U.S. Environmental Protection Agency
Region 7

Site: Agromac-Lockwood
ID# NESFN0703537
Break: 1, 3 04#2
Other: 68-S7-01-41
5 of 9 2-25-02

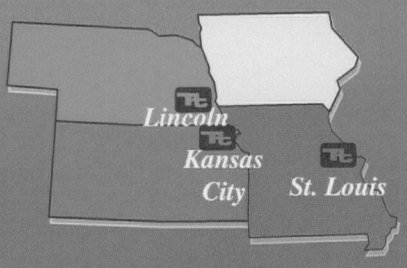
Superfund Technical Assessment and Response Team (START) 2 Contract

Contract No. 68-S7-01-41

Attachment 8

Agromac-Lockwood Operable Unit 2
Gering, Nebraska

Volume 5 of 9



40088459
SUPERFUND RECORDS

Tetra Tech EM Inc.

Printed on Recycled Paper

Columbia Analytical Services inc.

A FULL SERVICE ENVIRONMENTAL LABORATORY

February 25, 2002

Mr. Curt Enos
Tetra Tech EM Inc.
8030 Flint St.
Lenexa, KS 66214

PROJECT:AGROMACK-LOCKWOOD OU#2
Submission #:R2210409

Dear Mr. Enos

Enclosed are the analytical results of the analyses requested. All data has been reviewed prior to report submission. Should you have any questions please contact me at (716) 288-5380.

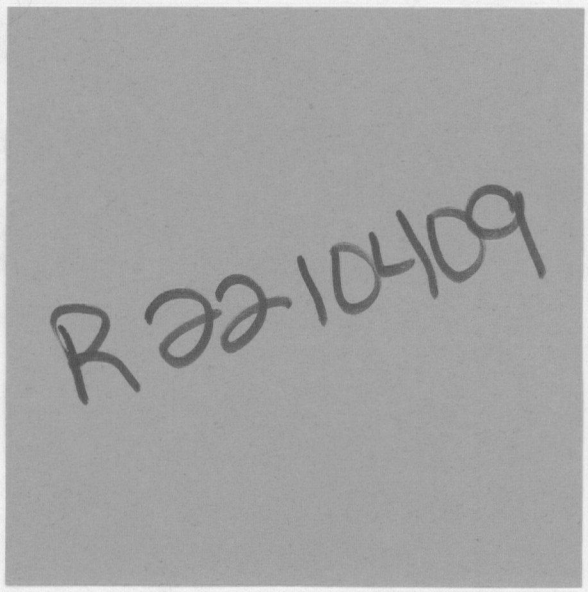
Thank you for letting us provide this service.

Sincerely,

COLUMBIA ANALYTICAL SERVICES

Mark Wilson
Client Service Manager

Enc.



1 Mustard St.• Suite 250 • Rochester, NY 14609 • Tele:(585)288-5380 • Fax:(585)288-8475

Columbia Analytical Services Inc.

1 Mustard ST.
Suite 250
Rochester, NY 14609
(585) 288-5380

THIS IS AN ANALYTICAL TEST REPORT FOR:

Client : Tetra Tech EM Inc.
Project Reference: AGROMACK-LOCKWOOD OU#2
Lab Submission # : R2210409
Project Manager : Mark Wilson
Reported : 02/25/02

Report Contains a total of 631 pages

The results reported herein relate only to the samples received by the laboratory. This report may not be reproduced except in full, without the approval of Columbia Analytical Services.

This package has been reviewed by Columbia Analytical Services' QA Department/Laboratory Director to comply with NELAC standards prior to report submittal. Michael E. Peery

SDG NARRATIVE

CASE NARRATIVE

COMPANY: Tetra Tech EM Inc.
Agromack-Lockwood OU#2
SUBMISSION #: R2210409

Tetra Tech water samples were collected on 01/16-22/02 and received at CAS on 01/23/02 in good condition.

VOLATILE ORGANICS

Water samples were analyzed for Target Compound List (TCL) volatile organics by SW-846 Method 8260B and Drinking Water Volatile Organics by EPA method 524.2.

All Matrix spike/Matrix spike duplicate recoveries and RPD were within QC limits.

All initial and continuing calibrations were compliant.

All blank spike recoveries were within QC limits except for 1,2-Dibromo-3-Chloropropane in the 524 LCS analyzed 02/04/02. The only sample associated with this LCS had already been analyzed at no dilution with a non- detect for this analyte. No further action was taken.

Surrogate Standard and Internal Standard recoveries were within QC limits.

All samples were analyzed within the required holding times.

No other analytical or QC problems were encountered with these analyses.

INORGANICS

Water samples were analyzed for a site list of Metals by EPA Methods 6010B and 7470A.

All matrix spike recoveries and RPD were within QC limits.

All initial and continuing calibrations were compliant.

All blank spike recoveries were within QC limits.

No other analytical or QC problems were encountered with these analyses.

SOLUBLE METALS

Soluble Metals were analyzed by ICP-MS at the CAS-Jacksonville laboratory. The report for that data will be sent at a later date as an addendum to this report.

1 Street, Suite 250 ▪ Rochester, NY 14609-6925 ▪ Telephone (585) 288-5380 ▪ Fax (585) 288-8475

CAS ASP/CLP BATCHING FORM / LOGIN SHEET

SDG #: HWSC-WW	BATCH COMPLETE: __yes_____	DATE REVISED:	
SUBMISSION R2210409	DISKETTE REQUESTED: YES	DATE DUE: 02/21/02	
CLIENT: Tetra Tech EM Inc.	DATE:01/25/02	PROTOCOL: 846	
CLIENT REP: Mark Wilson	CUSTODY SEAL: PRESENT/ABSENT:	SHIPPING No.:	
PROJECT: AGROMACK-LOCKWOOD OU#2	CHAIN OF CUSTODY: PRESENT/ABSENT:		

CAS JOB #	CLIENT/EPA ID	MATRIX	REQUESTED PARAMETERS	DATE SAMPLED	DATE RECEIVED	pH (SOLIDS)	% SOLIDS	sub to cas-jax
525947	HWSC-WW	WATER	**QC** 8260/Met	1/20/02	1/23/02			6020
525948	HWSC-WW-FD	WATER	8260/Met	1/20/02	1/23/02			6020
525949	OS-PW-1-FD	WATER	524/Met	1/19/02	1/23/02			6020
525950	OS-PW-1	WATER	524/Met	1/19/02	1/23/02			6020
525951	RINSATE-6	WATER	8260	1/20/02	1/23/02			6020
525952	OS-PW-5	WATER	524/Met	1/20/02	1/23/02			6020
525953	OS-PW-4	WATER	524/Met	1/20/02	1/23/02			6020
525954	OS-PW-2	WATER	**QC** 524/Met	1/19/02	1/23/02			6020
525965	OS-PW-4-FD	WATER	524/Met	1/20/02	1/23/02			6020
525970	OS-PW-3	WATER	524/Met	1/20/02	1/23/02			6020
525971	OS-PW-7	WATER	524/Met	1/22/02	1/23/02			6020
525972	OS-PW-8	WATER	524/Met	1/22/02	1/23/02			6020
525973	OS-PW-6	WATER	524/Met	1/21/02	1/23/02			6020
525974	OS-MUW-1	WATER	524/Met	1/21/02	1/23/02			6020
525975	RINSATE-S1	WATER	Met	1/16/02	1/23/02			
525982	RINSATE-S5	WATER	Met	1/20/02	1/23/02			
525987	RINSATE-S3	WATER	8260/Met	1/18/02	1/23/02			
525988	RINSATE-S2	WATER	Met	1/18/02	1/23/02			
525996	OS-PW-9	WATER	524/Met	1/22/02	1/23/02			
526000	SAG GW-1 D	WATER	8260/Met	1/22/02	1/23/02			6020
526001	SAG GW-1	WATER	8260/Met	1/22/02	1/23/02			6020
526008	RINSATE-S7	WATER	8260	1/21/02	1/23/02			
526009	OS-GGW-4	WATER	8260	1/21/02	1/23/02			
526010	SI-GGW-2	WATER	**QC** 8260	1/21/02	1/23/02			
526011	SI-GGW-3-FD	WATER	8260	1/21/02	1/23/02			
526012	SI-GGW-1	WATER	8260	1/21/02	1/23/02			
526013	OS-GGW-3	WATER	8260	1/21/02	1/23/02			
526014	OS-PW-11	WATER	524	1/19/02	1/23/02			
526015	OS-PW-10	WATER	524	1/19/02	1/23/02			
526016	OS-PW-13	WATER	524	1/19/02	1/23/02			
526017	TRIP BLANK	WATER	8260	1/23/02	1/23/02			

SDG #: HWS(	0	BATCH COMPLETE: __yes_____	DATE REVISED:
SUBMISSION R2210409		DISKETTE REQUESTED: YES	DATE DUE: 02/21/02

CAS ASP/CLP BATCHING FORM / LOGIN SHEET

CLIENT: Tetra Tech EM Inc. DATE:01/25/02 PROTOCOL: 846
CLIENT REP: Mark Wilson CUSTODY SEAL: PRESENT/ABSENT: SHIPPING No.:
PROJECT: AGROMACK-LOCKWOOD OU#2 CHAIN OF CUSTODY: PRESENT/ABSENT:

CAS JOB #	CLIENT/EPA ID	MATRIX	REQUESTED PARAMETERS	DATE SAMPLED	DATE RECEIVED	pH (SOLIDS)	% SOLIDS	REMARKS SAMPLE CONDITION
526018	OS-PW-14	WATER	524	1/19/02	1/23/02			
526019	OS-PW-12	WATER	524	1/19/02	1/23/02			
526020	SI-GGW-3	WATER	8260	1/21/02	1/23/02			
526021	SI-GGW-1	WATER	8260	1/21/02	1/23/02			
526022	OS-GGW-2	WATER	8260	1/21/02	1/23/02			
526023	SI-GGW-4	WATER	8260	1/21/02	1/23/02			
526024	SMWB-WW	WATER	8260	1/19/02	1/23/02			

INORGANIC QUALIFIERS

C (Concentration) qualifier - Enter "B" if the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL) but was greater than or equal to the Instrument Detection Limit (IDL). If the analyte was analyzed for, but not detected, a "U" must be entered.

Q qualifier - Specified entries and their meanings are as follows:

E - The reported value is estimated because of the presence of interference.

M - Duplicate injection precision not met.

N - Spiked sample recovery not within control limits.

S - The reported value was determined by the Method of Standard Additions (MSA).

W - Post-digestion spike for Furnace AA Analysis is out of control limits (85-115), while sample absorbance is less than 50% of spike absorbance.

* - Duplicate analysis not within control limits.

+ - Correlation coefficient for the MSA is less than 0.995.

M (Method) qualifier - Enter:

- "P" for ICP
- "A" for Flame AA
- "F" for Furnace AA
- "PM" for ICP when Microwave Digestion is used
- "AM" for Flame AA when Microwave Digestion is used
- "FM" for Furnace M when Microwave Digestion is used
- "CV" for Manual Cold Vapor AA
- "AV" for Automated Cold Vapor AA
- "CA" for Midi-Distillation Spectrophotometric
- "AS" for Semi-Automated Spectrophotometric
- "C" for Manual Spectrophotometric
- "T" for Titrimetric
- " " where no data has been entered
- "NR" if the analyte is not required to be analyzed

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Effective 2/8/02

CAS LIST OF QUALIFIERS

U - Indicates compound was analyzed for but was not detected. The sample quantitation limit must be corrected for dilution and for percent moisture.

J - Indicates an estimated value. For further explanation see case narrative / cover letter.

B - This flag is used when the analyte is found in the associated blank as well as in the sample.

E - This flag identifies compounds whose concentrations exceed the calibration range.

A - This flag indicates that a TIC is a suspected aldol-condensation product.

N - Spiked sample recovery not within control limits.
(Flag the entire batch - Inorganic analysis only)

* - Inorganic Duplicate analysis not within control limits. Flag the entire batch - Inorganic analysis only

* - Organics QC data outside limits.

D - Spike diluted out.

S - Reported value determined by Method of Standard Additions. (MSA)

X - As specified in the case narrative.

CAS/Rochester Lab ID # for State Certifications

American Industrial Hygiene Assoc. ID #:100314
Delaware Accredited
Connecticut ID # PH0556
Florida ID # E87674
Massachusetts ID # M-NY032
Navy Facilities Engineering Service Center Approved
Nebraska Accredited
NELAP Accredited
New York ID # 10145
New Jersey ID # NY004
New Hampshire ID # 294100 A/B
Rhode Island ID # 158
South Carolina ID #91012
West Virginia ID # 292

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INTERNAL CHAINS

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CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

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SR #

CAS Contact

Project Name: Agromack-Lockwood ou#2	Project Number: 6A0011.E.01.0008.10
Project Manager: Curt Enos	Report CC:
Company/Address: Tetra Tech EM Inc. 8030 Flint St. Lenexa, KS 66214	
Phone #: 913-495-3906	FAX#: 913-894-6295
Sampler's Signature: Trisha R. Dealy	Sampler's Printed Name: Trisha R. Dealy

ANALYSIS REQUESTED *(Include Method Number and Container Preservative)*

PRESERVATIVE (1)-6 (2)-7

NUMBER OF CONTAINERS: 1 | 2 | 2 | 1

GC/MS VOA's ☐ 8260B ☐ 624 ☐ CLP
GC/MS ☐ VOA's ☐ 8270 ☐ 625 ☐ CLP
GC VOA's ☐ 8021 ☐ 601/602
PESTICIDES/ PCB's ☐ 8081 ☐ 608 ☐ CLP ☐ 8082
STAR'S LIST 8021 VOA's ☐ TOTAL ☐ TCLP
STAR'S LIST 8270 SVOA's ☐ TOTAL ☐ TCLP
TCLP ☐ METALS ☐ VOA's ☐ SVOA's
WASTE CHARACTERIZATION ☐ H/P ☐ React ☐ Corros. ☐ Ignit.
METALS, TOTAL (List in comments below)
METALS, DISSOLVED (List in comments below)
VOA's 524.2 (PWS)

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	REMARKS/ ALTERNATE DESCRIPTION
HWSC-WW	525947	1/20/02	1500	Water	Note: Total Metals analysis is by 6010B and Dissolved Metals analysis is by 6020.
HWSC-WW-MSD	↓	1/20/02	1500	Water	
HWSC-WW-MS	↓	1/20/02	1500	Water	
HWSC-WW-FD	948	1/20/02	1500	Water	
OS-PW-1-FD	949	1/19/02	1330	Water	
OS-PW-1	950	1/19/02	1330	Water	
Rinsate-S6	951	1/20/02	1715	Water	
OS-PW-5	952	1/20/02	1621	Water	
OS-PW-4	953	1/20/02	1512	Water	
OS-PW-2	954	1/19/02	1550	Water	

SPECIAL INSTRUCTIONS/COMMENTS

Metals

*Note: Disregard "Preservative" listed on labels of VOA's.

See QAPP ☐

TURNAROUND REQUIREMENTS

____ RUSH (SURCHARGES APPLY)
____ 24 hr ____ 48 hr ____ 5 day
____ STANDARD
REQUESTED FAX DATE
REQUESTED REPORT DATE

See Contract

REPORT REQUIREMENTS

____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
____ V. Speicalized Forms / Custom Report
Edata ____ Yes ____ No

INVOICE INFORMATION

PO#
BILL TO:
SUBMISSION #:

SAMPLE RECEIPT: CONDITION/COOLER TEMP: _____ CUSTODY SEALS: (Y) N

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Trisha R. Dealy	Signature: Gregory O. Esmerian	Signature	Signature	Signature	Signature
Printed Name: Trisha R. Dealy	Printed Name: Gregory O. Esmerian	Printed Name	Printed Name	Printed Name	Printed Name
Firm: TTEMI	Firm: CAS	Firm	Firm	Firm	Firm
Date/Time: 1/22/02	Date/Time: 1-23-02 10:15	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

SCOC-0101-08

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PAGE 2 OF 4

SR #

CAS Contact

Project Name: Agromack-Lockwood QA #2	Project Number: 69011.E.01.00008.10
Project Manager: Curt Enos	Report CC:
Company/Address: Tetra Tech EM Inc. 8300 Flint St. Lenexa, KS 66214	
Phone #: 913-495-3906	FAX#: 913-894-6295
Sampler's Signature: Trisha R. Dealy	Sampler's Printed Name: Trisha R. Dealy

ANALYSIS REQUESTED *(Include Method Number and Container Preservative)*

PRESERVATIVE: 2 2

NUMBER OF CONTAINERS

GC/MS VOA's ☐ 8260 ☐ 624 ☐ CLP
GC/MS SVOA's ☐ 8270 ☐ 625 ☐ CLP
GC VOA's ☐ 8021 ☐ 601/602
PESTICIDES/ PCB's ☐ 8081 ☐ 608 ☐ CLP ☐ 8082
STAR'S LIST 8021 VOA's ☐ TOTAL ☐ TCLP
STAR'S LIST 8270 SVOA's ☐ TOTAL ☐ TCLP
TCLP ☐ METALS ☐ VOA's ☐ SVOA's ☐ H/P
WASTE CHARACTERIZATION ☐ React ☐ Corros. ☐ Ignit.
METALS, TOTAL (List in comments below)
METALS, DISSOLVED (List in comments below)

Preservative Key
0. NONE
1. HCl
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

REMARKS/ ALTERNATE DESCRIPTION

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	METALS, TOTAL	METALS, DISSOLVED	REMARKS/ ALTERNATE DESCRIPTION
OS-PW-2-MSD	525954	1/19/02	1550	Water	1	✓		
OS-PW-4-FD	965	1/20/02	1512	Water	1	✓		
OS-PW-2-MS	954	1/19/02	1550	Water	1	✓		
OS-PW-3	970	1/20/02	1427	Water	1	✓		
OS-PW-7	971	1/22/02	0833	Water	1	✓		
OS-PW-8	972	1/22/02	0915	Water	1	✓		
OS-PW-6	973	1/21/02	1030	Water	1	✓		
OS-MW-1	974	1/21/02	1354	Water	1	✓		
OS-PW-2-MSD	954	1/19/02	1550	Water	1		✓	
HWSC-WW	947	1/20/02	1500	Water	1		✓	

SPECIAL INSTRUCTIONS/COMMENTS

Metals

Total Metals = 6010 B

Dissolved Metals = 6020

See QAPP ☐

TURNAROUND REQUIREMENTS

____ **RUSH** (SURCHARGES APPLY)

____ 24 hr ____ 48 hr ____ 5 day

____ **STANDARD**

REQUESTED FAX DATE

REQUESTED REPORT DATE

See Contract

REPORT REQUIREMENTS

____ I. Results Only

____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)

____ III. Results + QC and Calibration Summaries

____ IV. Data Validation Report with Raw Data

____ V. Speicalized Forms / Custom Report

Edata ____ Yes ____ No

INVOICE INFORMATION

PO#

BILL TO:

SUBMISSION #:

SAMPLE RECEIPT: CONDITION/COOLER TEMP: _____ CUSTODY SEALS: Y N

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Trisha R. Dealy	Signature: Gregory D. Esmerian	Signature	Signature	Signature	Signature
Printed Name: Trisha R Dealy	Printed Name: Gregory D. Esmerian	Printed Name	Printed Name	Printed Name	Printed Name
Firm: TTEMI	Firm: CAS	Firm	Firm	Firm	Firm
Date/Time: 1/22/02	Date/Time: 1-23-02 10:15	Date/Time	Date/Time	Date/Time	Date/Time

SCOC-0101-08

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SR #

CAS Contact

Project Name: Agromack-Lockwood OU#2	Project Number: 69611.E.01.0008.10
Project Manager: Curt Enos	Report CC:
Company/Address: Tetra Tech EM Inc. 8030 Flint St. Lenexa, KS 66214	
Phone #: 913-495-3906	FAX#: 913-894-6295
Sampler's Signature: Trisha R. Dealy	Sampler's Printed Name: Trisha R. Dealy

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE (1)-6 (2)-7

NUMBER OF CONTAINERS

GC/MS VOA's ☐ 8260 ☐ 624 ☐ CLP | GC/MS SVOA's ☐ 8270 ☐ 625 ☐ CLP | GC VOA's ☐ 8021 ☐ 601/602 | PESTICIDES/ PCB's ☐ 8081 ☐ 608 ☐ CLP ☐ 8082 | STAR'S LIST 8021 VOA's ☐ TOTAL ☐ TCLP | STAR'S LIST 8270 SVOA's ☐ TOTAL ☐ TCLP | TCLP ☐ VOA's ☐ METALS ☐ SVOA's ☐ H/P | WASTE CHARACTERIZATION ☐ React ☐ Corros. ☐ Ignit. | METALS, TOTAL (List in comments below) | METALS, DISSOLVED (List in comments below) | 2 | 2 | REMARKS/ ALTERNATE DESCRIPTION

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX										✓								
OS-PW-1	525950	1/19/02	1330	Water	1									✓								
OS-PW-4	953	1/20/02	1512	Water	1									✓								
Rinsate-S1	975	1/16/02	1940	Water	1									✓								
OS-PW-1-FD	949	1/19/02	1330	Water	1									✓								
HWSC-WW-FD	948	1/20/02	1500	Water	1									✓								
OS-PW-5	952	1/20/02	1621	Water	1									✓								
HWSC-WW-MS	947	1/20/02	1500	Water	1									✓								
OS-S-1-10/14	6025	1/21/02	1140	Soil	3	✓																
OS-S-1-2/6	026	1/21/02	1050	Soil	3	✓																
OS-S-1-6/10	027	1/21/02	1110	Soil	3	✓																

SPECIAL INSTRUCTIONS/COMMENTS

Metals

Total Metals = 6010B

Dissolved Metals = 6020

See QAPP ☐

TURNAROUND REQUIREMENTS

____ RUSH (SURCHARGES APPLY)

____ 24 hr ____ 48 hr ____ 5 day

____ STANDARD

REQUESTED FAX DATE

REQUESTED REPORT DATE

See Contract

REPORT REQUIREMENTS

____ I. Results Only

____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)

____ III. Results + QC and Calibration Summaries

____ IV. Data Validation Report with Raw Data

____ V. Speicalized Forms / Custom Report

Edata ____ Yes ____ No

INVOICE INFORMATION

PO#

BILL TO:

SUBMISSION #:

SAMPLE RECEIPT: CONDITION/COOLER TEMP: _____ CUSTODY SEALS: Y N

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Trisha R. Dealy	Signature: Gregory O'Esmerian	Signature	Signature	Signature	Signature
Printed Name: Trisha R. Dealy	Printed Name: Gregory O. Esmerian	Printed Name	Printed Name	Printed Name	Printed Name
Firm: TTEMI	Firm: CAS	Firm	Firm	Firm	Firm
Date/Time: 1/22/02	Date/Time: 1-23-02 10:15	Date/Time	Date/Time	Date/Time	Date/Time

SCOC-0101-08

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

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PAGE 2 OF 5

CAS Contact

Project Name: Aerospace - Lockwood OU#2

Project Number: G9011.E.01.0008.10

Report CC:

Client Ones

Tetra Tech EM Inc.

8030 Flint St.

Lenexa, KS 66214

913-495-3906

FAX#: 913-894-P 6295

Sampler's Printed Name: Trisha R. Dealy

Trisha R. Dealy

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE (1)-6 (2)-7

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOA's ☒ 8260B ☐ 624 ☐ CLP	GC/MS SVOA's ☐ 8270 ☐ 625 ☐ CLP	GC VOA's ☐ 8021 ☐ 601/602	PESTICIDES/ PCB's ☐ 8081 ☐ 608 ☐ CLP ☐ 8082	STAR'S LIST 8021 VOA's ☐ TOTAL ☐ TCLP	STAR'S LIST 8270 SVOA's ☐ TOTAL ☐ TCLP	TCLP ☐ METALS ☐ VOA's ☐ SVOA's ☐ H/P	WASTE CHARACTERIZATION ☐ React ☐ Corros. ☐ Ignit.	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	VOA's (DW) 524.2				REMARKS/ ALTERNATE DESCRIPTION
SR-S-3-2/6-FD		1/19/02	0900	Soil	3	✓														
SR-S-3-4/10 MSD		1/19/02	0950	Soil	3	✓														
SSD-S-1-2/4		1/17/02	1615	Soil	3	✓														
SI-S-4-6/10		1/20/02	1215	Soil	3	✓														
SI-S-1-10/14		1/20/02	1035	Soil	3	✓														
[illegible]-PW-1	525 950	1/19/02	1330	Water	3											✓				
ST-SLU		1/20/02	1430	Soil	3	✓														
HNJSC-SLU		1/20/02	1600	Soil	3	✓														
OS-S-4-6/10		1/21/02	1600	Soil	3	✓														
OS-S-2-10/14		1/21/02	1350	Soil	3	✓														

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

SPECIAL INSTRUCTIONS/COMMENTS

Matrix

* Disregard "Preservative" listed on labels of VOA's.

See CAPP ☐

TURNAROUND REQUIREMENTS

____ RUSH (SURCHARGES APPLY)

____ 24 hr ____ 48 hr ____ 5 day

____ STANDARD

REQUESTED FAX DATE

REQUESTED REPORT DATE

REPORT REQUIREMENTS

____ I. Results Only

____ II. Results + QC Summaries (LOS, DUP, MS/MSD as required)

____ III. Results + QC and Calibration Summaries

____ IV. Data Validation Report with Raw Data

____ V. Speicalized Forms / Custom Report

Edata ____ Yes ____ No

See Contract

INVOICE INFORMATION

PO#

BILL TO:

SUBMISSION #:

SAMPLE RECEIPT: CONDITION/COOLER TEMP: _____

CUSTODY SEALS: Y N

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Trisha R. Dealy	Signature: [signature]	Signature	Signature	Signature	Signature
Printed Name: Trisha R Dealy	Printed Name: Gregory D. Esmerian	Printed Name	Printed Name	Printed Name	Printed Name
Firm: TTEMI	Firm: CAS	Firm	Firm	Firm	Firm
Date/Time: 1/22/02	Date/Time: 1-23-02 10:15	Date/Time	Date/Time	Date/Time	Date/Time

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PAGE 1 OF 4

SR #

CAS Contact

Project Name: Agromack-Lockwood OU#2	Project Number: G9011.E.01.0008.10
Project Manager: Curt Enos	Report CC:
Company/Address: Tetra Tech EM Inc. 8030 Flint St. Lenexa, KS 66214	
Phone #: 913-495-3906	FAX#: 913-894-6295
Sampler's Signature: Trisha R. Dealy	Sampler's Printed Name: Trisha R. Dealy

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE: (1)-6 (2)-7 | 1 | 2 | 2 | 1

NUMBER OF CONTAINERS

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	GC/MS VOA's ☒ 8260B ☐ 624 ☐ CLP	GC/MS ● VOA's ☐ 8260 ☐ 625 ☐ CLP 8260B	GC VOA's ☐ 8021 ☐ 601/602	PESTICIDES/ PCB's ☐ 8081 ☐ 608 ☐ CLP ☐ 8082	STAR'S LIST 8021 VOA's ☐ TOTAL ☐ TCLP	STAR'S LIST 8270 SVOA's ☐ TOTAL ☐ TCLP	TCLP ☐ METALS ☐ VOA's ☐ SVOA's ☐ H/P	WASTE CHARACTERIZATION ☐ React ☐ Corros. ☐ Ignit.	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	VOA's 524.2 (DWS)				REMARKS/ ALTERNATE DESCRIPTION
HWSC-WW-MSD	525947	1/20/02	1500	Water	1									✓						
Rinsate-S5	982	1/20/02	1712	Water	1									✓						
OS-PW-6	973	1/21/02	1030	Water	1									✓						
OS-MuW-1	974	1/21/02	1354	Water	1									✓						
OS-PW-3	970	1/20/02	1427	Water	1									✓						
OS-PW-4-FD	965	1/20/02	1512	Water	1									✓						
Rinsate-S3	987	1/18/02	1710	Water	1									✓						
OS-PW-2-MS	954	1/19/02	1550	Water	1									✓						
OS-PW-2	954	1/19/02	1550	Water	1									✓						
OS-PW-8	972	1/22/02	0915	Water	1									✓						

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

SPECIAL INSTRUCTIONS/COMMENTS

Metals

*Note: Disregard "Preservative" listed on labels of VOA's.

Total Metals = 6010 B

See QAPP ☐

TURNAROUND REQUIREMENTS

____ RUSH (SURCHARGES APPLY)

____ 24 hr ____ 48 hr ____ 5 day

____ STANDARD

REQUESTED FAX DATE

REQUESTED REPORT DATE

See Contract

REPORT REQUIREMENTS

____ I. Results Only

____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)

____ III. Results + QC and Calibration Summaries

____ IV. Data Validation Report with Raw Data

____ V. Speicalized Forms / Custom Report

Edata ____ Yes ____ No

INVOICE INFORMATION

PO#

BILL TO:

SUBMISSION #:

SAMPLE RECEIPT: CONDITION/COOLER TEMP: _____ CUSTODY SEALS: Y N

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Trisha R. Dealy	Signature: [signature]	Signature	Signature	Signature	Signature
Printed Name: Trisha R. Dealy	Printed Name: Gregory O. Esmerian	Printed Name	Printed Name	Printed Name	Printed Name
Firm: TTEMI	Firm: CAS	Firm	Firm	Firm	Firm
Date/Time: 1/22/02	Date/Time: 1-23-02 10:15	Date/Time	Date/Time	Date/Time	Date/Time

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PAGE 2 OF 4

SR #

CAS Contact

Project Name: Agromac-Lockwood OU#2
Project Number: G9011.E.01.0008.10
Project Manager: Curt Enos
Report CC:
Company/Address: Tetra Tech EM Inc.
8030 Flint St
Lenexa, KS 66214
Phone #: 913-495-3906
FAX#: 913-894-6295
Sampler's Signature: Trisha R. Dealy
Sampler's Printed Name: Trisha R. Dealy

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE: (1)-6 (2)-7 | 1 | 2 | 2 | 1

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOA's ☒ 8260B ☐ 624 ☐ CLP	GC/MS ● VOA's ☐ 8270 ☐ 625 ☐ CLP	GC VOA's ☐ 8021 ☐ 601/602	PESTICIDES/ PCB's ☐ 8081 ☐ 608 ☐ CLP ☐ 8082	STAR'S LIST 8021 VOA's ☐ TOTAL ☐ TCLP	STAR'S LIST 8270 SVOA's ☐ TOTAL ☐ TCLP	TCLP ☐ METALS ☐ VOA's ☐ SVOA's ☐ H/P	WASTE CHARACTERIZATION ☐ React ☐ Corros. ☐ Ignit.	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	VOA's (DW) 524.2				REMARKS/ ALTERNATE DESCRIPTION
OS-PW-7	525971	1/22/02	0833	Water	1									✓						
Rinsate-S2	988	1/18/02	1700	Water	1									✓						
OS-PW-9	996	1/22/02	0950	Water	1									✓						
SAG GW-1 D	6000	1/22/02	0945	Water	1									✓						
SAG GW-1	001	1/22/02	0945	Water	1									✓						
SAG GW-1 D	6000	1/22/02	0945	Water	1										✓					
SAG GW-1	001	1/22/02	0945	Water	1										✓					
OS-PW-7	971	1/22/02	0833	Water	3											✓				
OS-PW-9	996	1/22/02	0950	Water	3											✓				
OS-PW-6	973	1/21/02	1030	Water	3											✓				

SPECIAL INSTRUCTIONS/COMMENTS
Metals
*Note: Disregard "Preservative" listed on labels on VOA'S.

Total Metals = 6010 B
Dissolved Metals = 6020

See QAPP ☐

TURNAROUND REQUIREMENTS
____ RUSH (SURCHARGES APPLY)
____ 24 hr ____ 48 hr ____ 5 day
____ STANDARD
REQUESTED FAX DATE
REQUESTED REPORT DATE

See Contract

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
____ V. Speicalized Forms / Custom Report
Edata ____ Yes ____ No

INVOICE INFORMATION
PO#
BILL TO:
SUBMISSION #:

SAMPLE RECEIPT: CONDITION/COOLER TEMP: _____ CUSTODY SEALS: Y N

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Trisha R. Dealy	Signature: Gregory O. Esmerian	Signature	Signature	Signature	Signature
Printed Name: Trisha R. Dealy	Printed Name: Gregory O. Esmerian	Printed Name	Printed Name	Printed Name	Printed Name
Firm: TTEMI	Firm: CAS	Firm	Firm	Firm	Firm
Date/Time: 1/22/02	Date/Time: 1-23-02 10:15	Date/Time	Date/Time	Date/Time	Date/Time

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SR #

CAS Contact

Project Name: Agromac - Lockwood OU#2	Project Number: G9011.E.01.0008.10
Project Manager: Curt Enos	Report CC:
Company/Address: Tetra Tech EM Inc. 8030 Flint St. Lenexa, KS 66214	
Phone #: 913-495-3906	FAX#: 913-894-6295
Sampler's Signature: Trisha R. Dealy	Sampler's Printed Name: Trisha R. Dealy

ANALYSIS REQUESTED *(Include Method Number and Container Preservative)*

PRESERVATIVE: 1 | 2 | 2 | 1

NUMBER OF CONTAINERS

- GC/MS VOA's ☒ 8260 ☐ 624 ☐ CLP
- GC/MS SVOA's ☐ 8270 ☐ 625 ☐ CLP
- GC VOA's ☐ 8021 ☐ 601/602
- PESTICIDES/ PCB's ☐ 8081 ☐ 608 ☐ CLP ☐ 8082
- STAR'S LIST 8021 VOA's ☐ TOTAL ☐ TCLP
- STAR'S LIST 8270 SVOA's ☐ TOTAL ☐ TCLP
- TCLP ☐ VOA's ☐ METALS ☐ SVOA's ☐ H/P
- WASTE CHARACTERIZATION ☐ React ☐ Corros. ☐ Ignit.
- METALS, TOTAL (List in comments below)
- METALS, DISSOLVED (List in comments below) VOA's (DW) 524.2
- REMARKS/ ALTERNATE DESCRIPTION

Preservative Key
0. NONE
1. HCl
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOA's ☒ 8260	METALS, DISSOLVED (List in comments below) VOA's (DW) 524.2	REMARKS/ ALTERNATE DESCRIPTION
OS-MuW-1	525974	1/21/02	1354	Water	3		✓	
SAG GW-1	001	1/22/02	0945	Water	3	✓		
SAG GW-1 D	6000	1/22/02	0945	Water	3	✓		
Rinsate-S7	6008	1/21/02	1835	Water	3	✓		
OS-GGW-4	6009	1/21/02	1442	Water	3	✓		
SI-GGW-2	010	1/21/02	1030	Water	3	✓		
SI-GGW-3-FD	011	1/21/02	0905	Water	3	✓		
SI-GGW-2-MS	010	1/21/02	1030	Water	3	✓		
SI-GGW-1	012	1/21/02	1110	Water	3	✓		
OS-GGW-3	013	1/21/02	1400	Water	3	✓		

SPECIAL INSTRUCTIONS/COMMENTS
Metals
*Note: Disregard "Preservative" listed on labels of VOA's.

See QAPP ☐

TURNAROUND REQUIREMENTS
____ RUSH (SURCHARGES APPLY)
____ 24 hr ____ 48 hr ____ 5 day
____ STANDARD
REQUESTED FAX DATE
REQUESTED REPORT DATE
See Contract

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
____ V. Speicalized Forms / Custom Report
Edata ____ Yes ____ No

INVOICE INFORMATION
PO#
BILL TO:
SUBMISSION #:

SAMPLE RECEIPT: CONDITION/COOLER TEMP: _____ CUSTODY SEALS: Y N

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Trisha R. Dealy	Signature: Gregory O. Esmerian	Signature	Signature	Signature	Signature
Printed Name: Trisha R. Dealy	Printed Name: Gregory O. Esmerian	Printed Name	Printed Name	Printed Name	Printed Name
Firm: TTEMI	Firm: CAS	Firm	Firm	Firm	Firm
Date/Time: 1/22/02	Date/Time: 1-23-02 10:15	Date/Time	Date/Time	Date/Time	Date/Time

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PAGE 4 OF 5

SR #

CAS Contact

Project Name: Agromac-Lockwood OU#2
Project Number: G9011.E.01.0008.10
Project Manager: Curt Enos
Report CC:
Company/Address: Tetra Tech EM Inc.
8030 Flint St.
Lenexa, KS 66214
Phone #: 913-495-3906
FAX#: 913-894-6295
Sampler's Signature: Trisha R. Dealy
Sampler's Printed Name: Trisha R. Dealy

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE: (1)-6 (2)-7 | 1 | 1

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOA's ☒ 8260B ☐ 624 ☐ CLP	GC/MS ● VOA's ☐ 8270 ☐ 625 ☐ CLP 8260B	GC VOA's ☐ 8021 ☐ 601/602	PESTICIDES/ PCB's ☐ 8081 ☐ 608 ☐ CLP ☐ 8082	STAR'S LIST 8021 VOA's ☐ TOTAL ☐ TCLP	STAR'S LIST 8270 SVOA's ☐ TOTAL ☐ TCLP	TCLP ☐ METALS ☐ VOA's ☐ SVOA's ☐ H/P	WASTE CHARACTERIZATION ☐ React ☐ Corros. ☐ Ignit.	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	VOA's (DLS) 524.2				REMARKS/ ALTERNATE DESCRIPTION
OS-PW-11	526014	1/19/02	1535	Water	3											✓				
OS-PW-10	015	1/19/02	1452	Water	3											✓				
OS-PW-2-MS	954	1/19/02	1550	Water	3											✓				
OS-PW-8	972	1/22/02	0915	Water	3											✓				
OS-PW-1-FD	949	1/19/02	1330	Water	3											✓				
OS-PW-2	954	1/19/02	1550	Water	3											✓				
OS-PW-2-MSD	↓	1/19/02	1550	Water	3											✓				
Rinsate-S3	987	1/18/02	1710	Water	3		✓													
HWSC-WW-MS	947	1/20/02	1500	Water	3		✓													
HWSC-WW-MSD	↓	1/20/02	1500	Water	3		✓													

SPECIAL INSTRUCTIONS/COMMENTS
Metals
*Note: Disregard "Preservative" listed on labels of VOA's.

See QAPP ☐

TURNAROUND REQUIREMENTS
___ RUSH (SURCHARGES APPLY)
___ 24 hr ___ 48 hr ___ 5 day
___ STANDARD
REQUESTED FAX DATE
REQUESTED REPORT DATE

REPORT REQUIREMENTS
___ I. Results Only
___ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
___ III. Results + QC and Calibration Summaries
___ IV. Data Validation Report with Raw Data
___ V. Speicalized Forms / Custom Report
Edata ___ Yes ___ No

See Contract

INVOICE INFORMATION
PO#
BILL TO:
SUBMISSION #:

SAMPLE RECEIPT: CONDITION/COOLER TEMP: _____ CUSTODY SEALS: Y N

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Trisha R. Dealy	Signature: Gregory O. Esmerian	Signature	Signature	Signature	Signature
Printed Name: Trisha R. Dealy	Printed Name: Gregory O. Esmerian	Printed Name	Printed Name	Printed Name	Printed Name
Firm: TTEMI	Firm: CAS	Firm	Firm	Firm	Firm
Date/Time: 1/22/02	Date/Time: 1-23-02 10:15	Date/Time	Date/Time	Date/Time	Date/Time

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SR #

CAS Contact

Project Name: Agromac - Lockwood Q1 #2	Project Number: G9011.E.01.0008.10
Project Manager: Curt Enos	Report CC:
Company/Address: Tetra Tech EM Inc. 8030 Flint St. Lenexa, KS 66214	
Phone #: 913-495-3906	FAX#: 913-894-6295
Sampler's Signature: Trisha R. Dealy	Sampler's Printed Name: Trisha R. Dealy

ANALYSIS REQUESTED *(Include Method Number and Container Preservative)*

PRESERVATIVE (1)-6 (2)-7

NUMBER OF CONTAINERS

GC/MS VOA's 8260B ☐ 624 ☐ CLP | GC/MS VOA's 8240B 8260B ☐ CLP | GC VOA's ☐ 8021 ☐ 601/602 | PESTICIDES/ PCB's ☐ 8081 ☐ 608 ☐ CLP ☐ 8082 | STARS LIST 8021 VOA's ☐ TOTAL ☐ TCLP | STARS LIST 8270 SVOA's ☐ TOTAL ☐ TCLP | TCLP ☐ METALS ☐ VOA's ☐ SVOA's ☐ H/P | WASTE CHARACTERIZATION ☐ React ☐ Corros. ☐ Ignit. | METALS, TOTAL (List in comments below) | METALS, DISSOLVED (List in comments below) | VOA's 524.2 (DW) | 1

Preservative Key
0. NONE
1. HCl
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

REMARKS/ ALTERNATE DESCRIPTION

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOA's 8260B ☐ 624 ☐ CLP	GC/MS VOA's 8240B 8260B ☐ CLP	GC VOA's ☐ 8021 ☐ 601/602	PESTICIDES/ PCB's ☐ 8081 ☐ 608 ☐ CLP ☐ 8082	STARS LIST 8021 VOA's ☐ TOTAL ☐ TCLP	STARS LIST 8270 SVOA's ☐ TOTAL ☐ TCLP	TCLP ☐ METALS ☐ VOA's ☐ SVOA's ☐ H/P	WASTE CHARACTERIZATION ☐ React ☐ Corros. ☐ Ignit.	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	VOA's 524.2 (DW)	1	REMARKS/ ALTERNATE DESCRIPTION
HWSC-WW	525947	1/20/02	1500	Water	3		✓											
HWSC-WW-FD	948	1/20/02	1500	Water	3		✓											
OS-PW-3	970	1/20/02	1427	Water	3											✓		
OS-PW-13	6016	1/19/02	1631	Water	3											✓		
OS-PW-5	952	1/20/02	1621	Water	3											✓		
OS-PW-4-FD	965	1/20/02	1512	Water	3											✓		
OS-PW-4	953	1/20/02	1512	Water	3											✓		
Trip Blank	6017	1/11/02	1600	Water	3		✓											

SPECIAL INSTRUCTIONS/COMMENTS

Metals

*Note: Disregard "Preservative" listed on labels of VOA's.

See QAPP ☐

TURNAROUND REQUIREMENTS

____ RUSH (SURCHARGES APPLY)

____ 24 hr ____ 48 hr ____ 5 day

____ STANDARD

~~REQUESTED FAX DATE~~ See Contract

REQUESTED REPORT DATE

REPORT REQUIREMENTS

____ I. Results Only

____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)

____ III. Results + QC and Calibration Summaries

____ IV. Data Validation Report with Raw Data

____ V. Speicalized Forms / Custom Report

Edata ____ Yes ____ No

INVOICE INFORMATION

PO#

BILL TO:

SUBMISSION #:

SAMPLE RECEIPT: CONDITION/COOLER TEMP: _____ CUSTODY SEALS: Y N

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Trisha R. Dealy	Signature: Gregory D. Esmerian	Signature	Signature	Signature	Signature
Printed Name: Trisha R. Dealy	Printed Name: Gregory D. Esmerian	Printed Name	Printed Name	Printed Name	Printed Name
Firm: TTEMI	Firm: CAS	Firm	Firm	Firm	Firm
Date/Time: 1/22/02	Date/Time: 1-23-02 10:15	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

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PAGE 3 OF 5

SR #

CAS Contact

Project Name: Agromac-Lockwood OU #2
Project Number: G9011.E.01.0008.10
Project Manager: Curt Enos
Report CC:
Company/Address: Tetra Tech EM Inc.
8030 Flint St.
Lenexa, KS 66214
Phone #: 913-495-3906
FAX#: 913-894-6295
Sampler's Signature: Trisha R. Dealy
Sampler's Printed Name: Trisha R. Dealy

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE: (1)-6 (2)-7 | 1 | 1

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOA's ☒ 8260B ☐ 624 ☐ CLP	GC/MS ● VOA's ☐ 8270 ☐ 625 ☐ CLP 8260B	GC VOA's ☐ 8021 ☐ 601/602	PESTICIDES/ PCB's ☐ 8081 ☐ 608 ☐ CLP ☐ 8082	STAR'S LIST 8021 VOA's ☐ TOTAL ☐ TCLP	STAR'S LIST 8270 SVOA's ☐ TOTAL ☐ TCLP	TCLP ☐ METALS ☐ VOA's ☐ SVOA's ☐ H/P	WASTE CHARACTERIZATION ☐ React ☐ Corros. ☐ Ignit.	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	VOA's (DW) 524.2				REMARKS/ ALTERNATE DESCRIPTION
BAC-SLU		1/20/02	1700	Soil	3	✓														
OS-S-3-0/2		1/21/02	1420	Soil	3	✓														
OS-S-2-2/6		1/21/02	1340	Soil	3	✓														
OS-S-2-6/10		1/21/02	1405	Soil	3	✓														
OS-S-2-0/2		1/21/02	1315	Soil	3	✓														
SI-S-4-10/14		1/20/02	1215	Soil	3	✓														
OS-S-3-2/6		1/21/02	1415	Soil	3	✓														
Rinsate-S6	525951	1/20/02	1715	Water	3		✓													
OS-PW-14	6018	1/19/02	1704	Water	3											✓				
OS-PW-12	6019	1/19/02	1557	Water	3											✓				

SPECIAL INSTRUCTIONS/COMMENTS
Metals
*Note: Disregard "Preservative" listed on labels & VOA's.

See QAPP ☐

TURNAROUND REQUIREMENTS
____ RUSH (SURCHARGES APPLY)
____ 24 hr ____ 48 hr ____ 5 day
____ STANDARD
~~REQUESTED FAX DATE~~
REQUESTED REPORT DATE

See Contract

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
____ V. Speicalized Forms / Custom Report
Edata ____ Yes ____ No

INVOICE INFORMATION
PO#
BILL TO:
SUBMISSION #:

SAMPLE RECEIPT: CONDITION/COOLER TEMP: _____ CUSTODY SEALS: Y N

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Trisha R. Dealy	Signature: [signature]	Signature	Signature	Signature	Signature
Printed Name: Trisha R. Dealy	Printed Name: Gregory O. Esmerian	Printed Name	Printed Name	Printed Name	Printed Name
Firm: TTEMI	Firm: CAS	Firm	Firm	Firm	Firm
Date/Time: 1/22/02	Date/Time: 1-23-02 10:15	Date/Time	Date/Time	Date/Time	Date/Time

SCOC-0101-08

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

Columbia Analytical Services, Inc.
An Employee-Owned Company
www.caslab.com

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

One Mustard St., Suite 250 • Rochester, NY 14609-0859 • (716) 288-5380 • 800-695-7222 x11 • FAX (716) 288-8475 PAGE 4 OF 4

SH #

CAS Contact

Project Name: Agromac-Lakewood a/c #2	Project Number: G9011.E.01.0008.10
Project Manager: Curt Enos	Report CC:
Company/Address: Tetra Tech EM Inc. 8030 Flint St. Lenexa, KS 66214	
Phone #: 913-495-3906	FAX#: 913-894-6295
Sampler's Signature: Trisha R. Dealy	Sampler's Printed Name: Trisha R. Dealy

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE: 1 (5)-6 (2)-7 1

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOA's ☐ 8260B ☐ 624 ☐ CLP	GC/MS ☐ VOA's ☐ 8270B ☐ CLP	GC VOA's ☐ 8021 ☐ 601/602	PESTICIDES/ PCB's ☐ 8081 ☐ 608 ☐ CLP ☐ 8082	STAR'S LIST 8021 VOA's ☐ TOTAL ☐ TCLP	STAR'S LIST 8270 SVOA's ☐ TOTAL ☐ TCLP	TCLP ☐ METALS ☐ VOA's ☐ SVOA's ☐ H/P	WASTE CHARACTERIZATION ☐ React ☐ Corros. ☐ Ignit.	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	VOA's 524.2					REMARKS/ ALTERNATE DESCRIPTION
SI-GGW-3	526020	1/21/02	0905	Water	3	✓															
SI-GGW-1	021	1/21/02	0910	Water	3	✓															
OS-GGW-2	022	1/21/02	1100	Water	3	✓															
SI-GGW-4	023	1/21/02	0835	Water	3	✓															
SI-GGW-2-MSD	610	1/21/02	1030	Water	3	✓															
SMWB-WW	024	1/19/02	1545	Water	3	✓															
SMWB-SLU		1/19/02	1545	Soil	3		✓														

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

SPECIAL INSTRUCTIONS/COMMENTS
Metals
*Note: Disregard "Preservative" labeled on VOA's.

See QAPP ☐

TURNAROUND REQUIREMENTS
___ RUSH (SURCHARGES APPLY)
___ 24 hr ___ 48 hr ___ 5 day
___ STANDARD
REQUESTED FAX DATE
REQUESTED REPORT DATE
See Contract

REPORT REQUIREMENTS
___ I. Results Only
___ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
___ III. Results + QC and Calibration Summaries
___ IV. Data Validation Report with Raw Data
___ V. Speicalized Forms / Custom Report
Edata ___ Yes ___ No

INVOICE INFORMATION
PO#
BILL TO:
SUBMISSION #:

SAMPLE RECEIPT: CONDITION/COOLER TEMP: _____ CUSTODY SEALS: Y N

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Trisha R. Dealy	Signature: Gregory O. Emerson	Signature	Signature	Signature	Signature
Printed Name: Trisha R. Dealy	Printed Name: Gregory O. Emerson	Printed Name	Printed Name	Printed Name	Printed Name
Firm: TTEMI	Firm: CAS	Firm	Firm	Firm	Firm
Date/Time: 1/22/02	Date/Time: 1-23-02 10:15	Date/Time	Date/Time	Date/Time	Date/Time

SCOC-0101-08

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

Cooler Receipt And Preservation Check Form

Project/Client Tetra Tech Submission Number 10409.

Cooler received on 1-23-02 by: [illegible] **COURIER:** CAS UPS FEDEX CD&L CLIENT

1. Were custody seals on outside of cooler? YES / NO
2. Were custody papers properly filled out (ink, signed, etc.)? YES NO
3. Did all bottles arrive in good condition (unbroken)? YES NO
4. Did any VOA vials have significant air bubbles? YES NO N/A
5. Were **Ice** or **Ice packs** present? YES NO
6. Where did the bottles originate? CAS/ROC, CLIENT
7. Temperature of cooler(s) upon receipt: 2° 5° 1°

Is the temperature within 0° - 6° C?:	Yes	Yes	Yes	Yes	Yes
If No, Explain Below	No	No	No	No	No

Date/Time Temperatures Taken: 1-23-02 @ 10:20

Thermometer ID: IR-Gun Temp Blank Sample Bottle Cooler Temp. IR. Gun

If out of Temperature, Client Approval to Run Samples _____

Cooler Breakdown: Date : 1/24/02 by: [illegible]

1. Were all bottle labels complete (*i.e.* analysis, preservation, etc.)? YES NO
2. Did all bottle labels and tags agree with custody papers? YES NO
3. Were correct containers used for the tests indicated? YES NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated N/A

Explain any discrepancies: _____

		YES	NO	Sample I.D.	Reagent	Vol. Added
pH	Reagent					
12	NaOH					
2	HNO_3					
2	H_2SO_4					
Residual Chlorine (+/-)	for TCN & Phenol					
5-11 pH slurry*	CLP SVOA					
5-9 pH slurry*	CLP* P/PCBs					
5-9**	P/PCBs (608 only)					

YES = All samples OK NO = Samples were preserved at lab as listed PC OK to adjust pH _____

*Do not adjust pH! Report in C/N **If pH adjustment is required, use NaOH and/or H_2SO_4

VOC Vial pH Verification (Tested after Analysis) Following Samples Exhibited pH > 2				

Other Comments:

INTERNAL C"" INS

LIENT NAME: Tetra Tech EM Inc.

DG#: SUBMISSION: R2210409 DATE REC'D: 01/23/02 1015

	ORDER #	# OF CONTAINERS	RELINQUISHED BY	RECEIVED BY	DATE	TIME	PH	STORAGE LOCATION	SCHEDULED LTS DATE
3260B	525947 QC	4	[illegible]	[illegible]	1/24/02	1600		C1	02/22/02
3260B	525948	3							02/22/02
3260B	525951	3							02/22/02
3260B	525987	3							02/22/02
3260B	526000	3							02/22/02
3260B	526001	3							02/22/02
8260B	526008	3							02/22/02
8260B	526009	3							02/22/02
8260B	526010 QC	4							02/22/02
8260B	526011	3							02/22/02
8260B	526012	3							02/22/02
8260B	526013	3							02/22/02
8260B	526017	3							02/22/02
8260B	526020	3							02/22/02
8260B	526021	3							02/22/02
8260B	526022	3							02/22/02
8260B	526023	3							02/22/02
8260B	526024	3							02/22/02

INTERNAL C INS

CLIENT NAME: Tetra Tech EM Inc.

SDG#: SUBMISSION: R2210409 DATE REC'D: 01/23/02 1015

	ORDER #	# OF CONTAINERS	RELINQUISHED BY	RECEIVED BY	DATE	TIME	PH	STORAGE LOCATION	SCHEDULED LTS DATE
524	525949	3	BC		1/24/02	1000	ir	C1	02/22/02
524	525950	3							02/22/02
524	525952	3							02/22/02
524	525953	3							02/22/02
524	525954 QC	9							02/22/02
524	525965	3							02/22/02
524	525970	3							02/22/02
524	525971	3							02/22/02
524	525972	3							02/22/02
524	525973	3							02/22/02
524	525974	3							02/22/02
524	525996	3							02/22/02
524	526014	3							02/22/02
524	526015	3							02/22/02
524	526016	3							02/22/02
524	526018	3							02/22/02
524	526019	3							02/22/02

INTERNAL CHAINS

LIENT NAME: Tetra Tech EM Inc.

DG#: SUBMISSION: R2210409 DATE REC'D: 01/23/02 1015

	ORDER #	# OF CONTAINERS	RELINQUISHED BY	RECEIVED BY	DATE TIME	STORAGE LOCATION	SCHEDULED LTS DATE
ETALS	525947 QC	2			1/24/02 1400	A1	02/22/02
ETALS	525948	1					02/22/02
ETALS	525949	1					02/22/02
ETALS	525950	1					02/22/02
ETALS	525952	1					02/22/02
ETALS	525953	1					02/22/02
ETALS	525954 QC	2					02/22/02
ETALS	525965	1					02/22/02
ETALS	525970	1					02/22/02
ETALS	525971	1					02/22/02
ETALS	525972	1					02/22/02
ETALS	525973	1					02/22/02
ETALS	525974	1					02/22/02
METALS	525975	1					02/22/02
METALS	525982	1					02/22/02
METALS	525987	1					02/22/02
METALS	525988	1					02/22/02
METALS	525996	1					02/22/02
METALS	526000	1					02/22/02

INTERNAL C INS

CLIENT NAME: Tetra Tech EM Inc.

SDG#: SUBMISSION: R2210409 DATE REC'D: 01/23/02 1015

	ORDER #	# OF CONTAINERS	RELINQUISHED BY	RECEIVED BY	DATE TIME	STORAGE LOCATION	SCHEDULED LTS DATE
METALS	526001	1	BC	JM	1/24/02 1400	A1	02/22/02

INTERNAL C INS

CLIENT NAME: Tetra Tech EM Inc.

SDG#: SUBMISSION: R2210409 DATE REC'D: 01/23/02 1015

	ORDER #	# OF CONTAINERS	RELINQUISHED BY	RECEIVED BY	DATE TIME	STORAGE LOCATION	SCHEDULED LTS DATE
HG	525947 QC	1	BC	DCD	1/24/02 1210	C-3	02/22/02
HG	525948	1					02/22/02
HG	525949	1					02/22/02
HG	525950	1					02/22/02
HG	525952	1					02/22/02
HG	525953	1					02/22/02
HG	525954 QC	1					02/22/02
HG	525965	1					02/22/02
HG	525970	1					02/22/02
HG	525971	1					02/22/02
HG	525972	1					02/22/02
HG	525973	1					02/22/02
HG	525974	1					02/22/02
HG	525975	1					02/22/02
HG	525982	1					02/22/02
HG	525987	1					02/22/02
HG	525988	1					02/22/02
HG	525996	1					02/22/02
HG	526000	1	✓		✓		02/22/02

24

INTERNAL C" "NS

LIENT NAME: Tetra Tech EM Inc.

DG#: SUBMISSION: R2210409 DATE REC'D: 01/23/02 1015

	ORDER #	# OF CONTAINERS	RELINQUISHED BY	RECEIVED BY	DATE TIME	STORAGE LOCATION	SCHEDULED LTS DATE
IG	526001	1	[illegible]	DCB	1/24/02 1210	C-3	02/22/02

8260 VOLATILE ORGANICS

QC SUMMARY

COLUMBIA ANALYTICAL SERVICES

QUALITY CONTROL SUMMARY MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

WATER

Spiked Order No. : 526010 Tetra Tech EM Inc.

Client ID: SI-GGW-2

Test: 8260B TCL

Analytical Units: UG/L

Run Number : 73932

ANALYTE	SPIKE ADDED	CONCENT. SAMPLE	MATRIX SPIKE FOUND	MATRIX SPIKE % REC.	MATRIX SPIKE DUP. FOUND	MATRIX SPIKE DUP. % REC.	RPD	QC LIMITS RPD	QC LIMITS REC.
BENZENE	50.0	0	58.0	116	56.0	112	4	11	70 - 130
CHLOROBENZENE	50.0	0	56.0	112	55.0	110	2	13	70 - 130
1,1-DICHLOROETHENE	50.0	0	57.0	114	55.0	110	4	14	61 - 145
TOLUENE	50.0	0	60.0	120	58.0	116	3	13	70 - 130
TRICHLOROETHENE	50.0	0	56.0	112	55.0	110	2	14	70 - 130

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD: 8260B TCL

LABORATORY CONTROL SAMPLE SUMMARY

REFERENCE ORDER #: 527105 ANALYTICAL RUN # : 73888

ANALYTE	TRUE VALUE	% RECOVERY	QC LIMITS
DATE ANALYZED : 01/25/02			
ANALYTICAL DILUTION: 1.0			
ACETONE	20.0	90	50 - 150
BENZENE	20.0	116	70 - 130
BROMODICHLOROMETHANE	20.0	113	70 - 130
BROMOFORM	20.0	97	70 - 130
BROMOMETHANE	20.0	114	50 - 150
2-BUTANONE (MEK)	20.0	98	50 - 150
CARBON DISULFIDE	20.0	91	70 - 130
CARBON TETRACHLORIDE	20.0	114	70 - 130
CHLOROBENZENE	20.0	112	70 - 130
CHLOROETHANE	20.0	121	70 - 130
CHLOROFORM	20.0	118	70 - 130
CHLOROMETHANE	20.0	128	70 - 130
DIBROMOCHLOROMETHANE	20.0	102	70 - 130
1,1-DICHLOROETHANE	20.0	121	70 - 130
1,2-DICHLOROETHANE	20.0	112	70 - 130
1,1-DICHLOROETHENE	20.0	113	70 - 130
CIS-1,2-DICHLOROETHENE	20.0	114	70 - 130
TRANS-1,2-DICHLOROETHENE	20.0	116	70 - 130
1,2-DICHLOROPROPANE	20.0	108	70 - 130
CIS-1,3-DICHLOROPROPENE	20.0	111	70 - 130
TRANS-1,3-DICHLOROPROPENE	20.0	112	70 - 130
ETHYLBENZENE	20.0	122	70 - 130
2-HEXANONE	20.0	92	70 - 130
METHYLENE CHLORIDE	20.0	111	70 - 130
4-METHYL-2-PENTANONE (MIBK)	20.0	92	70 - 130
STYRENE	20.0	108	70 - 130
1,1,2,2-TETRACHLOROETHANE	20.0	112	70 - 130
TETRACHLOROETHENE	20.0	124	70 - 130
TOLUENE	20.0	116	70 - 130
1,1,1-TRICHLOROETHANE	20.0	120	70 - 130
1,1,2-TRICHLOROETHANE	20.0	103	70 - 130
TRICHLOROETHENE	20.0	116	70 - 130
VINYL CHLORIDE	20.0	123	70 - 130
O-XYLENE	20.0	109	70 - 130
M+P-XYLENE	40.0	114	70 - 130

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD: 8260B TCL

LABORATORY CONTROL SAMPLE SUMMARY

REFERENCE ORDER #: 527428 ANALYTICAL RUN # : 73932

ANALYTE	TRUE VALUE	% RECOVERY	QC LIMITS
DATE ANALYZED : 01/28/02			
ANALYTICAL DILUTION: 1.0			
ACETONE	20.0	103	50 - 150
BENZENE	20.0	89	70 - 130
BROMODICHLOROMETHANE	20.0	93	70 - 130
BROMOFORM	20.0	85	70 - 130
BROMOMETHANE	20.0	102	50 - 150
2-BUTANONE (MEK)	20.0	109	50 - 150
CARBON DISULFIDE	20.0	97	70 - 130
CARBON TETRACHLORIDE	20.0	80	70 - 130
CHLOROBENZENE	20.0	84	70 - 130
CHLOROETHANE	20.0	88	70 - 130
ILOROFORM	20.0	91	70 - 130
HLOROMETHANE	20.0	95	70 - 130
DIBROMOCHLOROMETHANE	20.0	83	70 - 130
1,1-DICHLOROETHANE	20.0	93	70 - 130
1,2-DICHLOROETHANE	20.0	93	70 - 130
1,1-DICHLOROETHENE	20.0	81	70 - 130
CIS-1,2-DICHLOROETHENE	20.0	92	70 - 130
TRANS-1,2-DICHLOROETHENE	20.0	85	70 - 130
1,2-DICHLOROPROPANE	20.0	86	70 - 130
CIS-1,3-DICHLOROPROPENE	20.0	91	70 - 130
TRANS-1,3-DICHLOROPROPENE	20.0	91	70 - 130
ETHYLBENZENE	20.0	80	70 - 130
2-HEXANONE	20.0	104	70 - 130
METHYLENE CHLORIDE	20.0	89	70 - 130
4-METHYL-2-PENTANONE (MIBK)	20.0	106	70 - 130
STYRENE	20.0	86	70 - 130
1,1,2,2-TETRACHLOROETHANE	20.0	86	70 - 130
TETRACHLOROETHENE	20.0	87	70 - 130
TOLUENE	20.0	83	70 - 130
1,1,1-TRICHLOROETHANE	20.0	84	70 - 130
1,1,2-TRICHLOROETHANE	20.0	90	70 - 130
TRICHLOROETHENE	20.0	82	70 - 130
VINYL CHLORIDE	20.0	92	70 - 130
O-XYLENE	20.0	81	70 - 130
M+P-XYLENE	40.0	83	70 - 130

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

MET BLK1

Lab Name: CAS/ROCH Contract: TTEM-KS

Lab Code: 10145 Case No.: R22-1040 SAS No.: SDG No.: HWSC-W

Lab File ID: B9347.D Lab Sample ID: 527104 1.0

Date Analyzed: 01/25/02 Time Analyzed: 10:02

GC Column: DB-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

Instrument ID: MS#3

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LCS1	527105 1.0	B9349.D	11:15
02	HWSC-WW	525947 1.0	B9352.D	13:06
03	HWSC-WW-FD	525948 1.0	B9353.D	13:43
04	RINSATE-6	525951 1.0	B9354.D	14:19
05	RINSATE-S3	525987 1.0	B9355.D	14:56
06	SAG GW-1 D	526000 1.0	B9356.D	15:32
07	SAG GW-1	526001 1.0	B9357.D	16:09
08	RINSATE-S7	526008 1.0	B9358.D	16:45
09	OS-GGW-4	526009 1.0	B9359.D	17:21
10	SI-GGW-2	526010 1.0	B9360.D	17:58
11	HWSC-WW(MS)	527106 1.0	B9361.D	18:34
12	HWSC-WW(MSD)	527107 1.0	B9362.D	19:10

COMMENTS

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

MET BLK2

Lab Name: CAS/ROCH Contract: TTEM-KS

Lab Code: 10145 Case No.: R22-1040 SAS No.: _____ SDG No.: HWSC-W

Lab File ID: B9392.D Lab Sample ID: 527427 1.0

Date Analyzed: 01/28/02 Time Analyzed: 09:57

GC Column: DB-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

Instrument ID: MS#3

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LCS2	527428 1.0	B9393.D	10:34
02	SI-GGW-3-FD	526011 1.0	B9396.D	12:23
03	SI-GGW-1	526012 1.0	B9397.D	12:59
04	OS-GGW-3	526013 1.0	B9398.D	13:35
05	TRIP BLANK	526017 1.0	B9399.D	14:12
06	SI-GGW-3	526020 1.0	B9400.D	14:48
07	SI-GGW-1	526021 1.0	B9401.D	15:25
08	OS-GGW-2	526022 1.0	B9402.D	16:02
09	SI-GGW-4	526023 1.0	B9403.D	16:39
10	SMWB-WW	526024 2.0	B9404.D	17:16
11	SI-GGW-2(MS)	527429 1.0	B9407.D	19:05
12	SI-GGW-2(MSD)	527430 1.0	B9408.D	19:42

COMMENTS

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: CAS/ROCH Contract: TTEM-KS

Lab Code: 10145 Case No.: R22-1040 SAS No.: SDG No.: HWSC-W

Lab File ID: B8384.D BFB Injection Date: 12/17/01

Instrument ID: MS#3 BFB Injection Time: 09:49

GC Column: DB624 ID: 0.20 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	19.9
75	30.0 - 66.0% of mass 95	43.8
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	72.4
175	4.0 - 9.0% of mass 174	5.1 (7.1)1
176	93.0 - 101.0% of mass 174	69.8 (96.5)1
177	5.0 - 9.0% of mass 176	4.6 (6.6)2

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

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

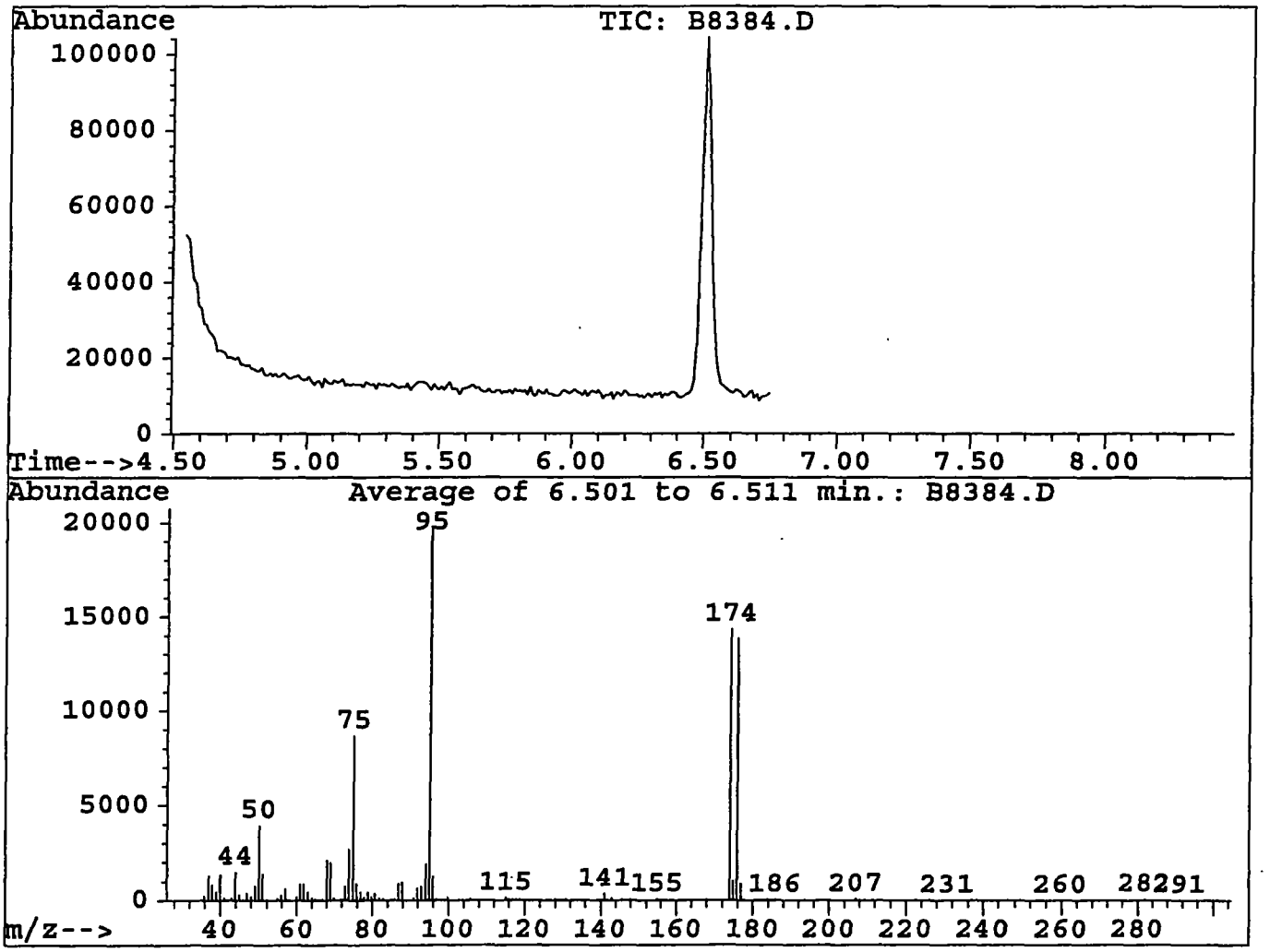
	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	001	1 PPB	B8386.D	12/17/01	11:01
02	005	5 PPB	B8387.D	12/17/01	11:39
03	020	20 PPB	B8388.D	12/17/01	12:15
04	050	50 PPB	B8389.D	12/17/01	12:52
05	100	100 PPB	B8390.D	12/17/01	13:28
06	150	150 PPB	B8391.D	12/17/01	14:05
07	200	200 PPB	B8392.D	12/17/01	14:42

BFB

Data File : J:\ACQUDATA\MSVOA3\DATA\121701\B8384.D
Acq On : 17 Dec 101 9:49 am
Sample : tune
Misc :

Vial: 2
Operator: droot
Inst : 5971 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\EXP1127W.M
Title : 8260B VOA COMPOUNDS GCMS#1



Peak Apex is scan: 199

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.9	3947	PASS
75	95	30	60	43.8	8675	PASS
95	95	100	100	100.0	19812	PASS
96	95	5	9	6.5	1284	PASS
173	174	0	2	0.0	0	PASS
174	95	50	100	72.4	14338	PASS
175	174	5	9	7.1	1014	PASS
176	174	95	101	96.5	13835	PASS
177	176	5	9	6.6	912	PASS

B8384.D EXP1127W.M Mon Dec 17 09:57:22 2001

12/17 34

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CAS/ROCH Contract: TTEM-KS

Lab Code: 10145 Case No.: R22-1040 SAS No.: _____ SDG No.: HWSC-W

Lab File ID: B9343.D BFB Injection Date: 01/25/02

Instrument ID: MS#3 BFB Injection Time: 07:37

GC Column: DB-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	21.1
75	30.0 - 66.0% of mass 95	40.6
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	8.3
173	Less than 2.0% of mass 174	1.1 (1.4)1
174	50.0 - 120.0% of mass 95	78.6
175	4.0 - 9.0% of mass 174	4.7 (6.0)1
176	93.0 - 101.0% of mass 174	79.0 (100.5)1
177	5.0 - 9.0% of mass 176	5.2 (6.6)2

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

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

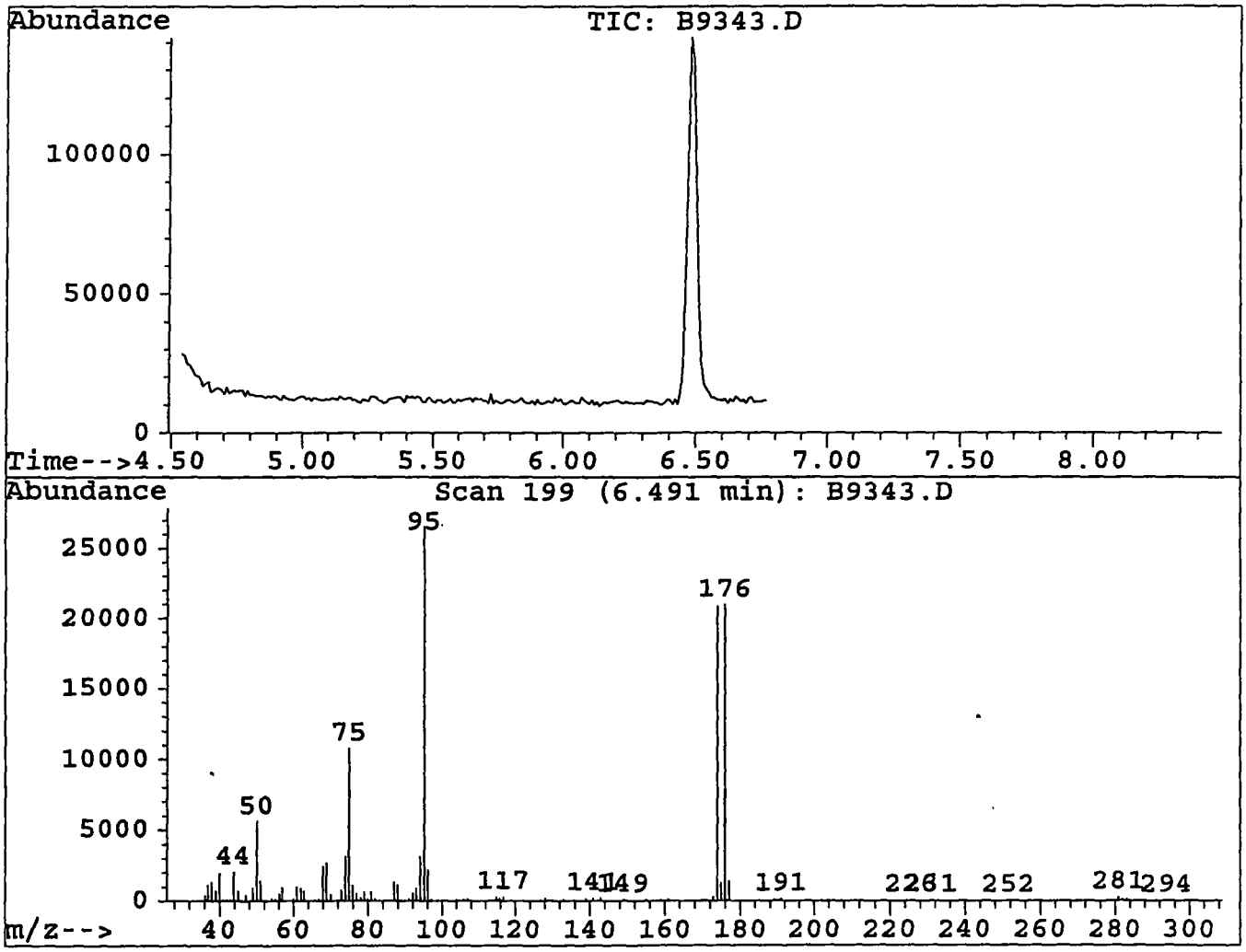
	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	CCV1	CCV	B9345.D	01/25/02	08:49
02	MET BLK1	527104 1.0	B9347.D	01/25/02	10:02
03	LCS1	527105 1.0	B9349.D	01/25/02	11:15
04	HWSC-WW	525947 1.0	B9352.D	01/25/02	13:06
05	HWSC-WW-FD	525948 1.0	B9353.D	01/25/02	13:43
06	RINSATE-6	525951 1.0	B9354.D	01/25/02	14:19
07	RINSATE-S3	525987 1.0	B9355.D	01/25/02	14:56
08	SAG GW-1 D	526000 1.0	B9356.D	01/25/02	15:32
09	SAG GW-1	526001 1.0	B9357.D	01/25/02	16:09
10	RINSATE-S7	526008 1.0	B9358.D	01/25/02	16:45
11	OS-GGW-4	526009 1.0	B9359.D	01/25/02	17:21
12	SI-GGW-2	526010 1.0	B9360.D	01/25/02	17:58
13	HWSC-WW(MS)	527106 1.0	B9361.D	01/25/02	18:34
14	HWSC-WW(MSD)	527107 1.0	B9362.D	01/25/02	19:10

BFB

Data File : J:\ACQUDATA\MSVOA3\DATA\012502\B9343.D
Acq On : 25 Jan 102 7:37 am
Sample : TUNE
Misc :

Vial: 1
Operator: droot
Inst : 5971 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa



Peak Apex is scan: 199

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	21.1	5600	PASS
75	95	30	60	40.6	10797	PASS
95	95	100	100	100.0	26576	PASS
96	95	5	9	8.3	2215	PASS
173	174	0	2	1.4	288	PASS
174	95	50	120	78.6	20888	PASS
175	174	5	9	6.0	1256	PASS
176	174	95	101	100.5	20992	PASS
177	176	5	9	6.6	1388	PASS

B9343.D EXP1217.M Fri Jan 25 07:44:53 2002

1/25

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CAS/ROCH Contract: TTEM-KS

Lab Code: 10145 Case No.: R22-1040 SAS No.: _____ SDG No.: HWSC-W

Lab File ID: B9389.D BFB Injection Date: 01/28/02

Instrument ID: MS#3 BFB Injection Time: 08:09

GC Column: DB-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	23.2
75	30.0 - 66.0% of mass 95	42.4
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.3
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	59.7
175	4.0 - 9.0% of mass 174	3.5 (5.9)1
176	93.0 - 101.0% of mass 174	57.8 (96.8)1
177	5.0 - 9.0% of mass 176	4.0 (7.0)2

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

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

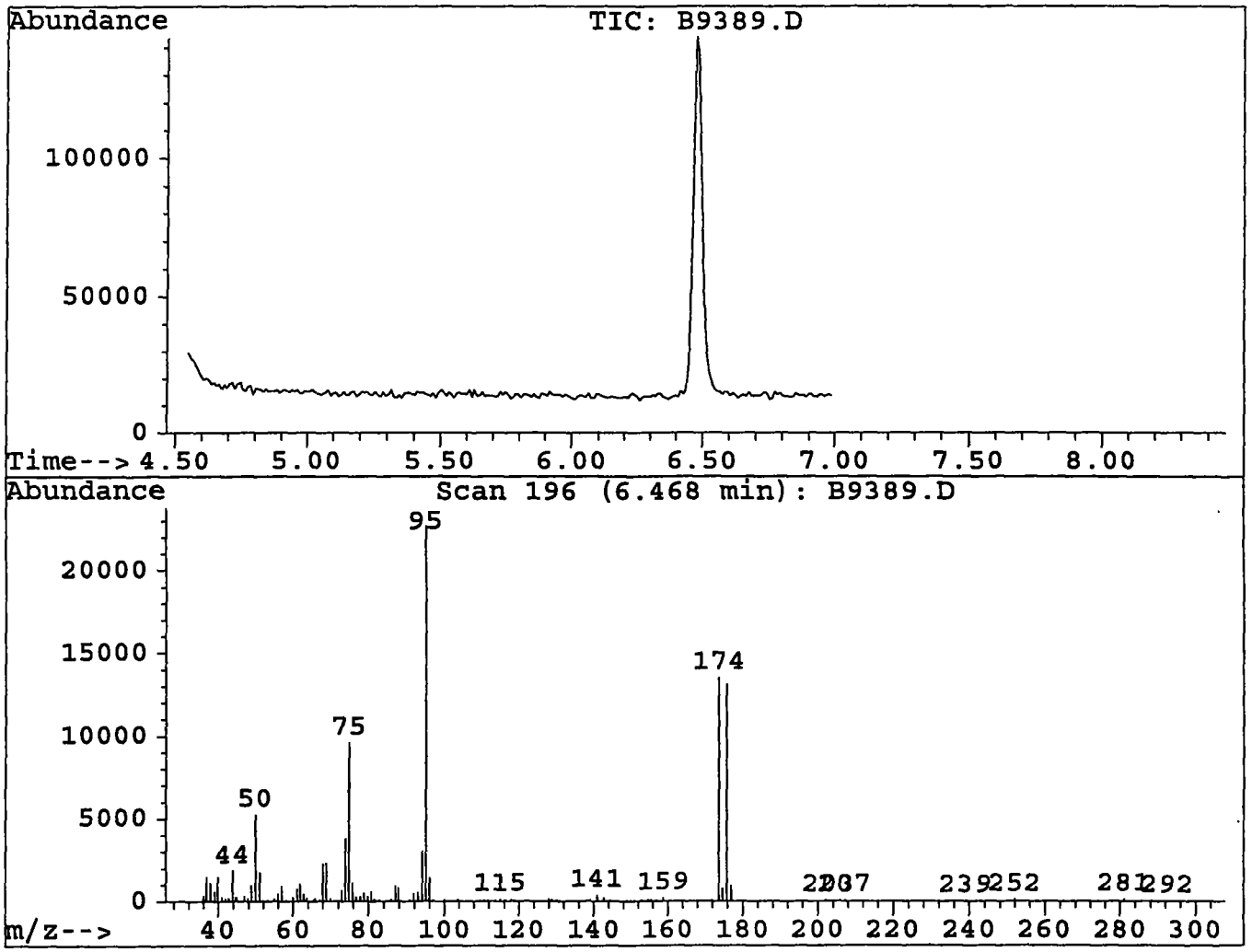
	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	CCV2	CCV	B9390.D	01/28/02	08:45
02	MET BLK2	527427 1.0	B9392.D	01/28/02	09:57
03	LCS2	527428 1.0	B9393.D	01/28/02	10:34
04	SI-GGW-3-FD	526011 1.0	B9396.D	01/28/02	12:23
05	SI-GGW-1	526012 1.0	B9397.D	01/28/02	12:59
06	OS-GGW-3	526013 1.0	B9398.D	01/28/02	13:35
07	TRIP BLANK	526017 1.0	B9399.D	01/28/02	14:12
08	SI-GGW-3	526020 1.0	B9400.D	01/28/02	14:48
09	SI-GGW-1	526021 1.0	B9401.D	01/28/02	15:25
10	OS-GGW-2	526022 1.0	B9402.D	01/28/02	16:02
11	SI-GGW-4	526023 1.0	B9403.D	01/28/02	16:39
12	SMWB-WW	526024 2.0	B9404.D	01/28/02	17:16
13	SI-GGW-2(MS)	527429 1.0	B9407.D	01/28/02	19:05
14	SI-GGW-2(MSD)	527430 1.0	B9408.D	01/28/02	19:42

BFB

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9389.D
Acq On : 28 Jan 102 8:09 am
Sample : TUNE
Misc :

Vial: 2
Operator: droot
Inst : 5971 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa



Peak Apex is scan: 196

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	23.2	5260	PASS
75	95	30	60	42.4	9602	PASS
95	95	100	100	100.0	22672	PASS
96	95	5	9	6.3	1430	PASS
173	174	0	2	0.0	0	PASS
174	95	50	120	59.7	13535	PASS
175	174	5	9	5.9	793	PASS
176	174	95	101	96.8	13097	PASS
177	176	5	9	7.0	914	PASS

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CAS/ROCH Contract: TTEM-KS

Lab Code: 10145 Case No.: R22-1040 SAS No.: _____ SDG No.: HWSC-W

Lab File ID (Standard): B9345.D Date Analyzed: 01/25/02

Instrument ID: MS#3 Time Analyzed: 08:49

GC Column: DB-624 ID: 0.32 (mm) Heated Purge (Y/N): N

		IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	786671	7.37	1500701	8.55	1192806	13.64
	UPPER LIMIT	1573342	6.87	3001402	8.05	2385612	13.14
	LOWER LIMIT	393336	7.87	750351	9.05	596403	14.14
	EPA SAMPLE NO.						
01	MET BLK1	784151	7.37	1493787	8.55	1203227	13.63
02	LCS1	788445	7.36	1477587	8.54	1188312	13.63
03	HWSC-WW	811437	7.36	1524671	8.54	1212501	13.62
04	HWSC-WW-F	794084	7.36	1493047	8.53	1168311	13.62
05	RINSATE-6	762715	7.36	1444574	8.54	1161096	13.62
06	RINSATE-S3	757709	7.36	1467695	8.53	1160642	13.62
07	SAG GW-1 D	761353	7.35	1437878	8.53	1154386	13.62
08	SAG GW-1	767458	7.36	1466334	8.54	1154448	13.62
09	RINSATE-S7	759913	7.36	1445122	8.54	1170133	13.62
10	OS-GGW-4	761703	7.35	1444216	8.53	1162764	13.62
11	SI-GGW-2	755322	7.36	1430304	8.54	1161404	13.62
12	HWSC-WW(M	784497	7.35	1471260	8.54	1177642	13.61
13	HWSC-WW(M	775710	7.36	1476869	8.53	1183551	13.62

IS1 = Pentafluorobenzene
IS2 = 1,4 - Difluorobenzene
IS3 = d5 - Chlorobenzene
IS4 = d4 - Dichlorobenzene

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

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CAS/ROCH Contract: TTEM-KS

Lab Code: 10145 Case No.: R22-1040 SAS No.: _____ SDG No.: HWSC-W

Lab File ID (Standard): B9345.D Date Analyzed: 01/25/02

Instrument ID: MS#3 Time Analyzed: 08:49

GC Column: DB-624 ID: 0.32 (mm) Heated Purge (Y/N): N

		IS4 AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	446253	18.08				
	UPPER LIMIT	892506	17.58				
	LOWER LIMIT	223127	18.58				
	EPA SAMPLE NO.						
01	MET BLK1	423161	18.08				
02	LCS1	425404	18.07				
03	HWSC-WW	459927	18.07				
04	HWSC-WW-F	412355	18.07				
05	RINSATE-6	420765	18.07				
06	RINSATE-S3	456384	18.06				
07	SAG GW-1 D	450142	18.06				
08	SAG GW-1	419988	18.07				
09	RINSATE-S7	435804	18.06				
10	OS-GGW-4	417033	18.06				
11	SI-GGW-2	429552	18.06				
12	HWSC-WW(M	433173	18.06				
13	HWSC-WW(M	497104	18.06				

IS1 = Pentafluorobenzene
IS2 = 1,4 - Difluorobenzene
IS3 = d5 - Chlorobenzene
IS4 = d4 - Dichlorobenzene

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

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CAS/ROCH Contract: TTEM-KS

Lab Code: 10145 Case No.: R22-1040 SAS No.: _____ SDG No.: HWSC-W

Lab File ID (Standard): B9390.D Date Analyzed: 01/28/02

Instrument ID: MS#3 Time Analyzed: 08:45

GC Column: DB-624 ID: 0.32 (mm) Heated Purge (Y/N): N

		IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	772235	7.36	1482438	8.54	1201478	13.62
	UPPER LIMIT	1544470	6.86	2964876	8.04	2402956	13.12
	LOWER LIMIT	386118	7.86	741219	9.04	600739	14.12
	EPA SAMPLE NO.						
01	MET BLK2	786950	7.36	1465406	8.54	1206242	13.62
02	LCS2	764021	7.36	1430379	8.54	1187434	13.62
03	SI-GGW-3-FD	753235	7.36	1442542	8.54	1191175	13.63
04	SI-GGW-1	739557	7.36	1414886	8.54	1173188	13.63
05	OS-GGW-3	737582	7.36	1429980	8.54	1161302	13.63
06	TRIP BLANK	738964	7.36	1416175	8.54	1150247	13.62
07	SI-GGW-3	719854	7.36	1404262	8.54	1139086	13.63
08	SI-GGW-1	735492	7.36	1415702	8.54	1145016	13.62
09	OS-GGW-2	726089	7.36	1394637	8.54	1136331	13.63
10	SI-GGW-4	728276	7.37	1386911	8.54	1142362	13.63
11	SMWB-WW	719194	7.36	1400851	8.54	1115690	13.62
12	SI-GGW-2(MS	740684	7.36	1417568	8.54	1145638	13.63
13	SI-GGW-2(MS	765685	7.37	1475915	8.55	1201686	13.63

IS1 = Pentafluorobenzene
IS2 = 1,4 - Difluorobenzene
IS3 = d5 - Chlorobenzene
IS4 = d4 - Dichlorobenzene

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

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CAS/ROCH Contract: TTEM-KS

Lab Code: 10145 Case No.: R22-1040 SAS No.: _____ SDG No.: HWSC-W

Lab File ID (Standard): B9390.D Date Analyzed: 01/28/02

Instrument ID: MS#3 Time Analyzed: 08:45

GC Column: DB-624 ID: 0.32 (mm) Heated Purge (Y/N): N

		IS4 AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	517648	18.07				
	UPPER LIMIT	1035296	17.57				
	LOWER LIMIT	258824	18.57				
	EPA SAMPLE NO.						
01	MET BLK2	443279	18.06				
02	LCS2	469822	18.06				
03	SI-GGW-3-FD	435195	18.07				
04	SI-GGW-1	464140	18.07				
05	OS-GGW-3	450634	18.07				
06	TRIP BLANK	432886	18.07				
07	SI-GGW-3	424780	18.07				
08	SI-GGW-1	443653	18.07				
09	OS-GGW-2	437815	18.07				
10	SI-GGW-4	449183	18.07				
11	SMWB-WW	408113	18.07				
12	SI-GGW-2(MS	471771	18.07				
13	SI-GGW-2(MS	504895	18.08				

IS1 = Pentafluorobenzene
IS2 = 1,4 - Difluorobenzene
IS3 = d5 - Chlorobenzene
IS4 = d4 - Dichlorobenzene

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

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8260 VOLATILE ORGANICS

SAMPLE DATA

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 02/22/02

Tetra Tech EM Inc.
Project Reference: AGROMACK-LOCKWOOD OU#2
Client Sample ID : HWSC-WW

Date Sampled : 01/20/02 15:00 **Order #:** 525947 **Sample Matrix:** WATER
Date Received: 01/23/02 **Submission #:** R2210409 **Analytical Run** 73888

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 01/25/02			
ANALYTICAL DILUTION: 1.00			
ACETONE	10	10 U	UG/L
BENZENE	1.0	1.0 U	UG/L
BROMODICHLOROMETHANE	1.0	1.0 U	UG/L
BROMOFORM	1.0	1.0 U	UG/L
BROMOMETHANE	1.0	1.0 U	UG/L
2-BUTANONE (MEK)	5.0	5.0 U	UG/L
CARBON DISULFIDE	5.0	5.0 U	UG/L
CARBON TETRACHLORIDE	1.0	1.0 U	UG/L
CHLOROBENZENE	1.0	1.0 U	UG/L
CHLOROETHANE	1.0	1.0 U	UG/L
CHLOROFORM	1.0	1.0 U	UG/L
ЧLOROMETHANE	1.0	1.0 U	UG/L
ſBROMOCHLOROMETHANE	1.0	1.0 U	UG/L
1,1-DICHLOROETHANE	1.0	1.0 U	UG/L
1,2-DICHLOROETHANE	1.0	1.0 U	UG/L
1,1-DICHLOROETHENE	1.0	1.0 U	UG/L
CIS-1,2-DICHLOROETHENE	1.0	1.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	1.0	1.0 U	UG/L
1,2-DICHLOROPROPANE	1.0	1.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	1.0	1.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	1.0	1.0 U	UG/L
ETHYLBENZENE	1.0	1.0 U	UG/L
2-HEXANONE	5.0	5.0 U	UG/L
METHYLENE CHLORIDE	1.0	1.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	5.0	5.0 U	UG/L
STYRENE	1.0	1.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	1.0	1.0 U	UG/L
TETRACHLOROETHENE	1.0	1.0 U	UG/L
TOLUENE	1.0	1.0 U	UG/L
1,1,1-TRICHLOROETHANE	1.0	1.0 U	UG/L
1,1,2-TRICHLOROETHANE	1.0	1.0 U	UG/L
TRICHLOROETHENE	1.0	1.0 U	UG/L
VINYL CHLORIDE	1.0	1.0 U	UG/L
O-XYLENE	1.0	1.0 U	UG/L
M+P-XYLENE	1.0	1.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(87 - 111 %)	102	%
TOLUENE-D8	(87 - 108 %)	107	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	96	%

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012502\B9352.D Vial: 4
Acq On : 25 Jan 102 1:06 pm Operator: droot
Sample : 525947 1.0 Inst : 5971 - In
Misc : TTEM-KS R22-10409 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 25 13:33 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration

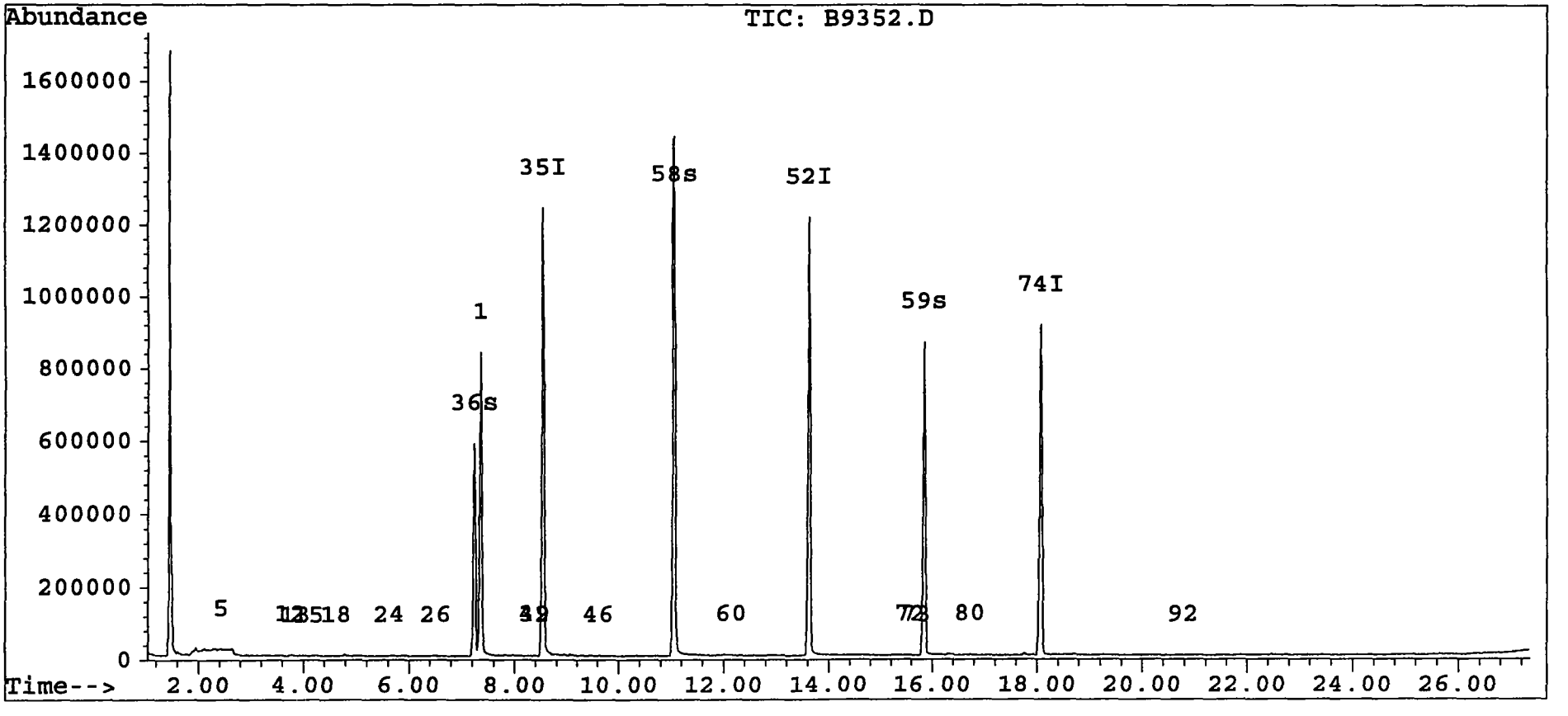
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	7.36	168	811437	50.00 ppb	-0.04
35) 1,4 - Difluorobenzene	8.54	114	1524671	50.00 ppb	-0.04
52) d5 - Chlorobenzene	13.62	117	1212501	50.00 ppb	-0.05
74) d4 - Dichlorobenzene	18.07	152	459927	50.00 ppb	-0.04
System Monitoring Compounds					%Recovery
36) surr4,Dibrflmethane	7.23	113	521433	47.76 ppb	95.52%
58) surr3,Toluene-d8	11.05	98	1511785	53.29 ppb	106.59%
59) surr2,bfb	15.84	95	583302	51.08 ppb	102.16%
Target Compounds					Qvalue
5) Bromomethane	2.42	94	3087	0.56 ppb #	13
12) Acetone	3.75	43	7323	2.10 ppb	90
13) Iodomethane	3.86	127	517	4.45 ppb	1
15) Acetonitrile	4.11	41	179	0.46 ppb #	1
18) TBA	4.63	59	672	0.70 ppb #	66
24) 2-Chloro-1,3-butadiene	5.63	53	275	1.20 PPB	92
26) 2-Butanone	6.51	43	2933	0.47 ppb	98
39) Iso-Butyl Alcohol	8.39	43	2636	7.45 ppb	100
42) N-Heptane	8.39	43	3145	0.44 ppb #	66
46) 1,4-Dioxane	9.63	88	533	5.51 ppb	84
60) Tetrachloroethene	12.14	166	332	4.30 ppb #	47
72) Isopropylbenzene	15.57	105	1021	3.32 ppb	91
73) Cyclohexanone	15.70	55	659	0.78 ppb	97
80) 1,3,5-Trimethylbenzene	16.73	105	276	3.75 ppb #	80
92) Nitrobenzene	20.78	77	430	9.10 ppb #	38

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012502\B9352.D Vial: 4
Acq On : 25 Jan 102 1:06 pm Operator: droot
Sample : 525947 1.0 Inst : 5971 - In
Misc : TTEM-KS R22-10409 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 25 13:33 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 02/22/02

Tetra Tech EM Inc.
Project Reference: AGROMACK-LOCKWOOD OU#2
Client Sample ID : HWSC-WW-FD

Date Sampled : 01/20/02 15:00 **Order #:** 525948 **Sample Matrix:** WATER
Date Received: 01/23/02 **Submission #:** R2210409 **Analytical Run** 73888

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 01/25/02			
ANALYTICAL DILUTION: 1.00			
ACETONE	10	10 U	UG/L
BENZENE	1.0	1.0 U	UG/L
BROMODICHLOROMETHANE	1.0	1.0 U	UG/L
BROMOFORM	1.0	1.0 U	UG/L
BROMOMETHANE	1.0	1.0 U	UG/L
2-BUTANONE (MEK)	5.0	5.0 U	UG/L
CARBON DISULFIDE	5.0	5.0 U	UG/L
CARBON TETRACHLORIDE	1.0	1.0 U	UG/L
CHLOROBENZENE	1.0	1.0 U	UG/L
CHLOROETHANE	1.0	1.0 U	UG/L
CHLOROFORM	1.0	1.0 U	UG/L
CHLOROMETHANE	1.0	1.0 U	UG/L
DIBROMOCHLOROMETHANE	1.0	1.0 U	UG/L
1,1-DICHLOROETHANE	1.0	1.0 U	UG/L
1,2-DICHLOROETHANE	1.0	1.0 U	UG/L
1,1-DICHLOROETHENE	1.0	1.0 U	UG/L
CIS-1,2-DICHLOROETHENE	1.0	1.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	1.0	1.0 U	UG/L
1,2-DICHLOROPROPANE	1.0	1.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	1.0	1.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	1.0	1.0 U	UG/L
ETHYLBENZENE	1.0	1.0 U	UG/L
2-HEXANONE	5.0	5.0 U	UG/L
METHYLENE CHLORIDE	1.0	1.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	5.0	5.0 U	UG/L
STYRENE	1.0	1.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	1.0	1.0 U	UG/L
TETRACHLOROETHENE	1.0	1.0 U	UG/L
TOLUENE	1.0	1.0 U	UG/L
1,1,1-TRICHLOROETHANE	1.0	1.0 U	UG/L
1,1,2-TRICHLOROETHANE	1.0	1.0 U	UG/L
TRICHLOROETHENE	1.0	1.0 U	UG/L
VINYL CHLORIDE	1.0	1.0 U	UG/L
O-XYLENE	1.0	1.0 U	UG/L
M+P-XYLENE	1.0	1.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(87 - 111 %)	99	%
TOLUENE-D8	(87 - 108 %)	105	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	98	%

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012502\B9353.D Vial: 5
Acq On : 25 Jan 102 1:43 pm Operator: droot
Sample : 525948 1.0 Inst : 5971 - In
Misc : TTEM-KS R22-10409 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 25 14:11 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration

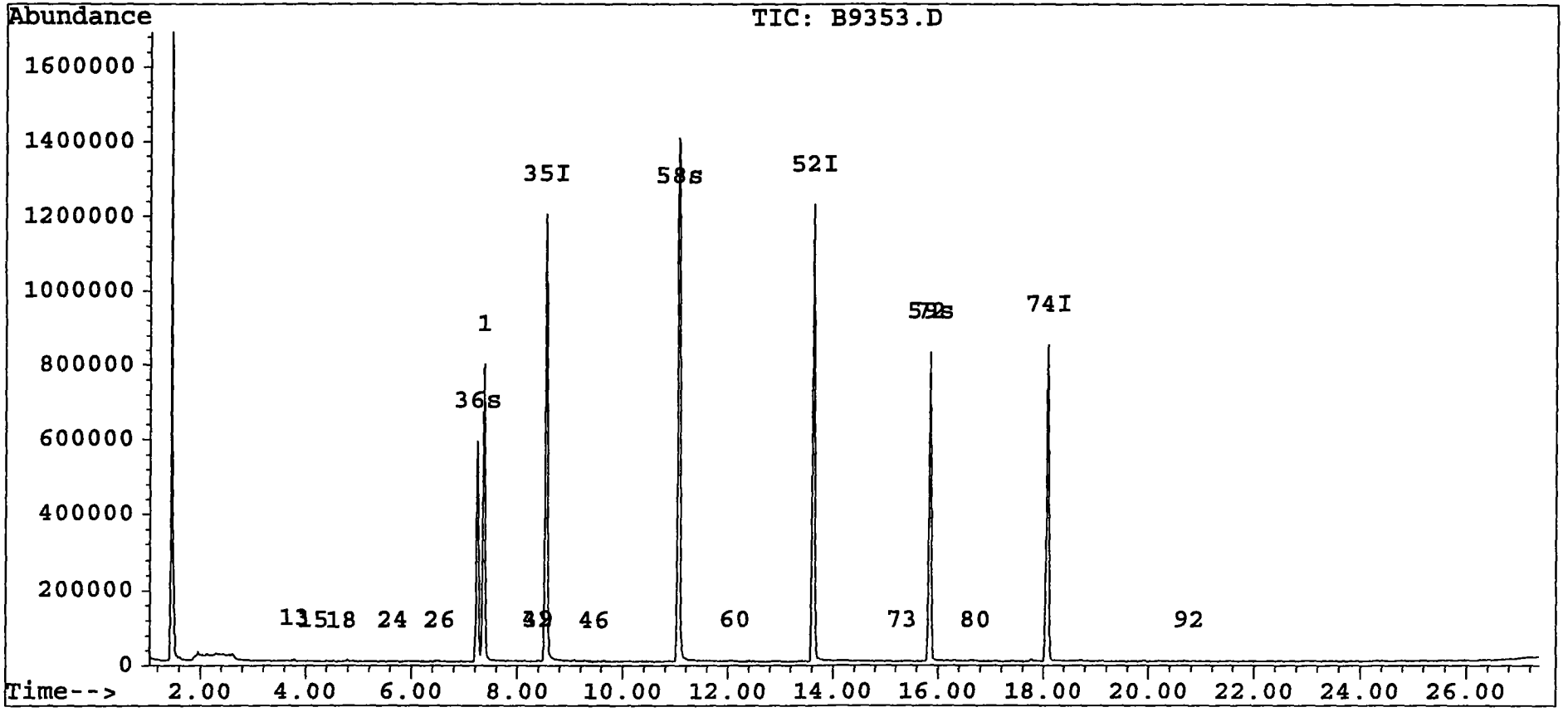
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	7.36	168	794084	50.00	ppb		-0.04
35) 1,4 - Difluorobenzene	8.53	114	1493047	50.00	ppb		-0.05
52) d5 - Chlorobenzene	13.62	117	1168311	50.00	ppb		-0.05
74) d4 - Dichlorobenzene	18.07	152	412355	50.00	ppb		-0.04
System Monitoring Compounds							%Recovery
36) surr4,Dibrflmethane	7.23	113	518834	48.77	ppb		97.53%
58) surr3,Toluene-d8	11.04	98	1440615	52.53	ppb		105.05%
59) surr2,bfb	15.84	95	550331	49.63	ppb		99.25%
Target Compounds							Qvalue
13) Iodomethane	3.80	127	169	4.37	ppb		1
15) Acetonitrile	4.14	41	391	1.02	ppb	#	1
18) TBA	4.69	59	1273	1.36	ppb	#	66
24) 2-Chloro-1,3-butadiene	5.65	53	595	1.23	PPB	#	60
26) 2-Butanone	6.54	43	2804	0.46	ppb		99
39) Iso-Butyl Alcohol	8.40	43	3137	9.05	ppb		97
42) N-Heptane	8.40	43	2781	0.40	ppb	#	67
46) 1,4-Dioxane	9.44	88	103	1.09	ppb		80
60) Tetrachloroethene	12.13	166	353	4.31	ppb	#	1
72) Isopropylbenzene	15.84	105	1002	3.32	ppb		92
73) Cyclohexanone	15.30	55	573	0.71	ppb		85
80) 1,3,5-Trimethylbenzene	16.70	105	343	3.75	ppb	#	57
92) Nitrobenzene	20.75	77	558	9.28	ppb	#	38

1/25

(#) = qualifier out of range (m) = manual integration

Data File : J:\ACQUDATA\MSVOA3\DATA\012502\B9353.. Vial: 5
Acq On : 25 Jan 102 1:43 pm Operator: droot
Sample : 525948 1.0 Inst : 5971 - In
Misc : TTEM-KS R22-10409 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 25 14:11 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 02/22/02

Tetra Tech EM Inc.
Project Reference: AGROMACK-LOCKWOOD OU#2
Client Sample ID : RINSATE-6

Date Sampled : 01/20/02 17:15 **Order #:** 525951 **Sample Matrix:** WATER
Date Received: 01/23/02 **Submission #:** R2210409 **Analytical Run** 73888

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 01/25/02			
ANALYTICAL DILUTION: 1.00			
ACETONE	10	10 U	UG/L
BENZENE	1.0	1.0 U	UG/L
BROMODICHLOROMETHANE	1.0	1.0 U	UG/L
BROMOFORM	1.0	1.0 U	UG/L
BROMOMETHANE	1.0	1.0 U	UG/L
2-BUTANONE (MEK)	5.0	5.0 U	UG/L
CARBON DISULFIDE	5.0	5.0 U	UG/L
CARBON TETRACHLORIDE	1.0	1.0 U	UG/L
CHLOROBENZENE	1.0	1.0 U	UG/L
CHLOROETHANE	1.0	1.0 U	UG/L
CHLOROFORM	1.0	1.8 J	UG/L
HLOROMETHANE	1.0	1.0 U	UG/L
BROMOCHLOROMETHANE	1.0	1.0 U	UG/L
1,1-DICHLOROETHANE	1.0	1.0 U	UG/L
1,2-DICHLOROETHANE	1.0	1.0 U	UG/L
1,1-DICHLOROETHENE	1.0	1.0 U	UG/L
CIS-1,2-DICHLOROETHENE	1.0	1.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	1.0	1.0 U	UG/L
1,2-DICHLOROPROPANE	1.0	1.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	1.0	1.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	1.0	1.0 U	UG/L
ETHYLBENZENE	1.0	1.0 U	UG/L
2-HEXANONE	5.0	5.0 U	UG/L
METHYLENE CHLORIDE	1.0	1.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	5.0	5.0 U	UG/L
STYRENE	1.0	1.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	1.0	1.0 U	UG/L
TETRACHLOROETHENE	1.0	1.0 U	UG/L
TOLUENE	1.0	1.0 U	UG/L
1,1,1-TRICHLOROETHANE	1.0	1.0 U	UG/L
1,1,2-TRICHLOROETHANE	1.0	1.0 U	UG/L
TRICHLOROETHENE	1.0	1.0 U	UG/L
VINYL CHLORIDE	1.0	1.0 U	UG/L
O-XYLENE	1.0	1.0 U	UG/L
M+P-XYLENE	1.0	1.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(87 - 111 %)	100	%
TOLUENE-D8	(87 - 108 %)	104	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	102	%

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012502\B9354.D Vial: 6
Acq On : 25 Jan 102 2:19 pm Operator: droot
Sample : 525951 1.0 Inst : 5971 - In
Misc : TTEM-KS R22-10409 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 25 14:47 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration

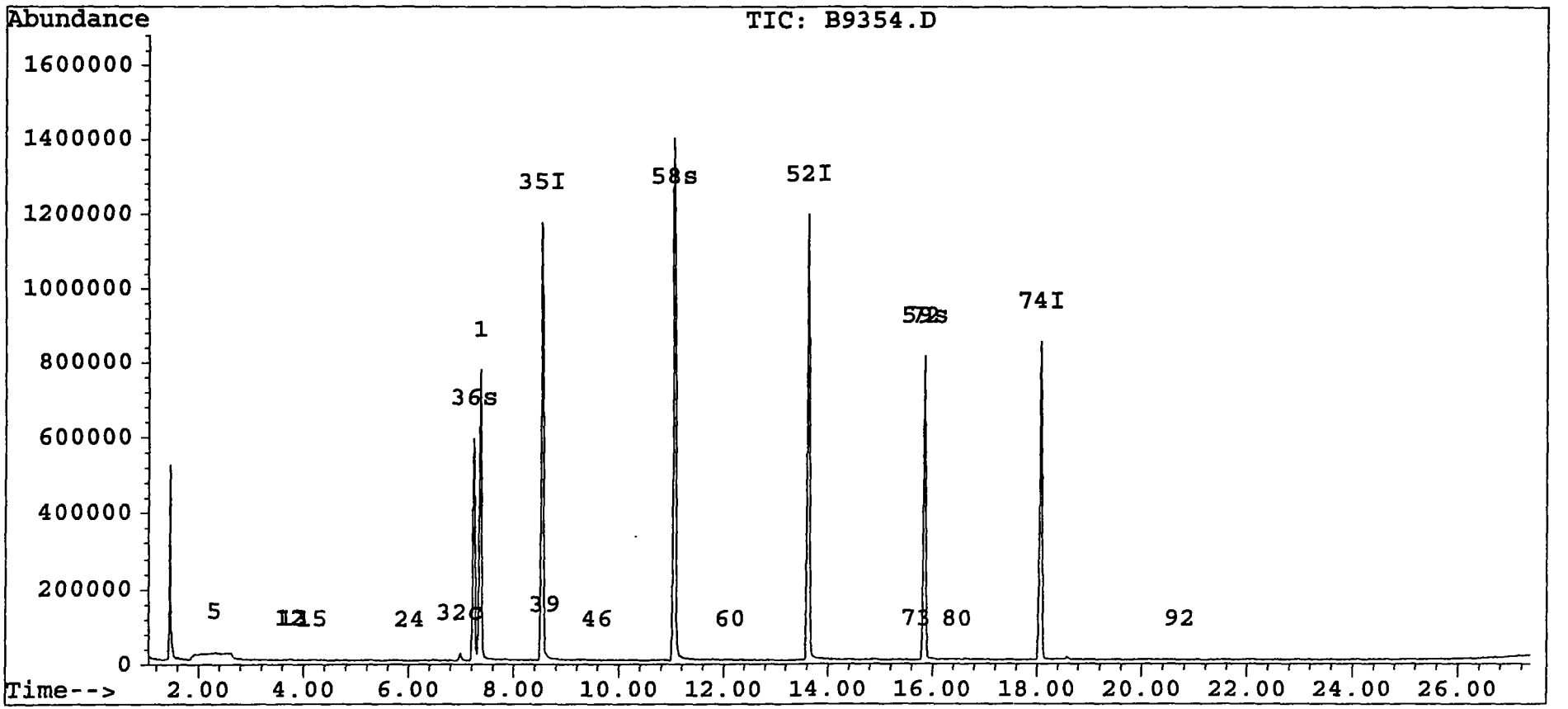
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	7.36	168	762715	50.00	ppb	-0.04
35) 1,4 - Difluorobenzene	8.54	114	1444574	50.00	ppb	-0.04
52) d5 - Chlorobenzene	13.62	117	1161096	50.00	ppb	-0.05
74) d4 - Dichlorobenzene	18.07	152	420765	50.00	ppb	-0.04
System Monitoring Compounds						%Recovery
36) surr4,Dibrflmethane	7.23	113	518589	50.87	ppb	101.74%
58) surr3,Toluene-d8	11.04	98	1420956	52.01	ppb	104.01%
59) surr2,bfb	15.84	95	551178	50.16	ppb	100.31%
Target Compounds						Qvalue
5) Bromomethane	2.30	94	6347	1.23	ppb #	8
12) Acetone	3.75	43	7799	2.38	ppb	90
13) Iodomethane	3.81	127	396	4.43	ppb	5
15) Acetonitrile	4.17	41	879	2.39	ppb #	1
24) 2-Chloro-1,3-butadiene	6.02	53	276	1.21	PPB	91
32) Chloroform	6.99	83	22220	1.85	ppb	99 (3)
39) Iso-Butyl Alcohol	8.60	43	251	0.75	ppb	94
46) 1,4-Dioxane	9.58	88	203	2.22	ppb	94
60) Tetrachloroethene	12.14	166	302	4.30	ppb	88
72) Isopropylbenzene	15.85	105	770	3.31	ppb	100
73) Cyclohexanone	15.68	55	544	0.68	ppb	91
80) 1,3,5-Trimethylbenzene	16.47	105	77	3.74	ppb	95
92) Nitrobenzene	20.71	77	1094	9.81	ppb #	27

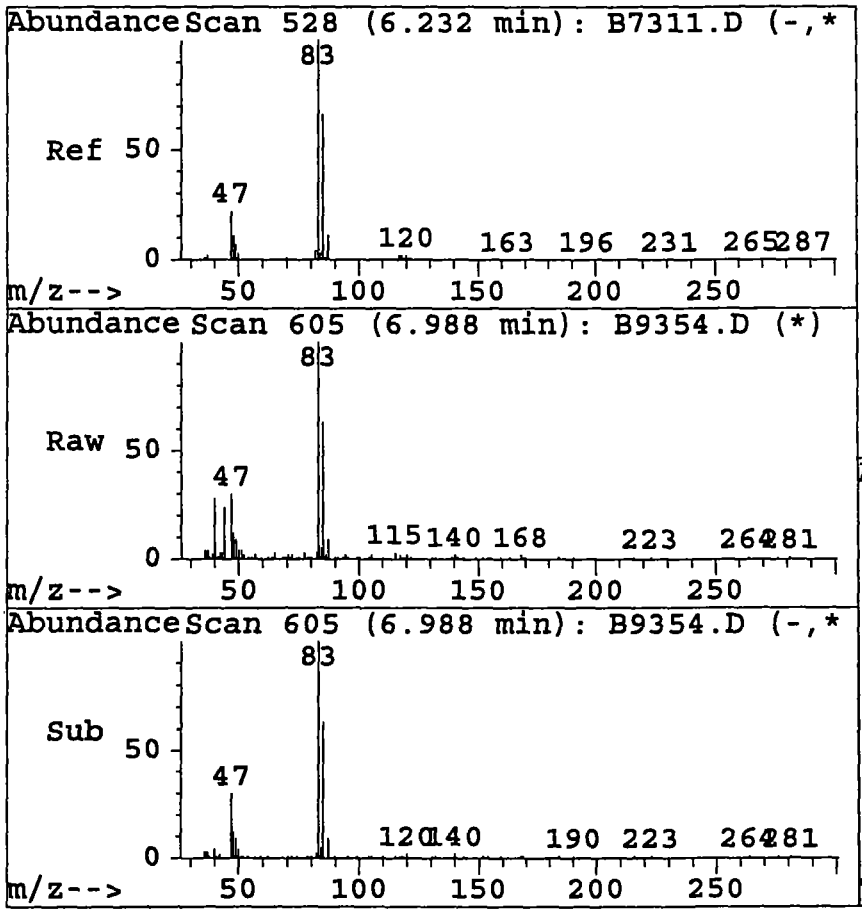
1/25

(#) = qualifier out of range (m) = manual integration

Data File : J:\ACQUDATA\MSVOA3\DATA\012502\B9354.. Vial: 6
Acq On : 25 Jan 102 2:19 pm Operator: droot
Sample : 525951 1.0 Inst : 5971 - In
Misc : TTEM-KS R22-10409 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 25 14:47 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration

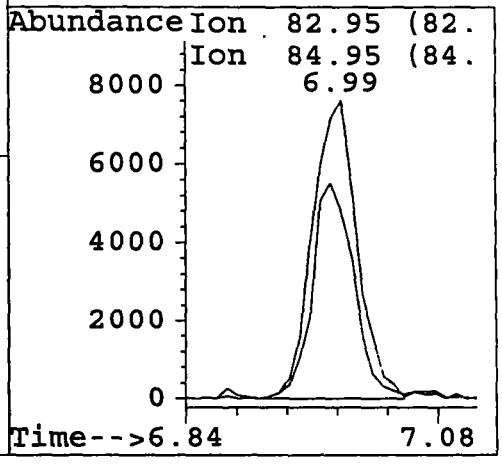




#32
Chloroform
Concen: 1.85 ppb
RT: 6.99 min Scan# 605
Delta R.T. -0.03 min
Lab File: B9354.D
Acq: 25 Jan 102 2:19 pm

Tgt Ion:82.95 Resp: 22220

Ion	Ratio	Lower	Upper
83	100		
85	62.6	51.0	76.5
0	0.0	0.0	0.0
0	0.0	0.0	0.0



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 02/22/02

Tetra Tech EM Inc.
Project Reference: AGROMACK-LOCKWOOD OU#2
Client Sample ID : RINSATE-S3

Date Sampled : 01/18/02 17:10 **Order #:** 525987 **Sample Matrix:** WATER
Date Received: 01/23/02 **Submission #:** R2210409 **Analytical Run** 73888

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 01/25/02			
ANALYTICAL DILUTION: 1.00			
ACETONE	10	10 U	UG/L
BENZENE	1.0	1.0 U	UG/L
BROMODICHLOROMETHANE	1.0	1.0 U	UG/L
BROMOFORM	1.0	1.0 U	UG/L
BROMOMETHANE	1.0	1.0 U	UG/L
2-BUTANONE (MEK)	5.0	5.0 U	UG/L
CARBON DISULFIDE	5.0	5.0 U	UG/L
CARBON TETRACHLORIDE	1.0	1.0 U	UG/L
CHLOROBENZENE	1.0	1.0 U	UG/L
CHLOROETHANE	1.0	1.0 U	UG/L
'LOROFORM	1.0	2.2 J	UG/L
LOROMETHANE	1.0	1.0 U	UG/L
DIBROMOCHLOROMETHANE	1.0	1.0 U	UG/L
1,1-DICHLOROETHANE	1.0	1.0 U	UG/L
1,2-DICHLOROETHANE	1.0	1.0 U	UG/L
1,1-DICHLOROETHENE	1.0	1.0 U	UG/L
CIS-1,2-DICHLOROETHENE	1.0	1.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	1.0	1.0 U	UG/L
1,2-DICHLOROPROPANE	1.0	1.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	1.0	1.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	1.0	1.0 U	UG/L
ETHYLBENZENE	1.0	1.0 U	UG/L
2-HEXANONE	5.0	5.0 U	UG/L
METHYLENE CHLORIDE	1.0	1.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	5.0	5.0 U	UG/L
STYRENE	1.0	1.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	1.0	1.0 U	UG/L
TETRACHLOROETHENE	1.0	1.0 U	UG/L
TOLUENE	1.0	1.0 U	UG/L
1,1,1-TRICHLOROETHANE	1.0	1.0 U	UG/L
1,1,2-TRICHLOROETHANE	1.0	1.0 U	UG/L
TRICHLOROETHENE	1.0	1.0 U	UG/L
VINYL CHLORIDE	1.0	1.0 U	UG/L
O-XYLENE	1.0	1.0 U	UG/L
M+P-XYLENE	1.0	1.0 U	UG/L

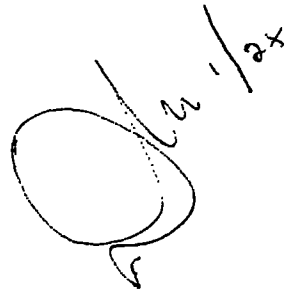
SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(87 - 111 %)	102	%
TOLUENE-D8	(87 - 108 %)	106	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	100	%

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012502\B9355.D Vial: 7
Acq On : 25 Jan 102 2:56 pm Operator: droot
Sample : 525987 1.0 Inst : 5971 - In
Misc : TTEM-KS R22-10409 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 25 15:24 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration

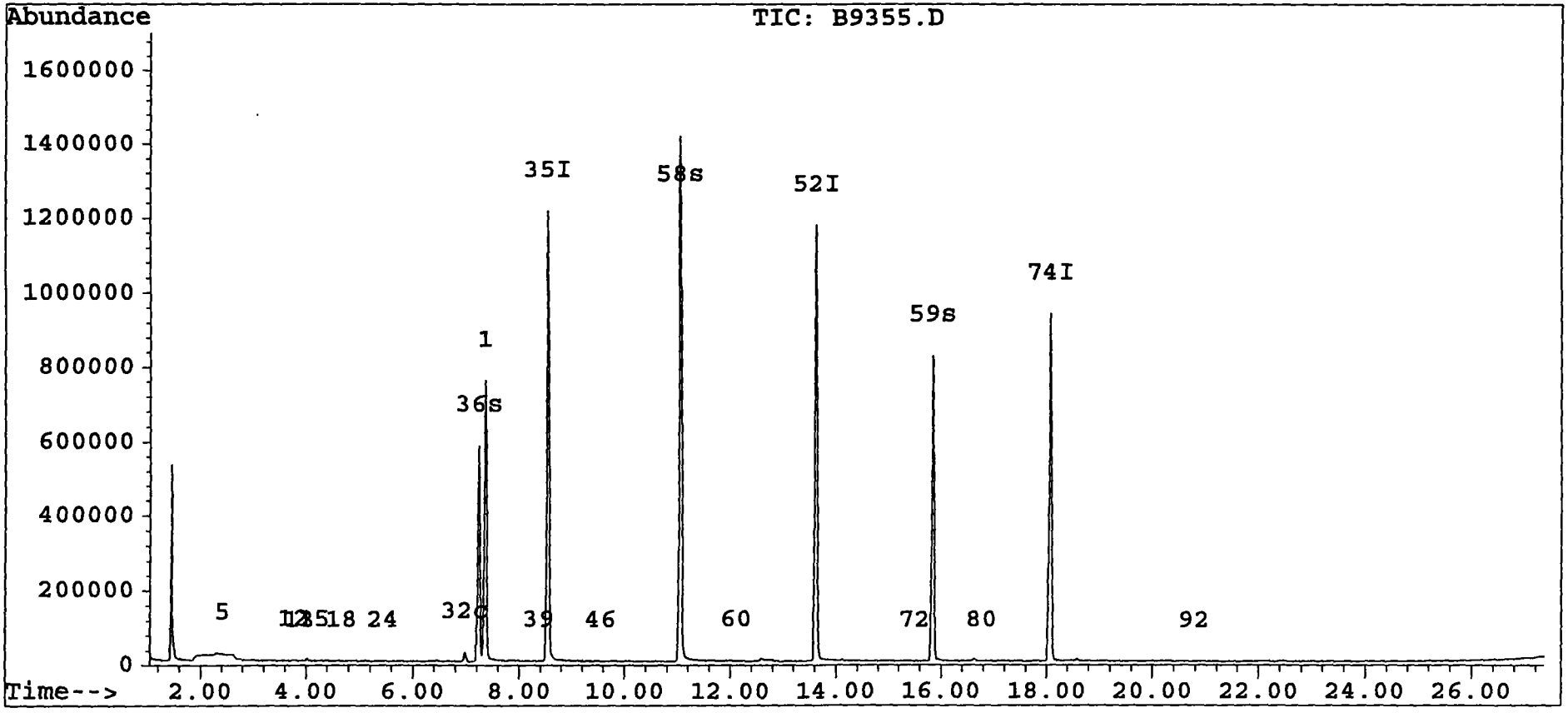
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	7.36	168	757709	50.00	ppb	-0.04
35) 1,4 - Difluorobenzene	8.53	114	1467695	50.00	ppb	-0.05
52) d5 - Chlorobenzene	13.62	117	1160642	50.00	ppb	-0.05
74) d4 - Dichlorobenzene	18.06	152	456384	50.00	ppb	-0.05
System Monitoring Compounds						%Recovery
36) surr4,Dibrflmethane	7.24	113	521371	50.18	ppb	100.36%
58) surr3,Toluene-d8	11.04	98	1441681	53.03	ppb	106.06%
59) surr2,bfb	15.83	95	558733	51.13	ppb	102.25%
Target Compounds						Qvalue
5) Bromomethane	2.42	94	3442	~~0.67~~	~~ppb~~ #	~~12~~
12) Acetone	3.75	43	8489	2.61	ppb	94 <
13) Iodomethane	3.88	127	~~216~~	~~4.38~~	~~ppb~~	~~44~~
15) Acetonitrile	4.14	41	394	~~1.08~~	~~ppb~~ #	~~1~~
18) TBA	4.67	59	627	~~0.70~~	~~ppb~~ #	~~52~~
24) 2-Chloro-1,3-butadiene	5.45	53	100	~~1.19~~	~~PPB~~	~~90~~
32) Chloroform	6.98	83	26786	2.25	ppb	88 <(5)
39) Iso-Butyl Alcohol	8.38	43	1595	~~4.68~~	~~ppb~~	~~98~~
46) 1,4-Dioxane	9.55	88	532	~~5.71~~	~~ppb~~ #	~~12~~
60) Tetrachloroethene	12.12	166	469	~~4.33~~	~~ppb~~ #	~~61~~
72) Isopropylbenzene	15.48	105	172	~~3.29~~	~~ppb~~	~~95~~
80) 1,3,5-Trimethylbenzene	16.75	105	118	~~3.74~~	~~ppb~~ #	~~67~~
92) Nitrobenzene	20.77	77	250	~~8.94~~	~~ppb~~ #	~~27~~

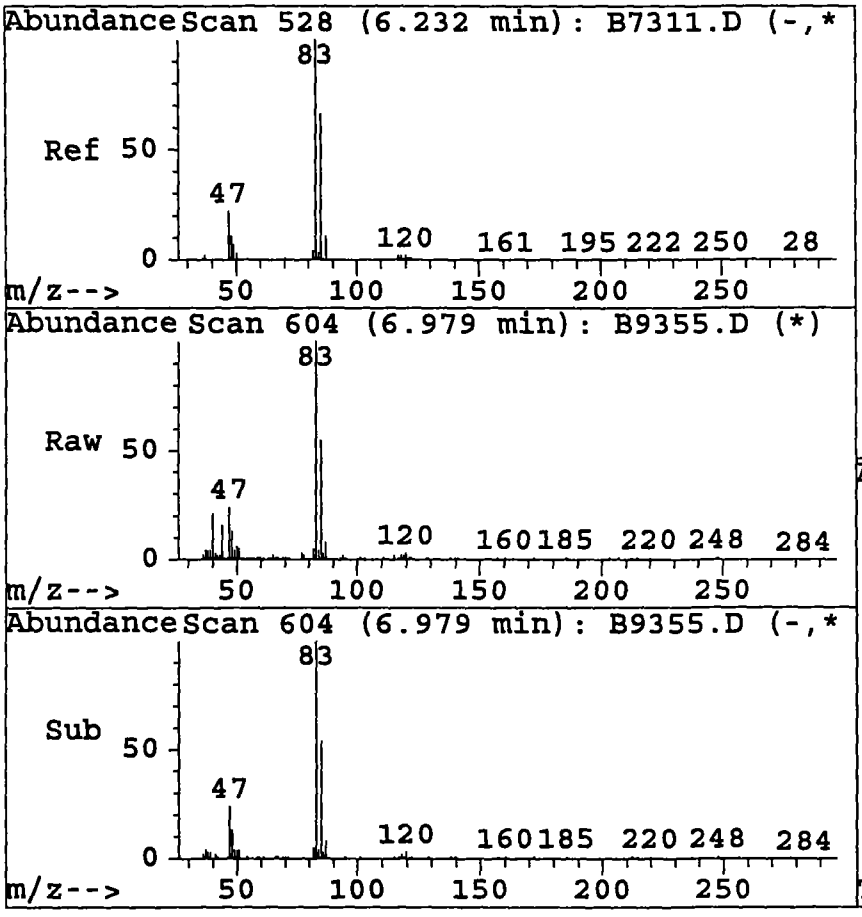


(#) = qualifier out of range (m) = manual integration

Data File : J:\ACQUDATA\MSVOA3\DATA\012502\B9355.D Vial: 7
Acq On : 25 Jan 102 2:56 pm Operator: droot
Sample : 525987 1.0 Inst : 5971 - In
Misc : TTEM-KS R22-10409 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 25 15:24 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration

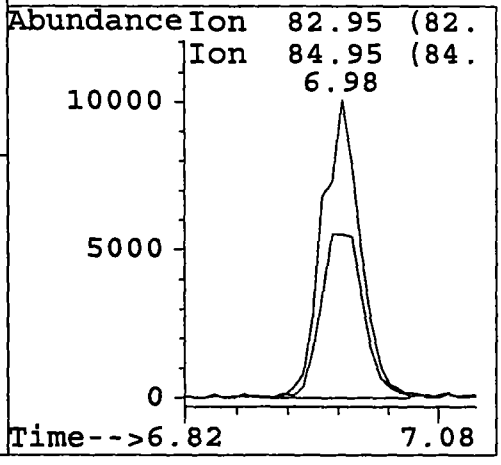




#32
Chloroform
Concen: 2.25 ppb
RT: 6.98 min Scan# 604
Delta R.T. -0.04 min
Lab File: B9355.D
Acq: 25 Jan 102 2:56 pm

Tgt Ion:82.95 Resp: 26786

Ion	Ratio	Lower	Upper
83	100		
85	54.6	51.0	76.5
0	0.0	0.0	0.0
0	0.0	0.0	0.0



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 02/22/02

Tetra Tech EM Inc.
Project Reference: AGROMACK-LOCKWOOD OU#2
Client Sample ID : SAG GW-1 D

Date Sampled : 01/22/02 09:45 **Order #:** 526000 **Sample Matrix:** WATER
Date Received: 01/23/02 **Submission #:** R2210409 **Analytical Run** 73888

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 01/25/02			
ANALYTICAL DILUTION: 1.00			
ACETONE	10	10 U	UG/L
BENZENE	1.0	1.0 U	UG/L
BROMODICHLOROMETHANE	1.0	1.0 U	UG/L
BROMOFORM	1.0	1.0 U	UG/L
BROMOMETHANE	1.0	1.0 U	UG/L
2-BUTANONE (MEK)	5.0	5.0 U	UG/L
CARBON DISULFIDE	5.0	5.0 U	UG/L
CARBON TETRACHLORIDE	1.0	1.0 U	UG/L
CHLOROBENZENE	1.0	1.0 U	UG/L
CHLOROETHANE	1.0	1.0 U	UG/L
CHLOROFORM	1.0	1.0 U	UG/L
HLOROMETHANE	1.0	1.0 U	UG/L
IBROMOCHLOROMETHANE	1.0	1.0 U	UG/L
1,1-DICHLOROETHANE	1.0	1.0 U	UG/L
1,2-DICHLOROETHANE	1.0	1.0 U	UG/L
1,1-DICHLOROETHENE	1.0	1.0 U	UG/L
CIS-1,2-DICHLOROETHENE	1.0	1.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	1.0	1.0 U	UG/L
1,2-DICHLOROPROPANE	1.0	1.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	1.0	1.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	1.0	1.0 U	UG/L
ETHYLBENZENE	1.0	1.0 U	UG/L
2-HEXANONE	5.0	5.0 U	UG/L
METHYLENE CHLORIDE	1.0	1.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	5.0	5.0 U	UG/L
STYRENE	1.0	1.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	1.0	1.0 U	UG/L
TETRACHLOROETHENE	1.0	2.3	UG/L
TOLUENE	1.0	1.0 U	UG/L
1,1,1-TRICHLOROETHANE	1.0	1.0 U	UG/L
1,1,2-TRICHLOROETHANE	1.0	1.0 U	UG/L
TRICHLOROETHENE	1.0	1.0 U	UG/L
VINYL CHLORIDE	1.0	1.0 U	UG/L
O-XYLENE	1.0	1.0 U	UG/L
M+P-XYLENE	1.0	1.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(87 - 111 %)	103	%
TOLUENE-D8	(87 - 108 %)	103	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	101	%

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012502\B9356.D Vial: 8
Acq On : 25 Jan 102 3:32 pm Operator: droot
Sample : 526000 1.0 Inst : 5971 - In
Misc : TTEM-KS R22-10409 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 25 16:00 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	7.35	168	761353	50.00 ppb	-0.05
35) 1,4 - Difluorobenzene	8.53	114	1437878	50.00 ppb	-0.05
52) d5 - Chlorobenzene	13.62	117	1154386	50.00 ppb	-0.05
74) d4 - Dichlorobenzene	18.06	152	450142	50.00 ppb	-0.05
System Monitoring Compounds					%Recovery
36) surr4,Dibrflmethane	7.23	113	511309	50.25 ppb	100.49%
58) surr3,Toluene-d8	11.04	98	1403528	51.56 ppb	103.12%
59) surr2,bfb	15.83	95	557917	51.40 ppb	102.80%
Target Compounds					Qvalue
5) Bromomethane	2.38	94	2297	~~0.45 ppb #~~	~~9~~
12) Acetone	3.75	43	4892	1.50 ppb	93
13) Iodomethane	3.85	127	353	~~4.42 ppb~~	~~1~~
15) Acetonitrile	4.12	41	278	~~0.76 ppb #~~	~~1~~
18) TBA	4.66	59	842	~~0.94 ppb #~~	~~76~~
24) 2-Chloro-1,3-butadiene	5.62	53	510	~~1.23 PPB~~	~~82~~
39) Iso-Butyl Alcohol	8.24	43	552	~~1.65 ppb~~	~~81~~
46) 1,4-Dioxane	9.53	88	447	~~4.90 ppb #~~	~~61~~
60) Tetrachloroethene	12.13	166	12512	~~6.22 ppb~~ 2.3 ~~J~~	92
63) Dibromochloromethane	12.14	129	7679	~~1.05 ppb #~~	~~12~~
72) Isopropylbenzene	15.62	105	~~95~~	~~3.28 ppb~~	~~100~~
73) Cyclohexanone	15.70	55	621	~~0.78 ppb #~~	~~59~~
80) 1,3,5-Trimethylbenzene	16.54	105	262	~~3.75 ppb~~	~~93~~
92) Nitrobenzene	20.76	77	990	~~9.64 ppb #~~	~~27~~

tetrachloroethene value

$$\frac{(\text{Area target})(\text{Amt IS})}{(\text{Area IS})(\bar{RF})} = \frac{12512\ (50)}{1154386\ (.234)} = 2.3\ \cancel{J}\ \text{NO J}$$

CR 2/6

(#) = qualifier out of range (m) = manual integration

B9356.D EXP1217.M Fri Jan 25 16:00:35 2002 Page 1

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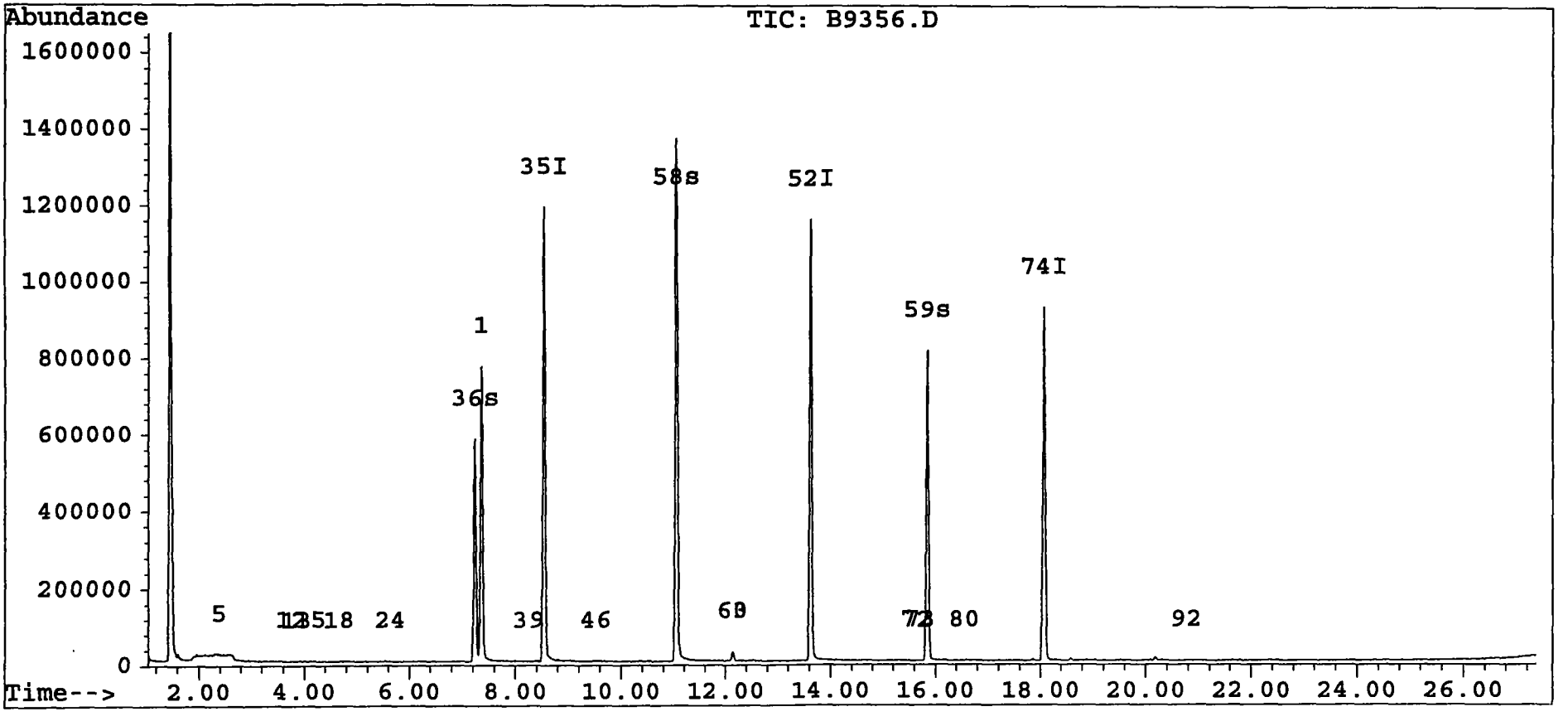
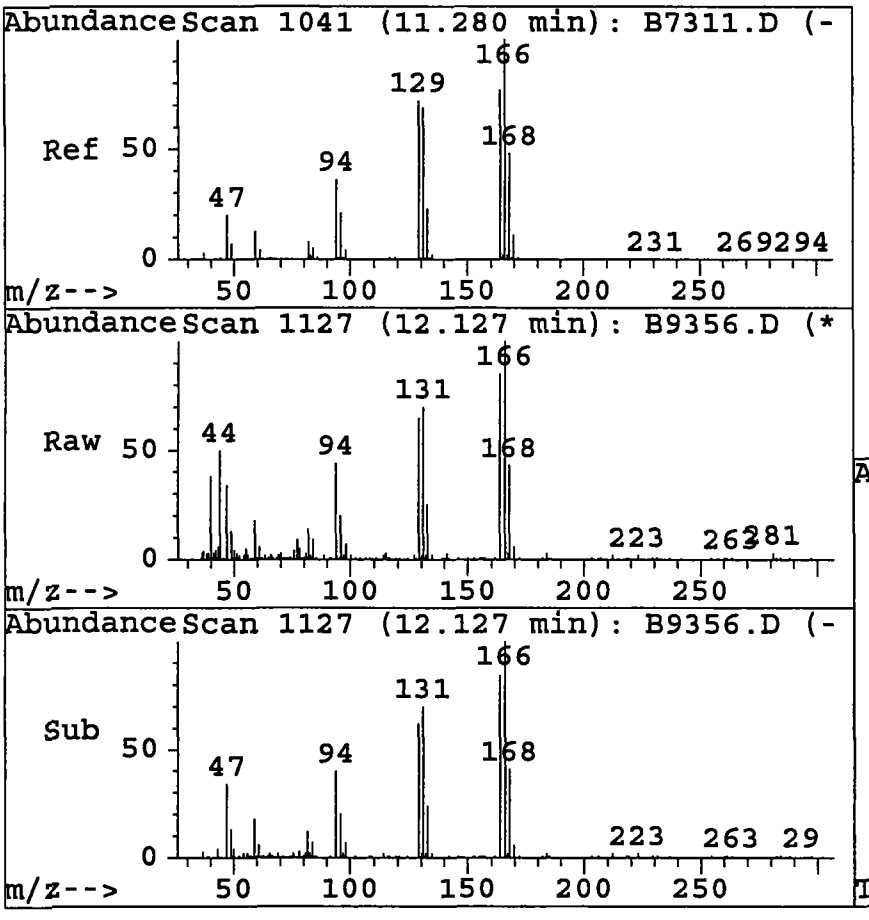
Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012502\B9356.D
Acq On : 25 Jan 102 3:32 pm
Sample : 526000 1.0
Misc : TTEM-KS R22-10409 8260B.TCLL
Quant Time: Jan 25 16:00 19102

Vial: 8
Operator: droot
Inst : 5971 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration

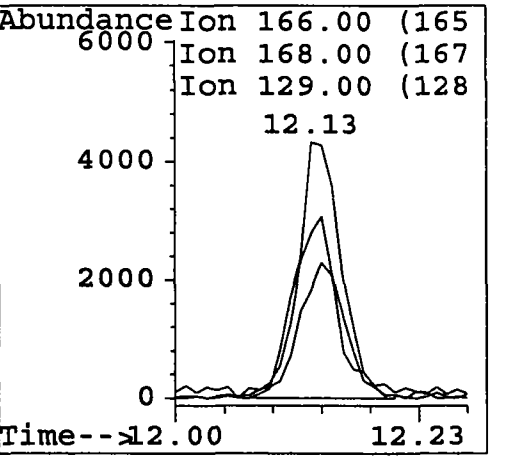




#60
Tetrachloroethene
Concen: ~~6.22 ppb~~ 2.3 R 2/6
RT: 12.13 min Scan# 1127
Delta R.T. -0.05 min
Lab File: B9356.D
Acq: 25 Jan 102 3:32 pm

Tgt Ion:166 Resp: 12512

Ion	Ratio	Lower	Upper
166	100		
168	42.6	37.8	56.7
129	64.6	57.6	86.3
0	0.0	0.0	0.0



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 02/22/02

Tetra Tech EM Inc.
Project Reference: AGROMACK-LOCKWOOD OU#2
Client Sample ID : SAG GW-1

Date Sampled : 01/22/02 09:45 **Order #:** 526001 **Sample Matrix:** WATER
Date Received: 01/23/02 **Submission #:** R2210409 **Analytical Run** 73888

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 01/25/02			
ANALYTICAL DILUTION: 1.00			
ACETONE	10	10 U	UG/L
BENZENE	1.0	1.0 U	UG/L
BROMODICHLOROMETHANE	1.0	1.0 U	UG/L
BROMOFORM	1.0	1.0 U	UG/L
BROMOMETHANE	1.0	1.0 U	UG/L
2-BUTANONE (MEK)	5.0	5.0 U	UG/L
CARBON DISULFIDE	5.0	5.0 U	UG/L
CARBON TETRACHLORIDE	1.0	1.0 U	UG/L
CHLOROBENZENE	1.0	1.0 U	UG/L
CHLOROETHANE	1.0	1.0 U	UG/L
CHLOROFORM	1.0	1.0 U	UG/L
CHLOROMETHANE	1.0	1.0 U	UG/L
IBROMOCHLOROMETHANE	1.0	1.0 U	UG/L
ı,1-DICHLOROETHANE	1.0	1.0 U	UG/L
1,2-DICHLOROETHANE	1.0	1.0 U	UG/L
1,1-DICHLOROETHENE	1.0	1.0 U	UG/L
CIS-1,2-DICHLOROETHENE	1.0	1.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	1.0	1.0 U	UG/L
1,2-DICHLOROPROPANE	1.0	1.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	1.0	1.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	1.0	1.0 U	UG/L
ETHYLBENZENE	1.0	1.0 U	UG/L
2-HEXANONE	5.0	5.0 U	UG/L
METHYLENE CHLORIDE	1.0	1.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	5.0	5.0 U	UG/L
STYRENE	1.0	1.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	1.0	1.0 U	UG/L
TETRACHLOROETHENE	1.0	2.1	UG/L
TOLUENE	1.0	1.0 U	UG/L
1,1,1-TRICHLOROETHANE	1.0	1.0 U	UG/L
1,1,2-TRICHLOROETHANE	1.0	1.0 U	UG/L
TRICHLOROETHENE	1.0	1.0 U	UG/L
VINYL CHLORIDE	1.0	1.0 U	UG/L
O-XYLENE	1.0	1.0 U	UG/L
M+P-XYLENE	1.0	1.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
₄-BROMOFLUOROBENZENE	(87 - 111 %)	100	%
TOLUENE-D8	(87 - 108 %)	106	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	101	%

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012502\B9357.D Vial: 9
Acq On : 25 Jan 102 4:09 pm Operator: droot
Sample : 526001 1.0 Inst : 5971 - In
Misc : TTEM-KS R22-10409 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 25 16:37 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	7.36	168	767458	50.00	ppb		-0.04
35) 1,4 - Difluorobenzene	8.54	114	1466334	50.00	ppb		-0.04
52) d5 - Chlorobenzene	13.62	117	1154448	50.00	ppb		-0.05
74) d4 - Dichlorobenzene	18.07	152	419988	50.00	ppb		-0.04
System Monitoring Compounds							%Recovery
36) surr4,Dibrflmethane	7.23	113	524284	50.60	ppb		101.21%
58) surr3,Toluene-d8	11.05	98	1428622	52.77	ppb		105.54%
59) surr2,bfb	15.83	95	545041	49.78	ppb		99.56%
Target Compounds							Qvalue
12) Acetone	3.76	43	5943	1.80	ppb		97 <
13) Iodomethane	3.88	127	750	4.52	ppb		1
15) Acetonitrile	4.15	41	278	0.75	ppb	#	1
18) TBA	4.65	59	918	1.02	ppb	#	36
24) 2-Chloro-1,3-butadiene	5.35	53	45	1.19	PPB		99
39) Iso-Butyl Alcohol	8.37	43	751	2.21	ppb		77
46) 1,4-Dioxane	9.43	88	275	2.96	ppb		79
60) Tetrachloroethene	12.14	166	11395	6.05	ppb	2.1 ☎	87 ①
63) Dibromochloromethane	12.13	129	7024	0.96	ppb	#	12
72) Isopropylbenzene	15.56	105	618	3.31	ppb		95
80) 1,3,5-Trimethylbenzene	16.69	105	418	3.75	ppb	#	1
92) Nitrobenzene	20.73	77	936	9.65	ppb	#	27

let correction

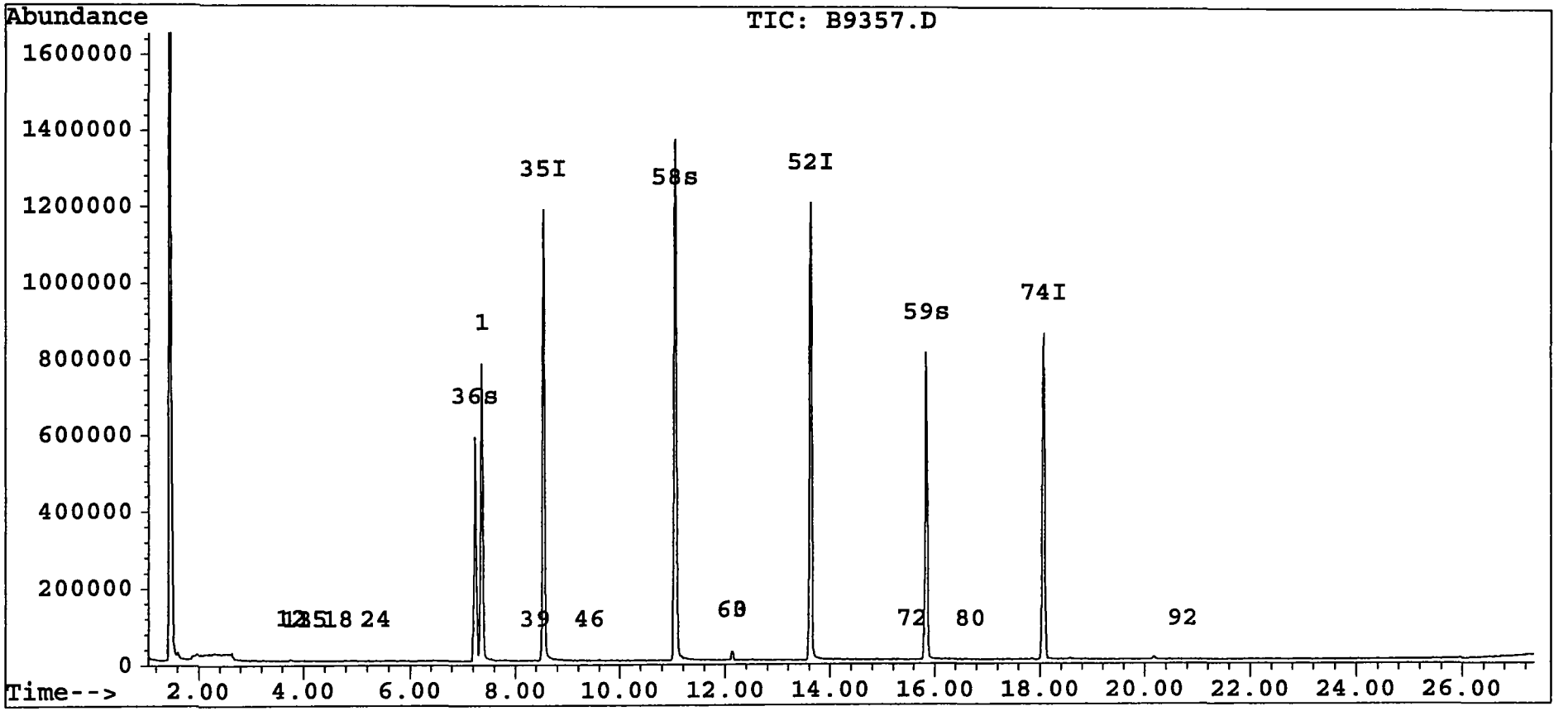
$$\frac{(\text{Area target})(\text{Amt IS})}{(\text{Area IS})(\text{RF})} = \frac{11395\ (50)}{1154448\ (.234)} = 2.1 \text{ ☎ } 2/6$$

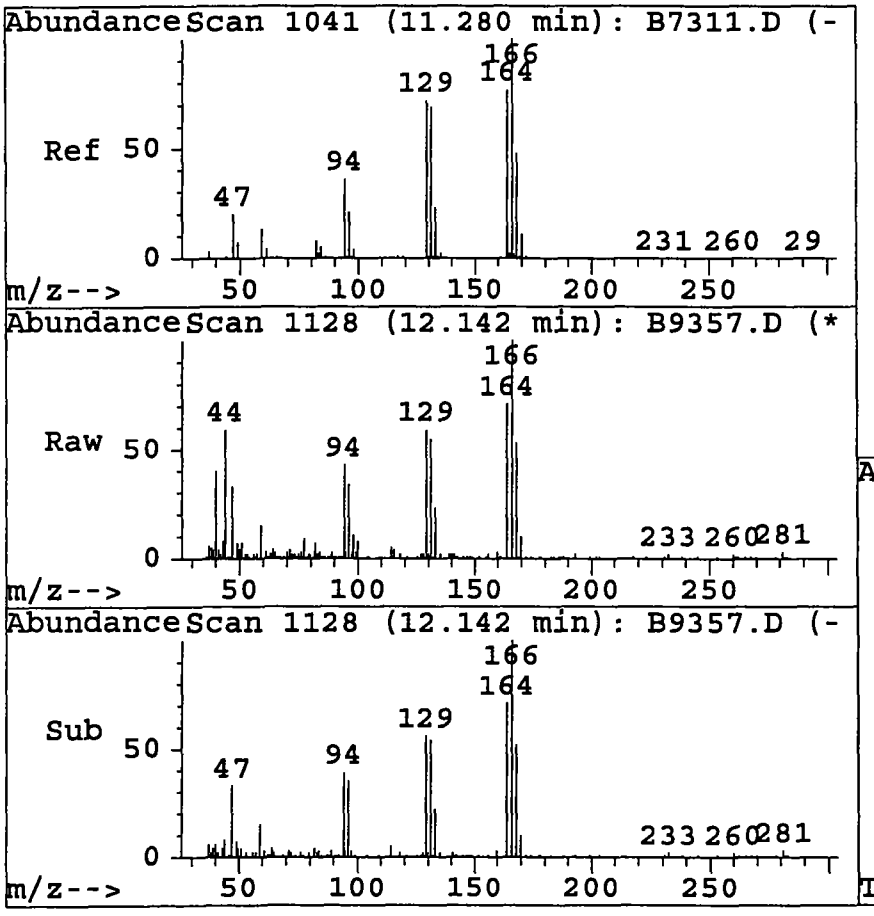
(#) = qualifier out of range (m) = manual integration
B9357.D EXP1217.M Fri Jan 25 16:37:02 2002 Page 1

Quantitati-- Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012502\B9357.D Vial: 9
Acq On : 25 Jan 102 4:09 pm Operator: droot
Sample : 526001 1.0 Inst : 5971 - In
Misc : TTEM-KS R22-10409 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 25 16:37 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration

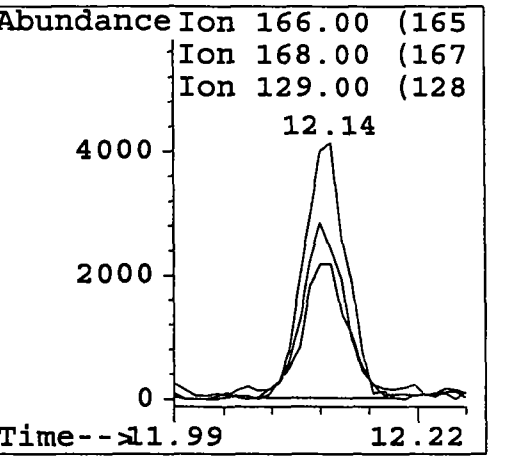




#60
Tetrachloroethene
Concen: ~~6.05 ppb~~ 2.1@2.6
RT: 12.14 min Scan# 1128
Delta R.T. -0.03 min
Lab File: B9357.D
Acq: 25 Jan 102 4:09 pm

Tgt Ion:166 Resp: 11395

Ion	Ratio	Lower	Upper
166	100		
168	52.9	37.8	56.7
129	58.6	57.6	86.3
0	0.0	0.0	0.0



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 02/22/02

Tetra Tech EM Inc.
Project Reference: AGROMACK-LOCKWOOD OU#2
Client Sample ID : RINSATE-S7

Date Sampled : 01/21/02 18:35 **Order #:** 526008 **Sample Matrix:** WATER
Date Received: 01/23/02 **Submission #:** R2210409 **Analytical Run** 73888

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 01/25/02			
ANALYTICAL DILUTION: 1.00			
ACETONE	10	10 U	UG/L
BENZENE	1.0	1.0 U	UG/L
BROMODICHLOROMETHANE	1.0	1.0 U	UG/L
BROMOFORM	1.0	1.0 U	UG/L
BROMOMETHANE	1.0	1.0 U	UG/L
2-BUTANONE (MEK)	5.0	5.0 U	UG/L
CARBON DISULFIDE	5.0	5.0 U	UG/L
CARBON TETRACHLORIDE	1.0	1.0 U	UG/L
CHLOROBENZENE	1.0	1.0 U	UG/L
CHLOROETHANE	1.0	1.0 U	UG/L
CHLOROFORM	1.0	1.5 J	UG/L
CHLOROMETHANE	1.0	1.0 U	UG/L
DIBROMOCHLOROMETHANE	1.0	1.0 U	UG/L
1,1-DICHLOROETHANE	1.0	1.0 U	UG/L
1,2-DICHLOROETHANE	1.0	1.0 U	UG/L
1,1-DICHLOROETHENE	1.0	1.0 U	UG/L
CIS-1,2-DICHLOROETHENE	1.0	1.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	1.0	1.0 U	UG/L
1,2-DICHLOROPROPANE	1.0	1.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	1.0	1.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	1.0	1.0 U	UG/L
ETHYLBENZENE	1.0	1.0 U	UG/L
2-HEXANONE	5.0	5.0 U	UG/L
METHYLENE CHLORIDE	1.0	1.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	5.0	5.0 U	UG/L
STYRENE	1.0	1.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	1.0	1.0 U	UG/L
TETRACHLOROETHENE	1.0	1.0 U	UG/L
TOLUENE	1.0	1.0 U	UG/L
1,1,1-TRICHLOROETHANE	1.0	1.0 U	UG/L
1,1,2-TRICHLOROETHANE	1.0	1.0 U	UG/L
TRICHLOROETHENE	1.0	1.0 U	UG/L
VINYL CHLORIDE	1.0	1.0 U	UG/L
O-XYLENE	1.0	1.0 U	UG/L
M+P-XYLENE	1.0	1.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(87 - 111 %)	99	%
TOLUENE-D8	(87 - 108 %)	103	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	100	%

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012502\B9358.D Vial: 10
Acq On : 25 Jan 102 4:45 pm Operator: droot
Sample : 526008 1.0 Inst : 5971 - In
Misc : TTEM-KS R22-10409 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 25 17:13 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration

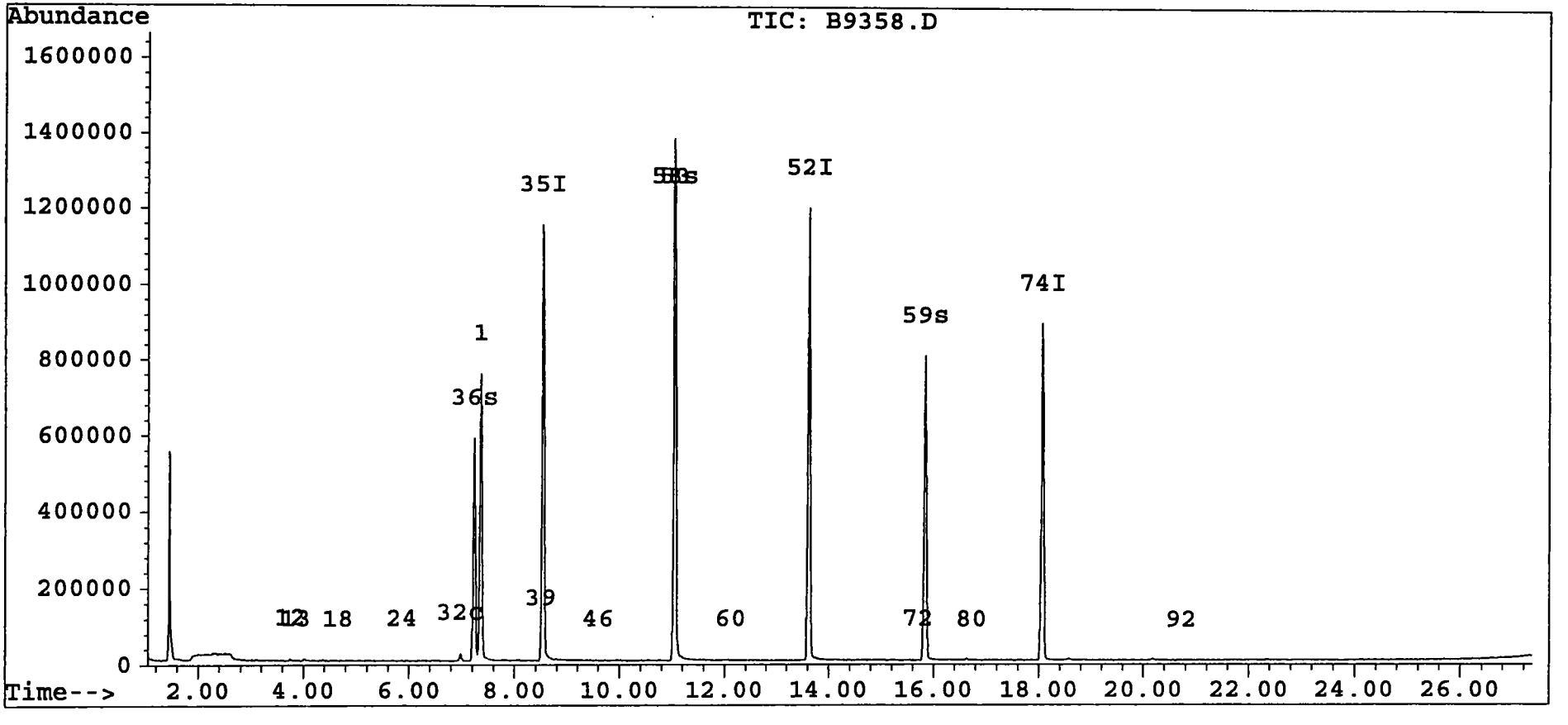
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	7.36	168	759913	50.00	ppb		-0.04
35) 1,4 - Difluorobenzene	8.54	114	1445122	50.00	ppb		-0.04
52) d5 - Chlorobenzene	13.62	117	1170133	50.00	ppb		-0.05
74) d4 - Dichlorobenzene	18.06	152	435804	50.00	ppb		-0.05
System Monitoring Compounds							%Recovery
36) surr4,Dibrflmethane	7.23	113	512726	50.10	ppb		100.20%
58) surr3,Toluene-d8	11.04	98	1416579	51.27	ppb		102.54%
59) surr2,bfb	15.84	95	551364	49.65	ppb		99.30%
Target Compounds							Qvalue
12) Acetone	3.74	43	8646	2.65	ppb		91
13) Iodomethane	3.86	127	317	4.41	ppb		1
18) TBA	4.66	59	669	0.75	ppb	#	34
24) 2-Chloro-1,3-butadiene	5.88	53	358	1.21	PPB		82
32) Chloroform	6.98	83	18441	1.54	ppb		86 J
39) Iso-Butyl Alcohol	8.48	43	592	1.76	ppb		91
46) 1,4-Dioxane	9.60	88	225	2.45	ppb	#	59
53) 4-Methyl-2-Pentanone	11.04	43	11032	0.94	ppb	#	1
60) Tetrachloroethene	12.12	166	333	4.30	ppb	#	84
72) Isopropylbenzene	15.70	105	156	3.29	ppb		92
80) 1,3,5-Trimethylbenzene	16.73	105	204	3.74	ppb	#	73
92) Nitrobenzene	20.73	77	284	8.98	ppb	#	27

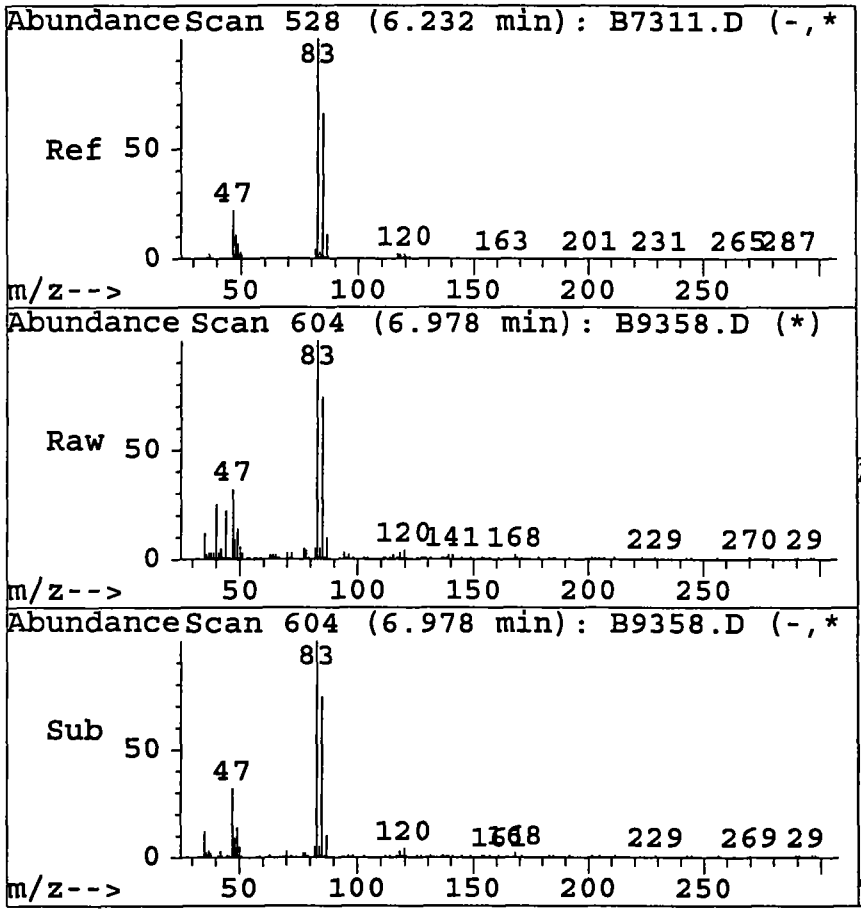
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012502\B9358.D Vial: 10
Acq On : 25 Jan 102 4:45 pm Operator: droot
Sample : 526008 1.0 Inst : 5971 - In
Misc : TTEM-KS R22-10409 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 25 17:13 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration

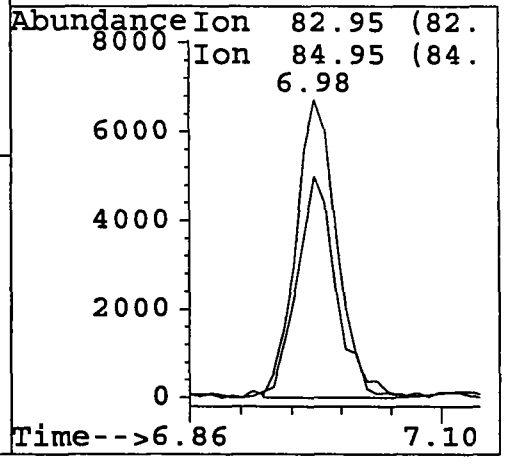




#32
Chloroform
Concen: 1.54 ppb
RT: 6.98 min Scan# 604
Delta R.T. -0.04 min
Lab File: B9358.D
Acq: 25 Jan 102 4:45 pm

Tgt Ion:82.95 Resp: 18441

Ion	Ratio	Lower	Upper
83	100		
85	74.5	51.0	76.5
0	0.0	0.0	0.0
0	0.0	0.0	0.0



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 02/22/02

Tetra Tech EM Inc.
Project Reference: AGROMACK-LOCKWOOD OU#2
Client Sample ID : OS-GGW-4

Date Sampled : 01/21/02 14:42 **Order #:** 526009 **Sample Matrix:** WATER
Date Received: 01/23/02 **Submission #:** R2210409 **Analytical Run** 73888

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 01/25/02			
ANALYTICAL DILUTION: 1.00			
ACETONE	10	10 U	UG/L
BENZENE	1.0	1.0 U	UG/L
BROMODICHLOROMETHANE	1.0	1.0 U	UG/L
BROMOFORM	1.0	1.0 U	UG/L
BROMOMETHANE	1.0	1.0 U	UG/L
2-BUTANONE (MEK)	5.0	5.0 U	UG/L
CARBON DISULFIDE	5.0	5.0 U	UG/L
CARBON TETRACHLORIDE	1.0	1.0 U	UG/L
CHLOROBENZENE	1.0	1.0 U	UG/L
CHLOROETHANE	1.0	1.0 U	UG/L
CHLOROFORM	1.0	1.0 U	UG/L
CHLOROMETHANE	1.0	1.0 U	UG/L
DIBROMOCHLOROMETHANE	1.0	1.0 U	UG/L
1,1-DICHLOROETHANE	1.0	1.0 U	UG/L
1,2-DICHLOROETHANE	1.0	1.0 U	UG/L
1,1-DICHLOROETHENE	1.0	1.0 U	UG/L
CIS-1,2-DICHLOROETHENE	1.0	1.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	1.0	1.0 U	UG/L
1,2-DICHLOROPROPANE	1.0	1.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	1.0	1.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	1.0	1.0 U	UG/L
ETHYLBENZENE	1.0	1.0 U	UG/L
2-HEXANONE	5.0	5.0 U	UG/L
METHYLENE CHLORIDE	1.0	1.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	5.0	5.0 U	UG/L
STYRENE	1.0	1.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	1.0	1.0 U	UG/L
TETRACHLOROETHENE	1.0	1.0 U	UG/L
TOLUENE	1.0	1.0 U	UG/L
1,1,1-TRICHLOROETHANE	1.0	1.0 U	UG/L
1,1,2-TRICHLOROETHANE	1.0	1.0 U	UG/L
TRICHLOROETHENE	1.0	1.0 U	UG/L
VINYL CHLORIDE	1.0	1.0 U	UG/L
O-XYLENE	1.0	1.0 U	UG/L
M+P-XYLENE	1.0	1.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(87 - 111 %)	99	%
TOLUENE-D8	(87 - 108 %)	104	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	100	%

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012502\B9359.D Vial: 11
Acq On : 25 Jan 102 5:21 pm Operator: droot
Sample : 526009 1.0 Inst : 5971 - In
Misc : TTEM-KS R22-10409 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 25 17:49 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration

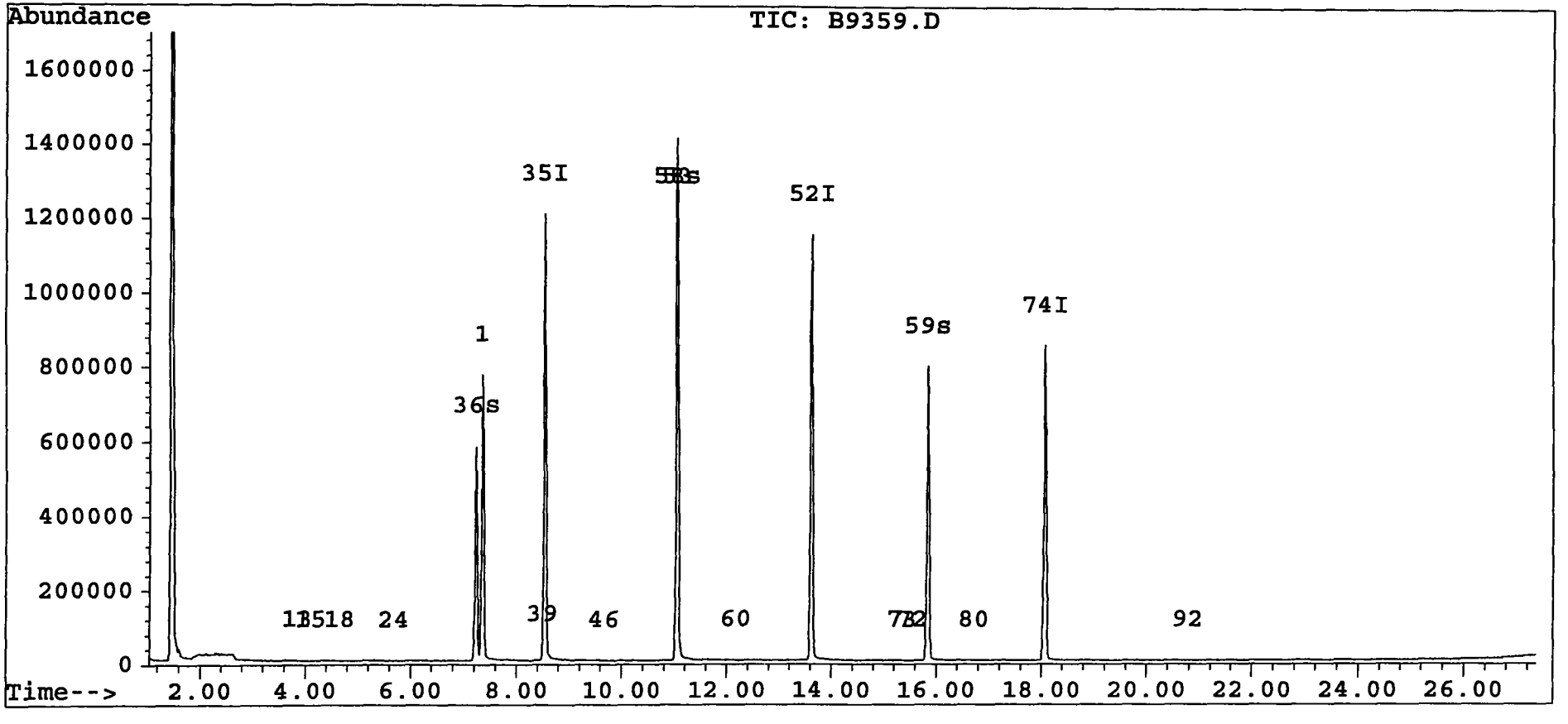
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	7.35	168	761703	50.00	ppb		-0.05
35) 1,4 - Difluorobenzene	8.53	114	1444216	50.00	ppb		-0.05
52) d5 - Chlorobenzene	13.62	117	1162764	50.00	ppb		-0.05
74) d4 - Dichlorobenzene	18.06	152	417033	50.00	ppb		-0.05
System Monitoring Compounds							%Recovery
36) surr4,Dibrflmethane	7.23	113	512926	50.17	ppb		100.33%
58) surr3,Toluene-d8	11.04	98	1427120	52.21	ppb		104.41%
59) surr2,bfb	15.84	95	544735	49.25	ppb		98.51%
Target Compounds							Qvalue
13) Iodomethane	3.86	127	360	4.42	ppb		1
15) Acetonitrile	4.11	41	383	1.04	ppb	#	1
18) TBA	4.66	59	1040	1.16	ppb	#	1
24) 2-Chloro-1,3-butadiene	5.67	53	187	1.20	PPB	#	23
39) Iso-Butyl Alcohol	8.48	43	182	0.54	ppb		84
46) 1,4-Dioxane	9.68	88	226	2.47	ppb		79
53) 4-Methyl-2-Pentanone	11.05	43	10269	0.88	ppb	#	1
60) Tetrachloroethene	12.19	166	56	4.26	ppb	#	18
72) Isopropylbenzene	15.55	105	524	3.30	ppb		99
73) Cyclohexanone	15.34	55	677	0.84	ppb		86
80) 1,3,5-Trimethylbenzene	16.71	105	292	3.75	ppb		95
92) Nitrobenzene	20.77	77	255	8.97	ppb	#	27

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012502\B9359.D Vial: 11
Acq On : 25 Jan 102 5:21 pm Operator: droot
Sample : 526009 1.0 Inst : 5971 - In
Misc : TTEM-KS R22-10409 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 25 17:49 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 02/22/02

Tetra Tech EM Inc.
Project Reference: AGROMACK-LOCKWOOD OU#2
Client Sample ID : SI-GGW-2

Date Sampled : 01/21/02 10:30 **Order #:** 526010 **Sample Matrix:** WATER
Date Received: 01/23/02 **Submission #:** R2210409 **Analytical Run** 73932

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 01/25/02			
ANALYTICAL DILUTION: 1.00			
ACETONE	10	10 U	UG/L
BENZENE	1.0	1.0 U	UG/L
BROMODICHLOROMETHANE	1.0	1.0 U	UG/L
BROMOFORM	1.0	1.0 U	UG/L
BROMOMETHANE	1.0	1.0 U	UG/L
2-BUTANONE (MEK)	5.0	5.0 U	UG/L
CARBON DISULFIDE	5.0	5.0 U	UG/L
CARBON TETRACHLORIDE	1.0	1.0 U	UG/L
CHLOROBENZENE	1.0	1.0 U	UG/L
CHLOROETHANE	1.0	1.0 U	UG/L
CHLOROFORM	1.0	1.0 U	UG/L
CHLOROMETHANE	1.0	1.0 U	UG/L
`IBROMOCHLOROMETHANE	1.0	1.0 U	UG/L
.,1-DICHLOROETHANE	1.0	1.0 U	UG/L
1,2-DICHLOROETHANE	1.0	1.0 U	UG/L
1,1-DICHLOROETHENE	1.0	1.0 U	UG/L
CIS-1,2-DICHLOROETHENE	1.0	1.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	1.0	1.0 U	UG/L
1,2-DICHLOROPROPANE	1.0	1.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	1.0	1.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	1.0	1.0 U	UG/L
ETHYLBENZENE	1.0	1.0 U	UG/L
2-HEXANONE	5.0	5.0 U	UG/L
METHYLENE CHLORIDE	1.0	1.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	5.0	5.0 U	UG/L
STYRENE	1.0	1.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	1.0	1.0 U	UG/L
TETRACHLOROETHENE	1.0	1.0 U	UG/L
TOLUENE	1.0	1.0 U	UG/L
1,1,1-TRICHLOROETHANE	1.0	1.0 U	UG/L
1,1,2-TRICHLOROETHANE	1.0	1.0 U	UG/L
TRICHLOROETHENE	1.0	1.0 U	UG/L
VINYL CHLORIDE	1.0	1.0 U	UG/L
O-XYLENE	1.0	1.0 U	UG/L
M+P-XYLENE	1.0	1.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
-BROMOFLUOROBENZENE	(87 - 111 %)	98	%
TOLUENE-D8	(87 - 108 %)	102	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	104	%

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012502\B9360.D Vial: 12
Acq On : 25 Jan 102 5:58 pm Operator: droot
Sample : 526010 1.0 Inst : 5971 - In
Misc : TTEM-KS R22-10409 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 25 18:26 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration

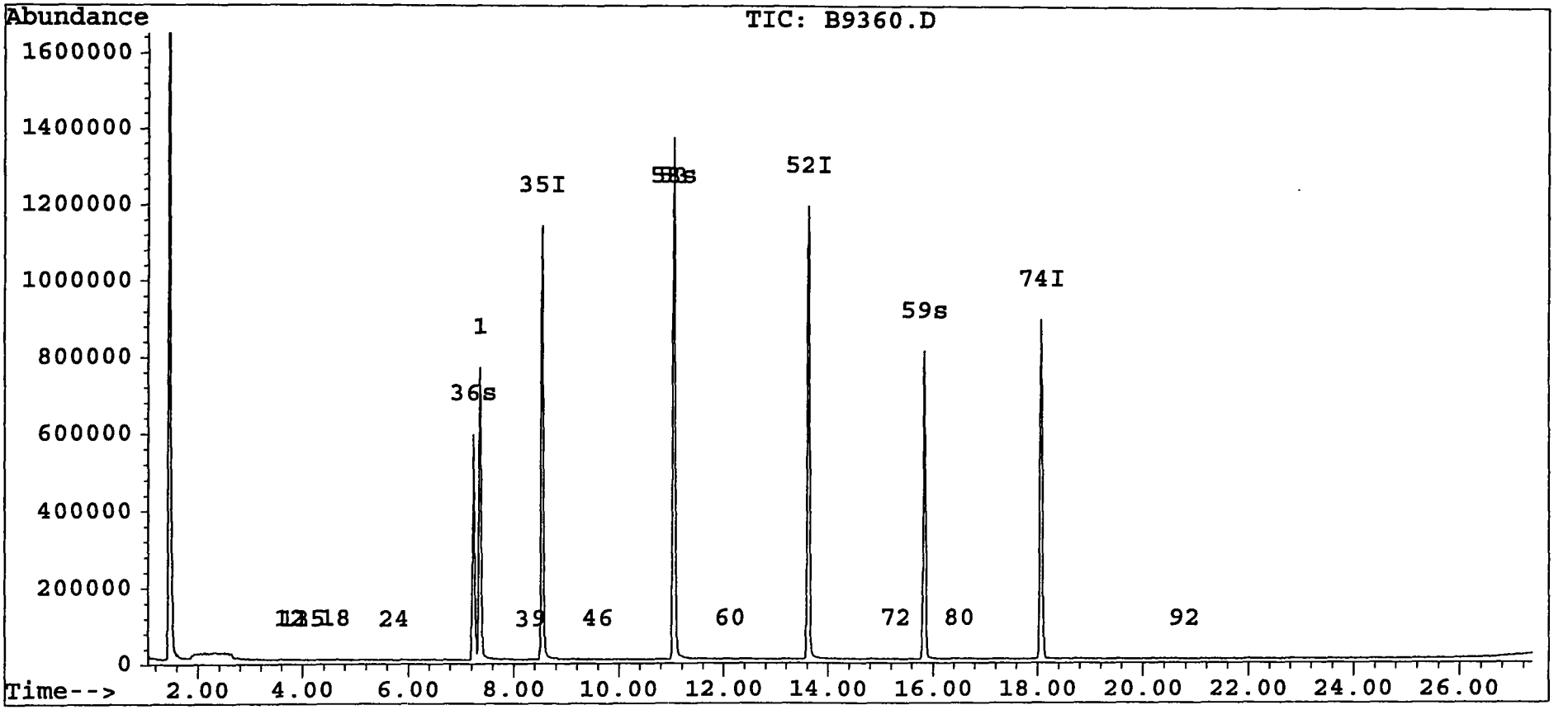
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	7.36	168	755322	50.00	ppb		-0.04
35) 1,4 - Difluorobenzene	8.54	114	1430304	50.00	ppb		-0.04
52) d5 - Chlorobenzene	13.62	117	1161404	50.00	ppb		-0.05
74) d4 - Dichlorobenzene	18.06	152	429552	50.00	ppb		-0.05
System Monitoring Compounds							%Recovery
36) surr4,Dibrflmethane	7.23	113	521652	51.92	ppb		103.83%
58) surr3,Toluene-d8	11.04	98	1397940	50.88	ppb		101.76%
59) surr2,bfb	15.83	95	541770	48.96	ppb		97.93%
Target Compounds							Qvalue
12) Acetone	3.76	43	2871	0.89	ppb		97
13) Iodomethane	3.84	127	246	4.39	ppb		1
15) Acetonitrile	4.13	41	458	1.26	ppb	#	1
18) TBA	4.63	59	1270	1.43	ppb	#	27
24) 2-Chloro-1,3-butadiene	5.74	53	336	1.21	PPB		93
39) Iso-Butyl Alcohol	8.32	43	412	1.24	ppb		83
46) 1,4-Dioxane	9.59	88	99	1.09	ppb	#	75
53) 4-Methyl-2-Pentanone	11.05	43	8959	0.77	ppb	#	1
60) Tetrachloroethene	12.13	166	188	4.28	ppb		91
72) Isopropylbenzene	15.28	105	214	3.29	ppb		95
80) 1,3,5-Trimethylbenzene	16.51	105	347	3.75	ppb		93
92) Nitrobenzene	20.77	77	633	9.33	ppb	#	42

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012502\B9360.D Vial: 12
Acq On : 25 Jan 102 5:58 pm Operator: droot
Sample : 526010 1.0 Inst : 5971 - In
Misc : TTEM-KS R22-10409 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 25 18:26 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 02/22/02

Tetra Tech EM Inc.
Project Reference: AGROMACK-LOCKWOOD OU#2
Client Sample ID : SI-GGW-3-FD

Date Sampled : 01/21/02 09:05 **Order #:** 526011 **Sample Matrix:** WATER
Date Received: 01/23/02 **Submission #:** R2210409 **Analytical Run** 73932

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 01/28/02			
ANALYTICAL DILUTION: 1.00			
ACETONE	10	10 U	UG/L
BENZENE	1.0	1.0 U	UG/L
BROMODICHLOROMETHANE	1.0	1.0 U	UG/L
BROMOFORM	1.0	1.0 U	UG/L
BROMOMETHANE	1.0	1.0 U	UG/L
2-BUTANONE (MEK)	5.0	5.0 U	UG/L
CARBON DISULFIDE	5.0	5.0 U	UG/L
CARBON TETRACHLORIDE	1.0	1.0 U	UG/L
CHLOROBENZENE	1.0	1.0 U	UG/L
CHLOROETHANE	1.0	1.0 U	UG/L
CHLOROFORM	1.0	1.0 U	UG/L
CHLOROMETHANE	1.0	1.0 U	UG/L
DIBROMOCHLOROMETHANE	1.0	1.0 U	UG/L
.,1-DICHLOROETHANE	1.0	1.0 U	UG/L
1,2-DICHLOROETHANE	1.0	1.0 U	UG/L
1,1-DICHLOROETHENE	1.0	1.0 U	UG/L
CIS-1,2-DICHLOROETHENE	1.0	1.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	1.0	1.0 U	UG/L
1,2-DICHLOROPROPANE	1.0	1.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	1.0	1.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	1.0	1.0 U	UG/L
ETHYLBENZENE	1.0	1.0 U	UG/L
2-HEXANONE	5.0	5.0 U	UG/L
METHYLENE CHLORIDE	1.0	1.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	5.0	5.0 U	UG/L
STYRENE	1.0	1.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	1.0	1.0 U	UG/L
TETRACHLOROETHENE	1.0	1.0 U	UG/L
TOLUENE	1.0	1.0 U	UG/L
1,1,1-TRICHLOROETHANE	1.0	1.0 U	UG/L
1,1,2-TRICHLOROETHANE	1.0	1.0 U	UG/L
TRICHLOROETHENE	1.0	1.0 U	UG/L
VINYL CHLORIDE	1.0	1.0 U	UG/L
O-XYLENE	1.0	1.0 U	UG/L
M+P-XYLENE	1.0	1.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
-BROMOFLUOROBENZENE	(87 - 111 %)	96	%
.OLUENE-D8	(87 - 108 %)	100	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	102	%

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9396.D Vial: 3
Acq On : 28 Jan 102 12:23 pm Operator: droot
Sample : 526011 1.0 Inst : 5971 - In
Misc : TTEM-KS R22-10409 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 28 12:51 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	7.36	168	753235	50.00	ppb	-0.04
35) 1,4 - Difluorobenzene	8.54	114	1442542	50.00	ppb	-0.04
52) d5 - Chlorobenzene	13.63	117	1191175	50.00	ppb	-0.04
74) d4 - Dichlorobenzene	18.07	152	435195	50.00	ppb	-0.04
System Monitoring Compounds						%Recovery
36) surr4,Dibrflmethane	7.24	113	517606	50.84	ppb	101.67%
58) surr3,Toluene-d8	11.05	98	1410434	49.79	ppb	99.57%
59) surr2,bfb	15.85	95	547843	48.01	ppb	96.03%
Target Compounds						Qvalue
12) Acetone	3.75	43	3580	1.11	ppb #	81
13) Iodomethane	3.82	127	230	4.39	ppb	1
15) Acetonitrile	4.14	41	237	0.65	ppb #	1
24) 2-Chloro-1,3-butadiene	5.69	53	438	1.22	PPB #	23
39) Iso-Butyl Alcohol	8.40	43	1427	4.26	ppb	89
46) 1,4-Dioxane	9.47	88	272	2.97	ppb	91
60) Tetrachloroethene	12.14	166	343	4.30	ppb #	45
72) Isopropylbenzene	15.58	105	563	3.30	ppb	91
80) 1,3,5-Trimethylbenzene	17.06	105	148	3.74	ppb	96
92) Nitrobenzene	20.77	77	344	9.04	ppb #	49

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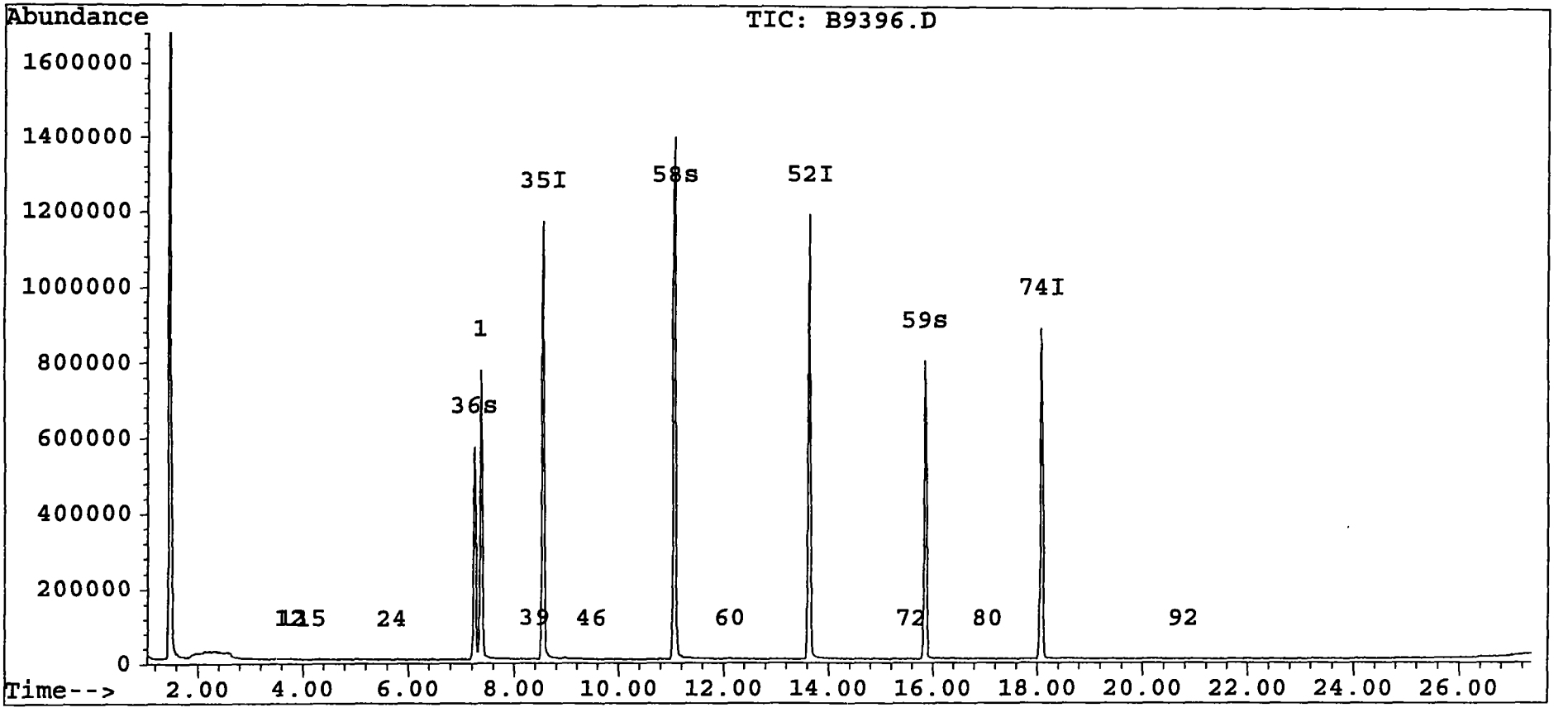
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9396.D Vial: 3
Acq On : 28 Jan 102 12:23 pm Operator: droot
Sample : 526011 1.0 Inst : 5971 - In
Misc : TTEM-KS R22-10409 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 28 12:51 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 02/22/02

Tetra Tech EM Inc.
Project Reference: AGROMACK-LOCKWOOD OU#2
Client Sample ID : SI-GGW-1

Date Sampled : 01/21/02 11:10 **Order #:** 526012 **Sample Matrix:** WATER
Date Received: 01/23/02 **Submission #:** R2210409 **Analytical Run** 73932

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 01/28/02			
ANALYTICAL DILUTION: 1.00			
ACETONE	10	10 U	UG/L
BENZENE	1.0	1.0 U	UG/L
BROMODICHLOROMETHANE	1.0	1.0 U	UG/L
BROMOFORM	1.0	1.0 U	UG/L
BROMOMETHANE	1.0	1.0 U	UG/L
2-BUTANONE (MEK)	5.0	5.0 U	UG/L
CARBON DISULFIDE	5.0	5.0 U	UG/L
CARBON TETRACHLORIDE	1.0	1.0 U	UG/L
CHLOROBENZENE	1.0	1.0 U	UG/L
CHLOROETHANE	1.0	1.0 U	UG/L
CHLOROFORM	1.0	1.0 U	UG/L
CHLOROMETHANE	1.0	1.0 U	UG/L
)IBROMOCHLOROMETHANE	1.0	1.0 U	UG/L
ı,1-DICHLOROETHANE	1.0	1.0 U	UG/L
1,2-DICHLOROETHANE	1.0	1.0 U	UG/L
1,1-DICHLOROETHENE	1.0	1.0 U	UG/L
CIS-1,2-DICHLOROETHENE	1.0	1.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	1.0	1.0 U	UG/L
1,2-DICHLOROPROPANE	1.0	1.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	1.0	1.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	1.0	1.0 U	UG/L
ETHYLBENZENE	1.0	1.0 U	UG/L
2-HEXANONE	5.0	5.0 U	UG/L
METHYLENE CHLORIDE	1.0	1.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	5.0	5.0 U	UG/L
STYRENE	1.0	1.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	1.0	1.0 U	UG/L
TETRACHLOROETHENE	1.0	1.0 U	UG/L
TOLUENE	1.0	1.0 U	UG/L
1,1,1-TRICHLOROETHANE	1.0	1.0 U	UG/L
1,1,2-TRICHLOROETHANE	1.0	1.0 U	UG/L
TRICHLOROETHENE	1.0	1.0 U	UG/L
VINYL CHLORIDE	1.0	1.0 U	UG/L
O-XYLENE	1.0	1.0 U	UG/L
M+P-XYLENE	1.0	1.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
.-BROMOFLUOROBENZENE	(87 - 111 %)	103	%
TOLUENE-D8	(87 - 108 %)	100	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	103	%

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9397.D Vial: 4
Acq On : 28 Jan 102 12:59 pm Operator: droot
Sample : 526012 1.0 Inst : 5971 - In
Misc : TTEM-KS R22-10409 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 28 13:27 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	7.36	168	739557	50.00	ppb	-0.04
35) 1,4 - Difluorobenzene	8.54	114	1414886	50.00	ppb	-0.04
52) d5 - Chlorobenzene	13.63	117	1173188	50.00	ppb	-0.04
74) d4 - Dichlorobenzene	18.07	152	464140	50.00	ppb	-0.04
System Monitoring Compounds						%Recovery
36) surr4,Dibrflmethane	7.24	113	510889	51.25	ppb	102.50%
58) surr3,Toluene-d8	11.05	98	1394393	50.04	ppb	100.07%
59) surr2,bfb	15.84	95	567926	51.52	ppb	103.03%
Target Compounds						Qvalue
5) Bromomethane	2.36	94	2212	0.44	ppb	# 4
13) Iodomethane	3.85	127	442	4.44	ppb	1
15) Acetonitrile	4.11	41	238	0.67	ppb	# 1
24) 2-Chloro-1,3-butadiene	5.66	53	158	1.20	PPB	# 23
39) Iso-Butyl Alcohol	8.39	43	1804	5.49	ppb	94
46) 1,4-Dioxane	9.58	88	302	3.37	ppb	86
60) Tetrachloroethene	12.16	166	183	4.28	ppb	# 40
72) Isopropylbenzene	15.58	105	526	3.30	ppb	# 49
73) Cyclohexanone	15.64	55	1146	1.41	ppb	# 37
80) 1,3,5-Trimethylbenzene	16.70	105	765	3.77	ppb	# 82
92) Nitrobenzene	20.74	77	137	8.83	ppb	# 27

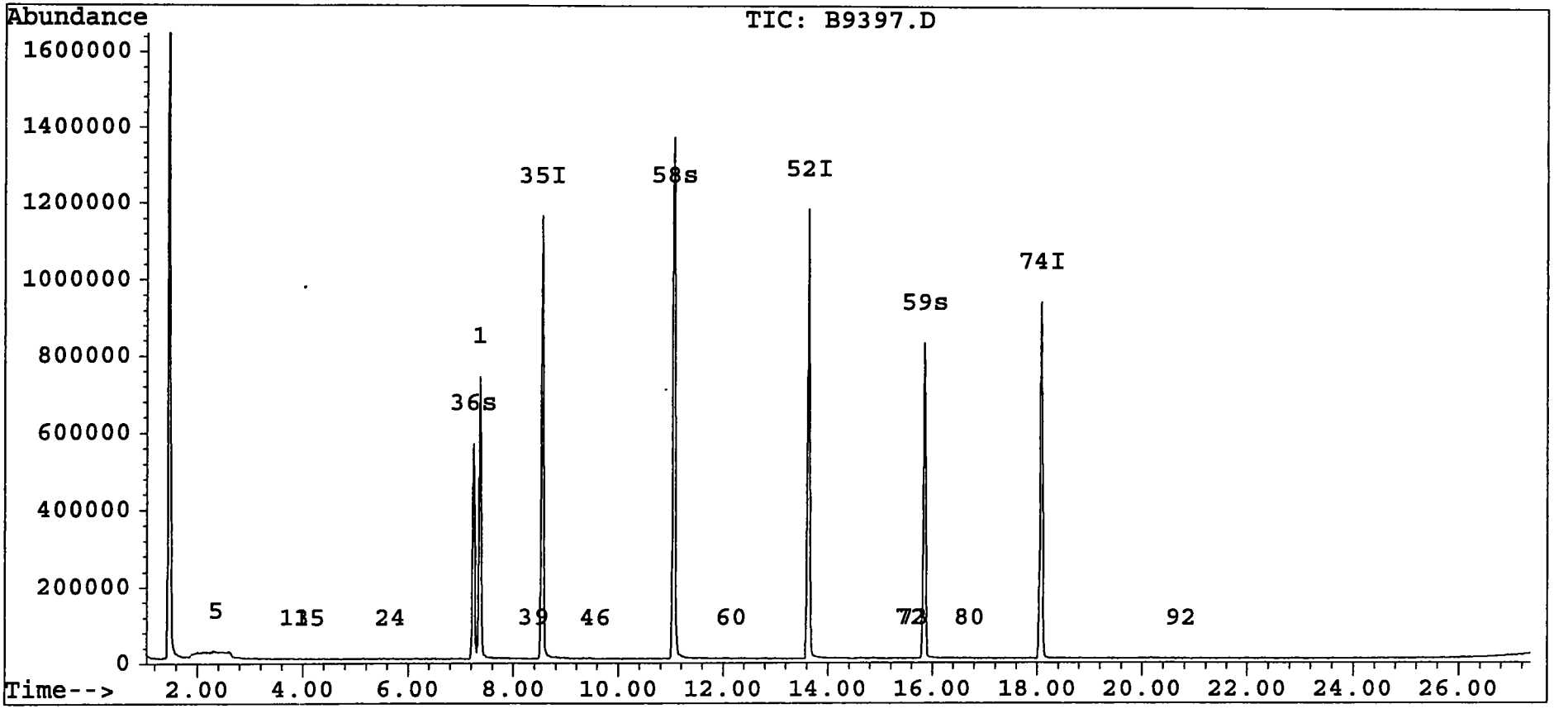
(#) = qualifier out of range (m) = manual integration

80

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9397.D Vial: 4
Acq On : 28 Jan 102 12:59 pm Operator: droot
Sample : 526012 1.0 Inst : 5971 - In
Misc : TTEM-KS R22-10409 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 28 13:27 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 02/22/02

Tetra Tech EM Inc.
Project Reference: AGROMACK-LOCKWOOD OU#2
Client Sample ID : OS-GGW-3

Date Sampled : 01/21/02 14:00 **Order #:** 526013 **Sample Matrix:** WATER
Date Received: 01/23/02 **Submission #:** R2210409 **Analytical Run** 73932

DATE ANALYZED : 01/28/02
ANALYTICAL DILUTION: 1.00

ANALYTE	PQL	RESULT	UNITS
ACETONE	10	10 U	UG/L
BENZENE	1.0	1.0 U	UG/L
BROMODICHLOROMETHANE	1.0	1.0 U	UG/L
BROMOFORM	1.0	1.0 U	UG/L
BROMOMETHANE	1.0	1.0 U	UG/L
2-BUTANONE (MEK)	5.0	5.0 U	UG/L
CARBON DISULFIDE	5.0	5.0 U	UG/L
CARBON TETRACHLORIDE	1.0	1.0 U	UG/L
CHLOROBENZENE	1.0	1.0 U	UG/L
CHLOROETHANE	1.0	1.0 U	UG/L
CHLOROFORM	1.0	1.0 U	UG/L
CHLOROMETHANE	1.0	1.0 U	UG/L
DIBROMOCHLOROMETHANE	1.0	1.0 U	UG/L
1,1-DICHLOROETHANE	1.0	1.0 U	UG/L
1,2-DICHLOROETHANE	1.0	1.0 U	UG/L
1,1-DICHLOROETHENE	1.0	1.0 U	UG/L
CIS-1,2-DICHLOROETHENE	1.0	1.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	1.0	1.0 U	UG/L
1,2-DICHLOROPROPANE	1.0	1.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	1.0	1.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	1.0	1.0 U	UG/L
ETHYLBENZENE	1.0	1.0 U	UG/L
2-HEXANONE	5.0	5.0 U	UG/L
METHYLENE CHLORIDE	1.0	1.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	5.0	5.0 U	UG/L
STYRENE	1.0	1.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	1.0	1.0 U	UG/L
TETRACHLOROETHENE	1.0	1.0 U	UG/L
TOLUENE	1.0	1.0 U	UG/L
1,1,1-TRICHLOROETHANE	1.0	1.0 U	UG/L
1,1,2-TRICHLOROETHANE	1.0	1.0 U	UG/L
TRICHLOROETHENE	1.0	1.0 U	UG/L
VINYL CHLORIDE	1.0	1.0 U	UG/L
O-XYLENE	1.0	1.0 U	UG/L
M+P-XYLENE	1.0	1.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
-BROMOFLUOROBENZENE	(87 - 111 %)	103	%
TOLUENE-D8	(87 - 108 %)	100	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	98	%

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9398.D Vial: 5
Acq On : 28 Jan 102 1:35 pm Operator: droot
Sample : 526013 1.0 Inst : 5971 - In
Misc : TTEM-KS R22-10409 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 28 14:03 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration

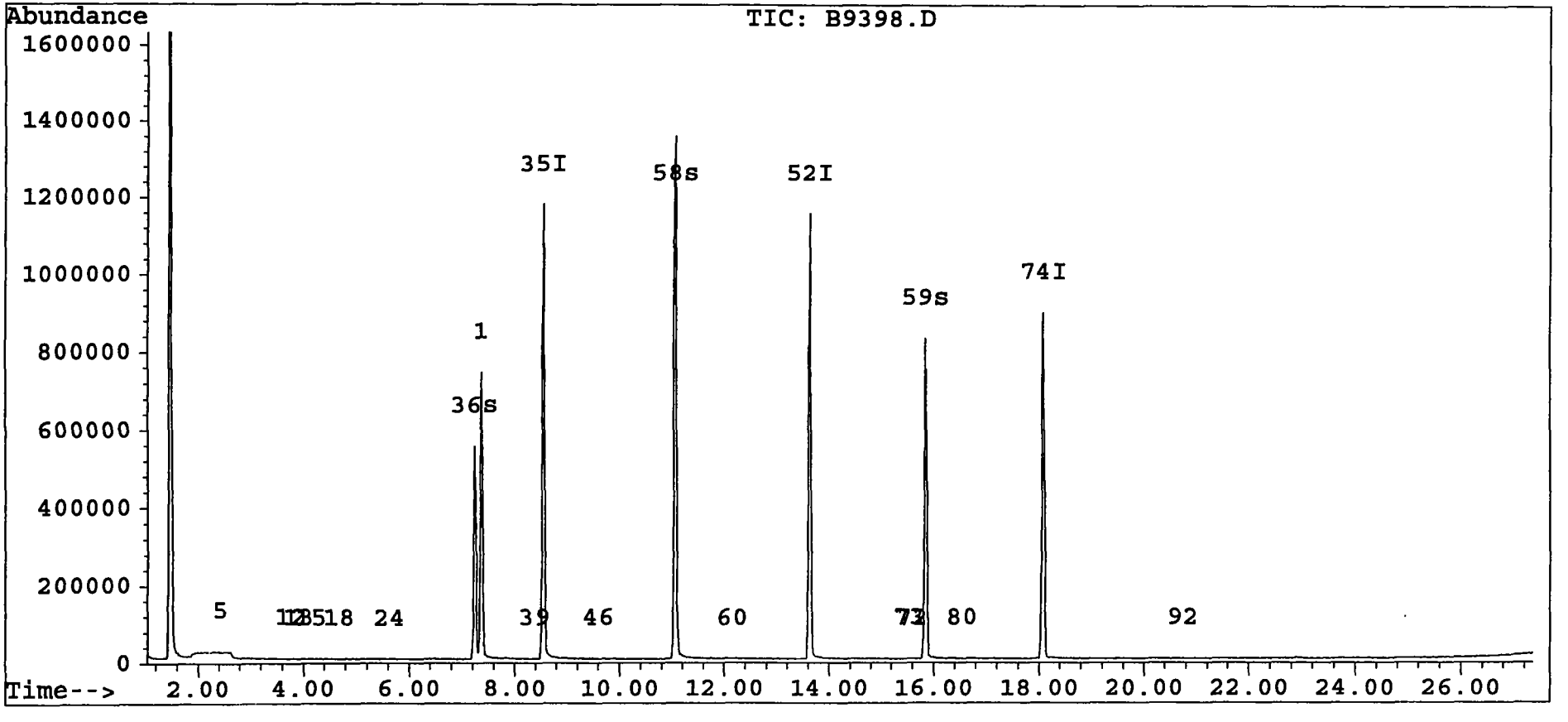
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	7.36	168	737582	50.00	ppb		-0.04
35) 1,4 - Difluorobenzene	8.54	114	1429980	50.00	ppb		-0.04
52) d5 - Chlorobenzene	13.63	117	1161302	50.00	ppb		-0.04
74) d4 - Dichlorobenzene	18.07	152	450634	50.00	ppb		-0.04
System Monitoring Compounds							%Recovery
36) surr4,Dibrflmethane	7.24	113	499609	49.11	ppb		98.22%
58) surr3,Toluene-d8	11.05	98	1374892	49.78	ppb		99.56%
59) surr2,bfb	15.84	95	560309	51.28	ppb		102.57%
Target Compounds							Qvalue
5) Bromomethane	2.43	94	2902	0.58	ppb	#	4
12) Acetone	3.76	43	3682	1.16	ppb	#	83
13) Iodomethane	3.90	127	624	4.49	ppb		1
15) Acetonitrile	4.15	41	407	1.15	ppb	#	1
18) TBA	4.67	59	351	0.40	ppb	#	1
24) 2-Chloro-1,3-butadiene	5.61	53	437	1.22	PPB		90
39) Iso-Butyl Alcohol	8.38	43	1435	4.32	ppb		99
46) 1,4-Dioxane	9.59	88	263	2.90	ppb		90
60) Tetrachloroethene	12.15	166	181	4.28	ppb	#	1
72) Isopropylbenzene	15.58	105	545	3.30	ppb		100
73) Cyclohexanone	15.54	55	546	0.68	ppb		93
80) 1,3,5-Trimethylbenzene	16.55	105	268	3.75	ppb		99
92) Nitrobenzene	20.72	77	290	8.98	ppb	#	35

(#) = qualifier out of range (m) = manual integration

Quantitat'on Report

Data file : J:\ACQUDATA\MSVOA3\DATA\012802\B9398.D Vial: 5
Acq On : 28 Jan 102 1:35 pm Operator: droot
Sample : 526013 1.0 Inst : 5971 - In
Misc : TTEM-KS R22-10409 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 28 14:03 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 02/22/02

Tetra Tech EM Inc.
Project Reference: AGROMACK-LOCKWOOD OU#2
Client Sample ID : TRIP BLANK

Date Sampled : 01/23/02 **Order #:** 526017 **Sample Matrix:** WATER
Date Received: 01/23/02 **Submission #:** R2210409 **Analytical Run** 73932

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 01/28/02			
ANALYTICAL DILUTION: 1.00			
ACETONE	10	10 U	UG/L
BENZENE	1.0	1.0 U	UG/L
BROMODICHLOROMETHANE	1.0	1.0 U	UG/L
BROMOFORM	1.0	1.0 U	UG/L
BROMOMETHANE	1.0	1.0 U	UG/L
2-BUTANONE (MEK)	5.0	5.0 U	UG/L
CARBON DISULFIDE	5.0	5.0 U	UG/L
CARBON TETRACHLORIDE	1.0	1.0 U	UG/L
CHLOROBENZENE	1.0	1.0 U	UG/L
CHLOROETHANE	1.0	1.0 U	UG/L
CHLOROFORM	1.0	1.0 U	UG/L
CHLOROMETHANE	1.0	1.0 U	UG/L
DIBROMOCHLOROMETHANE	1.0	1.0 U	UG/L
1,1-DICHLOROETHANE	1.0	1.0 U	UG/L
1,2-DICHLOROETHANE	1.0	1.0 U	UG/L
1,1-DICHLOROETHENE	1.0	1.0 U	UG/L
CIS-1,2-DICHLOROETHENE	1.0	1.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	1.0	1.0 U	UG/L
1,2-DICHLOROPROPANE	1.0	1.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	1.0	1.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	1.0	1.0 U	UG/L
ETHYLBENZENE	1.0	1.0 U	UG/L
2-HEXANONE	5.0	5.0 U	UG/L
METHYLENE CHLORIDE	1.0	1.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	5.0	5.0 U	UG/L
STYRENE	1.0	1.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	1.0	1.0 U	UG/L
TETRACHLOROETHENE	1.0	1.0 U	UG/L
TOLUENE	1.0	1.0 U	UG/L
1,1,1-TRICHLOROETHANE	1.0	1.0 U	UG/L
1,1,2-TRICHLOROETHANE	1.0	1.0 U	UG/L
TRICHLOROETHENE	1.0	1.0 U	UG/L
VINYL CHLORIDE	1.0	1.0 U	UG/L
O-XYLENE	1.0	1.0 U	UG/L
M+P-XYLENE	1.0	1.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
1-BROMOFLUOROBENZENE	(87 - 111 %)	102	%
TOLUENE-D8	(87 - 108 %)	100	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	100	%

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9399.D Vial: 6
Acq On : 28 Jan 102 2:12 pm Operator: droot
Sample : 526017 1.0 Inst : 5971 - In
Misc : TTEM-KS R22-10409 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 28 14:40 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration

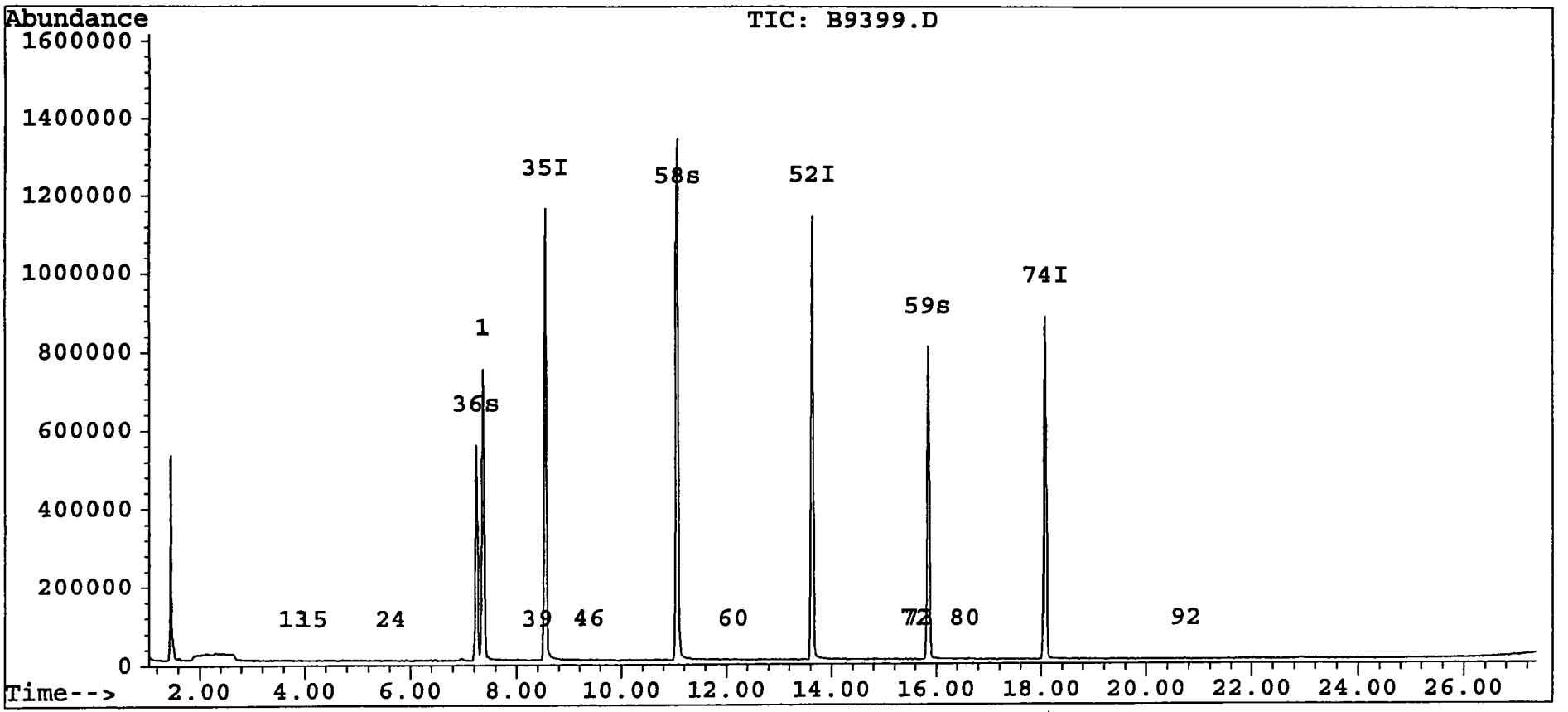
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	7.36	168	738964	50.00	ppb		-0.04
35) 1,4 - Difluorobenzene	8.54	114	1416175	50.00	ppb		-0.04
52) d5 - Chlorobenzene	13.62	117	1150247	50.00	ppb		-0.05
74) d4 - Dichlorobenzene	18.07	152	432886	50.00	ppb		-0.04
System Monitoring Compounds							%Recovery
36) surr4,Dibrflmethane	7.23	113	501055	49.92	ppb		99.84%
58) surr3,Toluene-d8	11.05	98	1370858	50.22	ppb		100.44%
59) surr2,bfb	15.84	95	552056	50.92	ppb		101.83%
Target Compounds							Qvalue
13) Iodomethane	3.80	127	285	4.40	ppb		1
15) Acetonitrile	4.12	41	333	0.94	ppb	#	1
24) 2-Chloro-1,3-butadiene	5.65	53	223	1.20	PPB	#	23
39) Iso-Butyl Alcohol	8.41	43	1185	3.60	ppb		99
46) 1,4-Dioxane	9.38	88	279	3.11	ppb		96
60) Tetrachloroethene	12.15	166	135	4.27	ppb	#	48
72) Isopropylbenzene	15.58	105	345	3.29	ppb	#	84
73) Cyclohexanone	15.68	55	584	0.73	ppb		93
80) 1,3,5-Trimethylbenzene	16.55	105	113	3.74	ppb		92
92) Nitrobenzene	20.76	77	378	9.08	ppb	#	27

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9399.D Vial: 6
Acq On : 28 Jan 102 2:12 pm Operator: droot
Sample : 526017 1.0 Inst : 5971 - In
Misc : TTEM-KS R22-10409 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 28 14:40 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 02/22/02

Tetra Tech EM Inc.
Project Reference: AGROMACK-LOCKWOOD OU#2
Client Sample ID : SI-GGW-3

Date Sampled : 01/21/02 09:05 **Order #:** 526020 **Sample Matrix:** WATER
Date Received: 01/23/02 **Submission #:** R2210409 **Analytical Run** 73932

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 01/28/02			
ANALYTICAL DILUTION: 1.00			
ACETONE	10	10 U	UG/L
BENZENE	1.0	1.0 U	UG/L
BROMODICHLOROMETHANE	1.0	1.0 U	UG/L
BROMOFORM	1.0	1.0 U	UG/L
BROMOMETHANE	1.0	1.0 U	UG/L
2-BUTANONE (MEK)	5.0	5.0 U	UG/L
CARBON DISULFIDE	5.0	5.0 U	UG/L
CARBON TETRACHLORIDE	1.0	1.0 U	UG/L
CHLOROBENZENE	1.0	1.0 U	UG/L
CHLOROETHANE	1.0	1.0 U	UG/L
CHLOROFORM	1.0	1.0 U	UG/L
CHLOROMETHANE	1.0	1.0 U	UG/L
IBROMOCHLOROMETHANE	1.0	1.0 U	UG/L
,1-DICHLOROETHANE	1.0	1.0 U	UG/L
1,2-DICHLOROETHANE	1.0	1.0 U	UG/L
1,1-DICHLOROETHENE	1.0	1.0 U	UG/L
CIS-1,2-DICHLOROETHENE	1.0	1.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	1.0	1.0 U	UG/L
1,2-DICHLOROPROPANE	1.0	1.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	1.0	1.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	1.0	1.0 U	UG/L
ETHYLBENZENE	1.0	1.0 U	UG/L
2-HEXANONE	5.0	5.0 U	UG/L
METHYLENE CHLORIDE	1.0	1.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	5.0	5.0 U	UG/L
STYRENE	1.0	1.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	1.0	1.0 U	UG/L
TETRACHLOROETHENE	1.0	1.0 U	UG/L
TOLUENE	1.0	1.0 U	UG/L
1,1,1-TRICHLOROETHANE	1.0	1.0 U	UG/L
1,1,2-TRICHLOROETHANE	1.0	1.0 U	UG/L
TRICHLOROETHENE	1.0	1.0 U	UG/L
VINYL CHLORIDE	1.0	1.0 U	UG/L
O-XYLENE	1.0	1.0 U	UG/L
M+P-XYLENE	1.0	1.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
-BROMOFLUOROBENZENE	(87 - 111 %)	102	%
TOLUENE-D8	(87 - 108 %)	101	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	102	%

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9400.D Vial: 7
Acq On : 28 Jan 102 2:48 pm Operator: droot
Sample : 526020 1.0 Inst : 5971 - In
Misc : TTEM-KS R22-10409 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 28 15:16 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration

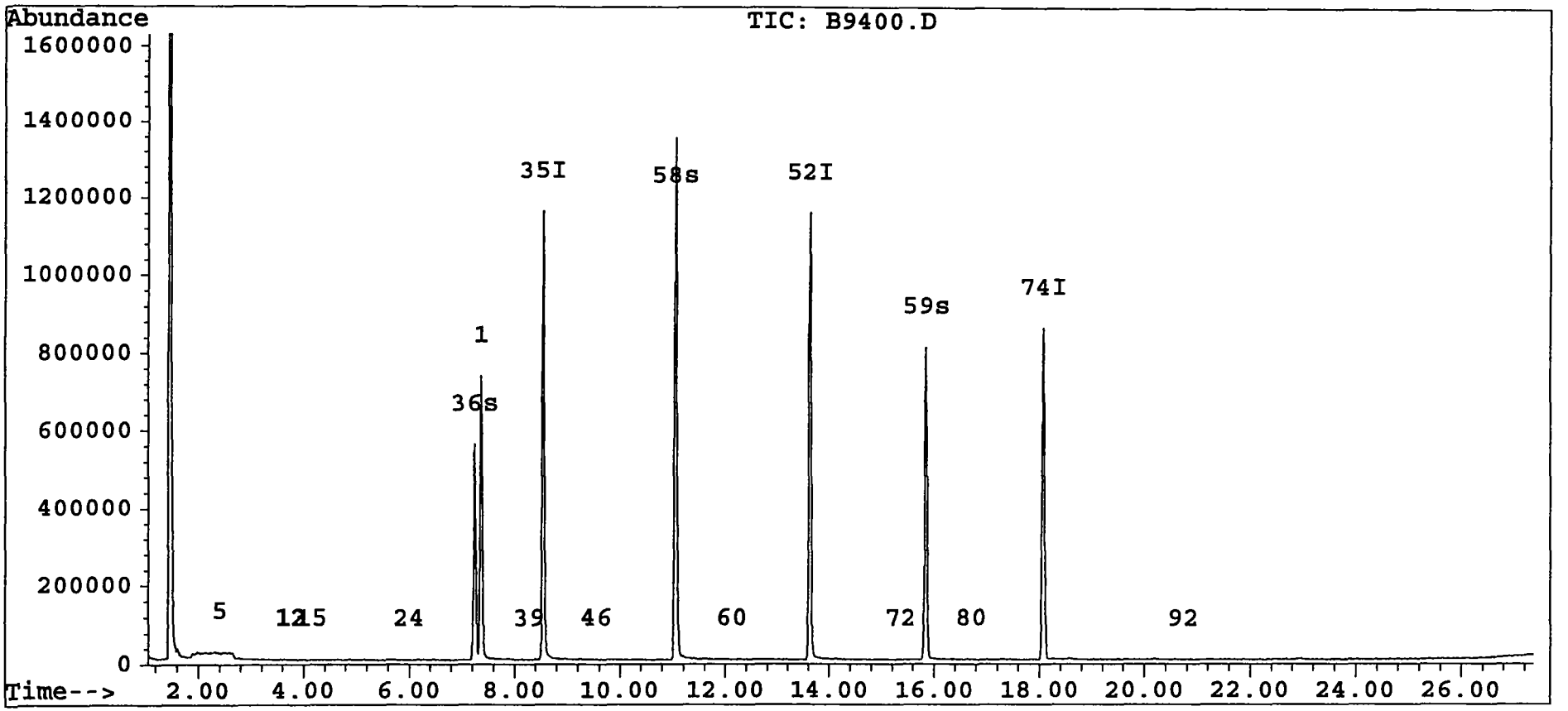
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	7.36	168	719854	50.00	ppb	-0.04
35) 1,4 - Difluorobenzene	8.54	114	1404262	50.00	ppb	-0.04
52) d5 - Chlorobenzene	13.63	117	1139086	50.00	ppb	-0.04
74) d4 - Dichlorobenzene	18.07	152	424780	50.00	ppb	-0.04
System Monitoring Compounds						%Recovery
36) surr4,Dibrflmethane	7.24	113	505938	51.11	ppb	102.21%
58) surr3,Toluene-d8	11.05	98	1359562	50.32	ppb	100.63%
59) surr2,bfb	15.84	95	546037	50.83	ppb	101.66%
Target Compounds						Qvalue
5) Bromomethane	2.41	94	2208	0.45	ppb	# 4
12) Acetone	3.76	43	3473	1.12	ppb	# 72
13) Iodomethane	3.78	127	549	4.47	ppb	1
15) Acetonitrile	4.14	41	215	0.62	ppb	# 1
24) 2-Chloro-1,3-butadiene	6.00	53	136	1.19	PPB	90
39) Iso-Butyl Alcohol	8.27	43	611	1.87	ppb	98
46) 1,4-Dioxane	9.55	88	376	4.22	ppb	# 31
60) Tetrachloroethene	12.13	166	197	4.28	ppb	# 33
72) Isopropylbenzene	15.36	105	149	3.29	ppb	93
80) 1,3,5-Trimethylbenzene	16.70	105	458	3.76	ppb	# 78
92) Nitrobenzene	20.73	77	621	9.32	ppb	# 50

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9400.D Vial: 7
Acq On : 28 Jan 102 2:48 pm Operator: droot
Sample : 526020 1.0 Inst : 5971 - In
Misc : TTEM-KS R22-10409 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 28 15:16 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration



06

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 02/22/02

Tetra Tech EM Inc.
Project Reference: AGROMACK-LOCKWOOD OU#2
Client Sample ID : SI-GGW-1

Date Sampled : 01/21/02 09:10 **Order #:** 526021 **Sample Matrix:** WATER
Date Received: 01/23/02 **Submission #:** R2210409 **Analytical Run** 73932

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 01/28/02			
ANALYTICAL DILUTION: 1.00			
ACETONE	10	10 U	UG/L
BENZENE	1.0	1.0 U	UG/L
BROMODICHLOROMETHANE	1.0	1.0 U	UG/L
BROMOFORM	1.0	1.0 U	UG/L
BROMOMETHANE	1.0	1.0 U	UG/L
2-BUTANONE (MEK)	5.0	5.0 U	UG/L
CARBON DISULFIDE	5.0	5.0 U	UG/L
CARBON TETRACHLORIDE	1.0	1.0 U	UG/L
CHLOROBENZENE	1.0	1.0 U	UG/L
CHLOROETHANE	1.0	1.0 U	UG/L
CHLOROFORM	1.0	1.0 U	UG/L
CHLOROMETHANE	1.0	1.0 U	UG/L
IBROMOCHLOROMETHANE	1.0	1.0 U	UG/L
ı,1-DICHLOROETHANE	1.0	1.0 U	UG/L
1,2-DICHLOROETHANE	1.0	1.0 U	UG/L
1,1-DICHLOROETHENE	1.0	1.0 U	UG/L
CIS-1,2-DICHLOROETHENE	1.0	1.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	1.0	1.0 U	UG/L
1,2-DICHLOROPROPANE	1.0	1.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	1.0	1.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	1.0	1.0 U	UG/L
ETHYLBENZENE	1.0	1.0 U	UG/L
2-HEXANONE	5.0	5.0 U	UG/L
METHYLENE CHLORIDE	1.0	1.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	5.0	5.0 U	UG/L
STYRENE	1.0	1.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	1.0	1.0 U	UG/L
TETRACHLOROETHENE	1.0	1.0 U	UG/L
TOLUENE	1.0	1.0 U	UG/L
1,1,1-TRICHLOROETHANE	1.0	1.0 U	UG/L
1,1,2-TRICHLOROETHANE	1.0	1.0 U	UG/L
TRICHLOROETHENE	1.0	1.0 U	UG/L
VINYL CHLORIDE	1.0	1.0 U	UG/L
O-XYLENE	1.0	1.0 U	UG/L
M+P-XYLENE	1.0	1.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
ı-BROMOFLUOROBENZENE	(87 - 111 %)	104	%
TOLUENE-D8	(87 - 108 %)	103	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	99	%

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9401.D Vial: 8
Acq On : 28 Jan 102 3:25 pm Operator: droot
Sample : 526021 1.0 Inst : 5971 - In
Misc : TTEM-KS R22-10409 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 28 15:53 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	7.36	168	735492	50.00 ppb	-0.04
35) 1,4 - Difluorobenzene	8.54	114	1415702	50.00 ppb	-0.04
52) d5 - Chlorobenzene	13.62	117	1145016	50.00 ppb	-0.05
74) d4 - Dichlorobenzene	18.07	152	443653	50.00 ppb	-0.04
System Monitoring Compounds					%Recovery
36) surr1,Dibrflmethane	7.23	113	499049	49.68 ppb	99.36%
58) surr2,Toluene-d8	11.04	98	1386643	51.29 ppb	102.59%
59) surr3,bfb	15.84	95	557702	51.95 ppb	103.89%
Target Compounds					Qvalue
12) Acetone	3.76	43	4419	1.40 ppb	96
13) Iodomethane	3.90	127	131	~~4.36 ppb~~	~~1~~
24) 2-Chloro-1,3-butadiene	5.82	53	466	~~1.22 PPB~~	~~93~~
39) Iso-Butyl Alcohol	8.40	43	1376	~~4.19 ppb~~	~~84~~
46) 1,4-Dioxane	9.74	88	306	~~3.41 ppb~~	~~97~~
60) Tetrachloroethene	12.16	166	321	~~4.30 ppb #~~	~~33~~
72) Isopropylbenzene	15.22	105	171	~~3.29 ppb~~	~~94~~
73) Cyclohexanone	15.66	55	401	~~0.50 ppb~~	~~85~~
80) 1,3,5-Trimethylbenzene	16.70	105	302	~~3.75 ppb #~~	~~82~~
92) Nitrobenzene	20.77	77	278	~~8.97 ppb #~~	~~27~~

