00	8955(Q)
19.666	19.666 (0.000)	99	95480			13.16- 113.16	18.07	
19.666	19.666 (0.000)	83	127976			34.65- 134.65	24.22	
58 Tetrachloroethene					CAS #: 127-18-4			
19.917	19.917 (0.944)	166	736583	10.0	10		100.00	9342(Q)

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
58 Tetrachloroethene (continued)								
19.917	19.917 (0.000)	129	154496			21.57- 121.57	20.97	
19.917	19.917 (0.000)	131	151424			20.15- 120.15	20.56	
57 2-Hexanone					CAS #: 591-78-6			
19.895	19.895 (0.943)	43	960155	10.0	11.2		100.00	8738
19.895	19.895 (0.000)	58	161663			7.81- 107.81	16.84	
19.895	19.895 (0.000)	100	33563			0.00- 62.00	3.50	
60 Dibromochloromethane					CAS #: 124-48-1			
20.261	20.261 (0.960)	129	830639	10.0	10.3		100.00	8952
20.261	20.261 (0.000)	208	14226			0.00- 56.05	1.71	
61 1,2-Dibromoethane					CAS #: 106-93-4			
20.474	20.474 (0.970)	107	805739	10.0	10.2		100.00	5533(a)
20.474	20.474 (0.000)	109	215424			48.05- 148.05	26.74	
63 Chlorobenzene					CAS #: 108-90-7			
21.146	21.146 (1.002)	112	1369188	10.0	10.1		100.00	9282
21.146	21.146 (0.000)	114	119240			0.00- 82.25	8.71	
21.146	21.146 (0.000)	77	214691			8.06- 108.06	15.68	
64 Ethyl Benzene					CAS #: 100-41-4			
21.230	21.230 (1.006)	106	814557	10.0	10.3		100.00	
21.230	21.230 (1.006)	91	2596123			268.72- 368.72	318.72	
65 m,p-Xylene					CAS #: 108-38-3			
21.390	21.390 (1.014)	106	1851501	20.0	20.7		100.00	
21.390	21.390 (1.014)	91	3689576			149.27- 249.27	199.27	
67 o-Xylene					CAS #: 95-47-6			
22.031	22.031 (1.044)	106	682114	10.0	10.3		100.00	8027(a)
22.031	22.031 (0.000)	91	382476			157.65- 257.65	56.07	
68 Styrene					CAS #: 100-42-5			
22.046	22.046 (1.045)	104	1107627	10.0	10.6		100.00	8998
22.046	22.046 (0.000)	78	133020			0.00- 95.23	12.01	
69 Bromoform					CAS #: 75-25-2			
22.443	22.443 (1.064)	171	443086	10.0	10.4		100.00	9136(a)
22.443	22.443 (0.000)	173	204288			135.19- 235.19	46.11	
72 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5			
23.061	23.061 (1.093)	83	1268716	10.0	10.2		100.00	9144
23.061	23.061 (0.000)	85	197525			13.47- 113.47	15.57	
74 4-Ethyltoluene					CAS #: 622-96-8			
23.465	23.465 (1.112)	105	1699743	10.0	10.3		100.00	9224

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
74 4-Ethyltoluene (continued)								
23.465	23.465 (0.000)	120	112475			0.00- 79.01	6.62	
75 1,3,5-Trimethylbenzene					CAS #: 108-67-8			
23.549	23.549 (1.116)	105	1091479	10.0	10		100.00	9355(Q)
23.549	23.549 (0.000)	120	76608			7.58- 107.58	7.02	
76 1,2,4-Trimethylbenzene					CAS #: 95-63-6			
24.281	24.281 (1.151)	105	976314	10.0	10.2		100.00	8722
24.281	24.281 (0.000)	120	104830			0.00- 94.21	10.74	
79 1,3-Dichlorobenzene					CAS #: 541-73-1			
24.976	24.976 (1.184)	146	1038953	10.0	10.0		100.00	
24.968	24.968 (1.183)	148	665614			14.07- 114.07	64.07	
24.968	24.968 (1.183)	111	440497			0.00- 92.40	42.40	
80 1,4-Dichlorobenzene					CAS #: 106-46-7			
24.976	24.976 (1.184)	146	1038953	10.0	10.4		100.00	9417
24.976	24.976 (0.000)	148	144256			12.68- 112.68	13.88	
24.976	24.976 (0.000)	111	91992			0.00- 89.97	8.85	
81 Benzyl Chloride					CAS #: 100-44-7			
25.380	25.380 (1.203)	91	1509367	10.0	10.5		100.00	9471
25.380	25.380 (0.000)	126	64984			0.00- 69.82	4.31	
82 1,2-Dichlorobenzene					CAS #: 95-50-1			
25.983	25.983 (1.231)	146	958876	10.0	10.1		100.00	9392(Q)
25.983	25.983 (0.000)	148	124632			14.48- 114.48	13.00	
25.983	25.983 (0.000)	111	85168			0.00- 94.06	8.88	
85 1,2,4-Trichlorobenzene					CAS #: 120-82-1			
30.209	30.209 (1.432)	180	317630	10.0	9.9		100.00	9080(Q)
30.209	30.209 (0.000)	182	50224			46.99- 146.99	15.81	
86 Hexachlorobutadiene					CAS #: 87-68-3			
30.659	30.659 (1.453)	225	528556	10.0	10.2		100.00	9395(Q)
30.659	30.659 (0.000)	223	55306			12.07- 112.07	10.46	

QC Flag Legend

Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: /chem/msdj.i/j-27may.b/j052710.d
Report Date: 27-May-1997 16:00

Air Toxics Limited

0197

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdj.i
Lab File ID: j052710.d
Lab Smp Id:
Analysis Type: VOA
Quant Type: ISTD
Operator: MH
Method File: /chem/msdj.i/j-27may.b/to140527.m
Misc Info:

Calibration Date: 05/27/97
Calibration Time: 1445
Client Smp ID: VSTB150
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	% DIFF
32 Bromochloromethane	166547	99928	233166	168894	1.41
42 1,4-Difluorobenzene	763110	457866	1068354	760541	-0.34
62 Chlorobenzene-d5	806867	484120	1129614	810653	0.47

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	% DIFF
32 Bromochloromethane	15.70	15.20	16.20	15.70	0.01
42 1,4-Difluorobenzene	17.03	16.53	17.53	17.03	0.01
62 Chlorobenzene-d5	21.10	20.60	21.60	21.10	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.

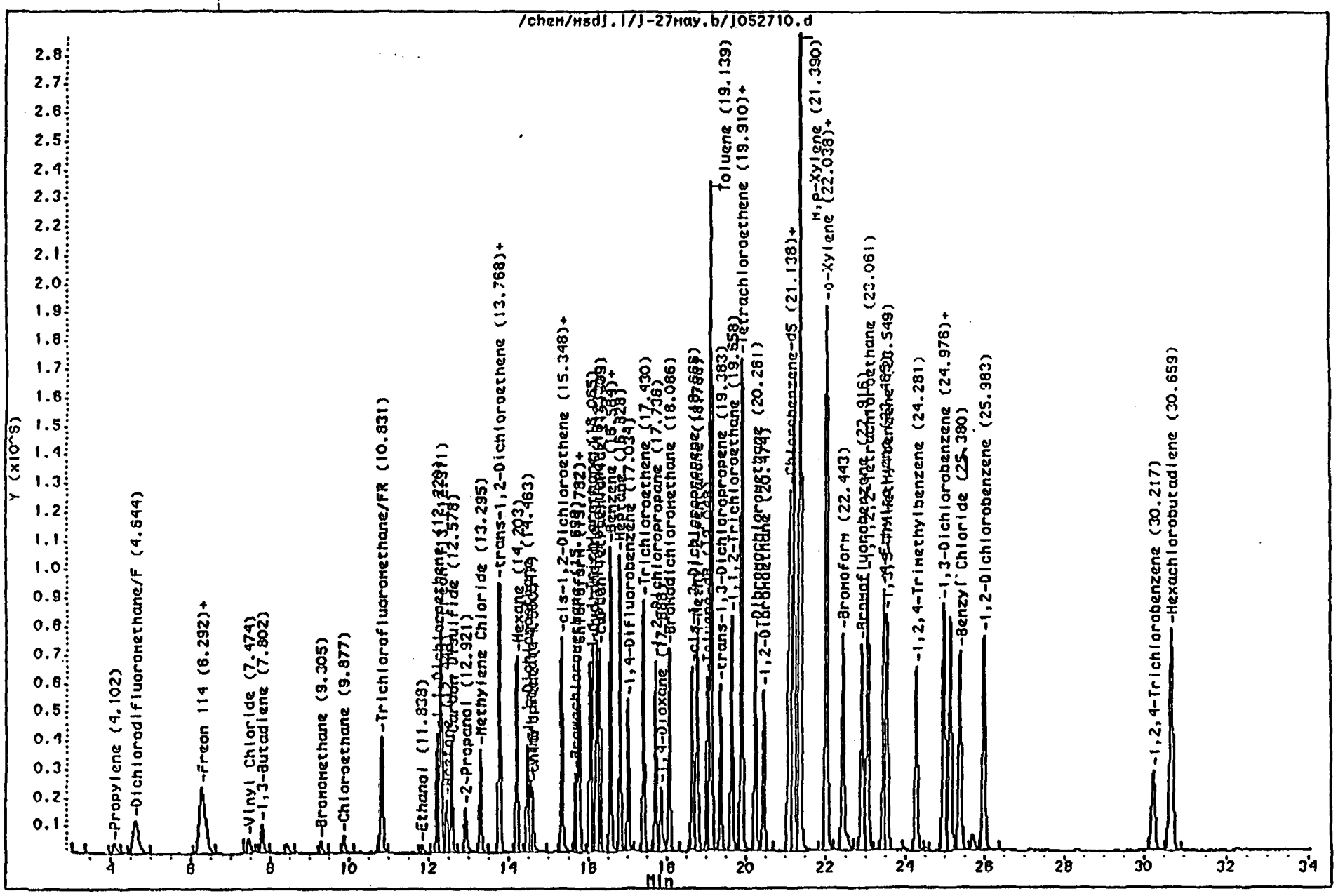
1198

Data File: /chem/msdj.i/j-27may.b/j052710.d
Date : 27-MAY-1997 15:33
Client ID: VSTD150
Sample Info: 25MLM315-57 200ppbv TO14 Std. (10ppbv)

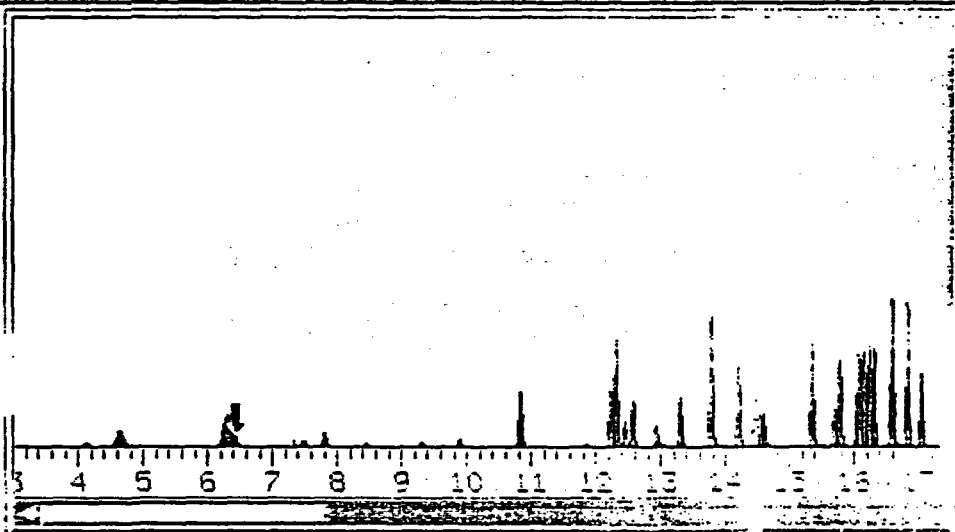
Column phase: RTx-624

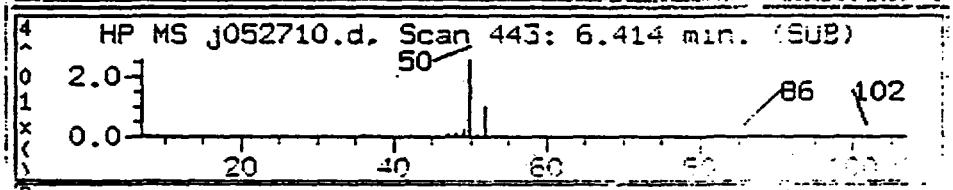
Instrument: msdj.i

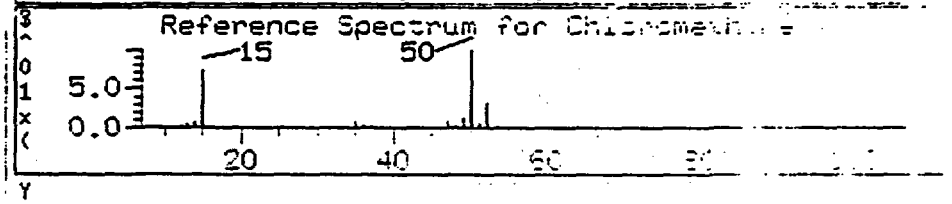
Operator: MH
Column diameter: 0.58

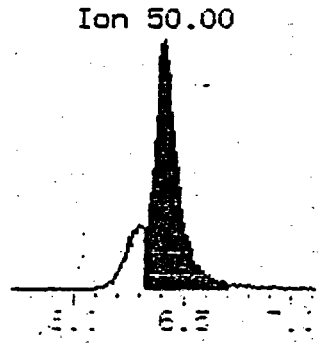


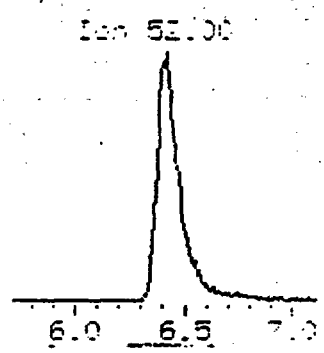
Target Review: Host calvin











Hit#	RT(min)	Response	Amount	Conc	Ratio	Flags
1	6.414	261265	9.80	9.80	100	M
	6.414	8800				

- Mark Chloromethane Undetected.

Air Toxics Limited

AMBIENT AIR METHOD TO14

Data file : /chem/msdj.i/j-27may.b/j052704.d
Lab Smp Id: Client Smp ID: VSTD150
Inj Date : 27-MAY-1997 10:54
Operator : MH Inst ID: msdj.i
Smp Info : 62.5mL #315-57 200ppbv TO14 Std. (25ppbv)
Misc Info :
Comment :
Method : /chem/msdj.i/j-27may.b/to140527.m
Meth Date : 27-May-1997 12:22 mhe Quant Type: ISTD
Cal Date : 27-MAY-1997 10:54 Cal File: j052704.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 4.000
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
* 32 Bromochloromethane					CAS #: 74-97-5			
15.691	15.691 (1.000)	130	171489	5.0			100.00	9266(Q)
15.691	15.691 (0.000)	128	41664			27.34- 127.34	24.30	
15.691	15.691 (0.000)	49	64311			69.38- 169.38	37.50	
* 42 1,4-Difluorobenzene					CAS #: 540-36-3			
17.026	17.026 (1.000)	114	777990	5.0			100.00	9701
17.026	17.026 (0.000)	88	40120			0.00- 66.20	5.16	
* 62 Chlorobenzene-d5					CAS #: 3114-55-4			
21.085	21.085 (1.000)	117	851252	5.0			100.00	9901
21.085	21.085 (0.000)	82	126114			4.31- 104.31	14.82	
$ 37 Octafluorotoluene					CAS #: 434-64-0			
16.225	16.225 (1.034)	217	570685	5.0	5.0		100.00	6736
16.225	16.225 (0.000)	186	111872			11.25- 111.25	19.60	
$ 50 Toluene-d8					CAS #: 2037-26-5			
19.040	19.040 (1.118)	98	738955	5.0	4.9		100.00	9966
19.040	19.040 (0.000)	70	27426			0.00- 62.04	3.71	
19.040	19.040 (0.000)	100	154897			18.00- 118.00	20.96	

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
71 Bromofluorobenzene					CAS #: 460-00-4			
22.901	22.901 (1.086)	95	680847	5.0	5.0		100.00	8880(Q)
22.901	22.901 (0.000)	174	129696			26.98- 126.98	19.05	
22.901	22.901 (0.000)	176	128088			26.03- 126.03	18.81	
1 Propylene					CAS #: 115-07-1			
4.110	4.110 (0.262)	41	180321	25.0	23.8		100.00	7670(Q)
4.110	4.110 (0.000)	42	15642			13.71- 113.71	8.67	
4.110	4.110 (0.000)	39	23435			45.46- 145.46	13.00	
2 Dichlorodifluoromethane/FR 12					CAS #: 75-71-8			
4.629	4.629 (0.295)	85	1593421	25.0	24.9		100.00	9159
4.629	4.629 (0.000)	87	51256			0.00- 81.21	3.22	
3 Freon 114					CAS #: 76-14-2			
6.292	6.292 (0.401)	135	1219479	25.0	24.7		100.00	8709
6.292	6.292 (0.000)	137	39824			0.00- 81.30	3.27	
4 Chloromethane					CAS #: 74-87-3			
6.399	6.399 (0.408)	50	639960	25.0	24.8		100.00	6208
6.399	6.399 (0.000)	52	29160			0.00- 88.75	4.56	
5 Vinyl Chloride					CAS #: 75-01-4			
7.452	7.452 (0.475)	62	514787	25.0	24.2		100.00	4504
7.452	7.452 (0.000)	64	24800			0.00- 80.45	4.82	
6 1,3-Butadiene					CAS #: 106-99-0			
7.780	7.780 (0.496)	54	335930	25.0	24.6		100.00	6554(Q)
7.780	7.780 (0.000)	39	90944			46.50- 146.50	27.07	
7 Bromomethane					CAS #: 74-83-9			
9.298	9.298 (0.593)	94	99629	25.0	19.6		100.00	6596(Q)
9.298	9.298 (0.000)	96	22536			44.21- 144.21	22.62	
8 Chloroethane					CAS #: 75-00-3			
9.870	9.870 (0.629)	64	304841	25.0	24.5		100.00	4019
9.870	9.870 (0.000)	66	21696			0.00- 80.41	7.12	
9 Trichlorofluoromethane/FR 11					CAS #: 75-69-4			
10.824	10.824 (0.690)	101	1903771	25.0	25.0		100.00	8973(Q)
10.824	10.824 (0.000)	103	295870			16.07- 116.07	15.54	
11 Ethanol					CAS #: 64-17-5			
11.816	11.816 (0.753)	45	189794	25.0	31.4		100.00	(M)
11.816	11.816 (0.753)	46	80570			0.00- 92.45	42.45	
11.816	11.816 (0.753)	43	43164			0.00- 72.74	22.74	
13 1,1-Dichloroethene					CAS #: 75-35-4			
12.205	12.205 (0.778)	96	698353	25.0	25.2		100.00	8917(Q)

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
13 1,1-Dichloroethene (continued)								
12.205	12.205 (0.000)	61	351296			118.37- 218.37	50.30	
12.205	12.205 (0.000)	98	135296			14.85- 114.85	19.37	
14 Freon 113					CAS #: 76-13-1			
12.296	12.296 (0.784)	151	1313815	25.0	25.3		100.00	8375(Q)
12.296	12.296 (0.000)	153	206400			14.50- 114.50	15.71	
12.296	12.296 (0.000)	101	401024			75.32- 175.32	30.52	
17 Carbon Disulfide					CAS #: 75-15-0			
12.563	12.563 (0.801)	76	2199471	25.0	25.2		100.00	7869
15 Acetone					CAS #: 67-64-1			
12.433	12.433 (0.792)	43	1125262	25.0	24.1		100.00	
12.433	12.433 (0.792)	58	358472			0.00- 81.86	31.86	
18 2-Propanol					CAS #: 67-63-0			
12.914	12.914 (0.823)	45	1060399	25.0	24.5		100.00	7544
12.914	12.914 (0.000)	43	53473			0.00- 69.66	5.04	
12.914	12.914 (0.000)	59	12081			0.00- 54.44	1.14	
21 Methylene Chloride					CAS #: 75-09-2			
13.280	13.280 (0.846)	84	703220	25.0	25.1		100.00	9121(Q)
13.280	13.280 (0.000)	49	269504			69.19- 169.19	38.32	
13.280	13.280 (0.000)	51	84592			0.00- 87.41	12.03	
23 trans-1,2-Dichloroethene					CAS #: 156-60-5			
13.761	13.761 (0.877)	96	785938	25.0	25.4		100.00	8246(Q)
13.761	13.761 (0.000)	61	370375			93.27- 193.27	47.13	
13.761	13.761 (0.000)	98	164736			13.72- 113.72	20.96	
24 MTBE					CAS #: 1634-04-4			
13.761	13.761 (0.877)	73	2185045	25.0	25.2		100.00	6044
13.761	13.761 (0.000)	57	134400			0.00- 71.90	6.15	
13.761	13.761 (0.000)	41	115560			0.00- 68.83	5.29	
25 Hexane					CAS #: 110-54-3			
14.196	14.196 (0.905)	57	1312696	25.0	25.3		100.00	7287
14.196	14.196 (0.000)	43	242658			7.05- 107.05	18.49	
14.196	14.196 (0.000)	56	224640			2.82- 102.82	17.11	
26 1,1-Dichloroethane					CAS #: 75-34-3			
14.455	14.455 (0.921)	63	1484140	25.0	25.3		100.00	6395
14.455	14.455 (0.000)	65	142566			0.00- 81.23	9.61	
28 Chloroprene					CAS #: 126-99-8			
14.585	14.585 (0.929)	53	524740	25.0	24.9		100.00	7570
14.585	14.585 (0.000)	88	87432			3.03- 103.03	16.66	

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
28 Chloroprene (continued)								
14.585	14.585 (0.000)	50	40199			0.00- 74.38	7.66	
27 Vinyl Acetate					CAS #: 108-05-4			
14.531	14.531 (0.926)	43	1778071	25.0	24.7		100.00	6124
14.531	14.531 (0.000)	86	55045			0.00- 60.10	3.10	
30 cis-1,2-Dichloroethene					CAS #: 156-59-2			
15.340	15.340 (0.978)	96	922124	25.0	25.4		100.00	8185(Q)
15.340	15.340 (0.000)	61	384780			81.93- 181.93	41.73	
15.340	15.340 (0.000)	98	185024			13.44- 113.44	20.06	
29 2-Butanone					CAS #: 78-93-3			
15.325	15.325 (0.977)	72	428767	25.0	25.0		100.00	7910(Q)
15.325	15.325 (0.000)	43	482222			326.83- 426.83	112.47	
15.325	15.325 (0.000)	57	40023			0.00- 81.28	9.33	
34 Chloroform					CAS #: 67-66-3			
15.775	15.775 (1.005)	83	1757454	25.0	25.4		100.00	8406
15.775	15.775 (0.000)	85	353088			15.21- 115.21	20.09	
33 Tetrahydrofuran					CAS #: 109-99-9			
15.752	15.752 (1.004)	42	701743	25.0	25.3		100.00	7488
15.752	15.752 (0.000)	71	93196			0.00- 97.10	13.28	
15.752	15.752 (0.000)	72	102470			1.79- 101.79	14.60	
35 1,1,1-Trichlorethane					CAS #: 71-55-6			
16.050	16.050 (1.023)	97	1803234	25.0	25.1		100.00	7453
16.050	16.050 (0.000)	99	354880			16.15- 116.15	19.68	
36 Cyclohexane					CAS #: 110-82-7			
16.134	16.134 (1.028)	56	1465588	25.0	25.1		100.00	8004(Q)
16.134	16.134 (0.000)	84	352594			30.47- 130.47	24.06	
16.134	16.134 (0.000)	41	215058			0.00- 99.08	14.67	
38 Carbon Tetrachloride					CAS #: 56-23-5			
16.294	16.294 (1.038)	119	1880063	25.0	25.1		100.00	8730(QH)
16.294	16.294 (0.000)	117	583907			54.52- 154.52	31.06	
39 Benzene					CAS #: 71-43-2			
16.569	16.569 (0.973)	78	2795081	25.0	24.8		100.00	8026
16.569	16.569 (0.000)	77	200429			0.00- 73.15	7.17	
40 1,2-Dichloroethane					CAS #: 107-06-2			
16.584	16.584 (0.974)	62	1257159	25.0	24.9		100.00	6411
16.584	16.584 (0.000)	64	123000			0.00- 82.83	9.78	
41 Heptane					CAS #: 142-82-5			
16.813	16.813 (0.987)	43	1620063	25.0	24.8		100.00	7630

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
41 Heptane (continued)								
16.813	16.813 (0.000)	57	304331			6.51- 106.51	18.79	
16.813	16.813 (0.000)	71	332616			11.76- 111.76	20.53	
43 Trichloroethene					CAS #: 79-01-6			
17.423	17.423 (1.023)	95	1299045	25.0	24.7		100.00	8329(Q)
17.423	17.423 (0.000)	130	402112			50.61- 150.61	30.95	
17.423	17.423 (0.000)	97	257472			14.42- 114.42	19.82	
44 1,2-Dichloropropane					CAS #: 78-87-5			
17.728	17.728 (1.041)	63	1103146	25.0	24.8		100.00	8683(Q)
17.728	17.728 (0.000)	62	246144			24.32- 124.32	22.31	
17.728	17.728 (0.000)	41	165774			0.05- 100.05	15.03	
45 1,4-Dioxane					CAS #: 123-91-1			
17.873	17.873 (1.050)	88	728824	25.0	24.3		100.00	2827(Q)
17.873	17.873 (0.000)	58	153174			21.12- 121.12	21.02	
17.873	17.873 (0.000)	57	47013			0.00- 71.83	6.45	
46 Bromodichloromethane					CAS #: 75-27-4			
18.079	18.079 (1.062)	83	2106156	25.0	24.8		100.00	9269
18.079	18.079 (0.000)	85	402432			14.92- 114.92	19.11	
48 cis-1,3-Dichloropropene					CAS #: 10061-01-5			
18.651	18.651 (1.095)	75	1836824	25.0	24.7		100.00	9144
18.651	18.651 (0.000)	77	178183			0.00- 82.38	9.70	
18.651	18.651 (0.000)	39	258752			0.00- 97.03	14.09	
49 4-Methyl-2-pentanone					CAS #: 108-10-1			
18.781	18.781 (1.103)	43	2200997	25.0	24.6		100.00	6709
18.781	18.781 (0.000)	58	280656			0.00- 91.39	12.75	
18.781	18.781 (0.000)	85	103434			0.00- 65.25	4.70	
52 Toluene					CAS #: 108-88-3			
19.132	19.132 (1.124)	92	2310468	25.0	25.1		100.00	8669(Q)
19.132	19.132 (0.000)	91	1153394			117.07- 217.07	49.92	
53 trans-1,3-Dichloropropene					CAS #: 10061-02-6			
19.368	19.368 (0.919)	75	1594361	25.0	24.7		100.00	8426
19.368	19.368 (0.000)	77	153571			0.00- 81.84	9.63	
19.368	19.368 (0.000)	39	216936			0.00- 94.97	13.61	
55 1,1,2-Trichloroethane					CAS #: 79-00-5			
19.651	19.651 (0.932)	97	1310794	25.0	25.0		100.00	8922(Q)
19.651	19.651 (0.000)	99	238400			11.49- 111.49	18.19	
19.651	19.651 (0.000)	83	318656			32.19- 132.19	24.31	
58 Tetrachloroethene					CAS #: 127-18-4			
19.910	19.910 (0.944)	166	1879329	25.0	25.0		100.00	9308

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
58 Tetrachloroethene (continued)								
9.910	19.910 (0.000)	129	393920			19.45- 119.45	20.96	
9.910	19.910 (0.000)	131	385664			18.00- 118.00	20.52	
57 2-Hexanone					CAS #: 591-78-6			
9.887	19.887 (0.943)	43	2372965	25.0	25.0		100.00	8768
9.887	19.887 (0.000)	58	423955			10.46- 110.46	17.87	
19.887	19.887 (0.000)	100	92344			0.00- 63.17	3.89	
60 Dibromochloromethane					CAS #: 124-48-1			
0.253	20.253 (0.961)	129	2134687	25.0	24.9		100.00	9034
20.253	20.253 (0.000)	208	37584			0.00- 56.10	1.76	
61 1,2-Dibromoethane					CAS #: 106-93-4			
20.459	20.459 (0.970)	107	2038996	25.0	25.0		100.00	5533(Q)
20.459	20.459 (0.000)	109	542080			43.19- 143.19	26.59	
63 Chlorobenzene					CAS #: 108-90-7			
21.131	21.131 (1.002)	112	3430117	25.0	24.9		100.00	9203
21.131	21.131 (0.000)	114	302656			0.00- 82.21	8.82	
1.131	21.131 (0.000)	77	520626			5.41- 105.41	15.18	
64 Ethyl Benzene					CAS #: 100-41-4			
21.215	21.215 (1.006)	106	2017182	25.0	25.0		100.00	
1.215	21.215 (1.006)	91	6420184			268.27- 368.27	318.27	
65 m,p-Xylene					CAS #: 108-38-3			
21.375	21.375 (1.014)	106	4573387	50.0	50.6		100.00	(H)
1.375	21.375 (1.014)	91	8995057			146.68- 246.68	196.68	
67 o-Xylene					CAS #: 95-47-6			
2.016	22.016 (1.044)	106	1699797	25.0	25.2		100.00	8047(Q)
2.016	22.016 (0.000)	91	950488			158.07- 258.07	55.92	
68 Styrene					CAS #: 100-42-5			
2.023	22.023 (1.044)	104	2779842	25.0	24.9		100.00	8898
2.023	22.023 (0.000)	78	352522			0.00- 97.75	12.68	
69 Bromoform					CAS #: 75-25-2			
2.428	22.428 (1.064)	171	1139894	25.0	24.9		100.00	9413(Q)
2.428	22.428 (0.000)	173	546496			143.85- 243.85	47.94	
72 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5			
3.046	23.046 (1.093)	83	3154896	25.0	25.3		100.00	9203
3.046	23.046 (0.000)	85	492800			14.73- 114.73	15.62	
74 4-Ethyltoluene					CAS #: 622-96-8			
3.450	23.450 (1.112)	105	4331218	25.0	25.1		100.00	9217

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
74 4-Ethyltoluene (continued)								
23.450	23.450 (0.000)	120	278604			0.00- 77.89	6.43	
75 1,3,5-Trimethylbenzene					CAS #: 108-67-8			
23.534	23.534 (1.116)	105	2726115	25.0	24.6		100.00	9405(Q)
23.534	23.534 (0.000)	120	196032			9.34- 109.34	7.19	
76 1,2,4-Trimethylbenzene					CAS #: 95-63-6			
24.266	24.266 (1.151)	105	2467789	25.0	24.7		100.00	8696
24.266	24.266 (0.000)	120	264144			0.00- 93.70	10.70	
79 1,3-Dichlorobenzene					CAS #: 541-73-1			
24.953	24.953 (1.183)	146	2652930	25.0	24.9		100.00	
24.953	24.953 (1.183)	148	1686348			13.57- 113.57	63.57	
24.953	24.953 (1.183)	111	1108051			0.00- 91.77	41.77	
80 1,4-Dichlorobenzene					CAS #: 106-46-7			
25.128	25.128 (1.192)	146	2515571	25.0	24.7		100.00	9404(Q)
25.128	25.128 (0.000)	148	326904			13.54- 113.54	13.00	
25.128	25.128 (0.000)	111	206069			0.00- 90.05	8.19	
81 Benzyl Chloride					CAS #: 100-44-7			
25.365	25.365 (1.203)	91	4020923	25.0	24.1		100.00	9485
25.365	25.365 (0.000)	126	178816			0.00- 70.72	4.45	
82 1,2-Dichlorobenzene					CAS #: 95-50-1			
25.968	25.968 (1.232)	146	2419361	25.0	24.7		100.00	9376(Q)
25.968	25.968 (0.000)	148	308417			14.20- 114.20	12.75	
25.968	25.968 (0.000)	111	211186			0.00- 93.96	8.73	
85 1,2,4-Trichlorobenzene					CAS #: 120-82-1			
30.194	30.194 (1.432)	180	813357	25.0	22.8		100.00	9175(Q)
30.194	30.194 (0.000)	182	124752			43.44- 143.44	15.34	
86 Hexachlorobutadiene					CAS #: 87-68-3			
30.629	30.629 (1.453)	225	1317062	25.0	24.3		100.00	9452(Q)
30.629	30.629 (0.000)	223	136747			11.93- 111.93	10.38	

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-27may.b/j052704.d
Report Date: 27-May-1997 12:24

Air Toxics Limited

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdj.i
Lab File ID: j052704.d
Lab Smp Id:
Analysis Type: VOA
Quant Type: ISTD
Operator: MH
Method File: /chem/msdj.i/j-27may.b/to140527.m
Misc Info:

Calibration Date: 05/27/97
Calibration Time: 1054
Client Smp ID: VSTD150
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	% DIFF
32 Bromochloromethane	171489	102893	240085	171489	0.00
42 1,4-Difluorobenzene	777990	466794	1089186	777990	0.00
62 Chlorobenzene-d5	851252	510751	1191753	851252	0.00

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	% DIFF
32 Bromochloromethane	15.69	15.19	16.19	15.69	0.00
42 1,4-Difluorobenzene	17.03	16.53	17.53	17.03	0.00
62 Chlorobenzene-d5	21.09	20.59	21.59	21.09	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.

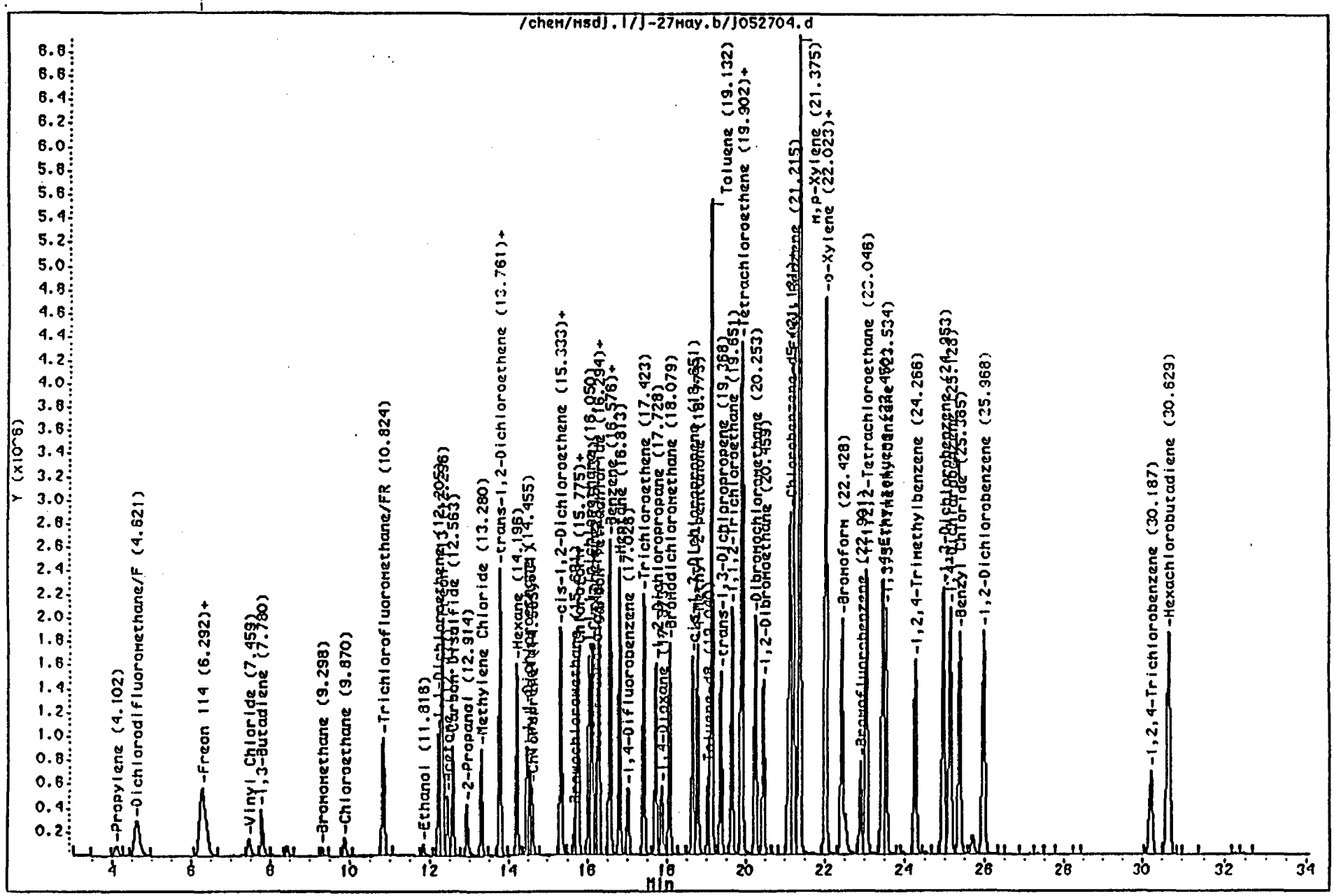
0208

Data File: /chem/msdj.i/j-27may.b/j052704.d
Date : 27-MAY-1997 10:54
Client ID: VSTD150
Sample Info: 62.5mL M315-57 200ppbv TO14 Std. (25ppbv)

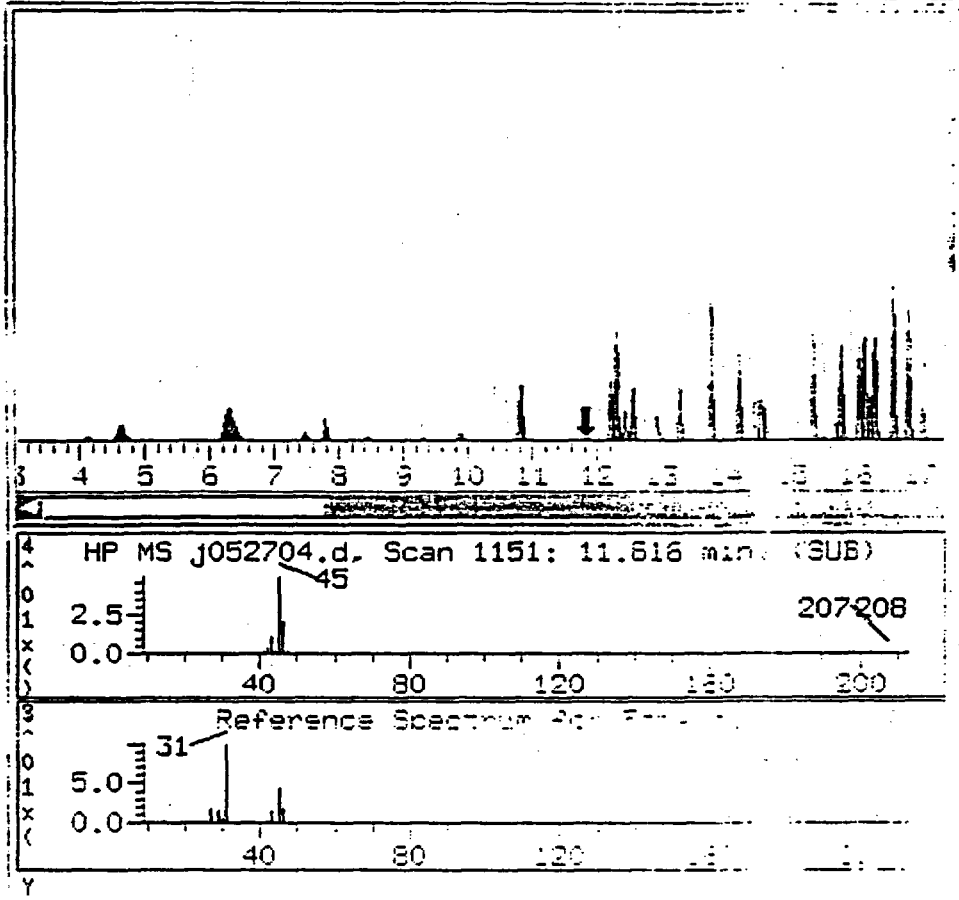
Instrument: msdj.i

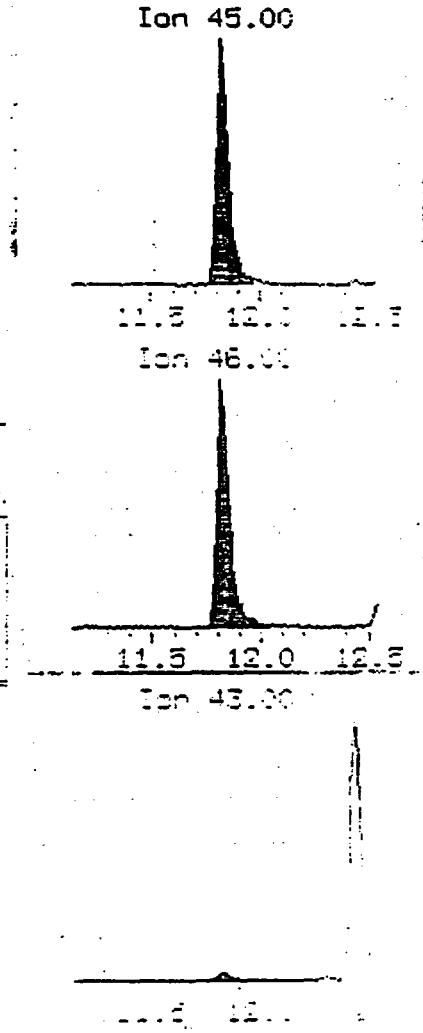
Operator: MH
Column diameter: 0.58

Column phase: RTx-624



Target Review Host calvin

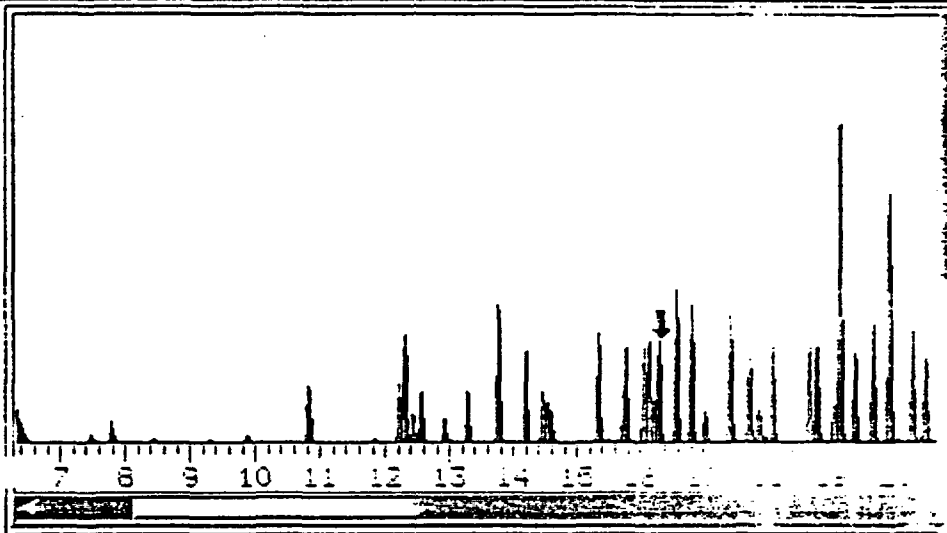


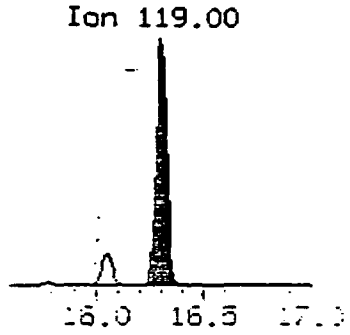


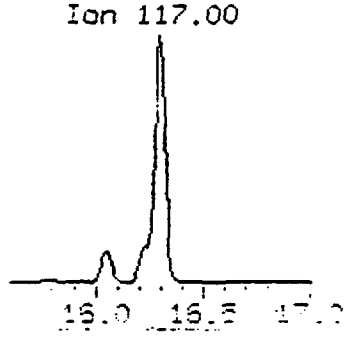
Hit#	RT(min)	Response	Amount	Conc	Ratio	Flags
1	11.816	189794	31.44	125.76	100	M
	11.816	80570			42	
	11.816	43164			23	

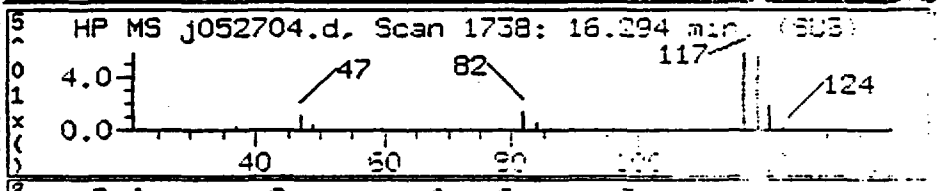
- Mark Ethanol Undetected.

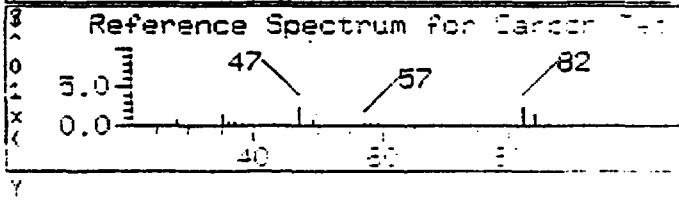
Target Review: Host calvin







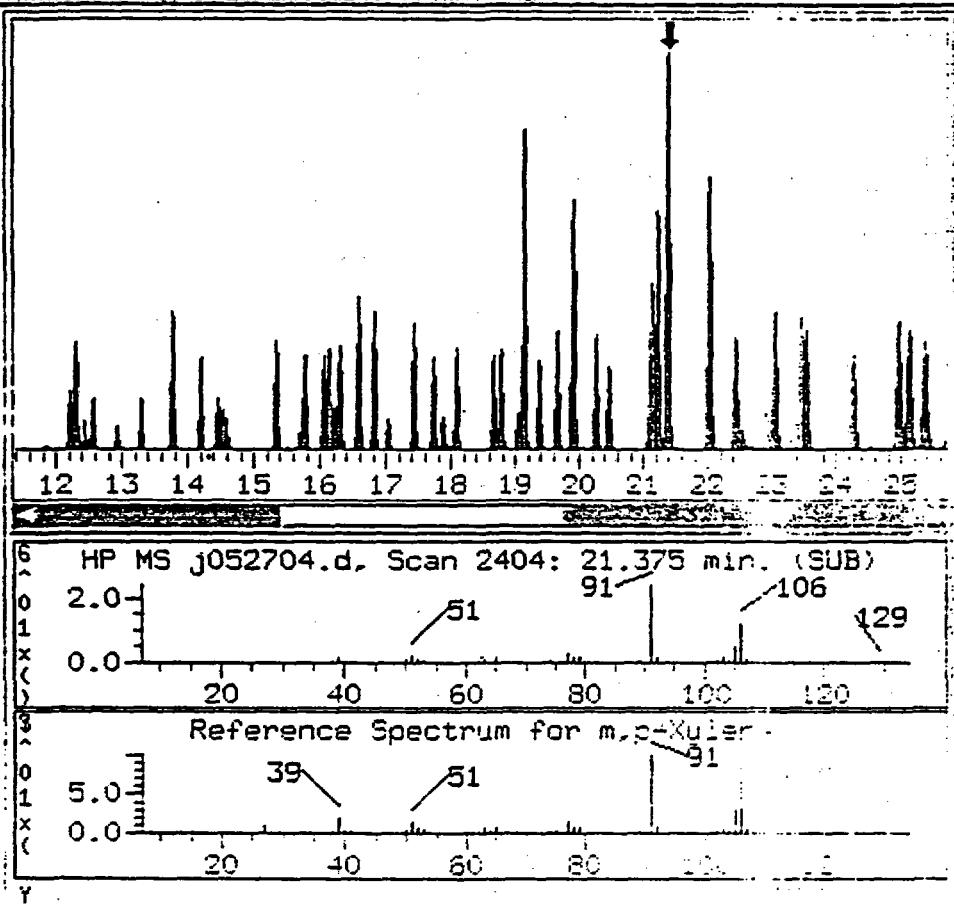


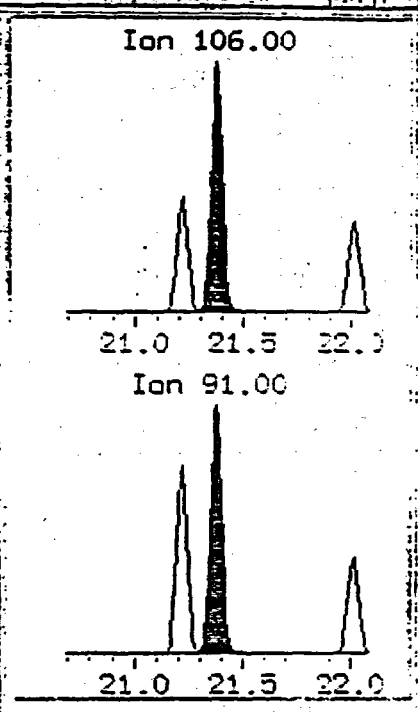


Hit#	RT(min)	Response	Amount	Conc	Ratio	Flags
1	16.050	238712	3.19	12.76	100	QH
	16.050	73400			31	
2	16.294	1880063	25.12	100.47	100	QH
	16.294	583907			31	

- Mark Carbon Tetrachloride Undetected.

Target Review - Host - calvin





Hit#	RT(min)	Response	Amount	Conc	Ratio	Flags
1	21.215	2017113	22.30	89.21	100	QH
	21.215	6420184			318	
2	21.375	4573387	50.57	202.27	100	H
	21.375	8995057			197	
3	22.016	1681084	18.59	74.35	100	TH
	22.016	3470876			206	

Air Toxics Limited

AMBIENT AIR METHOD TO14

Data file : /chem/msdj.i/j-27may.b/j052705.d
Lab Smp Id: Client Smp ID: VSTD150
Inj Date : 27-MAY-1997 11:51
Operator : MH Inst ID: msdj.i
Smp Info : 125mL #315-57 200ppbv TO14 Std. (50ppbv)
Misc Info :
Comment :
Method : /chem/msdj.i/j-27may.b/to140527.m
Meth Date : 27-May-1997 12:22 mhe Quant Type: ISTD
Cal Date : 27-MAY-1997 11:51 Cal File: j052705.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
* 32 Bromochloromethane					CAS #: 74-97-5			
15.692	15.692 (1.000)	130	168392	5.0			100.00	9278(Q)
15.692	15.692 (0.000)	128	40464			26.90- 126.90	24.03	
15.692	15.692 (0.000)	49	64520			72.62- 172.62	38.32	
* 42 1,4-Difluorobenzene					CAS #: 540-36-3			
17.027	17.027 (1.000)	114	746880	5.0			100.00	9722
17.027	17.027 (0.000)	88	37304			0.00- 65.69	4.99	
* 62 Chlorobenzene-d5					CAS #: 3114-55-4			
21.086	21.086 (1.000)	117	827400	5.0			100.00	9967
21.086	21.086 (0.000)	82	127215			4.79- 104.79	15.38	
$ 37 Octafluorotoluene					CAS #: 434-64-0			
16.226	16.226 (1.034)	217	548654	5.0	4.9		100.00	6729
16.226	16.226 (0.000)	186	107800			9.79- 109.79	19.65	
$ 50 Toluene-d8					CAS #: 2037-26-5			
19.041	19.041 (1.118)	98	727168	5.0	5.1		100.00	9954
19.041	19.041 (0.000)	70	27587			0.00- 62.52	3.79	
19.041	19.041 (0.000)	100	152088			19.00- 119.00	20.92	

Data File: /chem/msdj.i/j-27may.b/j052705.d
Report Date: 27-May-1997 12:23

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
$ 71 Bromofluorobenzene					CAS #: 460-00-4			
22.902	22.902 (1.086)	95	672287	5.0	5.0		100.00	8883(Q)
22.902	22.902 (0.000)	174	129592			27.25- 127.25	19.28	
22.902	22.902 (0.000)	176	124368			24.14- 124.14	18.50	
1 Propylene					CAS #: 115-07-1			
4.096	4.096 (0.261)	41	390601	50.0	52.4		100.00	7686(Q)
4.096	4.096 (0.000)	42	37632			11.28- 111.28	9.63	
4.096	4.096 (0.000)	39	57741			44.02- 144.02	14.78	
2 Dichlorodifluoromethane/FR 12					CAS #: 75-71-8			
4.607	4.607 (0.294)	85	3163278	50.0	50.3		100.00	9165
4.607	4.607 (0.000)	87	116560			0.00- 82.11	3.68	
3 Freon 114					CAS #: 76-14-2			
6.278	6.278 (0.400)	135	2454945	50.0	50.6		100.00	8785
6.278	6.278 (0.000)	137	82192			0.00- 81.29	3.35	
4 Chloromethane					CAS #: 74-87-3			
6.392	6.392 (0.407)	50	1278564	50.0	50.4		100.00	6237
6.392	6.392 (0.000)	52	67385			0.00- 89.83	5.27	
5 Vinyl Chloride					CAS #: 75-01-4			
7.445	7.445 (0.474)	62	1072790	50.0	51.5		100.00	4510
7.445	7.445 (0.000)	64	62920			0.00- 82.92	5.87	
6 1,3-Butadiene					CAS #: 106-99-0			
7.781	7.781 (0.496)	54	683907	50.0	50.9		100.00	6554(Q)
7.781	7.781 (0.000)	39	143365			51.73- 151.73	20.96	
7 Bromomethane					CAS #: 74-83-9			
9.299	9.299 (0.593)	94	304468	50.0	60.9		100.00	6607(AQ)
9.299	9.299 (0.000)	96	72496			45.22- 145.22	23.81	
8 Chloroethane					CAS #: 75-00-3			
9.864	9.864 (0.629)	64	621316	50.0	50.9		100.00	4019
9.864	9.864 (0.000)	66	49384			0.00- 82.30	7.95	
9 Trichlorofluoromethane/FR 11					CAS #: 75-69-4			
10.825	10.825 (0.690)	101	3723516	50.0	49.9		100.00	8963(Q)
10.825	10.825 (0.000)	103	586368			16.08- 116.08	15.75	
11 Ethanol					CAS #: 64-17-5			
11.809	11.809 (0.753)	45	220057	50.0	36.7		100.00	
11.809	11.809 (0.753)	46	82913			0.00- 87.68	37.68	
11.809	11.809 (0.753)	43	69786			0.00- 81.71	31.71	
13 1,1-Dichloroethene					CAS #: 75-35-4			
12.206	12.206 (0.778)	96	1352301	50.0	49.6		100.00	8911(Q)

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
13 1,1-Dichloroethene (continued)								
12.206	12.206 (0.000)	61	689152			119.59- 219.59	50.96	
12.206	12.206 (0.000)	98	263616			14.87- 114.87	19.49	
14 Freon 113					CAS #: 76-13-1			
12.297	12.297 (0.784)	151	2515295	50.0	49.4		100.00	8340(Q)
12.297	12.297 (0.000)	153	396544			15.15- 115.15	15.77	
12.297	12.297 (0.000)	101	778081			77.83- 177.83	30.93	
17 Carbon Disulfide					CAS #: 75-15-0			
12.557	12.557 (0.800)	76	4236268	50.0	49.5		100.00	7844
15 Acetone					CAS #: 67-64-1			
12.435	12.435 (0.792)	43	2377057	50.0	51.8		100.00	
12.435	12.435 (0.792)	58	747181			0.00- 81.43	31.43	
18 2-Propanol					CAS #: 67-63-0			
12.915	12.915 (0.823)	45	2167857	50.0	51.0		100.00	7544
12.915	12.915 (0.000)	43	109148			0.00- 68.47	5.03	
12.915	12.915 (0.000)	59	24664			0.00- 54.17	1.14	
21 Methylene Chloride					CAS #: 75-09-2			
13.281	13.281 (0.846)	84	1367416	50.0	49.8		100.00	9161(Q)
13.281	13.281 (0.000)	49	542080			71.00- 171.00	39.64	
13.281	13.281 (0.000)	51	176192			0.00- 89.33	12.89	
23 trans-1,2-Dichloroethene					CAS #: 156-60-5			
13.762	13.762 (0.877)	96	1493584	50.0	49.2		100.00	8250(Q)
13.762	13.762 (0.000)	61	711872			93.99- 193.99	47.66	
13.762	13.762 (0.000)	98	321600			15.05- 115.05	21.53	
24 MTBE					CAS #: 1634-04-4			
13.762	13.762 (0.877)	73	4206439	50.0	49.5		100.00	5984
13.762	13.762 (0.000)	57	242133			0.00- 70.53	5.76	
13.762	13.762 (0.000)	41	216170			0.00- 68.33	5.14	
25 Hexane					CAS #: 110-54-3			
14.197	14.197 (0.905)	57	2521993	50.0	49.4		100.00	7287
14.197	14.197 (0.000)	43	453494			6.09- 106.09	17.98	
14.197	14.197 (0.000)	56	426299			2.73- 102.73	16.90	
26 1,1-Dichloroethane					CAS #: 75-34-3			
14.456	14.456 (0.921)	63	2850842	50.0	49.4		100.00	6394
14.456	14.456 (0.000)	65	283584			0.00- 81.76	9.95	
28 Chloroprene					CAS #: 126-99-8			
14.594	14.594 (0.930)	53	1039192	50.0	50.2		100.00	7550
14.594	14.594 (0.000)	88	184576			6.00- 106.00	17.76	

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
28 Chloroprene (continued)								
14.594	14.594 (0.000)	50	80339			0.00- 74.37	7.73	
27 Vinyl Acetate					CAS #: 108-05-4			
14.533	14.533 (0.926)	43	3577973	50.0	50.6		100.00	6100
14.533	14.533 (0.000)	86	120769			0.00- 60.34	3.38	
30 cis-1,2-Dichloroethene					CAS #: 156-59-2			
15.341	15.341 (0.978)	96	1752044	50.0	49.2		100.00	8218(Q)
15.341	15.341 (0.000)	61	739029			85.48- 185.48	42.18	
15.341	15.341 (0.000)	98	362816			16.51- 116.51	20.71	
29 2-Butanone					CAS #: 78-93-3			
15.334	15.334 (0.977)	72	840034	50.0	49.9		100.00	7908(Q)
15.334	15.334 (0.000)	43	944463			321.91- 421.91	112.43	
15.334	15.334 (0.000)	57	73856			0.00- 79.08	8.79	
34 Chloroform					CAS #: 67-66-3			
15.784	15.784 (1.006)	83	3355832	50.0	49.3		100.00	8533
15.784	15.784 (0.000)	85	693184			15.72- 115.72	20.66	
33 Tetrahydrofuran					CAS #: 109-99-9			
15.753	15.753 (1.004)	42	1345931	50.0	49.4		100.00	7483
15.753	15.753 (0.000)	71	181912			0.00- 96.93	13.52	
15.753	15.753 (0.000)	72	198904			1.32- 101.32	14.78	
35 1,1,1-Trichlorethane					CAS #: 71-55-6			
16.058	16.058 (1.023)	97	3499221	50.0	49.7		100.00	7463
16.058	16.058 (0.000)	99	663040			14.12- 114.12	18.95	
36 Cyclohexane					CAS #: 110-82-7			
16.135	16.135 (1.028)	56	2858664	50.0	49.8		100.00	8021(Q)
16.135	16.135 (0.000)	84	690050			31.63- 131.63	24.14	
16.135	16.135 (0.000)	41	419849			0.00- 99.66	14.69	
38 Carbon Tetrachloride					CAS #: 56-23-5			
16.295	16.295 (1.038)	119	3657651	50.0	49.8		100.00	8685(QH)
16.295	16.295 (0.000)	117	1139818			52.64- 152.64	31.16	
39 Benzene					CAS #: 71-43-2			
16.577	16.577 (0.974)	78	5455258	50.0	50.4		100.00	7806
16.577	16.577 (0.000)	77	385990			0.00- 73.32	7.08	
40 1,2-Dichloroethane					CAS #: 107-06-2			
16.585	16.585 (0.974)	62	2429279	50.0	50.2		100.00	6411
16.585	16.585 (0.000)	64	235392			0.00- 81.56	9.69	
41 Heptane					CAS #: 142-82-5			
16.814	16.814 (0.987)	43	3161486	50.0	50.4		100.00	7630

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
41 Heptane (continued)								
16.814	16.814 (0.000)	57	589349			6.79- 106.79	18.64	
16.814	16.814 (0.000)	71	644806			12.14- 112.14	20.40	
43 Trichloroethene					CAS #: 79-01-6			
17.424	17.424 (1.023)	95	2545332	50.0	50.5		100.00	8347(Q)
17.424	17.424 (0.000)	130	800128			51.72- 151.72	31.44	
17.424	17.424 (0.000)	97	507857			14.57- 114.57	19.95	
44 1,2-Dichloropropane					CAS #: 78-87-5			
17.729	17.729 (1.041)	63	2150863	50.0	50.4		100.00	8684(Q)
17.729	17.729 (0.000)	62	485003			24.45- 124.45	22.55	
17.729	17.729 (0.000)	41	325028			0.00- 99.89	15.11	
45 1,4-Dioxane					CAS #: 123-91-1			
17.882	17.882 (1.050)	88	1482293	50.0	51.4		100.00	2827
17.882	17.882 (0.000)	58	316299			20.91- 120.91	21.34	
17.882	17.882 (0.000)	57	96061			0.00- 71.53	6.48	
46 Bromodichloromethane					CAS #: 75-27-4			
18.080	18.080 (1.062)	83	4115439	50.0	50.4		100.00	9182
18.080	18.080 (0.000)	85	783424			14.33- 114.33	19.04	
48 cis-1,3-Dichloropropene					CAS #: 10061-01-5			
18.652	18.652 (1.095)	75	3604593	50.0	50.5		100.00	9145
18.652	18.652 (0.000)	77	346655			0.00- 81.79	9.62	
18.652	18.652 (0.000)	39	513797			0.00- 97.11	14.25	
49 4-Methyl-2-pentanone					CAS #: 108-10-1			
18.782	18.782 (1.103)	43	4375186	50.0	50.9		100.00	6730
18.782	18.782 (0.000)	58	559366			0.00- 91.52	12.78	
18.782	18.782 (0.000)	85	209207			0.00- 65.53	4.78	
52 Toluene					CAS #: 108-88-3			
19.133	19.133 (1.124)	92	4398114	50.0	49.8		100.00	8690(Q)
19.133	19.133 (0.000)	91	2155408			117.01- 217.01	49.01	
53 trans-1,3-Dichloropropene					CAS #: 10061-02-6			
19.369	19.369 (0.919)	75	3163826	50.0	50.5		100.00	8368
19.369	19.369 (0.000)	77	306246			0.00- 81.82	9.68	
19.369	19.369 (0.000)	39	424109			0.00- 94.06	13.40	
55 1,1,2-Trichloroethane					CAS #: 79-00-5			
19.652	19.652 (0.932)	97	2548728	50.0	50.0		100.00	8930(Q)
19.652	19.652 (0.000)	99	466560			12.46- 112.46	18.31	
19.652	19.652 (0.000)	83	618174			32.76- 132.76	24.25	
58 Tetrachloroethene					CAS #: 127-18-4			
19.911	19.911 (0.944)	166	3652378	50.0	50.0		100.00	9291

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
58 Tetrachloroethene (continued)								
19.911	19.911 (0.000)	129	739776			17.74- 117.74	20.25	
19.911	19.911 (0.000)	131	739648			17.73- 117.73	20.25	
57 2-Hexanone					CAS #: 591-78-6			
19.888	19.888 (0.943)	43	4592591	50.0	49.9		100.00	8784
19.888	19.888 (0.000)	58	832838			10.54- 110.54	18.13	
19.888	19.888 (0.000)	100	187296			0.00- 63.61	4.08	
60 Dibromochloromethane					CAS #: 124-48-1			
20.254	20.254 (0.961)	129	4169837	50.0	50.1		100.00	9047
20.254	20.254 (0.000)	208	73152			0.00- 56.21	1.75	
61 1,2-Dibromoethane					CAS #: 106-93-4			
20.460	20.460 (0.970)	107	3976866	50.0	50.1		100.00	5533(Q)
20.460	20.460 (0.000)	109	1069056			45.43- 145.43	26.88	
63 Chlorobenzene					CAS #: 108-90-7			
21.132	21.132 (1.002)	112	6715277	50.0	50.2		100.00	9225
21.132	21.132 (0.000)	114	582400			0.00- 81.32	8.67	
21.132	21.132 (0.000)	77	1039040			5.87- 105.87	15.47	
64 Ethyl Benzene					CAS #: 100-41-4			
21.216	21.216 (1.006)	106	3930614	50.0	50.0		100.00	(H)
21.216	21.216 (1.006)	91	12462306			267.06- 367.06	317.06	
65 m,p-Xylene					CAS #: 108-38-3			
21.376	21.376 (1.014)	106	8691125	100	98.9		100.00	
21.376	21.376 (1.014)	91	16973372			145.30- 245.30	195.30	
67 o-Xylene					CAS #: 95-47-6			
22.017	22.017 (1.044)	106	3249138	50.0	49.6		100.00	8076(Q)
22.017	22.017 (0.000)	91	1781312			155.65- 255.65	54.82	
68 Styrene					CAS #: 100-42-5			
22.032	22.032 (1.045)	104	5447000	50.0	50.2		100.00	8975
22.032	22.032 (0.000)	78	677694			0.00- 96.82	12.44	
69 Bromoform					CAS #: 75-25-2			
22.429	22.429 (1.064)	171	2236142	50.0	50.2		100.00	9410(Q)
22.429	22.429 (0.000)	173	1065670			142.25- 242.25	47.66	
72 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5			
23.047	23.047 (1.093)	83	5986385	50.0	49.4		100.00	9471
23.047	23.047 (0.000)	85	935040			14.13- 114.13	15.62	
74 4-Ethyltoluene					CAS #: 622-96-8			
23.451	23.451 (1.112)	105	8349673	50.0	49.8		100.00	9225

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
74 4-Ethyltoluene (continued)								
23.451	23.451 (0.000)	120	548533			0.00- 78.23	6.57	
75 1,3,5-Trimethylbenzene					CAS #: 108-67-8			
23.535	23.535 (1.116)	105	5493498	50.0	50.9		100.00	9426(Q)
23.535	23.535 (0.000)	120	397760			9.79- 109.79	7.24	
76 1,2,4-Trimethylbenzene					CAS #: 95-63-6			
24.267	24.267 (1.151)	105	4898392	50.0	50.5		100.00	8670
24.267	24.267 (0.000)	120	533331			0.00- 94.81	10.89	
79 1,3-Dichlorobenzene					CAS #: 541-73-1			
24.962	24.962 (1.184)	146	5209431	50.0	50.2		100.00	
24.962	24.962 (1.184)	148	3316149			13.66- 113.66	63.66	
24.954	24.954 (1.183)	111	2163944			0.00- 91.54	41.54	
80 1,4-Dichlorobenzene					CAS #: 106-46-7			
25.130	25.130 (1.192)	146	4997306	50.0	50.5		100.00	9463(Q)
25.130	25.130 (0.000)	148	660008			13.37- 113.37	13.21	
25.130	25.130 (0.000)	111	402184			0.00- 88.61	8.05	
81 Benzyl Chloride					CAS #: 100-44-7			
25.366	25.366 (1.203)	91	8401875	50.0	51.8		100.00	9473
25.366	25.366 (0.000)	126	371840			0.00- 70.65	4.43	
82 1,2-Dichlorobenzene					CAS #: 95-50-1			
25.969	25.969 (1.232)	146	4829487	50.0	50.7		100.00	9449(Q)
25.969	25.969 (0.000)	148	618433			13.25- 113.25	12.81	
25.969	25.969 (0.000)	111	415990			0.00- 92.55	8.61	
85 1,2,4-Trichlorobenzene					CAS #: 120-82-1			
30.195	30.195 (1.432)	180	1890110	50.0	54.4		100.00	9138(Q)
30.195	30.195 (0.000)	182	294208			44.78- 144.78	15.57	
86 Hexachlorobutadiene					CAS #: 87-68-3			
30.638	30.638 (1.453)	225	2707165	50.0	51.4		100.00	9470(Q)
30.638	30.638 (0.000)	223	289536			12.86- 112.86	10.70	

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

ata File: /chem/msdj.i/j-27may.b/j052705.d
Report Date: 27-May-1997 12:23

Air Toxics Limited

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdj.i
Lab File ID: j052705.d
ab Smp Id:
nalysis Type: VOA
Quant Type: ISTD
Operator: MH
ethod File: /chem/msdj.i/j-27may.b/to140527.m
isc Info:

Calibration Date: 05/27/97
Calibration Time: 1151
Client Smp ID: VSTD150
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	% DIFF
32 Bromochloromethane	168392	101035	235749	168392	0.00
42 1,4-Difluorobenzene	746880	448128	1045632	746880	0.00
62 Chlorobenzene-d5	827400	496440	1158360	827400	0.00

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	% DIFF
32 Bromochloromethane	15.69	15.19	16.19	15.69	0.00
42 1,4-Difluorobenzene	17.03	16.53	17.53	17.03	0.00
62 Chlorobenzene-d5	21.09	20.59	21.59	21.09	0.00

REA 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.
T LOWER LIMIT = - 0.50 minutes of internal standard RT.

