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Mr. David P. Turner, RPM (3HS22)
Western PA Section
United States Environmental Protection Agency, Region 3
1650 Arch Street
Philadelphia, PA 19103-2029

November 14, 2011

Reference: LORD-Shope RA Monthly Progress Report

Dear Mr. Turner:

LORD is hereby submitting two copies of the monthly progress report for the period of October 1, 2011 through October 31, 2011.

The following work was conducted during this period:

REMEDIAL ACTION

NPDES Report:

The September report will be submitted under a separate cover.

Thermal Oxidizer:

The thermal oxidizer which was shut down as scheduled on July 27, 2011, was started up again on August 31, 2011 for planned September-October operation. ISVS influent was 118.4 ppm with 99% removal during October. The thermal oxidizer was shut down as planned on October 26th.

Groundwater Treatment:

The groundwater treatment system was operating normally during this interim.

The groundwater TOC effluent concentration was 1.8 mg/l.

Sincerely,

LORD Corporation

George M. Kickel
Director, Environment, Safety, Health, and Regulatory Compliance

GMK11023/cmf

cc: (b) (4) [redacted] ARCADIS, Inc.
John Morettini, PADEP

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TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

PROJECT NO. 2

LORD Shope

Lot #: H1J070441

(b) (4) [redacted]

ARCADIS U.S., Inc.
284 Cramer Creek Court
Dublin, OH 43017

TESTAMERICA LABORATORIES, INC.

(b) (4) [redacted]

October 20, 2011

ANALYTICAL METHODS SUMMARY

H1J070441

PARAMETER	ANALYTICAL METHOD
Method for Analysis of Reformed Gas by GC	ASTM D 1946/E 260
Volatile Organics by TO15	EPA-2 TO-15

References:

ASTM Annual Book Of ASTM Standards.

EPA-2 "Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air", EPA-625/R-96/010b, January 1999.

SAMPLE SUMMARY

H1J070441

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
MM2MV	001	TOI/100511	10/05/11	11:25
MM2MW	002	TOE/100511	10/05/11	11:40

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

PROJECT NARRATIVE
H1J070441

The results reported herein are applicable to the samples submitted for analysis only. If you have any questions about this report, please call (865) 291-3000 to speak with the TestAmerica project manager listed on the cover page.

This report shall not be reproduced except in full, without the written approval of the laboratory.

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

Sample Receipt

Custody seals were not present.

Quality Control and Data Interpretation

Unless otherwise noted, all holding times and QC criteria were met and the test results shown in this report meet all applicable NELAC requirements.

Volatiles

EPA methods TO-14A and TO-15 specify the use of humidified "zero air" as the blank reagent for canister cleaning, instrument calibration and sample analysis. Ultra-high purity humidified nitrogen from a cryogenic reservoir is used in place of "zero air" by TestAmerica Knoxville.

The EPA method requires that all target analytes in the continuing calibration verification standard be within 30% difference from the initial calibration. According to the laboratory standard operating procedure, the continuing calibration is acceptable if it meets the laboratory control sample acceptance criteria. Even though the calibration verification analyzed on 10/10/11 exhibited a % difference of > 30% for 1,4-dioxane and 2-hexanone, the results were within the LCS acceptance limits.

There is a significant contribution from an interfering non-target analyte to the quantitation of propene in sample TOI/100511. Therefore, the propene results are biased high and should be considered estimated. The result is flagged with "EST".

CERTIFICATION SUMMARY

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Knoxville	ACLASS	DoD ELAP		ADE-1434
TestAmerica Knoxville	Arkansas	State Program	6	88-0688
TestAmerica Knoxville	California	State Program	9	2423
TestAmerica Knoxville	Colorado	State Program	8	N/A
TestAmerica Knoxville	Connecticut	State Program	1	PH-0223
TestAmerica Knoxville	Florida	NELAC	4	E87177
TestAmerica Knoxville	Georgia	State Program	4	906
TestAmerica Knoxville	Hawaii	State Program	9	N/A
TestAmerica Knoxville	Indiana	State Program	5	C-TN-02
TestAmerica Knoxville	Iowa	State Program	7	375
TestAmerica Knoxville	Kansas	NELAC	7	E-10349
TestAmerica Knoxville	Kentucky	State Program	4	90101
TestAmerica Knoxville	Louisiana	NELAC	6	LA110001
TestAmerica Knoxville	Louisiana	NELAC	6	83979
TestAmerica Knoxville	Maryland	State Program	3	277
TestAmerica Knoxville	Michigan	State Program	5	9933
TestAmerica Knoxville	Minnesota	NELAC	5	047-999-429
TestAmerica Knoxville	Nevada	State Program	9	TN00009
TestAmerica Knoxville	New Jersey	NELAC	2	TN001
TestAmerica Knoxville	New York	NELAC	2	10781
TestAmerica Knoxville	North Carolina	North Carolina DENR	4	64
TestAmerica Knoxville	North Carolina	North Carolina PHL	4	21705
TestAmerica Knoxville	Ohio	OVAP	5	CL0059
TestAmerica Knoxville	Oklahoma	State Program	6	9415
TestAmerica Knoxville	Pennsylvania	NELAC	3	68-00576
TestAmerica Knoxville	South Carolina	State Program	4	84001
TestAmerica Knoxville	Tennessee	State Program	4	2014
TestAmerica Knoxville	Texas	NELAC	6	T104704380-TX
TestAmerica Knoxville	USDA	USDA		P330-11-00035
TestAmerica Knoxville	Utah	NELAC	8	QUAN3
TestAmerica Knoxville	Virginia	State Program	3	165
TestAmerica Knoxville	Washington	State Program	10	C593
TestAmerica Knoxville	West Virginia	West Virginia DEP	3	345
TestAmerica Knoxville	West Virginia	West Virginia DHHR (DW)	3	9955C
TestAmerica Knoxville	Wisconsin	State Program	5	998044300

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Sample Data Summary

ARCADIS U.S., Inc.

Client Sample ID: TOI/100511

GC/MS Volatiles

Lot-Sample # H1J070441 - 001 **Work Order #** MM2MV1AA **Matrix.....:** AIR

Date Sampled...: 10/05/2011 **Date Received..:** 10/07/2011
Prep Date.....: 10/10/2011 **Analysis Date...** 10/11/2011
Prep Batch #.....: 1283176
Dilution Factor.: 2474.98 **Method.....:** TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
trans-1,3-Dichloropropene	ND	490	ND	2200
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	490	ND	3500
Acetone	ND	12000	ND	29000
1,4-Dioxane	ND	1200	ND	4500
Ethyl acetate	ND	4900	ND	18000
Ethylbenzene	ND	490	ND	2100
Trichlorofluoromethane	ND	490	ND	2800
n-Heptane	ND	1200	ND	5100
Hexachlorobutadiene	ND	2500	ND	26000
n-Hexane	**270 J**	**1200**	**940 J**	**4400**
2-Hexanone	ND	1200	ND	5100
2,2,4-Trimethylpentane	ND	1200	ND	5800
Cumene	ND	990	ND	4900
tert-Butyl alcohol	ND	4900	ND	15000
Methylene chloride	**1600 B**	**1200**	**5700 B**	**4300**
Methyl methacrylate	ND	1200	ND	5100
Benzene	**140 J**	**490**	**440 J**	**1600**
Acetonitrile	ND	2500	ND	4200
n-Octane	ND	990	ND	4600
Pentane	**230 J**	**2500**	**670 J**	**7300**
Styrene	ND	490	ND	2100
1,1,2,2-Tetrachloroethane	ND	490	ND	3400
Tetrachloroethene	**9200**	**490**	**62000**	**3400**
Toluene	**220 J**	**490**	**830 J**	**1900**
1,2,4-Trichlorobenzene	ND	2500	ND	18000
1,1,1-Trichloroethane	**190 J**	**490**	**1000 J**	**2700**
1,1,2-Trichloroethane	ND	490	ND	2700
Trichloroethene	**24000**	**490**	**130000**	**2700**
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	490	ND	3800
1,2,4-Trimethylbenzene	ND	490	ND	2400
1,3,5-Trimethylbenzene	ND	490	ND	2400
Vinyl acetate	ND	2500	ND	8700
Vinyl chloride	**25000**	**490**	**64000**	**1300**
o-Xylene	**310 J**	**490**	**1300 J**	**2100**
Methyl tert-butyl ether	ND	2500	ND	8900
alpha-Methylstyrene	ND	990	ND	4800
Chlorodifluoromethane	**220 J**	**490**	**790 J**	**1800**
m-Xylene & p-Xylene	**440 J**	**490**	**1900 J**	**2100**

ARCADIS U.S., Inc.

Client Sample ID: TOI/100511

GC/MS Volatiles

Lot-Sample # H1J070441 - 001 **Work Order #** MM2MV1AA **Matrix.....:** AIR

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Bromodichloromethane	ND	490	ND	3300
1,2-Dibromoethane (EDB)	ND	490	ND	3800
2-Butanone (MEK)	ND	2500	ND	7300
4-Methyl-2-pentanone (MIBK)	ND	1200	ND	5100
Bromoform	ND	490	ND	5100
Bromomethane	ND	490	ND	1900
1,3-Butadiene	ND	990	ND	2200
4-Ethyltoluene	ND	990	ND	4900
Acrolein	ND	2000	ND	4500
Carbon disulfide	**620 J**	**1200**	**1900 J**	**3900**
Acrylonitrile	ND	4900	ND	11000
Carbon tetrachloride	ND	490	ND	3100
Chlorobenzene	ND	490	ND	2300
Dibromochloromethane	ND	490	ND	4200
Chloroethane	ND	490	ND	1300
Chloroform	**270 J**	**490**	**1300 J**	**2400**
Chloromethane	ND	1200	ND	2600
3-Chloropropene	ND	490	ND	1500
Propene	**670 J est**	**1200**	**1200 J est**	**2100**
Dibromomethane	ND	990	ND	7000
1,2-Dichlorobenzene	ND	490	ND	3000
1,3-Dichlorobenzene	ND	490	ND	3000
1,4-Dichlorobenzene	ND	490	ND	3000
Dichlorodifluoromethane	ND	490	ND	2400
1,1-Dichloroethane	**170 J**	**490**	**700 J**	**2000**
1,2-Dichloroethane	ND	490	ND	2000
1,1-Dichloroethene	**430 J**	**490**	**1700 J**	**2000**
cis-1,2-Dichloroethene	**54000**	**490**	**210000**	**2000**
trans-1,2-Dichloroethene	**350 J**	**490**	**1400 J**	**2000**
1,2-Dichloropropane	ND	490	ND	2300
cis-1,3-Dichloropropene	ND	490	ND	2200

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	99	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
est	Estimated value. See narrative for details.
J	Estimated result. Result is less than RL.

ARCADIS U.S., Inc.

Client Sample ID: TOI/100511

GC/MS Volatiles

Lot-Sample # H1J070441 - 001 Work Order # MM2MV1AA Matrix.....: AIR

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

ARCADIS U.S., Inc.

Client Sample ID: TOE/100511

GC/MS Volatiles

Lot-Sample # H1J070441 - 002 **Work Order #** MM2MW1AA **Matrix.....:** AIR

Date Sampled...: 10/05/2011 **Date Received..:** 10/07/2011
Prep Date.....: 10/10/2011 **Analysis Date...** 10/10/2011
Prep Batch #.....: 1283176
Dilution Factor.: 1 **Method.....:** TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
trans-1,3-Dichloropropene	ND	0.20	ND	0.91
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.20	ND	1.4
Acetone	**17**	**5.0**	**41**	**12**
1,4-Dioxane	ND	0.50	ND	1.8
Ethyl acetate	**ND**	**2.0**	**ND**	**7.2**
Ethylbenzene	**0.13 J**	**0.20**	**0.58 J**	**0.87**
Trichlorofluoromethane	ND	0.20	ND	1.1
n-Heptane	**0.11 J**	**0.50**	**0.46 J**	**2.0**
Hexachlorobutadiene	ND	1.0	ND	11
n-Hexane	**0.074 J**	**0.50**	**0.26 J**	**1.8**
2-Hexanone	**1.8**	**0.50**	**7.4**	**2.0**
2,2,4-Trimethylpentane	ND	0.50	ND	2.3
Cumene	ND	0.40	ND	2.0
tert-Butyl alcohol	**4.2**	**2.0**	**13**	**6.1**
Methylene chloride	**0.67 B**	**0.50**	**2.3 B**	**1.7**
Methyl methacrylate	ND	0.50	ND	2.0
Benzene	ND	0.20	ND	0.64
Acetonitrile	**0.28 J**	**1.0**	**0.47 J**	**1.7**
n-Octane	**0.10 J**	**0.40**	**0.48 J**	**1.9**
Pentane	ND	1.0	ND	3.0
Styrene	ND	0.20	ND	0.85
1,1,2,2-Tetrachloroethane	ND	0.20	ND	1.4
Tetrachloroethene	**0.26**	**0.20**	**1.8**	**1.4**
Toluene	**0.70**	**0.20**	**2.6**	**0.75**
1,2,4-Trichlorobenzene	ND	1.0	ND	7.4
1,1,1-Trichloroethane	ND	0.20	ND	1.1
1,1,2-Trichloroethane	ND	0.20	ND	1.1
Trichloroethene	**0.54**	**0.20**	**2.9**	**1.1**
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	0.20	ND	1.5
1,2,4-Trimethylbenzene	**0.23**	**0.20**	**1.1**	**0.98**
1,3,5-Trimethylbenzene	**0.093 J**	**0.20**	**0.46 J**	**0.98**
Vinyl acetate	ND	1.0	ND	3.5
Vinyl chloride	**0.15 J**	**0.20**	**0.39 J**	**0.51**
o-Xylene	**0.31**	**0.20**	**1.3**	**0.87**
Methyl tert-butyl ether	ND	1.0	ND	3.6
alpha-Methylstyrene	ND	0.40	ND	1.9
Chlorodifluoromethane	**0.063 J**	**0.20**	**0.22 J**	**0.71**
m-Xylene & p-Xylene	**0.58**	**0.20**	**2.5**	**0.87**

ARCADIS U.S., Inc.

Client Sample ID: TOE/100511

GC/MS Volatiles

Lot-Sample # H1J070441 - 002 **Work Order #** MM2MW1AA **Matrix.....:** AIR

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Bromodichloromethane	ND	0.20	ND	1.3
1,2-Dibromoethane (EDB)	ND	0.20	ND	1.5
2-Butanone (MEK)	**2.8**	**1.0**	**8.2**	**2.9**
4-Methyl-2-pentanone (MIBK)	**1.1**	**0.50**	**4.4**	**2.0**
Bromoform	ND	0.20	ND	2.1
Bromomethane	ND	0.20	ND	0.78
1,3-Butadiene	ND	0.40	ND	0.88
4-Ethyltoluene	**0.13 J**	**0.40**	**0.63 J**	**2.0**
Acrolein	**0.73 J**	**0.80**	**1.7 J**	**1.8**
Carbon disulfide	**0.33 J**	**0.50**	**1.0 J**	**1.6**
Acrylonitrile	ND	2.0	ND	4.3
Carbon tetrachloride	ND	0.20	ND	1.3
Chlorobenzene	ND	0.20	ND	0.92
Dibromochloromethane	ND	0.20	ND	1.7
Chloroethane	**0.065 J**	**0.20**	**0.17 J**	**0.53**
Chloroform	**0.060 J**	**0.20**	**0.29 J**	**0.98**
Chloromethane	**0.39 J**	**0.50**	**0.81 J**	**1.0**
3-Chloropropene	ND	0.20	ND	0.63
Propene	**0.14 J**	**0.50**	**0.24 J**	**0.86**
Dibromomethane	ND	0.40	ND	2.8
1,2-Dichlorobenzene	ND	0.20	ND	1.2
1,3-Dichlorobenzene	ND	0.20	ND	1.2
1,4-Dichlorobenzene	ND	0.20	ND	1.2
Dichlorodifluoromethane	ND	0.20	ND	0.99
1,1-Dichloroethane	ND	0.20	ND	0.81
1,2-Dichloroethane	ND	0.20	ND	0.81
1,1-Dichloroethene	ND	0.20	ND	0.79
cis-1,2-Dichloroethene	**0.95**	**0.20**	**3.8**	**0.79**
trans-1,2-Dichloroethene	ND	0.20	ND	0.79
1,2-Dichloropropane	ND	0.20	ND	0.92
cis-1,3-Dichloropropene	ND	0.20	ND	0.91

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	98	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated result. Result is less than RL.

ARCADIS U.S., Inc.

Client Sample ID: TOE/100511

GC/MS Volatiles

Lot-Sample # H1J070441 - 002 Work Order # MM2MW1AA Matrix.....: AIR

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

ARCADIS U.S., Inc.

Client Sample ID: INTRA-LAB BLANK

GC/MS Volatiles

Lot-Sample # H1J100000 - 176B **Work Order #** MM3TQ1AA **Matrix.....:** AIR

	10/05/2011	**Date Received..:**	10/06/2011
Prep Date.....:	10/10/2011	**Analysis Date...**	10/10/2011
Prep Batch #.....:	1283176		
Dilution Factor.:	1	**Method.....:**	TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
trans-1,3-Dichloropropene	ND	0.20	ND	0.91
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.20	ND	1.4
Acetone	ND	5.0	ND	12
1,4-Dioxane	ND	0.50	ND	1.8
Ethyl acetate	ND	2.0	ND	7.2
Ethylbenzene	ND	0.20	ND	0.87
Trichlorofluoromethane	ND	0.20	ND	1.1
n-Heptane	ND	0.50	ND	2.0
Hexachlorobutadiene	ND	1.0	ND	11
n-Hexane	ND	0.50	ND	1.8
2-Hexanone	ND	0.50	ND	2.0
2,2,4-Trimethylpentane	ND	0.50	ND	2.3
Cumene	ND	0.40	ND	2.0
tert-Butyl alcohol	ND	2.0	ND	6.1
Methylene chloride	**0.048 J**	**0.50**	**0.17 J**	**1.7**
Methyl methacrylate	ND	0.50	ND	2.0
Benzene	ND	0.20	ND	0.64
Acetonitrile	ND	1.0	ND	1.7
n-Octane	ND	0.40	ND	1.9
Pentane	ND	1.0	ND	3.0
Styrene	ND	0.20	ND	0.85
1,1,2,2-Tetrachloroethane	ND	0.20	ND	1.4
Tetrachloroethene	ND	0.20	ND	1.4
Toluene	ND	0.20	ND	0.75
1,2,4-Trichlorobenzene	ND	1.0	ND	7.4
1,1,1-Trichloroethane	ND	0.20	ND	1.1
1,1,2-Trichloroethane	ND	0.20	ND	1.1
Trichloroethene	ND	0.20	ND	1.1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	0.20	ND	1.5
1,2,4-Trimethylbenzene	ND	0.20	ND	0.98
1,3,5-Trimethylbenzene	ND	0.20	ND	0.98
Vinyl acetate	ND	1.0	ND	3.5
Vinyl chloride	ND	0.20	ND	0.51
o-Xylene	ND	0.20	ND	0.87
Methyl tert-butyl ether	ND	1.0	ND	3.6
alpha-Methylstyrene	ND	0.40	ND	1.9
Chlorodifluoromethane	ND	0.20	ND	0.71

ARCADIS U.S., Inc.

Client Sample ID: INTRA-LAB BLANK

GC/MS Volatiles

Lot-Sample # H1J100000 - 176B **Work Order #** MM3TQ1AA **Matrix.....:** AIR

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
m-Xylene & p-Xylene	ND	0.20	ND	0.87
Bromodichloromethane	ND	0.20	ND	1.3
1,2-Dibromoethane (EDB)	ND	0.20	ND	1.5
2-Butanone (MEK)	ND	1.0	ND	2.9
4-Methyl-2-pentanone (MIBK)	ND	0.50	ND	2.0
Bromoform	ND	0.20	ND	2.1
Bromomethane	ND	0.20	ND	0.78
1,3-Butadiene	ND	0.40	ND	0.88
4-Ethyltoluene	ND	0.40	ND	2.0
Acrolein	ND	0.80	ND	1.8
Carbon disulfide	ND	0.50	ND	1.6
Acrylonitrile	ND	2.0	ND	4.3
Carbon tetrachloride	ND	0.20	ND	1.3
Chlorobenzene	ND	0.20	ND	0.92
Dibromochloromethane	ND	0.20	ND	1.7
Chloroethane	ND	0.20	ND	0.53
Chloroform	ND	0.20	ND	0.98
Chloromethane	ND	0.50	ND	1.0
3-Chloropropene	ND	0.20	ND	0.63
Propene	ND	0.50	ND	0.86
Dibromomethane	ND	0.40	ND	2.8
1,2-Dichlorobenzene	ND	0.20	ND	1.2
1,3-Dichlorobenzene	ND	0.20	ND	1.2
1,4-Dichlorobenzene	ND	0.20	ND	1.2
Dichlorodifluoromethane	ND	0.20	ND	0.99
1,1-Dichloroethane	ND	0.20	ND	0.81
1,2-Dichloroethane	ND	0.20	ND	0.81
1,1-Dichloroethene	ND	0.20	ND	0.79
cis-1,2-Dichloroethene	ND	0.20	ND	0.79
trans-1,2-Dichloroethene	ND	0.20	ND	0.79
1,2-Dichloropropane	ND	0.20	ND	0.92
cis-1,3-Dichloropropene	ND	0.20	ND	0.91

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	92	60 - 140

Qualifiers

J Estimated result. Result is less than RL.

ARCADIS U.S., Inc.

Client Sample ID: INTRA-LAB BLANK

GC/MS Volatiles

Lot-Sample # H1J100000 - 176B Work Order # MM3TQ1AA Matrix.....: AIR

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

ARCADIS U.S., Inc.

Client Sample ID: CHECK SAMPLE

GC/MS Volatiles

Lot-Sample # H1J100000 - 176C **Work Order #** MM3TQ1AC **Matrix.....:** AIR

	10/05/2011	**Date Received..:**	10/06/2011
Prep Date.....:	10/10/2011	**Analysis Date...**	10/10/2011
Prep Batch #.....:	1283176		
Dilution Factor.:	1	**Method.....:**	TO-15

PARAMETER	SPIKE AMOUNT (ppb(v/v))	MEASURED AMOUNT (ppb(v/v))	SPIKE AMOUNT (ug/m3)	MEASURED AMOUNT (ug/m3)	PERCENT RECOVERY	RECOVERY LIMITS
trans-1,3-Dichloropropene	5.00	4.61	23	20.9	92	70 - 130
1,2-Dichloro-1,1,2,2-tetrafluoroethane	5.00	4.53	35	31.6	91	60 - 140
Acetone	5.00	3.95	12	9.39	79	60 - 140
1,4-Dioxane	5.00	3.47	18	12.5	69	60 - 140
Ethyl acetate	5.00	4.06	18	14.6	81	60 - 140
Ethylbenzene	5.00	4.25	22	18.5	85	70 - 130
Trichlorofluoromethane	5.00	4.85	28	27.2	97	60 - 140
n-Heptane	5.00	3.93	20	16.1	79	70 - 130
Hexachlorobutadiene	5.00	4.39	53	46.8	88	60 - 140
n-Hexane	5.00	4.29	18	15.1	86	70 - 130
2-Hexanone	5.00	3.47	20	14.2	69	60 - 140
2,2,4-Trimethylpentane	5.00	4.05	23	18.9	81	70 - 130
Cumene	5.00	3.99	25	19.6	80	70 - 130
tert-Butyl alcohol	5.00	3.62	15	11.0	72	60 - 140
Methylene chloride	5.00	4.87	17	16.9	97	70 - 130
Methyl methacrylate	5.00	3.86	20	15.8	77	60 - 140
Benzene	5.00	4.41	16	14.1	88	70 - 130
Acetonitrile	5.00	4.02	8.4	6.74	80	60 - 140
n-Octane	5.00	4.02	23	18.8	80	70 - 130
Pentane	5.00	4.32	15	12.7	86	70 - 130
Styrene	5.00	4.14	21	17.6	83	70 - 130
1,1,2,2-Tetrachloroethane	5.00	3.96	34	27.2	79	70 - 130
Tetrachloroethene	5.00	4.12	34	27.9	82	70 - 130
Toluene	5.00	4.25	19	16.0	85	70 - 130
1,2,4-Trichlorobenzene	5.00	4.00	37	29.7	80	60 - 140
1,1,1-Trichloroethane	5.00	4.77	27	26.0	95	70 - 130
1,1,2-Trichloroethane	5.00	4.24	27	23.1	85	70 - 130
Trichloroethene	5.00	4.04	27	21.7	81	70 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	5.00	5.36	38	41.1	107	70 - 130
1,2,4-Trimethylbenzene	5.00	3.82	25	18.8	76	70 - 130
1,3,5-Trimethylbenzene	5.00	3.96	25	19.5	79	70 - 130
Vinyl acetate	5.00	4.38	18	15.4	88	60 - 140
Vinyl chloride	5.00	4.20	13	10.7	84	70 - 130
o-Xylene	5.00	4.06	22	17.6	81	70 - 130
Methyl tert-butyl ether	5.00	4.32	18	15.6	86	60 - 140
alpha-Methylstyrene	5.00	3.76	24	18.2	75	60 - 140

ARCADIS U.S., Inc.

Client Sample ID: CHECK SAMPLE

GC/MS Volatiles

Lot-Sample # H1J100000 - 176C **Work Order #** MM3TQ1AC **Matrix.....:** AIR

PARAMETER	SPIKE AMOUNT (ppb(v/v))	MEASURED AMOUNT (ppb(v/v))	SPIKE AMOUNT (ug/m3)	MEASURED AMOUNT (ug/m3)	PERCENT RECOVERY	RECOVERY LIMITS
Chlorodifluoromethane	5.00	5.16	18	18.2	103	60 - 140
m-Xylene & p-Xylene	10.0	8.30	43	36.0	83	70 - 130
Bromodichloromethane	5.00	4.39	34	29.4	88	70 - 130
1,2-Dibromoethane (EDB)	5.00	4.38	38	33.7	88	70 - 130
2-Butanone (MEK)	5.00	3.91	15	11.5	78	60 - 140
4-Methyl-2-pentanone (MIBK)	5.00	3.72	20	15.2	74	60 - 140
Bromoform	5.00	3.68	52	38.0	74	60 - 140
Bromomethane	5.00	4.52	19	17.6	90	70 - 130
1,3-Butadiene	5.00	4.28	11	9.48	86	60 - 140
4-Ethyltoluene	5.00	3.83	25	18.8	77	70 - 130
Acrolein	5.00	3.71	11	8.51	74	60 - 140
Carbon disulfide	5.00	4.54	16	14.1	91	70 - 130
Acrylonitrile	5.00	4.22	11	9.16	84	60 - 140
Carbon tetrachloride	5.00	5.27	31	33.1	105	70 - 130
Chlorobenzene	5.00	4.24	23	19.5	85	70 - 130
Dibromochloromethane	5.00	4.34	43	37.0	87	70 - 130
Chloroethane	5.00	4.18	13	11.0	84	70 - 130
Chloroform	5.00	4.61	24	22.5	92	70 - 130
Chloromethane	5.00	4.50	10	9.28	90	60 - 140
3-Chloropropene	5.00	4.33	16	13.5	87	60 - 140
Propene	5.00	4.38	8.6	7.54	88	60 - 140
Dibromomethane	5.00	4.46	36	31.7	89	70 - 130
1,2-Dichlorobenzene	5.00	3.73	30	22.4	75	70 - 130
1,3-Dichlorobenzene	5.00	3.96	30	23.8	79	70 - 130
1,4-Dichlorobenzene	5.00	3.85	30	23.2	77	70 - 130
Dichlorodifluoromethane	5.00	4.69	25	23.2	94	60 - 140
1,1-Dichloroethane	5.00	4.79	20	19.4	96	70 - 130
1,2-Dichloroethane	5.00	4.83	20	19.5	97	70 - 130
1,1-Dichloroethene	5.00	5.15	20	20.4	103	70 - 130
cis-1,2-Dichloroethene	5.00	4.80	20	19.0	96	70 - 130
trans-1,2-Dichloroethene	5.00	4.48	20	17.8	90	70 - 130
1,2-Dichloropropane	5.00	4.42	23	20.4	88	70 - 130
cis-1,3-Dichloropropene	5.00	4.54	23	20.6	91	70 - 130

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	100	60 - 140

ARCADIS U.S., Inc.

Client Sample ID: CHECK SAMPLE

GC/MS Volatiles

Lot-Sample # H1J100000 - 176C **Work Order #** MM3TQ1AC **Matrix.....:** AIR

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Sample Data Summary

ARCADIS U.S., Inc.

Client Sample ID: TOI/100511

GC Volatiles

Lot-Sample #...:	H1J070441-001	Work Order #...:	MM2MV1AC	Matrix.....:	AIR
Date Sampled...:	10/05/11	Date Received..:	10/07/11		
Prep Date.....:	10/13/11	Analysis Date..:	10/13/11		
Prep Batch #...:	1285089				
Dilution Factor:	1.99	Method.....:	ASTM D 1946/E 260		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methane	0.53	0.20	%

METHOD BLANK REPORT

GC Volatiles

Client Lot #...: H1J070441 Work Order #...: MM49C1AA Matrix.....: AIR
MB Lot-Sample #: H1J120000-089

Prep Date.....: 10/13/11
Analysis Date..: 10/13/11 Prep Batch #...: 1285089
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Methane	ND	0.10	%	ASTM D 1946/E 260

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Volatiles

Client Lot #...: H1J070441 **Work Order #...:** MM49C1AC **Matrix.....:** AIR
LCS Lot-Sample#: H1J120000-089
Prep Date.....: 10/13/11 **Analysis Date..:** 10/13/11
Prep Batch #...: 1285089
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Methane	97	(70 - 130)	ASTM D 1946/E 260

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC Volatiles

Client Lot #...: H1J070441 **Work Order #...:** MM49C1AC **Matrix.....:** AIR
LCS Lot-Sample#: H1J120000-089
Prep Date.....: 10/13/11 **Analysis Date..:** 10/13/11
Prep Batch #...: 1285089
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Methane	4.00	3.88	%	97	ASTM D 1946/E

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Sample Receipt Documentation

Chain of Custody Record

TestAmerica Laboratory location: KNOXVILLE H1S070441

Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact			
Company Name: ARCADIS US INC	Client Project Manager: (b) (4) [redacted]	Site Contact: (b) (4) [redacted]	Lab Contact:
Address: 284 CEMPUS CENTER COURT	Telephone: 614-734-2310	Telephone: 814-720-1212	Telephone:
City/State/Zip: DUBLIN OH 43017	Email:		
Phone: 614-764-2310		TAT if different from below: ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day	
Project Name: LORD SHOPE LF	Method of Shipment/Carrier: UPS		
Project Number:	Shipping/Tracking No:		
PO#			

COC No: 034362

1 of 2 COCs

Analyses

Sample Identification	Sample Date	Sample Time	Air	Aqueous	Sediment	Solid	Other	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other: Summa			TO-15		METHANE EPA-18							Sample Specific Notes / Special Instructions:
TOI/100511	10/5/11	11:25A	X											X	N	G	X		X							
TOE/100511	10/5/11	11:40A	X											X	N	G	X									
																										1 Box Received Ambient Temp without custody Seal OPH 10/7/11
																										1 Box UPS #
																										1Z183X7A0393645463
																										2 CANS/NO FLOWS

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return to Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
(b) (4) [redacted]	GROUNDWATER	10/5/11 4:00PM	(b) (4) [redacted]	TAKNOX	10/7/11 1315
Relinquished by:	Company: RESOURCES	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

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TAL 0018- 1 (04/10)

TAL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

H15070441

Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	Project Manager: (b) (4) [redacted]	Sampled By:	2 of 2 COCs
Company: ARCADIS US Inc	Phone: 614-764-2310	G. RADEMACHER	
Address: 284 CRAMER CREEK COURT	Site Contact: GREG RADEMACHER 814-720-1212		
City/State/Zip DUBLIN OH 43017	TAL Contact:		
Phone: 614-764-2310			
FAX:			
Project Name: LORD SHOPE LF	Analysis Turnaround Time		
Site/location: GIRARD PA	Standard (Specify) X		
PO #	Rush (Specify)		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	[redacted]	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
TOI / 100511	10/5/11		1625A				1011N	X					X						
TOE / 100511	10/5/11		11:40A				6116	X											

Sampled by :

Temperature (Fahrenheit)	Interior	Ambient
Start		
Stop		

Pressure (Inches of Hg)	Interior	Ambient
Start		
Stop		

Special Instructions/QC Requirements & Comments:

METHANE
EPA-18

Canisters Shipped by:	Date/Time:	Canisters Received by: (b) (4) [redacted]	
Samples Relinquished by: (b) (4) [redacted]	Date/Time: 10/5/11 4:00 PM	Received by: (b) (4) [redacted] 10/7/11	1315
Relinquished by:	Date/Time:	Received by:	

Lab Use Only: Shipper Name: Opened by: Condition:

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Lot Number: H5D70141

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ 1a Do not match COC ☐ 1b Incomplete information ☐ 1c Marking smeared ☐ 1d Label torn ☐ 1e No label ☐ 1f COC not received ☐ 1g Other:	NA
2. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C)	✓			☐ 2a Temp Blank = _____ ☐ 2b Cooler Temp = _____ ☐ 2c Cooling initiated for recently collected samples, ice present.	
3. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ 3a Sample preservative =	
4. Were custody seals present/intact on cooler and/or containers?		✓	✓	☐ 4a Not present ☐ 4b Not intact ☐ 4c Other:	
5. Were all of the samples listed on the COC received?	✓			☐ 5a Samples received-not on COC ☐ 5b Samples not received-on COC	
6. Were all of the sample containers received intact?	✓			☐ 6a Leaking ☐ 6b Broken	
7. Were VOA samples received without headspace?			✓	☐ 7a Headspace (VOA only)	
8. Were samples received in appropriate containers?	✓			☐ 8a Improper container	
9. Did you check for residual chlorine, if necessary?			✓	☐ 9a Could not be determined due to matrix interference	
10. Were samples received within holding time?	✓			☐ 10a Holding time expired	
11. For rad samples, was sample activity info. provided?			✓	☐ Incomplete information	
12. For 1613B water samples is pH<9?			✓	If no, was pH adjusted to pH 7 - 9 with sulfuric acid? _____	
13. Are the shipping containers intact?	✓			☐ 13a Leaking ☐ 13b Other:	
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ 14a Not relinquished	
15. Are tests/parameters listed for each sample?	✓			☐ 15a Incomplete information	
16. Is the matrix of the samples noted?	✓			☐ 15a Incomplete information	
17. Is the date/time of sample collection noted?	✓			☐ 15a Incomplete information	
18. Is the client and project name/# identified?	✓			☐ 15a Incomplete information	
19. Was the sampler identified on the COC?		✓			

Quote #: 79478 PM Instructions: NA

Sample Receiving Associate: [redacted] (b) (4) Date: 10/7/11

QA026R22.doc, 012811

Test America - Knoxville ---- Air Canister Dilution Log

Lot Number: *H1J070441*

Initial Can Pressure							Subsequent Dilutions											
Analyst/Date	Tedlar Bag Time	Pbarr (in)	Sample ID	Can #	Pres. upon receipt (-in or + psig)	Adj. Initial Pres. (-in or + psig)	Analyst/Date	I / S	Pbarr (in)	Initial Pres. Pi (in)	Final Pres. Pf (psig)	First InCan Final Pres. Pf (psig)	Second In-can Final Pres. Pf (psig)	Third InCan Final Pres. Pf (psig)	Serial Dilution Can #	Vol (mL)	Final Pres. Pf (psig)	Comments
DDF 10-7-11	NA	29.4	MM2MV	1011N	-3.8		DDF 10-10-11	S	29.96	-3.9	+10.3				04420	10	+0.5	94167
↓	↓	↓	MM2MW	6116	-10.1	+0.4												↓

Perm Gas

Test America - Knoxville ---- Air Canister Dilution Log

Lot Number: *H1J070441*

Initial Can Pressure							Subsequent Dilutions											
Analyst/Date	Tedlar Bag Time	Pbarr (in)	Sample ID	Can #	Pres. upon receipt (-in or + psig)	Adj. Initial Pres. (-in or + psig)	Analyst/Date	I / S	Pbarr (in)	Initial Pres. Pi (in)	Final Pres. Pf (psig)	First InCan Final Pres. Pf (psig)	Second In-can Final Pres. Pf (psig)	Third InCan Final Pres. Pf (psig)	Serial Dilution Can #	Vol (mL)	Final Pres. Pf (psig)	Comments
DDF 10-7-11	NA	29.14	MM2MV	1011N	-3.8		DDF 10-10-11	S	29.96	-3.9	+10.3				04420	10	+0.5	9467
↓	↓	↓	MM2MW	6116	-10.1	+0.4												↓

MS038 Revision 8

Volatiles

Raw Sample Data

ARCADIS U.S., Inc.

Client Sample ID: TOI/100511

GC/MS Volatiles

Lot-Sample # H1J070441 - 001 **Work Order #** MM2MV1AA **Matrix.....:** AIR

Date Sampled...: 10/05/2011 **Date Received..:** 10/07/2011
Prep Date.....: 10/10/2011 **Analysis Date...** 10/11/2011
Prep Batch #.....: 1283176
Dilution Factor.: 2474.98 **Method.....:** TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
trans-1,3-Dichloropropene	ND	490	ND	2200
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	490	ND	3500
Acetone	ND	12000	ND	29000
1,4-Dioxane	ND	1200	ND	4500
Ethyl acetate	ND	4900	ND	18000
Ethylbenzene	ND	490	ND	2100
Trichlorofluoromethane	ND	490	ND	2800
n-Heptane	ND	1200	ND	5100
Hexachlorobutadiene	ND	2500	ND	26000
n-Hexane	**270 J**	**1200**	**940 J**	**4400**
2-Hexanone	ND	1200	ND	5100
2,2,4-Trimethylpentane	ND	1200	ND	5800
Cumene	ND	990	ND	4900
tert-Butyl alcohol	ND	4900	ND	15000
Methylene chloride	**1600 B**	**1200**	**5700 B**	**4300**
Methyl methacrylate	ND	1200	ND	5100
Benzene	**140 J**	**490**	**440 J**	**1600**
Acetonitrile	ND	2500	ND	4200
n-Octane	ND	990	ND	4600
Pentane	**230 J**	**2500**	**670 J**	**7300**
Styrene	ND	490	ND	2100
1,1,2,2-Tetrachloroethane	ND	490	ND	3400
Tetrachloroethene	**9200**	**490**	**62000**	**3400**
Toluene	**220 J**	**490**	**830 J**	**1900**
1,2,4-Trichlorobenzene	ND	2500	ND	18000
1,1,1-Trichloroethane	**190 J**	**490**	**1000 J**	**2700**
1,1,2-Trichloroethane	ND	490	ND	2700
Trichloroethene	**24000**	**490**	**130000**	**2700**
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	490	ND	3800
1,2,4-Trimethylbenzene	ND	490	ND	2400
1,3,5-Trimethylbenzene	ND	490	ND	2400
Vinyl acetate	ND	2500	ND	8700
Vinyl chloride	**25000**	**490**	**64000**	**1300**
o-Xylene	**310 J**	**490**	**1300 J**	**2100**
Methyl tert-butyl ether	ND	2500	ND	8900
alpha-Methylstyrene	ND	990	ND	4800
Chlorodifluoromethane	**220 J**	**490**	**790 J**	**1800**
m-Xylene & p-Xylene	**440 J**	**490**	**1900 J**	**2100**

ARCADIS U.S., Inc.

Client Sample ID: TOI/100511

GC/MS Volatiles

Lot-Sample # H1J070441 - 001 Work Order # MM2MV1AA Matrix.....: AIR

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Bromodichloromethane	ND	490	ND	3300
1,2-Dibromoethane (EDB)	ND	490	ND	3800
2-Butanone (MEK)	ND	2500	ND	7300
4-Methyl-2-pentanone (MIBK)	ND	1200	ND	5100
Bromoform	ND	490	ND	5100
Bromomethane	ND	490	ND	1900
1,3-Butadiene	ND	990	ND	2200
4-Ethyltoluene	ND	990	ND	4900
Acrolein	ND	2000	ND	4500
Carbon disulfide	**620 J**	**1200**	**1900 J**	**3900**
Acrylonitrile	ND	4900	ND	11000
Carbon tetrachloride	ND	490	ND	3100
Chlorobenzene	ND	490	ND	2300
Dibromochloromethane	ND	490	ND	4200
Chloroethane	ND	490	ND	1300
Chloroform	**270 J**	**490**	**1300 J**	**2400**
Chloromethane	ND	1200	ND	2600
3-Chloropropene	ND	490	ND	1500
Propene	**670 J est**	**1200**	**1200 J est**	**2100**
Dibromomethane	ND	990	ND	7000
1,2-Dichlorobenzene	ND	490	ND	3000
1,3-Dichlorobenzene	ND	490	ND	3000
1,4-Dichlorobenzene	ND	490	ND	3000
Dichlorodifluoromethane	ND	490	ND	2400
1,1-Dichloroethane	**170 J**	**490**	**700 J**	**2000**
1,2-Dichloroethane	ND	490	ND	2000
1,1-Dichloroethene	**430 J**	**490**	**1700 J**	**2000**
cis-1,2-Dichloroethene	**54000**	**490**	**210000**	**2000**
trans-1,2-Dichloroethene	**350 J**	**490**	**1400 J**	**2000**
1,2-Dichloropropane	ND	490	ND	2300
cis-1,3-Dichloropropene	ND	490	ND	2200

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	99	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
est	Estimated value. See narrative for details.
J	Estimated result. Result is less than RL.

ARCADIS U.S., Inc.

Client Sample ID: TOI/100511

GC/MS Volatiles

Lot-Sample # H1J070441 - 001 **Work Order #** MM2MV1AA **Matrix.....:** AIR

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Data File: /var/chem/gcms/mj.i/J101011.b/mm2mvr.d
Report Date: 11-Oct-2011 11:48

TestAmerica Knoxville

Modified Method TO-14/TO-15

Data file : /var/chem/gcms/mj.i/J101011.b/mm2mvr.d
Lab Smp Id: MM2MV1AA Client Smp ID: TOI/100511
Inj Date : 11-OCT-2011 05:40
Operator : 403648 Inst ID: mj.i
Smp Info : MM2MV1AA,2474.98,0,,,
Misc Info : J101011,TO15,polyone.sub,,,
Comment :
Method : /var/chem/gcms/mj.i/J101011.b/TO15.m
Meth Date : 10-Oct-2011 19:41 barlozha Quant Type: ISTD
Cal Date : 25-AUG-2011 21:16 Cal File: jich256.d
Als bottle: 4
Dil Factor: 2474.98000
Integrator: HP RTE Compound Sublist: polyone.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	2474.98000	Dilution Factor
Vt	500.00000	Default Calibration Volume
Vo	200.00000	Default Sample Volume

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	FINAL (ppb(v/v))
* 1 Bromochloromethane	128	9.210	9.208	(1.000)	401518	4.00000	4.000
* 2 1,4-Difluorobenzene	114	11.384	11.387	(1.000)	1824686	4.00000	4.000
* 3 Chlorobenzene-d5	117	16.085	16.083	(1.000)	1561502	4.00000	4.000
$ 4 4-Bromofluorobenzene	95	17.710	17.713	(1.101)	1171657	3.95304	9.883
5 Chlorodifluoromethane	67	3.879	3.877	(0.421)	1774	0.03603	222.9
6 Propene	41	3.896	3.888	(0.423)	22392	0.10908	674.9 EST
12 Vinyl Chloride	62	4.320	4.318	(0.469)	855854	4.07406	25210
13 n-Butane	43	4.412	4.415	(0.479)	25378	0.07375	456.3 AA
25 Pentane	72	5.746	5.743	(0.624)	1045	0.03672	227.2
27 1,1-Dichloroethene	96	6.246	6.249	(0.678)	10014	0.06968	431.1
31 Methylene Chloride	84	6.607	6.604	(0.717)	37983	0.26506	1640
33 Carbon Disulfide	76	6.779	6.776	(0.736)	50684	0.09963	616.4
34 trans-1,2-Dichloroethene	96	7.441	7.438	(0.808)	9435	0.05730	354.6
37 1,1-Dichloroethane	63	7.871	7.868	(0.855)	9633	0.02814	174.1
40 Hexane	56	8.468	8.471	(0.919)	8079	0.04332	268.0
41 cis 1,2-Dichloroethene	96	8.872	8.869	(0.963)	1392758	8.71750	53940

AB 10/11/11

Data File: /var/chem/gcms/mj.i/J101011.b/mm2mvr.d
Report Date: 11-Oct-2011 11:48

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	CONCENTRATIONS FINAL (ppb(v/v))
43 Chloroform	83	9.227	9.219	(1.002)	14552	0.04338	268.4
45 1,1,1-Trichloroethane	97	10.270	10.268	(1.115)	9980	0.02991	185.1
49 Cyclohexane	69	10.873	10.870	(0.955)	2493	0.02667	165.0 NA
48 Benzene	78	10.862	10.859	(0.954)	10178	0.02248	139.1
56 Trichloroethene	130	12.094	12.097	(1.062)	849242	3.95994	24500
65 Toluene	91	14.127	14.130	(0.878)	14212	0.03568	220.8
73 Tetrachloroethene	129	15.262	15.265	(0.949)	246658	1.47994	9157
78 m&p-Xylene	91	16.580	16.578	(1.031)	24528	0.07039	435.5
82 o-Xylene	91	17.102	17.105	(1.063)	17893	0.04937	305.5

Data File: /var/chem/gcms/mj.i/J101011.b/mm2mvr.d
Report Date: 11-Oct-2011 11:48

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mj.i
Lab File ID: mm2mvr.d
Lab Smp Id: MM2MV1AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 403648
Method File: /var/chem/gcms/mj.i/J101011.b/TO15.m
Misc Info: J101011,TO15,polyone.sub,,,

Calibration Date: 10-OCT-2011
Calibration Time: 09:00
Client Smp ID: TOI/100511
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	433376	257859	608893	401518	-7.35
2 1,4-Difluorobenze	2001209	1190719	2811699	1824686	-8.82
3 Chlorobenzene-d5	1795707	1068446	2522968	1561502	-13.04

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.21	8.88	9.54	9.21	0.03
2 1,4-Difluorobenze	11.39	11.06	11.72	11.38	-0.02
3 Chlorobenzene-d5	16.08	15.75	16.41	16.09	0.02

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/mj.i/J101011.b/mm2mvr.d
Report Date: 11-Oct-2011 11:48

TestAmerica Knoxville

RECOVERY REPORT

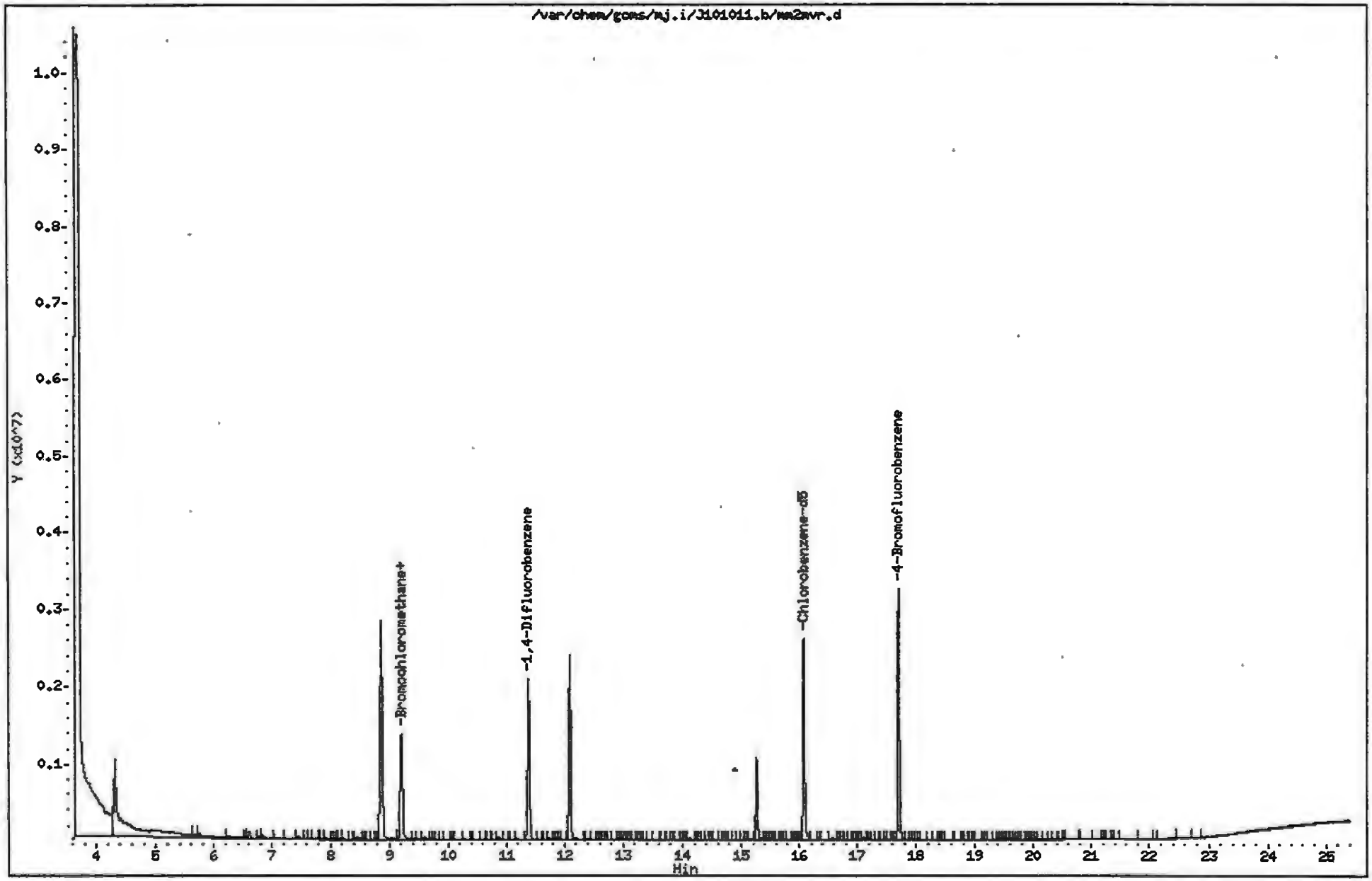
Client Name: ARCADIS U.S., Inc.
Sample Matrix: GAS
Lab Smp Id: MM2MV1AA
Level: LOW
Data Type: MS DATA
SpikeList File: allnew.spk
Sublist File: polyone.sub
Method File: /var/chem/gcms/mj.i/J101011.b/TO15.m
Misc Info: J101011,TO15,polyone.sub,,,

Client SDG: H1J070441
Fraction: OTHER
Client Smp ID: TOI/100511
Operator: 403648
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 4 4-Bromofluorobenze	10.00	9.883	98.83	70-130

Data File: /var/chem/gcms/mj.i/J101011.b/mm2mvr.d
Date : 11-OCT-2011 05:40
Client ID: TOI/100511
Sample Info: MM2MV1AA,2474.98,0,,,
Purge Volume: 200.0
Column phase: Rtx-5

Instrument: mj.i
Operator: 403648
Column diameter: 0.32



Data File: /var/chem/gcms/mj.i/J101011.b/mm2mvr.d

Date : 11-OCT-2011 05:40

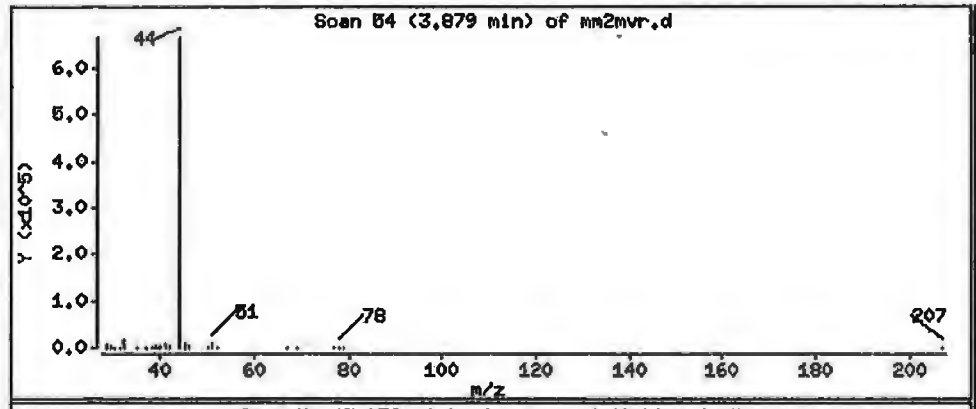
Client ID: TOI/100511 Instrument: mj.i

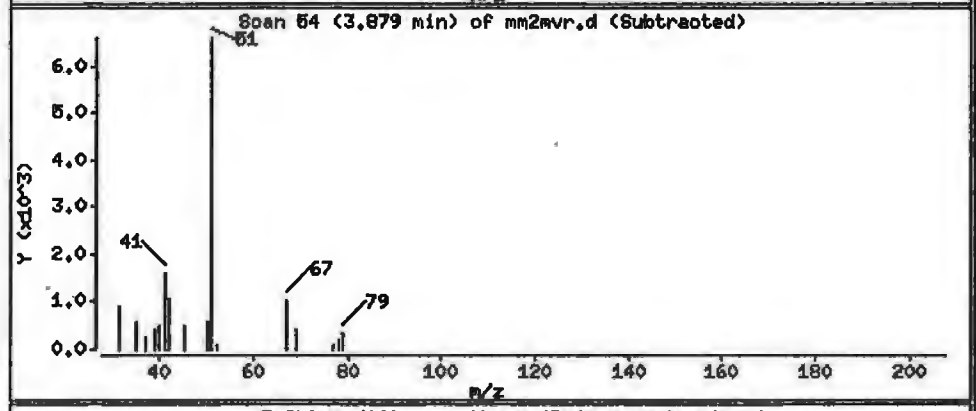
Sample Info: MM2MV1AA,2474.98,0,,,

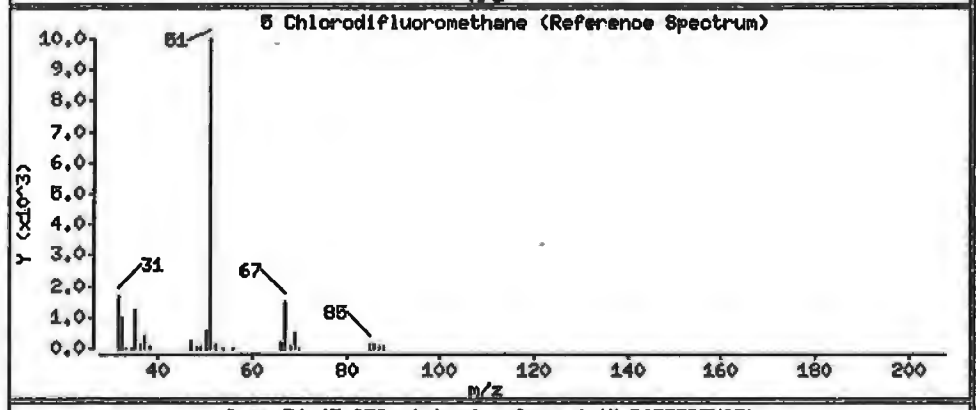
Purge Volume: 200.0 Operator: 403648

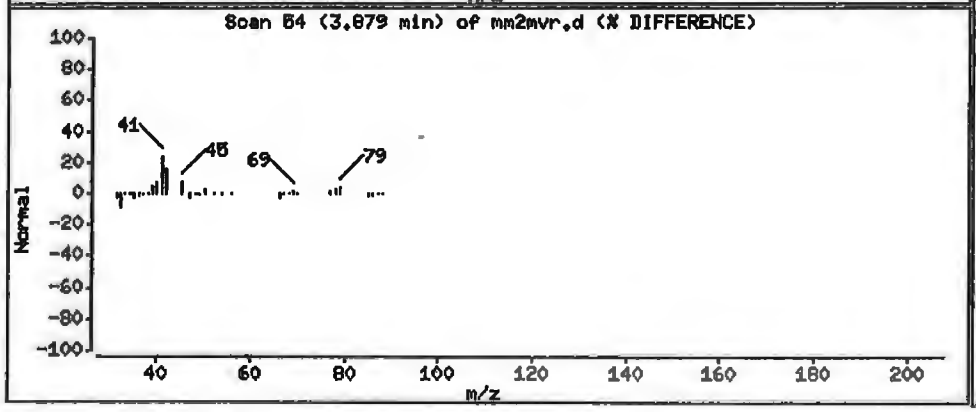
Column phase: Rtx-5 Column diameter: 0.32

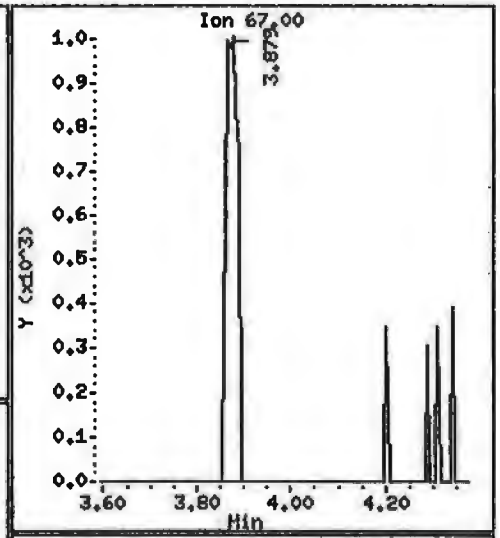
5 Chlorodifluoromethane Concentration: 222.9 ppb(v/v)

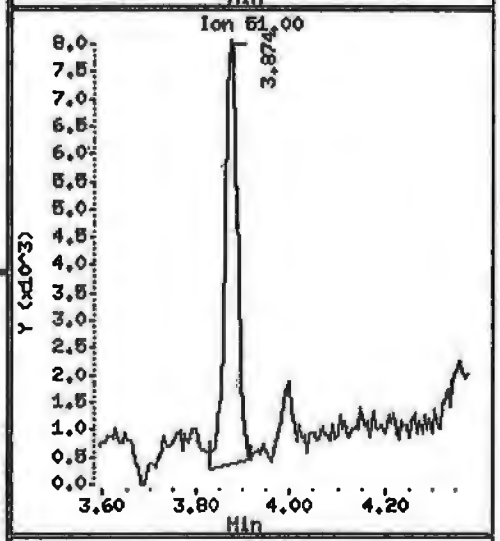


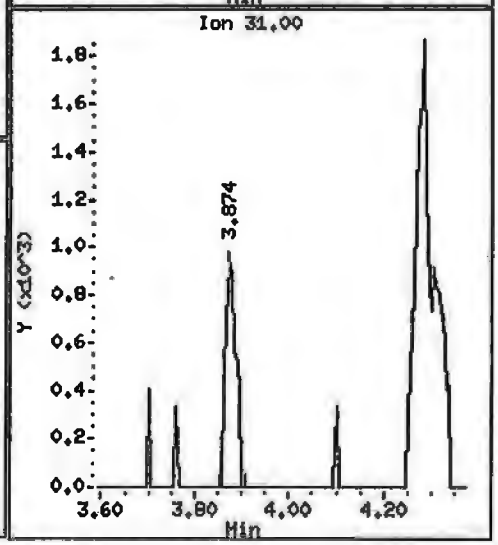












Data File: /var/chem/gcms/mj.i/J101011.b/mm2mvr.d

Date : 11-OCT-2011 05:40

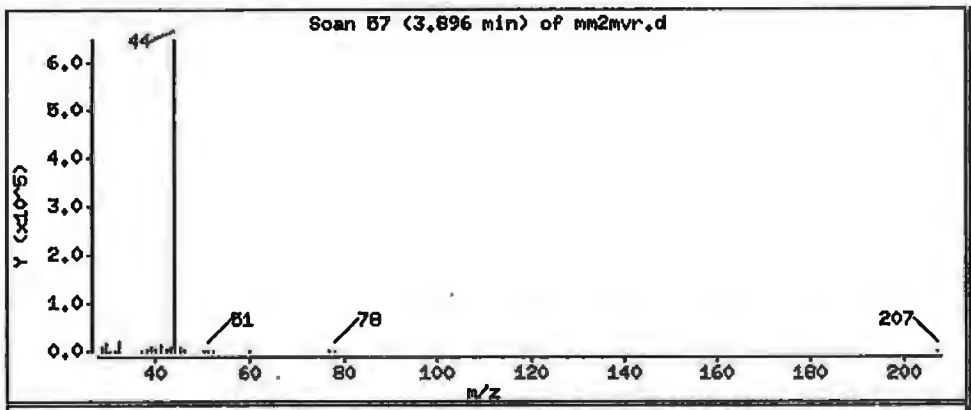
Client ID: TOI/100511 Instrument: mj.i

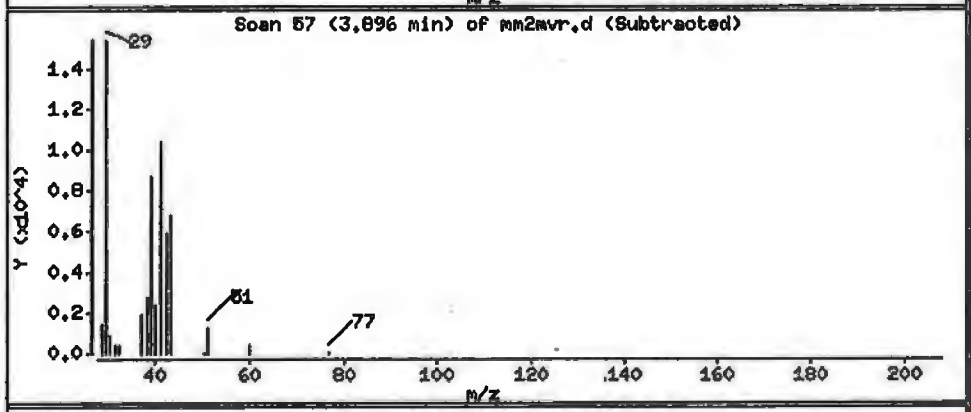
Sample Info: MM2MV1AA,2474.98,0,,,

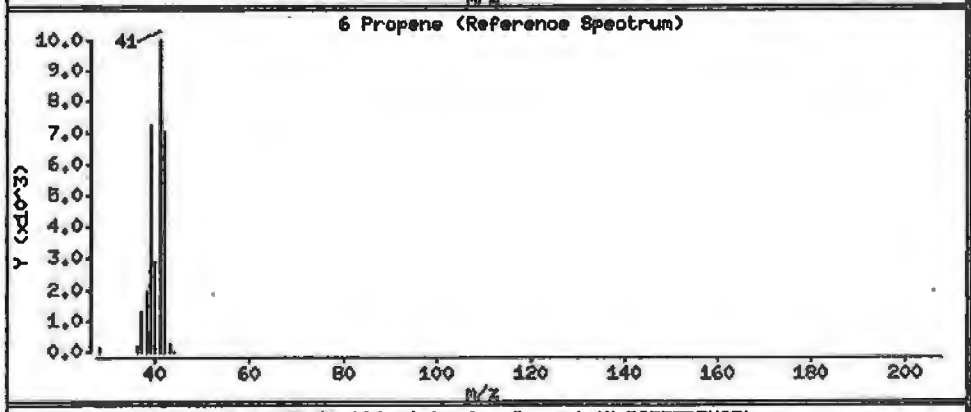
Purge Volume: 200.0 Operator: 403648

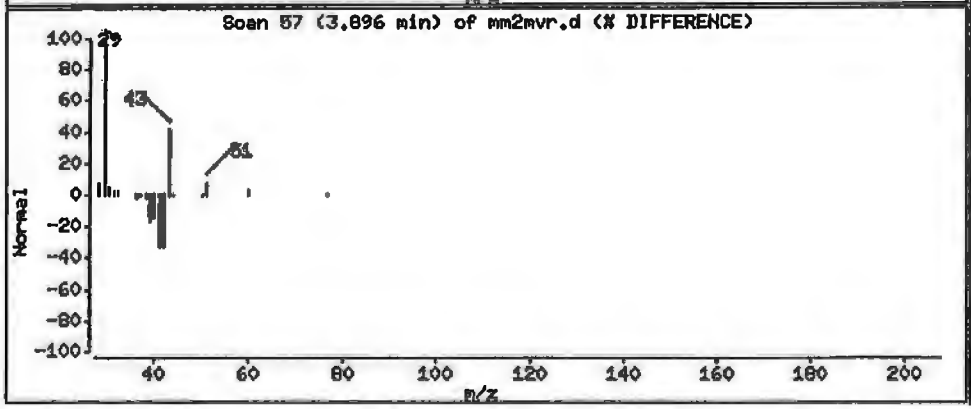
Column phase: Rtx-5 Column diameter: 0.32

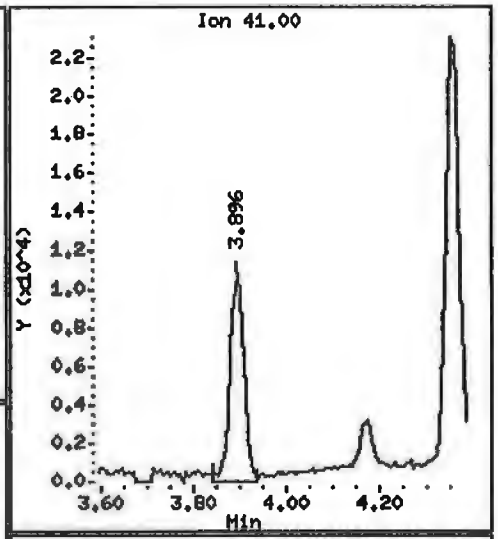
6 Propene Concentration: 674.9 ppb(v/v)

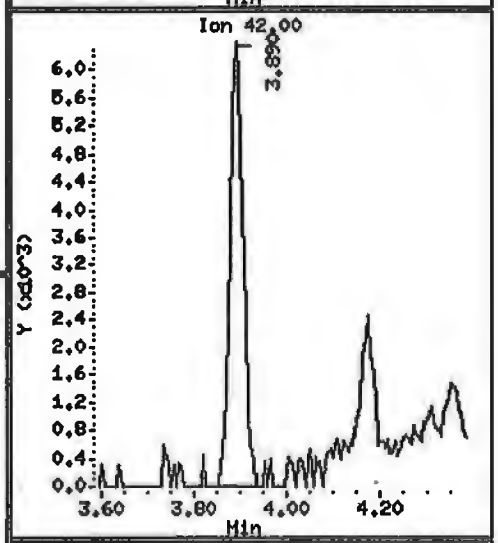


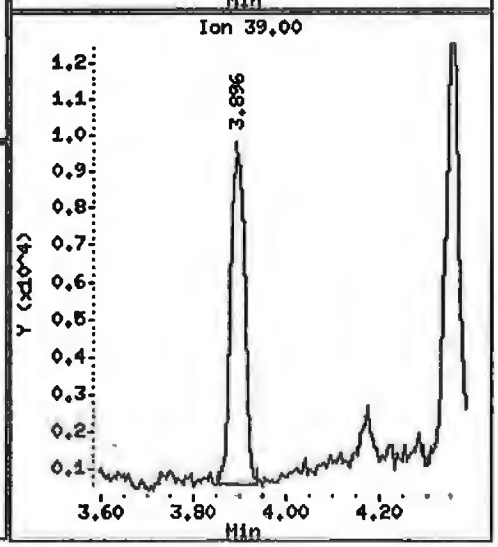












Data File: /var/chem/gcms/mj.i/J101011.b/mm2mvr.d

Date : 11-OCT-2011 05:40

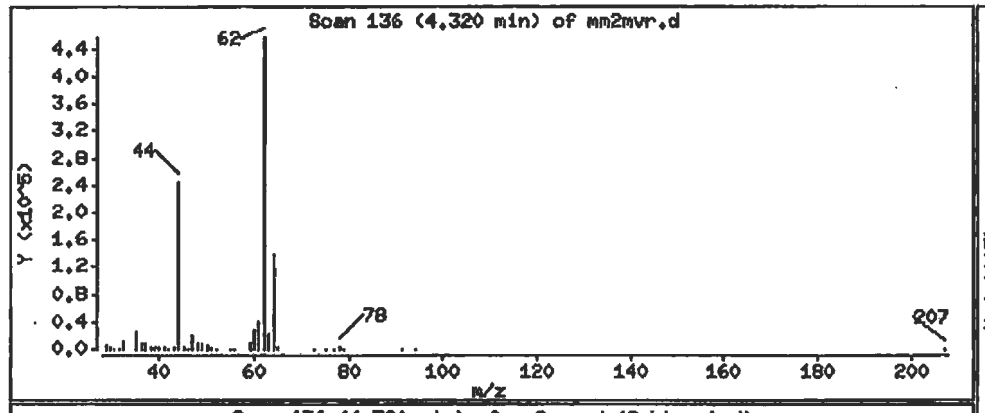
Client ID: TOI/100511 Instrument: mj.i

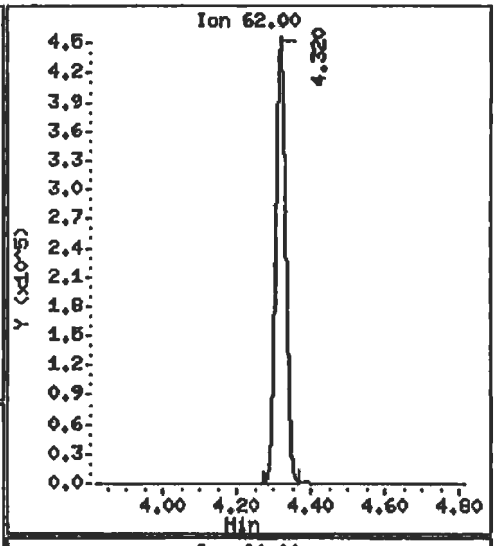
Sample Info: MM2MV1AA,2474.98,0,,,

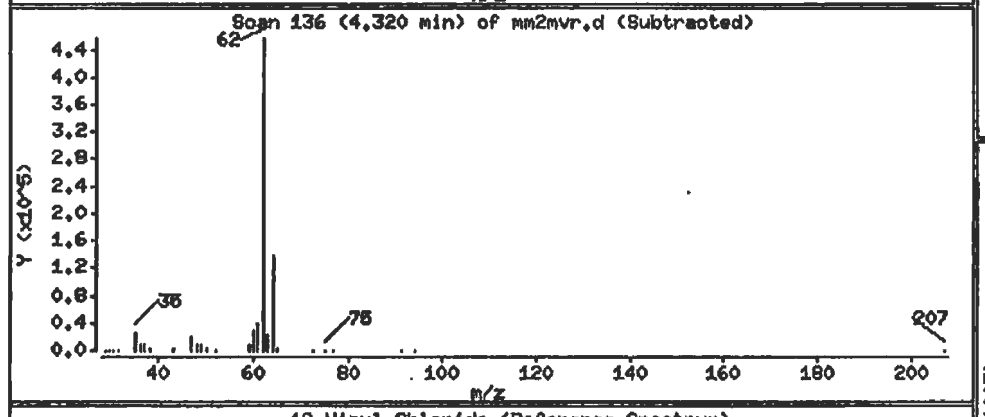
Purge Volume: 200.0 Operator: 403648

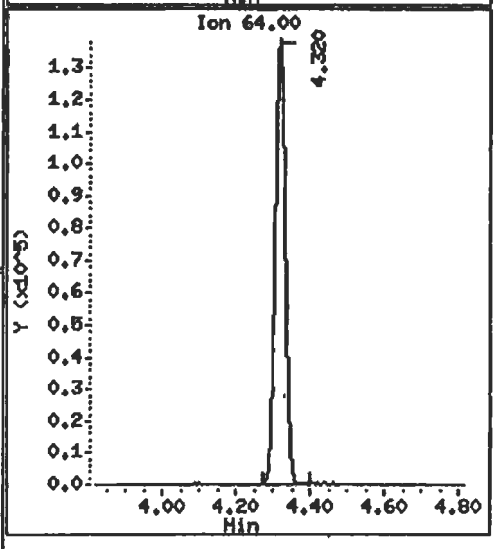
Column phase: Rtx-5 Column diameter: 0.32

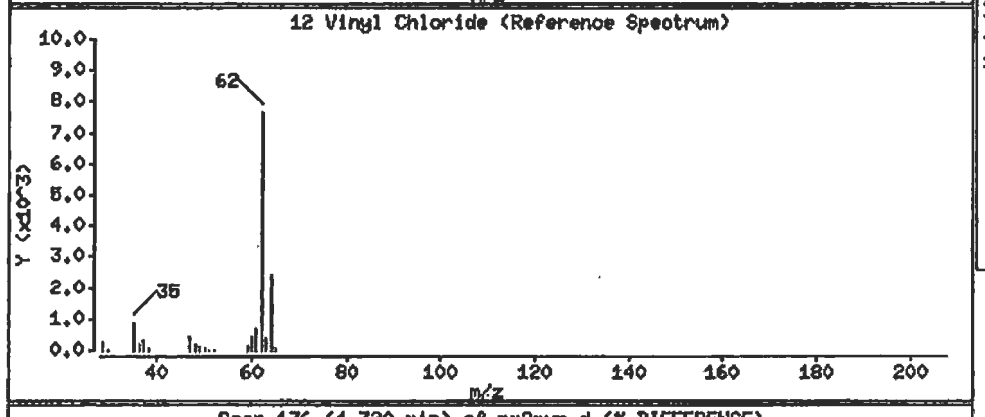
12 Vinyl Chloride Concentration: 28210 ppb(v/v)

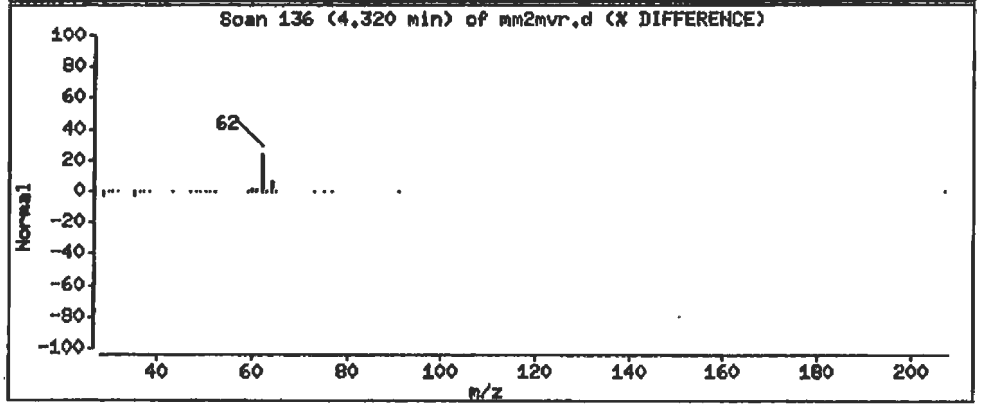












Data File: /var/chem/gcms/mj.i/J101011.b/mm2mvr.d

Date : 11-OCT-2011 05:40

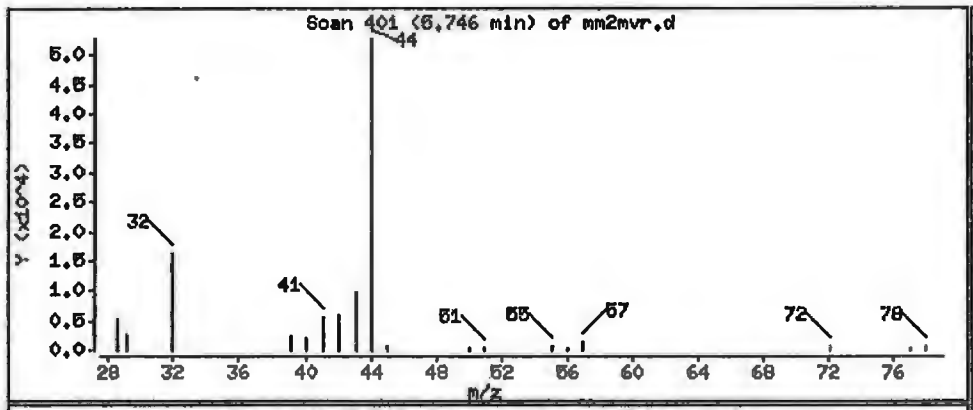
Client ID: TOI/100511 Instrument: mj.i

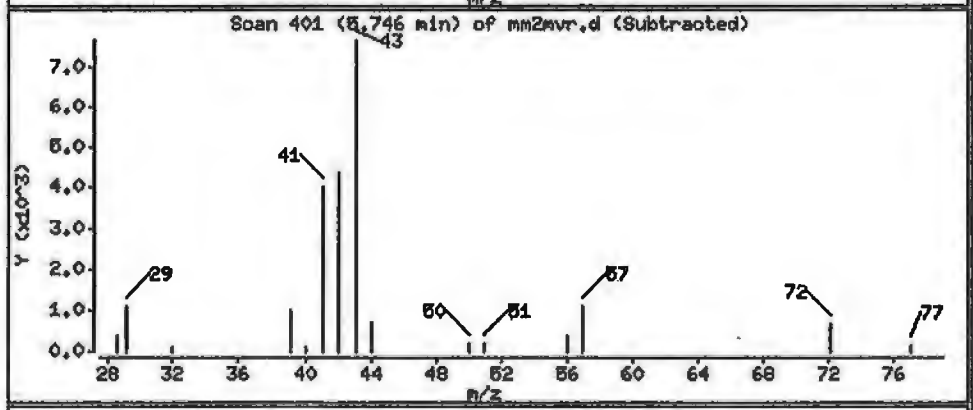
Sample Info: MM2MV1AA,2474.98,0,,,

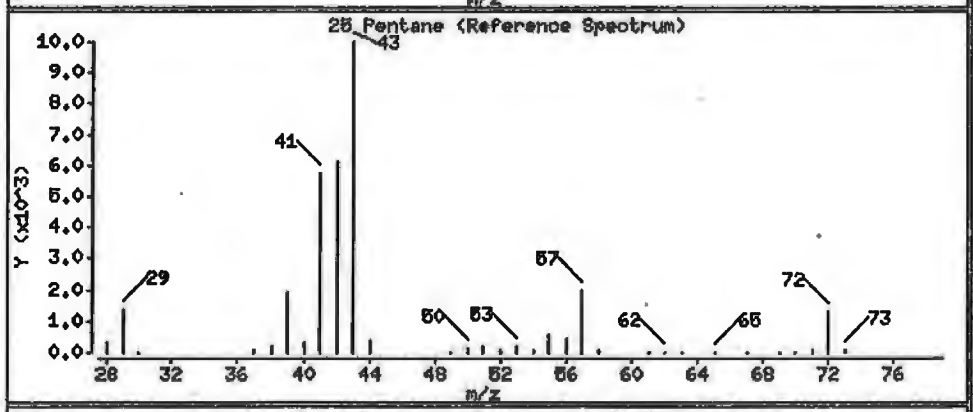
Purge Volume: 200.0 Operator: 403648

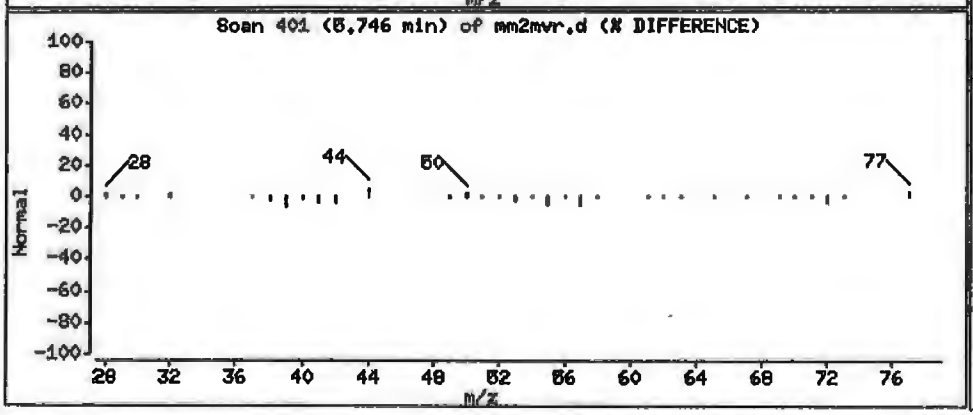
Column phase: Rtx-5 Column diameter: 0.32

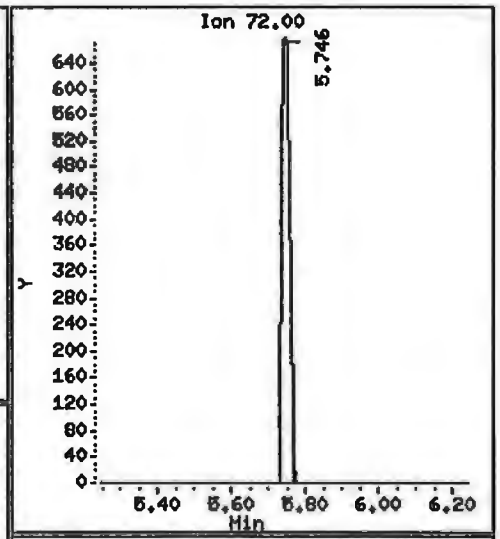
25 Pentane Concentration: 227.2 ppb(v/v)

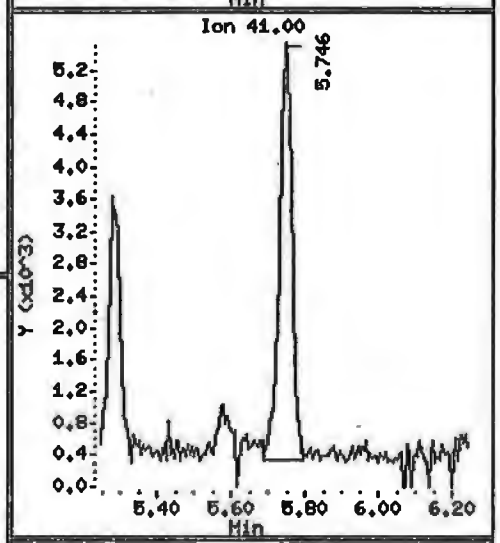


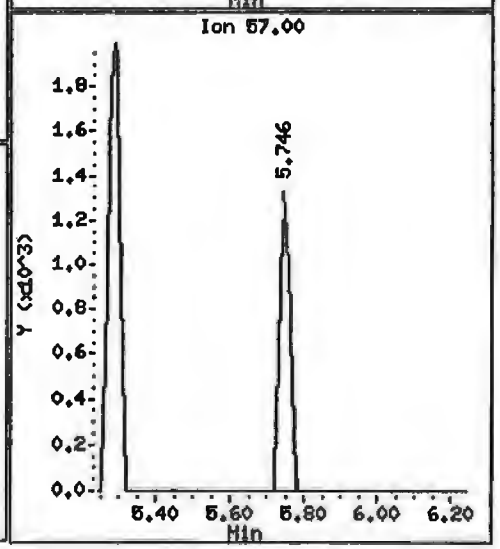












Data File: /var/chem/gcms/mj.i/J101011.b/mm2mvr.d

Date : 11-OCT-2011 05:40

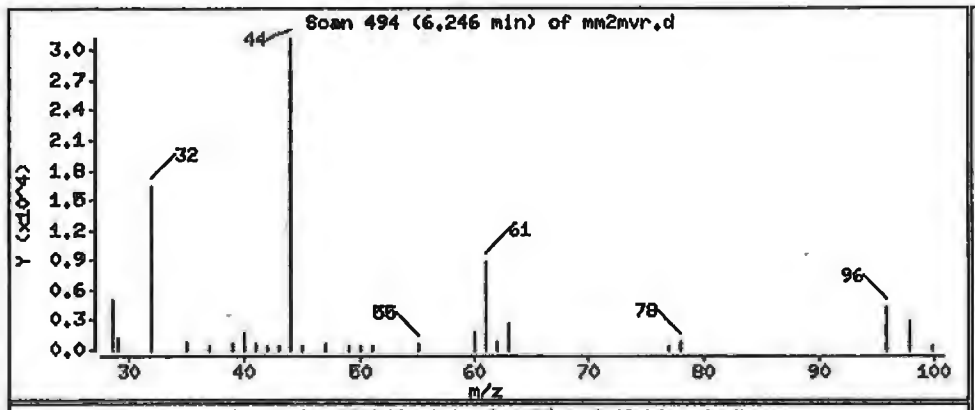
Client ID: TOI/100511 Instrument: mj.i

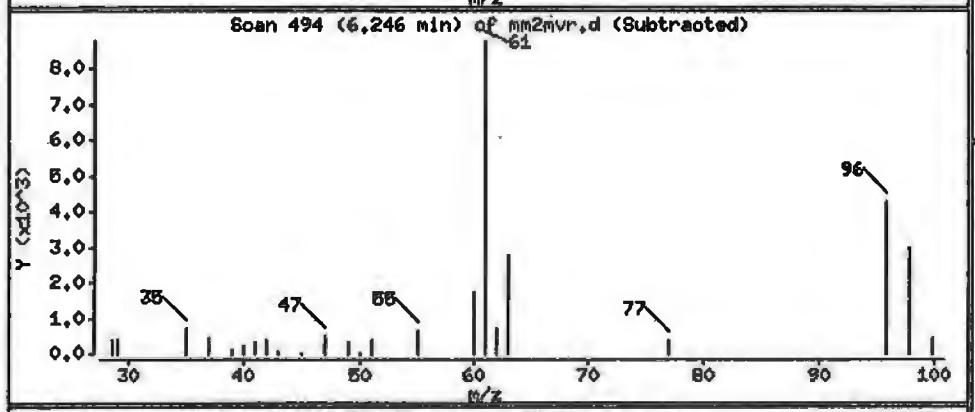
Sample Info: MM2MV1AA,2474,98,0,,,

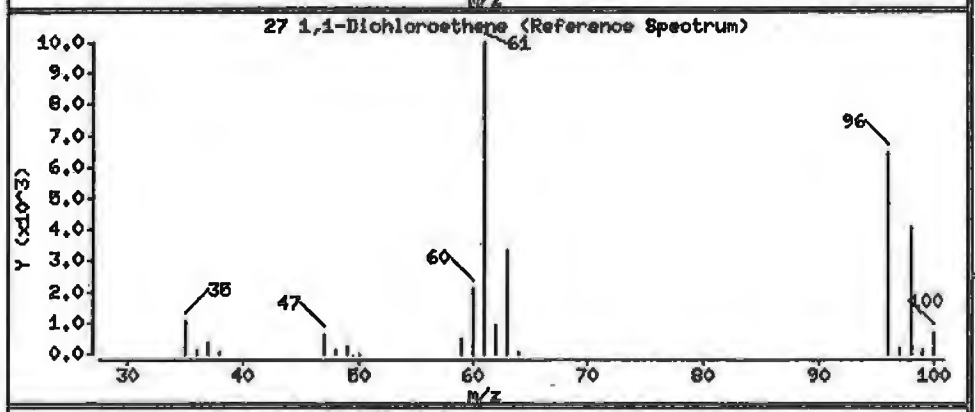
Purge Volume: 200.0 Operator: 403648

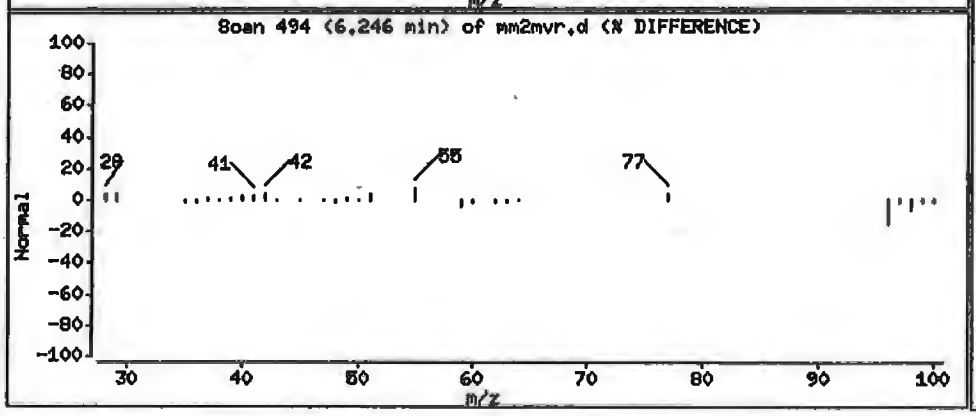
Column phase: Rtx-5 Column diameter: 0.32

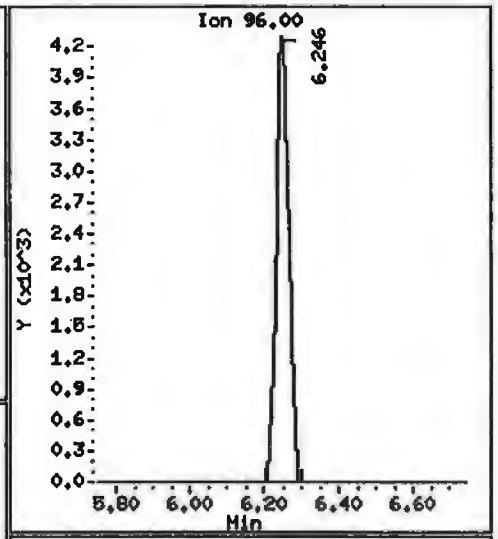
27 1,1-Dichloroethene Concentration: 431.1 ppb(v/v)

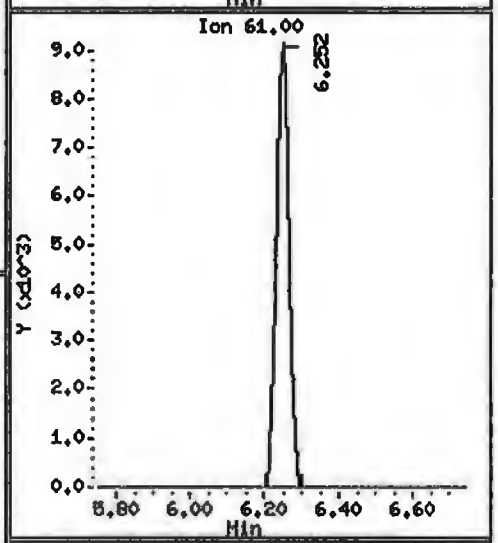


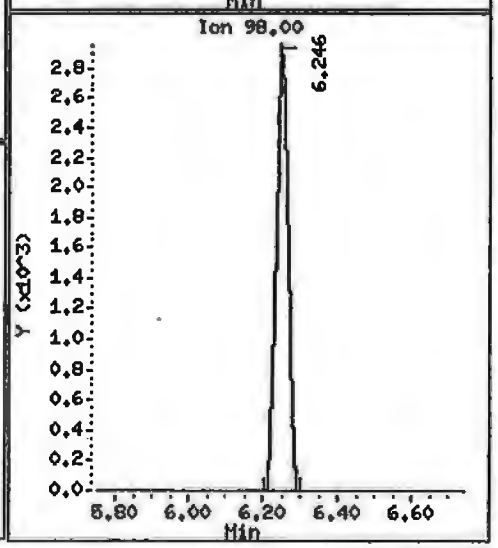












Data File: /var/chem/gcms/mj.i/J101011.b/mm2mvr.d

Date : 11-OCT-2011 05:40

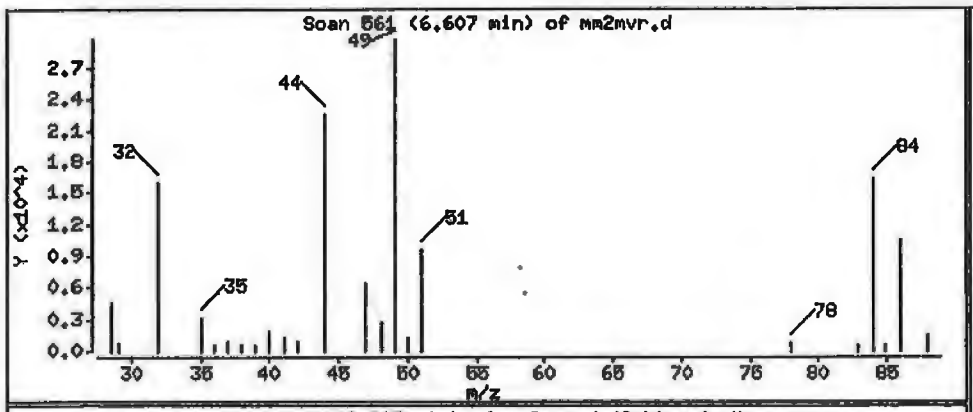
Client ID: TOI/100511 Instrument: mj.i

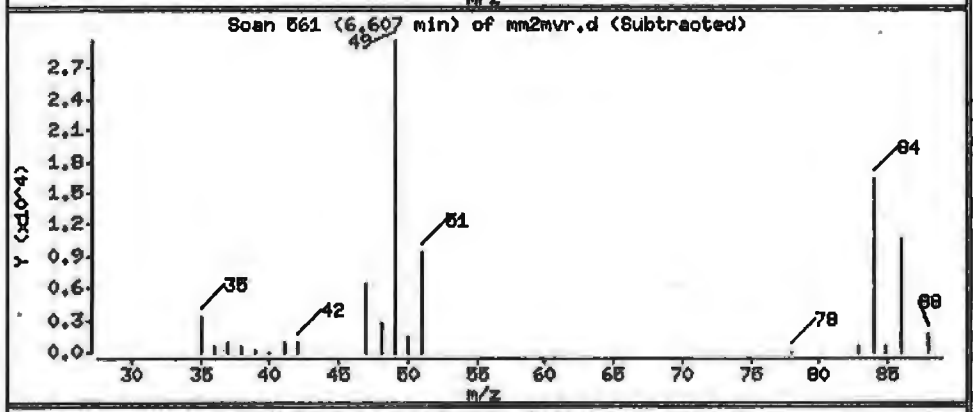
Sample Info: MM2MV1AA,2474.98,0,,,

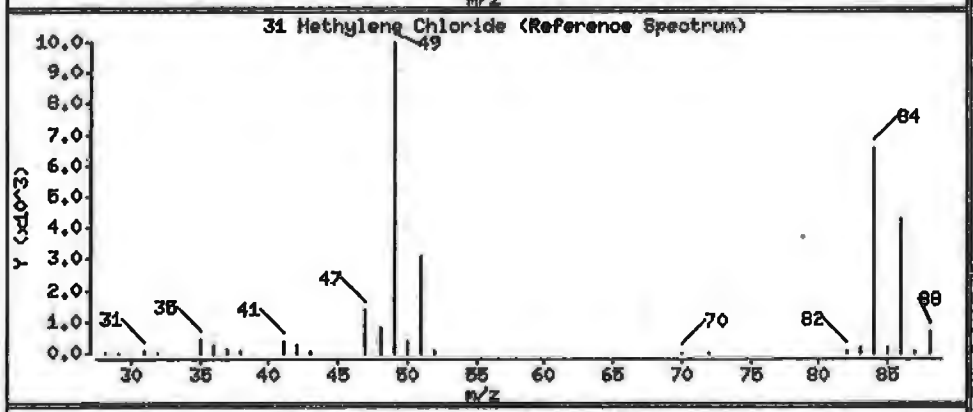
Purge Volume: 200.0 Operator: 403648

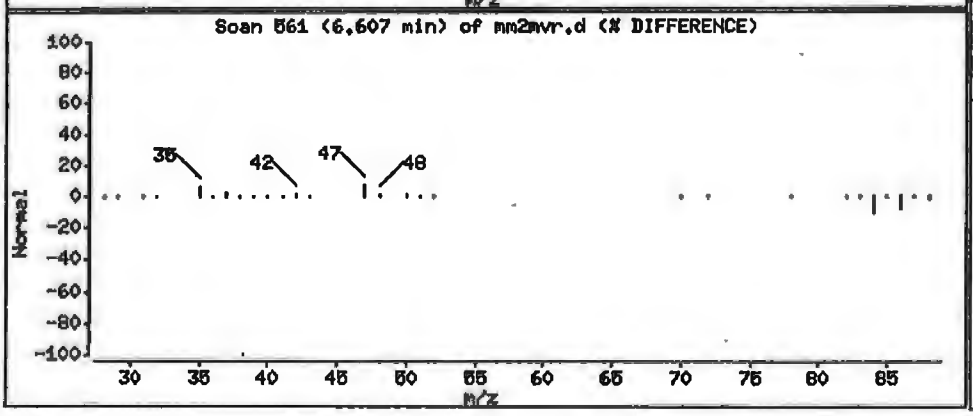
Column phase: Rtx-5 Column diameter: 0.32

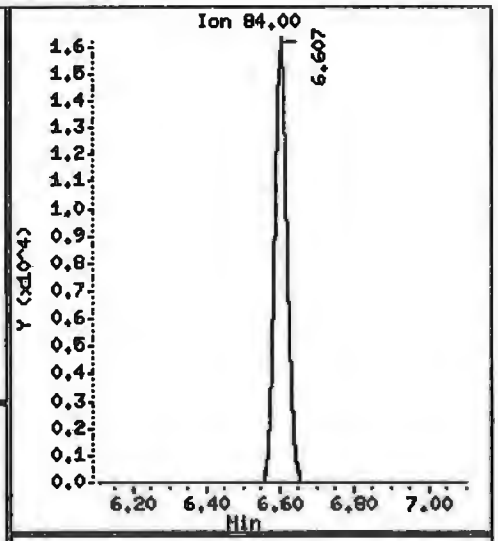
31 Methylene Chloride Concentration: 1640 ppb(v/v)

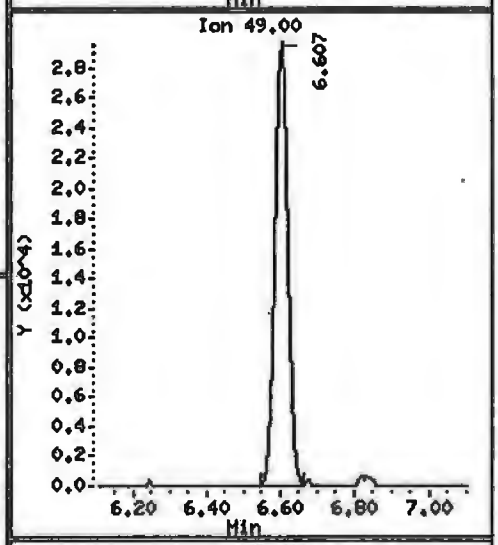


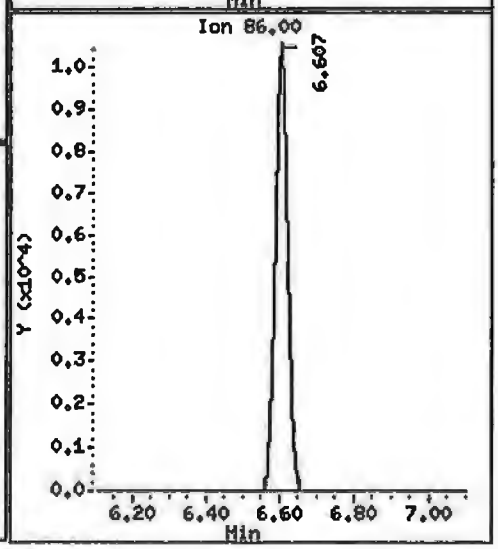












Data File: /var/chem/gcms/mj.i/J101011.b/mm2mvr.d

Date : 11-OCT-2011 05:40

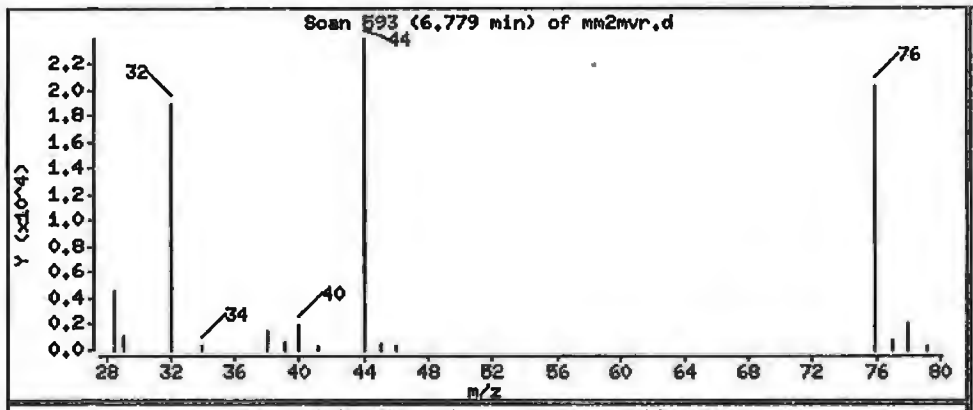
Client ID: TOI/100511 Instrument: mj.i

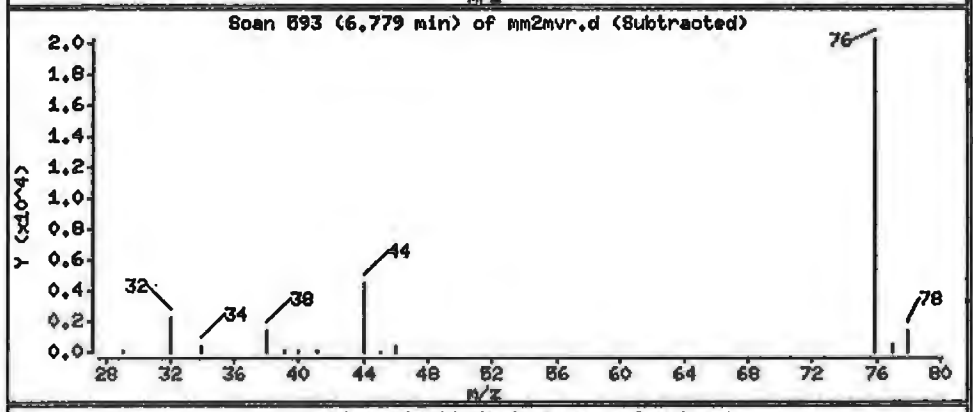
Sample Info: MM2MV1AA,2474.98,0,,,

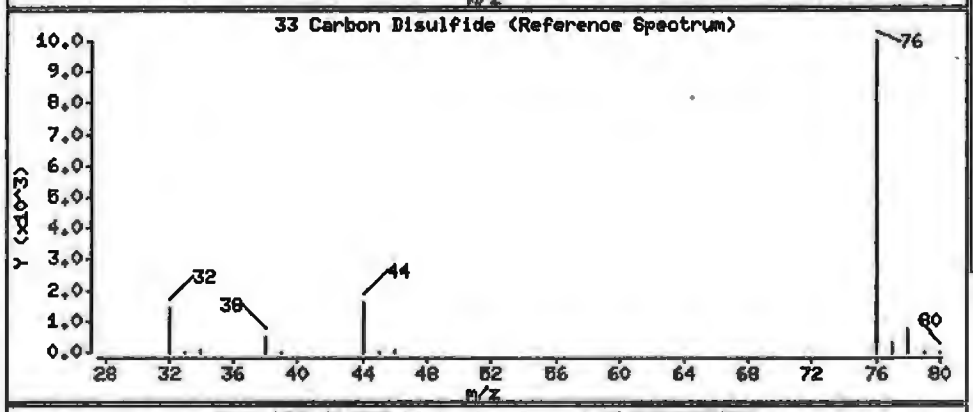
Purge Volume: 200.0 Operator: 403648

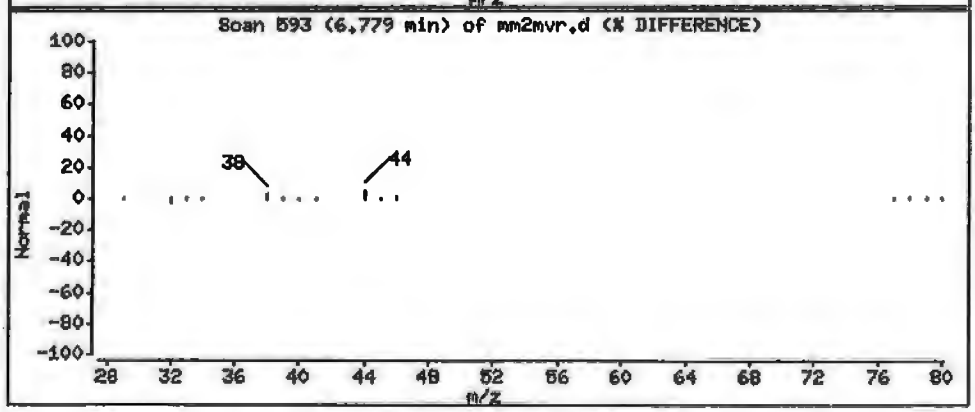
Column phase: Rtx-5 Column diameter: 0.32

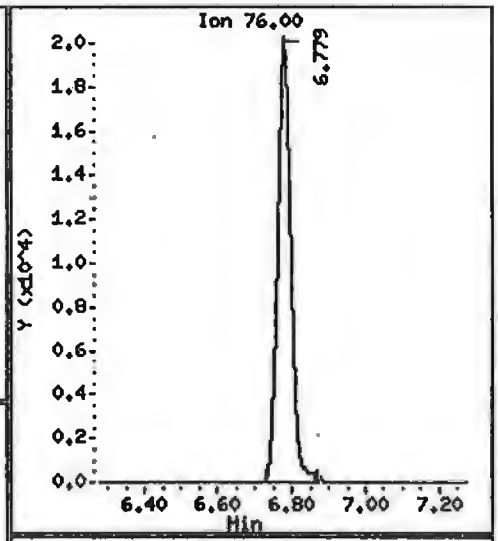
33 Carbon Disulfide Concentration: 616.4 ppb(v/v)

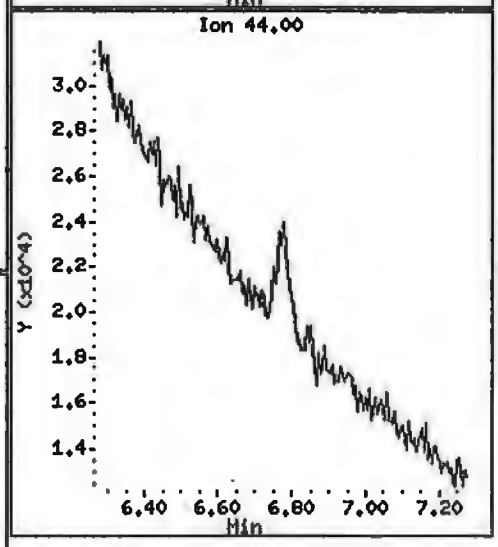












Data File: /var/chem/gcms/mj.i/J101011.b/mm2mvr.d

Date : 11-OCT-2011 05:40

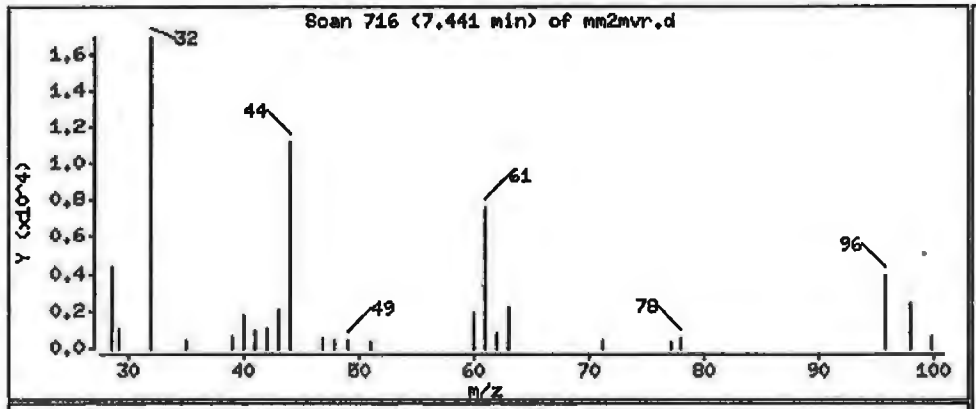
Client ID: TOI/100511 Instrument: mj.i

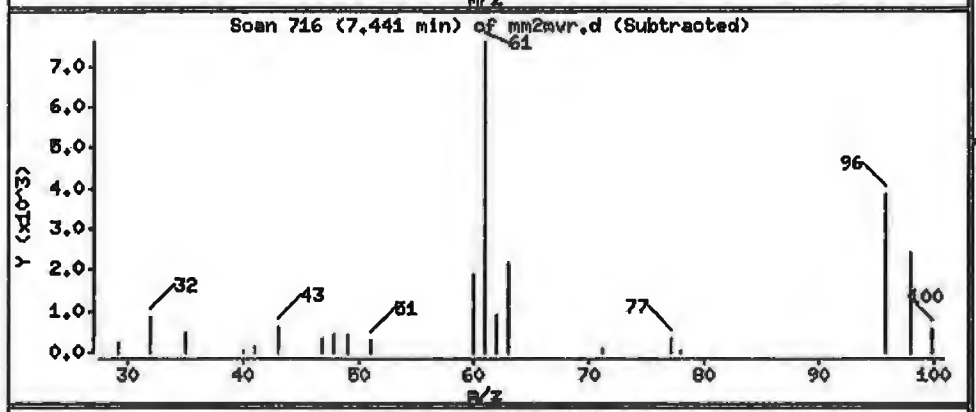
Sample Info: MM2MV1AA,2474.98,0,,,

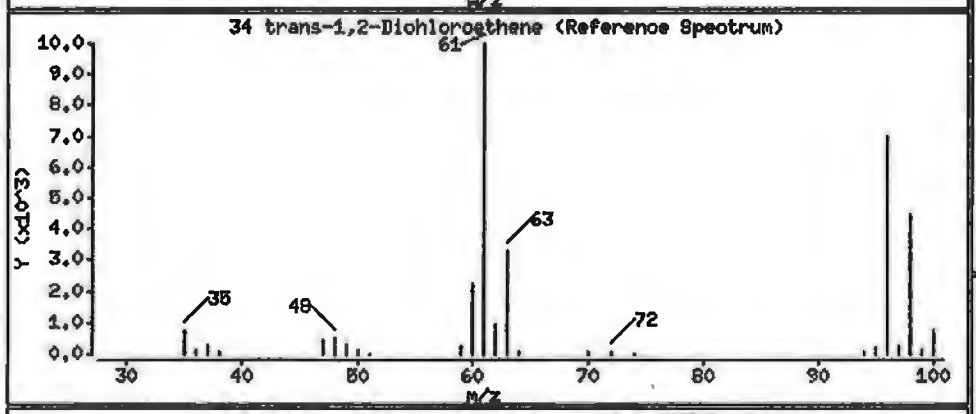
Purge Volume: 200.0 Operator: 403648

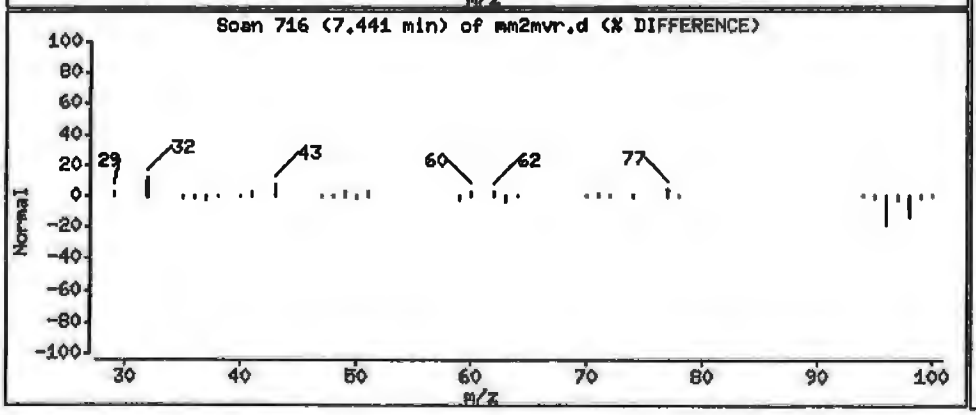
Column phase: Rtx-5 Column diameter: 0.32

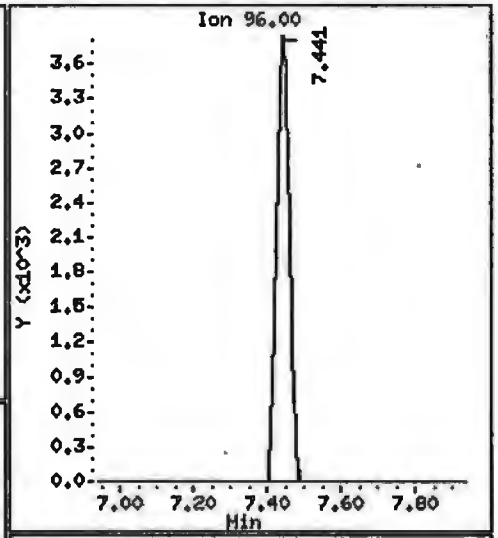
34 trans-1,2-Dichloroethene Concentration: 354.6 ppb(v/v)

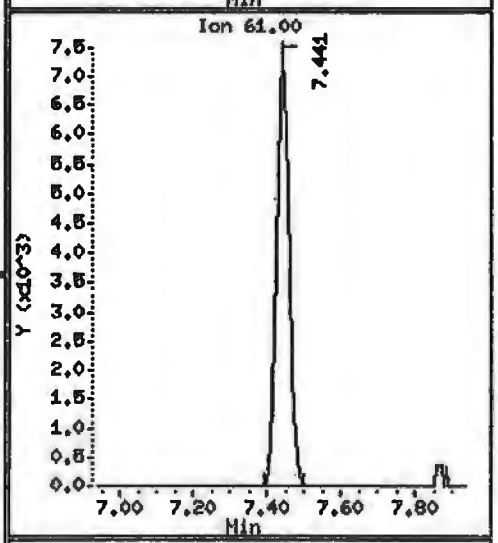


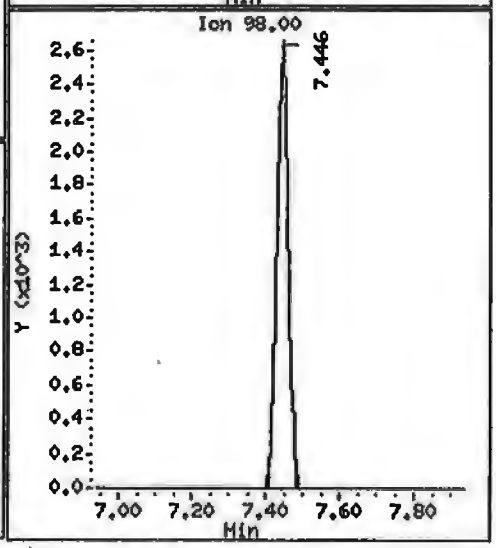












Data File: /var/chem/gcms/mj.i/J101011.b/mm2mvr.d

Date : 11-OCT-2011 05:40

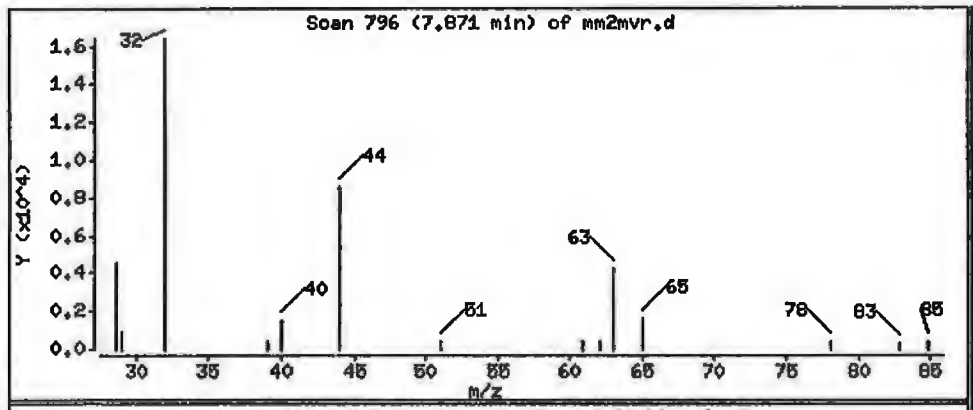
Client ID: TOI/100511 Instrument: mj.i

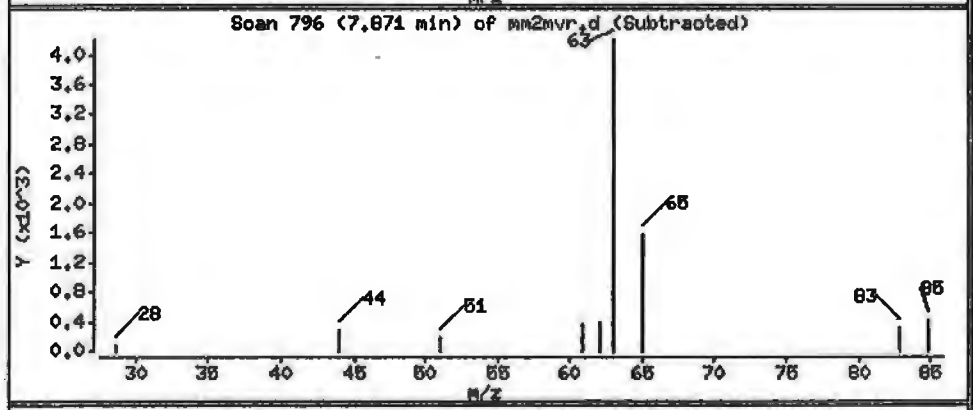
Sample Info: MM2MV1AA,2474.98,0,,,

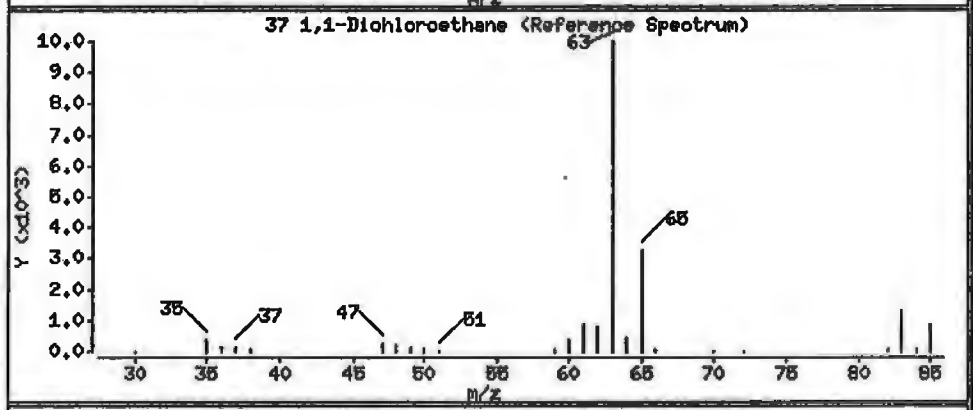
Purge Volume: 200.0 Operator: 403648

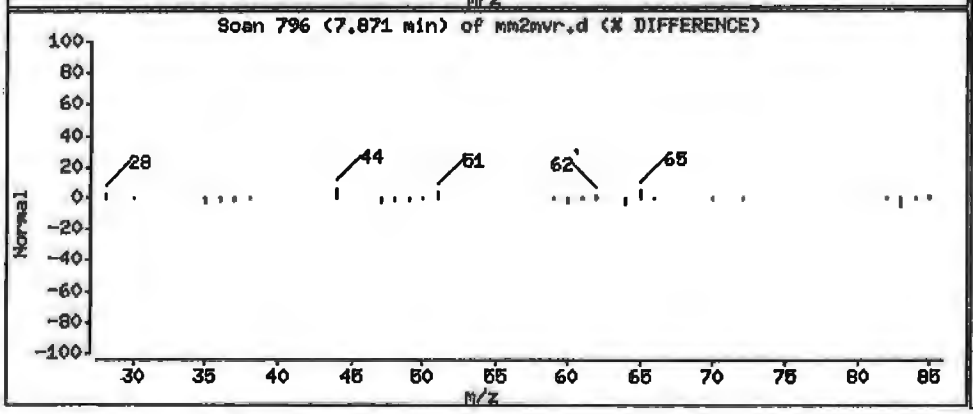
Column phase: Rtx-5 Column diameter: 0.32