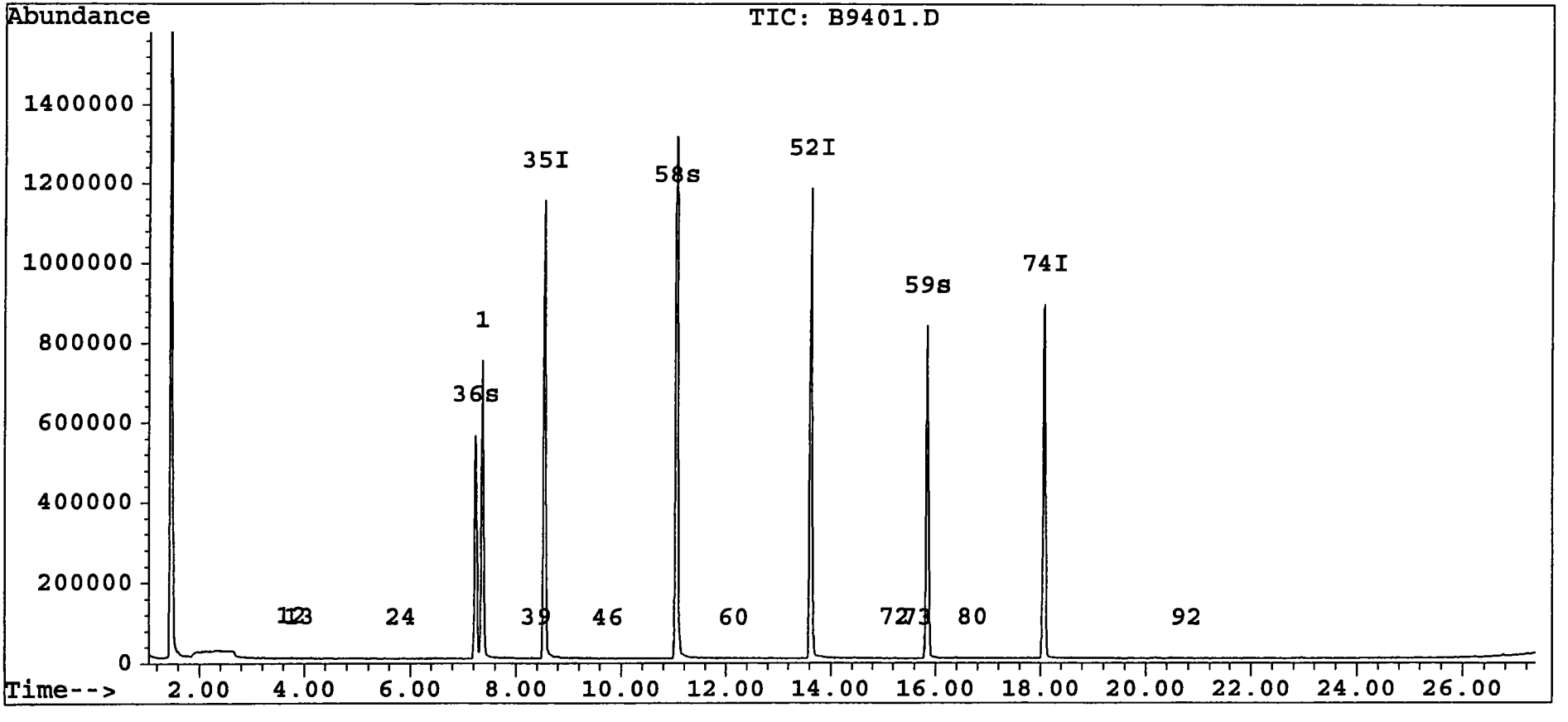
1/29

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9401.D Vial: 8
Acq On : 28 Jan 102 3:25 pm Operator: droot
Sample : 526021 1.0 Inst : 5971 - In
Misc : TTEM-KS R22-10409 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 28 15:53 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 02/22/02

Tetra Tech EM Inc.
Project Reference: AGROMACK-LOCKWOOD OU#2
Client Sample ID : OS-GGW-2

Date Sampled : 01/21/02 11:00 **Order #:** 526022 **Sample Matrix:** WATER
Date Received: 01/23/02 **Submission #:** R2210409 **Analytical Run** 73932

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 01/28/02			
ANALYTICAL DILUTION: 1.00			
ACETONE	10	10 U	UG/L
BENZENE	1.0	1.0 U	UG/L
BROMODICHLOROMETHANE	1.0	1.0 U	UG/L
BROMOFORM	1.0	1.0 U	UG/L
BROMOMETHANE	1.0	1.0 U	UG/L
2-BUTANONE (MEK)	5.0	5.0 U	UG/L
CARBON DISULFIDE	5.0	5.0 U	UG/L
CARBON TETRACHLORIDE	1.0	1.0 U	UG/L
CHLOROBENZENE	1.0	1.0 U	UG/L
CHLOROETHANE	1.0	1.0 U	UG/L
CHLOROFORM	1.0	1.0 U	UG/L
CHLOROMETHANE	1.0	1.0 U	UG/L
`IBROMOCHLOROMETHANE	1.0	1.0 U	UG/L
,1-DICHLOROETHANE	1.0	1.0 U	UG/L
1,2-DICHLOROETHANE	1.0	1.0 U	UG/L
1,1-DICHLOROETHENE	1.0	1.0 U	UG/L
CIS-1,2-DICHLOROETHENE	1.0	1.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	1.0	1.0 U	UG/L
1,2-DICHLOROPROPANE	1.0	1.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	1.0	1.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	1.0	1.0 U	UG/L
ETHYLBENZENE	1.0	1.0 U	UG/L
2-HEXANONE	5.0	5.0 U	UG/L
METHYLENE CHLORIDE	1.0	1.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	5.0	5.0 U	UG/L
STYRENE	1.0	1.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	1.0	1.0 U	UG/L
TETRACHLOROETHENE	1.0	1.0 U	UG/L
TOLUENE	1.0	1.0 U	UG/L
1,1,1-TRICHLOROETHANE	1.0	1.0 U	UG/L
1,1,2-TRICHLOROETHANE	1.0	1.0 U	UG/L
TRICHLOROETHENE	1.0	1.0 U	UG/L
VINYL CHLORIDE	1.0	1.0 U	UG/L
O-XYLENE	1.0	1.0 U	UG/L
M+P-XYLENE	1.0	1.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
-BROMOFLUOROBENZENE	(87 - 111 %)	103	%
TOLUENE-D8	(87 - 108 %)	99	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	102	%

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9402.D Vial: 9
Acq On : 28 Jan 102 4:02 pm Operator: droot
Sample : 526022 1.0 Inst : 5971 - In
Misc : TTEM-KS R22-10409 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 28 16:30 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration

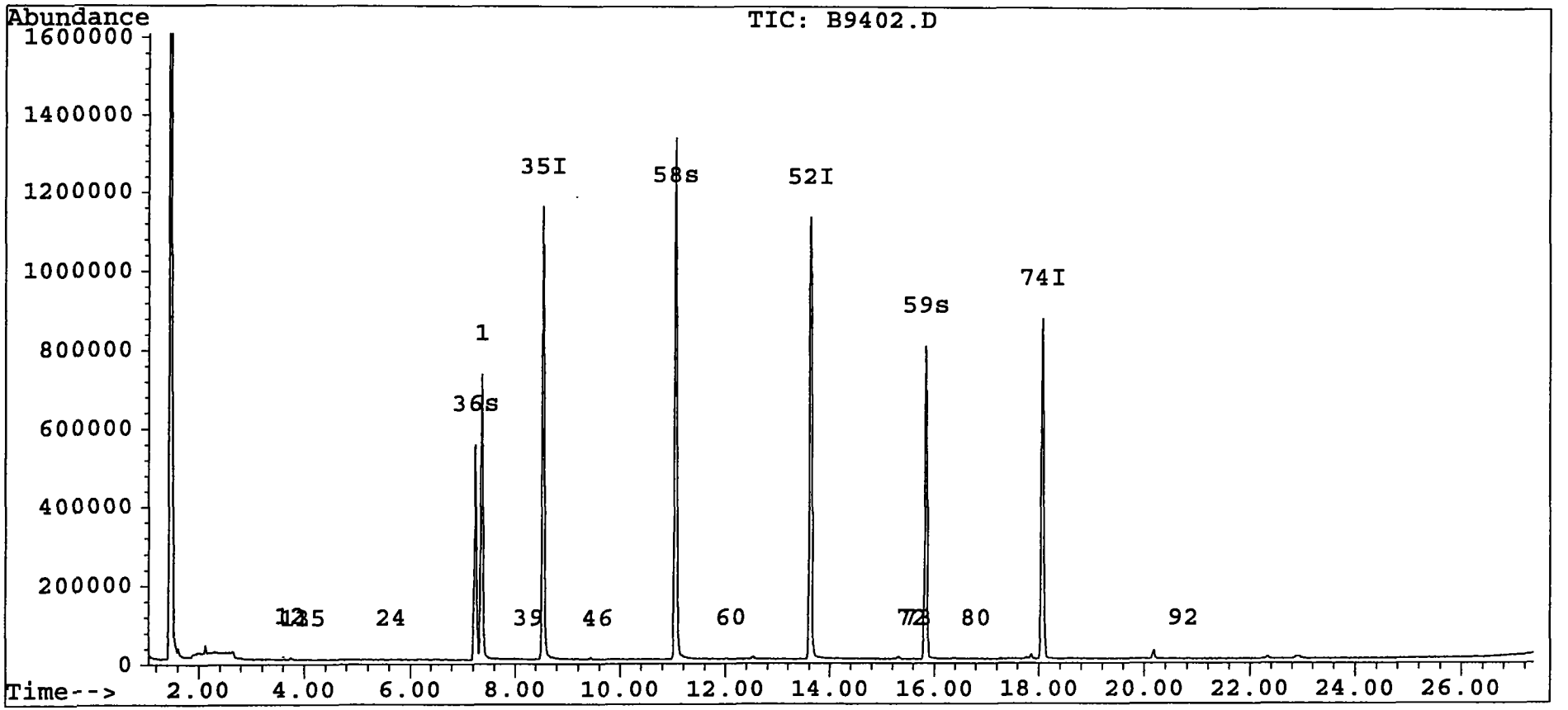
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	7.36	168	726089	50.00	ppb		-0.04
35) 1,4 - Difluorobenzene	8.54	114	1394637	50.00	ppb		-0.04
52) d5 - Chlorobenzene	13.63	117	1136331	50.00	ppb		-0.04
74) d4 - Dichlorobenzene	18.07	152	437815	50.00	ppb		-0.04
System Monitoring Compounds							%Recovery
36) surr4,Dibrflmethane	7.24	113	500668	50.87	ppb		101.74%
58) surr3,Toluene-d8	11.05	98	1343040	49.67	ppb		99.33%
59) surr2,bfb	15.83	95	550898	51.62	ppb		103.24%
Target Compounds							Qvalue
12) Acetone	3.74	43	12119	3.89	ppb		95
13) Iodomethane	3.82	127	190	4.38	ppb		1
15) Acetonitrile	4.12	41	227	0.65	ppb	#	1
24) 2-Chloro-1,3-butadiene	5.65	53	301	1.21	PPB		87
39) Iso-Butyl Alcohol	8.26	43	1064	3.29	ppb		93
46) 1,4-Dioxane	9.58	88	138	1.56	ppb	#	40
60) Tetrachloroethene	12.11	166	324	4.30	ppb	#	6
72) Isopropylbenzene	15.58	105	494	3.30	ppb	#	86
73) Cyclohexanone	15.68	55	539	0.68	ppb		95
80) 1,3,5-Trimethylbenzene	16.80	105	89	3.74	ppb		92
92) Nitrobenzene	20.73	77	691	9.37	ppb	#	38

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9402.D Vial: 9
Acq On : 28 Jan 102 4:02 pm Operator: droot
Sample : 526022 1.0 Inst : 5971 - In
Misc : TTEM-KS R22-10409 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 28 16:30 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 02/22/02

Tetra Tech EM Inc.
Project Reference: AGROMACK-LOCKWOOD OU#2
Client Sample ID : SI-GGW-4

Date Sampled : 01/21/02 08:35 **Order #:** 526023 **Sample Matrix:** WATER
Date Received: 01/23/02 **Submission #:** R2210409 **Analytical Run** 73932

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 01/28/02			
ANALYTICAL DILUTION: 1.00			
ACETONE	10	10 U	UG/L
BENZENE	1.0	1.0 U	UG/L
BROMODICHLOROMETHANE	1.0	1.0 U	UG/L
BROMOFORM	1.0	1.0 U	UG/L
BROMOMETHANE	1.0	1.0 U	UG/L
2-BUTANONE (MEK)	5.0	5.0 U	UG/L
CARBON DISULFIDE	5.0	5.0 U	UG/L
CARBON TETRACHLORIDE	1.0	1.0 U	UG/L
CHLOROBENZENE	1.0	1.0 U	UG/L
CHLOROETHANE	1.0	1.0 U	UG/L
CHLOROFORM	1.0	1.0 U	UG/L
CHLOROMETHANE	1.0	1.0 U	UG/L
IBROMOCHLOROMETHANE	1.0	1.0 U	UG/L
ı,1-DICHLOROETHANE	1.0	1.0 U	UG/L
1,2-DICHLOROETHANE	1.0	1.0 U	UG/L
1,1-DICHLOROETHENE	1.0	1.0 U	UG/L
CIS-1,2-DICHLOROETHENE	1.0	1.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	1.0	1.0 U	UG/L
1,2-DICHLOROPROPANE	1.0	1.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	1.0	1.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	1.0	1.0 U	UG/L
ETHYLBENZENE	1.0	1.0 U	UG/L
2-HEXANONE	5.0	5.0 U	UG/L
METHYLENE CHLORIDE	1.0	1.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	5.0	5.0 U	UG/L
STYRENE	1.0	1.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	1.0	1.0 U	UG/L
TETRACHLOROETHENE	1.0	1.0 U	UG/L
TOLUENE	1.0	1.0 U	UG/L
1,1,1-TRICHLOROETHANE	1.0	1.0 U	UG/L
1,1,2-TRICHLOROETHANE	1.0	1.0 U	UG/L
TRICHLOROETHENE	1.0	1.0 U	UG/L
VINYL CHLORIDE	1.0	1.0 U	UG/L
O-XYLENE	1.0	1.0 U	UG/L
M+P-XYLENE	1.0	1.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
ı-BROMOFLUOROBENZENE	(87 - 111 %)	103	%
TOLUENE-D8	(87 - 108 %)	102	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	101	%

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9403.D Vial: 10
Acq On : 28 Jan 102 4:39 pm Operator: droot
Sample : 526023 1.0 Inst : 5971 - In
Misc : TTEM-KS R22-10409 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 28 17:07 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration

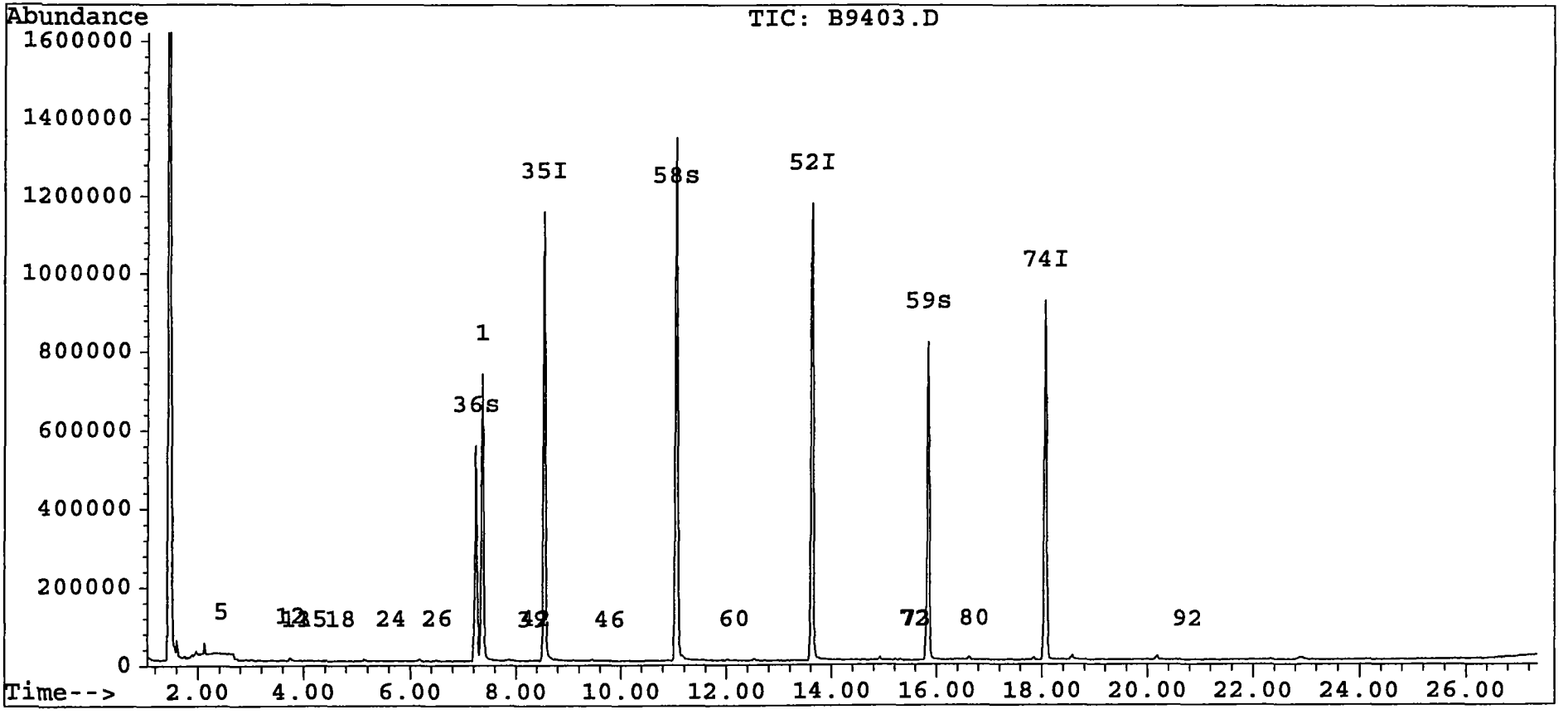
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	7.37	168	728276	50.00	ppb		-0.03
35) 1,4 - Difluorobenzene	8.54	114	1386911	50.00	ppb		-0.04
52) d5 - Chlorobenzene	13.63	117	1142362	50.00	ppb		-0.04
74) d4 - Dichlorobenzene	18.07	152	449183	50.00	ppb		-0.04
System Monitoring Compounds							%Recovery
36) surr4,Dibrflmethane	7.24	113	494634	50.44	ppb		100.88%
58) surr3,Toluene-d8	11.05	98	1373586	50.81	ppb		101.62%
59) surr2,bfb	15.84	95	554353	51.69	ppb		103.37%
Target Compounds							Qvalue
5) Bromomethane	2.46	94	4914	1.00	ppb	#	7
12) Acetone	3.75	43	14542	4.65	ppb		92
13) Iodomethane	3.86	127	427	4.44	ppb		1
15) Acetonitrile	4.17	41	507	1.44	ppb	#	1
18) TBA	4.68	59	513	0.60	ppb		95
24) 2-Chloro-1,3-butadiene	5.65	53	181	1.20	PPB	#	23
26) 2-Butanone	6.51	43	5318	0.95	ppb	#	75
39) Iso-Butyl Alcohol	8.31	43	442	1.37	ppb		86
42) N-Heptane	8.39	43	2599	0.40	ppb	#	67
46) 1,4-Dioxane	9.79	88	112	1.27	ppb		90
60) Tetrachloroethene	12.14	166	92	4.27	ppb	#	1
72) Isopropylbenzene	15.56	105	469	3.30	ppb		90
73) Cyclohexanone	15.63	55	1234	1.56	ppb		85
80) 1,3,5-Trimethylbenzene	16.71	105	513	3.76	ppb	#	45
92) Nitrobenzene	20.76	77	367	9.05	ppb	#	27

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9403.D Vial: 10
Acq On : 28 Jan 102 4:39 pm Operator: droot
Sample : 526023 1.0 Inst : 5971 - In
Misc : TTEM-KS R22-10409 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 28 17:07 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 02/22/02

Tetra Tech EM Inc.
Project Reference: AGROMACK-LOCKWOOD OU#2
Client Sample ID : SMWB-WW

Date Sampled : 01/19/02 15:45 **Order #:** 526024 **Sample Matrix:** WATER
Date Received: 01/23/02 **Submission #:** R2210409 **Analytical Run** 73932

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 01/28/02			
ANALYTICAL DILUTION: 2.00			
ACETONE	10	97	UG/L
BENZENE	1.0	2.0 U	UG/L
BROMODICHLOROMETHANE	1.0	2.0 U	UG/L
BROMOFORM	1.0	2.0 U	UG/L
BROMOMETHANE	1.0	2.0 U	UG/L
2-BUTANONE (MEK)	5.0	26	UG/L
CARBON DISULFIDE	5.0	10 U	UG/L
CARBON TETRACHLORIDE	1.0	2.0 U	UG/L
CHLOROBENZENE	1.0	2.0 U	UG/L
CHLOROETHANE	1.0	2.0 U	UG/L
CHLOROFORM	1.0	2.0 U	UG/L
CHLOROMETHANE	1.0	2.0 U	UG/L
DIBROMOCHLOROMETHANE	1.0	2.0 U	UG/L
1,1-DICHLOROETHANE	1.0	2.0 U	UG/L
1,2-DICHLOROETHANE	1.0	2.0 U	UG/L
1,1-DICHLOROETHENE	1.0	2.0 U	UG/L
CIS-1,2-DICHLOROETHENE	1.0	2.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	1.0	2.0 U	UG/L
1,2-DICHLOROPROPANE	1.0	2.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	1.0	2.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	1.0	2.0 U	UG/L
ETHYLBENZENE	1.0	2.0 U	UG/L
2-HEXANONE	5.0	4.1 J	UG/L
METHYLENE CHLORIDE	1.0	2.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	5.0	5.8 J	UG/L
STYRENE	1.0	2.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	1.0	2.0 U	UG/L
TETRACHLOROETHENE	1.0	2.0 U	UG/L
TOLUENE	1.0	2.0 U	UG/L
1,1,1-TRICHLOROETHANE	1.0	2.0 U	UG/L
1,1,2-TRICHLOROETHANE	1.0	2.0 U	UG/L
TRICHLOROETHENE	1.0	2.0 U	UG/L
VINYL CHLORIDE	1.0	2.0 U	UG/L
O-XYLENE	1.0	2.0 U	UG/L
M+P-XYLENE	1.0	2.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
-BROMOFLUOROBENZENE	(87 - 111 %)	101	%
TOLUENE-D8	(87 - 108 %)	103	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	96	%

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9404.D Vial: 11
Acq On : 28 Jan 102 5:16 pm Operator: droot
Sample : 526024 2.0 Inst : 5971 - In
Misc : TTEM-KS R22-10409 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 28 17:44 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration

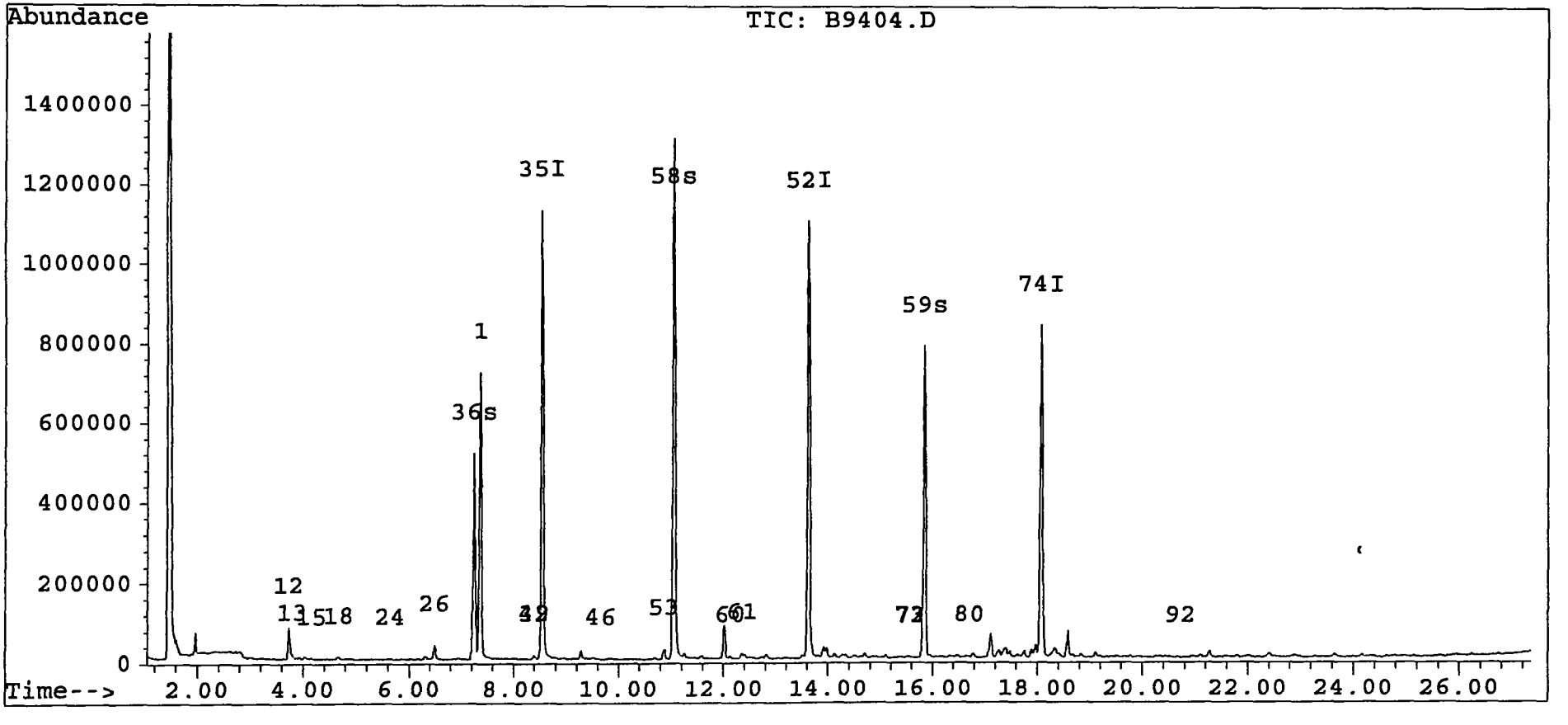
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	7.36	168	719194	50.00	ppb		-0.04
35) 1,4 - Difluorobenzene	8.54	114	1400851	50.00	ppb		-0.04
52) d5 - Chlorobenzene	13.62	117	1115690	50.00	ppb		-0.05
74) d4 - Dichlorobenzene	18.07	152	408113	50.00	ppb		-0.04
System Monitoring Compounds							%Recovery
36) surr4,Dibrflmethane	7.23	113	481948	48.13	ppb		96.26%
58) surr3,Toluene-d8	11.05	98	1351723	51.32	ppb		102.64%
59) surr2,bfb	15.83	95	533738	50.69	ppb		101.38%
Target Compounds							Qvalue
12) Acetone	3.73	43	150167	48.67	ppb		100
13) Iodomethane	3.80	127	618	4.49	ppb		1
15) Acetonitrile	4.16	41	622	1.79	ppb	#	1
18) TBA	4.66	59	9705	11.48	ppb		93
24) 2-Chloro-1,3-butadiene	5.66	53	1118	1.28	PPB	#	67
26) 2-Butanone	6.49	43	70317	12.77	ppb		98
39) Iso-Butyl Alcohol	8.39	43	18097	55.65	ppb	#	66
42) N-Heptane	8.39	43	18097	2.79	ppb	#	35
46) 1,4-Dioxane	9.67	88	303	3.41	ppb		81
53) 4-Methyl-2-Pentanone	10.86	43	32853	2.92	ppb		90
60) Tetrachloroethene	12.13	166	572	4.35	ppb	#	82
61) 2-Hexanone	12.35	43	15723	2.07	ppb		89
72) Isopropylbenzene	15.58	105	2178	3.37	ppb	#	77
73) Cyclohexanone	15.56	55	618	0.80	ppb		84
80) 1,3,5-Trimethylbenzene	16.71	105	1157	3.79	ppb	#	1
92) Nitrobenzene	20.72	77	491	9.22	ppb	#	27

(#) = qualifier out of range (m) = manual integration

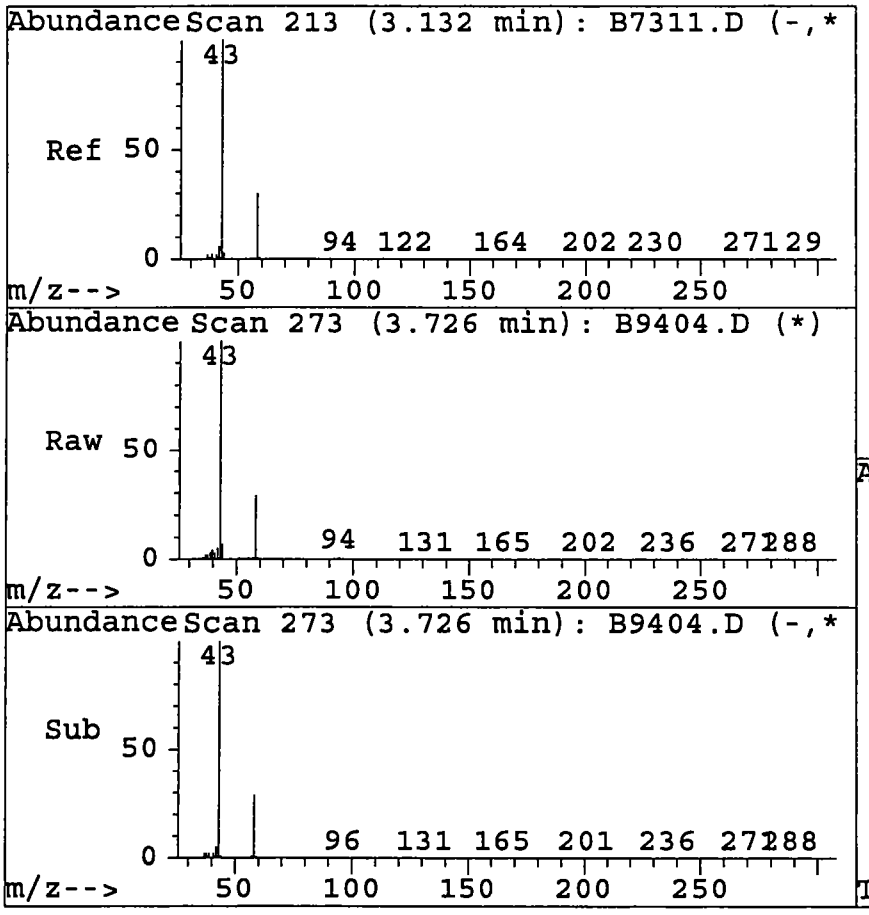
Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9404.D Vial: 11
Acq On : 28 Jan 102 5:16 pm Operator: droot
Sample : 526024 2.0 Inst : 5971 - In
Misc : TTEM-KS R22-10409 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 28 17:44 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration



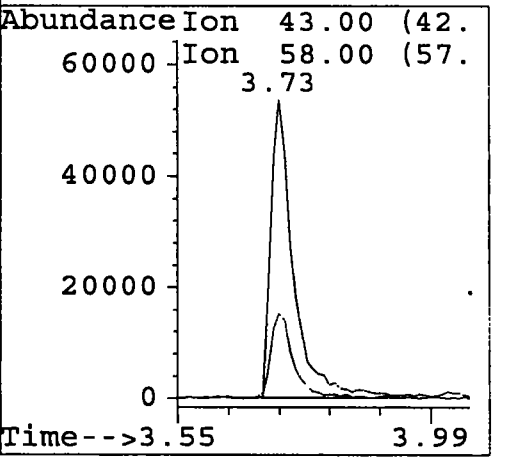
102

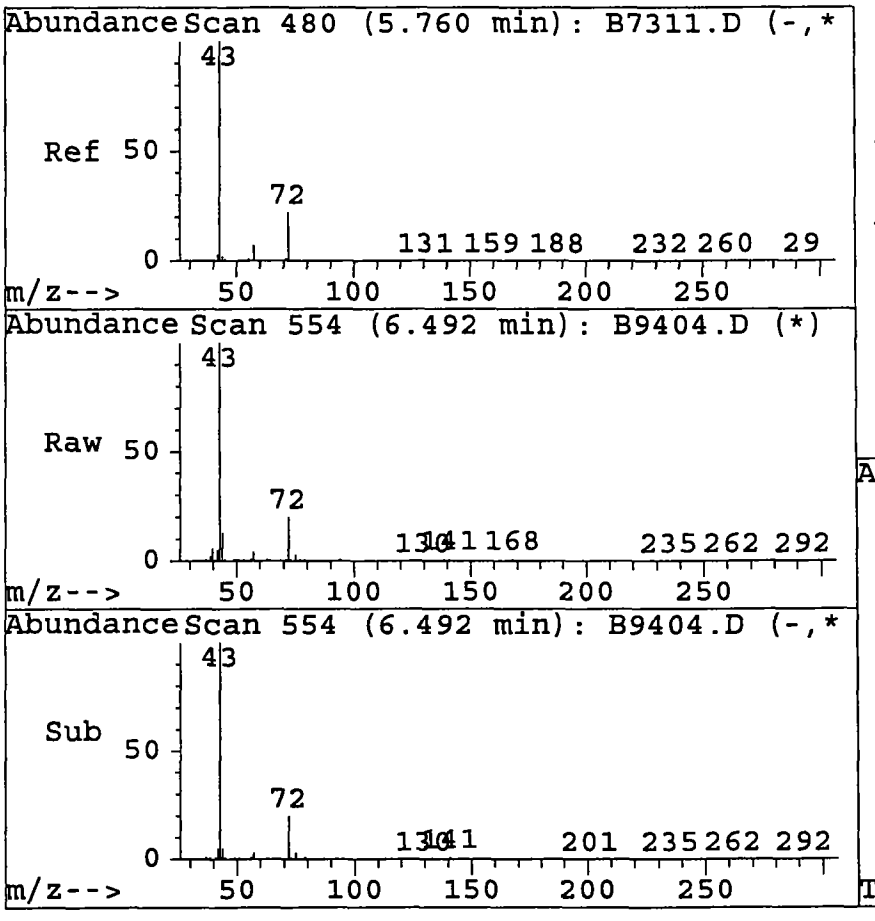


#12
Acetone
Concen: 48.67 ppb
RT: 3.73 min Scan# 273
Delta R.T. -0.03 min
Lab File: B9404.D
Acq: 28 Jan 102 5:16 pm

Tgt Ion:43 Resp: 150167

Ion	Ratio	Lower	Upper
43	100		
58	28.5	22.8	34.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

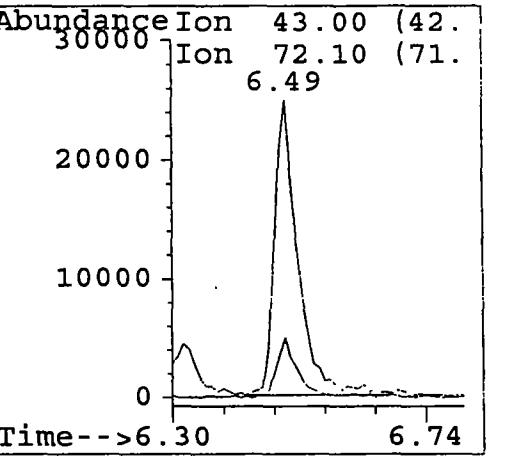


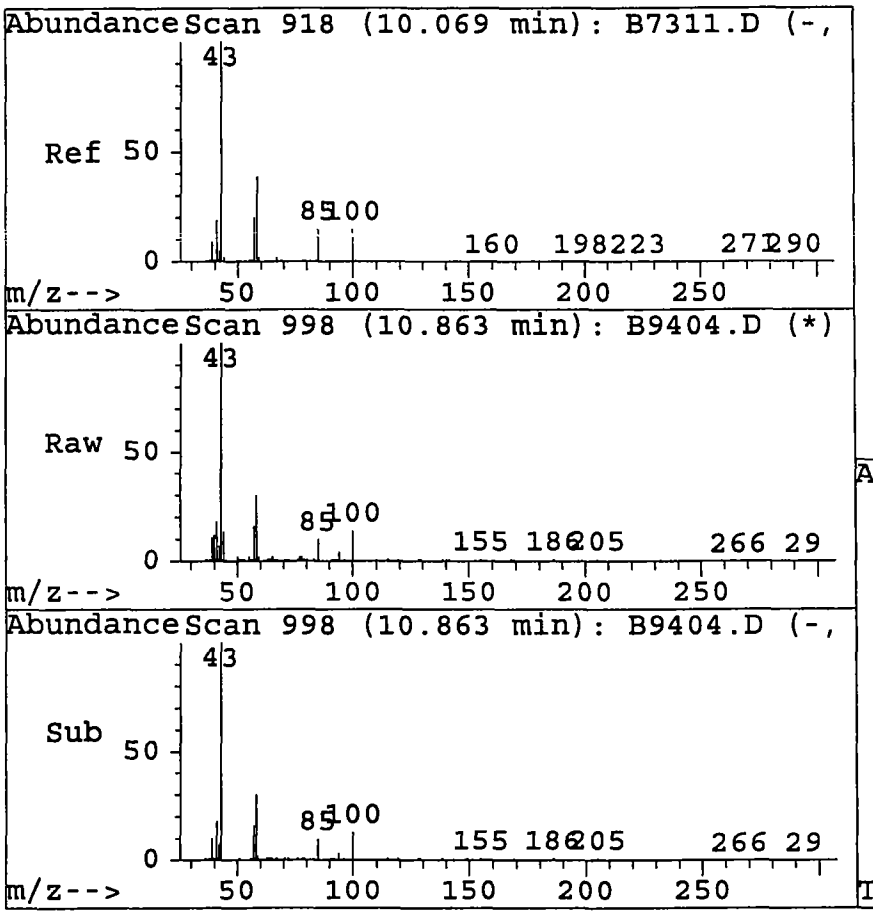


#26
2-Butanone
Concen: 12.77 ppb
RT: 6.49 min Scan# 554
Delta R.T. -0.03 min
Lab File: B9404.D
Acq: 28 Jan 102 5:16 pm

Tgt Ion:43 Resp: 70317

Ion	Ratio	Lower	Upper
43	100		
72	20.2	14.5	24.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

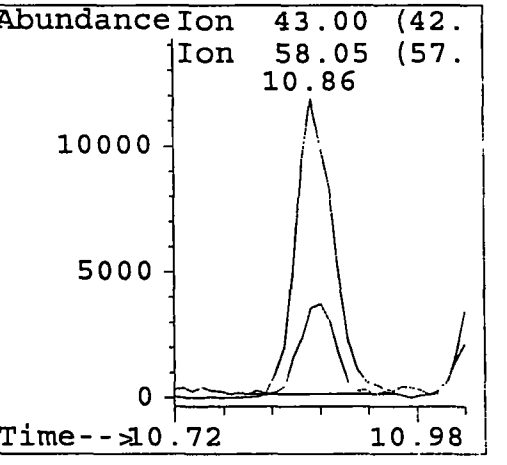


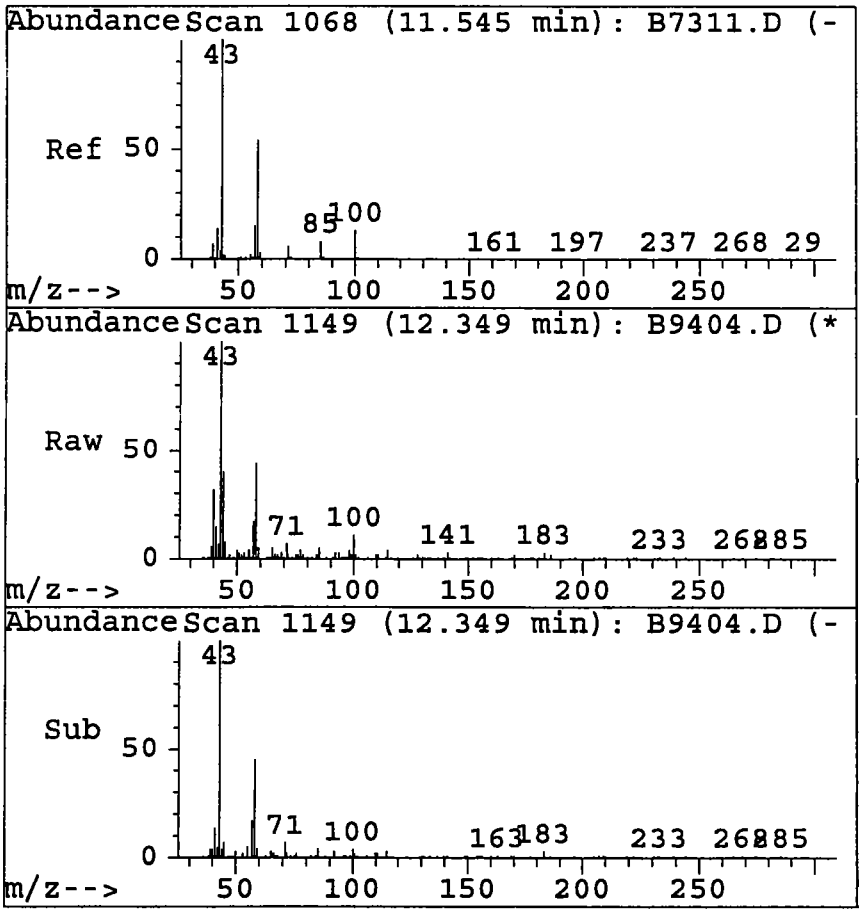


#53
4-Methyl-2-Pentanone
Concen: 2.92 ppb
RT: 10.86 min Scan# 998
Delta R.T. -0.04 min
Lab File: B9404.D
Acq: 28 Jan 102 5:16 pm

Tgt Ion:43 Resp: 32853

Ion	Ratio	Lower	Upper
43	100		
58	30.2	27.0	44.9
0	0.0	0.0	0.0
0	0.0	0.0	0.0

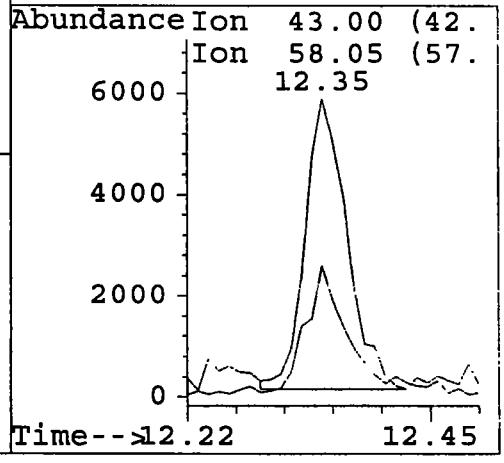




#61
2-Hexanone
Concen: 2.07 ppb
RT: 12.35 min Scan# 1149
Delta R.T. -0.04 min
Lab File: B9404.D
Acq: 28 Jan 102 5:16 pm

Tgt Ion:43 Resp: 15723

Ion	Ratio	Lower	Upper
43	100		
58	44.1	41.5	62.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0



8260 VOLATILE ORGANICS

STANDARDS DATA

Response Factor Report 5971 - In

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Mon Dec 17 15:59:41 2001
Response via : Initial Calibration

Calibration Files
1 =B8386.D 5 =B8387.D 20 =B8388.D
50 =B8389.D 100 =B8390.D 150 =B8391.D

		Compound	1	5	20	50	100	150	Avg	%RSD	
1)		Pentafluorobenzene	ISTD								
2)		Dichlorodifluoromet	0.376	0.446	0.375	0.365	0.483	0.494	0.426	12.61	
3)	p	Chloromethane	0.479	0.615	0.542	0.505	0.619	0.628	0.564	10.47	
4)	c	Vinyl Chloride	0.463	0.488	0.432	0.414	0.542	0.550	0.485	10.74	
5)		Bromomethane	0.394	0.333	0.297	0.281	0.359	0.371	0.338	11.87	
6)		Chloroethane	0.358	0.312	0.269	0.249	0.315	0.326	0.303	11.91	
7)		Trichlorofluorometh	0.481	0.566	0.480	0.463	0.604	0.612	0.536	11.54	
8)		Diethyl Ether	0.452	0.496	0.476	0.438	0.516	0.511	0.481	6.04	
9)		Acrolein	0.095	0.121	0.105	0.109	0.112	0.111	0.108	7.64	
10)		FREON 113	0.135	0.142	0.117	0.118	0.161	0.167	0.142	14.03	
11)	c	1,1-Diclethene	0.313	0.389	0.336	0.326	0.418	0.425	0.371	12.26	
12)		Acetone	0.282	0.207	0.194	0.201	0.215	0.216	0.215	14.65	
13)		Iodomethane		0.093	0.157	0.214	0.282	0.258	0.209	34.15	LR
14)		Carbon Disulfide		1.098	1.272	1.448	1.696	1.545	1.431	14.94	
		Acetonitrile		0.022	0.023	0.024	0.026	0.025	0.024	5.81	
		Allyl Chloride	0.232	0.233	0.210	0.204	0.251	0.252	0.230	8.00	
17)		Methylene Chloride	0.498	0.552	0.480	0.442	0.542	0.534	0.505	7.78	
18)		TBA	0.054	0.064	0.060	0.056	0.060	0.061	0.059	5.74	
19)		Acrylonitrile	0.240	0.282	0.268	0.254	0.274	0.271	0.263	5.70	
20)		Methyl-t-Butyl Ethe	1.266	1.537	1.432	1.318	1.543	1.514	1.432	7.60	
21)		trans-1,2-Dichloroe	0.381	0.474	0.422	0.404	0.525	0.526	0.460	12.63	
22)	p	1,1-Diclethane	0.742	0.831	0.771	0.731	0.927	0.915	0.821	9.58	
23)		Vinyl Acetate	1.256	1.245	1.129	1.089	1.152	0.971	1.103	12.51	
24)		2-Chloro-1,3-butadi		0.523	0.605	0.705	0.813	0.745	0.688	15.30	LR
25)		2,2-Dichloropropane	0.519	0.602	0.524	0.503	0.655	0.670	0.580	11.55	
26)		2-Butanone		0.419	0.351	0.388	0.384	0.393	0.383	6.35	
27)		Ethyl Acetate							0.000	-1.00	
28)		cis-1,2-Dichloroeth	0.531	0.563	0.511	0.477	0.603	0.599	0.548	8.33	
29)		Propionitrile	0.092	0.107	0.101	0.093	0.103	0.101	0.099	5.39	
30)		Methacrylonitrile	0.253	0.274	0.250	0.237	0.265	0.265	0.256	4.87	
31)		Bromochloromethane	0.288	0.295	0.260	0.238	0.284	0.274	0.271	7.44	
32)	c	Chloroform	0.753	0.831	0.740	0.696	0.852	0.851	0.787	7.71	
33)		Tetrahydrofuran		0.343	0.248	0.224	0.242	0.235	0.252	17.96	LR
34)		1,1,1-Trichloroetha	0.473	0.603	0.514	0.508	0.662	0.679	0.581	14.04	
35)	I	1,4 - Difluorobenzene	ISTD								
36)	s	surr4,Dibrflmethane			0.318	0.363	0.315	0.308	0.321	7.66	LR
37)		Carbontetrachloride		0.252	0.218	0.221	0.293	0.305	0.262	14.36	
38)		1,1-Dichloropropene	0.293	0.321	0.273	0.266	0.349	0.359	0.314	11.80	
39)		Iso-Butyl Alcohol	0.011	0.012	0.012	0.010	0.012	0.013	0.012	9.13	
		Benzene	0.769	0.954	0.836	0.789	0.996	1.013	0.899	11.07	
41)		1,2-Dichloroethane	0.326	0.362	0.340	0.309	0.367	0.358	0.343	6.12	
42)		N-Heptane	0.234	0.242	0.229	0.189	0.242	0.258	0.232	9.27	

(#) = Out of Range ### Number of calibration levels exceeded format ###

Response Factor Report 5971 - In

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Mon Dec 17 15:59:41 2001
Response via : Initial Calibration

Calibration Files
1 =B8386.D 5 =B8387.D 20 =B8388.D
50 =B8389.D 100 =B8390.D 150 =B8391.D

		Compound	1	5	20	50	100	150	Avg	%RSD	
43)		Trichloroethene	0.195	0.249	0.212	0.210	0.272	0.277	0.240	14.07	
44)	c	1,2-Diclpropane	0.259	0.313	0.285	0.263	0.321	0.320	0.295	8.88	
45)		Methyl Methacrylate	0.205	0.219	0.214	0.200	0.224	0.219	0.213	4.00	
46)		1,4-Dioxane		0.004	0.003	0.003	0.003	0.003	0.003	5.75	
47)		Dibromomethane	0.175	0.199	0.191	0.177	0.205	0.202	0.192	6.11	
48)		Bromodichloromethan	0.308	0.333	0.313	0.293	0.359	0.354	0.328	7.40	
49)		2-Nitropropane	0.112	0.111	0.109	0.102	0.112	0.111	0.109	3.59	
50)		2-Chloroethylvinyl	0.283	0.248	0.221	0.236	0.248	0.237	0.243	8.29	
51)		cis-1,3-Dichloropro	0.394	0.448	0.420	0.385	0.468	0.454	0.429	7.21	
52)	I	d5 - Chlorobenzene	----------	----------	ISTD	----------	----------	----------			
53)		4-Methyl-2-Pentanon	0.566	0.507	0.448	0.513	0.514	0.503	0.504	7.28	
54)	c	Toluene	0.918	1.056	0.941	0.916	1.178	1.199	1.048	11.82	
55)		trans-1,3-Dichlorop	0.408	0.483	0.455	0.439	0.524	0.507	0.472	8.60	
56)		Ethyl Methacrylate	0.417	0.480	0.450	0.437	0.499	0.479	0.461	6.13	
57)		1,1,2-Trichloroetha	0.235	0.273	0.263	0.247	0.286	0.277	0.265	6.77	
)	s	surr3,Toluene-d8			1.051	1.220	1.051	1.015	1.066	8.41	UL
)	s	surr2,bfb			0.417	0.483	0.411	0.403	0.420	8.87	UL
60)		Tetrachloroethene	0.207	0.233	0.192	0.196	0.266	0.277	0.234	15.45	UL
61)		2-Hexanone	0.338	0.359	0.310	0.352	0.354	0.346	0.341	5.06	
62)		1,3-Dichloropropane	0.508	0.599	0.570	0.531	0.620	0.601	0.573	7.03	
63)		Dibromochloromethan	0.273	0.324	0.302	0.293	0.353	0.346	0.318	9.30	
64)		1,2-Dibromoethane	0.305	0.356	0.335	0.318	0.374	0.356	0.342	7.10	
65)	p	Chlorobenzene	0.613	0.696	0.623	0.594	0.754	0.750	0.678	9.90	
66)		1,1,1,2-Tetrachloro	0.231	0.251	0.233	0.223	0.283	0.284	0.254	10.25	
67)	c	Ethylbenzene	0.891	1.081	0.932	0.918	1.210	1.228	1.061	13.73	
68)		(m+p)Xylene	0.314	0.379	0.328	0.328	0.430	0.439	0.376	14.08	
69)		o-Xylene	0.281	0.377	0.339	0.330	0.422	0.428	0.370	14.88	
70)		Styrene	0.548	0.673	0.618	0.588	0.754	0.758	0.666	12.51	
71)	p	Bromoform		0.201	0.194	0.190	0.228	0.224	0.210	7.76	
72)		Isopropylbenzene	0.717	0.935	0.780	0.784	1.042	1.082	0.907	16.08	UR
73)		Cyclohexanone	0.038	0.037	0.034	0.033	0.035	0.034	0.035	6.15	
74)	I	d4 - Dichlorobenzene	----------	----------	ISTD	----------	----------	----------			
75)	p	1,1,2,2-Tetrachloro	1.118	1.134	1.034	0.946	1.133	1.062	1.067	6.39	
76)		Trans-1,4-Dichloro-	0.375	0.304	0.307	0.298	0.347	0.328	0.326	8.42	
77)		1,2,3-Trichloroprop	0.387	0.330	0.298	0.288	0.333	0.326	0.326	9.75	
78)		n-Propylbenzene	2.226	2.716	2.303	2.273	3.061	3.117	2.661	14.64	
79)		Bromobenzene	0.641	0.674	0.594	0.563	0.745	0.739	0.668	10.79	
80)		1,3,5-Trimethylbenz	2.083	2.502	2.013	2.015	2.790	2.844	2.423	15.56	UL
81)		2-Chlorotoluene	1.440	1.761	1.527	1.478	1.938	1.951	1.707	12.98	
)		4-Chlorotoluene	1.697	2.031	1.729	1.663	2.151	2.142	1.924	11.33	
)		tert-Butylbenzene	1.263	1.425	1.158	1.157	1.558	1.605	1.384	13.72	
84)		1,2,4-Trimethylbenz	1.390	1.768	1.446	1.390	1.767	1.784	1.594	11.52	

(#) = Out of Range ### Number of calibration levels exceeded format ###

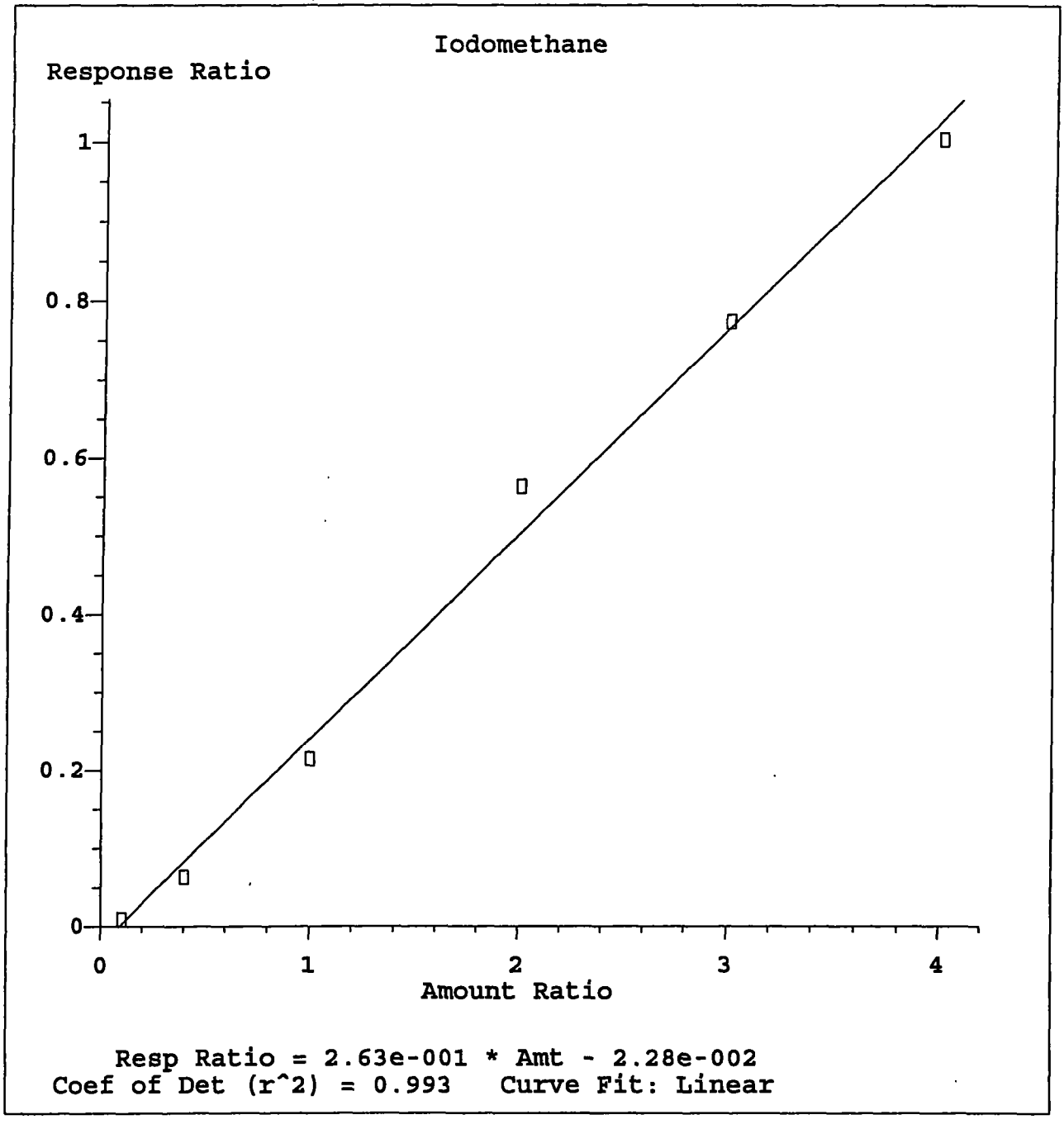
Response Factor Report 5971 - In

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Mon Dec 17 15:59:41 2001
Response via : Initial Calibration

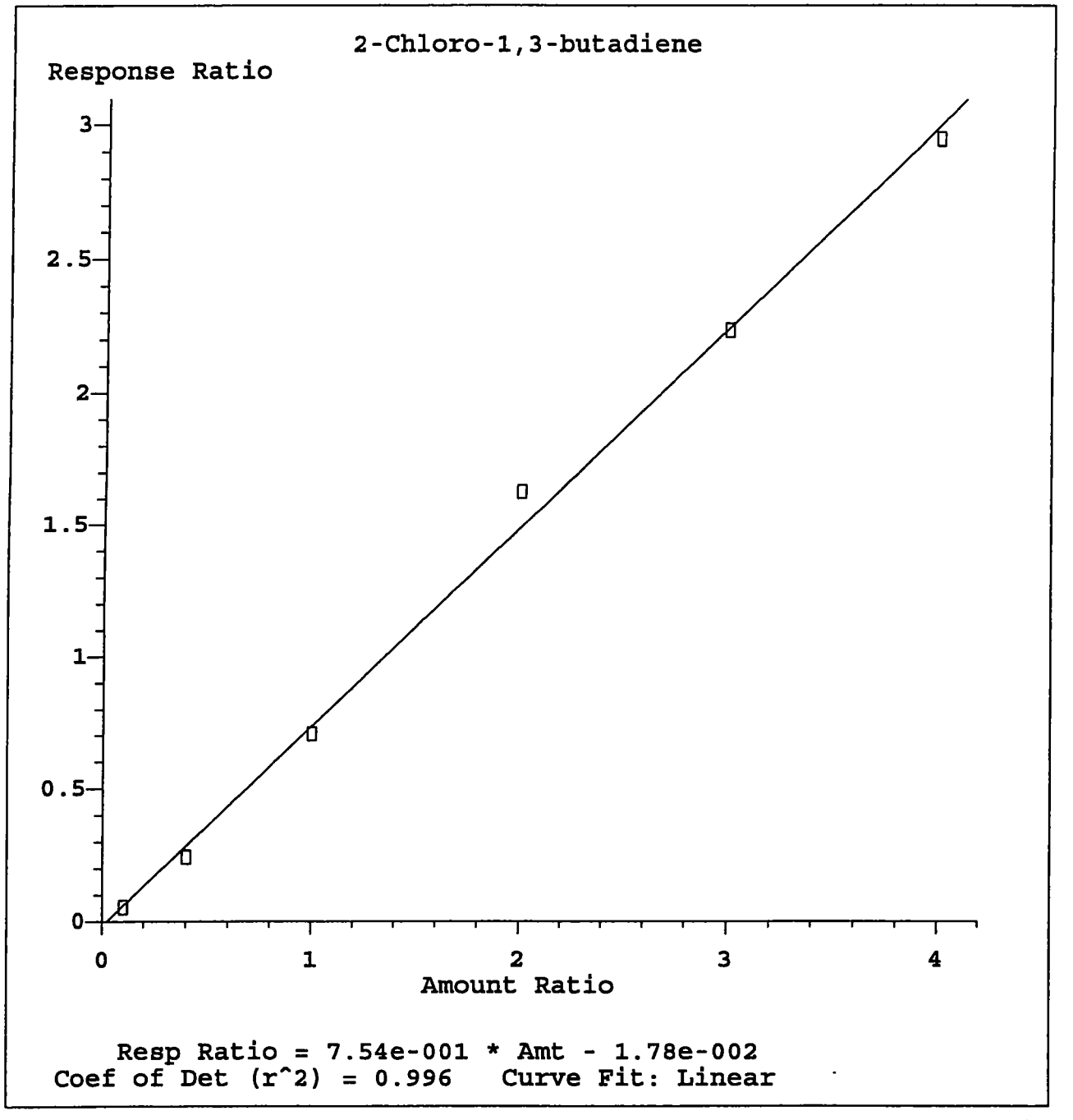
Calibration Files
1 =B8386.D 5 =B8387.D 20 =B8388.D
50 =B8389.D 100 =B8390.D 150 =B8391.D

	Compound	1	5	20	50	100	150	Avg	%RSD
85)	sec-Butylbenzene	1.692	2.012	1.747	1.703	2.257	2.351	1.994	14.11
86)	p-Isopropyltoluene	1.263	1.425	1.158	1.157	1.558	1.605	1.384	13.72
87)	1,3-Dclbenz	0.878	0.922	0.839	0.797	1.033	1.033	0.927	10.19
88)	1,4-Dclbenz	0.978	1.088	0.936	0.884	1.115	1.116	1.029	9.24
89)	n-Butylbenzene	1.138	1.387	1.307	1.160	1.480	1.508	1.332	10.78
90)	1,2-Dclbenz	0.943	1.011	0.907	0.849	1.082	1.070	0.987	9.02
91)	1,2-Dibromo-3-chlor		0.167	0.167	0.156	0.185	0.180	0.173	6.53
92)	Nitrobenzene		0.080	0.079	0.084	0.098	0.112	0.095	17.28
93)	1,2,4-Tcbenzene	0.420	0.520	0.476	0.429	0.524	0.540	0.484	9.64
94)	Hexachlorobt	0.167	0.178	0.202	0.160	0.198	0.212	0.187	10.28
95)	Naphthalen	1.262	1.406	1.347	1.250	1.381	1.456	1.339	5.99
96)	1,2,3-Tclbenzene	0.380	0.465	0.441	0.405	0.483	0.492	0.444	9.16
97)	TOTAL XYLENE							0.000	-1.00

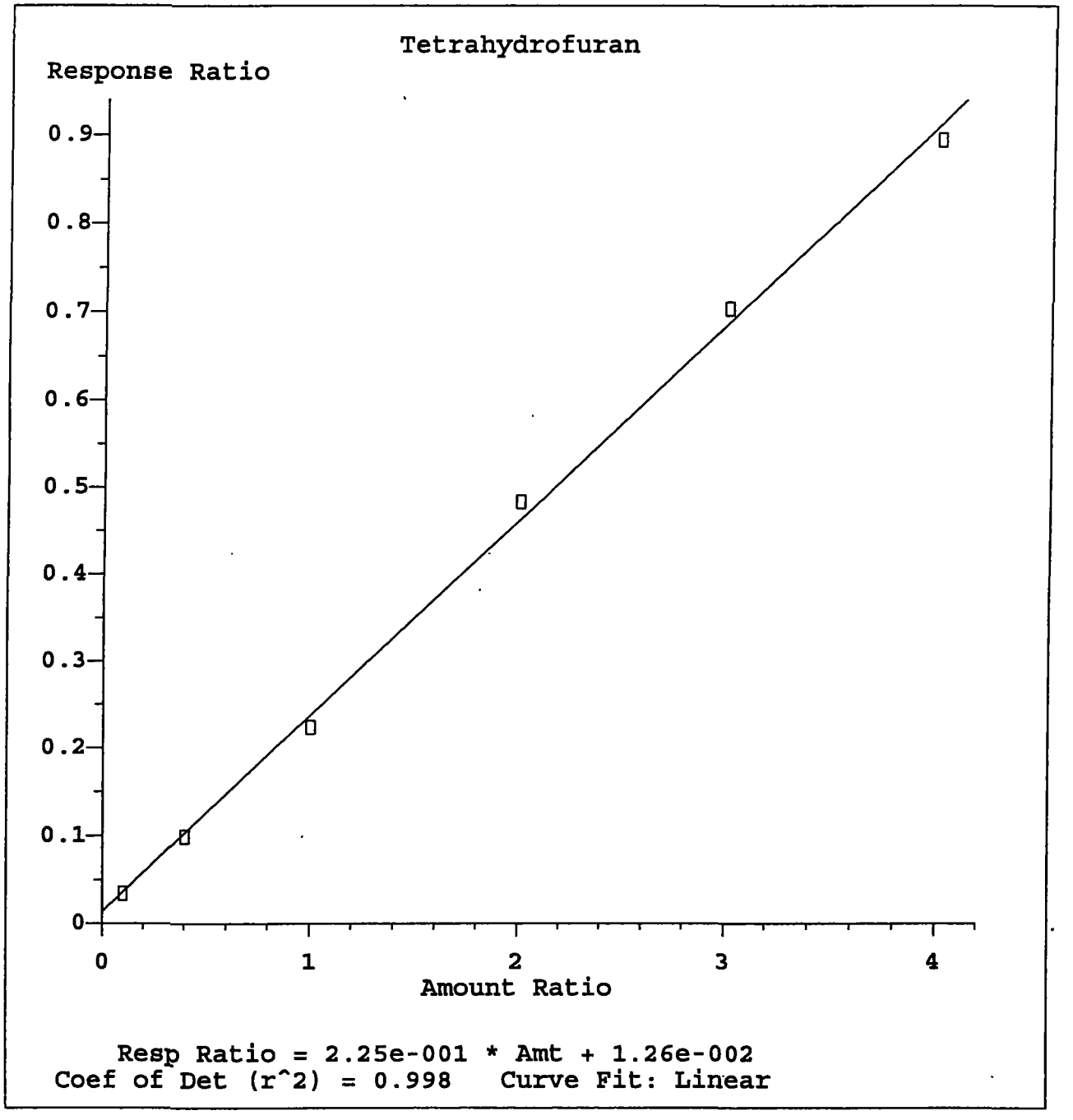
(#) = Out of Range ### Number of calibration levels exceeded format ###



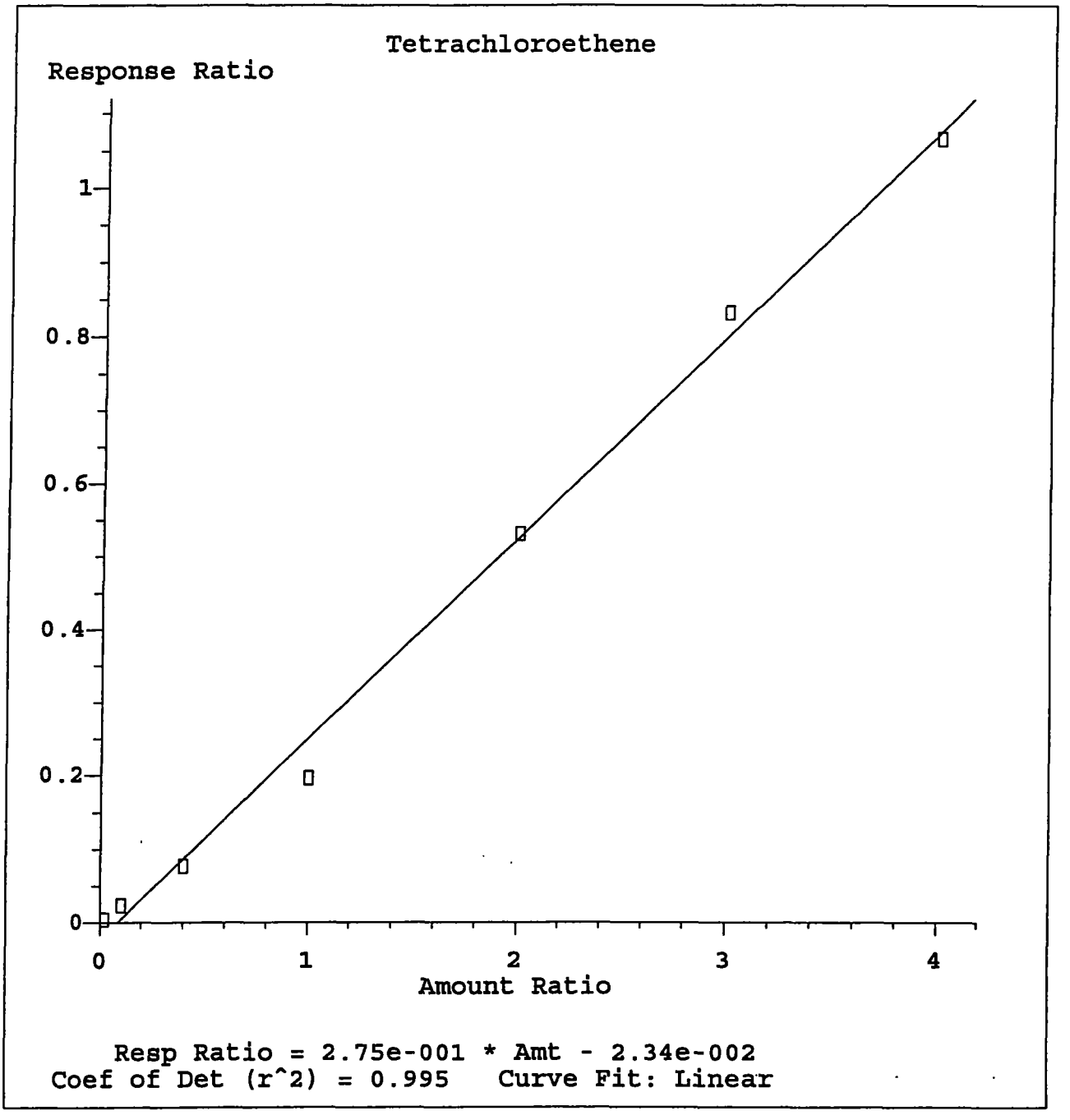
Method Name: J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Calibration Table Last Updated: Mon Dec 17 15:14:12 2001



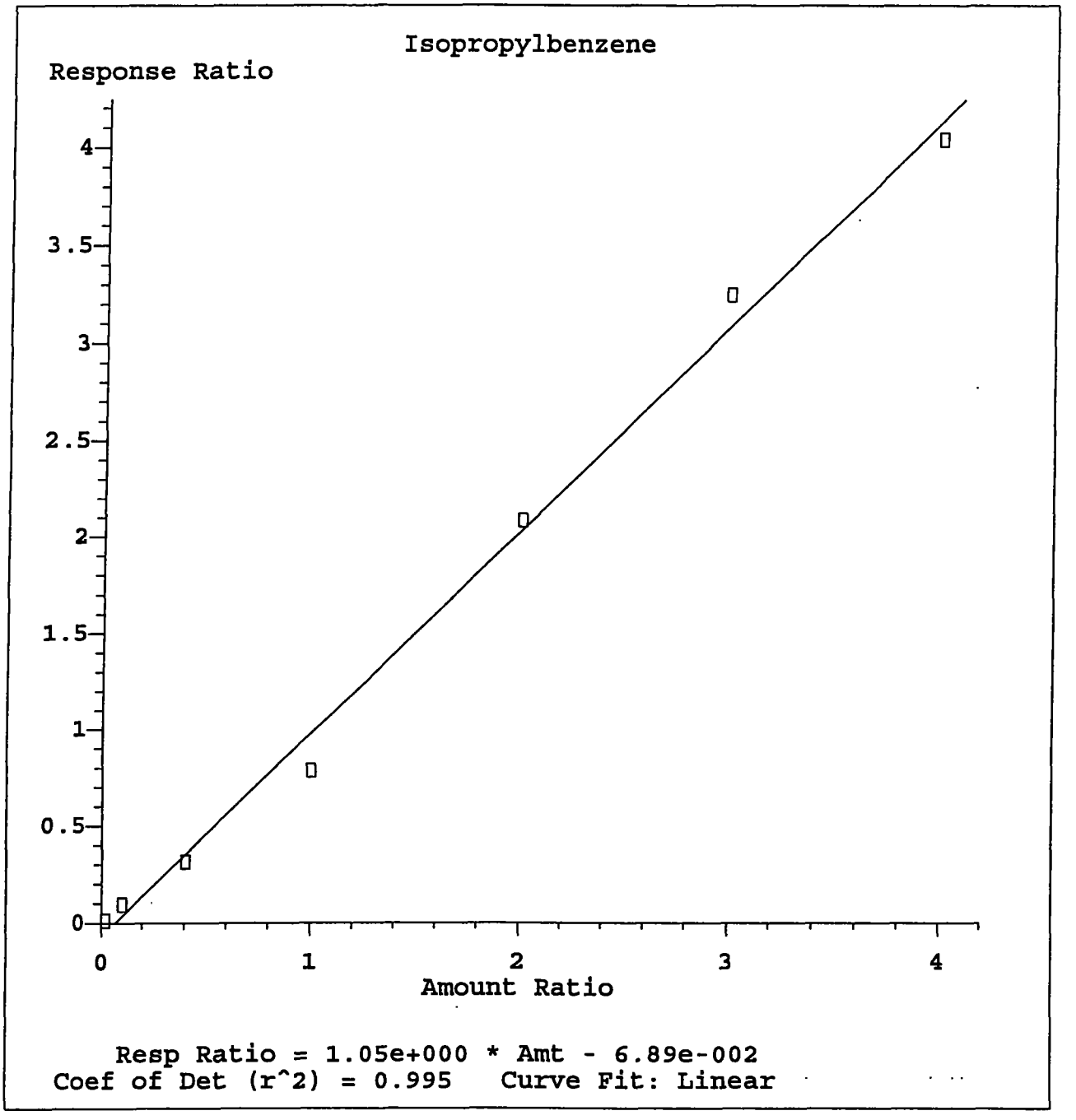
Method Name: J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Calibration Table Last Updated: Mon Dec 17 15:18:11 2001



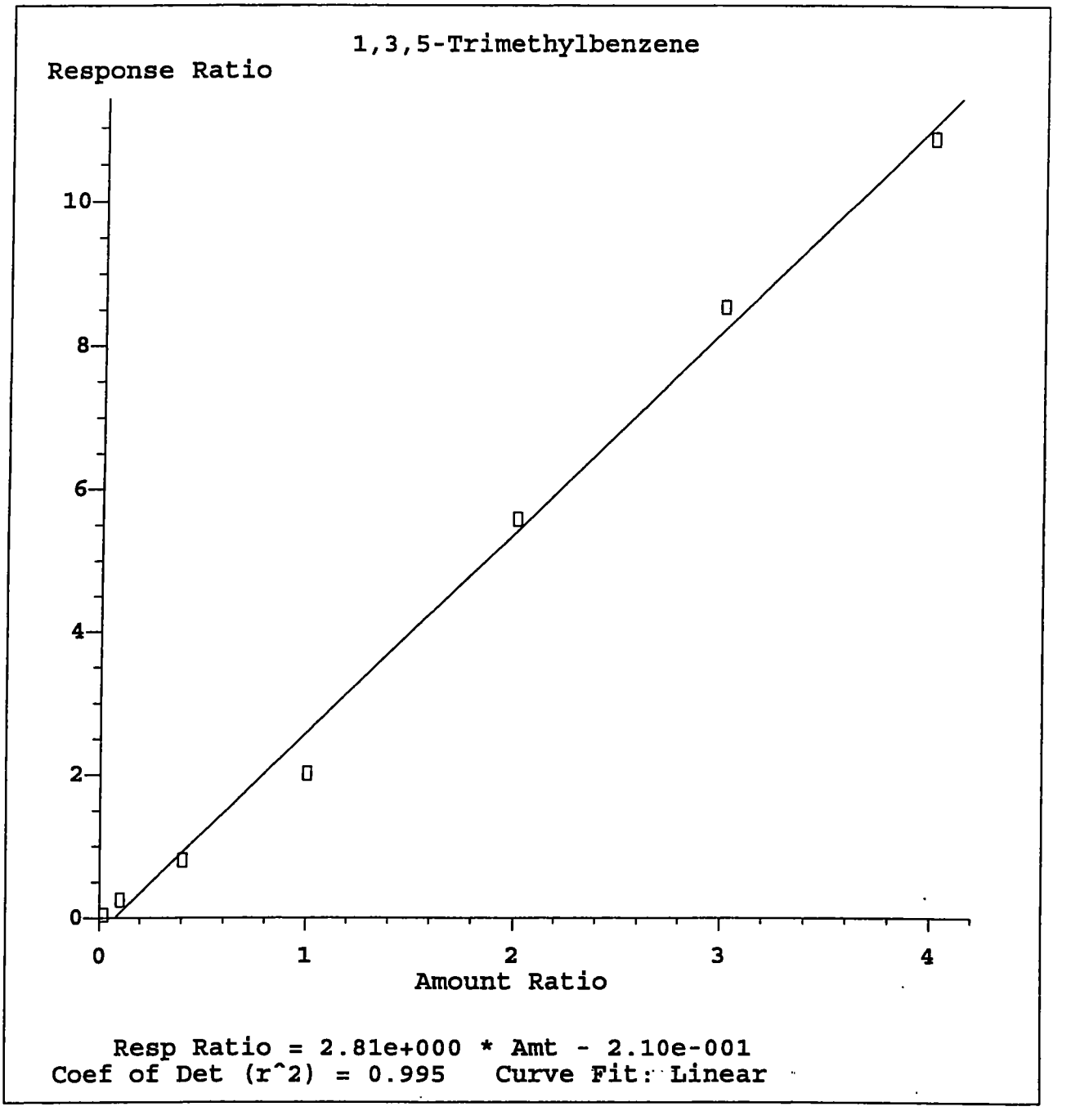
Method Name: J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Calibration Table Last Updated: Mon Dec 17 15:18:22 2001



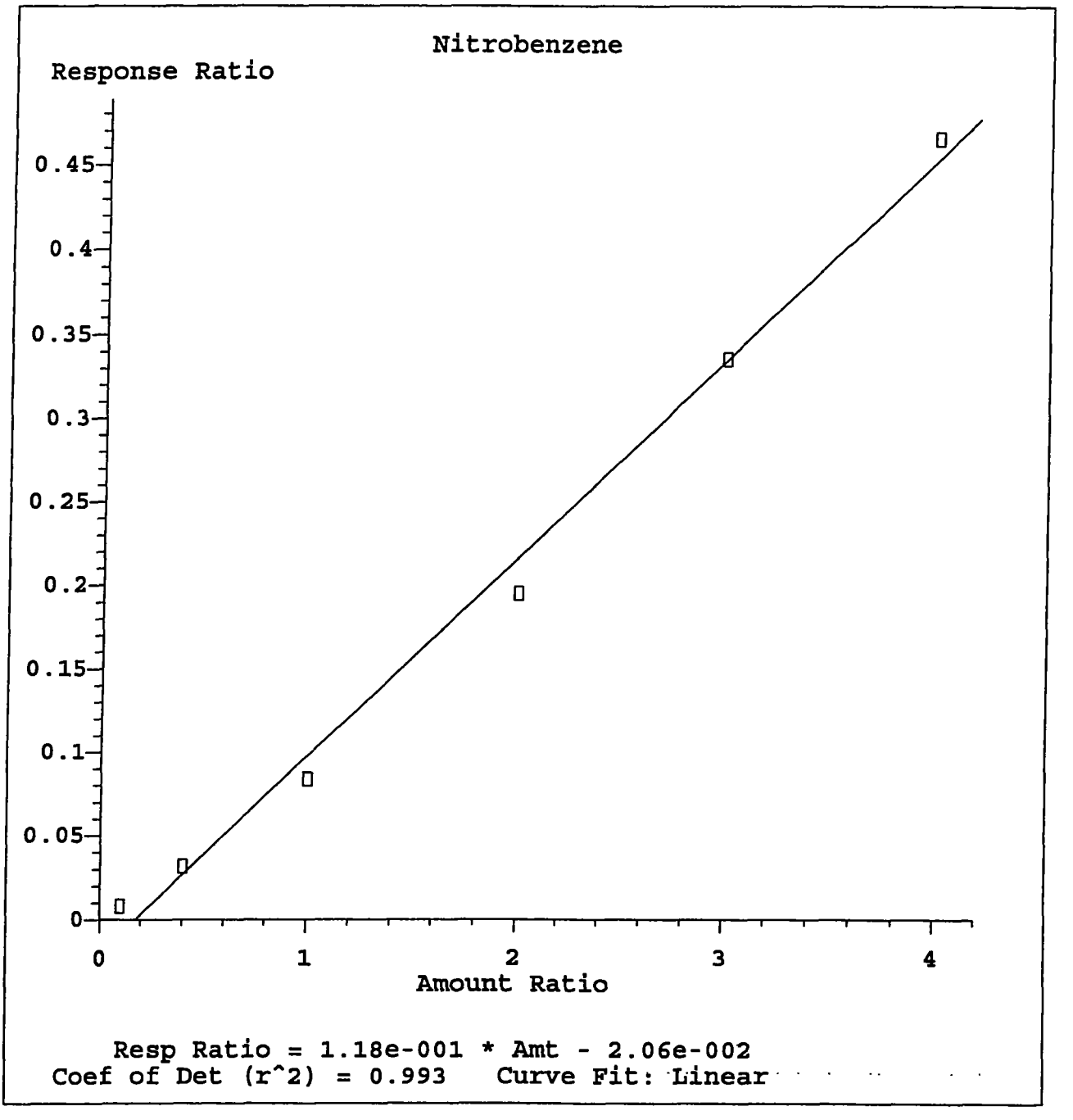
Method Name: J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Calibration Table Last Updated: Mon Dec 17 15:18:46 2001



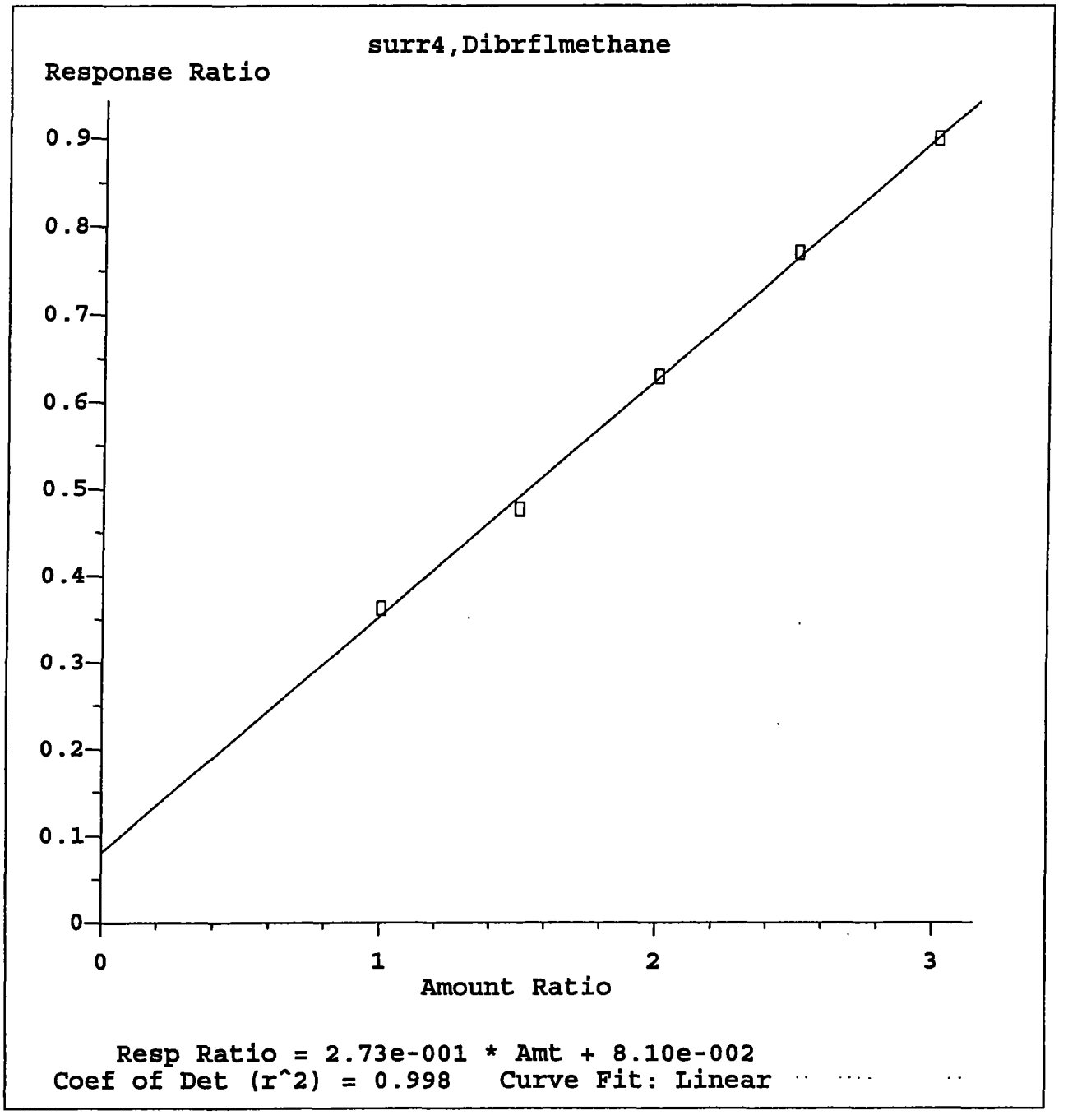
Method Name: J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Calibration Table Last Updated: Mon Dec 17 15:19:01 2001



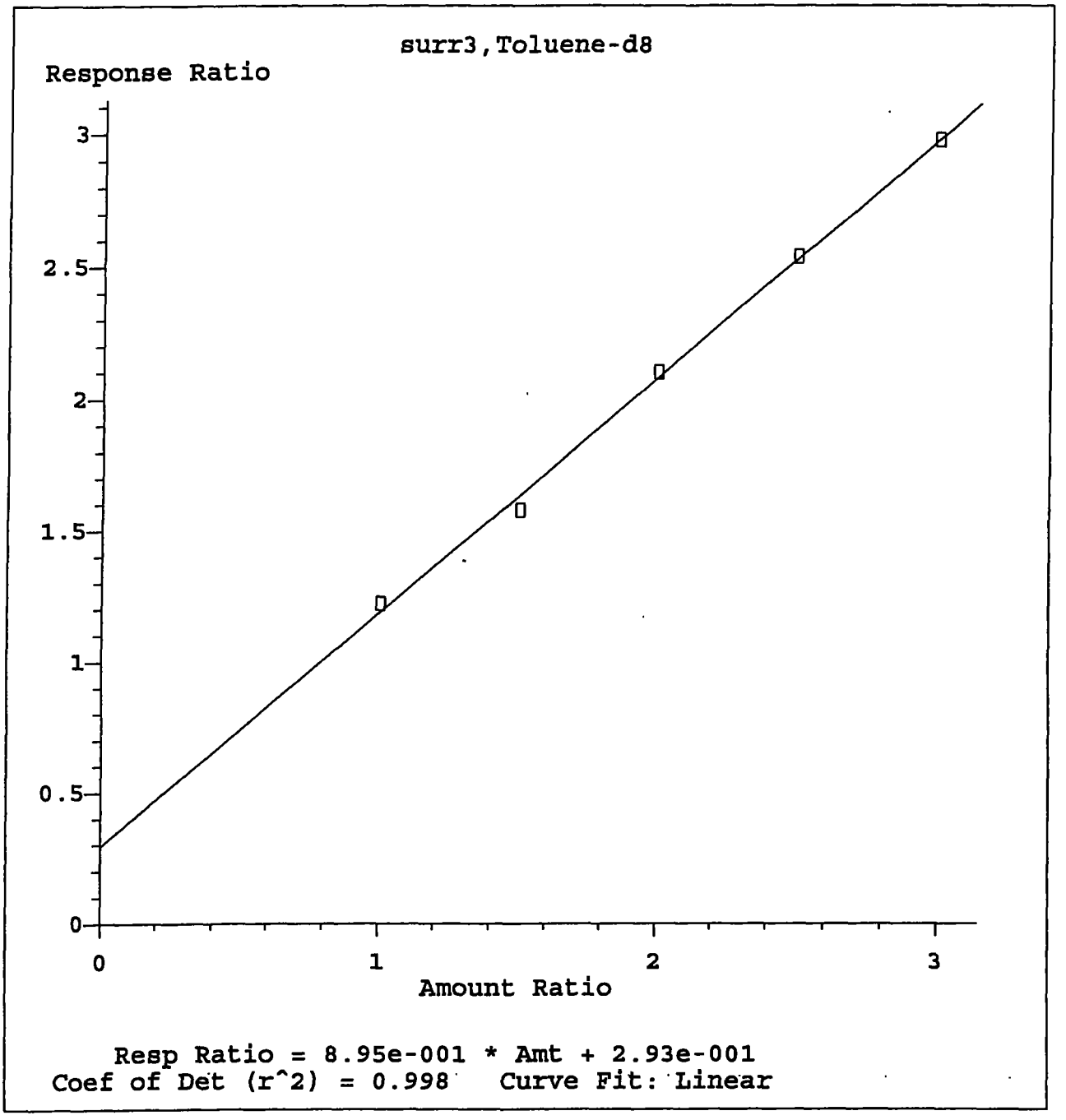
Method Name: J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Calibration Table Last Updated: Mon Dec 17 15:19:15 2001



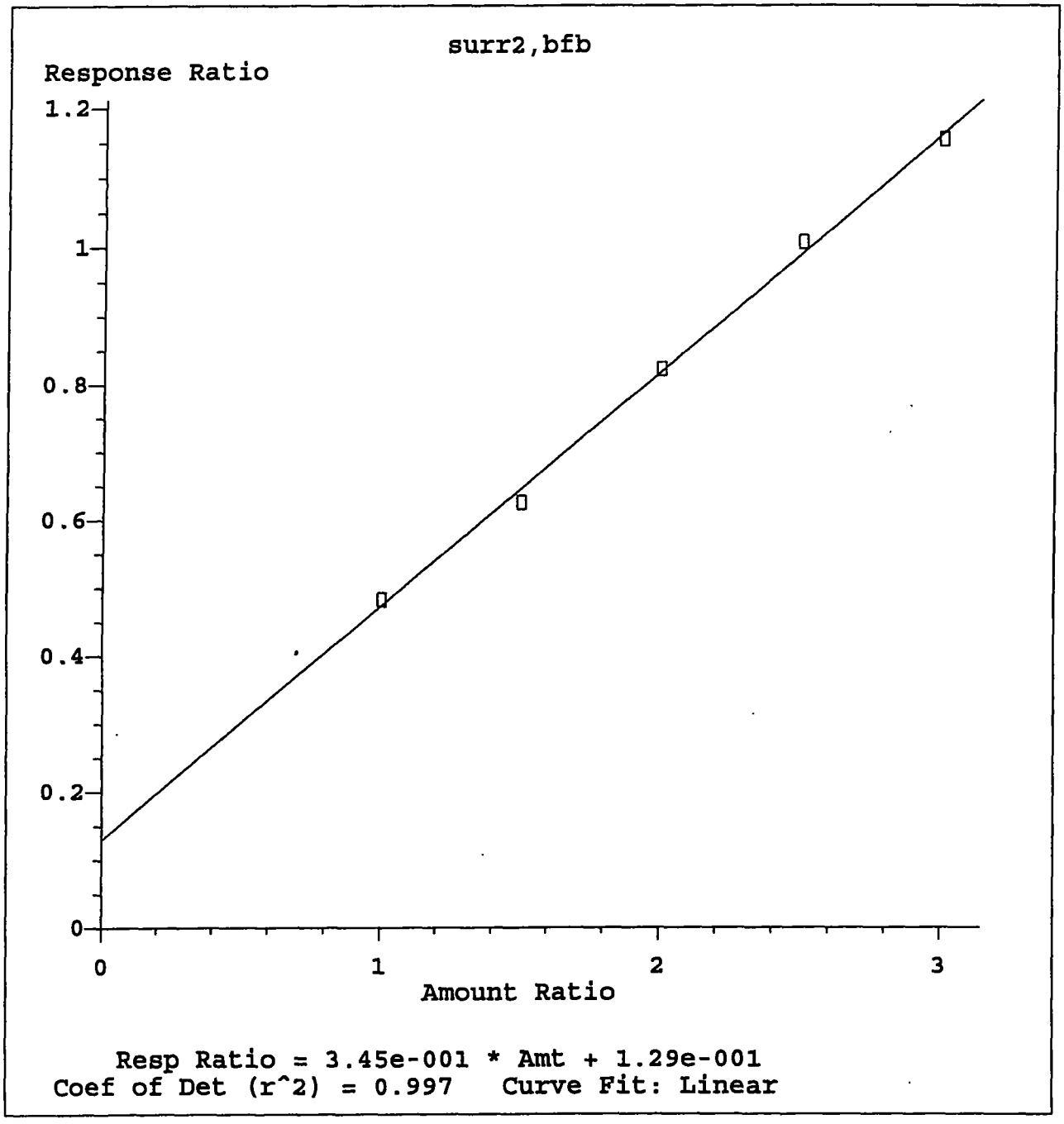
Method Name: J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Calibration Table Last Updated: Mon Dec 17 15:19:29 2001



Method Name: J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Calibration Table Last Updated: Mon Dec 17 15:58:22 2001



Method Name: J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Calibration Table Last Updated: Mon Dec 17 15:59:21 2001



Method Name: J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Calibration Table Last Updated: Mon Dec 17 15:59:34 2001

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\121701\B8386.D Vial: 4
Acq On : 17 Dec 101 11:01 am Operator: droot
Sample : 1 PPB Inst : 5971 - In
Misc : Multiplr: 1.00
Quant Time: Dec 17 11:34 19101

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Wed Dec 05 07:11:54 2001
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	7.39	168	628126	50.00	ppb		-0.09
35) 1,4 - Difluorobenzene	8.57	114	1175109	50.00	ppb		-0.10
52) d5 - Chlorobenzene	13.66	117	933242	50.00	ppb		-0.11
74) d4 - Dichlorobenzene	18.10	152	323455	50.00	ppb		-0.13
System Monitoring Compounds							%Recovery
36) surr4,Dibrflmethane	7.26	113	415194	50.53	ppb		101.06%
58) surr3,Toluene-d8	11.08	98	1112392	51.91	ppb		103.82%
59) surr2,bfb	15.88	95	409944	51.61	ppb		103.23%
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.66	85	4721	0.88	ppb	#	95
3) Chloromethane	1.87	50	6012	0.78	ppb		95
4) Vinyl Chloride	2.00	62	5814	0.96	ppb		89
5) Bromomethane	2.40	94	4953	1.46	ppb	#	68
6) Chloroethane	2.55	64	4493	1.20	ppb		93
7) Trichlorofluoromethane	2.90	101	6041	0.89	ppb		97
8) Diethyl Ether	3.34	59	5682	0.91	ppb	#	77
9) Acrolein	3.50	56	5948	4.02	ppb		96
10) FREON 113	3.68	85	1696	6.03	ppb		77
11) 1,1-Diclethene	3.65	96	3927	0.89	ppb		89
12) Acetone	3.78	43	3539	1.21	ppb		94
~~13) Iodomethane~~	~~3.87~~	~~127~~	~~1113~~	~~7.38~~	~~ppb~~		~~83~~
~~14) Carbon Disulfide~~	~~3.96~~	~~76~~	~~22035~~	~~1.27~~	~~ppb~~		~~98~~
~~15) Acetonitrile~~	~~4.21~~	~~41~~	~~15185~~	~~48.71~~	~~ppb~~		~~88~~
16) Allyl Chloride	4.23	76	2917	1.05	ppb		96
17) Methylene Chloride	4.42	84	6251	1.00	ppb		92
18) TBA	4.66	59	13563	16.13	ppb	#	88
19) Acrylonitrile	4.80	53	15092	4.12	ppb		92
20) Methyl-t-Butyl Ether	4.89	73	15906	0.84	ppb	#	92
21) trans-1,2-Dichloroethene	4.86	96	4790	0.83	ppb		87
22) 1,1-Diclethane	5.53	63	9327	0.92	ppb	#	89
23) Vinyl Acetate	5.66	43	15778	1.10	ppb		96
~~24) 2-Chloro-1,3-butadiene~~	~~5.68~~	~~53~~	~~11207~~	~~1.30~~	~~PPB~~		~~97~~
25) 2,2-Dichloropropane	6.47	77	6518	0.89	ppb		99
~~26) 2-Butanone~~	~~6.53~~	~~43~~	~~7316~~	~~1.38~~	~~ppb~~		~~97~~
28) cis-1,2-Dichloroethene	6.47	96	6666	0.97	ppb		96
29) Propionitrile	6.60	54	5791	4.27	ppb	#	87
30) Methacrylonitrile	6.84	67	3184	0.86	ppb		95
31) Bromochloromethane	6.85	128	3624	1.05	ppb		87
32) Chloroform	7.01	83	9460	0.95	ppb		97
~~33) Tetrahydrofuran~~	~~6.96~~	~~42~~	~~8316~~	~~2.43~~	~~ppb~~	~~m~~	~~90~~
34) 1,1,1-Trichloroethane	7.29	97	5947	0.82	ppb	#	86
~~37) Carbontetrachloride~~	~~7.57~~	~~117~~	~~4334~~	~~3.64~~	~~ppb~~		~~86~~

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\121701\B8386.D Vial: 4
Acq On : 17 Dec 101 11:01 am Operator: droot
Sample : 1 PPB Inst : 5971 - In
Misc : Multiplr: 1.00
Quant Time: Dec 17 11:34 19101

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Wed Dec 05 07:11:54 2001
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	1,1-Dichloropropene	7.57	75	6887	0.97	ppb	#	87
39)	Iso-Butyl Alcohol	8.41	43	5399	75.31	ppb		96
40)	Benzene	7.89	78	18076	0.86	ppb		100
41)	1,2-Dichloroethane	7.92	62	7651	0.93	ppb	#	83
42)	N-Heptane	8.41	43	5493	1.08	ppb		92
43)	Trichloroethene	9.01	95	4580	0.83	ppb		94
44)	1,2-Diclpropane	9.35	63	6079	0.87	ppb		90
45)	Methyl Methacrylate	9.62	69	4826	0.85	ppb		84
46)	1,4-Dioxane	9.75	88	134	1.77	ppb		80
47)	Dibromomethane	9.54	93	4124	0.86	ppb		92
48)	Bromodichloromethane	9.83	83	7235	0.94	ppb	#	82
49)	2-Nitropropane	10.22	43	5286	1.89	ppb	#	80
50)	2-Chloroethylvinyl Ether	10.37	63	6650	1.14	ppb	#	82
51)	cis-1,3-Dichloropropene	10.62	75	9266	0.91	ppb		99
53)	4-Methyl-2-Pentanone	10.91	43	10568	1.03	ppb		88
54)	Toluene	11.20	91	17125	0.87	ppb		93
55)	trans-1,3-Dichloropropene	11.59	75	7616	0.82	ppb		99
56)	Ethyl Methacrylate	11.80	69	7784	0.83	ppb		95
57)	1,1,2-Trichloroethane	11.91	83	4385	0.86	ppb		96
60)	Tetrachloroethene	12.18	166	3855	4.30	ppb	#	81
61)	2-Hexanone	12.38	43	6301	0.88	ppb		98
62)	1,3-Dichloropropane	12.19	76	9473	0.85	ppb		99
63)	Dibromochloromethane	12.61	129	5096	0.79	ppb		86
64)	1,2-Dibromoethane	12.80	107	5693	0.82	ppb	#	63
65)	Chlorobenzene	13.71	112	11445	0.90	ppb	#	86
66)	1,1,1,2-Tetrachloroethane	13.87	131	4308	0.87	ppb		95
67)	Ethylbenzene	13.94	91	16629	0.85	ppb		95
68)	(m+p)Xylene	14.16	106	11733	9.19	ppb		96
69)	o-Xylene	14.89	106	5245	0.76	ppb		74
70)	Styrene	14.93	104	10225	0.84	ppb		92
71)	Bromoform	15.23	173	2726	0.65	ppb	#	81
72)	Isopropylbenzene	15.61	105	13377	5.19	ppb	#	90
73)	Cyclohexanone	15.73	55	14181	13.67	ppb		96
75)	1,1,2,2-Tetrachloroethane	16.16	83	7231	0.94	ppb		89
76)	Trans-1,4-Dichloro-2-buten	16.28	53	2427	1.04	ppb	m	87
77)	1,2,3-Trichloropropane	16.22	110	2503	1.04	ppb		99
78)	n-Propylbenzene	16.39	91	14402	4.04	ppb		97
79)	Bromobenzene	16.14	156	4145	0.92	ppb		81
80)	1,3,5-Trimethylbenzene	15.61	105	13472	4.81	ppb	#	90
81)	2-Chlorotoluene	16.53	91	9313	0.82	ppb	#	79
82)	4-Chlorotoluene	16.74	91	10976	0.88	ppb		99
83)	tert-Butylbenzene	17.37	119	8173	4.68	ppb		90
84)	1,2,4-Trimethylbenzene	17.46	105	8991	0.84	ppb		95
85)	sec-Butylbenzene	17.80	105	10943	4.28	ppb		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\121701\B8386.D Vial: 4
Acq On : 17 Dec 101 11:01 am Operator: droot
Sample : 1 PPB Inst : 5971 - In
Misc : Multiplr: 1.00
Quant Time: Dec 17 11:34 19101

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Wed Dec 05 07:11:54 2001
Response via : Multiple Level Calibration

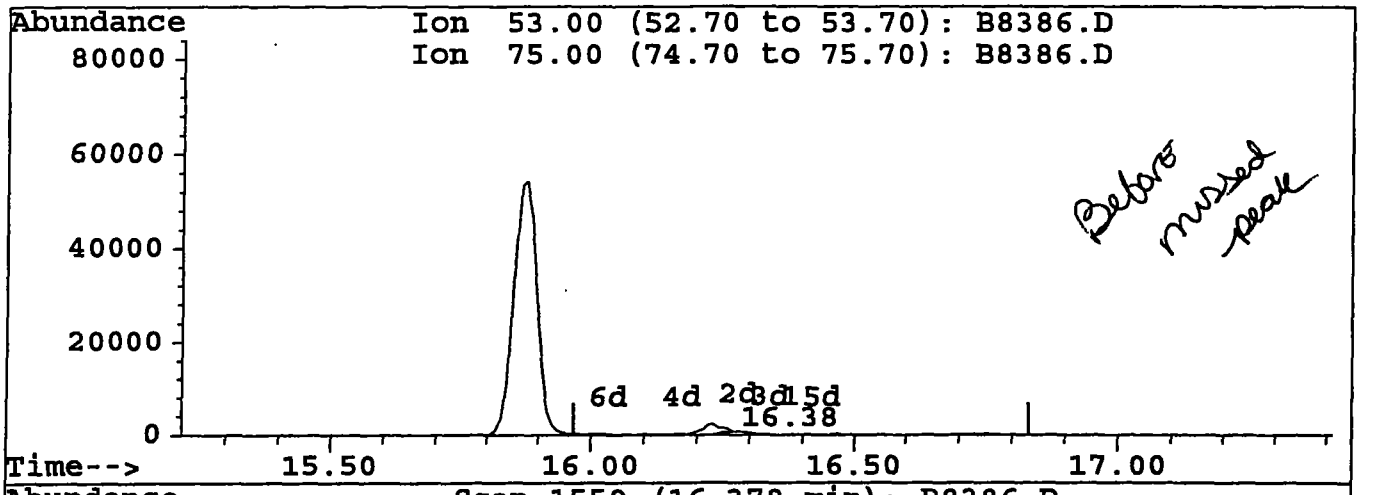
Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
86) p-Isopropyltoluene	17.37	119	8173	4.68	ppb	#	87
87) 1,3-Dclbenz	17.98	146	5681	0.90	ppb	#	73
88) 1,4-Dclbenz	18.15	146	6325	0.91	ppb		98
89) n-Butylbenzene	18.88	91	7365	2.98	ppb	#	94
90) 1,2-Dclbenz	18.87	146	6102	0.91	ppb	#	84
~~91) 1,2-Dibromo-3-chloropropan~~	~~20.38~~	~~157~~	~~1051~~	~~0.83~~	~~ppb~~		~~90~~
~~92) Nitrobenzene~~	~~20.79~~	~~77~~	~~669~~	~~0.92~~	~~ppb~~	~~#~~	~~57~~
93) 1,2,4-Tcbenzene	22.07	180	2717	0.76	ppb	#	72
94) Hexachlorobt	22.42	225	1082	0.86	ppb	#	73
95) Naphthalen	22.53	128	8165	0.76	ppb	#	91
96) 1,2,3-Tclbenzene	23.01	180	2458	0.71	ppb		91

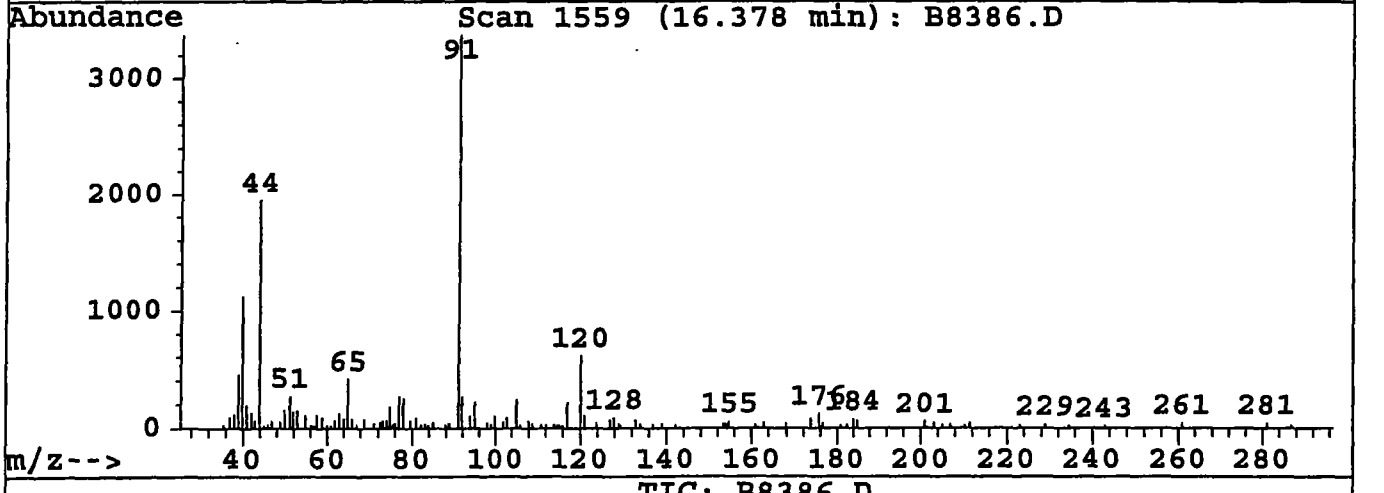
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\121701\B8386.D Vial: 4
Acq On : 17 Dec 101 11:01 am Operator: droot
Sample : 1 PPB Inst : 5971 - In
Misc : Multiplr: 1.00
Quant Time: Dec 17 11:32 19101

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Wed Dec 05 07:11:54 2001
Response via : Multiple Level Calibration





TIC: B8386.D

(76) Trans-1,4-Dichloro-2-butene
16.38min 0.11ppb
response 265

Ion	Exp%	Act%
53.00	100	100
75.00	160.70	143.92
0.00	0.00	0.00
0.00	0.00	0.00

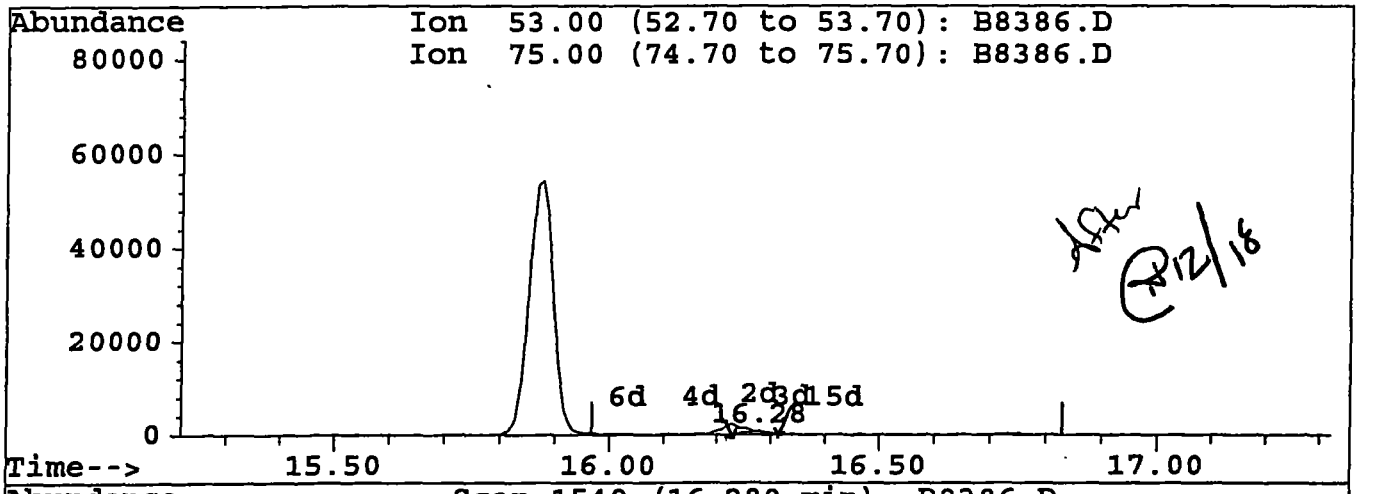
12/19/17

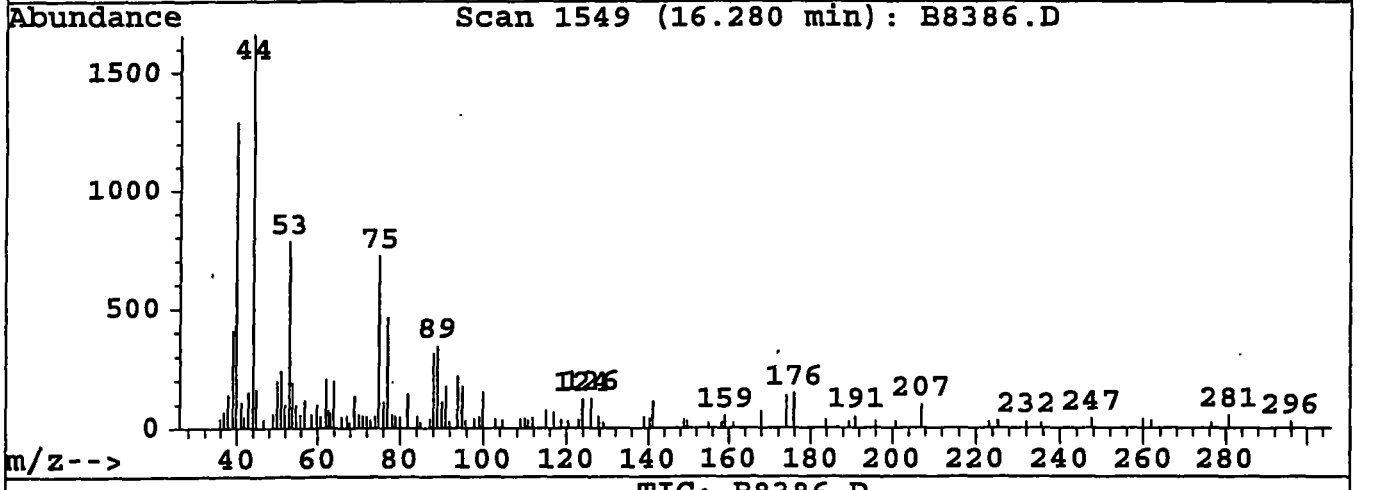
Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\121701\B8386.D
Acq On : 17 Dec 101 11:01 am
Sample : 1 PPB
Misc :
Quant Time: Dec 17 11:34 19101

Vial: 4
Operator: droot
Inst : 5971 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Wed Dec 05 07:11:54 2001
Response via : Multiple Level Calibration





TIC: B8386.D

(76) Trans-1,4-Dichloro-2-butene
16.28min 1.04ppb m
response 2427

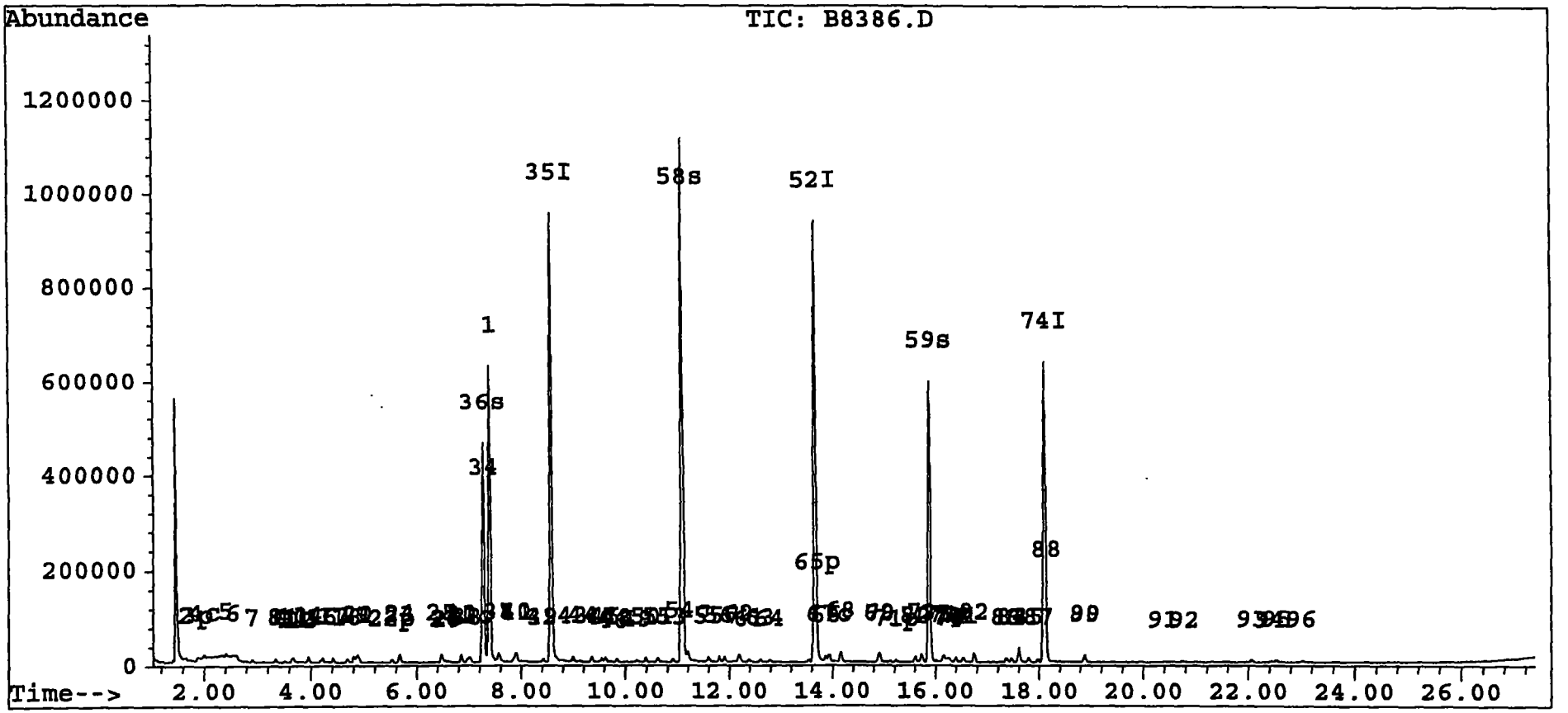
Ion	Exp%	Act%
53.00	100	100
75.00	160.70	92.07
0.00	0.00	0.00
0.00	0.00	0.00

B8386.D EXP1217.M Mon Dec 17 11:35:04 2001

Data File : J:\ACQUDATA\MSVOA3\DATA\121701\B8386.D
Acq On : 17 Dec 101 11:01 am
Sample : 1 PPB
Misc :
Quant Time: Dec 17 11:34 19101

Vial: 4
Operator: droot
Inst : 5971 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Wed Dec 05 07:11:54 2001
Response via : Multiple Level Calibration



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Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\121701\B8387.D Vial: 5
Acq On : 17 Dec 101 11:39 am Operator: droot
Sample : 5 PPB Inst : 5971 - In
Misc : Multiplr: 1.00
Quant Time: Dec 17 15:27 19101

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Mon Dec 17 15:28:12 2001
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	7.39	168	620713	50.00	ppb		-0.09
35) 1,4 - Difluorobenzene	8.57	114	1155099	50.00	ppb		-0.10
52) d5 - Chlorobenzene	13.66	117	926942	50.00	ppb		-0.12
74) d4 - Dichlorobenzene	18.11	152	346357	50.00	ppb		-0.12
System Monitoring Compounds							%Recovery
36) surr4,Dibrflmethane	7.27	113	409377	56.42	ppb		112.83%
58) surr3,Toluene-d8	11.08	98	1102656	55.85	ppb		111.70%
59) surr2,bfb	15.87	95	429950	57.17	ppb		114.34%
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.66	85	27681	5.20	ppb		99
3) Chloromethane	1.88	50	38167	5.00	ppb		93
4) Vinyl Chloride	2.00	62	30274	5.06	ppb		99
5) Bromomethane	2.41	94	20672	7.11	ppb	m	99
6) Chloroethane	2.55	64	19339	5.24	ppb		96
7) Trichlorofluoromethane	2.90	101	35130	5.26	ppb		97
8) Diethyl Ether	3.34	59	30782	4.98	ppb		99
9) Acrolein	3.50	56	37467	25.60	ppb		98
10) FREON 113	3.70	85	8828	6.07	ppb		68
11) 1,1-Diclethene	3.66	96	24137	5.56	ppb		95
12) Acetone	3.76	43	12836	5.13	ppb		100
13) Iodomethane	3.86	127	5779	2.88	ppb		99
14) Carbon Disulfide	3.95	76	68135	4.64	ppb	#	92
15) Acetonitrile	4.17	41	27650	104.08	ppb	#	79
16) Allyl Chloride	4.22	76	14487	5.26	ppb		90
17) Methylene Chloride	4.42	84	34273	5.54	ppb		93
18) TBA	4.67	59	79667	95.86	ppb		98
19) Acrylonitrile	4.80	53	87675	24.22	ppb		95
20) Methyl-t-Butyl Ether	4.89	73	95430	5.13	ppb		95
21) trans-1,2-Dichloroethene	4.86	96	29392	5.18	ppb		94
22) 1,1-Diclethane	5.52	63	51566	5.15	ppb		90
23) Vinyl Acetate	5.66	43	77285	6.36	ppb		99
24) 2-Chloro-1,3-butadiene	5.68	53	32493	4.43	PPB		99
25) 2,2-Dichloropropane	6.46	77	37367	5.97	ppb		100
26) 2-Butanone	6.52	43	26014	5.76	ppb		98
28) cis-1,2-Dichloroethene	6.47	96	34923	5.13	ppb	#	82
29) Propionitrile	6.59	54	33090	24.68	ppb		92
30) Methacrylonitrile	6.84	67	17028	4.63	ppb		85
31) Bromochloromethane	6.86	128	18324	5.38	ppb		95
32) Chloroform	7.01	83	51585	5.22	ppb		98
33) Tetrahydrofuran	6.96	42	21271	7.26	ppb		96
34) 1,1,1-Trichloroethane	7.29	97	37428	5.20	ppb		89
37) Carbontetrachloride	7.57	117	29079	4.99	ppb		95

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\121701\B8387.D Vial: 5
Acq On : 17 Dec 101 11:39 am Operator: droot
Sample : 5 PPB Inst : 5971 - In
Misc : Multiplr: 1.00
Quant Time: Dec 17 15:27 19101

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Mon Dec 17 15:28:12 2001
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	1,1-Dichloropropene	7.58	75	37072	5.30	ppb	#	91
39)	Iso-Butyl Alcohol	8.42	43	27836	114.90	ppb		97
40)	Benzene	7.90	78	110164	5.35	ppb		98
41)	1,2-Dichloroethane	7.93	62	41791	5.18	ppb		99
42)	N-Heptane	8.42	43	27907	5.58	ppb		93
43)	Trichloroethene	8.99	95	28778	5.31	ppb		95
44)	1,2-Diclpropane	9.35	63	36166	5.24	ppb		99
45)	Methyl Methacrylate	9.61	69	25259	4.55	ppb		100
46)	1,4-Dioxane	9.61	88	8097	109.01	ppb		81
47)	Dibromomethane	9.54	93	22997	4.91	ppb		93
48)	Bromodichloromethane	9.83	83	38429	5.10	ppb		97
49)	2-Nitropropane	10.21	43	25576	9.31	ppb		94
50)	2-Chloroethylvinyl Ether	10.38	63	28624	4.99	ppb		100
51)	cis-1,3-Dichloropropene	10.62	75	51761	5.17	ppb		92
53)	4-Methyl-2-Pentanone	10.90	43	46991	4.59	ppb		96
54)	Toluene	11.20	91	97894	5.03	ppb		97
55)	trans-1,3-Dichloropropene	11.59	75	44811	4.88	ppb		94
56)	Ethyl Methacrylate	11.81	69	44511	4.80	ppb		94
57)	1,1,2-Trichloroethane	11.91	83	25345	5.03	ppb		97
60)	Tetrachloroethene	12.17	166	21638	4.93	ppb		97
61)	2-Hexanone	12.39	43	33251	4.69	ppb		90
62)	1,3-Dichloropropane	12.20	76	55511	4.99	ppb		88
63)	Dibromochloromethane	12.60	129	30043	4.70	ppb		90
64)	1,2-Dibromoethane	12.78	107	33016	4.81	ppb		91
65)	Chlorobenzene	13.71	112	64524	5.09	ppb		98
66)	1,1,1,2-Tetrachloroethane	13.87	131	23312	4.73	ppb		92
67)	Ethylbenzene	13.93	91	100185	5.16	ppb		99
68)	(m+p)Xylene	14.16	106	70316	10.37	ppb		97
69)	o-Xylene	14.89	106	34952	5.10	ppb		98
70)	Styrene	14.92	104	62429	5.18	ppb		92
71)	Bromoform	15.23	173	18633	4.48	ppb		98
72)	Isopropylbenzene	15.61	105	86632	5.27	ppb		97
73)	Cyclohexanone	15.73	55	68394	66.39	ppb		93
75)	1,1,2,2-Tetrachloroethane	16.16	83	39292	4.77	ppb		92
76)	Trans-1,4-Dichloro-2-buten	16.28	53	10517	4.20	ppb		80
77)	1,2,3-Trichloropropane	16.23	110	11431	4.45	ppb		95
78)	n-Propylbenzene	16.38	91	94085	5.22	ppb		98
79)	Bromobenzene	16.14	156	23357	4.86	ppb		92
80)	1,3,5-Trimethylbenzene	15.61	105	86647	5.23	ppb		97
81)	2-Chlorotoluene	16.53	91	60992	5.03	ppb		100
82)	4-Chlorotoluene	16.74	91	70340	5.27	ppb		97
83)	tert-Butylbenzene	17.36	119	49345	5.25	ppb		96
84)	1,2,4-Trimethylbenzene	17.46	105	61252	5.34	ppb		98
85)	sec-Butylbenzene	17.79	105	69690	5.17	ppb		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\121701\B8387.D Vial: 5
Acq On : 17 Dec 101 11:39 am Operator: droot
Sample : 5 PPB Inst : 5971 - In
Misc : Multiplr: 1.00
Quant Time: Dec 17 15:27 19101

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Mon Dec 17 15:28:12 2001
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
86)	p-Isopropyltoluene	17.36	119	49345	5.25	ppb		96
87)	1,3-Dclbenz	17.97	146	31934	4.70	ppb		95
88)	1,4-Dclbenz	18.16	146	37672	5.07	ppb		97
89)	n-Butylbenzene	18.89	91	48054	5.21	ppb		96
90)	1,2-Dclbenz	18.87	146	35001	4.87	ppb		95
91)	1,2-Dibromo-3-chloropropan	20.39	157	5770	4.15	ppb		98
92)	Nitrobenzene	20.80	77	2775	3.56	ppb	#	55
93)	1,2,4-Tcbenzene	22.05	180	18012	4.68	ppb		94
94)	Hexachlorobt	22.43	225	6154	4.55	ppb		96
95)	Naphthalen	22.53	128	48681	4.23	ppb		97
96)	1,2,3-Tclbenzene	23.01	180	16110	4.35	ppb	#	80

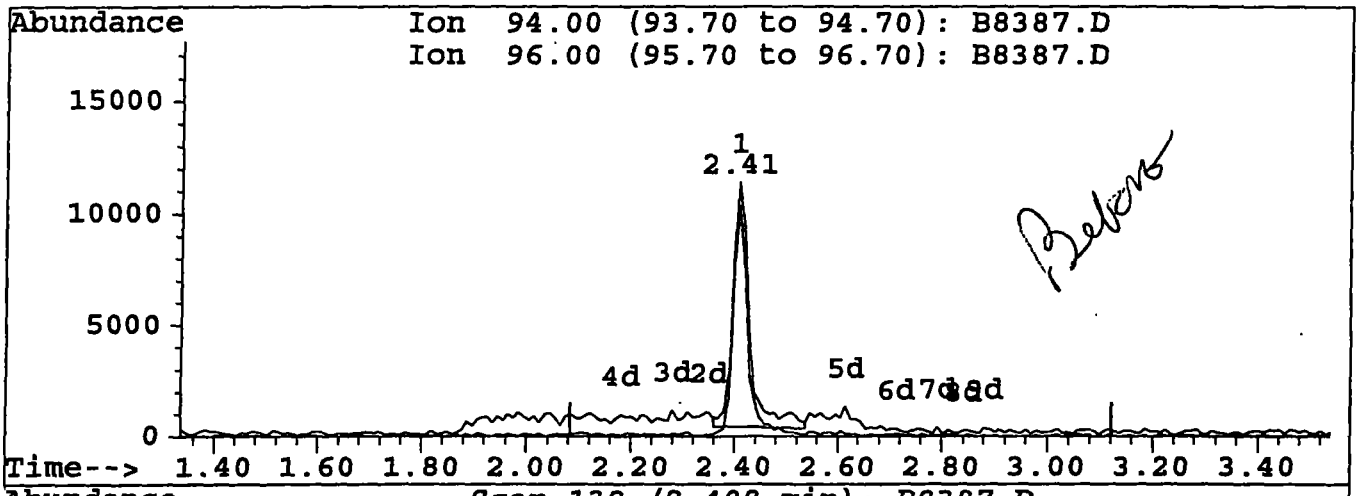
(#) = qualifier out of range (m) = manual integration

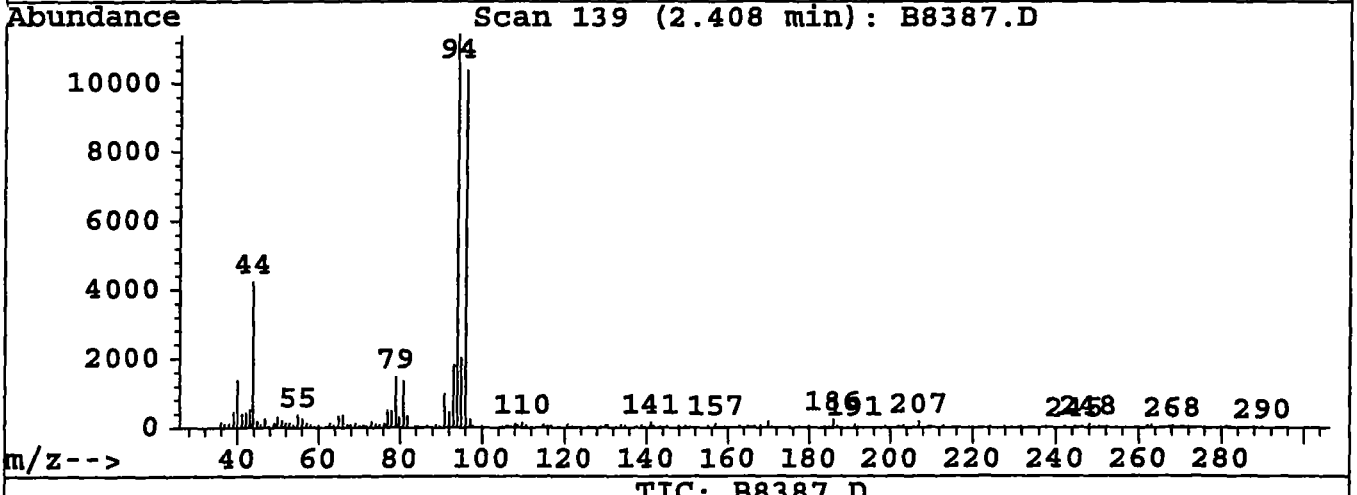
Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\121701\B8387.D
Acq On : 17 Dec 101 11:39 am
Sample : 5 PPB
Misc :
Quant Time: Dec 17 12:06 19101

Vial: 5
Operator: droot
Inst : 5971 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Mon Dec 17 15:14:12 2001
Response via : Multiple Level Calibration





TIC: B8387.D

(5) Bromomethane
2.41min 8.57ppb
response 24930

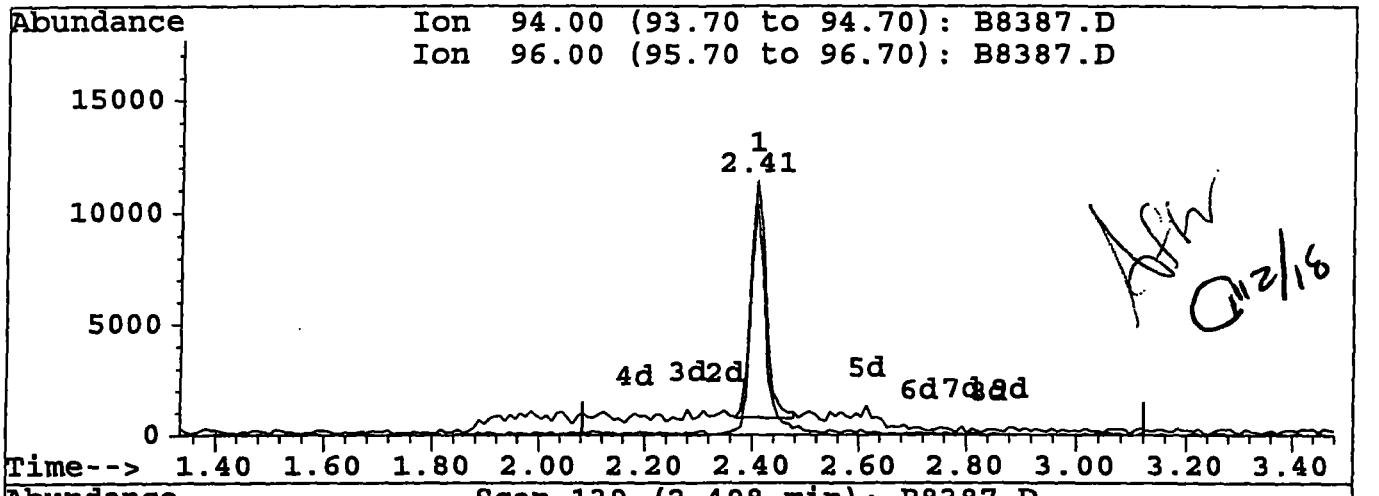
Ion	Exp%	Act%
94.00	100	100
96.00	90.30	90.82
0.00	0.00	0.00
0.00	0.00	0.00

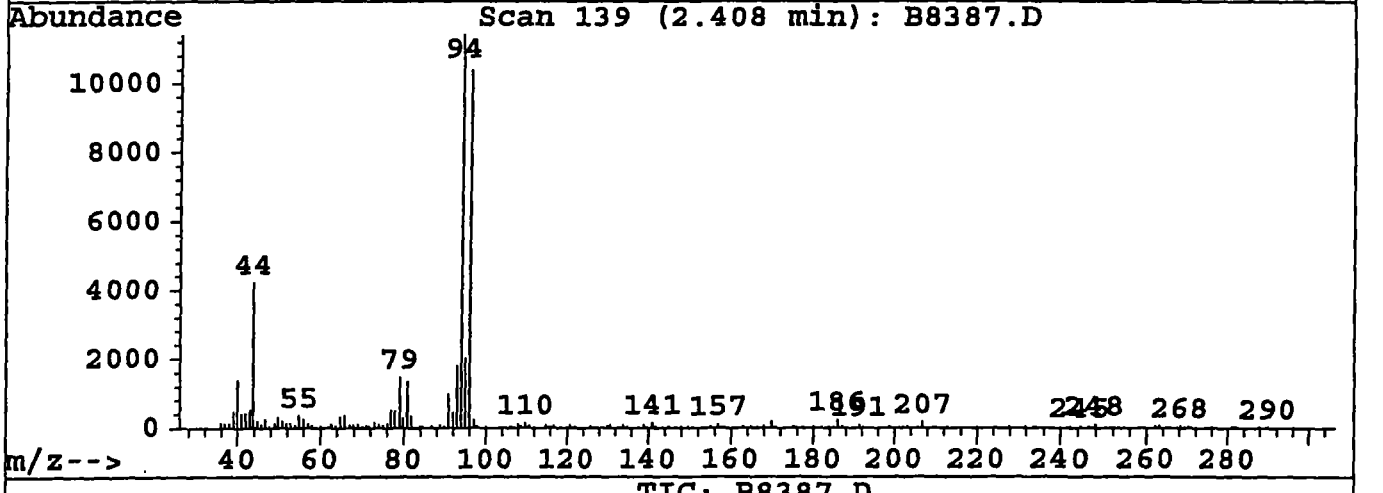
Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\121701\B8387.D
Acq On : 17 Dec 101 11:39 am
Sample : 5 PPB
Misc :
Quant Time: Dec 17 15:27 19101

Vial: 5
Operator: droot
Inst : 5971 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Mon Dec 17 15:14:12 2001
Response via : Multiple Level Calibration





TIC: B8387.D

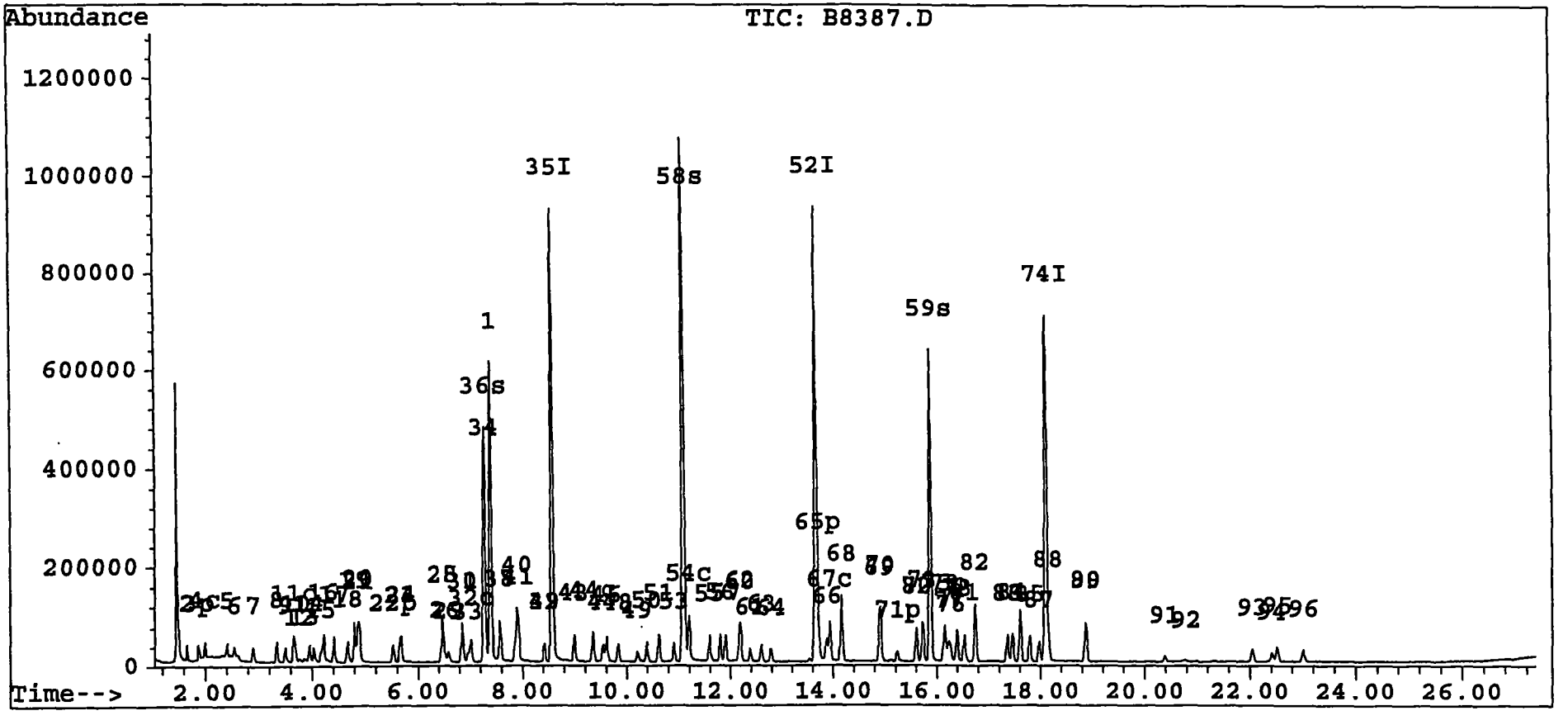
(5) Bromomethane
2.41min 7.11ppb m
response 20672

Ion	Exp%	Act%
94.00	100	100
96.00	90.30	90.82
0.00	0.00	0.00
0.00	0.00	0.00

EXP1217.M Mon Dec 17 15:28:02 2001

Data File : J:\ACQUDATA\MSVOA3\DATA\121701\B8387.D Vial: 5
Acq On : 17 Dec 101 11:39 am Operator: droot
Sample : 5 PPB Inst : 5971 - In
Misc : Multiplr: 1.00
Quant Time: Dec 17 15:27 19101

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Mon Dec 17 15:28:12 2001
Response via : Multiple Level Calibration



Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\121701\B8388.D Vial: 6
Acq On : 17 Dec 101 12:15 pm Operator: droot
Sample : 20 PPB Inst : 5971 - In
Misc : Multiplr: 1.00
Quant Time: Dec 17 15:36 19101

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Mon Dec 17 15:28:12 2001
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	7.40	168	600770	50.00	ppb		-0.08
35) 1,4 - Difluorobenzene	8.58	114	1116522	50.00	ppb		-0.09
52) d5 - Chlorobenzene	13.67	117	893595	50.00	ppb		-0.11
74) d4 - Dichlorobenzene	18.11	152	348312	50.00	ppb		-0.12
System Monitoring Compounds							%Recovery
36) surr4,Dibrflmethane	7.27	113	532086	75.86	ppb		151.72%
58) surr3,Toluene-d8	11.09	98	1409321	74.05	ppb		148.09%
59) surr2,bfb	15.87	95	559523	77.17	ppb		154.34%
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.66	85	90100	17.47	ppb		99
3) Chloromethane	1.88	50	130322	18.29	ppb		98
4) Vinyl Chloride	2.00	62	103732	17.26	ppb		94
5) Bromomethane	2.41	94	71458	19.06	ppb	m	97
6) Chloroethane	2.55	64	64747	17.50	ppb		99
7) Trichlorofluoromethane	2.90	101	115379	17.39	ppb		96
8) Diethyl Ether	3.34	59	114362	19.57	ppb		99
9) Acrolein	3.50	56	126092	94.60	ppb		94
10) FREON 113	3.69	85	28134	16.61	ppb		91
11) 1,1-Diclethene	3.66	96	80774	18.66	ppb		97
12) Acetone	3.76	43	46696	16.90	ppb		99
13) Iodomethane	3.87	127	37839	19.38	ppb		96
14) Carbon Disulfide	3.96	76	305768	17.85	ppb		100
15) Acetonitrile	4.16	41	112751	308.77	ppb		97
16) Allyl Chloride	4.22	76	50530	18.68	ppb		91
17) Methylene Chloride	4.42	84	115264	19.19	ppb		94
18) TBA	4.67	59	286185	371.18	ppb		100
19) Acrylonitrile	4.80	53	322174	95.22	ppb		98
20) Methyl-t-Butyl Ether	4.89	73	344081	19.33	ppb		95
21) trans-1,2-Dichloroethene	4.86	96	101471	18.53	ppb		90
22) 1,1-Diclethane	5.53	63	185229	18.88	ppb		98
23) Vinyl Acetate	5.66	43	271230	19.91	ppb		99
24) 2-Chloro-1,3-butadiene	5.69	53	145372	17.01	PPB		96
25) 2,2-Dichloropropane	6.46	77	125831	17.79	ppb		97
26) 2-Butanone	6.52	43	84339	16.06	ppb		98
28) cis-1,2-Dichloroethene	6.48	96	122882	18.57	ppb		94
29) Propionitrile	6.58	54	121499	96.14	ppb		96
30) Methacrylonitrile	6.84	67	60093	18.04	ppb		98
31) Bromochloromethane	6.86	128	62486	19.28	ppb		87
32) Chloroform	7.01	83	177752	18.56	ppb		99
33) Tetrahydrofuran	6.96	42	59623	15.17	ppb		96
34) 1,1,1-Trichloroethane	7.29	97	123612	17.46	ppb		98
37) Carbontetrachloride	7.58	117	97327	17.00	ppb		96

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\121701\B8388.D Vial: 6
Acq On : 17 Dec 101 12:15 pm Operator: droot
Sample : 20 PPB Inst : 5971 - In
Misc : Multiplr: 1.00
Quant Time: Dec 17 15:36 19101

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Mon Dec 17 15:28:12 2001
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38)	1,1-Dichloropropene	7.58	75	121811	17.37	ppb	93
39)	Iso-Butyl Alcohol	8.42	43	105215	417.77	ppb	99
40)	Benzene	7.90	78	373513	18.42	ppb	97
41)	1,2-Dichloroethane	7.93	62	151849	19.48	ppb	98
42)	N-Heptane	8.42	43	102287	20.21	ppb	98
43)	Trichloroethene	8.99	95	94618	17.57	ppb	99
44)	1,2-Diclpropane	9.36	63	127203	19.46	ppb	94
45)	Methyl Methacrylate	9.61	69	95656	18.64	ppb	95
46)	1,4-Dioxane	9.61	88	28824	400.40	ppb	89
47)	Dibromomethane	9.54	93	85334	19.46	ppb	96
48)	Bromodichloromethane	9.84	83	139966	19.03	ppb	96
49)	2-Nitropropane	10.21	43	97099	37.90	ppb	98
50)	2-Chloroethylvinyl Ether	10.39	63	98797	17.82	ppb	92
51)	cis-1,3-Dichloropropene	10.62	75	187501	19.47	ppb	95
53)	4-Methyl-2-Pentanone	10.90	43	160104	16.73	ppb	96
54)	Toluene	11.20	91	336446	17.65	ppb	99
55)	trans-1,3-Dichloropropene	11.59	75	162569	18.74	ppb	97
56)	Ethyl Methacrylate	11.81	69	160695	18.37	ppb	100
57)	1,1,2-Trichloroethane	11.91	83	93989	19.57	ppb	98
60)	Tetrachloroethene	12.17	166	68771	15.84	ppb	97
61)	2-Hexanone	12.39	43	110977	17.11	ppb	93
62)	1,3-Dichloropropane	12.20	76	203612	19.29	ppb	94
63)	Dibromochloromethane	12.61	129	107805	18.06	ppb	98
64)	1,2-Dibromoethane	12.79	107	119678	18.66	ppb	99
65)	Chlorobenzene	13.72	112	222776	17.85	ppb	96
66)	1,1,1,2-Tetrachloroethane	13.88	131	83429	17.64	ppb	94
67)	Ethylbenzene	13.94	91	333067	17.33	ppb	98
68)	(m+p)Xylene	14.17	106	234647	34.75	ppb	98
69)	o-Xylene	14.90	106	121234	18.30	ppb	100
70)	Styrene	14.92	104	220836	18.53	ppb	94
71)	Bromoform	15.24	173	69518	17.90	ppb	96
72)	Isopropylbenzene	15.61	105	278699	17.06	ppb	99
73)	Cyclohexanone	15.74	55	243530	282.03	ppb	98
75)	1,1,2,2-Tetrachloroethane	16.17	83	144017	17.83	ppb	97
76)	Trans-1,4-Dichloro-2-buten	16.28	53	42820	17.46	ppb	96
77)	1,2,3-Trichloropropane	16.24	110	41546	16.60	ppb	97
78)	n-Propylbenzene	16.40	91	320886	17.12	ppb	100
79)	Bromobenzene	16.14	156	82695	16.99	ppb	93
80)	1,3,5-Trimethylbenzene	15.61	105	280469	16.31	ppb	99
81)	2-Chlorotoluene	16.53	91	212765	17.47	ppb	99
82)	4-Chlorotoluene	16.75	91	240961	17.64	ppb	96
83)	tert-Butylbenzene	17.37	119	161372	16.31	ppb	96
84)	1,2,4-Trimethylbenzene	17.46	105	201482	17.18	ppb	98
85)	sec-Butylbenzene	17.79	105	243355	17.29	ppb	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\121701\B8388.D Vial: 6
\cq On : 17 Dec 101 12:15 pm Operator: droot
Sample : 20 PPB Inst : 5971 - In
Misc : Multiplr: 1.00
Quant Time: Dec 17 15:36 19101

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Mon Dec 17 15:28:12 2001
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
86) p-Isopropyltoluene	17.37	119	161372	16.31 ppb	97
87) 1,3-Dclbenz	17.98	146	116883	17.25 ppb	98
88) 1,4-Dclbenz	18.16	146	130389	17.27 ppb	97
89) n-Butylbenzene	18.89	91	182028	19.21 ppb	96
90) 1,2-Dclbenz	18.88	146	126401	17.54 ppb	98
91) 1,2-Dibromo-3-chloropropan	20.40	157	23310	16.97 ppb	98
92) Nitrobenzene	20.80	77	11050	15.13 ppb	90
93) 1,2,4-Tcbenzene	22.07	180	66347	17.86 ppb	99
94) Hexachlorobt	22.43	225	28179	21.07 ppb	96
95) Naphthalen	22.53	128	187631	17.50 ppb	99
96) 1,2,3-Tclbenzene	23.02	180	61451	17.94 ppb	97

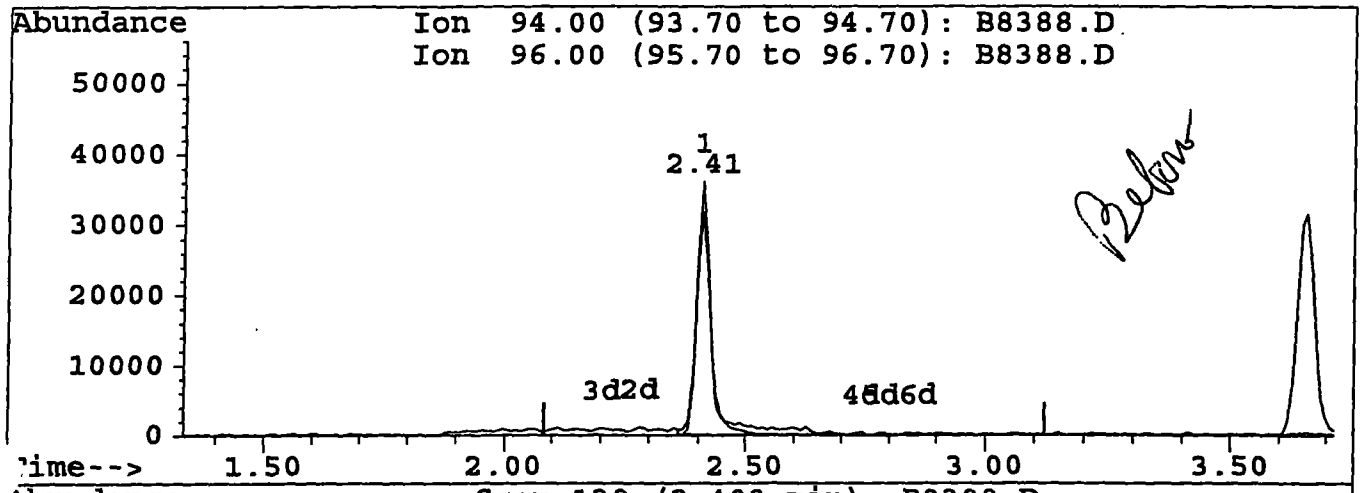
(#) = qualifier out of range (m) = manual integration

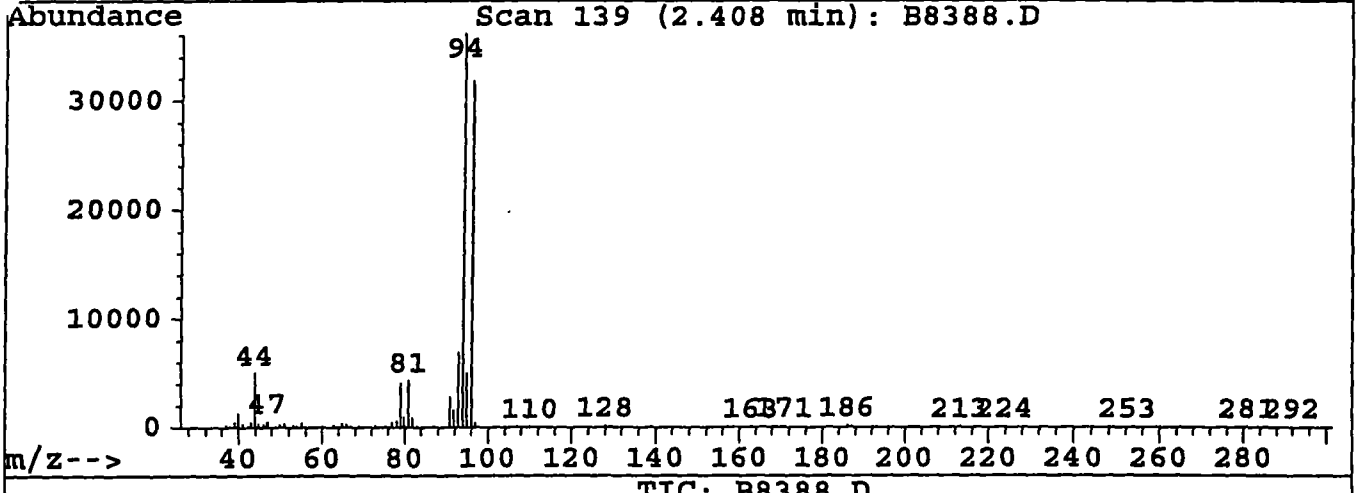
Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\121701\B8388.D
Acq On : 17 Dec 101 12:15 pm
Sample : 20 PPB
Misc :
Quant Time: Dec 17 12:43 19101

Vial: 6
Operator: droot
Inst : 5971 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Mon Dec 17 15:28:12 2001
Response via : Multiple Level Calibration





TIC: B8388.D

(5) Bromomethane
2.41min 22.22ppb
response 83310

Ion	Exp%	Act%
94.00	100	100
96.00	90.30	87.91
0.00	0.00	0.00
0.00	0.00	0.00

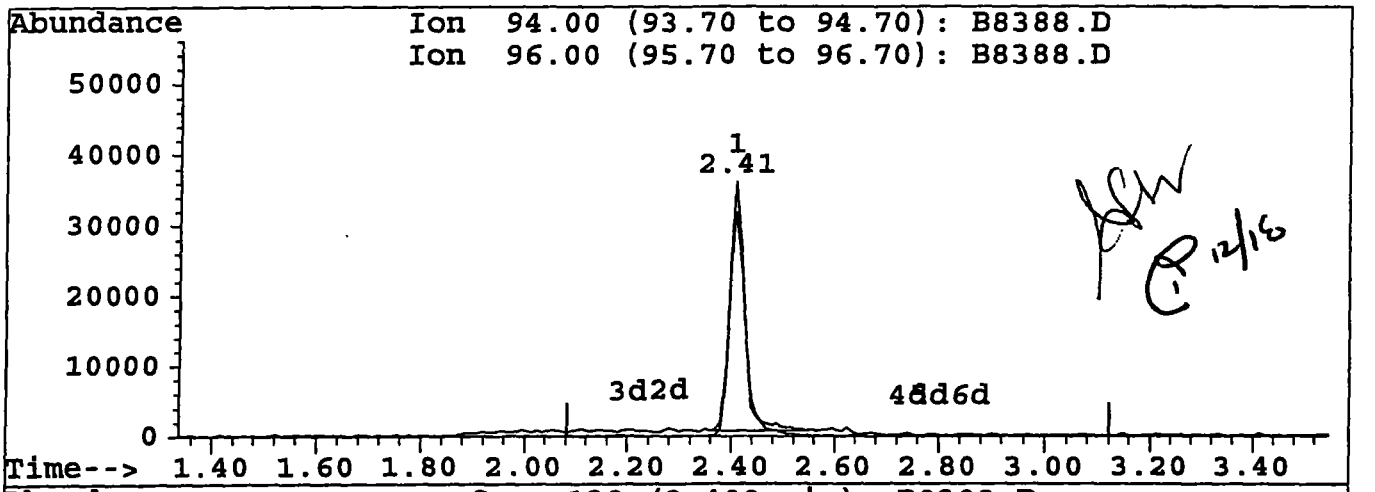
EXP1217.M Mon Dec 17 15:36:12 2001

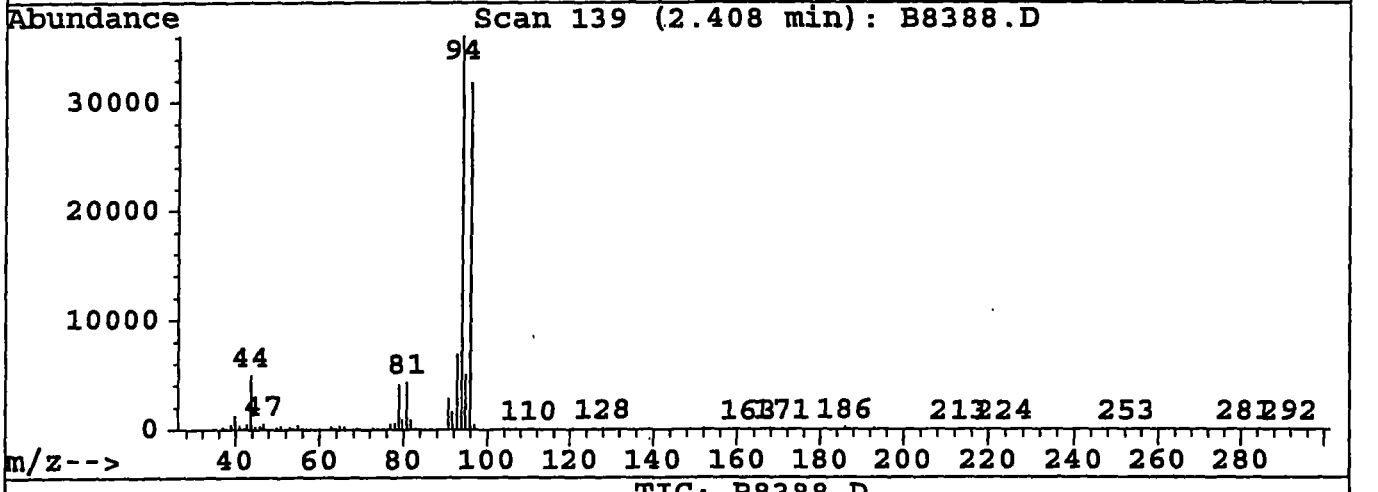
Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\121701\B8388.D
Acq On : 17 Dec 101 12:15 pm
Sample : 20 PPB
Misc :
Quant Time: Dec 17 15:36 19101

Vial: 6
Operator: droot
Inst : 5971 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Mon Dec 17 15:28:12 2001
Response via : Multiple Level Calibration





TIC: B8388.D

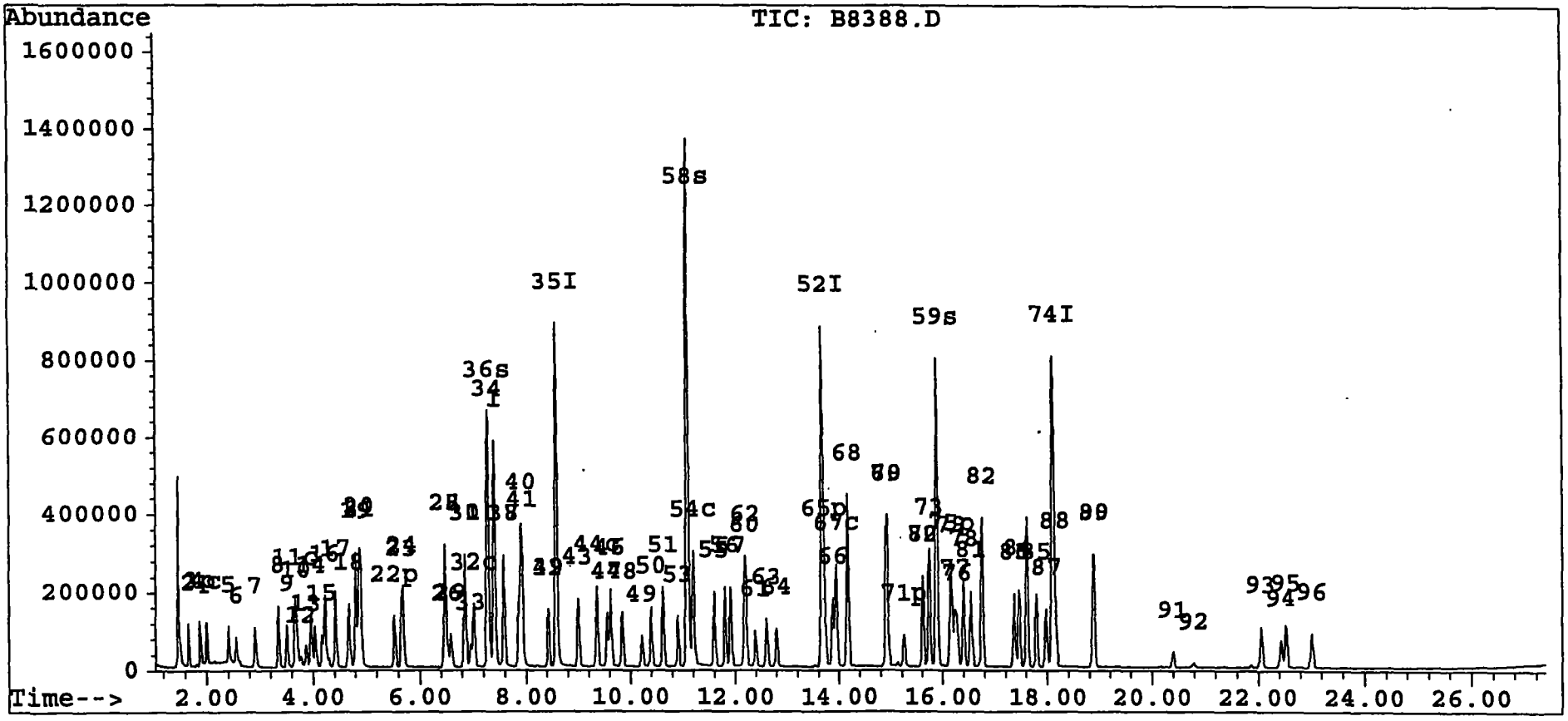
(5) Bromomethane
2.41min 19.06ppb m
response 71458

Ion	Exp%	Act%
94.00	100	100
96.00	90.30	87.91
0.00	0.00	0.00
0.00	0.00	0.00

Data File : J:\ACQUDATA\MSVOA3\DATA\121701\B8388.D
Acq On : 17 Dec 101 12:15 pm
Sample : 20 PPB
Misc :
Quant Time: Dec 17 15:36 19101

Vial: 6
Operator: droot
Inst : 5971 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Mon Dec 17 15:28:12 2001
Response via : Multiple Level Calibration



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Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\MSVOA3\DATA\121701\B8389.D Vial: 7
Acq On : 17 Dec 101 12:52 pm Operator: droot
Sample : 50 PPB Inst : 5971 - In
Misc : Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Mon Dec 17 15:28:12 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1		Pentafluorobenzene	1.000	1.000	0.0	100	0.01
2		Dichlorodifluoromethane	0.426	0.365	14.2	100	0.00
3	p	Chloromethane	0.564	0.505	10.4	100	0.00
4	c	Vinyl Chloride	0.485	0.414	14.5	100	0.00
5		Bromomethane	0.345	0.281	18.5	100	0.00
6		Chloroethane	0.303	0.249	17.8	100	0.00
7		Trichlorofluoromethane	0.536	0.463	13.7	100	0.00
8		Diethyl Ether	0.481	0.438	9.0	100	0.00
9		Acrolein	0.108	0.109	-1.0	100	0.00
10		FREON 113	0.142	0.118	17.1	100	0.00
11	c	1,1-Diclethene	0.371	0.326	12.0	100	0.00
12		Acetone	0.215	0.201	6.5	100	0.00
1		Iodomethane	0.209	0.214	-2.4	100	0.00
14		Carbon Disulfide	1.431	1.448	-1.2	100	0.00
15		Acetonitrile	0.024	0.024	-0.8	100	0.00
16		Allyl Chloride	0.230	0.204	11.6	100	0.00
17		Methylene Chloride	0.505	0.442	12.5	100	0.00
18		TBA	0.059	0.056	4.8	100	0.00
19		Acrylonitrile	0.263	0.254	3.4	100	0.00
20		Methyl-t-Butyl Ether	1.432	1.318	8.0	100	0.00
21		trans-1,2-Dichloroethene	0.460	0.404	12.1	100	0.00
22	p	1,1-Diclethane	0.821	0.731	11.0	100	0.01
23		Vinyl Acetate	1.103	1.089	1.3	100	0.00
24		2-Chloro-1,3-butadiene	0.688	0.705	-2.4	100	0.01
25		2,2-Dichloropropane	0.580	0.503	13.2	100	0.00
26		2-Butanone	0.383	0.388	-1.4	100	0.00
27		Ethyl Acetate	0.000	0.000	0.0	100	0.00
28		cis-1,2-Dichloroethene	0.548	0.477	13.0	100	0.00
29		Propionitrile	0.099	0.093	6.0	100	0.00
30		Methacrylonitrile	0.256	0.237	7.7	100	0.00
31		Bromochloromethane	0.271	0.238	12.2	100	0.00
32	c	Chloroform	0.787	0.696	11.6	100	0.00
33		Tetrahydrofuran	0.252	0.224	11.4	100	0.00
34		1,1,1-Trichloroethane	0.581	0.508	12.5	100	0.00
35	I	1,4 - Difluorobenzene	1.000	1.000	0.0	100	0.00
36	s	surr4,Dibrflmethane	0.321	0.363	-13.1	100	0.00
		Carbontetrachloride	0.262	0.221	15.8	100	0.00
		1,1-Dichloropropene	0.314	0.266	15.3	100	0.00
39		Iso-Butyl Alcohol	0.012	0.010	18.1	100	0.00
40		Benzene	0.899	0.789	12.2	100	0.00
41		1,2-Dichloroethane	0.343	0.309	9.8	100	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\MSVOA3\DATA\121701\B8389.D Vial: 7
Acq On : 17 Dec 101 12:52 pm Operator: droot
Sample : 50 PPB Inst : 5971 - In
Misc : Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Mon Dec 17 15:28:12 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
42		N-Heptane	0.232	0.189	18.6	100	0.00
43		Trichloroethene	0.240	0.210	12.6	100	0.00
44	c	1,2-Diclpropane	0.295	0.263	10.7	100	0.00
45		Methyl Methacrylate	0.213	0.200	5.8	100	0.00
46		1,4-Dioxane	0.003	0.003	6.0	100	0.00
47		Dibromomethane	0.192	0.177	7.8	100	0.00
48		Bromodichloromethane	0.328	0.293	10.5	100	0.01
49		2-Nitropropane	0.109	0.102	5.9	100	0.00
50		2-Chloroethylvinyl Ether	0.243	0.236	2.8	100	0.00
51		cis-1,3-Dichloropropene	0.429	0.385	10.3	100	0.00
52	I	d5 - Chlorobenzene	1.000	1.000	0.0	100	0.00
53		4-Methyl-2-Pentanone	0.504	0.513	-1.9	100	0.00
	c	Toluene	1.048	0.916	12.6	100	0.00
		trans-1,3-Dichloropropene	0.472	0.439	7.1	100	0.00
56		Ethyl Methacrylate	0.461	0.437	5.1	100	0.00
57		1,1,2-Trichloroethane	0.265	0.247	6.6	100	0.00
58	s	surr3,Toluene-d8	1.066	1.220	-14.4	100	0.00
59	s	surr2,bfb	0.420	0.483	-15.0	100	0.00
60		Tetrachloroethene	0.234	0.196	16.2	100	0.00
61		2-Hexanone	0.341	0.352	-3.4	100	0.00
62		1,3-Dichloropropane	0.573	0.531	7.2	100	0.00
63		Dibromochloromethane	0.318	0.293	7.8	100	0.01
64		1,2-Dibromoethane	0.342	0.318	7.2	100	0.01
65	p	Chlorobenzene	0.678	0.594	12.4	100	0.00
66		1,1,1,2-Tetrachloroethane	0.254	0.223	12.2	100	0.00
67	c	Ethylbenzene	1.061	0.918	13.4	100	0.00
68		(m+p)Xylene	0.376	0.328	12.7	100	0.00
69		o-Xylene	0.370	0.330	10.7	100	0.01
70		Styrene	0.666	0.588	11.7	100	0.00
71	p	Bromoform	0.210	0.190	9.2	100	0.00
72		Isopropylbenzene	0.907	0.784	13.5	100	0.00
73		Cyclohexanone	0.035	0.033	4.7	100	0.00
74	I	d4 - Dichlorobenzene	1.000	1.000	0.0	100	0.00
75	p	1,1,2,2-Tetrachloroethane	1.067	0.946	11.3	100	0.01
76		Trans-1,4-Dichloro-2-butene	0.326	0.298	8.6	100	0.00
77		1,2,3-Trichloropropane	0.326	0.288	11.6	100	0.00
[illegible]		n-Propylbenzene	2.661	2.273	14.6	100	0.01
		Bromobenzene	0.668	0.563	15.7	100	0.01
[illegible]0		1,3,5-Trimethylbenzene	2.423	2.015	16.8	100	0.00
81		2-Chlorotoluene	1.707	1.478	13.4	100	0.00

(#) = Out of Range

140

Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\MSVOA3\DATA\121701\B8389.D Vial: 7
Acq On : 17 Dec 101 12:52 pm Operator: droot
Sample : 50 PPB Inst : 5971 - In
Misc : Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Mon Dec 17 15:28:12 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
82	4-Chlorotoluene	1.924	1.663	13.6	100	0.00
83	tert-Butylbenzene	1.384	1.157	16.4	100	0.00
84	1,2,4-Trimethylbenzene	1.594	1.390	12.8	100	0.00
85	sec-Butylbenzene	1.994	1.703	14.6	100	0.00
86	p-Isopropyltoluene	1.384	1.157	16.4	100	0.00
87	1,3-Dclbenz	0.927	0.797	14.1	100	0.01
88	1,4-Dclbenz	1.029	0.884	14.1	100	0.00
89	n-Butylbenzene	1.332	1.160	12.9	100	0.00
90	1,2-Dclbenz	0.987	0.849	14.0	100	0.00
91	1,2-Dibromo-3-chloropropane	0.173	0.156	9.8	100	0.00
92	Nitrobenzene	0.095	0.084	11.7	100	-0.02
93	1,2,4-Tcbenzene	0.484	0.429	11.4	100	0.00
	Hexachlorobt	0.187	0.160	14.6	100	0.00
	Naphthalen	1.339	1.250	6.6	100	0.00
96	1,2,3-Tclbenzene	0.444	0.405	8.8	100	0.01
97	TOTAL XYLENE	0.000	0.000	0.0	100	0.00

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\121701\B8389.D Vial: 7
Acq On : 17 Dec 101 12:52 pm Operator: droot
Sample : 50 PPB Inst : 5971 - In
Misc : Multiplr: 1.00
Quant Time: Dec 17 13:22 19101

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Mon Dec 17 14:04:54 2001
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	7.40	168	607475	50.00	ppb	-0.08
35) 1,4 - Difluorobenzene	8.57	114	1129082	50.00	ppb	-0.09
52) d5 - Chlorobenzene	13.66	117	890684	50.00	ppb	-0.11
74) d4 - Dichlorobenzene	18.11	152	346745	50.00	ppb	-0.12
System Monitoring Compounds						%Recovery
36) surr4,Dibrflmethane	7.27	113	409439	57.81	ppb	115.62%
58) surr3,Toluene-d8	11.08	98	1086357	57.27	ppb	114.54%
59) surr2,bfb	15.88	95	429989	58.54	ppb	117.07%
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.66	85	221895	42.78	ppb	m 77
3) Chloromethane	1.88	50	307049	43.28	ppb	98
4) Vinyl Chloride	2.00	62	251547	41.75	ppb	98
5) Bromomethane	2.41	94	170930	43.27	ppb	99
6) Chloroethane	2.55	64	151426	40.67	ppb	98
7) Trichlorofluoromethane	2.90	101	281078	42.24	ppb	96
8) Diethyl Ether	3.34	59	265887	45.25	ppb	98
9) Acrolein	3.49	56	330901	245.95	ppb	99
10) FREON 113	3.69	85	71432	41.80	ppb	89
11) 1,1-Diclethene	3.65	96	198170	45.32	ppb	95
12) Acetone	3.75	43	121893	43.81	ppb	96
13) Iodomethane	3.86	127	130134	63.83	ppb	99
14) Carbon Disulfide	3.96	76	879820	50.48	ppb	99
15) Acetonitrile	4.16	41	295225	961.08	ppb	96
16) Allyl Chloride	4.22	76	123674	45.40	ppb	97
17) Methylene Chloride	4.42	84	268555	44.25	ppb	98
18) TBA	4.68	59	679807	887.21	ppb	100
19) Acrylonitrile	4.80	53	770875	228.71	ppb	99
20) Methyl-t-Butyl Ether	4.89	73	800373	44.78	ppb	96
21) trans-1,2-Dichloroethene	4.86	96	245426	44.32	ppb	97
22) 1,1-Diclethane	5.53	63	443906	44.87	ppb	99
23) Vinyl Acetate	5.66	43	661650	48.14	ppb	97
24) 2-Chloro-1,3-butadiene	5.69	53	428158	49.38	PPB	96
25) 2,2-Dichloropropane	6.47	77	305826	43.18	ppb	98
26) 2-Butanone	6.52	43	235837	44.77	ppb	100
28) cis-1,2-Dichloroethene	6.48	96	289998	43.33	ppb	90
29) Propionitrile	6.59	54	282988	224.44	ppb	98
30) Methacrylonitrile	6.84	67	143775	43.41	ppb	96
31) Bromochloromethane	6.86	128	144567	44.34	ppb	98
32) Chloroform	7.02	83	422636	43.92	ppb	100
33) Tetrahydrofuran	6.95	42	135840	41.98	ppb	96
34) 1,1,1-Trichloroethane	7.29	97	308548	43.40	ppb	96
37) Carbontetrachloride	7.57	117	249354	43.50	ppb	96

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\121701\B8389.D Vial: 7
cq On : 17 Dec 101 12:52 pm Operator: droot
Sample : 50 PPB Inst : 5971 - In
Misc : Multiplr: 1.00
Quant Time: Dec 17 13:22 19101

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Mon Dec 17 14:04:54 2001
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
38) 1,1-Dichloropropene	7.57	75	299901	42.25 ppb	98
39) Iso-Butyl Alcohol	8.43	43	214696	823.06 ppb	100
40) Benzene	7.90	78	891249	43.72 ppb	97
41) 1,2-Dichloroethane	7.92	62	349420	44.51 ppb	98
42) N-Heptane	8.43	43	213112	40.92 ppb	99
43) Trichloroethene	9.00	95	236619	43.71 ppb	92
44) 1,2-Diclpropane	9.35	63	297322	44.80 ppb	95
45) Methyl Methacrylate	9.62	69	226096	44.41 ppb	98
46) 1,4-Dioxane	9.62	88	67348	953.42 ppb	98
47) Dibromomethane	9.55	93	199911	45.39 ppb	99
48) Bromodichloromethane	9.84	83	331242	44.56 ppb	99
49) 2-Nitropropane	10.22	43	231435	90.19 ppb	99
50) 2-Chloroethylvinyl Ether	10.38	63	266760	47.77 ppb	98
51) cis-1,3-Dichloropropene	10.62	75	435170	44.76 ppb	96
53) 4-Methyl-2-Pentanone	10.91	43	456803	48.42 ppb	97
54) Toluene	11.20	91	815837	43.19 ppb	99
55) trans-1,3-Dichloropropene	11.60	75	390925	45.71 ppb	98
56) Ethyl Methacrylate	11.80	69	389457	45.18 ppb	97
57) 1,1,2-Trichloroethane	11.91	83	220172	46.13 ppb	98
60) Tetrachloroethene	12.18	166	174748	40.96 ppb	100
61) 2-Hexanone	12.38	43	313749	49.01 ppb	93
62) 1,3-Dichloropropane	12.21	76	473112	45.29 ppb	92
63) Dibromochloromethane	12.61	129	261138	44.41 ppb	97
64) 1,2-Dibromoethane	12.80	107	282974	44.80 ppb	99
65) Chlorobenzene	13.71	112	529097	42.91 ppb	97
66) 1,1,1,2-Tetrachloroethane	13.88	131	198853	42.53 ppb	97
67) Ethylbenzene	13.94	91	818043	42.79 ppb	97
68) (m+p)Xylene	14.16	106	585147	86.57 ppb	100
69) o-Xylene	14.90	106	294025	44.34 ppb	99
70) Styrene	14.92	104	523929	43.77 ppb	95
71) Bromoform	15.24	173	169582	44.46 ppb	100
72) Isopropylbenzene	15.61	105	698519	42.75 ppb	99
73) Cyclohexanone	15.73	55	588895	727.34 ppb	98
75) 1,1,2,2-Tetrachloroethane	16.17	83	328194	42.14 ppb	98
76) Trans-1,4-Dichloro-2-buten	16.28	53	103261	43.52 ppb	92
77) 1,2,3-Trichloropropane	16.23	110	99863	41.24 ppb	93
78) n-Propylbenzene	16.40	91	788316	42.40 ppb	99
79) Bromobenzene	16.15	156	195238	41.23 ppb	97
80) 1,3,5-Trimethylbenzene	15.61	105	698519	41.33 ppb	99
81) 2-Chlorotoluene	16.54	91	512533	42.79 ppb	98
82) 4-Chlorotoluene	16.74	91	576484	42.80 ppb	98
83) tert-Butylbenzene	17.36	119	401101	41.05 ppb	99
84) 1,2,4-Trimethylbenzene	17.46	105	481831	41.97 ppb	98
85) sec-Butylbenzene	17.80	105	590480	42.22 ppb	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\121701\B8389.D Vial: 7
Acq On : 17 Dec 101 12:52 pm Operator: droot
Sample : 50 PPB Inst : 5971 - In
Misc : Multiplr: 1.00
Quant Time: Dec 17 13:22 19101

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Mon Dec 17 14:04:54 2001
Response via : Multiple Level Calibration

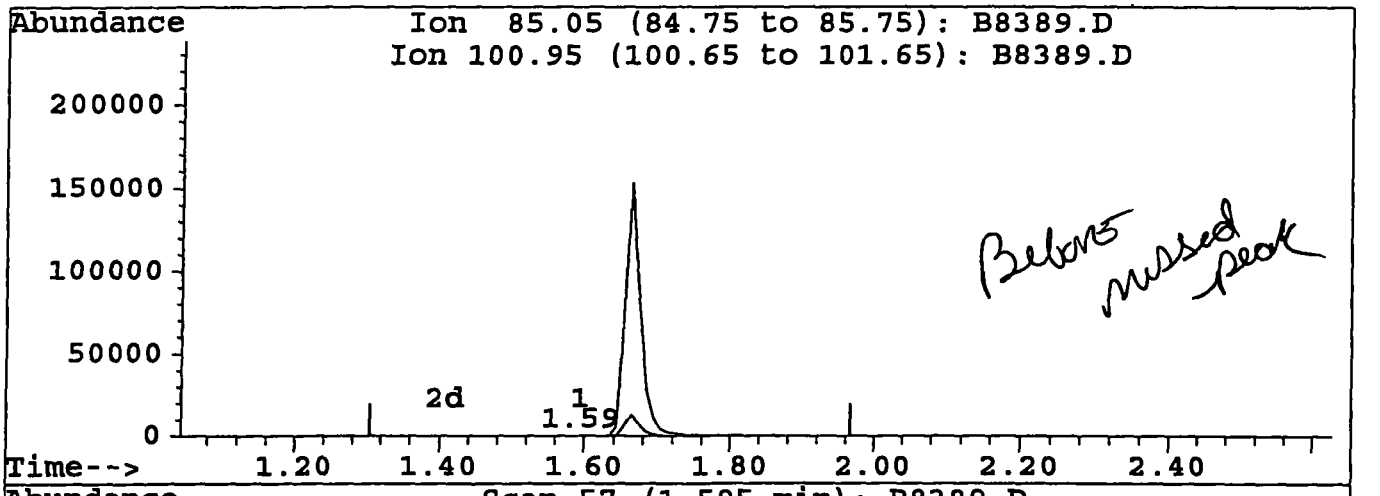
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
86)	p-Isopropyltoluene	17.36	119	401101	41.05 ppb	98
87)	1,3-Dclbenz	17.98	146	276215	41.55 ppb	98
88)	1,4-Dclbenz	18.16	146	306377	41.39 ppb	99
89)	n-Butylbenzene	18.89	91	402155	42.12 ppb	97
90)	1,2-Dclbenz	18.87	146	294342	41.65 ppb	98
91)	1,2-Dibromo-3-chloropropan	20.40	157	54050	40.66 ppb	94
92)	Nitrobenzene	20.79	77	29015	42.71 ppb	94
93)	1,2,4-Tcbenzene	22.06	180	148904	40.97 ppb	89
94)	Hexachlorobt	22.43	225	55394	41.36 ppb	92
95)	Naphthalen	22.53	128	433338	42.18 ppb	100
96)	1,2,3-Tclbenzene	23.02	180	140393	42.24 ppb	97

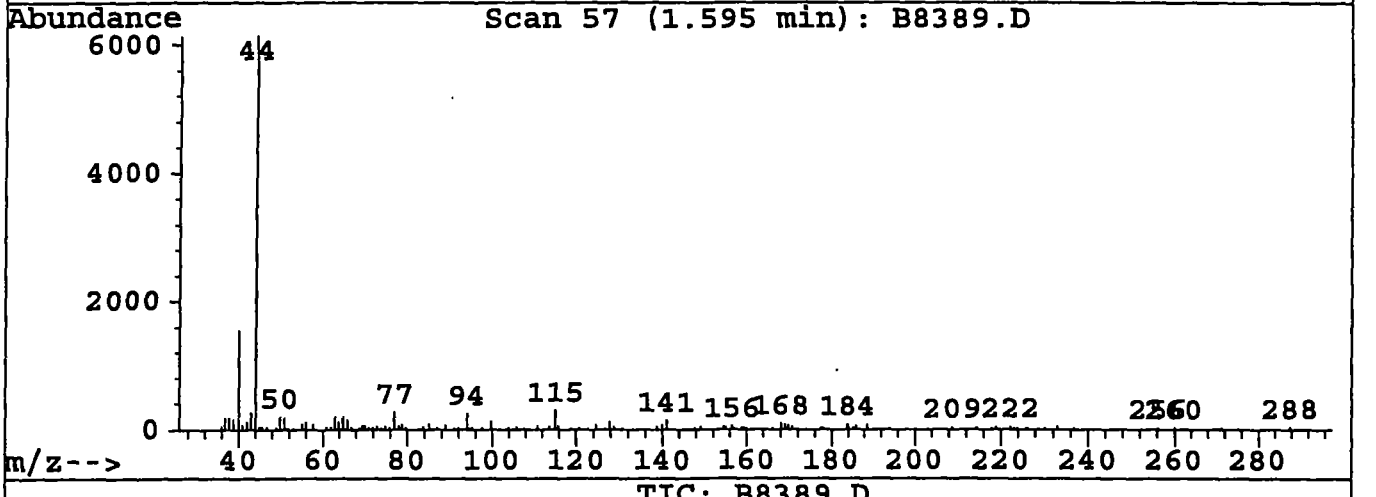
Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\121701\B8389.D
Acq On : 17 Dec 101 12:52 pm
Sample : 50 PPB
Misc :
Quant Time: Dec 17 13:20 19101

Vial: 7
Operator: droot
Inst : 5971 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Mon Dec 17 12:46:48 2001
Response via : Multiple Level Calibration





TIC: B8389.D

(2) Dichlorodifluoromethane

1.59min 0.06ppb

response 291

Ion	Exp%	Act%
85.05	100	100
100.95	8.10	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

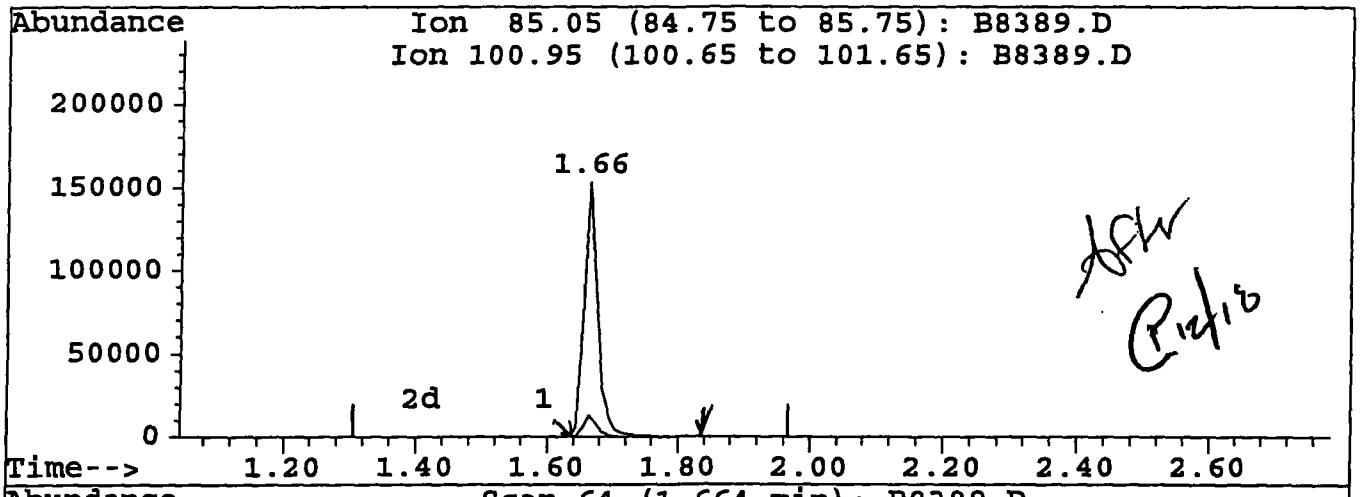
12/17

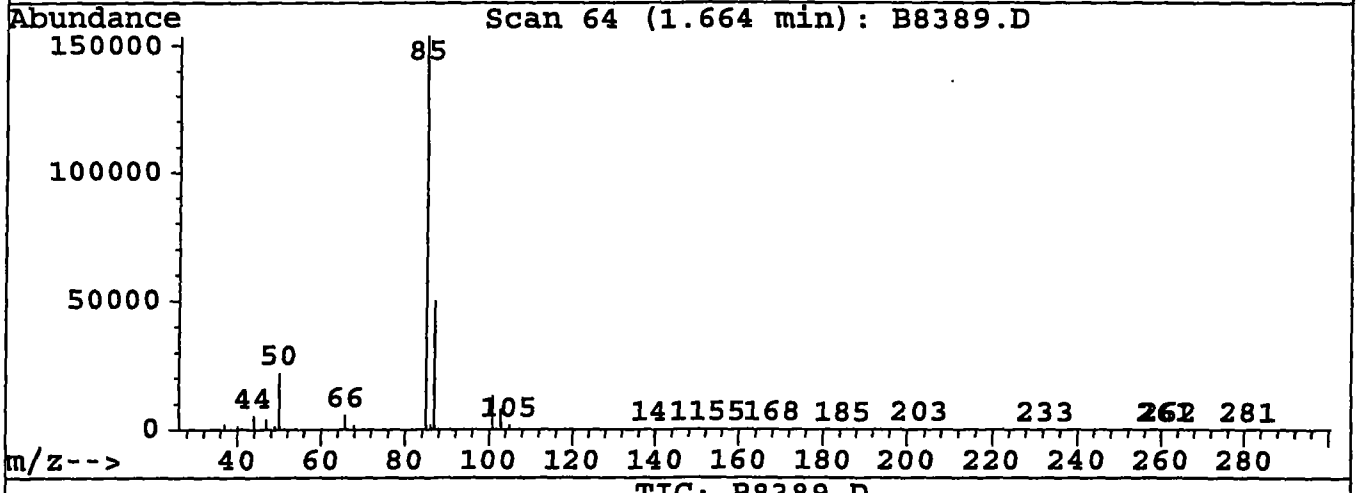
Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\121701\B8389.D
Acq On : 17 Dec 101 12:52 pm
Sample : 50 PPB
Misc :
Quant Time: Dec 17 13:22 19101

Vial: 7
Operator: droot
Inst : 5971 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Mon Dec 17 12:46:48 2001
Response via : Multiple Level Calibration





TIC: B8389.D

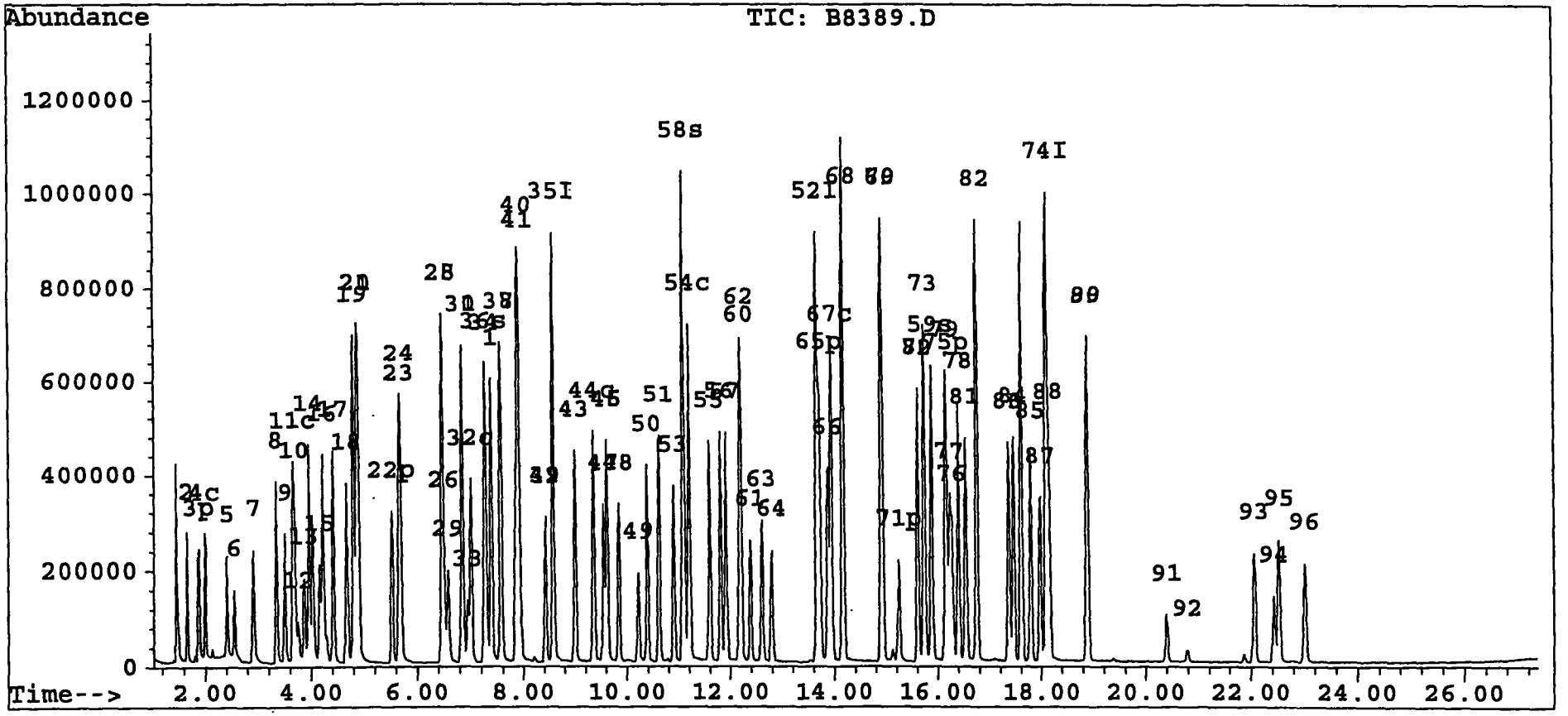
(2) Dichlorodifluoromethane
1.66min 42.78ppb m
response 221895

Ion	Exp%	Act%
85.05	100	100
100.95	8.10	8.49
0.00	0.00	0.00
0.00	0.00	0.00

Data Fil : J:\ACQUDATA\MSVOA3\DATA\121701\B8389.D
Acq On : 17 Dec 101 12:52 pm
Sample : 50 PPB
Misc :
Quant Time: Dec 17 13:22 19101

Vial: 7
Operator: droot
Inst : 5971 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Mon Dec 17 14:04:54 2001
Response via : Multiple Level Calibration



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Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\121701\B8390.D Vial: 8
Acq On : 17 Dec 101 1:28 pm Operator: droot
Sample : 100 PPB Inst : 5971 - In
Misc : Multiplr: 1.00
Quant Time: Dec 17 14:04 19101

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Mon Dec 17 13:22:24 2001
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	7.40	168	611329	50.00	ppb	-0.08
35) 1,4 - Difluorobenzene	8.58	114	1147552	50.00	ppb	-0.09
52) d5 - Chlorobenzene	13.67	117	906345	50.00	ppb	-0.10
74) d4 - Dichlorobenzene	18.11	152	339130	50.00	ppb	-0.12
System Monitoring Compounds						%Recovery
36) surr4,Dibrflmethane	7.27	113	722125	99.75	ppb	199.50%
58) surr3,Toluene-d8	11.09	98	1904919	98.47	ppb	196.95%
59) surr2,bfb	15.88	95	745331	98.56	ppb	197.13%
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.66	85	590277	115.92	ppb	m 77
3) Chloromethane	1.88	50	756760	110.03	ppb	98
4) Vinyl Chloride	2.01	62	662944	112.64	ppb	100
5) Bromomethane	2.40	94	439478	108.87	ppb	97
6) Chloroethane	2.55	64	384652	105.60	ppb	100
7) Trichlorofluoromethane	2.90	101	738540	113.77	ppb	95
8) Diethyl Ether	3.34	59	630585	109.13	ppb	96
9) Acrolein	3.50	56	685654	514.91	ppb	97
10) FREON 113	3.69	85	196830	117.39	ppb	95
11) 1,1-Diclethene	3.66	96	510868	118.37	ppb	98
12) Acetone	3.75	43	262331	96.58	ppb	96
13) Iodomethane	3.87	127	344291	161.51	ppb	94
14) Carbon Disulfide	3.97	76	2073184	120.44	ppb	100
15) Acetonitrile	4.16	41	642151	2102.27	ppb	97
16) Allyl Chloride	4.23	76	306580	113.54	ppb	98
17) Methylene Chloride	4.42	84	662784	110.70	ppb	97
18) TBA	4.67	59	1460608	1948.72	ppb	99
19) Acrylonitrile	4.80	53	1676047	506.63	ppb	100
20) Methyl-t-Butyl Ether	4.89	73	1886539	107.56	ppb	96
21) trans-1,2-Dichloroethene	4.86	96	641977	117.81	ppb	97
22) 1,1-Diclethane	5.53	63	1133368	116.38	ppb	97
23) Vinyl Acetate	5.66	43	1408293	102.96	ppb	99
24) 2-Chloro-1,3-butadiene	5.69	53	993543	116.79	PPB	98
25) 2,2-Dichloropropane	6.48	77	800450	115.29	ppb	95
26) 2-Butanone	6.52	43	469735	90.42	ppb	99
28) cis-1,2-Dichloroethene	6.49	96	737671	112.24	ppb	94
29) Propionitrile	6.58	54	630486	509.58	ppb	99
30) Methacrylonitrile	6.85	67	323802	100.39	ppb	100
31) Bromochloromethane	6.86	128	347561	107.87	ppb	94
32) Chloroform	7.02	83	1042112	110.08	ppb	98
33) Tetrahydrofuran	6.95	42	295372	93.43	ppb	96
34) 1,1,1-Trichloroethane	7.30	97	809618	116.47	ppb	99
37) Carbontetrachloride	7.58	117	671755	118.56	ppb	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\121701\B8390.D Vial: 8
Acq On : 17 Dec 101 1:28 pm Operator: droot
Sample : 100 PPB Inst : 5971 - In
Misc : Multiplr: 1.00
Quant Time: Dec 17 14:04 19101

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Mon Dec 17 13:22:24 2001
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) 1,1-Dichloropropene	7.58	75	800022	114.02	ppb	97
39) Iso-Butyl Alcohol	8.43	43	557987	2152.26	ppb	100
40) Benzene	7.90	78	2285344	112.79	ppb	99
41) 1,2-Dichloroethane	7.93	62	843252	107.65	ppb	100
42) N-Heptane	8.43	43	556080	107.54	ppb	99
43) Trichloroethene	9.01	95	625083	116.45	ppb	99
44) 1,2-Diclpropane	9.36	63	736586	110.64	ppb	97
45) Methyl Methacrylate	9.62	69	513541	101.71	ppb	97
46) 1,4-Dioxane	9.62	88	144347	2020.15	ppb	91
47) Dibromomethane	9.55	93	471519	106.78	ppb	99
48) Bromodichloromethane	9.84	83	824786	111.29	ppb	98
49) 2-Nitropropane	10.22	43	514091	201.01	ppb	99
50) 2-Chloroethylvinyl Ether	10.39	63	569831	101.43	ppb	98
51) cis-1,3-Dichloropropene	10.62	75	1074095	110.70	ppb	97
53) 4-Methyl-2-Pentanone	10.91	43	930875	98.86	ppb	100
54) Toluene	11.20	91	2135162	113.77	ppb	99
55) trans-1,3-Dichloropropene	11.60	75	950177	111.71	ppb	100
56) Ethyl Methacrylate	11.81	69	904830	105.74	ppb	99
57) 1,1,2-Trichloroethane	11.91	83	518947	108.82	ppb	97
60) Tetrachloroethene	12.19	166	481281	114.60	ppb	96
61) 2-Hexanone	12.39	43	641183	99.97	ppb	97
62) 1,3-Dichloropropane	12.21	76	1123572	108.36	ppb	93
63) Dibromochloromethane	12.61	129	639457	109.92	ppb	99
64) 1,2-Dibromoethane	12.80	107	677830	107.99	ppb	99
65) Chlorobenzene	13.72	112	1367539	111.80	ppb	99
66) 1,1,1,2-Tetrachloroethane	13.88	131	513267	110.84	ppb	99
67) Ethylbenzene	13.95	91	2193857	115.77	ppb	98
68) (m+p)Xylene	14.17	106	1559426	232.18	ppb	100
69) o-Xylene	14.90	106	765342	115.73	ppb	98
70) Styrene	14.93	104	1366198	114.42	ppb	99
71) Bromoform	15.25	173	412397	109.66	ppb	99
72) Isopropylbenzene	15.61	105	1888857	116.54	ppb	99
73) Cyclohexanone	15.74	55	1264159	1638.23	ppb	98
75) 1,1,2,2-Tetrachloroethane	16.17	83	768431	103.81	ppb	100
76) Trans-1,4-Dichloro-2-buten	16.28	53	235321	104.04	ppb	99
77) 1,2,3-Trichloropropane	16.24	110	225557	98.64	ppb	99
78) n-Propylbenzene	16.40	91	2076217	117.19	ppb	99
79) Bromobenzene	16.15	156	505466	112.54	ppb	99
80) 1,3,5-Trimethylbenzene	15.61	105	1892201	117.92	ppb	99
81) 2-Chlorotoluene	16.55	91	1314765	115.30	ppb	100
82) 4-Chlorotoluene	16.75	91	1458794	113.57	ppb	97
83) tert-Butylbenzene	17.37	119	1056617	113.67	ppb	100
84) 1,2,4-Trimethylbenzene	17.46	105	1198548	110.13	ppb	98
85) sec-Butylbenzene	17.80	105	1530690	114.91	ppb	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\121701\B8390.D Vial: 8
Acq On : 17 Dec 101 1:28 pm Operator: droot
Sample : 100 PPB Inst : 5971 - In
Misc : Multiplr: 1.00
Quant Time: Dec 17 14:04 19101

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Mon Dec 17 13:22:24 2001
Response via : Multiple Level Calibration

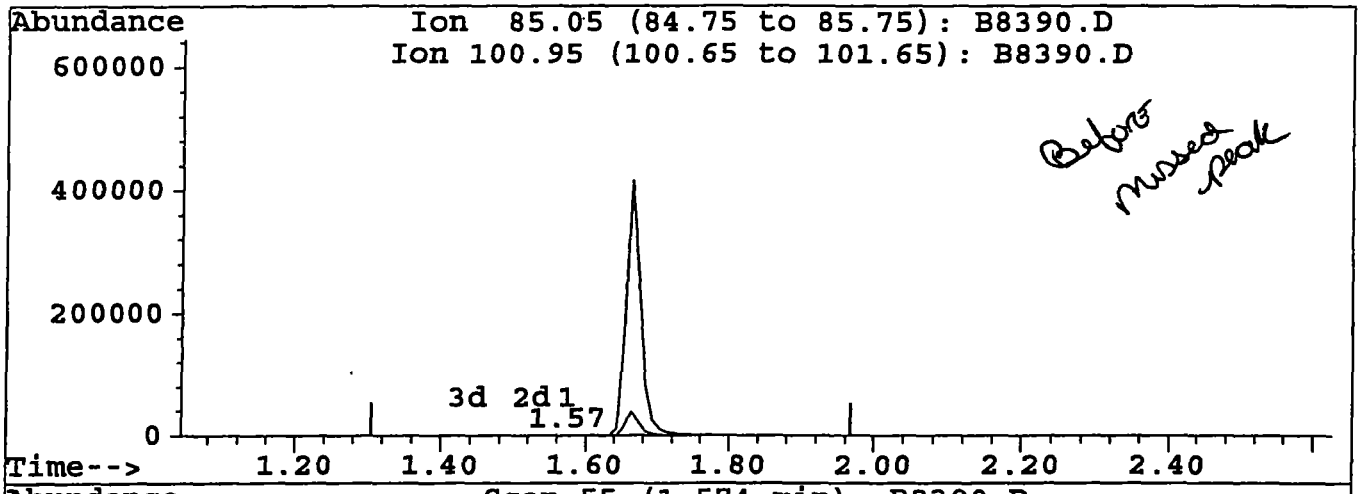
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
86) p-Isopropyltoluene	17.37	119	1056617	113.67	ppb	100
87) 1,3-Dclbenz	17.98	146	700468	110.85	ppb	99
88) 1,4-Dclbenz	18.16	146	756379	107.59	ppb	99
89) n-Butylbenzene	18.89	91	1003578	110.51	ppb	100
90) 1,2-Dclbenz	18.88	146	734173	109.10	ppb	98
91) 1,2-Dibromo-3-chloropropan	20.40	157	125710	100.87	ppb	97
92) Nitrobenzene	20.80	77	66181	102.30	ppb	92
93) 1,2,4-Tcbenzene	22.06	180	355076	103.52	ppb	100
94) Hexachlorobt	22.43	225	134530	106.17	ppb	98
95) Naphthalen	22.53	128	936618	96.44	ppb	99
96) 1,2,3-Tclbenzene	23.02	180	327637	104.29	ppb	99

Quantitation Report

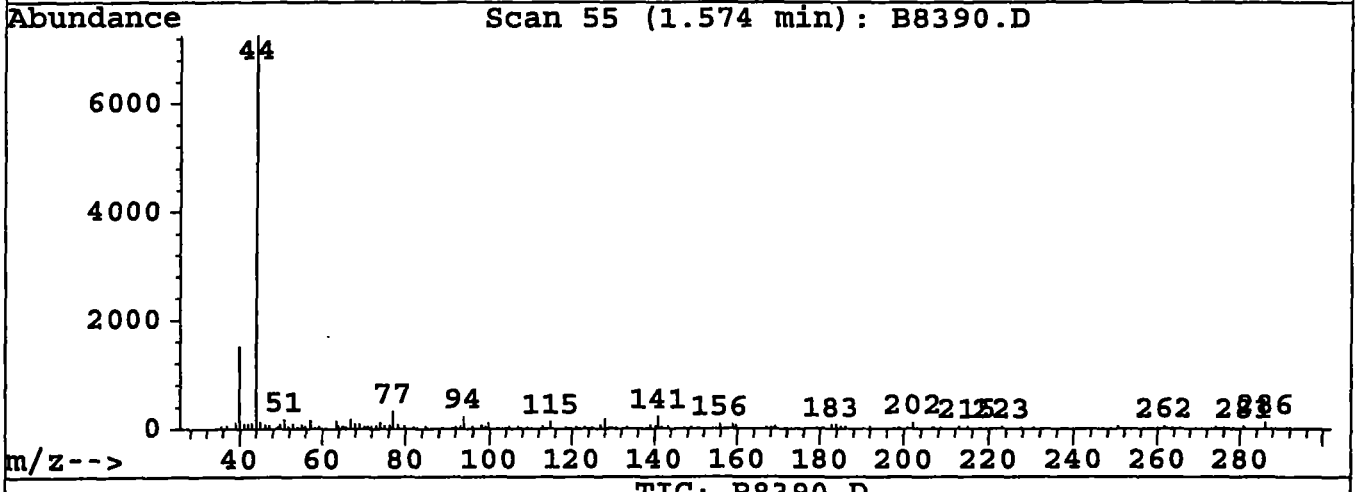
Data File : J:\ACQUDATA\MSVOA3\DATA\121701\B8390.D
Acq On : 17 Dec 101 1:28 pm
Sample : 100 PPB
Misc :
Quant Time: Dec 17 13:56 19101

Vial: 8
Operator: droot
Inst : 5971 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Mon Dec 17 13:22:24 2001
Response via : Multiple Level Calibration



Below missed peak



TIC: B8390.D

(2) Dichlorodifluoromethane

1.57min 0.02ppb

response 102

Ion	Exp%	Act%
85.05	100	100
100.95	8.10	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

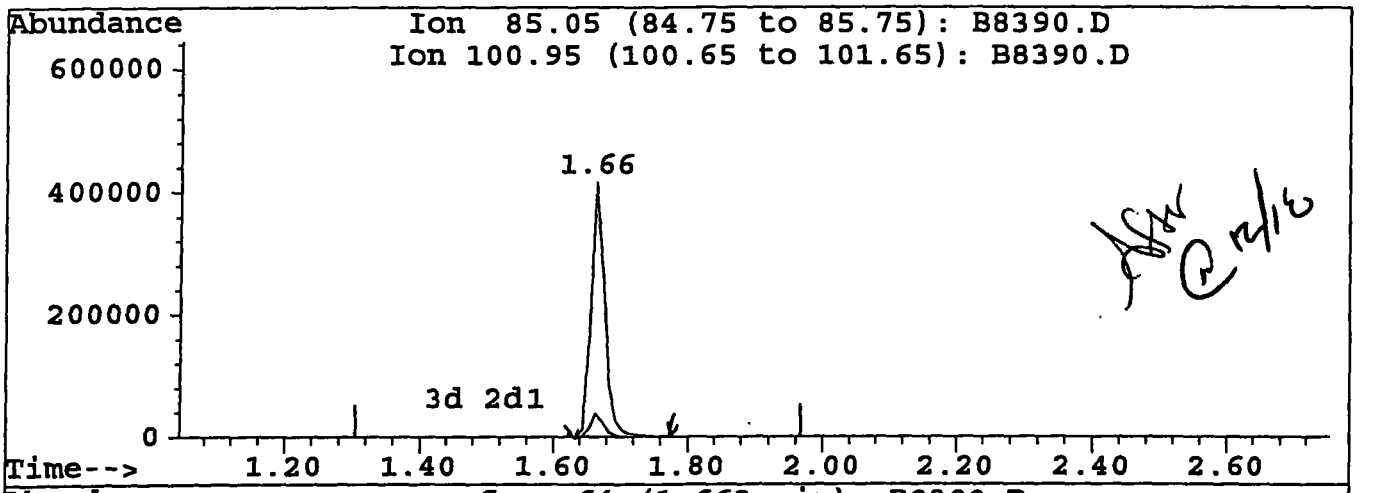
12/17

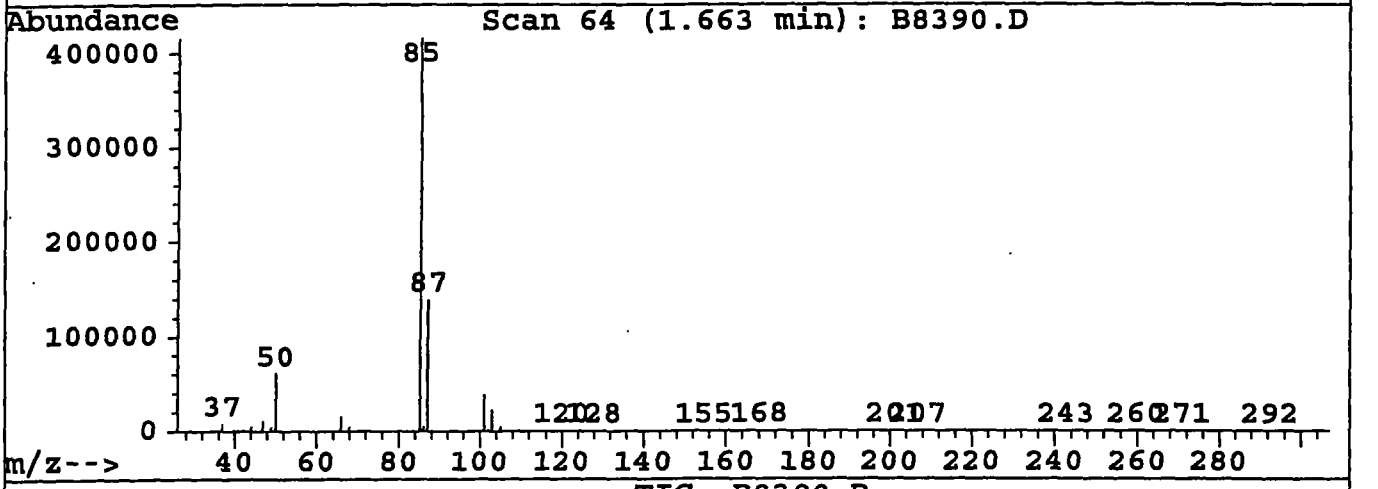
Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\121701\B8390.D
Acq On : 17 Dec 101 1:28 pm
Sample : 100 PPB
Misc :
Quant Time: Dec 17 14:04 19101

Vial: 8
Operator: droot
Inst : 5971 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Mon Dec 17 13:22:24 2001
Response via : Multiple Level Calibration





TIC: B8390.D

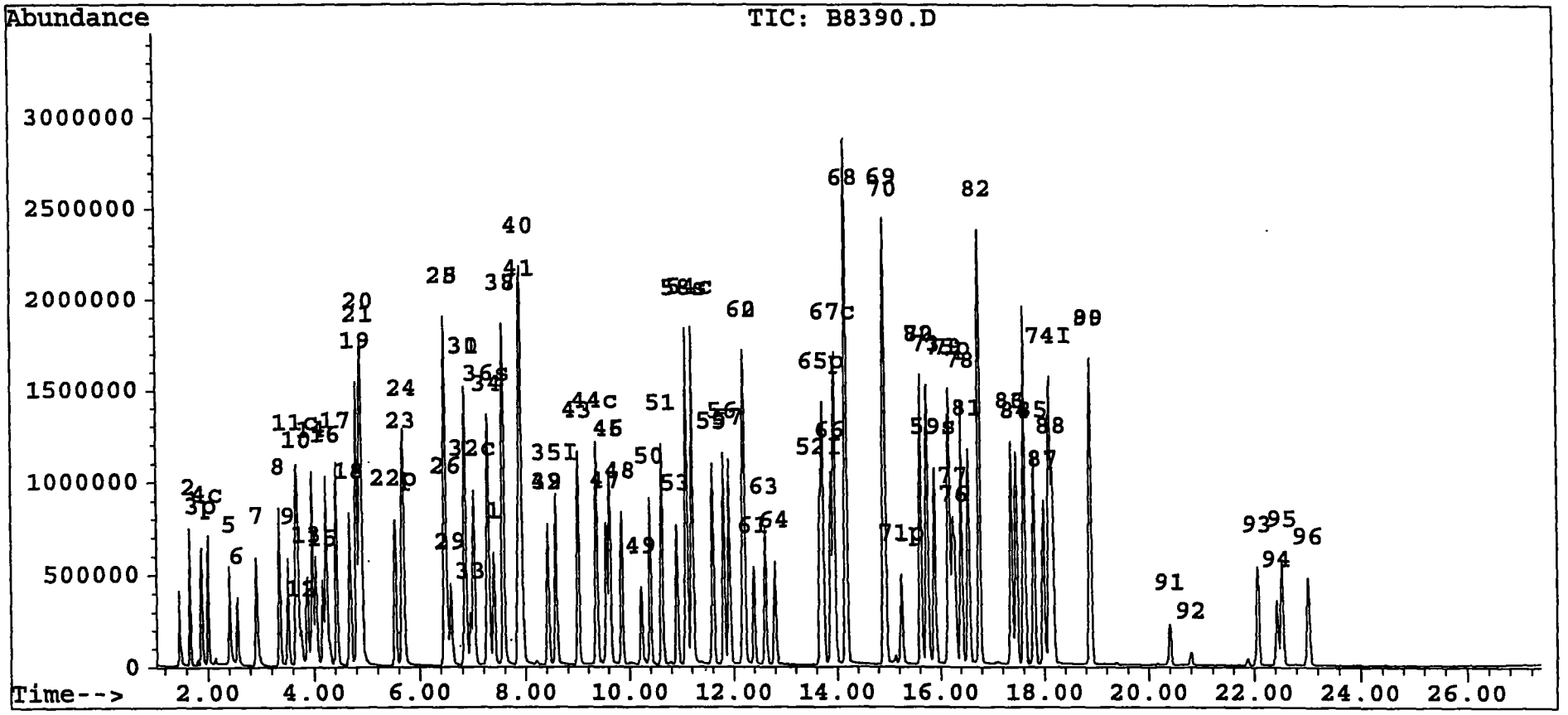
(2) Dichlorodifluoromethane
1.66min 115.92ppb m
response 590277

Ion	Exp%	Act%
85.05	100	100
100.95	8.10	9.12
0.00	0.00	0.00
0.00	0.00	0.00

Data Fil : J:\ACQUDATA\MSVOA3\DATA\121701\B8390.D
Acq On : 17 Dec 101 1:28 pm
Sample : 100 PPB
Misc :
Quant Time: Dec 17 14:04 19101

Vial: 8
Operator: droot
Inst : 5971 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Mon Dec 17 13:22:24 2001
Response via : Multiple Level Calibration



Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\121701\B8391.D Vial: 9
Acq On : 17 Dec 101 2:05 pm Operator: droot
Sample : 150 PPB Inst : 5971 - In
Misc : Multiplr: 1.00
Quant Time: Dec 17 14:35 19101

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Mon Dec 17 14:35:36 2001
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	7.40	168	607427	50.00	ppb	0.00
35) 1,4 - Difluorobenzene	8.58	114	1142955	50.00	ppb	0.00
52) d5 - Chlorobenzene	13.67	117	907775	50.00	ppb	0.00
74) d4 - Dichlorobenzene	18.12	152	343508	50.00	ppb	0.00
System Monitoring Compounds						%Recovery
36) surr4,Dibrflmethane	7.28	113	879864	121.68	ppb	243.35%
58) surr3,Toluene-d8	11.09	98	2304253	118.29	ppb	236.57%
59) surr2,bfb	15.88	95	914592	119.94	ppb	239.88%
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.67	85	900030	173.98	ppb	m 77
3) Chloromethane	1.87	50	1144862	166.54	ppb	99
4) Vinyl Chloride	2.00	62	1002731	168.80	ppb	100
5) Bromomethane	2.40	94	675909	161.88	ppb	93
6) Chloroethane	2.54	64	594904	162.12	ppb	m 1
7) Trichlorofluoromethane	2.91	101	1115213	170.06	ppb	99
8) Diethyl Ether	3.34	59	931350	159.79	ppb	99
9) Acrolein	3.50	56	1010557	763.85	ppb	98
10) FREON 113	3.69	85	304058	177.83	ppb	93
11) 1,1-Diclethene	3.66	96	774605	175.83	ppb	99
12) Acetone	3.75	43	394226	146.37	ppb	98
13) Iodomethane	3.86	127	469773	209.62	ppb	97
14) Carbon Disulfide	3.96	76	2814843	161.23	ppb	99
15) Acetonitrile	4.16	41	909464	2976.96	ppb	98
16) Allyl Chloride	4.23	76	459896	168.04	ppb	94
17) Methylene Chloride	4.42	84	972410	160.26	ppb	99
18) TBA	4.68	59	2218013	2988.34	ppb	99
19) Acrylonitrile	4.81	53	2465587	750.28	ppb	99
20) Methyl-t-Butyl Ether	4.90	73	2759677	157.14	ppb	98
21) trans-1,2-Dichloroethene	4.87	96	959126	172.87	ppb	99
22) 1,1-Diclethane	5.54	63	1667764	168.89	ppb	99
23) Vinyl Acetate	5.66	43	1769557	129.52	ppb	99
24) 2-Chloro-1,3-butadiene	5.69	53	1358026	158.68	PPB	97
25) 2,2-Dichloropropane	6.47	77	1220186	173.65	ppb	97
26) 2-Butanone	6.52	43	716221	139.68	ppb	100
28) cis-1,2-Dichloroethene	6.48	96	1090739	164.25	ppb	93
29) Propionitrile	6.59	54	923297	749.95	ppb	97
30) Methacrylonitrile	6.85	67	482316	151.24	ppb	100
31) Bromochloromethane	6.87	128	499167	153.20	ppb	98
32) Chloroform	7.02	83	1551595	162.44	ppb	98
33) Tetrahydrofuran	6.95	42	427347	136.11	ppb	96
34) 1,1,1-Trichloroethane	7.30	97	1236924	175.88	ppb	99
37) Carbontetrachloride	7.57	117	1047011	182.46	ppb	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\121701\B8391.D Vial: 9
Acq On : 17 Dec 101 2:05 pm Operator: droot
Sample : 150 PPB Inst : 5971 - In
Misc : Multiplr: 1.00
Quant Time: Dec 17 14:35 19101

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Mon Dec 17 14:35:36 2001
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38) 1,1-Dichloropropene	7.58	75	1232570	173.31	ppb	98
39) Iso-Butyl Alcohol	8.43	43	885878	3372.03	ppb	100
40) Benzene	7.91	78	3473127	169.43	ppb	99
41) 1,2-Dichloroethane	7.94	62	1228572	156.03	ppb	98
42) N-Heptane	8.43	43	885165	168.80	ppb	99
43) Trichloroethene	9.00	95	949108	174.23	ppb	98
44) 1,2-Diclpropane	9.36	63	1097064	163.10	ppb	98
45) Methyl Methacrylate	9.62	69	749982	149.47	ppb	99
46) 1,4-Dioxane	9.61	88	212802	2918.04	ppb	88
47) Dibromomethane	9.55	93	691133	156.01	ppb	98
48) Bromodichloromethane	9.85	83	1213279	161.79	ppb	99
49) 2-Nitropropane	10.22	43	763646	300.24	ppb	99
50) 2-Chloroethylvinyl Ether	10.40	63	814088	145.20	ppb	99
51) cis-1,3-Dichloropropene	10.63	75	1556272	158.56	ppb	98
3) 4-Methyl-2-Pentanone	10.91	43	1368822	145.89	ppb	99
4) Toluene	11.21	91	3265421	171.15	ppb	99
55) trans-1,3-Dichloropropene	11.60	75	1381934	160.50	ppb	99
56) Ethyl Methacrylate	11.82	69	1305177	151.69	ppb	99
57) 1,1,2-Trichloroethane	11.91	83	754381	156.27	ppb	99
60) Tetrachloroethene	12.18	166	755226	177.24	ppb	99
61) 2-Hexanone	12.39	43	942178	147.41	ppb	96
62) 1,3-Dichloropropane	12.21	76	1635819	156.03	ppb	93
63) Dibromochloromethane	12.61	129	940943	160.31	ppb	98
64) 1,2-Dibromoethane	12.80	107	970435	153.25	ppb	98
65) Chlorobenzene	13.73	112	2041688	164.66	ppb	98
66) 1,1,1,2-Tetrachloroethane	13.88	131	772837	165.17	ppb	98
67) Ethylbenzene	13.95	91	3343233	172.81	ppb	98
68) (m+p)Xylene	14.17	106	2391306	348.58	ppb	99
69) o-Xylene	14.91	106	1166141	173.00	ppb	96
70) Styrene	14.93	104	2063364	169.59	ppb	97
71) Bromoform	15.24	173	610197	162.45	ppb	100
72) Isopropylbenzene	15.62	105	2946746	177.65	ppb	99
73) Cyclohexanone	15.73	55	1854264	2531.74	ppb	97
75) 1,1,2,2-Tetrachloroethane	16.18	83	1094860	145.90	ppb	99
76) Trans-1,4-Dichloro-2-buten	16.29	53	338172	147.66	ppb	98
77) 1,2,3-Trichloropropane	16.24	110	336212	145.93	ppb	98
78) n-Propylbenzene	16.40	91	3212039	175.68	ppb	98
79) Bromobenzene	16.16	156	761635	165.12	ppb	97
80) 1,3,5-Trimethylbenzene	15.62	105	2930636	176.10	ppb	99
81) 2-Chlorotoluene	16.54	91	2010962	171.50	ppb	98
2) 4-Chlorotoluene	16.76	91	2207020	167.14	ppb	100
83) tert-Butylbenzene	17.38	119	1653616	172.96	ppb	100
84) 1,2,4-Trimethylbenzene	17.47	105	1838924	165.41	ppb	98
85) sec-Butylbenzene	17.80	105	2423080	176.72	ppb	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\121701\B8391.D Vial: 9
Acq On : 17 Dec 101 2:05 pm Operator: droot
Sample : 150 PPB Inst : 5971 - In
Misc : Multiplr: 1.00
Quant Time: Dec 17 14:35 19101

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Mon Dec 17 14:35:36 2001
Response via : Multiple Level Calibration

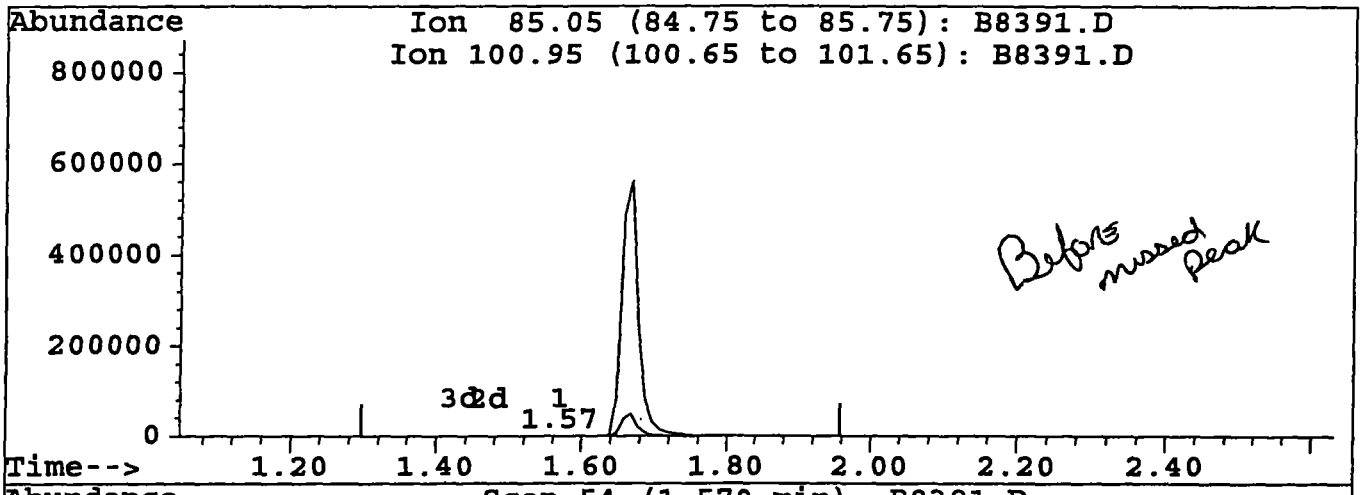
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
86)	p-Isopropyltoluene	17.38	119	1653616	172.96	ppb	100
87)	1,3-Dclbenz	17.99	146	1064949	164.99	ppb	98
88)	1,4-Dclbenz	18.17	146	1149842	160.74	ppb	98
89)	n-Butylbenzene	18.89	91	1553613	167.18	ppb	99
90)	1,2-Dclbenz	18.87	146	1103024	160.58	ppb	98
91)	1,2-Dibromo-3-chloropropan	20.40	157	185253	147.88	ppb	98
92)	Nitrobenzene	20.80	77	115248	175.27	ppb	97
93)	1,2,4-Tcbenzene	22.06	180	556045	161.19	ppb	98
94)	Hexachlorobt	22.44	225	218271	168.78	ppb	98
95)	Naphthalen	22.54	128	1500546	155.65	ppb	97
96)	1,2,3-Tclbenzene	23.02	180	507024	160.07	ppb	100

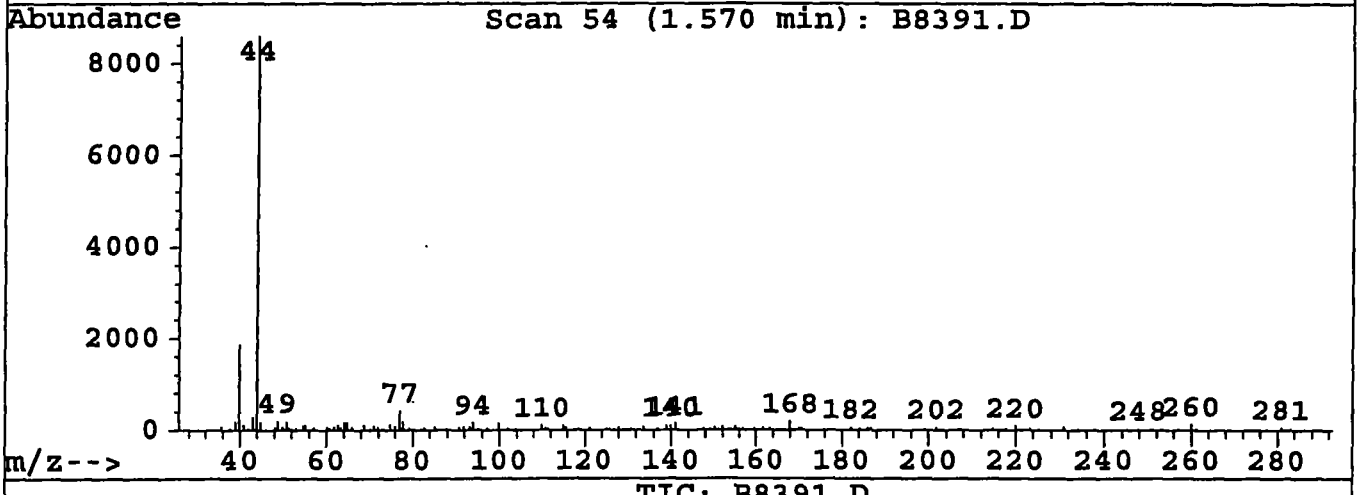
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\121701\B8391.D Vial: 9
Acq On : 17 Dec 101 2:05 pm Operator: droot
Sample : 150 PPB Inst : 5971 - In
Misc : Multiplr: 1.00
Quant Time: Dec 17 14:33 19101

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Mon Dec 17 14:04:54 2001
Response via : Multiple Level Calibration





TIC: B8391.D

(2) Dichlorodifluoromethane
1.57min 0.03ppb
response 159

Ion	Exp%	Act%
85.05	100	100
100.95	8.10	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

12/17

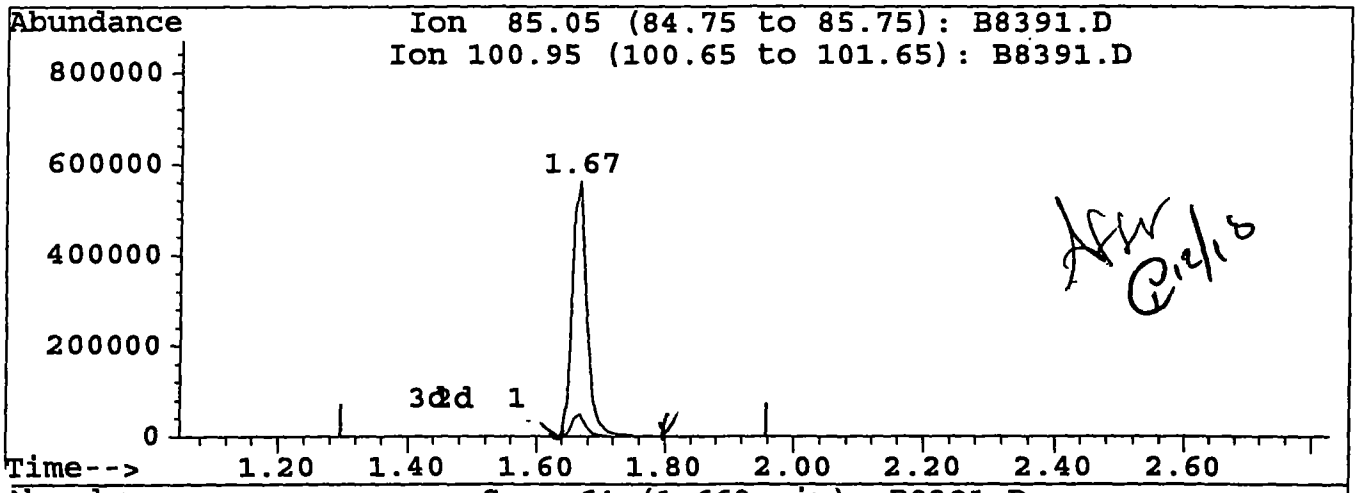
B8391.D EXP1217.M Mon Dec 17 14:34:57 2001

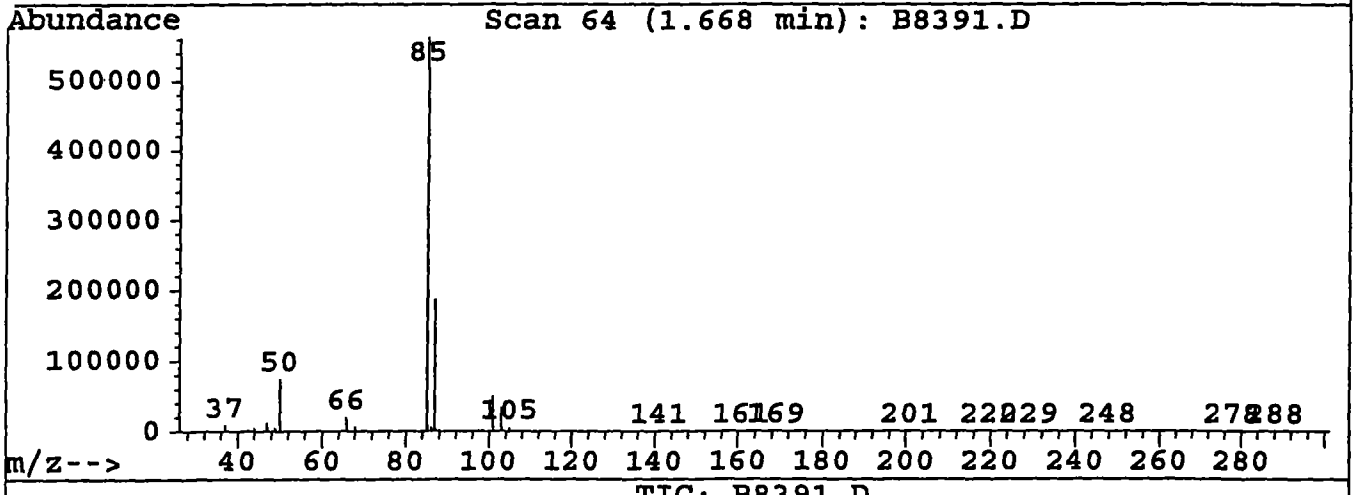
Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\121701\B8391.D
Acq On : 17 Dec 101 2:05 pm
Sample : 150 PPB
Misc :
Quant Time: Dec 17 14:35 19101

Vial: 9
Operator: droot
Inst : 5971 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Mon Dec 17 14:04:54 2001
Response via : Multiple Level Calibration





TIC: B8391.D

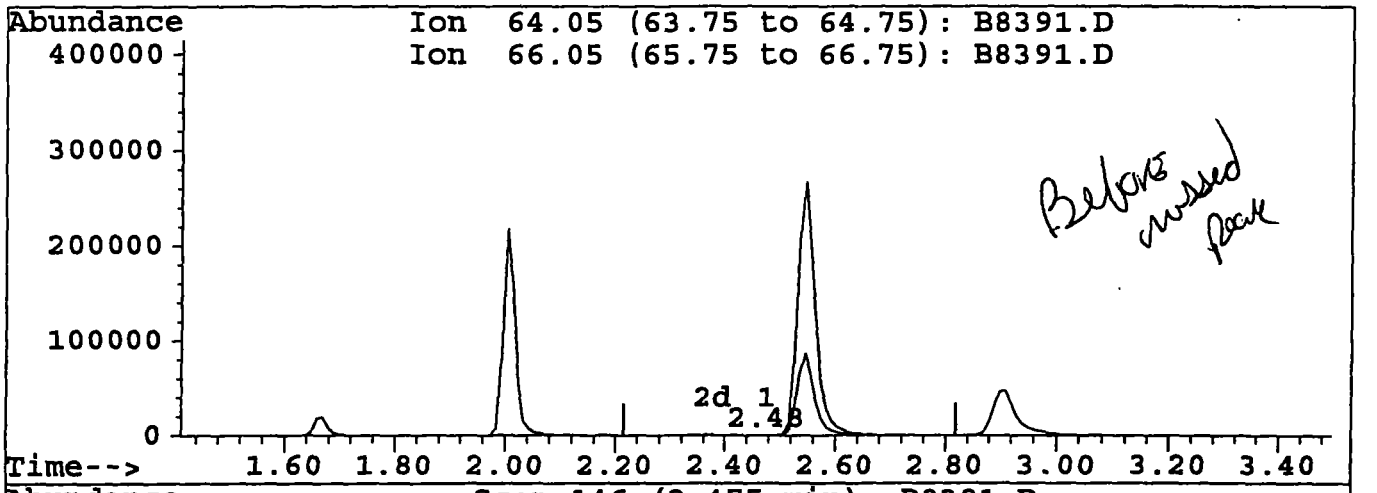
(2) Dichlorodifluoromethane
1.67min 173.98ppb m
response 900030