0220

Data File: /chem/msdj.i/j-27may.b/j052705.d

Date : 27-MAY-1997 11:51

Client ID: VSTD150

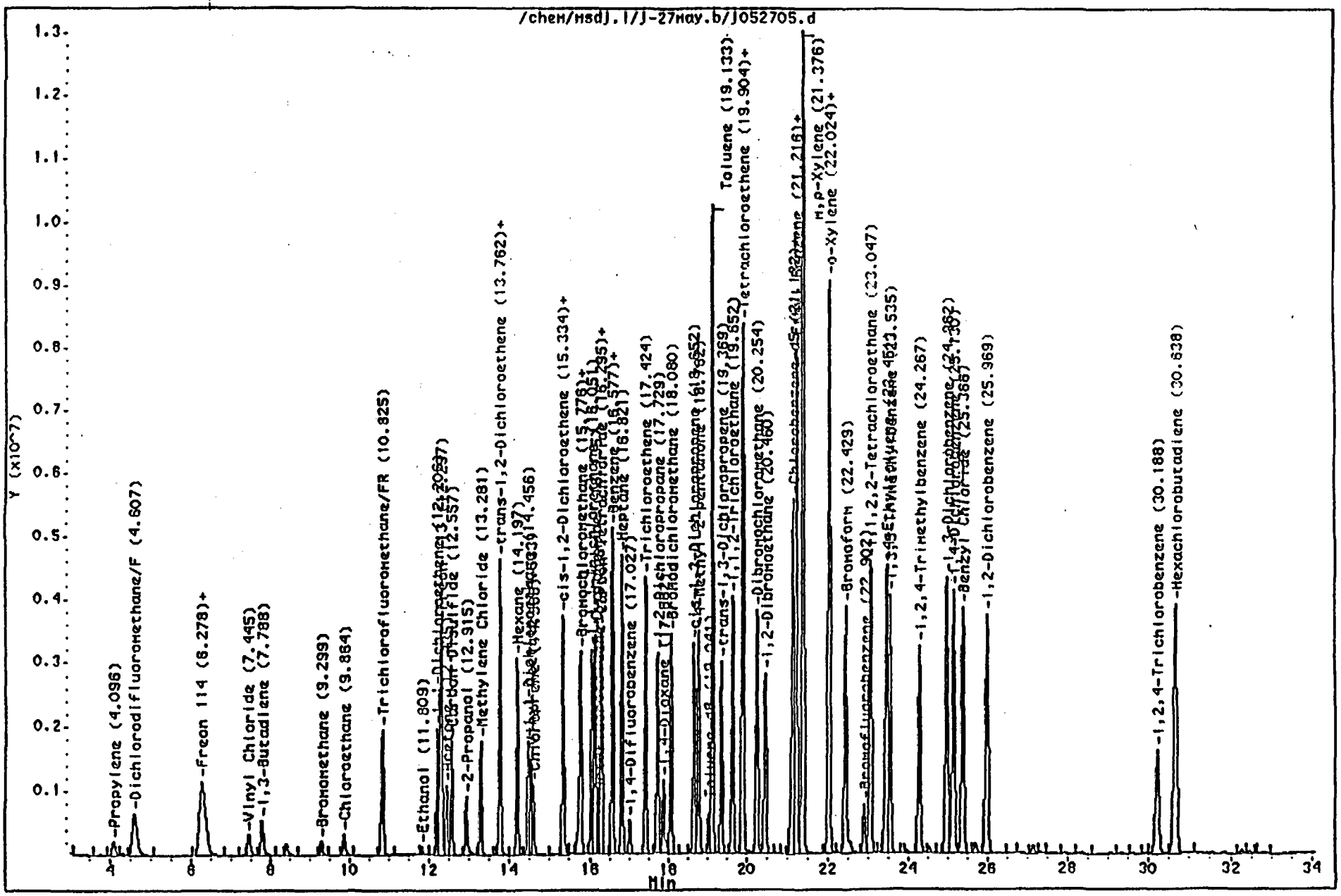
Sample Info: 125mL M315-57 200ppbv TO14 Std. (50ppbv)

Column phase: RTx-624

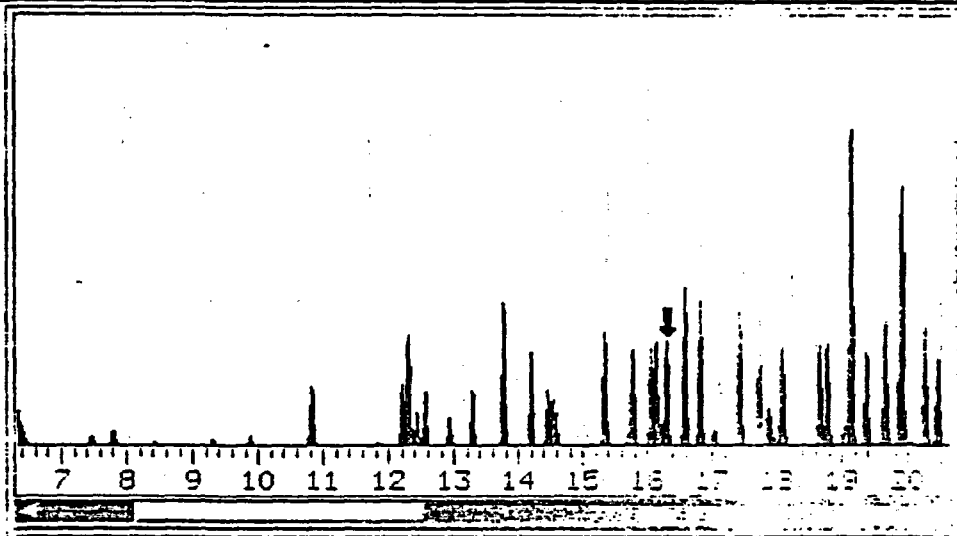
Instrument: msdj.i

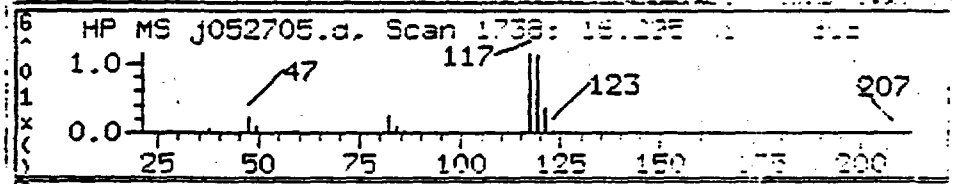
Operator: MH

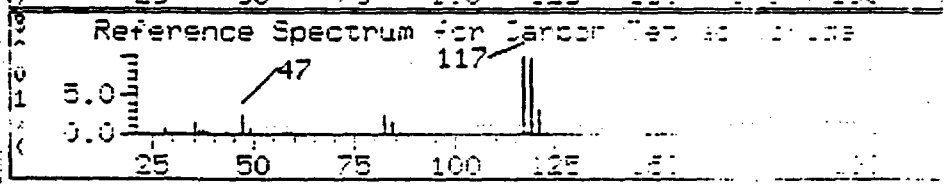
Column diameter: 0.58

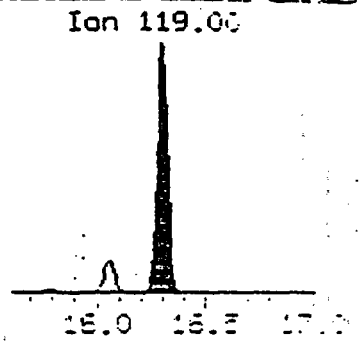


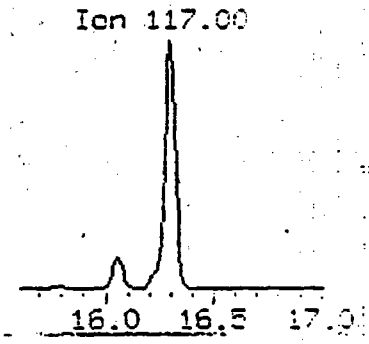
Target Review Host Calvin





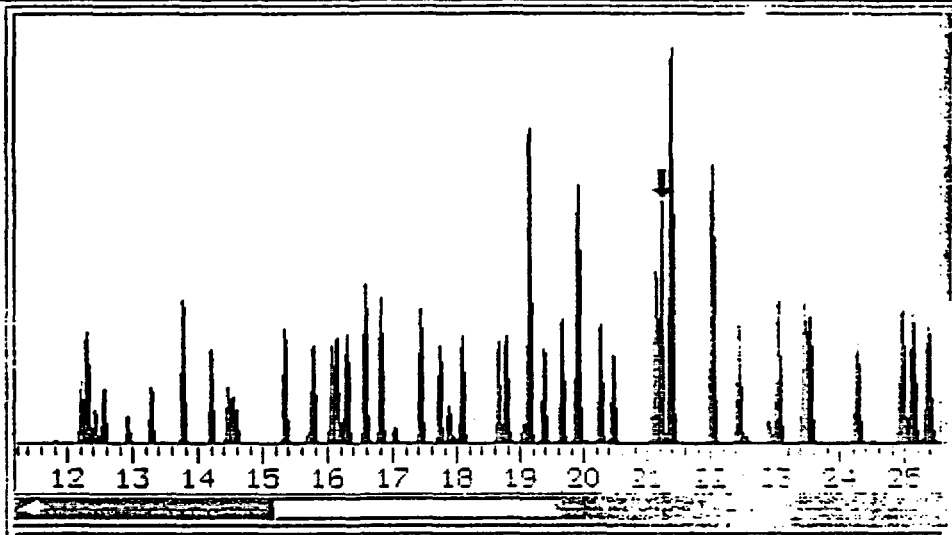


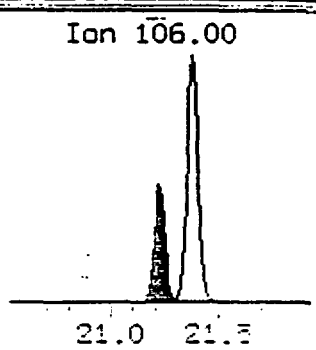


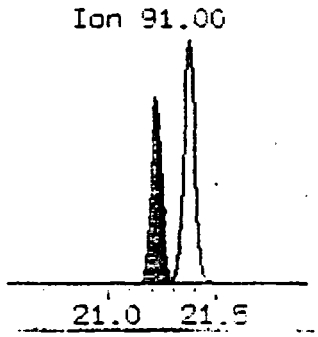


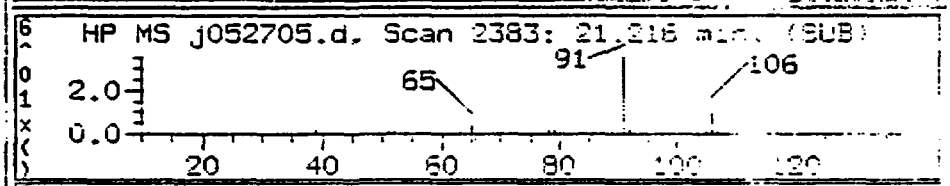
Hit#	RT(min)	Response	Amount	Conc	Patt.	Flags
1	15.784	39536	0.54	0.54	[illegible]	TOH
	15.784	12435			3[illegible]	
2	16.051	464932	6.33	6.33	100	QH
	16.051	144704			31	
3	16.295	3657651	49.76	49.76	100	QH
	16.295	1139818			3[illegible]	

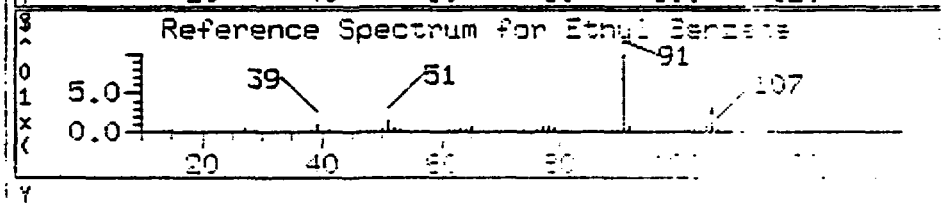
TargetReview - Host=calvin











Hit#	RT(min)	Response	Amount	Conc	Ratio	Flags
1	21.071	6652	0.08	0.08	100	aQH
	21.078	11731			176	
2	21.216	3930614	50.06	50.06	100	H
	21.216	12462306			317	
3	21.376	8683372	110.59	110.59	100	AQH
	21.376	16957523			195	

Data File: /chem/msdj.i/j-28may.b/j052802.d
Report Date: 28-May-1997 09:22

0 out

MH 5/28/97

Air Toxics Limited

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msdj.i
Lab File ID: j052802.d
Analysis Type: AIR
Lab Sample ID:
Method File: /chem/msdj.i/j-28may.b/to140527.m

Injection Date: 28-MAY-1997 08:33
Init. Calibration Date(s): 05/27/97 05/27/97
Init. Calibration Times: 10:54 21:48
Quant Type: ISTD

COMPOUND	$\overline{RRF}$	RF5	MIN RRF	%D	MAX %D
$ 37 Octafluorotoluene	3.252	3.189	0.010	1.9	30.0
$ 50 Toluene-d8	0.947	0.928	0.010	2.0	30.0
$ 71 Bromofluorobenzene	0.790	0.757	0.010	4.3	30.0
1 Propylene	0.220	0.303	0.010	37.9	40.0
2 Dichlorodifluoromethane/FR 1	1.911	1.956	0.010	2.4	30.0
3 Freon 114	1.474	1.538	0.010	4.3	30.0
4 Chloromethane	0.789	0.830	0.010	5.1	30.0
5 Vinyl Chloride	0.599	0.703	0.010	17.4	30.0
6 1,3-Butadiene	0.367	0.436	0.010	18.8	40.0
7 Bromomethane	0.168	0.190	0.010	13.4	30.0
8 Chloroethane	0.377	0.399	0.010	5.7	30.0
9 Trichlorofluoromethane/FR 11	2.360	2.385	0.010	1.0	30.0
11 Ethanol	0.187	0.215	0.010	14.8	40.0
13 1,1-Dichloroethene	0.830	0.889	0.010	7.1	30.0
14 Freon 113	1.591	1.582	0.010	0.6	30.0
17 Carbon Disulfide	2.618	2.675	0.010	2.2	40.0
15 Acetone	1.374	1.732	0.010	26.1	40.0
18 2-Propanol	1.182	1.187	0.010	0.4	40.0
21 Methylene Chloride	0.886	0.931	0.010	5.1	30.0
23 trans-1,2-Dichloroethene	0.976	0.981	0.010	0.6	40.0
24 MTBE	2.473	2.584	0.010	4.5	40.0
25 Hexane	1.611	1.714	0.010	6.4	40.0
26 1,1-Dichloroethane	1.775	1.861	0.010	4.8	30.0
28 Chloroprene	0.595	0.610	0.010	2.4	40.0
27 Vinyl Acetate	1.939	2.064	0.010	6.5	40.0
30 cis-1,2-Dichloroethene	1.108	1.123	0.010	1.4	30.0
29 2-Butanone	0.514	0.518	0.010	0.8	40.0
34 Chloroform	2.102	2.101	0.010	0.0	30.0
33 Tetrahydrofuran	0.814	0.880	0.010	8.1	40.0
35 1,1,1-Trichlorethane	2.153	2.114	0.010	1.8	30.0
36 Cyclohexane	1.773	1.849	0.010	4.3	40.0
38 Carbon Tetrachloride	2.201	2.101	0.010	4.5	30.0
39 Benzene	0.762	0.765	0.010	0.4	30.0
40 1,2-Dichloroethane	0.328	0.324	0.010	1.2	30.0
41 Heptane	0.463	0.496	0.010	7.1	40.0
43 Trichloroethene	0.345	0.357	0.010	3.4	30.0
44 1,2-Dichloropropane	0.296	0.295	0.010	0.3	30.0
45 1,4-Dioxane	0.177	0.183	0.010	3.8	40.0
46 Bromodichloromethane	0.548	0.536	0.010	2.2	40.0

Data File: /chem/msdj.i/j-28may.b/j052802.d
Report Date: 28-May-1997 09:22

Air Toxics Limited

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msdj.i
Lab File ID: j052802.d
Analysis Type: AIR
Lab Sample ID:
Method File: /chem/msdj.i/j-28may.b/to140527.m

Injection Date: 28-MAY-1997 08:33
Init. Calibration Date(s): 05/27/97 05/27/97
Init. Calibration Times: 10:54 21:48
Quant Type: ISTD

COMPOUND	$\overline{RRF}$	RF5	MIN RRF	%D	MAX %D
48 cis-1,3-Dichloropropene	0.469	0.470	0.010	0.1	30.0
49 4-Methyl-2-pentanone	0.563	0.578	0.010	2.8	40.0
52 Toluene	0.621	0.620	0.010	0.2	30.0
53 trans-1,3-Dichloropropene	0.370	0.405	0.010	9.3	30.0
55 1,1,2-Trichloroethane	0.319	0.336	0.010	5.5	30.0
58 Tetrachloroethene	0.455	0.470	0.010	3.2	30.0
57 2-Hexanone	0.539	0.612	0.010	13.6	40.0
60 Dibromochloromethane	0.501	0.521	0.010	3.9	40.0
61 1,2-Dibromoethane	0.486	0.508	0.010	4.4	30.0
63 Chlorobenzene	0.838	0.875	0.010	4.4	30.0
64 Ethyl Benzene	0.489	0.508	0.010	4.0	30.0
65 m,p-Xylene	0.552	0.585	0.010	5.9	30.0
67 o-Xylene	0.408	0.426	0.010	4.4	30.0
68 Styrene	0.643	0.683	0.010	6.2	30.0
69 Bromoform	0.267	0.264	0.010	0.8	40.0
72 1,1,2,2-Tetrachloroethane	0.768	0.812	0.010	5.7	30.0
74 4-Ethyltoluene	1.018	0.987	0.010	3.1	40.0
75 1,3,5-Trimethylbenzene	0.675	0.665	0.010	1.4	30.0
76 1,2,4-Trimethylbenzene	0.590	0.550	0.010	6.7	30.0
79 1,3-Dichlorobenzene	0.639	0.633	0.010	0.9	30.0
80 1,4-Dichlorobenzene	0.615	0.600	0.010	2.4	30.0
81 Benzyl Chloride	0.883	0.913	0.010	3.5	30.0
82 1,2-Dichlorobenzene	0.588	0.574	0.010	2.4	30.0
85 1,2,4-Trichlorobenzene	0.198	0.151	0.010	23.7	30.0
86 Hexachlorobutadiene	0.319	0.276	0.010	13.7	30.0

Audit History For: /chem/msdj.i/j-28may.b/j052802.d

MH 5/28/97

0225

Change Date: 28-May-97 08:57
Change Made by: Automation

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

Change Date: 28-May-97 08:57
Change Made by: Automation

Parameter: Target Processing
Old Value:
New Value: Method: /chem/msdj.i/j-28may.b/to140407.m
Reason For Change: Complete Target Compound Processing

Change Date: 28-May-97 09:01
Change Made by: mhe

Parameter: date
Old Value: 28-MAY-97 08:33
New Value: 28-MAY-1997 08:33
Reason For Change: N/A

Change Date: 28-May-97 09:01
Change Made by: mhe

Parameter: Misc Information
Old Value:
New Value: Method Spike
Reason For Change: N/A

Change Date: 28-May-97 09:01
Change Made by: mhe

Parameter: Sample Info
Old Value: Method Spike #315-57 200ppbv TO14 Std. 12.5mL (5ppbv)
New Value: #315-57 200ppbv TO14 Std. 12.5mL (5ppbv)
Reason For Change: N/A

Change Date: 28-May-97 09:01
Change Made by: mhe

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

Change Date: 28-May-97 09:01
Change Made by: mhe

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

Change Date: 28-May-97 09:01
Change Made by: mhe

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

Change Date: 28-May-97 09:01
Change Made by: mhe

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

Change Date: 28-May-97 09:01
Change Made by: mhe

Parameter: Target Processing
Old Value:
New Value: Method: /chem/msdj.i/j-28may.b/to140527.m
Reason For Change: Quantitation

Change Date: 28-May-97 09:02
Change Made by: mhe

Parameter: Best Hit for Chlorobenzene-d5 changed
Old Value: Old Hit #3
New Value: New Hit #1
Reason For Change: N/A

Change Date: 28-May-97 09:02
Change Made by: mhe

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

Change Date: 28-May-97 09:02
Change Made by: mhe

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

Change Date: 28-May-97 09:02
Change Made by: mhe

Parameter: Manual reintegration of Benzyl Chloride (Signal 1)
Old Value: No previous peak at 25.387
New Value: New Area/Time: 770168 / 25.39
Reason For Change: N/A

Change Date: 28-May-97 09:02
Change Made by: mhe

Parameter: Best Hit for 1,2,4-Trichlorobenzene changed
Old Value: Compound Manually Identified
New Value: New Hit #1

Reason For Change: N/A

Change Date: 28-May-97 09:02
Change Made by: mhe

Parameter: Manual reintegration of 1,2,4-Trichlorobenzene (Signal 1)
Old Value: No previous peak at 30.209
New Value: New Area/Time: 128440 / 30.21
Reason For Change: N/A

Change Date: 28-May-97 09:03
Change Made by: mhe

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

Change Date: 28-May-97 09:03
Change Made by: mhe

Parameter: Manual reintegration of Hexachlorobutadiene (Signal 1)
Old Value: No previous peak at 30.674
New Value: New Area/Time: 233740 / 30.67
Reason For Change: N/A

Change Date: 28-May-97 09:03
Change Made by: mhe

Parameter: Best Hit for m,p-Xylene changed
Old Value: Old Hit #9
New Value: New Hit #1
Reason For Change: N/A

Change Date: 28-May-97 09:03
Change Made by: mhe

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

Change Date: 28-May-97 09:03
Change Made by: mhe

Parameter: Best Hit for Carbon Tetrachloride changed
Old Value: Old Hit #1
New Value: New Hit #2
Reason For Change: N/A

Change Date: 28-May-97 09:03
Change Made by: mhe

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

Change Date: 28-May-97 09:08
Change Made by: mhe

Parameter: Manual reintegration of 4-Ethyltoluene (Signal 1)
Old Value: Old Area/Time: 500205 / 23.46
New Value: New Area/Time: 836512 / 23.46
Reason For Change: N/A

Change Date: 28-May-97 09:09
Change Made by: mhe

Parameter: date
Old Value: 28-MAY-97 08:33
New Value: 28-MAY-1997 08:33
Reason For Change: N/A

Change Date: 28-May-97 09:10
Change Made by: mhe

Parameter: Target Processing
Old Value:
New Value: Method: /chem/msdj.i/j-28may.b/to140527.m
Reason For Change: Complete Target Compound Processing

Change Date: 28-May-97 09:15
Change Made by: mhe

Parameter: Best Hit for Carbon Tetrachloride changed
Old Value: Old Hit #3
New Value: New Hit #4
Reason For Change: N/A

Change Date: 28-May-97 09:15
Change Made by: mhe

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

Change Date: 28-May-97 09:15
Change Made by: mhe

Parameter: Manual reintegration of 1,3,5-Trimethylbenzene (Signal 1)
Old Value: Old Area/Time: 430439 / 23.55
New Value: New Area/Time: 563217 / 23.55
Reason For Change: N/A

Change Date: 28-May-97 09:16
Change Made by: mhe

Parameter: Best Hit for Ethyl Benzene changed
Old Value: Old Hit #1
New Value: New Hit #2
Reason For Change: N/A

Change Date: 28-May-97 09:16
Change Made by: mhe

Parameter: Requantitate all compounds
Old Value:
New Value:

Reason For Change: N/A

Change Date: 28-May-97 09:16
Change Made by: mhe

Parameter: Best Hit for Ethyl Benzene changed
Old Value: Old Hit #2
New Value: New Hit #1
Reason For Change: N/A

Change Date: 28-May-97 09:16
Change Made by: mhe

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

Change Date: 28-May-97 09:16
Change Made by: mhe

Parameter: Best Hit for Ethyl Benzene changed
Old Value: Old Hit #1
New Value: New Hit #2
Reason For Change: N/A

Change Date: 28-May-97 09:16
Change Made by: mhe

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

Change Date: 28-May-97 09:16
Change Made by: mhe

Parameter: Best Hit for m,p-Xylene changed
Old Value: Old Hit #6
New Value: New Hit #3
Reason For Change: N/A

Change Date: 28-May-97 09:16
Change Made by: mhe

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

Change Date: 28-May-97 09:16
Change Made by: mhe

Parameter: Manual reintegration of o-Xylene (Signal 1)
Old Value: Old Area/Time: 321091 / 22.03
New Value: New Area/Time: 363632 / 22.03
Reason For Change: N/A

Change Date: 28-May-97 09:16
Change Made by: mhe

Parameter: Manual reintegration of o-Xylene (Signal 1)
Old Value: Old Area/Time: 363632 / 22.03
New Value: New Area/Time: 360599 / 22.03
Reason For Change: N/A

Change Date: 28-May-97 09:17
Change Made by: mhe

Parameter: Best Hit for 1,4-Dichlorobenzene changed
Old Value: Old Hit #1
New Value: New Hit #2
Reason For Change: N/A

Change Date: 28-May-97 09:17
Change Made by: mhe

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

Change Date: 28-May-97 09:18
Change Made by: mhe

Parameter: Manual reintegration of Acetone (Signal 1)
Old Value: Old Area/Time: 339201 / 12.46
New Value: New Area/Time: 321244 / 12.46
Reason For Change: N/A

Change Date: 28-May-97 09:19
Change Made by: mhe

Parameter: Manual reintegration of 2-Butanone (Signal 1)
Old Value: Old Area/Time: 98319 / 15.34
New Value: New Area/Time: 95303 / 15.34
Reason For Change: N/A

Change Date: 28-May-97 09:19
Change Made by: mhe

Parameter: Manual reintegration of 2-Butanone (Signal 1)
Old Value: Old Area/Time: 95303 / 15.34
New Value: New Area/Time: 96018 / 15.34
Reason For Change: N/A

Change Date: 28-May-97 09:20
Change Made by: mhe

Parameter: Manual reintegration of 2-Hexanone (Signal 1)
Old Value: Old Area/Time: 535151 / 19.90
New Value: New Area/Time: 518286 / 19.90
Reason For Change: N/A

Change Date: 28-May-97 09:22
Change Made by: mhe

Parameter: date
Old Value: 28-MAY-97 08:33
New Value: 28-MAY-1997 08:33

Reason For Change: N/A

Change Date: 28-May-97 09:22
Change Made by: mhe

Parameter: Target Processing
Old Value:
New Value: Method: /chem/msdj.i/j-28may.b/to140527.m
Reason For Change: Quantitation

Air Toxics Limited

AMBIENT AIR METHOD TO14

Data file : /chem/msdj.i/j-28may.b/j052802.d
Lab Smp Id: Client Smp ID: Method Spike
Inj Date : 28-MAY-1997 08:33
Operator : MH Inst ID: msdj.i
Smp Info : #315-57 200ppbv TO14 Std. 12.5mL (5ppbv)
Misc Info : Method Spike
Comment :
Method : /chem/msdj.i/j-28may.b/to140527.m
Meth Date : 28-May-1997 09:22 mhe Quant Type: ISTD
Cal Date : 28-MAY-1997 08:33 Cal File: j052802.d
Als bottle: 1 Continuing Calibration Sample
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
* 32 Bromochloromethane					CAS #: 74-97-5			
15.706	15.706 (1.000)	130	185470	5.0			100.00	9336(Q)
15.706	15.706 (0.000)	128	43976			26.56- 126.56	23.71	
15.706	15.706 (0.000)	49	72365			75.98- 175.98	39.02	
* 42 1,4-Difluorobenzene					CAS #: 540-36-3			
17.041	17.041 (1.000)	114	846399	5.0			100.00	9736
17.041	17.041 (0.000)	88	43672			0.00- 66.46	5.16	
* 62 Chlorobenzene-d5					CAS #: 3114-55-4			
21.100	21.100 (1.000)	117	846830	5.0			100.00	9972
21.100	21.100 (0.000)	82	131072			5.68- 105.68	15.48	
$ 37 Octafluorotoluene					CAS #: 434-64-0			
16.240	16.240 (1.034)	217	591446	5.0	4.9		100.00	7166
16.240	16.240 (0.000)	186	115096			8.50- 108.50	19.46	
$ 50 Toluene-d8					CAS #: 2037-26-5			
19.055	19.055 (1.118)	98	785243	5.0	4.9		100.00	9943
19.055	19.055 (0.000)	70	28272			0.00- 61.89	3.60	
19.055	19.055 (0.000)	100	161536			17.94- 117.94	20.57	

Data File: /chem/msdj.i/j-28may.b/j052802.d
Report Date: 28-May-1997 09:22

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
71 Bromofluorobenzene					CAS #: 460-00-4			
22.915	22.915 (1.086)	95	640782	5.0	4.8		100.00	8763(Q)
22.915	22.915 (0.000)	174	115920			20.39- 120.39	18.09	
22.915	22.915 (0.000)	176	114784			23.48- 123.48	17.91	
1 Propylene					CAS #: 115-07-1			
4.125	4.125 (0.263)	41	56207	5.0	6.9		100.00	7686
4.125	4.125 (0.000)	42	4925			0.00- 50.00	8.76	
4.125	4.125 (0.000)	39	6041			0.00- 98.26	10.75	
2 Dichlorodifluoromethane/FR 12					CAS #: 75-71-8			
4.636	4.636 (0.295)	85	362863	5.0	5.1		100.00	9172
4.636	4.636 (0.000)	87	11911			0.00- 81.58	3.28	
3 Freon 114					CAS #: 76-14-2			
6.314	6.314 (0.402)	135	285282	5.0	5.2		100.00	8739
6.314	6.314 (0.000)	137	8793			0.00- 79.30	3.08	
4 Chloromethane					CAS #: 74-87-3			
6.421	6.421 (0.409)	50	153851	5.0	5.2		100.00	6163
6.421	6.421 (0.000)	52	6473			0.00- 75.63	4.21	
5 Vinyl Chloride					CAS #: 75-01-4			
7.481	7.481 (0.476)	62	130475	5.0	5.9		100.00	4478
7.481	7.481 (0.000)	64	6091			0.00- 85.46	4.67	
6 1,3-Butadiene					CAS #: 106-99-0			
7.810	7.810 (0.497)	54	80950	5.0	5.9		100.00	6554(Q)
7.810	7.810 (0.000)	39	14914			53.02- 153.02	18.42	
7 Bromomethane					CAS #: 74-83-9			
9.320	9.320 (0.593)	94	35322	5.0	5.7		100.00	6586(Q)
9.320	9.320 (0.000)	96	7411			40.90- 140.90	20.98	
8 Chloroethane					CAS #: 75-00-3			
9.885	9.885 (0.629)	64	74022	5.0	5.3		100.00	4019
9.885	9.885 (0.000)	66	5089			0.00- 79.36	6.87	
9 Trichlorofluoromethane/FR 11					CAS #: 75-69-4			
10.831	10.831 (0.690)	101	442345	5.0	5.0		100.00	8941
10.831	10.831 (0.000)	103	68791			14.20- 114.20	15.55	
11 Ethanol					CAS #: 64-17-5			
11.853	11.853 (0.755)	45	39825	5.0	5.7		100.00	(Q)
11.861	11.861 (0.755)	46	15897			86.67- 186.67	39.92	
11.876	11.876 (0.756)	43	7414			0.00- 82.76	18.62	
13 1,1-Dichloroethene					CAS #: 75-35-4			
12.227	12.227 (0.778)	96	164812	5.0	5.4		100.00	8926(Q)

Data File: /chem/msdj.i/j-28may.b/j052802.d
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RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
13 1,1-Dichloroethene (continued)								
12.227	12.227 (0.000)	61	81216			118.20- 218.20	49.28	
12.227	12.227 (0.000)	98	31000			16.44- 116.44	18.81	
14 Freon 113					CAS #: 76-13-1			
12.311	12.311 (0.784)	151	293378	5.0	5.0		100.00	8264(Q)
12.311	12.311 (0.000)	153	46504			16.15- 116.15	15.85	
12.311	12.311 (0.000)	101	95592			85.97- 185.97	32.58	
17 Carbon Disulfide					CAS #: 75-15-0			
12.585	12.585 (0.801)	76	496145	5.0	5.1		100.00	7805
15 Acetone					CAS #: 67-64-1			
12.456	12.456 (0.793)	43	321244	5.0	6.3		100.00	(M)
12.456	12.456 (0.793)	58	105713			0.00- 78.60	32.91	
18 2-Propanol					CAS #: 67-63-0			
12.929	12.929 (0.823)	45	220128	5.0	5.0		100.00	7538
12.929	12.929 (0.000)	43	10097			0.00- 69.35	4.59	
12.929	12.929 (0.000)	59	2488			0.00- 55.02	1.13	
21 Methylene Chloride					CAS #: 75-09-2			
13.295	13.295 (0.847)	84	172628	5.0	5.2		100.00	9147(Q)
13.295	13.295 (0.000)	49	63640			70.95- 170.95	36.87	
13.295	13.295 (0.000)	51	19595			0.42- 100.42	11.35	
23 trans-1,2-Dichloroethene					CAS #: 156-60-5			
13.776	13.776 (0.877)	96	181998	5.0	5.0		100.00	8235(Q)
13.776	13.776 (0.000)	61	81344			97.38- 197.38	44.69	
13.776	13.776 (0.000)	98	34200			12.64- 112.64	18.79	
24 MTBE					CAS #: 1634-04-4			
13.768	13.768 (0.877)	73	479298	5.0	5.2		100.00	6210
13.768	13.768 (0.000)	57	30448			0.00- 72.89	6.35	
13.768	13.768 (0.000)	41	27294			0.00- 69.73	5.69	
25 Hexane					CAS #: 110-54-3			
14.203	14.203 (0.904)	57	317836	5.0	5.3		100.00	7273
14.203	14.203 (0.000)	43	59971			7.50- 107.50	18.87	
14.203	14.203 (0.000)	56	53990			2.04- 102.04	16.99	
26 1,1-Dichloroethane					CAS #: 75-34-3			
14.470	14.470 (0.921)	63	345073	5.0	5.2		100.00	6385
14.470	14.470 (0.000)	65	33560			0.00- 84.34	9.73	
28 Chloroprene					CAS #: 126-99-8			
14.600	14.600 (0.930)	53	113046	5.0	5.1		100.00	7800
14.600	14.600 (0.000)	88	18448			3.44- 103.44	16.32	

Data File: /chem/msdj.i/j-28may.b/j052802.d
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RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
28 Chloroprene (continued)								
14.600	14.600 (0.000)	50	8698			0.00- 75.20	7.69	
27 Vinyl Acetate					CAS #: 108-05-4			
14.546	14.546 (0.926)	43	382812	5.0	5.3		100.00	6122
14.546	14.546 (0.000)	86	9354			0.00- 60.39	2.44	
30 cis-1,2-Dichloroethene					CAS #: 156-59-2			
15.355	15.355 (0.978)	96	208292	5.0	5.1		100.00	8198(Q)
15.355	15.355 (0.000)	61	80878			83.39- 183.39	38.83	
15.355	15.355 (0.000)	98	39312			14.84- 114.84	18.87	
29 2-Butanone					CAS #: 78-93-3			
15.340	15.340 (0.977)	72	96017	5.0	5.0		100.00	7909(QM)
15.340	15.340 (0.977)	43	100537			328.21- 428.21	104.71	
15.340	15.340 (0.977)	57	7805			0.00- 79.36	8.13	
34 Chloroform					CAS #: 67-66-3			
15.790	15.790 (1.005)	83	389681	5.0	5.0		100.00	8190
15.790	15.790 (0.000)	85	78808			15.79- 115.79	20.22	
33 Tetrahydrofuran					CAS #: 109-99-9			
15.767	15.767 (1.004)	42	163228	5.0	5.4		100.00	7501
15.767	15.767 (0.000)	71	20096			0.00- 94.55	12.31	
15.767	15.767 (0.000)	72	20719			0.00- 51.03	12.69	
35 1,1,1-Trichlorethane					CAS #: 71-55-6			
16.064	16.064 (1.023)	97	392086	5.0	4.9		100.00	7457
16.064	16.064 (0.000)	99	77216			15.23- 115.23	19.69	
36 Cyclohexane					CAS #: 110-82-7			
16.148	16.148 (1.028)	56	342895	5.0	5.2		100.00	8077(Q)
16.148	16.148 (0.000)	84	78753			28.12- 128.12	22.97	
16.148	16.148 (0.000)	41	51519			0.00- 99.85	15.02	
38 Carbon Tetrachloride					CAS #: 56-23-5			
16.064	16.308 (1.023)	119	51382	5.0	0.63		100.00	8670(QH)
16.064	16.308 (0.000)	117	16880			44.66- 144.66	32.85	
39 Benzene					CAS #: 71-43-2			
16.583	16.583 (0.973)	78	647644	5.0	5.0		100.00	8202
16.583	16.583 (0.000)	77	46307			0.00- 73.15	7.15	
40 1,2-Dichloroethane					CAS #: 107-06-2			
16.598	16.598 (0.974)	62	274468	5.0	4.9		100.00	6376
16.598	16.598 (0.000)	64	25440			0.00- 81.41	9.27	
41 Heptane					CAS #: 142-82-5			
16.827	16.827 (0.987)	43	419507	5.0	5.4		100.00	7633

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RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
41 Heptane (continued)								
16.827	16.827 (0.000)	57	73218			6.79- 106.79	17.45	
16.827	16.827 (0.000)	71	78394			11.84- 111.84	18.69	
43 Trichloroethene					CAS #: 79-01-6			
17.438	17.438 (1.023)	95	301820	5.0	5.2		100.00	8330(Q)
17.438	17.438 (0.000)	130	95016			51.56- 151.56	31.48	
17.438	17.438 (0.000)	97	61024			15.23- 115.23	20.22	
44 1,2-Dichloropropane					CAS #: 78-87-5			
17.735	17.735 (1.041)	63	249979	5.0	5.0		100.00	8683
17.735	17.735 (0.000)	62	53630			21.38- 121.38	21.45	
17.735	17.735 (0.000)	41	38906			0.69- 100.69	15.56	
45 1,4-Dioxane					CAS #: 123-91-1			
17.888	17.888 (1.050)	88	155180	5.0	5.2		100.00	2827(Q)
17.888	17.888 (0.000)	58	32677			23.76- 123.76	21.06	
17.888	17.888 (0.000)	57	9506			0.00- 72.15	6.13	
46 Bromodichloromethane					CAS #: 75-27-4			
18.086	18.086 (1.061)	83	453547	5.0	4.9		100.00	9266
18.086	18.086 (0.000)	85	85472			14.61- 114.61	18.85	
48 cis-1,3-Dichloropropene					CAS #: 10061-01-5			
18.674	18.674 (1.096)	75	397903	5.0	5.0		100.00	9176
18.674	18.674 (0.000)	77	38200			0.00- 82.69	9.60	
18.674	18.674 (0.000)	39	54231			0.00- 96.41	13.63	
49 4-Methyl-2-pentanone					CAS #: 108-10-1			
18.788	18.788 (1.103)	43	489556	5.0	5.1		100.00	6682
18.788	18.788 (0.000)	58	62160			0.00- 91.66	12.70	
18.788	18.788 (0.000)	85	22855			0.00- 50.00	4.67	
52 Toluene					CAS #: 108-88-3			
19.147	19.147 (1.124)	92	524912	5.0	5.0		100.00	8514(Q)
19.147	19.147 (0.000)	91	266068			118.04- 218.04	50.69	
53 trans-1,3-Dichloropropene					CAS #: 10061-02-6			
19.383	19.383 (0.919)	75	342731	5.0	5.5		100.00	8493
19.383	19.383 (0.000)	77	31274			0.00- 81.76	9.12	
19.383	19.383 (0.000)	39	46196			0.00- 96.91	13.48	
55 1,1,2-Trichloroethane					CAS #: 79-00-5			
19.665	19.665 (0.932)	97	284687	5.0	5.3		100.00	8985(Q)
19.665	19.665 (0.000)	99	51656			12.82- 112.82	18.14	
19.665	19.665 (0.000)	83	72592			38.28- 138.28	25.50	
58 Tetrachloroethene					CAS #: 127-18-4			
19.925	19.925 (0.944)	166	398056	5.0	5.2		100.00	9309(Q)

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
58 Tetrachloroethene (continued)								
19.925	19.925 (0.000)	129	87736			23.46- 123.46	22.04	
19.925	19.925 (0.000)	131	85984			21.99- 121.99	21.60	
57 2-Hexanone					CAS #: 591-78-6			
19.902	19.902 (0.943)	43	518286	5.0	5.7		100.00	8685(M)
19.902	19.902 (0.943)	58	89888			7.81- 107.81	17.34	
19.902	19.902 (0.943)	100	18816			0.00- 62.30	3.63	
60 Dibromochloromethane					CAS #: 124-48-1			
20.268	20.268 (0.961)	129	440974	5.0	5.2		100.00	8932
20.268	20.268 (0.000)	208	7174			0.00- 56.05	1.63	
61 1,2-Dibromoethane					CAS #: 106-93-4			
20.474	20.474 (0.970)	107	430044	5.0	5.2		100.00	5533(Q)
20.474	20.474 (0.000)	109	111704			43.97- 143.97	25.98	
63 Chlorobenzene					CAS #: 108-90-7			
21.145	21.145 (1.002)	112	740913	5.0	5.2		100.00	9286
21.145	21.145 (0.000)	114	63968			0.00- 82.25	8.63	
21.145	21.145 (0.000)	77	118775			9.46- 109.46	16.03	
64 Ethyl Benzene					CAS #: 100-41-4			
21.237	21.237 (1.006)	106	430569	5.0	5.2		100.00	(H)
21.237	21.237 (1.006)	91	1385926			268.72- 368.72	321.88	
65 m,p-Xylene					CAS #: 108-38-3			
21.390	21.390 (1.014)	106	990840	10.0	10.6		100.00	(H)
21.390	21.390 (1.014)	91	1963016			149.27- 249.27	198.12	
67 o-Xylene					CAS #: 95-47-6			
22.030	22.030 (1.044)	106	360599	5.0	5.2		100.00	7820(QM)
22.030	22.030 (1.044)	91	125360			76.66- 176.66	34.76	
68 Styrene					CAS #: 100-42-5			
22.046	22.046 (1.045)	104	578622	5.0	5.3		100.00	8915
22.046	22.046 (0.000)	78	72171			0.00- 97.52	12.47	
69 Bromoform					CAS #: 75-25-2			
22.450	22.450 (1.064)	171	223952	5.0	5.0		100.00	9047(Q)
22.450	22.450 (0.000)	173	106976			143.85- 243.85	47.77	
72 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5			
23.060	23.060 (1.093)	83	687880	5.0	5.3		100.00	8940
23.060	23.060 (0.000)	85	104232			11.92- 111.92	15.15	
74 4-Ethyltoluene					CAS #: 622-96-8			
23.465	23.465 (1.112)	105	835440	5.0	4.8		100.00	9259

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RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
74 4-Ethyltoluene (continued)								
23.465	23.465 (0.000)	120	56639			0.00- 78.70	6.78	
75 1,3,5-Trimethylbenzene					CAS #: 108-67-8			
23.549	23.549 (1.116)	105	563217	5.0	4.9		100.00	9392(M)
23.549	23.549 (1.116)	120	41416			0.00- 77.56	7.35	
76 1,2,4-Trimethylbenzene					CAS #: 95-63-6			
24.289	24.289 (1.151)	105	466066	5.0	4.7		100.00	8754
24.289	24.289 (0.000)	120	51349			0.00- 94.66	11.02	
79 1,3-Dichlorobenzene					CAS #: 541-73-1			
24.968	24.968 (1.183)	146	535785	5.0	5.0		100.00	
24.975	24.975 (1.184)	148	345234			14.44- 114.44	64.44	
24.975	24.975 (1.184)	111	229255			0.00- 92.40	42.79	
80 1,4-Dichlorobenzene					CAS #: 106-46-7			
24.968	25.151 (1.183)	146	535785	5.0	5.1		100.00	9316(QH)
24.968	25.151 (0.000)	148	70904			14.82- 114.82	13.23	
24.968	25.151 (0.000)	111	46352			0.00- 89.97	8.65	
81 Benzyl Chloride					CAS #: 100-44-7			
25.387	25.387 (1.203)	91	773493	5.0	5.2		100.00	9501
25.387	25.387 (0.000)	126	33000			0.00- 69.84	4.27	
82 1,2-Dichlorobenzene					CAS #: 95-50-1			
25.990	25.990 (1.232)	146	485886	5.0	4.9		100.00	9412(Q)
25.990	25.990 (0.000)	148	63888			15.23- 115.23	13.15	
25.990	25.990 (0.000)	111	42232			0.00- 94.06	8.69	
85 1,2,4-Trichlorobenzene					CAS #: 120-82-1			
30.209	30.209 (1.432)	180	127950	5.0	3.8		100.00	9013(Q)
30.209	30.209 (0.000)	182	19408			42.38- 142.38	15.17	
86 Hexachlorobutadiene					CAS #: 87-68-3			
30.674	30.674 (1.454)	225	233497	5.0	4.3		100.00	9438(Q)
30.674	30.674 (0.000)	223	24608			14.39- 114.39	10.54	

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-28may.b/j052802.d
Report Date: 28-May-1997 09:22

Air Toxics Limited

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdj.i
Lab File ID: j052802.d
Lab Smp Id:
Analysis Type: VOA
Quant Type: ISTD
Operator: MH
Method File: /chem/msdj.i/j-28may.b/to140527.m
Misc Info: Method Spike

Calibration Date: 05/28/97
Calibration Time: 0833
Client Smp ID: Method Spike
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	% DIFF
32 Bromochloromethane	185470	111282	259658	185470	0.00
42 1,4-Difluorobenzene	846399	507839	1184959	846399	0.00
62 Chlorobenzene-d5	846830	508098	1185562	846830	0.00

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	% DIFF
32 Bromochloromethane	15.71	15.21	16.21	15.71	0.00
42 1,4-Difluorobenzene	17.04	16.54	17.54	17.04	0.00
62 Chlorobenzene-d5	21.10	20.60	21.60	21.10	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.

0240

Data File: /chem/msdj.i/j-28may.b/j052802.d

Date : 28-MAY-1997 08:33

Client ID: Method Spike

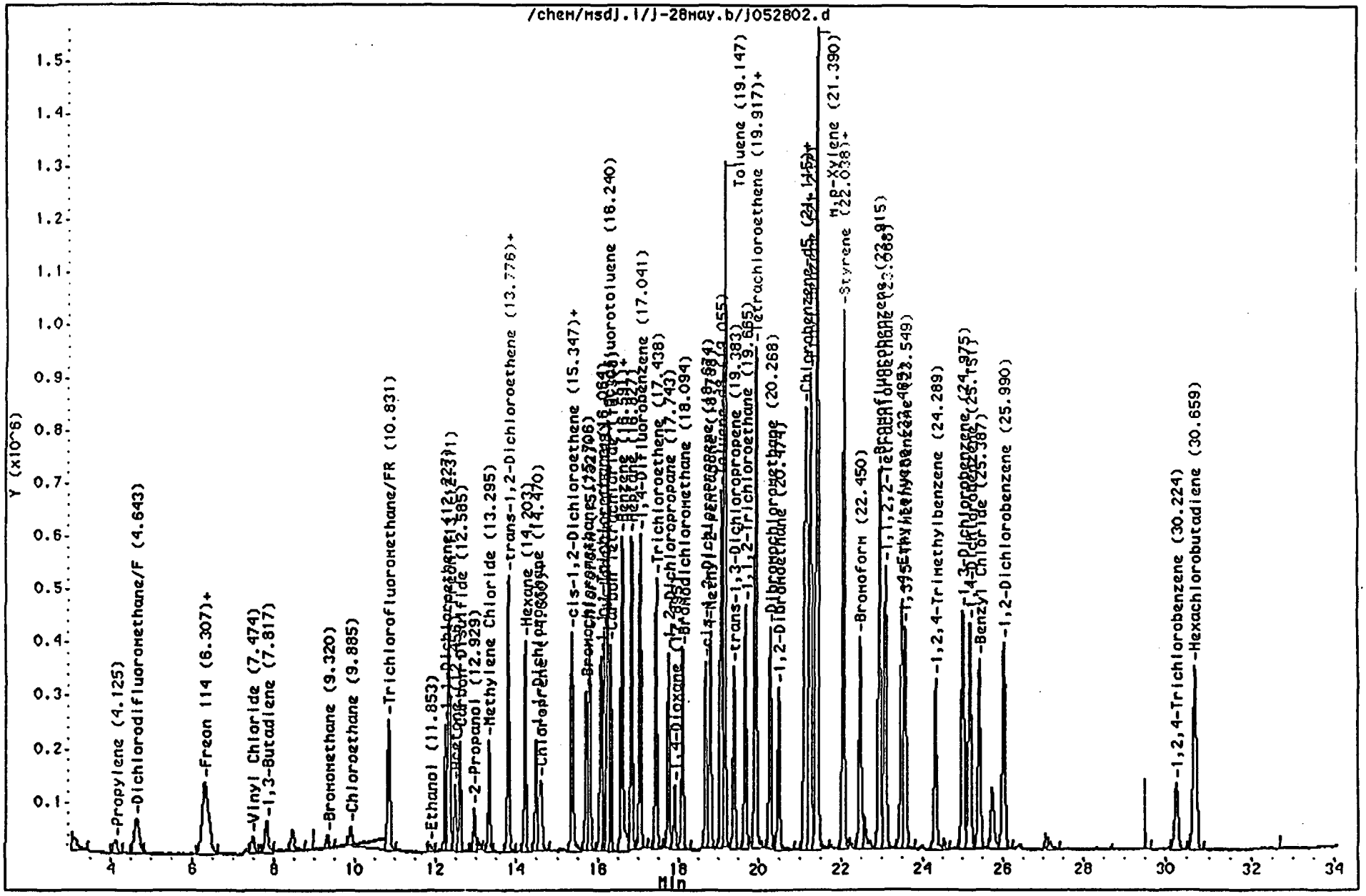
Sample Info: #315-57 200ppbv TO14 Std. 12.5mL (5ppbv)

Column phase: RTx-624

Instrument: msdj.i

Operator: MH

Column diameter: 0.58



Data File: /chem/msdj.i/j-28may.b/j052802.d

Date : 28-MAY-1997 08:33

Client ID: Method Spike

Instrument: msdj.i

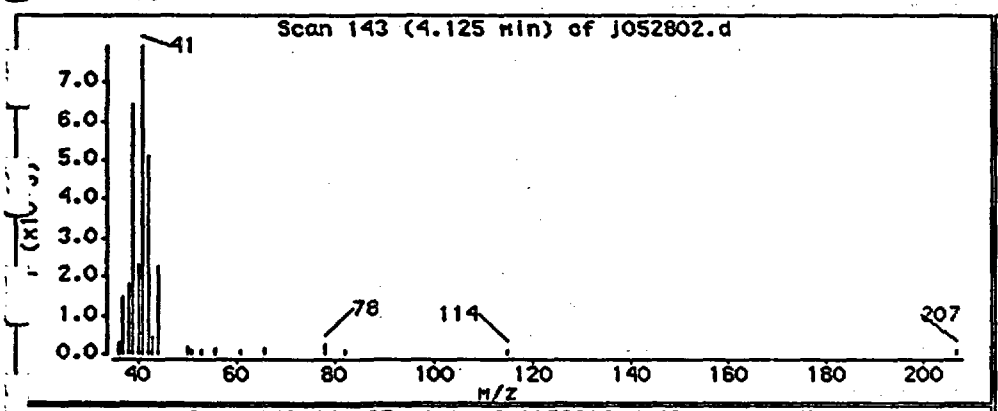
Sample Info: #315-57 200ppbv TO14 Std. 12.5mL (5ppbv)

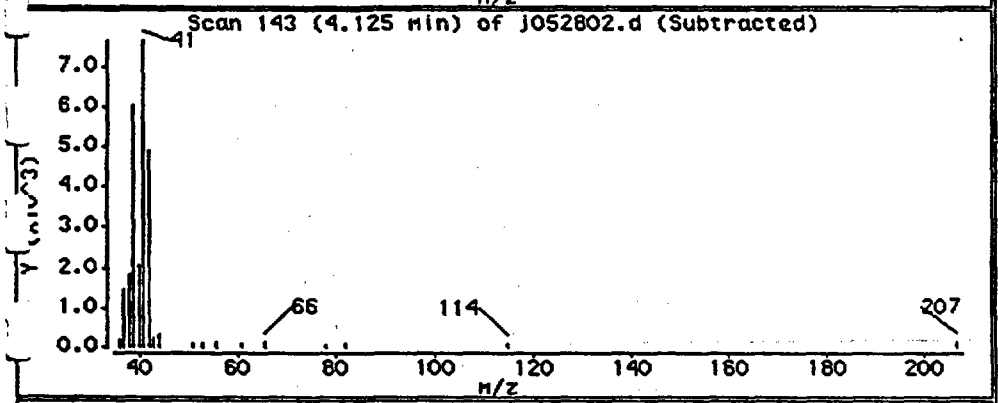
Operator: MH

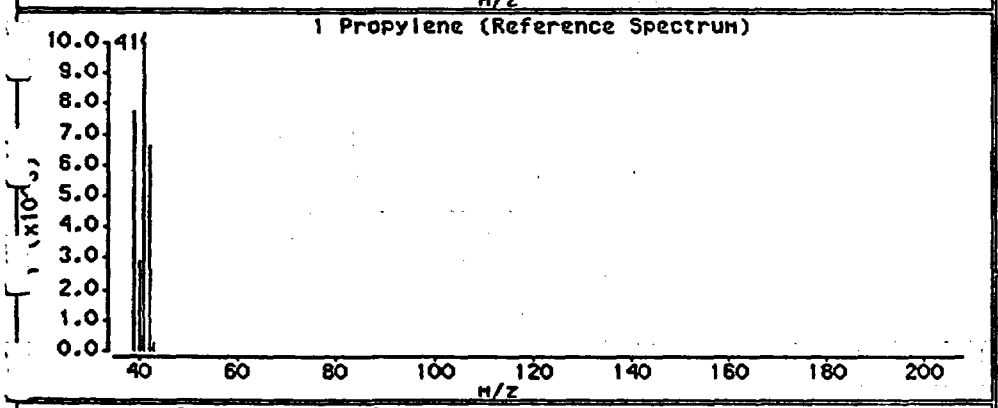
Column phase: RTx-624

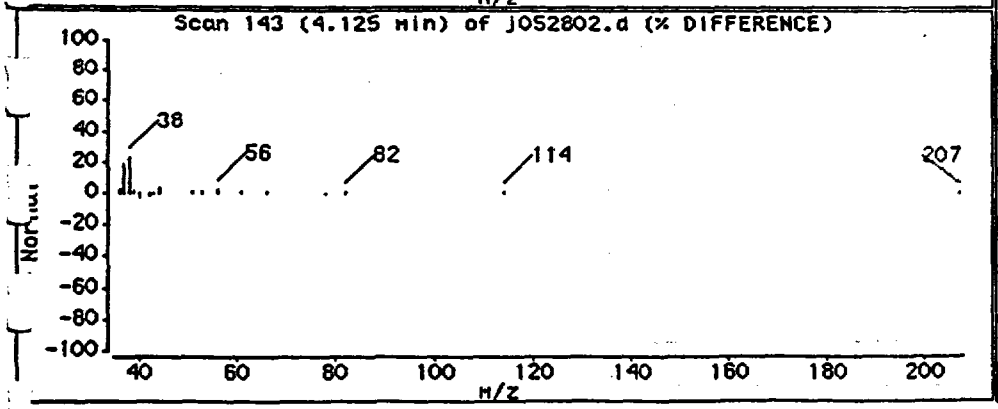
Column diameter: 0.58

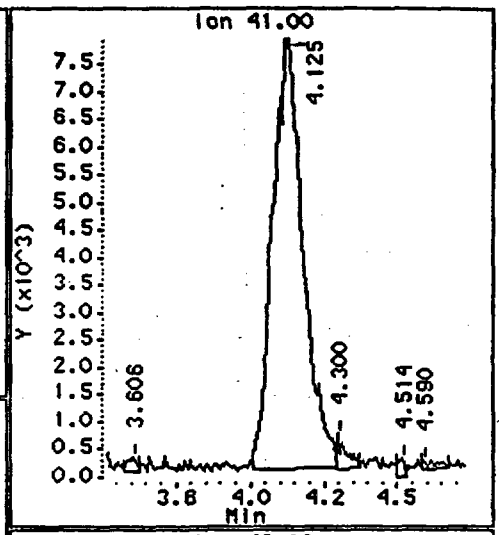
1 Propylene

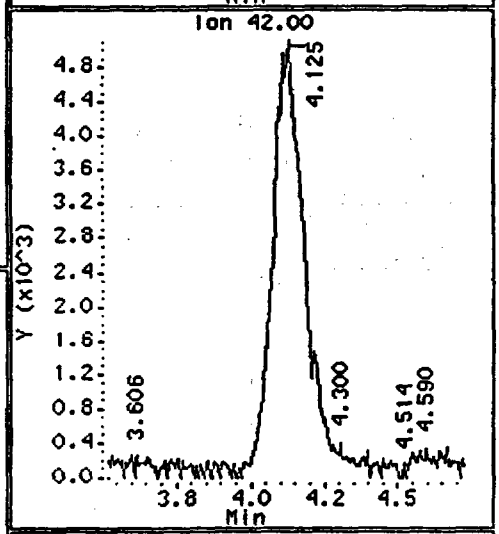


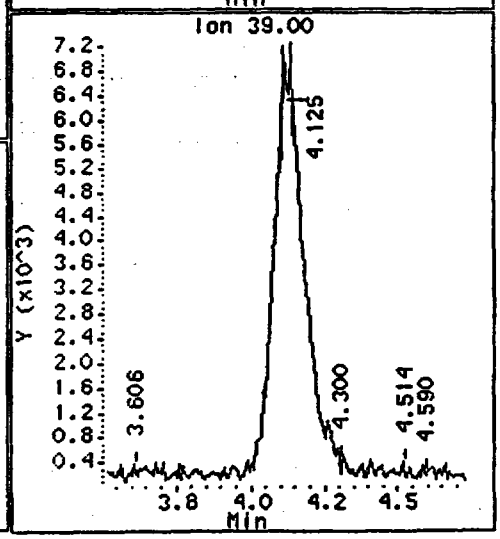












Data File: /chem/msdj.i/j-28may.b/j052802.d

Date : 28-MAY-1997 08:33

Client ID: Method Spike

Instrument: msdj.i

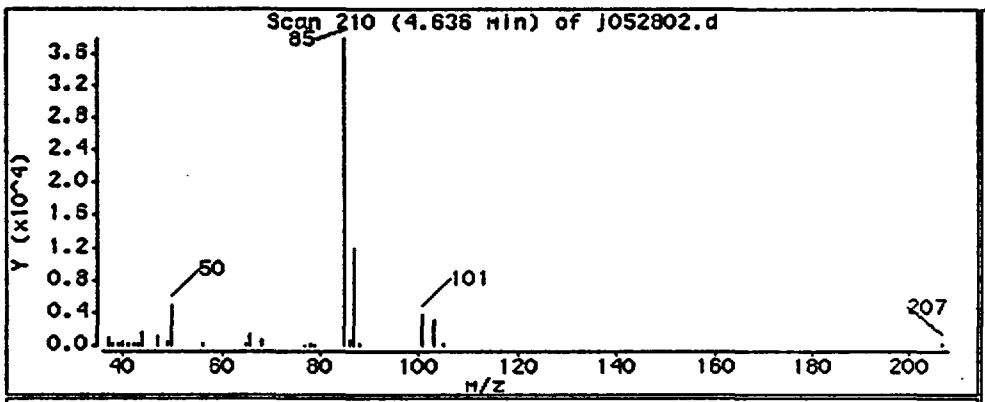
Sample Info: #315-57 200ppbv T014 Std. 12.5mL (5ppbv)

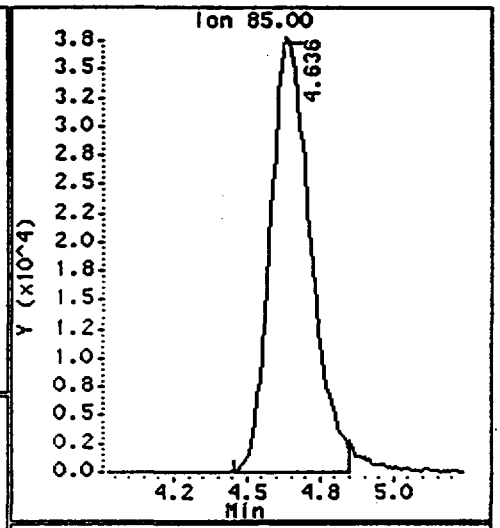
Operator: MH

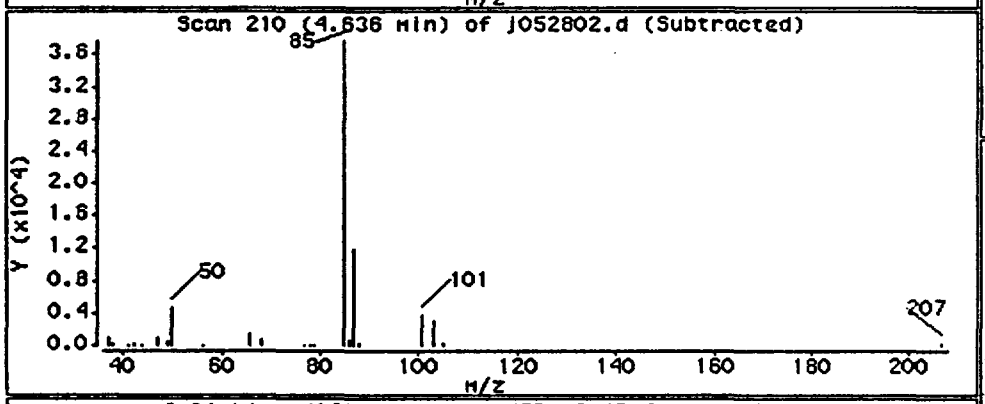
Column phase: RTx-624

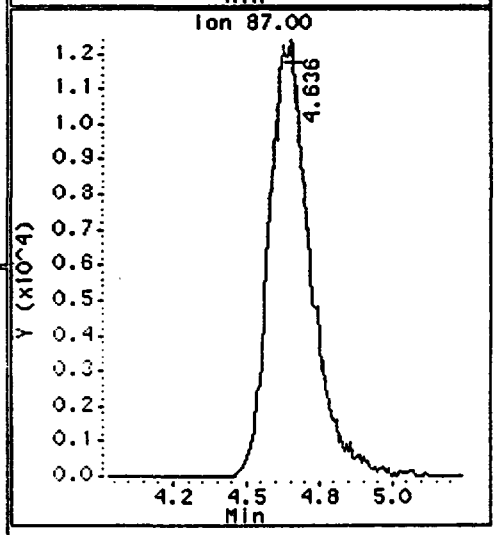
Column diameter: 0.58

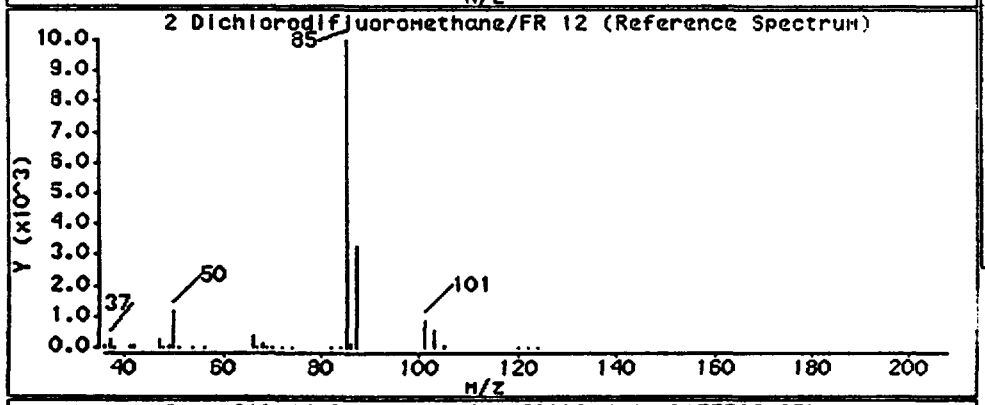
2 Dichlorodifluoromethane/FR 12

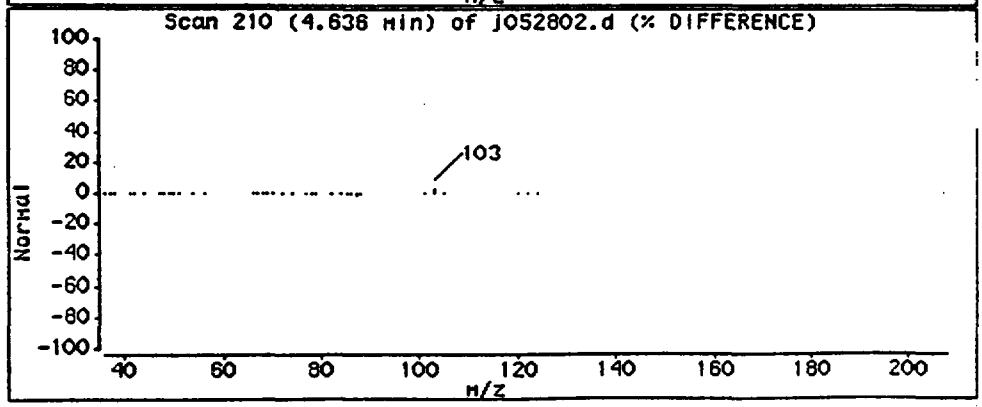












Data File: /chem/msdj.i/j-28may.b/j052802.d

Date : 28-MAY-1997 08:33

Client ID: Method Spike

Instrument: msdj.i

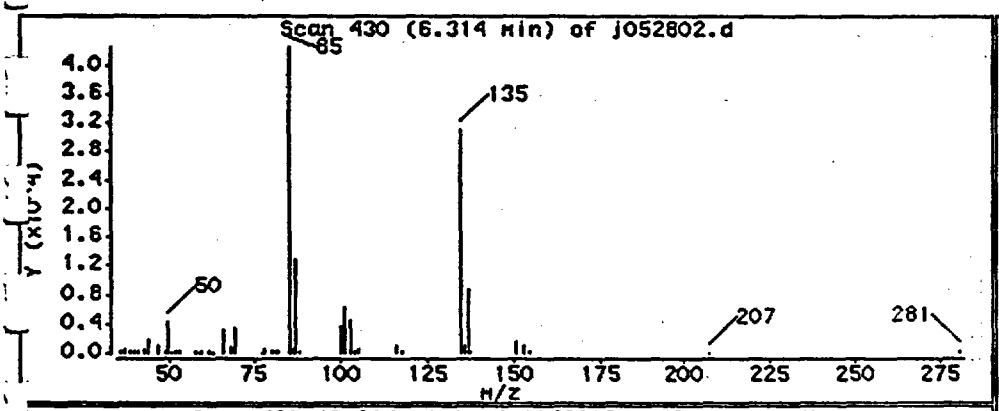
Sample Info: #315-57 200ppbv TO14 Std. 12.5mL (5ppbv)

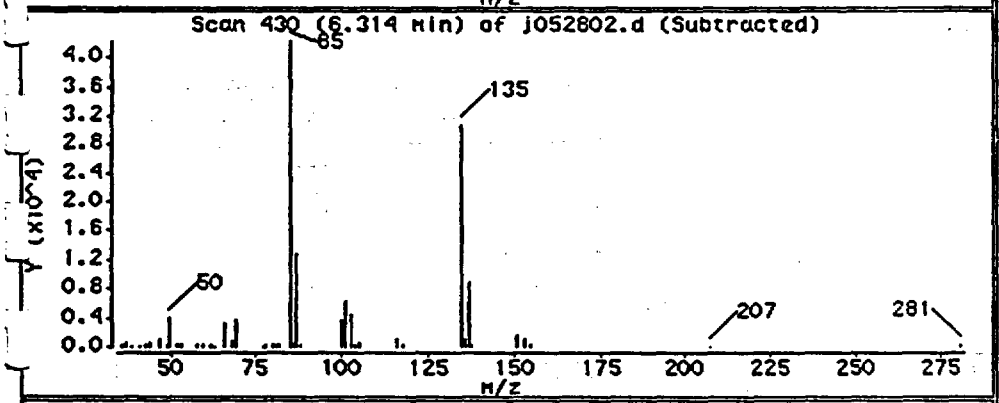
Operator: MH

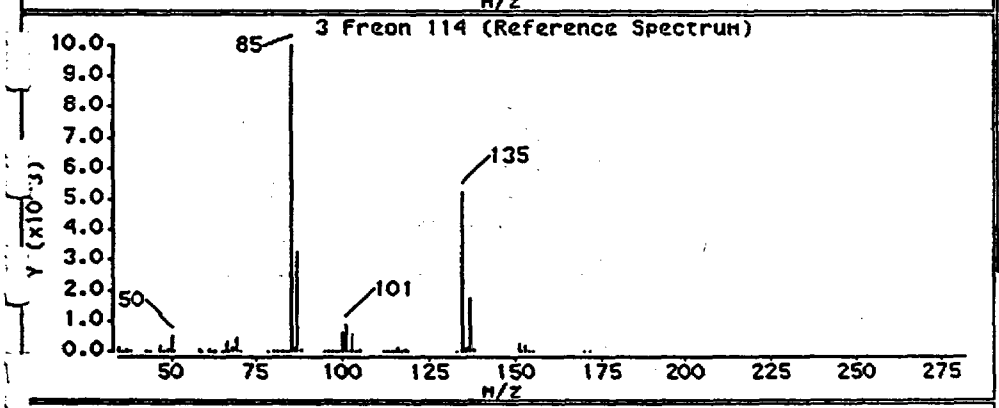
Column phase: RTx-624

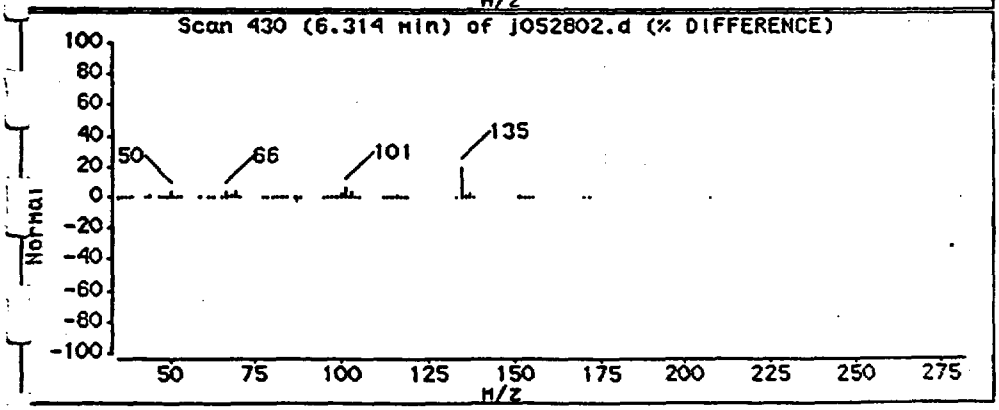
Column diameter: 0.58

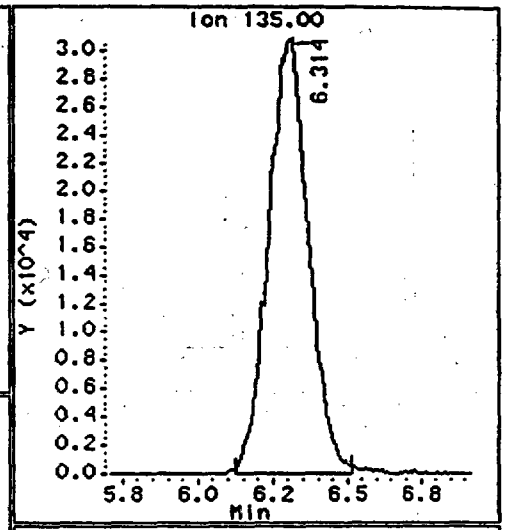
3 Freon 114

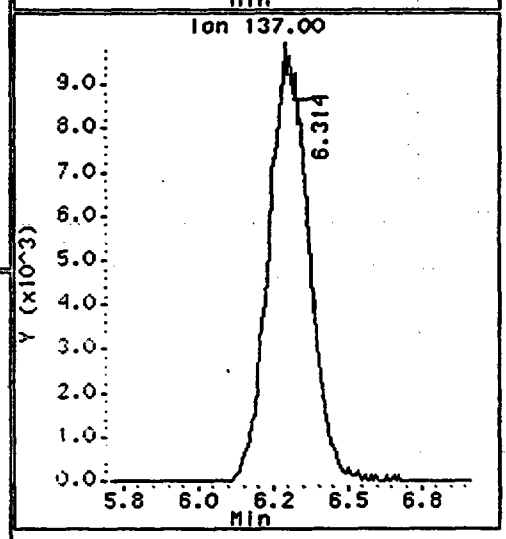












Data File: /chem/msdj.i/j-28may.b/j052802.d

Date : 28-MAY-1997 08:33

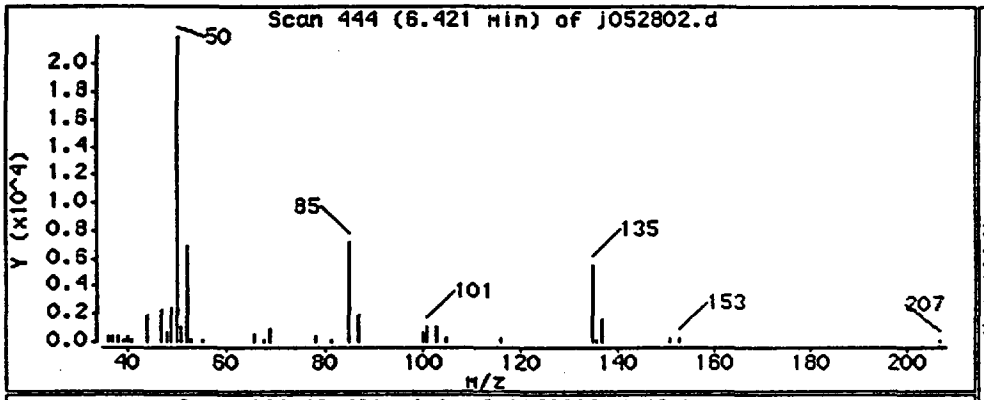
Client ID: Method Spike Instrument: msdj.i

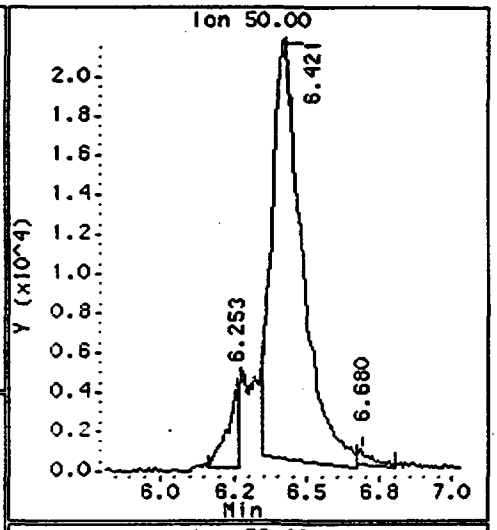
Sample Info: #315-57 200ppbv TO14 Std. 12.5mL (5ppbv)

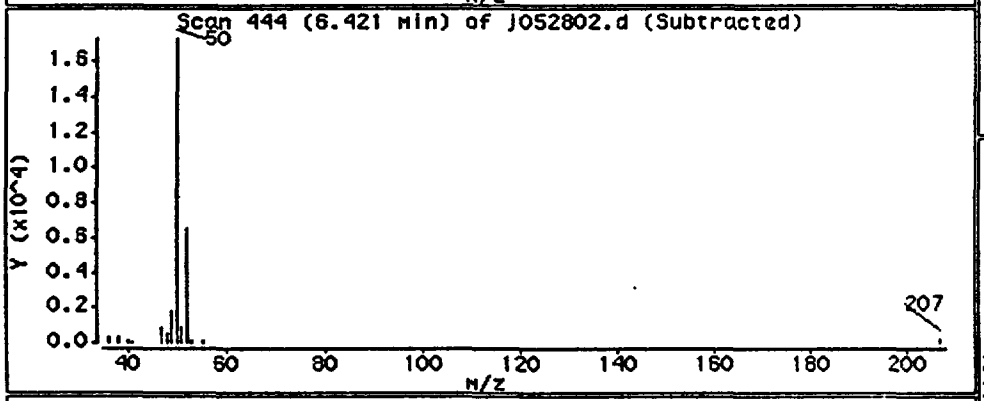
Operator: MH

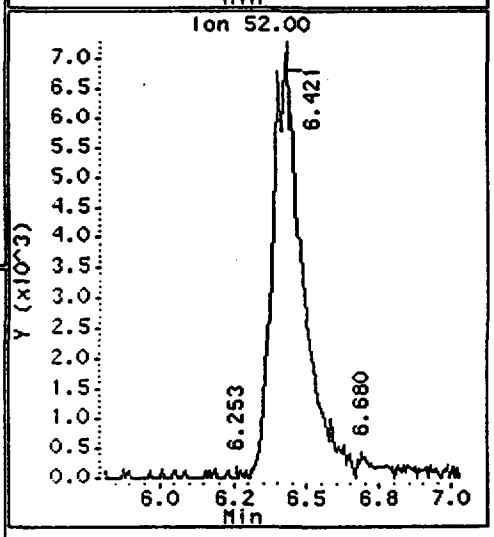
Column phase: RTx-624 Column diameter: 0.58

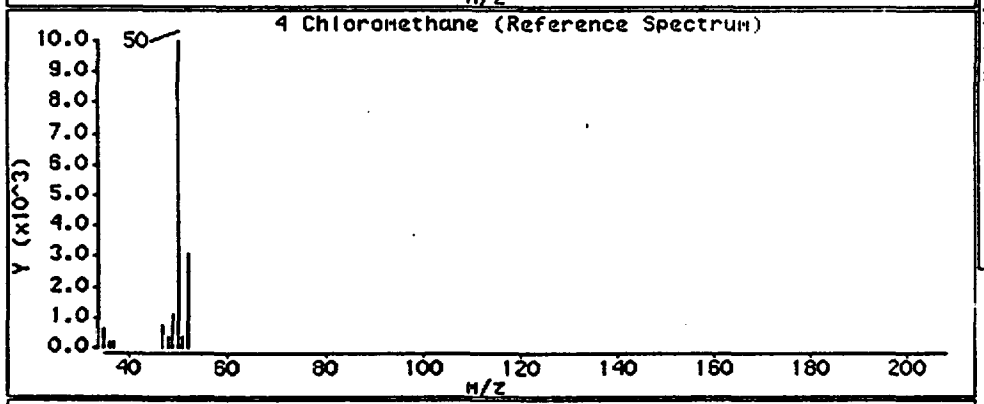
4 Chloromethane

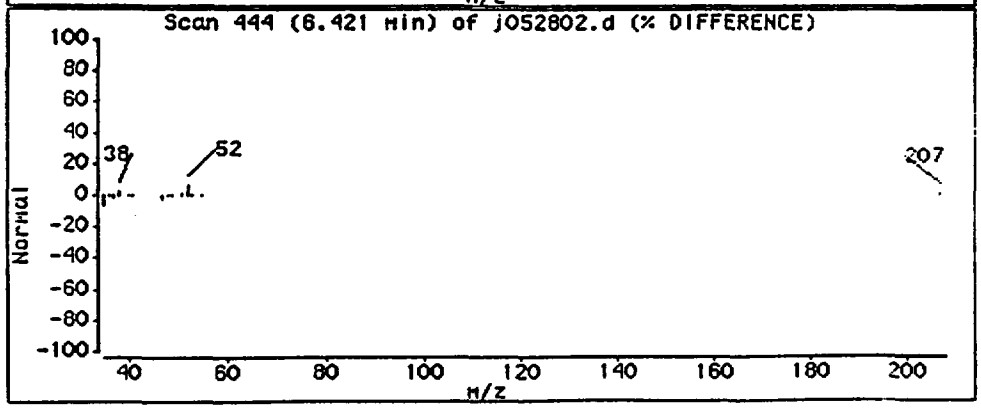






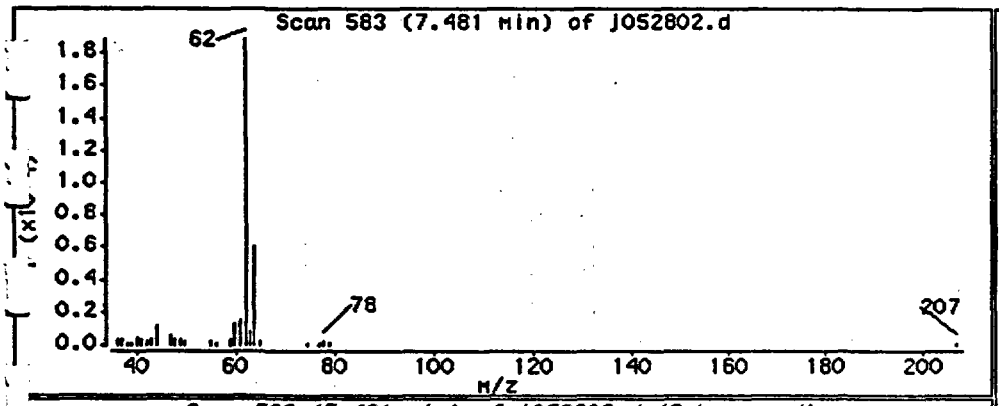


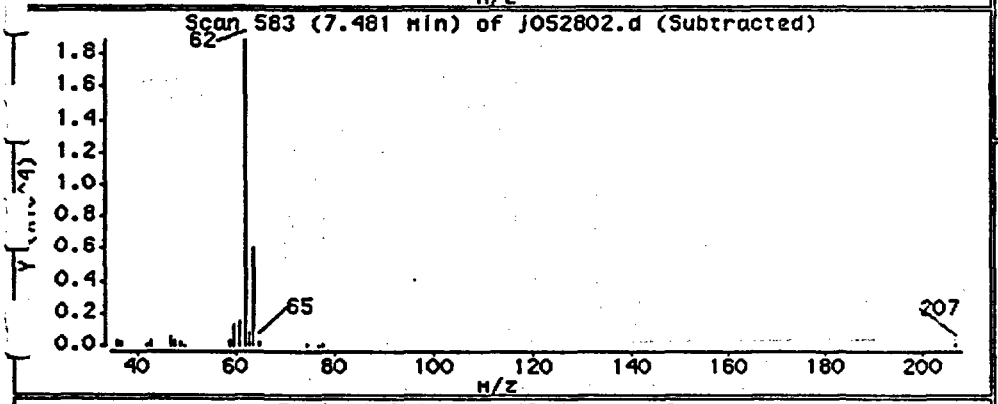


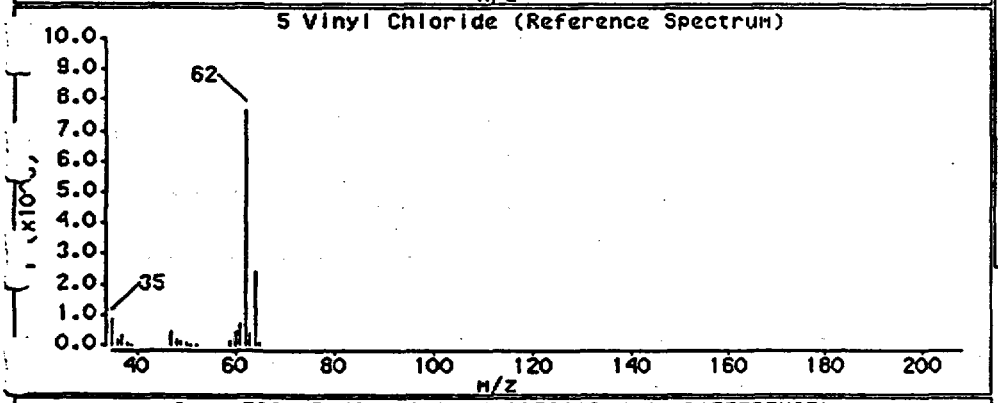


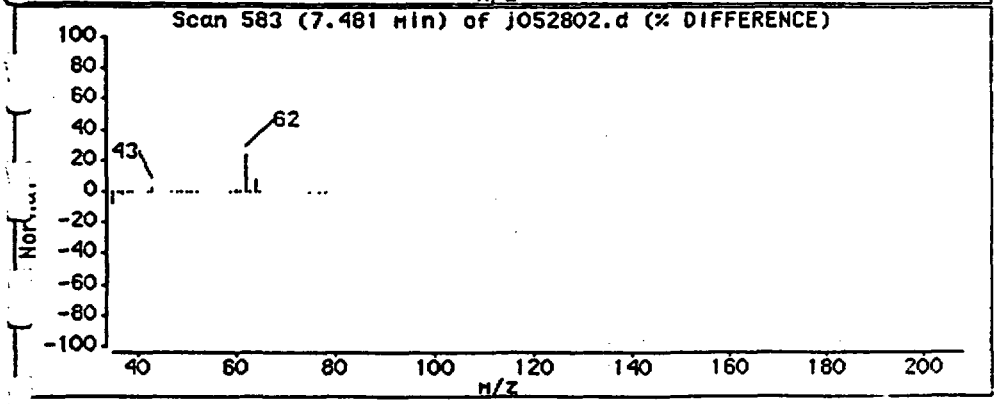
Data File: /chem/msdj.i/j-28may.b/j052802.d
Date : 28-MAY-1997 08:33
Client ID: Method Spike
Instrument: msdj.i
Sample Info: #315-57 200ppbv TO14 Std. 12.5mL (5ppbv)
Operator: MH
Column phase: RTx-624
Column diameter: 0.58

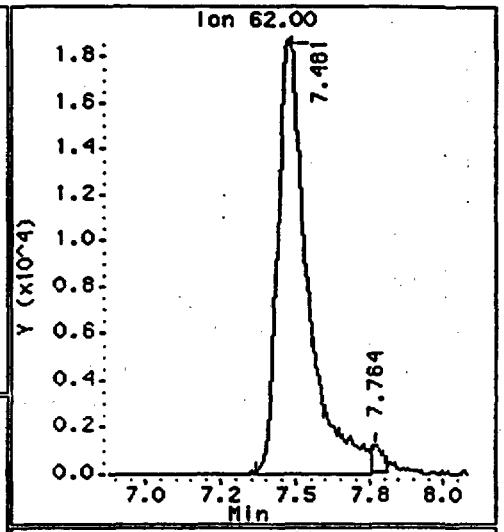
5 Vinyl Chloride

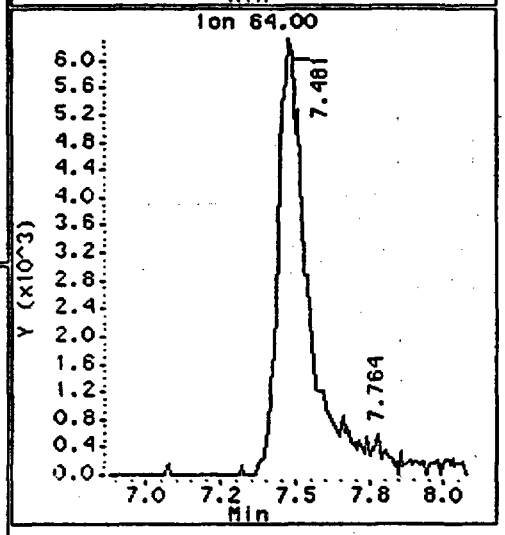












Data File: /chem/msdj.i/j-28may.b/j052802.d

Date : 28-MAY-1997 08:33

Client ID: Method Spike

Instrument: msdj.i

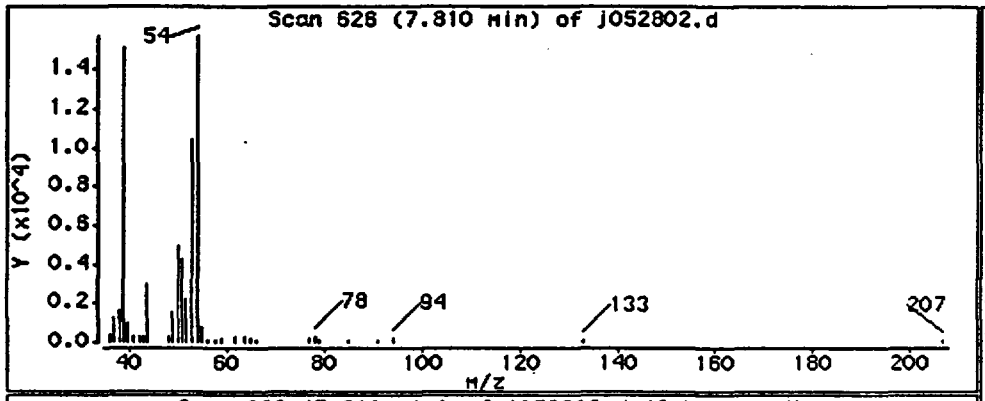
Sample Info: #315-57 200ppbv TO14 Std. 12.5mL (5ppbv)