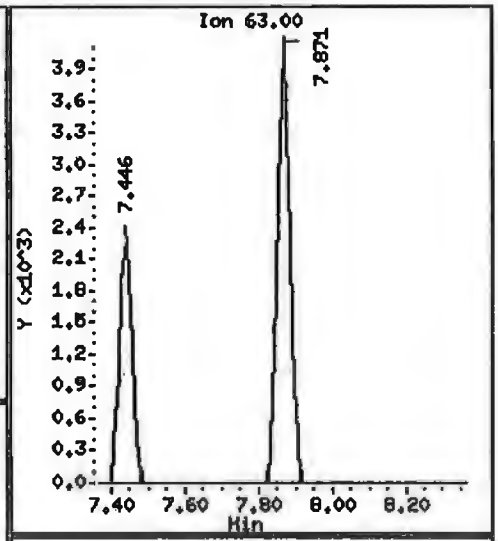
37 1,1-Dichloroethane Concentration: 174.1 ppb(v/v)

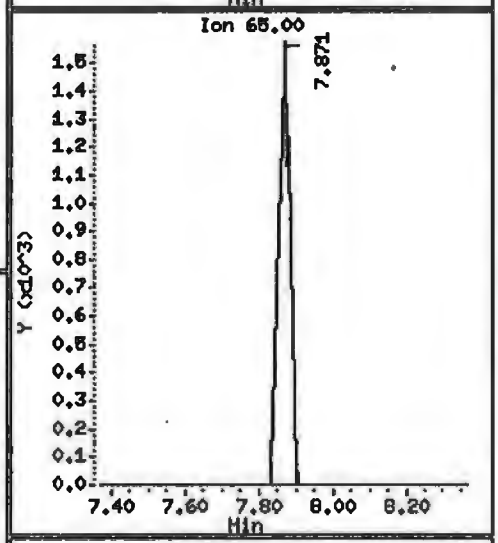


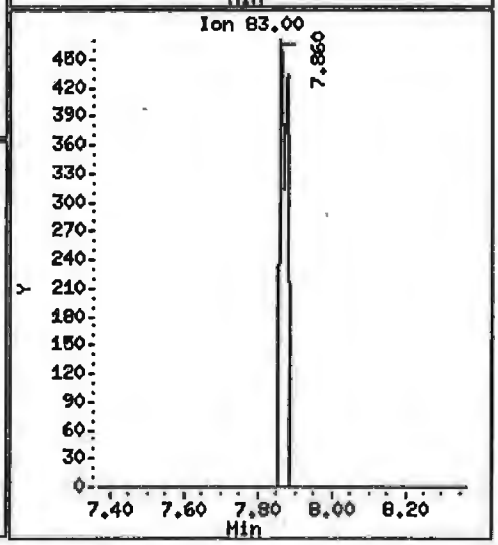












Data File: /var/chem/gcms/mj.i/J101011.b/mm2mvr.d

Date : 11-OCT-2011 05:40

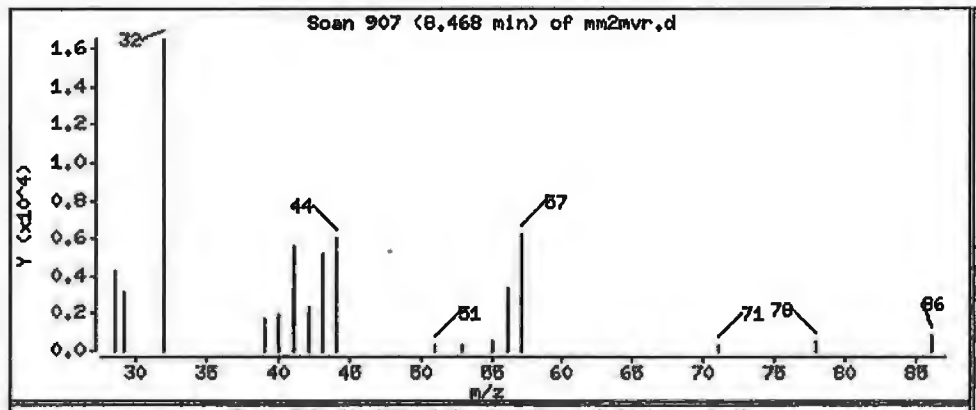
Client ID: TOI/100511 Instrument: mj.i

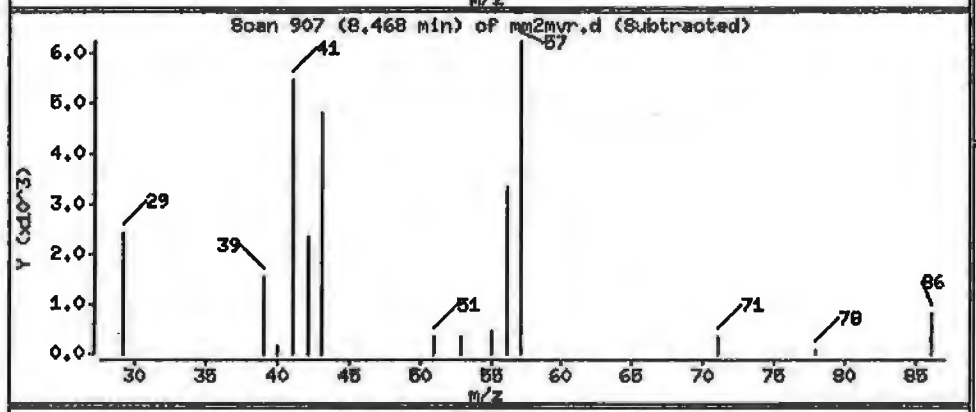
Sample Info: MM2HV1AA,2474.98,0,,,

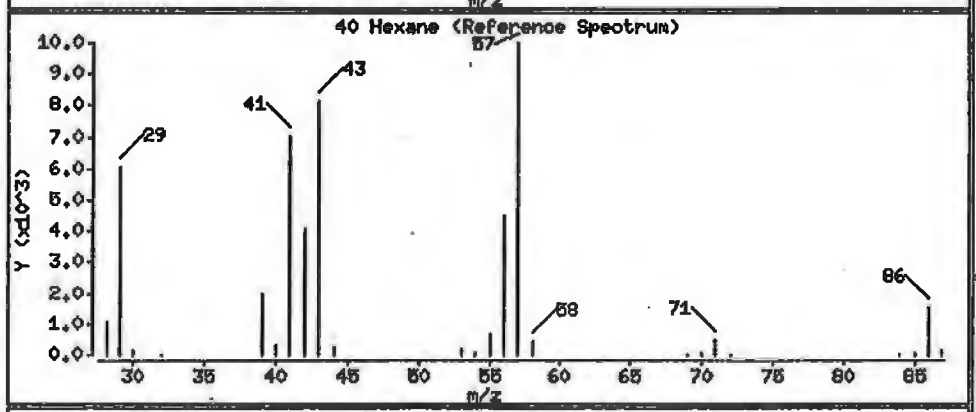
Purge Volume: 200.0 Operator: 403648

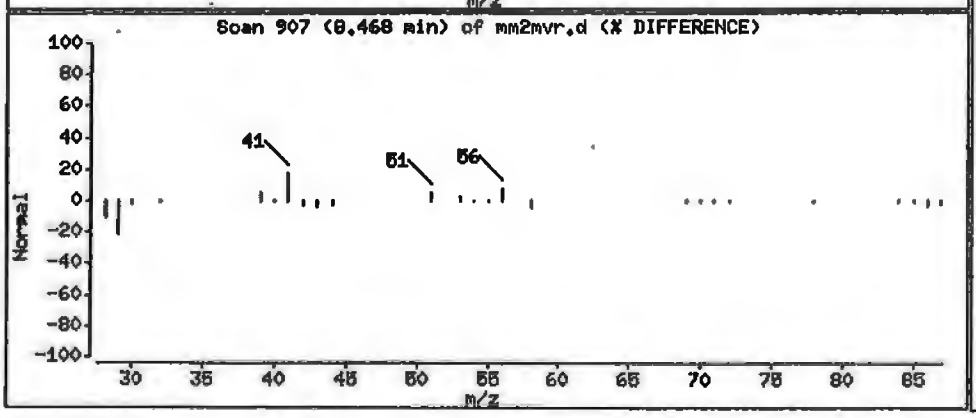
Column phase: Rtx-5 Column diameter: 0.32

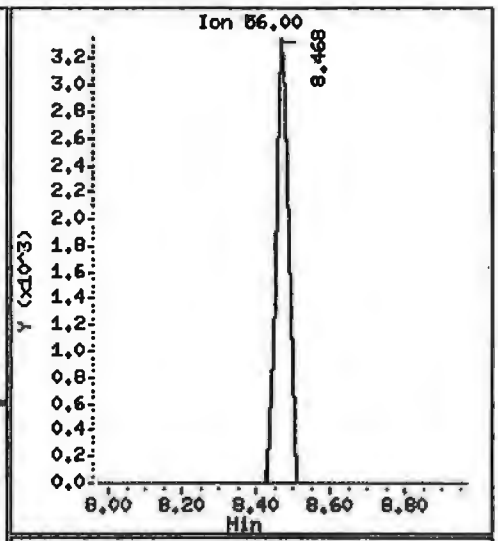
40 Hexane Concentration: 268.0 ppb(v/v)

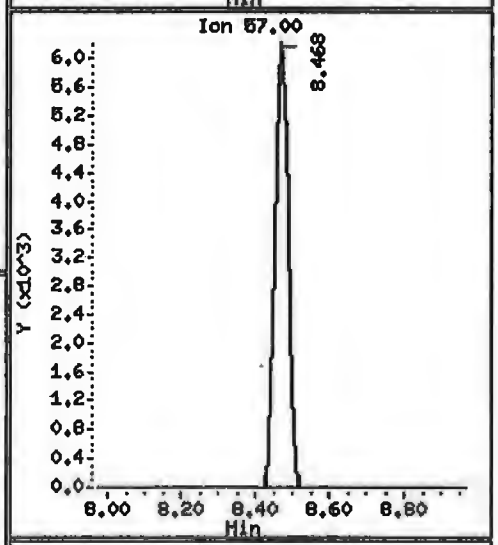


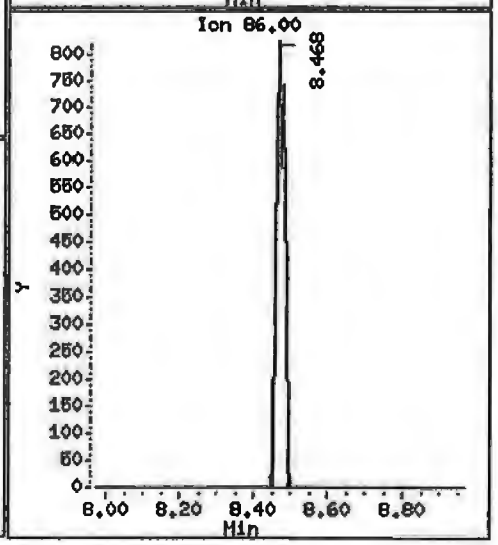












Data File: /var/chem/gcms/mj.i/J101011.b/mm2mvr.d

Date : 11-OCT-2011 05:40

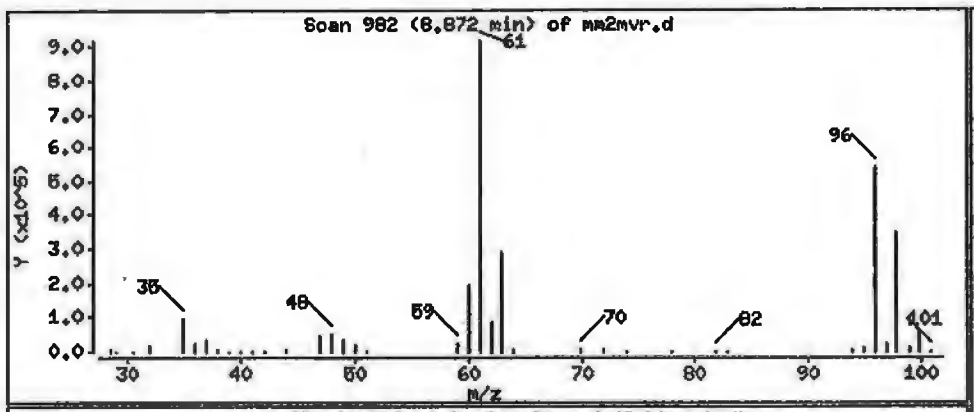
Client ID: TOI/100511 Instrument: mj.i

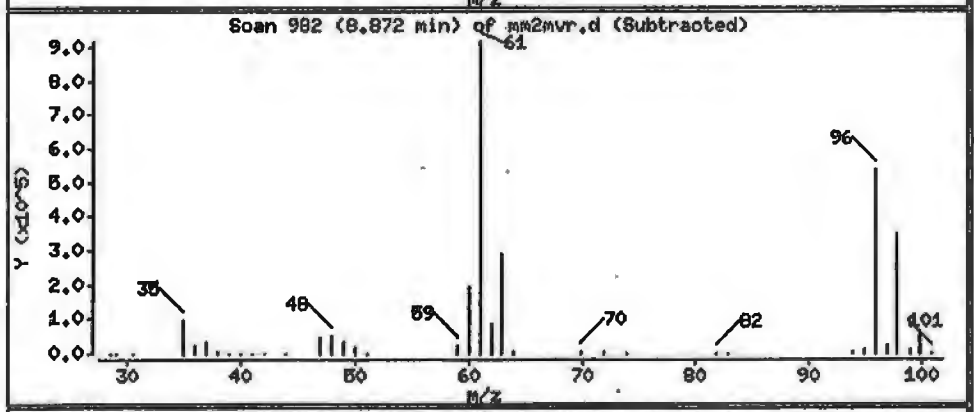
Sample Info: MH2MV1AA,2474.98,0,,,

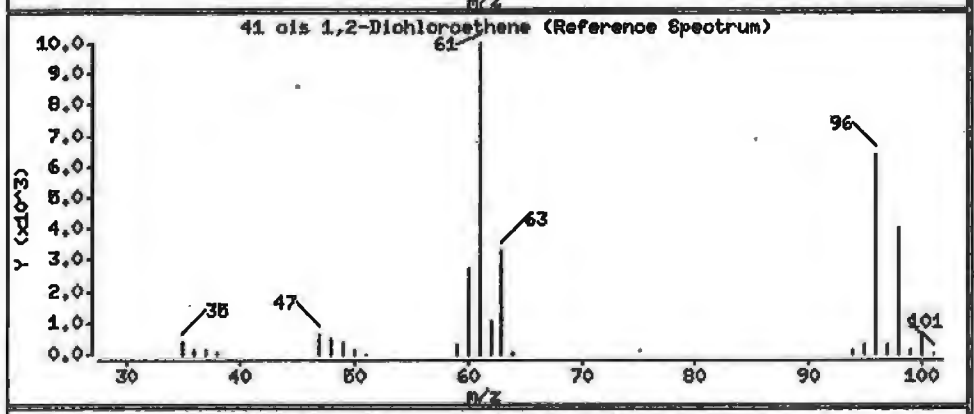
Purge Volume: 200.0 Operator: 403648

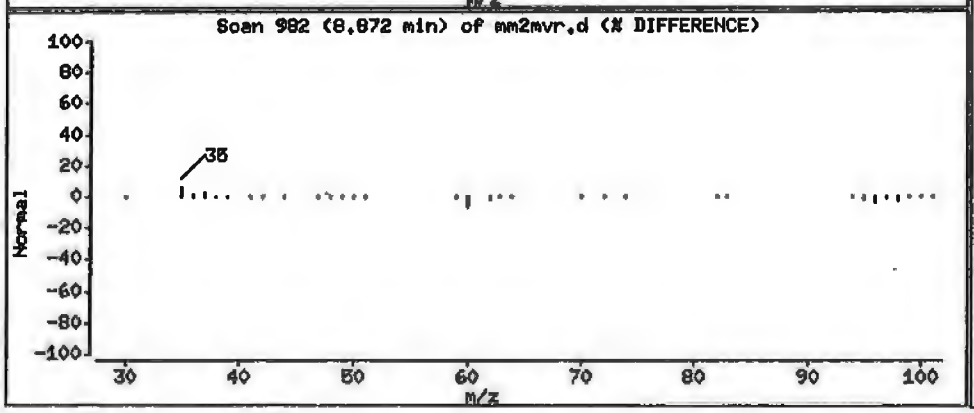
Column phase: Rtx-5 Column diameter: 0.32

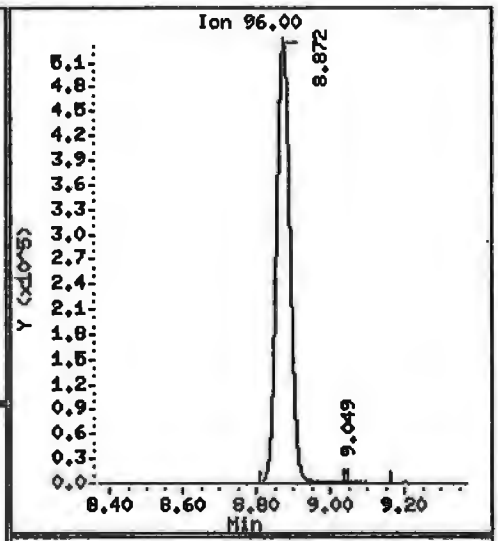
41 cis 1,2-Dichloroethene Concentration: 53940 ppb(v/v)

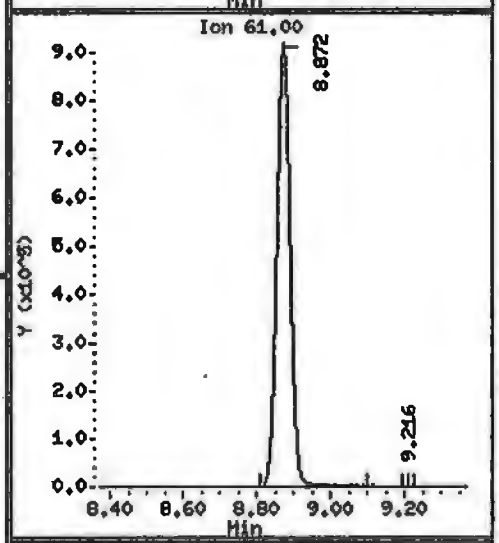


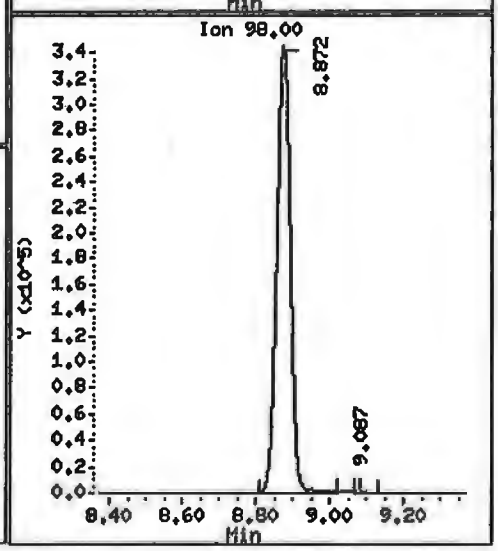












Data File: /var/chem/gcms/mj.i/J101011.b/mm2mvr.d

Date : 11-OCT-2011 05:40

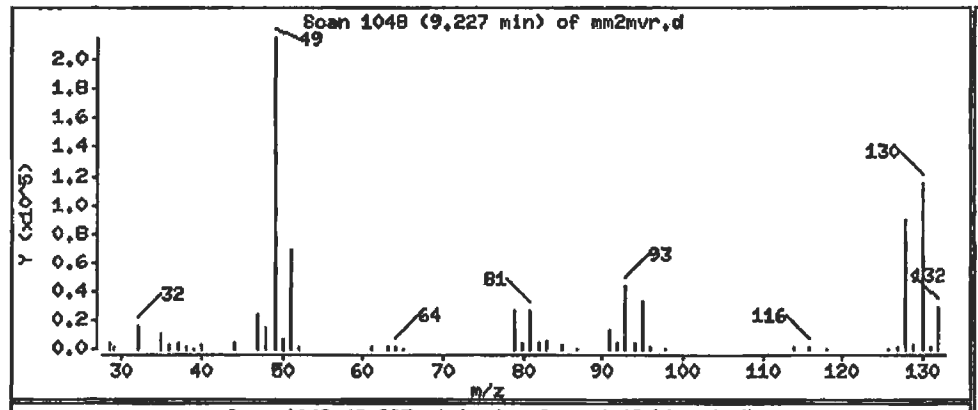
Client ID: TOI/100511 Instrument: mj.i

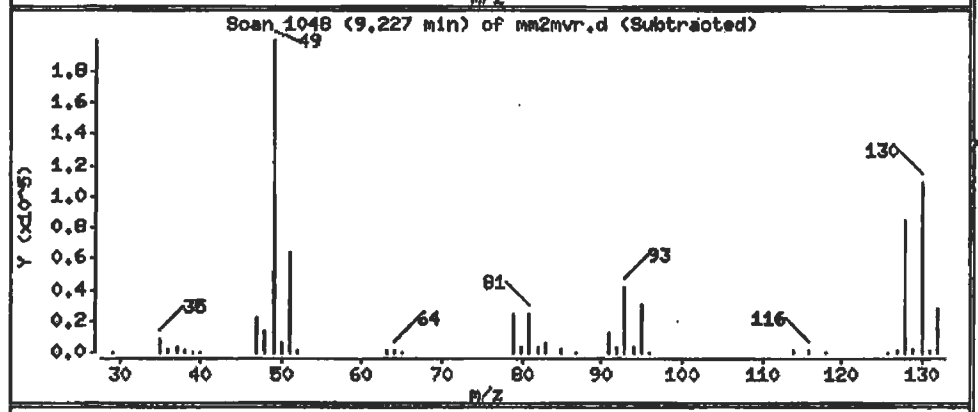
Sample Info: MM2MV1AA,2474.98,0,,,

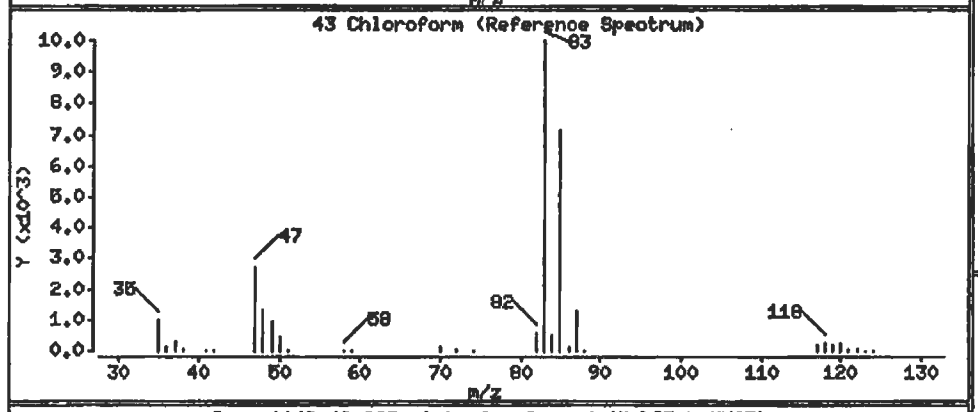
Purge Volume: 200.0 Operator: 403648

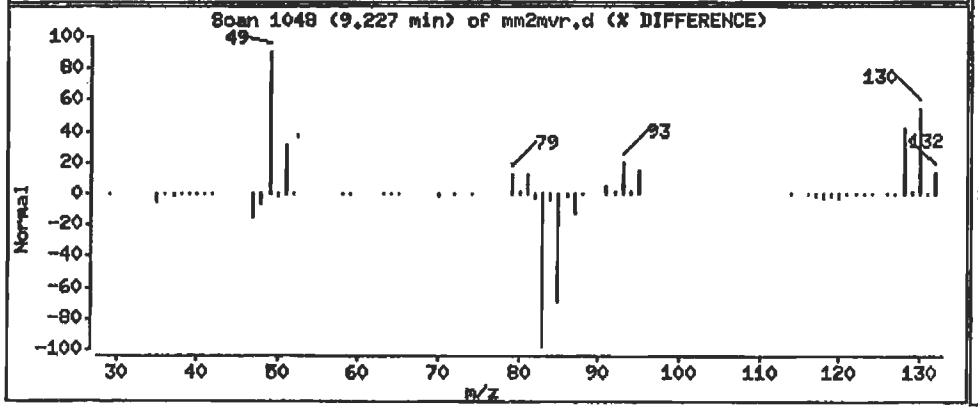
Column phase: Rtx-5 Column diameter: 0.32

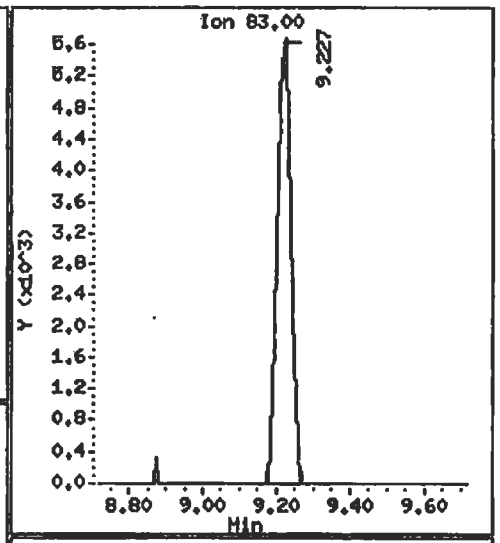
43 Chloroform Concentration: 268.4 ppb(v/v)

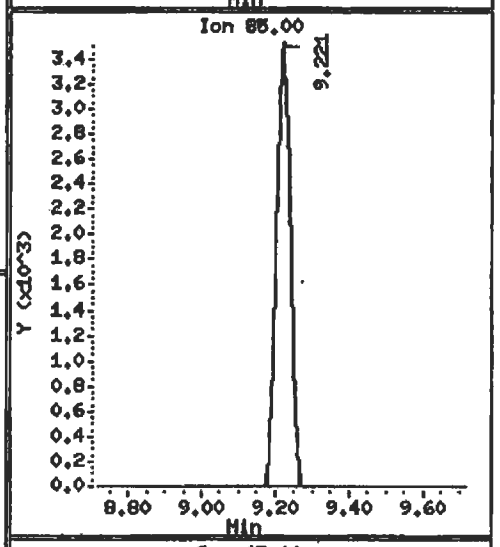


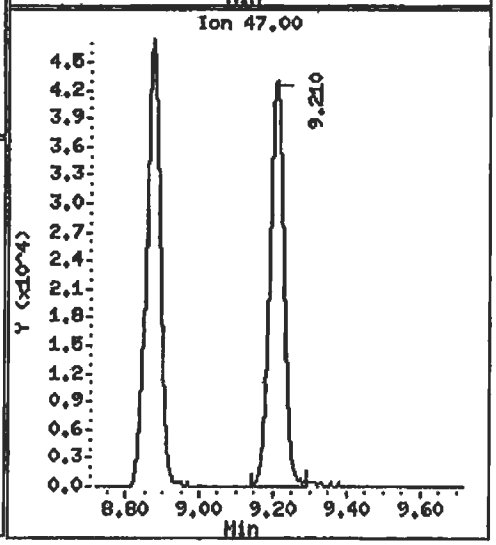












Data File: /var/chem/gcms/mj.i/J101011.b/mm2mvr.d

Date : 11-OCT-2011 05:40

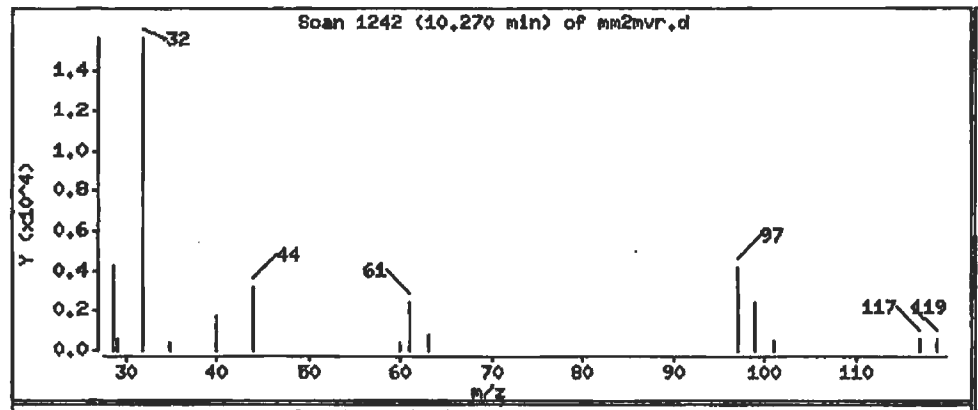
Client ID: TDI/100511 Instrument: mj.i

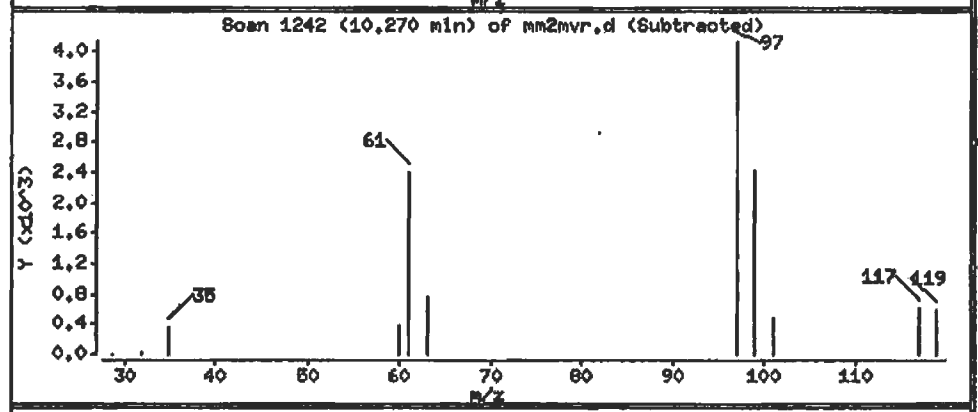
Sample Info: MM2MV1AA,2474.98,0,,,

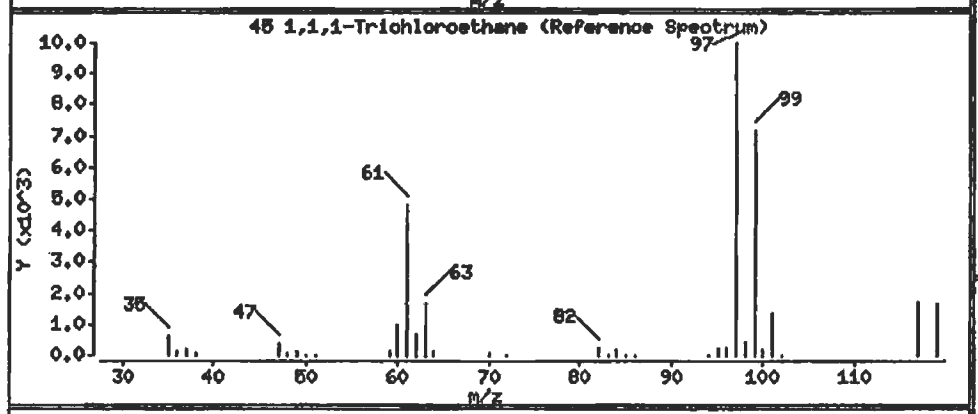
Purge Volume: 200.0 Operator: 403648

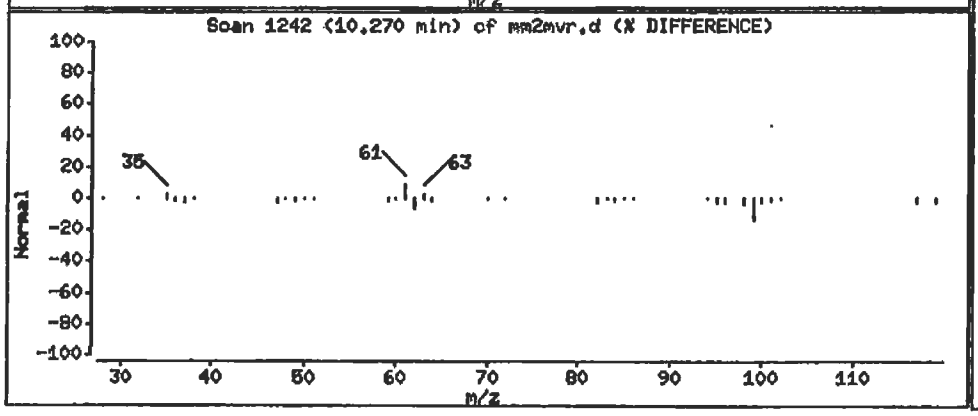
Column phase: Rtx-5 Column diameter: 0.32

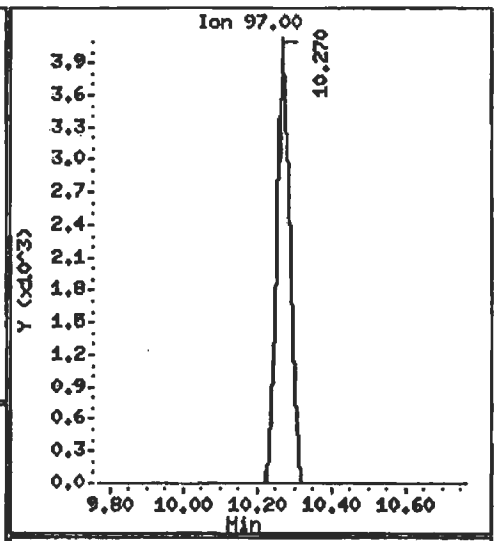
45 1,1,1-Trichloroethane Concentration: 185.1 ppb(v/v)

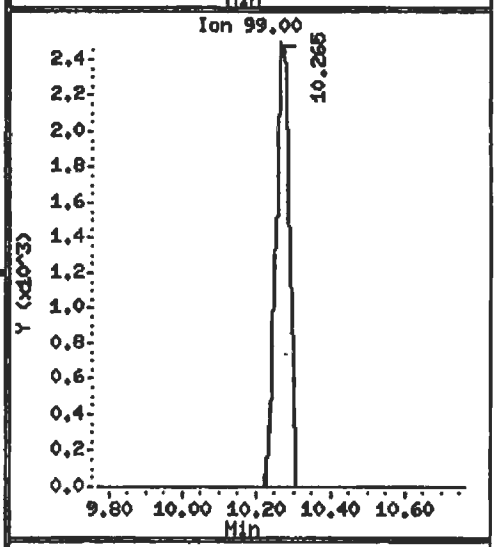


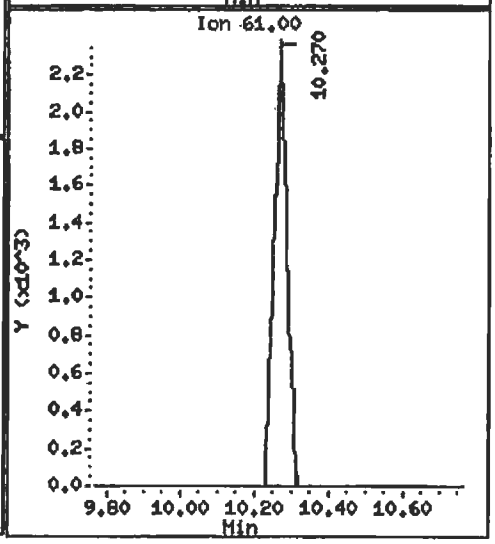












Data File: /var/chem/gcms/mj.i/J101011.b/mm2mvr.d

Date : 11-OCT-2011 05:40

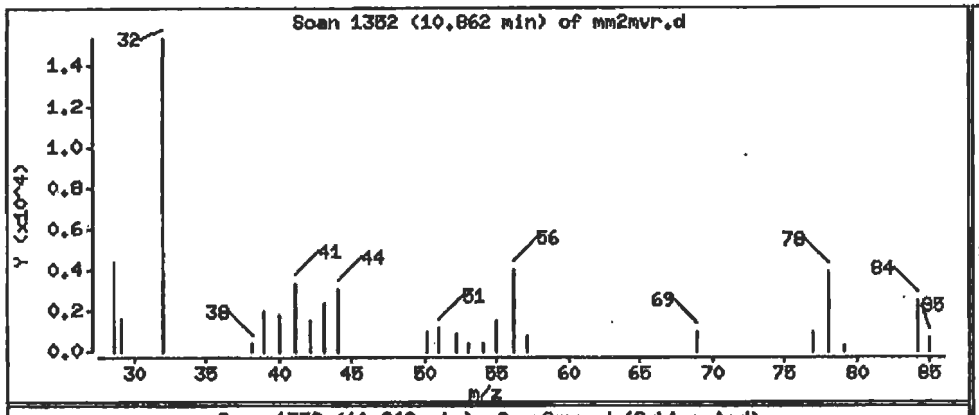
Client ID: TOI/100511 Instrument: mj.i

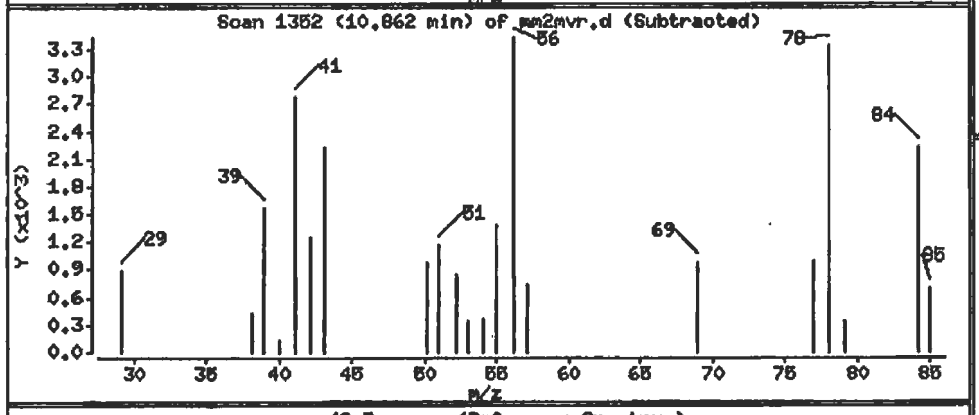
Sample Info: MM2MV1AA,2474.98,0,,,

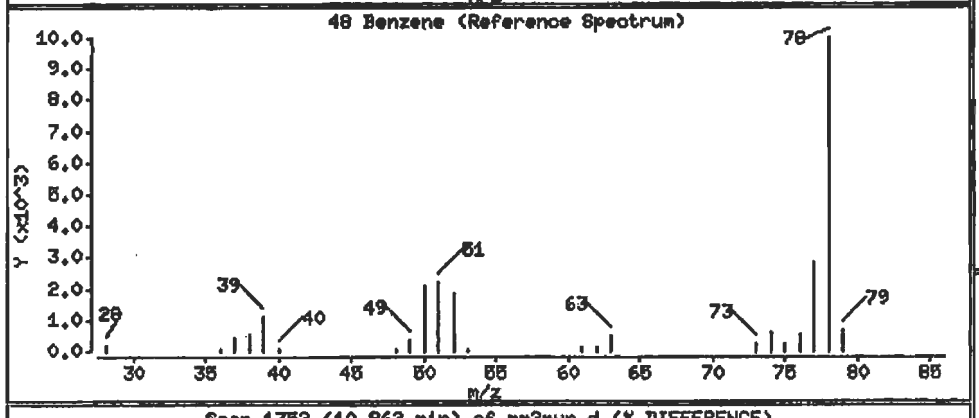
Purge Volume: 200.0 Operator: 403648

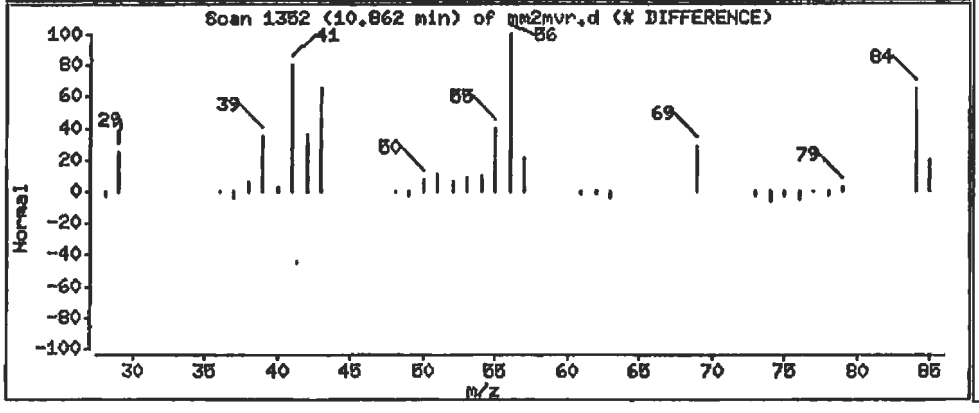
Column phase: Rtx-5 Column diameter: 0.32

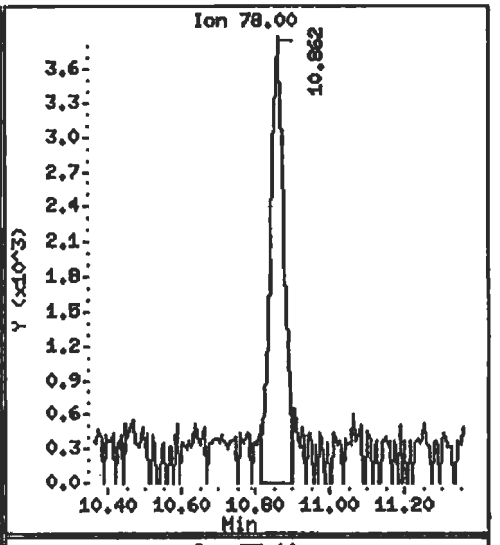
48 Benzene Concentration: 139.1 ppb(v/v)

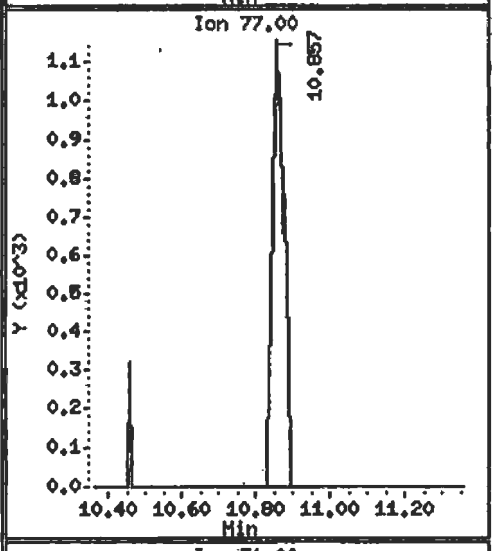


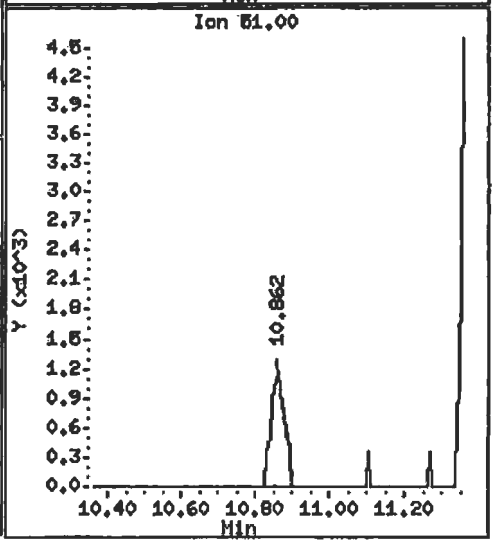












Data File: /var/chem/gcms/mj.i/J101011.b/mm2mvr.d

Date : 11-OCT-2011 05:40

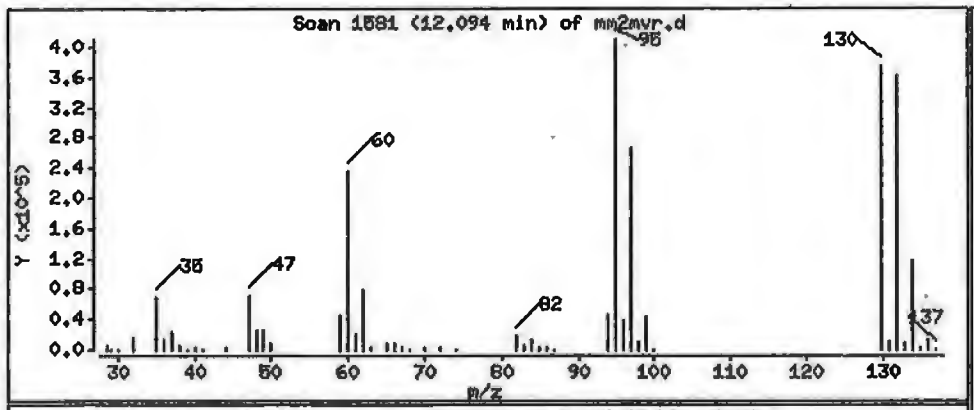
Client ID: TOI/100511 Instrument: mj.i

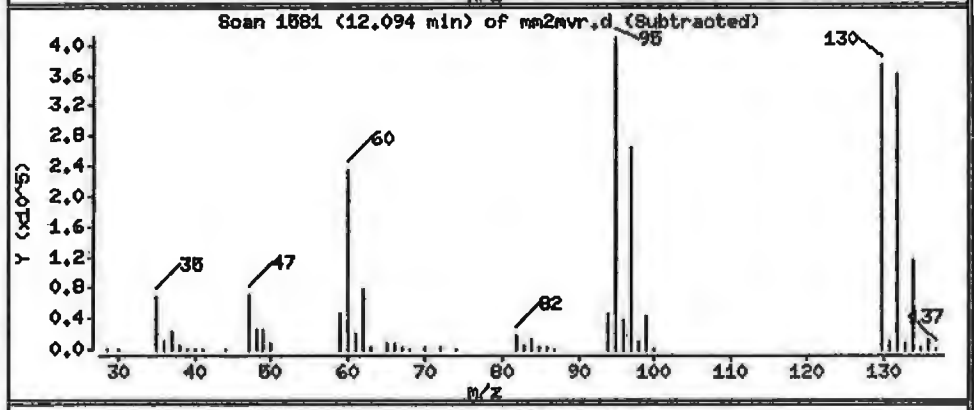
Sample Info: MM2MV1AA,2474.98,0,,,

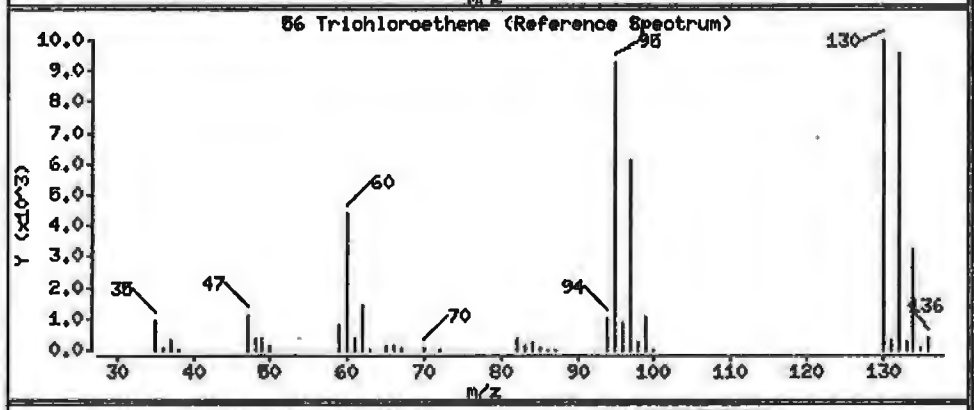
Purge Volume: 200.0 Operator: 403648

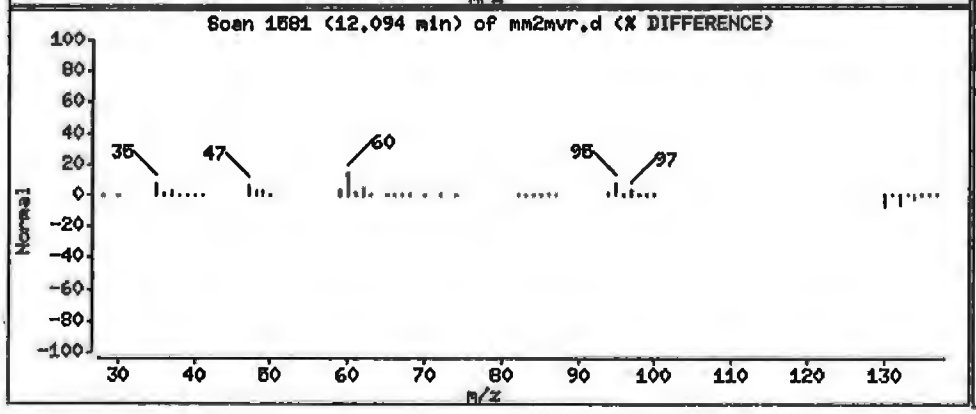
Column phase: Rtx-5 Column diameter: 0.32

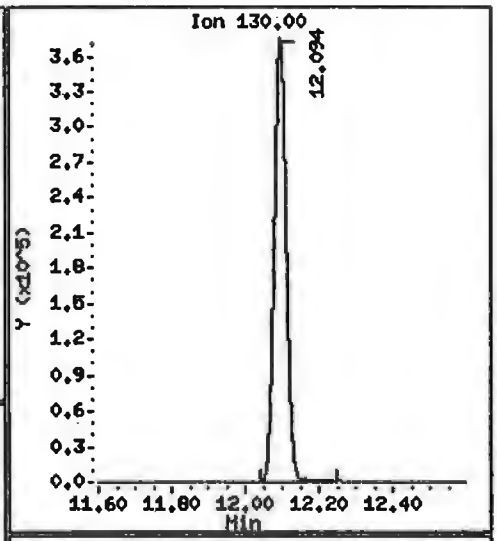
56 Trichloroethene Concentration: 24500 ppb(v/v)

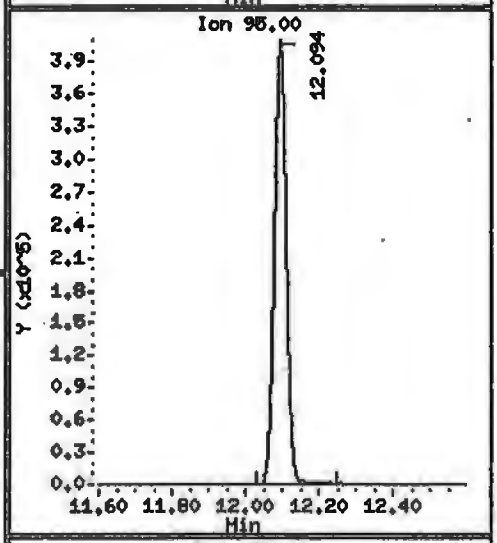


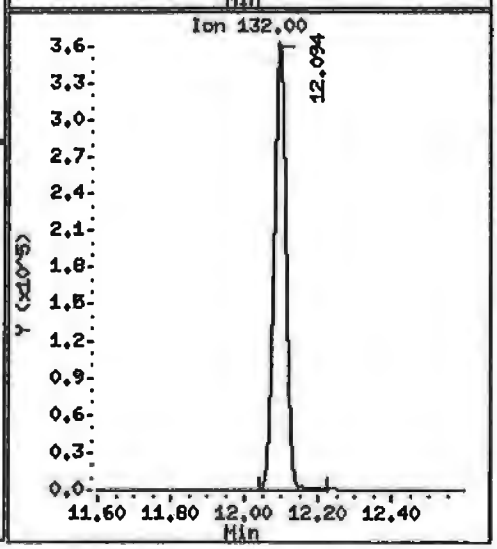












Data File: /var/chem/gcms/mj.i/J101011.b/mm2mvr.d

Date : 11-OCT-2011 05:40

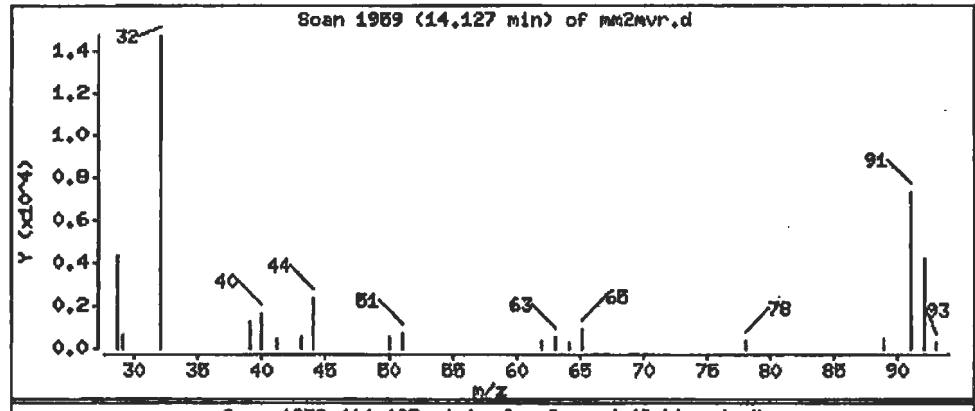
Client ID: TOI/100511 Instrument: mj.i

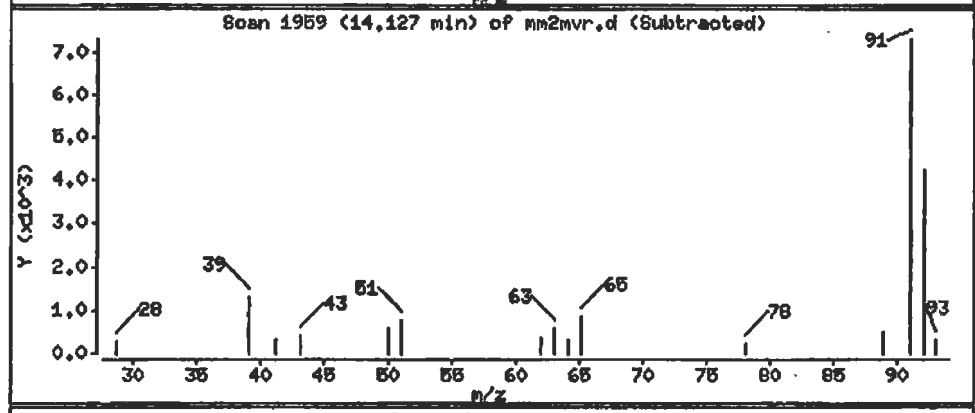
Sample Info: MM2MV1AA,2474.98,0,,,

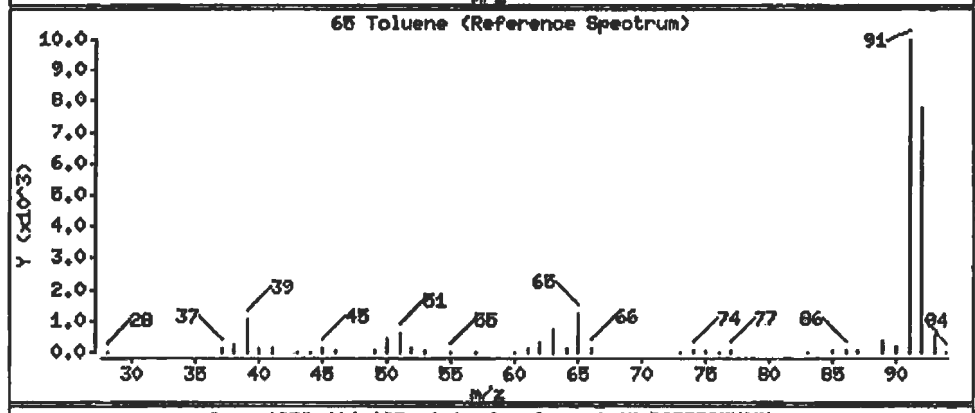
Purge Volume: 200.0 Operator: 403648

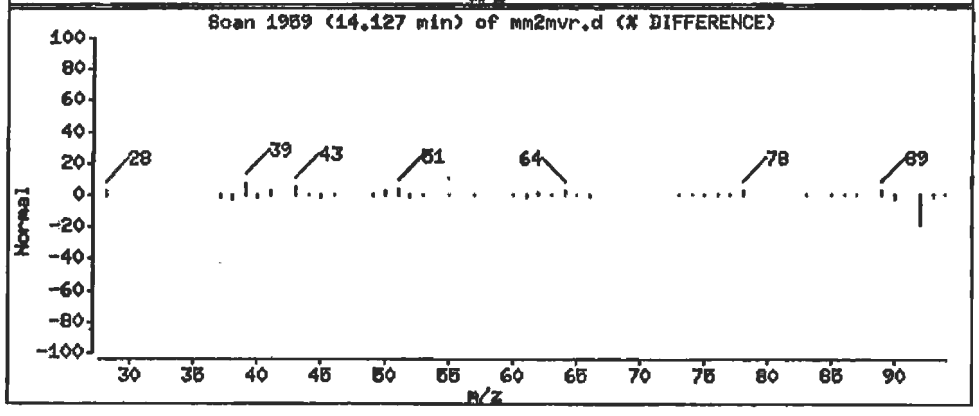
Column phase: Rtx-5 Column diameter: 0.32

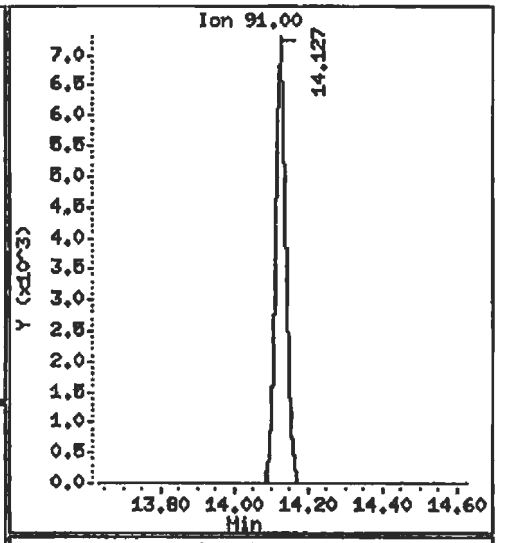
65 Toluene Concentration: 220.8 ppb(v/v)

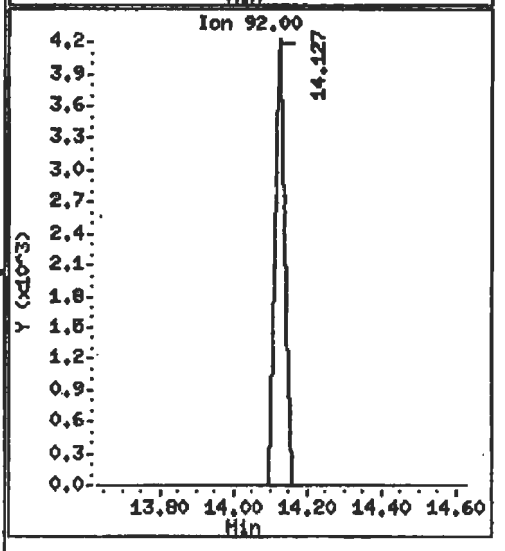












Data File: /var/chem/gcms/mj.i/J101011.b/mm2mvr.d

Date : 11-OCT-2011 05:40

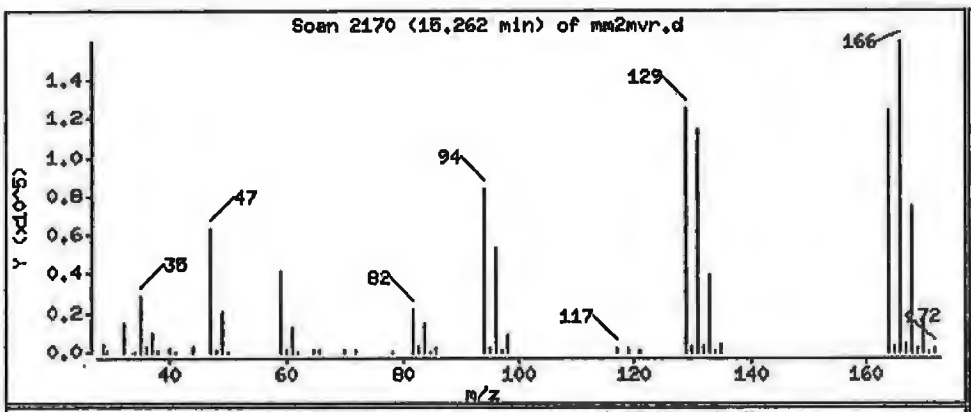
Client ID: TOI/100511 Instrument: mj.i

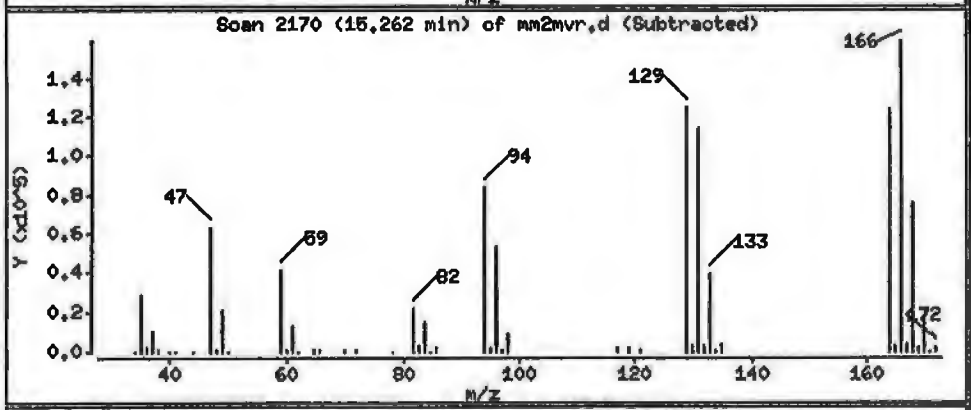
Sample Info: MM2MV1AA,2474.98,0,,,

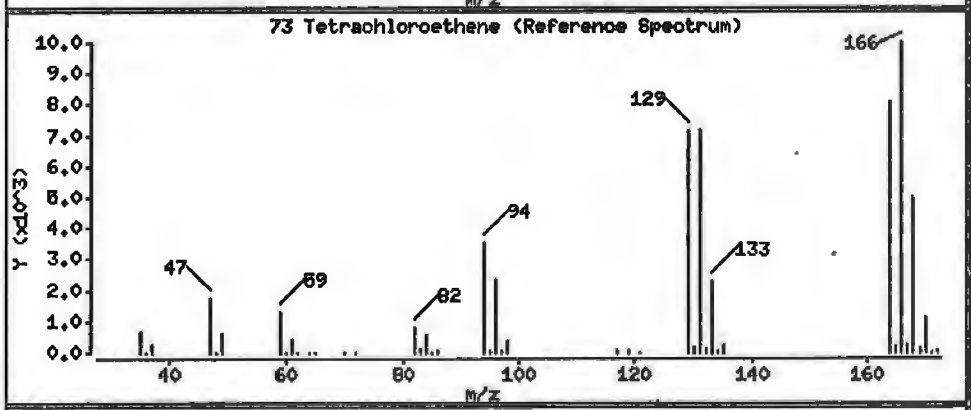
Purge Volume: 200.0 Operator: 403648

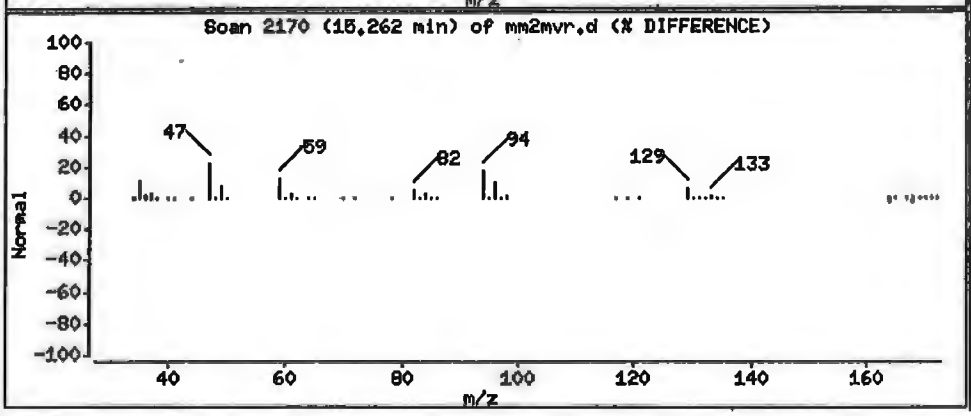
Column phase: Rtx-5 Column diameter: 0.32

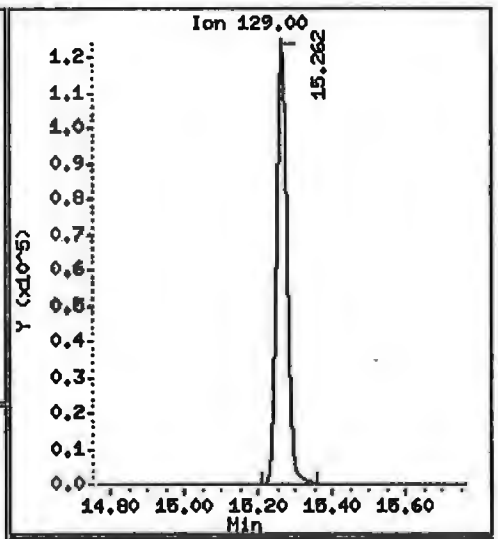
73 Tetrachloroethene Concentration: 9157 ppb(v/v)

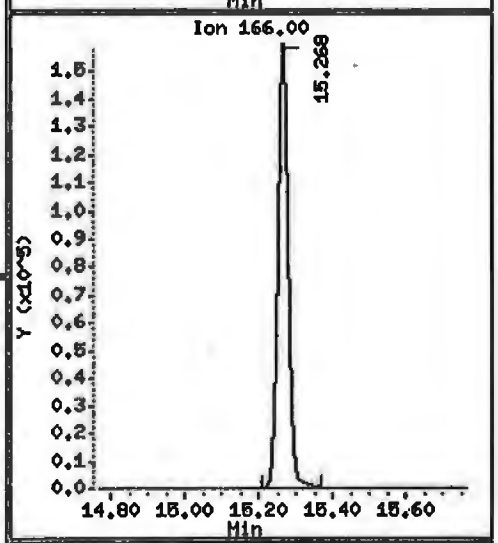


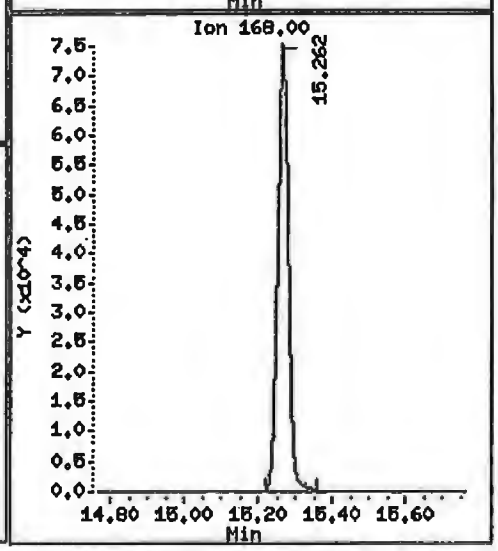












Data File: /var/chem/gcms/mj.i/J101011.b/mm2mvr.d

Date : 11-OCT-2011 05:40

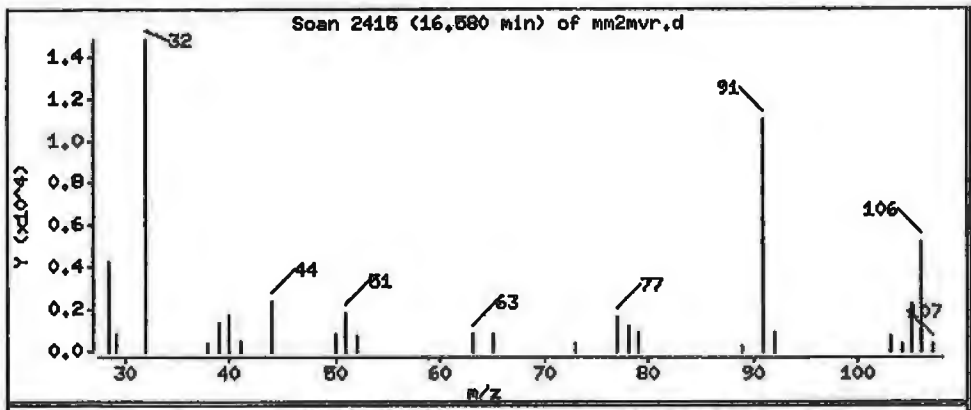
Client ID: TOI/100511 Instrument: mj.i

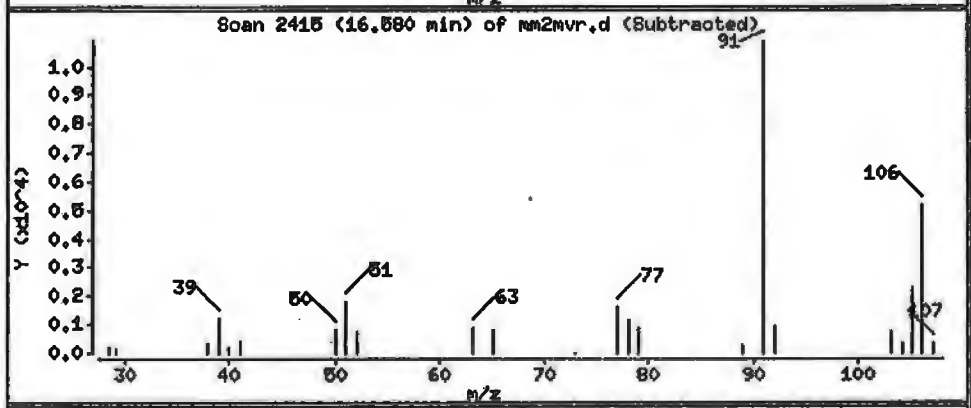
Sample Info: MM2MV1AA,2474.98,0,,,

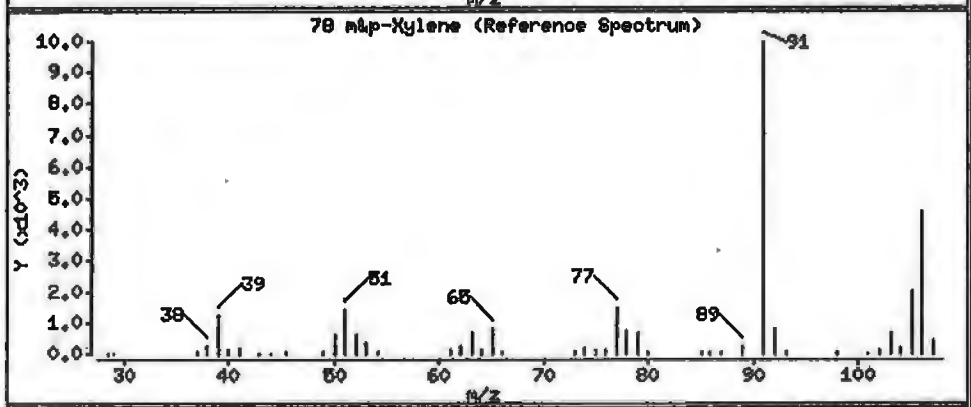
Purge Volume: 200.0 Operator: 403648

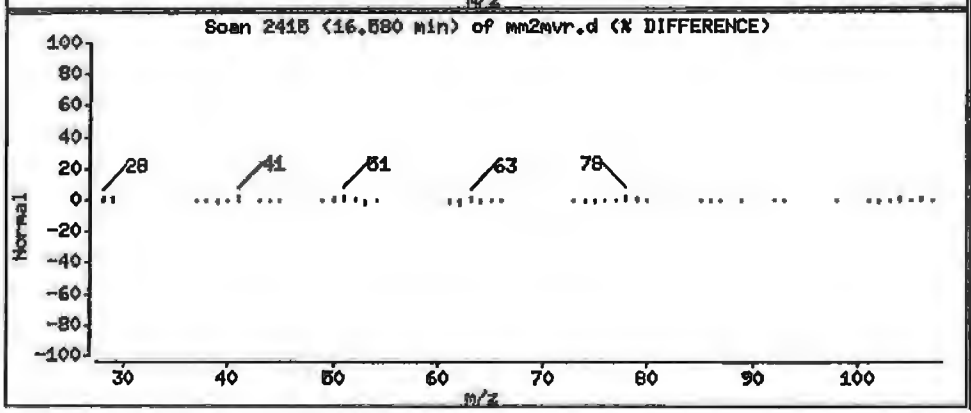
Column phase: Rtx-5 Column diameter: 0.32

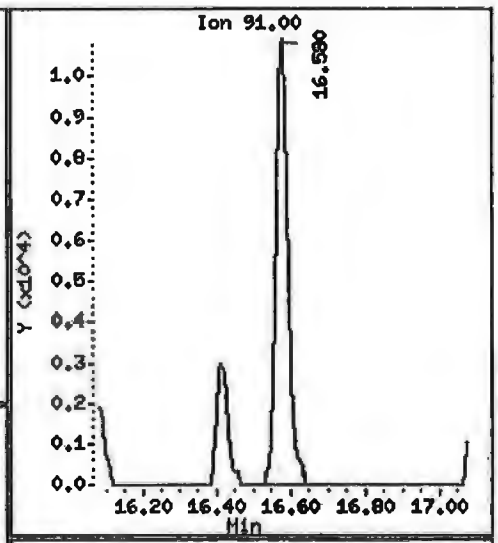
78 m&p-Xylene Concentration: 435.5 ppb(v/v)

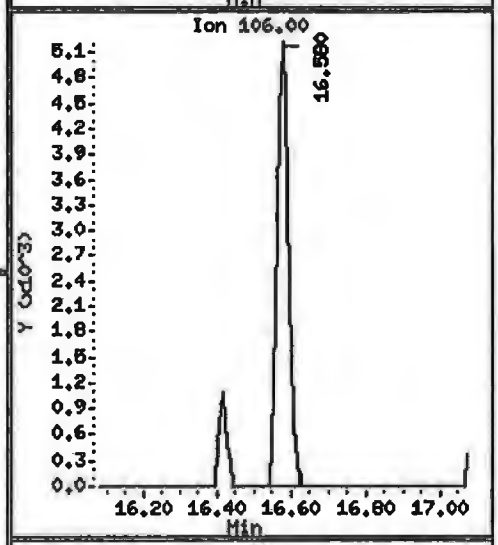


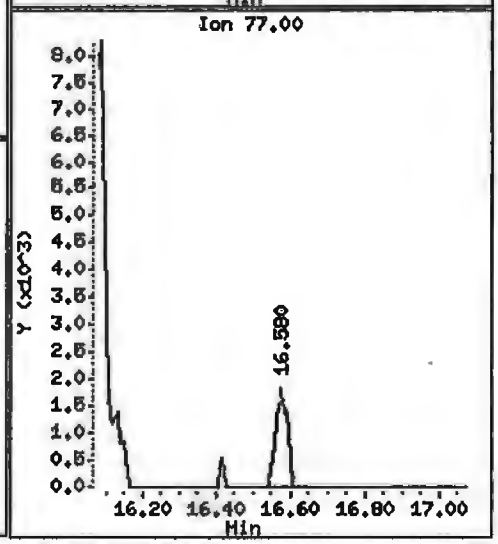












Data File: /var/chem/gcms/mj.i/J101011.b/mm2mvr.d

Date : 11-OCT-2011 05:40

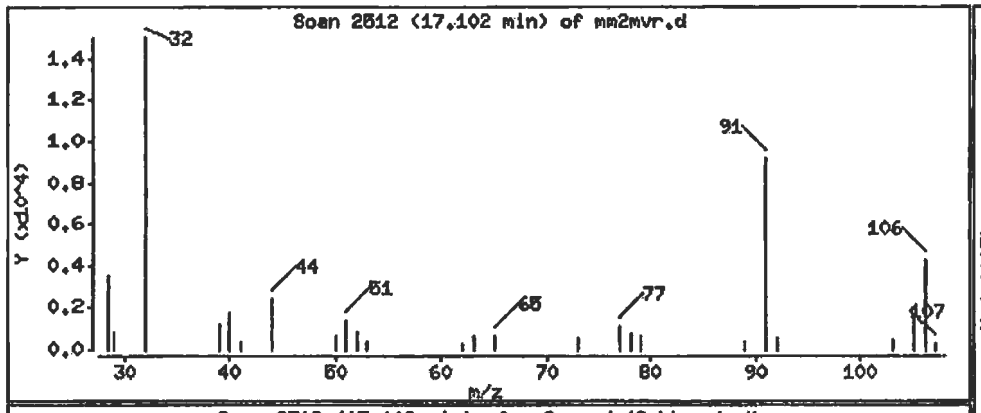
Client ID: TOI/100511 Instrument: mj.i

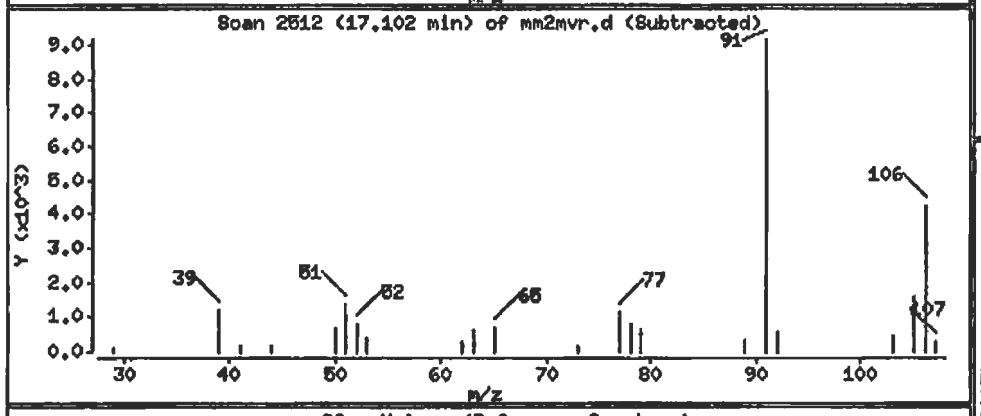
Sample Info: MM2MV1AA,2474.98,0,,,

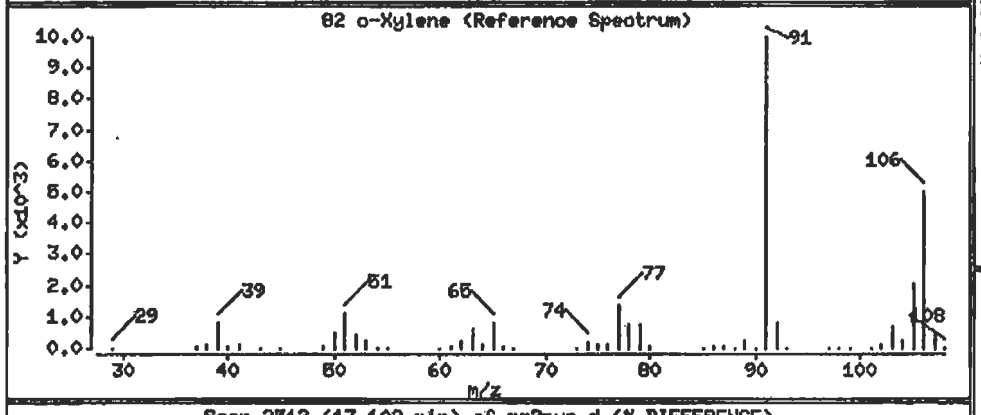
Purge Volume: 200.0 Operator: 403648

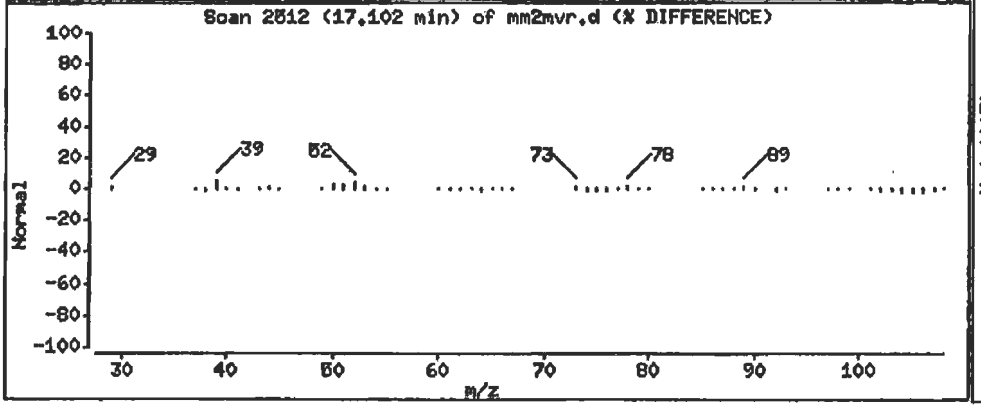
Column phase: Rtx-5 Column diameter: 0.32

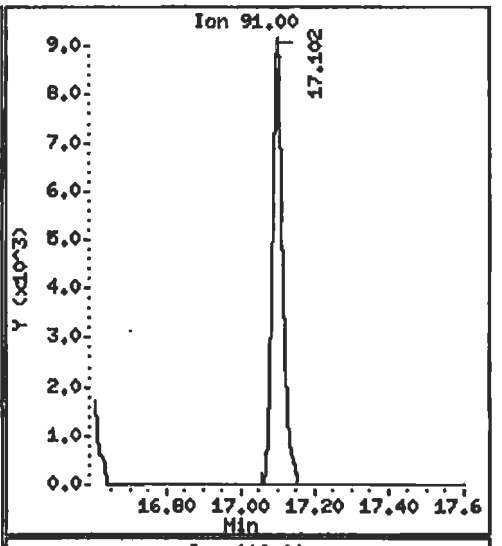
82 o-Xylene Concentration: 305.5 ppb(v/v)

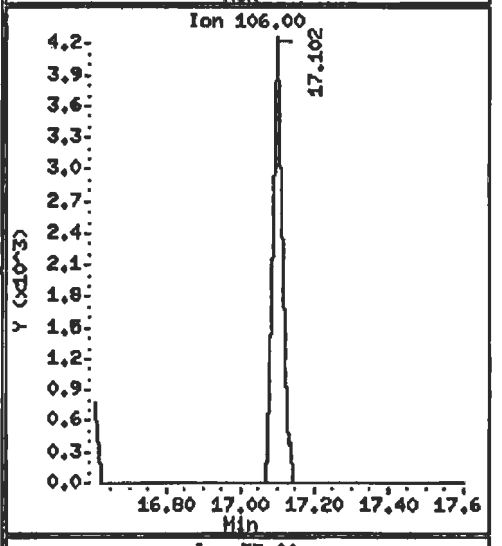


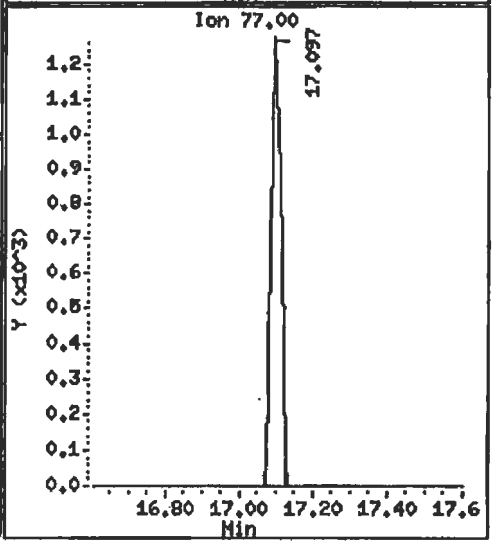












ARCADIS U.S., Inc.

Client Sample ID: TOE/100511

GC/MS Volatiles

Lot-Sample # H1J070441 - 002 Work Order # MM2MW1AA Matrix.....: AIR

Date Sampled...: 10/05/2011 Date Received..: 10/07/2011
Prep Date.....: 10/10/2011 Analysis Date... 10/10/2011
Prep Batch #.....: 1283176
Dilution Factor.: 1 Method.....: TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
trans-1,3-Dichloropropene	ND	0.20	ND	0.91
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.20	ND	1.4
Acetone	17	5.0	41	12
1,4-Dioxane	ND	0.50	ND	1.8
Ethyl acetate	ND	2.0	ND	7.2
Ethylbenzene	0.13 J	0.20	0.58 J	0.87
Trichlorofluoromethane	ND	0.20	ND	1.1
n-Heptane	0.11 J	0.50	0.46 J	2.0
Hexachlorobutadiene	ND	1.0	ND	11
n-Hexane	0.074 J	0.50	0.26 J	1.8
2-Hexanone	1.8	0.50	7.4	2.0
2,2,4-Trimethylpentane	ND	0.50	ND	2.3
Cumene	ND	0.40	ND	2.0
tert-Butyl alcohol	4.2	2.0	13	6.1
Methylene chloride	0.67 B	0.50	2.3 B	1.7
Methyl methacrylate	ND	0.50	ND	2.0
Benzene	ND	0.20	ND	0.64
Acetonitrile	0.28 J	1.0	0.47 J	1.7
n-Octane	0.10 J	0.40	0.48 J	1.9
Pentane	ND	1.0	ND	3.0
Styrene	ND	0.20	ND	0.85
1,1,2,2-Tetrachloroethane	ND	0.20	ND	1.4
Tetrachloroethene	0.26	0.20	1.8	1.4
Toluene	0.70	0.20	2.6	0.75
1,2,4-Trichlorobenzene	ND	1.0	ND	7.4
1,1,1-Trichloroethane	ND	0.20	ND	1.1
1,1,2-Trichloroethane	ND	0.20	ND	1.1
Trichloroethene	0.54	0.20	2.9	1.1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	0.20	ND	1.5
1,2,4-Trimethylbenzene	0.23	0.20	1.1	0.98
1,3,5-Trimethylbenzene	0.093 J	0.20	0.46 J	0.98
Vinyl acetate	ND	1.0	ND	3.5
Vinyl chloride	0.15 J	0.20	0.39 J	0.51
o-Xylene	0.31	0.20	1.3	0.87
Methyl tert-butyl ether	ND	1.0	ND	3.6
alpha-Methylstyrene	ND	0.40	ND	1.9
Chlorodifluoromethane	0.063 J	0.20	0.22 J	0.71
m-Xylene & p-Xylene	0.58	0.20	2.5	0.87

ARCADIS U.S., Inc.

Client Sample ID: TOE/100511

GC/MS Volatiles

Lot-Sample # H1J070441 - 002 **Work Order #** MM2MW1AA **Matrix.....:** AIR

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Bromodichloromethane	ND	0.20	ND	1.3
1,2-Dibromoethane (EDB)	ND	0.20	ND	1.5
2-Butanone (MEK)	**2.8**	**1.0**	**8.2**	**2.9**
4-Methyl-2-pentanone (MIBK)	**1.1**	**0.50**	**4.4**	**2.0**
Bromoform	ND	0.20	ND	2.1
Bromomethane	ND	0.20	ND	0.78
1,3-Butadiene	ND	0.40	ND	0.88
4-Ethyltoluene	**0.13 J**	**0.40**	**0.63 J**	**2.0**
Acrolein	**0.73 J**	**0.80**	**1.7 J**	**1.8**
Carbon disulfide	**0.33 J**	**0.50**	**1.0 J**	**1.6**
Acrylonitrile	ND	2.0	ND	4.3
Carbon tetrachloride	ND	0.20	ND	1.3
Chlorobenzene	ND	0.20	ND	0.92
Dibromochloromethane	ND	0.20	ND	1.7
Chloroethane	**0.065 J**	**0.20**	**0.17 J**	**0.53**
Chloroform	**0.060 J**	**0.20**	**0.29 J**	**0.98**
Chloromethane	**0.39 J**	**0.50**	**0.81 J**	**1.0**
3-Chloropropene	ND	0.20	ND	0.63
Propene	**0.14 J**	**0.50**	**0.24 J**	**0.86**
Dibromomethane	ND	0.40	ND	2.8
1,2-Dichlorobenzene	ND	0.20	ND	1.2
1,3-Dichlorobenzene	ND	0.20	ND	1.2
1,4-Dichlorobenzene	ND	0.20	ND	1.2
Dichlorodifluoromethane	ND	0.20	ND	0.99
1,1-Dichloroethane	ND	0.20	ND	0.81
1,2-Dichloroethane	ND	0.20	ND	0.81
1,1-Dichloroethene	ND	0.20	ND	0.79
cis-1,2-Dichloroethene	**0.95**	**0.20**	**3.8**	**0.79**
trans-1,2-Dichloroethene	ND	0.20	ND	0.79
1,2-Dichloropropane	ND	0.20	ND	0.92
cis-1,3-Dichloropropene	ND	0.20	ND	0.91

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	98	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated result. Result is less than RL.

ARCADIS U.S., Inc.

Client Sample ID: TOE/100511

GC/MS Volatiles

Lot-Sample # H1J070441 - 002 **Work Order #** MM2MW1AA **Matrix.....:** AIR

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Data File: /var/chem/gcms/mj.i/J101011.b/mm2mw1aa.d
Report Date: 10-Oct-2011 19:29

TestAmerica Knoxville

Modified Method TO-14/TO-15

Data file : /var/chem/gcms/mj.i/J101011.b/mm2mw1aa.d
Lab Smp Id: MM2MW1AA Client Smp ID: TOE/100511
Inj Date : 10-OCT-2011 18:07
Operator : 403648 Inst ID: mj.i
Smp Info : ,1,0,,,
Misc Info : J101011,TO15,polyone.sub,,,
Comment :
Method : /var/chem/gcms/mj.i/J101011.b/TO15.m
Meth Date : 10-Oct-2011 19:27 barlozha Quant Type: ISTD
Cal Date : 25-AUG-2011 21:16 Cal File: jich256.d
Als bottle: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: polyone.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Default Calibration Volume
Vo	200.00000	Default Sample Volume

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	FINAL (ppb(v/v))
* 1 Bromochloromethane	128	9.208	9.208	(1.000)	399392	4.00000	4.000
* 2 1,4-Difluorobenzene	114	11.386	11.387	(1.000)	1939223	4.00000	4.000
* 3 Chlorobenzene-d5	117	16.083	16.083	(1.000)	1664600	4.00000	4.000
$ 4 4-Bromofluorobenzene	95	17.713	17.713	(1.101)	1236338	3.91292	9.782
5 Chlorodifluoromethane	67	3.877	3.877	(0.421)	1227	0.02505	0.06263
6 Propene	41	3.887	3.888	(0.422)	11420	0.05593	0.1398
8 Chloromethane	52	4.135	4.135	(0.449)	10337	0.15665	0.3916
12 Vinyl Chloride	62	4.318	4.318	(0.469)	12712	0.06084	0.1521
13 n-Butane	43	4.414	4.415	(0.479)	14405	0.04208	0.1052 NM
16 Chloroethane	64	4.904	4.904	(0.533)	2368	0.02599	0.06498
21 Acrolein	56	5.517	5.512	(0.599)	10688	0.29351	0.7338
22 Acetonitrile	40	5.587	5.577	(0.607)	6353	0.11107	0.2777
23 Acetone	58	5.630	5.625	(0.611)	406456	6.86818	17.17
28 tert-butanol	59	6.319	6.314	(0.686)	456816	1.67822	4.196
31 Methylene Chloride	84	6.609	6.604	(0.718)	38201	0.26801	0.6700
33 Carbon Disulfide	76	6.781	6.776	(0.736)	67756	0.13389	0.3347

Data File: /var/chem/gcms/mj.i/J101011.b/mm2mw1aa.d
Report Date: 10-Oct-2011 19:29

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	CONCENTRATIONS FINAL (ppb(v/v))
39 2-Butanone	72	8.417	8.412	(0.914)	53920	1.10585	2.765
40 Hexane	56	8.465	8.471	(0.919)	5488	0.02959	0.07396
41 cis 1,2-Dichloroethene	96	8.874	8.869	(0.964)	60615	0.38142	0.9536
43 Chloroform	83	9.229	9.219	(1.002)	7952	0.02383	0.05958
47 1-Butanol	31	10.784	10.773	(0.947)	8211	0.08861	0.2215 NA
49 Cyclohexane	69	10.875	10.870	(0.955)	12560	0.12643	0.3161 ↓
54 Heptane	71	11.973	11.978	(1.051)	7852	0.04445	0.1111
56 Trichloroethene	130	12.096	12.097	(1.062)	49093	0.21540	0.5385
62 4-Methyl-2-pentanone	43	13.237	13.237	(1.163)	154654	0.43038	1.076
65 Toluene	91	14.124	14.130	(0.878)	118157	0.27826	0.6956
69 2-Hexanone	58	14.560	14.560	(0.905)	112866	0.72425	1.811
70 Octane	85	14.808	14.808	(0.921)	6661	0.04134	0.1034
73 Tetrachloroethene	129	15.259	15.265	(0.949)	18756	0.10557	0.2639
76 Ethylbenzene	91	16.416	16.416	(1.021)	26072	0.05389	0.1347
78 m&p-Xylene	91	16.572	16.578	(1.030)	86256	0.23220	0.5805
79 Nonane	57	16.986	16.992	(1.056)	29435	0.07859	0.1965 NA
82 o-Xylene	91	17.099	17.105	(1.063)	47700	0.12347	0.3087
89 4-Ethyltoluene	105	18.358	18.353	(1.141)	24870	0.05163	0.1291 (M)
90 1,3,5-Trimethylbenzene	120	18.423	18.423	(1.145)	8089	0.03709	0.09272
92 Decane	57	18.697	18.697	(1.163)	69904	0.17871	0.4493 NA
94 1,2,4-Trimethylbenzene	105	18.853	18.853	(1.172)	34911	0.09286	0.2322
106 Undecane	57	19.983	19.983	(1.242)	44967	0.14635	0.3659 NA
111 Dodecane	57	21.059	21.059	(1.309)	58677	0.22659	0.5665 ↓

QC Flag Legend

M - Compound response manually integrated.

AB 10/10/11

Data File: /var/chem/gcms/mj.i/J101011.b/mm2mw1aa.d
Report Date: 10-Oct-2011 19:29

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mj.i
Lab File ID: mm2mw1aa.d
Lab Smp Id: MM2MW1AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 403648
Method File: /var/chem/gcms/mj.i/J101011.b/TO15.m
Misc Info: J101011,TO15,polyone.sub,,,

Calibration Date: 10-OCT-2011
Calibration Time: 09:00
Client Smp ID: TOE/100511
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	433376	257859	608893	399392	-7.84
2 1,4-Difluorobenze	2001209	1190719	2811699	1939223	-3.10
3 Chlorobenzene-d5	1795707	1068446	2522968	1664600	-7.30

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.21	8.88	9.54	9.21	0.00
2 1,4-Difluorobenze	11.39	11.06	11.72	11.39	0.00
3 Chlorobenzene-d5	16.08	15.75	16.41	16.08	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/mj.i/J101011.b/mm2mw1aa.d
Report Date: 10-Oct-2011 19:29

TestAmerica Knoxville

RECOVERY REPORT

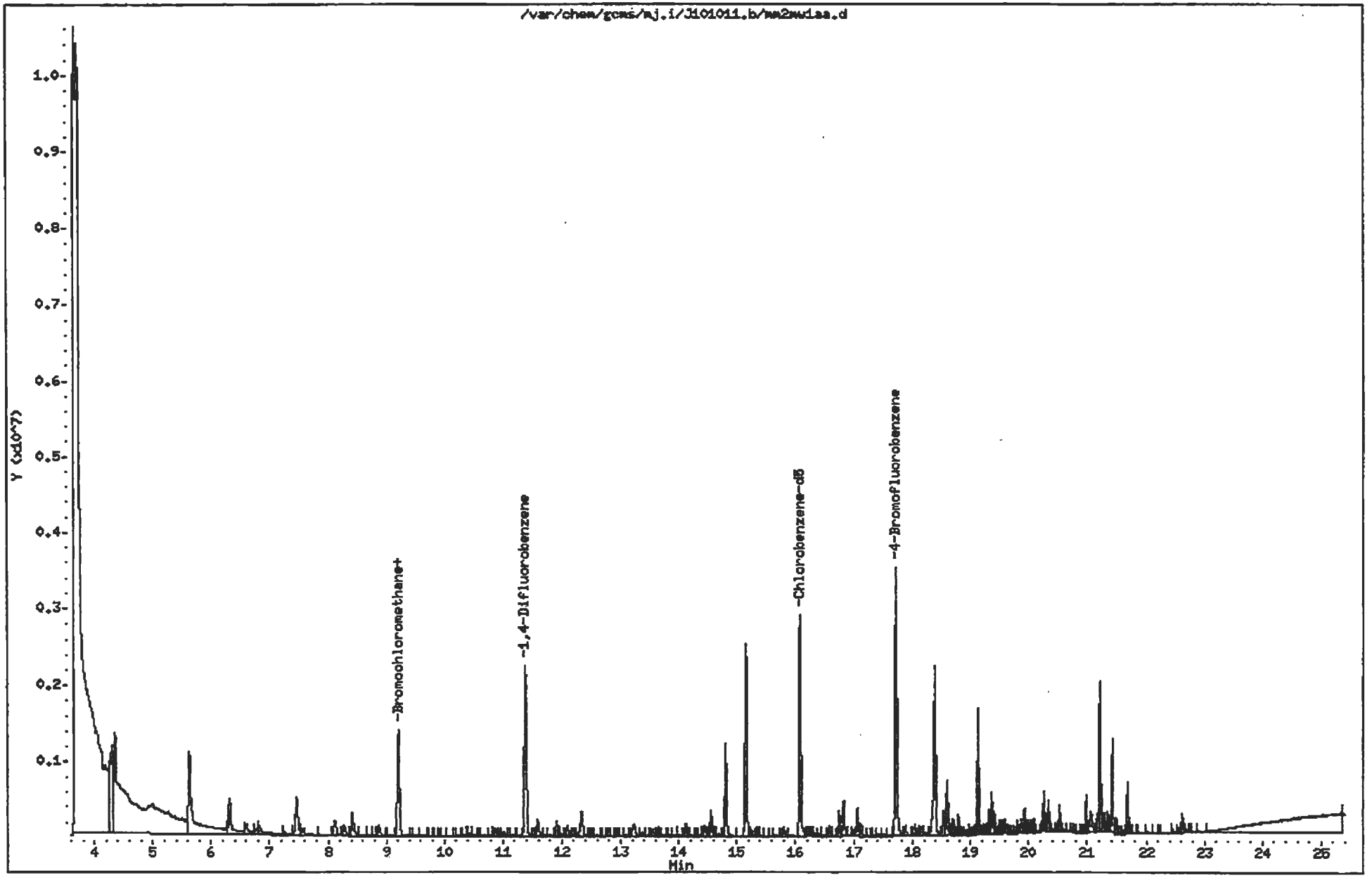
Client Name: ARCADIS U.S., Inc.
Sample Matrix: GAS
Lab Smp Id: MM2MW1AA
Level: LOW
Data Type: MS DATA
SpikeList File: allnew.spk
Sublist File: polyone.sub
Method File: /var/chem/gcms/mj.i/J101011.b/TO15.m
Misc Info: J101011,TO15,polyone.sub,,,

Client SDG: H1J070441
Fraction: OTHER
Client Smp ID: TOE/100511
Operator: 403648
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 4 4-Bromofluorobenze	10.00	9.782	97.82	70-130

Data File: /var/chem/gcms/mj.i/J101011.b/mm2mwlaa.d
Date : 10-OCT-2011 18:07
Client ID: TOE/100511
Sample Info: ,1,0,,,
Purge Volume: 200.0
Column phase: Rtx-5

Instrument: mj.i
Operator: 403648
Column diameter: 0.32



Data File: /var/chem/gcms/mj.i/J101011.b/mm2mw1aa.d

Date : 10-OCT-2011 18:07

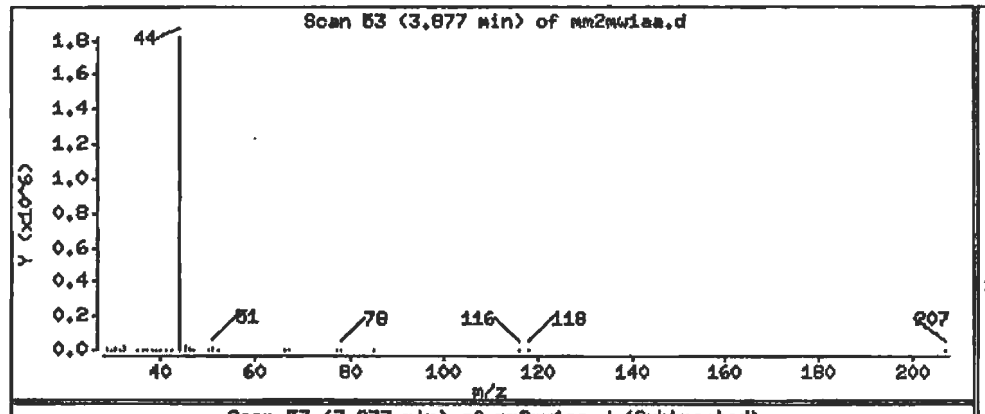
Client ID: TOE/100511 Instrument: mj.i

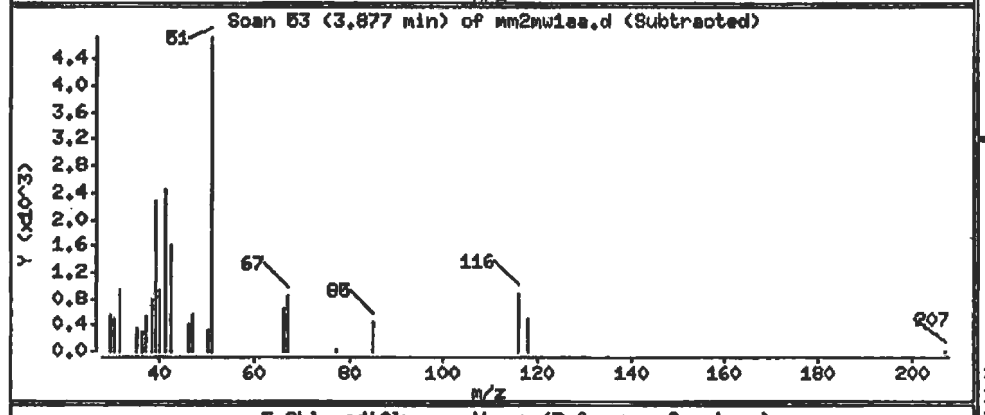
Sample Info: ,1,0,,,

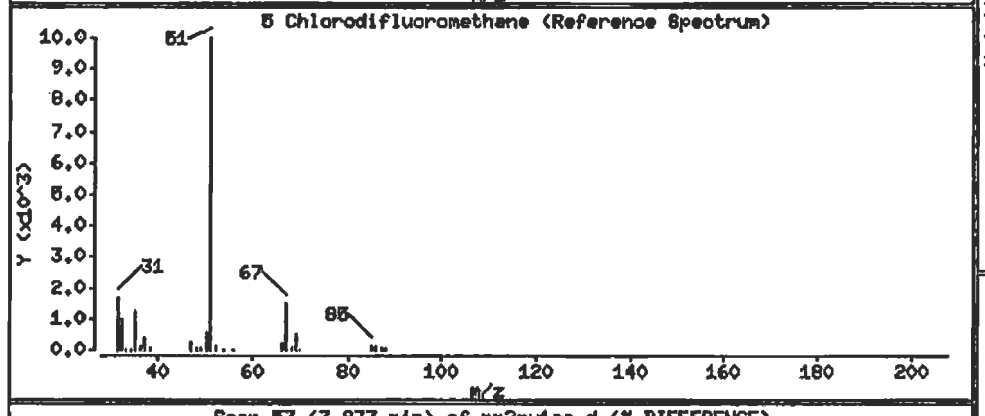
Purge Volume: 200.0 Operator: 403648

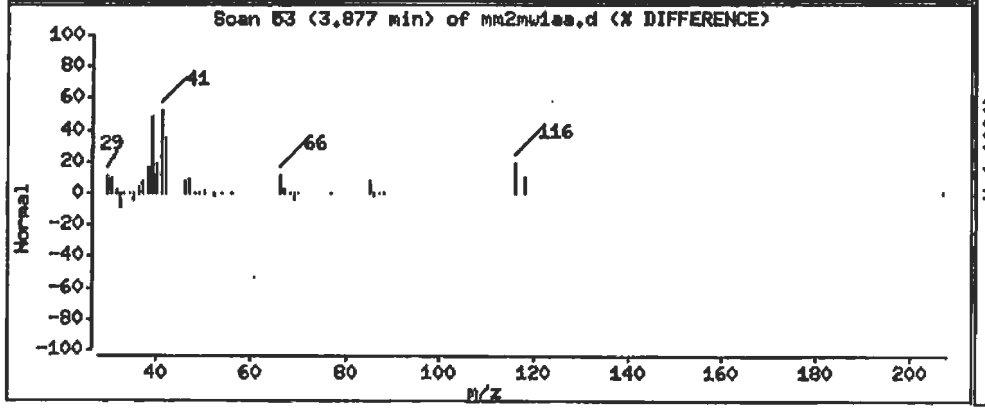
Column phase: Rtx-5 Column diameter: 0.32

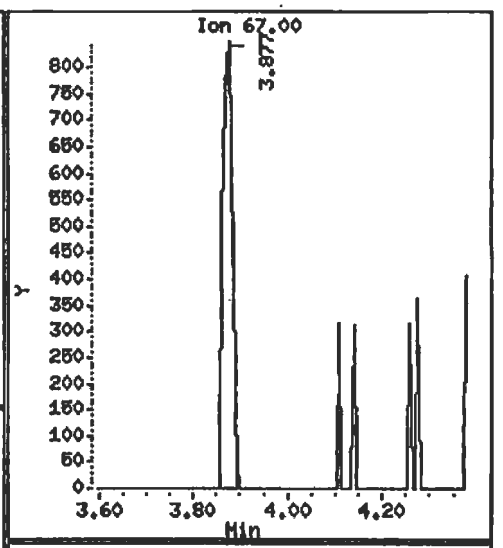
5 Chlorodifluoromethane Concentration: 0.06263 ppb(v/v)

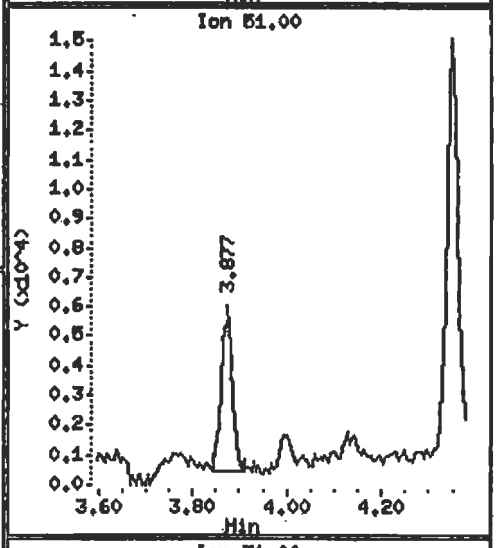


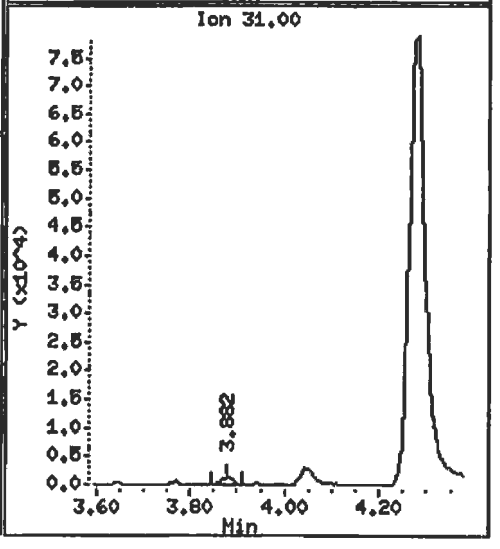












Data File: /var/chem/gcms/mj.i/J101011.b/mm2mw1aa.d

Date : 10-OCT-2011 18:07

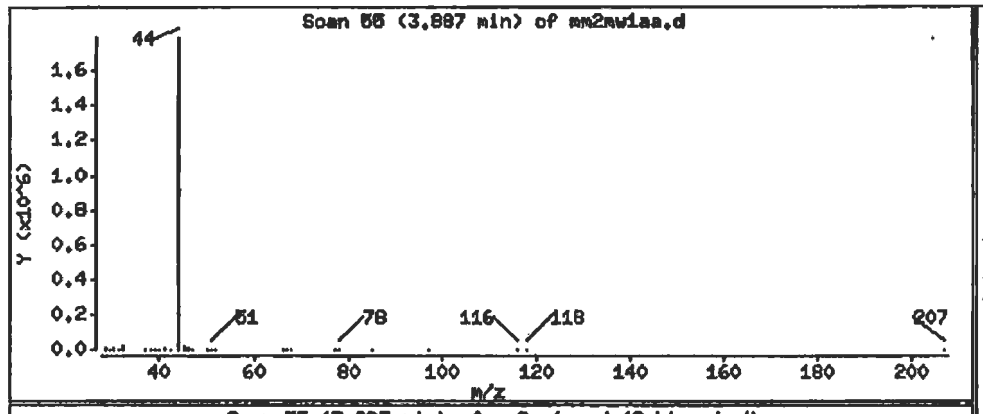
Client ID: TOE/100511 Instrument: mj.i

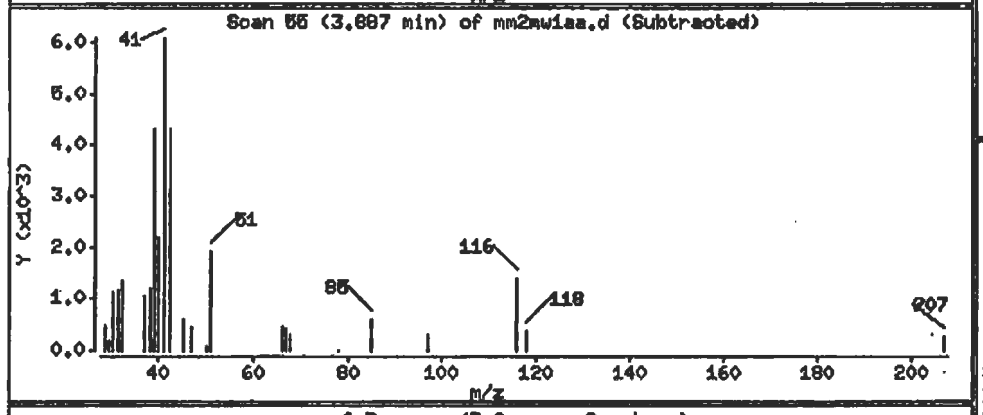
Sample Info: ,1,0,,,

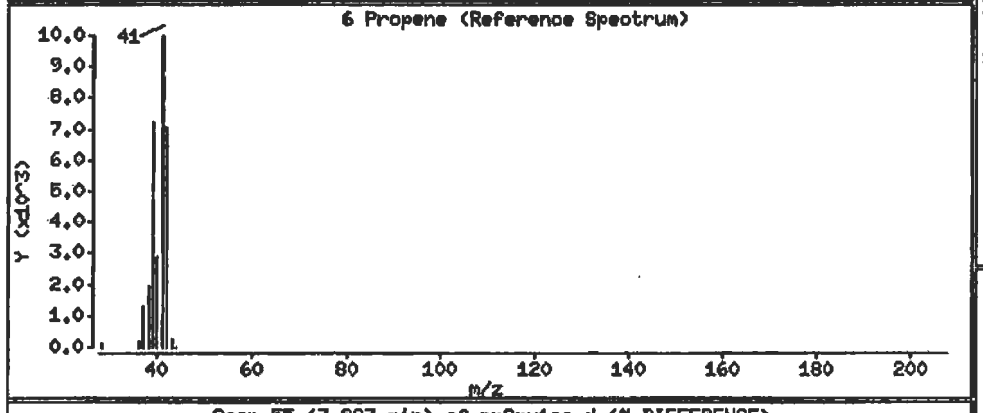
Purge Volume: 200.0 Operator: 403648

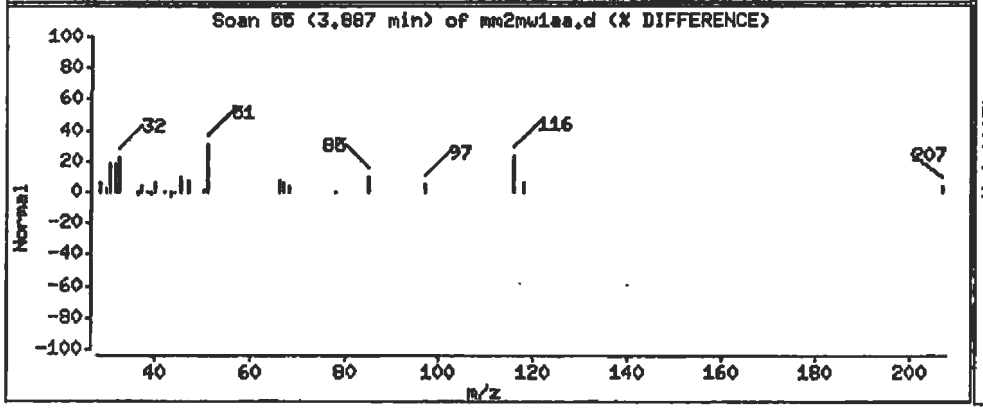
Column phase: Rtx-5 Column diameter: 0.32

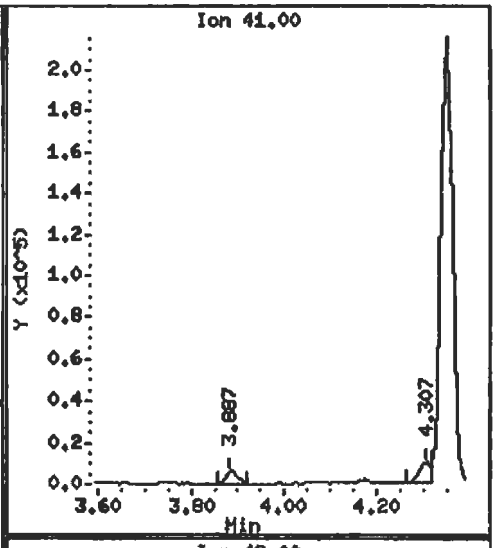
6 Propene Concentration: 0.1398 ppb(v/v)

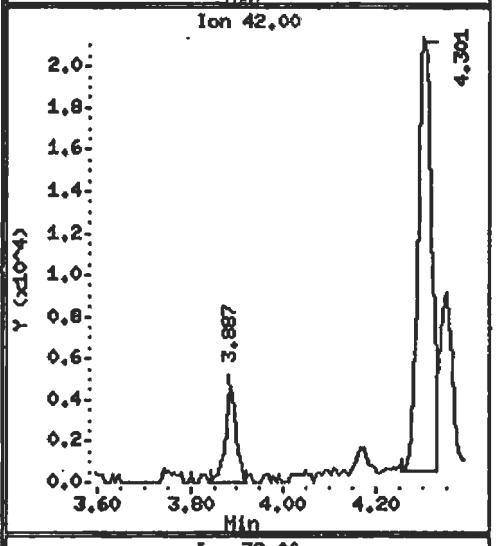


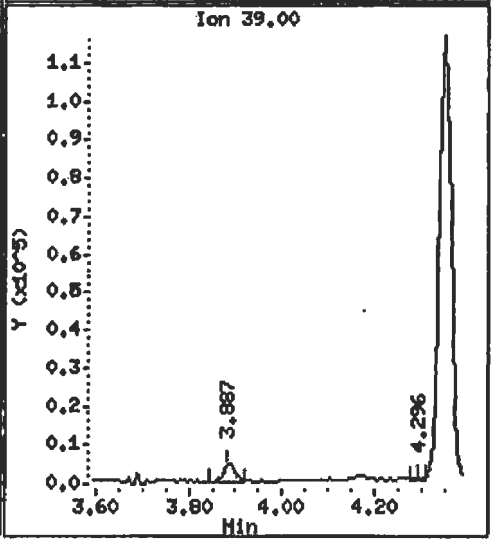












Data File: /var/chem/gcms/mj.i/J101011.b/mm2mwiaa.d

Date : 10-OCT-2011 18:07

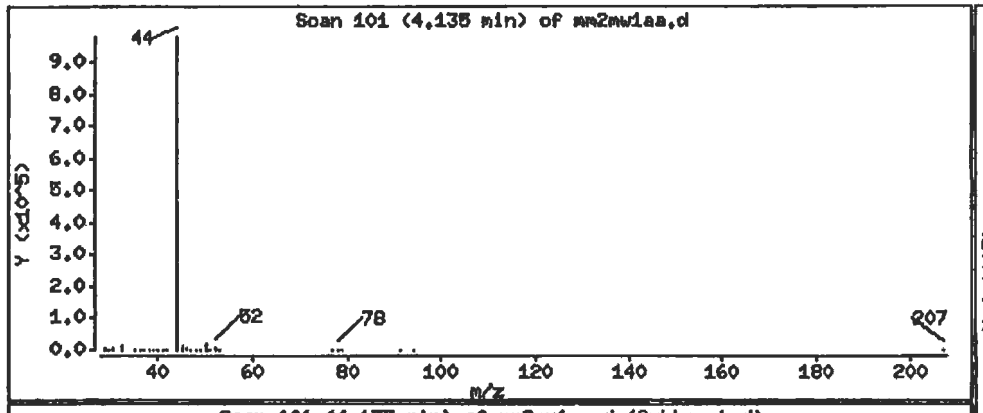
Client ID: TOE/100511 | Instrument: mj.i