Ion	Exp%	Act%
85.05	100	100
100.95	8.10	8.81
0.00	0.00	0.00
0.00	0.00	0.00

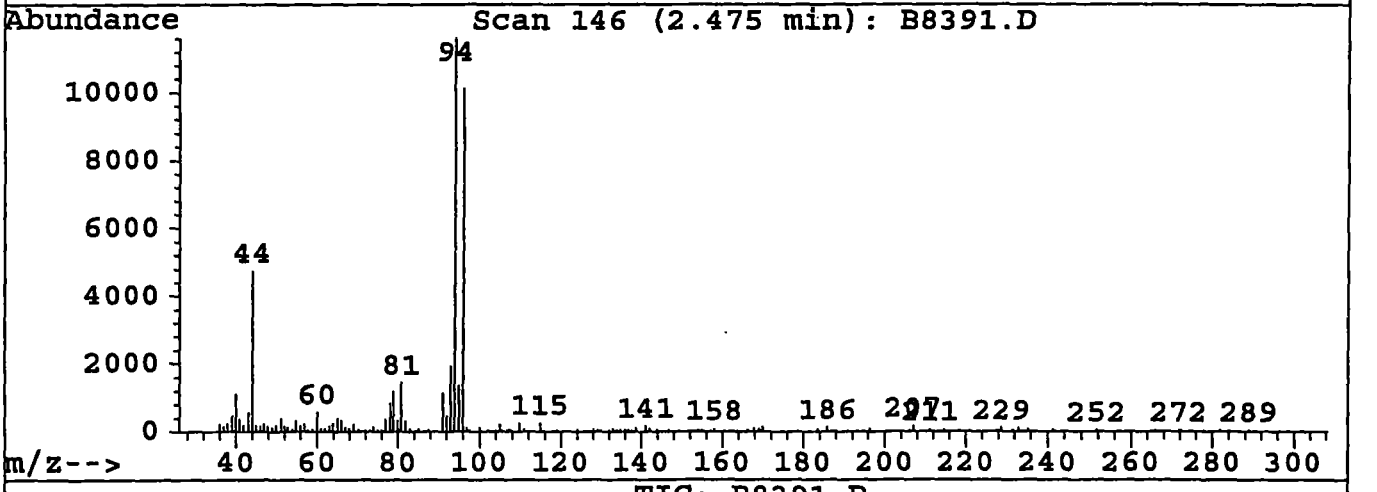
Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\121701\B8391.D Vial: 9
Acq On : 17 Dec 101 2:05 pm Operator: droot
Sample : 150 PPB Inst : 5971 - In
Misc : Multiplr: 1.00
Quant Time: Dec 17 14:35 19101

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Mon Dec 17 14:04:54 2001
Response via : Multiple Level Calibration



Before rinsed back



TIC: B8391.D

(6) Chloroethane
2.48min 0.08ppb
response 297

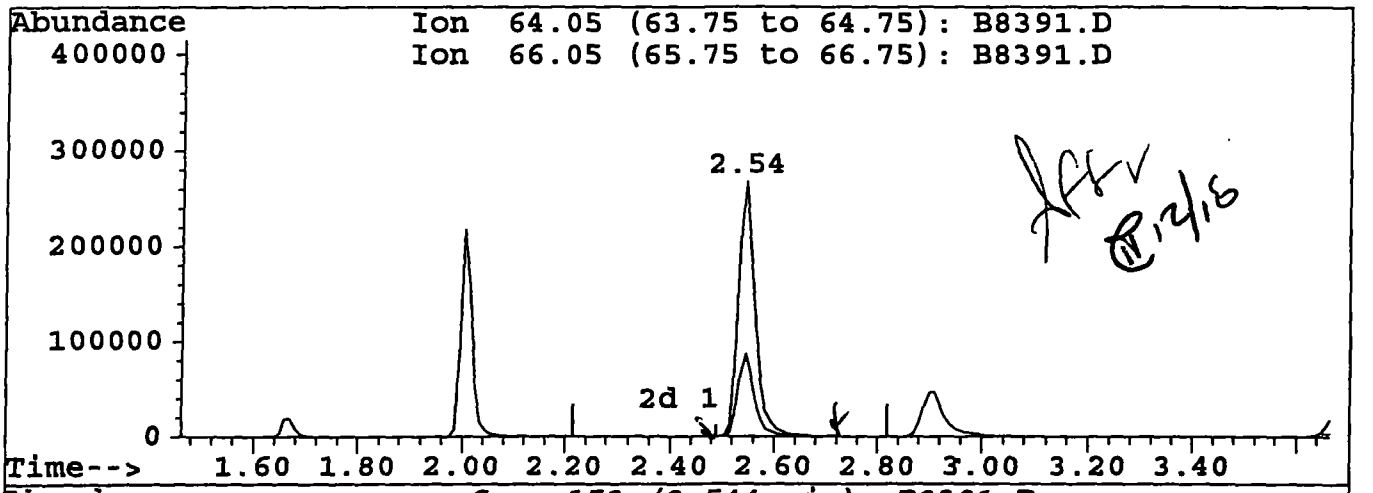
Ion	Exp%	Act%
64.05	100	100
66.05	31.90	142.24#
0.00	0.00	0.00
0.00	0.00	0.00

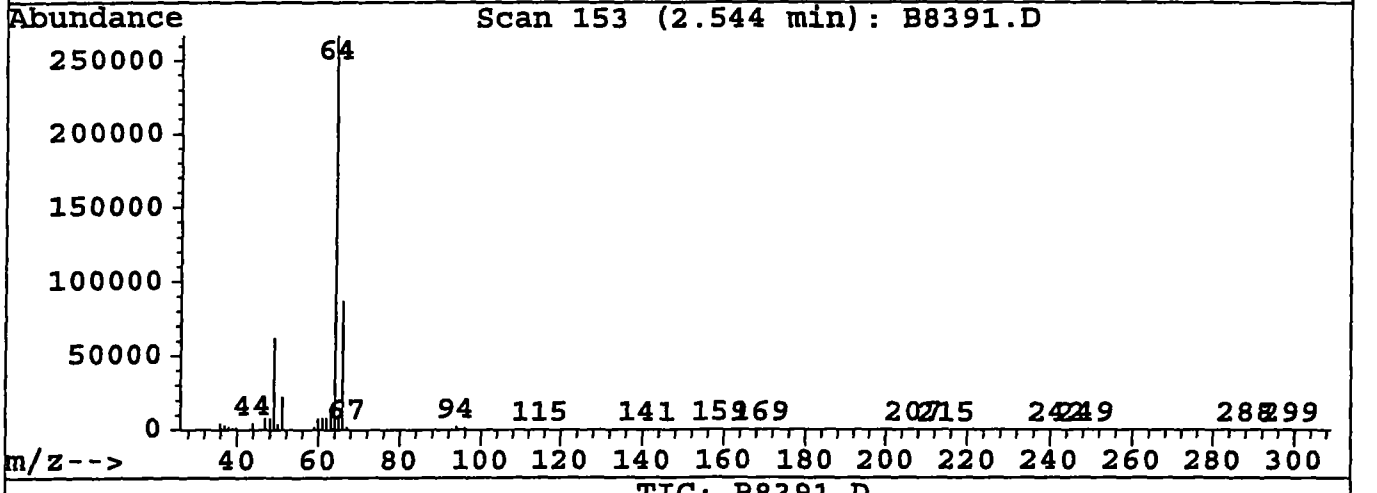
12/18/01

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\121701\B8391.D Vial: 9
Acq On : 17 Dec 101 2:05 pm Operator: droot
Sample : 150 PPB Inst : 5971 - In
Misc : Multiplr: 1.00
Quant Time: Dec 17 14:35 19101

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Mon Dec 17 14:04:54 2001
Response via : Multiple Level Calibration





TIC: B8391.D

(6) Chloroethane
2.54min 162.12ppb m
response 594904

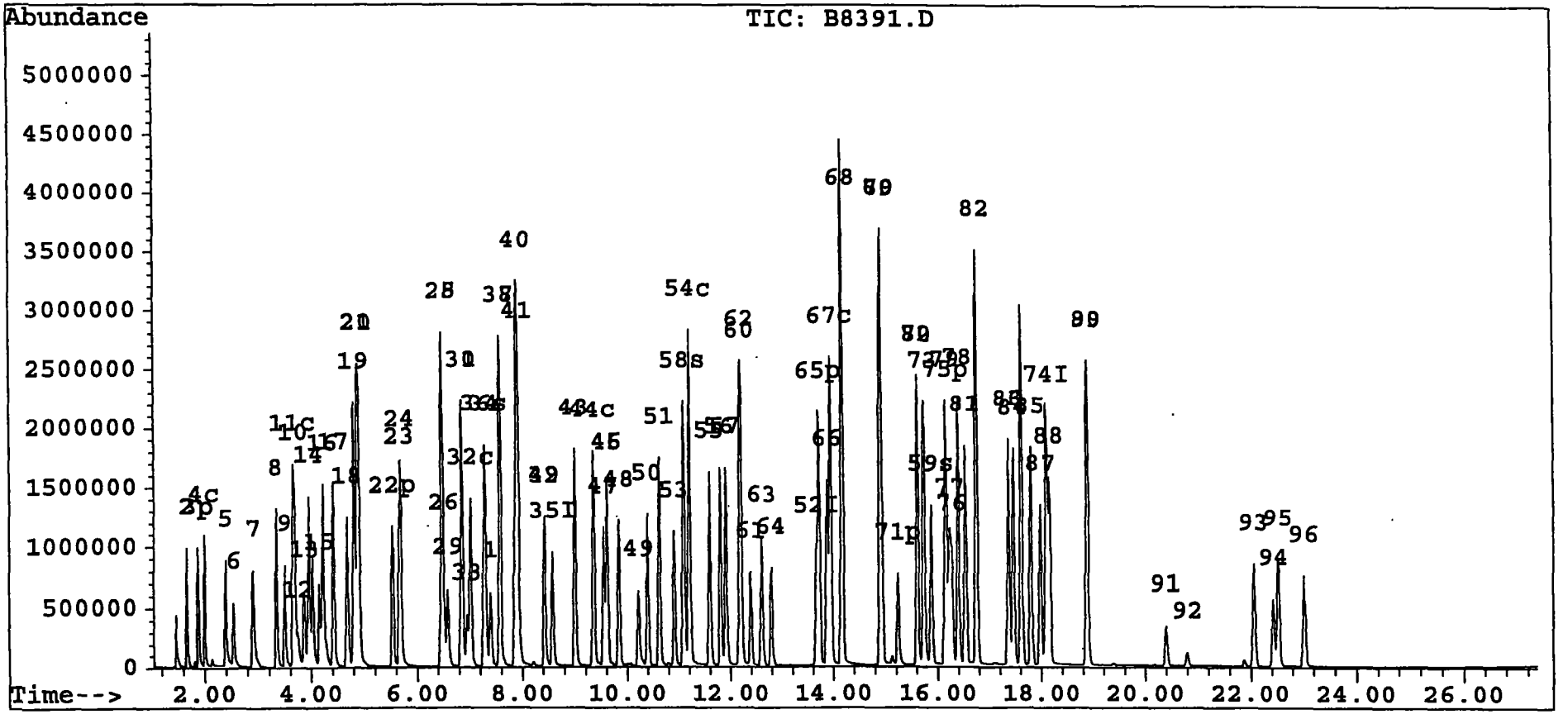
Ion	Exp%	Act%
64.05	100	100
66.05	31.90	32.44
0.00	0.00	0.00
0.00	0.00	0.00

B8391.D EXP1217.M Mon Dec 17 14:35:24 2001

Data Fi : J:\ACQUDATA\MSVOA3\DATA\121701\B8391.D
Acq On : 17 Dec 101 2:05 pm
Sample : 150 PPB
Misc :
Quant Time: Dec 17 14:35 19101

Vial: 9
Operator: droot
Inst : 5971 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Mon Dec 17 14:35:36 2001
Response via : Multiple Level Calibration



Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\121701\B8392.D Vial: 10
Acq On : 17 Dec 101 2:42 pm Operator: droot
Sample : 200 PPB Inst : 5971 - In
Misc : Multiplr: 1.00
Quant Time: Dec 17 15:13 19101

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Mon Dec 17 14:55:41 2001
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	7.40	168	641812	50.00	ppb	0.00
35) 1,4 - Difluorobenzene	8.58	114	1188833	50.00	ppb	0.00
52) d5 - Chlorobenzene	13.67	117	937159	50.00	ppb	0.00
74) d4 - Dichlorobenzene	18.12	152	348942	50.00	ppb	0.00
System Monitoring Compounds						%Recovery
36) surr4,Dibrflmethane	7.28	113	1068805	140.55	ppb	281.10%
58) surr3,Toluene-d8	11.09	98	2788622	139.01	ppb	278.02%
59) surr2,bfb	15.88	95	1082221	136.84	ppb	273.68%
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.67	85	1133491	205.77	ppb	m 1
3) Chloromethane	1.87	50	1441463	197.62	ppb	99
4) Vinyl Chloride	2.00	62	1292059	205.36	ppb	99
5) Bromomethane	2.40	94	846101	185.64	ppb	94
6) Chloroethane	2.54	64	755542	193.27	ppb	99
7) Trichlorofluoromethane	2.90	101	1409338	203.06	ppb	m 36
8) Diethyl Ether	3.34	59	1232184	199.31	ppb	99
9) Acrolein	3.50	56	1313790	938.92	ppb	96
10) FREON 113	3.69	85	394119	216.10	ppb	96
11) 1,1-Diclethene	3.66	96	999492	211.38	ppb	98
12) Acetone	3.74	43	480679	170.00	ppb	97
13) Iodomethane	3.86	127	643926	243.52	ppb	94
14) Carbon Disulfide	3.96	76	3914567	215.47	ppb	99
15) Acetonitrile	4.16	41	1197694	3770.02	ppb	97
16) Allyl Chloride	4.23	76	589085	200.75	ppb	94
17) Methylene Chloride	4.42	84	1259163	194.21	ppb	98
18) TBA	4.68	59	2936834	3792.73	ppb	99
19) Acrylonitrile	4.81	53	3214307	933.87	ppb	99
20) Methyl-t-Butyl Ether	4.90	73	3633604	195.92	ppb	98
21) trans-1,2-Dichloroethene	4.87	96	1246252	210.94	ppb	98
22) 1,1-Diclethane	5.54	63	2127561	201.71	ppb	99
23) Vinyl Acetate	5.66	43	2257903	156.70	ppb	97
24) 2-Chloro-1,3-butadiene	5.69	53	1891405	215.32	PPB	96
25) 2,2-Dichloropropane	6.47	77	1503314	200.88	ppb	96
26) 2-Butanone	6.52	43	926348	184.14	ppb	98
28) cis-1,2-Dichloroethene	6.48	96	1426316	202.24	ppb	95
29) Propionitrile	6.59	54	1238968	957.48	ppb	98
30) Methacrylonitrile	6.85	67	643153	192.49	ppb	99
31) Bromochloromethane	6.87	128	663509	191.00	ppb	99
32) Chloroform	7.02	83	2018951	198.98	ppb	98
33) Tetrahydrofuran	6.95	42	573972	174.75	ppb	96
34) 1,1,1-Trichloroethane	7.30	97	1603662	214.32	ppb	100
37) Carbontetrachloride	7.57	117	1354974	216.77	ppb	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\121701\B8392.D
Acq On : 17 Dec 101 2:42 pm
Sample : 200 PPB
Misc :
Quant Time: Dec 17 15:13 19101

Vial: 10
Operator: droot
Inst : 5971 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Mon Dec 17 14:55:41 2001
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38)	1,1-Dichloropropene	7.58	75	1590981	213.63	ppb	100
39)	Iso-Butyl Alcohol	8.43	43	1079705	3906.74	ppb	99
40)	Benzene	7.91	78	4439344	206.92	ppb	99
41)	1,2-Dichloroethane	7.94	62	1609240	196.42	ppb	97
42)	N-Heptane	8.43	43	1089587	197.47	ppb	98
43)	Trichloroethene	9.00	95	1257801	220.90	ppb	99
44)	1,2-Diclpropane	9.36	63	1439802	204.93	ppb	100
45)	Methyl Methacrylate	9.62	69	986279	191.79	ppb	100
46)	1,4-Dioxane	9.61	88	291697	3859.00	ppb	94
47)	Dibromomethane	9.55	93	925950	201.56	ppb	98
48)	Bromodichloromethane	9.85	83	1590481	203.53	ppb	99
49)	2-Nitropropane	10.22	43	994251	378.75	ppb	100
50)	2-Chloroethylvinyl Ether	10.39	63	1082495	185.61	ppb	98
51)	cis-1,3-Dichloropropene	10.63	75	2076473	203.12	ppb	98
53)	4-Methyl-2-Pentanone	10.91	43	1778717	184.49	ppb	100
54)	Toluene	11.21	91	4228124	213.63	ppb	98
55)	trans-1,3-Dichloropropene	11.60	75	1836143	206.45	ppb	99
56)	Ethyl Methacrylate	11.82	69	1729510	196.76	ppb	99
57)	1,1,2-Trichloroethane	11.91	83	1014468	203.66	ppb	98
60)	Tetrachloroethene	12.18	166	999407	226.72	ppb	99
61)	2-Hexanone	12.40	43	1223488	187.24	ppb	97
62)	1,3-Dichloropropane	12.21	76	2175112	201.38	ppb	95
63)	Dibromochloromethane	12.61	129	1260835	209.37	ppb	99
64)	1,2-Dibromoethane	12.80	107	1320791	203.68	ppb	100
65)	Chlorobenzene	13.73	112	2685992	209.99	ppb	99
66)	1,1,1,2-Tetrachloroethane	13.88	131	1029558	213.91	ppb	99
67)	Ethylbenzene	13.95	91	4367081	218.20	ppb	96
68)	(m+p)Xylene	14.18	106	3117622	439.64	ppb	97
69)	o-Xylene	14.91	106	1532628	219.99	ppb	100
70)	Styrene	14.94	104	2707183	215.47	ppb	98
71)	Bromoform	15.24	173	827214	206.34	ppb	98
72)	Isopropylbenzene	15.62	105	3785523	220.92	ppb	100
73)	Cyclohexanone	15.74	55	2388277	3386.72	ppb	100
75)	1,1,2,2-Tetrachloroethane	16.18	83	1450733	191.62	ppb	99
76)	Trans-1,4-Dichloro-2-buten	16.29	53	449776	194.50	ppb	98
77)	1,2,3-Trichloropropane	16.24	110	444049	191.46	ppb	99
78)	n-Propylbenzene	16.40	91	4089504	219.45	ppb	98
79)	Bromobenzene	16.16	156	1006775	213.72	ppb	96
80)	1,3,5-Trimethylbenzene	15.62	105	3785523	222.59	ppb	100
81)	2-Chlorotoluene	16.54	91	2591051	216.56	ppb	98
82)	4-Chlorotoluene	16.76	91	2866218	212.88	ppb	100
83)	tert-Butylbenzene	17.38	119	2121229	217.92	ppb	99
84)	1,2,4-Trimethylbenzene	17.47	105	2252913	200.02	ppb	97
85)	sec-Butylbenzene	17.80	105	3062736	219.03	ppb	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\121701\B8392.D Vial: 10
Acq On : 17 Dec 101 2:42 pm Operator: droot
Sample : 200 PPB Inst : 5971 - In
Misc : Multiplr: 1.00
Quant Time: Dec 17 15:13 19101

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Mon Dec 17 14:55:41 2001
Response via : Multiple Level Calibration

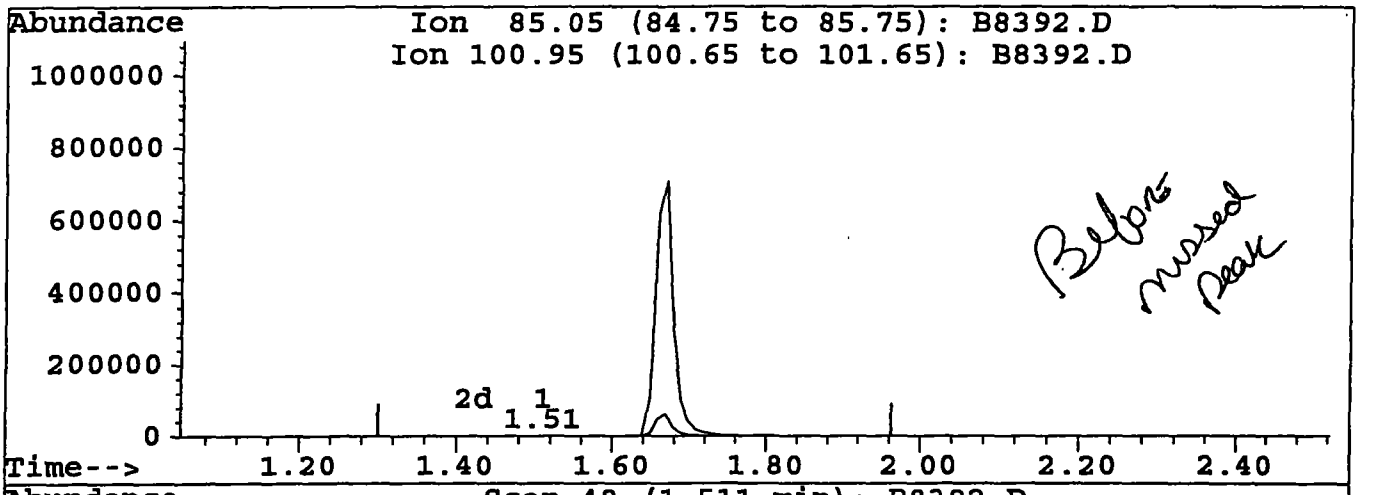
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
86)	p-Isopropyltoluene	17.38	119	2121229	217.92	ppb		99
87)	1,3-Dclbenz	17.99	146	1380413	211.02	ppb		100
88)	1,4-Dclbenz	18.17	146	1517812	210.06	ppb		99
89)	n-Butylbenzene	18.89	91	1879371	199.78	ppb		99
90)	1,2-Dclbenz	18.87	146	1461235	210.42	ppb		99
91)	1,2-Dibromo-3-chloropropan	20.40	157	253356	202.68	ppb		95
92)	Nitrobenzene	20.80	77	162395	243.20	ppb		99
93)	1,2,4-Tcbenzene	22.06	180	673738	194.95	ppb		97
94)	Hexachlorobt	22.44	225	267757	203.03	ppb	m	1
95)	Naphthalen	22.54	128	1772457	184.73	ppb		98
96)	1,2,3-Tclbenzene	23.02	180	617009	194.57	ppb		97

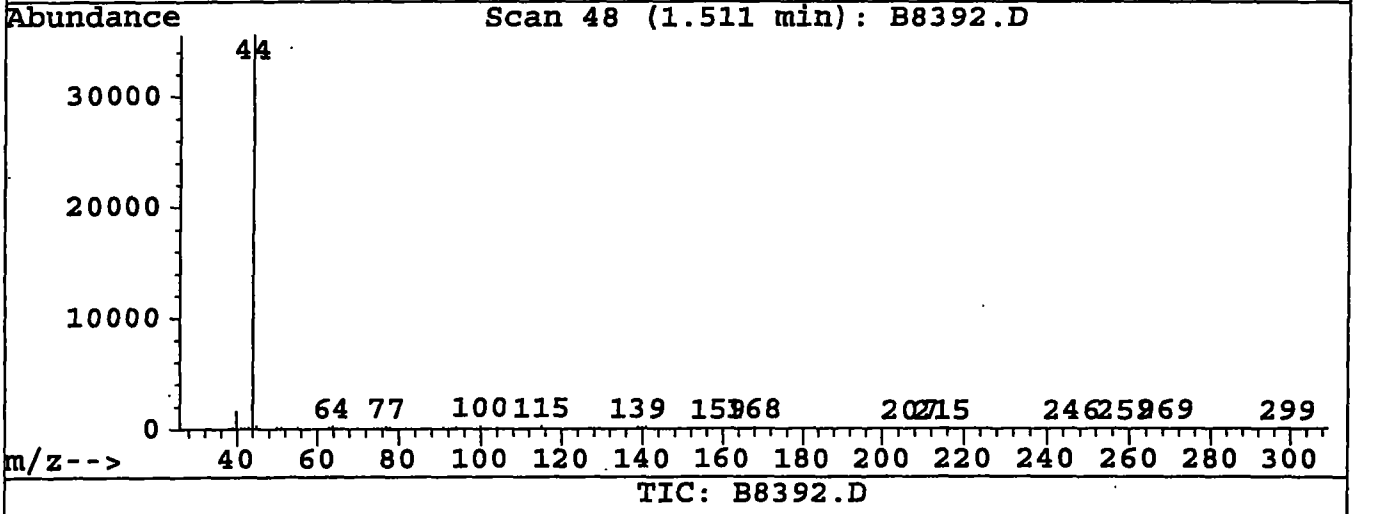
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\121701\B8392.D Vial: 10
Acq On : 17 Dec 101 2:42 pm Operator: droot
Sample : 200 PPB Inst : 5971 - In
Misc : Multiplr: 1.00
Quant Time: Dec 17 15:10 19101

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Mon Dec 17 14:55:41 2001
Response via : Multiple Level Calibration





TIC: B8392.D

(2) Dichlorodifluoromethane
1.51min 0.00ppb
response 14

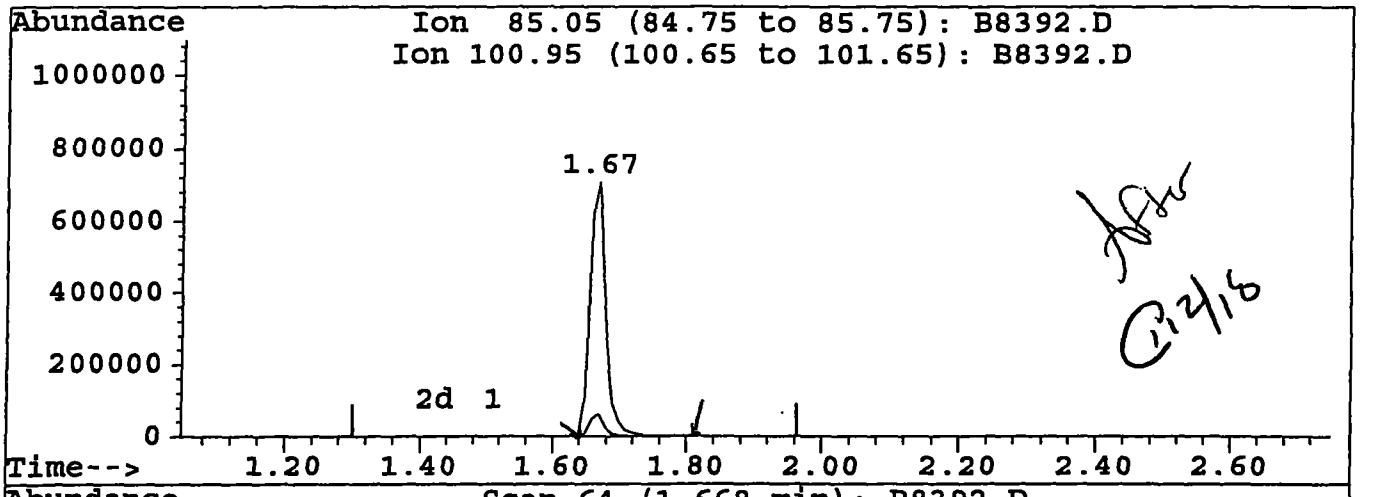
Ion	Exp%	Act%
85.05	100	100
100.95	8.10	139.13#
0.00	0.00	0.00
0.00	0.00	0.00

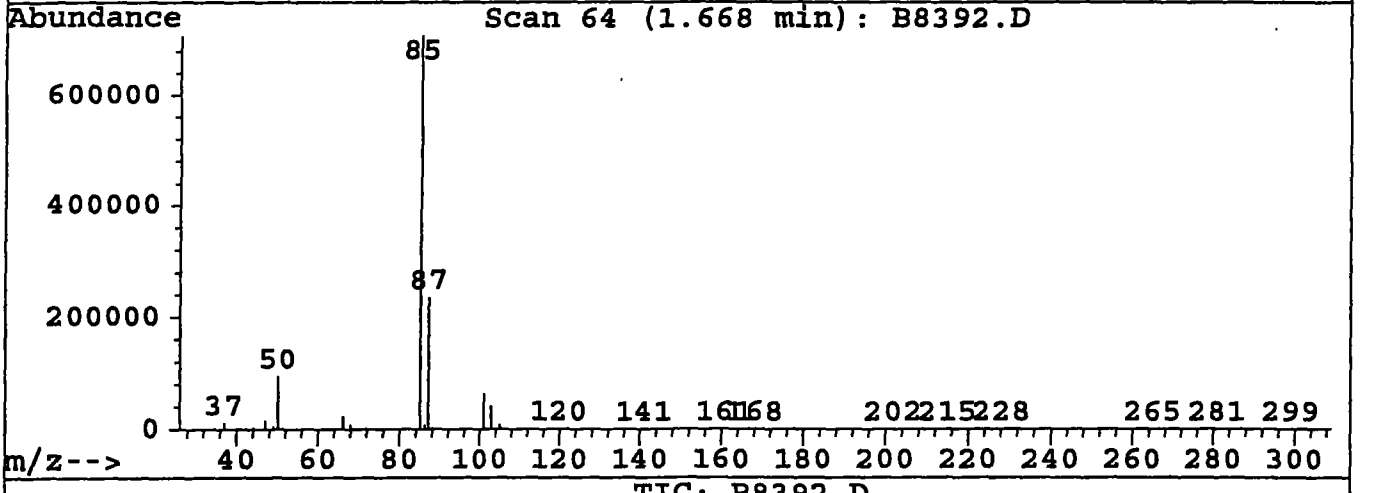
12/17

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\121701\B8392.D Vial: 10
Acq On : 17 Dec 101 2:42 pm Operator: droot
Sample : 200 PPB Inst : 5971 - In
Misc : Multiplr: 1.00
Quant Time: Dec 17 15:12 19101

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Mon Dec 17 14:55:41 2001
Response via : Multiple Level Calibration





TIC: B8392.D

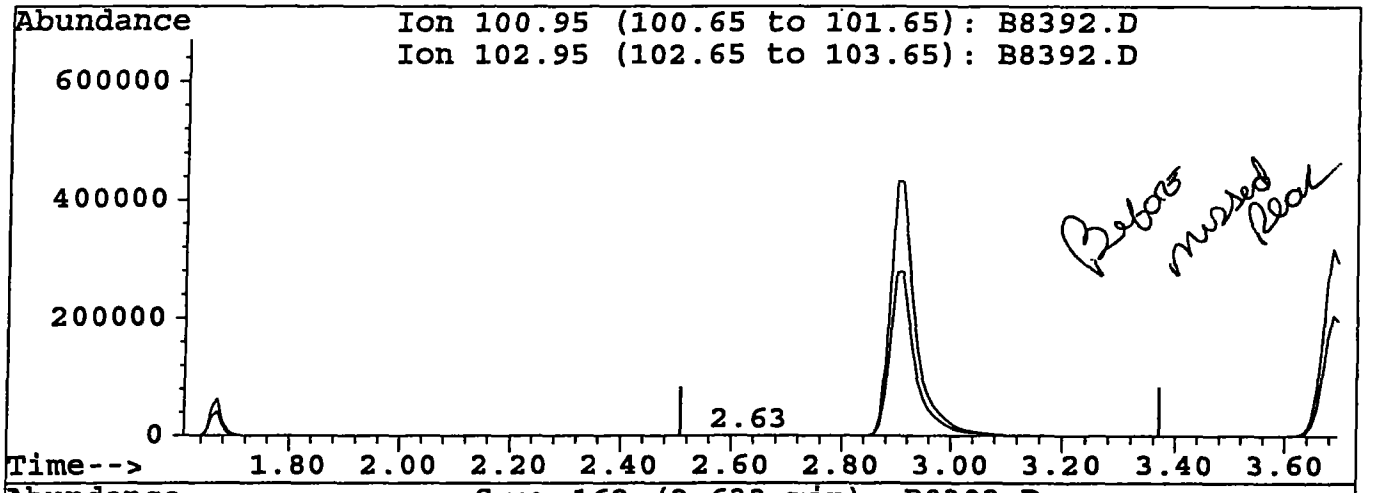
(2) Dichlorodifluoromethane
1.67min 205.77ppb m
response 1133491

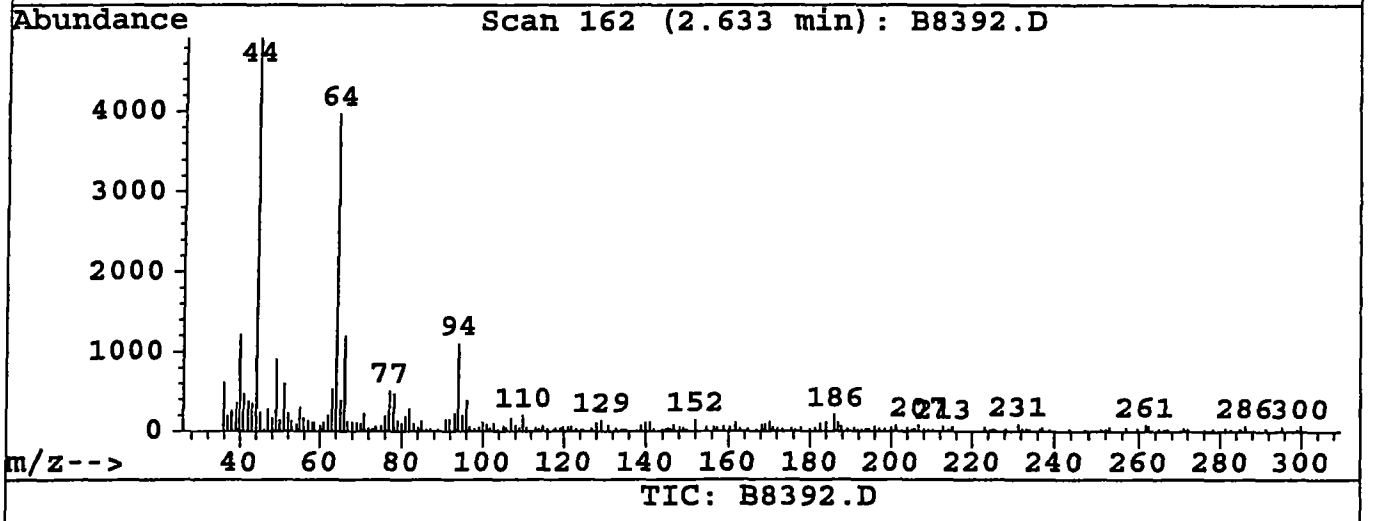
Ion	Exp%	Act%
85.05	100	100
100.95	8.10	8.82
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\121701\B8392.D Vial: 10
Acq On : 17 Dec 101 2:42 pm Operator: droot
Sample : 200 PPB Inst : 5971 - In
Misc : Multiplr: 1.00
Quant Time: Dec 17 15:12 19101

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Mon Dec 17 14:55:41 2001
Response via : Multiple Level Calibration





TIC: B8392.D

(7) Trichlorofluoromethane
2.63min 0.02ppb
response 161

Ion	Exp%	Act%
100.95	100	100
102.95	65.90	116.87#
0.00	0.00	0.00
0.00	0.00	0.00

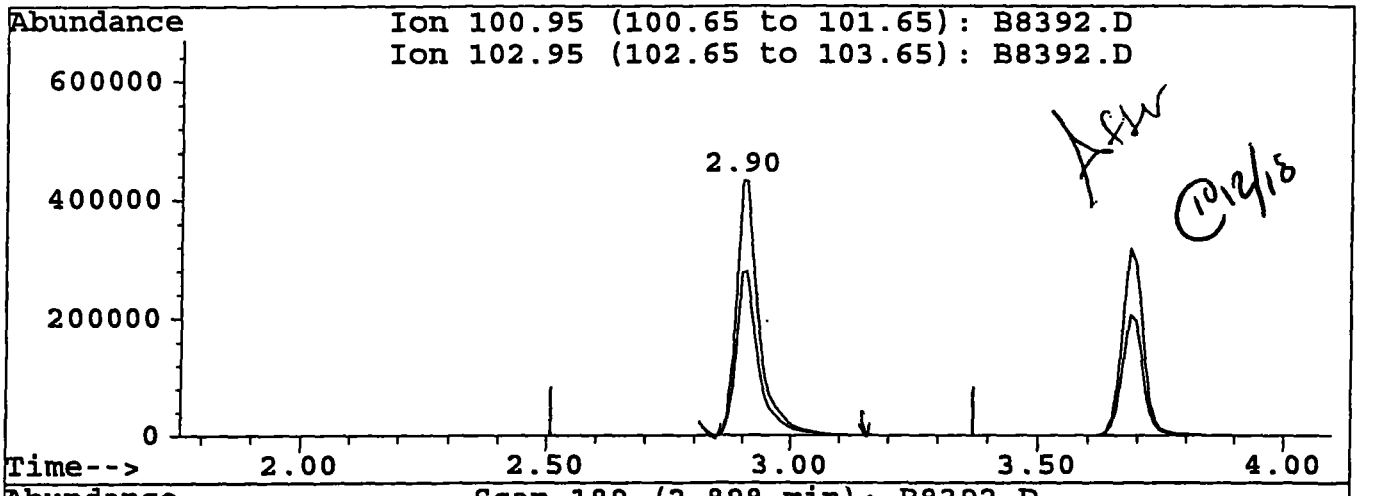
12/17

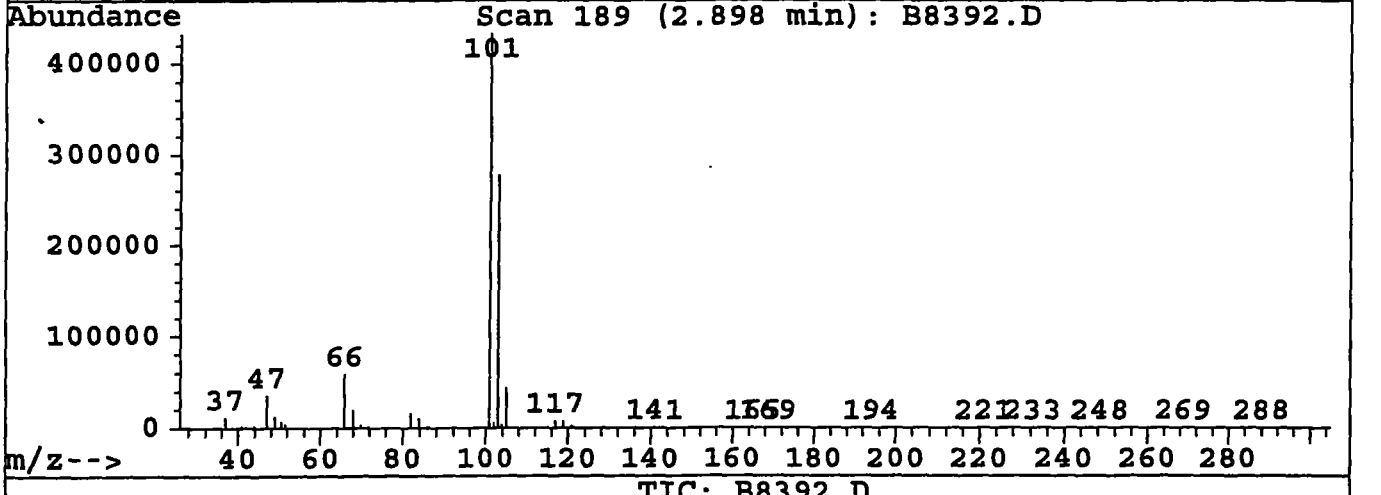
Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\121701\B8392.D
Acq On : 17 Dec 101 2:42 pm
Sample : 200 PPB
Misc :
Quant Time: Dec 17 15:13 19101

Vial: 10
Operator: droot
Inst : 5971 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Mon Dec 17 14:55:41 2001
Response via : Multiple Level Calibration





TIC: B8392.D

(7) Trichlorofluoromethane
2.90min 203.06ppb m
response 1409338

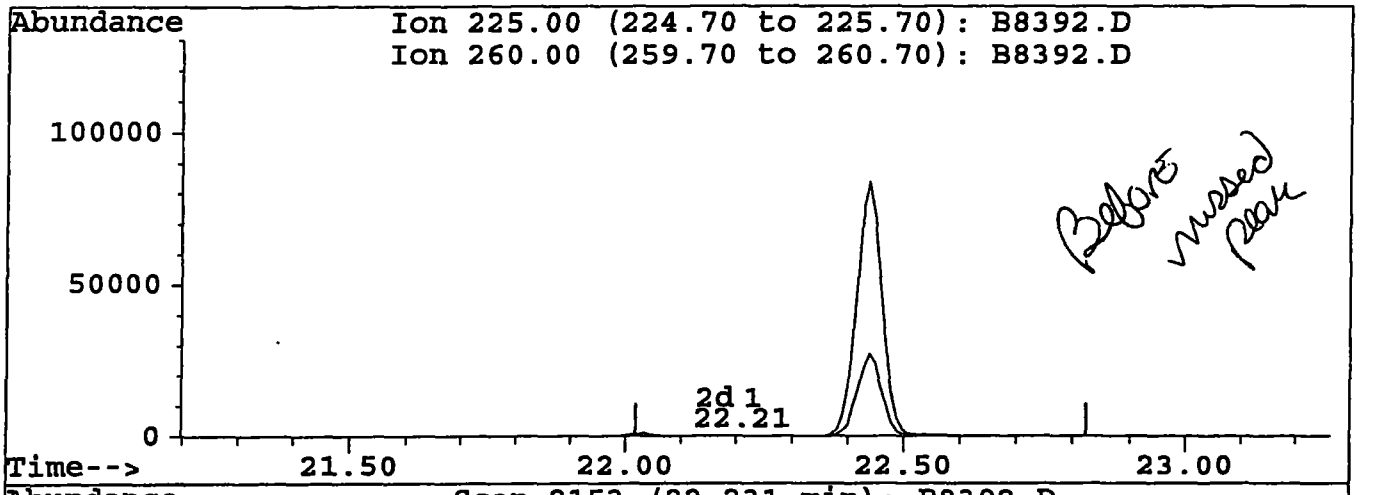
Ion	Exp%	Act%
100.95	100	100
102.95	65.90	63.98
0.00	0.00	0.00
0.00	0.00	0.00

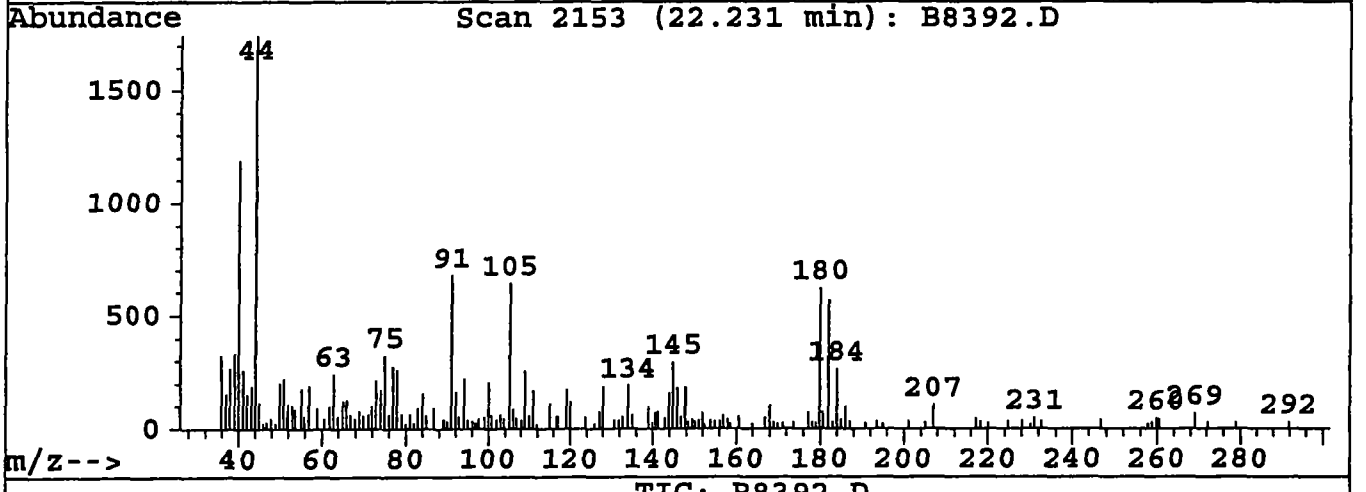
Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\121701\B8392.D
Acq On : 17 Dec 101 2:42 pm
Sample : 200 PPB
Misc :
Quant Time: Dec 17 15:13 19101

Vial: 10
Operator: droot
Inst : 5971 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Mon Dec 17 14:55:41 2001
Response via : Multiple Level Calibration





TIC: B8392.D

(94) Hexachlorobt
22.23min 0.06ppb
response 74

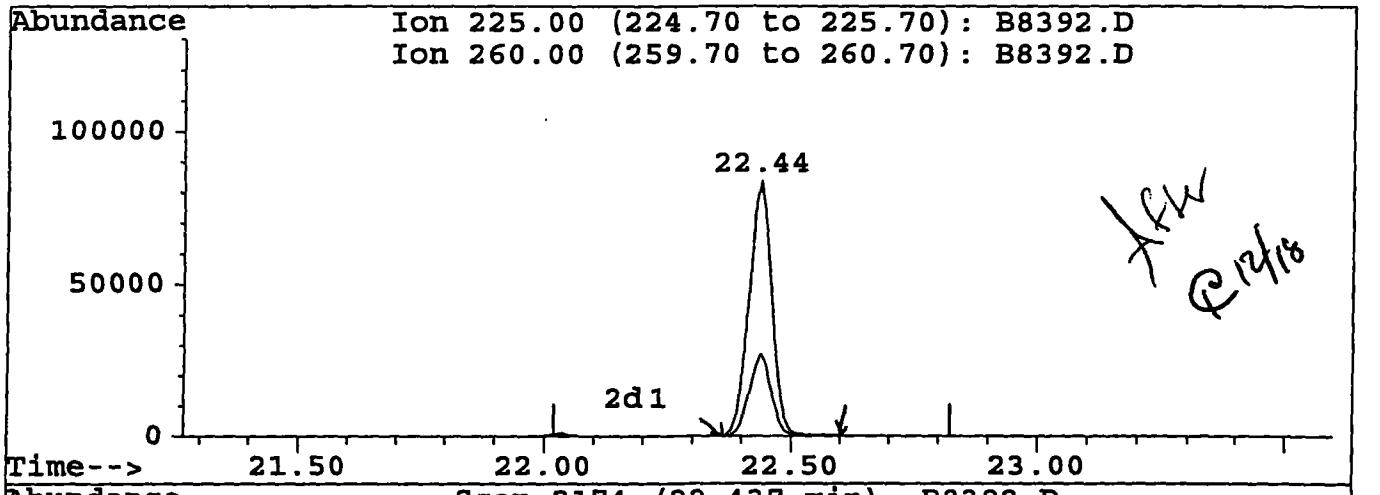
Ion	Exp%	Act%
225.00	100	100
260.00	30.60	245.71#
0.00	0.00	0.00
0.00	0.00	0.00

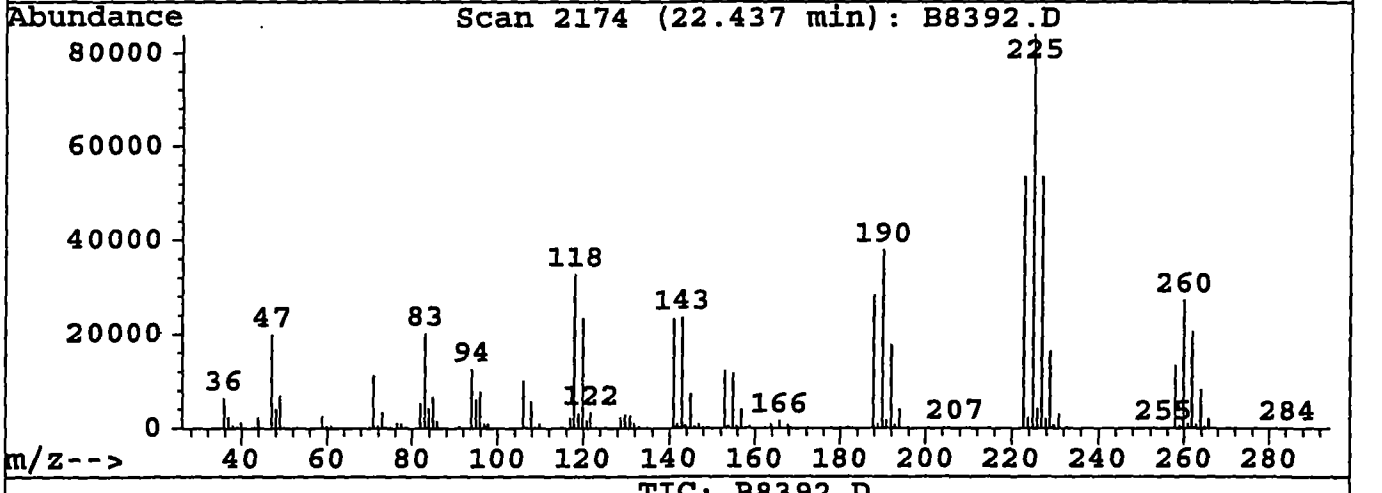
12/17

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\121701\B8392.D Vial: 10
Acq On : 17 Dec 101 2:42 pm Operator: droot
Sample : 200 PPB Inst : 5971 - In
Misc : Multiplr: 1.00
Quant Time: Dec 17 15:13 19101

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Mon Dec 17 14:55:41 2001
Response via : Multiple Level Calibration





TIC: B8392.D

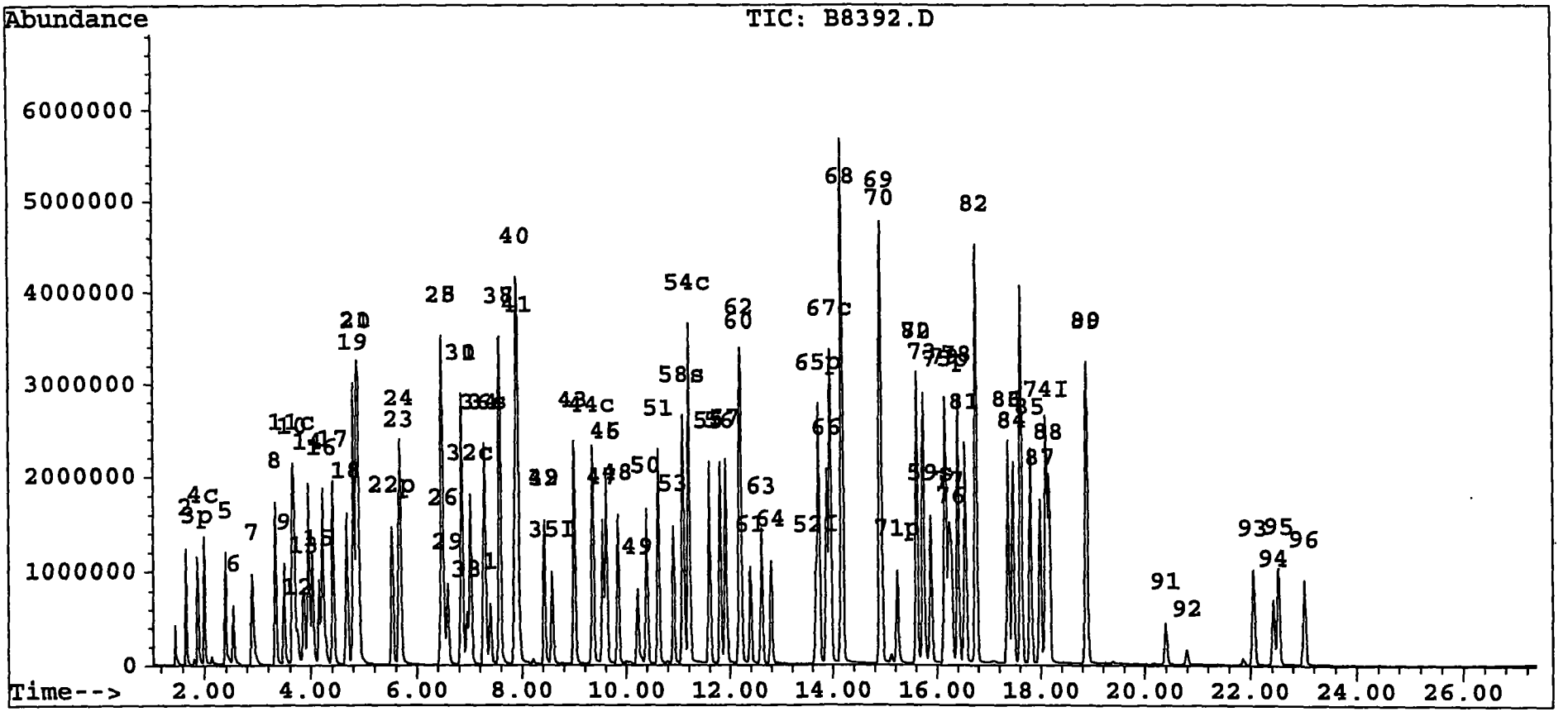
(94) Hexachlorobt
22.44min 203.03ppb m
response 267757

Ion	Exp%	Act%
225.00	100	100
260.00	30.60	32.46
0.00	0.00	0.00
0.00	0.00	0.00

Data File : J:\ACQUDATA\MSVOA3\DATA\121701\B8392.D
Acq On : 17 Dec 101 2:42 pm
Sample : 200 PPB
Misc :
Quant Time: Dec 17 15:13 19101

Vial: 10
Operator: droot
Inst : 5971 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Mon Dec 17 14:55:41 2001
Response via : Multiple Level Calibration



Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012502\B9345.D Vial: 3
Acq On : 25 Jan 102 8:49 am Operator: droot
Sample : CCV Inst : 5971 - In
Misc : Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1		Pentafluorobenzene	1.000	1.000	0.0	129	-0.03
2		Dichlorodifluoromethane	0.426	0.449	-5.4	159	-0.01
3	p	Chloromethane	0.564	0.567	-0.5	145	-0.01
4	c	Vinyl Chloride	0.485	0.470	2.9	147	-0.01
5		Bromomethane	0.338	0.324	4.0	149	-0.01
6		Chloroethane	0.303	0.277	8.7	144	-0.01
7		Trichlorofluoromethane	0.536	0.532	0.9	149	-0.01
8		Diethyl Ether	0.481	0.446	7.3	132	-0.03
9		Acrolein	0.108	0.099	8.5	117	-0.02
10		FREON 113	0.142	0.130	8.4	143	-0.02
11	c	1,1-Diclethene	0.371	0.327	11.9	130	-0.02
12		Acetone	0.215	0.198	7.8	128	-0.03
13		Iodomethane	0.209	0.259	-23.7	156	-0.02
		Carbon Disulfide	1.431	1.665	-16.4	149	-0.03
		Acetonitrile	0.024	0.021	12.2	113	-0.02
16		Allyl Chloride	0.230	0.213	7.6	135	-0.02
17		Methylene Chloride	0.505	0.460	9.1	135	-0.02
18		TBA	0.059	0.048	17.8	112	-0.03
19		Acrylonitrile	0.263	0.232	11.6	119	-0.02
20		Methyl-t-Butyl Ether	1.432	1.318	8.0	130	-0.02
21		trans-1,2-Dichloroethene	0.460	0.427	7.2	137	-0.02
22	p	1,1-Diclethane	0.821	0.751	8.5	133	-0.02
23		Vinyl Acetate	1.103	1.443	-30.8#	172	-0.02
24		2-Chloro-1,3-butadiene	0.688	0.796	-15.7	146	-0.02
25		2,2-Dichloropropane	0.580	0.558	3.7	144	-0.02
26		2-Butanone	0.383	0.363	5.1	121	-0.03
27		Ethyl Acetate	0.000	0.000	0.0	172	-0.02
28		cis-1,2-Dichloroethene	0.548	0.512	6.7	139	-0.03
29		Propionitrile	0.099	0.084	15.0	117	-0.02
30		Methacrylonitrile	0.256	0.218	15.1	119	-0.02
31		Bromochloromethane	0.271	0.244	10.1	133	-0.02
32	c	Chloroform	0.787	0.734	6.8	137	-0.02
33		Tetrahydrofuran	0.252	0.207	18.1	120	-0.03
34		1,1,1-Trichloroethane	0.581	0.546	6.0	139	-0.02
35	I	1,4 - Difluorobenzene	1.000	1.000	0.0	133	-0.03
36	s	surr4,Dibrflmethane	0.321	0.358	-11.7	131	-0.02
37		Carbontetrachloride	0.262	0.229	12.8	138	-0.03
38		1,1-Dichloropropene	0.314	0.281	10.3	141	-0.03
39		Iso-Butyl Alcohol	0.012	0.012	-5.5	171	-0.02
40		Benzene	0.899	0.805	10.5	136	-0.02
41		1,2-Dichloroethane	0.343	0.317	7.6	136	-0.03

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012502\B9345.D Vial: 3
Acq On : 25 Jan 102 8:49 am Operator: droot
Sample : CCV Inst : 5971 - In
Misc : Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
42		N-Heptane	0.232	0.246	-6.0	173	-0.02
43		Trichloroethene	0.240	0.213	11.4	135	-0.02
44	c	1,2-Diclpropane	0.295	0.265	10.1	134	-0.03
45		Methyl Methacrylate	0.213	0.185	12.9	123	-0.02
46		1,4-Dioxane	0.003	0.002	24.8	106	-0.03
47		Dibromomethane	0.192	0.172	10.5	129	-0.02
48		Bromodichloromethane	0.328	0.299	8.8	135	-0.03
49		2-Nitropropane	0.109	0.095	12.8	123	-0.03
50		2-Chloroethylvinyl Ether	0.243	0.228	6.1	128	-0.03
51		cis-1,3-Dichloropropene	0.429	0.392	8.8	135	-0.03
52	I	d5 - Chlorobenzene	1.000	1.000	0.0	134	-0.03
53		4-Methyl-2-Pentanone	0.504	0.471	6.4	123	-0.03
[illegible]	c	Toluene	1.048	0.963	8.1	141	-0.03
		trans-1,3-Dichloropropene	0.472	0.441	6.7	134	-0.02
56		Ethyl Methacrylate	0.461	0.387	15.9	119	-0.03
57		1,1,2-Trichloroethane	0.265	0.239	9.8	129	-0.02
58	s	surr3,Toluene-d8	1.066	1.206	-13.1	132	-0.03
59	s	surr2,bfb	0.420	0.476	-13.4	132	-0.02
60		Tetrachloroethene	0.234	0.220	6.1	150	-0.02
61		2-Hexanone	0.341	0.313	8.2	119	-0.03
62		1,3-Dichloropropane	0.573	0.530	7.5	134	-0.02
63		Dibromochloromethane	0.318	0.287	9.7	131	-0.02
64		1,2-Dibromoethane	0.342	0.309	9.9	130	-0.03
65	p	Chlorobenzene	0.678	0.621	8.5	140	-0.03
66		1,1,1,2-Tetrachloroethane	0.254	0.230	9.4	138	-0.03
67	c	Ethylbenzene	1.061	0.956	9.8	139	-0.03
68		(m+p)Xylene	0.376	0.333	11.6	136	-0.03
69		o-Xylene	0.370	0.331	10.4	134	-0.03
70		Styrene	0.666	0.606	8.9	138	-0.02
71	p	Bromoform	0.210	0.183	12.9	128	-0.03
72		Isopropylbenzene	0.907	0.822	9.3	140	-0.03
73		Cyclohexanone	0.035	0.031	10.7	126	-0.03
74	I	d4 - Dichlorobenzene	1.000	1.000	0.0	129	-0.03
75	p	1,1,2,2-Tetrachloroethane	1.067	0.975	8.6	133	-0.03
76		Trans-1,4-Dichloro-2-butene	0.326	0.283	13.1	122	-0.03
77		1,2,3-Trichloropropane	0.326	0.275	15.6	123	-0.03
78		n-Propylbenzene	2.661	2.385	10.4	135	-0.03
[illegible]		Bromobenzene	0.668	0.625	6.4	143	-0.02
[illegible]		1,3,5-Trimethylbenzene	2.423	1.453	40.0#	93	-0.04
81		2-Chlorotoluene	1.707	1.554	9.0	135	-0.02

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012502\B9345.D Vial: 3
Acq On : 25 Jan 102 8:49 am Operator: droot
Sample : CCV Inst : 5971 - In
Misc : Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
82	4-Chlorotoluene	1.924	1.719	10.6	133	-0.03
83	tert-Butylbenzene	1.384	1.247	9.9	139	-0.03
84	1,2,4-Trimethylbenzene	1.594	1.468	7.9	136	-0.02
85	sec-Butylbenzene	1.994	1.850	7.2	140	-0.02
86	p-Isopropyltoluene	1.384	1.247	9.9	139	-0.03
87	1,3-Dclbenz	0.927	0.867	6.5	140	-0.03
88	1,4-Dclbenz	1.029	0.945	8.2	138	-0.03
89	n-Butylbenzene	1.332	1.293	3.0	143	-0.02
90	1,2-Dclbenz	0.987	0.916	7.2	139	-0.03
91	1,2-Dibromo-3-chloropropane	0.173	0.143	17.2	118	-0.04
92	Nitrobenzene	0.095	0.050	47.4#	77	-0.02
93	1,2,4-Tcbenzene	0.484	0.475	2.0	142	-0.04
94	Hexachlorobt	0.187	0.228	-22.0	184	-0.03
95	Naphthalen	1.339	1.230	8.1	127	-0.03
96	1,2,3-Tclbenzene	0.444	0.443	0.3	141	-0.03
97	TOTAL XYLENE	0.000	0.000	0.0	76	-0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012502\B9345.D Vial: 3
Acq On : 25 Jan 102 8:49 am Operator: droot
Sample : CCV Inst : 5971 - In
Misc : Multiplr: 1.00
Quant Time: Jan 25 9:21 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	7.37	168	786671	50.00	ppb	-0.03
35) 1,4 - Difluorobenzene	8.55	114	1500701	50.00	ppb	-0.03
52) d5 - Chlorobenzene	13.64	117	1192806	50.00	ppb	-0.03
74) d4 - Dichlorobenzene	18.08	152	446253	50.00	ppb	-0.03
System Monitoring Compounds						%Recovery
36) surr4,Dibrflmethane	7.25	113	537327	50.70	ppb	101.39%
58) surr3,Toluene-d8	11.06	98	1437999	50.99	ppb	101.97%
59) surr2,bfb	15.85	95	568028	50.37	ppb	100.75%
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.65	85	353131	52.72	ppb	98
3) Chloromethane	1.87	50	445945	50.23	ppb	99
4) Vinyl Chloride	1.99	62	370102	48.54	ppb	98
5) Bromomethane	2.40	94	255222	47.99	ppb	93
6) Chloroethane	2.54	64	217799	45.64	ppb	100
7) Trichlorofluoromethane	2.89	101	418161	49.55	ppb	96
8) Diethyl Ether	3.31	59	351091	46.37	ppb	97
9) Acrolein	3.48	56	387838	228.63	ppb	95
10) FREON 113	3.67	85	102239	45.80	ppb	98
11) 1,1-Diclethene	3.64	96	256914	44.03	ppb	96
12) Acetone	3.73	43	155549	46.09	ppb	99
13) Iodomethane	3.84	127	203547	53.49	ppb	98
14) Carbon Disulfide	3.93	76	1309987	58.20	ppb	100
15) Acetonitrile	4.14	41	332664	877.50	ppb	99
16) Allyl Chloride	4.20	76	167383	46.20	ppb	94
17) Methylene Chloride	4.40	84	361496	45.46	ppb	97
18) TBA	4.64	59	760193	822.04	ppb	99
19) Acrylonitrile	4.78	53	914263	221.08	ppb	100
20) Methyl-t-Butyl Ether	4.87	73	1036622	46.00	ppb	97
21) trans-1,2-Dichloroethene	4.84	96	335581	46.40	ppb	99
22) 1,1-Diclethane	5.51	63	590847	45.75	ppb	99
23) Vinyl Acetate	5.64	43	1135153	65.41	ppb	99
24) 2-Chloro-1,3-butadiene	5.67	53	625994	53.97	PPB	100
25) 2,2-Dichloropropane	6.44	77	439332	48.17	ppb	98
26) 2-Butanone	6.49	43	285750	47.45	ppb	97
28) cis-1,2-Dichloroethene	6.45	96	402593	46.65	ppb	95
29) Propionitrile	6.56	54	331497	212.49	ppb	96
30) Methacrylonitrile	6.82	67	171168	42.44	ppb	96
31) Bromochloromethane	6.84	128	191866	44.97	ppb	95
32) Chloroform	6.99	83	577177	46.61	ppb	97
33) Tetrahydrofuran	6.93	42	162591	43.13	ppb	93
34) 1,1,1-Trichloroethane	7.27	97	429310	47.00	ppb	98
37) Carbontetrachloride	7.55	117	343099	43.59	ppb	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012502\B9345.D Vial: 3
Acq On : 25 Jan 102 8:49 am Operator: droot
Sample : CCV Inst : 5971 - In
Misc : Multiplr: 1.00
Quant Time: Jan 25 9:21 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	1,1-Dichloropropene	7.55	75	421925	44.83	ppb		94
39)	Iso-Butyl Alcohol	8.40	43	367486	1054.87	ppb		100
40)	Benzene	7.88	78	1207645	44.77	ppb		100
41)	1,2-Dichloroethane	7.90	62	475629	46.20	ppb		99
42)	N-Heptane	8.40	43	368829	53.01	ppb		97
43)	Trichloroethene	8.97	95	318929	44.30	ppb		97
44)	1,2-Diclpropane	9.33	63	397504	44.93	ppb		97
45)	Methyl Methacrylate	9.59	69	277984	43.56	ppb		97
46)	1,4-Dioxane	9.58	88	71589	752.06	ppb		81
47)	Dibromomethane	9.52	93	257991	44.76	ppb		97
48)	Bromodichloromethane	9.81	83	448738	45.60	ppb		97
49)	2-Nitropropane	10.18	43	285007	87.20	ppb		96
50)	2-Chloroethylvinyl Ether	10.36	63	342406	46.93	ppb		98
51)	cis-1,3-Dichloropropene	10.59	75	588032	45.62	ppb		97
53)	4-Methyl-2-Pentanone	10.87	43	562283	46.81	ppb		98
54)	Toluene	11.17	91	1148332	45.93	ppb		100
55)	trans-1,3-Dichloropropene	11.57	75	525764	46.66	ppb		99
56)	Ethyl Methacrylate	11.78	69	462041	42.05	ppb		100
57)	1,1,2-Trichloroethane	11.89	83	284740	45.10	ppb		96
60)	Tetrachloroethene	12.15	166	261994	44.18	ppb		97
61)	2-Hexanone	12.36	43	372902	45.88	ppb		98
62)	1,3-Dichloropropane	12.18	76	631744	46.25	ppb		93
63)	Dibromochloromethane	12.59	129	342603	45.15	ppb		97
64)	1,2-Dibromoethane	12.76	107	368110	45.07	ppb		99
65)	Chlorobenzene	13.69	112	740527	45.77	ppb		99
66)	1,1,1,2-Tetrachloroethane	13.85	131	274939	45.31	ppb		99
67)	Ethylbenzene	13.91	91	1140762	45.08	ppb		99
68)	(m+p)Xylene	14.14	106	793791	88.38	ppb		97
69)	o-Xylene	14.87	106	395119	44.82	ppb		96
70)	Styrene	14.90	104	723416	45.54	ppb		97
71)	Bromoform	15.21	173	217867	43.55	ppb		96
72)	Isopropylbenzene	15.58	105	980819	42.40	ppb		100
73)	Cyclohexanone	15.71	55	739243	893.47	ppb		99
75)	1,1,2,2-Tetrachloroethane	16.14	83	435237	45.71	ppb		98
76)	Trans-1,4-Dichloro-2-buten	16.25	53	126453	43.47	ppb		95
77)	1,2,3-Trichloropropane	16.21	110	122663	42.19	ppb		96
78)	n-Propylbenzene	16.36	91	1064259	44.81	ppb		100
79)	Bromobenzene	16.12	156	279049	46.79	ppb		99
80)	1,3,5-Trimethylbenzene	16.72	105	648291	29.60	ppb	#	54
81)	2-Chlorotoluene	16.51	91	693353	45.50	ppb		99
82)	4-Chlorotoluene	16.72	91	767218	44.69	ppb		96
83)	tert-Butylbenzene	17.34	119	556283	45.05	ppb		97
84)	1,2,4-Trimethylbenzene	17.44	105	655029	46.04	ppb		96
85)	sec-Butylbenzene	17.77	105	825757	46.41	ppb		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012502\B9345.D Vial: 3
Acq On : 25 Jan 102 8:49 am Operator: droot
Sample : CCV Inst : 5971 - In
Misc : Multiplr: 1.00
Quant Time: Jan 25 9:21 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
86)	p-Isopropyltoluene	17.34	119	556283	45.05	ppb		97
87)	1,3-Dclbenz	17.95	146	386755	46.73	ppb		99
88)	1,4-Dclbenz	18.13	146	421529	45.90	ppb	m	0
89)	n-Butylbenzene	18.87	91	576982	48.52	ppb		99
90)	1,2-Dclbenz	18.85	146	408910	46.42	ppb		100
91)	1,2-Dibromo-3-chloropropan	20.36	157	63846	41.41	ppb		97
92)	Nitrobenzene	20.77	77	22265	29.78	ppb		85
93)	1,2,4-Tcbenzene	22.02	180	211854	48.99	ppb		97
94)	Hexachlorobt	22.40	225	101827	61.01	ppb		99
95)	Naphthalen	22.50	128	549109	45.96	ppb		99
96)	1,2,3-Tclbenzene	22.99	180	197547	49.85	ppb		95

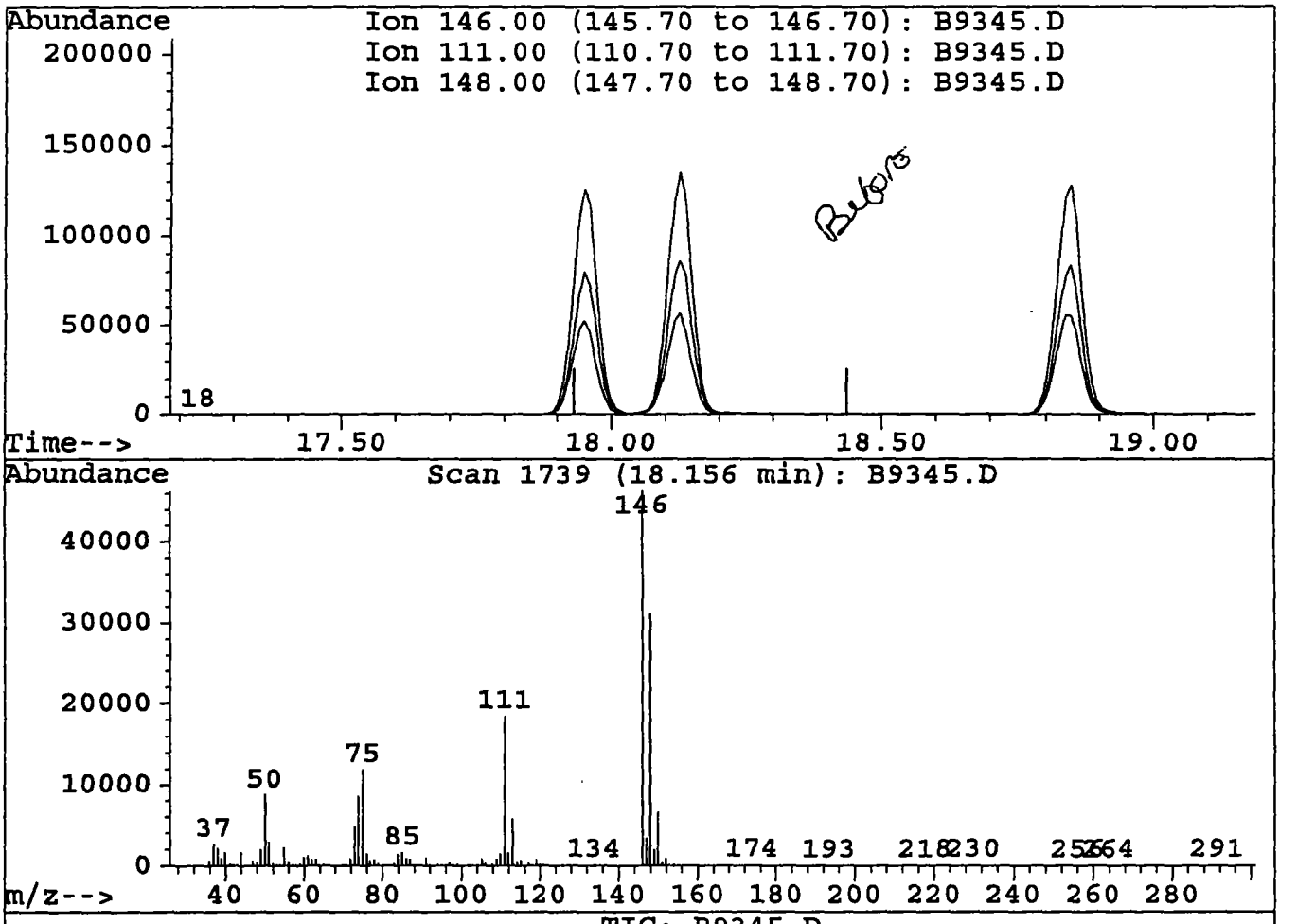
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012502\B9345.D
Acq On : 25 Jan 102 8:49 am
Sample : CCV
Misc :
Quant Time: Jan 25 9:17 19102

Vial: 3
Operator: droot
Inst : 5971 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration



TIC: B9345.D

(88) 1,4-Dclbenz
18.16min 0.00ppb d
response 0

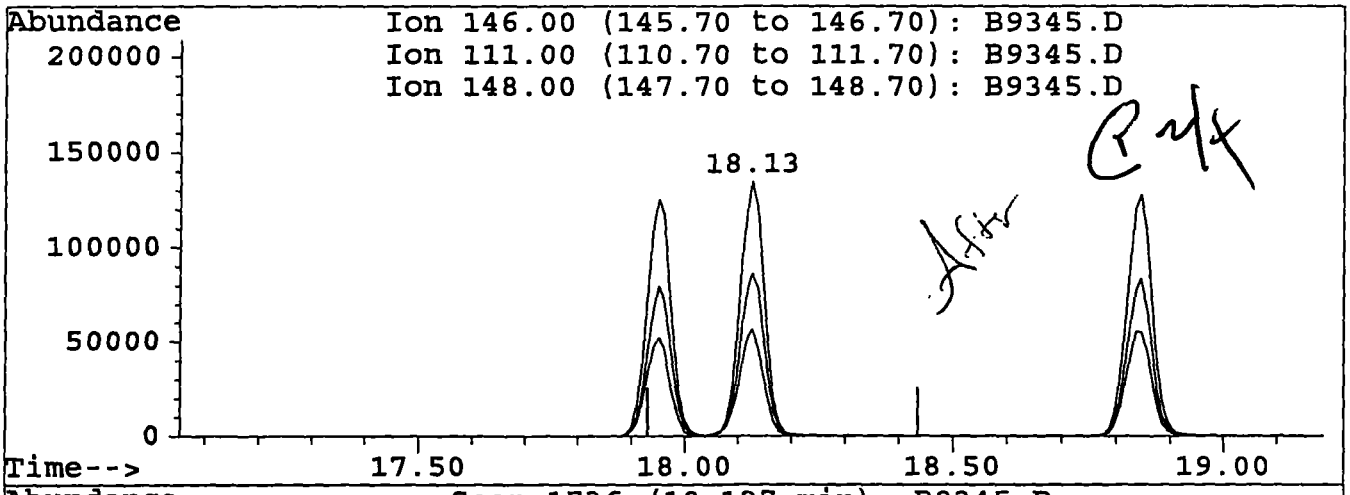
Ion	Exp%	Act%
146.00	100	0.00
111.00	40.30	0.00#
148.00	62.20	0.00#
0.00	0.00	0.00

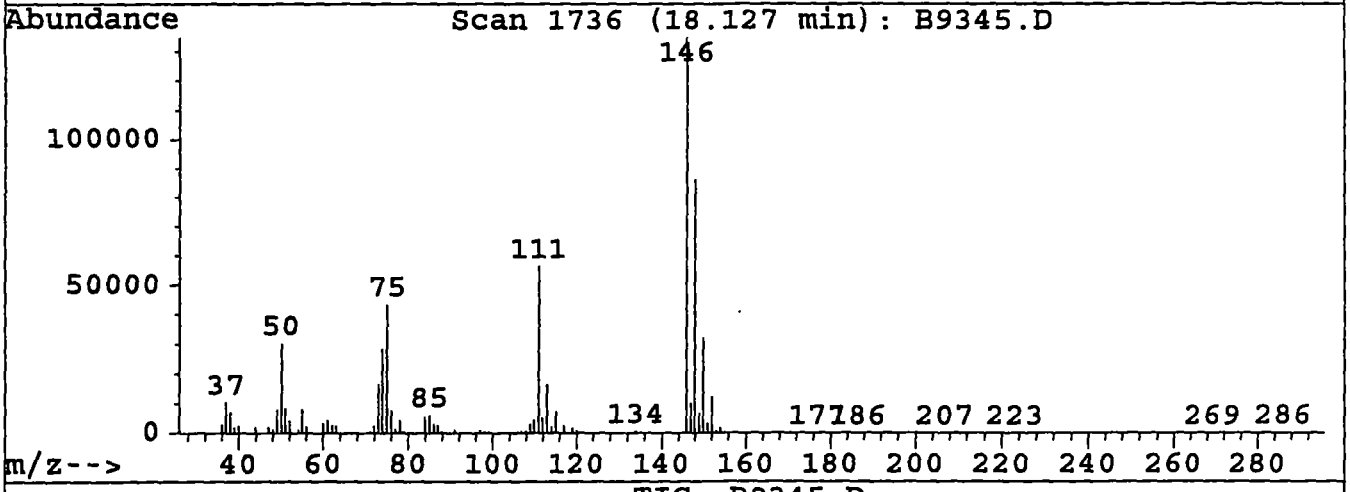
Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012502\B9345.D
Acq On : 25 Jan 102 8:49 am
Sample : CCV
Misc :
Quant Time: Jan 25 9:21 19102

Vial: 3
Operator: droot
Inst : 5971 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration





TIC: B9345.D

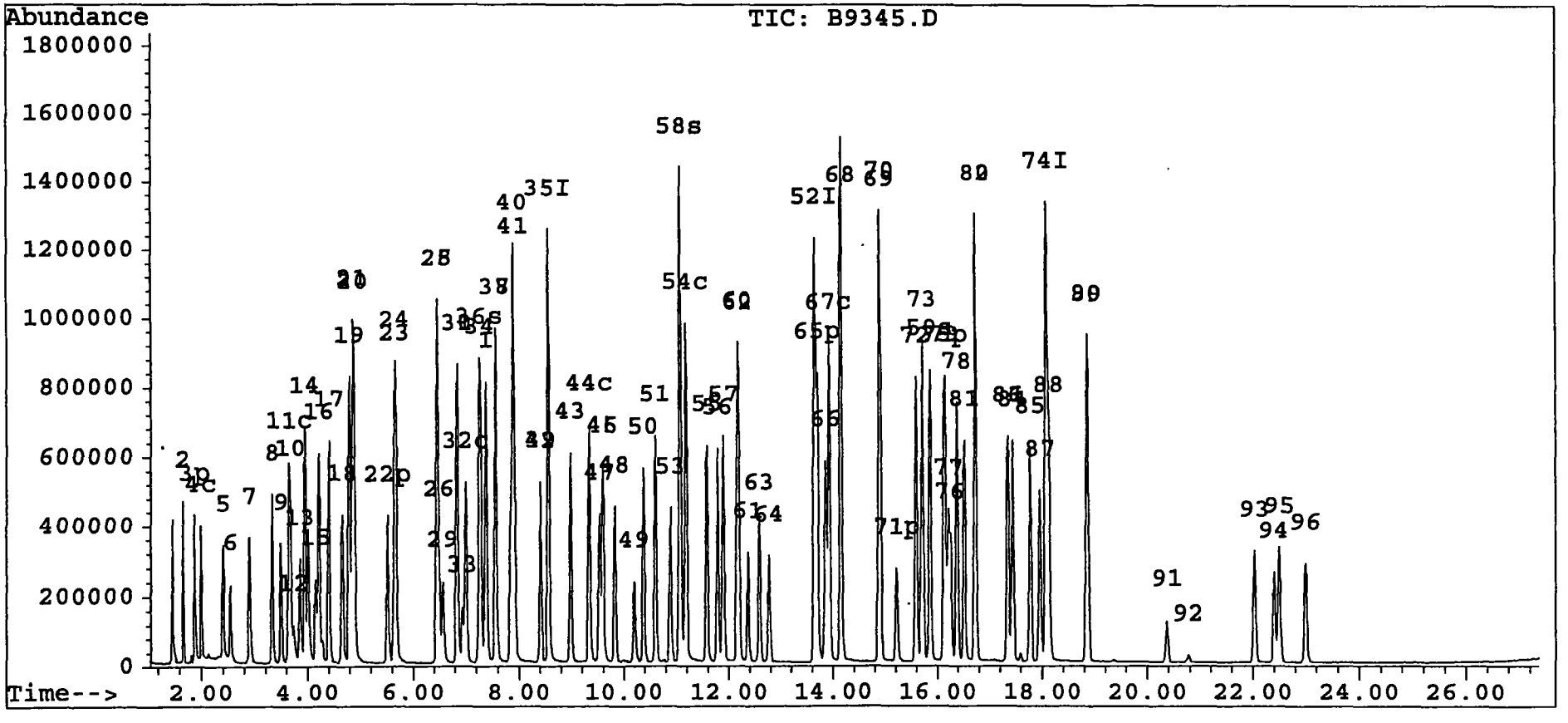
(88) 1,4-Dclbenz
18.13min 45.90ppb m
response 421529

Ion	Exp%	Act%
146.00	100	100
111.00	40.30	41.94
148.00	62.20	63.81
0.00	0.00	0.00

Data File : J:\ACQUDATA\MSVOA3\DATA\012502\B9345.D
Acq On : 25 Jan 102 8:49 am
Sample : CCV
Misc :
Quant Time: Jan 25 9:21 19102

Vial: 3
Operator: droot
Inst : 5971 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration



Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9390.D Vial: 3
Acq On : 28 Jan 102 8:45 am Operator: droot
Sample : CCV Inst : 5971 - In
Misc : Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1		Pentafluorobenzene	1.000	1.000	0.0	127	-0.04
2		Dichlorodifluoromethane	0.426	0.455	-6.9	158	-0.01
3	p	Chloromethane	0.564	0.559	1.0	141	-0.01
4	c	Vinyl Chloride	0.485	0.471	2.7	145	-0.02
5		Bromomethane	0.338	0.317	6.3	143	-0.02
6		Chloroethane	0.303	0.282	7.1	144	-0.02
7		Trichlorofluoromethane	0.536	0.538	-0.4	148	-0.03
8		Diethyl Ether	0.481	0.461	4.2	134	-0.03
9		Acrolein	0.108	0.106	1.3	124	-0.03
10		FREON 113	0.142	0.140	1.4	151	-0.03
11	c	1,1-Diclethene	0.371	0.341	8.1	133	-0.03
12		Acetone	0.215	0.232	-8.0	147	-0.04
13		Iodomethane	0.209	0.341	-62.9#	202#	-0.04
14		Carbon Disulfide	1.431	1.780	-24.5	156	-0.04
		Acetonitrile	0.024	0.022	7.4	117	-0.03
		Allyl Chloride	0.230	0.223	3.2	139	-0.03
17		Methylene Chloride	0.505	0.468	7.5	134	-0.04
18		TBA	0.059	0.061	-3.7	139	-0.04
19		Acrylonitrile	0.263	0.265	-0.8	133	-0.04
20		Methyl-t-Butyl Ether	1.432	1.401	2.2	135	-0.03
21		trans-1,2-Dichloroethene	0.460	0.437	4.9	138	-0.03
22	p	1,1-Diclethane	0.821	0.781	4.8	136	-0.04
23		Vinyl Acetate	1.103	1.539	-39.6#	180	-0.04
24		2-Chloro-1,3-butadiene	0.688	0.826	-20.1	149	-0.04
25		2,2-Dichloropropane	0.580	0.589	-1.7	149	-0.03
26		2-Butanone	0.383	0.428	-11.8	140	-0.04
27		Ethyl Acetate	0.000	0.000	0.0	180	-0.04
28		cis-1,2-Dichloroethene	0.548	0.523	4.6	139	-0.05
29		Propionitrile	0.099	0.097	1.7	133	-0.04
30		Methacrylonitrile	0.256	0.242	5.5	130	-0.03
31		Bromochloromethane	0.271	0.255	6.0	136	-0.04
32	c	Chloroform	0.787	0.754	4.2	138	-0.04
33		Tetrahydrofuran	0.252	0.236	6.3	134	-0.04
34		1,1,1-Trichloroethane	0.581	0.577	0.6	144	-0.04
35	I	1,4 - Difluorobenzene	1.000	1.000	0.0	131	-0.04
36	s	surr4,Dibrflmethane	0.321	0.357	-11.5	129	-0.04
37		Carbontetrachloride	0.262	0.247	6.0	147	-0.04
38		1,1-Dichloropropene	0.314	0.293	6.7	145	-0.04
		Iso-Butyl Alcohol	0.012	0.011	9.5	145	-0.04
		Benzene	0.899	0.848	5.7	141	-0.04
41		1,2-Dichloroethane	0.343	0.325	5.2	138	-0.04

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9390.D Vial: 3
Acq On : 28 Jan 102 8:45 am Operator: droot
Sample : CCV Inst : 5971 - In
Misc : Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
42		N-Heptane	0.232	0.210	9.4	146	-0.04
43		Trichloroethene	0.240	0.222	7.6	139	-0.04
44	c	1,2-Diclpropane	0.295	0.276	6.5	137	-0.04
45		Methyl Methacrylate	0.213	0.200	6.1	131	-0.04
46		1,4-Dioxane	0.003	0.003	13.7	121	-0.05
47		Dibromomethane	0.192	0.183	4.5	136	-0.04
48		Bromodichloromethane	0.328	0.308	6.0	138	-0.04
49		2-Nitropropane	0.109	0.109	0.2	139	-0.04
50		2-Chloroethylvinyl Ether	0.243	0.248	-2.2	138	-0.04
51		cis-1,3-Dichloropropene	0.429	0.406	5.4	138	-0.04
52	I	d5 - Chlorobenzene	1.000	1.000	0.0	135	-0.05
53		4-Methyl-2-Pentanone	0.504	0.539	-7.0	142	-0.04
1	c	Toluene	1.048	0.972	7.2	143	-0.04
)		trans-1,3-Dichloropropene	0.472	0.452	4.3	139	-0.04
56		Ethyl Methacrylate	0.461	0.425	7.8	131	-0.04
57		1,1,2-Trichloroethane	0.265	0.250	5.5	136	-0.04
58	s	surr3,Toluene-d8	1.066	1.192	-11.8	132	-0.05
59	s	surr2,bfb	0.420	0.492	-17.3	138	-0.04
60		Tetrachloroethene	0.234	0.213	8.8	147	-0.03
61		2-Hexanone	0.341	0.378	-10.8	145	-0.04
62		1,3-Dichloropropane	0.573	0.541	5.6	137	-0.04
63		Dibromochloromethane	0.318	0.301	5.2	139	-0.04
64		1,2-Dibromoethane	0.342	0.329	4.0	140	-0.04
65	p	Chlorobenzene	0.678	0.630	7.1	143	-0.04
66		1,1,1,2-Tetrachloroethane	0.254	0.242	4.7	146	-0.04
67	c	Ethylbenzene	1.061	1.014	4.4	149	-0.04
68		(m+p)Xylene	0.376	0.360	4.4	148	-0.05
69		o-Xylene	0.370	0.358	3.0	146	-0.04
70		Styrene	0.666	0.641	3.8	147	-0.04
71	p	Bromoform	0.210	0.200	4.8	141	-0.05
72		Isopropylbenzene	0.907	0.874	3.6	150	-0.04
73		Cyclohexanone	0.035	0.038	-8.7	154	-0.05
74	I	d4 - Dichlorobenzene	1.000	1.000	0.0	149	-0.04
75	p	1,1,2,2-Tetrachloroethane	1.067	0.925	13.3	146	-0.04
76		Trans-1,4-Dichloro-2-butene	0.326	0.277	15.1	139	-0.04
77		1,2,3-Trichloropropane	0.326	0.274	15.8	142	-0.05
78		n-Propylbenzene	2.661	2.293	13.8	151	-0.04
9		Bromobenzene	0.668	0.571	14.6	151	-0.03
80		1,3,5-Trimethylbenzene	2.423	1.450	40.1#	107	-0.06
81		2-Chlorotoluene	1.707	1.493	12.6	151	-0.04

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9390.D Vial: 3
Acq On : 28 Jan 102 8:45 am Operator: droot
Sample : CCV Inst : 5971 - In
Misc : Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
82	4-Chlorotoluene	1.924	1.682	12.6	151	-0.05
83	tert-Butylbenzene	1.384	1.197	13.5	154	-0.04
84	1,2,4-Trimethylbenzene	1.594	1.477	7.4	159	-0.04
85	sec-Butylbenzene	1.994	1.752	12.1	154	-0.04
86	p-Isopropyltoluene	1.384	1.197	13.5	154	-0.04
87	1,3-Dclbenz	0.927	0.829	10.6	155	-0.04
88	1,4-Dclbenz	1.029	0.938	8.9	158	-0.04
89	n-Butylbenzene	1.332	1.252	6.0	161	-0.04
90	1,2-Dclbenz	0.987	0.886	10.2	156	-0.04
91	1,2-Dibromo-3-chloropropane	0.173	0.152	12.3	145	-0.05
92	Nitrobenzene	0.095	0.071	25.6#	126	-0.04
93	1,2,4-Tcbenzene	0.484	0.477	1.6	166	-0.05
94	Hexachlorobt	0.187	0.174	6.9	163	-0.04
95	Naphthalen	1.339	1.345	-0.5	161	-0.05
	1,2,3-Tclbenzene	0.444	0.429	3.4	158	-0.05
/	TOTAL XYLENE	0.000	0.000	0.0	96	-0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9390.D Vial: 3
Acq On : 28 Jan 102 8:45 am Operator: droot
Sample : CCV Inst : 5971 - In
Misc : Multiplr: 1.00
Quant Time: Jan 28 9:12 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	7.36	168	772235	50.00	ppb	-0.04
35) 1,4 - Difluorobenzene	8.54	114	1482438	50.00	ppb	-0.04
52) d5 - Chlorobenzene	13.62	117	1201478	50.00	ppb	-0.05
74) d4 - Dichlorobenzene	18.07	152	517648	50.00	ppb	-0.04
System Monitoring Compounds						%Recovery
36) surr4,Dibrflmethane	7.23	113	529883	50.58	ppb	101.17%
58) surr3,Toluene-d8	11.04	98	1431592	50.20	ppb	100.41%
59) surr2,bfb	15.83	95	591610	52.72	ppb	105.44%
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.65	85	351518	53.46	ppb	99
3) Chloromethane	1.87	50	431541	49.52	ppb	99
4) Vinyl Chloride	1.98	62	363942	48.63	ppb	98
5) Bromomethane	2.39	94	244456	46.83	ppb	95
6) Chloroethane	2.53	64	217624	46.45	ppb	99
7) Trichlorofluoromethane	2.87	101	415774	50.19	ppb	96
8) Diethyl Ether	3.31	59	356114	47.91	ppb	100
9) Acrolein	3.47	56	410698	246.63	ppb	96
10) FREON 113	3.66	85	108001	49.28	ppb	90
11) 1,1-Diclethene	3.63	96	263323	45.97	ppb	98
12) Acetone	3.72	43	178939	54.01	ppb	99
13) Iodomethane	3.82	127	263084	69.06	ppb	93
14) Carbon Disulfide	3.92	76	1374871	62.23	ppb	100
15) Acetonitrile	4.13	41	344655	926.13	ppb	98
16) Allyl Chloride	4.19	76	172128	48.39	ppb	87
17) Methylene Chloride	4.38	84	361054	46.26	ppb	89
18) TBA	4.63	59	941602	1037.24	ppb	100
19) Acrylonitrile	4.76	53	1023155	252.04	ppb	100
20) Methyl-t-Butyl Ether	4.86	73	1081987	48.91	ppb	95
21) trans-1,2-Dichloroethene	4.83	96	337625	47.55	ppb	98
22) 1,1-Diclethane	5.49	63	603465	47.60	ppb	99
23) Vinyl Acetate	5.62	43	1188790	69.78	ppb	100
24) 2-Chloro-1,3-butadiene	5.65	53	638058	55.99	PPB	98
25) 2,2-Dichloropropane	6.43	77	455145	50.84	ppb	98
26) 2-Butanone	6.48	43	330288	55.88	ppb	100
28) cis-1,2-Dichloroethene	6.43	96	404170	47.71	ppb	92
29) Propionitrile	6.54	54	376212	245.66	ppb	96
30) Methacrylonitrile	6.81	67	187098	47.25	ppb	99
31) Bromochloromethane	6.82	128	196923	47.02	ppb	93
32) Chloroform	6.97	83	582435	47.91	ppb	99
33) Tetrahydrofuran	6.92	42	182626	49.76	ppb	94
34) 1,1,1-Trichloroethane	7.25	97	445659	49.70	ppb	99
37) Carbontetrachloride	7.54	117	365447	47.00	ppb	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9390.D
Acq On : 28 Jan 102 8:45 am
Sample : CCV
Misc :
Quant Time: Jan 28 9:12 19102

Vial: 3
Operator: droot
Inst : 5971 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	1,1-Dichloropropene	7.54	75	433762	46.66	ppb		98
39)	Iso-Butyl Alcohol	8.38	43	311503	905.18	ppb		100
40)	Benzene	7.86	78	1256705	47.17	ppb		99
41)	1,2-Dichloroethane	7.89	62	481784	47.38	ppb		98
42)	N-Heptane	8.38	43	311503	45.32	ppb		99
43)	Trichloroethene	8.95	95	328608	46.21	ppb		96
44)	1,2-Diclpropane	9.32	63	408804	46.77	ppb		99
45)	Methyl Methacrylate	9.57	69	295998	46.95	ppb		94
46)	1,4-Dioxane	9.56	88	81155	863.06	ppb		99
47)	Dibromomethane	9.50	93	271790	47.73	ppb		97
48)	Bromodichloromethane	9.80	83	457056	47.02	ppb		99
49)	2-Nitropropane	10.17	43	322096	99.76	ppb		96
50)	2-Chloroethylvinyl Ether	10.35	63	368319	51.11	ppb		99
51)	cis-1,3-Dichloropropene	10.58	75	602305	47.30	ppb		97
53)	4-Methyl-2-Pentanone	10.86	43	647046	53.48	ppb		98
54)	Toluene	11.16	91	1167866	46.38	ppb		97
55)	trans-1,3-Dichloropropene	11.55	75	543214	47.86	ppb		97
56)	Ethyl Methacrylate	11.77	69	510085	46.09	ppb		96
57)	1,1,2-Trichloroethane	11.87	83	300474	47.25	ppb		99
60)	Tetrachloroethene	12.14	166	256416	43.04	ppb		96
61)	2-Hexanone	12.35	43	453667	55.41	ppb		94
62)	1,3-Dichloropropane	12.16	76	649566	47.21	ppb		89
63)	Dibromochloromethane	12.57	129	362156	47.38	ppb		100
64)	1,2-Dibromoethane	12.75	107	394980	48.02	ppb		99
65)	Chlorobenzene	13.68	112	757274	46.47	ppb		98
66)	1,1,1,2-Tetrachloroethane	13.84	131	291178	47.64	ppb		99
67)	Ethylbenzene	13.90	91	1218867	47.82	ppb		99
68)	(m+p)Xylene	14.12	106	864790	95.59	ppb		97
69)	o-Xylene	14.86	106	430496	48.48	ppb		99
70)	Styrene	14.88	104	769715	48.11	ppb		99
71)	Bromoform	15.19	173	239805	47.59	ppb		100
72)	Isopropylbenzene	15.57	105	1050138	44.86	ppb		99
73)	Cyclohexanone	15.69	55	906046	1087.17	ppb		100
75)	1,1,2,2-Tetrachloroethane	16.13	83	478705	43.35	ppb		98
76)	Trans-1,4-Dichloro-2-buten	16.24	53	143177	42.43	ppb		100
77)	1,2,3-Trichloropropane	16.19	110	142031	42.12	ppb		99
78)	n-Propylbenzene	16.35	91	1187174	43.09	ppb		97
79)	Bromobenzene	16.11	156	295373	42.70	ppb		99
80)	1,3,5-Trimethylbenzene	16.70	105	750801	29.56	ppb	#	55
81)	2-Chlorotoluene	16.49	91	772853	43.72	ppb		97
82)	4-Chlorotoluene	16.70	91	870521	43.71	ppb		96
83)	tert-Butylbenzene	17.33	119	619591	43.25	ppb		100
84)	1,2,4-Trimethylbenzene	17.42	105	764373	46.31	ppb		99
85)	sec-Butylbenzene	17.75	105	907174	43.95	ppb		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9390.D Vial: 3
Acq On : 28 Jan 102 8:45 am Operator: droot
Sample : CCV Inst : 5971 - In
Misc : Multiplr: 1.00
Quant Time: Jan 28 9:12 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration

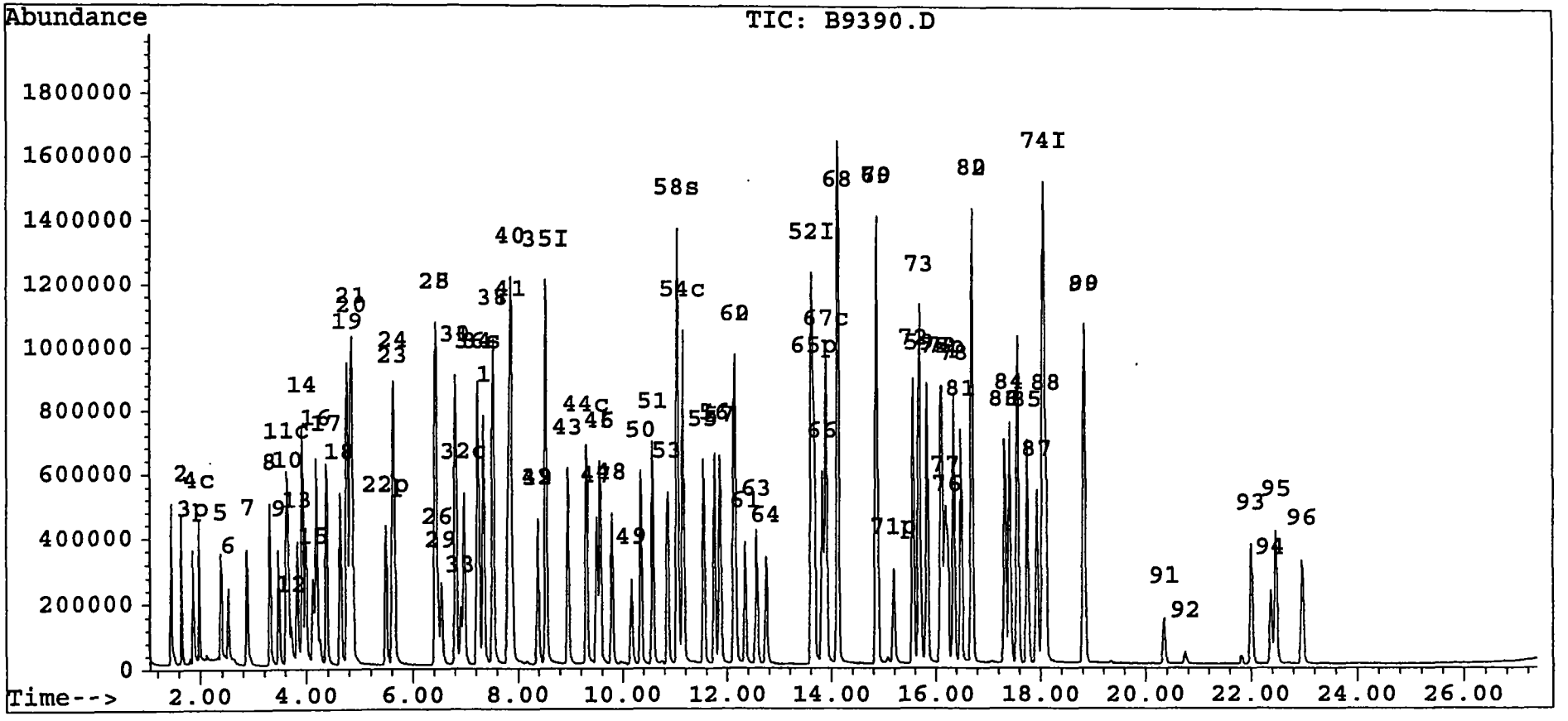
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
86) p-Isopropyltoluene	17.33	119	619591	43.25	ppb	99
87) 1,3-Dclbenz	17.94	146	429241	44.71	ppb	98
88) 1,4-Dclbenz	18.12	146	485353	45.56	ppb	97
89) n-Butylbenzene	18.85	91	648210	47.00	ppb	99
90) 1,2-Dclbenz	18.84	146	458765	44.89	ppb	99
91) 1,2-Dibromo-3-chloropropan	20.35	157	78439	43.86	ppb	93
92) Nitrobenzene	20.75	77	36526	38.51	ppb	93
93) 1,2,4-Tcbenzene	22.01	180	246682	49.18	ppb	99
94) Hexachlorobt	22.39	225	90081	46.53	ppb	99
95) Naphthalen	22.48	128	696354	50.24	ppb	99
96) 1,2,3-Tclbenzene	22.97	180	222108	48.32	ppb	95

(#) = qualifier out of range (m) = manual integration
B9390.D EXP1217.M Mon Jan 28 09:12:53 2002

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9390.D Vial: 3
Acq On : 28 Jan 102 8:45 am Operator: droot
Sample : CCV Inst : 5971 - In
Misc : Multiplr: 1.00
Quant Time: Jan 28 9:12 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration



8260 VOLATILE ORGANICS

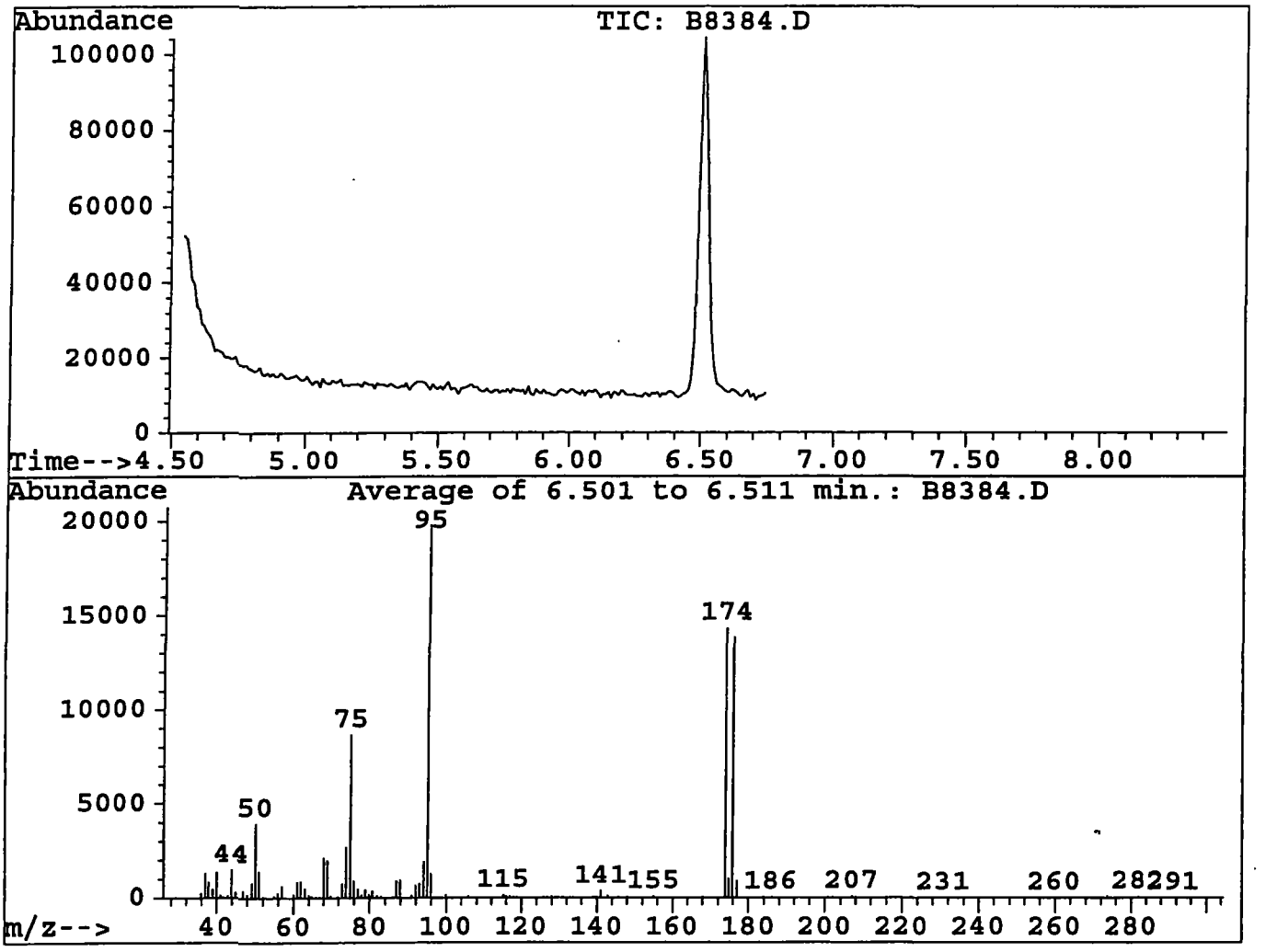
RAW QC DATA

BFB

Data File : J:\ACQUDATA\MSVOA3\DATA\121701\B8384.D
Acq On : 17 Dec 101 9:49 am
Sample : tune
Misc :

Vial: 2
Operator: droot
Inst : 5971 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\EXP1127W.M
Title : 8260B VOA COMPOUNDS GCMS#1



Peak Apex is scan: 199

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.9	3947	PASS
75	95	30	60	43.8	8675	PASS
95	95	100	100	100.0	19812	PASS
96	95	5	9	6.5	1284	PASS
173	174	0	2	0.0	0	PASS
174	95	50	100	72.4	14338	PASS
175	174	5	9	7.1	1014	PASS
176	174	95	101	96.5	13835	PASS
177	176	5	9	6.6	912	PASS

B8384.D EXP1127W.M Mon Dec 17 09:57:22 2001

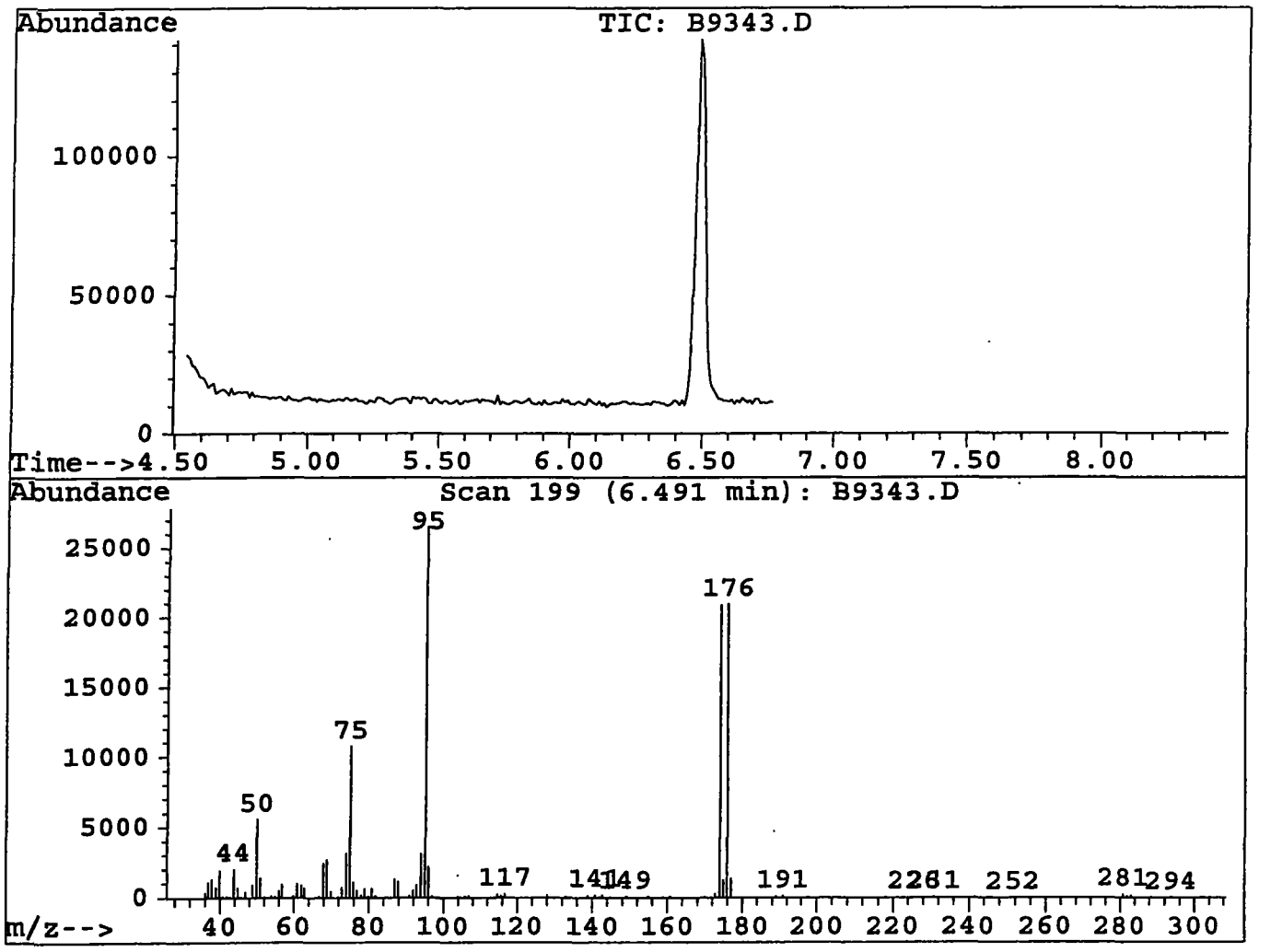
12/189

BFB

Data File : J:\ACQUDATA\MSVOA3\DATA\012502\B9343.D
Acq On : 25 Jan 102 7:37 am
Sample : TUNE
Misc :

Vial: 1
Operator: droot
Inst : 5971 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa



Peak Apex is scan: 199

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	21.1	5600	PASS
75	95	30	60	40.6	10797	PASS
95	95	100	100	100.0	26576	PASS
96	95	5	9	8.3	2215	PASS
173	174	0	2	1.4	288	PASS
174	95	50	120	78.6	20888	PASS
175	174	5	9	6.0	1256	PASS
176	174	95	101	100.5	20992	PASS
177	176	5	9	6.6	1388	PASS

B9343.D EXP1217.M Fri Jan 25 07:44:53 2002

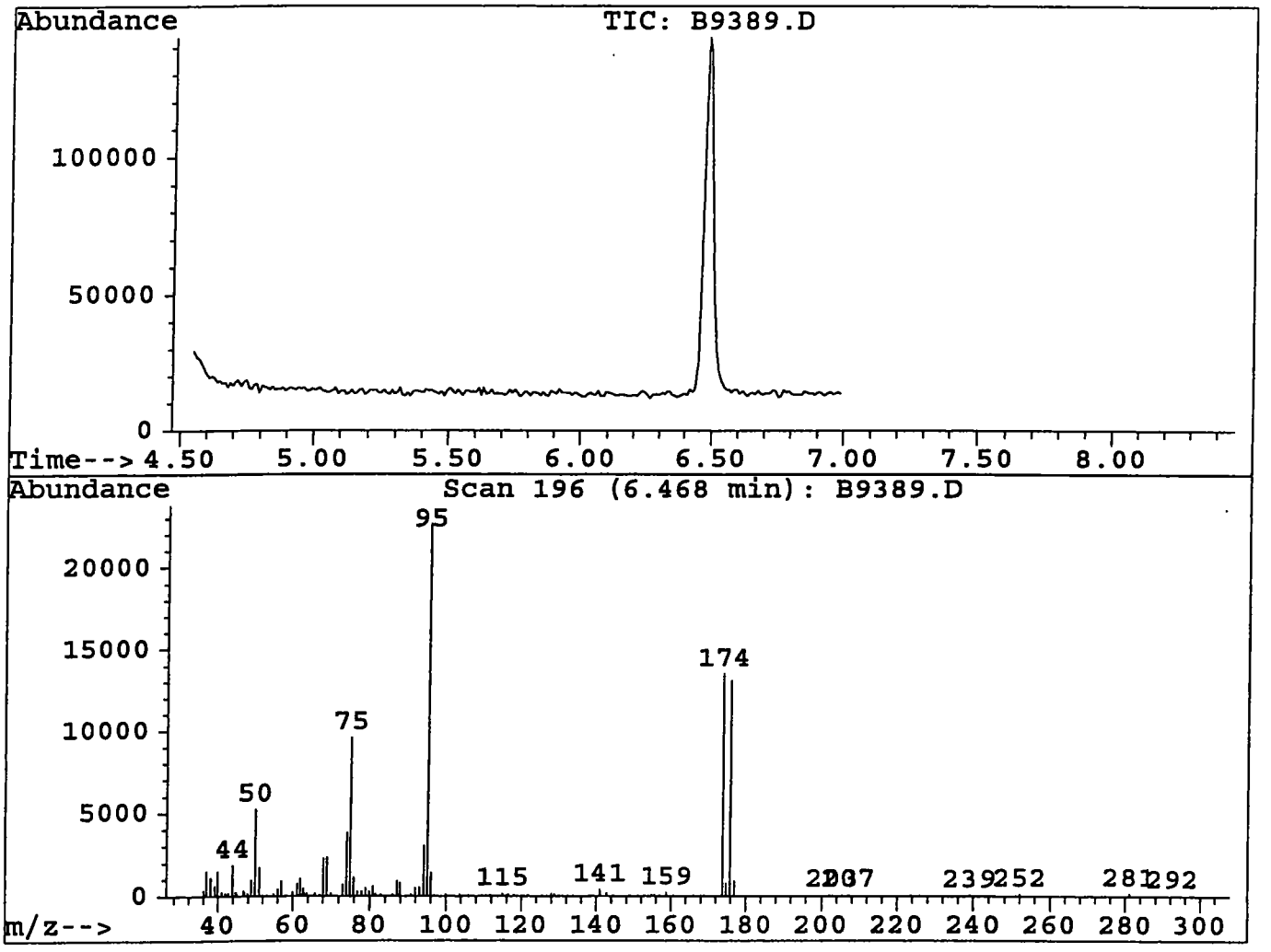
1/25

BFB

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9389.D
Acq On : 28 Jan 102 8:09 am
Sample : TUNE
Misc :

Vial: 2
Operator: droot
Inst : 5971 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa



Peak Apex is scan: 196

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	23.2	5260	PASS
75	95	30	60	42.4	9602	PASS
95	95	100	100	100.0	22672	PASS
96	95	5	9	6.3	1430	PASS
173	174	0	2	0.0	0	PASS
174	95	50	120	59.7	13535	PASS
175	174	5	9	5.9	793	PASS
176	174	95	101	96.8	13097	PASS
177	176	5	9	7.0	914	PASS

B9389.D EXP1217.M Mon Jan 28 08:16:47 2002

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 02/22/02

Project Reference:
Client Sample ID : METHOD BLANK

Date Sampled : **Order #:** 527104 **Sample Matrix:** WATER
Date Received: **Submission #:** **Analytical Run** 73888

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 01/25/02			
ANALYTICAL DILUTION: 1.00			
ACETONE	10	10 U	UG/L
BENZENE	1.0	1.0 U	UG/L
BROMODICHLOROMETHANE	1.0	1.0 U	UG/L
BROMOFORM	1.0	1.0 U	UG/L
BROMOMETHANE	1.0	1.0 U	UG/L
2-BUTANONE (MEK)	5.0	5.0 U	UG/L
CARBON DISULFIDE	5.0	5.0 U	UG/L
CARBON TETRACHLORIDE	1.0	1.0 U	UG/L
CHLOROBENZENE	1.0	1.0 U	UG/L
CHLOROETHANE	1.0	1.0 U	UG/L
CHLOROFORM	1.0	1.0 U	UG/L
CHLOROMETHANE	1.0	1.0 U	UG/L
DIBROMOCHLOROMETHANE	1.0	1.0 U	UG/L
,1-DICHLOROETHANE	1.0	1.0 U	UG/L
ı,2-DICHLOROETHANE	1.0	1.0 U	UG/L
1,1-DICHLOROETHENE	1.0	1.0 U	UG/L
CIS-1,2-DICHLOROETHENE	1.0	1.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	1.0	1.0 U	UG/L
1,2-DICHLOROPROPANE	1.0	1.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	1.0	1.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	1.0	1.0 U	UG/L
ETHYLBENZENE	1.0	1.0 U	UG/L
2-HEXANONE	5.0	5.0 U	UG/L
METHYLENE CHLORIDE	1.0	1.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	5.0	5.0 U	UG/L
STYRENE	1.0	1.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	1.0	1.0 U	UG/L
TETRACHLOROETHENE	1.0	1.0 U	UG/L
TOLUENE	1.0	1.0 U	UG/L
1,1,1-TRICHLOROETHANE	1.0	1.0 U	UG/L
1,1,2-TRICHLOROETHANE	1.0	1.0 U	UG/L
TRICHLOROETHENE	1.0	1.0 U	UG/L
VINYL CHLORIDE	1.0	1.0 U	UG/L
O-XYLENE	1.0	1.0 U	UG/L
M+P-XYLENE	1.0	1.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(87 - 111 %)	96	%
TOLUENE-D8	(87 - 108 %)	102	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	102	%

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012502\B9347.D
Acq On : 25 Jan 102 10:02 am
Sample : MET BLK 52704
Misc :
Quant Time: Jan 25 10:30 19102

Vial: 5
Operator: droot
Inst : 5971 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	7.37	168	784151	50.00	ppb	-0.03
35) 1,4 - Difluorobenzene	8.55	114	1493787	50.00	ppb	-0.03
52) d5 - Chlorobenzene	13.63	117	1203227	50.00	ppb	-0.04
74) d4 - Dichlorobenzene	18.08	152	423161	50.00	ppb	-0.03
System Monitoring Compounds						%Recovery
36) surr4,Dibrflmethane	7.24	113	537859	51.06	ppb	102.13%
58) surr3,Toluene-d8	11.06	98	1452067	51.06	ppb	102.11%
59) surr2,bfb	15.84	95	551411	47.78	ppb	95.55%
Target Compounds						Qvalue
5) Bromomethane	2.41	94	4944	0.93	ppb #	16
13) Iodomethane	3.86	127	151	4.37	ppb	30
24) 2-Chloro-1,3-butadiene	5.47	53	191	1.20	PPB	97
39) Iso-Butyl Alcohol	8.40	43	2172	6.26	ppb	89
46) 1,4-Dioxane	9.58	88	223	2.35	ppb #	12
53) 4-Methyl-2-Pentanone	11.05	43	10798	0.89	ppb #	1
60) Tetrachloroethene	12.14	166	435	4.32	ppb #	71
72) Isopropylbenzene	15.58	105	1065	3.32	ppb #	74
80) 1,3,5-Trimethylbenzene	16.76	105	236	3.75	ppb #	49
92) Nitrobenzene	20.72	77	434	9.14	ppb #	27
94) Hexachlorobt	22.43	225	680	0.43	ppb #	83

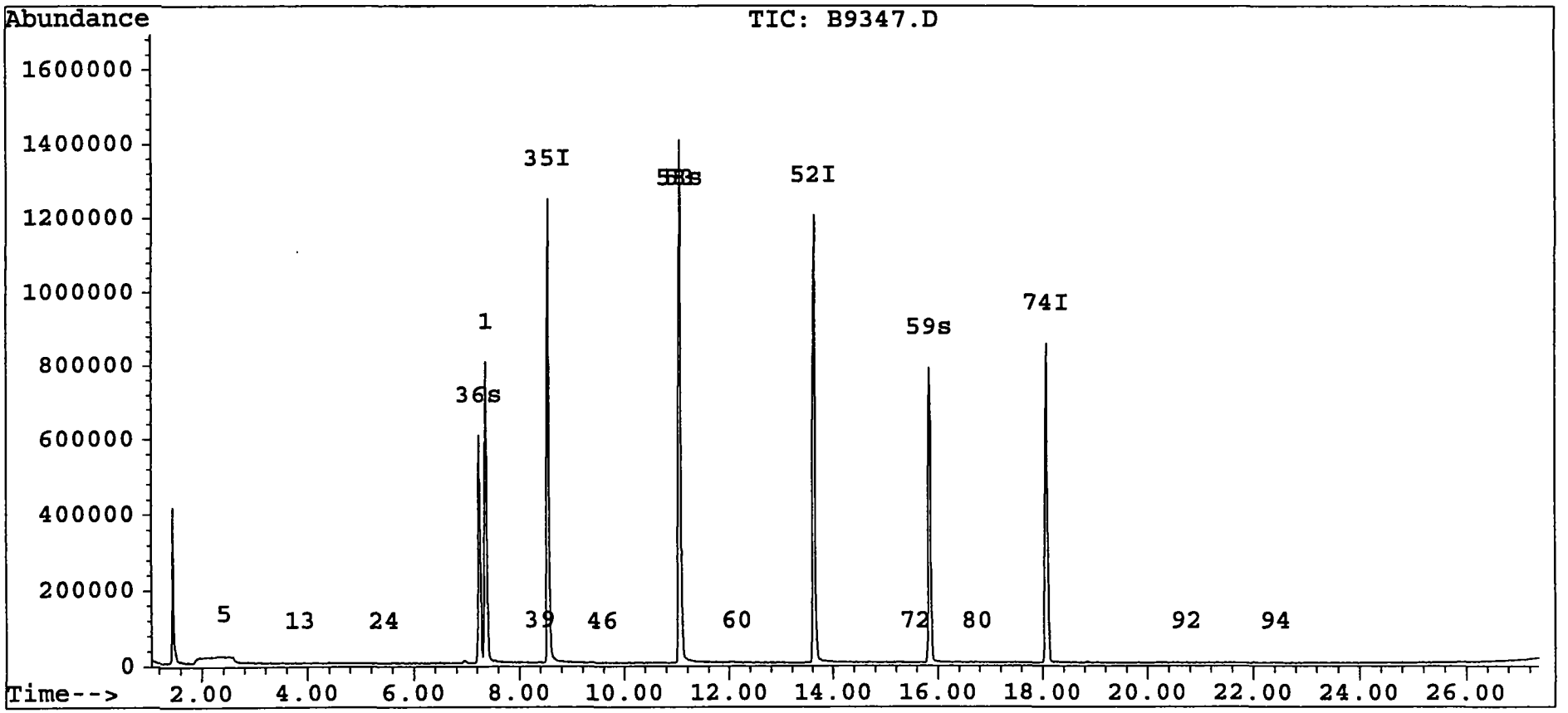
1/25

(#) = qualifier out of range (m) = manual integration

Data File : J:\ACQUDATA\MSVOA3\DATA\012502\B9347.D
Acq On : 25 Jan 102 10:02 am
Sample : MET BLK
Misc :
Quant Time: Jan 25 10:30 19102

Vial: 5
Operator: droot
Inst : 5971 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 02/22/02

Project Reference:
Client Sample ID : METHOD BLANK

Date Sampled : **Order #:** 527427 **Sample Matrix:** WATER
Date Received: **Submission #:** **Analytical Run** 73932

DATE ANALYZED : 01/28/02
ANALYTICAL DILUTION: 1.00

ANALYTE	PQL	RESULT	UNITS
ACETONE	10	10 U	UG/L
BENZENE	1.0	1.0 U	UG/L
BROMODICHLOROMETHANE	1.0	1.0 U	UG/L
BROMOFORM	1.0	1.0 U	UG/L
BROMOMETHANE	1.0	1.0 U	UG/L
2-BUTANONE (MEK)	5.0	5.0 U	UG/L
CARBON DISULFIDE	5.0	5.0 U	UG/L
CARBON TETRACHLORIDE	1.0	1.0 U	UG/L
CHLOROBENZENE	1.0	1.0 U	UG/L
CHLOROETHANE	1.0	1.0 U	UG/L
CHLOROFORM	1.0	1.0 U	UG/L
CHLOROMETHANE	1.0	1.0 U	UG/L
DIBROMOCHLOROMETHANE	1.0	1.0 U	UG/L
,1-DICHLOROETHANE	1.0	1.0 U	UG/L
1,2-DICHLOROETHANE	1.0	1.0 U	UG/L
1,1-DICHLOROETHENE	1.0	1.0 U	UG/L
CIS-1,2-DICHLOROETHENE	1.0	1.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	1.0	1.0 U	UG/L
1,2-DICHLOROPROPANE	1.0	1.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	1.0	1.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	1.0	1.0 U	UG/L
ETHYLBENZENE	1.0	1.0 U	UG/L
2-HEXANONE	5.0	5.0 U	UG/L
METHYLENE CHLORIDE	1.0	1.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	5.0	5.0 U	UG/L
STYRENE	1.0	1.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	1.0	1.0 U	UG/L
TETRACHLOROETHENE	1.0	1.0 U	UG/L
TOLUENE	1.0	1.0 U	UG/L
1,1,1-TRICHLOROETHANE	1.0	1.0 U	UG/L
1,1,2-TRICHLOROETHANE	1.0	1.0 U	UG/L
TRICHLOROETHENE	1.0	1.0 U	UG/L
VINYL CHLORIDE	1.0	1.0 U	UG/L
O-XYLENE	1.0	1.0 U	UG/L
M+P-XYLENE	1.0	1.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
1-BROMOFLUOROBENZENE	(87 - 111 %)	98	%
TOLUENE-D8	(87 - 108 %)	100	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	101	%

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9392.D Vial: 5
Acq On : 28 Jan 102 9:57 am Operator: droot
Sample : MET BLK 52402 Inst : 5971 - In
Misc : Multiplr: 1.00
Quant Time: Jan 28 10:25 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration

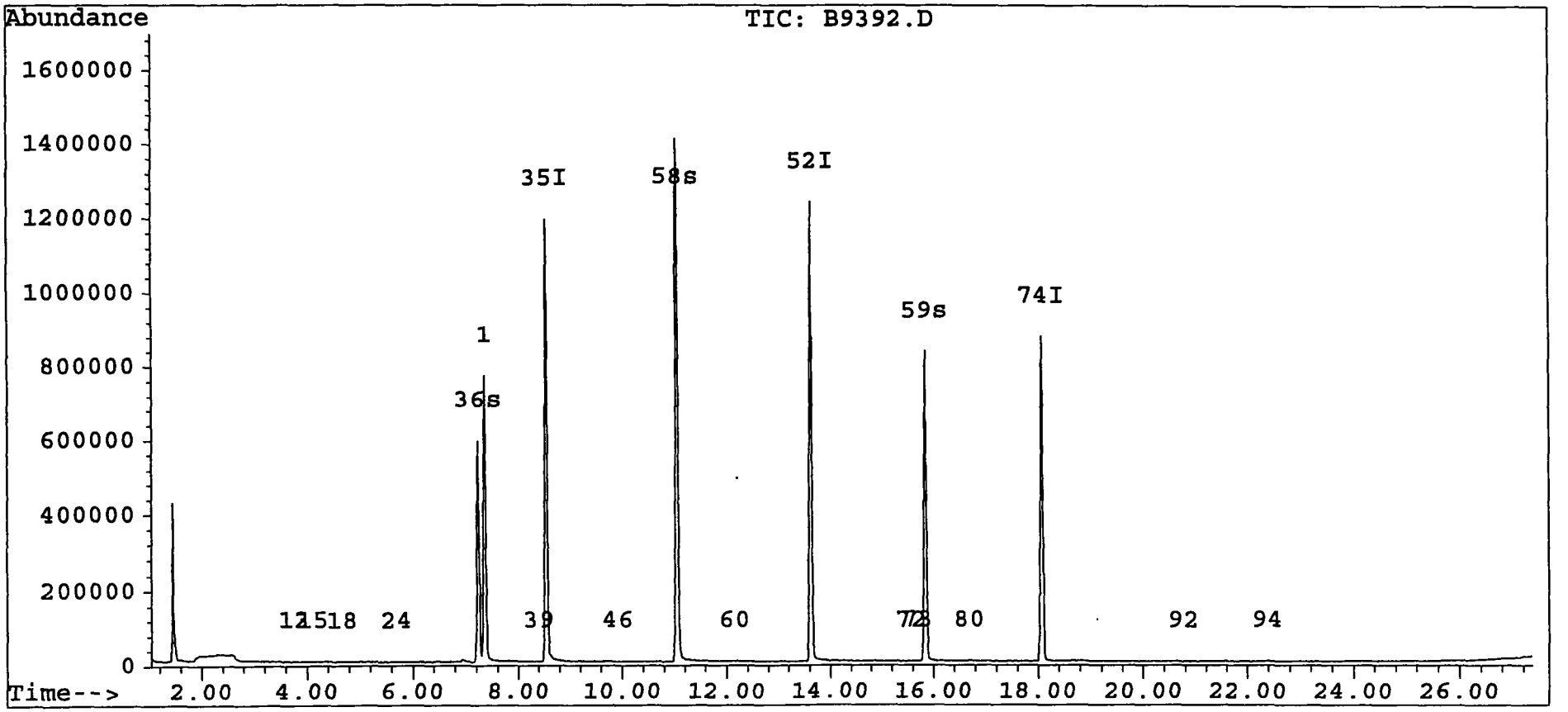
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	7.36	168	786950	50.00	ppb	-0.03
35) 1,4 - Difluorobenzene	8.54	114	1465406	50.00	ppb	-0.04
52) d5 - Chlorobenzene	13.62	117	1206242	50.00	ppb	-0.04
74) d4 - Dichlorobenzene	18.06	152	443279	50.00	ppb	-0.04
System Monitoring Compounds						%Recovery
36) surr4,Dibrflmethane	7.24	113	523381	50.53	ppb	101.06%
58) surr3,Toluene-d8	11.05	98	1432135	49.96	ppb	99.93%
59) surr2,bfb	15.84	95	564141	49.14	ppb	98.28%
Target Compounds						Qvalue
12) Acetone	3.75	43	1853	0.55	ppb #	74
13) Iodomethane	3.76	127	318	4.41	ppb	1
15) Acetonitrile	4.13	41	548	1.45	ppb #	1
.8) TBA	4.67	59	511	0.55	ppb #	34
24) 2-Chloro-1,3-butadiene	5.71	53	154	1.19	PPB	82
39) Iso-Butyl Alcohol	8.40	43	1848	5.43	ppb #	1
46) 1,4-Dioxane	9.93	88	90	0.97	ppb	98
60) Tetrachloroethene	12.14	166	298	4.30	ppb #	59
72) Isopropylbenzene	15.57	105	1236	3.33	ppb #	64
73) Cyclohexanone	15.68	55	732	0.87	ppb	97
80) 1,3,5-Trimethylbenzene	16.69	105	600	3.76	ppb #	8
92) Nitrobenzene	20.76	77	465	9.15	ppb #	48
94) Hexachlorobt	22.39	225	824	0.50	ppb #	44

(#) = qualifier out of range (m) = manual integration

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9392..
Acq On : 28 Jan 102 9:57 am
Sample : MET BLK
Misc :
Quant Time: Jan 28 10:25 19102

Vial: 5
Operator: droot
Inst : 5971 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 02/22/02

Project Reference:
Client Sample ID : LABORATORY CONTROL SAMPLE

Date Sampled : **Order #:** 527105 **Sample Matrix:** WATER
Date Received: **Submission #:** **Analytical Run** 73888

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 01/25/02			
ANALYTICAL DILUTION: 1.00			
ACETONE	10	18	UG/L
BENZENE	1.0	23	UG/L
BROMODICHLOROMETHANE	1.0	23	UG/L
BROMOFORM	1.0	19	UG/L
BROMOMETHANE	1.0	23	UG/L
2-BUTANONE (MEK)	5.0	20	UG/L
CARBON DISULFIDE	5.0	18	UG/L
CARBON TETRACHLORIDE	1.0	23	UG/L
CHLOROBENZENE	1.0	22	UG/L
CHLOROETHANE	1.0	24	UG/L
CHLOROFORM	1.0	24	UG/L
'HLOROMETHANE	1.0	26	UG/L
,IBROMOCHLOROMETHANE	1.0	20	UG/L
1,1-DICHLOROETHANE	1.0	24	UG/L
1,2-DICHLOROETHANE	1.0	22	UG/L
1,1-DICHLOROETHENE	1.0	23	UG/L
CIS-1,2-DICHLOROETHENE	1.0	23	UG/L
TRANS-1,2-DICHLOROETHENE	1.0	23	UG/L
1,2-DICHLOROPROPANE	1.0	22	UG/L
CIS-1,3-DICHLOROPROPENE	1.0	22	UG/L
TRANS-1,3-DICHLOROPROPENE	1.0	22	UG/L
ETHYLBENZENE	1.0	24	UG/L
2-HEXANONE	5.0	18	UG/L
METHYLENE CHLORIDE	1.0	22	UG/L
4-METHYL-2-PENTANONE (MIBK)	5.0	18	UG/L
STYRENE	1.0	22	UG/L
1,1,2,2-TETRACHLOROETHANE	1.0	22	UG/L
TETRACHLOROETHENE	1.0	25	UG/L
TOLUENE	1.0	23	UG/L
1,1,1-TRICHLOROETHANE	1.0	24	UG/L
1,1,2-TRICHLOROETHANE	1.0	20	UG/L
TRICHLOROETHENE	1.0	23	UG/L
VINYL CHLORIDE	1.0	25	UG/L
O-XYLENE	1.0	22	UG/L
M+P-XYLENE	1.0	46	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(87 - 111 %)	95	%
TOLUENE-D8	(87 - 108 %)	102	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	100	%

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012502\B9349.D Vial: 7
Acq On : 25 Jan 102 11:15 am Operator: droot
Sample : LCS 52705 Inst : 5971 - In
Misc : Multiplr: 1.00
Quant Time: Jan 25 11:43 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	7.36	168	788445	50.00	ppb	-0.04
35) 1,4 - Difluorobenzene	8.54	114	1477587	50.00	ppb	-0.04
52) d5 - Chlorobenzene	13.63	117	1188312	50.00	ppb	-0.04
74) d4 - Dichlorobenzene	18.07	152	425404	50.00	ppb	-0.04
System Monitoring Compounds						%Recovery
36) surr4,Dibrflmethane	7.24	113	524122	50.09	ppb	100.17%
58) surr3,Toluene-d8	11.05	98	1436562	51.17	ppb	102.35%
59) surr2,bfb	15.84	95	542408	47.51	ppb	95.02%
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.65	85	188315	28.05	ppb	98
3) Chloromethane	1.86	50	227604	25.58	ppb	96
4) Vinyl Chloride	1.99	62	188475	24.67	ppb	96
5) Bromomethane	2.39	94	121295	22.76	ppb	100
6) Chloroethane	2.53	64	115351	24.12	ppb	99
7) Trichlorofluoromethane	2.88	101	227832	26.94	ppb	100
8) Diethyl Ether	3.32	59	171400	22.59	ppb	95
9) Acrolein	3.48	56	156420	92.00	ppb	98
10) FREON 113	3.66	85	66731	29.82	ppb	89
11) 1,1-Diclethene	3.63	96	132424	22.64	ppb	98
12) Acetone	3.73	43	61131	18.07	ppb	95
13) Iodomethane	3.84	127	54223	17.40	ppb	93
14) Carbon Disulfide	3.94	76	408379	18.10	ppb	100
15) Acetonitrile	4.13	41	144205	379.53	ppb	96
16) Allyl Chloride	4.20	76	87892	24.20	ppb	96
17) Methylene Chloride	4.39	84	176153	22.10	ppb	94
18) TBA	4.65	59	373493	402.97	ppb	98
19) Acrylonitrile	4.77	53	437720	105.61	ppb	98
20) Methyl-t-Butyl Ether	4.86	73	497940	22.05	ppb	98
21) trans-1,2-Dichloroethene	4.83	96	168250	23.21	ppb	95
22) 1,1-Diclethane	5.50	63	314381	24.29	ppb	96
23) Vinyl Acetate	5.63	43	440648	25.33	ppb	100
24) 2-Chloro-1,3-butadiene	5.66	53	213129	19.11	PPB	99
25) 2,2-Dichloropropane	6.44	77	225369	24.65	ppb	99
26) 2-Butanone	6.49	43	118387	19.62	ppb	98
28) cis-1,2-Dichloroethene	6.45	96	197407	22.82	ppb	90
29) Propionitrile	6.56	54	161054	103.00	ppb	95
30) Methacrylonitrile	6.81	67	84357	20.87	ppb	83
31) Bromochloromethane	6.82	128	89822	21.00	ppb	88
32) Chloroform	6.99	83	292191	23.54	ppb	99
33) Tetrahydrofuran	6.92	42	84167	20.93	ppb	88
34) 1,1,1-Trichloroethane	7.26	97	219404	23.96	ppb	99
37) Carbontetrachloride	7.54	117	177208	22.87	ppb	95

(#) = qualifier out of range (m) = manual integration

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Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012502\B9349.D Vial: 7
Acq On : 25 Jan 102 11:15 am Operator: droot
Sample : LCS Inst : 5971 - In
Misc : Multiplr: 1.00
Quant Time: Jan 25 11:43 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	1,1-Dichloropropene	7.54	75	212769	22.96	ppb		98
39)	Iso-Butyl Alcohol	8.40	43	280238	817.01	ppb		99
40)	Benzene	7.87	78	618080	23.27	ppb		99
41)	1,2-Dichloroethane	7.89	62	227921	22.49	ppb		97
42)	N-Heptane	8.40	43	281276	41.06	ppb		99
43)	Trichloroethene	8.97	95	163813	23.11	ppb		95
44)	1,2-Diclpropane	9.32	63	187504	21.52	ppb		97
45)	Methyl Methacrylate	9.58	69	140075	22.29	ppb		89
46)	1,4-Dioxane	9.58	88	37775	403.05	ppb		85
47)	Dibromomethane	9.51	93	125231	22.06	ppb		92
48)	Bromodichloromethane	9.80	83	219874	22.69	ppb		95
49)	2-Nitropropane	10.18	43	125083	38.87	ppb		94
50)	2-Chloroethylvinyl Ether	10.36	63	130549	18.17	ppb		99
51)	cis-1,3-Dichloropropene	10.58	75	281316	22.17	ppb		95
3)	4-Methyl-2-Pentanone	10.87	43	221267	18.49	ppb		100
54)	Toluene	11.16	91	579770	23.28	ppb		97
55)	trans-1,3-Dichloropropene	11.57	75	251804	22.43	ppb		100
56)	Ethyl Methacrylate	11.77	69	243680	22.26	ppb		99
57)	1,1,2-Trichloroethane	11.88	83	129403	20.58	ppb		96
60)	Tetrachloroethene	12.15	166	134274	24.79	ppb		99
61)	2-Hexanone	12.35	43	149400	18.45	ppb		99
62)	1,3-Dichloropropane	12.17	76	283057	20.80	ppb		90
63)	Dibromochloromethane	12.57	129	154438	20.43	ppb		99
64)	1,2-Dibromoethane	12.76	107	170039	20.90	ppb		93
65)	Chlorobenzene	13.68	112	361723	22.44	ppb		97
66)	1,1,1,2-Tetrachloroethane	13.84	131	135291	22.38	ppb		97
67)	Ethylbenzene	13.91	91	614144	24.36	ppb		100
68)	(m+p)Xylene	14.14	106	407186	45.51	ppb		96
69)	o-Xylene	14.86	106	191639	21.82	ppb		91
70)	Styrene	14.89	104	341850	21.60	ppb		99
71)	Bromoform	15.21	173	96818	19.43	ppb		98
72)	Isopropylbenzene	15.57	105	514440	23.88	ppb		99
73)	Cyclohexanone	15.69	55	447715	543.17	ppb		98
75)	1,1,2,2-Tetrachloroethane	16.13	83	203580	22.43	ppb		99
76)	Trans-1,4-Dichloro-2-buten	16.24	53	60045	21.66	ppb		88
77)	1,2,3-Trichloropropane	16.20	110	57070	20.59	ppb		99
78)	n-Propylbenzene	16.36	91	568417	25.11	ppb		98
79)	Bromobenzene	16.11	156	132841	23.37	ppb		99
80)	1,3,5-Trimethylbenzene	16.71	105	354227	18.56	ppb	#	53
81)	2-Chlorotoluene	16.50	91	345352	23.77	ppb		98
82)	4-Chlorotoluene	16.71	91	383249	23.42	ppb		99
83)	tert-Butylbenzene	17.33	119	301504	25.61	ppb		95
84)	1,2,4-Trimethylbenzene	17.42	105	345001	25.44	ppb		98
85)	sec-Butylbenzene	17.76	105	471391	27.79	ppb		100

(#) = qualifier out of range (m) = manual integration

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Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012502\B9349.D Vial: 7
Acq On : 25 Jan 102 11:15 am Operator: droot
Sample : LCS Inst : 5971 - In
Misc : Multiplr: 1.00
Quant Time: Jan 25 11:43 19102

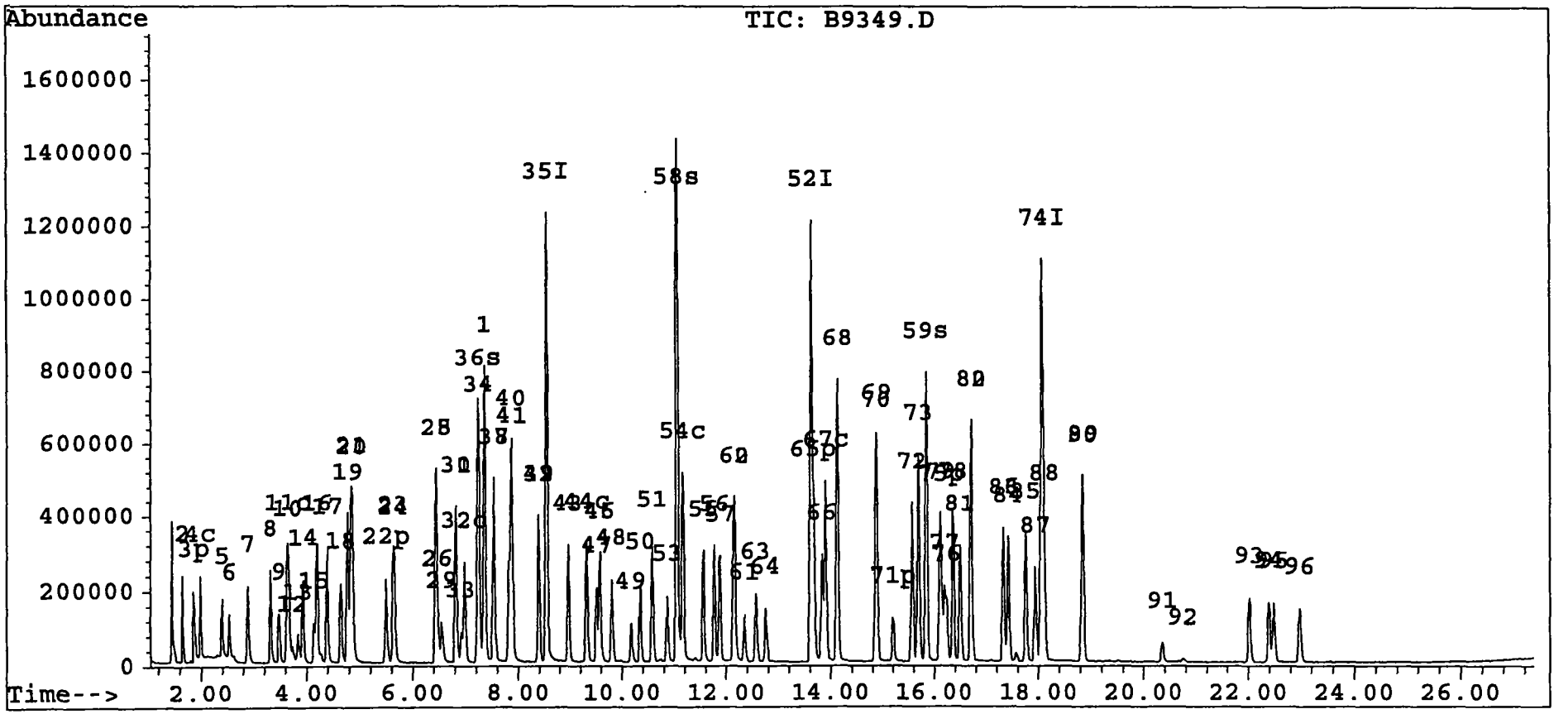
Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
86)	p-Isopropyltoluene	17.33	119	301504	25.61	ppb		96
87)	1,3-Dclbenz	17.94	146	198762	25.19	ppb		98
88)	1,4-Dclbenz	18.12	146	201874	23.06	ppb		97
89)	n-Butylbenzene	18.85	91	340098	30.00	ppb	NJ	97
90)	1,2-Dclbenz	18.83	146	194427	23.15	ppb		98
91)	1,2-Dibromo-3-chloropropan	20.36	157	27931	19.01	ppb		90
92)	Nitrobenzene	20.76	77	10031	18.67	ppb	#	82
93)	1,2,4-Tcbenzene	22.02	180	107385	26.05	ppb	NJ	95
94)	Hexachlorobt	22.39	225	62184	39.09	ppb	NJ	97
95)	Naphthalen	22.49	128	265412	23.30	ppb		98
96)	1,2,3-Tclbenzene	22.97	180	97758	25.88	ppb		96

(#) = qualifier out of range (m) = manual integration

Data F. . : J:\ACQUDATA\MSVOA3\DATA\012502\B9349. Vial: 7
Acq On : 25 Jan 102 11:15 am Operator: droot
Sample : LCS Inst : 5971 - In
Misc : Multiplr: 1.00
Quant Time: Jan 25 11:43 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration



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COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 02/22/02

Project Reference:
Client Sample ID : LABORATORY CONTROL SAMPLE

Date Sampled : **Order #:** 527428 **Sample Matrix:** WATER
Date Received: **Submission #:** **Analytical Run** 73932

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 01/28/02			
ANALYTICAL DILUTION: 1.00			
ACETONE	10	20	UG/L
BENZENE	1.0	18	UG/L
BROMODICHLOROMETHANE	1.0	19	UG/L
BROMOFORM	1.0	17	UG/L
BROMOMETHANE	1.0	20	UG/L
2-BUTANONE (MEK)	5.0	22	UG/L
CARBON DISULFIDE	5.0	19	UG/L
CARBON TETRACHLORIDE	1.0	16	UG/L
CHLOROBENZENE	1.0	17	UG/L
CHLOROETHANE	1.0	18	UG/L
CHLOROFORM	1.0	18	UG/L
‡LOROMETHANE	1.0	19	UG/L
ſBROMOCHLOROMETHANE	1.0	16	UG/L
1,1-DICHLOROETHANE	1.0	19	UG/L
1,2-DICHLOROETHANE	1.0	19	UG/L
1,1-DICHLOROETHENE	1.0	16	UG/L
CIS-1,2-DICHLOROETHENE	1.0	18	UG/L
TRANS-1,2-DICHLOROETHENE	1.0	17	UG/L
1,2-DICHLOROPROPANE	1.0	17	UG/L
CIS-1,3-DICHLOROPROPENE	1.0	18	UG/L
TRANS-1,3-DICHLOROPROPENE	1.0	18	UG/L
ETHYLBENZENE	1.0	16	UG/L
2-HEXANONE	5.0	21	UG/L
METHYLENE CHLORIDE	1.0	18	UG/L
4-METHYL-2-PENTANONE (MIBK)	5.0	21	UG/L
STYRENE	1.0	17	UG/L
1,1,2,2-TETRACHLOROETHANE	1.0	17	UG/L
TETRACHLOROETHENE	1.0	17	UG/L
TOLUENE	1.0	16	UG/L
1,1,1-TRICHLOROETHANE	1.0	17	UG/L
1,1,2-TRICHLOROETHANE	1.0	18	UG/L
TRICHLOROETHENE	1.0	16	UG/L
VINYL CHLORIDE	1.0	18	UG/L
O-XYLENE	1.0	16	UG/L
M+P-XYLENE	1.0	33	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(87 - 111 %)	103	%
TOLUENE-D8	(87 - 108 %)	99	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	103	%

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9393.D
Acq On : 28 Jan 102 10:34 am
Sample : LCS 527428
Misc :
Quant Time: Jan 28 11:01 19102

Vial: 6
Operator: droot
Inst : 5971 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	7.36	168	764021	50.00	ppb	-0.04
35) 1,4 - Difluorobenzene	8.54	114	1430379	50.00	ppb	-0.04
52) d5 - Chlorobenzene	13.62	117	1187434	50.00	ppb	-0.05
74) d4 - Dichlorobenzene	18.06	152	469822	50.00	ppb	-0.05
System Monitoring Compounds						%Recovery
36) surr4,Dibrflmethane	7.23	113	518750	51.54	ppb	103.08%
58) surr3,Toluene-d8	11.04	98	1404301	49.71	ppb	99.41%
59) surr2,bfb	15.84	95	576399	51.71	ppb	103.42%
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.65	85	124226	19.10	ppb	98
3) Chloromethane	1.87	50	163622	18.98	ppb	96
4) Vinyl Chloride	1.99	62	136332	18.41	ppb	98
5) Bromomethane	2.39	94	105093	20.35	ppb	98
6) Chloroethane	2.53	64	81865	17.66	ppb	99
7) Trichlorofluoromethane	2.88	101	151419	18.47	ppb	99
8) Diethyl Ether	3.32	59	142951	19.44	ppb	94
9) Acrolein	3.47	56	168468	102.26	ppb	96
10) FREON 113	3.66	85	39844	18.38	ppb	86
11) 1,1-Diclethene	3.63	96	91776	16.20	ppb	97
12) Acetone	3.73	43	67192	20.50	ppb	92
13) Iodomethane	3.84	127	82136	24.76	ppb	96
14) Carbon Disulfide	3.94	76	424601	19.42	ppb	100
15) Acetonitrile	4.14	41	133595	362.84	ppb	94
16) Allyl Chloride	4.19	76	66363	18.86	ppb	88
17) Methylene Chloride	4.39	84	138078	17.88	ppb	94
18) TBA	4.64	59	335039	373.04	ppb	99
19) Acrylonitrile	4.76	53	389958	97.09	ppb	100
20) Methyl-t-Butyl Ether	4.86	73	421282	19.25	ppb	96
21) trans-1,2-Dichloroethene	4.83	96	119497	17.01	ppb	96
22) 1,1-Diclethane	5.50	63	234136	18.67	ppb	99
23) Vinyl Acetate	5.63	43	475440	28.21	ppb	99
24) 2-Chloro-1,3-butadiene	5.66	53	221132	20.38	PPB	98
25) 2,2-Dichloropropane	6.44	77	153694	17.35	ppb	100
26) 2-Butanone	6.49	43	127574	21.81	ppb	99
28) cis-1,2-Dichloroethene	6.45	96	153439	18.31	ppb	97
29) Propionitrile	6.55	54	145403	95.97	ppb	99
30) Methacrylonitrile	6.81	67	74095	18.91	ppb	91
31) Bromochloromethane	6.82	128	75331	18.18	ppb	88
32) Chloroform	6.98	83	219574	18.26	ppb	99
33) Tetrahydrofuran	6.92	42	74794	18.96	ppb	98
34) 1,1,1-Trichloroethane	7.26	97	149379	16.84	ppb	99
37) Carbontetrachloride	7.54	117	120482	16.06	ppb	96

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9393.D Vial: 6
Acq On : 28 Jan 102 10:34 am Operator: droot
Sample : LCS Inst : 5971 - In
Misc : Multiplr: 1.00
Quant Time: Jan 28 11:01 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38) 1,1-Dichloropropene	7.54	75	143527	16.00	ppb		96
39) Iso-Butyl Alcohol	8.40	43	99598	299.95	ppb		97
40) Benzene	7.86	78	456055	17.74	ppb		97
41) 1,2-Dichloroethane	7.89	62	182473	18.60	ppb		96
42) N-Heptane	8.40	43	102103	15.40	ppb		94
43) Trichloroethene	8.97	95	113190	16.49	ppb		96
44) 1,2-Diclpropane	9.31	63	144723	17.16	ppb		99
45) Methyl Methacrylate	9.58	69	121459	19.97	ppb		93
46) 1,4-Dioxane	9.59	88	31170	343.55	ppb		98
47) Dibromomethane	9.51	93	104211	18.97	ppb		99
48) Bromodichloromethane	9.80	83	174807	18.64	ppb		97
49) 2-Nitropropane	10.18	43	110255	35.39	ppb		98
50) 2-Chloroethylvinyl Ether	10.35	63	145181	20.88	ppb		97
51) cis-1,3-Dichloropropene	10.58	75	224014	18.23	ppb		98
53) 4-Methyl-2-Pentanone	10.87	43	252944	21.15	ppb		99
54) Toluene	11.16	91	412929	16.59	ppb		98
55) trans-1,3-Dichloropropene	11.56	75	204434	18.22	ppb		97
56) Ethyl Methacrylate	11.77	69	206765	18.90	ppb		96
57) 1,1,2-Trichloroethane	11.87	83	113251	18.02	ppb		95
60) Tetrachloroethene	12.14	166	85676	17.37	ppb		98
61) 2-Hexanone	12.35	43	168044	20.77	ppb		94
62) 1,3-Dichloropropane	12.17	76	233435	17.17	ppb		88
63) Dibromochloromethane	12.57	129	124970	16.54	ppb		98
64) 1,2-Dibromoethane	12.76	107	147914	18.19	ppb		94
65) Chlorobenzene	13.68	112	270715	16.81	ppb		95
66) 1,1,1,2-Tetrachloroethane	13.84	131	103866	17.19	ppb		94
67) Ethylbenzene	13.90	91	405113	16.08	ppb		98
68) (m+p)Xylene	14.12	106	296422	33.15	ppb		98
69) o-Xylene	14.86	106	142995	16.29	ppb		99
70) Styrene	14.88	104	270530	17.11	ppb		95
71) Bromoform	15.20	173	84691	17.01	ppb		97
72) Isopropylbenzene	15.57	105	333512	16.64	ppb		97
73) Cyclohexanone	15.69	55	248160	301.29	ppb		97
75) 1,1,2,2-Tetrachloroethane	16.13	83	171821	17.14	ppb		96
76) Trans-1,4-Dichloro-2-buten	16.23	53	50723	16.56	ppb		97
77) 1,2,3-Trichloropropane	16.19	110	51094	16.69	ppb		97
78) n-Propylbenzene	16.36	91	375223	15.01	ppb		99
79) Bromobenzene	16.10	156	100201	15.96	ppb		93
80) 1,3,5-Trimethylbenzene	16.70	105	236377	12.69	ppb	#NT	52
81) 2-Chlorotoluene	16.50	91	250111	15.59	ppb		99
82) 4-Chlorotoluene	16.70	91	279924	15.49	ppb		97
83) tert-Butylbenzene	17.32	119	185666	14.28	ppb		95
84) 1,2,4-Trimethylbenzene	17.42	105	238203	15.90	ppb		100
85) sec-Butylbenzene	17.76	105	265664	14.18	ppb		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9393.D Vial: 6
Acq On : 28 Jan 102 10:34 am Operator: droot
Sample : LCS Inst : 5971 - In
Misc : Multiplr: 1.00
Quant Time: Jan 28 11:01 19102

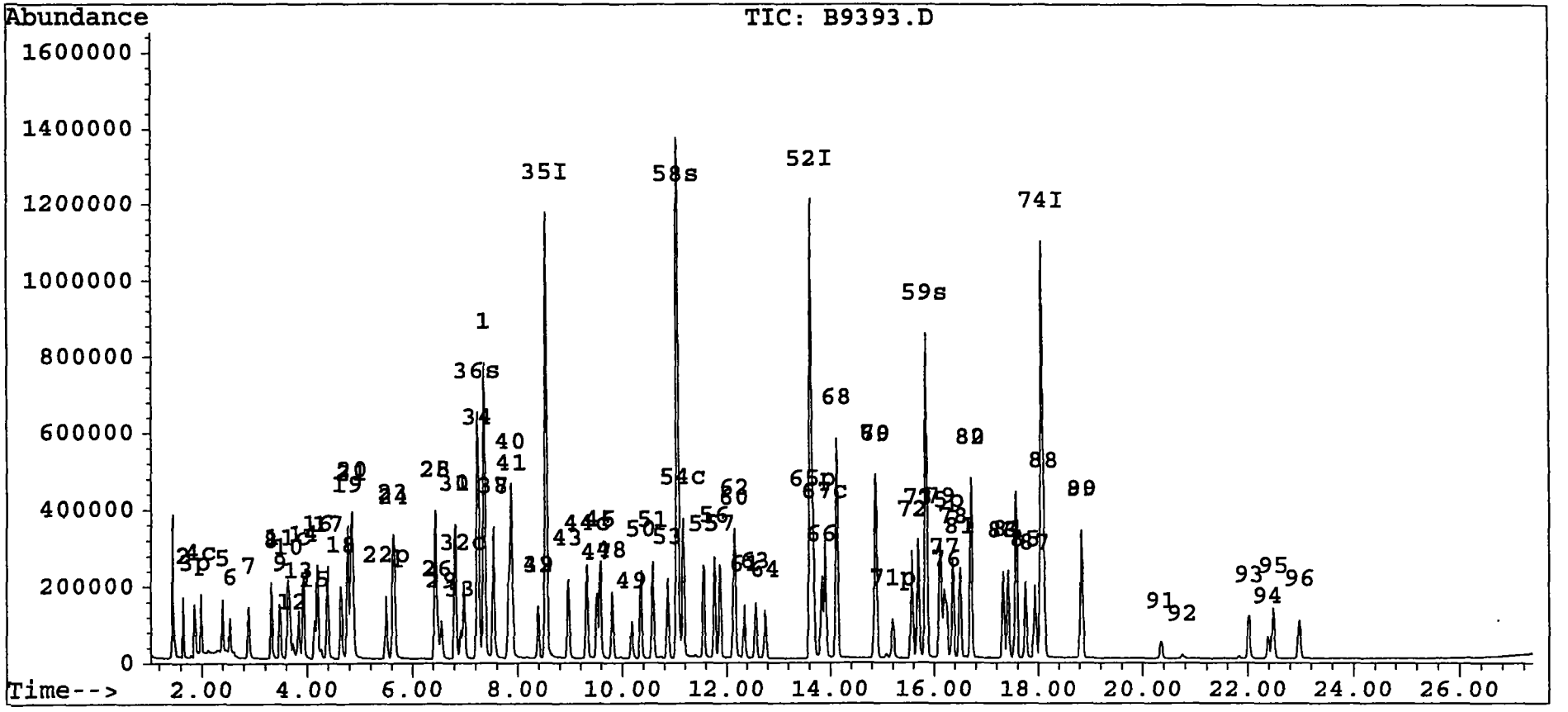
Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
86) p-Isopropyltoluene	17.32	119	185666	14.28	ppb		96
87) 1,3-Dclbenz	17.93	146	150038	17.22	ppb		99
88) 1,4-Dclbenz	18.11	146	158451	16.39	ppb		99
89) n-Butylbenzene	18.85	91	181404	14.49	ppb		98
90) 1,2-Dclbenz	18.83	146	153189	16.52	ppb		96
91) 1,2-Dibromo-3-chloropropan	20.35	157	25479	15.70	ppb		96
92) Nitrobenzene	20.75	77	11344	18.90	ppb		88
93) 1,2,4-Tcbenzene	22.01	180	77627	17.05	ppb		100
94) Hexachlorobt	22.38	225	23191	13.20	ppb	NT	99
95) Naphthalen	22.49	128	223447	17.76	ppb		97
96) 1,2,3-Tclbenzene	22.97	180	70315	16.85	ppb		96

(#) = qualifier out of range (m) = manual integration

Data Fi : J:\ACQUDATA\MSVOA3\DATA\012802\B9393. Vial: 6
Acq On : 28 Jan 102 10:34 am Operator: droot
Sample : LCS Inst : 5971 - In
Misc : Multiplr: 1.00
Quant Time: Jan 28 11:01 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 02/22/02

Project Reference:
Client Sample ID : MATRIX SPIKE

Date Sampled : **Order #:** 527106 **Sample Matrix:** WATER
Date Received: **Submission #:** **Analytical Run** 73888

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 01/25/02			
ANALYTICAL DILUTION: 1.00			
ACETONE	10	48	UG/L
BENZENE	1.0	61	UG/L
BROMODICHLOROMETHANE	1.0	58	UG/L
BROMOFORM	1.0	54	UG/L
BROMOMETHANE	1.0	53	UG/L
2-BUTANONE (MEK)	5.0	50	UG/L
CARBON DISULFIDE	5.0	58	UG/L
CARBON TETRACHLORIDE	1.0	62	UG/L
CHLOROBENZENE	1.0	60	UG/L
CHLOROETHANE	1.0	58	UG/L
CHLOROFORM	1.0	58	UG/L
CHLOROMETHANE	1.0	65	UG/L
DIBROMOCHLOROMETHANE	1.0	53	UG/L
1,1-DICHLOROETHANE	1.0	62	UG/L
1,2-DICHLOROETHANE	1.0	55	UG/L
1,1-DICHLOROETHENE	1.0	59	UG/L
CIS-1,2-DICHLOROETHENE	1.0	57	UG/L
TRANS-1,2-DICHLOROETHENE	1.0	60	UG/L
1,2-DICHLOROPROPANE	1.0	57	UG/L
CIS-1,3-DICHLOROPROPENE	1.0	56	UG/L
TRANS-1,3-DICHLOROPROPENE	1.0	57	UG/L
ETHYLBENZENE	1.0	64	UG/L
2-HEXANONE	5.0	52	UG/L
METHYLENE CHLORIDE	1.0	54	UG/L
4-METHYL-2-PENTANONE (MIBK)	5.0	52	UG/L
STYRENE	1.0	59	UG/L
1,1,2,2-TETRACHLOROETHANE	1.0	56	UG/L
TETRACHLOROETHENE	1.0	58	UG/L
TOLUENE	1.0	62	UG/L
1,1,1-TRICHLOROETHANE	1.0	63	UG/L
1,1,2-TRICHLOROETHANE	1.0	54	UG/L
TRICHLOROETHENE	1.0	60	UG/L
VINYL CHLORIDE	1.0	64	UG/L
O-XYLENE	1.0	59	UG/L
M+P-XYLENE	1.0	120	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(87 - 111 %)	101	%
TOLUENE-D8	(87 - 108 %)	104	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	100	%

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012502\B9361.D Vial: 13
Acq On : 25 Jan 102 6:34 pm Operator: droot
Sample : 525947 1.0 MS 52706 Inst : 5971 - In
Misc : TTEM-KS R22-10409 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 28 7:38 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	7.35	168	784497	50.00	ppb	-0.04
35) 1,4 - Difluorobenzene	8.54	114	1471260	50.00	ppb	-0.04
52) d5 - Chlorobenzene	13.61	117	1177642	50.00	ppb	-0.05
74) d4 - Dichlorobenzene	18.06	152	433173	50.00	ppb	-0.04
System Monitoring Compounds						%Recovery
36) surr4,Dibrflmethane	7.23	113	522374	50.15	ppb	100.29%
58) surr3,Toluene-d8	11.05	98	1444404	52.16	ppb	104.32%
59) surr2,bfb	15.83	95	560854	50.38	ppb	100.76%
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.65	85	472696	70.76	ppb	99
3) Chloromethane	1.86	50	577321	65.21	ppb	98
4) Vinyl Chloride	1.99	62	489466	64.38	ppb	100
5) Bromomethane	2.38	94	282206	53.21	ppb	100
6) Chloroethane	2.52	64	277621	58.33	ppb	m 1
7) Trichlorofluoromethane	2.88	101	570567	67.80	ppb	100
8) Diethyl Ether	3.31	59	414802	54.94	ppb	96
9) Acrolein	3.47	56	387590	229.12	ppb	97
10) FREON 113	3.65	85	162295	72.90	ppb	94
11) 1,1-Diclethene	3.62	96	345818	59.43	ppb	100
12) Acetone	3.72	43	162299	48.22	ppb	100
13) Iodomethane	3.83	127	190719	50.52	ppb	96
14) Carbon Disulfide	3.93	76	1310139	58.37	ppb	99
15) Acetonitrile	4.13	41	377776	999.26	ppb	100
16) Allyl Chloride	4.19	76	234030	64.77	ppb	98
17) Methylene Chloride	4.38	84	431056	54.36	ppb	96
18) TBA	4.64	59	995962	1079.97	ppb	100
19) Acrylonitrile	4.77	53	1066124	258.52	ppb	99
20) Methyl-t-Butyl Ether	4.85	73	1244399	55.38	ppb	97
21) trans-1,2-Dichloroethene	4.82	96	431926	59.88	ppb	97
22) 1,1-Diclethane	5.49	63	795585	61.78	ppb	98
23) Vinyl Acetate	5.62	43	1086745	62.79	ppb	99
24) 2-Chloro-1,3-butadiene	5.65	53	687703	59.34	PPB	98
25) 2,2-Dichloropropane	6.43	77	522112	57.41	ppb	98
26) 2-Butanone	6.48	43	301963	50.29	ppb	97
28) cis-1,2-Dichloroethene	6.44	96	491285	57.09	ppb	92
29) Propionitrile	6.55	54	396509	254.87	ppb	97
30) Methacrylonitrile	6.80	67	214031	53.21	ppb	92
31) Bromochloromethane	6.81	128	229143	53.85	ppb	86
32) Chloroform	6.98	83	710143	57.50	ppb	97
33) Tetrahydrofuran	6.91	42	183698	49.24	ppb	94
34) 1,1,1-Trichloroethane	7.26	97	574196	63.03	ppb	97
37) Carbontetrachloride	7.53	117	480226	62.23	ppb	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012502\B9361.D Vial: 13
Acq On : 25 Jan 102 6:34 pm Operator: droot
Sample : 525947 1.0 MS Inst : 5971 - In
Misc : TTEM-KS R22-10409 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 28 7:38 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	1,1-Dichloropropene	7.53	75	552843	59.92	ppb		98
39)	Iso-Butyl Alcohol	8.38	43	395604	1158.30	ppb		98
40)	Benzene	7.87	78	1608432	60.82	ppb		97
41)	1,2-Dichloroethane	7.89	62	555424	55.03	ppb		98
42)	N-Heptane	8.38	43	395604	58.00	ppb		99
43)	Trichloroethene	8.96	95	424644	60.16	ppb		99
44)	1,2-Diclpropane	9.31	63	491595	56.67	ppb		97
45)	Methyl Methacrylate	9.57	69	355149	56.77	ppb		92
46)	1,4-Dioxane	9.57	88	101518	1087.82	ppb		100
47)	Dibromomethane	9.50	93	308877	54.65	ppb		95
48)	Bromodichloromethane	9.80	83	560730	58.12	ppb		98
49)	2-Nitropropane	10.17	43	322560	100.67	ppb		95
50)	2-Chloroethylvinyl Ether	10.30	63	3369	0.47	ppb	#	47
51)	cis-1,3-Dichloropropene	10.57	75	704812	55.78	ppb		96
53)	4-Methyl-2-Pentanone	10.86	43	620444	52.32	ppb		99
54)	Toluene	11.15	91	1530787	62.02	ppb		100
55)	trans-1,3-Dichloropropene	11.56	75	633286	56.92	ppb		98
56)	Ethyl Methacrylate	11.76	69	633869	58.44	ppb		100
57)	1,1,2-Trichloroethane	11.86	83	336340	53.96	ppb		96
60)	Tetrachloroethene	12.14	166	346372	57.71	ppb		99
61)	2-Hexanone	12.34	43	414792	51.69	ppb		95
62)	1,3-Dichloropropane	12.16	76	712833	52.86	ppb		90
63)	Dibromochloromethane	12.56	129	395241	52.76	ppb		98
64)	1,2-Dibromoethane	12.75	107	436688	54.16	ppb		97
65)	Chlorobenzene	13.67	112	957053	59.92	ppb		98
66)	1,1,1,2-Tetrachloroethane	13.83	131	352701	58.87	ppb		98
67)	Ethylbenzene	13.90	91	1601267	64.10	ppb		99
68)	(m+p)Xylene	14.13	106	1087950	122.70	ppb		99
69)	o-Xylene	14.85	106	511970	58.83	ppb		94
70)	Styrene	14.88	104	926736	59.09	ppb		99
71)	Bromoform	15.20	173	264279	53.51	ppb		100
72)	Isopropylbenzene	15.56	105	1347369	57.71	ppb		100
73)	Cyclohexanone	15.68	55	342602	419.41	ppb		96
75)	1,1,2,2-Tetrachloroethane	16.12	83	522819	56.57	ppb		100
76)	Trans-1,4-Dichloro-2-buten	16.23	53	150994	53.48	ppb		95
77)	1,2,3-Trichloropropane	16.19	110	153508	54.40	ppb		100
78)	n-Propylbenzene	16.35	91	1420507	61.62	ppb		99
79)	Bromobenzene	16.11	156	350976	60.63	ppb		99
80)	1,3,5-Trimethylbenzene	16.71	105	836677	38.13	ppb	#	54
81)	2-Chlorotoluene	16.49	91	891234	60.25	ppb		96
82)	4-Chlorotoluene	16.71	91	972352	58.35	ppb		98
83)	tert-Butylbenzene	17.33	119	725831	60.55	ppb		96
84)	1,2,4-Trimethylbenzene	17.41	105	789816	57.18	ppb		98
85)	sec-Butylbenzene	17.75	105	1028644	59.56	ppb		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012502\B9361.D Vial: 13
Acq On : 25 Jan 102 6:34 pm Operator: droot
Sample : 525947 1.0 MS Inst : 5971 - In
Misc : TTEM-KS R22-10409 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 28 7:38 19102

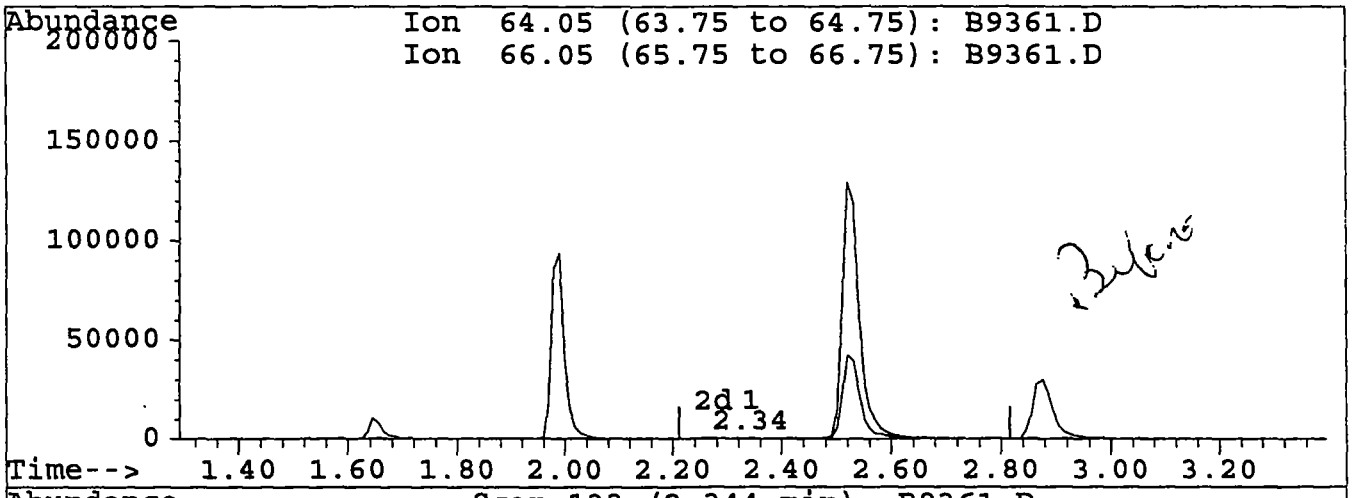
Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration

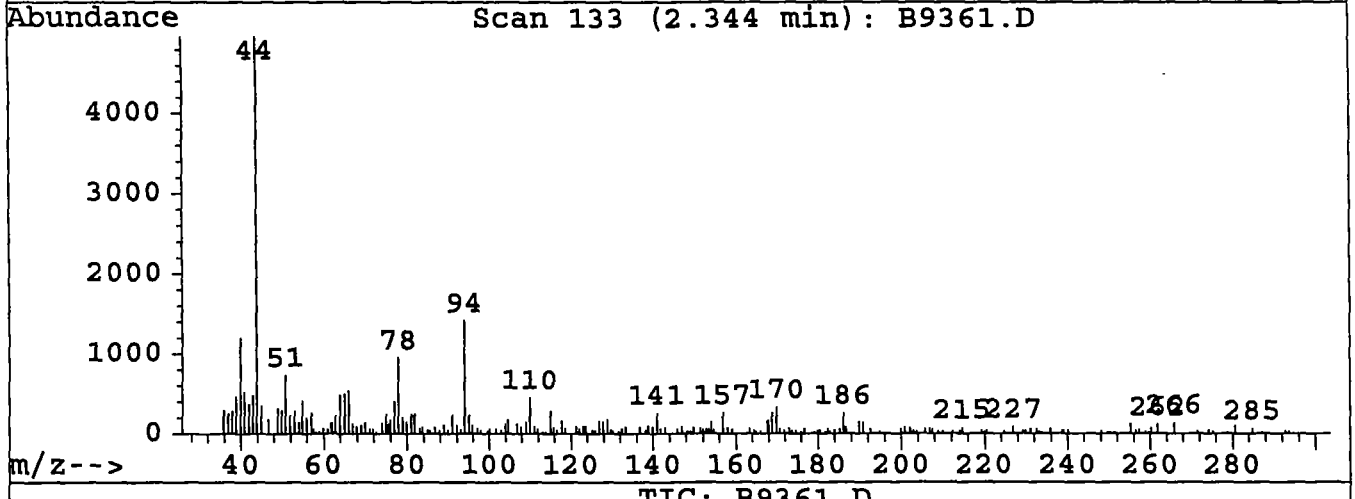
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
86)	p-Isopropyltoluene	17.33	119	725831	60.55	ppb	97
87)	1,3-Dclbenz	17.94	146	509006	63.36	ppb	100
88)	1,4-Dclbenz	18.11	146	511353	57.36	ppb	97
89)	n-Butylbenzene	18.84	91	631796	54.74	ppb	99
90)	1,2-Dclbenz	18.83	146	498668	58.31	ppb	99
91)	1,2-Dibromo-3-chloropropan	20.35	157	88192	58.93	ppb	97
92)	Nitrobenzene	20.75	77	34069	41.92	ppb	97
93)	1,2,4-Tcbenzene	22.01	180	218736	52.11	ppb	91
94)	Hexachlorobt	22.39	225	85501	52.78	ppb	99
95)	Naphthalen	22.47	128	661092	57.00	ppb	98
96)	1,2,3-Tclbenzene	22.97	180	208803	54.28	ppb	98

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012502\B9361.D Vial: 13
Acq On : 25 Jan 102 6:34 pm Operator: droot
Sample : 525947 1.0 MS Inst : 5971 - In
Misc : TTEM-KS R22-10409 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 25 19:02 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration





TIC: B9361.D

(6) Chloroethane
2.34min 0.15ppb
response 736

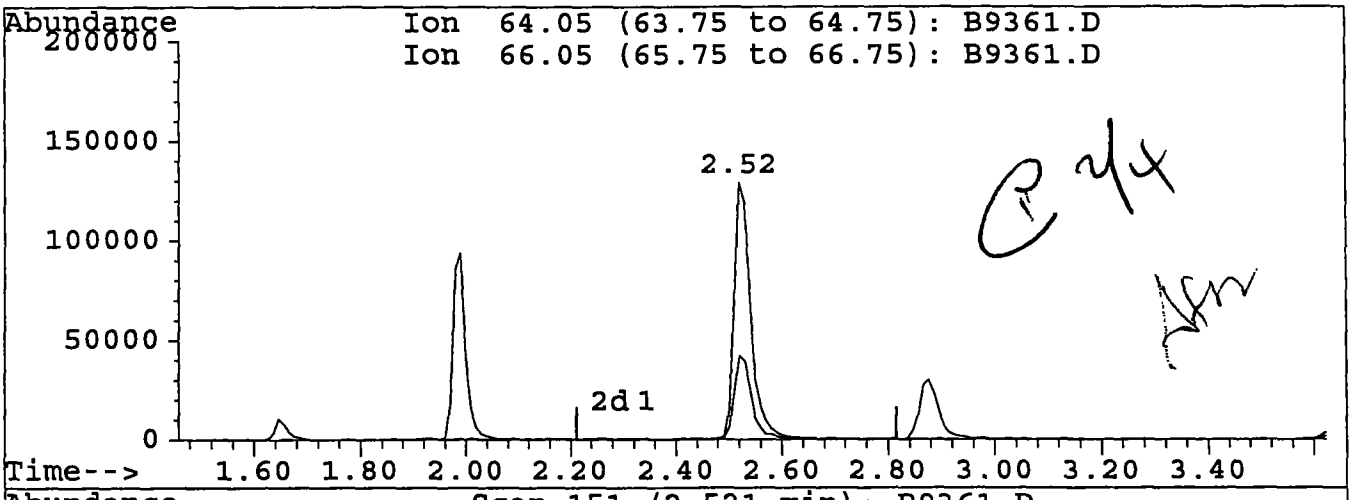
Ion	Exp%	Act%
64.05	100	100
66.05	31.90	110.68#
0.00	0.00	0.00
0.00	0.00	0.00

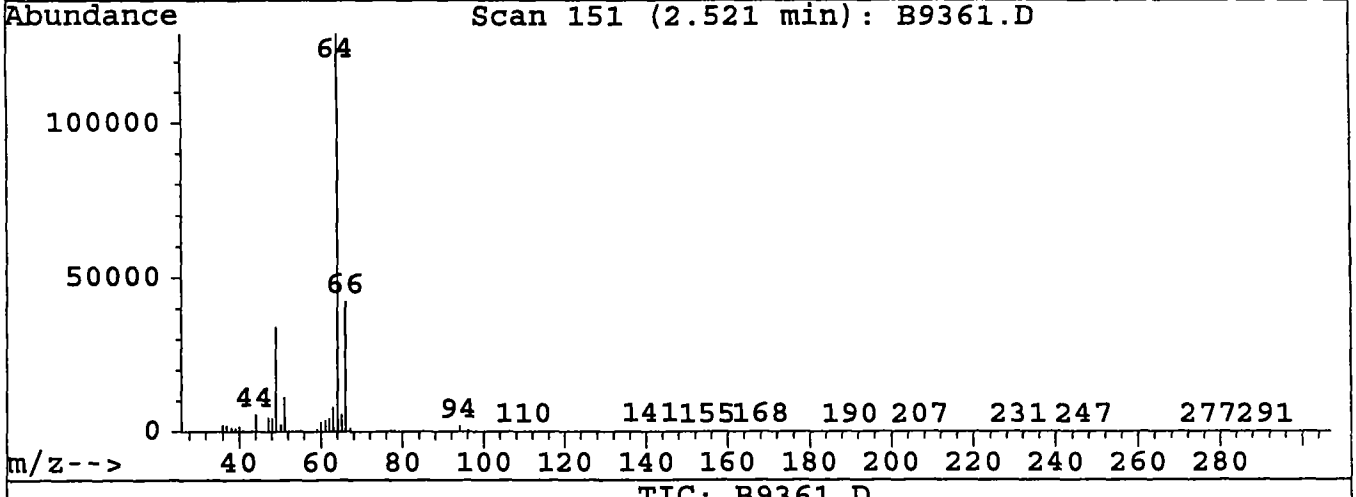
Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012502\B9361.D
Acq On : 25 Jan 102 6:34 pm
Sample : 525947 1.0 MS
Misc : TTEM-KS R22-10409 8260B.TCLL
Quant Time: Jan 28 7:38 19102

Vial: 13
Operator: droot
Inst : 5971 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration





TIC: B9361.D

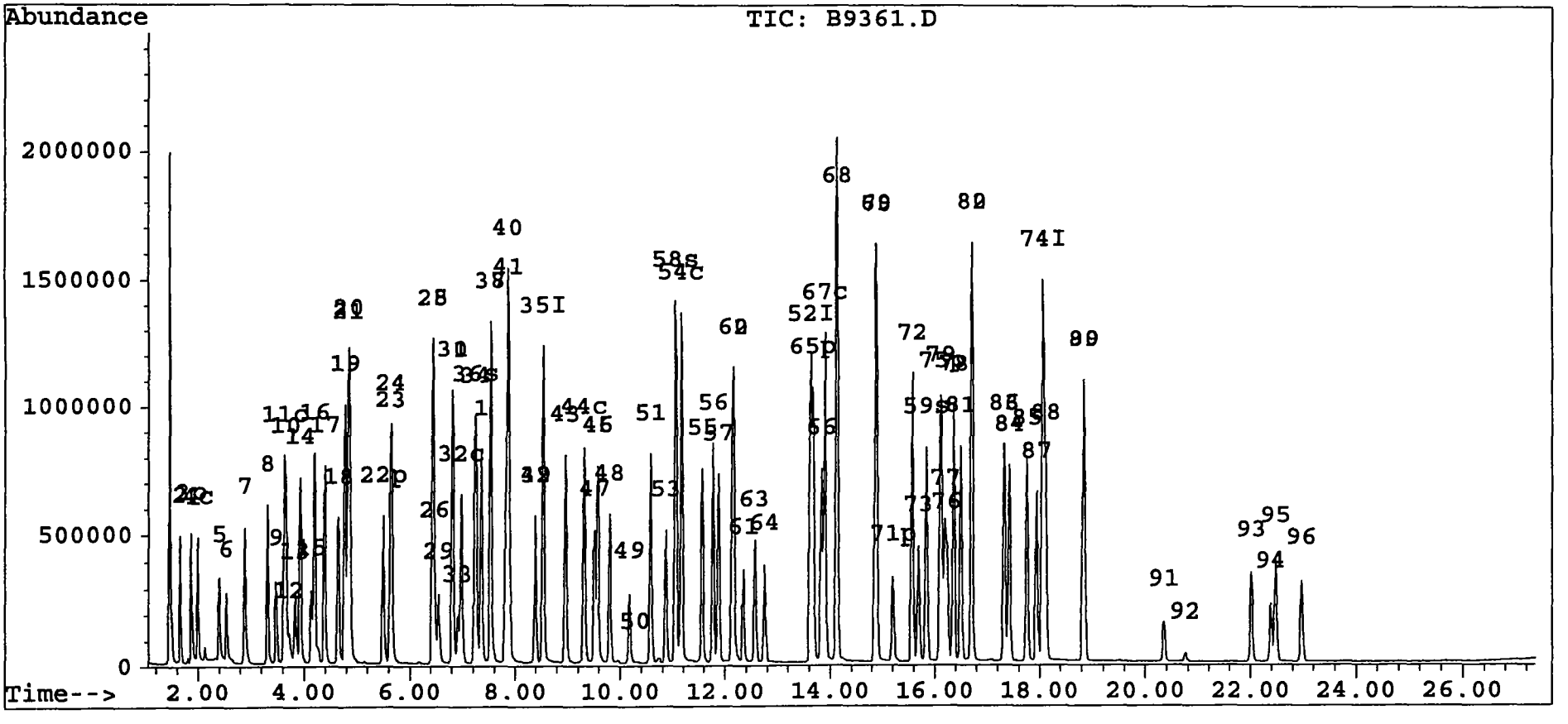
(6) Chloroethane
2.52min 58.33ppb m
response 277621

Ion	Exp%	Act%
64.05	100	100
66.05	31.90	32.73
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012502\B9361.D Vial: 13
Acq On : 25 Jan 102 6:34 pm Operator: droot
Sample : 525947 1.0 MS Inst : 5971 - In
Misc : TTEM-KS R22-10409 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 28 7:38 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 02/22/02

Project Reference:
Client Sample ID : MATRIX SPIKE DUPLICATE

Date Sampled : **Order #:** 527107 **Sample Matrix:** WATER
Date Received: **Submission #:** **Analytical Run** 73888

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 01/25/02			
ANALYTICAL DILUTION: 1.00			
ACETONE	10	51	UG/L
BENZENE	1.0	58	UG/L
BROMODICHLOROMETHANE	1.0	58	UG/L
BROMOFORM	1.0	55	UG/L
BROMOMETHANE	1.0	58	UG/L
2-BUTANONE (MEK)	5.0	51	UG/L
CARBON DISULFIDE	5.0	57	UG/L
CARBON TETRACHLORIDE	1.0	61	UG/L
CHLOROBENZENE	1.0	58	UG/L
CHLOROETHANE	1.0	58	UG/L
CHLOROFORM	1.0	58	UG/L
CHLOROMETHANE	1.0	67	UG/L
IBROMOCHLOROMETHANE	1.0	54	UG/L
1,1-DICHLOROETHANE	1.0	61	UG/L
1,2-DICHLOROETHANE	1.0	54	UG/L
1,1-DICHLOROETHENE	1.0	57	UG/L
CIS-1,2-DICHLOROETHENE	1.0	58	UG/L
TRANS-1,2-DICHLOROETHENE	1.0	59	UG/L
1,2-DICHLOROPROPANE	1.0	55	UG/L
CIS-1,3-DICHLOROPROPENE	1.0	55	UG/L
TRANS-1,3-DICHLOROPROPENE	1.0	56	UG/L
ETHYLBENZENE	1.0	62	UG/L
2-HEXANONE	5.0	51	UG/L
METHYLENE CHLORIDE	1.0	54	UG/L
4-METHYL-2-PENTANONE (MIBK)	5.0	52	UG/L
STYRENE	1.0	60	UG/L
1,1,2,2-TETRACHLOROETHANE	1.0	51	UG/L
TETRACHLOROETHENE	1.0	56	UG/L
TOLUENE	1.0	60	UG/L
1,1,1-TRICHLOROETHANE	1.0	62	UG/L
1,1,2-TRICHLOROETHANE	1.0	54	UG/L
TRICHLOROETHENE	1.0	58	UG/L
VINYL CHLORIDE	1.0	64	UG/L
O-XYLENE	1.0	61	UG/L
M+P-XYLENE	1.0	120	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(87 - 111 %)	104	%
TOLUENE-D8	(87 - 108 %)	102	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	100	%

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012502\B9362.D Vial: 13
Acq On : 25 Jan 102 7:10 pm Operator: droot
Sample : 525947 1.0 MSD 52107 Inst : 5971 - In
Misc : TTEM-KS R22-10409 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 28 7:39 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	7.36	168	775710	50.00	ppb	-0.04
35) 1,4 - Difluorobenzene	8.53	114	1476869	50.00	ppb	-0.05
52) d5 - Chlorobenzene	13.62	117	1183551	50.00	ppb	-0.05
74) d4 - Dichlorobenzene	18.06	152	497104	50.00	ppb	-0.05
System Monitoring Compounds						%Recovery
36) surr4,Dibrflmethane	7.24	113	523329	50.02	ppb	100.04%
58) surr3,Toluene-d8	11.04	98	1430418	51.16	ppb	102.31%
59) surr2,bfb	15.84	95	578843	52.24	ppb	104.48%
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.65	85	480776	72.79	ppb	100
3) Chloromethane	1.86	50	583291	66.63	ppb	99
4) Vinyl Chloride	1.99	62	480054	63.86	ppb	100
5) Bromomethane	2.39	94	301705	57.54	ppb	98
6) Chloroethane	2.53	64	271837	57.77	ppb	m 1
7) Trichlorofluoromethane	2.87	101	557828	67.03	ppb	98
8) Diethyl Ether	3.31	59	425287	56.96	ppb	97
9) Acrolein	3.47	56	380934	227.74	ppb	98
10) FREON 113	3.65	85	158592	72.04	ppb	87
11) 1,1-Diclethene	3.63	96	329616	57.29	ppb	93
12) Acetone	3.72	43	170999	51.38	ppb	100
13) Iodomethane	3.83	127	187429	50.24	ppb	98
14) Carbon Disulfide	3.93	76	1257494	56.66	ppb	99
15) Acetonitrile	4.12	41	375397	1004.21	ppb	100
16) Allyl Chloride	4.19	76	217686	60.93	ppb	95
17) Methylene Chloride	4.38	84	425425	54.26	ppb	96
18) TBA	4.64	59	974940	1069.15	ppb	97
19) Acrylonitrile	4.76	53	1086273	266.39	ppb	99
20) Methyl-t-Butyl Ether	4.85	73	1232811	55.48	ppb	97
21) trans-1,2-Dichloroethene	4.83	96	423478	59.38	ppb	97
22) 1,1-Diclethane	5.49	63	776931	61.01	ppb	99
23) Vinyl Acetate	5.62	43	1083458	63.31	ppb	99
24) 2-Chloro-1,3-butadiene	5.65	53	673811	58.81	PPB	99
25) 2,2-Dichloropropane	6.43	77	498908	55.48	ppb	99
26) 2-Butanone	6.48	43	301584	50.79	ppb	100
28) cis-1,2-Dichloroethene	6.44	96	492991	57.93	ppb	97
29) Propionitrile	6.55	54	398329	258.94	ppb	97
30) Methacrylonitrile	6.80	67	211404	53.15	ppb	89
31) Bromochloromethane	6.82	128	225122	53.51	ppb	93
32) Chloroform	6.98	83	708779	58.04	ppb	97
33) Tetrahydrofuran	6.91	42	186740	50.70	ppb	94
34) 1,1,1-Trichloroethane	7.25	97	555634	61.68	ppb	99
37) Carbontetrachloride	7.53	117	470494	60.74	ppb	100

(#) = qualifier out of range (m) = manual integration

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Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012502\B9362.D Vial: 13
Acq On : 25 Jan 102 7:10 pm Operator: droot
Sample : 525947 1.0 MSD Inst : 5971 - In
Misc : TTEM-KS R22-10409 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 28 7:39 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	1,1-Dichloropropene	7.54	75	534318	57.69	ppb		98
39)	Iso-Butyl Alcohol	8.39	43	386890	1128.49	ppb		98
40)	Benzene	7.86	78	1551501	58.45	ppb		98
41)	1,2-Dichloroethane	7.89	62	551702	54.46	ppb		99
42)	N-Heptane	8.39	43	384212	56.11	ppb		99
43)	Trichloroethene	8.96	95	413476	58.36	ppb		99
44)	1,2-Diclpropane	9.31	63	481785	55.33	ppb		99
45)	Methyl Methacrylate	9.58	69	353866	56.35	ppb		94
46)	1,4-Dioxane	9.57	88	99080	1057.66	ppb		92
47)	Dibromomethane	9.51	93	315966	55.70	ppb		97
48)	Bromodichloromethane	9.80	83	557147	57.53	ppb		99
49)	2-Nitropropane	10.18	43	327964	101.97	ppb		98
51)	cis-1,3-Dichloropropene	10.57	75	696674	54.92	ppb		92
53)	4-Methyl-2-Pentanone	10.86	43	618234	51.87	ppb		95
54)	Toluene	11.16	91	1478942	59.62	ppb		99
55)	trans-1,3-Dichloropropene	11.56	75	632434	56.56	ppb		99
56)	Ethyl Methacrylate	11.76	69	621241	56.99	ppb		99
57)	1,1,2-Trichloroethane	11.87	83	336049	53.65	ppb		100
60)	Tetrachloroethene	12.14	166	334779	55.67	ppb		99
61)	2-Hexanone	12.34	43	413398	51.26	ppb		98
62)	1,3-Dichloropropane	12.17	76	712039	52.54	ppb		93
63)	Dibromochloromethane	12.56	129	409422	54.38	ppb		97
64)	1,2-Dibromoethane	12.75	107	439086	54.19	ppb		96
65)	Chlorobenzene	13.67	112	927222	57.76	ppb		98
66)	1,1,1,2-Tetrachloroethane	13.83	131	346965	57.63	ppb		97
67)	Ethylbenzene	13.90	91	1565990	62.37	ppb		99
68)	(m+p)Xylene	14.13	106	1102635	123.73	ppb		98
69)	o-Xylene	14.85	106	532840	60.92	ppb		100
70)	Styrene	14.88	104	945713	60.00	ppb		98
71)	Bromoform	15.20	173	273747	55.15	ppb		98
72)	Isopropylbenzene	15.56	105	1338568	57.09	ppb		100
73)	Cyclohexanone	15.69	55	333844	406.65	ppb		96
75)	1,1,2,2-Tetrachloroethane	16.12	83	537027	50.64	ppb		99
76)	Trans-1,4-Dichloro-2-buten	16.23	53	149766	46.22	ppb		100
77)	1,2,3-Trichloropropane	16.19	110	150917	46.60	ppb		99
78)	n-Propylbenzene	16.35	91	1531329	57.88	ppb		99
79)	Bromobenzene	16.10	156	354630	53.38	ppb		98
80)	1,3,5-Trimethylbenzene	16.70	105	926940	36.94	ppb	#	52
81)	2-Chlorotoluene	16.50	91	951829	56.07	ppb		98
82)	4-Chlorotoluene	16.70	91	1066630	55.77	ppb		97
83)	tert-Butylbenzene	17.32	119	787127	57.22	ppb		100
84)	1,2,4-Trimethylbenzene	17.42	105	910242	57.43	ppb		98
85)	sec-Butylbenzene	17.76	105	1138110	57.42	ppb		100
86)	p-Isopropyltoluene	17.32	119	787127	57.22	ppb		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012502\B9362.D Vial: 13
Acq On : 25 Jan 102 7:10 pm Operator: droot
Sample : 525947 1.0 MSD Inst : 5971 - In
Misc : TTEM-KS R22-10409 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 28 7:39 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration

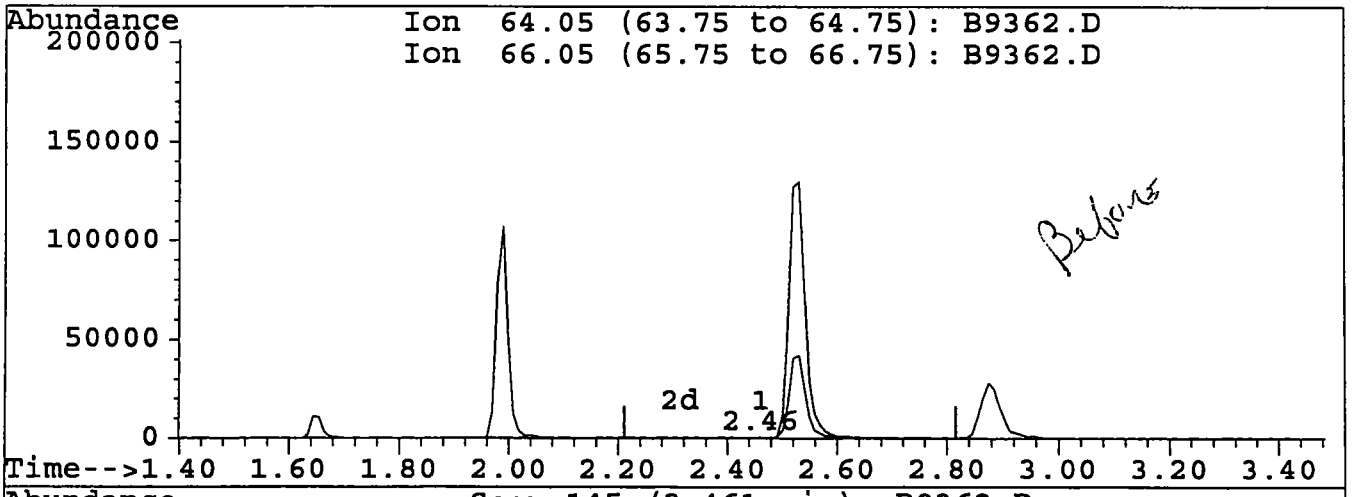
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
87)	1,3-Dclbenz	17.93	146	567658	61.58	ppb	99
88)	1,4-Dclbenz	18.11	146	565026	55.23	ppb	98
89)	n-Butylbenzene	18.84	91	758990	57.30	ppb	98
90)	1,2-Dclbenz	18.83	146	558747	56.94	ppb	99
91)	1,2-Dibromo-3-chloropropan	20.35	157	89619	52.19	ppb	98
92)	Nitrobenzene	20.75	77	34884	38.34	ppb	100
93)	1,2,4-Tcbenzene	22.01	180	283013	58.75	ppb	97
94)	Hexachlorobt	22.38	225	98383	52.92	ppb	100
95)	Naphthalen	22.48	128	836267	62.83	ppb	98
96)	1,2,3-Tclbenzene	22.97	180	270563	61.29	ppb	97

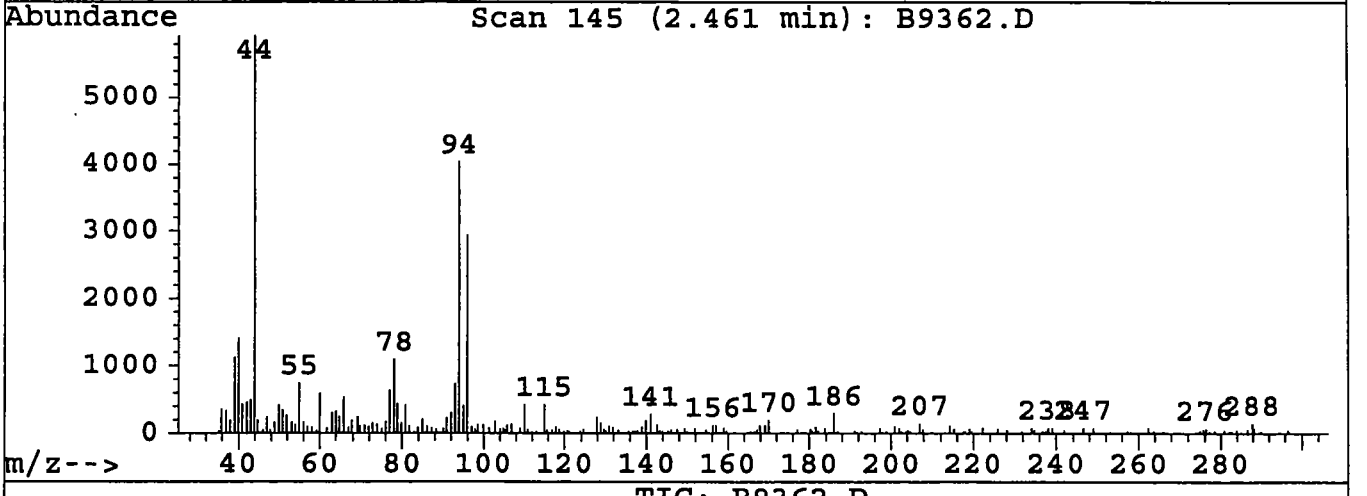
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012502\B9362.D Vial: 13
Acq On : 25 Jan 102 7:10 pm Operator: droot
Sample : 525947 1.0 MSD Inst : 5971 - In
Misc : TTEM-KS R22-10409 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 25 19:38 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration





TIC: B9362.D

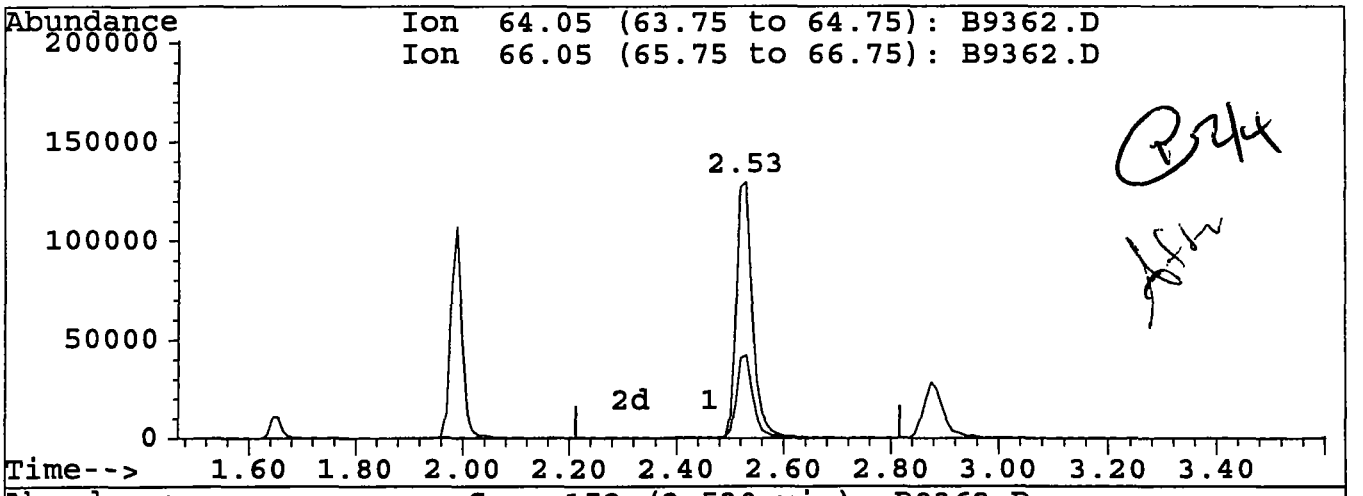
(6) Chloroethane
2.46min 0.18ppb
response 863

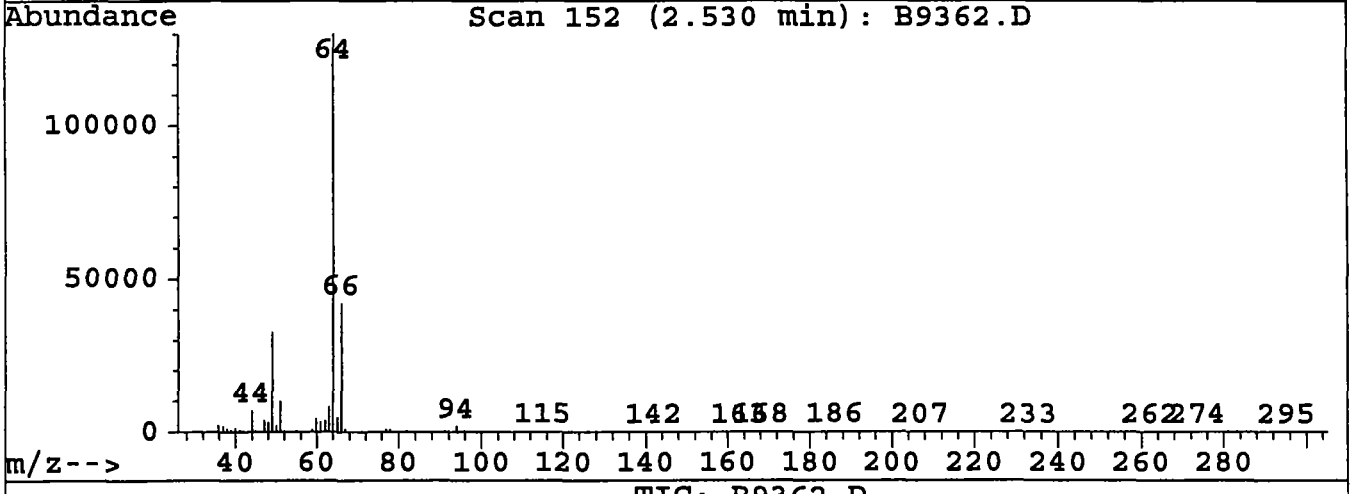
Ion	Exp%	Act%
64.05	100	100
66.05	31.90	166.56#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012502\B9362.D Vial: 13
Acq On : 25 Jan 102 7:10 pm Operator: droot
Sample : 525947 1.0 MSD Inst : 5971 - In
Misc : TTEM-KS R22-10409 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 28 7:39 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration





TIC: B9362.D

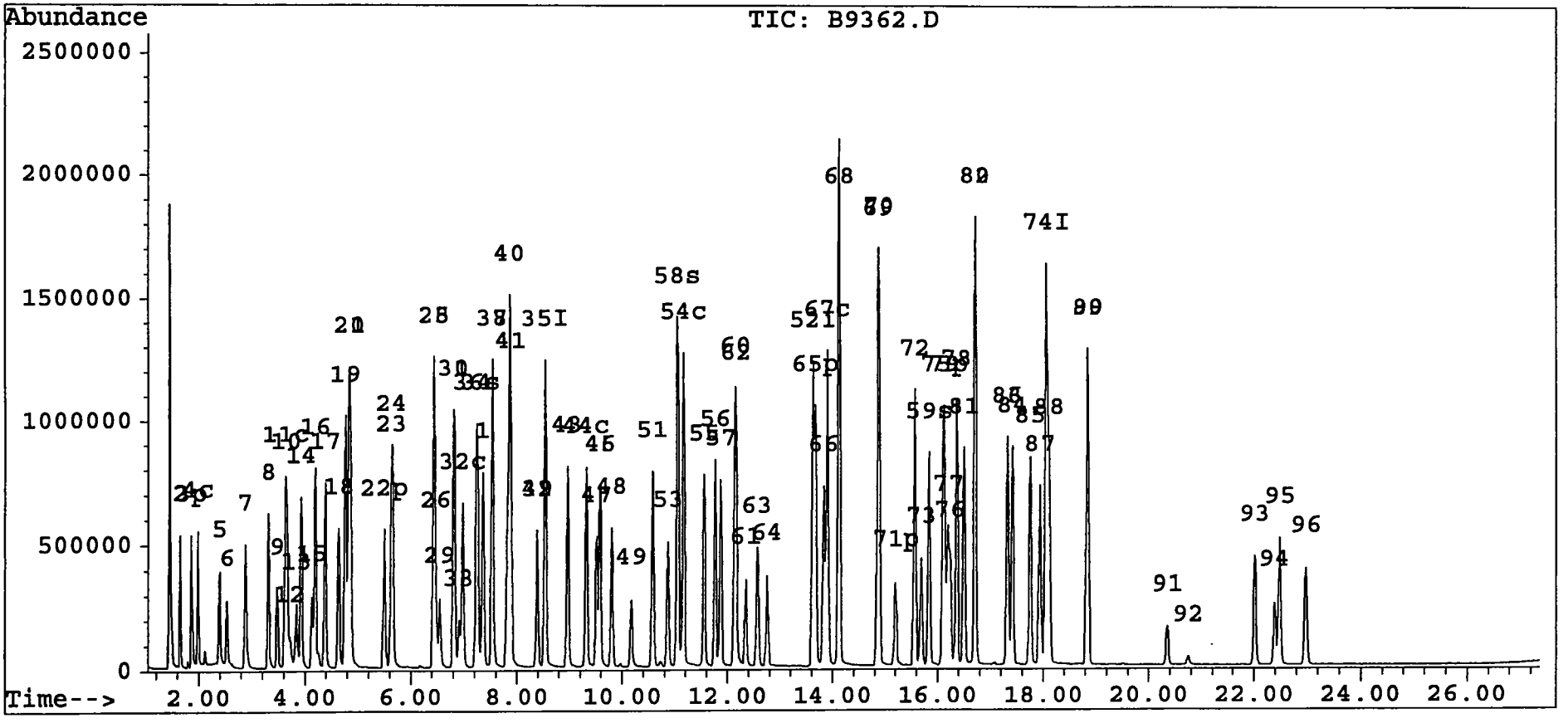
(6) Chloroethane
2.53min 57.77ppb m
response 271837

Ion	Exp%	Act%
64.05	100	100
66.05	31.90	32.32
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data file : J:\ACQUDATA\MSVOA3\DATA\012502\B9362.D Vial: 13
Acq On : 25 Jan 102 7:10 pm Operator: droot
Sample : 525947 1.0 MSD Inst : 5971 - In
Misc : TTEM-KS R22-10409 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 28 7:39 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 02/22/02

Project Reference:
Client Sample ID : MATRIX SPIKE

Date Sampled : **Order #:** 527429 **Sample Matrix:** WATER
Date Received: **Submission #:** **Analytical Run** 73932

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 01/28/02			
ANALYTICAL DILUTION: 1.00			
ACETONE	10	50	UG/L
BENZENE	1.0	58	UG/L
BROMODICHLOROMETHANE	1.0	55	UG/L
BROMOFORM	1.0	49	UG/L
BROMOMETHANE	1.0	50	UG/L
2-BUTANONE (MEK)	5.0	49	UG/L
CARBON DISULFIDE	5.0	58	UG/L
CARBON TETRACHLORIDE	1.0	59	UG/L
CHLOROBENZENE	1.0	56	UG/L
CHLOROETHANE	1.0	54	UG/L
CHLOROFORM	1.0	56	UG/L
CHLOROMETHANE	1.0	66	UG/L
)IBROMOCHLOROMETHANE	1.0	49	UG/L
1,1-DICHLOROETHANE	1.0	60	UG/L
1,2-DICHLOROETHANE	1.0	53	UG/L
1,1-DICHLOROETHENE	1.0	57	UG/L
CIS-1,2-DICHLOROETHENE	1.0	55	UG/L
TRANS-1,2-DICHLOROETHENE	1.0	57	UG/L
1,2-DICHLOROPROPANE	1.0	54	UG/L
CIS-1,3-DICHLOROPROPENE	1.0	52	UG/L
TRANS-1,3-DICHLOROPROPENE	1.0	52	UG/L
ETHYLBENZENE	1.0	60	UG/L
2-HEXANONE	5.0	50	UG/L
METHYLENE CHLORIDE	1.0	52	UG/L
4-METHYL-2-PENTANONE (MIBK)	5.0	50	UG/L
STYRENE	1.0	58	UG/L
1,1,2,2-TETRACHLOROETHANE	1.0	45	UG/L
TETRACHLOROETHENE	1.0	55	UG/L
TOLUENE	1.0	60	UG/L
1,1,1-TRICHLOROETHANE	1.0	61	UG/L
1,1,2-TRICHLOROETHANE	1.0	50	UG/L
TRICHLOROETHENE	1.0	56	UG/L
VINYL CHLORIDE	1.0	59	UG/L
O-XYLENE	1.0	60	UG/L
M+P-XYLENE	1.0	120	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(87 - 111 %)	104	%
TOLUENE-D8	(87 - 108 %)	102	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	96	%

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9407.D Vial: 14
Acq On : 28 Jan 102 7:05 pm Operator: droot
Sample : 526010 1.0 MS 527429 Inst : 5971 - In
Misc : TTEM-KS R21-10409 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 29 7:11 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	7.36	168	740684	50.00	ppb	-0.04
35) 1,4 - Difluorobenzene	8.54	114	1417568	50.00	ppb	-0.04
52) d5 - Chlorobenzene	13.63	117	1145638	50.00	ppb	-0.04
74) d4 - Dichlorobenzene	18.07	152	471771	50.00	ppb	-0.04
System Monitoring Compounds						%Recovery
36) surr4,Dibrflmethane	7.24	113	486562	47.98	ppb	95.97%
58) surr3,Toluene-d8	11.05	98	1381643	51.01	ppb	102.02%
59) surr2,bfb	15.85	95	559612	52.15	ppb	104.30%
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.65	85	408412	64.76	ppb	m 1
3) Chloromethane	1.87	50	549293	65.71	ppb	98
4) Vinyl Chloride	1.99	62	422534	58.86	ppb	99
5) Bromomethane	2.39	94	249730	49.88	ppb	99
6) Chloroethane	2.53	64	244203	54.35	ppb	m 1
7) Trichlorofluoromethane	2.88	101	521624	65.65	ppb	99
8) Diethyl Ether	3.32	59	371927	52.17	ppb	100
9) Acrolein	3.47	56	342293	214.31	ppb	98
10) FREON 113	3.66	85	149860	71.30	ppb	93
11) 1,1-Diclethene	3.63	96	312221	56.83	ppb	97
12) Acetone	3.73	43	160364	50.46	ppb	100
13) Iodomethane	3.84	127	220067	60.78	ppb	92
14) Carbon Disulfide	3.94	76	1230608	58.07	ppb	100
15) Acetonitrile	4.13	41	318132	891.27	ppb	99
16) Allyl Chloride	4.20	76	206524	60.54	ppb	97
17) Methylene Chloride	4.39	84	387097	51.71	ppb	95
18) TBA	4.65	59	825142	947.67	ppb	97
19) Acrylonitrile	4.77	53	966675	248.27	ppb	99
20) Methyl-t-Butyl Ether	4.86	73	1132657	53.38	ppb	96
21) trans-1,2-Dichloroethene	4.83	96	390870	57.40	ppb	97
22) 1,1-Diclethane	5.50	63	723509	59.50	ppb	99
23) Vinyl Acetate	5.63	43	1028359	62.93	ppb	100
24) 2-Chloro-1,3-butadiene	5.66	53	659560	60.25	PPB	100
25) 2,2-Dichloropropane	6.44	77	472113	54.98	ppb	98
26) 2-Butanone	6.49	43	279645	49.32	ppb	97
28) cis-1,2-Dichloroethene	6.45	96	449133	55.28	ppb	93
29) Propionitrile	6.56	54	351932	239.59	ppb	99
30) Methacrylonitrile	6.81	67	193956	51.07	ppb	85
31) Bromochloromethane	6.83	128	206014	51.28	ppb	90
32) Chloroform	6.99	83	650167	55.76	ppb	98
33) Tetrahydrofuran	6.92	42	168320	47.70	ppb	96
34) 1,1,1-Trichloroethane	7.26	97	528852	61.49	ppb	99
37) Carbontetrachloride	7.54	117	438348	58.96	ppb	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9407.D Vial: 14
Acq On : 28 Jan 102 7:05 pm Operator: droot
Sample : 526010 1.0 MS Inst : 5971 - In
Misc : TTEM-KS R21-10409 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 29 7:11 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	1,1-Dichloropropene	7.54	75	503155	56.60	ppb		98
39)	Iso-Butyl Alcohol	8.40	43	319984	972.38	ppb		96
40)	Benzene	7.87	78	1473688	57.84	ppb		99
41)	1,2-Dichloroethane	7.90	62	512862	52.74	ppb		100
42)	N-Heptane	8.40	43	322499	49.07	ppb		97
43)	Trichloroethene	8.97	95	384039	56.47	ppb		96
44)	1,2-Diclpropane	9.32	63	448715	53.69	ppb		98
45)	Methyl Methacrylate	9.59	69	317508	52.67	ppb		98
46)	1,4-Dioxane	9.58	88	64250	714.55	ppb		91
47)	Dibromomethane	9.52	93	282262	51.84	ppb		99
48)	Bromodichloromethane	9.80	83	514040	55.30	ppb		96
49)	2-Nitropropane	10.18	43	296035	95.89	ppb		100
51)	cis-1,3-Dichloropropene	10.58	75	639745	52.54	ppb		97
53)	4-Methyl-2-Pentanone	10.87	43	583329	50.56	ppb		98
54)	Toluene	11.17	91	1429440	59.53	ppb		100
55)	trans-1,3-Dichloropropene	11.57	75	559942	51.73	ppb		97
56)	Ethyl Methacrylate	11.77	69	576022	54.59	ppb		99
57)	1,1,2-Trichloroethane	11.88	83	305860	50.44	ppb		98
60)	Tetrachloroethene	12.15	166	319669	54.97	ppb		97
61)	2-Hexanone	12.35	43	389920	49.94	ppb		93
62)	1,3-Dichloropropane	12.17	76	636702	48.53	ppb		88
63)	Dibromochloromethane	12.57	129	360022	49.40	ppb		98
64)	1,2-Dibromoethane	12.76	107	396566	50.56	ppb		100
65)	Chlorobenzene	13.68	112	873787	56.23	ppb		99
66)	1,1,1,2-Tetrachloroethane	13.84	131	319609	54.84	ppb		98
67)	Ethylbenzene	13.91	91	1471823	60.56	ppb		98
68)	(m+p)Xylene	14.13	106	1054768	122.28	ppb		97
69)	o-Xylene	14.86	106	504885	59.63	ppb		95
70)	Styrene	14.89	104	888278	58.22	ppb		100
71)	Bromoform	15.21	173	236420	49.21	ppb		97
72)	Isopropylbenzene	15.57	105	1244833	54.98	ppb		100
73)	Cyclohexanone	15.70	55	239775	301.73	ppb		100
75)	1,1,2,2-Tetrachloroethane	16.13	83	454279	45.13	ppb		98
76)	Trans-1,4-Dichloro-2-buten	16.24	53	131525	42.77	ppb		97
77)	1,2,3-Trichloropropane	16.20	110	134754	43.85	ppb		99
78)	n-Propylbenzene	16.36	91	1398834	55.71	ppb		98
79)	Bromobenzene	16.11	156	322976	51.23	ppb		99
80)	1,3,5-Trimethylbenzene	16.71	105	848650	35.77	ppb	#	55
81)	2-Chlorotoluene	16.51	91	876029	54.38	ppb		99
82)	4-Chlorotoluene	16.71	91	969471	53.41	ppb		97
83)	tert-Butylbenzene	17.33	119	710837	54.45	ppb		98
84)	1,2,4-Trimethylbenzene	17.42	105	837913	55.70	ppb		99
85)	sec-Butylbenzene	17.76	105	1005070	53.43	ppb		98
86)	p-Isopropyltoluene	17.33	119	710837	54.45	ppb		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9407.D Vial: 14
Acq On : 28 Jan 102 7:05 pm Operator: droot
Sample : 526010 1.0 MS Inst : 5971 - In
Misc : TTEM-KS R21-10409 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 29 7:11 19102

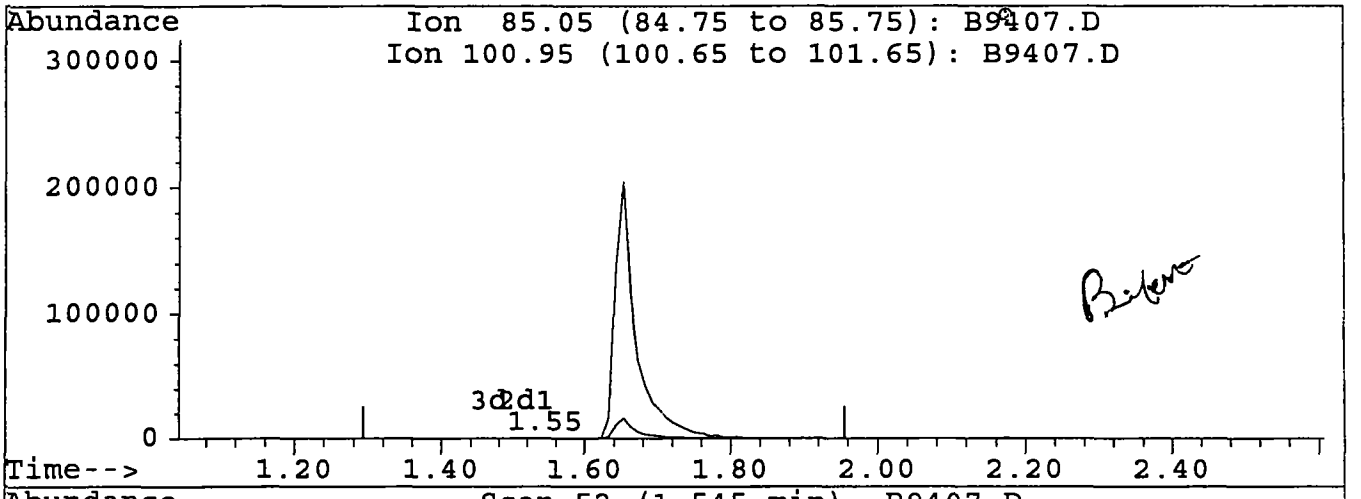
Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration

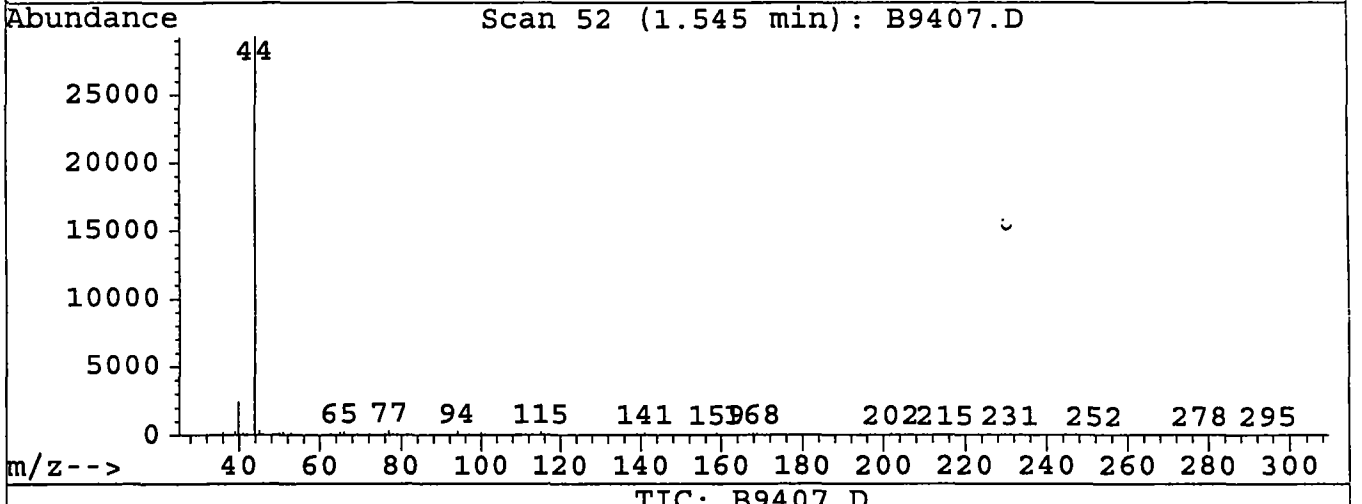
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
87)	1,3-Dclbenz	17.94	146	503965	57.60	ppb	100
88)	1,4-Dclbenz	18.12	146	513420	52.88	ppb	99
89)	n-Butylbenzene	18.85	91	660955	52.58	ppb	100
90)	1,2-Dclbenz	18.84	146	496029	53.26	ppb	99
91)	1,2-Dibromo-3-chloropropan	20.37	157	70512	43.26	ppb	95
92)	Nitrobenzene	20.76	77	28005	33.78	ppb	98
93)	1,2,4-Tcbenzene	22.02	180	250887	54.88	ppb	94
94)	Hexachlorobt	22.39	225	72293	40.97	ppb	95
95)	Naphthalen	22.48	128	667643	52.86	ppb	99
96)	1,2,3-Tclbenzene	22.98	180	230534	55.03	ppb	99

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9407.D Vial: 14
Acq On : 28 Jan 102 7:05 pm Operator: droot
Sample : 526010 1.0 MS Inst : 5971 - In
Misc : TTEM-KS R21-10409 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 28 19:33 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration





TIC: B9407.D

(2) Dichlorodifluoromethane

1.55min 0.03ppb

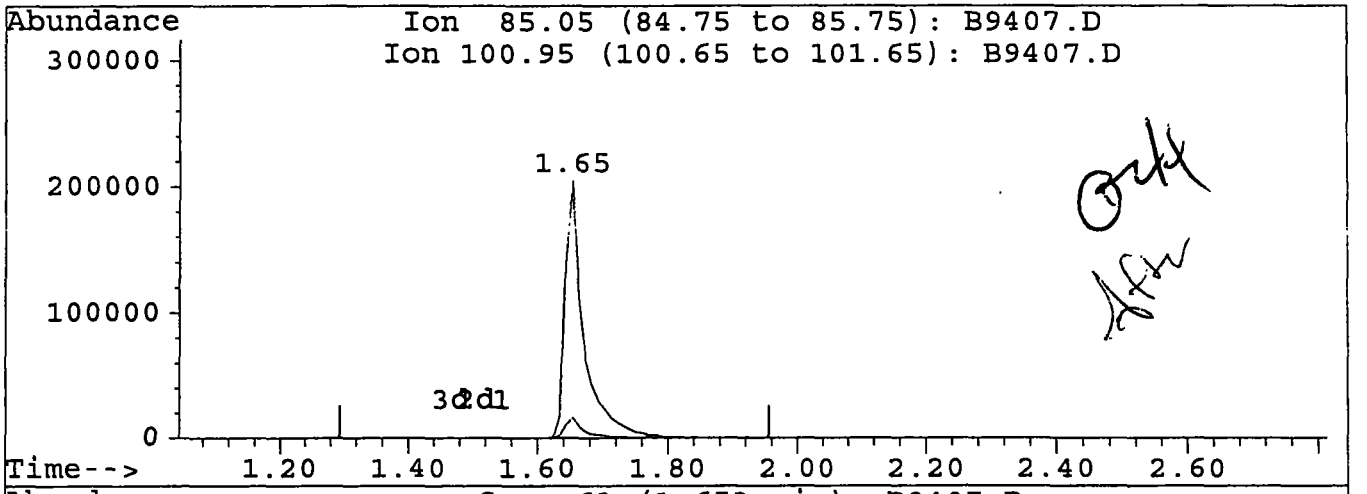
response 189

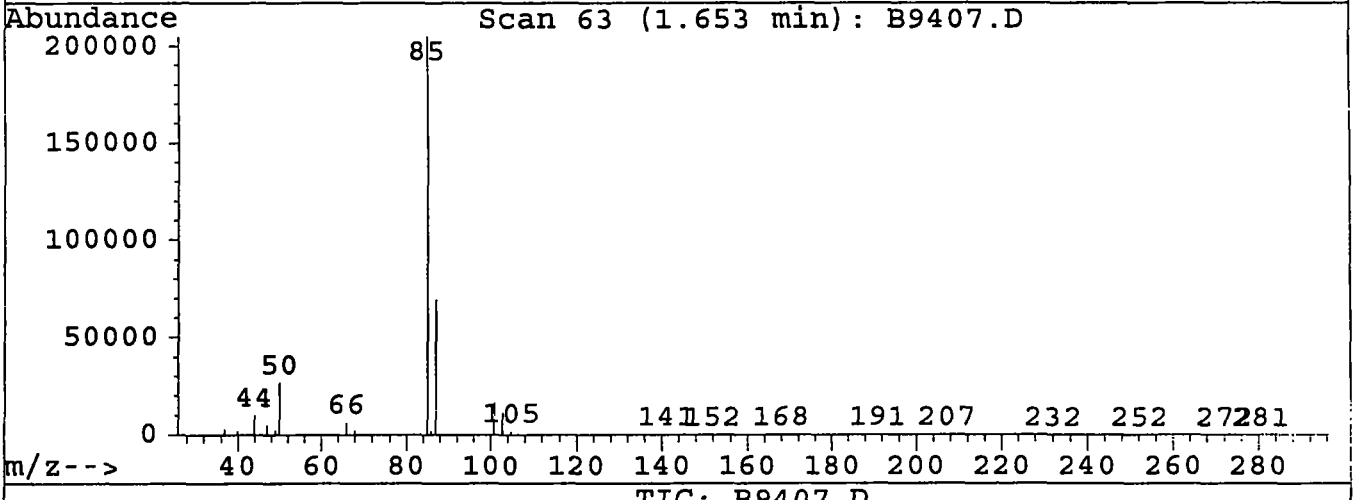
Ion	Exp%	Act%
85.05	100	100
100.95	8.10	96.81#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9407.D Vial: 14
Acq On : 28 Jan 102 7:05 pm Operator: droot
Sample : 526010 1.0 MS Inst : 5971 - In
Misc : TTEM-KS R21-10409 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 29 7:10 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration