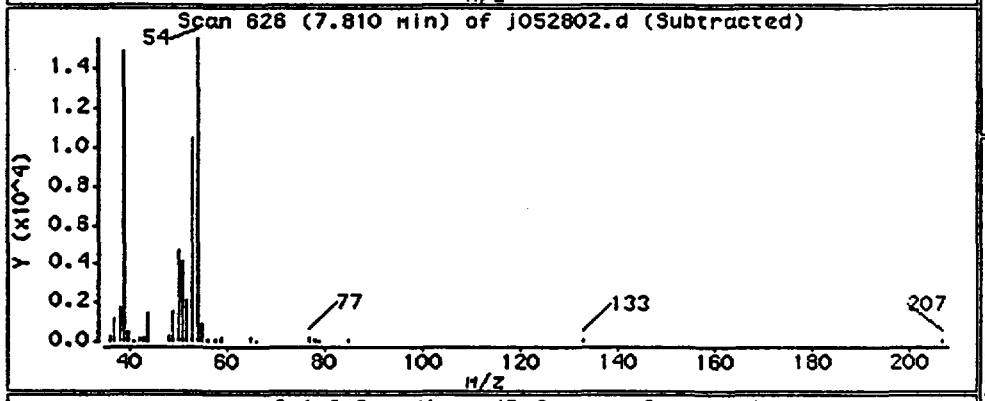
Operator: MH

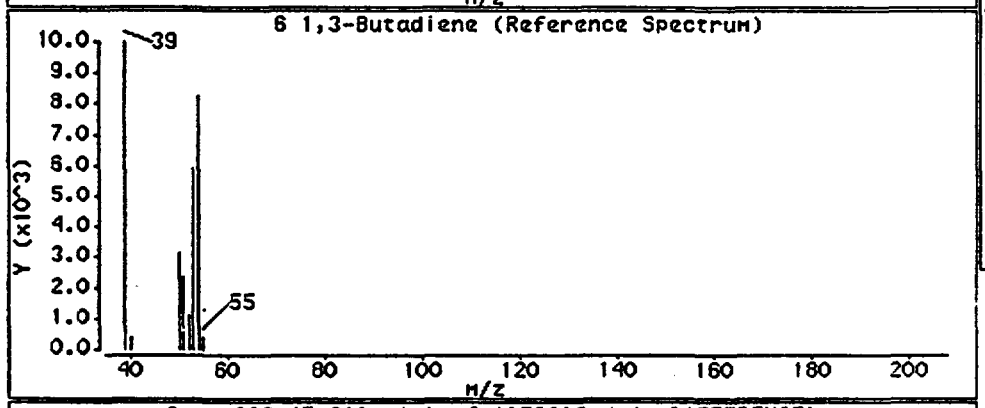
Column phase: RTx-624

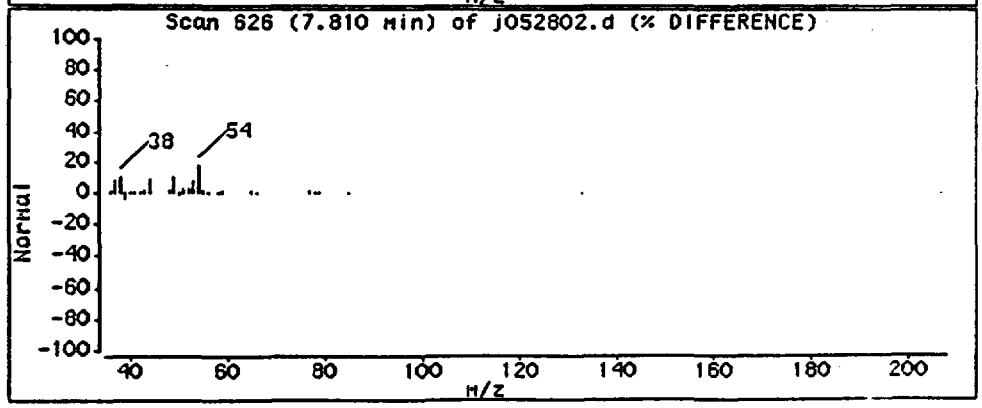
Column diameter: 0.58

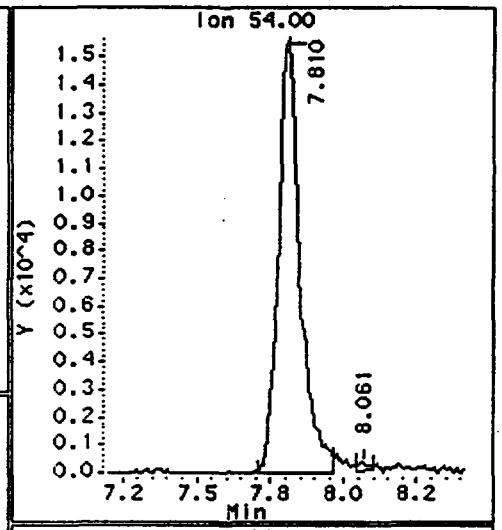
6 1,3-Butadiene

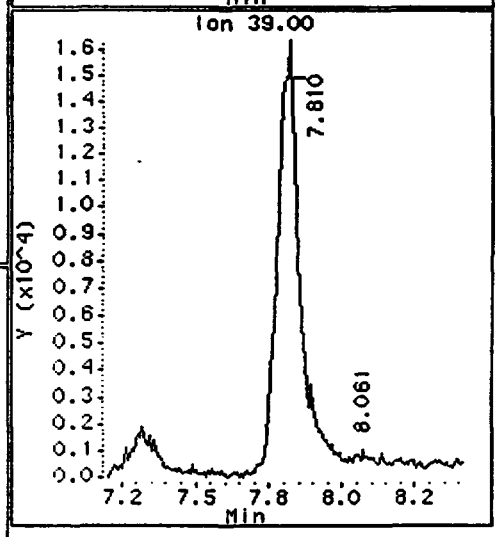












Data File: /chem/msdj.i/j-28may.b/j052802.d

Date : 28-MAY-1997 08:33

U247

Client ID: Method Spike

Instrument: msdj.i

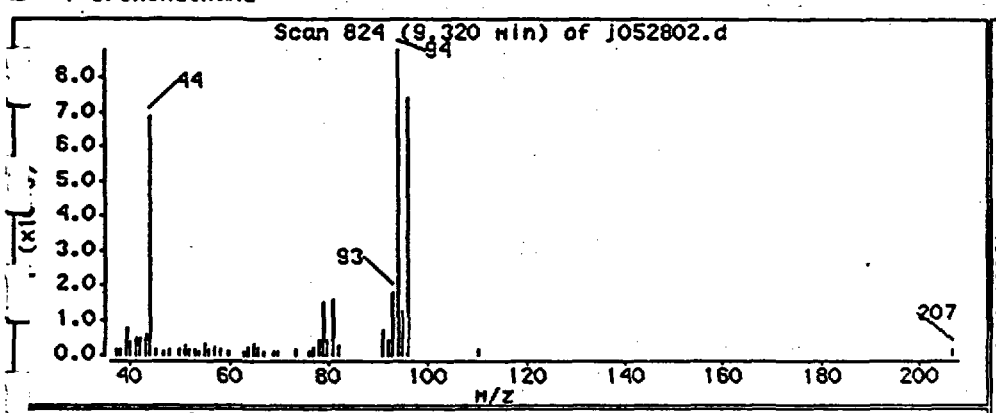
Sample Info: #315-57 200ppbv T014 Std. 12.5mL (5ppbv)

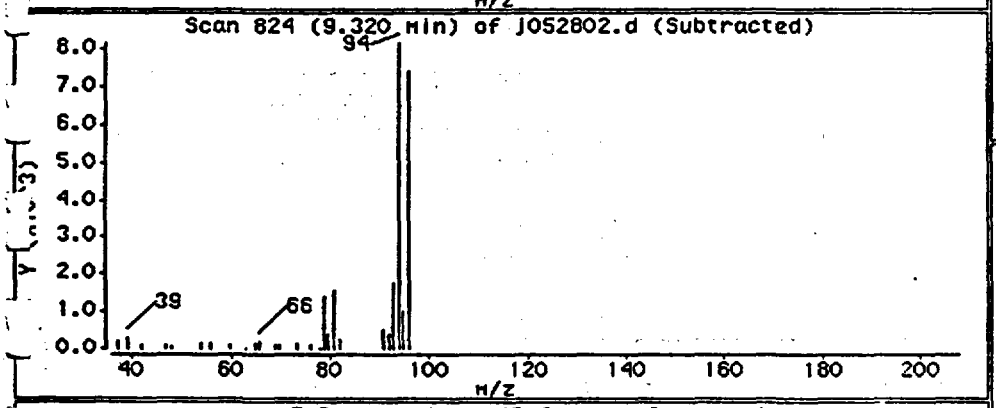
Operator: MH

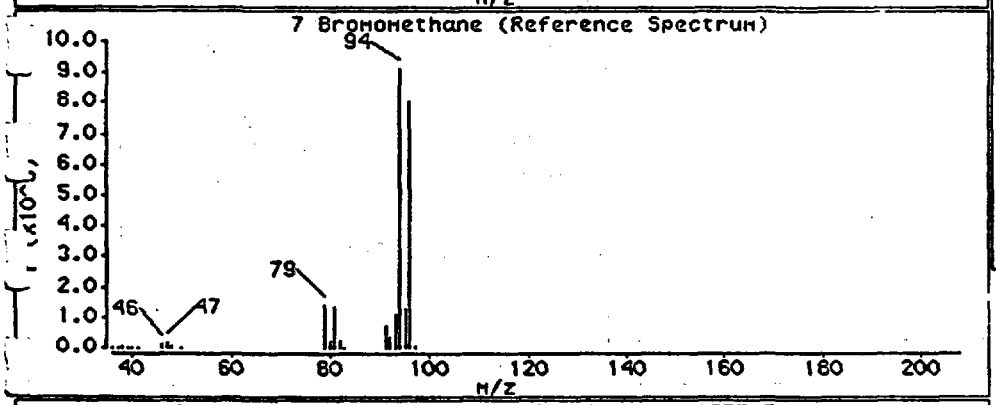
Column phase: RTx-624

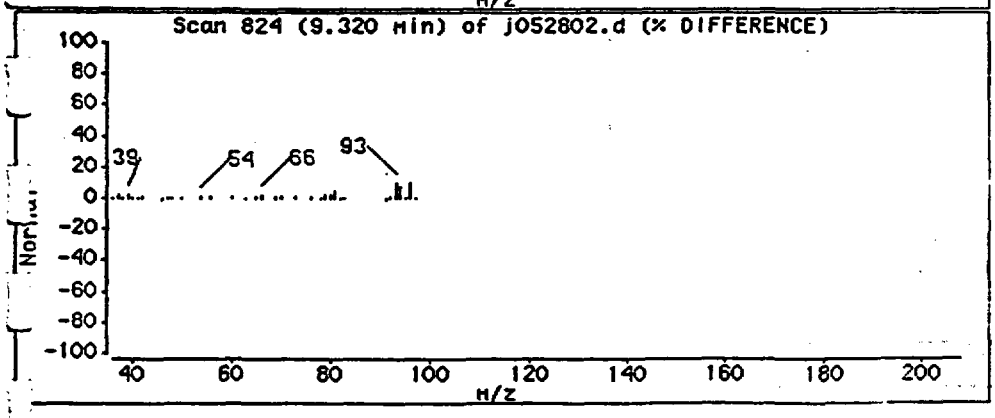
Column diameter: 0.58

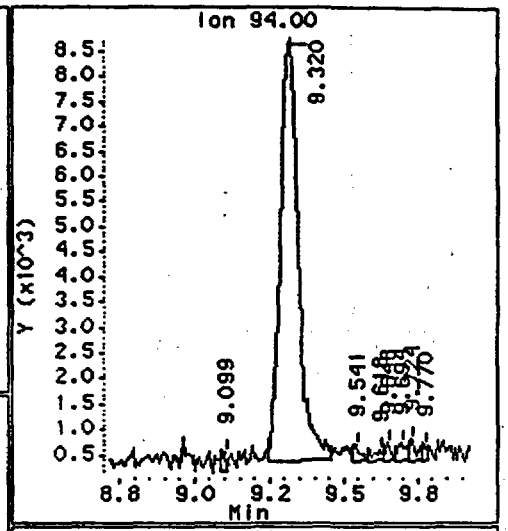
7 Bromomethane

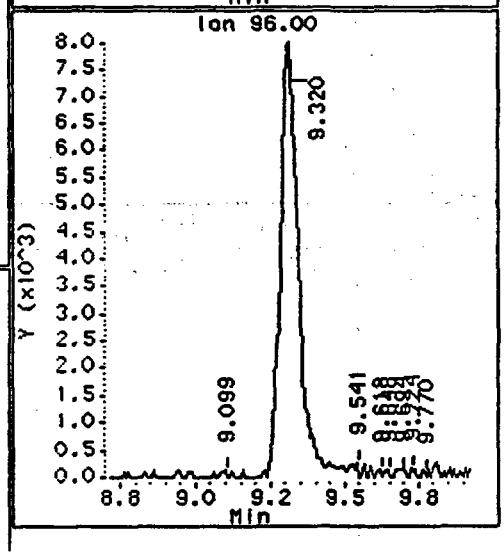






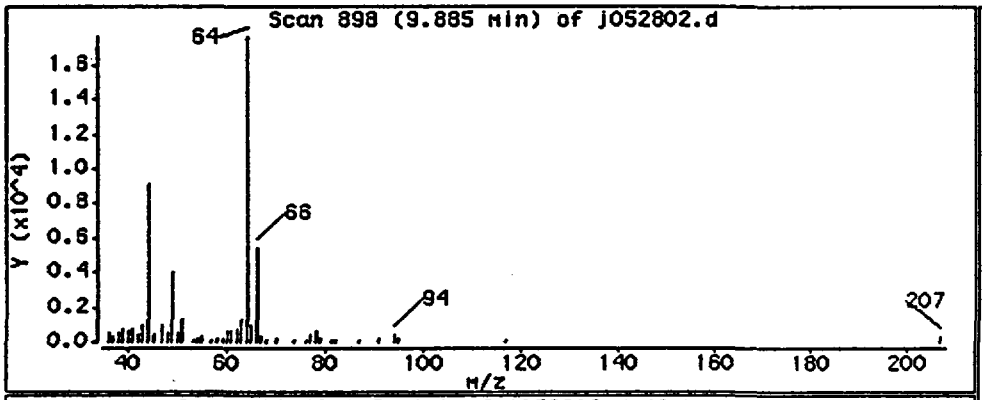


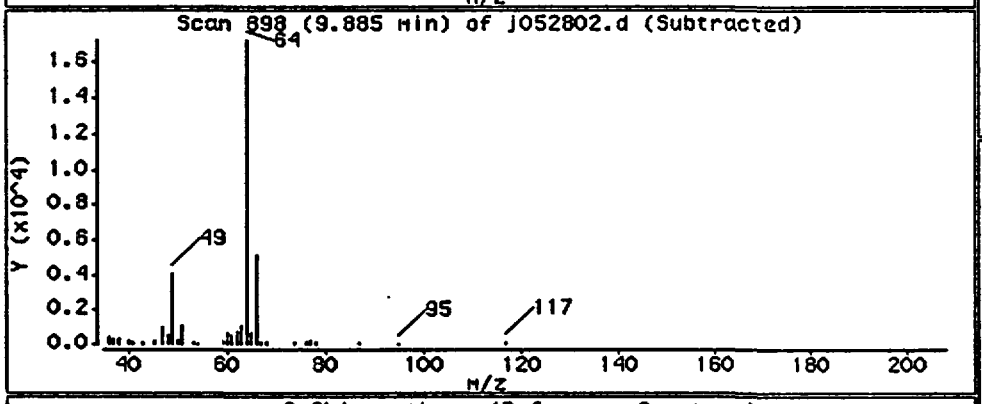


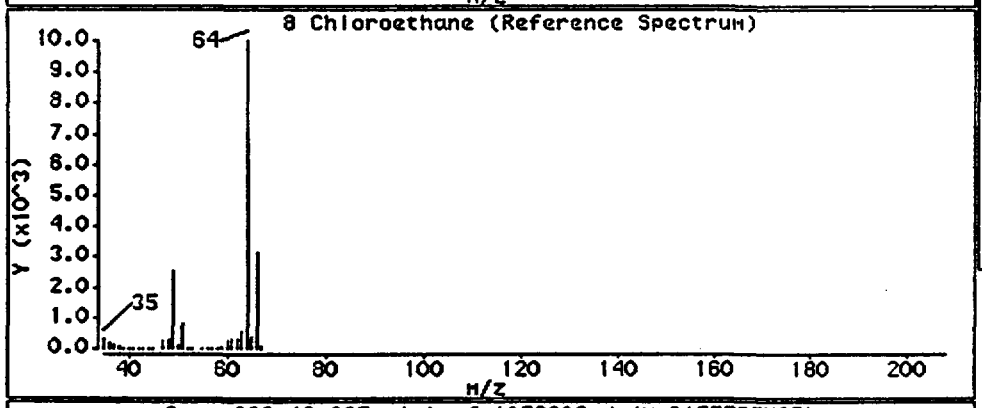


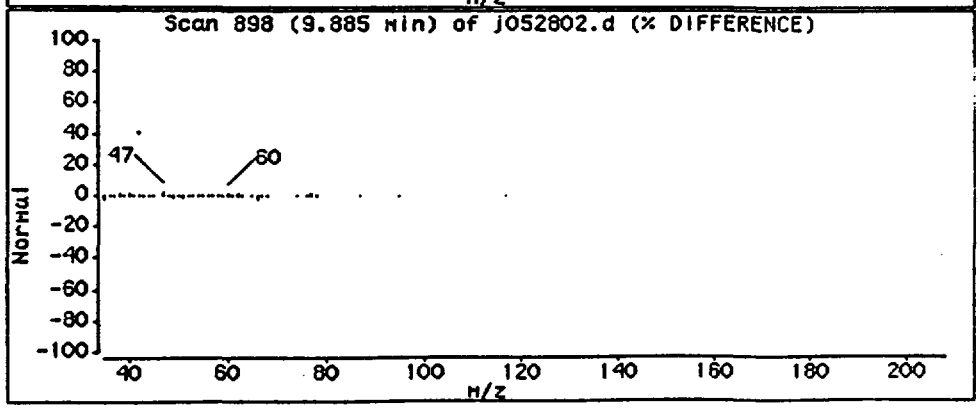
Data File: /chem/msdj.i/j-28may.b/j052802.d
Date : 28-MAY-1997 08:33
Client ID: Method Spike
Instrument: msdj.i
Sample Info: #315-57 200ppbv T014 Std. 12.5mL (5ppbv)
Operator: MH
Column phase: RTx-624
Column diameter: 0.58

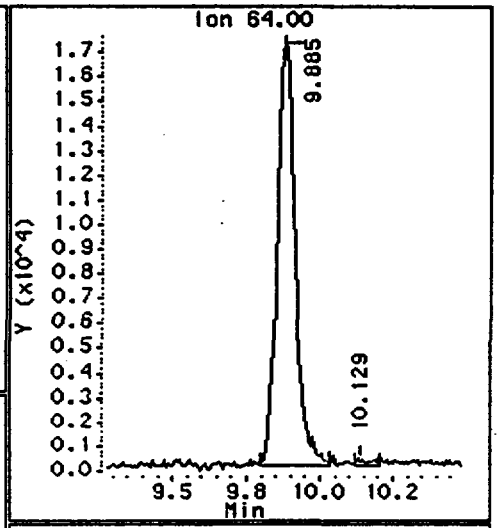
8 Chloroethane

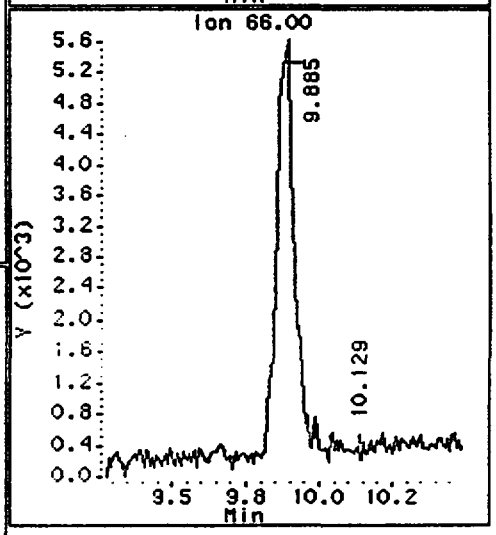






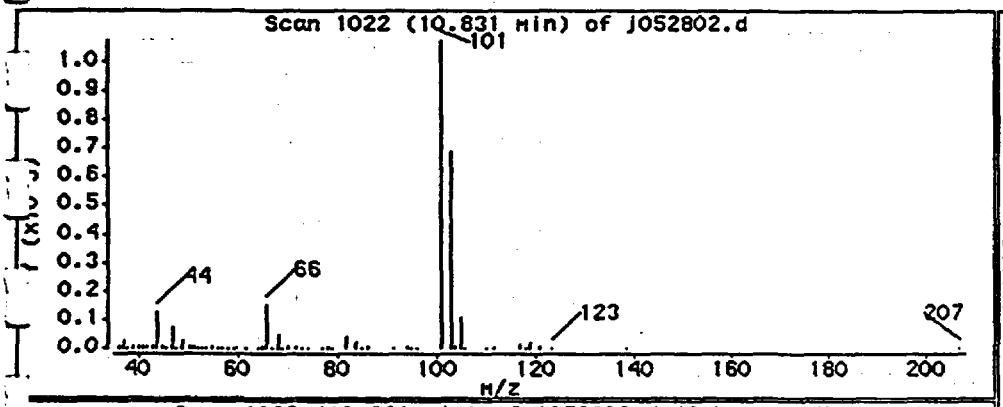


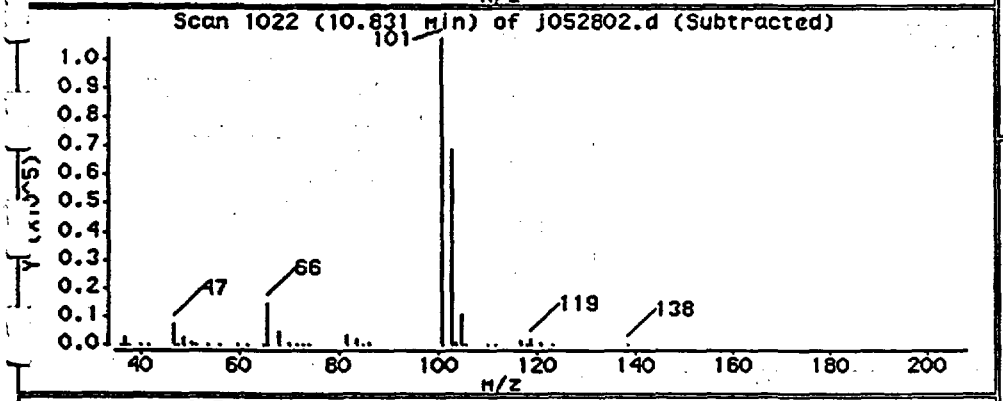


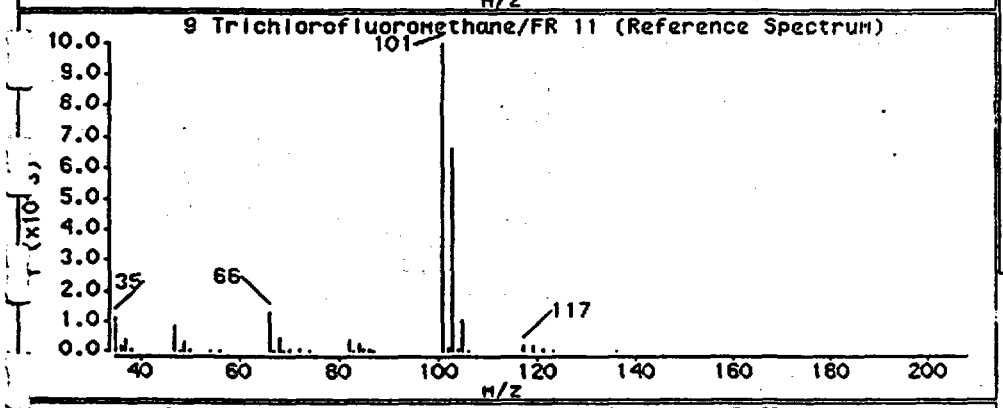


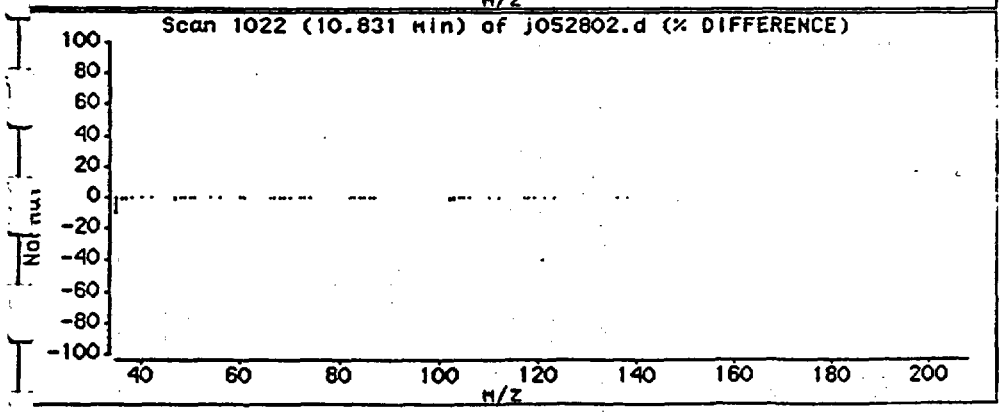
Data File: /chem/msdj.i/j-28may.b/j052802.d
Date : 28-MAY-1997 08:33
Client ID: Method Spike
Instrument: msdj.i
Sample Info: #315-57 200ppbv TO14 Std. 12.5mL (5ppbv)
Operator: MH
Column phase: RTx-624
Column diameter: 0.58

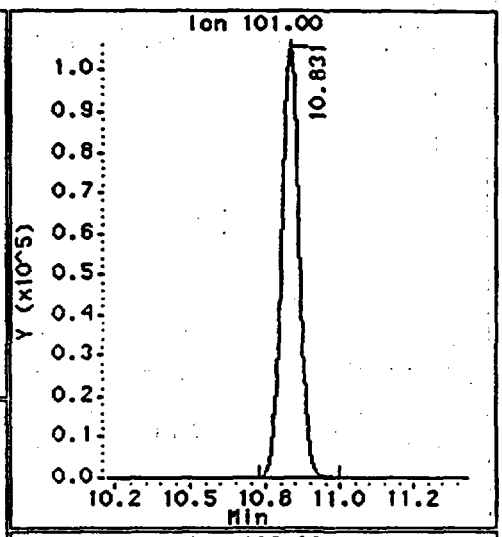
9 Trichlorofluoromethane/FR 11

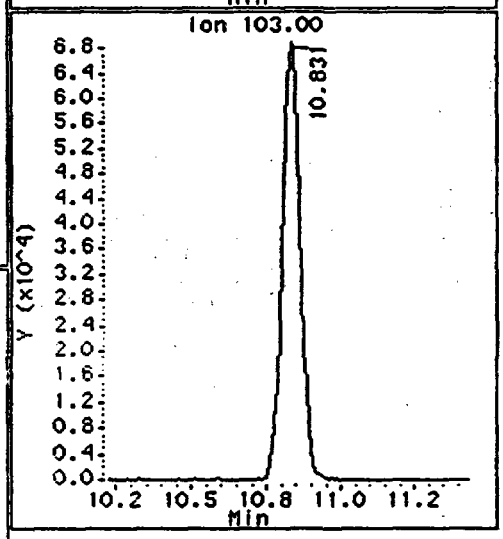












Data File: /chem/msdj.i/j-28may.b/j052802.d

Date : 28-MAY-1997 08:33

Client ID: Method Spike

Instrument: msdj.i

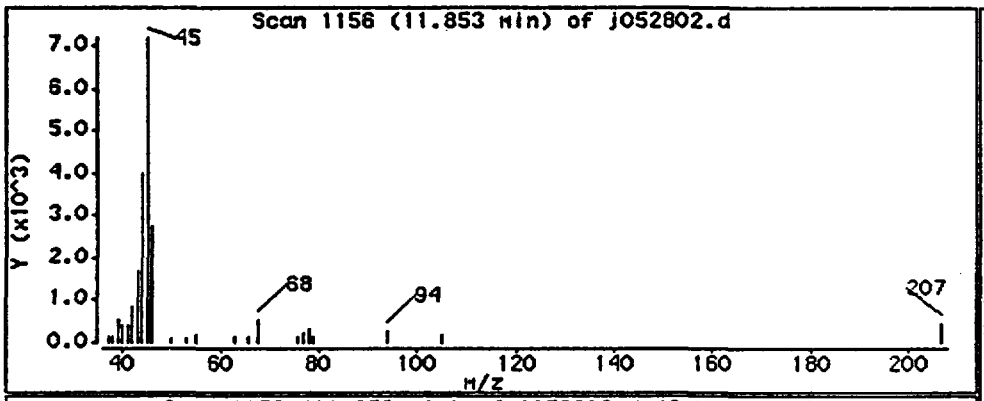
Sample Info: #315-57 200ppbv T014 Std. 12.5mL (5ppbv)

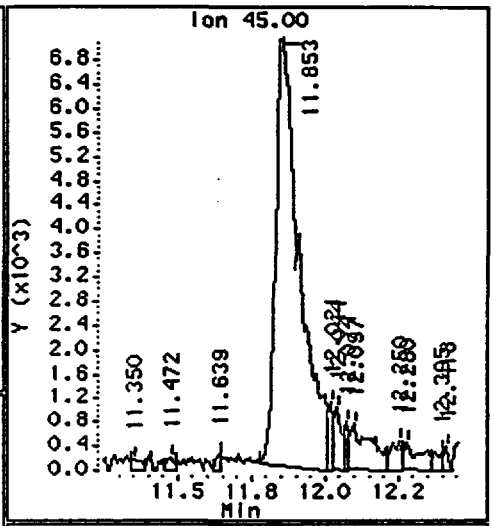
Operator: MH

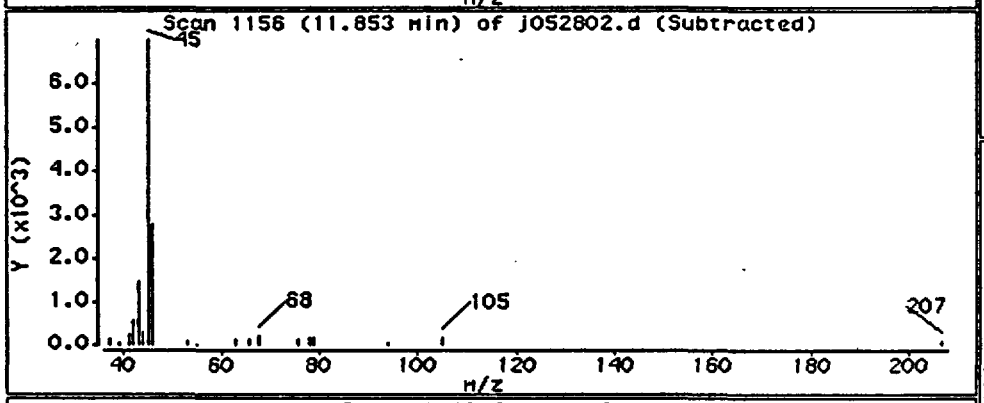
Column phase: RTx-624

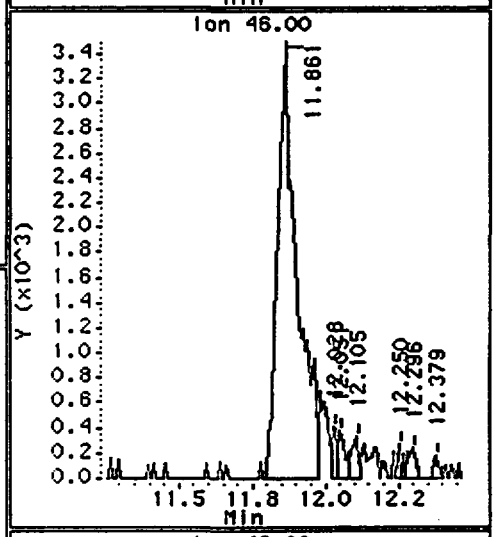
Column diameter: 0.58

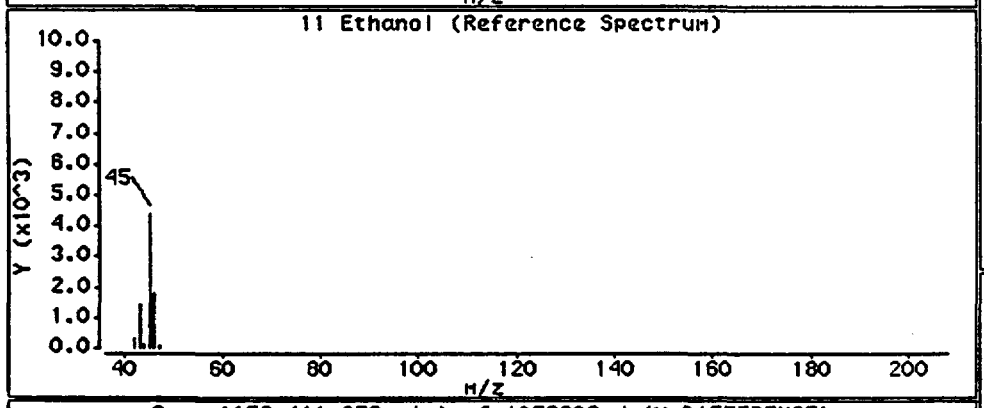
11 Ethanol

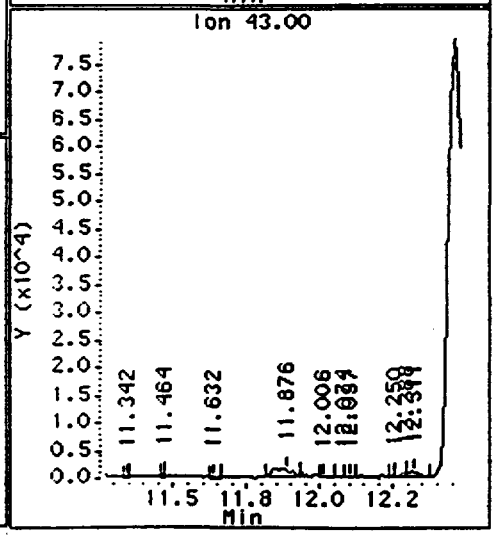


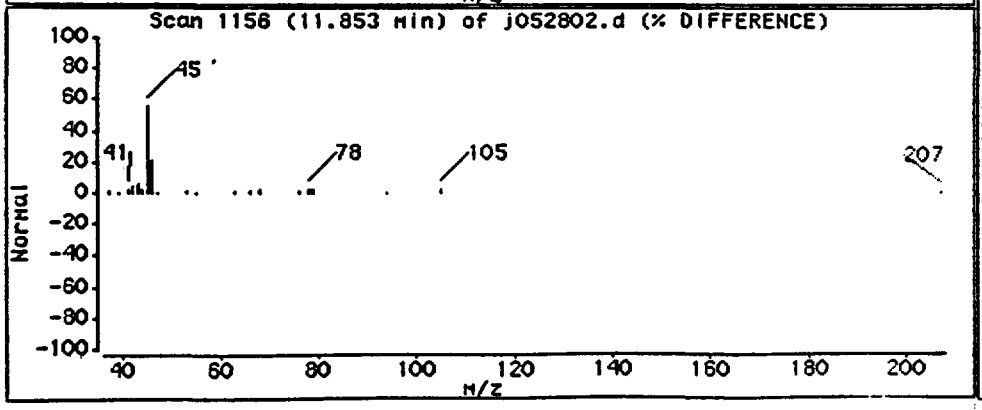












Data File: /chem/msdj.i/j-28may.b/J052802.d

Date : 28-MAY-1997 08:33

Client ID: Method Spike

Instrument: msdj.i

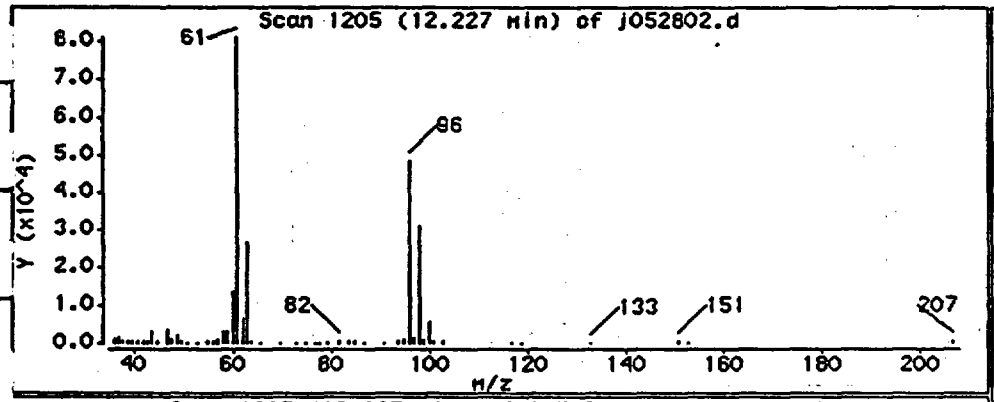
Sample Info: #315-57 200ppbv TO14 Std. 12.5mL (5ppbv)

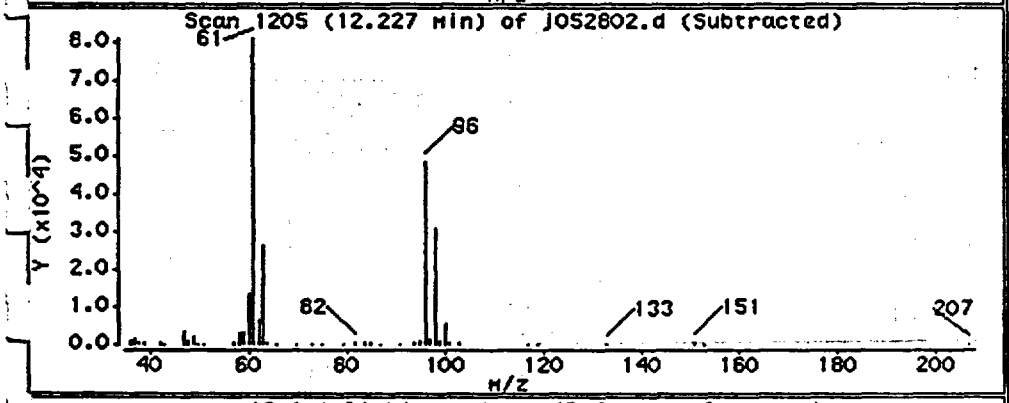
Operator: MH

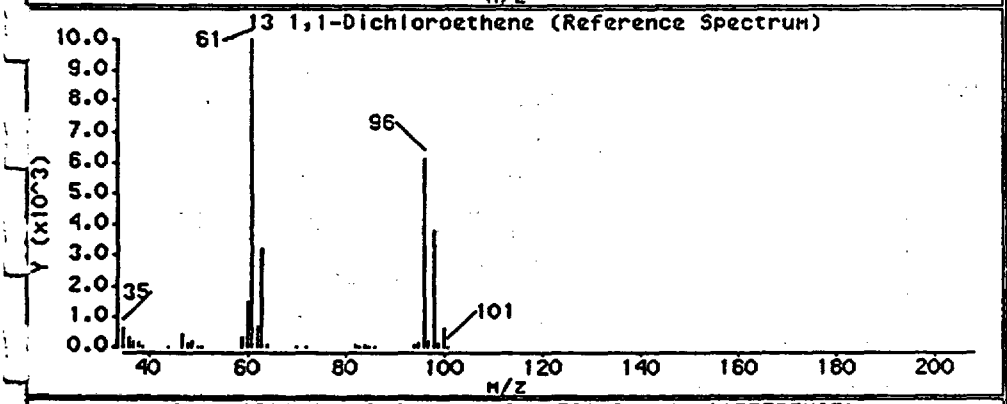
Column phase: RTx-624

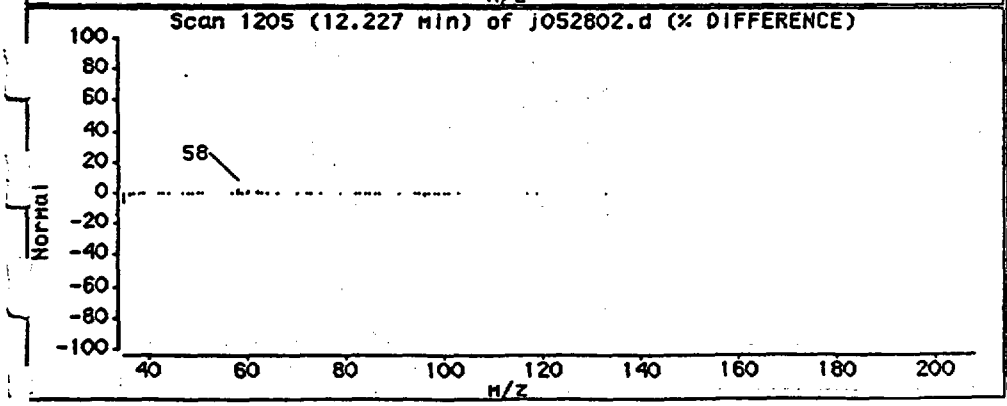
Column diameter: 0.58

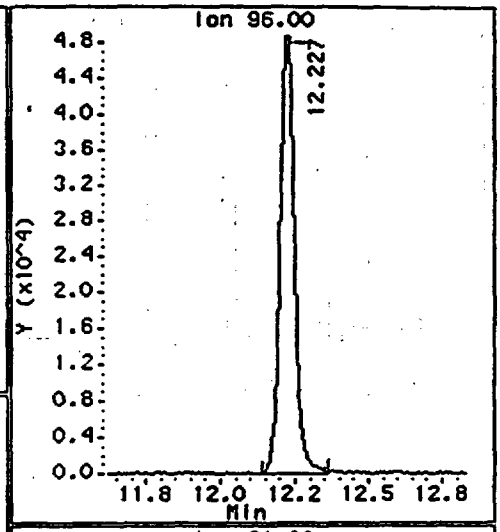
13 1,1-Dichloroethene

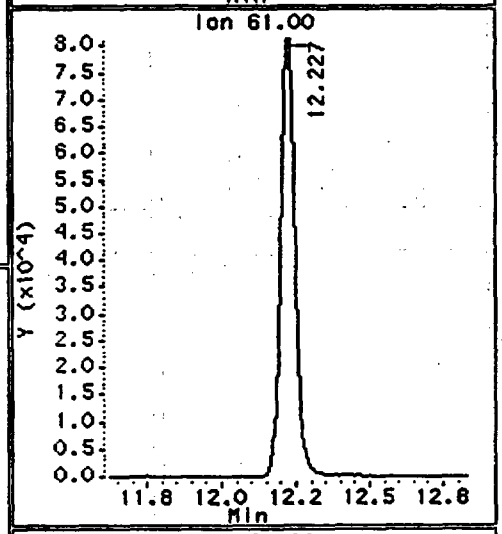


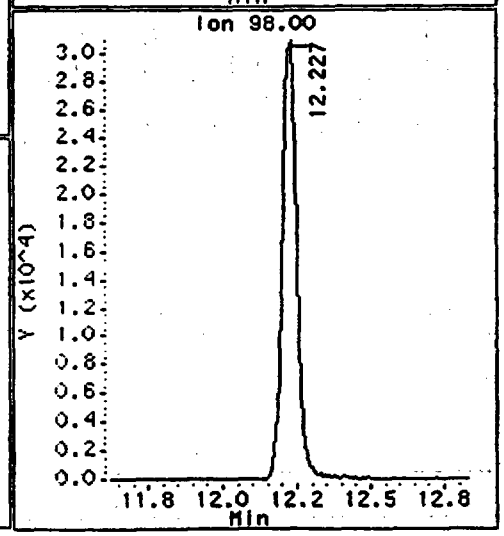






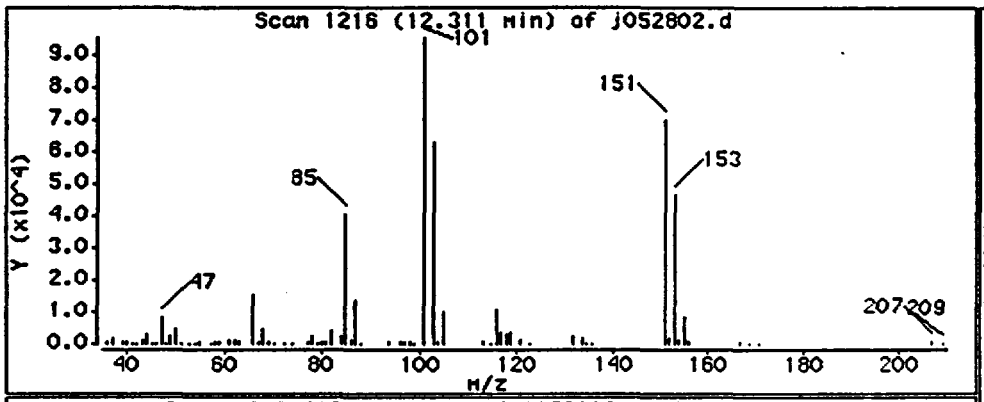


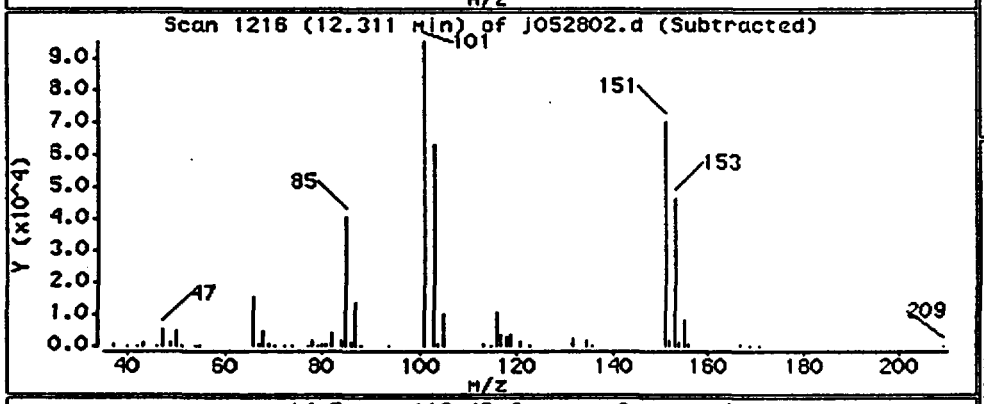


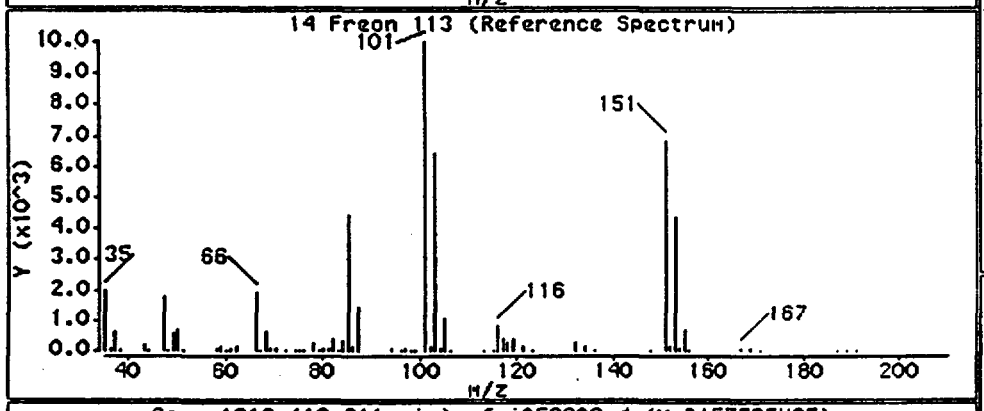


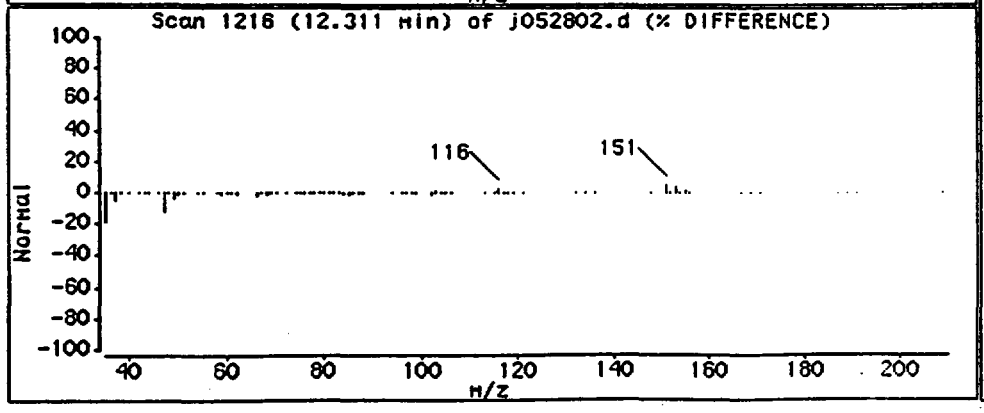
Data File: /chem/msdj.i/j-28may.b/j052802.d
Date : 28-MAY-1997 08:33
Client ID: Method Spike
Instrument: msdj.i
Sample Info: #315-57 200ppbv TO14 Std. 12.5mL (5ppbv)
Operator: MH
Column phase: RTx-624
Column diameter: 0.58

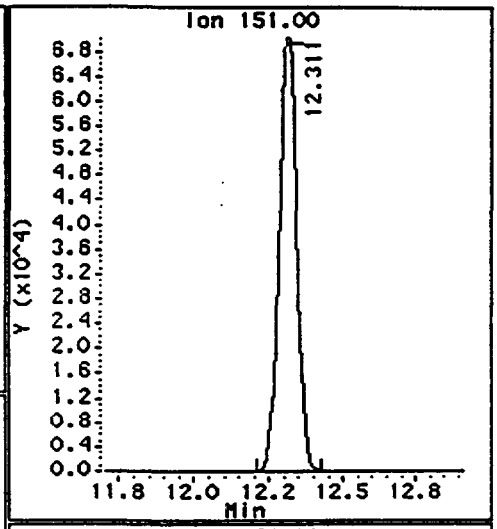
14 Freon 113

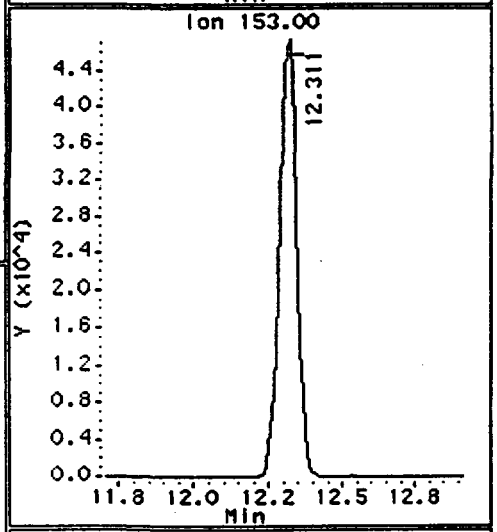


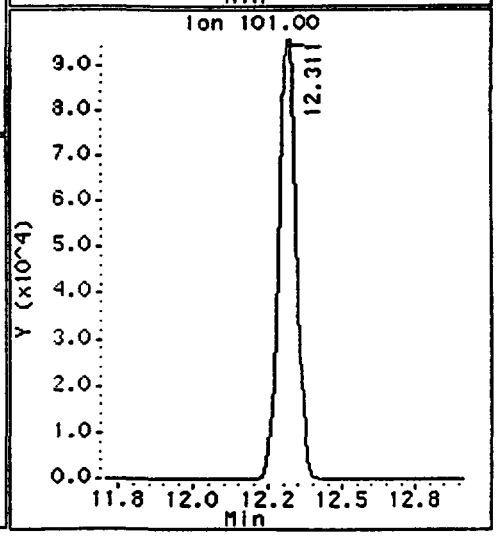






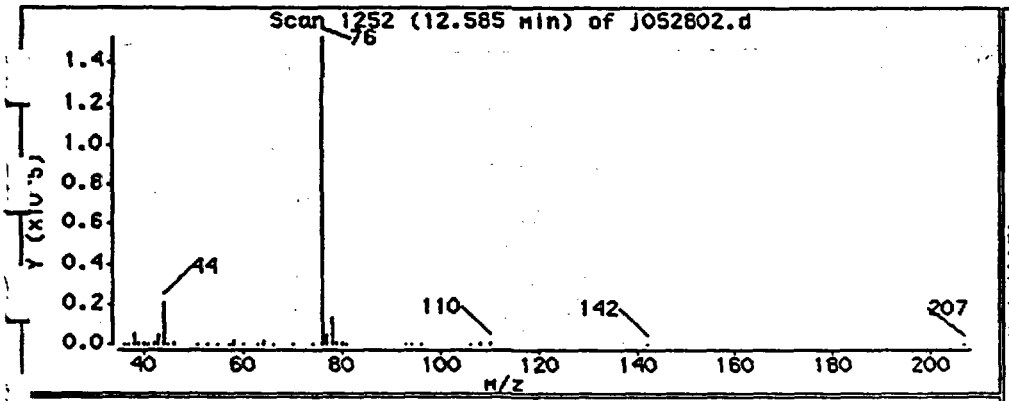


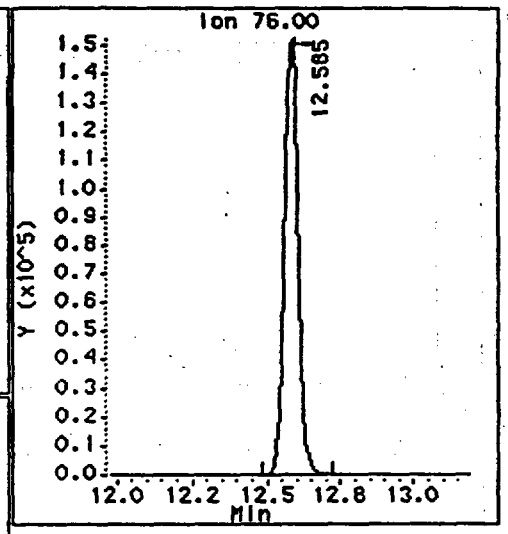


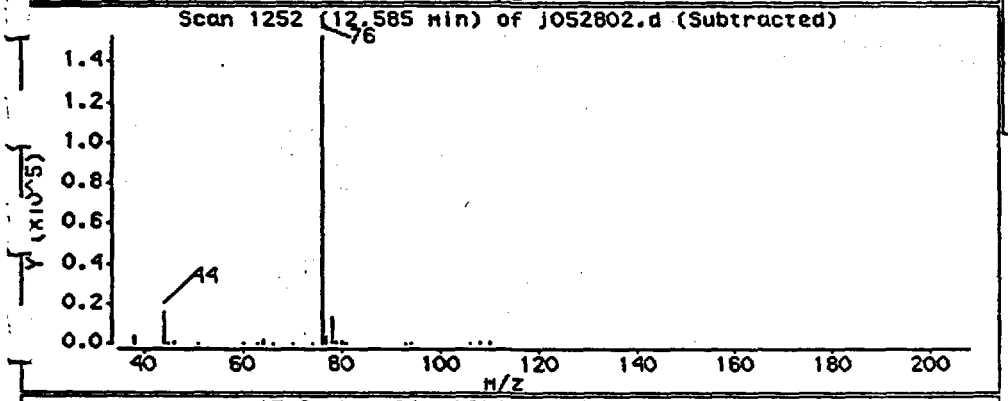


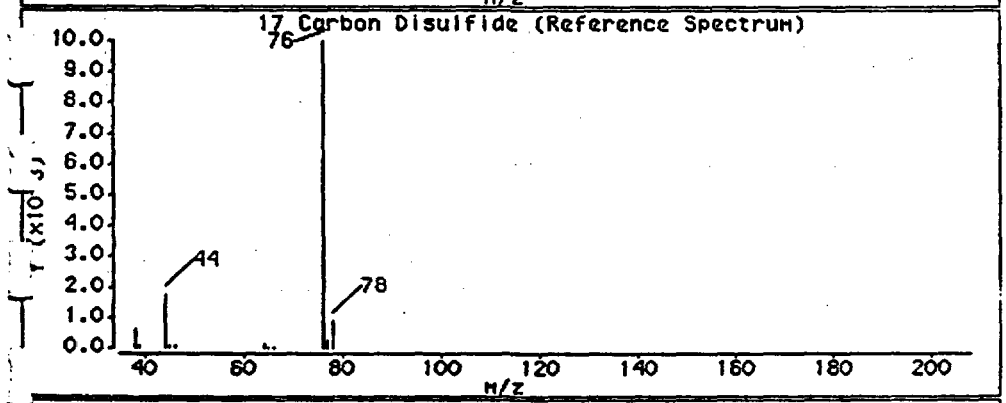
Data File: /chem/msdj.i/j-28may.b/j052802.d
Date : 28-MAY-1997 08:33
Client ID: Method Spike
Instrument: msdj.i
Sample Info: #315-57 200ppbv TO14 Std. 12.5mL (5ppbv)
Operator: MH
Column phase: RTx-624
Column diameter: 0.58

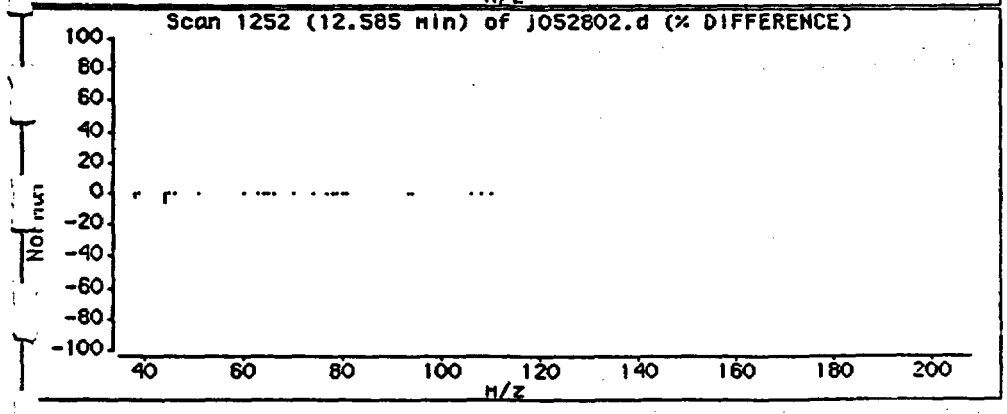
17 Carbon Disulfide











Data File: /chem/msdj.i/j-28may.b/j052802.d

Date : 28-MAY-1997 08:33

Client ID: Method Spike

Instrument: msdj.i

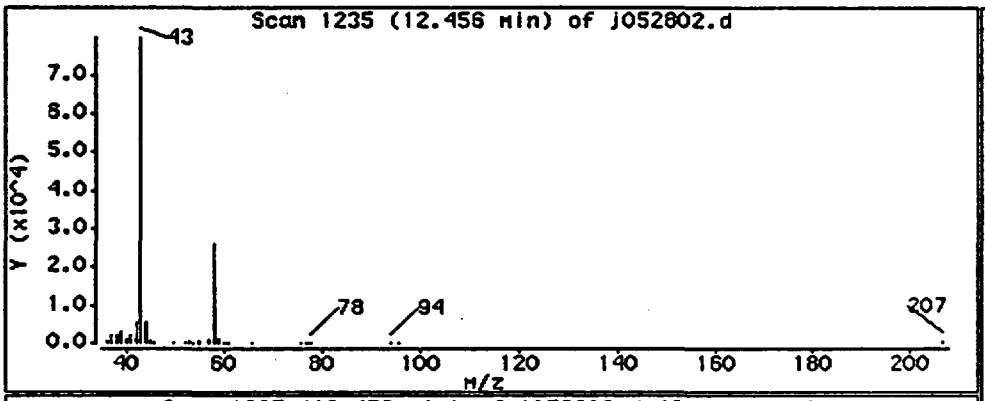
Sample Info: #315-57 200ppbv T014 Std. 12.5mL (5ppbv)

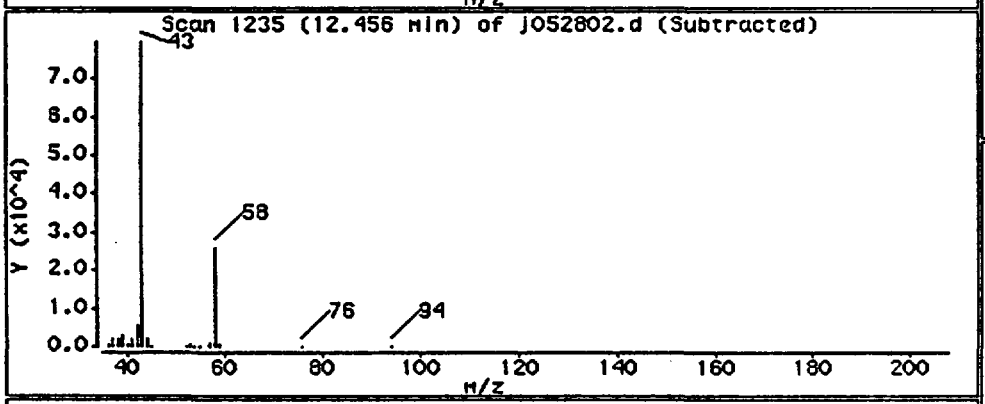
Operator: MH

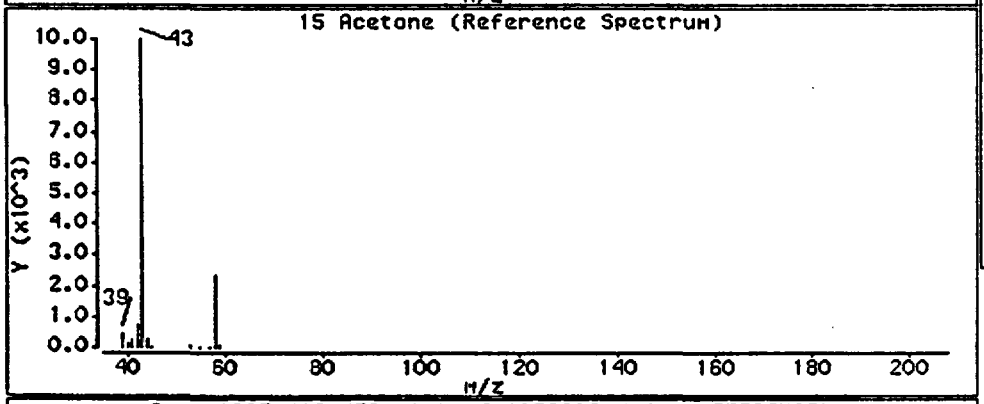
Column phase: RTx-624

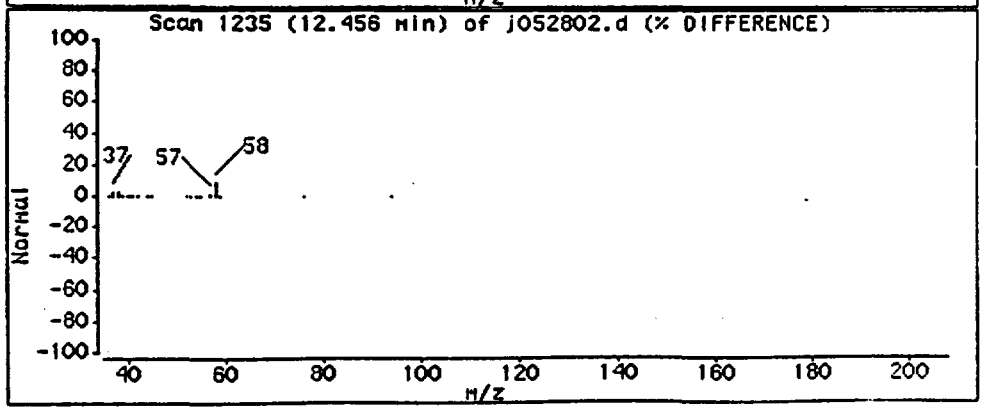
Column diameter: 0.58

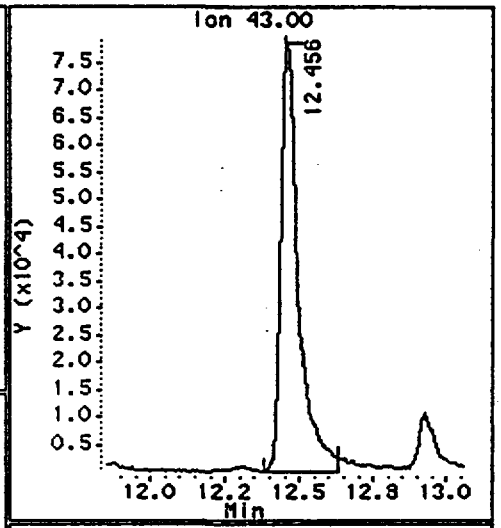
15 Acetone

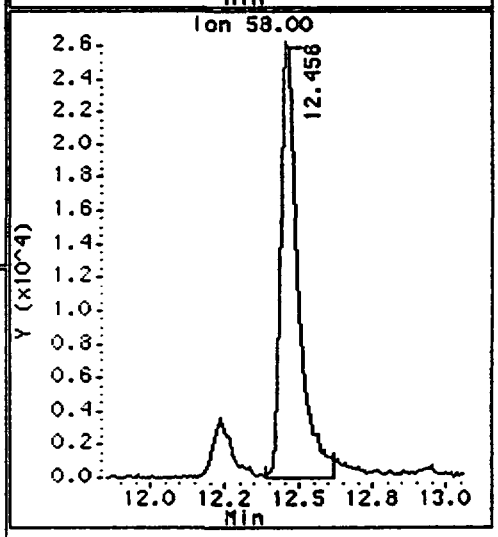












Data File: /chem/msdj.i/j-28may.b/j052802.d

Date : 28-MAY-1997 08:33

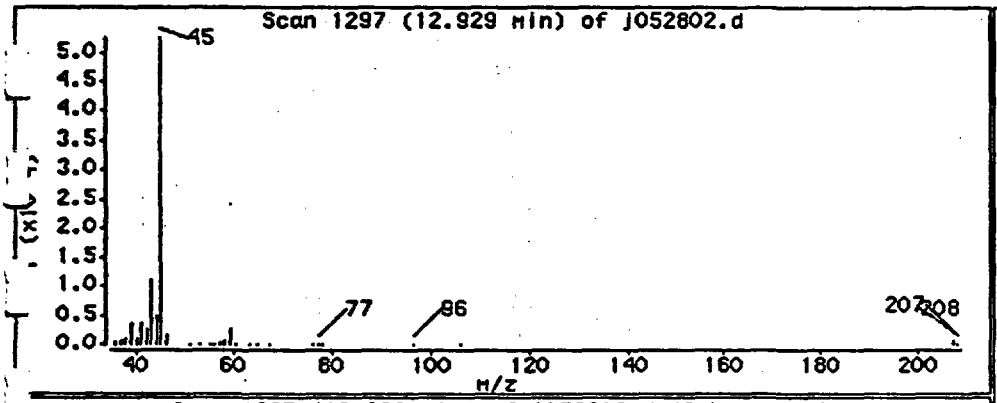
Client ID: Method Spike Instrument: msdj.i

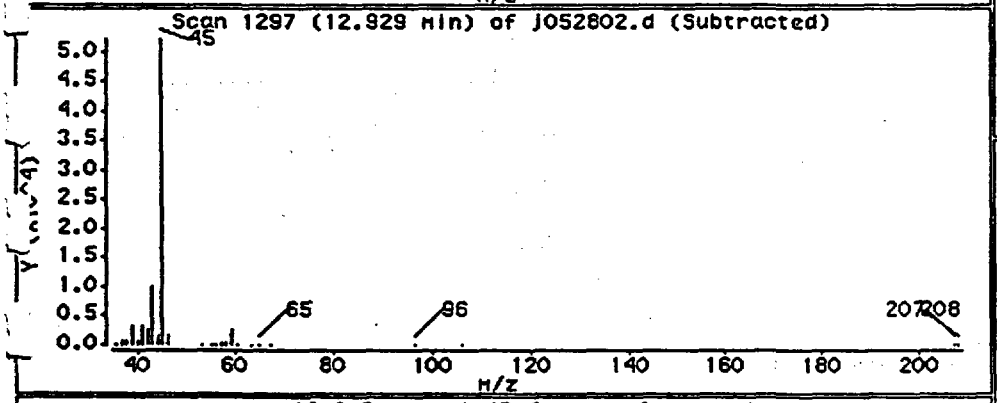
Sample Info: #315-57 200ppbv T014 Std. 12.5mL (5ppbv)

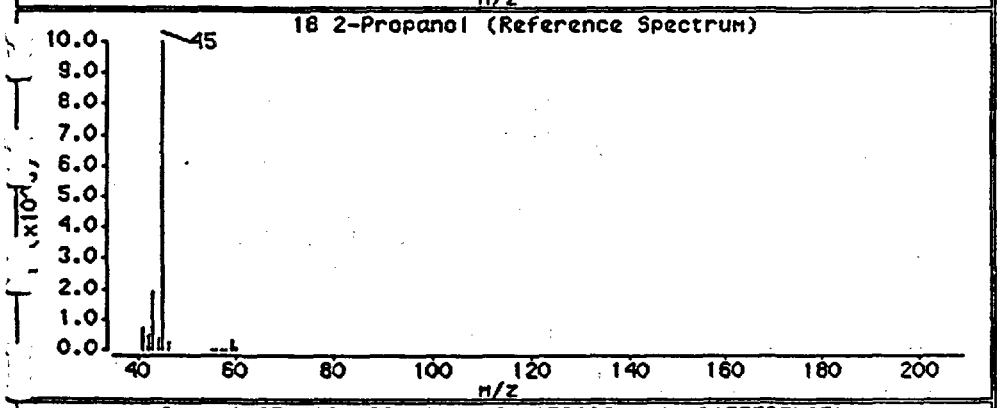
Operator: MH

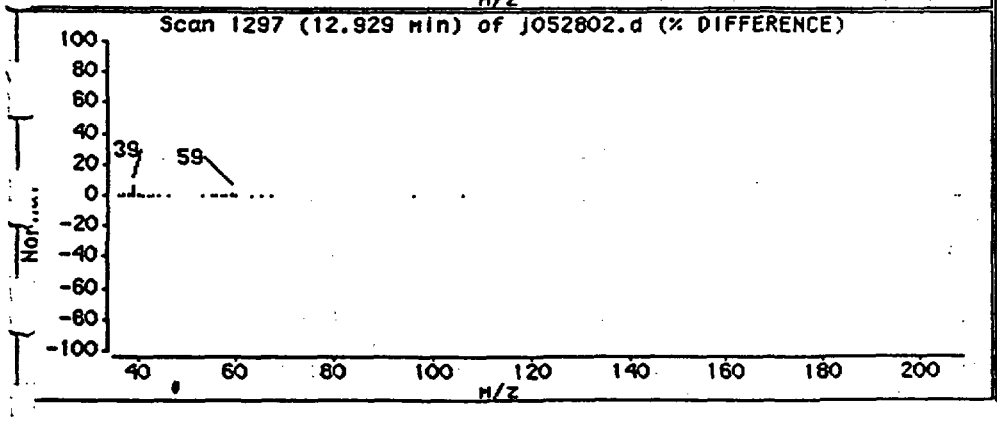
Column phase: RTx-624 Column diameter: 0.58

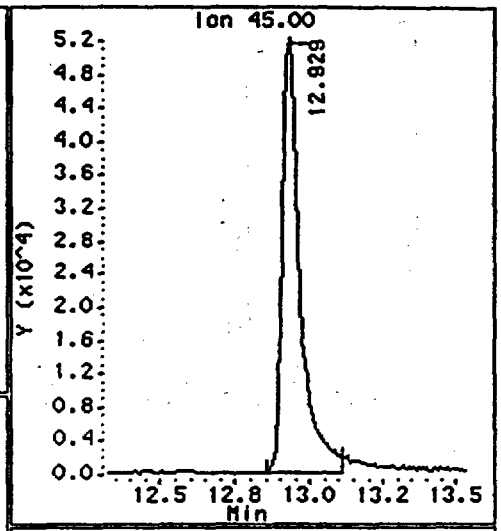
18 2-Propanol

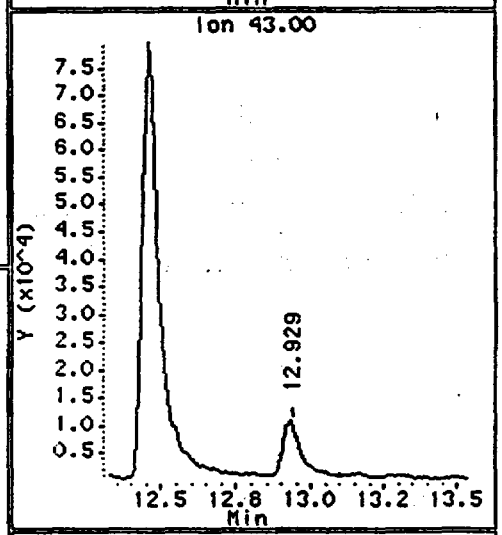


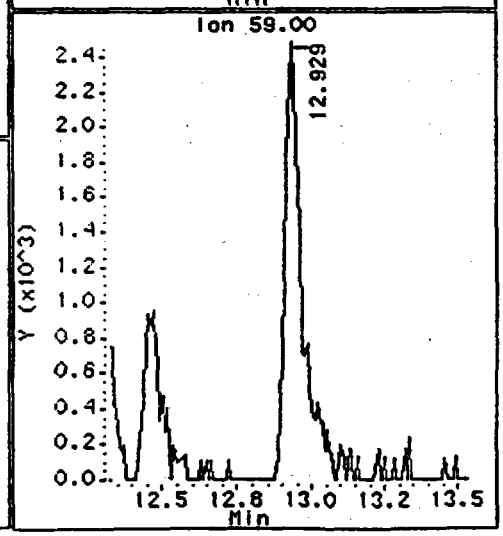












Data File: /chem/msdj.i/j-28may.b/j052802.d

Date : 28-MAY-1997 08:33

Client ID: Method Spike

Instrument: msdj.i

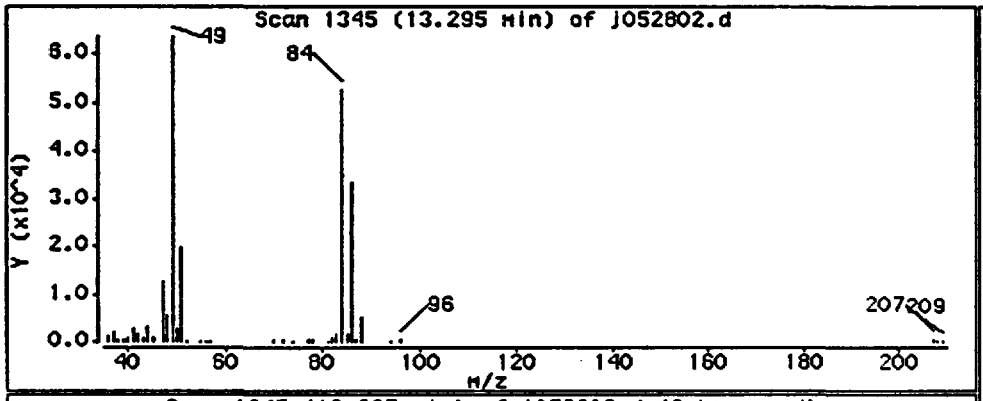
Sample Info: #315-57 200ppbv T014 Std. 12.5mL (5ppbv)

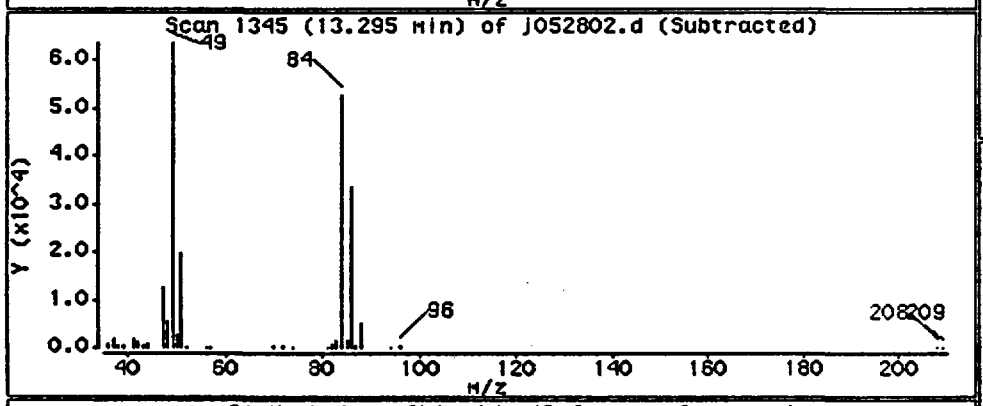
Operator: MH

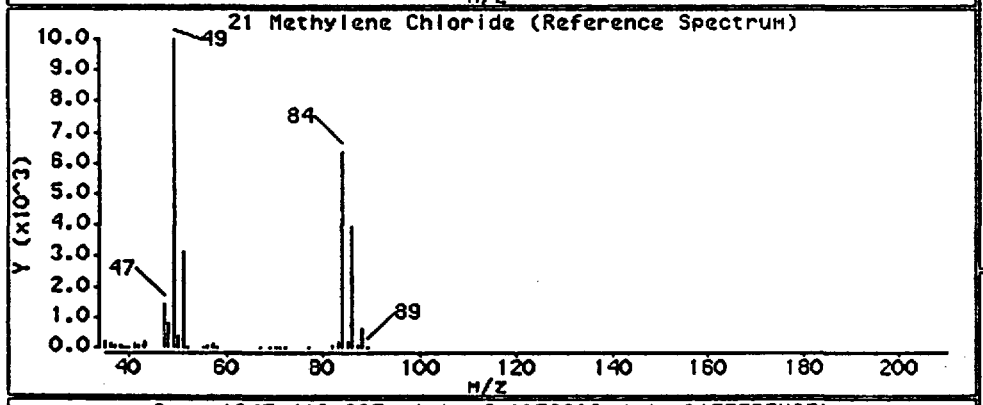
Column phase: RTx-624

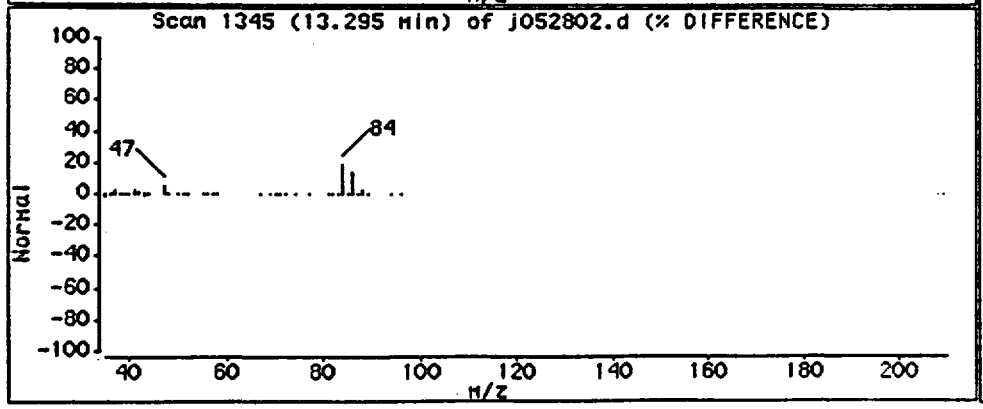
Column diameter: 0.58

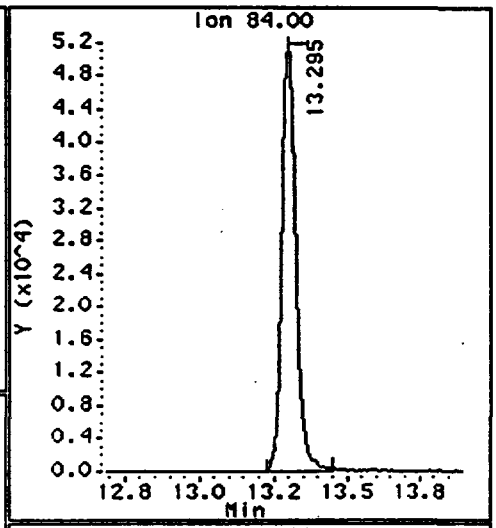
21 Methylene Chloride

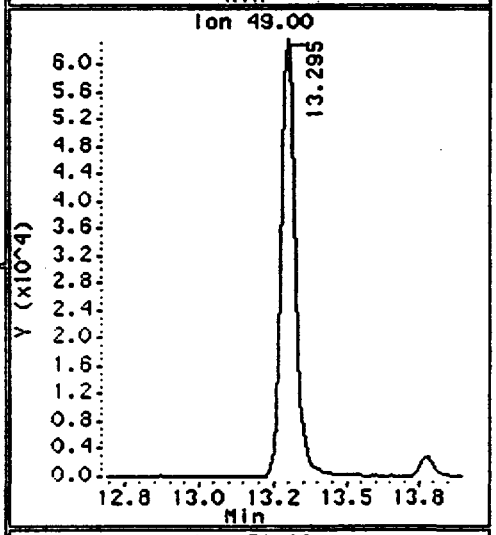


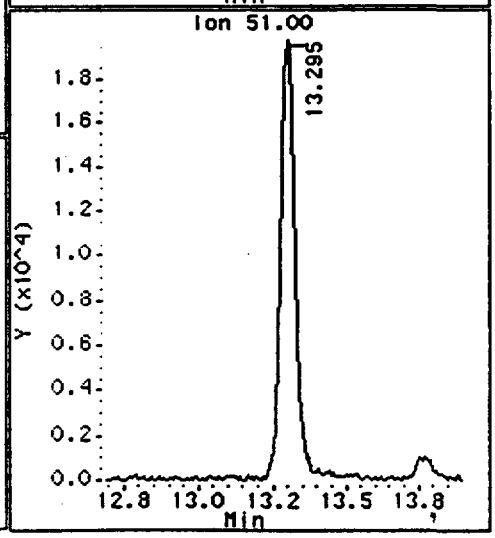












Data File: /chem/msdj.i/j-28may.b/j052802.d

Date : 28-MAY-1997 08:33

Client ID: Method Spike

Instrument: msdj.i

0257

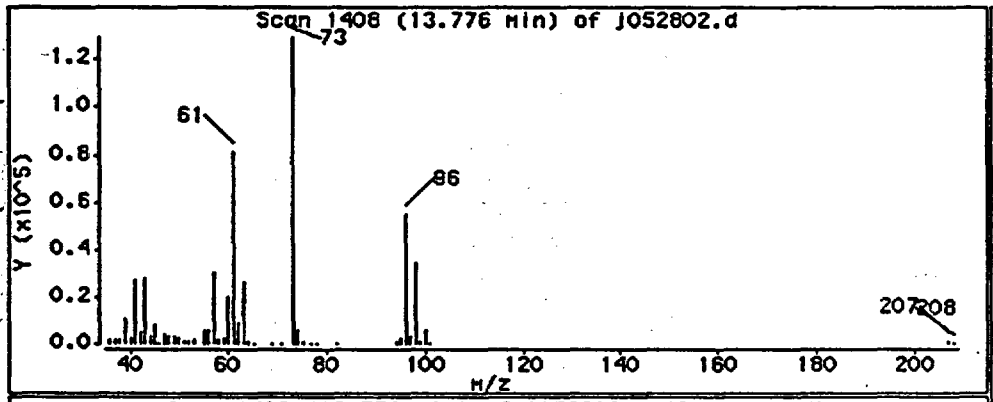
Sample Info: #315-57 200ppbv T014 Std. 12.5mL (5ppbv)