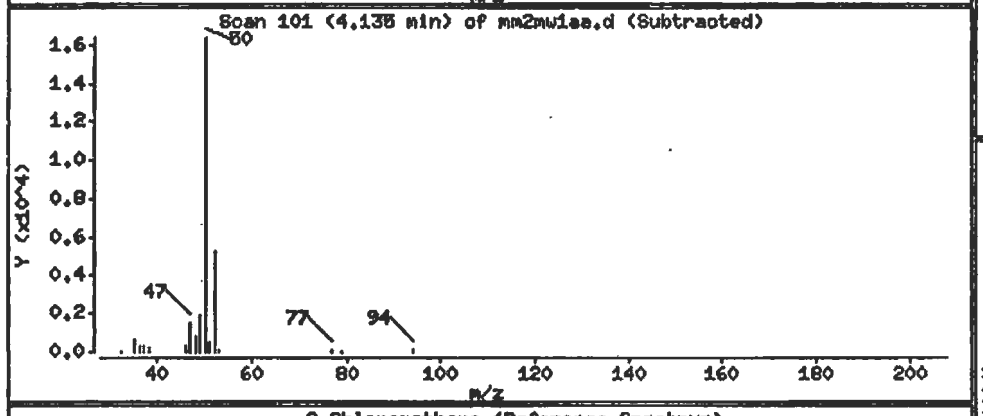
Sample Info: ,1,0,,,

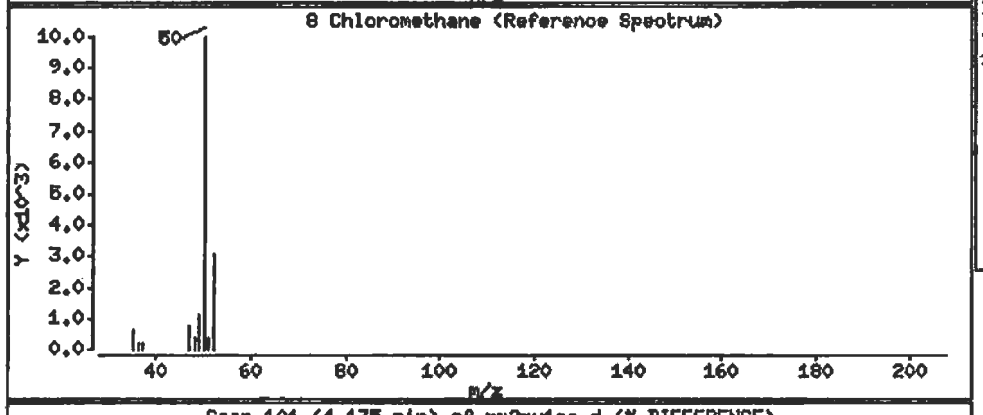
Purge Volume: 200.0 | Operator: 403648

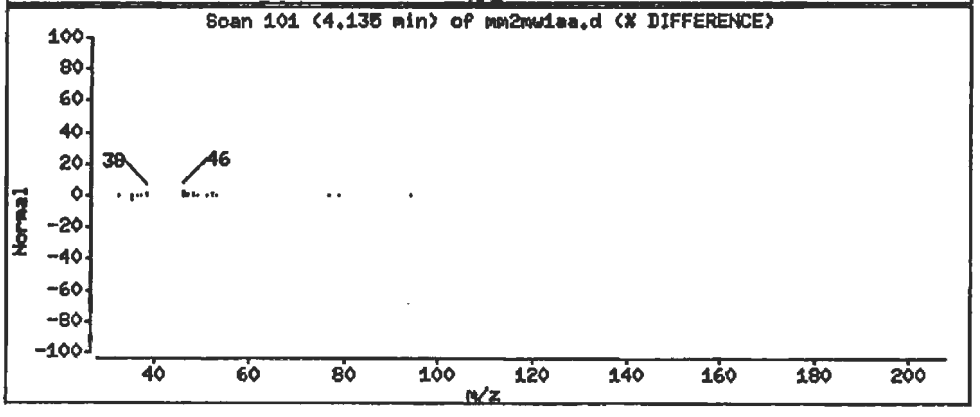
Column phase: Rtx-5 | Column diameter: 0.32

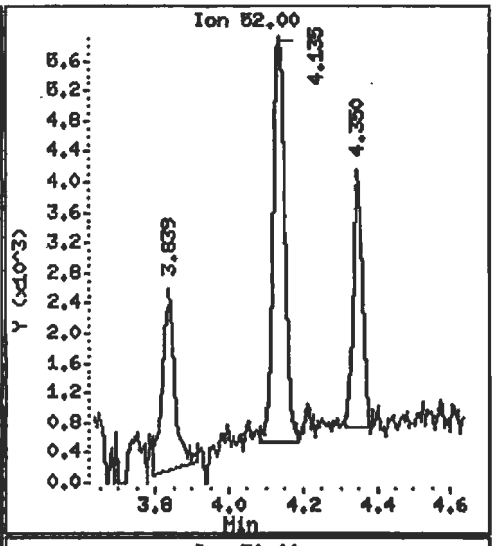
8 Chloromethane | Concentration: 0.3916 ppb(v/v)

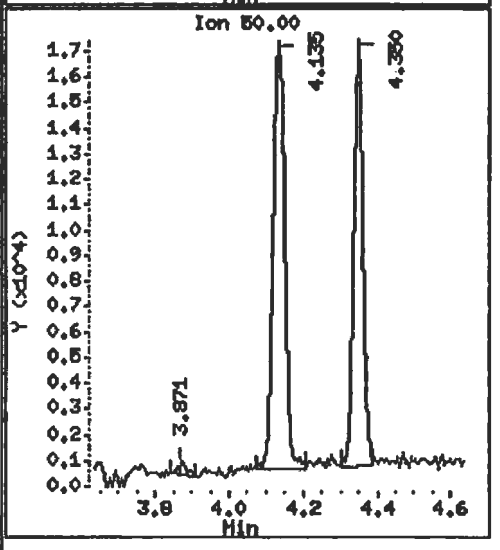












Data File: /var/chem/gcms/mj.i/J101011.b/mm2mw1aa.d

Date : 10-OCT-2011 18:07

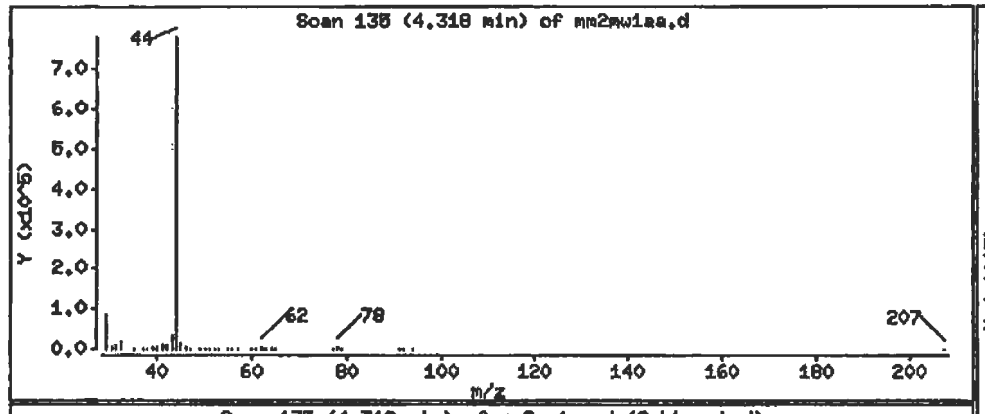
Client ID: TOE/100511 Instrument: mj.i

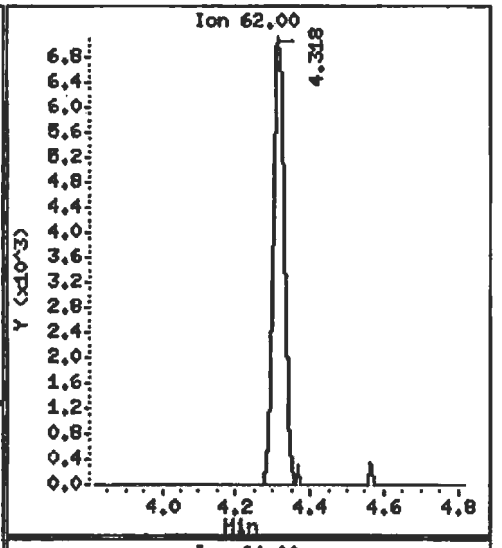
Sample Info: ,1,0,,,

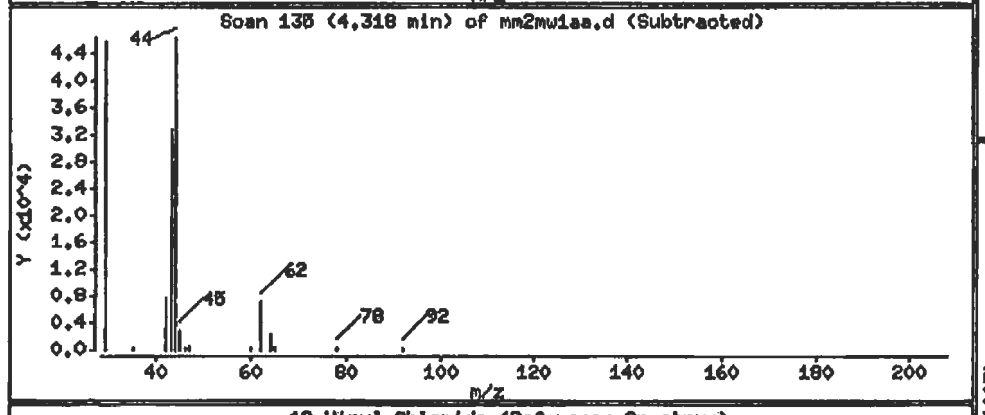
Purge Volume: 200.0 Operator: 403648

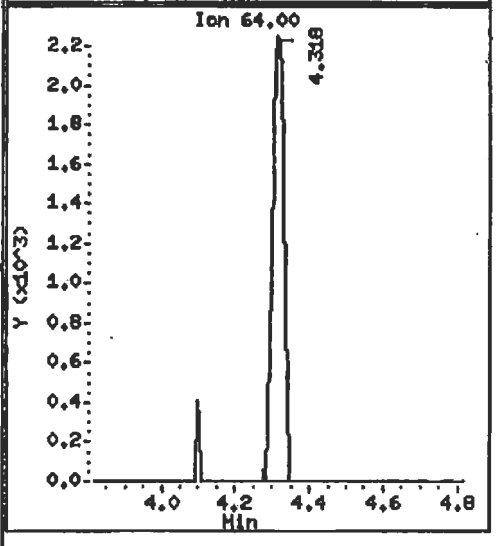
Column phase: Rtx-5 Column diameter: 0.32

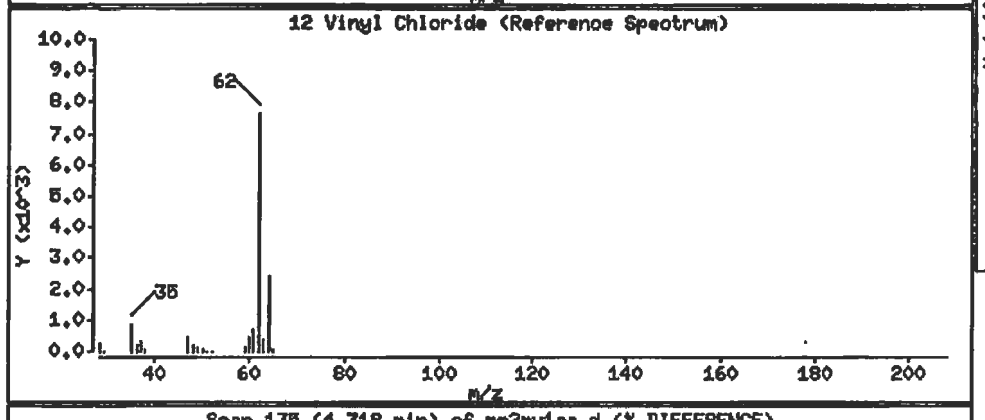
12 Vinyl Chloride Concentration: 0.1521 ppb(v/v)

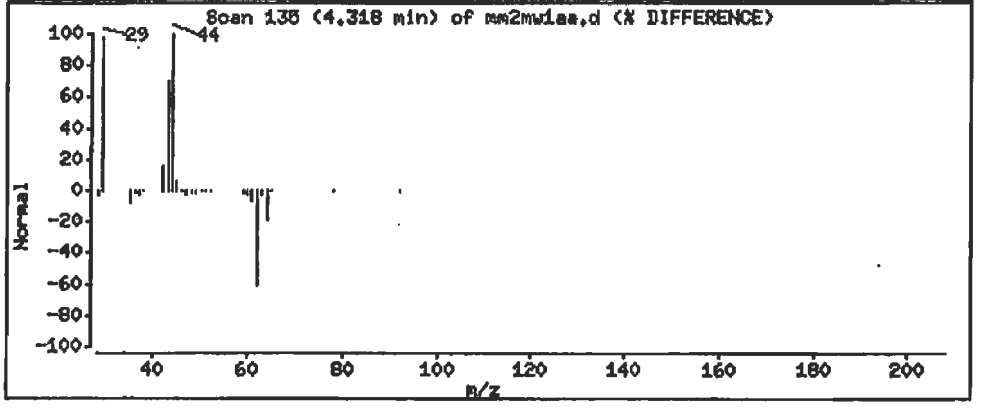












Data File: /var/chem/gcms/mj.i/J101011.b/mm2mw1aa.d

Date : 10-OCT-2011 18:07

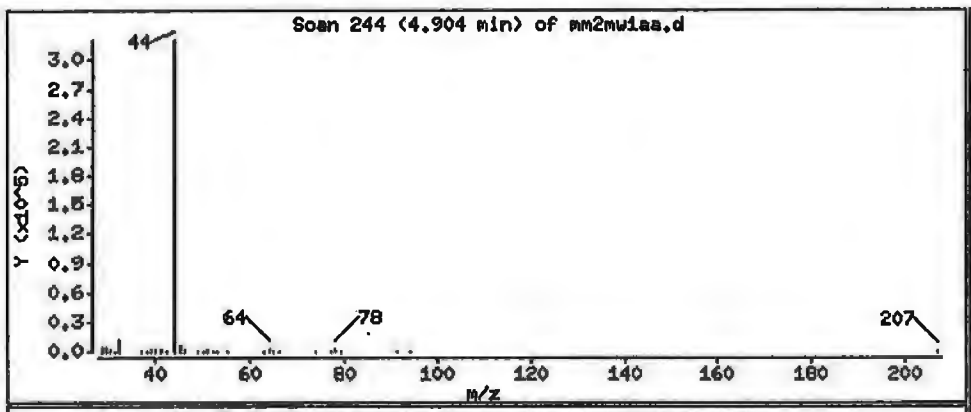
Client ID: TOE/100511 Instrument: mj.i

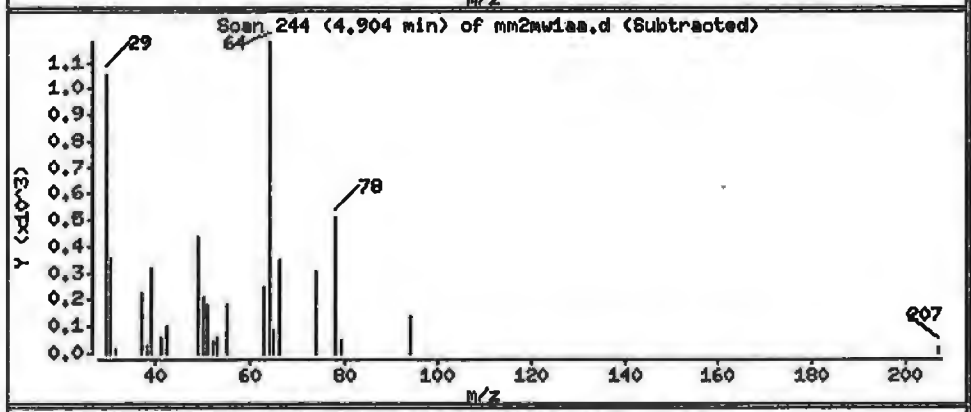
Sample Info: ,1.0,,,

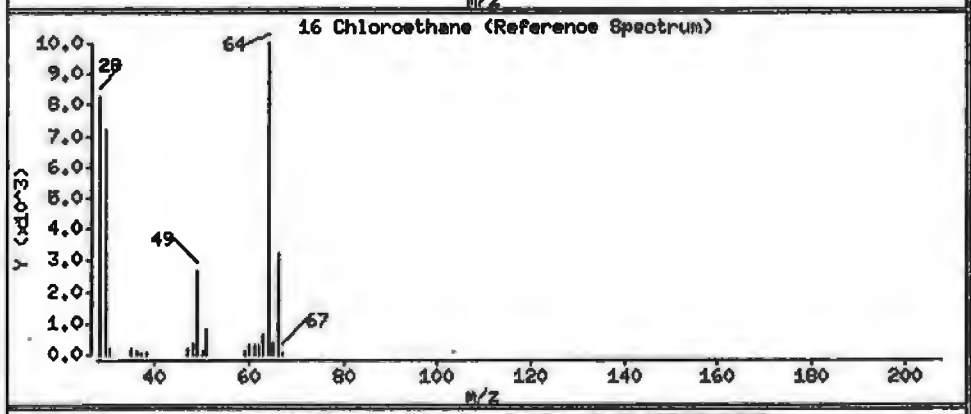
Purge Volume: 200.0 Operator: 403648

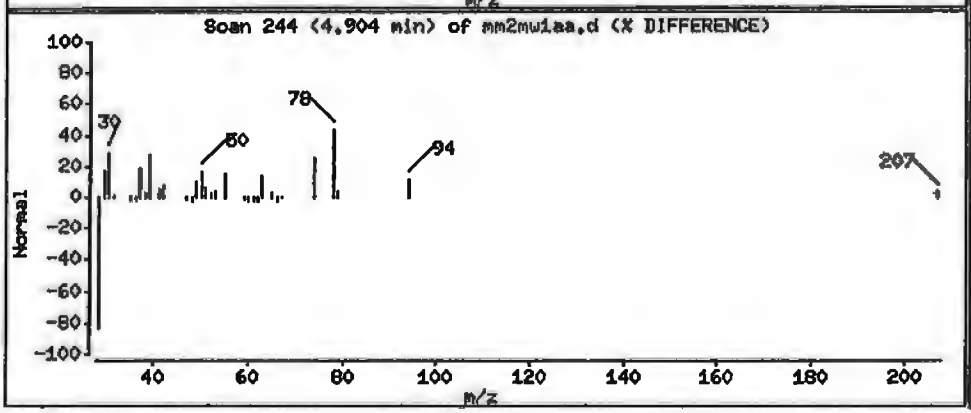
Column phase: Rtx-5 Column diameter: 0.32

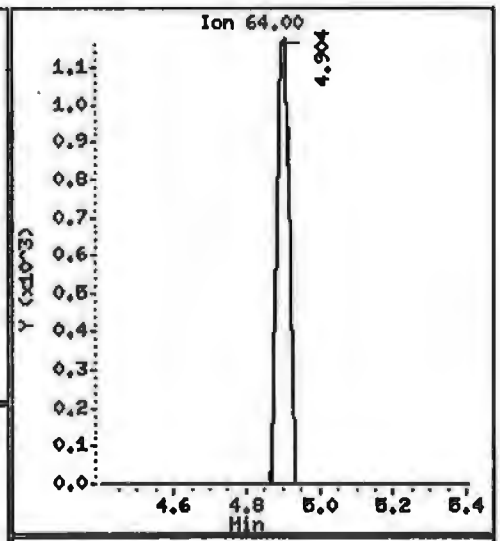
16 Chloroethane Concentration: 0.06498 ppb(v/v)

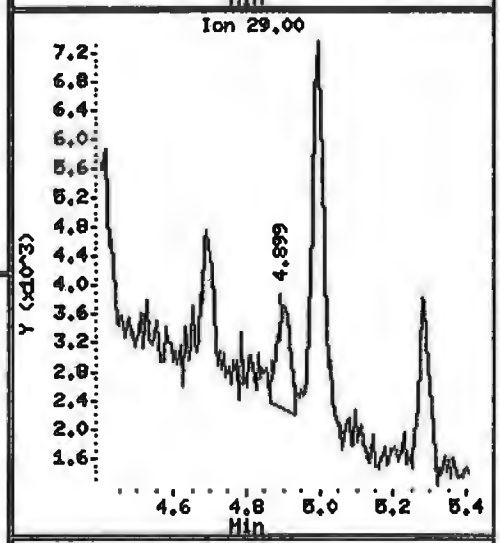


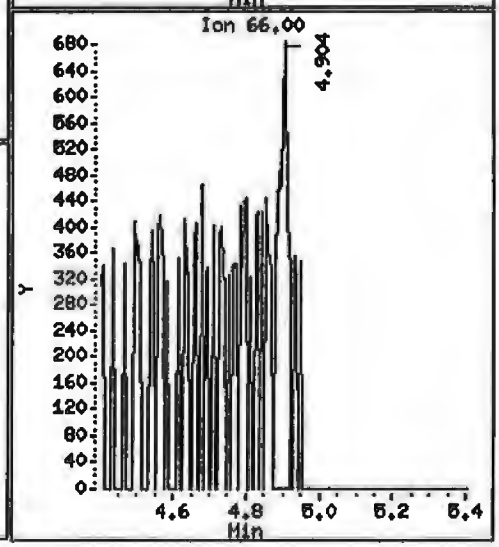












Data File: /var/chem/gcms/mj.i/J101011.b/mm2mw1aa.d

Date : 10-OCT-2011 18:07

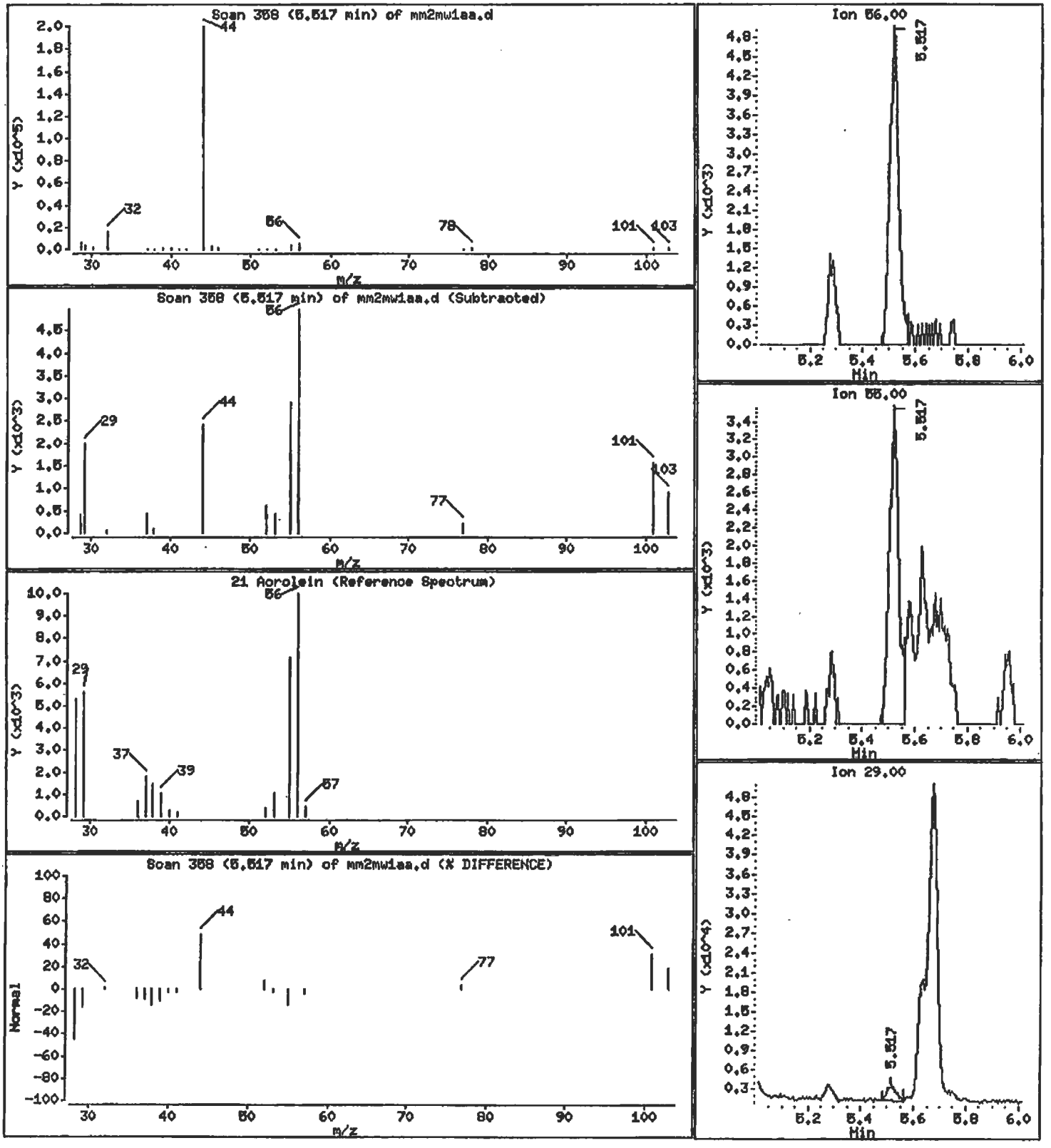
Client ID: TOE/100511 Instrument: mj.i

Sample Info: ,1,0,,,

Purge Volume: 200.0 Operator: 403648

Column phase: Rtx-5 Column diameter: 0.32

21 Acrolein Concentration: 0.7338 ppb(v/v)



Data File: /var/chem/gcms/mj.i/J101011.b/mm2mw1aa.d

Date : 10-OCT-2011 18:07

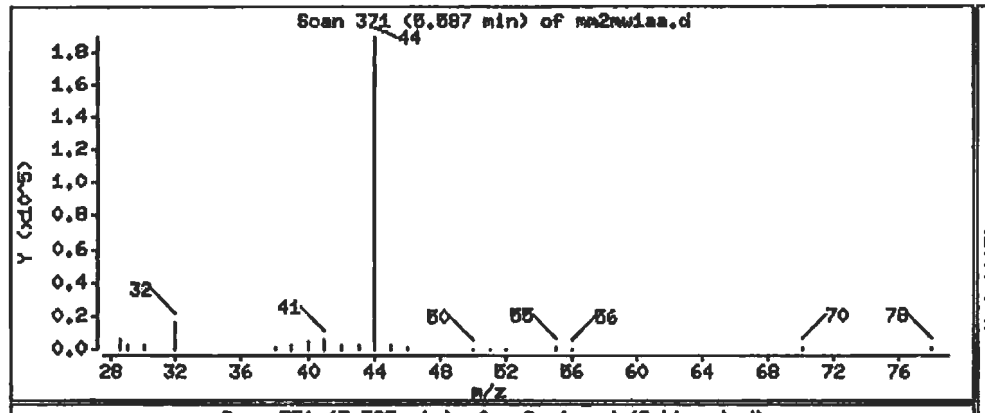
Client ID: TOE/100511 Instrument: mj.i

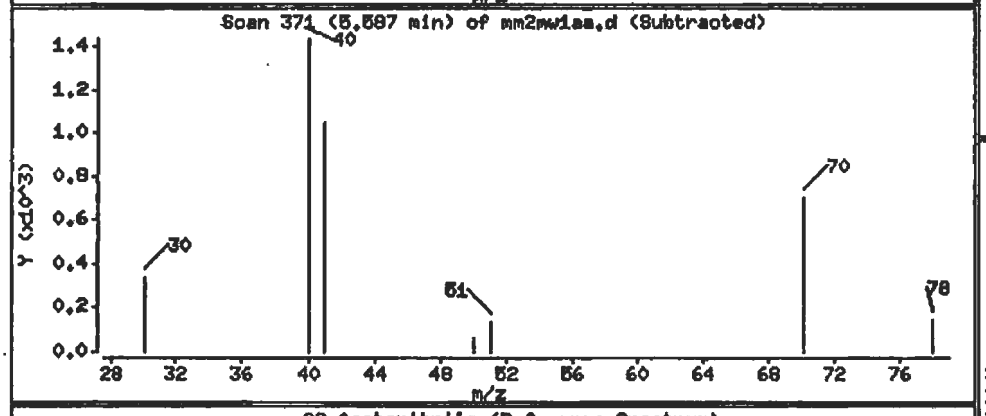
Sample Info: ,1,0,,,

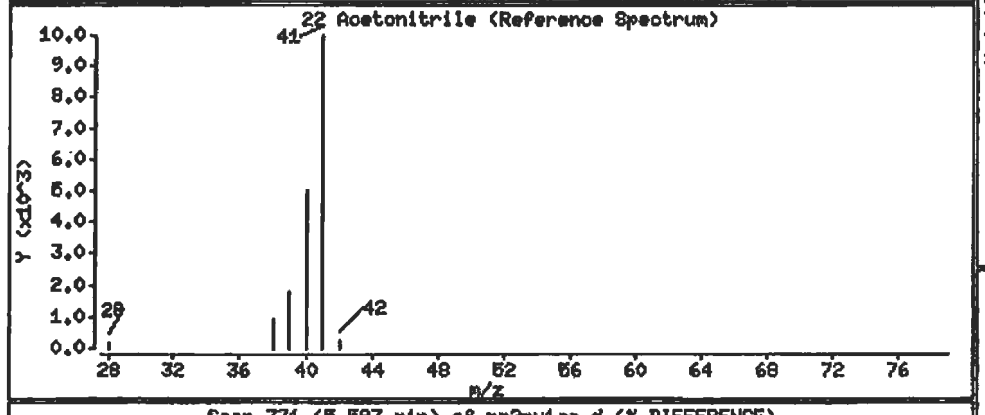
Purge Volume: 200.0 Operator: 403648

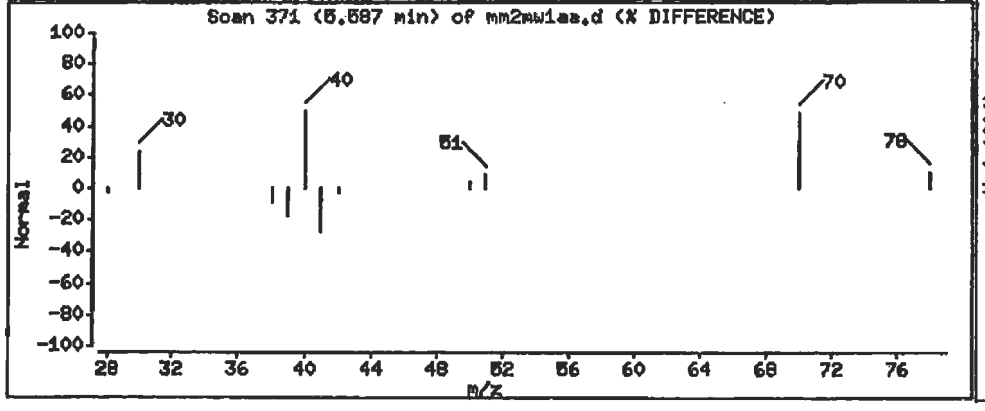
Column phase: Rtx-5 Column diameter: 0.32

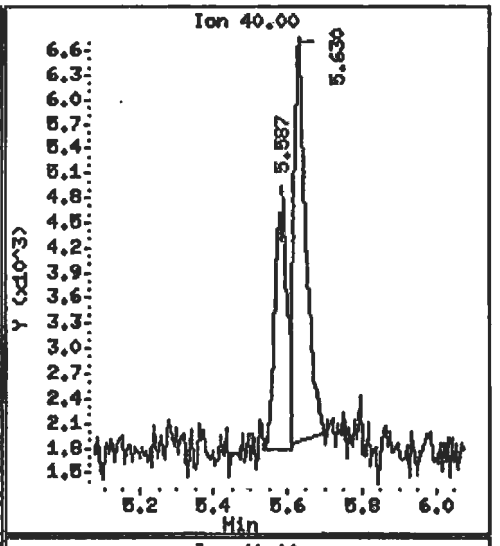
22 Acetonitrile Concentration: 0.2777 ppb(v/v)

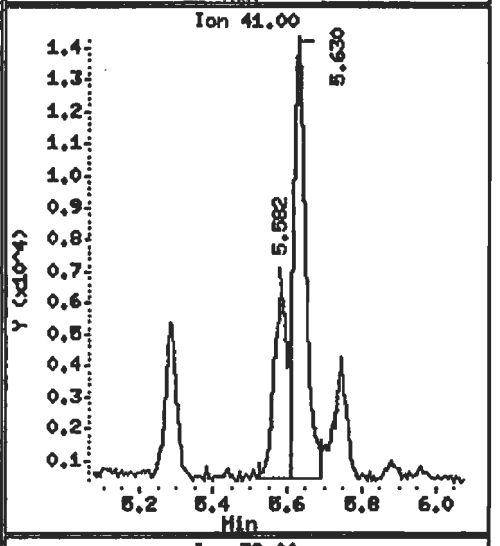


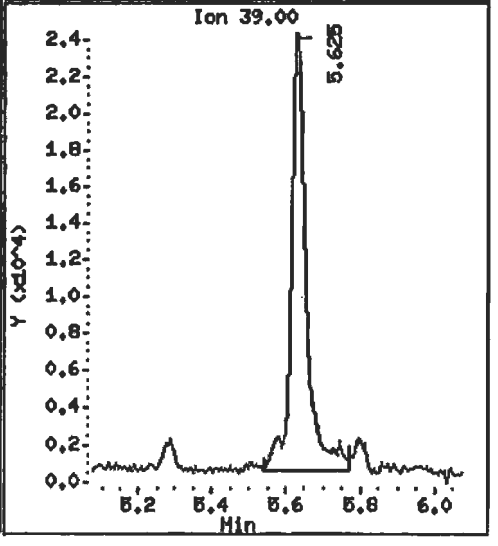












Data File: /var/chem/gcms/mj.i/J101011.b/mm2mw1aa.d

Date : 10-OCT-2011 18:07

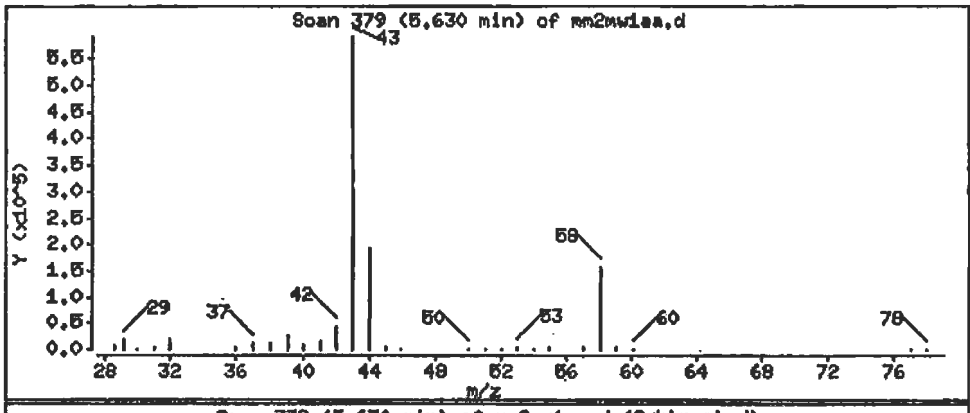
Client ID: TOE/100511 Instrument: mj.i

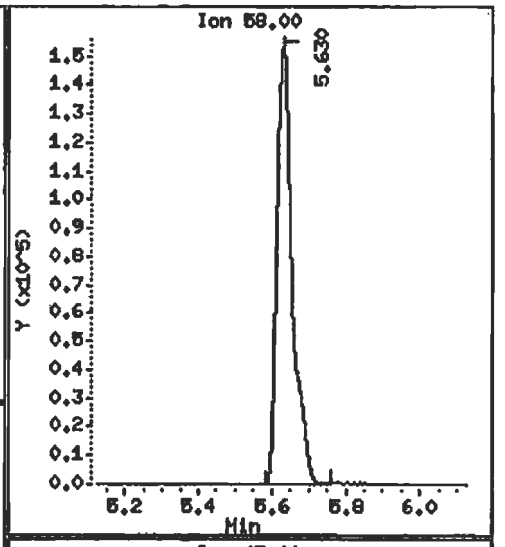
Sample Info: ,1,0,,,

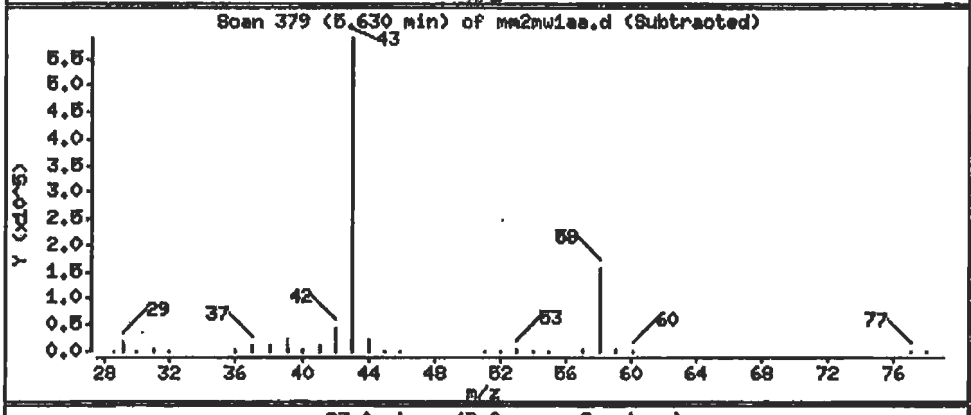
Purge Volume: 200.0 Operator: 403648

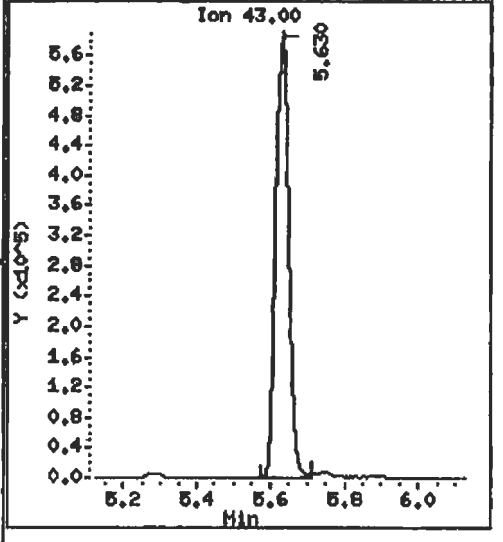
Column phase: Rtx-5 Column diameter: 0.32

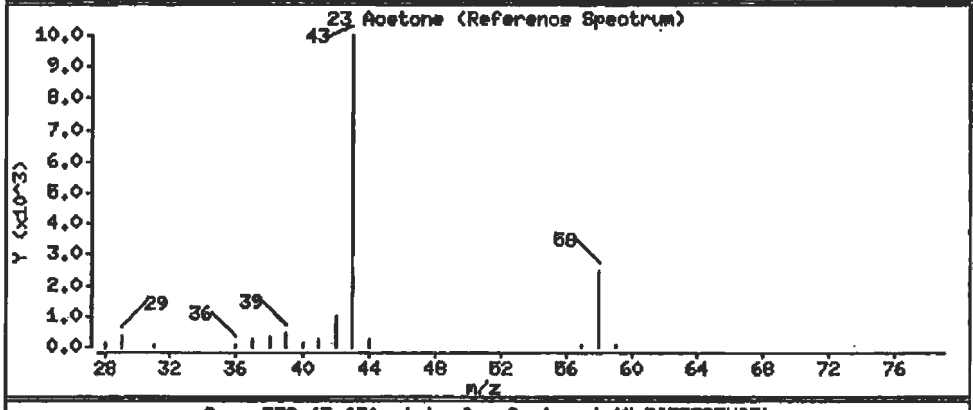
23 Acetone Concentration: 17.17 ppb(v/v)

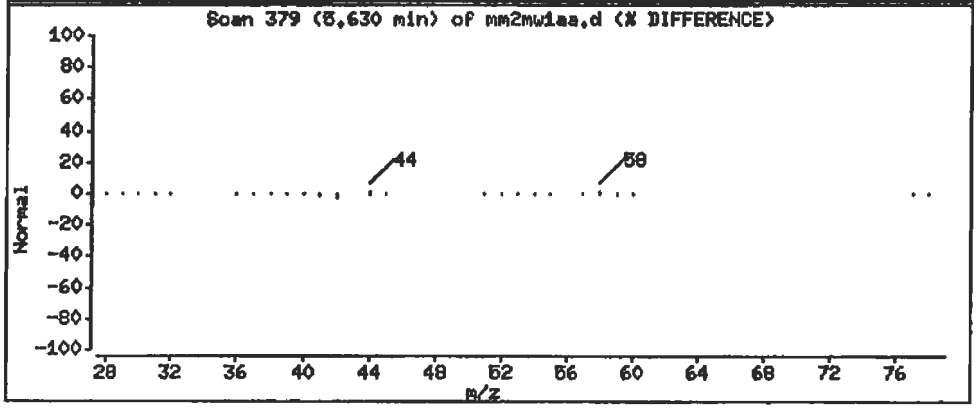












Data File: /var/chem/gcms/mj.i/J101011.b/mm2mw1aa.d

Date : 10-OCT-2011 18:07

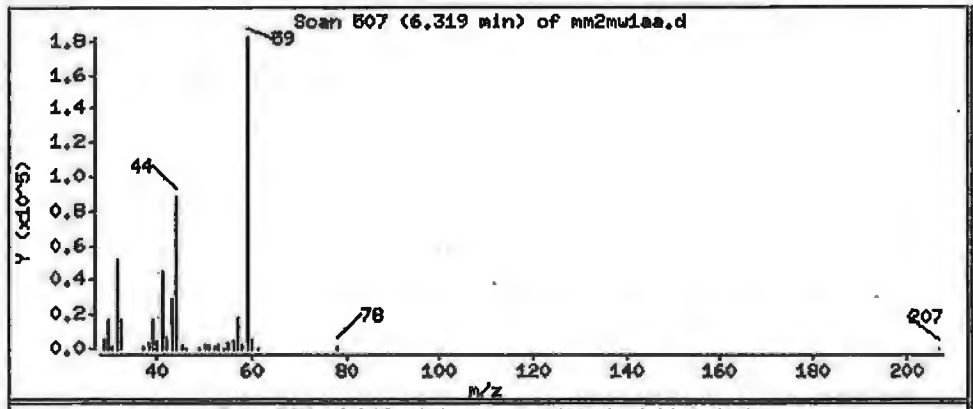
Client ID: TOE/100511 Instrument: mj.i

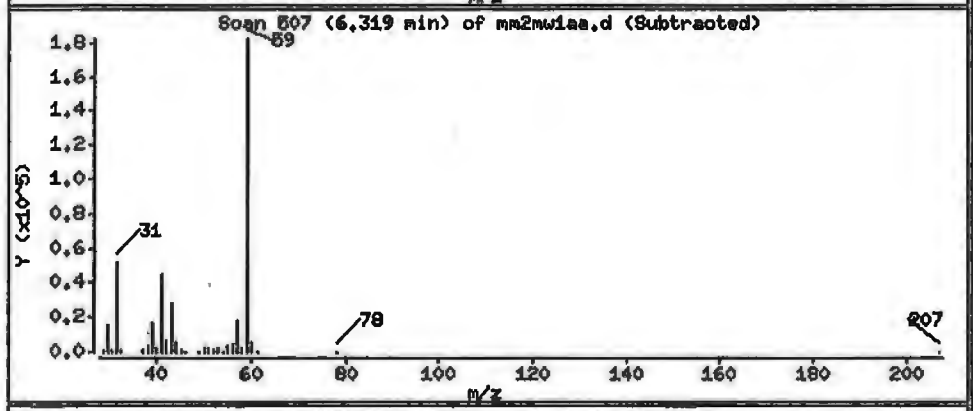
Sample Info: ,1,0,,,

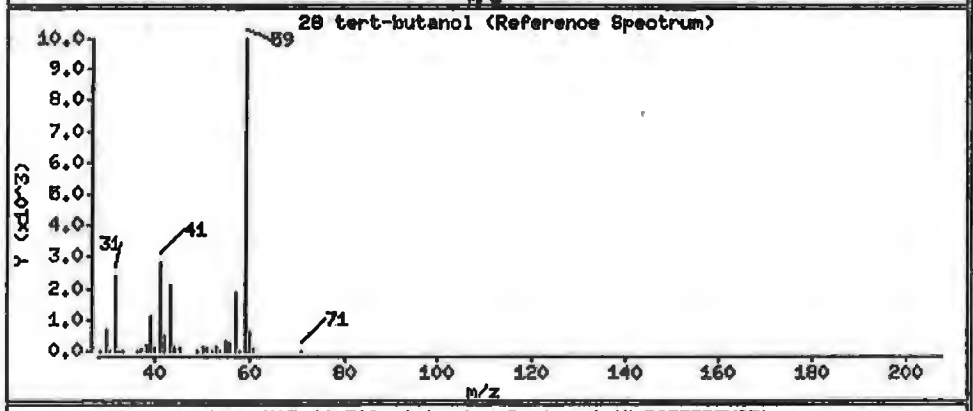
Purge Volume: 200.0 Operator: 403648

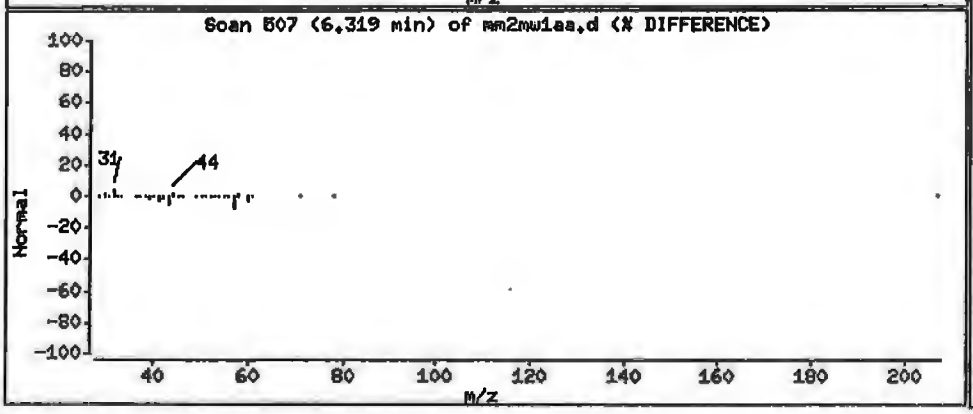
Column phase: Rtx-5 Column diameter: 0.32

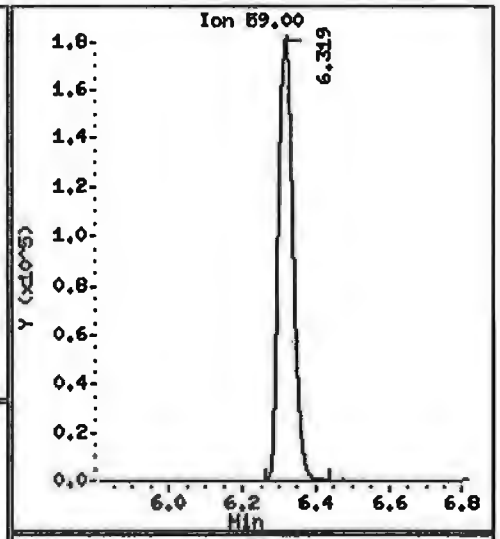
28 tert-butanol Concentration: 4.196 ppb(v/v)

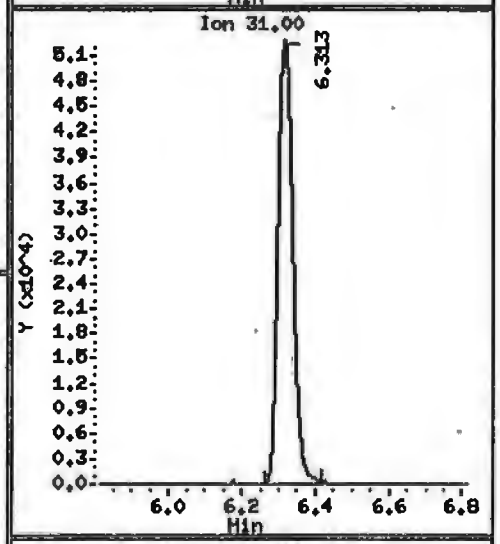


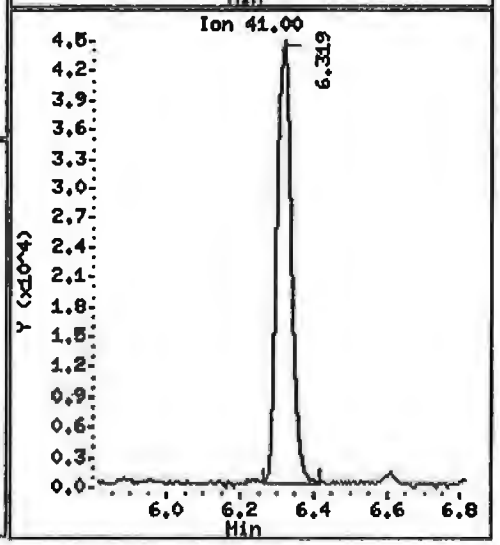












Data File: /var/chem/gcms/mj.i/J101011.b/mm2mwiaa.d

Date : 10-OCT-2011 18:07

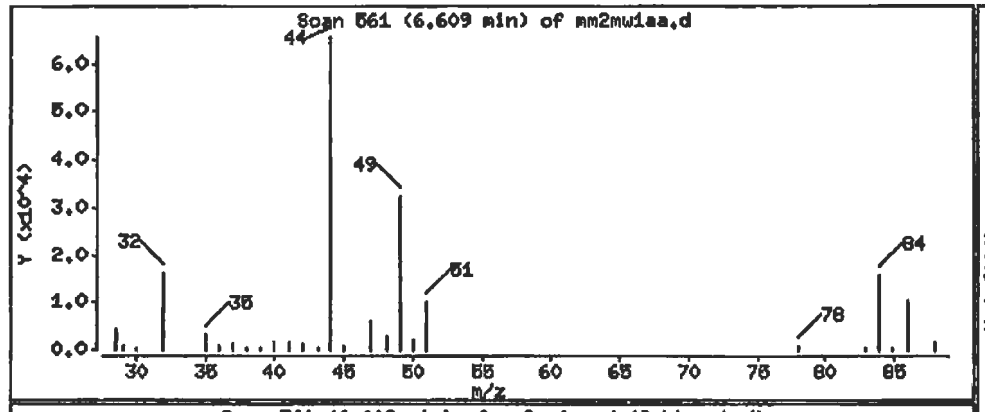
Client ID: TOE/100511 Instrument: mj.i

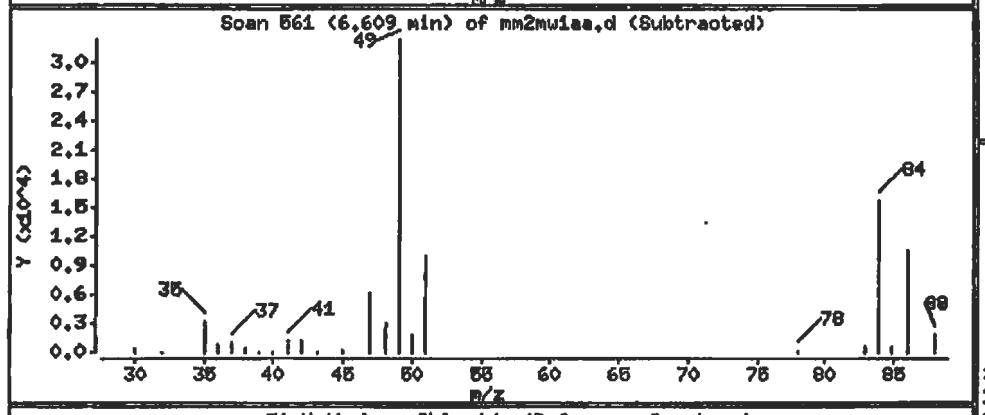
Sample Info: ,1,0,,,

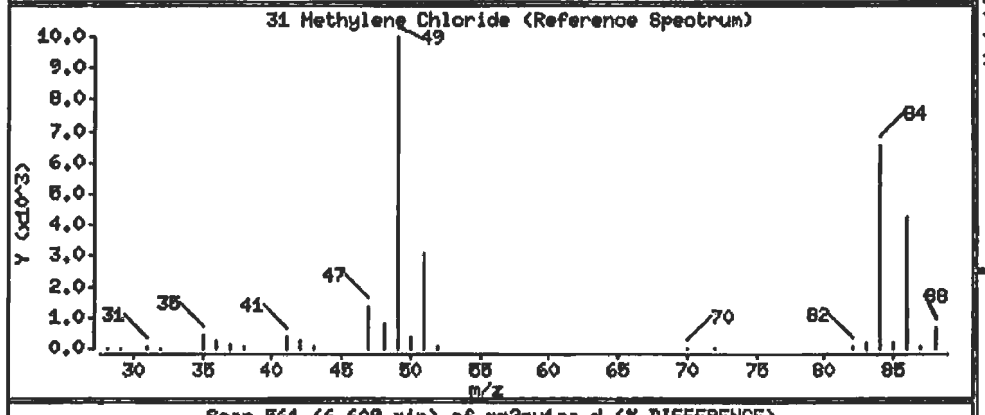
Purge Volume: 200.0 Operator: 403648

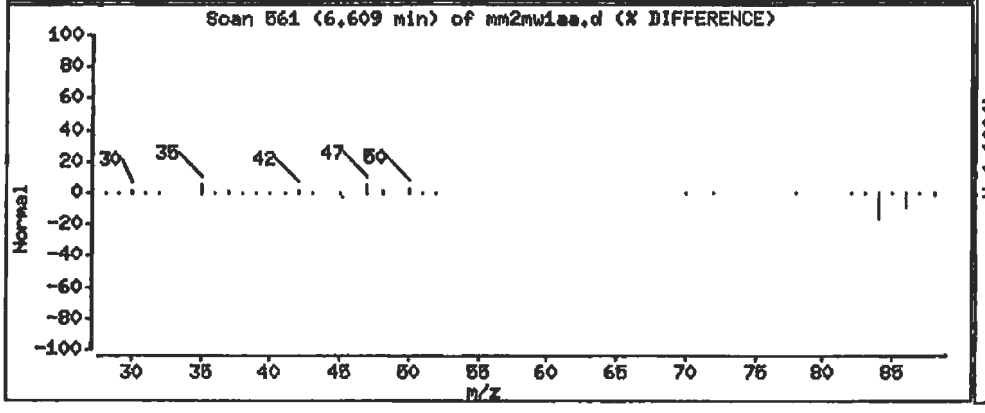
Column phase: Rtx-5 Column diameter: 0.32

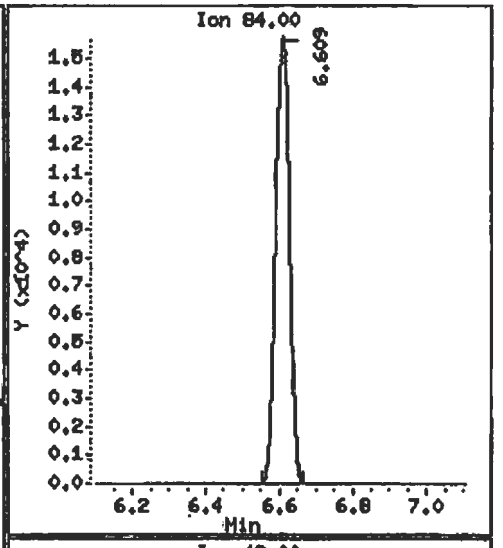
31 Methylene Chloride Concentration: 0.6700 ppb(v/v)

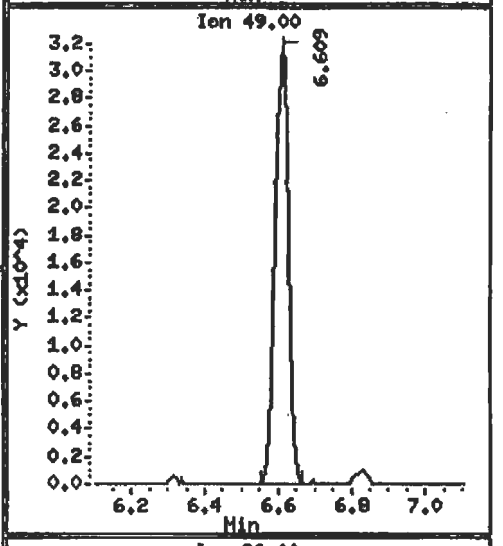


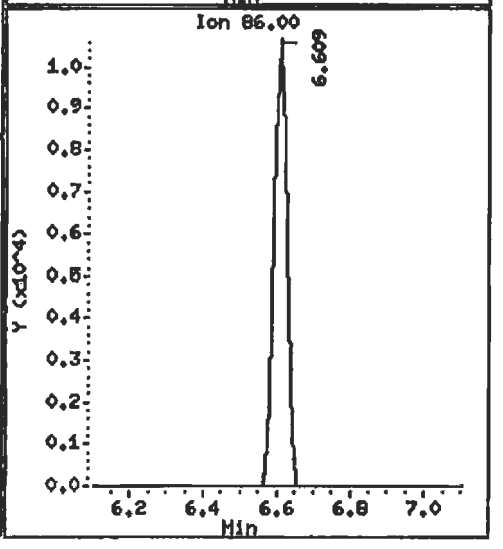












Data File: /var/chem/gcms/mj.i/J101011.b/mm2mw1aa.d

Date : 10-OCT-2011 18:07

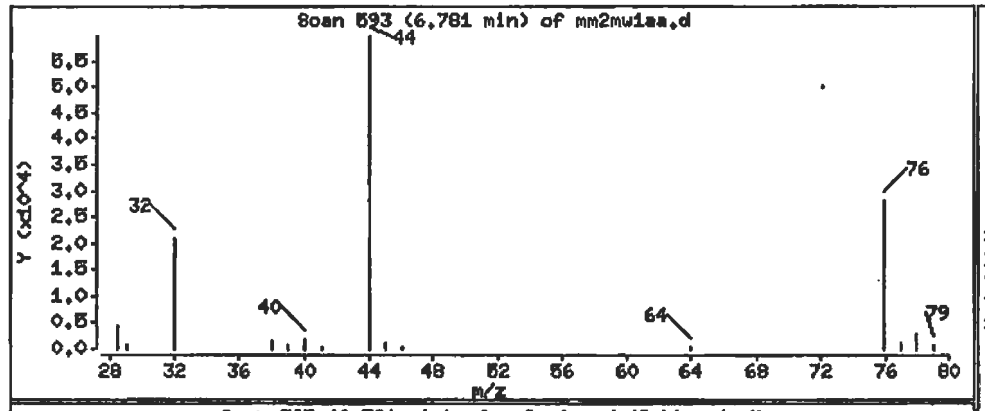
Client ID: TOE/100511 Instrument: mj.i

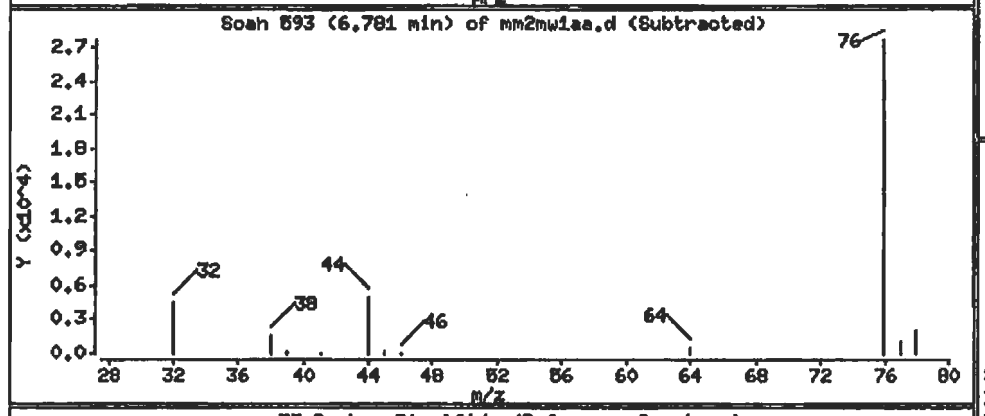
Sample Info: ,1,0,,,

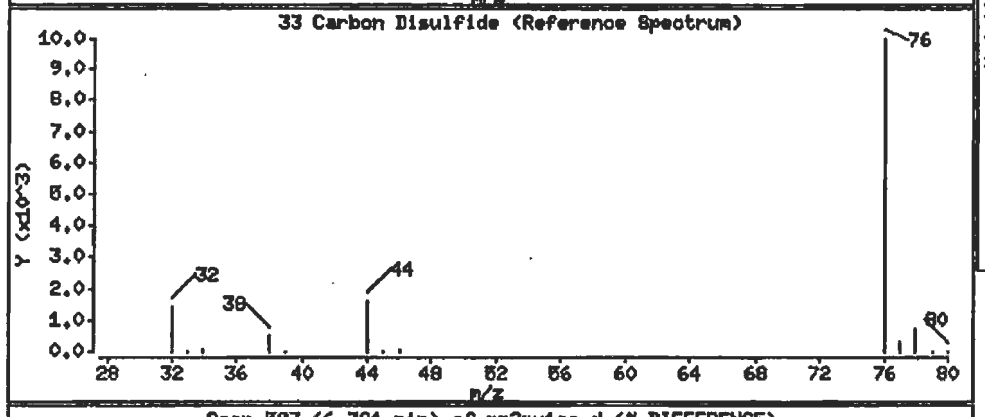
Purge Volume: 200.0 Operator: 403648

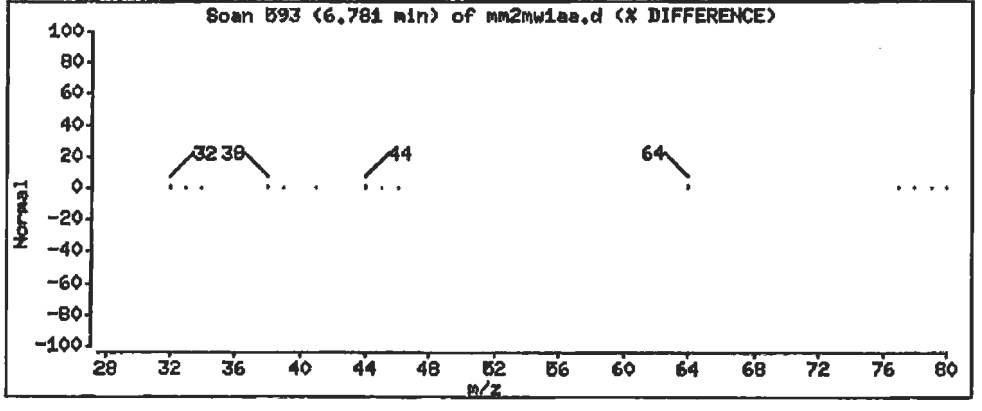
Column phase: Rtx-5 Column diameter: 0.32

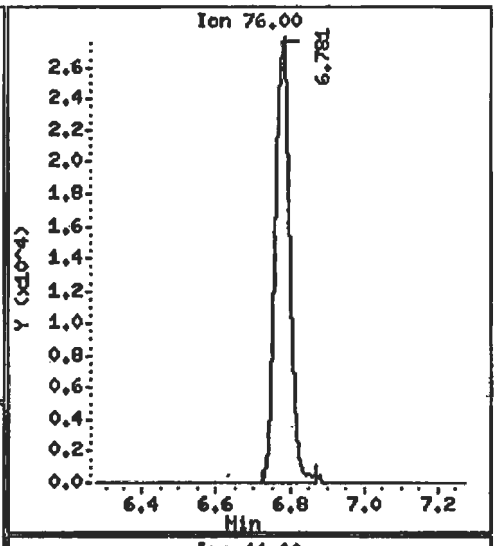
33 Carbon Disulfide Concentration: 0.3347 ppb(v/v)

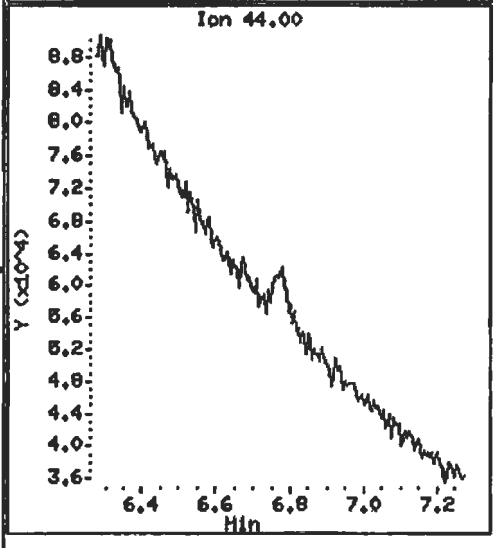












Data File: /var/chem/gcms/mj.i/J101011.b/mm2mw1aa.d

Date : 10-OCT-2011 18:07

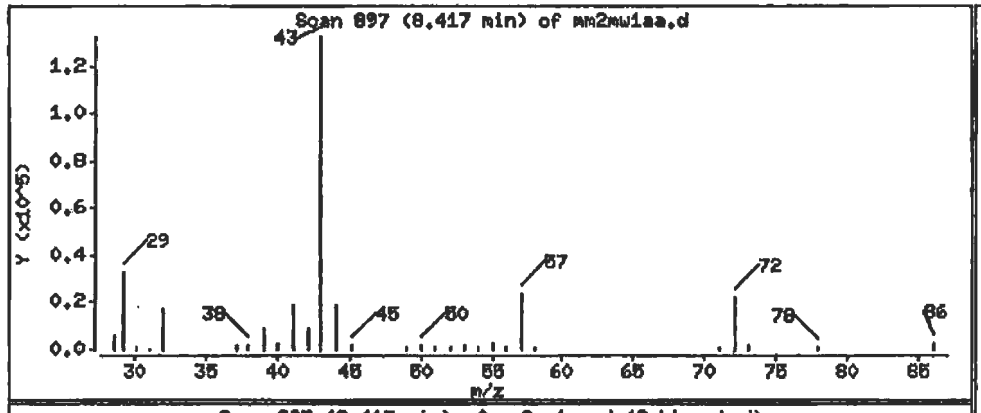
Client ID: TOE/100511 Instrument: mj.i

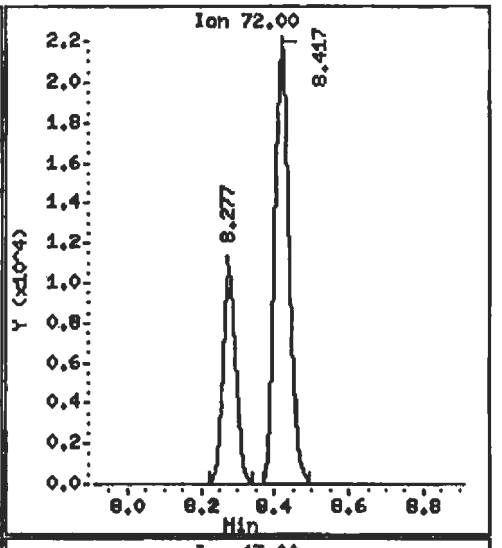
Sample Info: ,1,0,,,

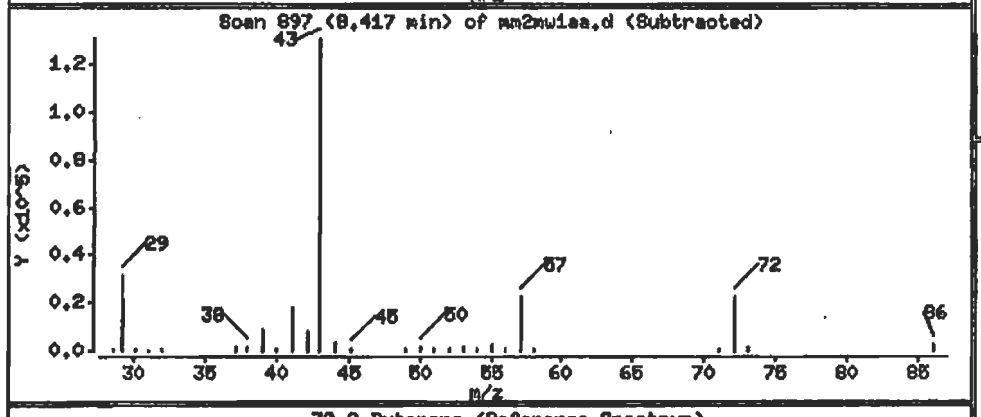
Purge Volume: 200.0 Operator: 403648

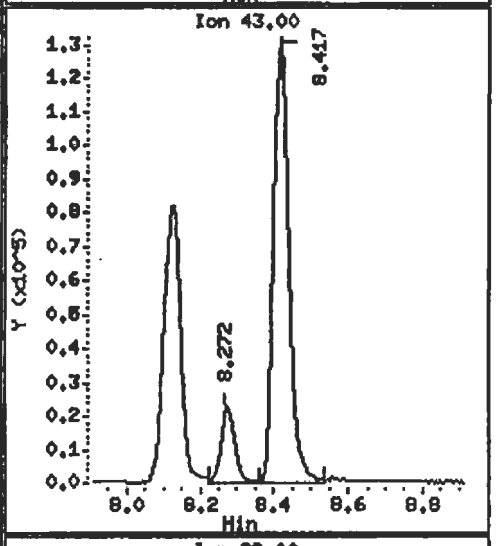
Column phase: Rtx-5 Column diameter: 0.32

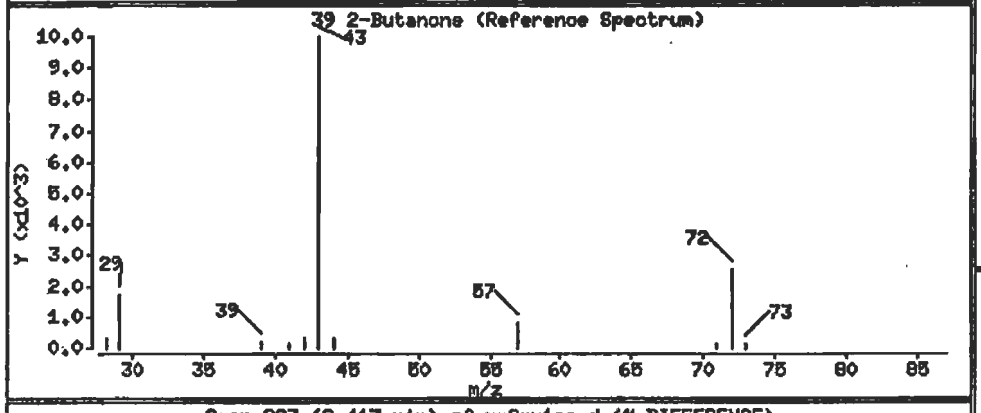
39 2-Butanone Concentration: 2.765 ppb(v/v)

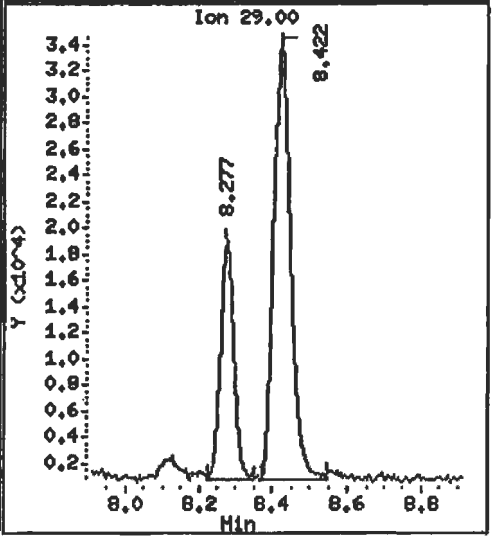


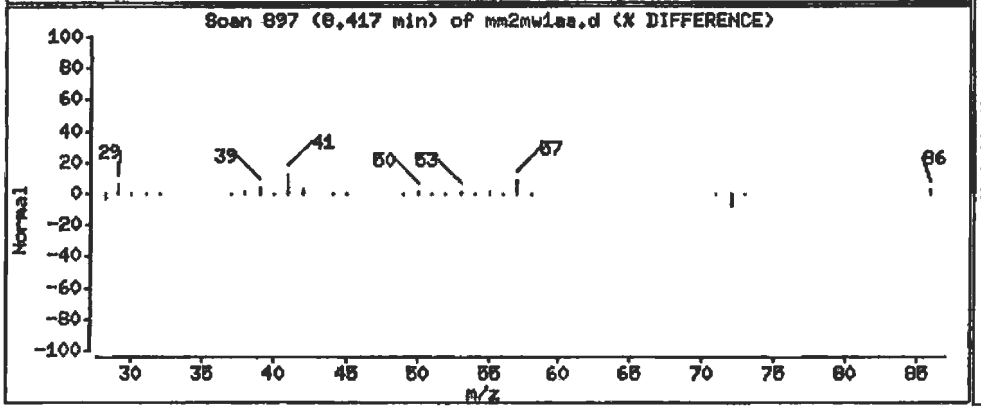












Data File: /var/chem/gcms/mj.i/J101011.b/mm2mw1aa.d

Date : 10-OCT-2011 18:07

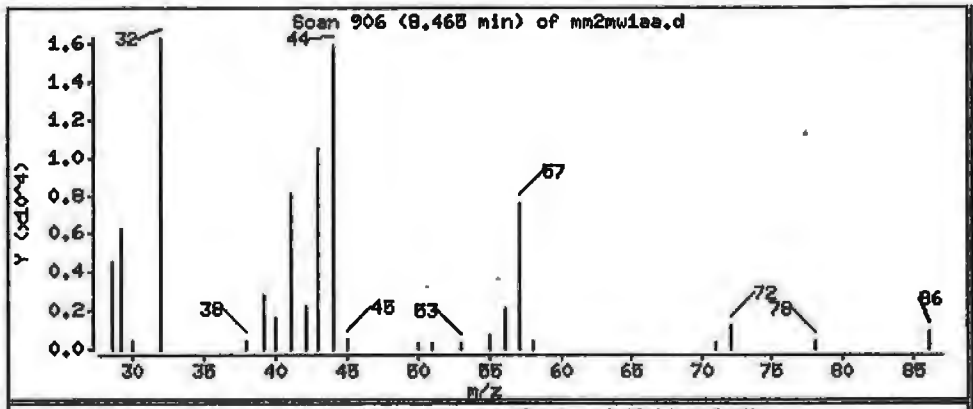
Client ID: TOE/100511 Instrument: mj.i

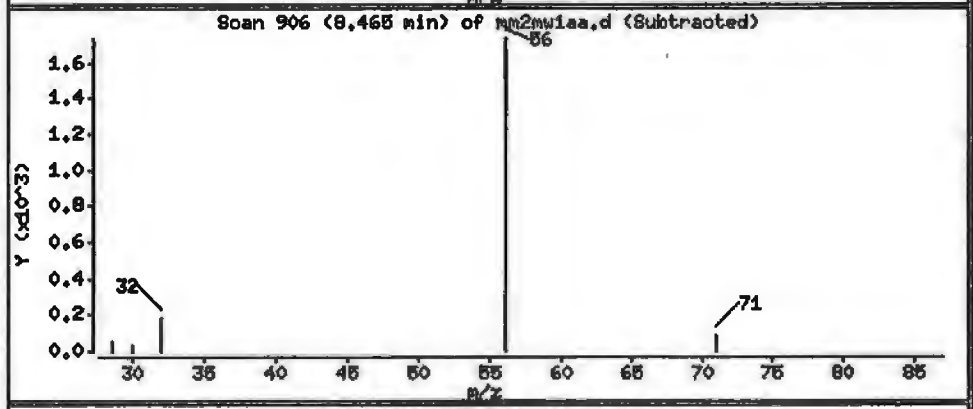
Sample Info: ,1,0,,,

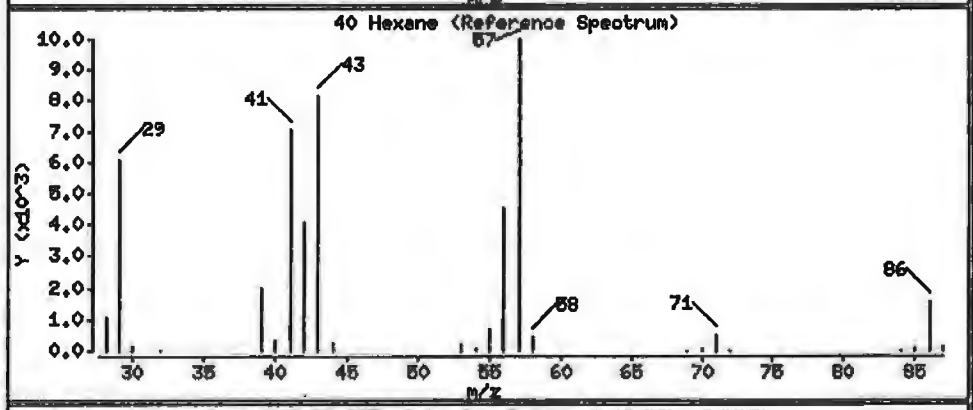
Purge Volume: 200.0 Operator: 403648

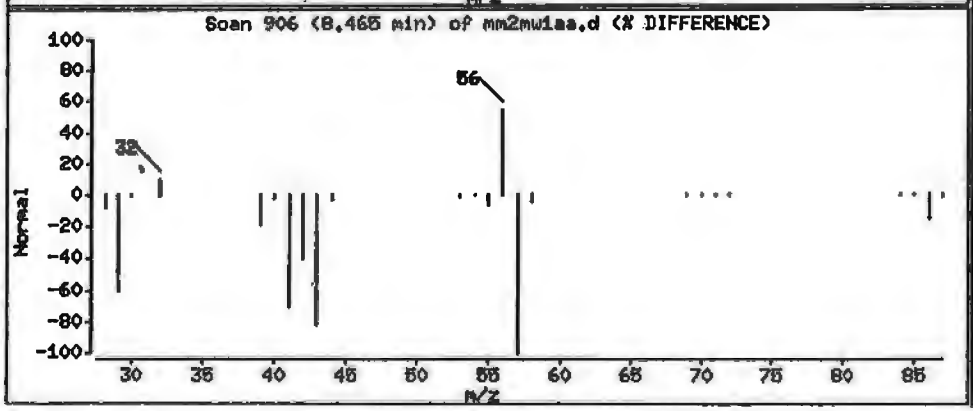
Column phase: Rtx-5 Column diameter: 0.32

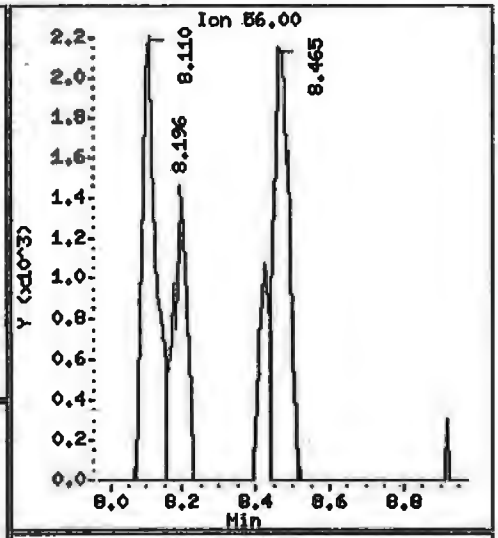
40 Hexane Concentration: 0.07396 ppb(v/v)

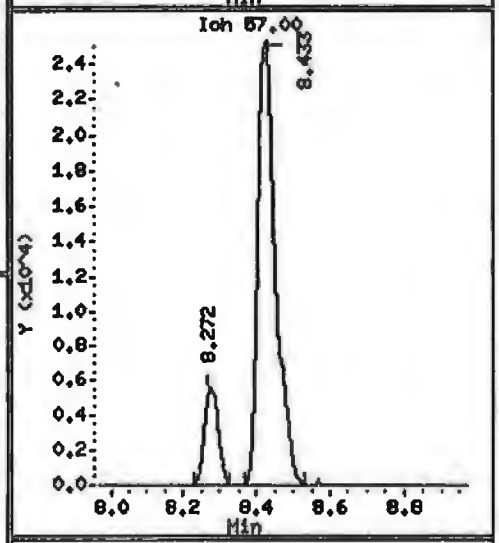


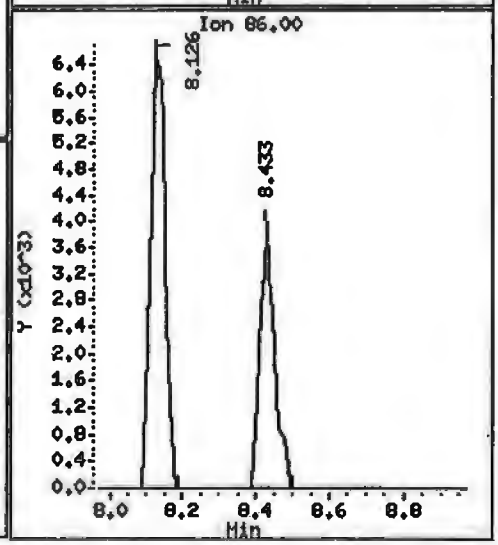












Data File: /var/chem/gcms/mj.i/J101011.b/mm2mwiaa.d

Date : 10-OCT-2011 18:07

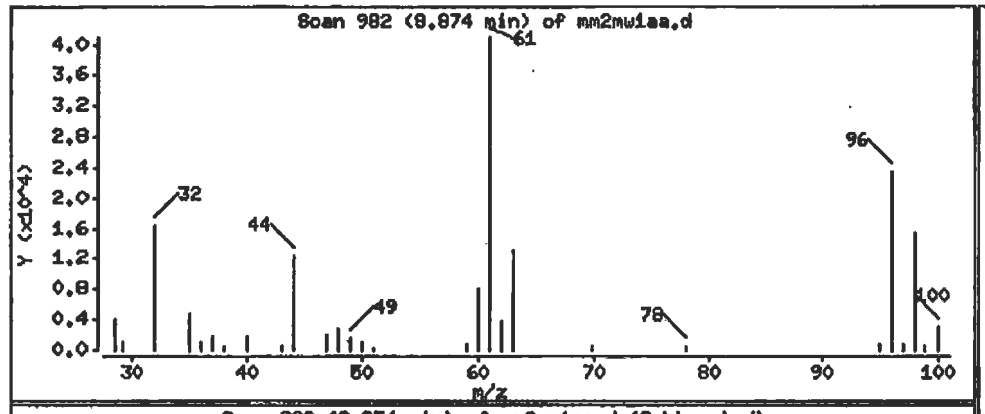
Client ID: TOE/100511 Instrument: mj.i

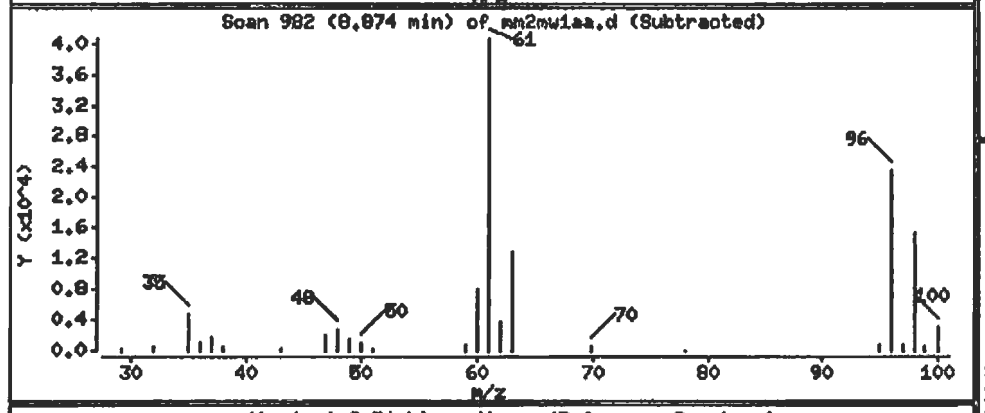
Sample Info: ,1,0,,,

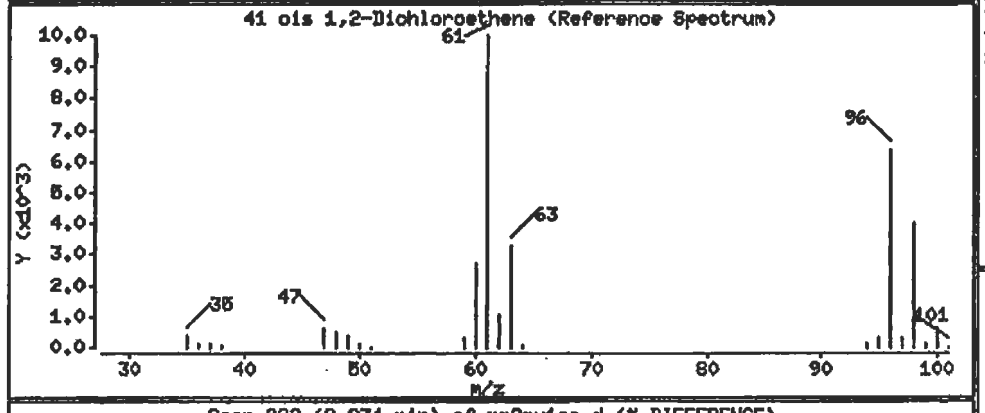
Purge Volume: 200.0 Operator: 403648

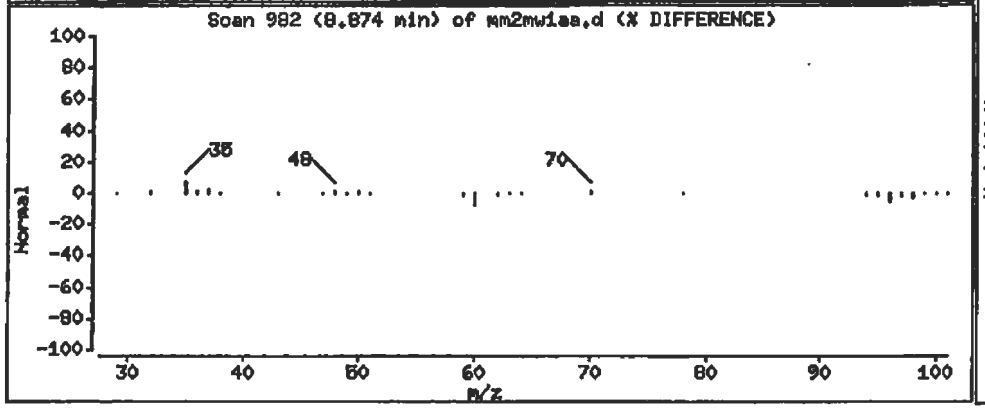
Column phase: Rtx-5 Column diameter: 0.32

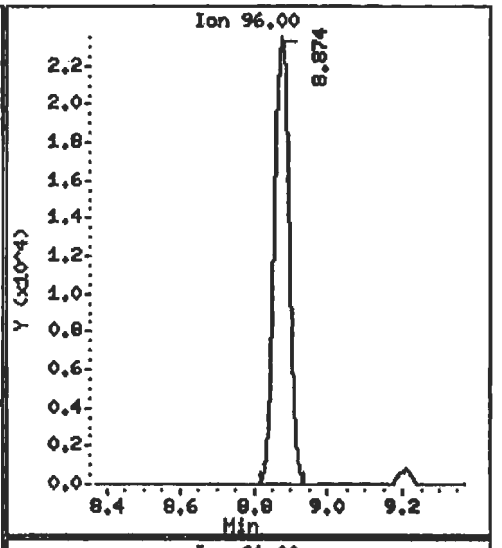
41 cis 1,2-Dichloroethene Concentration: 0.9536 ppb(v/v)

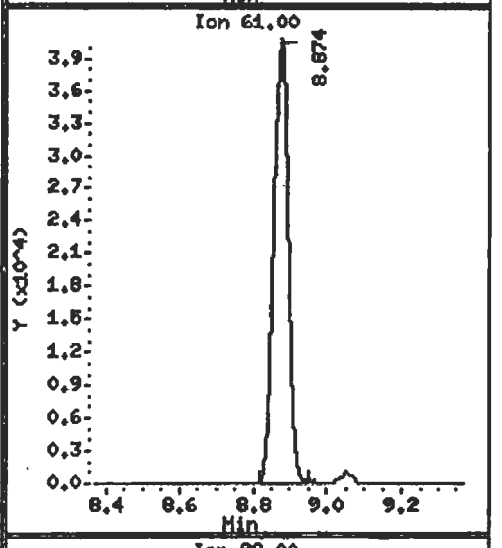


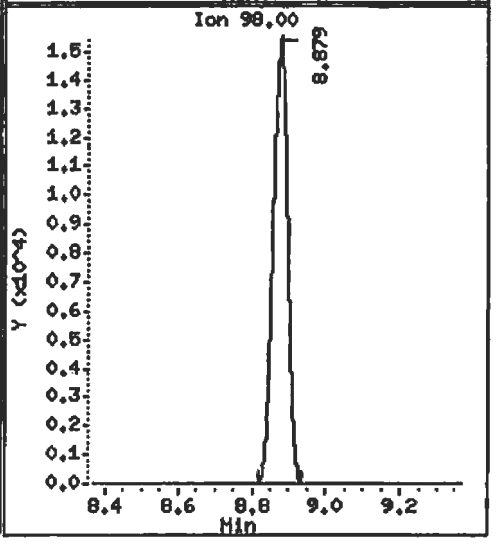












Data File: /var/chem/gcms/mj.i/J101011.b/mm2mw1aa.d

Date : 10-OCT-2011 18:07

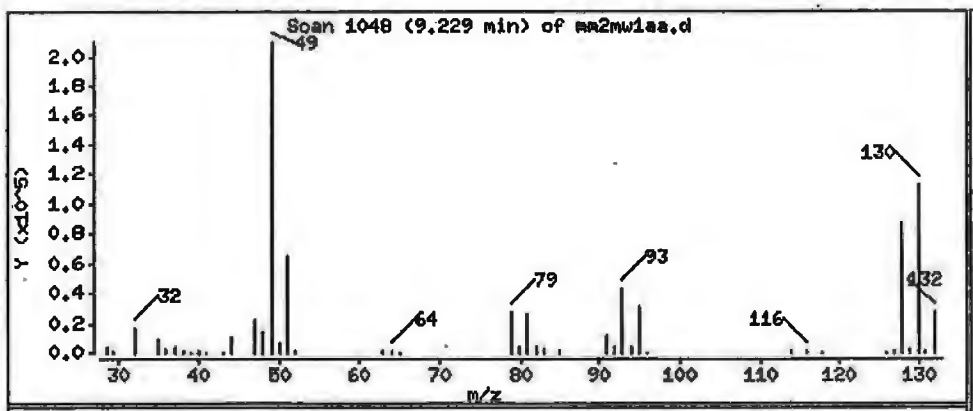
Client ID: TOE/100511 Instrument: mj.i

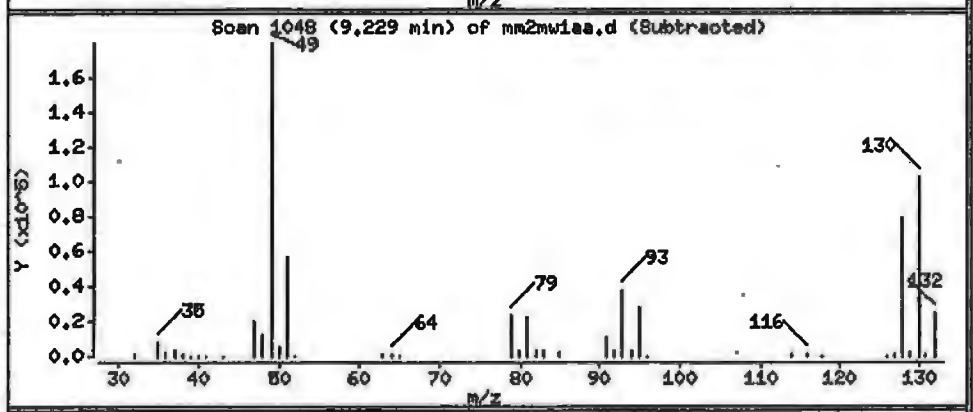
Sample Info: ,1.0,,,

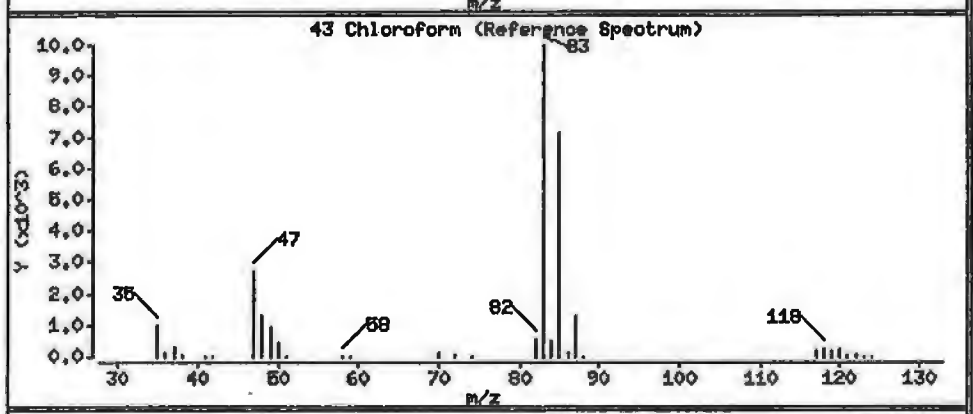
Purge Volume: 200.0 Operator: 403648

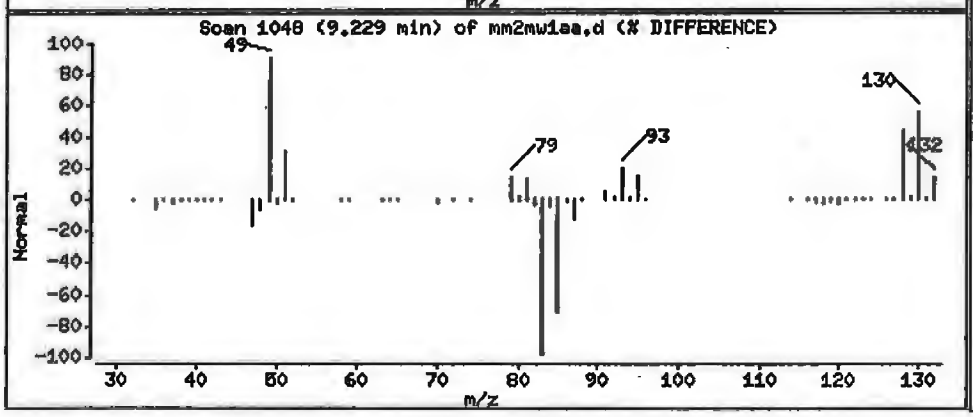
Column phase: Rtx-5 Column diameter: 0.32

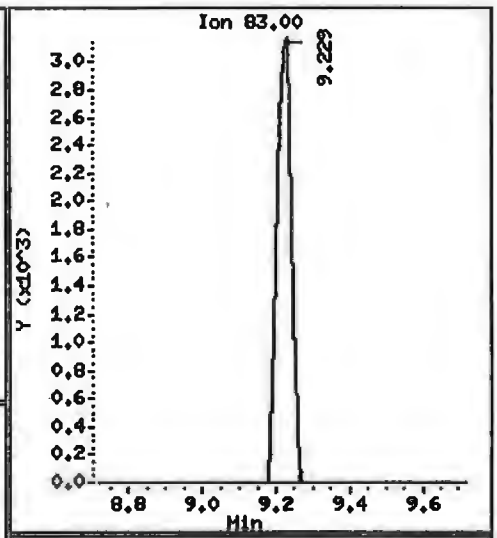
43 Chloroform Concentration: 0.05958 ppb(v/v)

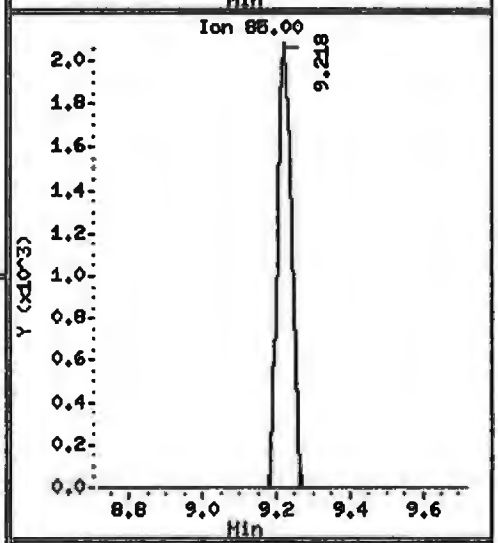


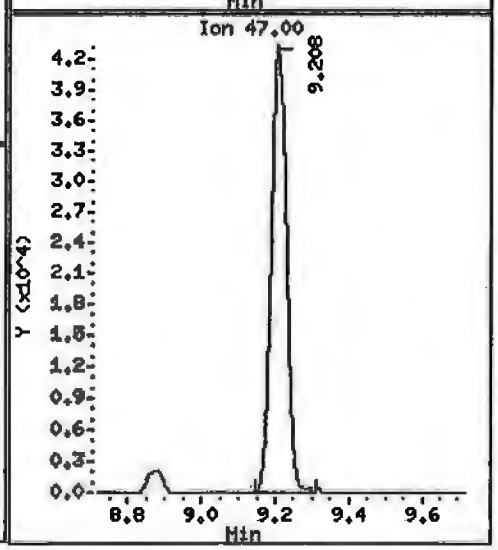












Data File: /var/chem/gcms/mj.i/J101011.b/mm2mwiaa.d

Date : 10-OCT-2011 18:07

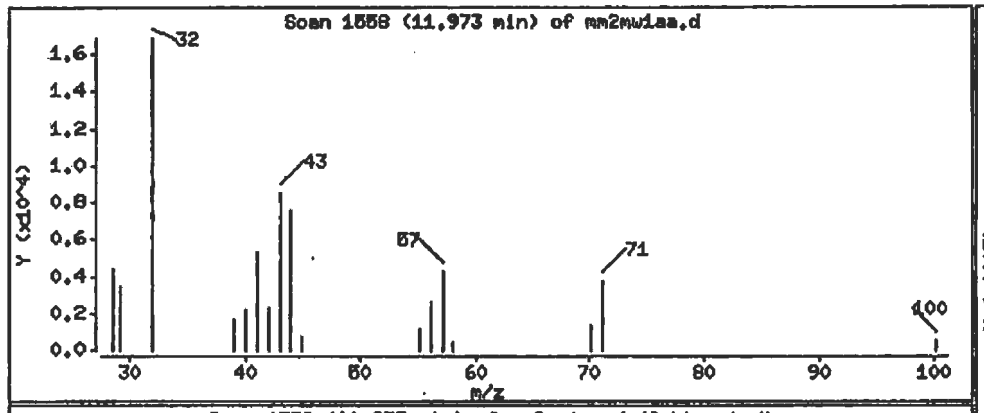
Client ID: TOE/100511 Instrument: mj.i

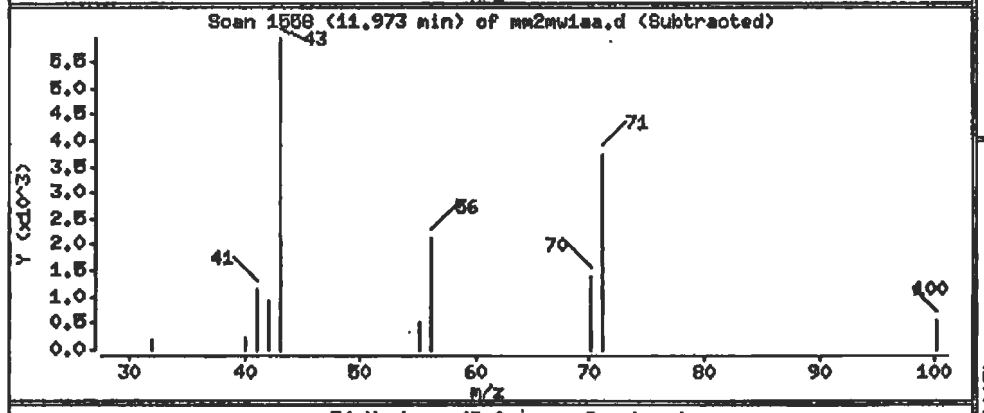
Sample Info: ,1,0,,,

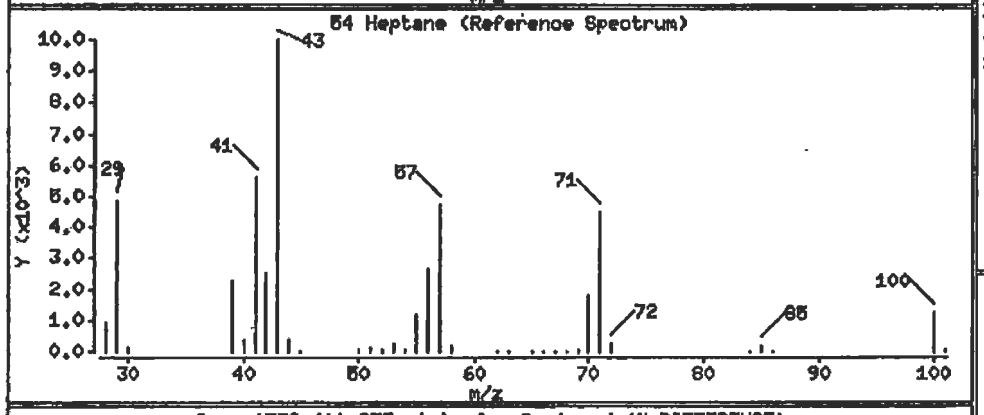
Purge Volume: 200.0 Operator: 403648

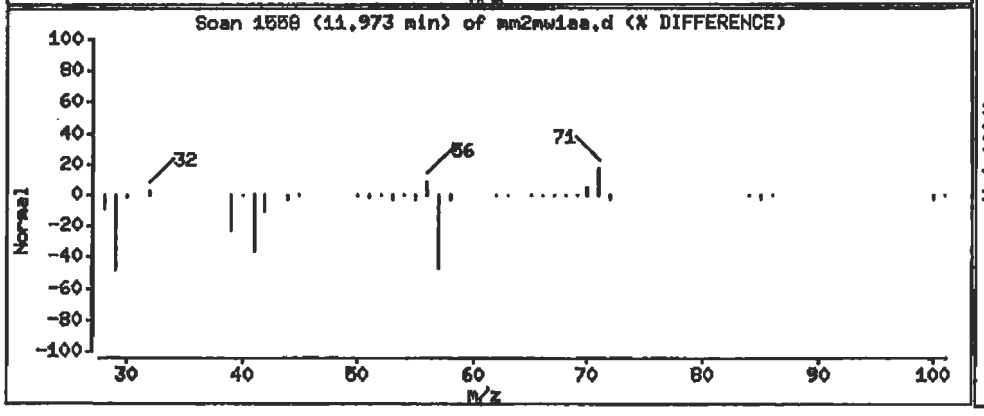
Column phase: Rtx-5 Column diameter: 0.32

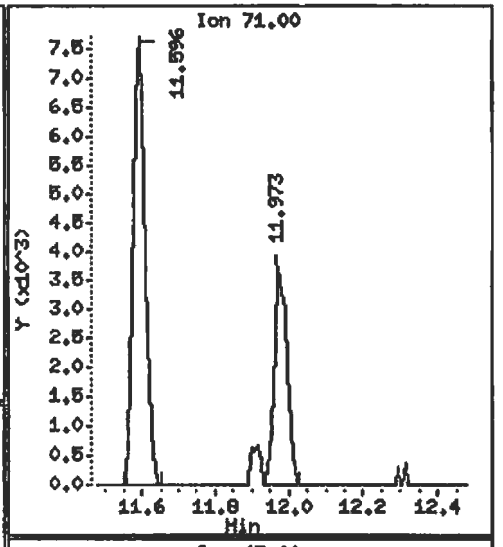
54 Heptane Concentration: 0.1111 ppb(v/v)

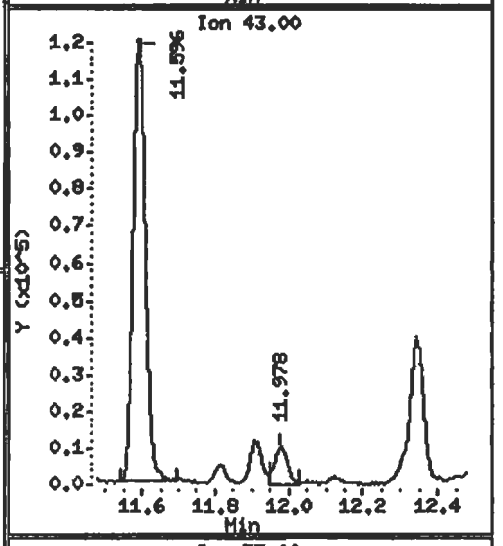


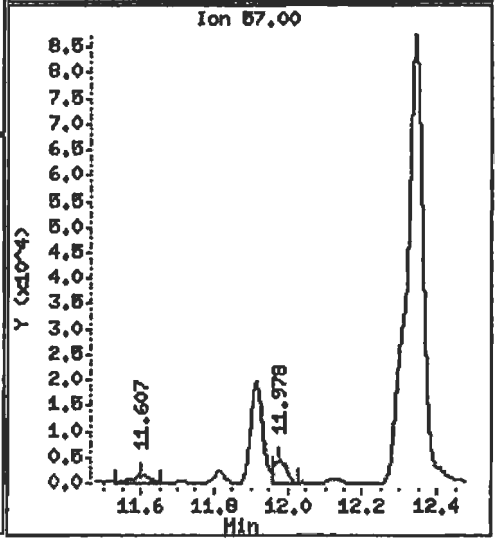












Data File: /var/chem/gcms/mj.i/J101011.b/mm2mw1aa.d

Date : 10-OCT-2011 18:07

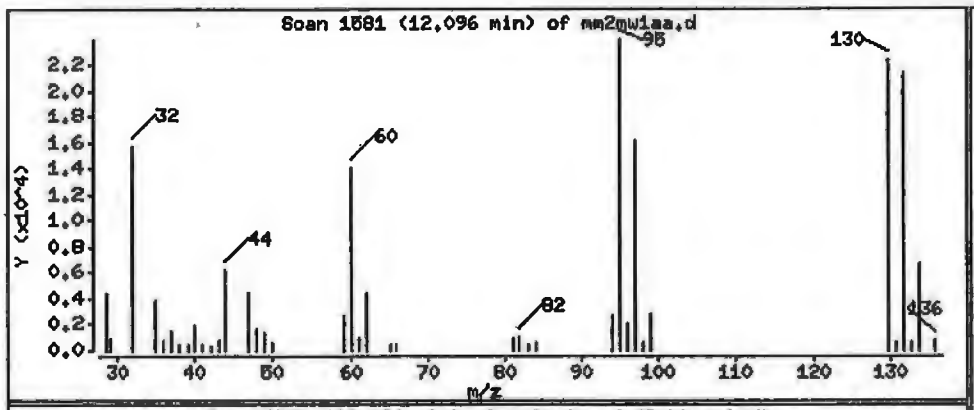
Client ID: TOE/100511 Instrument: mj.i

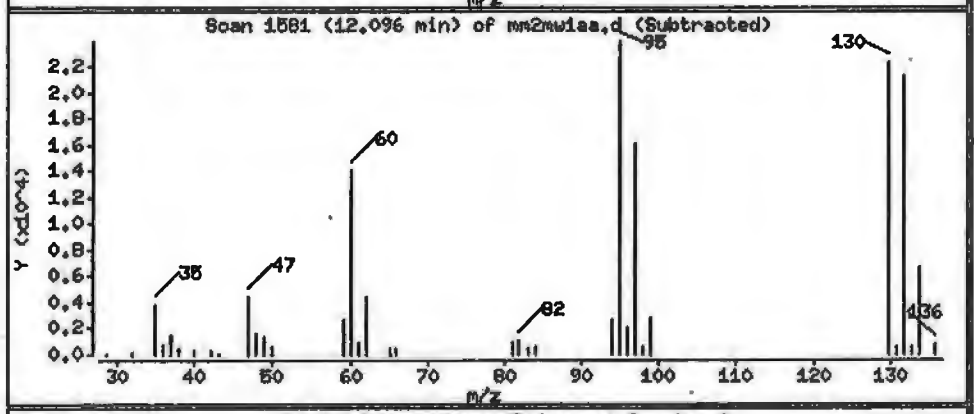
Sample Info: ,1,0,,,

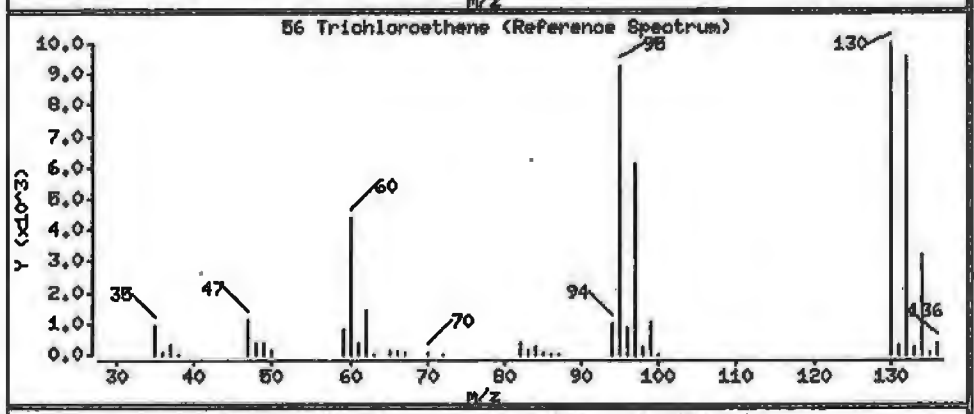
Purge Volume: 200.0 Operator: 403648

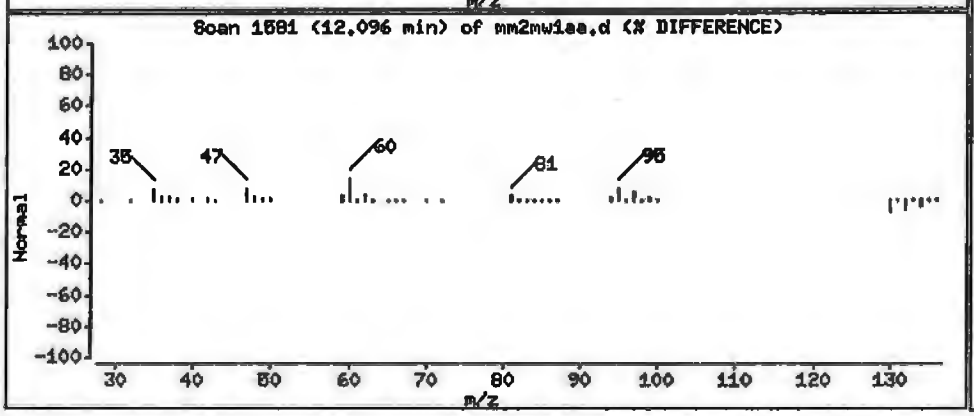
Column phase: Rtx-5 Column diameter: 0.32

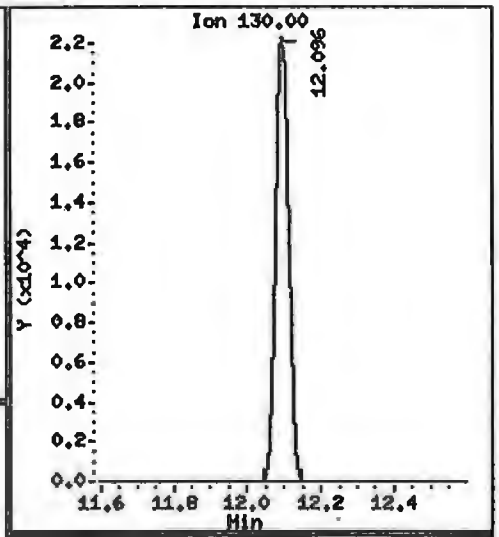
56 Trichloroethene Concentration: 0.5385 ppb(v/v)

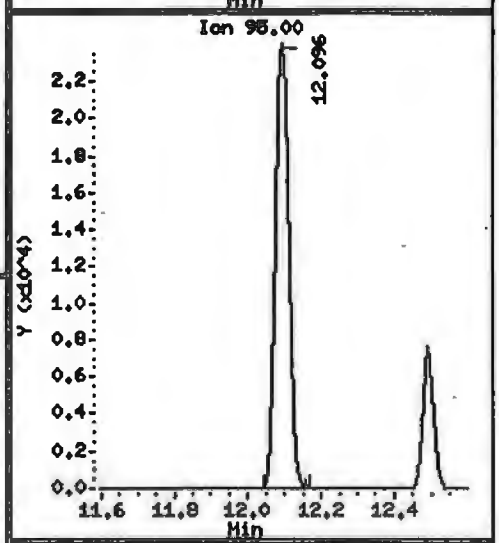


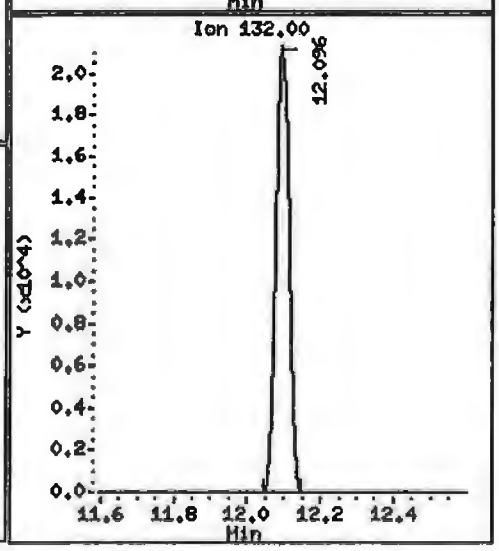












Data File: /var/chem/gcms/mj.i/J101011.b/mm2mw1aa.d

Date : 10-OCT-2011 18:07

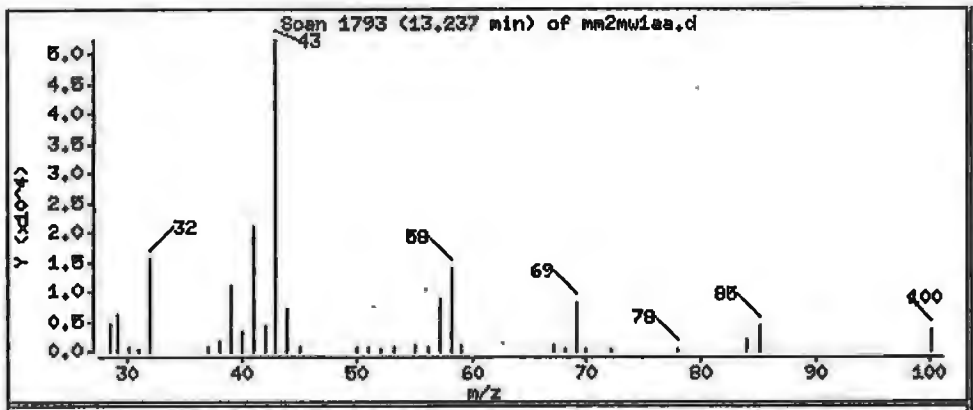
Client ID: TOE/100511 Instrument: mj.i

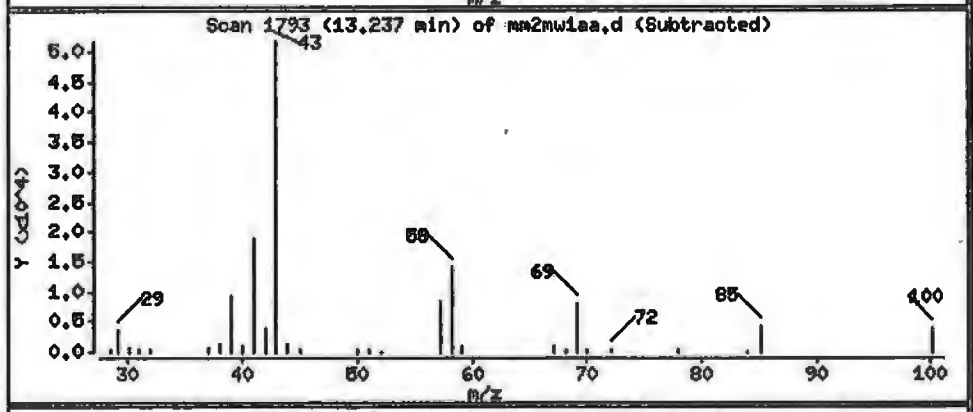
Sample Info: ,1,0,,,

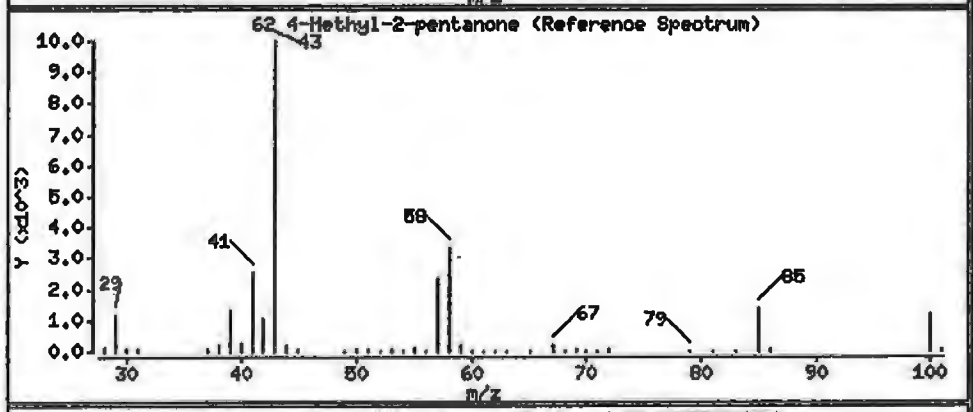
Purge Volume: 200.0 Operator: 403649

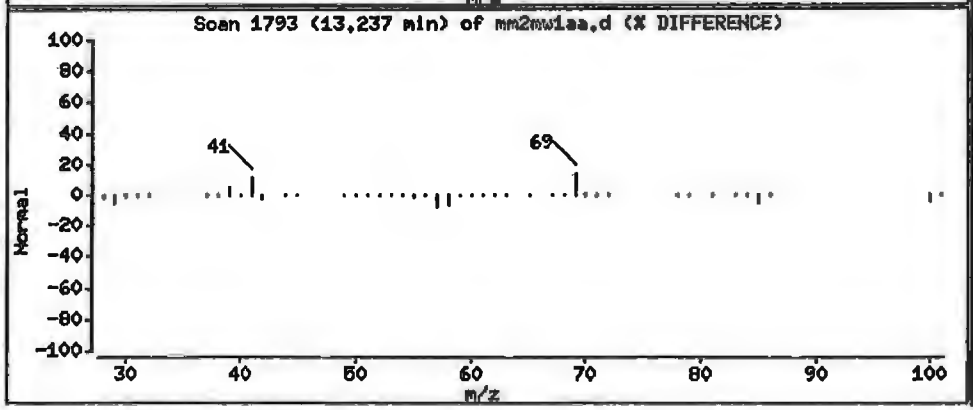
Column phase: Rtx-5 Column diameter: 0.32