TIC: B9407.D

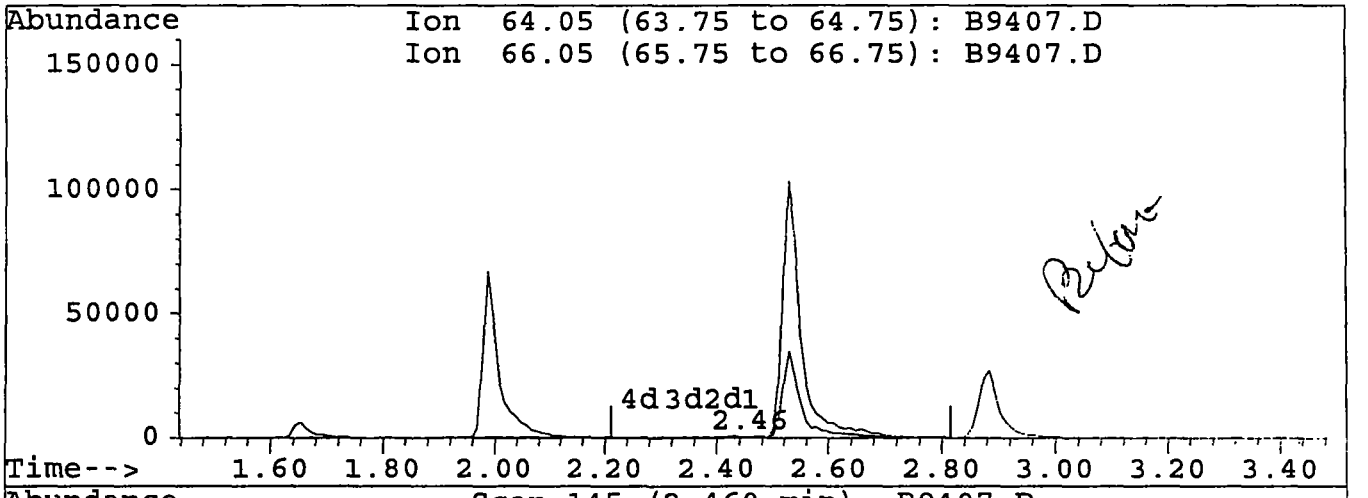
(2) Dichlorodifluoromethane
1.65min 64.76ppb m
response 408412

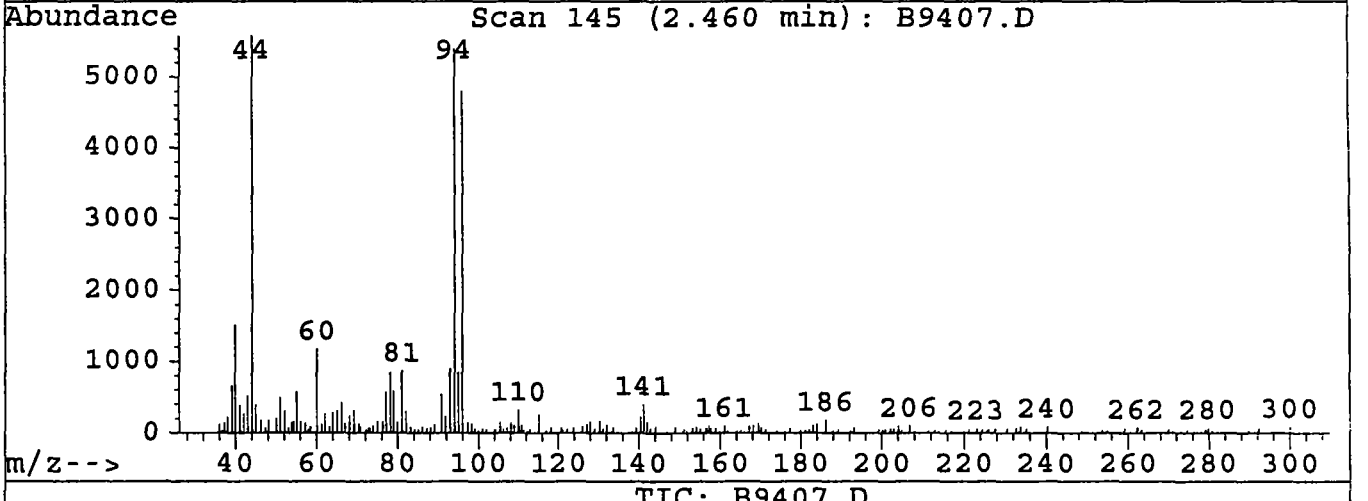
Ion	Exp%	Act%
85.05	100	100
100.95	8.10	8.02
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9407.D Vial: 14
Acq On : 28 Jan 102 7:05 pm Operator: droot
Sample : 526010 1.0 MS Inst : 5971 - In
Misc : TTEM-KS R21-10409 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 29 7:10 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration





TIC: B9407.D

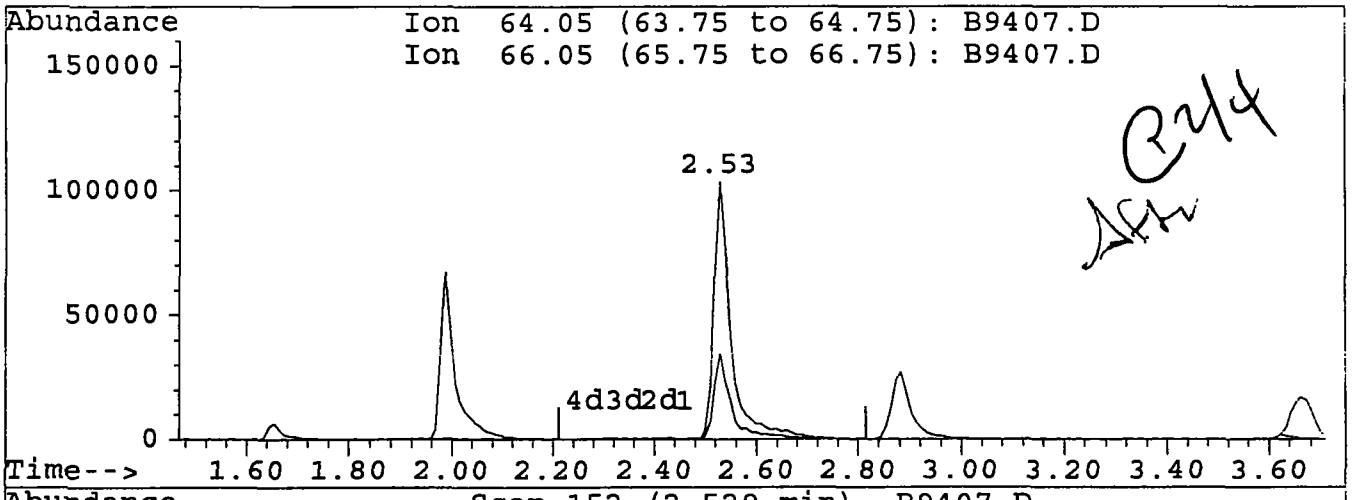
(6) Chloroethane
2.46min 0.05ppb
response 206

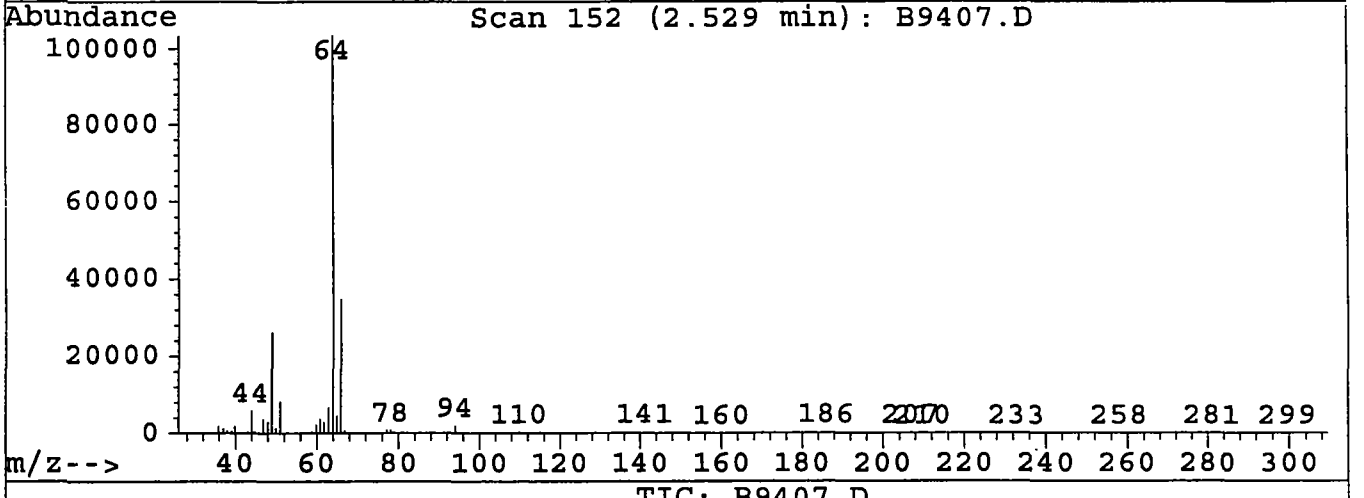
Ion	Exp%	Act%
64.05	100	100
66.05	31.90	147.89#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9407.D Vial: 14
Acq On : 28 Jan 102 7:05 pm Operator: droot
Sample : 526010 1.0 MS Inst : 5971 - In
Misc : TTEM-KS R21-10409 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 29 7:11 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration





TIC: B9407.D

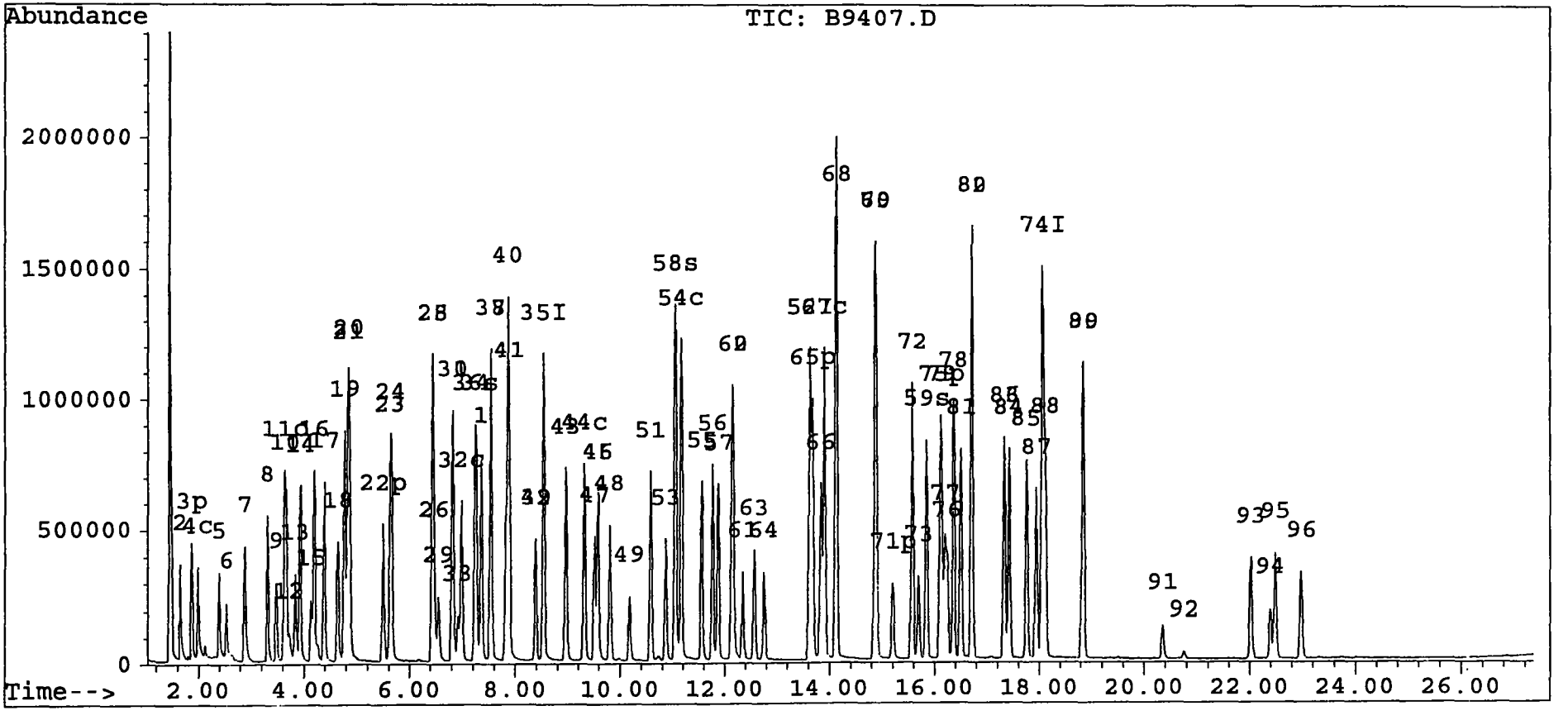
(6) Chloroethane
2.53min 54.35ppb m
response 244203

Ion	Exp%	Act%
64.05	100	100
66.05	31.90	33.58
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B940[illegible] Vial: 14
Acq On : 28 Jan 102 7:05 pm Operator: droot
Sample : 526010 1.0 MS Inst : 5971 - In
Misc : TTEM-KS R21-10409 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 29 7:11 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 02/22/02

Project Reference:
Client Sample ID : MATRIX SPIKE DUPLICATE

Date Sampled : **Order #:** 527430 **Sample Matrix:** WATER
Date Received: **Submission #:** **Analytical Run** 73932

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 01/28/02			
ANALYTICAL DILUTION: 1.00			
ACETONE	10	47	UG/L
BENZENE	1.0	56	UG/L
BROMODICHLOROMETHANE	1.0	54	UG/L
BROMOFORM	1.0	49	UG/L
BROMOMETHANE	1.0	54	UG/L
2-BUTANONE (MEK)	5.0	48	UG/L
CARBON DISULFIDE	5.0	57	UG/L
CARBON TETRACHLORIDE	1.0	56	UG/L
CHLOROBENZENE	1.0	55	UG/L
CHLOROETHANE	1.0	53	UG/L
CHLOROFORM	1.0	55	UG/L
‘ILOROMETHANE	1.0	67	UG/L
ıBROMOCHLOROMETHANE	1.0	49	UG/L
1,1-DICHLOROETHANE	1.0	58	UG/L
1,2-DICHLOROETHANE	1.0	51	UG/L
1,1-DICHLOROETHENE	1.0	55	UG/L
CIS-1,2-DICHLOROETHENE	1.0	54	UG/L
TRANS-1,2-DICHLOROETHENE	1.0	56	UG/L
1,2-DICHLOROPROPANE	1.0	51	UG/L
CIS-1,3-DICHLOROPROPENE	1.0	51	UG/L
TRANS-1,3-DICHLOROPROPENE	1.0	51	UG/L
ETHYLBENZENE	1.0	58	UG/L
2-HEXANONE	5.0	47	UG/L
METHYLENE CHLORIDE	1.0	51	UG/L
4-METHYL-2-PENTANONE (MIBK)	5.0	48	UG/L
STYRENE	1.0	57	UG/L
1,1,2,2-TETRACHLOROETHANE	1.0	44	UG/L
TETRACHLOROETHENE	1.0	52	UG/L
TOLUENE	1.0	58	UG/L
1,1,1-TRICHLOROETHANE	1.0	59	UG/L
1,1,2-TRICHLOROETHANE	1.0	48	UG/L
TRICHLOROETHENE	1.0	55	UG/L
VINYL CHLORIDE	1.0	58	UG/L
O-XYLENE	1.0	58	UG/L
M+P-XYLENE	1.0	120	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(87 - 111 %)	106	%
TOLUENE-D8	(87 - 108 %)	102	%
DIBROMOFLUOROMETHANE	(86 - 117 %)	97	%

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9408.D Vial: 14
Acq On : 28 Jan 102 7:42 pm Operator: droot
Sample : 526010 1.0 MSD 527430 Inst : 5971 - In
Misc : TTEM-KS R21-10409 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 29 7:12 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	7.37	168	765685	50.00	ppb	-0.03
35) 1,4 - Difluorobenzene	8.55	114	1475915	50.00	ppb	-0.03
52) d5 - Chlorobenzene	13.63	117	1201686	50.00	ppb	-0.04
74) d4 - Dichlorobenzene	18.08	152	504895	50.00	ppb	-0.03
System Monitoring Compounds						%Recovery
36) surr4,Dibrflmethane	7.24	113	512497	48.72	ppb	97.44%
58) surr3,Toluene-d8	11.05	98	1453882	51.23	ppb	102.46%
59) surr2,bfb	15.84	95	595070	53.12	ppb	106.25%
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.65	85	434566	66.65	ppb	m 1
3) Chloromethane	1.87	50	577263	66.80	ppb	98
4) Vinyl Chloride	1.98	62	430647	58.03	ppb	99
5) Bromomethane	2.40	94	282012	54.48	ppb	91
6) Chloroethane	2.52	64	246871	53.15	ppb	m 1
7) Trichlorofluoromethane	2.88	101	515512	62.76	ppb	96
8) Diethyl Ether	3.31	59	378913	51.42	ppb	97
9) Acrolein	3.48	56	346733	210.00	ppb	98
10) FREON 113	3.67	85	145281	66.86	ppb	94
11) 1,1-Diclethene	3.63	96	313170	55.14	ppb	110 95
12) Acetone	3.73	43	153338	46.68	ppb	93
13) Iodomethane	3.83	127	226637	60.57	ppb	97
14) Carbon Disulfide	3.93	76	1242231	56.70	ppb	99
15) Acetonitrile	4.14	41	306761	831.35	ppb	97
16) Allyl Chloride	4.20	76	205999	58.41	ppb	93
17) Methylene Chloride	4.39	84	397997	51.43	ppb	95
18) TBA	4.64	59	832087	924.44	ppb	98
19) Acrylonitrile	4.77	53	967755	240.43	ppb	m 0
20) Methyl-t-Butyl Ether	4.87	73	1120440	51.08	ppb	98
21) trans-1,2-Dichloroethene	4.84	96	398324	56.58	ppb	99
22) 1,1-Diclethane	5.51	63	724765	57.66	ppb	97
23) Vinyl Acetate	5.63	43	1009555	59.77	ppb	100
24) 2-Chloro-1,3-butadiene	5.66	53	647728	57.30	PPB	100
25) 2,2-Dichloropropane	6.44	77	466891	52.60	ppb	96
26) 2-Butanone	6.49	43	281807	48.08	ppb	99
28) cis-1,2-Dichloroethene	6.45	96	457892	54.51	ppb	98
29) Propionitrile	6.55	54	357347	235.34	ppb	96
30) Methacrylonitrile	6.81	67	190947	48.64	ppb	95
31) Bromochloromethane	6.83	128	213019	51.29	ppb	89
32) Chloroform	6.98	83	659828	54.74	ppb	99
33) Tetrahydrofuran	6.92	42	171718	47.04	ppb	96
34) 1,1,1-Trichloroethane	7.27	97	522807	58.80	ppb	98
37) Carbontetrachloride	7.55	117	432960	55.93	ppb	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9408.D Vial: 14
Acq On : 28 Jan 102 7:42 pm Operator: droot
Sample : 526010 1.0 MSD Inst : 5971 - In
Misc : TTEM-KS R21-10409 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 29 7:12 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	1,1-Dichloropropene	7.55	75	502771	54.32	ppb		99
39)	Iso-Butyl Alcohol	8.39	43	336737	982.84	ppb		99
40)	Benzene	7.87	78	1474349	55.58	ppb		99
41)	1,2-Dichloroethane	7.90	62	513407	50.71	ppb		99
42)	N-Heptane	8.39	43	337746	49.36	ppb		98
43)	Trichloroethene	8.97	95	389910	55.07	ppb		99
44)	1,2-Diclpropane	9.33	63	443337	50.95	ppb		98
45)	Methyl Methacrylate	9.58	69	325835	51.92	ppb		94
46)	1,4-Dioxane	9.58	88	75836	810.06	ppb		88
47)	Dibromomethane	9.51	93	285920	50.43	ppb		96
48)	Bromodichloromethane	9.81	83	521062	53.84	ppb		98
49)	2-Nitropropane	10.18	43	299604	93.21	ppb		96
51)	cis-1,3-Dichloropropene	10.59	75	650127	51.29	ppb		96
53)	4-Methyl-2-Pentanone	10.87	43	577811	47.75	ppb		98
54)	Toluene	11.17	91	1451047	57.61	ppb		99
55)	trans-1,3-Dichloropropene	11.57	75	576355	50.77	ppb		100
56)	Ethyl Methacrylate	11.78	69	576403	52.07	ppb		99
57)	1,1,2-Trichloroethane	11.88	83	306095	48.13	ppb		100
60)	Tetrachloroethene	12.14	166	318638	52.45	ppb		99
61)	2-Hexanone	12.36	43	385012	47.02	ppb		98
62)	1,3-Dichloropropane	12.17	76	643742	46.78	ppb		88
63)	Dibromochloromethane	12.57	129	373607	48.87	ppb		99
64)	1,2-Dibromoethane	12.76	107	398208	48.40	ppb		99
65)	Chlorobenzene	13.69	112	893600	54.83	ppb		98
66)	1,1,1,2-Tetrachloroethane	13.84	131	331591	54.24	ppb		96
67)	Ethylbenzene	13.91	91	1477958	57.98	ppb		96
68)	(m+p)Xylene	14.13	106	1071509	118.42	ppb		97
69)	o-Xylene	14.87	106	518312	58.36	ppb		98
70)	Styrene	14.89	104	906163	56.63	ppb		98
71)	Bromoform	15.21	173	245957	48.80	ppb		99
72)	Isopropylbenzene	15.58	105	1291522	54.41	ppb		99
73)	Cyclohexanone	15.70	55	269623	323.47	ppb		98
75)	1,1,2,2-Tetrachloroethane	16.14	83	473134	43.92	ppb		99
76)	Trans-1,4-Dichloro-2-buten	16.25	53	136334	41.43	ppb		88
77)	1,2,3-Trichloropropane	16.21	110	137361	41.76	ppb		99
78)	n-Propylbenzene	16.36	91	1457804	54.25	ppb		99
79)	Bromobenzene	16.12	156	342466	50.76	ppb		94
80)	1,3,5-Trimethylbenzene	16.72	105	873888	34.56	ppb	#	51
81)	2-Chlorotoluene	16.50	91	901753	52.30	ppb		100
82)	4-Chlorotoluene	16.71	91	987899	50.86	ppb		96
83)	tert-Butylbenzene	17.34	119	746003	53.39	ppb		99
84)	1,2,4-Trimethylbenzene	17.43	105	873950	54.29	ppb		98
85)	sec-Butylbenzene	17.76	105	1055850	52.45	ppb		99
86)	p-Isopropyltoluene	17.34	119	746003	53.39	ppb		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9408.D Vial: 14
Acq On : 28 Jan 102 7:42 pm Operator: droot
Sample : 526010 1.0 MSD Inst : 5971 - In
Misc : TTEM-KS R21-10409 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 29 7:12 19102

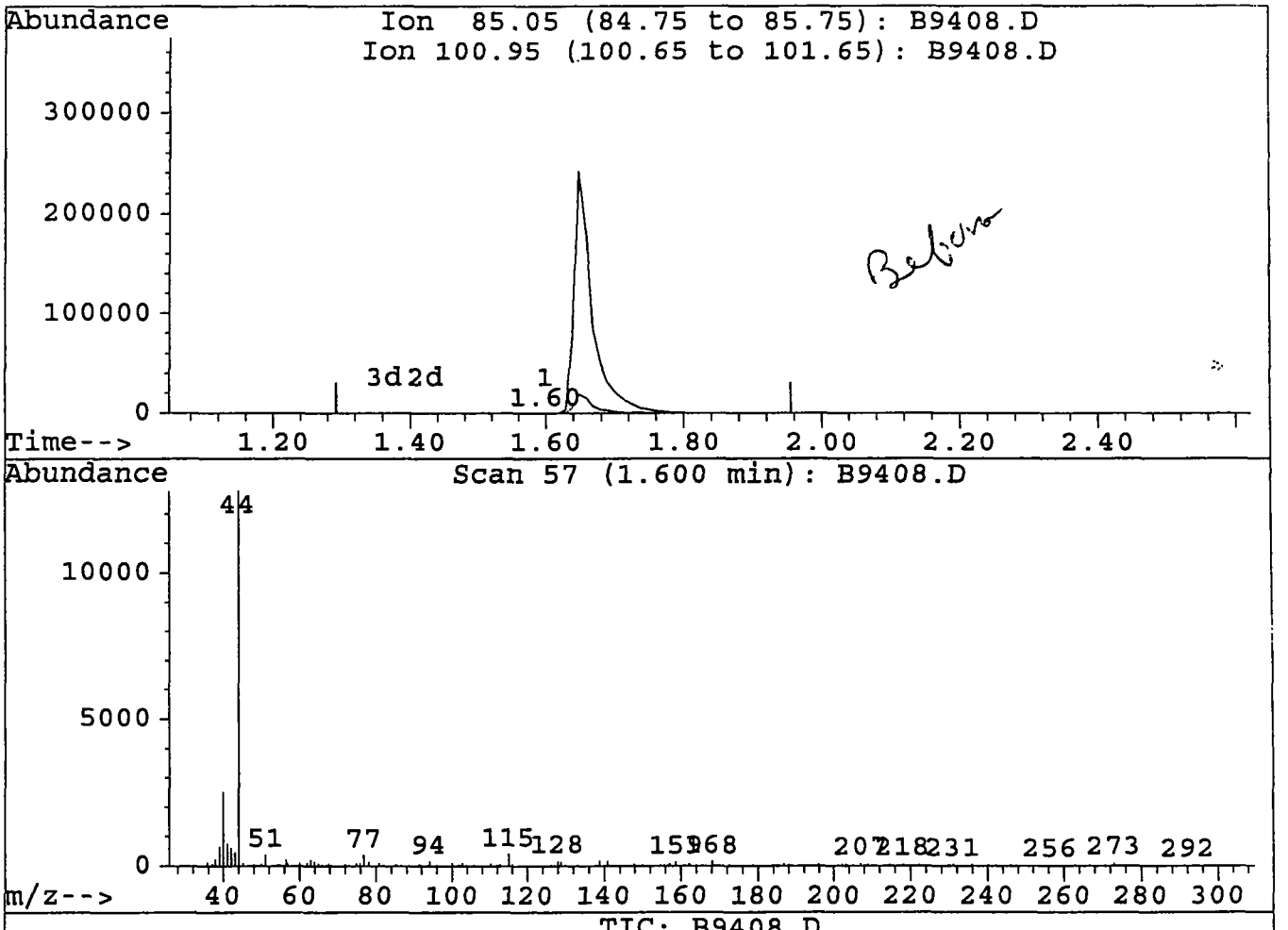
Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
87)	1,3-Dclbenz	17.95	146	532102	56.83 ppb	97
88)	1,4-Dclbenz	18.13	146	539363	51.91 ppb	97
89)	n-Butylbenzene	18.85	91	687425	51.10 ppb	98
90)	1,2-Dclbenz	18.84	146	510724	51.24 ppb	99
91)	1,2-Dibromo-3-chloropropan	20.36	157	75107	43.06 ppb	99
92)	Nitrobenzene	20.76	77	28579	32.61 ppb	92
93)	1,2,4-Tcbenzene	22.02	180	263228	53.80 ppb	96
94)	Hexachlorobt	22.40	225	81954	43.40 ppb	97
95)	Naphthalen	22.49	128	687856	50.88 ppb	97
96)	1,2,3-Tclbenzene	22.98	180	241154	53.78 ppb	97

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9408.D Vial: 14
Acq On : 28 Jan 102 7:42 pm Operator: droot
Sample : 526010 1.0 MSD Inst : 5971 - In
Misc : TTEM-KS R21-10409 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 28 20:10 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration



TIC: B9408.D

(2) Dichlorodifluoromethane

1.60min 0.02ppb

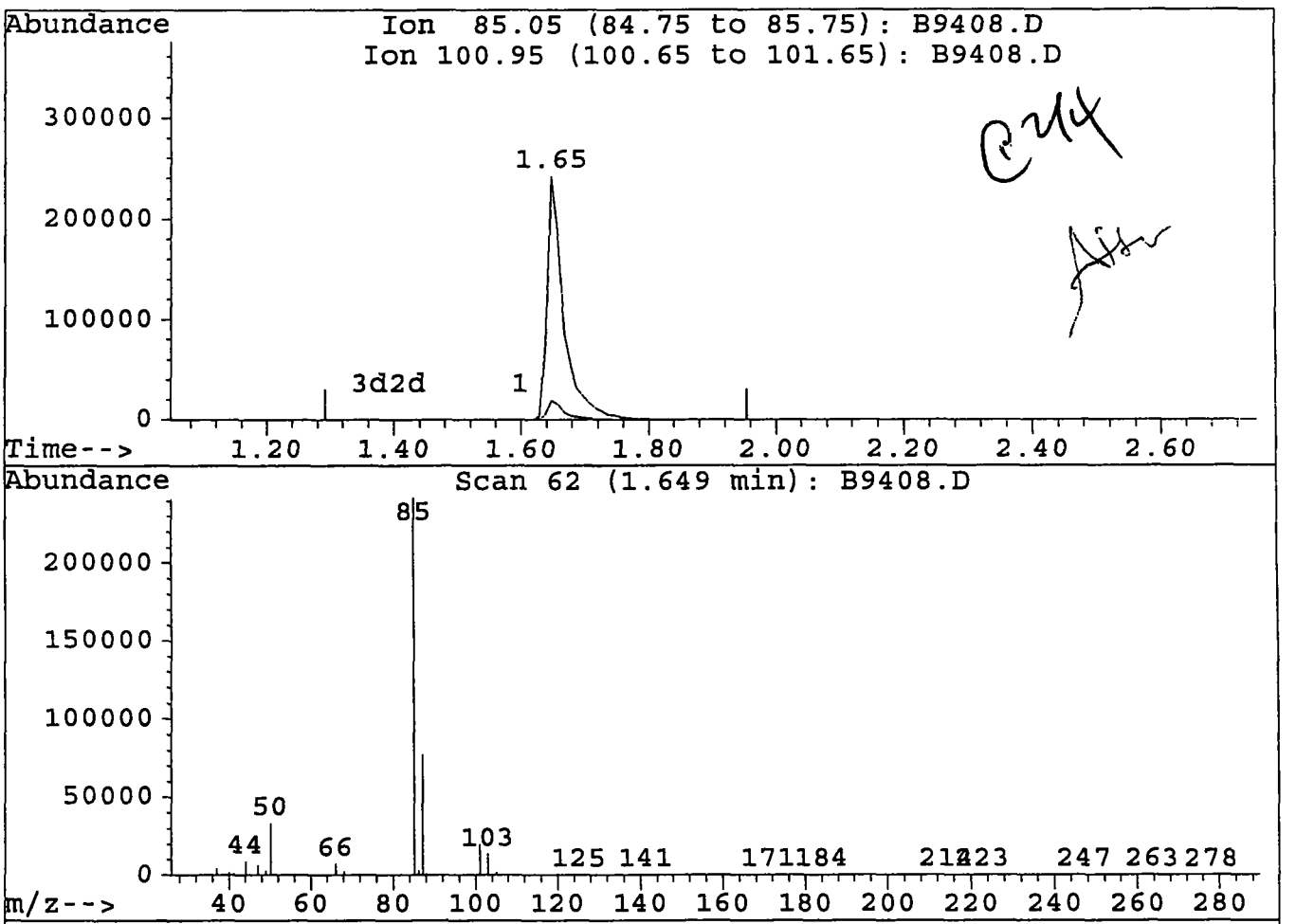
response 130

Ion	Exp%	Act%
85.05	100	100
100.95	8.10	92.86#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9408.D Vial: 14
Acq On : 28 Jan 102 7:42 pm Operator: droot
Sample : 526010 1.0 MSD Inst : 5971 - In
Misc : TTEM-KS R21-10409 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 29 7:12 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration



TIC: B9408.D

(2) Dichlorodifluoromethane

1.65min 66.65ppb m

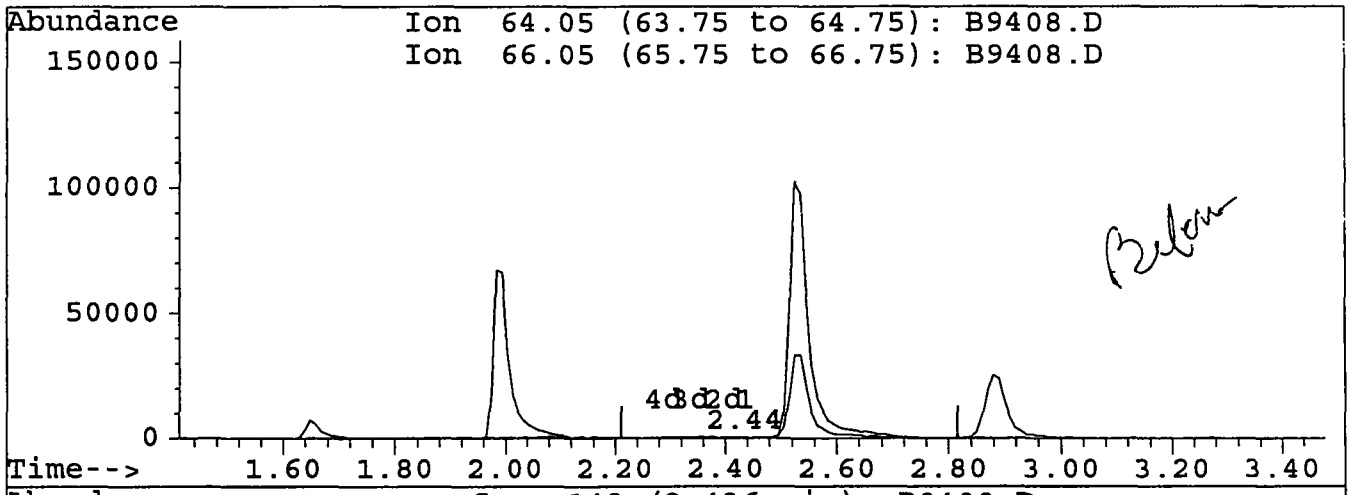
response 434566

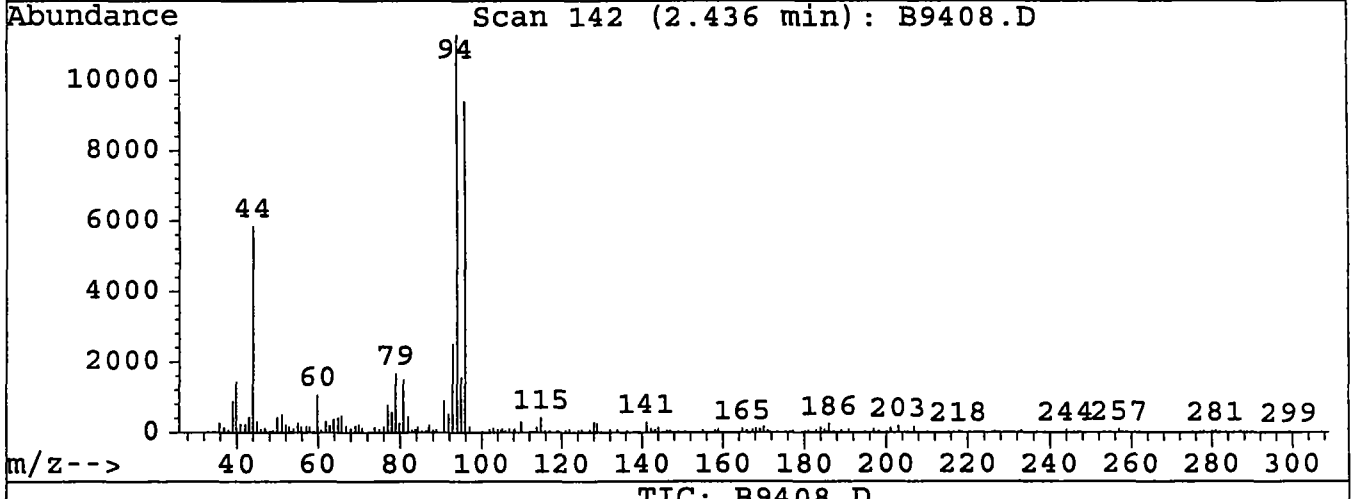
Ion	Exp%	Act%
85.05	100	100
100.95	8.10	7.99
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9408.D Vial: 14
Acq On : 28 Jan 102 7:42 pm Operator: droot
Sample : 526010 1.0 MSD Inst : 5971 - In
Misc : TTEM-KS R21-10409 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 29 7:12 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration





TIC: B9408.D

(6) Chloroethane
2.44min 0.09ppb
response 395

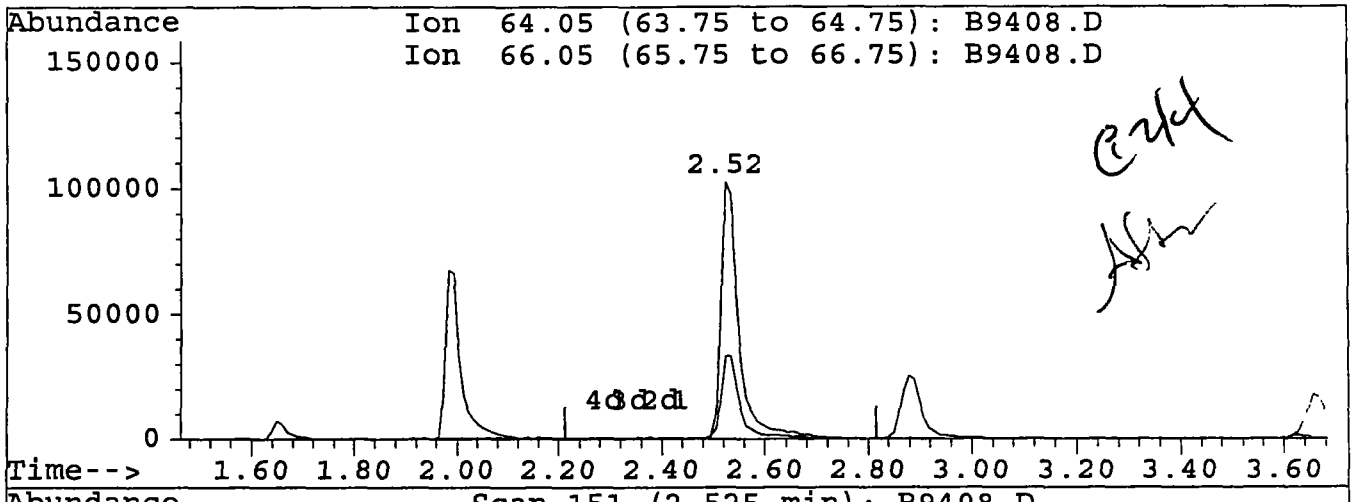
Ion	Exp%	Act%
64.05	100	100
66.05	31.90	131.25#
0.00	0.00	0.00
0.00	0.00	0.00

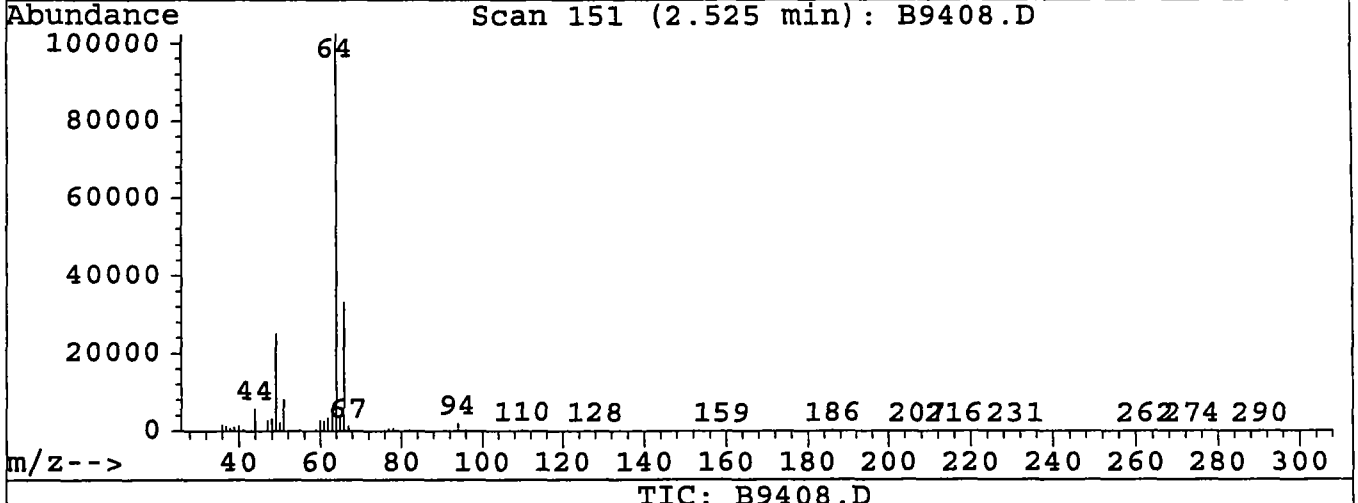
Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9408.D
Acq On : 28 Jan 102 7:42 pm
Sample : 526010 1.0 MSD
Misc : TTEM-KS R21-10409 8260B.TCLL
Quant Time: Jan 29 7:12 19102

Vial: 14
Operator: droot
Inst : 5971 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration





TIC: B9408.D

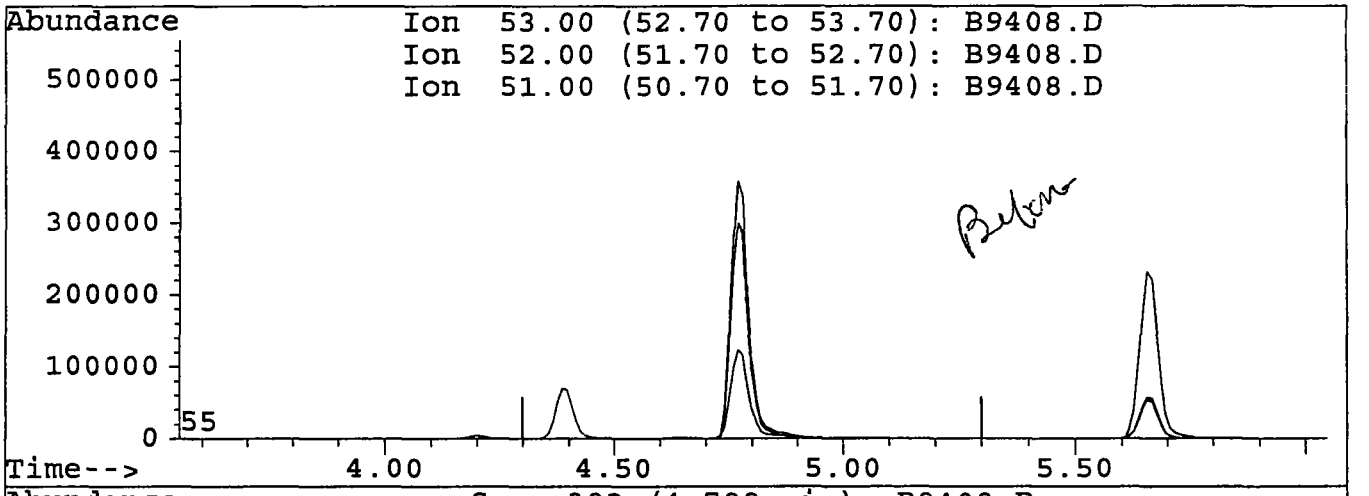
(6) Chloroethane
2.52min 53.15ppb m
response 246871

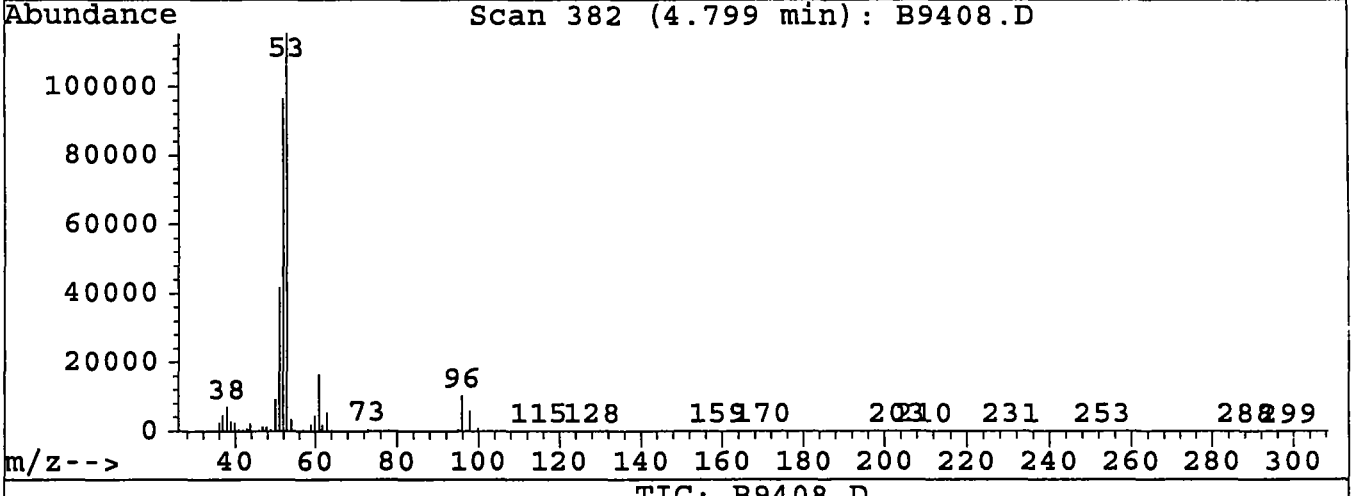
Ion	Exp%	Act%
64.05	100	100
66.05	31.90	32.34
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9408.D Vial: 14
Acq On : 28 Jan 102 7:42 pm Operator: droot
Sample : 526010 1.0 MSD Inst : 5971 - In
Misc : TTEM-KS R21-10409 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 29 7:12 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration





TIC: B9408.D

(19) Acrylonitrile
4.80min 0.00ppb d
response 0

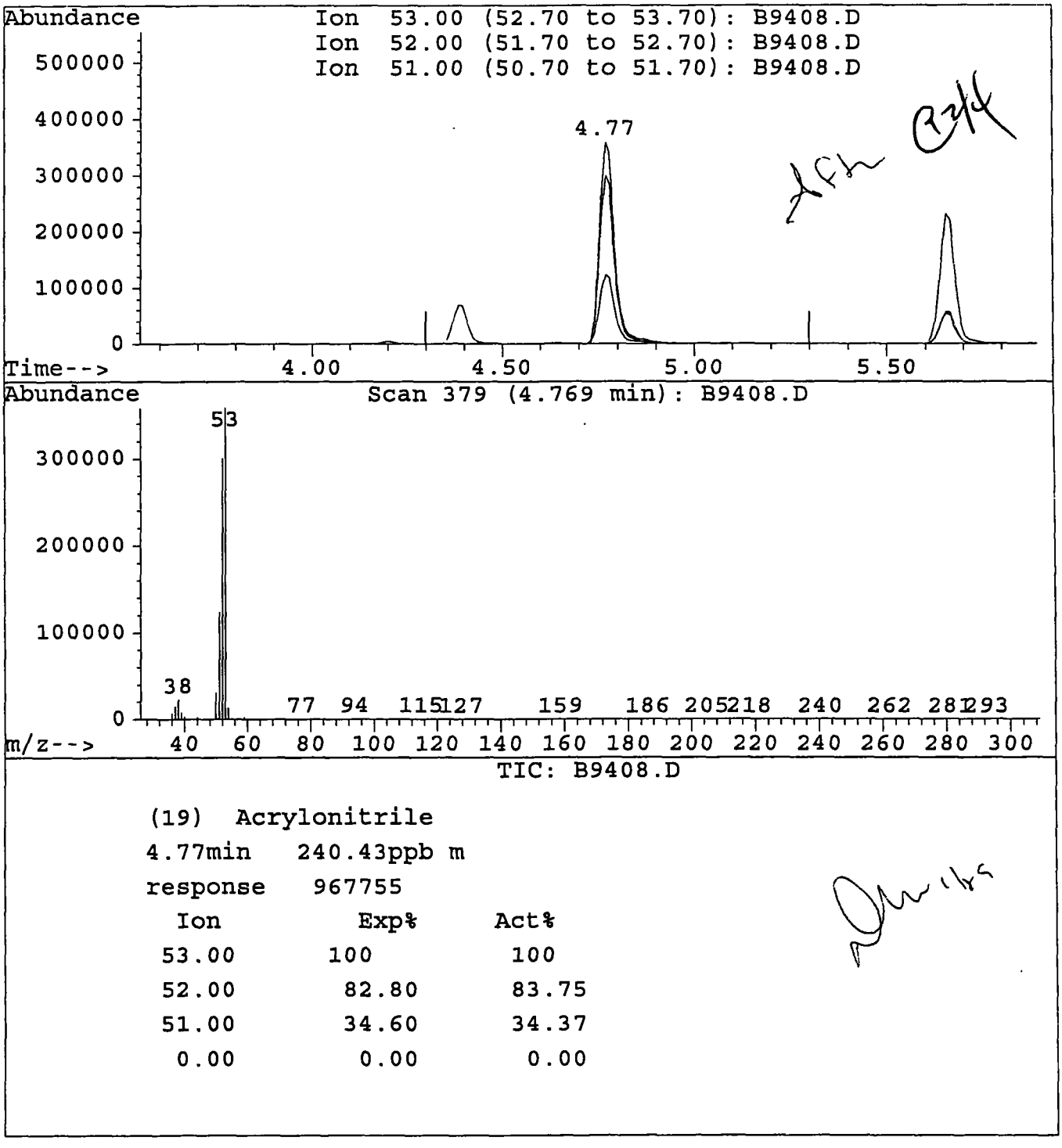
Ion	Exp%	Act%
53.00	100	0.00
52.00	82.80	0.00#
51.00	34.60	0.00#
0.00	0.00	0.00

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9408.D
Acq On : 28 Jan 102 7:42 pm
Sample : 526010 1.0 MSD
Misc : TTEM-KS R21-10409 8260B.TCLL
Quant Time: Jan 29 7:12 19102

Vial: 14
Operator: droot
Inst : 5971 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
Response via : Multiple Level Calibration



(19) Acrylonitrile
4.77min 240.43ppb m
response 967755

Ion	Exp%	Act%
53.00	100	100
52.00	82.80	83.75
51.00	34.60	34.37
0.00	0.00	0.00

Quantitation Report

Data File : J:\ACQUDATA\MSVOA3\DATA\012802\B9408.D Vial: 14
Acq On : 28 Jan 102 7:42 pm Operator: droot
Sample : 526010 1.0 MSD Inst : 5971 - In
Misc : TTEM-KS R21-10409 8260B.TCLL Multiplr: 1.00
Quant Time: Jan 29 7:12 19102

Method : J:\ACQUDATA\MSVOA3\METHODS\EXP1217.M
Title : 8260voa
Last Update : Fri Dec 21 08:54:03 2001
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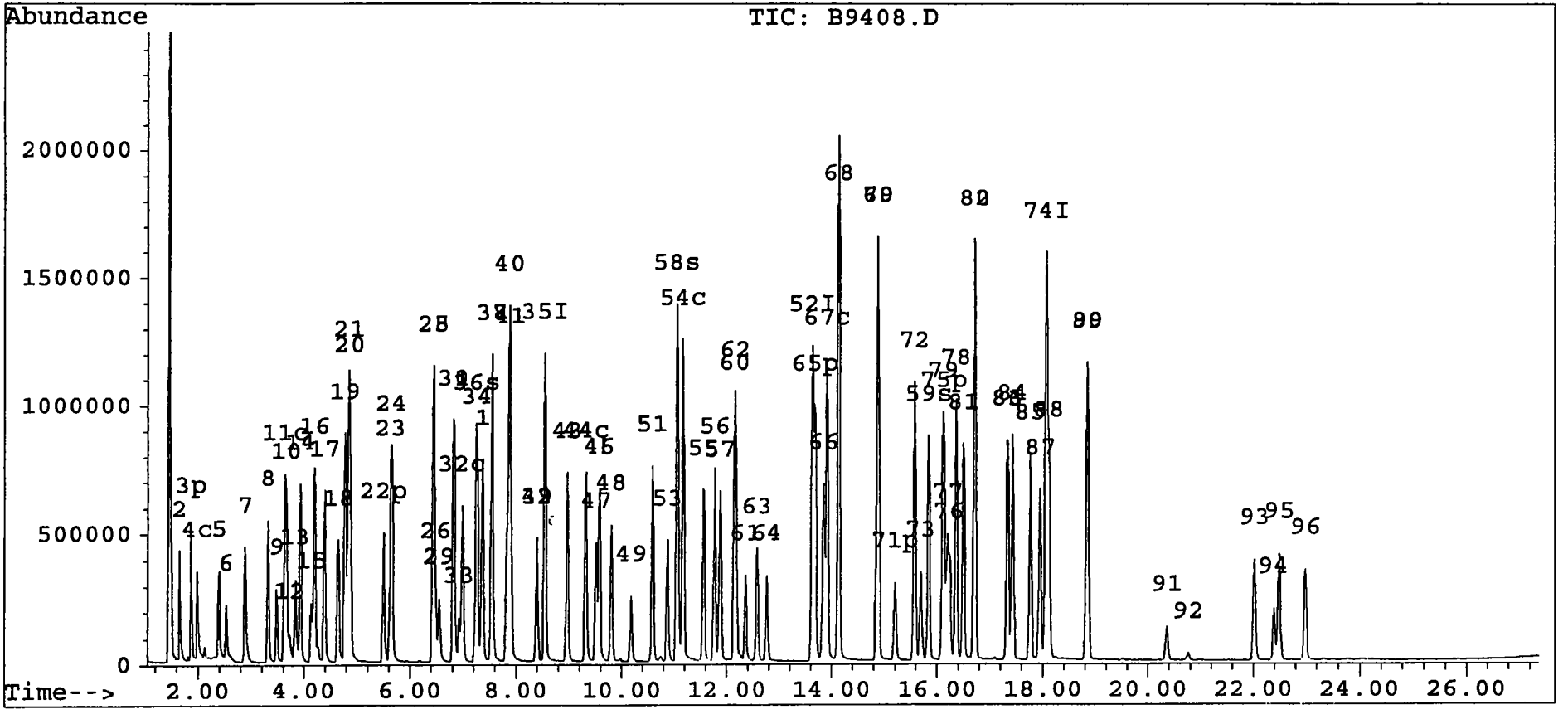


1	Tune 7:37 am			B9343	YT
1	CCV			B9344	Y
1	CCV			B9345	YC
1	Blk			B9346	—
2	MetBlk			B9347	YM
3	LCS			B9348	N Carbonate
1	526241	5.0	LCS	B9349	YG
2	526241	5.0		B9350	Y
3	525060	20.0		B9351	Y
4	525947	1.0		B9352	Y
5	948	1.0		B9353	Y
6	951	1.0		B9354	Y
7	987	1.0		B9355	Y
8	526000	1.0		B9356	Y
9	001	1.0		B9357	Y
10	008	1.0		B9358	Y
11	009	1.0		B9359	Y
12	010	1.0		B9360	Y
13	525947ms	1.0		B9361	YA
13	947msD	1.0		B9362	YD
14	Blk			B9363	—
15	Tune			B9364	YT
16	Tune			B9365	YT
17	CCV			B9366	*
18	CCV			B9367	YC
19	Blk			B9368	—
20	MetBlk			B9369	
21	LCS			B9370	Second Source
22	526011	1.0		B9371	
23	012	1.0		B9372	
24	013	1.0		B9373	
25	017	1.0		B9374	
26	020	1.0		B9375	
27	021	1.0		B9376	
28	022	1.0		B9377	
29	023	1.0		B9378	
30	024	2.0		B9379	
31	382	1.0		B9380	
32	385	1.0		B9381	
33	386	1.0		B9382	
34	387	1.0		B9383	
35	010ms	1.0		B9384	
35	010msD	1.0		B9385	

Surr MSV60945P 90%-130% Tune

10 Targ MSV60877A > Surr 50%-150% CCV

10 HSL MSV60877B

55 Targ MSV60884A > Surr 50%-150% LCS

55 HSL MSV60884A 4-PCB 43 mL/mL ms/msD

242

pkg

Tuning
exp 1217

8260

1/28/02 | 012802 | B...

	1	Am Blk			B9388	—	
	1	Tune 8:09am			B9389	YT	
	1	CCV			B9390	YC	
	1	Blk			B9391	—	
	1	Met Blk			B9392	Ym	
	2	LCS			B9393	YQ	
<2	1	525419	1.0	ERM2 R22-10348 8260B-TLH	B9394	Y	Dkg
<2	2	420	1.0	TTEM-KS R22-10409 8260B-TLI	B9395	Y	
<2	3	526011	1.0		B9396	Y	
<2	4	012	1.0		B9397	Y	
<2	5	013	1.0		B9398	Y	
<2	6	017	1.0		B9399	Y	
>2	7	020	1.0		B9400	Y	
<2	8	021	1.0		B9401	Y	
>2	9	022	1.0		B9402	Y	
>2	10	023	1.0		B9403	Y	
>2	11	024	2.0		B9404	Y	Fo
<2	12	526485	1.0	Chacon R22-10432 8260B-TLF	B9405	Y	
<2	13	486	1.0		B9406	Y	
<2	14	526010 ms	1.0	TTEM R22-10409 8260B-TLI	B9407	YQ	
<2	14	010 msd	1.0		B9408	YQ	
	15	Blk			B9409	—	
	16	Tune 8:53		use this one	B9410	YT	
	17	Tune 9:29			B9411	YT	
	18	CCV			B9412	YC	
	19	CCV		use this one	B9413	YC	
	20	Blk			B9414	—	
	21	Met Blk			B9415	Ym	
	22	LCS			B9416	YU	tee ↑
	23	526487	1.0	Chacon R22-10432 ~~TTEM-KS R22-1041~~ 8260B-TLLF	B9417	Y	
	24	488	1.0		B9418	Y	
	25	489	1.0		B9419	Y	
	26	490	1.0		B9420	Y	
	27	491	1.0		B9421	Y	
	28	526382	1.0	TTEM-KS R22-10427 8260B-TLLL	B9422	Y	
	29	385	1.0		B9423	Y	
	30	386	1.0		B9424	Y	
	31	387	1.0		B9425	Y	
	32	525553	1.0	Chacon R22-10346 8260B-TLH	B9426	Y	

524 VOLATILE ORGANICS

QC SUMMARY

COLUMBIA ANALYTICAL SERVICES

QUALITY CONTROL SUMMARY MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY
WATER

Spiked Order No. : 525954 Tetra Tech EM Inc.

Client ID: OS-PW-2

Test: 524.2 DRINKING WATER VOLATILES

Analytical Units: UG/L

Run Number : 74207

ANALYTE	SPIKE ADDED	CONCENT. SAMPLE	MATRIX SPIKE FOUND	MATRIX SPIKE % REC.	MATRIX SPIKE DUP. FOUND	MATRIX SPIKE DUP. % REC.	MATRIX SPIKE DUP. RPD	QC LIMITS RPD	QC LIMITS REC.
BENZENE	5.00	0	5.00	100	4.80	96	4	20	70 - 130
CHLOROBENZENE	5.00	0	4.80	96	4.70	94	2	20	70 - 130
1,1-DICHLOROETHENE	5.00	0	4.80	96	4.50	90	6	20	70 - 130
TOLUENE	5.00	0	4.80	96	4.70	94	2	20	70 - 130
TRICHLOROETHENE	5.00	0	4.80	96	4.80	96	0	20	70 - 130

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD: 524.2 DRINKING WATER VOLATILES

LABORATORY CONTROL SAMPLE SUMMARY

REFERENCE ORDER #: 529334 ANALYTICAL RUN # : 74207

ANALYTE	TRUE VALUE	% RECOVERY	QC LIMITS
DATE ANALYZED : 02/01/02			
ANALYTICAL DILUTION: 1.0			
BENZENE	2.00	105	70 - 130
BROMOBENZENE	2.00	103	70 - 130
BROMOCHLOROMETHANE	2.00	108	70 - 130
BROMODICHLOROMETHANE	2.00	94	70 - 130
BROMOFORM	2.00	83	70 - 130
BROMOMETHANE	2.00	108	70 - 130
TERT-BUTYLBENZENE	2.00	103	70 - 130
SEC-BUTYLBENZENE	2.00	101	70 - 130
N-BUTYLBENZENE	2.00	98	70 - 130
CARBON TETRACHLORIDE	2.00	91	70 - 130
HLOROBENZENE	2.00	98	70 - 130
ILOROETHANE	2.00	104	70 - 130
CHLOROFORM	2.00	109	70 - 130
CHLOROMETHANE	2.00	116	70 - 130
1,2-DIBROMO-3-CHLOROPROPANE	2.00	84	70 - 130
2-CHLOROTOLUENE	2.00	102	70 - 130
4-CHLOROTOLUENE	2.00	101	70 - 130
DIBROMOCHLOROMETHANE	2.00	88	70 - 130
1,2-DIBROMOETHANE	2.00	96	70 - 130
DIBROMOMETHANE	2.00	107	70 - 130
1,2-DICHLOROBENZENE	2.00	103	70 - 130
1,4-DICHLOROBENZENE	2.00	103	70 - 130
1,3-DICHLOROBENZENE	2.00	110	70 - 130
DICHLORODIFLUOROMETHANE	2.00	116	70 - 130
1,1-DICHLOROETHANE	2.00	102	70 - 130
1,2-DICHLOROETHANE	2.00	103	70 - 130
1,1-DICHLOROETHENE	2.00	97	70 - 130
TRANS-1,2-DICHLOROETHENE	2.00	99	70 - 130
CIS-1,2-DICHLOROETHENE	2.00	102	70 - 130
2,2-DICHLOROPROPANE	2.00	87	70 - 130
1,2-DICHLOROPROPANE	2.00	99	70 - 130
1,3-DICHLOROPROPANE	2.00	93	70 - 130
1,1-DICHLOROPROPENE	2.00	95	70 - 130
TRANS-1,3-DICHLOROPROPENE	2.00	88	70 - 130
CIS-1,3-DICHLOROPROPENE	2.00	89	70 - 130
THYLBENZENE	2.00	103	70 - 130
EXACHLOROBUTADIENE	2.00	100	70 - 130
ISOPROPYLBENZENE	2.00	101	70 - 130
P-ISOPROPYLTOLUENE	2.00	100	70 - 130
METHYLENE CHLORIDE	2.00	115	70 - 130
NAPHTHALENE	2.00	103	70 - 130

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD: 524.2 DRINKING WATER VOLATILES

LABORATORY CONTROL SAMPLE SUMMARY

REFERENCE ORDER #: 529334 ANALYTICAL RUN # : 74207

ANALYTE	TRUE VALUE	% RECOVERY	QC LIMITS
DATE ANALYZED : 02/01/02			
ANALYTICAL DILUTION: 1.0			
N-PROPYLBENZENE	2.00	100	70 - 130
STYRENE	2.00	100	70 - 130
1,1,1,2-TETRACHLOROETHANE	2.00	95	70 - 130
1,1,2,2-TETRACHLOROETHANE	2.00	96	70 - 130
TETRACHLOROETHENE	2.00	102	70 - 130
TOLUENE	2.00	99	70 - 130
1,2,4-TRICHLOROBENZENE	2.00	102	70 - 130
1,2,3-TRICHLOROBENZENE	2.00	100	70 - 130
1,1,1-TRICHLOROETHANE	2.00	93	70 - 130
1,1,2-TRICHLOROETHANE	2.00	102	70 - 130
RICHLOROETHENE	2.00	100	70 - 130
RICHLOROFLUOROMETHANE	2.00	105	70 - 130
1,2,3-TRICHLOROPROPANE	2.00	105	70 - 130
1,3,5-TRIMETHYLBENZENE	2.00	104	70 - 130
1,2,4-TRIMETHYLBENZENE	2.00	101	70 - 130
VINYL CHLORIDE	2.00	102	70 - 130
M+P-XYLENE	4.00	105	70 - 130
O-XYLENE	2.00	103	70 - 130

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD: 524.2 DRINKING WATER VOLATILES

LABORATORY CONTROL SAMPLE SUMMARY

REFERENCE ORDER #: 529338 ANALYTICAL RUN # : 74207

ANALYTE	TRUE VALUE	% RECOVERY	QC LIMITS
DATE ANALYZED : 02/02/02			
ANALYTICAL DILUTION: 1.0			
BENZENE	2.00	96	70 - 130
BROMOBENZENE	2.00	90	70 - 130
BROMOCHLOROMETHANE	2.00	94	70 - 130
BROMODICHLOROMETHANE	2.00	88	70 - 130
BROMOFORM	2.00	75	70 - 130
BROMOMETHANE	2.00	97	70 - 130
TERT-BUTYLBENZENE	2.00	94	70 - 130
SEC-BUTYLBENZENE	2.00	91	70 - 130
N-BUTYLBENZENE	2.00	93	70 - 130
CARBON TETRACHLORIDE	2.00	83	70 - 130
CHLOROBENZENE	2.00	93	70 - 130
CHLOROETHANE	2.00	90	70 - 130
CHLOROFORM	2.00	94	70 - 130
CHLOROMETHANE	2.00	105	70 - 130
1,2-DIBROMO-3-CHLOROPROPANE	2.00	73	70 - 130
2-CHLOROTOLUENE	2.00	87	70 - 130
4-CHLOROTOLUENE	2.00	102	70 - 130
DIBROMOCHLOROMETHANE	2.00	82	70 - 130
1,2-DIBROMOETHANE	2.00	91	70 - 130
DIBROMOMETHANE	2.00	101	70 - 130
1,2-DICHLOROBENZENE	2.00	101	70 - 130
1,4-DICHLOROBENZENE	2.00	97	70 - 130
1,3-DICHLOROBENZENE	2.00	102	70 - 130
DICHLORODIFLUOROMETHANE	2.00	99	70 - 130
1,1-DICHLOROETHANE	2.00	92	70 - 130
1,2-DICHLOROETHANE	2.00	97	70 - 130
1,1-DICHLOROETHENE	2.00	87	70 - 130
TRANS-1,2-DICHLOROETHENE	2.00	91	70 - 130
CIS-1,2-DICHLOROETHENE	2.00	96	70 - 130
2,2-DICHLOROPROPANE	2.00	80	70 - 130
1,2-DICHLOROPROPANE	2.00	91	70 - 130
1,3-DICHLOROPROPANE	2.00	90	70 - 130
1,1-DICHLOROPROPENE	2.00	87	70 - 130
TRANS-1,3-DICHLOROPROPENE	2.00	80	70 - 130
CIS-1,3-DICHLOROPROPENE	2.00	84	70 - 130
ETHYLBENZENE	2.00	95	70 - 130
HEXACHLOROBUTADIENE	2.00	92	70 - 130
ISOPROPYLBENZENE	2.00	92	70 - 130
P-ISOPROPYLTOLUENE	2.00	93	70 - 130
METHYLENE CHLORIDE	2.00	96	70 - 130
NAPHTHALENE	2.00	99	70 - 130

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD: 524.2 DRINKING WATER VOLATILES

LABORATORY CONTROL SAMPLE SUMMARY

REFERENCE ORDER #: 529338 ANALYTICAL RUN # : 74207

ANALYTE	TRUE VALUE	% RECOVERY	QC LIMITS
DATE ANALYZED : 02/02/02			
ANALYTICAL DILUTION: 1.0			
N-PROPYLBENZENE	2.00	92	70 - 130
STYRENE	2.00	88	70 - 130
1,1,1,2-TETRACHLOROETHANE	2.00	85	70 - 130
1,1,2,2-TETRACHLOROETHANE	2.00	96	70 - 130
TETRACHLOROETHENE	2.00	93	70 - 130
TOLUENE	2.00	90	70 - 130
1,2,4-TRICHLOROBENZENE	2.00	93	70 - 130
1,2,3-TRICHLOROBENZENE	2.00	95	70 - 130
1,1,1-TRICHLOROETHANE	2.00	82	70 - 130
1,1,2-TRICHLOROETHANE	2.00	95	70 - 130
RICHLOROETHENE	2.00	87	70 - 130
RICHLOROFLUOROMETHANE	2.00	94	70 - 130
1,2,3-TRICHLOROPROPANE	2.00	97	70 - 130
1,3,5-TRIMETHYLBENZENE	2.00	94	70 - 130
1,2,4-TRIMETHYLBENZENE	2.00	93	70 - 130
VINYL CHLORIDE	2.00	86	70 - 130
M+P-XYLENE	4.00	96	70 - 130
O-XYLENE	2.00	94	70 - 130

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD: 524.2 DRINKING WATER VOLATILES

LABORATORY CONTROL SAMPLE SUMMARY

REFERENCE ORDER #: 529340 ANALYTICAL RUN # : 74207

ANALYTE	TRUE VALUE	% RECOVERY	QC LIMITS
DATE ANALYZED : 02/04/02			
ANALYTICAL DILUTION: 1.0			
BENZENE	2.00	99	70 - 130
BROMOBENZENE	2.00	97	70 - 130
BROMOCHLOROMETHANE	2.00	98	70 - 130
BROMODICHLOROMETHANE	2.00	89	70 - 130
BROMOFORM	2.00	72	70 - 130
BROMOMETHANE	2.00	101	70 - 130
TERT-BUTYLBENZENE	2.00	98	70 - 130
SEC-BUTYLBENZENE	2.00	95	70 - 130
N-BUTYLBENZENE	2.00	94	70 - 130
CARBON TETRACHLORIDE	2.00	87	70 - 130
CHLOROBENZENE	2.00	93	70 - 130
CHLOROETHANE	2.00	102	70 - 130
ILOROFORM	2.00	103	70 - 130
CHLOROMETHANE	2.00	110	70 - 130
1,2-DIBROMO-3-CHLOROPROPANE	2.00	69 *	70 - 130
2-CHLOROTOLUENE	2.00	88	70 - 130
4-CHLOROTOLUENE	2.00	107	70 - 130
DIBROMOCHLOROMETHANE	2.00	82	70 - 130
1,2-DIBROMOETHANE	2.00	91	70 - 130
DIBROMOMETHANE	2.00	92	70 - 130
1,2-DICHLOROBENZENE	2.00	101	70 - 130
1,4-DICHLOROBENZENE	2.00	99	70 - 130
1,3-DICHLOROBENZENE	2.00	105	70 - 130
DICHLORODIFLUOROMETHANE	2.00	110	70 - 130
1,1-DICHLOROETHANE	2.00	97	70 - 130
1,2-DICHLOROETHANE	2.00	100	70 - 130
1,1-DICHLOROETHENE	2.00	91	70 - 130
TRANS-1,2-DICHLOROETHENE	2.00	96	70 - 130
CIS-1,2-DICHLOROETHENE	2.00	96	70 - 130
2,2-DICHLOROPROPANE	2.00	78	70 - 130
1,2-DICHLOROPROPANE	2.00	90	70 - 130
1,3-DICHLOROPROPANE	2.00	88	70 - 130
1,1-DICHLOROPROPENE	2.00	91	70 - 130
TRANS-1,3-DICHLOROPROPENE	2.00	80	70 - 130
CIS-1,3-DICHLOROPROPENE	2.00	81	70 - 130
ETHYLBENZENE	2.00	97	70 - 130
HEXACHLOROBUTADIENE	2.00	96	70 - 130
ISOPROPYLBENZENE	2.00	95	70 - 130
-ISOPROPYLTOLUENE	2.00	97	70 - 130
METHYLENE CHLORIDE	2.00	98	70 - 130
NAPHTHALENE	2.00	88	70 - 130

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD: 524.2 DRINKING WATER VOLATILES

LABORATORY CONTROL SAMPLE SUMMARY

REFERENCE ORDER #: 529340 ANALYTICAL RUN # : 74207

ANALYTE	TRUE VALUE	% RECOVERY	QC LIMITS
DATE ANALYZED : 02/04/02			
ANALYTICAL DILUTION: 1.0			
N-PROPYLBENZENE	2.00	95	70 - 130
STYRENE	2.00	93	70 - 130
1,1,1,2-TETRACHLOROETHANE	2.00	89	70 - 130
1,1,2,2-TETRACHLOROETHANE	2.00	90	70 - 130
TETRACHLOROETHENE	2.00	97	70 - 130
TOLUENE	2.00	95	70 - 130
1,2,4-TRICHLOROBENZENE	2.00	95	70 - 130
1,2,3-TRICHLOROBENZENE	2.00	95	70 - 130
1,1,1-TRICHLOROETHANE	2.00	87	70 - 130
1,1,2-TRICHLOROETHANE	2.00	93	70 - 130
TRICHLOROETHENE	2.00	91	70 - 130
TRICHLOROFLUOROMETHANE	2.00	98	70 - 130
1,2,3-TRICHLOROPROPANE	2.00	98	70 - 130
1,3,5-TRIMETHYLBENZENE	2.00	97	70 - 130
1,2,4-TRIMETHYLBENZENE	2.00	96	70 - 130
VINYL CHLORIDE	2.00	92	70 - 130
M+P-XYLENE	4.00	99	70 - 130
O-XYLENE	2.00	97	70 - 130

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

MET BLK

Lab Name: CAS/ROCH Contract: TTEM-KS

Lab Code: 10145 Case No.: R2-10409 SAS No.: SDG No.: HWSC-WW

Lab File ID: I1836.D Lab Sample ID: 529333

Date Analyzed: 02/01/02 Time Analyzed: 12:12

GC Column: RTX502. ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: GCMS#1

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LCS	529334	I1838.D	14:11
02	OS-PW-2	525954 1.0	I1839.D	14:51
03	OS-PW-1-FD	525949 1.0	I1840.D	15:31
04	OS-PW-1	525950 1.0	I1841.D	16:13
05	OS-PW-2MS	525954 1.0 MS	I1842.D	16:53
06	OS-PW-2MSD	525954 1.0 MSD	I1843.D	17:34
07	OS-PW-11	526014 1.0	I1844.D	18:15
08	OS-PW-10	526015 1.0	I1845.D	18:56
09	OS-PW-13	526016 1.0	I1846.D	19:37
10	OS-PW-14	526018 1.0	I1847.D	20:18
11	OS-PW-12	526019 1.0	I1848.D	20:59

COMMENTS

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

MET BLK 2

Lab Name: CAS/ROCH Contract: TTEM-KS

Lab Code: 10145 Case No.: R2-10409 SAS No.: _____ SDG No.: HWSC-WW

Lab File ID: I1853.D Lab Sample ID: 529337

Date Analyzed: 02/02/02 Time Analyzed: 11:37

GC Column: RTX502. ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: GCMS#1

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	OS-PW-5	525952 1.0	I1855.D	13:10
02	OS-PW-4	525953 1.0	I1856.D	13:51
03	OS-PW-4-FD	525965 1.0	I1857.D	14:32
04	OS-PW-3	525970 1.0	I1858.D	15:13
05	OS-PW-7	525971 1.0	I1859.D	15:54
06	OS-PW-8	525972 1.0	I1860.D	16:35
07	OS-PW-6	525973 1.0	I1861.D	17:16
08	OS-MUW-1	525974 1.0	I1865.D	20:00
09	OS-PW-9	525996 1.0	I1866.D	20:41

COMMENTS

4A

EPA SAMPLE NO.

VOLATILE METHOD BLANK SUMMARY

MET BLK 3

Lab Name: CAS/ROCH Contract: TTEM-KS

Lab Code: 10145 Case No.: R2-10409 SAS No.: SDG No.: HWSC-WW

Lab File ID: I1871.D Lab Sample ID: 529339

Date Analyzed: 02/04/02 Time Analyzed: 11:41

GC Column: RTX502. ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: GCMS#1

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LCS	529340	I1872.D	12:30
02	OS-PW-9 DL	525996 2.0	I1873.D	13:17

COMMENTS

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CAS/ROCH Contract: TTEM-KS

Lab Code: 10145 Case No.: R2-10409 SAS No.: _____ SDG No.: HWSC-WW

Lab File ID: I1762.D BFB Injection Date: 01/28/02

Instrument ID: GCMS#1 BFB Injection Time: 10:56

GC Column: RTX502.2 ID: 0.53 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.5
75	30.0 - 60.0% of mass 95	54.0
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	0.7 (0.8)1
174	50.0 - 120.0% of mass 95	81.5
175	5.0 - 9.0% of mass 174	5.8 (7.1)1
176	95.0 - 101.0% of mass 174	78.1 (95.8)1
177	5.0 - 9.0% of mass 176	5.5 (7.1)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	STD #1	0.5 PPB	I1764.D	01/28/02	12:30
02	STD #2	1 PPB	I1765.D	01/28/02	13:25
03	STD #3	2 PPB	I1766.D	01/28/02	14:13
04	STD #4	10 PPB	I1767.D	01/28/02	15:00
05	STD #5	20 PPB	I1768.D	01/28/02	15:47
06	STD #6	30 PPB	I1769.D	01/28/02	16:37
07	STD #7	40 PPB	I1770.D	01/28/02	17:22

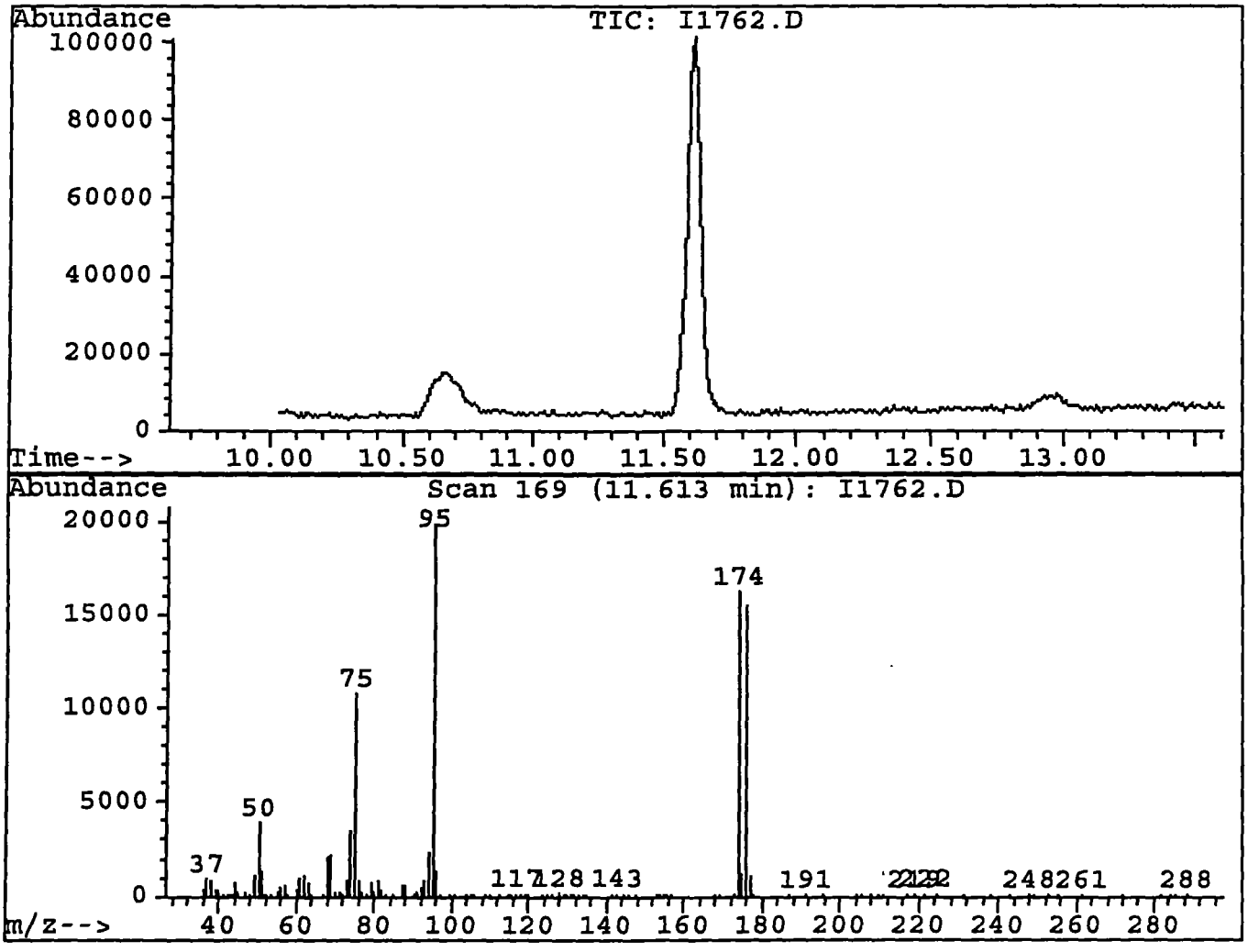
BFB

Data File : J:\ACQUDATA\MSVOA1\DATA\012802\I1762.D
Acq On : 28 Jan 102 10:56 am
Sample : TUNE CHECK
Misc :

Vial: 3
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles

David Lipani



Peak Apex is scan: 169

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.5	3876	PASS
75	95	30	60	54.0	10717	PASS
95	95	100	100	100.0	19864	PASS
96	95	5	9	6.5	1295	PASS
173	174	0	2	0.8	134	PASS
174	95	50	100	81.5	16195	PASS
175	174	5	9	7.1	1149	PASS
176	174	95	101	95.8	15507	PASS
177	176	5	9	7.1	1094	PASS

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: CAS/ROCH Contract: TTEM-KS

Lab Code: 10145 Case No.: R2-10409 SAS No.: _____ SDG No.: HWSC-WW

Lab File ID: I1833.D BFB Injection Date: 02/01/02

Instrument ID: GCMS#1 BFB Injection Time: 09:52

GC Column: RTX502.2 ID: 0.53 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.7
75	30.0 - 60.0% of mass 95	53.9
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	8.0
173	Less than 2.0% of mass 174	0.4 (0.6)1
174	50.0 - 120.0% of mass 95	78.5
175	5.0 - 9.0% of mass 174	5.3 (6.7)1
176	95.0 - 101.0% of mass 174	75.1 (95.8)1
177	5.0 - 9.0% of mass 176	5.1 (6.7)2

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

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

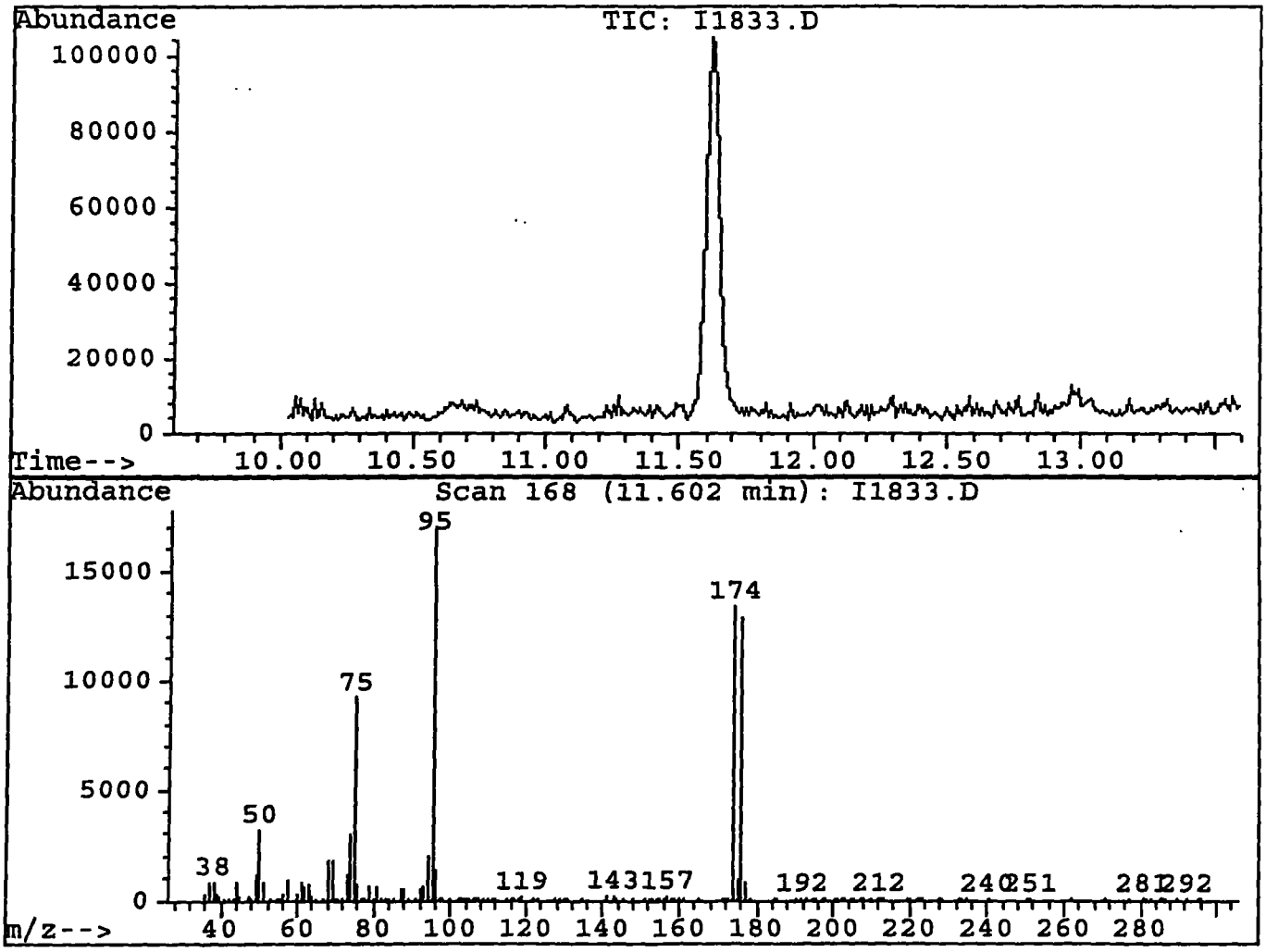
	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	CCV	CCV	I1835.D	02/01/02	11:15
02	MET BLK	529333	I1836.D	02/01/02	12:12
03	LCS	529334	I1838.D	02/01/02	14:11
04	OS-PW-2	525954 1.0	I1839.D	02/01/02	14:51
05	OS-PW-1-FD	525949 1.0	I1840.D	02/01/02	15:31
06	OS-PW-1	525950 1.0	I1841.D	02/01/02	16:13
07	OS-PW-2MS	525954 1.0 MS	I1842.D	02/01/02	16:53
08	OS-PW-2MSD	525954 1.0 MSD	I1843.D	02/01/02	17:34
09	OS-PW-11	526014 1.0	I1844.D	02/01/02	18:15
10	OS-PW-10	526015 1.0	I1845.D	02/01/02	18:56
11	OS-PW-13	526016 1.0	I1846.D	02/01/02	19:37
12	OS-PW-14	526018 1.0	I1847.D	02/01/02	20:18
13	OS-PW-12	526019 1.0	I1848.D	02/01/02	20:59

BFB

Data File : J:\ACQUDATA\MSVOA1\DATA\020102\I1833.D
Acq On : 1 Feb 102 9:52 am
Sample : TUNE CHECK
Misc :

Vial: 39
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles



Peak Apex is scan: 168

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.7	3193	PASS
75	95	30	60	53.9	9193	PASS
95	95	100	100	100.0	17056	PASS
96	95	5	9	8.0	1368	PASS
173	174	0	2	0.6	74	PASS
174	95	50	100	78.5	13385	PASS
175	174	5	9	6.7	899	PASS
176	174	95	101	95.8	12817	PASS
177	176	5	9	6.7	863	PASS

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: CAS/ROCH Contract: TTEM-KS

Lab Code: 10145 Case No.: R2-10409 SAS No.: _____ SDG No.: HWSC-WW

Lab File ID: I1851.D BFB Injection Date: 02/02/02

Instrument ID: GCMS#1 BFB Injection Time: 10:12

GC Column: RTX502.2 ID: 0.53 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.6
75	30.0 - 60.0% of mass 95	47.4
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	5.3
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	76.5
175	5.0 - 9.0% of mass 174	4.9 (6.4)1
176	95.0 - 101.0% of mass 174	74.0 (96.7)1
177	5.0 - 9.0% of mass 176	5.1 (6.9)2

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

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

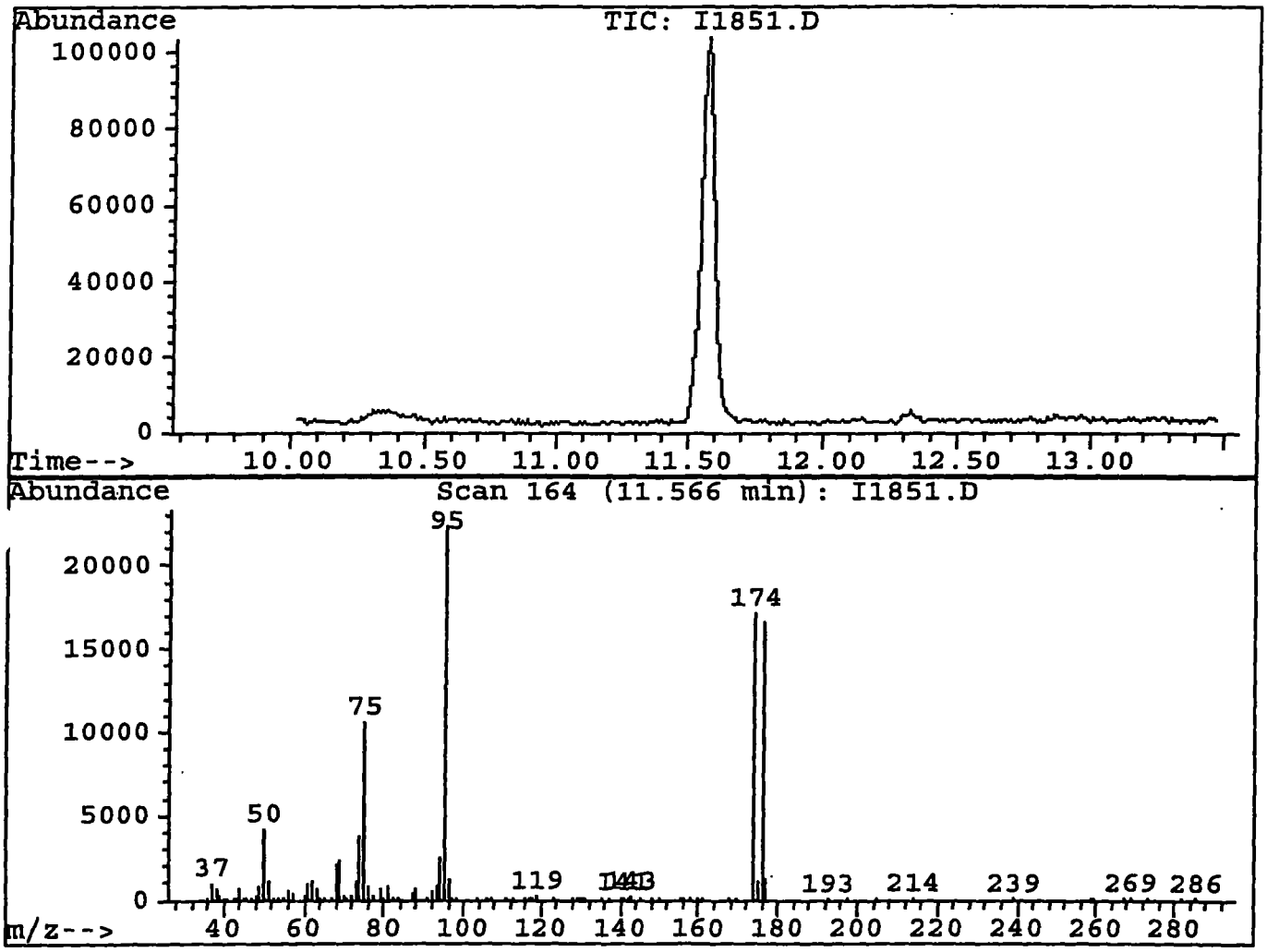
	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	CCV	CCV	I1852.D	02/02/02	10:46
02	MET BLK 2	529337	I1853.D	02/02/02	11:37
03	LCS	529338	I1854.D	02/02/02	12:18
04	OS-PW-5	525952 1.0	I1855.D	02/02/02	13:10
05	OS-PW-4	525953 1.0	I1856.D	02/02/02	13:51
06	OS-PW-4-FD	525965 1.0	I1857.D	02/02/02	14:32
07	OS-PW-3	525970 1.0	I1858.D	02/02/02	15:13
08	OS-PW-7	525971 1.0	I1859.D	02/02/02	15:54
09	OS-PW-8	525972 1.0	I1860.D	02/02/02	16:35
10	OS-PW-6	525973 1.0	I1861.D	02/02/02	17:16
11	OS-MUW-1	525974 1.0	I1865.D	02/02/02	20:00
12	OS-PW-9	525996 1.0	I1866.D	02/02/02	20:41

BFB

Data File : J:\ACQUDATA\MSVOA1\DATA\020202\I1851.D
Acq On : 2 Feb 102 10:12 am
Sample : TUNE CHECK
Misc :

Vial: 10
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles



Peak Apex is scan: 164

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.6	4165	PASS
75	95	30	60	47.4	10588	PASS
95	95	100	100	100.0	22344	PASS
96	95	5	9	5.3	1177	PASS
173	174	0	2	0.0	0	PASS
174	95	50	100	76.5	17104	PASS
175	174	5	9	6.4	1093	PASS
176	174	95	101	96.7	16536	PASS
177	176	5	9	6.9	1148	PASS

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: CAS/ROCH Contract: TTEM-KS

Lab Code: 10145 Case No.: R2-10409 SAS No.: _____ SDG No.: HWSC-WW

Lab File ID: I1868.D BFB Injection Date: 02/04/02

Instrument ID: GCMS#1 BFB Injection Time: 09:28

GC Column: RTX502.2 ID: 0.53 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.4
75	30.0 - 60.0% of mass 95	51.4
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	8.0
173	Less than 2.0% of mass 174	0.4 (0.6)1
174	50.0 - 120.0% of mass 95	74.5
175	5.0 - 9.0% of mass 174	4.7 (6.3)1
176	95.0 - 101.0% of mass 174	75.1 (100.8)1
177	5.0 - 9.0% of mass 176	4.6 (6.2)2

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

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

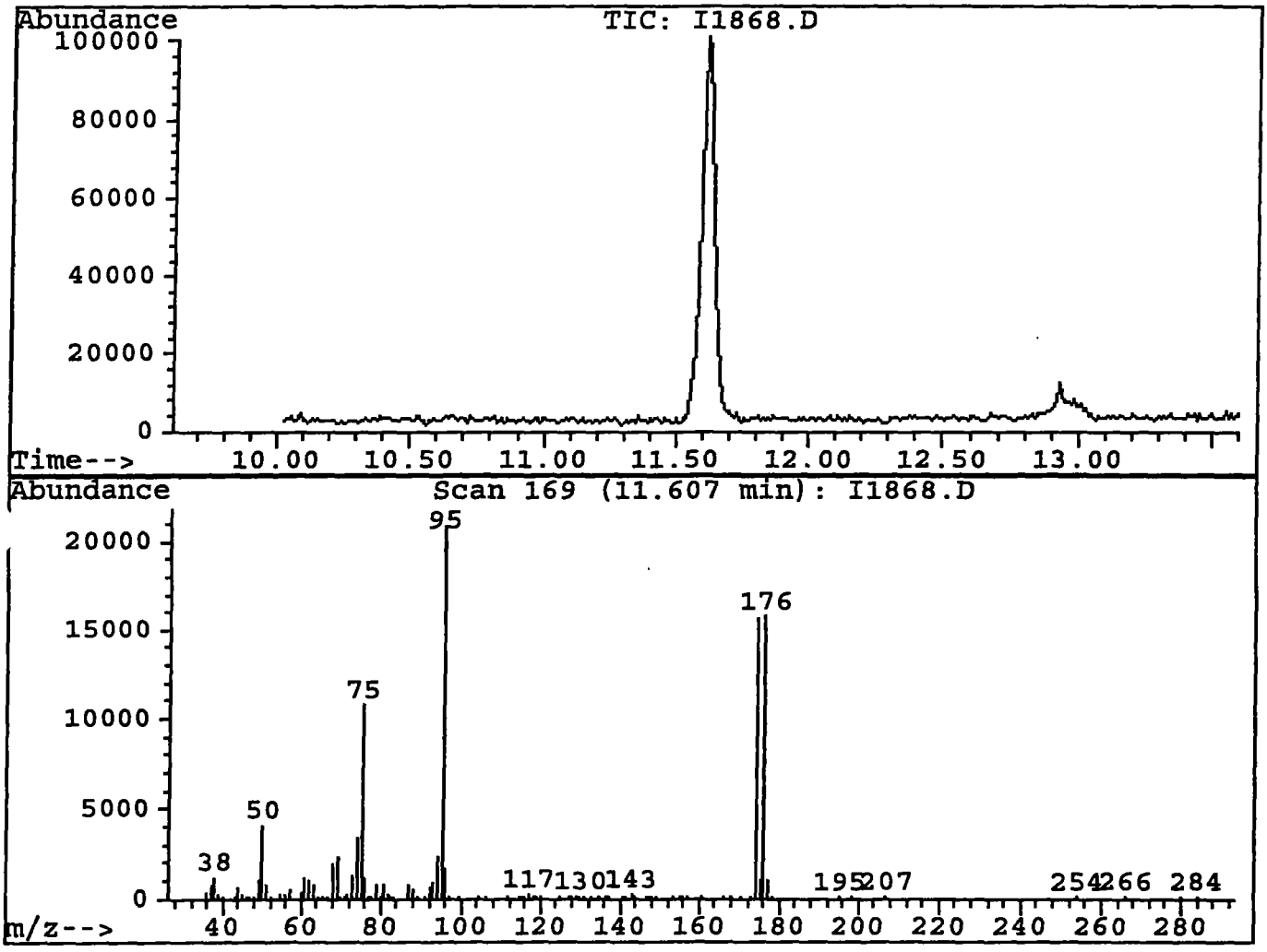
	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	CCV	CCV	I1869.D	02/04/02	10:09
02	MET BLK 3	529339	I1871.D	02/04/02	11:41
03	LCS	529340	I1872.D	02/04/02	12:30
04	OS-PW-9 DL	525996 2.0	I1873.D	02/04/02	13:17

BFB

Data File : J:\ACQUDATA\MSVOA1\DATA\020402\I1868.D Vial: 19
Acq On : 4 Feb 102 9:28 am Operator: DLIPANI
Sample : TUNE CHECK Inst : 5970 - In
Misc : Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles

David Lipani



Peak Apex is scan: 169

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.4	4065	PASS
75	95	30	60	51.4	10746	PASS
95	95	100	100	100.0	20912	PASS
96	95	5	9	8.0	1678	PASS
173	174	0	2	0.6	89	PASS
174	95	50	100	74.5	15585	PASS
175	174	5	9	6.3	975	PASS
176	174	95	101	100.8	15714	PASS
177	176	5	9	6.2	969	PASS

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CAS/ROCH Contract: TTEM-KS

Lab Code: 10145 Case No.: R2-10409 SAS No.: _____ SDG No.: HWSC-WW

Lab File ID (Standard): I1835.D Date Analyzed: 02/01/02

Instrument ID: GCMS#1 Time Analyzed: 11:15

GC Column: RTX502.2 ID: 0.53 (mm) Heated Purge: (Y/N) N

		IS1 AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR ST	59341	14.73				
	LOWER LIMIT	29671	14.23				
	UPPER LIMIT	118682	15.23				
	EPA SAMPLE NO.						
01	MET BLK	55243	14.70				
02	LCS	53880	14.72				
03	OS-PW-2	53670	14.73				
04	OS-PW-1-FD	53383	14.74				
05	OS-PW-1	54568	14.74				
06	OS-PW-2MS	54744	14.74				
07	OS-PW-2MSD	55460	14.73				
08	OS-PW-11	55901	14.69				
09	OS-PW-10	54856	14.69				
10	OS-PW-13	53577	14.69				
11	OS-PW-14	53207	14.67				
12	OS-PW-12	51362	14.69				

IS1 = Fluorobenzene

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

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CAS/ROCH Contract: TTEM-KS

Lab Code: 10145 Case No.: R2-10409 SAS No.: _____ SDG No.: HWSC-WW

Lab File ID (Standard): I1852.D Date Analyzed: 02/02/02

Instrument ID: GCMS#1 Time Analyzed: 10:46

GC Column: RTX502.2 ID: 0.53 (mm) Heated Purge: (Y/N) N

		IS1 AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR ST	53881	14.69				
	LOWER LIMIT	26941	14.19				
	UPPER LIMIT	107762	15.19				
	EPA SAMPLE NO.						
01	MET BLK 2	53263	14.69				
02	LCS	53863	14.68				
03	OS-PW-5	52365	14.70				
04	OS-PW-4	52412	14.68				
05	OS-PW-4-FD	53815	14.65				
06	OS-PW-3	52539	14.65				
07	OS-PW-7	50923	14.65				
08	OS-PW-8	50889	14.65				
09	OS-PW-6	49333	14.66				
10	OS-MUW-1	49892	14.67				
11	OS-PW-9	50325	14.67				

IS1 = Fluorobenzene

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

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CAS/ROCH Contract: TTEM-KS

Lab Code: 10145 Case No.: R2-10409 SAS No.: _____ SDG No.: HWSC-WW

Lab File ID (Standard): I1869.D Date Analyzed: 02/04/02

Instrument ID: GCMS#1 Time Analyzed: 10:09

GC Column: RTX502.2 ID: 0.53 (mm) Heated Purge: (Y/N) N

		IS1 AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR ST	56448	14.72				
	LOWER LIMIT	28224	14.22				
	UPPER LIMIT	112896	15.22				
	EPA SAMPLE NO.						
01	MET BLK 3	55382	14.70				
02	LCS	53502	14.74				
03	OS-PW-9 DL	54950	14.71				

IS1 = Fluorobenzene

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

Column to be used to flag values outside QC limit with an asterisk.
* Values outside of contract required QC limits

524 VOLATILE ORGANICS

SAMPLE DATA

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 02/22/02

Tetra Tech EM Inc.
Project Reference: AGROMACK-LOCKWOOD OU#2
Client Sample ID : OS-PW-1-FD

Date Sampled : 01/19/02 13:30 **Order #:** 525949 **Sample Matrix:** WATER
Date Received: 01/23/02 **Submission #:** R2210409 **Analytical Run** 74207

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 02/01/02			
ANALYTICAL DILUTION: 1.00			
BENZENE	0.50	0.50 U	UG/L
BROMOBENZENE	0.50	0.50 U	UG/L
BROMOCHLOROMETHANE	0.50	0.50 U	ug/L
BROMODICHLOROMETHANE	0.50	0.50 U	UG/L
BROMOFORM	0.50	0.50 U	UG/L
BROMOMETHANE	0.50	0.50 U	UG/L
TERT-BUTYLBENZENE	0.50	0.50 U	UG/L
SEC-BUTYLBENZENE	0.50	0.50 U	UG/L
N-BUTYLBENZENE	0.50	0.50 U	UG/L
CARBON TETRACHLORIDE	0.50	0.50 U	UG/L
CHLOROBENZENE	0.50	0.50 U	UG/L
'HLOROETHANE	0.50	0.50 U	UG/L
.HLOROFORM	0.50	0.50 U	UG/L
CHLOROMETHANE	0.50	0.50 U	UG/L
1,2-DIBROMO-3-CHLOROPROPANE	0.50	0.50 U	UG/L
2-CHLOROTOLUENE	0.50	0.50 U	UG/L
4-CHLOROTOLUENE	0.50	0.50 U	UG/L
DIBROMOCHLOROMETHANE	0.50	0.50 U	UG/L
1,2-DIBROMOETHANE	0.50	0.50 U	UG/L
DIBROMOMETHANE	0.50	0.50 U	UG/L
1,2-DICHLOROBENZENE	0.50	0.50 U	UG/L
1,4-DICHLOROBENZENE	0.50	0.50 U	UG/L
1,3-DICHLOROBENZENE	0.50	0.50 U	UG/L
DICHLORODIFLUOROMETHANE	0.50	0.50 U	UG/L
1,1-DICHLOROETHANE	0.50	0.50 U	UG/L
1,2-DICHLOROETHANE	0.50	0.50 U	UG/L
1,1-DICHLOROETHENE	0.50	0.50 U	UG/L
TRANS-1,2-DICHLOROETHENE	0.50	0.50 U	UG/L
CIS-1,2-DICHLOROETHENE	0.50	0.50 U	UG/L
2,2-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,2-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,3-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,1-DICHLOROPROPENE	0.50	0.50 U	UG/L
TRANS-1,3-DICHLOROPROPENE	0.50	0.50 U	UG/L
CIS-1,3-DICHLOROPROPENE	0.50	0.50 U	UG/L
ETHYLBENZENE	0.50	0.50 U	UG/L
HEXACHLOROBUTADIENE	0.50	0.50 U	UG/L
SOPROPYLBENZENE	0.50	0.50 U	UG/L
P-ISOPROPYLTOLUENE	0.50	0.50 U	UG/L
METHYLENE CHLORIDE	0.50	0.50 U	UG/L
NAPHTHALENE	0.50	0.50 U	UG/L
N-PROPYLBENZENE	0.50	0.50 U	UG/L
STYRENE	0.50	0.50 U	UG/L
1,1,1,2-TETRACHLOROETHANE	0.50	0.50 U	UG/L

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 02/22/02

Tetra Tech EM Inc.
Project Reference: AGROMACK-LOCKWOOD OU#2
Client Sample ID : OS-PW-1-FD

Date Sampled : 01/19/02 13:30 **Order #:** 525949 **Sample Matrix:** WATER
Date Received: 01/23/02 **Submission #:** R2210409 **Analytical Run** 74207

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 02/01/02			
ANALYTICAL DILUTION: 1.00			
1,1,2,2-TETRACHLOROETHANE	0.50	0.50 U	UG/L
TETRACHLOROETHENE	0.50	0.50 U	UG/L
TOLUENE	0.50	0.50 U	UG/L
1,2,4-TRICHLOROBENZENE	0.50	0.50 U	UG/L
1,2,3-TRICHLOROBENZENE	0.50	0.50 U	ug/L
1,1,1-TRICHLOROETHANE	0.50	0.50 U	UG/L
1,1,2-TRICHLOROETHANE	0.50	0.50 U	UG/L
TRICHLOROETHENE	0.50	0.50 U	UG/L
TRICHLOROFLUOROMETHANE	0.50	0.50 U	UG/L
1,2,3-TRICHLOROPROPANE	0.50	0.50 U	UG/L
1,3,5-TRIMETHYLBENZENE	0.50	0.50 U	UG/L
,2,4-TRIMETHYLBENZENE	0.50	0.50 U	UG/L
INYL CHLORIDE	0.50	0.50 U	UG/L
M+P-XYLENE	0.50	0.50 U	UG/L
O-XYLENE	0.50	0.50 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
BROMOFLUOROBENZENE	(64 - 127 %)	92	%
1,2-DICHLOROBENZENE-D4	(59 - 136 %)	87	%

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\020102\I1840.D Vial: 39
Acq On : 1 Feb 102 3:31 pm Operator: DLIPANI
Sample : 525949 1.0 Inst : 5970 - In
Misc : TTEM R22-10409 524.2 Multiplr: 1.00
Quant Time: Feb 1 16:07 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	14.74	96	53383	1.00	ppb	0.08
System Monitoring Compounds						%Recovery
49) Surr2,BFB	25.13	95	52516	1.84	ppb	91.76%
63) Surr5,1,2-Dichlorobenzene-	29.16	152	39154	1.73	ppb	86.66%
Target Compounds						Qvalue
8) Acetone	7.60	43	5455	2.84	ppb	94 NT

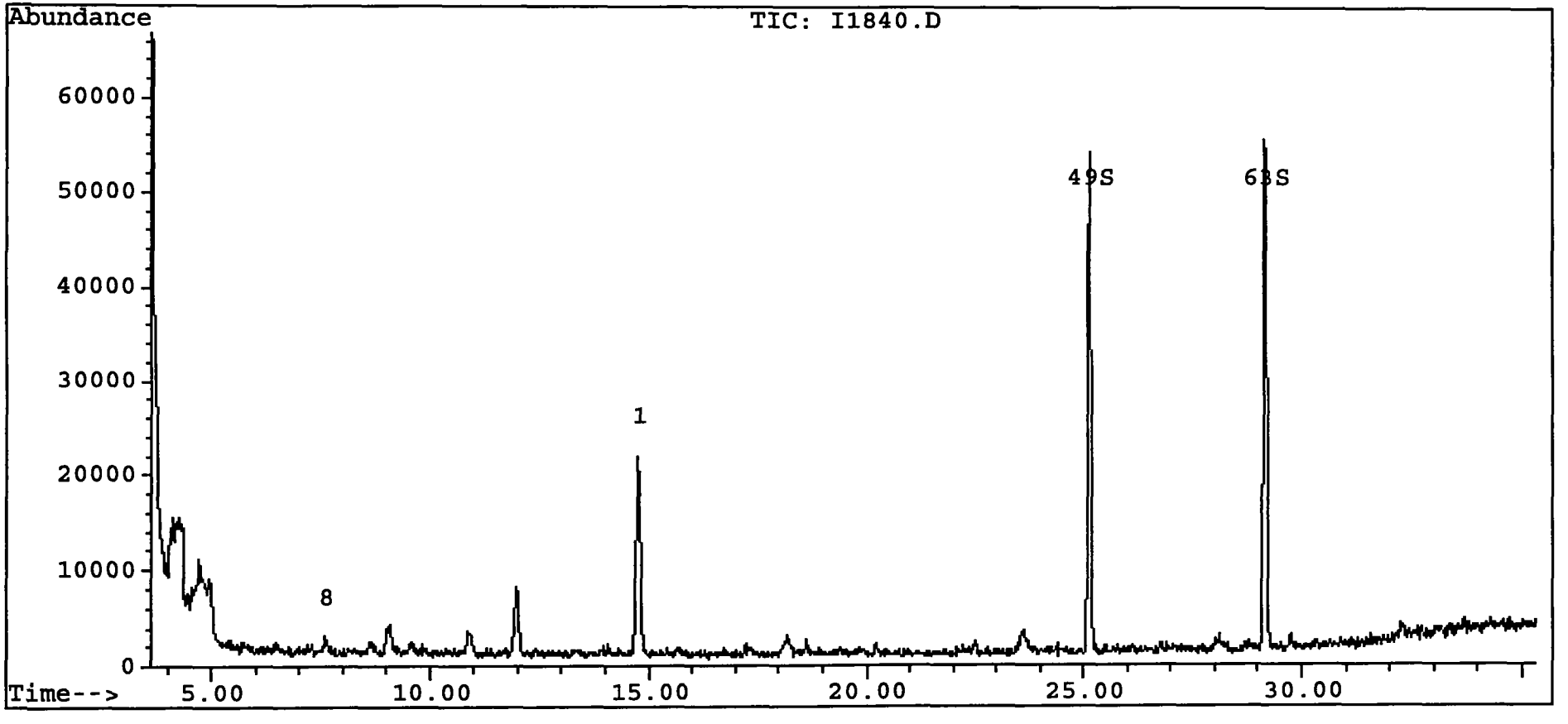
PL
2/1/02

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\020102\I1840.D Vial: 39
Acq On : 1 Feb 102 3:31 pm Operator: DLIPANI
Sample : 525949 1.0 Inst : 5970 - In
Misc : TTEM R22-10409 524.2 Multiplr: 1.00
Quant Time: Feb 1 16:07 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 02/22/02

Tetra Tech EM Inc.
Project Reference: AGROMACK-LOCKWOOD OU#2
Client Sample ID : OS-PW-1

Date Sampled : 01/19/02 13:30 **Order #:** 525950 **Sample Matrix:** WATER
Date Received: 01/23/02 **Submission #:** R2210409 **Analytical Run** 74207

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 02/01/02			
ANALYTICAL DILUTION: 1.00			
BENZENE	0.50	0.50 U	UG/L
BROMOBENZENE	0.50	0.50 U	UG/L
BROMOCHLOROMETHANE	0.50	0.50 U	ug/L
BROMODICHLOROMETHANE	0.50	0.50 U	UG/L
BROMOFORM	0.50	0.50 U	UG/L
BROMOMETHANE	0.50	0.50 U	UG/L
TERT-BUTYLBENZENE	0.50	0.50 U	UG/L
SEC-BUTYLBENZENE	0.50	0.50 U	UG/L
N-BUTYLBENZENE	0.50	0.50 U	UG/L
CARBON TETRACHLORIDE	0.50	0.50 U	UG/L
CHLOROBENZENE	0.50	0.50 U	UG/L
CHLOROETHANE	0.50	0.50 U	UG/L
HLOROFORM	0.50	0.50 U	UG/L
HLOROMETHANE	0.50	0.50 U	UG/L
1,2-DIBROMO-3-CHLOROPROPANE	0.50	0.50 U	UG/L
2-CHLOROTOLUENE	0.50	0.50 U	UG/L
4-CHLOROTOLUENE	0.50	0.50 U	UG/L
DIBROMOCHLOROMETHANE	0.50	0.50 U	UG/L
1,2-DIBROMOETHANE	0.50	0.50 U	UG/L
DIBROMOMETHANE	0.50	0.50 U	UG/L
1,2-DICHLOROBENZENE	0.50	0.50 U	UG/L
1,4-DICHLOROBENZENE	0.50	0.50 U	UG/L
1,3-DICHLOROBENZENE	0.50	0.50 U	UG/L
DICHLORODIFLUOROMETHANE	0.50	0.50 U	UG/L
1,1-DICHLOROETHANE	0.50	0.50 U	UG/L
1,2-DICHLOROETHANE	0.50	0.50 U	UG/L
1,1-DICHLOROETHENE	0.50	0.50 U	UG/L
TRANS-1,2-DICHLOROETHENE	0.50	0.50 U	UG/L
CIS-1,2-DICHLOROETHENE	0.50	0.50 U	UG/L
2,2-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,2-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,3-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,1-DICHLOROPROPENE	0.50	0.50 U	UG/L
TRANS-1,3-DICHLOROPROPENE	0.50	0.50 U	UG/L
CIS-1,3-DICHLOROPROPENE	0.50	0.50 U	UG/L
ETHYLBENZENE	0.50	0.50 U	UG/L
HEXACHLOROBUTADIENE	0.50	0.50 U	UG/L
SOPROPYLBENZENE	0.50	0.50 U	UG/L
-ISOPROPYLTOLUENE	0.50	0.50 U	UG/L
METHYLENE CHLORIDE	0.50	0.50 U	UG/L
NAPHTHALENE	0.50	0.50 U	UG/L
N-PROPYLBENZENE	0.50	0.50 U	UG/L
STYRENE	0.50	0.50 U	UG/L
1,1,1,2-TETRACHLOROETHANE	0.50	0.50 U	UG/L

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 02/22/02

Tetra Tech EM Inc.
Project Reference: AGROMACK-LOCKWOOD OU#2
Client Sample ID : OS-PW-1

Date Sampled : 01/19/02 13:30 **Order #:** 525950 **Sample Matrix:** WATER
Date Received: 01/23/02 **Submission #:** R2210409 **Analytical Run** 74207

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 02/01/02			
ANALYTICAL DILUTION: 1.00			
1,1,2,2-TETRACHLOROETHANE	0.50	0.50 U	UG/L
TETRACHLOROETHENE	0.50	0.50 U	UG/L
TOLUENE	0.50	0.50 U	UG/L
1,2,4-TRICHLOROBENZENE	0.50	0.50 U	UG/L
1,2,3-TRICHLOROBENZENE	0.50	0.50 U	ug/L
1,1,1-TRICHLOROETHANE	0.50	0.50 U	UG/L
1,1,2-TRICHLOROETHANE	0.50	0.50 U	UG/L
TRICHLOROETHENE	0.50	0.50 U	UG/L
TRICHLOROFLUOROMETHANE	0.50	0.50 U	UG/L
1,2,3-TRICHLOROPROPANE	0.50	0.50 U	UG/L
1,3,5-TRIMETHYLBENZENE	0.50	0.50 U	UG/L
1,2,4-TRIMETHYLBENZENE	0.50	0.50 U	UG/L
'INYL CHLORIDE	0.50	0.50 U	UG/L
M+P-XYLENE	0.50	0.50 U	UG/L
O-XYLENE	0.50	0.50 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
BROMOFLUOROBENZENE	(64 - 127 %)	92	%
1,2-DICHLOROBENZENE-D4	(59 - 136 %)	92	%

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\020102\I1841.D Vial: 39
Acq On : 1 Feb 102 4:13 pm Operator: DLIPANI
Sample : 525950 1.0 Inst : 5970 - In
Misc : TTEM R22-10409 524.2 Multiplr: 1.00
Quant Time: Feb 1 16:48 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	14.74	96	54568	1.00	ppb	0.08
System Monitoring Compounds						%Recovery
49) Surr2,BFB	25.11	95	53496	1.83	ppb	91.44%
63) Surr5,1,2-Dichlorobenzene-	29.15	152	42488	1.84	ppb	92.00%
Target Compounds						Qvalue
8) Acetone	7.62	43	3100	1.58	ppb #	46

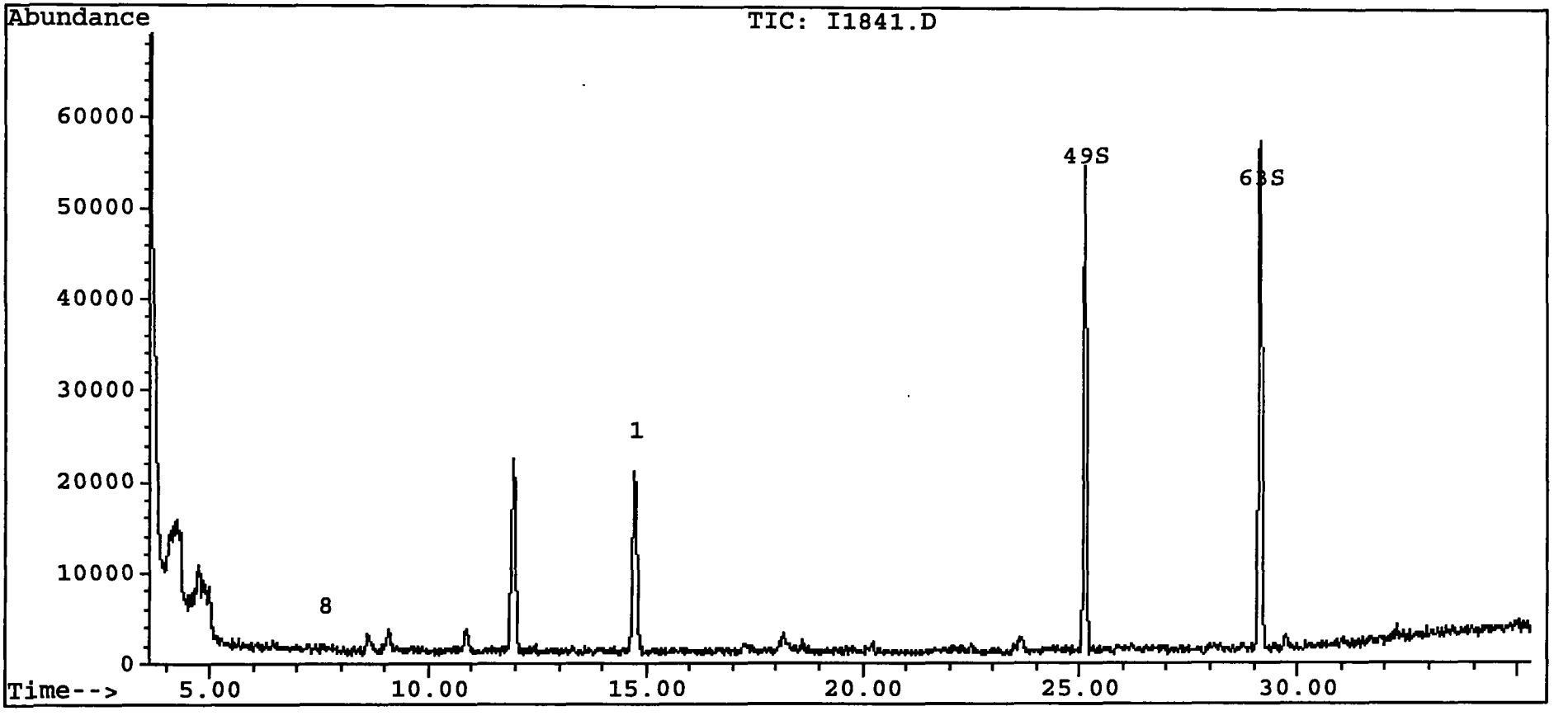
NT
DL
02/01/02

(#) = qualifier out of range (m) = manual integration
I1841.D 5240128.M Fri Feb 01 16:48:45 2002 TEST2

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\020102\I1841.D Vial: 39
Acq On : 1 Feb 102 4:13 pm Operator: DLIPANI
Sample : 525950 1.0 Inst : 5970 - In
Misc : TTEM R22-10409 524.2 Multiplr: 1.00
Quant Time: Feb 1 16:48 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration



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COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 02/22/02

Tetra Tech EM Inc.
Project Reference: AGROMACK-LOCKWOOD OU#2
Client Sample ID : OS-PW-5

Date Sampled : 01/20/02 16:21 **Order #:** 525952 **Sample Matrix:** WATER
Date Received: 01/23/02 **Submission #:** R2210409 **Analytical Run** 74207

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 02/02/02			
ANALYTICAL DILUTION: 1.00			
BENZENE	0.50	0.50 U	UG/L
BROMOBENZENE	0.50	0.50 U	UG/L
BROMOCHLOROMETHANE	0.50	0.50 U	ug/L
BROMODICHLOROMETHANE	0.50	0.50 U	UG/L
BROMOFORM	0.50	0.50 U	UG/L
BROMOMETHANE	0.50	0.50 U	UG/L
TERT-BUTYLBENZENE	0.50	0.50 U	UG/L
SEC-BUTYLBENZENE	0.50	0.50 U	UG/L
N-BUTYLBENZENE	0.50	0.50 U	UG/L
CARBON TETRACHLORIDE	0.50	0.50 U	UG/L
CHLOROBENZENE	0.50	0.50 U	UG/L
CHLOROETHANE	0.50	0.50 U	UG/L
`HLOROFORM	0.50	0.50 U	UG/L
;HLOROMETHANE	0.50	0.50 U	UG/L
1,2-DIBROMO-3-CHLOROPROPANE	0.50	0.50 U	UG/L
2-CHLOROTOLUENE	0.50	0.50 U	UG/L
4-CHLOROTOLUENE	0.50	0.50 U	UG/L
DIBROMOCHLOROMETHANE	0.50	0.50 U	UG/L
1,2-DIBROMOETHANE	0.50	0.50 U	UG/L
DIBROMOMETHANE	0.50	0.50 U	UG/L
1,2-DICHLOROBENZENE	0.50	0.50 U	UG/L
1,4-DICHLOROBENZENE	0.50	0.50 U	UG/L
1,3-DICHLOROBENZENE	0.50	0.50 U	UG/L
DICHLORODIFLUOROMETHANE	0.50	0.50 U	UG/L
1,1-DICHLOROETHANE	0.50	0.50 U	UG/L
1,2-DICHLOROETHANE	0.50	0.50 U	UG/L
1,1-DICHLOROETHENE	0.50	0.50 U	UG/L
TRANS-1,2-DICHLOROETHENE	0.50	0.50 U	UG/L
CIS-1,2-DICHLOROETHENE	0.50	0.50 U	UG/L
2,2-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,2-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,3-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,1-DICHLOROPROPENE	0.50	0.50 U	UG/L
TRANS-1,3-DICHLOROPROPENE	0.50	0.50 U	UG/L
CIS-1,3-DICHLOROPROPENE	0.50	0.50 U	UG/L
ETHYLBENZENE	0.50	0.50 U	UG/L
HEXACHLOROBUTADIENE	0.50	0.50 U	UG/L
ISOPROPYLBENZENE	0.50	0.50 U	UG/L
-ISOPROPYLTOLUENE	0.50	0.50 U	UG/L
METHYLENE CHLORIDE	0.50	0.50 U	UG/L
NAPHTHALENE	0.50	0.50 U	UG/L
N-PROPYLBENZENE	0.50	0.50 U	UG/L
STYRENE	0.50	0.50 U	UG/L
1,1,1,2-TETRACHLOROETHANE	0.50	0.50 U	UG/L

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 02/22/02

Tetra Tech EM Inc.
Project Reference: AGROMACK-LOCKWOOD OU#2
Client Sample ID : OS-PW-5

Date Sampled : 01/20/02 16:21 **Order #:** 525952 **Sample Matrix:** WATER
Date Received: 01/23/02 **Submission #:** R2210409 **Analytical Run** 74207

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 02/02/02			
ANALYTICAL DILUTION: 1.00			
1,1,2,2-TETRACHLOROETHANE	0.50	0.50 U	UG/L
TETRACHLOROETHENE	0.50	0.50 U	UG/L
TOLUENE	0.50	0.50 U	UG/L
1,2,4-TRICHLOROBENZENE	0.50	0.50 U	UG/L
1,2,3-TRICHLOROBENZENE	0.50	0.50 U	ug/L
1,1,1-TRICHLOROETHANE	0.50	0.50 U	UG/L
1,1,2-TRICHLOROETHANE	0.50	0.50 U	UG/L
TRICHLOROETHENE	0.50	0.50 U	UG/L
TRICHLOROFLUOROMETHANE	0.50	0.50 U	UG/L
1,2,3-TRICHLOROPROPANE	0.50	0.50 U	UG/L
1,3,5-TRIMETHYLBENZENE	0.50	0.50 U	UG/L
1,2,4-TRIMETHYLBENZENE	0.50	0.50 U	UG/L
VINYL CHLORIDE	0.50	0.50 U	UG/L
M+P-XYLENE	0.50	0.50 U	UG/L
O-XYLENE	0.50	0.50 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
BROMOFLUOROBENZENE	(64 - 127 %)	91	%
1,2-DICHLOROBENZENE-D4	(59 - 136 %)	89	%

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\020202\I1855.D Vial: 10
Acq On : 2 Feb 102 1:10 pm Operator: DLIPANI
Sample : 525952 1.0 Inst : 5970 - In
Misc : TTEM R22-10409 524.2 Multiplr: 1.00
Quant Time: Feb 2 13:45 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	14.70	96	52365	1.00	ppb	0.04
System Monitoring Compounds						%Recovery
49) Surr2,BFB	25.08	95	50981	1.82	ppb	90.81%
63) Surr5,1,2-Dichlorobenzene-	29.08	152	39439	1.78	ppb	88.99%
Target Compounds						Qvalue
8) Acetone	7.62	43	3850	2.04	ppb	90

NT

DL
02/04/02

(#) = qualifier out of range (m) = manual integration

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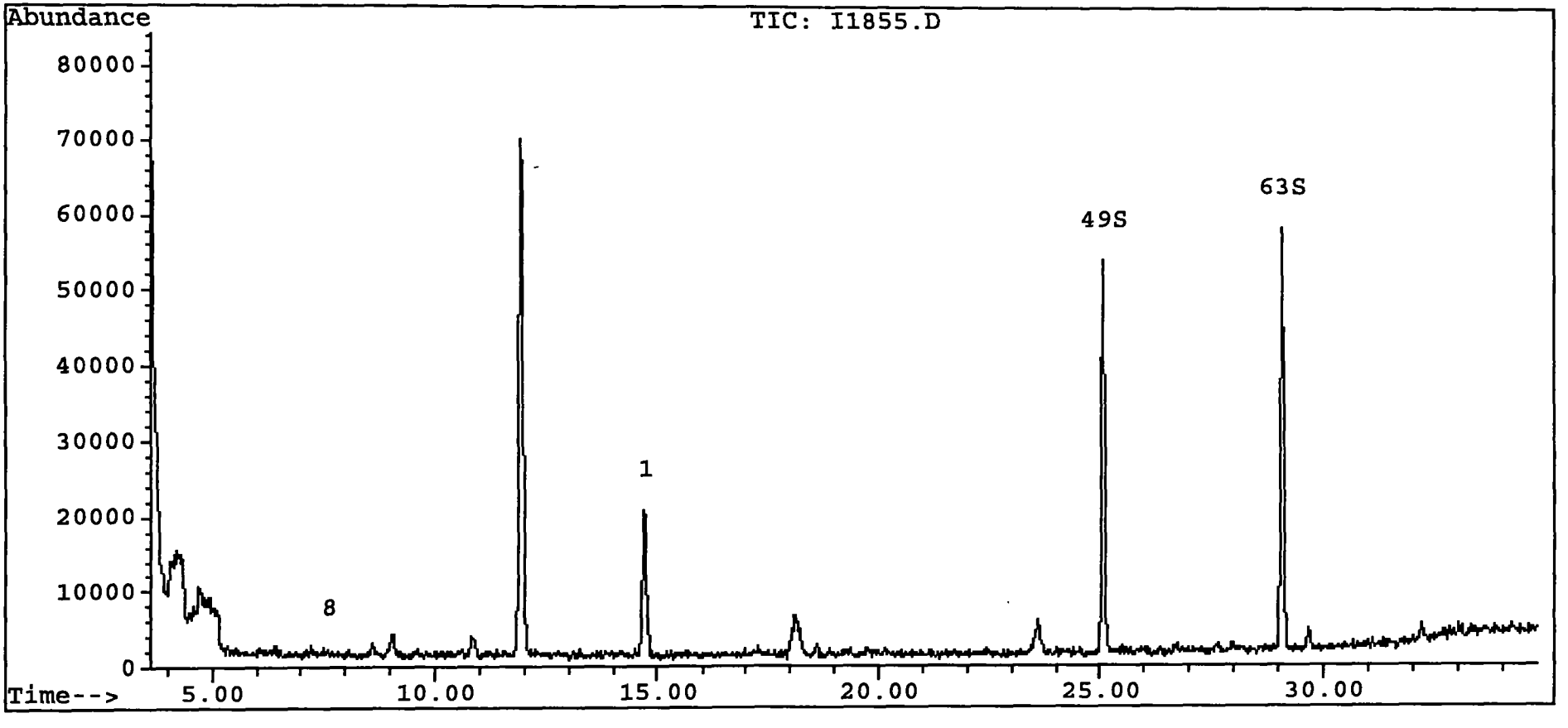
Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\020202\I1855.D Vial: 10
Acq On : 2 Feb 102 1:10 pm Operator: DLIPANI
Sample : 525952 1.0 Inst : 5970 - In
Misc : TTEM R22-10409 524.2 Multiplr: 1.00
Quant Time: Feb 2 13:45 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 02/22/02

Tetra Tech EM Inc.
Project Reference: AGROMACK-LOCKWOOD OU#2
Client Sample ID : OS-PW-4

Date Sampled : 01/20/02 15:12 **Order #:** 525953 **Sample Matrix:** WATER
Date Received: 01/23/02 **Submission #:** R2210409 **Analytical Run** 74207

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 02/02/02			
ANALYTICAL DILUTION: 1.00			
BENZENE	0.50	0.50 U	UG/L
BROMOBENZENE	0.50	0.50 U	UG/L
BROMOCHLOROMETHANE	0.50	0.50 U	ug/L
BROMODICHLOROMETHANE	0.50	0.50 U	UG/L
BROMOFORM	0.50	0.50 U	UG/L
BROMOMETHANE	0.50	0.50 U	UG/L
TERT-BUTYLBENZENE	0.50	0.50 U	UG/L
SEC-BUTYLBENZENE	0.50	0.50 U	UG/L
N-BUTYLBENZENE	0.50	0.50 U	UG/L
CARBON TETRACHLORIDE	0.50	0.50 U	UG/L
CHLOROBENZENE	0.50	0.50 U	UG/L
CHLOROETHANE	0.50	0.50 U	UG/L
CHLOROFORM	0.50	0.50 U	UG/L
CHLOROMETHANE	0.50	0.50 U	UG/L
1,2-DIBROMO-3-CHLOROPROPANE	0.50	0.50 U	UG/L
2-CHLOROTOLUENE	0.50	0.50 U	UG/L
4-CHLOROTOLUENE	0.50	0.50 U	UG/L
DIBROMOCHLOROMETHANE	0.50	0.50 U	UG/L
1,2-DIBROMOETHANE	0.50	0.50 U	UG/L
DIBROMOMETHANE	0.50	0.50 U	UG/L
1,2-DICHLOROBENZENE	0.50	0.50 U	UG/L
1,4-DICHLOROBENZENE	0.50	0.50 U	UG/L
1,3-DICHLOROBENZENE	0.50	0.50 U	UG/L
DICHLORODIFLUOROMETHANE	0.50	0.50 U	UG/L
1,1-DICHLOROETHANE	0.50	0.50 U	UG/L
1,2-DICHLOROETHANE	0.50	0.50 U	UG/L
1,1-DICHLOROETHENE	0.50	0.50 U	UG/L
TRANS-1,2-DICHLOROETHENE	0.50	0.50 U	UG/L
CIS-1,2-DICHLOROETHENE	0.50	0.50 U	UG/L
2,2-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,2-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,3-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,1-DICHLOROPROPENE	0.50	0.50 U	UG/L
TRANS-1,3-DICHLOROPROPENE	0.50	0.50 U	UG/L
CIS-1,3-DICHLOROPROPENE	0.50	0.50 U	UG/L
ETHYLBENZENE	0.50	0.50 U	UG/L
HEXACHLOROBUTADIENE	0.50	0.50 U	UG/L
ISOPROPYLBENZENE	0.50	0.50 U	UG/L
P-ISOPROPYLTOLUENE	0.50	0.50 U	UG/L
METHYLENE CHLORIDE	0.50	0.50 U	UG/L
NAPHTHALENE	0.50	0.50 U	UG/L
N-PROPYLBENZENE	0.50	0.50 U	UG/L
STYRENE	0.50	0.50 U	UG/L
1,1,1,2-TETRACHLOROETHANE	0.50	0.50 U	UG/L

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 02/22/02

Tetra Tech EM Inc.
Project Reference: AGROMACK-LOCKWOOD OU#2
Client Sample ID : OS-PW-4

Date Sampled : 01/20/02 15:12 **Order #:** 525953 **Sample Matrix:** WATER
Date Received: 01/23/02 **Submission #:** R2210409 **Analytical Run** 74207

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 02/02/02			
ANALYTICAL DILUTION: 1.00			
1,1,2,2-TETRACHLOROETHANE	0.50	0.50 U	UG/L
TETRACHLOROETHENE	0.50	0.50 U	UG/L
TOLUENE	0.50	0.50 U	UG/L
1,2,4-TRICHLOROBENZENE	0.50	0.50 U	UG/L
1,2,3-TRICHLOROBENZENE	0.50	0.50 U	ug/L
1,1,1-TRICHLOROETHANE	0.50	0.50 U	UG/L
1,1,2-TRICHLOROETHANE	0.50	0.50 U	UG/L
TRICHLOROETHENE	0.50	0.50 U	UG/L
TRICHLOROFLUOROMETHANE	0.50	0.50 U	UG/L
1,2,3-TRICHLOROPROPANE	0.50	0.50 U	UG/L
1,3,5-TRIMETHYLBENZENE	0.50	0.50 U	UG/L
1,2,4-TRIMETHYLBENZENE	0.50	0.50 U	UG/L
VINYL CHLORIDE	0.50	0.50 U	UG/L
M+P-XYLENE	0.50	0.50 U	UG/L
O-XYLENE	0.50	0.50 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
BROMOFLUOROBENZENE	(64 - 127 %)	95	%
1,2-DICHLOROBENZENE-D4	(59 - 136 %)	98	%

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\020202\I1856.D Vial: 11
Acq On : 2 Feb 102 1:51 pm Operator: DLIPANI
Sample : 525953 1.0 Inst : 5970 - In
Misc : TTEM R22-10409 524.2 Multiplr: 1.00
Quant Time: Feb 2 14:26 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	14.68	96	52412	1.00	ppb	0.02
System Monitoring Compounds						%Recovery
49) Surr2,BFB	25.05	95	53500	1.90	ppb	95.21%
63) Surr5,1,2-Dichlorobenzene-	29.07	152	43162	1.95	ppb	97.30%
Target Compounds						Qvalue
8) Acetone	7.54	43	3282	1.74	ppb #	46
16) 2-Butanone	11.54	43	1286	~~0.50~~	~~ppb~~ #	~~52~~

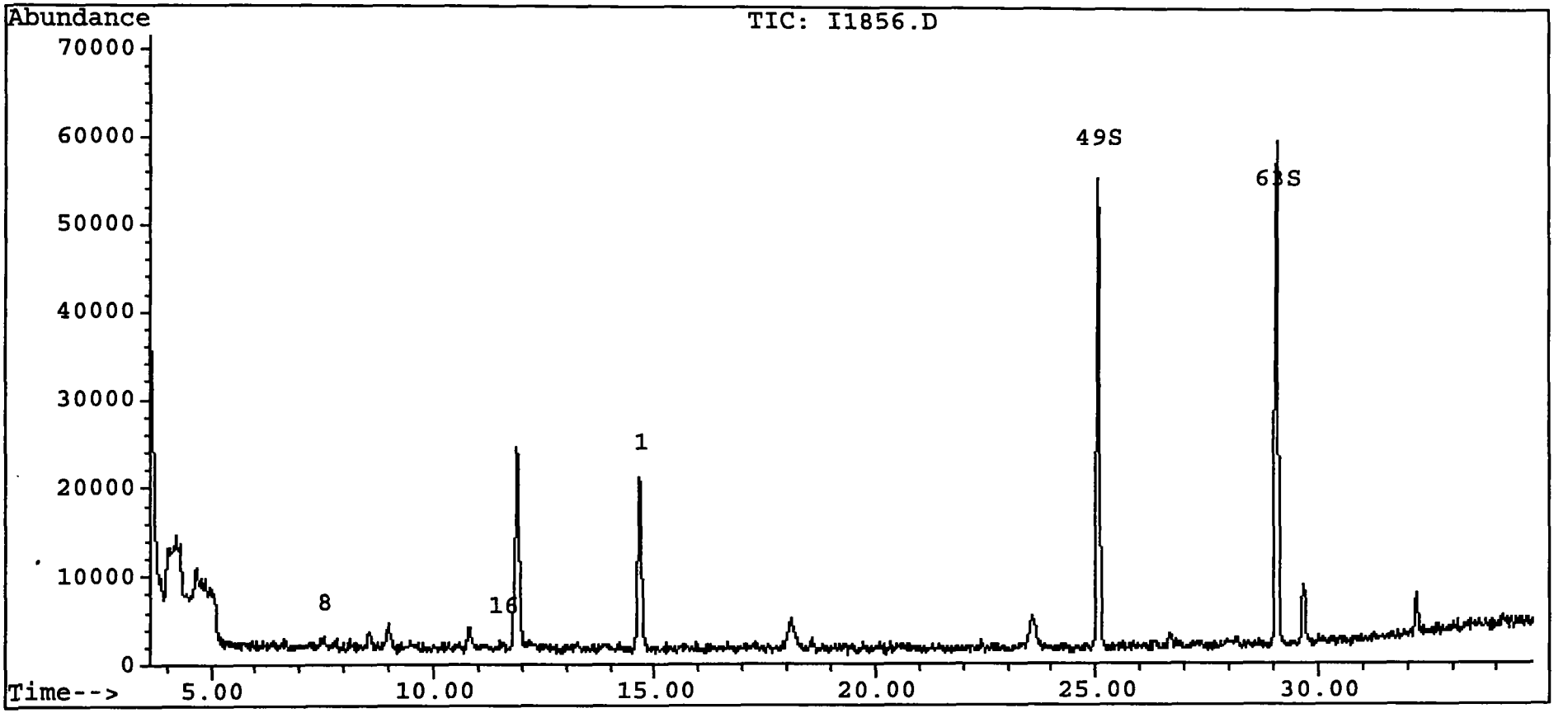
DL
02/04/02

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\020202\I1856.D Vial: 11
Acq On : 2 Feb 102 1:51 pm Operator: DLIPANI
Sample : 525953 1.0 Inst : 5970 - In
Misc : TTEM R22-10409 524.2 Multiplr: 1.00
Quant Time: Feb 2 14:26 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 02/22/02

Tetra Tech EM Inc.
Project Reference: AGROMACK-LOCKWOOD OU#2
Client Sample ID : OS-PW-2

Date Sampled : 01/19/02 15:50 **Order #:** 525954 **Sample Matrix:** WATER
Date Received: 01/23/02 **Submission #:** R2210409 **Analytical Run** 74207

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 02/01/02			
ANALYTICAL DILUTION: 1.00			
BENZENE	0.50	0.50 U	UG/L
BROMOBENZENE	0.50	0.50 U	UG/L
BROMOCHLOROMETHANE	0.50	0.50 U	ug/L
BROMODICHLOROMETHANE	0.50	0.50 U	UG/L
BROMOFORM	0.50	0.50 U	UG/L
BROMOMETHANE	0.50	0.50 U	UG/L
TERT-BUTYLBENZENE	0.50	0.50 U	UG/L
SEC-BUTYLBENZENE	0.50	0.50 U	UG/L
N-BUTYLBENZENE	0.50	0.50 U	UG/L
CARBON TETRACHLORIDE	0.50	0.50 U	UG/L
CHLOROBENZENE	0.50	0.50 U	UG/L
CHLOROETHANE	0.50	0.50 U	UG/L
CHLOROFORM	0.50	0.50 U	UG/L
HLOROMETHANE	0.50	0.50 U	UG/L
1,2-DIBROMO-3-CHLOROPROPANE	0.50	0.50 U	UG/L
2-CHLOROTOLUENE	0.50	0.50 U	UG/L
4-CHLOROTOLUENE	0.50	0.50 U	UG/L
DIBROMOCHLOROMETHANE	0.50	0.50 U	UG/L
1,2-DIBROMOETHANE	0.50	0.50 U	UG/L
DIBROMOMETHANE	0.50	0.50 U	UG/L
1,2-DICHLOROBENZENE	0.50	0.50 U	UG/L
1,4-DICHLOROBENZENE	0.50	0.50 U	UG/L
1,3-DICHLOROBENZENE	0.50	0.50 U	UG/L
DICHLORODIFLUOROMETHANE	0.50	0.50 U	UG/L
1,1-DICHLOROETHANE	0.50	0.50 U	UG/L
1,2-DICHLOROETHANE	0.50	0.50 U	UG/L
1,1-DICHLOROETHENE	0.50	0.50 U	UG/L
TRANS-1,2-DICHLOROETHENE	0.50	0.50 U	UG/L
CIS-1,2-DICHLOROETHENE	0.50	0.50 U	UG/L
2,2-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,2-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,3-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,1-DICHLOROPROPENE	0.50	0.50 U	UG/L
TRANS-1,3-DICHLOROPROPENE	0.50	0.50 U	UG/L
CIS-1,3-DICHLOROPROPENE	0.50	0.50 U	UG/L
ETHYLBENZENE	0.50	0.50 U	UG/L
HEXACHLOROBUTADIENE	0.50	0.50 U	UG/L
ISOPROPYLBENZENE	0.50	0.50 U	UG/L
-ISOPROPYLTOLUENE	0.50	0.50 U	UG/L
ETHYLENE CHLORIDE	0.50	0.50 U	UG/L
NAPHTHALENE	0.50	0.50 U	UG/L
N-PROPYLBENZENE	0.50	0.50 U	UG/L
STYRENE	0.50	0.50 U	UG/L
1,1,1,2-TETRACHLOROETHANE	0.50	0.50 U	UG/L

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 02/22/02

Tetra Tech EM Inc.
Project Reference: AGROMACK-LOCKWOOD OU#2
Client Sample ID : OS-PW-2

Date Sampled : 01/19/02 15:50 **Order #:** 525954 **Sample Matrix:** WATER
Date Received: 01/23/02 **Submission #:** R2210409 **Analytical Run** 74207

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 02/01/02			
ANALYTICAL DILUTION: 1.00			
1,1,2,2-TETRACHLOROETHANE	0.50	0.50 U	UG/L
TETRACHLOROETHENE	0.50	0.50 U	UG/L
TOLUENE	0.50	0.50 U	UG/L
1,2,4-TRICHLOROBENZENE	0.50	0.50 U	UG/L
1,2,3-TRICHLOROBENZENE	0.50	0.50 U	ug/L
1,1,1-TRICHLOROETHANE	0.50	0.50 U	UG/L
1,1,2-TRICHLOROETHANE	0.50	0.50 U	UG/L
TRICHLOROETHENE	0.50	0.50 U	UG/L
TRICHLOROFLUOROMETHANE	0.50	0.50 U	UG/L
1,2,3-TRICHLOROPROPANE	0.50	0.50 U	UG/L
1,3,5-TRIMETHYLBENZENE	0.50	0.50 U	UG/L
1,2,4-TRIMETHYLBENZENE	0.50	0.50 U	UG/L
VINYL CHLORIDE	0.50	0.50 U	UG/L
M+P-XYLENE	0.50	0.50 U	UG/L
O-XYLENE	0.50	0.50 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
BROMOFLUOROBENZENE	(64 - 127 %)	93	%
1,2-DICHLOROBENZENE-D4	(59 - 136 %)	91	%

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\020102\I1839.D Vial: 39
Acq On : 1 Feb 102 2:51 pm Operator: DLIPANI
Sample : 525954 1.0 Inst : 5970 - In
Misc : TTEM R22-10409 524.2 Multiplr: 1.00
Quant Time: Feb 1 15:26 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	14.73	96	53670	1.00 ppb	0.07
System Monitoring Compounds					%Recovery
49) Surr2,BFB	25.11	95	53644	1.86 ppb	93.23%
63) Surr5,1,2-Dichlorobenzene-	29.16	152	41381	1.82 ppb	91.10%
Target Compounds					Qvalue
8) Acetone	7.60	43	5102	2.64 ppb #	46 NT
16) 2-Butanone	11.58	43	1243	~~0.47 ppb #~~	~~57~~

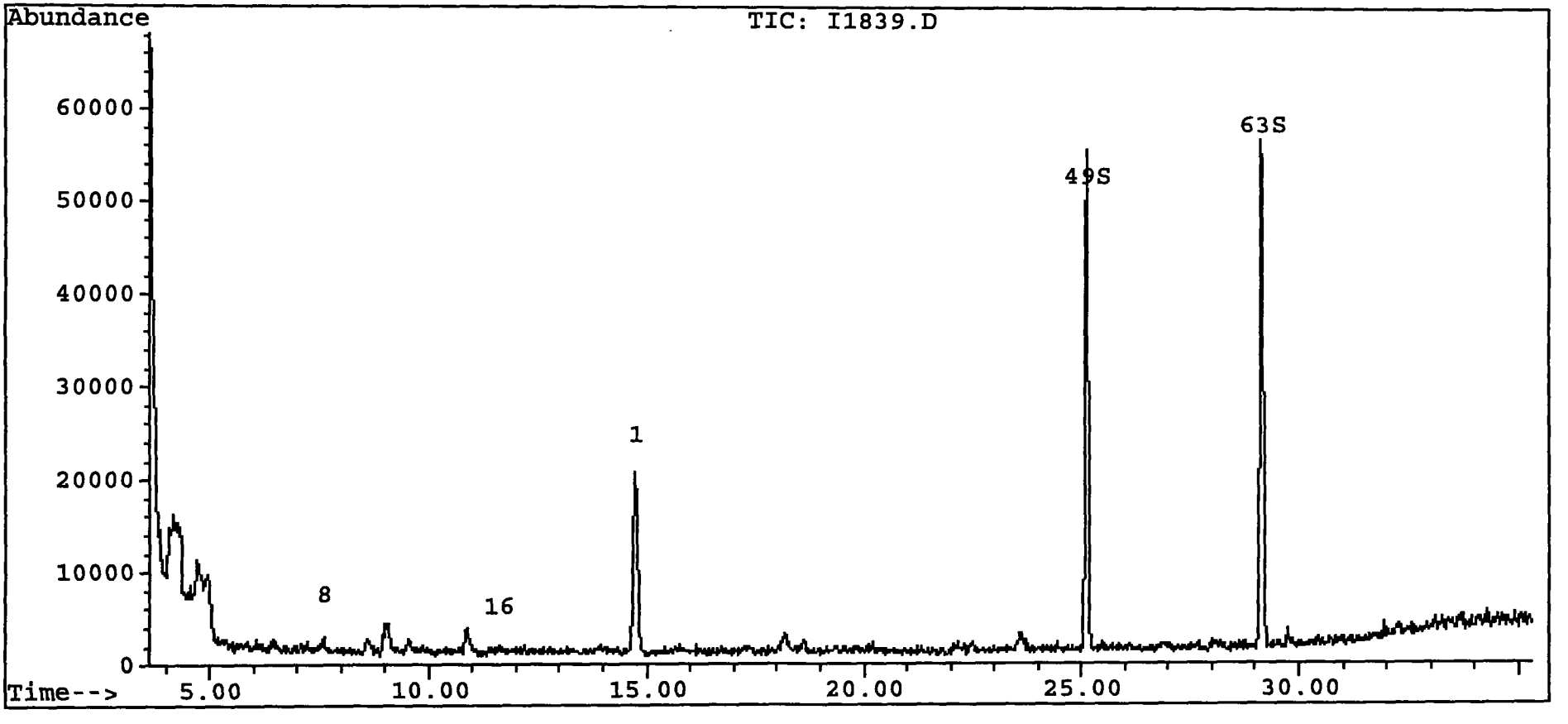
DL
02/01/02

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\020102\I1839.D Vial: 39
Acq On : 1 Feb 102 2:51 pm Operator: DLIPANI
Sample : 525954 1.0 Inst : 5970 - In
Misc : TTEM R22-10409 524.2 Multiplr: 1.00
Quant Time: Feb 1 15:26 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 02/22/02

Tetra Tech EM Inc.
Project Reference: AGROMACK-LOCKWOOD OU#2
Client Sample ID : OS-PW-4-FD

Date Sampled : 01/20/02 15:12 **Order #:** 525965 **Sample Matrix:** WATER
Date Received: 01/23/02 **Submission #:** R2210409 **Analytical Run** 74207

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 02/02/02			
ANALYTICAL DILUTION: 1.00			
BENZENE	0.50	0.50 U	UG/L
BROMOBENZENE	0.50	0.50 U	UG/L
BROMOCHLOROMETHANE	0.50	0.50 U	ug/L
BROMODICHLOROMETHANE	0.50	0.50 U	UG/L
BROMOFORM	0.50	0.50 U	UG/L
BROMOMETHANE	0.50	0.50 U	UG/L
TERT-BUTYLBENZENE	0.50	0.50 U	UG/L
SEC-BUTYLBENZENE	0.50	0.50 U	UG/L
N-BUTYLBENZENE	0.50	0.50 U	UG/L
CARBON TETRACHLORIDE	0.50	0.50 U	UG/L
CHLOROBENZENE	0.50	0.50 U	UG/L
CHLOROETHANE	0.50	0.50 U	UG/L
HLOROFORM	0.50	0.50 U	UG/L
CHLOROMETHANE	0.50	0.50 U	UG/L
1,2-DIBROMO-3-CHLOROPROPANE	0.50	0.50 U	UG/L
2-CHLOROTOLUENE	0.50	0.50 U	UG/L
4-CHLOROTOLUENE	0.50	0.50 U	UG/L
DIBROMOCHLOROMETHANE	0.50	0.50 U	UG/L
1,2-DIBROMOETHANE	0.50	0.50 U	UG/L
DIBROMOMETHANE	0.50	0.50 U	UG/L
1,2-DICHLOROBENZENE	0.50	0.50 U	UG/L
1,4-DICHLOROBENZENE	0.50	0.50 U	UG/L
1,3-DICHLOROBENZENE	0.50	0.50 U	UG/L
DICHLORODIFLUOROMETHANE	0.50	0.50 U	UG/L
1,1-DICHLOROETHANE	0.50	0.50 U	UG/L
1,2-DICHLOROETHANE	0.50	0.50 U	UG/L
1,1-DICHLOROETHENE	0.50	0.50 U	UG/L
TRANS-1,2-DICHLOROETHENE	0.50	0.50 U	UG/L
CIS-1,2-DICHLOROETHENE	0.50	0.50 U	UG/L
2,2-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,2-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,3-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,1-DICHLOROPROPENE	0.50	0.50 U	UG/L
TRANS-1,3-DICHLOROPROPENE	0.50	0.50 U	UG/L
CIS-1,3-DICHLOROPROPENE	0.50	0.50 U	UG/L
ETHYLBENZENE	0.50	0.50 U	UG/L
HEXACHLOROBUTADIENE	0.50	0.50 U	UG/L
SOPROPYLBENZENE	0.50	0.50 U	UG/L
-ISOPROPYLTOLUENE	0.50	0.50 U	UG/L
METHYLENE CHLORIDE	0.50	0.50 U	UG/L
NAPHTHALENE	0.50	0.50 U	UG/L
N-PROPYLBENZENE	0.50	0.50 U	UG/L
STYRENE	0.50	0.50 U	UG/L
1,1,1,2-TETRACHLOROETHANE	0.50	0.50 U	UG/L

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 02/22/02

Tetra Tech EM Inc.
Project Reference: AGROMACK-LOCKWOOD OU#2
Client Sample ID : OS-PW-4-FD

Date Sampled : 01/20/02 15:12 **Order #:** 525965 **Sample Matrix:** WATER
Date Received: 01/23/02 **Submission #:** R2210409 **Analytical Run** 74207

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 02/02/02			
ANALYTICAL DILUTION: 1.00			
1,1,2,2-TETRACHLOROETHANE	0.50	0.50 U	UG/L
TETRACHLOROETHENE	0.50	0.50 U	UG/L
TOLUENE	0.50	0.50 U	UG/L
1,2,4-TRICHLOROBENZENE	0.50	0.50 U	UG/L
1,2,3-TRICHLOROBENZENE	0.50	0.50 U	ug/L
1,1,1-TRICHLOROETHANE	0.50	0.50 U	UG/L
1,1,2-TRICHLOROETHANE	0.50	0.50 U	UG/L
TRICHLOROETHENE	0.50	0.50 U	UG/L
TRICHLOROFLUOROMETHANE	0.50	0.50 U	UG/L
1,2,3-TRICHLOROPROPANE	0.50	0.50 U	UG/L
1,3,5-TRIMETHYLBENZENE	0.50	0.50 U	UG/L
1,2,4-TRIMETHYLBENZENE	0.50	0.50 U	UG/L
'INYL CHLORIDE	0.50	0.50 U	UG/L
M+P-XYLENE	0.50	0.50 U	UG/L
O-XYLENE	0.50	0.50 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
BROMOFLUOROBENZENE	(64 - 127 %)	92	%
1,2-DICHLOROBENZENE-D4	(59 - 136 %)	94	%

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\020202\I1857.D Vial: 12
Acq On : 2 Feb 102 2:32 pm Operator: DLIPANI
Sample : 525965 1.0 Inst : 5970 - In
Misc : TTEM R22-10409 524.2 Multiplr: 1.00
Quant Time: Feb 2 15:07 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	14.65	96	53815	1.00	ppb	0.00
System Monitoring Compounds						%Recovery
49) Surr2,BFB	25.04	95	53033	1.84	ppb	91.92%
63) Surr5,1,2-Dichlorobenzene-	29.07	152	42588	1.87	ppb	93.51%
Target Compounds						Qvalue
8) Acetone	7.53	43	2180	1.12	ppb	96 NT
10) tert Butyl Alcohol	7.99	59	271	~~0.43~~	~~ppb~~	~~53~~
16) 2-Butanone	11.51	43	1269	~~0.48~~	~~ppb~~ #	~~52~~

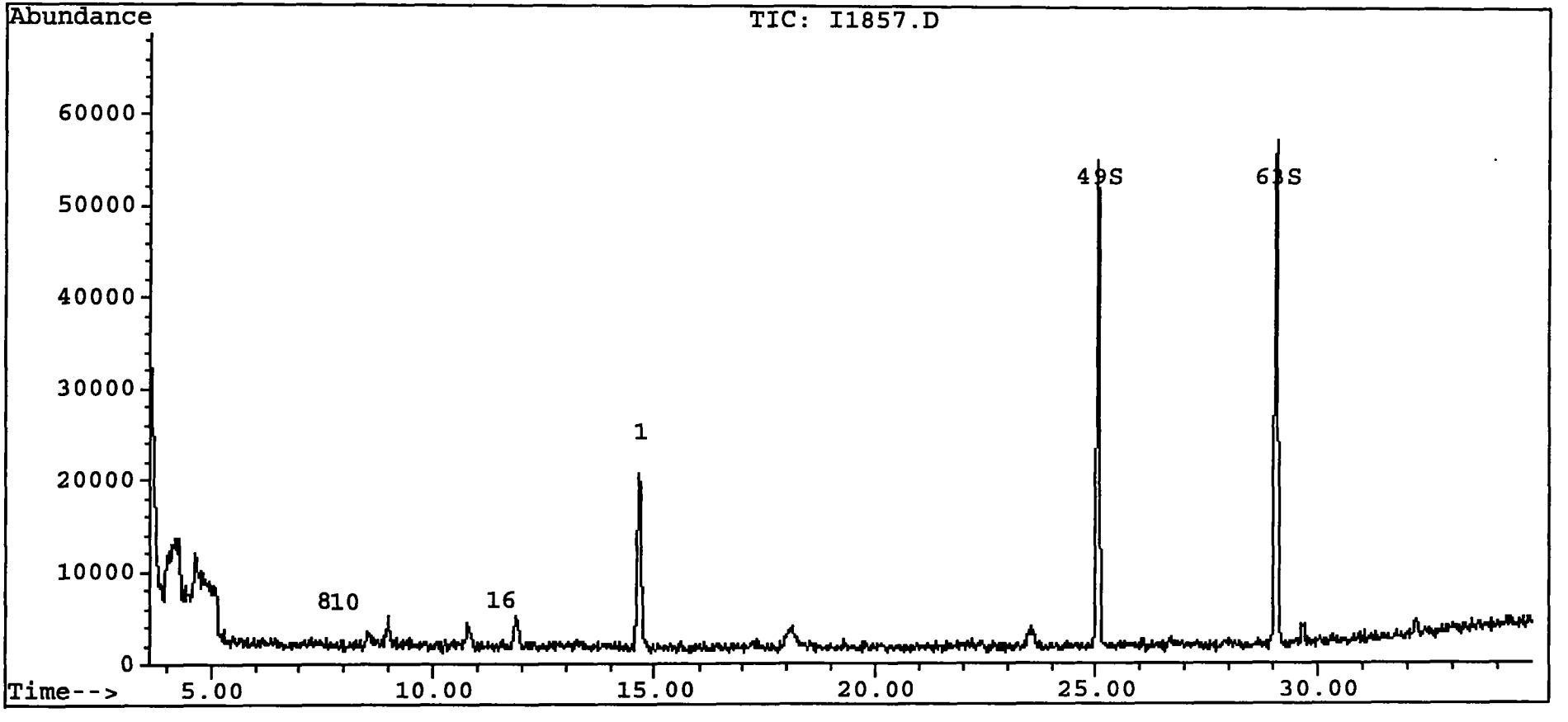
SL
02/04/02

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\020202\I185..D Vial: 12
Acq On : 2 Feb 102 2:32 pm Operator: DLIPANI
Sample : 525965 1.0 Inst : 5970 - In
Misc : TTEM R22-10409 524.2 Multiplr: 1.00
Quant Time: Feb 2 15:07 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration



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COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 02/22/02

Tetra Tech EM Inc.
Project Reference: AGROMACK-LOCKWOOD OU#2
Client Sample ID : OS-PW-3

Date Sampled : 01/20/02 14:27 **Order #:** 525970 **Sample Matrix:** WATER
Date Received: 01/23/02 **Submission #:** R2210409 **Analytical Run** 74207

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 02/02/02			
ANALYTICAL DILUTION: 1.00			
BENZENE	0.50	0.50 U	UG/L
BROMOBENZENE	0.50	0.50 U	UG/L
BROMOCHLOROMETHANE	0.50	0.50 U	ug/L
BROMODICHLOROMETHANE	0.50	0.50 U	UG/L
BROMOFORM	0.50	0.50 U	UG/L
BROMOMETHANE	0.50	0.50 U	UG/L
TERT-BUTYLBENZENE	0.50	0.50 U	UG/L
SEC-BUTYLBENZENE	0.50	0.50 U	UG/L
N-BUTYLBENZENE	0.50	0.50 U	UG/L
CARBON TETRACHLORIDE	0.50	0.50 U	UG/L
CHLOROBENZENE	0.50	0.50 U	UG/L
CHLOROETHANE	0.50	0.50 U	UG/L
˜HLOROFORM	0.50	0.50 U	UG/L
HLOROMETHANE	0.50	0.50 U	UG/L
1,2-DIBROMO-3-CHLOROPROPANE	0.50	0.50 U	UG/L
2-CHLOROTOLUENE	0.50	0.50 U	UG/L
4-CHLOROTOLUENE	0.50	0.50 U	UG/L
DIBROMOCHLOROMETHANE	0.50	0.50 U	UG/L
1,2-DIBROMOETHANE	0.50	0.50 U	UG/L
DIBROMOMETHANE	0.50	0.50 U	UG/L
1,2-DICHLOROBENZENE	0.50	0.50 U	UG/L
1,4-DICHLOROBENZENE	0.50	0.50 U	UG/L
1,3-DICHLOROBENZENE	0.50	0.50 U	UG/L
DICHLORODIFLUOROMETHANE	0.50	0.50 U	UG/L
1,1-DICHLOROETHANE	0.50	0.50 U	UG/L
1,2-DICHLOROETHANE	0.50	0.50 U	UG/L
1,1-DICHLOROETHENE	0.50	0.50 U	UG/L
TRANS-1,2-DICHLOROETHENE	0.50	0.50 U	UG/L
CIS-1,2-DICHLOROETHENE	0.50	0.50 U	UG/L
2,2-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,2-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,3-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,1-DICHLOROPROPENE	0.50	0.50 U	UG/L
TRANS-1,3-DICHLOROPROPENE	0.50	0.50 U	UG/L
CIS-1,3-DICHLOROPROPENE	0.50	0.50 U	UG/L
ETHYLBENZENE	0.50	0.50 U	UG/L
HEXACHLOROBUTADIENE	0.50	0.50 U	UG/L
ᵀSOPROPYLBENZENE	0.50	0.50 U	UG/L
-ISOPROPYLTOLUENE	0.50	0.50 U	UG/L
ᴹETHYLENE CHLORIDE	0.50	0.50 U	UG/L
NAPHTHALENE	0.50	0.50 U	UG/L
N-PROPYLBENZENE	0.50	0.50 U	UG/L
STYRENE	0.50	0.50 U	UG/L
1,1,1,2-TETRACHLOROETHANE	0.50	0.50 U	UG/L

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 02/22/02

Tetra Tech EM Inc.
Project Reference: AGROMACK-LOCKWOOD OU#2
Client Sample ID : OS-PW-3

Date Sampled : 01/20/02 14:27 **Order #:** 525970 **Sample Matrix:** WATER
Date Received: 01/23/02 **Submission #:** R2210409 **Analytical Run** 74207

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 02/02/02			
ANALYTICAL DILUTION: 1.00			
1,1,2,2-TETRACHLOROETHANE	0.50	0.50 U	UG/L
TETRACHLOROETHENE	0.50	0.50 U	UG/L
TOLUENE	0.50	0.50 U	UG/L
1,2,4-TRICHLOROBENZENE	0.50	0.50 U	UG/L
1,2,3-TRICHLOROBENZENE	0.50	0.50 U	ug/L
1,1,1-TRICHLOROETHANE	0.50	0.50 U	UG/L
1,1,2-TRICHLOROETHANE	0.50	0.50 U	UG/L
TRICHLOROETHENE	0.50	0.50 U	UG/L
TRICHLOROFLUOROMETHANE	0.50	0.50 U	UG/L
1,2,3-TRICHLOROPROPANE	0.50	0.50 U	UG/L
1,3,5-TRIMETHYLBENZENE	0.50	0.50 U	UG/L
1,2,4-TRIMETHYLBENZENE	0.50	0.50 U	UG/L
'INYL CHLORIDE	0.50	0.50 U	UG/L
,+P-XYLENE	0.50	0.50 U	UG/L
O-XYLENE	0.50	0.50 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
BROMOFLUOROBENZENE	(64 - 127 %)	96	%
1,2-DICHLOROBENZENE-D4	(59 - 136 %)	94	%

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\020202\I1858.D Vial: 13
Acq On : 2 Feb 102 3:13 pm Operator: DLIPANI
Sample : 525970 1.0 Inst : 5970 - In
Misc : TTEM R22-10409 524.2 Multiplr: 1.00
Quant Time: Feb 2 15:48 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	14.65	96	52539	1.00 ppb	0.00
System Monitoring Compounds					%Recovery
49) Surr2,BFB	25.06	95	53792	1.91 ppb	95.50%
63) Surr5,1,2-Dichlorobenzene-	29.08	152	41829	1.88 ppb	94.07%
Target Compounds					Qvalue
11) Methyl Acetate	8.56	43	4312	0.64 ppb #	91 NT
16) 2-Butanone	11.52	43	1598	~~0.62 ppb #~~	~~76~~

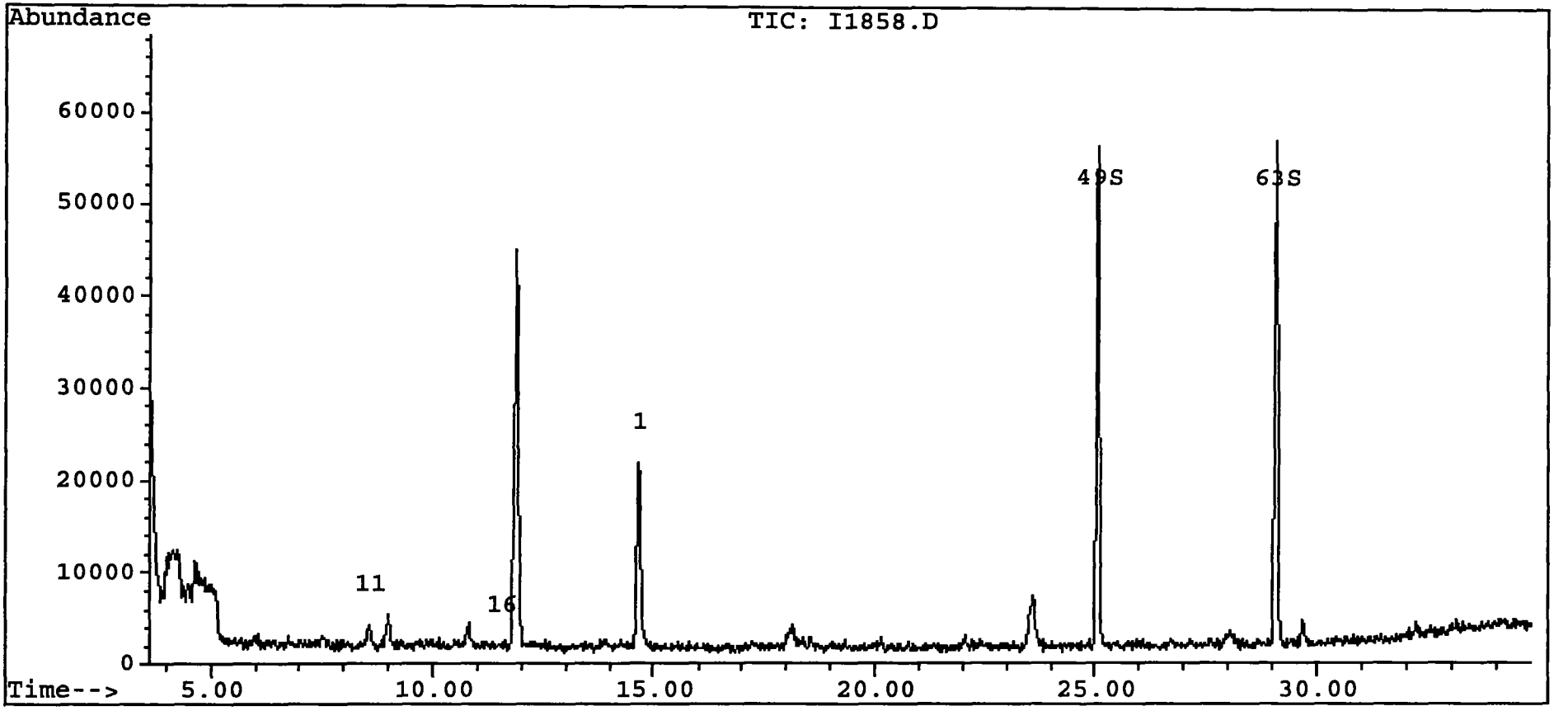
DL 02/04/02

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\020202\I1858.D Vial: 13
Acq On : 2 Feb 102 3:13 pm Operator: DLIPANI
Sample : 525970 1.0 Inst : 5970 - In
Misc : TTEM R22-10409 524.2 Multiplr: 1.00
Quant Time: Feb 2 15:48 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 02/22/02

Tetra Tech EM Inc.
Project Reference: AGROMACK-LOCKWOOD OU#2
Client Sample ID : OS-PW-7

Date Sampled : 01/22/02 08:33 **Order #:** 525971 **Sample Matrix:** WATER
Date Received: 01/23/02 **Submission #:** R2210409 **Analytical Run** 74207

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 02/02/02			
ANALYTICAL DILUTION: 1.00			
BENZENE	0.50	0.50 U	UG/L
BROMOBENZENE	0.50	0.50 U	UG/L
BROMOCHLOROMETHANE	0.50	0.50 U	ug/L
BROMODICHLOROMETHANE	0.50	0.50 U	UG/L
BROMOFORM	0.50	0.50 U	UG/L
BROMOMETHANE	0.50	0.50 U	UG/L
TERT-BUTYLBENZENE	0.50	0.50 U	UG/L
SEC-BUTYLBENZENE	0.50	0.50 U	UG/L
N-BUTYLBENZENE	0.50	0.50 U	UG/L
CARBON TETRACHLORIDE	0.50	0.50 U	UG/L
CHLOROBENZENE	0.50	0.50 U	UG/L
CHLOROETHANE	0.50	0.50 U	UG/L
CHLOROFORM	0.50	0.50 U	UG/L
CHLOROMETHANE	0.50	0.50 U	UG/L
1,2-DIBROMO-3-CHLOROPROPANE	0.50	0.50 U	UG/L
2-CHLOROTOLUENE	0.50	0.50 U	UG/L
4-CHLOROTOLUENE	0.50	0.50 U	UG/L
DIBROMOCHLOROMETHANE	0.50	0.50 U	UG/L
1,2-DIBROMOETHANE	0.50	0.50 U	UG/L
DIBROMOMETHANE	0.50	0.50 U	UG/L
1,2-DICHLOROBENZENE	0.50	0.50 U	UG/L
1,4-DICHLOROBENZENE	0.50	0.50 U	UG/L
1,3-DICHLOROBENZENE	0.50	0.50 U	UG/L
DICHLORODIFLUOROMETHANE	0.50	0.50 U	UG/L
1,1-DICHLOROETHANE	0.50	0.50 U	UG/L
1,2-DICHLOROETHANE	0.50	0.50 U	UG/L
1,1-DICHLOROETHENE	0.50	0.50 U	UG/L
TRANS-1,2-DICHLOROETHENE	0.50	0.50 U	UG/L
CIS-1,2-DICHLOROETHENE	0.50	0.50 U	UG/L
2,2-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,2-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,3-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,1-DICHLOROPROPENE	0.50	0.50 U	UG/L
TRANS-1,3-DICHLOROPROPENE	0.50	0.50 U	UG/L
CIS-1,3-DICHLOROPROPENE	0.50	0.50 U	UG/L
ETHYLBENZENE	0.50	0.50 U	UG/L
HEXACHLOROBUTADIENE	0.50	0.50 U	UG/L
ISOPROPYLBENZENE	0.50	0.50 U	UG/L
P-ISOPROPYLTOLUENE	0.50	0.50 U	UG/L
METHYLENE CHLORIDE	0.50	0.50 U	UG/L
NAPHTHALENE	0.50	0.50 U	UG/L
N-PROPYLBENZENE	0.50	0.50 U	UG/L
STYRENE	0.50	0.50 U	UG/L
1,1,1,2-TETRACHLOROETHANE	0.50	0.50 U	UG/L

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 02/22/02

Tetra Tech EM Inc.
Project Reference: AGROMACK-LOCKWOOD OU#2
Client Sample ID : OS-PW-7

Date Sampled : 01/22/02 08:33 **Order #:** 525971 **Sample Matrix:** WATER
Date Received: 01/23/02 **Submission #:** R2210409 **Analytical Run** 74207

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 02/02/02			
ANALYTICAL DILUTION: 1.00			
1,1,2,2-TETRACHLOROETHANE	0.50	0.50 U	UG/L
TETRACHLOROETHENE	0.50	0.50 U	UG/L
TOLUENE	0.50	0.50 U	UG/L
1,2,4-TRICHLOROBENZENE	0.50	0.50 U	UG/L
1,2,3-TRICHLOROBENZENE	0.50	0.50 U	ug/L
1,1,1-TRICHLOROETHANE	0.50	0.50 U	UG/L
1,1,2-TRICHLOROETHANE	0.50	0.50 U	UG/L
TRICHLOROETHENE	0.50	0.50 U	UG/L
TRICHLOROFLUOROMETHANE	0.50	0.50 U	UG/L
1,2,3-TRICHLOROPROPANE	0.50	0.50 U	UG/L
1,3,5-TRIMETHYLBENZENE	0.50	0.50 U	UG/L
1,2,4-TRIMETHYLBENZENE	0.50	0.50 U	UG/L
VINYL CHLORIDE	0.50	0.50 U	UG/L
M+P-XYLENE	0.50	0.50 U	UG/L
O-XYLENE	0.50	0.50 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
BROMOFLUOROBENZENE	(64 - 127 %)	98	%
1,2-DICHLOROBENZENE-D4	(59 - 136 %)	97	%

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\020202\I1859.D Vial: 14
Acq On : 2 Feb 102 3:54 pm Operator: DLIPANI
Sample : 525971 1.0 Inst : 5970 - In
Misc : TTEM R22-10409 524.2 Multiplr: 1.00
Quant Time: Feb 2 16:29 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	14.65	96	50923	1.00 ppb	0.00
System Monitoring Compounds					%Recovery
49) Surr2,BFB	25.04	95	53535	1.96 ppb	98.06%
63) Surr5,1,2-Dichlorobenzene-	29.07	152	41829	1.94 ppb	97.06%
Target Compounds					Qvalue
8) Acetone	7.50	43	3523	1.92 ppb	97 NT
10) tert Butyl Alcohol	8.02	59	313	~~0.53 ppb~~	~~29~~
16) 2-Butanone	11.49	43	1099	~~0.44 ppb #~~	~~52~~

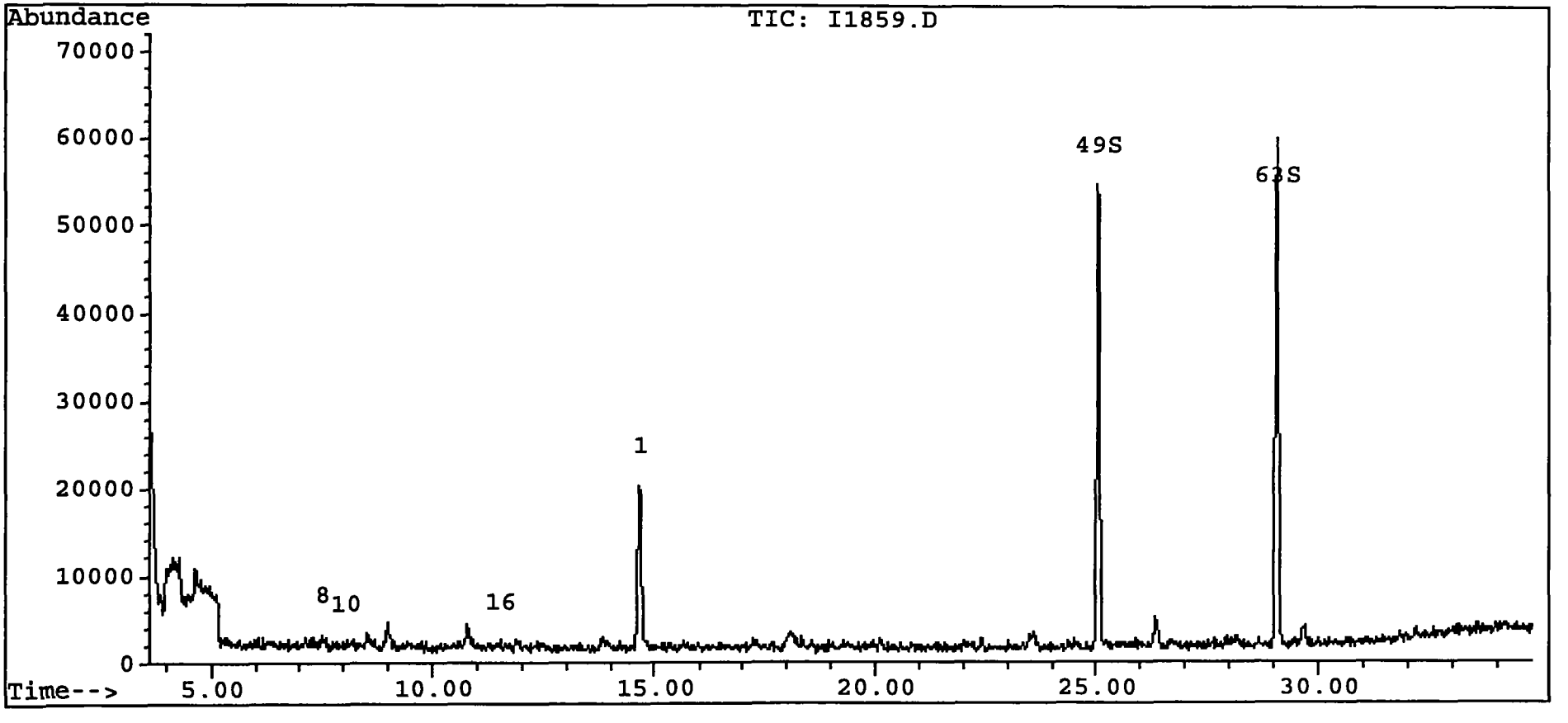
SL
02/04/02

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\020202\I1859.D Vial: 14
Acq On : 2 Feb 102 3:54 pm Operator: DLIPANI
Sample : 525971 1.0 Inst : 5970 - In
Misc : TTEM R22-10409 524.2 Multiplr: 1.00
Quant Time: Feb 2 16:29 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 02/22/02

Tetra Tech EM Inc.
Project Reference: AGROMACK-LOCKWOOD OU#2
Client Sample ID : OS-PW-8

Date Sampled : 01/22/02 09:15 **Order #:** 525972 **Sample Matrix:** WATER
Date Received: 01/23/02 **Submission #:** R2210409 **Analytical Run** 74207

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 02/02/02			
ANALYTICAL DILUTION: 1.00			
BENZENE	0.50	0.50 U	UG/L
BROMOBENZENE	0.50	0.50 U	UG/L
BROMOCHLOROMETHANE	0.50	0.50 U	ug/L
BROMODICHLOROMETHANE	0.50	0.50 U	UG/L
BROMOFORM	0.50	0.50 U	UG/L
BROMOMETHANE	0.50	0.50 U	UG/L
TERT-BUTYLBENZENE	0.50	0.50 U	UG/L
SEC-BUTYLBENZENE	0.50	0.50 U	UG/L
N-BUTYLBENZENE	0.50	0.50 U	UG/L
CARBON TETRACHLORIDE	0.50	0.50 U	UG/L
CHLOROBENZENE	0.50	0.50 U	UG/L
CHLOROETHANE	0.50	0.50 U	UG/L
⁻HLOROFORM	0.50	0.50 U	UG/L
.HLOROMETHANE	0.50	0.50 U	UG/L
1,2-DIBROMO-3-CHLOROPROPANE	0.50	0.50 U	UG/L
2-CHLOROTOLUENE	0.50	0.50 U	UG/L
4-CHLOROTOLUENE	0.50	0.50 U	UG/L
DIBROMOCHLOROMETHANE	0.50	0.50 U	UG/L
1,2-DIBROMOETHANE	0.50	0.50 U	UG/L
DIBROMOMETHANE	0.50	0.50 U	UG/L
1,2-DICHLOROBENZENE	0.50	0.50 U	UG/L
1,4-DICHLOROBENZENE	0.50	0.50 U	UG/L
1,3-DICHLOROBENZENE	0.50	0.50 U	UG/L
DICHLORODIFLUOROMETHANE	0.50	0.50 U	UG/L
1,1-DICHLOROETHANE	0.50	0.50 U	UG/L
1,2-DICHLOROETHANE	0.50	0.50 U	UG/L
1,1-DICHLOROETHENE	0.50	0.50 U	UG/L
TRANS-1,2-DICHLOROETHENE	0.50	0.50 U	UG/L
CIS-1,2-DICHLOROETHENE	0.50	0.50 U	UG/L
2,2-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,2-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,3-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,1-DICHLOROPROPENE	0.50	0.50 U	UG/L
TRANS-1,3-DICHLOROPROPENE	0.50	0.50 U	UG/L
CIS-1,3-DICHLOROPROPENE	0.50	0.50 U	UG/L
ETHYLBENZENE	0.50	0.50 U	UG/L
HEXACHLOROBUTADIENE	0.50	0.50 U	UG/L
ᵀSOPROPYLBENZENE	0.50	0.50 U	UG/L
-ISOPROPYLTOLUENE	0.50	0.50 U	UG/L
ᴹETHYLENE CHLORIDE	0.50	0.50 U	UG/L
NAPHTHALENE	0.50	0.50 U	UG/L
N-PROPYLBENZENE	0.50	0.50 U	UG/L
STYRENE	0.50	0.50 U	UG/L
1,1,1,2-TETRACHLOROETHANE	0.50	0.50 U	UG/L

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 02/22/02

Tetra Tech EM Inc.
Project Reference: AGROMACK-LOCKWOOD OU#2
Client Sample ID : OS-PW-8

Date Sampled : 01/22/02 09:15 **Order #:** 525972 **Sample Matrix:** WATER
Date Received: 01/23/02 **Submission #:** R2210409 **Analytical Run** 74207

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 02/02/02			
ANALYTICAL DILUTION: 1.00			
1,1,2,2-TETRACHLOROETHANE	0.50	0.50 U	UG/L
TETRACHLOROETHENE	0.50	0.50 U	UG/L
TOLUENE	0.50	0.50 U	UG/L
1,2,4-TRICHLOROBENZENE	0.50	0.50 U	UG/L
1,2,3-TRICHLOROBENZENE	0.50	0.50 U	ug/L
1,1,1-TRICHLOROETHANE	0.50	0.50 U	UG/L
1,1,2-TRICHLOROETHANE	0.50	0.50 U	UG/L
TRICHLOROETHENE	0.50	0.50 U	UG/L
TRICHLOROFLUOROMETHANE	0.50	0.50 U	UG/L
1,2,3-TRICHLOROPROPANE	0.50	0.50 U	UG/L
1,3,5-TRIMETHYLBENZENE	0.50	0.50 U	UG/L
1,2,4-TRIMETHYLBENZENE	0.50	0.50 U	UG/L
VINYL CHLORIDE	0.50	0.50 U	UG/L
M+P-XYLENE	0.50	0.50 U	UG/L
O-XYLENE	0.50	0.50 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
BROMOFLUOROBENZENE	(64 - 127 %)	91	%
1,2-DICHLOROBENZENE-D4	(59 - 136 %)	96	%

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\020202\I1860.D Vial: 15
Acq On : 2 Feb 102 4:35 pm Operator: DLIPANI
Sample : 525972 1.0 Inst : 5970 - In
Misc : TTEM R22-10409 524.2 Multiplr: 1.00
Quant Time: Feb 2 17:10 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	14.65	96	50889	1.00 ppb	0.00
System Monitoring Compounds					%Recovery
49) Surr2,BFB	25.04	95	49782	1.82 ppb	91.24%
63) Surr5,1,2-Dichlorobenzene-	29.07	152	41195	1.91 ppb	95.65%
Target Compounds					Qvalue
8) Acetone	7.53	43	3435	1.87 ppb	96 NT
10) tert Butyl Alcohol	8.02	59	275	~~0.46 ppb~~	~~78~~
16) 2-Butanone	11.54	43	1487	~~0.59 ppb~~ #	~~52~~

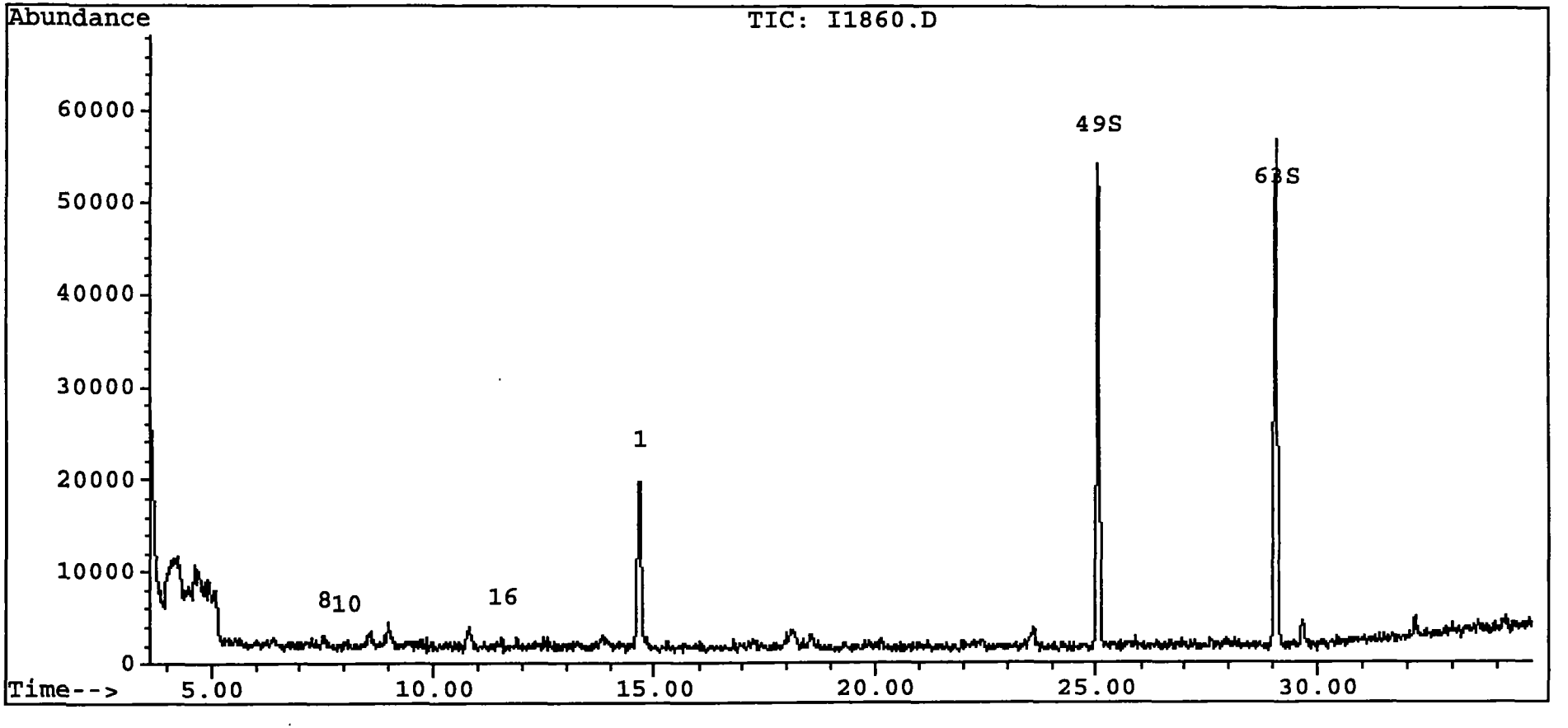
DL
02/04/02

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\020202\I1860.D Vial: 15
Acq On : 2 Feb 102 4:35 pm Operator: DLIPANI
Sample : 525972 1.0 Inst : 5970 - In
Misc : TTEM R22-10409 524.2 Multiplr: 1.00
Quant Time: Feb 2 17:10 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration



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COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 02/22/02

Tetra Tech EM Inc.
Project Reference: AGROMACK-LOCKWOOD OU#2
Client Sample ID : OS-PW-6

Date Sampled : 01/21/02 10:30 **Order #:** 525973 **Sample Matrix:** WATER
Date Received: 01/23/02 **Submission #:** R2210409 **Analytical Run** 74207

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 02/02/02			
ANALYTICAL DILUTION: 1.00			
BENZENE	0.50	0.50 U	UG/L
BROMOBENZENE	0.50	0.50 U	UG/L
BROMOCHLOROMETHANE	0.50	0.50 U	ug/L
BROMODICHLOROMETHANE	0.50	0.50 U	UG/L
BROMOFORM	0.50	0.50 U	UG/L
BROMOMETHANE	0.50	0.50 U	UG/L
TERT-BUTYLBENZENE	0.50	0.50 U	UG/L
SEC-BUTYLBENZENE	0.50	0.50 U	UG/L
N-BUTYLBENZENE	0.50	0.50 U	UG/L
CARBON TETRACHLORIDE	0.50	0.50 U	UG/L
CHLOROBENZENE	0.50	0.50 U	UG/L
CHLOROETHANE	0.50	0.50 U	UG/L
CHLOROFORM	0.50	0.50 U	UG/L
CHLOROMETHANE	0.50	0.50 U	UG/L
1,2-DIBROMO-3-CHLOROPROPANE	0.50	0.50 U	UG/L
2-CHLOROTOLUENE	0.50	0.50 U	UG/L
4-CHLOROTOLUENE	0.50	0.50 U	UG/L
DIBROMOCHLOROMETHANE	0.50	0.50 U	UG/L
1,2-DIBROMOETHANE	0.50	0.50 U	UG/L
DIBROMOMETHANE	0.50	0.50 U	UG/L
1,2-DICHLOROBENZENE	0.50	0.50 U	UG/L
1,4-DICHLOROBENZENE	0.50	0.50 U	UG/L
1,3-DICHLOROBENZENE	0.50	0.50 U	UG/L
DICHLORODIFLUOROMETHANE	0.50	0.50 U	UG/L
1,1-DICHLOROETHANE	0.50	0.50 U	UG/L
1,2-DICHLOROETHANE	0.50	0.50 U	UG/L
1,1-DICHLOROETHENE	0.50	0.50 U	UG/L
TRANS-1,2-DICHLOROETHENE	0.50	0.50 U	UG/L
CIS-1,2-DICHLOROETHENE	0.50	0.50 U	UG/L
2,2-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,2-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,3-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,1-DICHLOROPROPENE	0.50	0.50 U	UG/L
TRANS-1,3-DICHLOROPROPENE	0.50	0.50 U	UG/L
CIS-1,3-DICHLOROPROPENE	0.50	0.50 U	UG/L
ETHYLBENZENE	0.50	0.50 U	UG/L
HEXACHLOROBUTADIENE	0.50	0.50 U	UG/L
ISOPROPYLBENZENE	0.50	0.50 U	UG/L
P-ISOPROPYLTOLUENE	0.50	0.50 U	UG/L
METHYLENE CHLORIDE	0.50	0.50 U	UG/L
NAPHTHALENE	0.50	0.50 U	UG/L
N-PROPYLBENZENE	0.50	0.50 U	UG/L
STYRENE	0.50	0.50 U	UG/L
1,1,1,2-TETRACHLOROETHANE	0.50	0.50 U	UG/L

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 02/22/02

Tetra Tech EM Inc.
Project Reference: AGROMACK-LOCKWOOD OU#2
Client Sample ID : OS-PW-6

Date Sampled : 01/21/02 10:30 **Order #:** 525973 **Sample Matrix:** WATER
Date Received: 01/23/02 **Submission #:** R2210409 **Analytical Run** 74207

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 02/02/02			
ANALYTICAL DILUTION: 1.00			
1,1,2,2-TETRACHLOROETHANE	0.50	0.50 U	UG/L
TETRACHLOROETHENE	0.50	0.50 U	UG/L
TOLUENE	0.50	0.50 U	UG/L
1,2,4-TRICHLOROBENZENE	0.50	0.50 U	UG/L
1,2,3-TRICHLOROBENZENE	0.50	0.50 U	ug/L
1,1,1-TRICHLOROETHANE	0.50	0.50 U	UG/L
1,1,2-TRICHLOROETHANE	0.50	0.50 U	UG/L
TRICHLOROETHENE	0.50	0.50 U	UG/L
TRICHLOROFLUOROMETHANE	0.50	0.50 U	UG/L
1,2,3-TRICHLOROPROPANE	0.50	0.50 U	UG/L
1,3,5-TRIMETHYLBENZENE	0.50	0.50 U	UG/L
1,2,4-TRIMETHYLBENZENE	0.50	0.50 U	UG/L
'INYL CHLORIDE	0.50	0.50 U	UG/L
M+P-XYLENE	0.50	0.50 U	UG/L
O-XYLENE	0.50	0.50 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
BROMOFLUOROBENZENE	(64 - 127 %)	95	%
1,2-DICHLOROBENZENE-D4	(59 - 136 %)	94	%

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\020202\I1861.D Vial: 16
Acq On : 2 Feb 102 5:16 pm Operator: DLIPANI
Sample : 525973 1.0 Inst : 5970 - In
Misc : TTEM R22-10409 524.2 Multiplr: 1.00
Quant Time: Feb 2 17:51 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	14.66	96	49333	1.00	ppb	0.00
System Monitoring Compounds						%Recovery
49) Surr2,BFB	25.05	95	50237	1.90	ppb	94.98%
63) Surr5,1,2-Dichlorobenzene-	29.07	152	38982	1.87	ppb	93.37%
Target Compounds						Qvalue
8) Acetone	7.54	43	3020	1.70	ppb #	88 NT
16) 2-Butanone	11.51	43	1248	~~0.51~~	~~ppb~~ #	~~45~~

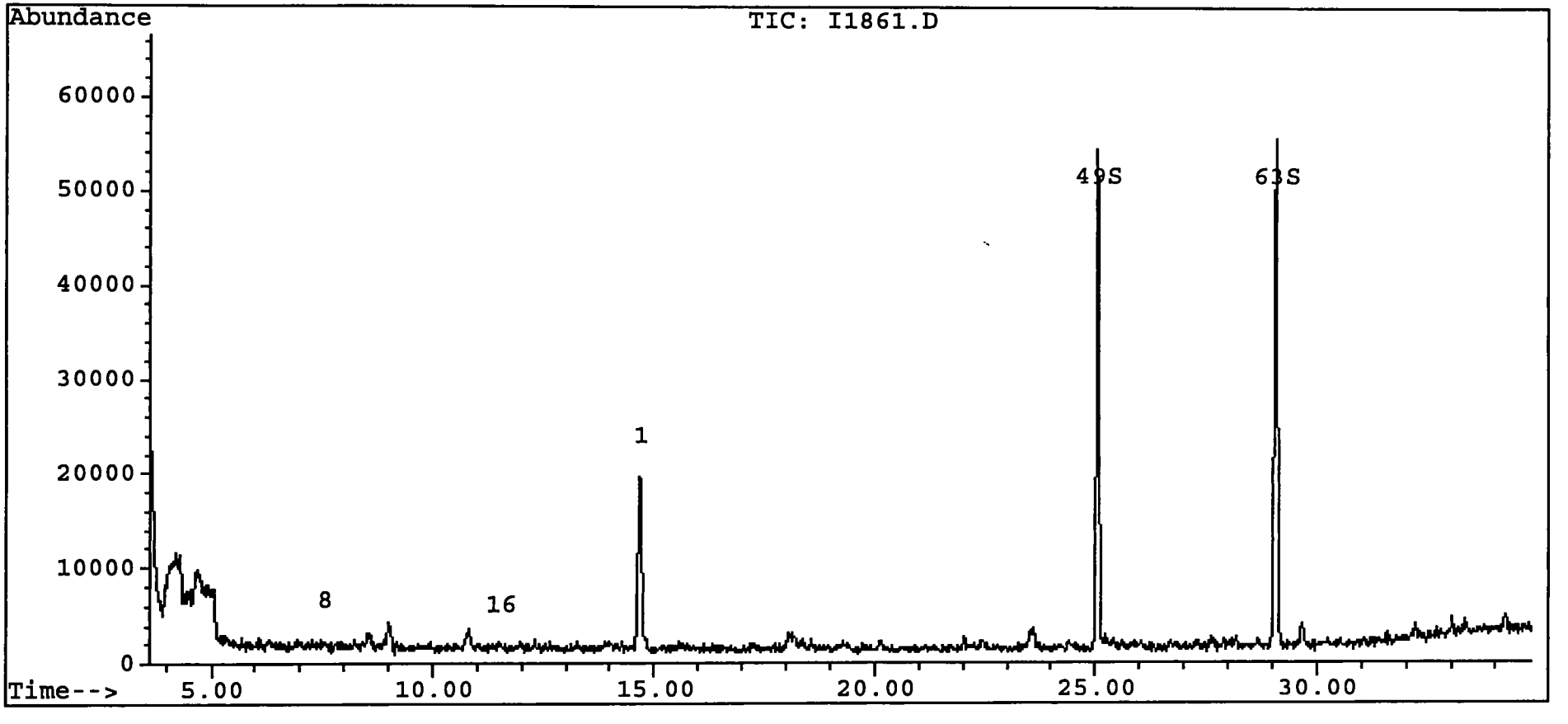
DL
02/04/02

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\020202\I1861.D Vial: 16
Acq On : 2 Feb 102 5:16 pm Operator: DLIPANI
Sample : 525973 1.0 Inst : 5970 - In
Misc : TTEM R22-10409 524.2 Multiplr: 1.00
Quant Time: Feb 2 17:51 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration



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COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 02/22/02

Tetra Tech EM Inc.
Project Reference: AGROMACK-LOCKWOOD OU#2
Client Sample ID : OS-MUW-1

Date Sampled : 01/21/02 13:54 **Order #:** 525974 **Sample Matrix:** WATER
Date Received: 01/23/02 **Submission #:** R2210409 **Analytical Run** 74207

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 02/02/02			
ANALYTICAL DILUTION: 1.00			
BENZENE	0.50	0.50 U	UG/L
BROMOBENZENE	0.50	0.50 U	UG/L
BROMOCHLOROMETHANE	0.50	0.50 U	ug/L
BROMODICHLOROMETHANE	0.50	0.50 U	UG/L
BROMOFORM	0.50	0.50 U	UG/L
BROMOMETHANE	0.50	0.50 U	UG/L
TERT-BUTYLBENZENE	0.50	0.50 U	UG/L
SEC-BUTYLBENZENE	0.50	0.50 U	UG/L
N-BUTYLBENZENE	0.50	0.50 U	UG/L
CARBON TETRACHLORIDE	0.50	0.50 U	UG/L
CHLOROBENZENE	0.50	0.50 U	UG/L
CHLOROETHANE	0.50	0.50 U	UG/L
CHLOROFORM	0.50	0.50 U	UG/L
CHLOROMETHANE	0.50	0.50 U	UG/L
1,2-DIBROMO-3-CHLOROPROPANE	0.50	0.50 U	UG/L
2-CHLOROTOLUENE	0.50	0.50 U	UG/L
4-CHLOROTOLUENE	0.50	0.50 U	UG/L
DIBROMOCHLOROMETHANE	0.50	0.50 U	UG/L
1,2-DIBROMOETHANE	0.50	0.50 U	UG/L
DIBROMOMETHANE	0.50	0.50 U	UG/L
1,2-DICHLOROBENZENE	0.50	0.50 U	UG/L
1,4-DICHLOROBENZENE	0.50	0.50 U	UG/L
1,3-DICHLOROBENZENE	0.50	0.50 U	UG/L
DICHLORODIFLUOROMETHANE	0.50	0.50 U	UG/L
1,1-DICHLOROETHANE	0.50	0.50 U	UG/L
1,2-DICHLOROETHANE	0.50	0.50 U	UG/L
1,1-DICHLOROETHENE	0.50	0.50 U	UG/L
TRANS-1,2-DICHLOROETHENE	0.50	0.50 U	UG/L
CIS-1,2-DICHLOROETHENE	0.50	0.50 U	UG/L
2,2-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,2-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,3-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,1-DICHLOROPROPENE	0.50	0.50 U	UG/L
TRANS-1,3-DICHLOROPROPENE	0.50	0.50 U	UG/L
CIS-1,3-DICHLOROPROPENE	0.50	0.50 U	UG/L
ETHYLBENZENE	0.50	0.50 U	UG/L
HEXACHLOROBUTADIENE	0.50	0.50 U	UG/L
ISOPROPYLBENZENE	0.50	0.50 U	UG/L
P-ISOPROPYLTOLUENE	0.50	0.50 U	UG/L
METHYLENE CHLORIDE	0.50	0.50 U	UG/L
NAPHTHALENE	0.50	0.50 U	UG/L
N-PROPYLBENZENE	0.50	0.50 U	UG/L
STYRENE	0.50	0.50 U	UG/L
1,1,1,2-TETRACHLOROETHANE	0.50	0.50 U	UG/L

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 02/22/02

Tetra Tech EM Inc.
Project Reference: AGROMACK-LOCKWOOD OU#2
Client Sample ID : OS-MUW-1

Date Sampled : 01/21/02 13:54 **Order #:** 525974 **Sample Matrix:** WATER
Date Received: 01/23/02 **Submission #:** R2210409 **Analytical Run** 74207

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 02/02/02			
ANALYTICAL DILUTION: 1.00			
1,1,2,2-TETRACHLOROETHANE	0.50	0.50 U	UG/L
TETRACHLOROETHENE	0.50	0.50 U	UG/L
TOLUENE	0.50	0.50 U	UG/L
1,2,4-TRICHLOROBENZENE	0.50	0.50 U	UG/L
1,2,3-TRICHLOROBENZENE	0.50	0.50 U	ug/L
1,1,1-TRICHLOROETHANE	0.50	0.50 U	UG/L
1,1,2-TRICHLOROETHANE	0.50	0.50 U	UG/L
TRICHLOROETHENE	0.50	0.50 U	UG/L
TRICHLOROFLUOROMETHANE	0.50	0.50 U	UG/L
1,2,3-TRICHLOROPROPANE	0.50	0.50 U	UG/L
1,3,5-TRIMETHYLBENZENE	0.50	0.50 U	UG/L
1,2,4-TRIMETHYLBENZENE	0.50	0.50 U	UG/L
'INYL CHLORIDE	0.50	0.50 U	UG/L
M+P-XYLENE	0.50	0.50 U	UG/L
O-XYLENE	0.50	0.50 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
BROMOFLUOROBENZENE	(64 - 127 %)	91	%
1,2-DICHLOROBENZENE-D4	(59 - 136 %)	92	%

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\020202\I1865.D Vial: 20
Acq On : 2 Feb 102 8:00 pm Operator: DLIPANI
Sample : 525974 1.0 Inst : 5970 - In
Misc : TTEM R22-10409 524.2 Multiplr: 1.00
Quant Time: Feb 2 20:35 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	14.67	96	49892	1.00	ppb		0.01
System Monitoring Compounds							%Recovery
49) Surr2,BFB	25.06	95	48300	1.81	ppb		90.30%
63) Surr5,1,2-Dichlorobenzene-	29.08	152	38705	1.83	ppb		91.66%
Target Compounds							Qvalue
8) Acetone	7.53	43	2409	1.34	ppb	#	46 NT
10) tert Butyl Alcohol	8.05	59	243	~~0.42~~	~~ppb~~		~~85~~
16) 2-Butanone	11.49	43	1047	~~0.43~~	~~ppb~~	~~#~~	~~52~~
35) 2-Hexanone	19.18	43	1791	~~0.44~~	~~ppb~~	~~#~~	~~33~~

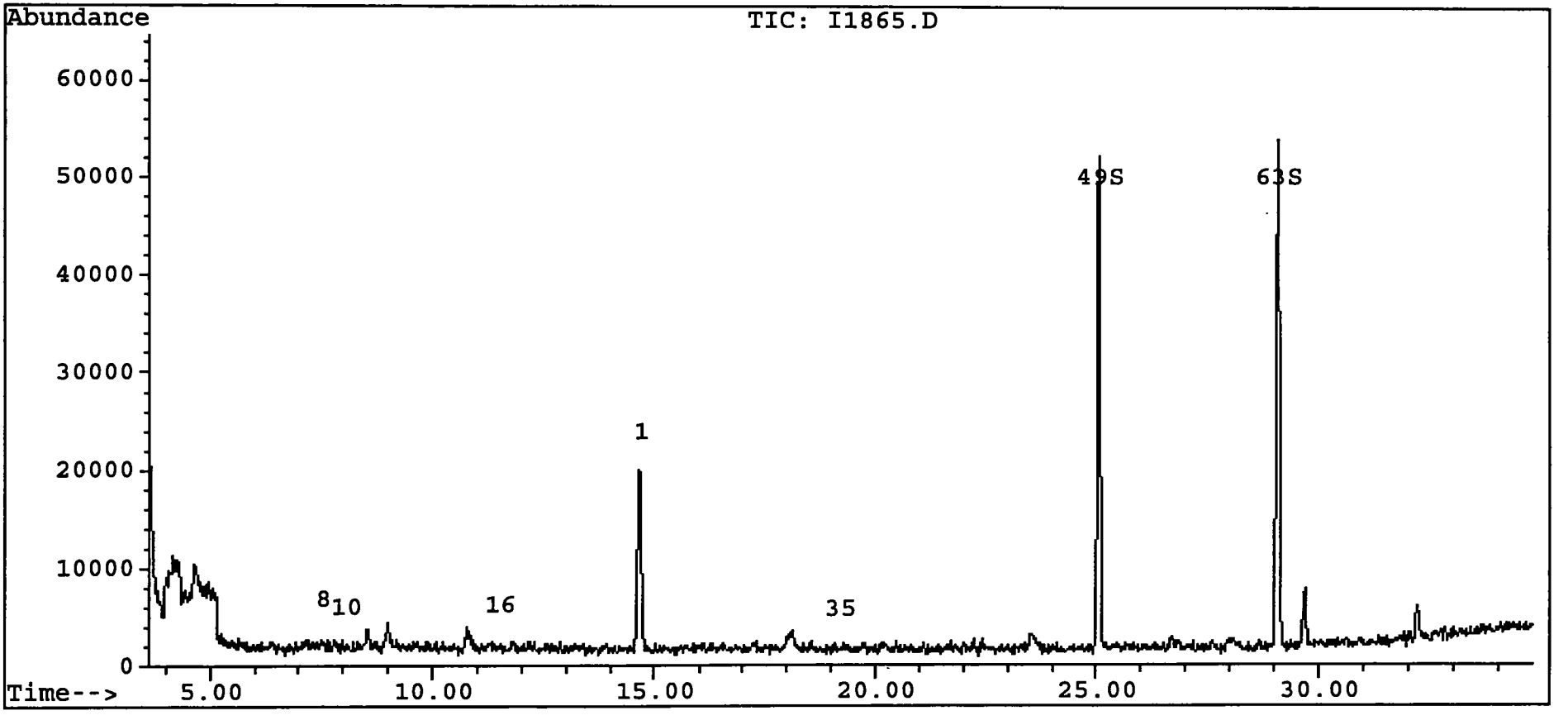
PL
02/04/02

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\020202\I1865.D Vial: 20
Acq On : 2 Feb 102 8:00 pm Operator: DLIPANI
Sample : 525974 1.0 Inst : 5970 - In
Misc : TTEM R22-10409 524.2 Multiplr: 1.00
Quant Time: Feb 2 20:35 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 02/22/02

Tetra Tech EM Inc.
Project Reference: AGROMACK-LOCKWOOD OU#2
Client Sample ID : OS-PW-9

Date Sampled : 01/22/02 09:50 **Order #:** 525996 **Sample Matrix:** WATER
Date Received: 01/23/02 **Submission #:** R2210409 **Analytical Run** 74207

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 02/02/02			
ANALYTICAL DILUTION: 1.00			
BENZENE	0.50	12	UG/L
BROMOBENZENE	0.50	0.50 U	UG/L
BROMOCHLOROMETHANE	0.50	0.50 U	ug/L
BROMODICHLOROMETHANE	0.50	0.50 U	UG/L
BROMOFORM	0.50	0.50 U	UG/L
BROMOMETHANE	0.50	0.50 U	UG/L
TERT-BUTYLBENZENE	0.50	0.50 U	UG/L
SEC-BUTYLBENZENE	0.50	0.50 U	UG/L
N-BUTYLBENZENE	0.50	0.50 U	UG/L
CARBON TETRACHLORIDE	0.50	16	UG/L
CHLOROBENZENE	0.50	39	UG/L
CHLOROETHANE	0.50	0.50 U	UG/L
HLOROFORM	0.50	0.50 U	UG/L
CHLOROMETHANE	0.50	0.50 U	UG/L
1,2-DIBROMO-3-CHLOROPROPANE	0.50	0.50 U	UG/L
2-CHLOROTOLUENE	0.50	0.50 U	UG/L
4-CHLOROTOLUENE	0.50	0.50 U	UG/L
DIBROMOCHLOROMETHANE	0.50	0.50 U	UG/L
1,2-DIBROMOETHANE	0.50	0.50 U	UG/L
DIBROMOMETHANE	0.50	0.50 U	UG/L
1,2-DICHLOROBENZENE	0.50	7.7	UG/L
1,4-DICHLOROBENZENE	0.50	10	UG/L
1,3-DICHLOROBENZENE	0.50	0.50 U	UG/L
DICHLORODIFLUOROMETHANE	0.50	0.50 U	UG/L
1,1-DICHLOROETHANE	0.50	0.50 U	UG/L
1,2-DICHLOROETHANE	0.50	7.7	UG/L
1,1-DICHLOROETHENE	0.50	15	UG/L
TRANS-1,2-DICHLOROETHENE	0.50	27	UG/L
CIS-1,2-DICHLOROETHENE	0.50	42 E	UG/L
2,2-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,2-DICHLOROPROPANE	0.50	14	UG/L
1,3-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,1-DICHLOROPROPENE	0.50	0.50 U	UG/L
TRANS-1,3-DICHLOROPROPENE	0.50	0.50 U	UG/L
CIS-1,3-DICHLOROPROPENE	0.50	0.50 U	UG/L
ETHYLBENZENE	0.50	8.3	UG/L
HEXACHLOROBUTADIENE	0.50	0.50 U	UG/L
SOPROPYLBENZENE	0.50	0.50 U	UG/L
-ISOPROPYLTOLUENE	0.50	0.50 U	UG/L
METHYLENE CHLORIDE	0.50	7.0	UG/L
NAPHTHALENE	0.50	0.50 U	UG/L
N-PROPYLBENZENE	0.50	0.50 U	UG/L
STYRENE	0.50	12	UG/L
1,1,1,2-TETRACHLOROETHANE	0.50	0.50 U	UG/L

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 02/22/02

Tetra Tech EM Inc.
Project Reference: AGROMACK-LOCKWOOD OU#2
Client Sample ID : OS-PW-9

Date Sampled : 01/22/02 09:50 **Order #:** 525996 **Sample Matrix:** WATER
Date Received: 01/23/02 **Submission #:** R2210409 **Analytical Run** 74207

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 02/02/02			
ANALYTICAL DILUTION: 1.00			
1,1,2,2-TETRACHLOROETHANE	0.50	0.50 U	UG/L
TETRACHLOROETHENE	0.50	4.1	UG/L
TOLUENE	0.50	4.6	UG/L
1,2,4-TRICHLOROBENZENE	0.50	14	UG/L
1,2,3-TRICHLOROBENZENE	0.50	0.50 U	ug/L
1,1,1-TRICHLOROETHANE	0.50	8.4	UG/L
1,1,2-TRICHLOROETHANE	0.50	8.5	UG/L
TRICHLOROETHENE	0.50	16	UG/L
TRICHLOROFLUOROMETHANE	0.50	0.50 U	UG/L
1,2,3-TRICHLOROPROPANE	0.50	0.50 U	UG/L
1,3,5-TRIMETHYLBENZENE	0.50	0.50 U	UG/L
1,2,4-TRIMETHYLBENZENE	0.50	0.50 U	UG/L
VINYL CHLORIDE	0.50	16	UG/L
M+P-XYLENE	0.50	7.7	UG/L
O-XYLENE	0.50	5.8	UG/L

SURROGATE RECOVERIES	QC LIMITS		
BROMOFLUOROBENZENE	(64 - 127 %)	94	%
1,2-DICHLOROBENZENE-D4	(59 - 136 %)	97	%

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\020202\I1866.D Vial: 21
Acq On : 2 Feb 102 8:41 pm Operator: DLIPANI
Sample : 525996 1.0 Inst : 5970 - In
Misc : TTEM R22-10409 524.2 Multiplr: 1.00
Quant Time: Feb 2 21:16 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	14.67	96	50325	1.00 ppb	0.00
System Monitoring Compounds					%Recovery
49) Surr2,BFB	25.06	95	50772	1.88 ppb	94.10%
63) Surr5,1,2-Dichlorobenzene-	29.08	152	41258	1.94 ppb	96.87%
Target Compounds					Qvalue
4) Vinyl Chloride	4.62	62	147987	15.75 ppb	97
8) Acetone	7.55	43	2525	1.39 ppb	95 NT
9) 1,1-Diclethene	7.83	96	166420	15.15 ppb	97
10) tert Butyl Alcohol	7.85	59	12400	~~21.19 ppb~~	~~53~~
12) Methylene Chloride	8.93	84	90841	7.04 ppb	94
14) trans-1,2-Dichloroethene	9.64	96	355953	26.83 ppb	97
16) 2-Butanone	11.54	43	1273	~~0.51 ppb~~ #	~~83~~
18) cis-1,2-Dichloroethene	11.98	96	611834	41.51 ppb	96 E
21) 1,1,1-Trichloroethane	13.24	97	226194	8.44 ppb	98
23) Carbontetrachloride	13.83	117	388092	16.43 ppb	99
24) Benzene	14.20	78	498736	11.97 ppb	95
25) 1,2-Dichloroethane	14.15	62	160453	7.67 ppb	94
26) Trichloroethene	15.60	95	288152	16.44 ppb	98
27) 1,2-Diclpropane	15.98	63	176696	14.56 ppb	94
32) Toluene	18.56	91	223773	4.55 ppb	96
34) 1,1,2-Trichloroethane	19.33	83	80923	8.53 ppb	85
38) Tetrachloroethene	20.16	166	85317	4.07 ppb	98
40) Chlorobenzene	22.15	112	1404530	38.96 ppb	91
42) Ethylbenzene	22.25	91	489665	8.30 ppb	96
43) (m+p)Xylene	22.45	106	161020	7.66 ppb	93
44) o-Xylene	23.53	106	119284	5.84 ppb	97
45) Styrene	23.61	104	424723	12.41 ppb	94
60) 1,3-Dclbenz	~~28.19~~	~~146~~	~~332008~~	~~10.65 ppb~~	~~97~~ (1,4-D
61) 1,4-Dclbenz	28.19	146	335124	9.96 ppb	96
64) 1,2-Dclbenz	29.15	146	231642	7.67 ppb	99
66) 1,2,4-Tcbenzene	33.02	180	331964	14.31 ppb	92

(>L) 02/04/02

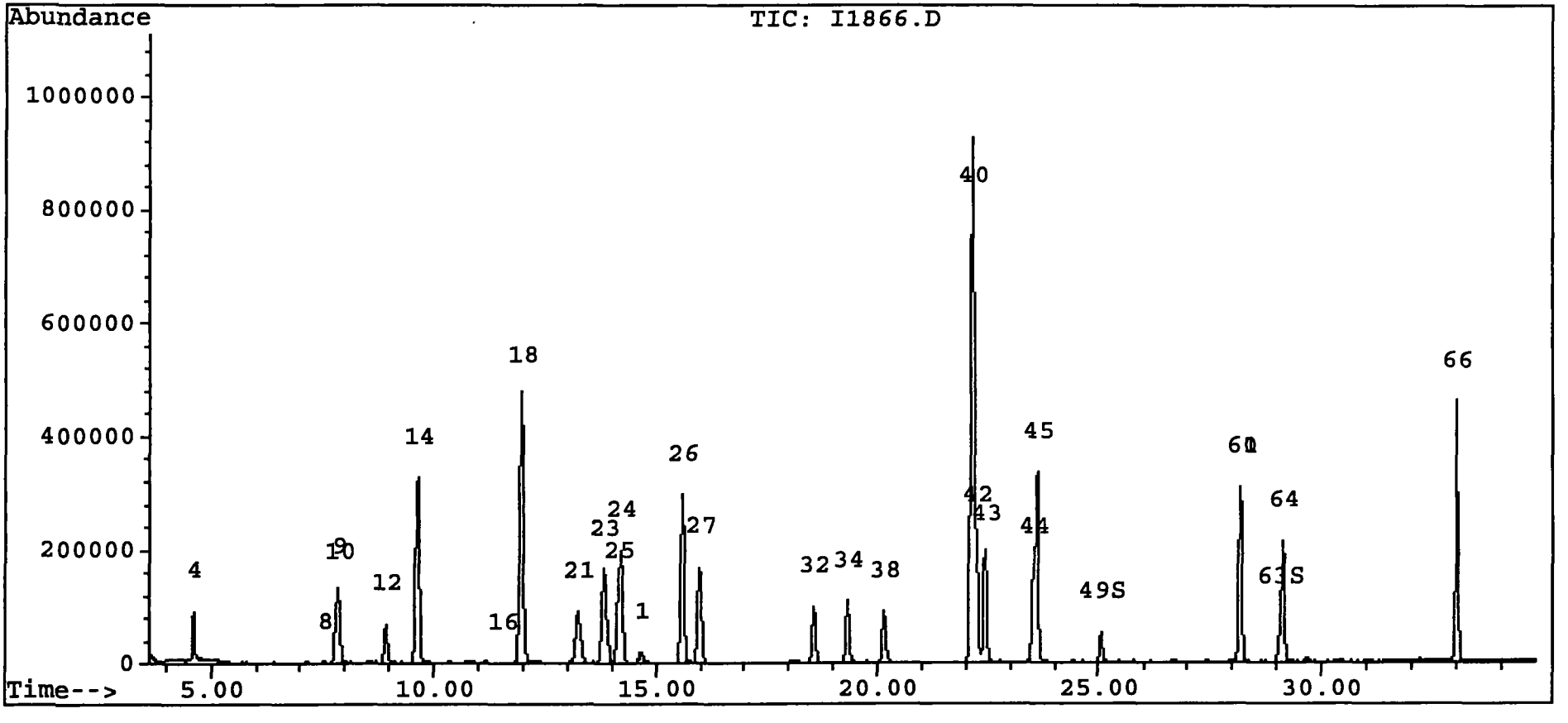
(#) = qualifier out of range (m) = manual integration

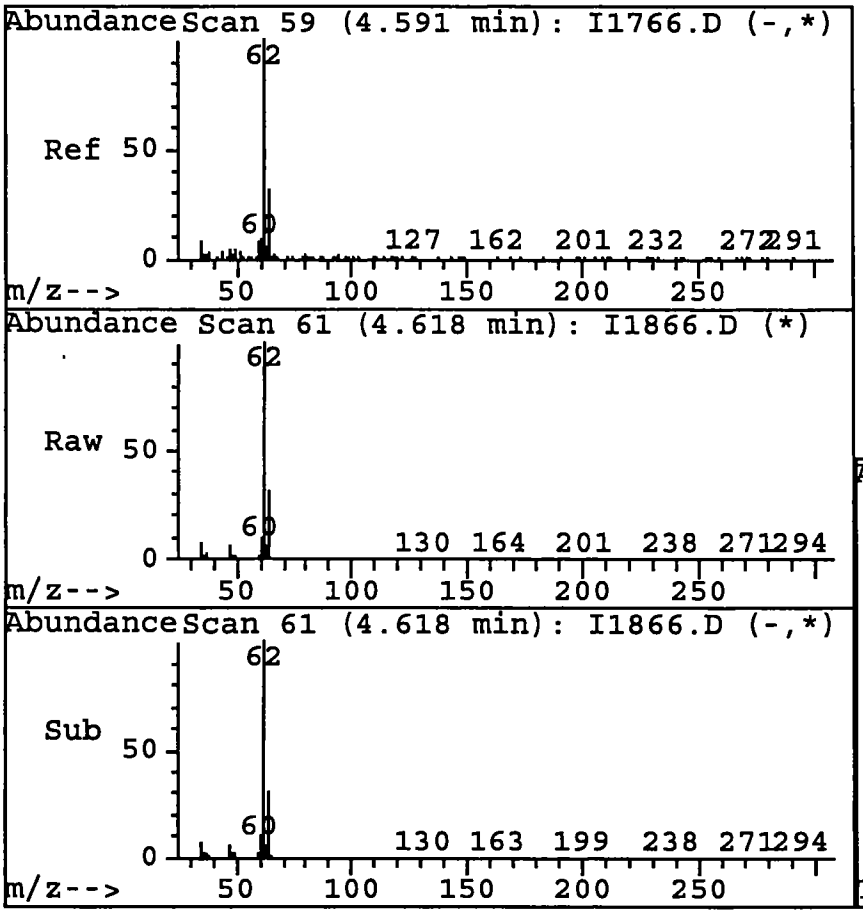
Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\020202\I1866.D
Acq On : 2 Feb 102 8:41 pm
Sample : 525996 1.0
Misc : TTEM R22-10409 524.2
Quant Time: Feb 2 21:16 19102

Vial: 21
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration

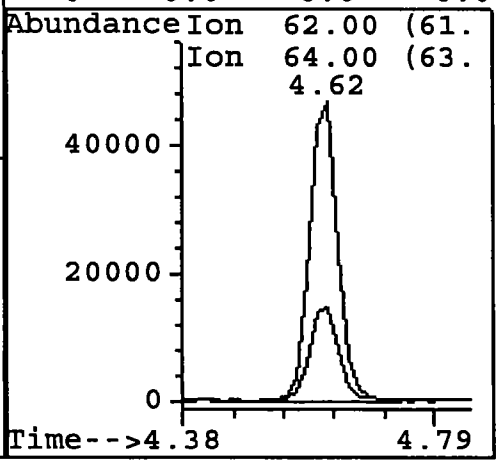


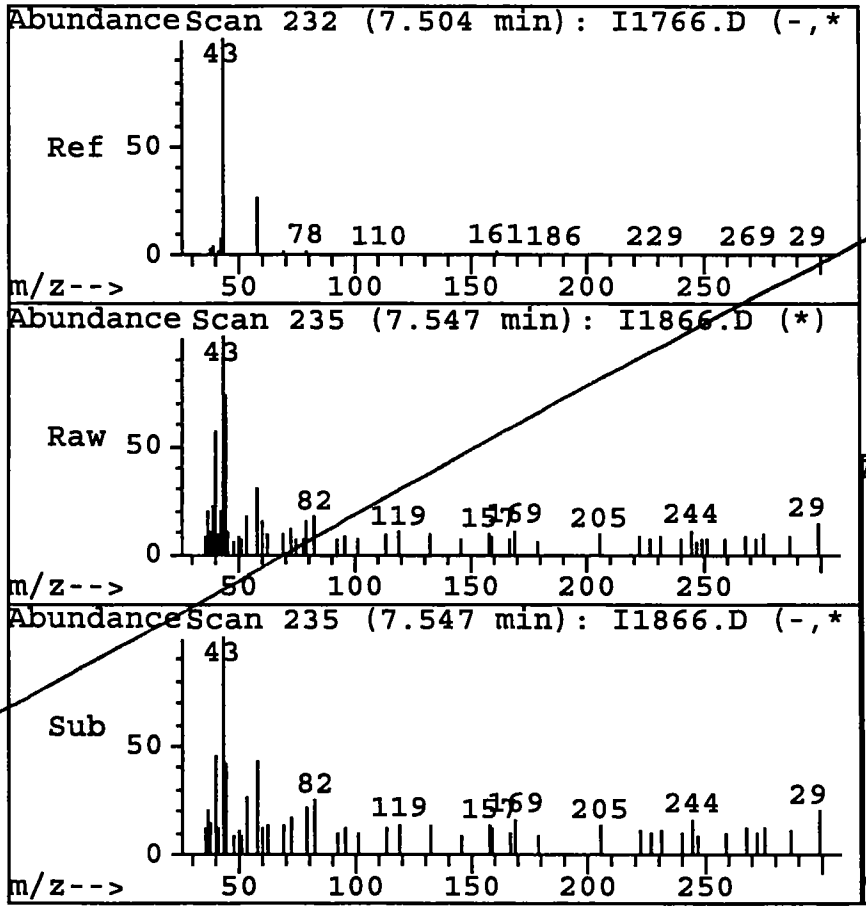


#4
Vinyl Chloride
Concen: 15.75 ppb
RT: 4.62 min Scan# 61
Delta R.T. 0.03 min
Lab File: I1866.D
Acq: 2 Feb 102 8:41 pm

Tgt Ion:62 Resp: 147987

Ion	Ratio	Lower	Upper
62	100		
64	31.5	26.4	39.5
0	0.0	0.0	0.0
0	0.0	0.0	0.0

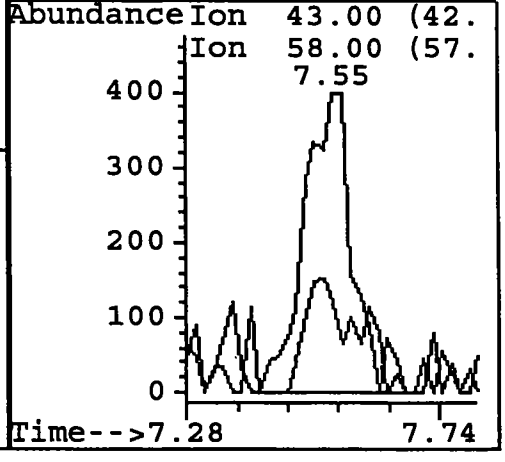


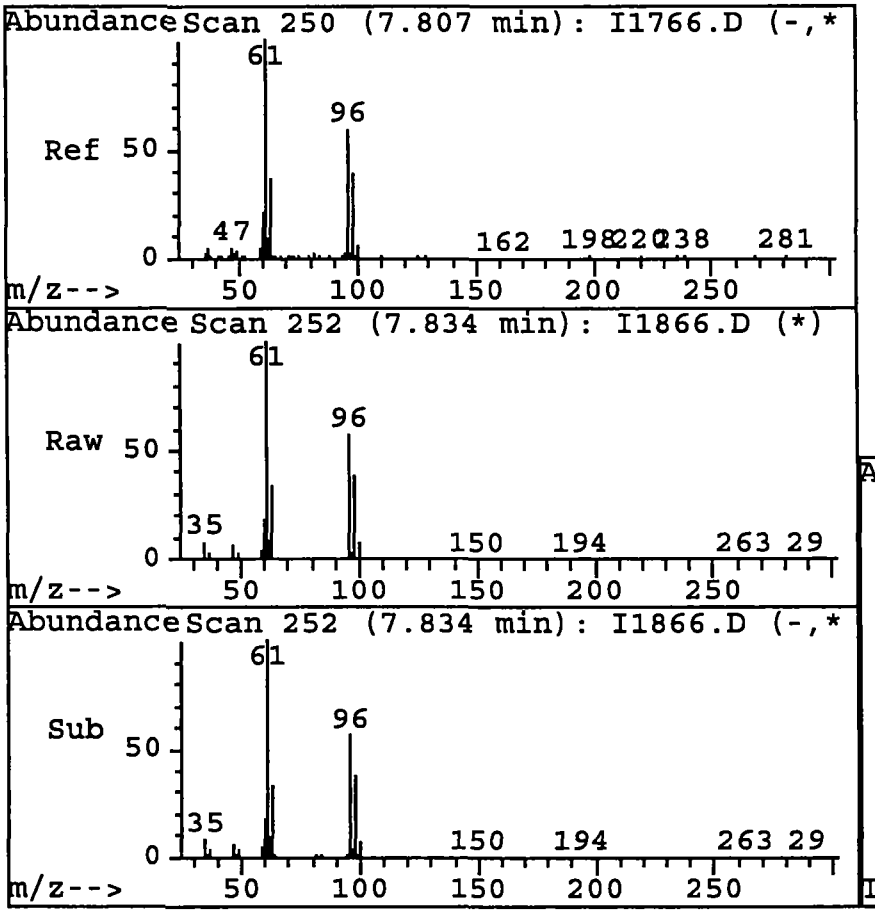


#8
Acetone
NT (DL) 02/04/02
Concen: 1.39 ppb
RT: 7.55 min Scan# 235
Delta R.T. 0.04 min
Lab File: I1866.D
Acq: 2 Feb 102 8:41 pm