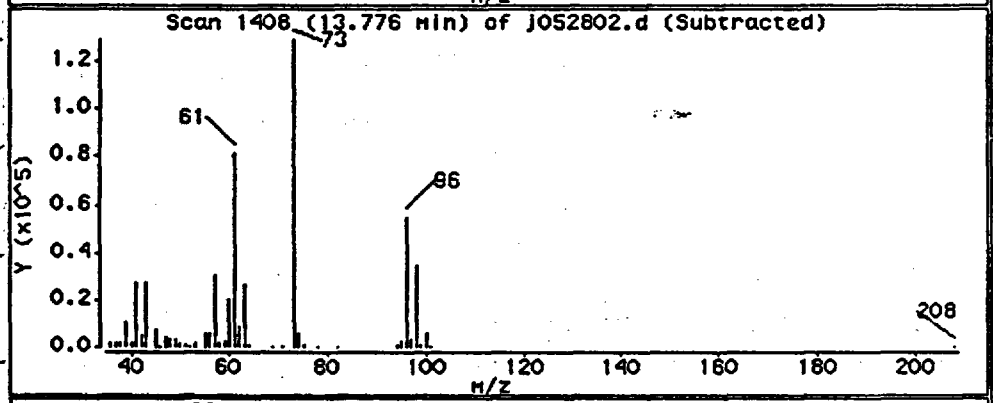
Operator: MH

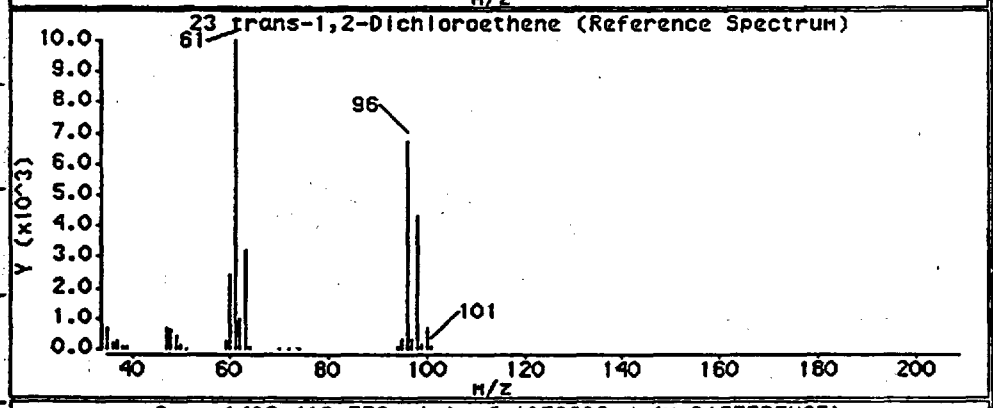
Column phase: RTx-624

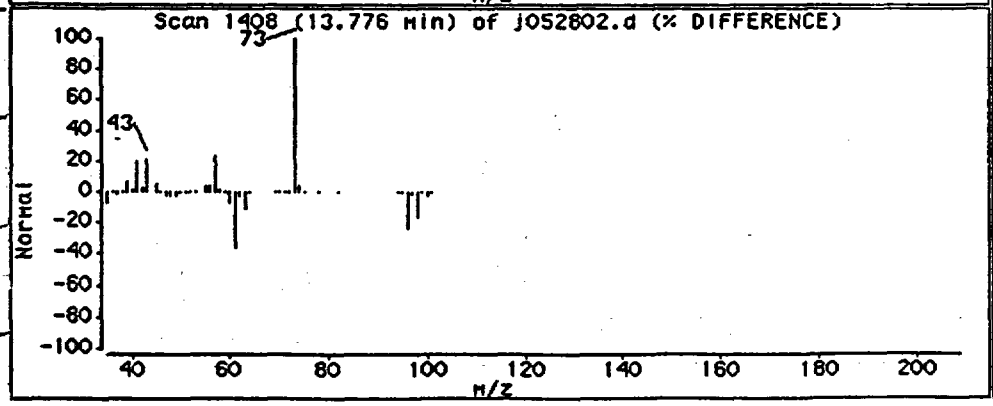
Column diameter: 0.58

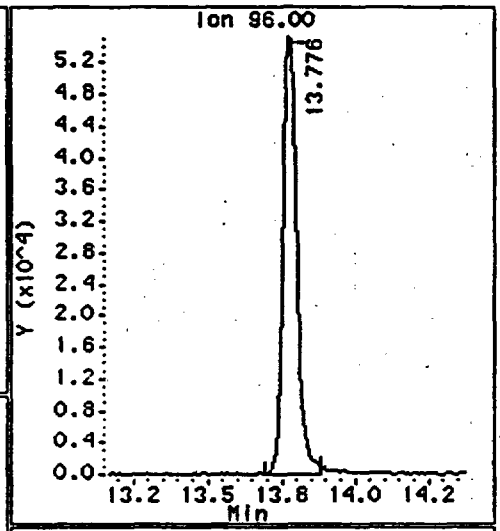
23 trans-1,2-Dichloroethene

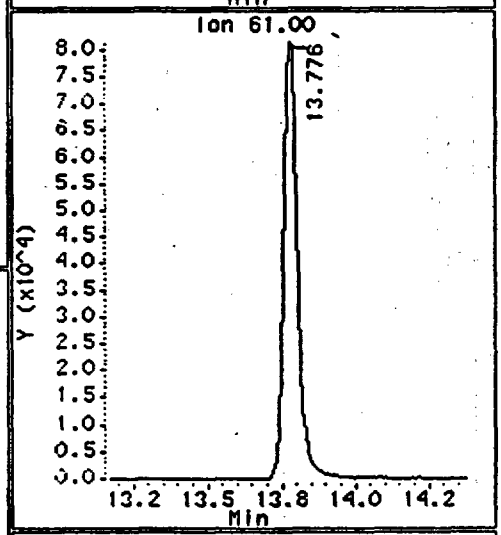


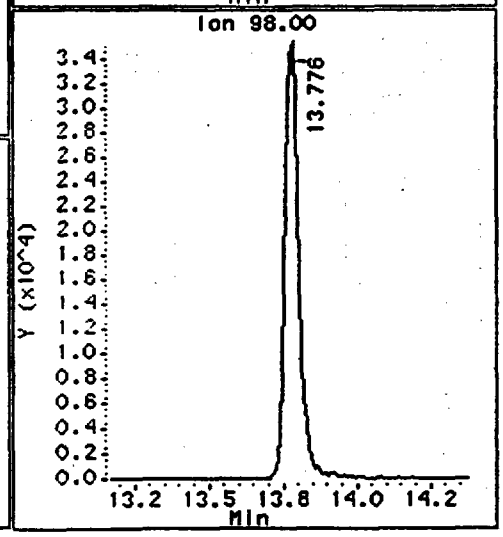












Data File: /chem/msdj.i/j-28may.b/j052802.d

Date : 28-MAY-1997 08:33

Client ID: Method Spike

Instrument: msdj.i

Sample Info: #315-57 200ppbv TO14 Std. 12.5mL (5ppbv)

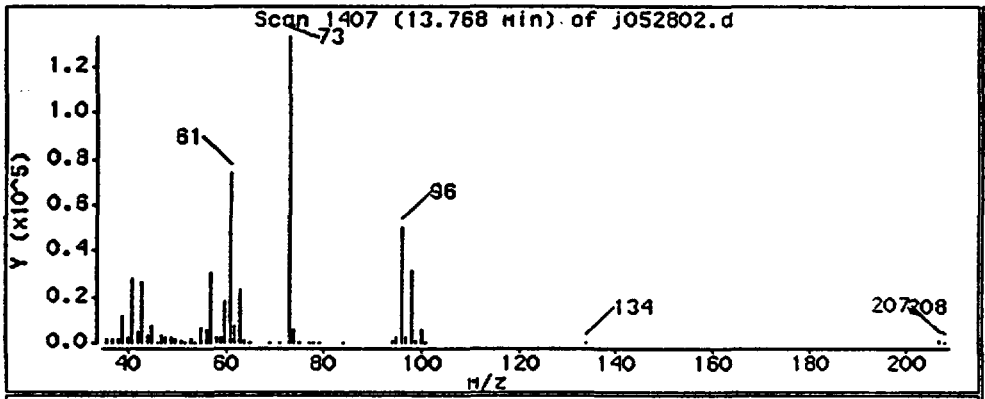
Operator: MH

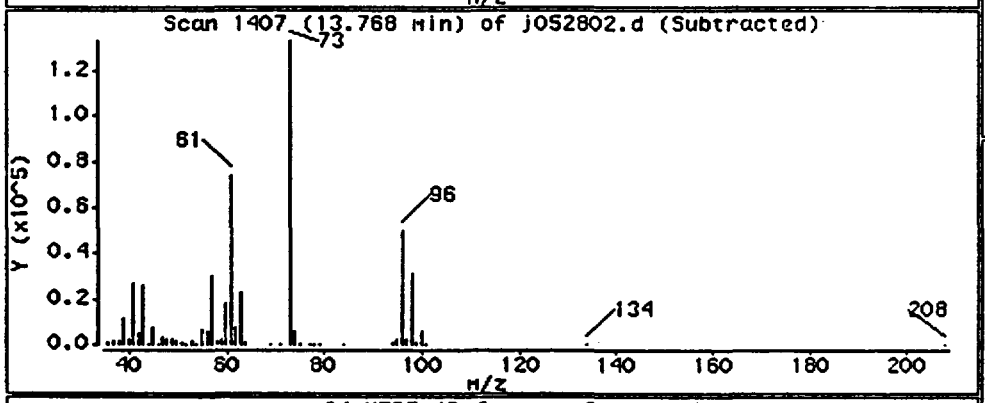
Column phase: RTx-624

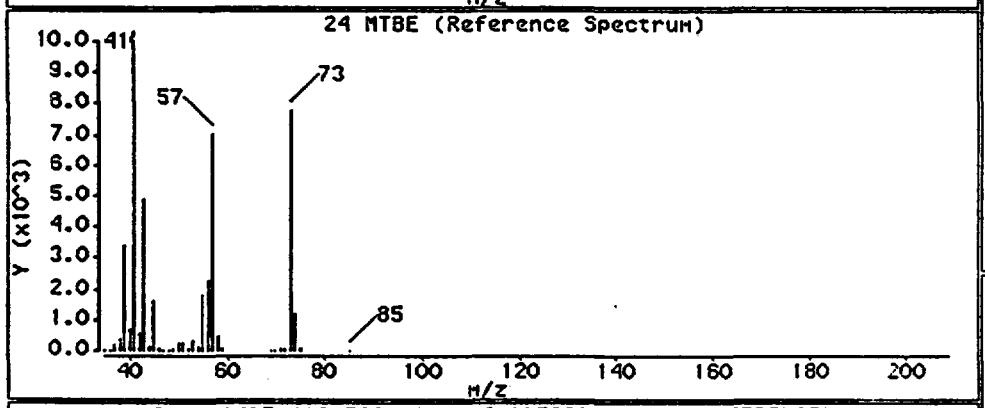
Column diameter: 0.58

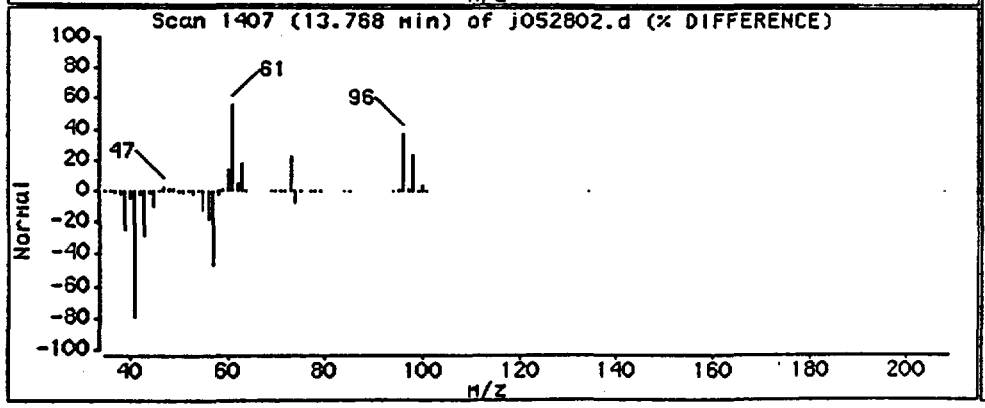
11258

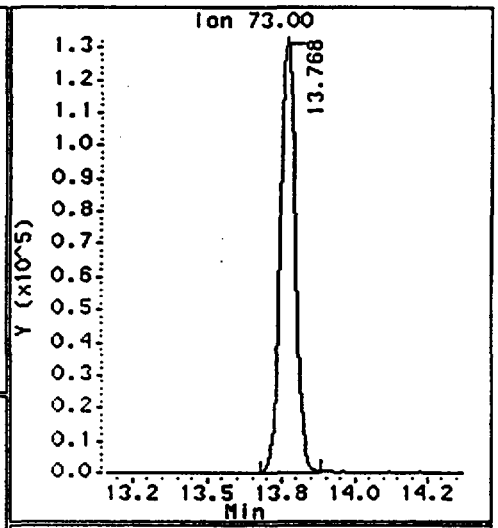
24 MTBE

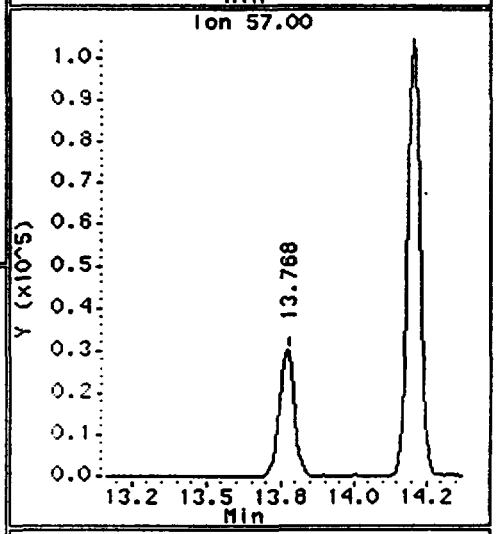


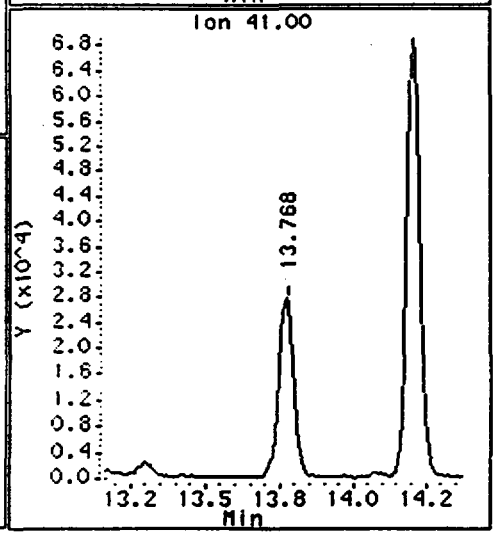












Data File: /chem/msdj.i/j-28may.b/j052802.d

Date : 28-MAY-1997 08:33

1259

Client ID: Method Spike

Instrument: msdj.i

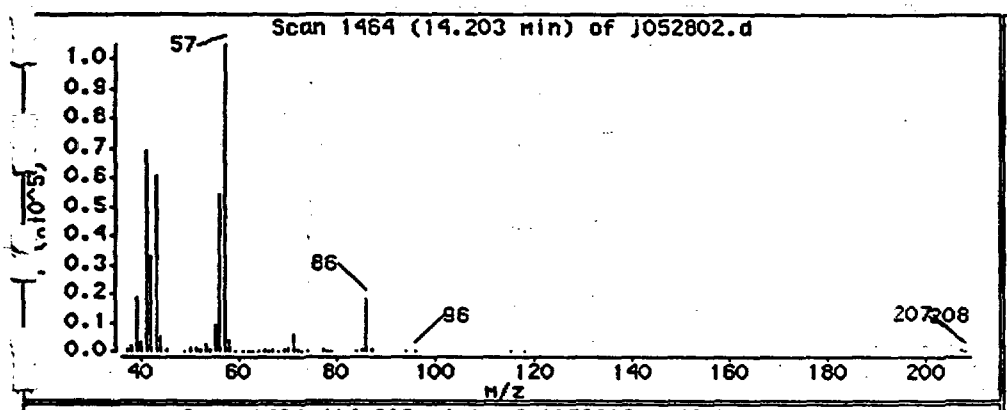
Sample Info: #315-57 200ppbv T014 Std. 12.5mL (5ppbv)

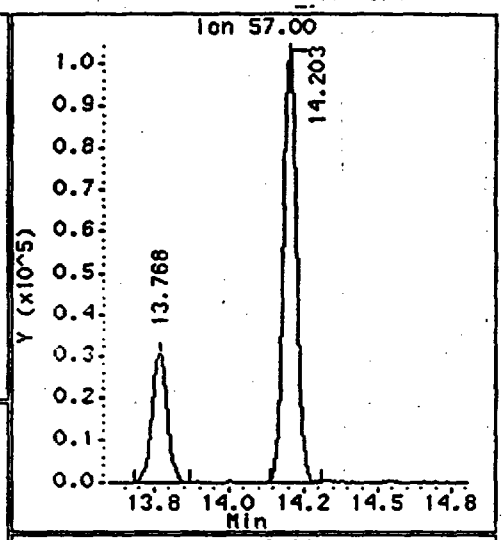
Operator: MH

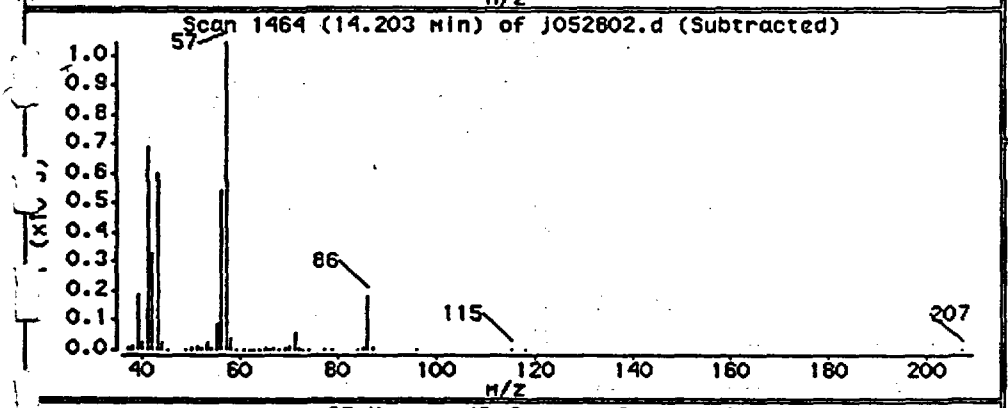
Column phase: RTx-624

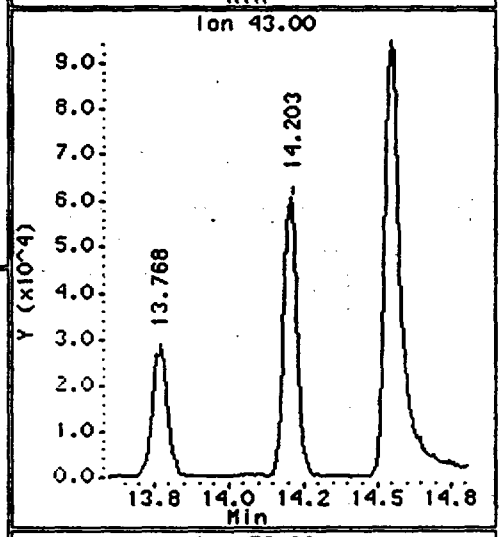
Column diameter: 0.58

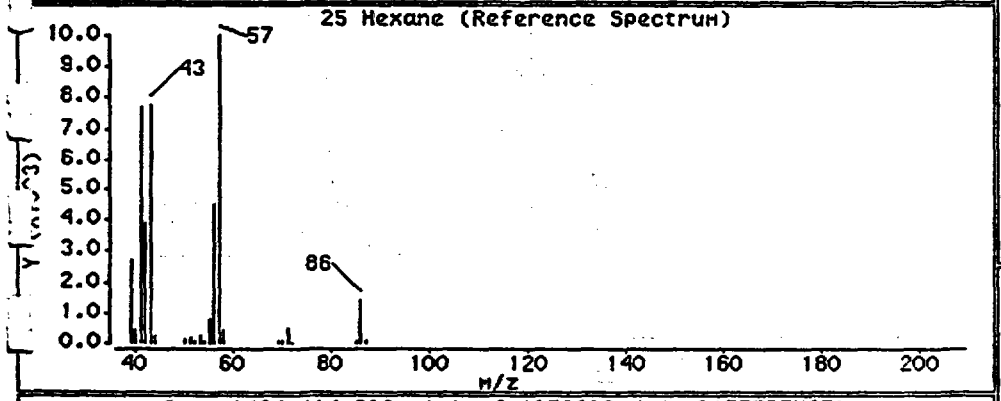
25 Hexane

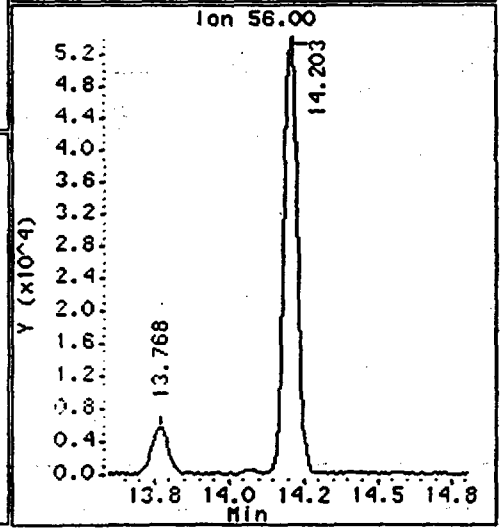


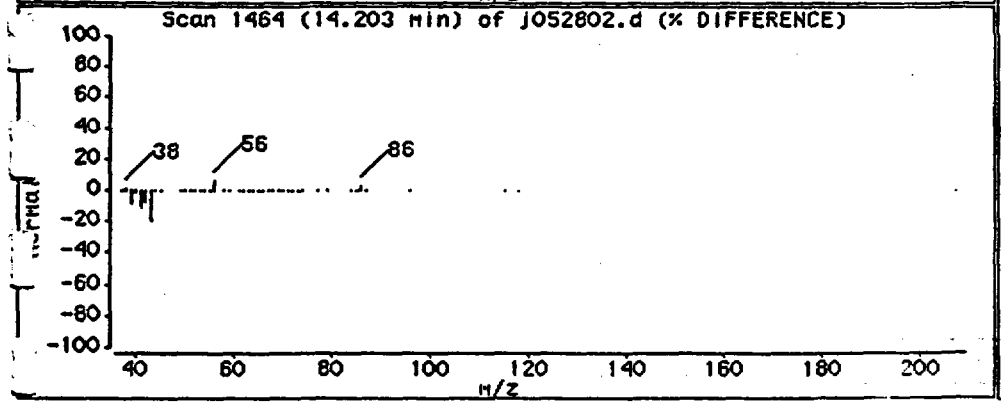












Data File: /chem/msdj.i/j-28may.b/j052802.d

Date : 28-MAY-1997 08:33

0260

Client ID: Method Spike

Instrument: msdj.i

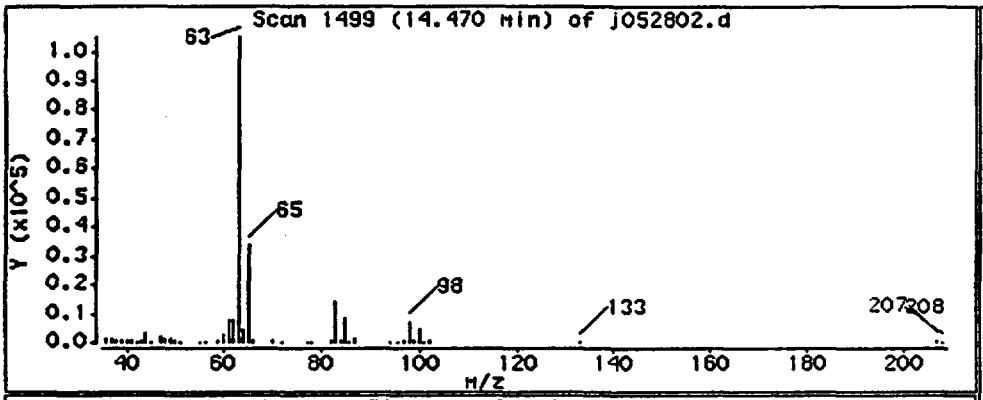
Sample Info: #315-57 200ppbv TO14 Std. 12.5mL (5ppbv)

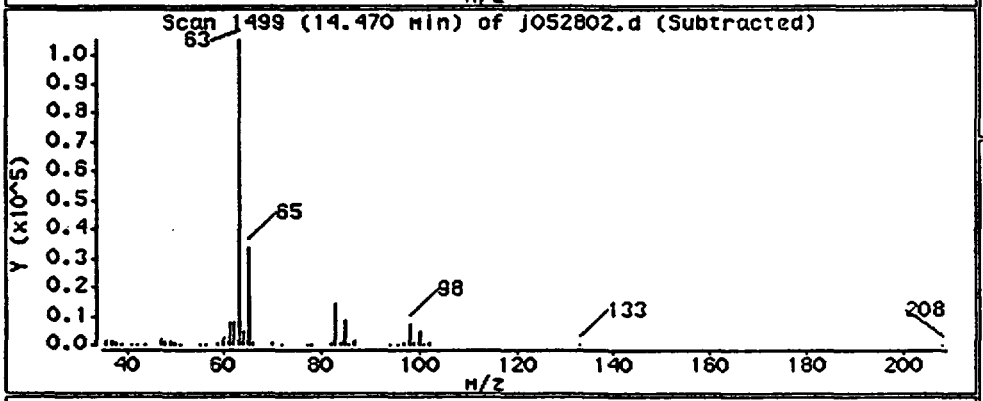
Operator: MH

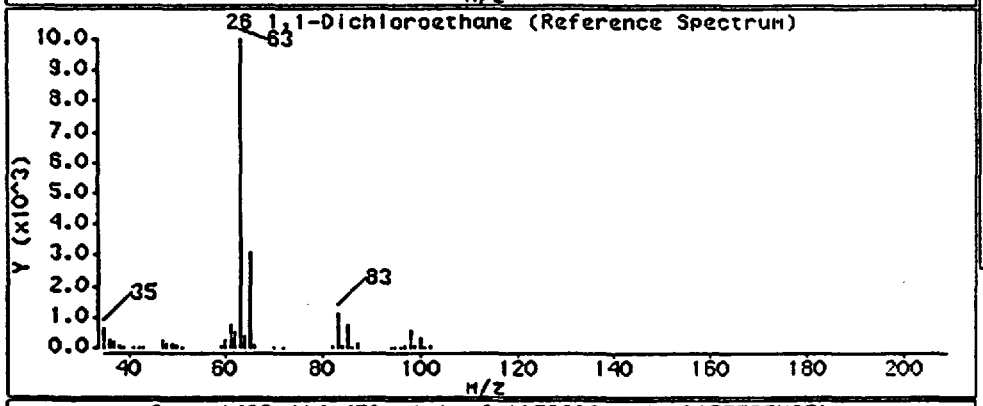
Column phase: RTx-624

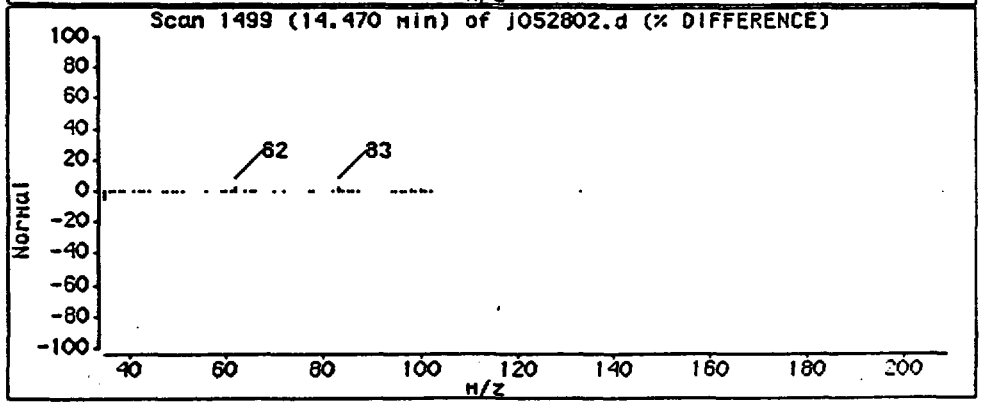
Column diameter: 0.58

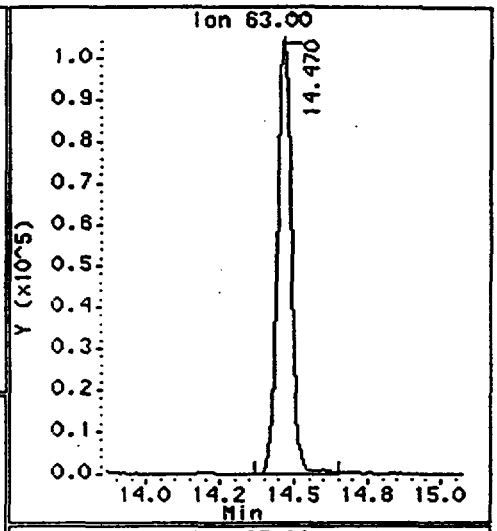
28 1,1-Dichloroethane

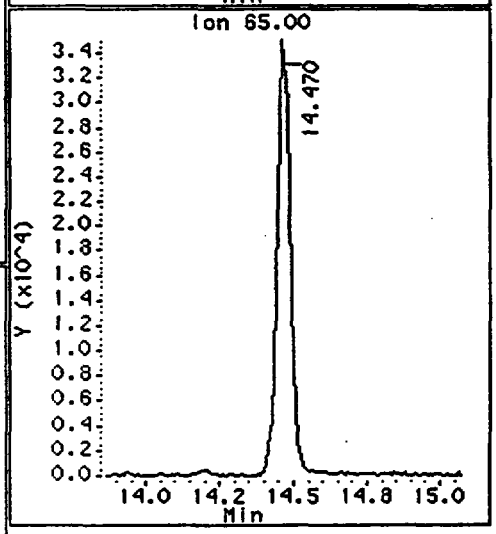












Data File: /chem/msdj.i/j-28may.b/j052802.d

Date : 28-MAY-1997 08:33

0261

Client ID: Method Spike

Instrument: msdj.i

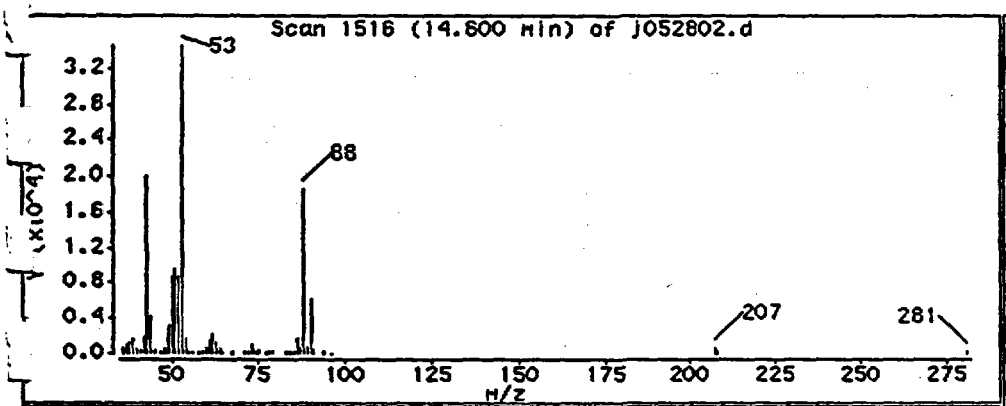
Sample Info: #315-57 200ppbv TO14 Std. 12.5mL (5ppbv)

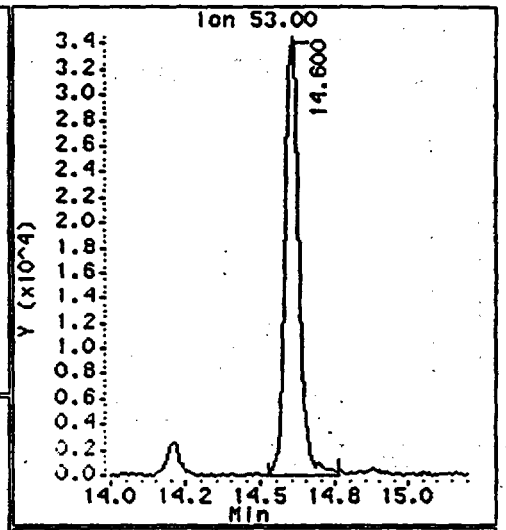
Operator: MH

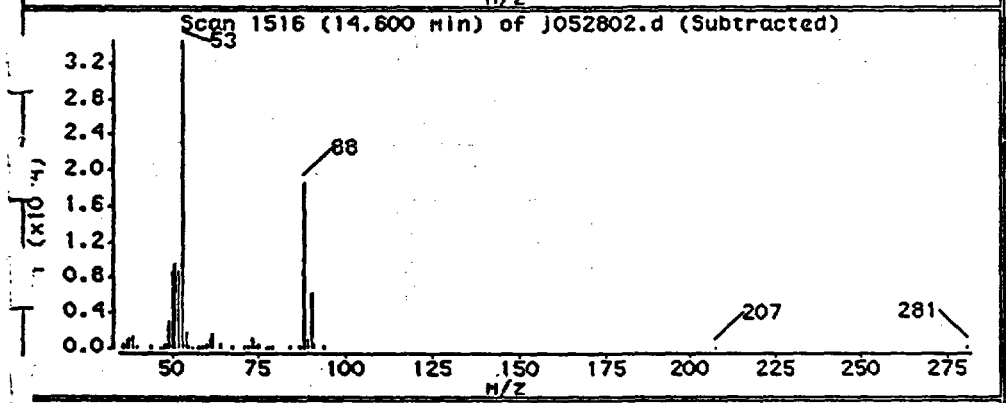
Column phase: RTx-624

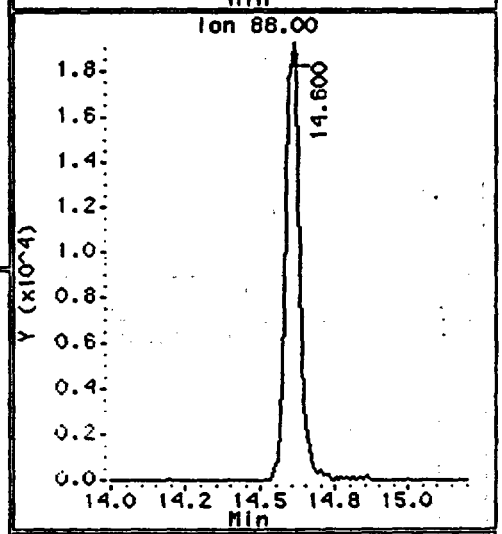
Column diameter: 0.58

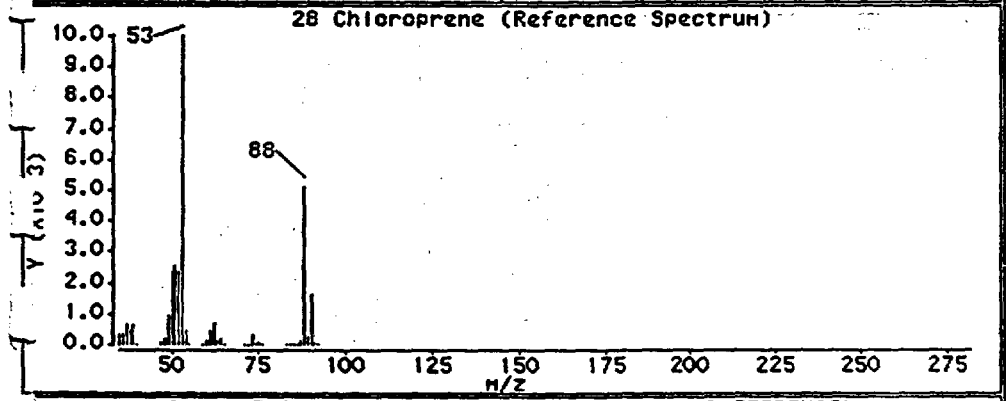
28 Chloroprene

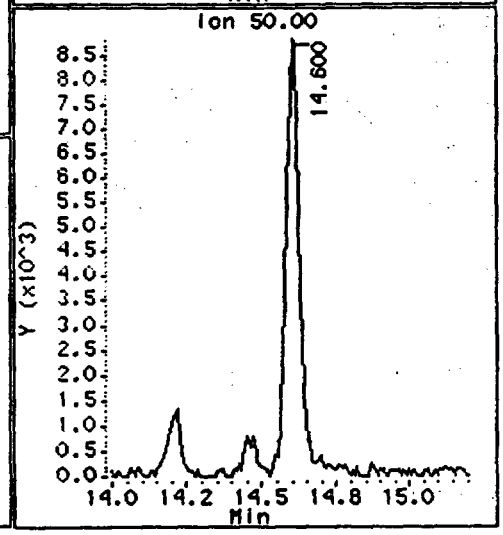


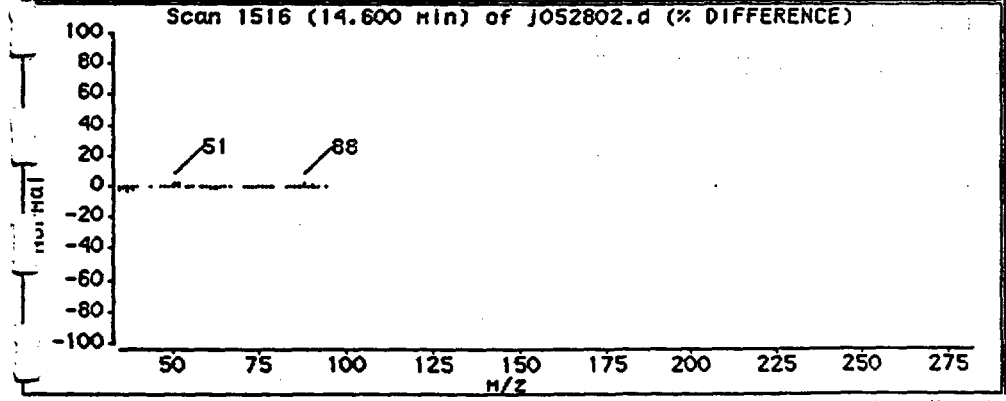












Data File: /chem/msdj.i/j-28may.b/j052802.d

Date : 28-MAY-1997 08:33

Client ID: Method Spike

Instrument: msdj.i

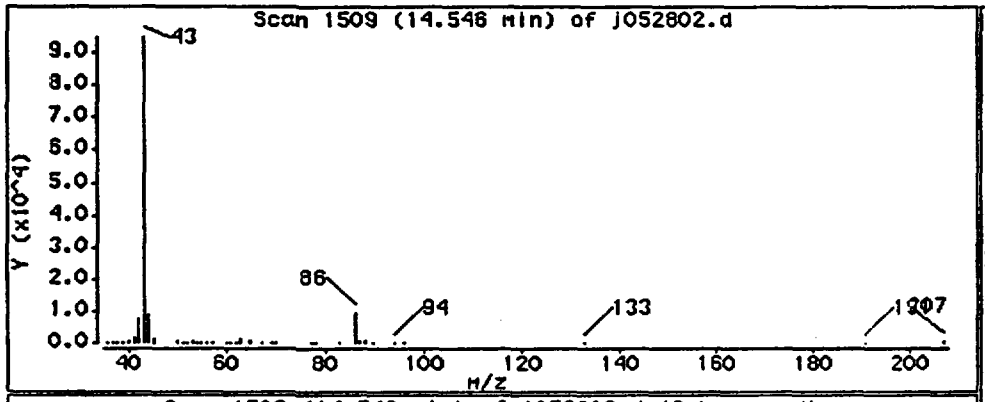
Sample Info: #315-57 200ppbv TO14 Std. 12.5mL (5ppbv)

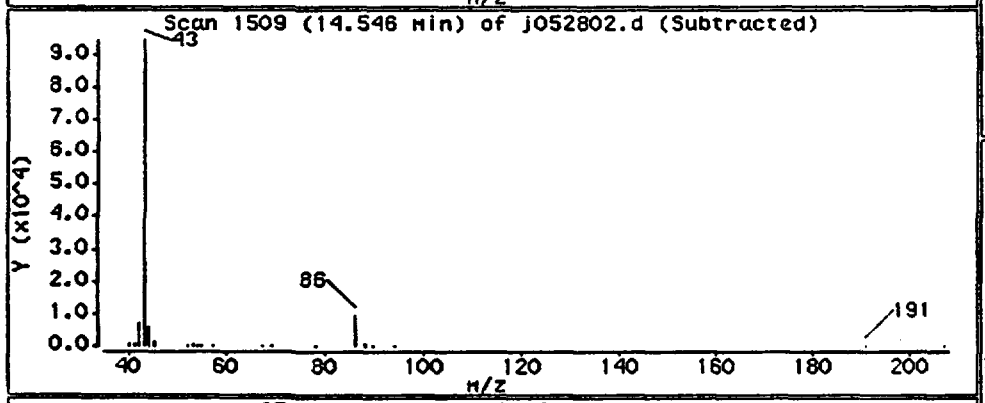
Operator: MH

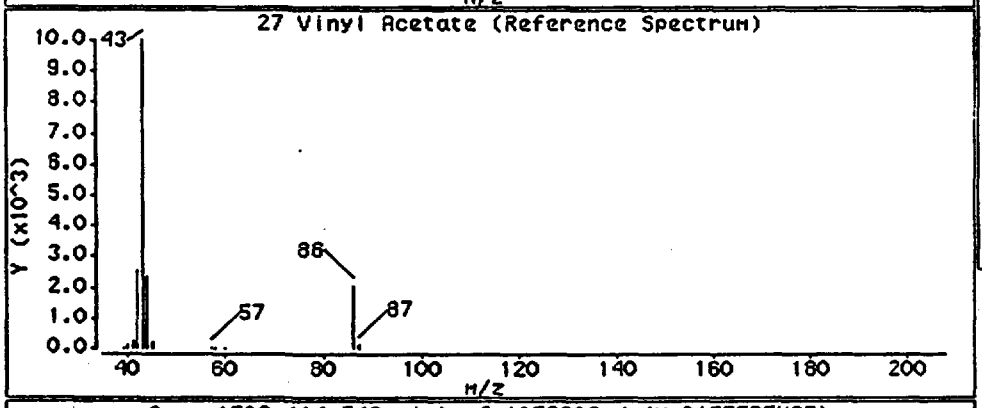
Column phase: RTx-624

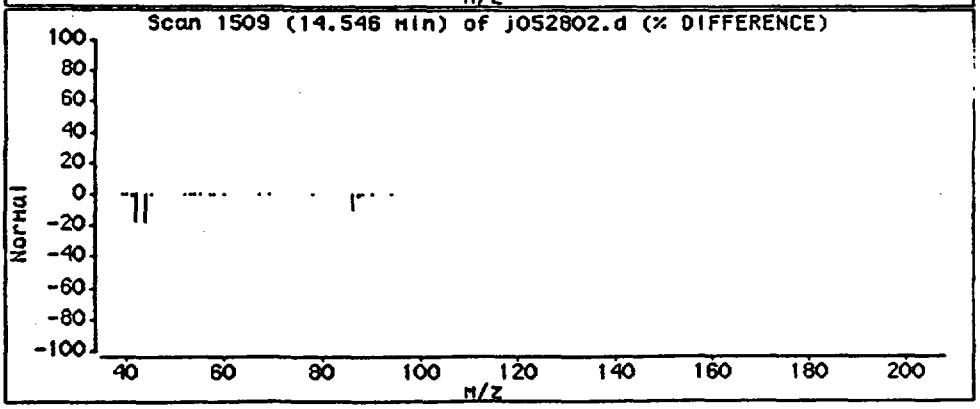
Column diameter: 0.58

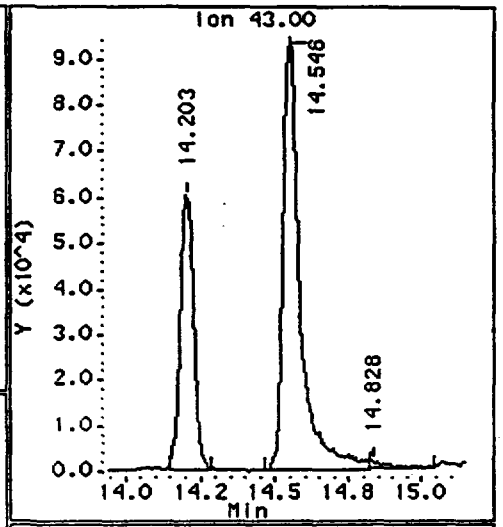
27 Vinyl Acetate

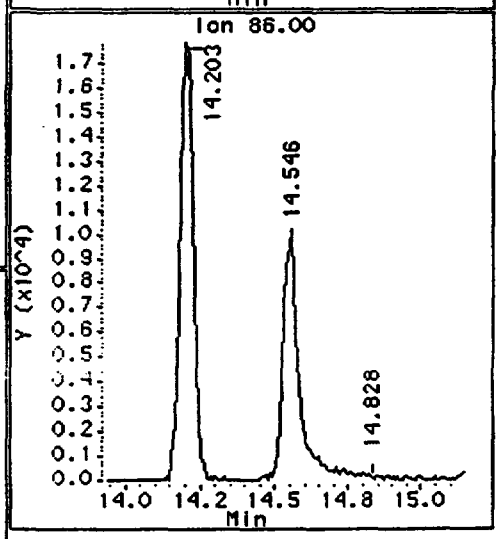












Data File: /chem/msdj.i/j-28may.b/j052802.d

Date : 28-MAY-1997 08:33

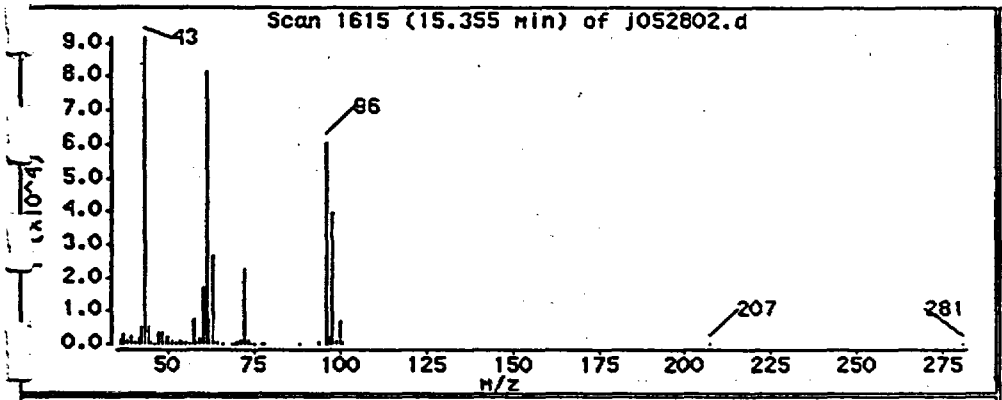
Client ID: Method Spike Instrument: msdj.i

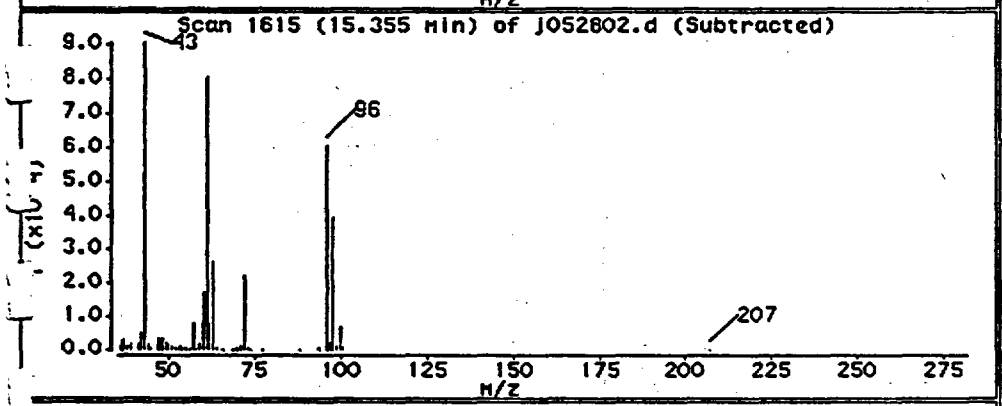
Sample Info: #315-57 200ppbv TO14 Std. 12.5mL (5ppbv)

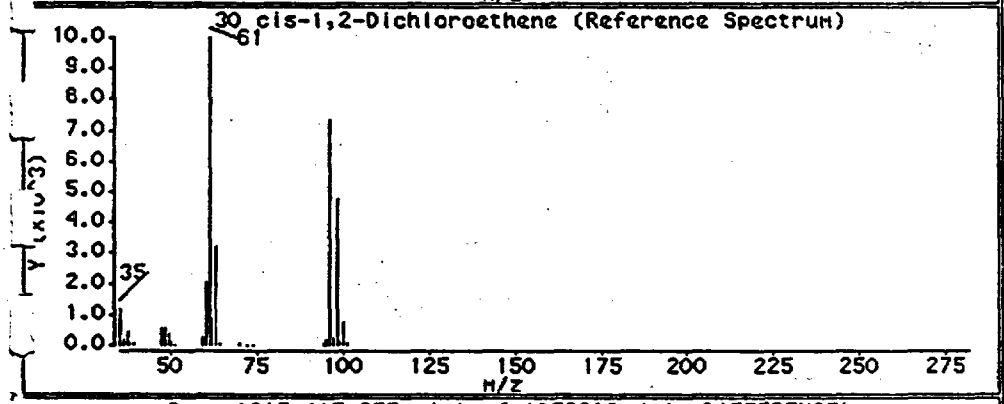
Operator: MH

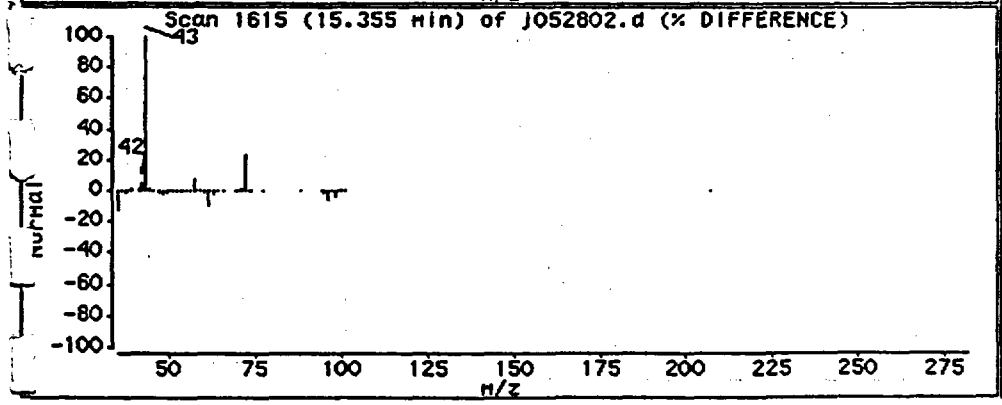
Column phase: RTx-624 Column diameter: 0.58

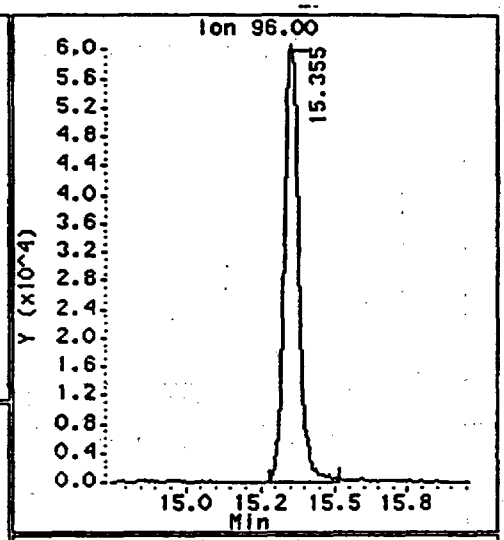
30 cis-1,2-Dichloroethene

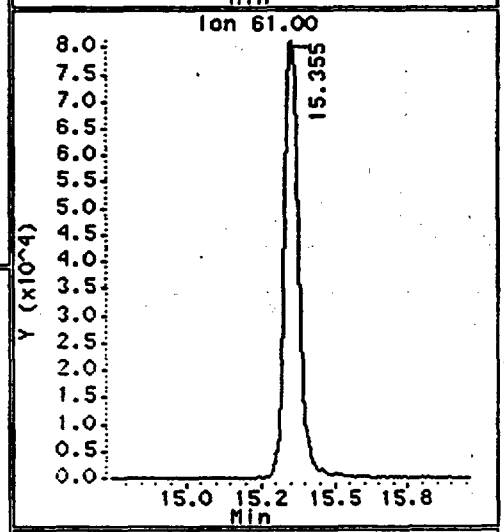


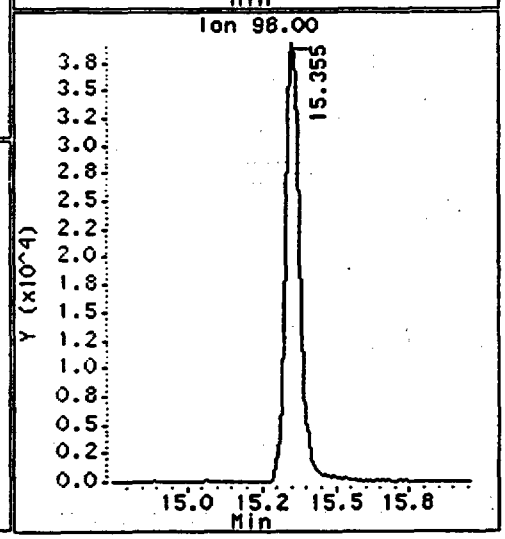












Data File: /chem/msdj.i/j-28may.b/j052802.d

Date : 28-MAY-1997 08:33

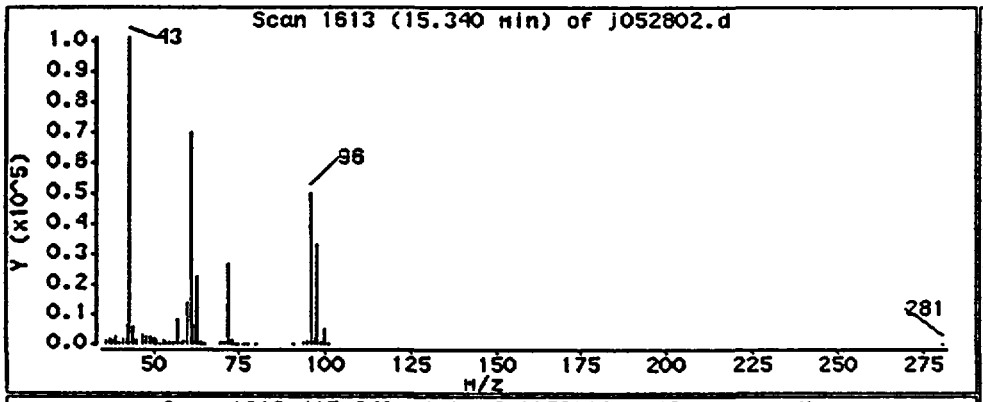
Client ID: Method Spike Instrument: msdj.i

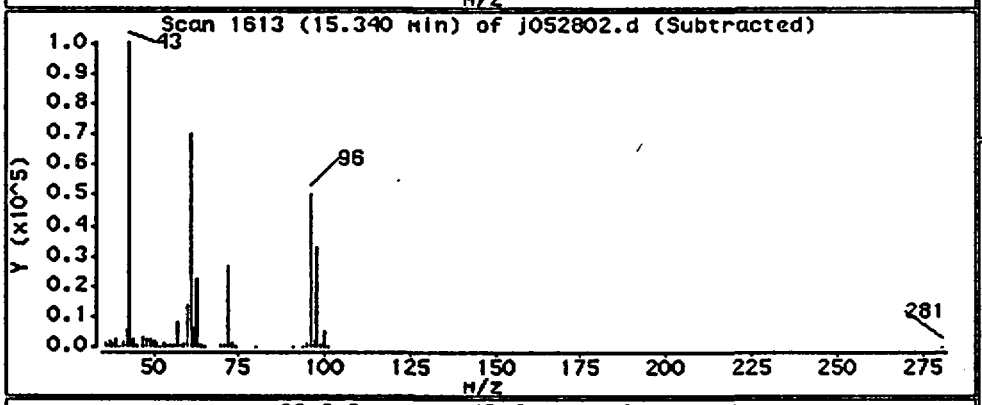
Sample Info: #315-57 200ppbv TO14 Std. 12.5mL (5ppbv)

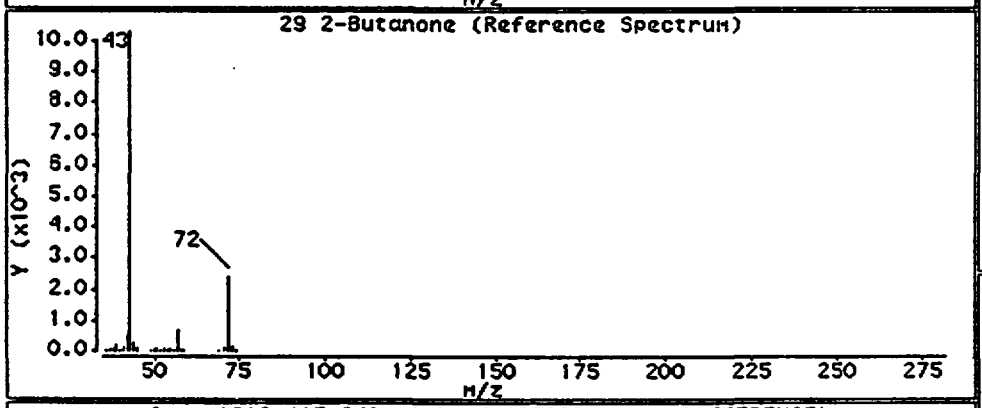
Operator: MH

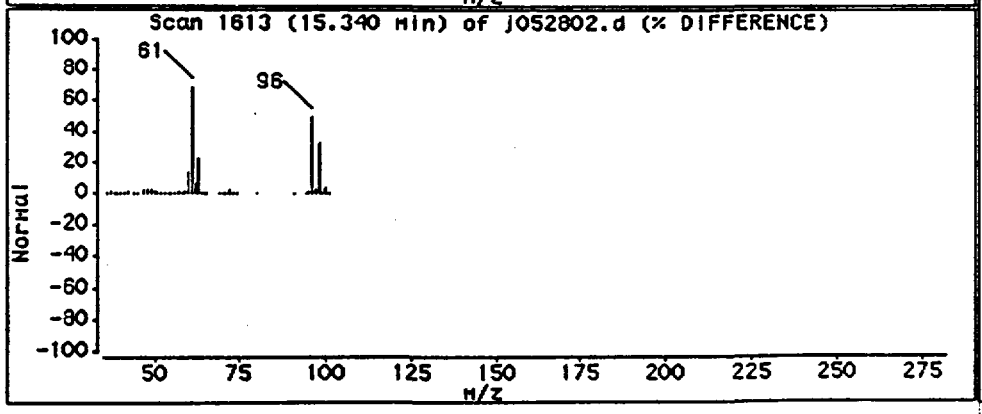
Column phase: RTx-624 Column diameter: 0.58

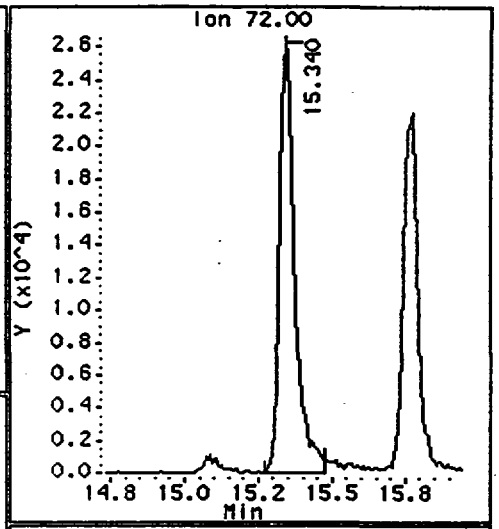
29 2-Butanone

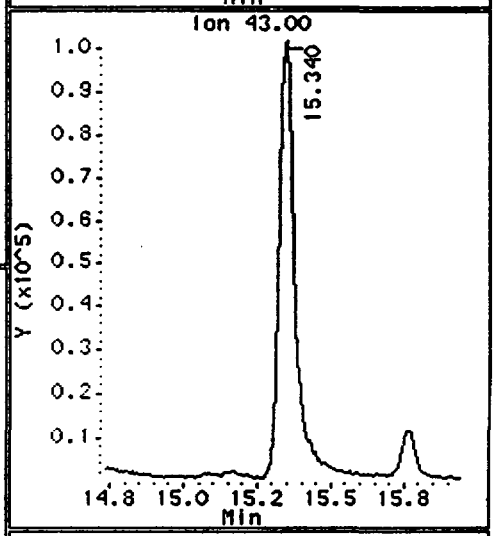


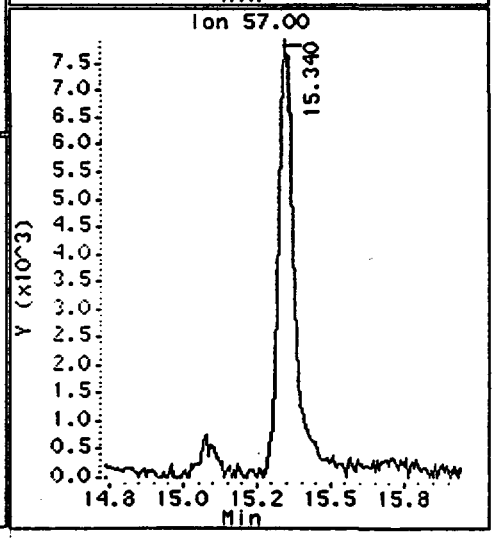












Data File: /chem/msdj.i/j-28may.b/j052802.d

U26

Date : 28-MAY-1997 08:33

Client ID: Method Spike

Instrument: msdj.i

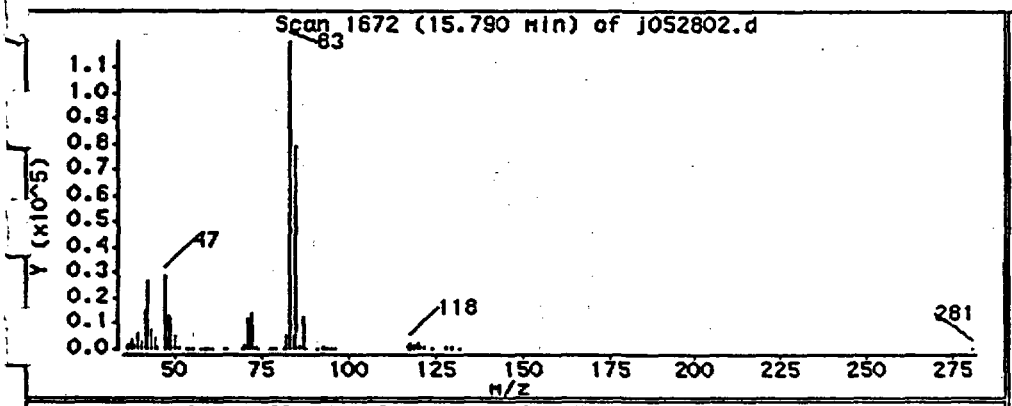
Sample Info: #315-57 200ppbv TO14 Std. 12.5mL (5ppbv)

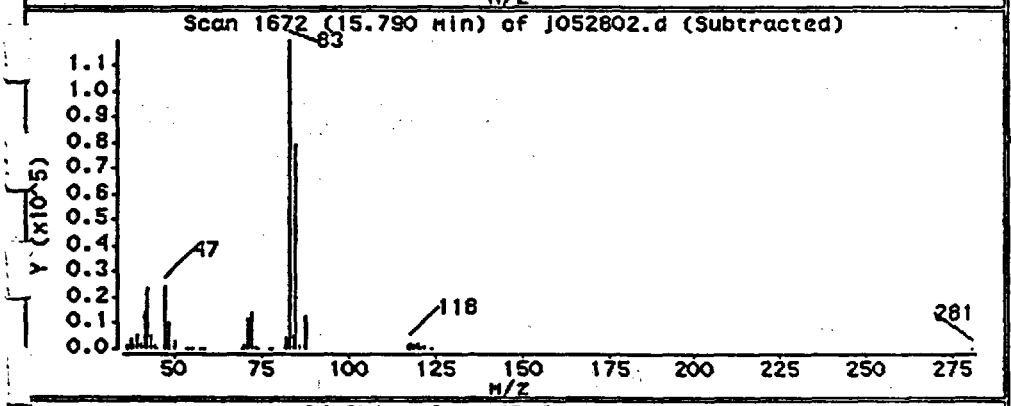
Operator: MH

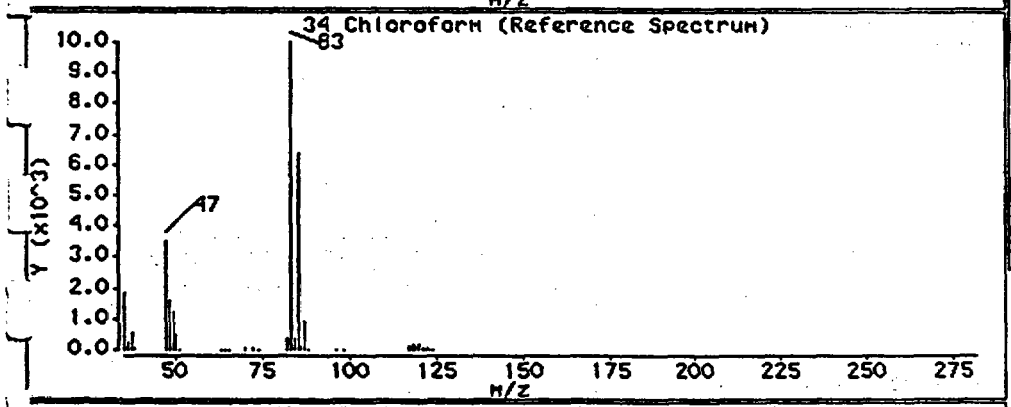
Column phase: RTx-624

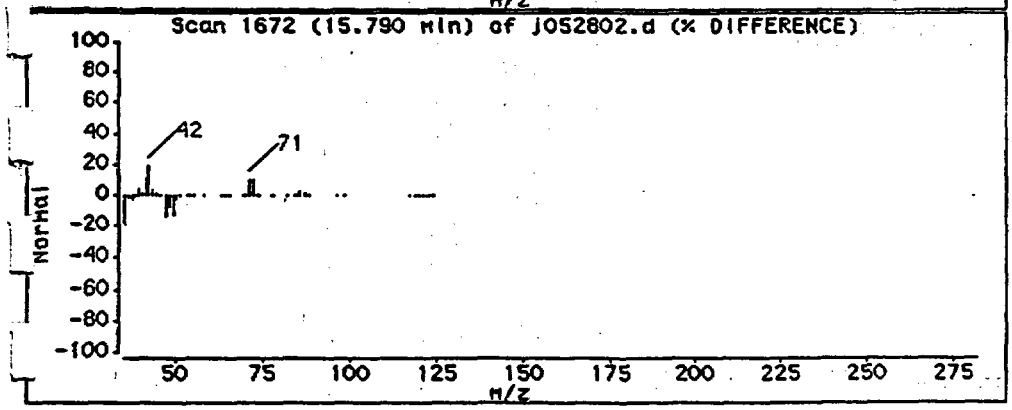
Column diameter: 0.58

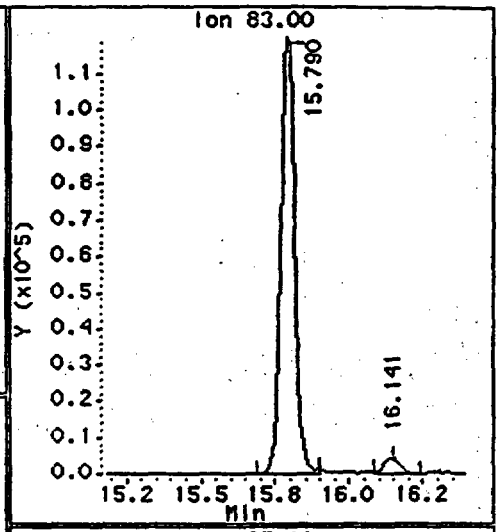
34 Chloroform

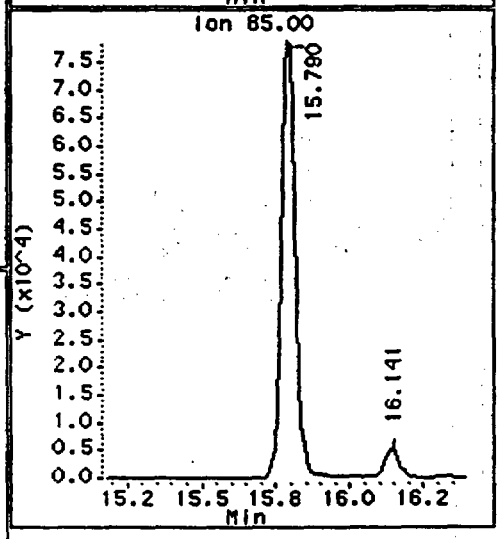












Data File: /chem/msdj.i/j-28may.b/j052802.d

0266

Date : 28-MAY-1997 08:33

Client ID: Method Spike

Instrument: msdj.i

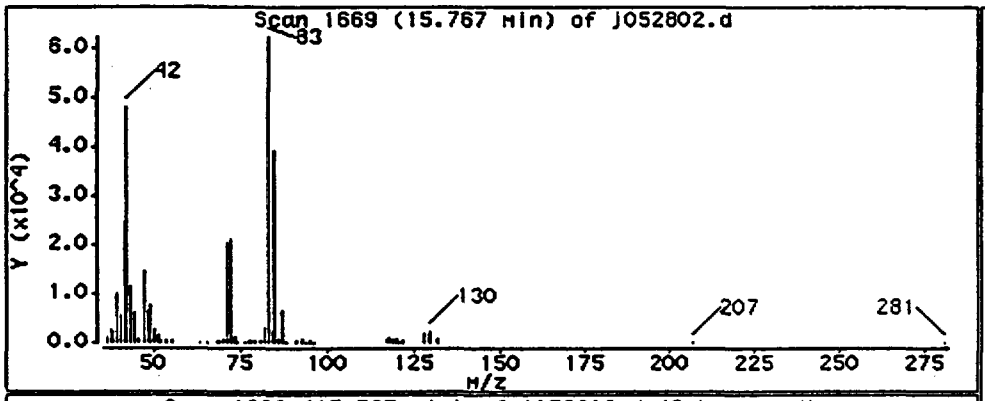
Sample Info: #315-57 200ppbv T014 Std. 12.5mL (5ppbv)

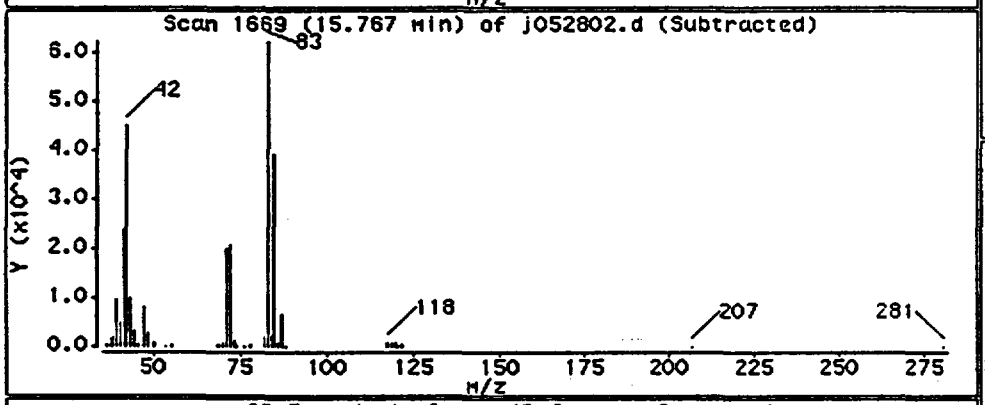
Operator: MH

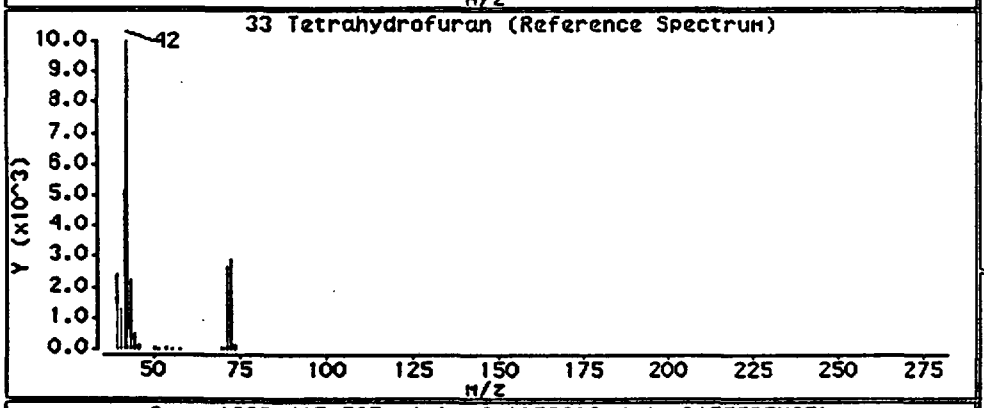
Column phase: RTx-624

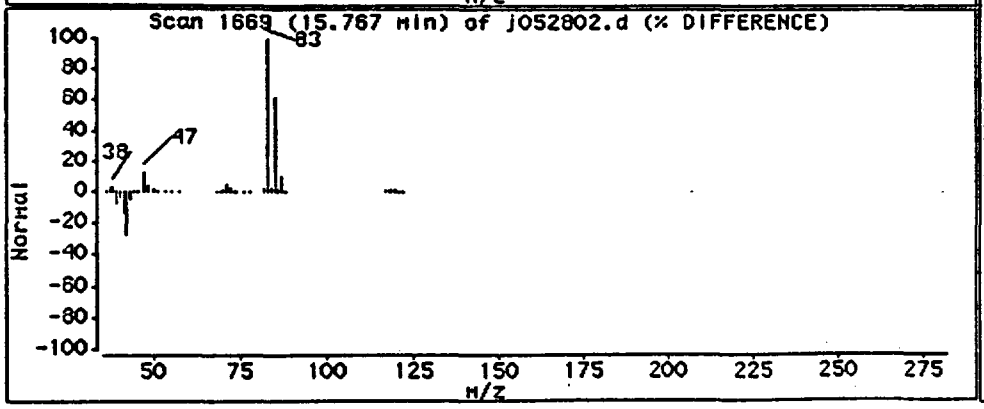
Column diameter: 0.58

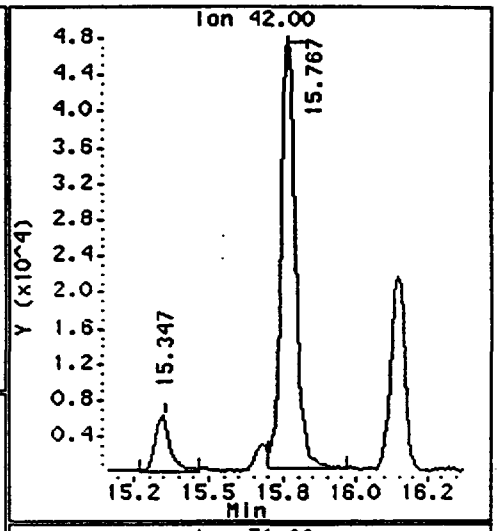
33 Tetrahydrofuran

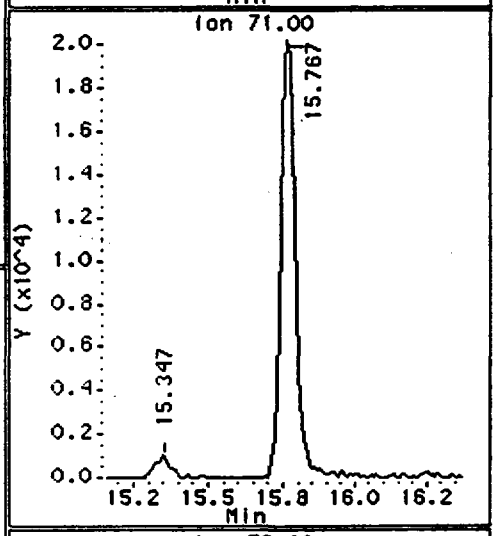


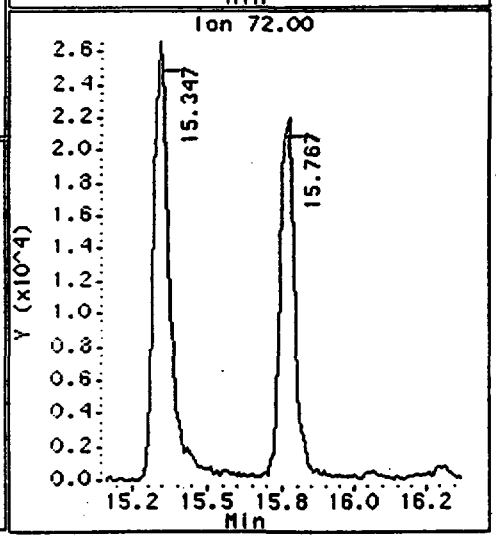






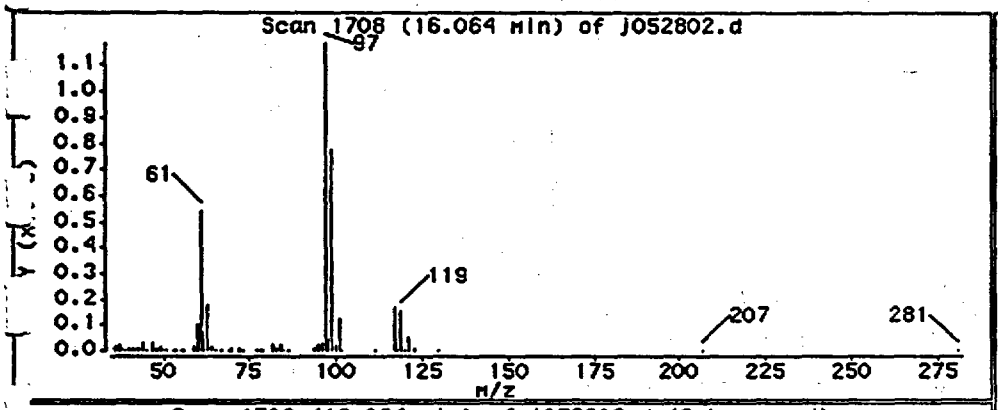


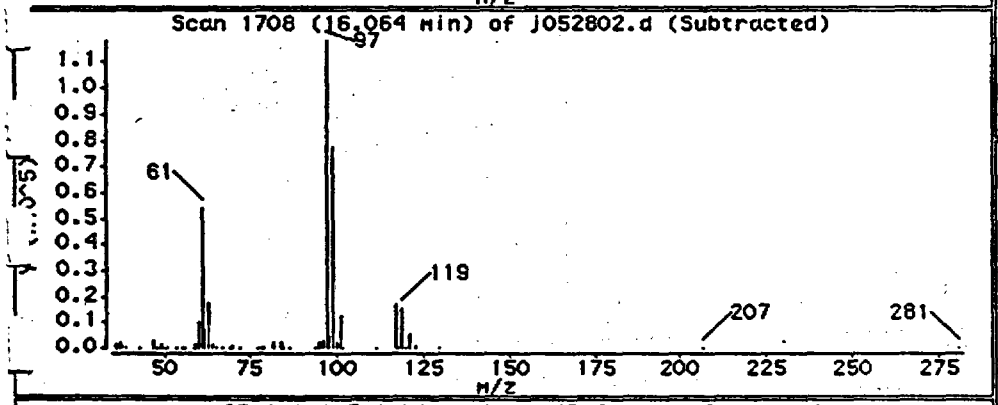


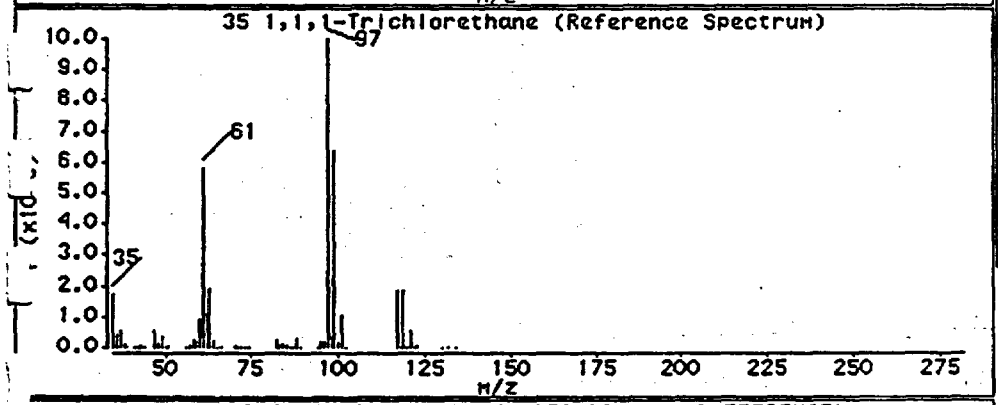


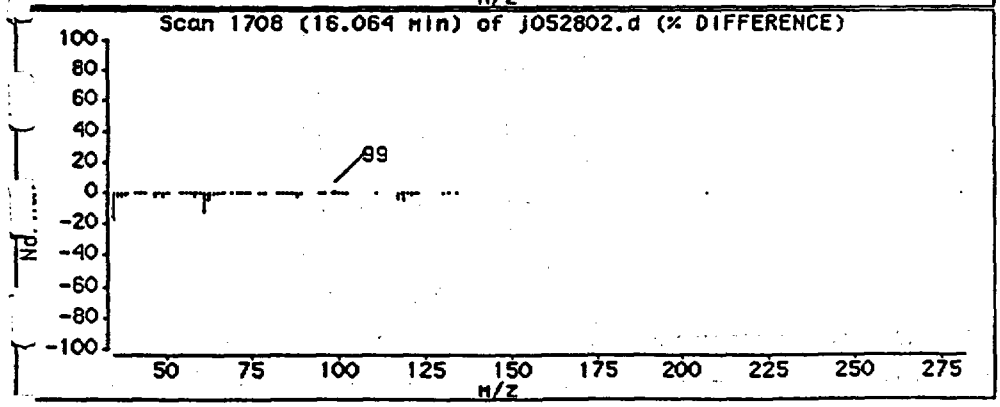
Data File: /chem/msdj.i/j-28may.b/j052802.d
Date : 28-MAY-1997 08:33
Client ID: Method Spike
Instrument: msdj.i
Sample Info: #315-57 200ppbv T014 Std. 12.5mL (5ppbv)
Operator: MH
Column phase: RTx-624
Column diameter: 0.58