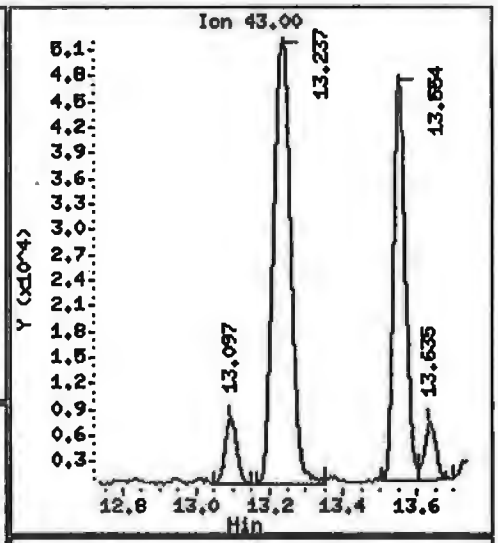
62 4-Methyl-2-pentanone Concentration: 1.076 ppb(v/v)

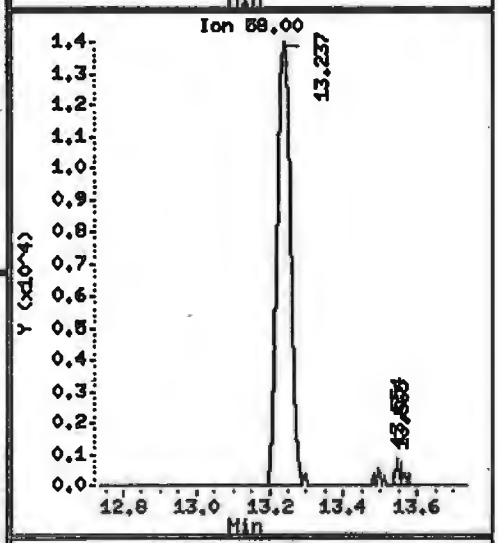


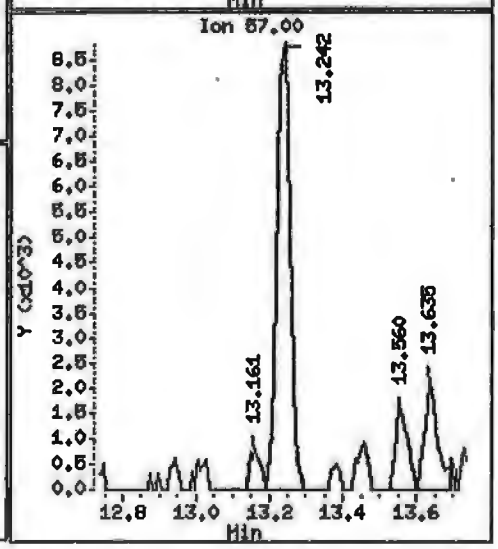












Data File: /var/chem/gcms/mj.i/J101011.b/mm2mw1aa.d

Date : 10-OCT-2011 18:07

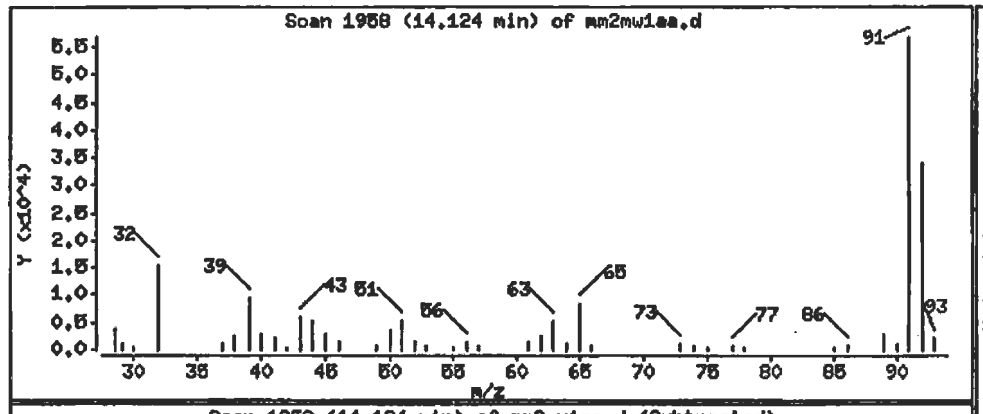
Client ID: TOE/100511 Instrument: mj.i

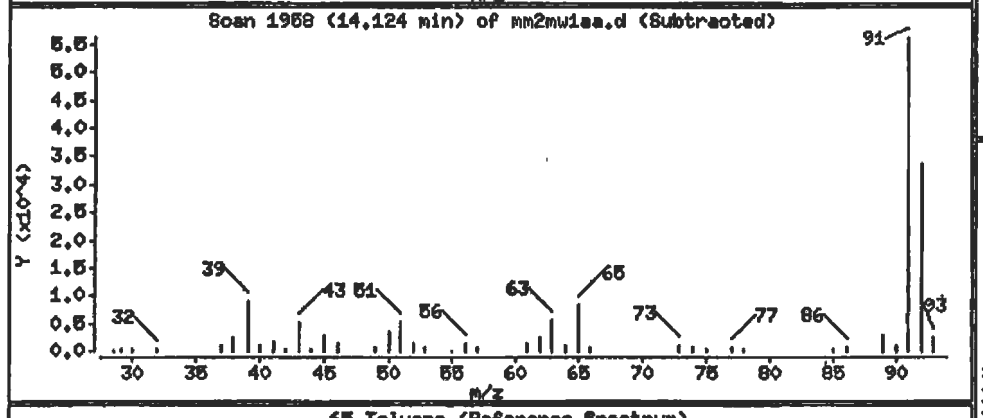
Sample Info: ,1,0,,,

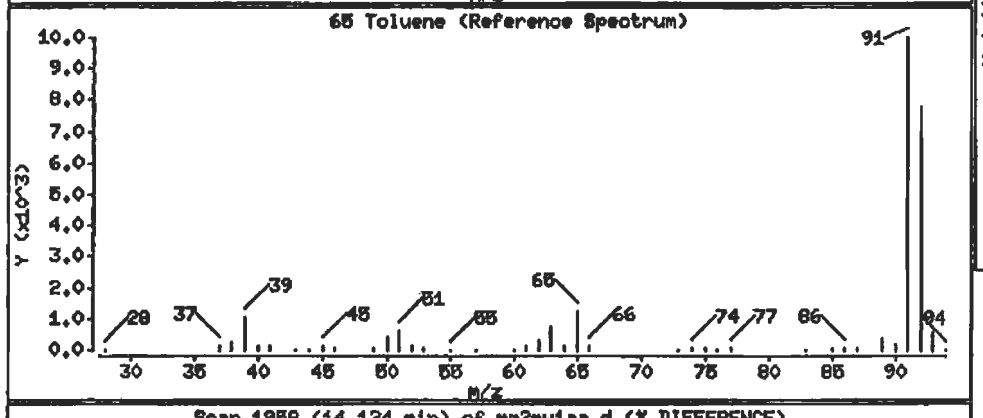
Purge Volume: 200.0 Operator: 403648

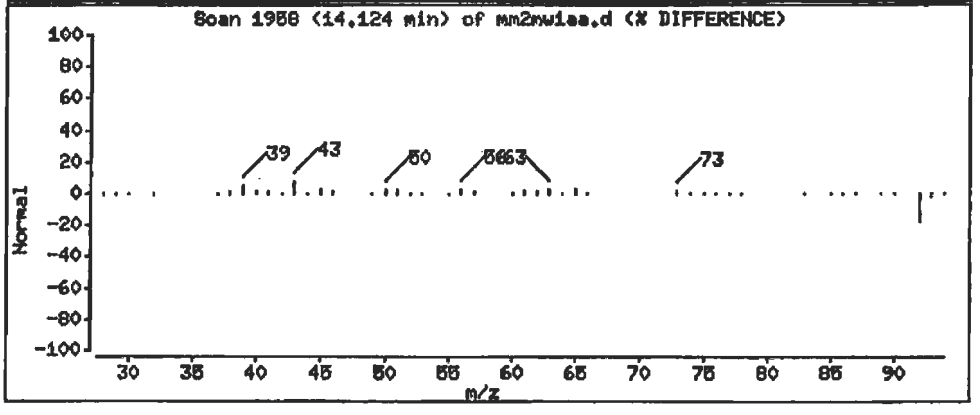
Column phase: Rtx-5 Column diameter: 0.32

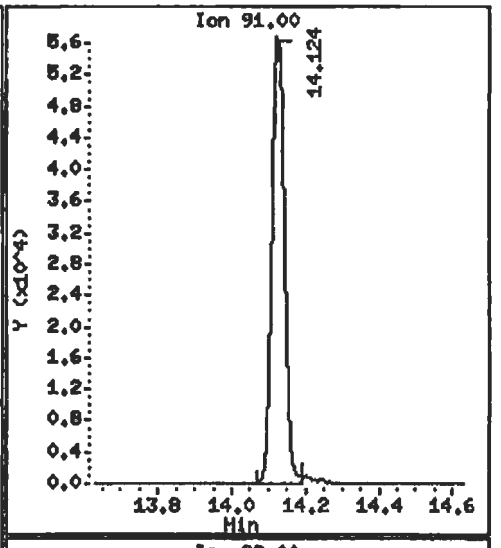
65 Toluene Concentration: 0.6956 ppb(v/v)

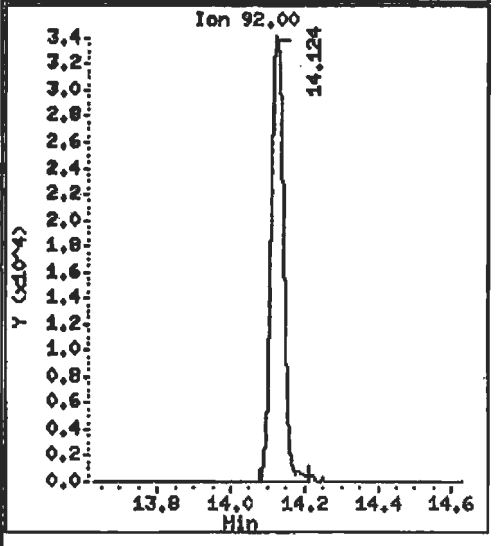












Data File: /var/chem/gcms/mj.i/J101011.b/mm2mw1aa.d

Date : 10-OCT-2011 18:07

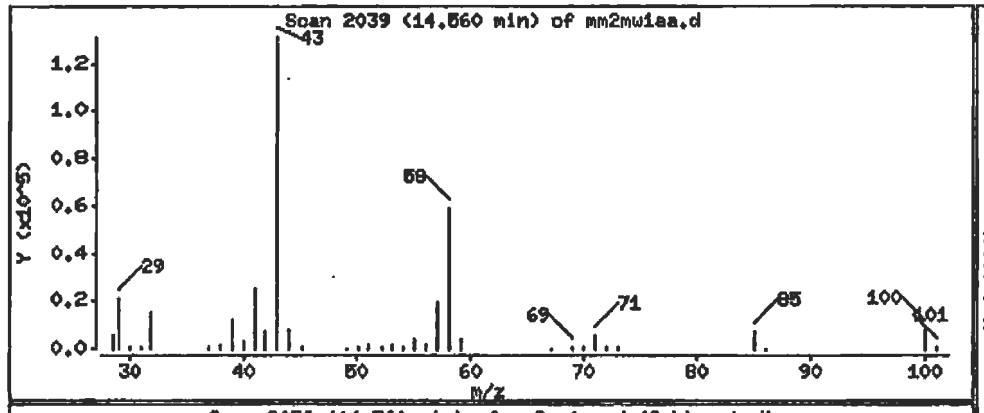
Client ID: TOE/100511 | Instrument: mj.i

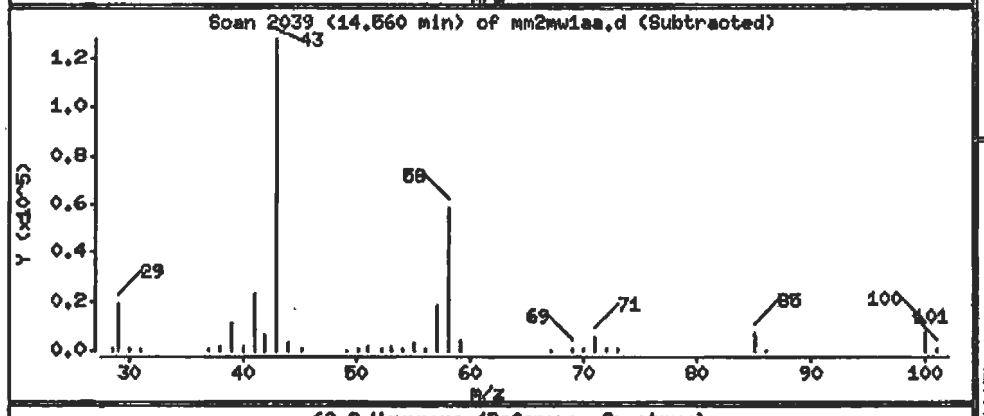
Sample Info: ,1,0,,,

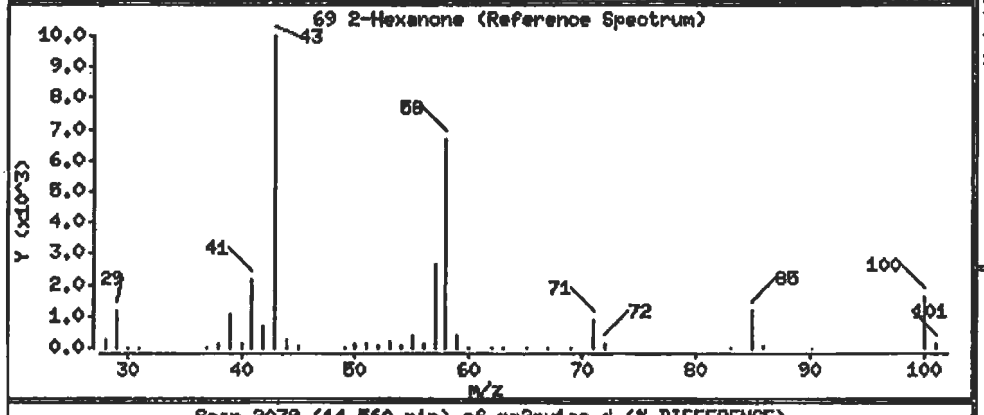
Purge Volume: 200.0 | Operator: 403648

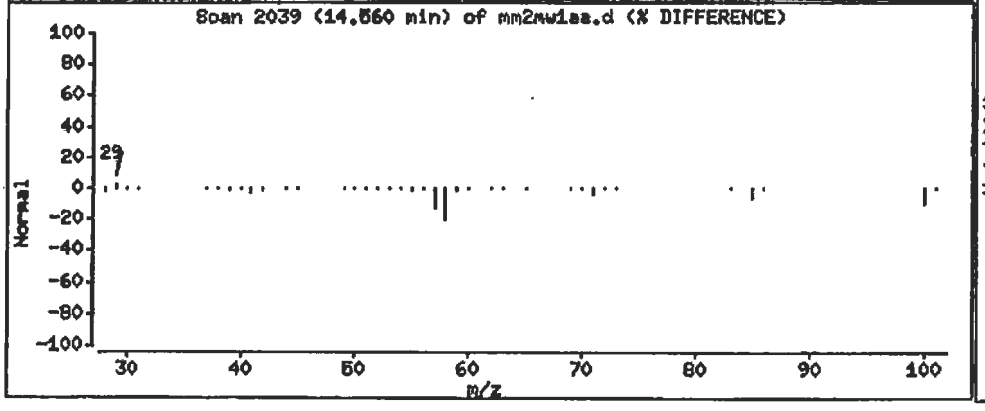
Column phase: Rtx-5 | Column diameter: 0.32

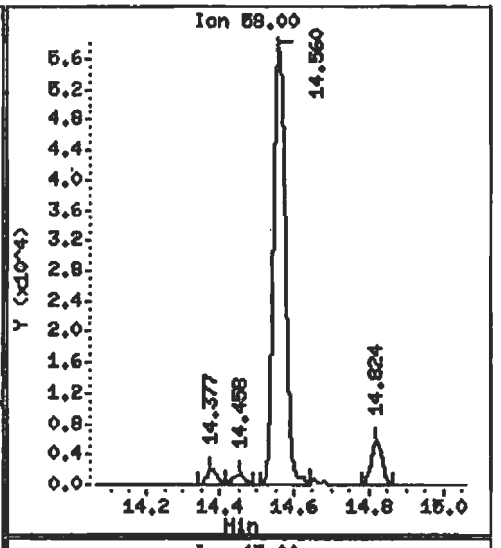
69 2-Hexanone | Concentration: 1.811 ppb(v/v)

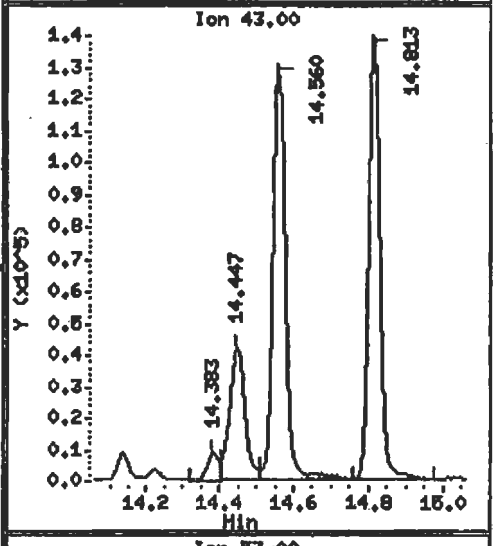


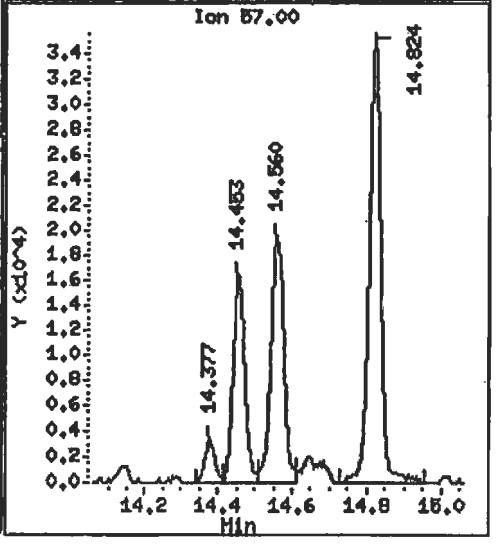












Data File: /var/chem/gcms/mj.i/J101011.b/mm2mw1aa.d

Date : 10-OCT-2011 18:07

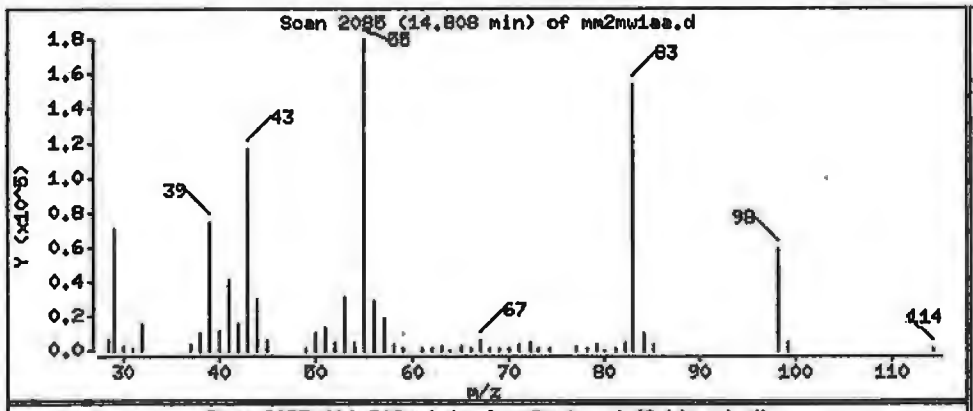
Client ID: TOE/100511 Instrument: mj.i

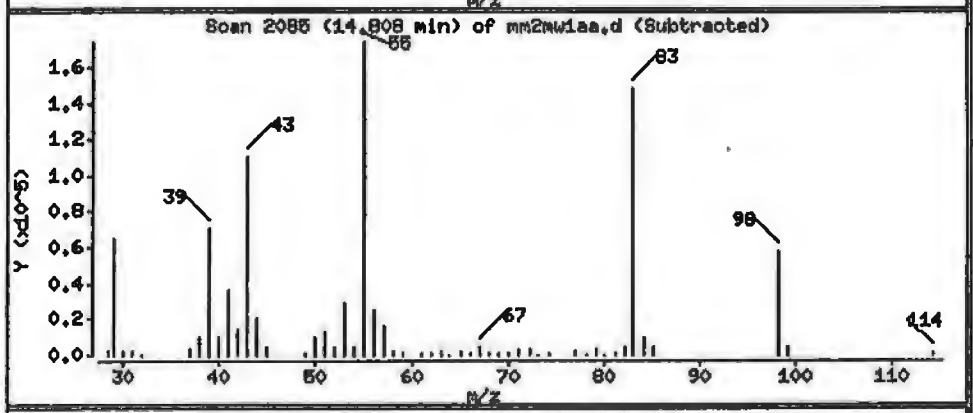
Sample Info: ,1,0,,,

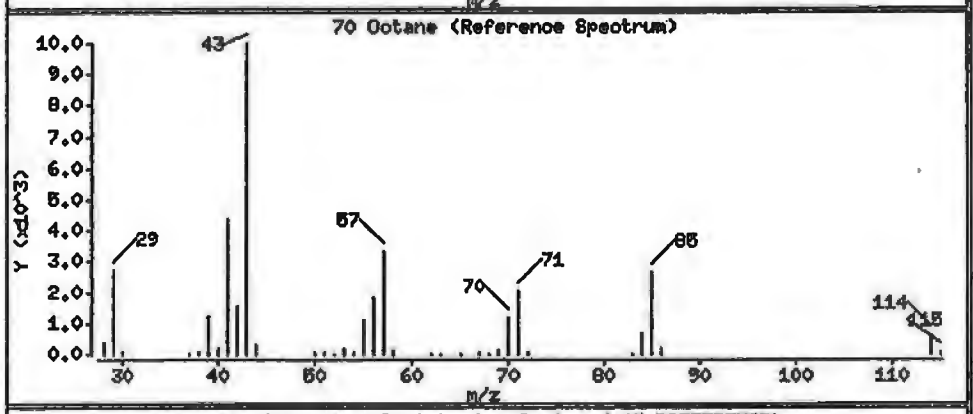
Purge Volume: 200.0 Operator: 403648

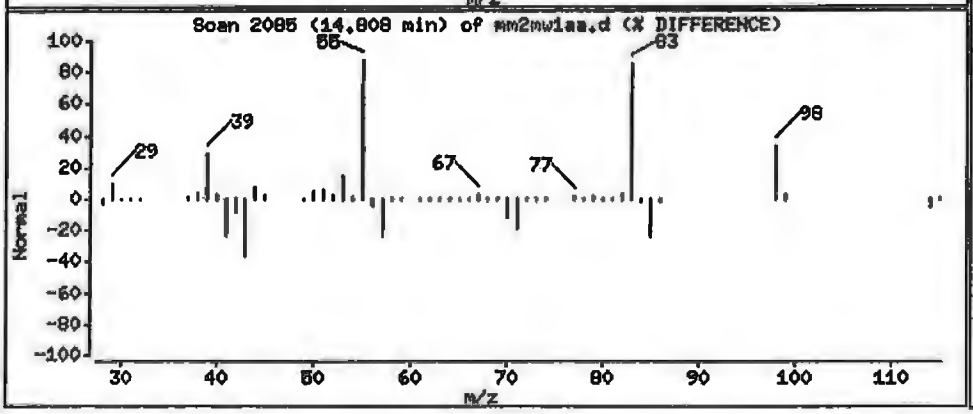
Column phase: Rtx-5 Column diameter: 0.32

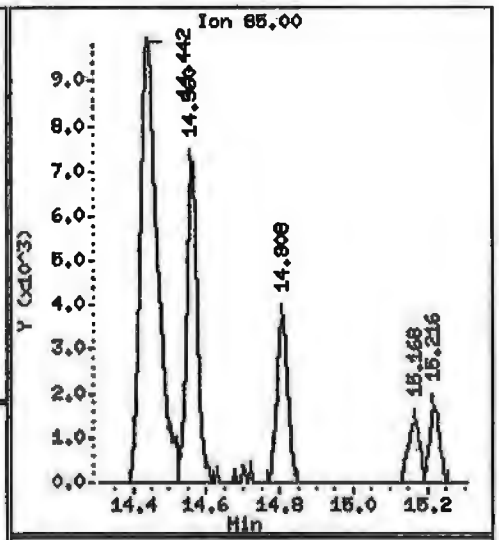
70 Octane Concentration: 0.1034 ppb(v/v)

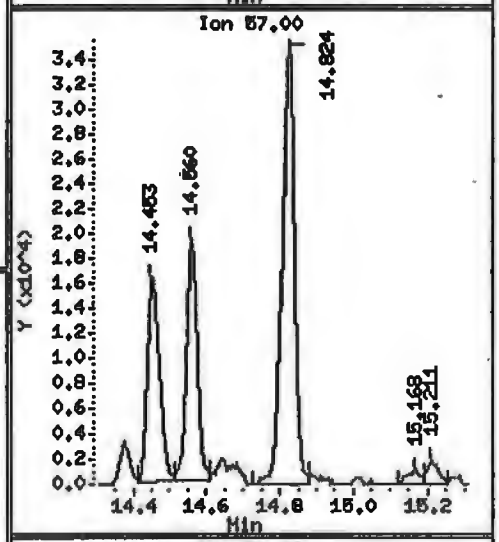


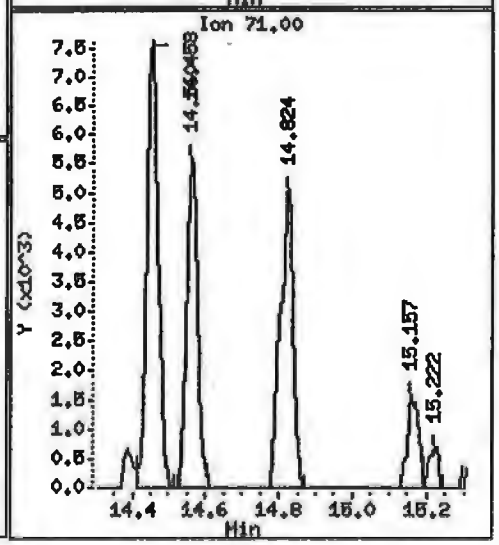












Data File: /var/chem/gcms/mj.i/J101011.b/mm2mwiaa.d

Date : 10-OCT-2011 18:07

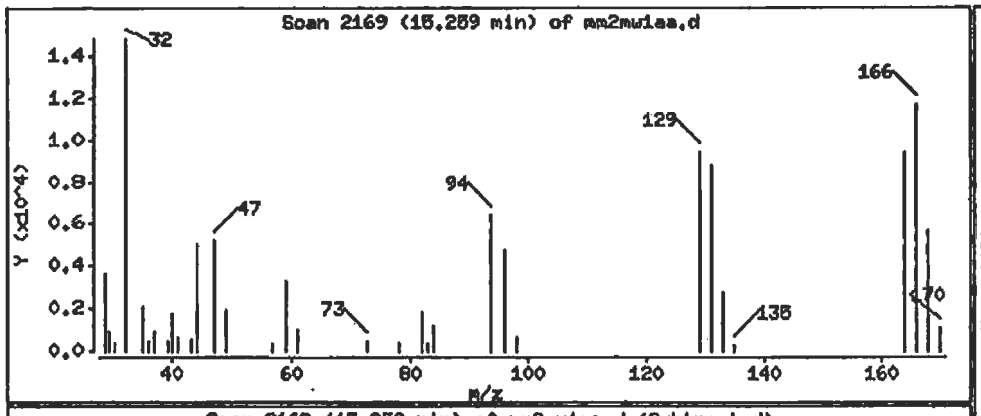
Client ID: TOE/100511 Instrument: mj.i

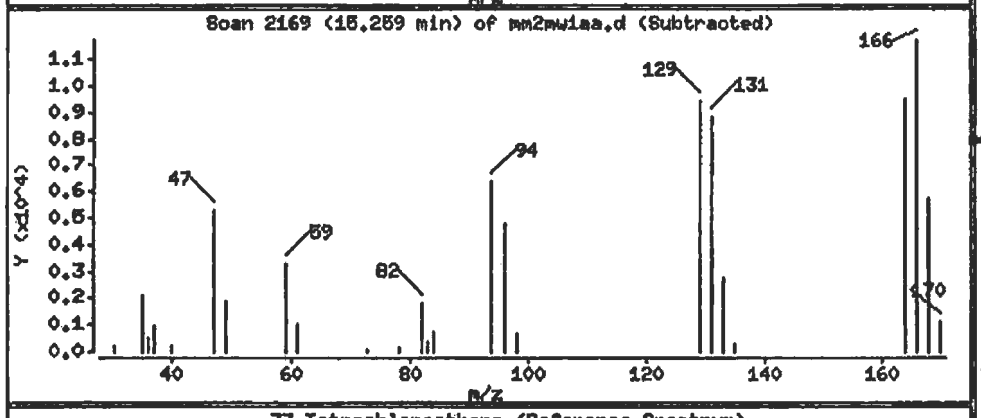
Sample Info: ,1,0,,,

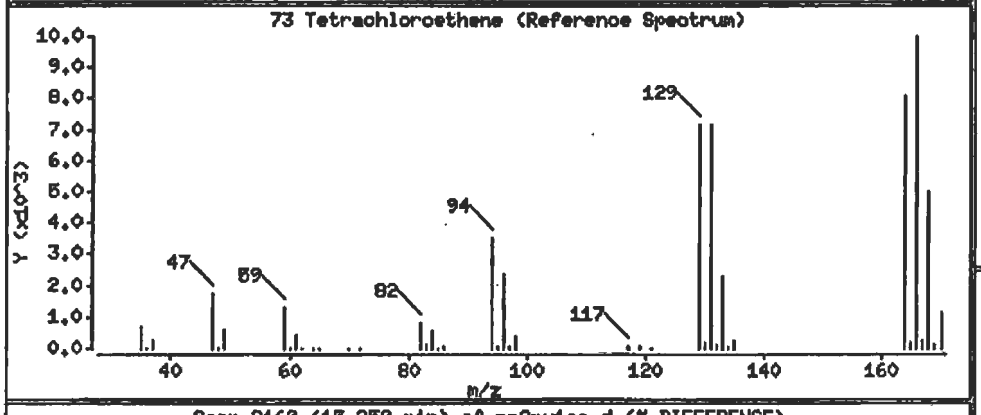
Purge Volume: 200.0 Operator: 403648

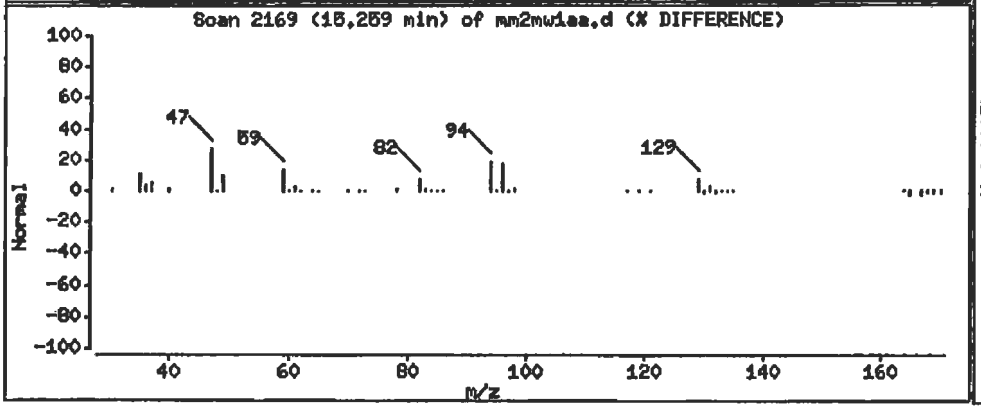
Column phase: Rtx-5 Column diameter: 0.32

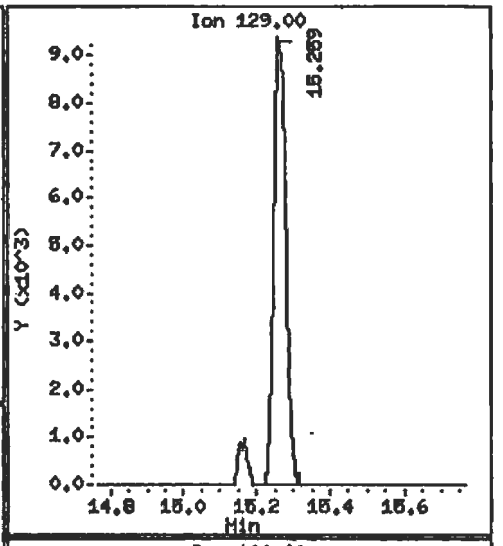
73 Tetrachloroethene Concentration: 0.2639 ppb(v/v)

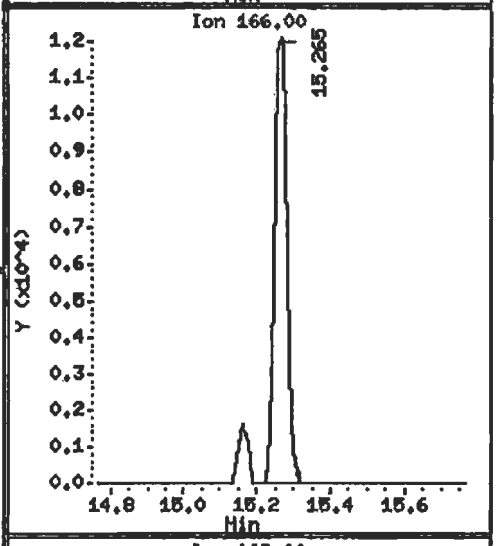


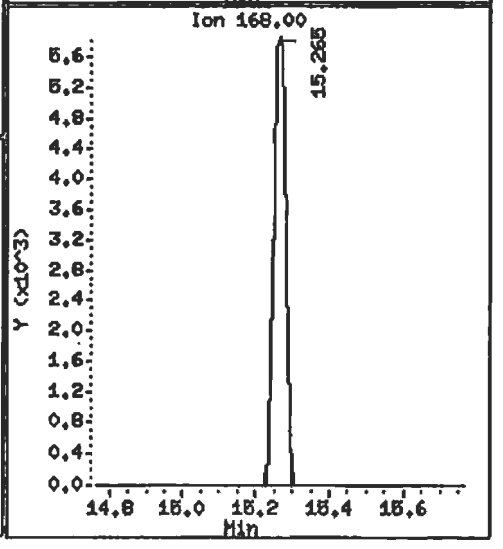












Data File: /var/chem/gcms/mj.i/J101011.b/mm2mw1aa.d

Date : 10-OCT-2011 18:07

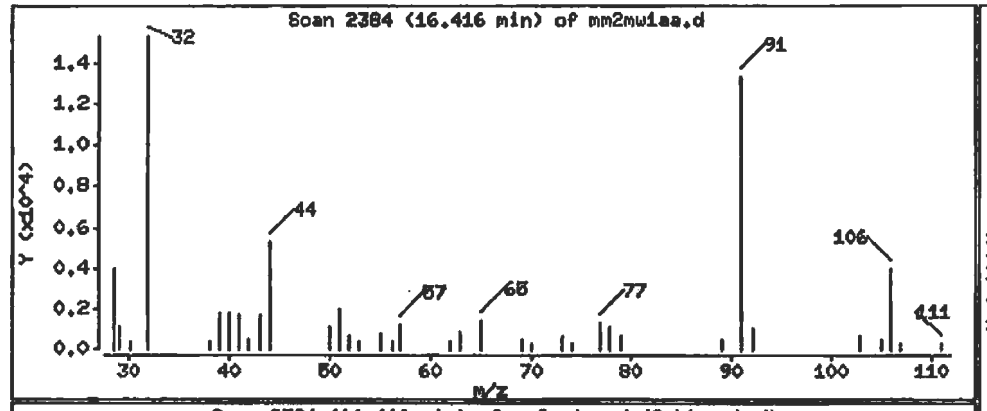
Client ID: TOE/100811 Instrument: mj.i

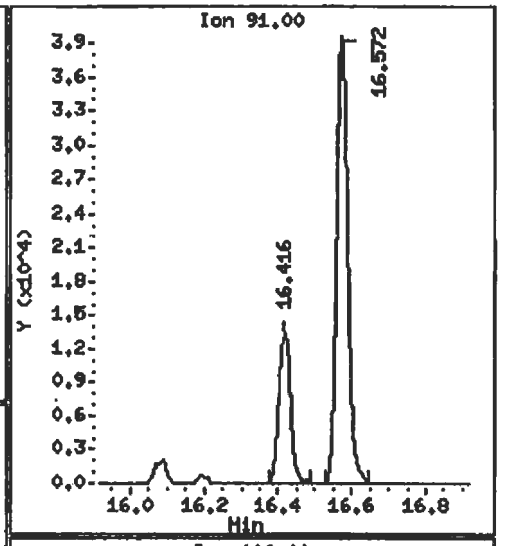
Sample Info: ,1,0,,,

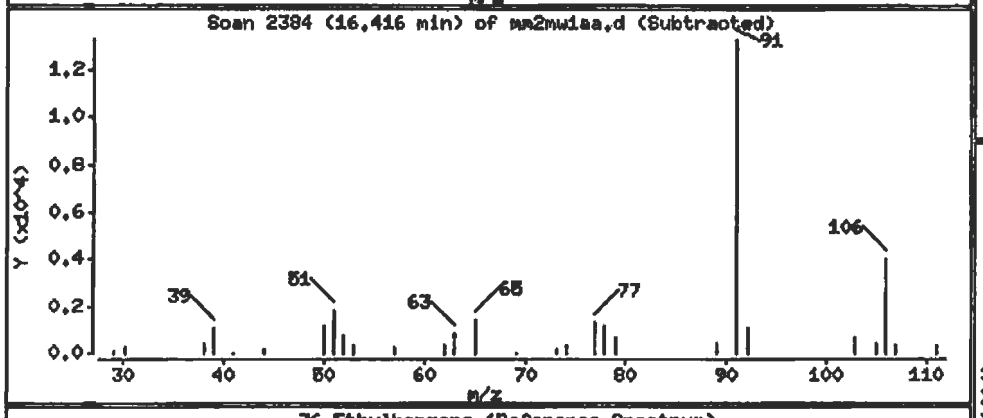
Purge Volume: 200.0 Operator: 403648

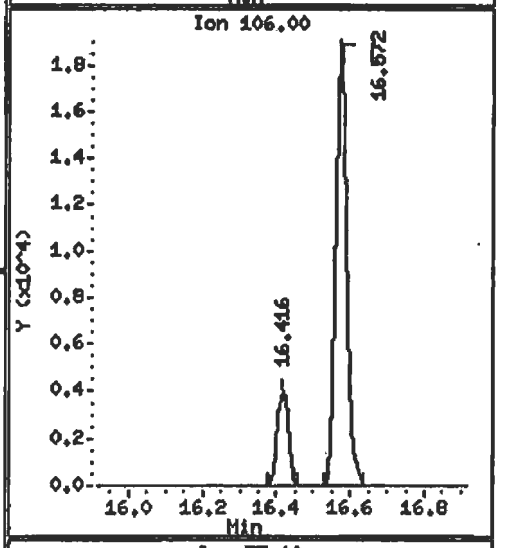
Column phase: Rtx-5 Column diameter: 0.32

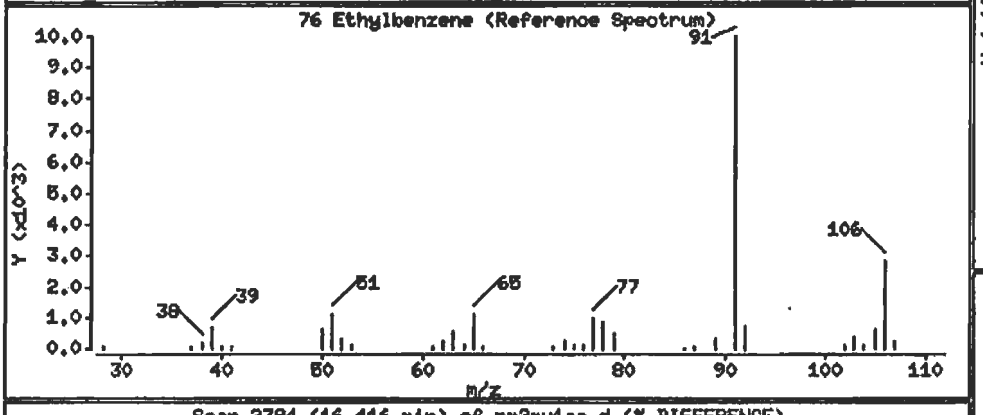
76 Ethylbenzene Concentration: 0.1347 ppb(v/v)

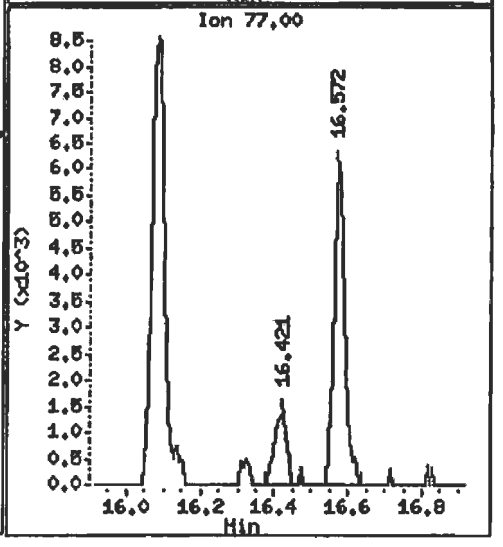


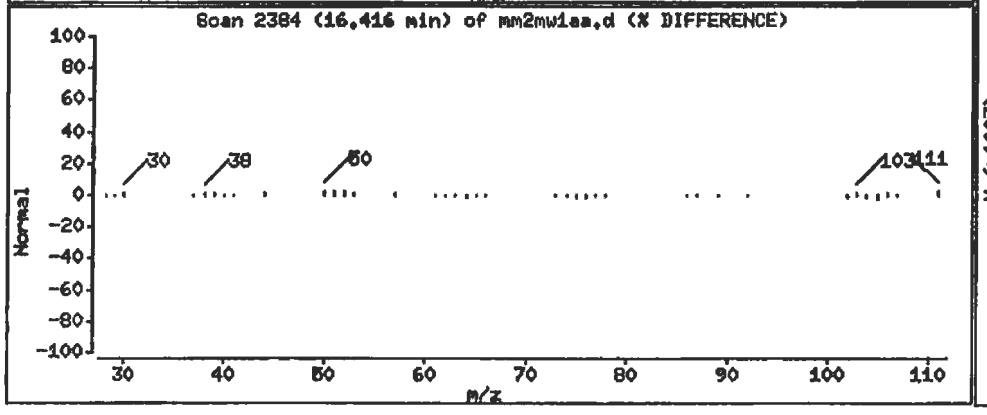












Data File: /var/chem/gcms/mj.i/3101011.b/mm2mw1aa.d

Date : 10-OCT-2011 18:07

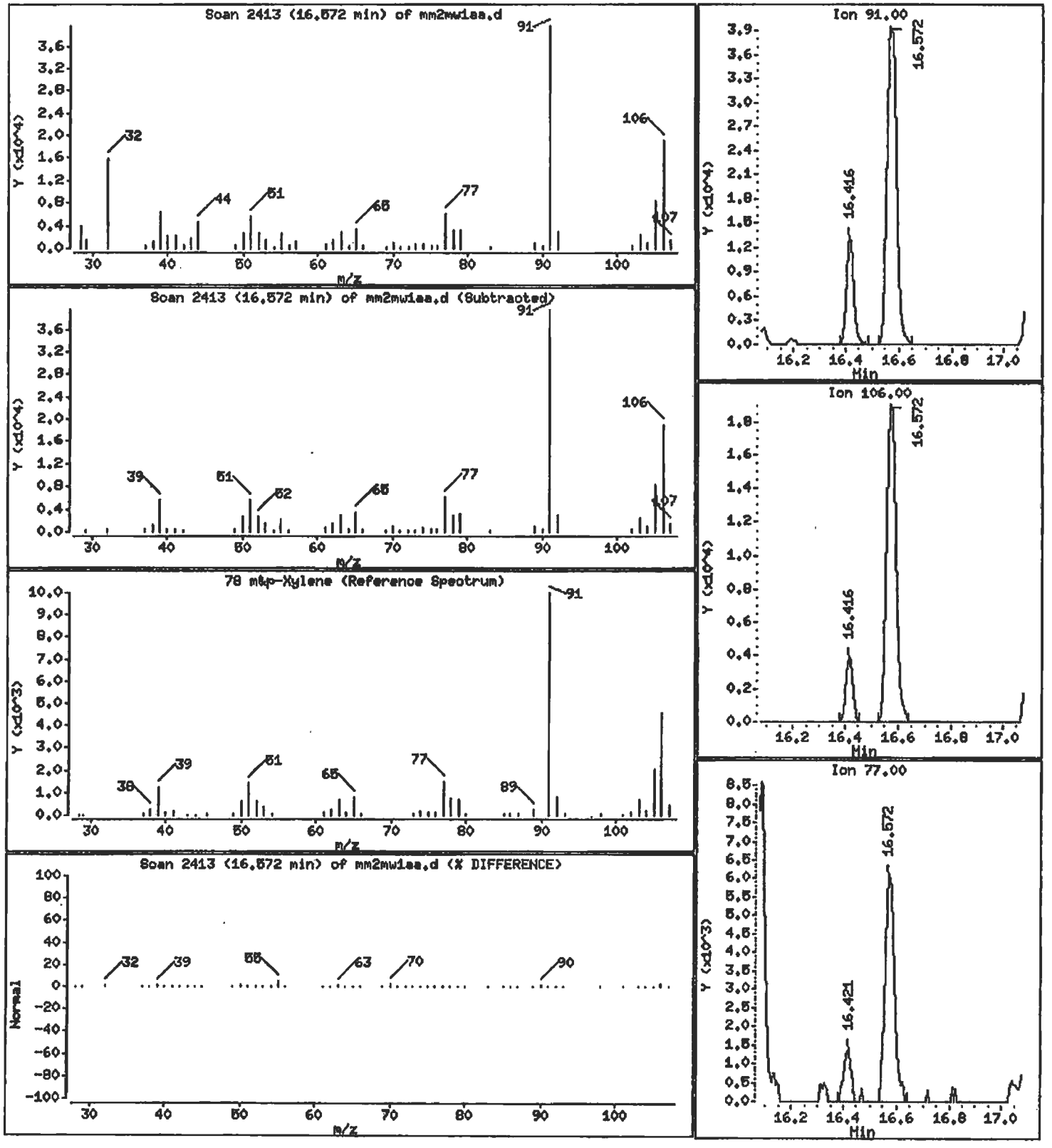
Client ID: TOE/100511 Instrument: mj.i

Sample Info: ,1,0,,,

Purge Volume: 200.0 Operator: 403648

Column phase: Rtx-5 Column diameter: 0.32

78 m&p-Xylene Concentration: 0.5805 ppb(v/v)



Data File: /var/chem/gcms/mj.i/J101011.b/mm2mw1aa.d

Date : 10-OCT-2011 18:07

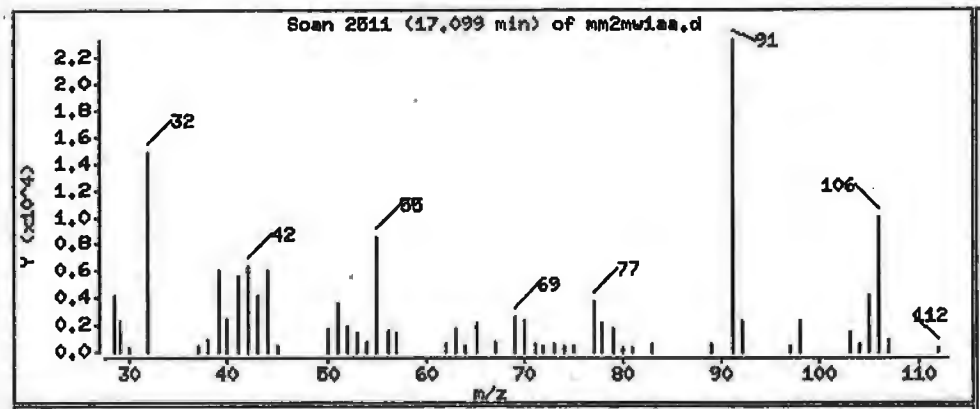
Client ID: TOE/100511 | Instrument: mj.i

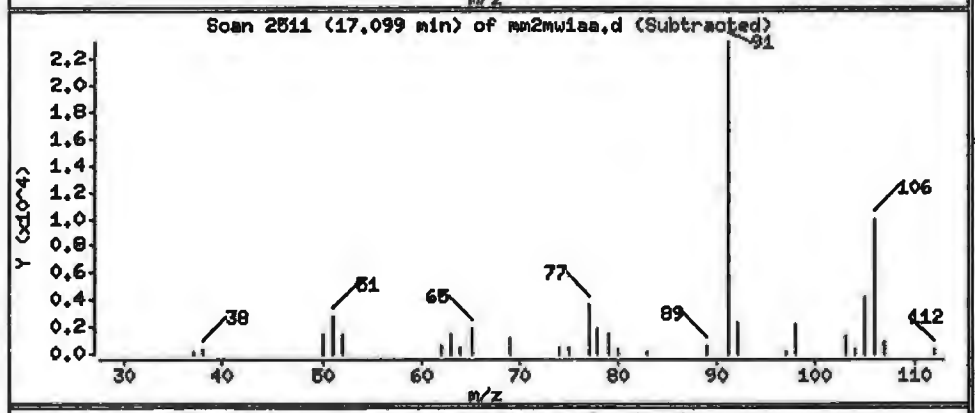
Sample Info: ,1,0,,,

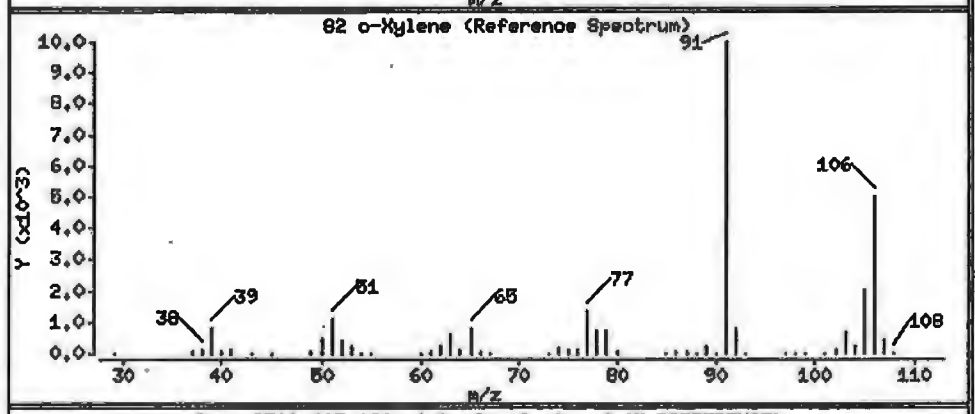
Purge Volume: 200.0 | Operator: 403648

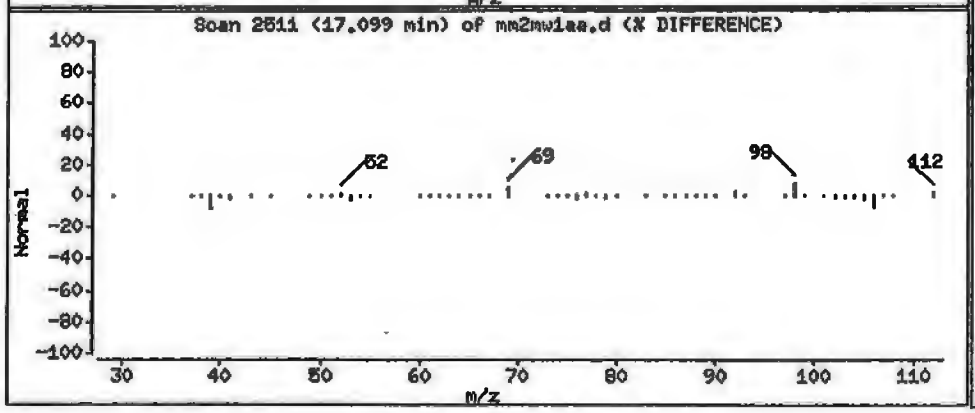
Column phase: Rtx-5 | Column diameter: 0.32

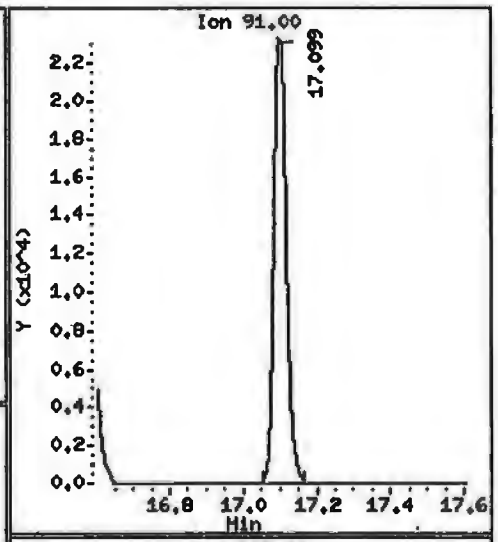
82 o-Xylene | Concentration: 0.3087 ppb(v/v)

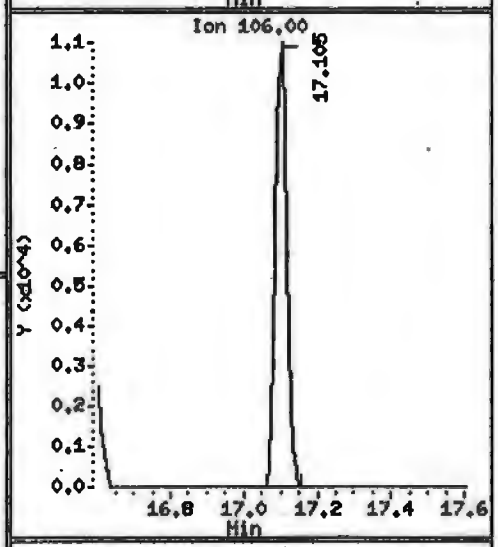


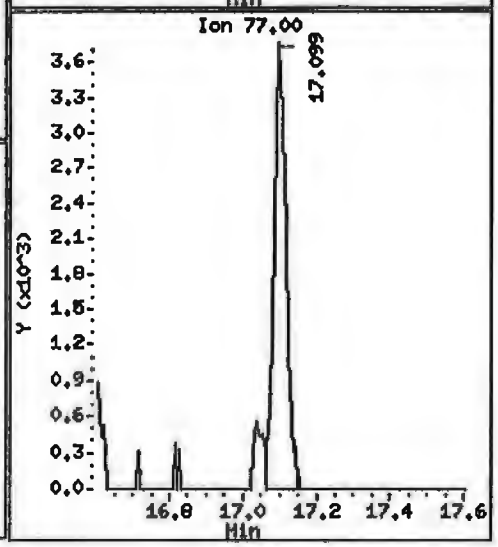












Data File: /var/chem/gcms/mj.i/J101011.b/mm2mw1aa.d

Date : 10-OCT-2011 18:07

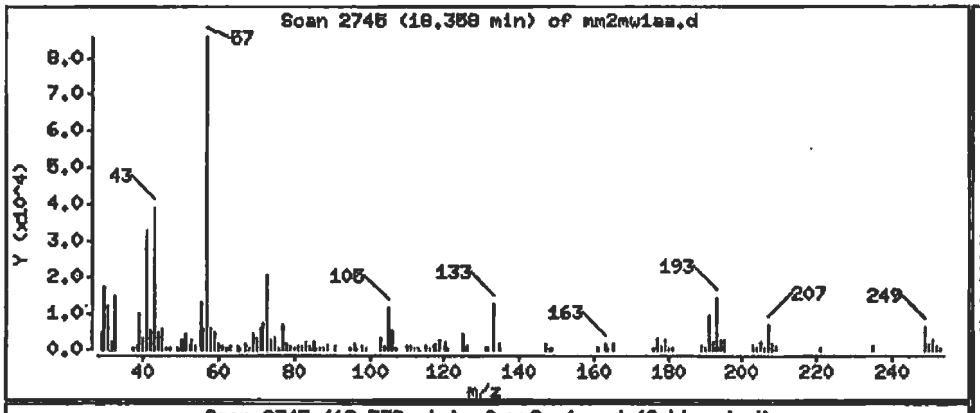
Client ID: TOE/100511 Instrument: mj.i

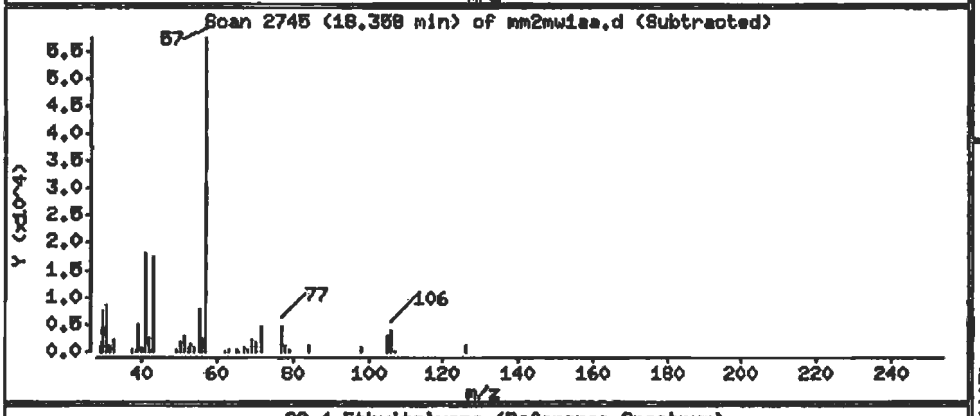
Sample Info: ,1,0,,,

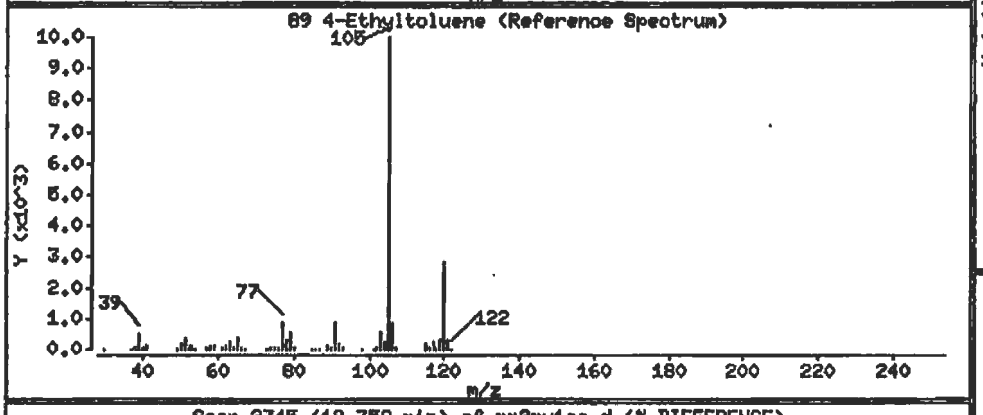
Purge Volume: 200.0 Operator: 403648

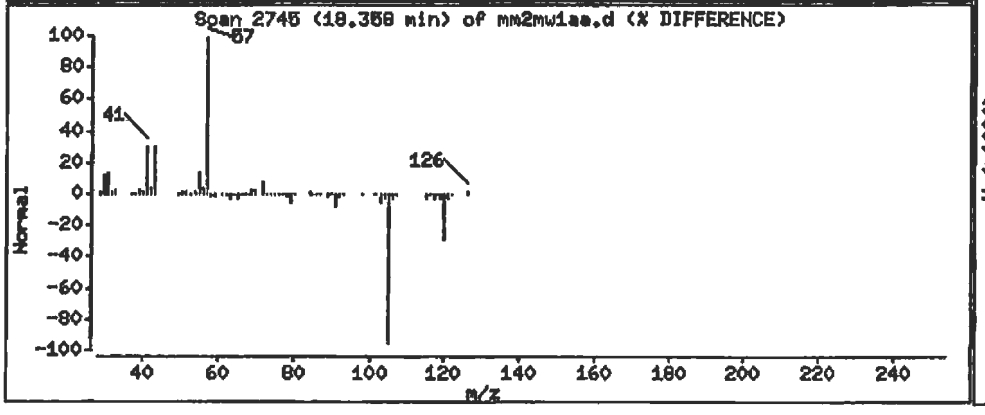
Column phase: Rtx-5 Column diameter: 0.32

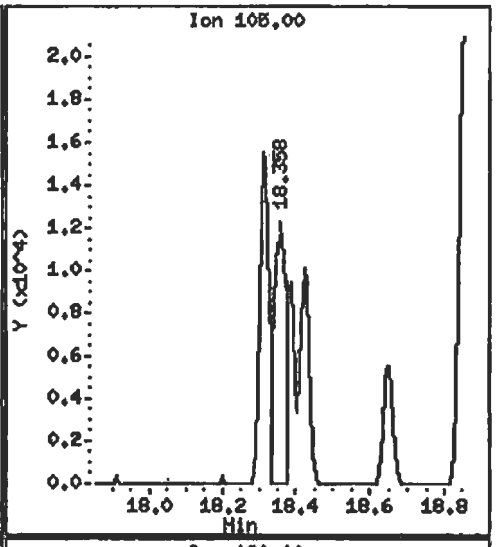
89 4-Ethyltoluene Concentration: 0.1291 ppb(v/v)

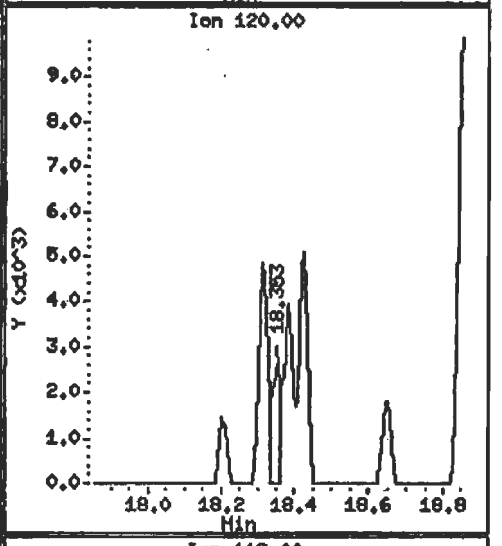


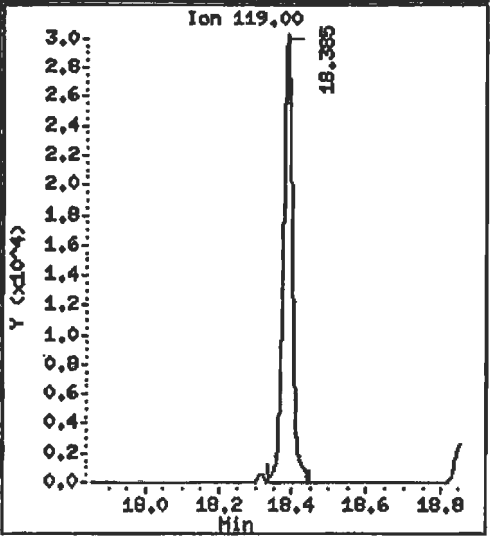












Data File: /var/chem/gcms/mj.i/J101011.b/mm2mw1aa.d

Date : 10-OCT-2011 18:07

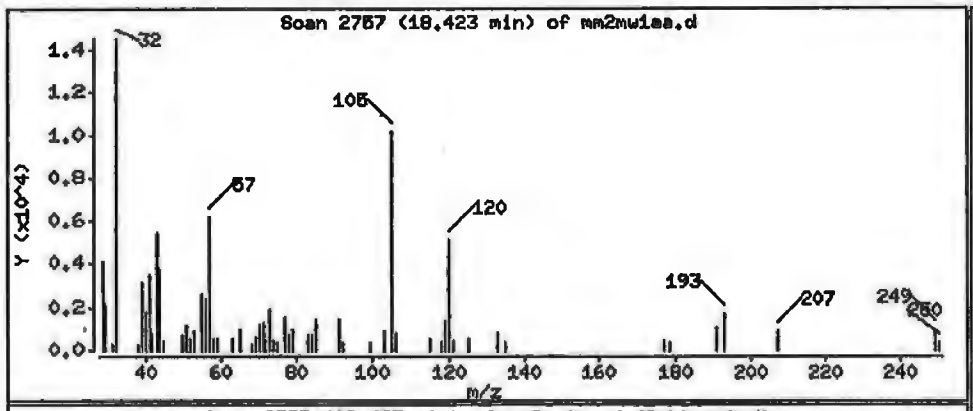
Client ID: TOE/100511 | Instrument: mj.i

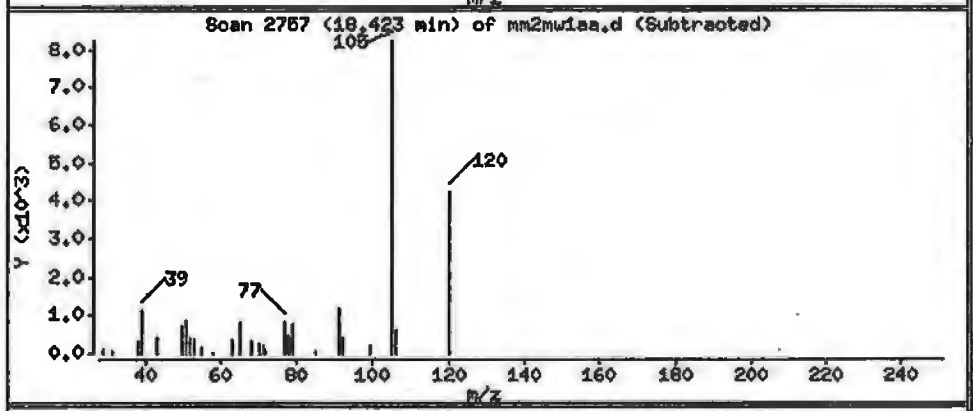
Sample Info: ,1,0,,,

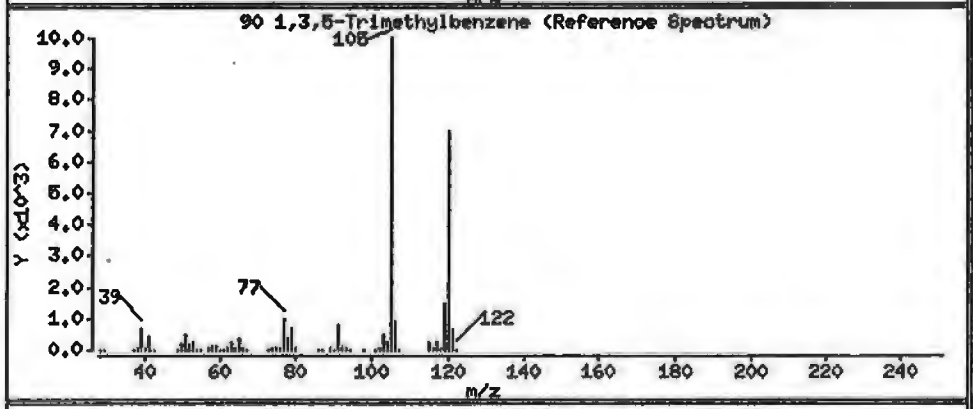
Purge Volume: 200.0 | Operator: 403648

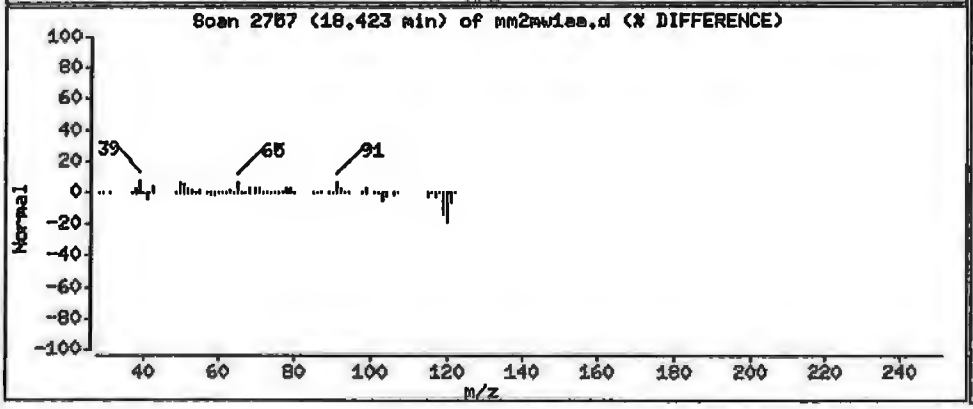
Column phase: Rtx-5 | Column diameter: 0.32

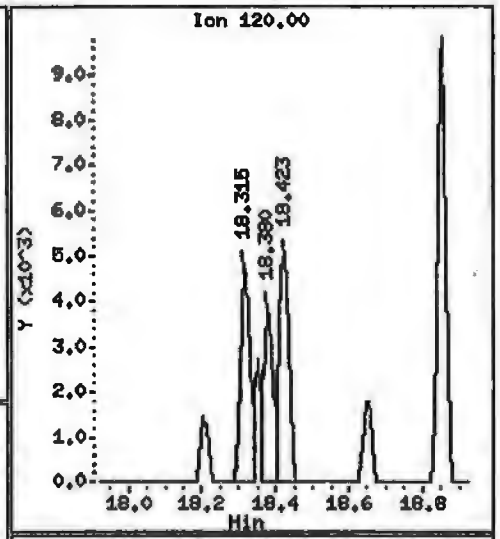
90 1,3,5-Trimethylbenzene | Concentration: 0.09272 ppb(v/v)

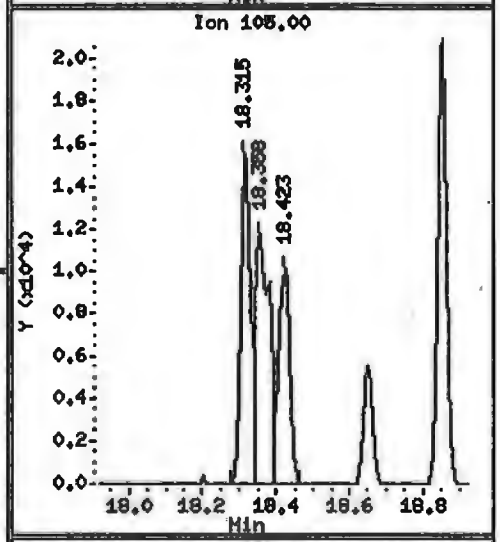


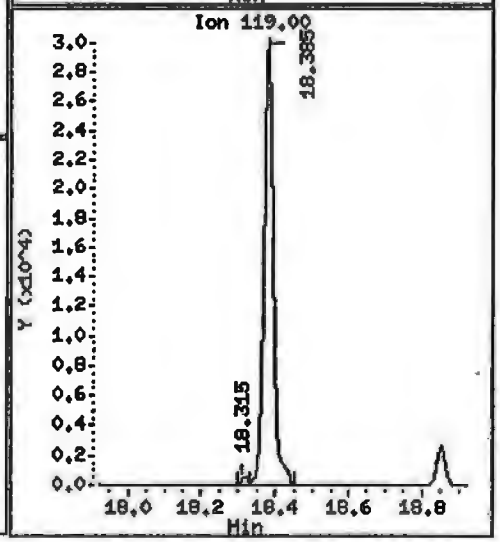












Data File: /var/chem/gcms/mj.i/J101011.b/mm2mw1aa.d

Date : 10-OCT-2011 18:07

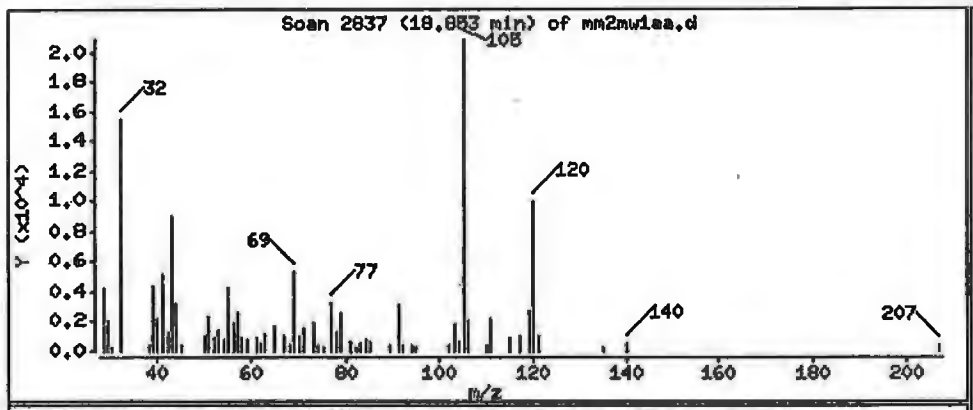
Client ID: TOE/100511 Instrument: mj.i

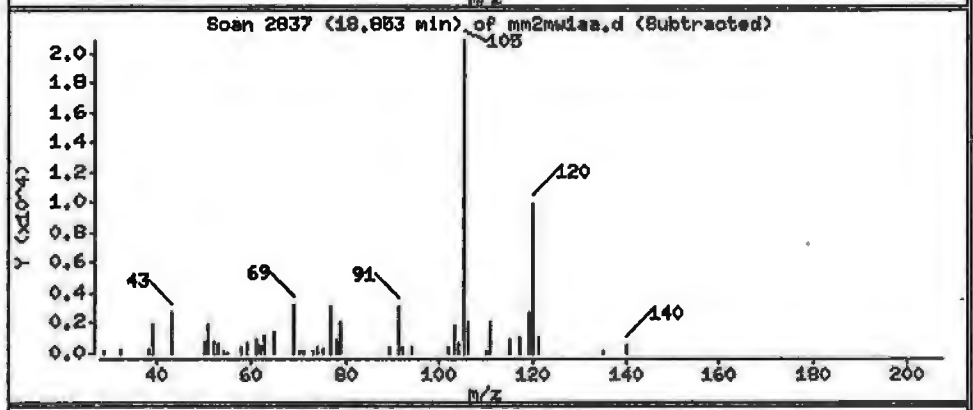
Sample Info: ,1,0,,,

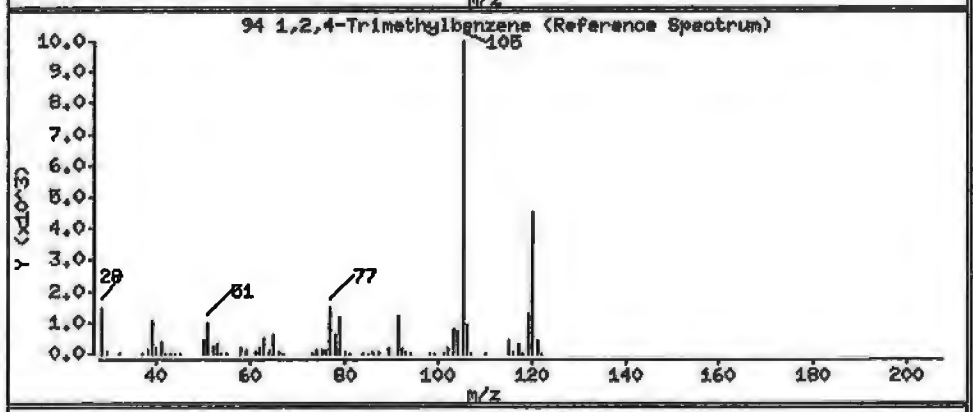
Purge Volume: 200.0 Operator: 403648

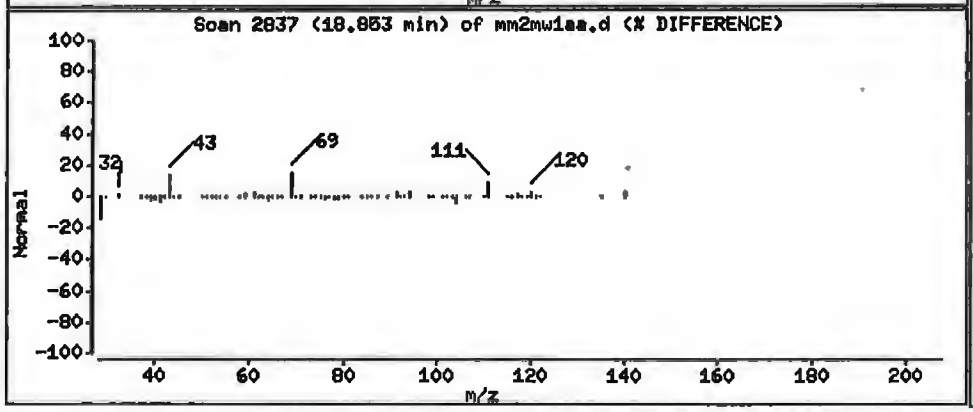
Column phase: Rtx-5 Column diameter: 0.32

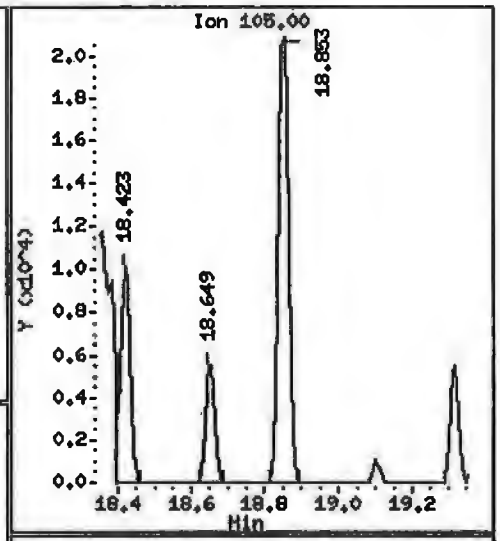
94 1,2,4-Trimethylbenzene Concentration: 0.2322 ppb(v/v)

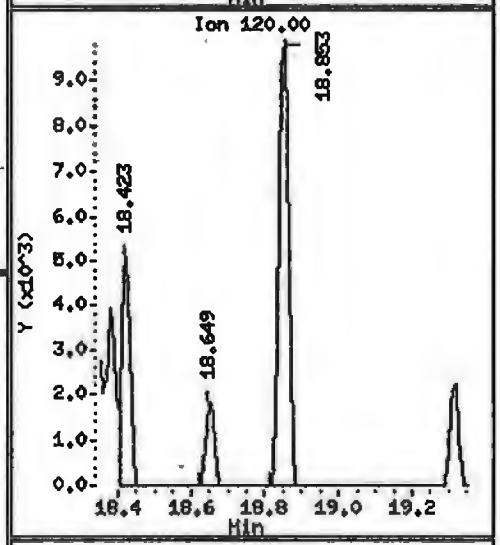


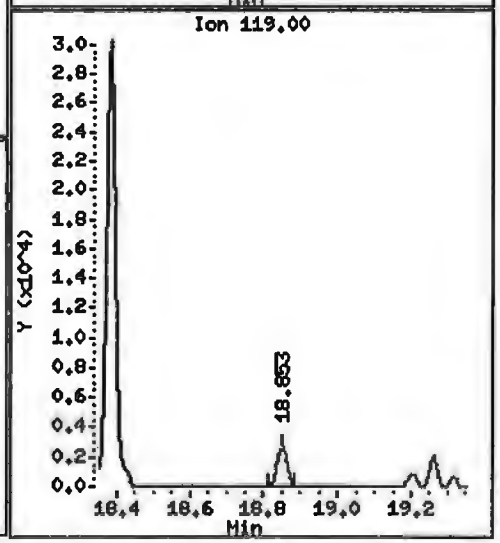












Standards Data

TestAmerica Knoxville GC/MS Air Initial Calibration Data Review / Narrative Checklist
Method: TO-14 and TO-15 - KNOX-MS-0001, Rev 12 & KNOX-MS-0023, Rev 0

Analysis Date:	8/25/11	Instrument:	MJ	ICAL Batch/Scan Name:	J082511I	Scanned by:

Review Items	N/A	Yes	No	If No, why is data reportable?	2nd
1. Did BFB meet tune criteria?		✓			✓
2. Were all standards injected within 24 hr of BFB?		✓			✓
3. Was date/time of analysis verified and logbook as correct?		✓			✓
4. Is low level std at or <RL and are the remaining points consecutive?		✓			✓
5. Are the calibration levels correct? (Calculate standard concentration & amt. injected with quan rpt at each level)		✓			✓
6. Was ICAL processed using correct methods and files?		✓			✓
7. Are the ICAL start and end dates/times correct?		✓			✓
8. Were at least 5 levels of each compound analyzed?					✓
9. At least 6 consecutive points used for quadratic curves, and at least 5 consecutive points for linear curves? Note: Ohio does not allow Quad	✓				NA
10. Is %RSD for all target analytes ≤ 30%? (with up to 2 compounds with RSD ≤ 40%)		✓		acetaldehyde @ 39%	✓
11. If curves were used, is correlation coefficient ≥0.990?	✓				NA
12. For quadratic: is a tangent's slope to the curve entirely positive or negative and continuous.	✓				NA
13. For linear or quadratic: origin NOT "included"? (NOTE: OHIO does NOT allow "FORCE" through origin).	✓				NA
14. Is the "Y" intercept less than the RL for each curve?	✓				NA
15. RT for each IS ±20 sec avg. RT?		✓			✓
16. Area for each IS ± 40% avg. area?		✓			✓
17. Each analyte ± 0.06 RRT of avg. RRT?		✓			✓
18. Have all peaks been auto identified? If not, list:		✓			✓
19. If manual integrations were performed, are they clearly identified, initialed, dated and reason given?	✓			Reasons: 1)Corrected split peak; 2)Unresolved peak; 3)tailing; 4)RT shift; 5)wrong peak selected; 6)other	NA
20. Have alternate hits/manual integrations been verified as correct and are correct RFs listed in ICAL summary?	✓				NA
21. Are all the active compounds listed on each quan report?		✓			✓
22. High point checked for saturation and point removed if saturated?		✓			✓
23. Elution order checked on isomeric pairs?		✓			✓
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane		✓			✓
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane		✓			✓
• vinyl acetate / hexane		✓			✓
• cis- and trans- isomers		✓			✓
• ethyl benzene / m/p-xylene / o-xylene		✓			✓
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene		✓			✓
• tert-butylbenzene/p-cymene		✓			✓
• 1,2,4-trimethylbenzene/sec-butylbenzene		✓			✓
• 1,3-, 1,4-, and 1,2-dichlorobenzene		✓			✓
• 1,2,4-trichlorobenzene/1,2,3-trichlorobenzene		✓			✓
24. Is the second source analysis of a reference standard within limits? (65-135% R)		✓			✓
25. If criteria were not met, was a NCM generated, approved by supervisor, and copy included in folder?	✓				NA
26. Does the ICAL folder contain complete data in the following order: Data review checklist, a complete runlog, BFB info, ICAL summary, curves, followed by [Quan reports, chromatograms, manual integrations], in increasing amount order, 2nd source info.		✓			✓

Analyst:	Date: 8/26/11	2nd Level Reviewer:	Date: 8/28/11
Comments:		Comments:	
		RR levels 1&2 bad std.	

TestAmerica Laboratories, Inc. – Knoxville 61

CANISTER RUN LOG

GCMS Analysis: AIR Inst: MJ

Analyst: AFB Qtims Batch: RR sampled due to ICAL points being RR.

Date: 8/25/11 ICAL Batch: J082511 I Target Batch: J082511 I IS #1 Area: 494199

Surr/IS ID & Vol.: 40mL V425 System Date/Time ok (y/n): y

Preventive Maintenance Performed ☑ Daily cleaned source

Time	Use	Lot No.	File ID	Can #	Pos	Vol* (mL)	Can DF	Comments
1546	✓	tune	JBFBH25	–	16	100	1	
1612	✓	MDL	JMDL I	CX2263	1	50		
1701	✓N	ICAL1 X	JICH251			100		N > can ↓ CCly.
1752	✓N	1 2 X	2			200		N
1841	✓	3	3	CX2261	2	100		
1932	✓	4	4		2	200		
2024	✓	5	5	CX2260	3			
2116	✓	6	6	CX2259	4			
2207	✓	7	7	CX2258	5			
2258	✓	8	8	CX2257	6			
2350	✓	9	9	CX2256	7			
0040	ok	Blk	Blk1	–	16			
0131	✓	ICV	JICVH25	CX2252	8			
0222	✓	LCS	JLCS		8	100		
0316	✓	Blk	JBlk ~~H25~~	–	16	500		AB 8/25/11
0410	✓		JBlkH25	–	16	500	1	
0555	✓	HH240412	MLODR1AA	6137	9			akrf
0650	✓		DV	1518	10			
0742	✓		D0	6124	11			
0835	✓		D2	12824	12			
1015	✓		D5	21639	13			
Not Run		lot 9408	2966 ~~D5~~ AB 8/25/11	2966	14			
			04750 →		15			
Not Run		lot 9406	6434 →		16			STD cans
not Run			1747 →		STD			
0958	✓	HH220414	MLV9W2AA	7497	1	11	4.81	C12dce 87.45
0974	✓	ICAL 2	JICH252R	CX2261	2	50	1	
1105	✓	1	JICH251R		2	25	1	
								8/26/11

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

Analyst: Date: 8/26/11

Test America - Knoxville
Entech Autosampler Log

Position	Volume	Date	Time
16	102	8/25/2011	15:46
1	50	8/25/2011	16:12
1	102	8/25/2011	17:01
1	201	8/25/2011	17:52
2	100	8/25/2011	18:41
2	201	8/25/2011	19:32
3	202	8/25/2011	20:24
4	200	8/25/2011	21:16
5	201	8/25/2011	22:07
6	200	8/25/2011	22:58
7	201	8/25/2011	23:50
16	201	8/26/2011	0:40
8	201	8/26/2011	1:31
8	101	8/26/2011	2:22
16	501	8/26/2011	3:16
16	501	8/26/2011	4:10
1	11	8/26/2011	4:58
9	501	8/26/2011	5:55
10	501	8/26/2011	6:50
11	500	8/26/2011	7:42
12	500	8/26/2011	8:35
2	50	8/26/2011	9:24
13	500	8/26/2011	10:15
2	25	8/26/2011	11:05

Data File: /chem/gcms/mj.i/J082511I.b/jbfbh25.d

Date : 25-AUG-2011 15:46

Client ID: BFB

Instrument: mj.i

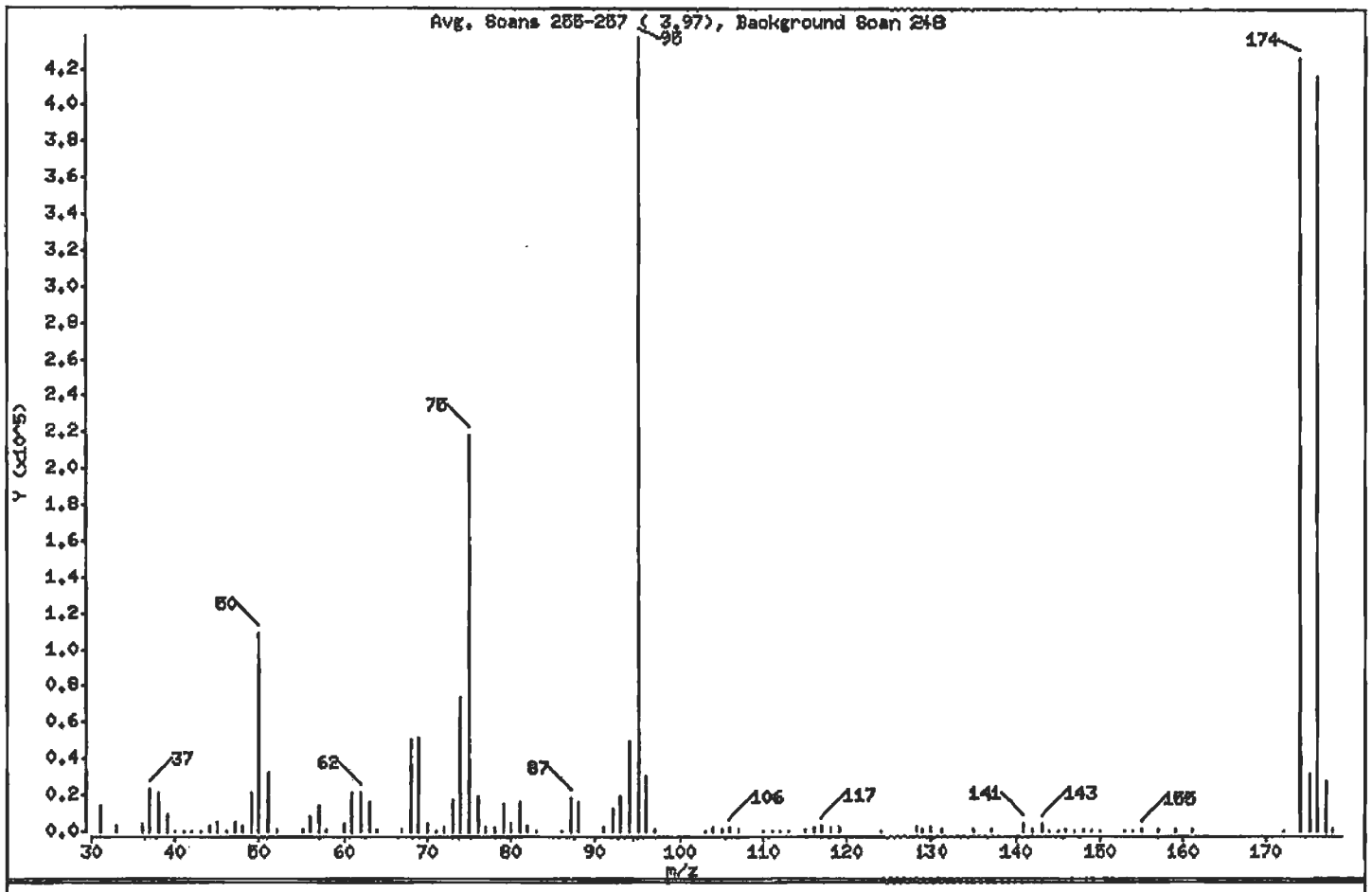
Sample Info: BFB,,3,,,BFB

Operator: 403648

Column phase: Rtx-5

Column diameter: 0.32

1 BFB



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	24.92
75	30.00 - 60.00% of mass 95	49.79
96	5.00 - 9.00% of mass 95	6.97
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 120.00% of mass 95	97.40
175	5.00 - 9.00% of mass 174	7.11 (7.30)
176	95.00 - 101.00% of mass 174	95.24 (97.78)
177	5.00 - 9.00% of mass 176	6.29 (6.60)

Data File: /ohem/gcms/mj.i/J082511I.b/jbfbh25.d

Date : 25-AUG-2011 15:46

Client ID: BFB

Instrument: mj.i

Sample Info: BFB,,3,,,BFB

Operator: 403648

Column phase: Rtx-5

Column diameter: 0.32

Data File: jbfbh25.d

Spectrum: Avg. Scans 255-257 (3.97), Background Scan 248

Location of Maximum: 95.00

Number of points: 98

m/z	Y	m/z	Y	m/z	Y	m/z	Y
31.00	14350	62.00	21264	93.00	18840	137.00	758
33.00	3037	63.00	16221	94.00	49368	141.00	4128
36.00	4382	64.00	1451	95.00	437632	142.00	562
37.00	23496	67.00	1114	96.00	30512	143.00	4436
38.00	21400	68.00	50704	97.00	1166	144.00	132
39.00	8699	69.00	50824	103.00	105	145.00	222
40.00	351	70.00	3832	104.00	2055	146.00	703
41.00	39	71.00	212	105.00	686	147.00	221
42.00	83	72.00	2176	106.00	2107	148.00	1057
43.00	267	73.00	17496	107.00	581	149.00	240
44.00	2546	74.00	73400	110.00	223	150.00	496
45.00	5145	75.00	217856	111.00	455	153.00	346
46.00	424	76.00	18896	112.00	168	154.00	141
47.00	5330	77.00	2194	113.00	424	155.00	1244
48.00	2746	78.00	1780	115.00	527	157.00	907
49.00	21184	79.00	15562	116.00	1643	159.00	529
50.00	109040	80.00	4252	117.00	2716	161.00	578
51.00	32608	81.00	15670	118.00	1569	172.00	188
52.00	1343	82.00	2873	119.00	2173	174.00	426240
55.00	1326	83.00	448	124.00	272	175.00	31112
56.00	7548	86.00	137	128.00	1603	176.00	416768
57.00	14230	87.00	17688	129.00	811	177.00	27504
58.00	806	88.00	16077	130.00	1686	178.00	749
60.00	4072	91.00	1875	131.00	657		
61.00	20896	92.00	12366	135.00	767		

Data File: /chem/gcms/mj.i/J082511I.b/jbfbh25.d

Date : 25-AUG-2011 15:46

Client ID: BFB

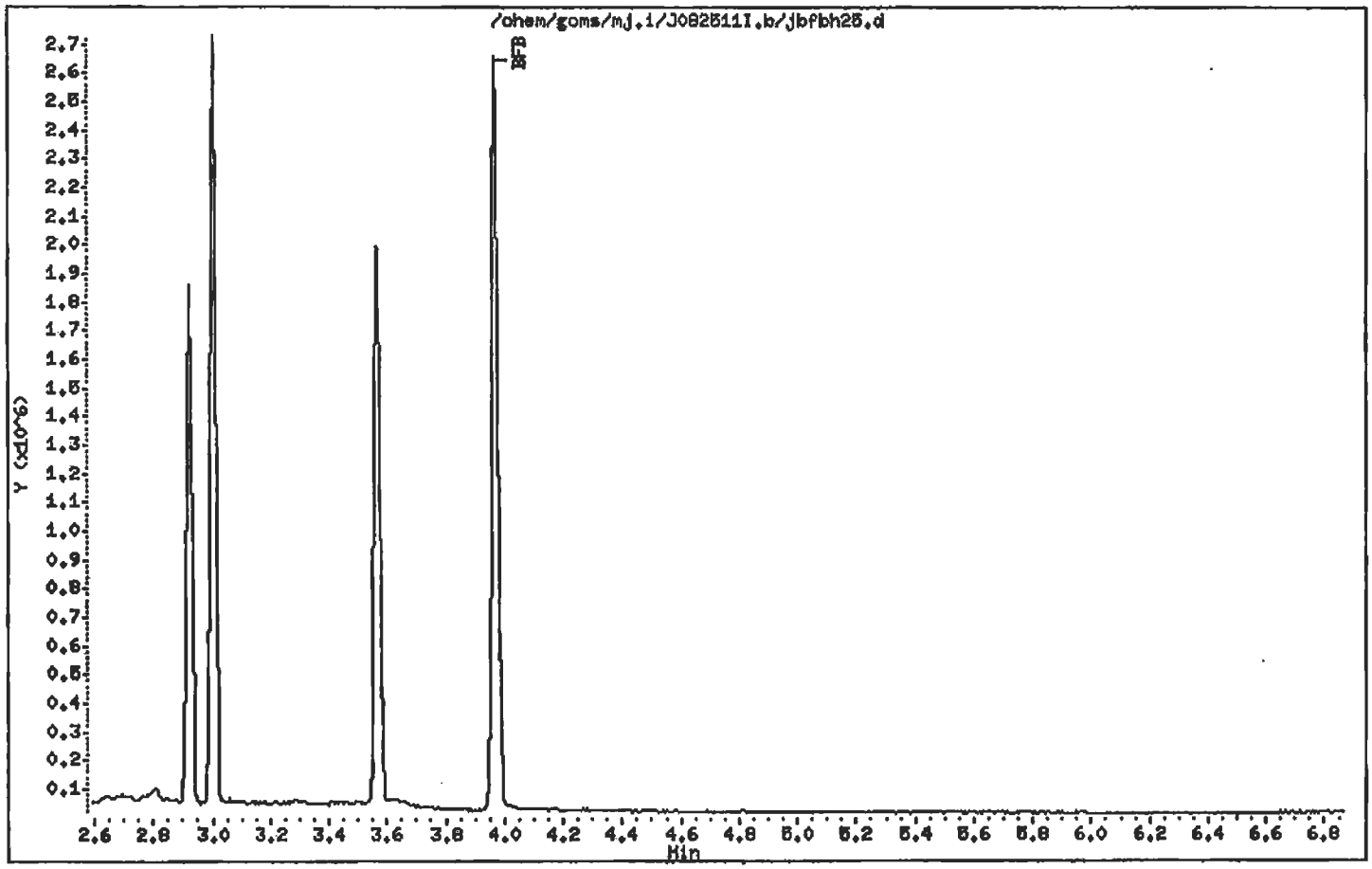
Instrument: mj.i

Sample Info: BFB,,3,,,BFB

Operator: 403648

Column phase: Rtx-5

Column diameter: 0.32



Report Date:08/26/2011

INITIAL CALIBRATION RT and RRT REPORT

STD 1 = /var/chem/gcms/mj.i/J082511I.b/jich251r.d
STD 2 = /var/chem/gcms/mj.i/J082511I.b/jich252r.d
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STD 8 = /var/chem/gcms/mj.i/J082511I.b/jich258.d
STD 9 = /var/chem/gcms/mj.i/J082511I.b/jich259.d

COMPOUND	STD 1	STD 2	STD 3	STD 4	STD 5	STD 6	STD 7	STD 8	STD 9	MEAN
1,4-Difluorobenzene	11.416	11.420	11.416	11.418	11.422	11.421	11.422	11.423	11.428	11.421
Chlorobenzene-d5	16.112	16.111	16.112	16.109	16.112	16.112	16.112	16.114	16.119	16.112
Bromochloromethane	9.242	9.242	9.243	9.245	9.243	9.248	9.248	9.249	9.255	9.246
4-Bromofluorobenzene	1.101	1.101	1.101	1.101	1.101	1.101	1.101	1.101	1.101	1.101
~ 2-Methylnaphthalene	NA	NA	1.391	1.391	1.390	1.391	1.390	1.390	1.390	1.390
Chlorodifluoromethane	NA	0.421	0.420	0.420	0.420	0.420	0.420	0.420	0.420	0.420
Propene	NA	0.422	0.422	0.422	0.421	0.422	0.421	0.421	0.421	0.422
Dichlorodifluoromethane	0.427	0.428	0.428	0.427	0.428	0.428	0.428	0.428	0.427	0.428
Chloromethane	NA	0.449	0.449	0.448	0.449	0.448	0.448	0.449	0.448	0.448
1,2-Dichlorotetrafluoroethan	0.449	0.449	0.449	0.450	0.449	0.449	0.449	0.449	0.449	0.449
Methanol	NA	NA	NA	NA	0.463	0.463	0.463	0.463	0.464	0.463
~ acetaldehyde	NA	NA	0.467	0.466	0.466	0.466	0.466	0.466	0.466	0.466
Vinyl Chloride	0.469	0.468	0.469	0.468	0.469	0.468	0.468	0.468	0.468	0.468
n-Butane	0.479	0.479	0.479	0.479	0.479	0.479	0.479	0.479	0.479	0.479
1,3-Butadiene	0.478	0.479	0.479	0.478	0.478	0.479	0.479	0.479	0.479	0.479
Bromomethane	NA	0.516	0.516	0.516	0.516	0.516	0.516	0.516	0.516	0.516
Chloroethane	0.533	0.532	0.533	0.532	0.532	0.532	0.532	0.532	0.532	0.532
~ ethanol	NA	0.541	0.542	0.541	0.541	0.541	0.542	0.542	0.542	0.542
Vinyl Bromide	0.568	0.568	0.567	0.567	0.568	0.567	0.567	0.567	0.568	0.567
2-methyl butane	0.573	0.573	0.573	0.573	0.573	0.573	0.573	0.573	0.573	0.573
Trichlorofluoromethane	0.598	0.598	0.598	0.598	0.598	0.598	0.598	0.598	0.598	0.598
Acrolein	NA	NA	0.598	0.598	0.598	0.598	0.598	0.598	0.598	0.598
Acetonitrile	0.605	0.606	0.606	0.605	0.605	0.605	0.605	0.605	0.605	0.605
Acetone	NA	NA	NA	NA	0.611	0.611	0.611	0.611	0.611	0.611
Isopropyl alcohol	NA	0.620	0.620	0.619	0.619	0.619	0.619	0.620	0.620	0.620
Pentane	0.623	0.623	0.624	0.624	0.623	0.624	0.624	0.624	0.624	0.624
Ethyl Ether	0.643	0.643	0.643	0.642	0.641	0.641	0.641	0.641	0.641	0.642
1,1-Dichloroethene	0.679	0.679	0.678	0.678	0.679	0.678	0.678	0.678	0.678	0.678
tert-butanol	0.687	0.687	0.687	0.687	0.686	0.686	0.686	0.686	0.687	0.686
Acrylonitrile	0.689	0.688	0.689	0.689	0.689	0.688	0.688	0.688	0.689	0.688
1,1,2-Trichlorotrifluoroetha	0.698	0.699	0.698	0.698	0.698	0.698	0.698	0.698	0.698	0.698
Methylene Chloride	NA	0.716	0.717	0.717	0.717	0.717	0.717	0.717	0.717	0.717
3-Chloropropene	0.719	0.719	0.719	0.718	0.719	0.719	0.719	0.719	0.719	0.719
Carbon Disulfide	0.736	0.736	0.736	0.736	0.736	0.736	0.736	0.736	0.736	0.736
trans-1,2-Dichloroethene	0.808	0.808	0.808	0.808	0.808	0.808	0.808	0.808	0.808	0.808
~ 2-Methyl Pentane	0.811	0.811	0.811	0.810	0.811	0.810	0.810	0.810	0.810	0.810
Methyl-t-Butyl Ether	0.824	0.822	0.822	0.822	0.821	0.821	0.821	0.821	0.821	0.822

Evaluation Criteria
Internal Standard RT shift within 20 seconds of mean RT
Target compound RRT within 0.06 RRT of the RRT mean
Note: IS data is RT, SS and Target Compound Data is RRT.

Report Date:08/26/2011

INITIAL CALIBRATION RT and RRT REPORT

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COMPOUND	STD 1	STD 2	STD 3	STD 4	STD 5	STD 6	STD 7	STD 8	STD 9	MEAN
1,1-Dichloroethane	0.854	0.854	0.854	0.854	0.854	0.854	0.854	0.854	0.855	0.854
Vinyl Acetate	0.866	0.866	0.866	0.865	0.865	0.865	0.865	0.865	0.865	0.865
2-Butanone	NA	NA	0.916	0.914	0.914	0.914	0.914	0.914	0.914	0.914
Hexane	0.919	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920	0.920
cis 1,2-Dichloroethene	0.963	0.964	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963
Ethyl acetate	0.984	0.984	0.983	0.982	0.982	0.982	0.982	0.982	0.982	0.982
Chloroform	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001
Tetrahydrofuran	1.048	1.047	1.047	1.046	1.045	1.045	1.044	1.044	1.044	1.046
1,1,1-Trichloroethane	1.115	1.115	1.115	1.115	1.115	1.114	1.114	1.114	1.114	1.114
1,2-Dichloroethane	0.911	0.911	0.911	0.911	0.911	0.911	0.911	0.911	0.912	0.911
1-Butanol	0.949	0.948	0.949	0.948	0.947	0.947	0.946	0.946	0.947	0.947
Benzene	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954	0.954
Cyclohexane	0.955	0.955	0.955	0.955	0.955	0.955	0.955	0.955	0.955	0.955
Carbon Tetrachloride	0.957	0.956	0.957	0.957	0.956	0.957	0.957	0.957	0.957	0.957
~ 2,3-dimethylpentane	0.965	0.964	0.965	0.965	0.965	0.965	0.965	0.965	0.965	0.965
~ Thiophene	0.977	0.977	0.978	0.977	0.977	0.977	0.977	0.978	0.978	0.977
2,2,4-trimethylpentane	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020
Heptane	1.052	1.051	1.052	1.052	1.052	1.052	1.052	1.052	1.052	1.052
1,2-Dichloropropane	1.059	1.058	1.059	1.059	1.058	1.058	1.059	1.059	1.059	1.059
Trichloroethene	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062
Dibromomethane	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069	1.069
Bromodichloromethane	1.082	1.081	1.082	1.082	1.081	1.081	1.081	1.081	1.081	1.081
1,4-dioxane	1.083	1.083	1.083	1.082	1.082	1.081	1.081	1.081	1.081	1.082
Methyl Methacrylate	1.089	1.089	1.089	1.089	1.088	1.088	1.088	1.088	1.088	1.088
~ 1-Methylnaphthalene	NA	NA	1.399	1.399	1.399	1.399	1.399	1.399	1.398	1.399
~ methyl cyclohexane	1.130	1.130	1.130	1.130	1.130	1.130	1.130	1.130	1.129	1.130
4-Methyl-2-pentanone	1.162	1.162	1.162	1.162	1.162	1.162	1.162	1.162	1.161	1.162
cis-1,3-Dichloropropene	1.168	1.168	1.168	1.168	1.168	1.168	1.168	1.168	1.168	1.168
trans-1,3-Dichloropropene	0.870	0.870	0.870	0.870	0.870	0.870	0.870	0.870	0.870	0.870
Toluene	0.878	0.878	0.878	0.879	0.878	0.879	0.879	0.879	0.879	0.878
1,1,2-Trichloroethane	0.882	0.883	0.882	0.883	0.882	0.883	0.883	0.883	0.883	0.883
~ 2-methyl thiophene	0.888	0.888	0.888	0.888	0.888	0.888	0.888	0.888	0.888	0.888
~ 3-methyl thiophene	0.900	0.900	0.900	0.900	0.900	0.900	0.900	0.900	0.900	0.900
2-Hexanone	0.906	0.906	0.906	0.906	0.906	0.906	0.906	0.906	0.906	0.906
Octane	0.920	0.920	0.920	0.921	0.920	0.920	0.920	0.920	0.920	0.920
Dibromochloromethane	0.926	0.926	0.926	0.926	0.926	0.926	0.926	0.926	0.926	0.926
1,2-Dibromoethane	0.944	0.944	0.944	0.944	0.944	0.944	0.944	0.944	0.944	0.944

Evaluation Criteria
Internal Standard RT shift within 20 seconds of mean RT
Target compound RRT within 0.06 RRT of the RRT mean
Note: IS data is RT, SS and Target Compound Data is RRT.

INITIAL CALIBRATION RT and RRT REPORT

STD 1 = /var/chem/gcms/mj.i/J082511I.b/jich251r.d
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COMPOUND	STD 1	STD 2	STD 3	STD 4	STD 5	STD 6	STD 7	STD 8	STD 9	MEAN
Tetrachloroethene	0.949	0.949	0.949	0.949	0.949	0.949	0.949	0.949	0.949	0.949
Chlorobenzene	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003
~ 2,3-dimethylheptane	1.004	1.004	1.004	1.004	1.004	1.004	1.004	1.004	1.004	1.004
Ethylbenzene	1.020	1.021	1.020	1.021	1.020	1.021	1.021	1.021	1.020	1.020
~ 2-ethyl thiophene	1.027	1.027	1.027	1.027	1.027	1.027	1.027	1.027	1.027	1.027
m&p-Xylene	1.030	1.030	1.030	1.031	1.030	1.031	1.031	1.031	1.030	1.030
Nonane	1.056	1.056	1.056	1.056	1.056	1.056	1.056	1.056	1.056	1.056
Bromoform	NA	1.058	1.058	1.058	1.058	1.058	1.058	1.058	1.058	1.058
Styrene	1.059	1.059	1.059	1.059	1.059	1.059	1.059	1.059	1.059	1.059
o-Xylene	1.063	1.063	1.063	1.063	1.063	1.063	1.063	1.063	1.063	1.063
1,1,2,2-Tetrachloroethane	1.082	1.082	1.082	1.083	1.082	1.082	1.082	1.082	1.082	1.082
1,2,3-Trichloropropane	1.092	1.092	1.092	1.092	1.092	1.092	1.092	1.092	1.092	1.092
Cumene	1.099	1.099	1.099	1.099	1.099	1.099	1.099	1.099	1.099	1.099
n-Propylbenzene	1.131	1.132	1.131	1.132	1.132	1.132	1.132	1.132	1.131	1.132
2-chlorotoluene	1.134	1.134	1.134	1.134	1.134	1.134	1.134	1.134	1.134	1.134
4-Ethyltoluene	1.140	1.140	1.140	1.140	1.140	1.140	1.140	1.140	1.140	1.140
1,3,5-Trimethylbenzene	1.145	1.145	1.145	1.145	1.145	1.145	1.145	1.145	1.144	1.145
Alpha-Methylstyrene	1.158	1.158	1.158	1.159	1.158	1.158	1.158	1.158	1.158	1.158
Decane	1.162	1.162	1.162	1.162	1.162	1.162	1.162	1.162	1.162	1.162
tert-butylbenzene	1.171	1.171	1.171	1.171	1.171	1.171	1.171	1.170	1.170	1.171
1,2,4-Trimethylbenzene	1.172	1.171	1.171	1.172	1.171	1.171	1.171	1.171	1.171	1.171
sec-butylbenzene	1.187	1.187	1.187	1.187	1.187	1.187	1.187	1.187	1.186	1.187
1,3-Dichlorobenzene	1.188	1.188	1.188	1.188	1.188	1.188	1.188	1.188	1.188	1.188
Benzyl Chloride	1.192	1.192	1.192	1.193	1.192	1.192	1.192	1.192	1.192	1.192
1,4-Dichlorobenzene	1.193	1.193	1.193	1.193	1.193	1.193	1.193	1.193	1.193	1.193
p-Cymene	1.197	1.197	1.197	1.197	1.197	1.197	1.197	1.197	1.196	1.197
~ 1,2,3- Trimethylbenzene	1.200	1.200	1.200	1.200	1.200	1.200	1.200	1.200	1.200	1.200
~ n-butylcyclohexane	1.203	1.203	1.203	1.204	1.203	1.203	1.203	1.203	1.203	1.203
~ Indane	1.215	1.215	1.215	1.215	1.215	1.215	1.215	1.215	1.215	1.215
1,2-Dichlorobenzene	1.215	1.215	1.215	1.215	1.215	1.215	1.215	1.215	1.215	1.215
n-butylbenzene	1.223	1.223	1.223	1.223	1.223	1.223	1.223	1.223	1.222	1.223
~ Indene	1.223	1.223	1.223	1.223	1.223	1.223	1.223	1.223	1.222	1.223
Undecane	NA	NA	1.241	1.242	1.241	1.242	1.241	1.241	1.241	1.241
~ 1,2-dimethyl-4-ethylenzene	1.246	1.246	1.246	1.246	1.246	1.246	1.246	1.246	1.245	1.246
~ 1,2,4,5-tetramethylbenzene	1.269	1.269	1.269	1.270	1.269	1.269	1.269	1.269	1.269	1.269
~ 1,2,3,5-tetramethylbenzene	NA	1.273	1.273	1.273	1.273	1.273	1.273	1.273	1.273	1.273
~ 1,2,3,4-tetramethylbenzene	NA	1.298	1.298	1.299	1.298	1.298	1.298	1.298	1.298	1.298

Evaluation Criteria
Internal Standard RT shift within 20 seconds of mean RT
Target compound RRT within 0.06 RRT of the RRT mean
Note: IS data is RT, SS and Target Compound Data is RRT.

Report Date:08/26/2011

INITIAL CALIBRATION RT and RRT REPORT

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COMPOUND	STD 1	STD 2	STD 3	STD 4	STD 5	STD 6	STD 7	STD 8	STD 9	MEAN
Dodecane	NA	NA	1.308	1.308	1.308	1.308	1.308	1.308	1.307	1.308
1,2,4-Trichlorobenzene	NA	1.322	1.322	1.322	1.322	1.322	1.322	1.322	1.321	1.322
Napthalene	NA	1.331	1.331	1.331	1.331	1.331	1.331	1.331	1.331	1.331
~ benzo(b) thiophene	NA	1.338	1.338	1.338	1.338	1.338	1.338	1.338	1.337	1.338
Hexachlorobutadiene	NA	1.344	1.344	1.344	1.344	1.344	1.344	1.344	1.344	1.344
1,2,3-trichlorobenzene	NA	1.348	1.348	1.349	1.348	1.348	1.348	1.348	1.348	1.348

Evaluation Criteria
Internal Standard RT shift within 20 seconds of mean RT
Target compound RRT within 0.06 RRT of the RRT mean
Note: IS data is RT, SS and Target Compound Data is RRT.