Tgt Ion:43 Resp: 2525

Ion	Ratio	Lower	Upper
43	100		
58	26.7	23.3	35.0
0	0.0	0.0	0.0
0	0.0	0.0	0.0

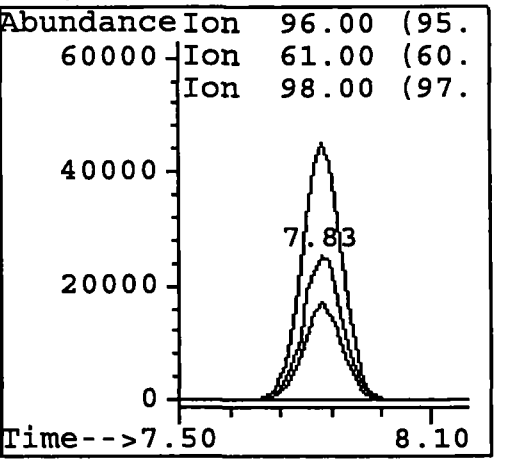


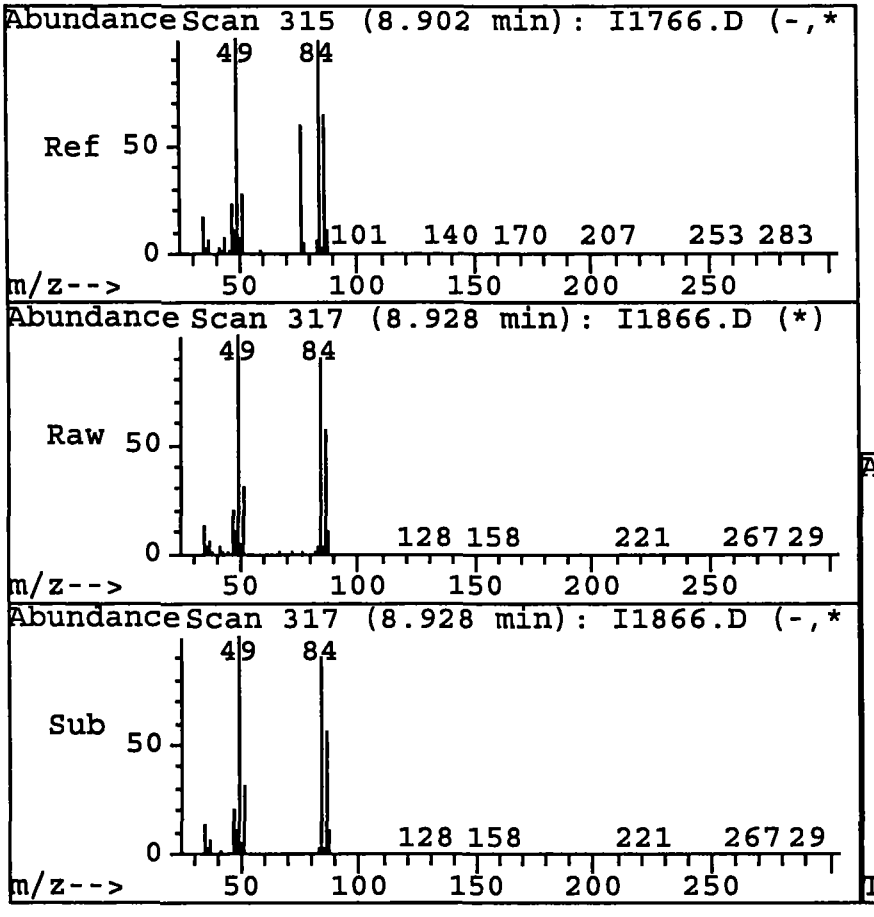


#9
1,1-Diclethene
Concen: 15.15 ppb
RT: 7.83 min Scan# 252
Delta R.T. 0.03 min
Lab File: I1866.D
Acq: 2 Feb 102 8:41 pm

Tgt Ion:96 Resp: 166420

Ion	Ratio	Lower	Upper
96	100		
61	176.9	137.3	206.0
98	66.7	51.9	77.8
0	0.0	0.0	0.0

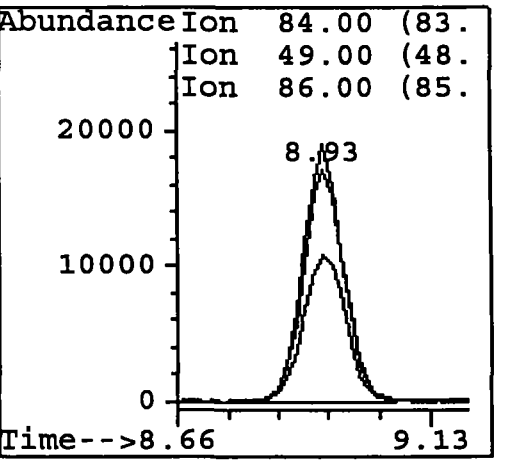


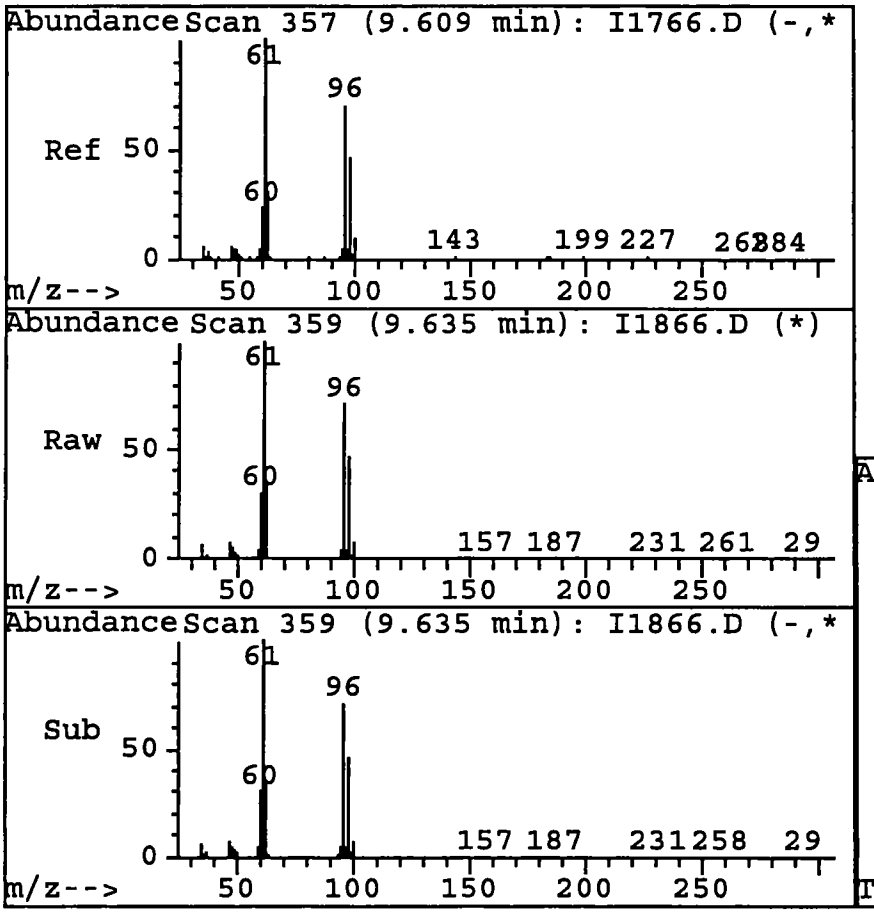


#12
Methylene Chloride
Concen: 7.04 ppb
RT: 8.93 min Scan# 317
Delta R.T. 0.03 min
Lab File: I1866.D
Acq: 2 Feb 102 8:41 pm

Tgt Ion:84 Resp: 90841

Ion	Ratio	Lower	Upper
84	100		
49	111.3	82.5	123.7
86	62.7	52.5	78.7
0	0.0	0.0	0.0

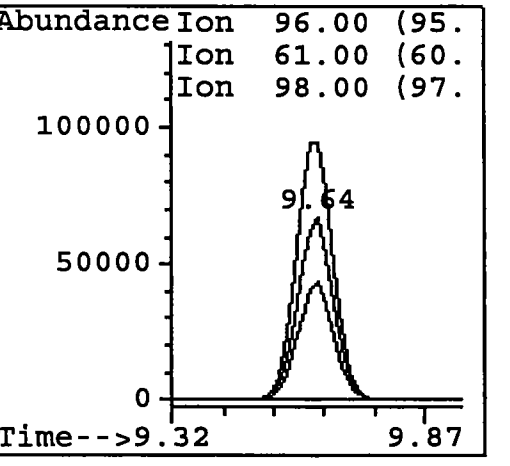


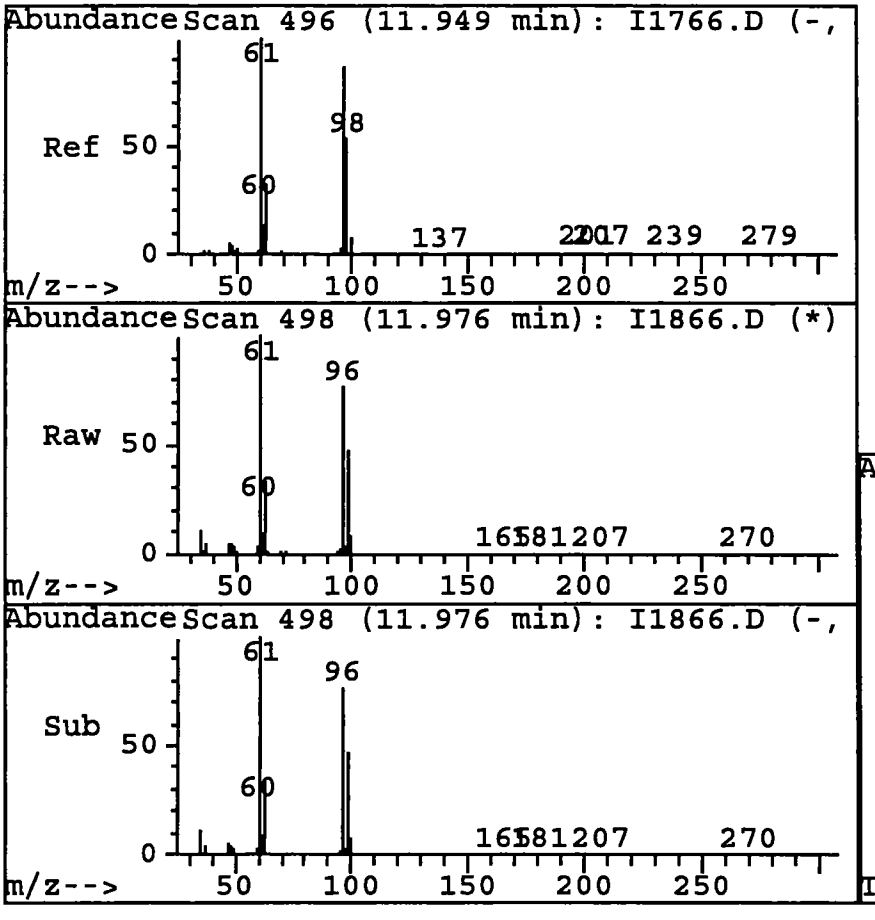


#14
trans-1,2-Dichloroethene
Concen: 26.83 ppb
RT: 9.64 min Scan# 359
Delta R.T. 0.03 min
Lab File: I1866.D
Acq: 2 Feb 102 8:41 pm

Tgt Ion:96 Resp: 355953

Ion	Ratio	Lower	Upper
96	100		
61	139.9	71.9	215.5
98	64.6	33.3	99.8
0	0.0	0.0	0.0

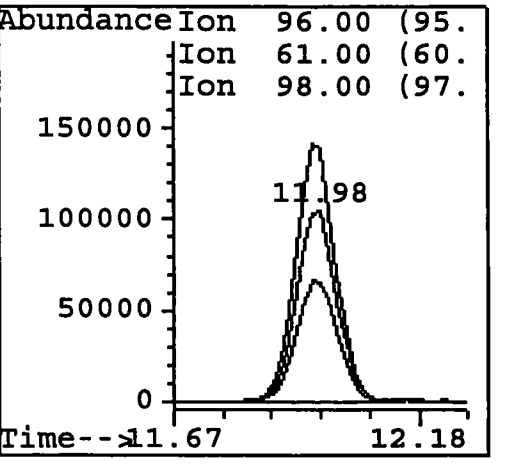


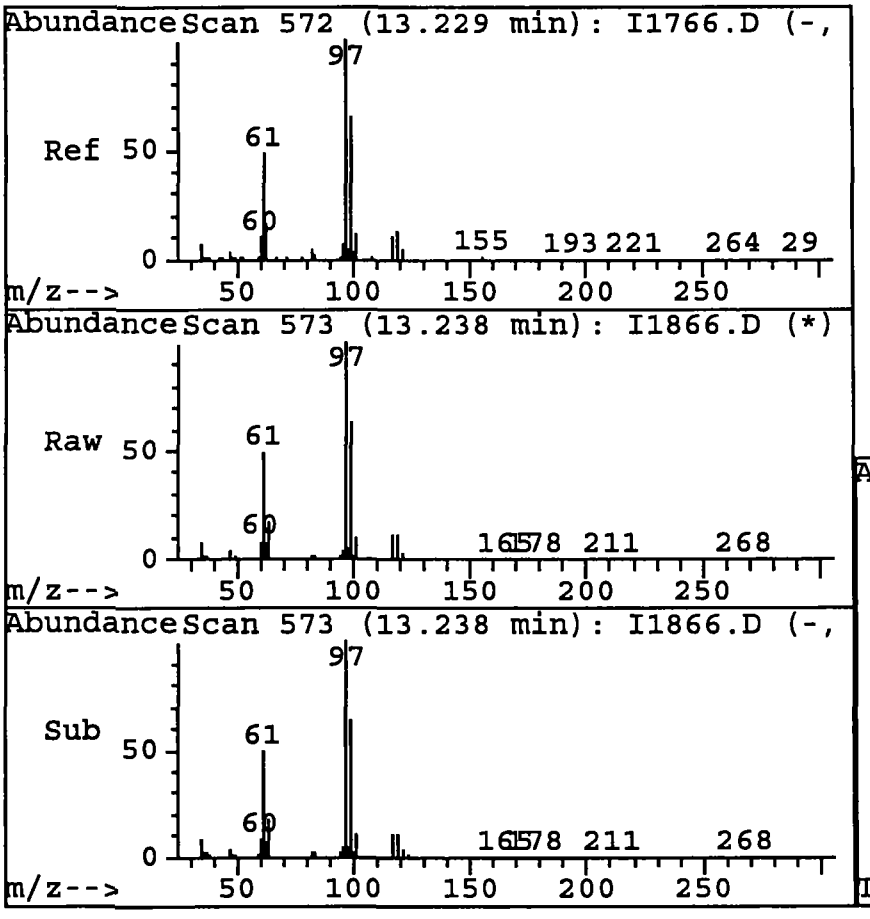


#18
cis-1,2-Dichloroethene
Concen: 41.51 ppb
RT: 11.98 min Scan# 498
Delta R.T. 0.03 min
Lab File: I1866.D
Acq: 2 Feb 102 8:41 pm

Tgt Ion:96 Resp: 611834

Ion	Ratio	Lower	Upper
96	100		
61	132.0	101.3	152.0
98	62.5	49.0	73.5
0	0.0	0.0	0.0

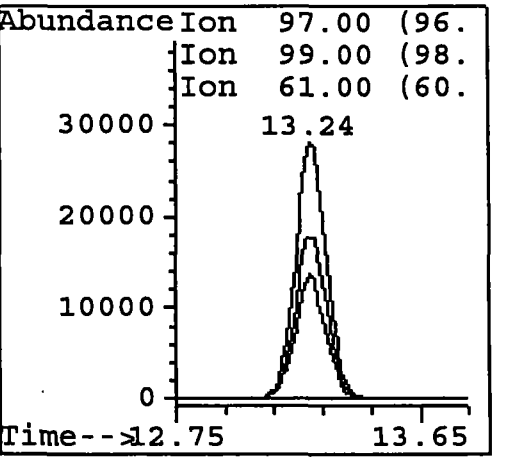


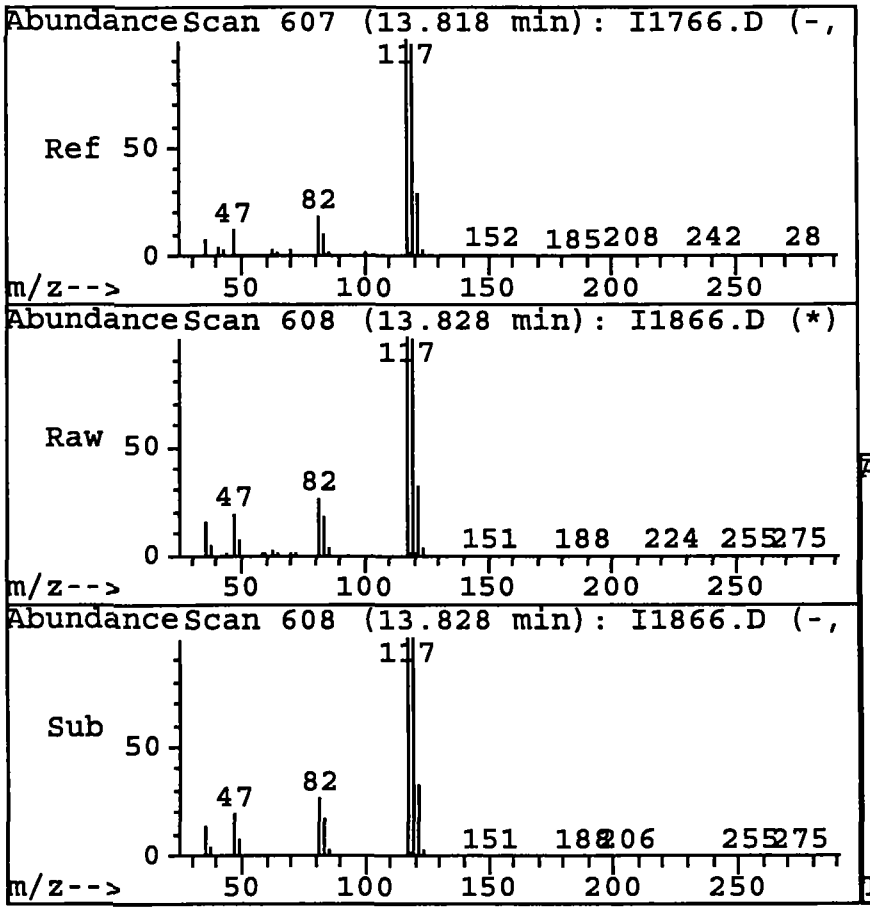


#21
1,1,1-Trichloroethane
Concen: 8.44 ppb
RT: 13.24 min Scan# 573
Delta R.T. 0.01 min
Lab File: I1866.D
Acq: 2 Feb 102 8:41 pm

Tgt Ion:97 Resp: 226194

Ion	Ratio	Lower	Upper
97	100		
99	63.2	52.7	79.0
61	49.3	38.9	58.3
0	0.0	0.0	0.0

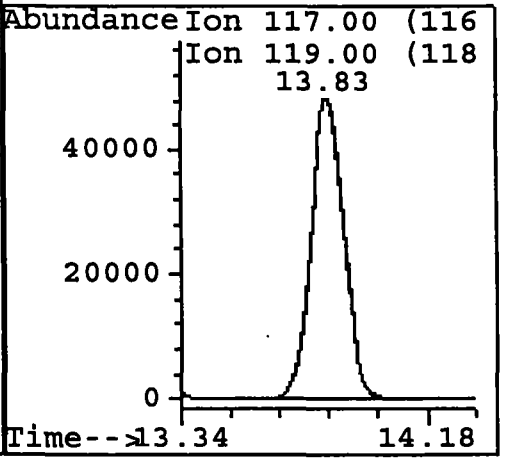


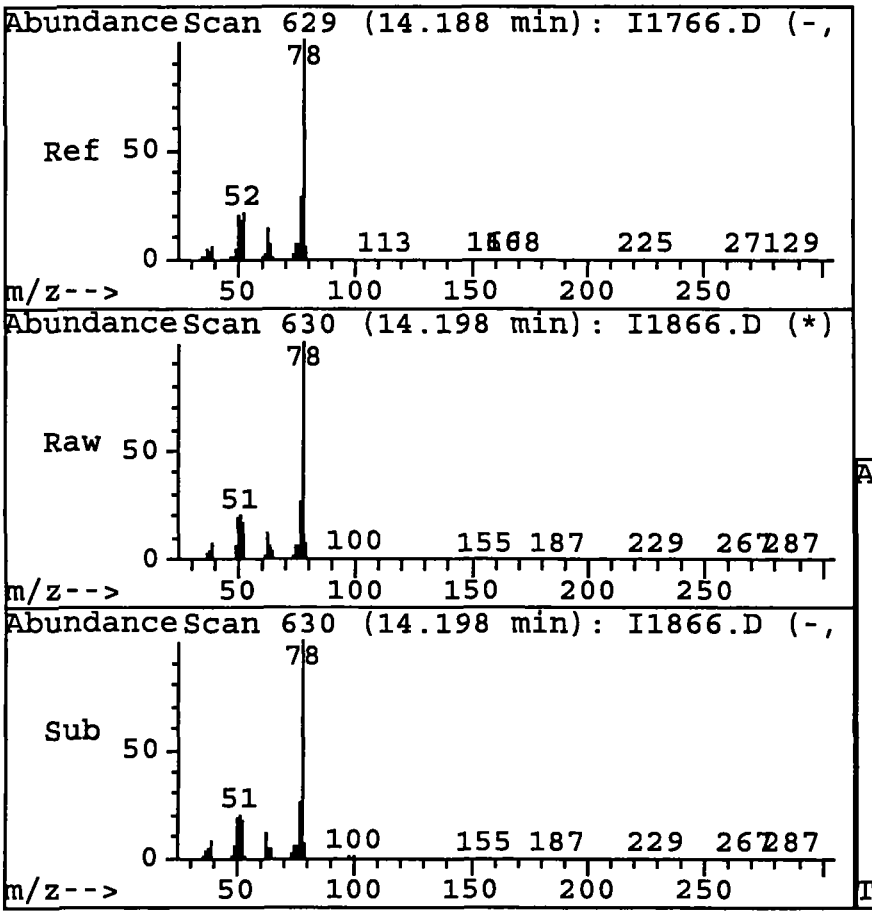


#23
Carbontetrachloride
Concen: 16.43 ppb
RT: 13.83 min Scan# 608
Delta R.T. 0.01 min
Lab File: I1866.D
Acq: 2 Feb 102 8:41 pm

Tgt Ion:117 Resp: 388092

Ion	Ratio	Lower	Upper
117	100		
119	98.8	78.0	116.9
0	0.0	0.0	0.0
0	0.0	0.0	0.0

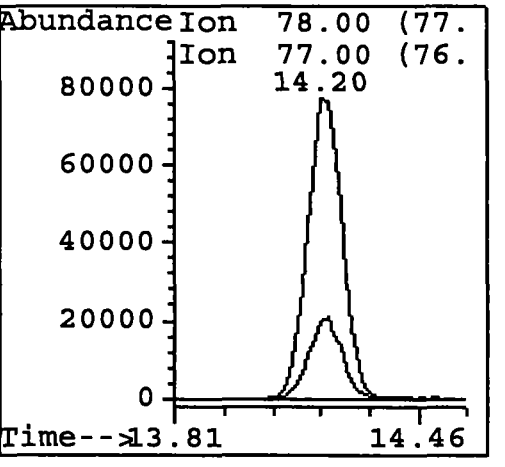


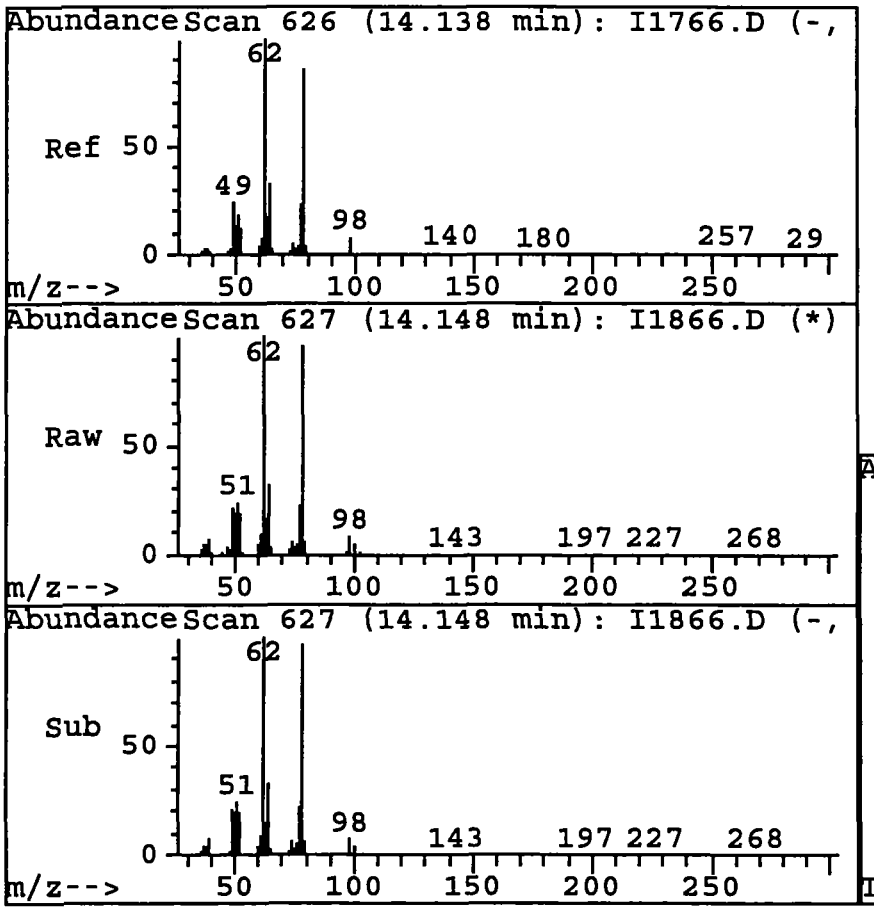


#24
Benzene
Concen: 11.97 ppb
RT: 14.20 min Scan# 630
Delta R.T. 0.01 min
Lab File: I1866.D
Acq: 2 Feb 102 8:41 pm

Tgt Ion:78 Resp: 498736

Ion	Ratio	Lower	Upper
78	100		
77	25.8	23.0	34.5
0	0.0	0.0	0.0
0	0.0	0.0	0.0

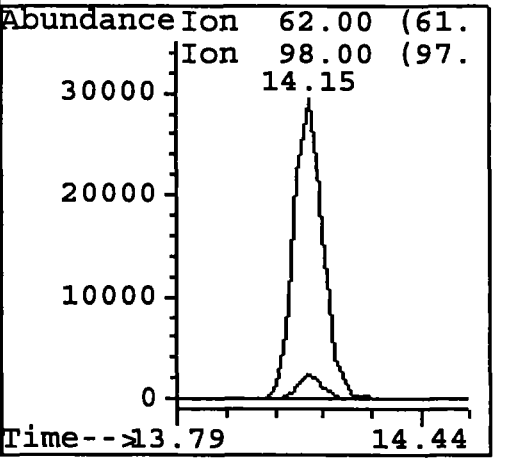


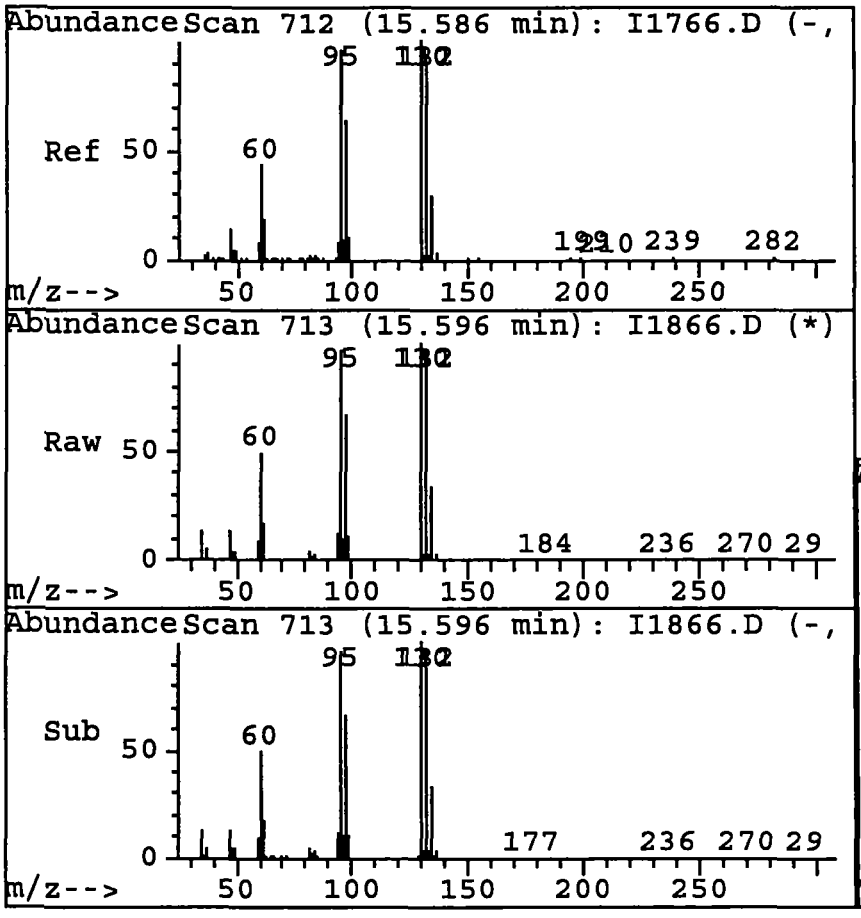


#25
1,2-Dichloroethane
Concen: 7.67 ppb
RT: 14.15 min Scan# 627
Delta R.T. 0.01 min
Lab File: I1866.D
Acq: 2 Feb 102 8:41 pm

Tgt Ion:62 Resp: 160453

Ion	Ratio	Lower	Upper
62	100		
98	7.6	7.3	12.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

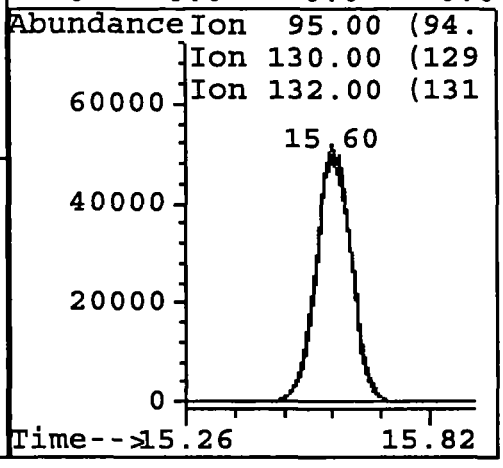


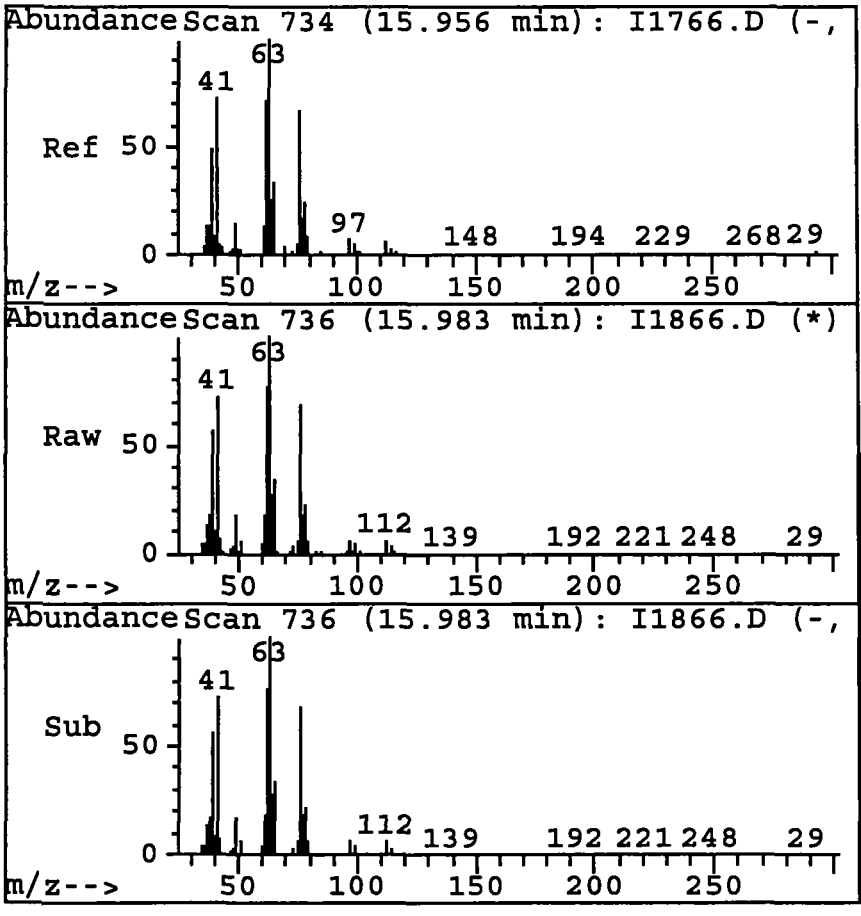


#26
Trichloroethene
Concen: 16.44 ppb
RT: 15.60 min Scan# 713
Delta R.T. 0.01 min
Lab File: I1866.D
Acq: 2 Feb 102 8:41 pm

Tgt Ion:95 Resp: 288152

Ion	Ratio	Lower	Upper
95	100		
130	104.2	84.3	126.4
132	98.5	76.1	114.1
0	0.0	0.0	0.0

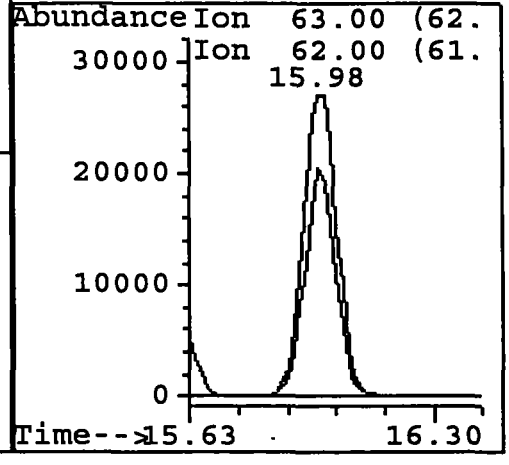


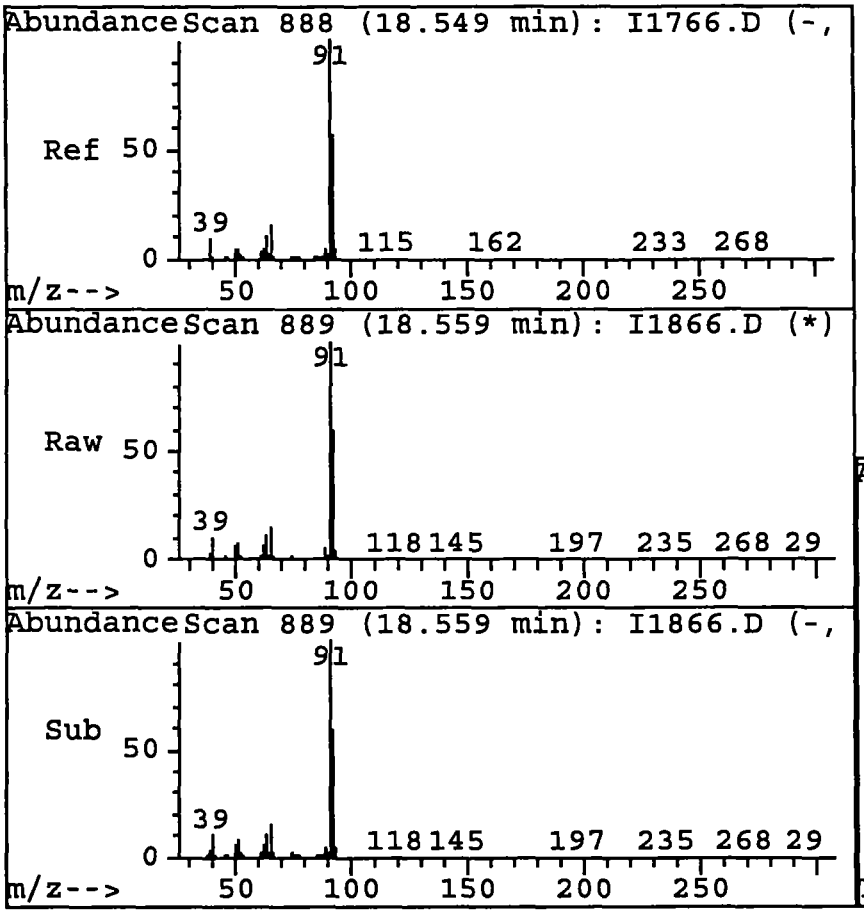


#27
1,2-Diclpropane
Concen: 14.56 ppb
RT: 15.98 min Scan# 736
Delta R.T. 0.03 min
Lab File: I1866.D
Acq: 2 Feb 102 8:41 pm

Tgt Ion:63 Resp: 176696

Ion	Ratio	Lower	Upper
63	100		
62	75.9	56.9	85.4
0	0.0	0.0	0.0
0	0.0	0.0	0.0

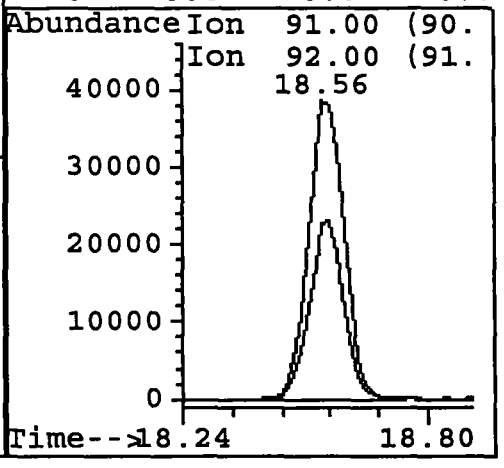


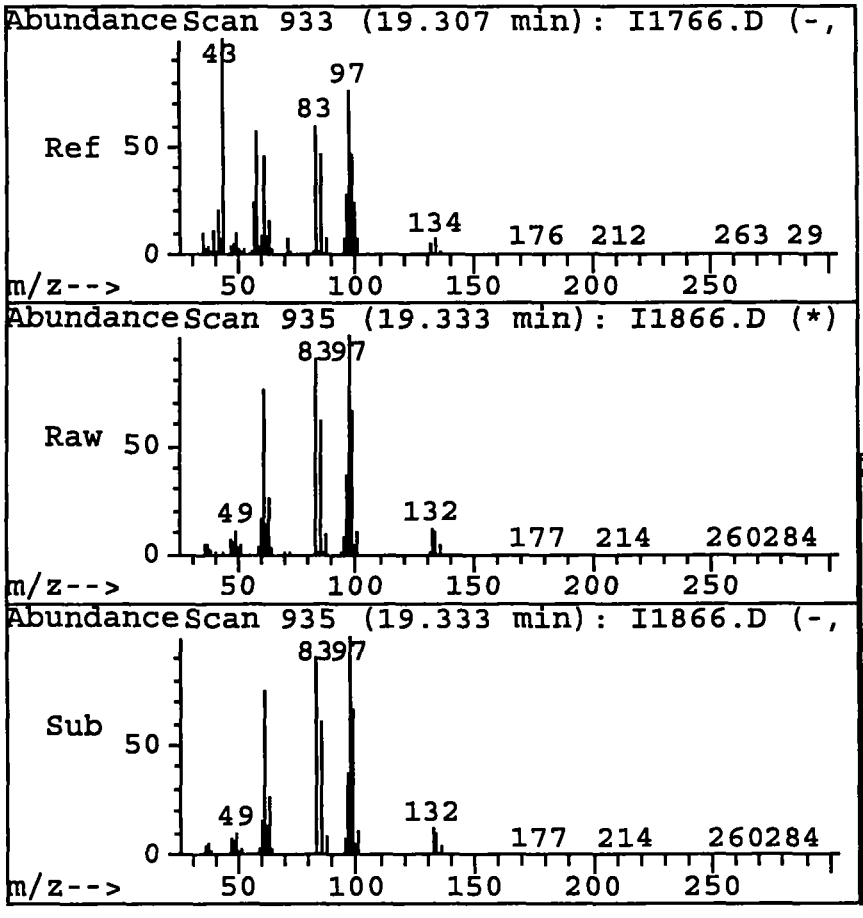


#32
Toluene
Concen: 4.55 ppb
RT: 18.56 min Scan# 889
Delta R.T. 0.01 min
Lab File: I1866.D
Acq: 2 Feb 102 8:41 pm

Tgt Ion:91 Resp: 223773

Ion	Ratio	Lower	Upper
91	100		
92	59.4	45.4	68.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

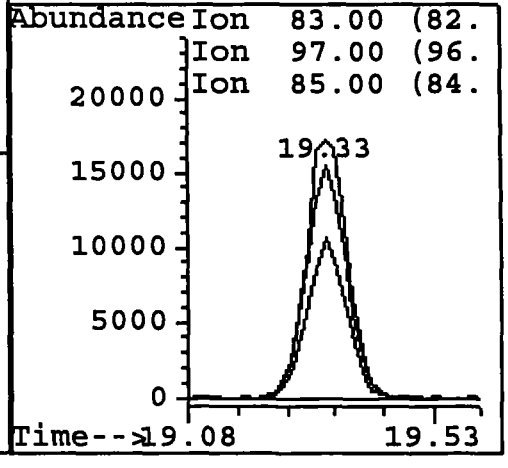


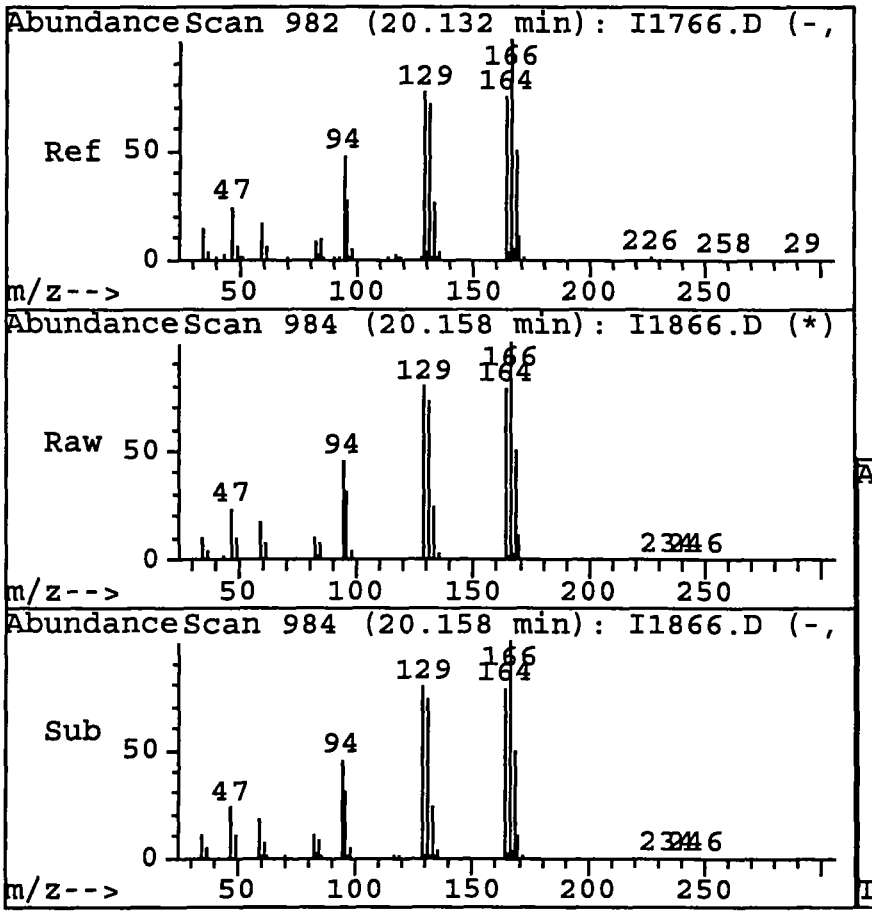


#34
1,1,2-Trichloroethane
Concen: 8.53 ppb
RT: 19.33 min Scan# 935
Delta R.T. 0.03 min
Lab File: I1866.D
Acq: 2 Feb 102 8:41 pm

Tgt Ion:83 Resp: 80923

Ion	Ratio	Lower	Upper
83	100		
97	111.2	102.9	154.3
85	68.4	66.0	98.9
0	0.0	0.0	0.0

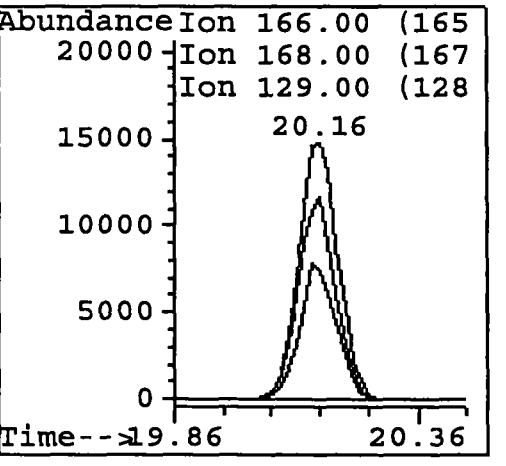


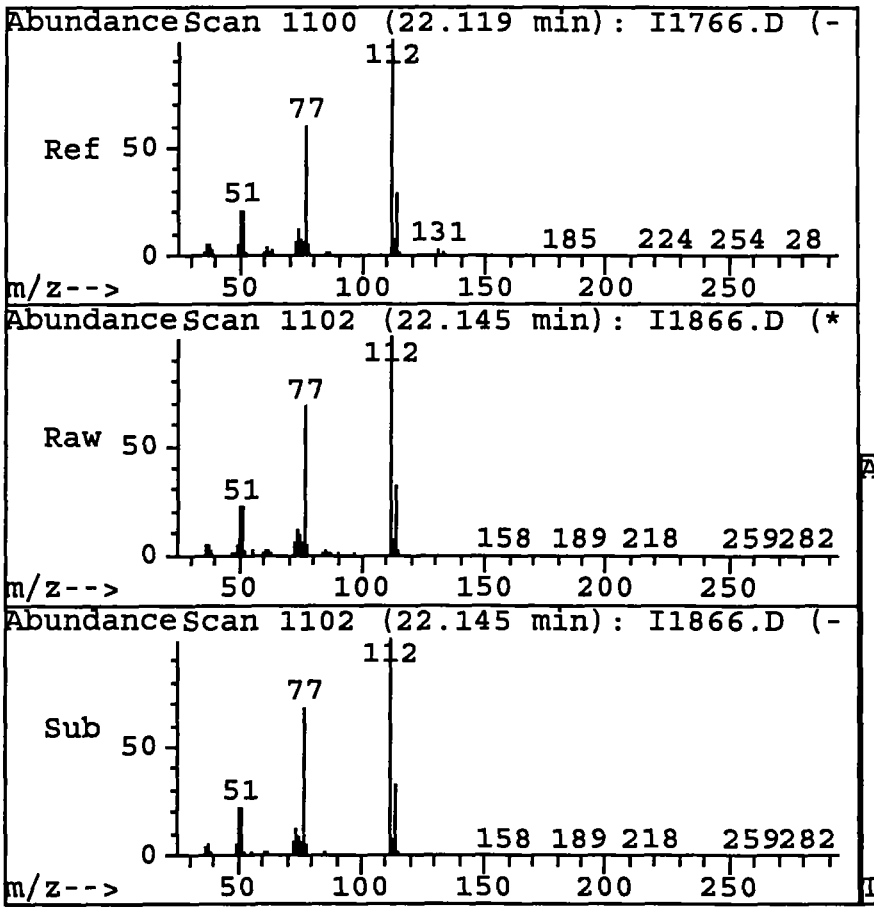


#38
Tetrachloroethene
Concen: 4.07 ppb
RT: 20.16 min Scan# 984
Delta R.T. 0.03 min
Lab File: I1866.D
Acq: 2 Feb 102 8:41 pm

Tgt Ion:166 Resp: 85317

Ion	Ratio	Lower	Upper
166	100		
168	50.3	25.1	75.1
129	78.8	38.2	114.4
0	0.0	0.0	0.0

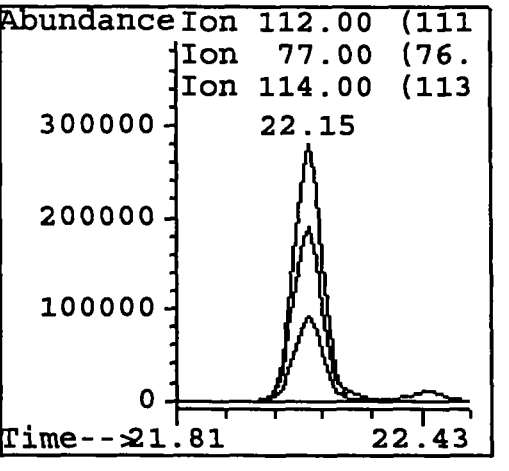


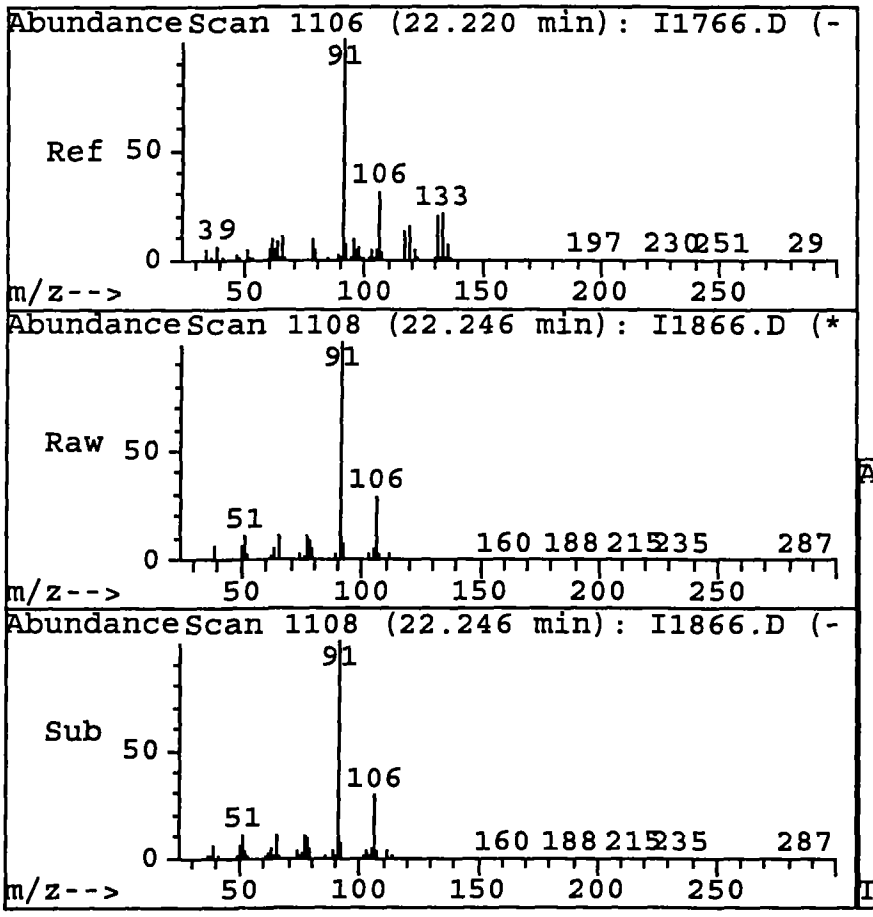


#40
Chlorobenzene
Concen: 38.96 ppb
RT: 22.15 min Scan# 1102
Delta R.T. 0.03 min
Lab File: I1866.D
Acq: 2 Feb 102 8:41 pm

Tgt Ion:112 Resp: 1404530

Ion	Ratio	Lower	Upper
112	100		
77	67.9	48.3	72.4
114	32.2	23.2	34.7
0	0.0	0.0	0.0

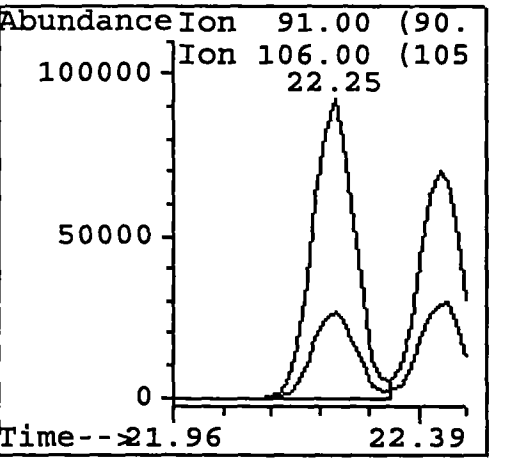


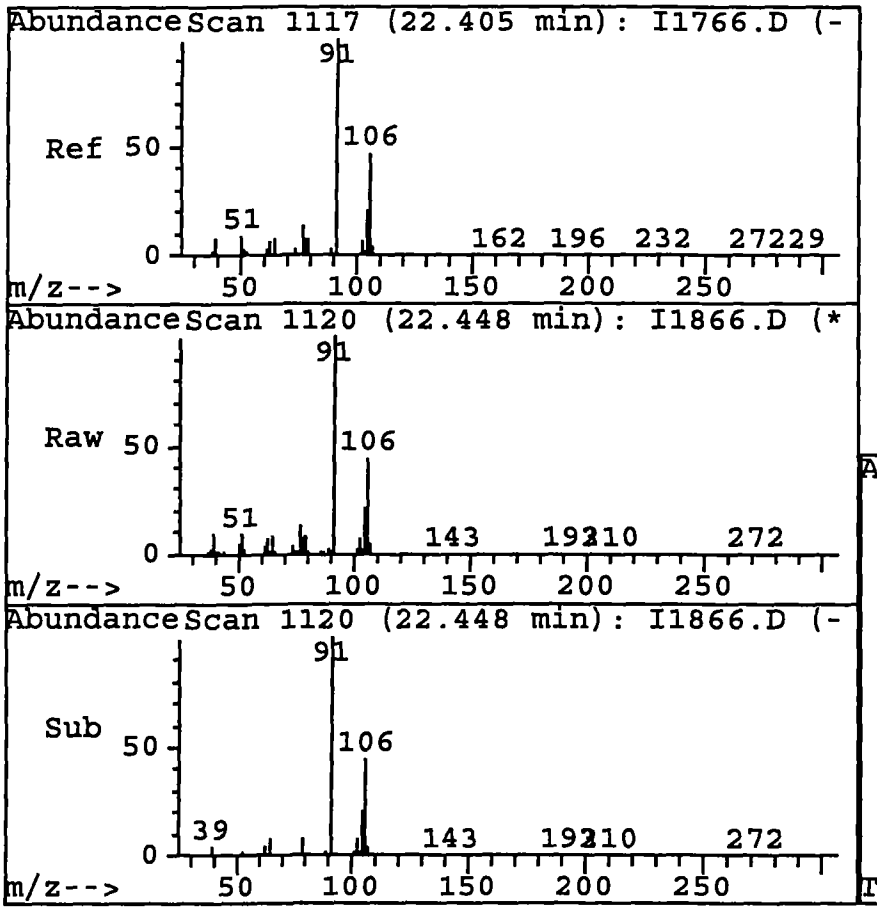


#42
Ethylbenzene
Concen: 8.30 ppb
RT: 22.25 min Scan# 1108
Delta R.T. 0.03 min
Lab File: I1866.D
Acq: 2 Feb 102 8:41 pm

Tgt Ion:91 Resp: 489665

Ion	Ratio	Lower	Upper
91	100		
106	29.1	25.2	37.7
0	0.0	0.0	0.0
0	0.0	0.0	0.0

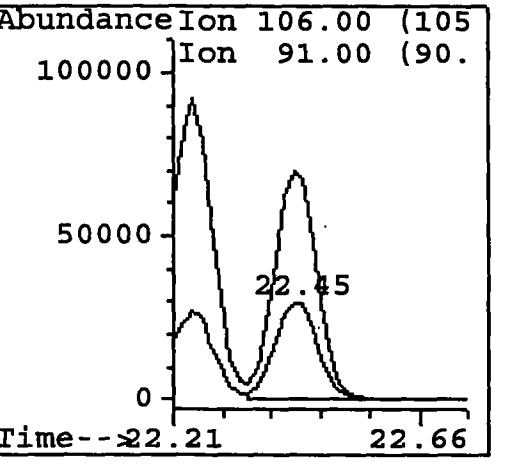


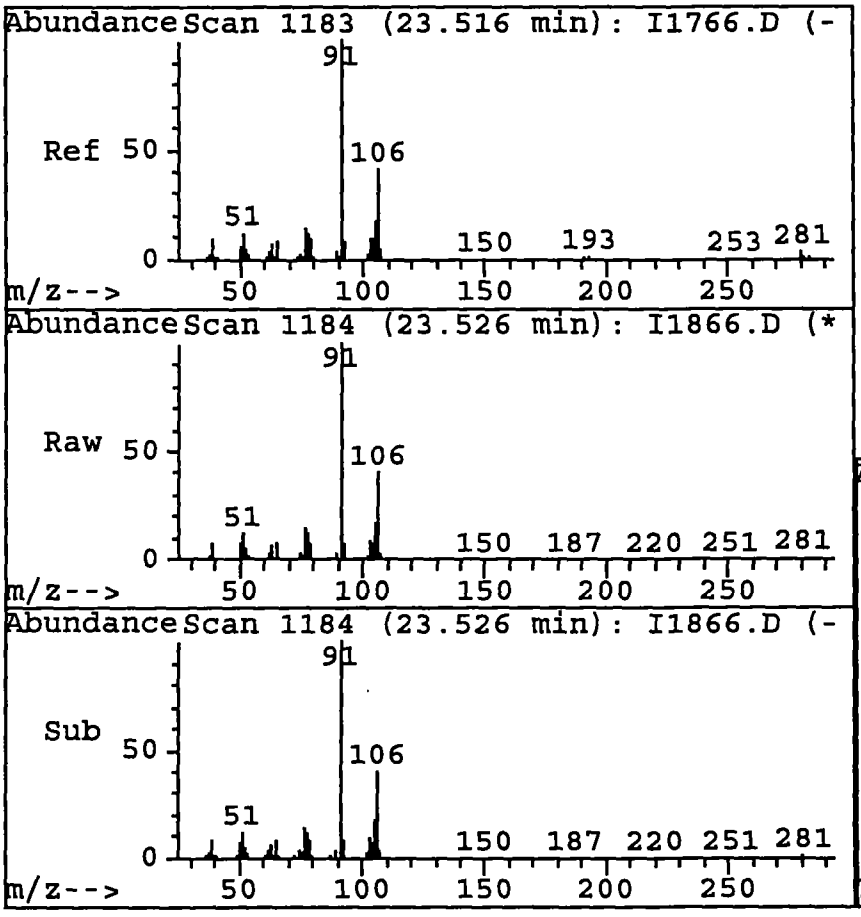


#43
(m+p)Xylene
Concen: 7.66 ppb
RT: 22.45 min Scan# 1120
Delta R.T. 0.04 min
Lab File: I1866.D
Acq: 2 Feb 102 8:41 pm

Tgt Ion:106 Resp: 161020

Ion	Ratio	Lower	Upper
106	100		
91	227.2	173.1	259.6
0	0.0	0.0	0.0
0	0.0	0.0	0.0

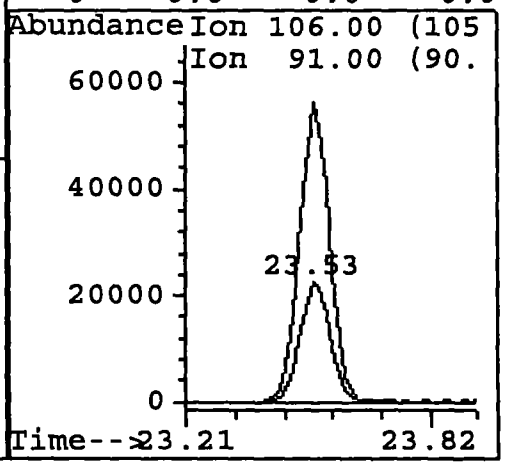


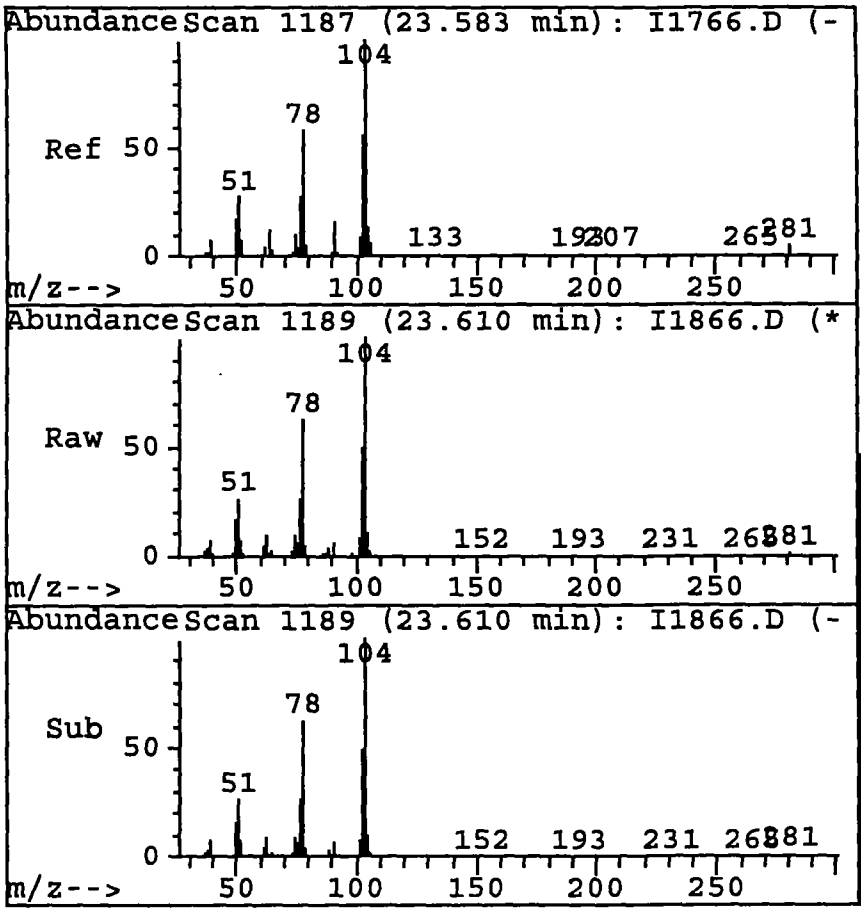


#44
o-Xylene
Concen: 5.84 ppb
RT: 23.53 min Scan# 1184
Delta R.T. 0.01 min
Lab File: I1866.D
Acq: 2 Feb 102 8:41 pm

Tgt Ion:106 Resp: 119284

Ion	Ratio	Lower	Upper
106	100		
91	249.5	195.0	292.5
0	0.0	0.0	0.0
0	0.0	0.0	0.0

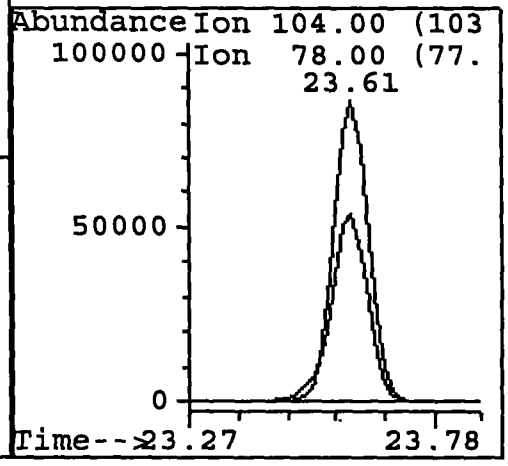


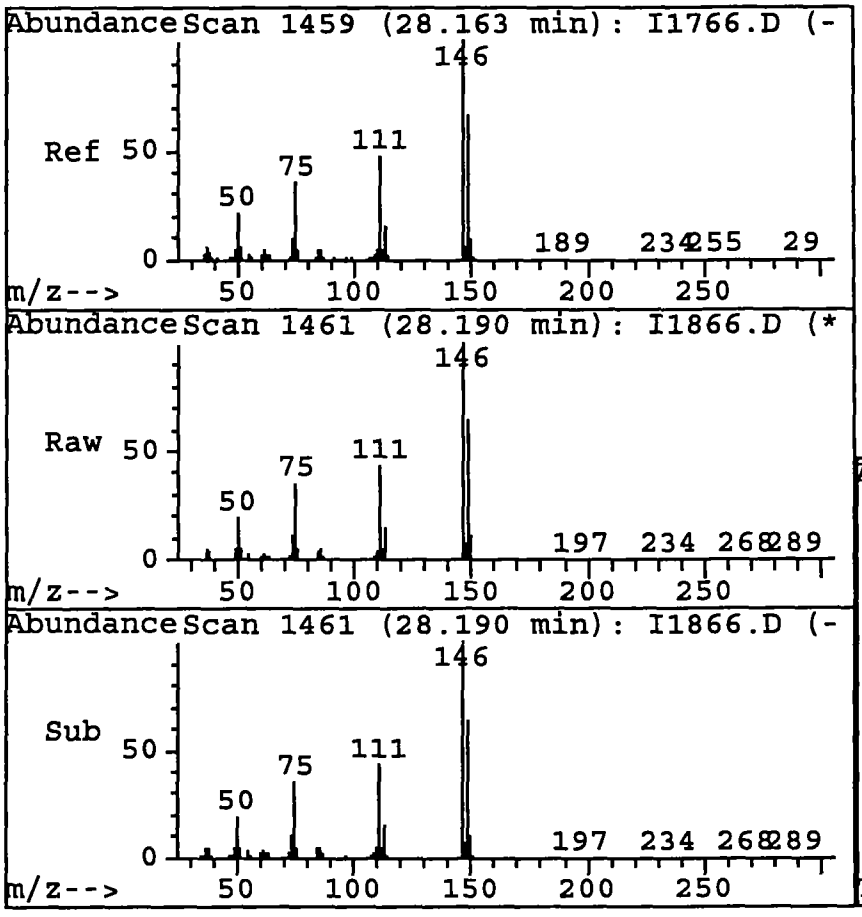


#45
Styrene
Concen: 12.41 ppb
RT: 23.61 min Scan# 1189
Delta R.T. 0.03 min
Lab File: I1866.D
Acq: 2 Feb 102 8:41 pm

Tgt Ion:104 Resp: 424723

Ion	Ratio	Lower	Upper
104	100		
78	62.3	46.5	69.8
0	0.0	0.0	0.0
0	0.0	0.0	0.0

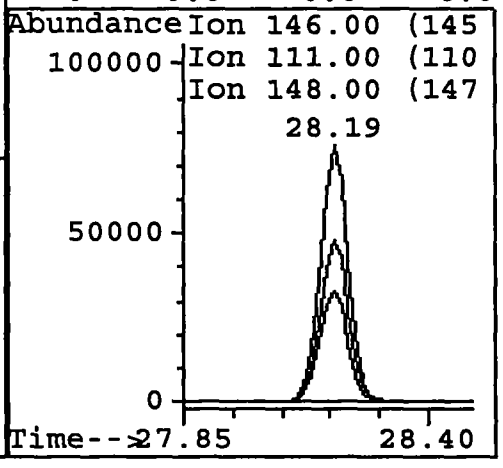


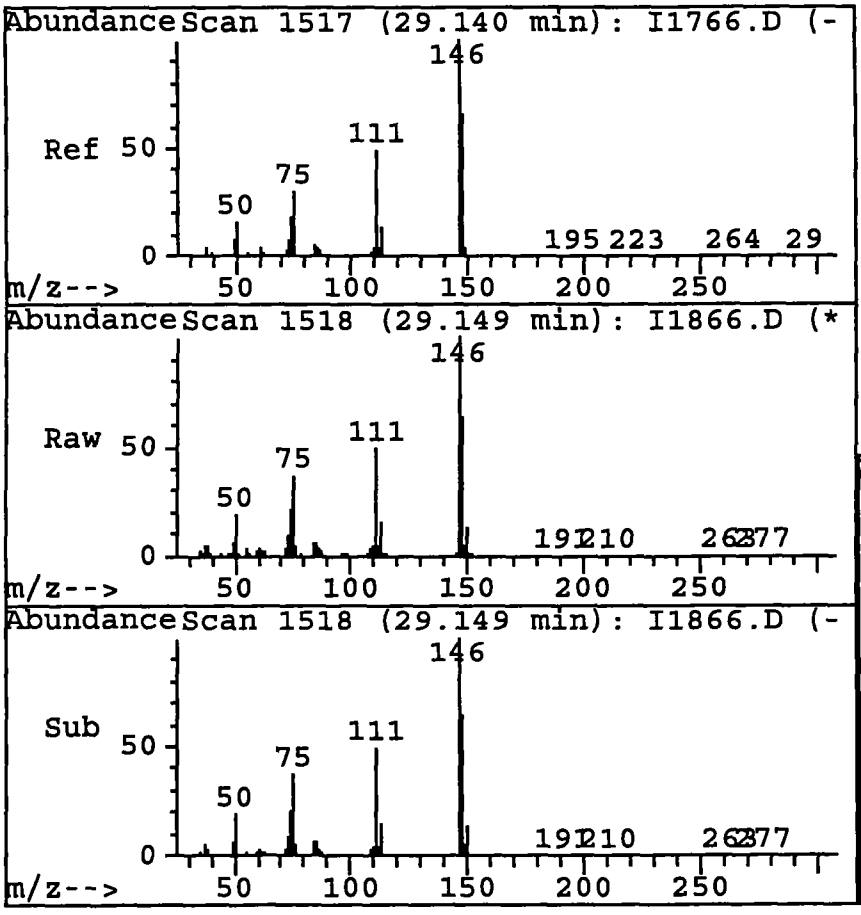


#61
1,4-Dclbenz
Concen: 9.96 ppb
RT: 28.19 min Scan# 1461
Delta R.T. 0.03 min
Lab File: I1866.D
Acq: 2 Feb 102 8:41 pm

Tgt Ion:146 Resp: 335124

Ion	Ratio	Lower	Upper
146	100		
111	43.3	37.6	56.3
148	63.5	53.2	79.7
0	0.0	0.0	0.0

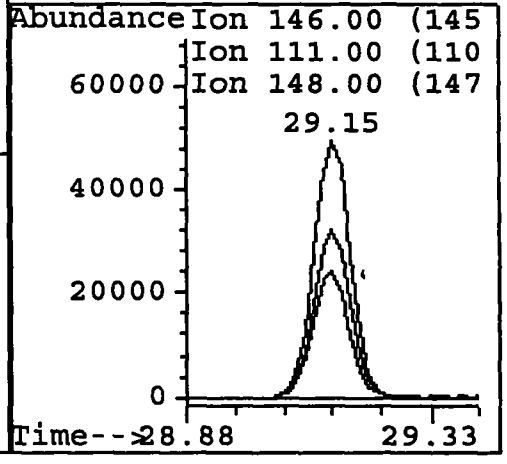


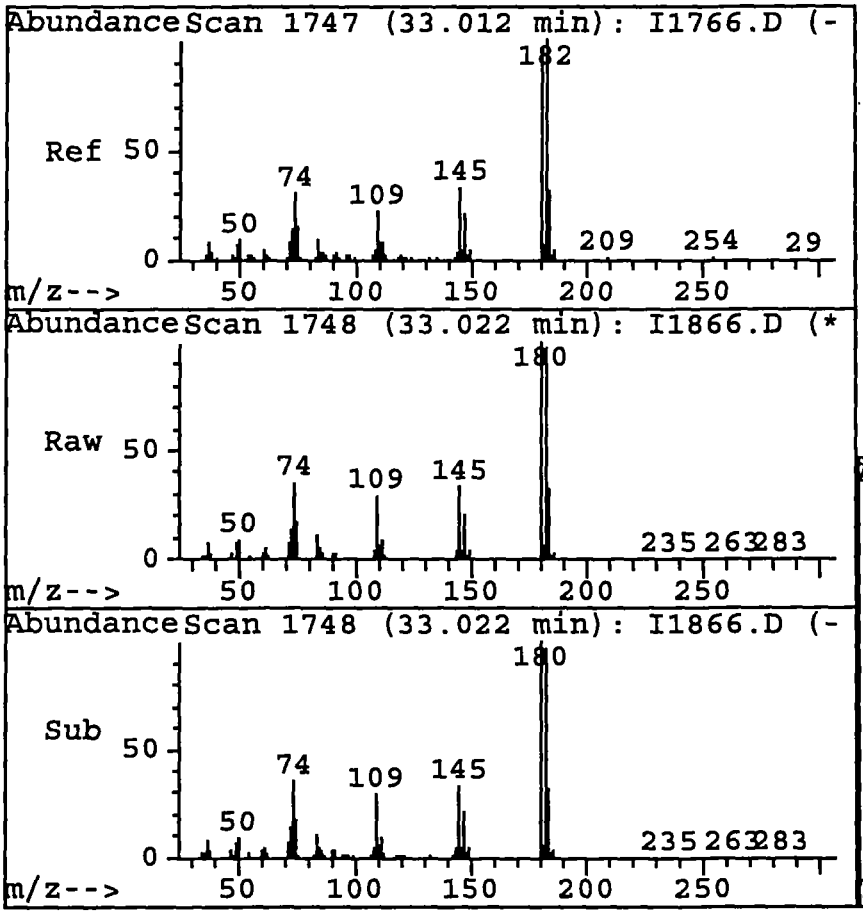


#64
1,2-Dclbenz
Concen: 7.67 ppb
RT: 29.15 min Scan# 1518
Delta R.T. 0.01 min
Lab File: I1866.D
Acq: 2 Feb 102 8:41 pm

Tgt Ion:146 Resp: 231642

Ion	Ratio	Lower	Upper
146	100		
111	48.7	39.0	58.5
148	64.4	52.2	78.3
0	0.0	0.0	0.0

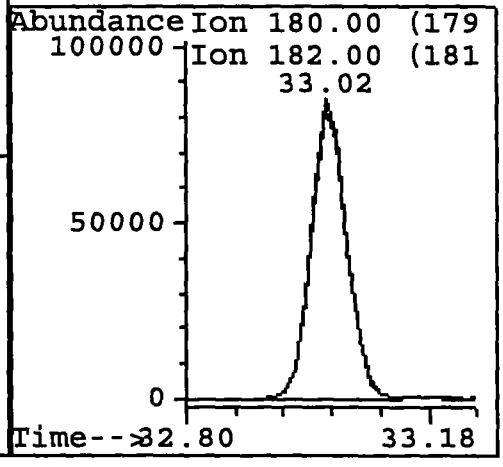




#66
1,2,4-Tcbenzene
Concen: 14.31 ppb
RT: 33.02 min Scan# 1748
Delta R.T. 0.01 min
Lab File: I1866.D
Acq: 2 Feb 102 8:41 pm

Tgt Ion:180 Resp: 331964

Ion	Ratio	Lower	Upper
180	100		
182	96.7	83.9	125.8
0	0.0	0.0	0.0
0	0.0	0.0	0.0



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 02/22/02

Tetra Tech EM Inc.
Project Reference: AGROMACK-LOCKWOOD OU#2
Client Sample ID : OS-PW-9

Date Sampled : 01/22/02 09:50 **Order #:** 525996 **Sample Matrix:** WATER
Date Received: 01/23/02 **Submission #:** R2210409 **Analytical Run** 0

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 02/04/02			
ANALYTICAL DILUTION: 2.00			
BENZENE	0.50	12	UG/L
BROMOBENZENE	0.50	1.0 U	UG/L
BROMOCHLOROMETHANE	0.50	1.0 U	ug/L
BROMODICHLOROMETHANE	0.50	1.0 U	UG/L
BROMOFORM	0.50	1.0 U	UG/L
BROMOMETHANE	0.50	1.0 U	UG/L
TERT-BUTYLBENZENE	0.50	1.0 U	UG/L
SEC-BUTYLBENZENE	0.50	1.0 U	UG/L
N-BUTYLBENZENE	0.50	1.0 U	UG/L
CARBON TETRACHLORIDE	0.50	15	UG/L
CHLOROBENZENE	0.50	37	UG/L
LOROETHANE	0.50	1.0 U	UG/L
LOROFORM	0.50	1.0 U	UG/L
CHLOROMETHANE	0.50	1.0 U	UG/L
1,2-DIBROMO-3-CHLOROPROPANE	0.50	1.0 U	UG/L
2-CHLOROTOLUENE	0.50	1.0 U	UG/L
4-CHLOROTOLUENE	0.50	1.0 U	UG/L
DIBROMOCHLOROMETHANE	0.50	1.0 U	UG/L
1,2-DIBROMOETHANE	0.50	1.0 U	UG/L
DIBROMOMETHANE	0.50	1.0 U	UG/L
1,2-DICHLOROBENZENE	0.50	7.5	UG/L
1,4-DICHLOROBENZENE	0.50	9.5	UG/L
1,3-DICHLOROBENZENE	0.50	1.0 U	UG/L
DICHLORODIFLUOROMETHANE	0.50	1.0 U	UG/L
1,1-DICHLOROETHANE	0.50	1.0 U	UG/L
1,2-DICHLOROETHANE	0.50	7.2	UG/L
1,1-DICHLOROETHENE	0.50	14	UG/L
TRANS-1,2-DICHLOROETHENE	0.50	26	UG/L
CIS-1,2-DICHLOROETHENE	0.50	40	UG/L
2,2-DICHLOROPROPANE	0.50	1.0 U	UG/L
1,2-DICHLOROPROPANE	0.50	14	UG/L
1,3-DICHLOROPROPANE	0.50	1.0 U	UG/L
1,1-DICHLOROPROPENE	0.50	1.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	0.50	1.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	0.50	1.0 U	UG/L
ETHYLBENZENE	0.50	7.9	UG/L
HEXACHLOROBUTADIENE	0.50	1.0 U	UG/L
ISOPROPYLBENZENE	0.50	1.0 U	UG/L
P-ISOPROPYLTOLUENE	0.50	1.0 U	UG/L
METHYLENE CHLORIDE	0.50	6.9	UG/L
NAPHTHALENE	0.50	1.0 U	UG/L
N-PROPYLBENZENE	0.50	1.0 U	UG/L
STYRENE	0.50	12	UG/L
1,1,1,2-TETRACHLOROETHANE	0.50	1.0 U	UG/L

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 02/22/02

Tetra Tech EM Inc.
Project Reference: AGROMACK-LOCKWOOD OU#2
Client Sample ID : OS-PW-9

Date Sampled : 01/22/02 09:50 **Order #:** 525996 **Sample Matrix:** WATER
Date Received: 01/23/02 **Submission #:** R2210409 **Analytical Run** 0

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 02/04/02			
ANALYTICAL DILUTION: 2.00			
1,1,2,2-TETRACHLOROETHANE	0.50	1.0 U	UG/L
TETRACHLOROETHENE	0.50	3.8	UG/L
TOLUENE	0.50	4.5	UG/L
1,2,4-TRICHLOROBENZENE	0.50	14	UG/L
1,2,3-TRICHLOROBENZENE	0.50	1.0 U	ug/L
1,1,1-TRICHLOROETHANE	0.50	7.9	UG/L
1,1,2-TRICHLOROETHANE	0.50	8.4	UG/L
TRICHLOROETHENE	0.50	16	UG/L
TRICHLOROFLUOROMETHANE	0.50	1.0 U	UG/L
1,2,3-TRICHLOROPROPANE	0.50	1.0 U	UG/L
1,3,5-TRIMETHYLBENZENE	0.50	1.0 U	UG/L
2,4-TRIMETHYLBENZENE	0.50	1.0 U	UG/L
VINYL CHLORIDE	0.50	16	UG/L
M+P-XYLENE	0.50	7.2	UG/L
O-XYLENE	0.50	5.5	UG/L

SURROGATE RECOVERIES	QC LIMITS		
BROMOFLUOROBENZENE	(64 - 127 %)	95	%
1,2-DICHLOROBENZENE-D4	(59 - 136 %)	93	%

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\020402\I1873.D
Acq On : 4 Feb 102 1:17 pm
Sample : 525996 2.0 (DL)
Misc : TTEM R22-10409 524.2
Quant Time: Feb 4 13:52 19102

Vial: 19
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration

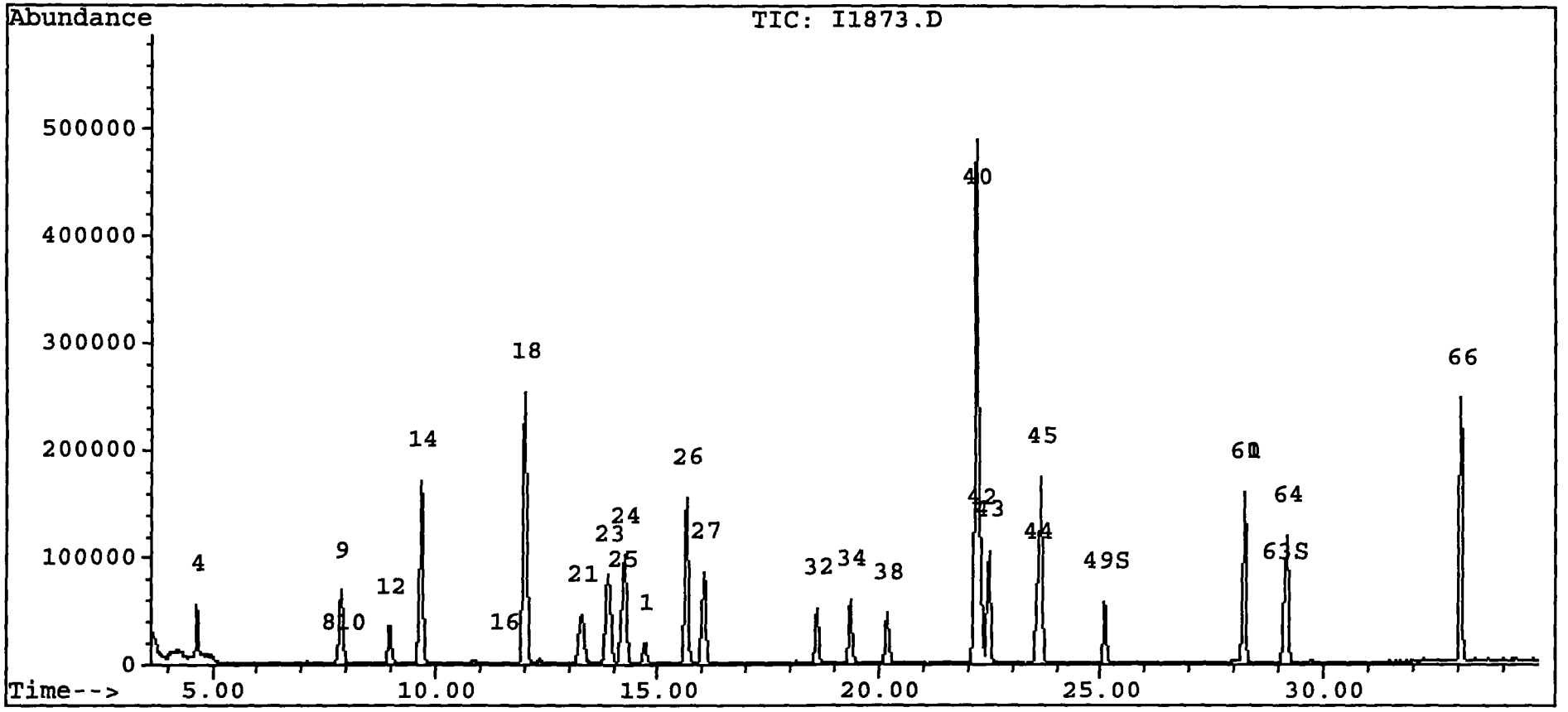
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	14.71	96	54950	1.00	ppb	0.05
System Monitoring Compounds						%Recovery
49) Surr2,BFB	25.10	95	55877	1.90	ppb	94.85%
63) Surr5,1,2-Dichlorobenzene-	29.12	152	43365	1.86	ppb	93.25%
Target Compounds						Qvalue
4) Vinyl Chloride	4.66	62	80820	7.88	ppb	97
8) Acetone	7.59	43	3921	~~1.98 ppb #~~		~~46~~ NT
9) 1,1-Diclethene	7.87	96	86180	7.18	ppb	98
10) tert Butyl Alcohol	8.07	59	323	~~0.51 ppb~~		~~53~~
12) Methylene Chloride	8.97	84	48883	3.47	ppb	95
14) trans-1,2-Dichloroethene	9.67	96	190960	13.18	ppb	98
16) 2-Butanone	11.53	43	1706	~~0.63 ppb #~~		~~83~~
18) cis-1,2-Dichloroethene	12.01	96	320263	19.90	ppb	92
21) 1,1,1-Trichloroethane	13.29	97	116192	3.97	ppb	97
23) Carbontetrachloride	13.88	117	196987	7.64	ppb	98
24) Benzene	14.25	78	262850	5.78	ppb	100
25) 1,2-Dichloroethane	14.19	62	82502	3.61	ppb	98
26) Trichloroethene	15.63	95	151966	7.94	ppb	94
27) 1,2-Diclpropane	16.04	63	89887	6.78	ppb	99
32) Toluene	18.61	91	120885	2.25	ppb	95
34) 1,1,2-Trichloroethane	19.37	83	43301	4.18	ppb	89
38) Tetrachloroethene	20.20	166	43405	1.89	ppb	97
40) Chlorobenzene	22.18	112	737793	18.74	ppb	92
42) Ethylbenzene	22.28	91	253322	3.93	ppb	99
43) (m+p)Xylene	22.47	106	82689	3.60	ppb	93
44) o-Xylene	23.56	106	61166	2.74	ppb	92
45) Styrene	23.65	104	220800	5.91	ppb	98
60) ~~1,3-Delbenz~~	~~28.23~~	~~146~~	~~174865~~	~~5.14~~	~~ppb~~	~~98~~ (1,4)X
61) 1,4-Dclbenz	28.23	146	175409	4.77	ppb	96
64) 1,2-Dclbenz	29.19	146	123503	3.75	ppb	95
66) 1,2,4-Tcbenzene	33.08	180	183133	7.23	ppb	94

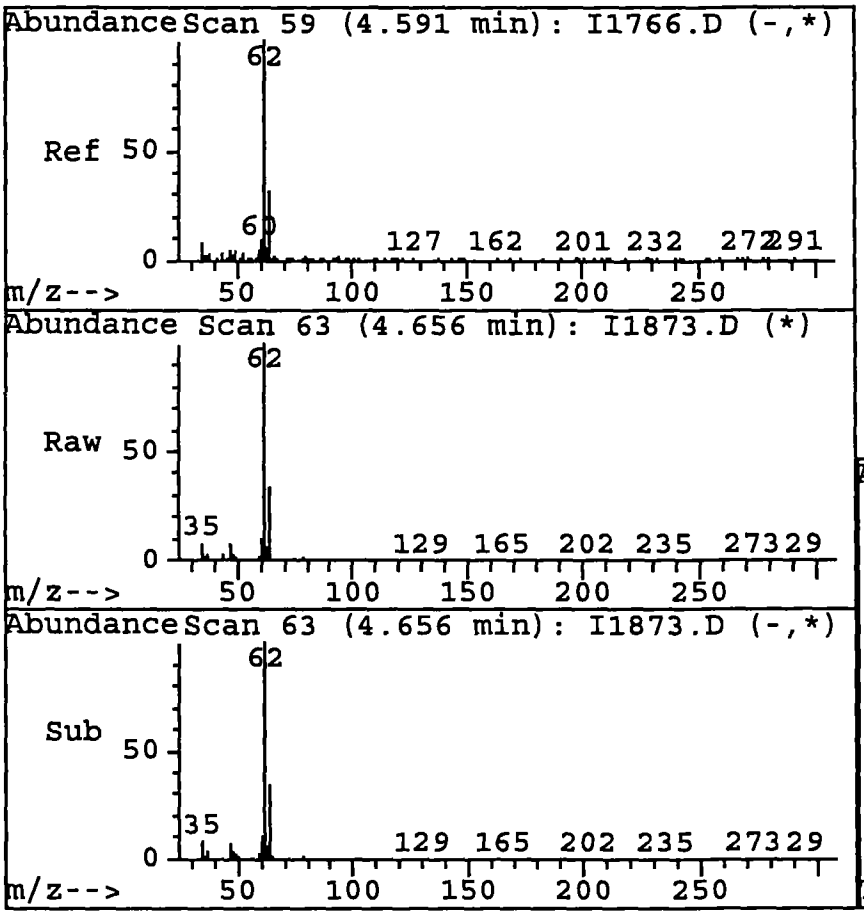
(DL)
02/04/02

(#) = qualifier out of range (m) = manual integration

Data File : J:\ACQUDATA\MSVOA1\DATA\020402\I1873. Vial: 19
Acq On : 4 Feb 102 1:17 pm Operator: DLIPANI
Sample : 525996 2.0 Inst : 5970 - In
Misc : TTEM R22-10409 524.2 Multiplr: 1.00
Quant Time: Feb 4 13:52 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration

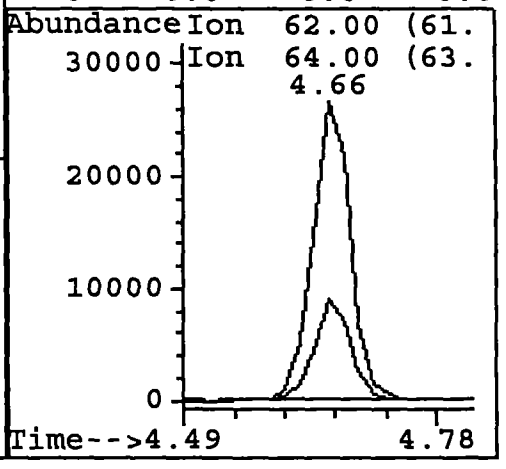


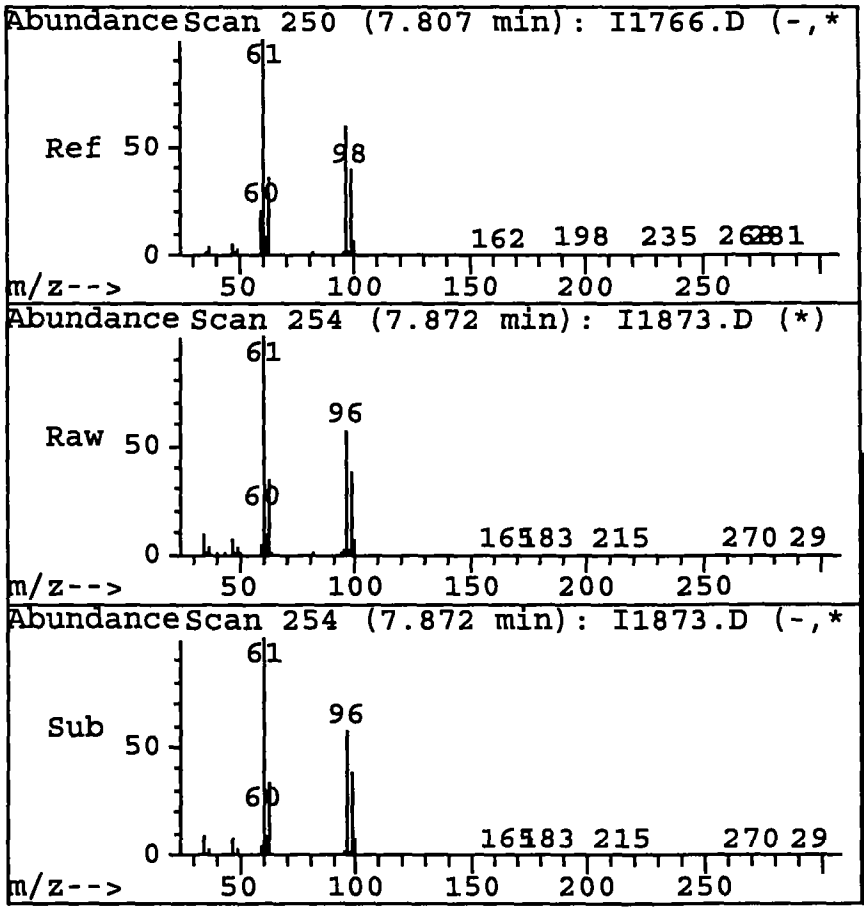


#4
Vinyl Chloride
Concen: 7.88 ppb
RT: 4.66 min Scan# 63
Delta R.T. 0.06 min
Lab File: I1873.D
Acq: 4 Feb 102 1:17 pm

Tgt Ion:62 Resp: 80820

Ion	Ratio	Lower	Upper
62	100		
64	34.5	26.4	39.5
0	0.0	0.0	0.0
0	0.0	0.0	0.0

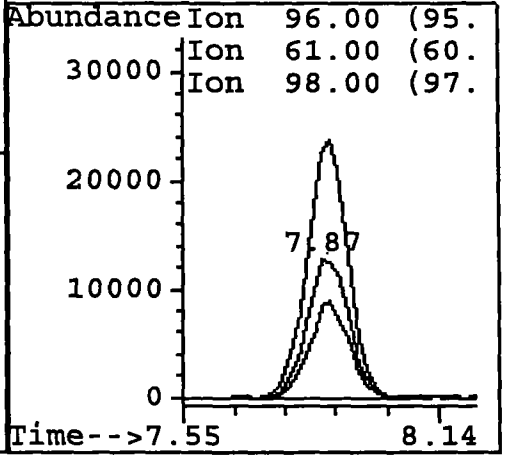


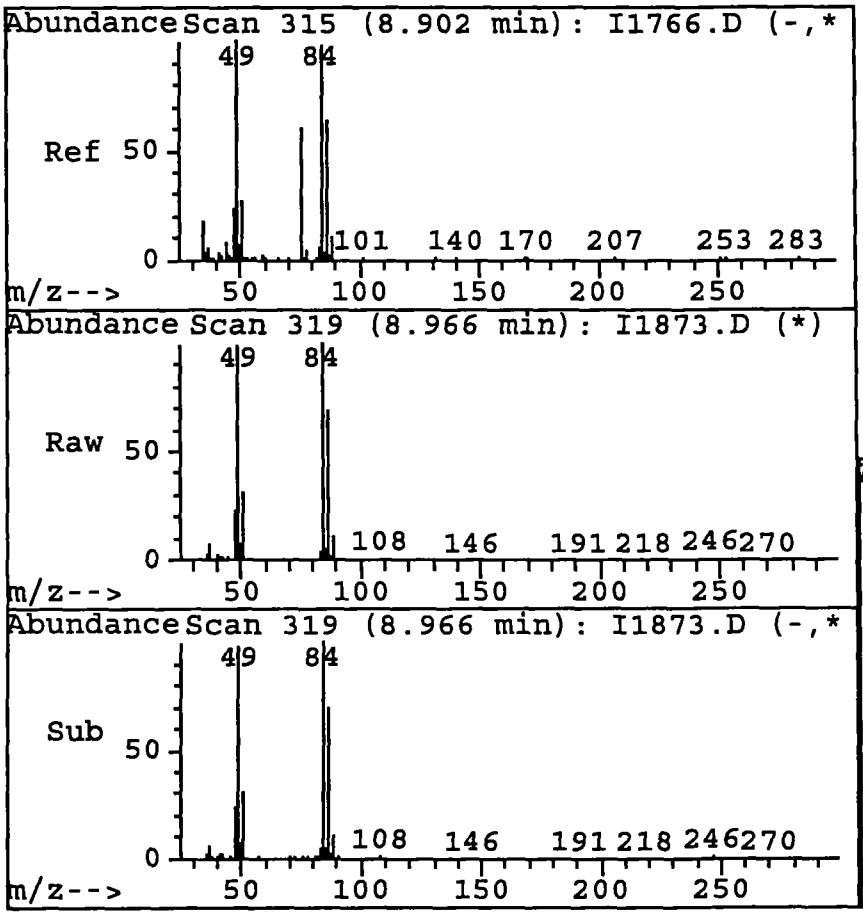


#9
1,1-Diclethene
Concen: 7.18 ppb
RT: 7.87 min Scan# 254
Delta R.T. 0.06 min
Lab File: I1873.D
Acq: 4 Feb 102 1:17 pm

Tgt Ion:96 Resp: 86180

Ion	Ratio	Lower	Upper
96	100		
61	175.5	137.3	206.0
98	65.9	51.9	77.8
0	0.0	0.0	0.0

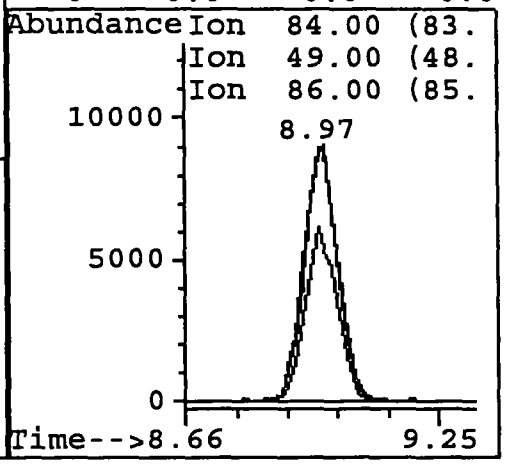


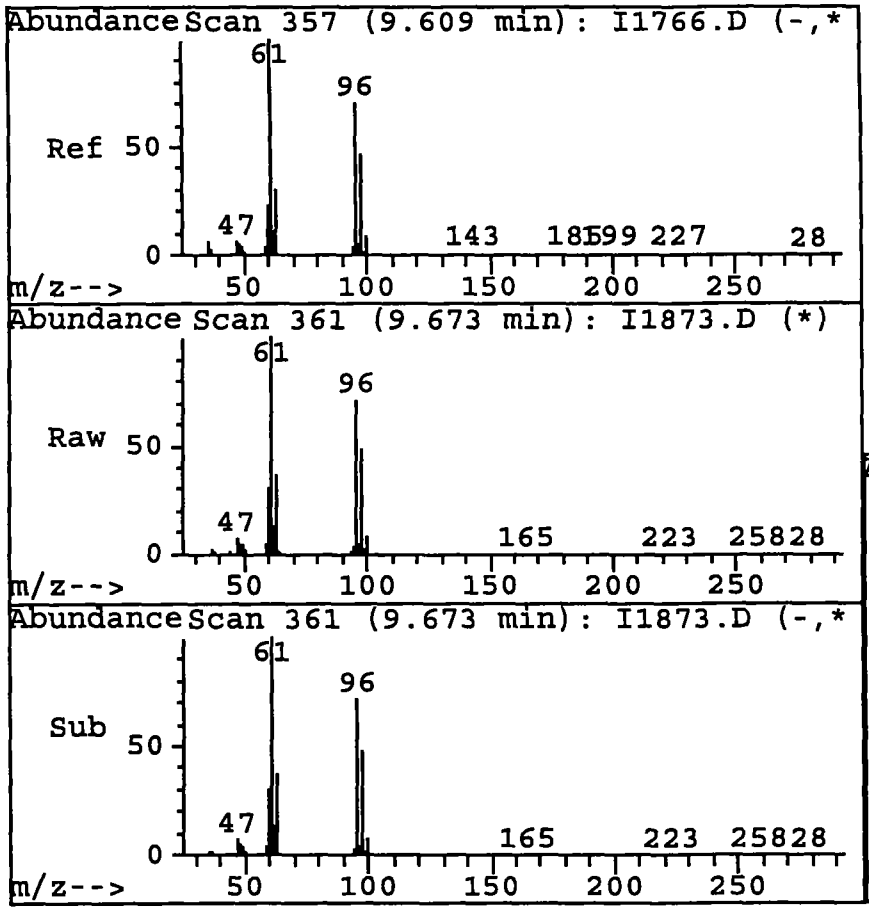


#12
Methylene Chloride
Concen: 3.47 ppb
RT: 8.97 min Scan# 319
Delta R.T. 0.06 min
Lab File: I1873.D
Acq: 4 Feb 102 1:17 pm

Tgt Ion:84 Resp: 48883

Ion	Ratio	Lower	Upper
84	100		
49	98.1	82.5	123.7
86	69.0	52.5	78.7
0	0.0	0.0	0.0

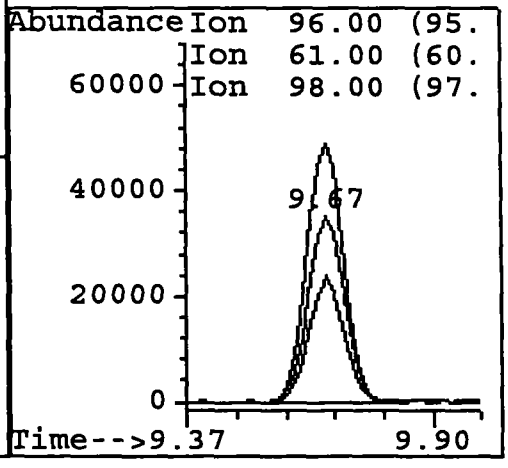


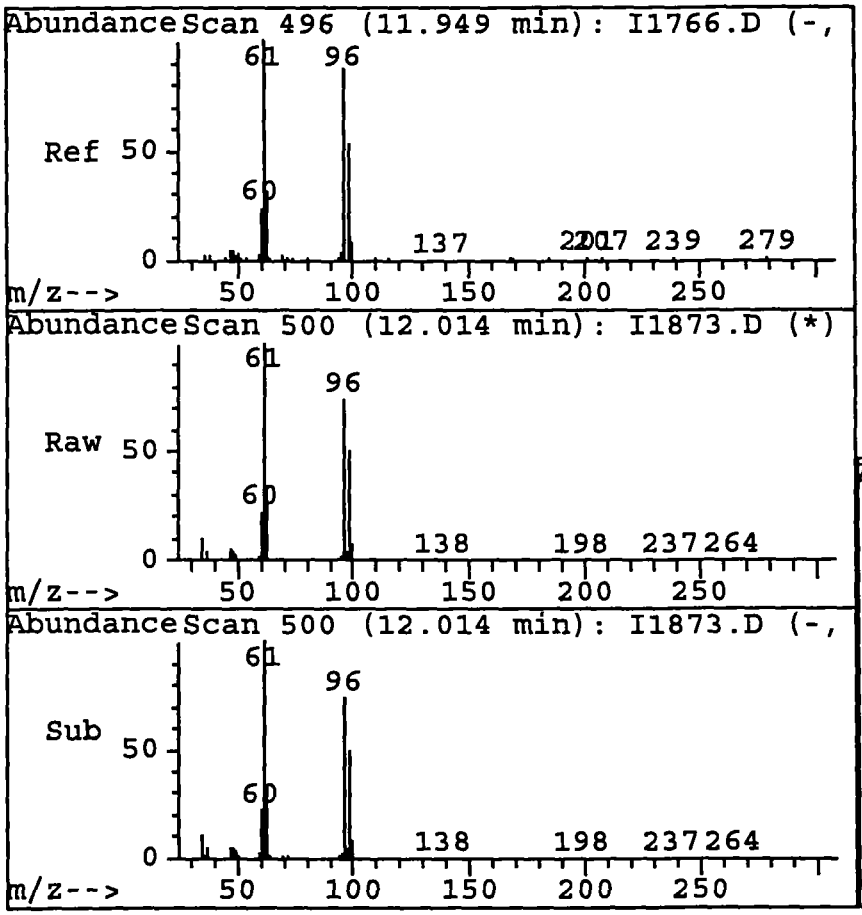


#14
trans-1,2-Dichloroethene
Concen: 13.18 ppb
RT: 9.67 min Scan# 361
Delta R.T. 0.06 min
Lab File: I1873.D
Acq: 4 Feb 102 1:17 pm

Tgt Ion:96 Resp: 190960

Ion	Ratio	Lower	Upper
96	100		
61	140.2	71.9	215.5
98	67.6	33.3	99.8
0	0.0	0.0	0.0

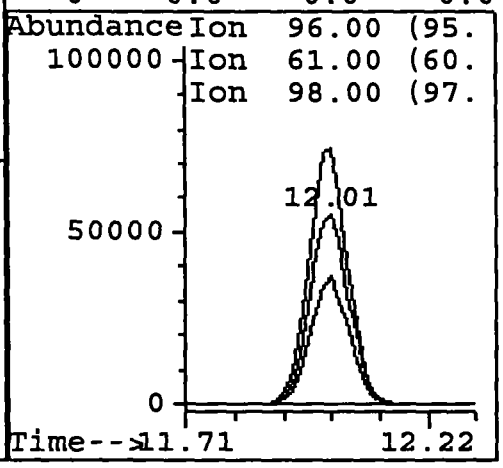


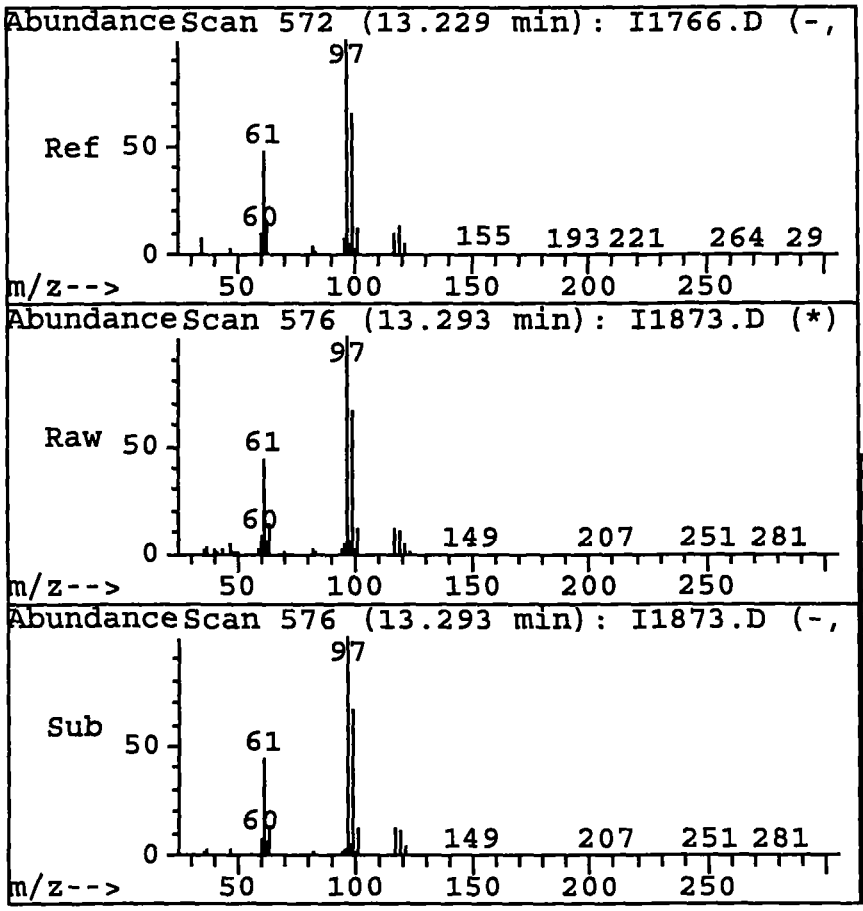


#18
cis-1,2-Dichloroethene
Concen: 19.90 ppb
RT: 12.01 min Scan# 500
Delta R.T. 0.06 min
Lab File: I1873.D
Acq: 4 Feb 102 1:17 pm

Tgt Ion:96 Resp: 320263

Ion	Ratio	Lower	Upper
96	100		
61	134.8	101.3	152.0
98	67.7	49.0	73.5
0	0.0	0.0	0.0

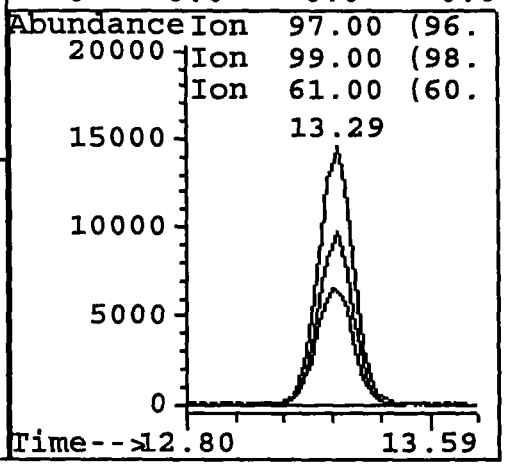


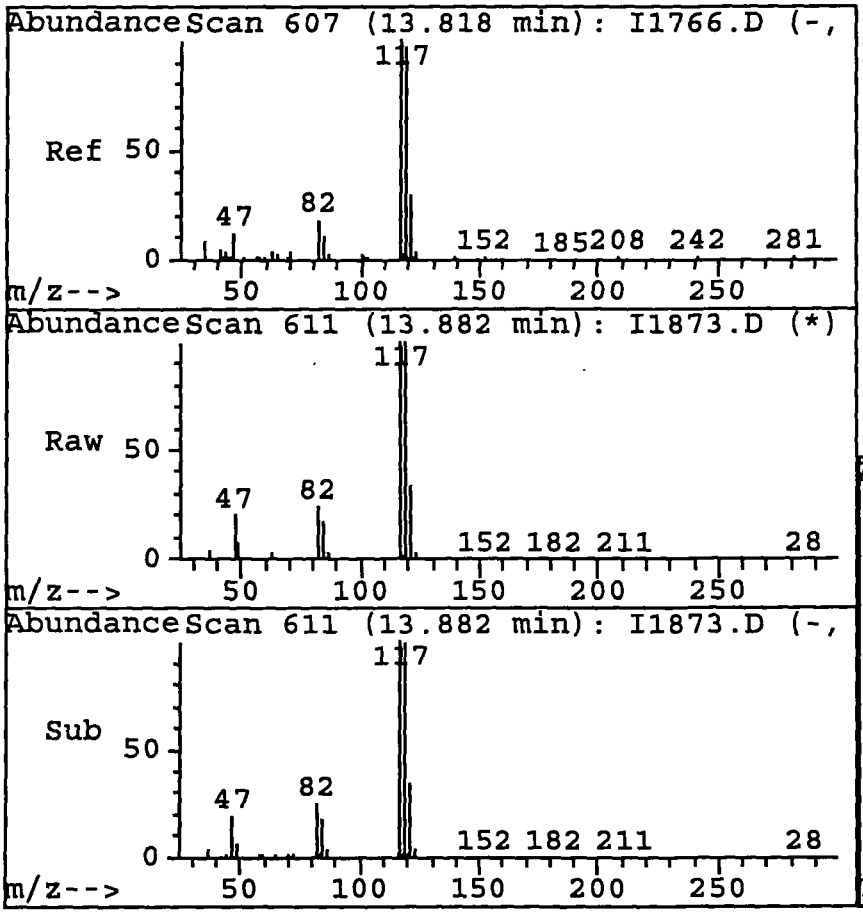


#21
1,1,1-Trichloroethane
Concen: 3.97 ppb
RT: 13.29 min Scan# 576
Delta R.T. 0.06 min
Lab File: I1873.D
Acq: 4 Feb 102 1:17 pm

Tgt Ion:97 Resp: 116192

Ion	Ratio	Lower	Upper
97	100		
99	66.2	52.7	79.0
61	43.5	38.9	58.3
0	0.0	0.0	0.0

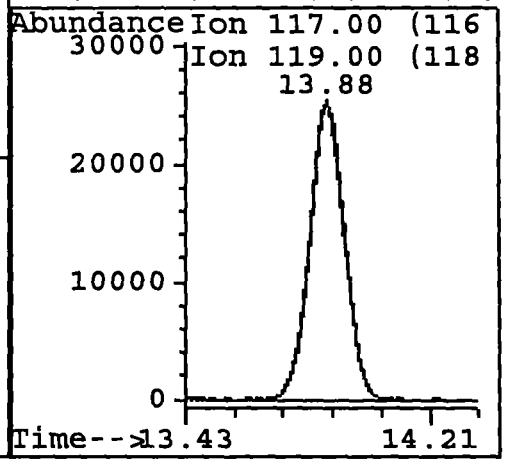


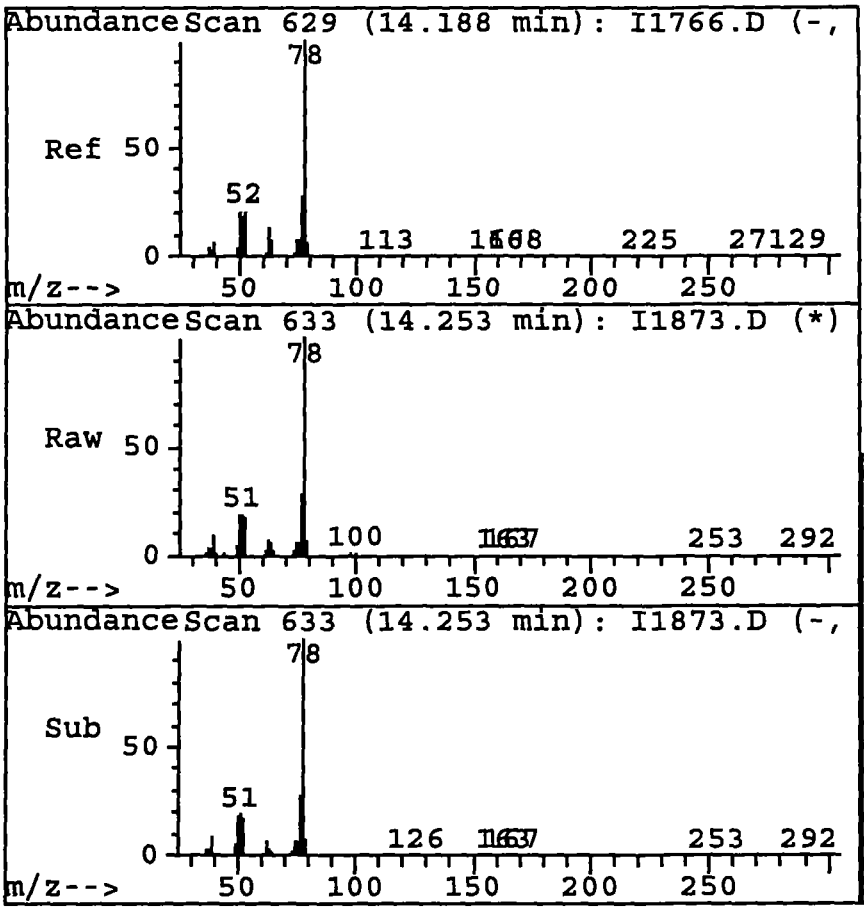


#23
Carbontetrachloride
Concen: 7.64 ppb
RT: 13.88 min Scan# 611
Delta R.T. 0.06 min
Lab File: I1873.D
Acq: 4 Feb 102 1:17 pm

Tgt Ion:117 Resp: 196987

Ion	Ratio	Lower	Upper
117	100		
119	99.4	78.0	116.9
0	0.0	0.0	0.0
0	0.0	0.0	0.0

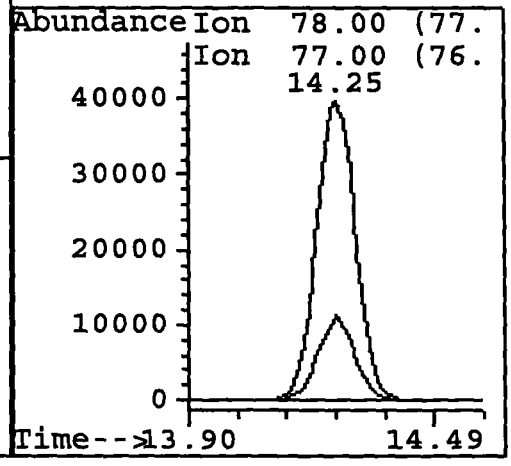


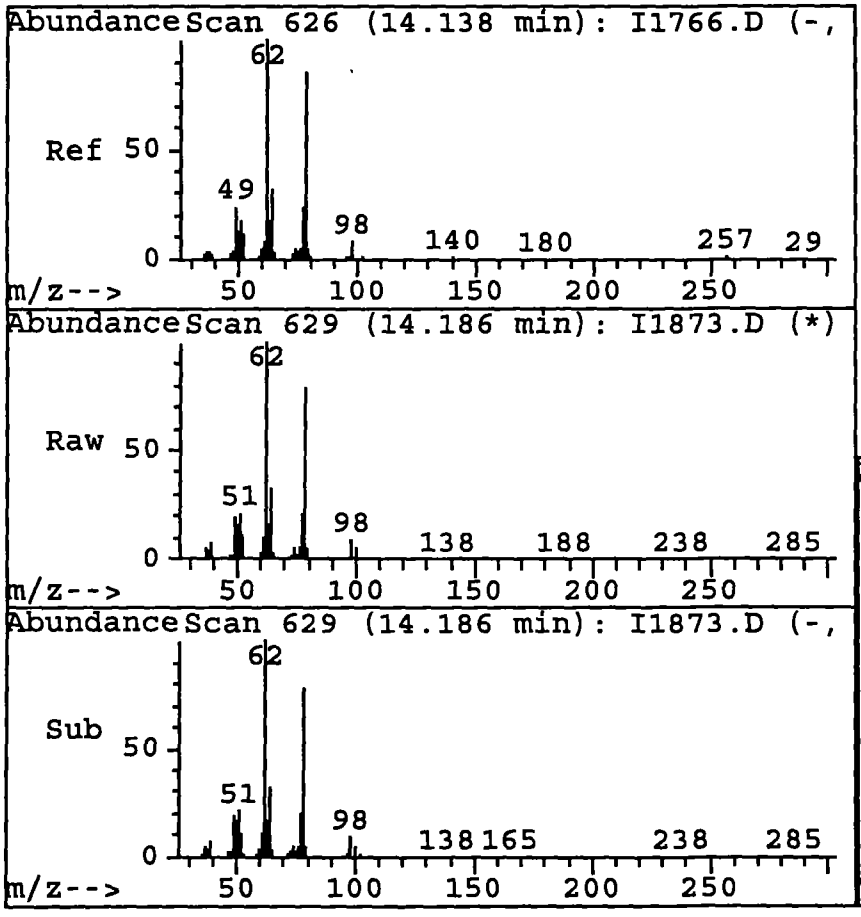


#24
Benzene
Concen: 5.78 ppb
RT: 14.25 min Scan# 633
Delta R.T. 0.06 min
Lab File: I1873.D
Acq: 4 Feb 102 1:17 pm

Tgt Ion:78 Resp: 262850

Ion	Ratio	Lower	Upper
78	100		
77	28.5	23.0	34.5
0	0.0	0.0	0.0
0	0.0	0.0	0.0

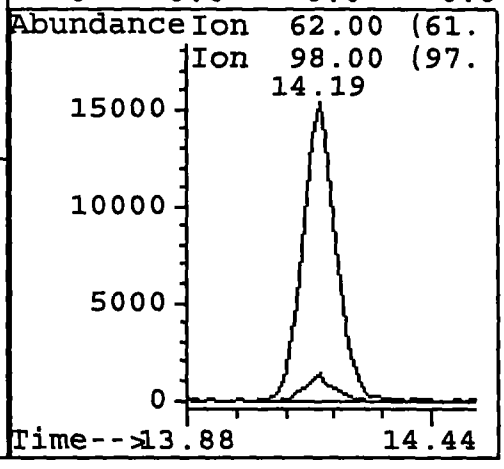


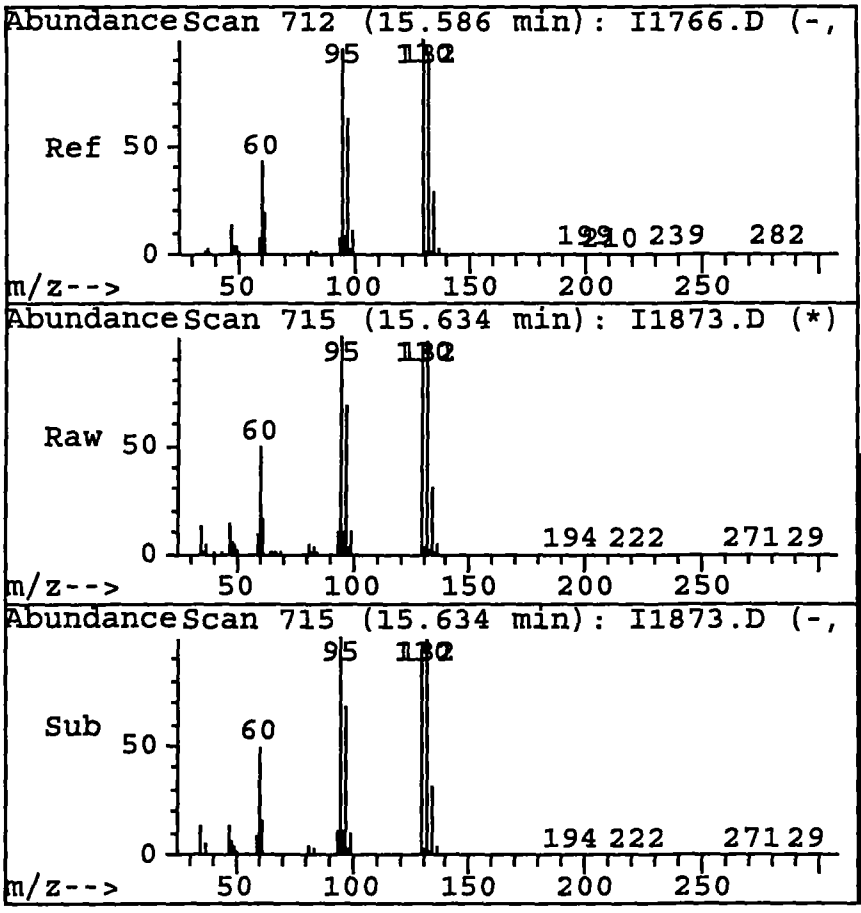


#25
1,2-Dichloroethane
Concen: 3.61 ppb
RT: 14.19 min Scan# 629
Delta R.T. 0.05 min
Lab File: I1873.D
Acq: 4 Feb 102 1:17 pm

Tgt Ion:62 Resp: 82502

Ion	Ratio	Lower	Upper
62	100		
98	8.9	7.3	12.2
0	0.0	0.0	0.0
0	0.0	0.0	0.0

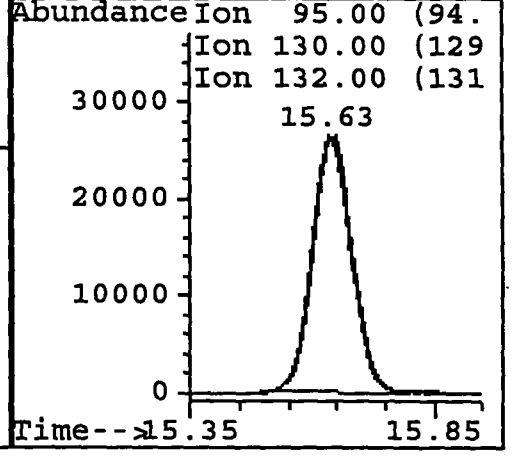


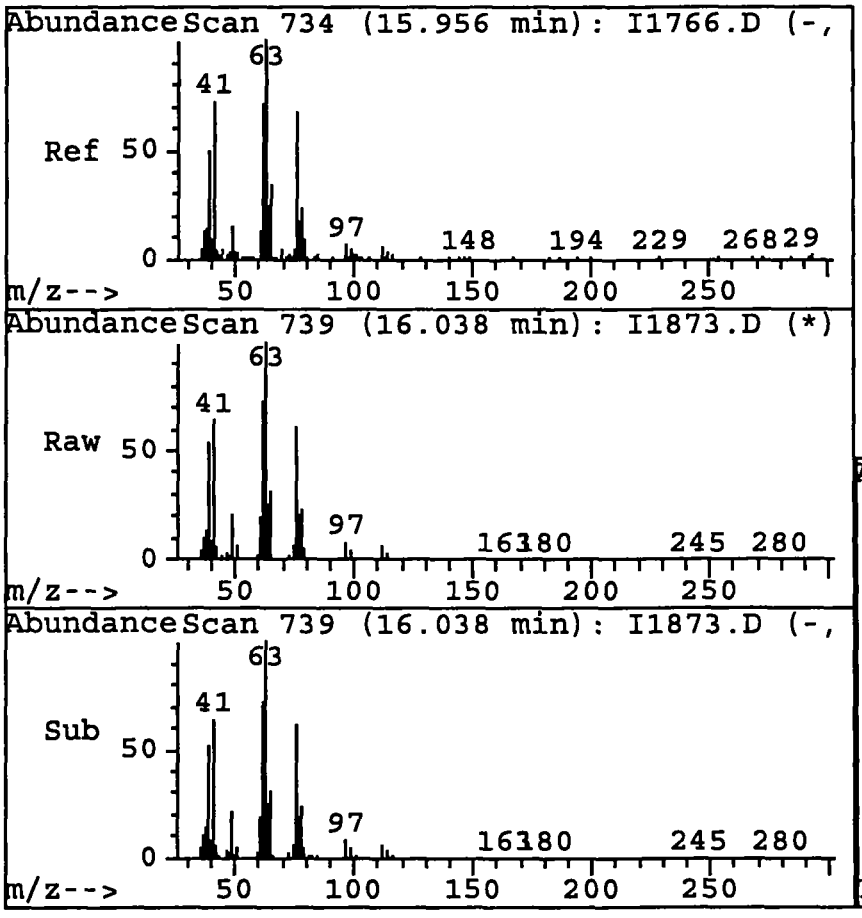


#26
Trichloroethene
Concen: 7.94 ppb
RT: 15.63 min Scan# 715
Delta R.T. 0.05 min
Lab File: I1873.D
Acq: 4 Feb 102 1:17 pm

Tgt Ion:95 Resp: 151966

Ion	Ratio	Lower	Upper
95	100		
130	96.8	84.3	126.4
132	97.5	76.1	114.1
0	0.0	0.0	0.0

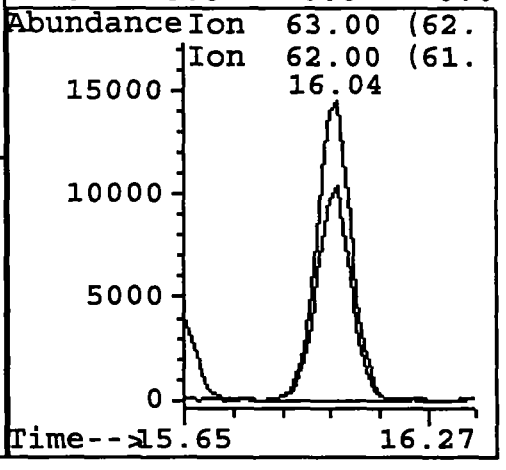


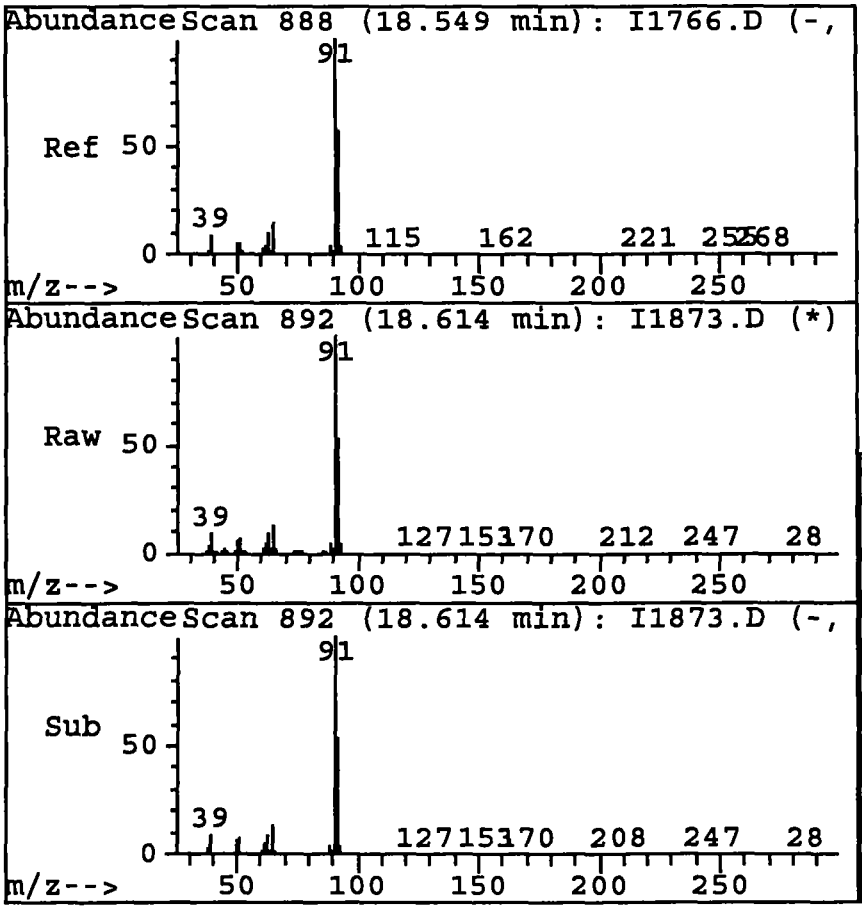


#27
1,2-Diclpropane
Concen: 6.78 ppb
RT: 16.04 min Scan# 739
Delta R.T. 0.08 min
Lab File: I1873.D
Acq: 4 Feb 102 1:17 pm

Tgt Ion:63 Resp: 89887

Ion	Ratio	Lower	Upper
63	100		
62	72.1	56.9	85.4
0	0.0	0.0	0.0
0	0.0	0.0	0.0

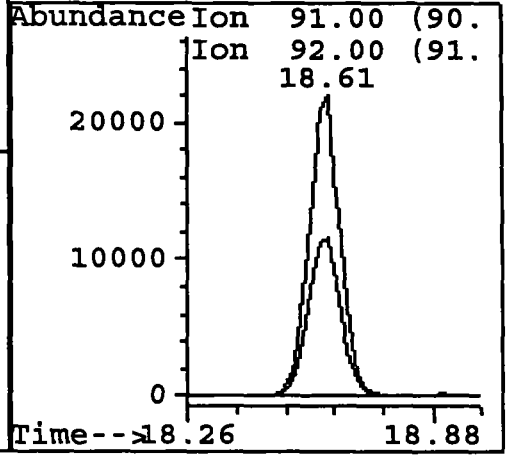


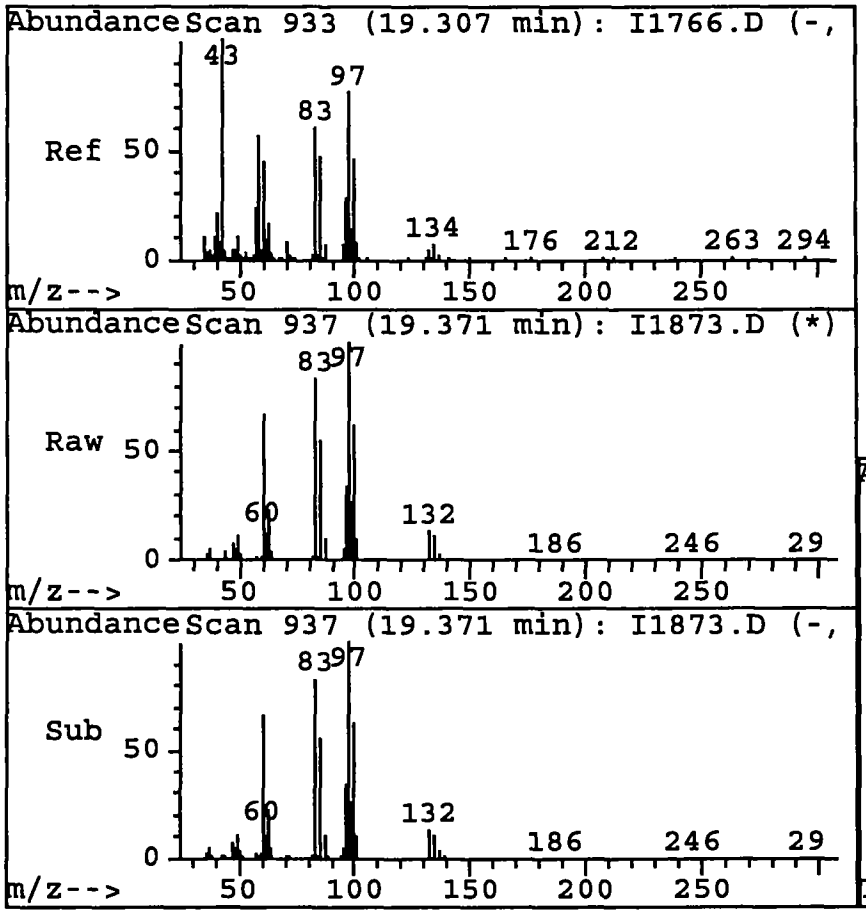


#32
Toluene
Concen: 2.25 ppb
RT: 18.61 min Scan# 892
Delta R.T. 0.06 min
Lab File: I1873.D
Acq: 4 Feb 102 1:17 pm

Tgt Ion:91 Resp: 120885

Ion	Ratio	Lower	Upper
91	100		
92	52.9	45.4	68.1
0	0.0	0.0	0.0
0	0.0	0.0	0.0

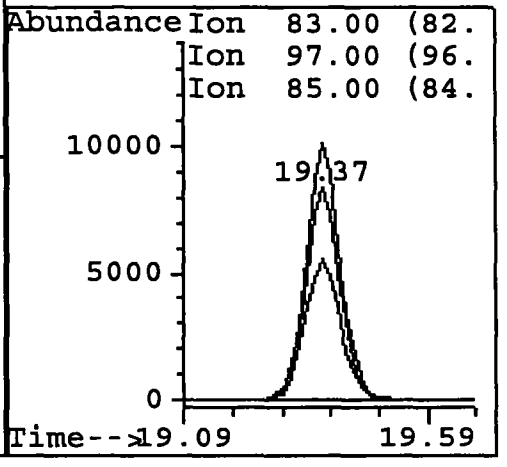


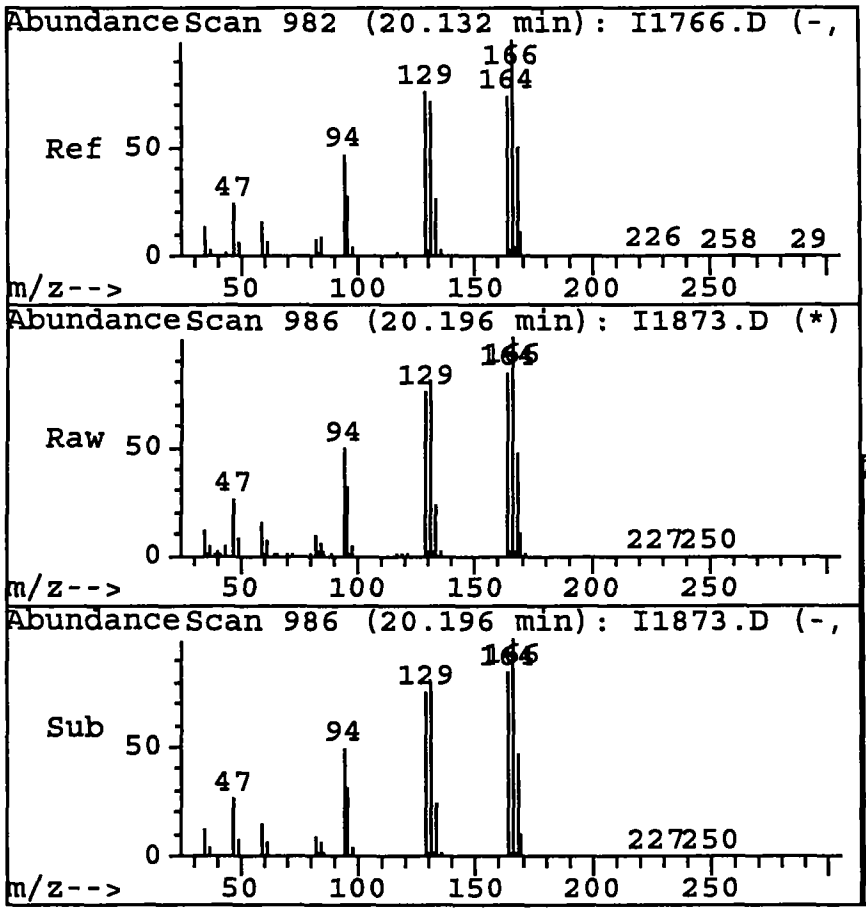


#34
1,1,2-Trichloroethane
Concen: 4.18 ppb
RT: 19.37 min Scan# 937
Delta R.T. 0.06 min
Lab File: I1873.D
Acq: 4 Feb 102 1:17 pm

Tgt Ion:83 Resp: 43301

Ion	Ratio	Lower	Upper
83	100		
97	121.0	102.9	154.3
85	66.5	66.0	98.9
0	0.0	0.0	0.0

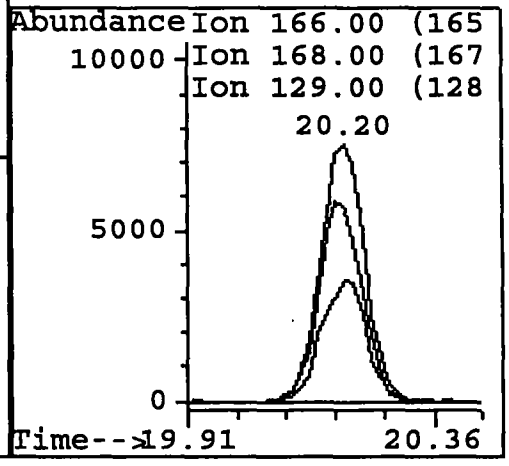


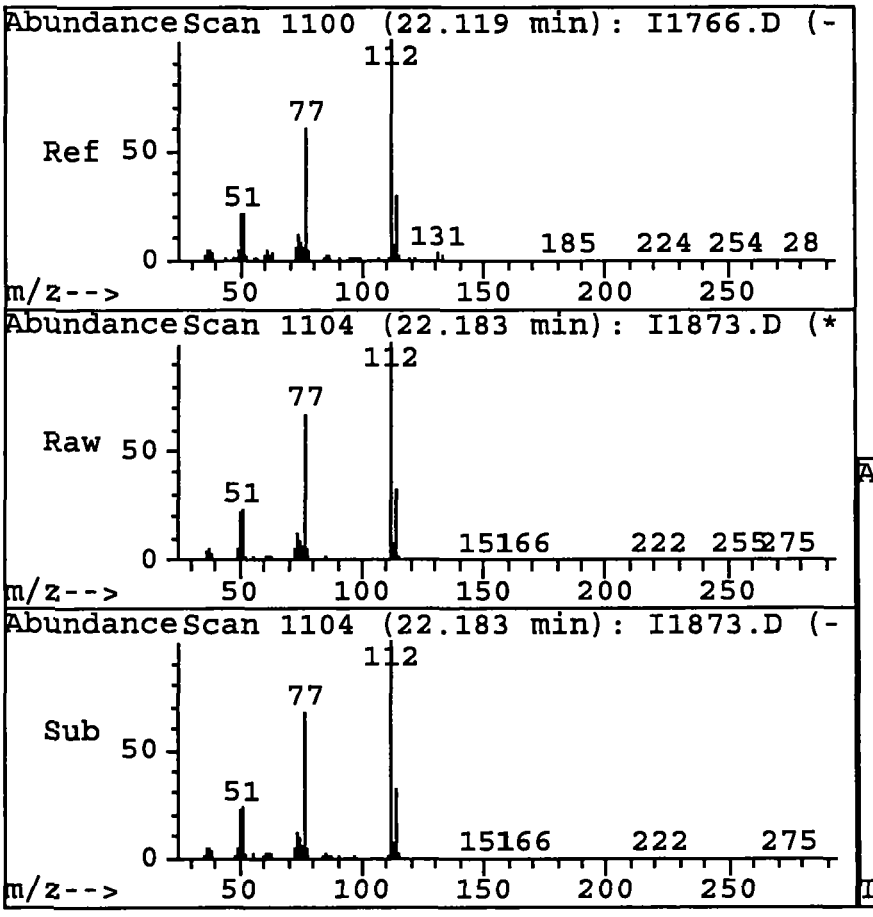


#38
Tetrachloroethene
Concen: 1.89 ppb
RT: 20.20 min Scan# 986
Delta R.T. 0.06 min
Lab File: I1873.D
Acq: 4 Feb 102 1:17 pm

Tgt Ion:166 Resp: 43405

Ion	Ratio	Lower	Upper
166	100		
168	46.9	25.1	75.1
129	74.7	38.2	114.4
0	0.0	0.0	0.0

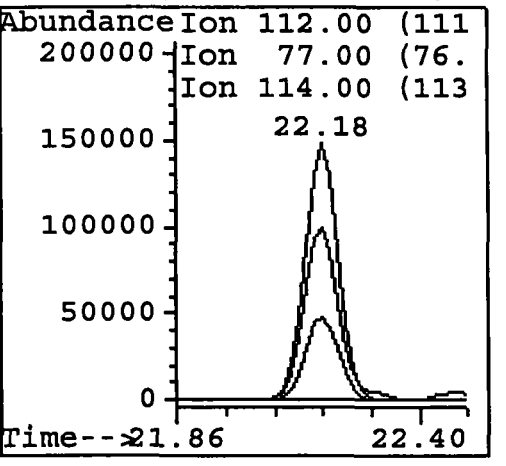


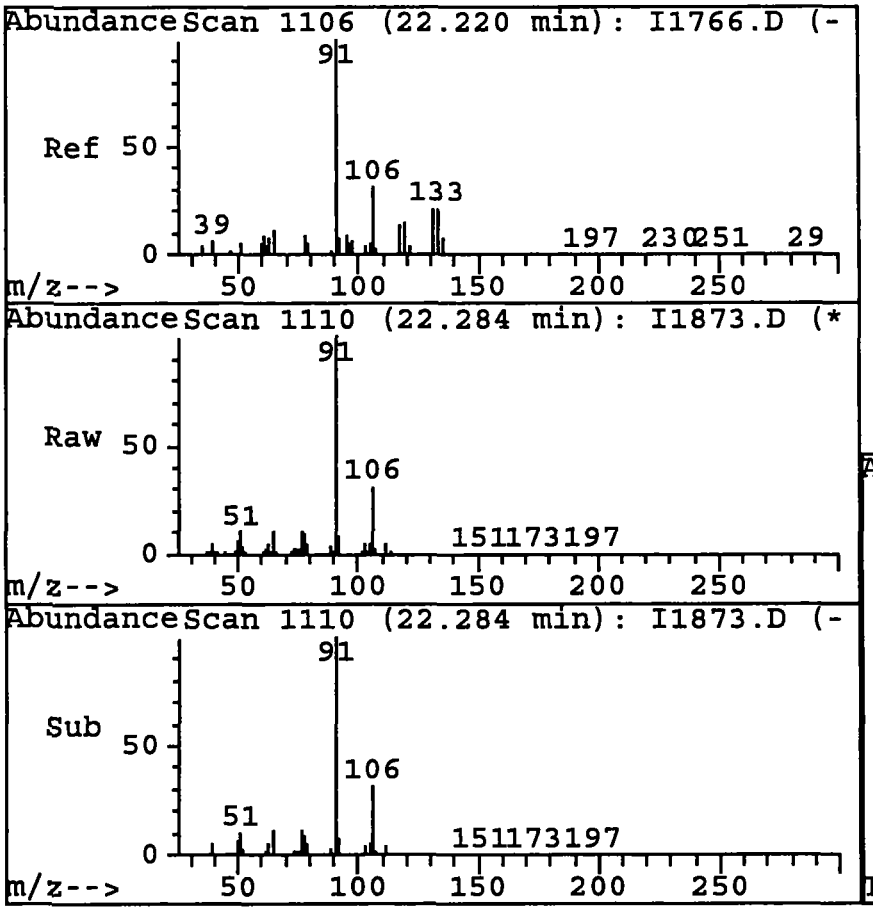


#40
Chlorobenzene
Concen: 18.74 ppb
RT: 22.18 min Scan# 1104
Delta R.T. 0.06 min
Lab File: I1873.D
Acq: 4 Feb 102 1:17 pm

Tgt Ion:112 Resp: 737793

Ion	Ratio	Lower	Upper
112	100		
77	67.3	48.3	72.4
114	32.4	23.2	34.7
0	0.0	0.0	0.0

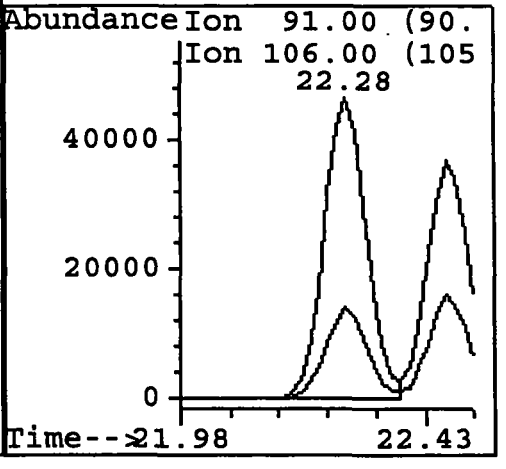


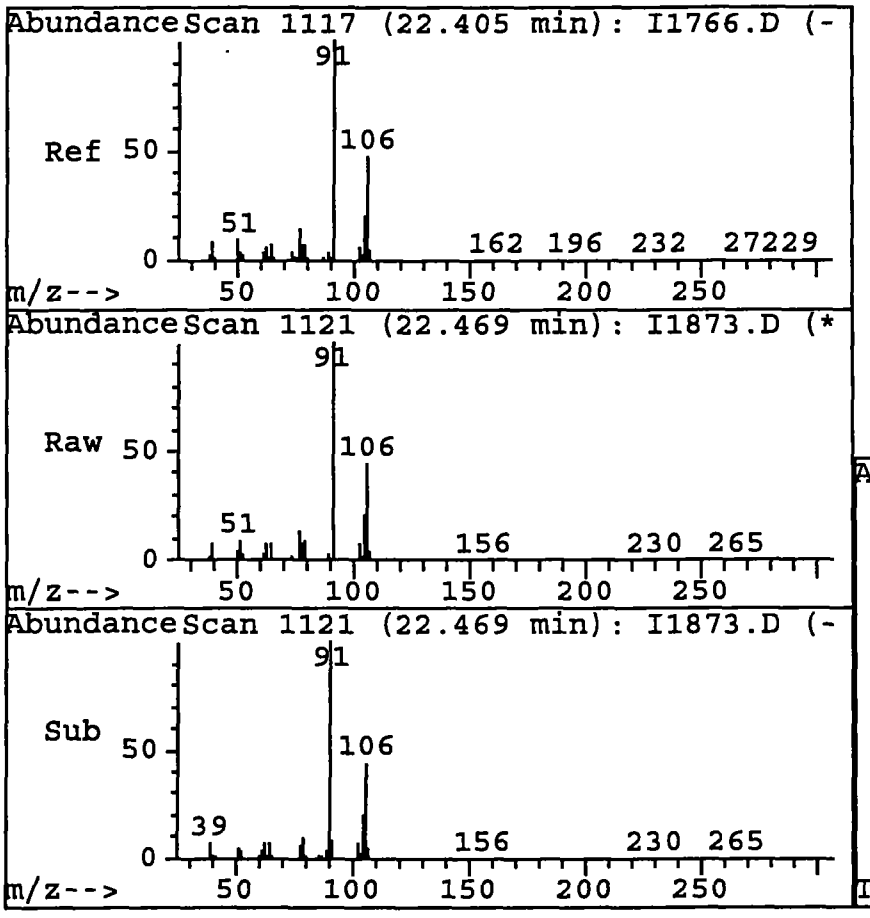


#42
Ethylbenzene
Concen: 3.93 ppb
RT: 22.28 min Scan# 1110
Delta R.T. 0.06 min
Lab File: I1873.D
Acq: 4 Feb 102 1:17 pm

Tgt Ion:91 Resp: 253322

Ion	Ratio	Lower	Upper
91	100		
106	30.7	25.2	37.7
0	0.0	0.0	0.0
0	0.0	0.0	0.0

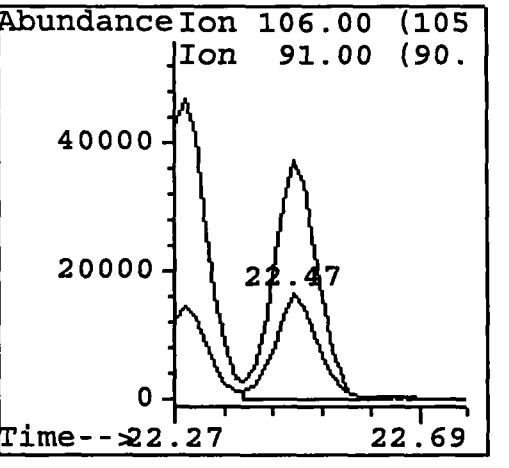


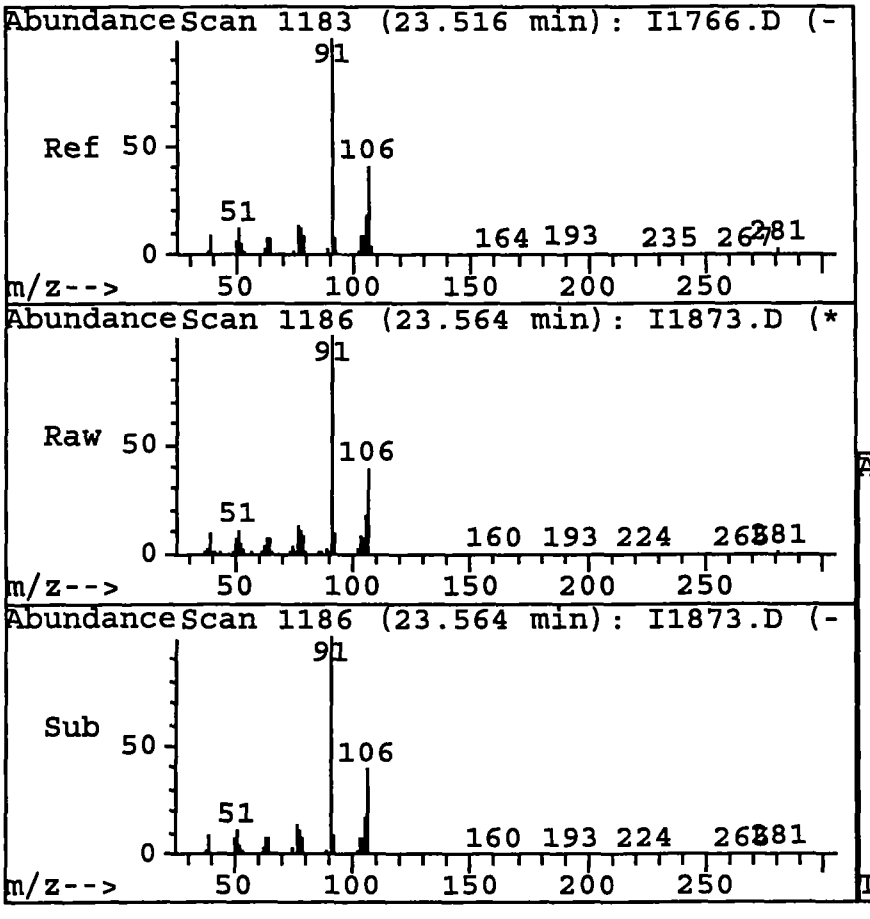


#43
(m+p)Xylene
Concen: 3.60 ppb
RT: 22.47 min Scan# 1121
Delta R.T. 0.06 min
Lab File: I1873.D
Acq: 4 Feb 102 1:17 pm

Tgt Ion:106 Resp: 82689

Ion	Ratio	Lower	Upper
106	100		
91	228.0	173.1	259.6
0	0.0	0.0	0.0
0	0.0	0.0	0.0

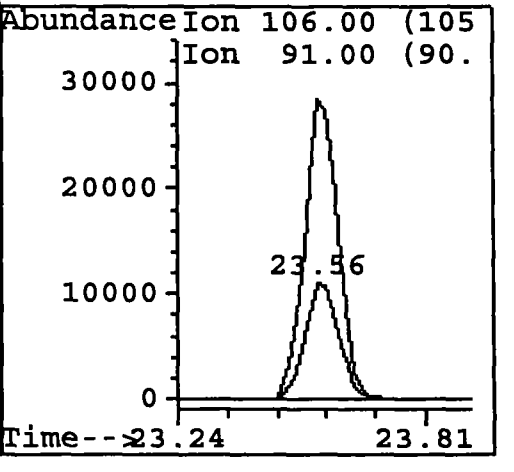


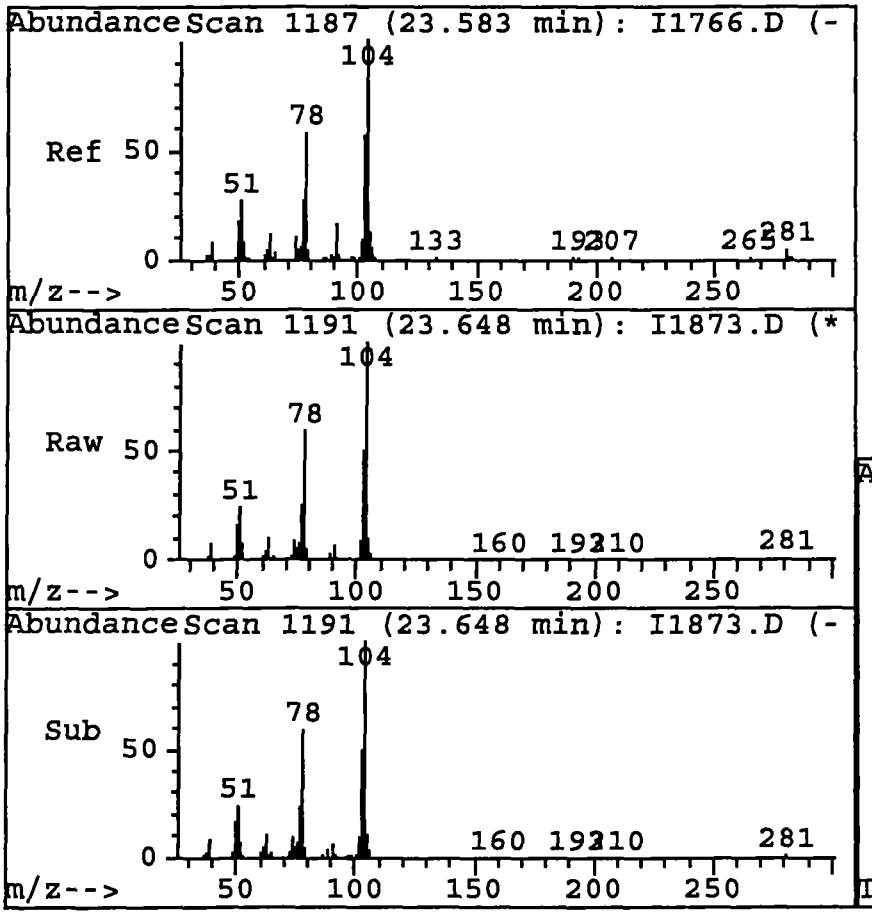


#44
o-Xylene
Concen: 2.74 ppb
RT: 23.56 min Scan# 1186
Delta R.T. 0.05 min
Lab File: I1873.D
Acq: 4 Feb 102 1:17 pm

Tgt Ion:106 Resp: 61166

Ion	Ratio	Lower	Upper
106	100		
91	256.8	195.0	292.5
0	0.0	0.0	0.0
0	0.0	0.0	0.0

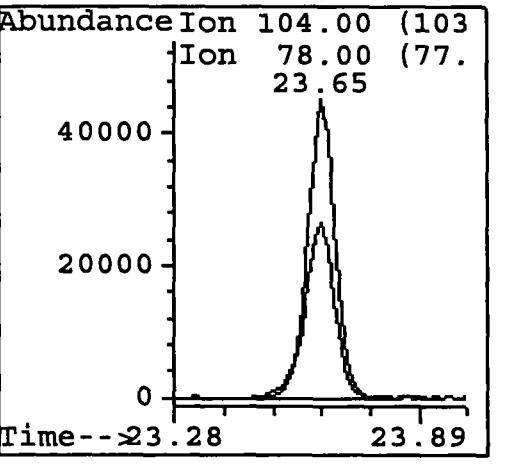


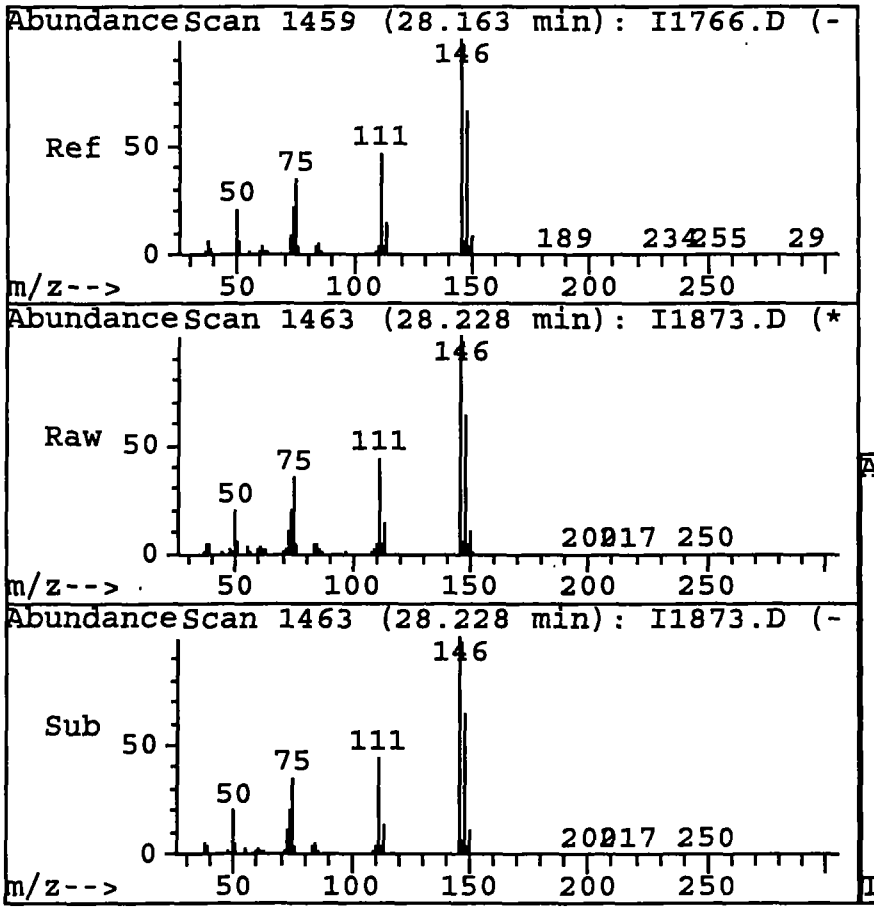


#45
Styrene
Concen: 5.91 ppb
RT: 23.65 min Scan# 1191
Delta R.T. 0.06 min
Lab File: I1873.D
Acq: 4 Feb 102 1:17 pm

Tgt Ion:104 Resp: 220800

Ion	Ratio	Lower	Upper
104	100		
78	59.3	46.5	69.8
0	0.0	0.0	0.0
0	0.0	0.0	0.0

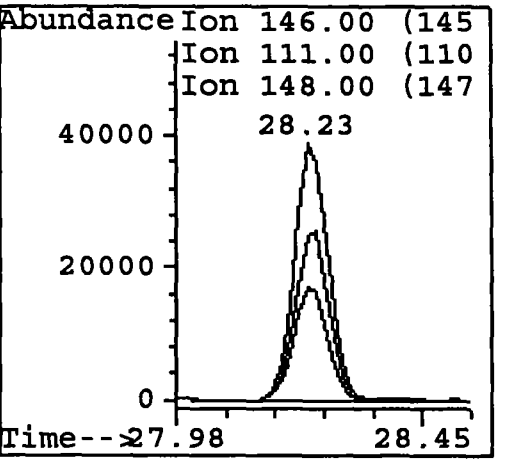


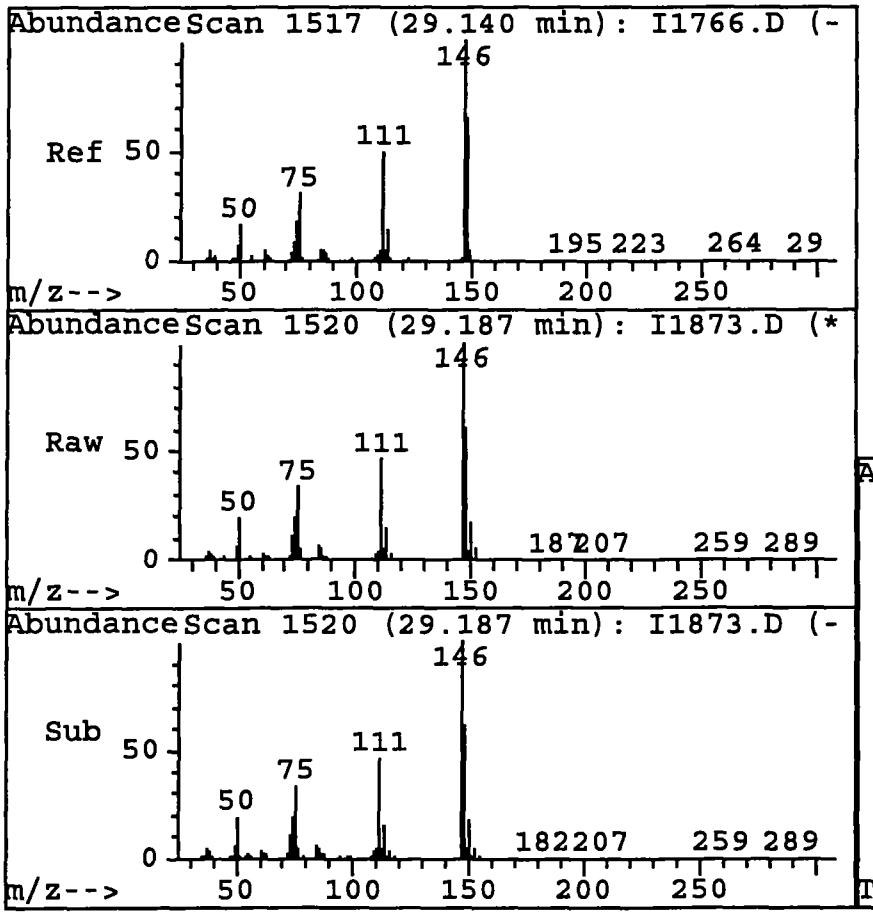


#61
1,4-Dclbenz
Concen: 4.77 ppb
RT: 28.23 min Scan# 1463
Delta R.T. 0.06 min
Lab File: I1873.D
Acq: 4 Feb 102 1:17 pm

Tgt Ion:146 Resp: 175409

Ion	Ratio	Lower	Upper
146	100		
111	43.6	37.6	56.3
148	64.1	53.2	79.7
0	0.0	0.0	0.0

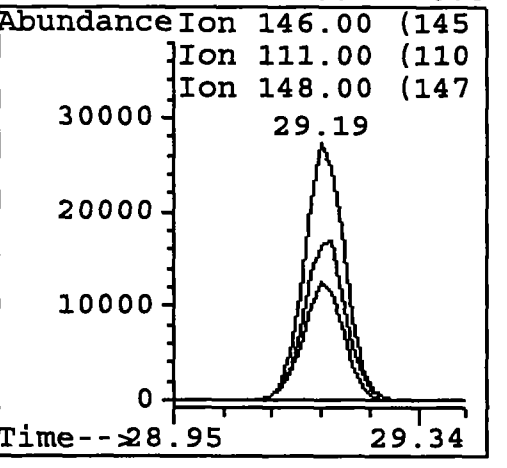


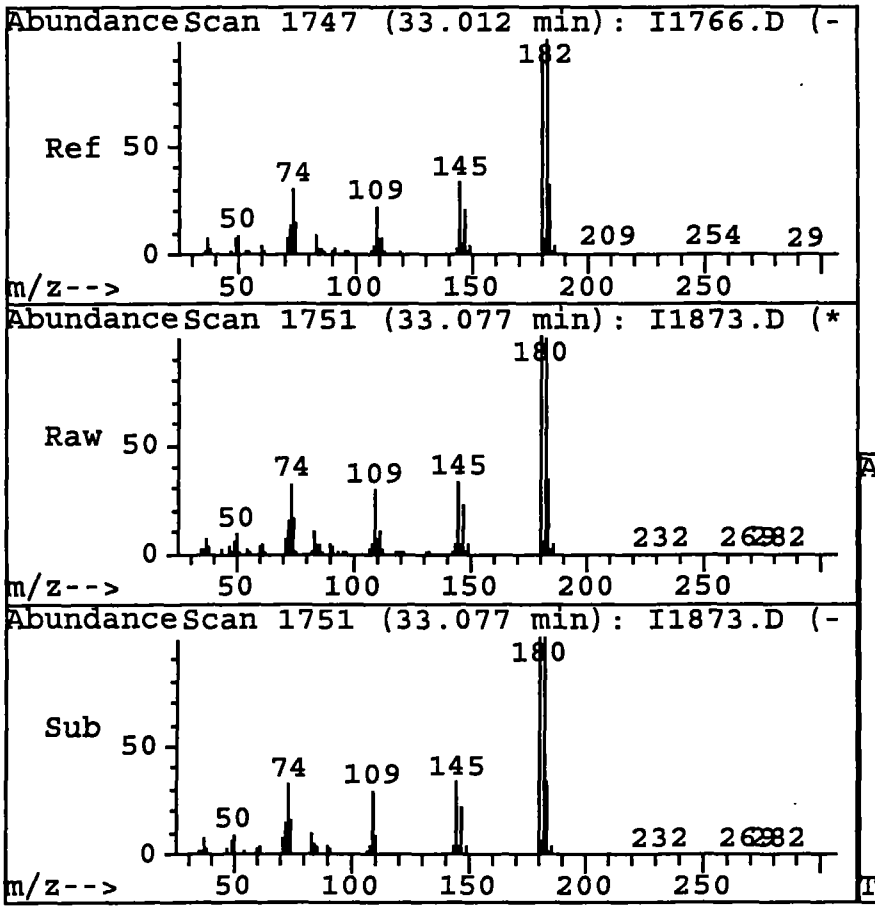


#64
1,2-Dclbenz
Concen: 3.75 ppb
RT: 29.19 min Scan# 1520
Delta R.T. 0.05 min
Lab File: I1873.D
Acq: 4 Feb 102 1:17 pm

Tgt Ion:146 Resp: 123503

Ion	Ratio	Lower	Upper
146	100		
111	46.1	39.0	58.5
148	60.6	52.2	78.3
0	0.0	0.0	0.0

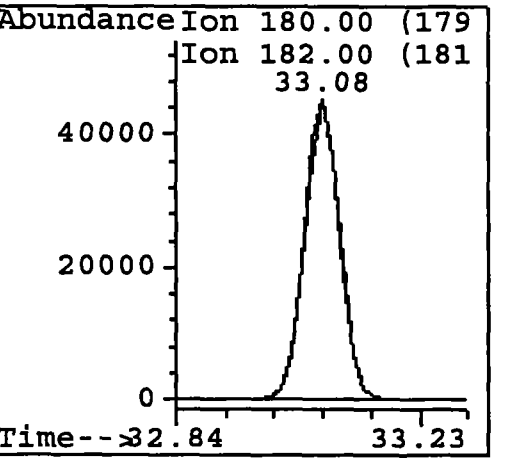




#66
1,2,4-Tcbenzene
Concen: 7.23 ppb
RT: 33.08 min Scan# 1751
Delta R.T. 0.06 min
Lab File: I1873.D
Acq: 4 Feb 102 1:17 pm

Tgt Ion:180 Resp: 183133

Ion	Ratio	Lower	Upper
180	100		
182	99.1	83.9	125.8
0	0.0	0.0	0.0
0	0.0	0.0	0.0



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 02/22/02

Tetra Tech EM Inc.
Project Reference: AGROMACK-LOCKWOOD OU#2
Client Sample ID : OS-PW-11

Date Sampled : 01/19/02 15:35 **Order #:** 526014 **Sample Matrix:** WATER
Date Received: 01/23/02 **Submission #:** R2210409 **Analytical Run** 74207

DATE ANALYZED : 02/01/02
ANALYTICAL DILUTION: 1.00

ANALYTE	PQL	RESULT	UNITS
BENZENE	0.50	0.50 U	UG/L
BROMOBENZENE	0.50	0.50 U	UG/L
BROMOCHLOROMETHANE	0.50	0.50 U	ug/L
BROMODICHLOROMETHANE	0.50	0.50 U	UG/L
BROMOFORM	0.50	0.50 U	UG/L
BROMOMETHANE	0.50	0.50 U	UG/L
TERT-BUTYLBENZENE	0.50	0.50 U	UG/L
SEC-BUTYLBENZENE	0.50	0.50 U	UG/L
N-BUTYLBENZENE	0.50	0.50 U	UG/L
CARBON TETRACHLORIDE	0.50	0.50 U	UG/L
CHLOROBENZENE	0.50	0.50 U	UG/L
CHLOROETHANE	0.50	0.50 U	UG/L
CHLOROFORM	0.50	0.50 U	UG/L
CHLOROMETHANE	0.50	0.50 U	UG/L
1,2-DIBROMO-3-CHLOROPROPANE	0.50	0.50 U	UG/L
2-CHLOROTOLUENE	0.50	0.50 U	UG/L
4-CHLOROTOLUENE	0.50	0.50 U	UG/L
DIBROMOCHLOROMETHANE	0.50	0.50 U	UG/L
1,2-DIBROMOETHANE	0.50	0.50 U	UG/L
DIBROMOMETHANE	0.50	0.50 U	UG/L
1,2-DICHLOROBENZENE	0.50	0.50 U	UG/L
1,4-DICHLOROBENZENE	0.50	0.50 U	UG/L
1,3-DICHLOROBENZENE	0.50	0.50 U	UG/L
DICHLORODIFLUOROMETHANE	0.50	0.50 U	UG/L
1,1-DICHLOROETHANE	0.50	0.50 U	UG/L
1,2-DICHLOROETHANE	0.50	0.50 U	UG/L
1,1-DICHLOROETHENE	0.50	0.50 U	UG/L
TRANS-1,2-DICHLOROETHENE	0.50	0.50 U	UG/L
CIS-1,2-DICHLOROETHENE	0.50	0.50 U	UG/L
2,2-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,2-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,3-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,1-DICHLOROPROPENE	0.50	0.50 U	UG/L
TRANS-1,3-DICHLOROPROPENE	0.50	0.50 U	UG/L
CIS-1,3-DICHLOROPROPENE	0.50	0.50 U	UG/L
ETHYLBENZENE	0.50	0.50 U	UG/L
HEXACHLOROBUTADIENE	0.50	0.50 U	UG/L
ISOPROPYLBENZENE	0.50	0.50 U	UG/L
P-ISOPROPYLTOLUENE	0.50	0.50 U	UG/L
METHYLENE CHLORIDE	0.50	0.50 U	UG/L
NAPHTHALENE	0.50	0.50 U	UG/L
N-PROPYLBENZENE	0.50	0.50 U	UG/L
STYRENE	0.50	0.50 U	UG/L
1,1,1,2-TETRACHLOROETHANE	0.50	0.50 U	UG/L

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 02/22/02

Tetra Tech EM Inc.
Project Reference: AGROMACK-LOCKWOOD OU#2
Client Sample ID : OS-PW-11

Date Sampled : 01/19/02 15:35 **Order #:** 526014 **Sample Matrix:** WATER
Date Received: 01/23/02 **Submission #:** R2210409 **Analytical Run** 74207

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 02/01/02			
ANALYTICAL DILUTION: 1.00			
1,1,2,2-TETRACHLOROETHANE	0.50	0.50 U	UG/L
TETRACHLOROETHENE	0.50	0.50 U	UG/L
TOLUENE	0.50	0.50 U	UG/L
1,2,4-TRICHLOROBENZENE	0.50	0.50 U	UG/L
1,2,3-TRICHLOROBENZENE	0.50	0.50 U	ug/L
1,1,1-TRICHLOROETHANE	0.50	0.50 U	UG/L
1,1,2-TRICHLOROETHANE	0.50	0.50 U	UG/L
TRICHLOROETHENE	0.50	0.50 U	UG/L
TRICHLOROFLUOROMETHANE	0.50	0.50 U	UG/L
1,2,3-TRICHLOROPROPANE	0.50	0.50 U	UG/L
1,3,5-TRIMETHYLBENZENE	0.50	0.50 U	UG/L
1,2,4-TRIMETHYLBENZENE	0.50	0.50 U	UG/L
INYL CHLORIDE	0.50	0.50 U	UG/L
M+P-XYLENE	0.50	0.50 U	UG/L
O-XYLENE	0.50	0.50 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
BROMOFLUOROBENZENE	(64 - 127 %)	89	%
1,2-DICHLOROBENZENE-D4	(59 - 136 %)	91	%

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\020102\I1844.D Vial: 5
Acq On : 1 Feb 102 6:15 pm Operator: DLIPANI
Sample : 526014 1.0 Inst : 5970 - In
Misc : TTEM R22-10409 524.2 Multiplr: 1.00
Quant Time: Feb 1 18:50 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	14.69	96	55901	1.00	ppb		0.03
System Monitoring Compounds							%Recovery
49) Surr2,BFB	25.08	95	53409	1.78	ppb		89.11%
63) Surr5,1,2-Dichlorobenzene-	29.11	152	43082	1.82	ppb		91.06%
Target Compounds							Qvalue
8) Acetone	7.57	43	3933	1.95	ppb	#	80NT
10) tert Butyl Alcohol	8.04	59	557	~~0.86~~	~~ppb~~		~~92~~
16) 2-Butanone	11.54	43	1461	~~0.53~~	~~ppb~~	~~#~~	~~88~~

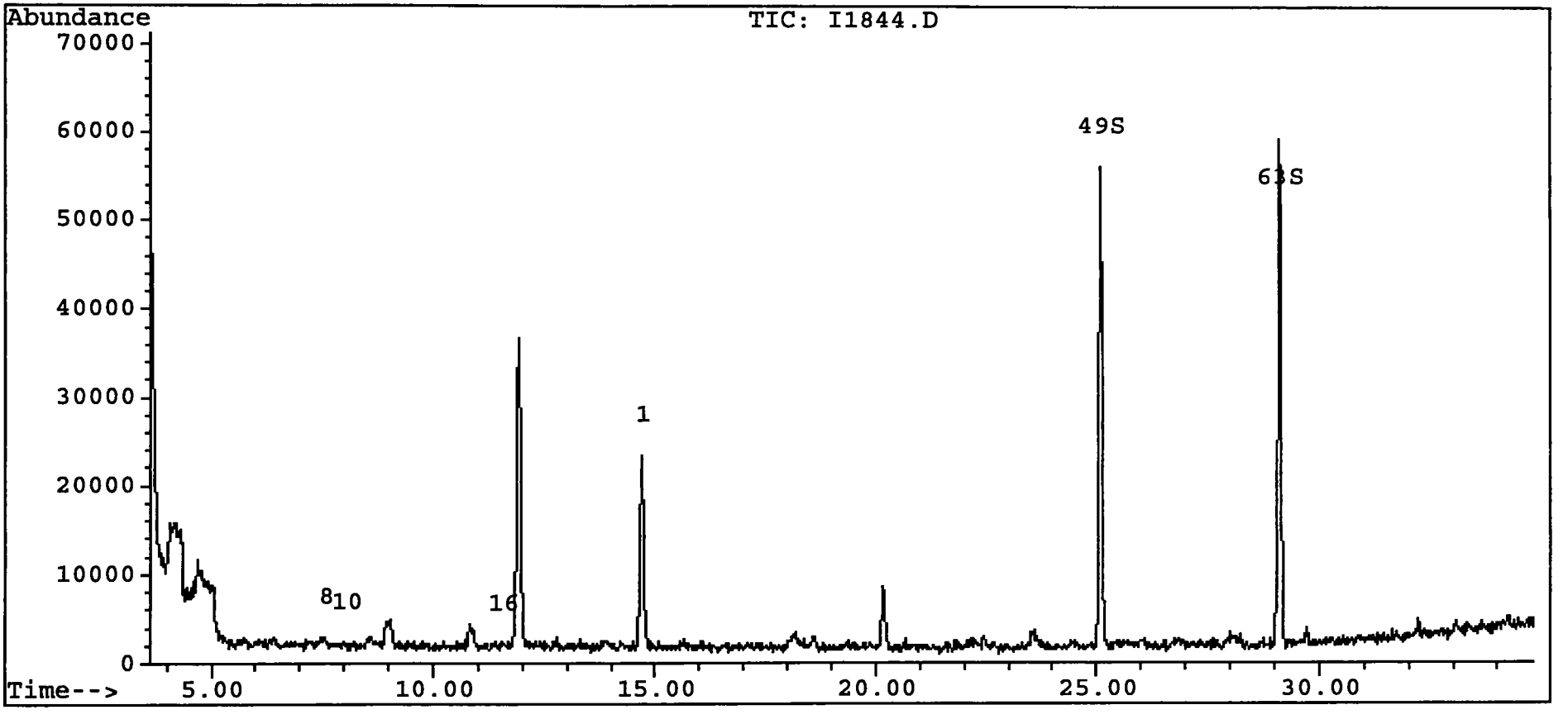
RL
02/02/02

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\020102\I1844.D Vial: 5
Acq On : 1 Feb 102 6:15 pm Operator: DLIPANI
Sample : 526014 1.0 Inst : 5970 - In
Misc : TTEM R22-10409 524.2 Multiplr: 1.00
Quant Time: Feb 1 18:50 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 02/22/02

Tetra Tech EM Inc.
Project Reference: AGROMACK-LOCKWOOD OU#2
Client Sample ID : OS-PW-10

Date Sampled : 01/19/02 14:52 **Order #:** 526015 **Sample Matrix:** WATER
Date Received: 01/23/02 **Submission #:** R2210409 **Analytical Run** 74207

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 02/01/02			
ANALYTICAL DILUTION: 1.00			
BENZENE	0.50	0.50 U	UG/L
BROMOBENZENE	0.50	0.50 U	UG/L
BROMOCHLOROMETHANE	0.50	0.50 U	ug/L
BROMODICHLOROMETHANE	0.50	0.50 U	UG/L
BROMOFORM	0.50	0.50 U	UG/L
BROMOMETHANE	0.50	0.50 U	UG/L
TERT-BUTYLBENZENE	0.50	0.50 U	UG/L
SEC-BUTYLBENZENE	0.50	0.50 U	UG/L
N-BUTYLBENZENE	0.50	0.50 U	UG/L
CARBON TETRACHLORIDE	0.50	0.50 U	UG/L
CHLOROBENZENE	0.50	0.50 U	UG/L
CHLOROETHANE	0.50	0.50 U	UG/L
CHLOROFORM	0.50	0.50 U	UG/L
CHLOROMETHANE	0.50	0.50 U	UG/L
1,2-DIBROMO-3-CHLOROPROPANE	0.50	0.50 U	UG/L
2-CHLOROTOLUENE	0.50	0.50 U	UG/L
4-CHLOROTOLUENE	0.50	0.50 U	UG/L
DIBROMOCHLOROMETHANE	0.50	0.50 U	UG/L
1,2-DIBROMOETHANE	0.50	0.50 U	UG/L
DIBROMOMETHANE	0.50	0.50 U	UG/L
1,2-DICHLOROBENZENE	0.50	0.50 U	UG/L
1,4-DICHLOROBENZENE	0.50	0.50 U	UG/L
1,3-DICHLOROBENZENE	0.50	0.50 U	UG/L
DICHLORODIFLUOROMETHANE	0.50	0.50 U	UG/L
1,1-DICHLOROETHANE	0.50	0.50 U	UG/L
1,2-DICHLOROETHANE	0.50	0.50 U	UG/L
1,1-DICHLOROETHENE	0.50	0.50 U	UG/L
TRANS-1,2-DICHLOROETHENE	0.50	0.50 U	UG/L
CIS-1,2-DICHLOROETHENE	0.50	0.50 U	UG/L
2,2-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,2-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,3-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,1-DICHLOROPROPENE	0.50	0.50 U	UG/L
TRANS-1,3-DICHLOROPROPENE	0.50	0.50 U	UG/L
CIS-1,3-DICHLOROPROPENE	0.50	0.50 U	UG/L
ETHYLBENZENE	0.50	0.50 U	UG/L
HEXACHLOROBUTADIENE	0.50	0.50 U	UG/L
ISOPROPYLBENZENE	0.50	0.50 U	UG/L
P-ISOPROPYLTOLUENE	0.50	0.50 U	UG/L
METHYLENE CHLORIDE	0.50	0.50 U	UG/L
NAPHTHALENE	0.50	0.50 U	UG/L
N-PROPYLBENZENE	0.50	0.50 U	UG/L
STYRENE	0.50	0.50 U	UG/L
1,1,1,2-TETRACHLOROETHANE	0.50	0.50 U	UG/L

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 02/22/02

Tetra Tech EM Inc.
Project Reference: AGROMACK-LOCKWOOD OU#2
Client Sample ID : OS-PW-10

Date Sampled : 01/19/02 14:52 **Order #:** 526015 **Sample Matrix:** WATER
Date Received: 01/23/02 **Submission #:** R2210409 **Analytical Run** 74207

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 02/01/02			
ANALYTICAL DILUTION: 1.00			
1,1,2,2-TETRACHLOROETHANE	0.50	0.50 U	UG/L
TETRACHLOROETHENE	0.50	0.50 U	UG/L
TOLUENE	0.50	0.50 U	UG/L
1,2,4-TRICHLOROBENZENE	0.50	0.50 U	UG/L
1,2,3-TRICHLOROBENZENE	0.50	0.50 U	ug/L
1,1,1-TRICHLOROETHANE	0.50	0.50 U	UG/L
1,1,2-TRICHLOROETHANE	0.50	0.50 U	UG/L
TRICHLOROETHENE	0.50	0.50 U	UG/L
TRICHLOROFLUOROMETHANE	0.50	0.50 U	UG/L
1,2,3-TRICHLOROPROPANE	0.50	0.50 U	UG/L
1,3,5-TRIMETHYLBENZENE	0.50	0.50 U	UG/L
1,2,4-TRIMETHYLBENZENE	0.50	0.50 U	UG/L
'INYL CHLORIDE	0.50	0.50 U	UG/L
M+P-XYLENE	0.50	0.50 U	UG/L
O-XYLENE	0.50	0.50 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
BROMOFLUOROBENZENE	(64 - 127 %)	93	%
1,2-DICHLOROBENZENE-D4	(59 - 136 %)	91	%

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\020102\I1845.D Vial: 6
Acq On : 1 Feb 102 6:56 pm Operator: DLIPANI
Sample : 526015 1.0 Inst : 5970 - In
Misc : TTEM R22-10409 524.2 Multiplr: 1.00
Quant Time: Feb 1 19:31 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	14.69	96	54856	1.00 ppb	0.03
System Monitoring Compounds					%Recovery
49) Surr2,BFB	25.08	95	54485	1.85 ppb	92.64%
63) Surr5,1,2-Dichlorobenzene-	29.11	152	41940	1.81 ppb	90.34%
Target Compounds					Qvalue
8) Acetone	7.57	43	2737	1.38 ppb #	87 NT
16) 2-Butanone	11.54	43	1944	~~0.72 ppb #~~	~~86~~

DL
02/02/02

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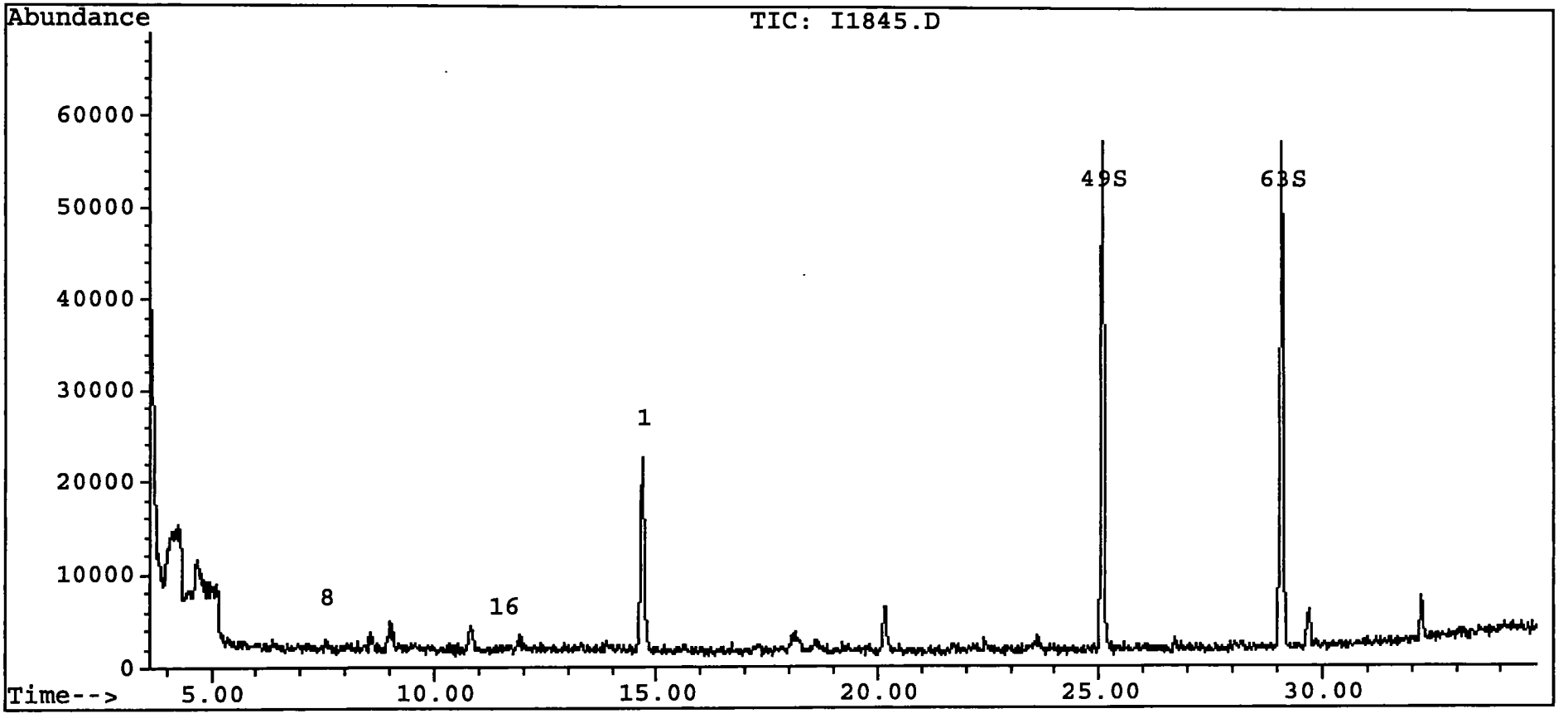
(#) = qualifier out of range (m) = manual integration

Data File : J:\ACQUDATA\MSVOA1\DATA\020102\I1845.D Vial: 6
Acq On : 1 Feb 102 6:56 pm Operator: DLIPANI
Sample : 526015 1.0 Inst : 5970 - In
Misc : TTEM R22-10409 524.2 Multiplr: 1.00
Quant Time: Feb 1 19:31 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 02/22/02

Tetra Tech EM Inc.
Project Reference: AGROMACK-LOCKWOOD OU#2
Client Sample ID : OS-PW-13

Date Sampled : 01/19/02 16:31 **Order #:** 526016 **Sample Matrix:** WATER
Date Received: 01/23/02 **Submission #:** R2210409 **Analytical Run** 74207

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 02/01/02			
ANALYTICAL DILUTION: 1.00			
BENZENE	0.50	0.50 U	UG/L
BROMOBENZENE	0.50	0.50 U	UG/L
BROMOCHLOROMETHANE	0.50	0.50 U	ug/L
BROMODICHLOROMETHANE	0.50	0.50 U	UG/L
BROMOFORM	0.50	0.50 U	UG/L
BROMOMETHANE	0.50	0.50 U	UG/L
TERT-BUTYLBENZENE	0.50	0.50 U	UG/L
SEC-BUTYLBENZENE	0.50	0.50 U	UG/L
N-BUTYLBENZENE	0.50	0.50 U	UG/L
CARBON TETRACHLORIDE	0.50	0.50 U	UG/L
CHLOROBENZENE	0.50	0.50 U	UG/L
CHLOROETHANE	0.50	0.50 U	UG/L
CHLOROFORM	0.50	0.50 U	UG/L
HLOROMETHANE	0.50	0.50 U	UG/L
1,2-DIBROMO-3-CHLOROPROPANE	0.50	0.50 U	UG/L
2-CHLOROTOLUENE	0.50	0.50 U	UG/L
4-CHLOROTOLUENE	0.50	0.50 U	UG/L
DIBROMOCHLOROMETHANE	0.50	0.50 U	UG/L
1,2-DIBROMOETHANE	0.50	0.50 U	UG/L
DIBROMOMETHANE	0.50	0.50 U	UG/L
1,2-DICHLOROBENZENE	0.50	0.50 U	UG/L
1,4-DICHLOROBENZENE	0.50	0.50 U	UG/L
1,3-DICHLOROBENZENE	0.50	0.50 U	UG/L
DICHLORODIFLUOROMETHANE	0.50	0.50 U	UG/L
1,1-DICHLOROETHANE	0.50	0.50 U	UG/L
1,2-DICHLOROETHANE	0.50	0.50 U	UG/L
1,1-DICHLOROETHENE	0.50	0.50 U	UG/L
TRANS-1,2-DICHLOROETHENE	0.50	0.50 U	UG/L
CIS-1,2-DICHLOROETHENE	0.50	0.50 U	UG/L
2,2-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,2-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,3-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,1-DICHLOROPROPENE	0.50	0.50 U	UG/L
TRANS-1,3-DICHLOROPROPENE	0.50	0.50 U	UG/L
CIS-1,3-DICHLOROPROPENE	0.50	0.50 U	UG/L
ETHYLBENZENE	0.50	0.50 U	UG/L
HEXACHLOROBUTADIENE	0.50	0.50 U	UG/L
ISOPROPYLBENZENE	0.50	0.50 U	UG/L
-ISOPROPYLTOLUENE	0.50	0.50 U	UG/L
METHYLENE CHLORIDE	0.50	0.50 U	UG/L
NAPHTHALENE	0.50	0.50 U	UG/L
N-PROPYLBENZENE	0.50	0.50 U	UG/L
STYRENE	0.50	0.50 U	UG/L
1,1,1,2-TETRACHLOROETHANE	0.50	0.50 U	UG/L

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 02/22/02

Tetra Tech EM Inc.
Project Reference: AGROMACK-LOCKWOOD OU#2
Client Sample ID : OS-PW-13

Date Sampled : 01/19/02 16:31 **Order #:** 526016 **Sample Matrix:** WATER
Date Received: 01/23/02 **Submission #:** R2210409 **Analytical Run** 74207

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 02/01/02			
ANALYTICAL DILUTION: 1.00			
1,1,2,2-TETRACHLOROETHANE	0.50	0.50 U	UG/L
TETRACHLOROETHENE	0.50	0.50 U	UG/L
TOLUENE	0.50	0.50 U	UG/L
1,2,4-TRICHLOROBENZENE	0.50	0.50 U	UG/L
1,2,3-TRICHLOROBENZENE	0.50	0.50 U	ug/L
1,1,1-TRICHLOROETHANE	0.50	0.50 U	UG/L
1,1,2-TRICHLOROETHANE	0.50	0.50 U	UG/L
TRICHLOROETHENE	0.50	0.50 U	UG/L
TRICHLOROFLUOROMETHANE	0.50	0.50 U	UG/L
1,2,3-TRICHLOROPROPANE	0.50	0.50 U	UG/L
1,3,5-TRIMETHYLBENZENE	0.50	0.50 U	UG/L
1,2,4-TRIMETHYLBENZENE	0.50	0.50 U	UG/L
'INYL CHLORIDE	0.50	0.50 U	UG/L
.+P-XYLENE	0.50	0.50 U	UG/L
O-XYLENE	0.50	0.50 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
BROMOFLUOROBENZENE	(64 - 127 %)	94	%
1,2-DICHLOROBENZENE-D4	(59 - 136 %)	93	%

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\020102\I1846.D Vial: 7
Acq On : 1 Feb 102 7:37 pm Operator: DLIPANI
Sample : 526016 1.0 Inst : 5970 - In
Misc : TTEM R22-10409 524.2 Multiplr: 1.00
Quant Time: Feb 1 20:12 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	14.69	96	53577	1.00	ppb	0.03
System Monitoring Compounds						%Recovery
49) Surr2,BFB	25.08	95	53724	1.87	ppb	93.53%
63) Surr5,1,2-Dichlorobenzene-	29.10	152	41989	1.85	ppb	92.60%
Target Compounds						Qvalue
8) Acetone	7.52	43	2250	1.17	ppb #	46 NT
16) 2-Butanone	11.53	43	1301	~~0.49~~	~~ppb~~ #	~~52~~

DL
02/02/02

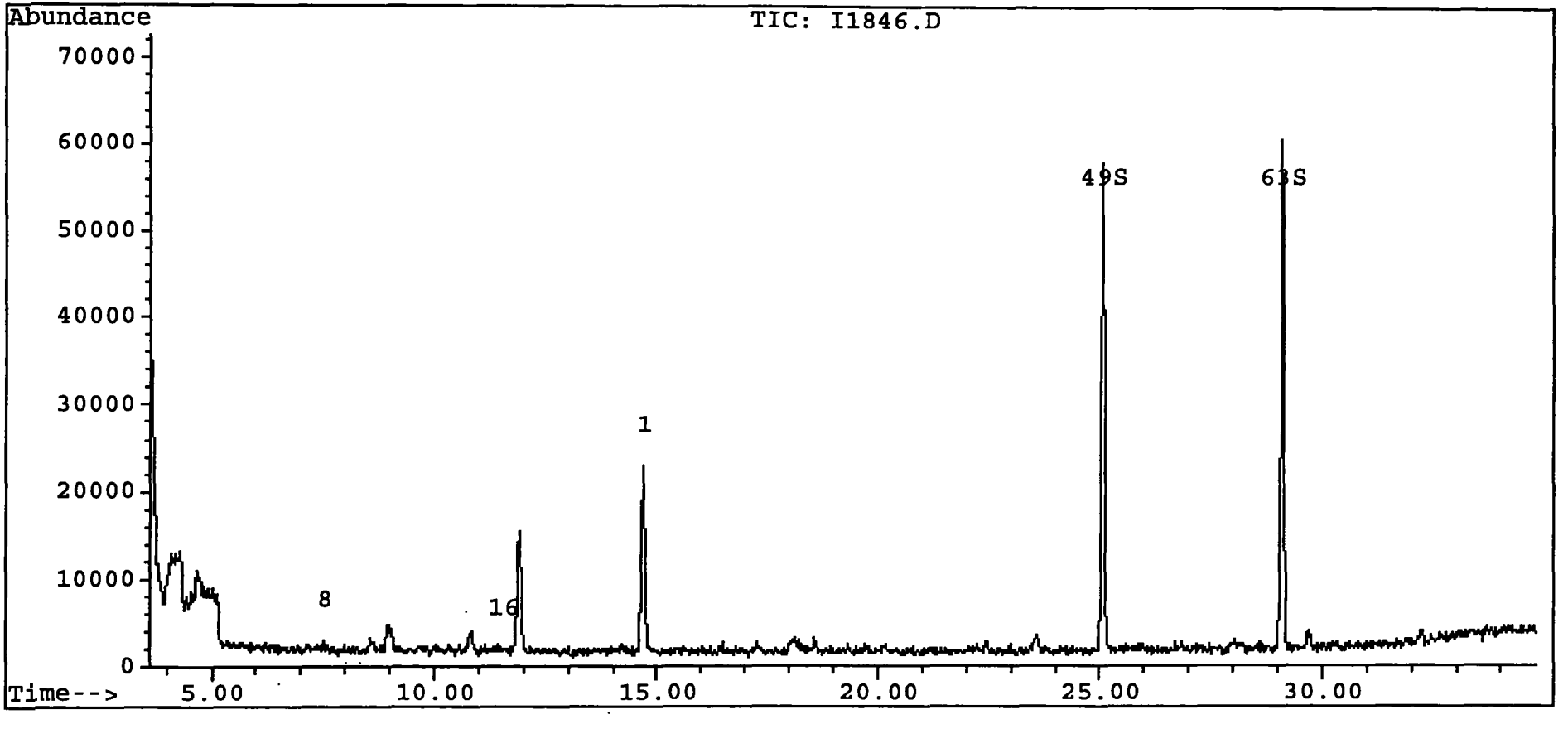
352

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\020102\I1846.D Vial: 7
Acq On : 1 Feb 102 7:37 pm Operator: DLIPANI
Sample : 526016 1.0 Inst : 5970 - In
Misc : TTEM R22-10409 524.2 Multiplr: 1.00
Quant Time: Feb 1 20:12 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 02/22/02

Tetra Tech EM Inc.
Project Reference: AGROMACK-LOCKWOOD OU#2
Client Sample ID : OS-PW-14

Date Sampled : 01/19/02 17:04 **Order #:** 526018 **Sample Matrix:** WATER
Date Received: 01/23/02 **Submission #:** R2210409 **Analytical Run** 74207

DATE ANALYZED : 02/01/02
ANALYTICAL DILUTION: 1.00

ANALYTE	PQL	RESULT	UNITS
BENZENE	0.50	0.50 U	UG/L
BROMOBENZENE	0.50	0.50 U	UG/L
BROMOCHLOROMETHANE	0.50	0.50 U	ug/L
BROMODICHLOROMETHANE	0.50	0.50 U	UG/L
BROMOFORM	0.50	0.50 U	UG/L
BROMOMETHANE	0.50	0.50 U	UG/L
TERT-BUTYLBENZENE	0.50	0.50 U	UG/L
SEC-BUTYLBENZENE	0.50	0.50 U	UG/L
N-BUTYLBENZENE	0.50	0.50 U	UG/L
CARBON TETRACHLORIDE	0.50	0.50 U	UG/L
CHLOROBENZENE	0.50	0.50 U	UG/L
CHLOROETHANE	0.50	0.50 U	UG/L
CHLOROFORM	0.50	0.50 U	UG/L
CHLOROMETHANE	0.50	0.50 U	UG/L
1,2-DIBROMO-3-CHLOROPROPANE	0.50	0.50 U	UG/L
2-CHLOROTOLUENE	0.50	0.50 U	UG/L
4-CHLOROTOLUENE	0.50	0.50 U	UG/L
DIBROMOCHLOROMETHANE	0.50	0.50 U	UG/L
1,2-DIBROMOETHANE	0.50	0.50 U	UG/L
DIBROMOMETHANE	0.50	0.50 U	UG/L
1,2-DICHLOROBENZENE	0.50	0.50 U	UG/L
1,4-DICHLOROBENZENE	0.50	0.50 U	UG/L
1,3-DICHLOROBENZENE	0.50	0.50 U	UG/L
DICHLORODIFLUOROMETHANE	0.50	0.50 U	UG/L
1,1-DICHLOROETHANE	0.50	0.50 U	UG/L
1,2-DICHLOROETHANE	0.50	0.50 U	UG/L
1,1-DICHLOROETHENE	0.50	0.50 U	UG/L
TRANS-1,2-DICHLOROETHENE	0.50	0.50 U	UG/L
CIS-1,2-DICHLOROETHENE	0.50	0.50 U	UG/L
2,2-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,2-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,3-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,1-DICHLOROPROPENE	0.50	0.50 U	UG/L
TRANS-1,3-DICHLOROPROPENE	0.50	0.50 U	UG/L
CIS-1,3-DICHLOROPROPENE	0.50	0.50 U	UG/L
ETHYLBENZENE	0.50	0.50 U	UG/L
HEXACHLOROBUTADIENE	0.50	0.50 U	UG/L
ISOPROPYLBENZENE	0.50	0.50 U	UG/L
-ISOPROPYLTOLUENE	0.50	0.50 U	UG/L
METHYLENE CHLORIDE	0.50	0.50 U	UG/L
NAPHTHALENE	0.50	0.50 U	UG/L
N-PROPYLBENZENE	0.50	0.50 U	UG/L
STYRENE	0.50	0.50 U	UG/L
1,1,1,2-TETRACHLOROETHANE	0.50	0.50 U	UG/L

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 02/22/02

Tetra Tech EM Inc.
Project Reference: AGROMACK-LOCKWOOD OU#2
Client Sample ID : OS-PW-14

Date Sampled : 01/19/02 17:04 **Order #:** 526018 **Sample Matrix:** WATER
Date Received: 01/23/02 **Submission #:** R2210409 **Analytical Run** 74207

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 02/01/02			
ANALYTICAL DILUTION: 1.00			
1,1,2,2-TETRACHLOROETHANE	0.50	0.50 U	UG/L
TETRACHLOROETHENE	0.50	0.50 U	UG/L
TOLUENE	0.50	0.50 U	UG/L
1,2,4-TRICHLOROBENZENE	0.50	0.50 U	UG/L
1,2,3-TRICHLOROBENZENE	0.50	0.50 U	ug/L
1,1,1-TRICHLOROETHANE	0.50	0.50 U	UG/L
1,1,2-TRICHLOROETHANE	0.50	0.50 U	UG/L
TRICHLOROETHENE	0.50	0.50 U	UG/L
TRICHLOROFLUOROMETHANE	0.50	0.50 U	UG/L
1,2,3-TRICHLOROPROPANE	0.50	0.50 U	UG/L
1,3,5-TRIMETHYLBENZENE	0.50	0.50 U	UG/L
1,2,4-TRIMETHYLBENZENE	0.50	0.50 U	UG/L
VINYL CHLORIDE	0.50	0.50 U	UG/L
M+P-XYLENE	0.50	0.50 U	UG/L
O-XYLENE	0.50	0.50 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
BROMOFLUOROBENZENE	(64 - 127 %)	88	%
1,2-DICHLOROBENZENE-D4	(59 - 136 %)	94	%

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\020102\I1847.D Vial: 8
Acq On : 1 Feb 102 8:18 pm Operator: DLIPANI
Sample : 526018 1.0 Inst : 5970 - In
Misc : TTEM R22-10409 524.2 Multiplr: 1.00
Quant Time: Feb 1 20:53 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	14.67	96	53207	1.00	ppb	0.01
System Monitoring Compounds						%Recovery
49) Surr2,BFB	25.08	95	50292	1.76	ppb	88.16%
63) Surr5,1,2-Dichlorobenzene-	29.10	152	42000	1.87	ppb	93.27%
Target Compounds						Qvalue
8) Acetone	7.52	43	3058	1.59	ppb	# 46

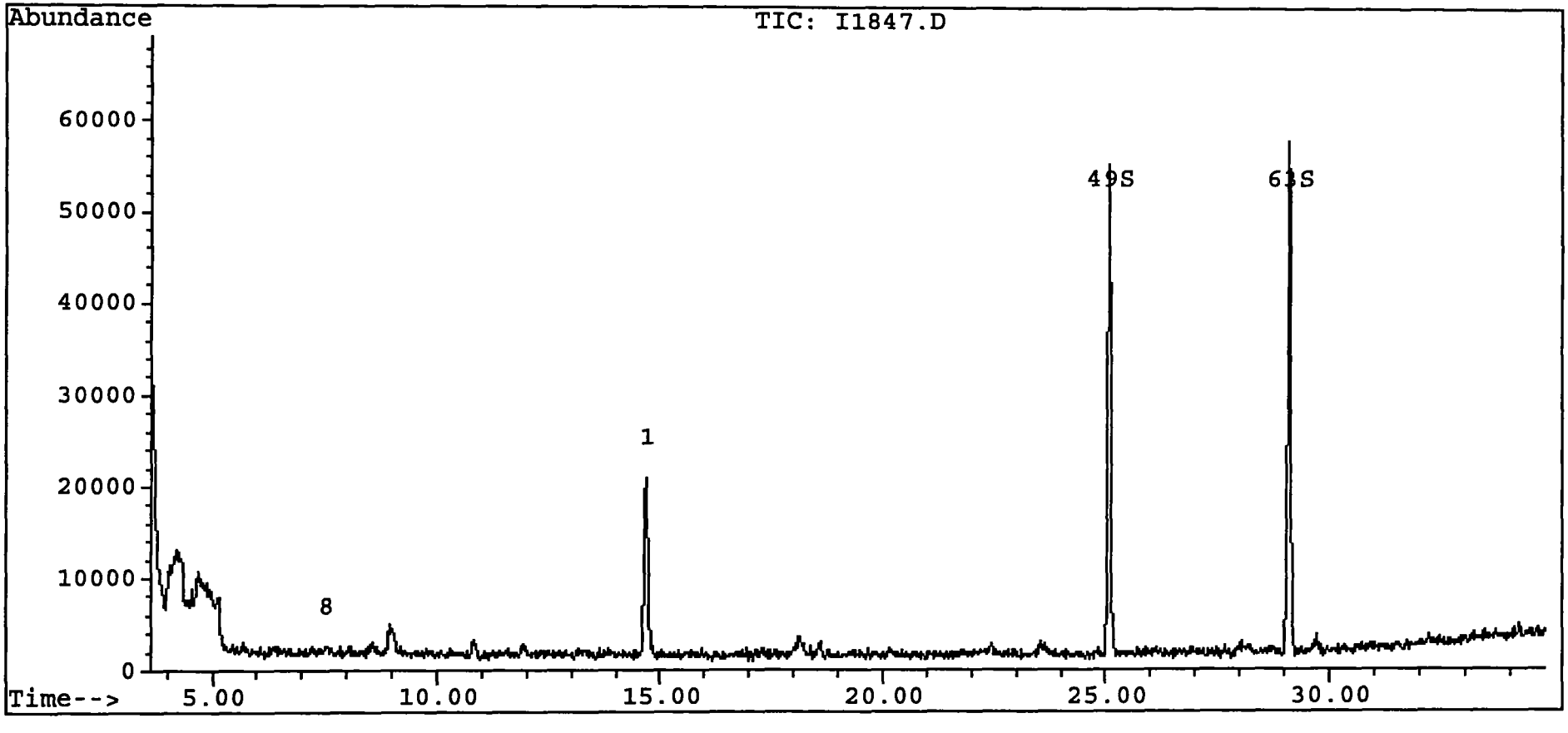
DL
02/02/02

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\020102\I184..D Vial: 8
Acq On : 1 Feb 102 8:18 pm Operator: DLIPANI
Sample : 526018 1.0 Inst : 5970 - In
Misc : TTEM R22-10409 524.2 Multiplr: 1.00
Quant Time: Feb 1 20:53 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 02/22/02

Tetra Tech EM Inc.
Project Reference: AGROMACK-LOCKWOOD OU#2
Client Sample ID : OS-PW-12

Date Sampled : 01/19/02 15:57 **Order #:** 526019 **Sample Matrix:** WATER
Date Received: 01/23/02 **Submission #:** R2210409 **Analytical Run** 74207

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 02/01/02			
ANALYTICAL DILUTION: 1.00			
BENZENE	0.50	0.50 U	UG/L
BROMOBENZENE	0.50	0.50 U	UG/L
BROMOCHLOROMETHANE	0.50	0.50 U	ug/L
BROMODICHLOROMETHANE	0.50	0.50 U	UG/L
BROMOFORM	0.50	0.50 U	UG/L
BROMOMETHANE	0.50	0.50 U	UG/L
TERT-BUTYLBENZENE	0.50	0.50 U	UG/L
SEC-BUTYLBENZENE	0.50	0.50 U	UG/L
N-BUTYLBENZENE	0.50	0.50 U	UG/L
CARBON TETRACHLORIDE	0.50	0.50 U	UG/L
CHLOROBENZENE	0.50	0.50 U	UG/L
CHLOROETHANE	0.50	0.50 U	UG/L
CHLOROFORM	0.50	0.50 U	UG/L
CHLOROMETHANE	0.50	0.50 U	UG/L
1,2-DIBROMO-3-CHLOROPROPANE	0.50	0.50 U	UG/L
2-CHLOROTOLUENE	0.50	0.50 U	UG/L
4-CHLOROTOLUENE	0.50	0.50 U	UG/L
DIBROMOCHLOROMETHANE	0.50	0.50 U	UG/L
1,2-DIBROMOETHANE	0.50	0.50 U	UG/L
DIBROMOMETHANE	0.50	0.50 U	UG/L
1,2-DICHLOROBENZENE	0.50	0.50 U	UG/L
1,4-DICHLOROBENZENE	0.50	0.50 U	UG/L
1,3-DICHLOROBENZENE	0.50	0.50 U	UG/L
DICHLORODIFLUOROMETHANE	0.50	0.50 U	UG/L
1,1-DICHLOROETHANE	0.50	0.50 U	UG/L
1,2-DICHLOROETHANE	0.50	0.50 U	UG/L
1,1-DICHLOROETHENE	0.50	0.50 U	UG/L
TRANS-1,2-DICHLOROETHENE	0.50	0.50 U	UG/L
CIS-1,2-DICHLOROETHENE	0.50	0.50 U	UG/L
2,2-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,2-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,3-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,1-DICHLOROPROPENE	0.50	0.50 U	UG/L
TRANS-1,3-DICHLOROPROPENE	0.50	0.50 U	UG/L
CIS-1,3-DICHLOROPROPENE	0.50	0.50 U	UG/L
ETHYLBENZENE	0.50	0.50 U	UG/L
HEXACHLOROBUTADIENE	0.50	0.50 U	UG/L
ISOPROPYLBENZENE	0.50	0.50 U	UG/L
P-ISOPROPYLTOLUENE	0.50	0.50 U	UG/L
METHYLENE CHLORIDE	0.50	0.50 U	UG/L
NAPHTHALENE	0.50	0.50 U	UG/L
N-PROPYLBENZENE	0.50	0.50 U	UG/L
STYRENE	0.50	0.50 U	UG/L
1,1,1,2-TETRACHLOROETHANE	0.50	0.50 U	UG/L

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 02/22/02

Tetra Tech EM Inc.
Project Reference: AGROMACK-LOCKWOOD OU#2
Client Sample ID : OS-PW-12

Date Sampled : 01/19/02 15:57 **Order #:** 526019 **Sample Matrix:** WATER
Date Received: 01/23/02 **Submission #:** R2210409 **Analytical Run** 74207

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 02/01/02			
ANALYTICAL DILUTION: 1.00			
1,1,2,2-TETRACHLOROETHANE	0.50	0.50 U	UG/L
TETRACHLOROETHENE	0.50	0.50 U	UG/L
TOLUENE	0.50	0.50 U	UG/L
1,2,4-TRICHLOROBENZENE	0.50	0.50 U	UG/L
1,2,3-TRICHLOROBENZENE	0.50	0.50 U	ug/L
1,1,1-TRICHLOROETHANE	0.50	0.50 U	UG/L
1,1,2-TRICHLOROETHANE	0.50	0.50 U	UG/L
TRICHLOROETHENE	0.50	0.50 U	UG/L
TRICHLOROFLUOROMETHANE	0.50	0.50 U	UG/L
1,2,3-TRICHLOROPROPANE	0.50	0.50 U	UG/L
1,3,5-TRIMETHYLBENZENE	0.50	0.50 U	UG/L
1,2,4-TRIMETHYLBENZENE	0.50	0.50 U	UG/L
'INYL CHLORIDE	0.50	0.50 U	UG/L
M+P-XYLENE	0.50	0.50 U	UG/L
O-XYLENE	0.50	0.50 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
BROMOFLUOROBENZENE	(64 - 127 %)	94	%
1,2-DICHLOROBENZENE-D4	(59 - 136 %)	99	%

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\020102\I1848.D Vial: 9
Acq On : 1 Feb 102 8:59 pm Operator: DLIPANI
Sample : 526019 1.0 Inst : 5970 - In
Misc : TTEM R22-10409 524.2 Multiplr: 1.00
Quant Time: Feb 1 21:34 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	14.69	96	51362	1.00	ppb	0.03
System Monitoring Compounds						%Recovery
49) Surr2,BFB	25.08	95	51614	1.87	ppb	93.73%
63) Surr5,1,2-Dichlorobenzene-	29.10	152	42789	1.97	ppb	98.43%
Target Compounds						Qvalue
8) Acetone	7.55	43	1906	1.03	ppb	99

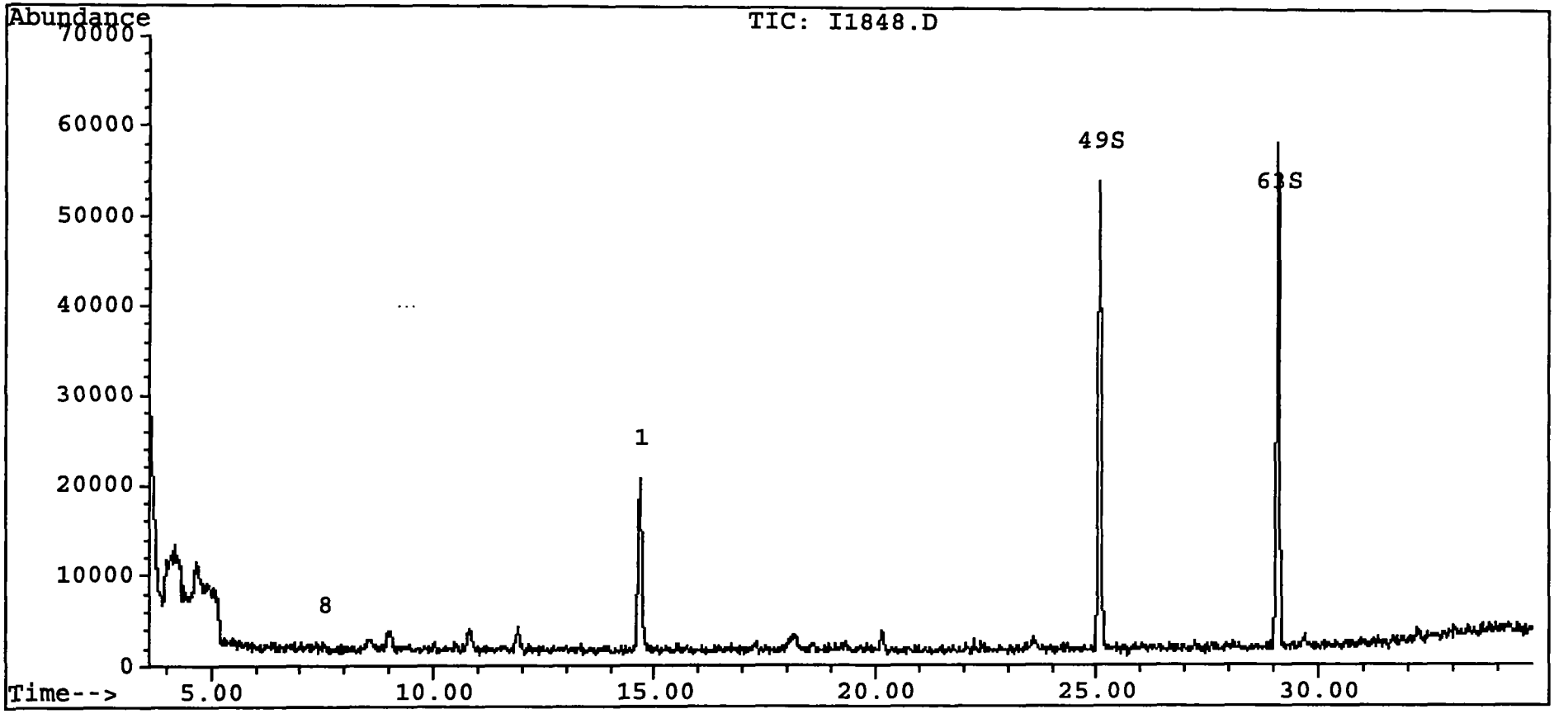
DL
02/02/02

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\020102\I1848.D Vial: 9
Acq On : 1 Feb 102 8:59 pm Operator: DLIPANI
Sample : 526019 1.0 Inst : 5970 - In
Misc : TTEM R22-10409 524.2 Multiplr: 1.00
Quant Time: Feb 1 21:34 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration



524 VOLATILE ORGANICS

STANDARDS DATA

Concentration Report

Method:	**5240128**	
Title	USEPA Method 524.2 Volatiles	
Last Update	Tue Jan 29 13:26:52 2002	
Analyst	DLIPANI	

	Compound:	STD .5	STD 1	STD 2	STD 10	STD 20	STD 30	STD 40
1	**Fluorobenzene**	1.0	1.0	1.0	1.0	1.0	1.0	1.0
2	**Dichlorodifluoromethane**	0.5	1.0	2.0	10.0	20.0	30.0	40.0
3	**Chloromethane**	0.5	1.0	2.0	10.0	20.0	30.0	40.0
4	**Vinyl Chloride**	0.5	1.0	2.0	10.0	20.0	30.0	40.0
5	**Bromomethane**	0.5	1.0	2.0	10.0	20.0	30.0	40.0
6	**Chloroethane**	0.5	1.0	2.0	10.0	20.0	30.0	40.0
7	**Trichlorofluoromethane**	0.5	1.0	2.0	10.0	20.0	30.0	40.0
8	**Acetone**		5.0	10.0	50.0	100.0	150.0	
9	**1,1-Diclethene**	0.5	1.0	2.0	10.0	20.0	30.0	40.0
10	**tert Butyl Alcohol**		20.0	40.0	200.0	400.0	600.0	800.0
11	**Methyl Acetate**	0.5	1.0	2.0	10.0	20.0	30.0	
12	**Methylene Chloride**	0.5	1.0	2.0	10.0	20.0	30.0	40.0
13	**Methyl-t-Butyl Ether**	0.5	1.0	2.0	10.0	20.0	30.0	40.0
14	**trans-1,2-Dichloroethene**	0.5	1.0	2.0	10.0	20.0	30.0	40.0
15	**1,1-Diclethane**	0.5	1.0	2.0	10.0	20.0	30.0	40.0
16	**2-Butanone**		5.0	10.0	50.0	100.0	150.0	
17	**2,2-Dichloropropane**	0.5	1.0	2.0	10.0	20.0	30.0	40.0
18	**cis-1,2-Dichloroethene**	0.5	1.0	2.0	10.0	20.0	30.0	40.0
19	**Chloroform**	0.5	1.0	2.0	10.0	20.0	30.0	40.0
20	**Bromochloromethane**	0.5	1.0	2.0	10.0	20.0	30.0	40.0
21	**1,1,1-Trichloroethane**	0.5	1.0	2.0	10.0	20.0	30.0	40.0
22	**1,1-Dichloropropene**	0.5	1.0	2.0	10.0	20.0	30.0	40.0
23	**Carbontetrachloride**	0.5	1.0	2.0	10.0	20.0	30.0	40.0
24	**Benzene**	0.5	1.0	2.0	10.0	20.0	30.0	40.0
25	**1,2-Dichloroethane**	0.5	1.0	2.0	10.0	20.0	30.0	40.0
26	**Trichloroethene**	0.5	1.0	2.0	10.0	20.0	30.0	40.0
27	**1,2-Diclpropane**	0.5	1.0	2.0	10.0	20.0	30.0	40.0
28	**Bromodichloromethane**	0.5	1.0	2.0	10.0	20.0	30.0	40.0
29	**Dibromomethane**	0.5	1.0	2.0	10.0	20.0	30.0	40.0
30	**4-Methyl-2-Pentanone**		5.0	10.0	50.0	100.0	150.0	
31	**trans-1,3-Dichloropropene**	0.5	1.0	2.0	10.0	20.0	30.0	40.0
32	**Toluene**	0.5	1.0	2.0	10.0	20.0	30.0	40.0
33	**cis-1,3-Dichloropropene**	0.5	1.0	2.0	10.0	20.0	30.0	40.0
34	**1,1,2-Trichloroethane**	0.5	1.0	2.0	10.0	20.0	30.0	40.0
35	**2-Hexanone**		5.0	10.0	50.0	100.0	150.0	
36	**1,2-Dibromoethane**	0.5	1.0	2.0	10.0	20.0	30.0	40.0
37	**1,3-Dichloropropane**	0.5	1.0	2.0	10.0	20.0	30.0	40.0
38	**Tetrachloroethene**	0.5	1.0	2.0	10.0	20.0	30.0	40.0
39	**Dibromochloromethane**	0.5	1.0	2.0	10.0	20.0	30.0	40.0

Concentration Report

Method:	**5240128**
Title	USEPA Method 524.2 Volatiles
Last Update	Tue Jan 29 13:26:52 2002
Analyst	DLIPANI

	Compound:	STD .5	STD 1	STD 2	STD 10	STD 20	STD 30	STD 40
40	**Chlorobenzene**	0.5	1.0	2.0	10.0	20.0	30.0	40.0
41	**1,1,1,2-Tetrachloroethane**	0.5	1.0	2.0	10.0	20.0	30.0	40.0
42	**Ethylbenzene**	0.5	1.0	2.0	10.0	20.0	30.0	40.0
43	**(m+p)Xylene**	1.0	2.0	4.0	20.0	40.0	60.0	80.0
44	**o-Xylene**	0.5	1.0	2.0	10.0	20.0	30.0	40.0
45	**Styrene**	0.5	1.0	2.0	10.0	20.0	30.0	40.0
46	**Bromoform**	0.5	1.0	2.0	10.0	20.0	30.0	40.0
47	**Isopropylbenzene**	0.5	1.0	2.0	10.0	20.0	30.0	40.0
48	**1,1,2,2-Tetrachloroethane**	0.5	1.0	2.0	10.0	20.0	30.0	40.0
49	**Surr2,BFB**	2.0	2.0	2.0	2.0	2.0	2.0	2.0
50	**1,2,3-Trichloropropane**	0.5	1.0	2.0	10.0	20.0	30.0	40.0
51	**n-Propylbenzene**	0.5	1.0	2.0	10.0	20.0	30.0	40.0
52	**Bromobenzene**	0.5	1.0	2.0	10.0	20.0	30.0	40.0
53	**1,3,5-Trimethylbenzene**	0.5	1.0	2.0	10.0	20.0	30.0	40.0
54	**2-Chlorotoluene**	0.5	1.0	2.0	10.0	20.0	30.0	40.0
55	**4-Chlorotoluene**	0.5	1.0	2.0	10.0	20.0	30.0	40.0
56	**tert-Butylbenzene**	0.5	1.0	2.0	10.0	20.0	30.0	40.0
57	**1,2,4-Trimethylbenzene**	0.5	1.0	2.0	10.0	20.0	30.0	40.0
58	**sec-Butylbenzene**	0.5	1.0	2.0	10.0	20.0	30.0	40.0
59	**p-Isopropyltoluene**	0.5	1.0	2.0	10.0	20.0	30.0	40.0
60	**1,3-Dclbenz**	0.5	1.0	2.0	10.0	20.0	30.0	40.0
61	**1,4-Dclbenz**	0.5	1.0	2.0	10.0	20.0	30.0	40.0
62	**n-Butylbenzene**	0.5	1.0	2.0	10.0	20.0	30.0	40.0
63	**Surr5,1,2-Dichlorobenzene-**	2.0	2.0	2.0	2.0	2.0	2.0	2.0
64	**1,2-Dclbenz**	0.5	1.0	2.0	10.0	20.0	30.0	40.0
65	**1,2-Dibromo-3-chloropropa**	0.5	1.0	2.0	10.0	20.0	30.0	40.0
66	**1,2,4-Tcbenzene**	0.5	1.0	2.0	10.0	20.0	30.0	40.0
67	**Hexachlorobt**	0.5	1.0	2.0	10.0	20.0	30.0	40.0
68	**Naphthalen**	0.5	1.0	2.0	10.0	20.0	30.0	40.0
69	**1,2,3-Tclbenzene**	0.5	1.0	2.0	10.0	20.0	30.0	40.0

Response Factor Report 5970

Method: 5240128
Title: USEPA Method 524.2 Volatiles
Last Update: Tue Jan 29 13:26:52 2002
Analyst: DLIPANI

	Compound:	STD .5 I1764.D	STD 1 I1765.D	STD 2 I1766.D	STD 10 I1767.D	STD 20 I1768.D	STD 30 I1769.D	STD 40 I1770.D	AVG	%RSD	Curve Type
1	Fluorobenzene	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	0.00%	AVG
2	Dichlorodifluoromethane	0.45270	0.46137	0.44279	0.45798	0.42600	0.39851	0.40813	0.43535	5.73%	AVG
3	Chloromethane	0.16290	0.14290	0.16248	0.14947	0.14282	0.13149	0.14661	0.14838	7.59%	AVG
4	Vinyl Chloride	0.19034	0.20717	0.18138	0.19009	0.17907	0.17157	0.18698	0.18666	6.03%	AVG
5	Bromomethane	0.25182	0.25135	0.23983	0.24411	0.23957	0.23556	0.23937	0.24309	2.60%	AVG
6	Chloroethane	0.16084	0.17080	0.14767	0.15192	0.14576	0.14044	0.14100	0.15121	7.34%	AVG
7	Trichlorofluoromethane	0.67850	0.65933	0.65822	0.67852	0.63746	0.60199	0.60041	0.64492	5.11%	AVG
8	Acetone			0.03930	0.03770	0.03718	0.03252	0.03352	0.03604	8.01%	AVG
9	1,1-Diclethene	0.23827	0.21223	0.20999	0.22686	0.22017	0.20694	0.21369	0.21831	5.06%	AVG
10	tert Butyl Alcohol		0.00986	0.01043	0.01217	0.01217	0.01220	0.01296	0.01163	10.34%	AVG
11	Methyl Acetate		0.14765	0.13948	0.12774	0.12448	0.11761	0.11536	0.12872	9.80%	AVG
12	Methylene Chloride	0.28093	0.27524	0.26165	0.26287	0.24505	0.24085	0.22944	0.25657	7.33%	AVG
13	Methyl-t-Butyl Ether	0.59262	0.56723	0.54676	0.58273	0.55554	0.54159	0.54541	0.56170	3.53%	AVG
14	trans-1,2-Dichloroethene	0.27595	0.28245	0.25803	0.27502	0.25835	0.24850	0.24678	0.26358	5.38%	AVG
15	1,1-Diclethane	0.48662	0.42639	0.44036	0.46058	0.43607	0.41158	0.41799	0.43994	5.93%	AVG
16	2-Butanone			0.04856	0.04912	0.05226	0.04809	0.04771	0.04915	3.70%	AVG
17	2,2-Dichloropropane	0.44697	0.43939	0.44299	0.48828	0.48082	0.46130	0.46088	0.46009	4.09%	AVG
18	cis-1,2-Dichloroethene	0.28885	0.30730	0.29405	0.30950	0.29529	0.27664	0.27869	0.29291	4.35%	AVG
19	Chloroform	0.63040	0.63951	0.60284	0.63175	0.60164	0.56397	0.57243	0.60608	4.91%	AVG
20	Bromochloromethane	0.16919	0.18510	0.17743	0.19368	0.18336	0.17237	0.17479	0.17942	4.72%	AVG
21	1,1,1-Trichloroethane	0.54555	0.53288	0.50706	0.56446	0.54619	0.51759	0.51548	0.53275	3.86%	AVG
22	1,1-Dichloropropene	0.41109	0.41225	0.41822	0.45288	0.42171	0.39808	0.40445	0.41695	4.25%	AVG
23	Carbontetrachloride	0.42864	0.45572	0.45042	0.51112	0.49540	0.47245	0.47088	0.46923	5.92%	AVG
24	Benzene	0.89270	0.87446	0.82139	0.86814	0.81622	0.75816	0.76208	0.82759	6.50%	AVG
25	1,2-Dichloroethane	0.42478	0.42091	0.42009	0.45074	0.41787	0.39008	0.38694	0.41592	5.24%	AVG
26	Trichloroethene	0.37508	0.35533	0.34653	0.36690	0.34886	0.32594	0.31944	0.34830	5.80%	AVG
27	1,2-Diclpropane	0.24190	0.24557	0.23209	0.26057	0.24491	0.22896	0.23449	0.24121	4.43%	AVG
28	Bromodichloromethane	0.45323	0.44367	0.43895	0.51091	0.49894	0.47517	0.48411	0.47214	5.89%	AVG
29	Dibromomethane	0.27719	0.24953	0.23702	0.25754	0.24896	0.23631	0.23678	0.24905	5.96%	AVG
30	4-Methyl-2-Pentanone			0.04743	0.05076	0.05474	0.05050	0.05020	0.05072	5.15%	AVG
31	trans-1,3-Dichloropropene	0.25090	0.27493	0.28098	0.35631	0.35081	0.34591	0.34605	0.31513	14.06%	AVG
32	Toluene	0.97792	1.04609	1.00071	1.02138	0.97603	0.91156	0.91156	0.97789	5.26%	AVG
33	cis-1,3-Dichloropropene	0.31998	0.32865	0.34697	0.40764	0.40122	0.38558	0.38629	0.36805	9.68%	AVG
34	1,1,2-Trichloroethane	0.19725	0.19192	0.18000	0.20166	0.18879	0.17926	0.18002	0.18841	4.80%	AVG
35	2-Hexanone			0.07840	0.07974	0.08745	0.08378	0.08206	0.08228	4.32%	AVG
36	1,2-Dibromoethane	0.28770	0.31342	0.29963	0.32842	0.31585	0.30655	0.30542	0.30814	4.19%	AVG
37	1,3-Dichloropropane	0.41692	0.39074	0.36905	0.41065	0.39160	0.37460	0.36673	0.38861	5.10%	AVG
38	Tetrachloroethene	0.44239	0.43330	0.42484	0.43848	0.41160	0.38776	0.37962	0.41686	5.97%	AVG
39	Dibromochloromethane	0.32951	0.32723	0.32942	0.41112	0.41315	0.39640	0.39900	0.37226	11.06%	AVG
40	Chlorobenzene	0.71166	0.74269	0.74110	0.76059	0.71466	0.68111	0.66219	0.71628	4.92%	AVG
41	1,1,1,2-Tetrachloroethane	0.28803	0.30978	0.29178	0.33513	0.32226	0.30531	0.30018	0.30750	5.43%	AVG
42	Ethylbenzene	1.13820	1.22213	1.19961	1.25521	1.18821	1.11901	1.08447	1.17241	5.17%	AVG
43	(m+p)Xylene	0.40369	0.44263	0.44204	0.44173	0.41741	0.39214	0.38307	0.41753	6.06%	AVG
44	o-Xylene	0.38608	0.43045	0.40995	0.43009	0.41448	0.39346	0.37827	0.40611	5.11%	AVG
45	Styrene	0.63607	0.69134	0.67191	0.74249	0.70295	0.66230	0.65493	0.68028	5.20%	AVG
46	Bromoform	0.20232	0.18421	0.18564	0.25859	0.25946	0.25863	0.25744	0.22947	16.00%	AVG
47	Isopropylbenzene	1.18201	1.21786	1.22446	1.27880	1.21412	1.15400	1.11138	1.19752	4.52%	AVG
48	1,1,2,2-Tetrachloroethane	0.25987	0.25367	0.24228	0.27597	0.26650	0.26128	0.25720	0.25954	4.04%	AVG
49	Surr2,BFB	0.51769	0.52833	0.54592	0.55879	0.53331	0.53724	0.53115	0.53606	2.46%	AVG
50	1,2,3-Trichloropropane	0.08843	0.08394	0.07508	0.08783	0.08529	0.08301	0.07798	0.08308	5.95%	AVG
51	n-Propylbenzene	1.40279	1.48578	1.44777	1.55410	1.46134	1.40390	1.36991	1.44652	4.27%	AVG
52	Bromobenzene	0.41194	0.40260	0.37931	0.40587	0.38177	0.36284	0.35622	0.38579	5.63%	AVG
53	1,3,5-Trimethylbenzene	1.06631	1.08763	1.06699	1.13106	1.07235	1.02817	0.99262	1.06359	4.12%	AVG
54	2-Chlorotoluene	0.35540	0.33615	0.30890	0.37289	0.33257	0.31436	0.30293	0.33189	7.71%	AVG