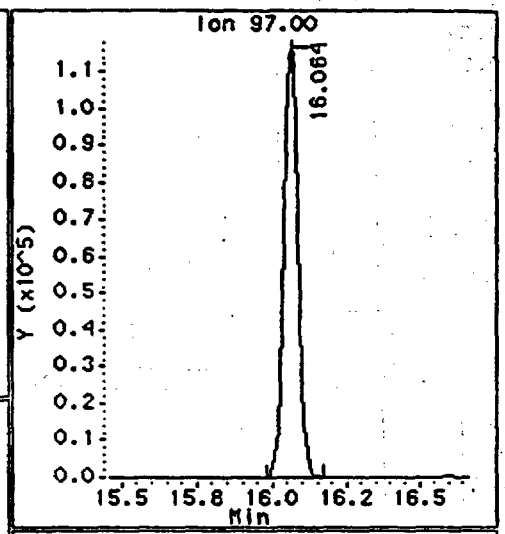
35 1,1,1-Trichlorethane

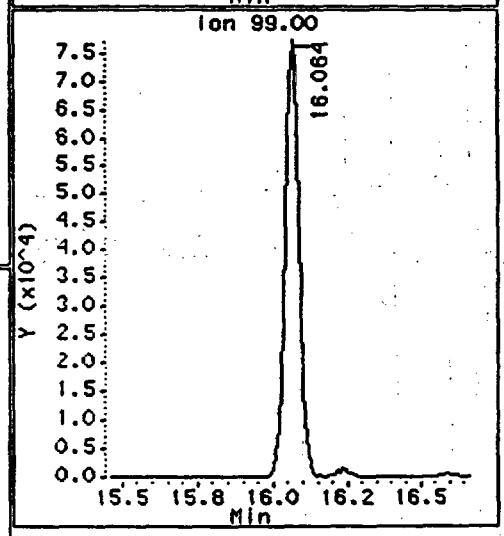






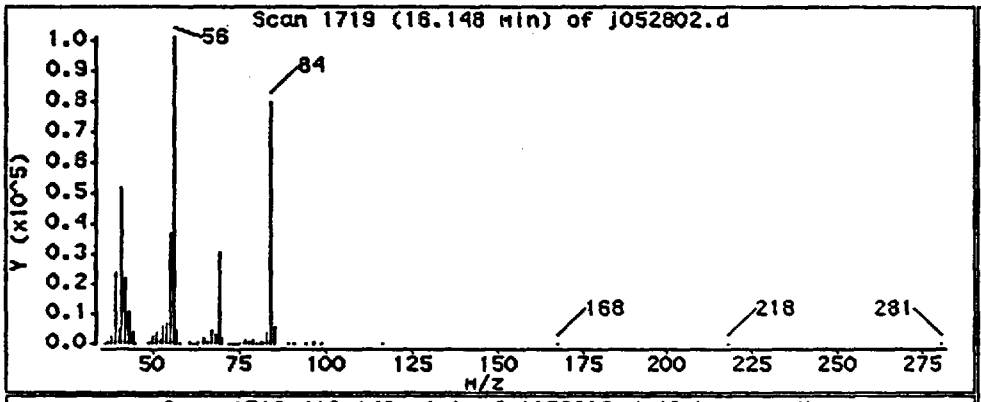


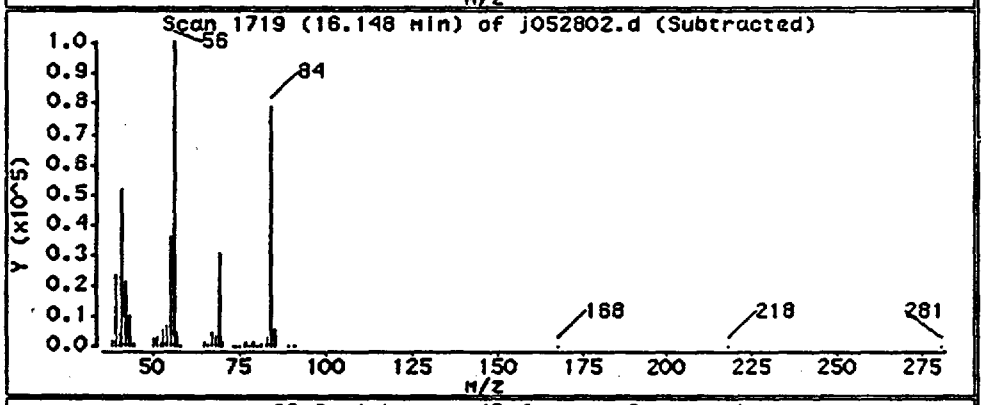


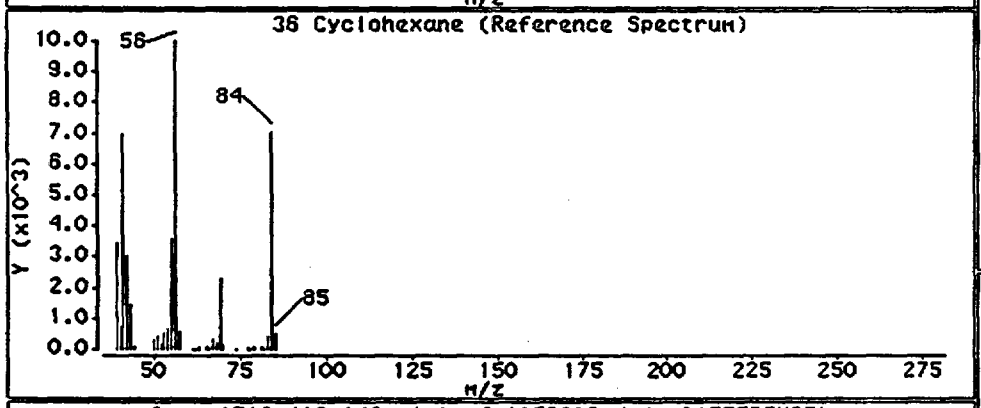


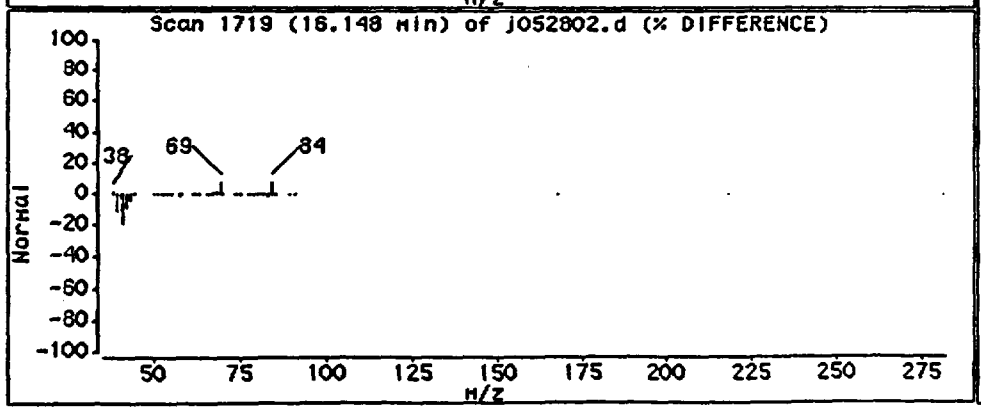
Data File: /chem/msdj.i/j-28may.b/j052802.d
Date : 28-MAY-1997 08:33
Client ID: Method Spike
Instrument: msdj.i
Sample Info: #315-57 200ppbv TO14 Std. 12.5mL (5ppbv)
Operator: MH
Column phase: RTx-624
Column diameter: 0.58

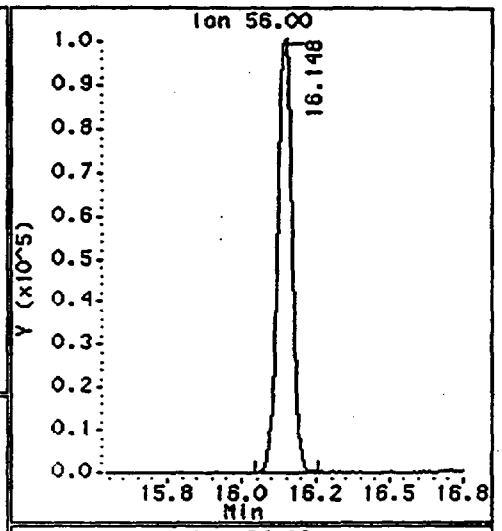
36 Cyclohexane

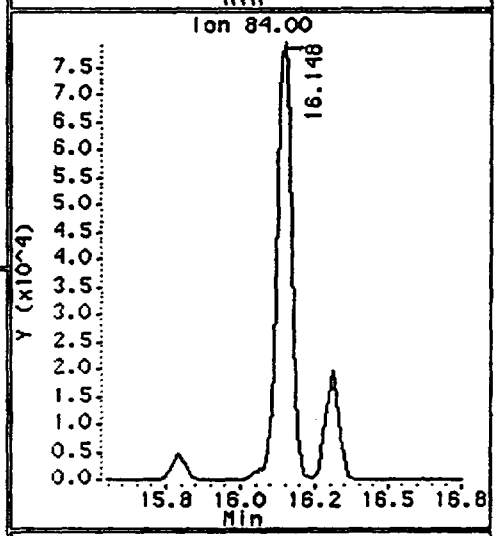


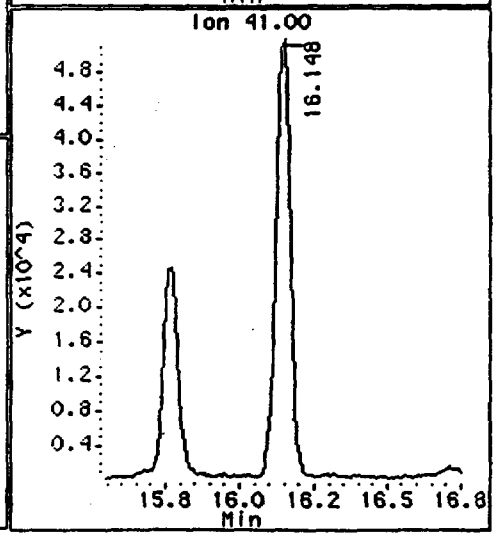












Data File: /chem/msdj.i/j-28may.b/j052802.d

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Date : 28-MAY-1997 08:33

0269

Client ID: Method Spike

Instrument: msdj.i

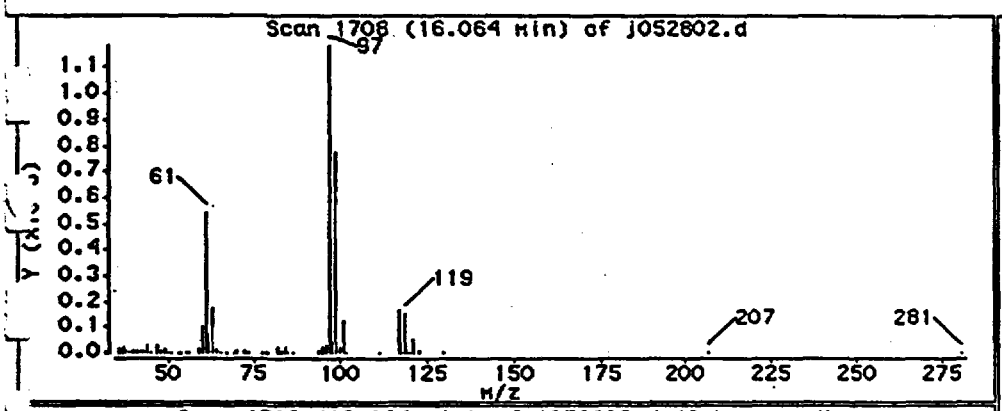
Sample Info: #315-57 200ppbv T014 Std. 12.5mL (5ppbv)

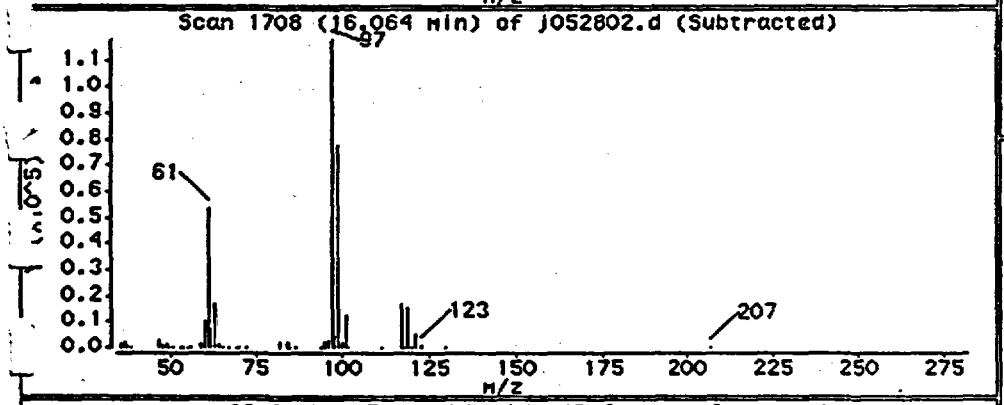
Operator: MH

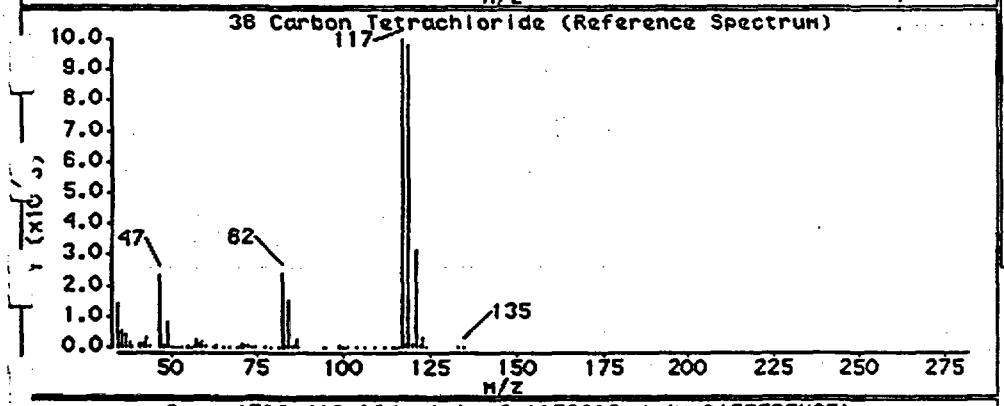
Column phase: RTx-624

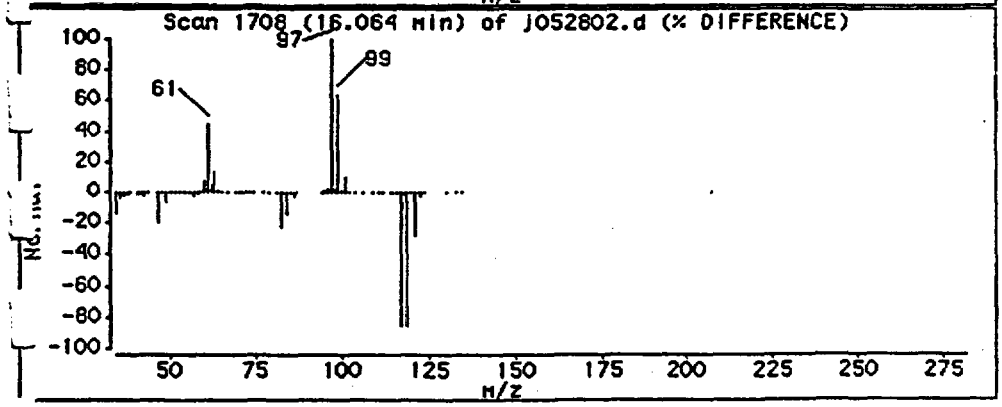
Column diameter: 0.58

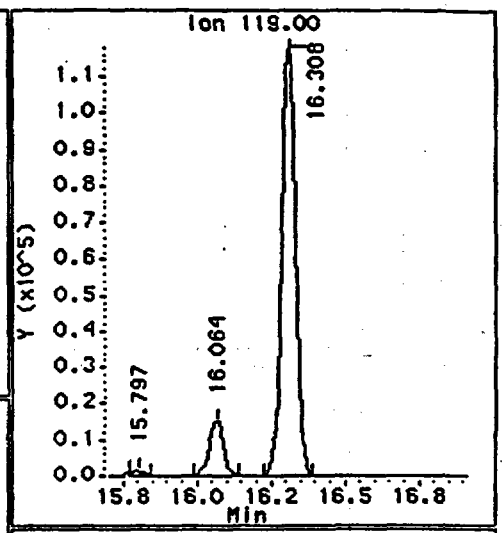
38 Carbon Tetrachloride

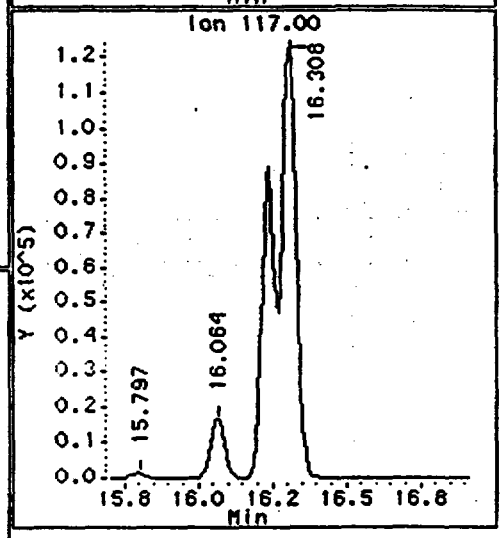












Data File: /chem/msdj.i/j-28may.b/j052802.d

Date : 28-MAY-1997 08:33

0270

Client ID: Method Spike

Instrument: msdj.i

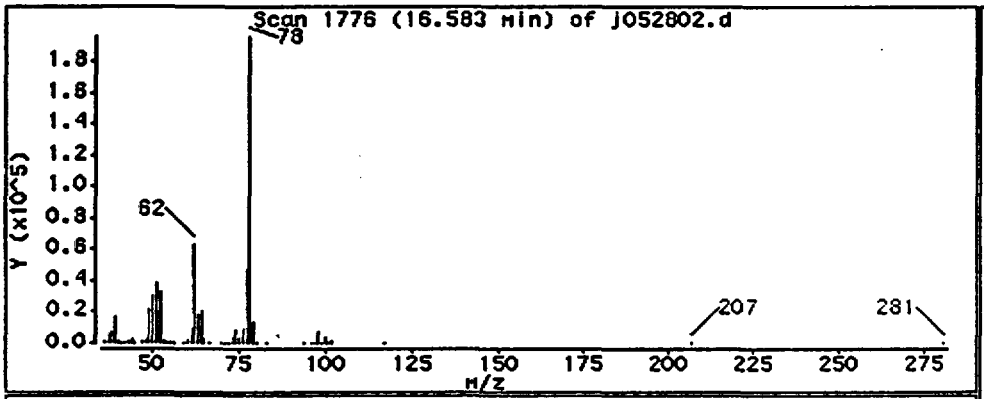
Sample Info: #315-57 200ppbv TO14 Std. 12.5mL (5ppbv)

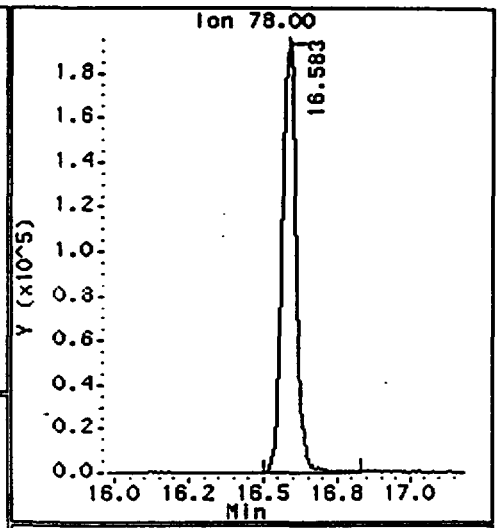
Operator: MH

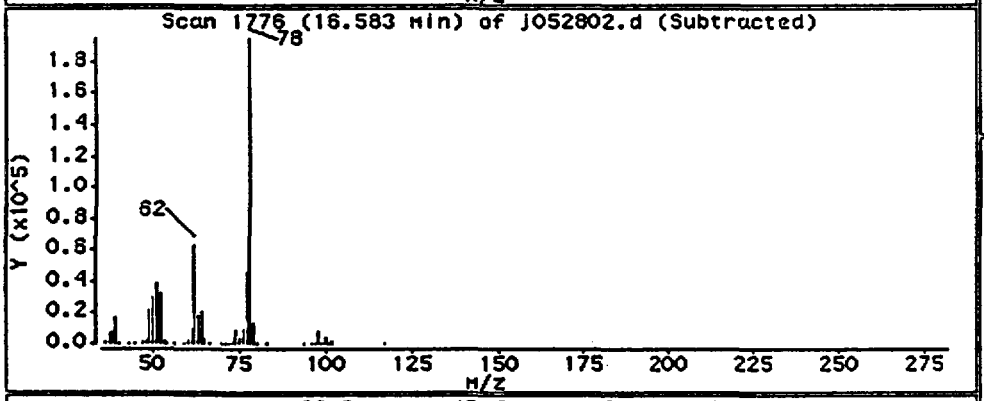
Column phase: RTx-624

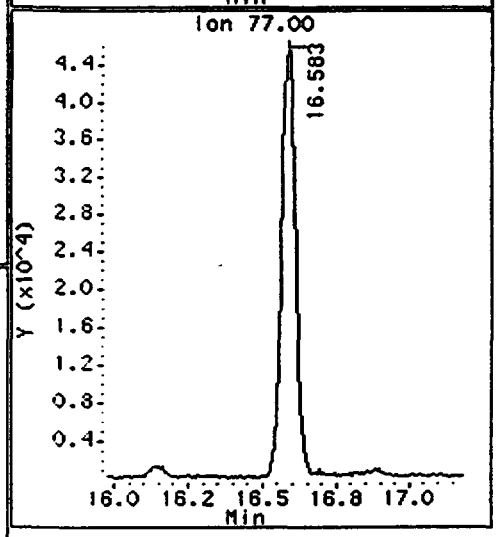
Column diameter: 0.58

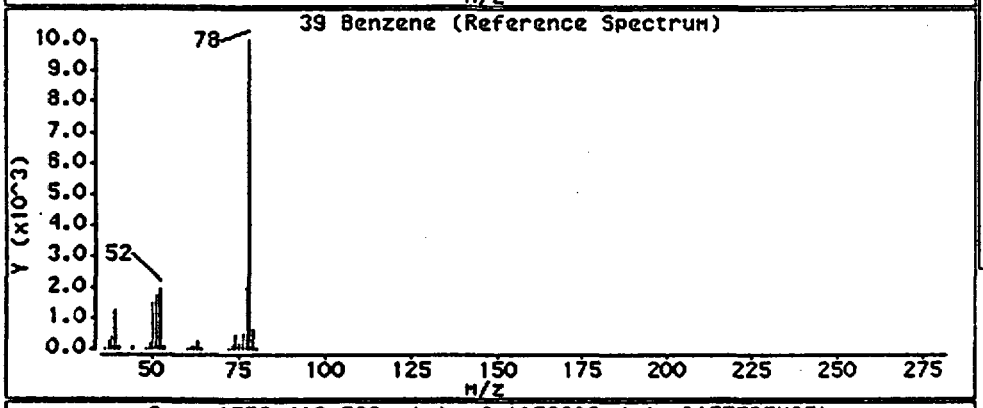
39 Benzene

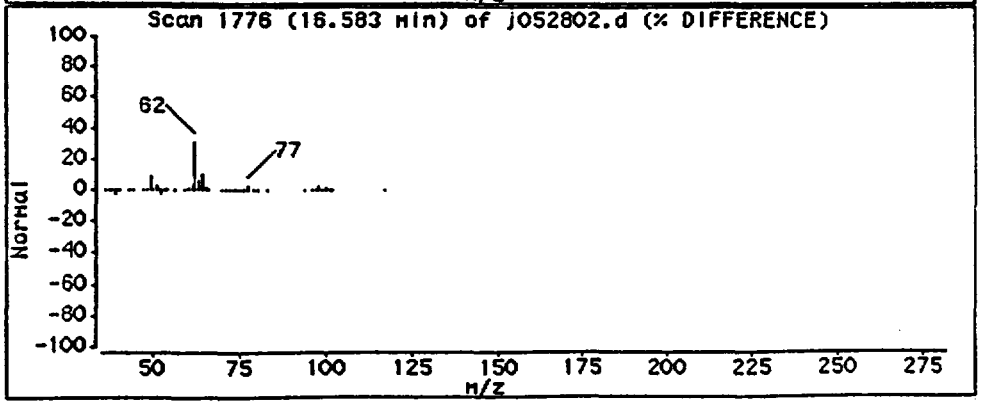












Data File: /chem/msdj.i/j-28may.b/j052802.d

U271

Date : 28-MAY-1997 08:33

Client ID: Method Spike

Instrument: msdj.i

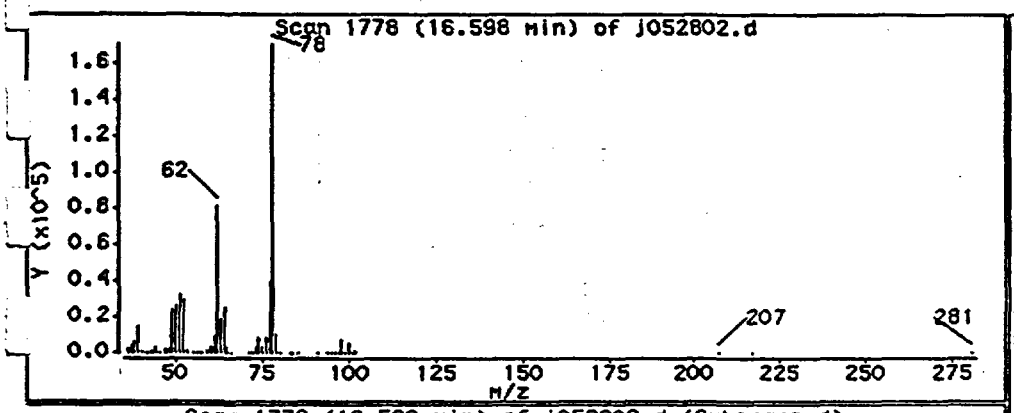
Sample Info: #315-57 200ppbv T014 Std. 12.5mL (5ppbv)

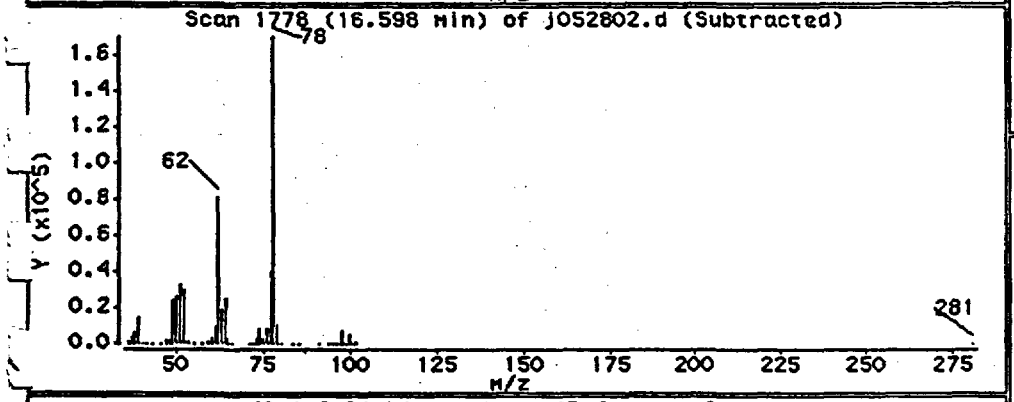
Operator: MH

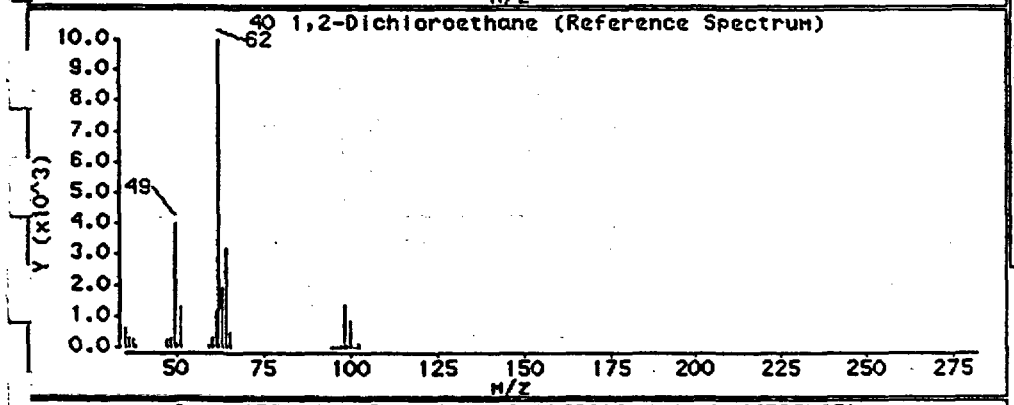
Column phase: RTx-624

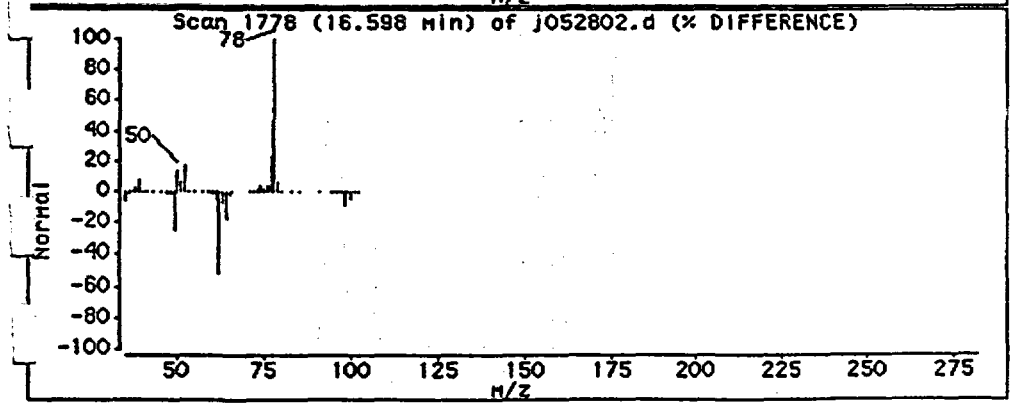
Column diameter: 0.58

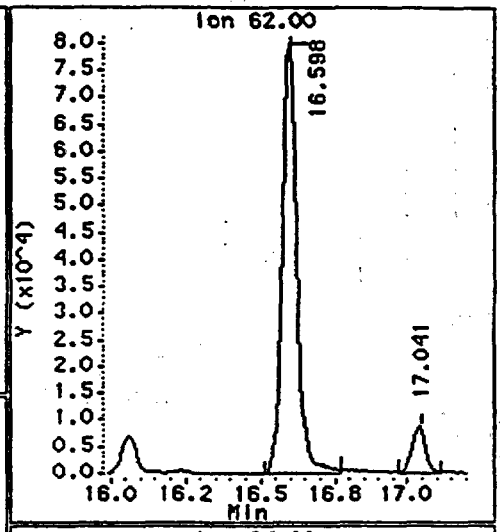
40 1,2-Dichloroethane

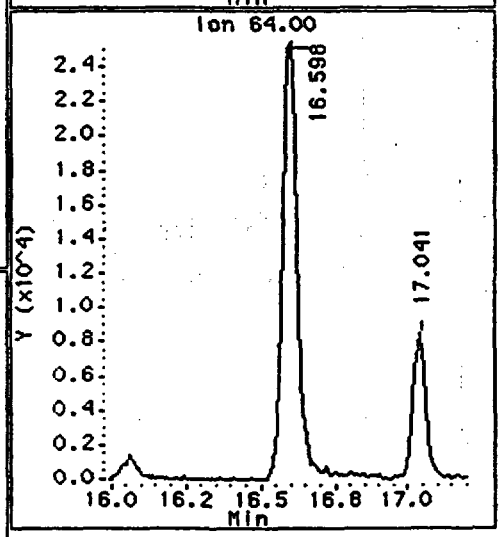












Data File: /chem/msdj.i/j-28may.b/j052802.d

Date : 28-MAY-1997 08:33

Client ID: Method Spike

Instrument: msdj.i

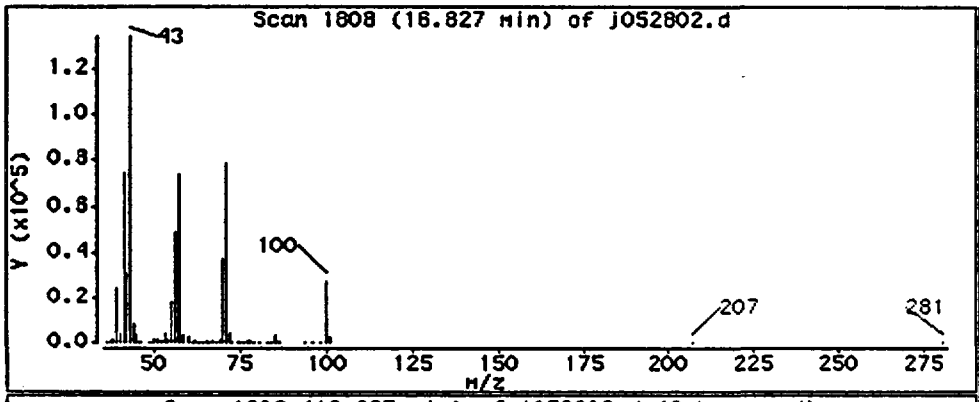
Sample Info: #315-57 200ppbv TO14 Std. 12.5mL (5ppbv)

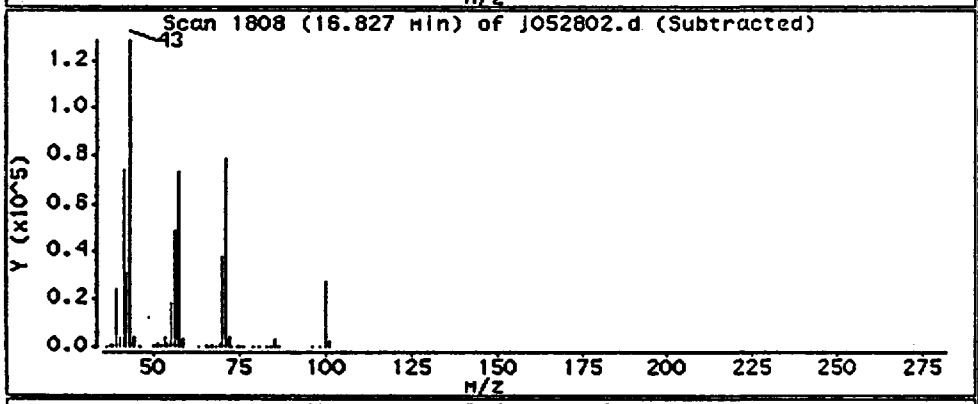
Operator: MH

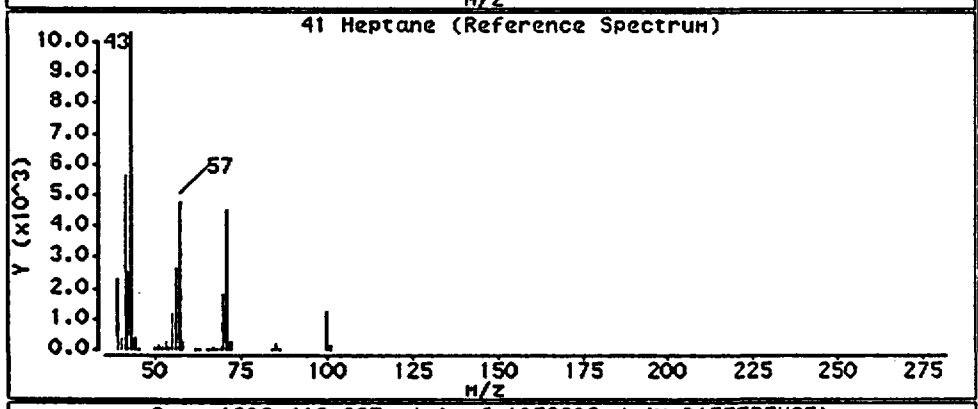
Column phase: RTx-624

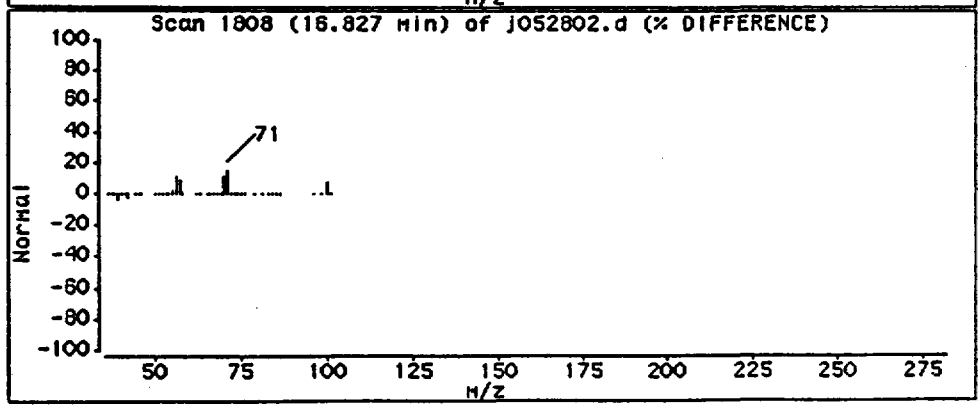
Column diameter: 0.58

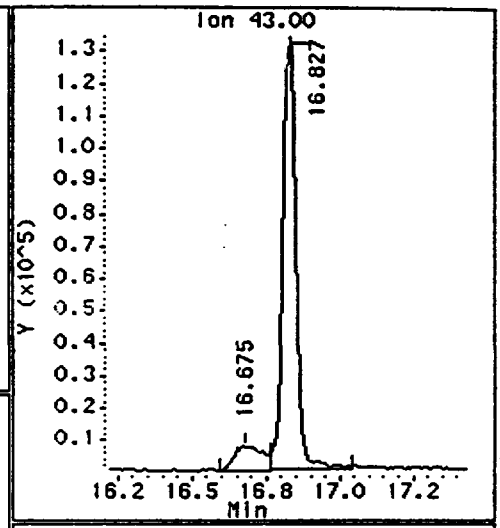
41 Heptane

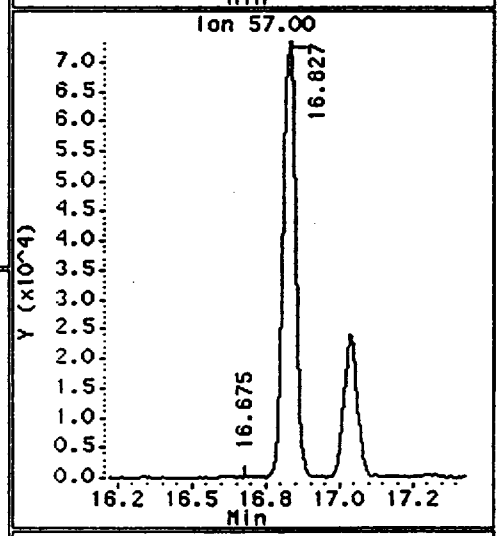


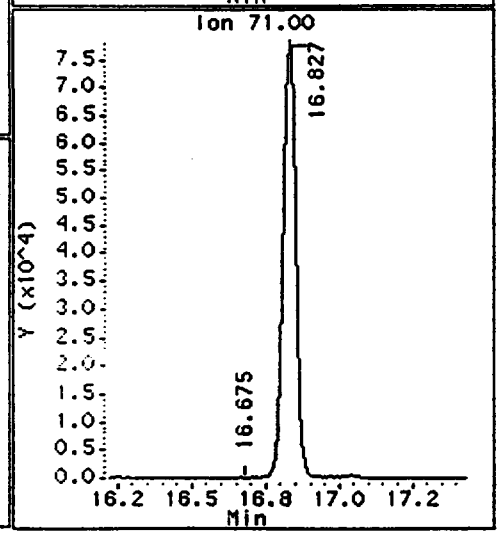












Data File: /chem/msdj.i/j-28may.b/j052802.d

Date : 28-MAY-1997 08:33

Client ID: Method Spike

Instrument: msdj.i

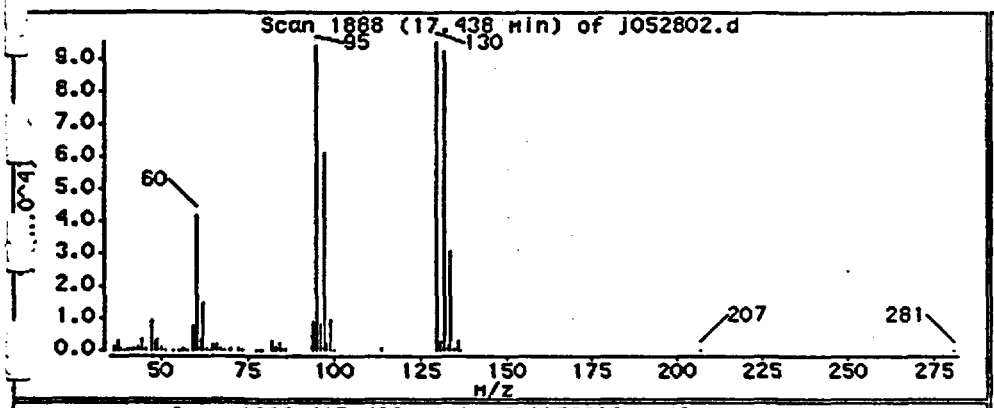
Sample Info: #315-57 200ppbv T014 Std. 12.5mL (5ppbv)

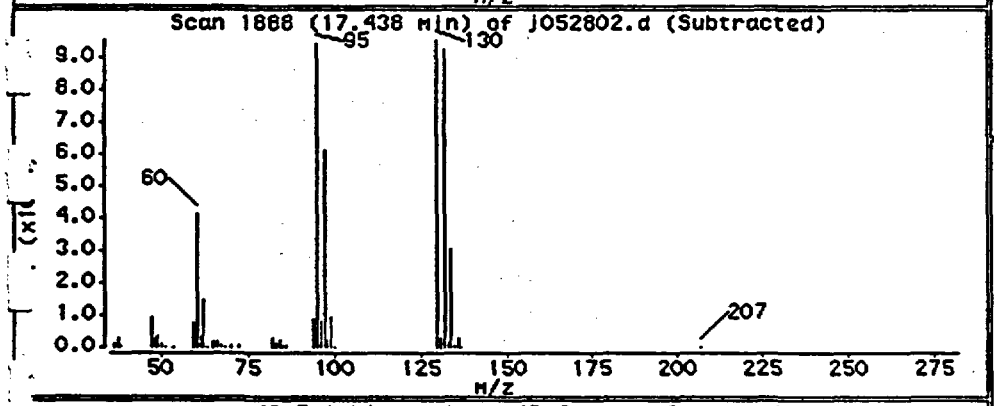
Operator: MH

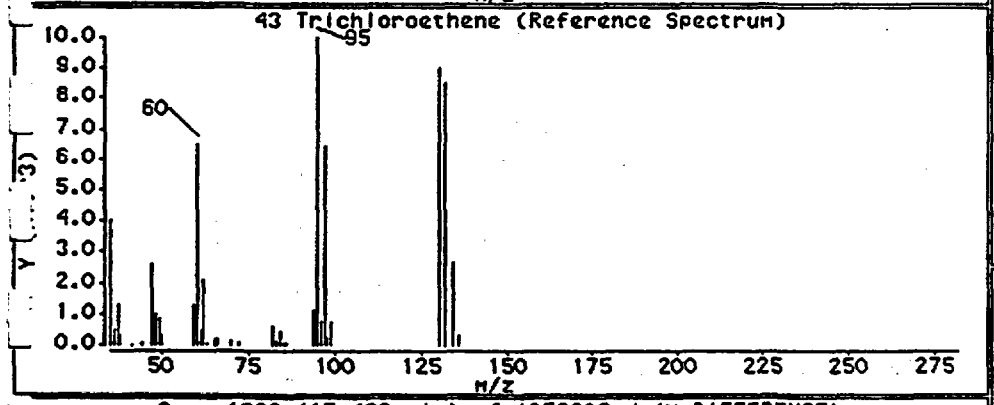
Column phase: RTx-624

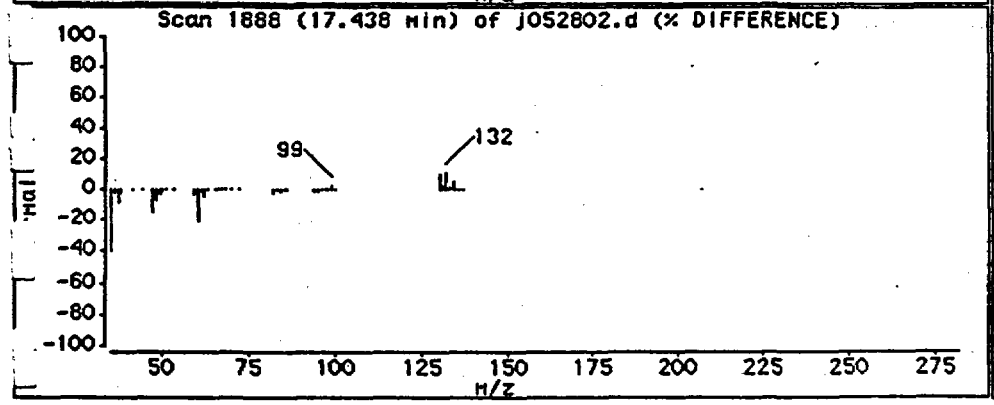
Column diameter: 0.58

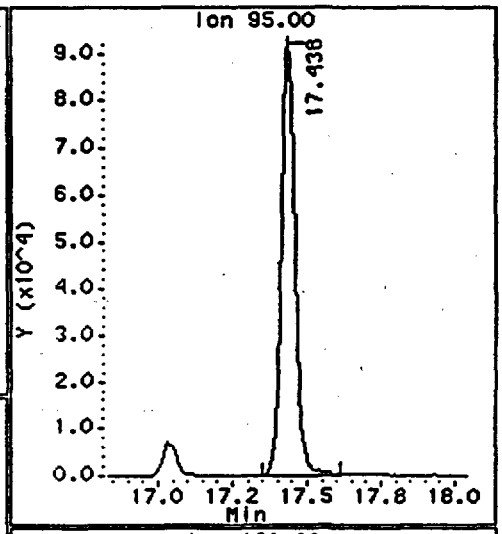
43 Trichloroethene

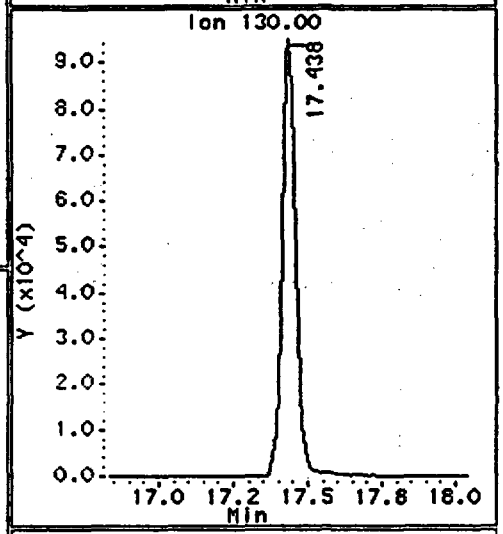


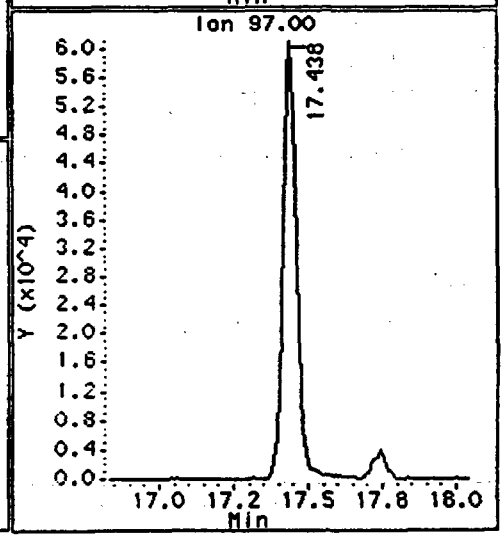












Data File: /chem/msdj.i/j-28may.b/j052802.d

Date : 28-MAY-1997 08:33

0274

Client ID: Method Spike

Instrument: msdj.i

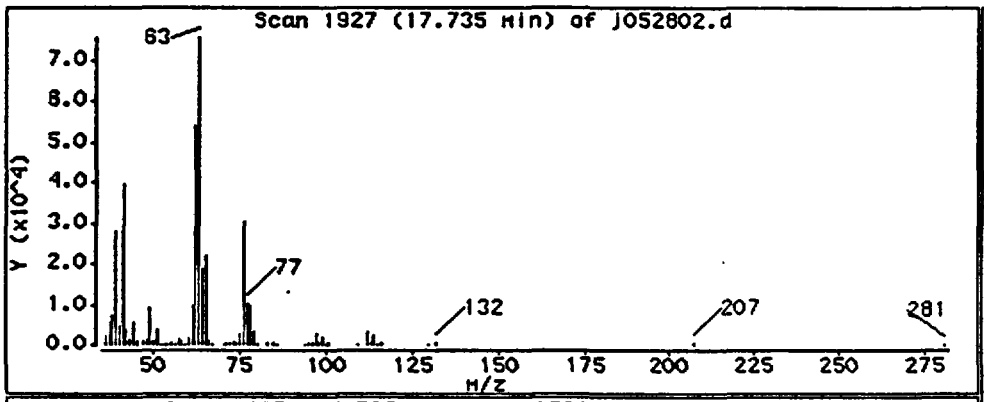
Sample Info: #315-57 200ppbv TO14 Std. 12.5mL (5ppbv)

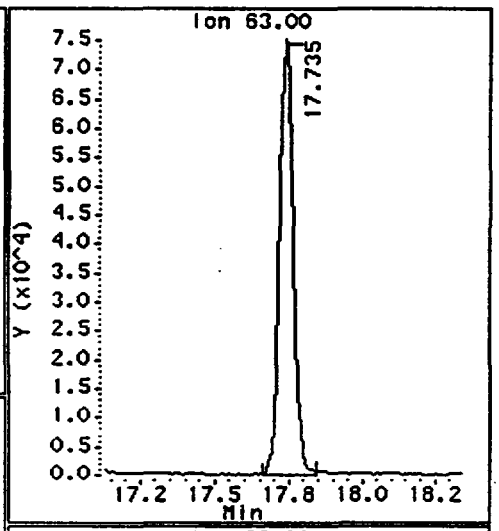
Operator: MH

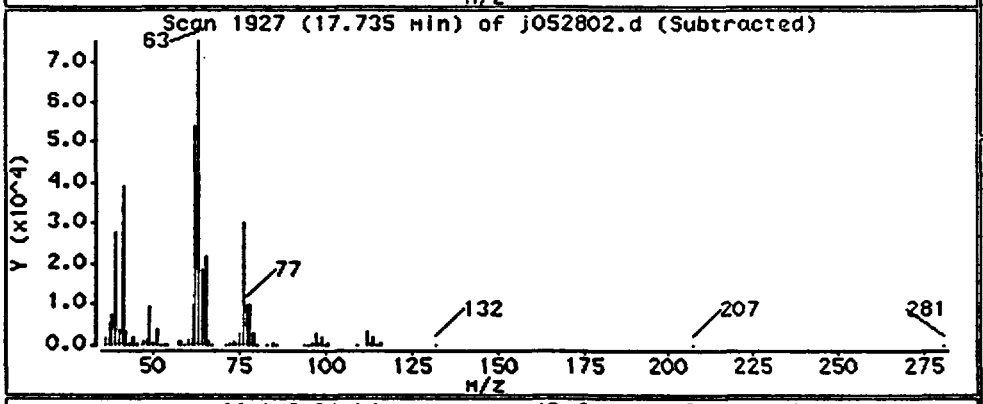
Column phase: RTx-624

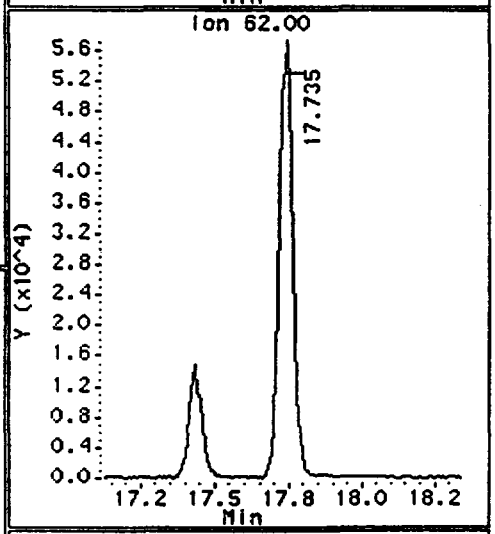
Column diameter: 0.58

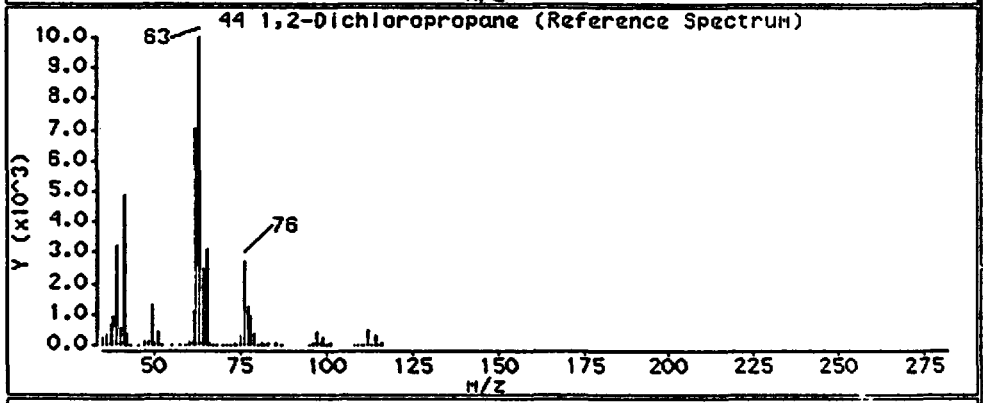
44 1,2-Dichloropropane

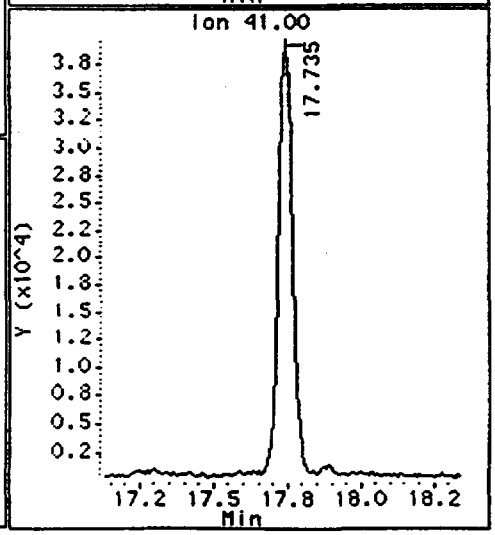


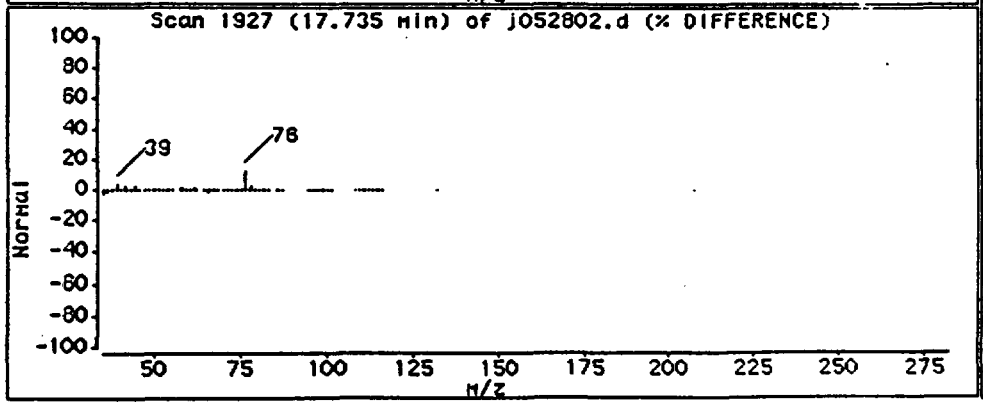












Data File: /chem/msdj.i/j-28may.b/j052802.d

Date : 28-MAY-1997 08:33

Client ID: Method Spike

Instrument: msdj.i

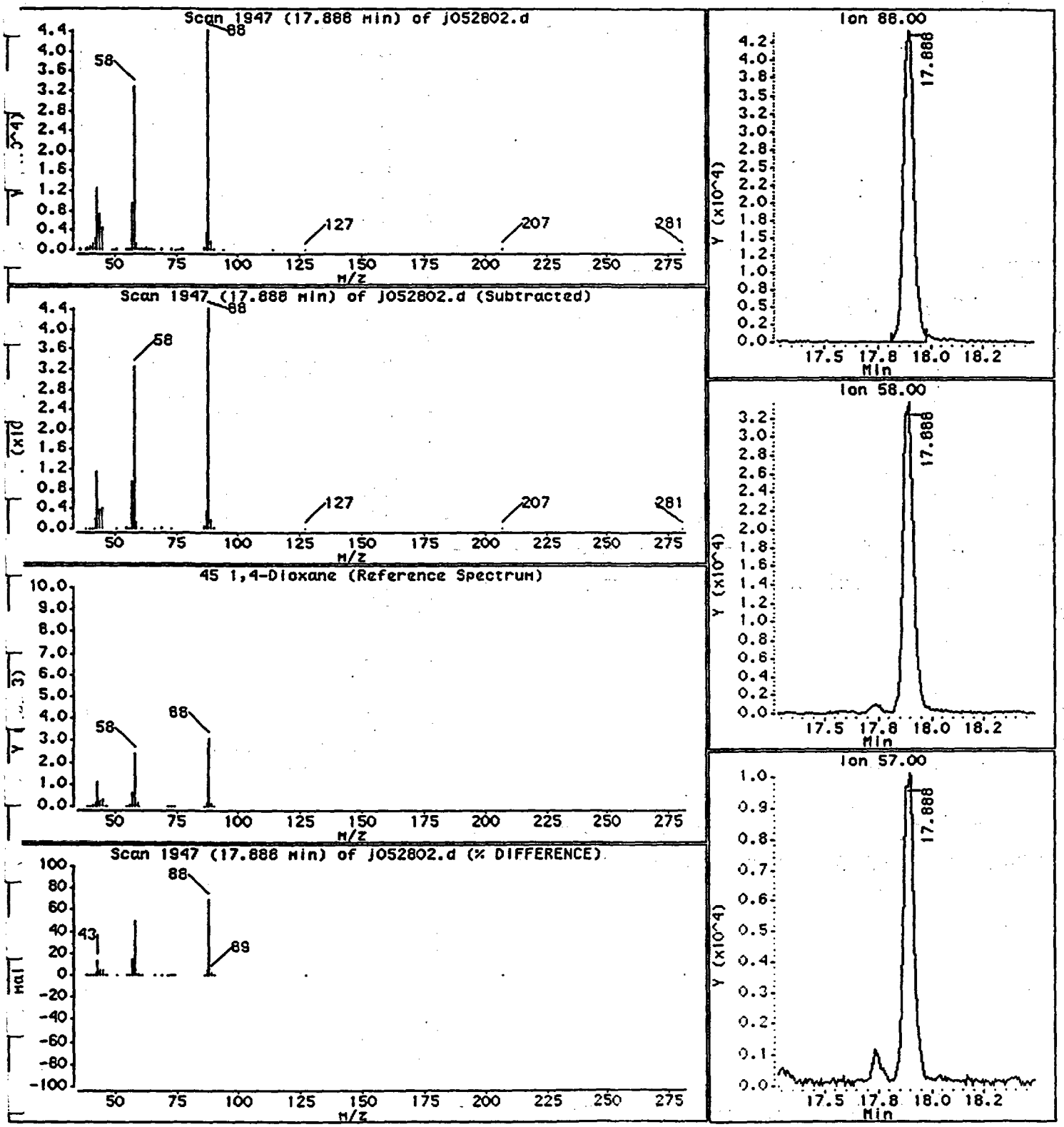
Sample Info: #315-57 200ppbv TO14 Std. 12.5mL (5ppbv)

Operator: MH

Column phase: RTx-624

Column diameter: 0.58

45 1,4-Dioxane



Data File: /chem/msdj.i/j-28may.b/j052802.d

Date : 28-MAY-1997 08:33

0276

Client ID: Method Spike

Instrument: msdj.i

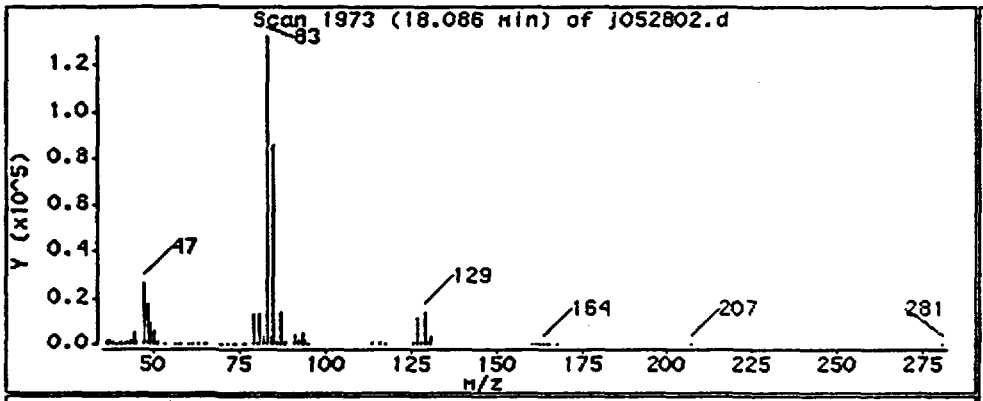
Sample Info: #315-57 200ppbv TO14 Std. 12.5mL (5ppbv)

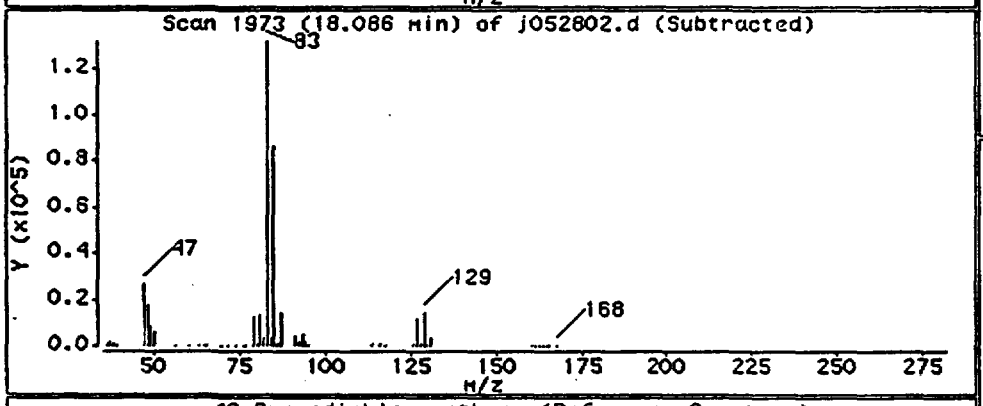
Operator: MH

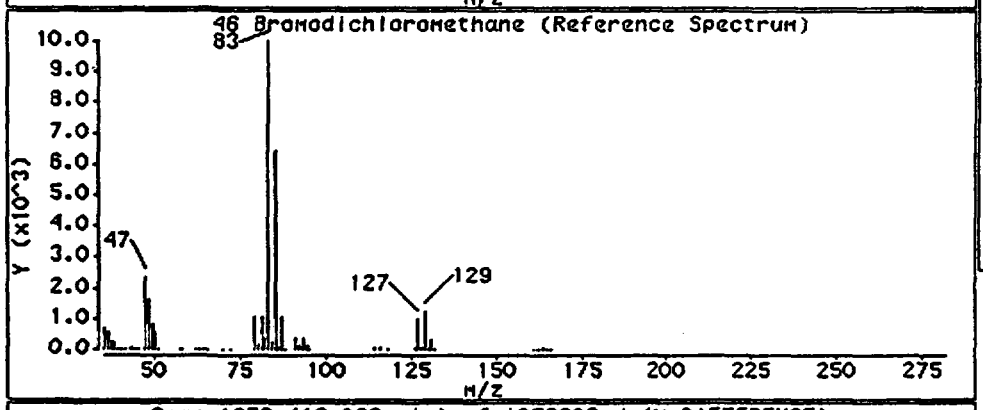
Column phase: RTx-624

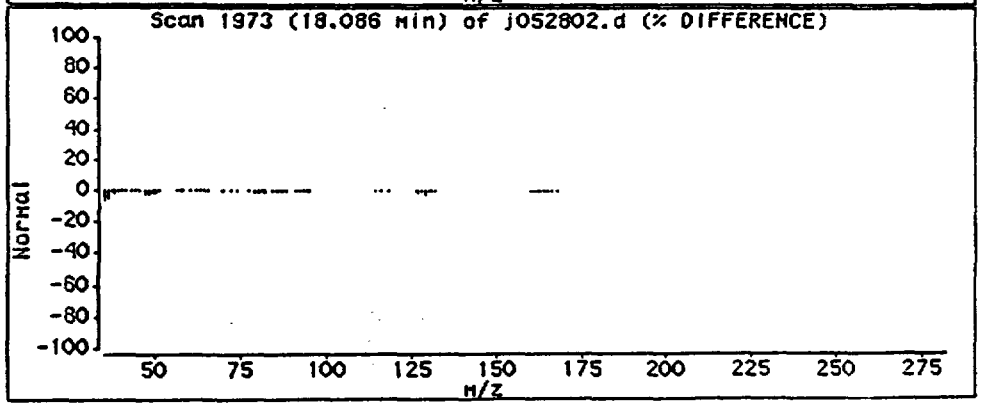
Column diameter: 0.58

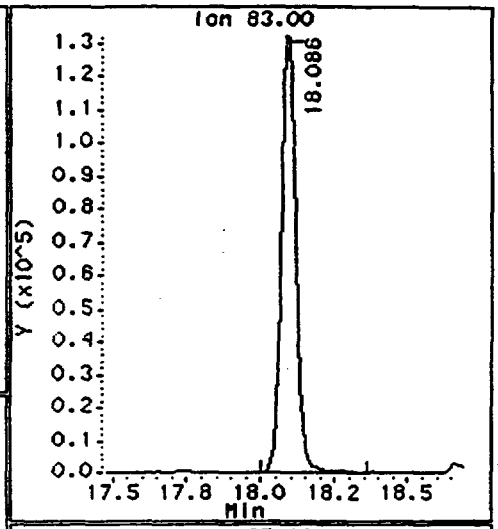
46 Bromodichloromethane

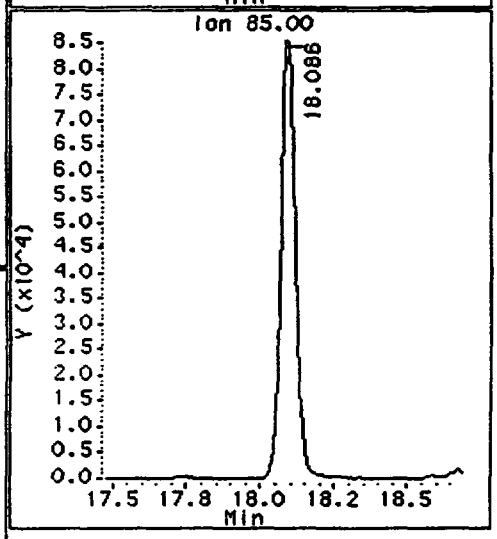












Data File: /chem/msdj.i/j-28may.b/j052802.d

Date : 28-MAY-1997 08:33

U277

Client ID: Method Spike

Instrument: msdj.i

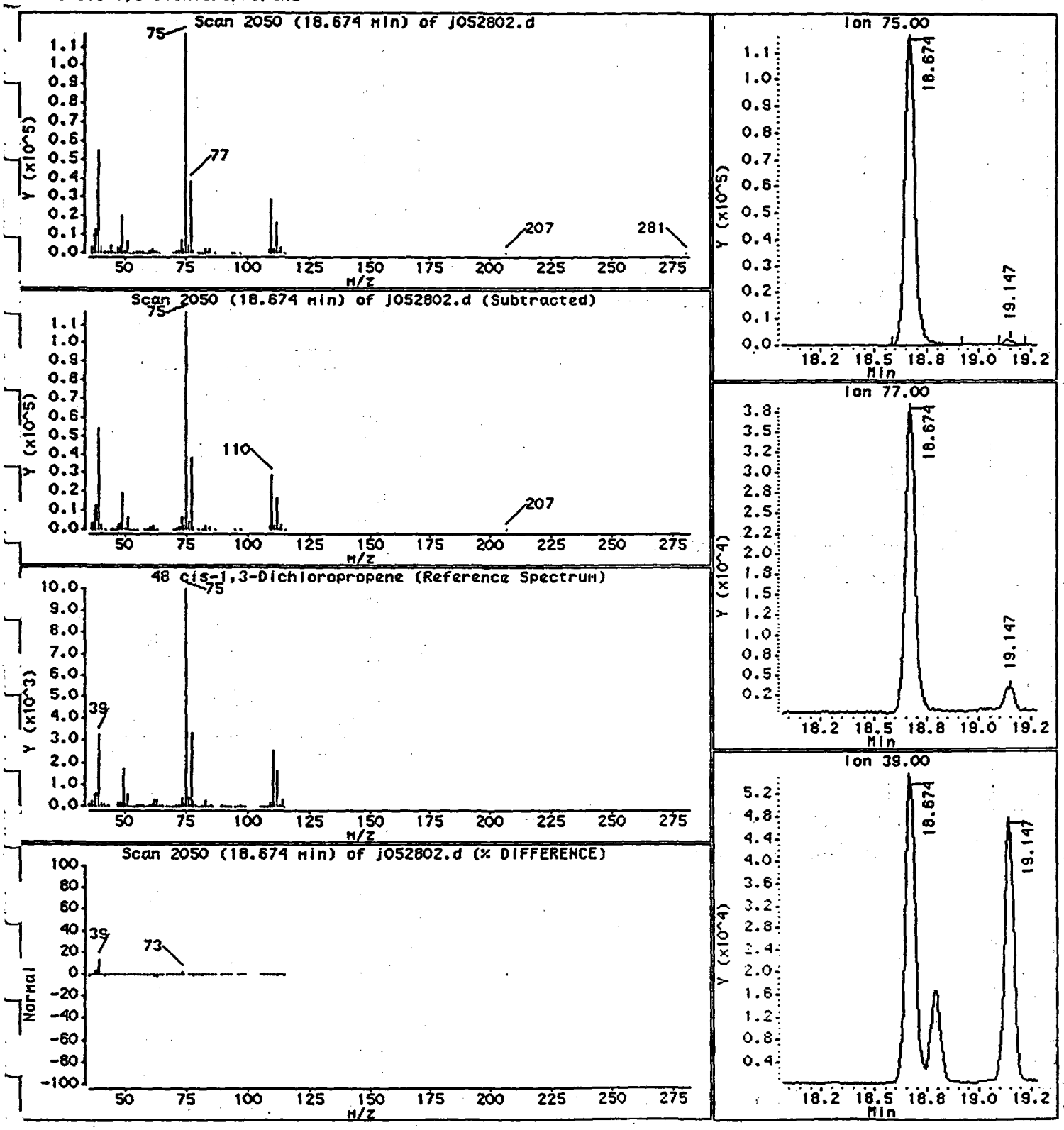
Sample Info: #315-57 200ppbv TO14 Std. 12.5mL (5ppbv)

Operator: MH

Column phase: RTx-624

Column diameter: 0.58

48 cis-1,3-Dichloropropene



Data File: /chem/msdj.i/j-28may.b/j052802.d

Date : 28-MAY-1997 08:33

01278

Client ID: Method Spike

Instrument: msdj.i

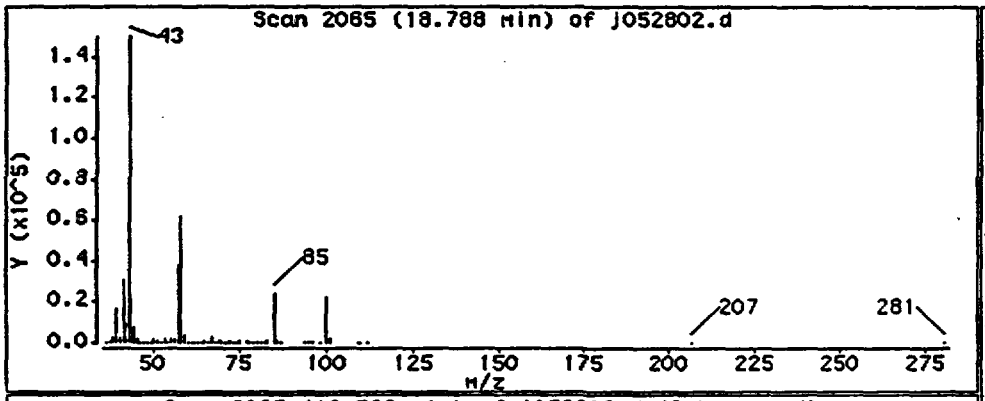
Sample Info: #315-57 200ppbv T014 Std. 12.5mL (5ppbv)