Report Date : 26-Aug-2011 12:58

TestAmerica Knoxville

INITIAL CALIBRATION DATA

Start Cal Date : 25-AUG-2011 18:41
End Cal Date : 26-AUG-2011 11:05
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/gcms/mj.i/J082511I.b/TO15.m
Cal Date : 26-Aug-2011 12:55 tajh
Curve Type : Average

Calibration File Names:
Level 1: /var/chem/gcms/mj.i/J082511I.b/jich251r.d
Level 2: /var/chem/gcms/mj.i/J082511I.b/jich252r.d
Level 3: /var/chem/gcms/mj.i/J082511I.b/jich253.d
Level 4: /var/chem/gcms/mj.i/J082511I.b/jich254.d
Level 5: /var/chem/gcms/mj.i/J082511I.b/jich255.d
Level 6: /var/chem/gcms/mj.i/J082511I.b/jich256.d
Level 7: /var/chem/gcms/mj.i/J082511I.b/jich257.d
Level 8: /var/chem/gcms/mj.i/J082511I.b/jich258.d
Level 9: /var/chem/gcms/mj.i/J082511I.b/jich259.d

Compound	0.04000 Level 1	0.08000 Level 2	0.16000 Level 3	0.40000 Level 4	1.000 Level 5	2.000 Level 6	$\overline{RRF}$	% RSD
	4.000 Level 7	8.000 Level 8	16.000 Level 9					
5 Chlorodifluoromethane	+++++	0.67700	0.58423	0.45261	0.47395	0.43611		
	0.43258	0.45160	0.41650				0.49057	18.647
6 Propene	+++++	3.06715	2.66209	2.01759	1.82704	1.71212		
	1.70821	1.75839	1.60849				2.04513	25.945
7 Dichlorodifluoromethane	7.37501	6.45040	5.78540	4.39348	4.53855	4.25536		
	4.22569	4.31729	3.97652				5.03530	23.913
8 Chloromethane	+++++	0.83461	0.84235	0.61496	0.63943	0.60011		
	0.60048	0.60013	0.55503				0.66089	16.958
9 1,2-Dichlorotetrafluoroethane	4.23144	3.77897	3.28687	2.56685	2.63694	2.48903		
	2.49683	2.58850	2.43448				2.94554	22.461

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Compound	0.04000 Level 1	0.08000 Level 2	0.16000 Level 3	0.40000 Level 4	1.000 Level 5	2.000 Level 6	RRF	% RSD
	4.000 Level 7	8.000 Level 8	16.000 Level 9					
10 Methanol	+++++	+++++	+++++	+++++	0.61369	0.53438		
	0.45070	0.37213	0.35626				0.46543	23.432
11 - acetaldehyde	+++++	+++++	0.59494	0.53249	0.34725	0.27052		
	0.27709	0.24704	0.26201				0.36162	39.487
12 Vinyl Chloride	3.09448	2.69526	2.28356	1.78760	1.86932	1.76277		
	1.80767	1.80570	1.72881				2.09280	23.597
13 n-Butane	4.96068	4.50188	3.69353	2.95051	3.13402	2.95734		
	3.01634	2.90003	2.74042				3.42831	23.129
14 1,3-Butadiene	2.32766	1.94039	1.68568	1.33249	1.40939	1.34139		
	1.37930	1.36588	1.31174				1.56599	22.618
15 Bromomethane	+++++	1.92787	1.67671	1.24389	1.34806	1.31182		
	1.31207	1.32858	1.28383				1.42910	16.927
16 Chloroethane	1.39545	1.14994	1.00525	0.76372	0.79406	0.77316		
	0.77841	0.79540	0.75970				0.91279	24.766
17 - ethanol	+++++	0.85852	0.73384	0.57289	0.59219	0.53848		
	0.53571	0.49902	0.48750				0.60227	21.399
18 Vinyl Bromide	2.22064	1.94336	1.67202	1.30697	1.36342	1.30339		
	1.32164	1.35912	1.32882				1.53549	21.961

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Compound	0.04000 Level 1 / 4.000 Level 7	0.08000 Level 2 / 8.000 Level 8	0.16000 Level 3 / 16.000 Level 9	0.40000 Level 4	1.000 Level 5	2.000 Level 6	RRF	% RSD
19 2-methyl butane	4.72298	4.00028	3.25289	2.57534	2.64123	2.51001		
	2.51794	2.57752	2.42665				3.02498	26.949
20 Trichlorofluoromethane	5.93556	5.28718	4.64074	3.60785	3.72068	3.54083		
	3.57976	3.65957	3.51479				4.16522	21.705
21 Acrolein	+++++	+++++	0.33140	0.33884	0.38104	0.32205		
	0.35555	0.32987	0.49433				0.36472	16.589
22 Acetonitrile	0.66356	0.60385	0.55034	0.57933	0.56622	0.51949		
	0.53688	0.49945	0.63728				0.57293	9.452
23 Acetone	+++++	+++++	+++++	+++++	0.74270	0.62599		
	0.58714	0.48144	0.52620				0.59270	16.965
24 Isopropyl alcohol	+++++	3.31603	3.04046	2.06005	2.12264	1.91909		
	1.96246	1.92568	1.86076				2.27590	24.950
25 Pentane	0.42542	0.34059	0.30648	0.24766	0.25315	0.24097		
	0.24536	0.25143	0.24056				0.28351	22.402
26 Ethyl Ether	2.11849	2.24693	2.18073	2.24058	2.22615	1.92724		
	2.05765	1.87191	2.13254				2.11136	6.435
27 1,1-Dichloroethene	2.04906	1.80903	1.63686	1.24383	1.25911	1.20798		
	1.21988	1.24823	1.21215				1.43179	22.189

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Compound	0.04000 Level 1	0.08000 Level 2	0.16000 Level 3	0.40000 Level 4	1.000 Level 5	2.000 Level 6	RRF	% RSD
	4.000 Level 7	8.000 Level 8	16.000 Level 9					
28 tert-butanol	4.16157	3.54909	3.32162	2.19956	2.38710	2.18406		
	2.28000	2.28547	2.16699				2.72616	27.463
29 Acrylonitrile	1.08124	1.02220	0.94492	0.90070	0.93321	0.85233		
	0.92322	0.87374	1.11004				0.96018	9.455
30 1,1,2-Trichlorotrifluoroethan	4.16201	3.77150	3.31067	2.55437	2.63273	2.51177		
	2.56766	2.60678	2.53288				2.96115	21.224
31 Methylene Chloride	+++++	2.26769	1.78539	1.30482	1.32600	1.20333		
	1.19292	1.19111	1.14941				1.42758	27.741
32 3-Chloropropene	2.80150	2.60553	2.09839	1.69967	1.66362	1.58946		
	1.68409	1.69191	1.23406				1.89647	26.858
33 Carbon Disulfide	7.16982	6.40416	5.59071	4.47088	4.54193	4.34620		
	4.40831	4.44250	4.23886				5.06815	21.095
34 trans-1,2-Dichloroethene	2.31240	1.99948	1.77831	1.43125	1.48280	1.41341		
	1.44000	1.47205	1.43246				1.64024	19.654
35 ~ 2-Methyl Pentane	7.53421	6.89379	6.03909	4.80481	4.86290	4.58759		
	4.65133	4.70217	4.34848				5.38049	21.441
36 Methyl-t-Butyl Ether	3.39829	2.79192	3.03542	2.92708	2.82779	2.51635		
	2.64571	2.45994	2.77028				2.81920	10.094

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	4.000 Level 7	8.000 Level 8	16.000 Level 9					
37 1,1-Dichloroethane	4.75637	4.37656	3.94753	3.08045	3.10377	2.89501		
	2.90046	2.85914	2.77708				3.41071	21.909
38 Vinyl Acetate	3.05999	3.03761	3.30674	3.59396	3.35586	3.04595		
	3.26576	2.96501	3.75720				3.26534	8.332
39 2-Butanone	+++++	+++++	0.63324	0.55580	0.47718	0.43493		
	0.43625	0.42074	0.46019				0.48833	15.994
40 Hexane	2.78160	2.43035	2.06278	1.65229	1.64456	1.53486		
	1.53978	1.56125	1.51259				1.85779	24.984
41 cis 1,2-Dichloroethene	2.19742	1.97444	1.81627	1.44671	1.44486	1.37759		
	1.36363	1.36345	1.34020				1.59162	20.111
42 Ethyl acetate	3.70077	3.07341	3.31005	3.01753	2.83746	2.66963		
	2.67236	2.58656	2.90732				2.97501	11.942
43 Chloroform	4.61950	4.43357	3.93469	3.06107	3.05514	2.79631		
	2.77041	2.68424	2.72061				3.34173	23.129
44 Tetrahydrofuran	1.82264	1.71183	1.73164	1.69096	1.63621	1.48019		
	1.52193	1.42082	1.64774				1.62933	8.005
45 1,1,1-Trichloroethane	4.65510	4.25147	3.81699	3.03559	3.06145	2.86251		
	2.83738	2.71851	2.67554				3.32384	21.965

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	4.000 Level 7	8.000 Level 8	16.000 Level 9					
46 1,2-Dichloroethane	0.57437	0.60891	0.57991	0.44427	0.45334	0.46601		
	0.45162	0.44829	0.47403				0.50008	13.397
47 1-Butanol	0.27814	0.24319	0.24034	0.15062	0.16121	0.16394		
	0.16032	0.16510	0.15738				0.19114	25.324
48 Benzene	1.24376	1.23605	1.17403	0.87830	0.86896	0.88765		
	0.86646	0.86741	0.90991				0.99250	17.197
49 Cyclohexane	0.29439	0.25006	0.24668	0.16936	0.17383	0.18431		
	0.17496	0.17671	0.17401				0.20492	22.556
50 Carbon Tetrachloride	0.96175	0.88108	0.81738	0.60641	0.57042	0.52297		
	0.65431	0.65683	0.52931				0.68894	23.176
51 ~ 2,3-dimethylpentane	0.32206	0.29509	0.28351	0.20868	0.21385	0.22096		
	0.20527	0.20514	0.20911				0.24041	19.212
52 ~ Thiophene	0.62651	0.70380	0.67919	0.50845	0.50418	0.51888		
	0.49189	0.48364	0.51498				0.56906	15.395
53 2,2,4-trimethylpentane	2.84300	2.72362	2.52292	1.86179	1.88284	1.88309		
	1.76879	1.74354	1.78906				2.11318	21.181
54 Heptane	0.49391	0.44832	0.43966	0.32241	0.31415	0.32182		
	0.30500	0.30696	0.32712				0.36437	20.307

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55 1,2-Dichloropropane	0.43111	0.41129	0.42567	0.35300	0.34060	0.34331		
	0.34141	0.33869	0.38743				0.37472	10.467
56 Trichloroethene	0.60756	0.60983	0.56014	0.38176	0.41404	0.42660		
	0.39922	0.40429	0.42770				0.47013	19.971
180 ~ 2-nitropropane	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
57 Dibromomethane	0.56655	0.52446	0.51091	0.38044	0.38242	0.39184		
	0.37028	0.36716	0.39946				0.43261	18.031
58 Bromodichloromethane	0.88483	0.83229	0.86891	0.64746	0.65456	0.65970		
	0.64903	0.65036	0.68434				0.72572	14.287
59 1,4-dioxane	0.13511	0.11025	0.11965	0.08510	0.09561	0.10127		
	0.09021	0.09150	0.08787				0.10184	16.473
60 Methyl Methacrylate	0.44474	0.34045	0.40702	0.36639	0.34933	0.37263		
	0.36704	0.37201	0.43728				0.38410	9.666
61 ~ methyl cyclohexane	0.83478	0.75152	0.73192	0.54306	0.55436	0.56546		
	0.53327	0.52262	0.53268				0.61885	19.270
62 4-Methyl-2-pentanone	1.07072	0.75727	0.85159	0.60948	0.64375	0.68831		
	0.64217	0.71762	0.69009				0.74122	19.296

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	4.000 Level 7	8.000 Level 8	16.000 Level 9					
63 cis-1,2-Dichloropropene	0.51789	0.52376	0.56152	0.45116	0.44267	0.45942		
	0.45782	0.46010	0.50825				0.48695	8.559
64 trans-1,3-Dichloropropene	0.54802	0.52270	0.56264	0.48168	0.48408	0.48455		
	0.49167	0.47715	0.53217				0.50941	6.262
65 Toluene	1.15577	1.09856	1.16262	0.97940	0.94959	0.92906		
	0.95947	0.90008	1.04872				1.02036	9.720
66 1,1,2-Trichloroethane	0.39776	0.38089	0.40072	0.32814	0.32436	0.31156		
	0.31767	0.30041	0.34181				0.34481	11.114
67 ~ 2-methyl thiophene	0.99056	0.97970	0.98157	0.84215	0.80549	0.79319		
	0.81334	0.76790	0.87910				0.87256	10.212
68 ~ 3-methyl thiophene	0.98866	0.96565	1.02609	0.84075	0.81108	0.79400		
	0.81127	0.76757	0.87691				0.87577	10.786
69 2-Hexanone	0.48405	0.40809	0.43329	0.30984	0.33101	0.34815		
	0.34095	0.35888	0.35607				0.37448	14.946
70 Octane	0.48427	0.44728	0.46776	0.34750	0.35344	0.34270		
	0.34957	0.33113	0.36086				0.38717	15.677
71 Dibromochloromethane	0.73929	0.69578	0.78108	0.60963	0.62609	0.61487		
	0.65309	0.63288	0.66411				0.66854	8.865

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	4.000 Level 7	8.000 Level 8	16.000 Level 9					
72 1,2-Dibromoethane	0.66556	0.63832	0.70557	0.56489	0.55329	0.54886		
	0.55024	0.52278	0.59428				0.59375	10.495
73 Tetrachloroethene	0.57905	0.51402	0.52464	0.38846	0.37286	0.37146		
	0.35950	0.34654	0.38596				0.42694	20.359
74 Chlorobenzene	1.03261	0.90468	0.96441	0.77392	0.74802	0.73516		
	0.73669	0.70871	0.80307				0.82303	14.069
75 ~ 2,3-dimethylheptane	2.02368	1.83740	1.86838	1.48420	1.56754	1.47682		
	1.47815	1.33653	1.28936				1.59545	15.962
76 Ethylbenzene	1.42119	1.11740	1.27470	1.15971	1.09989	1.06158		
	1.09779	1.02333	1.20737				1.16255	10.589
77 ~ 2-ethyl thiophene	1.11675	0.90799	1.04201	0.92364	0.88026	0.85378		
	0.88119	0.82846	0.96481				0.93321	10.027
78 m&p-Xylene	1.11424	0.84862	0.96634	0.88379	0.84343	0.82219		
	0.84903	0.78766	0.91868				0.89266	11.029
79 Nonane	1.05886	0.89637	0.99392	0.85693	0.88558	0.83329		
	0.86434	0.81940	0.89163				0.90004	8.644
80 Bromoform	+++++	0.52021	0.64721	0.52875	0.53967	0.52408		
	0.58176	0.58743	0.58882				0.56474	7.846

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	4.000 Level 7	8.000 Level 8	16.000 Level 9					
81 Styrene	0.73117	0.53810	0.70586	0.63256	0.63376	0.61040		
	0.64976	0.62306	0.73546				0.65113	9.771
82 o-Xylene	1.18314	0.88016	1.03697	0.90565	0.88266	0.84124		
	0.87491	0.79751	0.95307				0.92837	12.620
M 83 Xylene (total)	1.13721	0.85913	0.98988	0.89108	0.85650	0.82854		
	0.85766	0.79094	0.93014				0.90456	11.562
84 1,1,2,2-Tetrachloroethane	1.00519	0.68779	0.84685	0.70343	0.71050	0.68718		
	0.68950	0.65624	0.74967				0.74848	14.823
85 1,2,3-Trichloropropane	0.22617	0.15751	0.19655	0.16054	0.15906	0.15296		
	0.15318	0.14697	0.17111				0.16934	15.237
86 Cumene	1.55507	1.12400	1.30124	1.17396	1.15217	1.09508		
	1.13693	1.05730	1.24987				1.20507	12.539
87 n-Propylbenzene	0.39792	0.27386	0.34497	0.30523	0.29470	0.28915		
	0.29583	0.28321	0.34801				0.31476	12.860
88 2-chlorotoluene	0.42369	0.29678	0.38002	0.31328	0.31252	0.30243		
	0.30544	0.29064	0.34163				0.32960	13.575
89 4-Ethyltoluene	1.52398	1.08357	1.29995	1.07594	1.08321	1.06055		
	1.06913	1.02216	1.19887				1.15748	13.980

Report Date : 26-Aug-2011 12:58

TestAmerica Knoxville

INITIAL CALIBRATION DATA

Start Cal Date : 25-AUG-2011 18:41
End Cal Date : 26-AUG-2011 11:05
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/gcms/mj.i/J082511I.b/TO15.m
Cal Date : 26-Aug-2011 12:55 tajh
Curve Type : Average

Compound	0.04000 Level 1 / 4.000 Level 7	0.08000 Level 2 / 8.000 Level 8	0.16000 Level 3 / 16.000 Level 9	0.40000 Level 4	1.000 Level 5	2.000 Level 6	RRF	% RSD
90 1,3,5-Trimethylbenzene	0.66153	0.45218	0.58114	0.49362	0.49724	0.48625		
	0.49185	0.47270	0.58018				0.52408	13.016
91 Alpha-Methylstyrene	0.55471	0.35304	0.49055	0.42262	0.44674	0.44406		
	0.45053	0.43568	0.53225				0.45891	13.133
92 Decane	1.18287	0.77274	0.94673	0.80546	0.94585	0.88877		
	0.96336	0.91276	0.99387				0.93471	12.642
93 tert-butylbenzene	1.21157	0.84322	1.02356	0.89293	0.89921	0.86691		
	0.88957	0.84800	1.02392				0.94432	12.818
94 1,2,4-Trimethylbenzene	1.21046	0.80863	0.99585	0.84643	0.84301	0.83017		
	0.84061	0.80347	0.95199				0.90340	14.662
95 sec-butylbenzene	1.70984	1.13664	1.41562	1.24619	1.25535	1.21104		
	1.22913	1.16246	1.32230				1.29873	13.482
96 1,3-Dichlorobenzene	0.93507	0.61304	0.77848	0.61748	0.63633	0.62583		
	0.63974	0.63463	0.73182				0.69027	15.654
97 Benzyl Chloride	1.15508	0.72733	0.92647	0.70465	0.76843	0.78680		
	0.80152	0.79097	0.89408				0.83948	16.448
98 1,4-Dichlorobenzene	0.94260	0.60227	0.76729	0.59325	0.61585	0.61044		
	0.62326	0.62037	0.70867				0.67600	17.072

Report Date : 26-Aug-2011 12:58

TestAmerica Knoxville

INITIAL CALIBRATION DATA

Start Cal Date : 25-AUG-2011 18:41
End Cal Date : 26-AUG-2011 11:05
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/gcms/mj.i/J082511I.b/TO15.m
Cal Date : 26-Aug-2011 12:55 tajh
Curve Type : Average

Compound	0.04000 Level 1 / 4.000 Level 7	0.08000 Level 2 / 8.000 Level 8	0.16000 Level 3 / 16.000 Level 9	0.40000 Level 4	1.000 Level 5	2.000 Level 6	RRF	% RSD
99 p-Cymene	1.40613	0.86557	1.10665	0.92795	0.96015	0.93351		
	0.93975	0.89875	1.05214				1.01007	16.465
100 ~ 1,2,3- Trimethylbenzene	1.02569	0.69725	0.85348	0.70463	0.70456	0.68723		
	0.67634	0.63999	0.74524				0.74827	16.029
101 ~ n-butylcyclohexane	1.04085	0.76747	0.92153	0.82682	0.87532	0.81820		
	0.84770	0.79190	0.86914				0.86210	9.438
102 ~ Indane	1.18390	0.74354	0.93903	0.79514	0.77273	0.74515		
	0.74683	0.70900	0.82619				0.82906	17.985
103 1,2-Dichlorobenzene	0.87762	0.57039	0.70112	0.56178	0.58249	0.56401		
	0.57305	0.55534	0.64360				0.62549	16.959
104 n-butylbenzene	1.49502	0.91088	1.15236	0.88777	0.96640	0.94814		
	0.95364	0.91487	1.02065				1.02775	18.701
105 ~ Indene	0.84987	0.53699	0.71135	0.56670	0.58876	0.57564		
	0.57587	0.55907	0.65350				0.62420	16.069
106 Undecane	+++++	+++++	0.92466	0.54104	0.64534	0.63985		
	0.72731	0.77021	0.91997				0.73834	19.636
107 ~ 1,2-dimethyl-4-ethylenzene	1.25507	0.78668	0.96083	0.67868	0.76081	0.74964		
	0.75548	0.74094	0.84238				0.83672	21.002

Report Date : 26-Aug-2011 12:58

TestAmerica Knoxville

INITIAL CALIBRATION DATA

Start Cal Date : 25-AUG-2011 18:41
End Cal Date : 26-AUG-2011 11:05
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/gcms/mj.i/J082511I.b/TO15.m
Cal Date : 26-Aug-2011 12:55 tajh
Curve Type : Average

Compound	0.04000 Level 1	0.08000 Level 2	0.16000 Level 3	0.40000 Level 4	1.000 Level 5	2.000 Level 6	RRF	% RSD
	4.000 Level 7	8.000 Level 8	16.000 Level 9					
108 ~ 1,2,4,5-tetramethylbenzene	1.23653	0.77286	0.89926	0.54083	0.68699	0.68504		
	0.70479	0.71208	0.79151				0.78110	25.119
109 ~ 1,2,3,5-tetramethylbenzene	+++++	0.65272	0.70433	0.41910	0.36894	0.53397		
	0.53645	0.54618	0.60257				0.54553	20.476
110 ~ 1,2,3,4-tetramethylbenzene	+++++	0.71891	0.79004	0.41755	0.55333	0.55328		
	0.56237	0.58345	0.63606				0.60187	18.930
111 Dodecane	+++++	+++++	0.87796	0.43100	0.64739	0.46041		
	0.58293	0.67585	0.68047				0.62229	24.247
112 1,2,4-Trichlorobenzene	+++++	0.37992	0.47379	0.22745	0.33628	0.33435		
	0.33754	0.36940	0.41512				0.35923	19.897
113 Napthalene	+++++	0.88465	1.03658	0.48288	0.71108	0.69869		
	0.68421	0.72090	0.74605				0.74563	21.554
114 ~ benzo(b) thiophene	+++++	0.56847	0.68804	0.32898	0.44775	0.46328		
	0.43743	0.47327	0.47209				0.48491	21.623
115 Hexachlorobutadiene	+++++	0.33561	0.39325	0.24895	0.36821	0.34021		
	0.35297	0.35597	0.44654				0.35521	15.733
116 1,2,3-trichlorobenzene	+++++	0.38766	0.43773	0.19394	0.28416	0.27643		
	0.25799	0.28629	0.28943				0.30170	25.289

Report Date : 26-Aug-2011 12:58

TestAmerica Knoxville

INITIAL CALIBRATION DATA

Start Cal Date : 25-AUG-2011 18:41
End Cal Date : 26-AUG-2011 11:05
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/gcms/mj.i/J082511I.b/TO15.m
Cal Date : 26-Aug-2011 12:55 tajh
Curve Type : Average

Compound	0.04000 Level 1	0.08000 Level 2	0.16000 Level 3	0.40000 Level 4	1.000 Level 5	2.000 Level 6	RRF	% RSD
	4.000 Level 7	8.000 Level 8	16.000 Level 9					
117 - 2-Methylnaphthalene	+++++	+++++	0.09964	0.04912	0.08238	0.05514		
	0.06333	0.07138	0.06642				0.06963	24.505
118 - 1-Methylnaphthalene	+++++	+++++	0.09021	0.04931	0.07682	0.04770		
	0.05134	0.05583	0.05289				0.06059	26.968
$ 4 4-Bromofluorobenzene	0.74639	0.74405	0.75618	0.73761	0.75642	0.77804		
	0.76777	0.78187	0.76495				0.75925	2.004

Data File: /var/chem/gcms/mj.i/J082511I.b/jich251r.d
Report Date: 26-Aug-2011 12:59

TestAmerica Knoxville

Modified Method TO-14/TO-15

Data file : /var/chem/gcms/mj.i/J082511I.b/jich251r.d
Lab Smp Id: ICAL1 Client Smp ID: STD 0.04
Inj Date : 26-AUG-2011 11:05
Operator : 403648 Inst ID: mj.i
Smp Info : ICAL1,,1,1,,STD 0.04
Misc Info : J082511I,TO15,all.sub,,,
Comment :
Method : /var/chem/gcms/mj.i/J082511I.b/TO15.m
Meth Date : 26-Aug-2011 12:59 tajh Quant Type: ISTD
Cal Date : 26-AUG-2011 11:05 Cal File: jich251r.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allmdl.sub
Target Version: 3.50
Processing Host: qmidhp01

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Default Calibration Volume
Vo	200.00000	Default Sample Volume

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	ON-COL (ppb(v/v))
* 1 Bromochloromethane	128	9.242	9.242	(1.000)	452257	4.00000	4.000
* 2 1,4-Difluorobenzene	114	11.416	11.416	(1.000)	2172279	4.00000	4.000
* 3 Chlorobenzene-d5	117	16.112	16.112	(1.000)	1885323	4.00000	4.000
$ 4 4-Bromofluorobenzene	95	17.737	17.737	(1.101)	1407183	4.00000	3.932
5 Chlorodifluoromethane	67	3.879	3.879	(0.420)	3843	0.04000	0.06928
6 Propene	41	3.901	3.901	(0.422)	17111	0.04000	0.07400
7 Dichlorodifluoromethane	85	3.949	3.949	(0.427)	33354	0.04000	0.05859
8 Chloromethane	52	4.148	4.148	(0.449)	5780	0.04000	0.07735
9 1,2-Dichlorotetrafluoroethane	135	4.154	4.154	(0.449)	19137	0.04000	0.05746
10 Methanol	31	4.288	4.288	(0.464)	6739	0.04000	0.1281
11 ~ acetaldehyde	44	4.310	4.310	(0.466)	19954	0.20240	0.4880
12 Vinyl Chloride	62	4.331	4.331	(0.469)	13995	0.04000	0.05914
13 n-Butane	43	4.428	4.428	(0.479)	22435	0.04000	0.05788
14 1,3-Butadiene	54	4.423	4.423	(0.478)	10527	0.04000	0.05946
15 Bromomethane	94	4.767	4.767	(0.516)	12118	0.04000	0.07500

Data File: /var/chem/gcms/mj.i/J082511I.b/jich251r.d
Report Date: 26-Aug-2011 12:59

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
16 Chloroethane	64	4.923	4.923	(0.533)	6311	0.04000	0.06115
17 ~ ethanol	31	5.009	5.009	(0.542)	24024	0.20880	0.3528
18 Vinyl Bromide	106	5.246	5.246	(0.568)	10043	0.04000	0.05785
19 2-methyl butane	43	5.299	5.299	(0.573)	21360	0.04000	0.06245
20 Trichlorofluoromethane	101	5.531	5.531	(0.598)	26844	0.04000	0.05700
21 Acrolein	56	5.531	5.531	(0.598)	3812	0.04000	0.09244
22 Acetonitrile	40	5.595	5.595	(0.605)	3001	0.04000	0.04633
23 Acetone	58	5.660	5.660	(0.612)	7437	0.04000	0.1110
24 Isopropyl alcohol	45	5.740	5.740	(0.621)	17795	0.04000	0.06915
25 Pentane	72	5.762	5.762	(0.623)	1924	0.04000	0.06002
26 Ethyl Ether	31	5.939	5.939	(0.643)	9581	0.04000	0.04014
27 1,1-Dichloroethene	96	6.273	6.273	(0.679)	9267	0.04000	0.05724
28 tert-butanol	59	6.354	6.354	(0.687)	18821	0.04000	0.06106
29 Acrylonitrile	53	6.364	6.364	(0.689)	4890	0.04000	0.04504
30 1,1,2-Trichlorotrifluoroethane	101	6.456	6.456	(0.698)	18823	0.04000	0.05622
31 Methylene Chloride	84	6.628	6.628	(0.717)	12544	0.04000	0.07772
32 3-Chloropropene	39	6.644	6.644	(0.719)	12670	0.04000	0.05909
33 Carbon Disulfide	76	6.806	6.806	(0.736)	32426	0.04000	0.05659
34 trans-1,2-Dichloroethene	96	7.467	7.467	(0.808)	10458	0.04000	0.05639
35 ~ 2-Methyl Pentane	43	7.494	7.494	(0.811)	34074	0.04000	0.05601
36 Methyl-t-Butyl Ether	73	7.613	7.613	(0.824)	15369	0.04000	0.04822
37 1,1-Dichloroethane	63	7.898	7.898	(0.854)	21511	0.04000	0.05578
38 Vinyl Acetate	43	8.005	8.005	(0.866)	13839	0.04000	0.03748
39 2-Butanone	72	8.468	8.468	(0.916)	3111	0.04000	0.05634
40 Hexane	56	8.495	8.495	(0.919)	12580	0.04000	0.05989
41 cis 1,2-Dichloroethene	96	8.898	8.898	(0.963)	9938	0.04000	0.05522
42 Ethyl acetate	43	9.092	9.092	(0.984)	16737	0.04000	0.04976
43 Chloroform	83	9.253	9.253	(1.001)	20892	0.04000	0.05529
44 Tetrahydrofuran	42	9.684	9.684	(1.048)	8243	0.04000	0.04474
45 1,1,1-Trichloroethane	97	10.308	10.308	(1.115)	21053	0.04000	0.05602
46 1,2-Dichloroethane	62	10.404	10.404	(0.911)	12477	0.04000	0.04594
47 1-Butanol	31	10.829	10.829	(0.949)	6042	0.04000	0.05821
48 Benzene	78	10.889	10.889	(0.954)	27018	0.04000	0.05013
49 Cyclohexane	69	10.905	10.905	(0.955)	6395	0.04000	0.05746
50 Carbon Tetrachloride	117	10.921	10.921	(0.957)	20892	0.04000	0.05584
51 ~ 2,3-dimethylpentane	71	11.018	11.018	(0.965)	7206	0.04120	0.05519
52 ~ Thiophene	84	11.158	11.158	(0.977)	14154	0.04160	0.04662
53 2,2,4-trimethylpentane	57	11.642	11.642	(1.020)	61758	0.04000	0.05381
54 Heptane	71	12.008	12.008	(1.052)	10729	0.04000	0.05422
55 1,2-Dichloropropane	63	12.088	12.088	(1.059)	9365	0.04000	0.04602
56 Trichloroethene	130	12.126	12.126	(1.062)	13198	0.04000	0.05169
57 Dibromomethane	93	12.207	12.207	(1.069)	12307	0.04000	0.05238
58 Bromodichloromethane	83	12.346	12.346	(1.082)	19221	0.04000	0.04877
59 1,4-dioxane	88	12.368	12.368	(1.083)	2935	0.04000	0.05307
60 Methyl Methacrylate	41	12.433	12.433	(1.089)	9661	0.04000	0.04632
61 ~ methyl cyclohexane	83	12.901	12.901	(1.130)	18859	0.04160	0.05611
62 4-Methyl-2-pentanone	43	13.272	13.272	(1.163)	23259	0.04000	0.05778

Data File: /var/chem/gcms/mj.i/J082511I.b/jich251r.d
Report Date: 26-Aug-2011 12:59

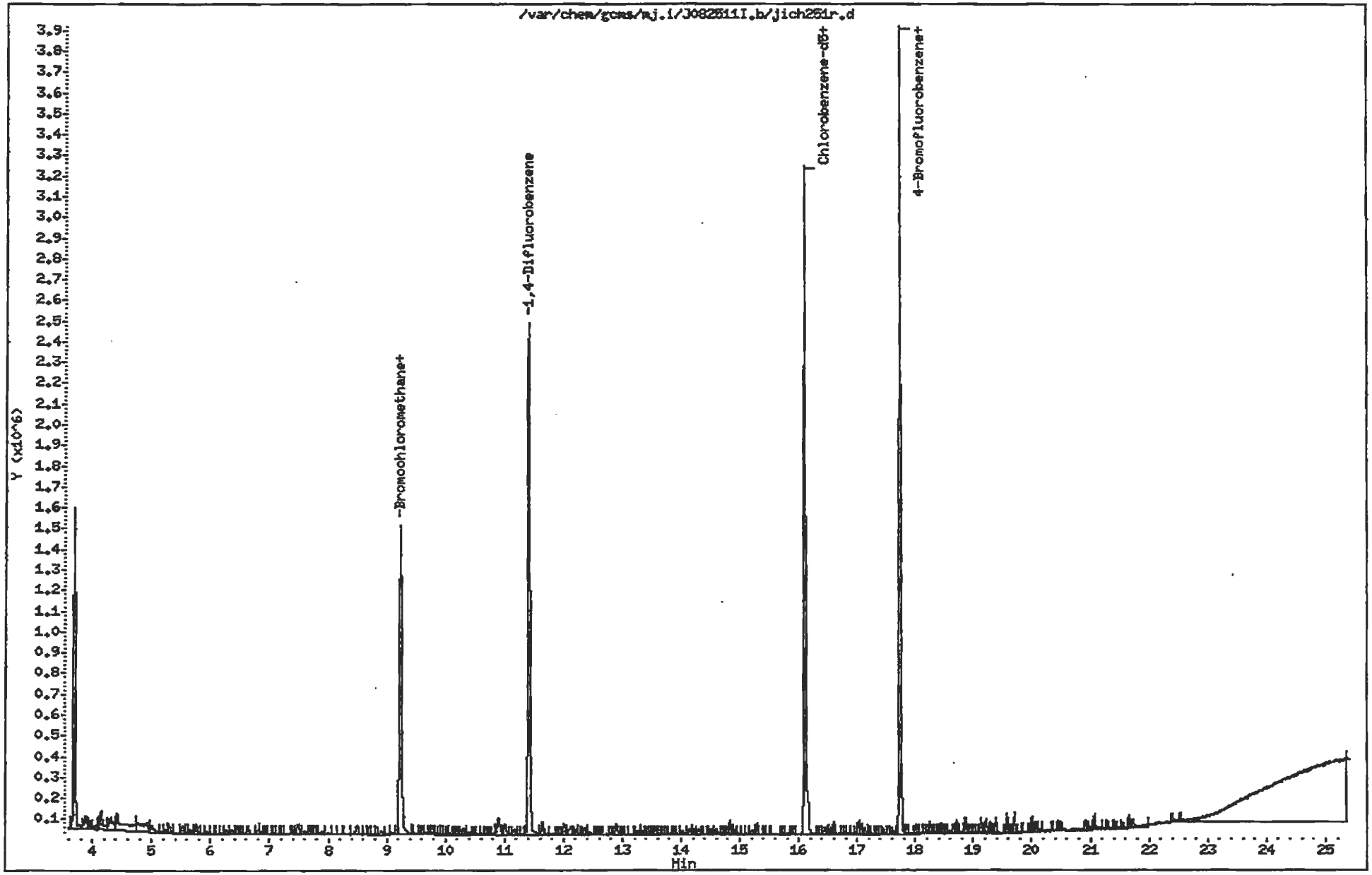
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
63	cis-1,3-Dichloropropene	75	13.336	13.336	(1.168)	11250	0.04000	0.04254
64	trans-1,3-Dichloropropene	75	14.025	14.025	(0.870)	10332	0.04000	0.04303
65	Toluene	91	14.154	14.154	(0.878)	21790	0.04000	0.04531
66	1,1,2-Trichloroethane	83	14.219	14.219	(0.882)	7499	0.04000	0.04614
67	~ 2-methyl thiophene	97	14.305	14.305	(0.888)	19609	0.04200	0.04768
68	~ 3-methyl thiophene	97	14.498	14.498	(0.900)	19385	0.04160	0.04696
69	2-Hexanone	58	14.600	14.600	(0.906)	9126	0.04000	0.05170
70	Octane	85	14.832	14.832	(0.921)	9130	0.04000	0.05003
71	Dibromochloromethane	129	14.923	14.923	(0.926)	13938	0.04000	0.04423
72	1,2-Dibromoethane	107	15.214	15.214	(0.944)	12548	0.04000	0.04484
73	Tetrachloroethene	129	15.289	15.289	(0.949)	10917	0.04000	0.05425
74	Chlorobenzene	112	16.160	16.160	(1.003)	19468	0.04000	0.05018
75	~ 2,3-dimethylheptane	43	16.171	16.171	(1.004)	39679	0.04160	0.05276
76	Ethylbenzene	91	16.440	16.440	(1.020)	26794	0.04000	0.04890
77	~ 2-ethyl thiophene	97	16.542	16.542	(1.027)	21686	0.04120	0.04930
78	m&p-Xylene	91	16.602	16.602	(1.030)	42014	0.08000	0.09986
79	Nonane	57	17.010	17.010	(1.056)	19963	0.04000	0.04706
80	Bromoform	173	17.053	17.053	(1.058)	11753	0.04000	0.04415
81	Styrene	104	17.064	17.064	(1.059)	13785	0.04000	0.04492
82	o-Xylene	91	17.123	17.123	(1.063)	22306	0.04000	0.05098
M 83	Xylene (total)	100				64320	0.12000	0.1508
84	1,1,2,2-Tetrachloroethane	83	17.441	17.441	(1.082)	18951	0.04000	0.05372
85	1,2,3-Trichloropropane	110	17.602	17.602	(1.092)	4264	0.04000	0.05342
86	Cumene	105	17.710	17.710	(1.099)	29318	0.04000	0.05162
87	n-Propylbenzene	120	18.226	18.226	(1.131)	7502	0.04000	0.05057
88	2-chlorotoluene	126	18.275	18.275	(1.134)	7988	0.04000	0.05142
89	4-Ethyltoluene	105	18.377	18.377	(1.141)	28732	0.04000	0.05266
90	1,3,5-Trimethylbenzene	120	18.447	18.447	(1.145)	12472	0.04000	0.05049
91	Alpha-Methylstyrene	118	18.667	18.667	(1.159)	10458	0.04000	0.04825
92	Decane	57	18.721	18.721	(1.162)	22301	0.04000	0.05062
93	tert-butylbenzene	119	18.861	18.861	(1.171)	22842	0.04000	0.05132
94	1,2,4-Trimethylbenzene	105	18.877	18.877	(1.172)	22821	0.04000	0.05360
95	sec-butylbenzene	105	19.125	19.125	(1.187)	32236	0.04000	0.05266
96	1,3-Dichlorobenzene	146	19.141	19.141	(1.188)	17629	0.04000	0.05418
97	Benzyl Chloride	91	19.211	19.211	(1.192)	21777	0.04000	0.05504
98	1,4-Dichlorobenzene	146	19.221	19.221	(1.193)	17771	0.04000	0.05577
99	p-Cymene	119	19.281	19.281	(1.197)	26510	0.04000	0.05568
100	~ 1,2,3- Trimethylbenzene	105	19.334	19.334	(1.200)	20111	0.04160	0.05702
101	~ n-butylcyclohexane	83	19.388	19.388	(1.203)	20212	0.04120	0.04974
102	~ Indane	117	19.576	19.576	(1.215)	22990	0.04120	0.05883
103	1,2-Dichlorobenzene	146	19.576	19.576	(1.215)	16546	0.04000	0.05612
104	n-butylbenzene	91	19.706	19.706	(1.223)	28186	0.04000	0.05819
105	~ Indene	116	19.706	19.706	(1.223)	16824	0.04200	0.05718
106	Undecane	57	20.001	20.001	(1.241)	23057	0.04000	0.06626
107	~ 1,2-dimethyl-4-ethylenzene	119	20.071	20.071	(1.246)	24372	0.04120	0.06180
108	~ 1,2,4,5-tetramethylbenzene	119	20.453	20.453	(1.269)	24012	0.04120	0.06522
109	~ 1,2,3,5-tetramethylbenzene	119	20.512	20.512	(1.273)	21701	0.04200	0.08440

Data File: /var/chem/gcms/mj.i/J082511I.b/jich251r.d
Report Date: 26-Aug-2011 12:59

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	ON-COL (ppb(v/v))
110 ~ 1,2,3,4-tetramethylbenzene	119	20.921	20.921	(1.298)	21514	0.04080	0.07584
111 Dodecane	57	21.072	21.072	(1.308)	23103	0.04000	0.07877
112 1,2,4-Trichlorobenzene	180	21.298	21.298	(1.322)	11999	0.04000	0.07087
113 Napthalene	128	21.448	21.448	(1.331)	25317	0.04000	0.07204
114 ~ benzo(b) thiophene	134	21.556	21.556	(1.338)	17087	0.04080	0.07476
115 Hexachlorobutadiene	225	21.658	21.658	(1.344)	10181	0.04000	0.06081
116 1,2,3-trichlorobenzene	180	21.723	21.723	(1.348)	10818	0.04000	0.07607
117 ~ 2-Methylnaphthalene	142	22.406	22.406	(1.391)	15981	0.25000	0.4869
118 ~ 1-Methylnaphthalene	142	22.541	22.541	(1.399)	16603	0.25000	0.5814

Data File: /var/chem/gcms/mj.i/J082611I.b/jich251r.d
Date : 26-AUG-2011 11:05
Client ID: STD 0.04
Sample Info: ICAL1,,1,1,,STD 0.04
Purge Volume: 200.0
Column phase: Rtx-5

Instrument: mj.i
Operator: 403648
Column diameter: 0.32



Data File: /var/chem/gcms/mj.i/J082511I.b/jich252r.d
Report Date: 26-Aug-2011 12:59

TestAmerica Knoxville

Modified Method TO-14/TO-15

Data file : /var/chem/gcms/mj.i/J082511I.b/jich252r.d
Lab Smp Id: ICAL2 Client Smp ID: STD 0.08
Inj Date : 26-AUG-2011 09:24
Operator : 403648 Inst ID: mj.i
Smp Info : ICAL2,,1,2,,STD 0.08
Misc Info : J082511I,TO15,all.sub,,,
Comment :
Method : /var/chem/gcms/mj.i/J082511I.b/TO15.m
Meth Date : 26-Aug-2011 12:59 tajh Quant Type: ISTD
Cal Date : 26-AUG-2011 09:24 Cal File: jich252r.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allmdl.sub
Target Version: 3.50
Processing Host: qmidhp01

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Default Calibration Volume
Vo	200.00000	Default Sample Volume

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
* 1 Bromochloromethane	128	9.242	9.242	(1.000)	455243	4.00000	4.000
* 2 1,4-Difluorobenzene	114	11.420	11.420	(1.000)	2190044	4.00000	4.000
* 3 Chlorobenzene-d5	117	16.111	16.111	(1.000)	1847506	4.00000	4.000
§ 4 4-Bromofluorobenzene	95	17.736	17.736	(1.101)	1374644	4.00000	3.920
5 Chlorodifluoromethane	67	3.889	3.889	(0.421)	6164	0.08000	0.1104
6 Propene	41	3.900	3.900	(0.422)	27926	0.08000	0.1200
7 Dichlorodifluoromethane	85	3.954	3.954	(0.428)	58730	0.08000	0.1025
8 Chloromethane	52	4.147	4.147	(0.449)	7599	0.08000	0.1010
9 1,2-Dichlorotetrafluoroethane	135	4.153	4.153	(0.449)	34407	0.08000	0.1026
10 Methanol	31	4.282	4.282	(0.463)	12435	0.08000	0.2348
11 ~ acetaldehyde	44	4.309	4.309	(0.466)	37343	0.40480	0.9074
12 Vinyl Chloride	62	4.330	4.330	(0.469)	24540	0.08000	0.1030
13 n-Butane	43	4.427	4.427	(0.479)	40989	0.08000	0.1050
14 1,3-Butadiene	54	4.427	4.427	(0.479)	17667	0.08000	0.09913
15 Bromomethane	94	4.766	4.766	(0.516)	17553	0.08000	0.1079

Data File: /var/chem/gcms/mj.i/J082511I.b/jich252r.d
Report Date: 26-Aug-2011 12:59

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
16 Chloroethane	64	4.917	4.917	(0.532)	10470	0.08000	0.1008
17 ~ ethanol	31	5.003	5.003	(0.541)	40803	0.41760	0.5953
18 Vinyl Bromide	106	5.245	5.245	(0.568)	17694	0.08000	0.1012
19 2-methyl butane	43	5.299	5.299	(0.573)	36422	0.08000	0.1058
20 Trichlorofluoromethane	101	5.530	5.530	(0.598)	48139	0.08000	0.1015
21 Acrolein	56	5.541	5.541	(0.600)	7098	0.08000	0.1710
22 Acetonitrile	40	5.600	5.600	(0.606)	5498	0.08000	0.08432
23 Acetone	58	5.664	5.664	(0.613)	13222	0.08000	0.1960
24 Isopropyl alcohol	45	5.729	5.729	(0.620)	30192	0.08000	0.1166
25 Pentane	72	5.756	5.756	(0.623)	3101	0.08000	0.09610
26 Ethyl Ether	31	5.944	5.944	(0.643)	20458	0.08000	0.08514
27 1,1-Dichloroethene	96	6.272	6.272	(0.679)	16471	0.08000	0.1011
28 tert-butanol	59	6.353	6.353	(0.687)	32314	0.08000	0.1041
29 Acrylonitrile	53	6.364	6.364	(0.689)	9307	0.08000	0.08517
30 1,1,2-Trichlorotrifluoroethane	101	6.461	6.461	(0.699)	34339	0.08000	0.1019
31 Methylene Chloride	84	6.622	6.622	(0.717)	20647	0.08000	0.1271
32 3-Chloropropene	39	6.649	6.649	(0.719)	23723	0.08000	0.1099
33 Carbon Disulfide	76	6.805	6.805	(0.736)	58309	0.08000	0.1011
34 trans-1,2-Dichloroethene	96	7.472	7.472	(0.808)	18205	0.08000	0.09752
35 ~ 2-Methyl Pentane	43	7.493	7.493	(0.811)	62767	0.08000	0.1025
36 Methyl-t-Butyl Ether	73	7.601	7.601	(0.822)	25420	0.08000	0.07922
37 1,1-Dichloroethane	63	7.897	7.897	(0.854)	39848	0.08000	0.1026
38 Vinyl Acetate	43	7.999	7.999	(0.866)	27657	0.08000	0.07442
39 2-Butanone	72	8.462	8.462	(0.916)	4766	0.08000	0.08575
40 Hexane	56	8.505	8.505	(0.920)	22128	0.08000	0.1046
41 cis 1,2-Dichloroethene	96	8.908	8.908	(0.964)	17977	0.08000	0.09924
42 Ethyl acetate	43	9.091	9.091	(0.984)	27983	0.08000	0.08265
43 Chloroform	83	9.253	9.253	(1.001)	40367	0.08000	0.1061
44 Tetrahydrofuran	42	9.678	9.678	(1.047)	15586	0.08000	0.08405
45 1,1,1-Trichloroethane	97	10.307	10.307	(1.115)	38709	0.08000	0.1023
46 1,2-Dichloroethane	62	10.404	10.404	(0.911)	26671	0.08000	0.09741
47 1-Butanol	31	10.829	10.829	(0.948)	10652	0.08000	0.1018
48 Benzene	78	10.893	10.893	(0.954)	54140	0.08000	0.09963
49 Cyclohexane	69	10.904	10.904	(0.955)	10953	0.08000	0.09762
50 Carbon Tetrachloride	117	10.920	10.920	(0.956)	38592	0.08000	0.1023
51 ~ 2,3-dimethylpentane	71	11.012	11.012	(0.964)	13313	0.08240	0.1011
52 ~ Thiophene	84	11.162	11.162	(0.977)	32060	0.08320	0.1047
53 2,2,4-trimethylpentane	57	11.646	11.646	(1.020)	119297	0.08000	0.1031
54 Heptane	71	12.007	12.007	(1.051)	19637	0.08000	0.09843
55 1,2-Dichloropropane	63	12.088	12.088	(1.058)	18015	0.08000	0.08781
56 Trichloroethene	130	12.131	12.131	(1.062)	26711	0.08000	0.1038
57 Dibromomethane	93	12.206	12.206	(1.069)	22972	0.08000	0.09698
58 Bromodichloromethane	83	12.351	12.351	(1.081)	36455	0.08000	0.09175
59 1,4-dioxane	88	12.367	12.367	(1.083)	4829	0.08000	0.08660
60 Methyl Methacrylate	41	12.437	12.437	(1.089)	14912	0.08000	0.07091
61 ~ methyl cyclohexane	83	12.900	12.900	(1.130)	34234	0.08320	0.1010
62 4-Methyl-2-pentanone	43	13.276	13.276	(1.163)	33169	0.08000	0.08173

Data File: /var/chem/gcms/mj.i/J082511I.b/jich252r.d
Report Date: 26-Aug-2011 12:59

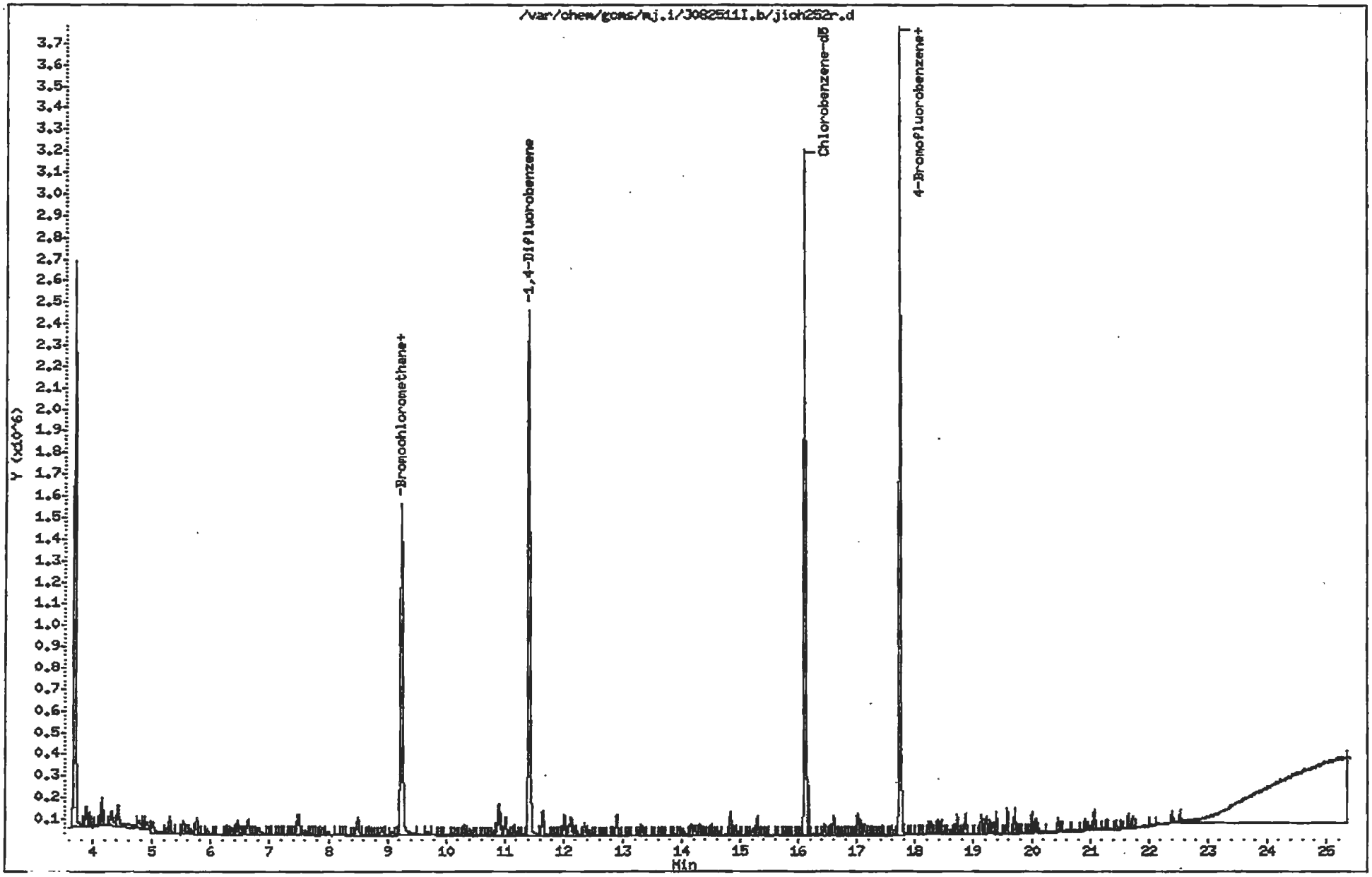
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
63	cis-1,3-Dichloropropene	75	13.336	13.336	(1.168)	22941	0.08000	0.08605
64	trans-1,3-Dichloropropene	75	14.019	14.019	(0.870)	19314	0.08000	0.08209
65	Toluene	91	14.153	14.153	(0.878)	40592	0.08000	0.08613
66	1,1,2-Trichloroethane	83	14.223	14.223	(0.883)	14074	0.08000	0.08837
67	~ 2-methyl thiophene	97	14.309	14.309	(0.888)	38010	0.08400	0.09431
68	~ 3-methyl thiophene	97	14.503	14.503	(0.900)	37108	0.08320	0.09174
69	2-Hexanone	58	14.600	14.600	(0.906)	15079	0.08000	0.08718
70	Octane	85	14.831	14.831	(0.921)	16527	0.08000	0.09242
71	Dibromochloromethane	129	14.923	14.923	(0.926)	25709	0.08000	0.08326
72	1,2-Dibromoethane	107	15.213	15.213	(0.944)	23586	0.08000	0.08600
73	Tetrachloroethene	129	15.294	15.294	(0.949)	18993	0.08000	0.09632
74	Chlorobenzene	112	16.160	16.160	(1.003)	33428	0.08000	0.08794
75	~ 2,3-dimethylheptane	43	16.171	16.171	(1.004)	70608	0.08320	0.09582
76	Ethylbenzene	91	16.445	16.445	(1.021)	41288	0.08000	0.07689
77	~ 2-ethyl thiophene	97	16.547	16.547	(1.027)	34557	0.08240	0.08017
78	m&p-Xylene	91	16.601	16.601	(1.030)	62713	0.16000	0.1521
79	Nonane	57	17.015	17.015	(1.056)	33121	0.08000	0.07967
80	Bromoform	173	17.053	17.053	(1.058)	19222	0.08000	0.07369
81	Styrene	104	17.064	17.064	(1.059)	19883	0.08000	0.06611
82	o-Xylene	91	17.128	17.128	(1.063)	32522	0.08000	0.07584
M 83	Xylene (total)	100				95235	0.24000	0.2280
84	1,1,2,2-Tetrachloroethane	83	17.440	17.440	(1.082)	25414	0.08000	0.07351
85	1,2,3-Trichloropropane	110	17.601	17.601	(1.092)	5820	0.08000	0.07441
86	Cumene	105	17.709	17.709	(1.099)	41532	0.08000	0.07462
87	n-Propylbenzene	120	18.231	18.231	(1.132)	10119	0.08000	0.06960
88	2-chlorotoluene	126	18.274	18.274	(1.134)	10966	0.08000	0.07203
89	4-Ethyltoluene	105	18.376	18.376	(1.141)	40038	0.08000	0.07489
90	1,3,5-Trimethylbenzene	120	18.446	18.446	(1.145)	16708	0.08000	0.06902
91	Alpha-Methylstyrene	118	18.667	18.667	(1.159)	13045	0.08000	0.06154
92	Decane	57	18.720	18.720	(1.162)	28553	0.08000	0.06614
93	tert-butylbenzene	119	18.860	18.860	(1.171)	31157	0.08000	0.07143
94	1,2,4-Trimethylbenzene	105	18.871	18.871	(1.171)	29879	0.08000	0.07161
95	sec-butylbenzene	105	19.124	19.124	(1.187)	41999	0.08000	0.07002
96	1,3-Dichlorobenzene	146	19.140	19.140	(1.188)	22652	0.08000	0.07105
97	Benzyl Chloride	91	19.210	19.210	(1.192)	26875	0.08000	0.06931
98	1,4-Dichlorobenzene	146	19.226	19.226	(1.193)	22254	0.08000	0.07127
99	p-Cymene	119	19.280	19.280	(1.197)	31983	0.08000	0.06856
100	~ 1,2,3- Trimethylbenzene	105	19.334	19.334	(1.200)	26794	0.08320	0.07753
101	~ n-butylcyclohexane	83	19.387	19.387	(1.203)	29209	0.08240	0.07336
102	~ Indane	117	19.581	19.581	(1.215)	28298	0.08240	0.07390
103	1,2-Dichlorobenzene	146	19.581	19.581	(1.215)	21076	0.08000	0.07295
104	n-butylbenzene	91	19.705	19.705	(1.223)	33657	0.08000	0.07090
105	~ Indene	116	19.705	19.705	(1.223)	20834	0.08400	0.07226
106	Undecane	57	20.001	20.001	(1.241)	27982	0.08000	0.08205
107	~ 1,2-dimethyl-4-ethylenzene	119	20.071	20.071	(1.246)	29940	0.08240	0.07747
108	~ 1,2,4,5-tetramethylbenzene	119	20.453	20.453	(1.269)	29414	0.08240	0.08153
109	~ 1,2,3,5-tetramethylbenzene	119	20.512	20.512	(1.273)	25324	0.08400	0.1005

Data File: /var/chem/gcms/mj.i/J082511I.b/jich252r.d
Report Date: 26-Aug-2011 12:59

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
110 ~ 1,2,3,4-tetramethylbenzene	119	20.921	20.921	(1.298)	27095	0.08160	0.09747
111 Dodecane	57	21.077	21.077	(1.308)	31633	0.08000	0.1100
112 1,2,4-Trichlorobenzene	180	21.297	21.297	(1.322)	14038	0.08000	0.08461
113 Napthalene	128	21.448	21.448	(1.331)	32688	0.08000	0.09492
114 ~ benzo(b) thiophene	134	21.555	21.555	(1.338)	21425	0.08160	0.09566
115 Hexachlorobutadiene	225	21.652	21.652	(1.344)	12401	0.08000	0.07559
116 1,2,3-trichlorobenzene	180	21.728	21.728	(1.349)	14324	0.08000	0.1028
117 ~ 2-Methylnaphthalene	142	22.405	22.405	(1.391)	22378	0.50000	0.6958
118 ~ 1-Methylnaphthalene	142	22.540	22.540	(1.399)	23329	0.50000	0.8337

Data File: /var/chem/gcms/mj.i/J082511I.b/jich252r.d
Date : 26-AUG-2011 09:24
Client ID: STD 0.08
Sample Info: ICAL2,,1,2,,STD 0.08
Purge Volume: 200.0
Column phase: Rtx-5

Instrument: mj.i
Operator: 403648
Column diameter: 0.32



Data File: /var/chem/gcms/mj.i/J082511I.b/jich253.d
Report Date: 26-Aug-2011 12:59

TestAmerica Knoxville

Modified Method TO-14/TO-15

Data file : /var/chem/gcms/mj.i/J082511I.b/jich253.d
Lab Smp Id: ICAL3 Client Smp ID: STD 0.16
Inj Date : 25-AUG-2011 18:41
Operator : 403648 Inst ID: mj.i
Smp Info : ICAL3,,1,3,,STD 0.16
Misc Info : J082511I,TO15,all.sub,,,
Comment :
Method : /var/chem/gcms/mj.i/J082511I.b/TO15.m
Meth Date : 26-Aug-2011 12:59 tajh Quant Type: ISTD
Cal Date : 25-AUG-2011 18:41 Cal File: jich253.d
Als bottle: 2 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allmdl.sub
Target Version: 3.50
Processing Host: qmidhp01

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Default Calibration Volume
Vo	200.00000	Default Sample Volume

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	ON-COL (ppb(v/v))
* 1 Bromochloromethane	128	9.243	9.243	(1.000)	490649	4.00000	4.000
* 2 1,4-Difluorobenzene	114	11.416	11.416	(1.000)	2281812	4.00000	4.000
* 3 Chlorobenzene-d5	117	16.113	16.113	(1.000)	2088655	4.00000	4.000
$ 4 4-Bromofluorobenzene	95	17.737	17.737	(1.101)	1518898	4.00000	3.984
5 Chlorodifluoromethane	67	3.885	3.885	(0.420)	11466	0.16000	0.1905
6 Propene	41	3.901	3.901	(0.422)	52246	0.16000	0.2083
7 Dichlorodifluoromethane	85	3.955	3.955	(0.428)	113544	0.16000	0.1838
8 Chloromethane	52	4.149	4.149	(0.449)	16532	0.16000	0.2039
9 1,2-Dichlorotetrafluoroethane	135	4.154	4.154	(0.449)	64508	0.16000	0.1785
10 Methanol	31	4.283	4.283	(0.463)	21392	0.16000	0.3747
11 ~ acetaldehyde	44	4.315	4.315	(0.467)	59082	0.80960	1.332
12 Vinyl Chloride	62	4.332	4.332	(0.469)	44817	0.16000	0.1746
13 n-Butane	43	4.428	4.428	(0.479)	72489	0.16000	0.1724
14 1,3-Butadiene	54	4.428	4.428	(0.479)	33083	0.16000	0.1722
15 Bromomethane	94	4.767	4.767	(0.516)	32907	0.16000	0.1877

Data File: /var/chem/gcms/mj.i/J082511I.b/jich253.d
Report Date: 26-Aug-2011 12:59

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
16 Chloroethane	64	4.923	4.923	(0.533)	19729	0.16000	0.1762
17 ~ ethanol	31	5.009	5.009	(0.542)	75180	0.83520	1.018
18 Vinyl Bromide	106	5.241	5.241	(0.567)	32815	0.16000	0.1742
19 2-methyl butane	43	5.300	5.300	(0.573)	63841	0.16000	0.1720
20 Trichlorofluoromethane	101	5.531	5.531	(0.598)	91079	0.16000	0.1783
21 Acrolein	56	5.531	5.531	(0.598)	6504	0.16000	0.1454
22 Acetonitrile	40	5.601	5.601	(0.606)	10801	0.16000	0.1537
23 Acetone	58	5.660	5.660	(0.612)	28901	0.16000	0.3975
24 Isopropyl alcohol	45	5.736	5.736	(0.621)	59672	0.16000	0.2138
25 Pentane	72	5.768	5.768	(0.624)	6015	0.16000	0.1730
26 Ethyl Ether	31	5.940	5.940	(0.643)	42799	0.16000	0.1652
27 1,1-Dichloroethene	96	6.268	6.268	(0.678)	32125	0.16000	0.1829
28 tert-butanol	59	6.354	6.354	(0.687)	65190	0.16000	0.1949
29 Acrylonitrile	53	6.365	6.365	(0.689)	18545	0.16000	0.1574
30 1,1,2-Trichlorotrifluoroethane	101	6.456	6.456	(0.699)	64975	0.16000	0.1789
31 Methylene Chloride	84	6.629	6.629	(0.717)	35040	0.16000	0.2001
32 3-Chloropropene	39	6.645	6.645	(0.719)	41183	0.16000	0.1770
33 Carbon Disulfide	76	6.806	6.806	(0.736)	109723	0.16000	0.1765
34 trans-1,2-Dichloroethene	96	7.473	7.473	(0.809)	34901	0.16000	0.1735
35 ~ 2-Methyl Pentane	43	7.495	7.495	(0.811)	118523	0.16000	0.1796
36 Methyl-t-Butyl Ether	73	7.602	7.602	(0.822)	59573	0.16000	0.1723
37 1,1-Dichloroethane	63	7.898	7.898	(0.854)	77474	0.16000	0.1852
38 Vinyl Acetate	43	8.000	8.000	(0.866)	64898	0.16000	0.1620
39 2-Butanone	72	8.463	8.463	(0.916)	12428	0.16000	0.2075
40 Hexane	56	8.501	8.501	(0.920)	40484	0.16000	0.1776
41 cis 1,2-Dichloroethene	96	8.904	8.904	(0.963)	35646	0.16000	0.1826
42 Ethyl acetate	43	9.087	9.087	(0.983)	64963	0.16000	0.1780
43 Chloroform	83	9.254	9.254	(1.001)	77222	0.16000	0.1884
44 Tetrahydrofuran	42	9.679	9.679	(1.047)	33985	0.16000	0.1700
45 1,1,1-Trichloroethane	97	10.308	10.308	(1.115)	74912	0.16000	0.1837
46 1,2-Dichloroethane	62	10.405	10.405	(0.911)	52930	0.16000	0.1855
47 1-Butanol	31	10.830	10.830	(0.949)	21936	0.16000	0.2012
48 Benzene	78	10.894	10.894	(0.954)	107157	0.16000	0.1893
49 Cyclohexane	69	10.900	10.900	(0.955)	22515	0.16000	0.1926
50 Carbon Tetrachloride	117	10.921	10.921	(0.957)	74604	0.16000	0.1898
51 ~ 2,3-dimethylpentane	71	11.013	11.013	(0.965)	26653	0.16480	0.1943
52 ~ Thiophene	84	11.163	11.163	(0.978)	64471	0.16640	0.2022
53 2,2,4-trimethylpentane	57	11.648	11.648	(1.020)	230273	0.16000	0.1910
54 Heptane	71	12.008	12.008	(1.052)	40129	0.16000	0.1931
55 1,2-Dichloropropane	63	12.089	12.089	(1.059)	38852	0.16000	0.1818
56 Trichloroethene	130	12.126	12.126	(1.062)	51125	0.16000	0.1906
57 Dibromomethane	93	12.207	12.207	(1.069)	46632	0.16000	0.1890
58 Bromodichloromethane	83	12.347	12.347	(1.082)	79308	0.16000	0.1916
59 1,4-dioxane	88	12.363	12.363	(1.083)	10921	0.16000	0.1880
60 Methyl Methacrylate	41	12.433	12.433	(1.089)	37150	0.16000	0.1695
61 ~ methyl cyclohexane	83	12.896	12.896	(1.130)	69476	0.16640	0.1968
62 4-Methyl-2-pentanone	43	13.272	13.272	(1.163)	77727	0.16000	0.1838

Data File: /var/chem/gcms/mj.i/J082511I.b/jich253.d
Report Date: 26-Aug-2011 12:59

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
63	cis-1,3-Dichloropropene	75	13.337	13.337	(1.168)	51251	0.16000	0.1845
64	trans-1,3-Dichloropropene	75	14.020	14.020	(0.870)	45206	0.16000	0.1767
65	Toluene	91	14.154	14.154	(0.878)	93412	0.16000	0.1823
66	1,1,2-Trichloroethane	83	14.219	14.219	(0.882)	32196	0.16000	0.1859
67	~ 2-methyl thiophene	97	14.305	14.305	(0.888)	82809	0.16800	0.1890
68	~ 3-methyl thiophene	97	14.504	14.504	(0.900)	85740	0.16640	0.1950
69	2-Hexanone	58	14.596	14.596	(0.906)	34813	0.16000	0.1851
70	Octane	85	14.832	14.832	(0.921)	37583	0.16000	0.1933
71	Dibromochloromethane	129	14.924	14.924	(0.926)	62757	0.16000	0.1869
72	1,2-Dibromoethane	107	15.214	15.214	(0.944)	56690	0.16000	0.1901
73	Tetrachloroethene	129	15.295	15.295	(0.949)	42153	0.16000	0.1966
74	Chlorobenzene	112	16.161	16.161	(1.003)	77487	0.16000	0.1875
75	~ 2,3-dimethylheptane	43	16.172	16.172	(1.004)	156122	0.16640	0.1949
76	Ethylbenzene	91	16.441	16.441	(1.020)	102417	0.16000	0.1754
77	~ 2-ethyl thiophene	97	16.543	16.543	(1.027)	86233	0.16480	0.1840
78	m&p-Xylene	91	16.602	16.602	(1.030)	155283	0.32000	0.3464
79	Nonane	57	17.011	17.011	(1.056)	79858	0.16000	0.1767
80	Bromoform	173	17.049	17.049	(1.058)	52001	0.16000	0.1834
81	Styrene	104	17.065	17.065	(1.059)	56713	0.16000	0.1734
82	o-Xylene	91	17.129	17.129	(1.063)	83317	0.16000	0.1787
M 83	Xylene (total)	100				238600	0.48000	0.5251
84	1,1,2,2-Tetrachloroethane	83	17.441	17.441	(1.082)	68041	0.16000	0.1810
85	1,2,3-Trichloropropane	110	17.597	17.597	(1.092)	15792	0.16000	0.1857
86	Cumene	105	17.710	17.710	(1.099)	104550	0.16000	0.1728
87	n-Propylbenzene	120	18.227	18.227	(1.131)	27717	0.16000	0.1754
88	2-chlorotoluene	126	18.275	18.275	(1.134)	30533	0.16000	0.1845
89	4-Ethyltoluene	105	18.377	18.377	(1.141)	104446	0.16000	0.1797
90	1,3,5-Trimethylbenzene	120	18.447	18.447	(1.145)	46692	0.16000	0.1774
91	Alpha-Methylstyrene	118	18.668	18.668	(1.159)	39414	0.16000	0.1710
92	Decane	57	18.722	18.722	(1.162)	76066	0.16000	0.1620
93	tert-butylbenzene	119	18.861	18.861	(1.171)	82239	0.16000	0.1734
94	1,2,4-Trimethylbenzene	105	18.872	18.872	(1.171)	80013	0.16000	0.1764
95	sec-butylbenzene	105	19.125	19.125	(1.187)	113740	0.16000	0.1744
96	1,3-Dichlorobenzene	146	19.141	19.141	(1.188)	62548	0.16000	0.1804
97	Benzyl Chloride	91	19.211	19.211	(1.192)	74438	0.16000	0.1766
98	1,4-Dichlorobenzene	146	19.227	19.227	(1.193)	61649	0.16000	0.1816
99	p-Cymene	119	19.281	19.281	(1.197)	88915	0.16000	0.1753
100	~ 1,2,3- Trimethylbenzene	105	19.335	19.335	(1.200)	71317	0.16640	0.1898
101	~ n-butylcyclohexane	83	19.389	19.389	(1.203)	76263	0.16480	0.1762
102	~ Indane	117	19.577	19.577	(1.215)	77711	0.16480	0.1867
103	1,2-Dichlorobenzene	146	19.577	19.577	(1.215)	56332	0.16000	0.1793
104	n-butylbenzene	91	19.706	19.706	(1.223)	92588	0.16000	0.1794
105	~ Indene	116	19.706	19.706	(1.223)	60012	0.16800	0.1914
106	Undecane	57	20.002	20.002	(1.241)	74293	0.16000	0.2004
107	~ 1,2-dimethyl-4-ethylenzene	119	20.072	20.072	(1.246)	79515	0.16480	0.1892
108	~ 1,2,4,5-tetramethylbenzene	119	20.454	20.454	(1.269)	74420	0.16480	0.1897
109	~ 1,2,3,5-tetramethylbenzene	119	20.508	20.508	(1.273)	59420	0.16800	0.2169

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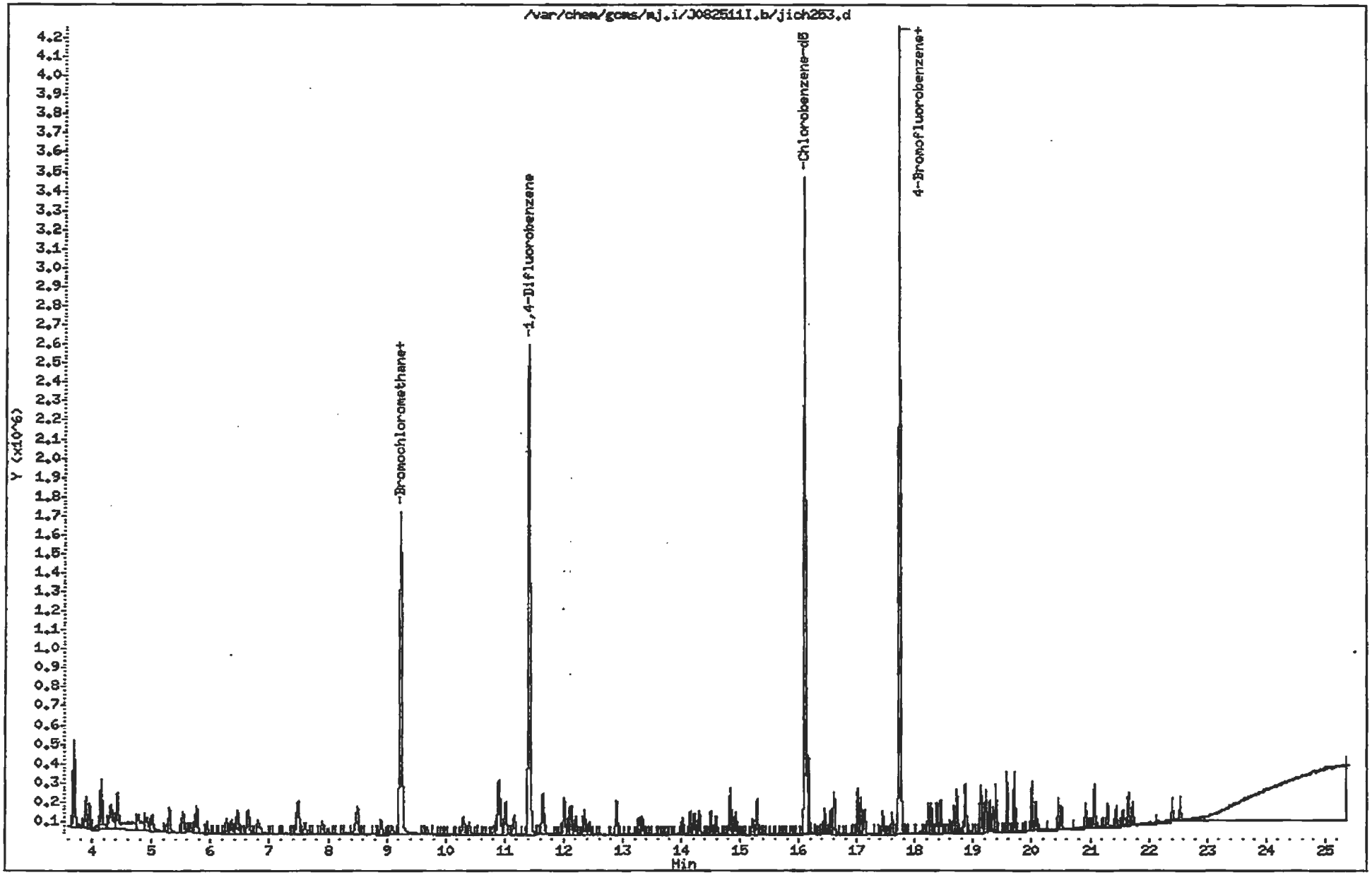
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
110 ~ 1,2,3,4-tetramethylbenzene	119	20.922	20.922	(1.298)	64746	0.16320	0.2142
111 Dodecane	57	21.072	21.072	(1.308)	70541	0.16000	0.2257
112 1,2,4-Trichlorobenzene	180	21.298	21.298	(1.322)	38067	0.16000	0.2110
113 Napthalene	128	21.449	21.449	(1.331)	83285	0.16000	0.2224
114 ~ benzo(b) thiophene	134	21.551	21.551	(1.338)	56387	0.16320	0.2316
115 Hexachlorobutadiene	225	21.659	21.659	(1.344)	31596	0.16000	0.1771
116 1,2,3-trichlorobenzene	180	21.729	21.729	(1.349)	35170	0.16000	0.2321
117 ~ 2-Methylnaphthalene	142	22.407	22.407	(1.391)	50036	1.00000	1.431
118 ~ 1-Methylnaphthalene	142	22.541	22.541	(1.399)	45301	1.00000	1.489

Data File: /var/chem/gcms/mj.i/J082511I.b/jich253.d
Date : 25-AUG-2011 18:41
Client ID: STD 0.16
Sample Info: ICAL3,,1,3,,STD 0.16
Purge Volume: 200.0
Column phase: Rtx-5

Instrument: mj.i
Operator: 403648
Column diameter: 0.32



Data File: /var/chem/gcms/mj.i/J082511I.b/jich254.d
Report Date: 26-Aug-2011 12:59

TestAmerica Knoxville

Modified Method TO-14/TO-15

Data file : /var/chem/gcms/mj.i/J082511I.b/jich254.d
Lab Smp Id: ICAL4 Client Smp ID: STD 0.4
Inj Date : 25-AUG-2011 19:32
Operator : 403648 Inst ID: mj.i
Smp Info : ICAL4,,1,4,,STD 0.4
Misc Info : J082511I,TO15,all.sub,,,
Comment :
Method : /var/chem/gcms/mj.i/J082511I.b/TO15.m
Meth Date : 26-Aug-2011 12:59 tajh Quant Type: ISTD
Cal Date : 25-AUG-2011 19:32 Cal File: jich254.d
Als bottle: 2 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: qmidhp01

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Default Calibration Volume
Vo	200.00000	Default Sample Volume

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	ON-COL (ppb(v/v))
* 1 Bromochloromethane	128	9.245	9.245	(1.000)	492207	4.00000	4.000
* 2 1,4-Difluorobenzene	114	11.418	11.418	(1.000)	2425381	4.00000	4.000
* 3 Chlorobenzene-d5	117	16.109	16.109	(1.000)	2133158	4.00000	4.000
§ 4 4-Bromofluorobenzene	95	17.739	17.739	(1.101)	1573445	4.00000	3.886
5 Chlorodifluoromethane	67	3.887	3.887	(0.420)	22278	0.40000	0.3690
6 Propene	41	3.898	3.898	(0.422)	99307	0.40000	0.3946
7 Dichlorodifluoromethane	85	3.951	3.951	(0.427)	216250	0.40000	0.3490
8 Chloromethane	52	4.145	4.145	(0.448)	30269	0.40000	0.3722
9 1,2-Dichlorotetrafluoroethane	135	4.156	4.156	(0.450)	126342	0.40000	0.3486
11 ~ acetaldehyde	44	4.306	4.306	(0.466)	132619	2.02400	2.980
12 Vinyl Chloride	62	4.328	4.328	(0.468)	87987	0.40000	0.3417
13 n-Butane	43	4.425	4.425	(0.479)	145226	0.40000	0.3442
14 1,3-Butadiene	54	4.419	4.419	(0.478)	65586	0.40000	0.3404
15 Bromomethane	94	4.769	4.769	(0.516)	61225	0.40000	0.3482
16 Chloroethane	64	4.914	4.914	(0.532)	37591	0.40000	0.3347

Data File: /var/chem/gcms/mj.i/J082511I.b/jich254.d
Report Date: 26-Aug-2011 12:59

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
17 ~ ethanol	31	5.006	5.006	(0.541)	147193	2.08800	1.986
18 Vinyl Bromide	106	5.242	5.242	(0.567)	64330	0.40000	0.3405
19 2-methyl butane	43	5.296	5.296	(0.573)	126760	0.40000	0.3405
20 Trichlorofluoromethane	101	5.528	5.528	(0.598)	177581	0.40000	0.3465
21 Acrolein	56	5.533	5.533	(0.598)	16678	0.40000	0.3716
22 Acetonitrile	40	5.592	5.592	(0.605)	28515	0.40000	0.4045
23 Acetone	58	5.651	5.651	(0.611)	67099	0.40000	0.9200
24 Isopropyl alcohol	45	5.727	5.727	(0.619)	101397	0.40000	0.3621
25 Pentane	72	5.764	5.764	(0.624)	12190	0.40000	0.3494
26 Ethyl Ether	31	5.931	5.931	(0.642)	110283	0.40000	0.4245
27 1,1-Dichloroethene	96	6.270	6.270	(0.678)	61222	0.40000	0.3475
28 tert-butanol	59	6.351	6.351	(0.687)	108264	0.40000	0.3227
29 Acrylonitrile	53	6.367	6.367	(0.689)	44333	0.40000	0.3752
30 1,1,2-Trichlorotrifluoroethane	101	6.458	6.458	(0.699)	125728	0.40000	0.3450
31 Methylene Chloride	84	6.625	6.625	(0.717)	64224	0.40000	0.3656
32 3-Chloropropene	39	6.641	6.641	(0.718)	83659	0.40000	0.3585
33 Carbon Disulfide	76	6.802	6.802	(0.736)	220060	0.40000	0.3529
34 trans-1,2-Dichloroethene	96	7.470	7.470	(0.808)	70447	0.40000	0.3490
35 ~ 2-Methyl Pentane	43	7.491	7.491	(0.810)	236496	0.40000	0.3572
36 Methyl-t-Butyl Ether	73	7.599	7.599	(0.822)	144073	0.40000	0.4153
37 1,1-Dichloroethane	63	7.900	7.900	(0.855)	151622	0.40000	0.3613
38 Vinyl Acetate	43	7.997	7.997	(0.865)	176897	0.40000	0.4402
39 2-Butanone	72	8.454	8.454	(0.914)	27357	0.40000	0.4553
40 Hexane	56	8.502	8.502	(0.920)	81327	0.40000	0.3558
41 cis 1,2-Dichloroethene	96	8.906	8.906	(0.963)	71208	0.40000	0.3636
42 Ethyl acetate	43	9.083	9.083	(0.983)	148525	0.40000	0.4057
43 Chloroform	83	9.255	9.255	(1.001)	150668	0.40000	0.3664
44 Tetrahydrofuran	42	9.670	9.670	(1.046)	83230	0.40000	0.4151
45 1,1,1-Trichloroethane	97	10.305	10.305	(1.115)	149414	0.40000	0.3653
46 1,2-Dichloroethane	62	10.401	10.401	(0.911)	107753	0.40000	0.3554
47 1-Butanol	31	10.821	10.821	(0.948)	36532	0.40000	0.3152
48 Benzene	78	10.896	10.896	(0.954)	213022	0.40000	0.3540
49 Cyclohexane	69	10.902	10.902	(0.955)	41076	0.40000	0.3306
50 Carbon Tetrachloride	117	10.923	10.923	(0.957)	147078	0.40000	0.3521
51 ~ 2,3-dimethylpentane	71	11.015	11.015	(0.965)	52130	0.41200	0.3576
52 ~ Thiophene	84	11.160	11.160	(0.977)	128252	0.41600	0.3783
53 2,2,4-trimethylpentane	57	11.649	11.649	(1.020)	451554	0.40000	0.3524
54 Heptane	71	12.010	12.010	(1.052)	78197	0.40000	0.3539
55 1,2-Dichloropropane	63	12.090	12.090	(1.059)	85615	0.40000	0.3768
56 Trichloroethene	130	12.128	12.128	(1.062)	92592	0.40000	0.3248
180 ~ 2-nitropropane	43	12.010	12.010	(1.052)	208788	0.40000	0.000
57 Dibromomethane	93	12.209	12.209	(1.069)	92270	0.40000	0.3518
58 Bromodichloromethane	83	12.349	12.349	(1.081)	157034	0.40000	0.3569
59 1,4-dioxane	88	12.359	12.359	(1.082)	20639	0.40000	0.3342
60 Methyl Methacrylate	41	12.435	12.435	(1.089)	88864	0.40000	0.3816
61 ~ methyl cyclohexane	83	12.897	12.897	(1.130)	136980	0.41600	0.3650
62 4-Methyl-2-pentanone	43	13.274	13.274	(1.163)	147821	0.40000	0.3289

Data File: /var/chem/gcms/mj.i/J082511I.b/jich254.d
Report Date: 26-Aug-2011 12:59

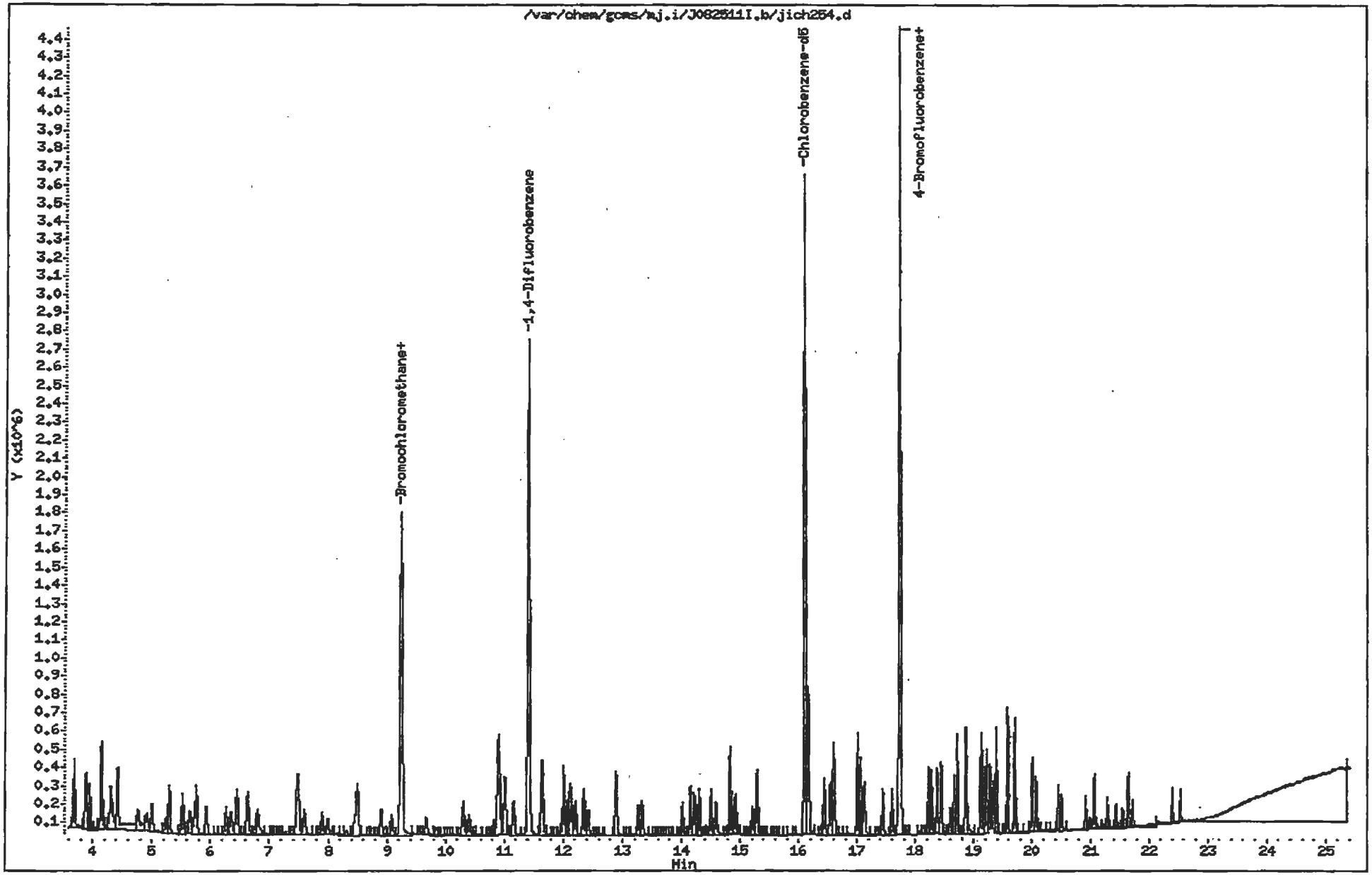
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
	63 cis-1,3-Dichloropropene	75	13.333	13.333	(1.168)	109423	0.40000	0.3706
	64 trans-1,3-Dichloropropene	75	14.022	14.022	(0.870)	102751	0.40000	0.3782
	65 Toluene	91	14.156	14.156	(0.879)	208921	0.40000	0.3839
	66 1,1,2-Trichloroethane	83	14.221	14.221	(0.883)	69998	0.40000	0.3807
	67 ~ 2-methyl thiophene	97	14.307	14.307	(0.888)	188627	0.42000	0.4054
	68 ~ 3-methyl thiophene	97	14.506	14.506	(0.900)	186519	0.41600	0.3994
	69 2-Hexanone	58	14.592	14.592	(0.906)	66094	0.40000	0.3310
	70 Octane	85	14.834	14.834	(0.921)	74128	0.40000	0.3590
	71 Dibromochloromethane	129	14.925	14.925	(0.927)	130043	0.40000	0.3648
	72 1,2-Dibromoethane	107	15.216	15.216	(0.945)	120499	0.40000	0.3806
	73 Tetrachloroethene	129	15.291	15.291	(0.949)	82864	0.40000	0.3639
	74 Chlorobenzene	112	16.163	16.163	(1.003)	165090	0.40000	0.3761
	75 ~ 2,3-dimethylheptane	43	16.174	16.174	(1.004)	329267	0.41600	0.3870
	76 Ethylbenzene	91	16.442	16.442	(1.021)	247385	0.40000	0.3990
	77 ~ 2-ethyl thiophene	97	16.545	16.545	(1.027)	202937	0.41200	0.4078
	78 m&p-Xylene	91	16.604	16.604	(1.031)	377054	0.80000	0.7920
	79 Nonane	57	17.013	17.013	(1.056)	182797	0.40000	0.3808
	80 Bromoform	173	17.050	17.050	(1.058)	112790	0.40000	0.3745
	81 Styrene	104	17.066	17.066	(1.059)	134935	0.40000	0.3886
	82 o-Xylene	91	17.126	17.126	(1.063)	193190	0.40000	0.3902
M	83 Xylene (total)	100				570244	1.20000	1.182
	84 1,1,2,2-Tetrachloroethane	83	17.443	17.443	(1.083)	150052	0.40000	0.3759
	85 1,2,3-Trichloropropane	110	17.599	17.599	(1.093)	34246	0.40000	0.3792
	86 Cumene	105	17.707	17.707	(1.099)	250424	0.40000	0.3897
	87 n-Propylbenzene	120	18.228	18.228	(1.132)	65110	0.40000	0.3879
	88 2-chlorotoluene	126	18.277	18.277	(1.135)	66828	0.40000	0.3802
	89 4-Ethyltoluene	105	18.374	18.374	(1.141)	229515	0.40000	0.3718
	90 1,3,5-Trimethylbenzene	120	18.444	18.444	(1.145)	105296	0.40000	0.3768
	91 Alpha-Methylstyrene	118	18.670	18.670	(1.159)	90152	0.40000	0.3684
	92 Decane	57	18.718	18.718	(1.162)	171817	0.40000	0.3447
	93 tert-butylbenzene	119	18.858	18.858	(1.171)	190476	0.40000	0.3782
	94 1,2,4-Trimethylbenzene	105	18.874	18.874	(1.172)	180557	0.40000	0.3748
	95 sec-butylbenzene	105	19.121	19.121	(1.187)	265833	0.40000	0.3838
	96 1,3-Dichlorobenzene	146	19.143	19.143	(1.188)	131718	0.40000	0.3578
	97 Benzyl Chloride	91	19.213	19.213	(1.193)	150314	0.40000	0.3358
	98 1,4-Dichlorobenzene	146	19.224	19.224	(1.193)	126550	0.40000	0.3510
	99 p-Cymene	119	19.277	19.277	(1.197)	197946	0.40000	0.3675
	100 ~ 1,2,3- Trimethylbenzene	105	19.337	19.337	(1.200)	156320	0.41600	0.3917
	101 ~ n-butylcyclohexane	83	19.390	19.390	(1.204)	181666	0.41200	0.3951
	102 ~ Indane	117	19.579	19.579	(1.215)	174705	0.41200	0.3951
	103 1,2-Dichlorobenzene	146	19.579	19.579	(1.215)	119836	0.40000	0.3592
	104 n-butylbenzene	91	19.702	19.702	(1.223)	189376	0.40000	0.3455
	105 ~ Indene	116	19.708	19.708	(1.223)	126931	0.42000	0.3813
	106 Undecane	57	20.004	20.004	(1.242)	115412	0.40000	0.2931
	107 ~ 1,2-dimethyl-4-ethylenzene	119	20.068	20.068	(1.246)	149116	0.41200	0.3342
	108 ~ 1,2,4,5-tetramethylbenzene	119	20.456	20.456	(1.270)	118828	0.41200	0.2853
	109 ~ 1,2,3,5-tetramethylbenzene	119	20.509	20.509	(1.273)	93870	0.42000	0.3226

Data File: /var/chem/gcms/mj.i/J082511I.b/jich254.d
Report Date: 26-Aug-2011 12:59

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
110 ~ 1,2,3,4-tetramethylbenzene	119	20.924	20.924	(1.299)	90851	0.40800	0.2830
111 Dodecane	57	21.074	21.074	(1.308)	91940	0.40000	0.2770
112 1,2,4-Trichlorobenzene	180	21.300	21.300	(1.322)	48519	0.40000	0.2533
113 Napthalene	128	21.445	21.445	(1.331)	103006	0.40000	0.2590
114 ~ benzo(b) thiophene	134	21.553	21.553	(1.338)	71581	0.40800	0.2768
115 Hexachlorobutadiene	225	21.655	21.655	(1.344)	53105	0.40000	0.2803
116 1,2,3-trichlorobenzene	180	21.725	21.725	(1.349)	41371	0.40000	0.2571
117 ~ 2-Methylnaphthalene	142	22.403	22.403	(1.391)	65485	2.50000	1.764
118 ~ 1-Methylnaphthalene	142	22.543	22.543	(1.399)	65740	2.50000	2.035

Data File: /var/chem/gcms/mj.i/J082511I.b/jich254.d
Date : 25-AUG-2011 19:32
Client ID: STD 0.4
Sample Info: ICAL4,,1,4,,STD 0.4
Purge Volume: 200.0
Column phase: Rtx-5

Instrument: mj.i
Operator: 403648
Column diameter: 0.32



Data File: /var/chem/gcms/mj.i/J082511I.b/jich255.d
Report Date: 26-Aug-2011 13:00

TestAmerica Knoxville

Modified Method TO-14/TO-15

Data file : /var/chem/gcms/mj.i/J082511I.b/jich255.d
Lab Smp Id: ICAL5 Client Smp ID: STD 1.0
Inj Date : 25-AUG-2011 20:24
Operator : 403648 Inst ID: mj.i
Smp Info : ICAL5,,1,5,,STD 1.0
Misc Info : J082511I,TO15,all.sub,,,
Comment :
Method : /var/chem/gcms/mj.i/J082511I.b/TO15.m
Meth Date : 26-Aug-2011 12:59 tajh Quant Type: ISTD
Cal Date : 25-AUG-2011 20:24 Cal File: jich255.d
Als bottle: 3 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: qmidhp01

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Default Calibration Volume
Vo	200.00000	Default Sample Volume

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
* 1 Bromochloromethane	128	9.243	9.243	(1.000)	490327	4.00000	4.000
* 2 1,4-Difluorobenzene	114	11.422	11.422	(1.000)	2356635	4.00000	4.000
* 3 Chlorobenzene-d5	117	16.112	16.112	(1.000)	2046055	4.00000	4.000
$ 4 4-Bromofluorobenzene	95	17.737	17.737	(1.101)	1547671	4.00000	3.985
5 Chlorodifluoromethane	67	3.885	3.885	(0.420)	58098	1.00000	0.9661
6 Propene	41	3.896	3.896	(0.421)	223962	1.00000	0.8934
7 Dichlorodifluoromethane	85	3.955	3.955	(0.428)	556343	1.00000	0.9013
8 Chloromethane	52	4.149	4.149	(0.449)	78382	1.00000	0.9675
9 1,2-Dichlorotetrafluoroethane	135	4.154	4.154	(0.449)	323241	1.00000	0.8952
10 Methanol	31	4.283	4.283	(0.463)	75227	1.00000	1.318
11 ~ acetaldehyde	44	4.310	4.310	(0.466)	215384	5.06000	4.859
12 Vinyl Chloride	62	4.331	4.331	(0.469)	229144	1.00000	0.8932
13 n-Butane	43	4.428	4.428	(0.479)	384174	1.00000	0.9142
14 1,3-Butadiene	54	4.423	4.423	(0.479)	172766	1.00000	0.9000
15 Bromomethane	94	4.767	4.767	(0.516)	165248	1.00000	0.9433

Data File: /var/chem/gcms/mj.i/J082511I.b/jich255.d
Report Date: 26-Aug-2011 13:00

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
16 Chloroethane	64	4.918	4.918	(0.532)	97337	1.00000	0.8699
17 ~ ethanol	31	5.004	5.004	(0.541)	378929	5.22000	5.133
18 Vinyl Bromide	106	5.246	5.246	(0.568)	167130	1.00000	0.8879
19 2-methyl butane	43	5.300	5.300	(0.573)	323767	1.00000	0.8731
20 Trichlorofluoromethane	101	5.531	5.531	(0.598)	456088	1.00000	0.8933
21 Acrolein	56	5.531	5.531	(0.598)	46708	1.00000	1.045
22 Acetonitrile	40	5.590	5.590	(0.605)	69408	1.00000	0.9883
23 Acetone	58	5.649	5.649	(0.611)	91042	1.00000	1.253
24 Isopropyl alcohol	45	5.725	5.725	(0.619)	260197	1.00000	0.9327
25 Pentane	72	5.762	5.762	(0.623)	31032	1.00000	0.8929
26 Ethyl Ether	31	5.929	5.929	(0.641)	272885	1.00000	1.054
27 1,1-Dichloroethene	96	6.273	6.273	(0.679)	154344	1.00000	0.8794
28 tert-butanol	59	6.343	6.343	(0.686)	292615	1.00000	0.8756
29 Acrylonitrile	53	6.365	6.365	(0.689)	114394	1.00000	0.9719
30 1,1,2-Trichlorotrifluoroethane	101	6.456	6.456	(0.699)	322725	1.00000	0.8891
31 Methylene Chloride	84	6.628	6.628	(0.717)	162543	1.00000	0.9288
32 3-Chloropropene	39	6.645	6.645	(0.719)	203930	1.00000	0.8772
33 Carbon Disulfide	76	6.806	6.806	(0.736)	556758	1.00000	0.8962
34 trans-1,2-Dichloroethene	96	7.468	7.468	(0.808)	181764	1.00000	0.9040
35 ~ 2-Methyl Pentane	43	7.495	7.495	(0.811)	596103	1.00000	0.9038
36 Methyl-t-Butyl Ether	73	7.591	7.591	(0.821)	346635	1.00000	1.003
37 1,1-Dichloroethane	63	7.898	7.898	(0.854)	380465	1.00000	0.9100
38 Vinyl Acetate	43	7.995	7.995	(0.865)	411367	1.00000	1.028
39 2-Butanone	72	8.452	8.452	(0.914)	58493	1.00000	0.9772
40 Hexane	56	8.501	8.501	(0.920)	201593	1.00000	0.8852
41 cis 1,2-Dichloroethene	96	8.904	8.904	(0.963)	177113	1.00000	0.9078
42 Ethyl acetate	43	9.082	9.082	(0.983)	347821	1.00000	0.9538
43 Chloroform	83	9.254	9.254	(1.001)	374505	1.00000	0.9142
44 Tetrahydrofuran	42	9.662	9.662	(1.045)	200569	1.00000	1.004
45 1,1,1-Trichloroethane	97	10.308	10.308	(1.115)	375278	1.00000	0.9210
46 1,2-Dichloroethane	62	10.405	10.405	(0.911)	267088	1.00000	0.9065
47 1-Butanol	31	10.814	10.814	(0.947)	94977	1.00000	0.8434
48 Benzene	78	10.894	10.894	(0.954)	511957	1.00000	0.8755
49 Cyclohexane	69	10.905	10.905	(0.955)	102412	1.00000	0.8482
50 Carbon Tetrachloride	117	10.921	10.921	(0.956)	336067	1.00000	0.8280
51 ~ 2,3-dimethylpentane	71	11.018	11.018	(0.965)	129770	1.03000	0.9162
52 ~ Thiophene	84	11.163	11.163	(0.977)	308922	1.04000	0.9379
53 2,2,4-trimethylpentane	57	11.648	11.648	(1.020)	1109289	1.00000	0.8910
54 Heptane	71	12.013	12.013	(1.052)	185086	1.00000	0.8622
55 1,2-Dichloropropane	63	12.089	12.089	(1.058)	200665	1.00000	0.9089
56 Trichloroethene	130	12.132	12.132	(1.062)	243934	1.00000	0.8807
180 ~ 2-nitropropane	43	12.013	12.013	(1.052)	465210	1.00000	0.000
57 Dibromomethane	93	12.207	12.207	(1.069)	225304	1.00000	0.8840
58 Bromodichloromethane	83	12.352	12.352	(1.081)	385639	1.00000	0.9019
59 1,4-dioxane	88	12.358	12.358	(1.082)	56330	1.00000	0.9388
60 Methyl Methacrylate	41	12.428	12.428	(1.088)	205812	1.00000	0.9095
61 ~ methyl cyclohexane	83	12.901	12.901	(1.130)	339672	1.04000	0.9316

Data File: /var/chem/gcms/mj.i/J082511I.b/jich255.d
Report Date: 26-Aug-2011 13:00

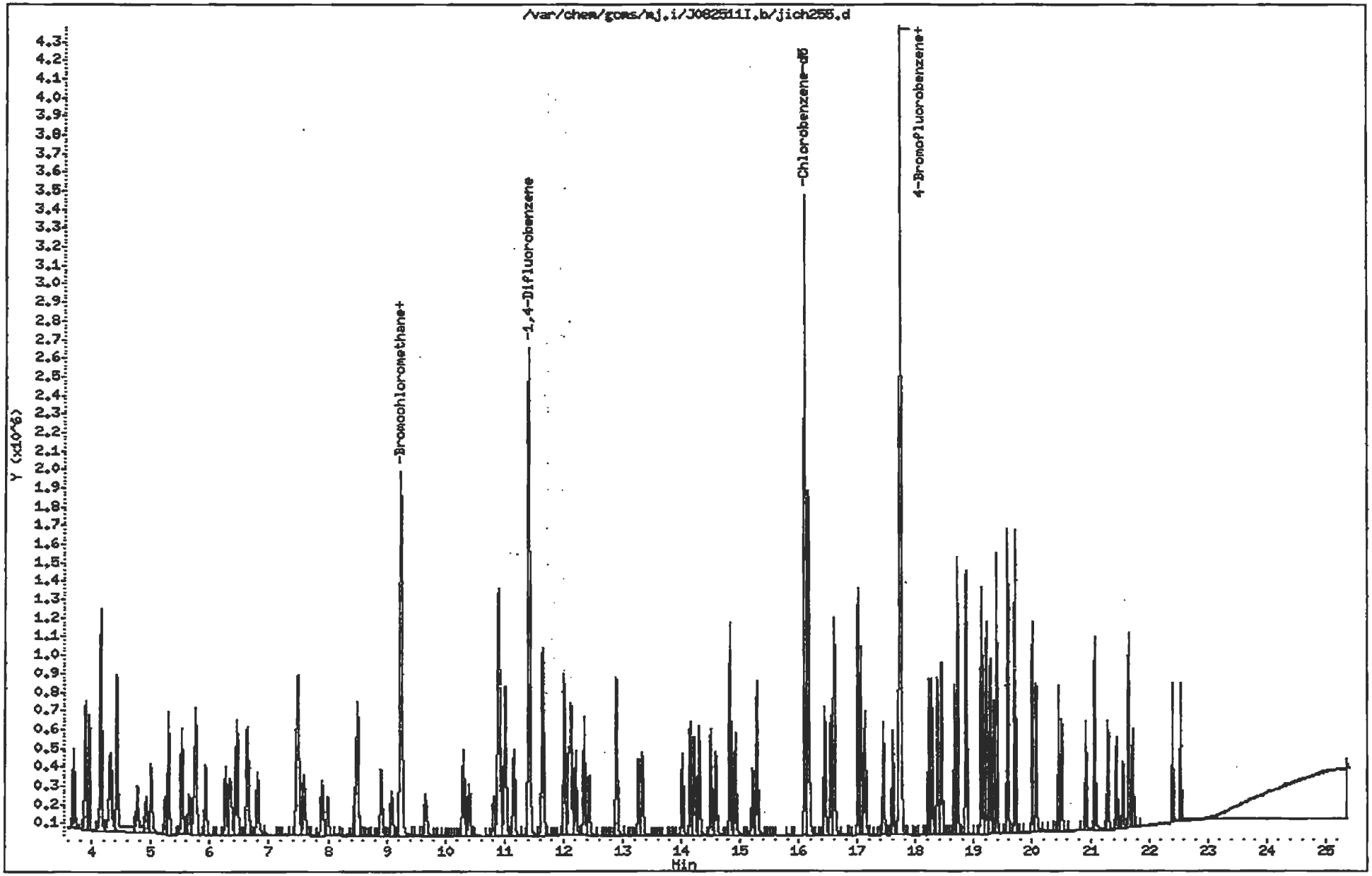
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
62	4-Methyl-2-pentanone	43	13.267	13.267	(1.162)	379270	1.00000	0.8685
63	cis-1,3-Dichloropropene	75	13.337	13.337	(1.168)	260805	1.00000	0.9091
64	trans-1,3-Dichloropropene	75	14.020	14.020	(0.870)	247616	1.00000	0.9503
65	Toluene	91	14.154	14.154	(0.878)	485729	1.00000	0.9306
66	1,1,2-Trichloroethane	83	14.219	14.219	(0.882)	165915	1.00000	0.9407
67	~ 2-methyl thiophene	97	14.305	14.305	(0.888)	432619	1.05000	0.9693
68	~ 3-methyl thiophene	97	14.504	14.504	(0.900)	431476	1.04000	0.9632
69	2-Hexanone	58	14.590	14.590	(0.906)	169315	1.00000	0.8839
70	Octane	85	14.832	14.832	(0.921)	180791	1.00000	0.9129
71	Dibromochloromethane	129	14.924	14.924	(0.926)	320255	1.00000	0.9365
72	1,2-Dibromoethane	107	15.214	15.214	(0.944)	283015	1.00000	0.9318
73	Tetrachloroethene	129	15.295	15.295	(0.949)	190722	1.00000	0.8733
74	Chlorobenzene	112	16.161	16.161	(1.003)	382621	1.00000	0.9088
75	~ 2,3-dimethylheptane	43	16.172	16.172	(1.004)	833893	1.04000	1.022
76	Ethylbenzene	91	16.441	16.441	(1.020)	562611	1.00000	0.9461
77	~ 2-ethyl thiophene	97	16.543	16.543	(1.027)	463773	1.03000	0.9716
78	m&p-Xylene	91	16.602	16.602	(1.030)	862848	2.00000	1.890
79	Nonane	57	17.011	17.011	(1.056)	452986	1.00000	0.9839
80	Bromoform	173	17.054	17.054	(1.058)	276049	1.00000	0.9556
81	Styrene	104	17.065	17.065	(1.059)	324179	1.00000	0.9733
82	o-Xylene	91	17.129	17.129	(1.063)	451494	1.00000	0.9508
M 83	Xylene (total)	100				1314342	3.00000	2.840
84	1,1,2,2-Tetrachloroethane	83	17.441	17.441	(1.082)	363431	1.00000	0.9492
85	1,2,3-Trichloropropane	110	17.603	17.603	(1.092)	81361	1.00000	0.9393
86	Cumene	105	17.710	17.710	(1.099)	589352	1.00000	0.9561
87	n-Propylbenzene	120	18.232	18.232	(1.132)	150742	1.00000	0.9362
88	2-chlorotoluene	126	18.280	18.280	(1.135)	159857	1.00000	0.9482
89	4-Ethyltoluene	105	18.377	18.377	(1.141)	554076	1.00000	0.9368
90	1,3,5-Trimethylbenzene	120	18.447	18.447	(1.145)	264347	1.00000	0.9488
91	Alpha-Methylstyrene	118	18.668	18.668	(1.159)	228512	1.00000	0.9735
92	Decane	57	18.716	18.716	(1.162)	483815	1.00000	1.012
93	tert-butylbenzene	119	18.861	18.861	(1.171)	459959	1.00000	0.9522
94	1,2,4-Trimethylbenzene	105	18.872	18.872	(1.171)	431213	1.00000	0.9332
95	sec-butylbenzene	105	19.125	19.125	(1.187)	642130	1.00000	0.9666
96	1,3-Dichlorobenzene	146	19.141	19.141	(1.188)	325491	1.00000	0.9218
97	Benzyl Chloride	91	19.211	19.211	(1.192)	393060	1.00000	0.9154
98	1,4-Dichlorobenzene	146	19.227	19.227	(1.193)	315018	1.00000	0.9110
99	p-Cymene	119	19.281	19.281	(1.197)	491132	1.00000	0.9506
100	~ 1,2,3- Trimethylbenzene	105	19.335	19.335	(1.200)	374806	1.04000	0.9792
101	~ n-butylcyclohexane	83	19.389	19.389	(1.203)	461172	1.03000	1.046
102	~ Indane	117	19.577	19.577	(1.215)	407120	1.03000	0.9600
103	1,2-Dichlorobenzene	146	19.577	19.577	(1.215)	297950	1.00000	0.9312
104	n-butylbenzene	91	19.706	19.706	(1.223)	494327	1.00000	0.9403
105	~ Indene	116	19.706	19.706	(1.223)	316215	1.05000	0.9904
106	Undecane	57	20.002	20.002	(1.241)	330098	1.00000	0.8740
107	~ 1,2-dimethyl-4-ethylenzene	119	20.072	20.072	(1.246)	400840	1.03000	0.9366
108	~ 1,2,4,5-tetramethylbenzene	119	20.454	20.454	(1.269)	361945	1.03000	0.9059

Data File: /var/chem/gcms/mj.i/J082511I.b/jich255.d
Report Date: 26-Aug-2011 13:00

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
109 ~ 1,2,3,5-tetramethylbenzene	119	20.507	20.507	(1.273)	283078	1.50000	1.014
110 ~ 1,2,3,4-tetramethylbenzene	119	20.922	20.922	(1.298)	288699	1.02000	0.9377
111 Dodecane	57	21.072	21.072	(1.308)	331151	1.00000	1.040
112 1,2,4-Trichlorobenzene	180	21.298	21.298	(1.322)	172010	1.00000	0.9351
113 Napthalene	128	21.444	21.444	(1.331)	363728	1.00000	0.9537
114 ~ benzo(b) thiophene	134	21.551	21.551	(1.338)	233610	1.02000	0.9418
115 Hexachlorobutadiene	225	21.659	21.659	(1.344)	188343	1.00000	1.036
116 1,2,3-trichlorobenzene	180	21.729	21.729	(1.349)	145353	1.00000	0.9418
117 ~ 2-Methylnaphthalene	142	22.401	22.401	(1.390)	263359	6.25000	7.394
118 ~ 1-Methylnaphthalene	142	22.541	22.541	(1.399)	245603	6.25000	7.925

Data File: /var/chem/gcms/mj.i/J082511I.b/jich255.d
Date : 25-AUG-2011 20:24
Client ID: STD 1.0
Sample Info: ICAL5,,1,5,,STD 1.0
Purge Volume: 200.0
Column phase: Rtx-5

Instrument: mj.i
Operator: 403649
Column diameter: 0.32



Data File: /var/chem/gcms/mj.i/J082511I.b/jich256.d
Report Date: 26-Aug-2011 13:00

TestAmerica Knoxville

Modified Method TO-14/TO-15

Data file : /var/chem/gcms/mj.i/J082511I.b/jich256.d
Lab Smp Id: ICAL6 Client Smp ID: STD 2.0
Inj Date : 25-AUG-2011 21:16
Operator : 403648 Inst ID: mj.i
Smp Info : ICAL6,,1,6,,STD 2.0
Misc Info : J082511I,TO15,all.sub,,,
Comment :
Method : /var/chem/gcms/mj.i/J082511I.b/TO15.m
Meth Date : 26-Aug-2011 13:00 tajh Quant Type: ISTD
Cal Date : 25-AUG-2011 21:16 Cal File: jich256.d
Als bottle: 4 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: qmidhp01

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Default Calibration Volume
Vo	200.00000	Default Sample Volume

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
* 1 Bromochloromethane	128	9.248	9.248	(1.000)	494199	4.00000	4.000
* 2 1,4-Difluorobenzene	114	11.421	11.421	(1.000)	2127324	4.00000	4.000
* 3 Chlorobenzene-d5	117	16.112	16.112	(1.000)	1917056	4.00000	4.000
§ 4 4-Bromofluorobenzene	95	17.742	17.742	(1.101)	1491539	4.00000	4.099
5 Chlorodifluoromethane	67	3.884	3.884	(0.420)	107762	2.00000	1.778
6 Propene	41	3.901	3.901	(0.422)	423063	2.00000	1.674
7 Dichlorodifluoromethane	85	3.954	3.954	(0.428)	1051497	2.00000	1.690
8 Chloromethane	52	4.148	4.148	(0.449)	148286	2.00000	1.816
9 1,2-Dichlorotetrafluoroethane	135	4.153	4.153	(0.449)	615038	2.00000	1.690
10 Methanol	31	4.282	4.282	(0.463)	132045	2.00000	2.296
11 ~ acetaldehyde	44	4.309	4.309	(0.466)	338235	10.1200	7.570
12 Vinyl Chloride	62	4.331	4.331	(0.468)	435579	2.00000	1.685
13 n-Butane	43	4.428	4.428	(0.479)	730758	2.00000	1.725
14 1,3-Butadiene	54	4.428	4.428	(0.479)	331458	2.00000	1.713
15 Bromomethane	94	4.772	4.772	(0.516)	324151	2.00000	1.836

Data File: /var/chem/gcms/mj.i/J082511I.b/jich256.d
Report Date: 26-Aug-2011 13:00

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
16 Chloroethane	64	4.923	4.923	(0.532)	191047	2.00000	1.694
17 ~ ethanol	31	5.003	5.003	(0.541)	694563	10.4400	9.334
18 Vinyl Bromide	106	5.245	5.245	(0.567)	322068	2.00000	1.698
19 2-methyl butane	43	5.299	5.299	(0.573)	620221	2.00000	1.660
20 Trichlorofluoromethane	101	5.530	5.530	(0.598)	874937	2.00000	1.700
21 Acrolein	56	5.530	5.530	(0.598)	79578	2.00000	1.766
22 Acetonitrile	40	5.595	5.595	(0.605)	128365	2.00000	1.813
23 Acetone	58	5.649	5.649	(0.611)	154682	2.00000	2.112
24 Isopropyl alcohol	45	5.724	5.724	(0.619)	474207	2.00000	1.686
25 Pentane	72	5.767	5.767	(0.624)	59544	2.00000	1.700
26 Ethyl Ether	31	5.929	5.929	(0.641)	476221	2.00000	1.826
27 1,1-Dichloroethene	96	6.273	6.273	(0.678)	298491	2.00000	1.687
28 tert-butanol	59	6.343	6.343	(0.686)	539679	2.00000	1.602
29 Acrylonitrile	53	6.364	6.364	(0.688)	210610	2.00000	1.775
30 1,1,2-Trichlorotrifluoroethane	101	6.456	6.456	(0.698)	620657	2.00000	1.696
31 Methylene Chloride	84	6.633	6.633	(0.717)	297342	2.00000	1.686
32 3-Chloropropene	39	6.649	6.649	(0.719)	392756	2.00000	1.676
33 Carbon Disulfide	76	6.805	6.805	(0.736)	1073945	2.00000	1.715
34 trans-1,2-Dichloroethene	96	7.472	7.472	(0.808)	349252	2.00000	1.723
35 ~ 2-Methyl Pentane	43	7.494	7.494	(0.810)	1133592	2.00000	1.705
36 Methyl-t-Butyl Ether	73	7.591	7.591	(0.821)	621789	2.00000	1.785
37 1,1-Dichloroethane	63	7.897	7.897	(0.854)	715356	2.00000	1.698
38 Vinyl Acetate	43	8.000	8.000	(0.865)	752653	2.00000	1.866
39 2-Butanone	72	8.452	8.452	(0.914)	107472	2.00000	1.781
40 Hexane	56	8.505	8.505	(0.920)	379263	2.00000	1.652
41 cis 1,2-Dichloroethene	96	8.909	8.909	(0.963)	340401	2.00000	1.731
42 Ethyl acetate	43	9.081	9.081	(0.982)	659664	2.00000	1.795
43 Chloroform	83	9.258	9.258	(1.001)	690966	2.00000	1.674
44 Tetrahydrofuran	42	9.662	9.662	(1.045)	365753	2.00000	1.817
45 1,1,1-Trichloroethane	97	10.307	10.307	(1.115)	707325	2.00000	1.722
46 1,2-Dichloroethane	62	10.404	10.404	(0.911)	495672	2.00000	1.864
47 1-Butanol	31	10.813	10.813	(0.947)	174377	2.00000	1.715
48 Benzene	78	10.899	10.899	(0.954)	944159	2.00000	1.789
49 Cyclohexane	69	10.905	10.905	(0.955)	196042	2.00000	1.799
50 Carbon Tetrachloride	117	10.926	10.926	(0.957)	556262	2.00000	1.518
51 ~ 2,3-dimethylpentane	71	11.018	11.018	(0.965)	242077	2.06000	1.893
52 ~ Thiophene	84	11.163	11.163	(0.977)	573985	2.08000	1.930
53 2,2,4-trimethylpentane	57	11.647	11.647	(1.020)	2002974	2.00000	1.782
54 Heptane	71	12.013	12.013	(1.052)	342306	2.00000	1.766
55 1,2-Dichloropropane	63	12.088	12.088	(1.058)	365161	2.00000	1.832
56 Trichloroethene	130	12.131	12.131	(1.062)	453762	2.00000	1.815
180 ~ 2-nitropropane	43	12.013	12.013	(1.052)	863780	2.00000	0.000
57 Dibromomethane	93	12.212	12.212	(1.069)	416790	2.00000	1.812
58 Bromodichloromethane	83	12.352	12.352	(1.081)	701693	2.00000	1.818
59 1,4-dioxane	88	12.352	12.352	(1.081)	107721	2.00000	1.989
60 Methyl Methacrylate	41	12.432	12.432	(1.089)	396354	2.00000	1.940
61 ~ methyl cyclohexane	83	12.900	12.900	(1.130)	625512	2.08000	1.900

Data File: /var/chem/gcms/mj.i/J082511I.b/jich256.d
Report Date: 26-Aug-2011 13:00

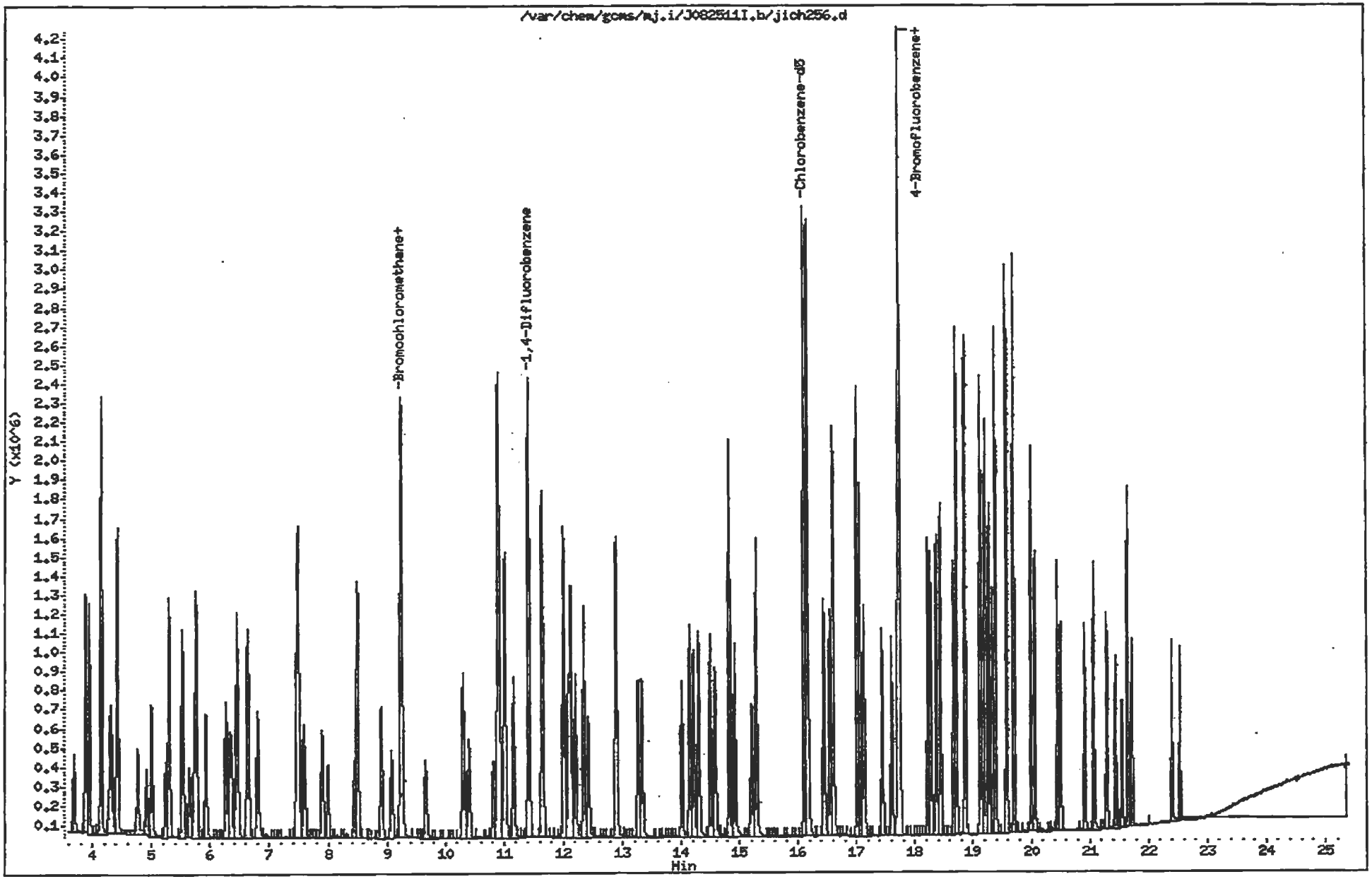
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
62	4-Methyl-2-pentanone	43	13.272	13.272	(1.162)	732127	2.00000	1.857
63	cis-1,3-Dichloropropene	75	13.336	13.336	(1.168)	488663	2.00000	1.887
64	trans-1,3-Dichloropropene	75	14.019	14.019	(0.870)	464450	2.00000	1.902
65	Toluene	91	14.159	14.159	(0.879)	890526	2.00000	1.821
66	1,1,2-Trichloroethane	83	14.224	14.224	(0.883)	298636	2.00000	1.807
67	~ 2-methyl thiophene	97	14.310	14.310	(0.888)	798307	2.10000	1.909
68	~ 3-methyl thiophene	97	14.509	14.509	(0.900)	791517	2.08000	1.886
69	2-Hexanone	58	14.590	14.590	(0.906)	333714	2.00000	1.859
70	Octane	85	14.832	14.832	(0.921)	328483	2.00000	1.770
71	Dibromochloromethane	129	14.928	14.928	(0.927)	589366	2.00000	1.839
72	1,2-Dibromoethane	107	15.219	15.219	(0.945)	526097	2.00000	1.849
73	Tetrachloroethene	129	15.294	15.294	(0.949)	356058	2.00000	1.740
74	Chlorobenzene	112	16.160	16.160	(1.003)	704676	2.00000	1.786
75	~ 2,3-dimethylheptane	43	16.171	16.171	(1.004)	1472196	2.08000	1.925
76	Ethylbenzene	91	16.445	16.445	(1.021)	1017554	2.00000	1.826
77	~ 2-ethyl thiophene	97	16.548	16.548	(1.027)	842925	2.06000	1.885
78	m&p-Xylene	91	16.607	16.607	(1.031)	1576178	4.00000	3.684
79	Nonane	57	17.016	17.016	(1.056)	798729	2.00000	1.852
80	Bromoform	173	17.053	17.053	(1.058)	502346	2.00000	1.856
81	Styrene	104	17.064	17.064	(1.059)	585087	2.00000	1.875
82	o-Xylene	91	17.129	17.129	(1.063)	806349	2.00000	1.812
M 83	Xylene (total)	100				2382527	6.00000	5.496
84	1,1,2,2-Tetrachloroethane	83	17.441	17.441	(1.082)	658683	2.00000	1.836
85	1,2,3-Trichloropropane	110	17.602	17.602	(1.092)	146614	2.00000	1.806
86	Cumene	105	17.710	17.710	(1.099)	1049663	2.00000	1.817
87	n-Propylbenzene	120	18.231	18.231	(1.132)	277162	2.00000	1.837
88	2-chlorotoluene	126	18.280	18.280	(1.135)	289888	2.00000	1.835
89	4-Ethyltoluene	105	18.377	18.377	(1.141)	1016570	2.00000	1.832
90	1,3,5-Trimethylbenzene	120	18.447	18.447	(1.145)	466089	2.00000	1.856
91	Alpha-Methylstyrene	118	18.667	18.667	(1.159)	425646	2.00000	1.935
92	Decane	57	18.721	18.721	(1.162)	851910	2.00000	1.902
93	tert-butylbenzene	119	18.861	18.861	(1.171)	830953	2.00000	1.836
94	1,2,4-Trimethylbenzene	105	18.872	18.872	(1.171)	795745	2.00000	1.838
95	sec-butylbenzene	105	19.124	19.124	(1.187)	1160811	2.00000	1.865
96	1,3-Dichlorobenzene	146	19.141	19.141	(1.188)	599875	2.00000	1.813
97	Benzyl Chloride	91	19.210	19.210	(1.192)	754172	2.00000	1.874
98	1,4-Dichlorobenzene	146	19.227	19.227	(1.193)	585121	2.00000	1.805
99	p-Cymene	119	19.280	19.280	(1.197)	894796	2.00000	1.848
100	~ 1,2,3- Trimethylbenzene	105	19.334	19.334	(1.200)	685076	2.08000	1.910
101	~ n-butylcyclohexane	83	19.388	19.388	(1.203)	807793	2.06000	1.955
102	~ Indane	117	19.582	19.582	(1.215)	735670	2.06000	1.852
103	1,2-Dichlorobenzene	146	19.582	19.582	(1.215)	540616	2.00000	1.803
104	n-butylbenzene	91	19.705	19.705	(1.223)	908822	2.00000	1.845
105	~ Indene	116	19.705	19.705	(1.223)	579357	2.10000	1.937
106	Undecane	57	20.007	20.007	(1.242)	613316	2.00000	1.733
107	~ 1,2-dimethyl-4-ethylenzene	119	20.071	20.071	(1.246)	740103	2.06000	1.845
108	~ 1,2,4,5-tetramethylbenzene	119	20.453	20.453	(1.269)	676331	2.06000	1.807