Response Factor Report 5970

Method:	5240128
Title	USEPA Method 524.2 Volatiles
Last Update	Tue Jan 29 13:26:52 2002
Analyst	DLIPANI

	Compound:	STD .5 I1764.D	STD 1 I1765.D	STD 2 I1766.D	STD 10 I1767.D	STD 20 I1768.D	STD 30 I1769.D	STD 40 I1770.D	AVG	%RSD	Curve Type
55	4-Chlorotoluene	0.25817	0.30419	0.32888	0.29416	0.28409	0.27977	0.27235	0.28880	7.98%	AVG
56	tert-Butylbenzene	0.96315	1.05303	1.04546	1.10989	1.03859	0.99097	0.95671	1.02254	5.39%	AVG
57	1,2,4-Trimethylbenzene	1.01046	1.03955	1.09832	1.14592	1.08502	1.03895	1.00070	1.05985	4.92%	AVG
58	sec-Butylbenzene	1.28097	1.34007	1.36889	1.42360	1.35131	1.30019	1.23538	1.32863	4.67%	AVG
59	p-Isopropyltoluene	1.04474	1.14684	1.15519	1.22855	1.18205	1.12510	1.07915	1.13737	5.42%	AVG
60	1,3-Dclbenz	0.62199	0.64866	0.62760	0.65213	0.62333	0.59168	0.56968	0.61930	4.78%	AVG
61	1,4-Dclbenz	0.65159	0.71955	0.67976	0.70922	0.66296	0.64081	0.61598	0.66855	5.54%	AVG
62	n-Butylbenzene	0.99255	1.07154	1.08208	1.16550	1.09187	1.04895	1.02533	1.06826	5.15%	AVG
63	Surr5,1,2-Dichlorobenzene-	0.40743	0.41267	0.42917	0.43704	0.44163	0.42420	0.41002	0.42317	3.20%	AVG
64	1,2-Dclbenz	0.61544	0.62820	0.60576	0.63282	0.58938	0.57200	0.55517	0.59983	4.84%	AVG
65	1,2-Dibromo-3-chloropropa	0.05978	0.04435	0.05394	0.05797	0.06018	0.06078	0.06067	0.05681	10.55%	AVG
66	1,2,4-Tcbenzene	0.46524	0.46921	0.46985	0.50569	0.45557	0.42462	0.43690	0.46101	5.67%	AVG
67	Hexachlorobt	0.36156	0.37323	0.37126	0.37741	0.36535	0.33985	0.31619	0.35784	6.17%	AVG
68	Naphthalen	0.49624	0.50038	0.47689	0.58321	0.50386	0.47856	0.52447	0.50909	7.16%	AVG
69	1,2,3-Tclbenzene	0.41302	0.41139	0.40920	0.43847	0.38480	0.36312	0.37488	0.39927	6.53%	AVG

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\012802\I1764.D Vial: 3
Acq On : 28 Jan 102 12:30 pm Operator: DLIPANI
Sample : STD #1 Inst : 5970 - In
Misc : 0.5 PPB-524.2 INIT CAL. GCMS#1 Multiplr: 1.00
Quant Time: Jan 29 13:26 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)	
1) Fluorobenzene	14.71	96	61091	1.00	ppb		0.05	
System Monitoring Compounds							%Recovery	
49) Surr2,BFB	25.08	95	63252	1.93	ppb		96.57%	
63) Surr5,1,2-Dichlorobenzene-	29.09	152	49781	1.93	ppb		96.28%	
Target Compounds							Qvalue	
2) Dichlorodifluoromethane	3.87	85	13828	0.52	ppb	#	94	
3) Chloromethane	4.39	50	4976	0.55	ppb	#	61	
4) Vinyl Chloride	4.62	62	5814	0.51	ppb	#	74	
5) Bromomethane	5.62	94	7692	0.52	ppb		91	
6) Chloroethane	5.82	64	4913	0.53	ppb		92	
7) Trichlorofluoromethane	6.42	101	20725	0.53	ppb		90	
8) Acetone	7.54	43	7444	3.23	ppb		96	- not used
9) 1,1-Diclethene	7.87	96	7278	0.55	ppb	m	76	
10) tert Butyl Alcohol	8.06	59	6066	8.63	ppb		97	- not used
11) Methyl Acetate	8.60	43	4510	0.56	ppb	m	46	
12) Methylene Chloride	8.95	84	8581	0.55	ppb	DL	97	
13) Methyl-t-Butyl Ether	9.32	73	18102	0.53	ppb	01/29/02	94	
14) trans-1,2-Dichloroethene	9.64	96	8429	0.52	ppb		85	
15) 1,1-Diclethane	10.58	63	14864	0.55	ppb		98	
16) 2-Butanone	11.56	43	9250	3.05	ppb	#	92	- not used
17) 2,2-Dichloropropane	11.90	77	13653	0.49	ppb		98	
18) cis-1,2-Dichloroethene	11.98	96	8823	0.49	ppb		93	
19) Chloroform	12.35	83	19256	0.52	ppb		99	
20) Bromochloromethane	12.72	128	5168	0.47	ppb	#	79	
21) 1,1,1-Trichloroethane	13.26	97	16664	0.51	ppb	#	80	
22) 1,1-Dichloropropene	13.61	75	12557	0.49	ppb		92	
23) Carbontetrachloride	13.87	117	13093	0.46	ppb		97	
24) Benzene	14.22	78	27268	0.54	ppb		96	
25) 1,2-Dichloroethane	14.15	62	12975	0.51	ppb	#	93	
26) Trichloroethene	15.63	95	11457	0.54	ppb	#	81	
27) 1,2-Diclpropane	16.01	63	7389	0.50	ppb		89	
28) Bromodichloromethane	16.56	83	13844	0.48	ppb		94	
29) Dibromomethane	16.68	93	8467	0.56	ppb	#	74	
30) 4-Methyl-2-Pentanone	17.27	58	8421	2.72	ppb	#	27	- not used
31) trans-1,3-Dichloropropene	18.95	75	7664	0.40	ppb	#	85	
32) Toluene	18.58	91	29871	0.50	ppb		99	
33) cis-1,3-Dichloropropene	17.79	75	9774	0.43	ppb		95	
34) 1,1,2-Trichloroethane	19.36	83	6025	0.52	ppb	#	79	
35) 2-Hexanone	19.32	43	13903	2.77	ppb	#	23	- not used
36) 1,2-Dibromoethane	21.14	107	8788	0.47	ppb	#	77	
37) 1,3-Dichloropropane	19.96	76	12735	0.54	ppb		87	
38) Tetrachloroethene	20.18	166	13513	0.53	ppb		96	

(#) = qualifier out of range (m) = manual integration DL 01/29/02

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\012802\I1764.D Vial: 3
Acq On : 28 Jan 102 12:30 pm Operator: DLIPANI
Sample : STD #1 Inst : 5970 - In
Misc : 0.5 PPB-524.2 INIT CAL. GCMS#1 Multiplr: 1.00
Quant Time: Jan 29 13:26 19102

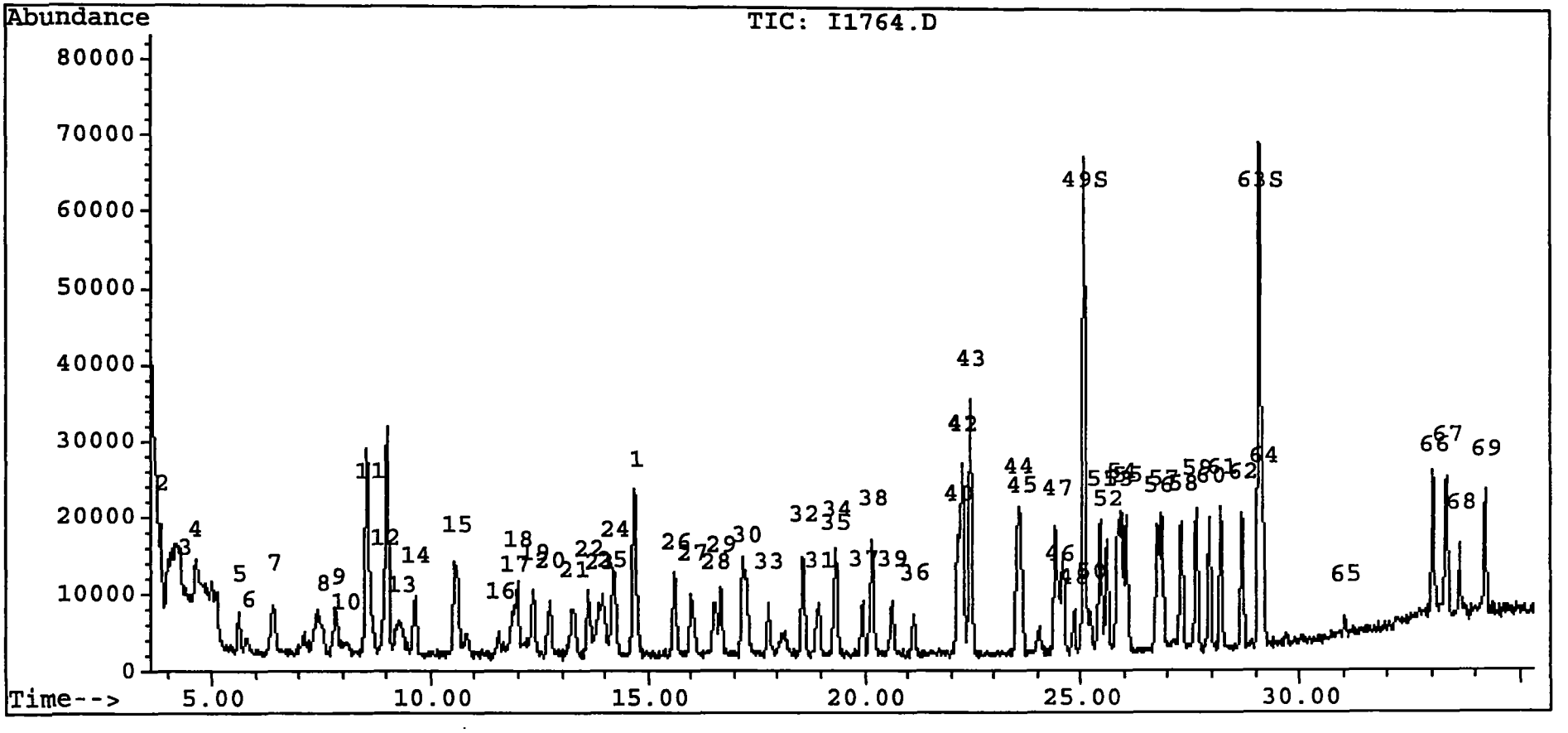
Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
39)	Dibromochloromethane	20.64	129	10065	0.44	ppb		88
40)	Chlorobenzene	22.17	112	21738	0.50	ppb	#	84
41)	1,1,1,2-Tetrachloroethane	22.25	131	8798	0.47	ppb		99
42)	Ethylbenzene	22.27	91	34767	0.49	ppb	#	86
43)	(m+p)Xylene	22.45	106	24662	0.97	ppb		79
44)	o-Xylene	23.55	106	11793	0.48	ppb		96
45)	Styrene	23.63	104	19429	0.47	ppb		96
46)	Bromoform	24.51	173	6180	0.44	ppb	#	90
47)	Isopropylbenzene	24.44	105	36105	0.49	ppb		90
48)	1,1,2,2-Tetrachloroethane	24.83	83	7938	0.50	ppb	#	83
50)	1,2,3-Trichloropropane	25.23	110	2701	0.53	ppb	#	70
51)	n-Propylbenzene	25.45	91	42849	0.49	ppb		99
52)	Bromobenzene	25.60	156	12583	0.53	ppb		93
53)	1,3,5-Trimethylbenzene	25.84	105	32571	0.50	ppb	#	86
54)	2-Chlorotoluene	25.92	126	10856	0.54	ppb		97
55)	4-Chlorotoluene	26.04	126	7886	0.45	ppb	#	88
56)	tert-Butylbenzene	26.76	119	29420	0.47	ppb		97
57)	1,2,4-Trimethylbenzene	26.86	105	30865	0.48	ppb		98
58)	sec-Butylbenzene	27.32	105	39128	0.48	ppb		99
59)	p-Isopropyltoluene	27.64	119	31912	0.46	ppb		96
60)	1,3-Dclbenz	27.94	146	18999	0.50	ppb		91
61)	1,4-Dclbenz	28.21	146	19903	0.49	ppb		87
62)	n-Butylbenzene	28.70	91	30318	0.46	ppb		88
64)	1,2-Dclbenz	29.17	146	18799	0.51	ppb		95
65)	1,2-Dibromo-3-chloropropan	31.02	75	1826	0.52	ppb	#	82
66)	1,2,4-Tcbenzene	33.04	180	14211	0.50	ppb		93
67)	Hexachlorobt	33.33	225	11044	0.50	ppb		91
68)	Naphthalen	33.63	128	15158	0.48	ppb		99
69)	1,2,3-Tclbenzene	34.21	180	12616	0.52	ppb		92

(#) = qualifier out of range (m) = manual integration

Data File : J:\ACQUDATA\MSVOA1\DATA\012802\I1764.D Vial: 3
Acq On : 28 Jan 102 12:30 pm Operator: DLIPANI
Sample : STD #1 Inst : 5970 - In
Misc : 0.5 PPB-524.2 INIT CAL. GCMS#1 Multiplr: 1.00
Quant Time: Jan 29 13:26 19102

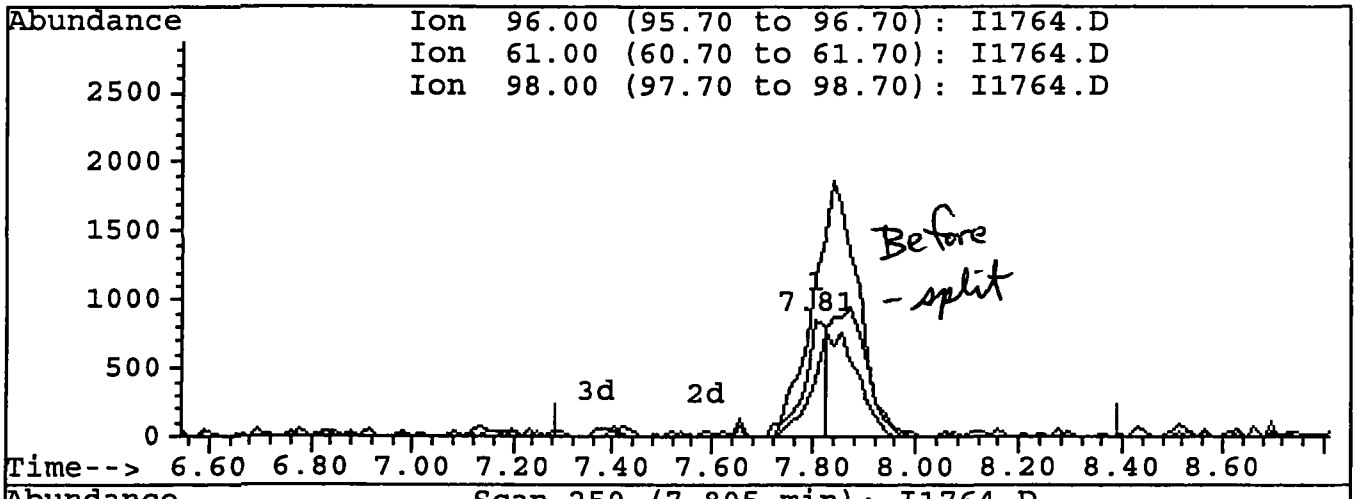
Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration

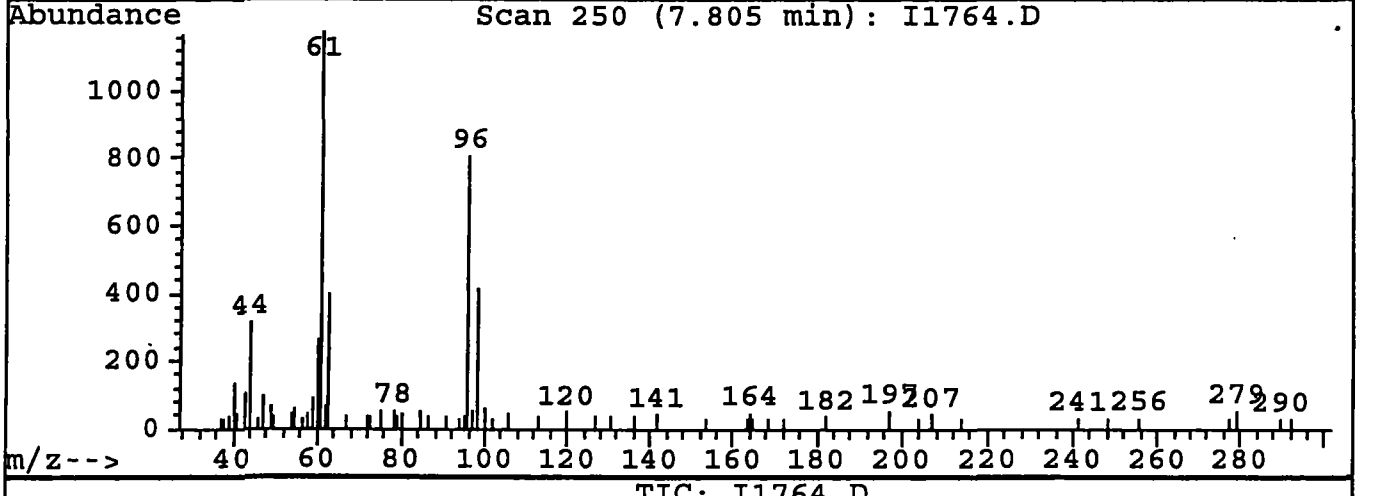


Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\012802\I1764.D Vial: 3
Acq On : 28 Jan 102 12:30 pm Operator: DLIPANI
Sample : STD #1 Inst : 5970 - In
Misc : 0.5 PPB-524.2 INIT CAL. GCMS#1 Multiplr: 1.00
Quant Time: Jan 29 10:35 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 10:34:00 2002
Response via : Multiple Level Calibration





TIC: I1764.D

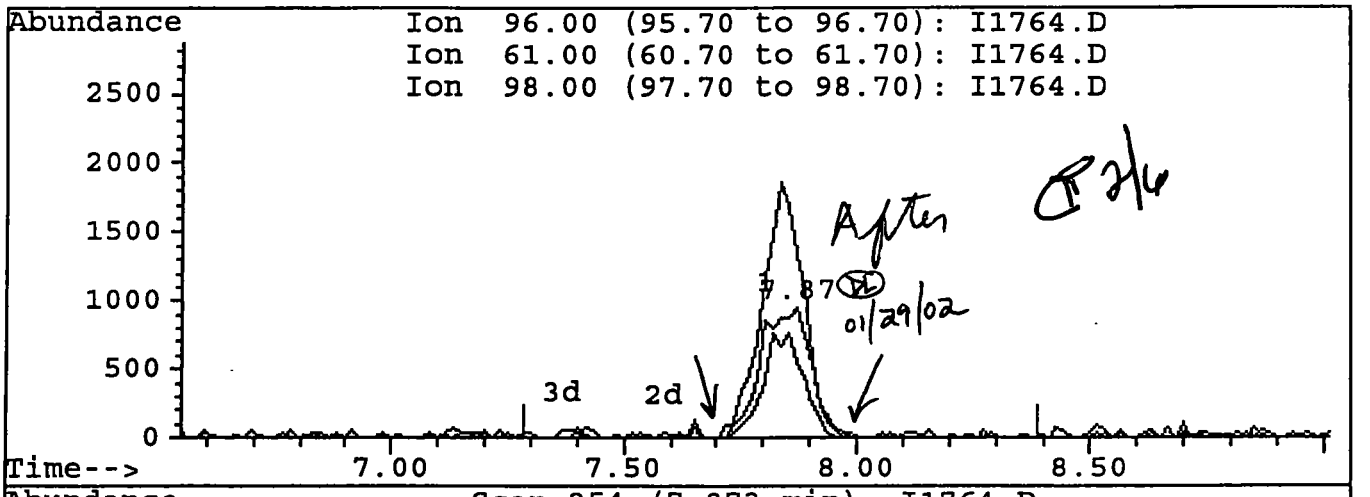
(9) 1,1-Diclethene
7.81min 0.20ppb
response 2728

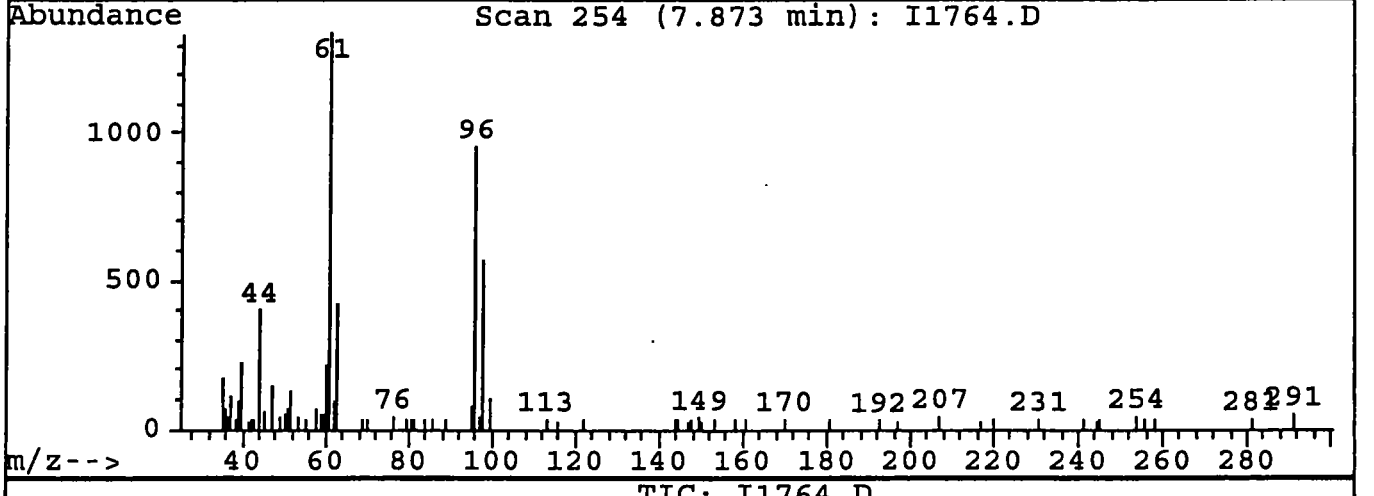
Ion	Exp%	Act%
96.00	100	100
61.00	171.60	136.44#
98.00	64.80	47.96#
0.00	0.00	0.00

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\012802\I1764.D Vial: 3
Acq On : 28 Jan 102 12:30 pm Operator: DLIPANI
Sample : STD #1 Inst : 5970 - In
Misc : 0.5 PPB-524.2 INIT CAL. GCMS#1 Multiplr: 1.00
Quant Time: Jan 29 10:36 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 10:34:00 2002
Response via : Multiple Level Calibration





TIC: I1764.D

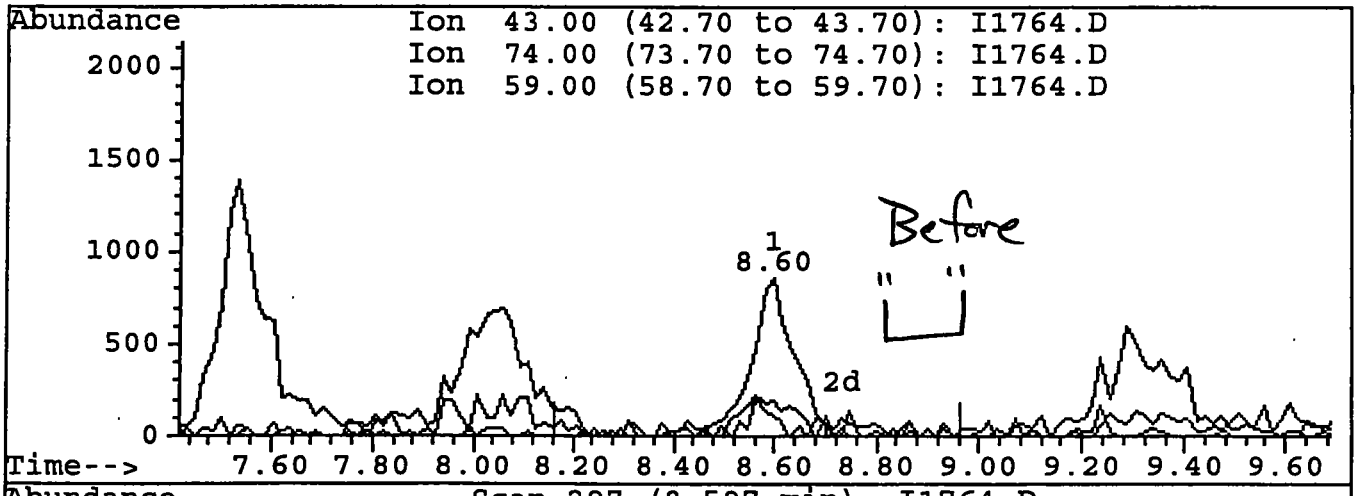
(9) 1,1-Diclethene
7.87min 0.55ppb m
response 7278

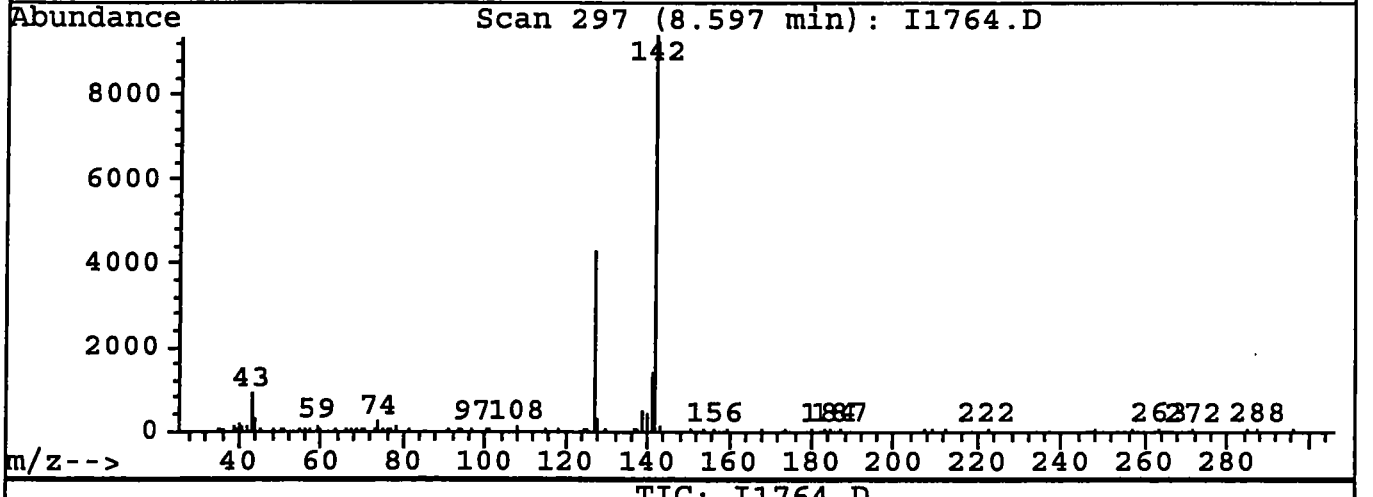
Ion	Exp%	Act%
96.00	100	100
61.00	171.60	140.40
98.00	64.80	58.87
0.00	0.00	0.00

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\012802\I1764.D Vial: 3
Acq On : 28 Jan 102 12:30 pm Operator: DLIPANI
Sample : STD #1 Inst : 5970 - In
Misc : 0.5 PPB-524.2 INIT CAL. GCMS#1 Multiplr: 1.00
Quant Time: Jan 29 10:36 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 11:21:37 2002
Response via : Multiple Level Calibration





TIC: I1764.D

(11) Methyl Acetate
8.60min 0.62ppb
response 5045

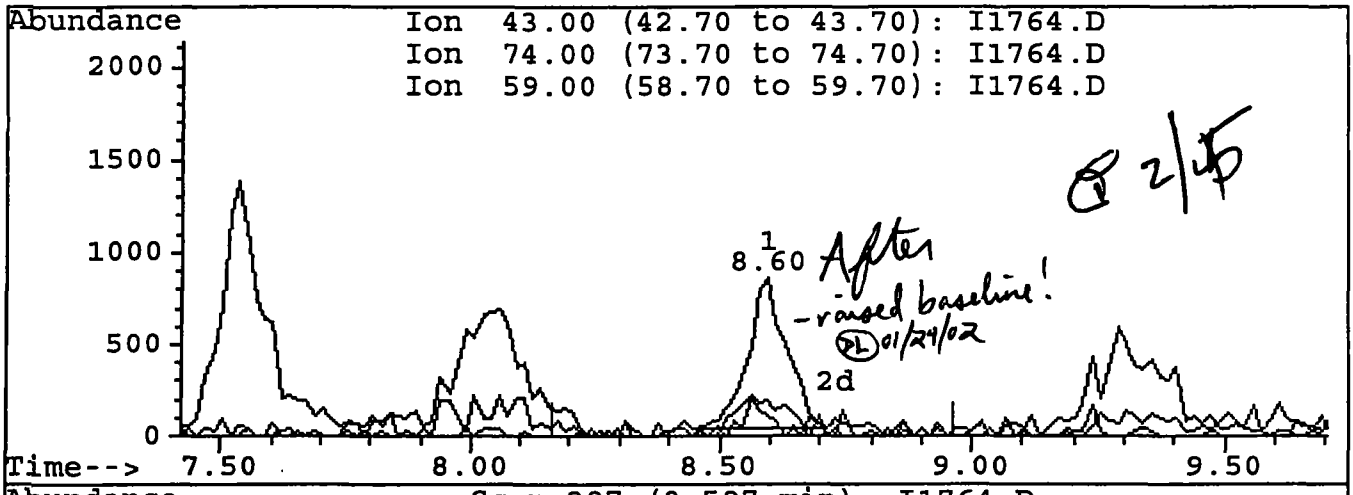
Ion	Exp%	Act%
43.00	100	100
74.00	35.40	0.00#
59.00	16.40	0.00#
0.00	0.00	0.00

I1764.D 5240128.M Tue Jan 29 13:25:33 2002 TEST2

Quantitation Report

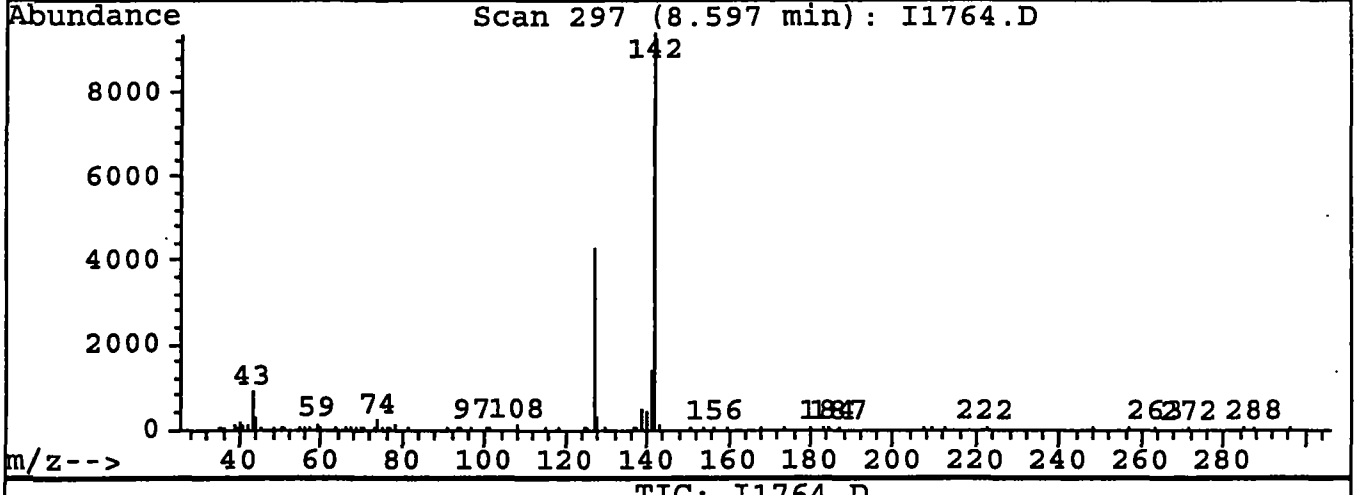
Data File : J:\ACQUDATA\MSVOA1\DATA\012802\I1764.D Vial: 3
Acq On : 28 Jan 102 12:30 pm Operator: DLIPANI
Sample : STD #1 Inst : 5970 - In
Misc : 0.5 PPB-524.2 INIT CAL. GCMS#1 Multiplr: 1.00
Quant Time: Jan 29 13:26 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 11:21:37 2002
Response via : Multiple Level Calibration



After
- raised baseline!
DL 01/29/02

Q 2/5



TIC: I1764.D

(11) Methyl Acetate
8.60min 0.56ppb m
response 4510

Ion	Exp%	Act%
43.00	100	100
74.00	35.40	22.55
59.00	16.40	12.97
0.00	0.00	0.00

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\012802\I1765.D Vial: 3
Acq On : 28 Jan 102 1:25 pm Operator: DLIPANI
Sample : STD #2 Inst : 5970 - In
Misc : 1.0 PPB-524.2 INIT CAL. GCMS#1 Multiplr: 1.00
Quant Time: Jan 29 10:50 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 11:21:37 2002
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	14.65	96	58174	1.00	ppb		0.00
System Monitoring Compounds							%Recovery
49) Surr2,BFB	25.04	95	61470	1.97	ppb		98.56%
63) Surr5,1,2-Dichlorobenzene-	29.05	152	48013	1.95	ppb		97.52%
Target Compounds							Qvalue
2) Dichlorodifluoromethane	3.86	85	26840	1.06	ppb		96
3) Chloromethane	4.37	50	8313	0.96	ppb	m	98
4) Vinyl Chloride	4.60	62	12052	1.11	ppb	#	88
5) Bromomethane	5.61	94	14622	1.03	ppb		96
6) Chloroethane	5.80	64	9936	1.13	ppb		89
7) Trichlorofluoromethane	6.40	101	38356	1.02	ppb		92
8) Acetone	7.51	43	11430	5.21	ppb	m	97
9) 1,1-Diclethene	7.80	96	12346	0.97	ppb		86
10) tert Butyl Alcohol	8.02	59	11471	17.14	ppb	m	78
11) Methyl Acetate	8.58	43	8114	1.05	ppb	#	58
12) Methylene Chloride	8.91	84	16012	1.07	ppb		88
13) Methyl-t-Butyl Ether	9.28	73	32998	1.01	ppb	#	92
14) trans-1,2-Dichloroethene	9.60	96	16431	1.07	ppb		77
15) 1,1-Diclethane	10.58	63	24805	0.97	ppb	#	86
16) 2-Butanone	11.51	43	14125	4.89	ppb		97
17) 2,2-Dichloropropane	11.84	77	25561	0.96	ppb	#	88
18) cis-1,2-Dichloroethene	11.96	96	17877	1.05	ppb		97
19) Chloroform	12.31	83	37203	1.06	ppb		97
20) Bromochloromethane	12.70	128	10768	1.03	ppb	#	79
21) 1,1,1-Trichloroethane	13.22	97	31000	1.00	ppb		92
22) 1,1-Dichloropropene	13.59	75	23982	0.99	ppb		92
23) Carbontetrachloride	13.83	117	26511	0.97	ppb		96
24) Benzene	14.20	78	50871	1.06	ppb	#	88
25) 1,2-Dichloroethane	14.13	62	24486	1.01	ppb	#	93
26) Trichloroethene	15.58	95	20671	1.02	ppb		94
27) 1,2-Diclpropane	15.98	63	14286	1.02	ppb		92
28) Bromodichloromethane	16.52	83	25810	0.94	ppb	#	84
29) Dibromomethane	16.66	93	14516	1.00	ppb		99
30) 4-Methyl-2-Pentanone	17.25	58	13795	4.67	ppb		97
31) trans-1,3-Dichloropropene	18.93	75	15994	0.87	ppb		94
32) Toluene	18.56	91	60855	1.07	ppb		96
33) cis-1,3-Dichloropropene	17.75	75	19119	0.89	ppb		97
34) 1,1,2-Trichloroethane	19.32	83	11165	1.02	ppb		85
35) 2-Hexanone	19.30	43	22803	4.76	ppb		97
36) 1,2-Dibromoethane	21.10	107	18233	1.02	ppb		97
37) 1,3-Dichloropropane	19.92	76	22731	1.01	ppb		95
38) Tetrachloroethene	20.14	166	25207	1.04	ppb		96

(#) = qualifier out of range (m) = manual integration

DL 01/29/02

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\012802\I1765.D Vial: 3
Acq On : 28 Jan 102 1:25 pm Operator: DLIPANI
Sample : STD #2 Inst : 5970 - In
Misc : 1.0 PPB-524.2 INIT CAL. GCMS#1 Multiplr: 1.00
Quant Time: Jan 29 10:50 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 11:21:37 2002
Response via : Multiple Level Calibration

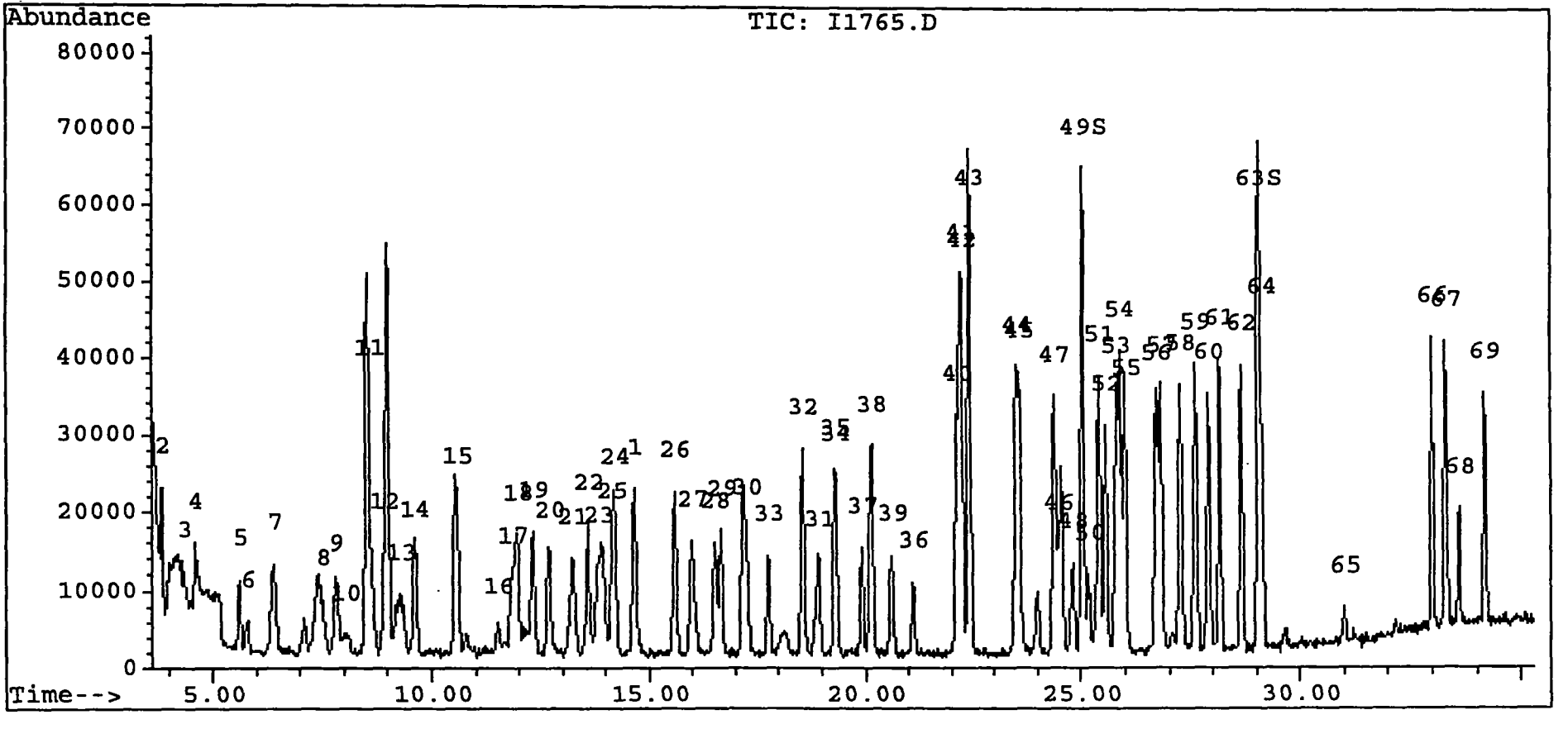
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
39)	Dibromochloromethane	20.61	129	19036	0.88	ppb		95
40)	Chlorobenzene	22.13	112	43205	1.04	ppb		92
41)	1,1,1,2-Tetrachloroethane	22.21	131	18021	1.01	ppb		95
42)	Ethylbenzene	22.23	91	71096	1.04	ppb		96
43)	(m+p)Xylene	22.42	106	51499	2.12	ppb		90
44)	o-Xylene	23.53	106	25041	1.06	ppb		98
45)	Styrene	23.58	104	40218	1.02	ppb		97
46)	Bromoform	24.49	173	10716	0.80	ppb	#	92
47)	Isopropylbenzene	24.39	105	70848	1.02	ppb		97
48)	1,1,2,2-Tetrachloroethane	24.81	83	14757	0.98	ppb	#	93
50)	1,2,3-Trichloropropane	25.18	110	4883	1.01	ppb		83
51)	n-Propylbenzene	25.41	91	86434	1.03	ppb		99
52)	Bromobenzene	25.56	156	23421	1.04	ppb		88
53)	1,3,5-Trimethylbenzene	25.80	105	63272	1.02	ppb		98
54)	2-Chlorotoluene	25.88	126	19555	1.01	ppb		96
55)	4-Chlorotoluene	26.02	126	17696	1.05	ppb		92
56)	tert-Butylbenzene	26.71	119	61259	1.03	ppb		95
57)	1,2,4-Trimethylbenzene	26.83	105	60475	0.98	ppb		96
58)	sec-Butylbenzene	27.26	105	77957	1.01	ppb		100
59)	p-Isopropyltoluene	27.60	119	66716	1.01	ppb		98
60)	1,3-Dclbenz	27.90	146	37735	1.05	ppb		98
61)	1,4-Dclbenz	28.16	146	41859	1.08	ppb		94
62)	n-Butylbenzene	28.66	91	62336	1.00	ppb		95
64)	1,2-Dclbenz	29.12	146	36545	1.05	ppb		93
65)	1,2-Dibromo-3-chloropropan	31.00	75	2580	0.78	ppb	#	76
66)	1,2,4-Tcbenzene	33.01	180	27296	1.02	ppb		99
67)	Hexachlorobt	33.31	225	21712	1.04	ppb		99
68)	Naphthalen	33.61	128	29109	0.98	ppb		94
69)	1,2,3-Tclbenzene	34.18	180	23932	1.03	ppb		94

(#) = qualifier out of range (m) = manual integration

Data File : J:\ACQUDATA\MSVOA1\DATA\012802\I1765.D
Acq On : 28 Jan 102 1:25 pm
Sample : STD #2
Misc : 1.0 PPB-524.2 INIT CAL. GCMS#1
Quant Time: Jan 29 10:50 19102

Vial: 3
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

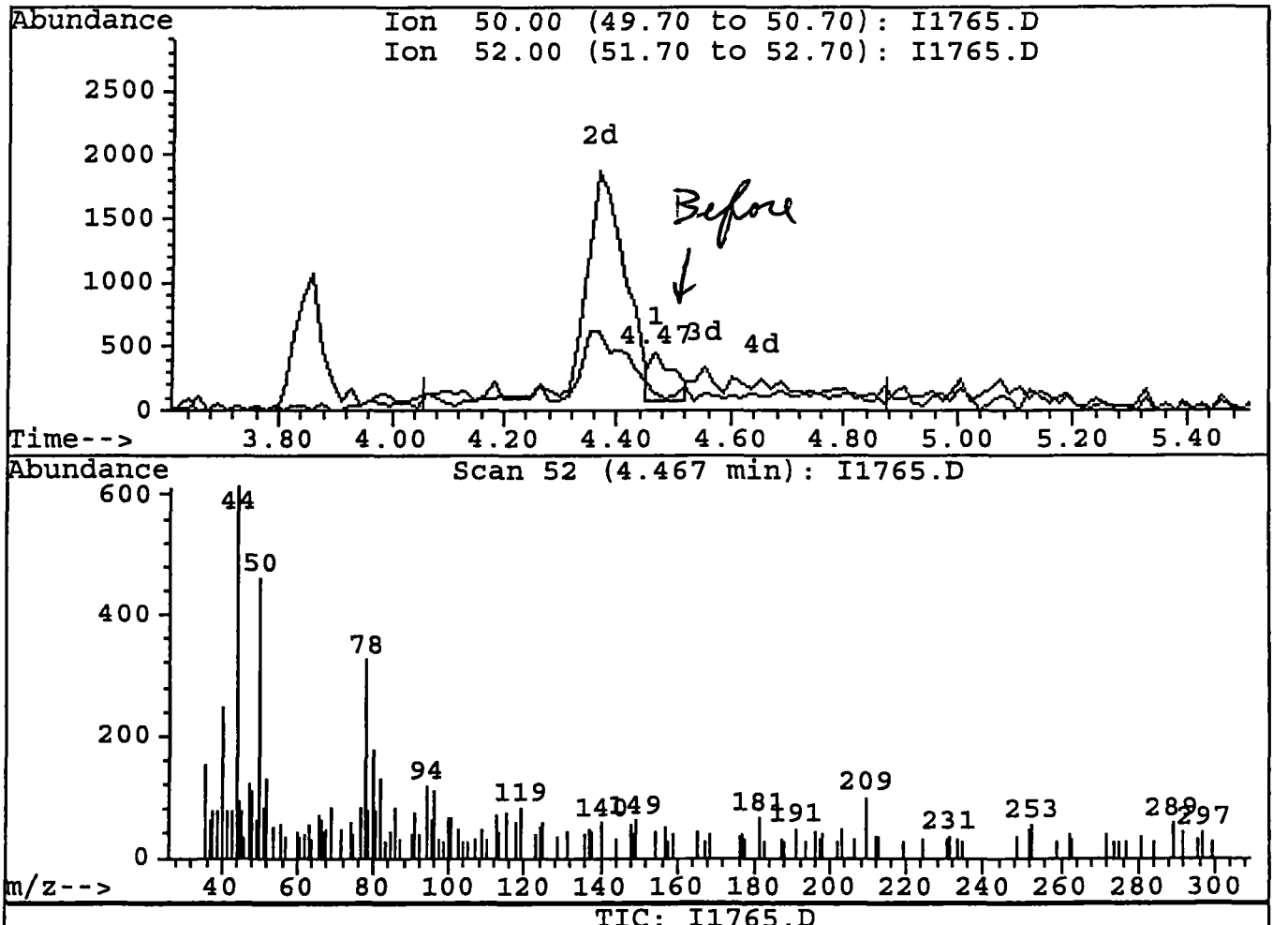
Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 11:21:37 2002
Response via : Multiple Level Calibration



Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\012802\I1765.D Vial: 3
Acq On : 28 Jan 102 1:25 pm Operator: DLIPANI
Sample : STD #2 Inst : 5970 - In
Misc : 1.0 PPB-524.2 INIT CAL. GCMS#1 Multiplr: 1.00
Quant Time: Jan 29 10:46 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 10:38:34 2002
Response via : Multiple Level Calibration



TIC: I1765.D

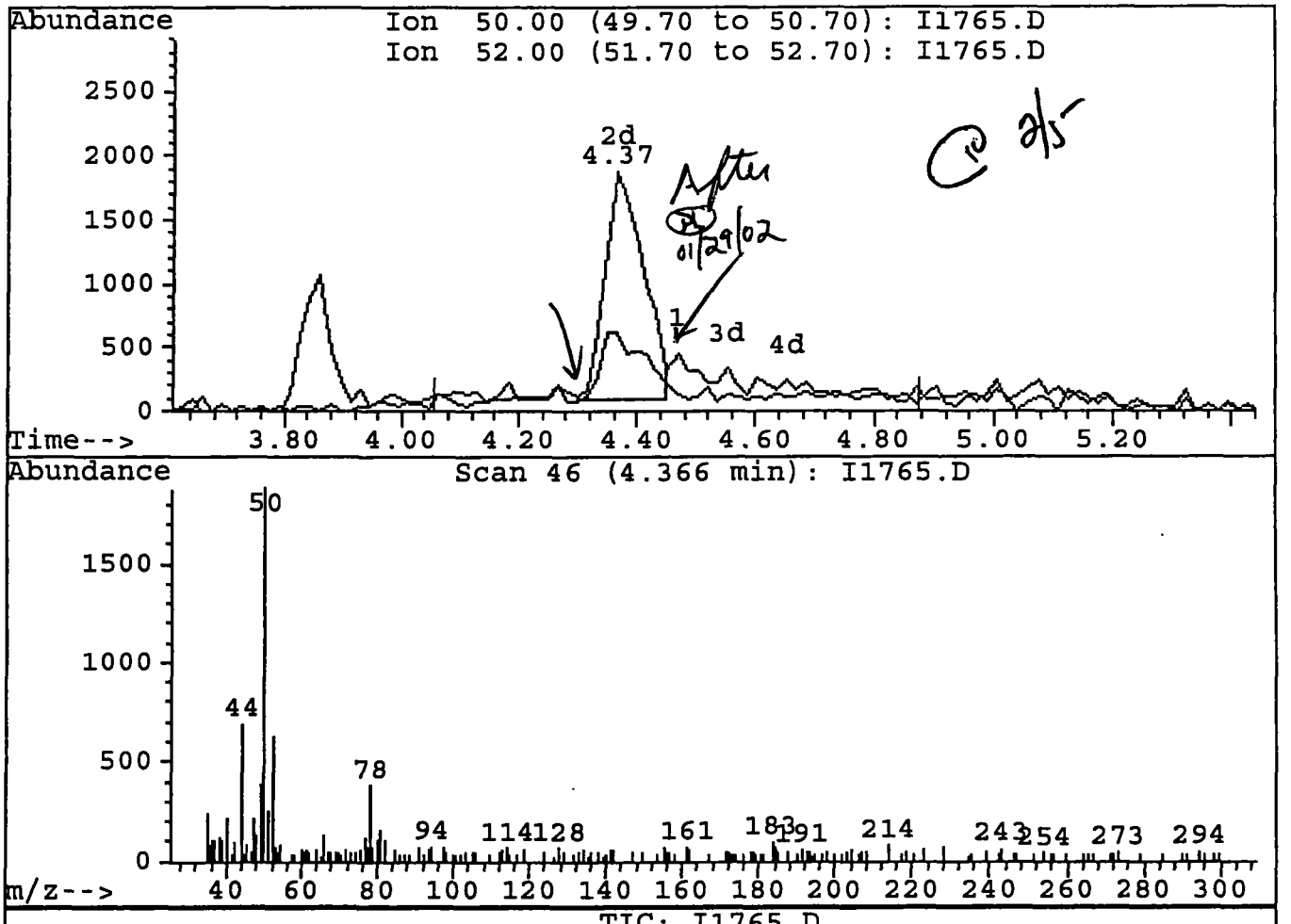
(3) Chloromethane
4.47min 0.12ppb
response 1012

Ion	Exp%	Act%
50.00	100	100
52.00	27.10	28.04
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\012802\I1765.D Vial: 3
Acq On : 28 Jan 102 1:25 pm Operator: DLIPANI
Sample : STD #2 Inst : 5970 - In
Misc : 1.0 PPB-524.2 INIT CAL. GCMS#1 Multiplr: 1.00
Quant Time: Jan 29 10:47 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 10:38:34 2002
Response via : Multiple Level Calibration



TIC: I1765.D

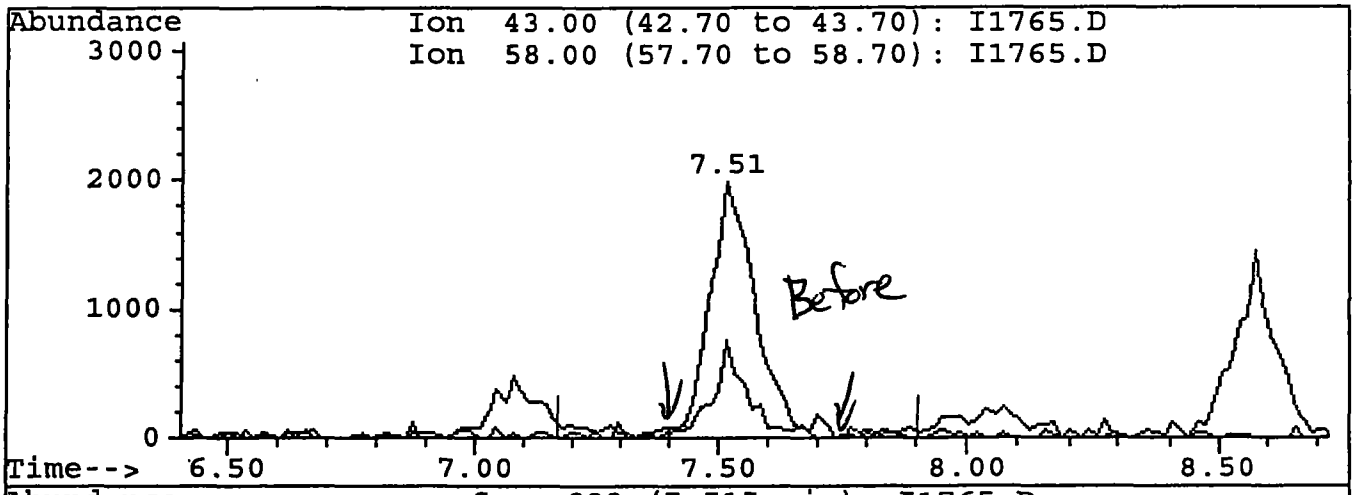
(3) Chloromethane
4.37min 0.96ppb m
response 8313

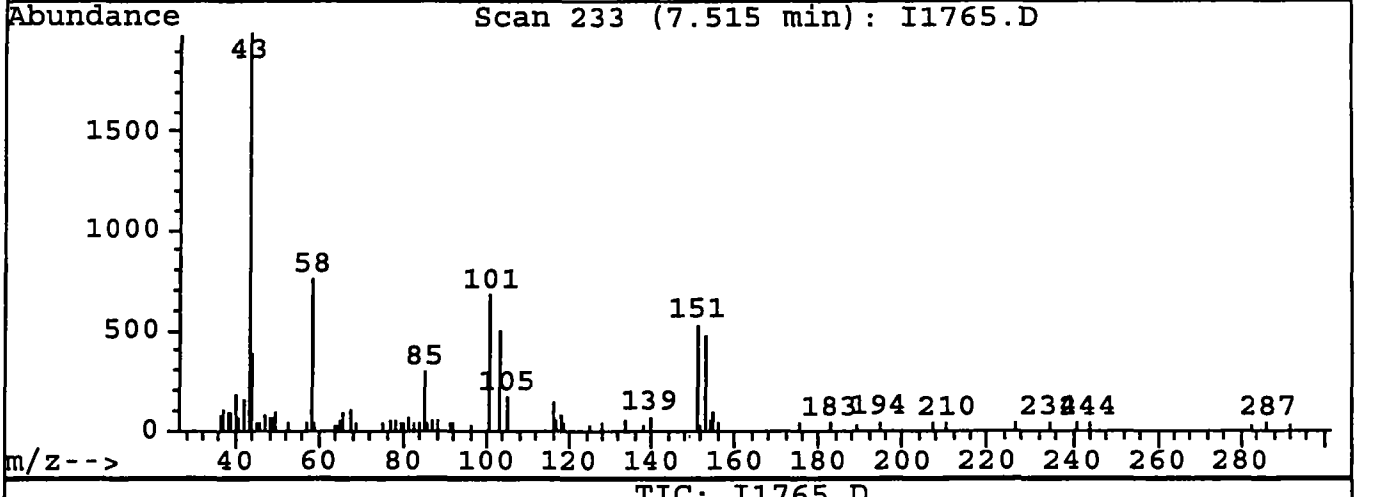
Ion	Exp%	Act%
50.00	100	100
52.00	27.10	33.23
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\012802\I1765.D Vial: 3
Acq On : 28 Jan 102 1:25 pm Operator: DLIPANI
Sample : STD #2 Inst : 5970 - In
Misc : 1.0 PPB-524.2 INIT CAL. GCMS#1 Multiplr: 1.00
Quant Time: Jan 29 10:47 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 10:38:34 2002
Response via : Multiple Level Calibration





TIC: I1765.D

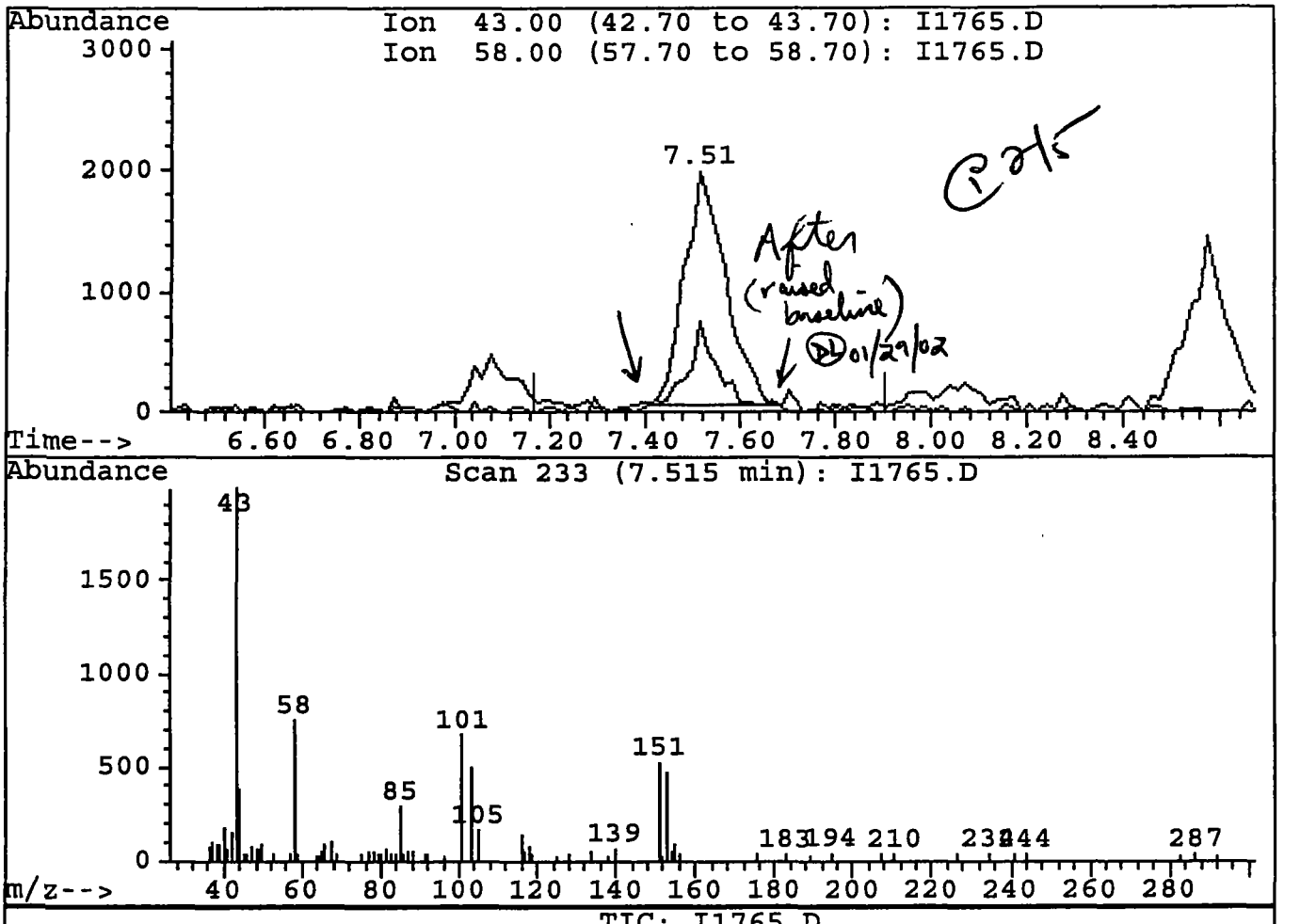
(8) Acetone
7.51min 5.86ppb
response 12853

Ion	Exp%	Act%
43.00	100	100
58.00	29.10	27.39
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\012802\I1765.D Vial: 3
Acq On : 28 Jan 102 1:25 pm Operator: DLIPANI
Sample : STD #2 Inst : 5970 - In
Misc : 1.0 PPB-524.2 INIT CAL. GCMS#1 Multiplr: 1.00
Quant Time: Jan 29 10:49 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 10:38:34 2002
Response via : Multiple Level Calibration



TIC: I1765.D

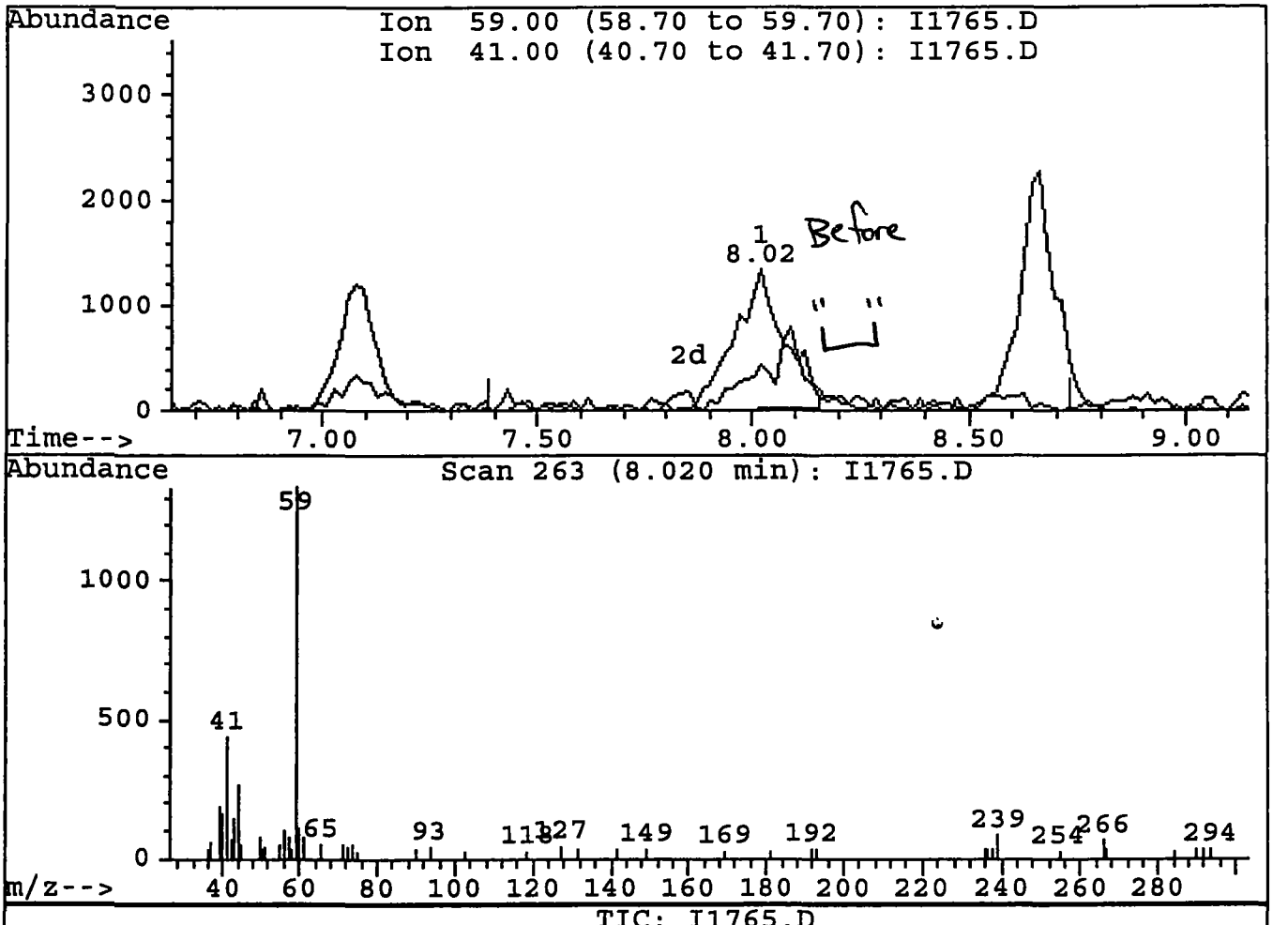
(8) Acetone
7.51min 5.21ppb m
response 11430

Ion	Exp%	Act%
43.00	100	100
58.00	29.10	37.52
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\012802\I1765.D Vial: 3
Acq On : 28 Jan 102 1:25 pm Operator: DLIPANI
Sample : STD #2 Inst : 5970 - In
Misc : 1.0 PPB-524.2 INIT CAL. GCMS#1 Multiplr: 1.00
Quant Time: Jan 29 10:49 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 10:38:34 2002
Response via : Multiple Level Calibration



TIC: I1765.D

(10) tert Butyl Alcohol
8.02min 15.97ppb
response 10689

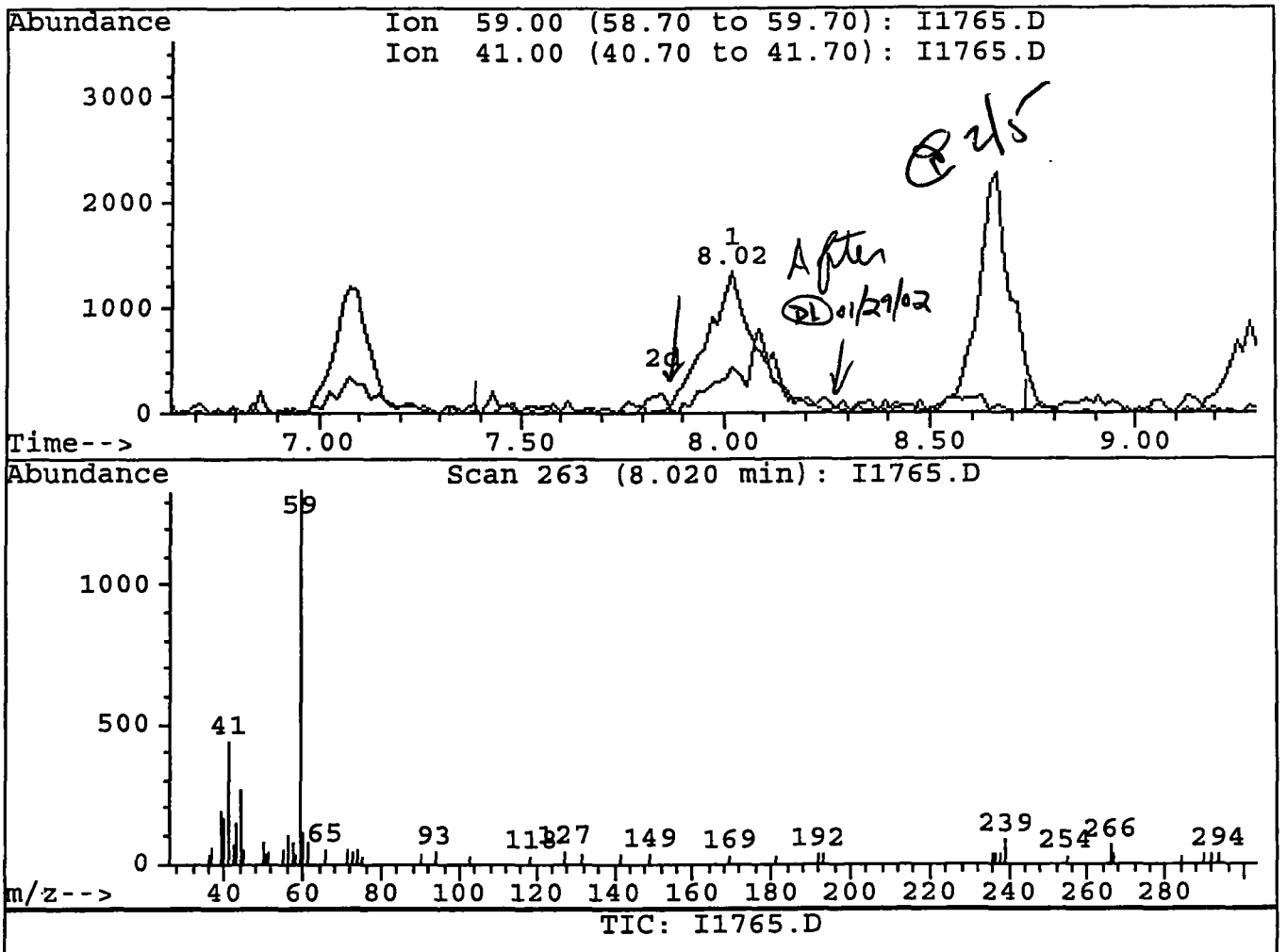
Ion	Exp%	Act%
59.00	100	100
41.00	22.40	32.79
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\012802\I1765.D
Acq On : 28 Jan 102 1:25 pm
Sample : STD #2
Misc : 1.0 PPB-524.2 INIT CAL. GCMS#1
Quant Time: Jan 29 10:50 19102

Vial: 3
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 10:38:34 2002
Response via : Multiple Level Calibration



TIC: I1765.D

(10) tert Butyl Alcohol
8.02min 17.14ppb m
response 11471

Ion	Exp%	Act%
59.00	100	100
41.00	22.40	32.79
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\012802\I1766.D Vial: 3
Acq On : 28 Jan 102 2:13 pm Operator: DLIPANI
Sample : STD #3 Inst : 5970 - In
Misc : 2.0 PPB-524.2 INIT CAL. GCMS#1 Multiplr: 1.00
Quant Time: Jan 29 10:32 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 11:21:37 2002
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	14.66	96	57549	1.00	ppb		0.00
System Monitoring Compounds							%Recovery
49) Surr2,BFB	25.05	95	62834	2.04	ppb		101.84%
63) Surr5,1,2-Dichlorobenzene-	29.06	152	49397	2.03	ppb		101.53%
Target Compounds							Qvalue
2) Dichlorodifluoromethane	3.83	85	50964	2.03	ppb	#	92
3) Chloromethane	4.37	50	18701	2.18	ppb	#	87
4) Vinyl Chloride	4.59	62	20876	1.94	ppb		89
5) Bromomethane	5.60	94	27604	1.97	ppb		89
6) Chloroethane	5.77	64	16997	1.95	ppb		94
7) Trichlorofluoromethane	6.38	101	75760	2.04	ppb		97
8) Acetone	7.50	43	21694	10.02	ppb		99
9) 1,1-Diclethene	7.81	96	24170	1.92	ppb		96
10) tert Butyl Alcohol	8.01	59	24010	36.20	ppb	m	97
11) Methyl Acetate	8.56	43	14703	1.93	ppb	# (DL)	90
12) Methylene Chloride	8.90	84	30115	2.04	ppb	01/29/02	96
13) Methyl-t-Butyl Ether	9.27	73	62931	1.95	ppb	#	92
14) trans-1,2-Dichloroethene	9.61	96	29699	1.96	ppb		94
15) 1,1-Diclethane	10.57	63	50684	2.00	ppb		93
16) 2-Butanone	11.49	43	28269	9.88	ppb	#	97
17) 2,2-Dichloropropane	11.83	77	50987	1.93	ppb		97
18) cis-1,2-Dichloroethene	11.95	96	33845	2.01	ppb		96
19) Chloroform	12.30	83	69386	1.99	ppb		99
20) Bromochloromethane	12.67	128	20422	1.98	ppb		85
21) 1,1,1-Trichloroethane	13.23	97	58362	1.90	ppb		97
22) 1,1-Dichloropropene	13.57	75	48136	2.00	ppb		97
23) Carbontetrachloride	13.82	117	51842	1.92	ppb	#	59
24) Benzene	14.19	78	94540	1.99	ppb		94
25) 1,2-Dichloroethane	14.14	62	48351	2.02	ppb	#	93
26) Trichloroethene	15.59	95	39885	1.98	ppb		96
27) 1,2-Diclpropane	15.96	63	26713	1.93	ppb		92
28) Bromodichloromethane	16.51	83	50522	1.86	ppb		99
29) Dibromomethane	16.65	93	27280	1.91	ppb		93
30) 4-Methyl-2-Pentanone	17.24	58	29210	9.99	ppb		97
31) trans-1,3-Dichloropropene	18.92	75	32340	1.78	ppb	#	89
32) Toluene	18.55	91	115180	2.05	ppb		96
33) cis-1,3-Dichloropropene	17.76	75	39936	1.88	ppb		91
34) 1,1,2-Trichloroethane	19.31	83	20718	1.91	ppb		88
35) 2-Hexanone	19.29	43	45888	9.69	ppb		99
36) 1,2-Dibromoethane	21.09	107	34487	1.94	ppb		92
37) 1,3-Dichloropropane	19.91	76	42477	1.90	ppb		96
38) Tetrachloroethene	20.13	166	48898	2.04	ppb		97

(#) = qualifier out of range (m) = manual integration (DL) 01/29/02

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\012802\I1766.D Vial: 3
Acq On : 28 Jan 102 2:13 pm Operator: DLIPANI
Sample : STD #3 Inst : 5970 - In
Misc : 2.0 PPB-524.2 INIT CAL. GCMS#1 Multiplr: 1.00
Quant Time: Jan 29 10:32 19102

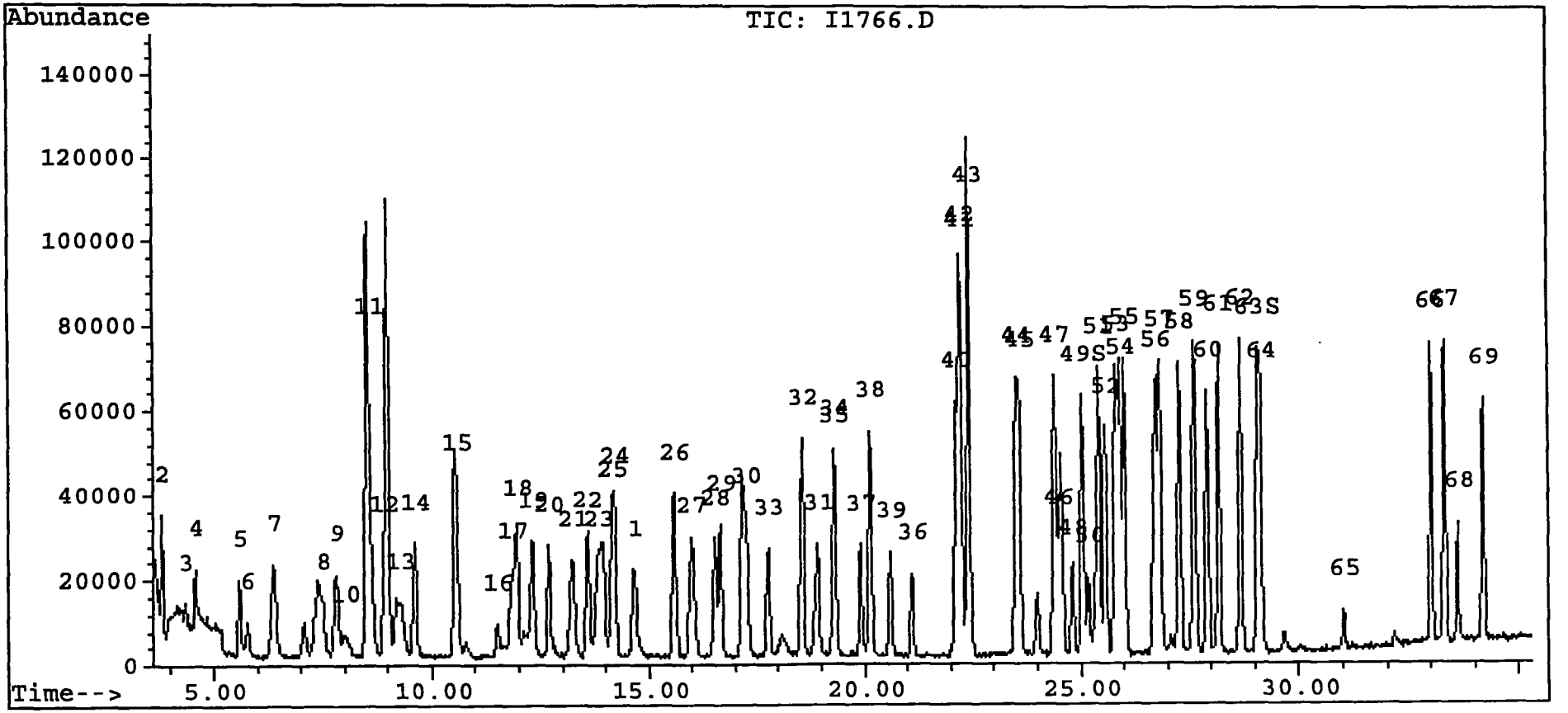
Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 11:21:37 2002
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
39)	Dibromochloromethane	20.60	129	37916	1.77	ppb		97
40)	Chlorobenzene	22.12	112	85299	2.07	ppb		92
41)	1,1,1,2-Tetrachloroethane	22.20	131	33583	1.90	ppb	#	85
42)	Ethylbenzene	22.22	91	138073	2.05	ppb		96
43)	(m+p)Xylene	22.40	106	101756	4.23	ppb		86
44)	o-Xylene	23.52	106	47184	2.02	ppb		99
45)	Styrene	23.58	104	77335	1.97	ppb		97
46)	Bromoform	24.48	173	21367	1.62	ppb	#	90
47)	Isopropylbenzene	24.39	105	140933	2.04	ppb		96
48)	1,1,2,2-Tetrachloroethane	24.80	83	27886	1.87	ppb		88
50)	1,2,3-Trichloropropane	25.18	110	8641	1.80	ppb		93
51)	n-Propylbenzene	25.40	91	166636	2.00	ppb		96
52)	Bromobenzene	25.57	156	43658	1.97	ppb		87
53)	1,3,5-Trimethylbenzene	25.81	105	122808	2.01	ppb		98
54)	2-Chlorotoluene	25.91	126	35554	1.86	ppb		98
55)	4-Chlorotoluene	26.01	126	37854	2.28	ppb		91
56)	tert-Butylbenzene	26.72	119	120330	2.04	ppb		100
57)	1,2,4-Trimethylbenzene	26.82	105	126414	2.07	ppb		100
58)	sec-Butylbenzene	27.27	105	157557	2.06	ppb		96
59)	p-Isopropyltoluene	27.61	119	132960	2.03	ppb		96
60)	1,3-Dclbenz	27.91	146	72236	2.03	ppb		98
61)	1,4-Dclbenz	28.16	146	78239	2.03	ppb		96
62)	n-Butylbenzene	28.67	91	124545	2.03	ppb	#	86
64)	1,2-Dclbenz	29.14	146	69722	2.02	ppb		94
65)	1,2-Dibromo-3-chloropropan	31.01	75	6208	1.90	ppb		96
66)	1,2,4-Tcbenzene	33.01	180	54079	2.04	ppb		88
67)	Hexachlorobt	33.32	225	42731	2.07	ppb		95
68)	Naphthalen	33.62	128	54889	1.87	ppb		96
69)	1,2,3-Tclbenzene	34.19	180	47098	2.05	ppb		97

(#) = qualifier out of range (m) = manual integration

Data File : J:\ACQUDATA\MSVOA1\DATA\012802\I1766. Vial: 3
Acq On : 28 Jan 102 2:13 pm Operator: DLIPANI
Sample : STD #3 Inst : 5970 - In
Misc : 2.0 PPB-524.2 INIT CAL. GCMS#1 Multiplr: 1.00
Quant Time: Jan 29 10:32 19102

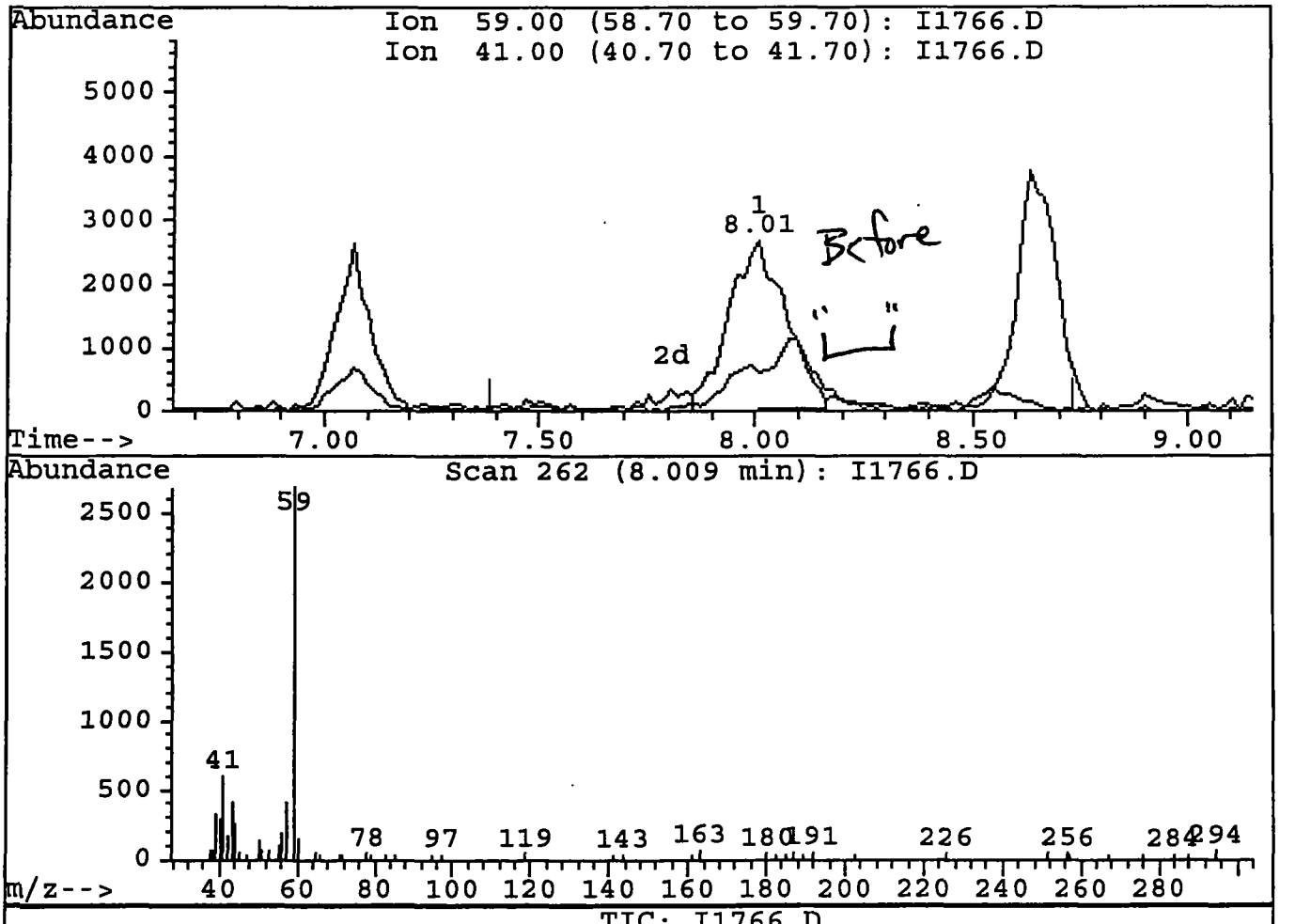
Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 11:21:37 2002
Response via : Multiple Level Calibration



Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\012802\I1766.D Vial: 3
Acq On : 28 Jan 102 2:13 pm Operator: DLIPANI
Sample : STD #3 Inst : 5970 - In
Misc : 2.0 PPB-524.2 INIT CAL. GCMS#1 Multiplr: 1.00
Quant Time: Jan 29 10:31 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 10:30:48 2002
Response via : Multiple Level Calibration



TIC: I1766.D

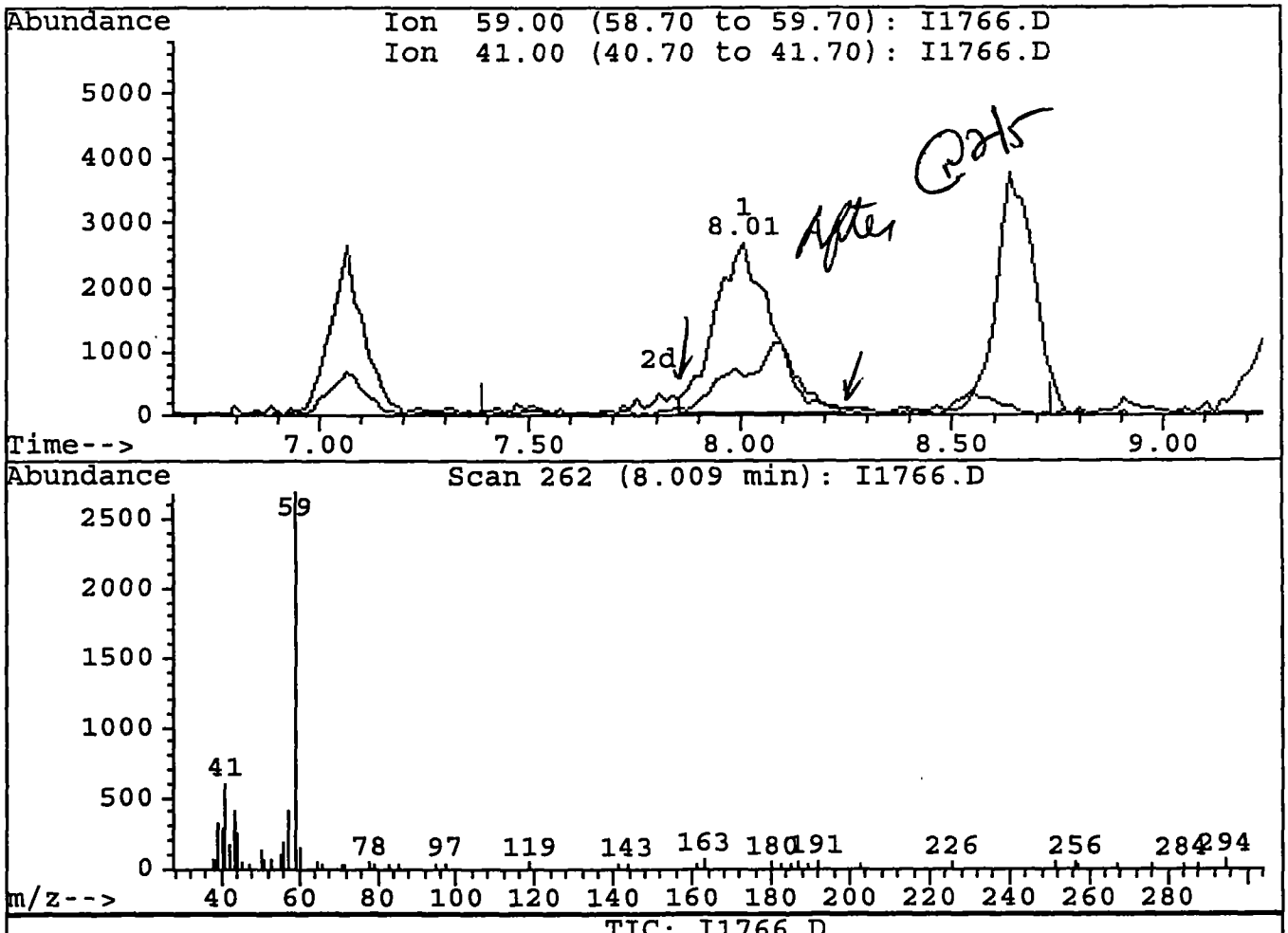
(10) tert Butyl Alcohol
8.01min 36.39ppb
response 24132

Ion	Exp%	Act%
59.00	100	100
41.00	24.00	22.43
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\012802\I1766.D Vial: 3
Acq On : 28 Jan 102 2:13 pm Operator: DLIPANI
Sample : STD #3 Inst : 5970 - In
Misc : 2.0 PPB-524.2 INIT CAL. GCMS#1 Multiplr: 1.00
Quant Time: Jan 29 10:32 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 10:30:48 2002
Response via : Multiple Level Calibration



TIC: I1766.D

(10) tert Butyl Alcohol
8.01min 36.20ppb m
response 24010

Ion	Exp%	Act%
59.00	100	100
41.00	24.00	22.43
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\012802\I1767.D Vial: 3
Acq On : 28 Jan 102 3:00 pm Operator: DLIPANI
Sample : STD #4 Inst : 5970 - In
Misc : 10 PPB-524.2 INIT CAL. GCMS#1 Multiplr: 1.00
Quant Time: Jan 29 10:55 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 11:21:37 2002
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	14.65	96	58832	1.00	ppb		0.00
System Monitoring Compounds							%Recovery
49) Surr2,BFB	25.04	95	65750	2.08	ppb		104.24%
63) Surr5,1,2-Dichlorobenzene-	29.07	152	51424	2.07	ppb		103.28%
Target Compounds							Qvalue
2) Dichlorodifluoromethane	3.84	85	269436	10.52	ppb		99
3) Chloromethane	4.35	50	87934	10.07	ppb	#	84
4) Vinyl Chloride	4.59	62	111836	10.18	ppb		97
5) Bromomethane	5.60	94	143617	10.04	ppb		98
6) Chloroethane	5.78	64	89378	10.05	ppb		95
7) Trichlorofluoromethane	6.37	101	399186	10.52	ppb		96
8) Acetone	7.50	43	109358	50.58	ppb	m (DL)	92
9) 1,1-Diclethene	7.82	96	133464	10.39	ppb	01/29/02	96
10) tert Butyl Alcohol	7.99	59	143205	209.56	ppb		89
11) Methyl Acetate	8.56	43	73237	9.46	ppb	#	92
12) Methylene Chloride	8.91	84	154650	10.25	ppb		98
13) Methyl-t-Butyl Ether	9.28	73	342833	10.37	ppb		94
14) trans-1,2-Dichloroethene	9.62	96	161797	10.43	ppb		95
15) 1,1-Diclethane	10.56	63	270970	10.47	ppb		95
16) 2-Butanone	11.51	43	153722	53.16	ppb		96
17) 2,2-Dichloropropane	11.86	77	287267	10.61	ppb		96
18) cis-1,2-Dichloroethene	11.96	96	182086	10.57	ppb		96
19) Chloroform	12.31	83	371674	10.42	ppb		96
20) Bromochloromethane	12.68	128	113948	10.80	ppb		87
21) 1,1,1-Trichloroethane	13.22	97	332086	10.60	ppb		96
22) 1,1-Dichloropropene	13.58	75	266441	10.86	ppb		97
23) Carbontetrachloride	13.83	117	300700	10.89	ppb		100
24) Benzene	14.20	78	510747	10.49	ppb		96
25) 1,2-Dichloroethane	14.13	62	265181	10.84	ppb	#	92
26) Trichloroethene	15.60	95	215856	10.53	ppb		96
27) 1,2-Diclpropane	15.97	63	153301	10.80	ppb		88
28) Bromodichloromethane	16.52	83	300578	10.82	ppb		99
29) Dibromomethane	16.66	93	151513	10.34	ppb		94
30) 4-Methyl-2-Pentanone	17.25	58	161018	53.96	ppb		97
31) trans-1,3-Dichloropropene	18.93	75	209624	11.31	ppb		96
32) Toluene	18.56	91	600901	10.44	ppb		98
33) cis-1,3-Dichloropropene	17.77	75	239821	11.08	ppb		94
34) 1,1,2-Trichloroethane	19.33	83	118640	10.70	ppb		90
35) 2-Hexanone	19.30	43	257230	53.14	ppb		100
36) 1,2-Dibromoethane	21.12	107	193215	10.66	ppb		87
37) 1,3-Dichloropropane	19.92	76	241593	10.57	ppb		96
38) Tetrachloroethene	20.14	166	257965	10.52	ppb		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\012802\I1767.D Vial: 3
Acq On : 28 Jan 102 3:00 pm Operator: DLIPANI
Sample : STD #4 Inst : 5970 - In
Misc : 10 PPB-524.2 INIT CAL. GCMS#1 Multiplr: 1.00
Quant Time: Jan 29 10:55 19102

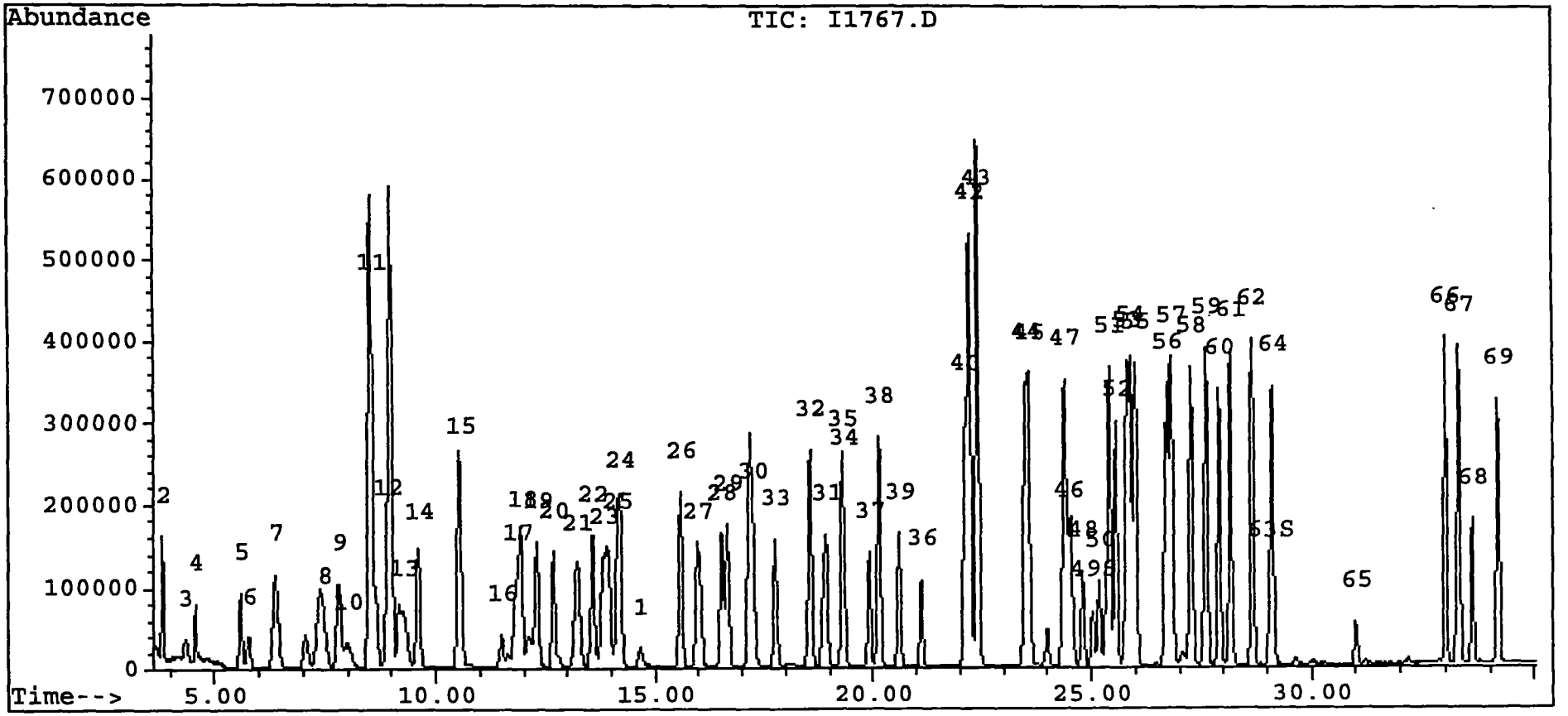
Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 11:21:37 2002
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
39)	Dibromochloromethane	20.61	129	241872	11.04	ppb		94
40)	Chlorobenzene	22.13	112	447470	10.62	ppb		89
41)	1,1,1,2-Tetrachloroethane	22.23	131	197166	10.90	ppb		97
42)	Ethylbenzene	22.23	91	738463	10.71	ppb		96
43)	(m+p)Xylene	22.42	106	519753	21.16	ppb		88
44)	o-Xylene	23.53	106	253028	10.59	ppb		98
45)	Styrene	23.59	104	436822	10.91	ppb		93
46)	Bromoform	24.49	173	152131	11.27	ppb	#	94
47)	Isopropylbenzene	24.40	105	752344	10.68	ppb		100
48)	1,1,2,2-Tetrachloroethane	24.81	83	162358	10.63	ppb		92
50)	1,2,3-Trichloropropane	25.19	110	51671	10.57	ppb		99
51)	n-Propylbenzene	25.41	91	914310	10.74	ppb		100
52)	Bromobenzene	25.58	156	238780	10.52	ppb		97
53)	1,3,5-Trimethylbenzene	25.82	105	665425	10.63	ppb		99
54)	2-Chlorotoluene	25.90	126	219378	11.24	ppb		94
55)	4-Chlorotoluene	26.00	126	173060	10.19	ppb		97
56)	tert-Butylbenzene	26.73	119	652968	10.85	ppb		96
57)	1,2,4-Trimethylbenzene	26.83	105	674167	10.81	ppb		96
58)	sec-Butylbenzene	27.27	105	837532	10.71	ppb		97
59)	p-Isopropyltoluene	27.62	119	722779	10.80	ppb		98
60)	1,3-Dclbenz	27.90	146	383663	10.53	ppb		98
61)	1,4-Dclbenz	28.17	146	417247	10.61	ppb		98
62)	n-Butylbenzene	28.66	91	685686	10.91	ppb		93
64)	1,2-Dclbenz	29.13	146	372303	10.55	ppb		99
65)	1,2-Dibromo-3-chloropropan	31.00	75	34106	10.20	ppb	#	75
66)	1,2,4-Tcbenzene	33.01	180	297510	10.97	ppb		93
67)	Hexachlorobt	33.31	225	222035	10.55	ppb		95
68)	Naphthalen	33.61	128	343113	11.46	ppb		99
69)	1,2,3-Tclbenzene	34.19	180	257962	10.98	ppb		96

(#) = qualifier out of range (m) = manual integration

Data File : J:\ACQUDATA\MSVOA1\DATA\012802\I1767.D Vial: 3
Acq On : 28 Jan 102 3:00 pm Operator: DLIPANI
Sample : STD #4 Inst : 5970 - In
Misc : 10 PPB-524.2 INIT CAL. GCMS#1 Multiplr: 1.00
Quant Time: Jan 29 10:55 19102

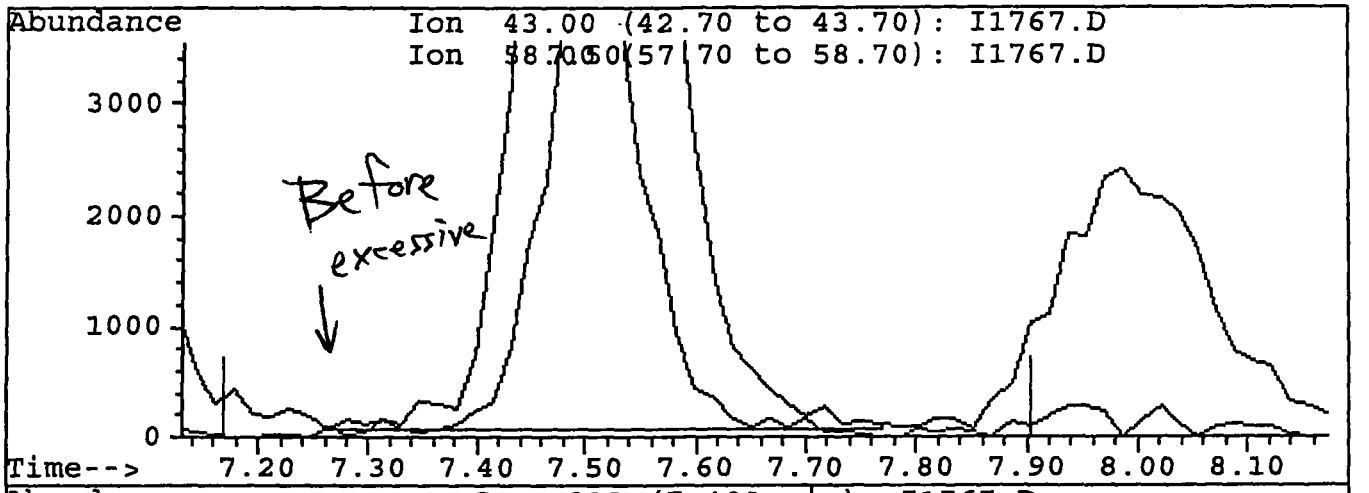
Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 11:21:37 2002
Response via : Multiple Level Calibration

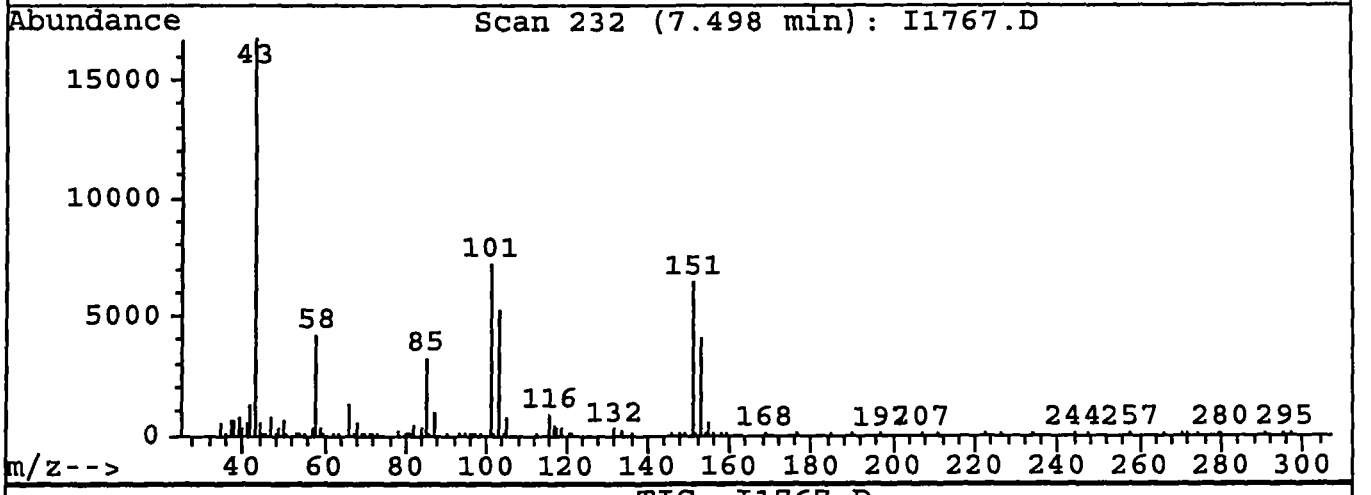


Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\012802\I1767.D Vial: 3
Acq On : 28 Jan 102 3:00 pm Operator: DLIPANI
Sample : STD #4 Inst : 5970 - In
Misc : 10 PPB-524.2 INIT CAL. GCMS#1 Multiplr: 1.00
Quant Time: Jan 29 10:54 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 10:54:16 2002
Response via : Multiple Level Calibration





TIC: I1767.D

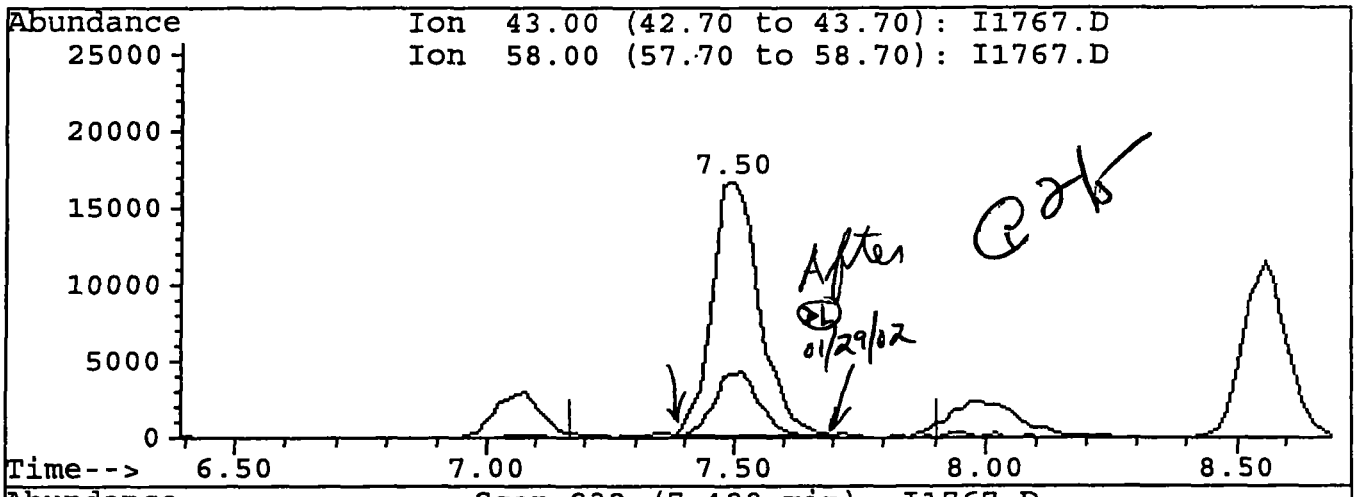
(8) Acetone
7.50min 52.22ppb
response 112907

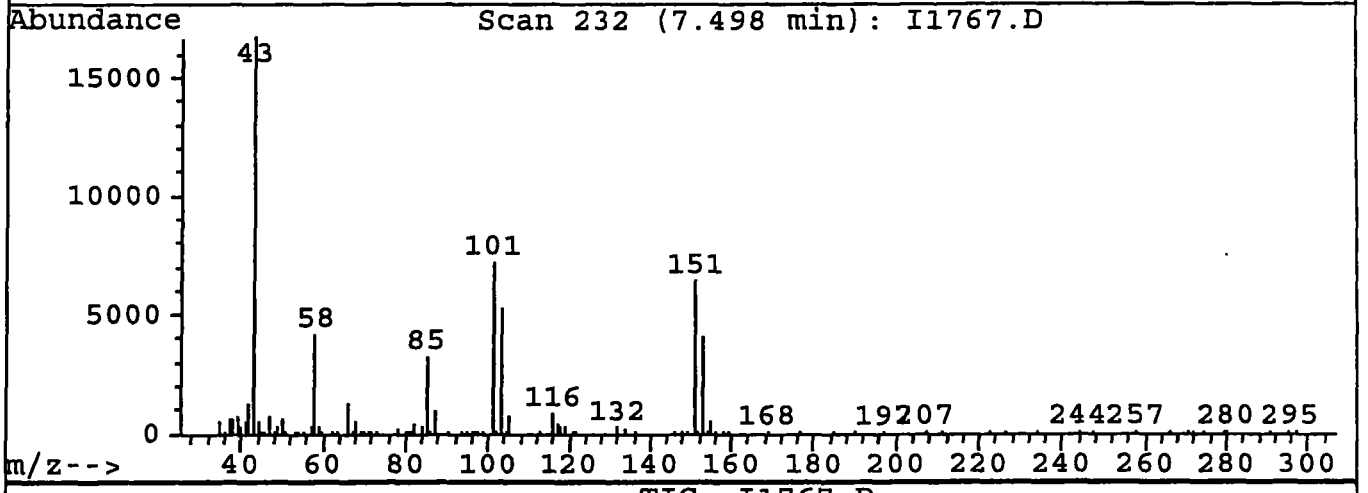
Ion	Exp%	Act%
43.00	100	100
58.00	29.10	24.72
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\012802\I1767.D Vial: 3
Acq On : 28 Jan 102 3:00 pm Operator: DLIPANI
Sample : STD #4 Inst : 5970 - In
Misc : 10 PPB-524.2 INIT CAL. GCMS#1 Multiplr: 1.00
Quant Time: Jan 29 10:55 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 10:54:16 2002
Response via : Multiple Level Calibration





TIC: I1767.D

(8) Acetone
7.50min 50.58ppb m
response 109358

Ion	Exp%	Act%
43.00	100	100
58.00	29.10	24.89
0.00	0.00	0.00
0.00	0.00	0.00

Data File : J:\ACQUDATA\MSVOA1\DATA\012802\I1768.D Vial: 3
Acq On : 28 Jan 102 3:47 pm Operator: DLIPANI
Sample : STD #5 Inst : 5970 - In
Misc : 20 PPB-524.2 INIT CAL. GCMS#1 Multiplr: 1.00
Quant Time: Jan 29 11:00 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 11:21:37 2002
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	14.66	96	63967	1.00	ppb		0.00
System Monitoring Compounds							%Recovery
49) Surr2,BFB	25.03	95	68229	1.99	ppb		99.49%
63) Surr5,1,2-Dichlorobenzene-	29.05	152	56499	2.09	ppb		104.36%
Target Compounds							Qvalue
2) Dichlorodifluoromethane	3.85	85	544995	19.57	ppb		98
3) Chloromethane	4.37	50	182714	19.25	ppb	#	81
4) Vinyl Chloride	4.59	62	229096	19.19	ppb		96
5) Bromomethane	5.60	94	306494	19.71	ppb		100
6) Chloroethane	5.79	64	186480	19.28	ppb		95
7) Trichlorofluoromethane	6.39	101	815523	19.77	ppb		99
8) Acetone	7.50	43	208018	89.07	ppb	m(DL)	93
9) 1,1-Diclethene	7.82	96	281675	20.17	ppb	01/29/02	98
10) tert Butyl Alcohol	8.01	59	311430	419.15	ppb		95
11) Methyl Acetate	8.56	43	150466	17.87	ppb	#	90
12) Methylene Chloride	8.92	84	313502	19.10	ppb		97
13) Methyl-t-Butyl Ether	9.27	73	710730	19.78	ppb		96
14) trans-1,2-Dichloroethene	9.61	96	330521	19.60	ppb		98
15) 1,1-Diclethane	10.57	63	557887	19.83	ppb		95
16) 2-Butanone	11.51	43	307617	97.85	ppb		99
17) 2,2-Dichloropropane	11.85	77	615137	20.90	ppb		95
18) cis-1,2-Dichloroethene	11.95	96	377782	20.16	ppb		94
19) Chloroform	12.30	83	769701	19.85	ppb		99
20) Bromochloromethane	12.69	128	234585	20.44	ppb		84
21) 1,1,1-Trichloroethane	13.23	97	698768	20.50	ppb		97
22) 1,1-Dichloropropene	13.58	75	539510	20.23	ppb		98
23) Carbontetrachloride	13.83	117	633789	21.12	ppb		100
24) Benzene	14.20	78	1044223	19.73	ppb		95
25) 1,2-Dichloroethane	14.14	62	534604	20.09	ppb	#	93
26) Trichloroethene	15.58	95	446316	20.03	ppb		94
27) 1,2-Diclpropane	15.97	63	313320	20.31	ppb		95
28) Bromodichloromethane	16.51	83	638320	21.14	ppb		99
29) Dibromomethane	16.65	93	318502	19.99	ppb		97
30) 4-Methyl-2-Pentanone	17.23	58	323021	99.56	ppb		99
31) trans-1,3-Dichloropropene	18.92	75	448810	22.26	ppb		97
32) Toluene	18.55	91	1248669	19.96	ppb		99
33) cis-1,3-Dichloropropene	17.76	75	513300	21.80	ppb		99
34) 1,1,2-Trichloroethane	19.31	83	241528	20.04	ppb		94
35) 2-Hexanone	19.27	43	535900	101.82	ppb		97
36) 1,2-Dibromoethane	21.11	107	404082	20.50	ppb		92
37) 1,3-Dichloropropane	19.91	76	500987	20.15	ppb		99
38) Tetrachloroethene	20.13	166	526579	19.75	ppb		97

(#) = qualifier out of range (m) = manual integration (DL) 01/29/02

Data File : J:\ACQUDATA\MSVOA1\DATA\012802\I1768.D
Acq On : 28 Jan 102 3:47 pm
Sample : STD #5
Misc : 20 PPB-524.2 INIT CAL. GCMS#1
Quant Time: Jan 29 11:00 19102

Vial: 3
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

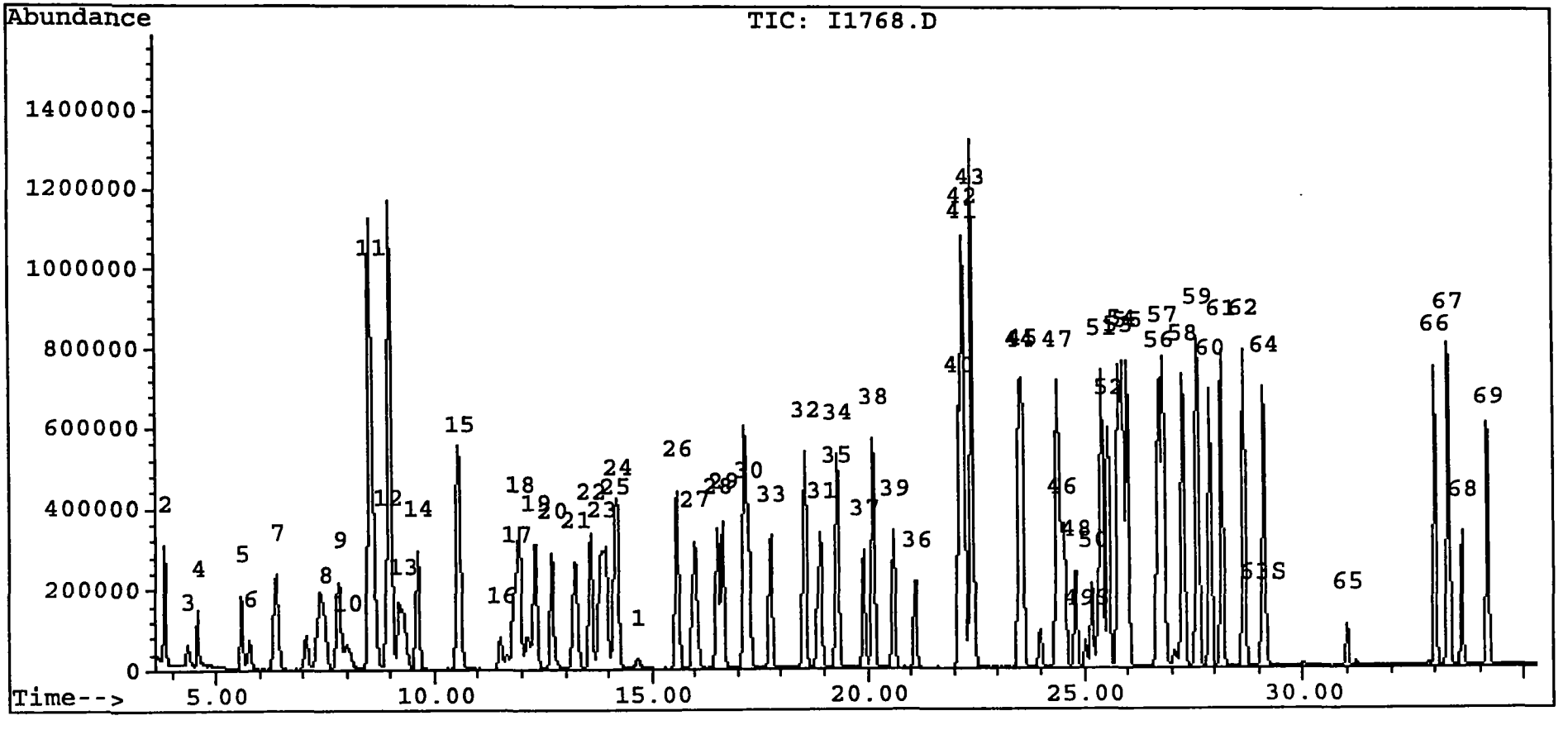
Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 11:21:37 2002
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
39)	Dibromochloromethane	20.60	129	528560	22.20	ppb		99
40)	Chlorobenzene	22.12	112	914291	19.95	ppb		89
41)	1,1,1,2-Tetrachloroethane	22.20	131	412279	20.96	ppb		97
42)	Ethylbenzene	22.22	91	1520127	20.27	ppb		96
43)	(m+p)Xylene	22.40	106	1068021	39.99	ppb		88
44)	o-Xylene	23.51	106	530266	20.41	ppb		99
45)	Styrene	23.58	104	899307	20.67	ppb		94
46)	Bromoform	24.47	173	331937	22.61	ppb	#	97
47)	Isopropylbenzene	24.39	105	1553275	20.28	ppb		98
48)	1,1,2,2-Tetrachloroethane	24.79	83	340949	20.54	ppb		100
50)	1,2,3-Trichloropropane	25.18	110	109118	20.53	ppb		86
51)	n-Propylbenzene	25.40	91	1869555	20.21	ppb		97
52)	Bromobenzene	25.57	156	488412	19.79	ppb		96
53)	1,3,5-Trimethylbenzene	25.80	105	1371906	20.16	ppb		98
54)	2-Chlorotoluene	25.89	126	425471	20.04	ppb		93
55)	4-Chlorotoluene	26.01	126	363445	19.67	ppb		94
56)	tert-Butylbenzene	26.71	119	1328715	20.31	ppb		100
57)	1,2,4-Trimethylbenzene	26.81	105	1388108	20.48	ppb		100
58)	sec-Butylbenzene	27.27	105	1728786	20.34	ppb		100
59)	p-Isopropyltoluene	27.61	119	1512242	20.79	ppb		99
60)	1,3-Dclbenz	27.89	146	797448	20.13	ppb		95
61)	1,4-Dclbenz	28.16	146	848155	19.83	ppb		97
62)	n-Butylbenzene	28.67	91	1396876	20.44	ppb		93
64)	1,2-Dclbenz	29.12	146	754018	19.65	ppb		99
65)	1,2-Dibromo-3-chloropropan	30.99	75	76990	21.19	ppb		92
66)	1,2,4-Tcbenzene	33.01	180	582828	19.76	ppb		90
67)	Hexachlorobt	33.30	225	467412	20.42	ppb		94
68)	Naphthalen	33.60	128	644608	19.79	ppb		97
69)	1,2,3-Tclbenzene	34.19	180	492287	19.28	ppb		99

(#) = qualifier out of range (m) = manual integration

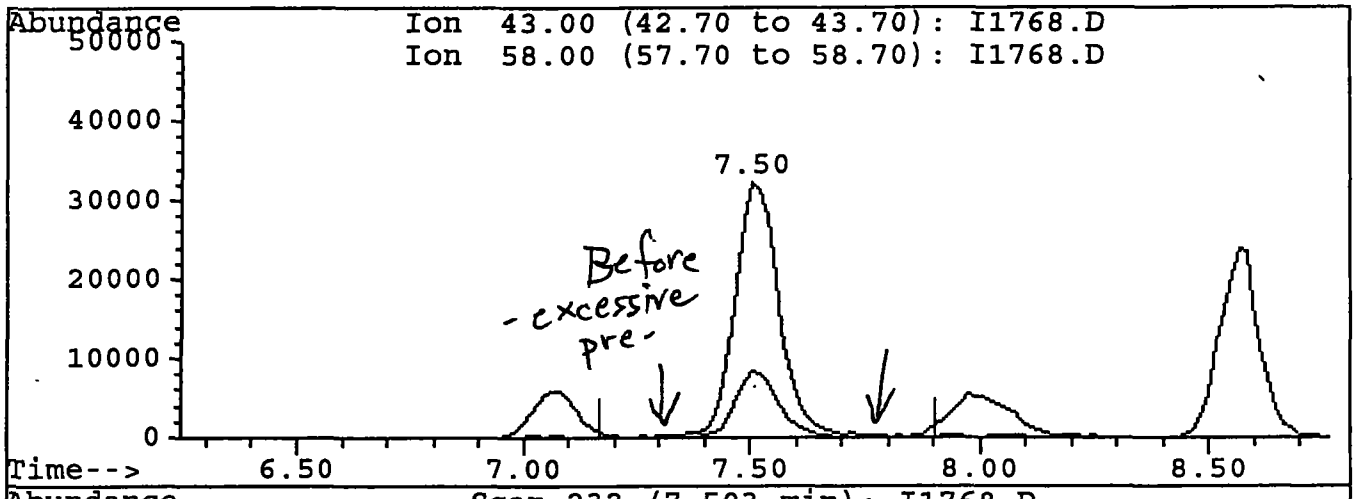
Data File : J:\ACQUDATA\MSVOA1\DATA\012802\I1768.D Vial: 3
Acq On : 28 Jan 102 3:47 pm Operator: DLIPANI
Sample : STD #5 Inst : 5970 - In
Misc : 20 PPB-524.2 INIT CAL. GCMS#1 Multiplr: 1.00
Quant Time: Jan 29 11:00 19102

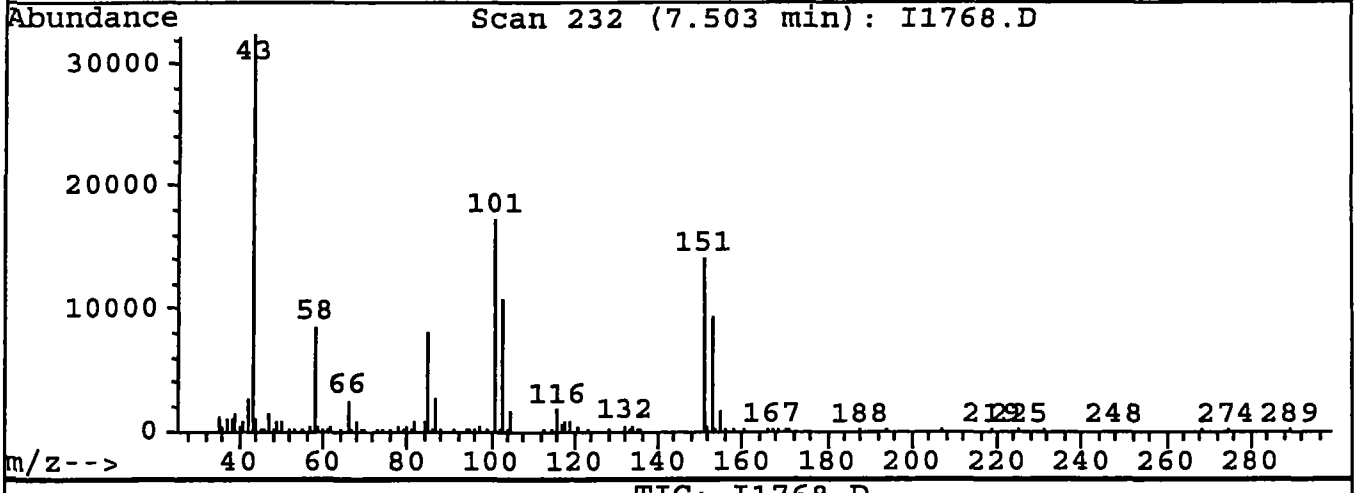
Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 11:21:37 2002
Response via : Multiple Level Calibration



Data File : J:\ACQUDATA\MSVOA1\DATA\012802\I1768.D Vial: 3
Acq On : 28 Jan 102 3:47 pm Operator: DLIPANI
Sample : STD #5 Inst : 5970 - In
Misc : 20 PPB-524.2 INIT CAL. GCMS#1 Multiplr: 1.00
Quant Time: Jan 29 10:56 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 10:56:22 2002
Response via : Multiple Level Calibration





TIC: I1768.D

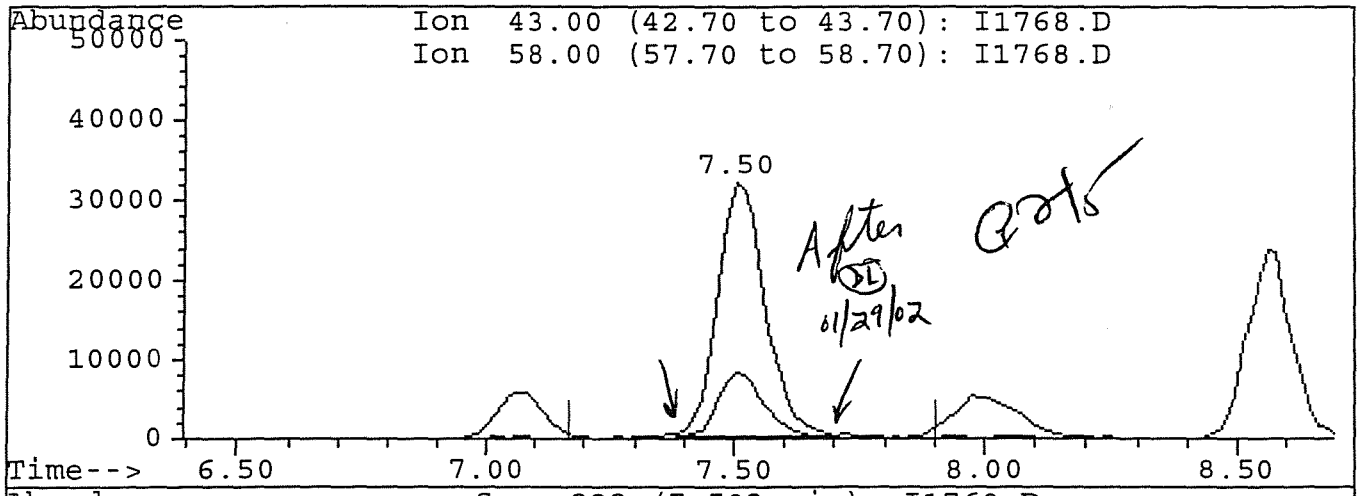
(8) Acetone
7.50min 93.47ppb
response 218314

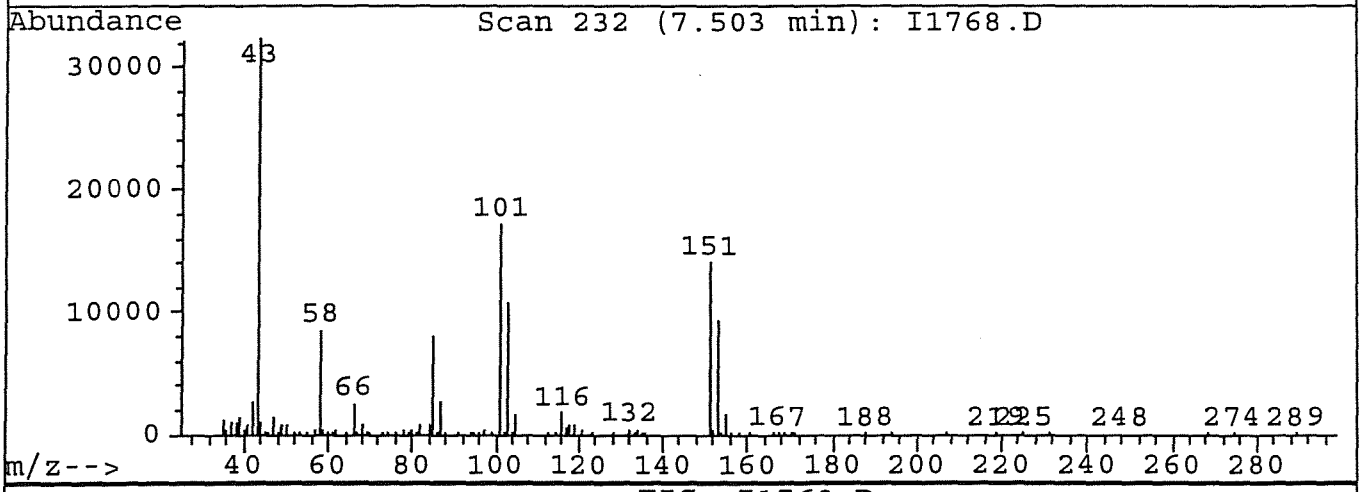
Ion	Exp%	Act%
43.00	100	100
58.00	29.10	25.53
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\012802\I1768.D Vial: 3
Acq On : 28 Jan 102 3:47 pm Operator: DLIPANI
Sample : STD #5 Inst : 5970 - In
Misc : 20 PPB-524.2 INIT CAL. GCMS#1 Multiplr: 1.00
Quant Time: Jan 29 11:00 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 10:56:22 2002
Response via : Multiple Level Calibration





TIC: I1768.D

(8) Acetone
7.50min 89.07ppb m
response 208018

Ion	Exp%	Act%
43.00	100	100
58.00	29.10	26.30
0.00	0.00	0.00
0.00	0.00	0.00

I1768.D 5240128.M Tue Jan 29 11:01:00 2002 TEST2

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\012802\I1769.D Vial: 3
Acq On : 28 Jan 102 4:37 pm Operator: DLIPANI
Sample : STD #6 Inst : 5970 - In
Misc : 30 PPB-524.2 INIT CAL. GCMS#1 Multiplr: 1.00
Quant Time: Jan 29 11:15 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 11:21:37 2002
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	14.66	96	66207	1.00	ppb		0.00
System Monitoring Compounds							%Recovery
49) Surr2,BFB	25.05	95	71138	2.00	ppb		100.22%
63) Surr5,1,2-Dichlorobenzene-	29.07	152	56170	2.00	ppb		100.24%
Target Compounds							Qvalue
2) Dichlorodifluoromethane	3.85	85	791522	27.46	ppb		99
3) Chloromethane	4.37	50	261169	26.59	ppb	#	80
4) Vinyl Chloride	4.59	62	340773	27.57	ppb		99
5) Bromomethane	5.60	94	467880	29.07	ppb		94
6) Chloroethane	5.79	64	278946	27.86	ppb		95
7) Trichlorofluoromethane	6.39	101	1195687	28.00	ppb		97
8) Acetone	7.52	43	332904	138.94	ppb	m	91
9) 1,1-Diclethene	7.82	96	411029	28.44	ppb		99
10) tert Butyl Alcohol	8.01	59	484456	629.96	ppb	m	99
11) Methyl Acetate	8.56	43	229125	26.29	ppb	#	91
12) Methylene Chloride	8.92	84	455721	26.83	ppb		97
13) Methyl-t-Butyl Ether	9.29	73	1075708	28.93	ppb		96
14) trans-1,2-Dichloroethene	9.62	96	493582	28.28	ppb		96
15) 1,1-Diclethane	10.58	63	817492	28.07	ppb	m	92
16) 2-Butanone	11.51	43	473761	145.60	ppb		99
17) 2,2-Dichloropropane	11.85	77	916243	30.08	ppb		95
18) cis-1,2-Dichloroethene	11.95	96	549470	28.33	ppb		90
19) Chloroform	12.32	83	1120171	27.92	ppb		98
20) Bromochloromethane	12.69	128	342363	28.82	ppb		90
21) 1,1,1-Trichloroethane	13.23	97	1028039	29.15	ppb		95
22) 1,1-Dichloropropene	13.58	75	790661	28.64	ppb		100
23) Carbontetrachloride	13.83	117	938390	30.21	ppb		100
24) Benzene	14.20	78	1505859	27.48	ppb		94
25) 1,2-Dichloroethane	14.14	62	774784	28.14	ppb		95
26) Trichloroethene	15.59	95	647389	28.07	ppb		96
27) 1,2-Diclpropane	15.97	63	454759	28.48	ppb		96
28) Bromodichloromethane	16.51	83	943781	30.19	ppb		98
29) Dibromomethane	16.65	93	469364	28.47	ppb		96
30) 4-Methyl-2-Pentanone	17.25	58	498503	148.44	ppb		99
31) trans-1,3-Dichloropropene	18.92	75	687041	32.93	ppb		95
32) Toluene	18.55	91	1810601	27.97	ppb		100
33) cis-1,3-Dichloropropene	17.76	75	765851	31.43	ppb		98
34) 1,1,2-Trichloroethane	19.32	83	356053	28.54	ppb		95
35) 2-Hexanone	19.29	43	814915	149.59	ppb		100
36) 1,2-Dibromoethane	21.11	107	608870	29.84	ppb		95
37) 1,3-Dichloropropane	19.91	76	744039	28.92	ppb		96
38) Tetrachloroethene	20.13	166	770164	27.91	ppb		96

DL 01/29/02

(#) = qualifier out of range (m) = manual integration

DL 01/29/02

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\012802\I1769.D Vial: 3
Acq On : 28 Jan 102 4:37 pm Operator: DLIPANI
Sample : STD #6 Inst : 5970 - In
Misc : 30 PPB-524.2 INIT CAL. GCMS#1 Multiplr: 1.00
Quant Time: Jan 29 11:15 19102

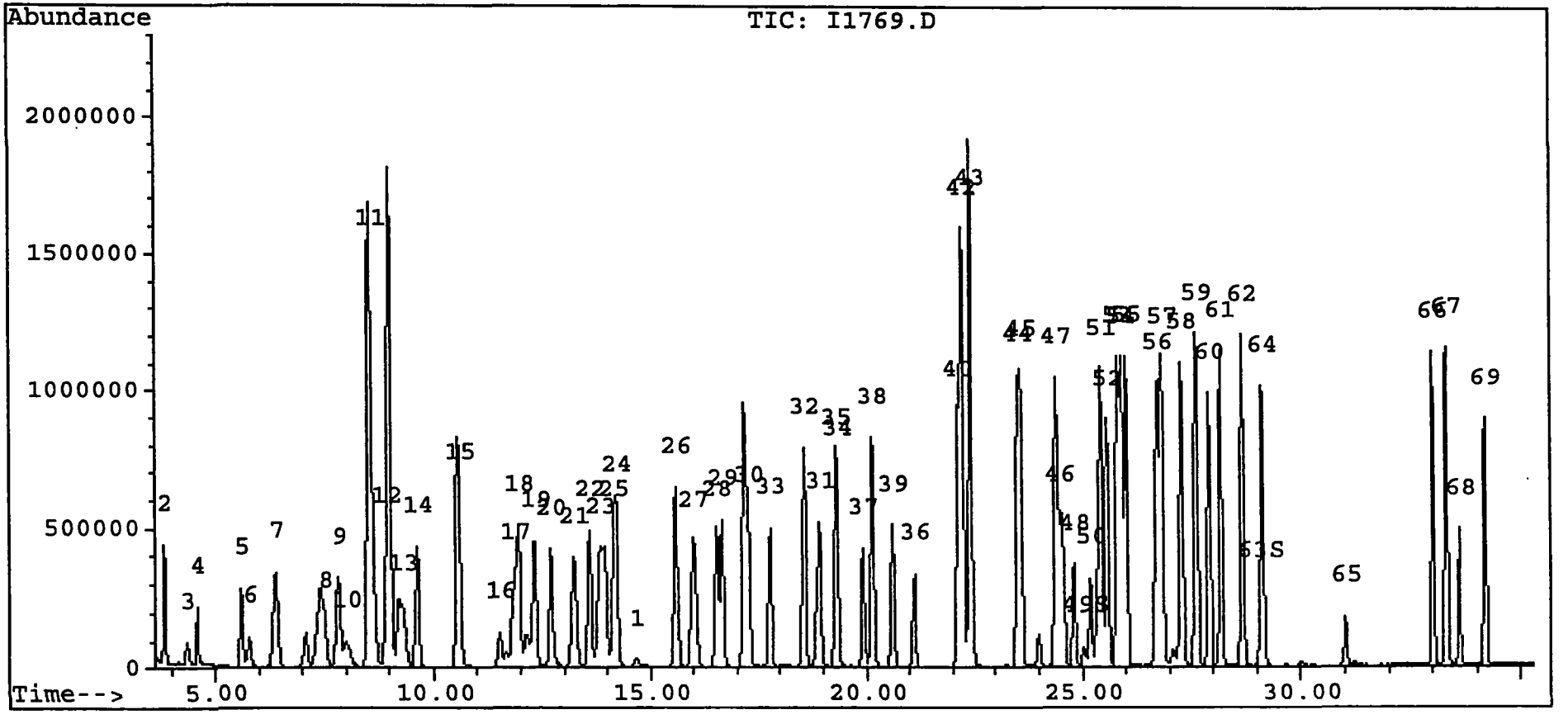
Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 11:21:37 2002
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
39)	Dibromochloromethane	20.60	129	787332	31.95	ppb		93
40)	Chlorobenzene	22.12	112	1352819	28.53	ppb		89
41)	1,1,1,2-Tetrachloroethane	22.22	131	606418	29.79	ppb		96
42)	Ethylbenzene	22.22	91	2222596	28.63	ppb		93
43)	(m+p)Xylene	22.42	106	1557729	56.35	ppb		81
44)	o-Xylene	23.52	106	781487	29.07	ppb		93
45)	Styrene	23.58	104	1315459	29.21	ppb		91
46)	Bromoform	24.48	173	513701	33.81	ppb	#	95
47)	Isopropylbenzene	24.39	105	2292088	28.91	ppb		99
48)	1,1,2,2-Tetrachloroethane	24.81	83	518953	30.20	ppb		97
50)	1,2,3-Trichloropropane	25.18	110	164869	29.97	ppb		89
51)	n-Propylbenzene	25.42	91	2788442	29.12	ppb		96
52)	Bromobenzene	25.57	156	720674	28.22	ppb		97
53)	1,3,5-Trimethylbenzene	25.81	105	2042169	29.00	ppb		100
54)	2-Chlorotoluene	25.89	126	624389	28.42	ppb		95
55)	4-Chlorotoluene	26.01	126	555687	29.06	ppb		96
56)	tert-Butylbenzene	26.71	119	1968281	29.07	ppb		99
57)	1,2,4-Trimethylbenzene	26.83	105	2063580	29.41	ppb		99
58)	sec-Butylbenzene	27.27	105	2582459	29.36	ppb		100
59)	p-Isopropyltoluene	27.61	119	2234684	29.68	ppb		99
60)	1,3-Dclbenz	27.91	146	1175209	28.66	ppb		97
61)	1,4-Dclbenz	28.16	146	1272785	28.76	ppb		97
62)	n-Butylbenzene	28.67	91	2083434	29.46	ppb		93
64)	1,2-Dclbenz	29.12	146	1136114	28.61	ppb		99
65)	1,2-Dibromo-3-chloropropan	31.01	75	120715	32.10	ppb	#	74
66)	1,2,4-Tcbenzene	33.01	180	843394	27.63	ppb		92
67)	Hexachlorobt	33.31	225	675016	28.49	ppb		92
68)	Naphthalen	33.62	128	950514	28.20	ppb		97
69)	1,2,3-Tclbenzene	34.19	180	721241	27.28	ppb		95

(#) = qualifier out of range (m) = manual integration

Data File : J:\ACQUDATA\MSVOA1\DATA\012802\I1769.D Vial: 3
Acq On : 28 Jan 102 4:37 pm Operator: DLIPANI
Sample : STD #6 Inst : 5970 - In
Misc : 30 PPB-524.2 INIT CAL. GCMS#1 Multiplr: 1.00
Quant Time: Jan 29 11:15 19102

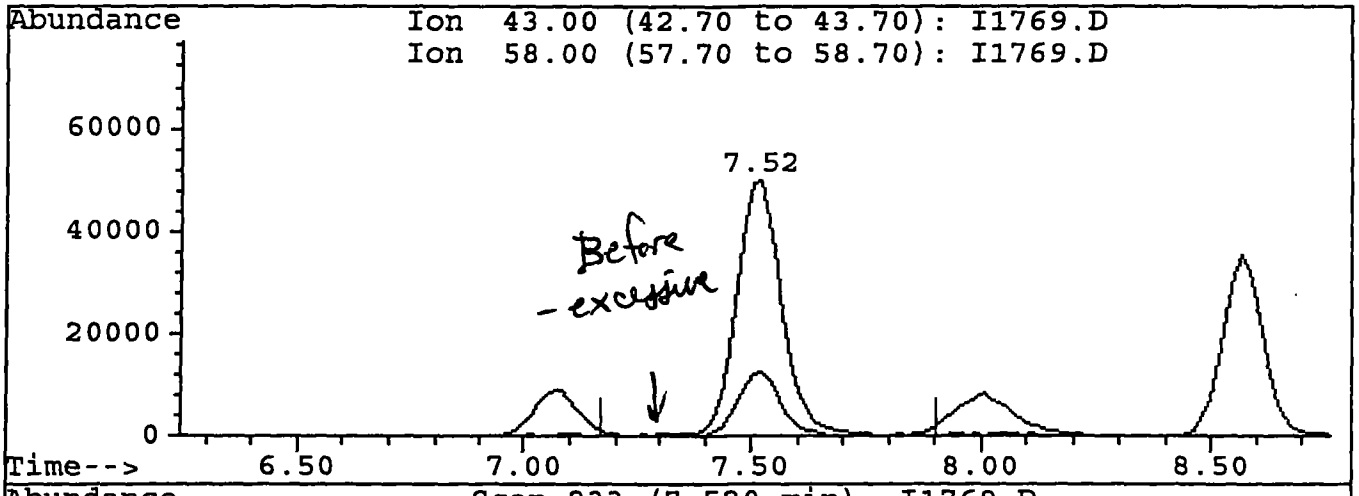
Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 11:21:37 2002
Response via : Multiple Level Calibration

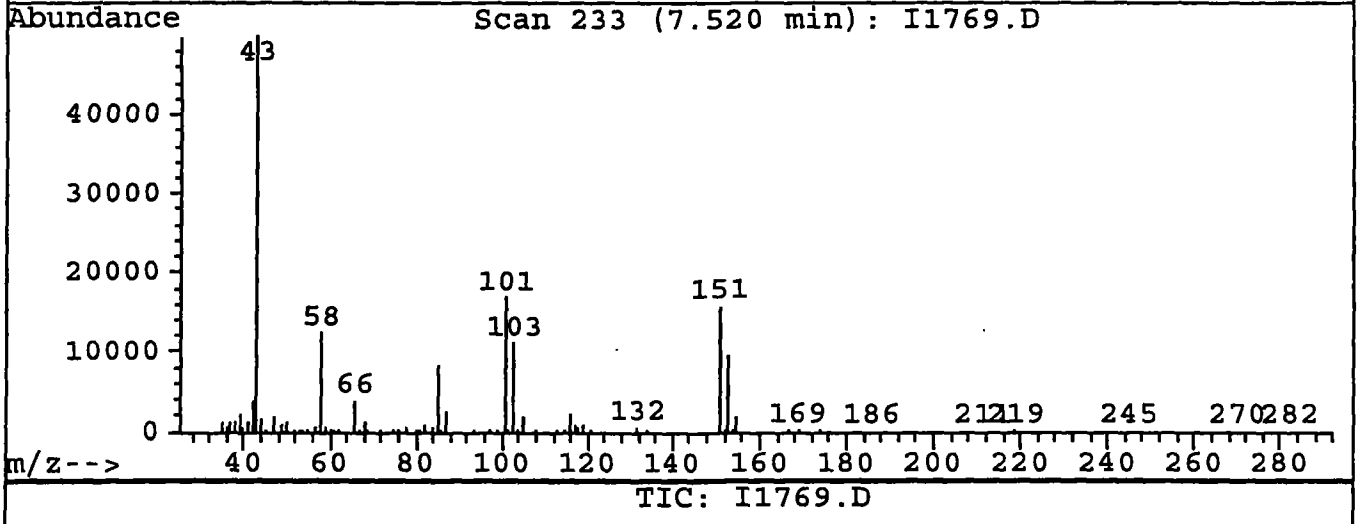


Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\012802\I1769.D Vial: 3
Acq On : 28 Jan 102 4:37 pm Operator: DLIPANI
Sample : STD #6 Inst : 5970 - In
Misc : 30 PPB-524.2 INIT CAL. GCMS#1 Multiplr: 1.00
Quant Time: Jan 29 11:11 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 11:11:27 2002
Response via : Multiple Level Calibration





TIC: I1769.D

(8) Acetone
7.52min 142.01ppb
response 340265

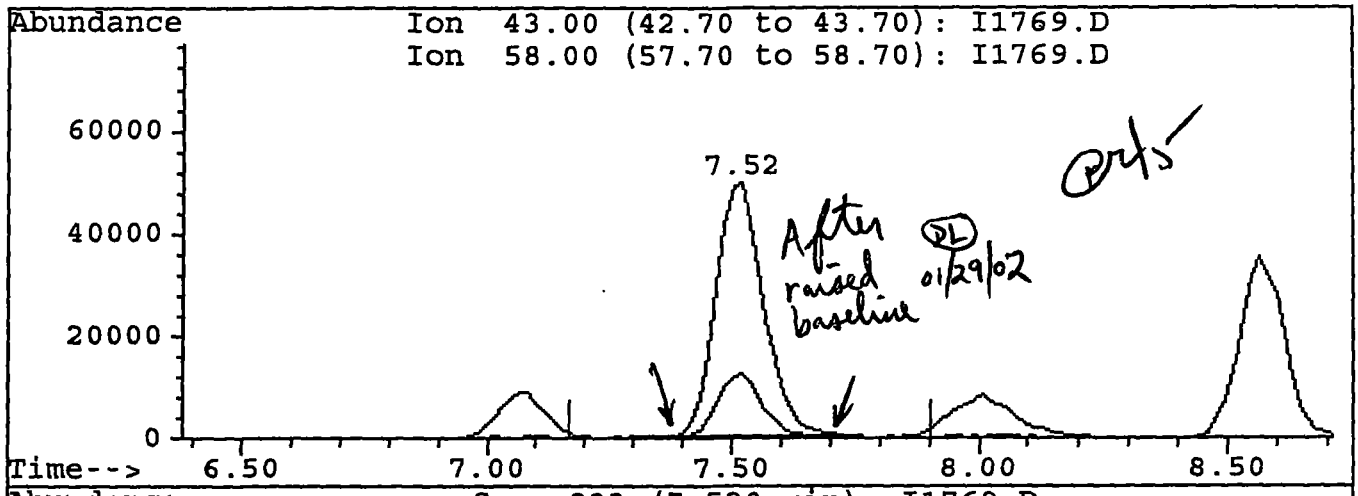
Ion	Exp%	Act%
43.00	100	100
58.00	29.10	24.10
0.00	0.00	0.00
0.00	0.00	0.00

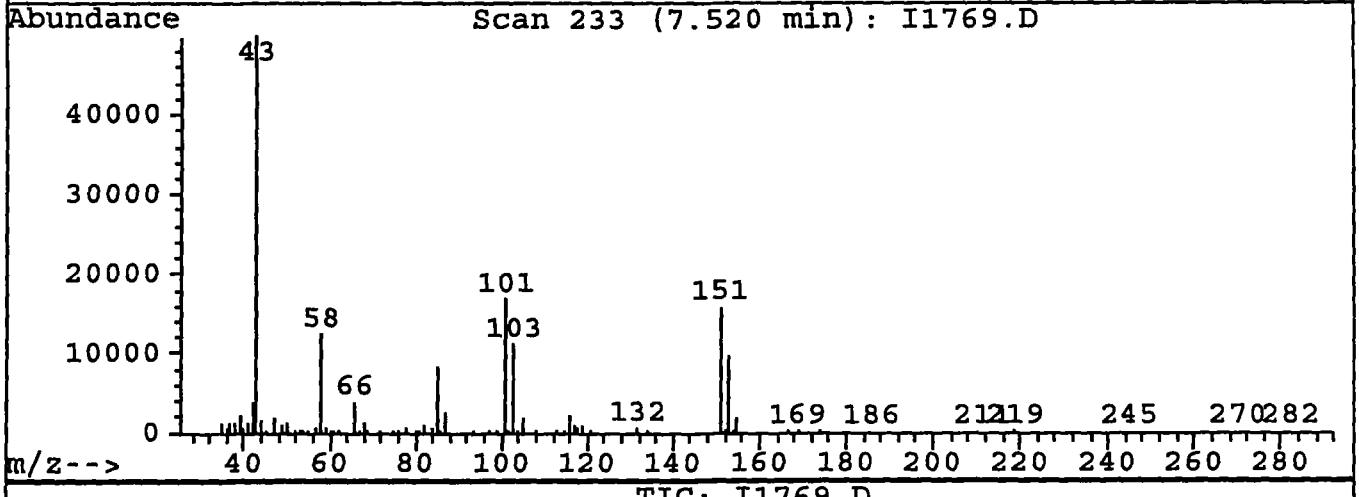
Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\012802\I1769.D
Acq On : 28 Jan 102 4:37 pm
Sample : STD #6
Misc : 30 PPB-524.2 INIT CAL. GCMS#1
Quant Time: Jan 29 11:13 19102

Vial: 3
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 11:11:27 2002
Response via : Multiple Level Calibration





TIC: I1769.D

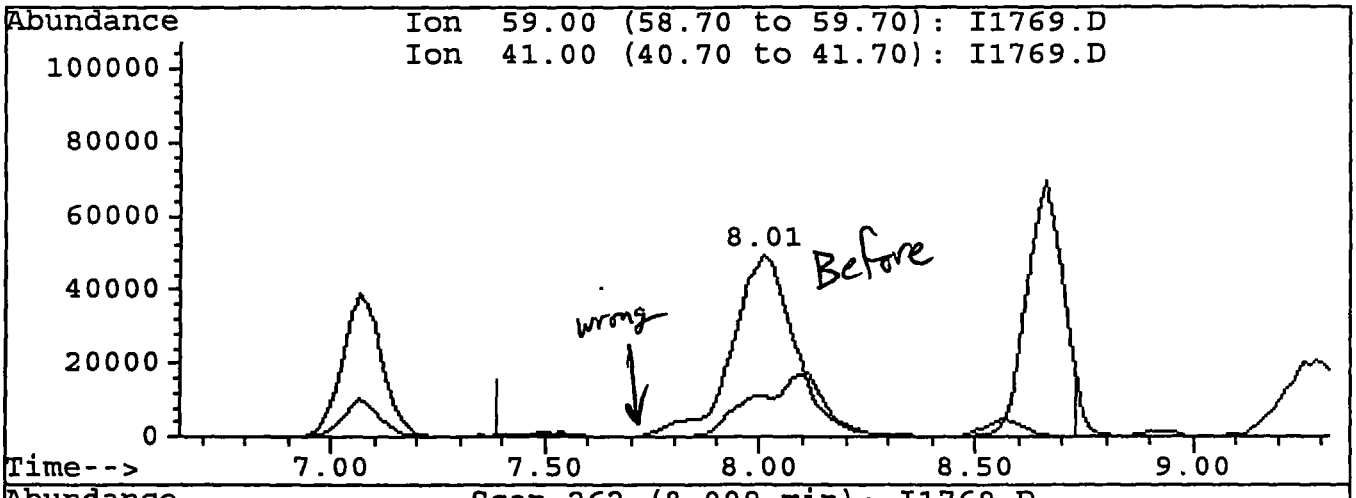
(8) Acetone
7.52min 138.94ppb m
response 332904

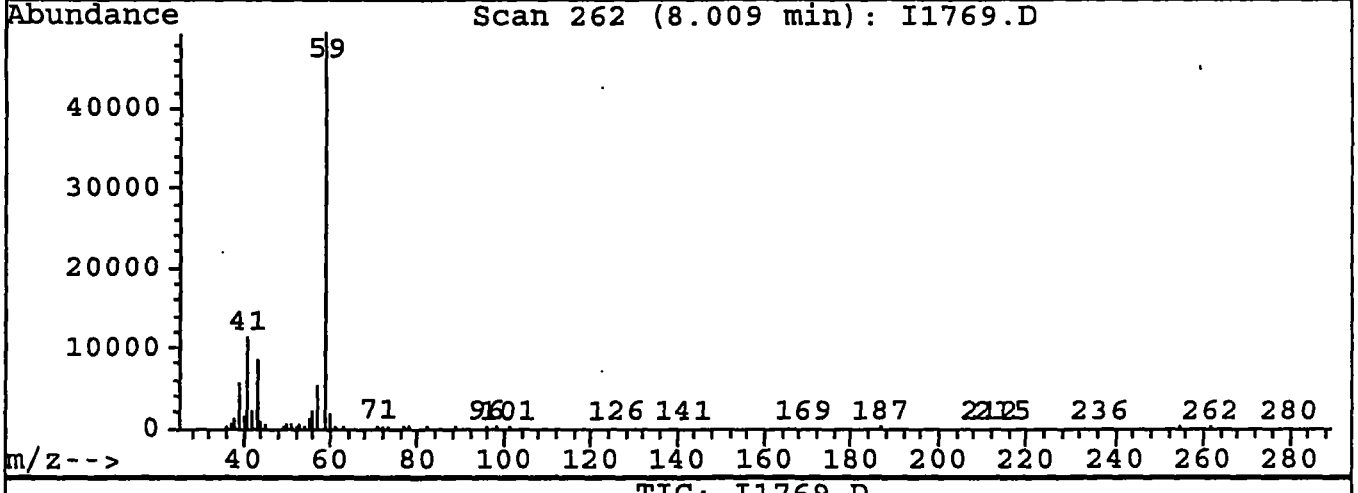
Ion	Exp%	Act%
43.00	100	100
58.00	29.10	24.66
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\012802\I1769.D Vial: 3
Acq On : 28 Jan 102 4:37 pm Operator: DLIPANI
Sample : STD #6 Inst : 5970 - In
Misc : 30 PPB-524.2 INIT CAL. GCMS#1 Multiplr: 1.00
Quant Time: Jan 29 11:13 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 11:11:27 2002
Response via : Multiple Level Calibration





TIC: I1769.D

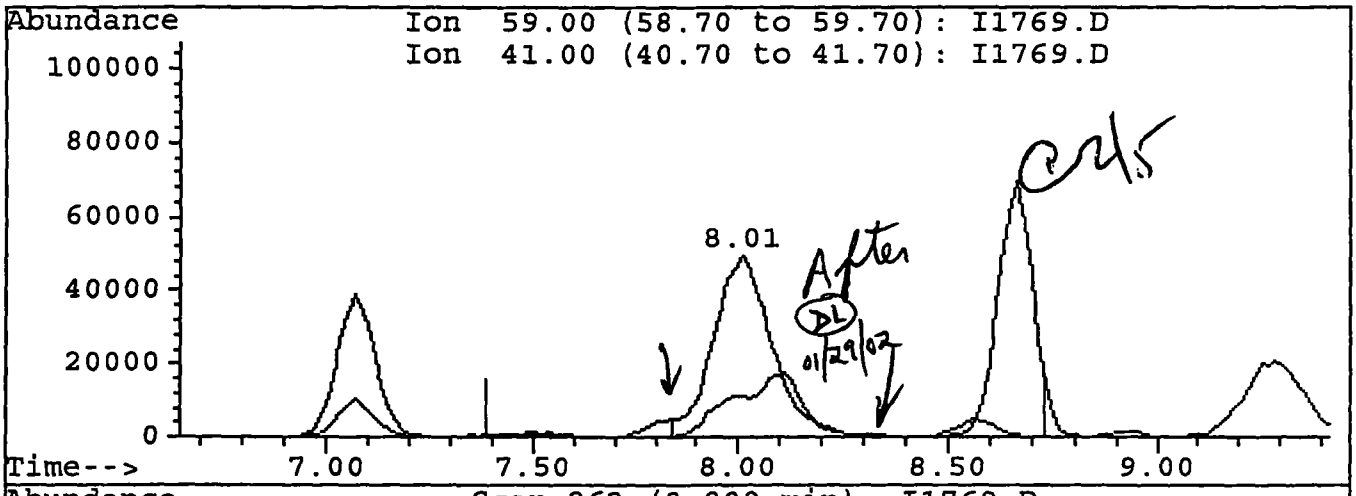
(10) tert Butyl Alcohol
8.01min 653.91ppb
response 502871

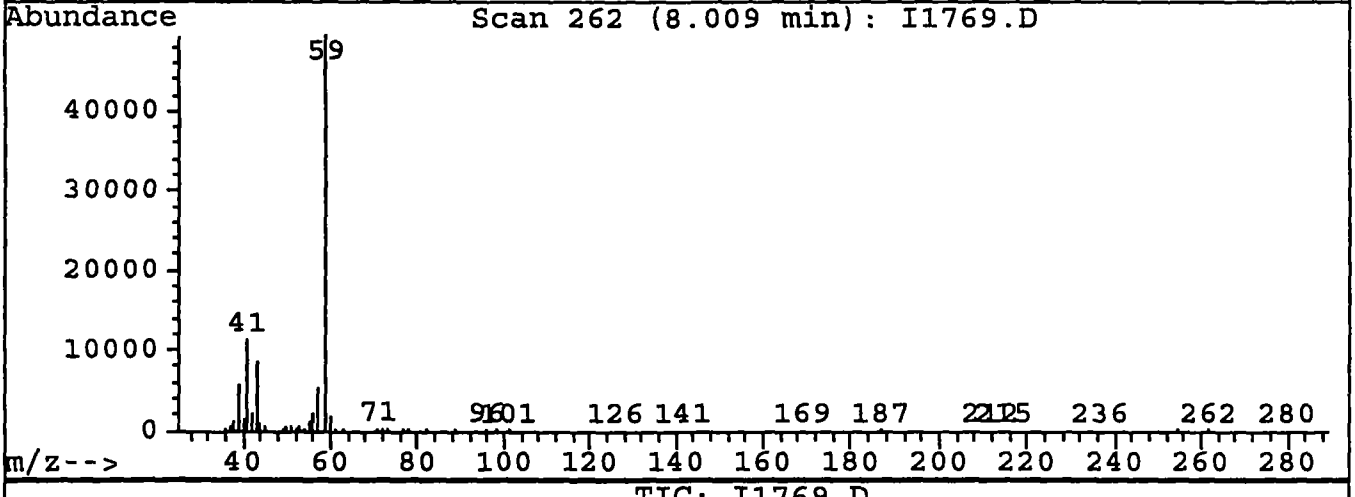
Ion	Exp%	Act%
59.00	100	100
41.00	22.40	22.80
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\012802\I1769.D Vial: 3
Acq On : 28 Jan 102 4:37 pm Operator: DLIPANI
Sample : STD #6 Inst : 5970 - In
Misc : 30 PPB-524.2 INIT CAL. GCMS#1 Multiplr: 1.00
Quant Time: Jan 29 11:15 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 11:11:27 2002
Response via : Multiple Level Calibration





TIC: I1769.D

(10) tert Butyl Alcohol
8.01min 629.96ppb m
response 484456

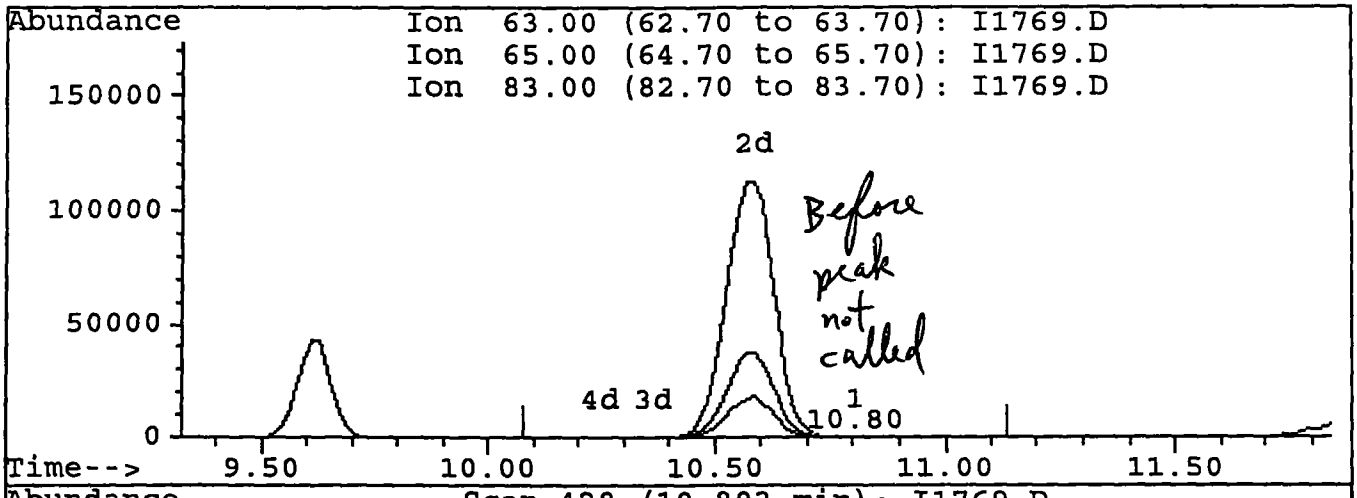
Ion	Exp%	Act%
59.00	100	100
41.00	22.40	22.80
0.00	0.00	0.00
0.00	0.00	0.00

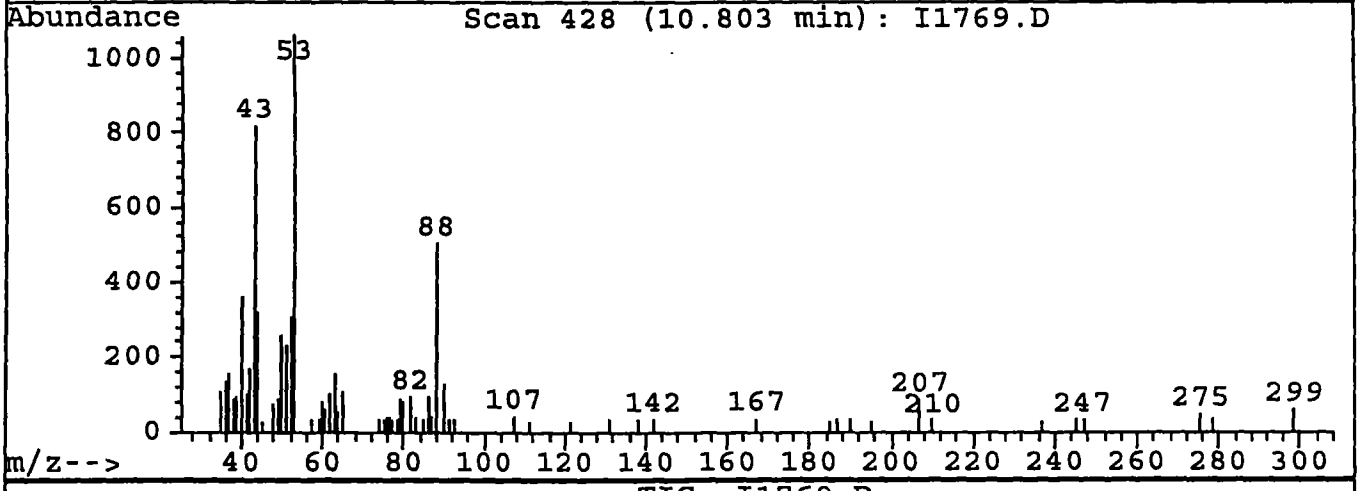
Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\012802\I1769.D
Acq On : 28 Jan 102 4:37 pm
Sample : STD #6
Misc : 30 PPB-524.2 INIT CAL. GCMS#1
Quant Time: Jan 29 11:15 19102

Vial: 3
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 11:11:27 2002
Response via : Multiple Level Calibration





TIC: I1769.D

(15) 1,1-Diclethane
10.80min 0.00ppb
response 120

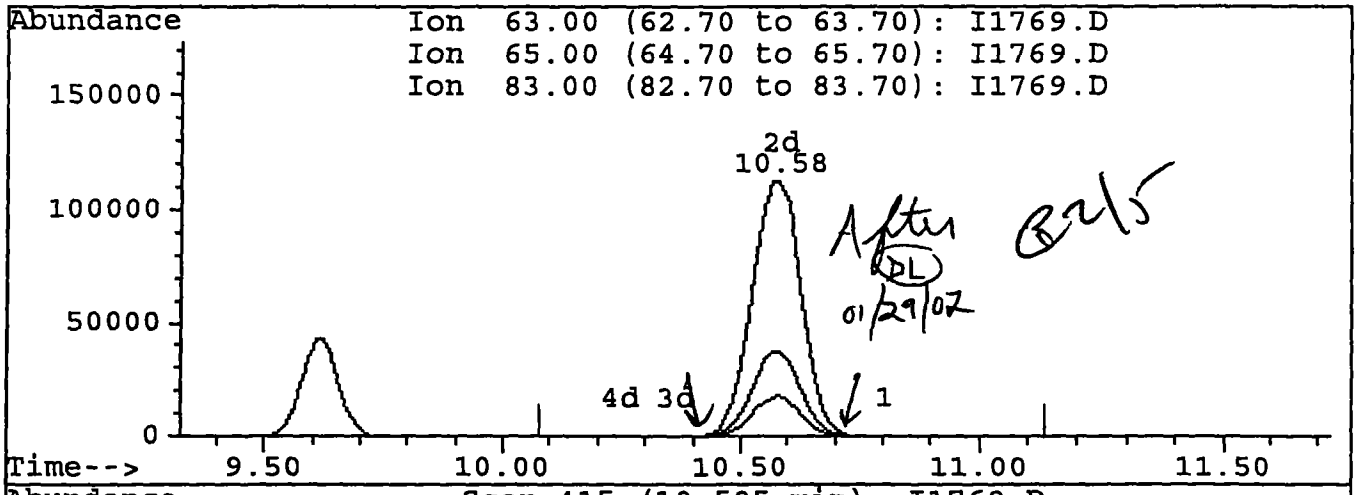
Ion	Exp%	Act%
63.00	100	100
65.00	28.60	34.30
83.00	13.10	12.30
0.00	0.00	0.00

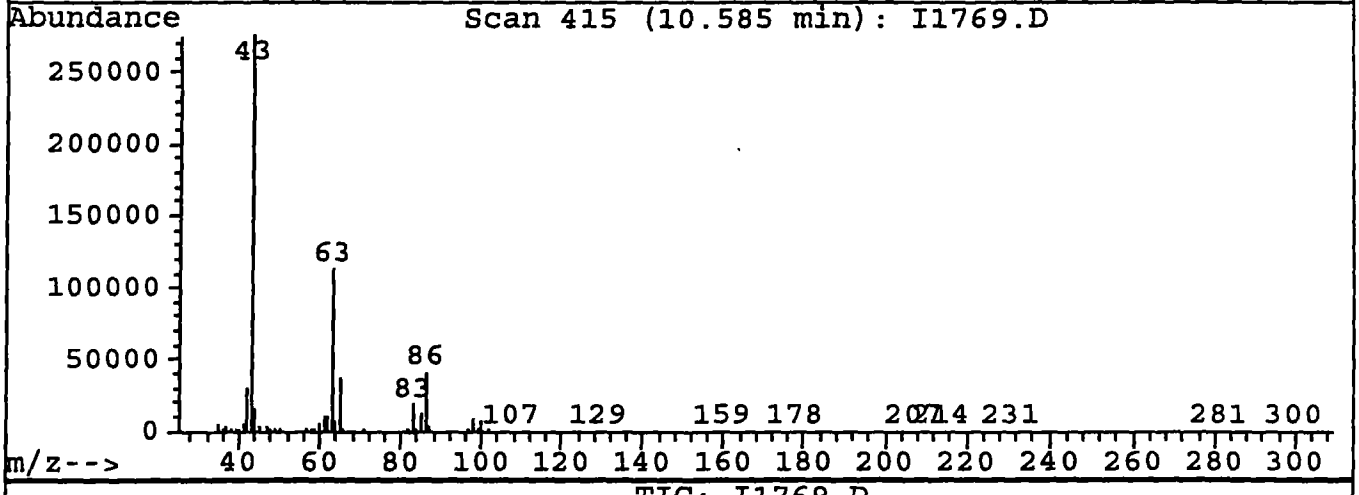
I1769.D 5240128.M Tue Jan 29 11:15:12 2002 TEST2

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\012802\I1769.D Vial: 3
Acq On : 28 Jan 102 4:37 pm Operator: DLIPANI
Sample : STD #6 Inst : 5970 - In
Misc : 30 PPB-524.2 INIT CAL. GCMS#1 Multiplr: 1.00
Quant Time: Jan 29 11:15 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 11:11:27 2002
Response via : Multiple Level Calibration





TIC: I1769.D

(15) 1,1-Diclethane
10.58min 28.07ppb m
response 817492

Ion	Exp%	Act%
63.00	100	100
65.00	28.60	33.08
83.00	13.10	16.11
0.00	0.00	0.00

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\012802\I1770.D Vial: 3
Acq On : 28 Jan 102 5:22 pm Operator: DLIPANI
Sample : STD #7 Inst : 5970 - In
Misc : 40 PPB-524.2 INIT CAL. GCMS#1 Multiplr: 1.00
Quant Time: Jan 29 11:21 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 11:21:37 2002
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	14.64	96	66743	1.00	ppb		-0.02
System Monitoring Compounds							%Recovery
49) Surr2,BFB	25.05	95	70901	1.98	ppb		99.08%
63) Surr5,1,2-Dichlorobenzene-	29.06	152	54732	1.94	ppb		96.89%
Target Compounds							Qvalue
2) Dichlorodifluoromethane	3.85	85	1089590	37.50	ppb		97
3) Chloromethane	4.36	50	391414	39.52	ppb	#	86
4) Vinyl Chloride	4.59	62	499186	40.07	ppb		100
5) Bromomethane	5.60	94	639057	39.39	ppb		93
6) Chloroethane	5.77	64	376422	37.30	ppb		96
7) Trichlorofluoromethane	6.39	101	1602931	37.24	ppb		99
9) 1,1-Diclethene	7.81	96	570485	39.15	ppb		98
10) tert Butyl Alcohol	7.99	59	691746	891.71	ppb	m DL	98
12) Methylene Chloride	8.90	84	643000	37.55	ppb	01/29/02	98
13) Methyl-t-Butyl Ether	9.29	73	1456080	38.84	ppb		96
14) trans-1,2-Dichloroethene	9.61	96	658830	37.45	ppb		98
15) 1,1-Diclethane	10.57	63	1115929	38.00	ppb		94
17) 2,2-Dichloropropane	11.85	77	1230426	40.07	ppb		93
18) cis-1,2-Dichloroethene	11.95	96	744032	38.06	ppb		93
19) Chloroform	12.30	83	1528219	37.78	ppb		99
20) Bromochloromethane	12.67	128	466637	38.97	ppb		87
21) 1,1,1-Trichloroethane	13.21	97	1376179	38.70	ppb		97
22) 1,1-Dichloropropene	13.57	75	1079767	38.80	ppb		98
23) Carbontetrachloride	13.82	117	1257116	40.14	ppb		98
24) Benzene	14.19	78	2034531	36.83	ppb		95
25) 1,2-Dichloroethane	14.12	62	1033024	37.21	ppb	#	93
26) Trichloroethene	15.57	95	852826	36.69	ppb		97
27) 1,2-Diclpropane	15.96	63	626025	38.89	ppb		97
28) Bromodichloromethane	16.51	83	1292442	41.01	ppb		100
29) Dibromomethane	16.65	93	632128	38.03	ppb		93
31) trans-1,3-Dichloropropene	18.92	75	923862	43.93	ppb		92
32) Toluene	18.53	91	2433620	37.29	ppb		99
33) cis-1,3-Dichloropropene	17.74	75	1031298	41.98	ppb		99
34) 1,1,2-Trichloroethane	19.31	83	480596	38.22	ppb		87
36) 1,2-Dibromoethane	21.09	107	815379	39.65	ppb		91
37) 1,3-Dichloropropane	19.91	76	979067	37.75	ppb		96
38) Tetrachloroethene	20.13	166	1013481	36.43	ppb		97
39) Dibromochloromethane	20.60	129	1065231	42.87	ppb		98
40) Chlorobenzene	22.12	112	1767851	36.98	ppb		93
41) 1,1,1,2-Tetrachloroethane	22.20	131	801395	39.05	ppb		97
42) Ethylbenzene	22.22	91	2895240	37.00	ppb		97
43) (m+p)Xylene	22.41	106	2045373	73.40	ppb		85

(#) = qualifier out of range (m) = manual integration DL 01/29/02

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\012802\I1770.D Vial: 3
Acq On : 28 Jan 102 5:22 pm Operator: DLIPANI
Sample : STD #7 Inst : 5970 - In
Misc : 40 PPB-524.2 INIT CAL. GCMS#1 Multiplr: 1.00
Quant Time: Jan 29 11:21 19102

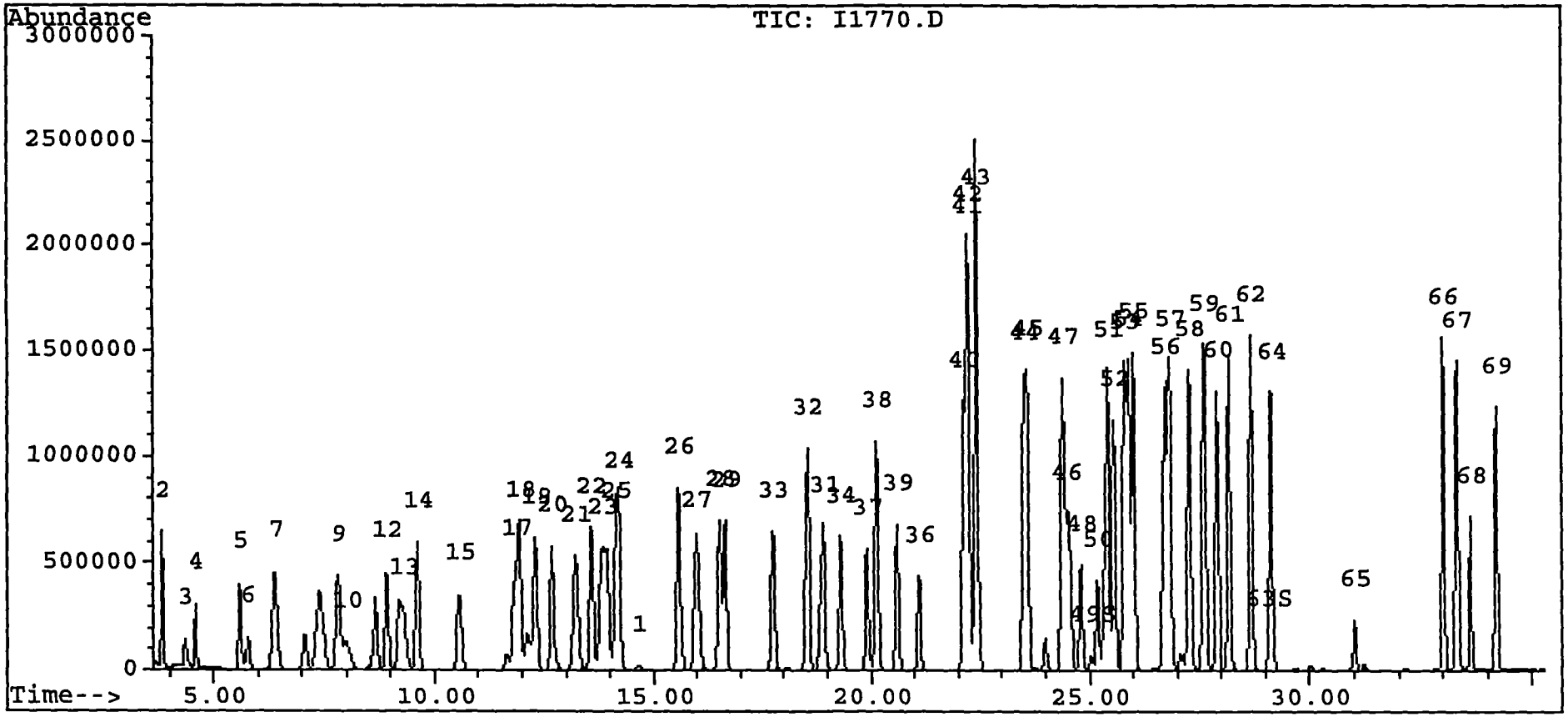
Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 11:21:37 2002
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
44)	o-Xylene	23.52	106	1009862	37.26	ppb		92
45)	Styrene	23.58	104	1748491	38.51	ppb		96
46)	Bromoform	24.48	173	687301	44.88	ppb	#	94
47)	Isopropylbenzene	24.39	105	2967063	37.12	ppb		98
48)	1,1,2,2-Tetrachloroethane	24.81	83	686656	39.64	ppb		97
50)	1,2,3-Trichloropropane	25.18	110	208188	37.55	ppb		94
51)	n-Propylbenzene	25.42	91	3657268	37.88	ppb		98
52)	Bromobenzene	25.57	156	951007	36.93	ppb		95
53)	1,3,5-Trimethylbenzene	25.81	105	2650007	37.33	ppb		98
54)	2-Chlorotoluene	25.89	126	808751	36.51	ppb		94
55)	4-Chlorotoluene	26.01	126	727099	37.72	ppb		95
56)	tert-Butylbenzene	26.72	119	2554140	37.42	ppb		100
57)	1,2,4-Trimethylbenzene	26.83	105	2671576	37.77	ppb		95
58)	sec-Butylbenzene	27.27	105	3298111	37.19	ppb		98
59)	p-Isopropyltoluene	27.61	119	2881034	37.95	ppb		98
60)	1,3-Dclbenz	27.91	146	1520880	36.80	ppb		98
61)	1,4-Dclbenz	28.18	146	1644494	36.85	ppb		96
62)	n-Butylbenzene	28.67	91	2737352	38.39	ppb		93
64)	1,2-Dclbenz	29.14	146	1482157	37.02	ppb		98
65)	1,2-Dibromo-3-chloropropan	31.01	75	161972	42.72	ppb	#	84
66)	1,2,4-Tcbenzene	33.01	180	1166391	37.91	ppb		94
67)	Hexachlorobt	33.32	225	844152	35.35	ppb		94
68)	Naphthalen	33.62	128	1400188	41.21	ppb		98
69)	1,2,3-Tclbenzene	34.19	180	1000820	37.56	ppb		96

(#) = qualifier out of range (m) = manual integration

Data Fi.. : J:\ACQUDATA\MSVOA1\DATA\012802\I1770.I Vial: 3
Acq On : 28 Jan 102 5:22 pm Operator: DLIPANI
Sample : STD #7 Inst : 5970 - In
Misc : 40 PPB-524.2 INIT CAL. GCMS#1 Multiplr: 1.00
Quant Time: Jan 29 11:21 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 11:21:37 2002
Response via : Multiple Level Calibration

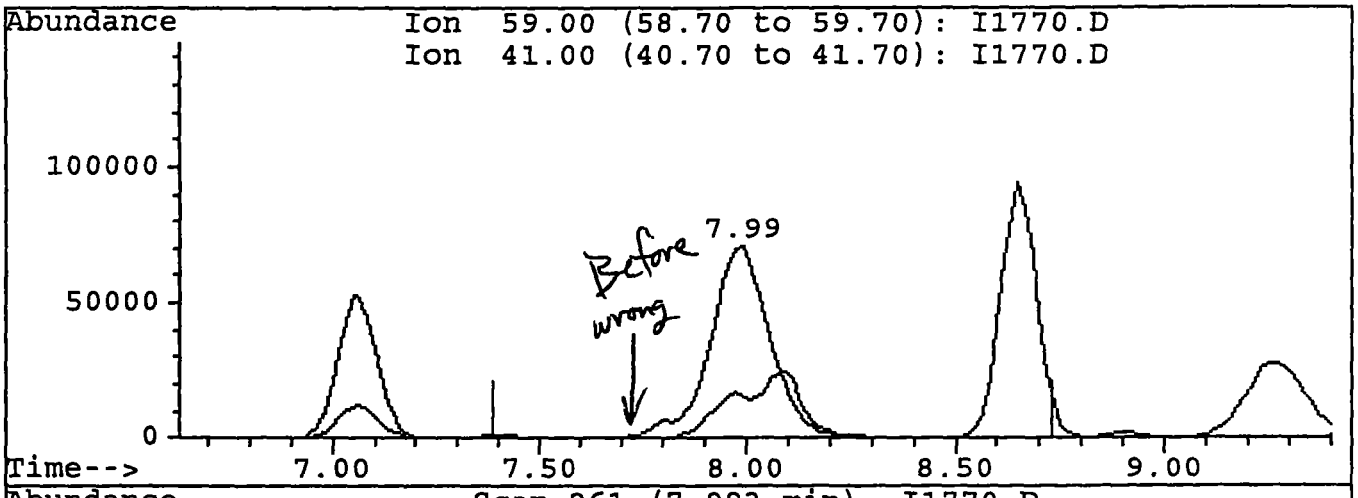


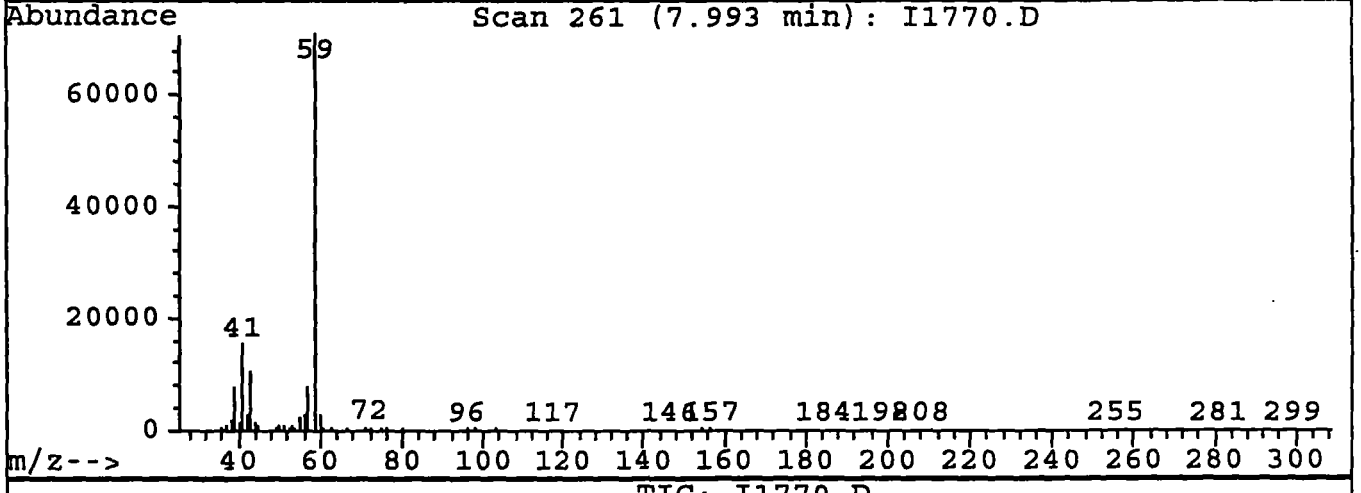
Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\012802\I1770.D
Acq On : 28 Jan 102 5:22 pm
Sample : STD #7
Misc : 40 PPB-524.2 INIT CAL. GCMS#1
Quant Time: Jan 29 11:19 19102

Vial: 3
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 11:16:16 2002
Response via : Multiple Level Calibration





TIC: I1770.D

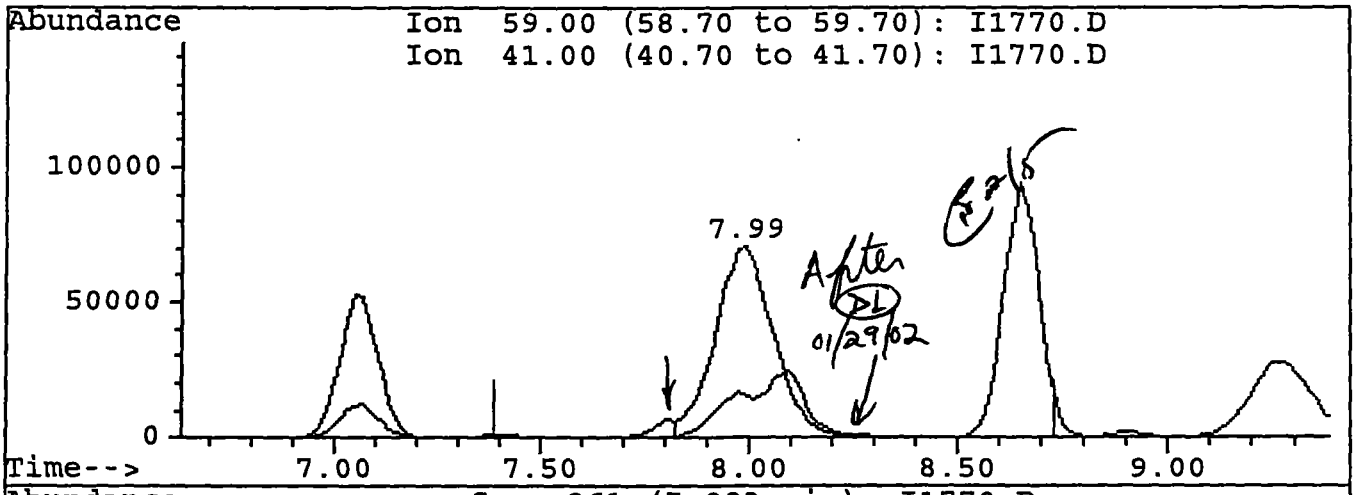
(10) tert Butyl Alcohol
7.99min 925.71ppb
response 718124

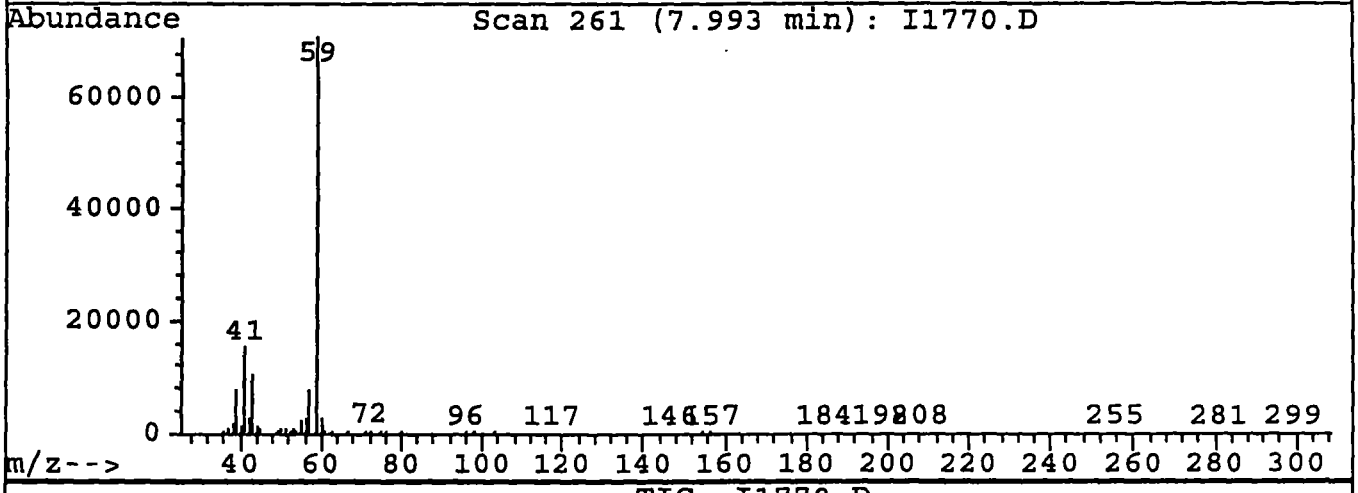
Ion	Exp%	Act%
59.00	100	100
41.00	22.40	21.46
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\012802\I1770.D Vial: 3
Acq On : 28 Jan 102 5:22 pm Operator: DLIPANI
Sample : STD #7 Inst : 5970 - In
Misc : 40 PPB-524.2 INIT CAL. GCMS#1 Multiplr: 1.00
Quant Time: Jan 29 11:20 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 11:16:16 2002
Response via : Multiple Level Calibration





TIC: I1770.D

(10) tert Butyl Alcohol
7.99min 891.71ppb m
response 691746

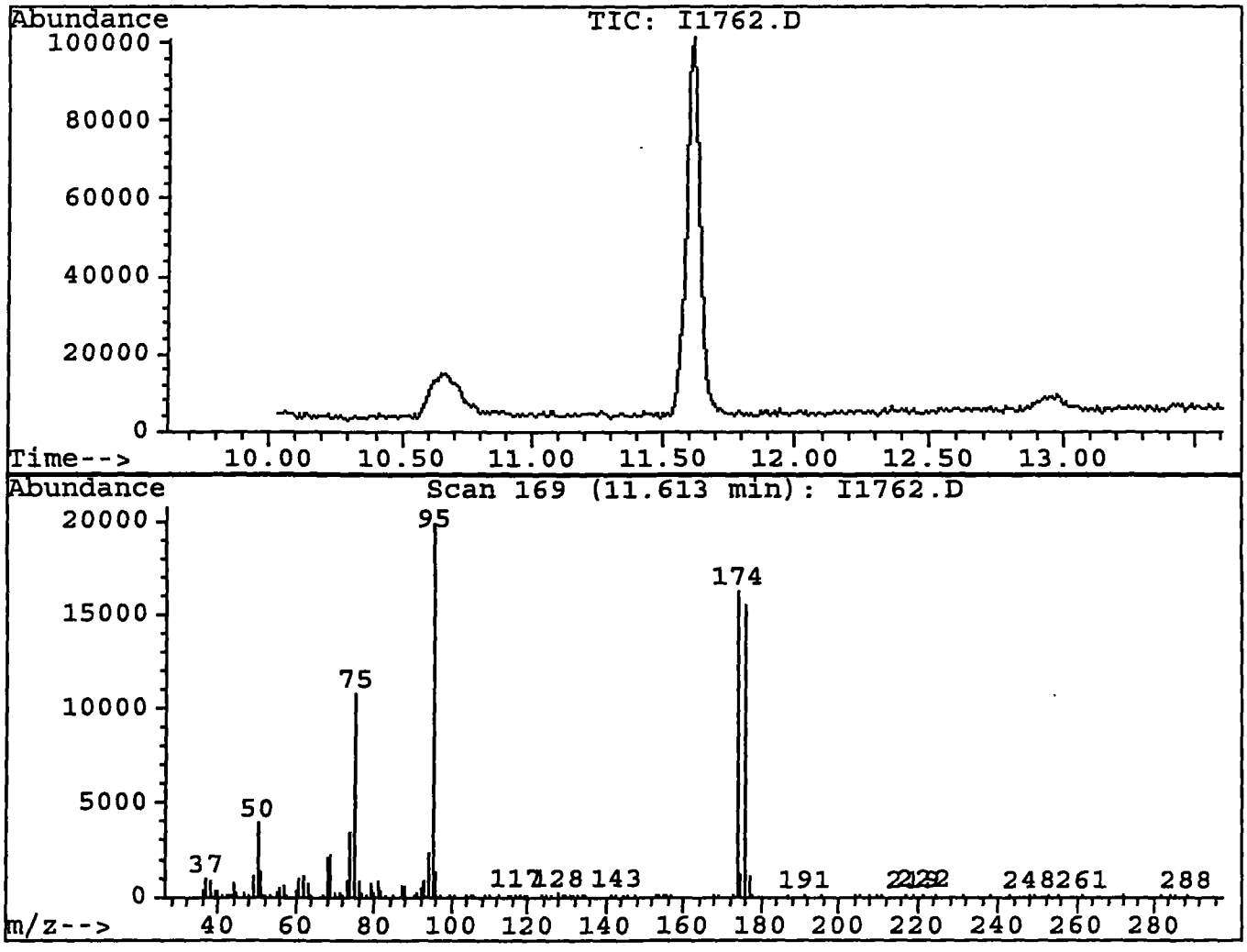
Ion	Exp%	Act%
59.00	100	100
41.00	22.40	21.46
0.00	0.00	0.00
0.00	0.00	0.00

BFB

Data File : J:\ACQUDATA\MSVOA1\DATA\012802\I1762.D
Acq On : 28 Jan 102 10:56 am
Sample : TUNE CHECK
Misc :

Vial: 3
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles



Peak Apex is scan: 169

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.5	3876	PASS
75	95	30	60	54.0	10717	PASS
95	95	100	100	100.0	19864	PASS
96	95	5	9	6.5	1295	PASS
173	174	0	2	0.8	134	PASS
174	95	50	100	81.5	16195	PASS
175	174	5	9	7.1	1149	PASS
176	174	95	101	95.8	15507	PASS
177	176	5	9	7.1	1094	PASS

Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\MSVOA1\DATA\020102\I1835.D Vial: 39
Acq On : 1 Feb 102 11:15 am Operator: DLIPANI
Sample : CCV Inst : 5970 - In
Misc : Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	Fluorobenzene	1.000	1.000	0.0	103	0.07
2	Dichlorodifluoromethane	0.435	0.437	-0.5	102	0.08
3	Chloromethane	0.148	0.150	-1.4	96	0.05
4	Vinyl Chloride	0.187	0.172	7.8	98	0.08
5	Bromomethane	0.243	0.232	4.4	100	0.08
6	Chloroethane	0.151	0.145	4.0	101	0.10
7	Trichlorofluoromethane	0.645	0.617	4.4	97	0.10
8	Acetone	0.036	0.037	-3.9	102	0.08
9	1,1-Diclethene	0.218	0.203	6.9	100	0.08
10	tert Butyl Alcohol	0.012	0.009	21.9	90	0.05
11	Methyl Acetate	0.129	0.131	-1.4	105	0.08
12	Methylene Chloride	0.257	0.263	-2.4	104	0.08
[illegible]	Methyl-t-Butyl Ether	0.562	0.511	8.9	96	0.08
[illegible]	trans-1,2-Dichloroethene	0.264	0.246	6.8	98	0.08
15	1,1-Diclethane	0.440	0.407	7.6	95	0.08
16	2-Butanone	0.049	0.048	3.2	100	0.08
17	2,2-Dichloropropane	0.460	0.393	14.5	92	0.08
18	cis-1,2-Dichloroethene	0.293	0.277	5.3	97	0.07
19	Chloroform	0.606	0.635	-4.8	109	0.07
20	Bromochloromethane	0.179	0.177	1.1	103	0.08
21	1,1,1-Trichloroethane	0.533	0.486	8.8	99	0.07
22	1,1-Dichloropropene	0.417	0.402	3.5	99	0.08
23	Carbontetrachloride	0.469	0.412	12.2	94	0.08
24	Benzene	0.828	0.763	7.8	96	0.07
25	1,2-Dichloroethane	0.416	0.416	-0.1	102	0.05
26	Trichloroethene	0.348	0.324	7.0	96	0.07
27	1,2-Diclpropane	0.241	0.221	8.3	98	0.07
28	Bromodichloromethane	0.472	0.419	11.3	98	0.07
29	Dibromomethane	0.249	0.232	6.7	101	0.05
30	4-Methyl-2-Pentanone	0.051	0.045	11.1	92	0.07
31	trans-1,3-Dichloropropene	0.315	0.260	17.5	95	0.07
32	Toluene	0.978	0.927	5.2	96	0.07
33	cis-1,3-Dichloropropene	0.368	0.306	16.9	91	0.05
34	1,1,2-Trichloroethane	0.188	0.181	3.8	104	0.07
35	2-Hexanone	0.082	0.071	14.3	91	0.07
36	1,2-Dibromoethane	0.308	0.284	7.9	98	0.07
37	1,3-Dichloropropane	0.389	0.366	5.8	102	0.07
38	Tetrachloroethene	0.417	0.400	4.1	97	0.07
[illegible]	Dibromochloromethane	0.372	0.310	16.7	97	0.07
[illegible]	Chlorobenzene	0.716	0.677	5.5	94	0.07
41	1,1,1,2-Tetrachloroethane	0.307	0.272	11.4	96	0.07
42	Ethylbenzene	1.172	1.116	4.8	96	0.07

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\MSVOA1\DATA\020102\I1835.D Vial: 39
Acq On : 1 Feb 102 11:15 am Operator: DLIPANI
Sample : CCV Inst : 5970 - In
Misc : Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

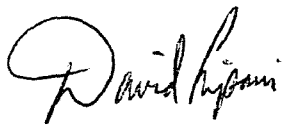
		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
43		(m+p)Xylene	0.418	0.405	2.9	95	0.07
44		o-Xylene	0.406	0.391	3.7	98	0.05
45		Styrene	0.680	0.628	7.6	96	0.07
46		Bromoform	0.229	0.167	27.1	93	0.07
47		Isopropylbenzene	1.198	1.142	4.6	96	0.07
48		1,1,2,2-Tetrachloroethane	0.260	0.243	6.3	103	0.07
49	S	Surr2,BFB	0.536	0.488	9.0	92	0.05
50		1,2,3-Trichloropropane	0.083	0.078	5.9	107	0.07
51		n-Propylbenzene	1.447	1.391	3.9	99	0.07
52		Bromobenzene	0.386	0.357	7.5	97	0.07
53		1,3,5-Trimethylbenzene	1.064	0.996	6.4	96	0.07
54		2-Chlorotoluene	0.332	0.315	4.9	105	0.05
		4-Chlorotoluene	0.289	0.272	6.0	85	0.07
--		tert-Butylbenzene	1.023	0.987	3.5	97	0.07
57		1,2,4-Trimethylbenzene	1.060	1.027	3.1	96	0.07
58		sec-Butylbenzene	1.329	1.251	5.9	94	0.07
59		p-Isopropyltoluene	1.137	1.080	5.0	96	0.07
60		1,3-Dclbenz	0.619	0.601	2.9	99	0.07
61		1,4-Dclbenz	0.669	0.659	1.4	100	0.08
62		n-Butylbenzene	1.068	1.047	2.0	100	0.07
63	S	Surr5,1,2-Dichlorobenzene-d	0.423	0.383	9.4	92	0.08
64		1,2-Dclbenz	0.600	0.580	3.4	99	0.07
65		1,2-Dibromo-3-chloropropane	0.057	0.042	25.8	81	0.08
66		1,2,4-Tcbenzene	0.461	0.443	3.9	97	0.07
67		Hexachlorobt	0.358	0.330	7.7	92	0.07
68		Naphthalen	0.509	0.479	6.0	104	0.07
69		1,2,3-Tclbenzene	0.399	0.375	6.0	95	0.07

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\020102\I1835.D
Acq On : 1 Feb 102 11:15 am
Sample : CCV
Misc :
Quant Time: Feb 1 11:50 19102

Vial: 39
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration



Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	14.73	96	59341	1.00	ppb		0.07
System Monitoring Compounds							%Recovery
49) Surr2,BFB	25.10	95	57917	1.82	ppb		91.03%
63) Surr5,1,2-Dichlorobenzene-	29.14	152	45498	1.81	ppb		90.59%
Target Compounds							Qvalue
2) Dichlorodifluoromethane	3.92	85	51922	2.01	ppb		98
3) Chloromethane	4.42	50	17861	2.03	ppb		97
4) Vinyl Chloride	4.68	62	20423	1.84	ppb		93
5) Bromomethane	5.69	94	27571	1.91	ppb		96
6) Chloroethane	5.87	64	17226	1.92	ppb	#	88
7) Trichlorofluoromethane	6.48	101	73205	1.91	ppb		100
8) Acetone	7.59	43	22219	10.39	ppb		96
9) 1,1-Diclethene	7.89	96	24131	1.86	ppb		97
10) tert Butyl Alcohol	8.06	59	21566	31.25	ppb		88
11) Methyl Acetate	8.65	43	15491	2.03	ppb	#	91
12) Methylene Chloride	8.99	84	31182	2.05	ppb		98
13) Methyl-t-Butyl Ether	9.36	73	60700	1.82	ppb	#	94
14) trans-1,2-Dichloroethene	9.69	96	29155	1.86	ppb		92
15) 1,1-Diclethane	10.65	63	48266	1.85	ppb		97
16) 2-Butanone	11.58	43	28235	9.68	ppb	#	93
17) 2,2-Dichloropropane	11.92	77	46667	1.71	ppb		99
18) cis-1,2-Dichloroethene	12.02	96	32904	1.89	ppb		96
19) Chloroform	12.37	83	75402	2.10	ppb		97
20) Bromochloromethane	12.76	128	21062	1.98	ppb	#	78
21) 1,1,1-Trichloroethane	13.30	97	57657	1.82	ppb		96
22) 1,1-Dichloropropene	13.65	75	47756	1.93	ppb		94
23) Carbontetrachloride	13.90	117	48893	1.76	ppb		94
24) Benzene	14.26	78	90562	1.84	ppb		97
25) 1,2-Dichloroethane	14.19	62	49418	2.00	ppb	#	92
26) Trichloroethene	15.65	95	38458	1.86	ppb		94
27) 1,2-Diclpropane	16.02	63	26245	1.83	ppb		88
28) Bromodichloromethane	16.58	83	49718	1.77	ppb		99
29) Dibromomethane	16.70	93	27586	1.87	ppb		87
30) 4-Methyl-2-Pentanone	17.30	58	26772	8.89	ppb		97
31) trans-1,3-Dichloropropene	18.99	75	30861	1.65	ppb		95
32) Toluene	18.62	91	110017	1.90	ppb		97
33) cis-1,3-Dichloropropene	17.81	75	36287	1.66	ppb		95
34) 1,1,2-Trichloroethane	19.37	83	21514	1.92	ppb		87
35) 2-Hexanone	19.36	43	41844	8.57	ppb		99
36) 1,2-Dibromoethane	21.16	107	33669	1.84	ppb		99
37) 1,3-Dichloropropane	19.98	76	43435	1.88	ppb		90
38) Tetrachloroethene	20.20	166	47444	1.92	ppb		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\020102\I1835.D Vial: 39
Acq On : 1 Feb 102 11:15 am Operator: DLIPANI
Sample : CCV Inst : 5970 - In
Misc : Multiplr: 1.00
Quant Time: Feb 1 11:50 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration

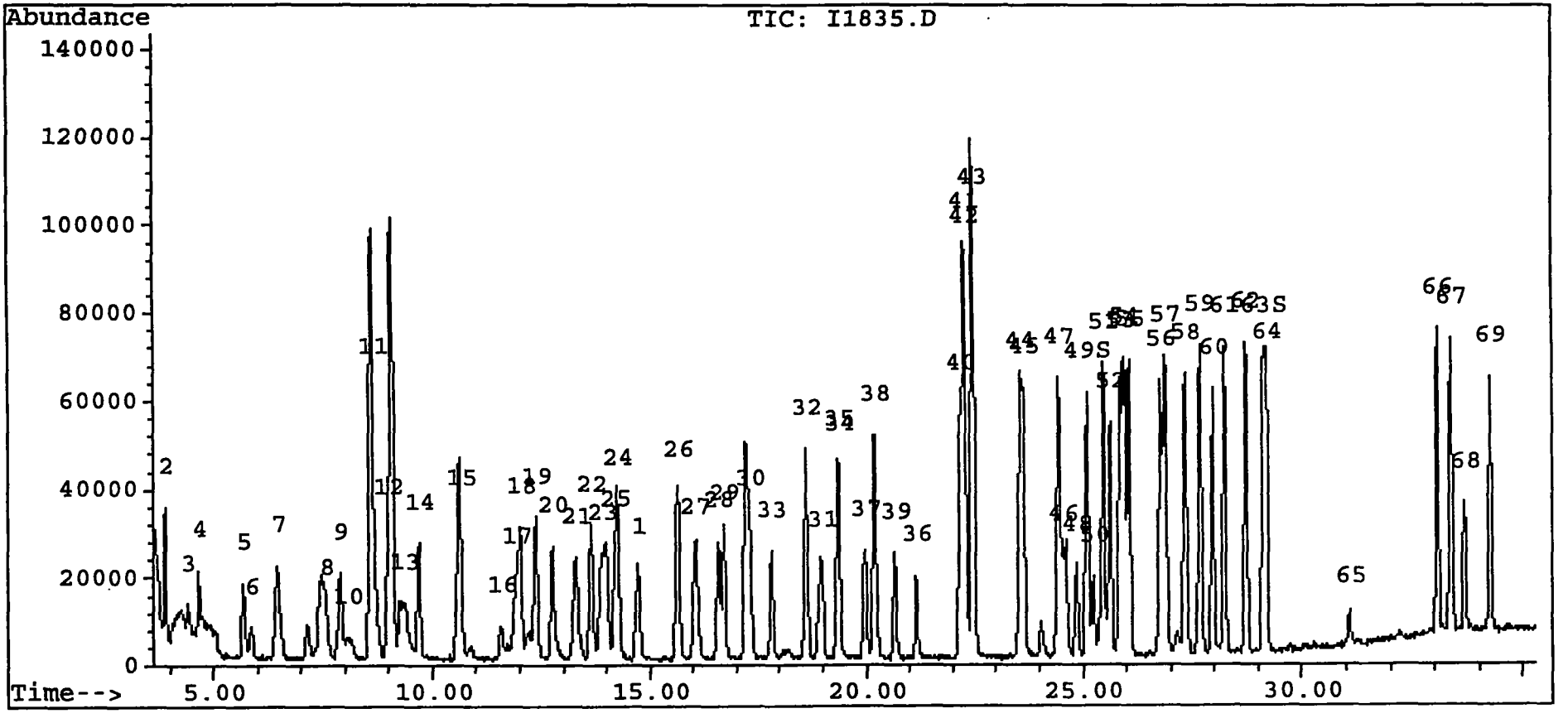
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
39)	Dibromochloromethane	20.67	129	36800	1.67	ppb		100
40)	Chlorobenzene	22.19	112	80310	1.89	ppb		89
41)	1,1,1,2-Tetrachloroethane	22.27	131	32328	1.77	ppb		95
42)	Ethylbenzene	22.29	91	132469	1.90	ppb		94
43)	(m+p)Xylene	22.47	106	96210	3.88	ppb		87
44)	o-Xylene	23.57	106	46406	1.93	ppb		97
45)	Styrene	23.65	104	74582	1.85	ppb		89
46)	Bromoform	24.54	173	19863	1.46	ppb	#	92
47)	Isopropylbenzene	24.46	105	135586	1.91	ppb		97
48)	1,1,2,2-Tetrachloroethane	24.86	83	28850	1.87	ppb		99
50)	1,2,3-Trichloropropane	25.25	110	9274	1.88	ppb		97
51)	n-Propylbenzene	25.47	91	165050	1.92	ppb		98
52)	Bromobenzene	25.64	156	42349	1.85	ppb		96
53)	1,3,5-Trimethylbenzene	25.87	105	118197	1.87	ppb		98
54)	2-Chlorotoluene	25.96	126	37442	1.90	ppb		97
55)	4-Chlorotoluene	26.08	126	32232	1.88	ppb		97
56)	tert-Butylbenzene	26.78	119	117126	1.93	ppb		99
57)	1,2,4-Trimethylbenzene	26.88	105	121879	1.94	ppb		98
58)	sec-Butylbenzene	27.34	105	148447	1.88	ppb		98
59)	p-Isopropyltoluene	27.67	119	128195	1.90	ppb		99
60)	1,3-Dclbenz	27.98	146	71361	1.94	ppb		98
61)	1,4-Dclbenz	28.25	146	78245	1.97	ppb		96
62)	n-Butylbenzene	28.74	91	124300	1.96	ppb		94
64)	1,2-Dclbenz	29.21	146	68792	1.93	ppb		98
65)	1,2-Dibromo-3-chloropropan	31.09	75	5006	1.48	ppb		93
66)	1,2,4-Tcbenzene	33.08	180	52602	1.92	ppb		91
67)	Hexachlorobt	33.38	225	39210	1.85	ppb		98
68)	Naphthalen	33.69	128	56823	1.88	ppb	#	92
69)	1,2,3-Tclbenzene	34.26	180	44560	1.88	ppb		93

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\020102\I1835.D Vial: 39
Acq On : 1 Feb 102 11:15 am Operator: DLIPANI
Sample : CCV Inst : 5970 - In
Misc : Multiplr: 1.00
Quant Time: Feb 1 11:50 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration



Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\MSVOA1\DATA\020202\I1852.D Vial: 10
Acq On : 2 Feb 102 10:46 am Operator: DLIPANI
Sample : CCV Inst : 5970 - In
Misc : Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	
1	Fluorobenzene	1.000	1.000	0.0	94	0.03	
2	Dichlorodifluoromethane	0.435	0.524	-20.4	111	0.05	
3	Chloromethane	0.148	0.168	-13.4	97	0.03	
4	Vinyl Chloride	0.187	0.196	-5.1	101	0.05	
5	Bromomethane	0.243	0.259	-6.6	101	0.05	
6	Chloroethane	0.151	0.163	-7.8	103	0.07	
7	Trichlorofluoromethane	0.645	0.741	-14.8	105	0.08	
8	Acetone	0.036	0.036	-0.5	90	0.05	
9	1,1-Diclethene	0.218	0.226	-3.6	101	0.07	
10	tert Butyl Alcohol	0.012	0.007	37.5#	65	0.02	- NON TARGET
11	Methyl Acetate	0.129	0.124	3.5	91	0.02	
12	Methylene Chloride	0.257	0.253	1.5	90	0.05	
1[illegible]	Methyl-t-Butyl Ether	0.562	0.473	15.7	81	0.03	
14	trans-1,2-Dichloroethene	0.264	0.263	0.1	96	0.05	
15	1,1-Diclethane	0.440	0.434	1.4	92	0.03	
16	2-Butanone	0.049	0.041	15.8	79	0.05	
17	2,2-Dichloropropane	0.460	0.407	11.5	86	0.05	
18	cis-1,2-Dichloroethene	0.293	0.290	1.1	92	0.03	
19	Chloroform	0.606	0.616	-1.6	96	0.03	
20	Bromochloromethane	0.179	0.175	2.5	92	0.03	
21	1,1,1-Trichloroethane	0.533	0.489	8.1	90	0.03	
22	1,1-Dichloropropene	0.417	0.412	1.2	92	0.05	
23	Carbontetrachloride	0.469	0.448	4.6	93	0.03	
24	Benzene	0.828	0.802	3.1	91	0.03	
25	1,2-Dichloroethane	0.416	0.406	2.4	91	0.02	
26	Trichloroethene	0.348	0.336	3.6	91	0.03	
27	1,2-Diclpropane	0.241	0.224	7.1	90	0.05	
28	Bromodichloromethane	0.472	0.429	9.1	92	0.03	
29	Dibromomethane	0.249	0.237	4.8	94	0.03	
30	4-Methyl-2-Pentanone	0.051	0.041	19.1	76	0.03	
31	trans-1,3-Dichloropropene	0.315	0.254	19.4	85	0.02	
32	Toluene	0.978	0.920	5.9	86	0.03	
33	cis-1,3-Dichloropropene	0.368	0.310	15.8	84	0.02	
34	1,1,2-Trichloroethane	0.188	0.181	4.0	94	0.03	
35	2-Hexanone	0.082	0.063	23.6	74	0.03	
36	1,2-Dibromoethane	0.308	0.280	9.2	87	0.03	
37	1,3-Dichloropropane	0.389	0.345	11.3	87	0.03	
[illegible]	Tetrachloroethene	0.417	0.429	-2.9	94	0.03	
[illegible]	Dibromochloromethane	0.372	0.323	13.2	92	0.03	
40	Chlorobenzene	0.716	0.700	2.3	88	0.03	
41	1,1,1,2-Tetrachloroethane	0.307	0.296	3.9	95	0.03	
42	Ethylbenzene	1.172	1.180	-0.7	92	0.03	

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\MSVOA1\DATA\020202\I1852.D Vial: 10
Acq On : 2 Feb 102 10:46 am Operator: DLIPANI
Sample : CCV Inst : 5970 - In
Misc : Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
43		(m+p)Xylene	0.418	0.424	-1.5	90	0.05
44		o-Xylene	0.406	0.390	3.9	89	0.03
45		Styrene	0.680	0.661	2.8	92	0.03
46		Bromoform	0.229	0.176	23.2	89	0.03
47		Isopropylbenzene	1.198	1.182	1.3	90	0.03
48		1,1,2,2-Tetrachloroethane	0.260	0.232	10.5	90	0.03
49	S	Surr2,BFB	0.536	0.523	2.4	90	0.02
50		1,2,3-Trichloropropane	0.083	0.074	10.7	93	0.05
51		n-Propylbenzene	1.447	1.439	0.5	93	0.03
52		Bromobenzene	0.386	0.377	2.2	93	0.03
53		1,3,5-Trimethylbenzene	1.064	1.041	2.1	91	0.03
54		2-Chlorotoluene	0.332	0.306	7.8	93	0.02
55		4-Chlorotoluene	0.289	0.319	-10.4	91	0.03
5		tert-Butylbenzene	1.023	1.018	0.5	91	0.05
57		1,2,4-Trimethylbenzene	1.060	1.078	-1.7	92	0.03
58		sec-Butylbenzene	1.329	1.329	-0.0	91	0.03
59		p-Isopropyltoluene	1.137	1.136	0.1	92	0.03
60		1,3-Dclbenz	0.619	0.628	-1.3	94	0.03
61		1,4-Dclbenz	0.669	0.652	2.5	90	0.03
62		n-Butylbenzene	1.068	1.041	2.5	90	0.03
63	S	Surr5,1,2-Dichlorobenzene-d	0.423	0.400	5.4	87	0.03
64		1,2-Dclbenz	0.600	0.589	1.8	91	0.02
65		1,2-Dibromo-3-chloropropane	0.057	0.044	21.8	77	0.03
66		1,2,4-Tcbenzene	0.461	0.459	0.4	91	0.03
67		Hexachlorobt	0.358	0.357	0.2	90	0.03
68		Naphthalen	0.509	0.467	8.2	92	0.03
69		1,2,3-Tclbenzene	0.399	0.372	6.8	85	0.03

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\020202\I1852.D Vial: 10
Acq On : 2 Feb 102 10:46 am Operator: DLIPANI
Sample : CCV Inst : 5970 - In
Misc : Multiplr: 1.00
Quant Time: Feb 2 11:23 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	14.69	96	53881	1.00	ppb		0.03
System Monitoring Compounds							%Recovery
49) Surr2,BFB	25.07	95	56406	1.95	ppb		97.64%
63) Surr5,1,2-Dichlorobenzene-	29.09	152	43131	1.89	ppb		94.58%
Target Compounds							Qvalue
2) Dichlorodifluoromethane	3.88	85	56467	2.41	ppb		97
3) Chloromethane	4.41	50	18140	2.27	ppb	#	80
4) Vinyl Chloride	4.64	62	21149	2.10	ppb		94
5) Bromomethane	5.65	94	27920	2.13	ppb		89
6) Chloroethane	5.84	64	17557	2.16	ppb		94
7) Trichlorofluoromethane	6.46	101	79804	2.30	ppb		88
8) Acetone	7.55	43	19512	10.05	ppb		99
9) 1,1-Diclethene	7.87	96	24364	2.07	ppb		97
10) tert Butyl Alcohol	8.03	59	15661	24.99	ppb		84
11) Methyl Acetate	8.58	43	13379	1.93	ppb	#	84
12) Methylene Chloride	8.95	84	27224	1.97	ppb		93
13) Methyl-t-Butyl Ether	9.31	73	51000	1.69	ppb	#	90
14) trans-1,2-Dichloroethene	9.66	96	28365	2.00	ppb		90
15) 1,1-Diclethane	10.60	63	46761	1.97	ppb	#	90
16) 2-Butanone	11.54	43	22294	8.42	ppb	m DL	52
17) 2,2-Dichloropropane	11.88	77	43894	1.77	ppb	02/02/02	97
18) cis-1,2-Dichloroethene	11.98	96	31225	1.98	ppb		97
19) Chloroform	12.34	83	66352	2.03	ppb		99
20) Bromochloromethane	12.71	128	18853	1.95	ppb		89
21) 1,1,1-Trichloroethane	13.26	97	52745	1.84	ppb		99
22) 1,1-Dichloropropene	13.62	75	44376	1.98	ppb		98
23) Carbontetrachloride	13.85	117	48230	1.91	ppb		82
24) Benzene	14.22	78	86413	1.94	ppb		98
25) 1,2-Dichloroethane	14.15	62	43758	1.95	ppb	#	91
26) Trichloroethene	15.62	95	36180	1.93	ppb		96
27) 1,2-Diclpropane	16.01	63	24145	1.86	ppb		99
28) Bromodichloromethane	16.55	83	46242	1.82	ppb		98
29) Dibromomethane	16.68	93	25560	1.90	ppb		94
30) 4-Methyl-2-Pentanone	17.27	58	22112	8.09	ppb		96
31) trans-1,3-Dichloropropene	18.94	75	27368	1.61	ppb	#	91
32) Toluene	18.58	91	99178	1.88	ppb		95
33) cis-1,3-Dichloropropene	17.77	75	33400	1.68	ppb		98
34) 1,1,2-Trichloroethane	19.34	83	19498	1.92	ppb		84
35) 2-Hexanone	19.32	43	33877	7.64	ppb		99
36) 1,2-Dibromoethane	21.13	107	30152	1.82	ppb		100
37) 1,3-Dichloropropane	19.95	76	37144	1.77	ppb		99
38) Tetrachloroethene	20.17	166	46206	2.06	ppb		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\020202\I1852.D Vial: 10
Acq On : 2 Feb 102 10:46 am Operator: DLIPANI
Sample : CCV Inst : 5970 - In
Misc : Multiplr: 1.00
Quant Time: Feb 2 11:23 19102

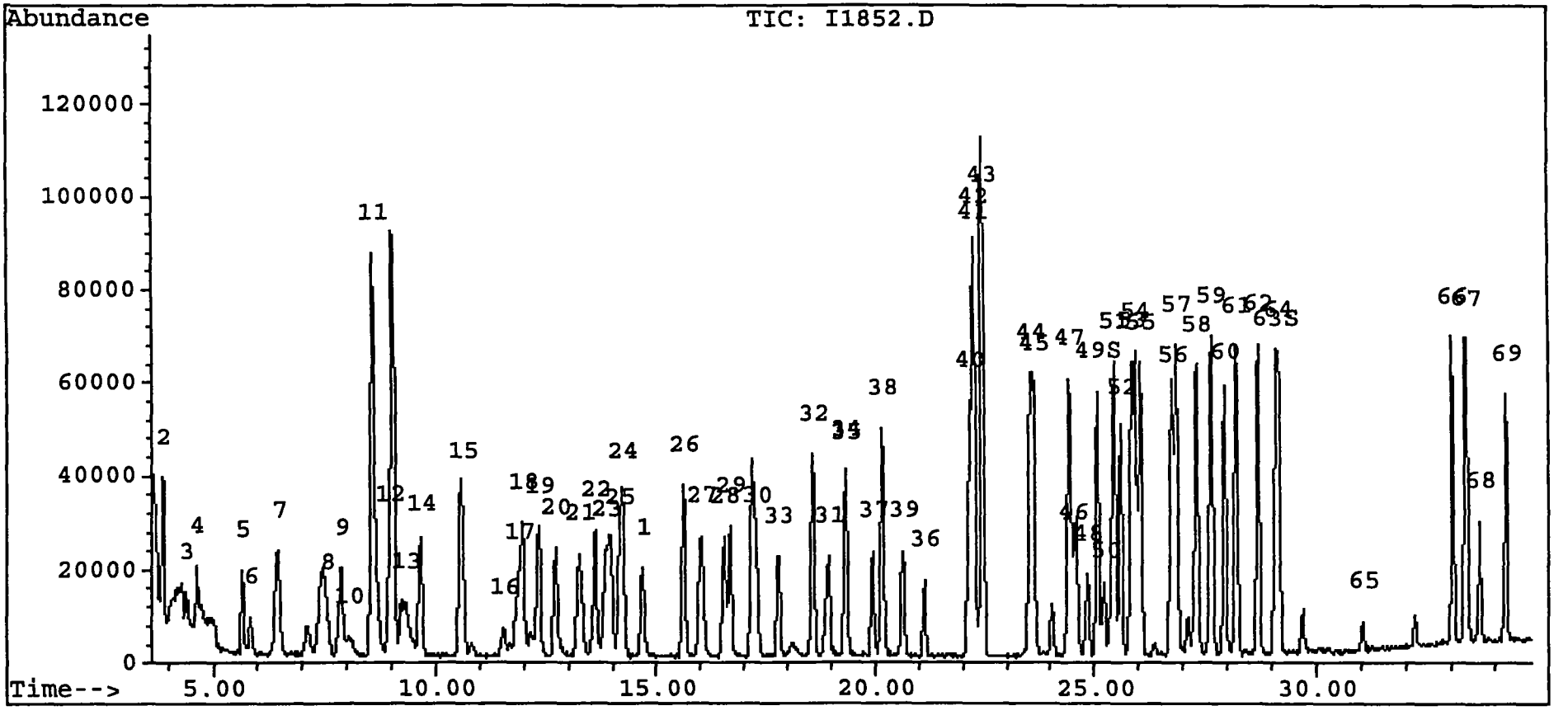
Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
39)	Dibromochloromethane	20.64	129	34804	1.74	ppb		93
40)	Chlorobenzene	22.15	112	75408	1.95	ppb		89
41)	1,1,1,2-Tetrachloroethane	22.24	131	31854	1.92	ppb		85
42)	Ethylbenzene	22.25	91	127207	2.01	ppb		96
43)	(m+p)Xylene	22.46	106	91304	4.06	ppb		98
44)	o-Xylene	23.55	106	42053	1.92	ppb		99
45)	Styrene	23.62	104	71261	1.94	ppb		99
46)	Bromoform	24.51	173	18990	1.54	ppb		94
47)	Isopropylbenzene	24.43	105	127340	1.97	ppb		96
48)	1,1,2,2-Tetrachloroethane	24.83	83	25024	1.79	ppb		99
50)	1,2,3-Trichloropropane	25.23	110	7997	1.79	ppb	#	75
51)	n-Propylbenzene	25.44	91	155112	1.99	ppb		98
52)	Bromobenzene	25.60	156	40648	1.96	ppb		98
53)	1,3,5-Trimethylbenzene	25.84	105	112171	1.96	ppb		90
54)	2-Chlorotoluene	25.92	126	32968	1.84	ppb		92
55)	4-Chlorotoluene	26.04	126	34355	2.21	ppb		96
56)	tert-Butylbenzene	26.77	119	109651	1.99	ppb		91
57)	1,2,4-Trimethylbenzene	26.85	105	116151	2.03	ppb		94
58)	sec-Butylbenzene	27.30	105	143208	2.00	ppb		98
59)	p-Isopropyltoluene	27.64	119	122423	2.00	ppb		98
60)	1,3-Dclbenz	27.94	146	67636	2.03	ppb		96
61)	1,4-Dclbenz	28.20	146	70265	1.95	ppb		96
62)	n-Butylbenzene	28.70	91	112197	1.95	ppb		92
64)	1,2-Dclbenz	29.16	146	63462	1.96	ppb		99
65)	1,2-Dibromo-3-chloropropan	31.04	75	4790	1.56	ppb	#	82
66)	1,2,4-Tcbenzene	33.05	180	49466	1.99	ppb		86
67)	Hexachlorobt	33.35	225	38475	2.00	ppb	#	89
68)	Naphthalen	33.65	128	50347	1.84	ppb		99
69)	1,2,3-Tclbenzene	34.22	180	40090	1.86	ppb		93

(#) = qualifier out of range (m) = manual integration

Data Fi : J:\ACQUDATA\MSVOA1\DATA\020202\I1852. Vial: 10
Acq On : 2 Feb 102 10:46 am Operator: DLIPANI
Sample : CCV Inst : 5970 - In
Misc : Multiplr: 1.00
Quant Time: Feb 2 11:23 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration



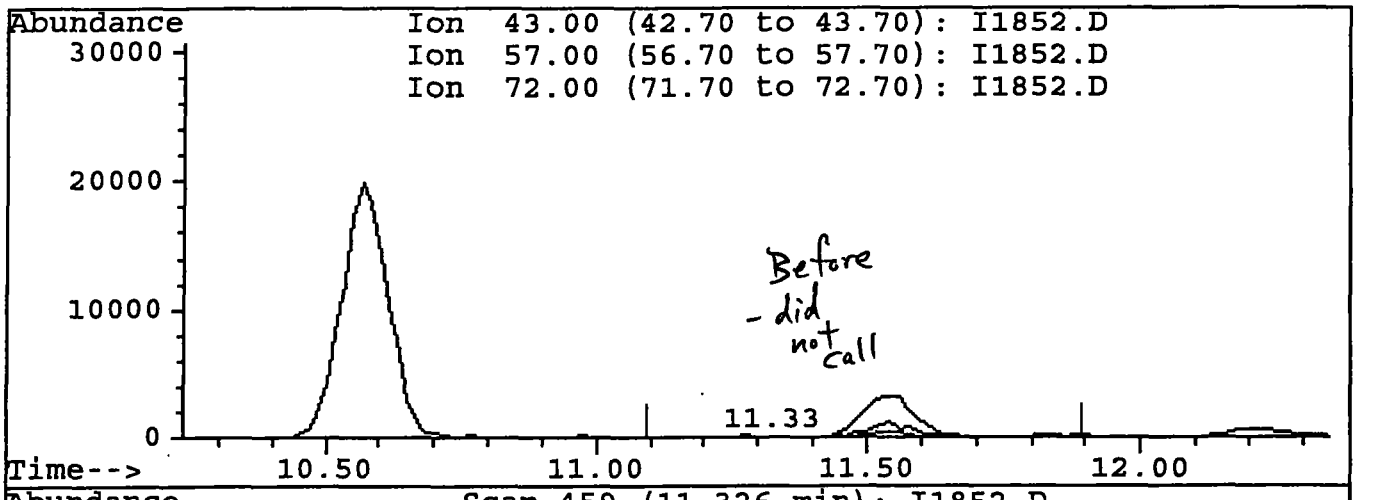
42 2

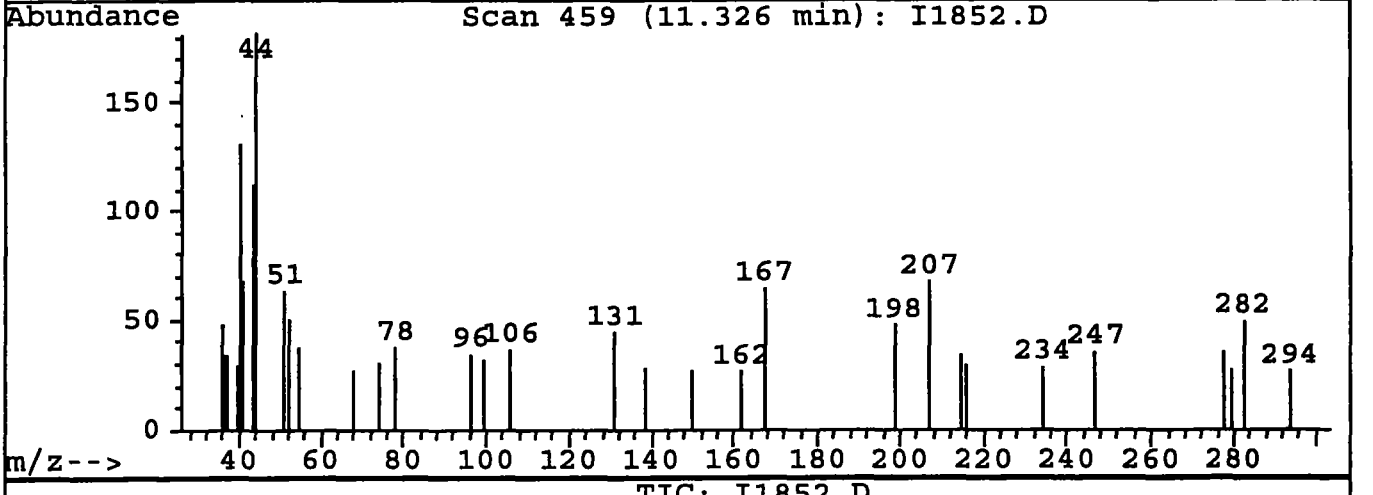
Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\020202\I1852.D
Acq On : 2 Feb 102 10:46 am
Sample : CCV
Misc :
Quant Time: Feb 2 11:21 19102