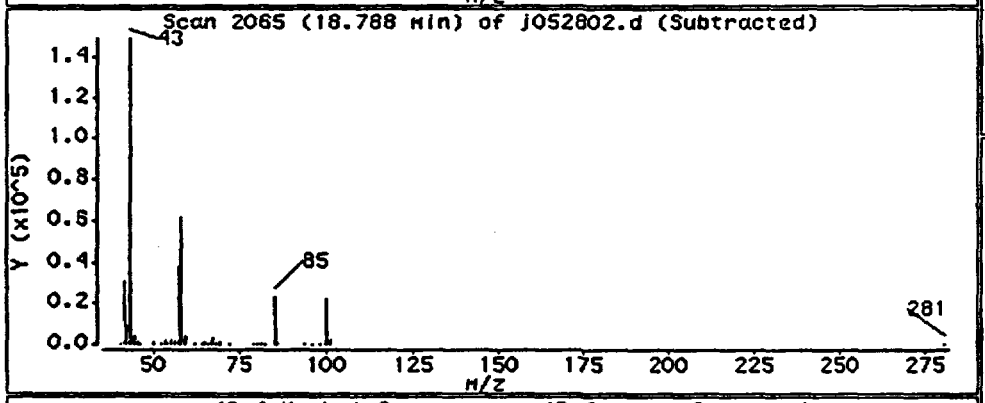
Operator: MH

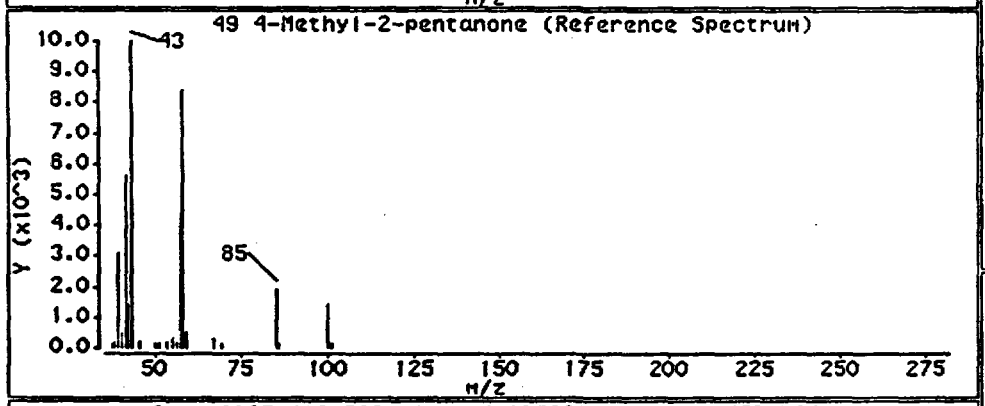
Column phase: RTx-624

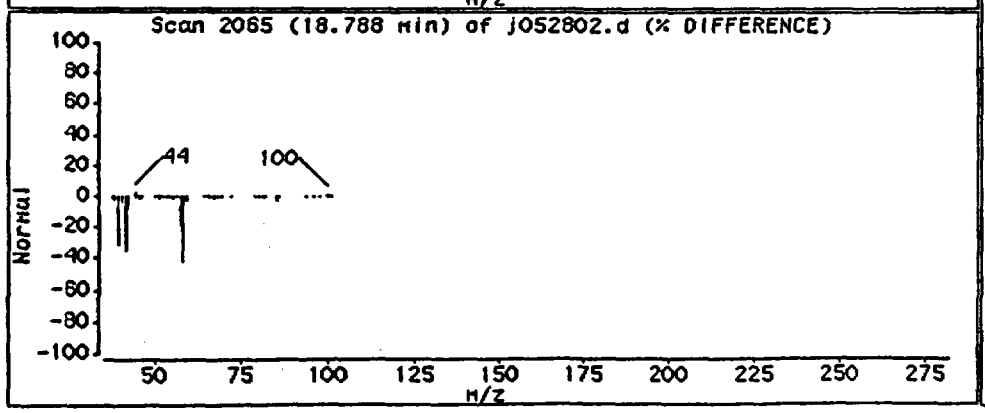
Column diameter: 0.58

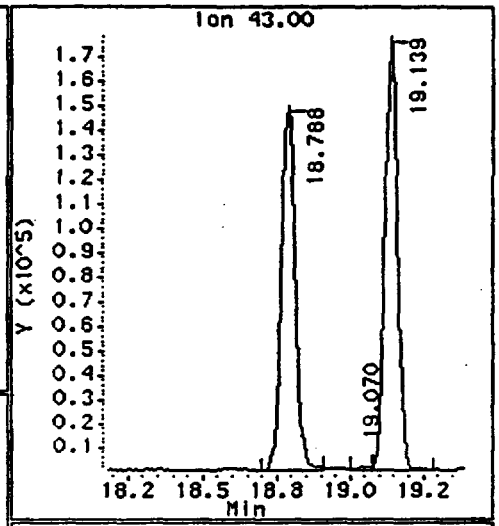
49 4-Methyl-2-pentanone

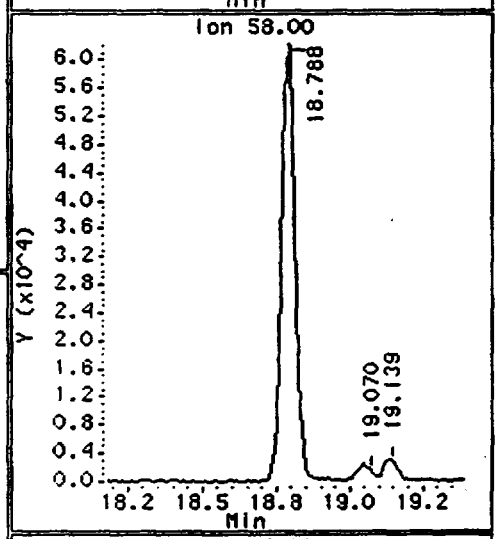


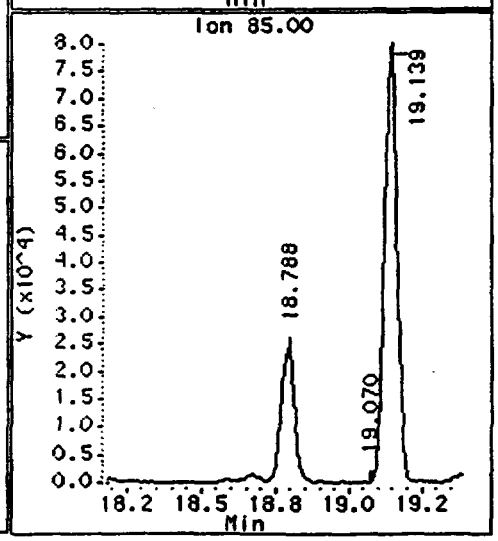












Data File: /chem/msdj.i/j-28may.b/j052802.d

Date : 28-MAY-1997 08:33

Client ID: Method Spike

Instrument: msdj.i

U279

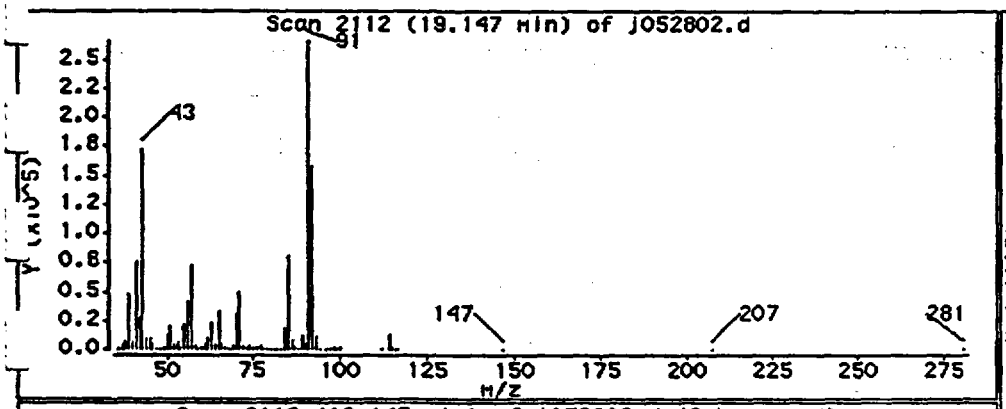
Sample Info: #315-57 200ppbv T014 Std. 12.5mL (5ppbv)

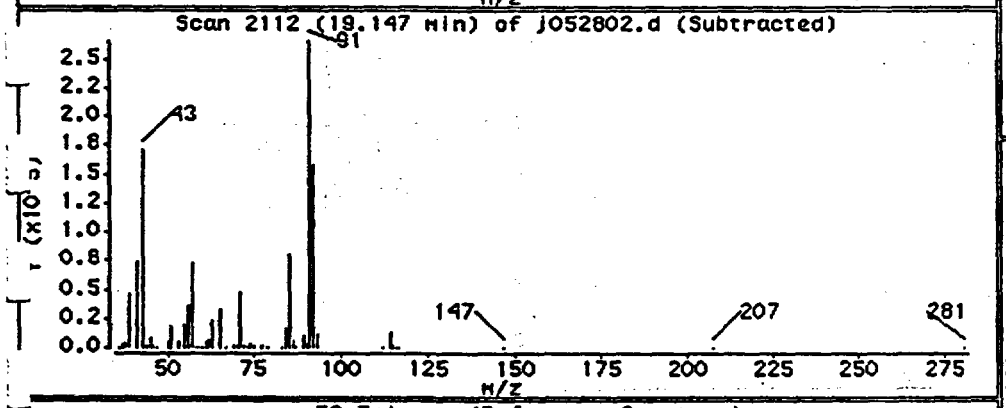
Operator: MH

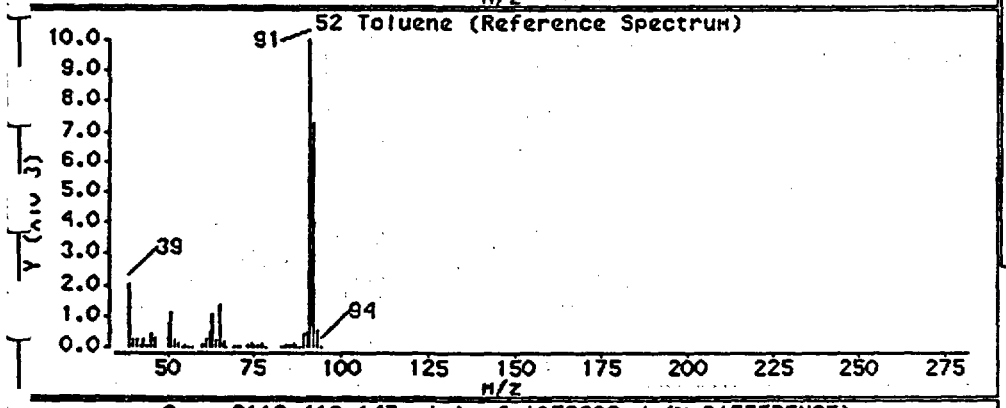
Column phase: RTx-624

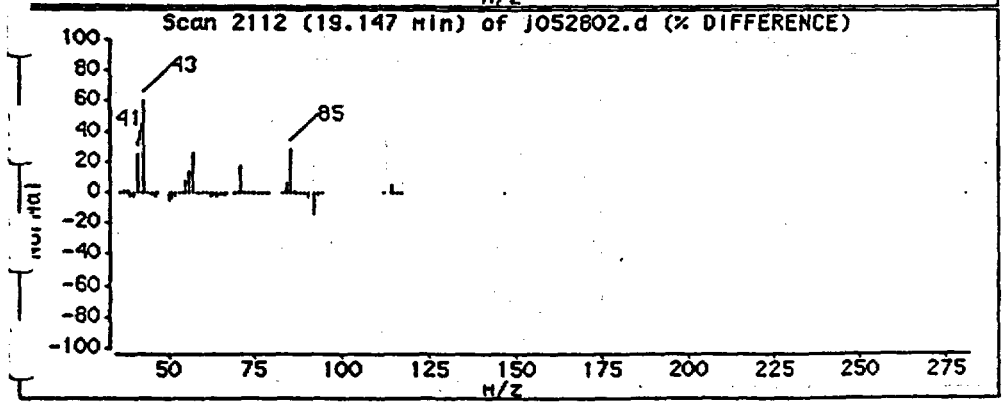
Column diameter: 0.58

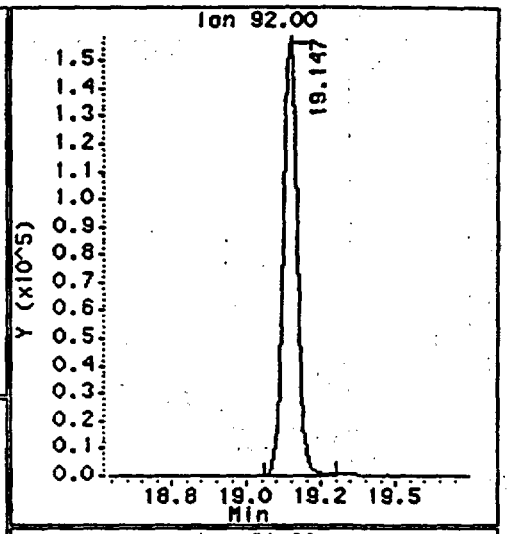
52 Toluene

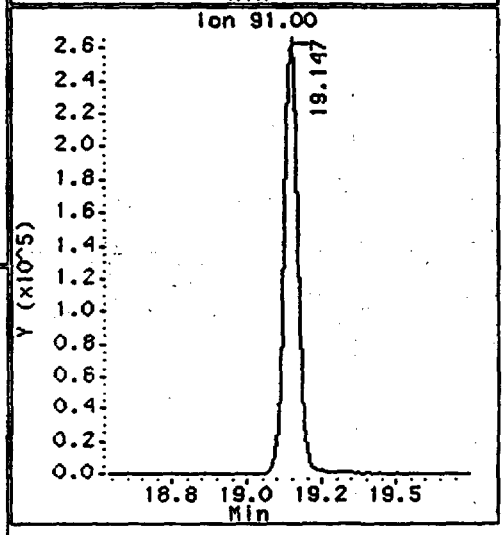












Data File: /chem/msdj.i/j-28may.b/j052802.d

0280

Date : 28-MAY-1997 08:33

Client ID: Method Spike

Instrument: msdj.i

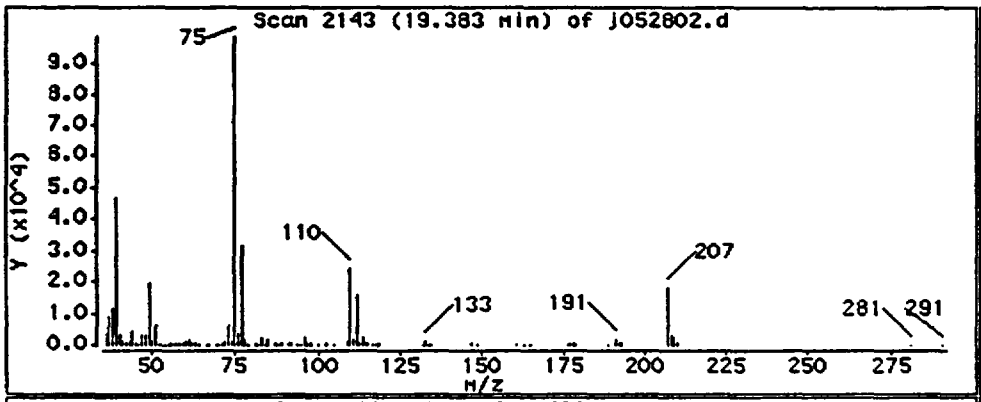
Sample Info: #315-57 200ppbv TO14 Std. 12.5mL (5ppbv)

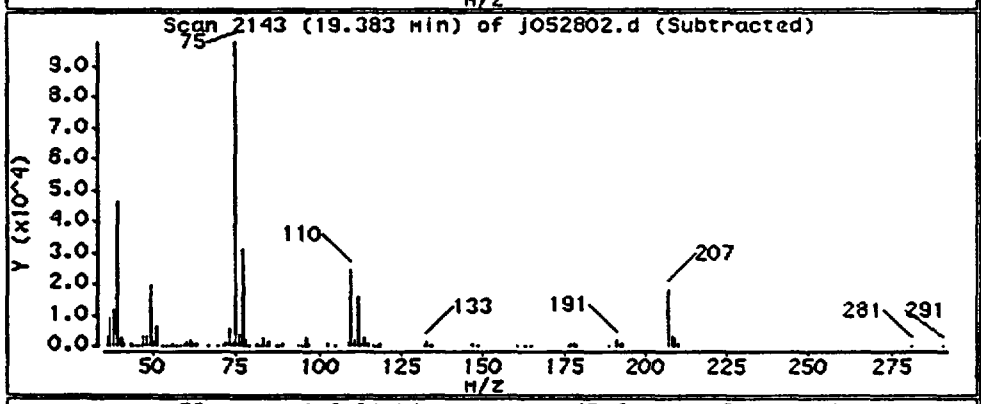
Operator: MH

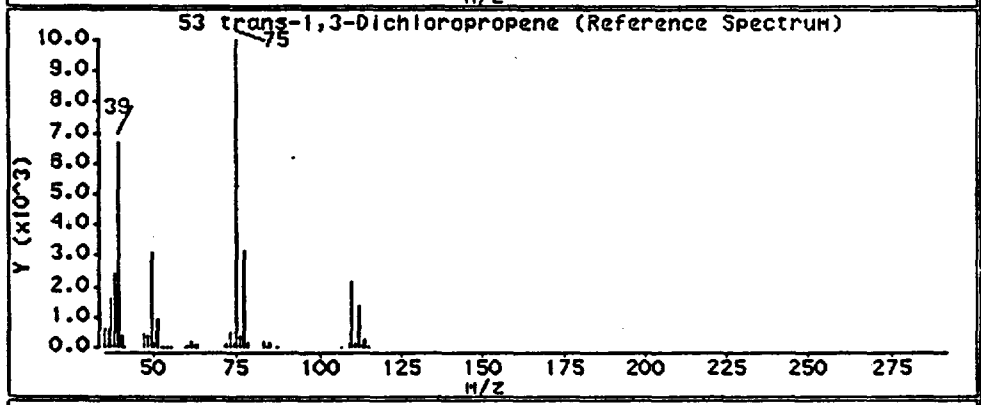
Column phase: RTx-624

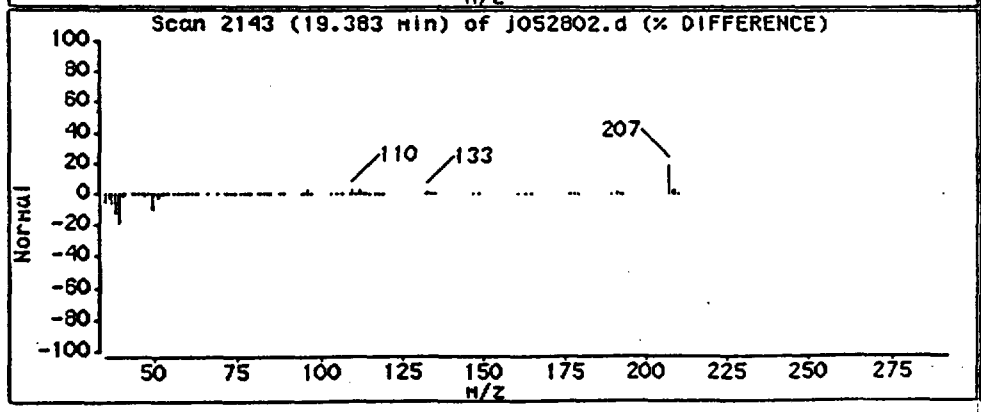
Column diameter: 0.58

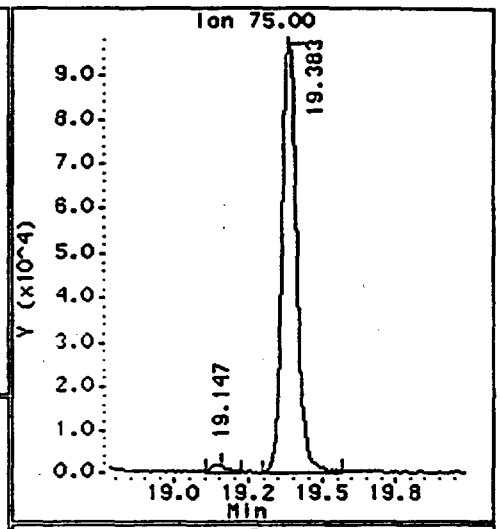
53 trans-1,3-Dichloropropene

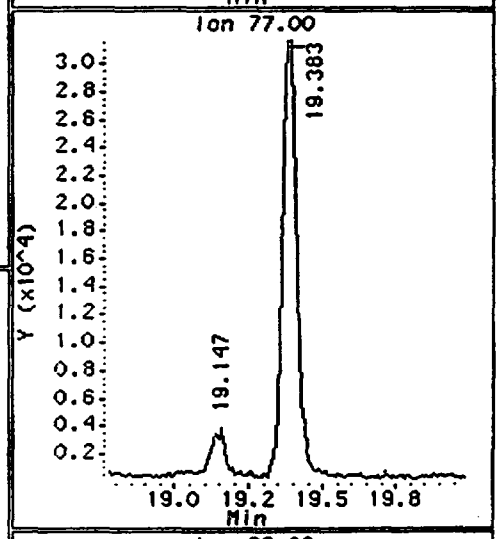


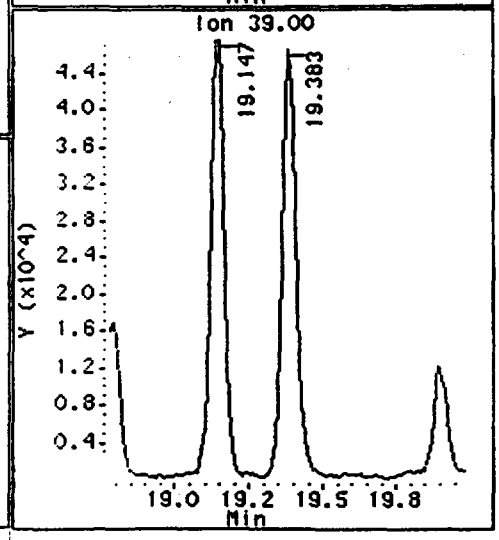












Data File: /chem/msdj.i/j-28may.b/j052802.d

Date : 28-MAY-1997 08:33

Client ID: Method Spike

Instrument: msdj.i

Sample Info: #315-57 200ppbv TO14 Std. 12.5mL (5ppbv)

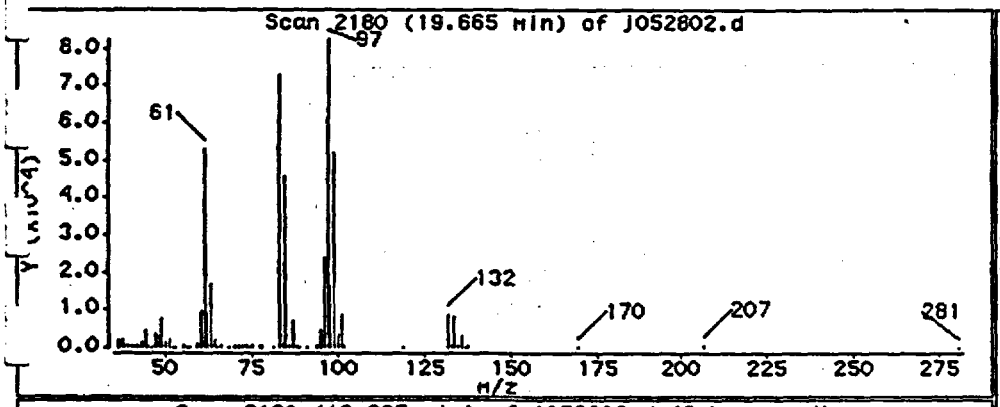
Operator: MH

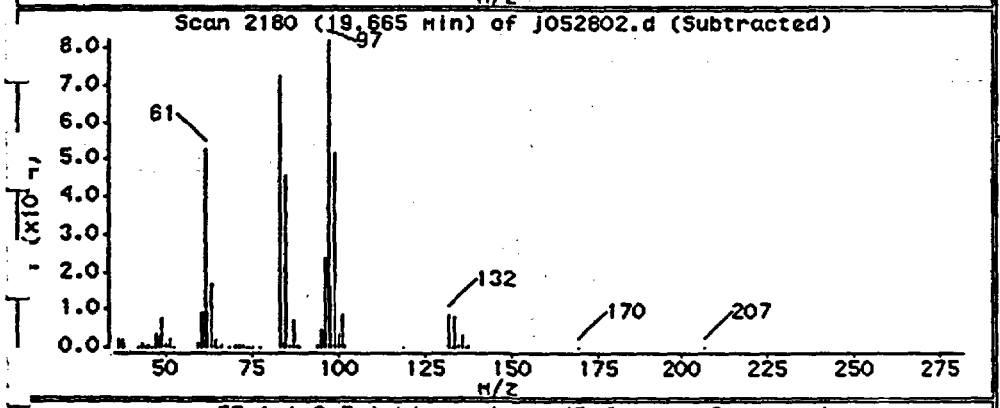
1281

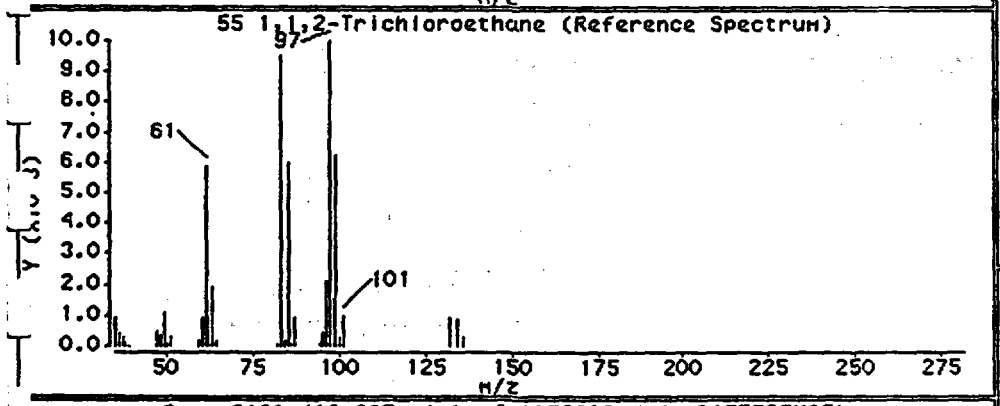
Column phase: RTx-624

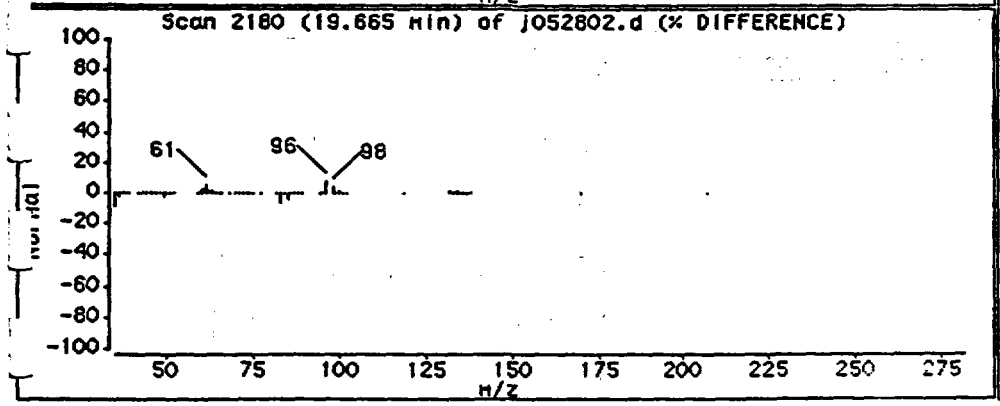
Column diameter: 0.58

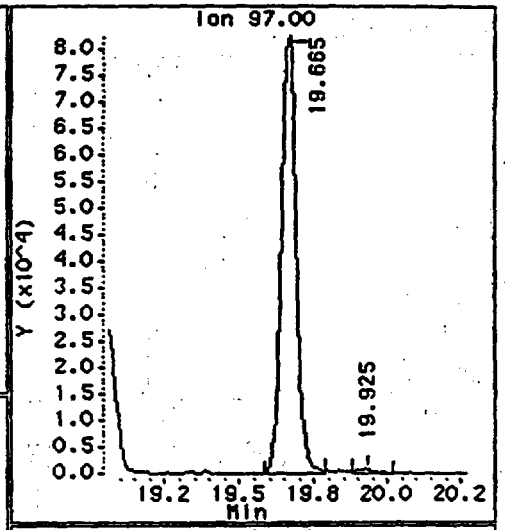
55 1,1,2-Trichloroethane

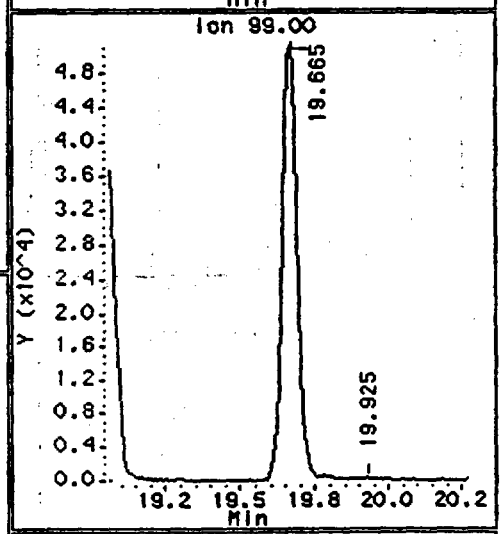


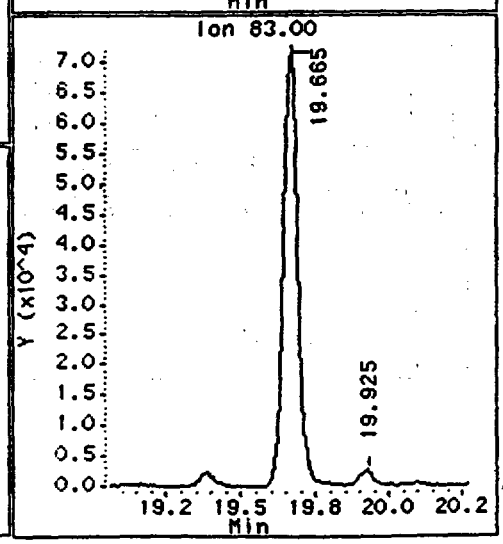












Data File: /chem/msdj.i/j-28may.b/j052802.d

Date : 28-MAY-1997 08:33

Client ID: Method Spike

Instrument: msdj.i

Sample Info: #315-57 200ppbv TO14 Std. 12.5mL (5ppbv)

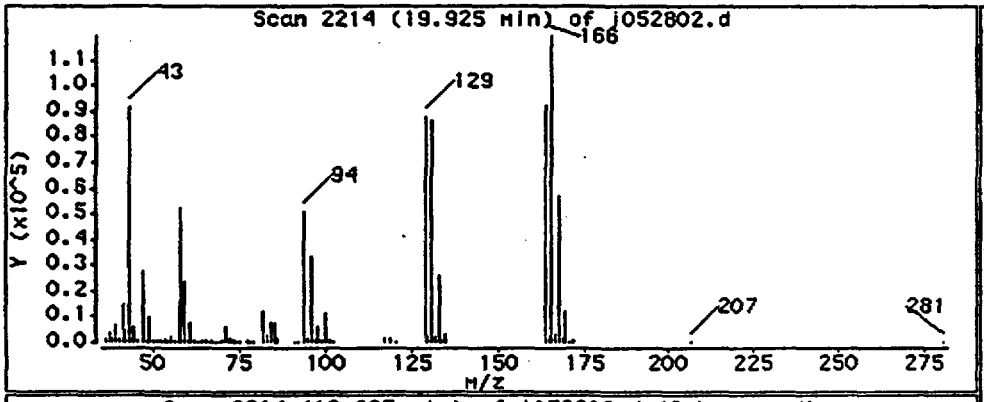
Operator: MH

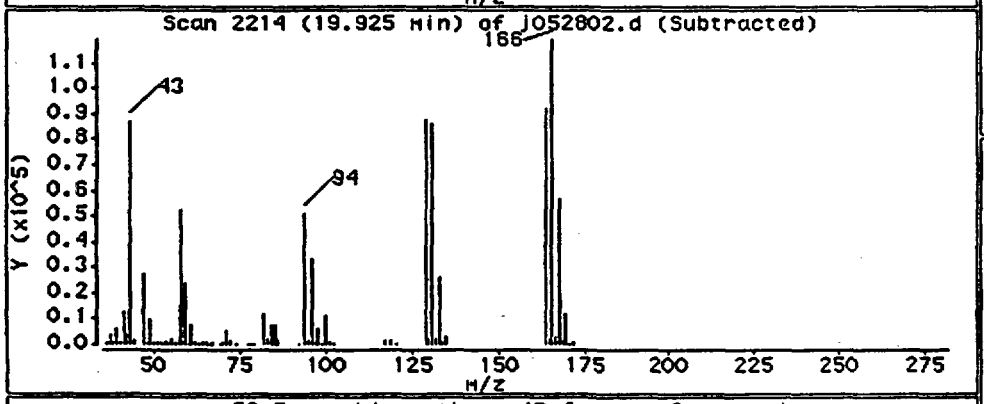
Column phase: RTx-624

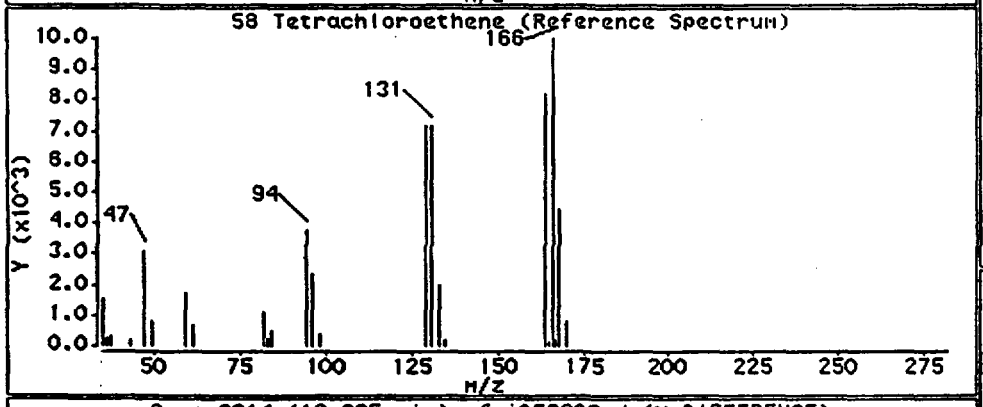
Column diameter: 0.58

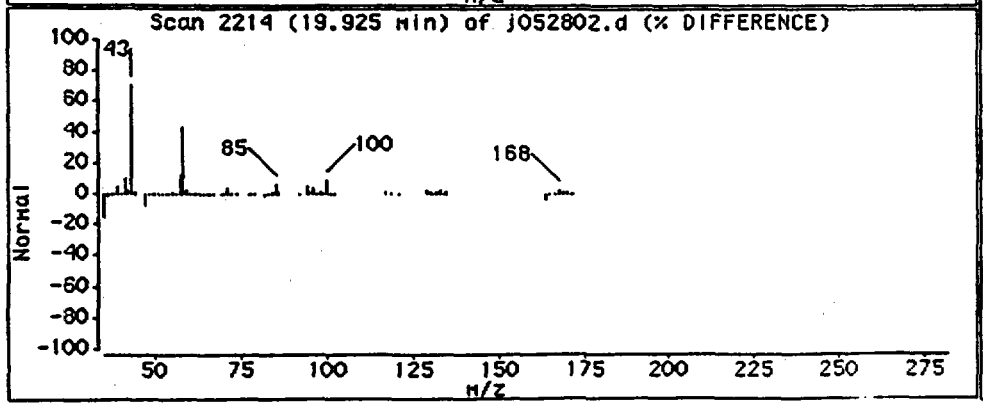
0282

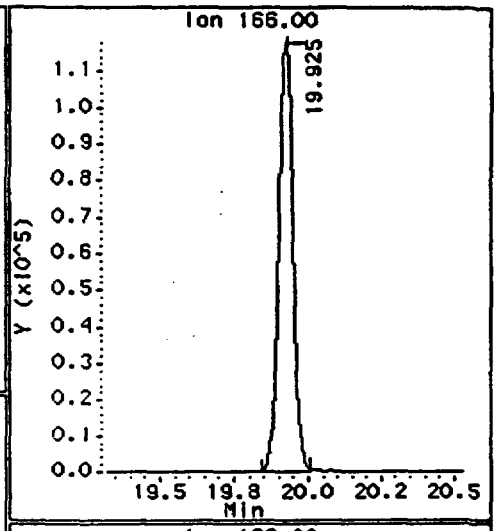
58 Tetrachloroethene

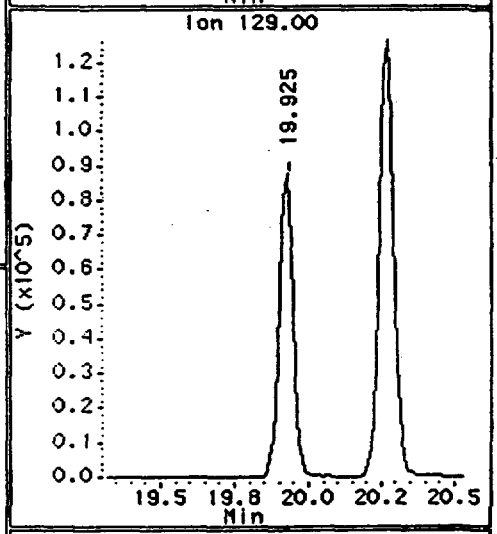


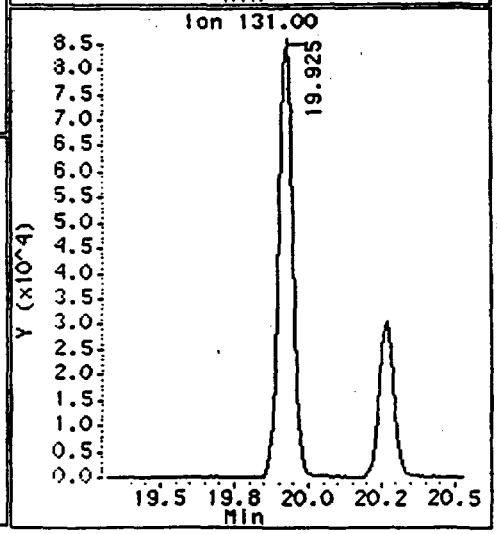












Data File: /chem/msdj.i/j-28may.b/j052802.d

Date : 28-MAY-1997 08:33

Client ID: Method Spike

Instrument: msdj.i

0283

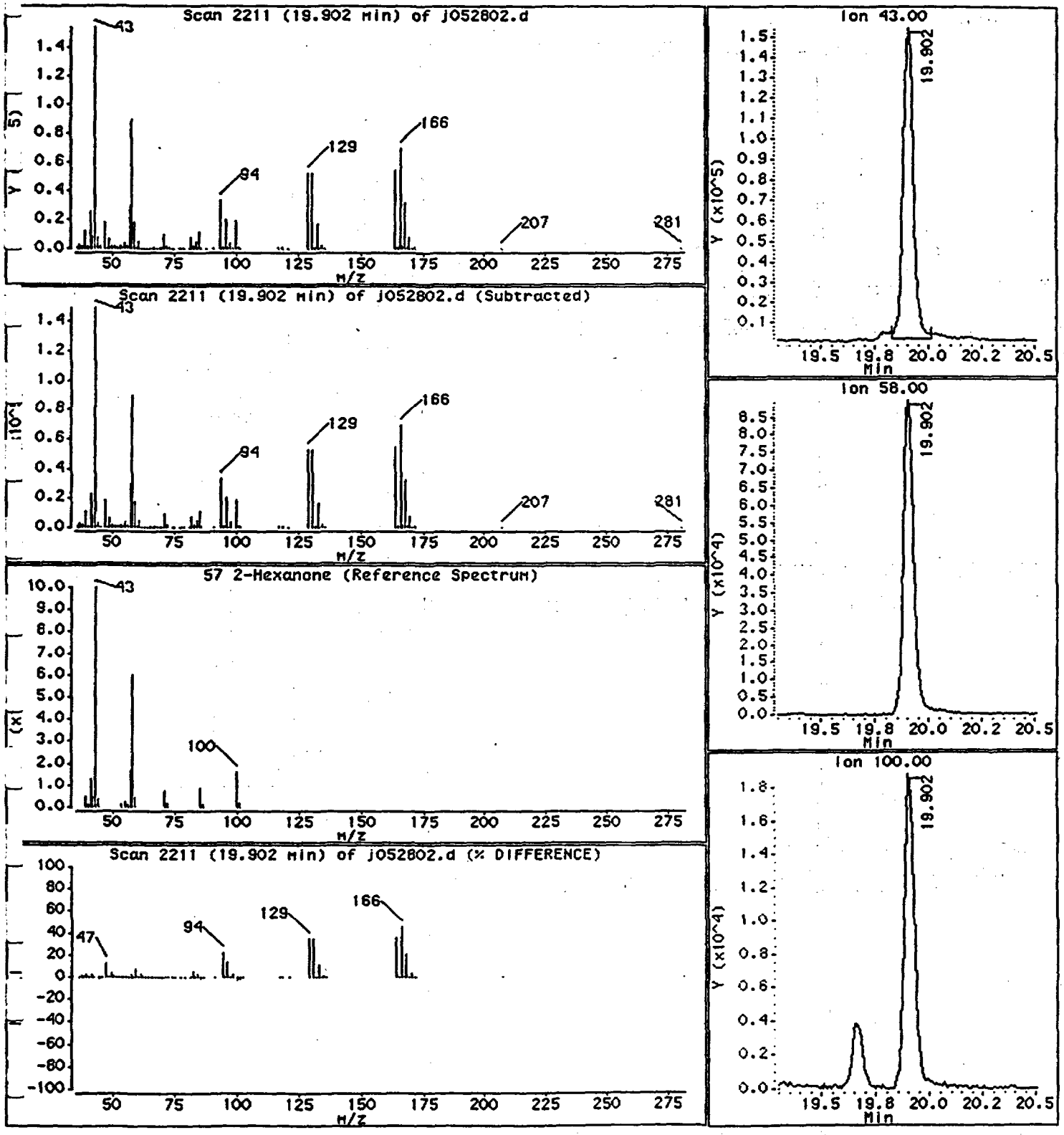
Sample Info: #315-57 200ppbv T014 Std. 12.5mL (5ppbv)

Operator: MH

Column phase: RTx-624

Column diameter: 0.58

57 2-Hexanone



Data File: /chem/msdj.i/j-28may.b/j052802.d

Date : 28-MAY-1997 08:33

Client ID: Method Spike

Instrument: msdj.i

0284

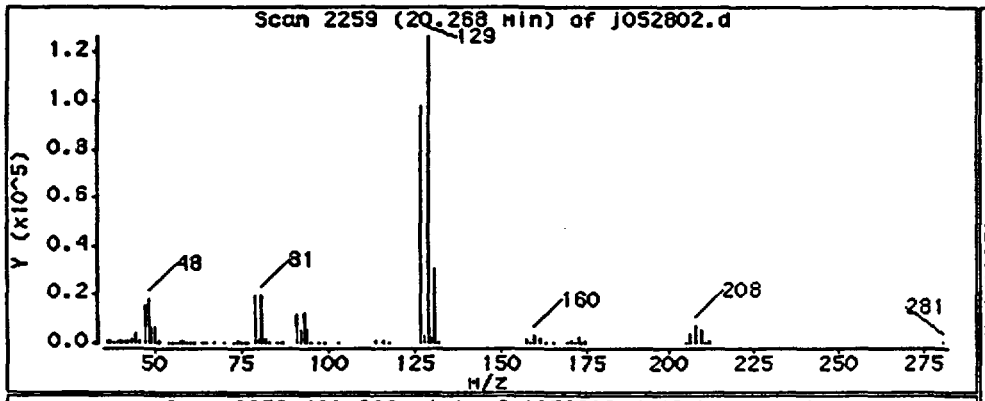
Sample Info: #315-57 200ppbv T014 Std. 12.5mL (5ppbv)

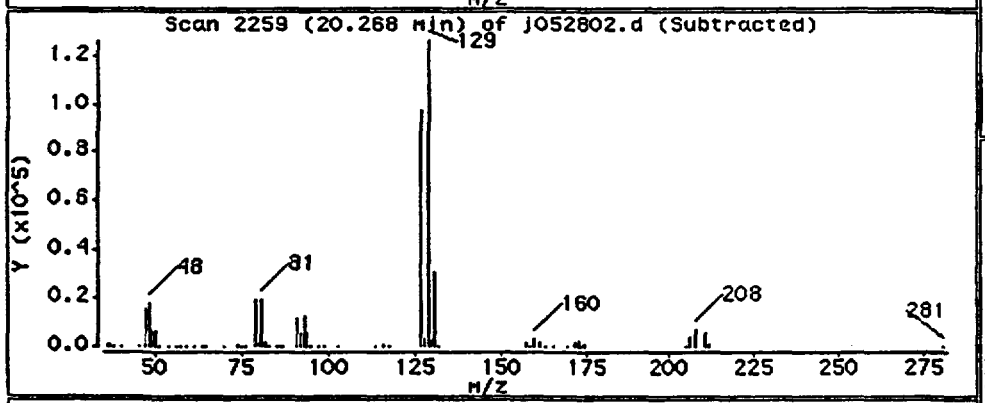
Operator: MH

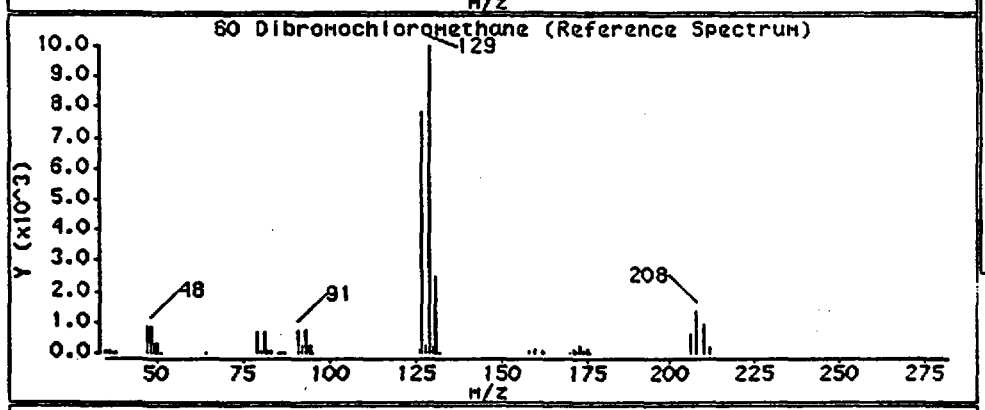
Column phase: RTx-624

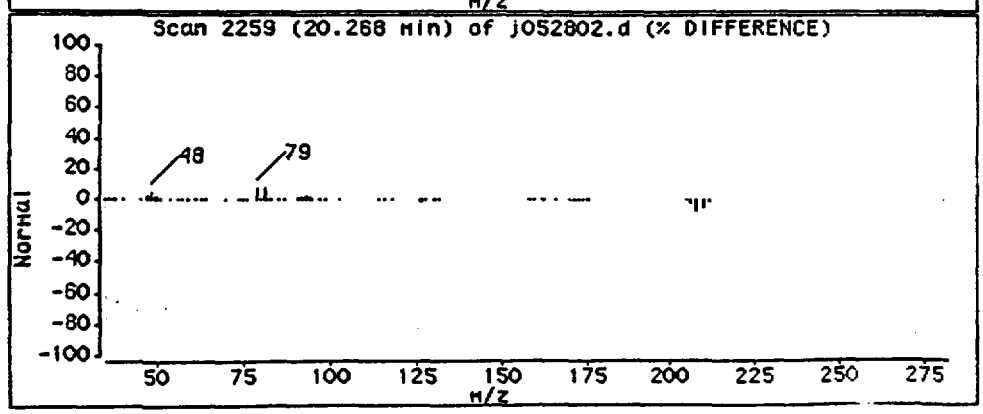
Column diameter: 0.58

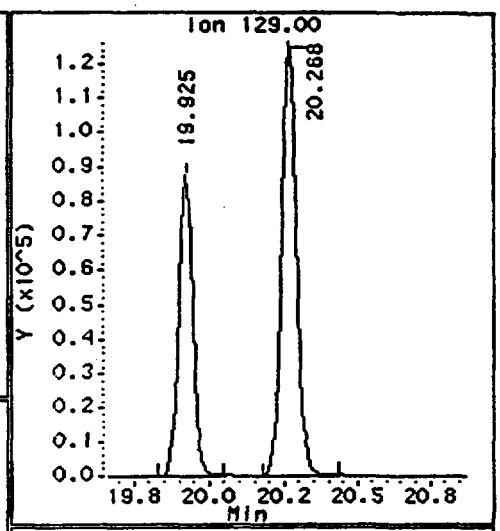
60 Dibromochloromethane

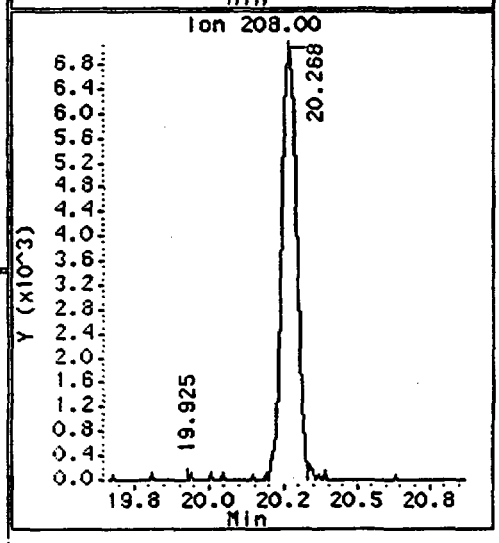












Data File: /chem/msdj.i/j-28may.b/j052802.d

Date : 28-MAY-1997 08:33

Client ID: Method Spike

Instrument: msdj.i

Sample Info: #315-57 200ppbv TO14 Std. 12.5mL (5ppbv)

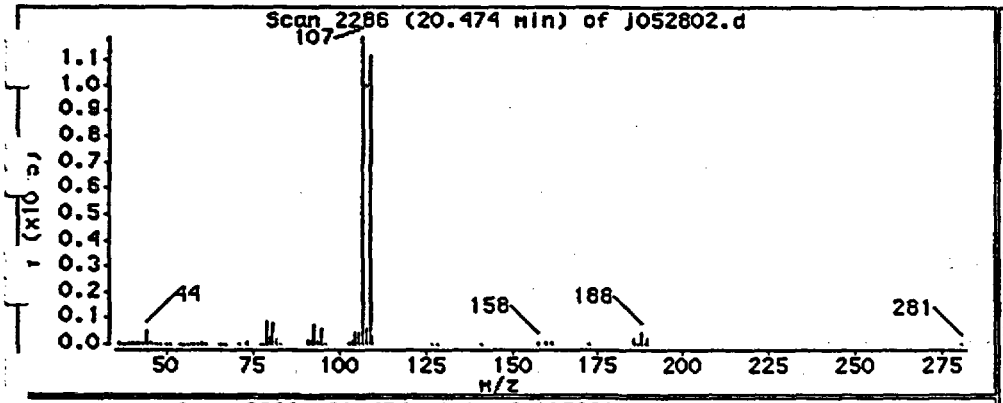
0285

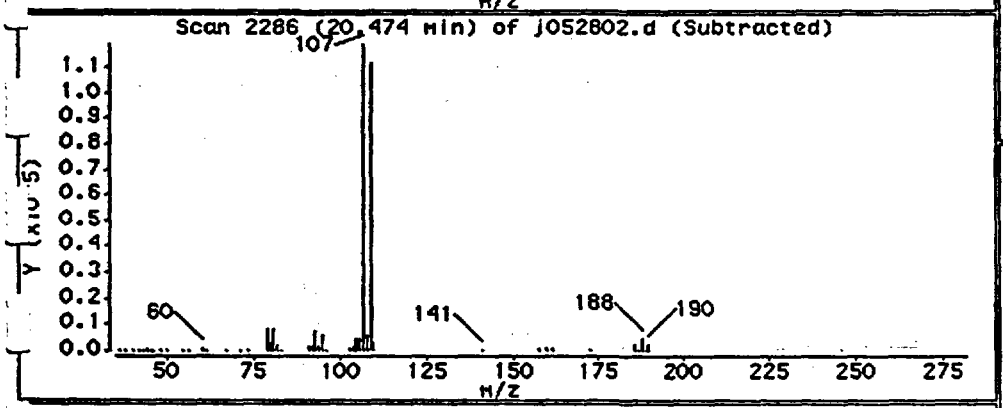
Operator: MH

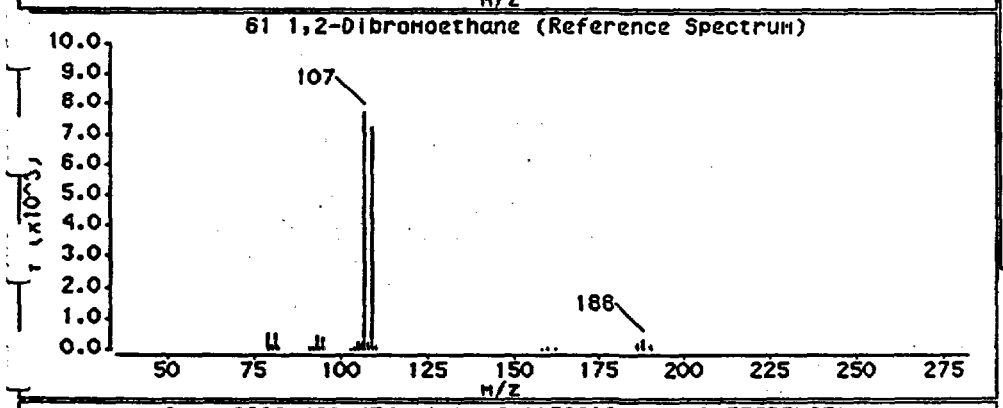
Column phase: RTx-624

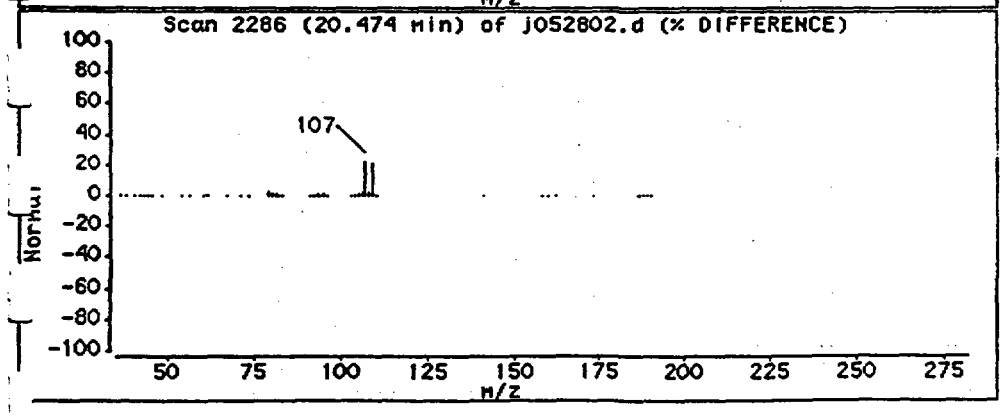
Column diameter: 0.58

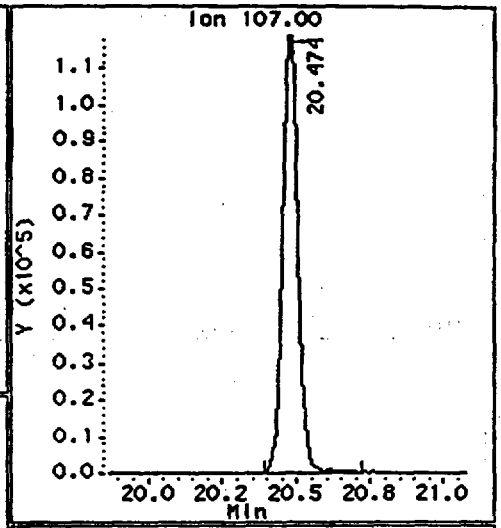
61 1,2-Dibromoethane

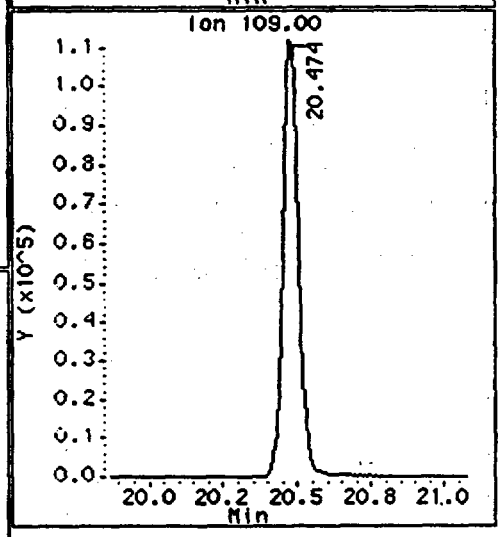












Data File: /chem/msdj.i/j-28may.b/j052802.d

Date : 28-MAY-1997 08:33

Client ID: Method Spike

Instrument: msdj.i

Sample Info: #315-57 200ppbv T014 Std. 12.5mL (5ppbv)

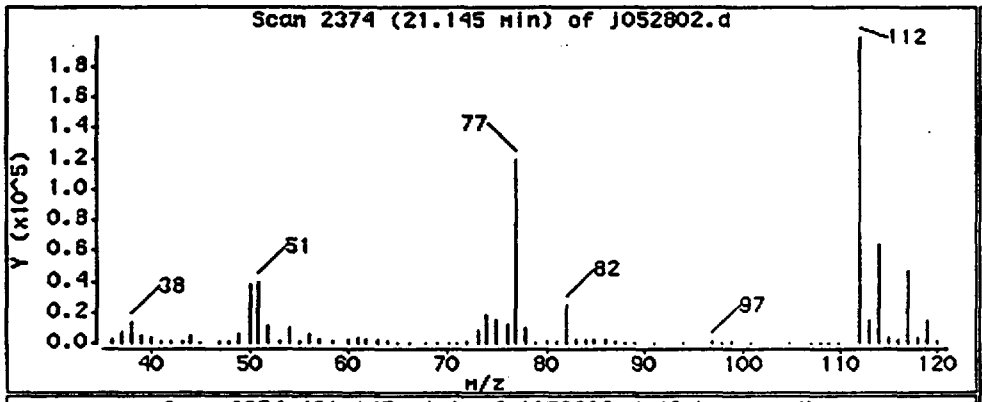
0286

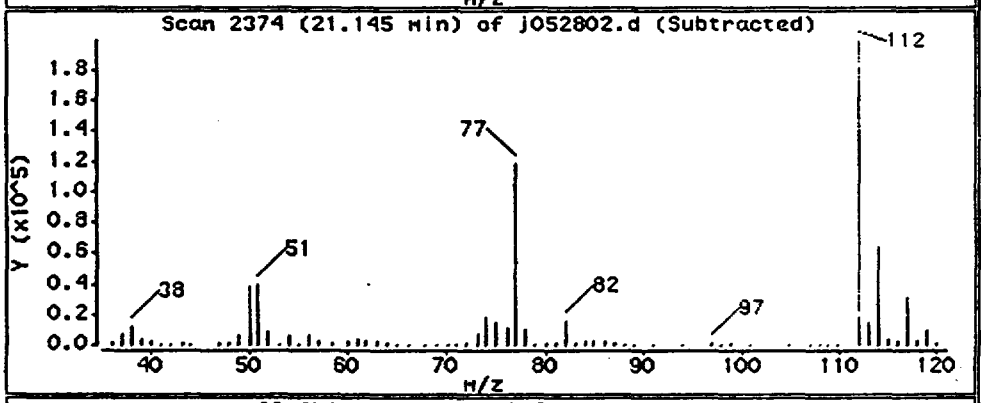
Operator: MH

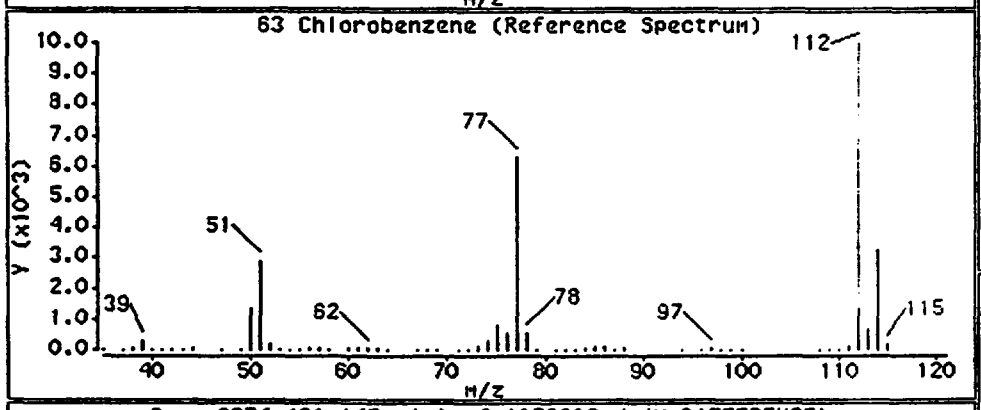
Column phase: RTx-624

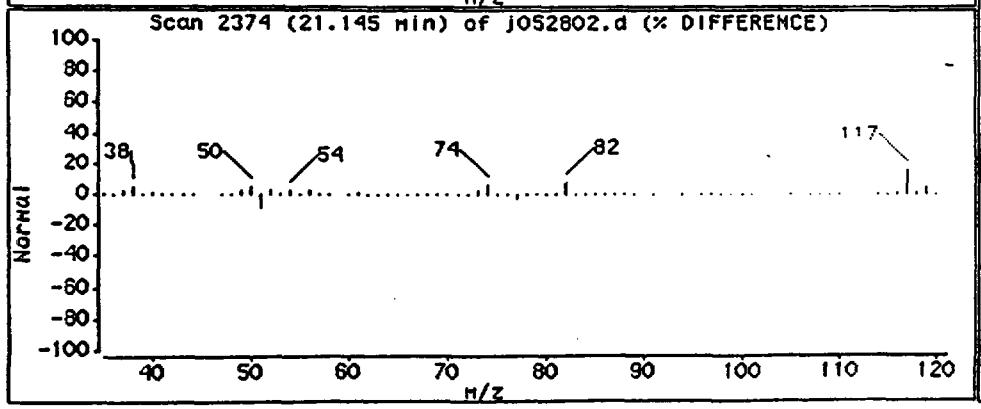
Column diameter: 0.58

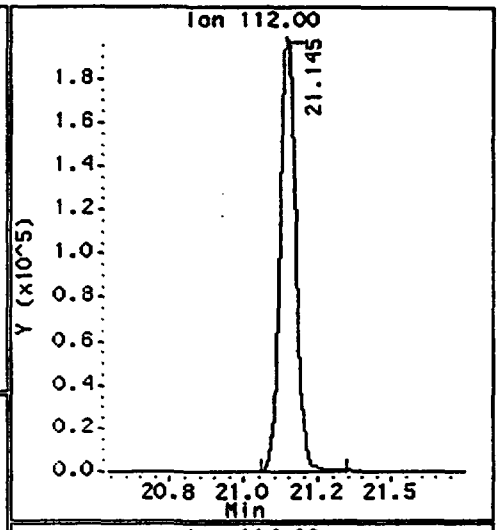
63 Chlorobenzene

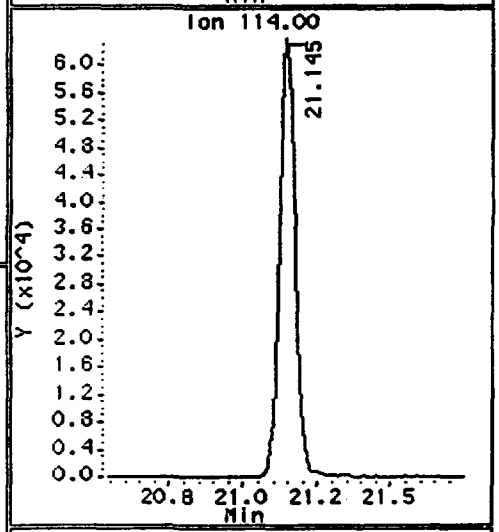


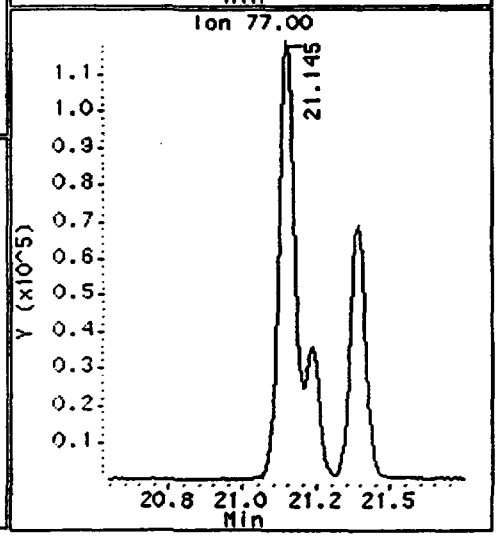












Data File: /chem/msdj.i/j-28may.b/J052802.d

Date : 28-MAY-1997 08:33

Client ID: Method Spike

Instrument: msdj.i

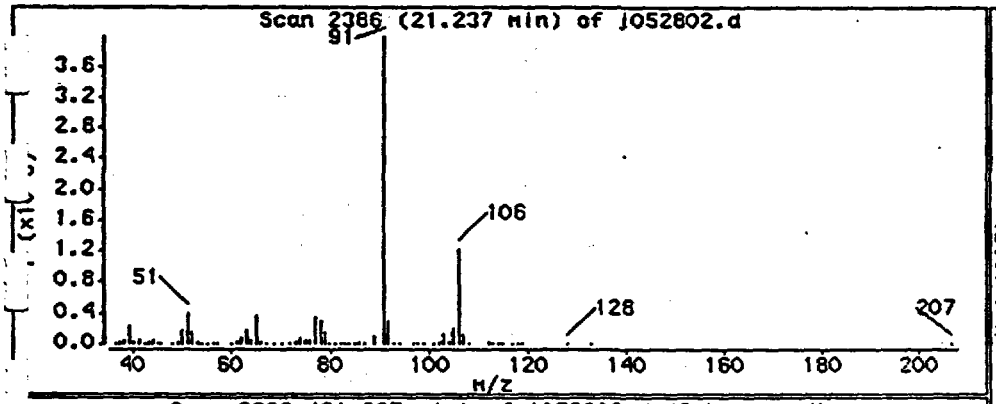
Sample Info: #315-57 200ppbv T014 Std. 12.5mL (5ppbv)

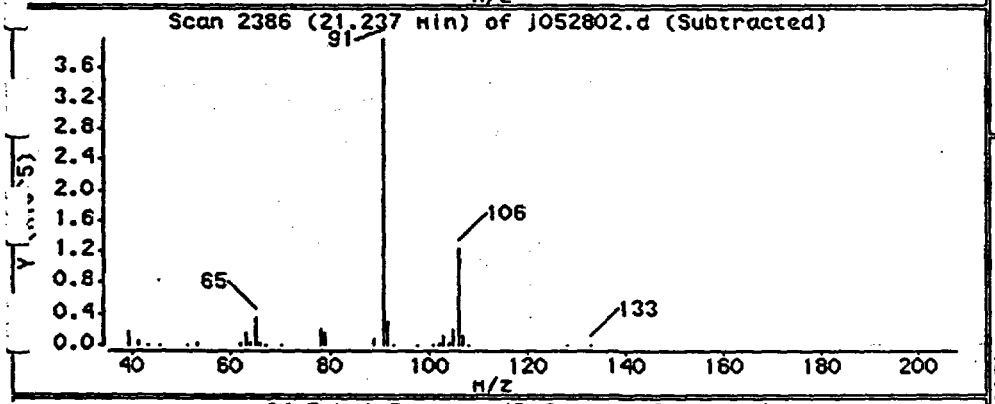
Operator: MH

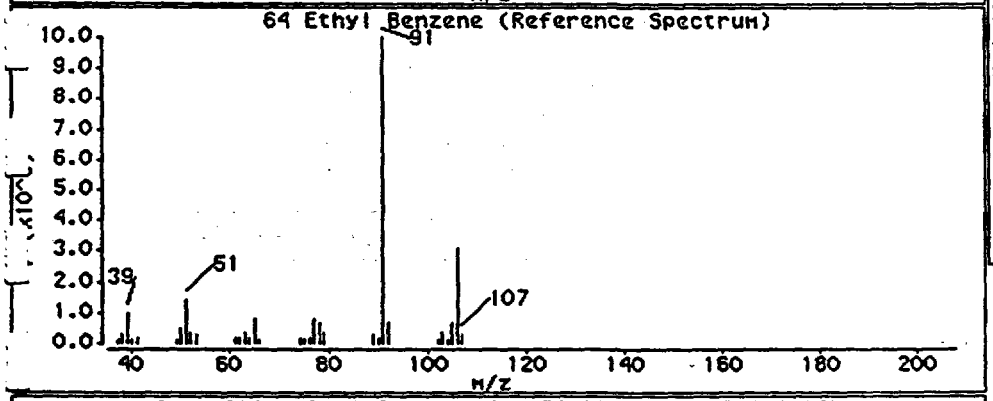
Column phase: RTx-624

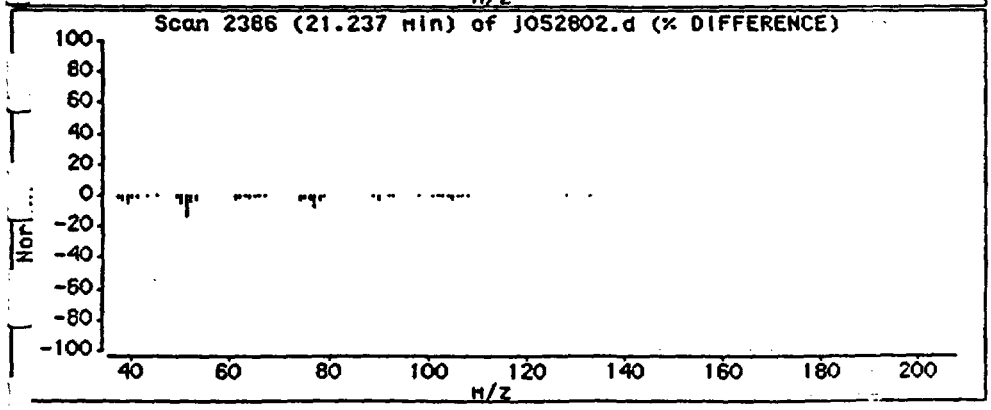
Column diameter: 0.58

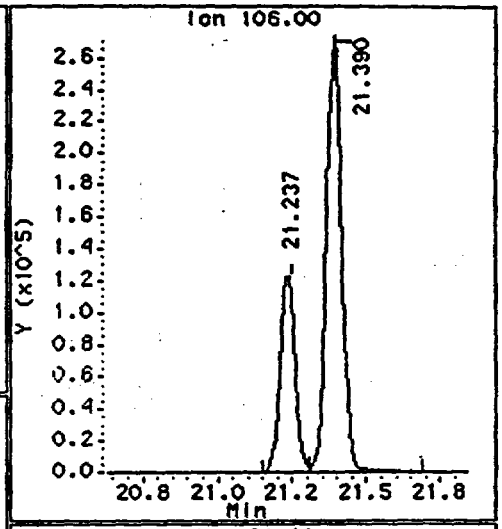
64 Ethyl Benzene

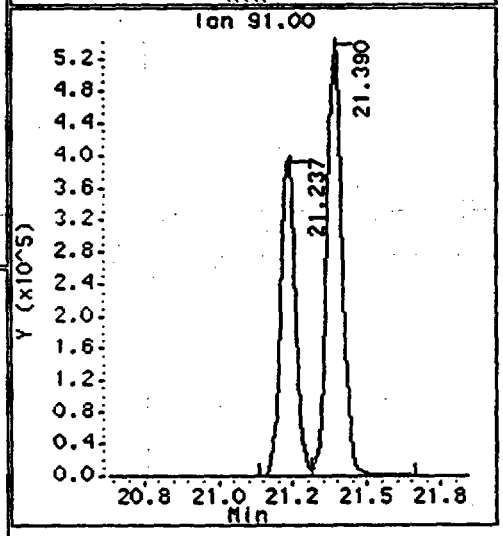












Data File: /chem/msdj.i/j-28may.b/j052802.d

Date : 28-MAY-1997 08:33

Client ID: Method Spike

Instrument: msdj.i

0288

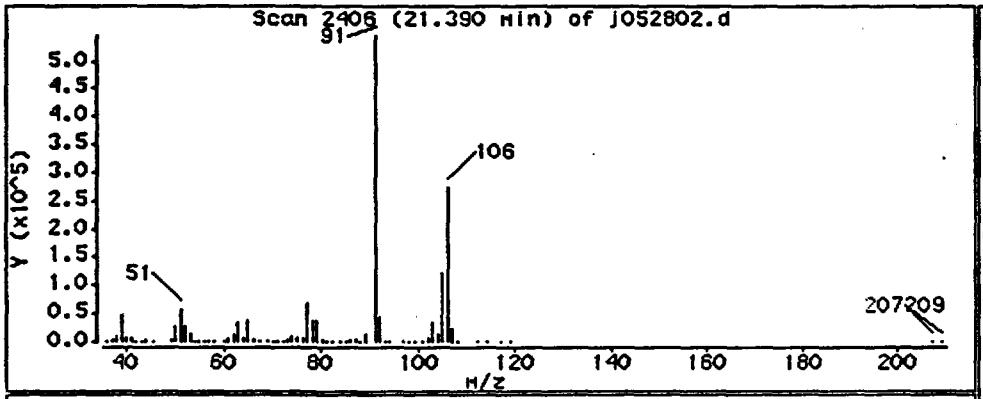
Sample Info: #315-57 200ppbv TO14 Std. 12.5mL (5ppbv)

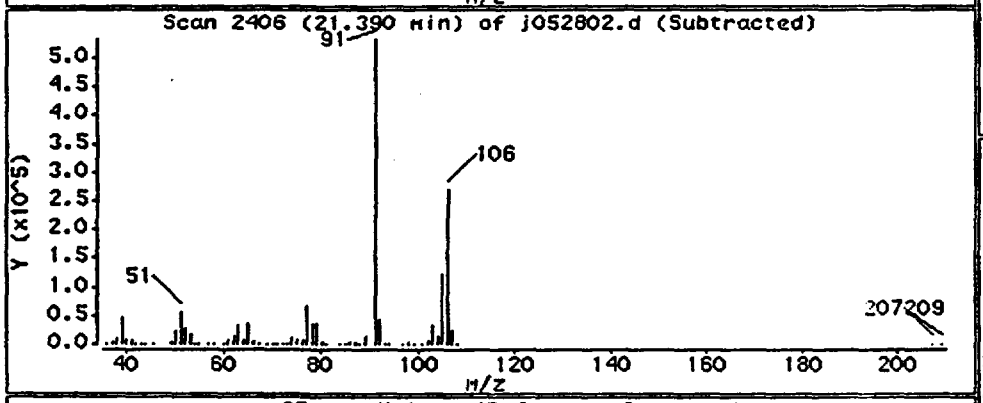
Operator: MH

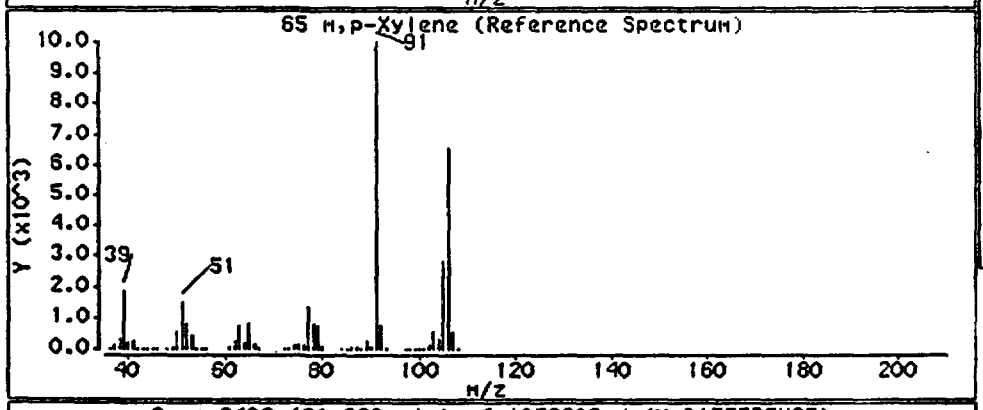
Column phase: RTx-624

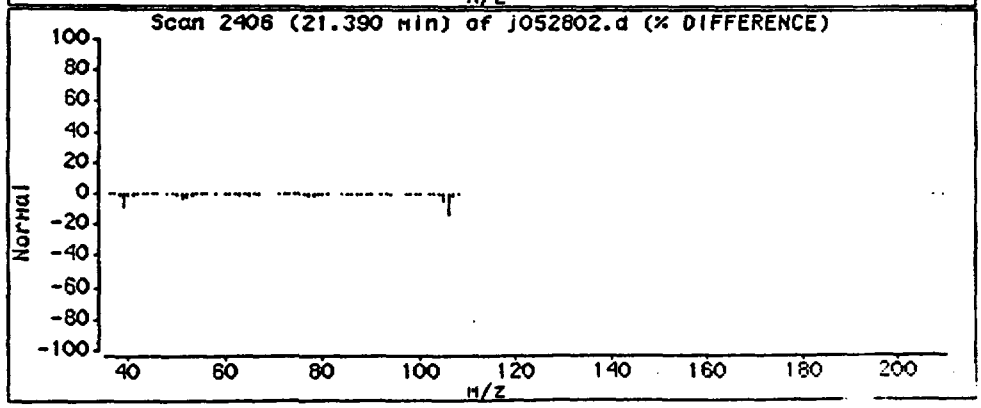
Column diameter: 0.58

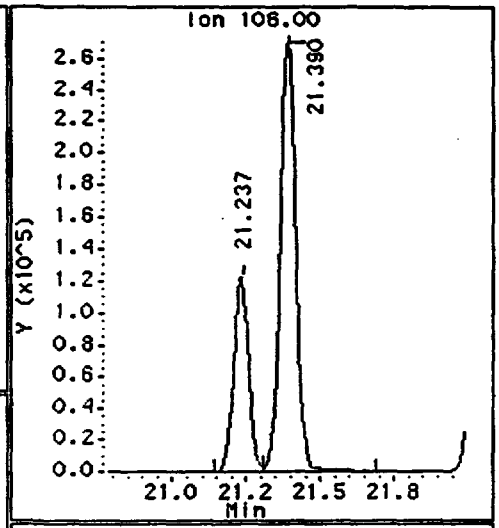
65 m,p-Xylene

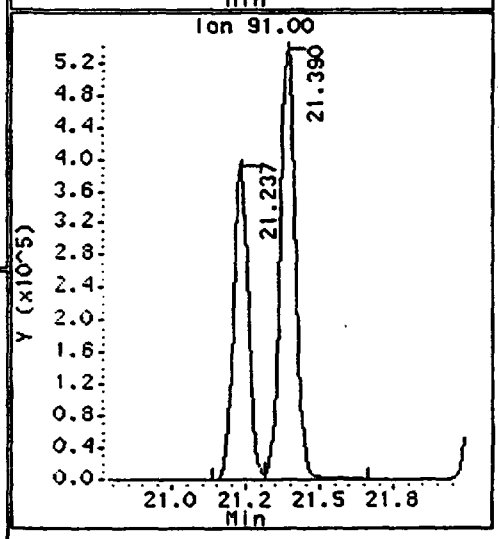












Data File: /chem/msdj.i/j-28may.b/j052802.d

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Date : 28-MAY-1997 08:33

0289

Client ID: Method Spike

Instrument: msdj.i

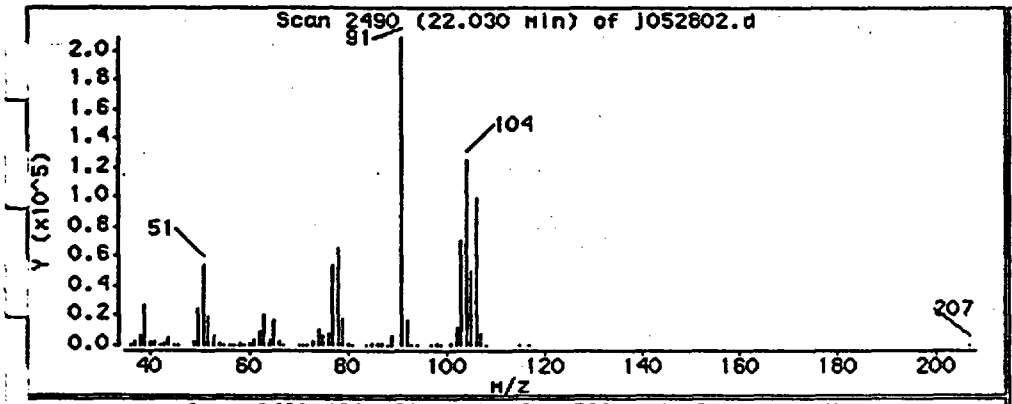
Sample Info: #315-57 200ppbv TO14 Std. 12.5mL (5ppbv)