Data File: /var/chem/gcms/mj.i/J082511I.b/jich256.d
Report Date: 26-Aug-2011 13:00

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
109 ~ 1,2,3,5-tetramethylbenzene	119	20.512	20.512	(1.273)	537419	2.10000	2.055
110 ~ 1,2,3,4-tetramethylbenzene	119	20.921	20.921	(1.298)	540942	2.04000	1.875
111 Dodecane	57	21.077	21.077	(1.308)	441314	2.00000	1.480
112 1,2,4-Trichlorobenzene	180	21.298	21.298	(1.322)	320486	2.00000	1.861
113 Napthalene	128	21.448	21.448	(1.331)	669713	2.00000	1.874
114 ~ benzo(b) thiophene	134	21.556	21.556	(1.338)	452949	2.04000	1.949
115 Hexachlorobutadiene	225	21.658	21.658	(1.344)	326099	2.00000	1.916
116 1,2,3-trichlorobenzene	180	21.728	21.728	(1.349)	264967	2.00000	1.832
117 ~ 2-Methylnaphthalene	142	22.406	22.406	(1.391)	330313	12.5000	9.898
118 ~ 1-Methylnaphthalene	142	22.540	22.540	(1.399)	285785	12.5000	9.842

Data File: /var/chem/gcms/mj.i/J082511I.b/jich256.d
Date : 25-AUG-2011 21:16
Client ID: STD 2.0
Sample Info: ICAL6,,1,6,,STD 2.0
Purge Volume: 200.0
Column phase: Rtx-5

Instrument: mj.i
Operator: 403648
Column diameter: 0.32



Data File: /var/chem/gcms/mj.i/J082511I.b/jich257.d
Report Date: 26-Aug-2011 13:00

TestAmerica Knoxville

Modified Method TO-14/TO-15

Data file : /var/chem/gcms/mj.i/J082511I.b/jich257.d
Lab Smp Id: ICAL7 Client Smp ID: STD 4
Inj Date : 25-AUG-2011 22:07
Operator : 403648 Inst ID: mj.i
Smp Info : ICAL7,,1,7,,STD 4
Misc Info : J082511I,TO15,all.sub,,,
Comment :
Method : /var/chem/gcms/mj.i/J082511I.b/TO15.m
Meth Date : 26-Aug-2011 13:00 tajh Quant Type: ISTD
Cal Date : 25-AUG-2011 22:07 Cal File: jich257.d
Als bottle: 5 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: qmidhp01

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Default Calibration Volume
Vo	200.00000	Default Sample Volume

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
* 1 Bromochloromethane	128	9.248	9.248	(1.000)	503213	4.00000	4.000
* 2 1,4-Difluorobenzene	114	11.422	11.422	(1.000)	2274040	4.00000	4.000
* 3 Chlorobenzene-d5	117	16.113	16.113	(1.000)	2019520	4.00000	4.000
$ 4 4-Bromofluorobenzene	95	17.737	17.737	(1.101)	1550536	4.00000	4.045
5 Chlorodifluoromethane	67	3.885	3.885	(0.420)	217681	4.00000	3.527
6 Propene	41	3.896	3.896	(0.421)	859593	4.00000	3.341
7 Dichlorodifluoromethane	85	3.955	3.955	(0.428)	2126423	4.00000	3.357
8 Chloromethane	52	4.149	4.149	(0.449)	302170	4.00000	3.634
9 1,2-Dichlorotetrafluoroethane	135	4.154	4.154	(0.449)	1256435	4.00000	3.391
10 Methanol	31	4.283	4.283	(0.463)	226800	4.00000	3.873
11 - acetaldehyde	44	4.310	4.310	(0.466)	705546	20.2400	15.51
12 Vinyl Chloride	62	4.332	4.332	(0.468)	909643	4.00000	3.455
13 n-Butane	43	4.428	4.428	(0.479)	1517862	4.00000	3.519
14 1,3-Butadiene	54	4.428	4.428	(0.479)	694080	4.00000	3.523
15 Bromomethane	94	4.773	4.773	(0.516)	660250	4.00000	3.672

Data File: /var/chem/gcms/mj.i/J082511I.b/jich257.d
Report Date: 26-Aug-2011 13:00

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
16 Chloroethane	64	4.923	4.923	(0.532)	391707	4.00000	3.411
17 ~ ethanol	31	5.009	5.009	(0.542)	1407192	20.8800	18.57
18 Vinyl Bromide	106	5.246	5.246	(0.567)	665066	4.00000	3.443
19 2-methyl butane	43	5.300	5.300	(0.573)	1267060	4.00000	3.330
20 Trichlorofluoromethane	101	5.531	5.531	(0.598)	1801383	4.00000	3.438
21 Acrolein	56	5.531	5.531	(0.598)	178916	4.00000	3.899
22 Acetonitrile	40	5.596	5.596	(0.605)	270163	4.00000	3.748
23 Acetone	58	5.650	5.650	(0.611)	295456	4.00000	3.962
24 Isopropyl alcohol	45	5.725	5.725	(0.619)	987534	4.00000	3.449
25 Pentane	72	5.768	5.768	(0.624)	123468	4.00000	3.462
26 Ethyl Ether	31	5.929	5.929	(0.641)	1035436	4.00000	3.898
27 1,1-Dichloroethene	96	6.274	6.274	(0.678)	613858	4.00000	3.408
28 tert-butanol	59	6.343	6.343	(0.686)	1147326	4.00000	3.345
29 Acrylonitrile	53	6.365	6.365	(0.688)	464576	4.00000	3.846
30 1,1,2-Trichlorotrifluoroethane	101	6.456	6.456	(0.698)	1292082	4.00000	3.468
31 Methylene Chloride	84	6.629	6.629	(0.717)	600292	4.00000	3.342
32 3-Chloropropene	39	6.650	6.650	(0.719)	847457	4.00000	3.552
33 Carbon Disulfide	76	6.811	6.811	(0.736)	2218320	4.00000	3.479
34 trans-1,2-Dichloroethene	96	7.473	7.473	(0.808)	724629	4.00000	3.512
35 ~ 2-Methyl Pentane	43	7.495	7.495	(0.810)	2340612	4.00000	3.458
36 Methyl-t-Butyl Ether	73	7.591	7.591	(0.821)	1331354	4.00000	3.754
37 1,1-Dichloroethane	63	7.904	7.904	(0.855)	1459550	4.00000	3.402
38 Vinyl Acetate	43	8.000	8.000	(0.865)	1643373	4.00000	4.000
39 2-Butanone	72	8.452	8.452	(0.914)	219526	4.00000	3.573
40 Hexane	56	8.506	8.506	(0.920)	774837	4.00000	3.315
41 cis 1,2-Dichloroethene	96	8.909	8.909	(0.963)	686194	4.00000	3.427
42 Ethyl acetate	43	9.082	9.082	(0.982)	1344767	4.00000	3.593
43 Chloroform	83	9.259	9.259	(1.001)	1394104	4.00000	3.316
44 Tetrahydrofuran	42	9.657	9.657	(1.044)	765855	4.00000	3.736
45 1,1,1-Trichloroethane	97	10.308	10.308	(1.115)	1427809	4.00000	3.414
46 1,2-Dichloroethane	62	10.405	10.405	(0.911)	1026991	4.00000	3.612
47 1-Butanol	31	10.808	10.808	(0.946)	364581	4.00000	3.355
48 Benzene	78	10.900	10.900	(0.954)	1970371	4.00000	3.492
49 Cyclohexane	69	10.905	10.905	(0.955)	397868	4.00000	3.415
50 Carbon Tetrachloride	117	10.927	10.927	(0.957)	1487931	4.00000	3.799
51 ~ 2,3-dimethylpentane	71	11.018	11.018	(0.965)	480785	4.12000	3.518
52 ~ Thiophene	84	11.163	11.163	(0.977)	1163327	4.16000	3.660
53 2,2,4-trimethylpentane	57	11.648	11.648	(1.020)	4022298	4.00000	3.348
54 Heptane	71	12.013	12.013	(1.052)	693573	4.00000	3.348
55 1,2-Dichloropropane	63	12.094	12.094	(1.059)	776385	4.00000	3.644
56 Trichloroethene	130	12.132	12.132	(1.062)	907846	4.00000	3.397
180 ~ 2-nitropropane	43	12.013	12.013	(1.052)	1747670	4.00000	0.000
57 Dibromomethane	93	12.212	12.212	(1.069)	842035	4.00000	3.424
58 Bromodichloromethane	83	12.352	12.352	(1.081)	1475922	4.00000	3.577
59 1,4-dioxane	88	12.352	12.352	(1.081)	205149	4.00000	3.543
60 Methyl Methacrylate	41	12.433	12.433	(1.089)	834660	4.00000	3.822
61 ~ methyl cyclohexane	83	12.901	12.901	(1.130)	1261179	4.16000	3.585

Data File: /var/chem/gcms/mj.i/J082511I.b/jich257.d
Report Date: 26-Aug-2011 13:00

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	ON-COL (ppb(v/v))
62	4-Methyl-2-pentanone	43	13.267	13.267	(1.162)	1460316	4.00000	3.465
63	cis-1,3-Dichloropropene	75	13.337	13.337	(1.168)	1041097	4.00000	3.761
64	trans-1,3-Dichloropropene	75	14.025	14.025	(0.870)	992931	4.00000	3.861
65	Toluene	91	14.160	14.160	(0.879)	1937664	4.00000	3.761
66	1,1,2-Trichloroethane	83	14.224	14.224	(0.883)	641544	4.00000	3.685
67	~ 2-methyl thiophene	97	14.310	14.310	(0.888)	1724675	4.20000	3.915
68	~ 3-methyl thiophene	97	14.509	14.509	(0.900)	1703907	4.16000	3.854
69	2-Hexanone	58	14.590	14.590	(0.906)	688561	4.00000	3.642
70	Octane	85	14.832	14.832	(0.921)	705969	4.00000	3.612
71	Dibromochloromethane	129	14.929	14.929	(0.927)	1318935	4.00000	3.908
72	1,2-Dibromoethane	107	15.220	15.220	(0.945)	1111226	4.00000	3.707
73	Tetrachloroethene	129	15.295	15.295	(0.949)	726012	4.00000	3.368
74	Chlorobenzene	112	16.161	16.161	(1.003)	1487770	4.00000	3.580
75	~ 2,3-dimethylheptane	43	16.172	16.172	(1.004)	3098258	4.16000	3.846
76	Ethylbenzene	91	16.446	16.446	(1.021)	2217003	4.00000	3.777
77	~ 2-ethyl thiophene	97	16.548	16.548	(1.027)	1832966	4.12000	3.890
78	m&p-Xylene	91	16.607	16.607	(1.031)	3429253	8.00000	7.609
79	Nonane	57	17.011	17.011	(1.056)	1745554	4.00000	3.841
80	Bromoform	173	17.054	17.054	(1.058)	1174866	4.00000	4.120
81	Styrene	104	17.065	17.065	(1.059)	1312210	4.00000	3.992
82	o-Xylene	91	17.129	17.129	(1.063)	1766906	4.00000	3.770
M 83	Xylene (total)	100				5196159	12.0000	11.38
84	1,1,2,2-Tetrachloroethane	83	17.441	17.441	(1.082)	1392469	4.00000	3.685
85	1,2,3-Trichloropropane	110	17.603	17.603	(1.092)	309344	4.00000	3.618
86	Cumene	105	17.710	17.710	(1.099)	2296059	4.00000	3.774
87	n-Propylbenzene	120	18.232	18.232	(1.132)	597440	4.00000	3.759
88	2-chlorotoluene	126	18.280	18.280	(1.135)	616840	4.00000	3.707
89	4-Ethyltoluene	105	18.377	18.377	(1.141)	2159126	4.00000	3.695
90	1,3,5-Trimethylbenzene	120	18.447	18.447	(1.145)	993307	4.00000	3.754
91	Alpha-Methylstyrene	118	18.668	18.668	(1.159)	909856	4.00000	3.927
92	Decane	57	18.722	18.722	(1.162)	1945522	4.00000	4.122
93	tert-butylbenzene	119	18.861	18.861	(1.171)	1796502	4.00000	3.768
94	1,2,4-Trimethylbenzene	105	18.872	18.872	(1.171)	1697637	4.00000	3.722
95	sec-butylbenzene	105	19.125	19.125	(1.187)	2482248	4.00000	3.786
96	1,3-Dichlorobenzene	146	19.141	19.141	(1.188)	1291972	4.00000	3.707
97	Benzyl Chloride	91	19.211	19.211	(1.192)	1618686	4.00000	3.819
98	1,4-Dichlorobenzene	146	19.227	19.227	(1.193)	1258681	4.00000	3.688
99	p-Cymene	119	19.281	19.281	(1.197)	1897847	4.00000	3.722
100	~ 1,2,3- Trimethylbenzene	105	19.335	19.335	(1.200)	1420508	4.16000	3.760
101	~ n-butylcyclohexane	83	19.389	19.389	(1.203)	1763296	4.12000	4.051
102	~ Indane	117	19.582	19.582	(1.215)	1553482	4.12000	3.711
103	1,2-Dichlorobenzene	146	19.582	19.582	(1.215)	1157295	4.00000	3.665
104	n-butylbenzene	91	19.706	19.706	(1.223)	1925899	4.00000	3.712
105	~ Indene	116	19.706	19.706	(1.223)	1221128	4.20000	3.875
106	Undecane	57	20.002	20.002	(1.241)	1468826	4.00000	3.940
107	~ 1,2-dimethyl-4-ethylenzene	119	20.072	20.072	(1.246)	1571477	4.12000	3.720
108	~ 1,2,4,5-tetramethylbenzene	119	20.454	20.454	(1.269)	1466047	4.12000	3.718

Data File: /var/chem/gcms/mj.i/J082511I.b/jich257.d
Report Date: 26-Aug-2011 13:00

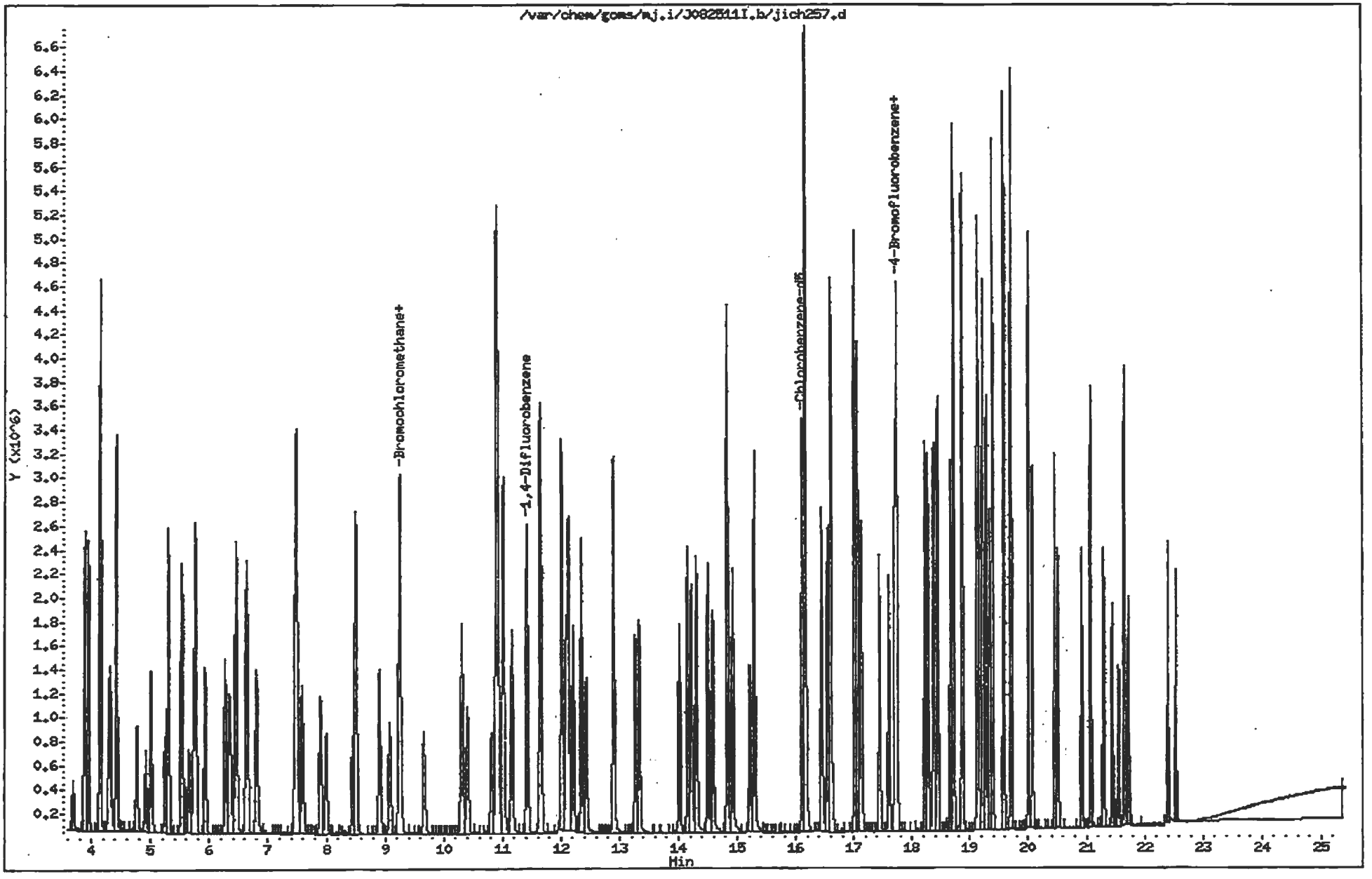
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
109 ~ 1,2,3,5-tetramethylbenzene	119	20.508	20.508	(1.273)	1137548	4.20000	4.130
110 ~ 1,2,3,4-tetramethylbenzene	119	20.922	20.922	(1.298)	1158432	4.08000	3.812
111 Dodecane	57	21.072	21.072	(1.308)	1177248	4.00000	3.747
112 1,2,4-Trichlorobenzene	180	21.298	21.298	(1.322)	681661	4.00000	3.758
113 Napthalene	128	21.444	21.444	(1.331)	1381772	4.00000	3.670
114 ~ benzo(b) thiophene	134	21.551	21.551	(1.338)	901063	4.08000	3.680
115 Hexachlorobutadiene	225	21.659	21.659	(1.344)	712838	4.00000	3.975
116 1,2,3-trichlorobenzene	180	21.729	21.729	(1.349)	521008	4.00000	3.420
117 ~ 2-Methylnaphthalene	142	22.401	22.401	(1.390)	799412	25.0000	22.74(A)
118 ~ 1-Methylnaphthalene	142	22.541	22.541	(1.399)	647966	25.0000	21.18(A)

QC Flag Legend

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

Data File: /var/chem/gcms/mj.i/J082511I.b/jich257.d
Date : 25-AUG-2011 22:07
Client ID: STD 4
Sample Info: ICAL7,,1,7,,STD 4
Purge Volume: 200.0
Column phase: Rtx-5

Instrument: mj.i
Operator: 403648
Column diameter: 0.32



Data File: /var/chem/gcms/mj.i/J082511I.b/jich258.d
Report Date: 26-Aug-2011 13:00

TestAmerica Knoxville

Modified Method TO-14/TO-15

Data file : /var/chem/gcms/mj.i/J082511I.b/jich258.d
Lab Smp Id: ICAL8 Client Smp ID: STD 8
Inj Date : 25-AUG-2011 22:58
Operator : 403648 Inst ID: mj.i
Smp Info : ICAL8,,1,8,,STD 8
Misc Info : J082511I,TO15,all.sub,,,
Comment :
Method : /var/chem/gcms/mj.i/J082511I.b/TO15.m
Meth Date : 26-Aug-2011 13:00 tajh Quant Type: ISTD
Cal Date : 25-AUG-2011 22:58 Cal File: jich258.d
Als bottle: 6 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: qmidhp01

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Default Calibration Volume
Vo	200.00000	Default Sample Volume

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
* 1 Bromochloromethane	128	9.249	9.249	(1.000)	480934	4.00000	4.000
* 2 1,4-Difluorobenzene	114	11.423	11.423	(1.000)	2105292	4.00000	4.000
* 3 Chlorobenzene-d5	117	16.114	16.114	(1.000)	1959376	4.00000	4.000
$ 4 4-Bromofluorobenzene	95	17.738	17.738	(1.101)	1531968	4.00000	4.119
5 Chlorodifluoromethane	67	3.886	3.886	(0.420)	434382	8.00000	7.364
6 Propene	41	3.897	3.897	(0.421)	1691339	8.00000	6.878
7 Dichlorodifluoromethane	85	3.956	3.956	(0.428)	4152666	8.00000	6.859
8 Chloromethane	52	4.150	4.150	(0.449)	577247	8.00000	7.264
9 1,2-Dichlorotetrafluoroethane	135	4.155	4.155	(0.449)	2489793	8.00000	7.030
10 Methanol	31	4.284	4.284	(0.463)	357938	8.00000	6.396
11 ~ acetaldehyde	44	4.311	4.311	(0.466)	1202352	40.4800	27.65
12 Vinyl Chloride	62	4.333	4.333	(0.468)	1736848	8.00000	6.902
13 n-Butane	43	4.429	4.429	(0.479)	2789447	8.00000	6.767
14 1,3-Butadiene	54	4.429	4.429	(0.479)	1313801	8.00000	6.978
15 Bromomethane	94	4.774	4.774	(0.516)	1277916	8.00000	7.437

Data File: /var/chem/gcms/mj.i/J082511I.b/jich258.d
Report Date: 26-Aug-2011 13:00

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	ON-COL (ppb(v/v))
16	Chloroethane	64	4.924	4.924	(0.532)	765072	8.00000	6.971
17	~ ethanol	31	5.010	5.010	(0.542)	2505564	41.7600	34.60
18	Vinyl Bromide	106	5.247	5.247	(0.567)	1307295	8.00000	7.081
19	2-methyl butane	43	5.301	5.301	(0.573)	2479238	8.00000	6.817
20	Trichlorofluoromethane	101	5.532	5.532	(0.598)	3520022	8.00000	7.029
21	Acrolein	56	5.532	5.532	(0.598)	317293	8.00000	7.236
22	Acetonitrile	40	5.597	5.597	(0.605)	480408	8.00000	6.974
23	Acetone	58	5.651	5.651	(0.611)	463084	8.00000	6.498
24	Isopropyl alcohol	45	5.731	5.731	(0.620)	1852251	8.00000	6.769
25	Pentane	72	5.769	5.769	(0.624)	241840	8.00000	7.095
26	Ethyl Ether	31	5.930	5.930	(0.641)	1800533	8.00000	7.093
27	1,1-Dichloroethene	96	6.275	6.275	(0.678)	1200632	8.00000	6.974
28	tert-butanol	59	6.345	6.345	(0.686)	2198325	8.00000	6.707
29	Acrylonitrile	53	6.366	6.366	(0.688)	840425	8.00000	7.280
30	1,1,2-Trichlorotrifluoroethane	101	6.457	6.457	(0.698)	2507375	8.00000	7.042
31	Methylene Chloride	84	6.635	6.635	(0.717)	1145695	8.00000	6.675
32	3-Chloropropene	39	6.651	6.651	(0.719)	1627393	8.00000	7.137
33	Carbon Disulfide	76	6.813	6.813	(0.737)	4273094	8.00000	7.012
34	trans-1,2-Dichloroethene	96	7.474	7.474	(0.808)	1415920	8.00000	7.180
35	~ 2-Methyl Pentane	43	7.496	7.496	(0.810)	4522866	8.00000	6.991
36	Methyl-t-Butyl Ether	73	7.593	7.593	(0.821)	2366135	8.00000	6.980
37	1,1-Dichloroethane	63	7.905	7.905	(0.855)	2750120	8.00000	6.706
38	Vinyl Acetate	43	8.001	8.001	(0.865)	2851946	8.00000	7.264
39	2-Butanone	72	8.453	8.453	(0.914)	404701	8.00000	6.893
40	Hexane	56	8.507	8.507	(0.920)	1501720	8.00000	6.723
41	cis 1,2-Dichloroethene	96	8.911	8.911	(0.963)	1311456	8.00000	6.853
42	Ethyl acetate	43	9.083	9.083	(0.982)	2487925	8.00000	6.955
43	Chloroform	83	9.260	9.260	(1.001)	2581887	8.00000	6.426
44	Tetrahydrofuran	42	9.658	9.658	(1.044)	1366640	8.00000	6.976
45	1,1,1-Trichloroethane	97	10.309	10.309	(1.115)	2614850	8.00000	6.543
46	1,2-Dichloroethane	62	10.411	10.411	(0.911)	1887556	8.00000	7.171
47	1-Butanol	31	10.809	10.809	(0.946)	695179	8.00000	6.910
48	Benzene	78	10.901	10.901	(0.954)	3652284	8.00000	6.992
49	Cyclohexane	69	10.906	10.906	(0.955)	744037	8.00000	6.898
50	Carbon Tetrachloride	117	10.928	10.928	(0.957)	2765622	8.00000	7.627
51	~ 2,3-dimethylpentane	71	11.025	11.025	(0.965)	889655	8.24000	7.031
52	~ Thiophene	84	11.170	11.170	(0.978)	2117862	8.32000	7.198
53	2,2,4-trimethylpentane	57	11.649	11.649	(1.020)	7341317	8.00000	6.601
54	Heptane	71	12.014	12.014	(1.052)	1292478	8.00000	6.739
55	1,2-Dichloropropane	63	12.095	12.095	(1.059)	1426092	8.00000	7.231
56	Trichloroethene	130	12.133	12.133	(1.062)	1702291	8.00000	6.880
180	~ 2-nitropropane	43	12.014	12.014	(1.052)	3236982	8.00000	0.000
57	Dibromomethane	93	12.214	12.214	(1.069)	1545973	8.00000	6.790
58	Bromodichloromethane	83	12.353	12.353	(1.081)	2738393	8.00000	7.169
59	1,4-dioxane	88	12.353	12.353	(1.081)	385284	8.00000	7.188
60	Methyl Methacrylate	41	12.434	12.434	(1.089)	1566371	8.00000	7.748
61	~ methyl cyclohexane	83	12.902	12.902	(1.129)	2288547	8.32000	7.026

Data File: /var/chem/gcms/mj.i/J082511I.b/jich258.d
Report Date: 26-Aug-2011 13:00

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	ON-COL (ppb(v/v))
62	4-Methyl-2-pentanone	43	13.268	13.268	(1.162)	3021610	8.00000	7.745
63	cis-1,3-Dichloropropene	75	13.338	13.338	(1.168)	1937287	8.00000	7.559
64	trans-1,3-Dichloropropene	75	14.026	14.026	(0.870)	1869840	8.00000	7.493
65	Toluene	91	14.161	14.161	(0.879)	3527190	8.00000	7.057
66	1,1,2-Trichloroethane	83	14.225	14.225	(0.883)	1177248	8.00000	6.970
67	~ 2-methyl thiophene	97	14.312	14.312	(0.888)	3159684	8.40000	7.392
68	~ 3-methyl thiophene	97	14.511	14.511	(0.900)	3128220	8.32000	7.292
69	2-Hexanone	58	14.591	14.591	(0.906)	1406362	8.00000	7.667
70	Octane	85	14.833	14.833	(0.921)	1297623	8.00000	6.842
71	Dibromochloromethane	129	14.930	14.930	(0.927)	2480092	8.00000	7.573
72	1,2-Dibromoethane	107	15.221	15.221	(0.945)	2048650	8.00000	7.044
73	Tetrachloroethene	129	15.296	15.296	(0.949)	1357991	8.00000	6.493
74	Chlorobenzene	112	16.162	16.162	(1.003)	2777252	8.00000	6.889
75	~ 2,3-dimethylheptane	43	16.173	16.173	(1.004)	5447048	8.32000	6.970
76	Ethylbenzene	91	16.447	16.447	(1.021)	4010167	8.00000	7.042
77	~ 2-ethyl thiophene	97	16.549	16.549	(1.027)	3343905	8.24000	7.315
78	m&p-Xylene	91	16.609	16.609	(1.031)	6173292	16.0000	14.12
79	Nonane	57	17.017	17.017	(1.056)	3211016	8.00000	7.283
80	Bromoform	173	17.055	17.055	(1.058)	2301974	8.00000	8.321
81	Styrene	104	17.066	17.066	(1.059)	2441620	8.00000	7.655
82	o-Xylene	91	17.130	17.130	(1.063)	3125235	8.00000	6.872
M 83	Xylene (total)	100				9298527	24.0000	20.99
84	1,1,2,2-Tetrachloroethane	83	17.442	17.442	(1.082)	2571652	8.00000	7.014
85	1,2,3-Trichloropropane	110	17.604	17.604	(1.092)	575952	8.00000	6.943
86	Cumene	105	17.711	17.711	(1.099)	4143305	8.00000	7.019
87	n-Propylbenzene	120	18.233	18.233	(1.132)	1109814	8.00000	7.198
88	2-chlorotoluene	126	18.282	18.282	(1.135)	1138953	8.00000	7.054
89	4-Ethyltoluene	105	18.378	18.378	(1.141)	4005595	8.00000	7.065
90	1,3,5-Trimethylbenzene	120	18.448	18.448	(1.145)	1852378	8.00000	7.216
91	Alpha-Methylstyrene	118	18.669	18.669	(1.159)	1707311	8.00000	7.595
92	Decane	57	18.723	18.723	(1.162)	3576871	8.00000	7.812
93	tert-butylbenzene	119	18.863	18.863	(1.171)	3323089	8.00000	7.184
94	1,2,4-Trimethylbenzene	105	18.873	18.873	(1.171)	3148588	8.00000	7.115
95	sec-butylbenzene	105	19.126	19.126	(1.187)	4555391	8.00000	7.160
96	1,3-Dichlorobenzene	146	19.142	19.142	(1.188)	2486973	8.00000	7.355
97	Benzyl Chloride	91	19.212	19.212	(1.192)	3099634	8.00000	7.538
98	1,4-Dichlorobenzene	146	19.228	19.228	(1.193)	2431088	8.00000	7.342
99	p-Cymene	119	19.282	19.282	(1.197)	3521987	8.00000	7.118
100	~ 1,2,3- Trimethylbenzene	105	19.336	19.336	(1.200)	2608293	8.32000	7.116
101	~ n-butylcyclohexane	83	19.390	19.390	(1.203)	3196375	8.24000	7.569
102	~ Indane	117	19.583	19.583	(1.215)	2861767	8.24000	7.047
103	1,2-Dichlorobenzene	146	19.583	19.583	(1.215)	2176234	8.00000	7.103
104	n-butylbenzene	91	19.707	19.707	(1.223)	3585138	8.00000	7.121
105	~ Indene	116	19.707	19.707	(1.223)	2300403	8.40000	7.524
106	Undecane	57	20.003	20.003	(1.241)	3018247	8.00000	8.345
107	~ 1,2-dimethyl-4-ethylenzene	119	20.073	20.073	(1.246)	2990664	8.24000	7.297
108	~ 1,2,4,5-tetramethylbenzene	119	20.455	20.455	(1.269)	2874198	8.24000	7.512

Data File: /var/chem/gcms/mj.i/J082511I.b/jich258.d
Report Date: 26-Aug-2011 13:00

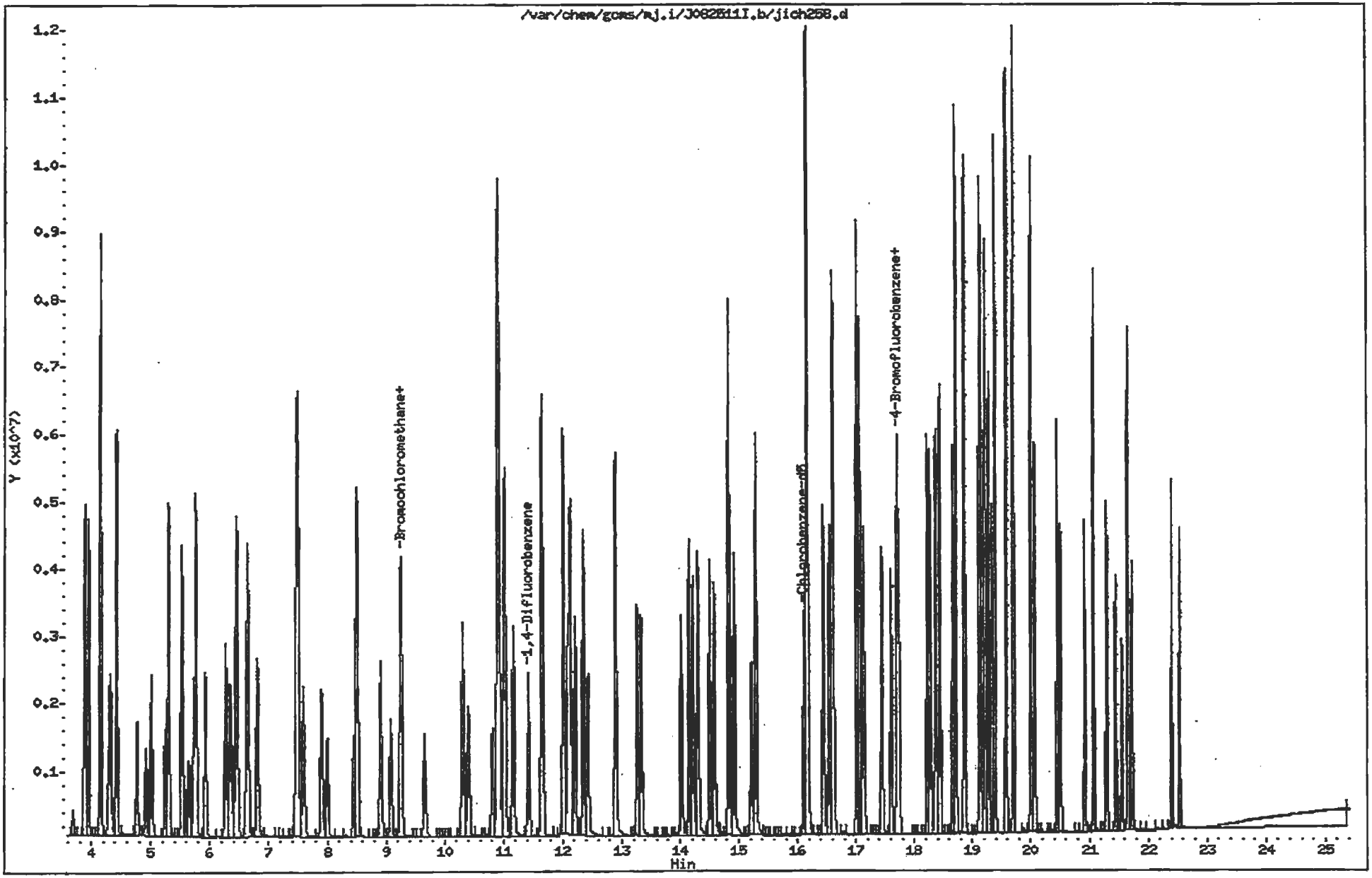
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
109 ~ 1,2,3,5-tetramethylbenzene	119	20.509	20.509	(1.273)	2247352	8.40000	8.410
110 ~ 1,2,3,4-tetramethylbenzene	119	20.923	20.923	(1.298)	2332129	8.16000	7.910
111 Dodecane	57	21.074	21.074	(1.308)	2648502	8.00000	8.688
112 1,2,4-Trichlorobenzene	180	21.299	21.299	(1.322)	1447592	8.00000	8.226
113 Napthalene	128	21.450	21.450	(1.331)	2825025	8.00000	7.735
114 ~ benzo(b) thiophene	134	21.552	21.552	(1.338)	1891718	8.16000	7.964
115 Hexachlorobutadiene	225	21.660	21.660	(1.344)	1394942	8.00000	8.017
116 1,2,3-trichlorobenzene	180	21.730	21.730	(1.349)	1121908	8.00000	7.591
117 ~ 2-Methylnaphthalene	142	22.402	22.402	(1.390)	1748351	50.0000	51.26(A)
118 ~ 1-Methylnaphthalene	142	22.542	22.542	(1.399)	1367369	50.0000	46.07(A)

QC Flag Legend

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

Data File: /var/chem/gcms/mj.i/J082511I.b/jich258.d
Date : 25-AUG-2011 22:58
Client ID: STD 8
Sample Info: ICALS,,1,8,,STD 8
Purge Volume: 200.0
Column phase: Rtx-5

Instrument: mj.i
Operator: 403648
Column diameter: 0.32



Data File: /var/chem/gcms/mj.i/J082511I.b/jich259.d
Report Date: 26-Aug-2011 13:00

TestAmerica Knoxville

Modified Method TO-14/TO-15

Data file : /var/chem/gcms/mj.i/J082511I.b/jich259.d
Lab Smp Id: ICAL9 Client Smp ID: STD 16
Inj Date : 25-AUG-2011 23:50
Operator : 403648 Inst ID: mj.i
Smp Info : ICAL9,,1,9,,STD 16
Misc Info : J082511I,TO15,all.sub,,,
Comment :
Method : /var/chem/gcms/mj.i/J082511I.b/TO15.m
Meth Date : 26-Aug-2011 13:00 tajh Quant Type: ISTD
Cal Date : 25-AUG-2011 23:50 Cal File: jich259.d
Als bottle: 7 Calibration Sample, Level: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: qmidhp01

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Default Calibration Volume
Vo	200.00000	Default Sample Volume

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
* 1 Bromochloromethane	128	9.255	9.255	(1.000)	510537	4.00000	4.000
* 2 1,4-Difluorobenzene	114	11.428	11.428	(1.000)	2182180	4.00000	4.000
* 3 Chlorobenzene-d5	117	16.119	16.119	(1.000)	2024730	4.00000	4.000
$ 4 4-Bromofluorobenzene	95	17.744	17.744	(1.101)	1548819	4.00000	4.030
5 Chlorodifluoromethane	67	3.886	3.886	(0.420)	850547	16.0000	13.58
6 Propene	41	3.897	3.897	(0.421)	3284780	16.0000	12.58
7 Dichlorodifluoromethane	85	3.956	3.956	(0.427)	8120645	16.0000	12.64
8 Chloromethane	52	4.150	4.150	(0.448)	1133456	16.0000	13.44
9 1,2-Dichlorotetrafluoroethane	135	4.155	4.155	(0.449)	4971563	16.0000	13.22
10 Methanol	31	4.290	4.290	(0.464)	727529	16.0000	12.25
11 - acetaldehyde	44	4.311	4.311	(0.466)	2707413	80.9600	58.66
12 Vinyl Chloride	62	4.333	4.333	(0.468)	3530493	16.0000	13.22
13 n-Butane	43	4.430	4.430	(0.479)	5596352	16.0000	12.79
14 1,3-Butadiene	54	4.430	4.430	(0.479)	2678760	16.0000	13.40
15 Bromomethane	94	4.774	4.774	(0.516)	2621775	16.0000	14.37

Data File: /var/chem/gcms/mj.i/J082511I.b/jich259.d
Report Date: 26-Aug-2011 13:00

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
16 Chloroethane	64	4.924	4.924	(0.532)	1551411	16.0000	13.32
17 ~ ethanol	31	5.021	5.021	(0.543)	5197358	83.5300	67.61
18 Vinyl Bromide	106	5.253	5.253	(0.568)	2713639	16.0000	13.85
19 2-methyl butane	43	5.306	5.306	(0.573)	4955578	16.0000	12.84
20 Trichlorofluoromethane	101	5.538	5.538	(0.598)	7177731	16.0000	13.50
21 Acrolein	56	5.538	5.538	(0.598)	1009489	16.0000	21.68(A)
22 Acetonitrile	40	5.602	5.602	(0.605)	1301422	16.0000	17.80(A)
23 Acetone	58	5.656	5.656	(0.611)	1074579	16.0000	14.20
24 Isopropyl alcohol	45	5.742	5.742	(0.620)	3799938	16.0000	13.08
25 Pentane	72	5.774	5.774	(0.624)	491254	16.0000	13.58
26 Ethyl Ether	31	5.936	5.936	(0.641)	4354960	16.0000	16.16(A)
27 1,1-Dichloroethene	96	6.280	6.280	(0.679)	2475381	16.0000	13.54
28 tert-butanol	59	6.361	6.361	(0.687)	4425312	16.0000	12.72
29 Acrylonitrile	53	6.377	6.377	(0.689)	2266874	16.0000	18.50(A)
30 1,1,2-Trichlorotrifluoroethane	101	6.463	6.463	(0.698)	5172526	16.0000	13.68
31 Methylene Chloride	84	6.635	6.635	(0.717)	2347261	16.0000	12.88
32 3-Chloropropene	39	6.657	6.657	(0.719)	2520131	16.0000	10.41
33 Carbon Disulfide	76	6.813	6.813	(0.736)	8656370	16.0000	13.38
34 trans-1,2-Dichloroethene	96	7.480	7.480	(0.808)	2925292	16.0000	13.97
35 ~ 2-Methyl Pentane	43	7.501	7.501	(0.810)	8880249	16.0000	12.93
36 Methyl-t-Butyl Ether	73	7.598	7.598	(0.821)	5657325	16.0000	15.72
37 1,1-Dichloroethane	63	7.910	7.910	(0.855)	5671207	16.0000	13.03
38 Vinyl Acetate	43	8.007	8.007	(0.865)	7672753	16.0000	18.41(A)
39 2-Butanone	72	8.459	8.459	(0.914)	939768	16.0000	15.08
40 Hexane	56	8.513	8.513	(0.920)	3088942	16.0000	13.03
41 cis 1,2-Dichloroethene	96	8.916	8.916	(0.963)	2736878	16.0000	13.47
42 Ethyl acetate	43	9.088	9.088	(0.982)	5937169	16.0000	15.64
43 Chloroform	83	9.266	9.266	(1.001)	5555891	16.0000	13.03
44 Tetrahydrofuran	42	9.658	9.658	(1.044)	3364932	16.0000	16.18(A)
45 1,1,1-Trichloroethane	97	10.315	10.315	(1.115)	5463840	16.0000	12.88
46 1,2-Dichloroethane	62	10.417	10.417	(0.912)	4137712	16.0000	15.17
47 1-Butanol	31	10.820	10.820	(0.947)	1373735	16.0000	13.17
48 Benzene	78	10.906	10.906	(0.954)	7942348	16.0000	14.67
49 Cyclohexane	69	10.912	10.912	(0.955)	1518874	16.0000	13.59
50 Carbon Tetrachloride	117	10.933	10.933	(0.957)	4620207	16.0000	12.29
51 ~ 2,3-dimethylpentane	71	11.025	11.025	(0.965)	1879976	16.4800	14.33
52 ~ Thiophene	84	11.175	11.175	(0.978)	4674919	16.6400	15.33
53 2,2,4-trimethylpentane	57	11.654	11.654	(1.020)	15616189	16.0000	13.54
54 Heptane	71	12.020	12.020	(1.052)	2855373	16.0000	14.36
55 1,2-Dichloropropane	63	12.101	12.101	(1.059)	3381742	16.0000	16.54(A)
56 Trichloroethene	130	12.138	12.138	(1.062)	3733239	16.0000	14.56
180 ~ 2-nitropropane	43	12.020	12.020	(1.052)	7009748	16.0000	0.000
57 Dibromomethane	93	12.219	12.219	(1.069)	3486798	16.0000	14.77
58 Bromodichloromethane	83	12.359	12.359	(1.081)	5973386	16.0000	15.09
59 1,4-dioxane	88	12.359	12.359	(1.081)	767006	16.0000	13.80
60 Methyl Methacrylate	41	12.440	12.440	(1.088)	3816895	16.0000	18.22(A)
61 ~ methyl cyclohexane	83	12.908	12.908	(1.129)	4835626	16.6400	14.32

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	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
62	4-Methyl-2-pentanone	43	13.273	13.273	(1.161)	6023578	16.0000	14.90
63	cis-1,3-Dichloropropene	75	13.343	13.343	(1.168)	4436396	16.0000	16.70(A)
64	trans-1,3-Dichloropropene	75	14.026	14.026	(0.870)	4310012	16.0000	16.71(A)
65	Toluene	91	14.166	14.166	(0.879)	8493562	16.0000	16.44(A)
66	1,1,2-Trichloroethane	83	14.231	14.231	(0.883)	2768314	16.0000	15.86
67	~ 2-methyl thiophene	97	14.317	14.317	(0.888)	7475727	16.8000	16.92(A)
68	~ 3-methyl thiophene	97	14.516	14.516	(0.901)	7386090	16.6400	16.66(A)
69	2-Hexanone	58	14.597	14.597	(0.906)	2883754	16.0000	15.21
70	Octane	85	14.839	14.839	(0.921)	2922583	16.0000	14.91
71	Dibromochloromethane	129	14.930	14.930	(0.926)	5378605	16.0000	15.89
72	1,2-Dibromoethane	107	15.221	15.221	(0.944)	4812988	16.0000	16.01(A)
73	Tetrachloroethene	129	15.301	15.301	(0.949)	3125844	16.0000	14.46
74	Chlorobenzene	112	16.168	16.168	(1.003)	6503990	16.0000	15.61
75	~ 2,3-dimethylheptane	43	16.178	16.178	(1.004)	10860131	16.6400	13.45
76	Ethylbenzene	91	16.447	16.447	(1.020)	9778422	16.0000	16.62(A)
77	~ 2-ethyl thiophene	97	16.549	16.549	(1.027)	8048315	16.4800	17.04(A)
78	m&p-Xylene	91	16.609	16.609	(1.030)	14880677	32.0000	32.93(A)
79	Nonane	57	17.017	17.017	(1.056)	7221207	16.0000	15.85
80	Bromoform	173	17.061	17.061	(1.058)	4768780	16.0000	16.68(A)
81	Styrene	104	17.071	17.071	(1.059)	5956414	16.0000	18.07(A)
82	o-Xylene	91	17.136	17.136	(1.063)	7718828	16.0000	16.42(A)
M 83	Xylene (total)	100				22599505	48.0000	49.36
84	1,1,2,2-Tetrachloroethane	83	17.448	17.448	(1.082)	6071490	16.0000	16.02(A)
85	1,2,3-Trichloropropane	110	17.604	17.604	(1.092)	1385828	16.0000	16.17(A)
86	Cumene	105	17.711	17.711	(1.099)	10122615	16.0000	16.59(A)
87	n-Propylbenzene	120	18.233	18.233	(1.131)	2818481	16.0000	17.69(A)
88	2-chlorotoluene	126	18.282	18.282	(1.134)	2766874	16.0000	16.58(A)
89	4-Ethyltoluene	105	18.378	18.378	(1.140)	9709568	16.0000	16.57(A)
90	1,3,5-Trimethylbenzene	120	18.448	18.448	(1.145)	4698826	16.0000	17.71(A)
91	Alpha-Methylstyrene	118	18.674	18.674	(1.159)	4310635	16.0000	18.56(A)
92	Decane	57	18.723	18.723	(1.162)	8049243	16.0000	17.01(A)
93	tert-butylbenzene	119	18.868	18.868	(1.171)	8292686	16.0000	17.35(A)
94	1,2,4-Trimethylbenzene	105	18.879	18.879	(1.171)	7710056	16.0000	16.86(A)
95	sec-butylbenzene	105	19.126	19.126	(1.187)	10709222	16.0000	16.29(A)
96	1,3-Dichlorobenzene	146	19.142	19.142	(1.188)	5926917	16.0000	16.96(A)
97	Benzyl Chloride	91	19.212	19.212	(1.192)	7241085	16.0000	17.04(A)
98	1,4-Dichlorobenzene	146	19.228	19.228	(1.193)	5739491	16.0000	16.77(A)
99	p-Cymene	119	19.282	19.282	(1.196)	8521198	16.0000	16.67(A)
100	~ 1,2,3- Trimethylbenzene	105	19.341	19.341	(1.200)	6277054	16.6400	16.57(A)
101	~ n-butylcyclohexane	83	19.395	19.395	(1.203)	7250304	16.4800	16.61(A)
102	~ Indane	117	19.583	19.583	(1.215)	6891973	16.4800	16.42(A)
103	1,2-Dichlorobenzene	146	19.583	19.583	(1.215)	5212476	16.0000	16.46(A)
104	n-butylbenzene	91	19.707	19.707	(1.223)	8266188	16.0000	15.89
105	~ Indene	116	19.707	19.707	(1.223)	5557299	16.8000	17.59(A)
106	Undecane	57	20.003	20.003	(1.241)	7450793	16.0000	19.94(A)
107	~ 1,2-dimethyl-4-ethylenzene	119	20.073	20.073	(1.245)	7027038	16.4800	16.59(A)
108	~ 1,2,4,5-tetramethylbenzene	119	20.455	20.455	(1.269)	6602669	16.4800	16.70(A)

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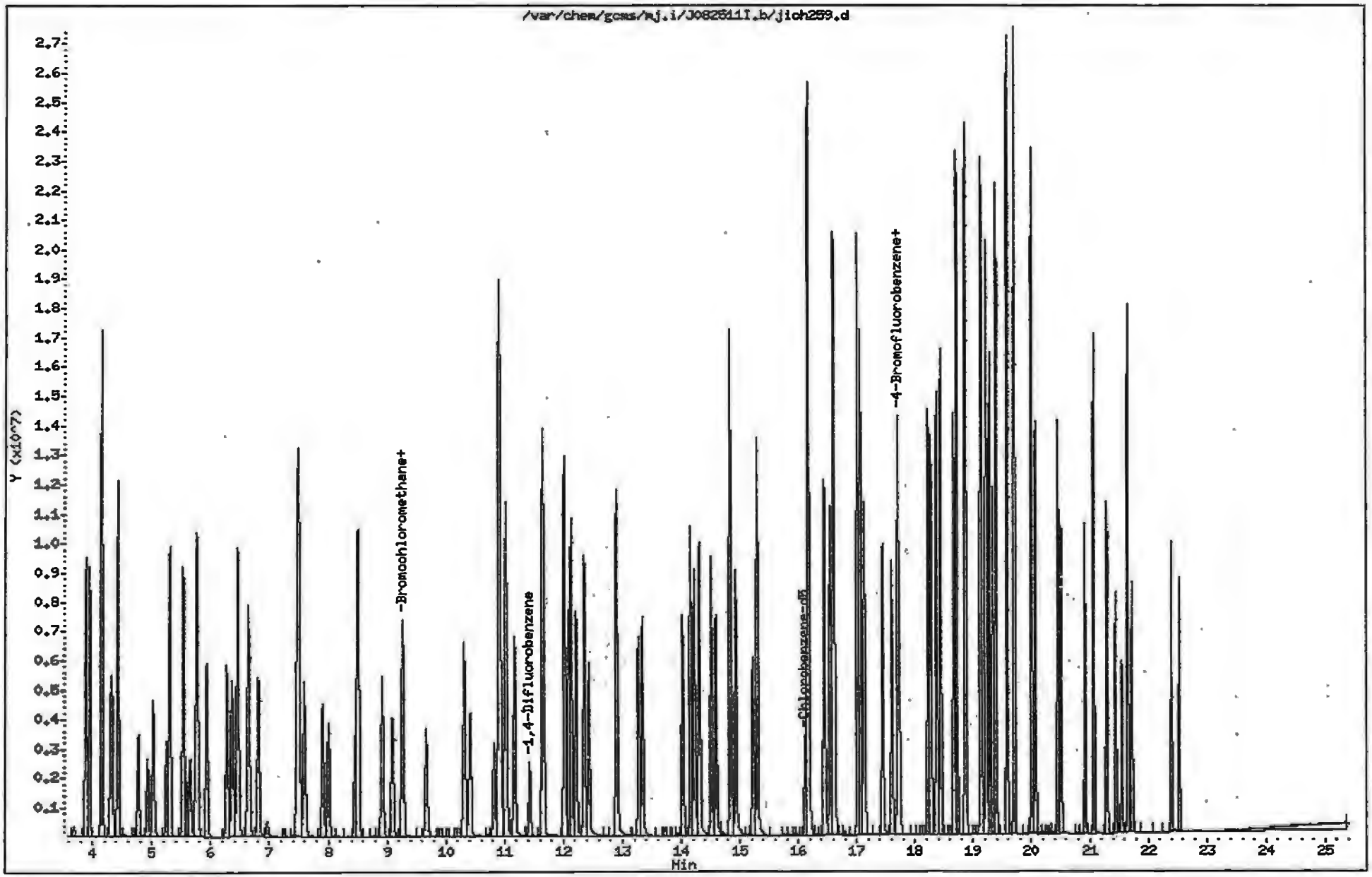
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	ON-COL (ppb(v/v))
109 ~ 1,2,3,5-tetramethylbenzene	119	20.514	20.514	(1.273)	5124196	16.8000	18.56(A)
110 ~ 1,2,3,4-tetramethylbenzene	119	20.923	20.923	(1.298)	5254450	16.3200	17.25(A)
111 Dodecane	57	21.074	21.074	(1.307)	5511089	16.0000	17.50(A)
112 1,2,4-Trichlorobenzene	180	21.300	21.300	(1.321)	3361985	16.0000	18.49(A)
113 Napthalene	128	21.450	21.450	(1.331)	6042195	16.0000	16.01(A)
114 ~ benzo(b) thiophene	134	21.552	21.552	(1.337)	3899893	16.3200	15.89
115 Hexachlorobutadiene	225	21.660	21.660	(1.344)	3616489	16.0000	20.11(A)
116 1,2,3-trichlorobenzene	180	21.730	21.730	(1.348)	2344048	16.0000	15.35
117 ~ 2-Methylnaphthalene	142	22.402	22.402	(1.390)	3362311	100.000	95.40(A)
118 ~ 1-Methylnaphthalene	142	22.542	22.542	(1.398)	2677374	100.000	87.30(A)

QC Flag Legend

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

Data File: /var/chem/gcms/mj.i/J082511I.b/jich259.d
Date : 25-AUG-2011 23:50
Client ID: STD 16
Sample Info: ICAL9,,1,9,,STD 16
Purge Volume: 200.0
Column phase: Rtx-5

Instrument: mj.i
Operator: 403648
Column diameter: 0.32



Data File: /var/chem/gcms/mj.i/J082511I.b/jicvh25.d
Report Date: 26-Aug-2011 13:00

TestAmerica Knoxville

Modified Method TO-14/TO-15

Data file : /var/chem/gcms/mj.i/J082511I.b/jicvh25.d
Lab Smp Id: ICV Client Smp ID: LCS
Inj Date : 26-AUG-2011 01:31
Operator : 403648 Inst ID: mj.i
Smp Info : ICV,,3,,,LCS
Misc Info : J082511I,TO15,all.sub,,,
Comment :
Method : /var/chem/gcms/mj.i/J082511I.b/TO15.m
Meth Date : 26-Aug-2011 13:00 tajh Quant Type: ISTD
Cal Date : 25-AUG-2011 23:50 Cal File: jich259.d
Als bottle: 8 QC Sample: 2ND SOURCE
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: qmidhp01

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Default Calibration Volume
Vo	200.00000	Default Sample Volume

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	FINAL (ppb(v/v))
* 1 Bromochloromethane	128	9.247	9.255	(1.000)	497727	4.00000	4.000
* 2 1,4-Difluorobenzene	114	11.421	11.428	(1.000)	2346193	4.00000	4.000
* 3 Chlorobenzene-d5	117	16.112	16.119	(1.000)	2069930	4.00000	4.000
§ 4 4-Bromofluorobenzene	95	17.742	17.744	(1.101)	1582456	4.02763	10.07
5 Chlorodifluoromethane	67	3.884	3.886	(0.420)	231945	3.79971	9.499
6 Propene	41	3.900	3.897	(0.422)	874652	3.43702	8.592
7 Dichlorodifluoromethane	85	3.954	3.956	(0.428)	2190460	3.49606	8.740
8 Chloromethane	52	4.148	4.150	(0.449)	302391	3.67714	9.193
9 1,2-Dichlorotetrafluoroethane	135	4.153	4.155	(0.449)	1265302	3.45221	8.630
10 Methanol	31	4.282	4.290	(0.463)	242919	4.19445	10.49
11 ~ acetaldehyde	44	4.309	4.311	(0.466)	724870	16.1094	40.27
12 Vinyl Chloride	62	4.331	4.333	(0.468)	892862	3.42867	8.572
13 n-Butane	43	4.427	4.430	(0.479)	1482673	3.47564	8.689
14 1,3-Butadiene	54	4.427	4.430	(0.479)	699398	3.58925	8.973
15 Bromomethane	94	4.772	4.774	(0.516)	622210	3.49898	8.747

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Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	FINAL (ppb(v/v))
16 Chloroethane	64	4.917	4.924	(0.532)	375414	3.30529	8.263
17 ~ ethanol	31	5.008	5.021	(0.542)	1258533	16.7936	41.98
18 Vinyl Bromide	106	5.245	5.253	(0.567)	709039	3.71102	9.278
19 2-methyl butane	43	5.299	5.306	(0.573)	1281752	3.40526	8.513
20 Trichlorofluoromethane	101	5.530	5.538	(0.598)	1805026	3.48269	8.707
21 Acrolein	56	5.530	5.538	(0.598)	188379	4.15085	10.38
22 Acetonitrile	40	5.595	5.602	(0.605)	260414	3.65283	9.132
23 Acetone	58	5.649	5.656	(0.611)	332068	4.50261	11.26
24 Isopropyl alcohol	45	5.729	5.742	(0.620)	905084	3.19599	7.990
25 Pentane	72	5.767	5.774	(0.624)	121555	3.44563	8.614
26 Ethyl Ether	31	5.928	5.936	(0.641)	1023572	3.89606	9.740
27 1,1-Dichloroethene	96	6.273	6.280	(0.678)	733362	4.11630	10.29
28 tert-butanol	59	6.342	6.361	(0.686)	1055488	3.11150	7.779
29 Acrylonitrile	53	6.364	6.377	(0.688)	476327	3.98678	9.967
30 1,1,2-Trichlorotrifluoroethane	101	6.455	6.463	(0.698)	1505927	4.08707	10.22
31 Methylene Chloride	84	6.628	6.635	(0.717)	728723	4.10232	10.26
32 3-Chloropropene	39	6.649	6.657	(0.719)	871877	3.69469	9.237
33 Carbon Disulfide	76	6.805	6.813	(0.736)	2277817	3.61192	9.030
34 trans-1,2-Dichloroethene	96	7.472	7.480	(0.808)	740689	3.62909	9.073
35 ~ 2-Methyl Pentane	43	7.494	7.501	(0.810)	2356329	3.51952	8.799
36 Methyl-t-Butyl Ether	73	7.591	7.598	(0.821)	1379668	3.93295	9.832
37 1,1-Dichloroethane	63	7.903	7.910	(0.855)	1571937	3.70390	9.260
38 Vinyl Acetate	43	7.999	8.007	(0.865)	1709763	4.20800	10.52
39 2-Butanone	72	8.451	8.459	(0.914)	227414	3.74257	9.356
40 Hexane	56	8.505	8.513	(0.920)	791104	3.42221	8.556
41 cis 1,2-Dichloroethene	96	8.909	8.916	(0.963)	759059	3.83271	9.582
42 Ethyl acetate	43	9.081	9.088	(0.982)	1372226	3.70686	9.267
43 Chloroform	83	9.258	9.266	(1.001)	1494612	3.59440	8.986
44 Tetrahydrofuran	42	9.656	9.658	(1.044)	788093	3.88721	9.718
45 1,1,1-Trichloroethane	97	10.307	10.315	(1.115)	1519899	3.67489	9.187
46 1,2-Dichloroethane	62	10.409	10.417	(0.911)	1109967	3.78411	9.460
47 1-Butanol	31	10.813	10.820	(0.947)	315414	2.81338	7.033
48 Benzene	78	10.899	10.906	(0.954)	2117767	3.63783	9.094
49 Cyclohexane	69	10.904	10.912	(0.955)	402493	3.34861	8.372
50 Carbon Tetrachloride	117	10.926	10.933	(0.957)	1524938	3.77370	9.434
51 ~ 2,3-dimethylpentane	71	11.017	11.025	(0.965)	490458	3.47819	8.695
52 ~ Thiophene	84	11.168	11.175	(0.978)	1194575	3.64295	9.107
53 2,2,4-trimethylpentane	57	11.647	11.654	(1.020)	4090455	3.30013	8.250
54 Heptane	71	12.012	12.020	(1.052)	705919	3.30298	8.257
55 1,2-Dichloropropane	63	12.093	12.101	(1.059)	823985	3.74891	9.372
56 Trichloroethene	130	12.131	12.138	(1.062)	938890	3.40484	8.512
180 ~ 2-nitropropane	43	12.012	12.020	(1.052)	1778891		
57 Dibromomethane	93	12.211	12.219	(1.069)	859537	3.38735	8.468
58 Bromodichloromethane	83	12.351	12.359	(1.081)	1543257	3.62548	9.064
59 1,4-dioxane	88	12.351	12.359	(1.081)	179494	3.00481	7.512
60 Methyl Methacrylate	41	12.432	12.440	(1.089)	854007	3.79065	9.477
61 ~ methyl cyclohexane	83	12.900	12.908	(1.130)	1295381	3.56868	8.922

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	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	FINAL (ppb(v/v))
62	4-Methyl-2-pentanone	43	13.271	13.273	(1.162)	1498389	3.44646	8.616
63	cis-1,3-Dichloropropene	75	13.341	13.343	(1.168)	1102088	3.85856	9.646
64	trans-1,3-Dichloropropene	75	14.024	14.026	(0.870)	1060090	4.02144	10.05
65	Toluene	91	14.159	14.166	(0.879)	2075425	3.93058	9.826
66	1,1,2-Trichloroethane	83	14.223	14.231	(0.883)	654416	3.66753	9.169
67	~ 2-methyl thiophene	97	14.309	14.317	(0.888)	1781033	3.94442	9.861
68	~ 3-methyl thiophene	97	14.509	14.516	(0.900)	1759688	3.88282	9.707
69	2-Hexanone	58	14.589	14.597	(0.906)	687609	3.54826	8.871
70	Octane	85	14.837	14.839	(0.921)	712717	3.55731	8.893
71	Dibromochloromethane	129	14.928	14.930	(0.927)	1348018	3.89651	9.741
72	1,2-Dibromoethane	107	15.219	15.221	(0.945)	1150005	3.74281	9.357
73	Tetrachloroethene	129	15.294	15.301	(0.949)	747994	3.38558	8.464
74	Chlorobenzene	112	16.160	16.168	(1.003)	1549871	3.63901	9.098
75	~ 2,3-dimethylheptane	43	16.171	16.178	(1.004)	3208086	3.88568	9.714
76	Ethylbenzene	91	16.445	16.447	(1.021)	2367911	3.93602	9.840
77	~ 2-ethyl thiophene	97	16.547	16.549	(1.027)	1881246	3.89557	9.739
78	m&p-Xylene	91	16.607	16.609	(1.031)	3595091	7.78263	19.46
79	Nonane	57	17.015	17.017	(1.056)	1782119	3.82632	9.566
80	Bromoform	173	17.053	17.061	(1.058)	1210201	4.14108	10.35
81	Styrene	104	17.069	17.071	(1.059)	1380731	4.09777	10.24
82	o-Xylene	91	17.128	17.136	(1.063)	1831683	3.81271	9.532
M 83	Xylene (total)	100				5426774	11.5953	28.99
84	1,1,2,2-Tetrachloroethane	83	17.440	17.448	(1.082)	1450305	3.74439	9.361
85	1,2,3-Trichloropropane	110	17.602	17.604	(1.092)	317267	3.62054	9.051
86	Cumene	105	17.709	17.711	(1.099)	2366365	3.79467	9.487
87	n-Propylbenzene	120	18.231	18.233	(1.132)	608981	3.73873	9.347
88	2-chlorotoluene	126	18.280	18.282	(1.135)	639566	3.74971	9.374
89	4-Ethyltoluene	105	18.376	18.378	(1.141)	2231232	3.72506	9.313
90	1,3,5-Trimethylbenzene	120	18.446	18.448	(1.145)	1049101	3.86836	9.671
91	Alpha-Methylstyrene	118	18.672	18.674	(1.159)	921236	3.87926	9.698
92	Decane	57	18.721	18.723	(1.162)	1969926	4.07264	10.18
93	tert-butylbenzene	119	18.860	18.868	(1.171)	1843186	3.77185	9.430
94	1,2,4-Trimethylbenzene	105	18.871	18.879	(1.171)	1747928	3.73892	9.347
95	sec-butylbenzene	105	19.124	19.126	(1.187)	2523456	3.75475	9.387
96	1,3-Dichlorobenzene	146	19.140	19.142	(1.188)	1321087	3.69843	9.246
97	Benzyl Chloride	91	19.210	19.212	(1.192)	1632971	3.75899	9.397
98	1,4-Dichlorobenzene	146	19.226	19.228	(1.193)	1295339	3.70289	9.257
99	p-Cymene	119	19.280	19.282	(1.197)	1927029	3.68674	9.217
100	~ 1,2,3- Trimethylbenzene	105	19.334	19.341	(1.200)	1463389	3.77927	9.448
101	~ n-butylcyclohexane	83	19.388	19.395	(1.203)	1836141	4.11576	10.29
102	~ Indane	117	19.581	19.583	(1.215)	1579182	3.68088	9.202
103	1,2-Dichlorobenzene	146	19.581	19.583	(1.215)	1150271	3.55374	8.884
104	n-butylbenzene	91	19.705	19.707	(1.223)	1941602	3.65071	9.127
105	~ Indene	116	19.705	19.707	(1.223)	1219673	3.77596	9.440
106	Undecane	57	20.001	20.003	(1.241)	1527764	3.99856	9.996
107	~ 1,2-dimethyl-4-ethylenzene	119	20.071	20.073	(1.246)	1555292	3.59199	8.980
108	~ 1,2,4,5-tetramethylbenzene	119	20.453	20.455	(1.269)	1414005	3.49823	8.746

Data File: /var/chem/gcms/mj.i/J082511I.b/jicvh25.d
Report Date: 26-Aug-2011 13:00

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	FINAL (ppb(v/v))
109 ~ 1,2,3,5-tetramethylbenzene	119	20.512	20.514	(1.273)	1099040	3.89311	9.733
110 ~ 1,2,3,4-tetramethylbenzene	119	20.921	20.923	(1.298)	1094278	3.51339	8.783
111 Dodecane	57	21.077	21.074	(1.308)	1499191	4.65552	11.64
112 1,2,4-Trichlorobenzene	180	21.297	21.300	(1.322)	704530	3.70993	9.475
113 Napthalene	128	21.448	21.450	(1.331)	1376120	3.66646	8.916
114 ~ benzo(b) thiophene	134	21.556	21.552	(1.338)	804955	3.20783	8.020
115 Hexachlorobutadiene	225	21.658	21.660	(1.344)	743791	4.04637	10.12
116 1,2,3-trichlorobenzene	180	21.728	21.730	(1.349)	535653	3.43089	8.577
117 ~ 2-Methylnaphthalene	142	22.406	22.402	(1.391)	402613	11.1735	27.93(R)
118 ~ 1-Methylnaphthalene	142	22.540	22.542	(1.399)	333180	10.6269	26.57(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /var/chem/gcms/mj.i/J082511I.b/jicvh25.d
Report Date: 26-Aug-2011 13:00

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mj.i
Lab File ID: jicvh25.d
Lab Smp Id: ICV
Analysis Type: OTHER
Quant Type: ISTD
Operator: 403648
Method File: /var/chem/gcms/mj.i/J082511I.b/TO15.m
Misc Info: J082511I,TO15,all.sub,,,

Calibration Date: 25-AUG-2011
Calibration Time: 21:16
Client Smp ID: LCS
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	494199	294048	694350	497727	0.71
2 1,4-Difluorobenze	2127324	1265758	2988890	2346193	10.29
3 Chlorobenzene-d5	1917056	1140648	2693464	2069930	7.97

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.25	8.92	9.58	9.25	0.00
2 1,4-Difluorobenze	11.42	11.09	11.75	11.42	0.00
3 Chlorobenzene-d5	16.11	15.78	16.44	16.11	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/mj.i/J082511I.b/jicvh25.d
Report Date: 26-Aug-2011 13:00

TestAmerica Knoxville

RECOVERY REPORT

Client Name:
Sample Matrix: GAS
Lab Smp Id: ICV
Level: LOW
Data Type: MS DATA
SpikeList File: icv.spk
Sublist File: all.sub
Method File: /var/chem/gcms/mj.i/J082511I.b/TO15.m
Misc Info: J082511I,TO15,all.sub,,,

Client SDG: J082511I
Fraction: OTHER
Client Smp ID: LCS
Operator: 403648
SampleType: 2ND SOURCE
Quant Type: ISTD

SPIKE	COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
5	Chlorodifluorometh	10.00	9.499	94.99	65-135
7	Dichlorodifluorome	10.00	8.740	87.40	65-135
6	Propene	10.00	8.592	85.93	65-135
9	1,2-Dichlorotetraf	10.00	8.630	86.31	65-135
8	Chloromethane	10.00	9.193	91.93	65-135
10	Methanol	10.00	10.49	104.86	65-135
11	~ acetaldehyde	47.52	40.27	84.74	65-135
12	Vinyl Chloride	10.00	8.572	85.72	65-135
13	n-Butane	10.00	8.689	86.89	65-135
14	1,3-Butadiene	10.00	8.973	89.73	65-135
15	Bromomethane	10.00	8.747	87.47	65-135
16	Chloroethane	10.00	8.263	82.63	65-135
17	~ ethanol	49.00	41.98	85.68	65-135
18	Vinyl Bromide	10.00	9.278	92.78	65-135
19	2-methyl butane	10.00	8.513	85.13	65-135
20	Trichlorofluoromet	10.00	8.707	87.07	65-135
21	Acrolein	10.00	10.38	103.77	65-135
22	Acetonitrile	10.00	9.132	91.32	65-135
23	Acetone	10.00	11.26	112.57	65-135
25	Pentane	10.00	8.614	86.14	65-135
24	Isopropyl alcohol	10.00	7.990	79.90	65-135
26	Ethyl Ether	10.00	9.740	97.40	65-135
27	1,1-Dichloroethene	10.00	10.29	102.91	65-135
29	Acrylonitrile	10.00	9.967	99.67	65-135
28	tert-butanol	10.00	7.779	77.79	65-135
30	1,1,2-Trichlorotri	10.00	10.22	102.18	65-135
31	Methylene Chloride	10.00	10.26	102.56	65-135
32	3-Chloropropene	10.00	9.237	92.37	65-135
33	Carbon Disulfide	10.00	9.030	90.30	65-135
34	trans-1,2-Dichloro	10.00	9.073	90.73	65-135
35	~ 2-Methyl Pentane	10.00	8.799	87.99	65-135
36	Methyl-t-Butyl Eth	10.00	9.832	98.32	65-135
37	1,1-Dichloroethane	10.00	9.260	92.60	65-135

Data File: /var/chem/gcms/mj.i/J082511I.b/jicvh25.d
Report Date: 26-Aug-2011 13:00

SPIKE	COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
38	Vinyl Acetate	10.00	10.52	105.20	65-135
39	2-Butanone	10.00	9.356	93.56	65-135
40	Hexane	10.00	8.556	85.56	65-135
41	cis 1,2-Dichloroet	10.00	9.582	95.82	65-135
42	Ethyl acetate	10.00	9.267	92.67	65-135
43	Chloroform	10.00	8.986	89.86	65-135
44	Tetrahydrofuran	10.00	9.718	97.18	65-135
45	1,1,1-Trichloroeth	10.00	9.187	91.87	65-135
46	1,2-Dichloroethane	10.00	9.460	94.60	65-135
47	1-Butanol	10.00	7.033	70.33	65-135
49	Cyclohexane	10.00	8.372	83.72	65-135
48	Benzene	10.00	9.094	90.95	65-135
50	Carbon Tetrachlori	10.00	9.434	94.34	65-135
51	~ 2,3-dimethylpent	10.10	8.695	86.09	65-135
52	~ Thiophene	10.00	9.107	91.07	65-135
53	2,2,4-trimethylpen	10.00	8.250	82.50	65-135
54	Heptane	10.00	8.257	82.57	65-135
55	1,2-Dichloropropan	10.00	9.372	93.72	65-135
56	Trichloroethene	10.00	8.512	85.12	65-135
57	Dibromomethane	10.00	8.468	84.68	65-135
58	Bromodichlorometha	10.00	9.064	90.64	65-135
59	1,4-dioxane	10.00	7.512	75.12	65-135
60	Methyl Methacrylat	10.00	9.477	94.77	65-135
61	~ methyl cyclohexa	10.12	8.922	88.12	65-135
62	4-Methyl-2-pentano	10.00	8.616	86.16	65-135
63	cis-1,3-Dichloropr	10.00	9.646	96.46	65-135
64	trans-1,3-Dichloro	10.00	10.05	100.54	65-135
65	Toluene	10.00	9.826	98.26	65-135
66	1,1,2-Trichloroeth	10.00	9.169	91.69	65-135
67	~ 2-methyl thiophe	10.02	9.861	98.36	65-135
68	~ 3-methyl thiophe	10.10	9.707	96.11	65-135
69	2-Hexanone	10.00	8.871	88.71	65-135
70	Octane	10.00	8.893	88.93	65-135
71	Dibromochlorometha	10.00	9.741	97.41	65-135
72	1,2-Dibromoethane	10.00	9.357	93.57	65-135
73	Tetrachloroethene	10.00	8.464	84.64	65-135
74	Chlorobenzene	10.00	9.098	90.98	65-135
75	~ 2,3-dimethylhept	10.22	9.714	95.00	65-135
76	Ethylbenzene	10.00	9.840	98.40	65-135
77	~ 2-ethyl thiophen	10.05	9.739	96.90	65-135
78	m&p-Xylene	20.00	19.46	97.28	65-135
79	Nonane	10.00	9.566	95.66	65-135
80	Bromoform	10.00	10.35	103.53	65-135
81	Styrene	10.00	10.24	102.44	65-135
82	o-Xylene	10.00	9.532	95.32	65-135
84	1,1,2,2-Tetrachlor	10.00	9.361	93.61	65-135
85	1,2,3-Trichloropro	10.00	9.051	90.51	65-135

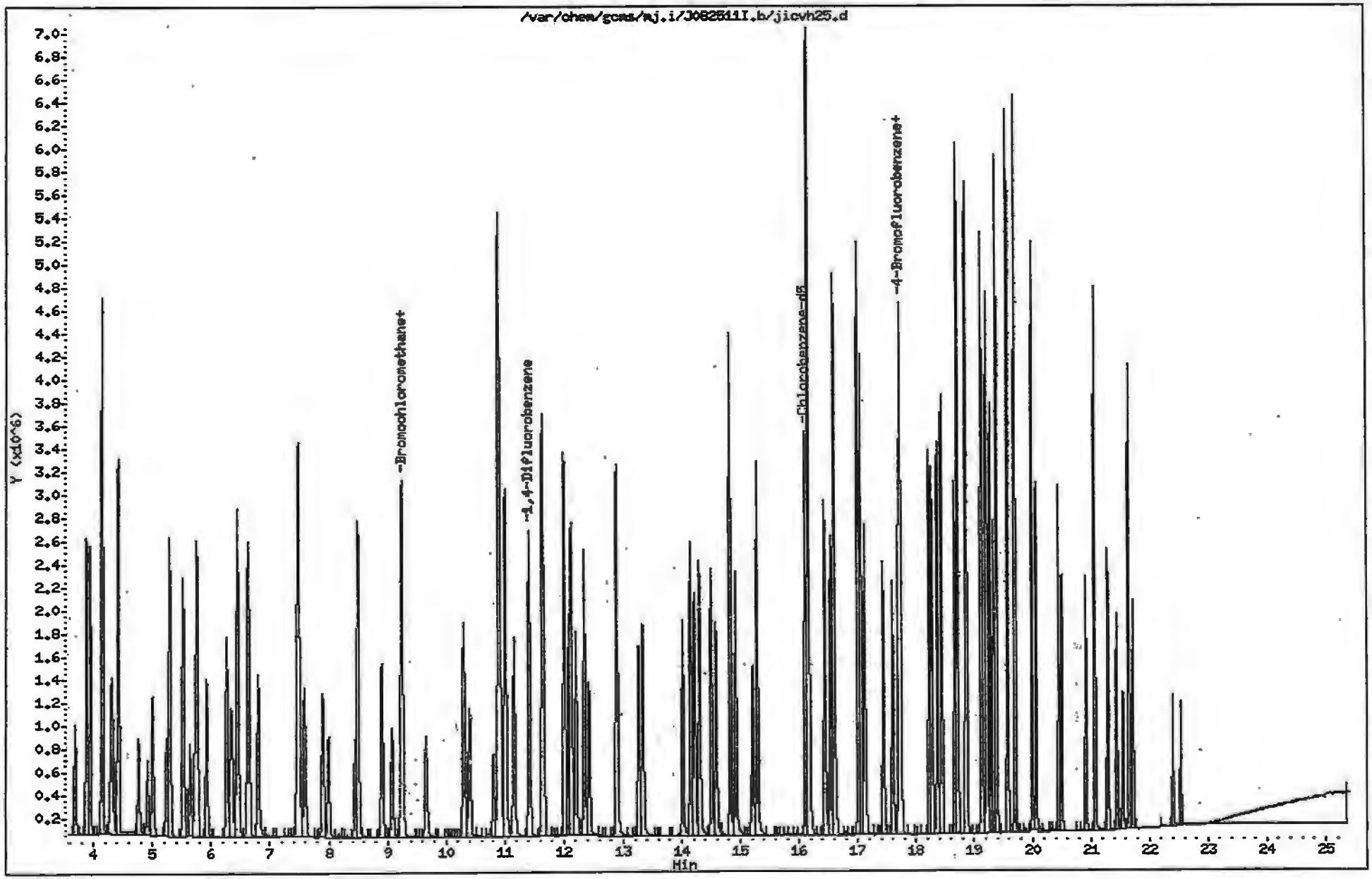
Data File: /var/chem/gcms/mj.i/J082511I.b/jicvh25.d
Report Date: 26-Aug-2011 13:00

SPIKE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
86 Cumene	10.00	9.487	94.87	65-135
87 n-Propylbenzene	10.00	9.347	93.47	65-135
88 2-chlorotoluene	10.00	9.374	93.74	65-135
89 4-Ethyltoluene	10.00	9.313	93.13	65-135
90 1,3,5-Trimethylben	10.00	9.671	96.71	65-135
91 Alpha-Methylstyren	10.00	9.698	96.98	65-135
92 Decane	10.00	10.18	101.82	65-135
94 1,2,4-Trimethylben	10.00	9.347	93.47	65-135
93 tert-butylbenzene	10.00	9.430	94.30	65-135
95 sec-butylbenzene	10.00	9.387	93.87	65-135
96 1,3-Dichlorobenzen	10.00	9.246	92.46	65-135
98 1,4-Dichlorobenzen	10.00	9.257	92.57	65-135
97 Benzyl Chloride	10.00	9.397	93.97	65-135
99 p-Cymene	10.00	9.217	92.17	65-135
100 ~ 1,2,3- Trimethyl	10.18	9.448	92.86	65-135
101 ~ n-butylcyclohexa	10.08	10.29	102.13	65-135
102 ~ Indane	10.20	9.202	90.22	65-135
103 1,2-Dichlorobenzen	10.00	8.884	88.84	65-135
104 n-butylbenzene	10.00	9.127	91.27	65-135
105 ~ Indene	10.02	9.440	94.16	65-135
106 Undecane	10.00	9.996	99.96	65-135
107 ~ 1,2-dimethyl-4-e	10.00	8.980	89.80	65-135
108 ~ 1,2,4,5-tetramet	10.22	8.746	85.53	65-135
109 ~ 1,2,3,5-tetramet	10.05	9.733	96.84	65-135
110 ~ 1,2,3,4-tetramet	10.25	8.783	85.69	65-135
111 Dodecane	10.00	11.64	116.39	65-135
112 1,2,4-Trichloroben	10.00	9.475	94.75	65-135
113 Napthalene	10.00	8.916	89.16	65-135
114 ~ benzo(b) thiophe	10.18	8.020	78.82	65-135
115 Hexachlorobutadien	10.00	10.12	101.16	65-135
116 1,2,3-trichloroben	10.00	8.577	85.77	65-135
117 ~ 2-Methylnaphthal	62.50	27.93	44.69*	65-135
118 ~ 1-Methylnaphthal	62.50	26.57	42.51*	65-135

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 4 4-Bromofluorobenze	10.00	10.07	100.69	70-130

Data File: /var/chem/gcms/mj.i/J082511I.b/jicvh25.d
Date : 26-AUG-2011 01:31
Client ID: LCS
Sample Info: ICV,,3,,,LCS
Purge Volume: 200.0
Column phase: Rtx-5

Instrument: mj.i
Operator: 403648
Column diameter: 0.32



TestAmerica Knoxville GC/MS Air Continuing Calibration Review / Narrative Checklist
Method: TO-14 and TO-15 - KNOX-MS-0001, Rev 12 & KNOX-MS-0023, Rev 0

Analysis Date:	10/10/11	CCAL Batch/ Scan Name:	J101011	Instrument:	MJ	ICAL Batch/ Scan Name:	J082511I	Scanned ☐

Review Items	N/A	Yes	No	If No, why is data reportable?	2nd
1. Did BFB meet tune criteria?		✓		☐ failed for TO-14A, but passes for TO-15	✓
2. Were all standards injected within 24 hr of BFB?		✓			✓
3. Have the Entech position no. & vol. been verified with run log & sample vol. corrected if actual amount differs >5%?		✓			✓
4. Was date/time of analysis in logbook correct?		✓			✓
5. Was the CCAL compared to the correct ICAL (date & time on CCAL matches the ICAL)		✓		1,4dioxane -31% 2Hexan. -31%	✓
6. Is the %D ≤ 30% for all target analytes? (Narrative req'd.).		✓		6 [ccal] analytes > 30% but passes LCS criteria.	✓
7. Have all peaks been auto identified? If not, list:		✓			✓
8. If manual integrations were performed, are they clearly identified, initialed, dated and reason given?	✓			Reasons: 1)Corrected split peak; 2)Unresolved peak; 3)tailing; 4)RT shift; 5)wrong peak selected; 6)other	NA
9. Have alternate hits/manual integrations been verified as correct and are correct RFs listed in CCAL summary?	✓				✓
10. Is the first IS documented correctly on the log?		✓			✓
11. Elution order checked on isomeric pairs?		✓			✓
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane		✓			✓
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane		✓			✓
• vinyl acetate / hexane		✓			✓
• cis- and trans- isomers		✓			✓
• ethyl benzene / m/p-xylene / o-xylene		✓			✓
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene		✓			✓
• tert-butylbenzene/p-cymene		✓			✓
• 1,2,4-trimethylbenzene/sec-butylbenzene		✓			✓
• 1,3-, 1,4-, and 1,2-dichlorobenzene		✓			✓
• 1,2,4-trichlorobenzene/1,2,3-trichlorobenzene		✓			✓
12. Did the LCS meet criteria (70-130% with a limited # allowed 60-140% (see table) provisional analyte limit 60-140% with a limited # allowed 50-150%, and no two consecutive MEs). Note: Ohio does not allow for ME.		✓		☐ [lcs6] LCS analyte(s) flagged as being outside control limits but within marginal limits ☐ [lcs5] LCS outside marginal exceedences high, but analytes were not detected	✓
13. If criteria were not met, was a NCM generated, approved by supervisor, and copy included in folder?	✓				NA
14. Does the CCAL folder contain complete data in the following order: data review checklist, a complete runlog, tune pass/fail page, m/z list, tune chromatogram, Target CCAL summary, Quan report, chromatogram, manual integrations.		✓			✓

Number of target analytes in LCS	# marginal exceedances of LCS control limits allowed
>90	5
71 - 90	4
51 - 70	3
31 - 50	2
11 - 30	1
< 11	0

Analyst:	Date: 10/11/11	2nd Level Reviewer:	Date: 10/11/11
Comments:		Comments:	

TestAmerica Laboratories, Inc. – Knoxville
CANISTER RUN LOG

GCMS Analysis: AIR (7M) OHIO Inst: MJ

Analyst: ATB Qtims Batch: 1283174 (MM3TN) 1283175 (MM3TP)

Date: 10/10/11 ICAL Batch: J082511I Target Batch: J101011 IS #1 Area: 433376

Surr/IS ID & Vol.: 40mL V425 System Date/Time ok (y/n): y

Preventive Maintenance Performed ☐ Daily 1283176 (MM3TQ)

Time	Use	Lot No.	File ID	Can #	Pos	Vol* (mL)	Can DF	Comments
0829	✓	tune	JBFBJ10	—	16	100	1	
0900	✓	CW	CW	CX2277	15			
0900	✓	LCJ	LCJ					
1243	ok	BK	flush	—	16	500		
1334	✓		JBlkJ10	—				
1428	RR	lot ✓	9490	6617	1			
1533	✓	HIJ060413	MM1KJ2AA	12539	2	50		ace
1625	✓	lot ✓	9491	6674	3	500	1	
1714	RR 100mL	HIJ070441	MM2MU1AA	04420	4	25	1237.49	polyone 989.92
1807	✓		MW	6116	5	314	1.57	
1901	✓	HIJ070409	AQ	6576	6	250	1	mysdec
1956	✓		AE	1150	7	500		
2050	✓		AH	12738	8			
2143	✓		AK	6610	9			
2237	✓		AL	11347	10			
2333	✓		AN	03775	11			
0026	dup		AND		11			
0119	✓	HIJ050456	MMOX22AA	6642	12	250	3.84	mmoX22AA 7.68
0211	✓		XP1AA	1138	13	200	1	mmoXP1AA
0303	✓	HIJ040448	MMXV11AA	6594	14	100		accom
0355	✓		VN2AA	6609	15	75		6.7
0451	✓	HIJ060456	MMNV81AA	046402	1	500	1225.1	golden 490.04
Run on MG		HIJ100405	MM29L	NA	2	NA	1	genie
			9N		3			
0540	✓	HIJ070441	MVR	04420	4	100	1237.49	(EST) propane 2474.98
0636	100mL	lot ✓	9492	6627	2	500	1	fce @ 0.07
0730	✓		9490A	6617	3			
			ATB 10/11/11					

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

Analyst: ATB Date: 10/11/11

Test America - Knoxville

Entech Autosampler Log

Position	Volume	Date	Time
16	100	10/10/2011	8:29
15	101	10/10/2011	8:59
16	500	10/10/2011	12:42
16	502	10/10/2011	13:34
1	500	10/10/2011	14:28
2	50	10/10/2011	15:33
3	500	10/10/2011	16:25
4	26	10/10/2011	17:14
5	316	10/10/2011	18:07
6	250	10/10/2011	19:01
7	501	10/10/2011	19:56
8	500	10/10/2011	20:50
9	502	10/10/2011	21:43
10	500	10/10/2011	22:37
11	502	10/10/2011	23:33
11	501	10/11/2011	0:26
12	250	10/11/2011	1:19
13	201	10/11/2011	2:11
14	101	10/11/2011	3:03
15	75	10/11/2011	3:55
1	500	10/11/2011	4:51
4	100	10/11/2011	5:40
2	501	10/11/2011	6:36
3	500	10/11/2011	7:30

Data File: /chem/gcms/mj.i/J101011.b/jbfbj10.d

Date : 10-OCT-2011 08:29

Client ID: BFB

Instrument: mj.i

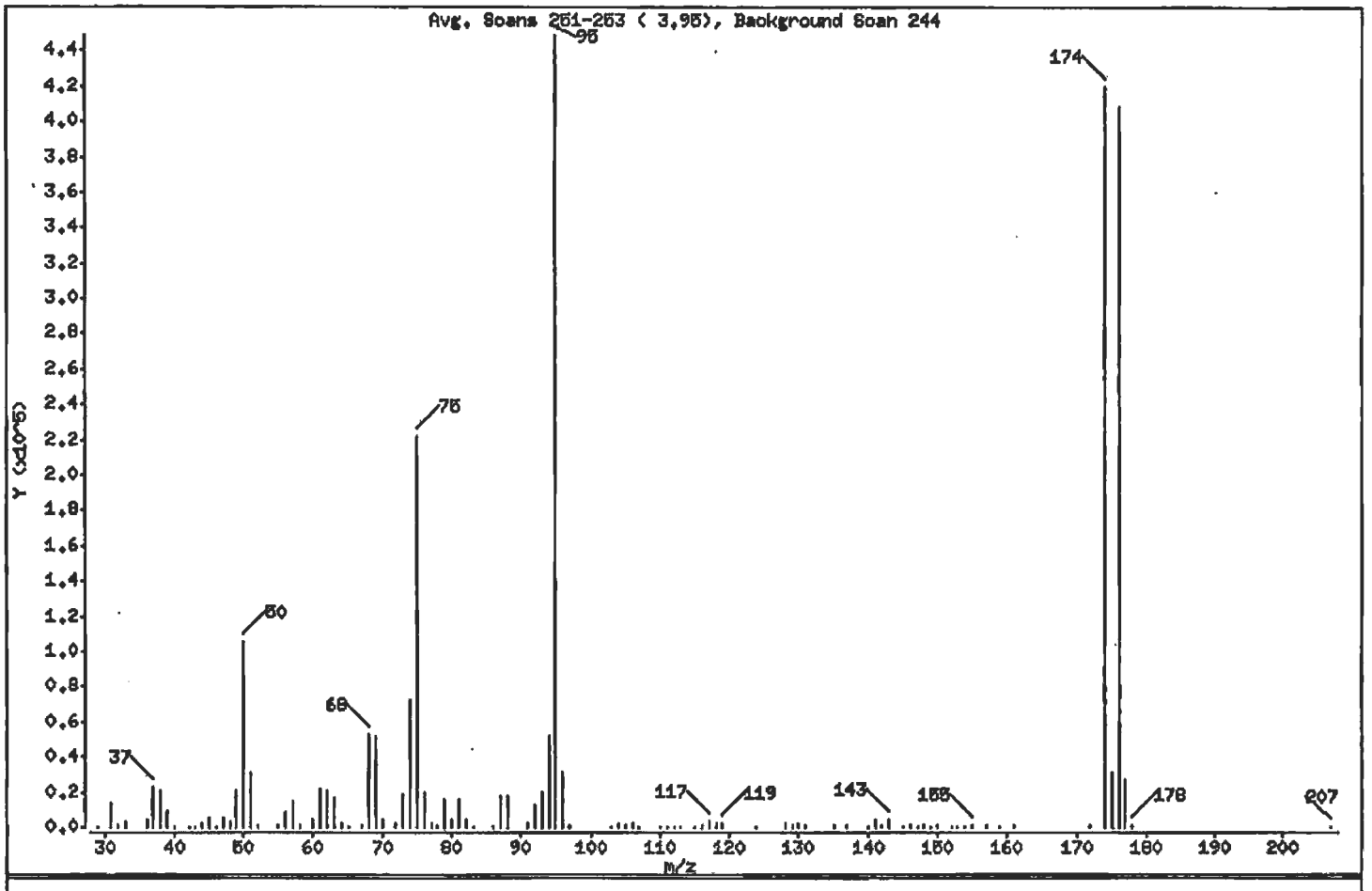
Sample Info: BFB,,3,,,BFB

Operator: 22980

Column phase: Rtx-5

Column diameter: 0.32

1 BFB



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	23.46
75	30.00 - 60.00% of mass 95	49.54
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 - 120.00% of mass 95	93.67
175	5.00 - 9.00% of mass 174	6.85 (7.32)
176	95.00 - 101.00% of mass 174	91.11 (97.27)
177	5.00 - 9.00% of mass 176	6.07 (6.66)

Data File: /chem/gcms/mj.i/J101011.b/jbfbj10.d

Date : 10-OCT-2011 08:29

Client ID: BFB

Instrument: mj.i

Sample Info: BFB,,3,,,BFB

Operator: 22980

Column phase: Rtx-5

Column diameter: 0.32

Data File: jbfbj10.d
Spectrum: Avg. Scans 251-253 (3.95), Background Scan 244
Location of Maximum: 95.00
Number of points: 101

m/z	Y	m/z	Y	m/z	Y	m/z	Y
29.00	56	62.00	20896	94.00	51176	141.00	4284
31.00	13519	63.00	16504	95.00	448576	142.00	516
32.00	644	64.00	1559	96.00	31352	143.00	4485
33.00	2723	65.00	337	97.00	956	145.00	434
36.00	4080	67.00	1298	103.00	117	146.00	739
37.00	22712	68.00	52144	104.00	2325	147.00	266
38.00	20448	69.00	51776	105.00	723	148.00	1103
39.00	8841	70.00	3778	106.00	2196	149.00	400
40.00	375	72.00	2052	107.00	479	150.00	521
42.00	110	73.00	18152	110.00	202	152.00	118
43.00	446	74.00	72144	111.00	379	153.00	248
44.00	2437	75.00	222208	112.00	100	154.00	251
45.00	4938	76.00	19696	113.00	388	155.00	1150
46.00	271	77.00	2508	115.00	495	157.00	954
47.00	5143	78.00	1213	116.00	1483	159.00	493
48.00	2856	79.00	15659	117.00	2716	161.00	573
49.00	20792	80.00	4595	118.00	1866	172.00	587
50.00	105240	81.00	15374	119.00	2360	174.00	420160
51.00	31376	82.00	3744	124.00	233	175.00	30744
52.00	1425	83.00	428	128.00	1612	176.00	408704
55.00	1544	86.00	434	129.00	728	177.00	27224
56.00	7974	87.00	17704	130.00	1863	178.00	794
57.00	14181	88.00	17264	131.00	786	207.00	28
58.00	537	91.00	1913	135.00	802		
60.00	4108	92.00	12730	137.00	706		
61.00	21832	93.00	19272	140.00	173		

Data File: /ohem/gcms/mj.i/J101011.b/jbfbj10.d

Date : 10-OCT-2011 08:29

Client ID: BFB

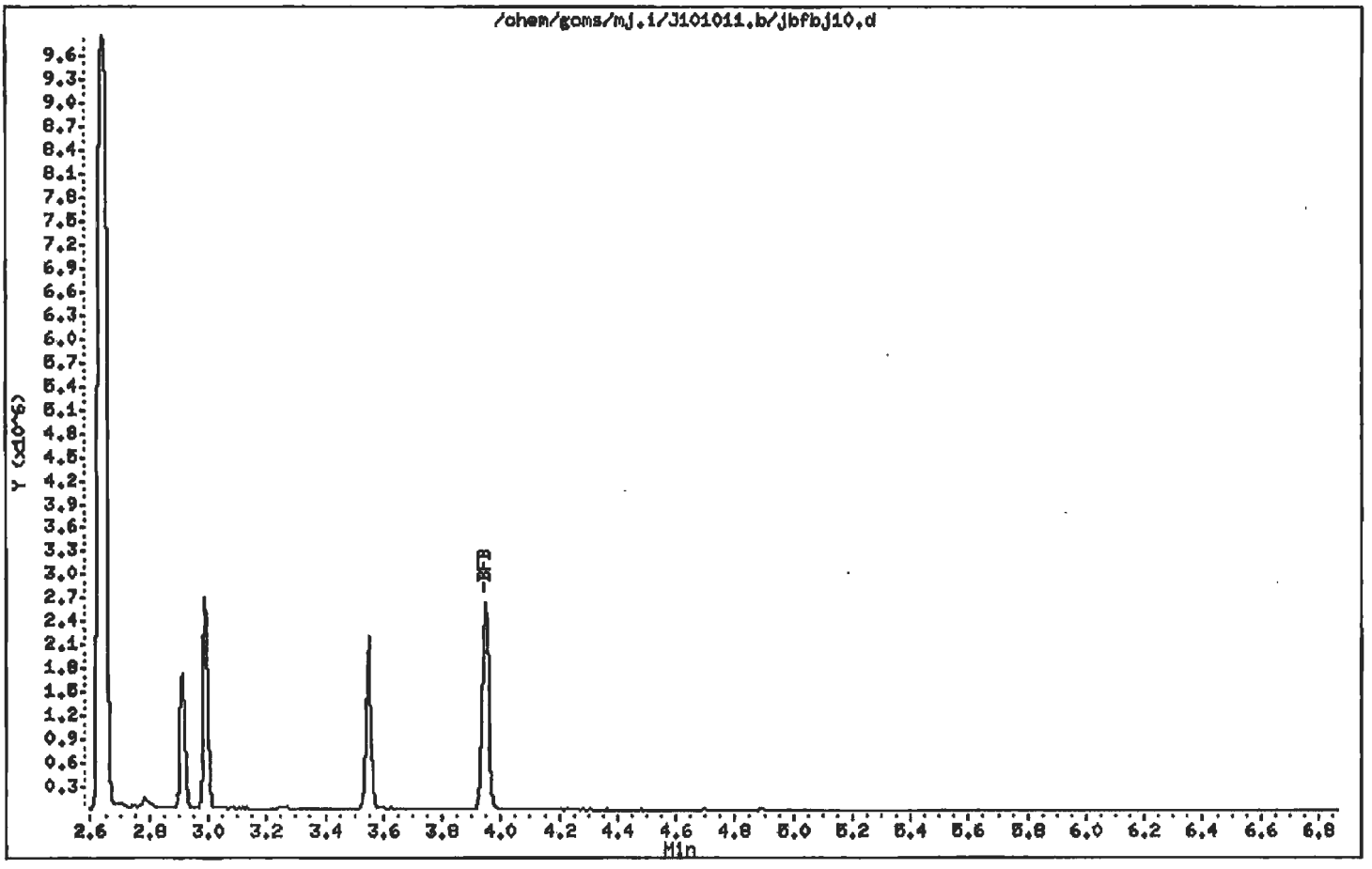
Instrument: mj.i

Sample Info: BFB,,3,,,BFB

Operator: 22980

Column phase: Rtx-5

Column diameter: 0.32



Data File: /var/chem/gcms/mj.i/J101011.b/jccvj10.d
Report Date: 10-Oct-2011 17:09

TestAmerica Knoxville

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: mj.i
Lab File ID: jccvj10.d
Analysis Type: AIR
Lab Sample ID: CCV
Method: /var/chem/gcms/mj.i/J101011.b/TO15.m

Injection Date: 10-OCT-2011 09:00
Init. Cal. Date(s): 25-AUG-2011 26-AUG-2011
Init. Cal. Times: 18:41 11:05
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 4 4-Bromofluorobenzene	0.75925	0.75625	0.000	0.39489	30.00000	Averaged
5 Chlorodifluoromethane	0.49057	0.50602	0.000	-3.14921	30.00000	Averaged
6 Propene	2.04513	1.79176	0.000	12.38893	30.00000	Averaged
7 Dichlorodifluoromethane	5.03530	4.72531	0.000	6.15643	30.00000	Averaged
8 Chloromethane	0.66089	0.59432	0.000	10.07236	30.00000	Averaged
9 1,2-Dichlorotetrafluoroetha	2.94554	2.66701	0.000	9.45623	30.00000	Averaged
10 Methanol	0.46543	0.53331	0.000	-14.58418	30.00000	Averaged
11 ~ acetaldehyde	0.36162	0.22888	0.000	36.70596	30.00000	Averaged <- Ok
12 Vinyl Chloride	2.09280	1.75841	0.000	15.97796	30.00000	Averaged
13 n-Butane	3.42831	2.85034	0.000	16.85859	30.00000	Averaged
14 1,3-Butadiene	1.56599	1.34191	0.000	14.30930	30.00000	Averaged
15 Bromomethane	1.42910	1.29331	0.000	9.50230	30.00000	Averaged
16 Chloroethane	0.91279	0.76341	0.000	16.36543	30.00000	Averaged
17 ~ ethanol	0.60227	0.46355	0.000	23.03322	30.00000	Averaged
18 Vinyl Bromide	1.53549	1.47964	0.000	3.63719	30.00000	Averaged
19 2-methyl butane	3.02498	2.60257	0.000	13.96407	30.00000	Averaged
20 Trichlorofluoromethane	4.16522	4.03722	0.000	3.07315	30.00000	Averaged
21 Acrolein	0.36472	0.27082	0.000	25.74575	30.00000	Averaged
22 Acetonitrile	0.57293	0.46011	0.000	19.69190	30.00000	Averaged
23 Acetone	0.59270	0.46859	0.000	20.93929	30.00000	Averaged
24 Isopropyl alcohol	2.27590	1.67603	0.000	26.35744	30.00000	Averaged
25 Pentane	0.28351	0.24496	0.000	13.59881	30.00000	Averaged
26 Ethyl Ether	2.11136	1.83939	0.000	12.88138	30.00000	Averaged
27 1,1-Dichloroethene	1.43179	1.47527	0.000	-3.03650	30.00000	Averaged
28 tert-butanol	2.72616	1.97109	0.000	27.69722	30.00000	Averaged
29 Acrylonitrile	0.96018	0.81098	0.000	15.53895	30.00000	Averaged
30 1,1,2-Trichlorotrifluoroeth	2.96115	3.17751	0.000	-7.30660	30.00000	Averaged
31 Methylene Chloride	1.42758	1.39093	0.000	2.56728	30.00000	Averaged
32 3-Chloropropene	1.89647	1.64132	0.000	13.45423	30.00000	Averaged
33 Carbon Disulfide	5.06815	4.59684	0.000	9.29946	30.00000	Averaged
34 trans-1,2-Dichloroethene	1.64024	1.47132	0.000	10.29846	30.00000	Averaged
35 ~ 2-Methyl Pentane	5.38049	5.07547	0.000	5.66896	30.00000	Averaged
36 Methyl-t-Butyl Ether	2.81920	2.43761	0.000	13.53520	30.00000	Averaged
37 1,1-Dichloroethane	3.41071	3.26475	0.000	4.27953	30.00000	Averaged
38 Vinyl Acetate	3.26534	2.86292	0.000	12.32403	30.00000	Averaged

Data File: /var/chem/gcms/mj.i/J101011.b/jccvj10.d
Report Date: 10-Oct-2011 17:09

TestAmerica Knoxville

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: mj.i
Lab File ID: jccvj10.d
Analysis Type: AIR
Lab Sample ID: CCV
Method: /var/chem/gcms/mj.i/J101011.b/TO15.m

Injection Date: 10-OCT-2011 09:00
Init. Cal. Date(s): 25-AUG-2011 26-AUG-2011
Init. Cal. Times: 18:41 11:05
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
39 2-Butanone	0.48833	0.38220	0.000	21.73459	30.00000	Averaged	
40 Hexane	1.85779	1.59417	0.000	14.18982	30.00000	Averaged	
41 cis 1,2-Dichloroethene	1.59162	1.52709	0.000	4.05445	30.00000	Averaged	
42 Ethyl acetate	2.97501	2.41400	0.000	18.85740	30.00000	Averaged	
43 Chloroform	3.34173	3.07824	0.000	7.88470	30.00000	Averaged	
44 Tetrahydrofuran	1.62933	1.37804	0.000	15.42258	30.00000	Averaged	
45 1,1,1-Trichloroethane	3.32384	3.17392	0.000	4.51034	30.00000	Averaged	
46 1,2-Dichloroethane	0.50008	0.48304	0.000	3.40792	30.00000	Averaged	
47 1-Butanol	0.19114	0.11888	0.000	37.80314	30.00000	Averaged	<- 60140
48 Benzene	0.99250	0.87509	0.000	11.83040	30.00000	Averaged	
49 Cyclohexane	0.20492	0.16825	0.000	17.89404	30.00000	Averaged	
50 Carbon Tetrachloride	0.68894	0.72593	0.000	-5.36965	30.00000	Averaged	
51 ~ 2,3-dimethylpentane	0.24041	0.20173	0.000	16.08618	30.00000	Averaged	
52 ~ Thiophene	0.55906	0.48091	0.000	13.97853	30.00000	Averaged	
53 2,2,4-trimethylpentane	2.11318	1.71174	0.000	18.99728	30.00000	Averaged	
54 Heptane	0.36437	0.28668	0.000	21.32165	30.00000	Averaged	
55 1,2-Dichloropropane	0.37472	0.33104	0.000	11.65720	30.00000	Averaged	
56 Trichloroethene	0.47013	0.38028	0.000	19.11168	30.00000	Averaged	
180 ~ 2-nitropropane	++++	0.73747	0.000	++++	30.00000	Averaged	<- NA
57 Dibromomethane	0.43261	0.38579	0.000	10.82234	30.00000	Averaged	
58 Bromodichloromethane	0.72572	0.63754	0.000	12.15050	30.00000	Averaged	
59 1,4-dioxane	0.10184	0.07076	0.000	30.52474	30.00000	Averaged	<- 60140
60 Methyl Methacrylate	0.38410	0.29690	0.000	22.70315	30.00000	Averaged	
61 ~ methyl cyclohexane	0.61885	0.52523	0.000	15.12826	30.00000	Averaged	
62 4-Methyl-2-pentanone	0.74122	0.55069	0.000	25.70460	30.00000	Averaged	
63 cis-1,3-Dichloropropene	0.48695	0.44202	0.000	9.22662	30.00000	Averaged	
64 trans-1,3-Dichloropropene	0.50941	0.47002	0.000	7.73158	30.00000	Averaged	
65 Toluene	1.02036	0.86727	0.000	15.00399	30.00000	Averaged	
66 1,1,2-Trichloroethane	0.34481	0.29259	0.000	15.14424	30.00000	Averaged	
67 ~ 2-methyl thiophene	0.87256	0.75322	0.000	13.67629	30.00000	Averaged	
68 ~ 3-methyl thiophene	0.87577	0.75288	0.000	14.03216	30.00000	Averaged	
69 2-Hexanone	0.37448	0.25959	0.000	30.67939	30.00000	Averaged	<- 60140
70 Octane	0.38717	0.31089	0.000	19.70271	30.00000	Averaged	
71 Dibromochloromethane	0.66854	0.58035	0.000	13.19154	30.00000	Averaged	
72 1,2-Dibromoethane	0.59375	0.52022	0.000	12.38449	30.00000	Averaged	

Data File: /var/chem/gcms/mj.i/J101011.b/jccvj10.d
Report Date: 10-Oct-2011 17:09

TestAmerica Knoxville

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: mj.i
Lab File ID: jccvj10.d
Analysis Type: AIR
Lab Sample ID: CCV
Method: /var/chem/gcms/mj.i/J101011.b/TO15.m

Injection Date: 10-OCT-2011 09:00
Init. Cal. Date(s): 25-AUG-2011 26-AUG-2011
Init. Cal. Times: 18:41 11:05
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
73 Tetrachloroethene	0.42694	0.35136	0.000	17.70320	30.00000	Averaged
74 Chlorobenzene	0.82303	0.69757	0.000	15.24319	30.00000	Averaged
75 ~ 2,3-dimethylheptane	1.59545	1.38875	0.000	12.95599	30.00000	Averaged
76 Ethylbenzene	1.16255	0.98812	0.000	15.00389	30.00000	Averaged
77 ~ 2-ethyl thiophene	0.93321	0.79651	0.000	14.64782	30.00000	Averaged
78 m&p-Xylene	0.89266	0.74078	0.000	17.01421	30.00000	Averaged
79 Nonane	0.90004	0.78013	0.000	13.32247	30.00000	Averaged
80 Bromoform	0.56474	0.41575	0.000	26.38151	30.00000	Averaged
81 Styrene	0.65113	0.53931	0.000	17.17339	30.00000	Averaged
82 o-Xylene	0.92837	0.75352	0.000	18.83362	30.00000	Averaged
M 83 Xylene (total)	0.90456	0.74503	0.000	17.63664	30.00000	Averaged
84 1,1,2,2-Tetrachloroethane	0.74848	0.59257	0.000	20.83050	30.00000	Averaged
85 1,2,3-Trichloropropane	0.16934	0.13096	0.000	22.66461	30.00000	Averaged
86 Cumene	1.20507	0.96076	0.000	20.27368	30.00000	Averaged
87 n-Propylbenzene	0.31476	0.24740	0.000	21.40020	30.00000	Averaged
88 2-chlorotoluene	0.32960	0.27828	0.000	15.57269	30.00000	Averaged
89 4-Ethyltoluene	1.15748	0.88705	0.000	23.36394	30.00000	Averaged
90 1,3,5-Trimethylbenzene	0.52408	0.41536	0.000	20.74495	30.00000	Averaged
91 Alpha-Methylstyrene	0.45891	0.34559	0.000	24.69360	30.00000	Averaged
92 Decane	0.93471	0.81410	0.000	12.90320	30.00000	Averaged
93 tert-butylbenzene	0.94432	0.73456	0.000	22.21266	30.00000	Averaged
94 1,2,4-Trimethylbenzene	0.90340	0.69064	0.000	23.55082	30.00000	Averaged
95 sec-butylbenzene	1.29873	1.02522	0.000	21.06011	30.00000	Averaged
96 1,3-Dichlorobenzene	0.69027	0.54674	0.000	20.79350	30.00000	Averaged
97 Benzyl Chloride	0.83948	0.60990	0.000	27.34848	30.00000	Averaged
98 1,4-Dichlorobenzene	0.67600	0.52067	0.000	22.97817	30.00000	Averaged
99 p-Cymene	1.01007	0.76545	0.000	24.21804	30.00000	Averaged
100 ~ 1,2,3- Trimethylbenzene	0.74827	0.55097	0.000	26.36737	30.00000	Averaged
101 ~ n-butylcyclohexane	0.86210	0.76455	0.000	11.31548	30.00000	Averaged
102 ~ Indane	0.82906	0.60919	0.000	26.51979	30.00000	Averaged
103 1,2-Dichlorobenzene	0.62549	0.46694	0.000	25.34845	30.00000	Averaged
104 n-butylbenzene	1.02775	0.75739	0.000	26.30625	30.00000	Averaged
105 ~ Indene	0.62420	0.44147	0.000	29.27372	30.00000	Averaged
106 Undecane	0.73834	0.55597	0.000	24.70052	30.00000	Averaged
107 ~ 1,2-dimethyl-4-ethylenzen	0.83672	0.59643	0.000	28.71847	30.00000	Averaged
108 ~ 1,2,4,5-tetramethylbenzen	0.78110	0.55264	0.000	29.24815	30.00000	Averaged

Data File: /var/chem/gcms/mj.i/J101011.b/jccvj10.d
Report Date: 10-Oct-2011 17:09

TestAmerica Knoxville

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: mj.i
Lab File ID: jccvj10.d
Analysis Type: AIR
Lab Sample ID: CCV
Method: /var/chem/gcms/mj.i/J101011.b/TO15.m

Injection Date: 10-OCT-2011 09:00
Init. Cal. Date(s): 25-AUG-2011 26-AUG-2011
Init. Cal. Times: 18:41 11:05
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
109 ~ 1,2,3,5-tetramethylbenzen	0.54553	0.42179	0.000	22.68222	30.00000	Averaged
110 ~ 1,2,3,4-tetramethylbenzen	0.60187	0.44219	0.000	26.53110	30.00000	Averaged
111 Dodecane	0.62229	0.51698	0.000	16.92226	30.00000	Averaged
112 1,2,4-Trichlorobenzene	0.35923	0.28742	0.000	19.99011	30.00000	Averaged
113 Napthalene	0.74563	0.56888	0.000	23.70462	30.00000	Averaged
114 ~ benzo(b) thiophene	0.48491	0.33955	0.000	29.97751	30.00000	Averaged
115 Hexachlorobutadiene	0.35521	0.31171	0.000	12.24580	30.00000	Averaged
116 1,2,3-trichlorobenzene	0.30170	0.24241	0.000	19.65167	30.00000	Averaged
117 ~ 2-Methylnaphthalene	0.06963	0.05019	0.000	27.92068	30.00000	Averaged
118 ~ 1-Methylnaphthalene	0.06059	0.03444	0.000	43.15963	30.00000	Averaged <- OK

Data File: /var/chem/gcms/mj.i/J101011.b/jccvj10.d
Report Date: 10-Oct-2011 17:09

TestAmerica Knoxville

Modified Method TO-14/TO-15

Data file : /var/chem/gcms/mj.i/J101011.b/jccvj10.d
Lab Smp Id: CCV Client Smp ID: CCV/LCS
Inj Date : 10-OCT-2011 09:00
Operator : 22980 Inst ID: mj.i
Smp Info : CCV,,2,6,,CCV/LCS
Misc Info : J101011,TO15,all.sub,,,
Comment :
Method : /var/chem/gcms/mj.i/J101011.b/TO15.m
Meth Date : 10-Oct-2011 17:09 barlozha Quant Type: ISTD
Cal Date : 25-AUG-2011 21:16 Cal File: jich256.d
Als bottle: 13 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: qmidhp01

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Default Calibration Volume
Vo	200.00000	Default Sample Volume

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	ON-COL (ppb(v/v))
* 1 Bromochloromethane	128	9.208	9.208	(1.000)	433376	4.00000	4.000
* 2 1,4-Difluorobenzene	114	11.387	11.387	(1.000)	2001209	4.00000	4.000
* 3 Chlorobenzene-d5	117	16.083	16.083	(1.000)	1795707	4.00000	4.000
$ 4 4-Bromofluorobenzene	95	17.713	17.713	(1.101)	1358012	4.00000	3.984
5 Chlorodifluoromethane	67	3.877	3.877	(0.421)	109649	2.00000	2.063
6 Propene	41	3.888	3.888	(0.422)	388254	2.00000	1.752
7 Dichlorodifluoromethane	85	3.941	3.941	(0.428)	1023918	2.00000	1.877
8 Chloromethane	52	4.135	4.135	(0.449)	128782	2.00000	1.798
9 1,2-Dichlorotetrafluoroethane	135	4.146	4.146	(0.450)	577909	2.00000	1.811
10 Methanol	31	4.269	4.269	(0.464)	115562	2.00000	2.292
11 ~ acetaldehyde	44	4.296	4.296	(0.467)	250957	10.1200	6.405
12 Vinyl Chloride	62	4.318	4.318	(0.469)	381027	2.00000	1.680
13 n-Butane	43	4.415	4.415	(0.479)	617635	2.00000	1.663
14 1,3-Butadiene	54	4.415	4.415	(0.479)	290775	2.00000	1.714
15 Bromomethane	94	4.754	4.754	(0.516)	280244	2.00000	1.810

Data File: /var/chem/gcms/mj.i/J101011.b/jccvj10.d
Report Date: 10-Oct-2011 17:09

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
16 Chloroethane	64	4.904	4.904	(0.533)	165420	2.00000	1.673
17 ~ ethanol	31	4.985	4.985	(0.541)	524323	10.4400	8.035
18 Vinyl Bromide	106	5.227	5.227	(0.568)	320620	2.00000	1.927
19 2-methyl butane	43	5.281	5.281	(0.574)	563946	2.00000	1.721
20 Trichlorofluoromethane	101	5.512	5.512	(0.599)	874817	2.00000	1.938
21 Acrolein	56	5.512	5.512	(0.599)	58684	2.00000	1.485
22 Acetonitrile	40	5.577	5.577	(0.606)	99700	2.00000	1.606
23 Acetone	58	5.625	5.625	(0.611)	101537	2.00000	1.581
24 Isopropyl alcohol	45	5.700	5.700	(0.619)	363175	2.00000	1.473
25 Pentane	72	5.743	5.743	(0.624)	53079	2.00000	1.728
26 Ethyl Ether	31	5.905	5.905	(0.641)	398573	2.00000	1.742
27 1,1-Dichloroethene	96	6.249	6.249	(0.679)	319673	2.00000	2.061
28 tert-butanol	59	6.314	6.314	(0.686)	427112	2.00000	1.446
29 Acrylonitrile	53	6.341	6.341	(0.689)	175729	2.00000	1.689
30 1,1,2-Trichlorotrifluoroethane	101	6.432	6.432	(0.699)	688530	2.00000	2.146
31 Methylene Chloride	84	6.604	6.604	(0.717)	301398	2.00000	1.949
32 3-Chloropropene	39	6.620	6.620	(0.719)	355654	2.00000	1.731
33 Carbon Disulfide	76	6.776	6.776	(0.736)	996081	2.00000	1.814
34 trans-1,2-Dichloroethene	96	7.438	7.438	(0.808)	318817	2.00000	1.794
35 ~ 2-Methyl Pentane	43	7.465	7.465	(0.811)	1099794	2.00000	1.887
36 Methyl-t-Butyl Ether	73	7.562	7.562	(0.821)	528202	2.00000	1.729
37 1,1-Dichloroethane	63	7.868	7.868	(0.855)	707432	2.00000	1.914
38 Vinyl Acetate	43	7.965	7.965	(0.865)	620361	2.00000	1.754
39 2-Butanone	72	8.412	8.412	(0.914)	82817	2.00000	1.565
40 Hexane	56	8.471	8.471	(0.920)	345437	2.00000	1.716
41 cis 1,2-Dichloroethene	96	8.869	8.869	(0.963)	330901	2.00000	1.919
42 Ethyl acetate	43	9.046	9.046	(0.982)	523085	2.00000	1.623
43 Chloroform	83	9.219	9.219	(1.001)	667018	2.00000	1.842
44 Tetrahydrofuran	42	9.622	9.622	(1.045)	298605	2.00000	1.692
45 1,1,1-Trichloroethane	97	10.268	10.268	(1.115)	687751	2.00000	1.910
46 1,2-Dichloroethane	62	10.370	10.370	(0.911)	483333	2.00000	1.932
47 1-Butanol	31	10.773	10.773	(0.946)	118954	2.00000	1.244
48 Benzene	78	10.859	10.859	(0.954)	875616	2.00000	1.763
49 Cyclohexane	69	10.870	10.870	(0.955)	168355	2.00000	1.642
50 Carbon Tetrachloride	117	10.886	10.886	(0.956)	726372	2.00000	2.107
51 ~ 2,3-dimethylpentane	71	10.983	10.983	(0.965)	207911	2.06000	1.729
52 ~ Thiophene	84	11.128	11.128	(0.977)	500448	2.08000	1.789
53 2,2,4-trimethylpentane	57	11.618	11.618	(1.020)	1712770	2.00000	1.620
54 Heptane	71	11.978	11.978	(1.052)	286855	2.00000	1.574
55 1,2-Dichloropropane	63	12.054	12.054	(1.059)	331240	2.00000	1.767
56 Trichloroethene	130	12.097	12.097	(1.062)	380507	2.00000	1.618
180 ~ 2-nitropropane	43	11.978	11.978	(1.052)	737912	2.00000	
57 Dibromomethane	93	12.172	12.172	(1.069)	386028	2.00000	1.784
58 Bromodichloromethane	83	12.317	12.317	(1.082)	637926	2.00000	1.757
59 1,4-dioxane	88	12.323	12.323	(1.082)	70798	2.00000	1.390
60 Methyl Methacrylate	41	12.398	12.398	(1.089)	297076	2.00000	1.546
61 ~ methyl cyclohexane	83	12.866	12.866	(1.130)	546568	2.08000	1.765

Data File: /var/chem/gcms/mj.i/J101011.b/jccvj10.d
Report Date: 10-Oct-2011 17:09

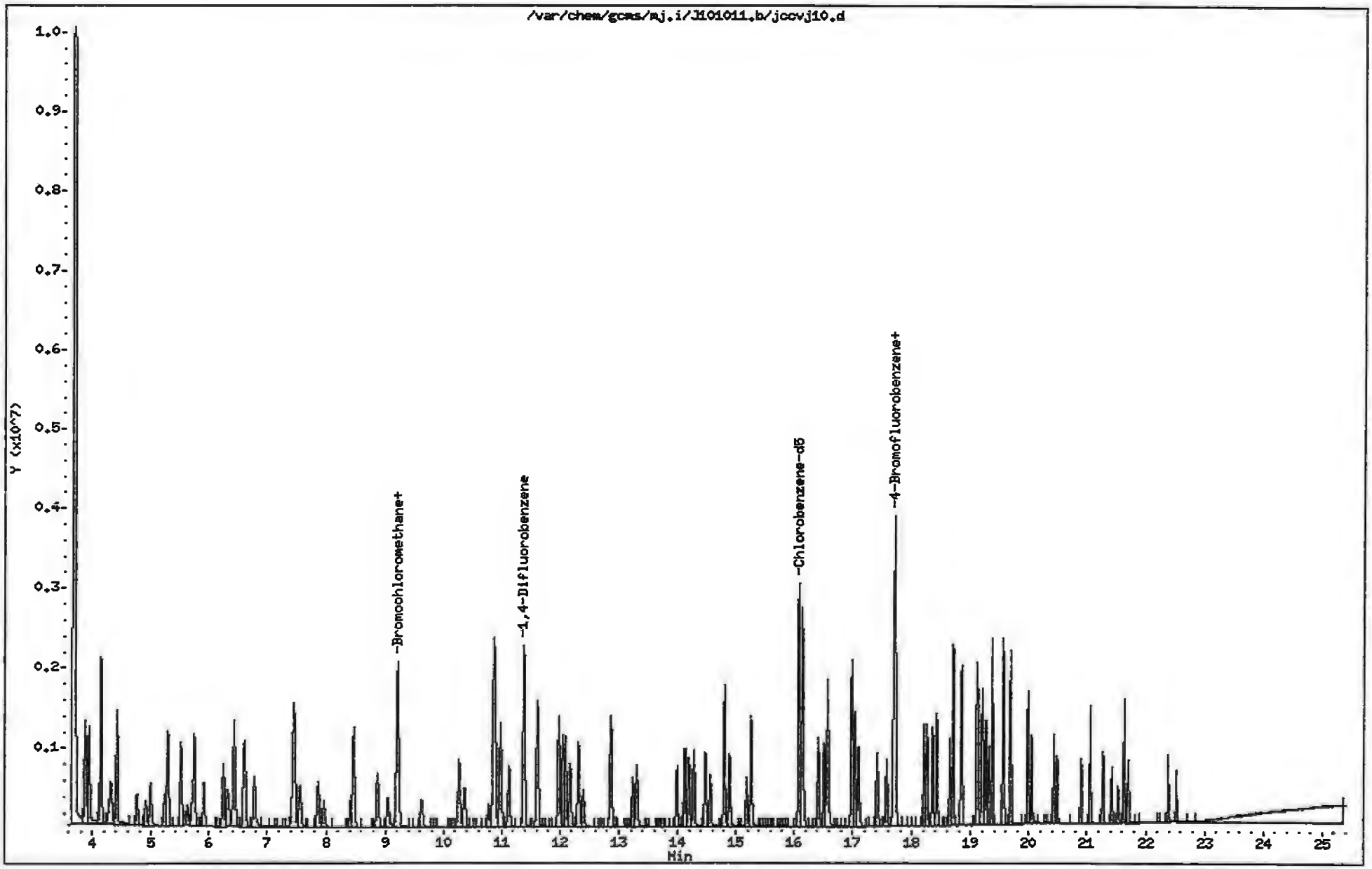
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
62	4-Methyl-2-pentanone	43	13.237	13.237	(1.163)	551026	2.00000	1.486
63	cis-1,3-Dichloropropene	75	13.307	13.307	(1.169)	442291	2.00000	1.815
64	trans-1,3-Dichloropropene	75	13.990	13.990	(0.870)	422011	2.00000	1.845
65	Toluene	91	14.130	14.130	(0.879)	778680	2.00000	1.700
66	1,1,2-Trichloroethane	83	14.189	14.189	(0.882)	262706	2.00000	1.697
67	~ 2-methyl thiophene	97	14.275	14.275	(0.888)	710097	2.10000	1.813
68	~ 3-methyl thiophene	97	14.480	14.480	(0.900)	703019	2.08000	1.788
69	2-Hexanone	58	14.560	14.560	(0.905)	233076	2.00000	1.386
70	Octane	85	14.808	14.808	(0.921)	279130	2.00000	1.606
71	Dibromochloromethane	129	14.894	14.894	(0.926)	521065	2.00000	1.736
72	1,2-Dibromoethane	107	15.184	15.184	(0.944)	467082	2.00000	1.752
73	Tetrachloroethene	129	15.265	15.265	(0.949)	315469	2.00000	1.646
74	Chlorobenzene	112	16.131	16.131	(1.003)	626320	2.00000	1.695
75	~ 2,3-dimethylheptane	43	16.147	16.147	(1.004)	1296766	2.08000	1.810
76	Ethylbenzene	91	16.416	16.416	(1.021)	887190	2.00000	1.700
77	~ 2-ethyl thiophene	97	16.519	16.519	(1.027)	736608	2.06000	1.758
78	m&p-Xylene	91	16.578	16.578	(1.031)	1330230	4.00000	3.319
79	Nonane	57	16.992	16.992	(1.057)	700441	2.00000	1.734
80	Bromoform	173	17.024	17.024	(1.059)	373285	2.00000	1.472
81	Styrene	104	17.040	17.040	(1.060)	484218	2.00000	1.656
82	o-Xylene	91	17.105	17.105	(1.064)	676553	2.00000	1.623
M 83	Xylene (total)	100				2006784	6.00000	4.943
84	1,1,2,2-Tetrachloroethane	83	17.417	17.417	(1.083)	532041	2.00000	1.583
85	1,2,3-Trichloropropane	110	17.573	17.573	(1.093)	117581	2.00000	1.547
86	Cumene	105	17.686	17.686	(1.100)	862620	2.00000	1.594
87	n-Propylbenzene	120	18.208	18.208	(1.132)	222131	2.00000	1.572
88	2-chlorotoluene	126	18.251	18.251	(1.135)	249850	2.00000	1.688
89	4-Ethyltoluene	105	18.353	18.353	(1.141)	796442	2.00000	1.533
90	1,3,5-Trimethylbenzene	120	18.423	18.423	(1.145)	372929	2.00000	1.585
91	Alpha-Methylstyrene	118	18.649	18.649	(1.160)	310287	2.00000	1.506
92	Decane	57	18.697	18.697	(1.163)	730946	2.00000	1.742
93	tert-butylbenzene	119	18.837	18.837	(1.171)	659529	2.00000	1.556
94	1,2,4-Trimethylbenzene	105	18.853	18.853	(1.172)	620097	2.00000	1.529
95	sec-butylbenzene	105	19.101	19.101	(1.188)	920494	2.00000	1.579
96	1,3-Dichlorobenzene	146	19.117	19.117	(1.189)	490890	2.00000	1.584
97	Benzyl Chloride	91	19.187	19.187	(1.193)	547597	2.00000	1.453
98	1,4-Dichlorobenzene	146	19.203	19.203	(1.194)	467484	2.00000	1.540
99	p-Cymene	119	19.262	19.262	(1.198)	687260	2.00000	1.516
100	~ 1,2,3- Trimethylbenzene	105	19.316	19.316	(1.201)	514476	2.08000	1.532
101	~ n-butylcyclohexane	83	19.370	19.370	(1.204)	707051	2.06000	1.827
102	~ Indane	117	19.558	19.558	(1.216)	563374	2.06000	1.514
103	1,2-Dichlorobenzene	146	19.558	19.558	(1.216)	419240	2.00000	1.493
104	n-butylbenzene	91	19.687	19.687	(1.224)	680022	2.00000	1.474
105	~ Indene	116	19.687	19.687	(1.224)	416194	2.10000	1.485
106	Undecane	57	19.983	19.983	(1.242)	499176	2.00000	1.506
107	~ 1,2-dimethyl-4-ethylenzene	119	20.047	20.047	(1.247)	551571	2.06000	1.468
108	~ 1,2,4,5-tetramethylbenzene	119	20.435	20.435	(1.271)	511078	2.06000	1.457

Data File: /var/chem/gcms/mj.i/J101011.b/jccvj10.d
Report Date: 10-Oct-2011 17:09

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
109 ~ 1,2,3,5-tetramethylbenzene	119	20.489	20.489	(1.274)	397645	2.10000	1.624
110 ~ 1,2,3,4-tetramethylbenzene	119	20.903	20.903	(1.300)	404962	2.04000	1.499
111 Dodecane	57	21.059	21.059	(1.309)	464176	2.00000	1.662
112 1,2,4-Trichlorobenzene	180	21.274	21.274	(1.323)	258060	2.00000	1.600
113 Napthalene	128	21.425	21.425	(1.332)	510771	2.00000	1.526
114 ~ benzo(b) thiophene	134	21.532	21.532	(1.339)	310962	2.04000	1.428
115 Hexachlorobutadiene	225	21.634	21.634	(1.345)	279874	2.00000	1.755
116 1,2,3-trichlorobenzene	180	21.710	21.710	(1.350)	217652	2.00000	1.607
117 ~ 2-Methylnaphthalene	142	22.388	22.388	(1.392)	281642	12.5000	9.010
118 ~ 1-Methylnaphthalene	142	22.527	22.527	(1.401)	193250	12.5000	7.105

Data File: /var/chem/gcms/mj.i/J101011.b/jccvj10.d
Date : 10-OCT-2011 09:00
Client ID: CCV/LCS
Sample Info: CCV,,2,6,,CCV/LCS
Purge Volume: 200.0
Column phase: Rtx-5

Instrument: mj.i
Operator: 22980
Column diameter: 0.32



Raw QC Data

ARCADIS U.S., Inc.