Vial: 10
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration





TIC: I1852.D

(16) 2-Butanone
11.33min 0.17ppb
response 439

Ion	Exp%	Act%
43.00	100	100
57.00	10.60	0.00#
72.00	30.00	0.00#
0.00	0.00	0.00

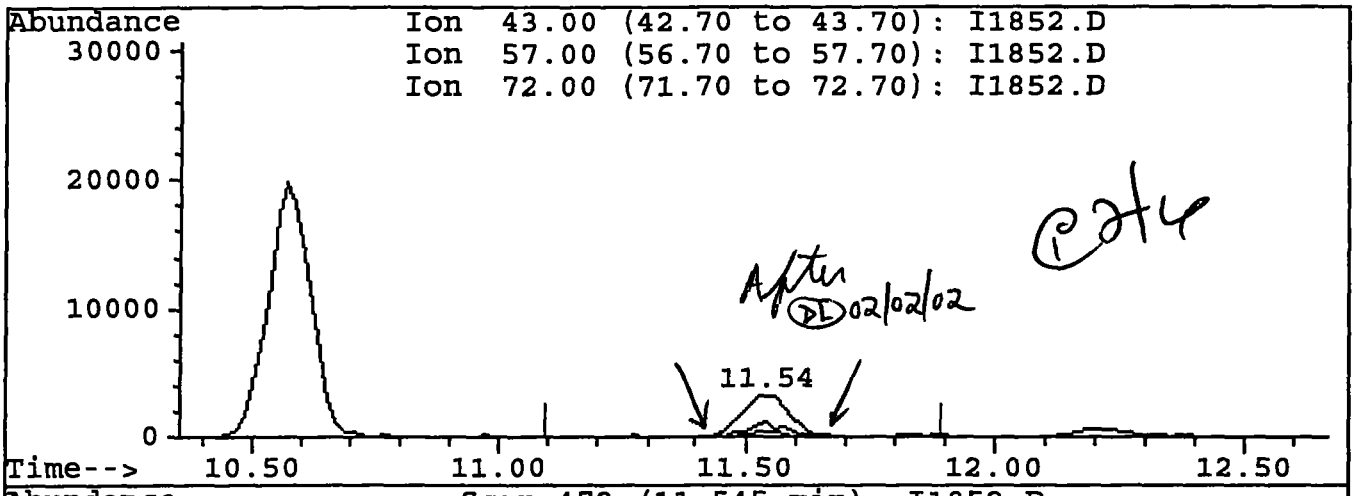
I1852.D 5240128.M Sat Feb 02 11:23:09 2002 TEST2

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\020202\I1852.D
Acq On : 2 Feb 102 10:46 am
Sample : CCV
Misc :
Quant Time: Feb 2 11:23 19102

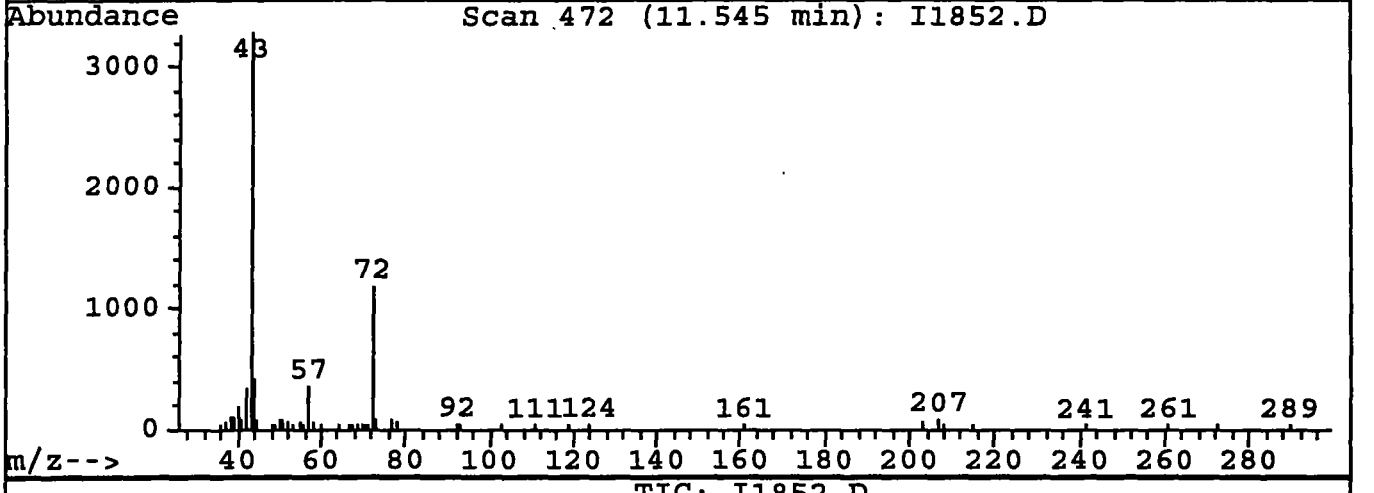
Vial: 10
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration



After DL 02/02/02

C2H4



TIC: I1852.D

(16) 2-Butanone
11.54min 8.42ppb m
response 22294

Ion	Exp%	Act%
43.00	100	100
57.00	10.60	10.72
72.00	30.00	35.90
0.00	0.00	0.00

Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\MSVOA1\DATA\020402\I1869.D Vial: 19
Acq On : 4 Feb 102 10:09 am Operator: DLIPANI
Sample : CCV Inst : 5970 - In
Misc : Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	Fluorobenzene	1.000	1.000	0.0	98	0.06
2	Dichlorodifluoromethane	0.435	0.494	-13.6	110	0.06
3	Chloromethane	0.148	0.171	-15.5	104	0.03
4	Vinyl Chloride	0.187	0.200	-7.0	108	0.06
5	Bromomethane	0.243	0.271	-11.5	111	0.06
6	Chloroethane	0.151	0.177	-16.8	117	0.08
7	Trichlorofluoromethane	0.645	0.712	-10.4	106	0.08
8	Acetone	0.036	0.037	-2.2	96	0.06
9	1,1-Diclethene	0.218	0.228	-4.5	107	0.08
10	tert Butyl Alcohol	0.012	0.008	28.1	79	0.06
11	Methyl Acetate	0.129	0.128	0.2	99	0.04
12	Methylene Chloride	0.257	0.279	-8.8	105	0.06
	Methyl-t-Butyl Ether	0.562	0.510	9.2	91	0.09
	trans-1,2-Dichloroethene	0.264	0.260	1.2	99	0.06
15	1,1-Diclethane	0.440	0.433	1.6	96	0.04
16	2-Butanone	0.049	0.042	14.3	84	0.06
17	2,2-Dichloropropane	0.460	0.412	10.4	91	0.08
18	cis-1,2-Dichloroethene	0.293	0.300	-2.5	100	0.06
19	Chloroform	0.606	0.652	-7.5	106	0.06
20	Bromochloromethane	0.179	0.192	-7.2	106	0.08
21	1,1,1-Trichloroethane	0.533	0.538	-1.0	104	0.04
22	1,1-Dichloropropene	0.417	0.433	-3.8	102	0.08
23	Carbontetrachloride	0.469	0.467	0.5	102	0.08
24	Benzene	0.828	0.866	-4.6	103	0.06
25	1,2-Dichloroethane	0.416	0.426	-2.3	99	0.04
26	Trichloroethene	0.348	0.355	-2.0	101	0.06
27	1,2-Diclpropane	0.241	0.245	-1.7	104	0.08
28	Bromodichloromethane	0.472	0.451	4.6	101	0.08
29	Dibromomethane	0.249	0.258	-3.6	107	0.06
30	4-Methyl-2-Pentanone	0.051	0.045	11.5	87	0.06
31	trans-1,3-Dichloropropene	0.315	0.270	14.3	94	0.06
32	Toluene	0.978	1.033	-5.7	101	0.06
33	cis-1,3-Dichloropropene	0.368	0.354	3.8	100	0.06
34	1,1,2-Trichloroethane	0.188	0.181	3.9	99	0.06
35	2-Hexanone	0.082	0.069	15.6	85	0.06
36	1,2-Dibromoethane	0.308	0.311	-1.0	102	0.08
37	1,3-Dichloropropane	0.389	0.393	-1.1	104	0.06
38	Tetrachloroethene	0.417	0.457	-9.7	106	0.08
	Dibromochloromethane	0.372	0.343	8.0	102	0.06
40	Chlorobenzene	0.716	0.747	-4.3	99	0.06
41	1,1,1,2-Tetrachloroethane	0.307	0.305	0.8	103	0.06
42	Ethylbenzene	1.172	1.265	-7.9	103	0.06

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : J:\ACQUDATA\MSVOA1\DATA\020402\I1869.D Vial: 19
Acq On : 4 Feb 102 10:09 am Operator: DLIPANI
Sample : CCV Inst : 5970 - In
Misc : Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
43		(m+p)Xylene	0.418	0.458	-9.7	102	0.08
44		o-Xylene	0.406	0.442	-8.8	106	0.06
45		Styrene	0.680	0.697	-2.5	102	0.06
46		Bromoform	0.229	0.199	13.2	105	0.06
47		Isopropylbenzene	1.198	1.266	-5.7	101	0.06
48		1,1,2,2-Tetrachloroethane	0.260	0.253	2.3	103	0.08
49	S	Surr2,BFB	0.536	0.534	0.5	96	0.04
50		1,2,3-Trichloropropane	0.083	0.080	3.9	104	0.06
51		n-Propylbenzene	1.447	1.525	-5.5	103	0.06
52		Bromobenzene	0.386	0.382	1.0	99	0.06
53		1,3,5-Trimethylbenzene	1.064	1.143	-7.4	105	0.06
54		2-Chlorotoluene	0.332	0.362	-9.0	115	0.04
		4-Chlorotoluene	0.289	0.310	-7.4	92	0.06
		tert-Butylbenzene	1.023	1.111	-8.6	104	0.06
57		1,2,4-Trimethylbenzene	1.060	1.121	-5.7	100	0.06
58		sec-Butylbenzene	1.329	1.404	-5.6	101	0.06
59		p-Isopropyltoluene	1.137	1.196	-5.1	102	0.06
60		1,3-Dclbenz	0.619	0.665	-7.3	104	0.06
61		1,4-Dclbenz	0.669	0.722	-8.0	104	0.08
62		n-Butylbenzene	1.068	1.113	-4.2	101	0.06
63	S	Surr5,1,2-Dichlorobenzene-d	0.423	0.427	-0.9	98	0.06
64		1,2-Dclbenz	0.600	0.647	-7.8	105	0.04
65		1,2-Dibromo-3-chloropropane	0.057	0.050	12.3	91	0.06
66		1,2,4-Tcbenzene	0.461	0.471	-2.2	98	0.04
67		Hexachlorobt	0.358	0.388	-8.4	102	0.04
68		Naphthalen	0.509	0.479	6.0	98	0.04
69		1,2,3-Tclbenzene	0.399	0.384	3.8	92	0.06

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\020402\I1869.D Vial: 19
Acq On : 4 Feb 102 10:09 am Operator: DLIPANI
Sample : CCV Inst : 5970 - In
Misc : Multiplr: 1.00
Quant Time: Feb 4 10:44 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	14.72	96	56448	1.00	ppb		0.06
System Monitoring Compounds							%Recovery
49) Surr2,BFB	25.09	95	60241	1.99	ppb		99.54%
63) Surr5,1,2-Dichlorobenzene-	29.12	152	48208	2.02	ppb		100.91%
Target Compounds							Qvalue
2) Dichlorodifluoromethane	3.89	85	55827	2.27	ppb		99
3) Chloromethane	4.40	50	19356	2.31	ppb	#	83
4) Vinyl Chloride	4.65	62	22556	2.14	ppb		91
5) Bromomethane	5.66	94	30595	2.23	ppb		96
6) Chloroethane	5.85	64	19932	2.34	ppb	#	85
7) Trichlorofluoromethane	6.45	101	80412	2.21	ppb		96
8) Acetone	7.56	43	20789	10.22	ppb		93
9) 1,1-Diclethene	7.88	96	25766	2.09	ppb		95
10) tert Butyl Alcohol	8.07	59	18882	28.76	ppb		87
11) Methyl Acetate	8.61	43	14498	2.00	ppb	#	96
12) Methylene Chloride	8.96	84	31520	2.18	ppb		94
13) Methyl-t-Butyl Ether	9.37	73	57579	1.82	ppb	#	91
14) trans-1,2-Dichloroethene	9.67	96	29400	1.98	ppb		91
15) 1,1-Diclethane	10.61	63	48855	1.97	ppb	#	95
16) 2-Butanone	11.56	43	23784	8.57	ppb		99
17) 2,2-Dichloropropane	11.91	77	46540	1.79	ppb		99
18) cis-1,2-Dichloroethene	12.01	96	33886	2.05	ppb		94
19) Chloroform	12.36	83	73568	2.15	ppb		100
20) Bromochloromethane	12.75	128	21719	2.14	ppb		83
21) 1,1,1-Trichloroethane	13.27	97	60749	2.02	ppb		93
22) 1,1-Dichloropropene	13.64	75	48873	2.08	ppb		92
23) Carbontetrachloride	13.90	117	52701	1.99	ppb		89
24) Benzene	14.25	78	97774	2.09	ppb		98
25) 1,2-Dichloroethane	14.18	62	48043	2.05	ppb		99
26) Trichloroethene	15.65	95	40113	2.04	ppb		93
27) 1,2-Diclpropane	16.03	63	27691	2.03	ppb		97
28) Bromodichloromethane	16.59	83	50873	1.91	ppb		95
29) Dibromomethane	16.71	93	29117	2.07	ppb		97
30) 4-Methyl-2-Pentanone	17.30	58	25350	8.85	ppb		98
31) trans-1,3-Dichloropropene	18.98	75	30488	1.71	ppb		95
32) Toluene	18.61	91	116661	2.11	ppb		96
33) cis-1,3-Dichloropropene	17.82	75	39971	1.92	ppb		98
34) 1,1,2-Trichloroethane	19.37	83	20440	1.92	ppb		86
35) 2-Hexanone	19.35	43	39181	8.44	ppb		98
36) 1,2-Dibromoethane	21.17	107	35142	2.02	ppb	#	81
37) 1,3-Dichloropropane	19.97	76	44376	2.02	ppb		99
38) Tetrachloroethene	20.21	166	51622	2.19	ppb		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\020402\I1869.D
\cq On : 4 Feb 102 10:09 am
Sample : CCV
Misc :
Quant Time: Feb 4 10:44 19102

Vial: 19
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

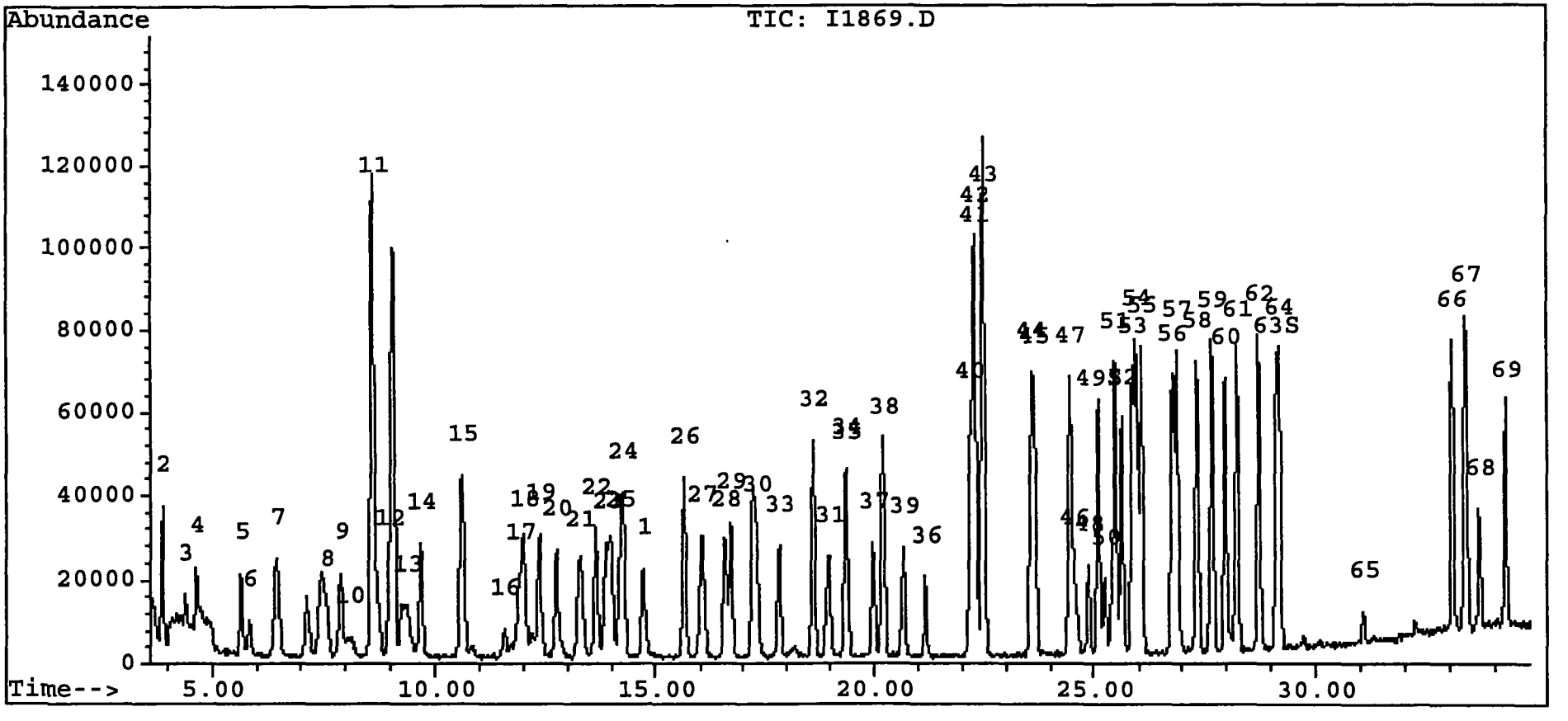
Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
39)	Dibromochloromethane	20.66	129	38672	1.84	ppb		96
40)	Chlorobenzene	22.18	112	84383	2.09	ppb		94
41)	1,1,1,2-Tetrachloroethane	22.26	131	34429	1.98	ppb		97
42)	Ethylbenzene	22.28	91	142842	2.16	ppb		96
43)	(m+p)Xylene	22.48	106	103390	4.39	ppb		90
44)	o-Xylene	23.58	106	49880	2.18	ppb		99
45)	Styrene	23.64	104	78713	2.05	ppb		98
46)	Bromoform	24.54	173	22480	1.74	ppb	#	93
47)	Isopropylbenzene	24.45	105	142914	2.11	ppb		99
48)	1,1,2,2-Tetrachloroethane	24.87	83	28615	1.95	ppb	#	92
50)	1,2,3-Trichloropropane	25.24	110	9018	1.92	ppb		84
51)	n-Propylbenzene	25.46	91	172207	2.11	ppb		98
52)	Bromobenzene	25.63	156	43099	1.98	ppb		95
53)	1,3,5-Trimethylbenzene	25.87	105	129012	2.15	ppb		100
54)	2-Chlorotoluene	25.95	126	40841	2.18	ppb		97
55)	4-Chlorotoluene	26.07	126	35002	2.15	ppb		93
56)	tert-Butylbenzene	26.78	119	125392	2.17	ppb		96
57)	1,2,4-Trimethylbenzene	26.88	105	126511	2.11	ppb		99
58)	sec-Butylbenzene	27.33	105	158459	2.11	ppb		99
59)	p-Isopropyltoluene	27.67	119	134979	2.10	ppb		98
60)	1,3-Dclbenz	27.97	146	75024	2.15	ppb		99
61)	1,4-Dclbenz	28.24	146	81523	2.16	ppb		96
62)	n-Butylbenzene	28.73	91	125671	2.08	ppb		96
64)	1,2-Dclbenz	29.18	146	72993	2.16	ppb		96
65)	1,2-Dibromo-3-chloropropan	31.07	75	5622	1.75	ppb		98
66)	1,2,4-Tcbenzene	33.06	180	53195	2.04	ppb		83
67)	Hexachlorobt	33.36	225	43788	2.17	ppb		94
68)	Naphthalen	33.66	128	54023	1.88	ppb		94
69)	1,2,3-Tclbenzene	34.25	180	43347	1.92	ppb		93

(#) = qualifier out of range (m) = manual integration

Data Fi. : J:\ACQUDATA\MSVOA1\DATA\020402\I1869. Vial: 19
Acq On : 4 Feb 102 10:09 am Operator: DLIPANI
Sample : CCV Inst : 5970 - In
Misc : Multiplr: 1.00
Quant Time: Feb 4 10:44 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration



524 VOLATILE ORGANICS

RAW QC DATA

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 02/22/02

Project Reference:
Client Sample ID : METHOD BLANK

Date Sampled : **Order #:** 529333 **Sample Matrix:** WATER
Date Received: **Submission #:** **Analytical Run** 74207

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 02/01/02			
ANALYTICAL DILUTION: 1.00			
BENZENE	0.50	0.50 U	UG/L
BROMOBENZENE	0.50	0.50 U	UG/L
BROMOCHLOROMETHANE	0.50	0.50 U	ug/L
BROMODICHLOROMETHANE	0.50	0.50 U	UG/L
BROMOFORM	0.50	0.50 U	UG/L
BROMOMETHANE	0.50	0.50 U	UG/L
TERT-BUTYLBENZENE	0.50	0.50 U	UG/L
SEC-BUTYLBENZENE	0.50	0.50 U	UG/L
N-BUTYLBENZENE	0.50	0.50 U	UG/L
CARBON TETRACHLORIDE	0.50	0.50 U	UG/L
CHLOROBENZENE	0.50	0.50 U	UG/L
CHLOROETHANE	0.50	0.50 U	UG/L
CHLOROFORM	0.50	0.50 U	UG/L
HLOROMETHANE	0.50	0.50 U	UG/L
1,2-DIBROMO-3-CHLOROPROPANE	0.50	0.50 U	UG/L
2-CHLOROTOLUENE	0.50	0.50 U	UG/L
4-CHLOROTOLUENE	0.50	0.50 U	UG/L
DIBROMOCHLOROMETHANE	0.50	0.50 U	UG/L
1,2-DIBROMOETHANE	0.50	0.50 U	UG/L
DIBROMOMETHANE	0.50	0.50 U	UG/L
1,2-DICHLOROBENZENE	0.50	0.50 U	UG/L
1,4-DICHLOROBENZENE	0.50	0.50 U	UG/L
1,3-DICHLOROBENZENE	0.50	0.50 U	UG/L
DICHLORODIFLUOROMETHANE	0.50	0.50 U	UG/L
1,1-DICHLOROETHANE	0.50	0.50 U	UG/L
1,2-DICHLOROETHANE	0.50	0.50 U	UG/L
1,1-DICHLOROETHENE	0.50	0.50 U	UG/L
TRANS-1,2-DICHLOROETHENE	0.50	0.50 U	UG/L
CIS-1,2-DICHLOROETHENE	0.50	0.50 U	UG/L
2,2-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,2-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,3-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,1-DICHLOROPROPENE	0.50	0.50 U	UG/L
TRANS-1,3-DICHLOROPROPENE	0.50	0.50 U	UG/L
CIS-1,3-DICHLOROPROPENE	0.50	0.50 U	UG/L
ETHYLBENZENE	0.50	0.50 U	UG/L
HEXACHLOROBUTADIENE	0.50	0.50 U	UG/L
ISOPROPYLBENZENE	0.50	0.50 U	UG/L
P-ISOPROPYLTOLUENE	0.50	0.50 U	UG/L
METHYLENE CHLORIDE	0.50	0.50 U	UG/L
NAPHTHALENE	0.50	0.50 U	UG/L
N-PROPYLBENZENE	0.50	0.50 U	UG/L
STYRENE	0.50	0.50 U	UG/L
1,1,1,2-TETRACHLOROETHANE	0.50	0.50 U	UG/L
1,1,2,2-TETRACHLOROETHANE	0.50	0.50 U	UG/L

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 02/22/02

Project Reference:
Client Sample ID : METHOD BLANK

Date Sampled : **Order #:** 529333 **Sample Matrix:** WATER
Date Received: **Submission #:** **Analytical Run** 74207

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 02/01/02			
ANALYTICAL DILUTION: 1.00			
TETRACHLOROETHENE	0.50	0.50 U	UG/L
TOLUENE	0.50	0.50 U	UG/L
1,2,4-TRICHLOROBENZENE	0.50	0.50 U	UG/L
1,2,3-TRICHLOROBENZENE	0.50	0.50 U	ug/L
1,1,1-TRICHLOROETHANE	0.50	0.50 U	UG/L
1,1,2-TRICHLOROETHANE	0.50	0.50 U	UG/L
TRICHLOROETHENE	0.50	0.50 U	UG/L
TRICHLOROFLUOROMETHANE	0.50	0.50 U	UG/L
1,2,3-TRICHLOROPROPANE	0.50	0.50 U	UG/L
1,3,5-TRIMETHYLBENZENE	0.50	0.50 U	UG/L
1,2,4-TRIMETHYLBENZENE	0.50	0.50 U	UG/L
VINYL CHLORIDE	0.50	0.50 U	UG/L
M+P-XYLENE	0.50	0.50 U	UG/L
O-XYLENE	0.50	0.50 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
BROMOFLUOROBENZENE	(64 - 127 %)	90	%
1,2-DICHLOROBENZENE-D4	(59 - 136 %)	89	%

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\020102\I1836.D Vial: 39
Acq On : 1 Feb 102 12:12 pm Operator: DLIPANI
Sample : MET BLK 52933 Inst : 5970 - In
Misc : Multiplr: 1.00
Quant Time: Feb 1 12:47 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	14.70	96	55243	1.00 ppb	0.04
System Monitoring Compounds					%Recovery
49) Surr2,BFB	25.08	95	53159	1.80 ppb	89.75%
63) Surr5,1,2-Dichlorobenzene-	29.10	152	41656	1.78 ppb	89.10%
Target Compounds					Qvalue
8) Acetone	7.60	43	4442	2.23 ppb #	46
16) 2-Butanone	11.62	43	1226	~~0.45 ppb #~~	~~52~~

NT

DL
02/01/02

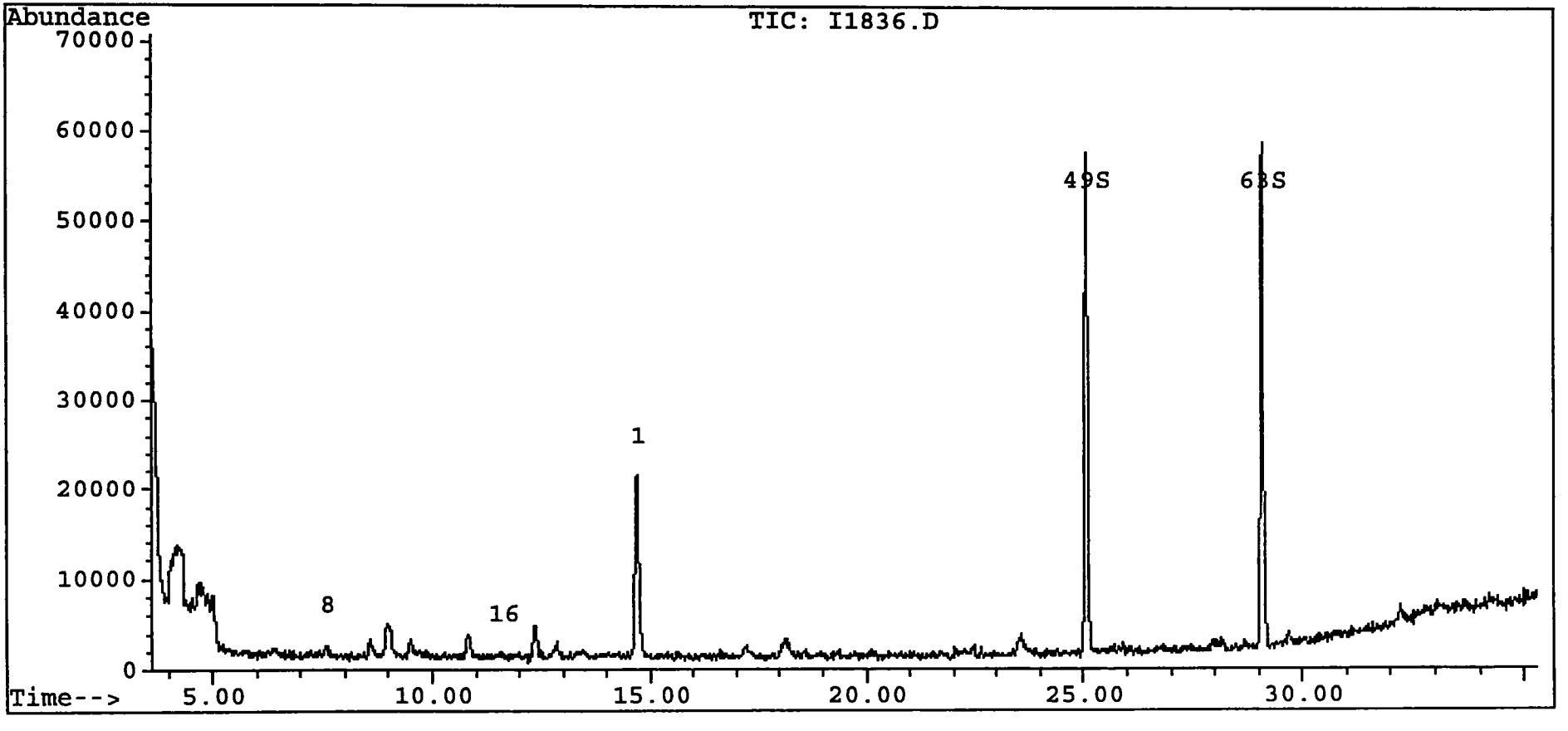
(#) = qualifier out of range (m) = manual integration

Quantitat' n Report

Data File : J:\ACQUDATA\MSVOA1\DATA\020102\I1836.D
Acq On : 1 Feb 102 12:12 pm
Sample : MET BLK
Misc :
Quant Time: Feb 1 12:47 19102

Vial: 39
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 02/22/02

Project Reference:
Client Sample ID : METHOD BLANK

Date Sampled : **Order #:** 529337 **Sample Matrix:** WATER
Date Received: **Submission #:** **Analytical Run** 74207

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 02/02/02			
ANALYTICAL DILUTION: 1.00			
BENZENE	0.50	0.50 U	UG/L
BROMOBENZENE	0.50	0.50 U	UG/L
BROMOCHLOROMETHANE	0.50	0.50 U	ug/L
BROMODICHLOROMETHANE	0.50	0.50 U	UG/L
BROMOFORM	0.50	0.50 U	UG/L
BROMOMETHANE	0.50	0.50 U	UG/L
TERT-BUTYLBENZENE	0.50	0.50 U	UG/L
SEC-BUTYLBENZENE	0.50	0.50 U	UG/L
N-BUTYLBENZENE	0.50	0.50 U	UG/L
CARBON TETRACHLORIDE	0.50	0.50 U	UG/L
CHLOROBENZENE	0.50	0.50 U	UG/L
CHLOROETHANE	0.50	0.50 U	UG/L
CHLOROFORM	0.50	0.50 U	UG/L
ILOROMETHANE	0.50	0.50 U	UG/L
,2-DIBROMO-3-CHLOROPROPANE	0.50	0.50 U	UG/L
2-CHLOROTOLUENE	0.50	0.50 U	UG/L
4-CHLOROTOLUENE	0.50	0.50 U	UG/L
DIBROMOCHLOROMETHANE	0.50	0.50 U	UG/L
1,2-DIBROMOETHANE	0.50	0.50 U	UG/L
DIBROMOMETHANE	0.50	0.50 U	UG/L
1,2-DICHLOROBENZENE	0.50	0.50 U	UG/L
1,4-DICHLOROBENZENE	0.50	0.50 U	UG/L
1,3-DICHLOROBENZENE	0.50	0.50 U	UG/L
DICHLORODIFLUOROMETHANE	0.50	0.50 U	UG/L
1,1-DICHLOROETHANE	0.50	0.50 U	UG/L
1,2-DICHLOROETHANE	0.50	0.50 U	UG/L
1,1-DICHLOROETHENE	0.50	0.50 U	UG/L
TRANS-1,2-DICHLOROETHENE	0.50	0.50 U	UG/L
CIS-1,2-DICHLOROETHENE	0.50	0.50 U	UG/L
2,2-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,2-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,3-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,1-DICHLOROPROPENE	0.50	0.50 U	UG/L
TRANS-1,3-DICHLOROPROPENE	0.50	0.50 U	UG/L
CIS-1,3-DICHLOROPROPENE	0.50	0.50 U	UG/L
ETHYLBENZENE	0.50	0.50 U	UG/L
HEXACHLOROBUTADIENE	0.50	0.50 U	UG/L
ISOPROPYLBENZENE	0.50	0.50 U	UG/L
-ISOPROPYLTOLUENE	0.50	0.50 U	UG/L
ETHYLENE CHLORIDE	0.50	0.50 U	UG/L
NAPHTHALENE	0.50	0.50 U	UG/L
N-PROPYLBENZENE	0.50	0.50 U	UG/L
STYRENE	0.50	0.50 U	UG/L
1,1,1,2-TETRACHLOROETHANE	0.50	0.50 U	UG/L
1,1,2,2-TETRACHLOROETHANE	0.50	0.50 U	UG/L

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 02/22/02

Project Reference:
Client Sample ID : METHOD BLANK

Date Sampled : **Order #:** 529337 **Sample Matrix:** WATER
Date Received: **Submission #:** **Analytical Run** 74207

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 02/02/02			
ANALYTICAL DILUTION: 1.00			
TETRACHLOROETHENE	0.50	0.50 U	UG/L
TOLUENE	0.50	0.50 U	UG/L
1,2,4-TRICHLOROBENZENE	0.50	0.50 U	UG/L
1,2,3-TRICHLOROBENZENE	0.50	0.50 U	ug/L
1,1,1-TRICHLOROETHANE	0.50	0.50 U	UG/L
1,1,2-TRICHLOROETHANE	0.50	0.50 U	UG/L
TRICHLOROETHENE	0.50	0.50 U	UG/L
TRICHLOROFLUOROMETHANE	0.50	0.50 U	UG/L
1,2,3-TRICHLOROPROPANE	0.50	0.50 U	UG/L
1,3,5-TRIMETHYLBENZENE	0.50	0.50 U	UG/L
1,2,4-TRIMETHYLBENZENE	0.50	0.50 U	UG/L
VINYL CHLORIDE	0.50	0.50 U	UG/L
M+P-XYLENE	0.50	0.50 U	UG/L
-XYLENE	0.50	0.50 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
BROMOFLUOROBENZENE	(64 - 127 %)	95	%
1,2-DICHLOROBENZENE-D4	(59 - 136 %)	97	%

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\020202\I1853.D
Acq On : 2 Feb 102 11:37 am
Sample : MET BLK 529337
Misc :
Quant Time: Feb 2 12:12 19102

Vial: 10
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration

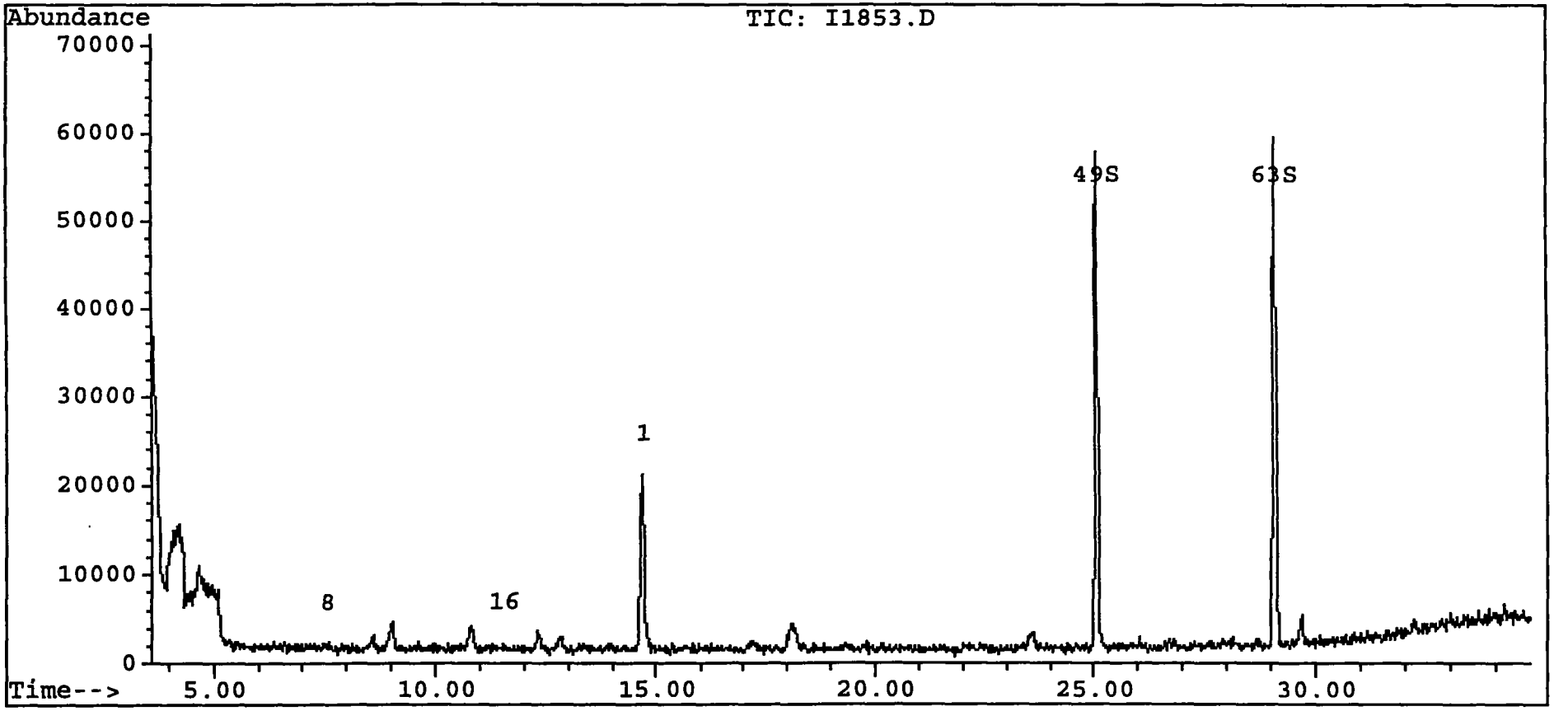
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	14.69	96	53263	1.00 ppb	0.03
System Monitoring Compounds					%Recovery
49) Surr2,BFB	25.06	95	54362	1.90 ppb	95.20%
63) Surr5,1,2-Dichlorobenzene-	29.08	152	43678	1.94 ppb	96.89%
Target Compounds					Qvalue
8) Acetone	7.55	43	1595	~~0.83 ppb~~	~~#~~ ~~39~~
16) 2-Butanone	11.52	43	1375	~~0.53 ppb~~	~~#~~ ~~72~~

DL
02/02/02

(#) = qualifier out of range (m) = manual integration

Data Fi... : J:\ACQUDATA\MSVOA1\DATA\020202\I1853.. Vial: 10
Acq On : 2 Feb 102 11:37 am Operator: DLIPANI
Sample : MET BLK Inst : 5970 - In
Misc : Multiplr: 1.00
Quant Time: Feb 2 12:12 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 02/22/02

Project Reference:
Client Sample ID : METHOD BLANK

Date Sampled : **Order #:** 529339 **Sample Matrix:** WATER
Date Received: **Submission #:** **Analytical Run** 74207

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 02/04/02			
ANALYTICAL DILUTION: 1.00			
BENZENE	0.50	0.50 U	UG/L
BROMOBENZENE	0.50	0.50 U	UG/L
BROMOCHLOROMETHANE	0.50	0.50 U	ug/L
BROMODICHLOROMETHANE	0.50	0.50 U	UG/L
BROMOFORM	0.50	0.50 U	UG/L
BROMOMETHANE	0.50	0.50 U	UG/L
TERT-BUTYLBENZENE	0.50	0.50 U	UG/L
SEC-BUTYLBENZENE	0.50	0.50 U	UG/L
N-BUTYLBENZENE	0.50	0.50 U	UG/L
CARBON TETRACHLORIDE	0.50	0.50 U	UG/L
CHLOROBENZENE	0.50	0.50 U	UG/L
CHLOROETHANE	0.50	0.50 U	UG/L
CHLOROFORM	0.50	0.50 U	UG/L
HLOROMETHANE	0.50	0.50 U	UG/L
1,2-DIBROMO-3-CHLOROPROPANE	0.50	0.50 U	UG/L
2-CHLOROTOLUENE	0.50	0.50 U	UG/L
4-CHLOROTOLUENE	0.50	0.50 U	UG/L
DIBROMOCHLOROMETHANE	0.50	0.50 U	UG/L
1,2-DIBROMOETHANE	0.50	0.50 U	UG/L
DIBROMOMETHANE	0.50	0.50 U	UG/L
1,2-DICHLOROBENZENE	0.50	0.50 U	UG/L
1,4-DICHLOROBENZENE	0.50	0.50 U	UG/L
1,3-DICHLOROBENZENE	0.50	0.50 U	UG/L
DICHLORODIFLUOROMETHANE	0.50	0.50 U	UG/L
1,1-DICHLOROETHANE	0.50	0.50 U	UG/L
1,2-DICHLOROETHANE	0.50	0.50 U	UG/L
1,1-DICHLOROETHENE	0.50	0.50 U	UG/L
TRANS-1,2-DICHLOROETHENE	0.50	0.50 U	UG/L
CIS-1,2-DICHLOROETHENE	0.50	0.50 U	UG/L
2,2-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,2-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,3-DICHLOROPROPANE	0.50	0.50 U	UG/L
1,1-DICHLOROPROPENE	0.50	0.50 U	UG/L
TRANS-1,3-DICHLOROPROPENE	0.50	0.50 U	UG/L
CIS-1,3-DICHLOROPROPENE	0.50	0.50 U	UG/L
ETHYLBENZENE	0.50	0.50 U	UG/L
HEXACHLOROBUTADIENE	0.50	0.50 U	UG/L
ISOPROPYLBENZENE	0.50	0.50 U	UG/L
P-ISOPROPYLTOLUENE	0.50	0.50 U	UG/L
METHYLENE CHLORIDE	0.50	0.50 U	UG/L
NAPHTHALENE	0.50	0.50 U	UG/L
N-PROPYLBENZENE	0.50	0.50 U	UG/L
STYRENE	0.50	0.50 U	UG/L
1,1,1,2-TETRACHLOROETHANE	0.50	0.50 U	UG/L
1,1,2,2-TETRACHLOROETHANE	0.50	0.50 U	UG/L

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 02/22/02

Project Reference:
Client Sample ID : METHOD BLANK

Date Sampled : **Order #:** 529339 **Sample Matrix:** WATER
Date Received: **Submission #:** **Analytical Run** 74207

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 02/04/02			
ANALYTICAL DILUTION: 1.00			
TETRACHLOROETHENE	0.50	0.50 U	UG/L
TOLUENE	0.50	0.50 U	UG/L
1,2,4-TRICHLOROBENZENE	0.50	0.50 U	UG/L
1,2,3-TRICHLOROBENZENE	0.50	0.50 U	ug/L
1,1,1-TRICHLOROETHANE	0.50	0.50 U	UG/L
1,1,2-TRICHLOROETHANE	0.50	0.50 U	UG/L
TRICHLOROETHENE	0.50	0.50 U	UG/L
TRICHLOROFLUOROMETHANE	0.50	0.50 U	UG/L
1,2,3-TRICHLOROPROPANE	0.50	0.50 U	UG/L
1,3,5-TRIMETHYLBENZENE	0.50	0.50 U	UG/L
1,2,4-TRIMETHYLBENZENE	0.50	0.50 U	UG/L
VINYL CHLORIDE	0.50	0.50 U	UG/L
M+P-XYLENE	0.50	0.50 U	UG/L
-XYLENE	0.50	0.50 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
BROMOFLUOROBENZENE	(64 - 127 %)	88	%
1,2-DICHLOROBENZENE-D4	(59 - 136 %)	89	%

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\020402\I1871.D
Acq On : 4 Feb 102 11:41 am
Sample : MET BLK 529339
Misc :
Quant Time: Feb 4 12:16 19102

Vial: 19
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration

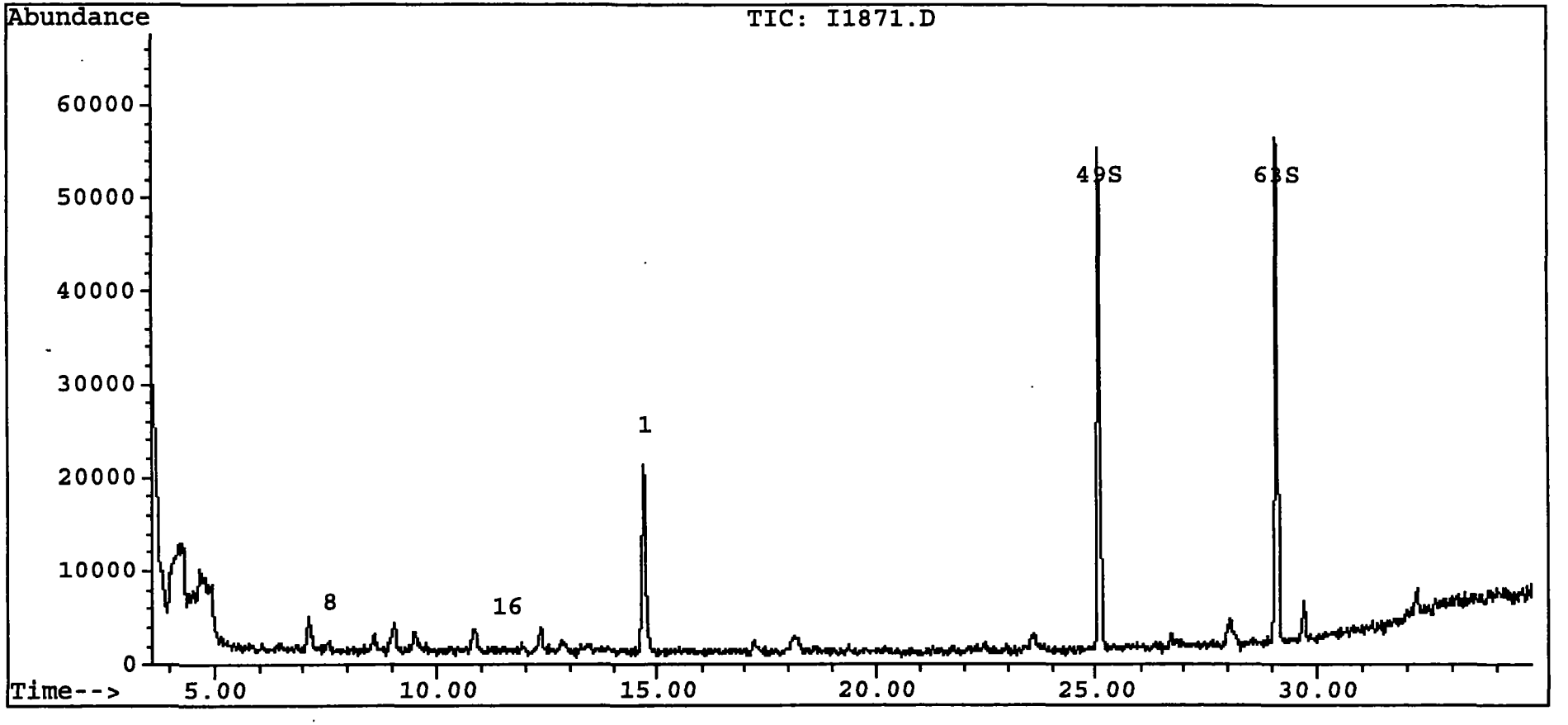
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	14.70	96	55382	1.00 ppb	0.04
System Monitoring Compounds					%Recovery
49) Surr2,BFB	25.09	95	52302	1.76 ppb	88.09%
63) Surr5,1,2-Dichlorobenzene-	29.12	152	41588	1.77 ppb	88.73%
Target Compounds					Qvalue
8) Acetone	7.58	43	3068	1.54 ppb	# 46 LT
16) 2-Butanone	11.56	43	1112	~~0.41 ppb~~	~~#~~ ~~82~~

DL
02/04/02

(#) = qualifier out of range (m) = manual integration

Data Fi : J:\ACQUDATA\MSVOA1\DATA\020402\I1871. Vial: 19
Acq On : 4 Feb 102 11:41 am Operator: DLIPANI
Sample : MET BLK Inst : 5970 - In
Misc : Multiplr: 1.00
Quant Time: Feb 4 12:16 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 02/22/02

Project Reference:
Client Sample ID : LABORATORY CONTROL SAMPLE

Date Sampled : **Order #:** 529334 **Sample Matrix:** WATER
Date Received: **Submission #:** **Analytical Run** 74207

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 02/01/02			
ANALYTICAL DILUTION: 1.00			
BENZENE	0.50	2.1	UG/L
BROMOBENZENE	0.50	2.1	UG/L
BROMOCHLOROMETHANE	0.50	2.2	ug/L
BROMODICHLOROMETHANE	0.50	1.9	UG/L
BROMOFORM	0.50	1.7	UG/L
BROMOMETHANE	0.50	2.2	UG/L
TERT-BUTYLBENZENE	0.50	2.0	UG/L
SEC-BUTYLBENZENE	0.50	2.0	UG/L
N-BUTYLBENZENE	0.50	2.0	UG/L
CARBON TETRACHLORIDE	0.50	1.8	UG/L
CHLOROBENZENE	0.50	2.0	UG/L
HLOROETHANE	0.50	2.1	UG/L
HLOROFORM	0.50	2.2	UG/L
CHLOROMETHANE	0.50	2.3	UG/L
1,2-DIBROMO-3-CHLOROPROPANE	0.50	1.7	UG/L
2-CHLOROTOLUENE	0.50	2.0	UG/L
4-CHLOROTOLUENE	0.50	2.0	UG/L
DIBROMOCHLOROMETHANE	0.50	1.8	UG/L
1,2-DIBROMOETHANE	0.50	1.9	UG/L
DIBROMOMETHANE	0.50	2.1	UG/L
1,2-DICHLOROBENZENE	0.50	2.1	UG/L
1,4-DICHLOROBENZENE	0.50	2.0	UG/L
1,3-DICHLOROBENZENE	0.50	2.2	UG/L
DICHLORODIFLUOROMETHANE	0.50	2.3	UG/L
1,1-DICHLOROETHANE	0.50	2.0	UG/L
1,2-DICHLOROETHANE	0.50	2.1	UG/L
1,1-DICHLOROETHENE	0.50	1.9	UG/L
TRANS-1,2-DICHLOROETHENE	0.50	2.0	UG/L
CIS-1,2-DICHLOROETHENE	0.50	2.0	UG/L
2,2-DICHLOROPROPANE	0.50	1.7	UG/L
1,2-DICHLOROPROPANE	0.50	2.0	UG/L
1,3-DICHLOROPROPANE	0.50	1.9	UG/L
1,1-DICHLOROPROPENE	0.50	1.9	UG/L
TRANS-1,3-DICHLOROPROPENE	0.50	1.8	UG/L
CIS-1,3-DICHLOROPROPENE	0.50	1.8	UG/L
ETHYLBENZENE	0.50	2.1	UG/L
HEXACHLOROBUTADIENE	0.50	2.0	UG/L
ISOPROPYLBENZENE	0.50	2.0	UG/L
P-ISOPROPYLTOLUENE	0.50	2.0	UG/L
METHYLENE CHLORIDE	0.50	2.3	UG/L
NAPHTHALENE	0.50	2.0	UG/L
N-PROPYLBENZENE	0.50	2.0	UG/L
STYRENE	0.50	2.0	UG/L
1,1,1,2-TETRACHLOROETHANE	0.50	1.9	UG/L

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 02/22/02

Project Reference:
Client Sample ID : LABORATORY CONTROL SAMPLE

Date Sampled : **Order #:** 529334 **Sample Matrix:** WATER
Date Received: **Submission #:** **Analytical Run** 74207

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 02/01/02			
ANALYTICAL DILUTION: 1.00			
1,1,2,2-TETRACHLOROETHANE	0.50	1.9	UG/L
TETRACHLOROETHENE	0.50	2.0	UG/L
TOLUENE	0.50	2.0	UG/L
1,2,4-TRICHLOROBENZENE	0.50	2.0	UG/L
1,2,3-TRICHLOROBENZENE	0.50	2.0	ug/L
1,1,1-TRICHLOROETHANE	0.50	1.8	UG/L
1,1,2-TRICHLOROETHANE	0.50	2.0	UG/L
TRICHLOROETHENE	0.50	2.0	UG/L
TRICHLOROFLUOROMETHANE	0.50	2.1	UG/L
1,2,3-TRICHLOROPROPANE	0.50	2.1	UG/L
1,3,5-TRIMETHYLBENZENE	0.50	2.1	UG/L
1,2,4-TRIMETHYLBENZENE	0.50	2.0	UG/L
INYL CHLORIDE	0.50	2.0	UG/L
M+P-XYLENE	0.50	4.2	UG/L
O-XYLENE	0.50	2.1	UG/L

SURROGATE RECOVERIES	QC LIMITS		
BROMOFLUOROBENZENE	(64 - 127 %)	97	%
1,2-DICHLOROBENZENE-D4	(59 - 136 %)	99	%

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\020102\I1838.D
Acq On : 1 Feb 102 2:11 pm
Sample : LCS 529334
Misc :
Quant Time: Feb 1 14:46 19102

Vial: 39
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	14.72	96	53880	1.00	ppb		0.06
System Monitoring Compounds							%Recovery
49) Surr2,BFB	25.10	95	56099	1.94	ppb		97.11%
63) Surr5,1,2-Dichlorobenzene-	29.14	152	44834	1.97	ppb		98.32%
Target Compounds							Qvalue
2) Dichlorodifluoromethane	3.91	85	54196	2.31	ppb		96
3) Chloromethane	4.44	50	18527	2.32	ppb	#	73
4) Vinyl Chloride	4.67	62	20391	2.03	ppb		93
5) Bromomethane	5.70	94	28128	2.15	ppb		94
6) Chloroethane	5.88	64	16894	2.07	ppb		92
7) Trichlorofluoromethane	6.47	101	72457	2.09	ppb		100
8) Acetone	7.59	43	5338	2.75	ppb		96 - not added
9) 1,1-Diclethene	7.89	96	22854	1.94	ppb		93
10) tert Butyl Alcohol	8.07	59	21666	34.57	ppb		85
12) Methylene Chloride	9.00	84	31810	2.30	ppb		91
13) Methyl-t-Butyl Ether	9.35	73	60896	2.01	ppb		97
14) trans-1,2-Dichloroethene	9.69	96	28085	1.98	ppb		96
15) 1,1-Diclethane	10.65	63	48460	2.04	ppb		92
16) 2-Butanone	11.58	43	1240	~~0.47~~	ppb	#	~~52~~
17) 2,2-Dichloropropane	11.93	77	42925	1.73	ppb	#	91
18) cis-1,2-Dichloroethene	12.03	96	32205	2.04	ppb		95
19) Chloroform	12.37	83	71066	2.18	ppb		94
20) Bromochloromethane	12.75	128	20744	2.15	ppb	#	84
21) 1,1,1-Trichloroethane	13.29	97	53016	1.85	ppb		98
22) 1,1-Dichloropropene	13.66	75	42708	1.90	ppb		94
23) Carbontetrachloride	13.90	117	45977	1.82	ppb		97
24) Benzene	14.25	78	93457	2.10	ppb	#	87
25) 1,2-Dichloroethane	14.19	62	46098	2.06	ppb		99
26) Trichloroethene	15.65	95	37324	1.99	ppb		92
27) 1,2-Diclpropane	16.04	63	25795	1.98	ppb		95
28) Bromodichloromethane	16.58	83	47620	1.87	ppb		94
29) Dibromomethane	16.71	93	28547	2.13	ppb		89
31) trans-1,3-Dichloropropene	18.98	75	29635	1.75	ppb		90
32) Toluene	18.61	91	103868	1.97	ppb		98
33) cis-1,3-Dichloropropene	17.82	75	35286	1.78	ppb		94
34) 1,1,2-Trichloroethane	19.35	83	20586	2.03	ppb	#	74
36) 1,2-Dibromoethane	21.17	107	31806	1.92	ppb		86
37) 1,3-Dichloropropane	19.98	76	38999	1.86	ppb		99
38) Tetrachloroethene	20.18	166	45731	2.04	ppb		97
39) Dibromochloromethane	20.67	129	35238	1.76	ppb		95
40) Chlorobenzene	22.18	112	75636	1.96	ppb	#	90
41) 1,1,1,2-Tetrachloroethane	22.27	131	31539	1.90	ppb		96

(#) = qualifier out of range (m) = manual integration

DL 02/01/02

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\020102\I1838.D
Acq On : 1 Feb 102 2:11 pm
Sample : LCS
Misc :
Quant Time: Feb 1 14:46 19102

Vial: 39
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration

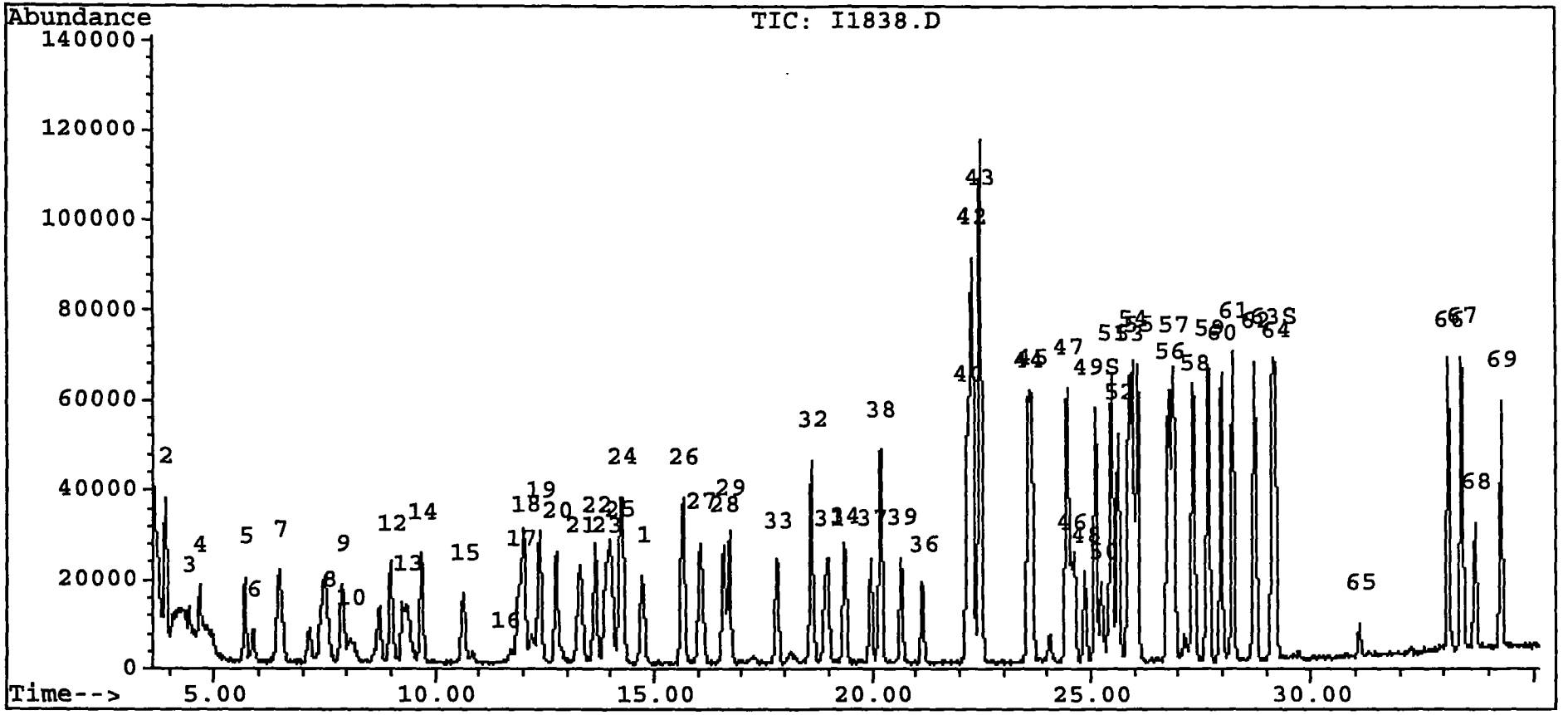
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
42)	Ethylbenzene	22.28	91	129944	2.06	ppb		98
43)	(m+p)Xylene	22.47	106	93988	4.18	ppb		95
44)	o-Xylene	23.56	106	45139	2.06	ppb		91
45)	Styrene	23.65	104	72954	1.99	ppb		92
46)	Bromoform	24.54	173	20555	1.66	ppb	#	94
47)	Isopropylbenzene	24.46	105	129434	2.01	ppb		97
48)	1,1,2,2-Tetrachloroethane	24.88	83	26884	1.92	ppb	#	96
50)	1,2,3-Trichloropropane	25.26	110	9362	2.09	ppb	#	74
51)	n-Propylbenzene	25.47	91	156028	2.00	ppb		97
52)	Bromobenzene	25.63	156	42759	2.06	ppb		90
53)	1,3,5-Trimethylbenzene	25.87	105	118738	2.07	ppb		99
54)	2-Chlorotoluene	25.95	126	36399	2.04	ppb		94
55)	4-Chlorotoluene	26.07	126	31383	2.02	ppb		96
56)	tert-Butylbenzene	26.80	119	112972	2.05	ppb		89
57)	1,2,4-Trimethylbenzene	26.88	105	115339	2.02	ppb		100
58)	sec-Butylbenzene	27.35	105	143644	2.01	ppb		97
59)	p-Isopropyltoluene	27.69	119	122104	1.99	ppb		95
60)	1,3-Dclbenz	27.97	146	73073	2.19	ppb		99
61)	1,4-Dclbenz	28.24	146	74024	2.05	ppb		99
62)	n-Butylbenzene	28.73	91	112533	1.96	ppb		92
64)	1,2-Dclbenz	29.20	146	66452	2.06	ppb		95
65)	1,2-Dibromo-3-chloropropan	31.09	75	5130	1.68	ppb		95
66)	1,2,4-Tcbenzene	33.09	180	50708	2.04	ppb		94
67)	Hexachlorobt	33.38	225	38388	1.99	ppb		92
68)	Naphthalen	33.70	128	56316	2.05	ppb		96
69)	1,2,3-Tclbenzene	34.27	180	42776	1.99	ppb		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\020102\I1838.. Vial: 39
Acq On : 1 Feb 102 2:11 pm Operator: DLIPANI
Sample : LCS Inst : 5970 - In
Misc : Multiplr: 1.00
Quant Time: Feb 1 14:46 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 02/22/02

Project Reference:
Client Sample ID : LABORATORY CONTROL SAMPLE

Date Sampled : **Order #:** 529338 **Sample Matrix:** WATER
Date Received: **Submission #:** **Analytical Run** 74207

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 02/02/02			
ANALYTICAL DILUTION: 1.00			
BENZENE	0.50	1.9	UG/L
BROMOBENZENE	0.50	1.8	UG/L
BROMOCHLOROMETHANE	0.50	1.9	ug/L
BROMODICHLOROMETHANE	0.50	1.8	UG/L
BROMOFORM	0.50	1.5	UG/L
BROMOMETHANE	0.50	1.9	UG/L
TERT-BUTYLBENZENE	0.50	1.9	UG/L
SEC-BUTYLBENZENE	0.50	1.8	UG/L
N-BUTYLBENZENE	0.50	1.9	UG/L
CARBON TETRACHLORIDE	0.50	1.6	UG/L
CHLOROBENZENE	0.50	1.8	UG/L
`HLOROETHANE	0.50	1.8	UG/L
.LOROFORM	0.50	1.9	UG/L
CHLOROMETHANE	0.50	2.1	UG/L
1,2-DIBROMO-3-CHLOROPROPANE	0.50	1.5	UG/L
2-CHLOROTOLUENE	0.50	1.7	UG/L
4-CHLOROTOLUENE	0.50	2.0	UG/L
DIBROMOCHLOROMETHANE	0.50	1.6	UG/L
1,2-DIBROMOETHANE	0.50	1.8	UG/L
DIBROMOMETHANE	0.50	2.0	UG/L
1,2-DICHLOROBENZENE	0.50	2.0	UG/L
1,4-DICHLOROBENZENE	0.50	1.9	UG/L
1,3-DICHLOROBENZENE	0.50	2.0	UG/L
DICHLORODIFLUOROMETHANE	0.50	2.0	UG/L
1,1-DICHLOROETHANE	0.50	1.8	UG/L
1,2-DICHLOROETHANE	0.50	1.9	UG/L
1,1-DICHLOROETHENE	0.50	1.7	UG/L
TRANS-1,2-DICHLOROETHENE	0.50	1.8	UG/L
CIS-1,2-DICHLOROETHENE	0.50	1.9	UG/L
2,2-DICHLOROPROPANE	0.50	1.6	UG/L
1,2-DICHLOROPROPANE	0.50	1.8	UG/L
1,3-DICHLOROPROPANE	0.50	1.8	UG/L
1,1-DICHLOROPROPENE	0.50	1.7	UG/L
TRANS-1,3-DICHLOROPROPENE	0.50	1.6	UG/L
CIS-1,3-DICHLOROPROPENE	0.50	1.7	UG/L
ETHYLBENZENE	0.50	1.9	UG/L
HEXACHLOROBUTADIENE	0.50	1.8	UG/L
SOPROPYLBENZENE	0.50	1.8	UG/L
P-ISOPROPYLTOLUENE	0.50	1.8	UG/L
METHYLENE CHLORIDE	0.50	1.9	UG/L
NAPHTHALENE	0.50	2.0	UG/L
N-PROPYLBENZENE	0.50	1.8	UG/L
STYRENE	0.50	1.8	UG/L
1,1,1,2-TETRACHLOROETHANE	0.50	1.7	UG/L

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 02/22/02

Project Reference:
Client Sample ID : LABORATORY CONTROL SAMPLE

Date Sampled : **Order #:** 529338 **Sample Matrix:** WATER
Date Received: **Submission #:** **Analytical Run** 74207

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 02/02/02			
ANALYTICAL DILUTION: 1.00			
1,1,2,2-TETRACHLOROETHANE	0.50	1.9	UG/L
TETRACHLOROETHENE	0.50	1.8	UG/L
TOLUENE	0.50	1.8	UG/L
1,2,4-TRICHLOROBENZENE	0.50	1.8	UG/L
1,2,3-TRICHLOROBENZENE	0.50	1.9	ug/L
1,1,1-TRICHLOROETHANE	0.50	1.6	UG/L
1,1,2-TRICHLOROETHANE	0.50	1.9	UG/L
TRICHLOROETHENE	0.50	1.7	UG/L
TRICHLOROFLUOROMETHANE	0.50	1.9	UG/L
1,2,3-TRICHLOROPROPANE	0.50	1.9	UG/L
1,3,5-TRIMETHYLBENZENE	0.50	1.9	UG/L
1,2,4-TRIMETHYLBENZENE	0.50	1.8	UG/L
INYL CHLORIDE	0.50	1.7	UG/L
M+P-XYLENE	0.50	3.8	UG/L
O-XYLENE	0.50	1.9	UG/L

SURROGATE RECOVERIES	QC LIMITS		
BROMOFLUOROBENZENE	(64 - 127 %)	95	%
1,2-DICHLOROBENZENE-D4	(59 - 136 %)	99	%

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\020202\I1854.D Vial: 10
Acq On : 2 Feb 102 12:18 pm Operator: DLIPANI
Sample : LCS 529338 Inst : 5970 - In
Misc : Multiplr: 1.00
Quant Time: Feb 2 12:53 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	14.68	96	53863	1.00	ppb		0.02
System Monitoring Compounds							%Recovery
49) Surr2,BFB	25.05	95	54721	1.90	ppb		94.76%
63) Surr5,1,2-Dichlorobenzene-	29.07	152	44824	1.97	ppb		98.33%
Target Compounds							Qvalue
2) Dichlorodifluoromethane	3.85	85	46205	1.97	ppb		97
3) Chloromethane	4.37	50	16779	2.10	ppb		97
4) Vinyl Chloride	4.61	62	17311	1.72	ppb		99
5) Bromomethane	5.64	94	25397	1.94	ppb		96
6) Chloroethane	5.82	64	14589	1.79	ppb		96
7) Trichlorofluoromethane	6.41	101	65273	1.88	ppb		92
8) Acetone	7.57	43	3646	~~1.88 ppb~~		#	~~46~~
9) 1,1-Diclethene	7.84	96	20501	1.74	ppb		90
10) tert Butyl Alcohol	8.04	59	19949	31.84	ppb		88
12) Methylene Chloride	8.94	84	26458	1.91	ppb		96
13) Methyl-t-Butyl Ether	9.29	73	54574	1.80	ppb		97
14) trans-1,2-Dichloroethene	9.63	96	25699	1.81	ppb		97
15) 1,1-Diclethane	10.59	63	43658	1.84	ppb		95
16) 2-Butanone	11.55	43	1429	~~0.54 ppb~~		#	~~88~~
17) 2,2-Dichloropropane	11.85	77	39500	1.59	ppb		97
18) cis-1,2-Dichloroethene	11.97	96	30230	1.92	ppb		94
19) Chloroform	12.32	83	61280	1.88	ppb		100
20) Bromochloromethane	12.71	128	18178	1.88	ppb		83
21) 1,1,1-Trichloroethane	13.25	97	47106	1.64	ppb		94
22) 1,1-Dichloropropene	13.60	75	39094	1.74	ppb		97
23) Carbontetrachloride	13.82	117	41739	1.65	ppb		94
24) Benzene	14.21	78	85286	1.91	ppb	#	87
25) 1,2-Dichloroethane	14.14	62	43420	1.94	ppb		94
26) Trichloroethene	15.60	95	32708	1.74	ppb		94
27) 1,2-Diclpropane	15.99	63	23640	1.82	ppb		100
28) Bromodichloromethane	16.53	83	44700	1.76	ppb		98
29) Dibromomethane	16.66	93	27072	2.02	ppb		94
31) trans-1,3-Dichloropropene	18.94	75	27008	1.59	ppb		97
32) Toluene	18.57	91	94185	1.79	ppb		96
33) cis-1,3-Dichloropropene	17.77	75	33082	1.67	ppb		96
34) 1,1,2-Trichloroethane	19.32	83	19234	1.90	ppb	#	88
36) 1,2-Dibromoethane	21.13	107	30177	1.82	ppb		94
37) 1,3-Dichloropropane	19.93	76	37694	1.80	ppb		99
38) Tetrachloroethene	20.15	166	41482	1.85	ppb		94
39) Dibromochloromethane	20.62	129	32848	1.64	ppb		94
40) Chlorobenzene	22.15	112	71345	1.85	ppb		97
41) 1,1,1,2-Tetrachloroethane	22.22	131	28106	1.70	ppb		94

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\020202\I1854.D
Acq On : 2 Feb 102 12:18 pm
Sample : LCS
Misc :
Quant Time: Feb 2 12:53 19102

Vial: 10
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration

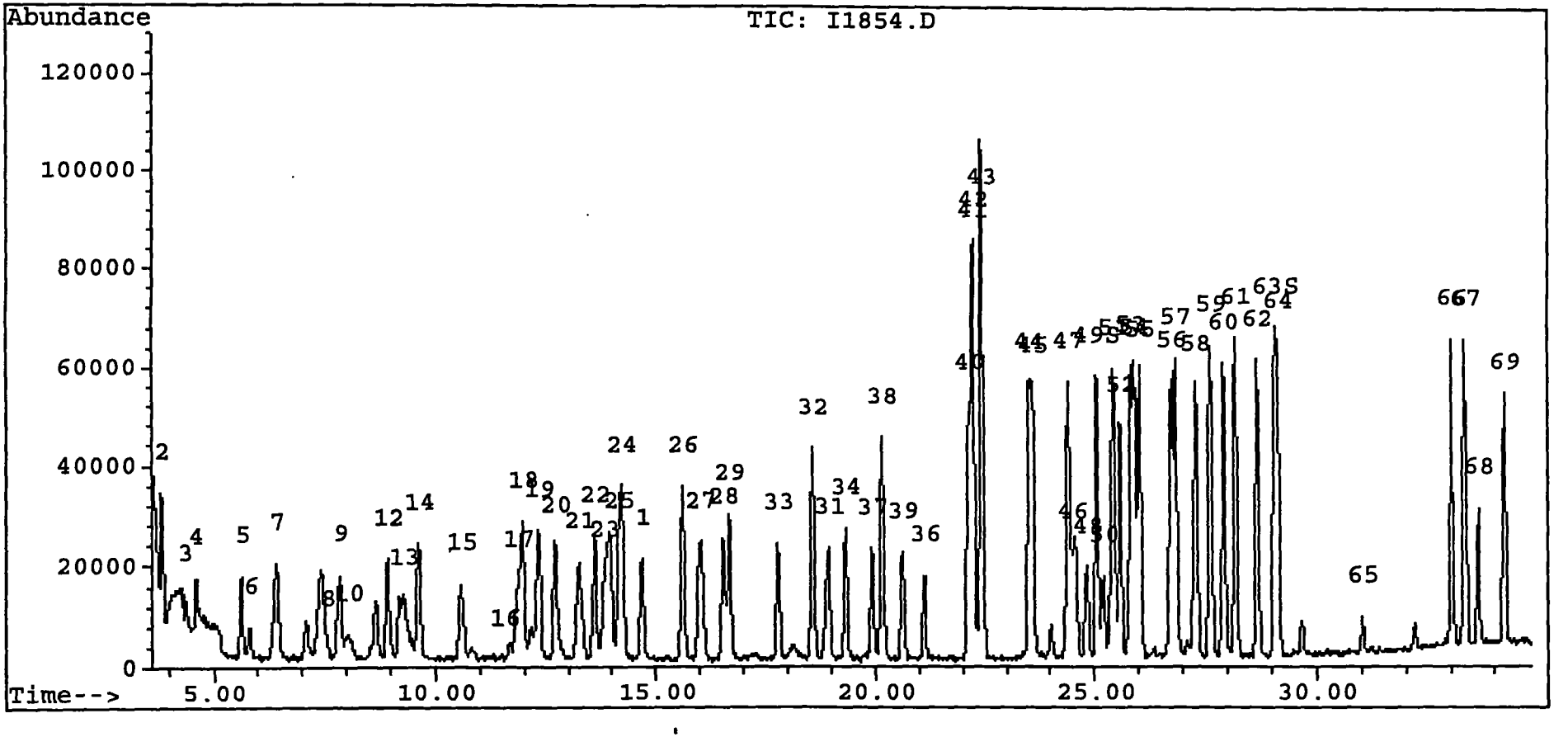
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
42)	Ethylbenzene	22.24	91	119864	1.90	ppb		90
43)	(m+p)Xylene	22.44	106	86360	3.84	ppb		93
44)	o-Xylene	23.52	106	40906	1.87	ppb		96
45)	Styrene	23.60	104	64199	1.75	ppb		91
46)	Bromoform	24.49	173	18565	1.50	ppb	#	91
47)	Isopropylbenzene	24.41	105	117728	1.83	ppb		96
48)	1,1,2,2-Tetrachloroethane	24.83	83	26680	1.91	ppb		97
50)	1,2,3-Trichloropropane	25.20	110	8635	1.93	ppb		92
51)	n-Propylbenzene	25.42	91	143118	1.84	ppb		96
52)	Bromobenzene	25.59	156	37394	1.80	ppb		97
53)	1,3,5-Trimethylbenzene	25.82	105	107731	1.88	ppb		99
54)	2-Chlorotoluene	25.91	126	31036	1.74	ppb		97
55)	4-Chlorotoluene	26.02	126	31557	2.03	ppb		98
56)	tert-Butylbenzene	26.73	119	103019	1.87	ppb		100
57)	1,2,4-Trimethylbenzene	26.83	105	105711	1.85	ppb		98
58)	sec-Butylbenzene	27.27	105	129470	1.81	ppb		96
59)	p-Isopropyltoluene	27.62	119	113179	1.85	ppb		94
60)	1,3-Dclbenz	27.91	146	68058	2.04	ppb		95
61)	1,4-Dclbenz	28.18	146	69531	1.93	ppb		98
62)	n-Butylbenzene	28.69	91	106771	1.86	ppb		96
64)	1,2-Dclbenz	29.14	146	65403	2.02	ppb		95
65)	1,2-Dibromo-3-chloropropan	31.01	75	4482	1.46	ppb	#	76
66)	1,2,4-Tcbenzene	33.03	180	46051	1.85	ppb		89
67)	Hexachlorobt	33.32	225	35275	1.83	ppb		95
68)	Naphthalen	33.62	128	54131	1.97	ppb		98
69)	1,2,3-Tclbenzene	34.21	180	40682	1.89	ppb		98

(#) = qualifier out of range (m) = manual integration

Data e : J:\ACQUDATA\MSVOA1\DATA\020202\I185
Acq O.. : 2 Feb 102 12:18 pm
Sample : LCS
Misc :
Quant Time: Feb 2 12:53 19102

Vial: 10
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 02/22/02

Project Reference:
Client Sample ID : LABORATORY CONTROL SAMPLE

Date Sampled : **Order #:** 529340 **Sample Matrix:** WATER
Date Received: **Submission #:** **Analytical Run** 74207

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 02/04/02			
ANALYTICAL DILUTION: 1.00			
BENZENE	0.50	2.0	UG/L
BROMOBENZENE	0.50	1.9	UG/L
BROMOCHLOROMETHANE	0.50	2.0	ug/L
BROMODICHLOROMETHANE	0.50	1.8	UG/L
BROMOFORM	0.50	1.4	UG/L
BROMOMETHANE	0.50	2.0	UG/L
TERT-BUTYLBENZENE	0.50	2.0	UG/L
SEC-BUTYLBENZENE	0.50	1.9	UG/L
N-BUTYLBENZENE	0.50	1.9	UG/L
CARBON TETRACHLORIDE	0.50	1.7	UG/L
CHLOROBENZENE	0.50	1.9	UG/L
`HLOROETHANE	0.50	2.0	UG/L
.LOROFORM	0.50	2.1	UG/L
CHLOROMETHANE	0.50	2.2	UG/L
1,2-DIBROMO-3-CHLOROPROPANE	0.50	1.4	UG/L
2-CHLOROTOLUENE	0.50	1.8	UG/L
4-CHLOROTOLUENE	0.50	2.1	UG/L
DIBROMOCHLOROMETHANE	0.50	1.6	UG/L
1,2-DIBROMOETHANE	0.50	1.8	UG/L
DIBROMOMETHANE	0.50	1.8	UG/L
1,2-DICHLOROBENZENE	0.50	2.0	UG/L
1,4-DICHLOROBENZENE	0.50	2.0	UG/L
1,3-DICHLOROBENZENE	0.50	2.1	UG/L
DICHLORODIFLUOROMETHANE	0.50	2.2	UG/L
1,1-DICHLOROETHANE	0.50	1.9	UG/L
1,2-DICHLOROETHANE	0.50	2.0	UG/L
1,1-DICHLOROETHENE	0.50	1.8	UG/L
TRANS-1,2-DICHLOROETHENE	0.50	1.9	UG/L
CIS-1,2-DICHLOROETHENE	0.50	1.9	UG/L
2,2-DICHLOROPROPANE	0.50	1.6	UG/L
1,2-DICHLOROPROPANE	0.50	1.8	UG/L
1,3-DICHLOROPROPANE	0.50	1.8	UG/L
1,1-DICHLOROPROPENE	0.50	1.8	UG/L
TRANS-1,3-DICHLOROPROPENE	0.50	1.6	UG/L
CIS-1,3-DICHLOROPROPENE	0.50	1.6	UG/L
ETHYLBENZENE	0.50	1.9	UG/L
HEXACHLOROBUTADIENE	0.50	1.9	UG/L
SOPROPYLBENZENE	0.50	1.9	UG/L
P-ISOPROPYLTOLUENE	0.50	1.9	UG/L
METHYLENE CHLORIDE	0.50	2.0	UG/L
NAPHTHALENE	0.50	1.8	UG/L
N-PROPYLBENZENE	0.50	1.9	UG/L
STYRENE	0.50	1.9	UG/L
1,1,1,2-TETRACHLOROETHANE	0.50	1.8	UG/L

Project Reference:
Client Sample ID : LABORATORY CONTROL SAMPLE

Date Sampled : **Order #:** 529340 **Sample Matrix:** WATER
Date Received: **Submission #:** **Analytical Run** 74207

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 02/04/02			
ANALYTICAL DILUTION: 1.00			
1,1,2,2-TETRACHLOROETHANE	0.50	1.8	UG/L
TETRACHLOROETHENE	0.50	1.9	UG/L
TOLUENE	0.50	1.9	UG/L
1,2,4-TRICHLOROBENZENE	0.50	1.9	UG/L
1,2,3-TRICHLOROBENZENE	0.50	1.9	ug/L
1,1,1-TRICHLOROETHANE	0.50	1.7	UG/L
1,1,2-TRICHLOROETHANE	0.50	1.9	UG/L
TRICHLOROETHENE	0.50	1.8	UG/L
TRICHLOROFLUOROMETHANE	0.50	2.0	UG/L
1,2,3-TRICHLOROPROPANE	0.50	2.0	UG/L
1,3,5-TRIMETHYLBENZENE	0.50	1.9	UG/L
1,2,4-TRIMETHYLBENZENE	0.50	1.9	UG/L
VINYL CHLORIDE	0.50	1.8	UG/L
M+P-XYLENE	0.50	3.9	UG/L
O-XYLENE	0.50	1.9	UG/L

SURROGATE RECOVERIES	QC LIMITS		
BROMOFLUOROBENZENE	(64 - 127 %)	95	%
1,2-DICHLOROBENZENE-D4	(59 - 136 %)	96	%

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\020402\I1872.D
Acq On : 4 Feb 102 12:30 pm
Sample : LCS
Misc :
Quant Time: Feb 4 13:05 19102

Vial: 19
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	14.74	96	53502	1.00	ppb		0.08
System Monitoring Compounds							%Recovery
49) Surr2,BFB	25.13	95	54369	1.90	ppb		94.78%
63) Surr5,1,2-Dichlorobenzene-	29.15	152	43180	1.91	ppb		95.36%
Target Compounds							Qvalue
2) Dichlorodifluoromethane	3.93	85	50934	2.19	ppb		97
3) Chloromethane	4.45	50	17501	2.20	ppb	#	79
4) Vinyl Chloride	4.69	62	18381	1.84	ppb		97
5) Bromomethane	5.71	94	26334	2.02	ppb		89
6) Chloroethane	5.88	64	16440	2.03	ppb		99
7) Trichlorofluoromethane	6.49	101	67132	1.95	ppb		92
8) Acetone	7.62	43	4298	2.23	ppb		100-not add
9) 1,1-Diclethene	7.94	96	21234	1.82	ppb		97
10) tert Butyl Alcohol	8.12	59	18874	30.33	ppb		63
12) Methylene Chloride	9.01	84	26929	1.96	ppb		94
13) Methyl-t-Butyl Ether	9.38	73	55106	1.83	ppb	#	93
14) trans-1,2-Dichloroethene	9.70	96	26922	1.91	ppb		97
15) 1,1-Diclethane	10.65	63	45775	1.94	ppb		100
~~16) 2-Butanone~~	~~11.57~~	~~43~~	~~1295~~	~~0.49~~	~~ppb~~	~~#~~	~~52~~
17) 2,2-Dichloropropane	11.93	77	38519	1.56	ppb		96
18) cis-1,2-Dichloroethene	12.03	96	29878	1.91	ppb		90
19) Chloroform	12.40	83	66917	2.06	ppb		98
20) Bromochloromethane	12.77	128	18748	1.95	ppb		95
21) 1,1,1-Trichloroethane	13.31	97	49265	1.73	ppb		98
22) 1,1-Dichloropropene	13.68	75	40643	1.82	ppb		97
23) Carbontetrachloride	13.90	117	43576	1.74	ppb		98
24) Benzene	14.28	78	87495	1.98	ppb		90
25) 1,2-Dichloroethane	14.22	62	44181	1.99	ppb		94
26) Trichloroethene	15.66	95	34002	1.82	ppb		94
27) 1,2-Diclpropane	16.05	63	23255	1.80	ppb		97
28) Bromodichloromethane	16.61	83	45049	1.78	ppb		96
29) Dibromomethane	16.72	93	24502	1.84	ppb		93
31) trans-1,3-Dichloropropene	19.00	75	26932	1.60	ppb		97
32) Toluene	18.63	91	99466	1.90	ppb		95
33) cis-1,3-Dichloropropene	17.84	75	31955	1.62	ppb		95
34) 1,1,2-Trichloroethane	19.40	83	18754	1.86	ppb	#	81
36) 1,2-Dibromoethane	21.19	107	29898	1.81	ppb		94
37) 1,3-Dichloropropane	19.99	76	36684	1.76	ppb		87
38) Tetrachloroethene	20.21	166	43347	1.94	ppb		96
39) Dibromochloromethane	20.68	129	32391	1.63	ppb		90
40) Chlorobenzene	22.20	112	71208	1.86	ppb		87
41) 1,1,1,2-Tetrachloroethane	22.30	131	29156	1.77	ppb		95

(#) = qualifier out of range (m) = manual integration

SL 02/04/02

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\020402\I1872.D
Acq On : 4 Feb 102 12:30 pm
Sample : LCS
Misc :
Quant Time: Feb 4 13:05 19102

Vial: 19
Operator: DLIPANI
Inst : 5970 - In
Multiplr: 1.00

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration

Compound	R.T.	QIon	Response	Conc Unit		Qvalue
42) Ethylbenzene	22.30	91	121204	1.93 ppb		95
43) (m+p)Xylene	22.48	106	88055	3.94 ppb		84
44) o-Xylene	23.58	106	41866	1.93 ppb		92
45) Styrene	23.66	104	67566	1.86 ppb		94
46) Bromoform	24.54	173	17631	1.44 ppb	#	95
47) Isopropylbenzene	24.47	105	121158	1.89 ppb		97
48) 1,1,2,2-Tetrachloroethane	24.89	83	24823	1.79 ppb	#	99
50) 1,2,3-Trichloropropane	25.28	110	8649	1.95 ppb	#	80
51) n-Propylbenzene	25.48	91	146992	1.90 ppb		99
52) Bromobenzene	25.65	156	40034	1.94 ppb		97
53) 1,3,5-Trimethylbenzene	25.88	105	110345	1.94 ppb		98
54) 2-Chlorotoluene	25.97	126	31243	1.76 ppb		96
55) 4-Chlorotoluene	26.09	126	33124	2.14 ppb		98
56) tert-Butylbenzene	26.79	119	107366	1.96 ppb		98
57) 1,2,4-Trimethylbenzene	26.91	105	108027	1.91 ppb		97
58) sec-Butylbenzene	27.35	105	134681	1.89 ppb		100
59) p-Isopropyltoluene	27.68	119	117612	1.93 ppb		95
60) 1,3-Dclbenz	27.99	146	69553	2.10 ppb		98
61) 1,4-Dclbenz	28.24	146	70367	1.97 ppb		94
62) n-Butylbenzene	28.75	91	107489	1.88 ppb		94
64) 1,2-Dclbenz	29.20	146	64567	2.01 ppb		99
65) 1,2-Dibromo-3-chloropropan	31.09	75	4175	1.37 ppb	#	86
66) 1,2,4-Tcbenzene	33.09	180	46532	1.89 ppb		96
67) Hexachlorobt	33.39	225	36727	1.92 ppb		96
68) Naphthalen	33.70	128	47731	1.75 ppb	#	93
69) 1,2,3-Tclbenzene	34.27	180	40692	1.90 ppb		96

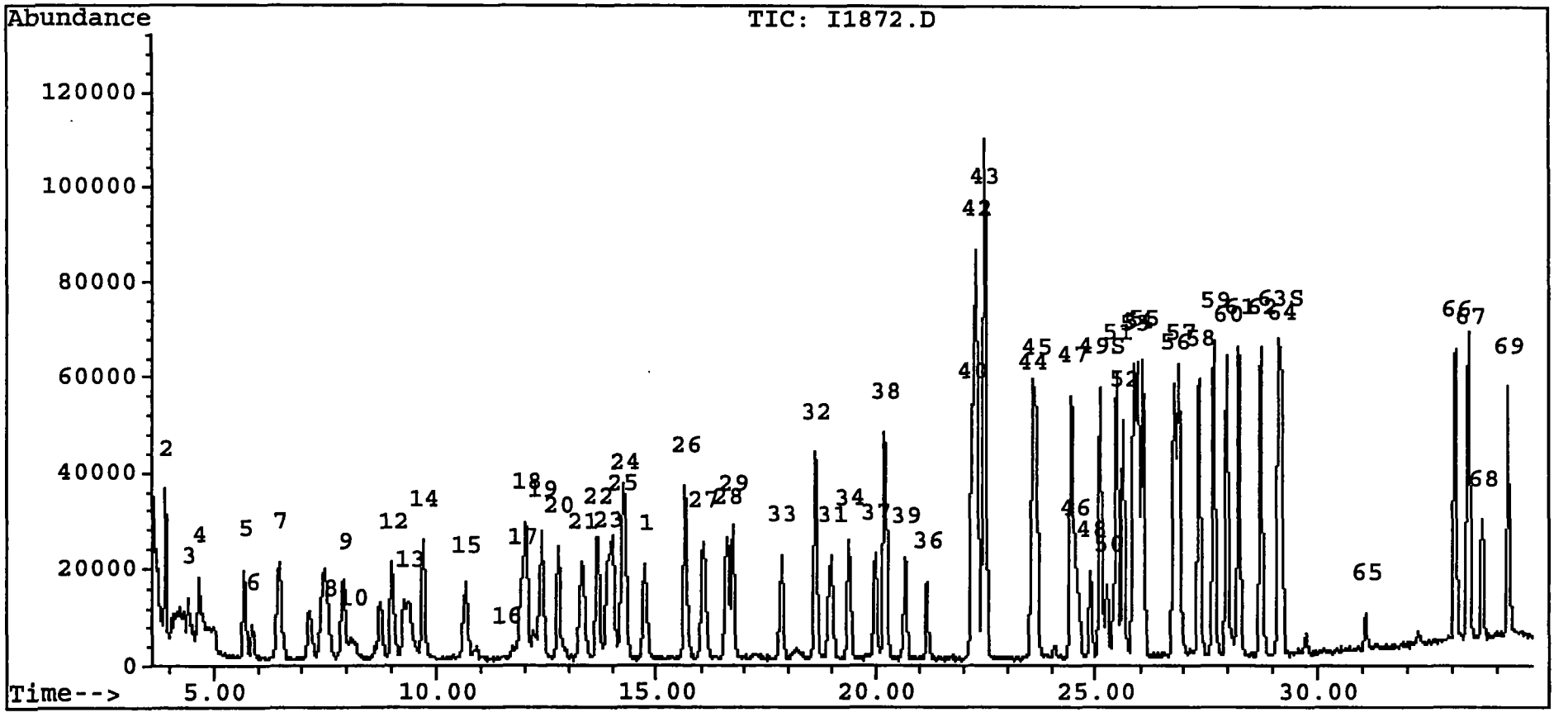
456

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : J:\ACQUDATA\MSVOA1\DATA\020402\I1872.D Vial: 19
Acq On : 4 Feb 102 12:30 pm Operator: DLIPANI
Sample : LCS Inst : 5970 - In
Misc : Multiplr: 1.00
Quant Time: Feb 4 13:05 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 02/22/02

Project Reference:
Client Sample ID : MATRIX SPIKE

Date Sampled : **Order #:** 529335 **Sample Matrix:** WATER
Date Received: **Submission #:** **Analytical Run** 74207

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 02/01/02			
ANALYTICAL DILUTION: 1.00			
BENZENE	0.50	5.0	UG/L
BROMOBENZENE	0.50	4.9	UG/L
BROMOCHLOROMETHANE	0.50	4.8	ug/L
BROMODICHLOROMETHANE	0.50	4.6	UG/L
BROMOFORM	0.50	3.7	UG/L
BROMOMETHANE	0.50	5.7	UG/L
TERT-BUTYLBENZENE	0.50	5.1	UG/L
SEC-BUTYLBENZENE	0.50	5.0	UG/L
N-BUTYLBENZENE	0.50	4.6	UG/L
CARBON TETRACHLORIDE	0.50	4.6	UG/L
CHLOROBENZENE	0.50	4.8	UG/L
CHLOROETHANE	0.50	5.0	UG/L
CHLOROFORM	0.50	4.9	UG/L
CHLOROMETHANE	0.50	5.5	UG/L
1,2-DIBROMO-3-CHLOROPROPANE	0.50	3.0	UG/L
2-CHLOROTOLUENE	0.50	4.8	UG/L
4-CHLOROTOLUENE	0.50	4.9	UG/L
DIBROMOCHLOROMETHANE	0.50	4.2	UG/L
1,2-DIBROMOETHANE	0.50	4.3	UG/L
DIBROMOMETHANE	0.50	4.4	UG/L
1,2-DICHLOROBENZENE	0.50	5.0	UG/L
1,4-DICHLOROBENZENE	0.50	4.9	UG/L
1,3-DICHLOROBENZENE	0.50	5.3	UG/L
DICHLORODIFLUOROMETHANE	0.50	5.7	UG/L
1,1-DICHLOROETHANE	0.50	4.9	UG/L
1,2-DICHLOROETHANE	0.50	4.6	UG/L
1,1-DICHLOROETHENE	0.50	4.8	UG/L
TRANS-1,2-DICHLOROETHENE	0.50	4.7	UG/L
CIS-1,2-DICHLOROETHENE	0.50	5.0	UG/L
2,2-DICHLOROPROPANE	0.50	4.2	UG/L
1,2-DICHLOROPROPANE	0.50	4.6	UG/L
1,3-DICHLOROPROPANE	0.50	4.1	UG/L
1,1-DICHLOROPROPENE	0.50	4.8	UG/L
TRANS-1,3-DICHLOROPROPENE	0.50	4.3	UG/L
CIS-1,3-DICHLOROPROPENE	0.50	4.5	UG/L
ETHYLBENZENE	0.50	5.1	UG/L
HEXACHLOROBUTADIENE	0.50	4.9	UG/L
ISOPROPYLBENZENE	0.50	5.0	UG/L
P-ISOPROPYLTOLUENE	0.50	4.9	UG/L
METHYLENE CHLORIDE	0.50	4.8	UG/L
NAPHTHALENE	0.50	3.1	UG/L
N-PROPYLBENZENE	0.50	4.9	UG/L
STYRENE	0.50	4.9	UG/L
1,1,1,2-TETRACHLOROETHANE	0.50	4.6	UG/L

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 02/22/02

Project Reference:
Client Sample ID : MATRIX SPIKE

Date Sampled : **Order #:** 529335 **Sample Matrix:** WATER
Date Received: **Submission #:** **Analytical Run** 74207

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 02/01/02			
ANALYTICAL DILUTION: 1.00			
1,1,2,2-TETRACHLOROETHANE	0.50	3.9	UG/L
TETRACHLOROETHENE	0.50	5.0	UG/L
TOLUENE	0.50	4.8	UG/L
1,2,4-TRICHLOROBENZENE	0.50	4.0	UG/L
1,2,3-TRICHLOROBENZENE	0.50	3.7	ug/L
1,1,1-TRICHLOROETHANE	0.50	4.7	UG/L
1,1,2-TRICHLOROETHANE	0.50	4.5	UG/L
TRICHLOROETHENE	0.50	4.8	UG/L
TRICHLOROFLUOROMETHANE	0.50	5.4	UG/L
1,2,3-TRICHLOROPROPANE	0.50	4.2	UG/L
1,3,5-TRIMETHYLBENZENE	0.50	5.0	UG/L
1,2,4-TRIMETHYLBENZENE	0.50	4.8	UG/L
VINYL CHLORIDE	0.50	5.3	UG/L
M+P-XYLENE	0.50	10	UG/L
O-XYLENE	0.50	5.1	UG/L

SURROGATE RECOVERIES	QC LIMITS		
BROMOFLUOROBENZENE	(64 - 127 %)	92	%
1,2-DICHLOROBENZENE-D4	(59 - 136 %)	94	%

Data File : J:\ACQUDATA\MSVOA1\DATA\020102\I1842.D Vial: 3
Acq On : 1 Feb 102 4:53 pm Operator: DLIPANI
Sample : 525954 1.0 MS 529335 Inst : 5970 - In
Misc : TTEM R22-10409 524.2 Multiplr: 1.00
Quant Time: Feb 1 17:28 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	14.74	96	54744	1.00	ppb		0.08
System Monitoring Compounds							%Recovery
49) Surr2,BFB	25.13	95	53645	1.83	ppb		91.40%
63) Surr5,1,2-Dichlorobenzene-	29.16	152	43598	1.88	ppb		94.10%
Target Compounds							Qvalue
2) Dichlorodifluoromethane	3.92	85	135563	5.69	ppb		99
3) Chloromethane	4.42	50	44757	5.51	ppb	#	84
4) Vinyl Chloride	4.67	62	53943	5.28	ppb		95
5) Bromomethane	5.70	94	75558	5.68	ppb		97
6) Chloroethane	5.87	64	41012	4.95	ppb		99
7) Trichlorofluoromethane	6.48	101	191332	5.42	ppb		99
9) 1,1-Diclethene	7.91	96	57387	4.80	ppb		95
10) tert Butyl Alcohol	8.08	59	36588	57.47	ppb		84
12) Methylene Chloride	9.00	84	67894	4.83	ppb		97
13) Methyl-t-Butyl Ether	9.37	73	127299	4.14	ppb		96
14) trans-1,2-Dichloroethene	9.69	96	68176	4.72	ppb		96
15) 1,1-Diclethane	10.65	63	118792	4.93	ppb		95
17) 2,2-Dichloropropane	11.93	77	107096	4.25	ppb	#	89
18) cis-1,2-Dichloroethene	12.03	96	80122	5.00	ppb		91
19) Chloroform	12.39	83	163146	4.92	ppb		98
20) Bromochloromethane	12.77	128	47264	4.81	ppb		88
21) 1,1,1-Trichloroethane	13.31	97	135917	4.66	ppb		98
22) 1,1-Dichloropropene	13.67	75	109452	4.80	ppb		98
23) Carbontetrachloride	13.92	117	119475	4.65	ppb		98
24) Benzene	14.29	78	227630	5.02	ppb		93
25) 1,2-Dichloroethane	14.22	62	105171	4.62	ppb	#	92
26) Trichloroethene	15.65	95	91060	4.78	ppb		94
27) 1,2-Diclpropane	16.06	63	60417	4.58	ppb		98
28) Bromodichloromethane	16.59	83	118881	4.60	ppb		100
29) Dibromomethane	16.73	93	59621	4.37	ppb		95
31) trans-1,3-Dichloropropene	19.00	75	73826	4.28	ppb	#	91
32) Toluene	18.63	91	257424	4.81	ppb		99
33) cis-1,3-Dichloropropene	17.84	75	89884	4.46	ppb		97
34) 1,1,2-Trichloroethane	19.41	83	46174	4.48	ppb	#	83
36) 1,2-Dibromoethane	21.19	107	73009	4.33	ppb		93
37) 1,3-Dichloropropane	20.00	76	86622	4.07	ppb		98
38) Tetrachloroethene	20.21	166	113900	4.99	ppb		95
39) Dibromochloromethane	20.69	129	85455	4.19	ppb		93
40) Chlorobenzene	22.20	112	188158	4.80	ppb		89
41) 1,1,1,2-Tetrachloroethane	22.29	131	76672	4.55	ppb		97
42) Ethylbenzene	22.30	91	325590	5.07	ppb		94
43) (m+p)Xylene	22.50	106	235312	10.29	ppb		92

(#) = qualifier out of range (m) = manual integration DL 460

Data File : J:\ACQUDATA\MSVOA1\DATA\020102\I1842.D Vial: 3
Acq On : 1 Feb 102 4:53 pm Operator: DLIPANI
Sample : 525954 1.0 MS Inst : 5970 - In
Misc : TTEM R22-10409 524.2 Multiplr: 1.00
Quant Time: Feb 1 17:28 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration

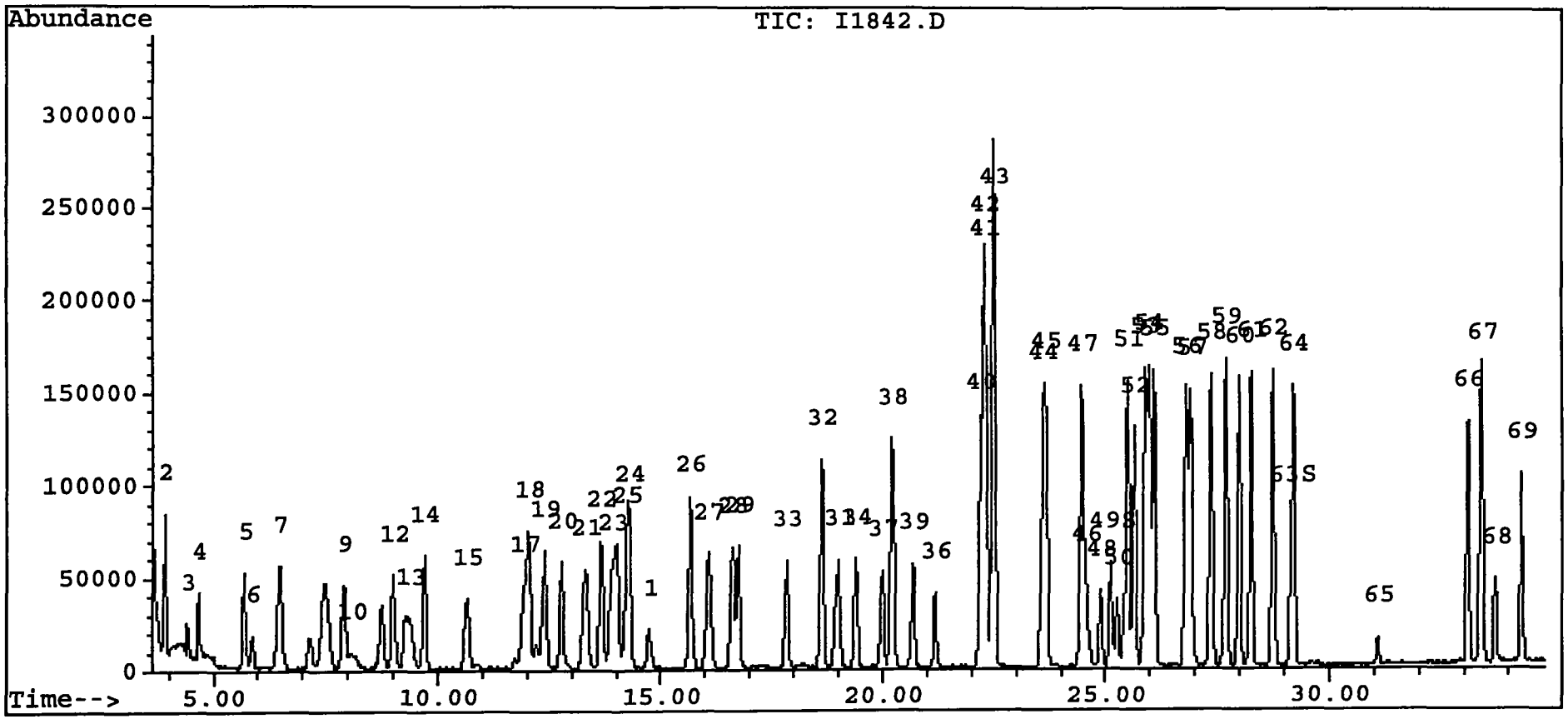
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
44)	o-Xylene	23.60	106	114026	5.13	ppb		88
45)	Styrene	23.67	104	183252	4.92	ppb		97
46)	Bromoform	24.56	173	46856	3.73	ppb	#	90
47)	Isopropylbenzene	24.47	105	327242	4.99	ppb		98
48)	1,1,2,2-Tetrachloroethane	24.90	83	55550	3.91	ppb	#	97
50)	1,2,3-Trichloropropane	25.27	110	19028	4.18	ppb	#	82
51)	n-Propylbenzene	25.50	91	389972	4.92	ppb		99
52)	Bromobenzene	25.65	156	103532	4.90	ppb		95
53)	1,3,5-Trimethylbenzene	25.89	105	292424	5.02	ppb		98
54)	2-Chlorotoluene	25.97	126	87797	4.83	ppb		96
55)	4-Chlorotoluene	26.09	126	77176	4.88	ppb		96
56)	tert-Butylbenzene	26.81	119	284071	5.07	ppb		97
57)	1,2,4-Trimethylbenzene	26.92	105	277832	4.79	ppb		96
58)	sec-Butylbenzene	27.35	105	360043	4.95	ppb		99
59)	p-Isopropyltoluene	27.69	119	307619	4.94	ppb		97
60)	1,3-Dclbenz	27.99	146	181015	5.34	ppb		99
61)	1,4-Dclbenz	28.26	146	180657	4.94	ppb		97
62)	n-Butylbenzene	28.75	91	271780	4.65	ppb		95
64)	1,2-Dclbenz	29.21	146	162893	4.96	ppb		97
65)	1,2-Dibromo-3-chloropropan	31.09	75	9480	3.05	ppb	#	86
66)	1,2,4-Tcbenzene	33.10	180	101409	4.02	ppb		90
67)	Hexachlorobt	33.40	225	96690	4.94	ppb		98
68)	Naphthalen	33.70	128	87444	3.14	ppb		96
69)	1,2,3-Tclbenzene	34.27	180	80906	3.70	ppb		95

(#) = qualifier out of range (m) = manual integration

Quantit· 'on Report

Data File : J:\ACQUDATA\MSVOA1\DATA\020102\I1842.D Vial: 3
Acq On : 1 Feb 102 4:53 pm Operator: DLIPANI
Sample : 525954 1.0 MS Inst : 5970 - In
Misc : TTEM R22-10409 524.2 Multiplr: 1.00
Quant Time: Feb 1 17:28 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration



COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 02/22/02

Project Reference:
Client Sample ID : MATRIX SPIKE DUPLICATE

Date Sampled : **Order #:** 529336 **Sample Matrix:** WATER
Date Received: **Submission #:** **Analytical Run** 74207

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 02/01/02			
ANALYTICAL DILUTION: 1.00			
BENZENE	0.50	4.8	UG/L
BROMOBENZENE	0.50	4.8	UG/L
BROMOCHLOROMETHANE	0.50	4.6	ug/L
BROMODICHLOROMETHANE	0.50	4.7	UG/L
BROMOFORM	0.50	3.5	UG/L
BROMOMETHANE	0.50	5.1	UG/L
TERT-BUTYLBENZENE	0.50	5.0	UG/L
SEC-BUTYLBENZENE	0.50	4.8	UG/L
N-BUTYLBENZENE	0.50	4.8	UG/L
CARBON TETRACHLORIDE	0.50	4.6	UG/L
CHLOROBENZENE	0.50	4.7	UG/L
CHLOROETHANE	0.50	4.7	UG/L
CHLOROFORM	0.50	4.8	UG/L
CHLOROMETHANE	0.50	5.6	UG/L
1,2-DIBROMO-3-CHLOROPROPANE	0.50	2.8	UG/L
2-CHLOROTOLUENE	0.50	4.7	UG/L
4-CHLOROTOLUENE	0.50	5.0	UG/L
DIBROMOCHLOROMETHANE	0.50	4.1	UG/L
1,2-DIBROMOETHANE	0.50	4.3	UG/L
DIBROMOMETHANE	0.50	4.4	UG/L
1,2-DICHLOROBENZENE	0.50	4.9	UG/L
1,4-DICHLOROBENZENE	0.50	4.8	UG/L
1,3-DICHLOROBENZENE	0.50	5.2	UG/L
DICHLORODIFLUOROMETHANE	0.50	5.1	UG/L
1,1-DICHLOROETHANE	0.50	4.9	UG/L
1,2-DICHLOROETHANE	0.50	4.6	UG/L
1,1-DICHLOROETHENE	0.50	4.5	UG/L
TRANS-1,2-DICHLOROETHENE	0.50	4.8	UG/L
CIS-1,2-DICHLOROETHENE	0.50	4.7	UG/L
2,2-DICHLOROPROPANE	0.50	4.1	UG/L
1,2-DICHLOROPROPANE	0.50	4.5	UG/L
1,3-DICHLOROPROPANE	0.50	4.1	UG/L
1,1-DICHLOROPROPENE	0.50	4.7	UG/L
TRANS-1,3-DICHLOROPROPENE	0.50	4.2	UG/L
CIS-1,3-DICHLOROPROPENE	0.50	4.4	UG/L
ETHYLBENZENE	0.50	4.9	UG/L
HEXACHLOROBUTADIENE	0.50	5.0	UG/L
ISOPROPYLBENZENE	0.50	4.9	UG/L
P-ISOPROPYLTOLUENE	0.50	4.9	UG/L
METHYLENE CHLORIDE	0.50	4.9	UG/L
NAPHTHALENE	0.50	4.1	UG/L
N-PROPYLBENZENE	0.50	4.8	UG/L
STYRENE	0.50	4.7	UG/L
1,1,1,2-TETRACHLOROETHANE	0.50	4.6	UG/L

VOLATILE ORGANICS
METHOD 524.2 DRINKING WATER VOLATIL
Reported: 02/22/02

Project Reference:
Client Sample ID : MATRIX SPIKE DUPLICATE

Date Sampled : **Order #:** 529336 **Sample Matrix:** WATER
Date Received: **Submission #:** **Analytical Run** 74207

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 02/01/02			
ANALYTICAL DILUTION: 1.00			
1,1,2,2-TETRACHLOROETHANE	0.50	3.9	UG/L
TETRACHLOROETHENE	0.50	4.9	UG/L
TOLUENE	0.50	4.7	UG/L
1,2,4-TRICHLOROBENZENE	0.50	4.6	UG/L
1,2,3-TRICHLOROBENZENE	0.50	4.5	ug/L
1,1,1-TRICHLOROETHANE	0.50	4.5	UG/L
1,1,2-TRICHLOROETHANE	0.50	4.2	UG/L
TRICHLOROETHENE	0.50	4.8	UG/L
TRICHLOROFLUOROMETHANE	0.50	5.0	UG/L
1,2,3-TRICHLOROPROPANE	0.50	4.2	UG/L
1,3,5-TRIMETHYLBENZENE	0.50	5.0	UG/L
1,2,4-TRIMETHYLBENZENE	0.50	4.9	UG/L
VINYL CHLORIDE	0.50	4.6	UG/L
M+P-XYLENE	0.50	10	UG/L
O-XYLENE	0.50	4.9	UG/L

SURROGATE RECOVERIES	QC LIMITS		
BROMOFLUOROBENZENE	(64 - 127 %)	96	%
1,2-DICHLOROBENZENE-D4	(59 - 136 %)	92	%

Data File : J:\ACQUDATA\MSVOA1\DATA\020102\I1843.D Vial: 4
Acq On : 1 Feb 102 5:34 pm Operator: DLIPANI
Sample : 525954 1.0 MSD 529336 Inst : 5970 - In
Misc : TTEM R22-10409 524.2 Multiplr: 1.00
Quant Time: Feb 1 18:09 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	14.73	96	55460	1.00	ppb		0.07
System Monitoring Compounds							%Recovery
49) Surr2,BFB	25.11	95	56884	1.91	ppb		95.67%
63) Surr5,1,2-Dichlorobenzene-	29.14	152	43141	1.84	ppb		91.91%
Target Compounds							Qvalue
2) Dichlorodifluoromethane	3.90	85	124130	5.14	ppb		99
3) Chloromethane	4.42	50	46025	5.59	ppb	#	80
4) Vinyl Chloride	4.66	62	47531	4.59	ppb	#	88
5) Bromomethane	5.68	94	68644	5.09	ppb		100
6) Chloroethane	5.85	64	39609	4.72	ppb		89
7) Trichlorofluoromethane	6.46	101	178670	5.00	ppb		98
8) Acetone	7.59	43	5341	2.67	ppb		89
9) 1,1-Diclethene	7.89	96	54664	4.51	ppb		89
10) tert Butyl Alcohol	8.08	59	39619	61.42	ppb		78
12) Methylene Chloride	8.98	84	69825	4.91	ppb		92
13) Methyl-t-Butyl Ether	9.36	73	129036	4.14	ppb		97
14) trans-1,2-Dichloroethene	9.69	96	70315	4.81	ppb		90
15) 1,1-Diclethane	10.64	63	119587	4.90	ppb		95
16) 2-Butanone	11.58	43	1101	~~0.40~~	ppb	#	~~92~~
17) 2,2-Dichloropropane	11.93	77	103507	4.06	ppb	#	90
18) cis-1,2-Dichloroethene	12.03	96	76803	4.73	ppb		95
19) Chloroform	12.39	83	162986	4.85	ppb		98
20) Bromochloromethane	12.76	128	46310	4.65	ppb		95
21) 1,1,1-Trichloroethane	13.30	97	134278	4.54	ppb		96
22) 1,1-Dichloropropene	13.65	75	108353	4.69	ppb		97
23) Carbontetrachloride	13.90	117	118495	4.55	ppb		97
24) Benzene	14.27	78	222038	4.84	ppb		96
25) 1,2-Dichloroethane	14.20	62	106083	4.60	ppb		100
26) Trichloroethene	15.65	95	91905	4.76	ppb		94
27) 1,2-Diclpropane	16.06	63	60512	4.52	ppb		96
28) Bromodichloromethane	16.60	83	122776	4.69	ppb		94
29) Dibromomethane	16.71	93	61182	4.43	ppb		93
31) trans-1,3-Dichloropropene	18.99	75	73332	4.20	ppb		94
32) Toluene	18.62	91	256980	4.74	ppb		98
33) cis-1,3-Dichloropropene	17.82	75	88879	4.35	ppb		94
34) 1,1,2-Trichloroethane	19.39	83	44432	4.25	ppb	#	85
36) 1,2-Dibromoethane	21.17	107	73557	4.30	ppb		94
37) 1,3-Dichloropropane	20.00	76	89244	4.14	ppb		98
38) Tetrachloroethene	20.22	166	114109	4.94	ppb		94
39) Dibromochloromethane	20.69	129	84533	4.09	ppb		97
40) Chlorobenzene	22.19	112	187515	4.72	ppb		93
41) 1,1,1,2-Tetrachloroethane	22.29	131	77913	4.57	ppb		96

(#) = qualifier out of range (m) = manual integration SL 465

Data File : J:\ACQUDATA\MSVOA1\DATA\020102\I1843.D Vial: 4
Acq On : 1 Feb 102 5:34 pm Operator: DLIPANI
Sample : 525954 1.0 MSD Inst : 5970 - In
Misc : TTEM R22-10409 524.2 Multiplr: 1.00
Quant Time: Feb 1 18:09 19102

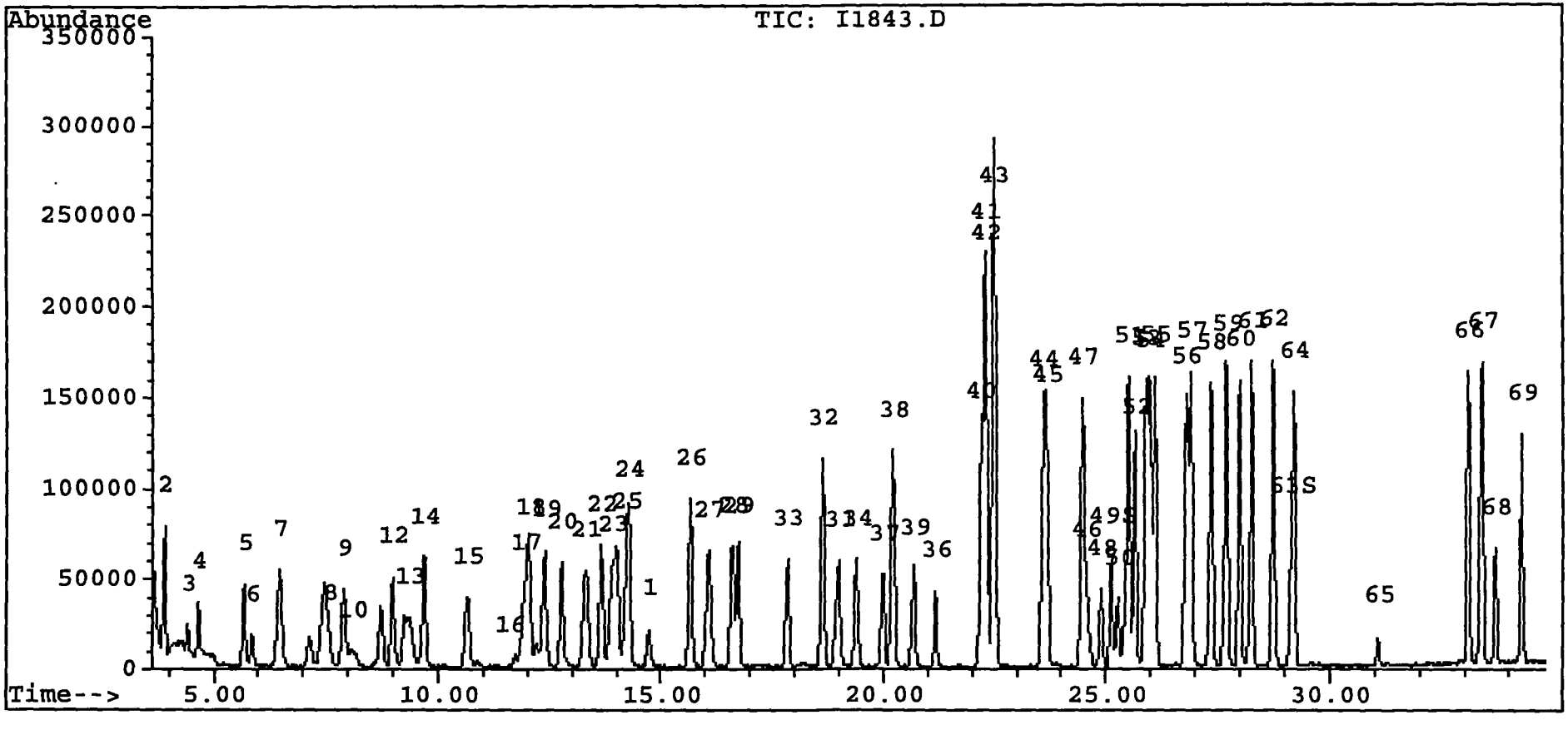
Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
42)	Ethylbenzene	22.30	91	320148	4.92	ppb		99
43)	(m+p)Xylene	22.49	106	231885	10.01	ppb		84
44)	o-Xylene	23.58	106	110385	4.90	ppb		96
45)	Styrene	23.67	104	178508	4.73	ppb		94
46)	Bromoform	24.54	173	45012	3.54	ppb	#	98
47)	Isopropylbenzene	24.46	105	324128	4.88	ppb		98
48)	1,1,2,2-Tetrachloroethane	24.88	83	56200	3.90	ppb	#	94
50)	1,2,3-Trichloropropane	25.27	110	19262	4.18	ppb		87
51)	n-Propylbenzene	25.49	91	383972	4.79	ppb		99
52)	Bromobenzene	25.65	156	103685	4.85	ppb		85
53)	1,3,5-Trimethylbenzene	25.87	105	294853	5.00	ppb		98
54)	2-Chlorotoluene	25.97	126	85764	4.66	ppb		94
55)	4-Chlorotoluene	26.07	126	79246	4.95	ppb		90
56)	tert-Butylbenzene	26.78	119	284998	5.03	ppb		99
57)	1,2,4-Trimethylbenzene	26.90	105	286253	4.87	ppb		96
58)	sec-Butylbenzene	27.34	105	353034	4.79	ppb		100
59)	p-Isopropyltoluene	27.69	119	309501	4.91	ppb		98
60)	1,3-Dclbenz	27.98	146	179347	5.22	ppb		96
61)	1,4-Dclbenz	28.25	146	179406	4.84	ppb		99
62)	n-Butylbenzene	28.73	91	286625	4.84	ppb		91
64)	1,2-Dclbenz	29.21	146	162302	4.88	ppb		98
65)	1,2-Dibromo-3-chloropropan	31.08	75	8972	2.85	ppb	#	78
66)	1,2,4-Tcbenzene	33.08	180	117668	4.60	ppb		99
67)	Hexachlorobt	33.38	225	98719	4.97	ppb		98
68)	Naphthalen	33.68	128	115195	4.08	ppb		99
69)	1,2,3-Tclbenzene	34.26	180	100020	4.52	ppb		94

(#) = qualifier out of range (m) = manual integration

Data File : J:\ACQUDATA\MSVOA1\DATA\020102\I1843.. Vial: 4
Acq On : 1 Feb 102 5:34 pm Operator: DLIPANI
Sample : 525954 1.0 MSD Inst : 5970 - In
Misc : TTEM R22-10409 524.2 Multiplr: 1.00
Quant Time: Feb 1 18:09 19102

Method : J:\ACQUDATA\MSVOA1\METHODS\5240128.M
Title : USEPA Method 524.2 Volatiles
Last Update : Tue Jan 29 13:26:52 2002
Response via : Multiple Level Calibration



~~01~~ (DL) 02/01/02 5240128.M
(524.2)
[10 mL purge vol.]

	I1809 O.K.
	I1810 YT
	I1811 YQ
TRE	I1812 YM
.~~PPTCL~~]	I1813 Y
t.PPTCL]	I1814 Y
	I1815 Y
	I1816 Y
t.TRE]	I1817 Y
.PPTCL]	I1818 Y
	I1819 Y
	I1820 YQ
se prof.]	I1821 Y
PPTCL]	I1822 Y
	I1823 Y
	I1824 Y
	I1825 Y
	I1826 Y
METO]	I1827 Y
OLIN]	I1828 Y
	I1829 Y
PTCL]	I1830 Y

9	C-BLK	
10	C-BLK	
11	Tune Check T012502 09:52	
3	CCV	
4	CCV	(Run 74207)
5	Met Blk 529333	
6	LCS	
7	LCS - prep'd a fresh 25 PPM mix 529334	
7	525954 1.0 pH<2	R22-10409 [TTEM-KS 524.2]
8	525949 1.0 pH<2	
9	525950 1.0 pH<2	
10	525954 1.0 MS pH<2	529335
11	525954 1.0 MSD pH<2	-336
12	526014 1.0 pH<2	
14 (DL) 02-01-02 13	526015 1.0 pH<2	
15	526016 1.0 pH<2	
16	526018 1.0 pH<2	
3	526019 1.0 pH<2	
4	525952 1.0 pH<2	

	I1831 O.K.
	I1832 O.K.
	I1833 YT
	I1834 NC elect. noise bromoform 1,2-DB-3CP ↓
	I1835 YC
	I1836 YM
	I1837 bromoform 1,2-DB-3CP ↓
	I1838 YQ
	I1839 Y
	I1840 Y
	I1841 Y
	I1842 YQ
	I1843 YQ
	I1844 Y
	I1845 Y
	I1846 Y
	I1847 Y
	I1848 Y
ALS	I1849 Nrpt I.S. counts ↓

David Lipani

Surr 25 MSV6095A, 1.0µl/5mL purged Tune
Comb. I.S./Surr MSV6091B, 5µl

CCV
8µl MSV6100D (T/G 25)
+8µl MSV7001C (MeAc/ketones) / 100mL DI, pour out 10mL, add Comb., analyze

LCS (1st)
8µl MSV7003B (SS T/G 25)/100mL DI, pour out 10mL, add Comb., analyze.
~~8µl~~ (DL) 02/01/02

LCS (2nd)
8µl MSV7003C (SS T/G 25)/100mL DI, pour out 10mL, add Comb., analyze.

MS/MSD
1. Inject 8.6µl of MSV7003C into 43mL vial of sample
2. Let vials sit for ~1 hour inverted
3. Pour out 10mL, add Comb.
4. Analyze → spike = 5PPB.

02/02/02

5240128.M
(524.2)
[10mL purge vol.]

(13)	C-BLK		I1850 ~~O.K.~~ tet = 0.54
(4)	Tune Check T012502-M		I1851 YT
(5)	CCV		I1852 YC
(6)	Met Blk		I1853 YM
(3)	LCS		I1854 YQ
(4)	NO SAMPLE		
(5)	525952 1.0 pH<2	R22-10409 [TTEM 524.2]	I1855 Y
(6)	525953 1.0 pH<2		I1856 Y
(7)	525965 1.0 pH<2		I1857 Y
(8)	525970 1.0 pH<2		I1858 Y
(9)	525971 1.0 pH<2		I1859 Y
(10)	525972 1.0 pH<2		I1860 Y
(11)	525973 1.0 pH<2		I1861 Y
(12)	C-BLK		I1862 O.K.
(13)	C-BLK		I1863
(14)	C-BLK		I1864
(15)	525974 1.0 pH<2		I1865 Y
(16)	525996 1.0 pH<2		I1866 Y rpt 1/2

David Lipani

Surr 25 MSV6095A, 1.0µl/5mL purged tune
Comb. I.S./Surr MSV6091B, 5µl

CCV: 8µl MSV6100D (T/G 25) + 8µl MSV7001C (HSL/MeAc) / 100mL DI, pour out 10mL, add Comb., analyze.

LCS: 8µl MSV7003C (SST/G 25) / 100mL DI, pour out 10mL, add Comb., analyze.

02/04/02 5240128.M (524.2) / 6240123.M (624)

[10mL purge volume]

I1850 O.K. tet = 0.5	(13) C-BLK	I1867 O.K.
I1851 YT	(14) Tune Check	I1868 YT
I1852 YC	(15) CCV	I1869 YC
I1853 YM	(4) (DL 02-04-02) Met-Blk 529339	I1870 O.K. stray peaks + noise
I1854 YQ	(8) LCS -340	I1871 YQ 1,2 DiBr 3 CP low
	(9) 525996 2.0 (25mL/50mL) pH<2 R22-10409 [TTEM 524.2]	I1872 Y
I1855 Y	(13) Tune Check T012302.M (for 624) 2:03 P.M.	I1874 YT
I1856	(14) LCS-624	I1875 YQ
I1857	(15) Met Blk	I1876 YM
I1858	(5) 524008 10 (5mL/50mL) using composited sample → pH<2 [redacted]	I1877 O.K. try 1/5
I1859	(6) 524009 1.0 (composited) pH<2 [redacted]	I1878 Y
I1860	(3) 524008 5.0 (1.0mL) pH<2 [redacted]	I1879 Y
I1861	(4) 524008 5.0 DUPL. ↓ pH<2 ↓	I1880 Y
I1862 O.K.	(5) 524008 5.0 MS pH<2	I1881 YQ
I1863 ↓	(6) 524010 1.0 (T.B.) pH<2 [redacted]	I1882 Y
I1864	(7) 527724 200 (1.0mL/200mL) pH<2 [redacted]	I1883 Y
I1865	(8) 527725 10 (5.0mL/50mL) pH<2 ↓	I1884 Y
I1866 Y rpt 1/2	(9) 527726 5.0 (1.0mL) pH<2	I1885 O.K. could go 1/2.5
	(10) 527728 1.0 pH<2	I1886 Y
	(11) 527731 1.0 (T.B.) pH<2	I1887 Y
	(12) 527733 1.0 pH<2 [redacted] "	I1888 Y
	(13) 527734 1.0 pH<2 ↓	I1889 Y
	(14) 527735 1.0 pH<2	I1890 Y
	(15) 527736 1.0 pH<2	I1891 Y
Comb., analyze.	(16) 527625 1.0 pH<2 [redacted]	I1892 Y
	(3) 521375 5.0 (1.0mL) pH<2 [redacted]	I1893 Y
	(4) C-BLK using T012302.M	I1894 O.K.
	(4) (DL 02-04-02) ~~528873~~ 528830 1.0 pH<2 [redacted] (DL 02/04/02)	I1895 Y
Comb., analyze.	(4) 528829 200 (1.0mL/200mL) pH<2	I1896 Y
	(4) 527726 2.5 (2.0mL) pH<2 [redacted]	I1897 Y

David Lipani

Surr 25 MSV6095A → 1.0µl/5mL purged tune for 524.2
→ 2.0µl/5mL purged tune for 624

524.2
Comb. I.S./Surr MSV6091B, 5µl

CCV:
8µl MSV6100D (T/G 25) +8µl MSV7001C (HSL/MeAc) / 100mL DI,
pour out 10mL, add Comb., analyze.

LCS:
8µl MSV7003C (SST/G 25)/100mL DI,
pour out 10mL, add Comb., analyze.

624 → Comb. I.S./Surr MSV6095B, 6µl
1. 10µl MSV6096A (SST/G 200)/100mL DI
2. Pour out 5mL, add Comb.
3. Add 5µl MSV6095C (XTRA LCS 20)
4. Analyze.

MS
1. Prepare 1.0mL/5mL sample in syringe. Add Comb.
2. Add 5µl MSV6095C
3. Add 5µl MSV6096B (SST/G 20)
4. Analyze.

METALS DATA

METALS
COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Contract: R2210409 SDG No.: HWSC-WW

Lab Code: Case No.: SAS No.:

SOW No.: SW846 CLP-M Client: Tetra Tech EM Inc.

Sample No.	Lab Sample ID.
HWSC-WW	525947
HWSC-WWD	525947D
HWSC-WWS	525947S
HWSC-WW-FD	525948
OS-PW-1-FD	525949
OS-PW-1	525950
OS-PW-5	525952
OS-PW-4	525953
OS-PW-2	525954
OS-PW-2D	525954D
OS-PW-2S	525954S
OS-PW-4-FD	525965
OS-PW-3	525970
OS-PW-7	525971
OS-PW-8	525972
OS-PW-6	525973
OS-MUW-1	525974
RINSATE-S1	525975
RINSATE-S5	525982
RINSATE-S3	525987
RINSATE-S2	525988

Were ICP interelement corrections applied? Yes/No YES

Were ICP background corrections applied? Yes/No YES
If yes-were raw data generated before application of background corrections? Yes/No NO

Comments: See Attached Case Narrative

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Michael K. Perry Name: Michael K. Perry

Date: 2/27/02 Title: Laboratory Manager

METALS
COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Contract: R2210409 SDG No.: HWSC-WW

Lab Code: Case No.: SAS No.:

SOW No.: SW846 CLP-M Client: Tetra Tech EM Inc.

Sample No.	Lab Sample ID.
OS-PW-9	525996
SAG GW-1 D	526000
SAG GW-1	526001

Were ICP interelement corrections applied? Yes/No YES

Were ICP background corrections applied? Yes/No YES

If yes-were raw data generated before application of background corrections? Yes/No NO

Comments: See Attached Case Narrative

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Michael K Perry Name: Michael K Perry

Date: 2/27/02 Title: Laboratory Manager

lumbia Analytical Services

METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

HWSC-WW

ıtract: R2210409

› Code: Case No.: SAS No.: SDG NO.: HWSC-WW

trix (soil/water): WATER Lab Sample ID: 525947

vel (low/med): LOW Date Received: 01/23/02

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	2.5	U		F
7440-39-3	Barium	148			P
7440-43-9	Cadmium	0.44	U		P
7440-47-3	Chromium	4.3	U		P
7439-92-1	Lead	3.6	B		P
7439-96-5	Manganese	146			P
7439-97-6	Mercury	0.02	U		CV
7782-49-2	Selenium	3.5	U		P
7440-22-4	Silver	0.76	U		P
7440-66-6	Zinc	343			P

Color Before: YELLOW Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

lumbia Analytical Services

METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

HWSC-WW-FD

ıtract: R2210409

› Code: Case No.: SAS No.: SDG NO.: HWSC-WW

trix (soil/water): WATER Lab Sample ID: 525948

vel (low/med): LOW Date Received: 01/23/02

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	2.5	U		F
7440-39-3	Barium	150			P
7440-43-9	Cadmium	0.44	U		P
7440-47-3	Chromium	4.3	U		P
7439-92-1	Lead	2.3	B		P
7439-96-5	Manganese	136			P
7439-97-6	Mercury	0.02	U		CV
7782-49-2	Selenium	3.5	U		P
7440-22-4	Silver	1.1	B		P
7440-66-6	Zinc	231			P

Color Before: YELLOW Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

lumbia Analytical Services

METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

OS-MUW-1

itract: R2210409

Code: Case No.: SAS No.: SDG NO.: HWSC-WW

rix (soil/water): WATER Lab Sample ID: 525974

el (low/med): LOW Date Received: 01/23/02

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	7.0	B		F
7440-39-3	Barium	243			P
7440-43-9	Cadmium	0.44	U		P
7440-47-3	Chromium	4.3	U		P
7439-92-1	Lead	9.4			P
7439-96-5	Manganese	509			P
7439-97-6	Mercury	0.02	U		CV
7782-49-2	Selenium	4.1	B		P
7440-22-4	Silver	0.76	U		P
7440-66-6	Zinc	142			P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

OS-PW-1

tract: R2210409

Code: Case No.: SAS No.: SDG NO.: HWSC-WW

rix (soil/water): WATER Lab Sample ID: 525950

el (low/med): LOW Date Received: 01/23/02

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	16.0			F
7440-39-3	Barium	32.5			P
7440-43-9	Cadmium	0.44	U		P
7440-47-3	Chromium	4.3	U		P
7439-92-1	Lead	6.5			P
7439-96-5	Manganese	2.1	U		P
7439-97-6	Mercury	0.02	U		CV
7782-49-2	Selenium	5.8			P
7440-22-4	Silver	0.76	U		P
7440-66-6	Zinc	111			P

Color Before: COLORLESS Clarity Before:. CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

OS-PW-1-FD

ntract: R2210409

b Code: Case No.: SAS No.: SDG NO.: HWSC-WW

trix (soil/water): WATER Lab Sample ID: 525949

vel (low/med): LOW Date Received: 01/23/02

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	15.5			F
7440-39-3	Barium	34.0			P
7440-43-9	Cadmium	0.44	U		P
7440-47-3	Chromium	4.3	U		P
7439-92-1	Lead	3.6	B		P
7439-96-5	Manganese	2.1	U		P
7439-97-6	Mercury	0.02	U		CV
7782-49-2	Selenium	6.3			P
7440-22-4	Silver	0.81	B		P
7440-66-6	Zinc	259			P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

OS-PW-2

ntract: R2210409

b Code: Case No.: SAS No.: SDG NO.: HWSC-WW

trix (soil/water): WATER Lab Sample ID: 525954

vel (low/med): LOW Date Received: 01/23/02

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	8.8	B		F
7440-39-3	Barium	30.9			P
7440-43-9	Cadmium	0.44	U		P
7440-47-3	Chromium	4.3	U		P
7439-92-1	Lead	0.82	U		P
7439-96-5	Manganese	2.8	B		P
7439-97-6	Mercury	0.02	U		CV
7782-49-2	Selenium	7.7			P
7440-22-4	Silver	0.76	U		P
7440-66-6	Zinc	10.6	B		P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

OS-PW-3

Contract: R2210409

Lab Code: Case No.: SAS No.: SDG NO.: HWSC-WW

Matrix (soil/water): WATER Lab Sample ID: 525970

Level (low/med): LOW Date Received: 01/23/02

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	19.8			P
7440-39-3	Barium	61.6			P
7440-43-9	Cadmium	0.44	U		P
7440-47-3	Chromium	4.3	U		P
7439-92-1	Lead	0.82	U		P
7439-96-5	Manganese	126			P
7439-97-6	Mercury	0.02	U		CV
7782-49-2	Selenium	10.2			P
7440-22-4	Silver	0.76	U		P
7440-66-6	Zinc	16.1	B		P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

OS-PW-4

ıtract: R2210409

) Code: Case No.: SAS No.: SDG NO.: HWSC-WW

:rix (soil/water): WATER Lab Sample ID: 525953

vel (low/med): LOW Date Received: 01/23/02

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	13.9			F
7440-39-3	Barium	45.4			P
7440-43-9	Cadmium	0.44	U		P
7440-47-3	Chromium	4.3	U		P
7439-92-1	Lead	0.82	U		P
7439-96-5	Manganese	57.3			P
7439-97-6	Mercury	0.02	U		CV
7782-49-2	Selenium	3.5	U		P
7440-22-4	Silver	0.76	U		P
7440-66-6	Zinc	29.4	B		P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

METALS
-1-
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.: OS-PW-4-FD

.tract: R2210409

Code: Case No.: SAS No.: SDG NO.: HWSC-WW

.rix (soil/water): WATER Lab Sample ID: 525965

'el (low/med): LOW Date Received: 01/23/02

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	13.7			F
7440-39-3	Barium	52.2			P
7440-43-9	Cadmium	0.44	U		P
7440-47-3	Chromium	4.3	U		P
7439-92-1	Lead	0.82	U		P
7439-96-5	Manganese	619			P
7439-97-6	Mercury	0.02	U		CV
7782-49-2	Selenium	3.5	U		P
7440-22-4	Silver	0.76	U		P
7440-66-6	Zinc	68.7			P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.: OS-PW-5

ontract: R2210409

b Code: Case No.: SAS No.: SDG NO.: HWSC-WW

trix (soil/water): WATER Lab Sample ID: 525952

vel (low/med): LOW Date Received: 01/23/02

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	28.0			F
7440-39-3	Barium	46.6			P
7440-43-9	Cadmium	0.44	U		P
7440-47-3	Chromium	4.3	U		P
7439-92-1	Lead	0.82	U		P
7439-96-5	Manganese	2.1	U		P
7439-97-6	Mercury	0.02	U		CV
7782-49-2	Selenium	6.3			P
7440-22-4	Silver	0.76	U		P
7440-66-6	Zinc	35.5	B		P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

OS-PW-6

ontract: R2210409

ab Code: Case No.: SAS No.: SDG NO.: HWSC-WW

atrix (soil/water): WATER Lab Sample ID: 525973

evel (low/med): LOW Date Received: 01/23/02

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	22.6			F
7440-39-3	Barium	40.8			P
7440-43-9	Cadmium	0.44	U		P
7440-47-3	Chromium	4.3	U		P
7439-92-1	Lead	0.82	U		P
7439-96-5	Manganese	2.1	U		P
7439-97-6	Mercury	0.02	U		CV
7782-49-2	Selenium	8.3			P
7440-22-4	Silver	0.76	U		P
7440-66-6	Zinc	13.4	B		P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

OS-PW-7

ontract: R2210409

ab Code: Case No.: SAS No.: SDG NO.: HWSC-WW

atrix (soil/water): WATER Lab Sample ID: 525971

evel (low/med): LOW Date Received: 01/23/02

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	38.1			F
7440-39-3	Barium	52.7			P
7440-43-9	Cadmium	0.44	U		P
7440-47-3	Chromium	4.3	U		P
7439-92-1	Lead	0.82	U		P
7439-96-5	Manganese	13.4			P
7439-97-6	Mercury	0.02	U		CV
7782-49-2	Selenium	3.5	U		P
7440-22-4	Silver	0.76	U		P
7440-66-6	Zinc	6.3	B		P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

lumbia Analytical Services

METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

OS-PW-8

ntract: R2210409

b Code: Case No.: SAS No.: SDG NO.: HWSC-WW

trix (soil/water): WATER Lab Sample ID: 525972

vel (low/med): LOW Date Received: 01/23/02

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	14.0			F
7440-39-3	Barium	63.0			P
7440-43-9	Cadmium	0.44	U		P
7440-47-3	Chromium	4.3	U		P
7439-92-1	Lead	0.82	U		P
7439-96-5	Manganese	2.1	U		P
7439-97-6	Mercury	0.02	U		CV
7782-49-2	Selenium	10.8			P
7440-22-4	Silver	0.76	U		P
7440-66-6	Zinc	102			P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

lumbia Analytical Services

METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

OS-PW-9

ıtract: R2210409

› Code: Case No.: SAS No.: SDG NO.: HWSC-WW

trix (soil/water): WATER Lab Sample ID: 525996

vel (low/med): LOW Date Received: 01/23/02

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	112			F
7440-39-3	Barium	1040			P
7440-43-9	Cadmium	17.9			P
7440-47-3	Chromium	81.3			P
7439-92-1	Lead	14.2			P
7439-96-5	Manganese	75.2			P
7439-97-6	Mercury	6.0			CV
7782-49-2	Selenium	57.7			P
7440-22-4	Silver	184			P
7440-66-6	Zinc	573			P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

RINSATE-S1

ntract: R2210409

b Code: Case No.: SAS No.: SDG NO.: HWSC-WW

trix (soil/water): WATER Lab Sample ID: 525975

vel (low/med): LOW Date Received: 01/23/02

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	2.5	U		F
7440-39-3	Barium	7.3	U		P
7440-43-9	Cadmium	0.44	U		P
7440-47-3	Chromium	4.3	U		P
7439-92-1	Lead	0.82	U		P
7439-96-5	Manganese	2.1	U		P
7439-97-6	Mercury	0.02	U		CV
7782-49-2	Selenium	3.5	U		P
7440-22-4	Silver	0.95	B		P
7440-66-6	Zinc	4.5	B		P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

RINSATE-S2

ntract: R2210409

b Code: Case No.: SAS No.: SDG NO.: HWSC-WW

trix (soil/water): WATER Lab Sample ID: 525988

vel (low/med): LOW Date Received: 01/23/02

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	2.5	U		F
7440-39-3	Barium	7.3	U		P
7440-43-9	Cadmium	0.44	U		P
7440-47-3	Chromium	4.3	U		P
7439-92-1	Lead	0.82	U		P
7439-96-5	Manganese	2.1	U		P
7439-97-6	Mercury	0.02	U		CV
7782-49-2	Selenium	3.5	U		P
7440-22-4	Silver	0.94	B		P
7440-66-6	Zinc	7.5	B		P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

RINSATE-S3

ontract: R2210409

ab Code: Case No.: SAS No.: SDG NO.: HWSC-WW

atrix (soil/water): WATER Lab Sample ID: 525987

evel (low/med): LOW Date Received: 01/23/02

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	2.5	U		F
7440-39-3	Barium	7.3	U		P
7440-43-9	Cadmium	0.44	U		P
7440-47-3	Chromium	4.3	U		P
7439-92-1	Lead	0.82	U		P
7439-96-5	Manganese	2.1	U		P
7439-97-6	Mercury	0.02	U		CV
7782-49-2	Selenium	3.5	U		P
7440-22-4	Silver	1.0	B		P
7440-66-6	Zinc	27.8	B		P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

RINSATE-S5

ontract: R2210409

b Code: Case No.: SAS No.: SDG NO.: HWSC-WW

trix (soil/water): WATER Lab Sample ID: 525982

vel (low/med): LOW Date Received: 01/23/02

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	2.5	U		F
7440-39-3	Barium	7.3	U		P
7440-43-9	Cadmium	0.44	U		P
7440-47-3	Chromium	4.3	U		P
7439-92-1	Lead	0.82	U		P
7439-96-5	Manganese	2.1	U		P
7439-97-6	Mercury	0.02	U		CV
7782-49-2	Selenium	3.5	U		P
7440-22-4	Silver	0.90	B		P
7440-66-6	Zinc	4.3	U		P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

METALS

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

SAG GW-1

ontract: R2210409

ab Code: Case No.: SAS No.: SDG NO.: HWSC-WW

atrix (soil/water): WATER Lab Sample ID: 526001

evel (low/med): LOW Date Received: 01/23/02

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	81.3			F
7440-39-3	Barium	9890			P
7440-43-9	Cadmium	9.4			P
7440-47-3	Chromium	237			P
7439-92-1	Lead	200			P
7439-96-5	Manganese	16100			P
7439-97-6	Mercury	0.03	B		CV
7782-49-2	Selenium	8.1			P
7440-22-4	Silver	0.76	U		P
7440-66-6	Zinc	960			P

Color Before: BROWN Clarity Before: CLOUDY Texture:

Color After: YELLOW Clarity After: CLOUDY Artifacts:

Comments:

METALS
-1-
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.
SAG GW-1 D

ntract: R2210409

b Code: Case No.: SAS No.: SDG NO.: HWSC-WW

trix (soil/water): WATER Lab Sample ID: 526000

vel (low/med): LOW Date Received: 01/23/02

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	83.8			F
7440-39-3	Barium	10800			P
7440-43-9	Cadmium	10.5			P
7440-47-3	Chromium	203			P
7439-92-1	Lead	196			P
7439-96-5	Manganese	14400			P
7439-97-6	Mercury	0.21			CV
7782-49-2	Selenium	15.0			P
7440-22-4	Silver	0.76	U		P
7440-66-6	Zinc	1000			P

Color Before: BROWN Clarity Before: CLOUDY Texture:

Color After: YELLOW Clarity After: CLOUDY Artifacts:

Comments:

METALS

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

ontract: R2210409

ab Code: Case No.: SAS No.: SDG NO.: HWSC-WW

nitial Calibration Source: PE PURE

ontinuing Calibration Source: PE PURE

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	M
Arsenic	25.0	23.43	93.7	25.0	25.31	101.2	23.77	95.1	F
Barium	10000.0	10785.01	107.9	10000.0	10771.32	107.7	10768.38	107.7	P
Cadmium	500.0	526.49	105.3	500.0	520.06	104.0	524.72	104.9	P
Chromium	500.0	500.80	100.2	500.0	499.20	99.8	523.90	104.8	P
Lead	500.0	525.62	105.1	500.0	524.41	104.9	523.05	104.6	P
Manganese	750.0	755.50	100.7	750.0	756.40	100.9	784.20	104.6	P
Mercury	3.0	3.08	102.7	3.0	3.07	102.3	3.18	106.0	CV
Selenium	500.0	511.84	102.4	500.0	509.72	101.9	511.97	102.4	P
Silver	500.0	519.01	103.8	500.0	513.86	102.8	522.95	104.6	P
Zinc	1000.0	1057.72	105.8	1000.0	1046.83	104.7	1063.21	106.3	P

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

METALS

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

)ntract: R2210409

ıb Code: Case No.: SAS No.: SDG NO.: HWSC-WW

ıitial Calibration Source:

)ntinuing Calibration Source: PE PURE

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	M
Arsenic				25.0	24.13	96.5	23.70	94.8	F
Barium				10000.0	10760.22	107.6	10774.15	107.7	P
Cadmium				500.0	520.36	104.1	521.29	104.3	P
Chromium				500.0	526.00	105.2	524.40	104.9	P
Lead				500.0	513.91	102.8	510.29	102.1	P
Manganese				750.0	792.70	105.7	792.00	105.6	P
Mercury				3.0	3.23	107.7	3.14	104.7	CV
Selenium				500.0	519.11	103.8	509.37	101.9	P
Silver				500.0	526.14	105.2	531.12	106.2	P
Zinc				1000.0	1051.03	105.1	1060.85	106.1	P

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

METALS

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

ontract: R2210409

ab Code: Case No.: SAS No.: SDG NO.: HWSC-WW

nitial Calibration Source:

ontinuing Calibration Source: PE PURE

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	M
Barium				10000.0	10786.86	107.9			P
Cadmium				500.0	527.71	105.5			P
Chromium				500.0	538.90	107.8			P
Lead				500.0	511.06	102.2			P
Manganese				750.0	799.30	106.6			P
Selenium				500.0	513.79	102.8			P
Silver				500.0	539.87	108.0			P
Zinc				1000.0	1078.70	107.9			P

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

METALS

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: R2210409

Lab Code: Case No.: SAS No.: SDG NO.: HWSC-WW

Initial Calibration Source: PE PURE

Continuing Calibration Source: PE PURE

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Arsenic	25.0	25.66	102.6	25.0	26.40	105.6	26.38	105.5	F

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

METALS
-2B-
CRDL STANDARD FOR AA AND ICP

ontract: R2210409

ab Code: Case No.: SAS No.: SDG No.: HWSC-WW

A CRDL Standard Source: CPI

CP CRDL Standard Source: CPI

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP - Initial			CRDL Standard for ICP - Final	
	True	Found	%R	True	Found	%R	Found	%R
Arsenic	10.0	9.19	91.9					
Barium								
Cadmium				10.0	10.43	104.3	10.33	103.3
Chromium				20.0	20.60	103.0	22.30	111.5
Lead				6.0	6.21	103.5	5.77	96.2
Manganese				30.0	31.90	106.3	32.60	108.7
Mercury	0.2	0.20	100.0					
Selenium				10.0	9.82	98.2	11.71	117.1
Silver				20.0	19.47	97.3	20.76	103.8
Zinc				40.0	43.81	109.5	43.38	108.4

METALS
-2B-
CRDL STANDARD FOR AA AND ICP

Contract: R2210409

Lab Code: Case No.: SAS No.: SDG No.: HWSC-WW

AA CRDL Standard Source: CPI

ICP CRDL Standard Source: CPI

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
	True	Found	%R	True	Found	%R	Found	%R
Arsenic	10.0	9.44	94.4					

METALS

-3-

BLANKS

ontract: R2210409

ab Code: Case No.: SAS No.: SDG NO.: HWSC-WW

reparation Blank Matrix (soil/water): WATER

reparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Arsenic	2.5	U	2.5	U	2.5	U	2.5	U	2.450	U	F
Barium	7.4	U	7.4	U	7.4	U	7.4	U	7.350	U	P
Cadmium	0.4	U	0.4	U	0.4	U	0.4	U	0.442	U	P
Chromium	4.3	U	4.3	U	4.3	U	4.3	U	4.250	U	P
Lead	0.8	U	0.8	U	0.8	U	0.8	U	0.818	U	P
Manganese	2.1	U	2.1	U	2.1	U	2.1	U	2.120	U	P
Mercury	0.02	U	0.02	U	0.02	U	0.02	U	0.016	U	CV
Selenium	3.5	U	3.5	U	3.5	U	3.5	U	3.460	U	P
Silver	0.8	U	0.8	U	0.8	U	1.2	B	0.762	U	P
Zinc	4.3	U	4.3	U	4.3	U	4.3	U	4.280	U	P

METALS

-3-

BLANKS

'ontract: R2210409

ab Code: Case No.: SAS No.: SDG NO.: HWSC-WW

reparation Blank Matrix (soil/water): WATER

'reparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Arsenic			2.5	U							F
Barium			7.4	U	7.4	U					P
Cadmium			0.4	U	0.4	U					P
Chromium			4.3	U	4.3	U					P
Lead			0.8	U	0.8	U					P
Manganese			2.1	U	2.1	U					P
Mercury			0.02	U							CV
Selenium			3.5	U	3.5	U					P
Silver			1.3	B	1.2	B					P
Zinc			4.3	U	4.3	U					P

METALS

-3-

BLANKS

Contract: R2210409

Lab Code: Case No.: SAS No.: SDG NO.: HWSC-WW

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Arsenic	2.5	U	2.5	U	2.5	U					F

-4-

ICP INTERFERENCE CHECK SAMPLE

ntract: R2210409

b Code: Case No.: SAS No.: SDG NO.: HWSC-WW

P ID Number: Optima ICP 2 ICS Source: PE PURE

Concentration Units): ug/L

Analyte	True		Initial Found			Final Found		
	Sol.A	Sol.AB	Sol.A	Sol.AB	%R	Sol.A	Sol.AB	%R
Barium		500	-2	552.6	110.5	-4	556.3	111.3
Cadmium		1000	3	960.1	96.0	3	967.8	96.8
Lead		1000	-1	966.2	96.6	-3	948.5	94.8
Selenium			-8	-3.8		-2	-2.7	
Silver		1000	-14	1111.7	111.2	-12	1148.5	114.8
Zinc		1000	6	959.9	96.0	6	983.1	98.3

-4-

ICP INTERFERENCE CHECK SAMPLE

Contract: R2210409

Lab Code: Case No.: SAS No.: SDG NO.: HWSC-WW

ICP ID Number: Leeman ICP ICS Source: PE PURE

Concentration Units): ug/L

Analyte	True		Initial Found			Final Found		
	Sol.A	Sol.AB	Sol.A	Sol.AB	%R	Sol.A	Sol.AB	%R
Chromium		500	4	458.3	91.7	3	488.6	97.7
Manganese		500	-2	464.2	92.8	-2	483.8	96.8

METALS
-5A-
SPIKE SAMPLE RECOVERY

SAMPLE NO.

HWSC-WWS

Contract: R2210409

Lab Code: Case No.: SAS No.: SDG NO.: HWSC-WW

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Sample: 0.0

Concentration Units (ug/L or mg/kg dry weight): µG/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Arsenic	75 - 125	41.9322		2.4500	U	40.00	104.8		F
Barium	75 - 125	2328.0488		148.1307		2000.00	109.0		P
Cadmium	75 - 125	51.4954		0.4420	U	50.00	103.0		P
Chromium	75 - 125	211.8000		4.2500	U	200.00	105.9		P
Lead	75 - 125	521.6215		3.6247	B	500.00	103.6		P
Manganese	75 - 125	667.3000		146.0000		500.00	104.3		P
Mercury	75 - 125	1.0692		0.0157	U	1.00	106.9		CV
Selenium	75 - 125	941.0161		3.4600	U	1010.00	93.2		P
Silver	75 - 125	52.6664		0.7620	U	50.00	105.3		P
Zinc	75 - 125	886.5370		342.6212		500.00	108.8		P

Comments:

METALS
-5A-
SPIKE SAMPLE RECOVERY

SAMPLE NO.

OS-PW-2S

Contract: R2210409

Lab Code: Case No.: SAS No.: SDG NO.: HWSC-WW

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Sample: 0.0

Concentration Units (ug/L or mg/kg dry weight): µG/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Arsenic	75 - 125	44.2794		8.8390	B	40.00	88.6		F
Barium	75 - 125	2195.4255		30.8771		2000.00	108.2		P
Cadmium	75 - 125	50.5980		0.4420	U	50.00	101.2		P
Chromium	75 - 125	209.8000		4.2500	U	200.00	104.9		P
Lead	75 - 125	503.1602		0.8180	U	500.00	100.6		P
Manganese	75 - 125	519.6000		2.8000	B	500.00	103.4		P
Mercury	75 - 125	1.0958		0.0157	U	1.00	109.6		CV
Selenium	75 - 125	972.0430		7.6838		1010.00	95.5		P
Silver	75 - 125	51.9921		0.7620	U	50.00	104.0		P
Zinc	75 - 125	523.0223		10.5849	B	500.00	102.5		P

(ants:

METALS
-5B-
POST DIGEST SPIKE SAMPLE RECOVERY

SAMPLE NO.

OS-PW-2A

ntract: R2210409

b Code: Case No.: SAS No.: SDG NO.: HWSC-WW

trix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added(SA)	%R	Q	M
Barium		2138.13		30.88		2000.0	105.4		P
Cadmium		49.84		0.44	U	50.0	99.7		P
Lead		496.39		0.82	U	500.0	99.3		P
Selenium		948.77		7.68		1010.0	93.2		P
Silver		49.92		0.76	U	50.0	99.8		P
Zinc		512.49		10.58	B	500.0	100.4		P

Comments:

METALS
-5B-
POST DIGEST SPIKE SAMPLE RECOVERY

SAMPLE NO.

HWSC-WWA

Contract: R2210409

Lab Code: Case No.: SAS No.: SDG NO.: HWSC-WW

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Chromium		202.00		4.25	U	200.0	101.0		P
Manganese		650.60		146.00		500.0	100.9		P

Comments:

METALS

-6-

DUPLICATES

SAMPLE NO.

HWSC-WWD

Contract: R2210409

Lab Code: Case No.: SAS No.: SDG NO.: HWSC-WW

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Sample: 0.0 % Solids for Duplicate:

Concentration Units (ug/L or mg/kg dry weight): µG/L

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Arsenic		2.4500	U	2.4500	U			F
Barium		148.1307		149.8235		1.1		P
Cadmium		0.4420	U	0.4420	U			P
Chromium		4.2500	U	4.2500	U			P
Lead		3.6247	B	3.5049	B	3.4		P
Manganese		146.0000		147.4000		1.0		P
Mercury		0.0157	U	0.0157	U			CV
Selenium		3.4600	U	3.4600	U			P
Silver		0.7620	U	0.7620	U			P
Zinc		342.6212		347.6659		1.5		P

METALS

-6-

DUPLICATES

SAMPLE NO.

OS-PW-2D

ontract: R2210409

ab Code: Case No.: SAS No.: SDG NO.: HWSC-WW

atrix (soil/water): WATER Level (low/med): LOW

Solids for Sample: 0.0 % Solids for Duplicate:

Concentration Units (ug/L or mg/kg dry weight): µG/L

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Arsenic		8.8390	B	8.6479	B	2.2		F
Barium	20.0	30.8771		29.8322		3.4		P
Cadmium		0.4420	U	0.4420	U			P
Chromium		4.2500	U	4.2500	U			P
Lead		0.8180	U	0.8180	U			P
Manganese		2.8000	B	2.1200	U	200.0		P
Mercury		0.0157	U	0.0157	U			CV
Selenium	5.0	7.6838		8.8967		14.6		P
Silver		0.7620	U	0.7620	U			P
Zinc		10.5849	B	9.8651	B	7.0		P

METALS
-7-
LABORATORY CONTROL SAMPLE

ontract: R2210409

ab Code: Case No.: SAS No.: SDG NO.: HWSC-WW

olid LCS Source:

queous LCS Source: CPI

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Arsenic	40.0	38.18	95.4						
Barium	2000.0	2220.19	111.0						
Cadmium	50.0	53.12	106.2						
Chromium	200.0	214.70	107.3						
Lead	500.0	535.86	107.2						
Manganese	500.0	531.70	106.3						
Mercury	1.0	1.00	100.0						
Selenium	1010.0	964.99	95.5						
Silver	50.0	52.60	105.2						
Zinc	500.0	546.72	109.3						

METALS

-9-

ICP SERIAL DILUTIONS

SAMPLE NO.

HWSC-WWL

Contract: R2210409

Lab Code: Case No.: SAS No.: SDG NO.: HWSC-WW

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Barium	148.13		147.60		0.4		P
Cadmium	0.44	U	2.21	U			P
Chromium	4.25	U	21.25	U			P
Lead	3.62	B	4.09	U	100.0		P
Manganese	146.00		154.00		5.5		P
Selenium	3.46	U	17.30	U			P
Silver	0.76	U	6.30	B	100.0		P
Zinc	342.62		370.60		8.2		P

METALS

-9-

ICP SERIAL DILUTIONS

SAMPLE NO.

OS-PW-2L

ontract: R2210409

ab Code: Case No.: SAS No.: SDG NO.: HWSC-WW

atrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Barium	30.88		36.75	U	100.0		P
Cadmium	0.44	U	2.21	U			P
Chromium	4.25	U	21.25	U			P
Lead	0.82	U	4.09	U			P
Manganese	2.80	B	10.60	U	100.0		P
Selenium	7.68		17.30	U	100.0		P
Silver	0.76	U	3.81	U			P
Zinc	10.58	B	21.40	U	100.0		P

METALS

-10-

INSTRUMENT DETECTION LIMITS (QUARTERLY)

Contract: R2210409

Lab Code: Case No.: SAS No.: SDG NO.: HWSC-WW

ICP ID Number: Optima ICP 2 Date: 11/14/01

Flame AA ID Number:

Furnace AA ID Number:

Analyte	Wave-length	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Barium	233.53		20.0	7.3	P
Cadmium	226.50		5.0	0.4	P
Lead	220.35		5.0	0.8	P
Selenium	196.03		5.0	3.5	P
Silver	328.07		10.0	0.8	P
Zinc	206.20		40.0	4.3	P

ments

METALS

-10-

INSTRUMENT DETECTION LIMITS (QUARTERLY)

ontract: R2210409

ab Code: Case No.: SAS No.: SDG NO.: HWSC-WW

CP ID Number: Leeman ICP Date: 12/24/01

lame AA ID Number:

urnace AA ID Number:

Analyte	Wave-length	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Chromium	267.72		10.0	4.3	P
Manganese	257.61		10.0	2.1	P

ients

METALS

-10-

INSTRUMENT DETECTION LIMITS (QUARTERLY)

Contract: R2210409

Lab Code: Case No.: SAS No.: SDG NO.: HWSC-WW

ICP ID Number: Date: 10/05/01

Flame AA ID Number:

Furnace AA ID Number: PE GFAAS #1

Analyte	Wave-length	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Arsenic	193.70	BZ	10.0	2.5	F

ments

METALS

-10-

INSTRUMENT DETECTION LIMITS (QUARTERLY)

ontract: R2210409

ab Code: Case No.: SAS No.: SDG NO.: HWSC-WW

CP ID Number: Date: 12/28/01

lame AA ID Number: PE FAA/CVAA

urnace AA ID Number:

Analyte	Wave-length	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Mercury	253.70	BD	0.2	0.02	CV

ients

METALS

-11A-

ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

ıtract: R2210409

Code: Case No.: SAS No.: SDG NO.: HWSC-WW

ID Number: Optima ICP 2 Date: 1/29/02

Analyte	Wave-length (nm)	Interelement Correction Factors for: Al	Ca	Fe	Mg
Aluminum	308.215	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.833	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	188.979	0.0000000	0.0000000	-0.1870080	0.0000000
Barium	233.527	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.107	0.0000000	0.0000000	0.0000000	0.0000000
Boron	249.773	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0591243	0.0000000
Calcium	315.887	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000
Copper	324.754	0.0000000	0.0000000	-0.0611971	0.0000000
Iron	238.863	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	-0.0810553	0.0000000	0.0188515	0.0000000
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	-0.0862938	0.0000000
Molybdenum	202.030	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	404.721	0.0000000	0.0000000	-135.93299	0.0000000
Selenium	196.026	-0.0142350	0.0000000	0.0000000	0.0321523
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	330.237	0.0000000	1.2022200	-3.8306799	0.0000000
Thallium	190.800	0.0000000	0.0000000	0.0000000	0.0000000
Tin	189.933	0.0000000	0.0000000	0.0000000	3.8366499
Titanium	334.941	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.402	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	206.191	0.0000000	0.0000000	0.0000000	0.0271025

Comments:

METALS

-11A-

ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

tract: R2210409

Code: Case No.: SAS No.: SDG NO.: HWSC-WW

ID Number: Leeman ICP Date: 12/21/01

Analyte	Wave-length (nm)	Interelement Correction Factors for: Al	Ca	Fe	Mg	Na
Aluminum	308.22	0.0000000	0.0001207	-0.0000981	0.0000473	0.0000062
Antimony	206.83	0.0001484	0.0001910	0.0000790	0.0003550	-0.000018
Arsenic	193.70	-0.0012090	0.0000975	-0.0026370	0.0000942	0.0000003
Barium	455.40	-0.0000004	0.0000013	0.0000002	0.0000005	0.0000003
Beryllium	234.86	0.0000000	-0.0000007	0.0000252	-0.000001	-0.000000
Cadmium	214.44	-0.0000381	-0.0000008	0.0000370	-0.000002	-0.000000
Calcium	317.93	0.0000159	0.0000000	-0.0000057	0.0000586	0.0000273
Chromium	267.72	0.0000042	0.0000014	0.0000245	0.0000110	-0.000001
Cobalt	228.62	0.0000005	0.0000111	0.0000405	0.0000226	0.0000025
Copper	324.75	0.0000005	0.0000067	0.0000110	0.0000051	0.0000017
Iron	259.94	0.0000020	-0.0000051	0.0000000	0.0000008	-0.000000
Lead	220.35	-0.0003674	0.0000598	0.0001788	0.0001318	0.0000062
Magnesium	279.08	-0.0000019	0.0000115	0.0002533	0.0000000	0.0000197
Manganese	257.61	0.0000012	-0.0000002	0.0000111	0.0000115	0.0000006
Nickel	231.60	0.0000058	0.0000081	0.0000077	0.0000081	-0.000002
Potassium	766.49	-0.0000475	-0.0000030	0.0000081	0.0001581	0.0002775
Selenium	196.00	0.0001093	-0.0000072	-0.0001259	0.0000349	0.0000081
Silver	328.07	0.0000001	0.0000056	0.0000042	0.0000044	0.0000022
Sodium	589.59	0.0000019	0.0002075	0.0000323	0.0000664	0.0000000
Thallium	276.80	0.0001060	-0.0001223	-0.0001186	-0.000211	0.0000106
Vanadium	310.23	0.0000002	-0.0000038	-0.0000024	-0.000000	-0.000001
Zinc	213.86	0.0000097	0.0000041	0.0000174	0.0000372	0.0000024

Comments:

METALS

-12-

ICP LINEAR RANGES (QUARTERLY)

)ntract: R2210409

ıb Code: Case No.: SAS No.: SDG NO.: HWSC-WW

:P ID Number: Optima ICP 2 Date: 12/12/01

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	M
Barium	0.20	20000.0	P
Cadmium	0.20	5000.0	P
Lead	0.20	100000.0	P
Selenium	0.20	5000.0	P
Silver	0.20	4000.0	P
Zinc	0.20	5000.0	P

Comments:

METALS

-12-

ICP LINEAR RANGES (QUARTERLY)

ntract: R2210409

b Code: Case No.: SAS No.: SDG NO.: HWSC-WW

P ID Number: Leeman ICP Date: 11/09/01

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	M
Chromium	3.00	40000.0	P
Manganese	3.00	40000.0	P

Comments:

METALS
-13-
PREPARATION LOG

ontract: R2210409

ab Code: Case No.: SAS No.: SDG NO.: HWSC-WW

ethod: P

Sample No.	Preparation Date	Initial Volume	Volume (mL)
HWSC-WW	01/29/02	50	50
HWSC-WWD	01/29/02	50	50
HWSC-WW-FD	01/29/02	50	50
HWSC-WWS	01/29/02	50	50
LCSW	01/29/02	50	50
OS-MUW-1	01/29/02	50	50
OS-PW-1	01/29/02	50	50
OS-PW-1-FD	01/29/02	50	50
OS-PW-2	01/29/02	50	50
OS-PW-2D	01/29/02	50	50
OS-PW-2S	01/29/02	50	50
OS-PW-3	01/29/02	50	50
OS-PW-4	01/29/02	50	50
OS-PW-4-FD	01/29/02	50	50
OS-PW-5	01/29/02	50	50
OS-PW-6	01/29/02	50	50
OS-PW-7	01/29/02	50	50
OS-PW-8	01/29/02	50	50
OS-PW-9	01/29/02	50	50
PBW	01/29/02	50	50
RINSATE-S1	01/29/02	50	50
RINSATE-S2	01/29/02	50	50
RINSATE-S3	01/29/02	50	50
RINSATE-S5	01/29/02	50	50
SAG GW-1	01/29/02	50	50
SAG GW-1 D	01/29/02	50	50

METALS
-13-
PREPARATION LOG

ntract: R2210409

b Code: Case No.: SAS No.: SDG NO.: HWSC-WW

thod: F

Sample No.	Preparation Date	Initial Volume	Volume (mL)
HWSC-WW	02/05/02	50	50
HWSC-WWD	02/05/02	50	50
HWSC-WW-FD	02/05/02	50	50
HWSC-WWS	02/05/02	50	50
LCSW	02/05/02	50	50
OS-MUW-1	02/05/02	50	50
OS-PW-1	02/05/02	50	50
OS-PW-1-FD	02/05/02	50	50
OS-PW-2	02/05/02	50	50
OS-PW-2D	02/05/02	50	50
OS-PW-2S	02/05/02	50	50
OS-PW-3	02/05/02	50	50
OS-PW-4	02/05/02	50	50
OS-PW-4-FD	02/05/02	50	50
OS-PW-5	02/05/02	50	50
OS-PW-6	02/05/02	50	50
OS-PW-7	02/05/02	50	50
OS-PW-8	02/05/02	50	50
OS-PW-9	02/05/02	50	50
PBW	02/05/02	50	50
RINSATE-S1	02/05/02	50	50
RINSATE-S2	02/05/02	50	50
RINSATE-S3	02/05/02	50	50
RINSATE-S5	02/05/02	50	50
SAG GW-1	02/05/02	50	50
SAG GW-1 D	02/05/02	50	50

METALS
-13-
PREPARATION LOG

ntract: R2210409

b Code: Case No.: SAS No.: SDG NO.: HWSC-WW

thod: CV

Sample No.	Preparation Date	Initial Volume	Volume (mL)
HWSC-WW	01/29/02	100	100
HWSC-WWD	01/29/02	100	100
HWSC-WW-FD	01/29/02	100	100
HWSC-WWS	01/29/02	100	100
LCSW	01/29/02	100	100
OS-MUW-1	01/29/02	100	100
OS-PW-1	01/29/02	100	100
OS-PW-1-FD	01/29/02	100	100
OS-PW-2	01/29/02	100	100
OS-PW-2D	01/29/02	100	100
OS-PW-2S	01/29/02	100	100
OS-PW-3	01/29/02	100	100
OS-PW-4	01/29/02	100	100
OS-PW-4-FD	01/29/02	100	100
OS-PW-5	01/29/02	100	100
OS-PW-6	01/29/02	100	100
OS-PW-7	01/29/02	100	100
OS-PW-8	01/29/02	100	100
OS-PW-9	01/29/02	100	100
PBW	01/29/02	100	100
RINSATE-S1	01/29/02	100	100
RINSATE-S2	01/29/02	100	100
RINSATE-S3	01/29/02	100	100
RINSATE-S5	01/29/02	100	100
SAG GW-1	01/29/02	100	100
SAG GW-1 D	01/29/02	100	100

METALS

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ANALYSIS RUN LOG

Contract: R2210409

Lab Code | Case No.: | SAS No.: | SDG No.: HWSC-WW

Instrument ID Number: Optima ICP 2 | Method: P

Start Date: 2/4/02 | End Date: 2/4/02

Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
IS Init	1.00	10:11																										
Calib Blank 1	1.00	10:14					X		X						X						X	X				X	
Calib Std 1	1.00	10:19					X		X						X						X	X				X	
HIGH CHECK	1.00	10:25					X		X						X						X	X				X	
ICV1	1.00	10:30					X		X						X						X	X				X	
ICB1	1.00	10:35					X		X						X						X	X				X	
CRDL1	1.00	10:40					X		X						X						X	X				X	
ICS-A1	1.00	10:46					X		X						X						X	X				X	
ICS-AB1	1.00	10:52					X		X						X						X	X				X	
CCV1	1.00	10:58					X		X						X						X	X				X	
	1.00	11:03					X		X						X						X	X				X	
PBW	1.00	11:08					X		X						X						X	X				X	
LCSW	1.00	11:13					X		X						X						X	X				X	
HWSC-WW	1.00	11:18					X		X						X						X	X				X	
HWSC-WWD	1.00	11:23					X		X						X						X	X				X	
HWSC-WWS	1.00	11:28					X		X						X						X	X				X	
HWSC-WWL	5.00	11:33					X		X						X						X	X				X	
HWSC-WW-FD	1.00	11:39					X		X						X						X	X				X	
OS-PW-1-FD	1.00	11:44					X		X						X						X	X				X	
OS-PW-1	1.00	11:49					X		X						X						X	X				X	
OS-PW-5	1.00	11:54					X		X						X						X	X				X	
CCV2	1.00	11:59					X		X						X						X	X				X	
CCB2	1.00	12:04					X		X						X						X	X				X	
OS-PW-4	1.00	12:10					X		X						X						X	X				X	
OS-PW-2	1.00	12:15					X		X						X						X	X				X	
OS-PW-2D	1.00	12:20					X		X						X						X	X				X	
OS-PW-2S	1.00	12:25					X		X						X						X	X				X	
OS-PW-2A	1.00	12:31					X		X						X						X	X				X	
OS-PW-2L	5.00	12:36					X		X						X						X	X				X	
OS-PW-4-FD	1.00	12:41					X		X						X						X	X				X	
PW-3	1.00	12:46					X		X						X						X	X				X	
OS-PW-7	1.00	12:51					X		X						X						X	X				X	

* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

METALS

-14-

ANALYSIS RUN LOG

Contract: R2210409

Lab Code | Case No.: | SAS No.: | SDG No.: HWSC-WW

Instrument ID Number: Optima ICP 2 | Method: P

Start Date: 2/4/02 | End Date: 2/4/02

Sample No.	D/F	Time	% R	Analytes																										
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
OS-PW-8	1.00	12:56					X		X						X						X	X				X	
CCV3	1.00	13:01					X		X						X						X	X				X	
CCB3	1.00	13:07					X		X						X						X	X				X	
OS-PW-6	1.00	13:12					X		X						X						X	X				X	
OS-MUW-1	1.00	13:17					X		X						X						X	X				X	
RINSATE-S1	1.00	13:22					X		X						X						X	X				X	
RINSATE-S5	1.00	13:27					X		X						X						X	X				X	
RINSATE-S3	1.00	13:32					X		X						X						X	X				X	
RINSATE-S2	1.00	13:37					X		X						X						X	X				X	
PW-9	1.00	13:42					X		X						X						X	X				X	
SAG GW-1 D	1.00	13:46					X		X						X						X	X				X	
SAG GW-1	1.00	13:51					X		X						X						X	X				X	
CCV4	1.00	13:56					X		X						X						X	X				X	
CCB4	1.00	14:01					X		X						X						X	X				X	
CRDL2	1.00	14:06					X		X						X						X	X				X	
ICS-A2	1.00	14:12					X		X						X						X	X				X	
ICS-AB2	1.00	14:18					X		X						X						X	X				X	
CCV5	1.00	14:23					X		X						X						X	X				X	
CCB5	1.00	14:28					X		X						X						X	X				X	

* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

METALS

-14-

ANALYSIS RUN LOG

ntract: R2210409

b Code Case No.: SAS No.: SDG No.: HWSC-WW

ıstrument ID Number: Leeman ICP Method: P

:art Date: 2/5/02 End Date: 2/5/02

Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
td1Rep1	1.00	11:25									X						X										
td1Rep2	1.00	11:26									X						X										
td2Rep1	1.00	11:30									X						X										
td2Rep2	1.00	11:30									X						X										
IGH CHECK	1.00	11:34									X						X										
CV1	1.00	11:37									X						X										
CB1	1.00	11:41									X						X										
RDL1	1.00	11:44									X						X										
ICS-A1	1.00	11:47									X						X										
I 31	1.00	11:51									X						X										
CCV1	1.00	11:54									X						X										
CCB1	1.00	11:57									X						X										
PBW	1.00	12:01									X						X										
LCSW	1.00	12:04									X						X										
HWSC-WW	1.00	12:08									X						X										
HWSC-WWD	1.00	12:11									X						X										
HWSC-WWS	1.00	12:14									X						X										
HWSC-WWA	1.00	12:18									X						X										
HWSC-WWL	5.00	12:21									X						X										
HWSC-WW-FD	1.00	12:25									X						X										
OS-PW-1-FD	1.00	12:28									X						X										
OS-PW-1	1.00	12:31									X						X										
CCV2	1.00	12:35									X						X										
CCB2	1.00	12:38									X						X										
OS-PW-5	1.00	12:41									X						X										
OS-PW-4	1.00	12:45									X						X										
OS-PW-2	1.00	12:48									X						X										
OS-PW-2D	1.00	12:52									X						X										
OS-PW-2S	1.00	12:55									X						X										
PW-2L	5.00	12:58									X						X										
OS-PW-4-FD	1.00	13:02									X						X										
OS-PW-3	1.00	13:05									X						X										

* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

METALS

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ANALYSIS RUN LOG

Contract: R2210409

Lab Code Case No.: SAS No.: SDG No.: HWSC-WW

Instrument ID Number: Leeman ICP Method: P

Start Date: 2/5/02 End Date: 2/5/02

Sample No.	D/F	Time	% R	Analytes																										
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
OS-PW-7	1.00	13:09									X						X										
OS-PW-8	1.00	13:12									X						X										
CCV3	1.00	13:15									X						X										
CCB3	1.00	13:19									X						X										
OS-PW-6	1.00	13:22									X						X										
OS-MUW-1	1.00	13:26									X						X										
RINSATE-S1	1.00	13:29									X						X										
RINSATE-S5	1.00	13:32									X						X										
RINSATE-S3	1.00	13:36									X						X										
RINSATE-S2	1.00	13:39									X						X										
S-PW-9	1.00	13:43									X						X										
SAG GW-1 D	1.00	13:46									X						X										
SAG GW-1	1.00	13:49									X						X										
CCV4	1.00	13:53									X						X										
CCB4	1.00	13:56									X						X										
CRDL2	1.00	14:00									X						X										
ICS-A2	1.00	14:03									X						X										
ICS-AB2	1.00	14:07									X						X										
CCV5	1.00	14:10									X						X										
CCB5	1.00	14:13									X						X										

* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

METALS

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ANALYSIS RUN LOG

ontract: R2210409

ab Code | Case No.: | SAS No.: | SDG No.: HWSC-WW

nstrument ID Number: PE GFAAS #1 | Method: F

tart Date: 2/6/02 | End Date: 2/6/02

Sample No.	D/F	Time	% R	Analytes																										
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN			
30	1.00	11:54				X																								
31	1.00	12:00				X																								
32	1.00	12:05				X																								
33	1.00	12:11				X																								
34	1.00	12:16				X																								
ICV1	1.00	12:22				X																								
ICB1	1.00	12:27				X																								
CRDL1	1.00	12:32				X																								
CCV1	1.00	12:37				X																								
C	1.00	12:43				X																								
PBW	1.00	12:48				X																								
PBWA	1.00	12:53	88.9			X																								
LCSW	1.00	12:59				X																								
HWSC-WW	1.00	13:04				X																								
HWSC-WWA	1.00	13:10	88.5			X																								
HWSC-WWD	1.00	13:15				X																								
HWSC-WWS	1.00	13:21				X																								
HWSC-WW-FD	1.00	13:26				X																								
OS-PW-1-FD	1.00	13:32				X																								
CCV2	1.00	13:37				X																								
CCB2	1.00	13:42				X																								
OS-PW-1	1.00	13:48				X																								
OS-PW-5	1.00	13:53				X																								
OS-PW-4	1.00	13:59				X																								
OS-PW-2	1.00	14:04				X																								
OS-PW-2D	1.00	14:09				X																								
OS-PW-2S	1.00	14:15				X																								
OS-PW-4-FD	1.00	14:20				X																								
CCV3	1.00	14:25				X																								
3	1.00	14:30				X																								
OS-PW-3	1.00	14:35				X																								
OS-PW-7	1.00	14:41				X																								

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METALS

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ANALYSIS RUN LOG

ontract: R2210409

ab Code | Case No.: | SAS No.: | SDG No.: HWSC-WW

nstrument ID Number: PE GFAAS #1 | Method: F

tart Date: 2/6/02 | End Date: 2/6/02

Sample No.	D/F	Time	% R	Analytes																										
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
OS-PW-8	1.00	14:46				X																					
OS-PW-6	1.00	14:51				X																					
OS-MUW-1	1.00	14:56				X																					
RINSATE-S1	1.00	15:02				X																					
RINSATE-S5	1.00	15:07				X																					
CCV4	1.00	15:12				X																					
CCB4	1.00	15:18				X																					

* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

METALS

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ANALYSIS RUN LOG

ontract: R2210409

ab Code | Case No.: | SAS No.: | SDG No.: HWSC-WW

nstrument ID Number: PE GFAAS #1 | Method: F

tart Date: 2/7/02 | End Date: 2/7/02

Sample No.	D/F	Time	% R	Analytes																										
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
30	1.00	09:44				X																								
31	1.00	09:50				X																								
32	1.00	09:55				X																								
33	1.00	10:01				X																								
34	1.00	10:06				X																								
ICV2	1.00	10:11				X																								
ICB2	1.00	10:17				X																								
CRDL1	1.00	10:22				X																								
CCV1	1.00	10:27				X																								
C	1.00	10:32				X																								
PBW	1.00	10:38																												
PBWA	1.00	10:43	102.			X																								
LCSW	1.00	10:49																												
RINSATE-S3	1.00	10:54				X																								
RINSATE-S3A	1.00	11:00	102.			X																								
RINSATE-S2	1.00	11:05				X																								
OS-PW-9	5.00	11:11				X																								
SAG GW-1 D	5.00	11:16				X																								
SAG GW-1	5.00	11:22				X																								
CCV2	1.00	11:27				X																								
CCB2	1.00	11:32				X																								

* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

METALS

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ANALYSIS RUN LOG

Contract: R2210409

Lab Code Case No.: SAS No.: SDG No.: HWSC-WW

Instrument ID Number: PE FAA/CVAA Method: CV

Start Date: 1/30/02 End Date: 1/30/02

Sample No.	D/F	Time	% R	Analytes																										
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
Calib Blank	1.00	11:04																X									
0.2ppb std	1.00	11:06																X									
0.5ppb std	1.00	11:08																X									
1ppb std	1.00	11:10																X									
2ppb std	1.00	11:12																X									
5ppb std	1.00	11:13																X									
10ppb std	1.00	11:15																X									
ICV1	1.00	11:17																X									
ICB1	1.00	11:19																X									
C[illegible]	1.00	11:21																X									
CC[illegible]	1.00	11:23																X									
CCB1	1.00	11:24																X									
PBW	1.00	11:26																X									
LCSW	1.00	11:28																X									
HWSC-WW	1.00	11:30																X									
HWSC-WWD	1.00	11:31																X									
HWSC-WWS	1.00	11:33																X									
HWSC-WW-FD	1.00	11:35																X									
OS-PW-1-FD	1.00	11:37																X									
OS-PW-1	1.00	11:39																X									
OS-PW-5	1.00	11:41																X									
OS-PW-4	1.00	11:43																X									
CCV2	1.00	11:44																X									
CCB2	1.00	11:46																X									
OS-PW-2	1.00	11:48																X									
OS-PW-2D	1.00	11:50																X									
OS-PW-2S	1.00	11:51																X									
OS-PW-4-FD	1.00	11:53																X									
OS-PW-3	1.00	11:55																X									
[illegible]PW-7	1.00	11:57																X									
[illegible]-PW-8	1.00	11:59																X									
OS-PW-6	1.00	12:00																X									

* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

METALS

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ANALYSIS RUN LOG

ontract: R2210409

ab Code Case No.: SAS No.: SDG No.: HWSC-WW

nstrument ID Number: PE FAA/CVAA Method: CV

tart Date: 1/30/02 End Date: 1/30/02

Sample No.	D/F	Time	% R	Analytes																										
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
)S-MUW-1	1.00	12:02																X									
RINSATE-S1	1.00	12:04																X									
CCV3	1.00	12:06																X									
CCB3	1.00	12:08																X									
RINSATE-S5	1.00	12:10																X									
RINSATE-S3	1.00	12:11																X									
RINSATE-S2	1.00	12:13																X									
OS-PW-9	1.00	12:15																X									
SAG GW-1 D	1.00	12:17																X									
S W-1	1.00	12:19																X									
ZZzzZZ	1.00	12:20																									
ZZZZZZ	1.00	12:22																									
ZZZZZZ	1.00	12:24																									
ZZZZZZ	1.00	12:26																									
CCV4	1.00	12:27																X									
CCB4	1.00	12:29																X									

* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

letals Cover Page

Instrument: Optima 2

nalyst: SDV/b

Date: 2/4/02

ata File: 2feb04

Reviewed By: SD 2/5/02

ntered By: SD 2/5/02

Manager Approval: DCB 2/5/02

Starlims Run #	Analytes Used	Batch ID	Method Requested	Failed Analytes	Comments / Problems
74158	AgBaCdCrMnPbSeZn	M3W0047	6010B	AsMnCr	to IDL

Package Data:

Client Sub. #	Type Of Package	Analytes Used	Failed Metals	Batch ID	Standards Attached	How Was Data Transferred To LIMS	Raw Data Copied
10409	Pkg 5 / ASP	AgBaCdCrPbSeZn	CrMnAs	M3W0047	YES / NO	MARRS to LIMS / Run Created Above	YES / NO
	Pkg 5 / ASP				YES / NO	MARRS to LIMS / Run Created Above	YES / NO
	Pkg 5 / ASP				YES / NO	MARRS to LIMS / Run Created Above	YES / NO
	Pkg 5 / ASP				YES / NO	MARRS to LIMS / Run Created Above	YES / NO
	Pkg 5 / ASP				YES / NO	MARRS to LIMS / Run Created Above	YES / NO
	Pkg 5 / ASP				YES / NO	MARRS to LIMS / Run Created Above	YES / NO
	Pkg 5 / ASP				YES / NO	MARRS to LIMS / Run Created Above	YES / NO
	Pkg 5 / ASP				YES / NO	MARRS to LIMS / Run Created Above	YES / NO

ib on Summary
ac ethod 6010B Date: 02/04/02 10:10:04 AM

ment	Stds	Equation	Intercept	Slope	Curvature	Corr. Coeff.

hod: Method 6010B IEC: 012902.iec MSF:
ults: 2feb04 Spectra Stored: Yes Method Stored: Yes
ple Info: 6010b User: User1 Date: 02/04/02 10:10:04 AM
hod Description: Optima 3000XL #2

an Data
: IS Init Seq. No.: 1 A/S Pos: 1
Data: Original Date: 02/04/02 10:11:38 AM

ement	Mean Corr. Intensity	Std.Dev.	RSD
371.030	5238146.3	10749.24	0.21%

an Data
: Calib Blank 1 Seq. No.: 2 A/S Pos: 1
Data: Original Date: 02/04/02 10:13:14 AM

ement	Mean Corr. Intensity	Std.Dev.	RSD	Conc.	Calib Units
371.030	5190865.2	6923.10	0.13%	0.991	mg/L
328.068	-2540.4	14.24	0.56%	0	mg/L
308.215	5905.5	47.11	0.80%	0	mg/L
188.979	-27.2	2.65	9.73%	0	mg/L
249.773	1726.9	11.56	0.67%	0	mg/L
527	210.5	2.65	1.26%	0	mg/L
107	-2994.2	89.98	3.01%	0	mg/L
.887	3578.5	46.39	1.30%	0	mg/L
226.502	-122.4	1.97	1.61%	0	mg/L
228.616	-206.7	1.88	0.91%	0	mg/L
267.716	173.5	41.02	23.64%	0	mg/L
324.754	1584.1	11.85	0.75%	0	mg/L
238.863	-93.3	11.32	12.13%	0	mg/L
404.721	-516.1	25.23	4.89%	0	mg/L
279.079	-384.8	12.20	3.17%	0	mg/L
257.610	417.6	10.62	2.54%	0	mg/L
202.030	-13.2	1.17	8.89%	0	mg/L
330.237	601.2	42.72	7.11%	0	mg/L
231.604	-256.5	0.08	0.03%	0	mg/L
220.353	22.9	5.95	26.04%	0	mg/L
206.833	43.1	0.21	0.50%	0	mg/L
196.026	-17.9	2.89	16.11%	0	mg/L
189.933	65.6	2.59	3.95%	0	mg/L
334.941	-527.2	22.18	4.21%	0	mg/L
190.800	-17.8	1.95	10.93%	0	mg/L
292.402	540.7	3.36	0.62%	0	mg/L
206.191	23.4	1.13	4.82%	0	mg/L

SJV 2/4/02

Mean Data
ID: Calib Std 1 Seq. No.: 3 A/S Pos: 2
Data: Original Date: 02/04/02 10:18:36 AM

Element	Mean Corr. Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.030	5114833.3	22714.60	0.44%	0.976	mg/L
Ag 328.068	216021.6	1053.05	0.49%	1.0000	mg/L
Al 308.215	464599.9	2318.87	0.50%	20.0000	mg/L
As 188.979	3133.5	5.46	0.17%	2.0000	mg/L
B .773	388138.9	7033.13	1.81%	5.0000	mg/L
Ba 33.527	2351001.0	9193.10	0.39%	20.0000	mg/L
Be 313.107	3669954.7	1262.88	0.03%	0.5000	mg/L
Ca 315.887	8270364.4	3480.24	0.04%	50.0000	mg/L
Cd 226.502	122356.8	289.02	0.24%	1.0000	mg/L
Co 228.616	127054.0	665.01	0.52%	5.0000	mg/L
Cr 267.716	135384.7	702.38	0.52%	1.0000	mg/L

u 324.754	808653.3	4418.47	0.55%	2.5000 mg/L
e 238.863	280201.7	1009.17	0.36%	10.0000 mg/L
721	3569.6	52.15	1.46%	50.0000 mg/L
g .079	1205636.8	4670.26	0.39%	50.0000 mg/L
n 257.610	645803.8	3273.73	0.51%	1.5000 mg/L
o 202.030	96736.0	357.45	0.37%	5.0000 mg/L
a 330.237	48370.3	199.82	0.41%	50.0000 mg/L
i 231.604	182422.4	667.78	0.37%	4.0000 mg/L
b 220.353	7023.9	22.43	0.32%	1.0000 mg/L
b 206.833	22405.6	83.29	0.37%	10.0000 mg/L
e 196.026	3008.4	13.51	0.45%	1.0000 mg/L
n 189.933	105415.7	540.64	0.51%	10.0000 mg/L
i 334.941	2608512.6	4055.68	0.16%	5.0000 mg/L
l 190.800	4421.8	11.23	0.25%	2.0000 mg/L
292.402	1197021.8	6208.58	0.52%	5.0000 mg/L
n 206.191	156062.2	572.20	0.37%	2.0000 mg/L

alibration Summary

ethod: Method 6010B Date: 02/04/02 10:20:00 AM

lement	Stds	Equation	Intercept	Slope	Curvature	Corr. Coeff.
g 328.068	1	Linear	-2540.4	218562.0	0.00000	1.000000
l 308.215	1	Linear	5905.5	22934.7	0.00000	1.000000
s 188.979	1	Linear	-27.2	1580.4	0.00000	1.000000
249.773	1	Linear	1726.9	77282.4	0.00000	1.000000
a 233.527	1	Linear	210.5	117539.5	0.00000	1.000000
e 313.107	1	Linear	-2994.2	7345897.8	0.00000	1.000000
a 315.887	1	Linear	3578.5	165335.7	0.00000	1.000000
d 226.502	1	Linear	-122.4	122479.2	0.00000	1.000000
o 228.616	1	Linear	-206.7	25452.1	0.00000	1.000000
r 267.716	1	Linear	173.5	135211.2	0.00000	1.000000
u 324.754	1	Linear	1584.1	322827.7	0.00000	1.000000
e .863	1	Linear	-93.3	28029.5	0.00000	1.000000
721	1	Linear	-516.1	81.7	0.00000	1.000000
g 279.079	1	Linear	-384.8	24120.4	0.00000	1.000000
n 257.610	1	Linear	417.6	430257.5	0.00000	1.000000
o 202.030	1	Linear	-13.2	19349.8	0.00000	1.000000
Na 330.237	1	Linear	601.2	955.4	0.00000	1.000000
Ni 231.604	1	Linear	-256.5	45669.7	0.00000	1.000000
Pb 220.353	1	Linear	22.9	7001.0	0.00000	1.000000
Sb 206.833	1	Linear	43.1	2236.2	0.00000	1.000000
Se 196.026	1	Linear	-17.9	3026.4	0.00000	1.000000
Sn 189.933	1	Linear	65.6	10535.0	0.00000	1.000000
Ti 334.941	1	Linear	-527.2	521808.0	0.00000	1.000000
Tl 190.800	1	Linear	-17.8	2219.8	0.00000	1.000000
V 292.402	1	Linear	540.7	239296.2	0.00000	1.000000
Zn 206.191	1	Linear	23.4	78019.4	0.00000	1.000000

Mean Data

ID: HIGH CHECK Seq. No.: 4 Sample No.: 10 A/S Pos: 2

Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0

Data: Original Date: 02/04/02 10:24:08 AM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 371.030	5111091.8	0.976	0.0004	mg/L				0.04%
Ag 328.068	215108.1	0.9958	0.00360	mg/L				0.36%
Al 308.215	463460.6	19.95	0.101	mg/L				0.51%
As 188.979	3133.7	2.000	0.0023	mg/L				0.12%
B 249.773	395076.4	5.090	0.0752	mg/L				1.48%
Ba 233.527	2348395.1	19.98	0.124	mg/L				0.62%
Be 313.107	3673648.0	0.5005	0.00028	mg/L				0.05%
Ca 315.887	8285820.7	50.09	0.043	mg/L				0.08%
Cd 226.502	122111.3	0.9980	0.00676	mg/L				0.68%
Cr 228.616	126836.8	4.991	0.0279	mg/L				0.56%
C 7.716	135142.4	0.9982	0.00663	mg/L				0.66%
Cu 24.754	806275.8	2.493	0.0071	mg/L				0.29%
Fe 238.863	279692.4	9.982	0.0627	mg/L				0.63%
K 404.721	3495.1	49.09	0.025	mg/L				0.05%
Mg 279.079	1204658.9	49.96	0.360	mg/L				0.72%
Mn 257.610	644386.3	1.497	0.0090	mg/L				0.60%

202.030	96573.2	4.992	0.0357	mg/L	0.72%
237	48189.5	49.81	0.156	mg/L	0.31%
604	182123.1	3.993	0.0265	mg/L	0.66%
.353	7037.0	1.002	0.0019	mg/L	0.19%
206.833	22457.0	10.02	0.049	mg/L	0.49%
196.026	3003.0	0.9982	0.00480	mg/L	0.48%
189.933	105414.6	10.000	0.0756	mg/L	0.76%
334.941	2611561.1	5.006	0.0004	mg/L	0.01%
190.800	4431.4	2.004	0.0094	mg/L	0.47%
292.402	1194402.4	4.989	0.0335	mg/L	0.67%
206.191	156220.6	2.002	0.0120	mg/L	0.60%

an Data

): ICV — Seq. No.: 5 — Sample No.: 1 — A/S Pos: 3
ample Qty: 1.0000 g — Prep. Vol.: 1.0 L — Dilution: 1.0: 1.0
Data: Original — Date: 02/04/02 10:29:31 AM

lement	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
371.030	5069367.7	0.968	0.0064	mg/L				0.66%
g 328.068	110895.3	0.5190	0.00744	mg/L				1.43%
l 308.215	240678.7	10.24	0.186	mg/L				1.82%
s 188.979	1610.8	1.037	0.0013	mg/L				0.12%
249.773	208700.0	2.678	0.0341	mg/L				1.27%
a 233.527	1267875.9	10.79	0.012	mg/L				0.11%
e 313.107	1881885.3	0.2566	0.00038	mg/L				0.15%
a 315.887	4303267.4	26.01	0.026	mg/L				0.10%
d 226.502	64361.2	0.5265	0.00723	mg/L				1.37%
o 228.616	66944.0	2.638	0.0393	mg/L				1.49%
r 267.716	71042.7	0.5241	0.00812	mg/L				1.55%
u 324.754	422721.2	1.305	0.0196	mg/L				1.50%
e 238.863	147436.2	5.263	0.0732	mg/L				1.39%
404.721	1324.8	22.53	0.080	mg/L				0.35%
g 279.079	621275.3	25.77	0.044	mg/L				0.17%
n .610	338640.6	0.7861	0.01300	mg/L				1.65%
o ..030	49397.5	2.554	0.0357	mg/L				1.40%
a 330.237	24001.0	24.49	0.110	mg/L				0.45%
i 231.604	97683.4	2.145	0.0310	mg/L				1.44%
b 220.353	3702.7	0.5256	0.00316	mg/L				0.60%
b 206.833	11370.1	5.065	0.0135	mg/L				0.27%
e 196.026	1531.1	0.5118	0.00360	mg/L				0.70%
n 189.933	56660.4	5.372	0.0724	mg/L				1.35%
i 334.941	1323562.2	2.538	0.0000	mg/L				0.00%
l 190.800	2339.9	1.062	0.0050	mg/L				0.47%
V 292.402	624179.1	2.606	0.0003	mg/L				0.01%
Zn 206.191	82546.0	1.058	0.0143	mg/L				1.35%

Mean Data

ID: ICB — Seq. No.: 6 — Sample No.: 3 — A/S Pos: 1
Sample Qty: 1.0000 g — Prep. Vol.: 1.0 L — Dilution: 1.0: 1.0
Data: Original — Date: 02/04/02 10:34:37 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	5231702.1	0.999	0.0035	mg/L				0.35%
Ag 328.068	-2411.3	0.0006	0.00045	mg/L				75.92%
Al 308.215	5962.1	0.0025	0.00343	mg/L				138.98%
As 188.979	-26.7	0.0003	0.00042	mg/L				139.23%
B 249.773	10692.8	0.1160	0.01115	mg/L				9.61%
Ba 233.527	691.5	0.0041	0.00175	mg/L				42.88%
Be 313.107	-1894.9	0.0001	0.00006	mg/L				40.08%
Ca 315.887	5590.0	0.0122	0.00804	mg/L				66.11%
Cd 226.502	-102.8	0.0002	0.00009	mg/L				55.61%
Co 228.616	-181.6	0.0010	0.00058	mg/L				59.43%
Cr 267.716	185.5	0.0001	0.00027	mg/L				300.26%
Cu 324.754	2895.5	0.0041	0.00064	mg/L				15.80%
F 38.863	-1.3	0.0033	0.00106	mg/L				32.37%
l .721	-555.0	-0.4772	0.07243	mg/L				15.18%
Mg 279.079	-218.6	0.0069	0.00662	mg/L				96.10%
Mn 257.610	483.5	0.0002	0.00013	mg/L				82.00%
Mo 202.030	14.8	0.0014	0.00058	mg/L				40.08%
Na 330.237	723.9	0.1285	0.03701	mg/L				28.81%
Ni 231.604	-221.7	0.0008	0.00030	mg/L				39.57%

220.353	24.1	0.0002	0.00028	mg/L	156.41%
2[illegible] 833	97.1	0.0241	0.00507	mg/L	21.00%
C [illegible]eds upper limit for Sb 206.833	Action = Continue				
1[illegible].026	-11.8	0.0020	0.00114	mg/L	55.89%
189.933	241.8	0.0167	0.00238	mg/L	14.24%
334.941	528.9	0.0020	0.00107	mg/L	52.67%
190.800	-14.9	0.0013	0.00106	mg/L	82.35%
292.402	819.6	0.0012	0.00068	mg/L	58.65%
206.191	167.2	0.0018	0.00030	mg/L	16.17%

an Data ----------

D: CRI Seq. No.: 7 Sample No.: 5 A/S Pos: 6
mple Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 02/04/02 10:39:41 AM

lement	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Units	Mean Conc.	Sample Std.Dev.	Units	RSD
371.030	5288800.9	1.010	0.0090	mg/L				0.89%
g 328.068	1714.9	0.0195	0.00023	mg/L				1.18%
l 308.215	5877.5	-0.0012	0.00045	mg/L				37.16%
s 188.979	5.0	0.0204	0.00243	mg/L				11.96%
249.773	7015.1	0.0684	0.00274	mg/L				4.01%
a 233.527	287.3	0.0007	0.00001	mg/L				1.55%
e 313.107	69945.6	0.0099	0.00006	mg/L				0.56%
a 315.887	6930.4	0.0203	0.00245	mg/L				12.08%
d 226.502	1155.4	0.0104	0.00006	mg/L				0.56%
o 228.616	2554.0	0.1085	0.00090	mg/L				0.83%
r 267.716	2914.7	0.0203	0.00021	mg/L				1.03%
u 324.754	18094.9	0.0511	0.00026	mg/L				0.51%
e 238.863	4.6	0.0035	0.00048	mg/L				13.84%
404.721	-503.3	0.1556	0.53820	mg/L				345.88%
g 279.079	-403.5	-0.0008	0.00097	mg/L				125.09%
n 257.610	14065.6	0.0317	0.00030	mg/L				0.96%
o 202.030	-7.8	0.0003	0.00014	mg/L				49.69%
a .237	656.5	0.0579	0.08474	mg/L				146.47%
i .604	3721.5	0.0871	0.00056	mg/L				0.64%
b 220.353	66.3	0.0062	0.00031	mg/L				4.96%
b 206.833	328.8	0.1277	0.00170	mg/L				1.33%
e 196.026	11.8	0.0098	0.00066	mg/L				6.68%
n 189.933	156.8	0.0087	0.00073	mg/L				8.44%
i 334.941	-243.9	0.0005	0.00008	mg/L				14.12%
l 190.800	30.6	0.0218	0.00040	mg/L				1.84%
/ 292.402	25150.4	0.1028	0.00064	mg/L				0.63%
n 206.191	3441.1	0.0438	0.00041	mg/L				0.93%

lean Data ----------

ID: ICSA Seq. No.: 8 Sample No.: 6 A/S Pos: 7
Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 02/04/02 10:45:18 AM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Units	Mean Conc.	Sample Std.Dev.	Units	RSD
Y 371.030	4522752.6	0.863	0.0047	mg/L				0.55%
Ag 328.068	-5518.2	-0.0136	0.00024	mg/L				1.73%
Al 308.215	11821232.0	515.2	2.63	mg/L				0.51%
As 188.979	-87.9	-0.0034	0.00457	mg/L				134.77%
B 249.773	16599.9	0.1924	0.00404	mg/L				2.10%
Ba 233.527	-13.3	-0.0019	0.00017	mg/L				9.13%
Be 313.107	-3699.3	-0.0001	0.00001	mg/L				12.32%
Ca 315.887	77874796.0	471.0	2.76	mg/L				0.59%
Cd 226.502	1541.1	0.0025	0.00005	mg/L				2.05%
Co 228.616	-252.3	-0.0018	0.00028	mg/L				15.46%
Cr 267.716	1038.7	0.0064	0.00001	mg/L				0.14%
Cu 324.754	-1826.7	0.0009	0.00038	mg/L				43.05%
Fe 238.863	5245580.7	187.1	0.51	mg/L				0.27%
K 404.721	-2777.2	-2.231	1.0563	mg/L				47.34%
M 79.079	12552340.0	520.4	3.01	mg/L				0.58%
N 7.610	-7046.7	-0.0012	0.00005	mg/L				3.76%
Mo 202.030	43.0	0.0029	0.00009	mg/L				2.95%
Na 330.237	427.6	-0.0310	0.03595	mg/L				115.92%
Ni 231.604	-257.7	0.0000	0.00024	mg/L				935.46%
Pb 220.353	-250.5	-0.0008	0.00154	mg/L				190.39%
Sb 206.833	46.0	0.0013	0.00149	mg/L				116.96%

196.026	-12.5	-0.0076	0.00424	mg/L	55.85%
) 933	14467.3	-0.6296	0.00415	mg/L	0.66%
: 941	-4155.9	-0.0070	0.00002	mg/L	0.28%
190.800	-45.3	-0.0124	0.00042	mg/L	3.37%
292.402	13460.2	0.0540	0.00028	mg/L	0.52%
206.191	1560.7	0.0056	0.00002	mg/L	0.28%

an Data ----------

: ICSAB Seq. No.: 9 Sample No.: 7 A/S Pos: 8
mple Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 02/04/02 10:51:25 AM

ement	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Units	RSD
371.030	4571939.2	0.873	0.0026	mg/L				0.30%
[328.068	240438.9	1.112	0.0034	mg/L				0.31%
. 308.215	11680561.3	509.0	0.32	mg/L				0.06%
; 188.979	-97.4	-0.0097	0.00166	mg/L				17.04%
249.773	15479.0	0.1779	0.00252	mg/L				1.42%
ı 233.527	65158.7	0.5526	0.00152	mg/L				0.27%
ɜ 313.107	3675825.5	0.5008	0.00078	mg/L				0.15%
ı 315.887	77058602.5	466.1	0.61	mg/L				0.13%
i 226.502	118817.0	0.9601	0.00219	mg/L				0.23%
ɔ 228.616	11865.4	0.4743	0.00099	mg/L				0.21%
r 267.716	68553.6	0.5057	0.00134	mg/L				0.27%
ı 324.754	174553.5	0.5472	0.00091	mg/L				0.17%
e 238.863	5201313.6	185.6	0.29	mg/L				0.16%
404.721	-2849.5	-3.331	1.1811	mg/L				35.46%
g 279.079	12415992.5	514.8	0.70	mg/L				0.14%
n 257.610	213224.5	0.5106	0.00118	mg/L				0.23%
o 202.030	38.7	0.0027	0.00004	mg/L				1.54%
a 330.237	627.5	0.1781	0.01481	mg/L				8.31%
i 231.604	42291.9	0.9317	0.00313	mg/L				0.34%
b [illegible].353	6522.6	0.9662	0.00233	mg/L				0.24%
b .833	39.3	-0.0017	0.00070	mg/L				40.22%
e .026	-1.2	-0.0038	0.00259	mg/L				68.87%
n 189.933	14283.8	-0.6254	0.00078	mg/L				0.12%
'i 334.941	-4013.5	-0.0067	0.00005	mg/L				0.82%
'l 190.800	-42.8	-0.0113	0.00046	mg/L				4.06%
' 292.402	135101.8	0.5623	0.00001	mg/L				0.00%
:n 206.191	76001.9	0.9599	0.00009	mg/L				0.01%

lean Data ----------

ID: CCV Seq. No.: 10 Sample No.: 2 A/S Pos: 3
Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 02/04/02 10:57:09 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Units	RSD
Y 371.030	5078610.3	0.970	0.0053	mg/L				0.55%
Ag 328.068	109769.0	0.5139	0.00333	mg/L				0.65%
Al 308.215	240654.3	10.24	0.002	mg/L				0.02%
As 188.979	1618.2	1.041	0.0029	mg/L				0.28%
B 249.773	197786.6	2.537	0.0493	mg/L				1.94%
Ba 233.527	1266266.8	10.77	0.010	mg/L				0.09%
Be 313.107	1880607.8	0.2564	0.00010	mg/L				0.04%
Ca 315.887	4329029.9	26.16	0.087	mg/L				0.33%
Cd 226.502	63574.4	0.5201	0.00466	mg/L				0.90%
Co 228.616	66533.7	2.622	0.0180	mg/L				0.69%
Cr 267.716	70361.2	0.5191	0.00405	mg/L				0.78%
Cu 324.754	415556.1	1.282	0.0098	mg/L				0.77%
Fe 238.863	147994.3	5.283	0.0029	mg/L				0.05%
K 404.721	1201.9	21.02	0.565	mg/L				2.69%
*QC exceeds lower limit for K 404.721		Recovery = 84.10%		Action = Continue				
Mg 279.079	619988.7	25.72	0.126	mg/L				0.49%
Mn 257.610	336609.1	0.7814	0.00507	mg/L				0.65%
M 02.030	48648.3	2.515	0.0224	mg/L				0.89%
N 30.237	23381.4	23.84	0.194	mg/L				0.81%
Ni 231.604	96407.6	2.117	0.0148	mg/L				0.70%
Pb 220.353	3694.2	0.5244	0.00239	mg/L				0.46%
Sb 206.833	11375.4	5.068	0.0322	mg/L				0.64%
Se 196.026	1524.7	0.5097	0.00336	mg/L				0.66%
Sn 189.933	55845.1	5.295	0.0540	mg/L				1.02%

334.941	1333661.5	2.557	0.0012	mg/L	0.05%
1 00	2322.4	1.054	0.0067	mg/L	0.64%
9. 2	627164.4	2.619	0.0006	mg/L	0.02%
206.191	81696.0	1.047	0.0093	mg/L	0.88%

n Data ----------

: CCB Seq. No.: 11 Sample No.: 4 A/S Pos: 1
mple Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 02/04/02 11:02:14 AM

ement	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Units	Mean Conc.	Sample Std.Dev.	Units	RSD
371.030	5206139.7	0.994	0.0038	mg/L				0.39%
328.068	-2406.3	0.0006	0.00043	mg/L				70.82%
308.215	6210.6	0.0133	0.00627	mg/L				47.14%
188.979	-30.8	-0.0023	0.00017	mg/L				7.49%
249.773	7620.1	0.0763	0.00815	mg/L				10.69%
233.527	665.5	0.0039	0.00166	mg/L				42.91%
313.107	-1844.2	0.0002	0.00008	mg/L				48.29%
315.887	7384.1	0.0230	0.00958	mg/L				41.63%
226.502	-98.1	0.0002	0.00008	mg/L				42.38%
228.616	-182.7	0.0009	0.00037	mg/L				39.71%
267.716	149.3	-0.0002	0.00007	mg/L				38.78%
324.754	2856.5	0.0039	0.00073	mg/L				18.58%
238.863	247.3	0.0122	0.00333	mg/L				27.38%
404.721	-607.9	-1.124	1.0606	mg/L				94.39%
279.079	180.8	0.0235	0.01158	mg/L				49.38%
257.610	403.7	0.0000	0.00014	mg/L				439.48%
202.030	11.4	0.0013	0.00046	mg/L				36.17%
330.237	667.5	0.0694	0.01080	mg/L				15.57%
231.604	-225.4	0.0007	0.00034	mg/L				49.40%
220.353	23.7	0.0001	0.00026	mg/L				207.24%
206.833	87.7	0.0199	0.00291	mg/L				14.58%
QC ceeds upper limit for Sb 206.833 Action = Continue								
.026	-17.2	0.0003	0.00215	mg/L				828.09%
.933	188.5	0.0117	0.00278	mg/L				23.80%
334.941	349.8	0.0017	0.00078	mg/L				46.68%
190.800	-14.4	0.0015	0.00018	mg/L				12.00%
292.402	869.9	0.0014	0.00052	mg/L				38.02%
206.191	162.8	0.0018	0.00030	mg/L				16.56%

lean Data ----------

ID: PBW-M2620147 Seq. No.: 12 Sample No.: 1 A/S Pos: 9
Sample Qty: 1.0000 mL Prep. Vol.: 50.0 mL Dilution: 1.0: 1.0
Data: Original Date: 02/04/02 11:07:15 AM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Units	Mean Conc.	Sample Std.Dev.	Units	RSD
Y 371.030	5461387.2	1.043	0.0046	mg/L				0.44%
Ag 328.068	-2433.9	0.0005	0.00004	mg/L				8.31%
Al 308.215	5695.0	-0.0092	0.00330	mg/L				35.97%
As 188.979	-28.1	-0.0006	0.00024	mg/L				40.80%
B 249.773	6346.6	0.0598	0.00133	mg/L				2.23%
Ba 233.527	252.2	0.0004	0.00008	mg/L				21.82%
Be 313.107	-2698.3	0.0000	0.00000	mg/L				4.44%
Ca 315.887	2000.1	-0.0095	0.00221	mg/L				23.13%
Cd 226.502	-113.0	0.0001	0.00001	mg/L				7.31%
Co 228.616	-198.6	0.0003	0.00021	mg/L				64.55%
Cr 267.716	188.4	0.0001	0.00009	mg/L				84.99%
Cu 324.754	2389.3	0.0025	0.00041	mg/L				16.30%
Fe 238.863	55.0	0.0053	0.00051	mg/L				9.59%
K 404.721	-572.3	-0.6882	0.78640	mg/L				114.26%
Mg 279.079	-279.6	0.0044	0.00141	mg/L				32.31%
Mn 257.610	271.8	-0.0003	0.00003	mg/L				8.10%
Mo 202.030	-5.6	0.0004	0.00001	mg/L				1.36%
Na 330.237	814.6	0.2233	0.02594	mg/L				11.62%
31.604	-232.8	0.0005	0.00018	mg/L				35.37%
20.353	21.9	-0.0001	0.00017	mg/L				124.78%
Sb 206.833	53.0	0.0044	0.00093	mg/L				21.03%
Se 196.026	-20.4	-0.0008	0.00009	mg/L				10.47%
Sn 189.933	140.5	0.0071	0.00031	mg/L				4.42%
Ti 334.941	-311.0	0.0004	0.00003	mg/L				7.25%
Tl 190.800	-17.7	0.0001	0.00007	mg/L				127.40%

292.402	573.8	0.0001	0.00016 mg/L		119.02%
2[illegible] 191	256.0	0.0030	0.00014 mg/L		4.65%

an [illegible]ta

: LCSW-M2620147 Seq. No.: 13 Sample No.: 2 A/S Pos: 10
mple Qty: 1.0000 mL Prep. Vol.: 50.0 mL Dilution: 1.0: 1.0
Data: Original Date: 02/04/02 11:12:22 AM

ement	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Units	RSD
371.030	5241494.4	1.001	0.0016	mg/L				0.16%
g 328.068	8955.2	0.0526	0.00031	mg/L				0.59%
l 308.215	52311.4	2.023	0.0112	mg/L				0.55%
s 188.979	28.5	0.0353	0.00196	mg/L				5.56%
249.773	85025.0	1.078	0.0165	mg/L				1.53%
a 233.527	261170.6	2.220	0.0089	mg/L				0.40%
e 313.107	368537.6	0.0506	0.00001	mg/L				0.02%
a 315.887	350548.3	2.099	0.0066	mg/L				0.32%
d 226.502	6384.0	0.0531	0.00005	mg/L				0.09%
o 228.616	14102.4	0.5622	0.00202	mg/L				0.36%
r 267.716	29071.8	0.2137	0.00105	mg/L				0.49%
u 324.754	90252.6	0.2747	0.00112	mg/L				0.41%
e 238.863	30075.1	1.076	0.0045	mg/L				0.41%
404.721	1101.9	19.80	0.268	mg/L				1.35%
g 279.079	49221.5	2.057	0.0065	mg/L				0.31%
n 257.610	235675.7	0.5468	0.00288	mg/L				0.53%
o 202.030	9840.4	0.5092	0.00158	mg/L				0.31%
a 330.237	18316.9	18.54	0.023	mg/L				0.13%
i 231.604	24827.7	0.5493	0.00251	mg/L				0.46%
b 220.353	3774.4	0.5359	0.00169	mg/L				0.31%
b 206.833	1209.7	0.5217	0.00031	mg/L				0.06%
e 196.026	2902.5	0.9650	0.00501	mg/L				0.52%
n 189.933	889.6	0.0782	0.00011	mg/L				0.14%
i 334.941	274022.0	0.5262	0.00053	mg/L				0.10%
l .800	4582.1	2.072	0.0084	mg/L				0.40%
. 402	127624.6	0.5311	0.00265	mg/L				0.50%
n 206.191	42678.2	0.5467	0.00115	mg/L				0.21%

lean Data

D: 525947 Seq. No.: 14 Sample No.: 3 A/S Pos: 11
Sample Qty: 1.0000 mL Prep. Vol.: 50.0 mL Dilution: 1.0: 1.0
Data: Original Date: 02/04/02 11:17:28 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Units	RSD
Y 371.030	5289792.2	1.010	0.0064	mg/L				0.63%
Ag 328.068	-2395.3	0.0007	0.00008	mg/L				12.47%
Al 308.215	12426.8	0.2843	0.00011	mg/L				0.04%
As 188.979	-29.4	-0.0014	0.00071	mg/L				50.27%
B 249.773	11286.3	0.1237	0.00666	mg/L				5.38%
Ba 233.527	17621.7	0.1481	0.00025	mg/L				0.17%
Be 313.107	-2685.4	0.0000	0.00002	mg/L				53.46%
Ca 315.887	8543624.1	51.65	0.040	mg/L				0.08%
Cd 226.502	-87.6	0.0003	0.00003	mg/L				10.44%
Co 228.616	-192.5	0.0006	0.00029	mg/L				52.93%
Cr 267.716	317.4	0.0011	0.00002	mg/L				1.87%
Cu 324.754	2651.4	0.0033	0.00028	mg/L				8.47%
Fe 238.863	14600.6	0.5242	0.00007	mg/L				0.01%
K 404.721	350.2	10.60	0.710	mg/L				6.70%
Mg 279.079	49369.8	2.063	0.0013	mg/L				0.06%
Mn 257.610	64647.0	0.1493	0.00014	mg/L				0.10%
Mo 202.030	33.1	0.0024	0.00031	mg/L				12.97%
Na 330.237	6543.1	6.219	0.0141	mg/L				0.23%
Ni 231.604	-154.9	0.0022	0.00004	mg/L				1.73%
Pb 220.353	48.2	0.0036	0.00044	mg/L				12.05%
Sb 206.833	48.3	0.0023	0.00288	mg/L				123.83%
S 96.026	-15.2	0.0009	0.00016	mg/L				17.41%
[illegible] 9.933	652.0	0.0557	0.00136	mg/L				2.44%
Th [illegible]34.941	3245.0	0.0072	0.00021	mg/L				2.87%
Tl 190.800	-16.6	0.0006	0.00181	mg/L				325.35%
V 292.402	1639.8	0.0046	0.00025	mg/L				5.37%
Zn 206.191	26754.5	0.3426	0.00032	mg/L				0.09%

n Data ----------

f 17D		Seq. No.: 15	Sample No.: 4	A/S Pos: 12
p. cy:	1.0000 mL	Prep. Vol.:	50.0 mL	Dilution: 1.0: 1.0
		Data: Original		Date: 02/04/02 11:22:34 AM

ment	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
371.030	5234266.9	0.999	0.0004	mg/L				0.04%
328.068	-2440.2	0.0005	0.00000	mg/L				0.46%
308.215	11151.4	0.2287	0.00374	mg/L				1.64%
188.979	-32.2	-0.0032	0.00231	mg/L				73.21%
249.773	9790.7	0.1043	0.00217	mg/L				2.08%
233.527	17820.7	0.1498	0.00071	mg/L				0.47%
313.107	-2962.3	0.0000	0.00000	mg/L				38.66%
315.887	8710683.9	52.66	0.045	mg/L				0.08%
226.502	-94.3	0.0002	0.00003	mg/L				11.92%
228.616	-198.4	0.0003	0.00008	mg/L				25.12%
267.716	309.4	0.0010	0.00002	mg/L				2.45%
324.754	2526.5	0.0029	0.00001	mg/L				0.23%
238.863	15103.7	0.5422	0.00336	mg/L				0.62%
404.721	332.2	10.38	0.569	mg/L				5.48%
279.079	50330.6	2.103	0.0104	mg/L				0.49%
. 257.610	66186.0	0.1529	0.00163	mg/L				1.07%
202.030	26.9	0.0021	0.00004	mg/L				2.05%
. 330.237	6714.1	6.398	0.1164	mg/L				1.82%
. 231.604	-166.6	0.0020	0.00009	mg/L				4.56%
220.353	47.4	0.0035	0.00008	mg/L				2.21%
206.833	44.0	0.0004	0.00096	mg/L				247.78%
196.026	-8.4	0.0032	0.00232	mg/L				73.34%
189.933	654.4	0.0559	0.00062	mg/L				1.11%
334.941	3858.1	0.0084	0.00014	mg/L				1.70%
190.800	-20.2	-0.0011	0.00008	mg/L				7.77%
292.402	1655.5	0.0047	0.00014	mg/L				2.95%
.191	27148.1	0.3477	0.00096	mg/L				0.28%

ean Data ----------

D: 525947S		Seq. No.: 16	Sample No.: 5	A/S Pos: 13
ample Qty:	1.0000 mL	Prep. Vol.:	50.0 mL	Dilution: 1.0: 1.0
		Data: Original		Date: 02/04/02 11:27:44 AM

lement	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
371.030	5234837.6	0.999	0.0102	mg/L				1.02%
g 328.068	8970.5	0.0527	0.00081	mg/L				1.54%
l 308.215	57651.8	2.256	0.0130	mg/L				0.57%
s 188.979	29.9	0.0361	0.00338	mg/L				9.36%
249.773	93149.4	1.183	0.0149	mg/L				1.26%
Ba 233.527	273848.3	2.328	0.0161	mg/L				0.69%
Be 313.107	370348.0	0.0508	0.00037	mg/L				0.73%
Ca 315.887	8937840.1	54.04	0.042	mg/L				0.08%
Cd 226.502	6184.8	0.0515	0.00045	mg/L				0.87%
Co 228.616	14261.4	0.5684	0.00282	mg/L				0.50%
Cr 267.716	29549.7	0.2173	0.00095	mg/L				0.44%
Cu 324.754	90092.5	0.2742	0.00190	mg/L				0.69%
Fe 238.863	44538.1	1.592	0.0116	mg/L				0.73%
K 404.721	2166.8	32.83	0.053	mg/L				0.16%
Mg 279.079	99589.0	4.145	0.0292	mg/L				0.71%
Mn 257.610	305964.0	0.7101	0.00263	mg/L				0.37%
Mo 202.030	9877.3	0.5111	0.00427	mg/L				0.83%
Na 330.237	25401.9	25.96	0.171	mg/L				0.66%
Ni 231.604	24166.8	0.5348	0.00442	mg/L				0.83%
Pb 220.353	3674.7	0.5216	0.00584	mg/L				1.12%
Sb 206.833	1241.5	0.5359	0.00453	mg/L				0.84%
Se 196.026	2829.9	0.9410	0.00955	mg/L				1.02%
Sn 189.933	1341.3	0.1211	0.00104	mg/L				0.86%
Ti 334.941	283603.2	0.5445	0.00199	mg/L				0.36%
190.800	4461.8	2.018	0.0186	mg/L				0.92%
V 292.402	132135.3	0.5499	0.00399	mg/L				0.73%
Zn 206.191	69190.5	0.8865	0.00770	mg/L				0.87%

Mean Data ----------

ID: 525947L		Seq. No.: 17	Sample No.: 6	A/S Pos: 14
Sample Qty:	1.0000 mL	Prep. Vol.:	50.0 mL	Dilution: 1.0: 1.0

Data: Original Date: 02/04/02 11:32:51 AM

ment	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
71.030	5284403.4	1.009	0.0041	mg/L				0.41%
328.068	-2264.9	0.0013	0.00000	mg/L				0.08%
308.215	7209.7	0.0569	0.00056	mg/L				0.98%
188.979	-28.4	-0.0008	0.00125	mg/L				160.24%
49.773	5334.9	0.0467	0.00323	mg/L				6.92%
233.527	3680.4	0.0295	0.00001	mg/L				0.04%
313.107	-2724.8	0.0000	0.00001	mg/L				38.90%
315.887	1751653.1	10.57	0.002	mg/L				0.02%
226.502	-98.5	0.0002	0.00001	mg/L				6.75%
228.616	-198.1	0.0003	0.00011	mg/L				34.18%
267.716	181.3	0.0001	0.00024	mg/L				411.13%
324.754	2431.2	0.0026	0.00014	mg/L				5.47%
238.863	2823.5	0.1041	0.00124	mg/L				1.19%
404.721	-362.2	1.883	0.2263	mg/L				12.02%
279.079	10152.9	0.4369	0.00038	mg/L				0.09%
257.610	14114.6	0.0318	0.00009	mg/L				0.28%
202.030	2.2	0.0008	0.00010	mg/L				12.11%
330.237	1815.6	1.271	0.0259	mg/L				2.04%
231.604	-209.7	0.0010	0.00003	mg/L				2.69%
220.353	27.9	0.0007	0.00026	mg/L				35.29%
206.833	42.6	-0.0002	0.00098	mg/L				410.28%
196.026	-11.8	0.0020	0.00213	mg/L				105.28%
189.933	113.8	0.0046	0.00013	mg/L				2.86%
334.941	576.8	0.0021	0.00006	mg/L				2.98%
190.800	-14.4	0.0015	0.00040	mg/L				26.11%
292.402	884.1	0.0014	0.00018	mg/L				12.41%
206.191	5806.2	0.0741	0.00013	mg/L				0.17%

ean Data

D: [illegible]5948 Seq. No.: 18 Sample No.: 7 A/S Pos: 15
ar Qty: 1.0000 mL Prep. Vol.: 50.0 mL Dilution: 1.0: 1.0
Data: Original Date: 02/04/02 11:37:57 AM

lement	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
371.030	5244465.7	1.001	0.0041	mg/L				0.41%
g 328.068	-2293.3	0.0011	0.00011	mg/L				9.97%
l 308.215	10291.9	0.1913	0.00063	mg/L				0.33%
s 188.979	-30.3	-0.0020	0.00004	mg/L				1.82%
249.773	9182.9	0.0965	0.00287	mg/L				2.97%
a 233.527	17835.0	0.1499	0.00139	mg/L				0.92%
e 313.107	-2920.9	0.0000	0.00001	mg/L				97.03%
a 315.887	8822671.1	53.34	0.019	mg/L				0.04%
d 226.502	-95.1	0.0002	0.00004	mg/L				18.52%
o 228.616	-194.3	0.0005	0.00000	mg/L				0.13%
r 267.716	308.6	0.0010	0.00002	mg/L				2.12%
u 324.754	2584.0	0.0031	0.00004	mg/L				1.27%
e 238.863	12368.4	0.4446	0.00431	mg/L				0.97%
K 404.721	403.7	11.26	0.041	mg/L				0.37%
Mg 279.079	53118.4	2.218	0.0270	mg/L				1.22%
Mn 257.610	64406.8	0.1487	0.00147	mg/L				0.99%
Mo 202.030	30.9	0.0023	0.00021	mg/L				9.09%
Na 330.237	6736.6	6.422	0.1263	mg/L				1.97%
Ni 231.604	-153.2	0.0023	0.00001	mg/L				0.40%
Pb 220.353	38.8	0.0023	0.00016	mg/L				7.08%
Sb 206.833	40.5	-0.0012	0.00070	mg/L				59.56%
Se 196.026	-21.5	-0.0012	0.00103	mg/L				86.95%
Sn 189.933	682.2	0.0585	0.00030	mg/L				0.51%
Ti 334.941	3645.4	0.0080	0.00010	mg/L				1.26%
Tl 190.800	-16.1	0.0008	0.00031	mg/L				39.86%
V 292.402	1655.4	0.0047	0.00009	mg/L				1.89%
Zn 206.191	18065.3	0.2312	0.00270	mg/L				1.17%

N Data

ID: 525949 Seq. No.: 19 Sample No.: 8 A/S Pos: 16
Sample Qty: 1.0000 mL Prep. Vol.: 50.0 mL Dilution: 1.0: 1.0
Data: Original Date: 02/04/02 11:43:05 AM

	Mean Corr.	Mean		Calib	Mean		Sample

ment	Intensity	Conc.	Std.Dev.	Units	Conc.	Std.Dev.	Units	RSD
37 10	5148867.6	0.983	0.0015	mg/L				0.15%
3 68	-2364.3	0.0008	0.00018	mg/L				21.74%
308.215	5958.9	0.0023	0.00023	mg/L				9.73%
188.979	-0.2	0.0171	0.00044	mg/L				2.59%
249.773	27595.3	0.3347	0.00682	mg/L				2.04%
233.527	4202.0	0.0340	0.00022	mg/L				0.66%
313.107	-3062.8	0.0000	0.00000	mg/L				3.74%
315.887	11496401.9	69.51	0.023	mg/L				0.03%
226.502	-91.3	0.0003	0.00001	mg/L				2.26%
228.616	-211.4	-0.0002	0.00019	mg/L				103.84%
267.716	376.4	0.0015	0.00006	mg/L				3.68%
324.754	8373.9	0.0210	0.00030	mg/L				1.43%
238.863	3259.3	0.1196	0.00069	mg/L				0.57%
404.721	569.2	13.28	0.062	mg/L				0.47%
279.079	482878.3	20.04	0.227	mg/L				1.13%
257.610	673.1	0.0006	0.00007	mg/L				11.32%
202.030	85.8	0.0051	0.00005	mg/L				0.96%
330.237	210671.8	219.9	3.47	mg/L				1.58%
231.604	-215.0	0.0009	0.00004	mg/L				4.33%
220.353	48.3	0.0036	0.00080	mg/L				21.87%
206.833	42.9	-0.0001	0.00079	mg/L				747.28%
196.026	1.2	0.0063	0.00284	mg/L				44.87%
189.933	4996.9	0.4681	0.00350	mg/L				0.75%
334.941	-851.6	-0.0006	0.00004	mg/L				7.08%
190.800	-19.1	-0.0006	0.00102	mg/L				176.33%
292.402	3930.1	0.0142	0.00009	mg/L				0.61%
206.191	20203.4	0.2587	0.00306	mg/L				1.18%

ean Data

D: 525950 Seq. No.: 20 Sample No.: 9 A/S Pos: 17
ample Qty: 1.0000 mL Prep. Vol.: 50.0 mL Dilution: 1.0: 1.0
Data: Original Date: 02/04/02 11:48:16 AM

le. .t	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
371.030	5528753.0	1.055	0.0084	mg/L				0.79%
g 328.068	-2440.6	0.0005	0.00007	mg/L				15.11%
l 308.215	5734.6	-0.0075	0.00285	mg/L				38.30%
s 188.979	6.3	0.0212	0.00034	mg/L				1.63%
249.773	26404.0	0.3193	0.00005	mg/L				0.02%
a 233.527	4025.9	0.0325	0.00010	mg/L				0.31%
e 313.107	-2904.2	0.0000	0.00000	mg/L				18.08%
a 315.887	11109344.5	67.17	0.045	mg/L				0.07%
d 226.502	-100.3	0.0002	0.00002	mg/L				9.20%
o 228.616	-195.5	0.0004	0.00012	mg/L				28.50%
r 267.716	346.5	0.0013	0.00005	mg/L				4.15%
u 324.754	23389.0	0.0675	0.00007	mg/L				0.11%
e 238.863	2249.6	0.0836	0.00047	mg/L				0.56%
K 404.721	500.7	12.44	0.254	mg/L				2.04%
g 279.079	466767.1	19.37	0.052	mg/L				0.27%
n 257.610	499.7	0.0002	0.00001	mg/L				4.16%
o 202.030	86.5	0.0052	0.00012	mg/L				2.41%
Na 330.237	203922.7	212.8	0.36	mg/L				0.17%
Ni 231.604	-183.4	0.0016	0.00003	mg/L				1.92%
Pb 220.353	68.0	0.0065	0.00049	mg/L				7.60%
Sb 206.833	37.5	-0.0025	0.00127	mg/L				50.27%
Se 196.026	-0.4	0.0058	0.00168	mg/L				29.07%
Sn 189.933	4759.7	0.4456	0.00275	mg/L				0.62%
Ti 334.941	-769.3	-0.0005	0.00001	mg/L				2.53%
Tl 190.800	-18.3	-0.0002	0.00027	mg/L				116.82%
V 292.402	3791.8	0.0136	0.00021	mg/L				1.51%
Zn 206.191	8711.9	0.1114	0.00001	mg/L				0.01%