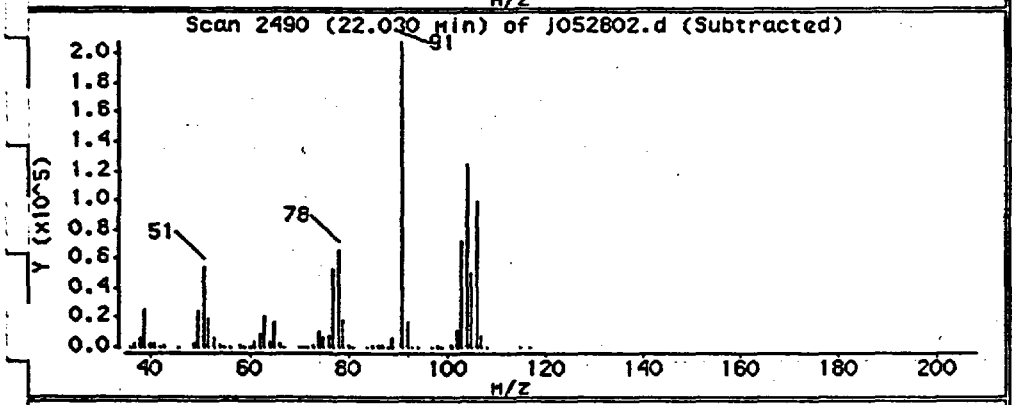
Operator: MH

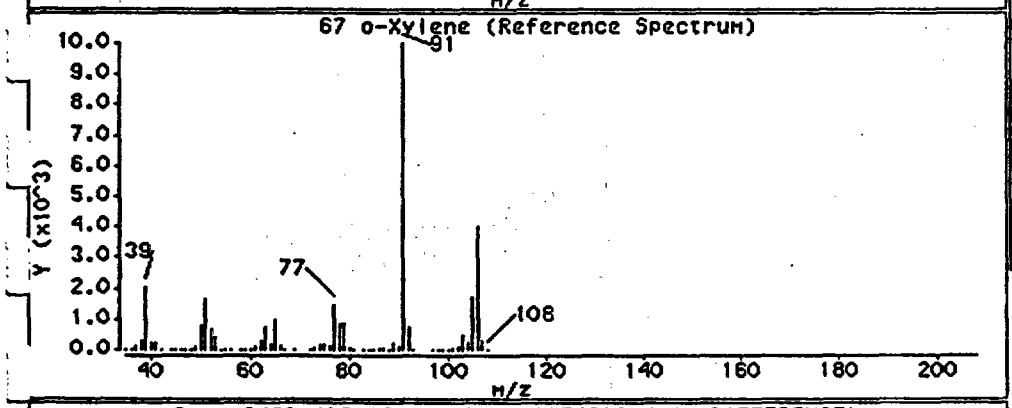
Column phase: RTx-624

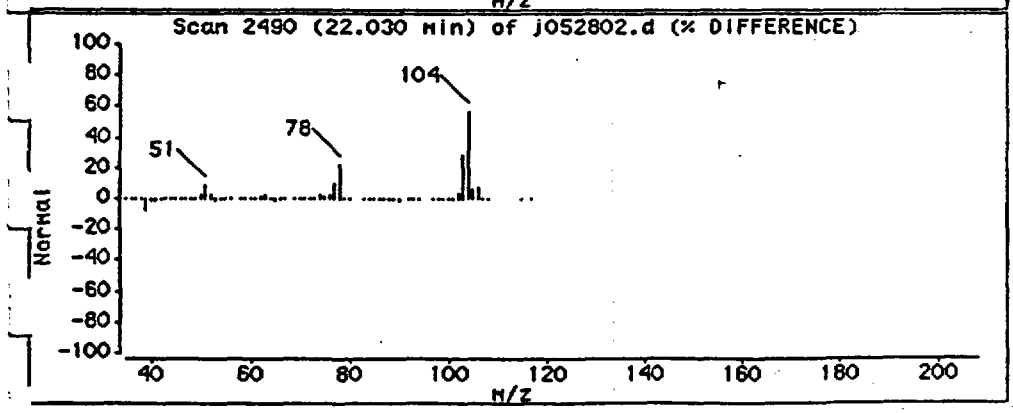
Column diameter: 0.58

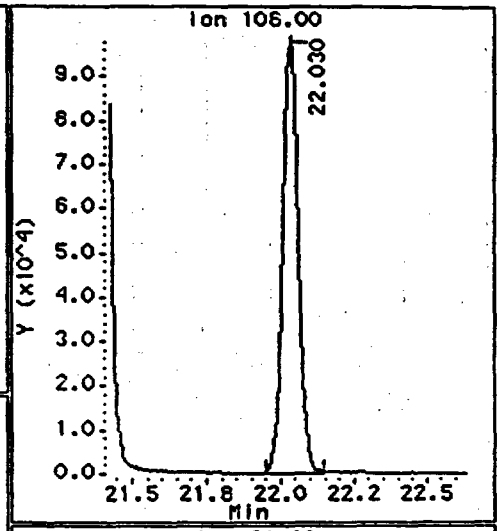
67 o-Xylene

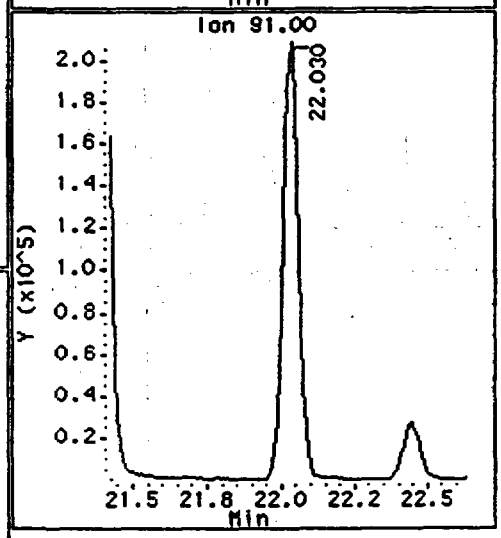












Data File: /chem/msdj.i/j-28may.b/j052802.d

Date : 28-MAY-1997 08:33

0290

Client ID: Method Spike

Instrument: msdj.i

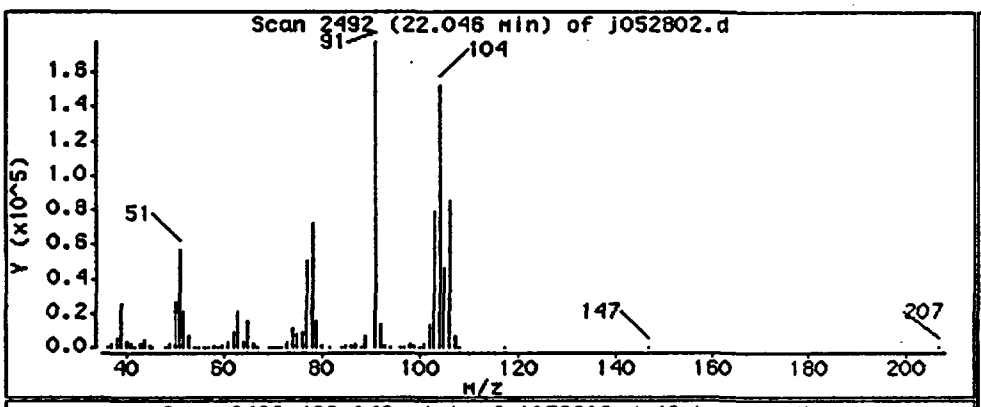
Sample Info: #315-57 200ppbv TO14 Std. 12.5mL (5ppbv)

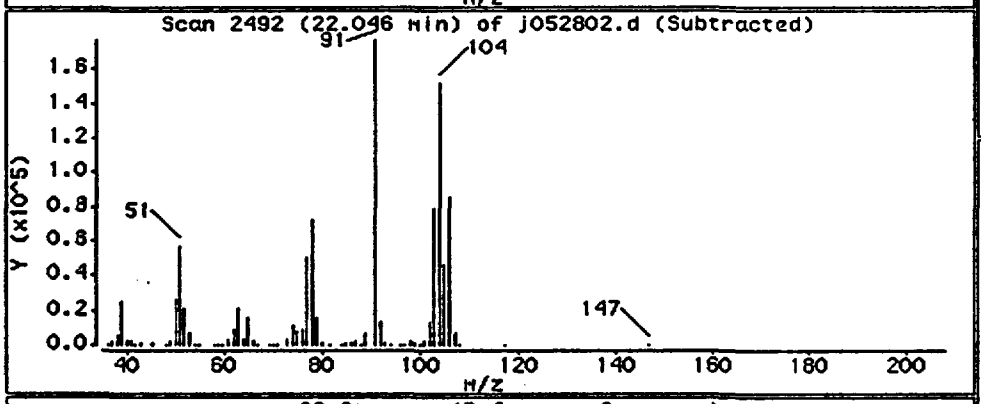
Operator: MH

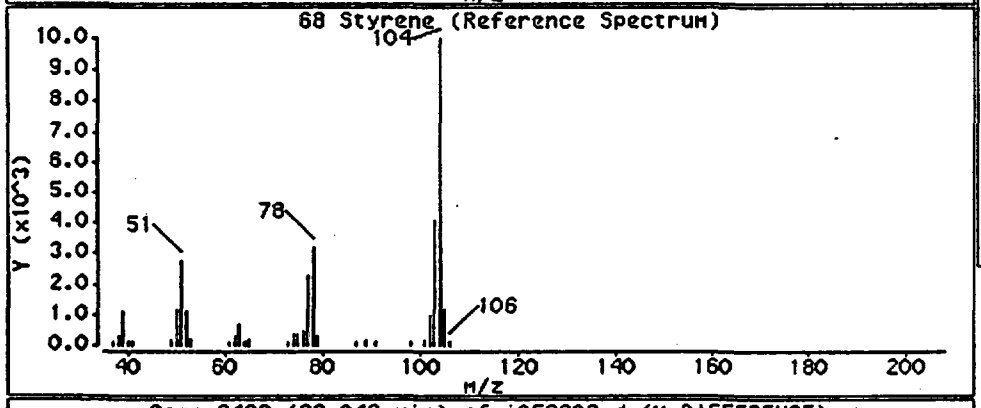
Column phase: RTx-624

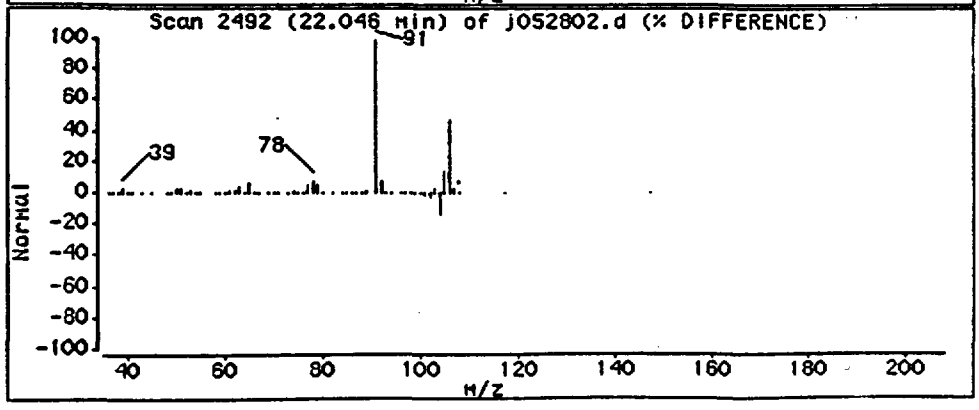
Column diameter: 0.58

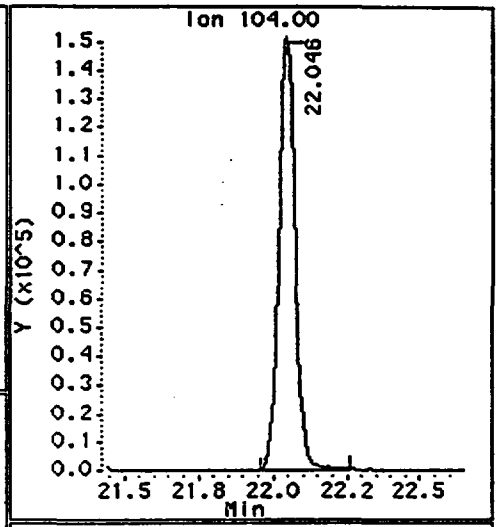
68 Styrene

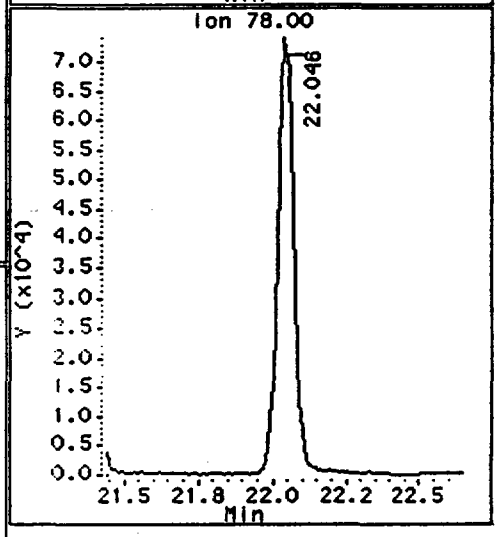












Data File: /chem/msdj.i/j-28may.b/j052802.d

Date : 28-MAY-1997 08:33

Client ID: Method Spike

Instrument: msdj.i

0291

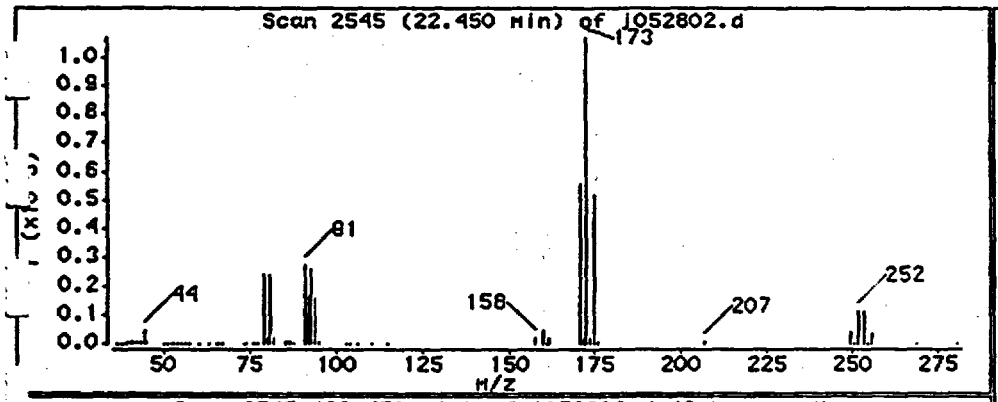
Sample Info: #315-57 200ppbv TO14 Std. 12.5mL (5ppbv)

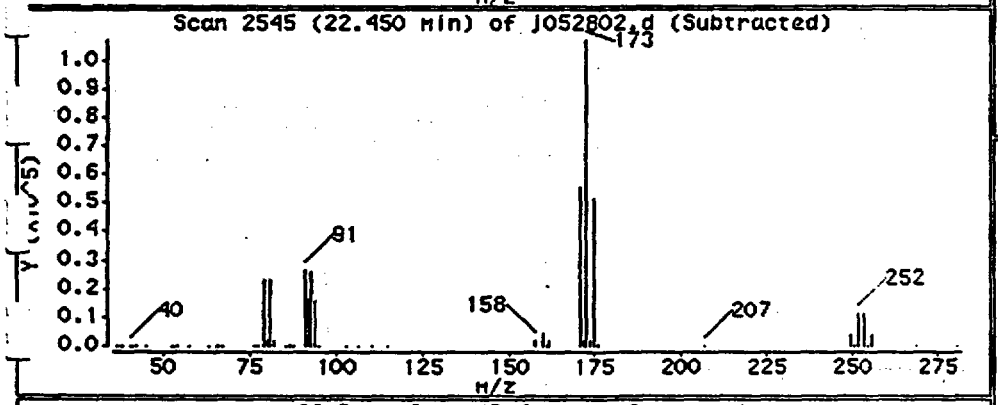
Operator: MH

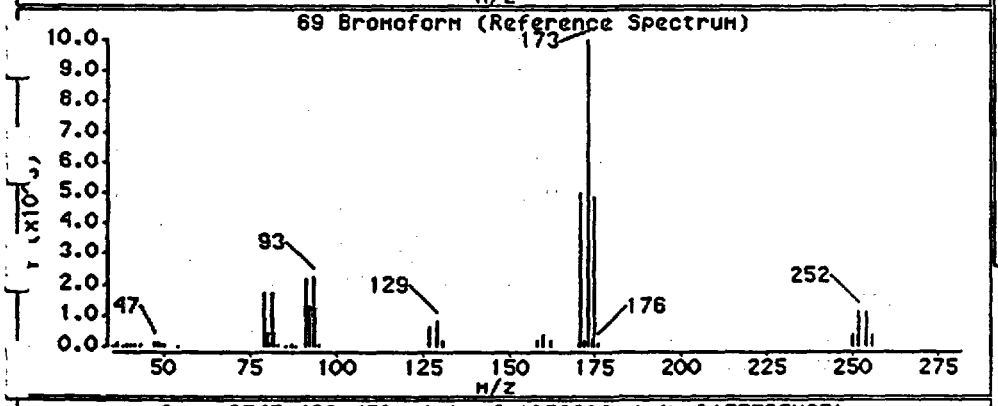
Column phase: RTx-624

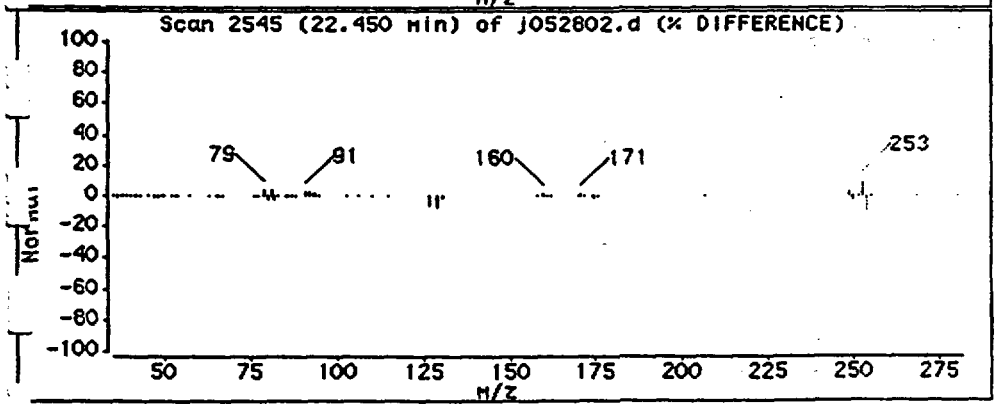
Column diameter: 0.58

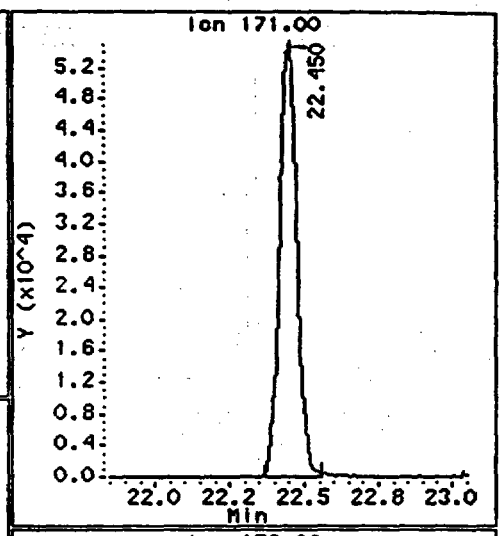
69 Bromoform

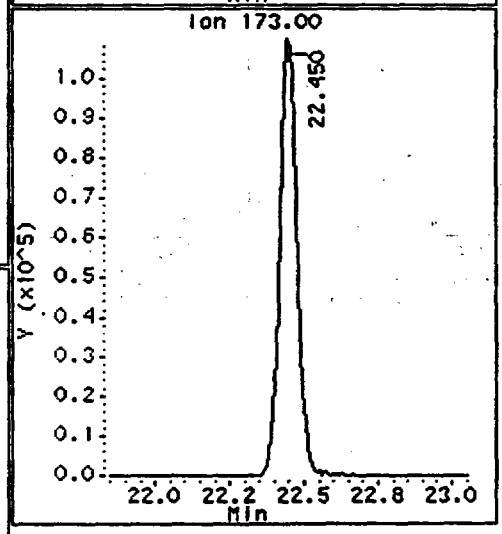












Data File: /chem/msdj.i/j-28may.b/j052802.d

Date : 28-MAY-1997 08:33

Client ID: Method Spike

Instrument: msdj.i

Sample Info: #315-57 200ppbv T014 Std. 12.5mL (5ppbv)

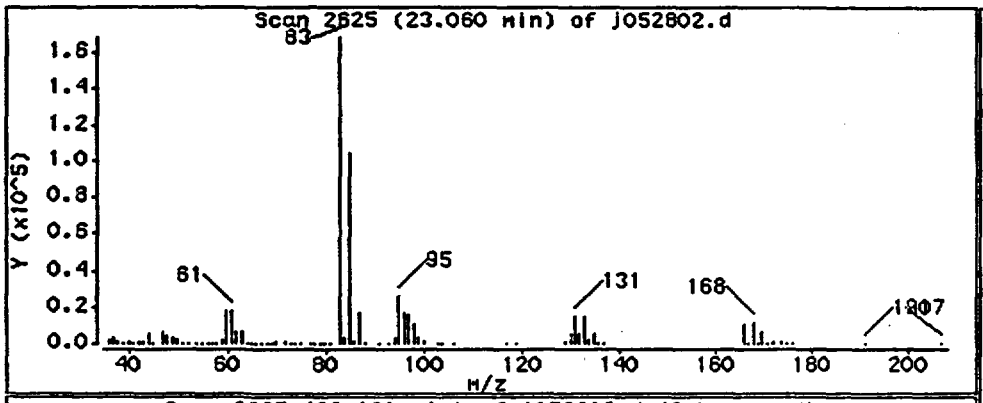
0292

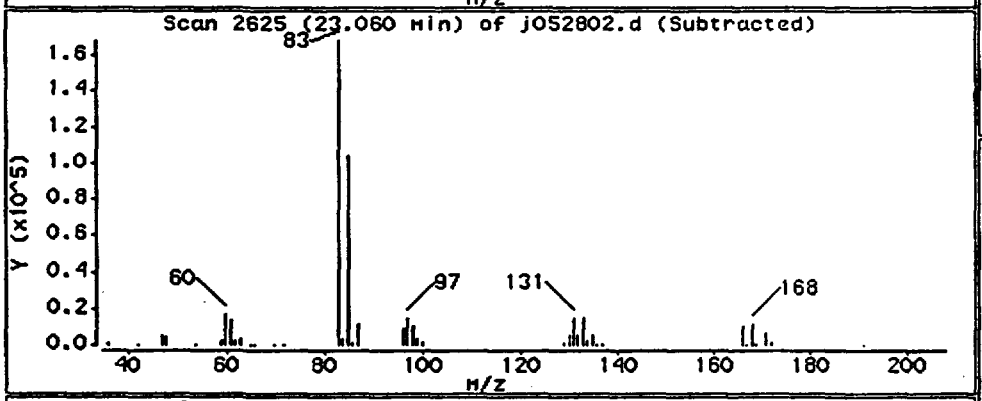
Operator: MH

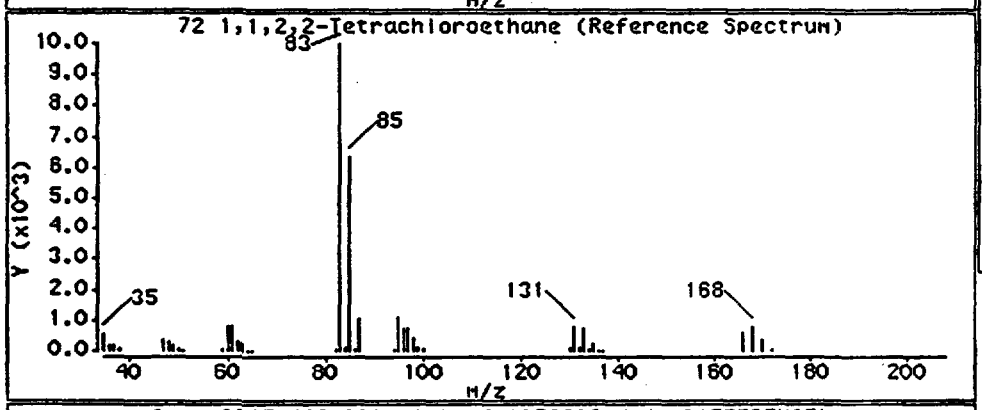
Column phase: RTx-624

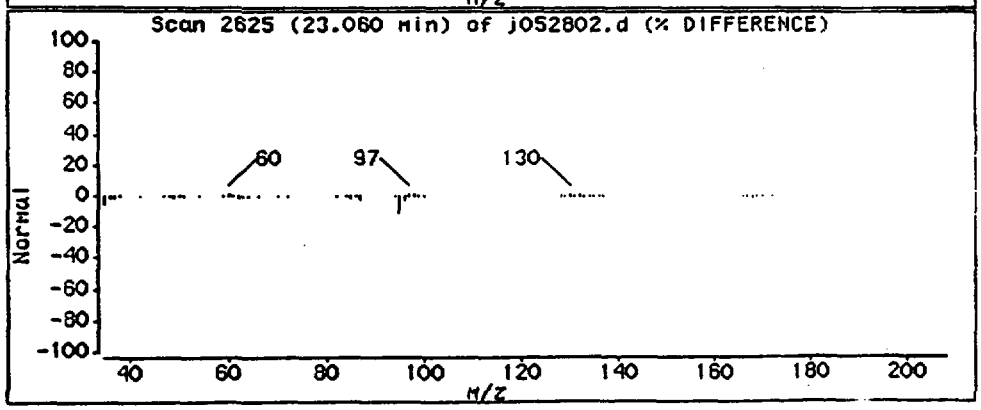
Column diameter: 0.58

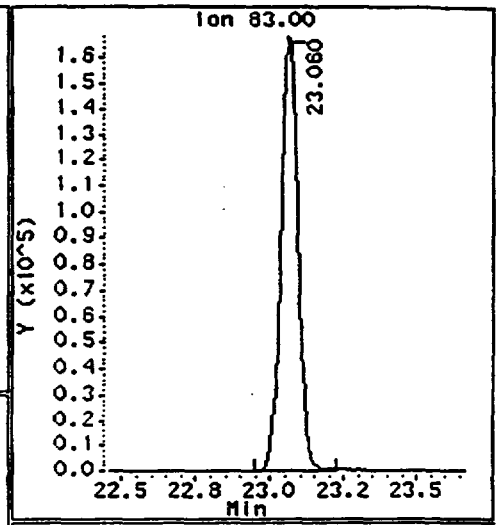
72 1,1,2,2-Tetrachloroethane

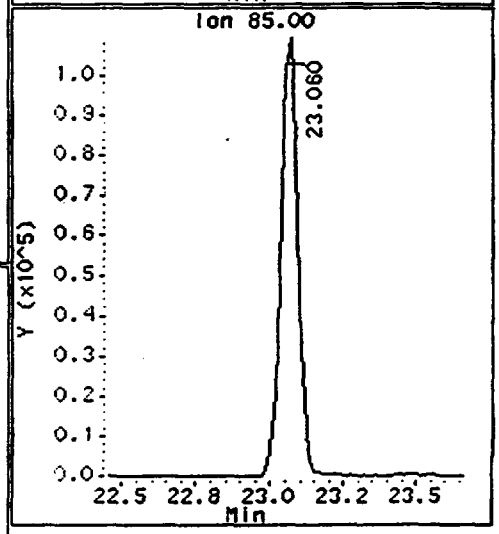




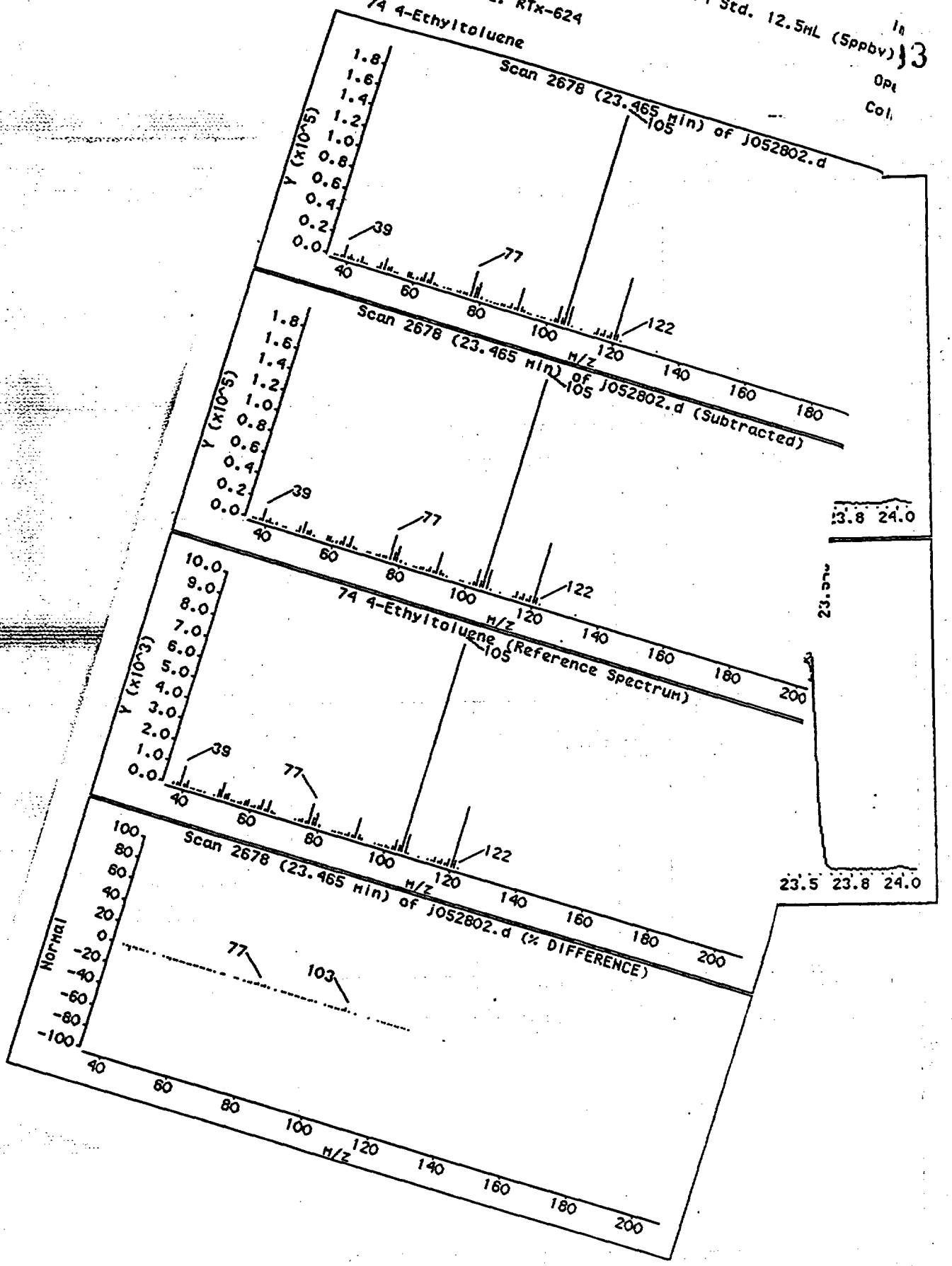








File: /chem/msdj.1/j-28may.b/j052802.d
Date : 28-MAY-1997 08:33
Client ID: Method Spike
Sample Info: #315-57 200ppbv TO14 Std. 12.5mL (5ppbv)
Column phase: RTx-624



Data File: /chem/msdj.i/j-28may.b/j052802.d

Date : 28-MAY-1997 08:33

Client ID: Method Spike

Instrument: msdj.i

0294

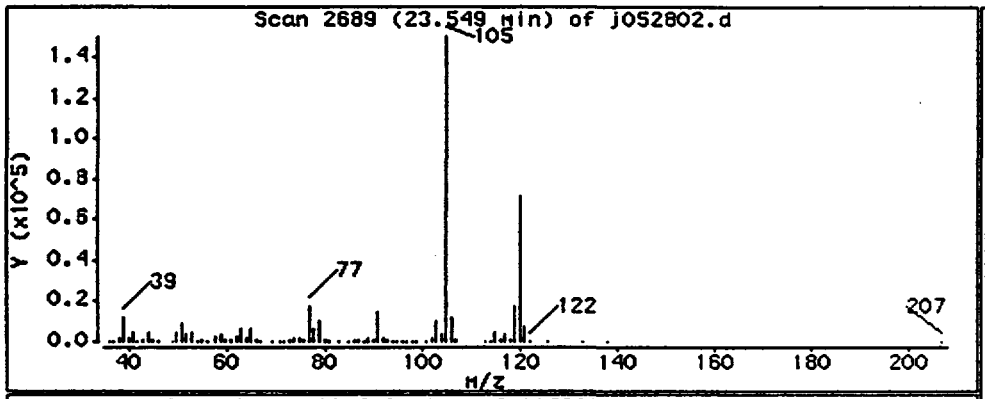
Sample Info: #315-57 200ppbv T014 Std. 12.5mL (5ppbv)

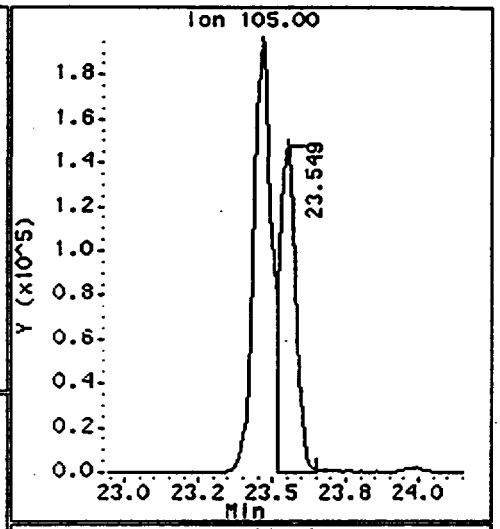
Operator: MH

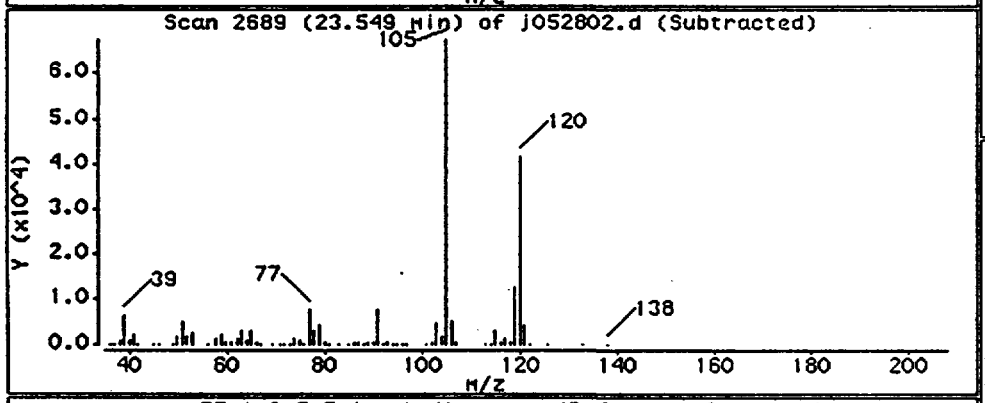
Column phase: RTx-624

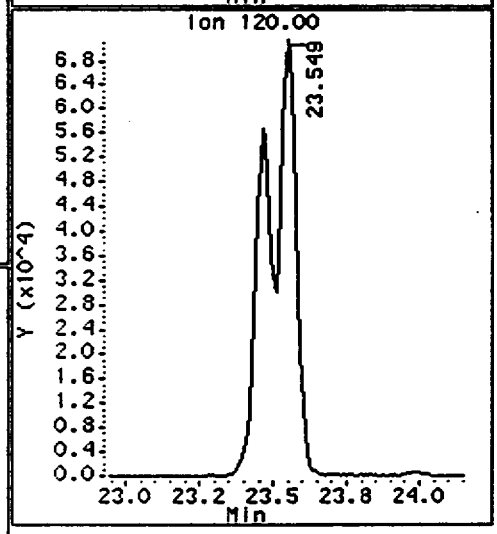
Column diameter: 0.58

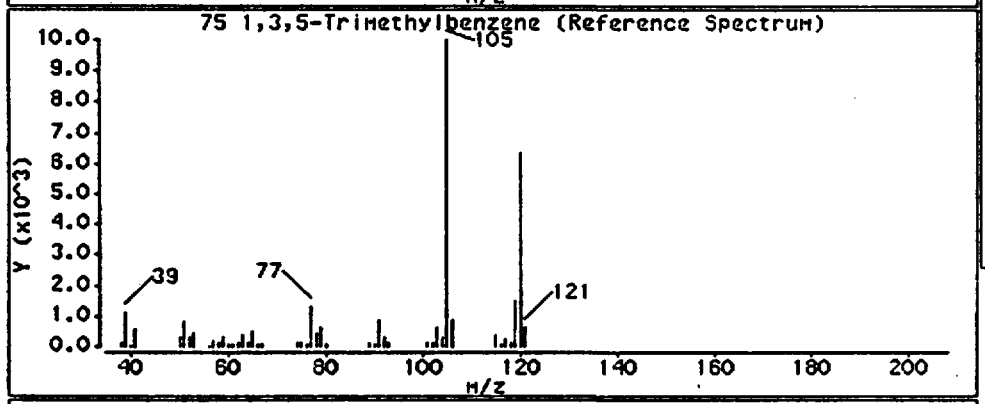
75 1,3,5-Trimethylbenzene

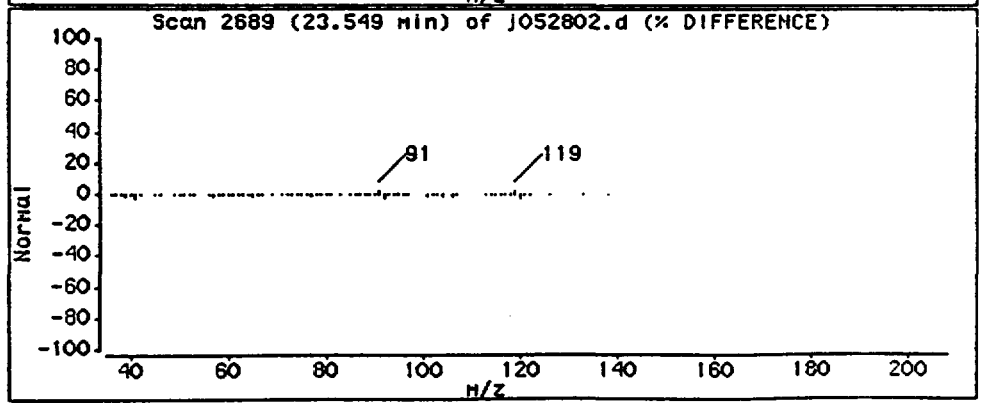












Data File: /chem/msdj.i/j-28may.b/j052802.d

Date : 28-MAY-1997 08:33

Client ID: Method Spike

Instrument: msdj.i

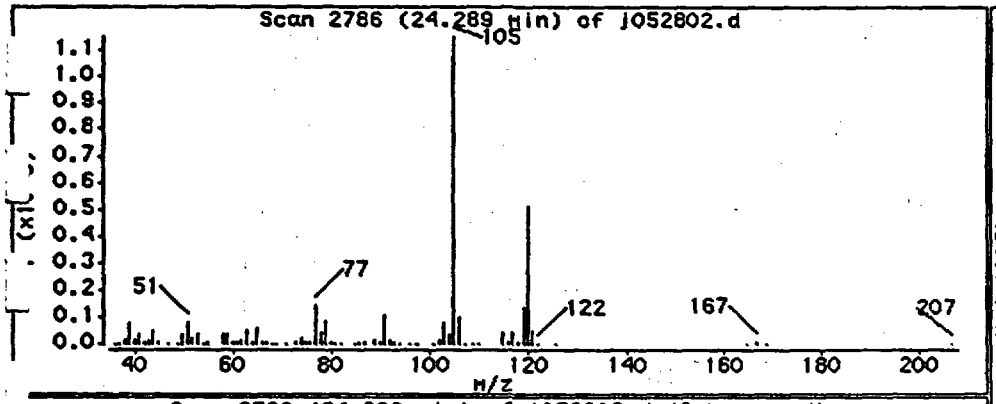
Sample Info: #315-57 200ppbv TO14 Std. 12.5mL (5ppbv)

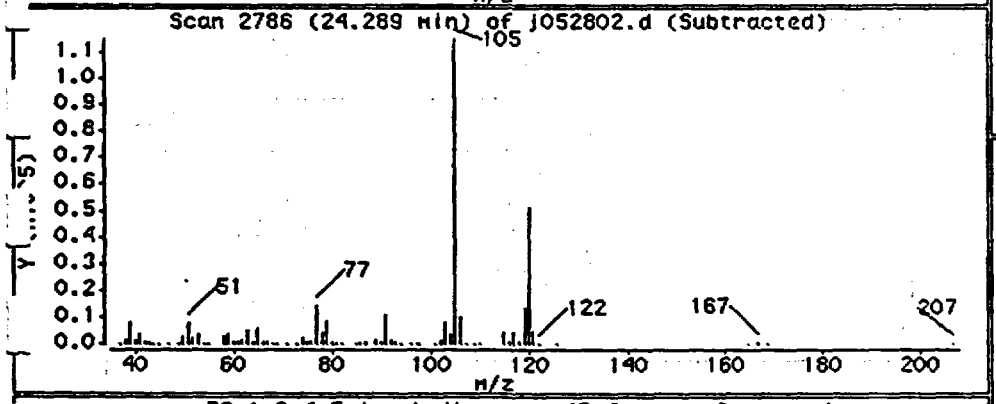
Operator: MH

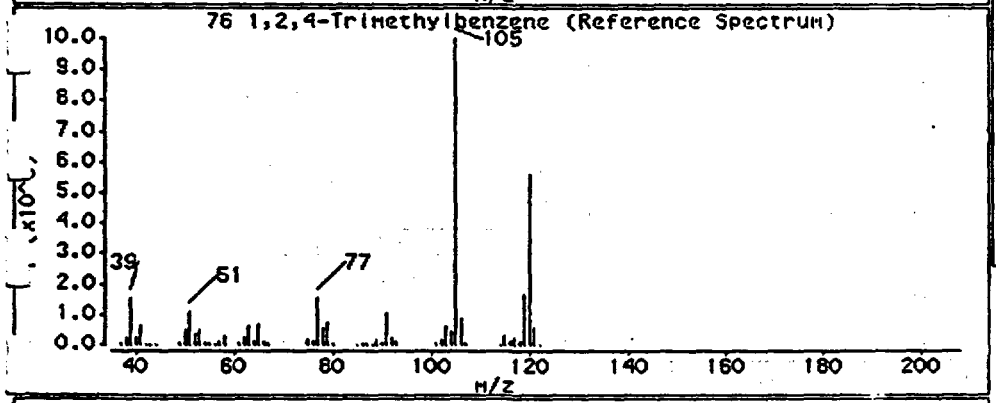
Column phase: RTx-624

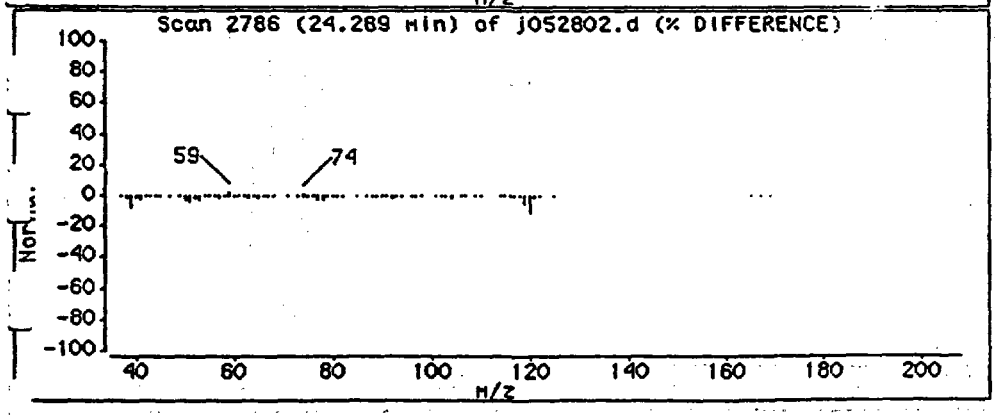
Column diameter: 0.58

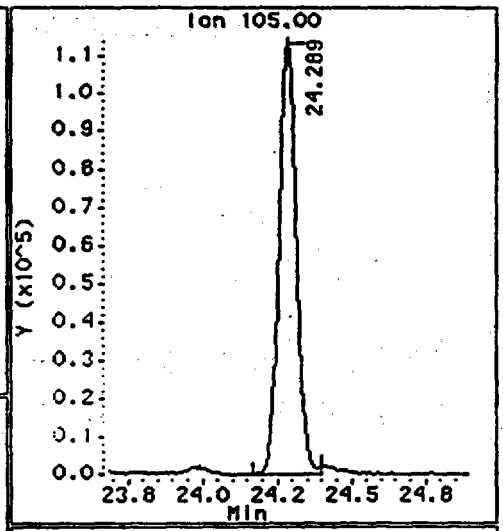
76 1,2,4-Trimethylbenzene

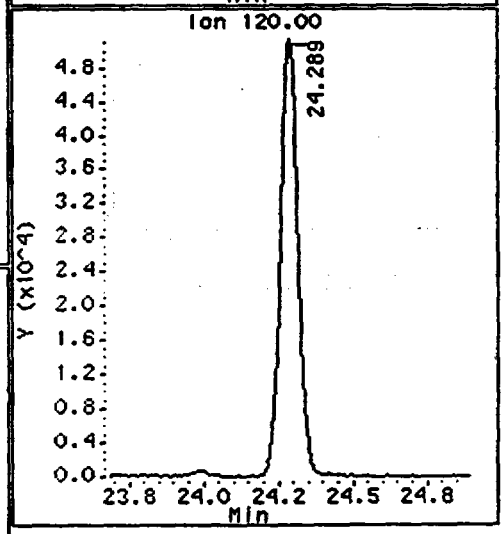












Data File: /chem/msdj.i/j-28may.b/j052802.d

Date : 28-MAY-1997 08:33

Client ID: Method Spike

Instrument: msdj.i

0296

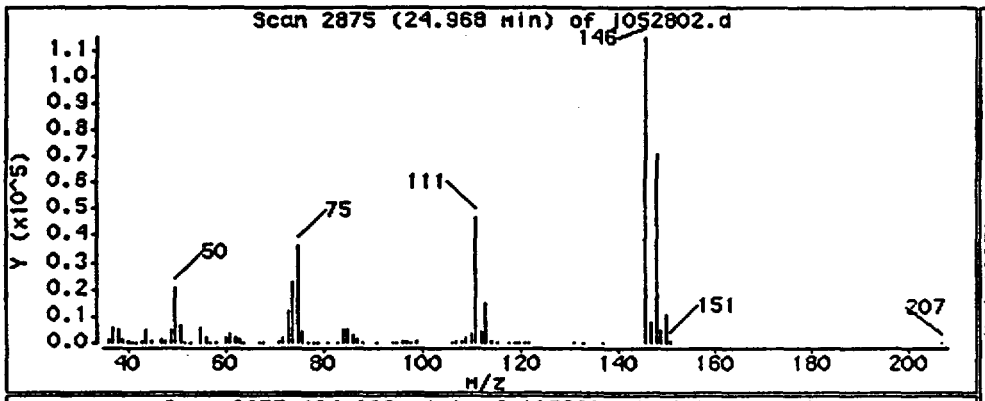
Sample Info: #315-57 200ppbv TO14 Std. 12.5mL (5ppbv)

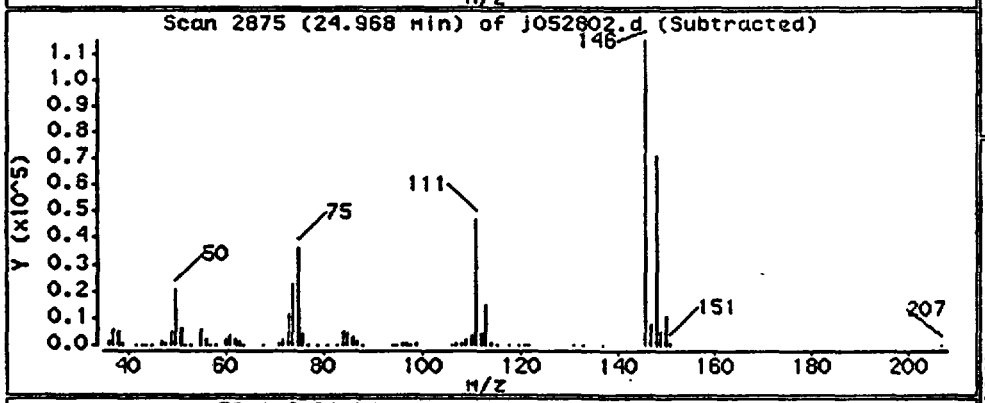
Operator: MH

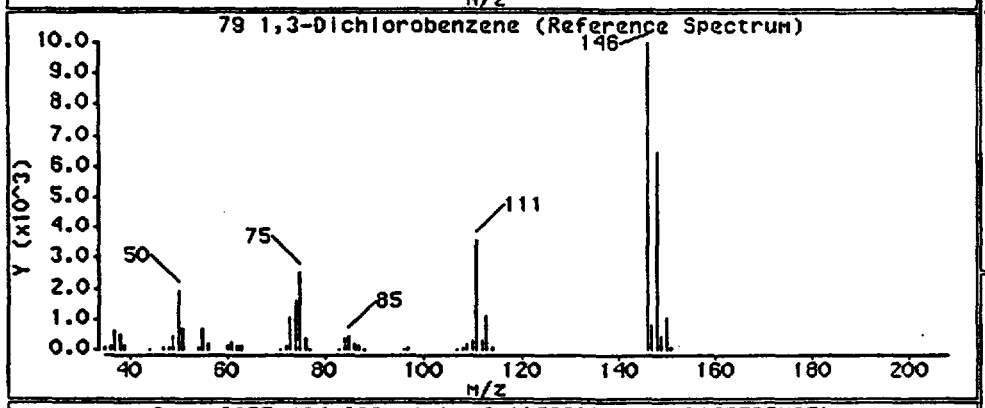
Column phase: RTx-624

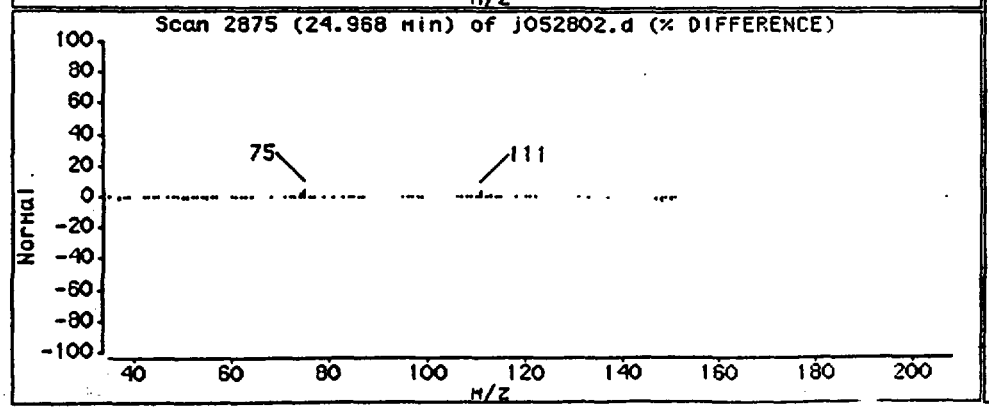
Column diameter: 0.58

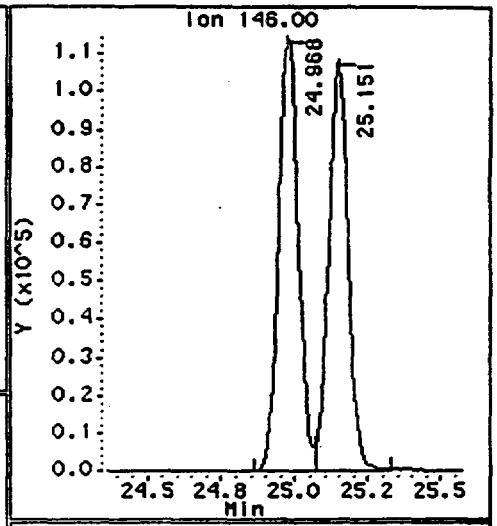
79 1,3-Dichlorobenzene

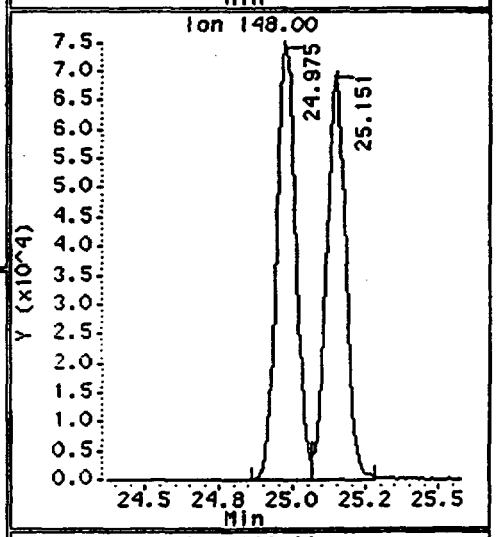


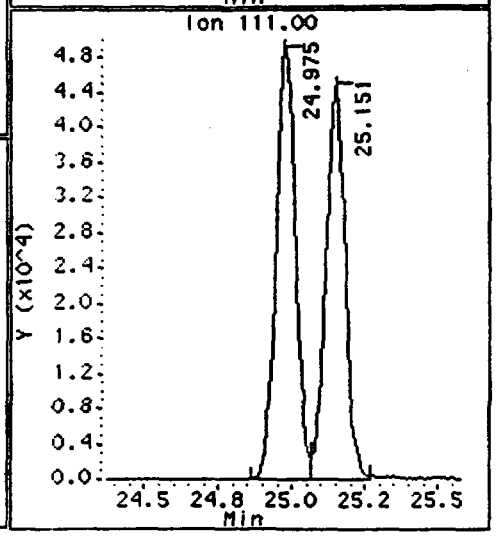












Data File: /chem/msdj.i/j-28may.b/j052802.d

Date : 28-MAY-1997 08:33

Client ID: Method Spike

Instrument: msdj.i

0297

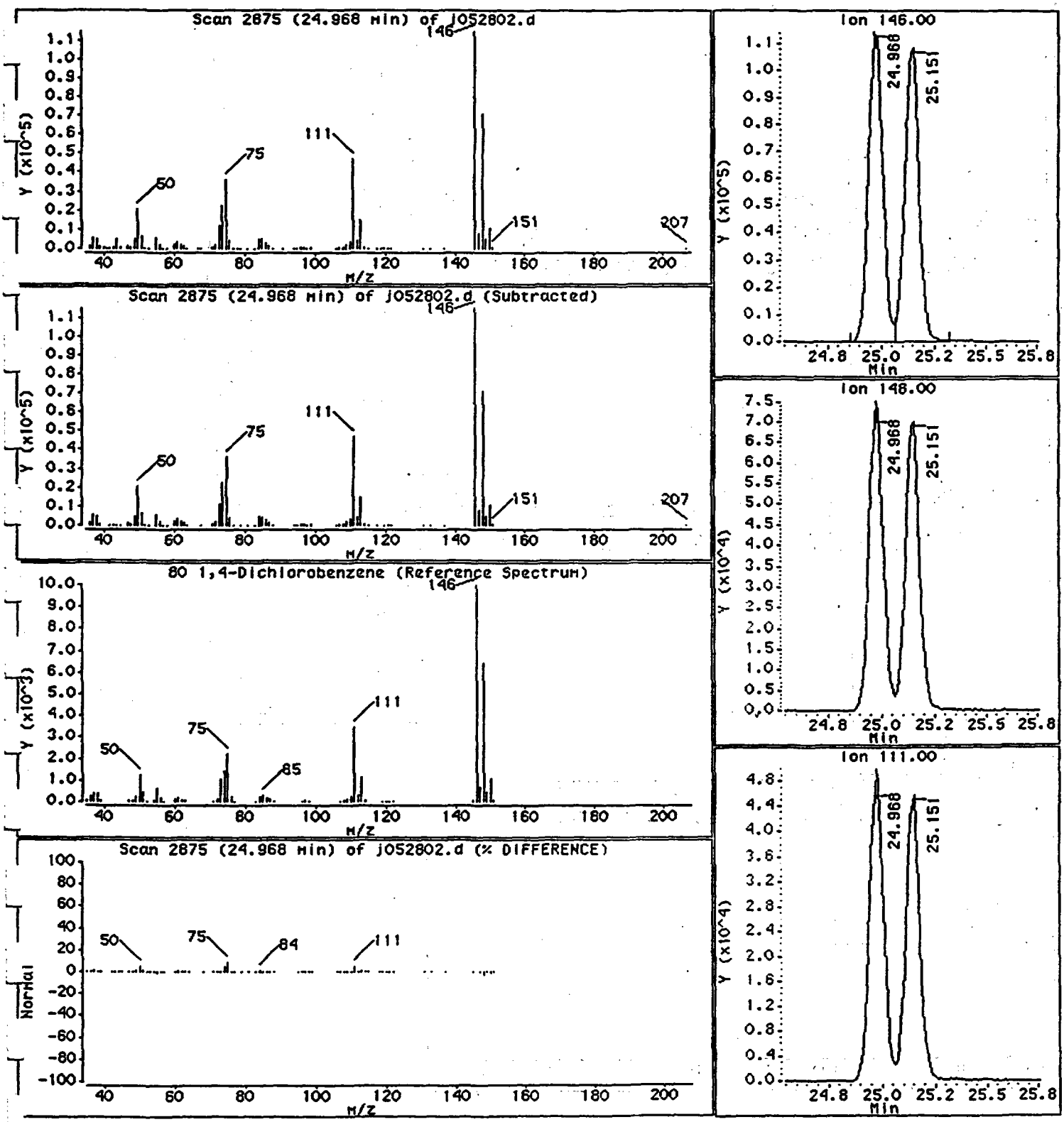
Sample Info: #315-57 200ppbv T014 Std. 12.5mL (5ppbv)

Operator: MH

Column phase: RTx-624

Column diameter: 0.58

80 1,4-Dichlorobenzene



Data File: /chem/msdj.i/j-28may.b/j052802.d

Date : 28-MAY-1997 08:33

0293

Client ID: Method Spike

Instrument: msdj.i

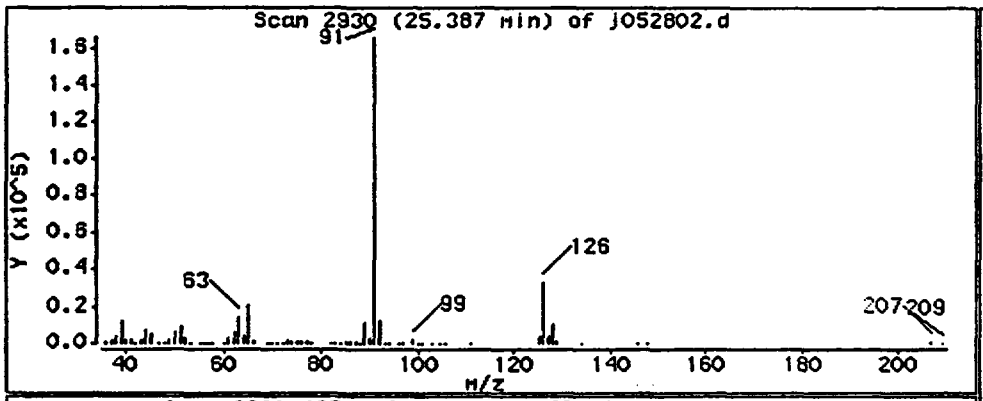
Sample Info: #315-57 200ppbv TO14 Std. 12.5mL (5ppbv)

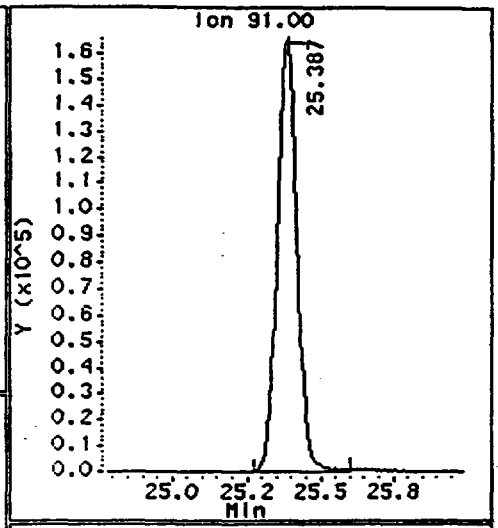
Operator: MH

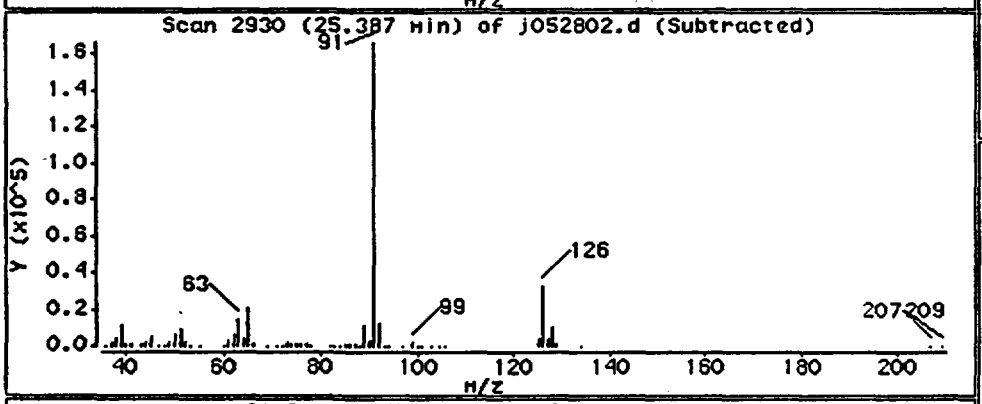
Column phase: RTx-624

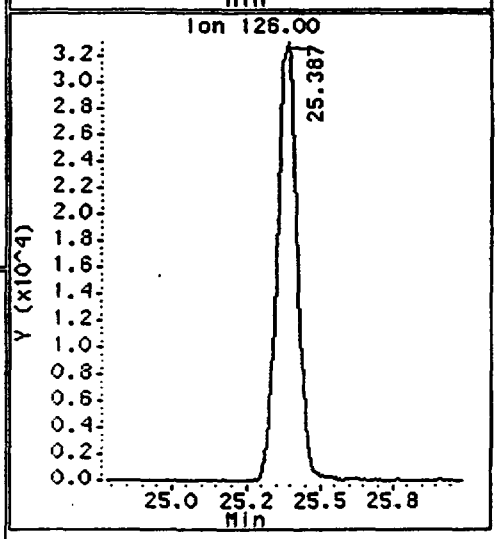
Column diameter: 0.58

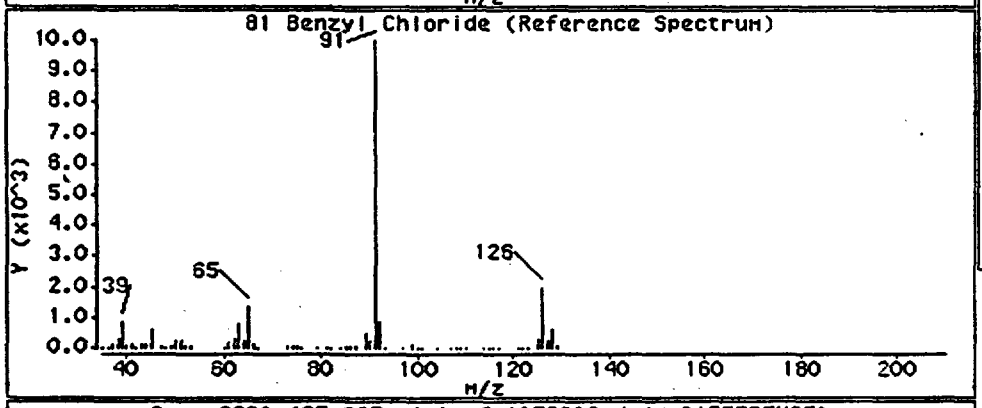
81 Benzyl Chloride

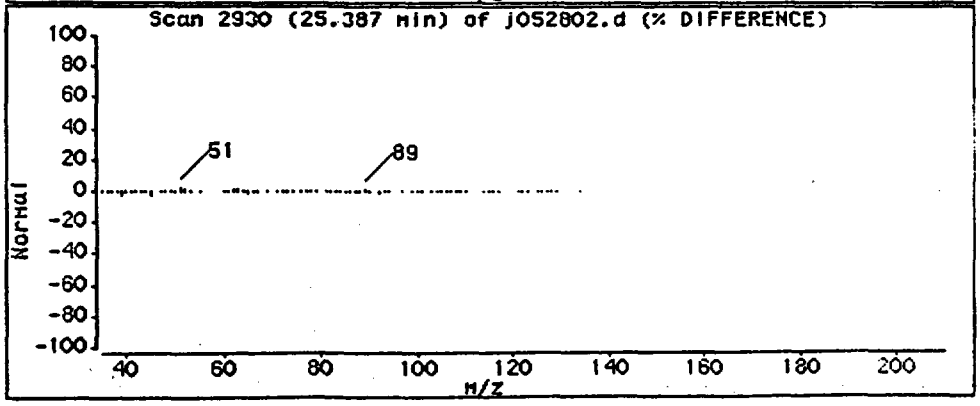












Data File: /chem/msdj.i/j-28may.b/j052802.d

Page 68

Date : 28-MAY-1997 08:33

Client ID: Method Spike

Instrument: msdj.i

0299

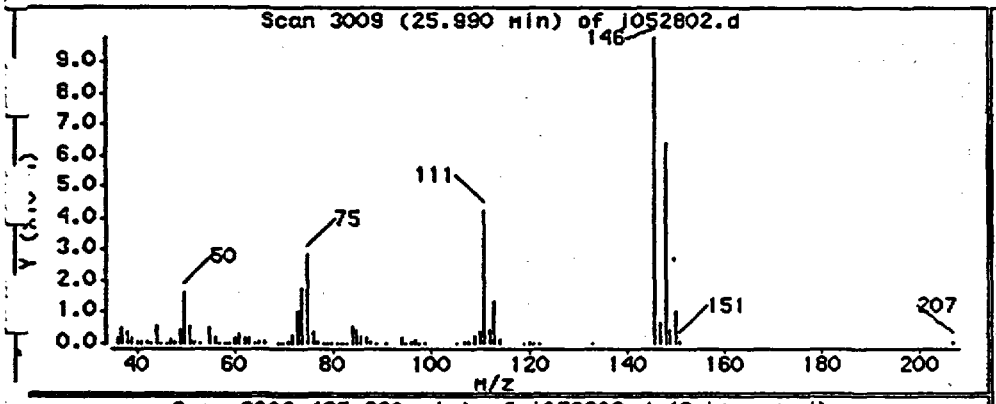
Sample Info: #315-57 200ppbv T014 Std. 12.5mL (5ppbv)

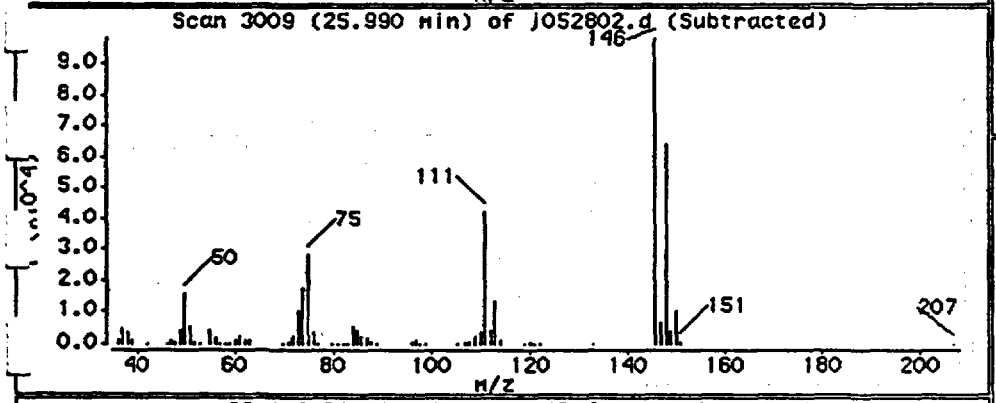
Operator: MH

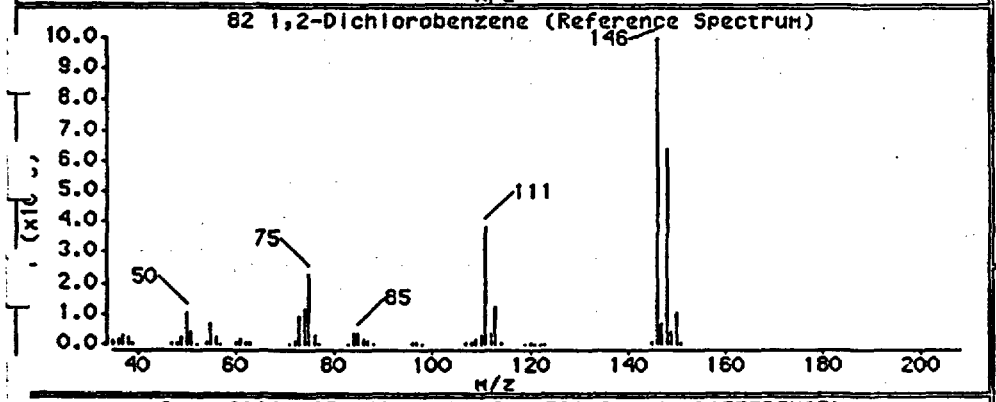
Column phase: RTx-624

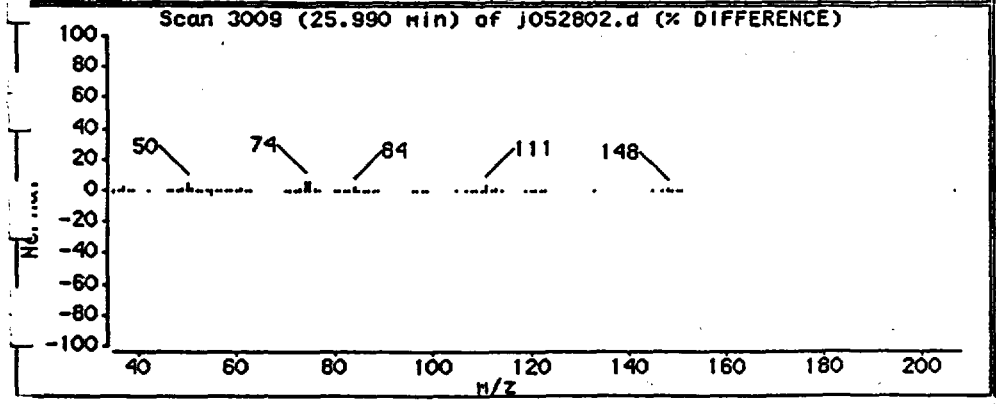
Column diameter: 0.58

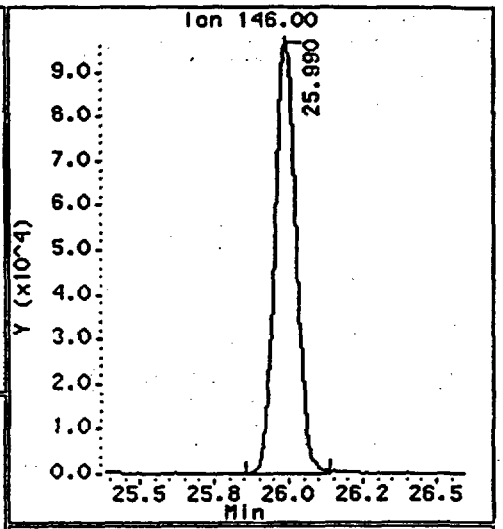
82 1,2-Dichlorobenzene

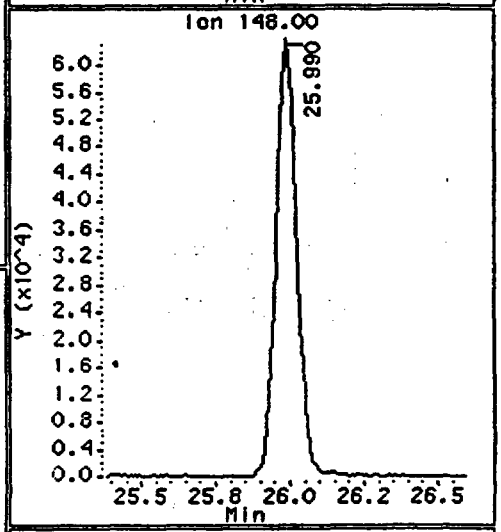


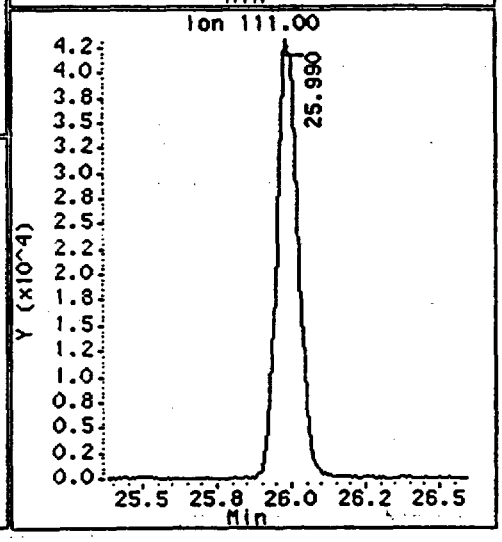












Data File: /chem/msdj.i/j-28may.b/j052802.d

Date : 28-MAY-1997 08:33

Client ID: Method Spike

Instrument: msdj.i

Sample Info: #315-57 200ppbv T014 Std. 12.5mL (5ppbv)

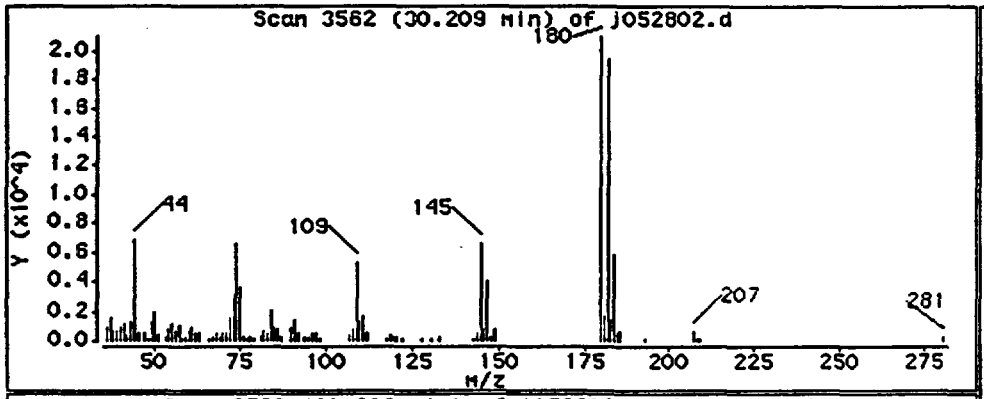
0300

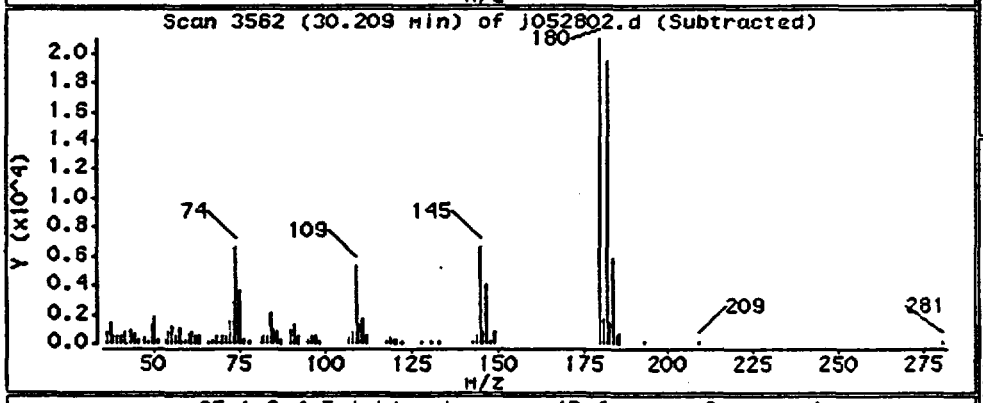
Operator: MH

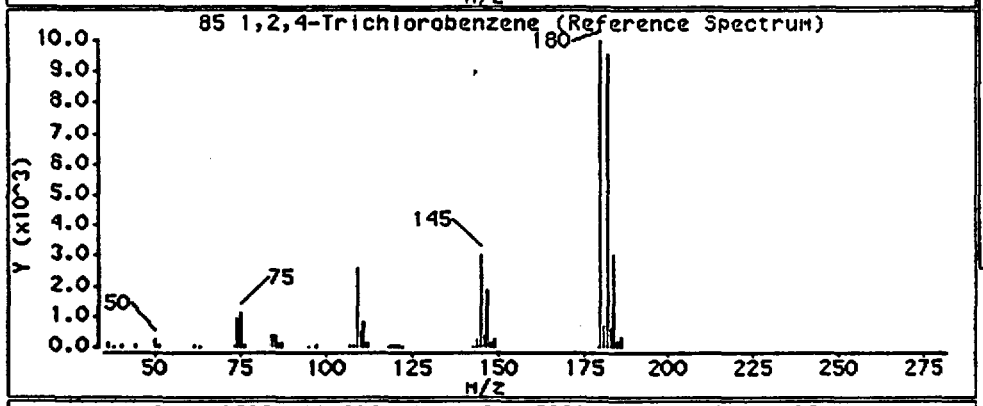
Column phase: RTx-624

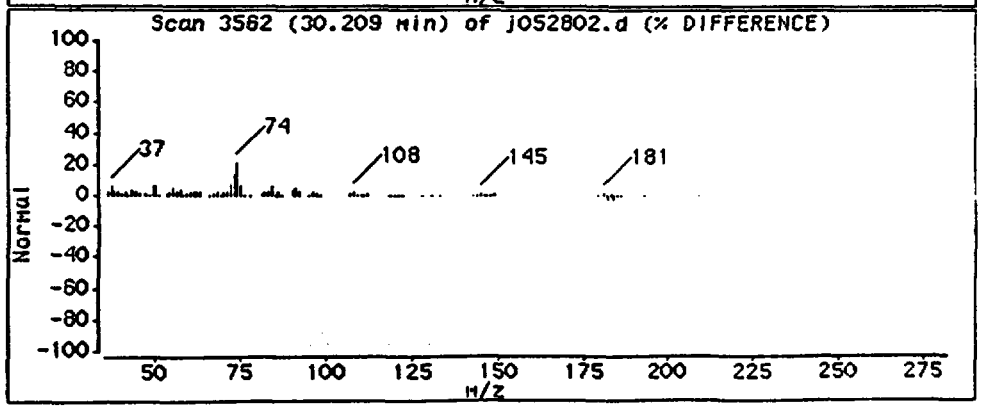
Column diameter: 0.58

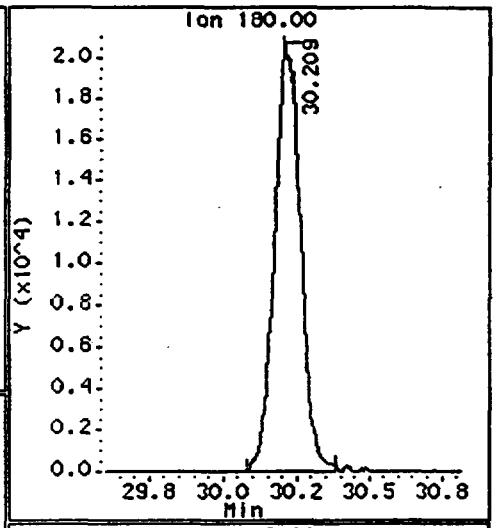
85 1,2,4-Trichlorobenzene

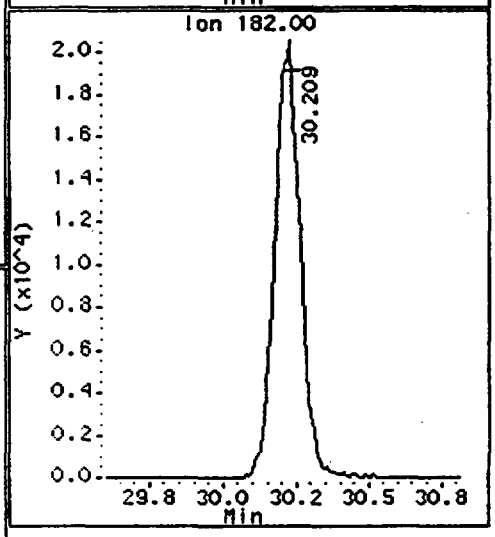












Data File: /chem/msdj.i/j-28may.b/j052802.d

Date : 28-MAY-1997 08:33

Client ID: Method Spike

Instrument: msdj.i

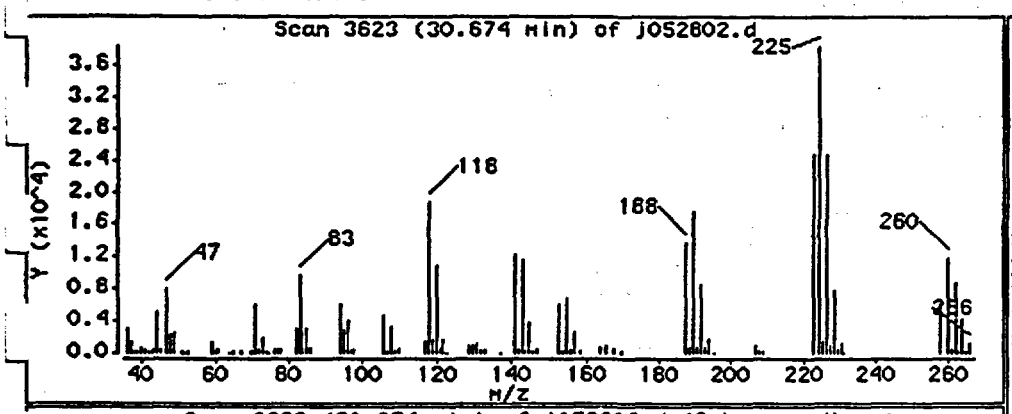
Sample Info: #315-57 200ppbv T014 Std. 12.5mL (5ppbv)