Client Sample ID: INTRA-LAB BLANK

GC/MS Volatiles

Lot-Sample # H1J100000 - 176B Work Order # MM3TQ1AA Matrix.....: AIR

10/05/2011 Date Received..: 10/06/2011
Prep Date.....: 10/10/2011 Analysis Date... 10/10/2011
Prep Batch #.....: 1283176
Dilution Factor.: 1 Method.....: TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
trans-1,3-Dichloropropene	ND	0.20	ND	0.91
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.20	ND	1.4
Acetone	ND	5.0	ND	12
1,4-Dioxane	ND	0.50	ND	1.8
Ethyl acetate	ND	2.0	ND	7.2
Ethylbenzene	ND	0.20	ND	0.87
Trichlorofluoromethane	ND	0.20	ND	1.1
n-Heptane	ND	0.50	ND	2.0
Hexachlorobutadiene	ND	1.0	ND	11
n-Hexane	ND	0.50	ND	1.8
2-Hexanone	ND	0.50	ND	2.0
2,2,4-Trimethylpentane	ND	0.50	ND	2.3
Cumene	ND	0.40	ND	2.0
tert-Butyl alcohol	ND	2.0	ND	6.1
Methylene chloride	0.048 J	0.50	0.17 J	1.7
Methyl methacrylate	ND	0.50	ND	2.0
Benzene	ND	0.20	ND	0.64
Acetonitrile	ND	1.0	ND	1.7
n-Octane	ND	0.40	ND	1.9
Pentane	ND	1.0	ND	3.0
Styrene	ND	0.20	ND	0.85
1,1,2,2-Tetrachloroethane	ND	0.20	ND	1.4
Tetrachloroethene	ND	0.20	ND	1.4
Toluene	ND	0.20	ND	0.75
1,2,4-Trichlorobenzene	ND	1.0	ND	7.4
1,1,1-Trichloroethane	ND	0.20	ND	1.1
1,1,2-Trichloroethane	ND	0.20	ND	1.1
Trichloroethene	ND	0.20	ND	1.1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	0.20	ND	1.5
1,2,4-Trimethylbenzene	ND	0.20	ND	0.98
1,3,5-Trimethylbenzene	ND	0.20	ND	0.98
Vinyl acetate	ND	1.0	ND	3.5
Vinyl chloride	ND	0.20	ND	0.51
o-Xylene	ND	0.20	ND	0.87
Methyl tert-butyl ether	ND	1.0	ND	3.6
alpha-Methylstyrene	ND	0.40	ND	1.9
Chlorodifluoromethane	ND	0.20	ND	0.71

ARCADIS U.S., Inc.

Client Sample ID: INTRA-LAB BLANK

GC/MS Volatiles

Lot-Sample # H1J100000 - 176B **Work Order #** MM3TQ1AA **Matrix.....:** AIR

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
m-Xylene & p-Xylene	ND	0.20	ND	0.87
Bromodichloromethane	ND	0.20	ND	1.3
1,2-Dibromoethane (EDB)	ND	0.20	ND	1.5
2-Butanone (MEK)	ND	1.0	ND	2.9
4-Methyl-2-pentanone (MIBK)	ND	0.50	ND	2.0
Bromoform	ND	0.20	ND	2.1
Bromomethane	ND	0.20	ND	0.78
1,3-Butadiene	ND	0.40	ND	0.88
4-Ethyltoluene	ND	0.40	ND	2.0
Acrolein	ND	0.80	ND	1.8
Carbon disulfide	ND	0.50	ND	1.6
Acrylonitrile	ND	2.0	ND	4.3
Carbon tetrachloride	ND	0.20	ND	1.3
Chlorobenzene	ND	0.20	ND	0.92
Dibromochloromethane	ND	0.20	ND	1.7
Chloroethane	ND	0.20	ND	0.53
Chloroform	ND	0.20	ND	0.98
Chloromethane	ND	0.50	ND	1.0
3-Chloropropene	ND	0.20	ND	0.63
Propene	ND	0.50	ND	0.86
Dibromomethane	ND	0.40	ND	2.8
1,2-Dichlorobenzene	ND	0.20	ND	1.2
1,3-Dichlorobenzene	ND	0.20	ND	1.2
1,4-Dichlorobenzene	ND	0.20	ND	1.2
Dichlorodifluoromethane	ND	0.20	ND	0.99
1,1-Dichloroethane	ND	0.20	ND	0.81
1,2-Dichloroethane	ND	0.20	ND	0.81
1,1-Dichloroethene	ND	0.20	ND	0.79
cis-1,2-Dichloroethene	ND	0.20	ND	0.79
trans-1,2-Dichloroethene	ND	0.20	ND	0.79
1,2-Dichloropropane	ND	0.20	ND	0.92
cis-1,3-Dichloropropene	ND	0.20	ND	0.91

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	92	60 - 140

Qualifiers

J Estimated result. Result is less than RL.

ARCADIS U.S., Inc.

Client Sample ID: INTRA-LAB BLANK

GC/MS Volatiles

Lot-Sample # H1J100000 - 176B Work Order # MM3TQ1AA Matrix.....: AIR

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Data File: /var/chem/gcms/mj.i/J101011.b/jblkj10.d
Report Date: 10-Oct-2011 17:34

TestAmerica Knoxville

Modified Method TO-14/TO-15

Data file : /var/chem/gcms/mj.i/J101011.b/jblkj10.d
Lab Smp Id: MM3TQ1AA Client Smp ID: INTRA-LAB BLANK
Inj Date : 10-OCT-2011 13:34
Operator : 403648 Inst ID: mj.i
Smp Info : MM3TQ1AA,,3,,,BLANK
Misc Info : J101011,TO15,1-all.sub,,,
Comment :
Method : /var/chem/gcms/mj.i/J101011.b/TO15.m
Meth Date : 10-Oct-2011 17:09 barlozha Quant Type: ISTD
Cal Date : 25-AUG-2011 21:16 Cal File: jich256.d
Als bottle: 14 QC Sample: METHOD BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Default Calibration Volume
Vo	500.00000	Default Sample Volume

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	FINAL (ppb(v/v))
* 1 Bromochloromethane	128	9.206	9.208	(1.000)	397607	4.00000	4.000
* 2 1,4-Difluorobenzene	114	11.385	11.387	(1.000)	2025435	4.00000	4.000
* 3 Chlorobenzene-d5	117	16.081	16.083	(1.000)	1740540	4.00000	4.000
§ 4 4-Bromofluorobenzene	95	17.711	17.713	(1.101)	1214723	3.67677	3.677
31 Methylene Chloride	84	6.597	6.604	(0.717)	6777	0.04776	0.04776

Data File: /var/chem/gcms/mj.i/J101011.b/jblkj10.d
Report Date: 10-Oct-2011 17:34

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mj.i
Lab File ID: jblkj10.d
Lab Smp Id: MM3TQ1AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 403648
Method File: /var/chem/gcms/mj.i/J101011.b/TO15.m
Misc Info: J101011,TO15,1-all.sub,,,

Calibration Date: 10-OCT-2011
Calibration Time: 09:00
Client Smp ID: INTRA-LAB BLANK
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	433376	257859	608893	397607	-8.25
2 1,4-Difluorobenze	2001209	1190719	2811699	2025435	1.21
3 Chlorobenzene-d5	1795707	1068446	2522968	1740540	-3.07

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.21	8.88	9.54	9.21	-0.02
2 1,4-Difluorobenze	11.39	11.06	11.72	11.39	-0.01
3 Chlorobenzene-d5	16.08	15.75	16.41	16.08	-0.01

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/mj.i/J101011.b/jblkj10.d
Report Date: 10-Oct-2011 17:34

TestAmerica Knoxville

RECOVERY REPORT

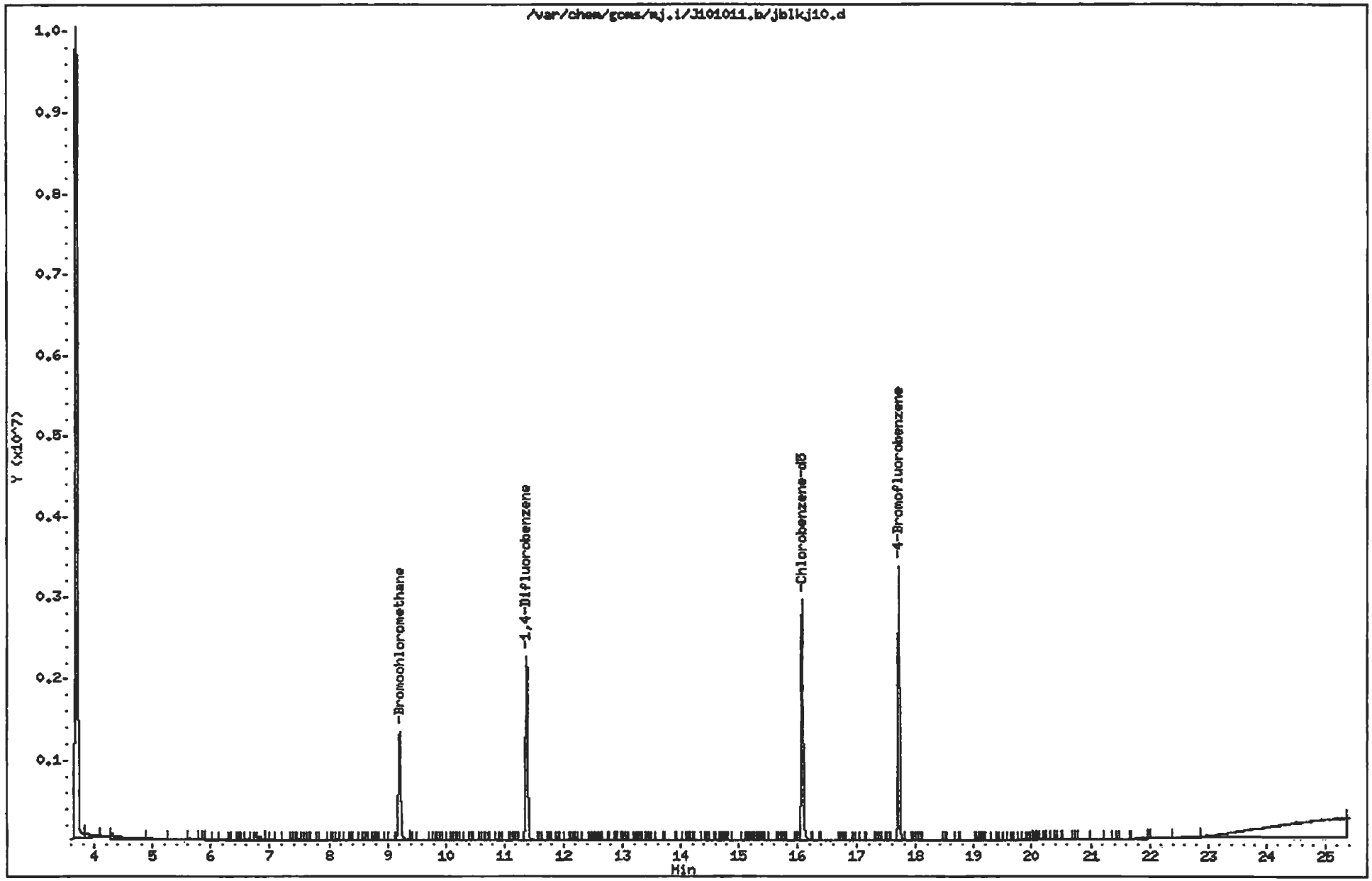
Client Name:
Sample Matrix: GAS
Lab Smp Id: MM3TQ1AA
Level: LOW
Data Type: MS DATA
SpikeList File: allnew.spk
Sublist File: all.sub
Method File: /var/chem/gcms/mj.i/J101011.b/TO15.m
Misc Info: J101011,TO15,1-all.sub,,,

Client SDG: H1J100000
Fraction: OTHER
Client Smp ID: INTRA-LAB BLANK
Operator: 403648
SampleType: METHOD BLANK
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 4 4-Bromofluorobenze	4.000	3.677	91.92	70-130

Data File: /var/chem/gcms/mj.i/J101011.b/jblkj10.d
Date : 10-OCT-2011 13:34
Client ID: INTRA-LAB BLANK
Sample Info: MM3TQ1AA,,3,,,BLANK
Purge Volume: 500.0
Column phase: Rtx-5

Instrument: mj.i
Operator: 403648
Column diameter: 0.32



Data File: /var/chem/gcms/mj.i/J101011.b/jblkj10.d

Date : 10-OCT-2011 13:34

Client ID: INTRA-LAB BLANK

Instrument: mj.i

Sample Info: MH3TQ1AA,,3,,,BLANK

Purge Volume: 500.0

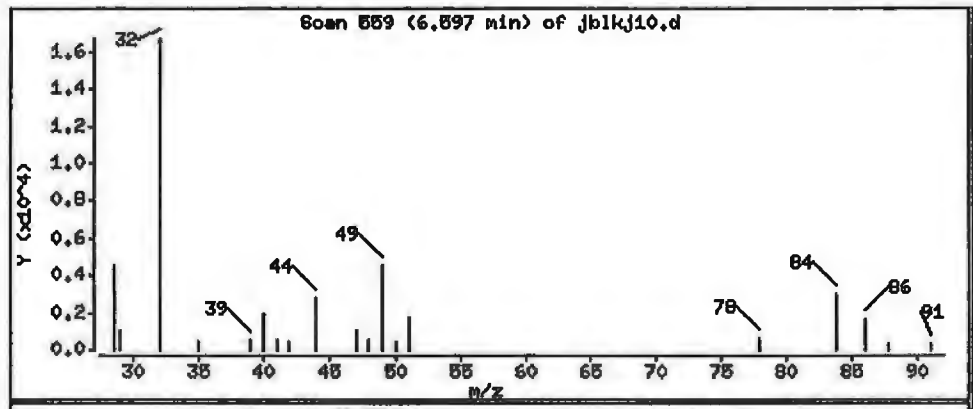
Operator: 403648

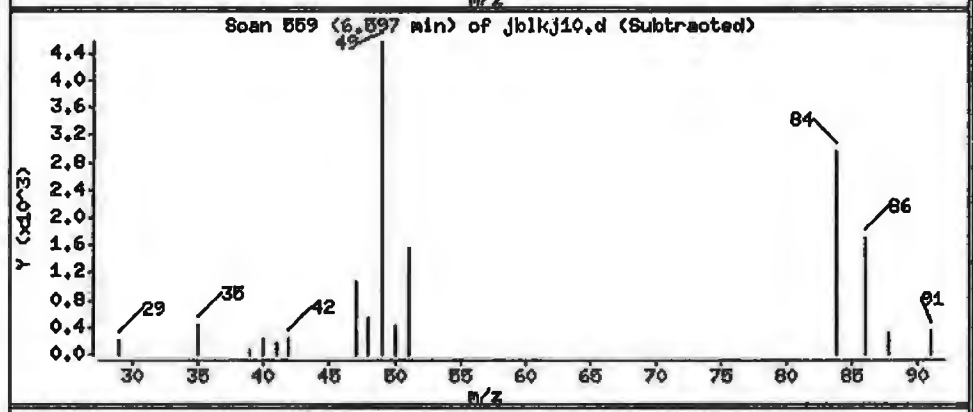
Column phase: Rtx-5

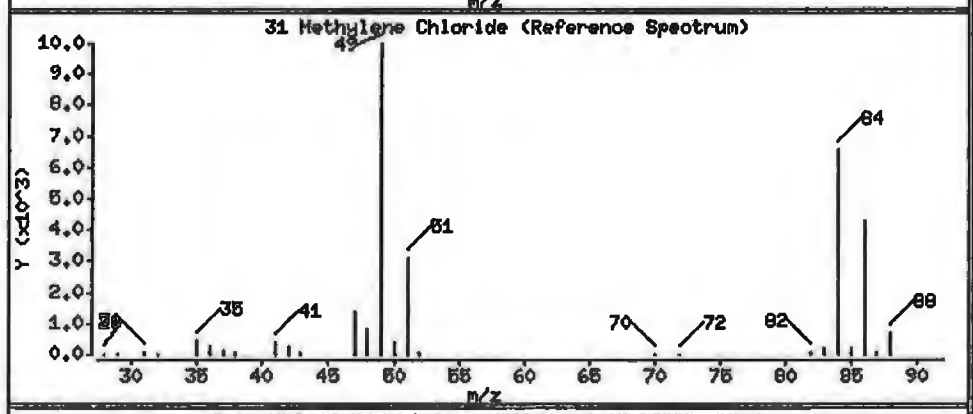
Column diameter: 0.32

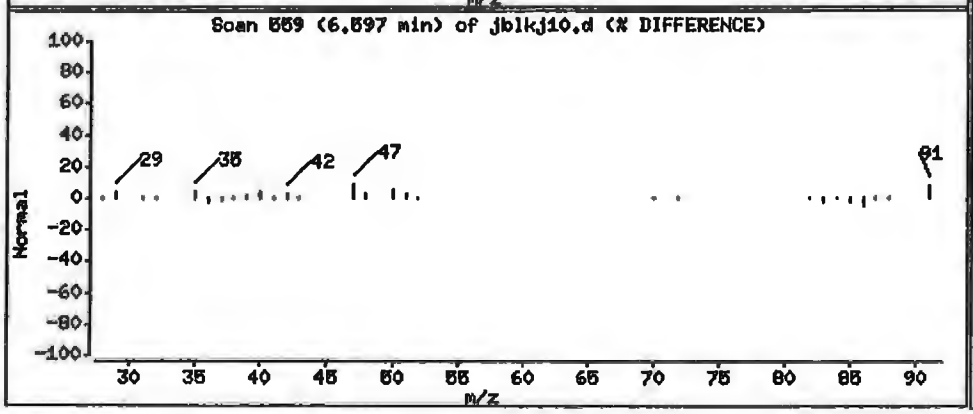
31 Methylene Chloride

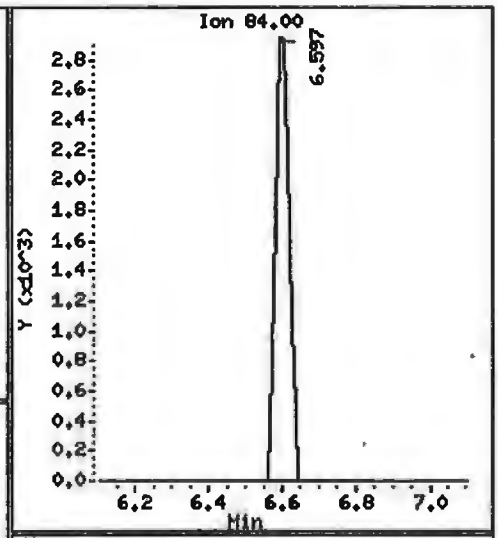
Concentration: 0.04776 ppb(v/v)

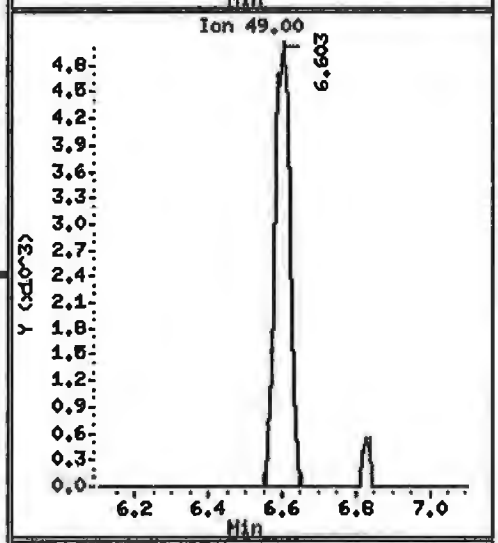


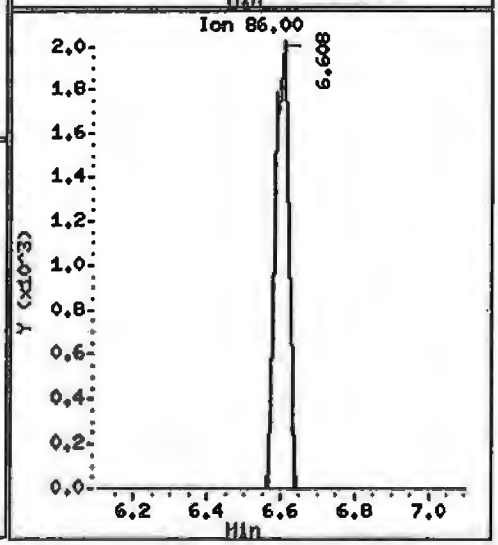












ARCADIS U.S., Inc.

Client Sample ID: CHECK SAMPLE

GC/MS Volatiles

Lot-Sample # H1J100000 - 176C Work Order # MM3TQ1AC Matrix.....: AIR

10/05/2011 Date Received..: 10/06/2011
Prep Date.....: 10/10/2011 Analysis Date... 10/10/2011
Prep Batch #.....: 1283176
Dilution Factor.: 1 Method.....: TO-15

PARAMETER	SPIKE AMOUNT (ppb(v/v))	MEASURED AMOUNT (ppb(v/v))	SPIKE AMOUNT (ug/m3)	MEASURED AMOUNT (ug/m3)	PERCENT RECOVERY	RECOVERY LIMITS
trans-1,3-Dichloropropene	5.00	4.61	23	20.9	92	70 - 130
1,2-Dichloro-1,1,2,2-tetrafluoroethane	5.00	4.53	35	31.6	91	60 - 140
Acetone	5.00	3.95	12	9.39	79	60 - 140
1,4-Dioxane	5.00	3.47	18	12.5	69	60 - 140
Ethyl acetate	5.00	4.06	18	14.6	81	60 - 140
Ethylbenzene	5.00	4.25	22	18.5	85	70 - 130
Trichlorofluoromethane	5.00	4.85	28	27.2	97	60 - 140
n-Heptane	5.00	3.93	20	16.1	79	70 - 130
Hexachlorobutadiene	5.00	4.39	53	46.8	88	60 - 140
n-Hexane	5.00	4.29	18	15.1	86	70 - 130
2-Hexanone	5.00	3.47	20	14.2	69	60 - 140
2,2,4-Trimethylpentane	5.00	4.05	23	18.9	81	70 - 130
Cumene	5.00	3.99	25	19.6	80	70 - 130
tert-Butyl alcohol	5.00	3.62	15	11.0	72	60 - 140
Methylene chloride	5.00	4.87	17	16.9	97	70 - 130
Methyl methacrylate	5.00	3.86	20	15.8	77	60 - 140
Benzene	5.00	4.41	16	14.1	88	70 - 130
Acetonitrile	5.00	4.02	8.4	6.74	80	60 - 140
n-Octane	5.00	4.02	23	18.8	80	70 - 130
Pentane	5.00	4.32	15	12.7	86	70 - 130
Styrene	5.00	4.14	21	17.6	83	70 - 130
1,1,2,2-Tetrachloroethane	5.00	3.96	34	27.2	79	70 - 130
Tetrachloroethene	5.00	4.12	34	27.9	82	70 - 130
Toluene	5.00	4.25	19	16.0	85	70 - 130
1,2,4-Trichlorobenzene	5.00	4.00	37	29.7	80	60 - 140
1,1,1-Trichloroethane	5.00	4.77	27	26.0	95	70 - 130
1,1,2-Trichloroethane	5.00	4.24	27	23.1	85	70 - 130
Trichloroethene	5.00	4.04	27	21.7	81	70 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	5.00	5.36	38	41.1	107	70 - 130
1,2,4-Trimethylbenzene	5.00	3.82	25	18.8	76	70 - 130
1,3,5-Trimethylbenzene	5.00	3.96	25	19.5	79	70 - 130
Vinyl acetate	5.00	4.38	18	15.4	88	60 - 140
Vinyl chloride	5.00	4.20	13	10.7	84	70 - 130
o-Xylene	5.00	4.06	22	17.6	81	70 - 130
Methyl tert-butyl ether	5.00	4.32	18	15.6	86	60 - 140
alpha-Methylstyrene	5.00	3.76	24	18.2	75	60 - 140

ARCADIS U.S., Inc.

Client Sample ID: CHECK SAMPLE

GC/MS Volatiles

Lot-Sample # H1J100000 - 176C **Work Order #** MM3TQ1AC **Matrix.....:** AIR

PARAMETER	SPIKE AMOUNT (ppb(v/v))	MEASURED AMOUNT (ppb(v/v))	SPIKE AMOUNT (ug/m3)	MEASURED AMOUNT (ug/m3)	PERCENT RECOVERY	RECOVERY LIMITS
Chlorodifluoromethane	5.00	5.16	18	18.2	103	60 - 140
m-Xylene & p-Xylene	10.0	8.30	43	36.0	83	70 - 130
Bromodichloromethane	5.00	4.39	34	29.4	88	70 - 130
1,2-Dibromoethane (EDB)	5.00	4.38	38	33.7	88	70 - 130
2-Butanone (MEK)	5.00	3.91	15	11.5	78	60 - 140
4-Methyl-2-pentanone (MIBK)	5.00	3.72	20	15.2	74	60 - 140
Bromoform	5.00	3.68	52	38.0	74	60 - 140
Bromomethane	5.00	4.52	19	17.6	90	70 - 130
1,3-Butadiene	5.00	4.28	11	9.48	86	60 - 140
4-Ethyltoluene	5.00	3.83	25	18.8	77	70 - 130
Acrolein	5.00	3.71	11	8.51	74	60 - 140
Carbon disulfide	5.00	4.54	16	14.1	91	70 - 130
Acrylonitrile	5.00	4.22	11	9.16	84	60 - 140
Carbon tetrachloride	5.00	5.27	31	33.1	105	70 - 130
Chlorobenzene	5.00	4.24	23	19.5	85	70 - 130
Dibromochloromethane	5.00	4.34	43	37.0	87	70 - 130
Chloroethane	5.00	4.18	13	11.0	84	70 - 130
Chloroform	5.00	4.61	24	22.5	92	70 - 130
Chloromethane	5.00	4.50	10	9.28	90	60 - 140
3-Chloropropene	5.00	4.33	16	13.5	87	60 - 140
Propene	5.00	4.38	8.6	7.54	88	60 - 140
Dibromomethane	5.00	4.46	36	31.7	89	70 - 130
1,2-Dichlorobenzene	5.00	3.73	30	22.4	75	70 - 130
1,3-Dichlorobenzene	5.00	3.96	30	23.8	79	70 - 130
1,4-Dichlorobenzene	5.00	3.85	30	23.2	77	70 - 130
Dichlorodifluoromethane	5.00	4.69	25	23.2	94	60 - 140
1,1-Dichloroethane	5.00	4.79	20	19.4	96	70 - 130
1,2-Dichloroethane	5.00	4.83	20	19.5	97	70 - 130
1,1-Dichloroethene	5.00	5.15	20	20.4	103	70 - 130
cis-1,2-Dichloroethene	5.00	4.80	20	19.0	96	70 - 130
trans-1,2-Dichloroethene	5.00	4.48	20	17.8	90	70 - 130
1,2-Dichloropropane	5.00	4.42	23	20.4	88	70 - 130
cis-1,3-Dichloropropene	5.00	4.54	23	20.6	91	70 - 130

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	100	60 - 140

ARCADIS U.S., Inc.

Client Sample ID: CHECK SAMPLE

GC/MS Volatiles

Lot-Sample # H1J100000 - 176C **Work Order #** MM3TQ1AC **Matrix.....:** AIR

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Data File: /var/chem/gcms/mj.i/J101011.b/jlcsj10.d
Report Date: 10-Oct-2011 17:35

TestAmerica Knoxville

Modified Method TO-14/TO-15

Data file : /var/chem/gcms/mj.i/J101011.b/jlcsj10.d
Lab Smp Id: MM3TQ1AC Client Smp ID: CCV/LCS
Inj Date : 10-OCT-2011 09:00
Operator : 22980 Inst ID: mj.i
Smp Info : MM3TQ1AC,,2,6,,CCV/LCS
Misc Info : J101011,TO15,all.sub,,,
Comment :
Method : /var/chem/gcms/mj.i/J101011.b/TO15.m
Meth Date : 10-Oct-2011 17:09 barlozha Quant Type: ISTD
Cal Date : 25-AUG-2011 21:16 Cal File: jich256.d
Als bottle: 13 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Default Calibration Volume
Vo	200.00000	Default Sample Volume

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	FINAL (ppb(v/v))
* 1 Bromochloromethane	128	9.208	9.208	(1.000)	433376	4.00000	4.000
* 2 1,4-Difluorobenzene	114	11.387	11.387	(1.000)	2001209	4.00000	4.000
* 3 Chlorobenzene-d5	117	16.083	16.083	(1.000)	1795707	4.00000	4.000
§ 4 4-Bromofluorobenzene	95	17.713	17.713	(1.101)	1358012	3.98421	9.960
5 Chlorodifluoromethane	67	3.877	3.877	(0.421)	109649	2.06299	5.157
6 Propene	41	3.888	3.888	(0.422)	388254	1.75222	4.380
7 Dichlorodifluoromethane	85	3.941	3.941	(0.428)	1023918	1.87687	4.692
8 Chloromethane	52	4.135	4.135	(0.449)	128782	1.79855	4.496
9 1,2-Dichlorotetrafluoroethane	135	4.146	4.146	(0.450)	577909	1.81088	4.527
10 Methanol	31	4.269	4.269	(0.464)	115562	2.29168	5.729
11 ~ acetaldehyde	44	4.296	4.296	(0.467)	250957	6.40536	16.01(R)
12 Vinyl Chloride	62	4.318	4.318	(0.469)	381027	1.68044	4.201
13 n-Butane	43	4.415	4.415	(0.479)	617635	1.66283	4.157
14 1,3-Butadiene	54	4.415	4.415	(0.479)	290775	1.71381	4.284
15 Bromomethane	94	4.754	4.754	(0.516)	280244	1.80995	4.525
16 Chloroethane	64	4.904	4.904	(0.533)	165420	1.67268	4.182

Data File: /var/chem/gcms/mj.i/J101011.b/jlcsj10.d
Report Date: 10-Oct-2011 17:35

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	FINAL (ppb(v/v))
17 ~ ethanol	31	4.985	4.985	(0.541)	524323	8.03534	20.09
18 Vinyl Bromide	106	5.227	5.227	(0.568)	320620	1.92726	4.818
19 2-methyl butane	43	5.281	5.281	(0.574)	563946	1.72072	4.302
20 Trichlorofluoromethane	101	5.512	5.512	(0.599)	874817	1.93854	4.846
21 Acrolein	56	5.512	5.512	(0.599)	58684	1.48508	3.713
22 Acetonitrile	40	5.577	5.577	(0.606)	99700	1.60615	4.015
23 Acetone	58	5.625	5.625	(0.611)	101537	1.58120	3.953
24 Isopropyl alcohol	45	5.700	5.700	(0.619)	363175	1.47285	3.682
25 Pentane	72	5.743	5.743	(0.624)	53079	1.72800	4.320
26 Ethyl Ether	31	5.905	5.905	(0.641)	398573	1.74237	4.356
27 1,1-Dichloroethene	96	6.249	6.249	(0.679)	319673	2.06073	5.152
28 tert-butanol	59	6.314	6.314	(0.686)	427112	1.44606	3.615
29 Acrylonitrile	53	6.341	6.341	(0.689)	175729	1.68922	4.223
30 1,1,2-Trichlorotrifluoroethane	101	6.432	6.432	(0.699)	688530	2.14614	5.365
31 Methylene Chloride	84	6.604	6.604	(0.717)	301398	1.94865	4.872
32 3-Chloropropene	39	6.620	6.620	(0.719)	355654	1.73092	4.327
33 Carbon Disulfide	76	6.776	6.776	(0.736)	996081	1.81401	4.535
34 trans-1,2-Dichloroethene	96	7.438	7.438	(0.808)	318817	1.79403	4.485
35 ~ 2-Methyl Pentane	43	7.465	7.465	(0.811)	1099794	1.88662	4.716
36 Methyl-t-Butyl Ether	73	7.562	7.562	(0.821)	528202	1.72930	4.323
37 1,1-Dichloroethane	63	7.868	7.868	(0.855)	707432	1.91441	4.786
38 Vinyl Acetate	43	7.965	7.965	(0.865)	620361	1.75352	4.384
39 2-Butanone	72	8.412	8.412	(0.914)	82817	1.56530	3.913
40 Hexane	56	8.471	8.471	(0.920)	345437	1.71620	4.290
41 cis 1,2-Dichloroethene	96	8.869	8.869	(0.963)	330901	1.91891	4.797
42 Ethyl acetate	43	9.046	9.046	(0.982)	523085	1.62285	4.057
43 Chloroform	83	9.219	9.219	(1.001)	667018	1.84231	4.606
44 Tetrahydrofuran	42	9.622	9.622	(1.045)	298605	1.69155	4.229
45 1,1,1-Trichloroethane	97	10.268	10.268	(1.115)	687751	1.90979	4.774
46 1,2-Dichloroethane	62	10.370	10.370	(0.911)	483333	1.93184	4.830
47 1-Butanol	31	10.773	10.773	(0.946)	118954	1.24394	3.110
48 Benzene	78	10.859	10.859	(0.954)	875616	1.76339	4.408
49 Cyclohexane	69	10.870	10.870	(0.955)	168355	1.64211	4.105
50 Carbon Tetrachloride	117	10.886	10.886	(0.956)	726372	2.10739	5.268
51 ~ 2,3-dimethylpentane	71	10.983	10.983	(0.965)	207911	1.72862	4.322
52 ~ Thiophene	84	11.128	11.128	(0.977)	500448	1.78925	4.473
53 2,2,4-trimethylpentane	57	11.618	11.618	(1.020)	1712770	1.62005	4.050
54 Heptane	71	11.978	11.978	(1.052)	286855	1.57356	3.934
55 1,2-Dichloropropane	63	12.054	12.054	(1.059)	331240	1.76685	4.417
56 Trichloroethene	130	12.097	12.097	(1.062)	380507	1.61776	4.044
180 ~ 2-nitropropane	43	11.978	11.978	(1.052)	737912		
57 Dibromomethane	93	12.172	12.172	(1.069)	386028	1.78355	4.459
58 Bromodichloromethane	83	12.317	12.317	(1.082)	637926	1.75699	4.392
59 1,4-dioxane	88	12.323	12.323	(1.082)	70798	1.38950	3.474
60 Methyl Methacrylate	41	12.398	12.398	(1.089)	297076	1.54594	3.865
61 ~ methyl cyclohexane	83	12.866	12.866	(1.130)	546568	1.76533	4.413
62 4-Methyl-2-pentanone	43	13.237	13.237	(1.163)	551026	1.48591	3.715

Data File: /var/chem/gcms/mj.i/J101011.b/jlcsj10.d
Report Date: 10-Oct-2011 17:35

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	FINAL (ppb(v/v))
	63 cis-1,3-Dichloropropene	75	13.307	13.307	(1.169)	442291	1.81547	4.539
	64 trans-1,3-Dichloropropene	75	13.990	13.990	(0.870)	422011	1.84537	4.613
	65 Toluene	91	14.130	14.130	(0.879)	778680	1.69992	4.250
	66 1,1,2-Trichloroethane	83	14.189	14.189	(0.882)	262706	1.69711	4.243
	67 ~ 2-methyl thiophene	97	14.275	14.275	(0.888)	710097	1.81280	4.532
	68 ~ 3-methyl thiophene	97	14.480	14.480	(0.900)	703019	1.78813	4.470
	69 2-Hexanone	58	14.560	14.560	(0.905)	233076	1.38641	3.466
	70 Octane	85	14.808	14.808	(0.921)	279130	1.60595	4.015
	71 Dibromochloromethane	129	14.894	14.894	(0.926)	521065	1.73617	4.340
	72 1,2-Dibromoethane	107	15.184	15.184	(0.944)	467082	1.75231	4.381
	73 Tetrachloroethene	129	15.265	15.265	(0.949)	315469	1.64593	4.115
	74 Chlorobenzene	112	16.131	16.131	(1.003)	626320	1.69514	4.238
	75 ~ 2,3-dimethylheptane	43	16.147	16.147	(1.004)	1296766	1.81052	4.526
	76 Ethylbenzene	91	16.416	16.416	(1.021)	887190	1.69992	4.250
	77 ~ 2-ethyl thiophene	97	16.519	16.519	(1.027)	736608	1.75826	4.396
	78 m&p-Xylene	91	16.578	16.578	(1.031)	1330230	3.31943	8.298
	79 Nonane	57	16.992	16.992	(1.057)	700441	1.73355	4.334
	80 Bromoform	173	17.024	17.024	(1.059)	373285	1.47237	3.681
	81 Styrene	104	17.040	17.040	(1.060)	484218	1.65653	4.141
	82 o-Xylene	91	17.105	17.105	(1.064)	676553	1.62333	4.058
M	83 Xylene (total)	100				2006783	4.94276	12.36
	84 1,1,2,2-Tetrachloroethane	83	17.417	17.417	(1.083)	532041	1.58339	3.958
	85 1,2,3-Trichloropropane	110	17.573	17.573	(1.093)	117581	1.54670	3.867
	86 Cumene	105	17.686	17.686	(1.100)	862620	1.59453	3.986
	87 n-Propylbenzene	120	18.208	18.208	(1.132)	222131	1.57199	3.930
	88 2-chlorotoluene	126	18.251	18.251	(1.135)	249850	1.68854	4.221
	89 4-Ethyltoluene	105	18.353	18.353	(1.141)	796442	1.53272	3.832
	90 1,3,5-Trimethylbenzene	120	18.423	18.423	(1.145)	372929	1.58510	3.963
	91 Alpha-Methylstyrene	118	18.649	18.649	(1.160)	310287	1.50613	3.765
	92 Decane	57	18.697	18.697	(1.163)	730946	1.74194	4.355
	93 tert-butylbenzene	119	18.837	18.837	(1.171)	659529	1.55575	3.889
	94 1,2,4-Trimethylbenzene	105	18.853	18.853	(1.172)	620097	1.52898	3.822
	95 sec-butylbenzene	105	19.101	19.101	(1.188)	920494	1.57880	3.947
	96 1,3-Dichlorobenzene	146	19.117	19.117	(1.189)	490890	1.58413	3.960
	97 Benzyl Chloride	91	19.187	19.187	(1.193)	547597	1.45303	3.632
	98 1,4-Dichlorobenzene	146	19.203	19.203	(1.194)	467484	1.54044	3.851
	99 p-Cymene	119	19.262	19.262	(1.198)	687260	1.51564	3.789
	100 ~ 1,2,3- Trimethylbenzene	105	19.316	19.316	(1.201)	514476	1.53156	3.829
	101 ~ n-butylcyclohexane	83	19.370	19.370	(1.204)	707051	1.82690	4.567
	102 ~ Indane	117	19.558	19.558	(1.216)	563374	1.51369	3.784
	103 1,2-Dichlorobenzene	146	19.558	19.558	(1.216)	419240	1.49303	3.732
	104 n-butylbenzene	91	19.687	19.687	(1.224)	680022	1.47387	3.685
	105 ~ Indene	116	19.687	19.687	(1.224)	416194	1.48525	3.713
	106 Undecane	57	19.983	19.983	(1.242)	499176	1.50599	3.765
	107 ~ 1,2-dimethyl-4-ethylenzene	119	20.047	20.047	(1.247)	551571	1.46840	3.671
	108 ~ 1,2,4,5-tetramethylbenzene	119	20.435	20.435	(1.271)	511078	1.45749	3.644
	109 ~ 1,2,3,5-tetramethylbenzene	119	20.489	20.489	(1.274)	397645	1.62367	4.059

Data File: /var/chem/gcms/mj.i/J101011.b/jlcsj10.d
Report Date: 10-Oct-2011 17:35

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	FINAL (ppb(v/v))
110 ~ 1,2,3,4-tetramethylbenzene	119	20.903	20.903	(1.300)	404962	1.49876	3.747
111 Dodecane	57	21.059	21.059	(1.309)	464176	1.66155	4.154
112 1,2,4-Trichlorobenzene	180	21.274	21.274	(1.323)	258060	1.60020	4.000
113 Napthalene	128	21.425	21.425	(1.332)	510771	1.52591	3.815
114 ~ benzo(b) thiophene	134	21.532	21.532	(1.339)	310962	1.42846	3.571
115 Hexachlorobutadiene	225	21.634	21.634	(1.345)	279874	1.75508	4.388
116 1,2,3-trichlorobenzene	180	21.710	21.710	(1.350)	217652	1.60697	4.017
117 ~ 2-Methylnaphthalene	142	22.388	22.388	(1.392)	281642	9.00989	22.52
118 ~ 1-Methylnaphthalene	142	22.527	22.527	(1.401)	193250	7.10504	17.76(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /var/chem/gcms/mj.i/J101011.b/jlcsj10.d
Report Date: 10-Oct-2011 17:35

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mj.i
Lab File ID: jlcsj10.d
Lab Smp Id: MM3TQ1AC
Analysis Type: OTHER
Quant Type: ISTD
Operator: 22980
Method File: /var/chem/gcms/mj.i/J101011.b/TO15.m
Misc Info: J101011,TO15,all.sub,,,

Calibration Date: 10-OCT-2011
Calibration Time: 09:00
Client Smp ID: CCV/LCS
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	433376	257859	608893	433376	0.00
2 1,4-Difluorobenze	2001209	1190719	2811699	2001209	0.00
3 Chlorobenzene-d5	1795707	1068446	2522968	1795707	0.00

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.21	8.88	9.54	9.21	0.00
2 1,4-Difluorobenze	11.39	11.06	11.72	11.39	0.00
3 Chlorobenzene-d5	16.08	15.75	16.41	16.08	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/mj.i/J101011.b/jlcsj10.d
Report Date: 10-Oct-2011 17:35

TestAmerica Knoxville

RECOVERY REPORT

Client Name:
Sample Matrix: GAS
Lab Smp Id: MM3TQ1AC
Level: LOW
Data Type: MS DATA
SpikeList File: allnew.spk
Sublist File: all.sub
Method File: /var/chem/gcms/mj.i/J101011.b/TO15.m
Misc Info: J101011,TO15,all.sub,,,

Client SDG: J101011
Fraction: OTHER
Client Smp ID: CCV/LCS
Operator: 22980
SampleType: LCS
Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
5 Chlorodifluorometh	5.000	5.157	103.15	60-140
6 Propene	5.000	4.380	87.61	60-140
7 Dichlorodifluorome	5.000	4.692	93.84	60-140
8 Chloromethane	5.000	4.496	89.93	60-140
9 1,2-Dichlorotetraf	5.000	4.527	90.54	60-140
10 Methanol	5.000	5.729	114.58	60-140
11 ~ acetaldehyde	23.80	16.01	67.28*	70-130
12 Vinyl Chloride	5.000	4.201	84.02	70-130
13 n-Butane	5.000	4.157	83.14	60-140
14 1,3-Butadiene	5.000	4.284	85.69	60-140
15 Bromomethane	5.000	4.525	90.50	70-130
16 Chloroethane	5.000	4.182	83.63	70-130
17 ~ ethanol	24.55	20.09	81.83	70-130
18 Vinyl Bromide	5.000	4.818	96.36	60-140
19 2-methyl butane	5.000	4.302	86.04	70-130
20 Trichlorofluoromet	5.000	4.846	96.93	60-140
21 Acrolein	5.000	3.713	74.25	60-140
22 Acetonitrile	5.000	4.015	80.31	60-140
23 Acetone	5.000	3.953	79.06	60-140
25 Pentane	5.000	4.320	86.40	70-130
24 Isopropyl alcohol	5.000	3.682	73.64	60-140
26 Ethyl Ether	5.000	4.356	87.12	60-140
27 1,1-Dichloroethene	5.000	5.152	103.04	70-130
28 tert-butanol	5.000	3.615	72.30	60-140
29 Acrylonitrile	5.000	4.223	84.46	60-140
30 1,1,2-Trichlorotri	5.000	5.365	107.31	70-130
31 Methylene Chloride	5.000	4.872	97.43	70-130
32 3-Chloropropene	5.000	4.327	86.55	60-140
33 Carbon Disulfide	5.000	4.535	90.70	70-130
34 trans-1,2-Dichloro	5.000	4.485	89.70	70-130
35 ~ 2-Methyl Pentane	5.000	4.716	94.33	70-130
36 Methyl-t-Butyl Eth	5.000	4.323	86.46	60-140
37 1,1-Dichloroethane	5.000	4.786	95.72	70-130

Data File: /var/chem/gcms/mj.i/J101011.b/jlcsj10.d
Report Date: 10-Oct-2011 17:35

SPIKE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
38 Vinyl Acetate	5.000	4.384	87.68	60-140
39 2-Butanone	5.000	3.913	78.27	60-140
40 Hexane	5.000	4.290	85.81	70-130
41 cis 1,2-Dichloroet	5.000	4.797	95.95	70-130
42 Ethyl acetate	5.000	4.057	81.14	60-140
43 Chloroform	5.000	4.606	92.12	70-130
44 Tetrahydrofuran	5.000	4.229	84.58	60-140
45 1,1,1-Trichloroeth	5.000	4.774	95.49	70-130
46 1,2-Dichloroethane	5.000	4.830	96.59	70-130
47 1-Butanol	5.000	3.110	62.20	60-140
48 Benzene	5.000	4.408	88.17	70-130
49 Cyclohexane	5.000	4.105	82.11	70-130
50 Carbon Tetrachlori	5.000	5.268	105.37	70-130
51 ~ 2,3-dimethylpent	5.000	4.322	86.43	70-130
52 ~ Thiophene	5.000	4.473	89.46	70-130
53 2,2,4-trimethylpen	5.000	4.050	81.00	70-130
54 Heptane	5.000	3.934	78.68	70-130
55 1,2-Dichloropropan	5.000	4.417	88.34	70-130
56 Trichloroethene	5.000	4.044	80.89	70-130
57 Dibromomethane	5.000	4.459	89.18	70-130
58 Bromodichlorometha	5.000	4.392	87.85	70-130
59 1,4-dioxane	5.000	3.474	69.48	60-140
60 Methyl Methacrylat	5.000	3.865	77.30	60-140
61 ~ methyl cyclohexa	5.000	4.413	88.27	70-130
62 4-Methyl-2-pentano	5.000	3.715	74.30	60-140
63 cis-1,3-Dichloropr	5.000	4.539	90.77	70-130
64 trans-1,3-Dichloro	5.000	4.613	92.27	70-130
65 Toluene	5.000	4.250	85.00	70-130
66 1,1,2-Trichloroeth	5.000	4.243	84.86	70-130
67 ~ 2-methyl thiophe	5.000	4.532	90.64	70-130
68 ~ 3-methyl thiophe	5.000	4.470	89.41	70-130
69 2-Hexanone	5.000	3.466	69.32	60-140
70 Octane	5.000	4.015	80.30	70-130
71 Dibromochlorometha	5.000	4.340	86.81	70-130
72 1,2-Dibromoethane	5.000	4.381	87.62	70-130
73 Tetrachloroethene	5.000	4.115	82.30	70-130
74 Chlorobenzene	5.000	4.238	84.76	70-130
75 ~ 2,3-dimethylhept	5.000	4.526	90.53	70-130
76 Ethylbenzene	5.000	4.250	85.00	70-130
77 ~ 2-ethyl thiophen	5.000	4.396	87.91	70-130
78 m&p-Xylene	10.00	8.298	82.99	70-130
M 83 Xylene (total)	15.00	12.36	82.38	70-130
79 Nonane	5.000	4.334	86.68	60-140
80 Bromoform	5.000	3.681	73.62	60-140
81 Styrene	5.000	4.141	82.83	70-130
82 o-Xylene	5.000	4.058	81.17	70-130
84 1,1,2,2-Tetrachlor	5.000	3.958	79.17	70-130

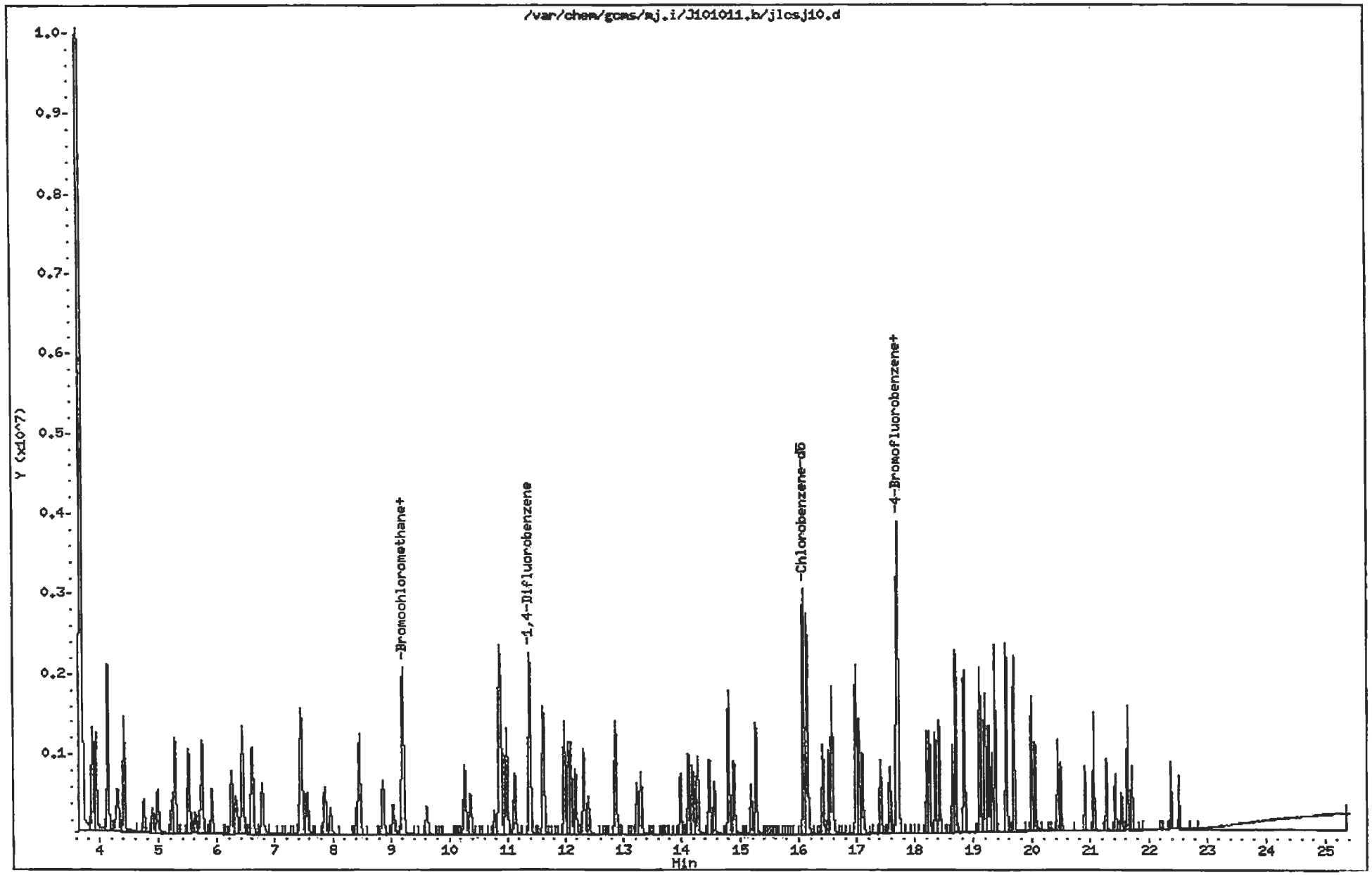
Data File: /var/chem/gcms/mj.i/J101011.b/jlcsj10.d
Report Date: 10-Oct-2011 17:35

SPIKE COMPOUND	CONC ADDED ppb (v/v)	CONC RECOVERED ppb (v/v)	% RECOVERED	LIMITS
85 1,2,3-Trichloropro	5.000	3.867	77.33	60-140
86 Cumene	5.000	3.986	79.73	70-130
87 n-Propylbenzene	5.000	3.930	78.60	70-130
88 2-chlorotoluene	5.000	4.221	84.43	70-130
89 4-Ethyltoluene	5.000	3.832	76.64	70-130
90 1,3,5-Trimethylben	5.000	3.963	79.25	70-130
91 Alpha-Methylstyren	5.000	3.765	75.31	60-140
92 Decane	5.000	4.355	87.10	60-140
93 tert-butylbenzene	5.000	3.889	77.79	70-130
94 1,2,4-Trimethylben	5.000	3.822	76.45	70-130
95 sec-butylbenzene	5.000	3.947	78.94	70-130
96 1,3-Dichlorobenzen	5.000	3.960	79.21	70-130
97 Benzyl Chloride	5.000	3.632	72.65	70-130
98 1,4-Dichlorobenzen	5.000	3.851	77.02	70-130
99 p-Cymene	5.000	3.789	75.78	70-130
100 ~ 1,2,3- Trimethyl	5.000	3.829	76.58	70-130
101 ~ n-butylcyclohexa	5.000	4.567	91.35	70-130
102 ~ Indane	5.000	3.784	75.68	70-130
103 1,2-Dichlorobenzen	5.000	3.732	74.65	70-130
104 n-butylbenzene	5.000	3.685	73.69	60-140
105 ~ Indene	5.000	3.713	74.26	70-130
106 Undecane	5.000	3.765	75.30	60-140
107 ~ 1,2-dimethyl-4-e	5.000	3.671	73.42	70-130
108 ~ 1,2,4,5-tetramet	5.000	3.644	72.87	70-130
109 ~ 1,2,3,5-tetramet	5.000	4.059	81.18	70-130
110 ~ 1,2,3,4-tetramet	5.000	3.747	74.94	70-130
111 Dodecane	5.000	4.154	83.08	60-140
112 1,2,4-Trichloroben	5.000	4.000	80.01	60-140
113 Napthalene	5.000	3.815	76.30	40-140
114 ~ benzo(b) thiophe	5.000	3.571	71.42	70-130
115 Hexachlorobutadien	5.000	4.388	87.75	60-140
116 1,2,3-trichloroben	5.000	4.017	80.35	40-140
117 ~ 2-Methylnaphthal	31.25	22.52	72.08	70-130
118 ~ 1-Methylnaphthal	31.25	17.76	56.84*	70-130

SURROGATE COMPOUND	CONC ADDED ppb (v/v)	CONC RECOVERED ppb (v/v)	% RECOVERED	LIMITS
$ 4 4-Bromofluorobenze	10.00	9.960	99.61	70-130

Data File: /var/chem/gcms/mj.i/J101011.b/jlcsj10.d
Date : 10-OCT-2011 09:00
Client ID: CCV/LCS
Sample Info: MH3TQ1AC,,2,6,,CCV/LCS
Purge Volume: 200.0
Column phase: Rtx-5

Instrument: mj.i
Operator: 22980
Column diameter: 0.32



Miscellaneous Data

TestAmerica Knoxville GC/MS Air Data Review / Narrative Checklist LOT/Project # HIJ070441
Method: TO-14 and TO-15 - KNOX-MS-0001, Rev 12 & KNOX-MS-0023, Rev 0

Instrument:	MJ			
Scanned File:	J082511I	J101011		

Review Items A. Tune / Continuing Calibration	N/A	Yes	No	Why is data reportable?	2nd
1. Were all samples injected within 24 hr of BFB?		✓			✓
2. Has a Continuing Calibration Checklist & run log been completed for each analytical batch and scanned properly?		✓			✓
3. Was the correct ICAL used for quantitation?		✓			✓
B. CLIENT SAMPLE AND QC SAMPLE Results	**N/A**	**Yes**	**No**	**Why is data reportable?**	
1. Were all special project requirements met?		✓			✓
2. Were samples received in cans?		✓		☐ [Tedlar1] analyzed w/n 72 hours, ☐ [Tedlar2] X-fer within 72 hours.	✓
3. Can pressure/vac on receipt acceptable?		✓		☐ see narrative	✓
4. Were dilution factors/can prep information verified?		✓			✓
5. Have the can number & lab ID been verified between the analysis log & sample prep log?		✓			✓
6. Sample analyses done within analytical holding time (HT)? *If no, list samples:* _____		✓		☐ [ht2] Client requested analysis after HT expired. ☐ Other: _____	✓
7. Default sample volume verified?		✓			✓
8. Are surrogates and internal standards within QC limits? (60-140% R for surr.; 60-140%R from CCAL for IS) *If no, list samples/reason (e.g.,* sur1*):* Sample Reason Sample Reason _____ _____ _____ _____ _____ _____ _____ _____		✓		☐ [sur7] Obvious matrix effect ☐ [sur12] high recovery, no hits. ☐ [sur14] entire sample consumed ☐ [is1] Per client, reanalysis was not performed * ☐ [is2] Reanalysis confirmed a matrix effect.	✓
9. Were all positive results and false negatives on quan report verified to be correct in LIMS?		✓			✓
10. For dilutions, is highest concentration hit ≥ 20% cal range and not above calibration range? *List samples and reason (e.g.,* elev1*):* Sample Reason Sample Reason _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____		✓		☐ [elev1] Elevated RL for due to sample matrix interferences. ☐ [elev3] Elevated RLs for all analytes due to difficult sample matrix. ☐ [elev4] Elevated RLs based on screening ☐ [elev5] Elevated RLs for all analytes due to presence of non-target compounds. ☐ [elev7] Elevated RLs due to sample volume	✓
11. If manual integrations were performed, are they clearly identified, initialed, dated and reason given & alternate hits verified.	✓	•		Reasons: 1)Corrected split peak; 2)Unresolved peak; 3)tailing; 4)RT shift; 5)wrong peak selected; 6)other	N/A
C. Preparation QC					
1. System blank run every 24 hours prior to samples?		✓			✓
2. System blank surrogate recoveries within QC limits (60-140% R)?		✓		☐ [mb1] All sample surrogates OK and there is no analyte >RL in samples associated with blank.*	✓
3. Are all analytes present in the system blank < RL? (1/2 RL for DoD). *If no, list blank ID:* _____		✓		☐ [mb3] No analyte > RL in associated samples.* ☐ [mb4] Sample results > 10x higher than blank.	✓
4. DUP done per 20 samples and are all RPDs within limits? (for target analytes >5x RL, <25% RPD; no criteria for methanol and n-butanol) *If no, list DUP ID:*		✓			✓
5. Did the LCS meet criteria (70-130% with a limited # allowed 60-140% (see table) provisional analyte limit 60-140% with a limited # allowed 50-150%, and no two consecutive MEs). Note: Ohio does not allow for ME. Number of target analytes in LCS / # marginal exceedances of LCS control limits allowed >90: 5 71 - 90: 4 51 - 70: 3 31 - 50: 2 11 - 30: 1 < 11: 0		✓		☐ [lcs6] LCS analyte(s) flagged as being outside control limits but within marginal limits ☐ [lcs5] LCS outside marginal exceedences high, but analytes were not detected LCS ID: _____	✓
D. Other					
1. Final report acceptable? (Results correct, RLs calculated correctly, units correct, surrogate %R correct, appropriate flags used, dilution factor correct, analysis dates correct.)		✓		est propane #1	✓
2. Are all nonconformances documented appropriately and copy included with deliverable?	✓				N/A
4. Was a narrative prepared and all deviations noted?		✓		☐ [1pt6]; ☐ [1pt11]; ☐ [1ptsur] ☐ [Extras]	✓
5. TO14A Autotext included in narrative (for TO14A samples only).	✓			☐ [TO14]	N/A
6. All target analytes on c.cal >30%D but passes LCS criteria noted in the narrative?		✓		☐ [ccal] The ccal exhibited a %D ICAL >30% but passes LCS...list analytes on narrative. 14dioX, 2flex.	✓

Analyst:	Date: 10/11/11	2nd Level Reviewer:	Date: 10/14/11

☐ see following page for comments.

*Such action must be taken in consultation with client.

Test America - Knoxville ---- Air Canister Dilution Log

Lot Number: *H1J070441*

Initial Can Pressure							Subsequent Dilutions											
Analyst/Date	Tedlar Bag Time	Pbarr (In)	Sample ID	Can #	Pres. upon receipt (-in or + psig)	Adj. Initial Pres. (-in or + psig)	Analyst/Date	I / S	Pbarr (in)	Initial Pres. Pi (in)	Final Pres. Pf (psig)	First InCan Final Pres. Pf (psig)	Second In-can Final Pres. Pf (psig)	Third InCan Final Pres. Pf (psig)	Serial Dilution Can #	Vol (mL)	Final Pres. Pf (psig)	Comments
DDF 10-7-11	NA	29.14	MM2MV	1011N	-3.8		DDF 10-10-11	S	28.96	-3.9	+10.3				04420	10	+0.5	9467
↓	↓	↓	MM2MW	6116	-10.1	+0.4												↓

TestAmerica Knoxville
Can Dilution Worksheet

Lot: *h1j070441* **Initial**

W/O #	Barometer inches Hg	Knoxville mm Hg	P Init inches	P Init Abs,mm	P final psig	P final Abs,mm	Dilution Factor	
MM2 MV	28.96	735.6	- 3.9	636.5	10.3	1268.2	1.99	(MV,DF*200=398)
MM2 MW	29.14	740.2	- 10.1	483.6	0.4	760.8	1.57	(MW,DF*200=314)

1 psig = 2.036 inch Hg
Pinit(Abs,mm)=(Pinit(inch)*25.4mm/inch)+Pbar(mm)
Pfinal(Abs,mm)=(Pfinal(psig)*2.036 (inch Hg/psig)*25.4 (mm/inch))+Pbar(mm)
dilution factor = Pfinal(Abs,mm)/Pinit(Abs,mm)
mm-Hg = in-Hg * 25.4

TestAmerica Knoxville
Can Dilution Worksheet

Canister Volume: 6000 mL

h1j070441 **Serial Dilution**

W/O #	Barometer inches Hg	Knoxville mm Hg	Initial Volume (ml)	P final psig	P final Abs,mm	Dilution Factor (Serial)	Dilution Factor (Total)		
MM2 MV	28.96	735.6	10.0	0.5	761.4	621.09	1237.49	(MV)	(*1.99)
MM2 MW									

1 psig = 2.036 inch Hg
Pinit(Abs,mm)=(Pinit(inch)*25.4mm/inch)+Pbar(mm)
Pfinal(Abs,mm)=(Pfinal(psig)*2.036 (inch Hg/psig)*25.4 (mm/inch))+Pbar(mm)
Dilution factor = [(Pfinal(Abs,mm)/Pbar(Abs,mm))*CanVol(mL)] / InitialVolume(ml)
mm-Hg = in-Hg * 25.4

X1

RQC058

TestAmerica Laboratories, Inc.
EXTRACTION BENCH WORKSHEET

Run Date: 10/10/11
Time: 14:30:27

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

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

Extractionist: _____
_____

Concentrationist: _____
_____

****
* *
* QC BATCH: 1283176 *
* *
****

PREP DATE: 10/10/11
COMP DATE: 10/11/11

Reviewer/Date: _____ / 0/00/00

Volatile Organics by GC/MS TO-14A
NO SAMPLE PREPARATION PERFORMED / DIRECT INJECTION

EXTR EXPR	ANL DUE	LOT#,MSRUN#/ WORK ORDER	TEST FLGS	EXT	MTH	MATRIX	INIT/FIN WT/VOL	INIT	PH"S ADJ1	ADJ2	SOLVENTS EXTRACTION	VOL	EXCHANGE	VOL	SPIKE STANDARD/ SURROGATE ID
0/00/00	10/14/11	H1J060456-001 MM1V8-1-AA	R	88	0W	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	10/17/11	H1J070441-001 MM2MV-1-AA	DR	88	U6	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	10/17/11	H1J070441-002 MM2MW-1-AA	DR	88	U6	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	0/00/00	H1J100000-176 MM3TQ-1-AAB		88	0W	AIR	500mL 500.00mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	0/00/00	H1J100000-176 MM3TQ-1-ACC		88	0W	AIR	100mL 100.00mL	NA	NA	NA		.0		.0	
COMMENTS:															

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

NUMBER OF WORK ORDERS IN BATCH: 5

Fixed Gases

Raw Sample Data

ARCADIS U.S., Inc.

Client Sample ID: TOI/100511

GC Volatiles

Lot-Sample #...: H1J070441-001 Work Order #...: MM2MV1AC Matrix.....: AIR
Date Sampled...: 10/05/11 Date Received..: 10/07/11
Prep Date.....: 10/13/11 Analysis Date..: 10/13/11
Prep Batch #...: 1285089
Dilution Factor: 1.99 Method.....: ASTM D 1946/E 260

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Methane	0.53	0.20	%

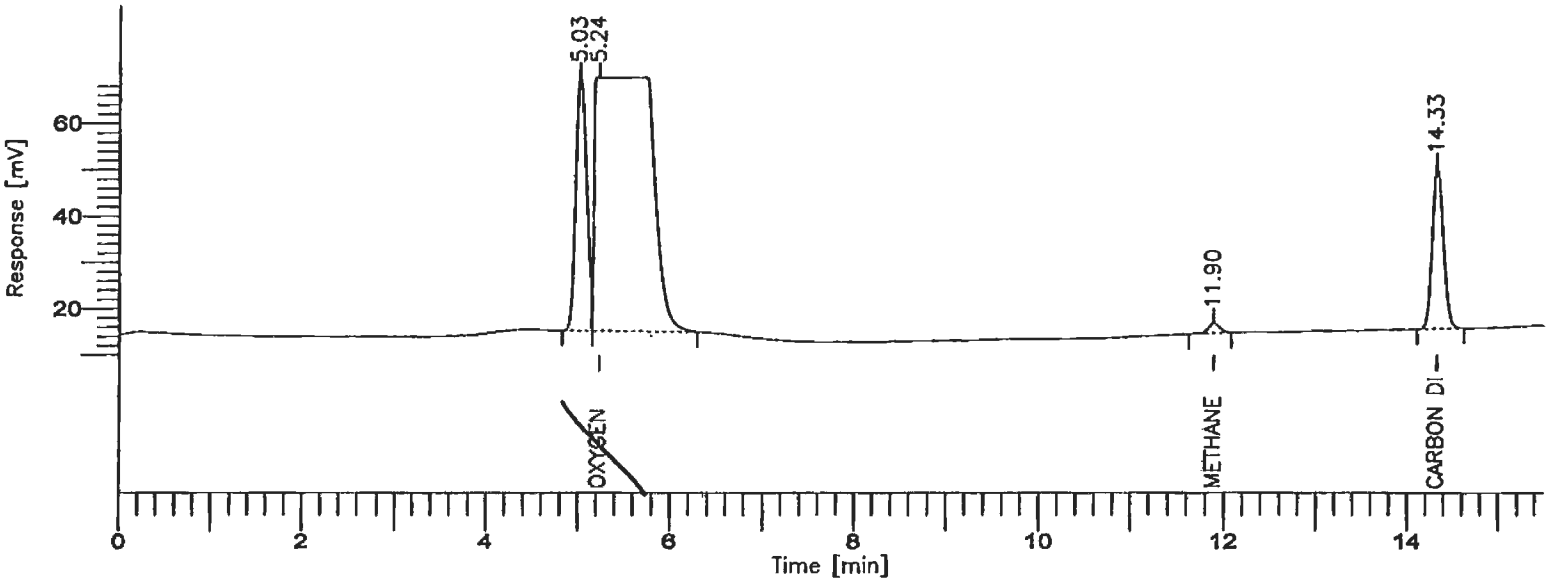
Software Version: 4.1<2F12>
Sample Name : H1J070441 Time : 10/13/2011 09:28 AM
Sample Number: MM2MV1AC Study : 500ul
Operator :

Instrument : GR Channel : A A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9241560448 Data Acquisition Time: 10/13/2011 09:12 AM
Delay Time : 0.00 min.
End Time : 15.50 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : O:\V3400R\1J13005.RAW
Result File : O:\V3400R\1J13005.RST
Inst Method : O:\V3400R\#GASINST from O:\V3400R\1J13005.RST
Proc Method : O:\V3400R\#GASINST
Calib Method : O:\V3400R\1J13R
Sequence File : O:\V3400R\1J13R.SEQ

Sample Volume : 1.0000 uL Area Reject : 0.000000
Sample Amount : 1.0000 Dilution Factor : 1.99



Peak #	Time [min]	Delta RT %	Area [µV·s]	Component Name	Height [µV]	Raw Amt. (%)	Dilution Factor	Adjusted Amt. (%)	R N G	G	Component Name
2	5.236	0.30	6841356	OXYGEN	304274	98.4046	1.990	~~195.8252~~			OXYGEN
0	5.735	-----	0	NITROGEN	0	0.0000	1.990	~~0.0000~~			NITROGEN.
0	7.582	-----	0	CARBON MONOXIDE	0	0.0000	1.990	0.0000			CARBON MONOXIDE
3	11.899	0.17	17778	METHANE	2092	0.2677	1.990	0.5327			METHANE
4	14.326	0.03	293949	CARBON DIOXIDE	34601	3.2306	1.990	6.4289			CARBON DIOXIDE
0	20.923	-----	0	ETHYLENE	0	0.0000	1.990	0.0000			ETHYLENE
0	24.256	-----	0	ETHANE	0	0.0000	1.990	0.0000			ETHANE

202.7868

10/13/11

Standards Data

TestAmerica Knoxville Permanent Gas Analysis Initial calibration Review/Narrative Checklist
SOP KNOX-GC-0003, Rev. 7

Analysis Date:	12/2/10	Instrument/File ID:	R120210 PI

Review Items A. Initial Calibration	Yes	No	N/A	2nd Level	If No, why is data reportable?
1. Were at least 3 levels analyzed?	✓			✓	
2. Is low level standard concentration ≤ RL?	✓			✓	
3. Are all %RSDs ≤15% or r^2 ≥0.990?	✓			✓	
4. Was each run checked for saturation?	✓			✓	
5. Are all peak integrations acceptable	✓			✓	
6. Are all manual integrations clearly identified, initialed, dated and reason given?	✓			✓	Reasons: 1) Corrected split peak; 2) Unresolved peak; 3) Tailing; 4) RT shift; 5) Wrong peak selected; 6) Other
7. Was ICAL method file processed using the correct result files? (Compare peak heights-areas in method file to heights-areas of calibration standards.)	✓			✓	
8. Is the 2nd source standard within ≤ 20 % D (≤ 25% D for hydrogen/helium)	✓			✓	

Analyst:	Date: 1/19/11	2nd Level Reviewer:	Date: 012111
Comments:		Comments:	

* Such action must be taken in consultation with client.

TESTAMERICA GC RUN LOG FOR GR

ANALYST: [illegible] 12/2/10 Scan file = R120210PI

	Inj. Date	Inj. Time	File Name				METHANE DIL
12/2/2010	12/2/2010	09:57	OK23002A.rst	BLANK	500ul	BLANK	1.0
12/2/2010	12/2/2010	10:28	OK23003A.rst	0.1%	10ul	V368A	1.0
12/2/2010	12/2/2010	11:08	L02R003.rst	1.0%	100UL	V368A	1.0
12/2/2010	12/2/2010	11:35	L02R004.rst	2.5%	250UL	V368A	1.0
12/2/2010	12/2/2010	11:54	L02R005.rst	5.0%	500UL	V368A	1.0
12/2/2010	12/2/2010	12:15	L02R006.rst	10%	1000UL	V368A	1.0
12/2/2010	12/2/2010	12:37	L02R007.rst	20%	2000UL	V368A	1.0
12/2/2010	12/2/2010	01:39	L02R008.rst	0.05%	25UL *	V408	1.0
12/2/2010	12/2/2010	02:23	L02R009.rst	0.2%	100UL	V408	1.0
12/2/2010	12/2/2010	02:55	L02R010.rst	0.05%	25uL RR	V408	1.0
12/2/2010	12/2/2010	03:26	L02R011.rst	0.5%	250UL	V408	1.0
12/2/2010	12/2/2010	03:56	L02R012.rst	1%	500UL	V408	1.0
12/2/2010	12/2/2010	04:28	L02R013.rst	4%	2000UL	V408	1.0
12/2/2010	12/2/2010	04:59	L02R014.rst	10%	5000UL	V408	1.0
12/2/2010	12/2/2010	05:33	L02R015.rst	LCS	500ul	V311	1.0

* ONH = Run had interference peaks from Loop Cleaning [illegible]

Turbochrom Method File : O:\V3400R\0L02RI.MTH
Created by : SEG on : 12/3/2010 10:23 AM
Edited by : SEG on : 12/3/2010 10:23 AM
Description :

Number of Times Edited : 0
Number of Times Calibrated : 95

Instrument Conditions :

Packed Column GC -

Instrument	: V3400R/TCD
Column	: 60/80 CARBOXEN 1000 SERIAL #473
Column Length	:15FT* 1/8 INCH
Carrier Gas	:helium
Flow Rate	: 20ML/MIN
Temperature	: 50C 6 MIN, 20C/MIN TO 220 c FOR 5.5 MIN
Injection Temp.	: Ambient loop
Detector 1	: TCD
TCD RANGE	: 5
FILAMENT	: 325 C
LOOP VOL	: 500 uL

Instrument Control Method:

Instrument name : GR

Interface Parameters :

Delay Time	: 0.00 min.
Run Time	: 25.50 min.
Sampling Rate	: 2.0000 pts/s
Interface Type	: 900
Analog Voltage Input	: 1000 mV

Data will be collected from channel A

Timed Events:

RLY1 set to OFF at 13.76 min

Real Time Plot Parameters :

Channel A -- Pages:	1	Offset: 0.000 mV	Scale: 100.000 mV
Channel B -- Pages:	1	Offset: 0.000 mV	Scale: 1000.000 mV

Processing Parameters :

Bunch Factor	: 1 points
Noise Threshold	: 5 µV
Area Threshold	: 24.00 µV

Peak Separation Criteria

Width Ratio	: 0.200
Valley-to-Peak Ratio	: 0.010

Exponential Skim Criteria

Peak Height Ratio	: 5.000
Adjusted Height Ratio	: 4.000
Valley Height Ratio	: 3.000

Baseline Timed Events :

Event #1 - -P at 0.000
Event #2 - +P at 4.000
Event #3 - +CB at 4.053
Event #4 - +V at 6.570
Event #5 - -CB at 7.363
Event #6 - BF 9.000 at 19.651
Event #7 - NT 1.000 at 19.700

Annotated Replot Parameters :

No replot will be printed

Report Format files :

No report format files given

User Programs :

No user programs will be executed

Global Information :

Default Sample Volume : 1.000 uL
Quantitation Units : %
Void Time : 0.000 min
Correct amounts during calibration : NO
Reject outliers during calibration : NO
An External Standard calibration will be used
Unknown peaks will use the response factor of the nearest component

Component Information :

OXYGEN

Component Type : Single Peak Component
Retention Time : 5.182 min Search Window: 0.00 s, 5.00 %
Reference Component:
Find peak closest to expected RT in window
Use Average Calibration Factor (Area / Amount)
User Values:
Label :
Value 1: 4.000000
Value 2: 5.010000
Value 3: 0.000000
Value 4: 0.000000
Value 5: 0.000000
Value 6: 1.000000
Calibration Levels:

Level Name	Amount	Area	Height	ISTD Resp.	ISTD Amt.	# Replicates
1	0.0997	5726.00	519.02	----------	----------	1
2	0.9968	70389.04	6532.65	----------	----------	1
3	2.4920	182738.98	16885.48	----------	----------	1
4	4.9840	348967.47	32426.62	----------	----------	1
5	9.9680	723709.44	65473.47	----------	----------	1
6	19.9360	1458074.50	120870.35	----------	----------	1

Average Calibration Factor = 69522.691077 (%RSD = 8.74)

NITROGEN

Component Type : Single Peak Component
Retention Time : 5.693 min Search Window: 0.00 s, 5.00 %
Reference Component:
Find largest peak in window

Use Average Calibration Factor (Area / Amount)
User Values:
Label :
Value 1: 5.000000
Value 2: 4.990000
Value 3: 0.000000
Value 4: 0.000000
Value 5: 0.000000
Value 6: 1.000000
Calibration Levels:

Level Name	Amount	Area	Height	ISTD Resp.	ISTD Amt.	# Replicates
1	0.1000	5184.50	483.67	----------	----------	1
2	0.9998	77746.71	6502.41	----------	----------	1
3	2.4995	200990.52	16433.67	----------	----------	1
4	4.9990	381612.03	30772.28	----------	----------	1
5	9.9980	791902.56	60323.69	----------	----------	1
6	19.9960	1599097.50	106678.27	----------	----------	1

Average Calibration Factor = 74255.698431 (%RSD = 14.92)

CARBON MONOXIDE
Component Type : Single Peak Component
Retention Time : 7.542 min Search Window: 0.00 s, 5.00 %
Reference Component:
Find largest peak in window
Use Average Calibration Factor (Area / Amount)
User Values:
Label :
Value 1: 5.000000
Value 2: 5.008000
Value 3: 0.000000
Value 4: 0.000000
Value 5: 0.000000
Value 6: 1.000000
Calibration Levels:

Level Name	Amount	Area	Height	ISTD Resp.	ISTD Amt.	# Replicates
1	0.0997	5334.50	526.31	----------	----------	1
2	0.9970	78467.00	7039.05	----------	----------	1
3	2.4930	203359.50	17985.04	----------	----------	1
4	4.9850	389430.25	33794.61	----------	----------	1
5	9.9700	808192.00	67035.69	----------	----------	1
6	19.9400	1635206.00	123079.74	----------	----------	1

Average Calibration Factor = 75828.324233 (%RSD = 14.57)

METHANE
Component Type : Single Peak Component
Retention Time : 11.892 min Search Window: 0.00 s, 5.00 %
Reference Component:
Find largest peak in window
Calibrating Area versus Amount using a 1st Order Fit
Curve will be forced through the origin
Amounts will not be scaled prior to the regression
Weighting factor for the regression: None
User Values:
Label :
Value 1: 4.000000
Value 2: 4.000000
Value 3: 0.000000
Value 4: 0.000000
Value 5: 0.000000
Value 6: 1.000000

Calibration Levels:

Level Name	Amount	Area	Height	ISTD Resp.	ISTD Amt.	# Replicates
1	0.0800	3439.00	424.96	----------	----------	1
2	0.8002	51860.25	5871.12	----------	----------	1
3	2.0005	133417.50	14939.83	----------	----------	1
4	4.0010	255415.75	28332.55	----------	----------	1
5	8.0020	527241.75	56945.50	----------	----------	1
6	16.0040	1067640.25	107723.09	----------	----------	1

Calibration Curve : y = (0.000000) + (66417.209364)x + (0.000000)x^2 + (0.000000)x^3
R-squared : 0.999813

CARBON DIOXIDE

Component Type : Single Peak Component
Retention Time : 14.369 min Search Window: 0.00 s, 5.00 %
Reference Component:
Find largest peak in window
Use Average Calibration Factor (Area / Amount)
User Values:
Label :
Value 1: 5.000000
Value 2: 4.983000
Value 3: 0.000000
Value 4: 0.000000
Value 5: 0.000000
Value 6: 1.000000

Calibration Levels:

Level Name	Amount	Area	Height	ISTD Resp.	ISTD Amt.	# Replicates
1	0.1000	7333.00	886.60	----------	----------	1
2	1.0000	94365.00	11227.36	----------	----------	1
3	2.5010	240412.00	28359.61	----------	----------	1
4	5.0020	458790.00	53519.40	----------	----------	1
5	10.0040	947461.00	106470.50	----------	----------	1
6	20.0080	1914441.00	196249.54	----------	----------	1

Average Calibration Factor = 90989.109023 (%RSD = 9.66)

ETHYLENE

Component Type : Single Peak Component
Retention Time : 20.923 min Search Window: 0.00 s, 5.00 %
Reference Component:
Find largest peak in window
Calibrating Area versus Amount using a 2nd Order Fit
Curve will be forced through the origin
Amounts will not be scaled prior to the regression
Weighting factor for the regression: None
User Values:
Label :
Value 1: 5.000000
Value 2: 1.000000
Value 3: 0.000000
Value 4: 0.000000
Value 5: 0.000000
Value 6: 1.000000

Calibration Levels:

Level Name	Amount	Area	Height	ISTD Resp.	ISTD Amt.	# Replicates
A	0.0201	4310.00	215.06	----------	----------	1
B	0.2014	15001.00	791.95	----------	----------	1
C	0.5035	40853.75	2086.79	----------	----------	1
D	1.0070	79316.25	4078.06	----------	----------	1
F	4.0280	344078.00	16994.79	----------	----------	1
G	10.0700	894584.25	43213.17	----------	----------	1

Calibration Curve : y = (0.000000) + (82356.365014)x + (646.012047)x^2 + (0.000000)x^3
R-squared : 0.999947

ETHANE

Component Type : Single Peak Component
Retention Time : 24.256 min Search Window: 0.00 s, 5.00 %
Reference Component:
Find largest peak in window
Calibrating Area versus Amount using a 2nd Order Fit
Curve will be forced through the origin
Amounts will not be scaled prior to the regression
Weighting factor for the regression: None
User Values:
Label :
Value 1: 5.000000
Value 2: 1.000000
Value 3: 0.000000
Value 4: 0.000000
Value 5: 0.000000
Value 6: 1.000000

Calibration Levels:

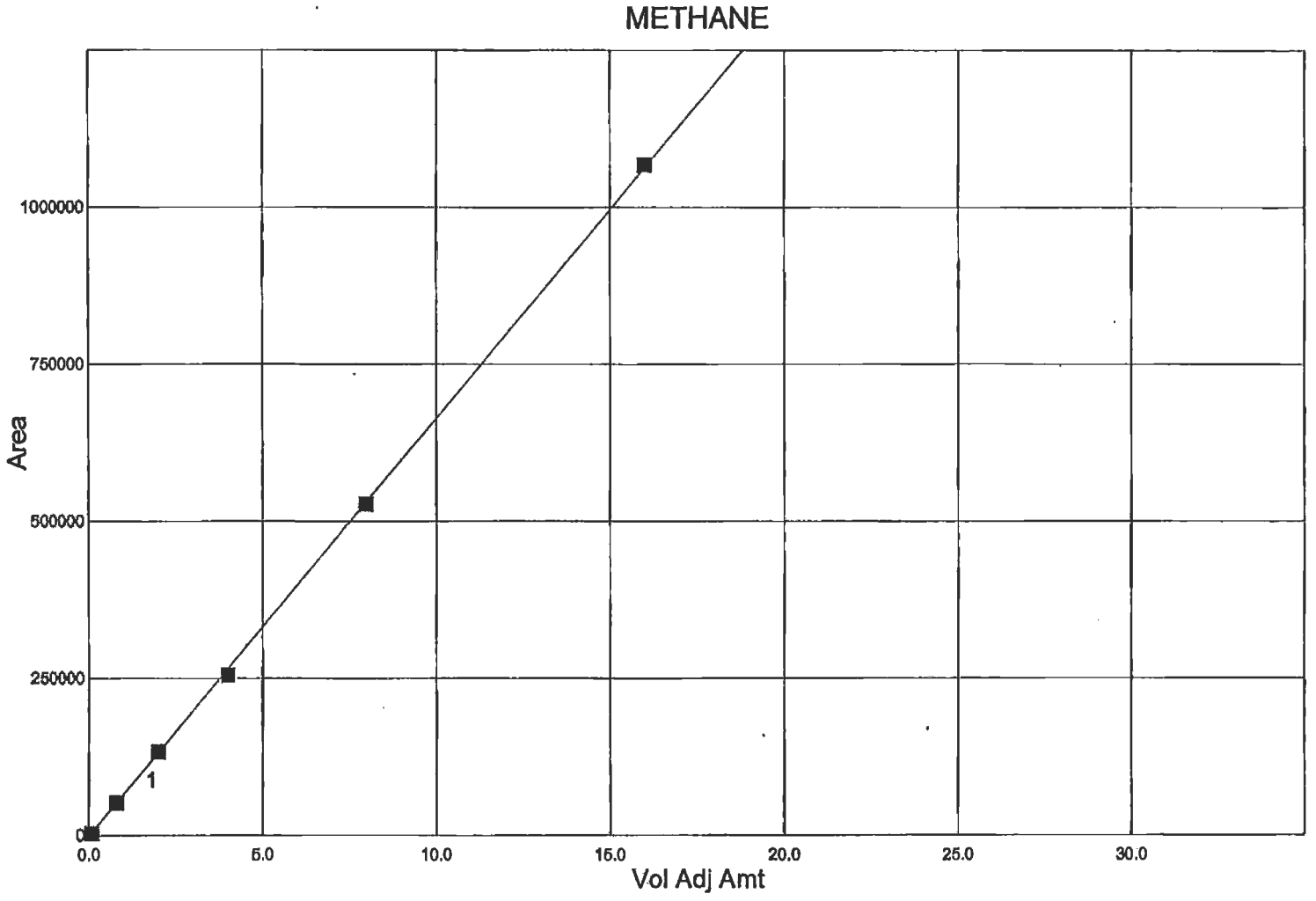
Level Name	Amount	Area	Height	ISTD Resp.	ISTD Amt.	# Replicates
A	0.0200	5712.25	202.14	----------	----------	1
B	0.2002	20289.50	742.19	----------	----------	1
C	0.5005	49087.50	1856.50	----------	----------	1
D	1.0010	96027.00	3599.81	----------	----------	1
F	4.0040	390989.75	14563.38	----------	----------	1
G	10.0100	1004422.25	36080.22	----------	----------	1

Calibration Curve : y = (0.000000) + (95918.897896)x + (441.603896)x^2 + (0.000000)x^3
R-squared : 0.999978

Fit Analysis Output For Method File: "O:\V3400R\0L02RI.MTH"
Component Name: "METHANE"
Date: 12/3/2010 Time: 09:24 AM

Curve Parameters:

Curve #1 : 1st Order - Force Origin
Weighting Factor = 1.0 (No Weighting) r^2 = 0.999813
Calibration Curve = (66417.209364)X

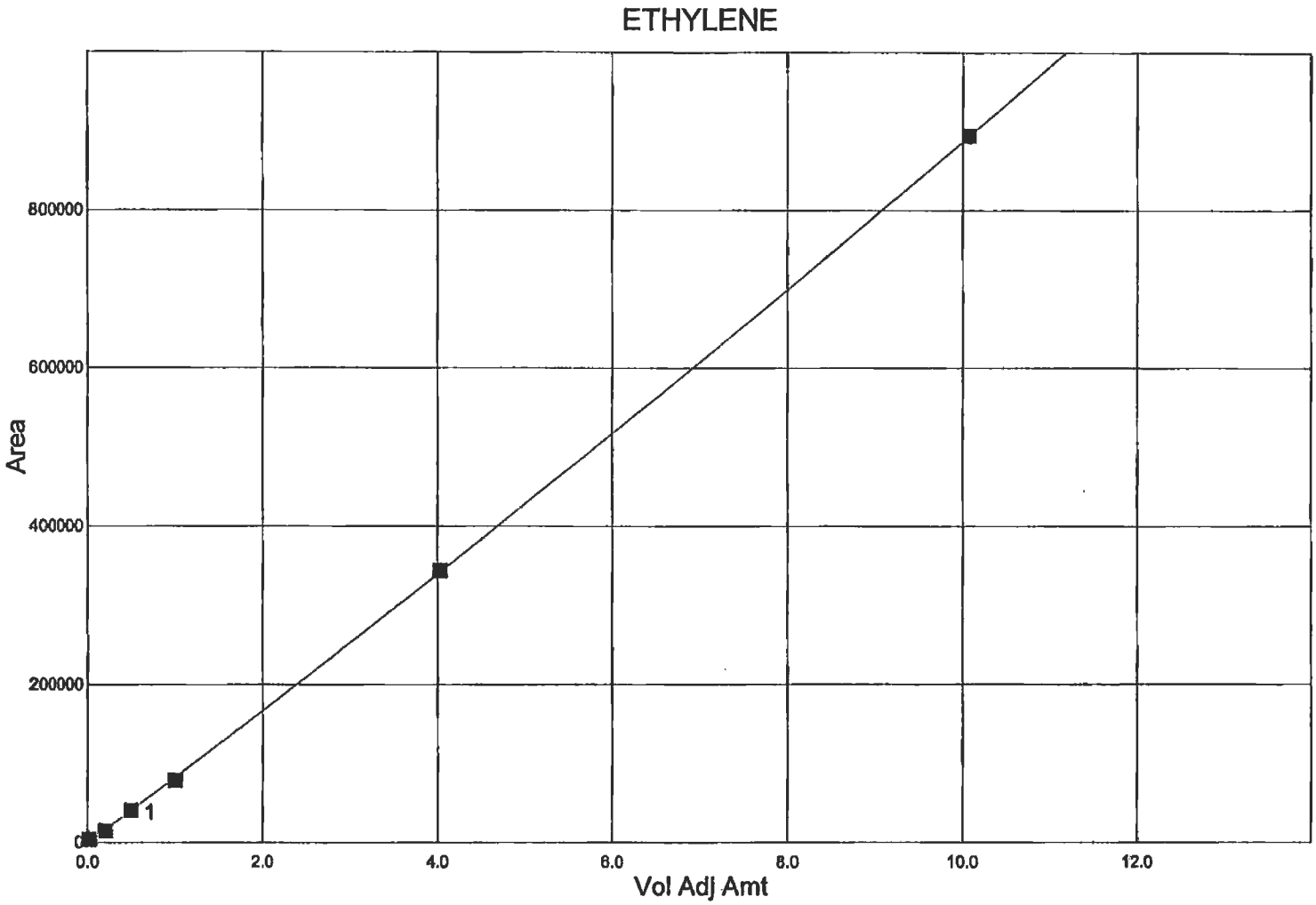


Level Name	Observed X-Value	Calculated X-Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	0.080000	0.051779	0.028221	54.504	3439.000	5313.377	-1874.377	-35.277
2	0.800200	0.780825	0.019375	2.481	51860.250	53147.051	-1286.801	-2.421
3	2.000500	2.008779	-0.008279	-0.412	133417.500	132867.627	549.873	0.414
4	4.001000	3.845626	0.155374	4.040	255415.750	265735.255	-10319.505	-3.883
5	8.002000	7.938330	0.063670	0.802	527241.750	531470.509	-4228.759	-0.796
6	16.004000	16.074753	-0.070753	-0.440	1067640.250	1062941.019	4699.231	0.442

Fit Analysis Output For Method File: "O:\V3400R\0L02RI.MTH"
Component Name: "ETHYLENE"
Date: 12/3/2010 Time: 09:13 AM

Curve Parameters:

Curve #1 : 2nd Order - Force Origin
Weighting Factor = 1.0 (No Weighting) r^2 = 0.999947
Calibration Curve = (82356.365014)X + (646.012047)X^2

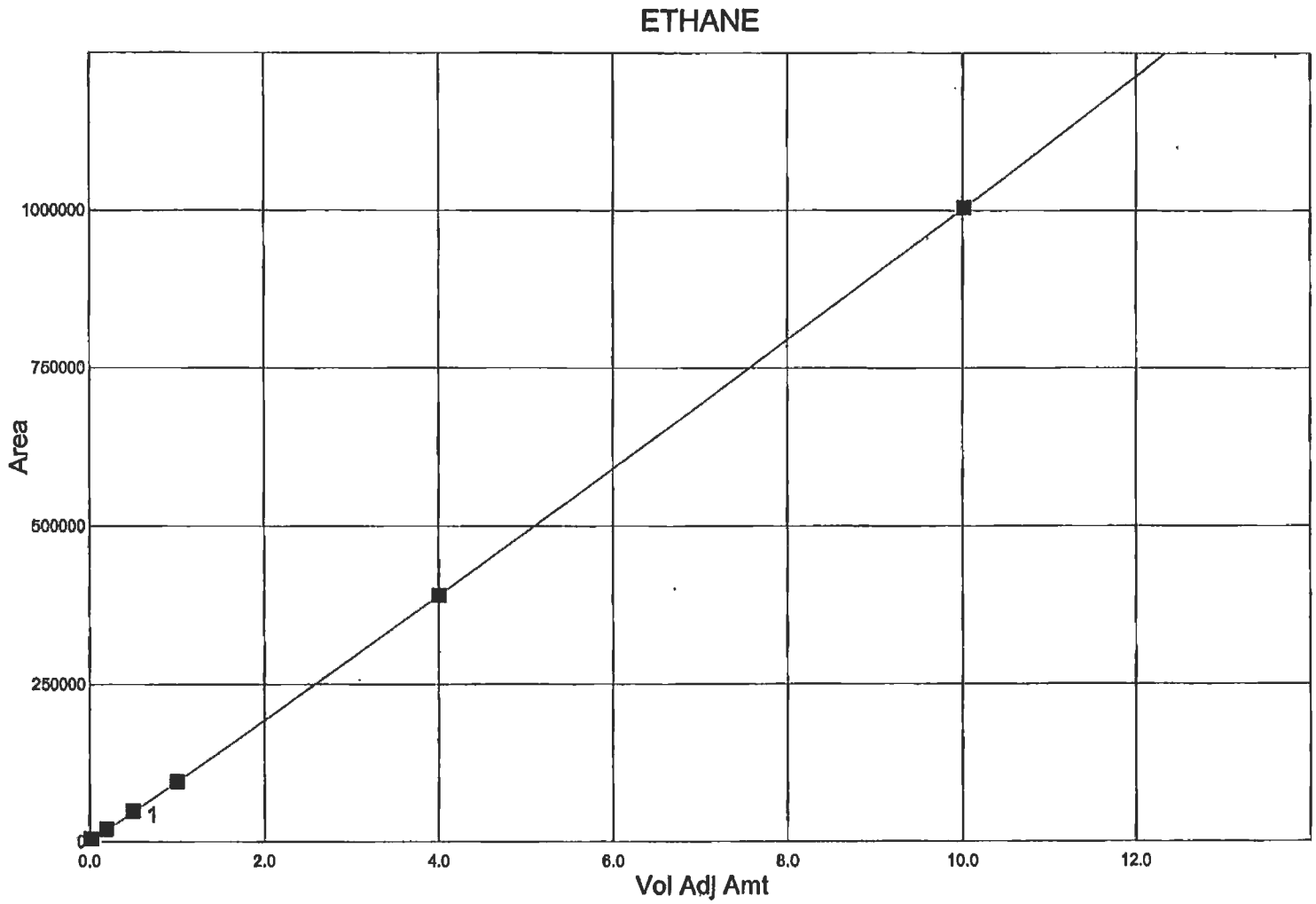


Level Name	Observed X-Value	Calculated X-Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
A	0.020100	0.052312	-0.032212	-61.577	4310.000	1655.624	2654.376	160.325
B	0.201400	0.181888	0.019512	10.728	15001.000	16612.775	-1611.775	-9.702
C	0.503500	0.494145	0.009355	1.893	40853.750	41630.202	-776.452	-1.865
D	1.007000	0.955918	0.051082	5.344	79316.250	83587.947	-4271.697	-5.110
F	4.028000	4.049298	-0.021298	-0.526	344078.000	342212.844	1865.156	0.545
G	10.070000	10.067346	0.002654	0.026	894584.250	894837.383	-253.133	-0.028

Fit Analysis Output For Method File: "O:\V3400R\0L02RI.MTH"
Component Name: "ETHANE"
Date: 12/3/2010 Time: 09:14 AM

Curve Parameters:

Curve #1 : 2nd Order - Force Origin
Weighting Factor = 1.0 (No Weighting) r^2 = 0.999978
Calibration Curve = (95918.897896)X + (441.603896)X^2



Level Name	Observed X-Value	Calculated X-Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
A	0.020000	0.059537	-0.039537	-66.407	5712.250	1918.555	3793.695	197.737
B	0.200200	0.211322	-0.011122	-5.263	20289.500	19220.663	1068.837	5.561
C	0.500500	0.510560	-0.010060	-1.970	49087.500	48118.030	969.470	2.015
D	1.001000	0.996555	0.004445	0.446	96027.000	96457.304	-430.304	-0.446
F	4.004000	4.002499	0.001501	0.038	390989.750	391139.068	-149.318	-0.038
G	10.010000	10.010242	-0.000242	-0.002	1004422.250	1004396.922	25.328	0.003

Software Version: 4.1<2F12>
Sample Name : V368A
Sample Number: 0.1%
Operator :

Time : 12/2/2010 10:43 AM
Study : 10ul

Instrument : GR
AutoSampler :
Rack/Vial : 0/0

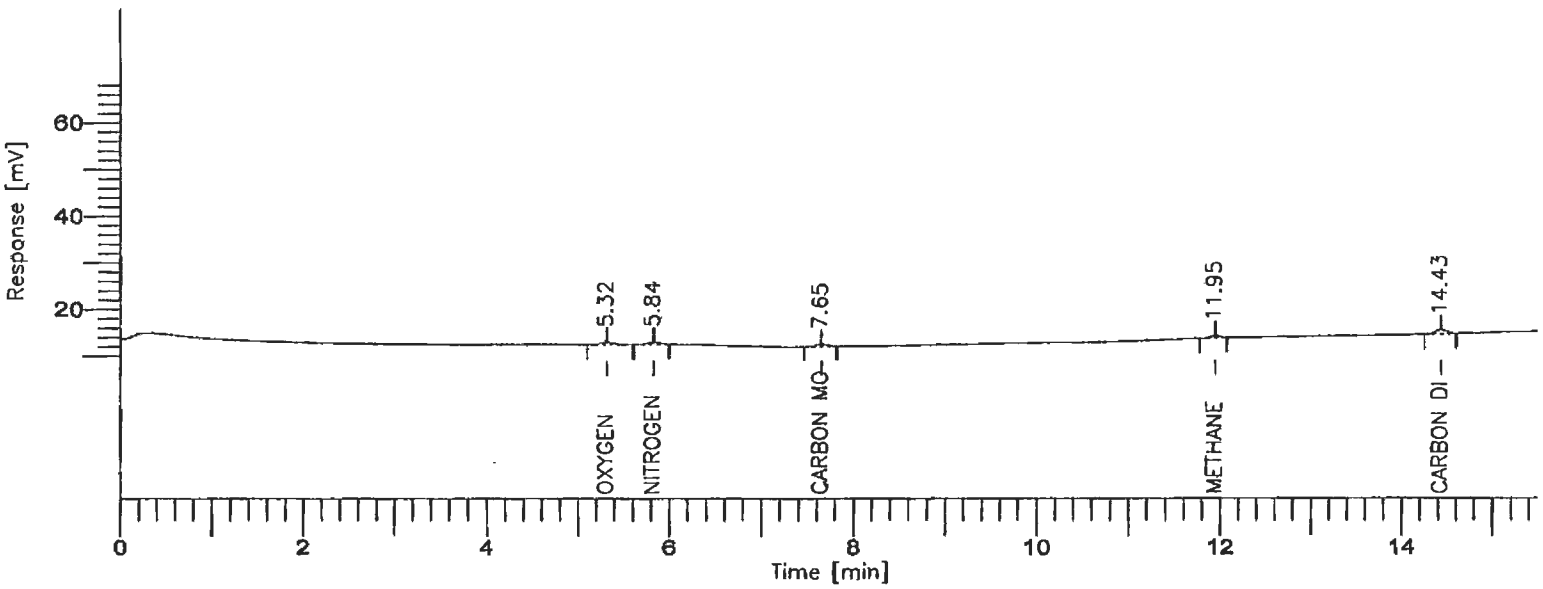
Channel : A A/D mV Range : 1000

Interface Serial # : 9241560448 Data Acquisition Time: 12/2/2010 10:28 AM
Delay Time : 0.00 min.
End Time : 15.50 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : O:\V3400R\0K23003A.RAW
Result File : O:\V3400R\0K23003A.RST
Inst Method : O:\V3400R\#GASINST from O:\V3400R\0K23003A.RST
Proc Method : O:\V3400R\#GASINST
Calib Method : O:\V3400R\0L02RI
Sequence File : O:\V3400R\0L02RI.SEQ

Sample Volume : 1.0000 uL
Sample Amount : 1.0000

Area Reject : 0.000000
Dilution Factor : 1.00

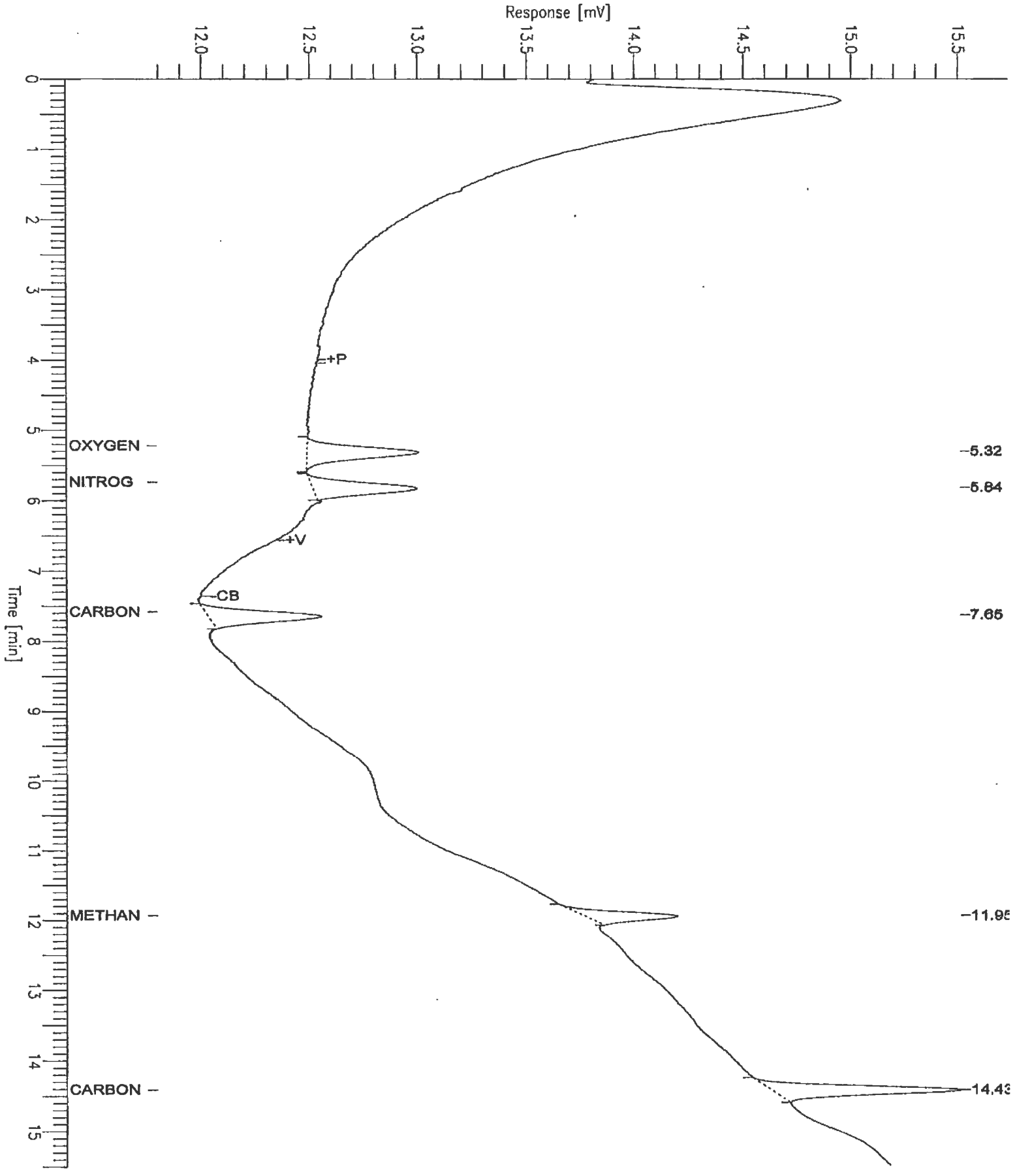


Peak #	Time [min]	Delta RT %	Area [µV·s]	Component Name	Height [µV]	Raw Amt. (%)	Dilution Factor	Adjusted Amt. (%)	R N G	G Component Name
1	5.321	1.84	5726	OXYGEN	519	0.0273	1.000	0.0273		OXYGEN
2	5.835	1.69	5184	NITROGEN	484	0.0143	1.000	0.0143		NITROGEN
3	7.653	0.88	5334	CARBON MONOXIDE	526	0.0144	1.000	0.0144		CARBON MONOXIDE
4	11.952	0.18	3439	METHANE	425	0.0113	1.000	0.0113		METHANE
5	14.431	0.15	7333	CARBON DIOXIDE	887	0.0167	1.000	0.0167		CARBON DIOXIDE
0	20.675	-----	0	ETHYLENE	0	0.0000	1.000	0.0000		ETHYLENE
0	24.004	-----	0	ETHANE	0	0.0000	1.000	0.0000		ETHANE
								0.0841		

Chromatogram

Sample Name : V368A
FileName : O:\V3400R\0K23003A.RAW
Method :
Start Time : 0.00 min End Time : 15.50 min
Scale Factor: 0.0 Plot Offset: 12 mV

Sample #: 0.1% Page 1 of 1
Date : 12/2/2010 10:59 AM
Time of Injection: 12/2/2010 10:28 AM
Low Point : 11.79 mV High Point : 15.51 mV
Plot Scale: 3.7 mV



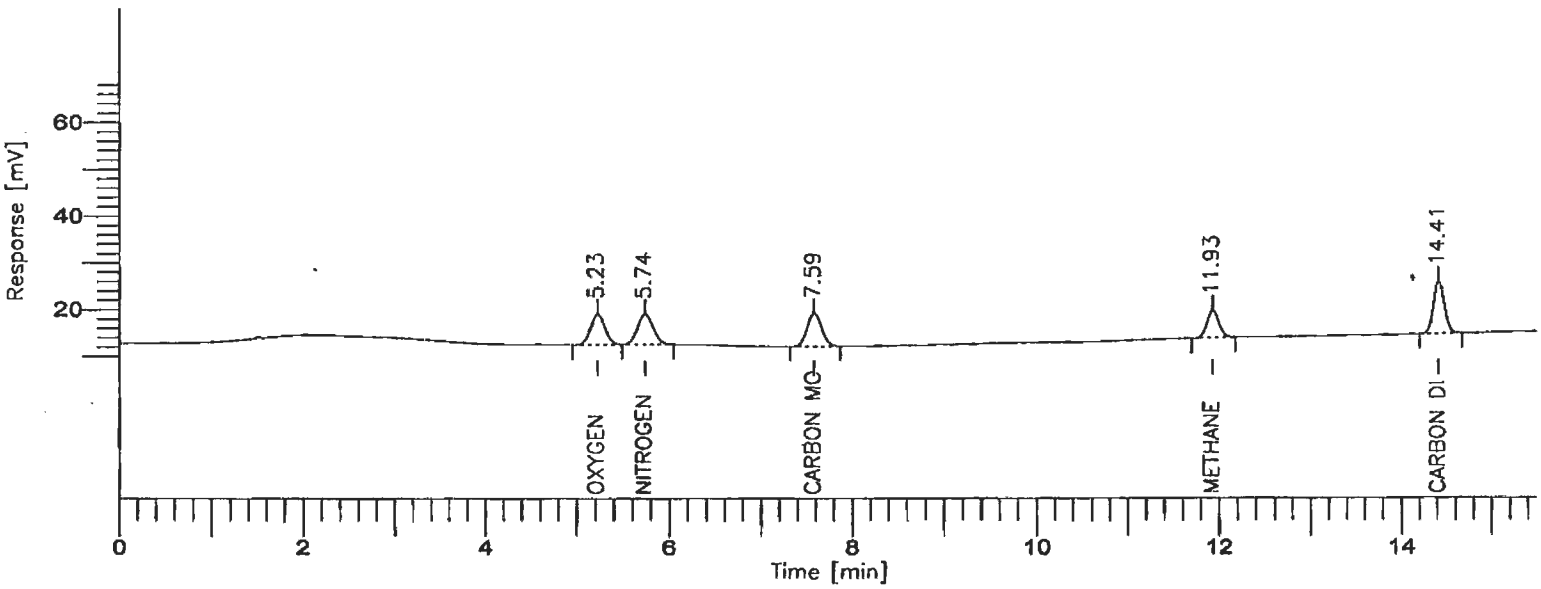
Software Version: 4.1<2F12>
Sample Name : V368A Time : 12/2/2010 11:24 AM
Sample Number: 1.0% Study : 100UL
Operator :