Mean Data

ID: 525952 Seq. No.: 21 Sample No.: 10 A/S Pos: 18
S e Qty: 1.0000 mL Prep. Vol.: 50.0 mL Dilution: 1.0: 1.0
Data: Original Date: 02/04/02 11:53:26 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	5449084.7	1.040	0.0074	mg/L				0.71%
Ag 328.068	-2446.9	0.0004	0.00002	mg/L				3.63%

Al 308.215	5718.0	-0.0082	0.00016	mg/L	1.99%
As 188.979	27.8	0.0348	0.00028	mg/L	0.81%
B [illegible].773	30873.9	0.3771	0.00195	mg/L	0.52%
Ba [illegible].527	5689.4	0.0466	0.00008	mg/L	0.17%
Be [illegible].107	-3020.8	0.0000	0.00001	mg/L	239.31%
Ca 315.887	6628078.1	40.07	0.010	mg/L	0.03%
Cd 226.502	-111.2	0.0001	0.00004	mg/L	45.39%
Co 228.616	-201.8	0.0002	0.00014	mg/L	74.45%
Cr 267.716	334.5	0.0012	0.00010	mg/L	8.59%
Cu 324.754	6778.3	0.0161	0.00002	mg/L	0.15%
Fe 238.863	277.7	0.0132	0.00004	mg/L	0.30%
K 404.721	572.8	13.33	0.139	mg/L	1.04%
Mg 279.079	389676.6	16.17	0.002	mg/L	0.01%
Mn 257.610	950.6	0.0012	0.00000	mg/L	0.10%
Mo 202.030	89.7	0.0053	0.00005	mg/L	0.86%
Na 330.237	226377.5	236.3	1.79	mg/L	0.76%
Ni 231.604	-213.2	0.0009	0.00007	mg/L	7.38%
Pb 220.353	26.4	0.0005	0.00048	mg/L	94.44%
Sb 206.833	40.1	-0.0014	0.00012	mg/L	8.58%
Se 196.026	1.0	0.0063	0.00085	mg/L	13.64%
Sn 189.933	4288.3	0.4008	0.00221	mg/L	0.55%
Ti 334.941	-680.9	-0.0003	0.00000	mg/L	1.26%
Tl 190.800	-19.8	-0.0009	0.00134	mg/L	146.58%
V 292.402	7583.4	0.0294	0.00005	mg/L	0.17%
Zn 206.191	2793.2	0.0355	0.00016	mg/L	0.45%

Mean Data ----------

ID: CCV Seq. No.: 22 Sample No.: 2 A/S Pos: 3
Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 02/04/02 11:58:42 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	5150827.8	0.983	0.0098	mg/L				0.99%
Ag 328.068	111757.1	0.5230	0.00106	mg/L				0.20%
A[illegible] [illegible].215	239022.9	10.16	0.019	mg/L				0.19%
A[illegible] [illegible].979	1698.5	1.092	0.0135	mg/L				1.24%
B 249.773	202856.2	2.603	0.0263	mg/L				1.01%
Ba 233.527	1265920.3	10.77	0.022	mg/L				0.20%
Be 313.107	1883219.4	0.2568	0.00039	mg/L				0.15%
Ca 315.887	4317368.5	26.09	0.046	mg/L				0.17%
Cd 226.502	64144.9	0.5247	0.00040	mg/L				0.08%
Co 228.616	69168.3	2.726	0.0082	mg/L				0.30%
Cr 267.716	72242.4	0.5330	0.00015	mg/L				0.03%
Cu 324.754	415806.8	1.283	0.0025	mg/L				0.19%
Fe 238.863	148131.4	5.288	0.0014	mg/L				0.03%
K 404.721	1112.3	19.93	0.530	mg/L				2.66%
*QC exceeds lower limit for K 404.721		Recovery = 79.71%		Action = Continue				
Mg 279.079	627773.5	26.04	0.016	mg/L				0.06%
Mn 257.610	351235.6	0.8154	0.00207	mg/L				0.25%
Mo 202.030	48897.2	2.528	0.0009	mg/L				0.03%
Na 330.237	23571.1	24.04	0.102	mg/L				0.42%
Ni 231.604	97747.8	2.146	0.0029	mg/L				0.14%
Pb 220.353	3684.7	0.5230	0.00680	mg/L				1.30%
Sb 206.833	11760.2	5.240	0.0597	mg/L				1.14%
Se 196.026	1531.5	0.5120	0.00657	mg/L				1.28%
Sn 189.933	56820.0	5.387	0.0047	mg/L				0.09%
Ti 334.941	1372524.4	2.631	0.0018	mg/L				0.07%
Tl 190.800	2285.1	1.037	0.0125	mg/L				1.20%
V 292.402	638836.6	2.667	0.0044	mg/L				0.17%
Zn 206.191	82974.6	1.063	0.0019	mg/L				0.18%

Mean Data ----------

ID: CCB Seq. No.: 23 Sample No.: 4 A/S Pos: 1
Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 02/04/02 12:03:47 PM

E[illegible]nt	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y [illegible].030	5324401.4	1.016	0.0002	mg/L				0.02%
Ag 328.068	-2391.8	0.0007	0.00015	mg/L				22.71%
Al 308.215	5656.6	-0.0109	0.00005	mg/L				0.41%
As 188.979	-26.8	0.0003	0.00106	mg/L				381.61%

B 249.773	7077.5	0.0692	0.00589 mg/L		8.51%
Ba 233.527	315.6	0.0009	0.00014 mg/L		15.68%
Be 313.107	-2735.2	0.0000	0.00000 mg/L		7.39%
Ca 315.887	3632.3	0.0003	0.00057 mg/L		174.87%
Cd 226.502	-120.9	0.0000	0.00002 mg/L		154.33%
Co 228.616	-204.9	0.0001	0.00021 mg/L		307.26%
Cr 267.716	153.3	-0.0001	0.00014 mg/L		92.06%
Cu 324.754	2361.0	0.0024	0.00046 mg/L		19.30%
Fe 238.863	-51.2	0.0015	0.00010 mg/L		6.39%
K 404.721	-611.1	-1.163	0.0402 mg/L		3.45%
Mg 279.079	-412.6	-0.0012	0.00285 mg/L		247.15%
Mn 257.610	276.1	-0.0003	0.00000 mg/L		1.13%
Mo 202.030	-1.6	0.0006	0.00015 mg/L		25.68%
Na 330.237	785.5	0.1929	0.05331 mg/L		27.64%
Ni 231.604	-244.0	0.0003	0.00013 mg/L		47.65%
Pb 220.353	20.8	-0.0003	0.00052 mg/L		178.79%
Sb 206.833	77.8	0.0155	0.00343 mg/L		22.13%
*QC exceeds upper limit for Sb 206.833		Action = Continue			
Se 196.026	-19.0	-0.0003	0.00196 mg/L		569.39%
Sn 189.933	152.6	0.0083	0.00102 mg/L		12.39%
Ti 334.941	-180.8	0.0007	0.00021 mg/L		31.25%
Tl 190.800	-14.6	0.0014	0.00030 mg/L		20.79%
V 292.402	606.9	0.0003	0.00007 mg/L		23.87%
Zn 206.191	139.0	0.0015	0.00009 mg/L		6.26%

Mean Data

ID: 525953 Seq. No.: 24 Sample No.: 11 A/S Pos: 19
Sample Qty: 1.0000 mL Prep. Vol.: 50.0 mL Dilution: 1.0: 1.0
Data: Original Date: 02/04/02 12:08:56 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Units	Mean Conc.	Sample Std.Dev.	Units	RSD
Y 371.030	5379183.1	1.027	0.0150	mg/L				1.46%
Ag 328.068	-2477.2	0.0003	0.00007	mg/L				24.26%
Al 308.215	5778.4	-0.0055	0.00308	mg/L				55.49%
As 188.979	-1.0	0.0166	0.00098	mg/L				5.92%
B 249.773	31514.5	0.3854	0.00593	mg/L				1.54%
Ba 233.527	5542.4	0.0454	0.00047	mg/L				1.03%
Be 313.107	-3056.7	0.0000	0.00000	mg/L				10.89%
Ca 315.887	11270814.8	68.15	0.170	mg/L				0.25%
Cd 226.502	-114.4	0.0001	0.00004	mg/L				59.81%
Co 228.616	-204.5	0.0001	0.00018	mg/L				212.83%
Cr 267.716	400.4	0.0017	0.00009	mg/L				5.46%
Cu 324.754	3383.5	0.0056	0.00030	mg/L				5.36%
Fe 238.863	115.7	0.0075	0.00019	mg/L				2.51%
K 404.721	352.3	10.63	0.135	mg/L				1.27%
Mg 279.079	674106.3	27.96	0.252	mg/L				0.90%
Mn 257.610	26537.4	0.0607	0.00052	mg/L				0.86%
Mo 202.030	131.3	0.0075	0.00001	mg/L				0.15%
Na 330.237	133415.3	139.0	1.52	mg/L				1.09%
Ni 231.604	-225.9	0.0007	0.00010	mg/L				15.18%
Pb 220.353	25.2	0.0003	0.00067	mg/L				195.15%
Sb 206.833	50.2	0.0032	0.00048	mg/L				15.09%
Se 196.026	-8.9	0.0030	0.00157	mg/L				52.61%
Sn 189.933	5938.0	0.5574	0.00848	mg/L				1.52%
Ti 334.941	-838.4	-0.0006	0.00003	mg/L				4.93%
Tl 190.800	-21.4	-0.0016	0.00029	mg/L				17.92%
V 292.402	2371.1	0.0076	0.00005	mg/L				0.71%
Zn 206.191	2317.2	0.0294	0.00040	mg/L				1.36%

Mean Data

ID: 525954 Seq. No.: 25 Sample No.: 12 A/S Pos: 20
Sample Qty: 1.0000 mL Prep. Vol.: 50.0 mL Dilution: 1.0: 1.0
Data: Original Date: 02/04/02 12:14:10 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Units	Mean Conc.	Sample Std.Dev.	Units	RSD
Y 371.030	5581170.4	1.065	0.0117	mg/L				1.10%
Ag 328.068	-2499.8	0.0002	0.00046	mg/L				246.89%
Al 308.215	5689.9	-0.0094	0.00304	mg/L				32.34%
As 188.979	-9.8	0.0110	0.00039	mg/L				3.53%
B 249.773	30277.6	0.3694	0.00071	mg/L				0.19%
Ba 233.527	3839.8	0.0309	0.00026	mg/L				0.84%

Be 313.107	-3056.0	0.0000	0.00001	mg/L	149.93%
Ca 315.887	11507665.2	69.58	0.162	mg/L	0.23%
Cd 226.502	-110.2	0.0001	0.00001	mg/L	13.91%
C [illegible]28.616	-194.6	0.0005	0.00008	mg/L	16.21%
([illegible]7.716	418.0	0.0018	0.00002	mg/L	1.33%
Cu [illegible]24.754	17237.0	0.0485	0.00036	mg/L	0.75%
Fe 238.863	472.7	0.0202	0.00006	mg/L	0.30%
K 404.721	522.6	12.71	0.269	mg/L	2.11%
Mg 279.079	667269.4	27.68	0.144	mg/L	0.52%
Mn 257.610	1395.8	0.0023	0.00003	mg/L	1.35%
Mo 202.030	22.7	0.0019	0.00002	mg/L	0.87%
Na 330.237	169320.3	176.6	1.12	mg/L	0.63%
Ni 231.604	-210.2	0.0010	0.00005	mg/L	4.47%
Pb 220.353	22.5	-0.0001	0.00008	mg/L	142.46%
Sb 206.833	41.8	-0.0006	0.00118	mg/L	191.31%
Se 196.026	5.3	0.0077	0.00316	mg/L	41.12%
Sn 189.933	5782.6	0.5427	0.00634	mg/L	1.17%
Ti 334.941	-845.8	-0.0006	0.00002	mg/L	2.91%
Tl 190.800	-18.8	-0.0005	0.00053	mg/L	114.10%
V 292.402	3006.0	0.0103	0.00004	mg/L	0.42%
Zn 206.191	849.2	0.0106	0.00012	mg/L	1.17%

Mean Data ----------

ID: 525954D Seq. No.: 26 Sample No.: 13 A/S Pos: 21
Sample Qty: 1.0000 mL Prep. Vol.: 50.0 mL Dilution: 1.0: 1.0
Data: Original Date: 02/04/02 12:19:23 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	5759633.5	1.100	0.0224	mg/L				2.04%
Ag 328.068	-2498.0	0.0002	0.00016	mg/L				82.51%
Al 308.215	5631.5	-0.0119	0.00452	mg/L				37.79%
As 188.979	-9.9	0.0109	0.00133	mg/L				12.13%
B 249.773	29024.7	0.3532	0.00219	mg/L				0.62%
Ba 233.527	3717.0	0.0298	0.00028	mg/L				0.95%
Be 313.107	-3059.6	0.0000	0.00001	mg/L				107.93%
[illegible]15.887	11231306.6	67.91	0.459	mg/L				0.68%
[illegible]26.502	-102.8	0.0002	0.00003	mg/L				18.29%
Co 228.616	-191.5	0.0006	0.00013	mg/L				22.58%
Cr 267.716	414.7	0.0018	0.00005	mg/L				2.79%
Cu 324.754	16623.1	0.0466	0.00080	mg/L				1.72%
Fe 238.863	39.0	0.0047	0.00019	mg/L				3.98%
K 404.721	557.4	13.14	1.235	mg/L				9.40%
Mg 279.079	644538.0	26.74	0.278	mg/L				1.04%
Mn 257.610	1313.0	0.0021	0.00003	mg/L				1.64%
Mo 202.030	22.1	0.0018	0.00019	mg/L				10.31%
Na 330.237	164646.7	171.7	1.71	mg/L				1.00%
Ni 231.604	-204.0	0.0011	0.00001	mg/L				0.76%
Pb 220.353	20.4	-0.0003	0.00083	mg/L				236.90%
Sb 206.833	40.0	-0.0014	0.00088	mg/L				63.06%
Se 196.026	9.0	0.0089	0.00030	mg/L				3.41%
Sn 189.933	5577.9	0.5232	0.01067	mg/L				2.04%
Ti 334.941	-874.3	-0.0007	0.00003	mg/L				5.12%
Tl 190.800	-18.5	-0.0003	0.00018	mg/L				55.04%
V 292.402	2896.0	0.0098	0.00007	mg/L				0.71%
Zn 206.191	793.0	0.0099	0.00012	mg/L				1.27%

Mean Data ----------

ID: 525954S Seq. No.: 27 Sample No.: 14 A/S Pos: 22
Sample Qty: 1.0000 mL Prep. Vol.: 50.0 mL Dilution: 1.0: 1.0
Data: Original Date: 02/04/02 12:24:40 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	5627435.3	1.074	0.0028	mg/L				0.26%
Ag 328.068	8823.1	0.0520	0.00024	mg/L				0.46%
Al 308.215	54169.8	2.104	0.0081	mg/L				0.39%
As 188.979	49.4	0.0485	0.00298	mg/L				6.15%
[illegible]249.773	116109.9	1.480	0.0126	mg/L				0.85%
[illegible]233.527	258259.8	2.195	0.0108	mg/L				0.49%
[illegible]e 313.107	369096.8	0.0507	0.00019	mg/L				0.38%
Ca 315.887	11621403.5	70.27	0.124	mg/L				0.18%
Cd 226.502	6074.8	0.0506	0.00015	mg/L				0.29%

Co 228.616	13666.5	0.5451	0.00272	mg/L	0.50%
Cr 267.716	28154.7	0.2069	0.00121	mg/L	0.58%
Cu [illegible]24.754	104576.3	0.3190	0.00117	mg/L	0.37%
F [illegible]3.863	29648.5	1.061	0.0027	mg/L	0.26%
K [illegible].721	2606.2	38.21	0.811	mg/L	2.12%
Mg 279.079	697741.3	28.94	0.141	mg/L	0.49%
Mn 257.610	236153.5	0.5479	0.00313	mg/L	0.57%
Mo 202.030	9665.7	0.5002	0.00176	mg/L	0.35%
Na 330.237	192250.8	200.6	0.63	mg/L	0.31%
Ni 231.604	23441.0	0.5189	0.00155	mg/L	0.30%
Pb 220.353	3545.5	0.5032	0.00209	mg/L	0.42%
Sb 206.833	1237.2	0.5339	0.00067	mg/L	0.13%
Se 196.026	2923.8	0.9720	0.00049	mg/L	0.05%
Sn 189.933	5826.5	0.5468	0.00299	mg/L	0.55%
Ti 334.941	276222.3	0.5304	0.00309	mg/L	0.58%
Tl 190.800	4319.5	1.954	0.0091	mg/L	0.47%
V 292.402	130932.0	0.5449	0.00189	mg/L	0.35%
Zn 206.191	40829.3	0.5230	0.00281	mg/L	0.54%

Mean Data ----------

ID: 525954A Seq. No.: 28 Sample No.: 15 A/S Pos: 23
Sample Qty: 1.0000 mL Prep. Vol.: 50.0 mL Dilution: 1.0: 1.0
Data: Original Date: 02/04/02 12:29:57 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	5479567.8	1.046	0.0068	mg/L				0.65%
Ag 328.068	8369.3	0.0499	0.00049	mg/L				0.98%
Al 308.215	52639.7	2.038	0.0140	mg/L				0.69%
As 188.979	51.5	0.0498	0.00253	mg/L				5.08%
B 249.773	116510.1	1.485	0.0179	mg/L				1.21%
Ba 233.527	251524.7	2.138	0.0119	mg/L				0.56%
Be 313.107	360413.5	0.0495	0.00027	mg/L				0.55%
Ca 315.887	11680783.7	70.63	0.114	mg/L				0.16%
Cd 226.502	5982.6	0.0498	0.00011	mg/L				0.21%
[illegible]28.616	13332.5	0.5319	0.00244	mg/L				0.46%
67.716	27454.4	0.2018	0.00116	mg/L				0.58%
Cu 324.754	100742.5	0.3072	0.00265	mg/L				0.86%
Fe 238.863	28781.3	1.030	0.0060	mg/L				0.58%
K 404.721	2477.6	36.64	0.822	mg/L				2.24%
Mg 279.079	699834.1	29.03	0.122	mg/L				0.42%
Mn 257.610	230151.0	0.5339	0.00267	mg/L				0.50%
Mo 202.030	6678.7	0.3458	0.00083	mg/L				0.24%
Na 330.237	189126.7	197.3	1.36	mg/L				0.69%
Ni 231.604	22802.1	0.5049	0.00363	mg/L				0.72%
Pb 220.353	3498.1	0.4964	0.00013	mg/L				0.03%
Sb 206.833	877.7	0.3732	0.00367	mg/L				0.98%
Se 196.026	2853.4	0.9488	0.00827	mg/L				0.87%
Sn 189.933	5983.9	0.5618	0.00430	mg/L				0.77%
Ti 334.941	190595.5	0.3663	0.00212	mg/L				0.58%
Tl 190.800	4254.1	1.924	0.0062	mg/L				0.32%
V 292.402	127285.6	0.5297	0.00350	mg/L				0.66%
Zn 206.191	40007.2	0.5125	0.00295	mg/L				0.58%

Mean Data ----------

ID: 525954L Seq. No.: 29 Sample No.: 16 A/S Pos: 24
Sample Qty: 1.0000 mL Prep. Vol.: 50.0 mL Dilution: 1.0: 1.0
Data: Original Date: 02/04/02 12:35:07 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	5502791.8	1.051	0.0013	mg/L				0.12%
Ag 328.068	-2419.1	0.0006	0.00015	mg/L				27.27%
Al 308.215	5633.4	-0.0119	0.00046	mg/L				3.84%
As 188.979	-20.1	0.0045	0.00110	mg/L				24.65%
B 249.773	9252.0	0.0974	0.00124	mg/L				1.27%
Ba 233.527	813.3	0.0051	0.00005	mg/L				0.95%
[illegible] 313.107	-3019.7	0.0000	0.00000	mg/L				81.54%
315.887	2408633.5	14.55	0.015	mg/L				0.10%
[illegible] 226.502	-110.7	0.0001	0.00003	mg/L				30.39%
Co 228.616	-202.5	0.0002	0.00013	mg/L				79.19%
Cr 267.716	242.2	0.0005	0.00014	mg/L				27.87%
Cu 324.754	4835.0	0.0101	0.00009	mg/L				0.92%

238.863	-127.9	-0.0012	0.00036	mg/L	29.06%
10 `1	-314.5	2.466	0.2065	mg/L	8.37%
2 79	137607.9	5.721	0.0581	mg/L	1.02%
25/.610	233.9	-0.0004	0.00000	mg/L	0.85%
202.030	0.3	0.0007	0.00002	mg/L	3.03%
330.237	29508.4	30.26	0.466	mg/L	1.54%
231.604	-228.1	0.0006	0.00022	mg/L	35.60%
220.353	21.5	-0.0002	0.00055	mg/L	295.00%
206.833	42.1	-0.0004	0.00054	mg/L	123.56%
196.026	-7.8	0.0034	0.00166	mg/L	49.34%
189.933	1849.5	0.1693	0.00033	mg/L	0.20%
334.941	-492.6	0.0001	0.00002	mg/L	37.26%
190.800	-13.8	0.0018	0.00044	mg/L	24.43%
292.402	1049.1	0.0021	0.00002	mg/L	0.83%
206.191	262.8	0.0031	0.00002	mg/L	0.58%

an Data ----------

: 525965 Seq. No.: 30 Sample No.: 17 A/S Pos: 25
mple Qty: 1.0000 mL Prep. Vol.: 50.0 mL Dilution: 1.0: 1.0
Data: Original Date: 02/04/02 12:40:13 PM

ement	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
371.030	5607273.7	1.070	0.0124	mg/L				1.16%
g 328.068	-2472.8	0.0003	0.00005	mg/L				17.60%
l 308.215	5580.8	-0.0142	0.00339	mg/L				23.97%
s 188.979	3.0	0.0191	0.00296	mg/L				15.46%
249.773	30469.1	0.3719	0.00369	mg/L				0.99%
a 233.527	6345.4	0.0522	0.00063	mg/L				1.21%
e 313.107	-3062.4	0.0000	0.00001	mg/L				116.69%
a 315.887	11349397.6	68.62	0.222	mg/L				0.32%
d 226.502	-104.1	0.0001	0.00005	mg/L				30.54%
o 228.616	-195.3	0.0004	0.00010	mg/L				23.35%
r 267.716	376.6	0.0015	0.00002	mg/L				1.40%
u 754	4856.1	0.0101	0.00005	mg/L				0.46%
e .863	1554.9	0.0588	0.00050	mg/L				0.86%
404.721	586.7	13.49	0.373	mg/L				2.77%
g 279.079	675534.6	28.02	0.328	mg/L				1.17%
n 257.610	281153.8	0.6525	0.00559	mg/L				0.86%
o 202.030	136.3	0.0077	0.00003	mg/L				0.33%
a 330.237	133865.7	139.5	1.55	mg/L				1.11%
i 231.604	-212.6	0.0010	0.00006	mg/L				5.86%
b 220.353	28.2	0.0008	0.00015	mg/L				19.17%
b 206.833	42.9	-0.0001	0.00100	mg/L				>999.9%
e 196.026	-7.8	0.0034	0.00175	mg/L				52.03%
n 189.933	5762.3	0.5407	0.00724	mg/L				1.34%
i 334.941	-823.2	-0.0006	0.00002	mg/L				3.23%
l 190.800	-27.2	-0.0042	0.00080	mg/L				18.83%
292.402	2768.9	0.0093	0.00006	mg/L				0.68%
n 206.191	5380.1	0.0687	0.00081	mg/L				1.18%

Mean Data ----------

ID: 525970 Seq. No.: 31 Sample No.: 18 A/S Pos: 26
Sample Qty: 1.0000 mL Prep. Vol.: 50.0 mL Dilution: 1.0: 1.0
Data: Original Date: 02/04/02 12:45:21 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	5434901.5	1.038	0.0071	mg/L				0.68%
Ag 328.068	-2509.0	0.0001	0.00023	mg/L				159.63%
Al 308.215	5978.9	0.0032	0.00300	mg/L				93.65%
As 188.979	9.6	0.0233	0.00010	mg/L				0.42%
B 249.773	31462.5	0.3848	0.01098	mg/L				2.85%
Ba 233.527	7452.8	0.0616	0.00033	mg/L				0.54%
Be 313.107	-3259.0	0.0000	0.00001	mg/L				40.49%
Ca 315.887	14681283.8	88.78	0.175	mg/L				0.20%
C 6.502	-97.9	0.0002	0.00000	mg/L				0.16%
C .8.616	-199.2	0.0003	0.00009	mg/L				30.67%
Cr 267.716	460.7	0.0021	0.00005	mg/L				2.16%
Cu 324.754	3330.0	0.0054	0.00009	mg/L				1.74%
Fe 238.863	134.6	0.0081	0.00003	mg/L				0.39%
K 404.721	1355.8	22.91	0.847	mg/L				3.70%
Mg 279.079	753212.9	31.24	0.244	mg/L				0.78%

Mn 257.610	61617.9	0.1422	0.00187	mg/L	1.31%
Mo 202.030	136.6	0.0077	0.00014	mg/L	1.78%
Na 330.237	207330.6	216.4	3.63	mg/L	1.68%
N[illegible]1.604	-177.3	0.0017	0.00007	mg/L	4.15%
P[illegible]0.353	22.6	0.0000	0.00017	mg/L	442.36%
Sb 206.833	42.7	-0.0002	0.00025	mg/L	118.66%
Se 196.026	12.8	0.0102	0.00125	mg/L	12.30%
Sn 189.933	6121.2	0.5748	0.00013	mg/L	0.02%
Ti 334.941	-936.0	-0.0008	0.00001	mg/L	1.77%
Tl 190.800	-19.7	-0.0009	0.00071	mg/L	83.68%
V 292.402	11625.7	0.0463	0.00085	mg/L	1.82%
Zn 206.191	1280.6	0.0161	0.00004	mg/L	0.23%

Mean Data

ID: 525971 Seq. No.: 32 Sample No.: 19 A/S Pos: 27
Sample Qty: 1.0000 mL Prep. Vol.: 50.0 mL Dilution: 1.0: 1.0
Data: Original Date: 02/04/02 12:50:27 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 371.030	5558760.9	1.061	0.0018	mg/L				0.17%
Ag 328.068	-2393.8	0.0007	0.00024	mg/L				36.35%
Al 308.215	21422.9	0.6766	0.00163	mg/L				0.24%
As 188.979	46.7	0.0468	0.00091	mg/L				1.95%
B 249.773	28860.2	0.3511	0.00254	mg/L				0.72%
Ba 233.527	6406.1	0.0527	0.00012	mg/L				0.23%
Be 313.107	-3195.6	0.0000	0.00001	mg/L				38.14%
Ca 315.887	6248955.5	37.77	0.047	mg/L				0.12%
Cd 226.502	-105.0	0.0001	0.00000	mg/L				0.31%
Co 228.616	-189.7	0.0007	0.00013	mg/L				19.81%
Cr 267.716	395.6	0.0016	0.00001	mg/L				0.74%
Cu 324.754	2541.7	0.0030	0.00018	mg/L				6.05%
Fe 238.863	11757.4	0.4228	0.00081	mg/L				0.19%
K 404.721	994.2	18.48	0.602	mg/L				3.25%
Mg 279.079	333125.5	13.83	0.021	mg/L				0.15%
[illegible] 257.610	6387.8	0.0139	0.00002	mg/L				0.12%
[illegible]02.030	427.7	0.0228	0.00004	mg/L				0.17%
[illegible] 330.237	194188.8	202.6	0.71	mg/L				0.35%
Ni 231.604	-204.2	0.0011	0.00009	mg/L				7.68%
Pb 220.353	22.8	0.0000	0.00008	mg/L				772.95%
Sb 206.833	38.2	-0.0022	0.00071	mg/L				32.07%
Se 196.026	-9.3	0.0028	0.00096	mg/L				33.73%
Sn 189.933	3771.2	0.3517	0.00106	mg/L				0.30%
Ti 334.941	11865.6	0.0237	0.00021	mg/L				0.87%
Tl 190.800	-15.1	0.0012	0.00062	mg/L				49.93%
V 292.402	14102.7	0.0567	0.00012	mg/L				0.22%
Zn 206.191	515.5	0.0063	0.00006	mg/L				0.96%

Mean Data

ID: 525972 Seq. No.: 33 Sample No.: 20 A/S Pos: 28
Sample Qty: 1.0000 mL Prep. Vol.: 50.0 mL Dilution: 1.0: 1.0
Data: Original Date: 02/04/02 12:55:35 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 371.030	5411690.3	1.033	0.0048	mg/L				0.46%
Ag 328.068	-2405.7	0.0006	0.00025	mg/L				40.01%
Al 308.215	5839.9	-0.0029	0.00176	mg/L				61.56%
As 188.979	0.4	0.0175	0.00141	mg/L				8.07%
B 249.773	33936.5	0.4168	0.00210	mg/L				0.50%
Ba 233.527	7610.3	0.0630	0.00003	mg/L				0.04%
Be 313.107	-3286.8	0.0000	0.00001	mg/L				13.32%
Ca 315.887	11076476.6	66.97	0.124	mg/L				0.18%
Cd 226.502	-101.7	0.0002	0.00002	mg/L				11.17%
Co 228.616	-197.8	0.0003	0.00007	mg/L				19.07%
Cr 267.716	440.7	0.0020	0.00006	mg/L				2.94%
Cu 324.754	2391.7	0.0025	0.00018	mg/L				7.25%
[illegible]e 238.863	1702.8	0.0641	0.00028	mg/L				0.44%
404.721	1058.0	19.26	0.056	mg/L				0.29%
[illegible] 279.079	629755.1	26.12	0.045	mg/L				0.17%
Mn 257.610	563.7	0.0003	0.00000	mg/L				0.93%
Mo 202.030	89.1	0.0053	0.00015	mg/L				2.81%
Na 330.237	248793.4	259.8	0.80	mg/L				0.31%

Ni 231.604	-216.4	0.0009	0.00013 mg/L		15.21%
Pb 220.353	27.7	0.0007	0.00035 mg/L		50.89%
Sb 206.833	39.8	-0.0015	0.00122 mg/L		82.74%
Se 196.026	14.7	0.0108	0.00125 mg/L		11.56%
Sr 9.933	5672.1	0.5322	0.00117 mg/L		0.22%
T: .941	-843.3	-0.0006	0.00003 mg/L		5.59%
Tl 190.800	-17.3	0.0002	0.00067 mg/L		321.19%
V 292.402	1659.2	0.0047	0.00006 mg/L		1.22%
Zn 206.191	7945.8	0.1015	0.00009 mg/L		0.09%

Mean Data

ID: CCV Seq. No.: 34 Sample No.: 2 A/S Pos: 3
Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 02/04/02 1:00:52 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
' 371.030	5315988.4	1.015	0.0014	mg/L				0.14%
g 328.068	112454.0	0.5261	0.00533	mg/L				1.01%
l 308.215	241090.1	10.25	0.138	mg/L				1.35%
s 188.979	1767.0	1.135	0.0010	mg/L				0.09%
QC exceeds upper limit for As 188.979		Recovery = 113.53%		Action = Continue				
249.773	212061.2	2.722	0.0136	mg/L				0.50%
a 233.527	1264961.1	10.76	0.014	mg/L				0.13%
e 313.107	1878611.8	0.2561	0.00019	mg/L				0.07%
a 315.887	4322880.9	26.12	0.046	mg/L				0.18%
i 226.502	63611.5	0.5204	0.00579	mg/L				1.11%
o 228.616	70455.3	2.776	0.0331	mg/L				1.19%
QC exceeds upper limit for Co 228.616		Recovery = 111.05%		Action = Continue				
r 267.716	73102.2	0.5394	0.00553	mg/L				1.03%
a 324.754	416682.1	1.286	0.0139	mg/L				1.08%
a 238.863	148191.6	5.290	0.0600	mg/L				1.13%
404.721	1634.2	26.31	0.483	mg/L				1.84%
g 279.079	627050.9	26.01	0.290	mg/L				1.12%
a 257.610	359151.0	0.8338	0.00959	mg/L				1.15%
QC exceeds upper limit for Mn 257.610		Recovery = 111.17%		Action = Continue				
a 202.030	48319.0	2.498	0.0319	mg/L				1.28%
237	23443.9	23.91	0.279	mg/L				1.17%
604	97246.6	2.135	0.0240	mg/L				1.12%
a 220.353	3620.7	0.5139	0.00052	mg/L				0.10%
206.833	12033.6	5.362	0.0265	mg/L				0.49%
196.026	1553.1	0.5191	0.00397	mg/L				0.77%
189.933	56734.1	5.379	0.0511	mg/L				0.95%
334.941	1413580.2	2.710	0.0029	mg/L				0.11%
190.800	2263.9	1.028	0.0008	mg/L				0.07%
292.402	649535.1	2.712	0.0005	mg/L				0.02%
206.191	82023.9	1.051	0.0101	mg/L				0.96%

an Data

: CCB Seq. No.: 35 Sample No.: 4 A/S Pos: 1
mple Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 02/04/02 1:05:57 PM

ement	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
371.030	5575921.4	1.064	0.0013	mg/L				0.12%
328.068	-2278.7	0.0012	0.00001	mg/L				0.84%
308.215	5229.2	-0.0295	0.00563	mg/L				19.09%
188.979	-28.3	-0.0007	0.00100	mg/L				146.41%
49.773	6869.4	0.0665	0.01029	mg/L				15.47%
233.527	220.3	0.0001	0.00014	mg/L				169.18%
313.107	-2779.1	0.0000	0.00001	mg/L				37.96%
315.887	4273.6	0.0042	0.00066	mg/L				15.76%
226.502	-115.2	0.0001	0.00002	mg/L				32.62%
228.616	-194.9	0.0005	0.00002	mg/L				5.15%
267.716	152.1	-0.0002	0.00012	mg/L				76.83%
324.754	1994.8	0.0013	0.00021	mg/L				16.76%
238.863	-72.2	0.0008	0.00059	mg/L				77.93%
04.721	-327.6	2.306	0.4839	mg/L				20.98%
eds upper limit for K 404.721		Action = Continue						
2 9	-493.0	-0.0045	0.00063	mg/L				14.01%
257.610	222.2	-0.0005	0.00002	mg/L				4.08%
202.030	-1.2	0.0006	0.00017	mg/L				27.96%

330.237	763.2	0.1696	0.05556 mg/L	32.76%
2[illegible].604	-226.8	0.0007	0.00006 mg/L	9.26%
353	19.4	-0.0005	0.00011 mg/L	22.55%
[illegible].833	75.5	0.0145	0.00492 mg/L	33.96%

IC exceeds upper limit for Sb 206.833 Action = Continue

196.026	-19.4	-0.0005	0.00146 mg/L	310.51%
189.933	135.4	0.0066	0.00106 mg/L	15.99%
334.941	-139.7	0.0007	0.00019 mg/L	24.99%
190.800	-16.9	0.0004	0.00058 mg/L	138.47%
292.402	576.8	0.0002	0.00003 mg/L	20.38%
206.191	70.6	0.0006	0.00011 mg/L	17.50%

ean Data ----------

D: 525973 Seq. No.: 36 Sample No.: 21 A/S Pos: 29
ample Qty: 1.0000 mL Prep. Vol.: 50.0 mL Dilution: 1.0: 1.0
Data: Original Date: 02/04/02 1:11:03 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Units	Mean Conc.	Sample Std.Dev.	Units	RSD
371.030	5405587.0	1.032	0.0005	mg/L				0.05%
g 328.068	-2428.0	0.0005	0.00016	mg/L				32.03%
l 308.215	5748.2	-0.0069	0.00162	mg/L				23.63%
s 188.979	18.4	0.0289	0.00058	mg/L				2.02%
249.773	34657.9	0.4261	0.00259	mg/L				0.61%
a 233.527	5008.9	0.0408	0.00000	mg/L				0.01%
e 313.107	-3260.4	0.0000	0.00000	mg/L				4.51%
a 315.887	9559796.0	57.80	0.008	mg/L				0.01%
d 226.502	-108.1	0.0001	0.00002	mg/L				20.90%
o 228.616	-203.1	0.0001	0.00008	mg/L				56.71%
r 267.716	382.0	0.0015	0.00000	mg/L				0.26%
u 324.754	6060.8	0.0139	0.00018	mg/L				1.31%
e 238.863	611.7	0.0252	0.00011	mg/L				0.45%
404.721	1208.2	21.10	0.898	mg/L				4.26%
g 279.079	510761.4	21.19	0.110	mg/L				0.52%
n [illegible].610	230.1	-0.0004	0.00002	mg/L				3.85%
c [illegible].030	103.3	0.0060	0.00001	mg/L				0.19%
a [illegible]0.237	257945.2	269.4	1.53	mg/L				0.57%
i 231.604	-212.2	0.0010	0.00008	mg/L				8.54%
b 220.353	24.9	0.0003	0.00020	mg/L				68.61%
b 206.833	47.4	0.0019	0.00052	mg/L				27.39%
e 196.026	7.1	0.0083	0.00047	mg/L				5.65%
n 189.933	5098.9	0.4778	0.00014	mg/L				0.03%
i 334.941	-704.3	-0.0003	0.00012	mg/L				34.70%
l 190.800	-18.1	-0.0001	0.00028	mg/L				244.48%
292.402	7769.8	0.0302	0.00001	mg/L				0.02%
n 206.191	1068.5	0.0134	0.00008	mg/L				0.62%

Mean Data ----------

ID: 525974 Seq. No.: 37 Sample No.: 22 A/S Pos: 30
Sample Qty: 1.0000 mL Prep. Vol.: 50.0 mL Dilution: 1.0: 1.0
Data: Original Date: 02/04/02 1:16:09 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Units	Mean Conc.	Sample Std.Dev.	Units	RSD
Y 371.030	5399074.9	1.031	0.0039	mg/L				0.38%
Ag 328.068	-2443.0	0.0004	0.00018	mg/L				40.87%
Al 308.215	84570.5	3.430	0.0002	mg/L				0.01%
As 188.979	-11.6	0.0099	0.00122	mg/L				12.33%
B 249.773	46040.0	0.5734	0.00112	mg/L				0.19%
Ba 233.527	28816.6	0.2434	0.00041	mg/L				0.17%
Be 313.107	-3744.3	-0.0001	0.00000	mg/L				1.97%
Ca 315.887	3829300.9	23.14	0.004	mg/L				0.02%
Cd 226.502	-72.3	0.0004	0.00000	mg/L				1.04%
Co 228.616	-161.0	0.0018	0.00005	mg/L				2.71%
Cr 267.716	519.0	0.0026	0.00000	mg/L				0.19%
Cu 324.754	16662.2	0.0467	0.00016	mg/L				0.35%
Fe [illegible]38.863	86019.2	3.072	0.0057	mg/L				0.18%
I [illegible].721	669.8	14.51	0.429	mg/L				2.95%
Mg [illegible]79.079	244559.9	10.16	0.038	mg/L				0.37%
Mn 257.610	231286.3	0.5366	0.00104	mg/L				0.19%
Mo 202.030	70.6	0.0043	0.00001	mg/L				0.23%
Na 330.237	365878.9	382.3	0.89	mg/L				0.23%
Ni 231.604	-114.7	0.0031	0.00011	mg/L				3.46%

220.353	88.6	0.0094	0.00009	mg/L	0.98%
2 933	42.6	-0.0002	0.00064	mg/L	269.24%
26	-5.6	0.0041	0.00054	mg/L	13.24%
1[illegible].933	3132.6	0.2911	0.00061	mg/L	0.21%
334.941	63265.2	0.1223	0.00024	mg/L	0.20%
190.800	-26.7	-0.0040	0.00060	mg/L	14.99%
292.402	3576.1	0.0127	0.00012	mg/L	0.98%
206.191	11089.9	0.1418	0.00038	mg/L	0.27%

an Data

: 525975 Seq. No.: 38 Sample No.: 23 A/S Pos: 31
mple Qty: 1.0000 mL Prep. Vol.: 50.0 mL Dilution: 1.0: 1.0
Data: Original Date: 02/04/02 1:21:13 PM

ement	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
371.030	5756876.0	1.099	0.0090	mg/L				0.82%
328.068	-2332.5	0.0010	0.00003	mg/L				2.95%
308.215	5927.2	0.0009	0.00085	mg/L				90.33%
188.979	-29.6	-0.0015	0.00163	mg/L				108.05%
249.773	5210.5	0.0451	0.00130	mg/L				2.89%
233.527	256.5	0.0004	0.00002	mg/L				5.91%
313.107	-2746.7	0.0000	0.00000	mg/L				5.26%
315.887	20844.7	0.1044	0.00389	mg/L				3.72%
226.502	-107.8	0.0001	0.00000	mg/L				1.39%
228.616	-192.3	0.0006	0.00000	mg/L				0.21%
267.716	172.8	0.0000	0.00007	mg/L				>999.9%
324.754	1878.2	0.0009	0.00005	mg/L				6.01%
238.863	686.1	0.0278	0.00011	mg/L				0.39%
404.721	-373.0	1.750	0.7512	mg/L				42.91%
279.079	123.8	0.0211	0.00231	mg/L				10.97%
257.610	537.7	0.0003	0.00000	mg/L				1.21%
202.030	-9.7	0.0002	0.00003	mg/L				14.04%
330.237	871.5	0.2830	0.03391	mg/L				11.98%
.604	-199.6	0.0012	0.00004	mg/L				2.98%
.353	20.6	-0.0003	0.00004	mg/L				12.86%
206.833	38.8	-0.0019	0.00033	mg/L				17.13%
196.026	-16.6	0.0004	0.00000	mg/L				1.00%
189.933	118.7	0.0050	0.00004	mg/L				0.86%
334.941	739.7	0.0024	0.00000	mg/L				0.03%
190.800	-16.9	0.0004	0.00100	mg/L				245.23%
292.402	584.5	0.0002	0.00006	mg/L				33.01%
206.191	372.9	0.0045	0.00001	mg/L				0.16%

lean Data

[D: 525982 Seq. No.: 39 Sample No.: 24 A/S Pos: 32
Sample Qty: 1.0000 mL Prep. Vol.: 50.0 mL Dilution: 1.0: 1.0
Data: Original Date: 02/04/02 1:26:17 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	5545741.3	1.059	0.0067	mg/L				0.63%
Ag 328.068	-2343.3	0.0009	0.00024	mg/L				26.38%
Al 308.215	5343.1	-0.0245	0.00016	mg/L				0.65%
As 188.979	-28.6	-0.0009	0.00063	mg/L				68.39%
B 249.773	4747.5	0.0391	0.00267	mg/L				6.84%
Ba 233.527	198.3	-0.0001	0.00001	mg/L				10.46%
Be 313.107	-2814.9	0.0000	0.00001	mg/L				58.37%
Ca 315.887	10235.9	0.0403	0.00023	mg/L				0.56%
Cd 226.502	-112.1	0.0001	0.00001	mg/L				15.29%
Co 228.616	-203.7	0.0001	0.00022	mg/L				186.14%
Cr 267.716	180.0	0.0000	0.00010	mg/L				203.37%
Cu 324.754	1996.1	0.0013	0.00011	mg/L				8.94%
Fe 238.863	22.8	0.0041	0.00016	mg/L				3.80%
K 404.721	-404.8	1.362	0.3901	mg/L				28.65%
Mg 279.079	-132.3	0.0105	0.00109	mg/L				10.38%
M 57.610	253.8	-0.0004	0.00002	mg/L				4.45%
M 2.030	-7.7	0.0003	0.00008	mg/L				29.71%
Na 330.237	838.1	0.2480	0.06398	mg/L				25.80%
Ni 231.604	-235.4	0.0005	0.00025	mg/L				54.14%
Pb 220.353	18.8	-0.0006	0.00033	mg/L				57.01%
Sb 206.833	78.3	0.0157	0.00083	mg/L				5.29%
Se 196.026	-13.9	0.0013	0.00050	mg/L				37.56%

n 189.933	125.7	0.0057	0.00034 mg/L	6.00%
'i 334.941	-325.3	0.0004	0.00002 mg/L	3.95%
'l .800	-16.0	0.0008	0.00039 mg/L	46.92%
' . .402	623.1	0.0003	0.00024 mg/L	69.52%
in 206.191	247.6	0.0029	0.00014 mg/L	4.96%

Mean Data ----------

ID: 525987 Seq. No.: 40 Sample No.: 25 A/S Pos: 33
Sample Qty: 1.0000 mL Prep. Vol.: 50.0 mL Dilution: 1.0: 1.0
Data: Original Date: 02/04/02 1:31:21 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	5548784.9	1.059	0.0017	mg/L				0.16%
Ag 328.068	-2312.3	0.0010	0.00027	mg/L				25.60%
Al 308.215	6128.4	0.0097	0.00451	mg/L				46.39%
As 188.979	-32.1	-0.0031	0.00014	mg/L				4.51%
B 249.773	4244.4	0.0326	0.00114	mg/L				3.51%
Ba 233.527	292.4	0.0007	0.00003	mg/L				3.84%
Be 313.107	-2801.7	0.0000	0.00000	mg/L				13.42%
Ca 315.887	27526.3	0.1448	0.00080	mg/L				0.55%
Cd 226.502	-108.7	0.0001	0.00000	mg/L				0.49%
Co 228.616	-206.1	0.0000	0.00001	mg/L				37.22%
Cr 267.716	266.0	0.0007	0.00009	mg/L				13.86%
Cu 324.754	2033.5	0.0014	0.00010	mg/L				7.25%
Fe 238.863	3626.4	0.1327	0.00024	mg/L				0.18%
K 404.721	-449.4	0.8153	0.52991	mg/L				64.99%
Mg 279.079	466.0	0.0353	0.00002	mg/L				0.06%
Mn 257.610	1044.1	0.0015	0.00004	mg/L				2.88%
Mo 202.030	-5.1	0.0004	0.00003	mg/L				7.26%
Na 330.237	908.9	0.3221	0.05512	mg/L				17.12%
Ni 231.604	-216.8	0.0009	0.00000	mg/L				0.43%
Pb 220.353	20.1	-0.0004	0.00018	mg/L				47.58%
Sb 206.833	40.4	-0.0012	0.00051	mg/L				41.16%
S' 6.026	-11.4	0.0022	0.00078	mg/L				35.89%
S 9.933	127.8	0.0059	0.00010	mg/L				1.75%
Ti 334.941	338.4	0.0017	0.00002	mg/L				1.22%
Tl 190.800	-20.1	-0.0010	0.00041	mg/L				39.99%
V 292.402	631.1	0.0004	0.00016	mg/L				43.43%
Zn 206.191	2189.7	0.0278	0.00003	mg/L				0.11%

Mean Data ----------

ID: 525988 Seq. No.: 41 Sample No.: 26 A/S Pos: 34
Sample Qty: 1.0000 mL Prep. Vol.: 50.0 mL Dilution: 1.0: 1.0
Data: Original Date: 02/04/02 1:36:25 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	5561064.1	1.062	0.0036	mg/L				0.34%
Ag 328.068	-2335.5	0.0009	0.00012	mg/L				12.40%
Al 308.215	5519.8	-0.0168	0.00255	mg/L				15.18%
As 188.979	-27.5	-0.0002	0.00172	mg/L				773.00%
B 249.773	4025.5	0.0297	0.00073	mg/L				2.44%
Ba 233.527	209.7	0.0000	0.00002	mg/L				251.61%
Be 313.107	-2798.0	0.0000	0.00001	mg/L				28.35%
Ca 315.887	12026.3	0.0511	0.00167	mg/L				3.26%
Cd 226.502	-111.2	0.0001	0.00001	mg/L				15.37%
Co 228.616	-204.1	0.0001	0.00002	mg/L				20.33%
Cr 267.716	406.4	0.0017	0.00012	mg/L				7.10%
Cu 324.754	1851.6	0.0008	0.00002	mg/L				2.17%
Fe 238.863	463.9	0.0199	0.00035	mg/L				1.78%
K 404.721	-432.3	1.025	0.5771	mg/L				56.32%
Mg 279.079	-154.1	0.0096	0.00086	mg/L				8.97%
Mn 257.610	338.5	-0.0002	0.00002	mg/L				9.72%
Mo 202.030	-9.3	0.0002	0.00010	mg/L				48.41%
Na 330.237	876.4	0.2880	0.00741	mg/L				2.57%
N' 231.604	-237.2	0.0004	0.00013	mg/L				30.94%
20.353	17.7	-0.0007	0.00031	mg/L				42.30%
. 06.833	45.8	0.0012	0.00112	mg/L				91.99%
Se 196.026	-13.8	0.0014	0.00021	mg/L				15.51%
Sn 189.933	117.8	0.0050	0.00012	mg/L				2.39%
Ti 334.941	-175.5	0.0007	0.00001	mg/L				2.07%
Tl 190.800	-18.3	-0.0002	0.00136	mg/L				570.97%

:92.402	590.8	0.0002	0.00005 mg/L		22.10%
2 91	608.5	0.0075	0.00003 mg/L		0.42%

ın Data ----------

: 525996 Seq. No.: 42 Sample No.: 27 A/S Pos: 35
mple Qty: 1.0000 mL Prep. Vol.: 50.0 mL Dilution: 1.0: 1.0
Data: Original Date: 02/04/02 1:41:29 PM

ement	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Units	RSD
371.030	5550908.5	1.060	0.0028	mg/L				0.26%
328.068	37606.7	0.1837	0.00067	mg/L				0.37%
308.215	11736.9	0.2543	0.00148	mg/L				0.58%
188.979	148.9	0.1114	0.00012	mg/L				0.11%
249.773	91097.6	1.156	0.0061	mg/L				0.52%
ı 233.527	122864.4	1.044	0.0025	mg/L				0.24%
: 313.107	50183.4	0.0072	0.00003	mg/L				0.35%
ı 315.887	5818.9	0.0136	0.00045	mg/L				3.29%
ı 226.502	2069.4	0.0179	0.00002	mg/L				0.09%
› 228.616	-184.7	0.0009	0.00029	mg/L				33.80%
: 267.716	11400.6	0.0830	0.00073	mg/L				0.88%
ı 324.754	25751.3	0.0749	0.00034	mg/L				0.45%
ı 238.863	11596.8	0.4171	0.00269	mg/L				0.65%
404.721	-450.2	0.8065	0.61447	mg/L				76.19%
g 279.079	-294.8	0.0037	0.00279	mg/L				74.80%
n 257.610	34840.7	0.0800	0.00040	mg/L				0.50%
o 202.030	596.8	0.0315	0.00002	mg/L				0.07%
a 330.237	1005.5	0.4232	0.08241	mg/L				19.47%
i 231.604	16407.6	0.3649	0.00091	mg/L				0.25%
b 220.353	122.2	0.0142	0.00019	mg/L				1.32%
b 206.833	69.8	0.0119	0.00031	mg/L				2.63%
e 196.026	156.8	0.0577	0.00006	mg/L				0.11%
n 189.933	126.6	0.0058	0.00029	mg/L				5.01%
'i .941	-315.6	0.0004	0.00010	mg/L				24.13%
'l .800	-1.8	0.0072	0.00026	mg/L				3.63%
' ...402	81972.3	0.3403	0.00113	mg/L				0.33%
:n 206.191	44734.6	0.5731	0.00183	mg/L				0.32%

Mean Data ----------

ID: 526000 Seq. No.: 43 Sample No.: 28 A/S Pos: 36
Sample Qty: 1.0000 mL Prep. Vol.: 50.0 mL Dilution: 1.0: 1.0
Data: Original Date: 02/04/02 1:46:18 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Units	RSD
Y 371.030	5223130.7	0.997	0.0051	mg/L				0.51%
Ag 328.068	-7461.6	-0.0225	0.00013	mg/L				0.56%
Al 308.215	8317048.7	362.4	2.20	mg/L				0.61%
As 188.979	42.8	0.0948	0.00051	mg/L				0.54%
B 249.773	205385.5	2.635	0.0094	mg/L				0.36%
Ba 233.527	1272993.2	10.83	0.011	mg/L				0.10%
Be 313.107	-54812.6	-0.0071	0.00000	mg/L				0.00%
Ca 315.887	Saturated							
Cd 226.502	3115.2	0.0105	0.00019	mg/L				1.83%
Co 228.616	3809.1	0.1578	0.00275	mg/L				1.75%
Cr 267.716	47133.8	0.3473	0.00032	mg/L				0.09%
Cu 324.754	87439.9	0.2825	0.00053	mg/L				0.19%
Fe 238.863	7576251.7	270.3	1.38	mg/L				0.51%
K 404.721	6648.4	124.4	0.04	mg/L				0.03%
Mg 279.079	3807231.5	157.9	0.24	mg/L				0.15%
Mn 257.610	10351318.2	24.08 LR	0.086	mg/L				0.36%
Mo 202.030	561.9	0.0297	0.00002	mg/L				0.08%
Na 330.237	274539.4	287.8	0.22	mg/L				0.08%
Ni 231.604	9148.6	0.2059	0.00247	mg/L				1.20%
Pb 220.353	1223.3	0.1957	0.00568	mg/L				2.90%
Sb 206.833	-6.3	-0.0221	0.00116	mg/L				5.25%
96.026	27.1	0.0150	0.00042	mg/L				2.82%
.89.933	9822.9	0.3205	0.00048	mg/L				0.15%
Ti 334.941	6960209.9	13.34	0.058	mg/L				0.43%
Tl 190.800	-420.6	-0.1814	0.00701	mg/L				3.86%
V 292.402	195234.6	0.8136	0.00009	mg/L				0.01%
Zn 206.191	78024.5	0.9998	0.00096	mg/L				0.10%

n Data
01 Seq. No.: 44 Sample No.: 29 A/S Pos: 37
p. ty: 1.0000 mL Prep. Vol.: 50.0 mL Dilution: 1.0: 1.0
Data: Original Date: 02/04/02 1:50:32 PM

ement	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
371.030	5566736.4	1.063	0.0025	mg/L				0.23%
328.068	-7232.0	-0.0215	0.00007	mg/L				0.32%
308.215	8402019.4	366.1	0.61	mg/L				0.17%
188.979	18.2	0.0792	0.00717	mg/L				9.05%
249.773	202321.9	2.596	0.0155	mg/L				0.60%
233.527	1162792.0	9.891	0.0346	mg/L				0.35%
313.107	-57101.7	-0.0074	0.00001	mg/L				0.18%
315.887	Saturated							
226.502	2986.9	0.0094	0.00014	mg/L				1.44%
228.616	3909.3	0.1617	0.00024	mg/L				0.15%
267.716	44685.2	0.3292	0.00194	mg/L				0.59%
324.754	87868.4	0.2838	0.00018	mg/L				0.06%
238.863	7558615.0	269.7	0.01	mg/L				0.00%
404.721	6712.4	125.1	0.14	mg/L				0.11%
279.079	3865887.2	160.3	0.15	mg/L				0.09%
257.610	9538255.4	22.19	0.030	mg/L				0.13%
202.030	478.0	0.0254	0.00049	mg/L				1.93%
330.237	272935.3	286.1	0.71	mg/L				0.25%
231.604	8895.5	0.2004	0.00045	mg/L				0.23%
220.353	1250.0	0.1999	0.00074	mg/L				0.37%
206.833	-14.1	-0.0256	0.00617	mg/L				24.13%
196.026	6.4	0.0081	0.00959	mg/L				118.21%
189.933	9442.5	0.2751	0.00250	mg/L				0.91%
334.941	7172309.7	13.75	0.009	mg/L				0.07%
190.800	-393.3	-0.1692	0.00410	mg/L				2.42%
292.402	197513.4	0.8231	0.00250	mg/L				0.30%
.191	74915.1	0.9599	0.00348	mg/L				0.36%

lean Data
D: CCV Seq. No.: 45 Sample No.: 2 A/S Pos: 3
Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 02/04/02 1:55:12 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 371.030	5292592.7	1.010	0.0115	mg/L				1.14%
Ag 328.068	113541.4	0.5311	0.00279	mg/L				0.52%
Al 308.215	240101.5	10.21	0.068	mg/L				0.67%
As 188.979	1787.9	1.149	0.0090	mg/L				0.78%
*QC exceeds upper limit for As 188.979 Recovery = 114.85% Action = Continue								
B 249.773	212884.8	2.732	0.0410	mg/L				1.50%
Ba 233.527	1266598.9	10.77	0.018	mg/L				0.17%
Be 313.107	1883638.6	0.2568	0.00040	mg/L				0.15%
Ca 315.887	4329939.4	26.17	0.060	mg/L				0.23%
Cd 226.502	63724.4	0.5213	0.00476	mg/L				0.91%
Co 228.616	71799.4	2.829	0.0251	mg/L				0.89%
*QC exceeds upper limit for Co 228.616 Recovery = 113.16% Action = Continue								
Cr 267.716	73971.1	0.5458	0.00479	mg/L				0.88%
Cu 324.754	415376.6	1.282	0.0058	mg/L				0.45%
Fe 238.863	149520.2	5.338	0.0450	mg/L				0.84%
K 404.721	1367.4	23.05	1.091	mg/L				4.73%
Mg 279.079	631379.2	26.19	0.269	mg/L				1.03%
Mn 257.610	367682.2	0.8536	0.00834	mg/L				0.98%
*QC exceeds upper limit for Mn 257.610 Recovery = 113.81% Action = Continue								
Mo 202.030	48206.2	2.492	0.0206	mg/L				0.83%
Na 330.237	23357.3	23.82	0.183	mg/L				0.77%
Ni 231.604	97749.0	2.146	0.0185	mg/L				0.86%
Pb 220.353	3595.4	0.5103	0.00699	mg/L				1.37%
Sb 206.833	12149.1	5.414	0.0745	mg/L				1.38%
96.026	1523.6	0.5094	0.00871	mg/L				1.71%
89.933	56794.4	5.385	0.0598	mg/L				1.11%
Ti 334.941	1436874.7	2.755	0.0043	mg/L				0.16%
*QC exceeds upper limit for Ti 334.941 Recovery = 110.19% Action = Continue								
Tl 190.800	2232.1	1.014	0.0121	mg/L				1.19%
V 292.402	656865.8	2.743	0.0069	mg/L				0.25%
Zn 206.191	82790.3	1.061	0.0115	mg/L				1.08%

n a

Seq. No.: 46 Sample No.: 4 A/S Pos: 1
mple Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 02/04/02 2:00:17 PM

ement	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
371.030	5466304.7	1.044	0.0060	mg/L				0.58%
328.068	-2261.4	0.0013	0.00012	mg/L				9.66%
308.215	5212.2	-0.0302	0.00279	mg/L				9.21%
188.979	-31.3	-0.0026	0.00198	mg/L				75.70%
249.773	7268.1	0.0717	0.00837	mg/L				11.67%
233.527	282.2	0.0006	0.00015	mg/L				24.15%
313.107	-2617.8	0.0001	0.00000	mg/L				7.30%
315.887	5442.0	0.0113	0.00074	mg/L				6.57%
226.502	-114.3	0.0001	0.00006	mg/L				84.60%
228.616	-194.6	0.0005	0.00014	mg/L				28.73%
267.716	123.1	-0.0004	0.00021	mg/L				55.06%
324.754	2367.3	0.0024	0.00035	mg/L				14.54%
238.863	142.8	0.0084	0.00118	mg/L				13.97%
404.721	-508.3	0.0946	0.09342	mg/L				98.73%
r 279.079	-502.3	-0.0049	0.00005	mg/L				0.95%
n 257.610	764.2	0.0008	0.00007	mg/L				9.20%
o 202.030	-2.8	0.0005	0.00006	mg/L				10.68%
a 330.237	783.4	0.1907	0.00864	mg/L				4.53%
i 231.604	-223.5	0.0007	0.00010	mg/L				14.08%
b 220.353	19.6	-0.0005	0.00014	mg/L				29.78%
b 206.833	79.2	0.0161	0.00466	mg/L				28.93%
QC exceeds upper limit for Sb 206.833		Action = Continue						
e 196.026	-16.1	0.0006	0.00012	mg/L				20.14%
n 189.933	140.7	0.0071	0.00109	mg/L				15.33%
i 334.941	230.0	0.0015	0.00027	mg/L				18.69%
l 190.800	-14.9	0.0013	0.00151	mg/L				115.07%
402	579.6	0.0002	0.00020	mg/L				123.39%
n 206.191	119.5	0.0012	0.00009	mg/L				7.31%

ean Data

D: CRI Seq. No.: 47 Sample No.: 5 A/S Pos: 6
ample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 02/04/02 2:05:21 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
r 371.030	5552718.2	1.060	0.0077	mg/L				0.72%
Ag 328.068	1997.5	0.0208	0.00016	mg/L				0.79%
Al 308.215	5194.4	-0.0310	0.00121	mg/L				3.90%
As 188.979	7.8	0.0221	0.00263	mg/L				11.89%
B 249.773	4637.7	0.0377	0.00239	mg/L				6.34%
Ba 233.527	228.4	0.0002	0.00000	mg/L				0.92%
Be 313.107	69016.9	0.0098	0.00007	mg/L				0.68%
Ca 315.887	7226.0	0.0221	0.00041	mg/L				1.87%
Cd 226.502	1142.4	0.0103	0.00001	mg/L				0.11%
Co 228.616	2755.1	0.1164	0.00106	mg/L				0.91%
Cr 267.716	3039.8	0.0212	0.00053	mg/L				2.49%
Cu 324.754	17425.9	0.0491	0.00042	mg/L				0.85%
Fe 238.863	125.9	0.0078	0.00032	mg/L				4.15%
K 404.721	-425.2	1.112	0.1165	mg/L				10.47%
Mg 279.079	-455.6	-0.0029	0.00002	mg/L				0.53%
Mn 257.610	15244.1	0.0345	0.00016	mg/L				0.45%
Mo 202.030	-9.6	0.0002	0.00004	mg/L				21.93%
Na 330.237	751.8	0.1577	0.03765	mg/L				23.88%
Ni 231.604	3747.5	0.0877	0.00039	mg/L				0.45%
Pb 220.353	63.2	0.0058	0.00033	mg/L				5.71%
Sb 206.833	335.4	0.1307	0.00126	mg/L				0.97%
Se 196.026	17.5	0.0117	0.00051	mg/L				4.37%
S 99.933	104.5	0.0037	0.00008	mg/L				2.10%
S 34.941	-140.2	0.0007	0.00001	mg/L				1.13%
Tl 190.800	28.6	0.0209	0.00061	mg/L				2.93%
V 292.402	25959.2	0.1062	0.00063	mg/L				0.59%
Zn 206.191	3408.1	0.0434	0.00025	mg/L				0.58%

Mean Data

ID: ICSA Seq. No.: 48 Sample No.: 6 A/S Pos: 7
Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 02/04/02 2:10:58 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	4646410.4	0.887	0.0010	mg/L				0.11%
Ag 328.068	-5067.4	-0.0116	0.00008	mg/L				0.73%
Al 308.215	12079319.4	526.4	1.81	mg/L				0.34%
As 188.979	-91.1	-0.0046	0.00382	mg/L				83.17%
B 249.773	15530.2	0.1786	0.00209	mg/L				1.17%
Ba 233.527	-248.2	-0.0039	0.00015	mg/L				3.73%
Be 313.107	-3691.8	-0.0001	0.00000	mg/L				0.68%
Ca 315.887	79076915.3	478.3	0.85	mg/L				0.18%
Cd 226.502	1693.5	0.0035	0.00000	mg/L				0.01%
Co 228.616	-244.4	-0.0015	0.00022	mg/L				14.77%
Cr 267.716	949.6	0.0057	0.00006	mg/L				1.00%
Cu 324.754	-1935.1	0.0008	0.00008	mg/L				9.93%
Fe 238.863	5372991.5	191.7	0.14	mg/L				0.07%
K 404.721	-2702.4	-0.6986	0.07696	mg/L				11.02%
Mg 279.079	12937064.5	536.4	0.79	mg/L				0.15%
Mn 257.610	-5690.2	0.0023	0.00012	mg/L				5.08%
Mo 202.030	37.1	0.0026	0.00022	mg/L				8.45%
Na 330.237	540.3	0.0956	0.03162	mg/L				33.07%
Ni 231.604	-230.9	0.0006	0.00002	mg/L				2.74%
Pb 220.353	-273.9	-0.0033	0.00037	mg/L				11.06%
Sb 206.833	41.2	-0.0009	0.00133	mg/L				154.21%
Se 196.026	4.2	-0.0024	0.00089	mg/L				36.87%
Sn 189.933	14207.0	-0.7155	0.00533	mg/L				0.74%
Ti 334.941	-4181.3	-0.0070	0.00005	mg/L				0.75%
Tl 190.800	-43.2	-0.0115	0.00001	mg/L				0.08%
V 292.402	12800.6	0.0512	0.00038	mg/L				0.74%
Zn 206.191	1608.4	0.0058	0.00033	mg/L				5.65%

Mean Data
ID: ICSAB Seq. No.: 49 Sample No.: 7 A/S Pos: 8
Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 02/04/02 2:17:05 PM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 371.030	4690756.7	0.895	0.0010	mg/L				0.11%
Ag 328.068	248474.5	1.148	0.0009	mg/L				0.08%
Al 308.215	11997667.4	522.9	0.61	mg/L				0.12%
As 188.979	-104.8	-0.0135	0.00139	mg/L				10.26%
B 249.773	14869.5	0.1701	0.00008	mg/L				0.05%
Ba 233.527	65593.9	0.5563	0.00088	mg/L				0.16%
Be 313.107	3684135.7	0.5019	0.00015	mg/L				0.03%
Ca 315.887	78350182.4	473.9	0.08	mg/L				0.02%
Cd 226.502	119786.3	0.9678	0.00291	mg/L				0.30%
Co 228.616	13017.5	0.5196	0.00128	mg/L				0.25%
Cr 267.716	72585.7	0.5355	0.00074	mg/L				0.14%
Cu 324.754	173320.0	0.5436	0.00016	mg/L				0.03%
Fe 238.863	5333370.2	190.3	0.15	mg/L				0.08%
K 404.721	-2668.6	-0.4771	0.82241	mg/L				172.36%
Mg 279.079	12828581.0	531.9	0.07	mg/L				0.01%
Mn 257.610	236220.1	0.5645	0.00017	mg/L				0.03%
Mo 202.030	38.2	0.0027	0.00027	mg/L				10.18%
Na 330.237	777.9	0.3442	0.01367	mg/L				3.97%
Ni 231.604	43212.5	0.9518	0.00129	mg/L				0.14%
Pb 220.353	6391.6	0.9485	0.00226	mg/L				0.24%
Sb 206.833	40.3	-0.0013	0.00121	mg/L				94.32%
Se 196.026	3.1	-0.0027	0.00409	mg/L				150.69%
Sn 189.933	14031.3	-0.7150	0.00015	mg/L				0.02%
Ti 334.941	-4085.9	-0.0068	0.00004	mg/L				0.57%
Tl 190.800	-49.7	-0.0144	0.00255	mg/L				17.70%
V 292.402	141373.8	0.5885	0.00005	mg/L				0.01%
Zn 206.191	77846.9	0.9831	0.00271	mg/L				0.28%

Mean Data
ID: CCV Seq. No.: 50 Sample No.: 2 A/S Pos: 3
Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 02/04/02 2:22:49 PM

	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Units	Mean Conc.	Sample Std.Dev.	Units	RSD
Y 371.030	5243260.6	1.001	0.0078	mg/L				0.78%
Ag 328.068	115454.2	0.5399	0.00537	mg/L				0.99%
Al 308.215	245465.7	10.45	0.098	mg/L				0.94%
As 188.979	1821.4	1.170	0.0070	mg/L				0.60%
QC exceeds upper limit for As 188.979	Recovery = 116.97%	Action = Continue						
249.773	215990.8	2.772	0.0608	mg/L				2.19%
QC exceeds upper limit for B 249.773	Recovery = 110.90%	Action = Continue						
Ba 233.527	1268093.3	10.79	0.005	mg/L				0.05%
Be 313.107	1884715.3	0.2570	0.00005	mg/L				0.02%
Ca 315.887	4337984.5	26.22	0.003	mg/L				0.01%
Cd 226.502	64510.8	0.5277	0.00583	mg/L				1.10%
Co 228.616	73714.0	2.904	0.0272	mg/L				0.93%
QC exceeds upper limit for Co 228.616	Recovery = 116.17%	Action = Continue						
Cr 267.716	75654.9	0.5582	0.00634	mg/L				1.14%
QC exceeds upper limit for Cr 267.716	Recovery = 111.65%	Action = Continue						
Cu 324.754	420972.0	1.299	0.0117	mg/L				0.90%
Fe 238.863	152456.5	5.442	0.0540	mg/L				0.99%
K 404.721	1609.1	26.01	0.050	mg/L				0.19%
Mg 279.079	637863.3	26.46	0.012	mg/L				0.05%
Mn 257.610	377430.0	0.8762	0.00801	mg/L				0.91%
*QC exceeds upper limit for Mn 257.610	Recovery = 116.83%	Action = Continue						
Mo 202.030	48800.2	2.523	0.0273	mg/L				1.08%
Na 330.237	23674.3	24.15	0.266	mg/L				1.10%
Ni 231.604	99217.3	2.178	0.0206	mg/L				0.95%
Pb 220.353	3600.8	0.5111	0.00368	mg/L				0.72%
Sb 206.833	12310.4	5.486	0.0558	mg/L				1.02%
Se 196.026	1537.0	0.5138	0.00342	mg/L				0.67%
Sn 189.933	57594.9	5.461	0.0611	mg/L				1.12%
Ti 334.941	1451608.3	2.783	0.0001	mg/L				0.00%
*QC exceeds upper limit for Ti 334.941	Recovery = 111.32%	Action = Continue						
Tl 190.800	2234.6	1.015	0.0085	mg/L				0.84%
V 292.402	661931.9	2.764	0.0011	mg/L				0.04%
*QC exceeds upper limit for V 292.402	Recovery = 110.56%	Action = Continue						
Zn 206.191	84182.6	1.079	0.0102	mg/L				0.95%

Mean Data

ID: CCB Seq. No.: 51 Sample No.: 4 A/S Pos: 1
Sample Qty: 1.0000 g Prep. Vol.: 1.0 L Dilution: 1.0: 1.0
Data: Original Date: 02/04/02 2:27:55 PM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Units	Mean Conc.	Sample Std.Dev.	Units	RSD
Y 371.030	5376953.8	1.026	0.0075	mg/L				0.73%
Ag 328.068	-2277.4	0.0012	0.00009	mg/L				7.72%
Al 308.215	5254.9	-0.0284	0.00437	mg/L				15.39%
As 188.979	-30.9	-0.0024	0.00081	mg/L				34.21%
B 249.773	6664.2	0.0639	0.00763	mg/L				11.94%
Ba 233.527	267.4	0.0005	0.00012	mg/L				24.21%
Be 313.107	-2562.4	0.0001	0.00000	mg/L				6.48%
Ca 315.887	5201.0	0.0098	0.00114	mg/L				11.64%
Cd 226.502	-110.7	0.0001	0.00001	mg/L				6.46%
Co 228.616	-198.6	0.0003	0.00003	mg/L				8.11%
Cr 267.716	114.7	-0.0004	0.00027	mg/L				63.11%
Cu 324.754	2611.8	0.0032	0.00052	mg/L				16.35%
Fe 238.863	197.9	0.0104	0.00119	mg/L				11.48%
K 404.721	-386.1	1.590	0.0150	mg/L				0.94%
Mg 279.079	-328.4	0.0023	0.00079	mg/L				33.59%
Mn 257.610	422.8	0.0000	0.00005	mg/L				406.78%
Mo 202.030	-4.3	0.0005	0.00022	mg/L				48.74%
Na 330.237	786.5	0.1939	0.04560	mg/L				23.51%
Ni 231.604	-229.2	0.0006	0.00009	mg/L				14.66%
Pb 220.353	18.2	-0.0007	0.00036	mg/L				53.59%
Sb 206.833	81.0	0.0170	0.00506	mg/L				29.85%
*QC exceeds upper limit for Sb 206.833	Action = Continue							
Se 196.026	-16.6	0.0004	0.00051	mg/L				117.89%
Sn 189.933	150.4	0.0081	0.00132	mg/L				16.36%
Ti 334.941	-93.0	0.0008	0.00024	mg/L				28.51%
Tl 190.800	-15.6	0.0010	0.00012	mg/L				12.35%
V 292.402	637.1	0.0004	0.00024	mg/L				58.55%
Zn 206.191	129.5	0.0014	0.00020	mg/L				14.57%

Metals Cover Page

Instrument: Leeman

Analyst: SD

Date: 2/5/02

Data File: 05-1

Reviewed By: CH 2/6/02

Entered By: SD 2/6/02

Manager Approval: DCB 2/6/02

Starlims Run #	Analytes Used	Batch ID	Method Requested	Failed Analytes	Comments / Problems
74187	CrMn	~~M0Z~~ M2602047	1010B		to idle

Package Data:

to idle

Client Sub. #	Type Of Package	Analytes Used	Failed Metals	Batch ID	Standards Attached	How Was Data Transferred To LIMS	Raw Data Copied
R-10409	Pkg 5 / ASP	CrMn		M2602047	YES / NO	MARRS to LIMS / Run Created Above	YES / NO
	Pkg 5 / ASP				YES / NO	MARRS to LIMS / Run Created Above	YES / NO
	Pkg 5 / ASP				YES / NO	MARRS to LIMS / Run Created Above	YES / NO
	Pkg 5 / ASP				YES / NO	MARRS to LIMS / Run Created Above	YES / NO
	Pkg 5 / ASP				YES / NO	MARRS to LIMS / Run Created Above	YES / NO
	Pkg 5 / ASP				YES / NO	MARRS to LIMS / Run Created Above	YES / NO
	Pkg 5 / ASP				YES / NO	MARRS to LIMS / Run Created Above	YES / NO
	Pkg 5 / ASP				YES / NO	MARRS to LIMS / Run Created Above	YES / NO

ine	Conc.	Units	SD/RSD	1	2	3	4	5
** Standard: 1 Rep: 1				Seq: 8		11:25:50 05 Feb 2002 ICP		
g1	.0000	ppm		20176	21636	20501		
			Ave. Int. =	20771	S. D. =	767		
13	.0000	ppm		904	-353	1050		
			Ave. Int. =	534	S. D. =	771		
a1	.0000	ppm		56785	46480	46765		
			Ave. Int. =	50010	S. D. =	5869		
a3	.0000	ppm		15386	14278	14871		
			Ave. Int. =	14845	S. D. =	554		
:d1	.0000	ppm		-9674	-10313	-12539		
			Ave. Int. =	-10842	S. D. =	1504		
:r4	.0000	ppm		8154	8123	6495		
			Ave. Int. =	7591	S. D. =	949		
'e2	.0000	ppm		-3112	-4932	-3906		
			Ave. Int. =	-3983	S. D. =	912		
: 1	.0000	ppm		965	875	761		
			Ave. Int. =	867	S. D. =	102		
1g4	.0000	ppm		1137	-10	1258		
			Ave. Int. =	795	S. D. =	700		
1n1	.0000	ppm		-120	-589	-963		
			Ave. Int. =	-557	S. D. =	422		
Na2	.0000	ppm		1682	1383	1538		
			Ave. Int. =	1534	S. D. =	150		
Zn3	.0000	ppm		388	462	499		
			Ave. Int. =	450	S. D. =	57		

S DeVito
2/5/02

ine	Conc.	Units	SD/RSD	1	2	3	4	5
** Standard: 1 Rep: 2			Seq: 9		11:26:40 05 Feb 2002 ICP			
ig1	.0000	ppm	22061	11324	20409			
			Ave. Int. =	17931	S. D. =	5781		
il3	.0000	ppm	821	1233	2708			
			Ave. Int. =	1587	S. D. =	992		
Ba1	.0000	ppm	49323	44940	48557			
			Ave. Int. =	47607	S. D. =	2341		
Ca3	.0000	ppm	14411	14609	15812			
			Ave. Int. =	14944	S. D. =	758		
Cd1	.0000	ppm	-11589	-10811	-11135			
			Ave. Int. =	-11178	S. D. =	391		
Cr4	.0000	ppm	8218	7673	8443			
			Ave. Int. =	8111	S. D. =	396		
Fe2	.0000	ppm	-4044	-4485	-2940			
			Ave. Int. =	-3823	S. D. =	796		
K 1	.0000	ppm	799	991	1232			
			Ave. Int. =	1007	S. D. =	217		
Mg4	.0000	ppm	753	-941	1383			
			Ave. Int. =	398	S. D. =	1202		
Mn1	.0000	ppm	-770	-104	-987			
			Ave. Int. =	-620	S. D. =	460		
Na	.0000	ppm	635	818	562			
			Ave. Int. =	672	S. D. =	132		
Zn3	.0000	ppm	727	1095	1023			
			Ave. Int. =	948	S. D. =	195		

Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Standard: 2 Rep: 1			Seq: 10	11:30:07 05 Feb 2002 ICP				
Ag1	1.000	ppm		1598864	1606407	1640642		
			Ave. Int. =	1615304	S. D. =	22265		
Al3	20.00	ppm		2293946	2325555	2356485		
			Ave. Int. =	2325329	S. D. =	31270		
Ba1	20.00	ppm		486927104	495855924	501049026		
			Ave. Int. =	494610685	S. D. =	7142838		
Ca3	100.0	ppm		27823823	28133783	28312841		
			Ave. Int. =	28090149	S. D. =	247412		
Cd1	2.000	ppm		4486676	4543531	4574918		
			Ave. Int. =	4535042	S. D. =	44729		
Cr4	1.000	ppm		542076	550080	550844		
			Ave. Int. =	547667	S. D. =	4857		
Fe2	10.00	ppm		1986439	2003580	2031779		
			Ave. Int. =	2007266	S. D. =	22894		
K 1	100.0	ppm		80755	82749	83501		
			Ave. Int. =	82335	S. D. =	1419		
Mg4	100.0	ppm		4402634	4479214	4516574		
			Ave. Int. =	4466141	S. D. =	58084		
Mn1	1.500	ppm		1142160	1165537	1172973		
			Ave. Int. =	1160223	S. D. =	16079		
N	100.0	ppm		1991547	2029458	2057143		
			Ave. Int. =	2026049	S. D. =	32931		
Zn3	2.000	ppm		793854	798566	804248		
			Ave. Int. =	798889	S. D. =	5205		

Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Standard: 2 Rep: 2			Seq: 11		11:30:55 05 Feb 2002 ICP			
Ag1	1.000	ppm		1613325	1610611	1611178		
			Ave. Int. =	1611705	S. D. =	1432		
Al3	20.00	ppm		2315390	2314408	2327415		
			Ave. Int. =	2319071	S. D. =	7243		
Ba1	20.00	ppm		495247001	493451369	492917204		
			Ave. Int. =	493871858	S. D. =	1220490		
Ca3	100.0	ppm		27833886	28068568	28011980		
			Ave. Int. =	27971478	S. D. =	122471		
Cd1	2.000	ppm		4493475	4547175	4531774		
			Ave. Int. =	4524141	S. D. =	27652		
Cr4	1.000	ppm		541797	546548	547967		
			Ave. Int. =	545437	S. D. =	3231		
Fe2	10.00	ppm		1995047	2005406	2015858		
			Ave. Int. =	2005437	S. D. =	10406		
K 1	100.0	ppm		83050	82318	82615		
			Ave. Int. =	82661	S. D. =	368		
Mg4	100.0	ppm		4432017	4452744	4448062		
			Ave. Int. =	4444274	S. D. =	10870		
Mn1	1.500	ppm		1153117	1166240	1160602		
			Ave. Int. =	1159986	S. D. =	6583		
Na	100.0	ppm		2040248	2027440	2011896		
			Ave. Int. =	2026528	S. D. =	14198		
Zn3	2.000	ppm		789742	804333	801782		
			Ave. Int. =	798619	S. D. =	7793		

Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: HIGH CHECK 05-1			Seq: 13		11:34:20 05 Feb 2002 ICP			
Ag1	.9700	ppm	.4234 %	.9671	.9747	.9682		
Al3	19.46	ppm	.7321 %	19.35	19.62	19.41		
Ba1	19.45	ppm	.7721 %	19.33	19.62	19.40		
Ca3	97.68	ppm	.1867 %	97.63	97.88	97.52		
Cd1	1.946	ppm	.2246 %	1.949	1.948	1.941		
Cr4	.9750	ppm	.8640 %	.9833	.9754	.9664		
Fe2	9.748	ppm	.3432 %	9.734	9.786	9.724		
K 1	97.21	ppm	1.088 %	96.30	98.37	96.96		
Mg4	97.29	ppm	.2234 %	97.11	97.53	97.22		
Mn1	1.467	ppm	.3355 %	1.467	1.471	1.461		
Na2	97.28	ppm	1.076 %	96.43	98.44	96.96		
Zn3	1.948	ppm	.2966 %	1.945	1.945	1.955		
*** Sample ID: ICV			05-1 Seq: 14		11:37:42 05 Feb 2002 ICP			
Ag1	.5017	ppm	.5429 %	.5018	.5044	.4990		
Al3	9.899	ppm	.8510 %	9.864	9.995	9.837		
Ba1	9.737	ppm	.7158 %	9.701	9.817	9.692		
Ca3	49.69	ppm	.3321 %	49.80	49.78	49.50		
Cd1	.9999	ppm	.3664 %	1.004	.9979	.9976		
Cr4	.5008	ppm	.5469 %	.4987	.5039	.4997		
Fe2	5.050	ppm	.0414 %	5.048	5.051	5.052		
K 1	48.90	ppm	.9436 %	48.55	49.42	48.73		
Mg4	48.69	ppm	.8359 %	48.60	49.14	48.34		
Mn1	.7555	ppm	.7477 %	.7592	.7583	.7490		
Na2	49.71	ppm	.7597 %	49.58	50.14	49.42		
Zn3	1.007	ppm	.6670 %	1.015	1.003	1.004		
*** Sample ID: ICB			05-1 Seq: 15		11:41:04 05 Feb 2002 ICP			
Ag1	-.0012 L	ppm	-115.8%	-.0024	.0003	-.0015		
Al3	.0018 L	ppm	419.9 %	-.0052	.0008	.0098		
Ba1	.0011 L	ppm	130.2 %	.0002	.0003	.0028		
Ca3	.0089 L	ppm	143.1 %	.0026	.0006	.0235		
Cd1	.0001 L	ppm	496.2 %	-.0004	.0006	.0001		
Cr4	.0003 L	ppm	715.1 %	.0025	-.0023	.0008		
Fe2	.0066 L	ppm	23.64 %	.0080	.0049	.0070		
K 1	-.0842 L	ppm	-6.877%	-.0822	-.0908	-.0797		
Mg4	.0187 L	ppm	58.02 %	.0134	.0115	.0311		
Mn1	.0003 L	ppm	31.97 %	.0002	.0004	.0004		
Na2	.0344 L	ppm	29.94 %	.0306	.0266	.0461		
Zn3	-.0003 L	ppm	-159.7%	.0002	-.0006	-.0005		

ne	Conc.	Units	SD/RSD	1	2	3	4	5
* Sample ID: CRI			05-1	Seq: 17		11:44:26 05 Feb 2002 ICP		
1	.0191	ppm	7.137 %	.0186	.0206	.0180		
3	.0000 L	ppm	393000%	.0105	-.0228	.0124		
1	.0003 L	ppm	135.8 %	-.0000	.0001	.0007		
3	.0119 L	ppm	52.91 %	.0073	.0073	.0190		
1	.0099	ppm	6.649 %	.0094	.0096	.0107		
4	.0206	ppm	9.608 %	.0198	.0191	.0228		
2	.0049 L	ppm	91.86 %	.0044	.0007	.0097		
1	-.0519 L	ppm	-366.8%	.1644	-.1252	-.1950		
4	.0117 L	ppm	81.16 %	.0013	.0139	.0199		
1	.0319	ppm	.9177 %	.0320	.0315	.0321		
2	.0630 L	ppm	77.73 %	.0288	.1191	.0411		
3	.0429	ppm	3.665 %	.0415	.0446	.0427		
** Sample ID: ICSA			05-1	Seq: 18		11:47:48 05 Feb 2002 ICP		
g1	.0002 L	ppm	1422. %	.0015	-.0035	.0027		
13	488.4	ppm	1.262 %	481.4	493.0	490.8		
a1	-.0008 L	ppm	-6.117%	-.0009	-.0008	-.0008		
a3	470.3	ppm	.8576 %	466.0	474.0	470.9		
d	.0002 L	ppm	680.4 %	.0006	.0012	-.0013		
r4	.0043 L	ppm	88.51 %	.0030	.0086	.0013		
e2	179.3	ppm	.9411 %	177.4	180.7	179.7		
1	.1238 L	ppm	56.14 %	.1808	.1443	.0464		
g4	495.9	ppm	.9775 %	490.4	499.7	497.6		
n1	-.0017 L	ppm	-10.64%	-.0016	-.0018	-.0015		
a2	.0800 L	ppm	47.89 %	.0490	.0681	.1228		
n3	-.0102 L	ppm	-35.55%	-.0143	-.0082	-.0080		
*** Sample ID: ICSAB			05-1	Seq: 19		11:51:10 05 Feb 2002 ICP		
g1	.9792	ppm	.5568 %	.9735	.9798	.9843		
13	490.7	ppm	.5418 %	488.5	489.9	493.7		
a1	.4597	ppm	.4824 %	.4580	.4590	.4622		
a3	479.4	ppm	.9064 %	475.6	478.4	484.1		
d1	.9045	ppm	.8423 %	.8983	.9023	.9130		
r4	.4583	ppm	1.797 %	.4504	.4576	.4669		
Fe2	182.1	ppm	.7509 %	181.0	181.6	183.6		
K 1	.2524 L	ppm	73.72 %	.3305	.3867	.0400		
Mg4	503.1 H	ppm	.8046 %	499.7	501.9	507.6		
Mn1	.4642	ppm	.4938 %	.4626	.4632	.4669		
Na2	.1434 L	ppm	19.96 %	.1333	.1212	.1757		
Zn3	.9105	ppm	1.380 %	.9009	.9059	.9247		

ne	Conc.	Units	SD/RSD	1	2	3	4	5
** Sample ID: CCV			05-1	Seq: 21		11:54:33 05 Feb 2002 ICP		
11	.5001	ppm	1.030 %	.4952	.4997	.5054		
13	9.799	ppm	1.550 %	9.626	9.860	9.911		
a1	9.683	ppm	1.314 %	9.536	9.763	9.750		
a3	50.02	ppm	.7966 %	49.74	49.85	50.48		
d1	1.008	ppm	.8101 %	1.007	1.000	1.016		
r4	.4992	ppm	.7662 %	.4949	.5001	.5024		
e2	5.091	ppm	1.026 %	5.057	5.065	5.152		
1	49.22	ppm	1.642 %	48.41	49.21	50.03		
g4	48.62	ppm	.9437 %	48.15	48.66	49.06		
n1	.7564	ppm	.9166 %	.7492	.7570	.7630		
a2	49.80	ppm	1.542 %	48.92	50.21	50.28		
n3	1.015	ppm	1.474 %	1.007	1.006	1.032		
** Sample ID: CCB			05-1	Seq: 22		11:57:56 05 Feb 2002 ICP		
g1	-.0007 L	ppm	-90.93%	-.0000	-.0012	-.0007		
l3	.0224 L	ppm	102.2 %	.0149	.0042	.0480		
a1	.0005 L	ppm	122.2 %	.0003	.0000	.0013		
a3	.0162 L	ppm	121.9 %	.0069	.0028	.0390		
d	-.0003 L	ppm	-326.6%	-.0003	-.0014	.0007		
r4	-.0015 L	ppm	-66.15%	-.0019	-.0023	-.0004		
e2	.0116 L	ppm	36.51 %	.0080	.0105	.0163		
1	-.0744 L	ppm	-254.4%	-.0258	-.2833	.0858		
g4	.0461 L	ppm	44.41 %	.0250	.0475	.0659		
n1	.0002 L	ppm	319.6 %	-.0004	.0006	.0003		
a2	.0144 L	ppm	368.3 %	-.0060	-.0255	.0748		
n3	-.0011 L	ppm	-98.40%	-.0010	-.0001	-.0022		
*** Sample ID: PBW 1/29			05-1	Seq: 23		12:01:19 05 Feb 2002 ICP		
			M2620147					
Ag1	.0013 L	ppm	123.7 %	.0030	-.0002	.0011		
Al3	.0063 L	ppm	204.5 %	-.0086	.0134	.0141		
Ba1	.0001 L	ppm	83.63 %	.0001	.0000	.0001		
Ca3	.0117 L	ppm	27.13 %	.0092	.0107	.0152		
Cd1	-.0004 L	ppm	-168.6%	-.0012	.0003	-.0004		
Cr4	.0004 L	ppm	424.4 %	.0024	-.0010	-.0002		
Fe2	.0073 L	ppm	86.96 %	.0068	.0138	.0012		
K 1	-.0062 L	ppm	-1623.%	.0564	.0466	-.1215		
Mg4	.0261 L	ppm	52.55 %	.0241	.0135	.0407		
Mn1	-.0000 L	ppm	-1271.%	.0002	.0001	-.0003		
Na2	.0794 L	ppm	45.14 %	.0900	.1088	.0395		
Zn3	-.0004 L	ppm	-750.0%	.0024	-.0004	-.0031		

ine	Conc.	Units	SD/RSD	1	2	3	4	5
** Sample ID: LCSW		05-1	Seq: 25	12:04:42 05 Feb 2002 ICP				
			M2620147					
g1	.0513	ppm	4.836 %	.0538	.0488	.0513		
l3	2.009	ppm	.6159 %	1.997	2.007	2.022		
a1	1.979	ppm	.5831 %	1.973	1.973	1.993		
a3	2.043	ppm	1.125 %	2.017	2.056	2.057		
d1	.0536	ppm	.5899 %	.0540	.0534	.0534		
r4	.2147	ppm	.9219 %	.2155	.2160	.2124		
e2	1.060	ppm	1.066 %	1.049	1.059	1.072		
1	20.13	ppm	.9141 %	20.21	19.92	20.26		
g4	1.913	ppm	1.352 %	1.890	1.941	1.907		
n1	.5317	ppm	.9007 %	.5261	.5340	.5348		
a2	20.59	ppm	.9581 %	20.46	20.49	20.82		
n3	.5340	ppm	1.149 %	.5270	.5365	.5385		
*** Sample ID: 525947		05-1	Seq: 26	12:08:06 05 Feb 2002 ICP				
g1	.0001 L	ppm	1225. %	.0022	-.0011	-.0006		
l3	.2858	ppm	.9280 %	.2831	.2858	.2884		
a1	.1319	ppm	.9311 %	.1328	.1305	.1324		
a3	51.72	ppm	.4237 %	51.97	51.63	51.56		
d	-.0003 L	ppm	-324.3%	-.0010	-.0005	.0007		
r4	.0023 L	ppm	49.09 %	.0015	.0036	.0018		
e2	.5191	ppm	2.285 %	.5095	.5324	.5155		
K 1	12.49	ppm	2.340 %	12.63	12.15	12.68		
g4	1.943	ppm	.9839 %	1.934	1.965	1.929		
n1	.1460	ppm	.4499 %	.1453	.1466	.1461		
a2	6.644	ppm	1.511 %	6.754	6.558	6.620		
n3	.3467	ppm	.5472 %	.3485	.3467	.3447		
*** Sample ID: 525947D		05-1	Seq: 27	12:11:30 05 Feb 2002 ICP				
g1	-.0001 L	ppm	-421.1%	.0003	.0001	-.0007		
l3	.2397	ppm	2.194 %	.2339	.2408	.2443		
a1	.1339	ppm	.1512 %	.1341	.1337	.1338		
a3	52.73	ppm	.2197 %	52.61	52.84	52.74		
d1	-.0002 L	ppm	-298.5%	-.0007	.0004	-.0003		
r4	.0003 L	ppm	78.81 %	.0002	.0002	.0006		
e2	.5420	ppm	.7781 %	.5383	.5466	.5412		
K 1	12.76	ppm	2.214 %	12.44	12.98	12.87		
g4	2.037	ppm	1.249 %	2.012	2.036	2.063		
n1	.1474	ppm	.7944 %	.1483	.1461	.1478		
a2	6.763	ppm	.7224 %	6.713	6.811	6.766		
n3	.3461	ppm	.6143 %	.3463	.3481	.3439		

ne	Conc.	Units	SD/RSD	1	2	3	4	5
** Sample ID: 525947S		05-1	Seq: 29		12:14:54 05 Feb 2002 ICP			
g1	.0531	ppm	5.406 %	.0499	.0554	.0541		
l3	2.207	ppm	1.591 %	2.217	2.167	2.235		
a1	2.090	ppm	1.217 %	2.107	2.061	2.102		
a3	53.95	ppm	.5072 %	54.04	53.65	54.17		
d1	.0520	ppm	1.301 %	.0520	.0514	.0527		
r4	.2118	ppm	1.428 %	.2119	.2147	.2087		
e2	1.561	ppm	1.785 %	1.573	1.530	1.582		
1	32.79	ppm	1.829 %	33.24	32.11	33.03		
g4	3.881	ppm	.3011 %	3.893	3.869	3.880		
n1	.6673	ppm	.4620 %	.6669	.6643	.6705		
a2	26.48	ppm	.7937 %	26.61	26.24	26.60		
n3	.8648	ppm	.5263 %	.8697	.8638	.8608		
** Sample ID: 525947A		05-1	Seq: 30		12:18:17 05 Feb 2002 ICP			
g1	.0488	ppm	4.490 %	.0464	.0496	.0505		
l3	2.212	ppm	.9403 %	2.195	2.206	2.235		
a1	2.025	ppm	1.291 %	2.010	2.011	2.056		
a3	53.92	ppm	.5692 %	53.90	53.63	54.24		
d1	.0502	ppm	2.231 %	.0490	.0506	.0511		
r4	.2020	ppm	1.824 %	.2021	.1982	.2056		
e2	1.549	ppm	1.232 %	1.544	1.533	1.570		
1	32.08	ppm	.5660 %	31.94	32.02	32.29		
g4	3.841	ppm	2.217 %	3.812	3.773	3.936		
n1	.6506	ppm	.6411 %	.6492	.6473	.6553		
a2	25.84	ppm	1.951 %	25.56	25.53	26.42		
n3	.8594	ppm	.9955 %	.8538	.8551	.8692		
*** Sample ID: 525947L		05-1	Seq: 31		12:21:41 05 Feb 2002 ICP			
g1	-.0013 L	ppm	-85.55%	-.0019	-.0000	-.0021		
l3	.0523 L	ppm	23.65 %	.0558	.0627	.0386		
a1	.0286	ppm	.5533 %	.0285	.0284	.0287		
a3	11.07	ppm	.3176 %	11.11	11.07	11.04		
d1	-.0003 L	ppm	-244.8%	-.0005	.0005	-.0008		
r4	-.0004 L	ppm	-929.1%	-.0031	-.0017	.0037		
e2	.1169	ppm	1.235 %	.1183	.1172	.1154		
1	2.591	ppm	6.430 %	2.770	2.442	2.559		
g4	.4353 L	ppm	2.698 %	.4217	.4426	.4415		
n1	.0308	ppm	4.161 %	.0293	.0316	.0315		
a2	1.407	ppm	1.575 %	1.384	1.428	1.411		
n3	.0784	ppm	4.198 %	.0775	.0821	.0757		

ne	Conc.	Units	SD/RSD	1	2	3	4	5
** Sample ID: 525948		05-1	Seq: 33	12:25:04 05 Feb 2002 ICP				
g1	.0030 L	ppm	80.54 %	.0049	.0038	.0003		
l3	.2002	ppm	4.762 %	.2101	.1910	.1994		
a1	.1320	ppm	1.131 %	.1308	.1337	.1316		
a3	53.19	ppm	.5720 %	52.92	53.52	53.13		
d1	-.0002 L	ppm	-162.8%	-.0003	-.0005	.0002		
r4	.0027 L	ppm	22.24 %	.0028	.0033	.0021		
e2	.4375	ppm	.6890 %	.4347	.4407	.4371		
1	12.91	ppm	2.258 %	12.68	12.80	13.24		
lg4	2.091	ppm	.5700 %	2.091	2.103	2.079		
ln1	.1360	ppm	1.265 %	.1370	.1369	.1340		
la2	6.651	ppm	.7618 %	6.607	6.706	6.641		
:n3	.2283	ppm	.5890 %	.2297	.2271	.2282		
*** Sample ID: 525949		05-1	Seq: 34	12:28:26 05 Feb 2002 ICP				
\g1	.0008 L	ppm	193.9 %	.0010	.0024	-.0009		
\l3	.0126 L	ppm	166.9 %	-.0023	.0034	.0365		
Ba1	.0297	ppm	1.386 %	.0292	.0300	.0299		
:r	70.93	ppm	.9967 %	70.14	71.51	71.14		
:t	-.0006 L	ppm	-21.85%	-.0008	-.0005	-.0007		
Cr4	-.0003 L	ppm	-389.2%	-.0009	-.0013	.0012		
Fe2	.1195	ppm	2.166 %	.1197	.1168	.1220		
K 1	11.78	ppm	2.058 %	11.56	11.74	12.04		
Mg4	19.09	ppm	1.082 %	18.87	19.27	19.14		
Mn1	.0002 L	ppm	330.8 %	-.0004	.0011	-.0000		
Na2	195.5	ppm	1.246 %	194.3	198.3	193.8		
Zn3	.2560	ppm	2.183 %	.2496	.2602	.2581		
*** Sample ID: 525950		05-1	Seq: 35	12:31:48 05 Feb 2002 ICP				
Ag1	.0007 L	ppm	238.8 %	-.0006	.0026	.0001		
Al3	.0009 L	ppm	1098. %	.0104	-.0097	.0020		
Ba1	.0298	ppm	.6857 %	.0298	.0296	.0300		
Ca3	71.49	ppm	.2726 %	71.28	71.67	71.52		
Cd1	-.0000 L	ppm	-1381.%	-.0000	-.0007	.0006		
Cr4	-.0000 L	ppm	-39060%	.0049	-.0024	-.0026		
Fe2	.0891 L	ppm	4.757 %	.0903	.0844	.0926		
K 1	12.07	ppm	2.264 %	11.86	11.96	12.37		
Mg4	19.22	ppm	.3845 %	19.15	19.22	19.30		
Mn1	.0006 L	ppm	24.02 %	.0007	.0005	.0005		
Na2	196.5	ppm	1.367 %	196.4	193.9	199.3		
Zn3	.1144	ppm	1.474 %	.1161	.1143	.1128		

Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: CCV			05-1	Seq: 37		12:35:10 05 Feb 2002 ICP		
Ag1	.5088	ppm	1.857 %	.4997	.5186	.5082		
Al3	10.02	ppm	.0940 %	10.03	10.03	10.01		
Ba1	9.784	ppm	.1761 %	9.775	9.804	9.773		
Ca3	52.31	ppm	.0403 %	52.31	52.33	52.28		
Cd1	1.059	ppm	.0791 %	1.059	1.058	1.059		
Cr4	.5239	ppm	1.117 %	.5305	.5195	.5217		
Fe2	5.260	ppm	.4187 %	5.283	5.258	5.239		
K 1	49.73	ppm	.2974 %	49.90	49.62	49.68		
Mg4	50.20	ppm	.0982 %	50.22	50.14	50.23		
Mn1	.7842	ppm	.4993 %	.7833	.7808	.7885		
Na2	50.43	ppm	.0845 %	50.45	50.45	50.38		
Zn3	1.073	ppm	.6943 %	1.066	1.081	1.072		
*** Sample ID: CCB			05-1	Seq: 38		12:38:33 05 Feb 2002 ICP		
Ag1	.0007 L	ppm	179.5 %	.0015	-.0008	.0015		
Al3	.0081 L	ppm	64.87 %	.0044	.0141	.0058		
Ba1	.0007 L	ppm	74.96 %	.0004	.0004	.0013		
Ca3	.0084 L	ppm	58.17 %	.0074	.0041	.0138		
[illegible]	.0001 L	ppm	708.3 %	-.0006	.0008	.0001		
[illegible]	.0014 L	ppm	108.9 %	.0027	.0020	-.0003		
Fe2	.0057 L	ppm	49.59 %	.0060	.0028	.0084		
K 1	.0924 L	ppm	107.8 %	-.0110	.1877	.1006		
Mg4	-.0192 L	ppm	-37.51%	-.0275	-.0149	-.0152		
Mn1	.0002 L	ppm	209.9 %	-.0001	.0006	-.0000		
Na2	.0003 L	ppm	11520 %	-.0375	.0007	.0378		
Zn3	-.0009 L	ppm	-114.3%	.0003	-.0014	-.0015		
*** Sample ID: 525952			05-1	Seq: 39		12:41:55 05 Feb 2002 ICP		
Ag1	.0006 L	ppm	224.7 %	.0021	-.0002	-.0001		
Al3	.0125 L	ppm	116.4 %	-.0038	.0240	.0172		
Ba1	.0416	ppm	.3201 %	.0415	.0415	.0417		
Ca3	40.47	ppm	.0702 %	40.47	40.49	40.44		
Cd1	-.0000 L	ppm	-2840.%	-.0001	.0007	-.0006		
Cr4	-.0001 L	ppm	-2095.%	-.0019	.0019	-.0003		
Fe2	.0172 L	ppm	13.46 %	.0159	.0158	.0199		
K 1	11.97	ppm	1.465 %	12.05	11.77	12.09		
Mg4	15.45	ppm	.2795 %	15.42	15.42	15.49		
Mn1	.0015 L	ppm	4.804 %	.0015	.0014	.0015		
Na2	209.5	ppm	.6603 %	209.4	208.1	210.9		
Zn3	.0341	ppm	3.050 %	.0352	.0331	.0340		

Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: 525953	05-1		Seq: 41	12:45:19 05 Feb 2002 ICP				
Ag1	.0029 L	ppm	85.69 %	.0037	.0001	.0049		
Al3	.0019 L	ppm	265.9 %	.0026	.0066	-.0035		
Ba1	.0400	ppm	.8277 %	.0397	.0400	.0404		
Ca3	68.86	ppm	.3637 %	68.58	68.97	69.04		
Cd1	-.0002 L	ppm	-343.1%	-.0002	.0004	-.0008		
Cr4	.0002 L	ppm	86.69 %	.0001	.0001	.0005		
Fe2	.0129 L	ppm	34.92 %	.0177	.0123	.0088		
K 1	11.76	ppm	.6591 %	11.68	11.76	11.83		
Mg4	26.57	ppm	1.049 %	26.31	26.54	26.87		
Mn1	.0573	ppm	2.628 %	.0562	.0590	.0566		
Na2	129.8	ppm	1.343 %	128.1	129.6	131.6		
Zn3	.0283	ppm	9.042 %	.0299	.0296	.0253		
*** Sample ID: 525954	05-1		Seq: 42	12:48:42 05 Feb 2002 ICP				
Ag1	-.0008 L	ppm	-261.4%	.0013	-.0028	-.0009		
Al3	.0069 L	ppm	262.0 %	.0133	-.0134	.0208		
Ba1	.0278	ppm	.1207 %	.0278	.0278	.0278		
Ca3	71.70	ppm	.5024 %	71.93	71.88	71.28		
Cr	.0005 L	ppm	182.0 %	.0012	-.0006	.0010		
Cu	.0020 L	ppm	40.65 %	.0015	.0015	.0029		
Fe2	.0206 L	ppm	24.27 %	.0253	.0153	.0213		
K 1	12.21	ppm	1.013 %	12.31	12.08	12.25		
Mg4	26.78	ppm	.4751 %	26.70	26.93	26.72		
Mn1	.0028 L	ppm	29.58 %	.0025	.0037	.0021		
Na2	162.5	ppm	1.219 %	160.2	164.0	163.3		
Zn3	.0085 L	ppm	26.97 %	.0112	.0070	.0074		
*** Sample ID: 525954D	05-1		Seq: 43	12:52:06 05 Feb 2002 ICP				
Ag1	-.0005 L	ppm	-262.5%	-.0020	.0002	.0003		
Al3	.0126 L	ppm	47.65 %	.0164	.0157	.0057		
Ba1	.0274	ppm	.8041 %	.0272	.0276	.0273		
Ca3	70.82	ppm	.1599 %	70.79	70.95	70.73		
Cd1	-.0006 L	ppm	-64.00%	-.0002	-.0008	-.0008		
Cr4	.0015 L	ppm	134.9 %	.0037	-.0004	.0013		
Fe2	.0050 L	ppm	29.04 %	.0034	.0051	.0063		
K 1	12.02	ppm	1.361 %	11.87	12.19	12.01		
Mg4	26.28	ppm	.5950 %	26.12	26.43	26.29		
Mn1	.0019 L	ppm	37.25 %	.0027	.0015	.0015		
Na2	157.7	ppm	.5649 %	157.7	158.6	156.9		
Zn3	.0083 L	ppm	13.62 %	.0070	.0088	.0090		

ine	Conc.	Units	SD/RSD	1	2	3	4	5
** Sample ID: 525954S		05-1	Seq: 45	12:55:30 05 Feb 2002 ICP				
g1	.0485	ppm	2.115 %	.0474	.0487	.0494		
l3	2.009	ppm	.1661 %	2.009	2.012	2.005		
a1	1.901	ppm	.5066 %	1.911	1.898	1.893		
a3	71.18	ppm	.1899 %	71.07	71.15	71.33		
d1	.0514	ppm	1.012 %	.0510	.0514	.0520		
r4	.2098	ppm	2.292 %	.2056	.2150	.2087		
e2	1.033	ppm	.2097 %	1.030	1.034	1.034		
1	30.98	ppm	1.028 %	30.87	31.34	30.73		
g4	27.41	ppm	.3154 %	27.35	27.37	27.51		
n1	.5196	ppm	.4225 %	.5212	.5171	.5205		
a2	172.5	ppm	.5409 %	173.5	172.4	171.6		
n3	.5286	ppm	.6358 %	.5250	.5292	.5316		
** Sample ID: 525954L		05-1	Seq: 46	12:58:54 05 Feb 2002 ICP				
g1	.0002 L	ppm	728.3 %	.0015	-.0017	.0009		
l3	.0101 L	ppm	84.87 %	.0003	.0138	.0161		
a1	.0062 L	ppm	2.751 %	.0060	.0063	.0063		
a3	14.76	ppm	.7646 %	14.70	14.89	14.70		
[redacted]	.0002 L	ppm	119.9 %	-.0001	.0005	.0003		
r4	.0034 L	ppm	20.40 %	.0032	.0042	.0028		
e2	.0113 L	ppm	44.92 %	.0075	.0093	.0171		
1	2.554	ppm	4.433 %	2.424	2.628	2.610		
g4	5.507	ppm	.6820 %	5.465	5.537	5.519		
n1	.0006 L	ppm	100.7 %	-.0000	.0011	.0006		
a2	32.71	ppm	1.260 %	32.34	33.15	32.64		
n3	.0048 L	ppm	16.23 %	.0048	.0056	.0040		
*** Sample ID: 525965		05-1	Seq: 47	13:02:18 05 Feb 2002 ICP				
Ag1	.0000 L	ppm	4455. %	.0013	-.0004	-.0009		
Al3	.0035 L	ppm	281.2 %	.0148	-.0013	-.0030		
Ba1	.0467	ppm	.6174 %	.0465	.0466	.0470		
Ca3	69.36	ppm	.4124 %	69.47	69.03	69.57		
Cd1	.0008 L	ppm	61.95 %	.0012	.0003	.0009		
Cr4	.0007 L	ppm	23.20 %	.0006	.0007	.0009		
Fe2	.0664 L	ppm	1.828 %	.0678	.0656	.0659		
K 1	11.71	ppm	.4512 %	11.67	11.77	11.69		
Mg4	26.64	ppm	.1290 %	26.67	26.61	26.64		
Mn1	.6190	ppm	.3078 %	.6188	.6172	.6210		
Na2	130.2	ppm	.4985 %	129.5	130.5	130.7		
Zn3	.0676	ppm	4.922 %	.0706	.0640	.0682		

L.	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: 525970		05-1	Seq: 49	13:05:42 05 Feb 2002 ICP				
Ag1	.0021 L	ppm	126.4 %	.0028	.0043	-.0008		
Al3	.0114 L	ppm	66.66 %	.0031	.0130	.0179		
Ba1	.0535	ppm	.3858 %	.0533	.0534	.0537		
Ca3	88.45	ppm	.0659 %	88.52	88.40	88.44		
Cd1	-.0003 L	ppm	-418.2%	-.0014	.0009	-.0003		
Cr4	.0008 L	ppm	207.2 %	-.0010	.0013	.0021		
Fe2	.0138 L	ppm	30.89 %	.0131	.0184	.0100		
K 1	16.84	ppm	1.552 %	16.99	16.99	16.54		
Mg4	28.45	ppm	.3500 %	28.42	28.56	28.37		
Mn1	.1262	ppm	1.180 %	.1270	.1245	.1272		
Na2	179.0	ppm	.4247 %	178.1	179.2	179.6		
Zn3	.0127 L	ppm	15.75 %	.0111	.0149	.0119		
*** Sample ID: 525971		05-1	Seq: 50	13:09:06 05 Feb 2002 ICP				
Ag1	.0015 L	ppm	99.63 %	.0029	.0013	.0001		
Al3	.6901	ppm	2.255 %	.7079	.6790	.6833		
Ba1	.0478	ppm	.4196 %	.0476	.0480	.0477		
Ca3	38.66	ppm	.7170 %	38.36	38.90	38.73		
Cr4	-.0005 L	ppm	-55.48%	-.0006	-.0002	-.0008		
C	-.0009 L	ppm	-172.5%	-.0017	-.0019	.0009		
Fe2	.4338	ppm	.5635 %	.4324	.4325	.4366		
K 1	14.59	ppm	.4544 %	14.57	14.67	14.54		
Mg4	13.08	ppm	.8242 %	12.95	13.16	13.11		
Mn1	.0134	ppm	4.842 %	.0126	.0139	.0135		
Na2	182.2	ppm	.6947 %	180.9	183.4	182.5		
Zn3	.0042 L	ppm	15.40 %	.0037	.0050	.0040		
*** Sample ID: 525972		05-1	Seq: 51	13:12:30 05 Feb 2002 ICP				
Ag1	-.0006 L	ppm	-85.45%	-.0012	-.0006	-.0001		
Al3	.0149 L	ppm	50.44 %	.0088	.0233	.0126		
Ba1	.0556	ppm	.2416 %	.0558	.0555	.0556		
Ca3	67.71	ppm	.4952 %	67.54	67.50	68.10		
Cd1	.0000 L	ppm	3040. %	-.0009	-.0006	.0016		
Cr4	.0023 L	ppm	104.7 %	.0024	-.0002	.0047		
Fe2	.0677 L	ppm	6.818 %	.0631	.0678	.0723		
K 1	13.16	ppm	.6378 %	13.06	13.21	13.20		
Mg4	24.33	ppm	.7138 %	24.17	24.31	24.51		
Mn1	.0002 L	ppm	131.4 %	-.0000	.0001	.0004		
Na2	216.9	ppm	.3634 %	216.2	216.7	217.7		
Zn3	.0989	ppm	2.594 %	.0971	.0979	.1019		

	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: CCV			05-1	Seq: 53		13:15:55 05 Feb 2002 ICP		
Ag1	.5172	ppm	.3298 %	.5174	.5187	.5154		
Al3	10.04	ppm	.5397 %	10.01	10.10	10.00		
Ba1	9.785	ppm	.6334 %	9.790	9.844	9.720		
Ca3	53.03	ppm	.4536 %	53.11	53.23	52.77		
Cd1	1.059	ppm	.2275 %	1.061	1.060	1.056		
Cr4	.5260	ppm	.8412 %	.5227	.5310	.5242		
Fe2	5.283	ppm	.4693 %	5.297	5.298	5.255		
K 1	49.64	ppm	.9026 %	49.58	50.12	49.23		
Mg4	50.08	ppm	.7009 %	50.08	50.42	49.72		
Mn1	.7927	ppm	.9110 %	.7899	.8009	.7872		
Na2	48.91	ppm	.7368 %	48.95	49.25	48.53		
Zn3	1.065	ppm	.6332 %	1.071	1.067	1.058		
*** Sample ID: CCB			05-1	Seq: 54		13:19:19 05 Feb 2002 ICP		
Ag1	.0016 L	ppm	70.88 %	.0003	.0021	.0024		
Al3	.0202 L	ppm	79.67 %	.0042	.0365	.0201		
Ba1	.0005 L	ppm	123.3 %	.0001	.0001	.0011		
Ca3	.0072 L	ppm	100.2 %	.0004	.0065	.0148		
Cd1	-.0009 L	ppm	-66.70%	-.0016	-.0003	-.0009		
Cr4	-.0014 L	ppm	-114.1%	.0004	-.0023	-.0024		
	.0033 L	ppm	26.96 %	.0026	.0030	.0043		
K 1	-.1595 L	ppm	-121.3%	-.0552	-.0405	-.3827		
Mg4	.0051 L	ppm	132.8 %	.0124	-.0008	.0035		
Mn1	.0003 L	ppm	67.98 %	.0002	.0006	.0002		
Na2	.0181 L	ppm	191.9 %	.0473	.0272	-.0203		
Zn3	.0002 L	ppm	299.9 %	.0006	-.0003	.0002		
*** Sample ID: 525973			05-1	Seq: 55		13:22:44 05 Feb 2002 ICP		
Ag1	.0002 L	ppm	1379. %	.0001	.0037	-.0031		
Al3	.0007 L	ppm	1101. %	.0094	-.0030	-.0043		
Ba1	.0367	ppm	4.431 %	.0358	.0386	.0357		
Ca3	58.18	ppm	.1409 %	58.19	58.26	58.10		
Cd1	-.0003 L	ppm	-297.5%	-.0000	.0005	-.0014		
Cr4	.0017 L	ppm	145.5 %	.0003	.0047	.0003		
Fe2	.0259 L	ppm	16.78 %	.0228	.0242	.0309		
K 1	13.97	ppm	.9004 %	13.83	14.01	14.07		
Mg4	19.90	ppm	.5625 %	19.77	19.98	19.94		
Mn1	-.0007 L	ppm	-58.75%	-.0002	-.0011	-.0009		
Na2	227.0	ppm	.9839 %	225.2	229.5	226.2		
Zn3	.0117 L	ppm	20.27 %	.0144	.0103	.0103		

?	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: 525974		05-1	Seq: 57	13:26:08 05 Feb 2002 ICP				
Ag1	.0002 L	ppm	1056. %	-.0004	-.0019	.0030		
Al3	3.286	ppm	.3645 %	3.281	3.300	3.278		
Ba1	.2106	ppm	.2397 %	.2112	.2106	.2102		
Ca3	23.70	ppm	.1967 %	23.67	23.67	23.75		
Cd1	-.0000 L	ppm	-8164.%	-.0005	-.0000	.0005		
Cr4	.0025 L	ppm	54.00 %	.0013	.0021	.0039		
Fe2	3.125	ppm	.4790 %	3.108	3.127	3.138		
K 1	9.919	ppm	.4042 %	9.874	9.949	9.934		
Mg4	9.712	ppm	.1228 %	9.699	9.714	9.723		
Mn1	.5089	ppm	.2992 %	.5074	.5104	.5090		
Na2	315.4 H	ppm	.1777 %	315.4	315.9	314.8		
Zn3	.1435	ppm	2.444 %	.1395	.1450	.1460		
*** Sample ID: 525975		05-1	Seq: 58	13:29:32 05 Feb 2002 ICP				
Ag1	.0009 L	ppm	280.2 %	.0039	.0002	-.0013		
Al3	.0489 L	ppm	7.743 %	.0532	.0471	.0463		
Ba1	.0007 L	ppm	22.32 %	.0006	.0007	.0009		
Ca3	.1365 L	ppm	1.696 %	.1354	.1391	.1349		
Cd1	-.0003 L	ppm	-163.9%	-.0005	-.0005	.0002		
^ 4	-.0001 L	ppm	-3123.%	.0040	-.0006	-.0037		
:	.0313 L	ppm	17.32 %	.0260	.0368	.0312		
K 1	.0503 L	ppm	237.6 %	-.0626	.0380	.1754		
Mg4	.0480 L	ppm	31.97 %	.0393	.0390	.0658		
Mn1	.0013 L	ppm	43.21 %	.0018	.0013	.0007		
Na2	.0529 L	ppm	37.98 %	.0757	.0450	.0379		
Zn3	.0024 L	ppm	42.13 %	.0035	.0014	.0024		
*** Sample ID: 525982		05-1	Seq: 59	13:32:56 05 Feb 2002 ICP				
Ag1	.0014 L	ppm	129.9 %	.0025	.0025	-.0007		
Al3	.0216 L	ppm	38.67 %	.0183	.0311	.0154		
Ba1	.0002 L	ppm	69.02 %	.0000	.0002	.0003		
Ca3	.0630 L	ppm	3.746 %	.0605	.0651	.0634		
Cd1	.0001 L	ppm	244.1 %	-.0001	.0005	-.0000		
Cr4	.0004 L	ppm	872.3 %	-.0026	.0039	-.0001		
Fe2	.0096 L	ppm	59.54 %	.0112	.0145	.0033		
K 1	.0515 L	ppm	168.9 %	.1141	-.0478	.0883		
Mg4	.0192 L	ppm	56.53 %	.0105	.0314	.0158		
Mn1	-.0001 L	ppm	-214.8%	-.0001	-.0004	.0001		
Na2	.0504 L	ppm	41.09 %	.0653	.0268	.0592		
Zn3	.0022 L	ppm	38.73 %	.0017	.0032	.0017		

Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: 525987		05-1	Seq: 61		13:36:21 05 Feb 2002 ICP			
Ag1	.0018 L	ppm	30.38 %	.0024	.0015	.0014		
Al3	.0502 L	ppm	17.32 %	.0402	.0563	.0540		
Ba1	.0009 L	ppm	15.09 %	.0010	.0009	.0007		
Ca3	.1717 L	ppm	1.436 %	.1736	.1689	.1727		
Cd1	-.0012 L	ppm	-40.25%	-.0007	-.0011	-.0017		
Cr4	.0035 L	ppm	28.30 %	.0024	.0042	.0039		
Fe2	.1431	ppm	1.831 %	.1453	.1402	.1438		
K 1	.0879 L	ppm	145.9 %	.0233	.2355	.0049		
Mg4	.0638 L	ppm	42.48 %	.0950	.0456	.0510		
Mn1	.0018 L	ppm	11.91 %	.0020	.0016	.0018		
Na2	.1056 L	ppm	5.405 %	.1002	.1115	.1050		
Zn3	.0264	ppm	5.186 %	.0248	.0270	.0273		
*** Sample ID: 525988		05-1	Seq: 62		13:39:45 05 Feb 2002 ICP			
Ag1	-.0008 L	ppm	-236.2%	.0001	-.0031	.0005		
Al3	.0177 L	ppm	63.52 %	.0047	.0242	.0243		
Ba1	.0004 L	ppm	18.24 %	.0004	.0004	.0003		
Ca3	.0734 L	ppm	6.625 %	.0701	.0712	.0790		
[illegible]1	-.0011 L	ppm	-54.92%	-.0010	-.0006	-.0018		
[illegible]	.0011 L	ppm	260.9 %	.0014	-.0019	.0039		
Fe2	.0149 L	ppm	3.218 %	.0155	.0145	.0149		
K 1	-.1026 L	ppm	-94.24%	-.1190	-.1901	.0012		
Mg4	.0191 L	ppm	44.05 %	.0241	.0238	.0094		
Mn1	.0004 L	ppm	30.97 %	.0006	.0003	.0004		
Na2	.0394 L	ppm	53.05 %	.0531	.0497	.0153		
Zn3	.0058 L	ppm	8.477 %	.0057	.0053	.0063		
*** Sample ID: 525996		05-1	Seq: 63		13:43:09 05 Feb 2002 ICP			
Ag1	.1783	ppm	.3234 %	.1788	.1785	.1777		
Al3	.3023	ppm	4.052 %	.3028	.3143	.2898		
Ba1	.9177	ppm	.5154 %	.9151	.9148	.9231		
Ca3	.0377 L	ppm	10.86 %	.0352	.0424	.0355		
Cd1	.0173	ppm	3.189 %	.0167	.0175	.0177		
Cr4	.0813	ppm	1.083 %	.0822	.0811	.0805		
Fe2	.4243	ppm	2.254 %	.4329	.4140	.4262		
K 1	-.0593 L	ppm	-54.12%	-.0932	-.0295	-.0552		
Mg4	.0044 L	ppm	626.8 %	-.0074	.0362	-.0155		
Mn1	.0752	ppm	1.801 %	.0767	.0743	.0745		
Na2	.0671 L	ppm	47.05 %	.0943	.0747	.0325		
Zn3	.5740	ppm	.4450 %	.5727	.5769	.5723		

I	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: 526000		05-1	Seq: 65		13:46:34 05 Feb 2002 ICP			
Ag1	.0030 L	ppm	48.09 %	.0014	.0036	.0041		
Al3	207.9	ppm	.6445 %	209.2	207.9	206.5		
Ba1	5.729	ppm	.6676 %	5.770	5.722	5.694		
Ca3	563.1	ppm	.8787 %	568.3	562.7	558.4		
Cd1	.0032 L	ppm	7.863 %	.0035	.0030	.0031		
Cr4	.2028	ppm	.7084 %	.2023	.2017	.2044		
Fe2	170.8	ppm	.7624 %	172.3	170.5	169.7		
K 1	57.38	ppm	1.170 %	57.97	57.51	56.65		
Mg4	91.48	ppm	.6751 %	92.11	91.46	90.87		
Mn1	14.38	ppm	.7643 %	14.49	14.37	14.28		
Na2	127.3	ppm	.9225 %	128.4	127.3	126.1		
Zn3	.6158	ppm	1.378 %	.6251	.6141	.6084		
*** Sample ID: 526001		05-1	Seq: 66		13:49:58 05 Feb 2002 ICP			
Ag1	.0052 L	ppm	32.32 %	.0041	.0071	.0043		
Al3	260.6	ppm	.5230 %	262.0	260.6	259.2		
Ba1	6.501	ppm	.5937 %	6.541	6.496	6.464		
Ca3	572.2	ppm	.3245 %	572.8	573.7	570.1		
Cd1	.0031 L	ppm	35.76 %	.0021	.0042	.0028		
	.2368	ppm	1.085 %	.2393	.2371	.2341		
	213.9 H	ppm	.2947 %	214.3	214.2	213.2		
K 1	72.51	ppm	1.081 %	73.14	72.75	71.63		
Mg4	115.2	ppm	.3076 %	115.6	115.1	114.9		
Mn1	16.11	ppm	.3681 %	16.15	16.14	16.04		
Na2	155.0	ppm	.7491 %	156.1	155.0	153.8		
Zn3	.7315	ppm	.5230 %	.7323	.7349	.7274		
*** Sample ID: CCV		05-1	Seq: 67		13:53:23 05 Feb 2002 ICP			
Ag1	.5103	ppm	1.269 %	.5162	.5034	.5112		
Al3	10.00	ppm	1.010 %	10.02	9.893	10.09		
Ba1	9.806	ppm	.5163 %	9.824	9.749	9.845		
Ca3	53.03	ppm	.8694 %	53.17	52.52	53.41		
Cd1	1.068	ppm	.8725 %	1.070	1.058	1.076		
Cr4	.5244	ppm	.8261 %	.5216	.5223	.5294		
Fe2	5.341	ppm	1.117 %	5.360	5.274	5.389		
K 1	49.85	ppm	.4371 %	49.90	49.61	50.03		
Mg4	50.71	ppm	1.128 %	50.85	50.09	51.20		
Mn1	.7920	ppm	1.247 %	.7959	.7807	.7993		
Na2	50.12	ppm	.7036 %	50.18	49.74	50.44		
Zn3	1.078	ppm	1.014 %	1.079	1.067	1.089		

ine	Conc.	Units	SD/RSD	1	2	3	4	5
** Sample ID: CCB			05-1	Seq: 69		13:56:48 05 Feb 2002 ICP		
g1	.0016	L ppm	77.03 %	.0029	.0004	.0017		
l3	.0083	L ppm	30.64 %	.0100	.0054	.0095		
a1	.0006	L ppm	24.43 %	.0006	.0005	.0008		
a3	.0149	L ppm	18.22 %	.0146	.0124	.0177		
d1	.0002	L ppm	248.2 %	.0004	.0005	-.0004		
r4	-.0006	L ppm	-682.7%	-.0024	.0040	-.0033		
e2	.0043	L ppm	114.9 %	-.0008	.0046	.0090		
1	-.1018	L ppm	-136.8%	-.0712	.0196	-.2539		
g4	.0015	L ppm	1052. %	-.0164	.0126	.0082		
n1	.0007	L ppm	78.65 %	.0006	.0003	.0014		
a2	.0503	L ppm	40.05 %	.0734	.0364	.0411		
n3	-.0014	L ppm	-26.68%	-.0010	-.0016	-.0016		
*** Sample ID: CRI			05-1	Seq: 70		14:00:13 05 Feb 2002 ICP		
g1	.0192	ppm	9.635 %	.0212	.0189	.0175		
l3	.0241	L ppm	42.00 %	.0244	.0341	.0138		
a1	-.0000	L ppm	-538.3%	-.0001	.0000	.0000		
a3	.0081	L ppm	49.58 %	.0101	.0035	.0109		
r	.0104	ppm	14.75 %	.0105	.0088	.0118		
u	.0223	ppm	6.927 %	.0240	.0216	.0212		
e2	.0055	L ppm	25.13 %	.0058	.0067	.0040		
1	-.0769	L ppm	-123.0%	-.1852	-.0344	-.0110		
g4	.0131	L ppm	204.1 %	.0025	.0436	-.0067		
n1	.0326	ppm	.7746 %	.0327	.0328	.0323		
a2	.0374	L ppm	147.3 %	.0914	.0397	-.0188		
n3	.0458	ppm	1.684 %	.0458	.0451	.0466		
*** Sample ID: ICSA			05-1	Seq: 71		14:03:38 05 Feb 2002 ICP		
g1	.0008	L ppm	116.4 %	.0019	.0006	-.0000		
l3	489.1	ppm	.2776 %	488.3	488.3	490.7		
a1	-.0006	L ppm	-13.74%	-.0006	-.0005	-.0007		
a3	505.6	ppm	.2834 %	504.2	507.1	505.6		
d1	.0004	L ppm	386.1 %	-.0011	.0021	.0002		
r4	.0032	L ppm	94.44 %	.0026	.0065	.0005		
e2	189.2	ppm	.1380 %	188.9	189.3	189.4		
1	.2295	L ppm	28.07 %	.3016	.1775	.2095		
g4	520.7	H ppm	.1482 %	519.8	521.3	520.9		
n1	-.0024	L ppm	-16.09%	-.0019	-.0027	-.0026		
a2	.1125	L ppm	5.585 %	.1095	.1198	.1083		
n3	-.0075	L ppm	-14.48%	-.0071	-.0066	-.0087		

ine	Conc.	Units	SD/RSD	1	2	3	4	5
** Sample ID: ICSAB			05-1	Seq: 73		14:07:04 05 Feb 2002 ICP		
g1	1.008	ppm	.2415 %	1.005	1.007	1.010		
l3	495.5	ppm	.3340 %	493.7	496.0	496.9		
a1	.4599	ppm	.4265 %	.4576	.4607	.4612		
a3	518.7	ppm	.2618 %	517.4	518.5	520.1		
d1	.9798	ppm	.3641 %	.9776	.9780	.9839		
r4	.4886	ppm	.2032 %	.4888	.4895	.4875		
e2	193.8	ppm	.2892 %	193.2	194.0	194.2		
1	.3066 L	ppm	55.56 %	.4887	.2800	.1511		
lg4	526.3 H	ppm	.2747 %	524.6	526.7	527.4		
ln1	.4838	ppm	.4943 %	.4811	.4847	.4856		
la2	.1868 L	ppm	40.20 %	.2323	.2278	.1001		
:n3	.9928	ppm	.6983 %	.9870	1.000	.9907		
*** Sample ID: CCV			05-1	Seq: 74		14:10:30 05 Feb 2002 ICP		
\g1	.5126	ppm	.3644 %	.5147	.5112	.5119		
\l3	9.944	ppm	.1459 %	9.940	9.960	9.932		
3a1	9.723	ppm	.4268 %	9.676	9.751	9.744		
:a^	54.33	ppm	.1072 %	54.33	54.26	54.38		
:(	1.097	ppm	.3246 %	1.096	1.094	1.101		
:r4	.5389	ppm	.6661 %	.5355	.5386	.5427		
Fe2	5.414	ppm	.0600 %	5.416	5.416	5.411		
K 1	49.23	ppm	.7293 %	48.87	49.21	49.59		
Mg4	50.94	ppm	.3532 %	50.95	51.11	50.75		
Mn1	.7993	ppm	.2262 %	.7974	.8010	.7994		
Na2	48.84	ppm	.0252 %	48.83	48.85	48.85		
Zn3	1.117	ppm	.2558 %	1.113	1.119	1.118		
*** Sample ID: CCB			05-1	Seq: 75		14:13:56 05 Feb 2002 ICP		
Ag1	.0037 L	ppm	37.60 %	.0021	.0045	.0045		
Al3	.0187 L	ppm	91.40 %	.0286	-.0010	.0285		
Ba1	.0007 L	ppm	73.66 %	.0004	.0003	.0012		
Ca3	.0219 L	ppm	33.63 %	.0189	.0164	.0302		
Cd1	-.0012 L	ppm	-77.05%	-.0019	-.0002	-.0015		
Cr4	-.0005 L	ppm	-479.8%	.0021	-.0017	-.0017		
Fe2	.0075 L	ppm	31.07 %	.0070	.0055	.0100		
K 1	.0057 L	ppm	2306. %	.0613	-.1448	.1006		
Mg4	.0405 L	ppm	10.45 %	.0361	.0408	.0446		
Mn1	-.0003 L	ppm	-175.6%	.0002	-.0002	-.0008		
Na2	.0042 L	ppm	1247. %	-.0100	.0616	-.0391		
Zn3	-.0015 L	ppm	-118.1%	-.0004	-.0034	-.0005		

Metals Cover Page

Instrument: PE 4100 #1

Analyst: DCB Date: 2/6/02

Data File: AS0206 Reviewed By: DCB

Entered By: DCB Manager Approval: SD 2/7/02

Starlims Run #	Analytes Used	Batch ID	Method Requested	Failed Analytes	Comments / Problems
74251	AS	M2610031	6010C		Report to IDL = 2.45

Package Data:

Client Sub. #	Type Of Package	Analytes Used	Failed Metals	Batch ID	Standards Attached	How Was Data Transferred To LIMS	Raw Data Copied
R-10409	(Pkg 5) / ASP	As		M2610031	(YES) / NO	MARRS to LIMS / Run Created Above	YES / NO
	Pkg 5 / ASP				YES / NO	MARRS to LIMS / Run Created Above	YES / NO
	Pkg 5 / ASP				YES / NO	MARRS to LIMS / Run Created Above	YES / NO
	Pkg 5 / ASP				YES / NO	MARRS to LIMS / Run Created Above	YES / NO
	Pkg 5 / ASP				YES / NO	MARRS to LIMS / Run Created Above	YES / NO
	Pkg 5 / ASP				YES / NO	MARRS to LIMS / Run Created Above	YES / NO
	Pkg 5 / ASP				YES / NO	MARRS to LIMS / Run Created Above	YES / NO
	Pkg 5 / ASP				YES / NO	MARRS to LIMS / Run Created Above	YES / NO

Method Name: AS
Method Description: As Pe 4100 #1-6066
Element: As

2/6/02
DCB

Date: 02/06/2002
Technique:Furnace
Calibration Type:
As, Zero Intercept: Linear
Wavelength: 193.7 nm
Energy: 50
Slit Width: 0.7
Lamp Current: 0 mA
Sample Info Name: ROUTINE.SIF Results Data Set Name: AS0206

Element: As Seq. No.: 30 AS Loc.: 0 Date: 02/06/2002
Sample ID: S0

Repl #	SampleConc	StndConc	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1			0.0047	0.0047	0.0167	0.0269	0.0386	11:52:14	No
2			0.0026	0.0026	0.0111	0.0360	0.0445	11:54:49	No
Mean:			0.0037						
SD :			0.0015						
%RSD:			40.1						

Auto-zero performed.

Element: As Seq. No.: 31 AS Loc.: 38 Date: 02/06/2002
Sample ID: S1

Repl #	SampleConc	StndConc	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1			0.0279	0.0316	0.1115	0.0391	0.0461	11:57:28	No
2			0.0215	0.0251	0.1009	0.0458	0.0484	12:00:12	No
Mean:			0.0247						
SD :			0.0045						
%RSD:			18.4						

[As] Standard number 1 applied. [10.00]
Correlation Coefficient: 1.00000 Slope: 0.00247

Element: As Seq. No.: 32 AS Loc.: 38 Date: 02/06/2002
Sample ID: S2

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1			0.0562	0.0599	0.1906	0.0464	0.0529	12:02:58	No
2			0.0503	0.0540	0.1985	0.0447	0.0459	12:05:42	No
Mean:			0.0532						
SD :			0.0041						
%RSD:			7.8						

[As] Standard number 2 applied. [20.00]
Correlation Coefficient: 0.99557 Slope: 0.00263

Element: As Seq. No.: 33 AS Loc.: 38 Date: 02/06/2002
Sample ID: S3

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1			0.0736	0.0773	0.2141	0.0545	0.0530	12:08:27	No
2			0.0806	0.0843	0.2027	0.0509	0.0511	12:11:11	No
Mean:			0.0771						

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SD : 0.0050
%RSD: 6.4
[As] Standard number 3 applied. [30.00]
Correlation Coefficient: 0.99854 Slope: 0.00259

Element: As Seq. No.: 34 AS Loc.: 38 Date: 02/06/2002
Sample ID: S4

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1			0.1299	0.1336	0.3082	0.0541	0.0498	12:13:57	No
2			0.1274	0.1311	0.2838	0.0627	0.0485	12:16:41	No
Mean:			0.1286						
SD :			0.0018						
%RSD:			1.4						

[As] Standard number 4 applied. [50.00]
Correlation Coefficient: 0.99964 Slope: 0.00258

Calibration data for As

Standard ID	Mean Signal (Pk Area)	Entered Concentration (µg/L)	Calculated Concentration (µg/L)	Standard Deviation	%RSD
S0	0.0037	--	----	----	----
S1	0.0247	10.00	9.57	0.005	18.4
S2	0.0532	20.00	20.64	0.004	7.8
S3	0.0771	30.00	29.91	0.005	6.4
S4	0.1286	50.00	49.87	0.002	1.4

Correlation Coefficient: 0.99964 Slope: 0.00258 ----

Element: As Seq. No.: 35 AS Loc.: 39 Date: 02/06/2002
Sample ID: ICV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	24.59	24.59	0.0634	0.0671	0.1720	0.0563	0.0519	12:19:23	No
2	22.27	22.27	0.0574	0.0611	0.1659	0.0582	0.0520	12:22:02	No
Mean:	23.43	23.43	0.0604						
SD :	1.639	1.639	0.0042						
%RSD:	7.0	7.0	7.0						

QC value within specified limits.

Element: As Seq. No.: 36 AS Loc.: 0 Date: 02/06/2002
Sample ID: ICB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	0.55	0.55	0.0014	0.0051	0.0100	0.0378	0.0487	12:24:39	No
2	-2.06	-2.06	-0.0053	-0.0016	0.0105	0.0398	0.0498	12:27:15	No
Mean:	-0.76	-0.76	-0.0020						
SD :	1.845	1.845	0.0048						
%RSD:	243.7	243.7	243.7						

QC value within specified limits.

Element: As Seq. No.: 37 AS Loc.: 1 Date: 02/06/2002
Sample ID: CRAI

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	8.71	8.71	0.0225	0.0262	0.0807	0.0513	0.0464	12:29:52	No

2	9.68	9.68	0.0250	0.0287	0.0688	0.0560	0.0495	12:32:33 No
Mean:	9.19	9.19	0.0237					
SD :	0.685	0.685	0.0018					
%RSD:	7.5	7.5	7.5					

QC value within specified limits.

Element: As Seq. No.: 38 AS Loc.: 39 Date: 02/06/2002
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	26.43	26.43	0.0682	0.0719	0.1654	0.0515	0.0507	12:35:14	No
2	24.18	24.18	0.0624	0.0661	0.1598	0.0511	0.0494	12:37:55	No
Mean:	25.31	25.31	0.0653						
SD :	1.589	1.589	0.0041						
%RSD:	6.3	6.3	6.3						

QC value within specified limits.

Element: As Seq. No.: 39 AS Loc.: 0 Date: 02/06/2002
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	-1.26	-1.26	-0.0032	0.0004	0.0106	0.0371	0.0443	12:40:31	No
2	-0.80	-0.80	-0.0021	0.0016	0.0130	0.0328	0.0470	12:43:06	No
Mean:	-1.03	-1.03	-0.0027						
SD :	0.323	0.323	0.0008						
%RSD:	31.4	31.4	31.4						

QC value within specified limits.

Element: As Seq. No.: 40 2/7/02 DCD AS Loc.: 2 Date: 02/06/2002
Sample ID: PBW-M2610031 529558

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	0.21	0.21	0.0005	0.0042	0.0120	0.0384	0.0453	12:45:44	No
2	-0.64	-0.64	-0.0016	0.0020	0.0112	0.0436	0.0440	12:48:24	No
Mean:	-0.22	-0.22	-0.0006						
SD :	0.599	0.599	0.0015						
%RSD:	278.8	278.8	278.8						

Element: As Seq. No.: 41 2/7/02 DCD AS Loc.: 2 Date: 02/06/2002
Sample ID: PBW-M2610031 529559

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	15.33	15.33	0.0396	0.0432	0.1458	0.0556	0.0490	12:51:11	No
2	20.24	20.24	0.0522	0.0559	0.1577	0.0529	0.0501	12:53:59	No
Mean:	17.79	17.79	0.0459						
SD :	3.471	3.471	0.0090						
%RSD:	19.5	19.5	19.5						

Recovery for As = 90.0 % within 85 % to 115 %

Element: As Seq. No.: 42 AS Loc.: 3 Date: 02/06/2002
Sample ID: LCSW-M2610031

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	39.38	39.38	0.1016	0.1053	0.2836	0.0518	0.0504	12:56:39	No
2	36.98	36.98	0.0954	0.0991	0.2688	0.0571	0.0538	12:59:23	No

584

Mean:	38.18	38.18	0.0985
SD :	1.696	1.696	0.0044
%RSD:	4.4	4.4	4.4

Element: As Seq. No.: 43 AS Loc.: 4 Date: 02/06/2002
Sample ID: 525947

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	-1.46	-1.46	-0.0038	-0.0001	0.0116	0.0548	0.0396	01:02:07	No
2	-1.18	-1.18	-0.0030	0.0007	0.0115	0.0531	0.0377	01:04:51	No
Mean:	-1.32	-1.32	-0.0034						
SD :	0.201	0.201	0.0005						
%RSD:	15.2	15.2	15.2						

Element: As Seq. No.: 44 AS Loc.: 4 Date: 02/06/2002
Sample ID: 525947

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	17.64	17.64	0.0455	0.0492	0.1133	0.0644	0.0437	01:07:38	No
2	17.76	17.76	0.0458	0.0495	0.1132	0.0629	0.0449	01:10:25	No
Mean:	17.70	17.70	0.0457						
SD :	0.088	0.088	0.0002						
%RSD:	0.5	0.5	0.5						

Recovery for As = 95.1 % within 85 % to 115 %

Element: As Seq. No.: 45 2/7/02 DCB AS Loc.: 5 Date: 02/06/2002
Sample ID: 525947D 524554

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	-0.26	-0.26	-0.0007	0.0030	0.0112	0.0568	0.0399	01:13:10	No
2	1.57	1.57	0.0041	0.0077	0.0143	0.0579	0.0427	01:15:55	No
Mean:	0.65	0.65	0.0017						
SD :	1.298	1.298	0.0033						
%RSD:	198.7	198.7	198.7						

Element: As Seq. No.: 46 2/7/02 DCB AS Loc.: 6 Date: 02/06/2002
Sample ID: 525947S 524555

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	41.22	41.22	0.1063	0.1100	0.2459	0.0629	0.0437	01:18:40	No
2	42.64	42.64	0.1100	0.1137	0.2452	0.0621	0.0428	01:21:27	No
Mean:	41.93	41.93	0.1082						
SD :	1.007	1.007	0.0026						
%RSD:	2.4	2.4	2.4						

Element: As Seq. No.: 47 AS Loc.: 7 Date: 02/06/2002
Sample ID: 525948

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	0.76	0.76	0.0020	0.0057	0.0152	0.0528	0.0445	01:24:13	No
2	0.26	0.26	0.0007	0.0044	0.0114	0.0543	0.0391	01:26:59	No
Mean:	0.51	0.51	0.0013						
SD :	0.354	0.354	0.0009						
%RSD:	68.8	68.8	68.8						

Element: As Seq. No.: 48 AS Loc.: 8 Date: 02/06/2002
Sample ID: 525949

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	13.73	13.73	0.0354	0.0391	0.0894	0.1549	0.1120	01:29:45	No
2	17.24	17.24	0.0445	0.0482	0.0836	0.1419	0.1073	01:32:28	No
Mean:	15.48	15.48	0.0399						
SD :	2.484	2.484	0.0064						
%RSD:	16.0	16.0	16.0						

Element: As Seq. No.: 49 AS Loc.: 39 Date: 02/06/2002
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	23.11	23.11	0.0596	0.0633	0.2041	0.0517	0.0464	01:35:08	No
2	24.43	24.43	0.0630	0.0667	0.1869	0.0416	0.0365	01:37:48	No
Mean:	23.77	23.77	0.0613						
SD :	0.934	0.934	0.0024						
%RSD:	3.9	3.9	3.9						

QC value within specified limits.

Element: As Seq. No.: 50 AS Loc.: 0 Date: 02/06/2002
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	-0.03	-0.03	-0.0001	0.0036	0.0100	0.0307	0.0392	01:40:25	No
2	-3.50	-3.50	-0.0090	-0.0053	0.0117	0.0388	0.0469	01:42:59	No
Mean:	-1.76	-1.76	-0.0046						
SD :	2.454	2.454	0.0063						
%RSD:	139.1	139.1	139.1						

QC value within specified limits.

Element: As Seq. No.: 51 AS Loc.: 9 Date: 02/06/2002
Sample ID: 525950

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	15.70	15.70	0.0405	0.0442	0.0945	0.1341	0.1073	01:45:38	No
2	16.29	16.29	0.0420	0.0457	0.0860	0.1241	0.1007	01:48:22	No
Mean:	16.00	16.00	0.0413						
SD :	0.415	0.415	0.0011						
%RSD:	2.6	2.6	2.6						

Element: As Seq. No.: 52 AS Loc.: 10 Date: 02/06/2002
Sample ID: 525952

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	29.50	29.50	0.0761	0.0798	0.1847	0.1229	0.1172	01:51:04	No
2	26.47	26.47	0.0683	0.0720	0.1556	0.1273	0.1169	01:53:47	No
Mean:	27.99	27.99	0.0722						
SD :	2.142	2.142	0.0055						
%RSD:	7.7	7.7	7.7						

Element: As Seq. No.: 53 AS Loc.: 11 Date: 02/06/2002
Sample ID: 525953

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	13.82	13.82	0.0356	0.0393	0.0794	0.1110	0.0682	01:56:28	No
2	13.93	13.93	0.0359	0.0396	0.0780	0.1187	0.0852	01:59:08	No
Mean:	13.88	13.88	0.0358						
SD :	0.080	0.080	0.0002						
%RSD:	0.6	0.6	0.6						

Element: As Seq. No.: 54 AS Loc.: 12 Date: 02/06/2002
Sample ID: 525954

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	8.94	8.94	0.0231	0.0267	0.0591	0.1357	0.0976	02:01:48	No
2	8.74	8.74	0.0225	0.0262	0.0528	0.1308	0.0956	02:04:28	No
Mean:	8.84	8.84	0.0228						
SD :	0.144	0.144	0.0004						
%RSD:	1.6	1.6	1.6						

Element: As Seq. No.: 55 2/7/02 DCB AS Loc.: 13 Date: 02/06/2002
Sample ID: 525954D 529556

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	7.85	7.85	0.0202	0.0239	0.0530	0.1340	0.1005	02:07:06	No
2	9.45	9.45	0.0244	0.0281	0.0541	0.1334	0.0965	02:09:48	No
Mean:	8.65	8.65	0.0223						
SD :	1.130	1.130	0.0029						
%RSD:	13.1	13.1	13.1						

Element: As Seq. No.: 56 2/7/02 DCB AS Loc.: 14 Date: 02/06/2002
Sample ID: 525954S 529557

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	43.86	43.86	0.1131	0.1168	0.2264	0.1404	0.0962	02:12:26	No
2	44.70	44.70	0.1153	0.1190	0.2226	0.1374	0.0894	02:15:04	No
Mean:	44.28	44.28	0.1142						
SD :	0.600	0.600	0.0015						
%RSD:	1.4	1.4	1.4						

Element: As Seq. No.: 57 AS Loc.: 15 Date: 02/06/2002
Sample ID: 525965

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	14.73	14.73	0.0380	0.0417	0.0791	0.1277	0.0733	02:17:40	No
2	12.73	12.73	0.0328	0.0365	0.0866	0.1215	0.0725	02:20:17	No
Mean:	13.73	13.73	0.0354						
SD :	1.408	1.408	0.0036						
%RSD:	10.3	10.3	10.3						

Element: As Seq. No.: 58 AS Loc.: 39 Date: 02/06/2002
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	25.07	25.07	0.0647	0.0684	0.1964	0.0342	0.0360	02:22:54	No
2	23.19	23.19	0.0598	0.0635	0.1841	0.0376	0.0376	02:25:33	No

Mean:	24.13	24.13	0.0622
SD :	1.329	1.329	0.0034
%RSD:	5.5	5.5	5.5

QC value within specified limits.

Element: As Seq. No.: 59 AS Loc.: 0 Date: 02/06/2002
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	-0.38	-0.38	-0.0010	0.0027	0.0160	0.0255	0.0341	02:28:10	No
2	1.45	1.45	0.0037	0.0074	0.0111	0.0254	0.0314	02:30:44	No
Mean:	0.53	0.53	0.0014						
SD :	1.298	1.298	0.0033						
%RSD:	243.4	243.4	243.4						

QC value within specified limits.

Element: As Seq. No.: 60 AS Loc.: 16 Date: 02/06/2002
Sample ID: 525970

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	18.68	18.68	0.0482	0.0519	0.1002	0.1417	0.1010	02:33:19	No
2	20.91	20.91	0.0539	0.0576	0.0926	0.1391	0.1018	02:35:53	No
Mean:	19.79	19.79	0.0510						
SD :	1.576	1.576	0.0041						
%RSD:	8.0	8.0	8.0						

Element: As Seq. No.: 61 AS Loc.: 17 Date: 02/06/2002
Sample ID: 525971

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	38.36	38.36	0.0989	0.1026	0.1875	0.0966	0.0836	02:38:28	No
2	37.74	37.74	0.0974	0.1010	0.2007	0.0960	0.0852	02:41:01	No
Mean:	38.05	38.05	0.0982						
SD :	0.436	0.436	0.0011						
%RSD:	1.1	1.1	1.1						

Element: As Seq. No.: 62 AS Loc.: 18 Date: 02/06/2002
Sample ID: 525972

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	15.51	15.51	0.0400	0.0437	0.0734	0.1343	0.1149	02:43:38	No
2	12.39	12.39	0.0320	0.0357	0.0660	0.1398	0.1209	02:46:13	No
Mean:	13.95	13.95	0.0360						
SD :	2.201	2.201	0.0057						
%RSD:	15.8	15.8	15.8						

Element: As Seq. No.: 63 AS Loc.: 19 Date: 02/06/2002
Sample ID: 525973

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Store
1	23.73	23.73	0.0612	0.0649	0.1171	0.1257	0.1211	02:48:50	No
2	21.56	21.56	0.0556	0.0593	0.1105	0.1301	0.1280	02:51:29	No
Mean:	22.64	22.64	0.0584						
SD :	1.537	1.537	0.0040						
%RSD:	6.8	6.8	6.8						

588

Element: As Seq. No.: 64 AS Loc.: 20 Date: 02/06/2002
Sample ID: 525974

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	6.30	6.30	0.0163	0.0199	0.0463	0.1609	0.2271	02:54:07	No
2	7.76	7.76	0.0200	0.0237	0.0441	0.1550	0.2225	02:56:46	No
Mean:	7.03	7.03	0.0181						
SD :	1.034	1.034	0.0027						
%RSD:	14.7	14.7	14.7						

Element: As Seq. No.: 65 AS Loc.: 21 Date: 02/06/2002
Sample ID: 525975

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	0.06	0.06	0.0002	0.0038	0.0105	0.0316	0.0362	02:59:25	No
2	-0.03	-0.03	-0.0001	0.0036	0.0125	0.0248	0.0344	03:02:04	No
Mean:	0.01	0.01	0.0000						
SD :	0.065	0.065	0.0002						
%RSD:	445.2	445.2	445.2						

Element: As Seq. No.: 66 AS Loc.: 22 Date: 02/06/2002
Sample ID: 525982

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	-1.73	-1.73	-0.0045	-0.0008	0.0127	0.0298	0.0298	03:04:45	No
2	-0.89	-0.89	-0.0023	0.0014	0.0097	0.0268	0.0303	03:07:28	No
Mean:	-1.31	-1.31	-0.0034						
SD :	0.590	0.590	0.0015						
%RSD:	45.0	45.0	45.0						

Element: As Seq. No.: 67 AS Loc.: 39 Date: 02/06/2002
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	22.91	22.91	0.0591	0.0628	0.1833	0.0311	0.0320	03:10:10	No
2	24.50	24.50	0.0632	0.0669	0.2097	0.0334	0.0356	03:12:49	No
Mean:	23.70	23.70	0.0611						
SD :	1.124	1.124	0.0029						
%RSD:	4.7	4.7	4.7						

QC value within specified limits.

Element: As Seq. No.: 68 AS Loc.: 0 Date: 02/06/2002
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	-1.46	-1.46	-0.0038	-0.0001	0.0110	0.0270	0.0300	03:15:26	No
2	-2.03	-2.03	-0.0052	-0.0015	0.0087	0.0314	0.0328	03:18:01	No
Mean:	-1.75	-1.75	-0.0045						
SD :	0.400	0.400	0.0010						
%RSD:	22.9	22.9	22.9						

2/7/02
DCB

QC value within specified limits.

CCV out below - reanalyze end of run

Element: As Seq. No.: 69 AS Loc.: 23 Date: 02/06/2002
Sample ID: 525987

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Bkgnd	Bkgnd	Time	Peak

#	µg/L	µg/L	Signal	Area	Height	Area	Height		Stored
1	-1.15	-1.15	-0.0030	0.0007	0.0161	0.0317	0.0319	03:20:40	No
2	-0.80	-0.80	-0.0021	0.0016	0.0113	0.0307	0.0347	03:23:22	No
Mean:	-0.97	-0.97	-0.0025						
SD :	0.243	0.243	0.0006						
%RSD:	25.0	25.0	25.0						

Element: As Seq. No.: 70 AS Loc.: 24 Date: 02/06/2002
Sample ID: 525988

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	-2.95	-2.95	-0.0076	-0.0039	0.0112	0.0446	0.0391	03:26:07	No
2	-2.31	-2.31	-0.0060	-0.0023	0.0124	0.0386	0.0363	03:28:53	No
Mean:	-2.63	-2.63	-0.0068						
SD :	0.451	0.451	0.0012						
%RSD:	17.2	17.2	17.2						

Element: As Seq. No.: 71 AS Loc.: 25 Date: 02/06/2002
Sample ID: 525996 1/5

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	18.74	18.74	0.0483	0.0520	0.1344	0.0368	0.0335	03:31:39	No
2	18.74	18.74	0.0483	0.0520	0.1623	0.0348	0.0333	03:34:26	No
Mean:	18.74	18.74	0.0483						
SD :	0.000	0.000	0.0000						
%RSD:									

Element: As Seq. No.: 72 AS Loc.: 26 Date: 02/06/2002
Sample ID: 526000 1/5

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	12.87	12.87	0.0332	0.0369	0.0848	0.1962	0.1047	03:37:13	No
2	11.98	11.98	0.0309	0.0346	0.1010	0.1972	0.1083	03:39:59	No
Mean:	12.43	12.43	0.0321						
SD :	0.626	0.626	0.0016						
%RSD:	5.0	5.0	5.0						

Element: As Seq. No.: 73 AS Loc.: 27 Date: 02/06/2002
Sample ID: 526001 1/5

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	11.48	11.48	0.0296	0.0333	0.1008	0.1550	0.0870	03:42:44	No
2	13.03	13.03	0.0336	0.0373	0.1021	0.1505	0.0937	03:45:27	No
Mean:	12.25	12.25	0.0316						
SD :	1.094	1.094	0.0028						
%RSD:	8.9	8.9	8.9						

Element: As Seq. No.: 74 AS Loc.: 39 Date: 02/06/2002
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	22.66	22.66	0.0584	0.0621	0.1633	0.0337	0.0296	03:48:08	No
2	20.18	20.18	0.0520	0.0557	0.1747	0.0388	0.0329	03:50:48	No
Mean:	21.42	21.42	0.0552						
SD :	1.754	1.754	0.0045						

%RSD: 8.2 8.2 8.2
QC failed, value less than lower limit for As.
Recalibration and rerun samples since last good QC sequence being performed.

Element: As Seq. No.: 75 AS Loc.: 0 Date: 02/06/2002
Sample ID: S0

Repl #	SampleConc	StndConc	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1			-0.0011	-0.0011	0.0112	0.0251	0.0267	03:53:24	No
2			-0.0017	-0.0017	0.0113	0.0241	0.0247	03:55:59	No
Mean:			-0.0014						
SD :			0.0005						
%RSD:			34.9						

Auto-zero performed.

Element: As Seq. No.: 76 AS Loc.: 38 Date: 02/06/2002
Sample ID: S1

Repl #	SampleConc	StndConc	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1			0.0284	0.0270	0.1041	0.0277	0.0362	03:58:39	No
2			0.0234	0.0220	0.0790	0.0321	0.0343	04:01:23	No
Mean:			0.0259						
SD :			0.0035						
%RSD:			13.6						

[As] Standard number 1 applied. [10.00]
Correlation Coefficient: 1.00000 Slope: 0.00259

Element: As Seq. No.: 77 AS Loc.: 38 Date: 02/06/2002
Sample ID: S2

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1			0.0571	0.0557	0.1550	0.0315	0.0340	04:04:09	No
2			0.0564	0.0550	0.1437	0.0312	0.0316	04:06:53	No
Mean:			0.0568						
SD :			0.0005						
%RSD:			0.9						

[As] Standard number 2 applied. [20.00]
Correlation Coefficient: 0.99346 Slope: 0.00279

Element: As Seq. No.: 78 AS Loc.: 38 Date: 02/06/2002
Sample ID: S3

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1			0.0755	0.0741	0.1891	0.0372	0.0373	04:09:38	No
2			0.0721	0.0707	0.1851	0.0417	0.0386	04:12:22	No
Mean:			0.0738						
SD :			0.0024						
%RSD:			3.3						

[As] Standard number 3 applied. [30.00]
Correlation Coefficient: 0.98500 Slope: 0.00259

Element: As Seq. No.: 79 AS Loc.: 38 Date: 02/06/2002
Sample ID: S4

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored

1	0.1268	0.1254	0.3069	0.0380	0.0372	04:15:07	No
2	0.1211	0.1197	0.2857	0.0470	0.0437	04:17:52	No
Mean:	0.1239						
SD :	0.0041						
%RSD:	3.3						

[As] Standard number 4 applied. [50.00]
Correlation Coefficient: 0.99562 Slope: 0.00252

Calibration data for As

Standard ID	Mean Signal (Pk Area)	Entered Concentration (µg/L)	Calculated Concentration (µg/L)	Standard Deviation	%RSD
S0	-0.0014	--	----	----	----
S1	0.0259	10.00	10.27	0.004	13.6
S2	0.0568	20.00	22.54	0.000	0.9
S3	0.0738	30.00	29.30	0.002	3.3
S4	0.1239	50.00	49.20	0.004	3.3

Correlation Coefficient: 0.99562 Slope: 0.00252 ----

Element: As Seq. No.: 80 AS Loc.: 39 Date: 02/06/2002
Sample ID: ICV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	25.06	25.06	0.0631	0.0617	0.1607	0.0439	0.0392	04:20:33	No
2	25.62	25.62	0.0645	0.0631	0.1659	0.0398	0.0387	04:23:11	No
Mean:	25.34	25.34	0.0638						
SD :	0.389	0.389	0.0010						
%RSD:	1.5	1.5	1.5						

QC value within specified limits.

Element: As Seq. No.: 81 AS Loc.: 0 Date: 02/06/2002
Sample ID: ICB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	1.62	1.62	0.0041	0.0027	0.0122	0.0323	0.0342	04:25:48	No
2	2.22	2.22	0.0056	0.0042	0.0114	0.0289	0.0325	04:28:24	No
Mean:	1.92	1.92	0.0048						
SD :	0.425	0.425	0.0011						
%RSD:	22.1	22.1	22.1						

QC value within specified limits.

Element: As Seq. No.: 82 AS Loc.: 1 Date: 02/06/2002
Sample ID: CRAI

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	11.57	11.57	0.0292	0.0278	0.0663	0.0411	0.0376	04:31:01	No
2	11.20	11.20	0.0282	0.0268	0.0659	0.0428	0.0405	04:33:41	No
Mean:	11.39	11.39	0.0287						
SD :	0.267	0.267	0.0007						
%RSD:	2.3	2.3	2.3						

QC value within specified limits.

Element: As Seq. No.: 83 AS Loc.: 39 Date: 02/06/2002
Sample ID: CCV

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Bkgnd	Bkgnd	Time	Peak

#	µg/L	µg/L	Signal	Area	Height	Area	Height		Stored
1	22.30	22.30	0.0562	0.0548	0.1485	0.0473	0.0382	04:36:21	No
2	24.19	24.19	0.0609	0.0595	0.1516	0.0406	0.0377	04:39:01	No
Mean:	23.25	23.25	0.0585						
SD :	1.341	1.341	0.0034						
%RSD:	5.8	5.8	5.8						

QC value within specified limits.

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Element: As Seq. No.: 84 AS Loc.: 0 Date: 02/06/2002

Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	1.51	1.51	0.0038	0.0024	0.0118	0.0290	0.0309	04:41:38	No
2	2.92	2.92	0.0074	0.0060	0.0107	0.0294	0.0293	04:44:12	No
Mean:	2.22	2.22	0.0056						
SD :	0.996	0.996	0.0025						
%RSD:	44.9	44.9	44.9						

QC value within specified limits.

Metals Cover Page

Instrument: PE 4100 #1

Analyst: DCB Date: 2/7/02

Data File: A50207B Reviewed By: DCB

Entered By: DCB Manager Approval: SD 2/7/02

Starlims Run #	Analytes Used	Batch ID	Method Requested	Failed Analytes	Comments / Problems
24255	As	M2610031	6010L		Report to IDL = 2.45

Package Data:

Client Sub. #	Type Of Package	Analytes Used	Failed Metals	Batch ID	Standards Attached	How Was Data Transferred To LIMS	Raw Data Copied
R-10409	Pkg 5 / ASP	As		M2610031	YES / NO	MARRS to LIMS / Run Created Above	YES / NO
	Pkg 5 / ASP				YES / NO	MARRS to LIMS / Run Created Above	YES / NO
	Pkg 5 / ASP				YES / NO	MARRS to LIMS / Run Created Above	YES / NO
	Pkg 5 / ASP				YES / NO	MARRS to LIMS / Run Created Above	YES / NO
	Pkg 5 / ASP				YES / NO	MARRS to LIMS / Run Created Above	YES / NO
	Pkg 5 / ASP				YES / NO	MARRS to LIMS / Run Created Above	YES / NO
	Pkg 5 / ASP				YES / NO	MARRS to LIMS / Run Created Above	YES / NO
	Pkg 5 / ASP				YES / NO	MARRS to LIMS / Run Created Above	YES / NO

Method Name: AS
Method Description: As Pe 4100 #1-6066
Element: As

Date: 02/07/2002
Technique:Furnace
Calibration Type:
As, Zero Intercept: Linear
Wavelength: 193.7 nm
Energy: 50
Slit Width: 0.7
Lamp Current: 0 mA
Sample Info Name: ROUTINE.SIF Results Data Set Name: AS0207B

Element: As Seq. No.: 1 AS Loc.: 0 Date: 02/07/2002
Sample ID: S0

Repl #	SampleConc	StndConc	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1			0.0038	0.0038	0.0130	0.0204	0.0327	09:42:05	No
2			-0.0023	-0.0023	0.0090	0.0188	0.0320	09:44:38	No
Mean:			0.0007						
SD :			0.0043						
%RSD:			586.0						

Auto-zero performed.

Element: As Seq. No.: 2 AS Loc.: 38 Date: 02/07/2002
Sample ID: S1

Repl #	SampleConc	StndConc	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1			0.0277	0.0284	0.0970	0.0240	0.0372	09:47:18	No
2			0.0288	0.0296	0.1084	0.0252	0.0406	09:50:03	No
Mean:			0.0283						
SD :			0.0008						
%RSD:			2.9						

[As] Standard number 1 applied. [10.00]
Correlation Coefficient: 1.00000 Slope: 0.00283

Element: As Seq. No.: 3 AS Loc.: 38 Date: 02/07/2002
Sample ID: S2

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1			0.0531	0.0538	0.1595	0.0236	0.0392	09:52:48	No
2			0.0513	0.0520	0.1591	0.0275	0.0438	09:55:34	No
Mean:			0.0522						
SD :			0.0013						
%RSD:			2.5						

[As] Standard number 2 applied. [20.00]
Correlation Coefficient: 0.99462 Slope: 0.00265

Element: As Seq. No.: 4 AS Loc.: 38 Date: 02/07/2002
Sample ID: S3

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1			0.0825	0.0833	0.2233	0.0266	0.0400	09:58:19	No
2			0.0814	0.0821	0.2165	0.0272	0.0356	10:01:03	No
Mean:			0.0820						

SD : 0.0008
%RSD: 1.0
[As] Standard number 3 applied. [30.00]
Correlation Coefficient: 0.99800 Slope: 0.00270

Element: As Seq. No.: 5 AS Loc.: 38 Date: 02/07/2002
Sample ID: S4

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1			0.1358	0.1365	0.3488	0.0248	0.0386	10:03:48	No
2			0.1243	0.1251	0.3049	0.0325	0.0426	10:06:34	No
Mean:			0.1301						
SD :			0.0081						
%RSD:			6.2						

[As] Standard number 4 applied. [50.00]
Correlation Coefficient: 0.99875 Slope: 0.00264

Calibration data for As

Standard ID	Mean Signal (Pk Area)	Entered Concentration (µg/L)	Calculated Concentration (µg/L)	Standard Deviation	%RSD
S0	0.0007	--	----	----	----
S1	0.0283	10.00	10.70	0.001	2.9
S2	0.0522	20.00	19.76	0.001	2.5
S3	0.0820	30.00	31.05	0.001	1.0
S4	0.1301	50.00	49.28	0.008	6.2
Correlation Coefficient: 0.99875		Slope:	0.00264	----	

Element: As Seq. No.: 6 AS Loc.: 39 Date: 02/07/2002
Sample ID: ICV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	24.34	24.34	0.0642	0.0650	0.1718	0.0286	0.0360	10:09:15	No
2	26.97	26.97	0.0712	0.0719	0.1657	0.0265	0.0371	10:11:55	No
Mean:	25.66	25.66	0.0677						
SD :	1.859	1.859	0.0049						
%RSD:	7.2	7.2	7.2						

QC value within specified limits.

Element: As Seq. No.: 7 AS Loc.: 0 Date: 02/07/2002
Sample ID: ICB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	0.62	0.62	0.0016	0.0024	0.0106	0.0204	0.0345	10:14:32	No
2	1.94	1.94	0.0051	0.0059	0.0104	0.0166	0.0321	10:17:06	No
Mean:	1.28	1.28	0.0034						
SD :	0.937	0.937	0.0025						
%RSD:	73.3	73.3	73.3						

QC value within specified limits.

Element: As Seq. No.: 8 AS Loc.: 1 Date: 02/07/2002
Sample ID: CRAI

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	9.01	9.01	0.0238	0.0245	0.0711	0.0267	0.0341	10:19:42	No

2	9.86	9.86	0.0260	0.0268	0.0674	0.0278	0.0343 10:22:23	No
Mean:	9.44	9.44	0.0249					
SD :	0.600	0.600	0.0016					
%RSD:	6.4	6.4	6.4					

QC value within specified limits.

Element: As Seq. No.: 9 AS Loc.: 39 Date: 02/07/2002
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	26.67	26.67	0.0704	0.0711	0.1622	0.0269	0.0373	10:25:03	No
2	26.12	26.12	0.0689	0.0697	0.1703	0.0262	0.0390	10:27:44	No
Mean:	26.40	26.40	0.0697						
SD :	0.393	0.393	0.0010						
%RSD:	1.5	1.5	1.5						

QC value within specified limits.

Element: As Seq. No.: 10 AS Loc.: 0 Date: 02/07/2002
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	-0.49	-0.49	-0.0013	-0.0006	0.0122	0.0216	0.0333	10:30:20	No
2	0.44	0.44	0.0012	0.0019	0.0119	0.0194	0.0327	10:32:55	No
Mean:	-0.03	-0.03	-0.0001						
SD :	0.663	0.663	0.0017						
%RSD:	2590	2590	2589.6						

QC value within specified limits.

Element: As Seq. No.: 11 2/7/02 DCB AS Loc.: 2 Date: 02/07/2002
Sample ID: PBW-M2610031 529586

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	1.24	1.24	0.0033	0.0040	0.0106	0.0271	0.0360	10:35:32	No
2	1.29	1.29	0.0034	0.0042	0.0098	0.0211	0.0317	10:38:11	No
Mean:	1.27	1.27	0.0033						
SD :	0.037	0.037	0.0001						
%RSD:	2.9	2.9	2.9						

Element: As Seq. No.: 12 AS Loc.: 2 Date: 02/07/2002
Sample ID: PBW-M2610031

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	18.76	18.76	0.0495	0.0502	0.1822	0.0248	0.0334	10:40:58	No
2	22.24	22.24	0.0587	0.0594	0.1755	0.0214	0.0355	10:43:45	No
Mean:	20.50	20.50	0.0541						
SD :	2.463	2.463	0.0065						
%RSD:	12.0	12.0	12.0						

Recovery for As = 96.2 % within 85 % to 115 %

Element: As Seq. No.: 13 2/7/02 DCB AS Loc.: 3 Date: 02/07/2002
Sample ID: LCSW-M2610031 529587

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	42.21	42.21	0.1114	0.1121	0.3295	0.0312	0.0393	10:46:26	No
2	44.06	44.06	0.1163	0.1170	0.3270	0.0292	0.0379	10:49:06	No

Mean:	43.14	43.14	0.1138
SD :	1.308	1.308	0.0035
%RSD:	3.0	3.0	3.0

Element: As Seq. No.: 14 AS Loc.: 4 Date: 02/07/2002
Sample ID: 525987

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	-1.45	-1.45	-0.0038	-0.0031	0.0129	0.0261	0.0349	10:51:50	No
2	-0.89	-0.89	-0.0023	-0.0016	0.0119	0.0259	0.0348	10:54:33	No
Mean:	-1.17	-1.17	-0.0031						
SD :	0.399	0.399	0.0011						
%RSD:	34.0	34.0	34.0						

Element: As Seq. No.: 15 AS Loc.: 4 Date: 02/07/2002
Sample ID: 525987

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	20.20	20.20	0.0533	0.0541	0.1757	0.0253	0.0367	10:57:18	No
2	20.97	20.97	0.0553	0.0561	0.1701	0.0273	0.0397	11:00:04	No
Mean:	20.59	20.59	0.0543						
SD :	0.543	0.543	0.0014						
%RSD:	2.6	2.6	2.6						

Recovery for As = 108.8 % within 85 % to 115 %

Element: As Seq. No.: 16 AS Loc.: 5 Date: 02/07/2002
Sample ID: 525988

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	2.78	2.78	0.0073	0.0081	0.0117	0.0226	0.0341	11:02:47	No
2	-0.58	-0.58	-0.0015	-0.0008	0.0097	0.0247	0.0330	11:05:31	No
Mean:	1.10	1.10	0.0029						
SD :	2.377	2.377	0.0063						
%RSD:	216.2	216.2	216.2						

Element: As Seq. No.: 17 AS Loc.: 6 Date: 02/07/2002
Sample ID: 525996 1/5

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	22.84	22.84	0.0603	0.0610	0.1828	0.0250	0.0403	11:08:16	No
2	22.05	22.05	0.0582	0.0589	0.1964	0.0247	0.0385	11:11:02	No
Mean:	22.45	22.45	0.0592						
SD :	0.563	0.563	0.0015						
%RSD:	2.5	2.5	2.5						

Element: As Seq. No.: 18 AS Loc.: 7 Date: 02/07/2002
Sample ID: 526000 1/5

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	16.87	16.87	0.0445	0.0453	0.0884	0.2942	0.1522	11:13:48	No
2	16.66	16.66	0.0440	0.0447	0.0953	0.3035	0.1594	11:16:35	No
Mean:	16.77	16.77	0.0443						
SD :	0.144	0.144	0.0004						
%RSD:	0.9	0.9	0.9						

Element: As Seq. No.: 19 AS Loc.: 8 Date: 02/07/2002
Sample ID: 526001 1/5

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	14.64	14.64	0.0386	0.0394	0.0954	0.2393	0.1196	11:19:21	No
2	17.87	17.87	0.0472	0.0479	0.0966	0.2400	0.1201	11:22:06	No
Mean:	16.25	16.25	0.0429						
SD :	2.284	2.284	0.0060						
%RSD:	14.1	14.1	14.1						

Element: As Seq. No.: 20 AS Loc.: 39 Date: 02/07/2002
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	26.07	26.07	0.0688	0.0695	0.1883	0.0254	0.0361	11:24:46	No
2	26.69	26.69	0.0704	0.0712	0.1988	0.0326	0.0382	11:27:26	No
Mean:	26.38	26.38	0.0696						
SD :	0.440	0.440	0.0012						
%RSD:	1.7	1.7	1.7						

QC value within specified limits.

Element: As Seq. No.: 21 AS Loc.: 0 Date: 02/07/2002
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1	-0.07	-0.07	-0.0002	0.0006	0.0118	0.0245	0.0340	11:30:03	No
2	0.27	0.27	0.0007	0.0014	0.0116	0.0251	0.0330	11:32:37	No
Mean:	0.10	0.10	0.0003						
SD :	0.239	0.239	0.0006						
%RSD:	245.7	245.7	245.7						

QC value within specified limits.

Metals Cover Page

Instrument: CVMS

Analyst: DCB Date: 1/30/02

Data File: Jan-30w Reviewed By: DCB

Entered By: DCB Manager Approval: CK 1/31/02

Starlims Run #	Analytes Used	Batch ID	Method Requested	Failed Analytes	Comments / Problems
73986 ✓	Hg	M2480128B	7470		R-10398 ΔL = ~~2.0~~ 0.2 PPb
			245		
74246	Hg	M2480128A	7470		

Package Data:

Client Sub. #	Type Of Package	Analytes Used	Failed Metals	Batch ID	Standards Attached	How Was Data Transferred To LIMS	Raw Data Copied
R-10409	~~Pkg 5~~ / ASP	Hg		M2480128A	YES / NO	MARRS to LIMS / Run Created Above	YES / NO
R-10366	Pkg 5 / ASP	Hg		M2480128B	YES / NO	MARRS to LIMS / Run Created Above	YES / NO
R-10326	Pkg 5 / ASP	Hg		M2480128B	YES / NO	MARRS to LIMS / Run Created Above	YES / NO
R-10405	Pkg 5 / ASP	Hg		M2480128B	YES / NO	MARRS to LIMS / Run Created Above	YES / NO
R-10283	Pkg 5 / ASP	Hg - cancelled -		M2480128B	YES / NO	MARRS to LIMS / Run Created Above	YES / NO
	Pkg 5 / ASP				YES / NO	MARRS to LIMS / Run Created Above	YES / NO
	Pkg 5 / ASP				YES / NO	MARRS to LIMS / Run Created Above	YES / NO
	Pkg 5 / ASP				YES / NO	MARRS to LIMS / Run Created Above	YES / NO

Method Name: Hg_CLP
Method Description: Method 245.1A FIMS
Element: Hg

Date: 01/30/2002
Technique:FI-MHS
Calibration Type:
Hg, Zero Intercept: Linear
Wavelength: 253.7 nm
Sample Info Name: ROUTINE.SIF Results Data Set Name: Jan-30W

Element: Hg Seq. No.: 1 AS Loc.: --- Date: 01/30/2002
Sample ID: Sample

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored

Method Name: Hg_CLP
Method Description: Method 245.1A FIMS
Element: Hg

Date: 01/30/2002
Technique:FI-MHS
Calibration Type:
Hg, Zero Intercept: Linear
Wavelength: 253.7 nm
Sample Info Name: ROUTINE.SIF Results Data Set Name: Jan-30W

1/30/02
DCB

Element: Hg Seq. No.: 1 AS Loc.: 1 Date: 01/30/2002
Sample ID: Calib Blank

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0003	0.0013	0.0003	11:04:16	No
2			0.0002	0.0006	0.0002	11:04:46	No
Mean:			0.0003				
SD :			0.0000				
%RSD:			8.7349				

Auto-zero performed.

Element: Hg Seq. No.: 2 AS Loc.: 8 Date: 01/30/2002
Sample ID: 0.2ppb std

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0022	0.0111	0.0025	11:06:06	No
2			0.0022	0.0111	0.0024	11:06:35	No
Mean:			0.0022				
SD :			0.0000				
%RSD:			1.2733				

[Hg] Standard number 1 applied. [0.2000]
Correlation Coefficient: 1.00000 Slope: 0.01097

Element: Hg Seq. No.: 3 AS Loc.: 2 Date: 01/30/2002
Sample ID: 0.5ppb std

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0052	0.0245	0.0055	11:07:55	No
2			0.0052	0.0244	0.0055	11:08:25	No

Mean: 0.0052
SD : 0.0000
%RSD: 0.3410
[Hg] Standard number 2 applied. [0.5000]
Correlation Coefficient: 0.99893 Slope: 0.01050

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Element: Hg Seq. No.: 4 AS Loc.: 3 Date: 01/30/2002
Sample ID: 1ppb std

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0108	0.0486	0.0110	11:09:44	No
2			0.0108	0.0490	0.0110	11:10:13	No
Mean:			0.0108				
SD :			0.0000				
%RSD:							

[Hg] Standard number 3 applied. [1.000]
Correlation Coefficient: 0.99963 Slope: 0.01071

==========

Element: Hg Seq. No.: 5 AS Loc.: 4 Date: 01/30/2002
Sample ID: 2ppb std

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0217	0.0959	0.0219	11:11:32	No
2			0.0216	0.0952	0.0219	11:12:01	No
Mean:			0.0217				
SD :			0.0000				
%RSD:							

[Hg] Standard number 4 applied. [2.000]
Correlation Coefficient: 0.99990 Slope: 0.01080

==========

Element: Hg Seq. No.: 6 AS Loc.: 5 Date: 01/30/2002
Sample ID: 5ppb std

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.0533	0.2357	0.0536	11:13:21	No
2			0.0535	0.2332	0.0537	11:13:51	No
Mean:			0.0534				
SD :			0.0001				
%RSD:			0.1642				

[Hg] Standard number 5 applied. [5.000]
Correlation Coefficient: 0.99997 Slope: 0.01070

==========

Element: Hg Seq. No.: 7 AS Loc.: 6 Date: 01/30/2002
Sample ID: 10ppb std

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1			0.1071	0.4680	0.1074	11:15:12	No
2			0.1054	0.4597	0.1056	11:15:41	No
Mean:			0.1062				
SD :			0.0012				
%RSD:			1.1486				

[Hg] Standard number 6 applied. [10.00]
Correlation Coefficient: 0.99999 Slope: 0.01064

Calibration data for Hg

Standard ID	Mean Signal (Pk Height)	Entered Concentration (µg/L)	Calculated Concentration (µg/L)	Standard Deviation	%RSD
Calib Blank	0.0003	----	----	----	----
0.2ppb std	0.0022	0.2000	0.2062	0.00003	1.3
0.5ppb std	0.0052	0.5000	0.4893	0.00002	0.3
1ppb std	0.0108	1.0000	1.012	0.00000	----
2ppb std	0.0217	2.0000	2.035	0.00001	----
5ppb std	0.0534	5.0000	5.017	0.00009	0.2
10ppb std	0.1062	10.0000	9.983	0.00122	1.1

Correlation Coefficient: 0.99999 Slope: 0.01064 ----

Element: Hg Seq. No.: 8 AS Loc.: 7 Date: 01/30/2002
Sample ID: ICV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.099	3.099	0.0330	0.1443	0.0332	11:17:02	No
2	3.064	3.064	0.0326	0.1424	0.0329	11:17:32	No
Mean:	3.082	3.082	0.0328				
SD :	0.02471	0.02471	0.0003				
%RSD:	0.8	0.8	0.8017				

QC value within specified limits.

Element: Hg Seq. No.: 9 AS Loc.: 1 Date: 01/30/2002
Sample ID: ICB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0057	0.0057	0.0001	0.0015	0.0003	11:18:51	No
2	0.0042	0.0042	0.0000	0.0013	0.0003	11:19:20	No
Mean:	0.0050	0.0050	0.0001				
SD :	0.00106	0.00106	0.0000				
%RSD:	21.2	21.2	21.1669				

QC value within specified limits.

Element: Hg Seq. No.: 10 AS Loc.: 8 Date: 01/30/2002
Sample ID: CRII

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.2006	0.2006	0.0021	0.0106	0.0024	11:20:40	No
2	0.2051	0.2051	0.0022	0.0108	0.0024	11:21:09	No
Mean:	0.2028	0.2028	0.0022				
SD :	0.00319	0.00319	0.0000				
%RSD:	1.6	1.6	1.5734				

QC value within specified limits.

Element: Hg Seq. No.: 11 AS Loc.: 7 Date: 01/30/2002
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.072	3.072	0.0327	0.1433	0.0330	11:22:31	No
2	3.076	3.076	0.0327	0.1437	0.0330	11:23:00	No
Mean:	3.074	3.074	0.0327				
SD :	0.00239	0.00239	0.0000				

%RSD:
QC value within specified limits.

Element: Hg Seq. No.: 12 AS Loc.: 1 Date: 01/30/2002
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0025	0.0025	0.0000	0.0012	0.0003	11:24:21	No
2	0.0026	0.0026	0.0000	0.0013	0.0003	11:24:50	No
Mean:	0.0025	0.0025	0.0000				
SD :	0.00003	0.00003	0.0000				
%RSD:	1.4	1.4	1.3748				

QC value within specified limits.

Element: Hg Seq. No.: 13 2/7/02 DCB AS Loc.: 9 Date: 01/30/2002
Sample ID: PBW-M2480128A 524477

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0090	0.0090	0.0001	0.0017	0.0004	11:26:07	No
2	0.0099	0.0099	0.0001	0.0019	0.0004	11:26:37	No
Mean:	0.0094	0.0094	0.0001				
SD :	0.00063	0.00063	0.0000				
%RSD:	6.7	6.7	6.6664				

Element: Hg Seq. No.: 14 2/7/02 DCB AS Loc.: 10 Date: 01/30/2002
Sample ID: LCSW-M2480128A 524478

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.013	1.013	0.0108	0.0514	0.0110	11:27:54	No
2	0.9896	0.9896	0.0105	0.0474	0.0108	11:28:23	No
Mean:	1.001	1.001	0.0107				
SD :	0.01651	0.01651	0.0002				
%RSD:	1.6	1.6	1.6489				

Element: Hg Seq. No.: 15 AS Loc.: 11 Date: 01/30/2002
Sample ID: 525947

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0114	0.0114	0.0001	0.0016	0.0004	11:29:40	No
2	0.0070	0.0070	0.0001	0.0014	0.0003	11:30:09	No
Mean:	0.0092	0.0092	0.0001				
SD :	0.00309	0.00309	0.0000				
%RSD:	33.7	33.7	33.7012				

Element: Hg Seq. No.: 16 2/7/02 DCB AS Loc.: 12 Date: 01/30/2002
Sample ID: 525947D 524473

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0039	0.0039	0.0000	0.0014	0.0003	11:31:28	No
2	0.0025	0.0025	0.0000	0.0012	0.0003	11:31:57	No
Mean:	0.0032	0.0032	0.0000				
SD :	0.00101	0.00101	0.0000				
%RSD:	31.7	31.7	31.6952				

Element: Hg Seq. No.: 17 2/7/02 AS Loc.: 13 Date: 01/30/2002
Sample ID: 525947S 524474 DCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.071	1.071	0.0114	0.0509	0.0117	11:33:17	No
2	1.067	1.067	0.0114	0.0508	0.0116	11:33:46	No
Mean:	1.069	1.069	0.0114				
SD :	0.00287	0.00287	0.0000				
%RSD:	0.3	0.3	0.2686				

Element: Hg Seq. No.: 18 AS Loc.: 14 Date: 01/30/2002
Sample ID: 525948

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0066	0.0066	0.0001	0.0016	0.0003	11:35:07	No
2	0.0056	0.0056	0.0001	0.0015	0.0003	11:35:37	No
Mean:	0.0061	0.0061	0.0001				
SD :	0.00069	0.00069	0.0000				
%RSD:	11.3	11.3	11.3045				

Element: Hg Seq. No.: 19 AS Loc.: 15 Date: 01/30/2002
Sample ID: 525949

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0088	0.0088	0.0001	0.0016	0.0004	11:36:58	No
2	0.0064	0.0064	0.0001	0.0013	0.0003	11:37:27	No
Mean:	0.0076	0.0076	0.0001				
SD :	0.00165	0.00165	0.0000				
%RSD:	21.7	21.7	21.6815				

Element: Hg Seq. No.: 20 AS Loc.: 16 Date: 01/30/2002
Sample ID: 525950

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0090	0.0090	0.0001	0.0019	0.0004	11:38:57	No
2	0.0092	0.0092	0.0001	0.0021	0.0004	11:39:27	No
Mean:	0.0091	0.0091	0.0001				
SD :	0.00013	0.00013	0.0000				
%RSD:	1.4	1.4	1.4442				

Element: Hg Seq. No.: 21 AS Loc.: 17 Date: 01/30/2002
Sample ID: 525952

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0097	0.0097	0.0001	0.0015	0.0004	11:40:46	No
2	0.0111	0.0111	0.0001	0.0020	0.0004	11:41:16	No
Mean:	0.0104	0.0104	0.0001				
SD :	0.00092	0.00092	0.0000				
%RSD:	8.9	8.9	8.8716				

Element: Hg Seq. No.: 22 AS Loc.: 18 Date: 01/30/2002
Sample ID: 525953

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored

1	0.0094	0.0094	0.0001	0.0018	0.0004	11:42:33	No
2	0.0069	0.0069	0.0001	0.0015	0.0003	11:43:02	No
Mean:	0.0082	0.0082	0.0001				
SD :	0.00174	0.00174	0.0000				
%RSD:	21.3	21.3	21.3111				

Element: Hg Seq. No.: 23 AS Loc.: 7 Date: 01/30/2002
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.194	3.194	0.0340	0.1469	0.0343	11:44:21	No
2	3.174	3.174	0.0338	0.1463	0.0340	11:44:51	No
Mean:	3.184	3.184	0.0339				
SD :	0.01453	0.01453	0.0002				
%RSD:	0.5	0.5	0.4565				

QC value within specified limits.

Element: Hg Seq. No.: 24 AS Loc.: 1 Date: 01/30/2002
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0020	0.0020	0.0000	0.0012	0.0003	11:46:09	No
2	0.0054	0.0054	0.0001	0.0015	0.0003	11:46:38	No
Mean:	0.0037	0.0037	0.0000				
SD :	0.00245	0.00245	0.0000				
%RSD:	66.4	66.4	66.4427				

QC value within specified limits.

Element: Hg Seq. No.: 25 AS Loc.: 19 Date: 01/30/2002
Sample ID: 525954

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0053	0.0053	0.0001	0.0018	0.0003	11:47:55	No
2	0.0019	0.0019	0.0000	0.0011	0.0003	11:48:24	No
Mean:	0.0036	0.0036	0.0000				
SD :	0.00241	0.00241	0.0000				
%RSD:	66.6	66.6	66.5553				

Element: Hg Seq. No.: 26 2/7/02 DCB AS Loc.: 20 Date: 01/30/2002
Sample ID: 525954D 524475

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0103	0.0103	0.0001	0.0018	0.0004	11:49:40	No
2	0.0073	0.0073	0.0001	0.0015	0.0003	11:50:10	No
Mean:	0.0088	0.0088	0.0001				
SD :	0.00208	0.00208	0.0000				
%RSD:	23.7	23.7	23.7025				

Element: Hg Seq. No.: 27 2/7/02 DCB AS Loc.: 21 Date: 01/30/2002
Sample ID: 525954S 524476

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.099	1.099	0.0117	0.0522	0.0120	11:51:27	No
2	1.092	1.092	0.0116	0.0518	0.0119	11:51:57	No
Mean:	1.096	1.096	0.0117				

SD :	0.00515	0.00515	0.0001
%RSD:	0.5	0.5	0.4697

Element: Hg Seq. No.: 28 AS Loc.: 22 Date: 01/30/2002
Sample ID: 525965

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0080	0.0080	0.0001	0.0013	0.0003	11:53:15	No
2	0.0109	0.0109	0.0001	0.0019	0.0004	11:53:44	No
Mean:	0.0094	0.0094	0.0001				
SD :	0.00209	0.00209	0.0000				
%RSD:	22.1	22.1	22.1445				

Element: Hg Seq. No.: 29 AS Loc.: 23 Date: 01/30/2002
Sample ID: 525970

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0081	0.0081	0.0001	0.0019	0.0003	11:55:03	No
2	0.0072	0.0072	0.0001	0.0018	0.0003	11:55:32	No
Mean:	0.0076	0.0076	0.0001				
SD :	0.00064	0.00064	0.0000				
%RSD:	8.4	8.4	8.4345				

Element: Hg Seq. No.: 30 AS Loc.: 24 Date: 01/30/2002
Sample ID: 525971

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0065	0.0065	0.0001	0.0016	0.0003	11:56:51	No
2	0.0060	0.0060	0.0001	0.0017	0.0003	11:57:20	No
Mean:	0.0062	0.0062	0.0001				
SD :	0.00040	0.00040	0.0000				
%RSD:	6.4	6.4	6.4467				

Element: Hg Seq. No.: 31 AS Loc.: 25 Date: 01/30/2002
Sample ID: 525972

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0075	0.0075	0.0001	0.0019	0.0003	11:58:39	No
2	0.0056	0.0056	0.0001	0.0014	0.0003	11:59:08	No
Mean:	0.0066	0.0066	0.0001				
SD :	0.00133	0.00133	0.0000				
%RSD:	20.2	20.2	20.2191				

Element: Hg Seq. No.: 32 AS Loc.: 26 Date: 01/30/2002
Sample ID: 525973

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0056	0.0056	0.0001	0.0015	0.0003	12:00:28	No
2	0.0072	0.0072	0.0001	0.0017	0.0003	12:00:57	No
Mean:	0.0064	0.0064	0.0001				
SD :	0.00110	0.00110	0.0000				
%RSD:	17.3	17.3	17.3007				

Element: Hg Seq. No.: 33 AS Loc.: 27 Date: 01/30/2002

Sample ID: 525974

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0133	0.0133	0.0001	0.0026	0.0004	12:02:18	No
2	0.0077	0.0077	0.0001	0.0018	0.0003	12:02:47	No
Mean:	0.0105	0.0105	0.0001				
SD :	0.00395	0.00395	0.0000				
%RSD:	37.6	37.6	37.5554				

Element: Hg Seq. No.: 34 AS Loc.: 28 Date: 01/30/2002
Sample ID: 525975

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0056	0.0056	0.0001	0.0016	0.0003	12:04:07	No
2	0.0090	0.0090	0.0001	0.0017	0.0004	12:04:37	No
Mean:	0.0073	0.0073	0.0001				
SD :	0.00240	0.00240	0.0000				
%RSD:	33.0	33.0	33.0335				

Element: Hg Seq. No.: 35 AS Loc.: 7 Date: 01/30/2002
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.230	3.230	0.0344	0.1501	0.0346	12:05:58	No
2	3.222	3.222	0.0343	0.1487	0.0345	12:06:27	No
Mean:	3.226	3.226	0.0343				
SD :	0.00614	0.00614	0.0001				
%RSD:	0.2	0.2	0.1903				

QC value within specified limits.

Element: Hg Seq. No.: 36 AS Loc.: 1 Date: 01/30/2002
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0059	0.0059	0.0001	0.0016	0.0003	12:07:45	No
2	0.0072	0.0072	0.0001	0.0014	0.0003	12:08:15	No
Mean:	0.0066	0.0066	0.0001				
SD :	0.00098	0.00098	0.0000				
%RSD:	15.0	15.0	14.9560				

QC value within specified limits.

Element: Hg Seq. No.: 37 AS Loc.: 29 Date: 01/30/2002
Sample ID: 525982

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0084	0.0084	0.0001	0.0015	0.0004	12:09:34	No
2	0.0093	0.0093	0.0001	0.0018	0.0004	12:10:03	No
Mean:	0.0088	0.0088	0.0001				
SD :	0.00063	0.00063	0.0000				
%RSD:	7.2	7.2	7.1803				

Element: Hg Seq. No.: 38 AS Loc.: 30 Date: 01/30/2002
Sample ID: 525987

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

#	µg/L	µg/L	Signal	Area	Height		Stored
1	0.0105	0.0105	0.0001	0.0022	0.0004	12:11:24	No
2	0.0050	0.0050	0.0001	0.0015	0.0003	12:11:53	No
Mean:	0.0078	0.0078	0.0001				
SD :	0.00388	0.00388	0.0000				
%RSD:	50.0	50.0	49.9886				

Element: Hg Seq. No.: 39 AS Loc.: 31 Date: 01/30/2002
Sample ID: 525988

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0068	0.0068	0.0001	0.0015	0.0003	12:13:15	No
2	0.0079	0.0079	0.0001	0.0016	0.0003	12:13:45	No
Mean:	0.0074	0.0074	0.0001				
SD :	0.00078	0.00078	0.0000				
%RSD:	10.6	10.6	10.6059				

Element: Hg Seq. No.: 40 AS Loc.: 32 Date: 01/30/2002
Sample ID: 525996

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	6.055	6.055	0.0644	0.2766	0.0647	12:15:05	No
2	6.019	6.019	0.0641	0.2792	0.0643	12:15:34	No
Mean:	6.037	6.037	0.0642				
SD :	0.02530	0.02530	0.0003				
%RSD:	0.4	0.4	0.4191				

Element: Hg Seq. No.: 41 AS Loc.: 33 Date: 01/30/2002
Sample ID: 526000

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.2333	0.2333	0.0025	0.0151	0.0027	12:16:48	No
2	0.1859	0.1859	0.0020	0.0114	0.0022	12:17:17	No
Mean:	0.2096	0.2096	0.0022				
SD :	0.03358	0.03358	0.0004				
%RSD:	16.0	16.0	16.0212				

Element: Hg Seq. No.: 42 AS Loc.: 34 Date: 01/30/2002
Sample ID: 526001

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0334	0.0334	0.0004	0.0027	0.0006	12:18:32	No
2	0.0331	0.0331	0.0004	0.0027	0.0006	12:19:01	No
Mean:	0.0333	0.0333	0.0004				
SD :	0.00025	0.00025	0.0000				
%RSD:	0.8	0.8	0.7505				

Element: Hg Seq. No.: 43 1/30/02 DCB AS Loc.: 35 Date: 01/30/2002
Sample ID: PBW-M2480128B 527776

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0054	0.0054	0.0001	0.0015	0.0003	12:20:17	No
2	0.0045	0.0045	0.0000	0.0012	0.0003	12:20:46	No
Mean:	0.0050	0.0050	0.0001				
SD :	0.00063	0.00063	0.0000				

%RSD: 12.6 12.6 12.5966

Element: Hg Seq. No.: 44 11/30/02 DCB AS Loc.: 36 Date: 01/30/2002
Sample ID: LCSW-M2480128B 527777

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.093	1.093	0.0116	0.0504	0.0119	12:22:03	No
2	1.083	1.083	0.0115	0.0504	0.0118	12:22:33	No
Mean:	1.088	1.088	0.0116				
SD :	0.00756	0.00756	0.0001				
%RSD:	0.7	0.7	0.6945				

Element: Hg Seq. No.: 45 AS Loc.: 37 Date: 01/30/2002
Sample ID: 525553

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.2831	0.2831	0.0030	0.0151	0.0033	12:23:50	No
2	0.2812	0.2812	0.0030	0.0147	0.0033	12:24:19	No
Mean:	0.2822	0.2822	0.0030				
SD :	0.00135	0.00135	0.0000				
%RSD:	0.5	0.5	0.4792				

Element: Hg Seq. No.: 46 AS Loc.: 38 Date: 01/30/2002
Sample ID: 521823

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.3060	0.3060	0.0033	0.0148	0.0035	12:25:36	No
2	0.3063	0.3063	0.0033	0.0153	0.0035	12:26:05	No
Mean:	0.3062	0.3062	0.0033				
SD :	0.00024	0.00024	0.0000				
%RSD:							

Element: Hg Seq. No.: 47 AS Loc.: 7 Date: 01/30/2002
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.147	3.147	0.0335	0.1426	0.0338	12:27:25	No
2	3.125	3.125	0.0333	0.1426	0.0335	12:27:54	No
Mean:	3.136	3.136	0.0334				
SD :	0.01568	0.01568	0.0002				
%RSD:	0.5	0.5	0.4999				

QC value within specified limits.

Element: Hg Seq. No.: 48 AS Loc.: 1 Date: 01/30/2002
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0058	0.0058	0.0001	0.0012	0.0003	12:29:13	No
2	0.0062	0.0062	0.0001	0.0013	0.0003	12:29:42	No
Mean:	0.0060	0.0060	0.0001				
SD :	0.00032	0.00032	0.0000				
%RSD:	5.3	5.3	5.2972				

QC value within specified limits.

Element: Hg Seq. No.: 49 AS Loc.: 39 Date: 01/30/2002
Sample ID: 524988

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0132	0.0132	0.0001	0.0020	0.0004	12:31:00	No
2	0.0115	0.0115	0.0001	0.0017	0.0004	12:31:29	No
Mean:	0.0123	0.0123	0.0001				
SD :	0.00125	0.00125	0.0000				
%RSD:	10.2	10.2	10.1600				

Element: Hg Seq. No.: 50 AS Loc.: 40 Date: 01/30/2002
Sample ID: 524989

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0125	0.0125	0.0001	0.0018	0.0004	12:32:47	No
2	0.0136	0.0136	0.0001	0.0019	0.0004	12:33:16	No
Mean:	0.0130	0.0130	0.0001				
SD :	0.00080	0.00080	0.0000				
%RSD:	6.2	6.2	6.1707				

Element: Hg Seq. No.: 51 AS Loc.: 41 Date: 01/30/2002
Sample ID: 525857

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0104	0.0104	0.0001	0.0019	0.0004	12:34:35	No
2	0.0105	0.0105	0.0001	0.0020	0.0004	12:35:04	No
Mean:	0.0105	0.0105	0.0001				
SD :	0.00010	0.00010	0.0000				
%RSD:	0.9	0.9	0.9283				

Element: Hg Seq. No.: 52 AS Loc.: 42 Date: 01/30/2002
Sample ID: 525900

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0120	0.0120	0.0001	0.0021	0.0004	12:36:23	No
2	0.0119	0.0119	0.0001	0.0020	0.0004	12:36:52	No
Mean:	0.0119	0.0119	0.0001				
SD :	0.00009	0.00009	0.0000				
%RSD:	0.8	0.8	0.7924				

Element: Hg Seq. No.: 53 AS Loc.: 43 Date: 01/30/2002
Sample ID: 525901

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0075	0.0075	0.0001	0.0017	0.0003	12:38:11	No
2	0.0056	0.0056	0.0001	0.0012	0.0003	12:38:41	No
Mean:	0.0066	0.0066	0.0001				
SD :	0.00134	0.00134	0.0000				
%RSD:	20.3	20.3	20.3497				

Element: Hg Seq. No.: 54 AS Loc.: 44 Date: 01/30/2002
Sample ID: 525901D

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored

1	0.0067	0.0067	0.0001	0.0014	0.0003	12:40:02	No
2	0.0122	0.0122	0.0001	0.0021	0.0004	12:40:31	No
Mean:	0.0094	0.0094	0.0001				
SD :	0.00391	0.00391	0.0000				
%RSD:	41.5	41.5	41.5180				

Element: Hg Seq. No.: 55 AS Loc.: 45 Date: 01/30/2002
Sample ID: 525901S

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.097	1.097	0.0117	0.0511	0.0119	12:41:52	No
2	1.095	1.095	0.0116	0.0511	0.0119	12:42:21	No
Mean:	1.096	1.096	0.0117				
SD :	0.00162	0.00162	0.0000				
%RSD:	0.1	0.1	0.1475				

Element: Hg Seq. No.: 56 AS Loc.: 46 Date: 01/30/2002
Sample ID: 526033

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0075	0.0075	0.0001	0.0017	0.0003	12:43:42	No
2	0.0069	0.0069	0.0001	0.0012	0.0003	12:44:11	No
Mean:	0.0072	0.0072	0.0001				
SD :	0.00047	0.00047	0.0000				
%RSD:	6.4	6.4	6.4475				

Element: Hg Seq. No.: 57 AS Loc.: 47 Date: 01/30/2002
Sample ID: 524257

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0227	0.0227	0.0002	0.0033	0.0005	12:45:52	No
2	0.0098	0.0098	0.0001	0.0024	0.0004	12:46:21	No
Mean:	0.0163	0.0163	0.0002				
SD :	0.00912	0.00912	0.0001				
%RSD:	56.0	56.0	56.0055				

Element: Hg Seq. No.: 58 AS Loc.: 48 Date: 01/30/2002
Sample ID: 526561

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.1082	0.1082	0.0012	0.0061	0.0014	12:47:41	No
2	0.1094	0.1094	0.0012	0.0062	0.0014	12:48:10	No
Mean:	0.1088	0.1088	0.0012				
SD :	0.00085	0.00085	0.0000				
%RSD:	0.8	0.8	0.7786				

Element: Hg Seq. No.: 59 AS Loc.: 7 Date: 01/30/2002
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.156	3.156	0.0336	0.1439	0.0339	12:49:28	No
2	3.172	3.172	0.0338	0.1436	0.0340	12:49:57	No
Mean:	3.164	3.164	0.0337				
SD :	0.01121	0.01121	0.0001				
%RSD:	0.4	0.4	0.3544				

QC value within specified limits.

Element: Hg Seq. No.: 60 AS Loc.: 1 Date: 01/30/2002
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.0071	0.0071	0.0001	0.0012	0.0003	12:51:16	No
2	0.0079	0.0079	0.0001	0.0014	0.0003	12:51:45	No
Mean:	0.0075	0.0075	0.0001				
SD :	0.00053	0.00053	0.0000				
%RSD:	7.1	7.1	7.1009				

QC value within specified limits.

CAS-Ro ster ICP Water Digestion Log

6010B/846 // 200.7/136 // ASP/CLP4.1

Batc M2620147

Analyst: JM

Date: 1/29/02

Spk Witness: DCB

Prep Method: 3010 // 3010 TCLP // 3005 // CLP

Report Type: Routine // ASP // Pkg5

Digest: Initial // Redigest of: _____

Approval: CK

	Submission / Order #	pH	Initial Vol (ml)	Final Vol (ml)	Initial Color / Clarity	Final Color / Clarity	Metals	Spike Vol (ml)
1	PBW	NA	50	50	C-CLR	C-CLR	2As, 2Pb, 2Se, Ag, Ba, Cd, Cr, Mn, Zn	
2	LCSW	↓	↓	↓	↓	↓	↓	0.05ml Se 0.5ml SPK A,B
3	R10409 525947	<2	↓	↓	Y-CLR	↓	↓	
4	947D		↓	↓	↓	↓	↓	
5	947S		↓	↓	↓	↓	↓	0.05ml Se 0.5ml SPK A,B
6	948		↓	↓	↓	↓	↓	
7	949		↓	↓	C-CLR	↓	↓	
8	950		↓	↓	↓	↓	↓	
9	952		↓	↓	↓	↓	↓	
10	953		↓	↓	↓	↓	↓	
11	954		↓	↓	↓	↓	↓	
12	954D		↓	↓	↓	↓	↓	
13	954S		↓	↓	↓	↓	↓	0.05ml Se 0.5ml SPK A,B
14	965		↓	↓	↓	↓	↓	
15	970		↓	↓	↓	↓	↓	
16	971		↓	↓	↓	↓	↓	
17	972		↓	↓	↓	↓	↓	
18	973		↓	↓	↓	↓	↓	
19	974		↓	↓	↓	↓	↓	
20	975		↓	↓	↓	↓	↓	
21	982		↓	↓	↓	↓	↓	
22	987		↓	↓	↓	↓	↓	
23	988		↓	↓	↓	↓	↓	
24	996		↓	↓	↓	↓	↓	

Spiking Standards / Reagent Lot #:

Spike A,B: M1780032DE Spike #4: —

TCLP Spk: — TCLP Ba: —

Se Std: M1780029Q Sn Std: —

HNO3: M1780031I HCL: M1780031J

Color / Clarity Key:

Color: C = Colorless ; Y = Yellow ; B = Brown
BL = Black ; G = Grey

Clarity: CDY = Cloudy ; CLR = Clear ; OP = Opaque

Comments: Hot Block

p1 of 2

B 147

CAS-Rc ster ICP Water Digestion Log

6010B/846 // 200.7/136 // ASP/CLP4.1

Analyst: YM

Date: 1/29/02

Spk Witness: —

Bat: M2620147

Prep Method: 3010 // 3010 TCLP // 3005 // CLP

Report Type: Routine // ASP // Pkg5

Digest: Initial // Redigest of: _____

Approval: CR

	Submission / Order #	pH	Initial Vol (ml)	Final Vol (ml)	Initial Color / Clarity	Final Color / Clarity	Metals	Spike Vol (ml)
1	RID409 526000		50	50	B-CDY	Y-CDY	AAS, APb, ASe, Ag, Ba, Cd, Cr, Mo, Zn	
2	↓ 001		↓	↓	↓	↓	↓	
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								

YM 1/29/02

Spiking Standards / Reagent Lot #:

Spike A,B: M1780032DF Spike #4: —

TCLP Spk: — TCLP Ba: —

Se Std: M1780029Q Sn Std: —

HNO3: M1780031I HCL: M1780031J

Color / Clarity Key:

Color: C = Colorless ; Y = Yellow ; B = Brown
BL = Black ; G = Grey

Clarity: CDY = Cloudy ; CLR = Clear ; OP = Opaque

Comments: Hot Block

p2of2

B148

CAS-R[illegible]ester GFAA Water Digestion Log — 6010B/846 // 200.7/136 // ASP/CLP4.1

Analyst: JM — Date: 2/5/02 — Spk Witness: DCB

Prep Method: 3020 modified // CLP — Report Type: Routine // ASP // Pkg3

Digest: Initial // Redigest of: _____ — Approval: CK

Batch: M2610031

	Submission / Order #	pH	Initial Vol (ml)	Final Vol (ml)	Initial Color / Clarity	Final Color / Clarity	Metals	Spike Vol (ml)
1	PBW	NA	50	50	C-CLR	C-CLR	AS	
2	LCSW	↓	↓	↓	↓	↓	↓	0.5ml spk #4
3	R104109 525947	<2	↓	↓	Y-CLR	↓	↓	
4	947D		↓	↓	↓	↓	↓	
5	947S		↓	↓	↓	↓	↓	0.5ml spk #4
6	948		↓	↓	↓	↓	↓	
7	949		↓	↓	C-CLR	↓	↓	
8	950		↓	↓	↓	↓	↓	
9	952		↓	↓	↓	↓	↓	
10	953		↓	↓	↓	↓	↓	
11	954		↓	↓	↓	↓	↓	
12	954D		↓	↓	↓	↓	↓	
13	954S		↓	↓	↓	↓	↓	0.5ml spk #4
14	965		↓	↓	↓	↓	↓	
15	970		↓	↓	↓	↓	↓	
16	971		↓	↓	↓	↓	↓	
17	972		↓	↓	↓	↓	↓	
18	973		↓	↓	↓	↓	↓	
19	974		↓	↓	↓	↓	↓	
20	975		↓	↓	↓	↓	↓	
21	982		↓	↓	↓	↓	↓	
22	987		↓	↓	↓	↓	↓	
23	988		↓	↓	↓	↓	↓	
24	996		↓	↓	↓	↓	↓	

Spiking Standards / Reagent Lot #:
Spike 4: M2410258A
HNO3: M1780031I — H2O2: M1780020R

Color / Clarity Key:
Color: C = Colorless ; Y = Yellow ; B = Brown
BL = Black ; G = Grey
Clarity: CDY = Cloudy ; CLR = Clear ; OP = Opaque

Comments: p1 of 2

CAS-Ro[illegible]ster GFAA Water Digestion Log

6010B/846 // 200.7/136 // ASP/CLP4.1

Analyst: JM

Date: 2/5/02

Spk Witness: DCB

Batch: M2610031

Prep Method: 3020 modified // CLP

Report Type: Routine // ASP // Pkg5

Digest: Initial // Redigest of: _____

Approval: CL

	Submission / Order #	pH	Initial Vol (ml)	Final Vol (ml)	Initial Color / Clarity	Final Color / Clarity	Metals	Spike Vol (ml)
1	R10409 526000		50	50	B-CDY	B-CDY	As	
2	↓ 001		↓		↓	↓	↓	
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								

JM 2/5/02

Spiking Standards / Reagent Lot #:

Spike 4: M2410256A

HNO3: M1780031I H2O2: M1780020R

Color / Clarity Key:

Color: C = Colorless ; Y = Yellow ; B = Brown
BL = Black ; G = Grey

Clarity: CDY = Cloudy ; CLR = Clear ; OP = Opaque

Comments:

p2of2

Columbia Analytical Services

Analysis For: Hg | EPA Method: (7470) / 7471 (245.1) / 245.5 | Analyst: DCB

Bath Temp: In 95 / Out 95 | Report: (Routine) / ASP (Pkg.5) | Date Prepped: 1/29/02

Time In: 1315 | File Name: Jan-30w | Date Analyzed: 1/30/02

Time Out: 1515

	Client / Submission #	Sample Number	Initial Wgt/Volume (g/ml)	Final Volume (ml)		Client / Submission #	Sample Number	Initial Wgt/Volume (g/ml)	Final Volume (ml)
1		PBW A	100	100	31	R-10326	524988	100	100
2		LCSW A			32		524989		
3	R-10409	525947			33	R-10398	525857		
4		947DUP			34	R-10405	525900		
5		947SPK			35		901		
6		948			36		901DUP		
7		949			37		901SPK		
8		950			38		526033		
9		952			39	R-10283	524257		
10		953			40	R-10437	526561		
11		954			41				
12		954DUP			42				
13		954SPK			43				
14		965			44				
15		970			45		30/02 DCB		
16		971			46				
17		972			47				
18		973			48				
19		974			49				
20		975					ICB	100ml DI Water	100
21		982					Std 0	100ml DI Water	100
22		987					Std 0.2*	0.20ml of 0.1ppm	100
23		988					Std 0.5*	0.50ml of 0.1ppm	100
24		996					Std 1.0*	1.00ml of 0.1ppm	100
25		526000					Std 2.0*	2.00ml of 0.1ppm	100
26		526001					Std 5.0*	5.00ml of 0.1ppm	100
27		PBW B					Std 10.0*	10.0ml of 0.1ppm	100
28		LCSW B					ICV/CCV**	3.00ml of 0.1ppm	100
29	R-10366	525553					LCSW/MS**	1.00ml of 0.1ppm	100
30	R-10156	521823					CRDL*	0.20ml of 0.1ppm	100

Lot # of Reagents Used:

HNO3: M17800317 | H2SO4: M17800297 | HCL: M17800317 | K2S2O8: M17800287 | KMnO4: M17800277

SnCl2: M17800317 | NaCl: M17800307 | NH2OH-HCL: M17800307 | LCSS CAS Lot#: —

LCSS ERA Lot#: —

*Source Standard: (Vendor/Lot #) M17800307

*(10ppm stock Lot#: M26501764)

*(0.1ppm working std Lot#: M26501768)

**ICV Standard: (Vendor/Lot #) M17800267

**(10ppm stock Lot#: M26502164)

**(0.1ppm working std Lot#: M26502168)

Comments/Problems:

Batch Name: M24801287 | M24801288

)PTIMA CALIBRATION STANDARD (Standard is prepared daily.)

	Element	CAS Lot #	Conc. (ppm)	Vol. (mls)	Final Vol. (mls)	Final Conc. (ppm)	Matrix	Analyst/ Date	Letter ID	Nitric Acid Lot#	Hydrochloric Acid Lot #	Pipet ID
Cal Std 1	CA	M1780031W	5000	2.00	200	50.0	2%HNO3	SD 2/4/02	A	M1780031I	M1780031J	M18
	MG		5000			50.0	5%HCl		B			
	K		5000			50.0			C			
	NA		5000			50.0			D			
Cal Std 2	AG	M17800 32M	100	2.00		1.00			E			
	CR		100			1.00			F			
	MN		150			1.50			G			
	NI		400			4.00			H			
	ZN		200			2.00			I			
Cal Std 3	AL	M17800 32K	2000	2.00		20.0			J			
	BA		2000			20.0			K			
	BE		50			0.500			L			
	CO		500			5.00			M			
	CU		250			2.50			N			
	FE		1000			10.0			O			
	V		500			5.00			P			
Cal Std 4	AS	M1780032J	100	4.00		2.00			Q			
	CD		50			1.00			R			
	PB		50			1.00			S			
	SE		50			1.00			T			
	TL		100			2.00			U			
Single Elements	SB	M17800 29J	1000	2.00		10.0			V			
	SN	30J	1000	2.00		10.0			W			
	B	28E	1000	1.00		5.00			X			
	MO	25N	1000	1.00		5.00			Y			
	TI	29H	1000	1.00		5.00			Z			

619

OPTIMA ICV/CCV STANDARD (Standard is prepared daily.)

	Element	CAS Lot #	Conc. (ppm)	Vol. (mls)	Final Vol. (mls)	Final Conc. (ppm)	Matrix	Analyst/ Date	Letter ID	Nitric Acid Lot#	Hydrochloric Acid Lot #	Pipet ID
Cal Std 1	CA	M1800031F	5000	1.00	200	25.0	2%HNO3	SD 1/21/02	A	M1800031I	M1800031J	M18/M10
	MG		5000			25.0	5%HCl	SD 1/22/02	B	"	"	"
	K		5000			25.0	* 6% HNO_3	SD 1/23/02	C	"	"	M18/M10
	NA		5000			25.0	15%HCl	SD 1/24/02	¥ D	"	"	M18/M10
Cal Std 2	AG	M1800029Y	100	1.00		0.500	+ 2% HCl	SD 1/24/02	E	"	"	"
	CR		100			0.500	15% HNO_3	DCS 1/25/02	F	M1800031I	M1800031J	M18/M10
	MN		150			0.750		SD 1/28/02	G	"	"	M18/M10
	NI		400			2.00		"	+ H	"	"	"
	ZN		200			1.00		SD 1/29/02	I	"	"	M18/M10
Cal Std 3	AL	M1800031H	2000	1.00		10.0		SD 1/30/02	J	"	"	M18/M10
	BA		2000			10.0		SD 1/31/02	K	"	"	M18/M10
	BE		50			0.250		SD 2/1/02	L	"	"	M18/M10
	CO		500			2.50		SD 2/4/02	M	"	"	M18/M10
	CU		250			1.25			N			
	FE		1000			5.00			O			
	V		500			2.50			P			
Cal Std 4	AS	M1800031B	100	2.00		1.00			Q			
	CD		50			0.500			R			
	PB		50			0.500			S			
	SE		50			0.500			T			
	TL		100			1.00			U			
Single Elements	SB	M1800030G	1000	1.00		5.00			V			
	SN	031V	1000	1.00		5.00			W			
	B	031P	1000	0.500		2.50			X			
	MO	027C	1000	0.500		2.50			Y			
	TI	027H	1000	0.500		2.50			Z			

039

OPTIMA CRI STANDARD

Element	CAS Lot #	Conc. (ppm)	Vol. (mls)	Final Vol. (mls)	Final Conc. (ppm)	Matrix	Analyst/ Date	ID Letter	Nitric Acid Lot #	Hydrochloric Acid Lot #	Expiration Date	Pipet ID
CRDL STD	M17800260	Multi	0.500	500	Multi	5% HCL 2%HNO3	SD 11/26/01	A	M1780028N	M1780030A	5/26/02	M10
AG		20			0.0200		SD 12/4/01	B	/	/	6/4/02	M10
AS		20			0.0200		SD 12/12/01	C	M1780029E	M1780030A	6/12/02	M10
BE		10			0.0100		SD 12/19/01	D	/	M1780031J	6/19/02	M10
CD		10			0.0100		SD 1/2/02	E	/	/	7/2/02	M10
CR		20			0.0200		SD 1/9/02	F	/	/	7/9/02	M10
CO		100			0.100		SD 1/16/02	G	M17800311	/	7/16/02	M10
CU		50			0.0500		SD 1/24/02	H	/	/	7/24/02	M10
MN		30			0.0300		SD 2/4/02	I	/	/	8/4/02	M10
NI		80			0.0800			J				
PB		6			0.00600			K				
SB		120			0.120			L				
SE		10			0.0100			M				
TL		20			0.0200			N				
V		100			0.100			O				
ZN		40			0.0400			P				
								Q				

621

ICSA

Element	CAS Lot #	Conc. (ppm)	Vol. (mls)	Final Vol. (mls)	Final Conc. (ppm)	Matrix	Analyst/ Date	ID Letter	Nitric Acid Lot #	Hydrochloric Acid Lot #	Expiration Date	Pipet ID
Int. A Sol'n	M1780032 I	Multi	100	1000	Multi	5% HCL	SD 1/11/02	A	M1780039E	M1780031J	7/11/02	—
AL		5000			500	2%HNO3	SA 1/28/02	B	M1780031 I	"	7/28/02	—
CA		5000			500			C				
FE		2000			200			D				
MG		5000			500			E				

ICSAB

Int. A Sol'n	M1780031E	Multi	100	1000	Multi	SD 12/26/01	AA	M1780039E	M1780031J	6/26/02	—
AL		5000			500	SD 1/11/02	BB	"	"	7/11/02	—
CA		5000			500	SA 1/28/02	CC	M1780031 I	"	7/28/02	—
FE		2000			200		DD				
MG		5000			500		EE				
Int. B Sol'n	M1780028J	Multi	10.0		Multi		FF				
AG		100			1.00		GG				
BA		50			0.500		HH				
BE		50			0.500		II				
CD		100			1.00		JJ				
CO		50			0.500		KK				
CR		50			0.500		LL				
CU		50			0.500		MM				
MN		50			0.500		NN				
NI		100			1.00		OO				
PB		100			1.00		PP				
V		50			0.500		QQ				
ZN		100			1.00		RR				
CA							SS				
AG							TT				
							UU				

OPTIMA INTERNAL STANDARD

Element	CAS Lot #	Conc. (ppm)	Vol. (mls)	Final Vol. (mls)	Final Conc. (ppm)	Matrix	Analyst/ Date	ID Letter	Nitric Acid Lot #	Hydrochloric Acid Lot #	Expiration Date	Pipet ID
Y	M1780029N	1000	50.0	500	100	2% HNO3	SD 10/22/01	A	M1780028N	M1780029V	4/22/02	—
Cs	M17800290	1000	50.0	500	100	5% HCL	SD 11/7/01	B	"	M1780030A	5/7/02	-
							SD 11/26/01	C	"	"	5/26/02	-
							SD 12/12/01	D	M1780029E	M1780030A	6/12/02	-
							SD 12/28/01	E	"	M1780031J	6/28/02	-
							SD 1/16/02	F	M17800311	"	7/16/02	-
							SD 2/4/02	G	"	"	8/4/02	-
								H				
								I				
								J				
								K				
								L				
								M				
								N				
								O				
								P				
								Q				
								R				
								S				

623

.EEMAN CALIBRATION STANDARD (Standard is prepared daily.)

	Element	CAS Lot #	Conc. (ppm)	Vol. (mls)	Final Vol. (mls)	Final Conc. (ppm)	Matrix	Analyst/ Date	Letter ID	Nitric Acid Lot#	Hydrochloric Acid Lot #	Pipet ID
Cal Std 1	CA	M1780031W	5000	2.00	100	100	2%HNO3	SD 2/4/02	A	M1780031J	M1780031J	M18
	MG		5000			100	5%HCl	SD 2/5/02	B	"	"	M18
	K		5000			100	* 6% HNO_3	DCB 2/6/02*	C	M1780031I	M1780031J	M18
	NA		5000			100	15% HCl	SD 2/7/02	D	"	"	M18
Cal Std 2	AG	M1780031M	100	1.00		1.00		"	* E	"	"	T
	CR		100			1.00		SD 2/8/02	F	"	"	M18
	MN		150			1.50			G			
	NI		400			4.00			H			
	ZN		200			2.00			I			
Cal Std 3	AL	M1780032K	2000	1.00		20.0			J			
	BA		2000			20.0			K			
	BE		50			0.500			L			
	CO		500			5.00			M			
	CU		250			2.50			N			
	FE		1000			10.0			O			
	V		500			5.00			P			
Cal Std 4	AS	M1780032J	100	4.00		4.00			Q			
	CD		50			2.00			R			
	PB		50			2.00		SD	S			
	SE		50			2.00			T			
	TL		100			4.00			U			
Single Elements	SB	M1780029J	1000	1.00		10.0		2/11/02	V			
									W			
		SD 2/4/02							X			
									Y			
									Z			

579

ZEEMAN ICV/CCV STANDARD (Standard is prepared daily.)

	Element	CAS Lot #	Conc. (ppm)	Vol. (mls)	Final Vol. (mls)	Final Conc. (ppm)	Matrix	Analyst/ Date	Letter ID	Nitric Acid Lot#	Hydrochloric Acid Lot #	Pipet ID
Cal Std 1	CA	M1780031F	5000	2.00	200	50.0	2%HNO3	SD 2/5/02	A	M1780031I	M1780031J	M18
	MG		5000			50.0	5%HCl	DCB 2/6/02*	B	M1780031I	M1780031J	M18
	K		5000			50.0	*4% HNO3	SD 2/7/02	C	1	1	M18
	NA		5000			50.0	15% HCl	1	D	1	1	1
Cal Std 2	AG	M1780029Y	100	1.00		0.500		SD 2/8/02	E	1	1	M18
	CR		100			0.500			F			
	MN		150			0.750			G			
	NI		400			2.00			H			
	ZN		200			1.00			I			
Cal Std 3	AL	M1780031H	2000	1.00		10.0			J			
	BA		2000			10.0			K			
	BE		50			0.250			L			
	CO		500			2.50			M			
	CU		250			1.25			N			
	FE		1000			5.00			O			
	V		500			2.50		SD	P			
Cal Std 4	AS	M1780031B	100	4.00		2.00			Q			
	CD		50			1.00			R			
	PB		50			1.00			S			
	SE		50			1.00			T			
	TL		100			2.00			U	1/1/02		
Single Elements	SB	M1780030H	1000	1.00		5.00			V			
		SD 2/5/02							W			
									X			
									Y			
									Z			

LEEMAN CRI STANDARD

lement	CAS Lot #	Conc. (ppm)	Vol. (mls)	Final Vol. (mls)	Final Conc. (ppm)	Matrix	Analyst/ Date	ID Letter	Nitric Acid Lot #	Hydrochloric Acid Lot #	Expiration Date	Pipet ID
RDL STD	M1780026O	Multi	0.500	500	Multi	5% HCL 2%HNO3	SD 6/05/01	A	M1780025I	M1780026H	12/25/02	M11 M10
AG		20			0.0200		SD 8/6/01	B	M1780027M	M1780026H	2/6/02	M10 M11
AS		20			0.0200		SD 9/10/01	C	M1780028N	M1780028K	3/10/02	M10/M1
BE		10			0.0100		SD 10/25/01	D	M1780028N	M1780029V	4/25/02	M10/M1
CD		10			0.0100		SD 12/18/01	E	M1780029E	M1780031J	6/18/02	M10/M1
CR		20			0.0200		SD 1/11/02	F	M1780029E	1	7/11/02	M10/M1
CO		100			0.100		SD 2/19/02	G	M1780031I	1	8/19/02	M10/M1
CU		50			0.0500			H				
MN		30			0.0300			I				
NI		80			0.0800			J				
PB		6			see below			K				
SB		120			0.120			L				
SE		10			0.0100			M				
TL		20			0.0200			N				
V		100			0.100			O				
ZN		40			0.0400			P				
								Q				
								R				
PB	M1780024C	1000	0.050		0.106			S				

ICSA

Element	CAS Lot #	Conc. (ppm)	Vol. (mls)	Final Vol. (mls)	Final Conc. (ppm)	Matrix	Analyst/ Date	ID Letter	Nitric Acid Lot #	Hydrochloric Acid Lot #	Expiration Date	Pipet ID
nt. A Sol'n	M1780032 1	Multi	100	1000	Multi	5% HCL	SD 1/11/02	A	M1780089E	M1780031J	7/11/02	—
AL		5000			500	2%HNO3	SD 1/28/02	B	M1780031 1	"	7/28/02	—
CA		5000			500		SD 2/10/02	C	"	"	8/10/02	—
FE		2000			200			D				
MG		5000			500			E				

ICSAB

nt. A Sol'n	M1780031E	Multi	100	1000	Multi		SD 12/26/01	AA	M1780089E	M1780031J	6/26/02	~~—~~
AL		5000			500		SD 1/11/02	BB	"	"	7/11/02	—
CA		5000			500		SD 1/28/02	CC	M1780031 1	"	7/28/02	—
FE		2000			200		SD 2/19/02	DD	"	"	8/19/02	—
MG		5000			500			EE				
Int. B Sol'n	M1780038J	Multi	10.0		Multi			FF				
AG		100			1.00			GG				
BA		50			0.500			HH				
BE		50			0.500			II				
CD		100			1.00			JJ				
CO		50			0.500			KK				
CR		50			0.500			LL				
CU		50			0.500			MM				
MN		50			0.500			NN				
NI		100			1.00			OO				
PB		100			1.00			PP				
V		50			0.500			QQ				
ZN		100			1.00			RR				
								SS				
								TT				
								UU				

FURNACE CALIBRATION STOCK SOLUTION

ELEMENT	CAS LOT #	CONC. (PPM)	VOL. (MLS)	FINAL VOL. (MLS)	FINAL CONC. (PPM)	MATRIX	PREP BY/ DATE	ID LETTER	EXPIRATION DATE	NITRIC ACID LOT#	PIPET ID
AS	M17800303	1000	0.500	100	5.00	0.5%HNO3	DCB 2/4/02	A	2/10/02	M17800311	M10
SE	M17800324	1000	0.500		5.00						
TL	M17801224	1000	0.500		5.00						

CALIBRATION STANDARD FROM ABOVE CALIBRATION STOCK (PREPARED DAILY)

ELEMENT	CAS LOT #	CONC. (PPM)	VOL. (MLS)	FINAL VOL. (MLS)	FINAL CONC. (PPM)	MATRIX	PREP BY/ DATE	ID LETTER	NITRIC ACID LOT#	PIPET ID
AS	CAL STK	5.00	1.00	100	0.0500	0.5%HNO3	DCB 2/4/02	B	M17800311	M4
SE		5.00			0.0500		DCB 2/5/02	C	M17800311	M4
TL		5.00			0.0500		DCB 2/6/02	D	M17800311	M4
							DCB 2/7/02	E	M17800311	M4
								F		
								G		
								H		

FURNACE ICV/CCV STOCK SOLUTION

ELEMENT	CAS LOT #	CONC. (PPM)	VOL. (MLS)	FINAL VOL. (MLS)	FINAL CONC. (PPM)	MATRIX	PREP BY/ DATE	ID LETTER	EXPIRATION DATE	NITRIC ACID LOT#	PIPET ID
AS	M17800233	1000	0.250	100	2.50	0.5%HNO3	DCB 2/4/02	I	2/10/02	M17800311	M7
SE	M17800290	1000	0.250		2.50						
TL	M17800194	1000	0.250		2.50						

ICV/CCV STANDARD FROM ABOVE ICV/CCV STOCK (PREPARED DAILY)

ELEMENT	CAS LOT #	CONC. (PPM)	VOL. (MLS)	FINAL VOL. (MLS)	FINAL CONC. (PPM)	MATRIX	PREP BY/ DATE	ID LETTER	NITRIC ACID LOT#	PIPET ID
AS	CCV STK	2.50	1.00	100	0.0250	0.5%HNO3	DCB 2/4/02	J	M17800311	M4
SE		2.50			0.0250		DCB 2/5/02	K	M17800311	M4
TL		2.50			0.0250		DCB 2/6/02	L	M17800311	M4
							DCB 2/7/02	M	M17800311	M4
								N		
								O		
								P		

GFAA CRDL STANDARD

Element	CAS Lot #	Conc. (ppm)	Vol. (mls)	Final Vol. (mls)	Final Conc. (ppm)	Matrix	Analyst/ Date	ID Letter	Nitric Acid Lot #	Expiration Date	Pipet ID
CRDL STD	M17800260	Multi	0.250	500	Multi	0.5% HNO3	DCB 12/28/01	A	M178003 I I	6/28/02	M6
AG		20			0.0100		DCB 1/23/02	B	M178003 I I	7/23/02	M6
AS		20			0.0100			C			
BE		10			0.00500			D			
CD		10			0.00500			E			
CR		20			0.0100			F			
CO		100			0.0500			G			
CU		50			0.0250			H			
MN		30			0.0150			I			
NI		80			0.0400			J			
PB		6			0.00300			K			
SB		120			0.0600			L			
SE		10			0.00500			M			
TL		20			0.0100			N			
V		100			0.0500			O			
ZN		40			0.0200			P			
								Q			

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MERCURY CALIBRATION / CRDL STANDARDS

Standard	CAS Lot #	Conc. (ppm)	Vol. (mls)	Final Vol. (mls)	Final Conc. (ppm)	Matrix	Analyst/ Date	ID Letter	Expiration Date	Nitric Acid Lot#	Pipet ID
Hg Cal Stk A	M178003N	1000	1.00	100	10.0	0.5% HNO3	DCS 1/29/02	A	2/4/02 11/29/02 DCS	M178003I	M4

(PREPARED DAILY)

Standard	CAS Lot #	Conc. (ppm)	Vol. (mls)	Final Vol. (mls)	Final Conc. (ppm)	Matrix	Analyst/ Date	ID Letter	Nitric Acid Lot#	Pipet ID
Hg Cal Stk B	Hg Cal Stk A	10.0	1.00	100	0.100	0.5% HNO3	DCS 1/29/02	B	M178003I	M4
								C		
								D		
								E		
								F		
								G		
								H		

(PREPARED WITH EACH RUN)

Calibration Standards (ppb)	CAS Lot #	Conc. (ppm)	Vol. (mls)	Final Vol. (mls)	Final Conc. (ppb)	Matrix	Analyst/ Date	ID Letter	Nitric Acid Lot#	Pipet ID
0.200	Hg Cal Stk B	0.100	0.200	100	0.200	0.5% HNO3	DCS 1/29/02	I	M178003I	—
0.500			0.500		0.500			J		
1.00			1.00		1.00			K		
2.00			2.00		2.00			L		
5.00			5.00		5.00			M		
10.0			10.0		10.0			N		
CRA			0.200		0.200			O		

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MERCURY CCV / LCSW /MS STANDARDS

Standard	CAS Lot #	Conc. (ppm)	Vol. (mls)	Final Vol. (mls)	Final Conc. (ppm)	Matrix	Analyst/ Date	ID Letter	Expiration Date	Nitric Acid Lot#	Pipet ID
Hg CCV Stk A	M1780026F	1000	1.00	100	10.0	0.5% HNO3	DCS 1/29/02	A	2/4/02	M1780031E	M4

(PREPARED DAILY)

Standard	CAS Lot #	Conc. (ppm)	Vol. (mls)	Final Vol. (mls)	Final Conc. (ppm)	Matrix	Analyst/ Date	ID Letter	Nitric Acid Lot#	Pipet ID
Hg CCV Stk B	Hg CCV Stk A	10.0	1.00	100	0.100	0.5% HNO3	DCS 1/29/02	B	M1780031E	M4
								C		
								D		
								E		
								F		
								G		
								H		

(PREPARED WITH EACH RUN)

CCV Standard (ppb)	CAS Lot #	Conc. (ppm)	Vol. (mls)	Final Vol. (mls)	Final Conc. (ppb)	Matrix	Analyst/ Date	ID Letter	Nitric Acid Lot#	Pipet ID
3.00	Hg CCV Stk B	0.100	3.00	100	3.00	0.5% HNO3	DCS 1/29/02	I	M1780031E	—
LCSW / MS			1.00		1.00			J		
								K		
								L		
								M		
								N		
								O		

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