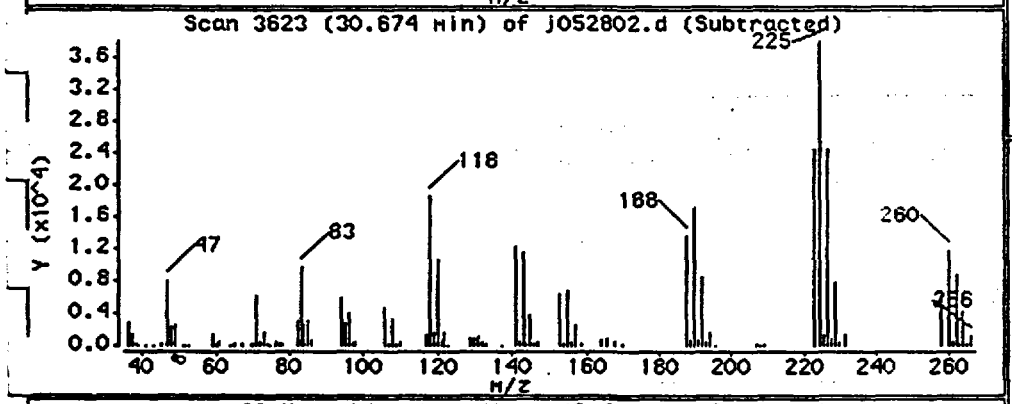
Operator: MH

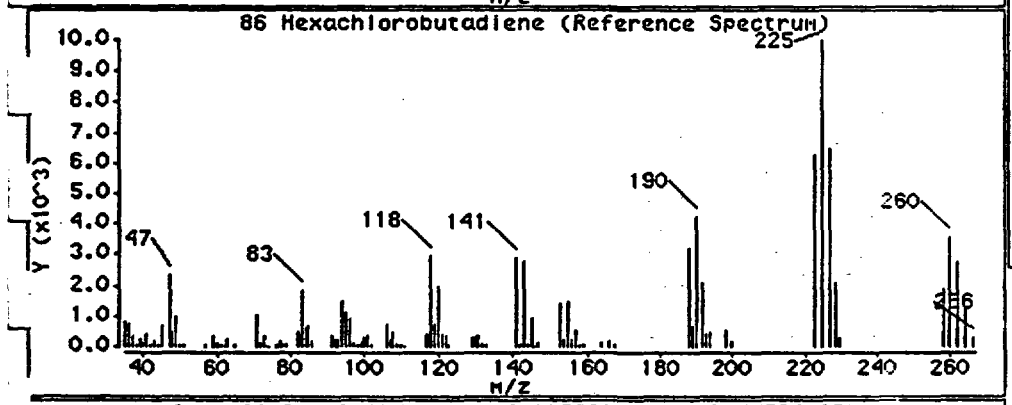
Column phase: RTx-624

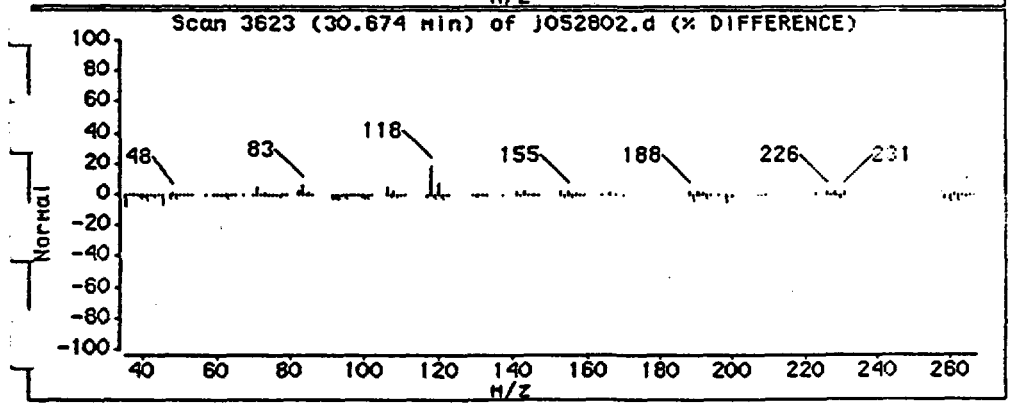
Column diameter: 0.58

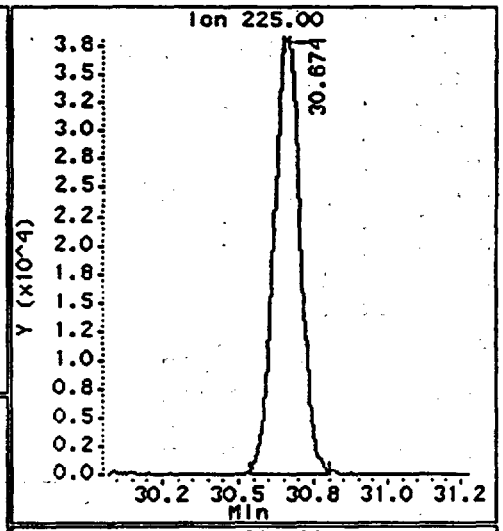
86 Hexachlorobutadiene

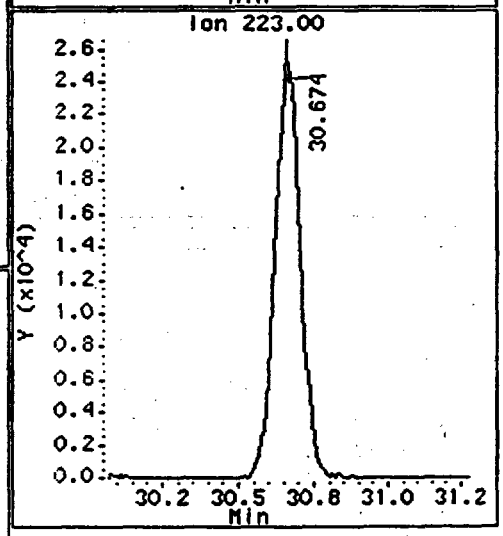












Data File: /chem/msdj.i/j-27may.b/j052701.d
Report Date: 27-May-1997 08:50

Air Toxics Limited

Data file : /chem/msdj.i/j-27may.b/j052701.d
Lab Smp Id: Client Smp ID: BFB
Inj Date : 27-MAY-97 08:52
Operator : MH Inst ID: msdj.i
Smp Info : #275-8-25 BFB Tune Check 2uL (50ng)
Misc Info :
Comment :
Method : /chem/msdj.i/j-27may.b/bfb.m
Meth Date : 27-May-1997 08:50 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		
7.547	8.019	-0.472	95	133207				100.00
7.547	8.019	-0.472	50	23148			15.00- 40.00	17.38
7.547	8.019	-0.472	75	61982			30.00- 60.00	46.53
7.547	8.019	-0.472	96	9316			5.00- 9.00	6.99
7.547	8.019	-0.472	173	0			0.00- 2.00	0.00
7.547	8.019	-0.472	174	114298			50.00- 100.00	85.80
7.547	8.019	-0.472	175	8369			5.00- 9.00	7.32
7.547	8.019	-0.472	176	112725			95.00- 101.00	98.62
7.547	8.019	-0.472	177	7138			5.00- 9.00	6.33

ata File: /chem/msdj.i/j-27may.b/j052701.d
eport Date: 27-May-1997 08:50

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-27may
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	

0304

Data File: /chem/msdj.i/j-27may.b/j052701.d

Date : 27-MAY-97 08:52

Client ID: BFB

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

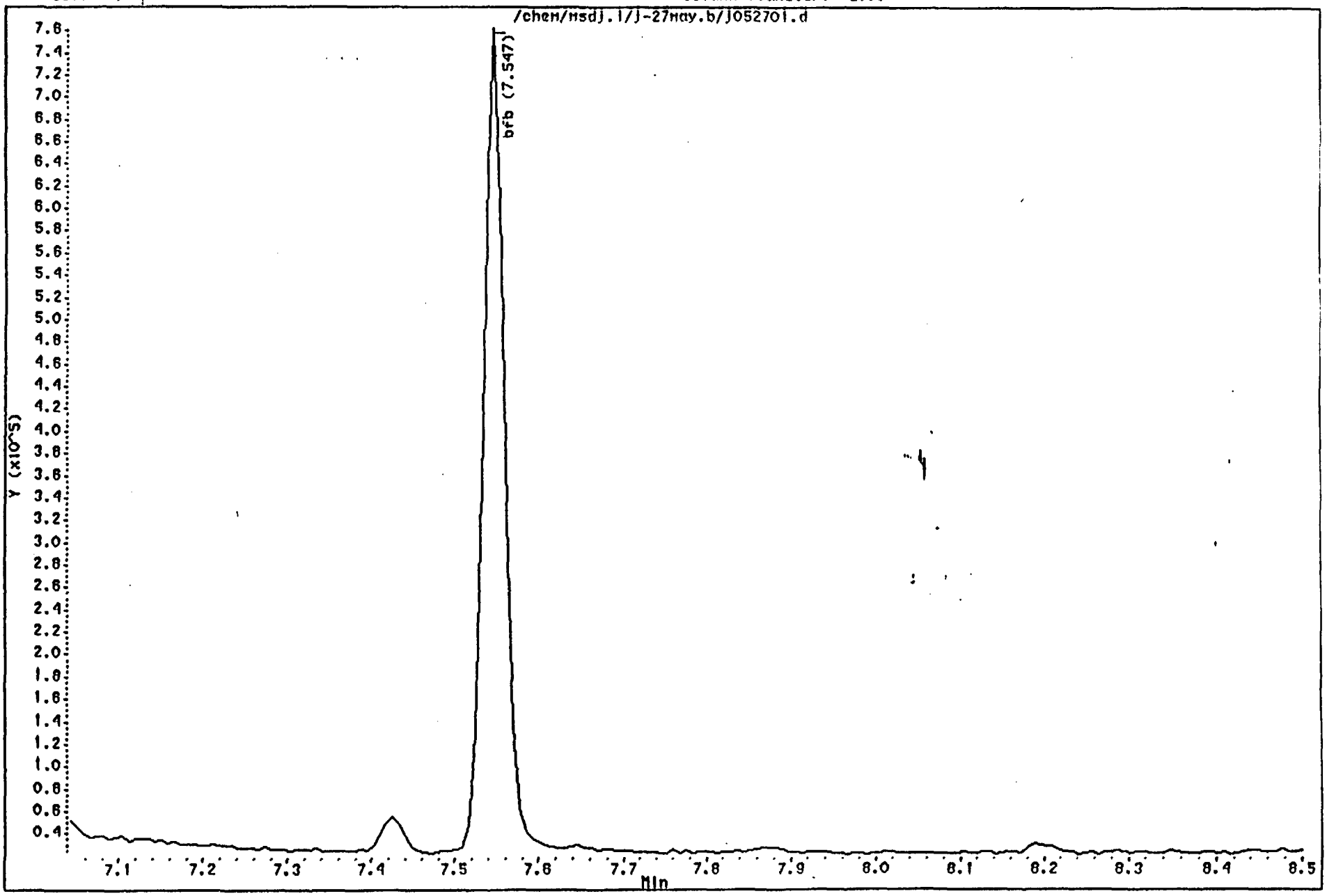
Volume Injected (uL): 1.0

Column phase:

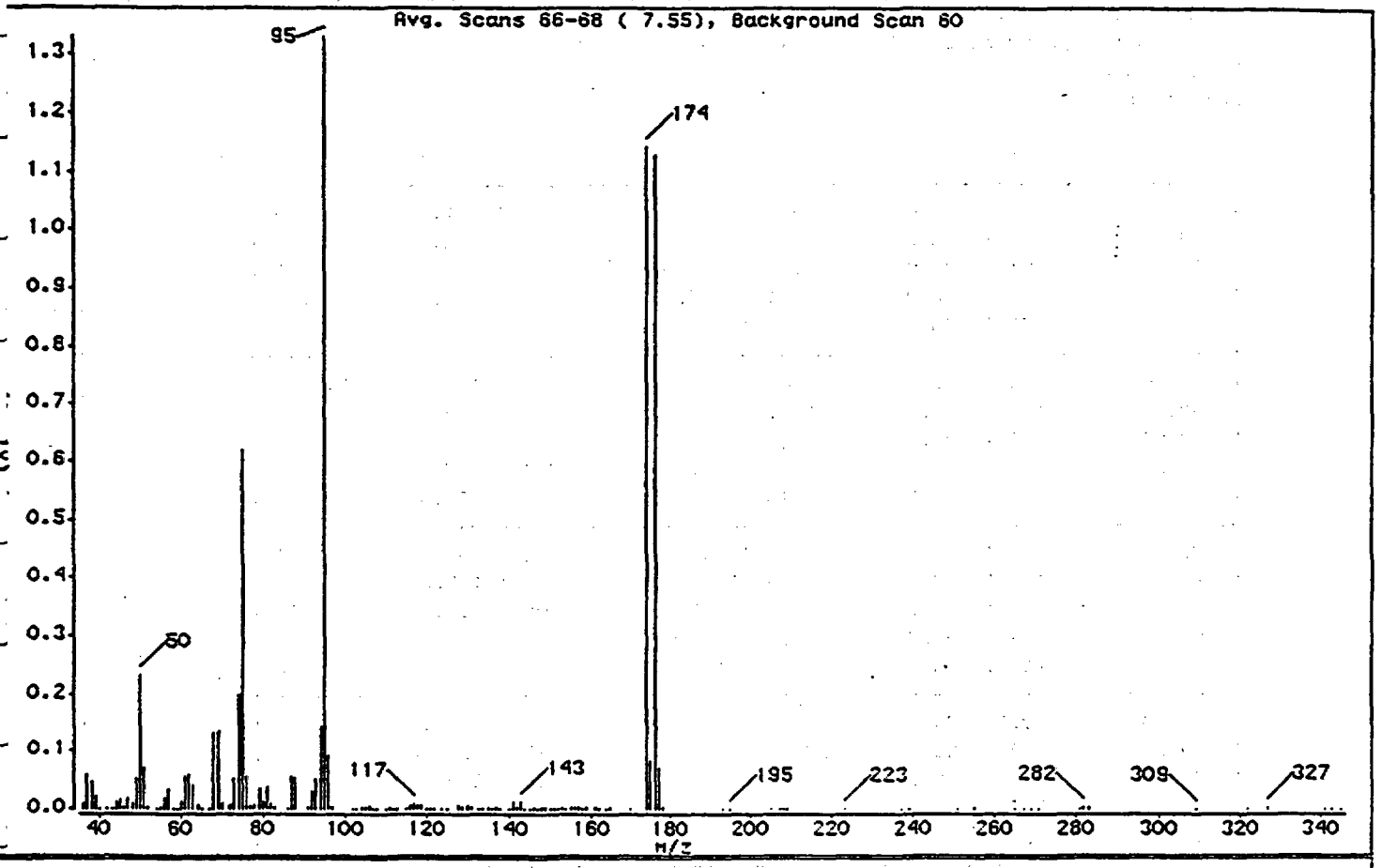
Instrument: msdj.i

Operator: MM

Column diameter: 2.00



Data File: /chem/msdj.i/j-27may.b/j052701.d
Date : 27-MAY-97 08:52
Client ID: BFB
Instrument: msdj.i
Sample Info: #275-8-25 BFB Tune Check 2uL (50ng)
Volume Injected (uL): 1.0
Operator: MH
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	17.38
75	30.00 - 60.00% of mass 95	46.53
96	5.00 - 9.00% of mass 95	6.99
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 100.00% of mass 95	85.80
175	5.00 - 9.00% of mass 174	6.28 (7.32)
176	95.00 - 101.00% of mass 174	84.62 (98.62)
177	5.00 - 9.00% of mass 176	5.36 (6.33)

Data File: /chem/msdj.i/j-27may.b/j052701.d

Date : 27-MAY-97 08:52

Client ID: BFB Instrument: msdj.i

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

Volume Injected (uL): 1.0 Operator: MH

Column phase: Column diameter: 2.00

Data File: j052701.d
Spectrum : Avg. Scans 66-68 (7.55), Background Scan 60
Largest m/z: 95.00
Number of peaks: 139

m/z	Y	m/z	Y	m/z	Y	m/z	Y
38.00	1020	75.00	61978	120.00	38	161.00	166
37.00	5713	76.00	5505	121.00	50	162.00	38
38.00	4631	77.00	714	122.00	87	164.00	61
39.00	2194	78.00	601	124.00	42	165.00	155
40.00	53	79.00	3482	125.00	45	170.00	34
42.00	125	80.00	1106	128.00	503	174.00	114296
43.00	124	81.00	3734	129.00	241	175.00	8369
44.00	1103	82.00	937	130.00	506	176.00	112720
45.00	1391	83.00	181	131.00	407	177.00	7138
46.00	238	86.00	113	133.00	15	178.00	224
47.00	1820	87.00	5527	134.00	42	193.00	30
48.00	786	88.00	5158	135.00	178	195.00	72
49.00	5265	91.00	311	136.00	105	205.00	34
50.00	23144	92.00	3030	137.00	285	207.00	54
51.00	7121	93.00	5108	138.00	45	208.00	67
52.00	290	94.00	14485	140.00	48	209.00	2
54.00	144	95.00	133184	141.00	1155	223.00	90
55.00	258	96.00	9316	142.00	226	237.00	40
56.00	1735	97.00	177	143.00	1211	239.00	56
57.00	3287	102.00	38	144.00	86	251.00	37
58.00	130	103.00	80	145.00	137	255.00	165
59.00	106	104.00	400	146.00	203	265.00	35
60.00	1171	105.00	177	147.00	11	267.00	6
61.00	5643	106.00	533	148.00	429	269.00	65
62.00	5934	107.00	57	149.00	268	271.00	112
63.00	4077	108.00	33	150.00	140	281.00	17
64.00	482	110.00	146	151.00	69	282.00	177
65.00	75	111.00	175	152.00	123	283.00	170
67.00	149	112.00	133	153.00	187	309.00	83
68.00	13055	113.00	104	154.00	97	322.00	35
69.00	13515	115.00	83	155.00	321	327.00	207
70.00	905	116.00	536	156.00	172	341.00	34
72.00	639	117.00	849	157.00	289	343.00	102
73.00	5086	118.00	497	158.00	47	345.00	108
74.00	20008	119.00	744	159.00	183		

Data File: /chem/msdj.i/j-28may.b/j052801.d
Report Date: 28-May-1997 08:01

Air Toxics Limited

Data file : /chem/msdj.i/j-28may.b/j052801.d
Lab Smp Id: Client Smp ID: BFB
Inj Date : 28-MAY-97 08:03
Operator : MH Inst ID: msdj.i
Smp Info : #275-8-25 BFB Tune Check 2uL (50ng)
Misc Info :
Comment :
Method : /chem/msdj.i/j-28may.b/bfb.m
Meth Date : 28-May-1997 08:01 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		
7.553	8.019	-0.466	95	102864				100.00
7.553	8.019	-0.466	50	17829			15.00- 40.00	17.33
7.553	8.019	-0.466	75	46809			30.00- 60.00	45.51
7.553	8.019	-0.466	96	6984			5.00- 9.00	6.79
7.553	8.019	-0.466	173	0			0.00- 2.00	0.00
7.553	8.019	-0.466	174	89618			50.00- 100.00	87.12
7.553	8.019	-0.466	175	6163			5.00- 9.00	6.88
7.553	8.019	-0.466	176	87776			95.00- 101.00	97.94
7.553	8.019	-0.466	177	5661			5.00- 9.00	6.45

Data File: /chem/msdj.i/j-28may.b/j052801.d
Report Date: 28-May-1997 08:01

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-28may
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	

0309

Data File: /chem/msdj.i/j-28may.b/j052801.d

Date : 28-MAY-97 08:03

Client ID: BFB

Instrument: msdj.i

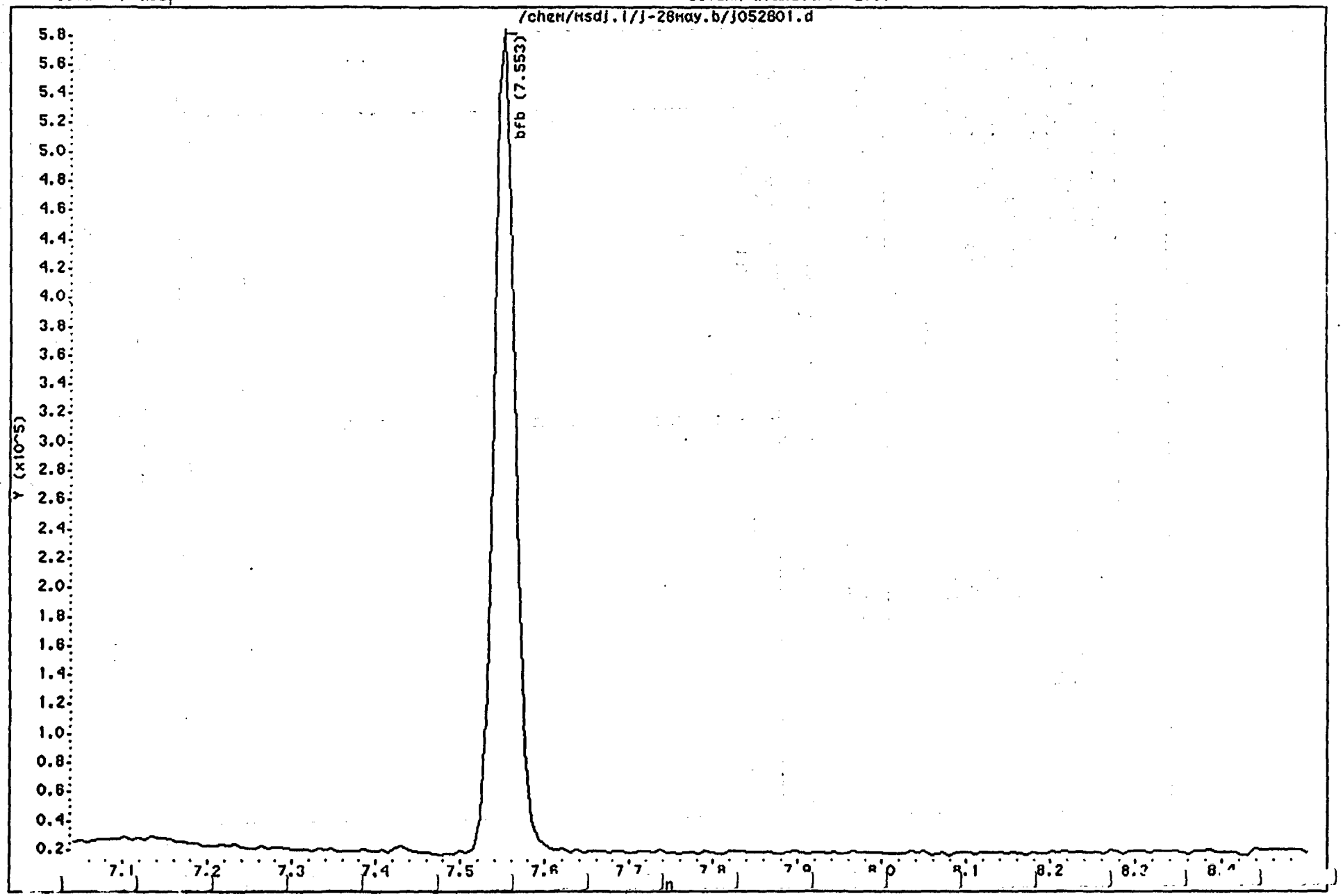
Sample Info: #275-8-25 BFB Tune Check 2uL (50ng)

Volume Injected (uL): 1.0

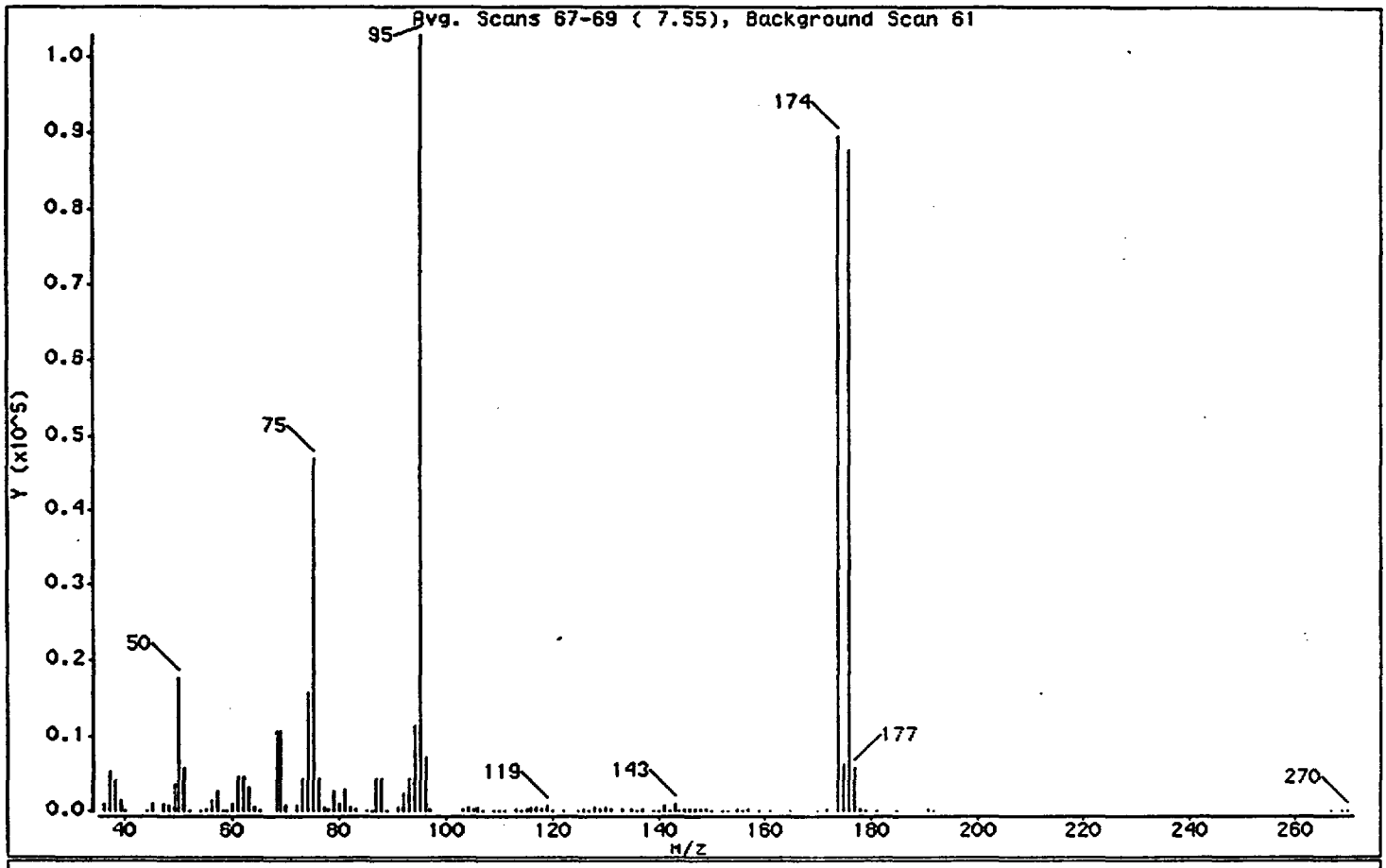
Operator: MH

Column phase:

Column diameter: 2.00



Data File: /chem/msdj.i/j-28may.b/j052801.d
Date : 28-MAY-97 08:03
Client ID: BFB,
Instrument: msdj.i
Sample Info: #275-8-25 BFB Tune Check 2uL (50ng)
Volume Injected (uL): 1.0
Operator: MH
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	17.33
75	30.00 - 60.00% of mass 95	45.51
96	5.00 - 9.00% of mass 95	6.79
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 100.00% of mass 95	87.12
175	5.00 - 9.00% of mass 174	5.99 (6.88)
176	95.00 - 101.00% of mass 174	85.33 (97.94)
177	5.00 - 9.00% of mass 176	5.50 (6.45)

Data File: /chem/msdj.i/j-28may.b/j052801.d
Date : 28-MAY-97 08:03
Client ID: BFB
Instrument: msdj.i
Sample Info: #275-8-25 BFB Tune Check 2uL (50ng)
Volume Injected (uL): 1.0
Operator: MH
Column phase:
Column diameter: 2.00

Data File: j052801.d
Spectrum : Avg. Scans 67-69 (7.55), Background Scan 61
Largest m/z: 95.00
Number of peaks: 115

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1002	73.00	4286	110.00	40	146.00	166
37.00	5092	74.00	15806	111.00	56	147.00	265
38.00	3913	75.00	46808	113.00	122	148.00	277
39.00	1388	76.00	4214	114.00	45	149.00	147
40.00	97	77.00	436	115.00	176	150.00	105
44.00	80	78.00	216	116.00	548	152.00	39
45.00	893	79.00	2679	117.00	432	153.00	69
47.00	973	80.00	966	118.00	329	155.00	335
48.00	711	81.00	2916	119.00	596	156.00	38
49.00	3585	82.00	547	120.00	95	157.00	203
50.00	17824	83.00	143	122.00	39	159.00	78
51.00	5651	85.00	47	125.00	90	161.00	94
52.00	112	86.00	50	126.00	124	165.00	35
54.00	94	87.00	4181	127.00	49	170.00	37
55.00	299	88.00	4158	128.00	394	172.00	223
56.00	1528	89.00	51	129.00	233	174.00	89616
57.00	2513	91.00	406	130.00	399	175.00	6163
58.00	67	92.00	2368	131.00	228	176.00	87776
59.00	59	93.00	4140	133.00	211	177.00	5661
60.00	921	94.00	11339	135.00	141	178.00	210
61.00	4395	95.00	102864	136.00	61	179.00	34
62.00	4442	96.00	6984	137.00	181	181.00	35
63.00	3184	97.00	259	139.00	35	185.00	35
64.00	415	103.00	185	140.00	53	191.00	139
65.00	4	104.00	471	141.00	817	192.00	47
68.00	10633	105.00	241	142.00	104	267.00	35
69.00	10732	106.00	470	143.00	996	269.00	29
70.00	751	107.00	63	144.00	44	270.00	81
72.00	650	109.00	71	145.00	125		

AIR TOXICS LTD.

SAMPLE NAME : Lab Blank
ID#: 9705177-03A
EPA METHOD TO-14 GC/MS Full Scan

File Name:	052805	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	5/28/97

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	98	70-130
4-Bromofluorobenzene	98	70-130

Air Toxics Limited

AMBIENT AIR METHOD TO14

Data file : /chem/msdj.i/j-28may.b/j052805.d
Lab Smp Id: Client Smp ID: Lab Blank
Inj Date : 28-MAY-1997 11:20
Operator : MH Inst ID: msdj.i
Smp Info : 500mL Can#05364
Misc Info : Lab Blank
Comment :
Method : /chem/msdj.i/j-28may.b/to140527.m
Meth Date : 28-May-1997 11:39 mhe Quant Type: ISTD
Cal Date : 27-MAY-1997 20:22 Cal File: j052716.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
* 32 Bromochloromethane					CAS #: 74-97-5			
15.707	15.691 (1.000)	130	174030	5.0			100.00	9375
15.707	15.691 (0.000)	128	38768			27.34- 127.34	22.28	
15.707	15.691 (0.000)	49	62384			69.38- 169.38	35.85	
* 42 1,4-Difluorobenzene					CAS #: 540-36-3			
17.042	17.026 (1.000)	114	796135	5.0			100.00	9676
17.042	17.026 (0.000)	88	41616			0.00- 66.20	5.23	
* 62 Chlorobenzene-d5					CAS #: 3114-55-4			
21.108	21.085 (1.000)	117	838313	5.0			100.00	9993
21.108	21.085 (0.000)	82	122352			4.31- 104.31	14.60	
37 Octafluorotoluene					CAS #: 434-64-0			
16.241	16.225 (1.034)	217	573468	5.0	5.0		100.00	7518
16.241	16.225 (0.000)	186	109072			11.25- 111.25	19.02	
50 Toluene-d8					CAS #: 2037-26-5			
19.048	19.040 (1.118)	98	741824	4.9	4.9		100.00	9950
19.048	19.040 (0.000)	70	25192			0.00- 62.04	3.40	
19.048	19.040 (0.000)	100	150528			18.00- 118.00	20.29	

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
$ 71 Bromofluorobenzene						CAS #: 460-00-4			
22.916	22.901	(1.086)	95	661361	4.9	4.9		100.00	8788
22.916	22.901	(0.000)	174	120032			26.98- 126.98	18.15	
22.916	22.901	(0.000)	176	116144			26.03- 126.03	17.56	

MH
5/28/97

Audit History For: /chem/msdj.i/j-28may.b/j052805.d

Change Date: 28-May-97 11:44
Change Made by: Automation

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

Change Date: 28-May-97 11:44
Change Made by: Automation

Parameter: Target Processing
Old Value:
New Value: Method: /chem/msdj.i/j-28may.b/to140527.m
Reason For Change: Complete Target Compound Processing

Change Date: 28-May-97 11:51
Change Made by: mhe

Parameter: date
Old Value: 28-MAY-97 11:20
New Value: 28-MAY-1997 11:20
Reason For Change: N/A

Change Date: 28-May-97 11:51
Change Made by: mhe

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

Change Date: 28-May-97 11:51
Change Made by: mhe

Parameter: Sample Info
Old Value: Lab Blank 500mL Can#05364
New Value: 500mL Can#05364
Reason For Change: N/A

Change Date: 28-May-97 11:51
Change Made by: mhe

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

Change Date: 28-May-97 11:51
Change Made by: mhe

Parameter: Target Processing
Old Value:
New Value: Method: /chem/msdj.i/j-28may.b/to140527.m
Reason For Change: Quantitation

Change Date: 28-May-97 11:51
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: 28-May-97 11:51
Change Made by: mhe

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

Change Date: 28-May-97 11:51
Change Made by: mhe

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

Change Date: 28-May-97 11:51
Change Made by: mhe

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

Change Date: 28-May-97 11:51
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: 28-May-97 11:51
Change Made by: mhe

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

Change Date: 28-May-97 11:51
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: 28-May-97 11:51
Change Made by: mhe

Parameter: Requantitate all compounds
Old Value:
New Value:

Reason For Change: N/A

hange Date: 28-May-97 11:52
hange Made by: mhe

Parameter: Target Processing
Old Value:
New Value: Method: /chem/msdj.i/j-28may.b/to140527.m
Reason For Change: Quantitation

Data File: /chem/msdj.i/j-28may.b/j052805.d
Report Date: 28-May-1997 11:51

Air Toxics Limited

AMBIENT AIR METHOD TO14

Data file : /chem/msdj.i/j-28may.b/j052805.d
Lab Smp Id: Client Smp ID: Lab Blank
Inj Date : 28-MAY-1997 11:20
Operator : MH Inst ID: msdj.i
Smp Info : 500mL Can#05364
Misc Info : Lab Blank
Comment :
Method : /chem/msdj.i/j-28may.b/to140527.m
Meth Date : 28-May-1997 11:39 mhe Quant Type: ISTD
Cal Date : 27-MAY-1997 20:22 Cal File: j052716.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
* 32 Bromochloromethane					CAS #: 74-97-5			
15.707	15.691 (1.000)	130	174030	5.0			100.00	9375
15.707	15.691 (0.000)	128	38768			27.34- 127.34	22.28	
15.707	15.691 (0.000)	49	62384			69.38- 169.38	35.85	
* 42 1,4-Difluorobenzene					CAS #: 540-36-3			
17.042	17.026 (1.000)	114	796135	5.0			100.00	9676
17.042	17.026 (0.000)	88	41616			0.00- 66.20	5.23	
17.202	17.026 (1.000)	114	7026	5.0			100.00	6140
17.202	17.026 (0.000)	88	72			0.00- 66.20	1.02	
* 62 Chlorobenzene-d5					CAS #: 3114-55-4			
21.108	21.085 (1.000)	117	838313	5.0			100.00	9993
21.108	21.085 (0.000)	82	122352			4.31- 104.31	14.60	
21.314	21.085 (1.000)	117	2748	5.0			100.00	6840(a)
21.314	21.085 (0.000)	82	4			4.31- 104.31	0.15	
21.452	21.085 (1.000)	117	640	5.0			100.00	8535
21.452	21.085 (0.000)	82	86			4.31- 104.31	13.44	

Data File: /chem/msdj.i/j-28may.b/j052805.d
Report Date: 28-May-1997 11:51

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
62 Chlorobenzene-d5 (continued)								
21.566	21.085 (1.000)	117	411	5.0			100.00	3755(Q)
21.566	21.085 (0.000)	82	196			4.31- 104.31	47.69	
$ 37 Octafluorotoluene					CAS #: 434-64-0			
16.241	16.225 (1.034)	217	573468	5.0	5.0		100.00	7518
16.241	16.225 (0.000)	186	109072			11.25- 111.25	19.02	
$ 50 Toluene-d8					CAS #: 2037-26-5			
19.048	19.040 (1.118)	98	741824	4.9	4.9		100.00	9950
19.048	19.040 (0.000)	70	25192			0.00- 62.04	3.40	
19.048	19.040 (0.000)	100	150528			18.00- 118.00	20.29	
$ 71 Bromofluorobenzene					CAS #: 460-00-4			
22.916	22.901 (1.086)	95	661361	4.9	4.9		100.00	8788
22.916	22.901 (0.000)	174	120032			26.98- 126.98	18.15	
22.916	22.901 (0.000)	176	116144			26.03- 126.03	17.56	
1 Propylene					CAS #: 115-07-1			
4.126	4.110 (0.263)	41	389	0.051	0.051		100.00	4628(aQ)
4.126	4.110 (0.000)	42	118			13.71- 113.71	30.33	
4.126	4.110 (0.000)	39	28			45.46- 145.46	7.20	
3.599	4.110 (0.229)	41	444	0.058	0.058		100.00	3190(aQ)
3.599	4.110 (0.000)	42	114			13.71- 113.71	25.68	
3.599	4.110 (0.000)	39	0			45.46- 145.46	0.00	
4.194	4.110 (0.267)	41	460	0.060	0.060		100.00	2792(aQ)
4.194	4.110 (0.000)	42	0			13.71- 113.71	0.00	
4.194	4.110 (0.000)	39	0			45.46- 145.46	0.00	
4.477	4.110 (0.285)	41	415	0.054	0.054		100.00	2792(aQ)
4.477	4.110 (0.000)	42	0			13.71- 113.71	0.00	
4.477	4.110 (0.000)	39	0			45.46- 145.46	0.00	
11 Ethanol					CAS #: 64-17-5			
11.923	11.816 (0.759)	45	386	0.059	0.059		100.00	(a)
0.000	11.816 (0.000)	46	0			0.00- 92.45	0.00	
11.915	11.816 (0.759)	43	149			0.00- 72.74	38.60	
21 Methylene Chloride					CAS #: 75-09-2			
13.311	13.280 (0.847)	84	2759	0.090	0.090		100.00	8353(a)
13.311	13.280 (0.000)	49	929			69.19- 169.19	33.67	
13.311	13.280 (0.000)	51	412			0.00- 87.41	14.93	
40 1,2-Dichloroethane					CAS #: 107-06-2			
17.042	16.584 (1.000)	62	25041	0.48	0.48		100.00	3426(Q)

Data File: /chem/msdj.i/j-28may.b/j052805.d
Report Date: 28-May-1997 11:51

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO	SIMILARITY
40 1,2-Dichloroethane (continued)									
17.042	16.584	(0.000)	64	7424			0.00- 82.83	29.65	

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-28may.b/j052805.d
Lab Smp Id: Client Smp ID: Lab Blank
Inj Date : 28-MAY-1997 11:20
Operator : MH Inst ID: msdj.i
Smp Info : 500mL Can#05364
Misc Info : Lab Blank
Comment :
Method : /chem/msdj.i/j-28may.b/to140527.m
Meth Date : 28-May-1997 11:39 mhe
Cal Date : 27-MAY-1997 20:22 Cal File: j052716.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

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/msdj.i/j-28may.b/j052805.d
Report Date: 28-May-1997 11:51

Air Toxics Limited

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdj.i
Lab File ID: j052805.d
Lab Smp Id:
Analysis Type: VOA
Quant Type: ISTD
Operator: MH
Method File: /chem/msdj.i/j-28may.b/to140527.m
Misc Info: Lab Blank

Calibration Date: 05/27/97
Calibration Time: 2022
Client Smp ID: Lab Blank
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	% DIFF
32 Bromochloromethane	171489	102893	240085	174030	1.48
42 1,4-Difluorobenzene	777990	466794	1089186	796135	2.33
62 Chlorobenzene-d5	851252	510751	1191753	838313	-1.52

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	% DIFF
32 Bromochloromethane	15.69	15.19	16.19	15.71	0.10
42 1,4-Difluorobenzene	17.03	16.53	17.53	17.04	0.09
62 Chlorobenzene-d5	21.09	20.59	21.59	21.11	0.11

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.

JMI
5/28/97

Air Toxics Limited

RECOVERY REPORT

Client Name:
Sample Matrix: GAS
Lab Smp Id:
Level: LOW
Data Type: MS DATA
SpikeList File:
Client SDG: j-28may
Fraction: VOA
Client Smp ID: Lab Blank--
Operator: MH
SampleType: SAMPLE
Quant Type: ISTD
Method File: /chem/msdj.i/j-28may.b/to140527.m
Misc Info: Lab Blank

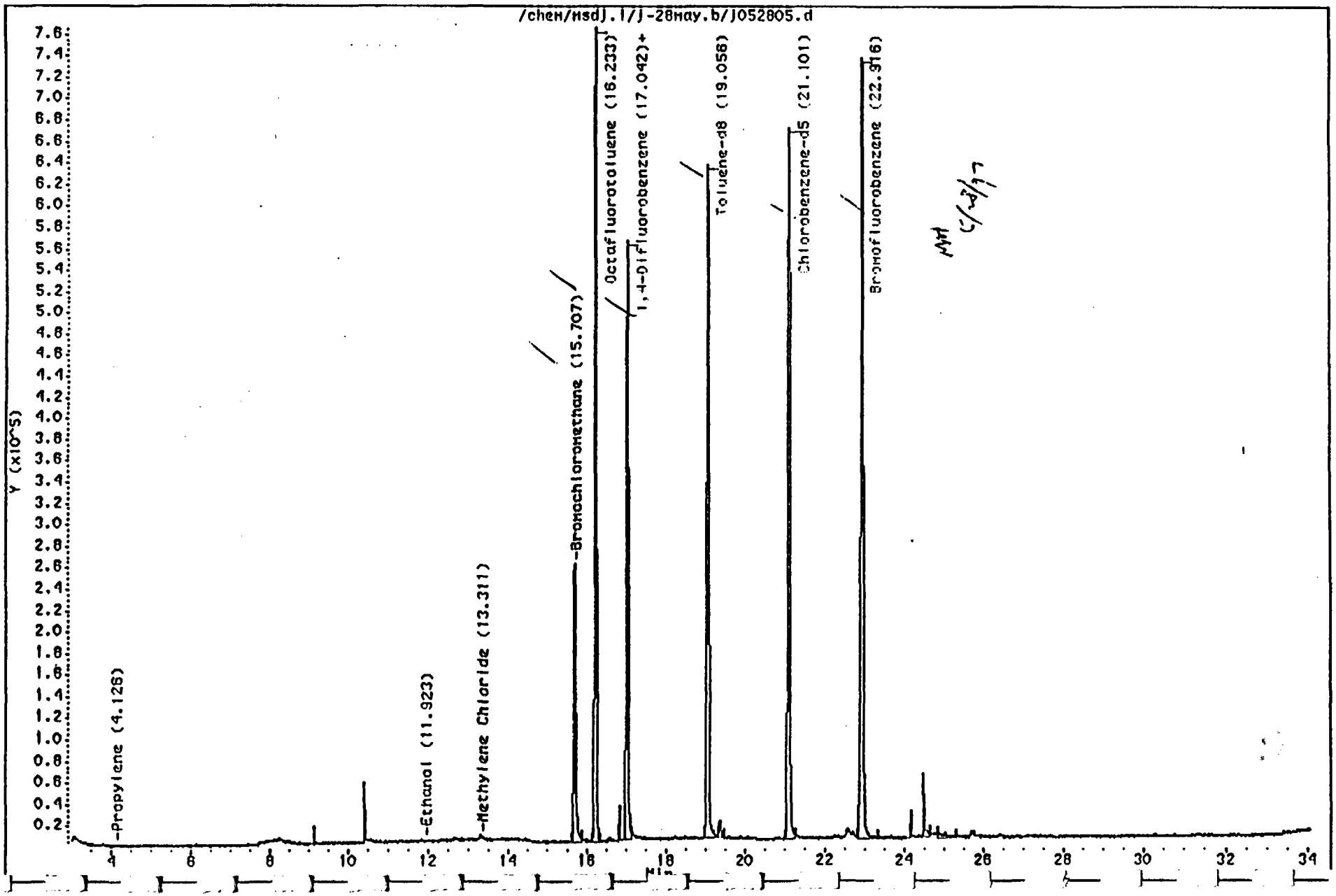
SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 37 Octafluorotoluene	5.0	5.0	99.90	60-140
$ 50 Toluene-d8	5.0	4.9	98.20	60-140
$ 71 Bromofluorobenzene	5.0	4.9	98.57	60-140

MH
5/28/97

Data File: /chem/msdj.i/j-28may.b/J052805.d
Date : 28-MAY-1997 11:20
Client ID: Lab Blank
Sample Info: 500mL CanH05364

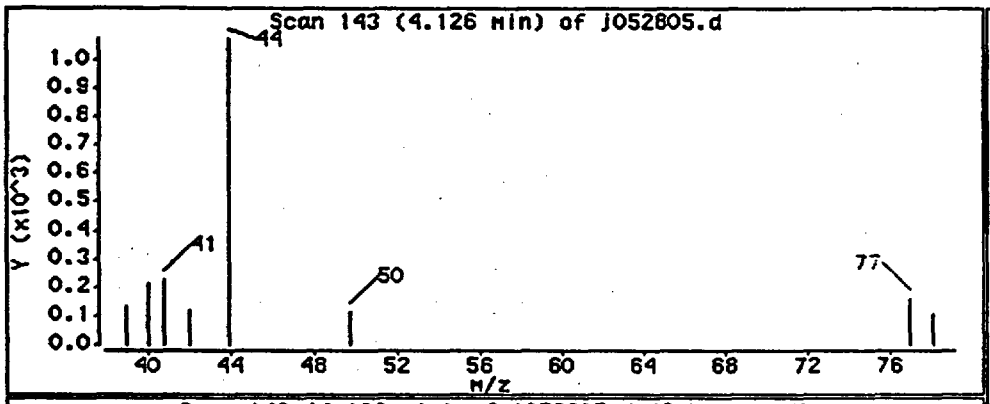
Instrument: msdj.i

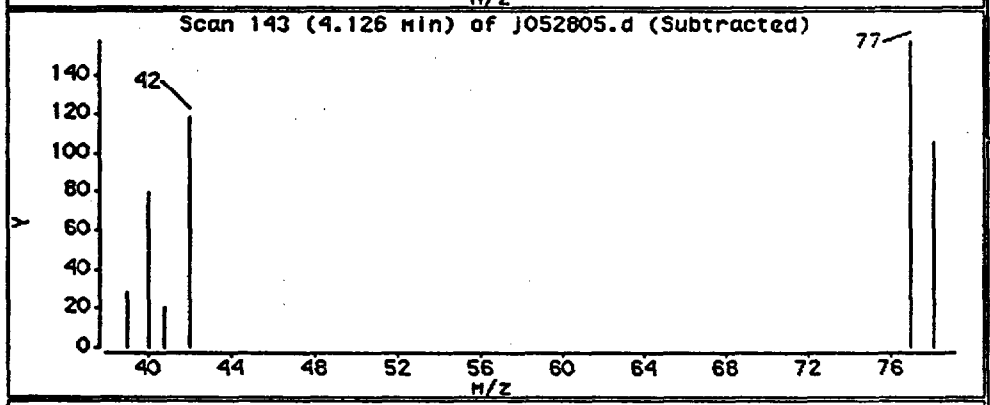
Operator: MH
Column phase: RTx-624
Column diameter: 0.58

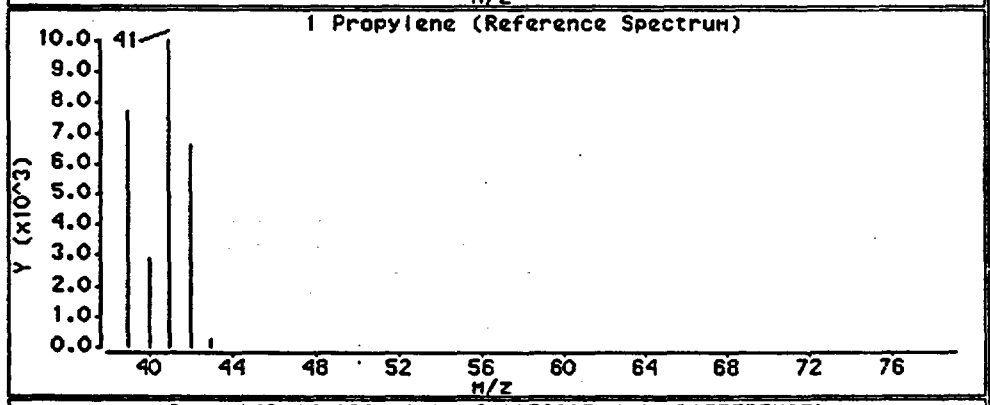


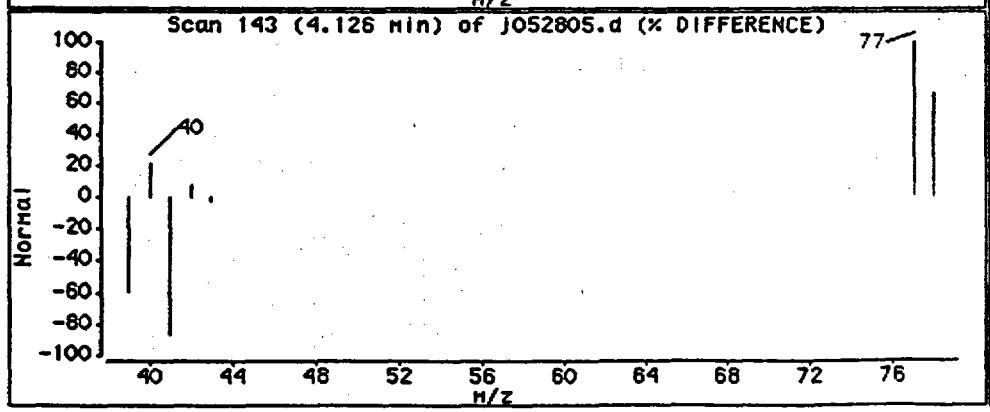
Data File: /chem/msdj.i/j-28may.b/j052805.d
Date : 28-MAY-1997 11:20
Client ID: Lab Blank
Instrument: msdj.i
Sample Info: 500mL Can#05364
Operator: MH
Column phase: RTx-624
Column diameter: 0.58

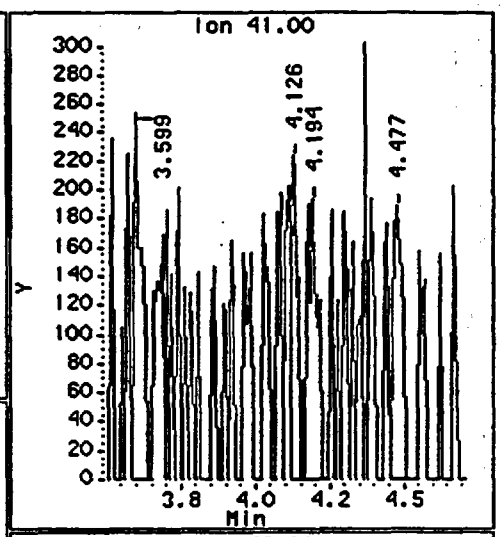
1 Propylene

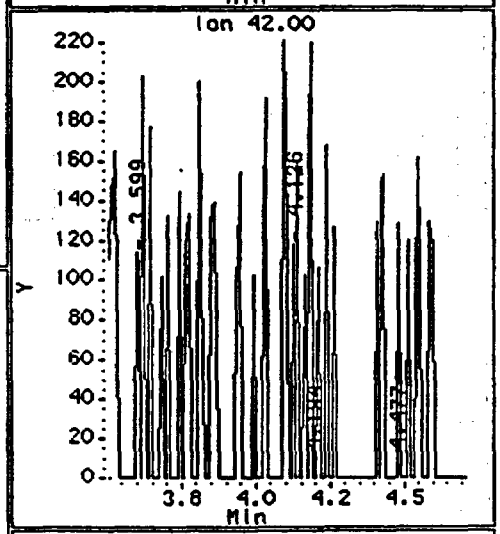


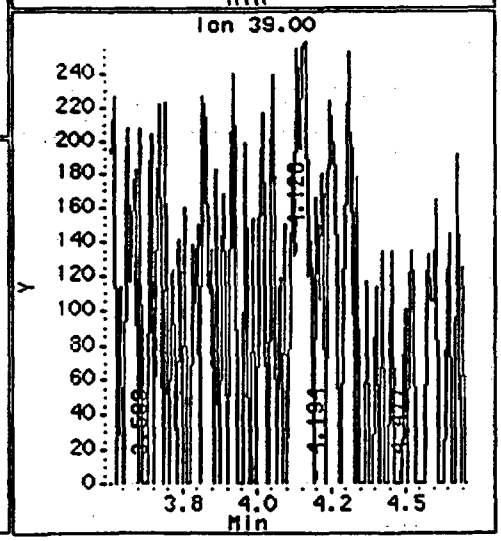












Data File: /chem/msdj.i/j-28may.b/j052805.d

Date : 28-MAY-1997 11:20

Client ID: Lab Blank

Instrument: msdj.i

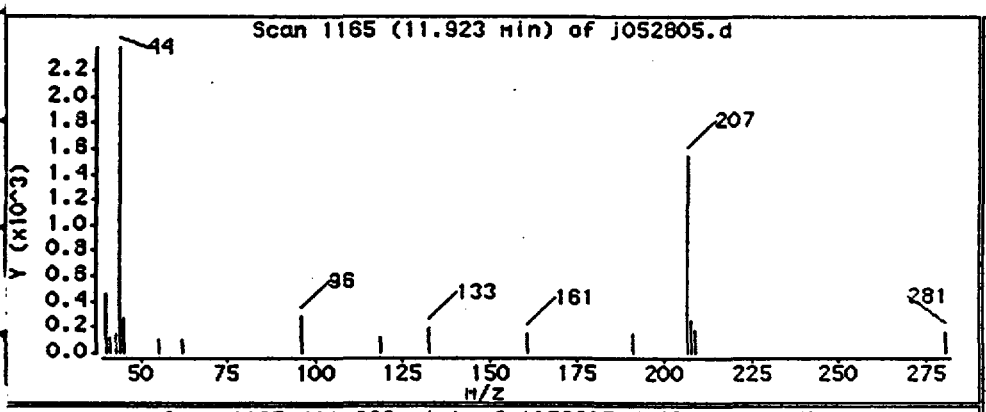
Sample Info: 500mL Can#05364

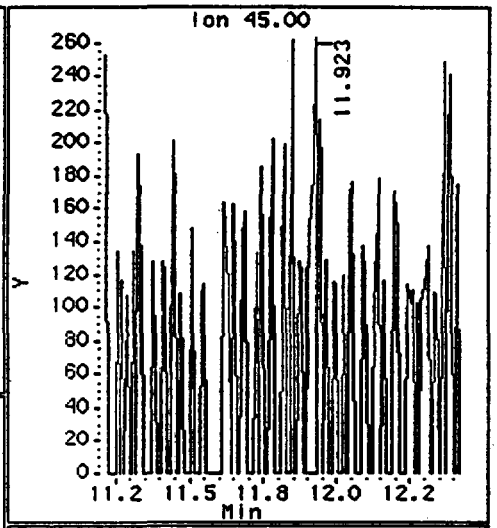
Operator: MH

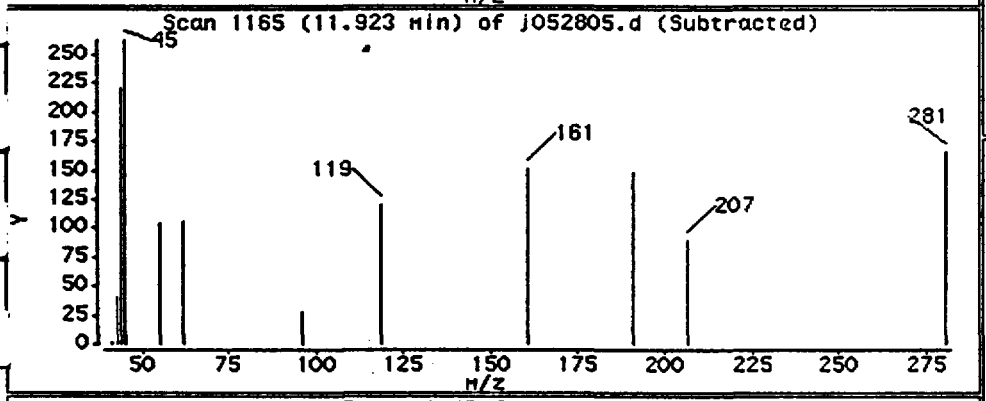
Column phase: RTx-624

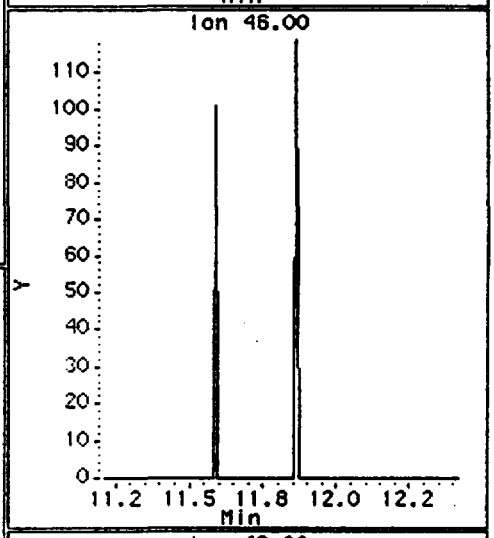
Column diameter: 0.58

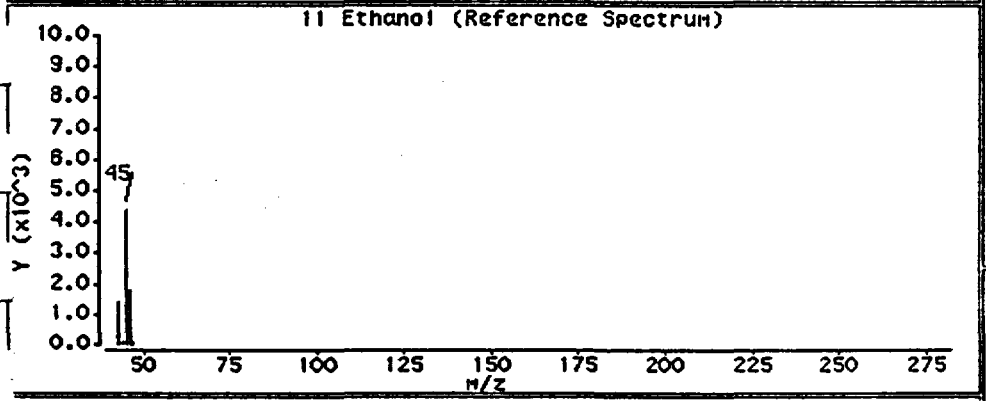
11 Ethanol

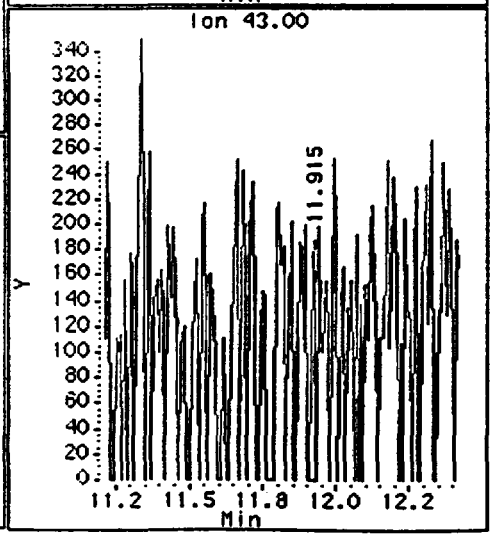


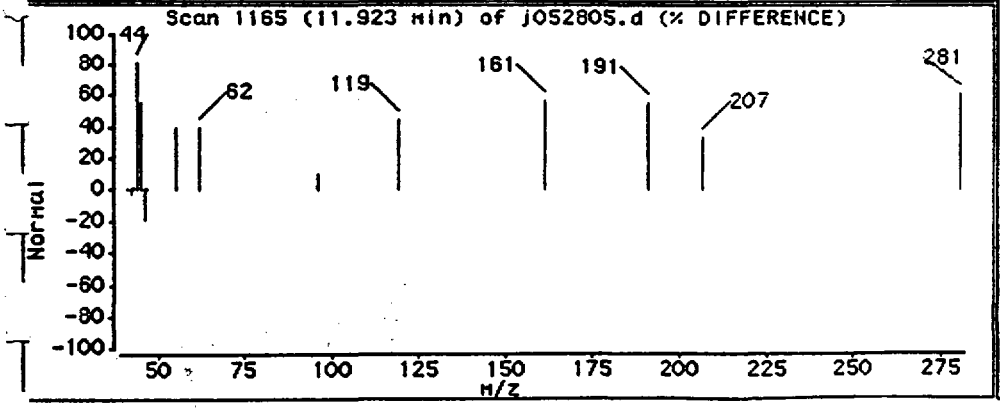












Data File: /chem/msdj.i/j-28may.b/j052805.d

Date : 28-MAY-1997 11:20

Client ID: Lab Blank

Instrument: msdj.i

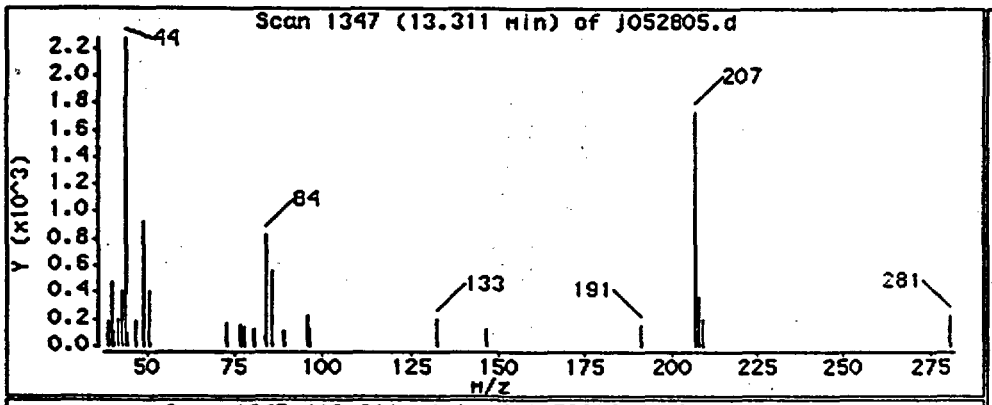
Sample Info: 500mL Can#05364

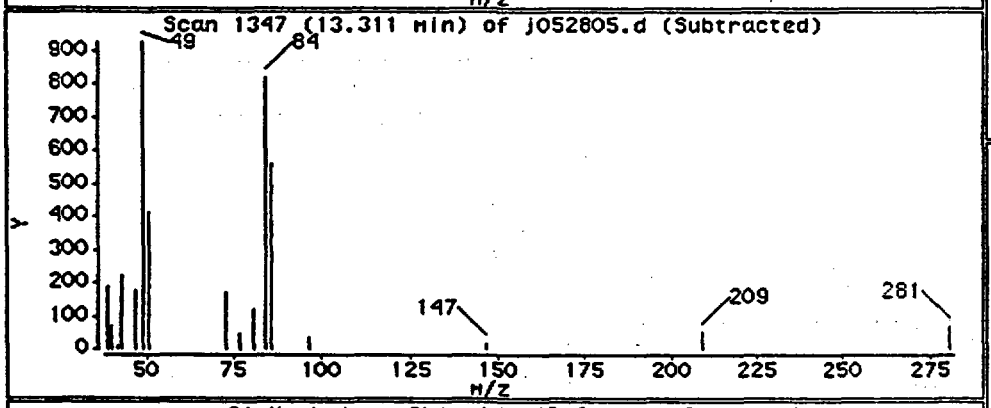
Operator: MH

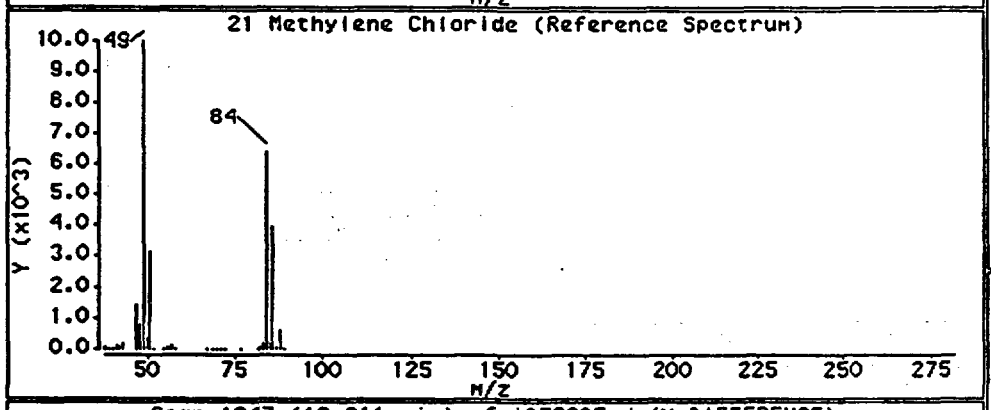
Column phase: RTx-624

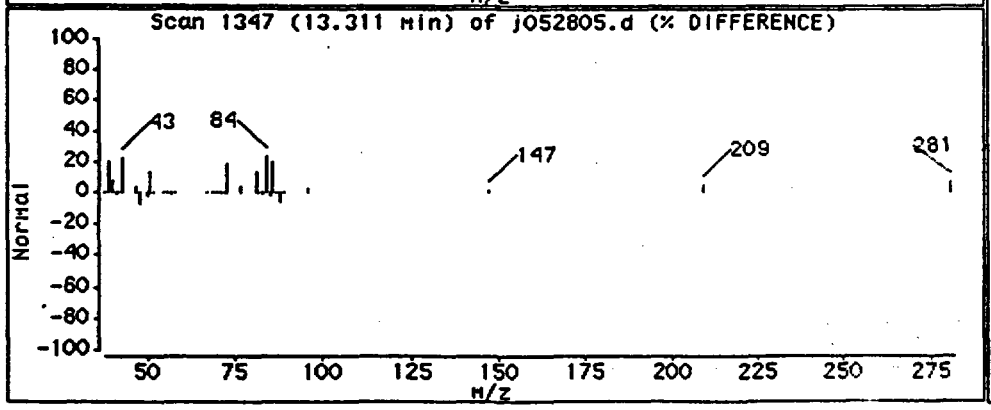
Column diameter: 0.58

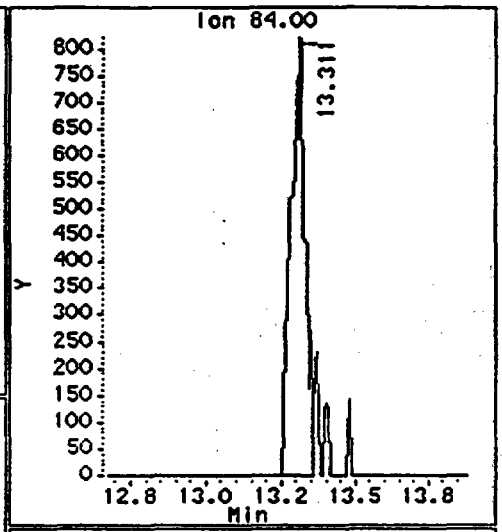
21 Methylene Chloride

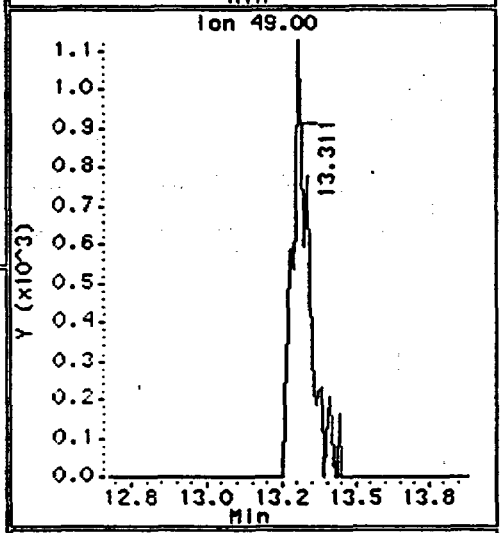


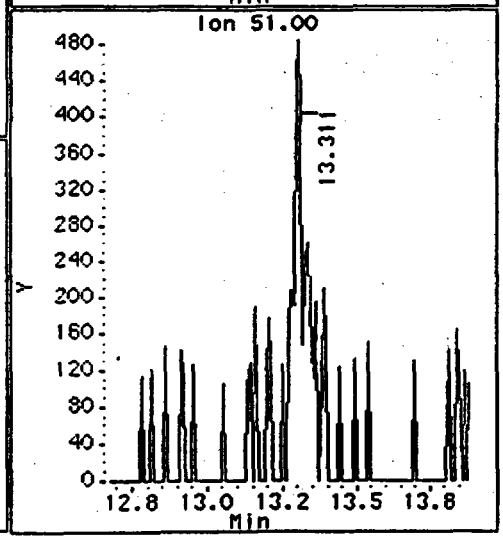












Data File: /chem/msdj.i/j-28may.b/j052805.d

Date : 28-MAY-1997 11:20

Client ID: Lab Blank

Instrument: msdj.i

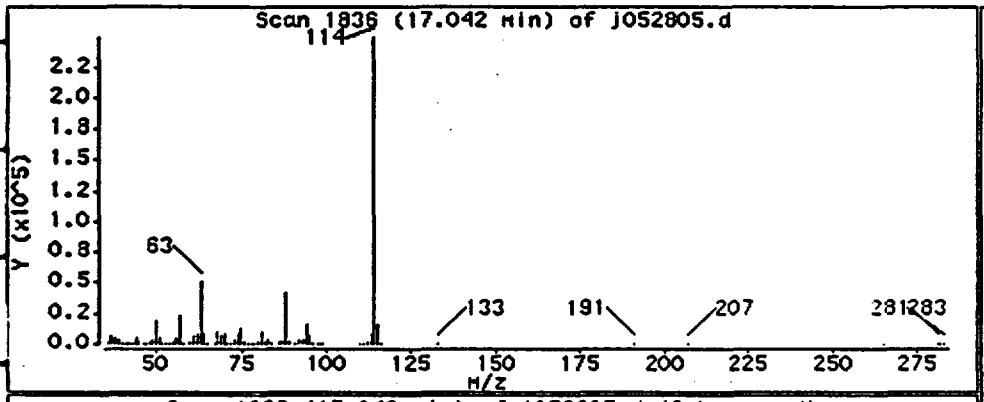
Sample Info: 500mL Can#05364

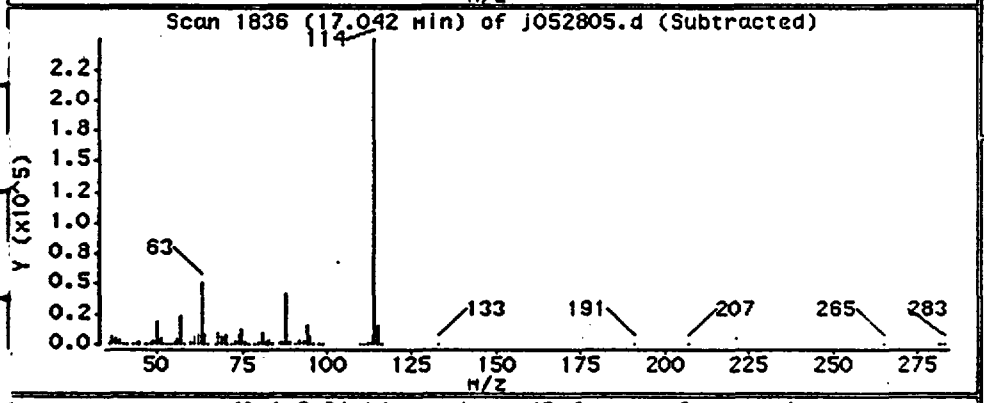
Operator: MH

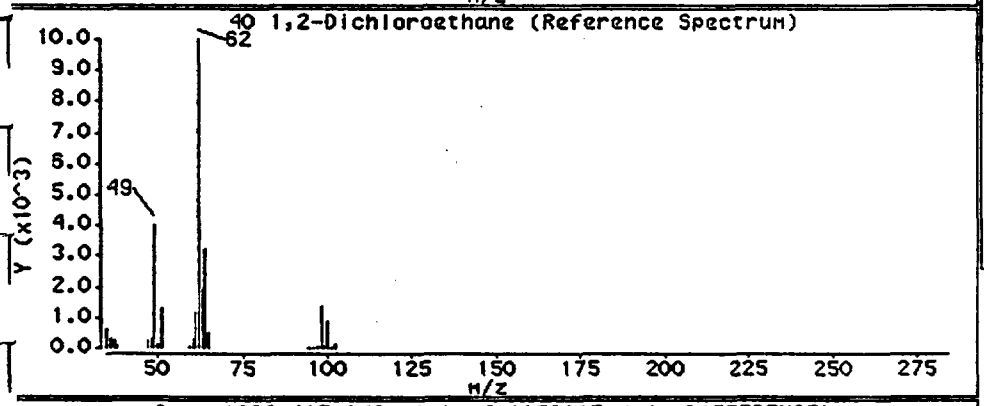
Column phase: RTx-624

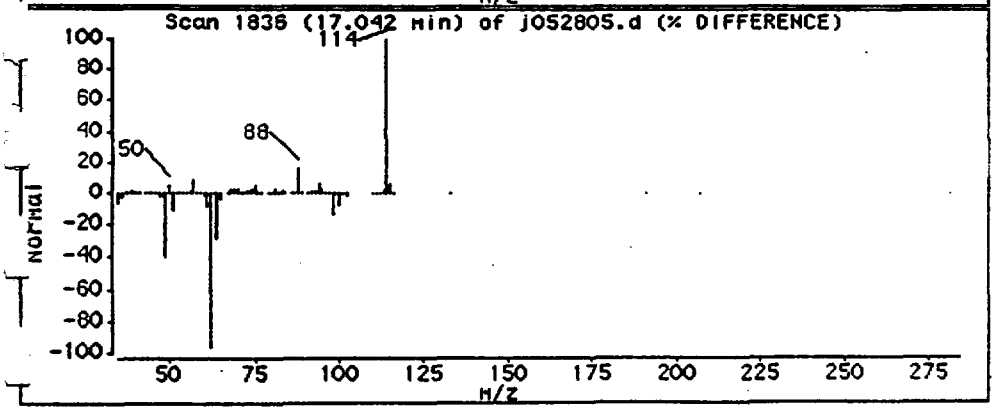
Column diameter: 0.58

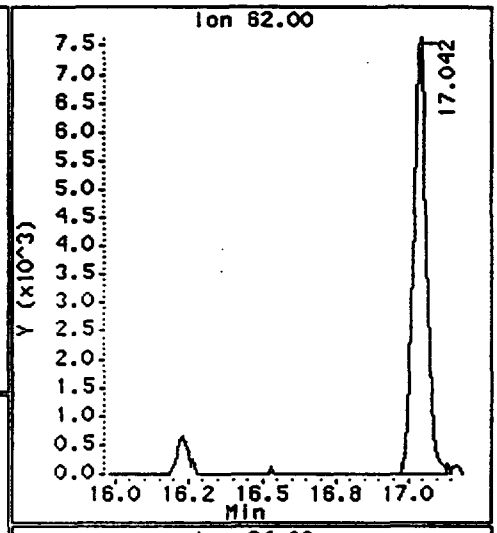
40 1,2-Dichloroethane

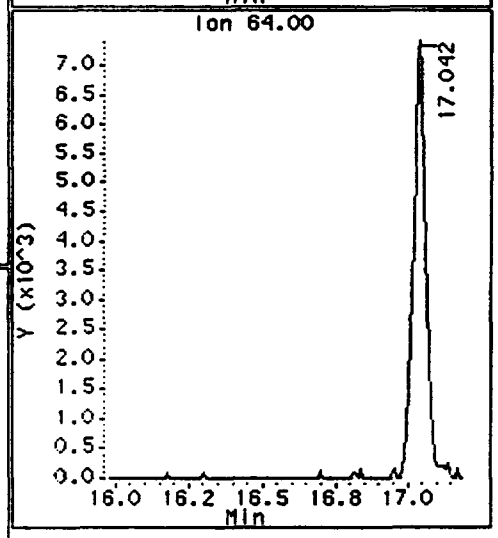












AIR TOXICS LTD.

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

№ 010141

Page 1 of 1

Contact Person: Barbara Dye
Company: Parsons ES
Address: 9966 Gulf Freeway City: Houston State: TX Zip: 77034
Phone: 713-943-5432 FAX: 713-943-5427
Collected By: Signature: [signature]

Project Info:
P.O. #: 727931-3004-00
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	051497U1	05-14-97 0730 1520	TO-14 See Att	-30	-9	9.5" Hg
02A	051497D1	05-14-97 0730 1530	TO-14 See ATT	-30	-8.5	9.5" Hg

SAD 5/16/97

Relinquished By: (Signature) Date/Time: [signature] 5-14-97 (1600) Print Name: Michael Steiner
Relinquished By: (Signature) Date/Time — Received By: (Signature) Date/Time
Relinquished By: (Signature) Date/Time — Received By: (Signature) Date/Time: [signature] 1200 5/15/97

Notes: Filters, gauges, flow controllers in another Fed-ex box

Lab Use Only	Shipper Name	Air Bill #	Opened By:	Date/Time	Temp. (°C)	Condition	Custody Seals Intact?	Work Order #
	FED. EX.	0370022446	TAS.	5/15/97 1200	AMBIENT	GOOD	(Yes) No None N/A	970517 7

Form 1293 rev. 06

@AIR TOXICS LTD.

0330

AN ENVIRONMENTAL ANALYTICAL LABORATORY

LOGIN INFORMATION

WORKORDER 9705177

Client			
Ms. Barbara Dye	Phone	Date Completed:	6/5/97
Parsons Engineering Science, Inc.	713-943-5432	Date Received:	5/15/97
9906 Gulf Freeway, Suite 100	FAX	PO#:	727931-3004-00
Houston, TX 77034	713-943-5427	Project#:	727931 Bailey
		Total $:	$470.00
		Logged By:	KNS

Fraction	Sample #	Analysis	Collected	Receipt Vac./Pres.	Amount$
01A	051497U1	TO-14-S	5/14/97	9.5 "Hg	$235.00
02A	051497D1	TO-14-S	5/14/97	9.5 "Hg	$235.00
03A	Lab Blank	TO-14-S	NA	NA	NC

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

Are there any receiving nonconformities? no

REMARKS

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

DILUTION FACTORS

$$\text{Dilution Factor} = \frac{\text{Final Pressure}}{\text{Initial Vacuum}} = \frac{\text{14.7 psi + Final Pressure (psi)}}{\text{14.7 psi - [(Initial Pressure ("Hg)) (14.7 psi / 30 "Hg)]}}$$

$$\text{Dilution Factor} = \frac{\text{Final Pressure}}{\text{Initial Pressure}} = \frac{\text{14.7 psi + Final Pressure (psi)}}{\text{14.7 psi + Initial Pressure (psi)}}$$

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