Instrument : GR Channel : A A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9241560448 Data Acquisition Time: 12/2/2010 11:08 AM
Delay Time : 0.00 min.
End Time : 15.50 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : O:\V3400R\L02R003.RAW
Result File : O:\V3400R\L02R003.RST
Inst Method : O:\V3400R\#GASINST from O:\V3400R\L02R003.RST
Proc Method : O:\V3400R\#GASINST
Calib Method : O:\V3400R\0L02RI
Sequence File : O:\V3400R\0L02RI.SEQ

Sample Volume : 1.0000 uL Area Reject : 0.000000
Sample Amount : 1.0000 Dilution Factor : 1.00



Peak #	Time [min]	Delta RT %	Area [µV·s]	Component Name	Height [µV]	Raw Amt. (%)	Dilution Factor	Adjusted Amt. (%)	R N G	G Component Name
1	5.225	0.01	70389	OXYGEN	6533	0.4537	1.000	0.4537		OXYGEN
2	5.739	0.02	77747	NITROGEN	6502	0.2977	1.000	0.2977		NITROGEN
3	7.585	-0.01	78467	CARBON MONOXIDE	7039	0.2956	1.000	0.2956		CARBON MONOXIDE
4	11.929	-0.01	51860	METHANE	5871	0.2380	1.000	0.2380		METHANE
5	14.414	0.03	94365	CARBON DIOXIDE	11227	0.2996	1.000	0.2996		CARBON DIOXIDE
0	20.675	-----	0	ETHYLENE	0	0.0000	1.000	0.0000		ETHYLENE
0	24.004	-----	0	ETHANE	0	0.0000	1.000	0.0000		ETHANE
								1.5845		

Software Version: 4.1<2F12>
Sample Name : V368A
Sample Number: 2.5%
Operator :

Time : 12/2/2010 11:50 AM
Study : 250UL

Instrument : GR
AutoSampler :
Rack/Vial : 0/0

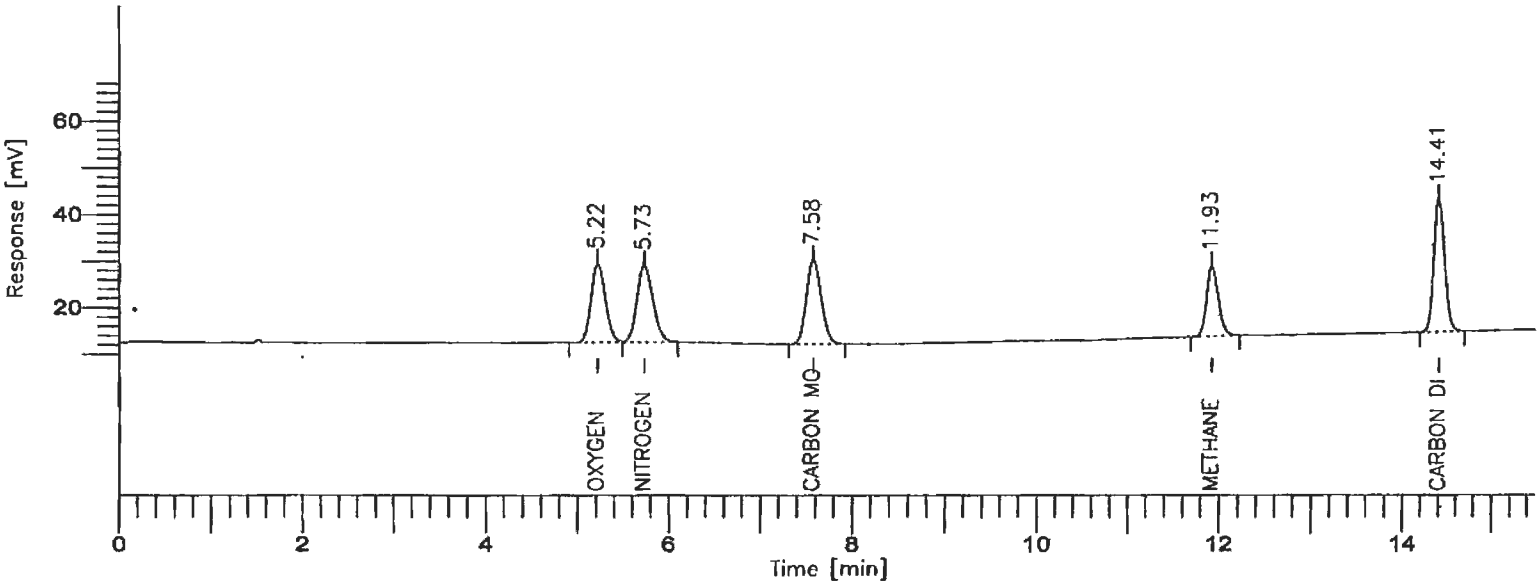
Channel : A A/D mV Range : 1000

Interface Serial # : 9241560448 Data Acquisition Time: 12/2/2010 11:35 AM
Delay Time : 0.00 min.
End Time : 15.50 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : O:\V3400R\L02R004.RAW
Result File : O:\V3400R\L02R004.RST
Inst Method : O:\V3400R\#GASINST from O:\V3400R\L02R004.RST
Proc Method : O:\V3400R\#GASINST
Calib Method : O:\V3400R\0L02RI
Sequence File : O:\V3400R\0L02RI.SEQ

Sample Volume : 1.0000 uL
Sample Amount : 1.0000

Area Reject : 0.000000
Dilution Factor : 1.00



Peak #	Time [min]	Delta RT %	Area [µV·s]	Component Name	Height [µV]	Raw Amt. (%)	Dilution Factor	Adjusted Amt. (%)	R N G	G Component Name
1	5.221	-0.07	182739	OXYGEN	16885	3.5512	1.000	3.5512		OXYGEN
2	5.734	-0.07	200991	NITROGEN	16434	2.8710	1.000	2.8710		NITROGEN
3	7.582	-0.06	203360	CARBON MONOXIDE	17985	2.8538	1.000	2.8538		CARBON MONOXIDE
4	11.927	-0.03	133418	METHANE	14940	2.2939	1.000	2.2939		METHANE
5	14.408	-0.01	240412	CARBON DIOXIDE	28360	2.7338	1.000	2.7338		CARBON DIOXIDE
0	20.675	-----	0	ETHYLENE	0	0.0000	1.000	0.0000		ETHYLENE
0	24.004	-----	0	ETHANE	0	0.0000	1.000	0.0000		ETHANE

14.3036

Software Version: 4.1<2F12>
Sample Name : V368A
Sample Number: 5.0%
Operator :

Time : 12/2/2010 12:10 PM
Study : 500UL

Instrument : GR
AutoSampler :
Rack/Vial : 0/0

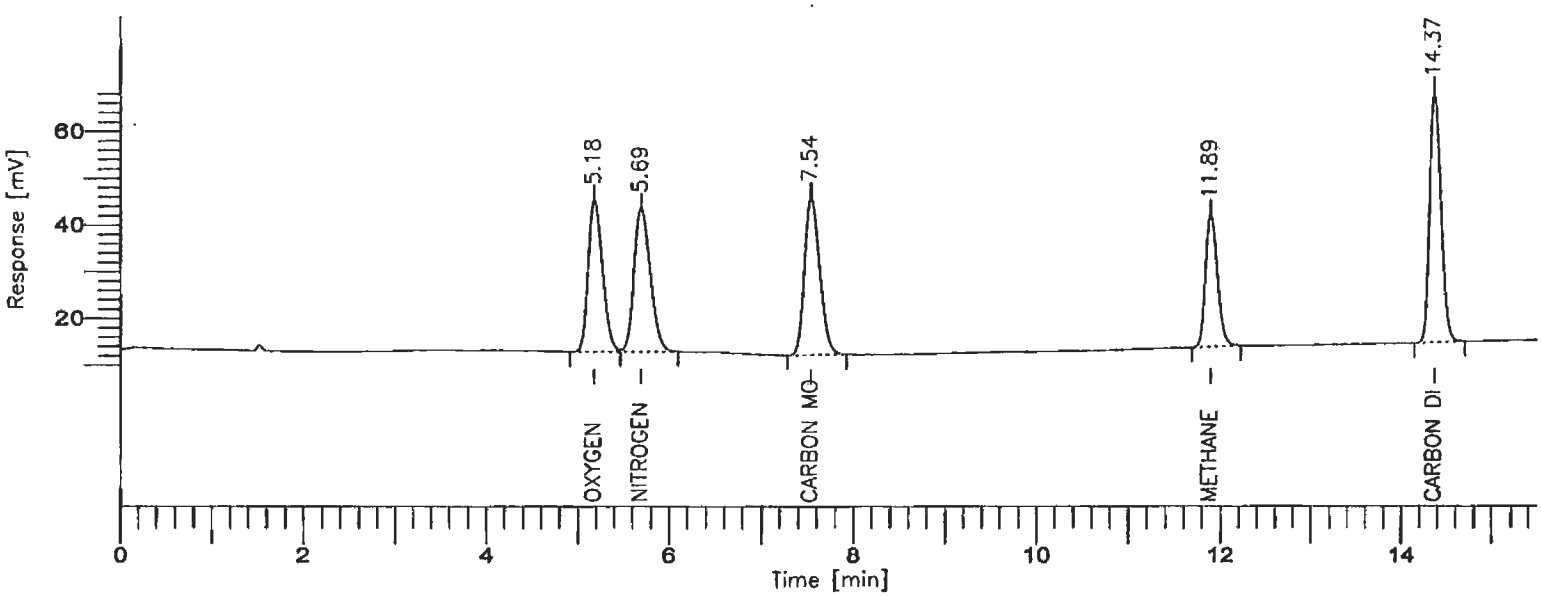
Channel : A A/D mV Range : 1000

Interface Serial # : 9241560448 Data Acquisition Time: 12/2/2010 11:54 AM
Delay Time : 0.00 min.
End Time : 15.50 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : O:\V3400R\L02R005.RAW
Result File : O:\V3400R\L02R005.RST
Inst Method : O:\V3400R\#GASINST from O:\V3400R\L02R005.RST
Proc Method : O:\V3400R\#GASINST
Calib Method : O:\V3400R\0L02RI
Sequence File : O:\V3400R\0L02RI.SEQ

Sample Volume : 1.0000 uL
Sample Amount : 1.0000

Area Reject : 0.000000
Dilution Factor : 1.00



Peak #	Time [min]	Delta RT %	Area [µV·s]	Component Name	Height [µV]	Raw Amt. (%)	Dilution Factor	Adjusted Amt. (%)	R N G	G Component Name
1	5.182	-0.82	348967	OXYGEN	32427	5.1433	1.000	5.1433		OXYGEN
2	5.693	-0.79	381612	NITROGEN	30772	5.3306	1.000	5.3306		NITROGEN
3	7.542	-0.58	389430	CARBON MONOXIDE	33795	5.3365	1.000	5.3365		CARBON MONOXIDE
4	11.892	-0.32	255416	METHANE	28333	4.2868	1.000	4.2868		METHANE
5	14.369	-0.28	458790	CARBON DIOXIDE	53519	5.1616	1.000	5.1616		CARBON DIOXIDE
0	20.675	-----	0	ETHYLENE	0	0.0000	1.000	0.0000		ETHYLENE
0	24.004	-----	0	ETHANE	0	0.0000	1.000	0.0000		ETHANE

25.2587

Software Version: 4.1<2F12>
Sample Name : V368A
Sample Number: 10%
Operator :

Time : 12/2/2010 12:31 PM
Study : 1000UL

Instrument : GR
AutoSampler :
Rack/Vial : 0/0

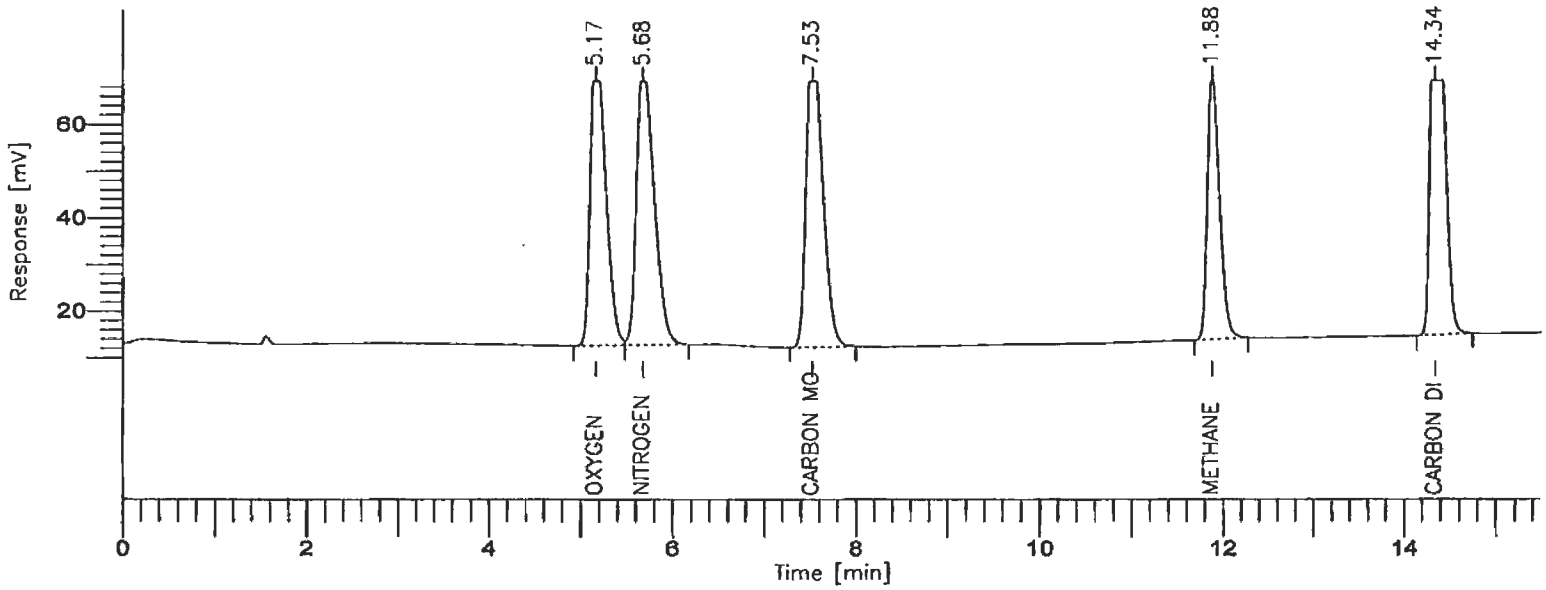
Channel : A A/D mV Range : 1000

Interface Serial # : 9241560448 Data Acquisition Time: 12/2/2010 12:15 PM
Delay Time : 0.00 min.
End Time : 15.50 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : O:\V3400R\L02R006.RAW
Result File : O:\V3400R\L02R006.RST
Inst Method : O:\V3400R\#GASINST from O:\V3400R\L02R006.RST
Proc Method : O:\V3400R\#GASINST
Calib Method : O:\V3400R\0L02RI
Sequence File : O:\V3400R\0L02RI.SEQ

Sample Volume : 1.0000 uL
Sample Amount : 1.0000

Area Reject : 0.000000
Dilution Factor : 1.00



Peak #	Time [min]	Delta RT %	Area [µV·s]	Component Name	Height [µV]	Raw Amt. (%)	Dilution Factor	Adjusted Amt. (%)	R N G	G	Component Name
1	5.168	-1.08	723709	OXYGEN	65473	10.5191	1.000	10.5191			OXYGEN
2	5.680	-1.01	791903	NITROGEN	60324	10.8313	1.000	10.8313			NITROGEN
3	7.526	-0.79	808192	CARBON MONOXIDE	67036	10.8347	1.000	10.8347			CARBON MONOXIDE
4	11.876	-0.46	527242	METHANE	56946	8.6656	1.000	8.6656			METHANE
5	14.344	-0.45	947461	CARBON DIOXIDE	106470	10.5215	1.000	10.5215			CARBON DIOXIDE
0	20.675	-----	0	ETHYLENE	0	0.0000	1.000	0.0000			ETHYLENE
0	24.004	-----	0	ETHANE	0	0.0000	1.000	0.0000			ETHANE

51.3722

Software Version: 4.1<2F12>
Sample Name : V368A
Sample Number: 20%
Operator :

Time : 12/2/2010 01:13 PM
Study : 2000UL

Instrument : GR
AutoSampler :
Rack/Vial : 0/0

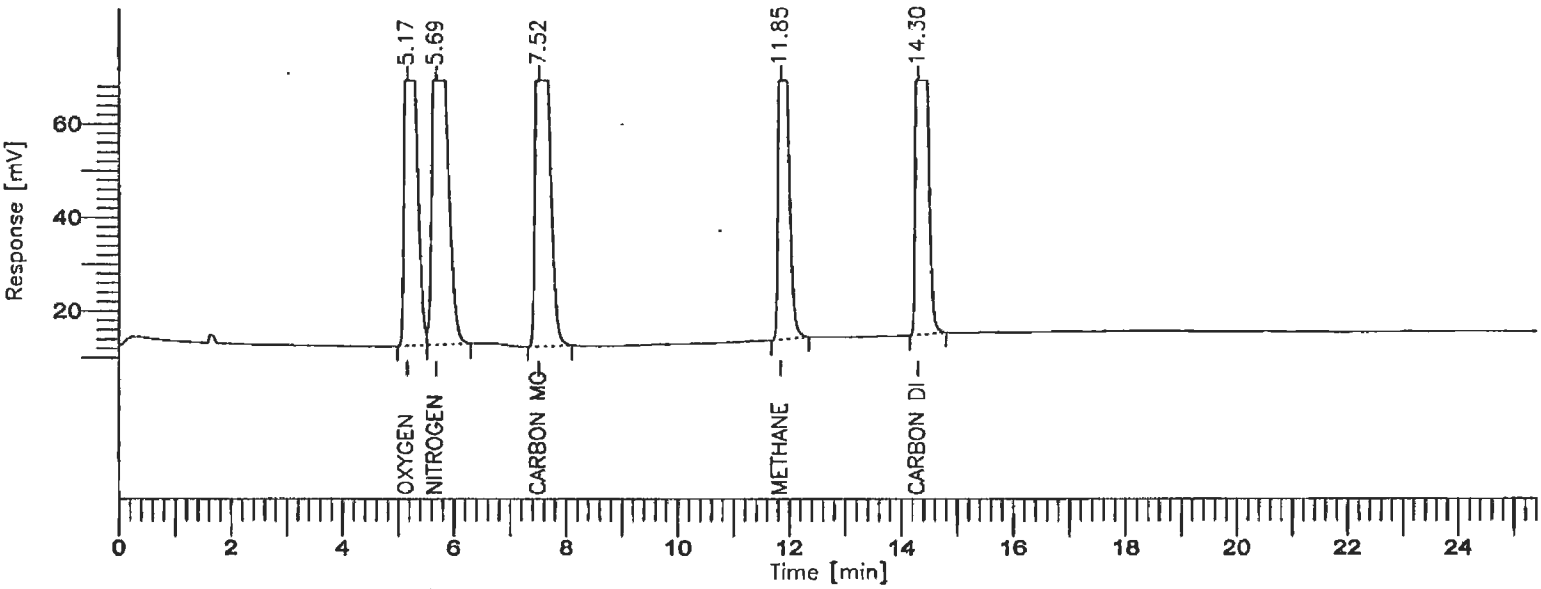
Channel : A A/D mV Range : 1000

Interface Serial # : 9241560448 Data Acquisition Time: 12/2/2010 12:37 PM
Delay Time : 0.00 min.
End Time : 25.42 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : O:\V3400R\L02R007.RAW
Result File : O:\V3400R\L02R007.rst
Inst Method : O:\V3400R\#GASLONG from O:\V3400R\L02R007.rst
Proc Method : O:\V3400R\#GASINST from O:\V3400R\L02R007.rst
Calib Method : O:\V3400R\0L02RI from O:\V3400R\L02R007.rst
Sequence File : O:\V3400R\0L02RI.SEQ

Sample Volume : 1.0000 uL
Sample Amount : 1.0000

Area Reject : 0.000000
Dilution Factor : 1.00

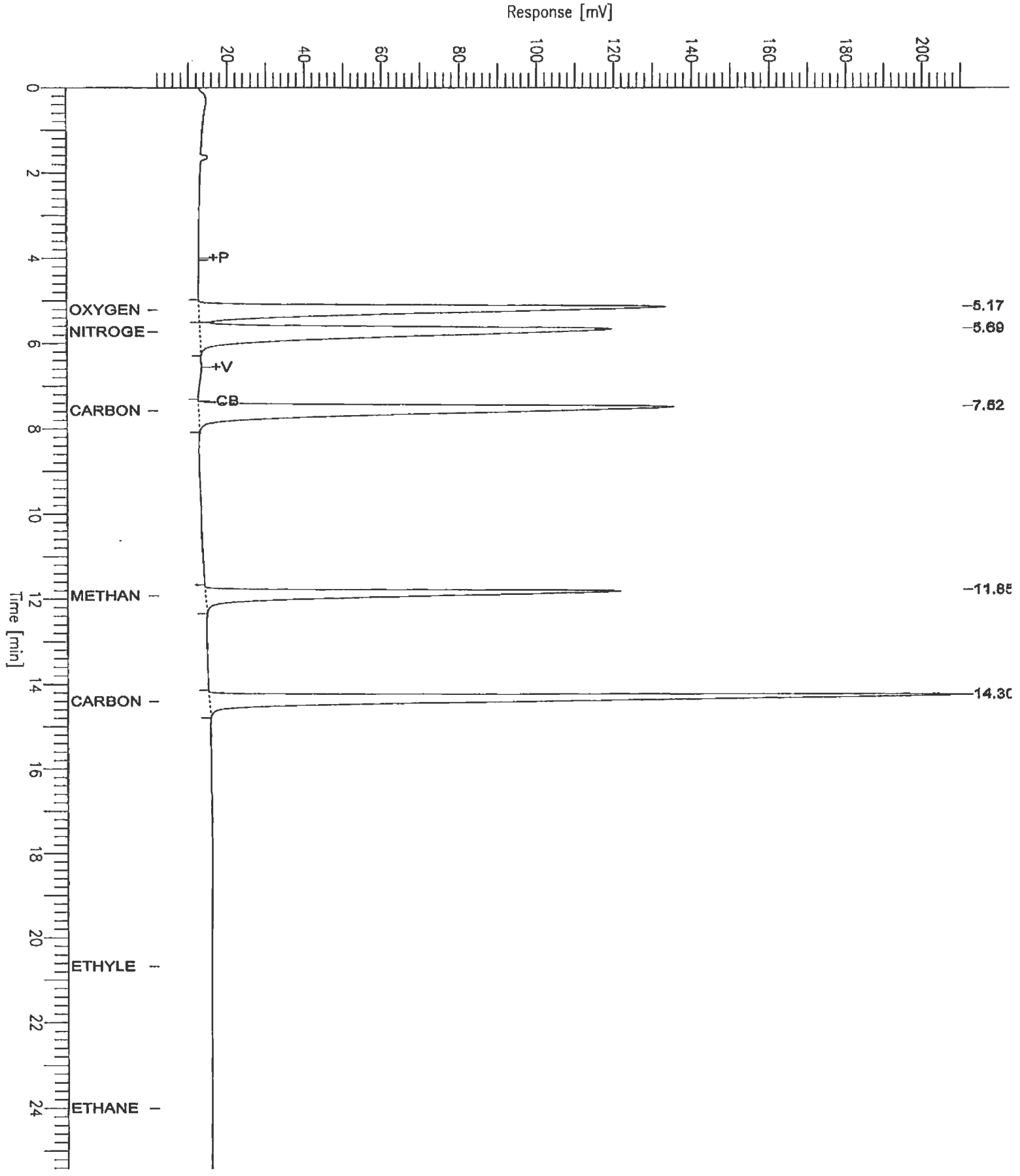


Peak #	Time [min]	Delta RT %	Area [µV·s]	Component Name	Height [µV]	Raw Amt. (%)	Dilution Factor	Adjusted Amt. (%)	R N G	G Component Name
1	5.167	-1.11	1458074	OXYGEN	120870	20.9726	1.000	20.9726		OXYGEN
2	5.686	-0.91	1599098	NITROGEN	106678	21.5350	1.000	21.5350		NITROGEN
3	7.519	-0.88	1635206	CARBON MONOXIDE	123080	21.5646	1.000	21.5646		CARBON MONOXIDE
4	11.850	-0.67	1067640	METHANE	107723	17.2699	1.000	17.2699		METHANE
5	14.304	-0.73	1914441	CARBON DIOXIDE	196250	21.0403	1.000	21.0403		CARBON DIOXIDE
0	20.675	-----	0	ETHYLENE	0	0.0000	1.000	0.0000		ETHYLENE
0	24.004	-----	0	ETHANE	0	0.0000	1.000	0.0000		ETHANE
								102.3824		

Chromatogram

Sample Name : V368A
FileName : O:\V3400R\L02R007.RAW
Method :
Start Time : 0.00 min End Time : 25.42 min
Scale Factor: 0.0 Plot Offset: 2 mV

Sample #: 20% Page 1 of 1
Date : 12/2/2010 01:50 PM
Time of Injection: 12/2/2010 12:37 PM
Low Point : 1.88 mV High Point : 210.55 mV
Plot Scale: 208.7 mV



Software Version: 4.1<2F12>
Sample Name : V408
Sample Number: 0.05% RR
Operator :

Time : 12/2/2010 03:20 PM
Study : 25uL RR

Instrument : GR
AutoSampler :
Rack/Vial : 0/0

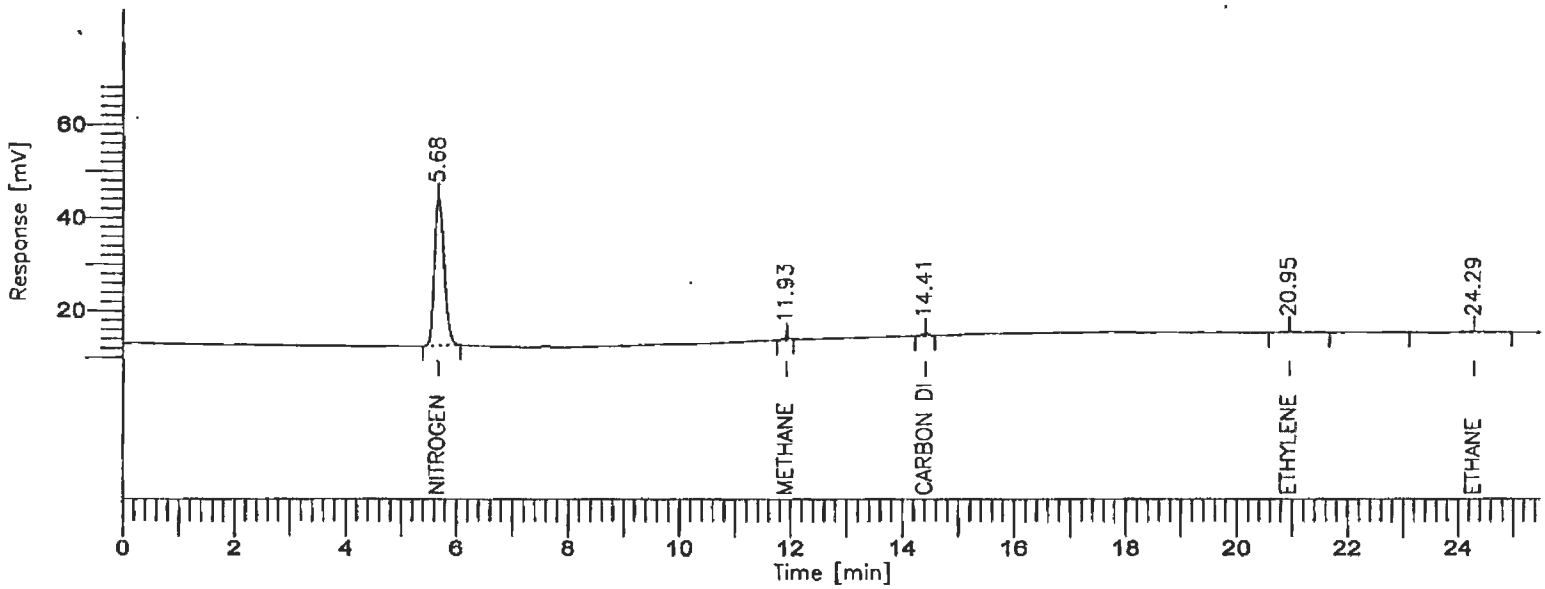
Channel : A A/D mV Range : 1000

Interface Serial # : 9241560448 Data Acquisition Time: 12/2/2010 02:55 PM
Delay Time : 0.00 min.
End Time : 25.50 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : O:\V3400R\L02R010.RAW
Result File : O:\V3400R\L02R010.RST
Inst Method : O:\V3400R\#GASLONG from O:\V3400R\L02R010.RST
Proc Method : O:\V3400R\#GASINST
Calib Method : O:\V3400R\0L02RI
Sequence File : O:\V3400R\0L02RI.SEQ

Sample Volume : 1.0000 uL
Sample Amount : 1.0000

Area Reject : 0.000000
Dilution Factor : 1.00



Peak #	Time [min]	Delta RT %	Area [µV·s]	Component Name	Height [µV]	Raw Amt. (%)	Dilution Factor	Adjusted Amt. (%)	R N G	Component Name
~~0~~	~~5.225~~	~~-----~~	~~0~~	~~OXYGEN~~	~~0~~	~~0.0000~~	~~1.000~~	~~0.0000~~		~~OXYGEN~~
1	5.679	-1.04	384739	NITROGEN	31681	5.1813	1.000	5.1813		NITROGEN
0	7.586	-----	0	CARBON MONOXIDE	0	0.0000	1.000	0.0000		CARBON MONOXIDE
2	11.928	-0.02	3000	METHANE	362	0.0452	1.000	0.0452		METHANE
3	~~14.412~~	~~0.02~~	~~4706~~	~~CARBON DIOXIDE~~	~~372~~	~~0.0517~~	~~1.000~~	~~0.0517~~		~~CARBON DIOXIDE~~
4	20.950	1.33	4310	ETHYLENE	215	0.0035	1.000	0.0035		ETHYLENE
5	24.291	1.20	5712	ETHANE	202	0.0039	1.000	0.0039		ETHANE

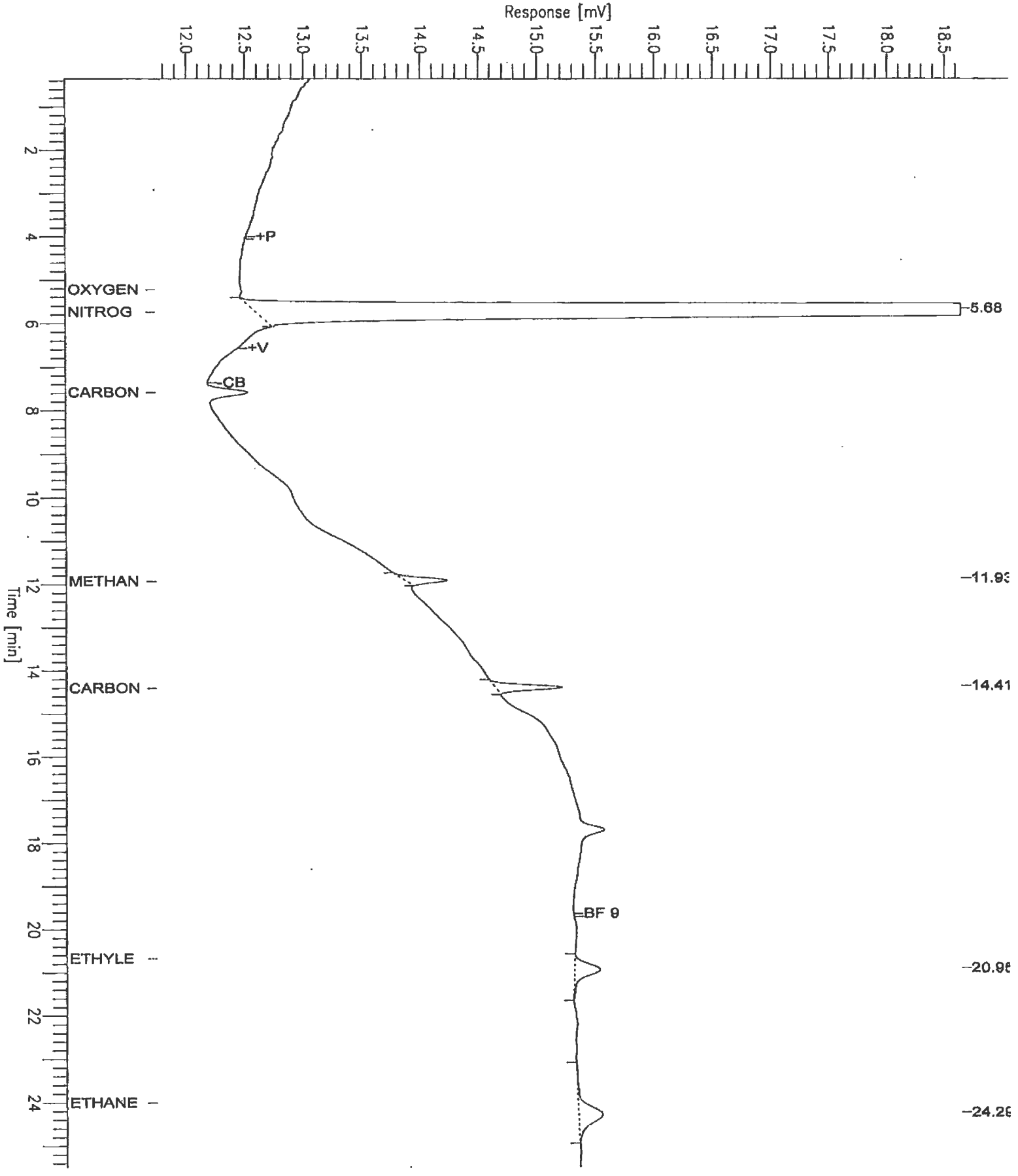
5.2855

12/3/10

Chromatogram

Sample Name : V408
FileName : O:\V3400R\L02R010.RAW
Method :
Start Time : 0.35 min End Time : 25.50 min
Scale Factor: 0.0 Plot Offset: 12 mV

Sample #: 0.05% Page 1 of 1
Date : 12/2/2010 03:32 PM
Time of Injection: 12/2/2010 02:55 PM
Low Point : 11.73 mV High Point : 18.65 mV
Plot Scale: 6.9 mV



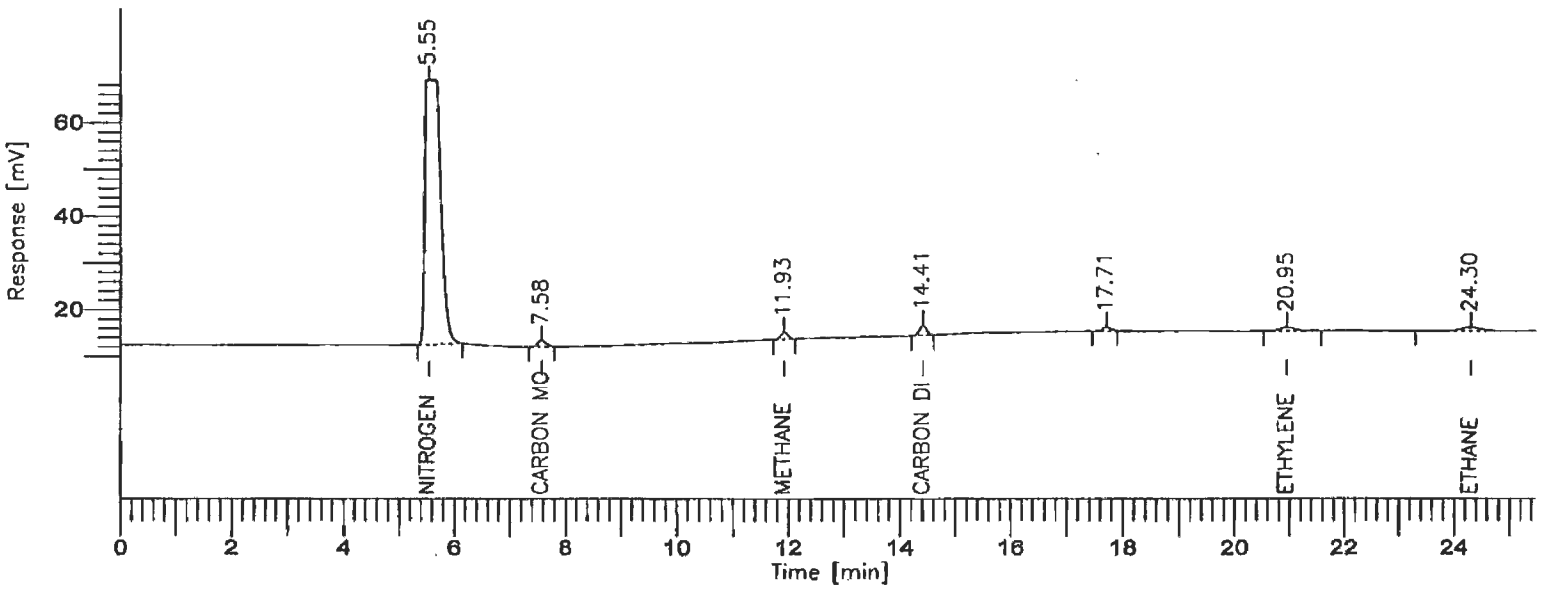
Software Version: 4.1<2F12>
Sample Name : V408 Time : 12/2/2010 02:48 PM
Sample Number: 0.2% Study : 100UL
Operator :

Instrument : GR Channel : A A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9241560448 Data Acquisition Time: 12/2/2010 02:23 PM
Delay Time : 0.00 min.
End Time : 25.50 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : O:\V3400R\L02R009.RAW
Result File : O:\V3400R\L02R009.RST
Inst Method : O:\V3400R\#GASLONG from O:\V3400R\L02R009.RST
Proc Method : O:\V3400R\#GASINST
Calib Method : O:\V3400R\0L02RI
Sequence File : O:\V3400R\0L02RI.SEQ

Sample Volume : 1.0000 uL Area Reject : 0.000000
Sample Amount : 1.0000 Dilution Factor : 1.00



Peak #	Time [min]	Delta RT %	Area [µV·s]	Component Name	Height [µV]	Raw Amt. (%)	Dilution Factor	Adjusted Amt. (%)	R N G	Component Name
0	5.225	-----	0	~~OXYGEN~~	~~0~~	~~0.0000~~	~~1.000~~	~~0.0000~~		~~OXYGEN~~
1	5.545	-3.36	1477049	NITROGEN	106586	19.8914	1.000	19.8914		NITROGEN
2	7.579	-0.10	14776	CARBON MONOXIDE	1349	0.1949	1.000	0.1949		CARBON MONOXIDE
3	11.927	-0.03	12487	METHANE	1430	0.1880	1.000	0.1880		METHANE
4	14.413	0.02	18398	~~CARBON DIOXIDE~~	~~2215~~	~~0.2022~~	~~1.000~~	~~0.2022~~		~~CARBON DIOXIDE~~
6	20.951	1.33	15001	ETHYLENE	792	0.0113	1.000	0.0113		ETHYLENE
7	24.304	1.25	20290	ETHANE	742	0.0131	1.000	0.0131		ETHANE

12/13/10

20.5009

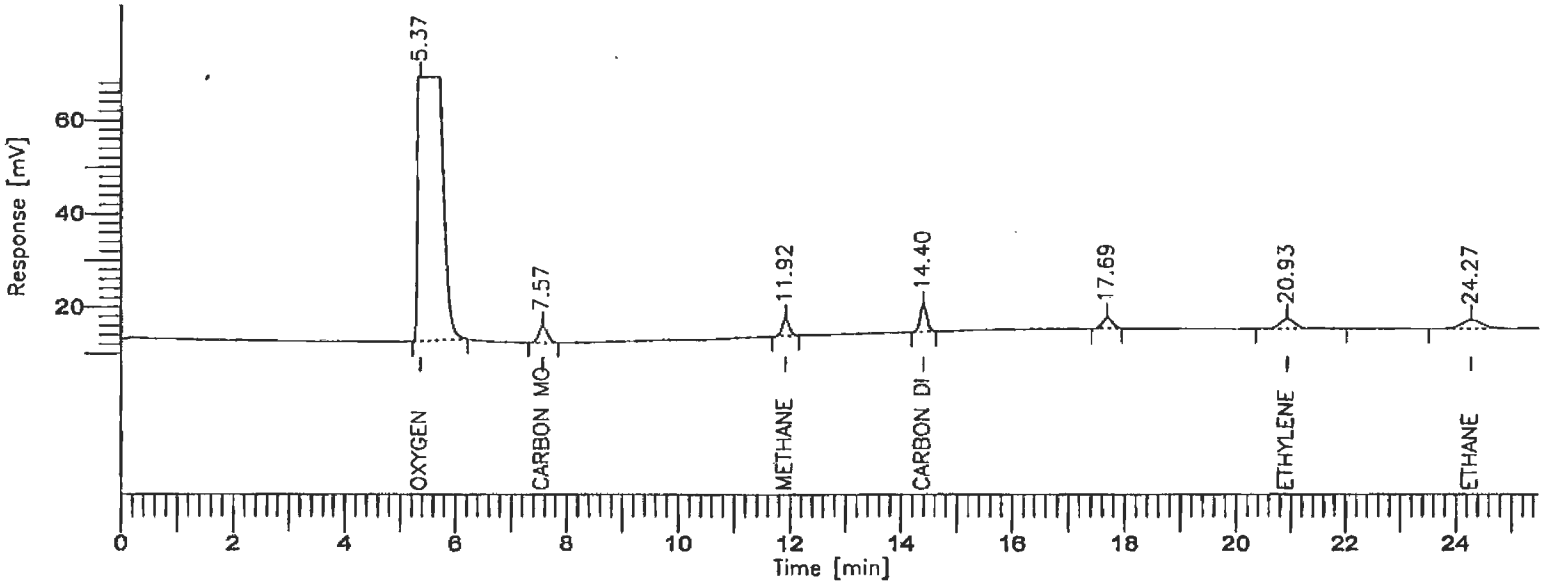
Software Version: 4.1<2F12>
Sample Name : V408 Time : 12/2/2010 03:51 PM
Sample Number: 0.5% Study : 250UL
Operator :

Instrument : GR Channel : A A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9241560448 Data Acquisition Time: 12/2/2010 03:26 PM
Delay Time : 0.00 min.
End Time : 25.50 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : O:\V3400R\L02R011.RAW
Result File : O:\V3400R\L02R011.RST
Inst Method : O:\V3400R\#GASLONG from O:\V3400R\L02R011.RST
Proc Method : O:\V3400R\#GASINST
Calib Method : O:\V3400R\0L02RI
Sequence File : O:\V3400R\0L02RI.SEQ

Sample Volume : 1.0000 uL Area Reject : 0.000000
Sample Amount : 1.0000 Dilution Factor : 1.00



Peak #	Time [min]	Delta RT %	Area [µV·s]	Component Name	Height [µV]	Raw Amt. (%)	Dilution Factor	Adjusted Amt. (%)	R N G	Component Name
~~1~~	~~5.370~~	~~2.78~~	~~3754808~~	~~OXYGEN~~	~~211154~~	~~54.0084~~	~~1.000~~	~~54.0084~~		~~OXYGEN~~
0	5.738	-----	0	NITROGEN	0	0.0000	1.000	0.0000		NITROGEN
2	7.570	-0.21	39497	CARBON MONOXIDE	3480	0.5209	1.000	0.5209		CARBON MONOXIDE
3	11.915	-0.13	32614	METHANE	3701	0.4915	1.000	0.4915		METHANE
~~4~~	~~14.396~~	~~-0.08~~	~~47366~~	~~CARBON DIOXIDE~~	~~5666~~	~~0.5206~~	~~1.000~~	~~0.5206~~		~~CARBON DIOXIDE~~
6	20.931	1.24	40854	ETHYLENE	2087	0.3312	1.000	0.3312		ETHYLENE
7	24.274	1.13	49088	ETHANE	1857	0.3036	1.000	0.3036		ETHANE

56.1761

12/3/10

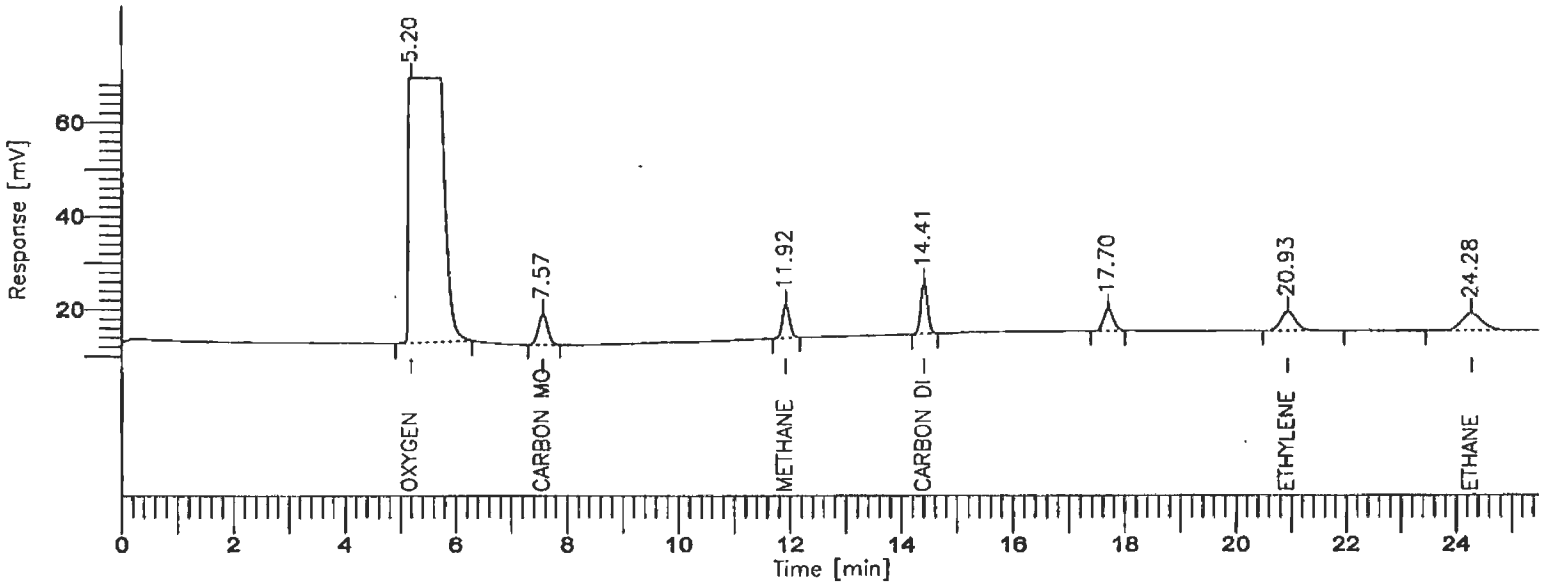
Software Version: 4.1<2F12>
Sample Name : V408 Time : 12/3/2010 09:06 AM
Sample Number: 1% Study : 500UL
Operator :

Instrument : GR Channel : A A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9241560448 Data Acquisition Time: 12/2/2010 03:56 PM
Delay Time : 0.00 min.
End Time : 25.50 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : O:\V3400R\L02R012.RAW
Result File : O:\V3400R\L02R012.rst
Inst Method : O:\V3400R\#GASLONG from O:\V3400R\L02R012.rst
Proc Method : O:\V3400R\#GASINST.mth
Calib Method : O:\V3400R\0L02RI.mth
Sequence File : O:\V3400R\0L02RI.SEQ

Sample Volume : 1.0000 uL Area Reject : 0.000000
Sample Amount : 1.0000 Dilution Factor : 1.00



Peak #	Time [min]	Delta RT %	Area [µV·s]	Component Name	Height [µV]	Raw Amt. (%)	Dilution Factor	Adjusted Amt. (%)	R N G	G Component Name
1	~~5.195~~	~~-0.37~~	~~7217016~~	~~OXYGEN~~	~~317553~~	~~103.8081~~	~~1.000~~	~~103.8081~~		~~OXYGEN~~
0	5.738	-----	0	NITROGEN	0	0.0000	1.000	0.0000		NITROGEN
2	7.567	-0.38	77116	CARBON MONOXIDE	~~6580~~	1.0170	1.000	1.0170		CARBON MONOXIDE
3	11.923	-0.12	63273	METHANE	7137	0.9527	1.000	0.9527		METHANE
4	~~14.407~~	~~0.05~~	~~91928~~	~~CARBON DIOXIDE~~	~~10935~~	~~1.0102~~	~~1.000~~	~~1.0102~~		~~CARBON DIOXIDE~~
6	20.931	0.04	79316	ETHYLENE	4078	0.7638	1.000	0.7638		ETHYLENE
7	24.275	0.08	96027	ETHANE	3600	0.7397	1.000	0.7397		ETHANE

108.2914

12/3/10

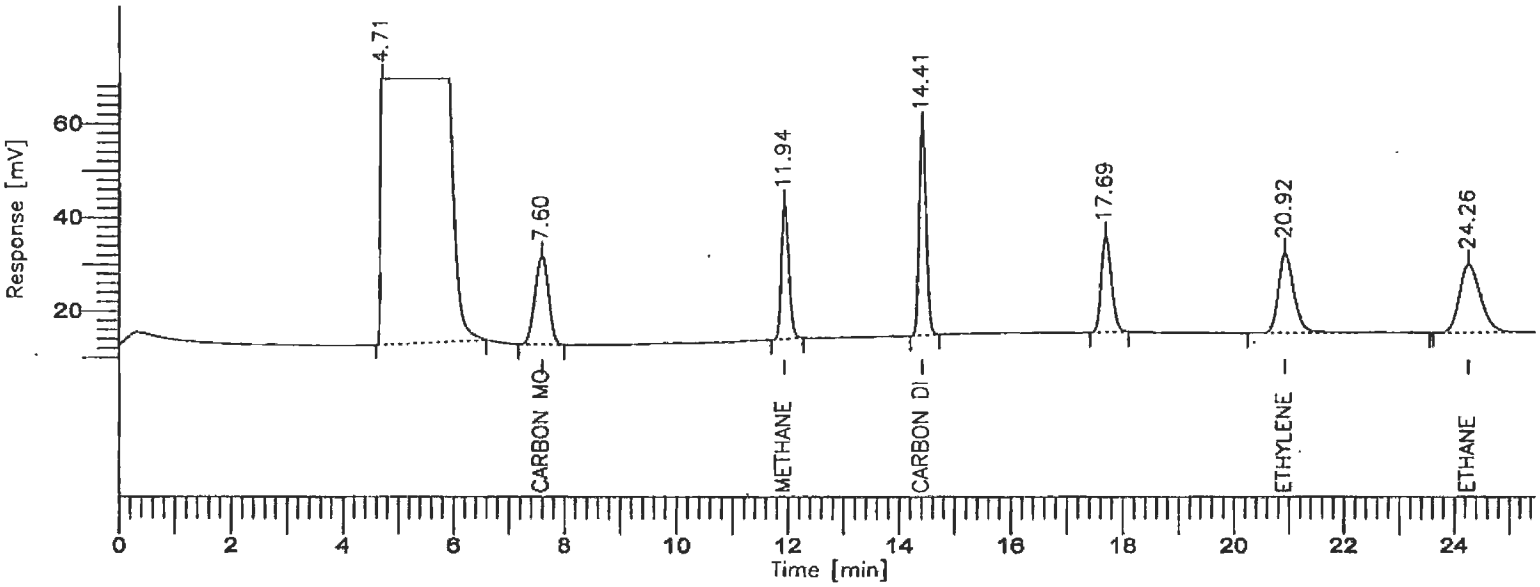
Software Version: 4.1<2F12>
Sample Name : V408 Time : 12/3/2010 09:08 AM
Sample Number: 4% Study : 2000UL
Operator :

Instrument : GR Channel : A A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9241560448 Data Acquisition Time: 12/2/2010 04:28 PM
Delay Time : 0.00 min.
End Time : 25.50 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : O:\V3400R\L02R013.RAW
Result File : O:\V3400R\L02R013.rst
Inst Method : O:\V3400R\#GASLONG from O:\V3400R\L02R013.rst
Proc Method : O:\V3400R\#GASINST.mth
Calib Method : O:\V3400R\0L02RI.mth
Sequence File : O:\V3400R\0L02RI.SEQ

Sample Volume : 1.0000 uL Area Reject : 0.000000
Sample Amount : 1.0000 Dilution Factor : 1.00



Peak #	Time [min]	Delta RT %	Area [µV·s]	Component Name	Height [µV]	Raw Amt. (%)	Dilution Factor	Adjusted Amt. (%)	R N G	Component Name
0	5.223	-----	0	OXYGEN	0	0.0000	1.000	0.0000		OXYGEN
0	5.738	-----	0	NITROGEN	0	0.0000	1.000	0.0000		NITROGEN
2	7.596	2e-15	321776	CARBON MONOXIDE	10867	4.2435	1.000	4.2435		CARBON MONOXIDE
3	11.937	6e-15	264272	METHANE	28911	3.9790	1.000	3.9790		METHANE
4	14.412	5e-15	362078	CARBON DIOXIDE	44704	4.1992	1.000	4.1992		CARBON DIOXIDE
6	20.923	#####	344078	ETHYLENE	16995	3.3134	1.000	3.3134		ETHYLENE
7	24.256	1e-15	390990	ETHANE	14563	3.0116	1.000	3.0116		ETHANE

18.7466

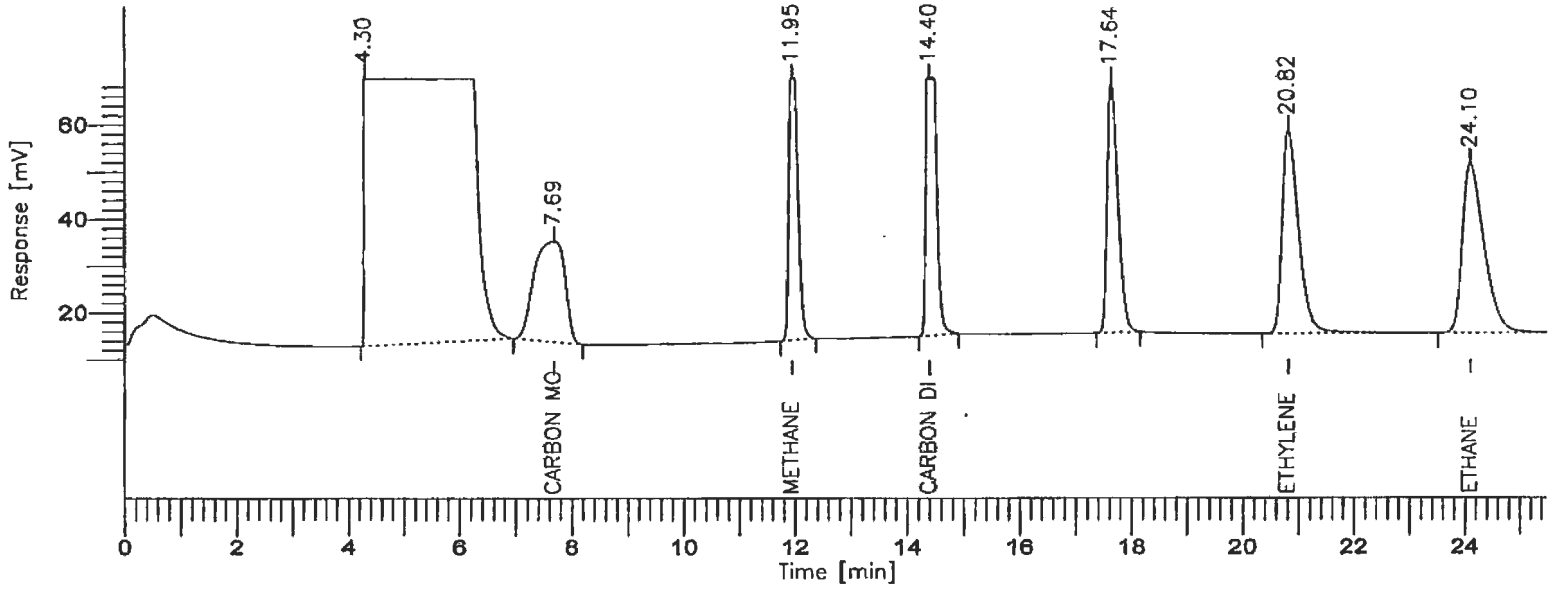
Software Version: 4.1<2F12>
Sample Name : V408 Time : 12/2/2010 05:25 PM
Sample Number: 10% Study : 5000UL
Operator :

Instrument : GR Channel : A A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9241560448 Data Acquisition Time: 12/2/2010 04:59 PM
Delay Time : 0.00 min.
End Time : 25.50 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : O:\V3400R\L02R014.RAW
Result File : O:\V3400R\L02R014.RST
Inst Method : O:\V3400R\#GASLONG from O:\V3400R\L02R014.RST
Proc Method : O:\V3400R\#GASINST
Calib Method : O:\V3400R\0L02RI
Sequence File : O:\V3400R\0L02RI.SEQ

Sample Volume : 1.0000 uL Area Reject : 0.000000
Sample Amount : 1.0000 Dilution Factor : 1.00



Peak #	Time [min]	Delta RT %	Area [µV·s]	Component Name	Height [µV]	Raw Amt. (%)	Dilution Factor	Adjusted Amt. (%)	R N G	G	Component Name
0	~~5.225~~	~~-----~~	~~0~~	~~OXYGEN~~	~~0~~	~~0.0000~~	~~1.000~~	~~0.0000~~			~~OXYGEN~~
0	5.738	-----	0	NITROGEN	0	0.0000	~~1.000~~	0.0000			NITROGEN
2	7.691	1.25	818122	CARBON MONOXIDE	~~21500~~	10.7891	1.000	10.7891			CARBON MONOXIDE
3	11.945	0.07	~~690069~~	~~METHANE~~	69165	10.4020	1.000	10.4020			METHANE
4	~~14.395~~	~~-0.11~~	~~1044605~~	~~CARBON DIOXIDE~~	~~119779~~	~~11.4005~~	~~1.000~~	~~11.4005~~			~~CARBON DIOXIDE~~
6	20.815	-0.52	894584	ETHYLENE	43213	8.6146	1.000	8.6146			ETHYLENE
7	24.098	-0.65	1004422	ETHANE	36080	7.7367	1.000	7.7367			ETHANE

Ar 2/3/10

49.0229

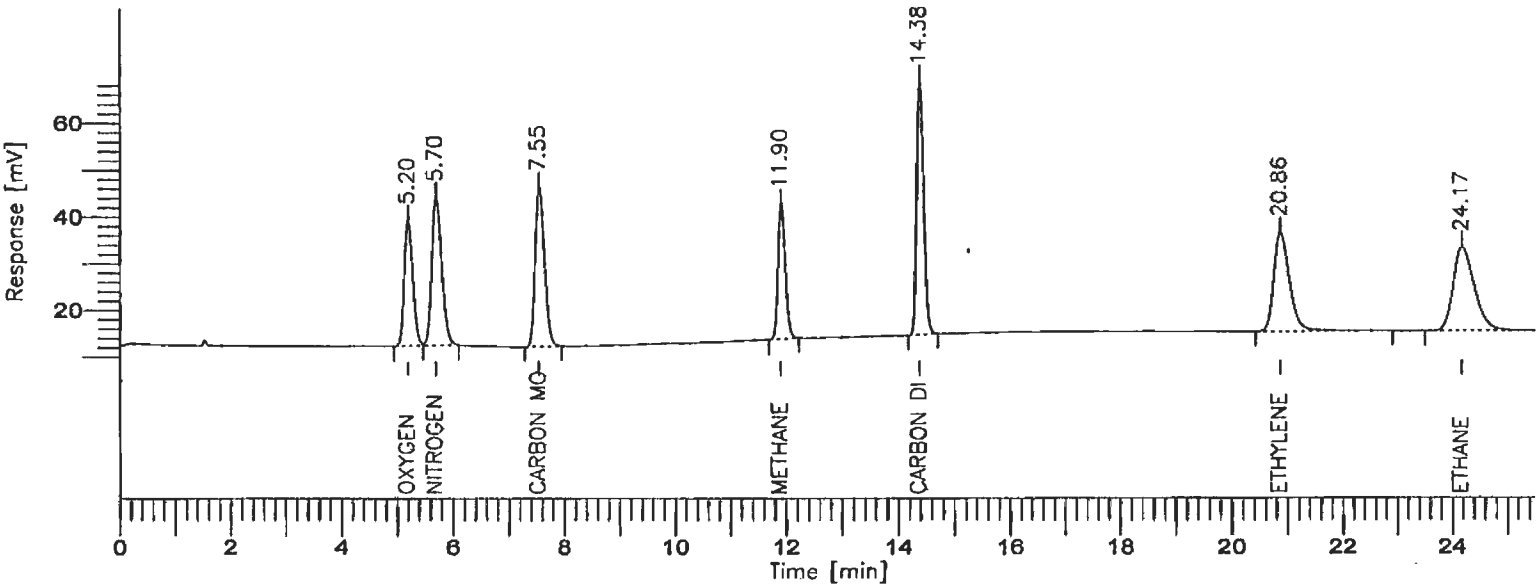
Software Version: 4.1<2F12>
Sample Name : V311 Time : 12/3/2010 09:24 AM
Sample Number: LCS Study : 500ul
Operator : 2nd Source

Instrument : GR Channel : A A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9241560448 Data Acquisition Time: 12/2/2010 05:33 PM
Delay Time : 0.00 min.
End Time : 25.50 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : O:\V3400R\L02R015.RAW
Result File : O:\V3400R\L02R015.rst
Inst Method : O:\V3400R\#GASLONG from O:\V3400R\L02R015.rst
Proc Method : O:\V3400R\#GASINST.mth
Calib Method : O:\V3400R\0L02RI.mth
Sequence File : O:\V3400R\0L02RI.SEQ

Sample Volume : 1.0000 uL Area Reject : 0.000000
Sample Amount : 1.0000 Dilution Factor : 1.00



Peak #	Time [min]	Area [µV·s]	Component Name	Height [µV]	Raw Amt. (%)	Spike (%)	Amt. (%)	% Diff.	Component Name	Spike level	%D
1	5.196	290870	OXYGEN	27183	4.1838	~~5.010~~ 4.01	4.184	-16.5	OXYGEN	4.01%	~~-16~~ 4.34
2	5.697	393683	NITROGEN	31808	5.3017	~~4.990~~ 5.01	5.302	6.2	NITROGEN	5.01%	~~0.2~~ 5.43
3	7.547	395991	CARBON MONOXIDE	34213	5.2222	~~5.000~~ 4.99	5.222	4.3	CARBON MONOXIDE	4.99%	0.2 4.65
4	11.904	261290	METHANE	29015	3.9341	4.000	3.934	-1.6	METHANE	4.00%	1.65
5	14.379	468120	CARBON DIOXIDE	54661	5.1448	~~4.983~~ 4.99	5.145	3.2	CARBON DIOXIDE	4.99%	3.11
6	20.860	425111	ETHYLENE	21273	4.9682	~~1.000~~ 4.99	4.968	396.8	ETHYLENE	4.99%	0.44
7	24.172	484108	ETHANE	18016	4.9349	~~1.000~~ 4.99	4.935	393.5	ETHANE	4.99%	1.10

12/3/11

TestAmerica Knoxville Permanent Gas Analysis Continuing calibration Review/Narrative Checklist

SOP KNOX-GC-0003, Rev. 7

Analysis Date:	10/13/11	Instrument/File ID:	~~R101311~~ PG101311	Initial Cal ID:	R120210PI

Review Items A. Initial Calibration	Yes	No	N/A	2nd Level	If No, why is data reportable?
1. Is the % D <15% (≤ 25% for hydrogen/helium)?	✓			✓	
2. Are all peak integrations acceptable	✓			✓	
3. Was the CCAL compared to the correct ICAL?	✓			✓	
4. Are all manual integrations clearly identified, initialed, dated and reason given?			✓	✓	Reasons: 1) Corrected split peak; 2) Unresolved peak; 3) Tailing; 4) RT shift; 5) Wrong peak selected; 6) Other
5. Was CCAL method file processed using the correct result files? (Compare peak heights-areas in method file to heights-areas of calibration standards.)	✓			✓	
6. Was an ending CCAL analyzed and meet the all the requirements listed above?	✓			✓	

Analyst:	Date: 10/13/11	2nd Level Reviewer:	Date: 10/31/11
Comments:		Comments:	

TESTAMERICA GC RUN LOG FOR GR

ANALYST: 10/13/11

	Inj. Date	Inj. Time	File Name				DIL	METHANE
10/13/2011	10/13/2011	07:52	1J13002.rst	CCV/LCS	500ul	CCV/LCS V373	1.0	
10/13/2011	10/13/2011	08:33	1J13003.rst	BLK	500ul	BLK	1.0	
10/13/2011	10/13/2011	08:53	1J13004.rst	MMPQ41AC	500ul	H1I260414	2.5	
10/13/2011	10/13/2011	09:12	1J13005.rst	MM2MV1AC	500ul	H1J070441	2.0	
10/13/2011	10/13/2011	09:32	1J13006.rst	MM1HA1AC	500ul	H1J060404	2.0	
10/13/2011	10/13/2011	09:52	1J13007.rst	MM1HADUP	500ul	H1J060404	2.0	
10/13/2011	10/13/2011	10:11	1J13008.rst	MM1HC1AC	500ul	H1J060404	2.0	
10/13/2011	10/13/2011	10:31	1J13009.rst	MM1HD1AC	500ul	H1J060404	2.0	
10/13/2011	10/13/2011	10:50	1J13010.rst	CCV	500ul	V373	1.0	

Turbochrom Method File : O:\V3400R\1J13R.MTH
Created by : SEG on : 10/13/2011 08:09 AM
Edited by : SEG on : 10/13/2011 08:09 AM
Description :

Number of Times Edited : 0
Number of Times Calibrated : 95

Processing Parameters :

Bunch Factor : 1 points
Noise Threshold : 5 µV
Area Threshold : 24.00 µV

Peak Separation Criteria
Width Ratio : 0.200
Valley-to-Peak Ratio : 0.010

Exponential Skim Criteria
Peak Height Ratio : 5.000
Adjusted Height Ratio : 4.000
Valley Height Ratio : 3.000

Baseline Timed Events :

Event #1 - -P at 0.000
Event #2 - +P at 4.000
Event #3 - +CB at 4.053
Event #4 - +V at 6.570
Event #5 - -CB at 7.363
Event #6 - BF 9.000 at 19.651
Event #7 - NT 1.000 at 19.700

Annotated Replot Parameters :

No replot will be printed

Report Format files :

No report format files given

User Programs :

No user programs will be executed

Global Information :

Default Sample Volume : 1.000 uL
Quantitation Units : %
Void Time : 0.000 min
Correct amounts during calibration : NO
Reject outliers during calibration : NO
An External Standard calibration will be used
Unknown peaks will use the response factor of the nearest component

Component Information :

OXYGEN
Component Type : Single Peak Component
Retention Time : 5.221 min / Search Window: 0.00 s, 5.00 %
Reference Component:

Find peak closest to expected RT in window
Use Average Calibration Factor (Area / Amount)
User Values:
Label :
Value 1: 4.000000
Value 2: 5.010000
Value 3: 0.000000
Value 4: 0.000000
Value 5: 0.000000
Value 6: 1.000000
Calibration Levels:

Level Name	Amount	Area	Height	ISTD Resp.	ISTD Amt.	# Replicates
1	0.0997	5726.00	519.02	----------	----------	1
2	0.9968	70389.04	6532.65	----------	----------	1
3	2.4920	182738.98	16885.48	----------	----------	1
4	4.9840	348967.47	32426.62	----------	----------	1
5	9.9680	723709.44	65473.47	----------	----------	1
6	19.9360	1458074.50	120870.35	----------	----------	1

Average Calibration Factor = 69522.691077 (%RSD = 8.74)

NITROGEN
Component Type : Single Peak Component
Retention Time : 5.735 min Search Window: 0.00 s, 5.00 %
Reference Component:
Find largest peak in window
Use Average Calibration Factor (Area / Amount)
User Values:
Label :
Value 1: 5.000000
Value 2: 4.990000
Value 3: 0.000000
Value 4: 0.000000
Value 5: 0.000000
Value 6: 1.000000
Calibration Levels:

Level Name	Amount	Area	Height	ISTD Resp.	ISTD Amt.	# Replicates
1	0.1000	5184.50	483.67	----------	----------	1
2	0.9998	77746.71	6502.41	----------	----------	1
3	2.4995	200990.52	16433.67	----------	----------	1
4	4.9990	381612.03	30772.28	----------	----------	1
5	9.9980	791902.56	60323.69	----------	----------	1
6	19.9960	1599097.50	106678.27	----------	----------	1

Average Calibration Factor = 74255.698431 (%RSD = 14.92)

CARBON MONOXIDE
Component Type : Single Peak Component
Retention Time : 7.582 min Search Window: 0.00 s, 5.00 %
Reference Component:
Find largest peak in window
Use Average Calibration Factor (Area / Amount)
User Values:
Label :
Value 1: 5.000000
Value 2: 5.008000
Value 3: 0.000000
Value 4: 0.000000
Value 5: 0.000000
Value 6: 1.000000
Calibration Levels:

Level Name	Amount	Area	Height	ISTD Resp.	ISTD Amt.	# Replicates

1	0.0997	5334.50	526.31	----------	----------	1
2	0.9970	78467.00	7039.05	----------	----------	1
3	2.4930	203359.50	17985.04	----------	----------	1
4	4.9850	389430.25	33794.61	----------	----------	1
5	9.9700	808192.00	67035.69	----------	----------	1
6	19.9400	1635206.00	123079.74	----------	----------	1

Average Calibration Factor = 75828.324233 (%RSD = 14.57)

METHANE

Component Type : Single Peak Component
Retention Time : 11.879 min Search Window: 0.00 s, 5.00 %
Reference Component:
Find largest peak in window
Calibrating Area versus Amount using a 1st Order Fit
Curve will be forced through the origin
Amounts will not be scaled prior to the regression
Weighting factor for the regression: None
User Values:
Label :
Value 1: 4.000000
Value 2: 4.000000
Value 3: 0.000000
Value 4: 0.000000
Value 5: 0.000000
Value 6: 1.000000
Calibration Levels:

Level Name	Amount	Area	Height	ISTD Resp.	ISTD Amt.	# Replicates
1	0.0800	3439.00	424.96	----------	----------	1
2	0.8002	51860.25	5871.12	----------	----------	1
3	2.0005	133417.50	14939.83	----------	----------	1
4	4.0010	255415.75	28332.55	----------	----------	1
5	8.0020	527241.75	56945.50	----------	----------	1
6	16.0040	1067640.25	107723.09	----------	----------	1

Calibration Curve : y = (0.000000) + (66417.209364)x + (0.000000)x^2 + (0.000000)x^3
R-squared : 0.999813

CARBON DIOXIDE

Component Type : Single Peak Component
Retention Time : 14.323 min Search Window: 0.00 s, 5.00 %
Reference Component:
Find largest peak in window
Use Average Calibration Factor (Area / Amount)
User Values:
Label :
Value 1: 5.000000
Value 2: 4.983000
Value 3: 0.000000
Value 4: 0.000000
Value 5: 0.000000
Value 6: 1.000000
Calibration Levels:

Level Name	Amount	Area	Height	ISTD Resp.	ISTD Amt.	# Replicates
1	0.1000	7333.00	886.60	----------	----------	1
2	1.0000	94365.00	11227.36	----------	----------	1
3	2.5010	240412.00	28359.61	----------	----------	1
4	5.0020	458790.00	53519.40	----------	----------	1
5	10.0040	947461.00	106470.50	----------	----------	1
6	20.0080	1914441.00	196249.54	----------	----------	1

Average Calibration Factor = 90989.109023 (%RSD = 9.66)

ETHYLENE

Component Type : Single Peak Component

Retention Time : 20.923 min Search Window: 0.00 s, 5.00 %
Reference Component:
Find largest peak in window
Calibrating Area versus Amount using a 2nd Order Fit
Curve will be forced through the origin
Amounts will not be scaled prior to the regression
Weighting factor for the regression: None
User Values:
Label :
Value 1: 5.000000
Value 2: 1.000000
Value 3: 0.000000
Value 4: 0.000000
Value 5: 0.000000
Value 6: 1.000000
Calibration Levels:

Level Name	Amount	Area	Height	ISTD Resp.	ISTD Amt.	# Replicates
A	0.0201	4310.00	215.06	----------	----------	1
B	0.2014	15001.00	791.95	----------	----------	1
C	0.5035	40853.75	2086.79	----------	----------	1
D	1.0070	79316.25	4078.06	----------	----------	1
F	4.0280	344078.00	16994.79	----------	----------	1
G	10.0700	894584.25	43213.17	----------	----------	1

Calibration Curve : y = (0.000000) + (82356.365014)x + (646.012047)x^2 + (0.000000)x^3
R-squared : 0.999947

ETHANE
Component Type : Single Peak Component
Retention Time : 24.256 min Search Window: 0.00 s, 5.00 %
Reference Component:
Find largest peak in window
Calibrating Area versus Amount using a 2nd Order Fit
Curve will be forced through the origin
Amounts will not be scaled prior to the regression
Weighting factor for the regression: None
User Values:
Label :
Value 1: 5.000000
Value 2: 1.000000
Value 3: 0.000000
Value 4: 0.000000
Value 5: 0.000000
Value 6: 1.000000
Calibration Levels:

Level Name	Amount	Area	Height	ISTD Resp.	ISTD Amt.	# Replicates
A	0.0200	5712.25	202.14	----------	----------	1
B	0.2002	20289.50	742.19	----------	----------	1
C	0.5005	49087.50	1856.50	----------	----------	1
D	1.0010	96027.00	3599.81	----------	----------	1
F	4.0040	390989.75	14563.38	----------	----------	1
G	10.0100	1004422.25	36080.22	----------	----------	1

Calibration Curve : y = (0.000000) + (95918.897896)x + (441.603896)x^2 + (0.000000)x^3
R-squared : 0.999978

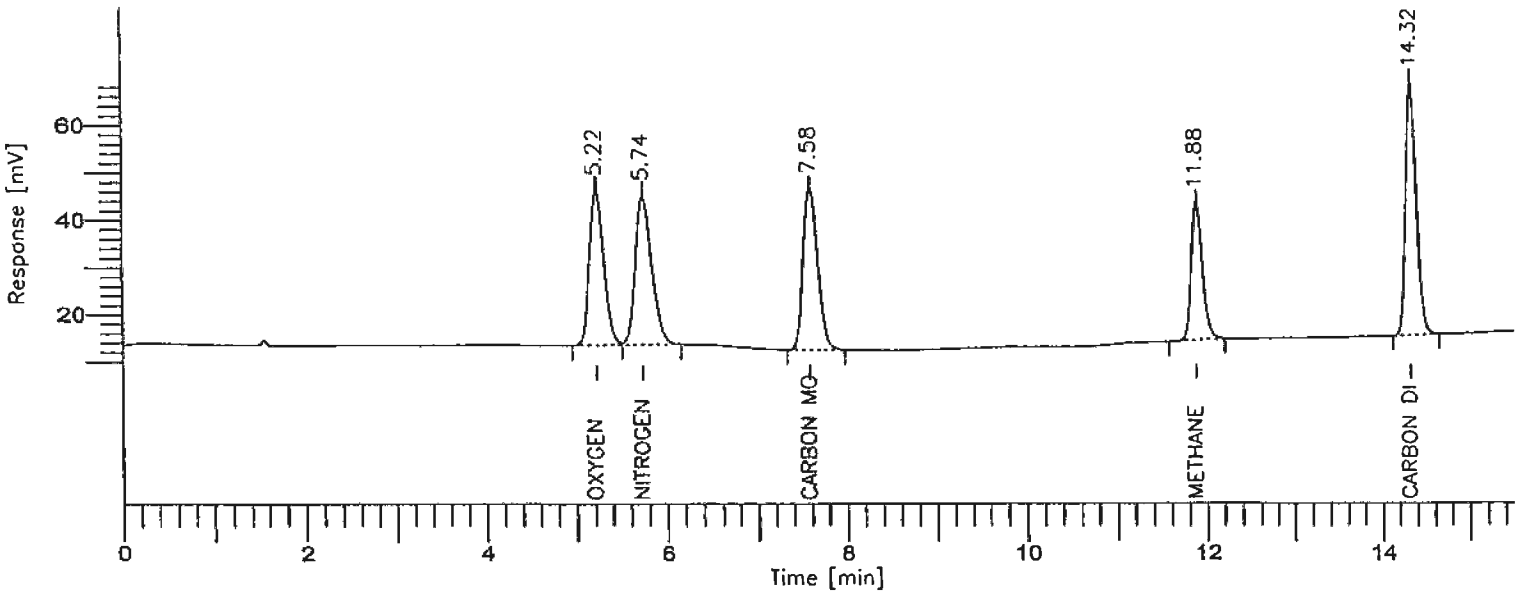
Software Version: 4.1<2F12>
Sample Name : CCV/LCS V373 Time : 10/13/2011 08:08 AM
Sample Number: CCV/LCS Study : 500ul
Operator :

Instrument : GR Channel : A A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9241560448 Data Acquisition Time: 10/13/2011 07:52 AM
Delay Time : 0.00 min.
End Time : 15.50 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : O:\V3400R\1J13002.RAW
Result File : O:\V3400R\1J13002.RST
Inst Method : O:\V3400R\#GASINST from O:\V3400R\1J13002.RST
Proc Method : O:\V3400R\#GASINST
Calib Method : O:\V3400R\0L02RI
Sequence File : O:\V3400R\1J13R.SEQ

Sample Volume : 1.0000 uL Area Reject : 0.000000
Sample Amount : 1.0000 Dilution Factor : 1.00



Peak #	Time [min]	Area [µV·s]	Component Name	Height [µV]	Raw Amt. (%)	Spike (%)	Amt. (%)	% Diff.	Component Name
1	5.221	354482	OXYGEN	32623	5.0988	5.010	5.099	1.8	OXYGEN
2	5.735	393571	NITROGEN	31369	5.3002	4.990	5.300	6.2	NITROGEN
3	7.582	389686	CARBON MONOXIDE	34084	5.1391	5.008	5.139	2.6	CARBON MONOXIDE
4	11.879	257412	METHANE	28791	3.8757	4.000	3.876	-3.1	METHANE
5	14.323	456826	CARBON DIOXIDE	53175	5.0207	4.983	5.021	0.8	CARBON DIOXIDE
0	20.923	0	ETHYLENE	0	0.0000	-----	0.000	-----	ETHYLENE
0	24.256	0	ETHANE	0	0.0000	-----	0.000	-----	ETHANE

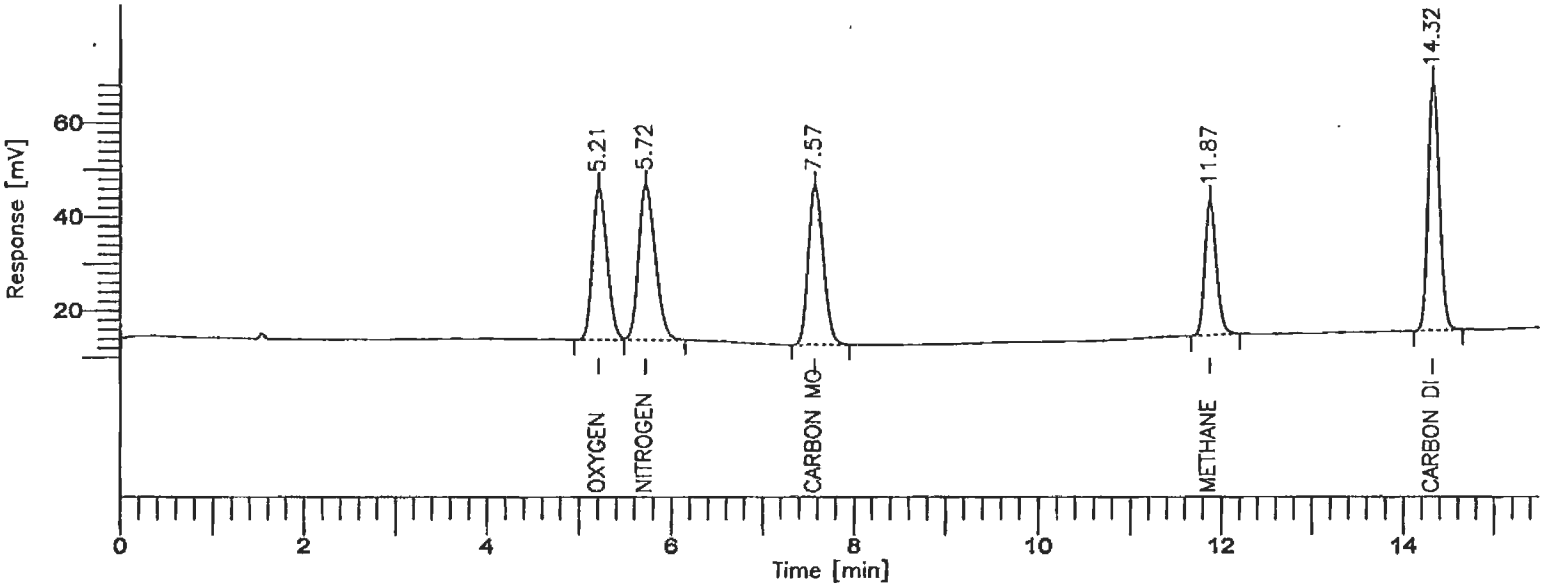
Software Version: 4.1<2F12>
Sample Name : V373 Time : 10/13/2011 11:06 AM
Sample Number: CCV Study : 500ul
Operator :

Instrument : GR Channel : A A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9241560448 Data Acquisition Time: 10/13/2011 10:50 AM
Delay Time : 0.00 min.
End Time : 15.50 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : O:\V3400R\1J13010.RAW
Result File : O:\V3400R\1J13010.RST
Inst Method : O:\V3400R\#GASINST from O:\V3400R\1J13010.RST
Proc Method : O:\V3400R\#GASINST
Calib Method : O:\V3400R\1J13R
Sequence File : O:\V3400R\1J13R.SEQ

Sample Volume : 1.0000 uL Area Reject : 0.000000
Sample Amount : 1.0000 Dilution Factor : 1.00



Peak #	Time [min]	Area [µV·s]	Component Name	Height [µV]	Raw Amt. (%)	Spike (%)	Amt. (%)	% Diff.	Component Name
1	5.211	350503	OXYGEN	32503	5.0416	5.010	5.042	0.6	OXYGEN
2	5.721	412526	NITROGEN	32982	5.5555	4.990	5.555	11.3	NITROGEN
3	7.572	386630	CARBON MONOXIDE	33774	5.0988	5.008	5.099	1.8	CARBON MONOXIDE
4	11.872	253808	METHANE	28557	3.8214	4.000	3.821	-4.5	METHANE
5	14.316	454780	CARBON DIOXIDE	52887	4.9982	4.983	4.998	0.3	CARBON DIOXIDE
0	20.923	0	ETHYLENE	0	0.0000	-----	0.000	-----	ETHYLENE
0	24.256	0	ETHANE	0	0.0000	-----	0.000	-----	ETHANE

Raw QC Data

METHOD BLANK REPORT

GC Volatiles

Client Lot #...: H1J070441 Work Order #...: MM49C1AA Matrix.....: AIR
MB Lot-Sample #: H1J120000-089

Prep Date.....: 10/13/11
Analysis Date..: 10/13/11 Prep Batch #...: 1285089
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Methane	ND	0.10	%	ASTM D 1946/E 260

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Software Version: 4.1<2F12>
Sample Name : BLK
Sample Number: BLK
Operator :

Time : 10/13/2011 08:48 AM
Study : 500ul

Instrument : GR
AutoSampler :
Rack/Vial : 0/0

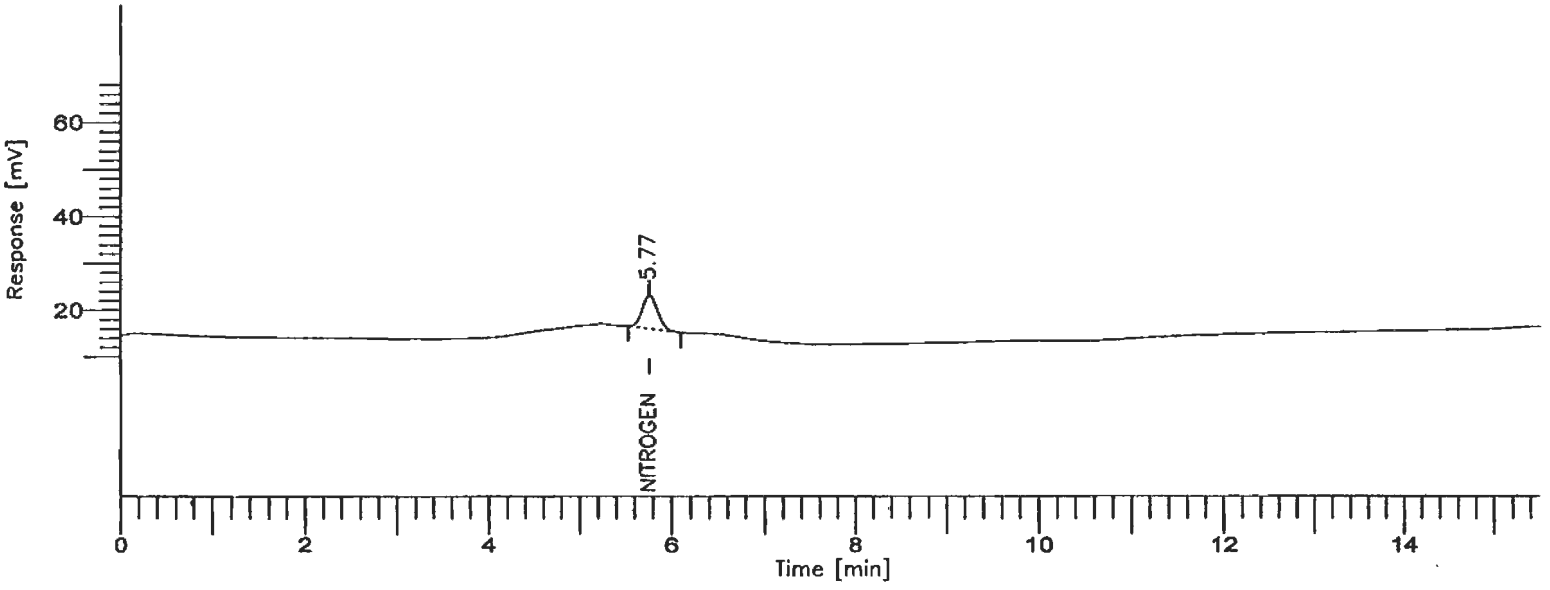
Channel : A A/D mV Range : 1000

Interface Serial # : 9241560448 Data Acquisition Time: 10/13/2011 08:33 AM
Delay Time : 0.00 min.
End Time : 15.50 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : O:\V3400R\1J13003.RAW
Result File : O:\V3400R\1J13003.RST
Inst Method : O:\V3400R\#GASINST from O:\V3400R\1J13003.RST
Proc Method : O:\V3400R\#GASINST
Calib Method : O:\V3400R\1J13R
Sequence File : O:\V3400R\1J13R.SEQ

Sample Volume : 1.0000 uL
Sample Amount : 1.0000

Area Reject : 0.000000
Dilution Factor : 1.00



Peak #	Time [min]	Delta RT %	Area [µV·s]	Component Name	Height [µV]	Raw Amt. (%)	Dilution Factor	Adjusted Amt. (%)	R N G	G Component Name
0	5.221	-----	0	OXYGEN	0	0.0000	1.000	0.0000		OXYGEN
1	5.765	0.54	85008	NITROGEN	7166	1.1448	1.000	1.1448		NITROGEN
0	7.582	-----	0	CARBON MONOXIDE	0	0.0000	1.000	0.0000		CARBON MONOXIDE
0	11.879	-----	0	METHANE	0	0.0000	1.000	0.0000		METHANE
0	14.323	-----	0	CARBON DIOXIDE	0	0.0000	1.000	0.0000		CARBON DIOXIDE
0	20.923	-----	0	ETHYLENE	0	0.0000	1.000	0.0000		ETHYLENE
0	24.256	-----	0	ETHANE	0	0.0000	1.000	0.0000		ETHANE
								1.1448		

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Volatiles

Client Lot #...: H1J070441 **Work Order #...:** MM49C1AC **Matrix.....:** AIR
LCS Lot-Sample#: H1J120000-089
Prep Date.....: 10/13/11 **Analysis Date..:** 10/13/11
Prep Batch #...: 1285089
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Methane	**97**	**(70 - 130)**	**ASTM D 1946/E 260**

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC Volatiles

Client Lot #...: H1J070441 **Work Order #...:** MM49C1AC **Matrix.....:** AIR
LCS Lot-Sample#: H1J120000-089
Prep Date.....: 10/13/11 **Analysis Date..:** 10/13/11
Prep Batch #...: 1285089
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Methane	**4.00**	**3.88**	**%**	**97**	**ASTM D 1946/E**

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

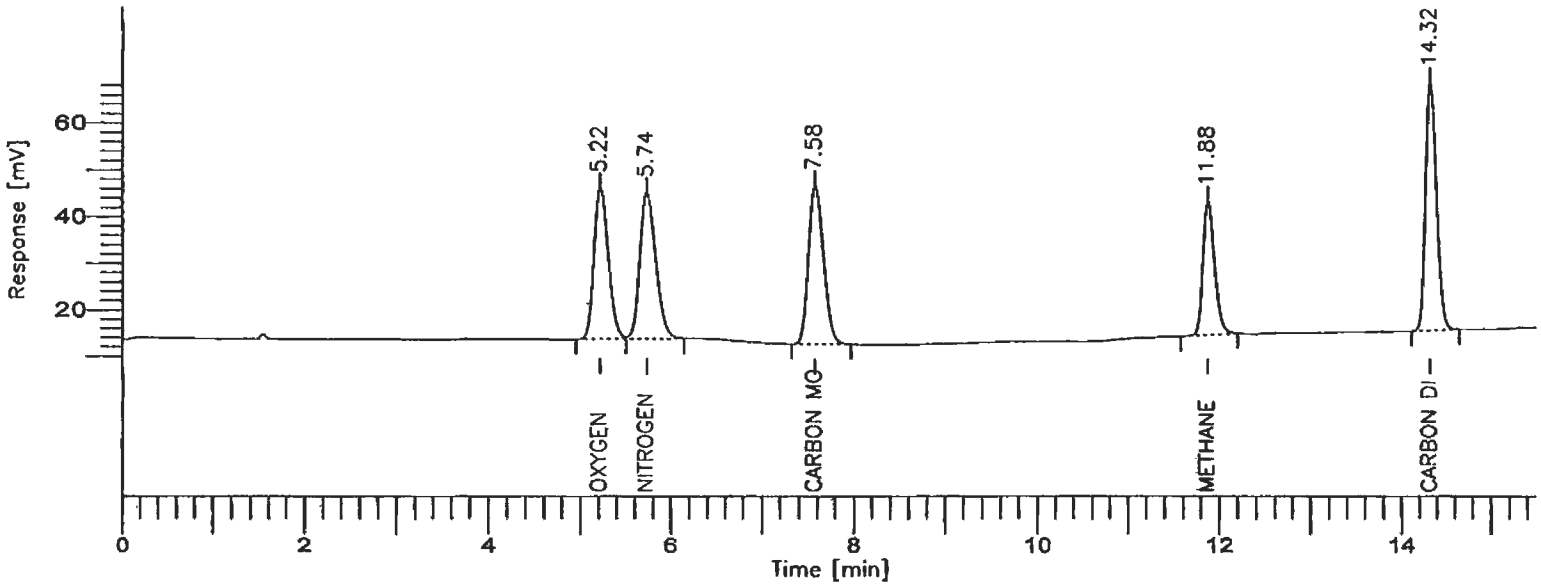
Software Version: 4.1<2F12>
Sample Name : CCV/LCS V373 Time : 10/13/2011 08:08 AM
Sample Number: CCV/LCS Study : 500ul
Operator :

Instrument : GR Channel : A A/D mV Range : 1000
AutoSampler :
Rack/Vial : 0/0

Interface Serial # : 9241560448 Data Acquisition Time: 10/13/2011 07:52 AM
Delay Time : 0.00 min.
End Time : 15.50 min.
Sampling Rate : 2.0000 pts/sec

Raw Data File : O:\V3400R\1J13002.RAW
Result File : O:\V3400R\1J13002.RST
Inst Method : O:\V3400R\#GASINST from O:\V3400R\1J13002.RST
Proc Method : O:\V3400R\#GASINST
Calib Method : O:\V3400R\0L02RI
Sequence File : O:\V3400R\1J13R.SEQ

Sample Volume : 1.0000 uL Area Reject : 0.000000
Sample Amount : 1.0000 Dilution Factor : 1.00



Peak #	Time [min]	Area [µV·s]	Component Name	Height [µV]	Raw Amt. (%)	Spike (%)	Amt. (%)	% Diff.	Component Name
1	5.221	354482	OXYGEN	32623	5.0988	5.010	5.099	1.8	OXYGEN
2	5.735	393571	NITROGEN	31369	5.3002	4.990	5.300	6.2	NITROGEN
3	7.582	389686	CARBON MONOXIDE	34084	5.1391	5.008	5.139	2.6	CARBON MONOXIDE
4	11.879	257412	METHANE	28791	3.8757	4.000	3.876	-3.1	METHANE
5	14.323	456826	CARBON DIOXIDE	53175	5.0207	4.983	5.021	0.8	CARBON DIOXIDE
0	20.923	0	ETHYLENE	0	0.0000	-----	0.000	-----	ETHYLENE
0	24.256	0	ETHANE	0	0.0000	-----	0.000	-----	ETHANE

Miscellaneous Data

TestAmerica Knoxville Permanent Gas Analysis Data Review/Narrative Checklist LOT # H1J070441
SOP KNOX-GC-0003, Rev. 6 Page 1 of 1

Instrument:	GR			
Scanned file names:	R120210PI			
	PG 101311			

Review Items A. Calibration	Yes	No	NA	2nd √	If No, why is data reportable?
1. Was the *correct ICAL* used for quantitation?	✓			✓	
B. CLIENT SAMPLE AND QC SAMPLE Results	**Yes**	**No**	**NA**	**2nd √**	
1. Were all *special project requirements* met?	✓			✓	
2. Were sample *IDs*, prep *factors*, DFs *verified*?	✓			✓	
3. Do positive hits meet *qualitative identification criteria*?	✓			✓	
4. Are positive results within *calibration range*?	✓			✓	
5. Is *integration* acceptable?	✓			✓	
6. If *manual integrations* were performed, are they clearly identified, initialed, dated and reason given?	N/A 10/7/11		✓	NA	Reasons: 1) Corrected split peak; 2) Unresolved peak; 3) Tailing; 4) RT shift; 5) Wrong peak selected; 6) Other
7. Is largest *analyte diluted* to 20-100% of calibration range? *If no, list sample(s):*	✓			✓	☐[elev5] Elevated RLs reported due to matrix interferences.
8. Final *report acceptable*? (Results correct, RLs calculated correctly, units correct, appropriate flags used, deviations noted in narrative, dilution factor correct, and extraction/ analysis dates correct.)	✓			✓	
C. Preparation/Matrix QC	**Yes**	**No**	**NA**	**2nd √**	
1. *LCS* done per prep batch and all analytes within limits? (85-115% for perm gases; 75-125% for H/He?) *If no, list LCS ID:*	✓			✓	☐[lcs2] Insufficient sample for reanalysis.* ☐[lcs3] LCS %R high and all analyte(s) were <RL in associated samples.
2. *Method blank* done per prep batch, all analytes present in the method blank < RL? *If no, list blank ID:*	✓			✓	☐[mb1] Sample surrogates OK and there is no analyte >RL in samples associated with blank.* ☐[mb3] No analyte > RL in associated samples.* ☐[mb4] Sample results > 20x higher than blank.
D. Other	**Yes**	**No**	**NA**	**2nd √**	
1. Are all *nonconformances* documented appropriately?			✓	NA	
2. Are the correct *scanned file names* provided with report?	✓			✓	

Analyst:	Date: 10/13/11	2nd Level Reviewer:	Date: 10/7/11
Comments:		Comments:	

* Such action must be taken in consultation with client.

RQC058

TestAmerica Laboratories, Inc.
EXTRACTION BENCH WORKSHEET

Run Date: 10/12/11
Time: 11:09:33

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

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

Extractionist: _____

Concentrationist: _____

****
* QC BATCH: 1285089 *
****

PREP DATE: 10/13/11 8:00
COMP DATE: 10/13/11 20:00

Reviewer/Date: _____ / 0/00/00

Gases, Fixed (D1946/E260)
NO SAMPLE PREPARATION PERFORMED / DIRECT INJECTION

EXTR EXPR	ANL DUE	LOT#,MSRUN#/ WORK ORDER	TEST FLGS	EXT	MTH	MATRIX	INIT/FIN WT/VOL	PH'S INIT	PH'S ADJ1	PH'S ADJ2	SOLVENTS EXTRACTION	SOLVENTS VOL	SOLVENTS EXCHANGE	SOLVENTS VOL	SPIKE STANDARD/ SURROGATE ID
0/00/00	10/14/11	H1I260414-001 MMPQ4-1-AC		88	YG	AIR	500uL 500.00uL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	10/17/11	H1J070441-001 MM2MV-1-AC	DR	88	YG	AIR	500uL 500.00uL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	0/00/00	H1J120000-089 MM49C-1-AAB		88	YG	AIR	500uL 500.00uL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	0/00/00	H1J120000-089 MM49C-1-ACC		88	YG	AIR	500uL 500.00uL	NA	NA	NA		.0		.0	
COMMENTS:															

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

NUMBER OF WORK ORDERS IN BATCH: 4

TestAmerica Knoxville
Can Dilution Worksheet

Lot: ***h1j070441*** **Initial**

W/O #	Barometer inches Hg	Knoxville mm Hg	P init inches	P init Abs,mm	P final psig	P final Abs,mm	Dilution Factor	
MM2 MV	28.96	735.6	- 3.9	636.5	10.3	1268.2	1.99	(MV,DF*200=398)
MM2 MW	29.14	740.2	- 10.1	483.6	0.4	760.8	1.57	(MW,DF*200=314)

1 psig = 2.036 inch Hg
Pinit(Abs,mm)=(Pinit(inch)*25.4mm/inch)+Pbar(mm)
Pfinal(Abs,mm)=(Pfinal(psig)*2.036 (inch Hg/psig)*25.4 (mm/inch))+Pbar(mm)
dilution factor = Pfinal(Abs,mm)/Pinit(Abs,mm)
mm-Hg = In-Hg * 25.4

Sample Receipt Documentation

Chain of Custody Record

TestAmerica Laboratory location: KNOXVILLE H1J070941

Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.

Client Contact			
Company Name: ARCADIS US INC	Client Project Manager: (b) (4) [redacted]	Site Contact: (b) (4) [redacted]	Lab Contact:
Address: 284 CEMETERY CREEK COURT	Telephone: (b) (4) [redacted]	Telephone: (b) (4) [redacted]	Telephone:
City/State/Zip: DUBLIN OH 43017	Email:		
Phone: 614-764-2310		TAT if different from below: ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day	
Project Name: LORD SHOPE LF	Method of Shipment/Carrier: UPS		
Project Number:	Shipping/Tracking No:		
PO#			

COC No: 034362
1 of 2 COCs

Analyses: TO-15; METHANE; EPA-18

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other	Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other: SUMMA	Filtered	Containers	TO-15		METHANE	EPA-18							Sample Specific Notes / Special Instructions:
TOI/100511	10/5/11	11:25A	X											X	N	G	X		X								
TOE/100511	10/5/11	11:40A	X											X	N	G	X										
																											1 Box Rec'd Ambient Temp
																											without custody seal
																											OPH 10/7/11
																											1 Box UPS #
																											1Z183X7A0393645663
																											2 CANS/NO FLOWS

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return to Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
(b) (4) [redacted]	GROUNDWATER	10/5/11 4:00PM	(b) (4) [redacted]	TAKNOX	10/7/11 1315
Relinquished by:	Company: RESOURCES	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

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TAL 0018-1 (04/10)

TAL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

H1J070441

Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

2 of 2 COCs

Client Contact Information	Project Manager: (b) (4) [redacted]
Company: ARCADIS US Inc	Phone: (b) (4) [redacted]
Address: 284 CRAMER CREEK COURT	Site Contact: [redacted] 814-720-1212
City/State/Zip DUBLIN OH 43017	TAL Contact:
Phone: 614-764-2310	
FAX:	
Project Name: LORD SHOPE LF	Analysis Turnaround Time
Site/location: GIRARD PA	Standard (Specify) X
PO #	Rush (Specify)

Sampled By: (b) (4) [redacted]

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
TOI / 100511	10/5/11		1625A				1011N	X					X						
TOE / 100511	10/5/11		11:40A				6116	X											

Sampled by :

Temperature (Fahrenheit)	Interior	Ambient
Start		
Stop		

Pressure (Inches of Hg)	Interior	Ambient
Start		
Stop		

Special Instructions/QC Requirements & Comments:

METHANE
EPA-18

Canisters Shipped by:	Date/Time:	Canisters Received by: (b) (4) [redacted]	
Samples Relinquished by: (b) (4) [redacted]	Date/Time: 10/5/11 4:00 PM	Received by: (b) (4) [redacted] 10/7/11	1315
Relinquished by:	Date/Time:	Received by:	

Lab Use Only Shipper Name: Opened by: Condition:

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Lot Number: H1J070441

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ 1a Do not match COC ☐ 1b Incomplete information ☐ 1c Marking smeared ☐ 1d Label torn ☐ 1e No label ☐ 1f COC not received ☐ 1g Other:	NA
2. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C)	✓			☐ 2a Temp Blank = _____ ☐ 2b Cooler Temp = _____ ☐ 2c Cooling initiated for recently collected samples, ice present.	
3. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ 3a Sample preservative =	
4. Were custody seals present/intact on cooler and/or containers?		✓	✓	☐ 4a Not present ☐ 4b Not intact ☐ 4c Other:	
5. Were all of the samples listed on the COC received?	✓			☐ 5a Samples received-not on COC ☐ 5b Samples not received-on COC	
6. Were all of the sample containers received intact?	✓			☐ 6a Leaking ☐ 6b Broken	
7. Were VOA samples received without headspace?			✓	☐ 7a Headspace (VOA only)	
8. Were samples received in appropriate containers?	✓			☐ 8a Improper container	
9. Did you check for residual chlorine, if necessary?			✓	☐ 9a Could not be determined due to matrix interference	
10. Were samples received within holding time?	✓			☐ 10a Holding time expired	
11. For rad samples, was sample activity info. provided?			✓	☐ Incomplete information	
12. For 1613B water samples is pH<9?			✓	If no, was pH adjusted to pH 7 - 9 with sulfuric acid? _____	
13. Are the shipping containers intact?	✓			☐ 13a Leaking ☐ 13b Other:	
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ 14a Not relinquished	
15. Are tests/parameters listed for each sample?	✓			☐ 15a Incomplete information	
16. Is the matrix of the samples noted?	✓			☐ 15a Incomplete information	
17. Is the date/time of sample collection noted?	✓			☐ 15a Incomplete information	
18. Is the client and project name/# identified?	✓			☐ 15a Incomplete information	
19. Was the sampler identified on the COC?		✓			

Quote #: 79678 PM Instructions: NA

Sample Receiving Associate: (b) [redacted] Date: 10/7/11

QA026R22.doc, 012811

Test America - Knoxville ---- Air Canister Dilution Log

Lot Number: *H1J070441*

Initial Can Pressure							Subsequent Dilutions											
Analyst/Date	Tedlar Bag Time	Pbarr (in)	Sample ID	Can #	Pres. upon receipt (-in or + psig)	Adj. Initial Pres. (-in or + psig)	Analyst/Date	I / S	Pbarr (in)	Initial Pres. Pi (in)	Final Pres. Pf (psig)	First InCan Final Pres. Pf (psig)	Second In-can Final Pres. Pf (psig)	Third InCan Final Pres. Pf (psig)	Serial Dilution Can #	Vol (mL)	Final Pres. Pf (psig)	Comments
DDF 10-7-11	NA	29.14	MM2MV	1011N	-3.8		DDF 10-10-11	S	28.96	-3.9	+10.3				04420	10	+0.5	9467
↓	↓	↓	MM2MW	6116	-10.1	+0.4												↓

Perm Gas

Test America - Knoxville ---- Air Canister Dilution Log

Lot Number: *H1J070441*

Initial Can Pressure							Subsequent Dilutions											
Analyst/Date	Tedlar Bag Time	Pbarr (in)	Sample ID	Can #	Pres. upon receipt (-in or + psig)	Adj. Initial Pres. (-in or + psig)	Analyst/Date	I / S	Pbarr (in)	Initial Pres. Pi (in)	Final Pres. Pf (psig)	First InCan Final Pres. Pf (psig)	Second In-can Final Pres. Pf (psig)	Third InCan Final Pres. Pf (psig)	Serial Dilution Can #	Vol (mL)	Final Pres. Pf (psig)	Comments
DDF 10-7-11	NA	29.14	MM2MV	1011N	-3.8		DDF 10-10-11	S	28.96	-3.9	+10.3				04420	10	+0.5	94167
↓	↓	↓	MM2MW	6116	-10.1	+0.4												↓

Sample Number	Analyte	Result	Detection Limit	Units	Qualifier
TOE/100511	Ethylbenzene	0.13	0.2	PPB(V/V)	J
TOE/100511	Styrene	ND	0.2	PPB(V/V)	U
TOE/100511	cis-1,3-Dichloropropene	ND	0.2	PPB(V/V)	U
TOE/100511	trans-1,3-Dichloropropene	ND	0.2	PPB(V/V)	U
TOE/100511	1,4-Dichlorobenzene	ND	0.2	PPB(V/V)	U
TOE/100511	1,2-Dibromoethane (EDB)	ND	0.2	PPB(V/V)	U
TOE/100511	1,3-Butadiene	ND	0.4	PPB(V/V)	U
TOE/100511	Acrolein	0.73	0.8	PPB(V/V)	J
TOE/100511	3-Chloropropene	ND	0.2	PPB(V/V)	U
TOE/100511	1,2-Dichloroethane	ND	0.2	PPB(V/V)	U
TOE/100511	Acrylonitrile	ND	2	PPB(V/V)	U
TOE/100511	Vinyl acetate	ND	1	PPB(V/V)	U
TOE/100511	4-Methyl-2-pentanone (MIBK)	1.1	0.5	PPB(V/V)	
TOE/100511	1,3,5-Trimethylbenzene	0.093	0.2	PPB(V/V)	J
TOE/100511	Toluene	0.7	0.2	PPB(V/V)	
TOE/100511	Chlorobenzene	ND	0.2	PPB(V/V)	U
TOE/100511	Pentane	ND	1	PPB(V/V)	U
TOE/100511	n-Hexane	0.074	0.5	PPB(V/V)	J
TOE/100511	n-Octane	0.1	0.4	PPB(V/V)	J
TOE/100511	Propene	0.14	0.5	PPB(V/V)	J
TOE/100511	1,2,4-Trichlorobenzene	ND	1	PPB(V/V)	U
TOE/100511	1,4-Dioxane	ND	0.5	PPB(V/V)	U
TOE/100511	Dibromochloromethane	ND	0.2	PPB(V/V)	U
TOE/100511	Tetrachloroethene	0.26	0.2	PPB(V/V)	
TOE/100511	m-Xylene & p-Xylene	0.58	0.2	PPB(V/V)	
TOE/100511	Ethyl acetate	ND	2	PPB(V/V)	U
TOE/100511	n-Heptane	0.11	0.5	PPB(V/V)	J
TOE/100511	cis-1,2-Dichloroethene	0.95	0.2	PPB(V/V)	
TOE/100511	trans-1,2-Dichloroethene	ND	0.2	PPB(V/V)	U
TOE/100511	Methyl tert-butyl ether	ND	1	PPB(V/V)	U
TOE/100511	4-Bromofluorobenzene	98		%	
TOE/100511	2,2,4-Trimethylpentane	ND	0.5	PPB(V/V)	U
TOE/100511	1,3-Dichlorobenzene	ND	0.2	PPB(V/V)	U
TOE/100511	Carbon tetrachloride	ND	0.2	PPB(V/V)	U
TOE/100511	2-Hexanone	1.8	0.5	PPB(V/V)	
TOE/100511	4-Ethyltoluene	0.13	0.4	PPB(V/V)	J
TOE/100511	Acetone	17	5	PPB(V/V)	
TOE/100511	Chloroform	0.06	0.2	PPB(V/V)	J
TOE/100511	Benzene	ND	0.2	PPB(V/V)	U
TOE/100511	1,1,1-Trichloroethane	ND	0.2	PPB(V/V)	U
TOE/100511	Bromomethane	ND	0.2	PPB(V/V)	U
TOE/100511	Chloromethane	0.39	0.5	PPB(V/V)	J
TOE/100511	Dibromomethane	ND	0.4	PPB(V/V)	U
TOE/100511	Chloroethane	0.065	0.2	PPB(V/V)	J
TOE/100511	Vinyl chloride	0.15	0.2	PPB(V/V)	J
TOE/100511	Acetonitrile	0.28	1	PPB(V/V)	J
TOE/100511	Methylene chloride	0.67	0.5	PPB(V/V)	B
TOE/100511	Carbon disulfide	0.33	0.5	PPB(V/V)	J
TOE/100511	Bromoform	ND	0.2	PPB(V/V)	U
TOE/100511	Bromodichloromethane	ND	0.2	PPB(V/V)	U
TOE/100511	1,1-Dichloroethane	ND	0.2	PPB(V/V)	U
TOE/100511	1,1-Dichloroethene	ND	0.2	PPB(V/V)	U
TOE/100511	Chlorodifluoromethane	0.063	0.2	PPB(V/V)	J
TOE/100511	tert-Butyl alcohol	4.2	2	PPB(V/V)	

TOE/100511	Trichlorofluoromethane	ND	0.2	PPB(V/V)	U
TOE/100511	Dichlorodifluoromethane	ND	0.2	PPB(V/V)	U
TOE/100511	1,1,2-Trichloro-1,2,2-trifluor	ND	0.2	PPB(V/V)	U
TOE/100511	1,2-Dichloro-1,1,2,2-tetrafluo	ND	0.2	PPB(V/V)	U
TOE/100511	1,2-Dichloropropane	ND	0.2	PPB(V/V)	U
TOE/100511	2-Butanone (MEK)	2.8	1	PPB(V/V)	
TOE/100511	1,1,2-Trichloroethane	ND	0.2	PPB(V/V)	U
TOE/100511	Trichloroethene	0.54	0.2	PPB(V/V)	
TOE/100511	1,1,2,2-Tetrachloroethane	ND	0.2	PPB(V/V)	U
TOE/100511	Methyl methacrylate	ND	0.5	PPB(V/V)	U
TOE/100511	Hexachlorobutadiene	ND	1	PPB(V/V)	U
TOE/100511	o-Xylene	0.31	0.2	PPB(V/V)	
TOE/100511	1,2-Dichlorobenzene	ND	0.2	PPB(V/V)	U
TOE/100511	1,2,4-Trimethylbenzene	0.23	0.2	PPB(V/V)	
TOE/100511	Cumene	ND	0.4	PPB(V/V)	U
TOE/100511	alpha-Methylstyrene	ND	0.4	PPB(V/V)	U
TOI/100511	Methane	0.53	0.2	%	
TOI/100511	Ethylbenzene	ND	490	PPB(V/V)	U
TOI/100511	Styrene	ND	490	PPB(V/V)	U
TOI/100511	cis-1,3-Dichloropropene	ND	490	PPB(V/V)	U
TOI/100511	trans-1,3-Dichloropropene	ND	490	PPB(V/V)	U
TOI/100511	1,4-Dichlorobenzene	ND	490	PPB(V/V)	U
TOI/100511	1,2-Dibromoethane (EDB)	ND	490	PPB(V/V)	U
TOI/100511	1,3-Butadiene	ND	990	PPB(V/V)	U
TOI/100511	Acrolein	ND	2000	PPB(V/V)	U
TOI/100511	3-Chloropropene	ND	490	PPB(V/V)	U
TOI/100511	1,2-Dichloroethane	ND	490	PPB(V/V)	U
TOI/100511	Acrylonitrile	ND	4900	PPB(V/V)	U
TOI/100511	Vinyl acetate	ND	2500	PPB(V/V)	U
TOI/100511	4-Methyl-2-pentanone (MIBK)	ND	1200	PPB(V/V)	U
TOI/100511	1,3,5-Trimethylbenzene	ND	490	PPB(V/V)	U
TOI/100511	Toluene	220	490	PPB(V/V)	J
TOI/100511	Chlorobenzene	ND	490	PPB(V/V)	U
TOI/100511	Pentane	230	2500	PPB(V/V)	J
TOI/100511	n-Hexane	270	1200	PPB(V/V)	J
TOI/100511	n-Octane	ND	990	PPB(V/V)	U
TOI/100511	Propene	670	1200	PPB(V/V)	J est
TOI/100511	1,2,4-Trichlorobenzene	ND	2500	PPB(V/V)	U
TOI/100511	1,4-Dioxane	ND	1200	PPB(V/V)	U
TOI/100511	Dibromochloromethane	ND	490	PPB(V/V)	U
TOI/100511	Tetrachloroethene	9200	490	PPB(V/V)	
TOI/100511	m-Xylene & p-Xylene	440	490	PPB(V/V)	J
TOI/100511	Ethyl acetate	ND	4900	PPB(V/V)	U
TOI/100511	n-Heptane	ND	1200	PPB(V/V)	U
TOI/100511	cis-1,2-Dichloroethene	54000	490	PPB(V/V)	
TOI/100511	trans-1,2-Dichloroethene	350	490	PPB(V/V)	J
TOI/100511	Methyl tert-butyl ether	ND	2500	PPB(V/V)	U
TOI/100511	4-Bromofluorobenzene	99		%	
TOI/100511	2,2,4-Trimethylpentane	ND	1200	PPB(V/V)	U
TOI/100511	1,3-Dichlorobenzene	ND	490	PPB(V/V)	U
TOI/100511	Carbon tetrachloride	ND	490	PPB(V/V)	U
TOI/100511	2-Hexanone	ND	1200	PPB(V/V)	U
TOI/100511	4-Ethyltoluene	ND	990	PPB(V/V)	U
TOI/100511	Acetone	ND	12000	PPB(V/V)	U
TOI/100511	Chloroform	270	490	PPB(V/V)	J

TOI/100511	Benzene	140	490	PPB(V/V)	J
TOI/100511	1,1,1-Trichloroethane	190	490	PPB(V/V)	J
TOI/100511	Bromomethane	ND	490	PPB(V/V)	U
TOI/100511	Chloromethane	ND	1200	PPB(V/V)	U
TOI/100511	Dibromomethane	ND	990	PPB(V/V)	U
TOI/100511	Chloroethane	ND	490	PPB(V/V)	U
TOI/100511	Vinyl chloride	25000	490	PPB(V/V)	
TOI/100511	Acetonitrile	ND	2500	PPB(V/V)	U
TOI/100511	Methylene chloride	1600	1200	PPB(V/V)	B
TOI/100511	Carbon disulfide	620	1200	PPB(V/V)	J
TOI/100511	Bromoform	ND	490	PPB(V/V)	U
TOI/100511	Bromodichloromethane	ND	490	PPB(V/V)	U
TOI/100511	1,1-Dichloroethane	170	490	PPB(V/V)	J
TOI/100511	1,1-Dichloroethene	430	490	PPB(V/V)	J
TOI/100511	Chlorodifluoromethane	220	490	PPB(V/V)	J
TOI/100511	tert-Butyl alcohol	ND	4900	PPB(V/V)	U
TOI/100511	Trichlorofluoromethane	ND	490	PPB(V/V)	U
TOI/100511	Dichlorodifluoromethane	ND	490	PPB(V/V)	U
TOI/100511	1,1,2-Trichloro-1,2,2-trifluor	ND	490	PPB(V/V)	U
TOI/100511	1,2-Dichloro-1,1,2,2-tetrafluo	ND	490	PPB(V/V)	U
TOI/100511	1,2-Dichloropropane	ND	490	PPB(V/V)	U
TOI/100511	2-Butanone (MEK)	ND	2500	PPB(V/V)	U
TOI/100511	1,1,2-Trichloroethane	ND	490	PPB(V/V)	U
TOI/100511	Trichloroethene	24000	490	PPB(V/V)	
TOI/100511	1,1,2,2-Tetrachloroethane	ND	490	PPB(V/V)	U
TOI/100511	Methyl methacrylate	ND	1200	PPB(V/V)	U
TOI/100511	Hexachlorobutadiene	ND	2500	PPB(V/V)	U
TOI/100511	o-Xylene	310	490	PPB(V/V)	J
TOI/100511	1,2-Dichlorobenzene	ND	490	PPB(V/V)	U
TOI/100511	1,2,4-Trimethylbenzene	ND	490	PPB(V/V)	U
TOI/100511	Cumene	ND	990	PPB(V/V)	U
TOI/100511	alpha-Methylstyrene	ND	990	PPB(V/V)	U